

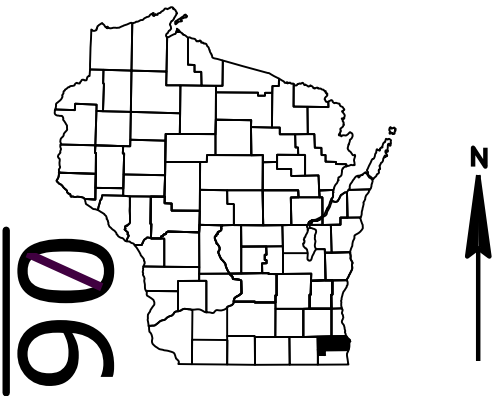
WKE PROJECT ID: 1030-08-75 WITH: COUNTY: RACINE

April 13, 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 Plat
Section No.	5	Plan and Profile
Section No.	6	Standard Detail Drawings
Section No.	7	Sign Plates
Section No.	8	Structure Plans
Section No.	9	Computer Earthwork Data
Section No.	9	Cross Sections

TOTAL SHEETS = 106



DESIGN DESIGNATION	IH 41 CTH KR TO STH 11	IH 41 STH 11 TO STH 20	IH 41 STH 20 TO CTH K	IH 41 CTH K TO CTH G	IH 41 CTH G TO 7 MILE RD
A.A.D.T. 2017	= 98,500	= 106,000	= 108,500	= 115,500	= 120,000
A.A.D.T.	=	=	=	=	=
D.H.V.	=	=	=	=	=
D.D.	=	=	=	=	=
T.	=	=	=	=	=
DESIGN SPEED	= 70 MPH	= 70 MPH	= 70 MPH	= 70 MPH	= 70 MPH
ESALS	=	=	=	=	=

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

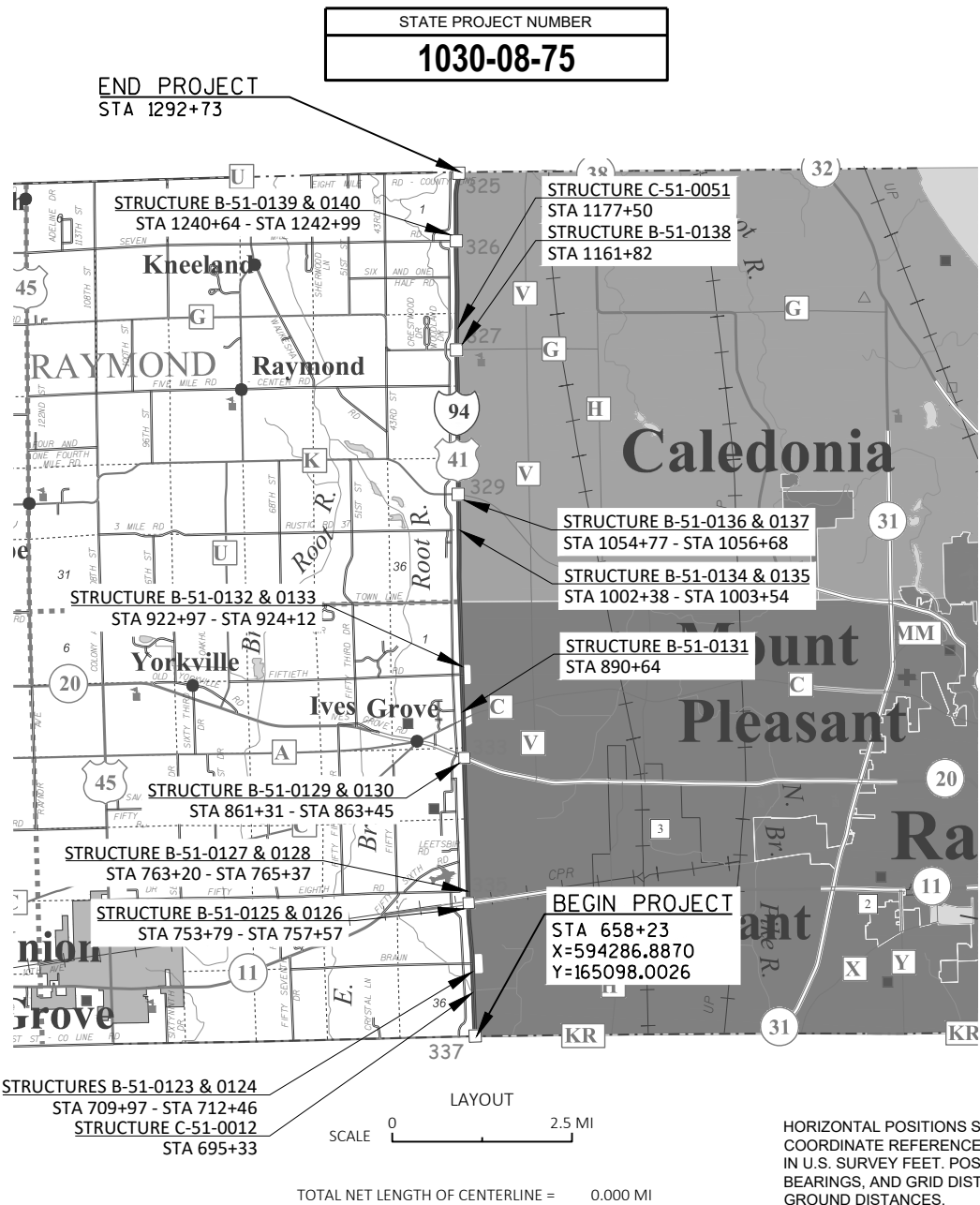
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

IH 41 NORTH SOUTH FREEWAY

CTH KR TO MILWAUKEE COUNTY LINE

IH 41
RACINE



2	GENERAL NOTES THE UTILITY FACILITIES SHOWN IN THE PLANS WITHIN THE PROJECT AREA ARE APPROXIMATE. THE CONTRACTOR SHALL COORDINATE 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. EROSION CONTROL BMP'S ARE AT SUGGESTED LOCATIONS. THE ACTUAL LOCATIONS WILL BE DETERMINED BY THE CONTRACTOR'S ECIP AND BY THE ENGINEER. EROSION CONTROL BMP'S SHALL BE MAINTAINED UNTIL THE ENGINEER DETERMINES THAT THE BMP IS NO LONGER REQUIRED. INLET PROTECTION IS REQUIRED AT ALL INLETS AS PER DETAIL OR AS DIRECTED BY THE ENGINEER.						2			
	ORDER OF SECTION 2 DETAIL SHEETS GENERAL NOTES AND UTILITY CONTACTS PROJECT OVERVIEW TYPICAL SECTIONS CONSTRUCTION DETAILS PLAN DETAILS TRAFFIC CONTROL ALIGNMENT LAYOUT									
	OTHER CONTACTS WISCONSIN DEPARTMENT OF TRANSPORTATION EVAN LIMBERATOS - PROJECT MANAGER 141 NW BARSTOW ST WAUKESHA, WI 53187 PHONE: (262) 548-8797 CELL: (414) 750-3362 evan.limberatos@dot.wi.gov WISCONSIN DEPARTMENT OF NATURAL RESOURCES KRISTINA BETZOLD 2300 N. MARTIN LUTHER KING DR MILWAUKEE, WI 53212 PHONE: (414) 507-4946 kristina.betzold@wisconsin.gov									
		AT&T LOCAL NETWORK - COMMUNICATION LINE JENNIFER NAVARRO 13500 WATERTOWN PLANK ROAD, STE 107 ELM GROVE, WI 53122 PHONE: (414) 459-3564 (OFFICE) PHONE: (414) 651-0036 (CELL) AT&T WISCONSIN - COMMUNICATION LINE MIKE VANHOVEN 411 7TH STREET RACINE, WI 53403 PHONE: (262) 676-3958 mv3658@att.com ATC MANAGEMENT, INC. - ELECTRICITY-TRANSMISSION CHRIS DAILEY PO BOX 47 WAUKESHA, WI 53187-0047 PHONE: (262) 506-6884 cdailey@atcllc.com CHARTER COMMUNICATIONS - COMMUNICATION LINE MICHAEL YAEGER 1320 N DR MARTIN LUTHER KING JR DR MILWAUKEE, WI 53212-4002 PHONE: (414) 908-4677 (OFFICE) PHONE: (414) 430-6656 (CELL) michael.yaeger@charter.com EVERSTREAM - COMMUNICATION LINE SHAD GARCIA 324 E WISCONSIN AVE, SUITE 730 MILWAUKEE, WI 53202 PHONE: (414) 409-1708 (OFFICE) PHONE: (414) 522-6685 (CELL) sgarcia@everstream.net LEVEL 3 COMMUNICATIONS LLC - COMMUNICATION LINE JASON BUSSE 3235 INTERTECH DR, SUITE 600 BROOKFIELD, WI 53045 PHONE: (414) 224-6713 (OFFICE) PHONE: (715) 415-3214 (CELL) jason.busse@centurylink.com	UTILITY CONTACTS MIDWEST FIBER NETWORKS LLC - COMMUNICATION LINE RICHARD TRGOVEC 6070 NORTH FLINT RD GLENDALE, WI 53209 PHONE: (414) 459-3554 rtrgovec@midwestfibernetworks.com TDS METROCOM LLC - COMMUNICATION LINE MICHAEL SWEET 525 JUNCTION RD MADISON, WI 53717 PHONE: (608) 664-4539 michael.sweet@tdstelecom.com WE ENERGIES - ELECTRICITY JAMES NELSON 7815 NORTHWESTERN AVE RACINE, WI 53406 PHONE: (262) 886-6734 james.nelson@we-energies.com WE ENERGIES - GAS CHRIS DEGRAVE 7815 NORTHWESTERN AVE RACINE, WI 53406 PHONE: (262) 886-7018 (OFFICE) PHONE: (262) 939-9814 chris.degrave@we-energies.com	WISCONSIN DEPARTMENT OF TRANSPORTATION - COMMUNICATION LINE DON SCHELL STE. 300 433 W. ST. PAUL AVE. MILWAUKEE, WI 53203-3007 PHONE: (414) 940-5571 donald.schell@dot.wi.gov WISCONSIN DEPARTMENT OF TRANSPORTATION - STREET LIGHTING ERIC PEREA 141 NW BARSTOW STREET WAUKESHA, WI 53188 PHONE: (262) 574-5422 Eric.Perea@dot.wi.gov						
PROJECT NO: 1030-08-75		HWY: IH 41		COUNTY: RACINE		GENERAL NOTES		SHEET 2		E
FILE NAME : N:\PDS\C3D\10300805\SHEETSPLAN\020101_GN.DWG LAYOUT NAME : 020101		PLOT DATE : 10/15/2020 8:01 PM		PLOT BY : SPAETH, MICHELE L		PLOT NAME :		PLOT SCALE : 1 IN:100 FT		WISDOT/CADDs SHEET 42

AT&T LOCAL NETWORK - COMMUNICATION LINE

JENNIFER NAVARRO
13500 WATERTOWN PLANK ROAD, STE 107
ELM GROVE, WI 53122
PHONE: (414) 459-3564 (OFFICE)
PHONE: (414) 651-0036 (CELL)

AT&T WISCONSIN - COMMUNICATION LINE

MIKE VANHOVEN
411 7TH STREET
RACINE, WI 53403
PHONE: (262) 676-3958
mv3658@att.com

ATC MANAGEMENT, INC. - ELECTRICITY-TRANSMISSION

CHRIS DAILEY
PO BOX 47
WAUKESHA, WI 53187-0047
PHONE: (262) 506-6884
cdailey@atcllc.com

CHARTER COMMUNICATIONS - COMMUNICATION LINE

MICHAEL YAEGER
1320 N DR MARTIN LUTHER KING JR DR
MILWAUKEE, WI 53212-4002
PHONE: (414) 908-4677 (OFFICE)
PHONE: (414) 430-6656 (CELL)
michael.yaeger@charter.com

EVERSTREAM - COMMUNICATION LINE

SHAD GARCIA
324 E WISCONSIN AVE, SUITE 730
MILWAUKEE, WI 53202
PHONE: (414) 409-1708 (OFFICE)
PHONE: (414) 522-6685 (CELL)
sgarcia@everstream.net

LEVEL 3 COMMUNICATIONS LLC - COMMUNICATION LINE

JASON BUSSE
3235 INTERTECH DR, SUITE 600
BROOKFIELD, WI 53045
PHONE: (414) 224-6713 (OFFICE)
PHONE: (715) 415-3214 (CELL)
jason.busse@centurylink.com

UTILITY CONTACTS

MIDWEST FIBER NETWORKS LLC - COMMUNICATION LINE

RICHARD TRGOVEC
6070 NORTH FLINT RD
GLENDALE, WI 53209
PHONE: (414) 459-3554
rtrgovec@midwestfibernetworks.com

TDS METROCOM LLC - COMMUNICATION LINE

MICHAEL SWEET
525 JUNCTION RD
MADISON, WI 53717
PHONE: (608) 664-4539
michael.sweet@tdstelecom.com

WE ENERGIES - ELECTRICITY

JAMES NELSON
7815 NORTHWESTERN AVE
RACINE, WI 53406
PHONE: (262) 886-6734
james.nelson@we-energies.com

WE ENERGIES - GAS

CHRIS DEGRAVE
7815 NORTHWESTERN AVE
RACINE, WI 53406
PHONE: (262) 886-7018 (OFFICE)
PHONE: (262) 939-9814
chris.degrave@we-energies.com

WISCONSIN DEPARTMENT OF TRANSPORTATION - COMMUNICATION LINE

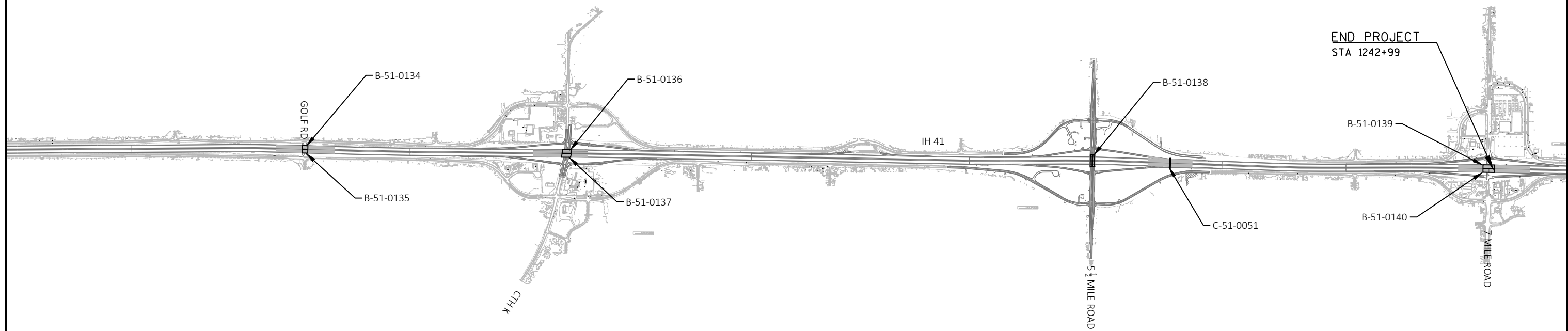
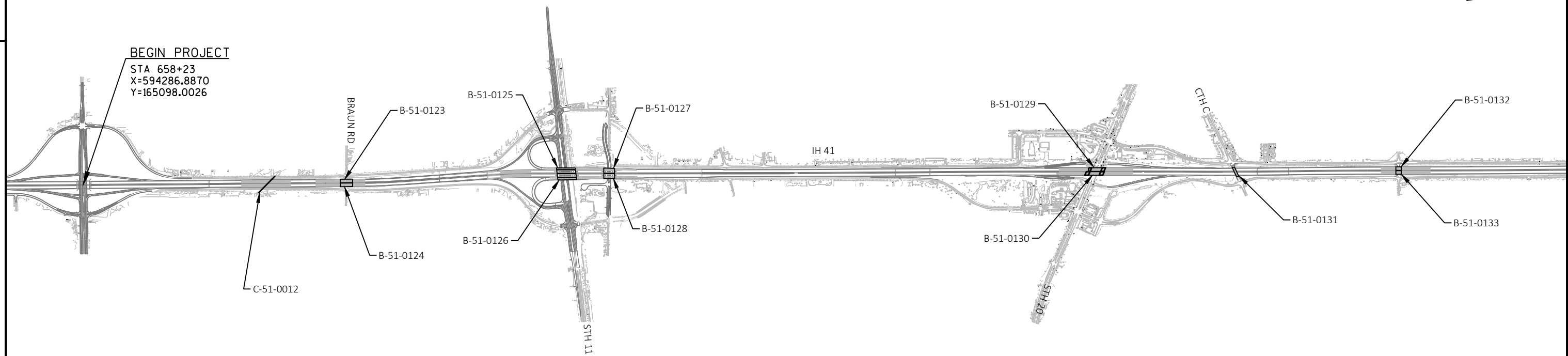
DON SCHELL
STE. 300
433 W. ST. PAUL AVE.
MILWAUKEE, WI 53203-3007
PHONE: (414) 940-5571
donald.schell@dot.wi.gov

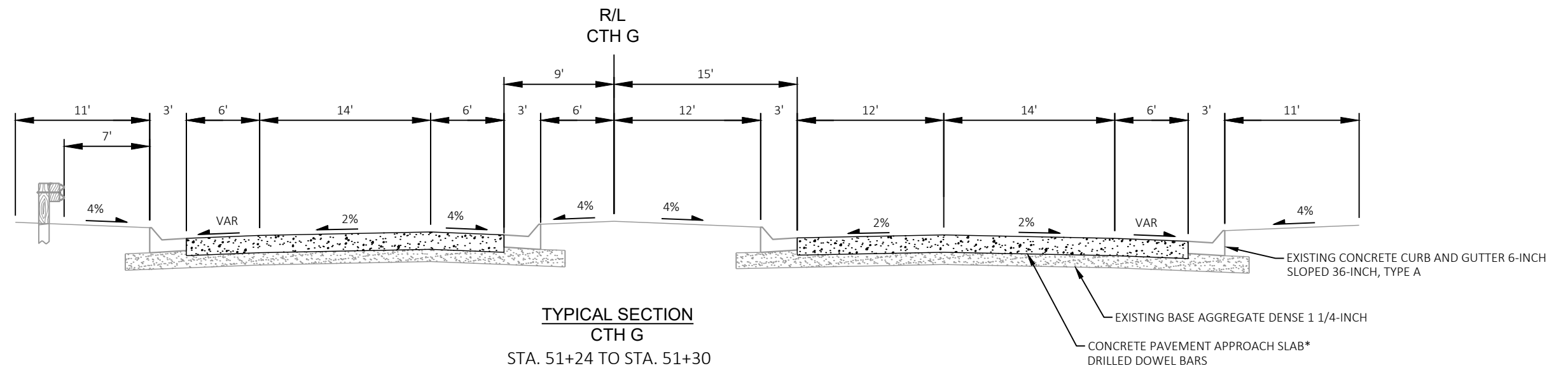
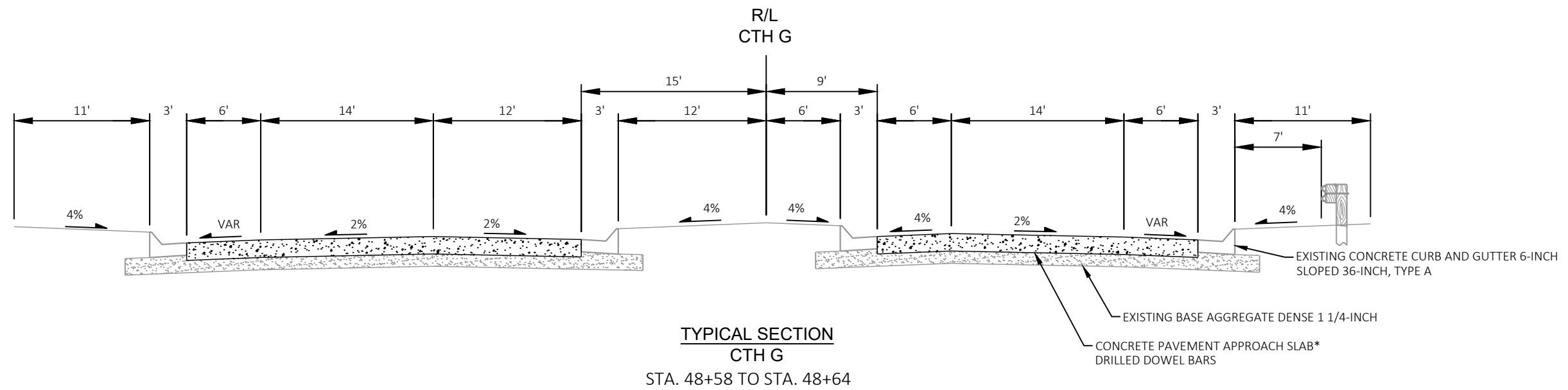
WISCONSIN DEPARTMENT OF TRANSPORTATION - STREET LIGHTING

ERIC PEREA
141 NW BARSTOW STREET
WAUKESHA, WI 53188
PHONE: (262) 574-5422
Eric.Perea@dot.wi.gov

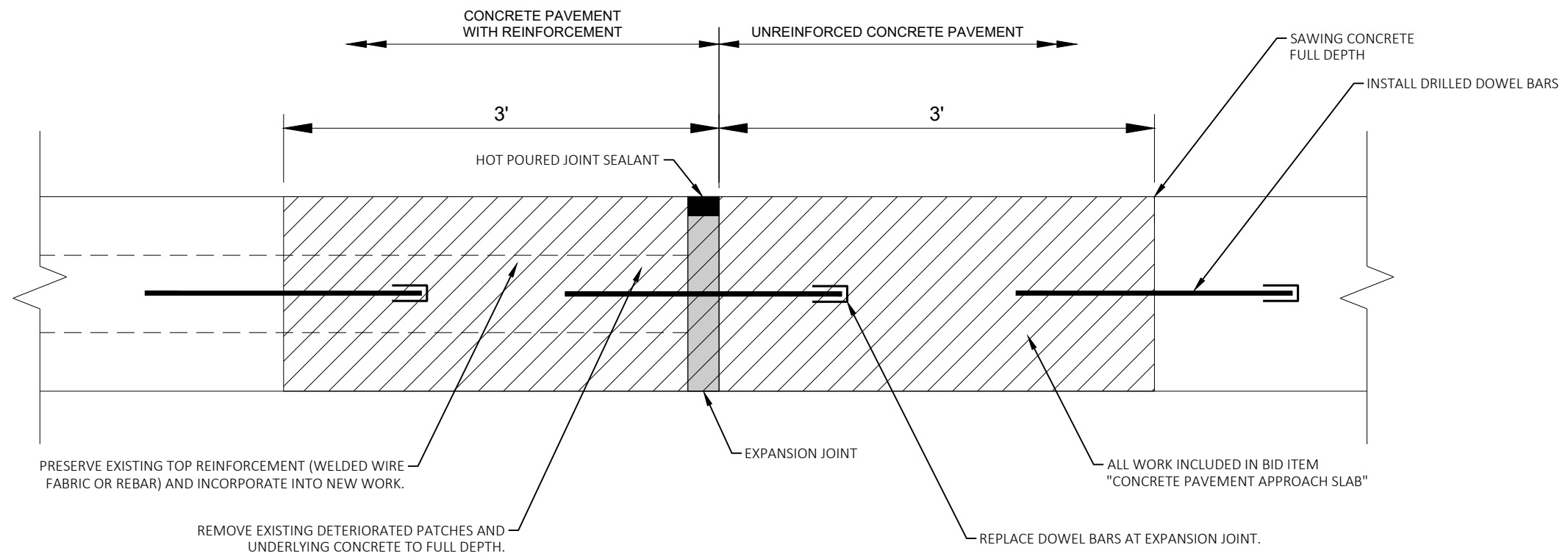


Dial 811 or (800)242-8511
www.DiggersHotline.com



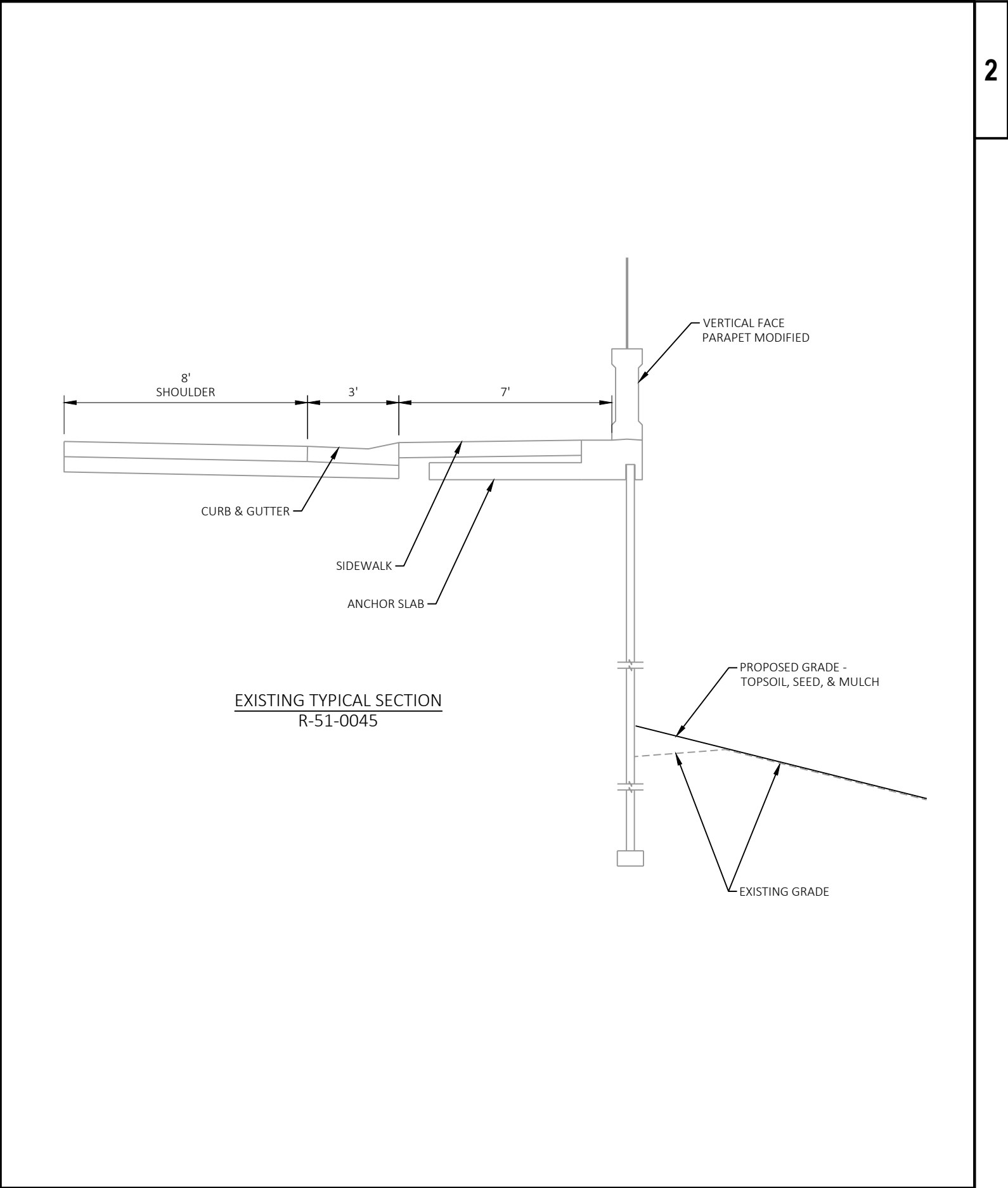
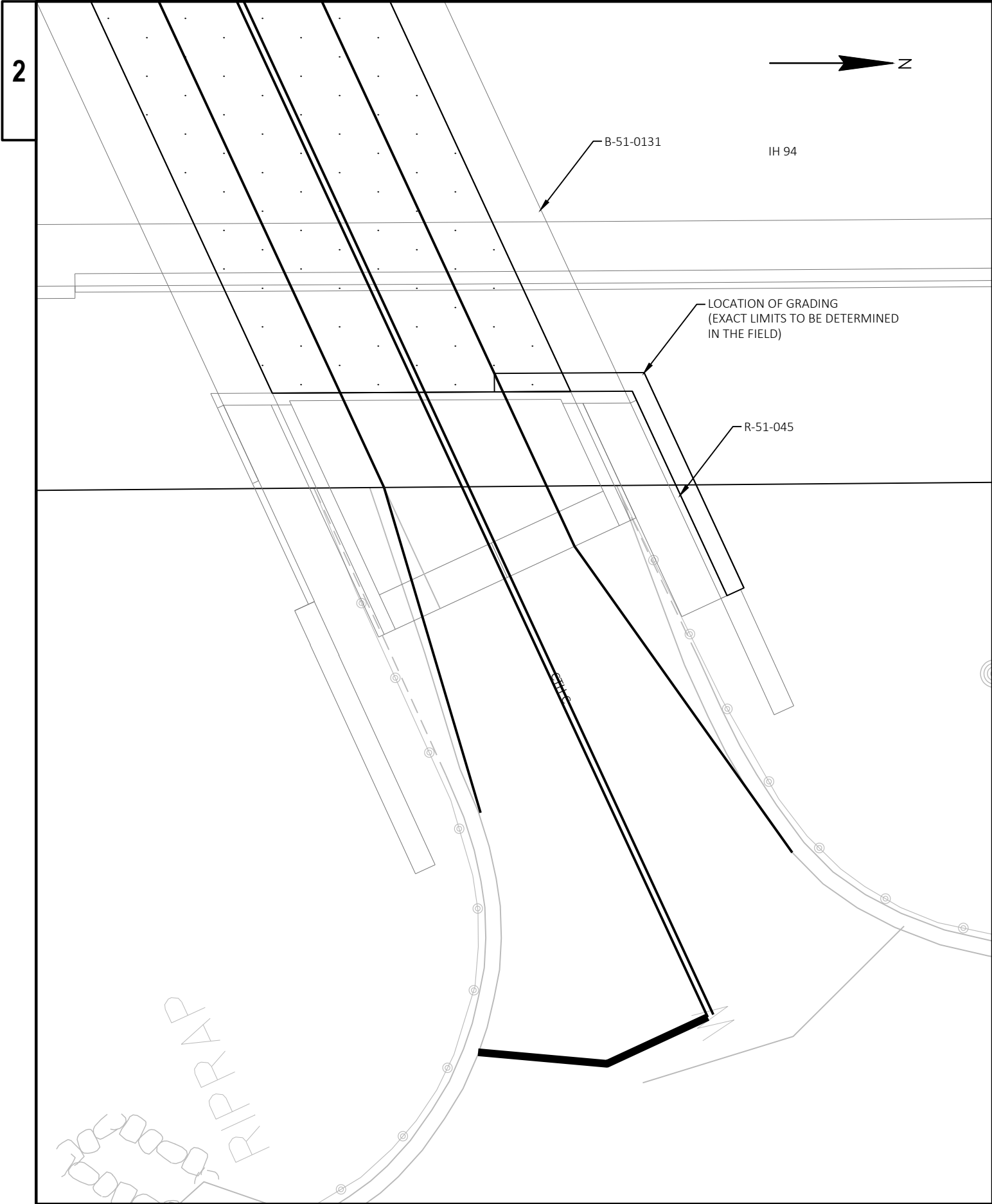


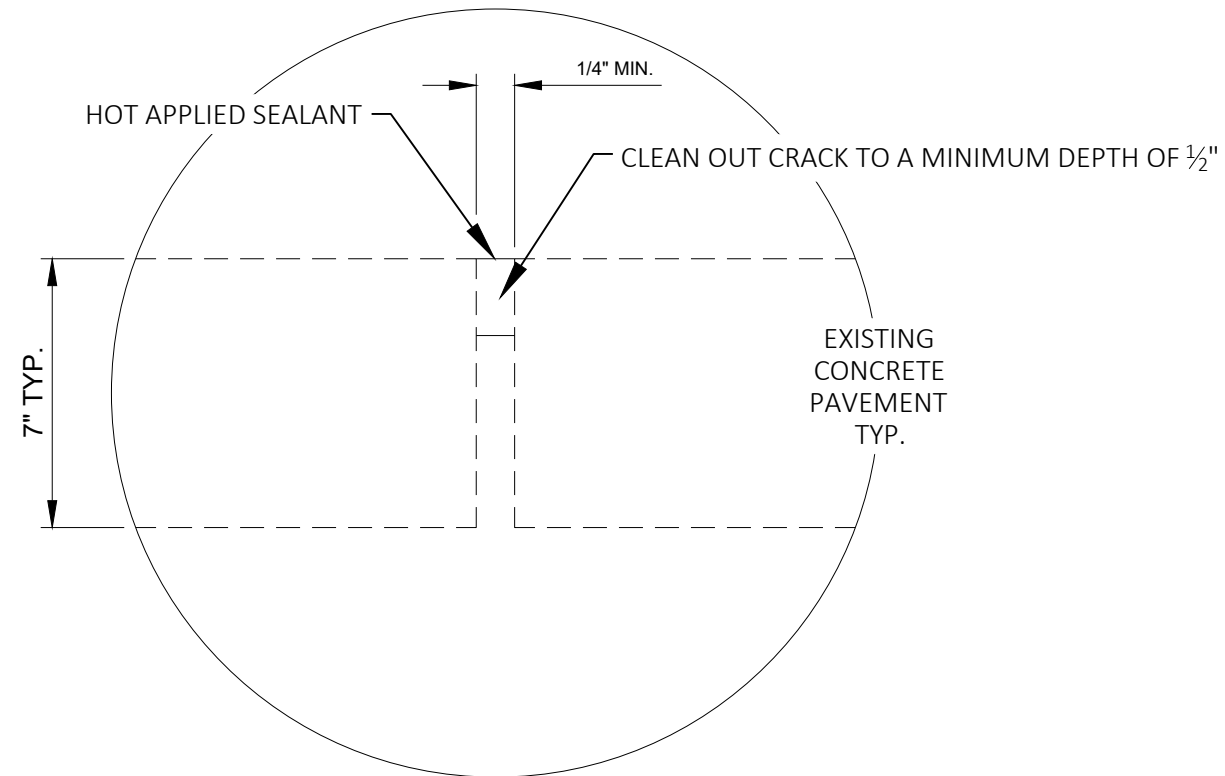
NOTE:
* PREPARE FOUNDATION FOR CONCRETE PAVEMENT (1030-08-75)



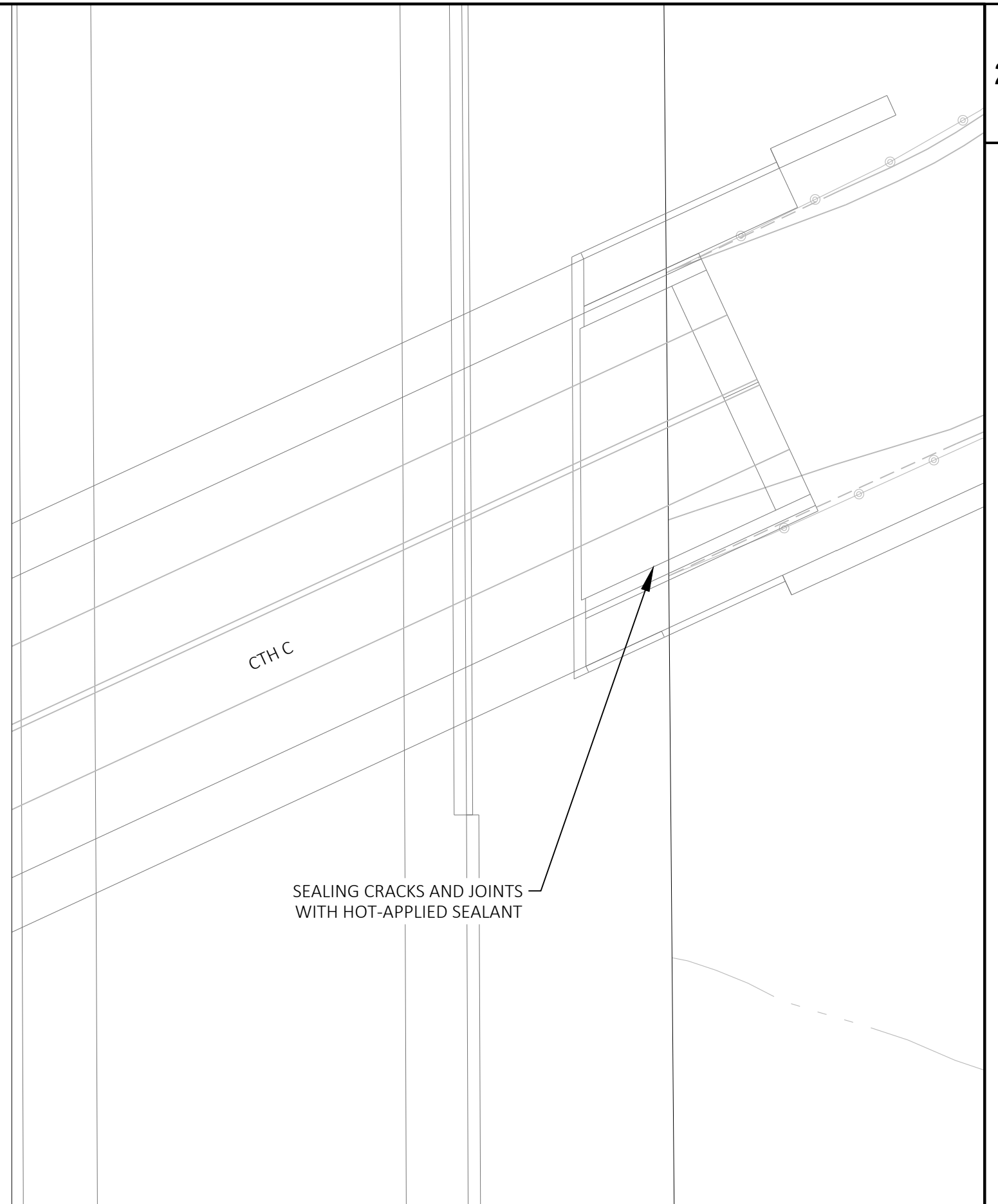
CONCRETE PAVEMENT APPROACH SLAB REPAIR

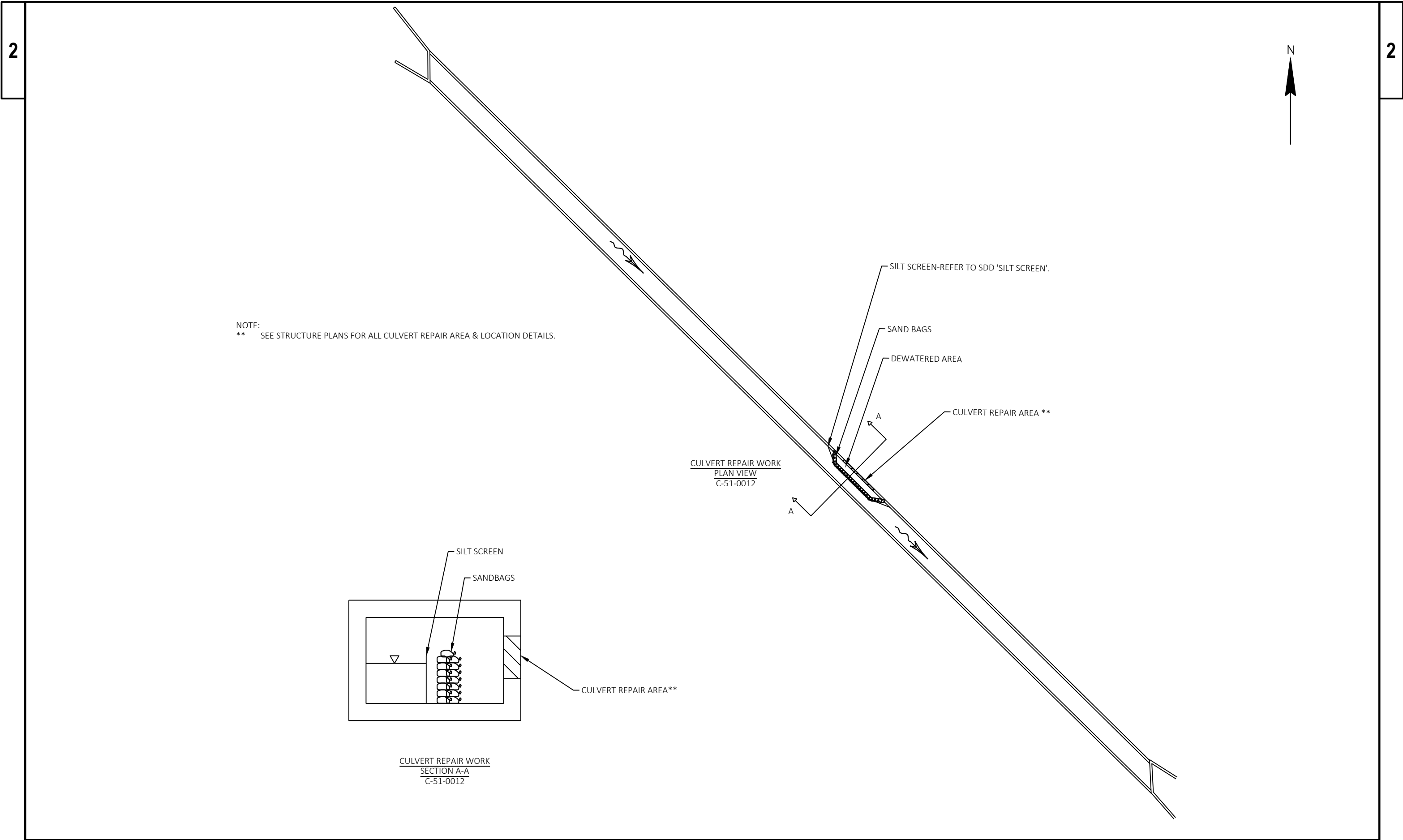
B-51-0138

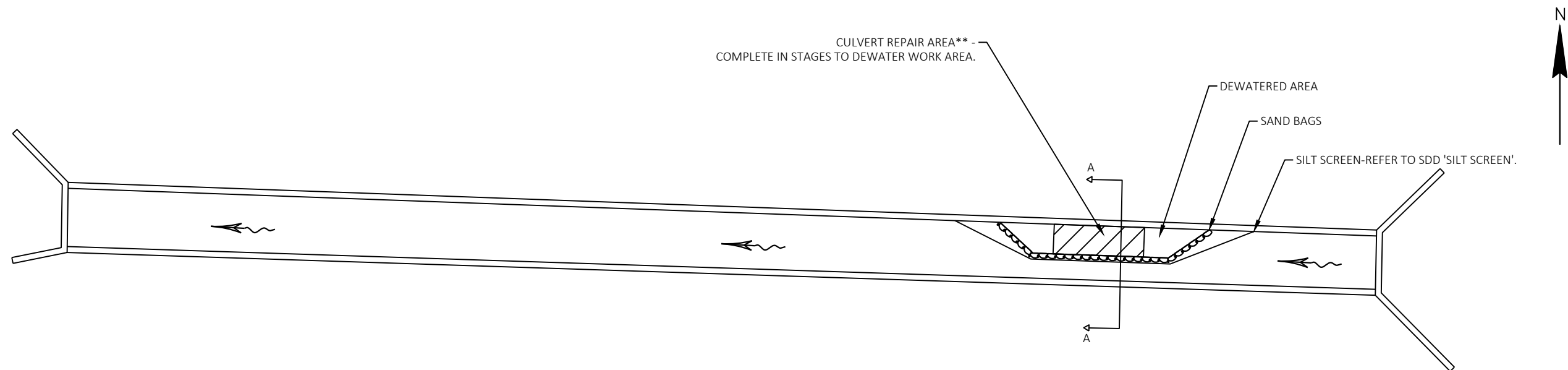




SEALING CRACKS AND JOINTS DETAIL
CTH C
B-51-0131

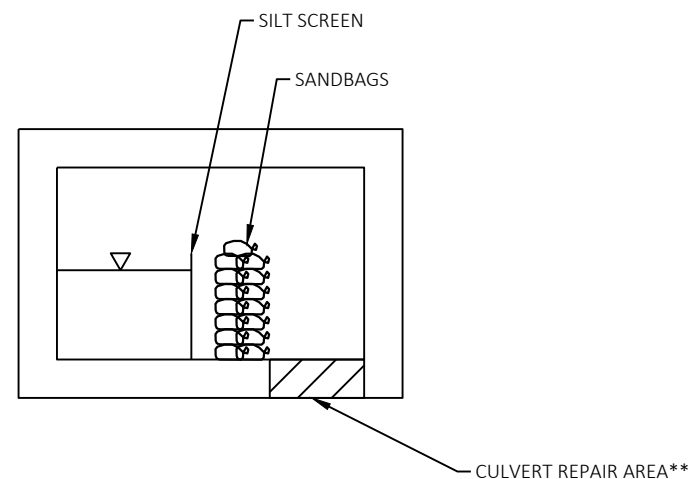




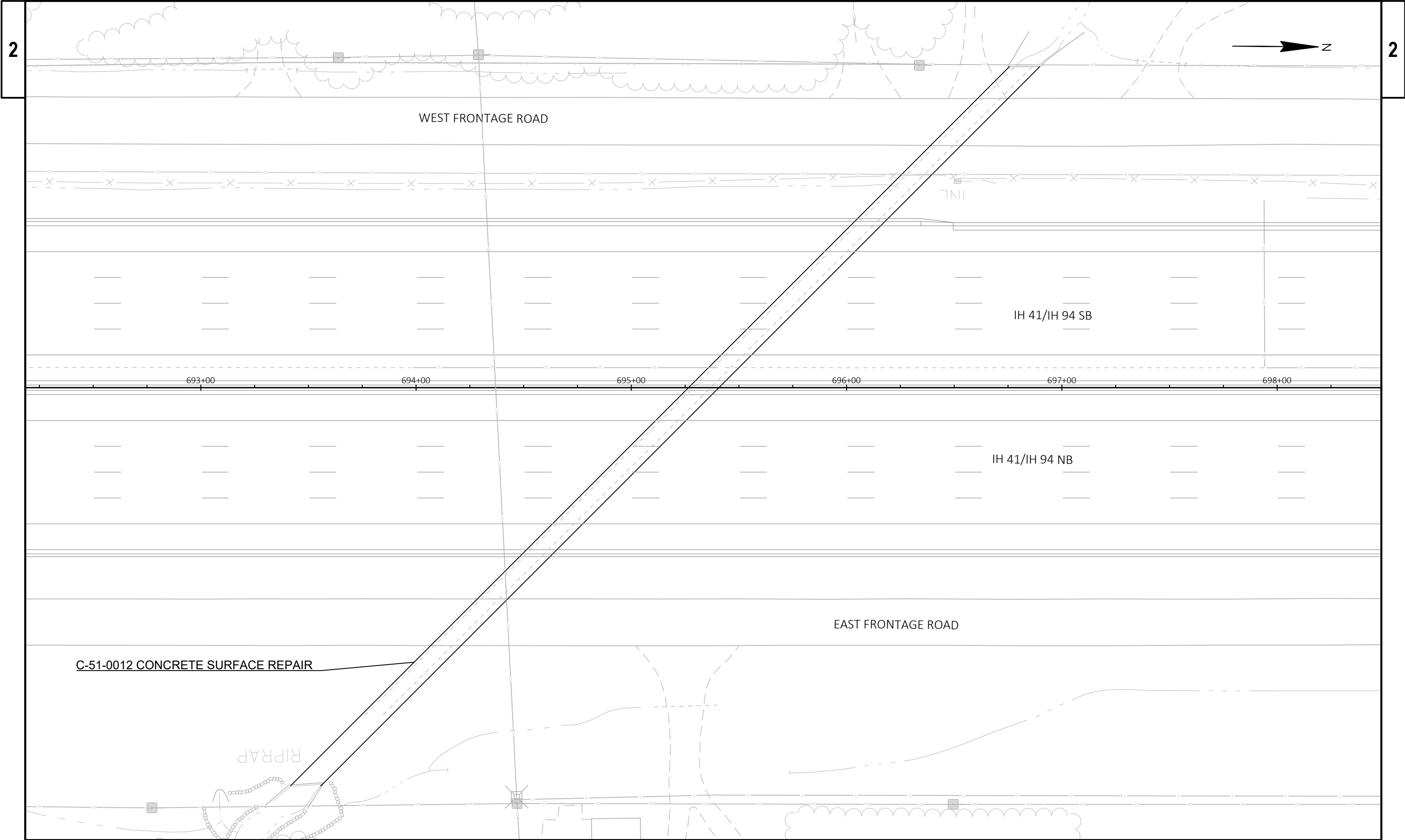


CULVERT REPAIR WORK
PLAN VIEW
C-51-0051

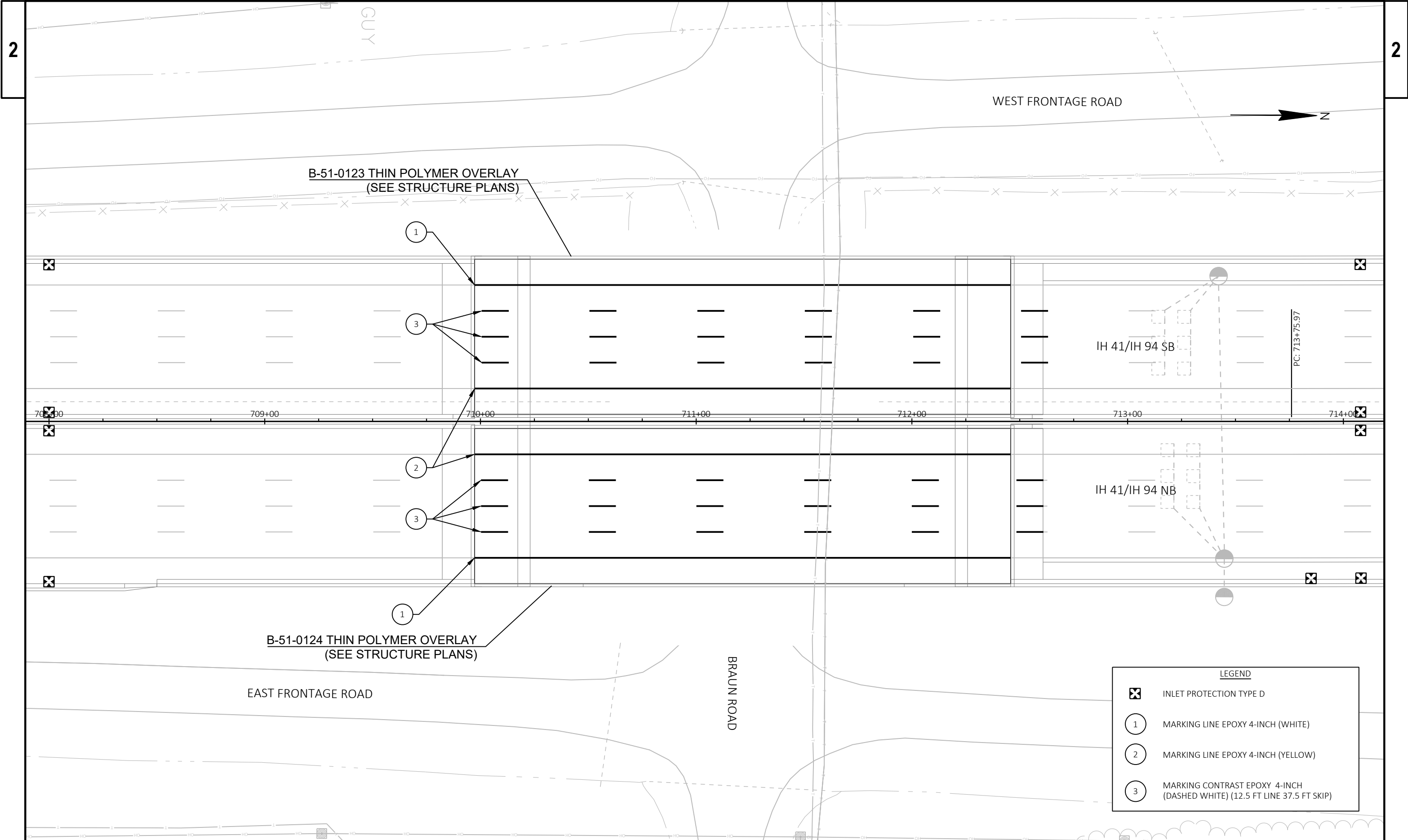
NOTE:
** SEE STRUCTURE PLANS FOR ALL CULVERT REPAIR AREA & LOCATION DETAILS.

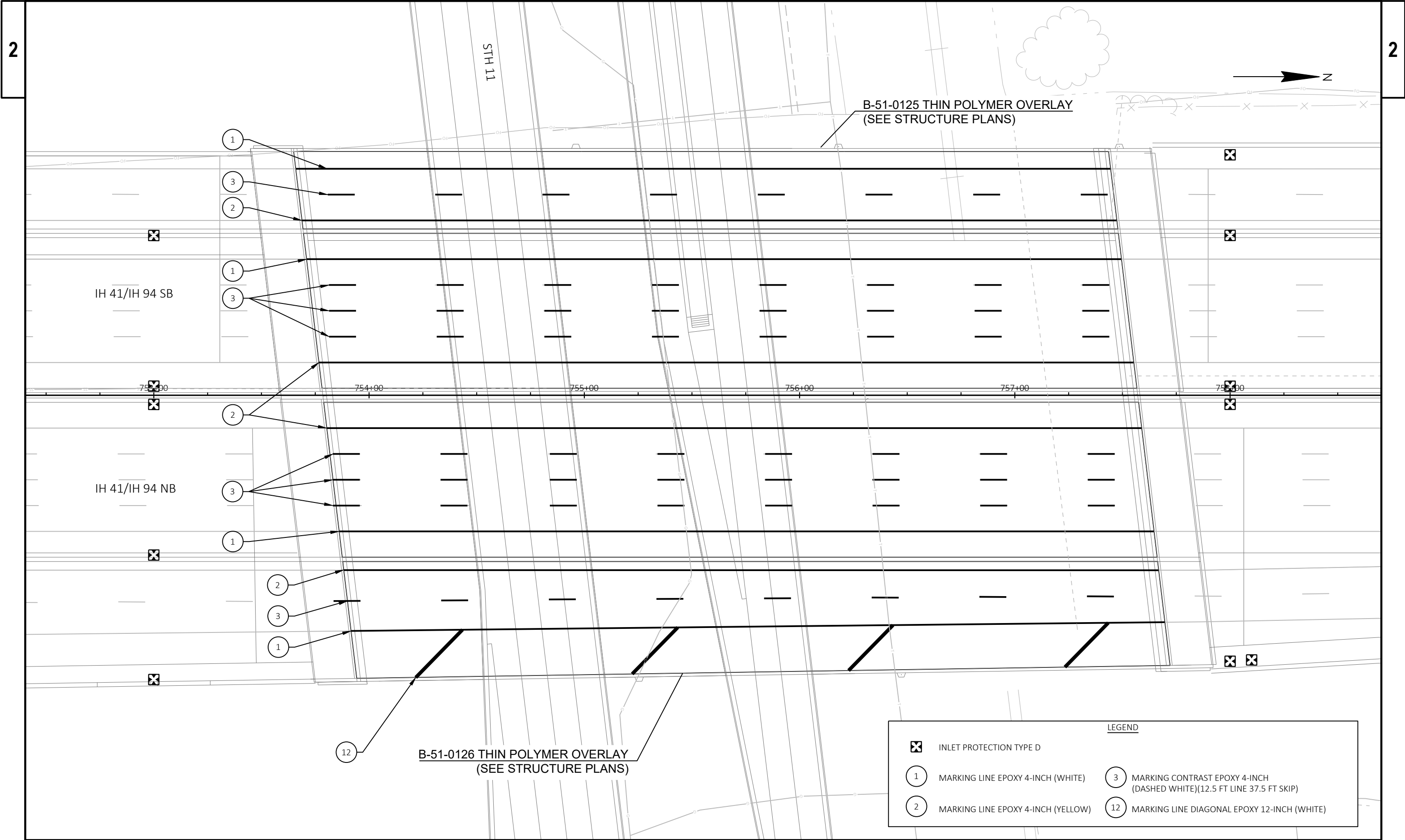


CULVERT REPAIR WORK
SECTION A-A
C-51-0051



PROJECT NO: 1030-08-75	HWY: IH 41	COUNTY: RACINE	PLAN DETAILS	SHEET 10	E
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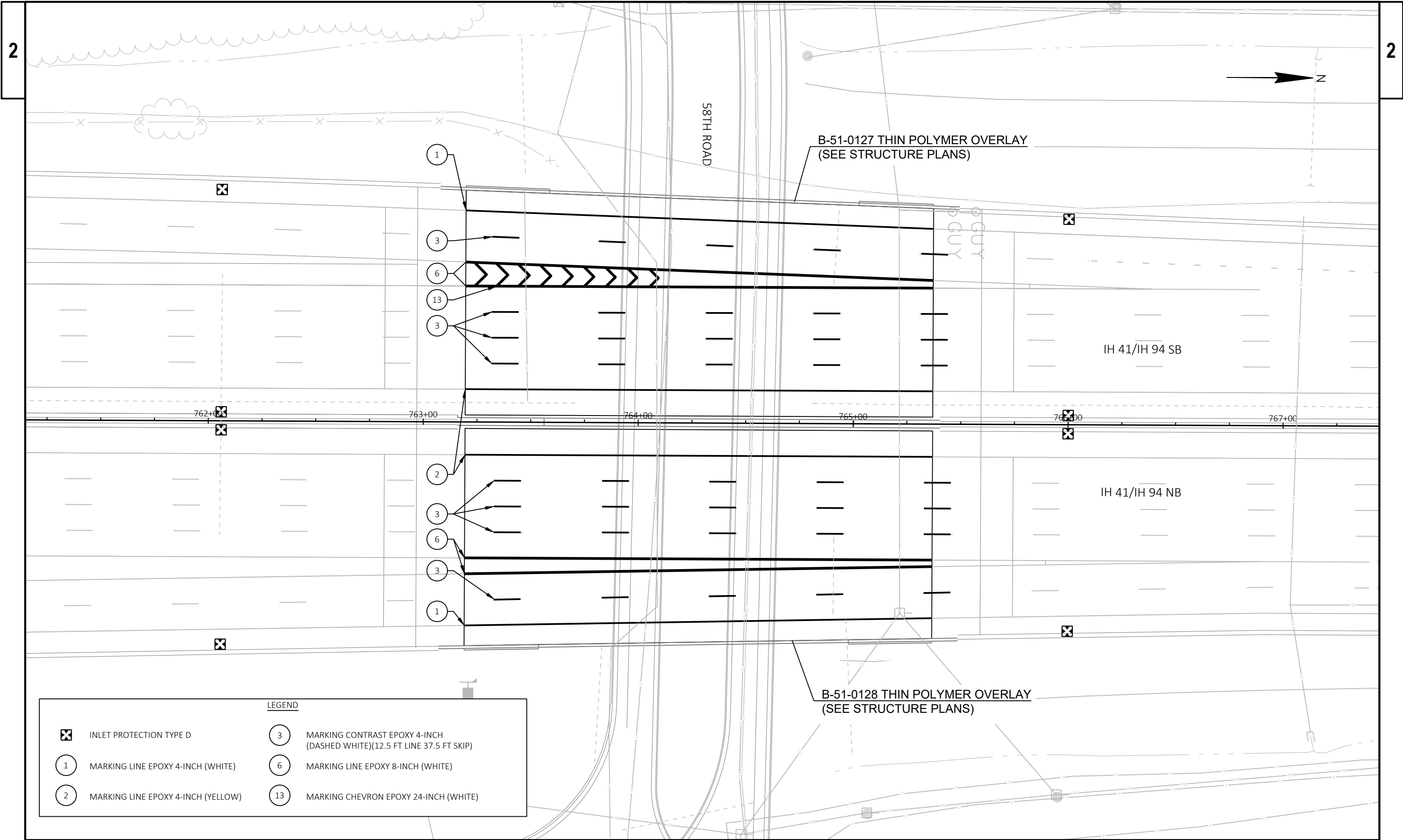


B-51-0126 THIN POLYMER OVERLAY
(SEE STRUCTURE PLANS)

B-51-0125 THIN POLYMER OVERLAY
(SEE STRUCTURE PLANS)

LEGEND

-  INLET PROTECTION TYPE D
-  MARKING LINE EPOXY 4-INCH (WHITE)
-  MARKING LINE EPOXY 4-INCH (YELLOW)
-  MARKING CONTRAST EPOXY 4-INCH (DASHED WHITE)(12.5 FT LINE 37.5 FT SKIP)
-  MARKING LINE DIAGONAL EPOXY 12-INCH (WHITE)



PROJECT NO: 1030-08-75

HWY: IH 41

COUNTY: RACINE

PLAN DETAILS

SHEET

13

E

FILE NAME : N:\PDS\C3D\10300805\SHEETPLAN\021201_PD.DWG
LAYOUT NAME - 021204_pd

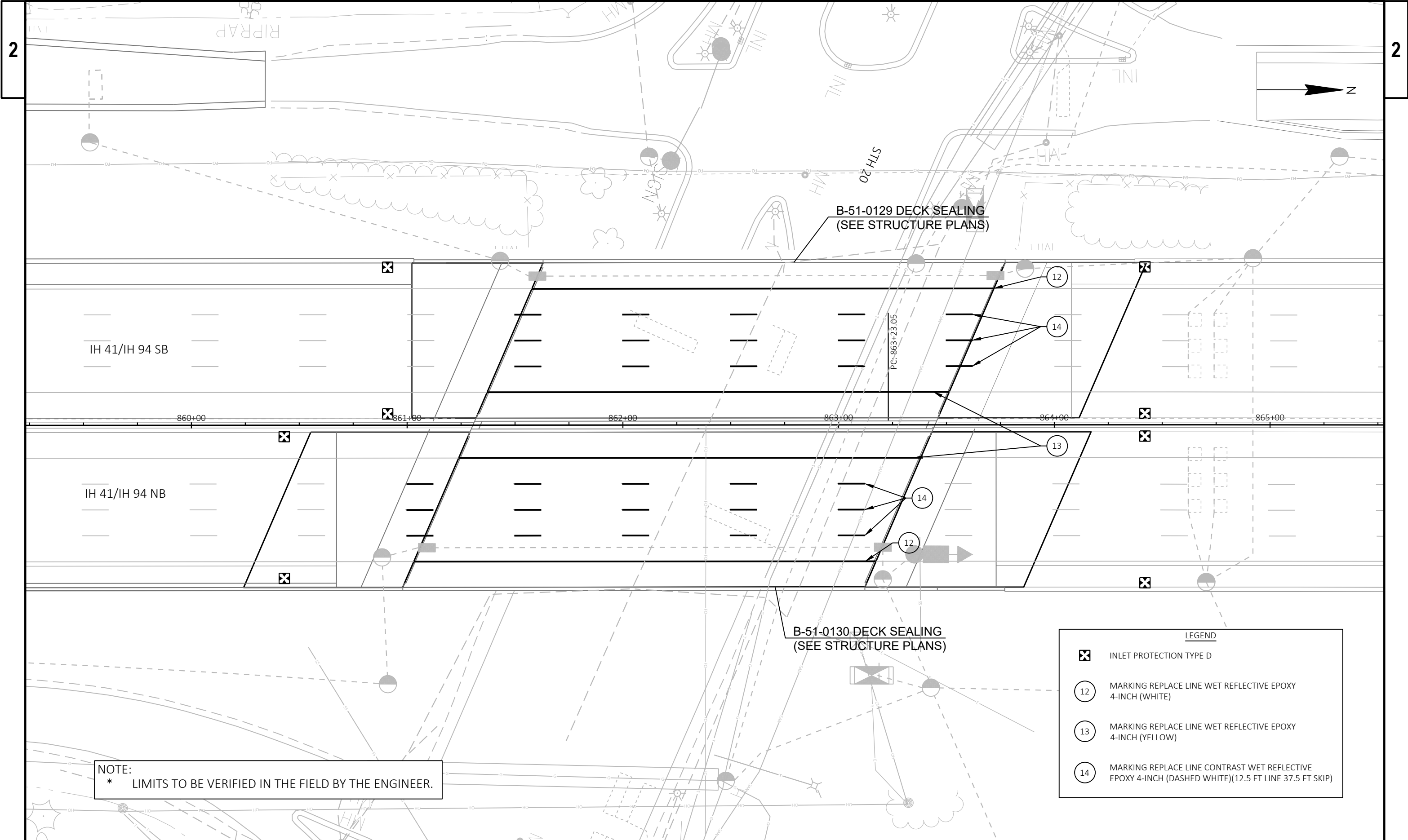
PLOT DATE : 10/15/2020 8:09 PM

PLOT BY : SPAETH, MICHELE L

PLOT NAME :

PLOT SCALE : 1 IN:40 FT

WISDOT/CADDs SHEET 42



NOTE:
* LIMITS TO BE VERIFIED IN THE FIELD BY THE ENGINEER.

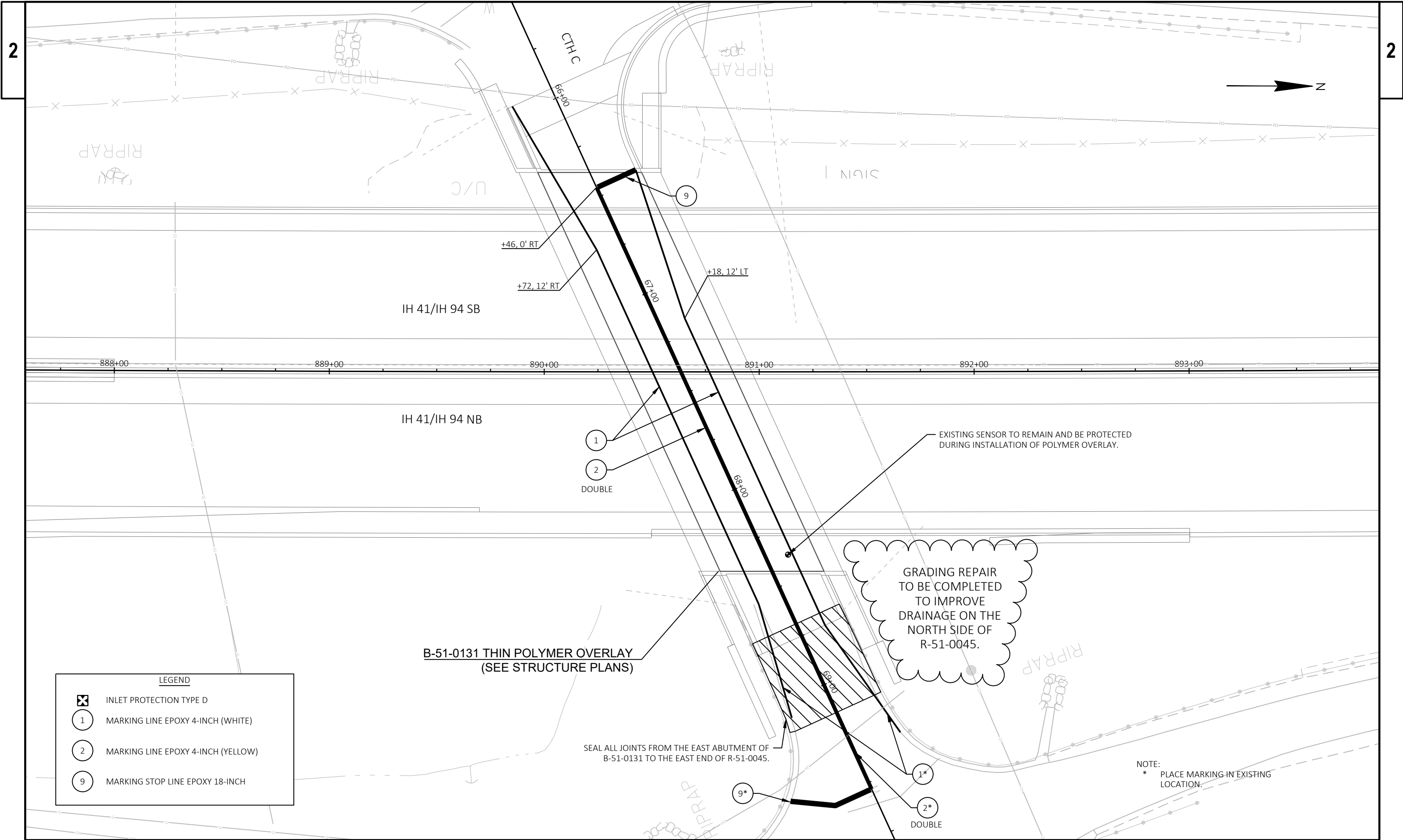
LEGEND

INLET PROTECTION TYPE D

MARKING REPLACE LINE WET REFLECTIVE EPOXY
4-INCH (WHITE)

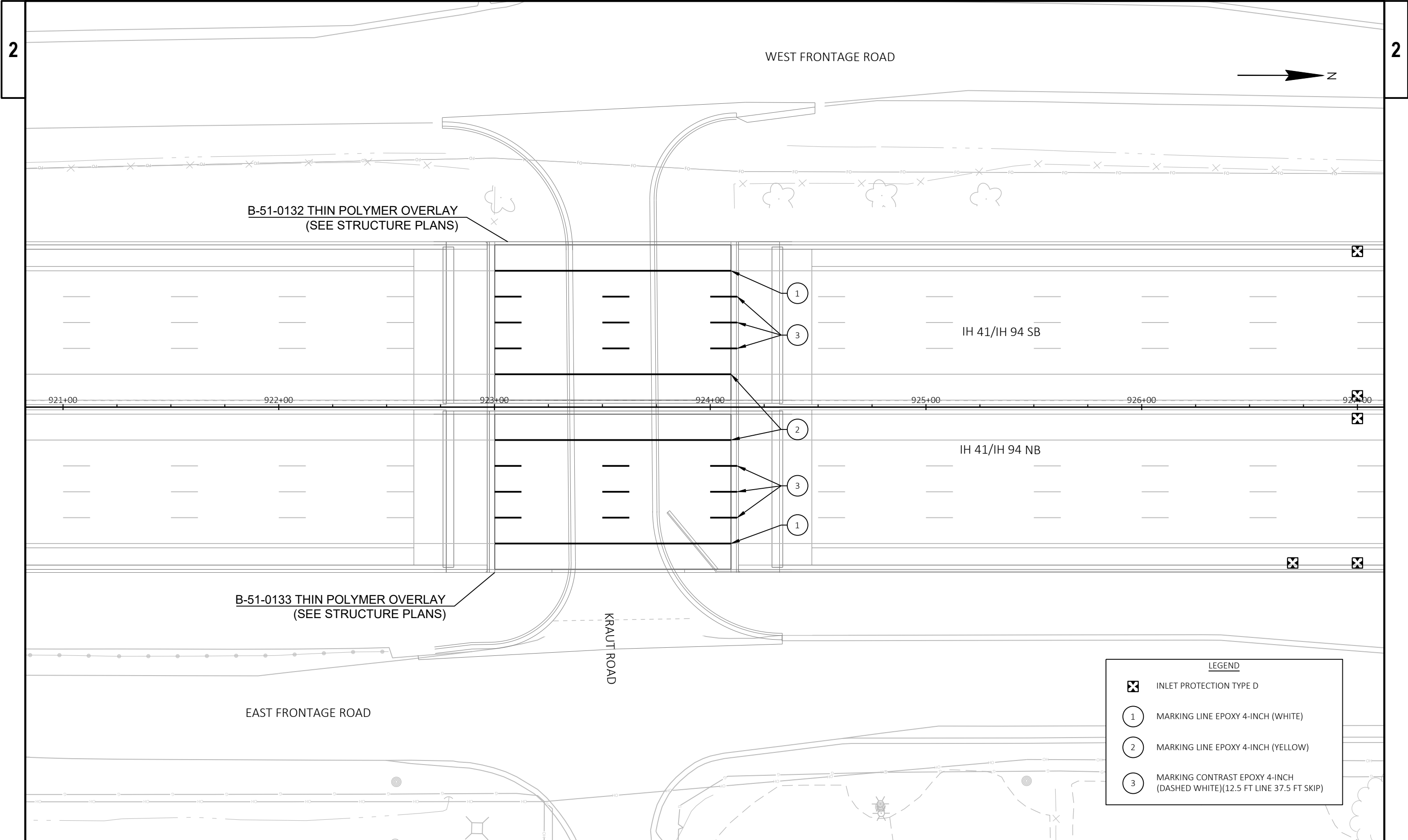
MARKING REPLACE LINE WET REFLECTIVE EPOXY
4-INCH (YELLOW)

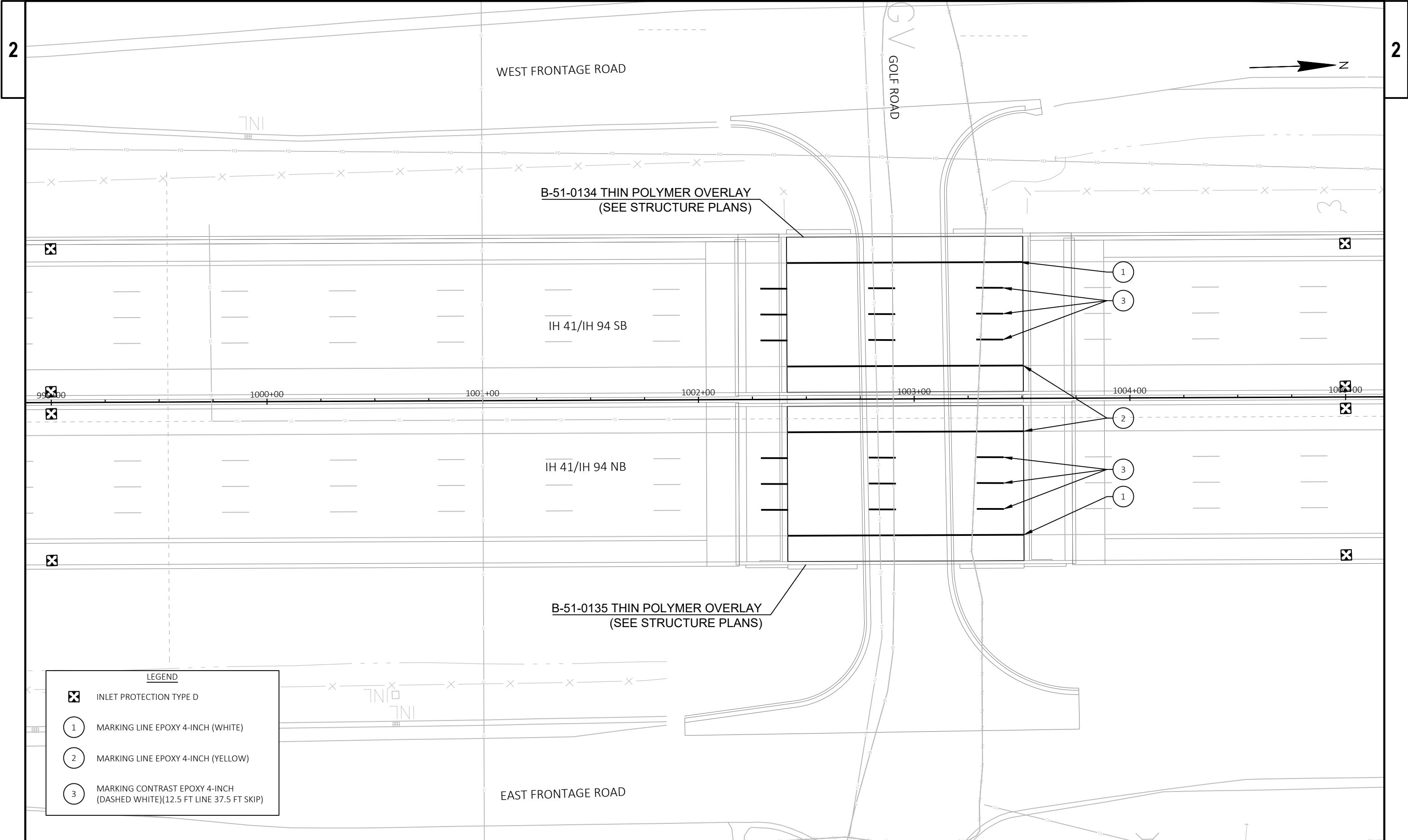
MARKING REPLACE LINE CONTRAST WET REFLECTIVE
EPOXY 4-INCH (DASHED WHITE)(12.5 FT LINE 37.5 FT SKIP)

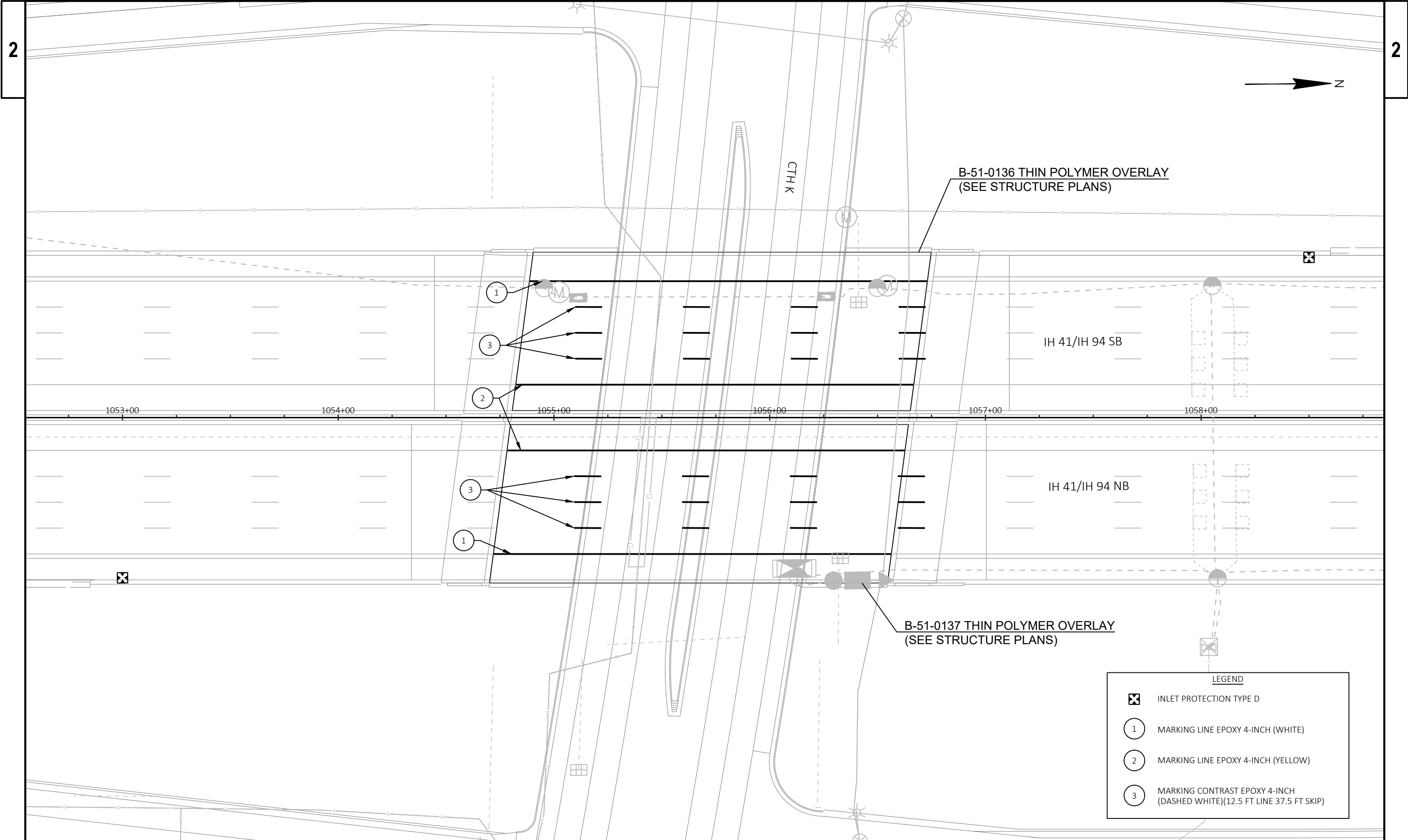


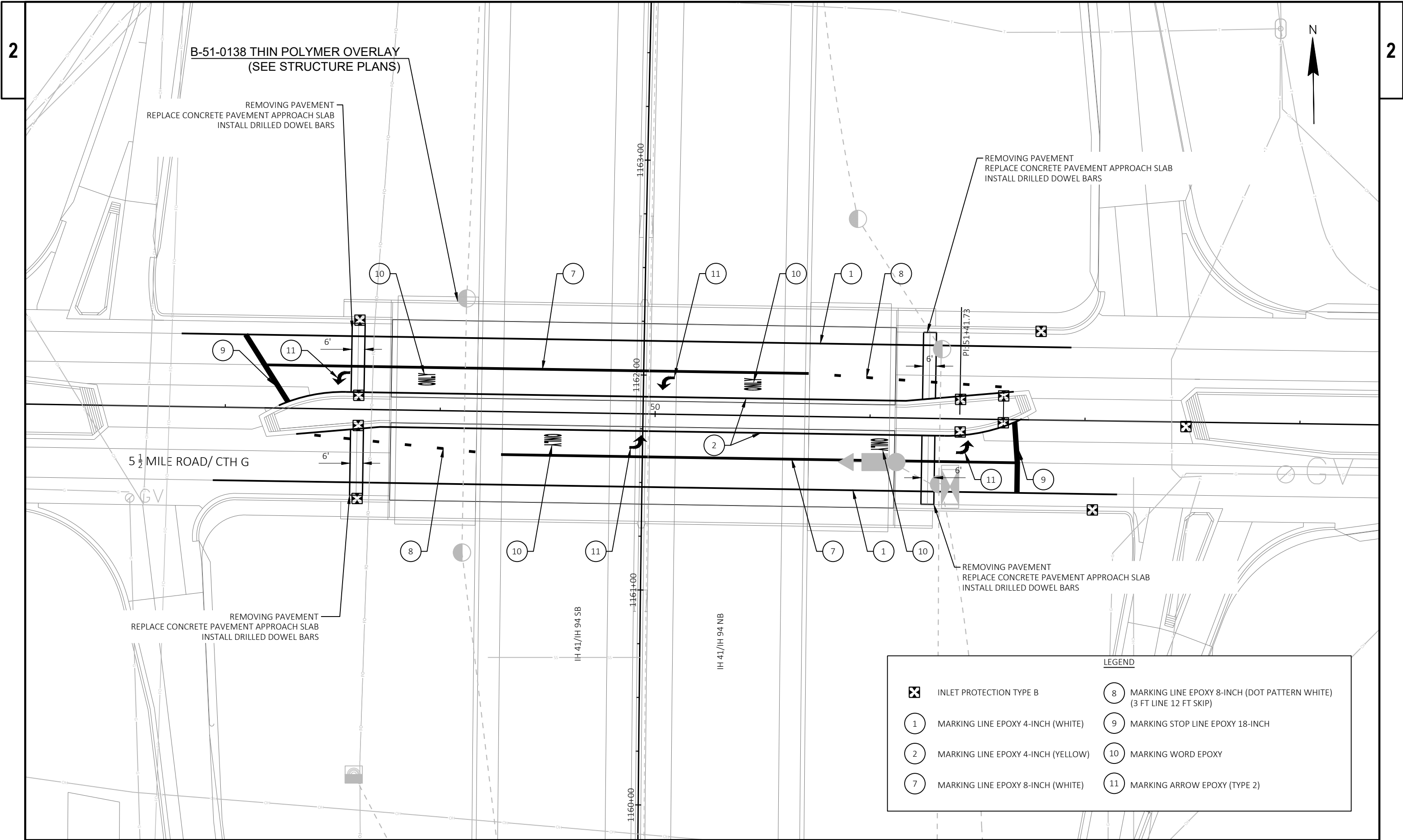
LEGEND

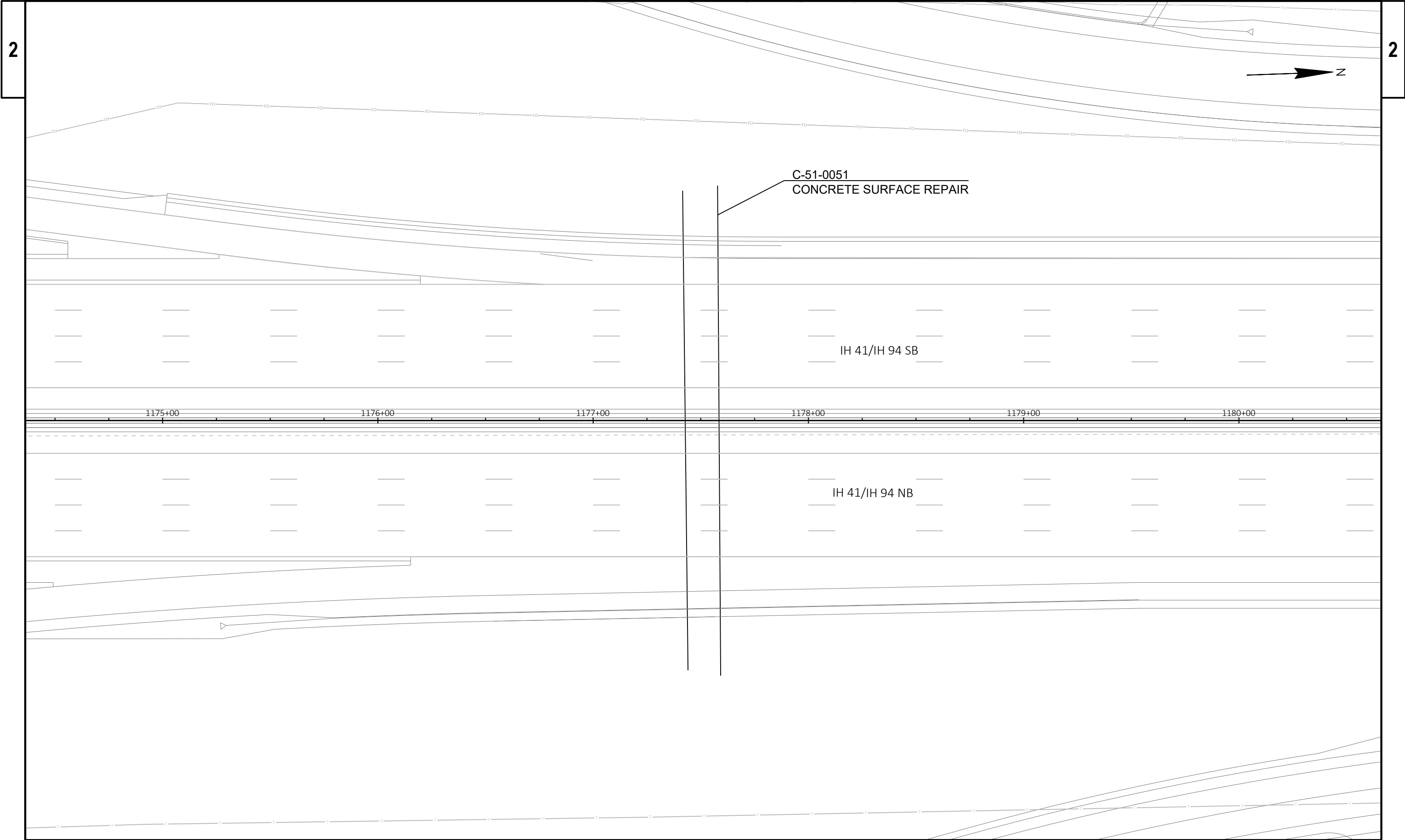
-  INLET PROTECTION TYPE D
-  MARKING LINE EPOXY 4-INCH (WHITE)
-  MARKING LINE EPOXY 4-INCH (YELLOW)
-  MARKING STOP LINE EPOXY 18-INCH

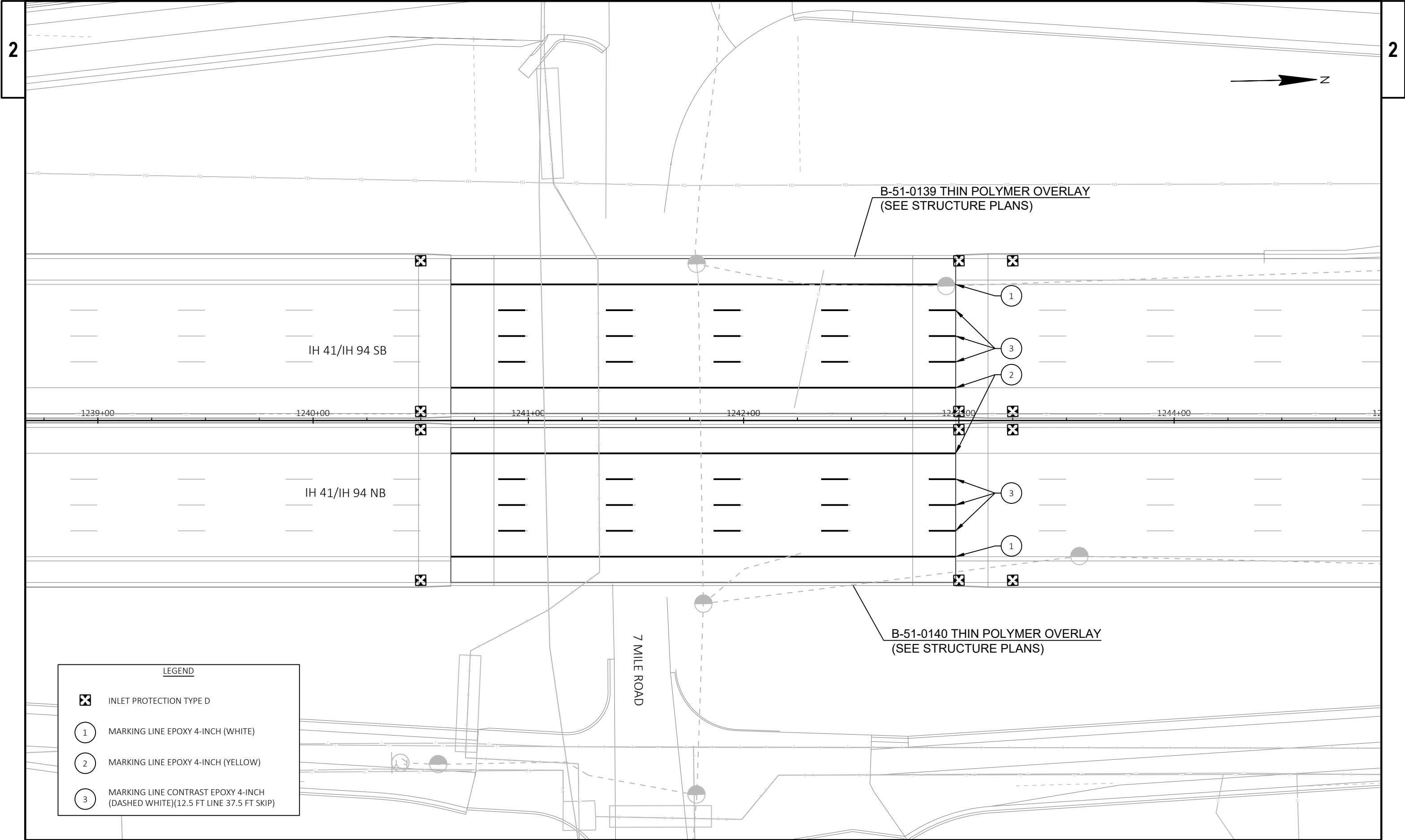


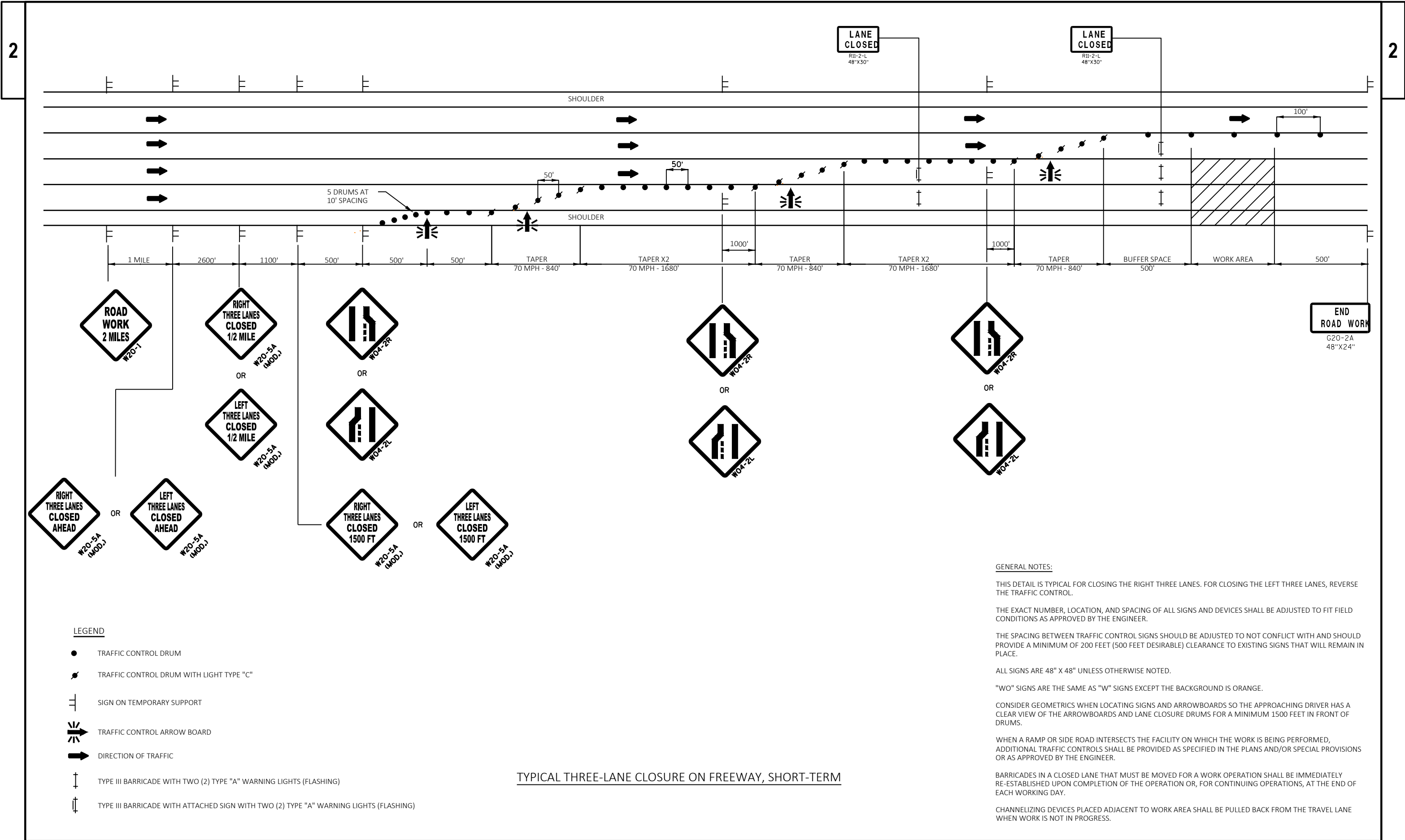










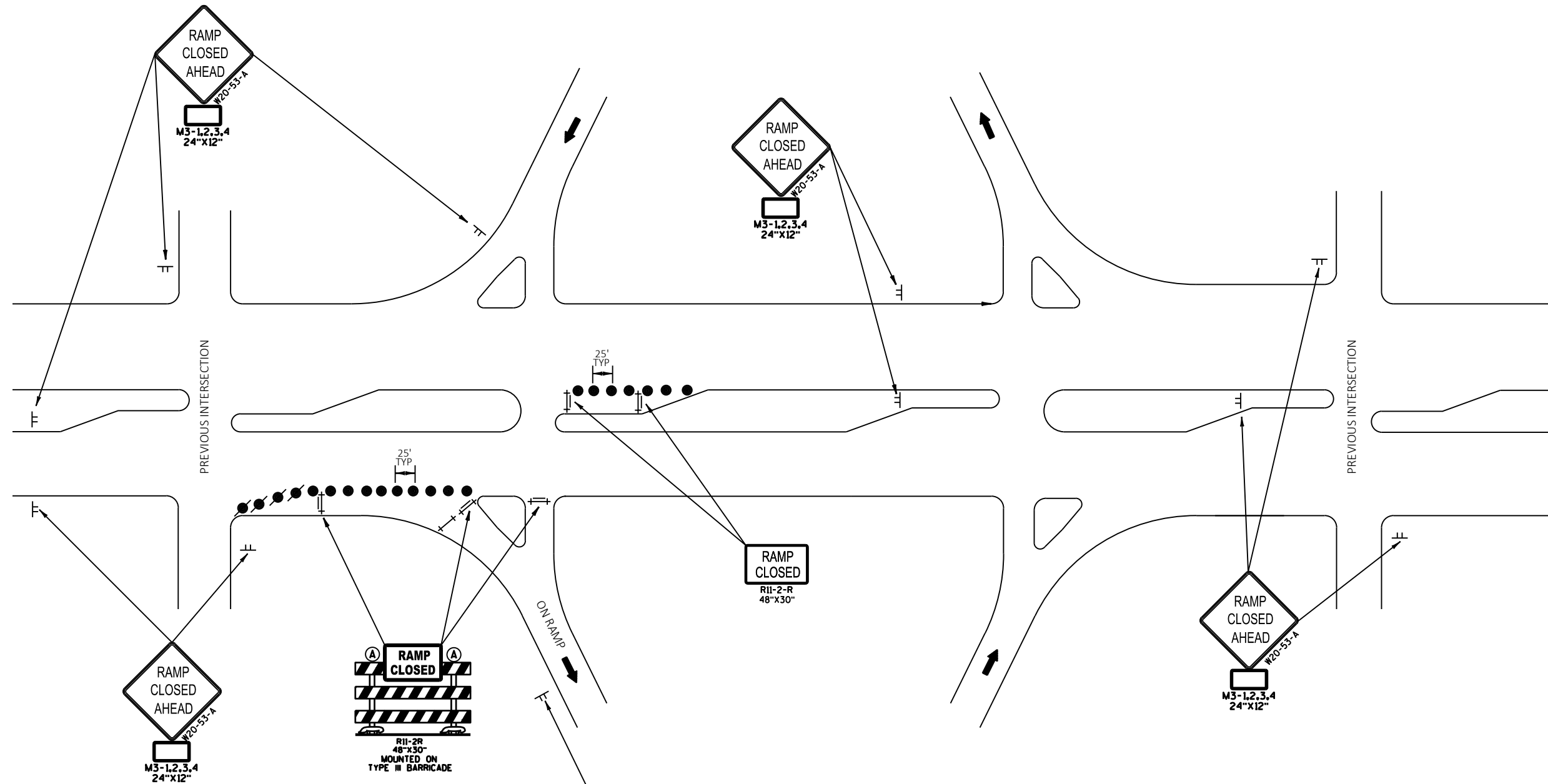


NORTH
M3-1
24"x12"

EAST
M3-2
24"x12"

SOUTH
M3-3
24"x12"

WEST
M3-4
24"x12"



LEGEND

- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL WITH TYPE "C" STEADY BURN LIGHT
- † TYPE III BARRICADE
- †† TYPE III BARRICADE WITH 2 TYPE "A" WARNING LIGHT (FLASHING)
- SIGN ON PERMANENT SUPPORT
- † SIGN ON TEMPORARY SUPPORT
- ➔ DIRECTION OF TRAFFIC

TRAFFIC CONTROL NOTES

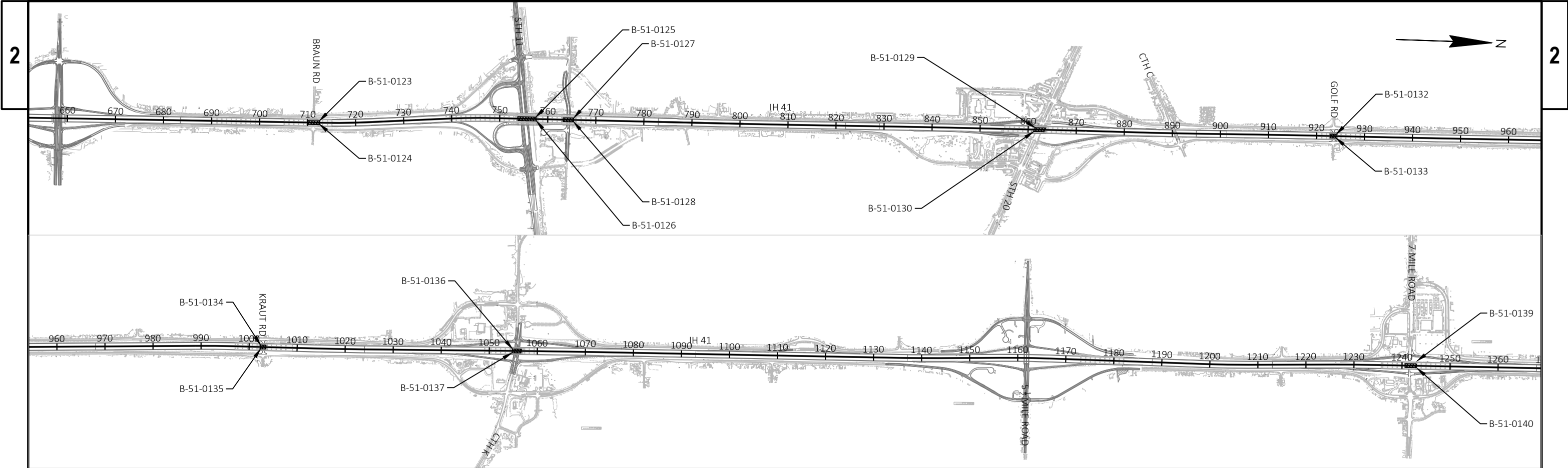
THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

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

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

SHORT TERM DEFINED AS 7 DAYS/NIGHTS OR LESS. FOR NIGHT TIME OPERATIONS ALL DRUMS IN TAPERS SHALL HAVE WARNING LIGHT, TYPE C (STEADY BURN). MAY BE APPLIED TO ARTERIALS OR LOCAL ROADS.

TRAFFIC CONTROL FOR ENTRANCE RAMP CLOSURE SHORT TERM ONLY



GENERAL NOTES:

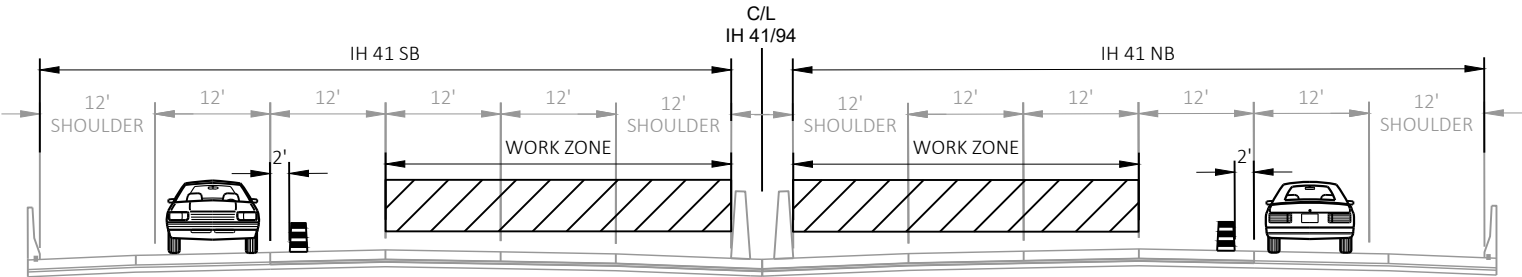
REFER TO CONSTRUCTION DETAIL 'TYPICAL THREE-LANE CLOSURE ON FREEWAY, SHORT-TERM.'

STAGE 1:

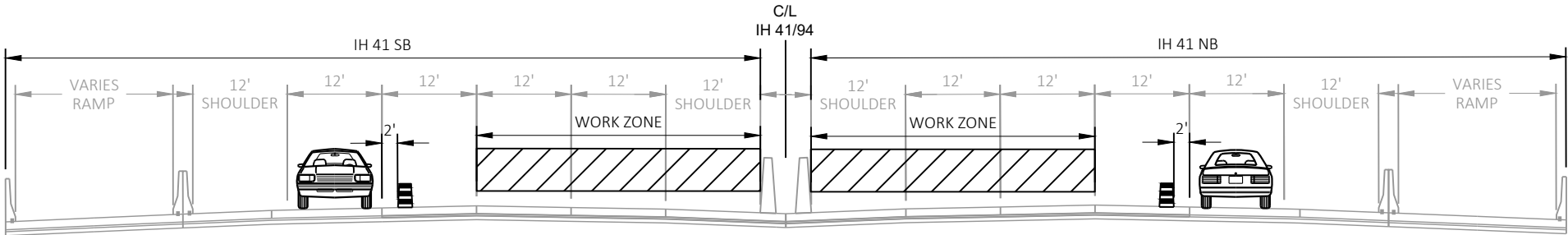
COMPLETE THIN POLYMER OVERLAYS ON TWO INSIDE LANES AND INSIDE SHOULDER OF B-51-123, 124, 125, 126, 127, 128, 129, 130, 132, 133, 134, 135, 136, 137, 139 & 140.

ALL WORK COMPLETED DURING STAGE 1 IS NIGHT TIME WORK.

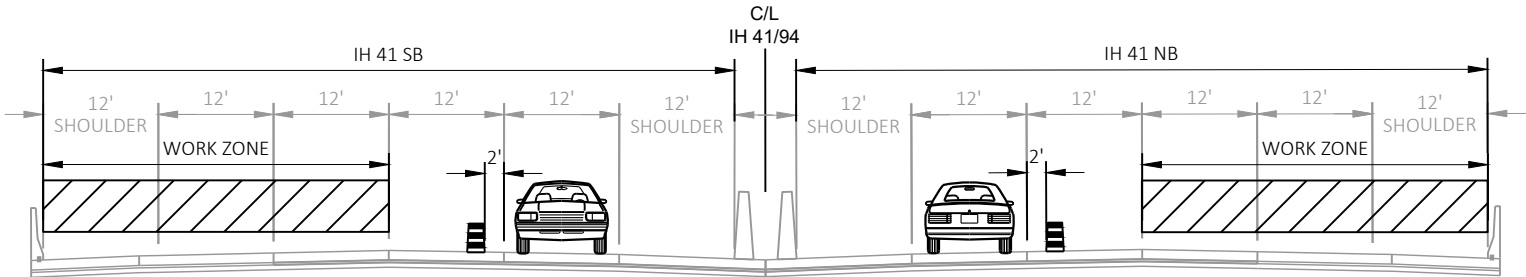
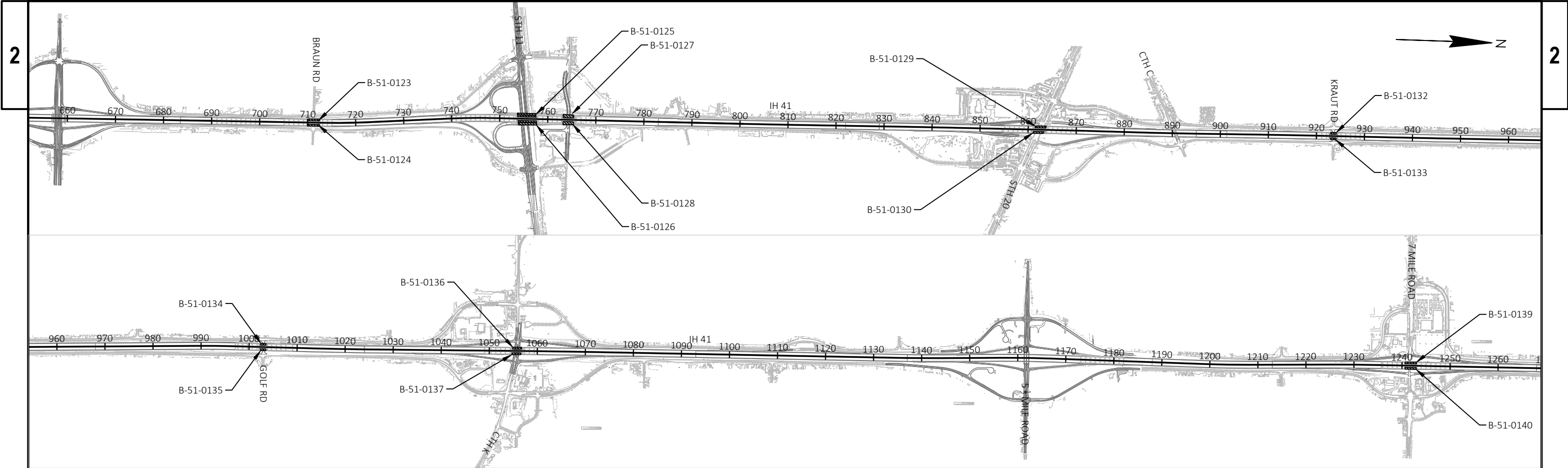
TRAFFIC:
USING OVERNIGHT LANE & RAMP CLOSURES, COMPLETE OVERLAYS.



TYPICAL SECTION
IH 41 / 94 - STAGE 1
B-51-123 & 124, B-51-129 & 130, B-51-132 & 133, B-51-134 & 135, B-51-136 & 137, B-51-139 & 140

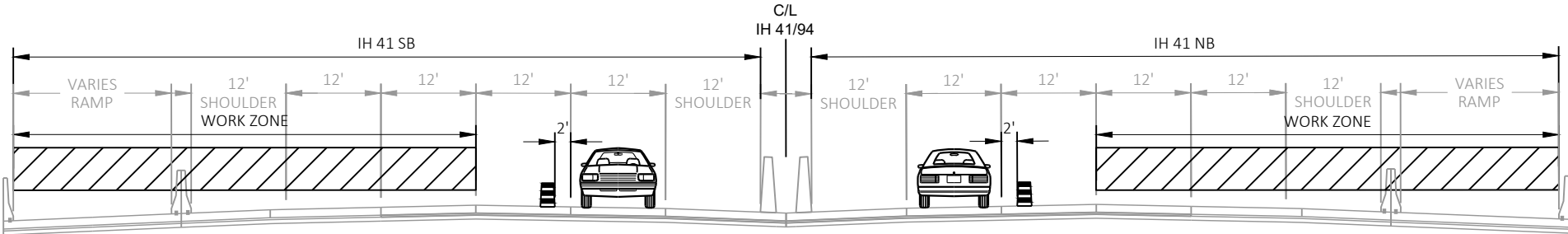


TYPICAL SECTION
IH 41 / 94 - STAGE 1
B-51-125 & 126, B-51-127 & 128



TYPICAL SECTION
IH 41 / 94 - STAGE 2

B-51-123 & 124, B-51-129 & 130, B-51-132 & 133, B-51-134 & 135, B-51-136 & 137, B-51-139 & 140



TYPICAL SECTION
IH 41 / 94 - STAGE 2

B-51-125 & 126, B-51-127 & 128

GENERAL NOTES:

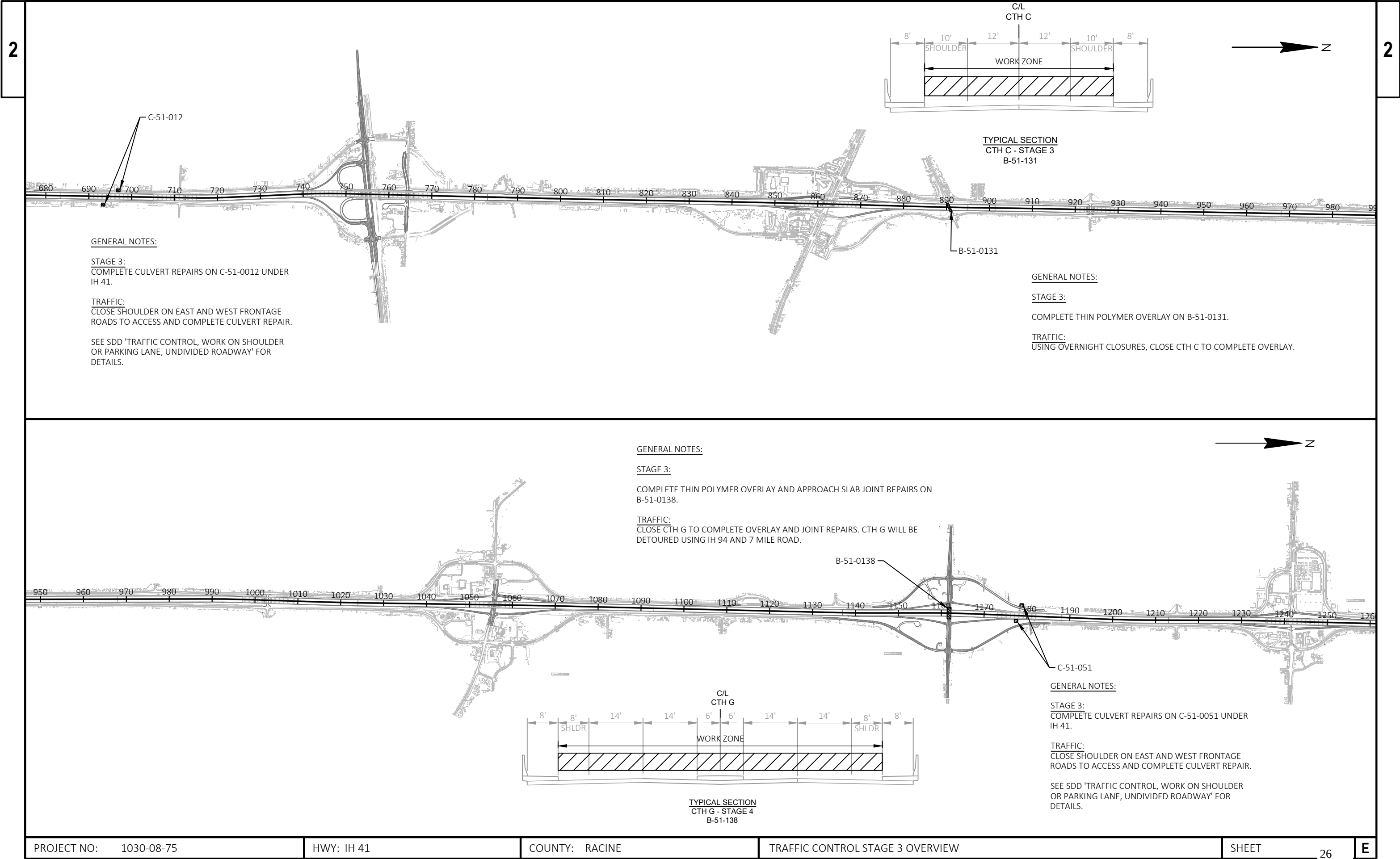
REFER TO CONSTRUCTION DETAIL 'TYPICAL THREE-LANE CLOSURE ON FREEWAY, SHORT-TERM.'

STAGE 2:

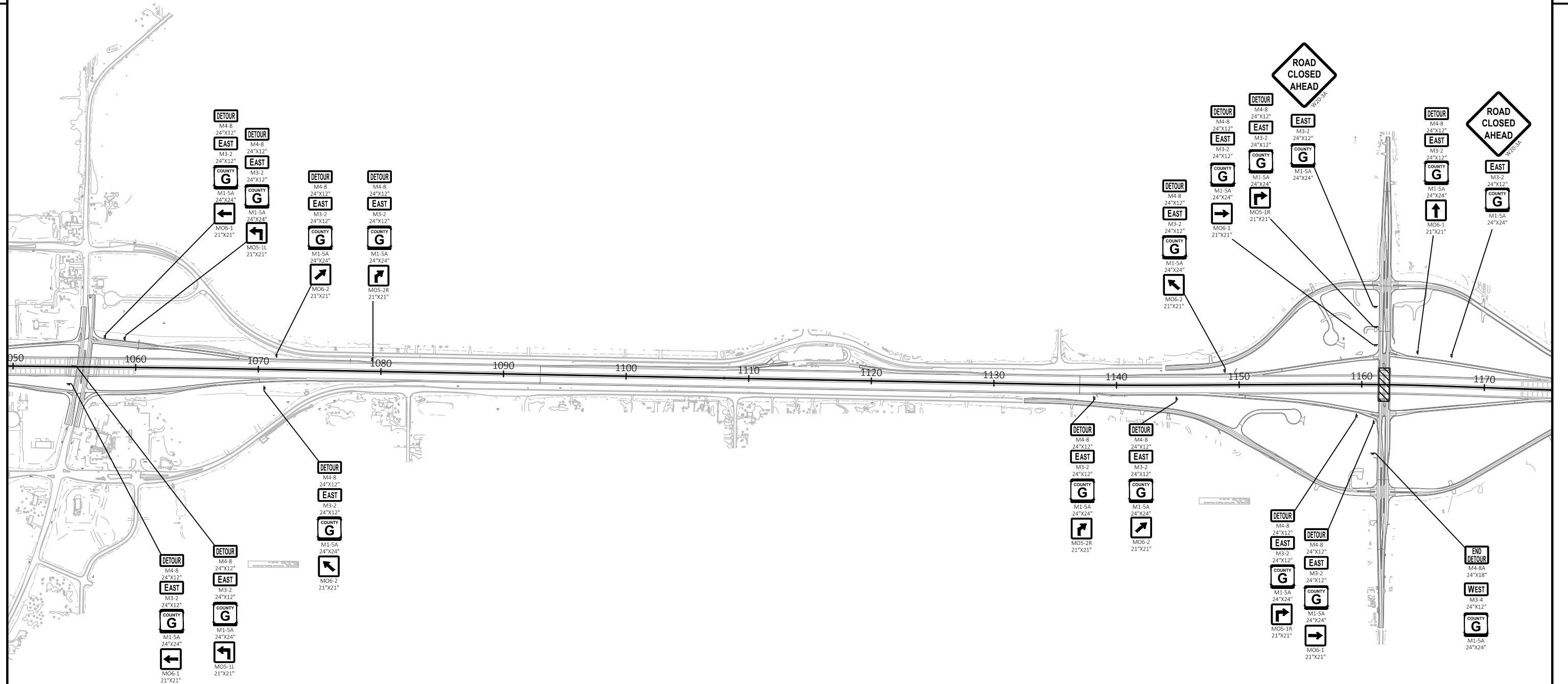
COMPLETE THIN POLYMER OVERLAYS ON TWO OUTSIDE LANES AND OUTSIDE SHOULDER OF B-51-123, 124, 125, 126, 127, 128, 129, 130, 132, 133, 134, 135, 136, 137, 139 & 140.

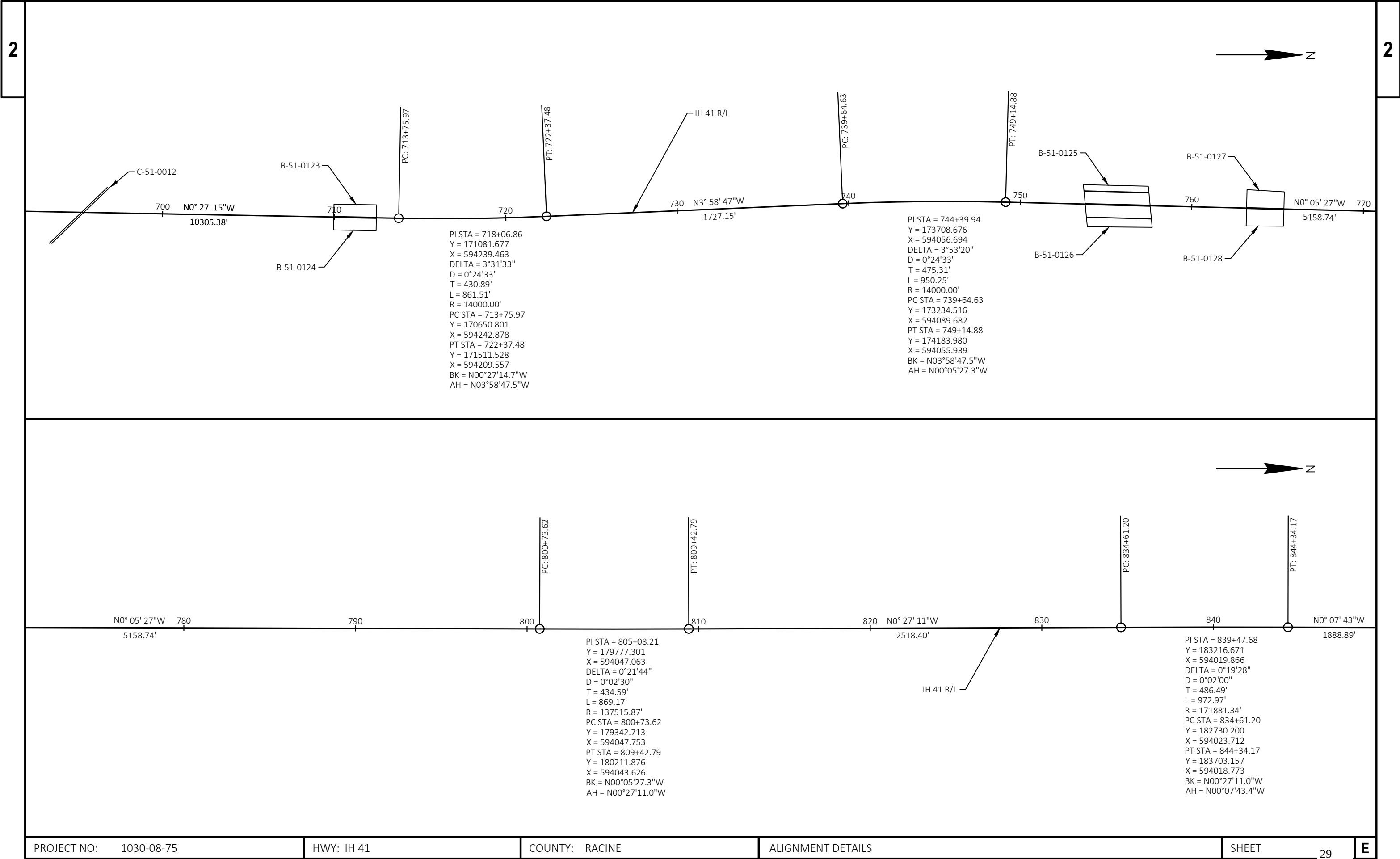
ALL WORK COMPLETED DURING STAGE 2 IS NIGHT TIME WORK.

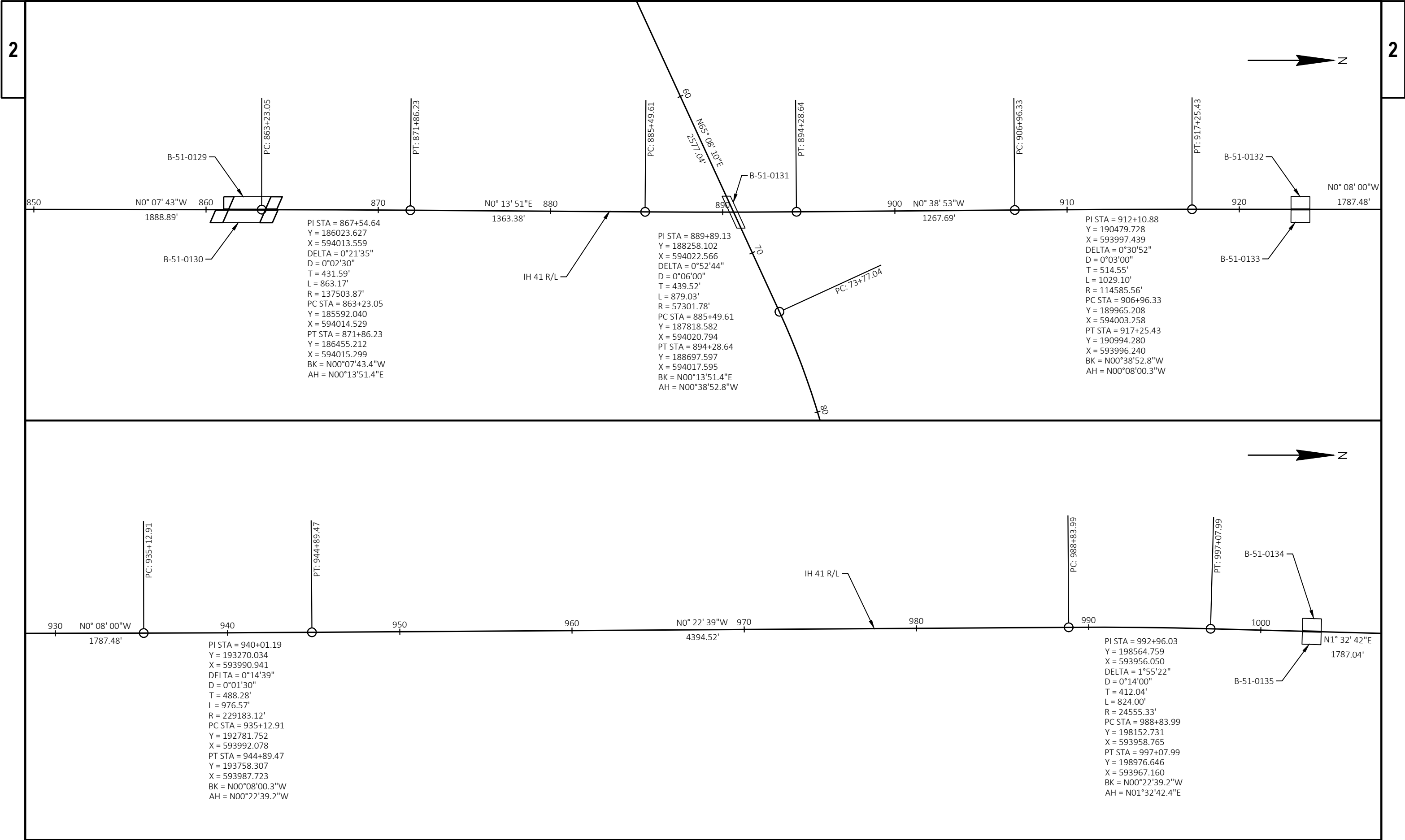
TRAFFIC:
USING OVERNIGHT LANE & RAMP CLOSURES, COMPLETE OVERLAYS.

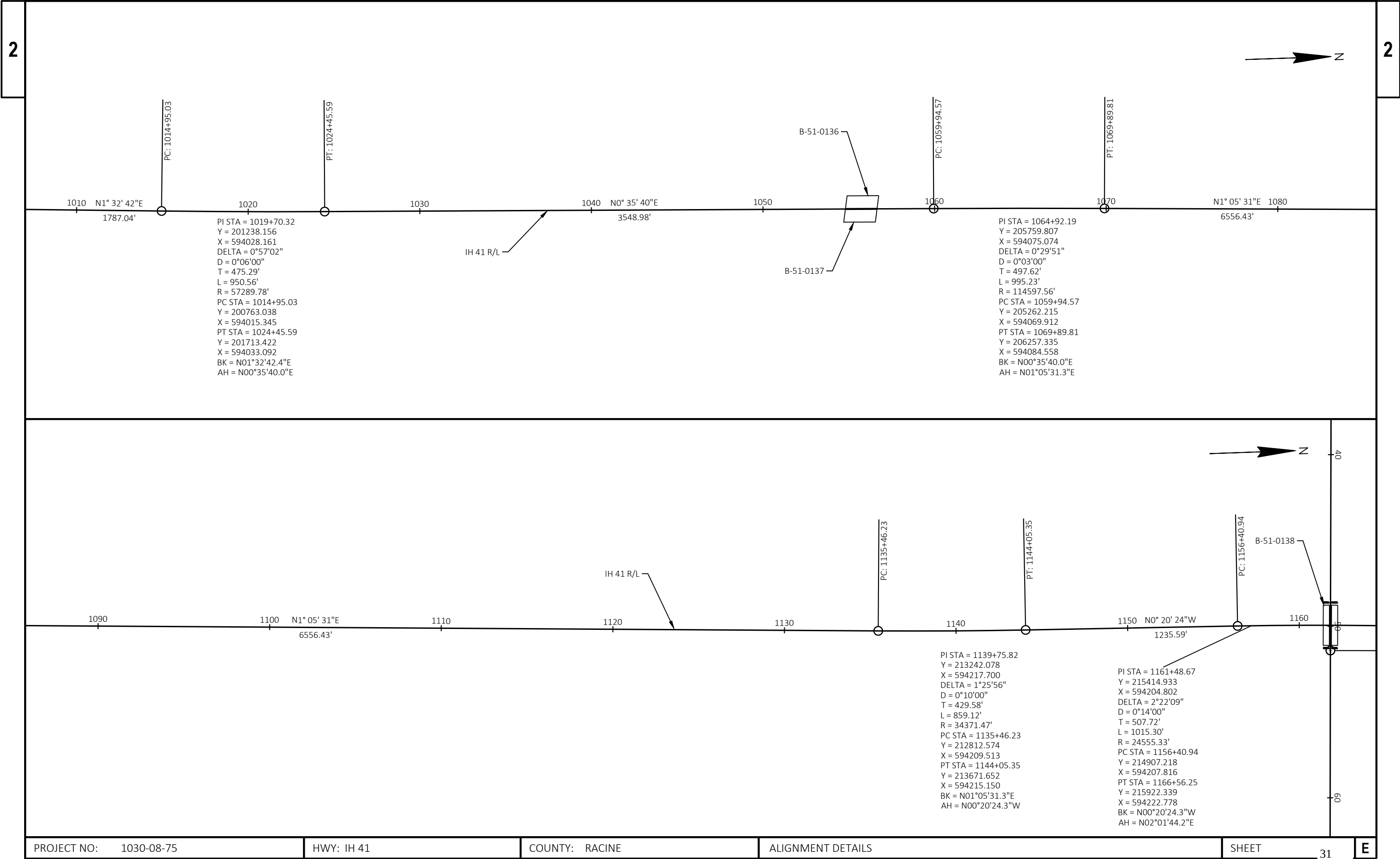


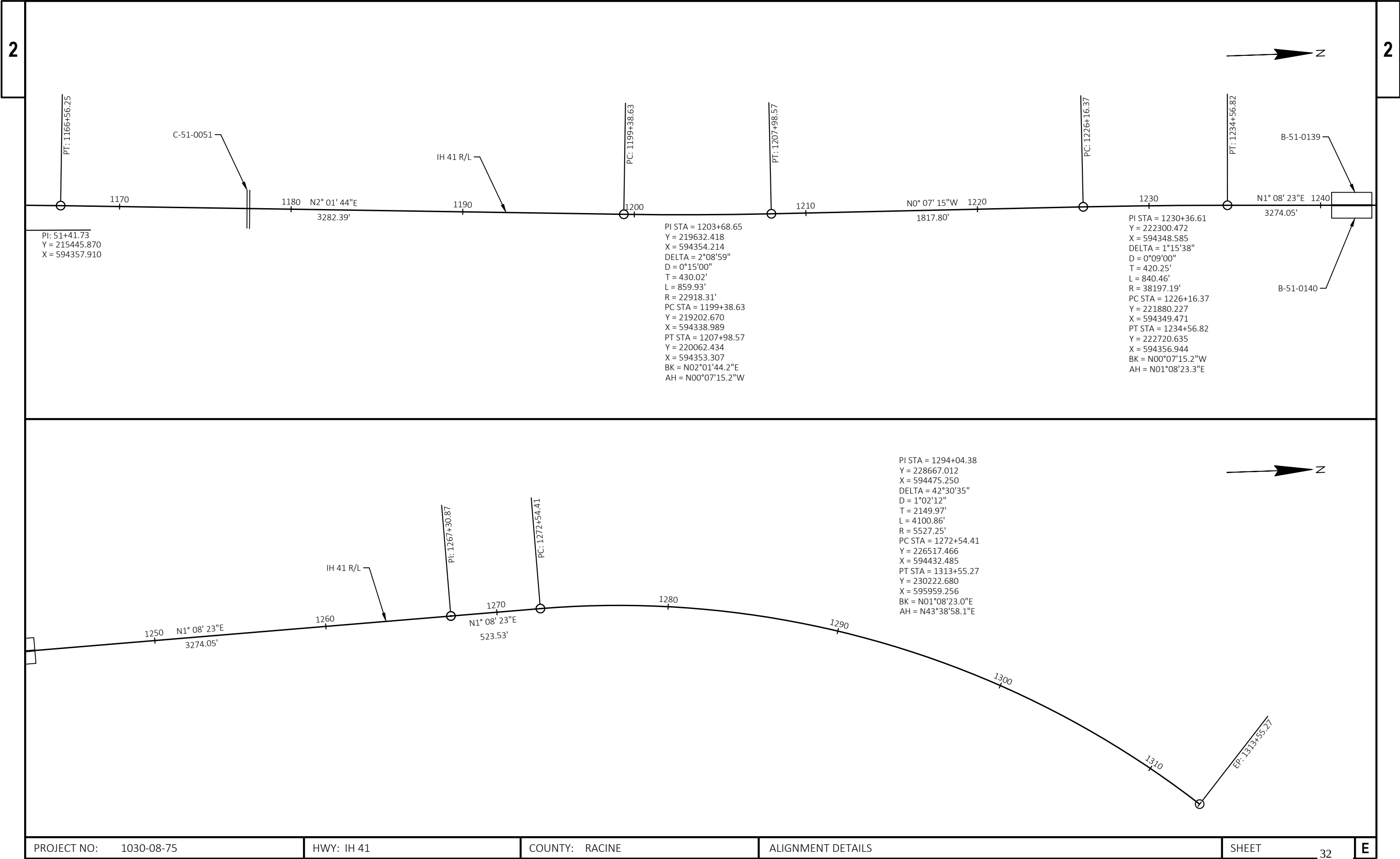


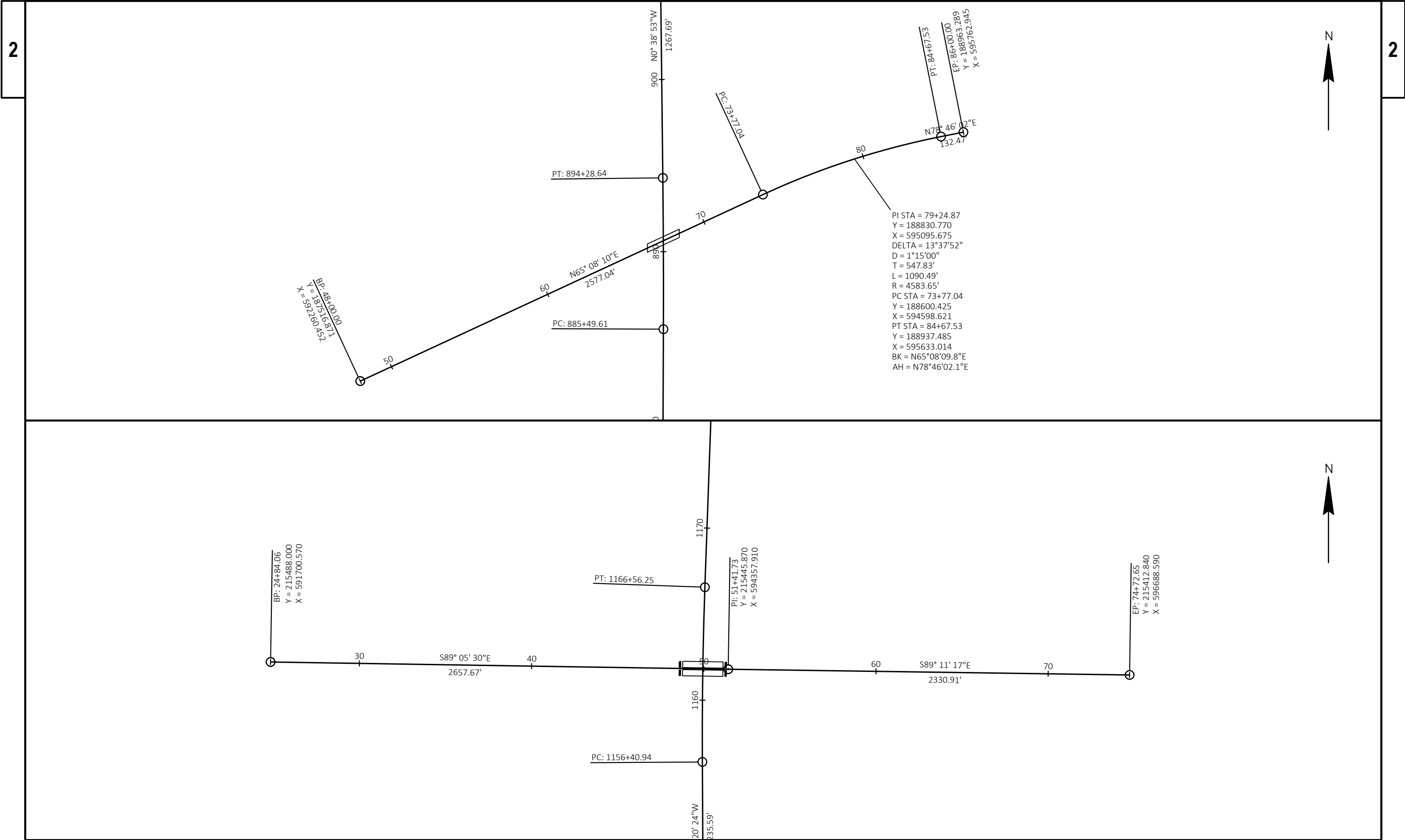












Estimate Of Quantities By Plan Sets

1030-08-75					
Line	Item	Item Description	Unit	Total	Qty
0002	204.0100	Removing Concrete Pavement	SY	84.000	84.000
0006	205.0100	Excavation Common	CY	22.000	22.000
0008	211.0200	Prepare Foundation for Concrete Pavement (project) 0001. 1030-08-75	LS	1.000	1.000
0010	213.0100	Finishing Roadway (project) 0001. 1030-08-75	EACH	1.000	1.000
0016	415.0410	Concrete Pavement Approach Slab	SY	84.000	84.000
0018	416.0610	Drilled Tie Bars	EACH	252.000	252.000
0024	509.1500	Concrete Surface Repair	SF	40.000	40.000
0026	509.5100.S	Polymer Overlay	SY	30,633.000	30,633.000
0042	619.1000	Mobilization	EACH	0.500	0.500
0044	625.0100	Topsoil	SY	33.000	33.000
0046	627.0200	Mulching	SY	33.000	33.000
0048	628.1504	Silt Fence	LF	100.000	100.000
0050	628.1550	Silt Screen	LF	200.000	200.000
0052	628.1905	Mobilizations Erosion Control	EACH	5.000	5.000
0054	628.1910	Mobilizations Emergency Erosion Control	EACH	5.000	5.000
0056	628.7020	Inlet Protection Type D	EACH	104.000	104.000
0060	629.0210	Fertilizer Type B	CWT	0.020	0.020
0062	630.0130	Seeding Mixture No. 30	LB	1.200	1.200
0064	642.5401	Field Office Type D	EACH	0.500	0.500
0066	643.0300	Traffic Control Drums	DAY	5,041.000	5,041.000
0068	643.0420	Traffic Control Barricades Type III	DAY	315.000	315.000
0070	643.0705	Traffic Control Warning Lights Type A	DAY	630.000	630.000
0072	643.0715	Traffic Control Warning Lights Type C	DAY	1,403.000	1,403.000
0074	643.0800	Traffic Control Arrow Boards	DAY	110.000	110.000
0076	643.0900	Traffic Control Signs	DAY	2,855.000	2,855.000
0080	643.1050	Traffic Control Signs PCMS	DAY	214.000	214.000
0082	643.4100.S	Traffic Control Interim Lane Closure	EACH	338.000	338.000
0084	643.5000	Traffic Control	EACH	0.500	0.500
0088	646.1020	Marking Line Epoxy 4-Inch	LF	10,194.000	10,194.000
0090	646.1041.S	Marking Replace Line Wet Reflective Epoxy 4-Inch	LF	856.000	856.000
0092	646.1546.S	Marking Replace Line Contrast Wet Reflective Epoxy 4-Inch	LF	376.000	376.000
0094	646.3020	Marking Line Epoxy 8-Inch	LF	1,400.000	1,400.000
0096	646.5020	Marking Arrow Epoxy	EACH	4.000	4.000
0098	646.5120	Marking Word Epoxy	EACH	4.000	4.000
0100	646.6120	Marking Stop Line Epoxy 18-Inch	LF	129.000	129.000
0102	646.7120	Marking Diagonal Epoxy 12-Inch	LF	121.000	121.000
0104	646.7220	Marking Chevron Epoxy 24-Inch	LF	122.000	122.000
0106	646.9000	Marking Removal Line 4-Inch	LF	12,821.000	12,821.000

Estimate Of Quantities By Plan Sets

1030-08-75					
Line	Item	Item Description	Unit	Total	Qty
0108	646.9100	Marking Removal Line 8-Inch	LF	1,400.000	1,400.000
0110	646.9200	Marking Removal Line Wide	LF	333.000	333.000
0112	646.9300	Marking Removal Special Marking	EACH	8.000	8.000
0114	649.0150	Temporary Marking Line Removable Tape 4-Inch	LF	12,536.000	12,536.000
0116	649.0250	Temporary Marking Line Removable Tape 8-Inch	LF	871.000	871.000
0118	690.0250	Sawing Concrete	LF	252.000	252.000
0120	715.0415	Incentive Strength Concrete Pavement	DOL	500.000	500.000
0122	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	900.000	900.000
0124	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	1,140.000	1,140.000
0128	SPV.0060	Special 0001. Traffic Control Close-Open Freeway Entrance Ramp	EACH	88.000	88.000
0130	SPV.0060	Special 0002. Sand Bags	EACH	900.000	900.000
0132	SPV.0075	Special 0001. Pavement Cleanup Project 1030-08-75	HRS	30.000	30.000
0138	SPV.0085	Special 0002. Sealing Cracks And Joints With Hot-Applied Sealant	LB	200.000	200.000
0140	SPV.0090	Special 0001. Marking Line Contrast Epoxy 4-Inch	LF	2,878.000	2,878.000
0144	SPV.0105	Special 0001. Survey Project 1030-08-75	LS	1.000	1.000
0150	SPV.0180	Special 0001. Methacrylate Flood Seal	SY	3,406.000	3,406.000

REMOVALS

204.0100 REMOVING PAVEMENT SY						
CATEGORY	LOCATION	STATION	TO	STATION	OFFSET	SY
1000	CTH G/B-51-0138	48+58	-	48+64	LT/RT	42
	CTH G/B-51-0138	51+24	-	51+30	LT/RT	42
						84

PREPARE FOUNDATION FOR CONCRETE PAVEMENT

211.0200 PREPARE FOUNDATION FOR CONCRETE PAVEMENT PROJECT 1030-08-75 LS		
CATEGORY	LOCATION	LS
1000	(1030-08-75)	1
TOTAL:		1

FINISHING ROADWAY

213.0100 FINISHING ROADWAY (PROJECT 1030-08-75) EACH		
CATEGORY	LOCATION	EACH
1000	IH 41/94	1
TOTAL:		1

CONCRETE ITEMS

						415.0410	416.0610
						CONCRETE PAVEMENT APPROACH SLAB	DRILLED TIE BARS
CATEGORY	LOCATION	STATION	TO	STATION	OFFSET	SY	EACH
1000	CTH G/B-51-0138	48+58	-	48+64	LT/RT	42	126
	CTH G/B-51-0138	51+24	-	51+30	LT/RT	42	126
	UNDISTRIBUTED					--	--
						84	252

MOBILIZATION

619.1000 MOBILIZATION EACH		
CATEGORY	LOCATION	EACH
1000	IH 41/94	0.5
TOTAL:		0.5

SAWCUTS

						690.0250
						SAWING CONCRETE
CATEGORY	LOCATION	STATION	TO	STATION	OFFSET	LF
1000	CTH G/B-51-0138	48+58	-	48+64	LT/RT	126
	CTH G/B-51-0138	51+24	-	51+30	LT/RT	126
						252

PAVEMENT CLEANUP PROJECT

SPV.0075.0001 PAVEMENT CLEANUP PROJECT 1030-08-75 HR			
CATEGORY	STAGE	LOCATION	HR
1000	ALL	PROJECT	30
TOTAL:			30

GRADING REPAIR - R-51-045								
CATEGORY	STAGE	LOCATION	205.0100	625.0100	628.1504	627.0200	629.0210	630.0130
			EXCAVATION	TOPSOIL	SILT	MULCHING	FERTILIZER	SEEDING MIXTURE
			COMMON		FENCE		TYPE B	NO. 30
			CY	SY	LF	SY	CWT	LB
1000	3	R-51-045	22	33	100	33	0.02	1.2
TOTAL:			22	33	100	33	0.02	1.2

SEALING CRACKS AND JOINTS		
SPV.0085.0002		
SEALING CRACKS AND JOINTS WITH HOT-APPLIED SEALANT		
CATEGORY	LOCATION	LB
1000	CTH C/B-51-0131	200
		200

EROSION CONTROL															
628.7020 INLET PROTECTION TYPE D					628.7020 INLET PROTECTION TYPE D					628.7020 INLET PROTECTION TYPE D					
CATEGORY	LOCATION	STATION	LOCATION	EA	LOCATION	STATION	LOCATION	EA	LOCATION	STATION	LOCATION	EA			
1000	IH 41/94 SB	708+00	73' LT	1	IH 41/94 SB	860+91	73' LT	1	IH 41/94 NB	1052+98	74' RT	1			
	IH 41/94 SB	708+00	4' LT	1	IH 41/94 SB	860+91	5' LT	1	IH 41/94 SB	1058+51	74' LT	1			
	IH 41/94 NB	708+00	4' RT	1	IH 41/94 NB	860+43	5' RT	1	IH 41/94 SB	1059+00	4' LT	1			
	IH 41/94 NB	708+00	73' RT	1	IH 41/94 NB	860+43	71' RT	1	IH 41/94 NB	1059+00	4' RT	1			
	IH 41/94 SB	714+07	73' LT	1	IH 41/94 SB	864+42	74' LT	1	CTH G	48+63	41' LT	1			
	IH 41/94 SB	714+08	4' LT	1	IH 41/94 SB	864+42	5' LT	1	CTH G	48+62	7' LT	1			
	IH 41/94 NB	714+08	4' RT	1	IH 41/94 NB	864+42	5' RT	1	CTH G	48+62	7' RT	1			
	IH 41/94 NB	714+09	73' RT	1	IH 41/94 NB	864+42	74' RT	1	CTH G	48+61	41' RT	1			
	IH 41/94 NB	713+86	73' RT	1	IH 41/94 SB	920+00	72' LT	1	CTH G	51+42	9' LT	1			
	IH 41/94 SB	753+00	74' LT	1	IH 41/94 SB	920+00	5' LT	1	CTH G	51+42	6' RT	1			
	IH 41/94 SB	753+00	4' LT	1	IH 41/94 NB	920+00	5' RT	1	CTH G	51+62	11' LT	1			
	IH 41/94 NB	753+00	4' RT	1	IH 41/94 NB	920+00	72' RT	1	CTH G	51+62	3' RT	1			
	IH 41/94 NB	753+00	74' RT	1	IH 41/94 NB	920+29	72' RT	1	CTH G	51+79	41' LT	1			
	IH 41/94 NB	753+00	132' RT	1	IH 41/94 SB	927+00	72' LT	1	CTH G	52+47	3' RT	1			
	IH 41/94 SB	758+00	111' LT	1	IH 41/94 SB	927+00	5' LT	1	CTH G	52+03	42' RT	1			
	IH 41/94 SB	758+00	74' LT	1	IH 41/94 NB	927+00	5' RT	1	IH 41/94 SB	1240+52	74' LT	1			
	IH 41/94 SB	758+00	4' LT	1	IH 41/94 NB	927+00	72' RT	1	IH 41/94 SB	1240+50	4' LT	1			
	IH 41/94 NB	758+00	4' RT	1	IH 41/94 NB	926+69	72' RT	1	IH 41/94 NB	1240+50	4' RT	1			
	IH 41/94 NB	758+10	123' RT	1	IH 41/94 SB	999+02	71' LT	1	IH 41/94 NB	1240+49	74' RT	1			
	IH 41/94 NB	758+00	124' RT	1	IH 41/94 SB	999+00	5' LT	1	IH 41/94 SB	1243+01	74' LT	1			
	IH 41/94 SB	762+06	108' LT	1	IH 41/94 NB	999+00	5' RT	1	IH 41/94 SB	1243+00	4' LT	1			
	IH 41/94 SB	762+06	4' LT	1	IH 41/94 NB	998+98	73' RT	1	IH 41/94 NB	1243+00	4' RT	1			
	IH 41/94 NB	762+06	4' RT	1	IH 41/94 SB	1005+02	71' LT	1	IH 41/94 NB	1242+99	74' RT	1			
	IH 41/94 NB	762+06	104' RT	1	IH 41/94 SB	1005+00	5' LT	1	IH 41/94 SB	1243+26	74' LT	1			
	IH 41/94 SB	766+00	96' LT	1	IH 41/94 NB	1005+00	5' RT	1	IH 41/94 SB	1243+25	4' LT	1			
	IH 41/94 SB	766+00	4' LT	1	IH 41/94 NB	1004+98	73' RT	1	IH 41/94 NB	1243+25	4' RT	1			
	IH 41/94 NB	766+00	4' RT	1	IH 41/94 SB	1052+00	5' LT	1	IH 41/94 NB	1243+24	74' RT	1			
	IH 41/94 NB	766+00	96' RT	1	IH 41/94 NB	1052+00	5' RT	1	UNDISTRIBUTED		21				
	(CONT'D)					(CONT'D)					TOTAL				
											104				

CULVERT REPAIR

CATEGORY	STAGE	LOCATION	SPV.0060.0002	628.1550	628.1905	628.1910
				SILT	MOBILIZATIONS	MOBILIZATIONS EMERGENCY
			SAND BAGS	SCREEN	EROSION CONTROL	EROSION CONTROL
			EA	LF	EA	EA
1000	3	C-51-0012	360	80	2	2
		C-51-0051	540	120	3	3
		TOTAL:				
			900	200	5	5

TRAFFIC CONTROL

CATEGORY	STAGE	LOCATION	643.5000 TRAFFIC CONTROL EACH
1000	ALL	(1030-08-75)	0.5
TOTAL:			0.5

TRAFFIC CONTROL ITEMS (DETOUR)

				* 643.1050		* 643.0900	
				TRAFFIC CONTROL SIGNS		TRAFFIC CONTROL SIGNS	
				PCMS			
CATEGORY	STAGE	LOCATION	STAGE DURATION DAYS	EACH	DAYS	EACH	DAYS
1000	3	CTH G EB	14	1	5	69	966
	3	CTH G WB	14	1	5	84	1176
TOTALS:				10		2,142	

* ADDITIONAL QUANTITIES LISTED ELSEWHERE IN PLAN.

TRAFFIC CONTROL

				SPV.0060.0001	643.4100.S	
				TRAFFIC CONTROL	TRAFFIC CONTROL	
				CLOSE-OPEN	INTERIM	
				FREEWAY ENTRANCE	LANE	
				RAMP	CLOSURE	
CATEGORY	ROADWAY	LOCATION	DAYS	EACH	EACH	
1000	NB Shift to Outside	B-51-124	2	2	6	
	NB Shift to Outside	B-51-126/128	6	6	18	
	NB Shift to Outside	B-51-130	2	--	6	
	NB Shift to Outside	B-51-133	2	2	6	
	NB Shift to Outside	B-51-135	2	--	6	
	NB Shift to Outside	B-51-137	4	--	12	
	NB Shift to Outside	B-51-140	2	2	6	
	SB Shift to Outside	B-51-123	2	2	6	
	SB Shift to Outside	B-51-125/127	6	6	18	
	SB Shift to Outside	B-51-129	2	--	6	
	SB Shift to Outside	B-51-132	2	--	6	
	SB Shift to Outside	B-51-134	2	2	6	
	SB Shift to Outside	B-51-136	4	4	12	
	SB Shift to Outside	B-51-139	2	2	6	
	SUBTOTAL STAGE 1:				28	120
	NB Shift to Inside	B-51-124	2	2	6	
	NB Shift to Inside	B-51-126/128	12	24	36	
	NB Shift to Inside	B-51-130	2	--	6	
	NB Shift to Inside	B-51-133	2	2	6	
	NB Shift to Inside	B-51-135	2	2	6	
	NB Shift to Inside	B-51-137	4	--	12	
	NB Shift to Inside	B-51-140	2	2	6	
	SB Shift to Inside	B-51-123	2	2	6	
	SB Shift to Inside	B-51-125/127	10	--	30	
	SB Shift to Inside	B-51-129	2	--	6	
	SB Shift to Inside	B-51-132	2	--	6	
	SB Shift to Inside	B-51-134	2	2	6	
	SB Shift to Inside	B-51-136	4	4	12	
	SB Shift to Inside	B-51-139	2	2	6	
	SUBTOTAL STAGE 2:				42	150
UNDISTRIBUTED				18	68	
TOTALS:				88	338	

TRAFFIC CONTROL ITEMS																		
				643.0300		643.0715		643.0420		643.0705		643.0800		* 643.0900		* 643.1050		
				TRAFFIC CONTROL DRUMS		TRAFFIC CONTROL WARNING LIGHTS TYPE C		TRAFFIC CONTROL BARRICADES TYPE III		TRAFFIC CONTROL WARNING LIGHTS TYPE A		TRAFFIC CONTROL ARROW BOARDS		TRAFFIC CONTROL SIGNS		TRAFFIC CONTROL SIGNS PCMS		
CATEGORY	STAGE	LOCATION	STAGE DURATION DAYS	EACH	DAYS	EACH	DAYS	EACH	DAYS	EACH	DAYS	EACH	DAYS	EACH	DAYS	EACH	DAYS	
1000	NB Shift to Outside	B-51-124	1	141	141	51	51	6	6	12	12	4	4	18	18	1	5	
	NB Shift to Outside	B-51-126/128	3	162	486	51	153	6	18	12	36	4	12	18	54	3	15	
	NB Shift to Outside	B-51-130	1	151	151	51	51	6	6	12	12	4	4	18	18	--	--	
	NB Shift to Outside	B-51-133	1	151	151	51	51	6	6	12	12	4	4	18	18	1	5	
	NB Shift to Outside	B-51-135	1	156	156	51	51	6	6	12	12	4	4	18	18	--	--	
	NB Shift to Outside	B-51-137	2	163	326	51	102	6	12	12	24	4	8	18	36	--	--	
	NB Shift to Outside	B-51-140	1	157	157	51	51	6	6	12	12	4	4	18	18	1	5	
	SB Shift to Outside	B-51-123	1	151	151	51	51	6	6	12	12	4	4	18	18	1	5	
	SB Shift to Outside	B-51-125/127	3	199	597	51	153	6	18	12	36	4	12	18	54	2	10	
	SB Shift to Outside	B-51-129	1	144	144	51	51	6	6	12	12	4	4	18	18	1	5	
	SB Shift to Outside	B-51-132	1	140	140	51	51	6	6	12	12	4	4	18	18	--	--	
	SB Shift to Outside	B-51-134	1	155	155	51	51	6	6	12	12	4	4	18	18	1	5	
	SB Shift to Outside	B-51-136	2	149	298	51	102	6	12	12	24	4	8	18	36	2	10	
	SB Shift to Outside	B-51-139	1	269	269	51	51	6	6	12	12	4	4	18	18	1	5	
	SUBTOTAL STAGE 1:				1754		510		60		120		40		180		70	
	NB Shift to Inside	B-51-124	1	141	141	51	51	6	6	12	12	4	4	18	18	1	5	
	NB Shift to Inside	B-51-126/128	6	176	1056	51	306	6	36	12	72	4	24	18	108	4	20	
	NB Shift to Inside	B-51-130	1	151	151	51	51	6	6	12	12	4	4	18	18	--	--	
	NB Shift to Inside	B-51-133	1	167	167	51	51	6	6	12	12	4	4	18	18	1	5	
	NB Shift to Inside	B-51-135	1	156	156	51	51	6	6	12	12	4	4	18	18	--	--	
	NB Shift to Inside	B-51-137	2	163	326	51	102	6	12	12	24	4	8	18	36	--	--	
	NB Shift to Inside	B-51-140	1	157	157	51	51	6	6	12	12	4	4	18	18	1	5	
	SB Shift to Inside	B-51-123	1	150	150	51	51	6	6	12	12	4	4	18	18	1	5	
	SB Shift to Inside	B-51-125/127	5	199	995	51	255	6	30	12	60	4	20	18	90	--	--	
	SB Shift to Inside	B-51-129	1	144	144	51	51	6	6	12	12	4	4	18	18	--	--	
	SB Shift to Inside	B-51-132	1	177	177	51	51	6	6	12	12	4	4	18	18	--	--	
	SB Shift to Inside	B-51-134	1	155	155	51	51	6	6	12	12	4	4	18	18	1	5	
	SB Shift to Inside	B-51-136	2	149	298	51	102	6	12	12	24	4	8	18	36	1	5	
	SB Shift to Inside	B-51-139	1	270	270	51	51	6	6	12	12	4	4	18	18	1	5	
	SUBTOTAL STAGE 2:				2189		612		72		144		48		216		55	
	EB	B-51-0131	1	--	--	--	--	--	4	4	8	8	--	--	12	12	2	10
	WB	B-51-0131	1	--	--	--	--	--	4	4	8	8	--	--	12	12	2	10
	SUBTOTAL STAGE 3:				0		0		8		16		0		24		20	
	EB	B-51-138	14	--	--	--	--	--	4	56	8	112	--	--	4	56	1	5
	WB	B-51-138	14	--	--	--	--	--	4	56	8	112	--	--	4	56	1	5
	SUBTOTAL STAGE 4:				0		0		112		224		0		112		10	
	SB	C-51-012	3	15	45	--	--	--	--	--	--	--	--	--	8	24	1	5
	NB	C-51-051	3	15	45	--	--	--	--	--	--	--	--	--	8	24	1	5
	SUBTOTAL STAGE 4:				90		0		0		0		0		48		10	
	UNDISTRIBUTED				1008		281		63		126		22		133		39	
TOTALS:				5,041		1,403		315		630		110		713		204		

* ADDITIONAL QUANTTTIES LISTED ELSEWHERE IN PLAN.

PAVEMENT MARKINGS

					646.1020 MARKING LINE EPOXY 4-INCH		SPV.0090.0001 MARKING LINE CONTRAST EPOXY 4-INCH 12.5 FT LINE 37.5 FT SKIP		646.1041.S MARKING REPLACE LINE WET REFLECTIVE EPOXY 4-INCH		646.1546.S MARKING REPLACE LINE CONTRAST WET REFLECTIVE EPOXY 4-INCH 12.5 FT LINE 37.5 FT SKIP		646.3020 MARKING LINE EPOXY 8-INCH WHITE LINE DOT PATTERN 3FT LINE 12FT SKIP		646.6120 MARKING STOP LINE EPOXY 18-INCH	646.7120 MARKING LINE DIAGONAL EPOXY 12-INCH	646.7220 MARKING CHEVRON EPOXY 24-INCH	646.5120 MARKING WORD EPOXY	646.5020 MARKING ARROW EPOXY TYPE 2
CATEGORY	LOCATION		STATION TO STATION		WHITE LF	YELLOW LF	DASHED WHITE LF	WHITE LF	YELLOW LF	WHITE LF	WHITE LF	WHITE LF	LF	LF	LF	LF	LF	WHITE EACH	WHITE EACH
0010	IH 41/94 SB	B-51-0123	709+97	712+63	249	249	225	--	--	--	--	--	--	--	--	--	--	--	--
	IH 41/94 NB	B-51-0124	709+97	712+63	249	249	225	--	--	--	--	--	--	--	--	--	--	--	--
	IH 41/94 SB	B-51-0125	753+66	757+70	757	757	400	--	--	--	--	--	--	--	--	--	--	--	--
	IH 41/94 NB	B-51-0126	753+66	757+70	757	757	400	--	--	--	--	--	--	--	--	121	--	--	--
	IH 41/94 SB	B-51-0127	763+19	765+39	218	218	250	--	--	--	--	436	--	--	--	--	122	--	--
	IH 41/94 NB	B-51-0128	763+19	765+39	218	218	250	--	--	--	--	435	--	--	--	--	--	--	--
	IH 41/94 SB	B-51-0129	860+99	863+72	--	--	--	214	214	188	--	--	--	--	--	--	--	--	--
	IH 41/94 NB	B-51-0130	860+99	863+72	--	--	--	214	214	188	--	--	--	--	--	--	--	--	--
	CTH C	B-51-0131	65+93	68+75	605	616	--	--	--	--	--	--	--	--	59	--	--	--	--
	IH 41/94 SB	B-51-0132	923+00	924+12	110	110	113	--	--	--	--	--	--	--	--	--	--	--	--
	IH 41/94 NB	B-51-0133	923+00	924+12	110	110	113	--	--	--	--	--	--	--	--	--	--	--	--
	IH 41/94 SB	B-51-0134	1002+30	1003+50	110	110	113	--	--	--	--	--	--	--	--	--	--	--	--
	IH 41/94 NB	B-51-0135	1002+30	1003+50	110	110	113	--	--	--	--	--	--	--	--	--	--	--	--
	IH 41/94 SB	B-51-0136	1054+71	1056+71	185	185	150	--	--	--	--	--	--	--	--	--	--	--	--
	IH 41/94 NB	B-51-0137	1054+71	1056+71	185	185	150	--	--	--	--	--	--	--	--	--	--	--	--
	CTH G	B-51-0138	47+80	52+15	835	682	--	--	--	--	--	493	36	70	--	--	4	4	4
	IH 41/94 SB	B-51-0139	1240+62	1243+00	235	235	188	--	--	--	--	--	--	--	--	--	--	--	--
	IH 41/94 NB	B-51-0140	1240+62	1243+00	235	235	188	--	--	--	--	--	--	--	--	--	--	--	--
SUBTOTAL:					5168	5026	2878	428	428	376	1364	36	129	121	122	4	4	4	4
TOTAL:					10,194		2,878	856		376	1400		129	121	122	4	4	4	4

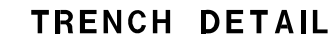
PAVEMENT MARKINGS													
				646.9000	646.9100	646.9200	646.9300					649.0150	649.0250
				MARKING REMOVAL LINE				TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH				TEMPORARY MARKING LINE REMOVABLE TAPE	
				4-INCH	8-INCH	WIDE	SPECIAL	12.5 FT LINE 37.5 SKIP				8-INCH	
				MARKING				WHITE	YELLOW	DASHED	WHITE	WHITE	
CATEGORY	LOCATION		STATION TO	STATION	LF	LF	LF	EACH	LF	LF	LF	LF	
0010	IH 41/94 SB	B-51-0123	709+97	712+63	723	--	--	--	249	249	225	--	
	IH 41/94 NB	B-51-0124	709+97	712+63	723	--	--	--	249	249	225	--	
	IH 41/94 SB	B-51-0125	753+66	757+70	1914	--	--	--	757	757	400	--	
	IH 41/94 NB	B-51-0126	753+66	757+70	1914	--	121	--	757	757	400	--	
	IH 41/94 SB	B-51-0127	763+19	765+39	686	436	122	--	218	218	250	436	
	IH 41/94 NB	B-51-0128	763+19	765+39	686	435	--	--	218	218	250	435	
	IH 41/94 SB	B-51-0129	860+99	863+72	--	--	--	--	214	214	188	--	
	IH 41/94 NB	B-51-0130	860+99	863+72	--	--	--	--	214	214	188	--	
	CTH C	B-51-0131	65+93	68+75	970	--	20	--	511	459	--	--	
	IH 41/94 SB	B-51-0132	923+00	924+12	333	--	--	--	110	110	113	--	
	IH 41/94 NB	B-51-0133	923+00	924+12	333	--	--	--	110	110	113	--	
	IH 41/94 SB	B-51-0134	1002+30	1003+50	333	--	--	--	110	110	113	--	
	IH 41/94 NB	B-51-0135	1002+30	1003+50	333	--	--	--	110	110	113	--	
	IH 41/94 SB	B-51-0136	1054+71	1056+71	520	--	--	--	185	185	150	--	
	IH 41/94 NB	B-51-0137	1054+71	1056+71	520	--	--	--	185	185	150	--	
	CTH G	B-51-0138	47+80	52+15	1517	529	70	8	--	--	--	--	
	IH 41/94 SB	B-51-0139	1240+62	1243+00	658	--	--	--	235	235	188	--	
	IH 41/94 NB	B-51-0140	1240+62	1243+00	658	--	--	--	235	235	188	--	
SUBTOTAL:					12821	1400	333	8	4667	4615	3254	871	
TOTAL:					12821	1400	333	8	12,536			871	

Standard Detail Drawing List

08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E12-01	SILT SCREEN
13B02-09A	CONCRETE PAVEMENT APPROACH SLAB
13B02-09B	STRUCTURAL APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB
15C02-08A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-08B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C02-08C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C07-15B	PAVEMENT MARKING WORDS
15C07-15C	PAVEMENT MARKING ARROWS
15C08-20A	LONGITUDINAL MARKING (MAINLINE)
15C08-20B	PAVEMENT MARKING (TURN LANES)
15C08-20C	PAVEMENT MARKING (TURN LANES)
15C11-07B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C31-03A	PAVEMENT MARKING (RAMPS AND GORES)
15C33-04	STOP LINE AND CROSSWALK PAVEMENT MARKING
15D20-05A	TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
15D21-07B	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D27-03	TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH
15D28-04	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS
15D39-02	TRAFFIC CONTROL, DROP-OFF SIGNING



- 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.

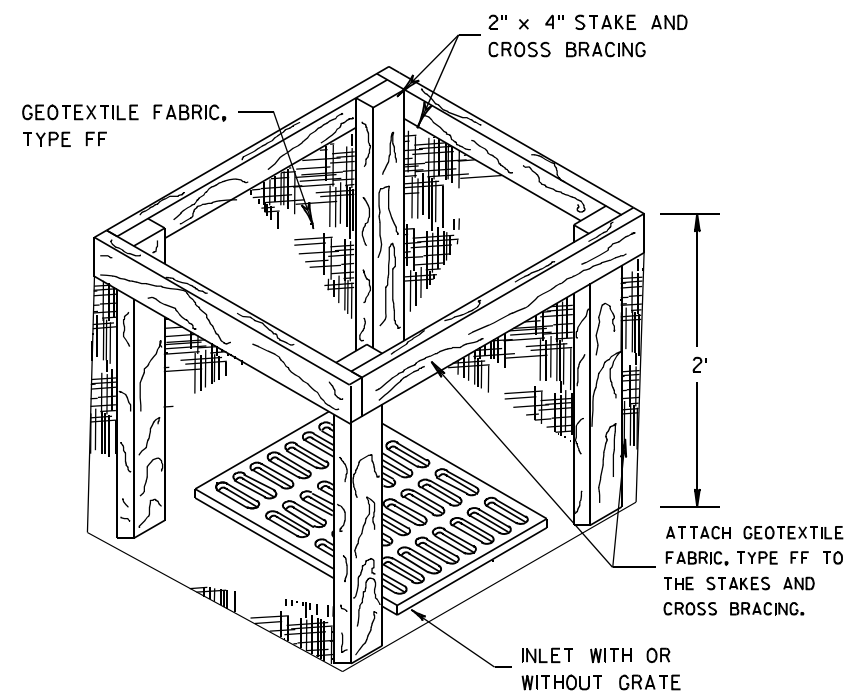
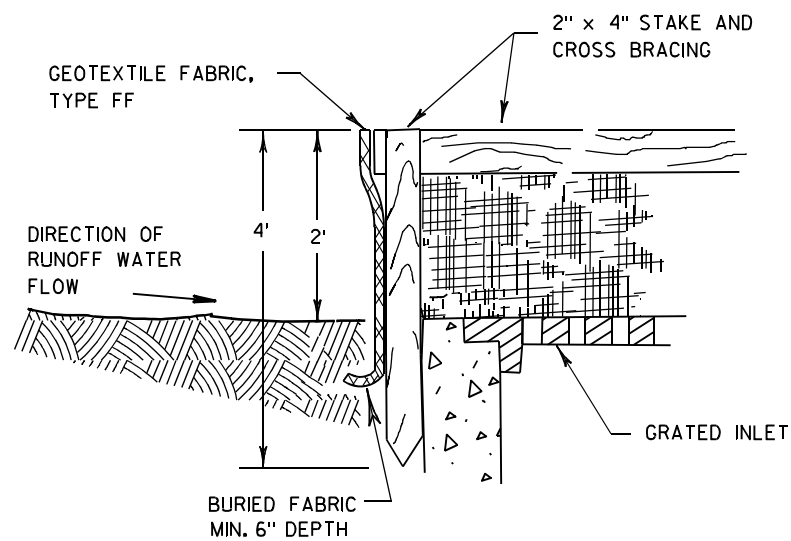


SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA



INLET PROTECTION, TYPE A

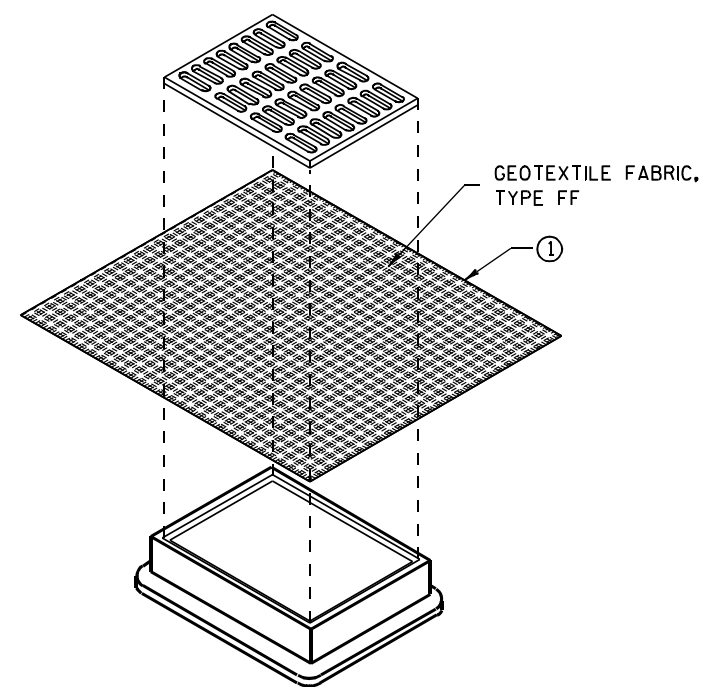
GENERAL NOTES

INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

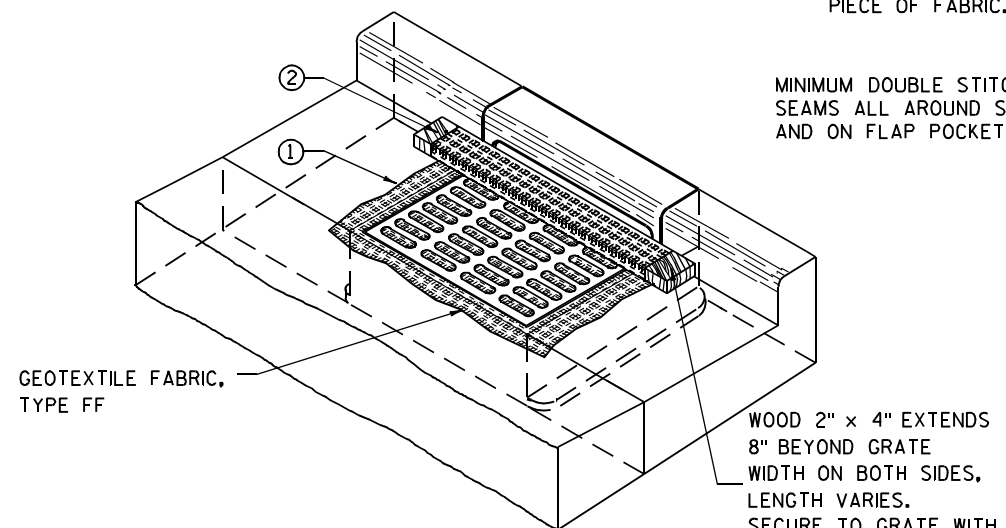
WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

- ① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.
- ② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.
- ③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.



**INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)**

(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)



INLET PROTECTION, TYPE C (WITH CURB BOX)

INSTALLATION NOTES

TYPE B & C

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

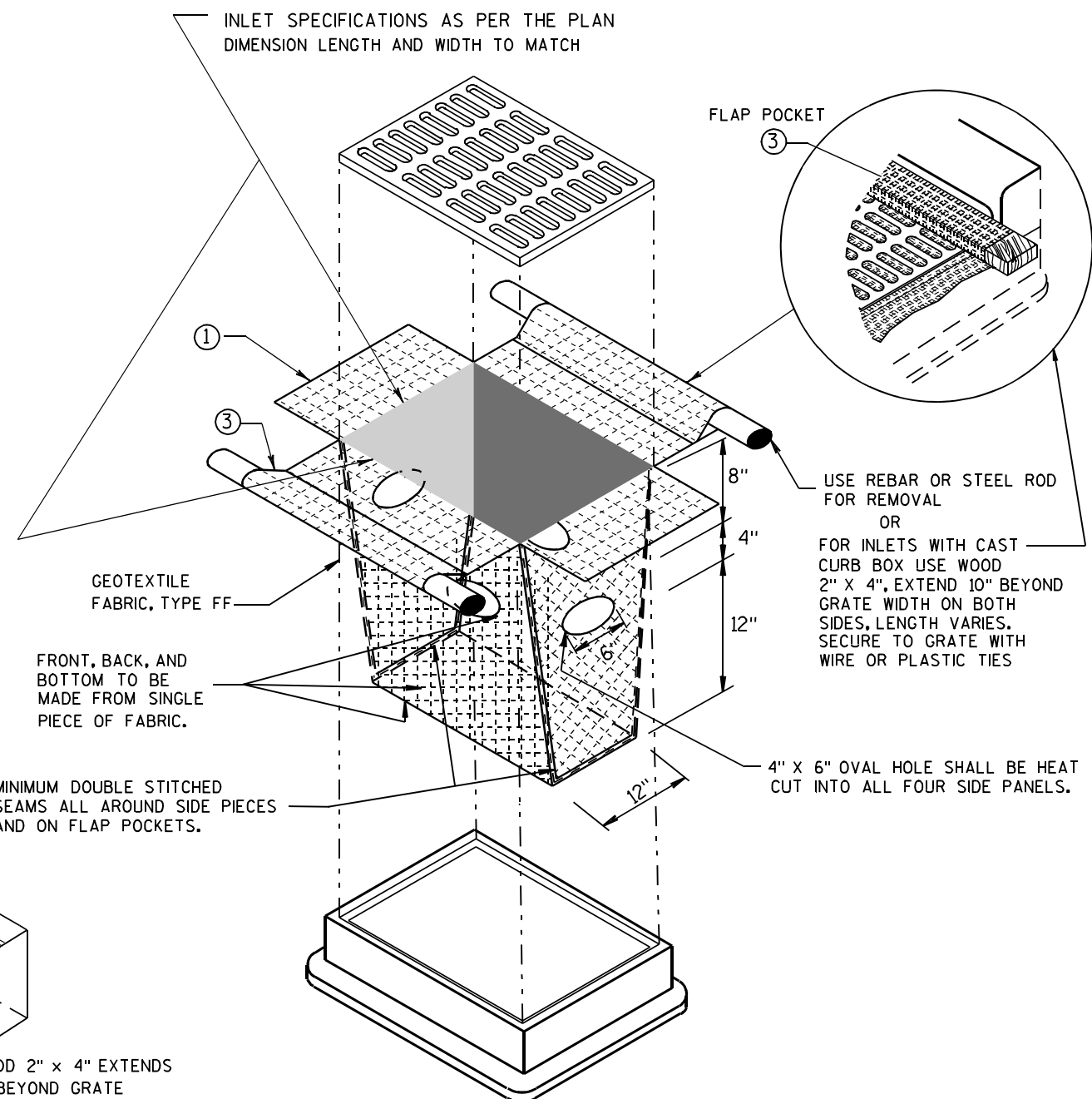
THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE D

DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLOWER THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.



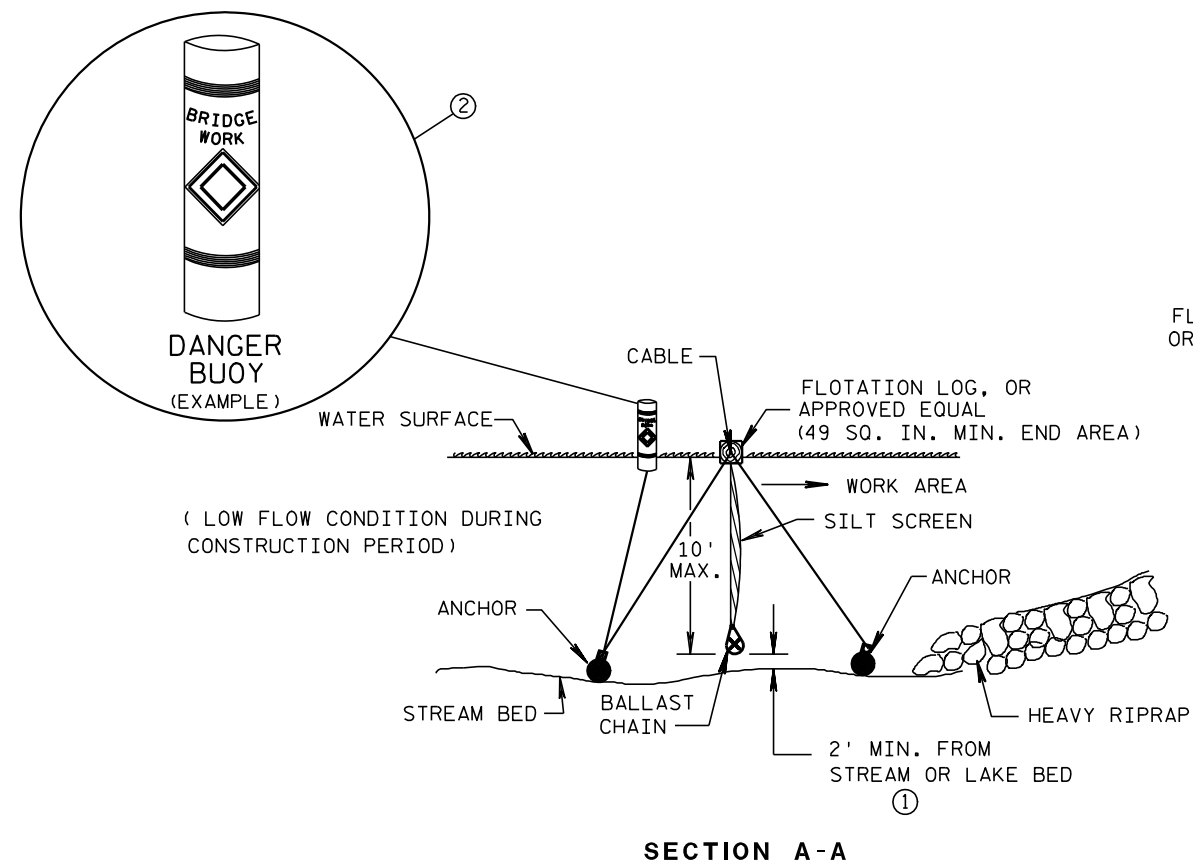
INLET PROTECTION, TYPE D

(CAN BE INSTALLED IN ANY INLET TYPE WITH OR WITHOUT A CURB BOX AS PER NOTE ②)

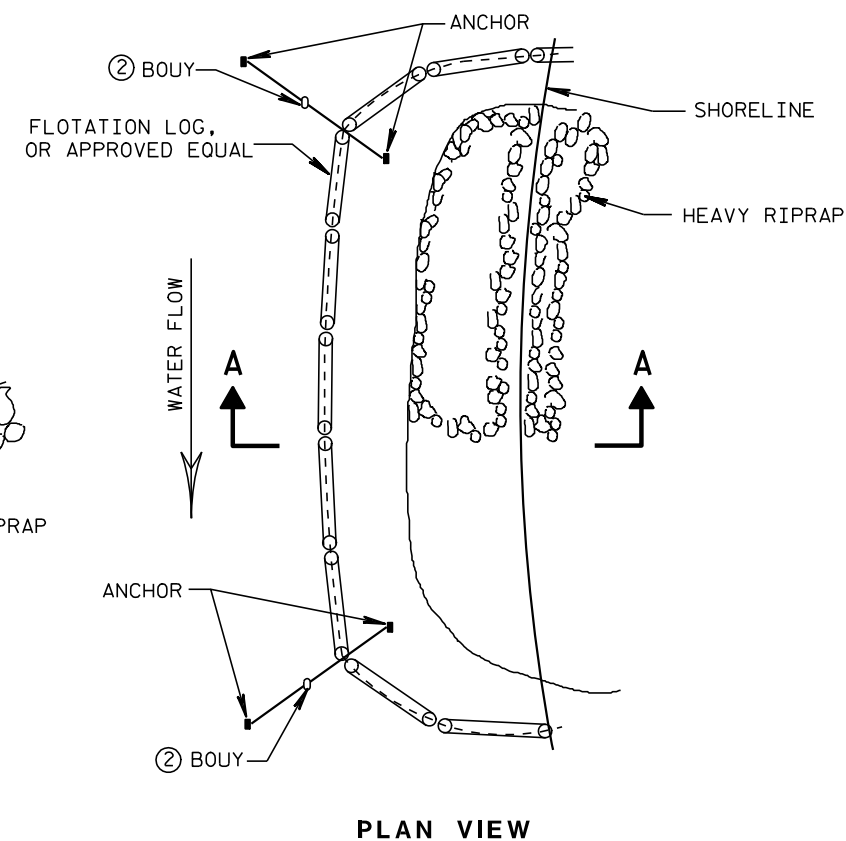
**INLET PROTECTION
TYPE A, B, C, AND D**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/16/02 /S/ Beth Connolly
DATE 44
FHWA CHIEF ROADWAY DEVELOPMENT ENGINEER



SILT SCREEN PLACEMENT DETAIL



GENERAL NOTES

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

- ① 2' MINIMUM SHALL BE MAINTAINED DURING CONSTRUCTION PERIOD.
- ② USE AS DIRECTED BY COAST GUARD OR DNR PERMIT WHEN WORKING IN NAVIGABLE WATERWAYS.

SILT SCREEN

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/04/02 /S/ Beth Conn-----
DATE CHIEF ROADWAY DEVELOP 45 INEER
FHWA



APPROACH SLAB AND ADJACENT PAVEMENT

- * (RS) = REINFORCED CONCRETE SLAB
- * (PS) = PAVED CONCRETE SHOULDER OR CONCRETE DRAINAGE SLAB
- * (NRS) - NON - REINFORCED CONCRETE SLAB
- *** STANDARD DOWEL BAR DIAMETER (SEE SDD 13C11 AND SDD 13C13)



GENERAL NOTES

THE CONTRACTOR MAY SPLICE NO. 6 BARS IN THE APPROACH SLAB FOR SKEWED STRUCTURES ONLY. STAGGER SPLICES WITH A MAXIMUM OF ONE SPLICE PER BAR. THE LENGTH OF LAP IS 20 INCHES.

TACK WELD DOWEL BARS TO THE BASKETS ON ALTERNATE ENDS.

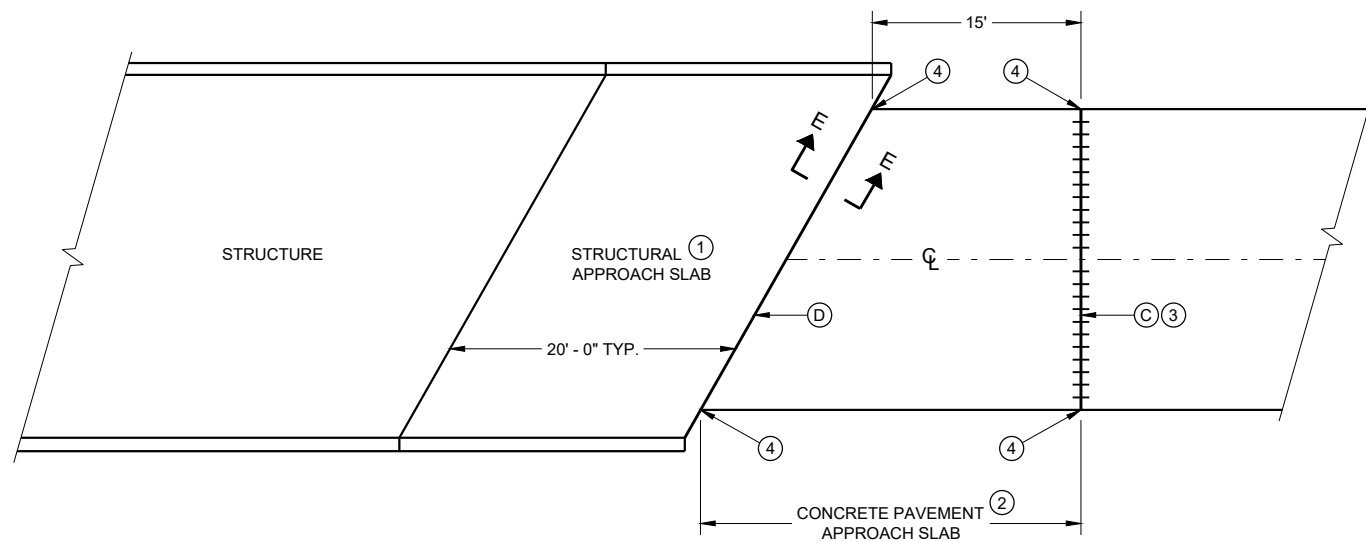
- ① THE CONTRACTOR MAY USE NO. 4 BARS SPACED AT 2' - 0" C - C IN BOTH THE LONGITUDINAL AND TRANSVERSE DIRECTIONS FOR TOP REINFORCEMENT AS AN ALTERNATIVE TO THE WELDED WIRE FABRIC.
- ② THE CONTRACTOR MAY OMIT THE BARS BETWEEN REINFORCED SLABS WHERE SLAB REINFORCEMENT BARS EXTEND ACROSS THE CENTERLINE OR REFERENCE LINE.
- ③ DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING AN HMA PAVEMENT.
- ④ USE A JOINT SEALANT CONFORMING TO STANDARD SPECIFICATION 415.2.6.
- ⑤ PLACE EXPANSION CAP ON THE END OF THE DOWEL THAT IS NOT TACK WELDED TO THE BASKET. DO NOT FORCE DOWEL BAR PAST THE DOWEL STOP.
- ⑥ EXTEND EXPANSION JOINT THROUGH ANY ADJACENT TIED CONCRETE.
- Ⓐ STANDARD CONTRACTION JOINT NORMAL TO $\mathbb{C}$ OR $\mathbb{R}$.
- Ⓑ STANDARD LONGITUDINAL JOINT WITH TIE BARS.
- Ⓒ 1 ½" EXPANSION JOINT WITH DOWEL BARS NORMAL TO $\mathbb{C}$ OR $\mathbb{R}$.



CONCRETE PAVEMENT APPROACH SLAB

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018 _____ /S/ Peter Kemp, P.E.
DATE PAVEMENT SUPERVISOR 46

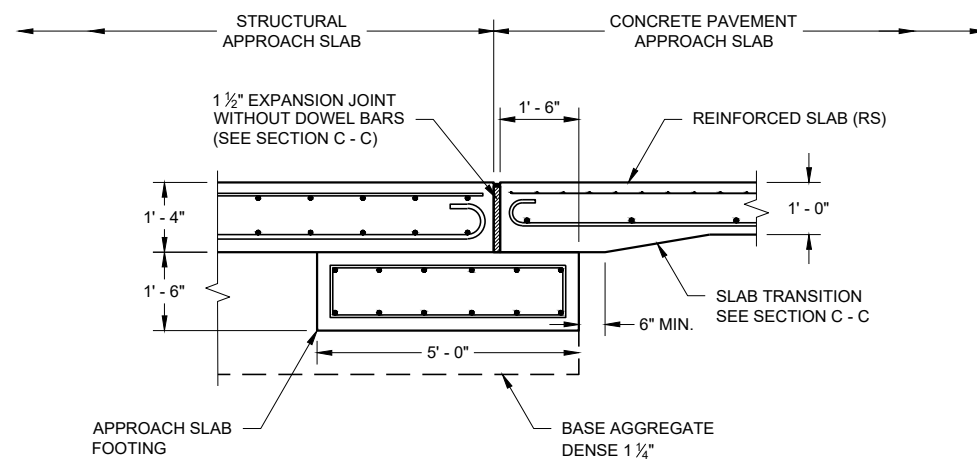


GENERAL NOTES

ALL PROJECTS THAT INVOLVE A STRUCTURAL APPROACH SLAB WILL ALSO HAVE A CONCRETE PAVEMENT APPROACH SLAB.

- ① SEE BRIDGE PLAN.
- ② CONFORM TO SDD 13B02 SHEET A FOR CONCRETE PAVEMENT APPROACH SLAB DETAILS
- ③ DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING AN HMA PAVEMENT.
- ④ EXTEND EXPANSION JOINT THROUGH ANY ADJACENT TIED CONCRETE.
- Ⓒ 1 ½" EXPANSION JOINT WITH DOWEL BARS NORMAL TO CL OR RL.
- Ⓓ 1 ½" EXPANSION JOINT (NO DOWELS)

BRIDGE APPROACHES

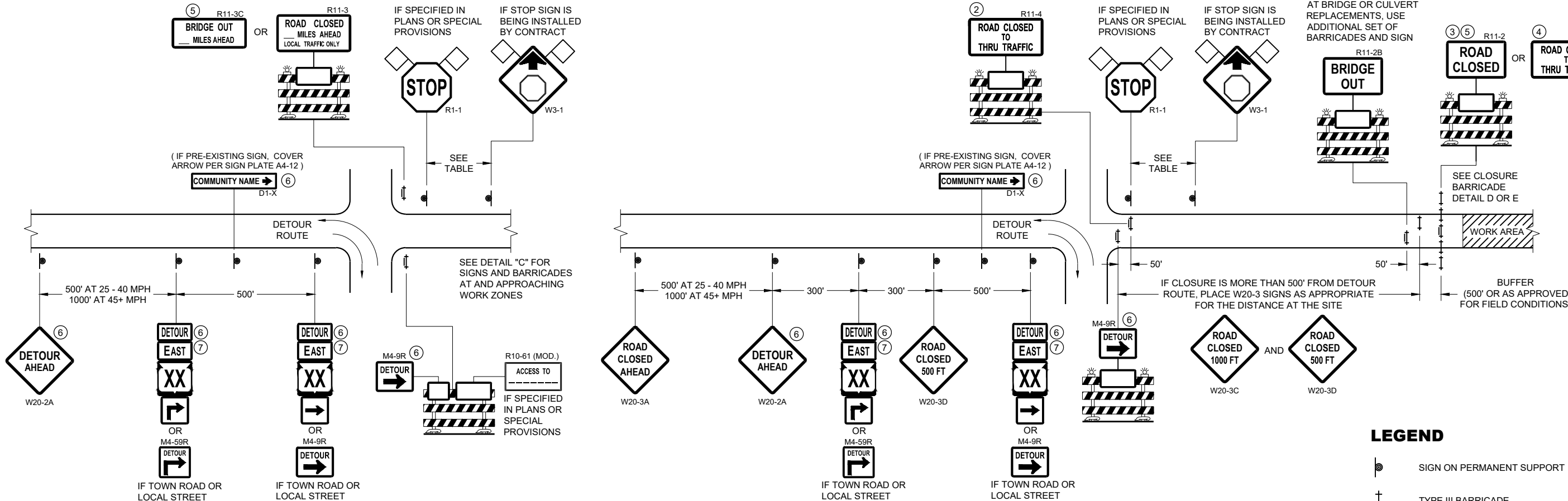


SECTION E - E FOOTING DETAIL STRUCTURAL APPROACH SLAB TO CONCRETE BRIDGE APPROACH

STRUCTURAL APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018 /S/ Peter Kemp P.E.
DATE PAVEMENT SUPERVISOR 47
FHWA

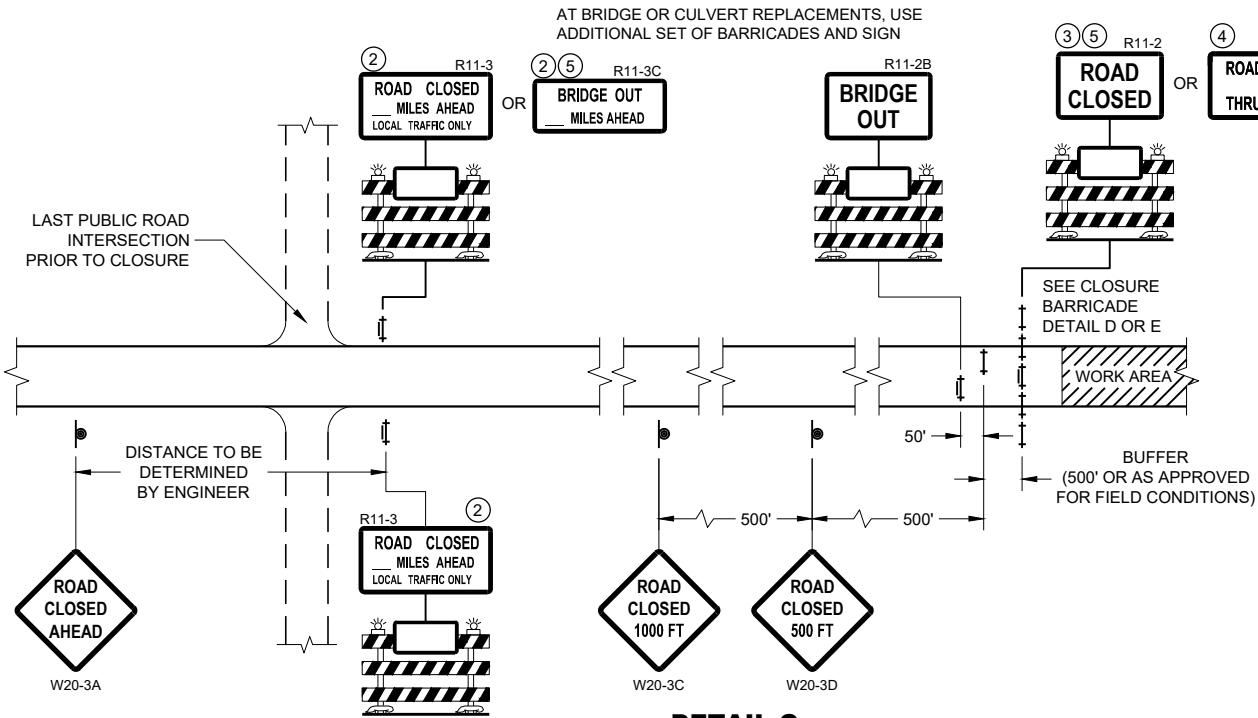


DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE GREATER THAN OR EQUAL TO 1/2 MILE FROM
DETOUR ROUTE (1000 FEET IF URBAN)

DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE LESS THAN 1/2 MILE FROM
DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

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

SEE SDD 15C2-SHEET "b"
FOR GENERAL NOTES
AND FOOTNOTES ① THROUGH ⑦

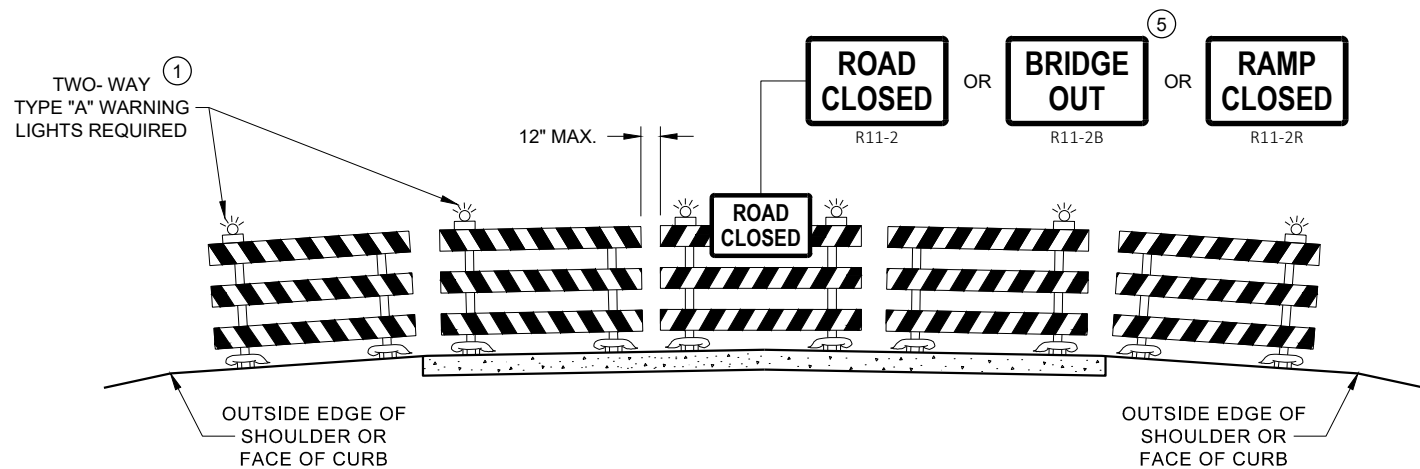
LEGEND

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

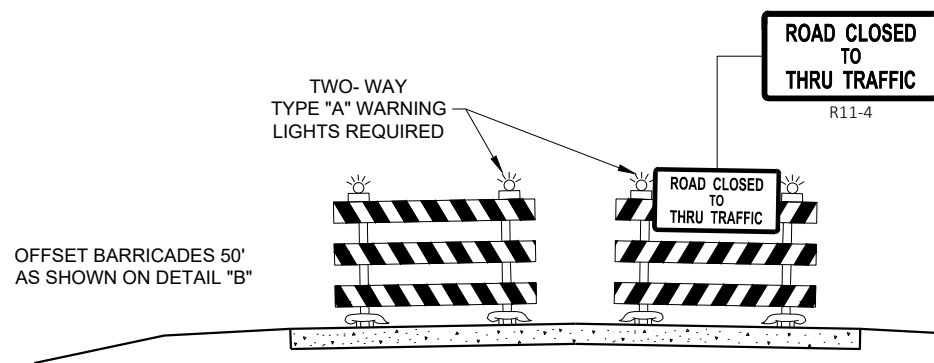
**BARRICADES AND SIGNS
FOR MAINLINE CLOSURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 48
FHWA



DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW



DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW

SEE SDD 15C2 - SHEET "a" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

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

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

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:

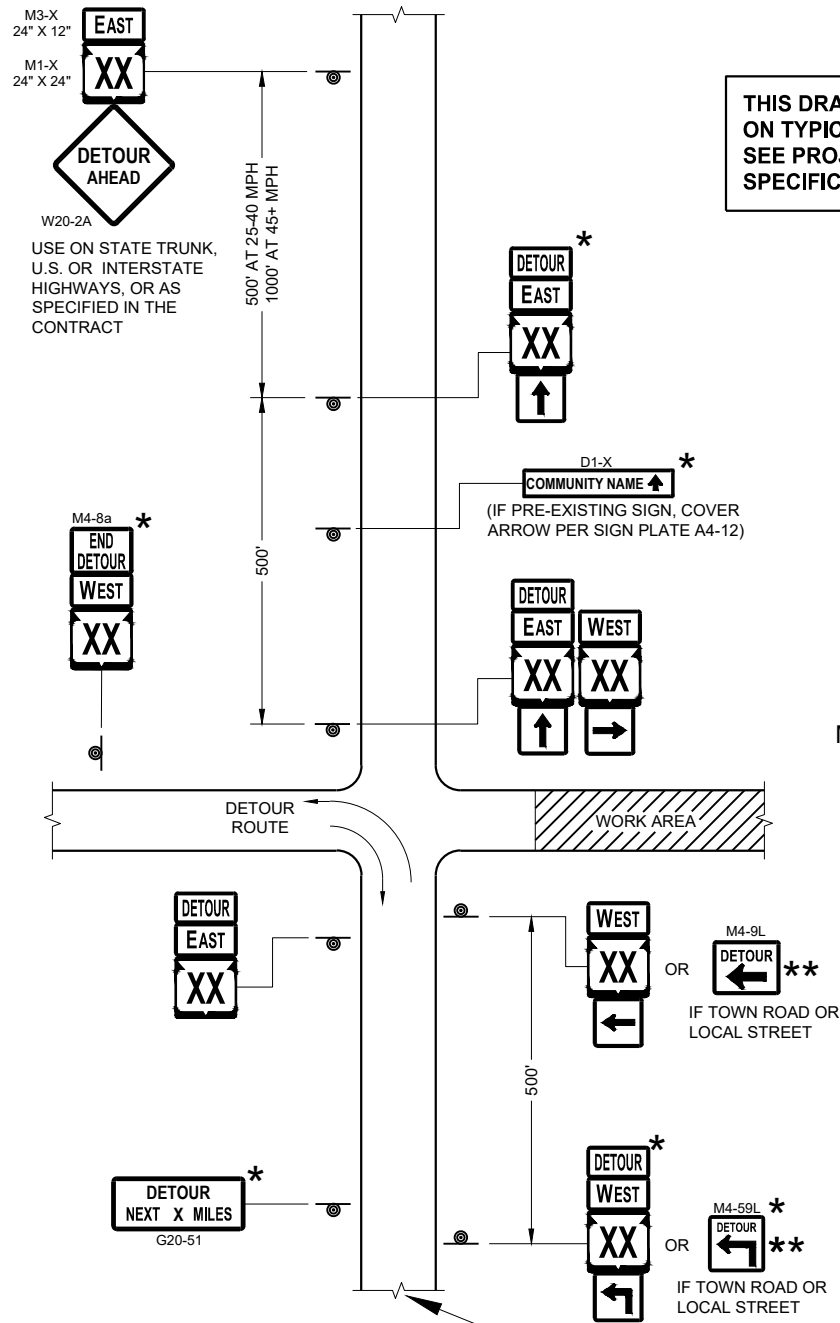
- R11 - 2 SHALL BE 48" X 30"
- R11 - 3 SHALL, R11 - 4 AND R10 - 61 SHALL BE 60 " X 30"
- M4 - 9 SHALL BE 30" X 24"
- M3 - X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4 - 8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1 - 4, M1 - 5A AND M1 - 6 SHALL BE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

- 1 TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8 FOOT LIGHT SPACING).
- 2 THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT AN INTERSECTION.
- 3 FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "D".
- 4 FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "E".
- 5 FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11 - 2 AND R11 - 3 SIGNS.
- 6 INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.
- 7 "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

BARRICADES AND SIGNS FOR VARIOUS CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

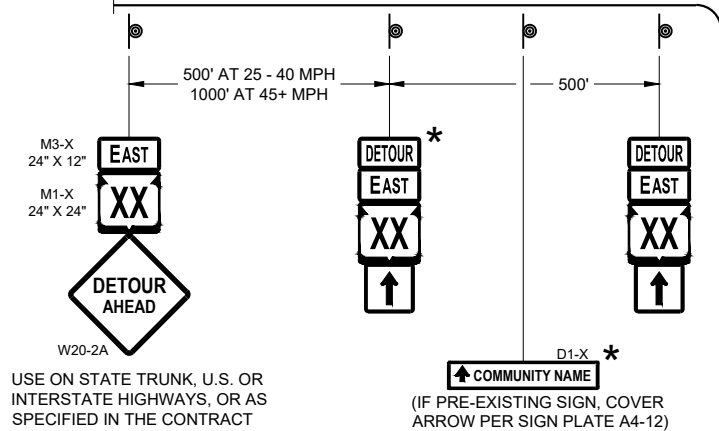
APPROVED
February 2020 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 49
FHWA



SEE SPECIFIC PROJECT DETOUR
SIGNING DETAIL SHEETS AND
DETAIL A OR B ON SDD SHEET 15C02 - SHEET "a"

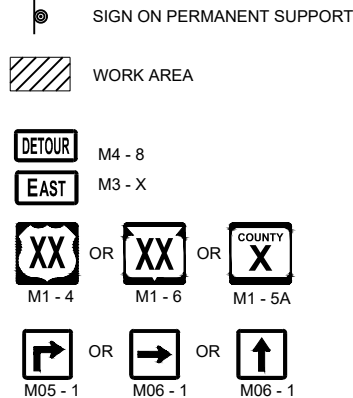
THIS DRAWING PROVIDES GENERAL GUIDANCE
ON TYPICAL DETOUR SIGN LAYOUT AND SPACING.
SEE PROJECT DETOUR SIGNING SHEETS FOR
SPECIFIC DETAILS FOR EACH PROJECT.

MATCH POINT



DETAIL F
DETOUR SIGNING

LEGEND



GENERAL NOTES

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

IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. MODIFY EXISTING SIGNS WHERE POSSIBLE.

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

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.

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

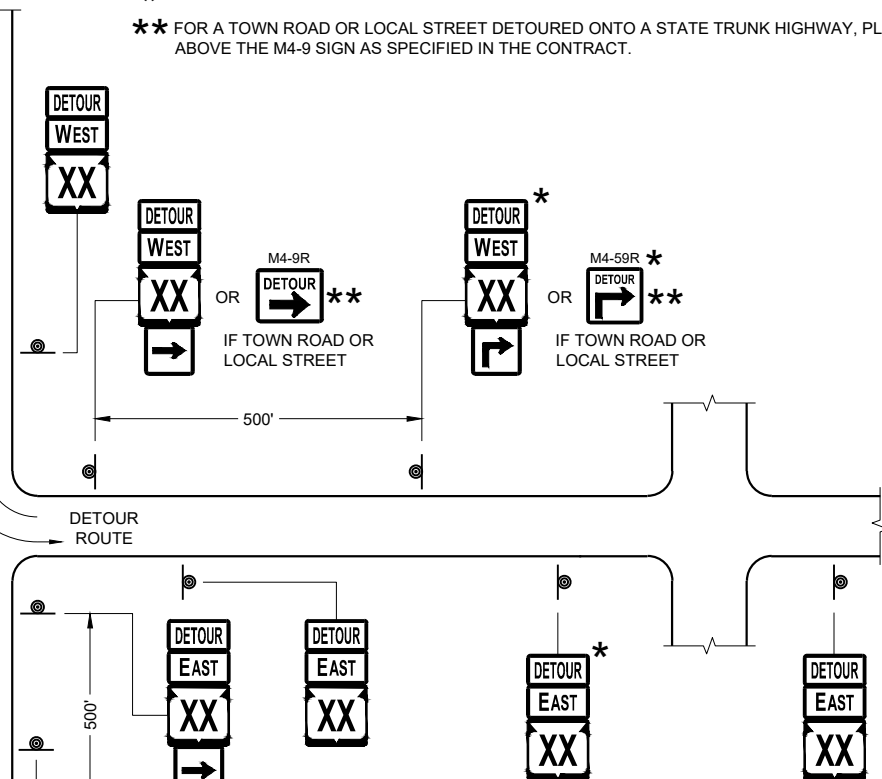
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN SIZES SHALL BE AS FOLLOWS:

- M3-X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4-8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1-4, M1-5A AND M1-6 SHALL BE 24" X 24" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- M05-1 AND M06-1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- M4-9 AND M4-59 SHALL BE 30" X 24"
- M4-8a SHALL BE 24" X 18"
- G20-51 SHALL BE 60" X 24"
- W20-2A SHALL BE 48" X 48"
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

* OPTIONAL SIGNS. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS.

** FOR A TOWN ROAD OR LOCAL STREET DETOURED ONTO A STATE TRUNK HIGHWAY, PLACE A ROAD NAME PLAQUE ABOVE THE M4-9 SIGN AS SPECIFIED IN THE CONTRACT.

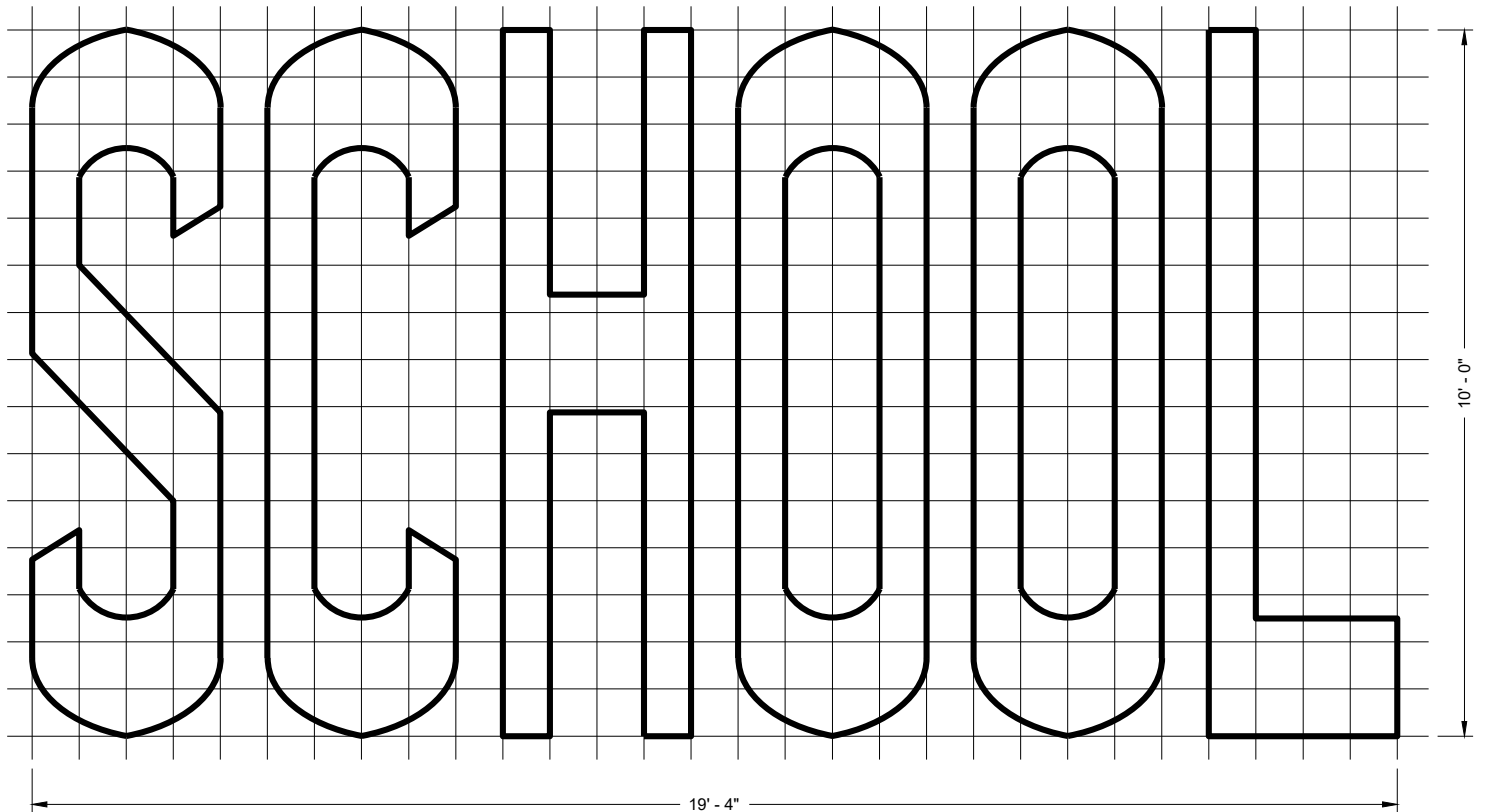
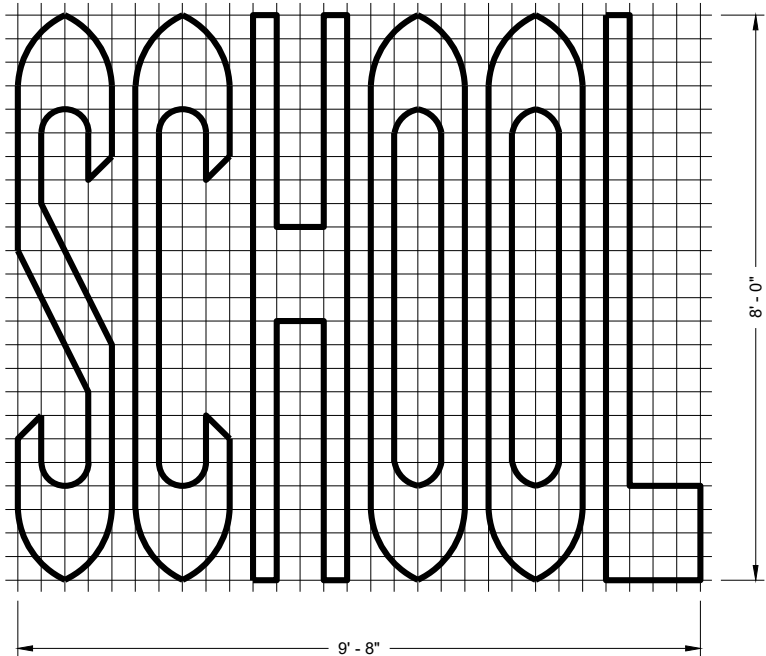
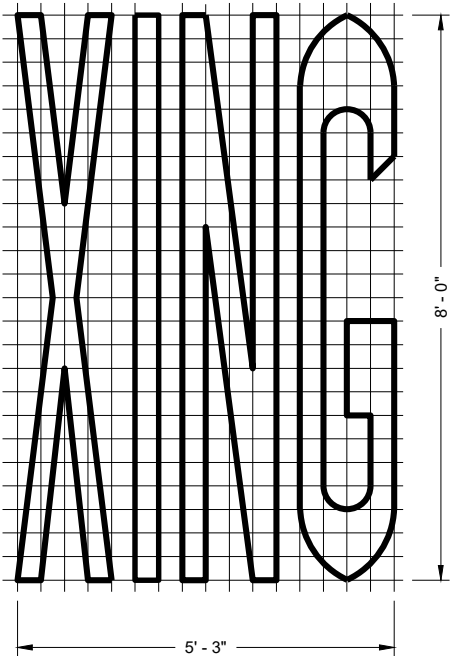
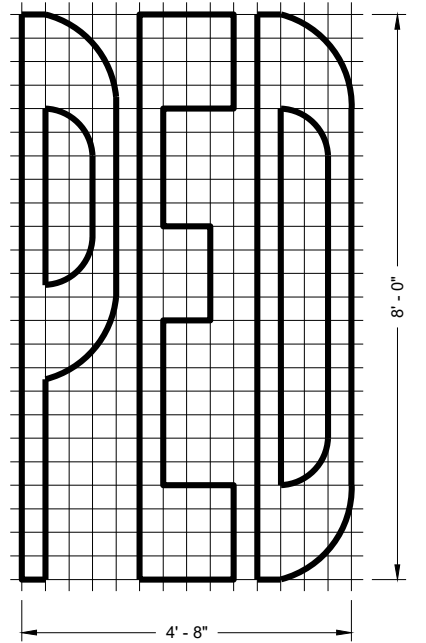
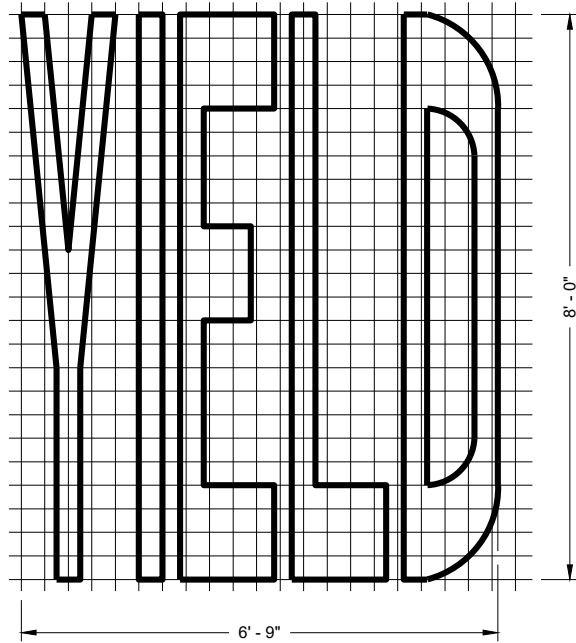
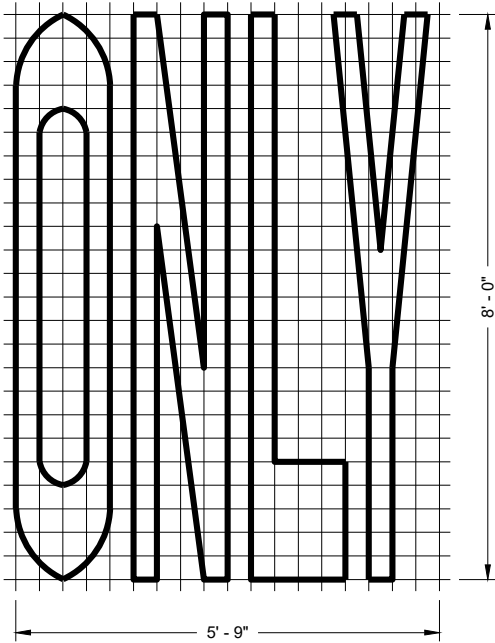
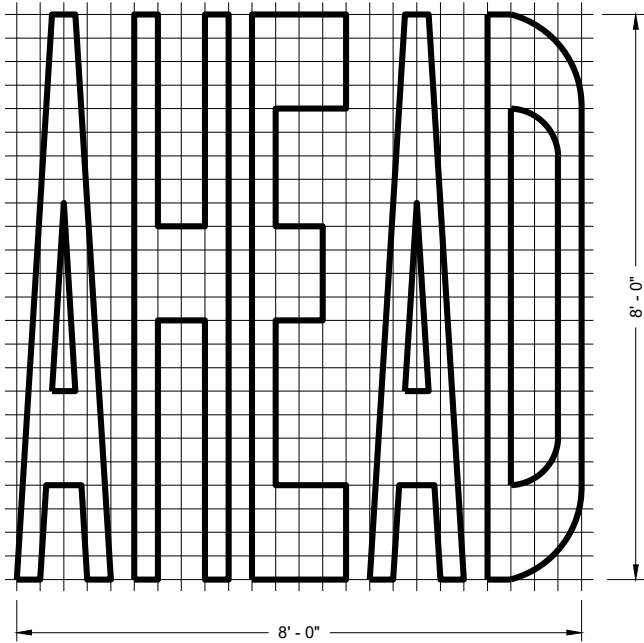
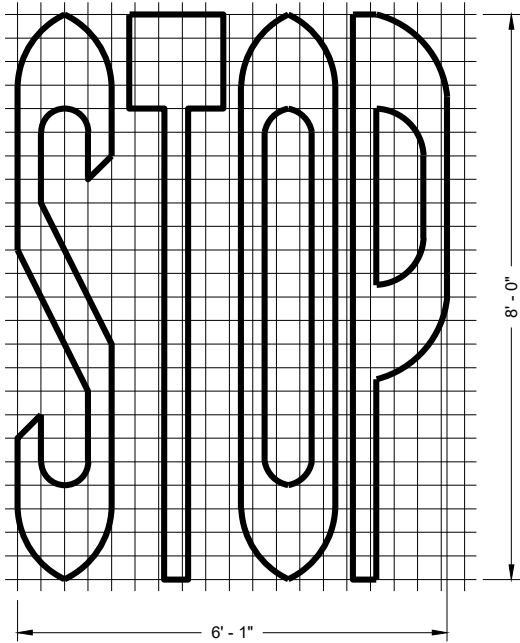


PLACE SIGNS BEYOND INTERSECTIONS
WITH STATE OR COUNTY TRUNK
HIGHWAYS OR AT 4 MILE MAXIMUM
SPACING (4 BLOCKS IF URBAN AREA)

DETOUR SIGNING
FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 50
FHWA



SINGLE LANE

TWO - LANE

GENERAL NOTES

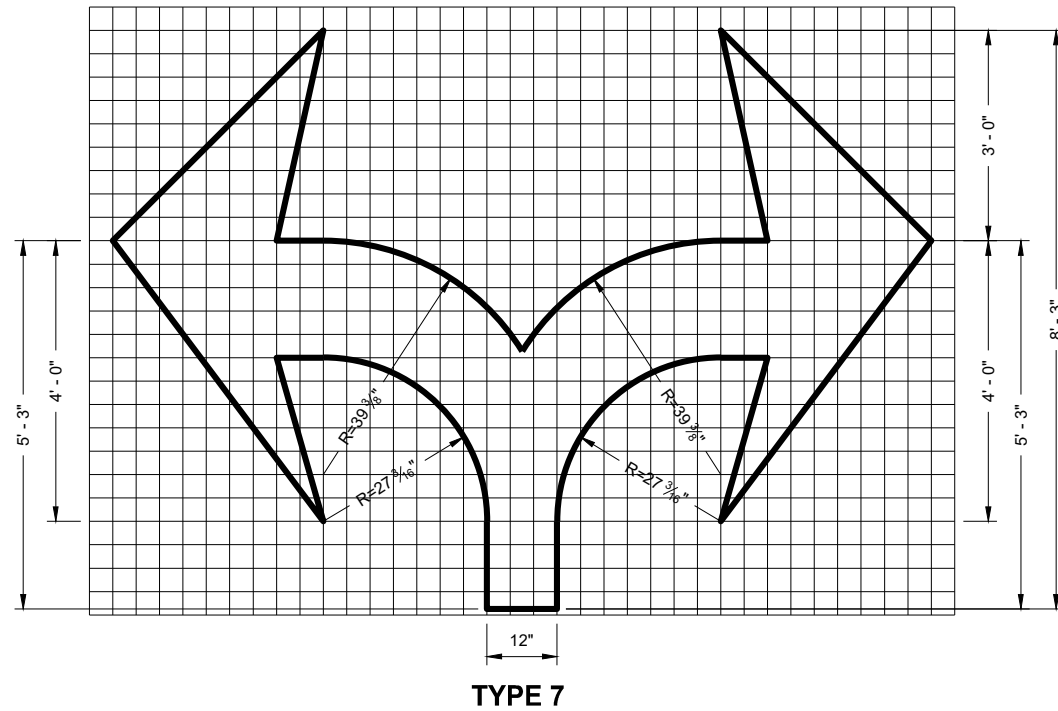
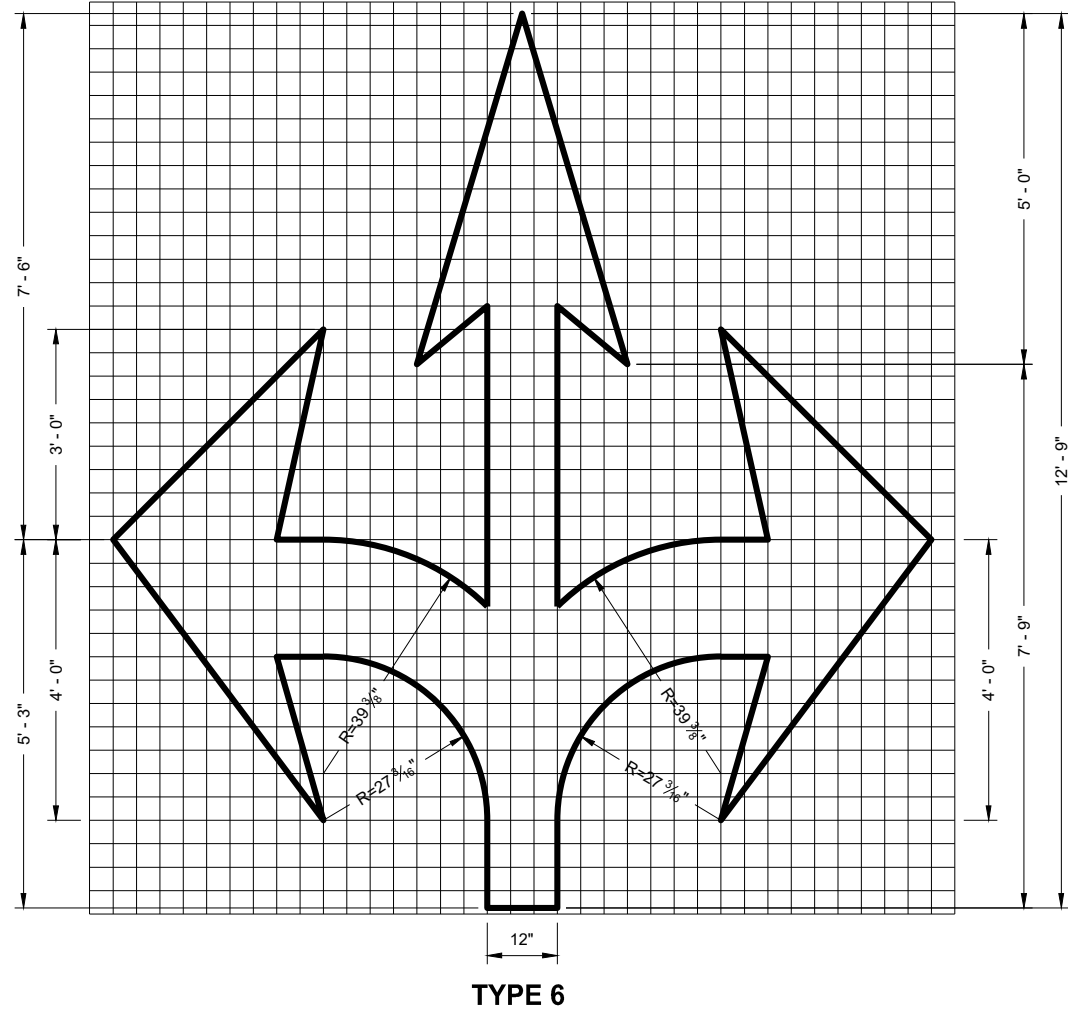
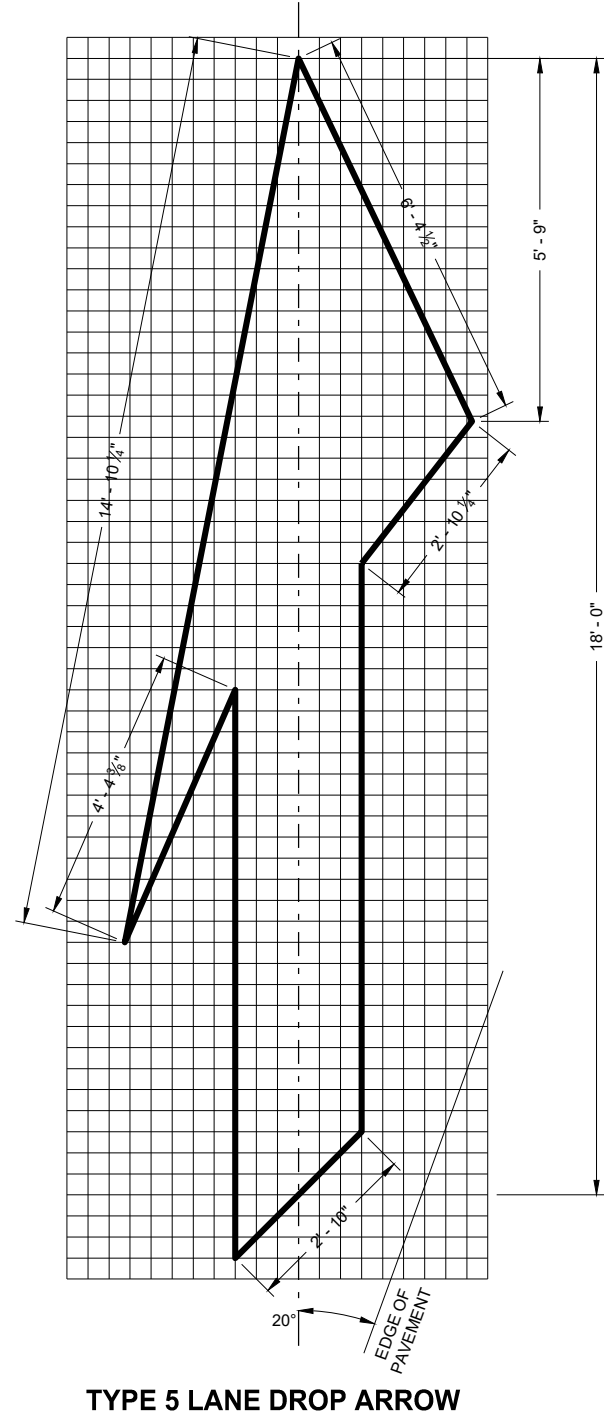
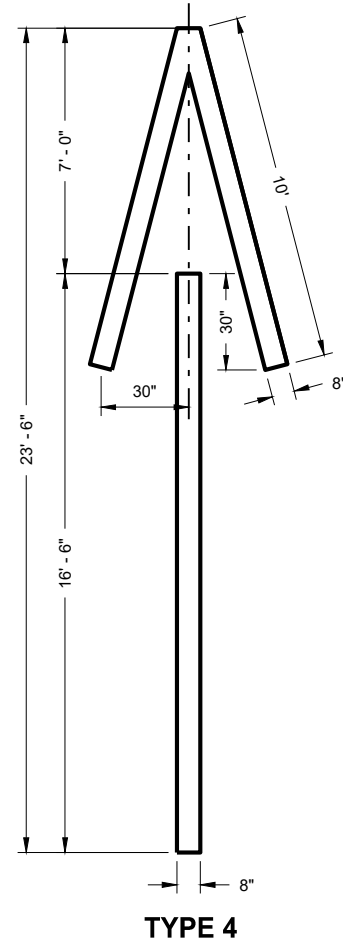
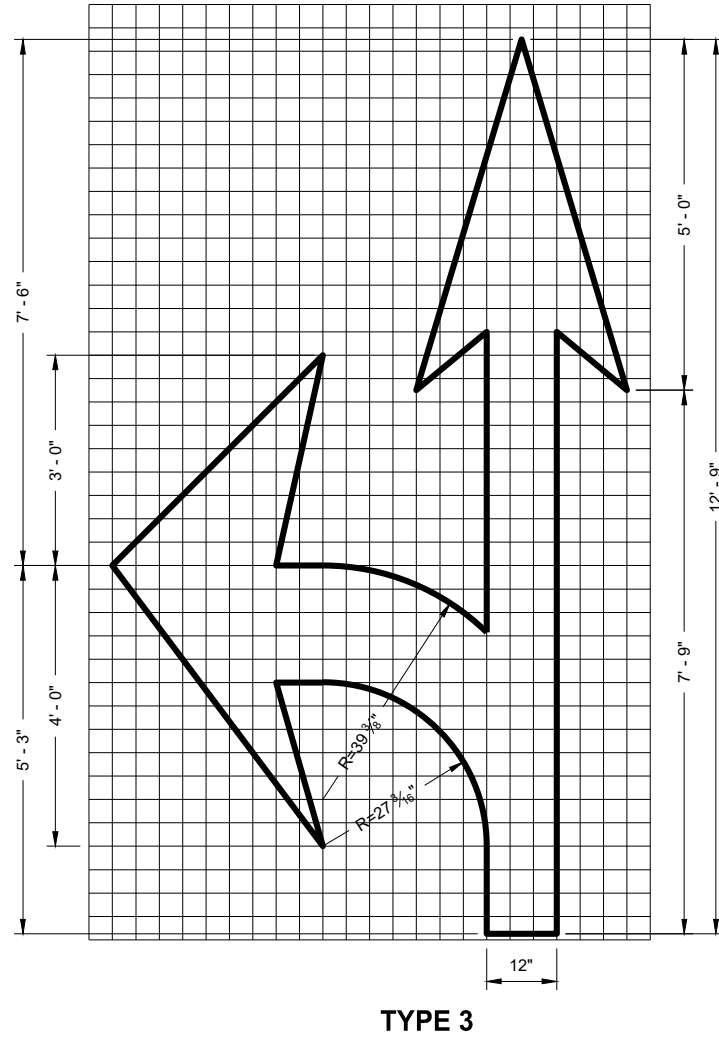
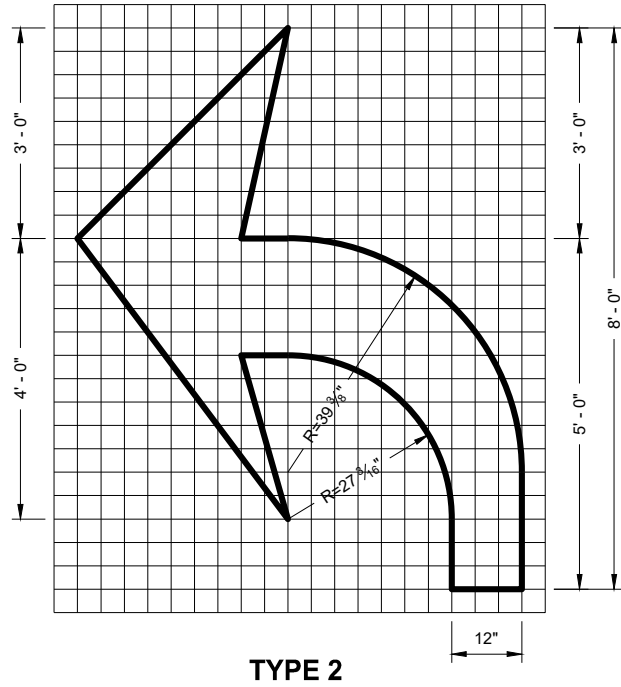
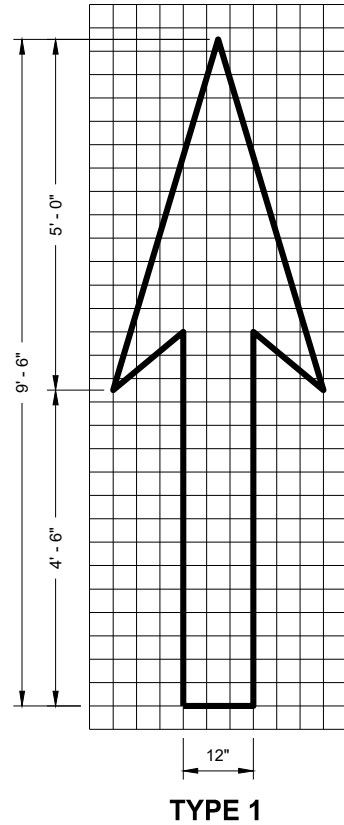
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

PAVEMENT MARKING WORDS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019 /S/ Matthew Rauch
DATE STATE SIGNING AND MAP ENGINEER 51

FHWA



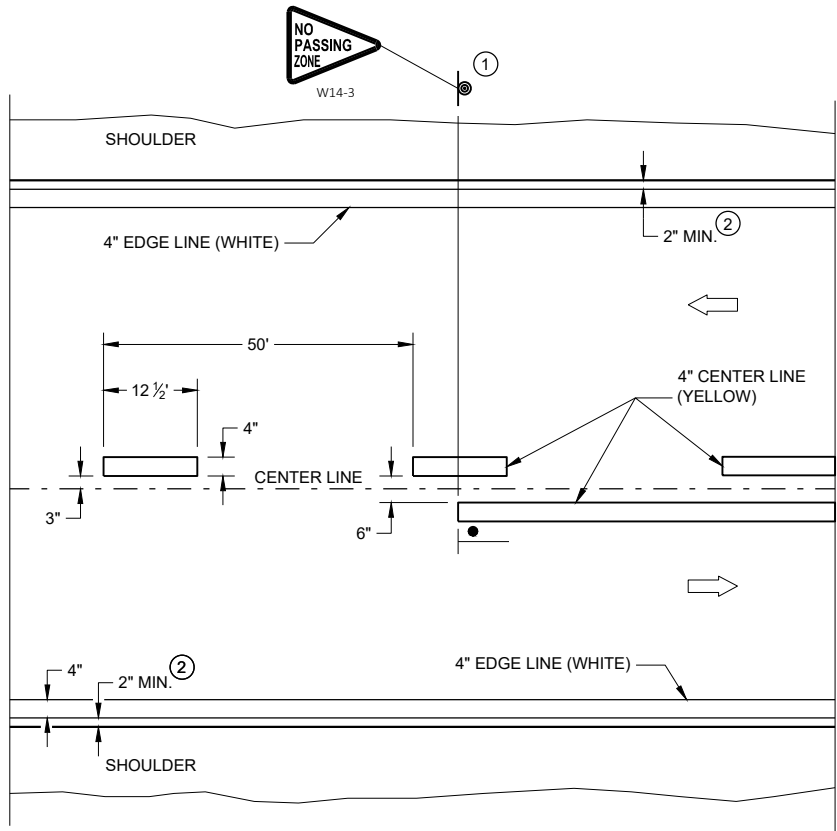
GENERAL NOTES

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

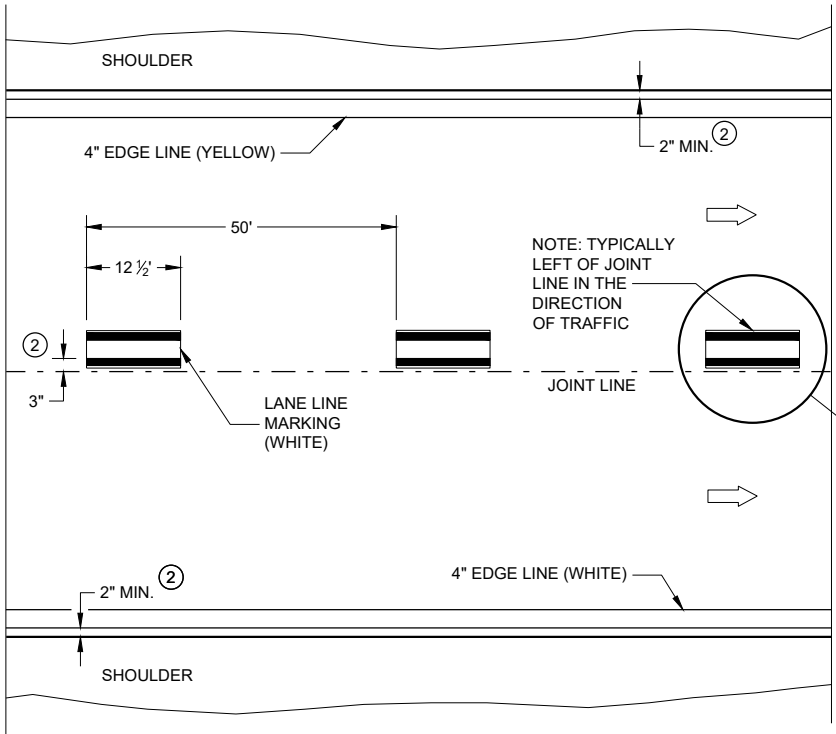
PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019
DATE
/S/ Matthew Rauch
STATE SIGNING AND MAP ENGINEER 52
FHWA

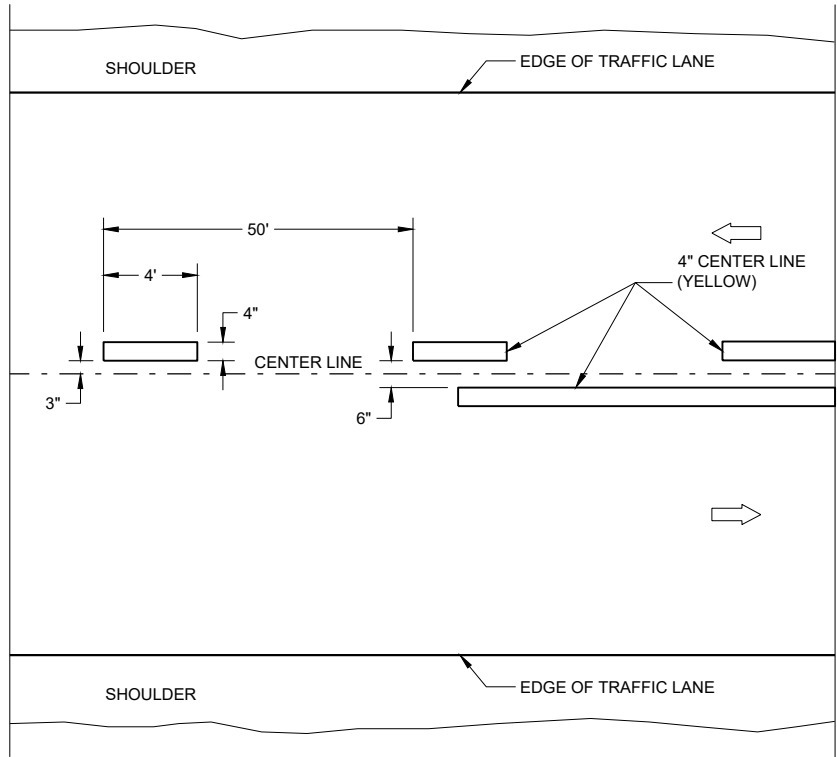


TWO WAY TRAFFIC

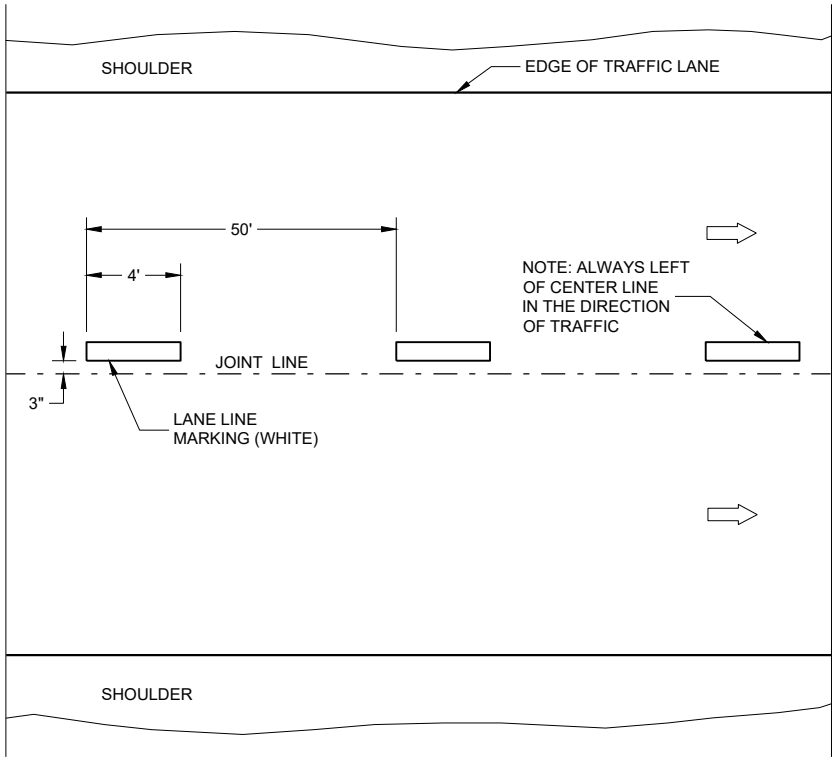


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

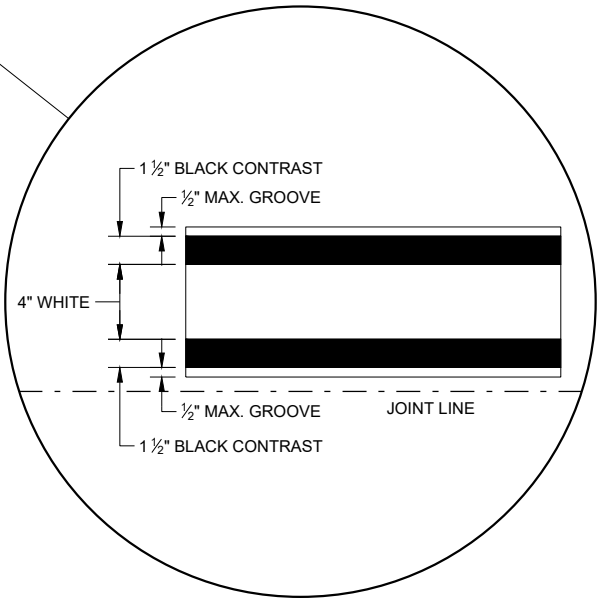
GENERAL NOTES

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

- ① LOCATE THE NO PASSING ZONE W14-3 SIGN WITH 50 FEET OF THE "T" MARKING
- ② MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

LEGEND

- "T" MARKING
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC

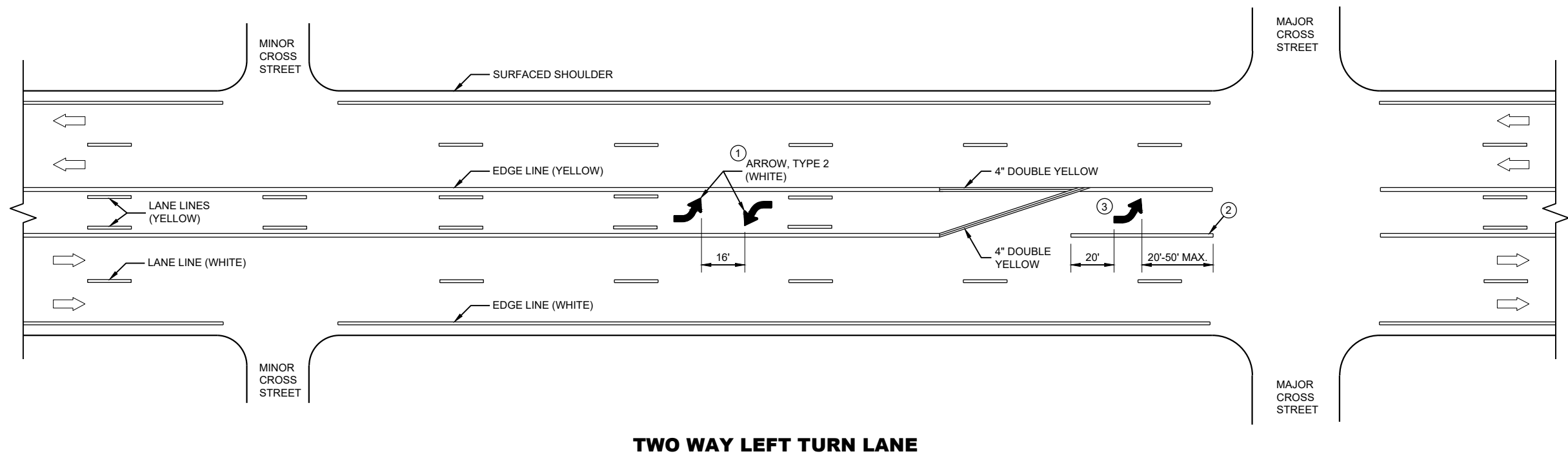


LONGITUDINAL MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE
/S/ Matthew Rauch
STATEWIDE SIGNING AND MARKING ENGINEER
53

FHWA



GENERAL NOTES

- ① A SET OF ARROWS IS REQUIRED EVERY 400 FEET OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.
- ② 8" WHITE
- ③ TURN BAY LENGTH OF LESS THAN 48' DOES NOT REQUIRE PAVEMENT ARROWS OR TEXT.

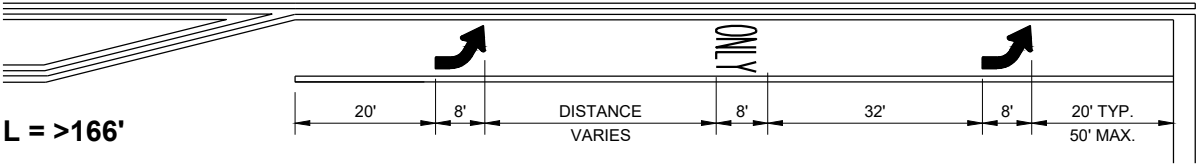
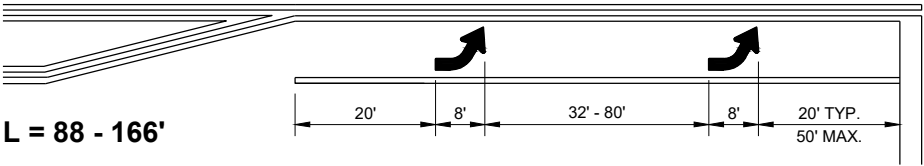
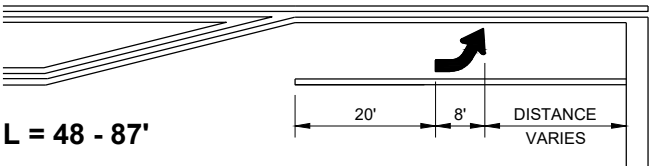
➡ DIRECTION OF TRAFFIC

**PAVEMENT MARKING
(TURN LANES)**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

TURN LANE OPTIONS

LENGTH OF TURN BAY (**L**) OF 0 - 47' DOES NOT REQUIRE PAVEMENT MARKING ARROWS OR WORDS



*(SEE TURN LANE OPTIONS FOR PLACEMENT OF PAVEMENT MARKING ARROWS AND WORDS)

GENERAL NOTES

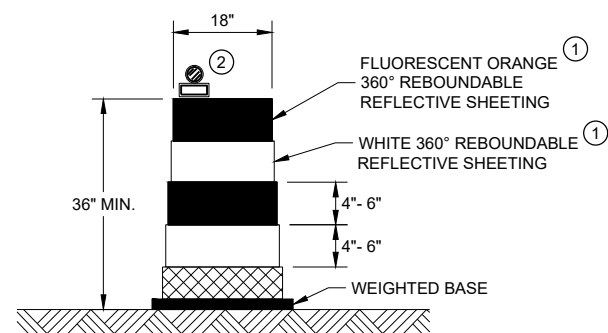
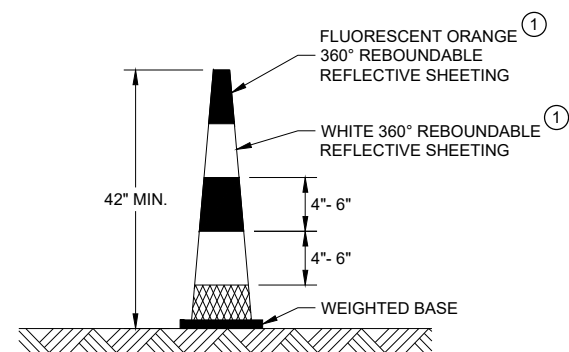
- ① 8" WHITE
- ② QUANTITY AND LOCATION OF TYPE 3 ARROWS ARE THE SAME AS THE TYPE II ARROWS IN THE ADJACENT TURN LANE. FOR TURN LANES WITH A PHYSICAL SEPARATION IN THE SAME DIRECTION OF TRAVEL, THE ARROWS AND "ONLY" MARKING MAY BE ELIMINATED.

➡ DIRECTION OF TRAFFIC

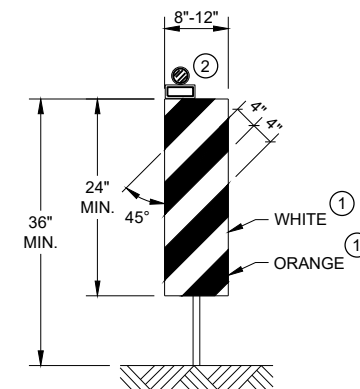
L = LENGTH OF TURN BAY

PAVEMENT MARKING
(TURN LANES)

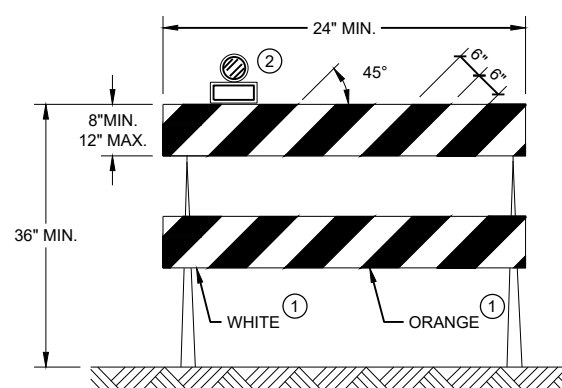
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

**DRUM****42" CONE**

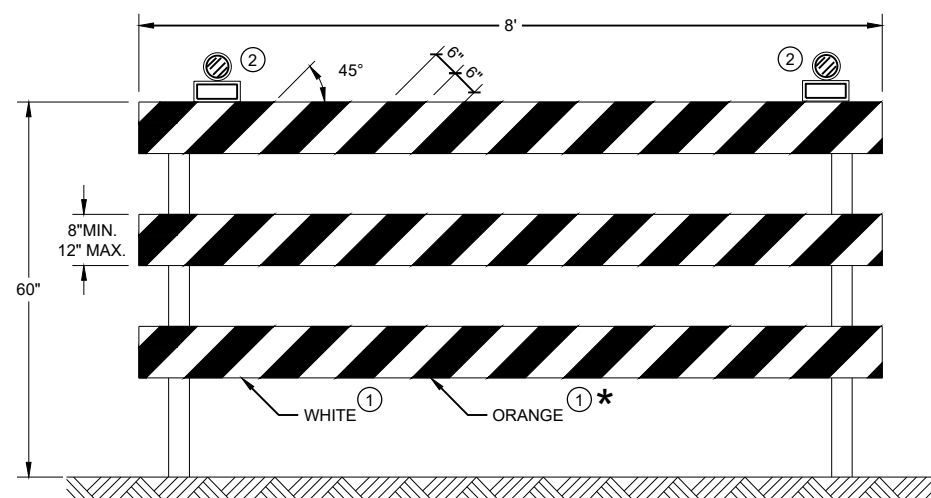
DO NOT USE IN TAPERS
 $\frac{1}{2}$ SPACING OF DRUMS

**VERTICAL PANEL**

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

**TYPE II BARRICADE**

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

**TYPE III BARRICADE**

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

* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

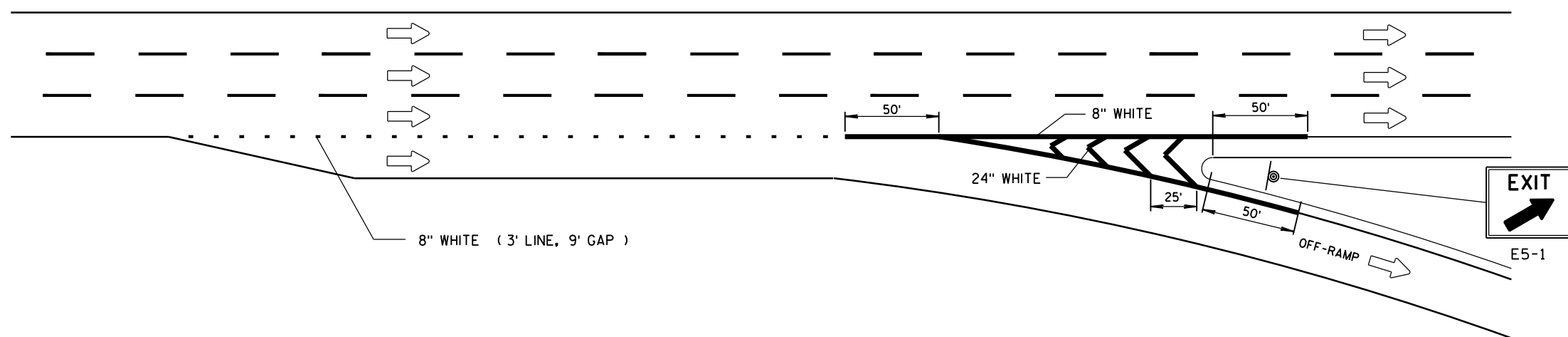
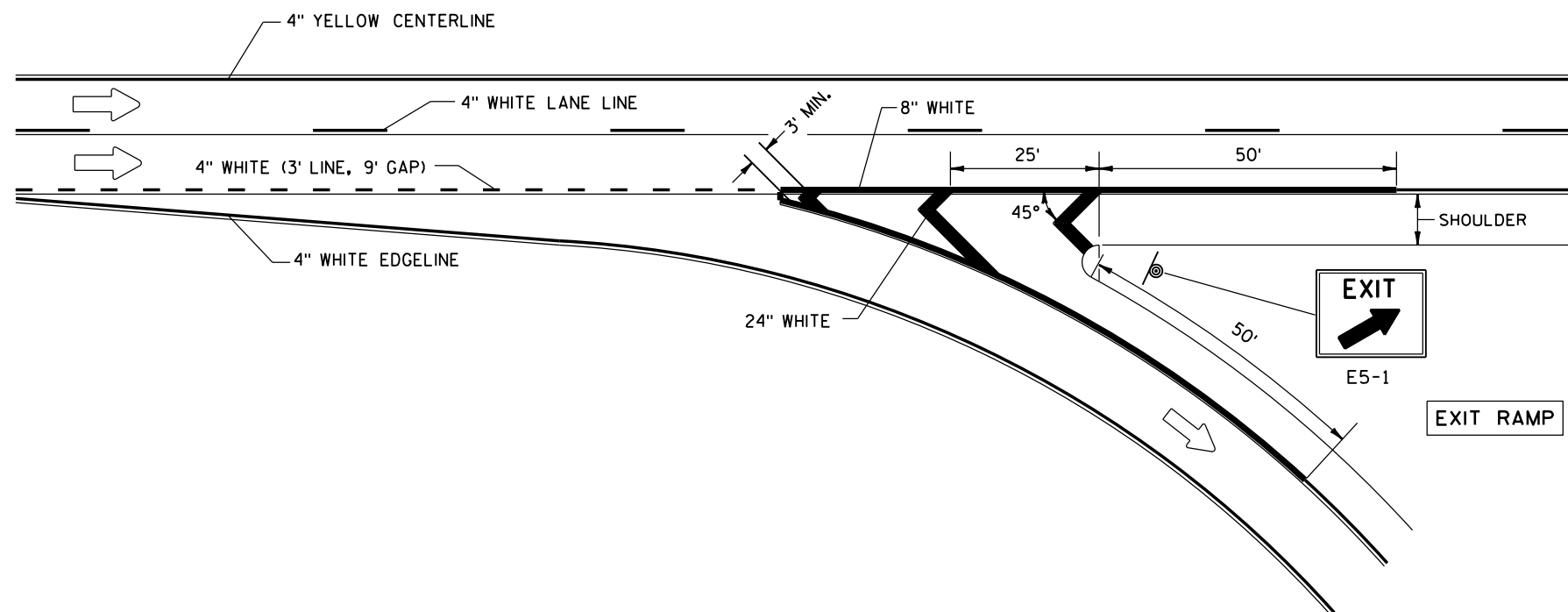
GENERAL NOTES

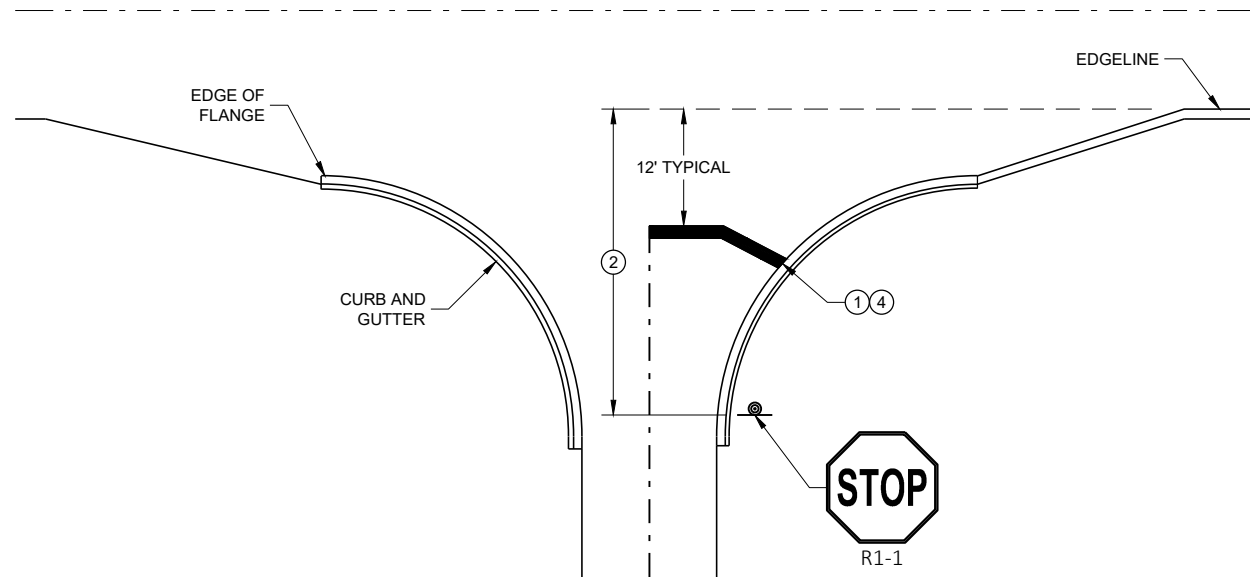
- ① REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
- ② LOCATION OF WARNING LIGHTS WHEN SHOWN ON THE PLAN.

**CHANNELIZING DEVICES
 DRUMS, CONES, BARRICADES
 AND VERTICAL PANELS**

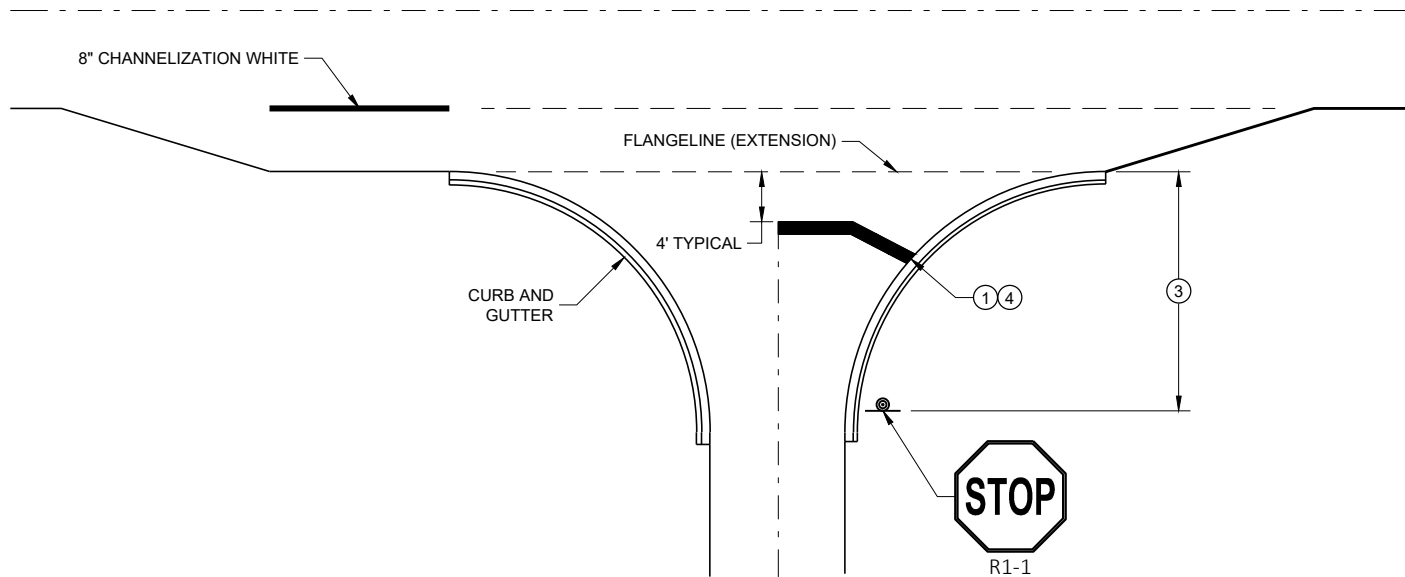
STATE OF WISCONSIN
 DEPARTMENT OF TRANSPORTATION

APPROVED
 June 2017 /S/ Andrew Heidtke
 DATE WORK ZONE ENGINEER 56
 FHWA

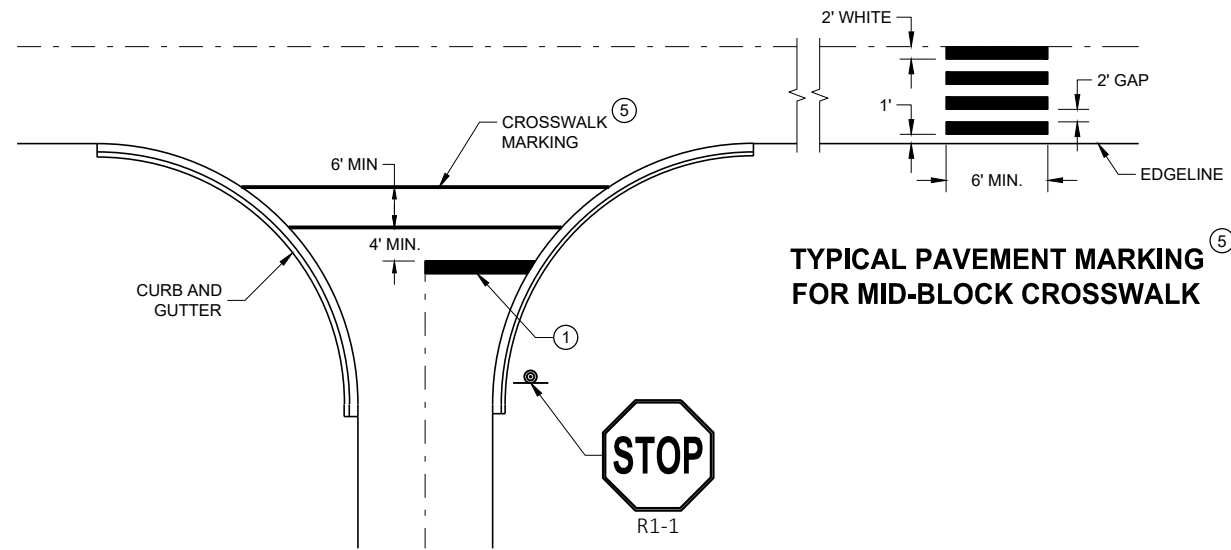




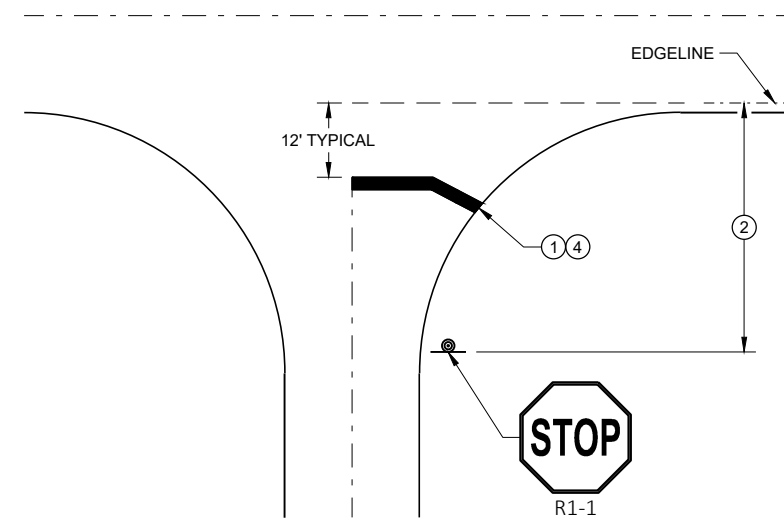
TYPICAL STOP LINE PAVEMENT MARKING
WITH CURB AND GUTTER



TYPICAL STOP LINE PAVEMENT MARKING
FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING FOR
SIDEROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING
WITHOUT CURB AND GUTTER

GENERAL NOTES

STOP SIGN SHALL BE PLACED A MINIMUM OF 6 FEET TO A MAXIMUM OF 50 FEET FROM THE EDGE LINE LOCATION.

- ① 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE REGION MARKING ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
- ② NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGE LINE.
- ③ NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE EXTENSION.
- ④ MOVE CLOSER TO THE EDGE OF TRAVEL LINE AS NEEDED FOR VISIBILITY AND SIGHT LINES (NO CLOSER THAN 4 FEET).
- ⑤ LADDER BAR CROSSWALKS SHOULD ONLY BE USED FOR MID BLOCK CROSSINGS. USE 2 - 6" TRANSVERSE LINES INSTEAD.

STOP LINE AND CROSSWALK
PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019 /S/ Matthew Rauch
DATE STATE SIGNING AND MAP ENGINEER 58
FHWA

	SIGN ON PERMANENT SUPPORT
	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
	TYPE III BARRICADE WITH ATTACHED SIGN
	TYPE "A" WARNING LIGHT (FLASHING)
	FLASHING ARROW BOARD
	DIRECTION OF TRAFFIC
	REMOVE PAVEMENT MARKING (SEE GENERAL NOTES)
	WORK AREA

FOR WORK ON ROADWAYS WITH SPEEDS GREATER THAN 45MPH, USE SDD 15D12.

THIS LANE CLOSURE DETAIL IS TYPICAL FOR CLOSING THE LEFT LANE. FOR A RIGHT LANE CLOSURE, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR ROADWAYS WITH EITHER TWO OR THREE LANES IN EACH DIRECTION.

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 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. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE MAY BE MOUNTED ON TEMPORARY SUPPORTS.

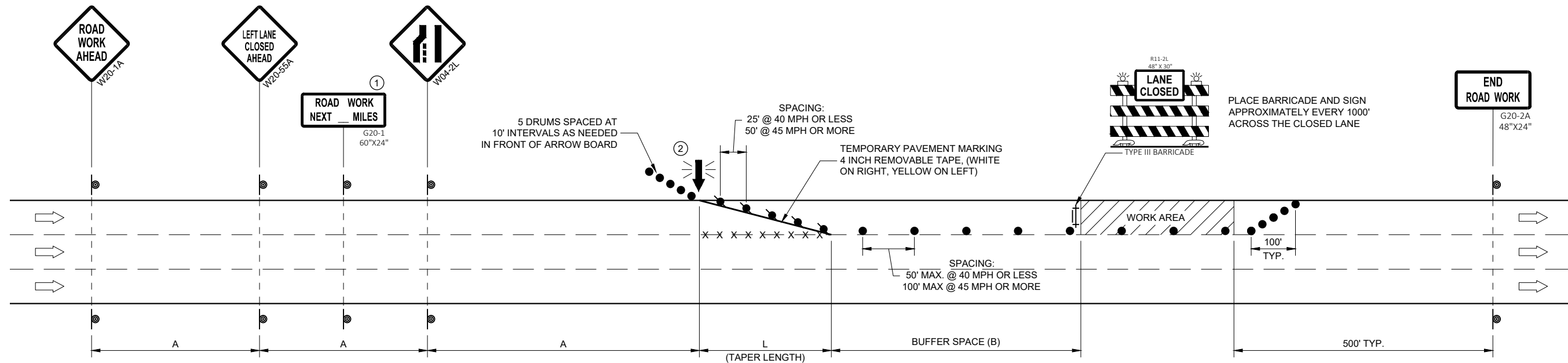
THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

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

W20-1A, G20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

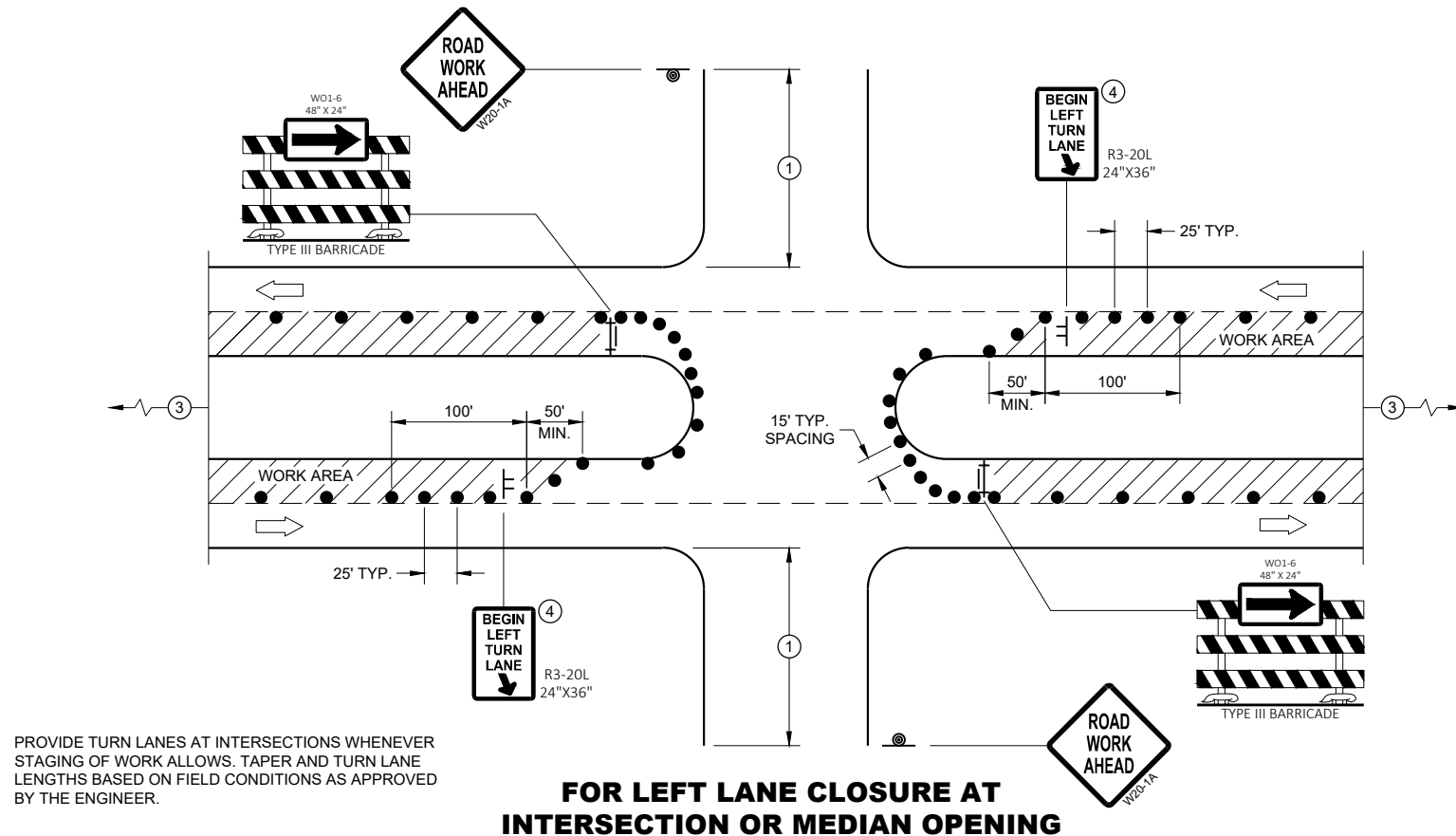
- ① OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.
- ② WHERE THE SHOULDER OR TERRACE HAS INSUFFICIENT SPACE TO PLACE THE ARROW BOARD AS SHOWN, PLACE THE ARROW BOARD AT THE END OF THE TAPER.



POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	TAPER LENGTH (12 FT. LANE) (L) FEET	BUFFER SPACE (B) FEET
25	200'	125'	55'
30	200'	180'	85'
35	350'	245'	120'
40	350'	320'	170'
45	500'	540'	220'

APPROVED
May 2020 /S/ Andrew Heidtke
DATE STATEWIDE WORK ZONE T SAFETY ENGINEER 59

FHWA

**GENERAL NOTES**

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" MAY BE USED IF APPROVED BY THE DISTRICT 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. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

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

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

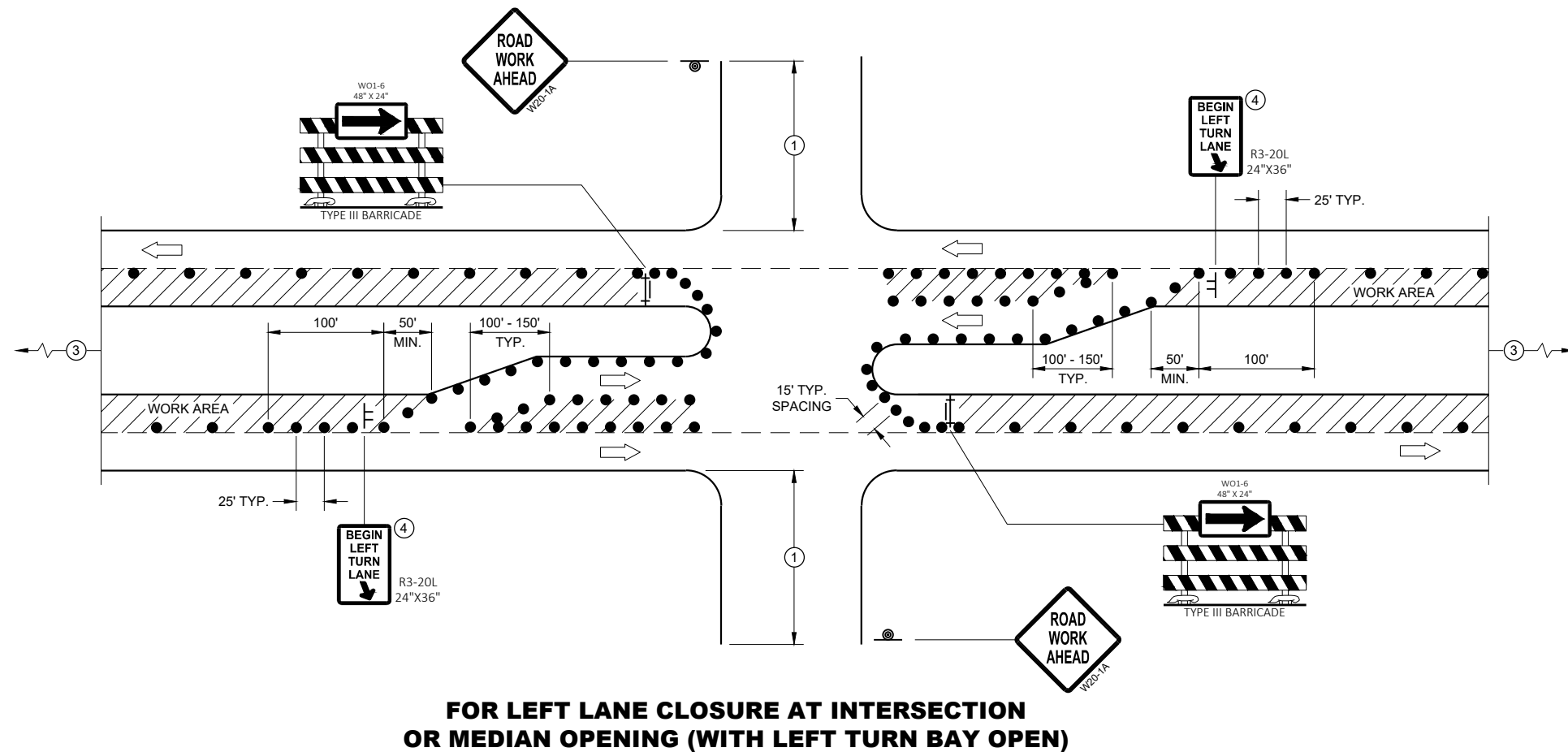
SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

SIGNS THAT WILL REMAIN IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE MAY BE MOUNTED ON PORTABLE SUPPORTS.

BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

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

- 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35 - 40 MPH.
200' IF 25 - 30 MPH.
- ALSO USE BARRICADE AND 15 FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS
- SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.
- MINIMUM MOUNTING HEIGHT OF 5 FEET FROM EDGE OF PAVEMENT (AT EDGE LINE LOCATION) TO BOTTOM OF SIGN.

**LEGEND**

- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE WITH ATTACHED SIGN
- DIRECTION OF TRAFFIC
- FLAGS, 16" X 16" MIN., ORANGE
- WORK AREA

**TRAFFIC CONTROL,
INTERSECTION WITHIN SINGLE
LEFT LANE CLOSURE**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2020 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 60
FHWA

LEGEND

- TRAFFIC CONTROL DRUM
- ⦿ SIGN ON PERMANENT SUPPORT
- ➡ DIRECTION OF TRAFFIC
- ⚡➡ FLASHING ARROW BOARD
- ▨ WORK AREA

GENERAL NOTES

THIS DETAIL IS TYPICAL FOR CLOSING THE RIGHT SHOULDER. FOR CLOSING THE LEFT SHOULDER, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR DIVIDED ROADWAYS WITH ANY NUMBER OF TRAVEL LANES.

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

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

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

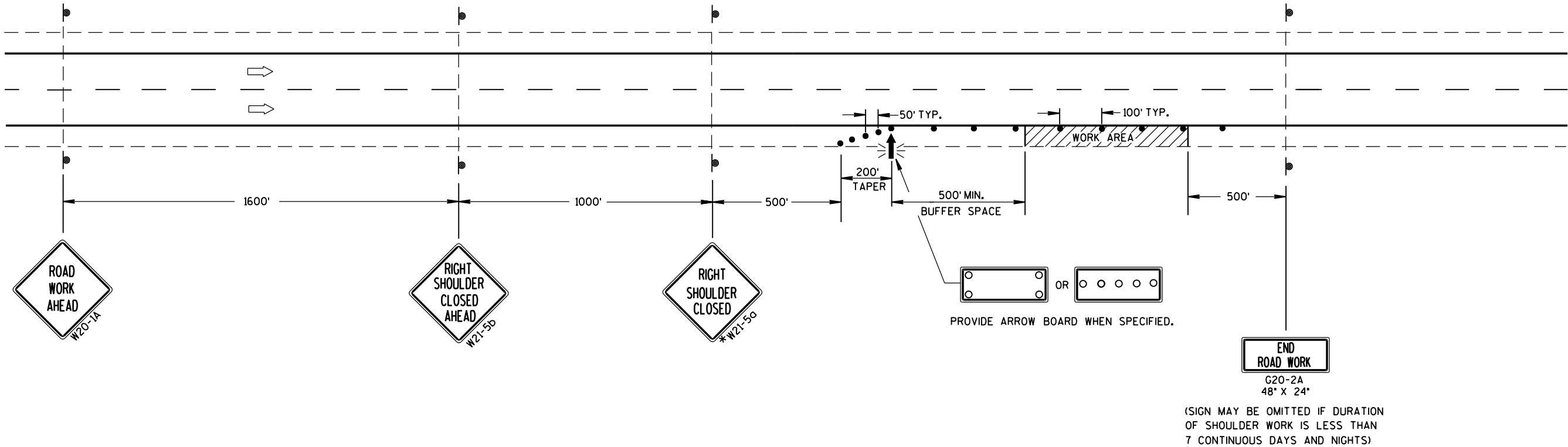
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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.

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

WHEN A 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.

*FOR SHORT DURATION SHOULDER WORK OF LESS THAN ONE HOUR, THE W21-5a SIGN MAY BE OMITTED.



TRAFFIC CONTROL
SHOULDER CLOSURE ON DIVIDED
ROADWAY, SPEEDS GREATER
THAN 40 MPH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2016 /S/ Peter Amakobe Atepe
DATE STATEWIDE WORK ZONE 61
FHWA SAFETY ENGINEER

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.

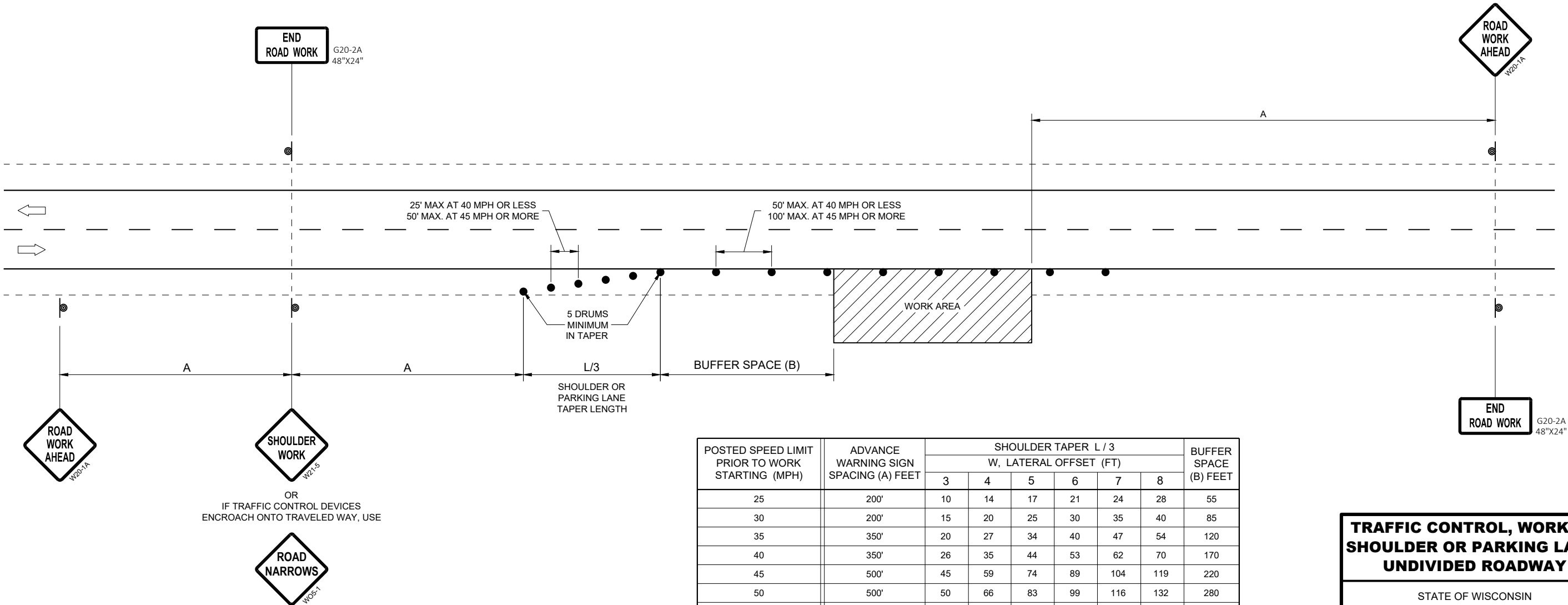
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

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

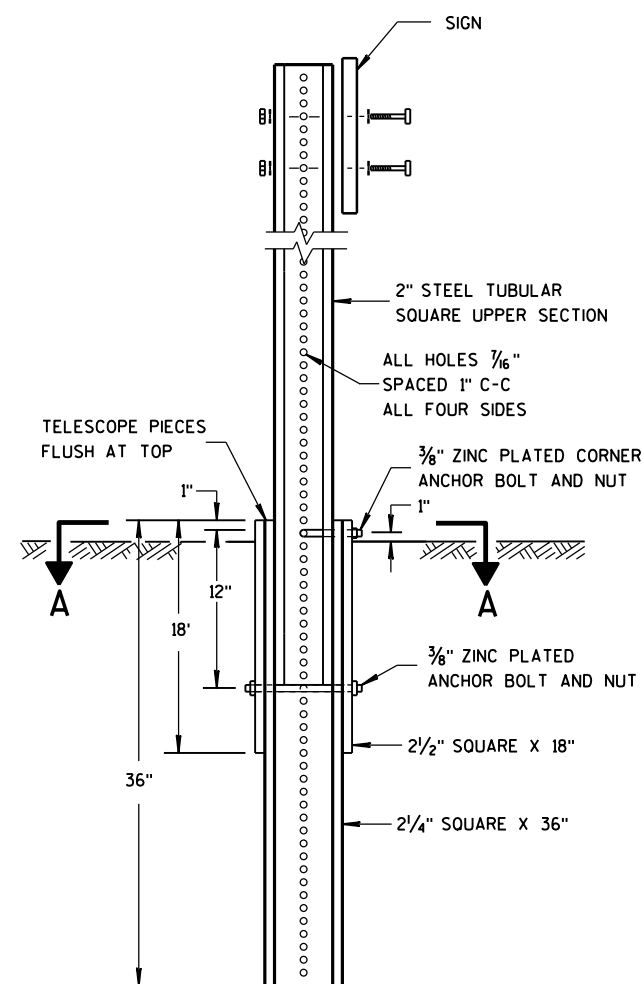


POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	SHOULDER TAPER L / 3 W, LATERAL OFFSET (FT)						BUFFER SPACE (B) FEET
		3	4	5	6	7	8	
25	200'	10	14	17	21	24	28	55
30	200'	15	20	25	30	35	40	85
35	350'	20	27	34	40	47	54	120
40	350'	26	35	44	53	62	70	170
45	500'	45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

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 T
SAFETY ENGINEER 62
FHWA



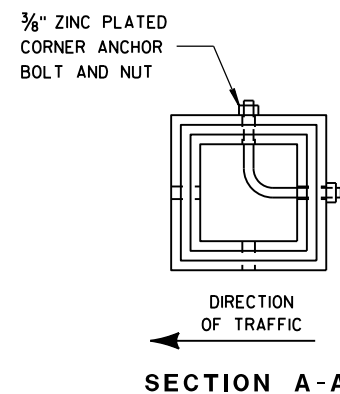
**DETAIL OF TUBULAR
STEEL SIGN POST**

TUBULAR STEEL POSTS

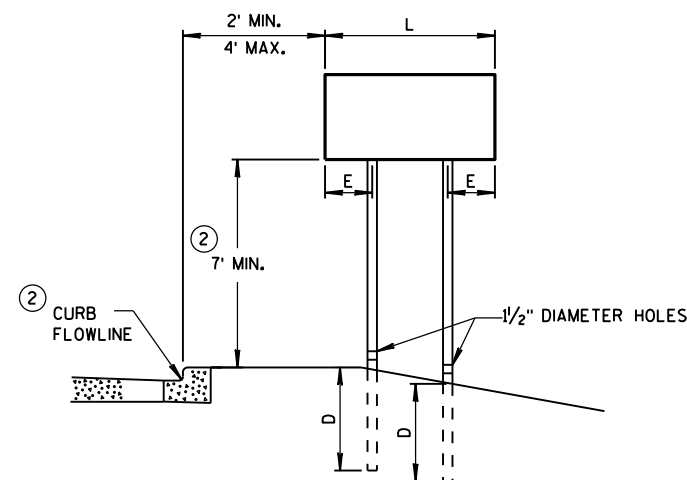
AREA OF SIGN INSTALLATION (SQ. FT.)	NUMBER OF REQUIRED TUBULAR STEEL POSTS
9 OR LESS	1
GREATER THAN 9 LESS THAN OR EQUAL TO 18	2
GREATER THAN 18 LESS THAN OR EQUAL TO 27	3

SIGNS WIDER THAN 3 FEET OR LARGER THAN 9 SQ. FT. SHALL BE MOUNTED ON MULTIPLE POSTS (SEE ABOVE TABLE).

SIGNS LARGER THAN 27 SQ. FT. SHALL NOT BE MOUNTED ON TUBULAR STEEL POSTS.



SECTION A-A

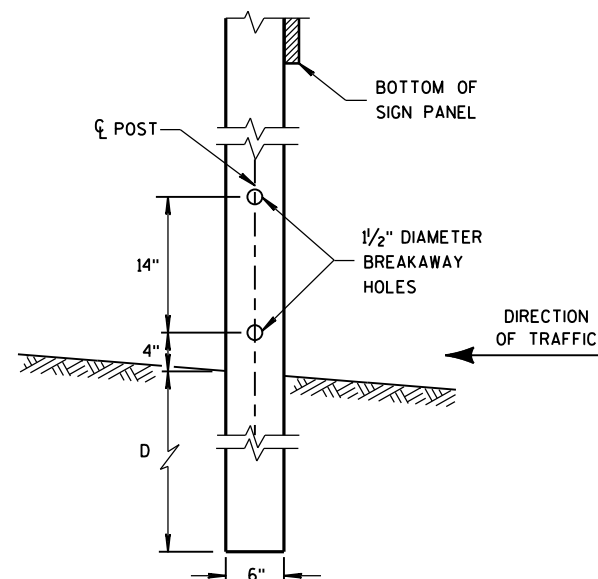


URBAN AREA

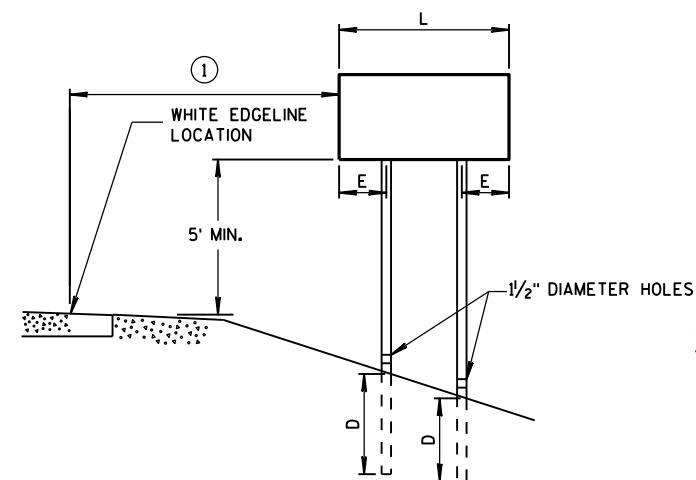
POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

**WOOD POST
EMBEDMENT DEPTH**

AREA OF SIGN INSTALLATION (SQ. FT.)	D (MIN)
20 OR LESS	4'
GREATER THAN 20	5'



**4" x 6" WOOD POST
MODIFICATION**



RURAL AREA

4" X 6" WOOD POST

POST SPACING REQUIREMENTS		NUMBER OF WOOD POSTS REQUIRED
L	E	
48" OR LESS AND LESS THAN 20 SQ. FT.	-	1
LESS THAN 60"	12"	2
60" TO 120"	L/5	2
GREATER THAN 120" LESS THAN 168"	12"	3
168" AND GREATER	12"	4

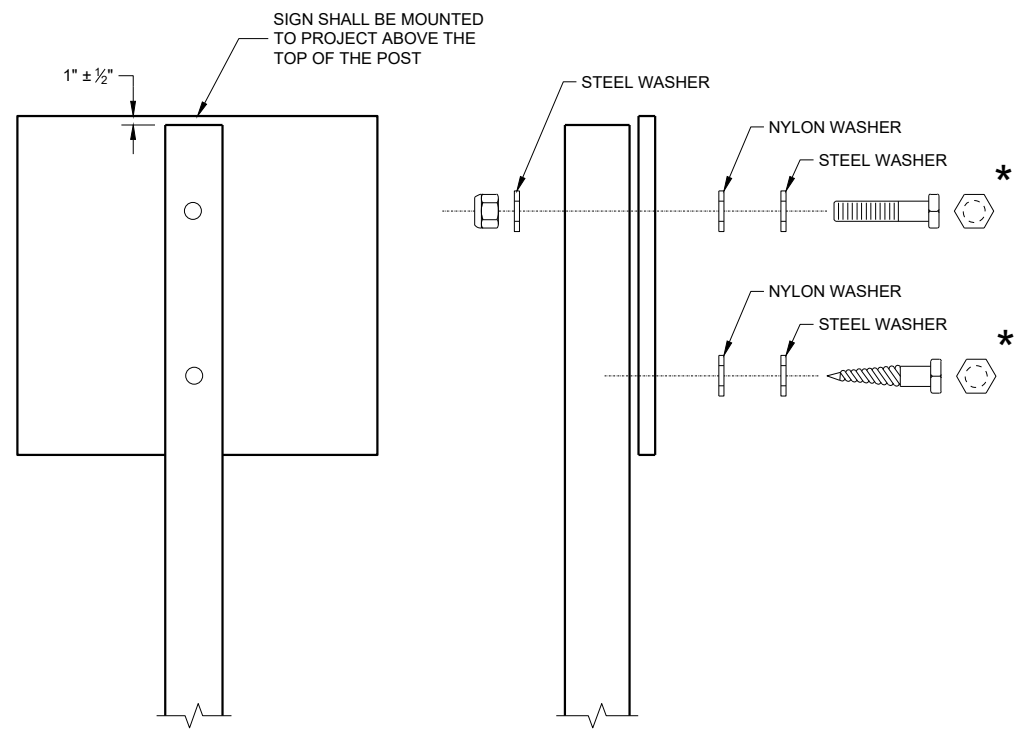
SEE NOTE ③

GENERAL NOTES

- ① 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.
- ② THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK AND NO PARKING, VERTICAL CLEARANCE MAY BE REDUCED TO 5 FOOT MINIMUM. OFFSET OF SIGNS IS MEASURED FROM THE CURB FLOWLINE.
- ③ FOR SIGNS REQUIRING 4 POSTS, SPACE INTERMEDIATE POSTS EVENLY.

**TEMPORARY TRAFFIC CONTROL
SIGN MOUNTING**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



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.

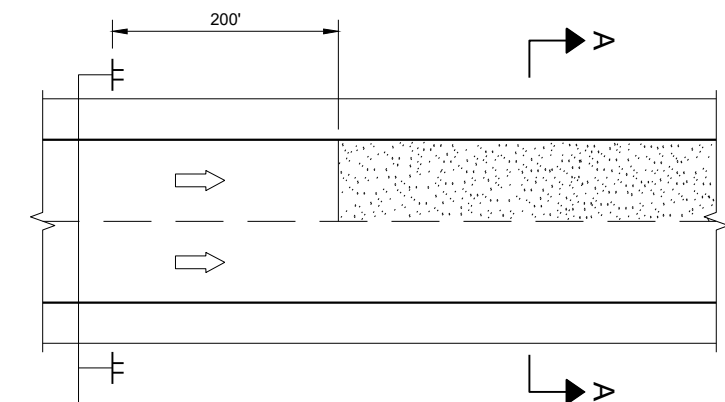
WOOD POST (4" x 6")
LAG SCREWS - ¾" x 3"
MACHINE BOLTS - ⅝" x 6 ½" OR 7" LENGTH W/NUTS

SQUARE STEEL POST (2" x 2")
MACHINE BOLTS - ¾" x 3 ¼" LENGTH W/NUTS
RIVETS - ⅝" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM
BODY/MANDREL O.D. FLANGE 0.720 - 0.765 INCH,
GRIP RANGE 0.042 - 0.375 INCH

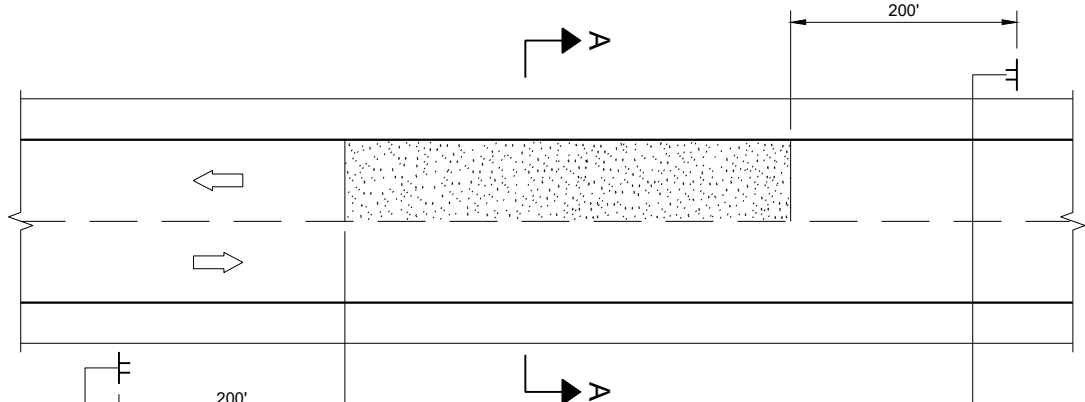
WASHERS (ALL POSTS) -
1 ¼" O.D. x ⅜" I.D. x ⅛" STEEL
1 ¼" O.D. x ⅜" I.D. x 0.080 NYLON

* 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. FOR A SINGLE POST INSTALLATION, ALL SIGNS GREATER THAN 9 SQ. FT. REQUIRE THE USE OF 3 FASTENERS.

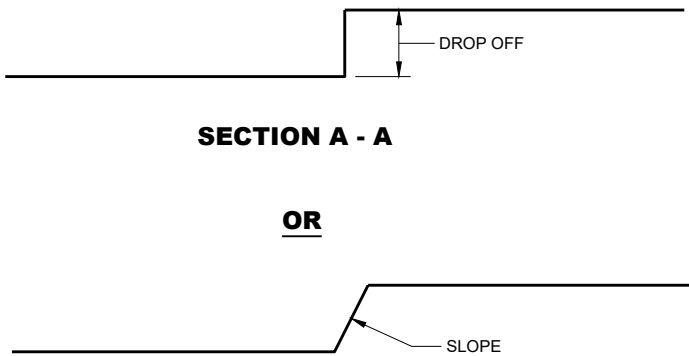
ATTACHMENT OF SIGNS TO POSTS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED June 2017 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER 64
FHWA	



MULTI-LANE

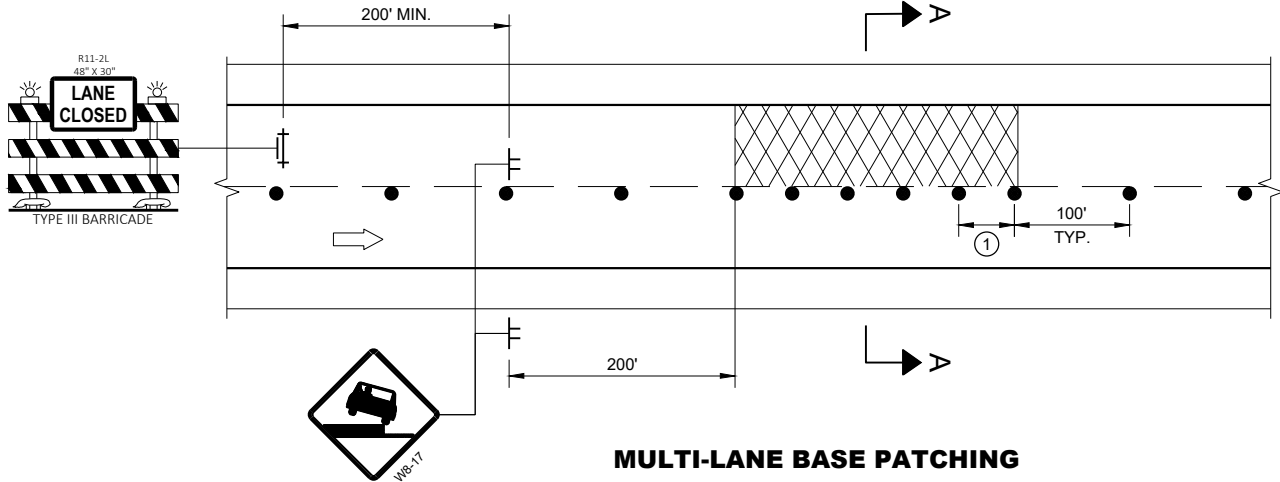


TWO-WAY TWO LANE



OR

SECTION A - A



MULTI-LANE BASE PATCHING

ADJACENT LANE DROP-OFFS

GENERAL NOTES

FOR SPOT LOCATIONS USE ENGINEERING JUDGEMENT WHEN PLACING ADDITIONAL SIGNS.

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

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

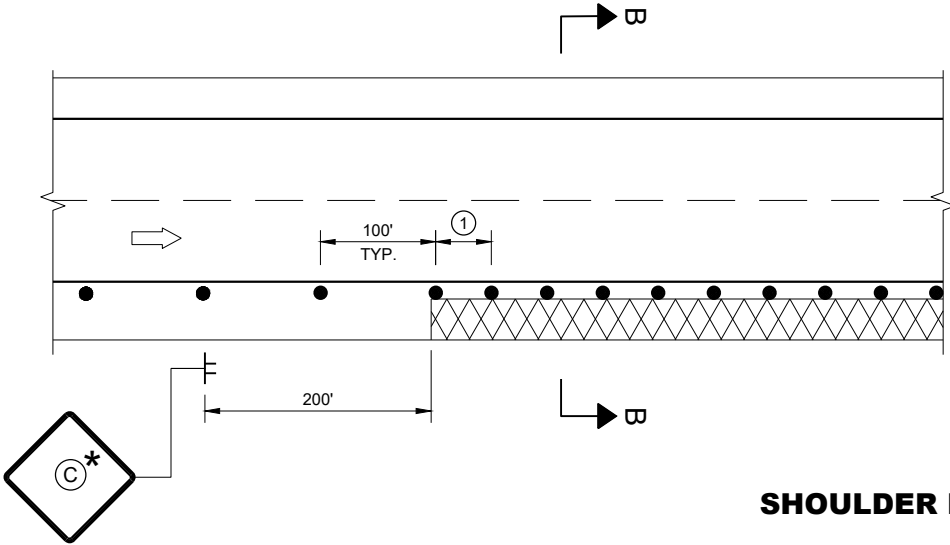
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

* IF THE DROP-OFF IS CONTINUOUS ALONG THE PROJECT, PLACE ADDITIONAL SIGNS EVERY 1 MILE AND AFTER EVERY ENTRANCE RAMP.

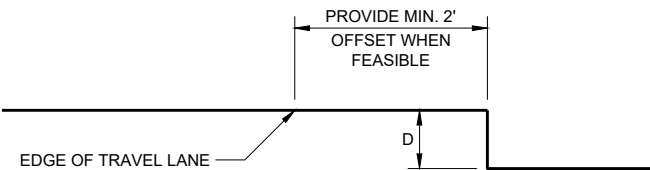
① USE CLOSER SPACING WHEN DELINEATING DROP-OFF.

LEGEND

- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- WORK AREA WITH DROP-OFF
- MILLED SURFACE



SHOULDER DROP-OFFS



SECTION B - B

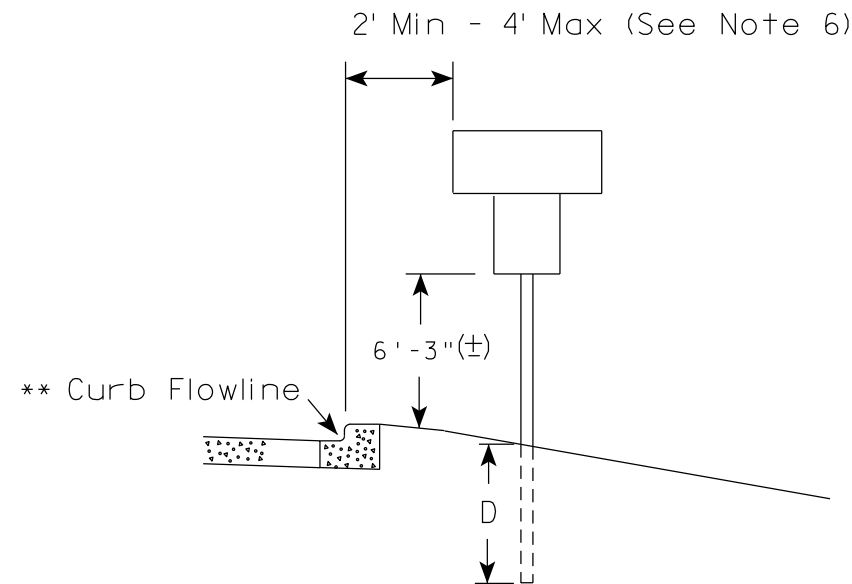
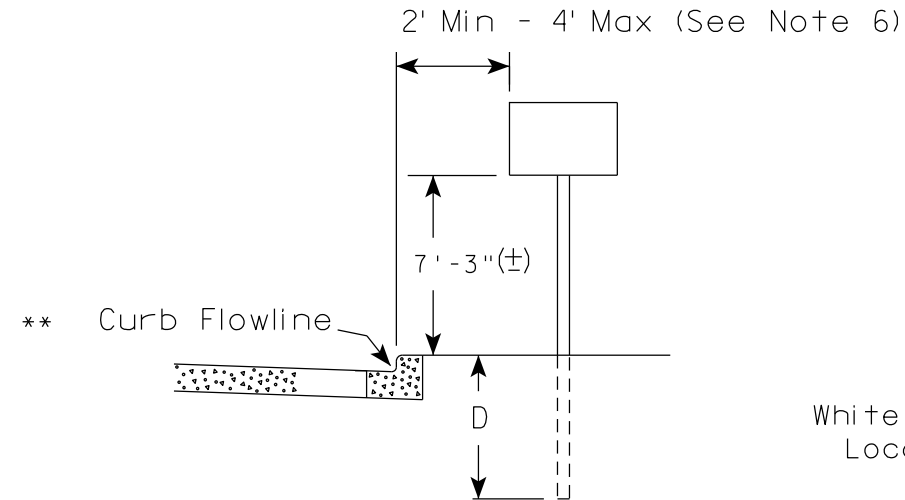
D	SIGN (C)
< 2" WITH A SLOPE STEEPER THAN 3:1	LOW SHOULDER WO8-9
2" < 6" WITH A SLOPE STEEPER THAN 3:1	SHOULDER DROP - OFF W8-9A PROVIDE A 3:1 OR FLATTER SLOPE OF MATERIAL ADJACENT TO THE PAVEMENT

TRAFFIC CONTROL,
DROP-OFF SIGNING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

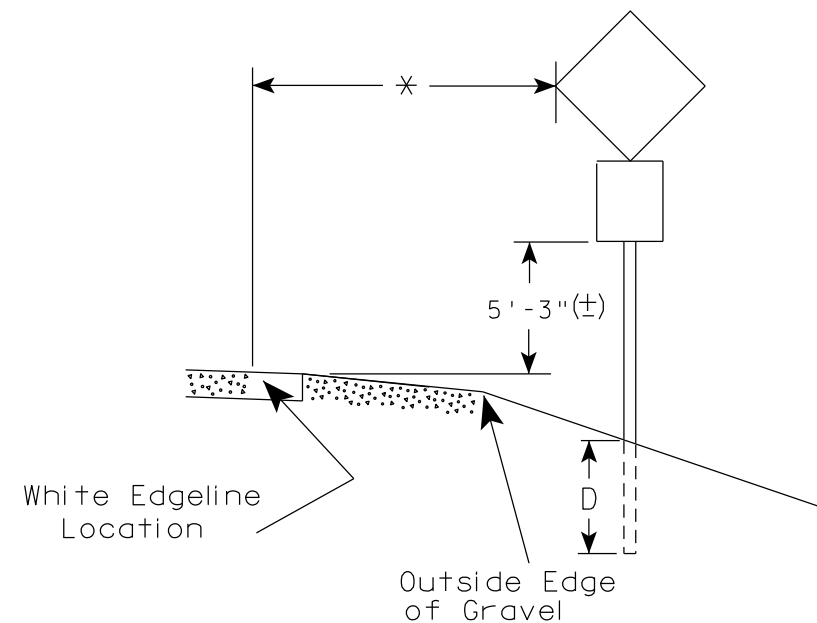
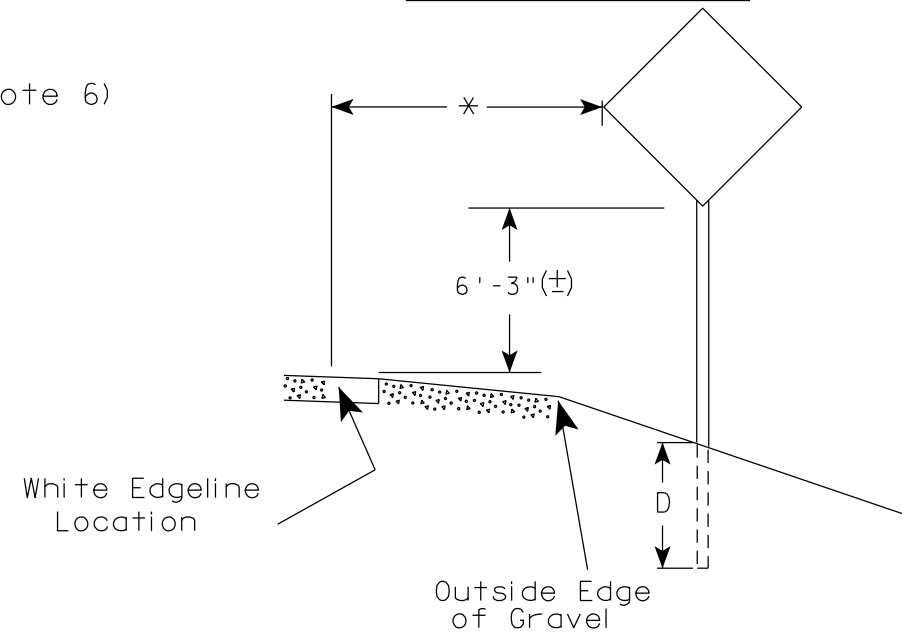
APPROVED
March 2018 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 65
FHWA

URBAN AREA



** 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.

RURAL AREA (See Note 2)



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

POST EMBEDMENT DEPTH

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

GENERAL NOTES

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

TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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

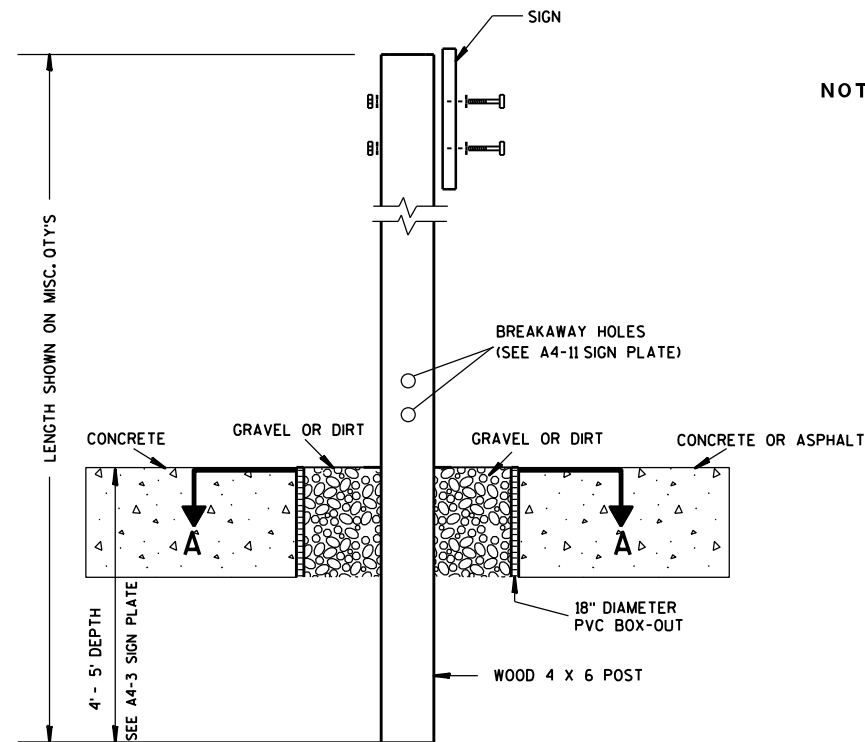
PROJECT NO:

HWY:

COUNTY:

SHEET NO: 66

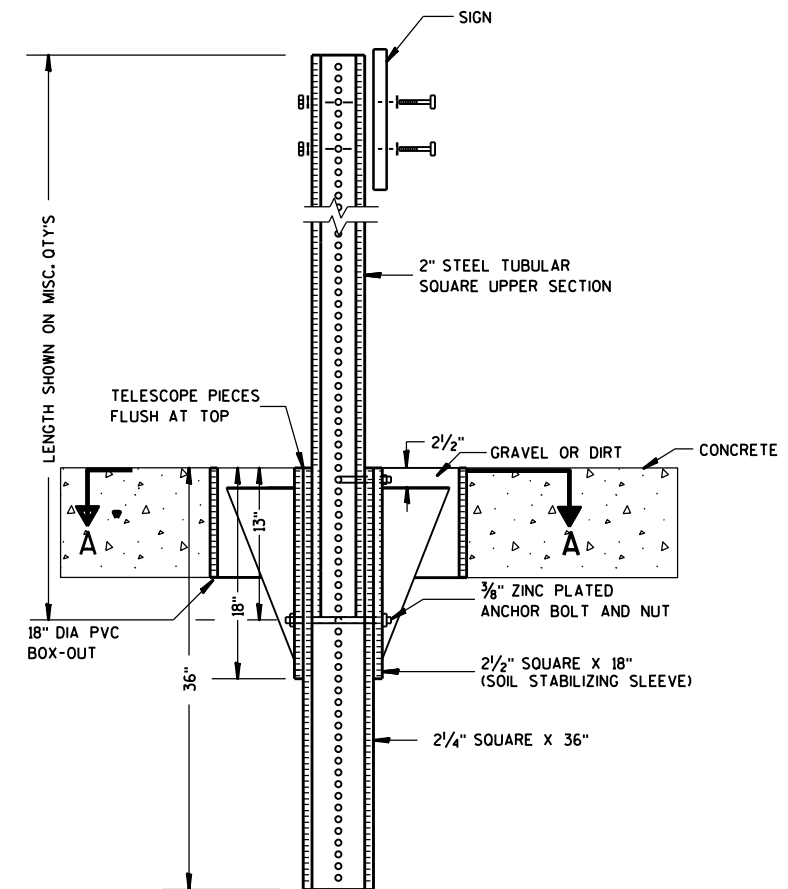
E



ELEVATION VIEW

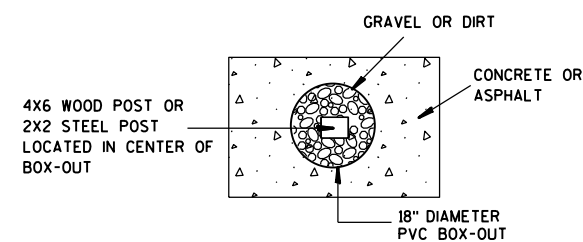
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST
BOX-OUTS
A4-3B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 1/27/14 PLAT 67 A4-3B.1

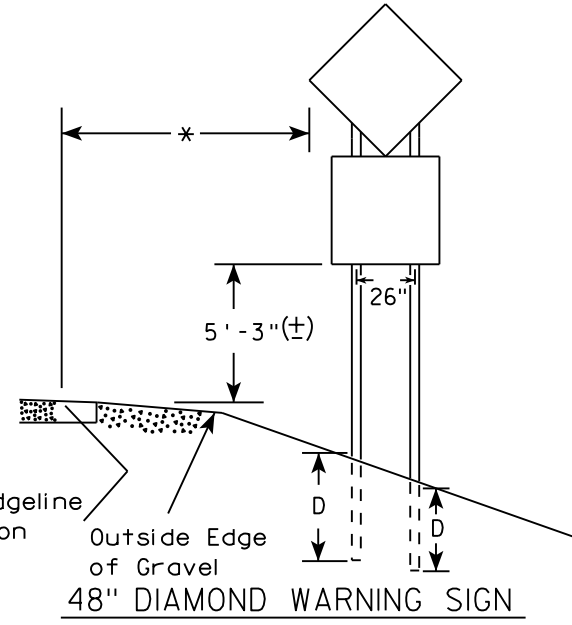
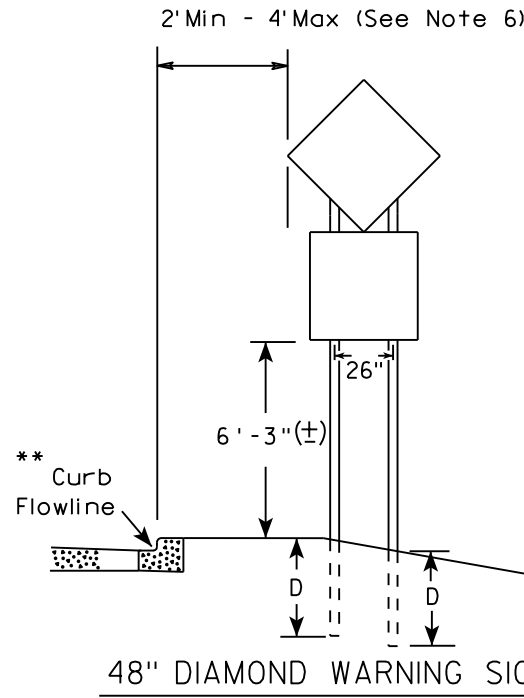
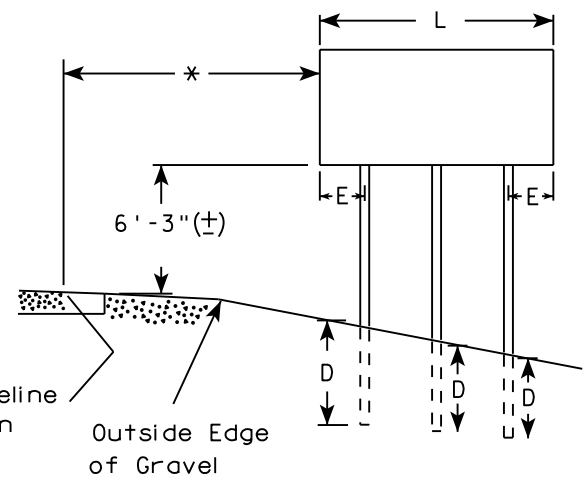
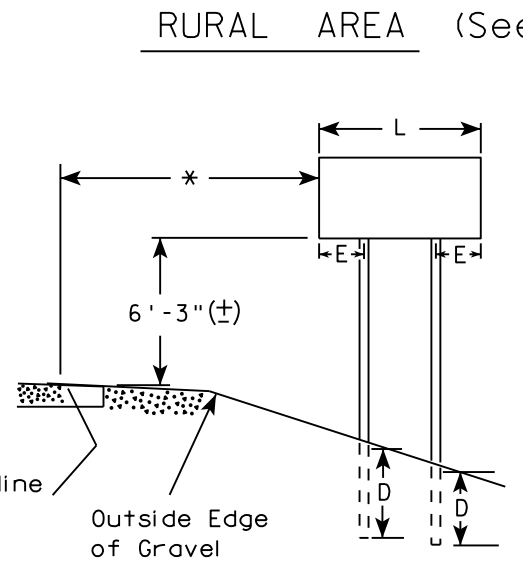
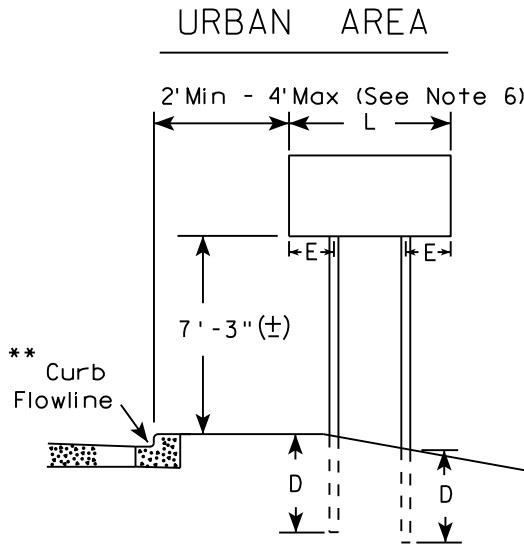
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



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

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

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

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

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

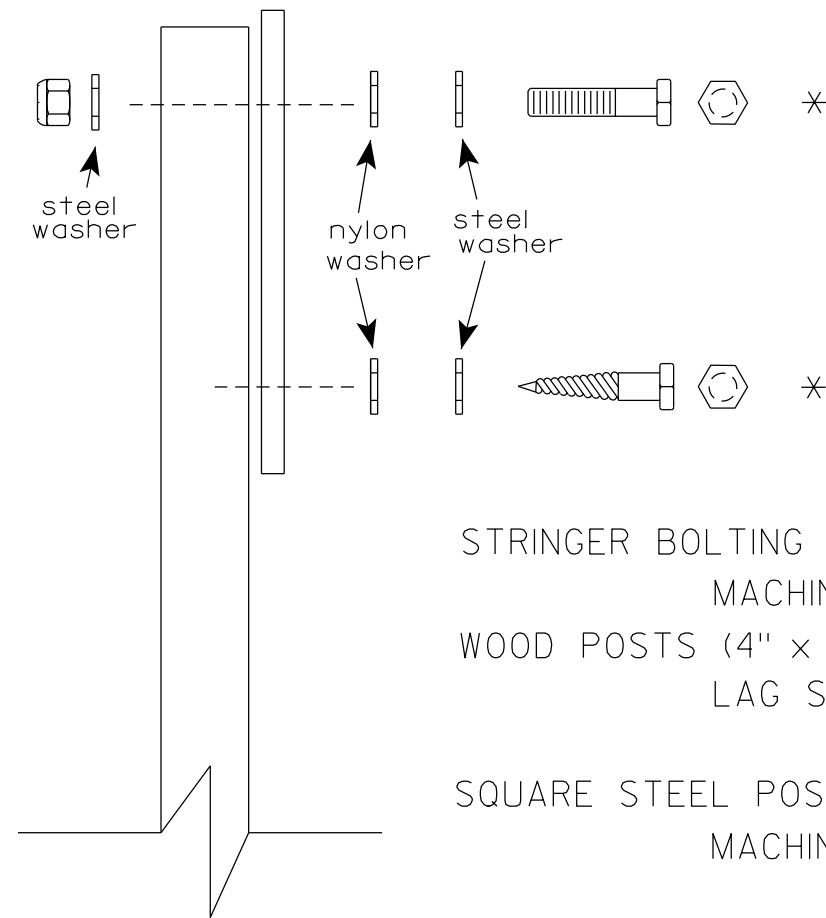
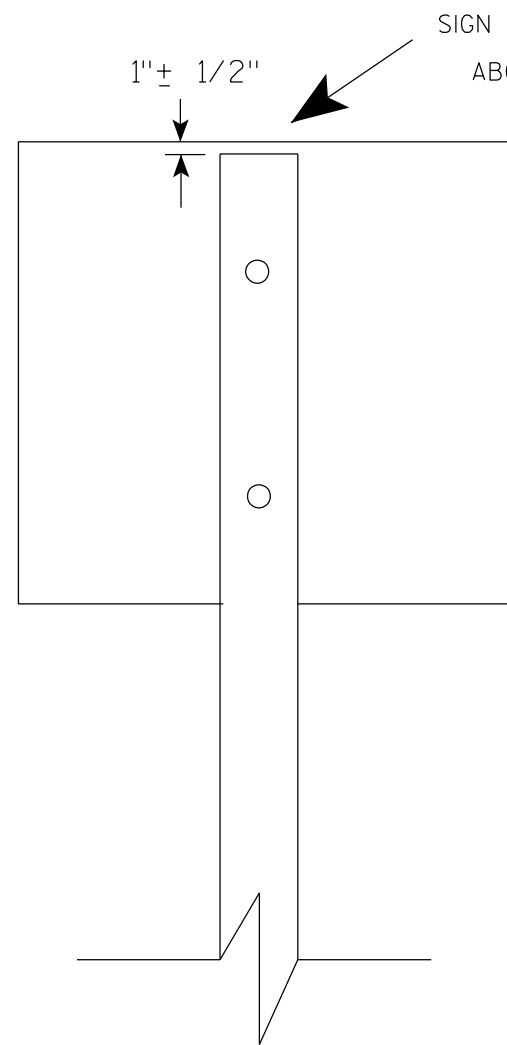
Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

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.

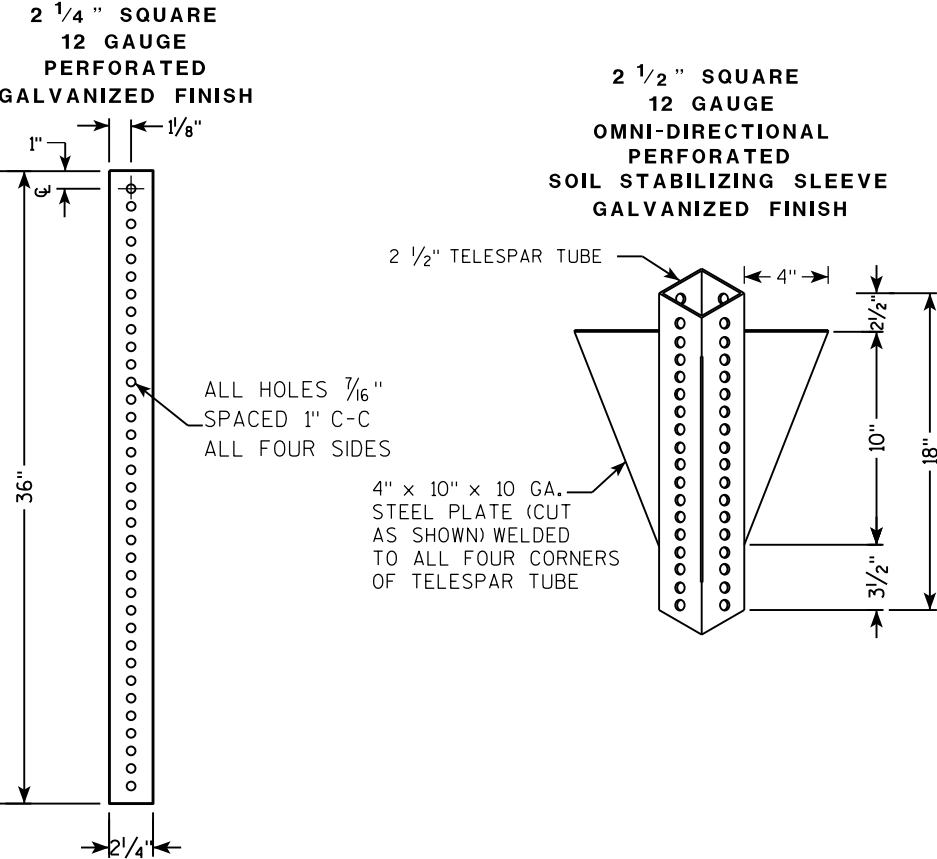
Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

- STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)
- MACHINE BOLTS - $\frac{5}{16}$ " X 1-3/4" Length w/ lock nuts
- WOOD POSTS (4" x 6")
- LAG SCREWS - $\frac{3}{8}$ " X 3" (NO STRINGERS ON BACK OF SIGN)
 $\frac{3}{8}$ " X 4" (STRINGERS ON BACK OF SIGN)
- SQUARE STEEL POSTS (2" x 2")
- MACHINE BOLTS - $\frac{3}{8}$ " X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
 $\frac{3}{8}$ " X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)
- RIVETS - $\frac{9}{32}$ " (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 $\frac{3}{8}$ " I.D. X $\frac{1}{16}$ " STEEL
 - 1-1/4" O.D. X $\frac{3}{8}$ " I.D. X .080 NYLON

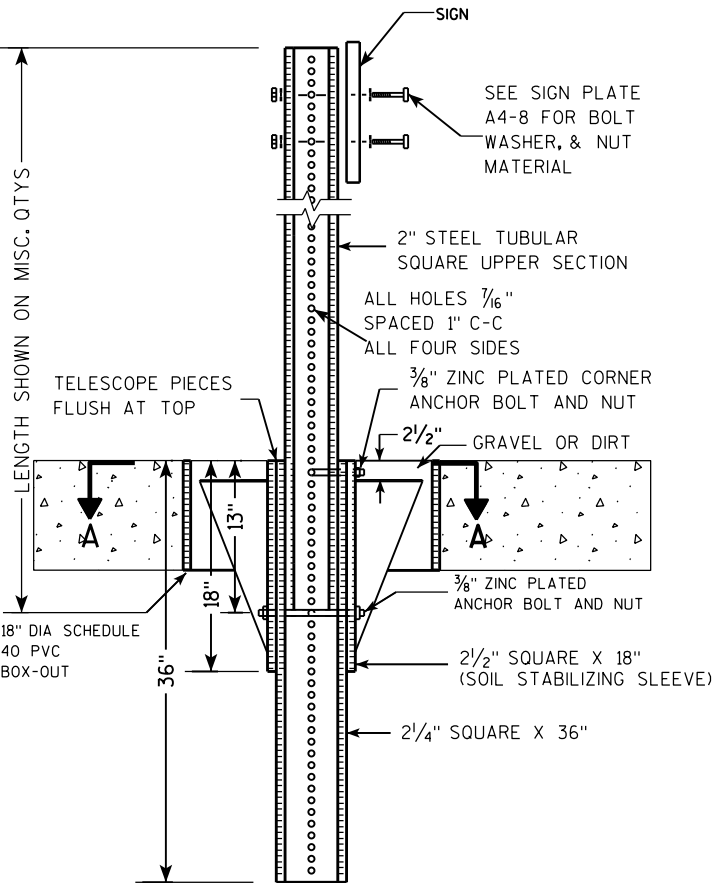
* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require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

ATTACHMENT OF SIGNS TO POSTS	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 4/1/2020	PLATE NO. A4-8.9

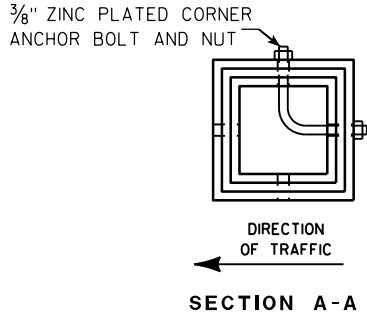
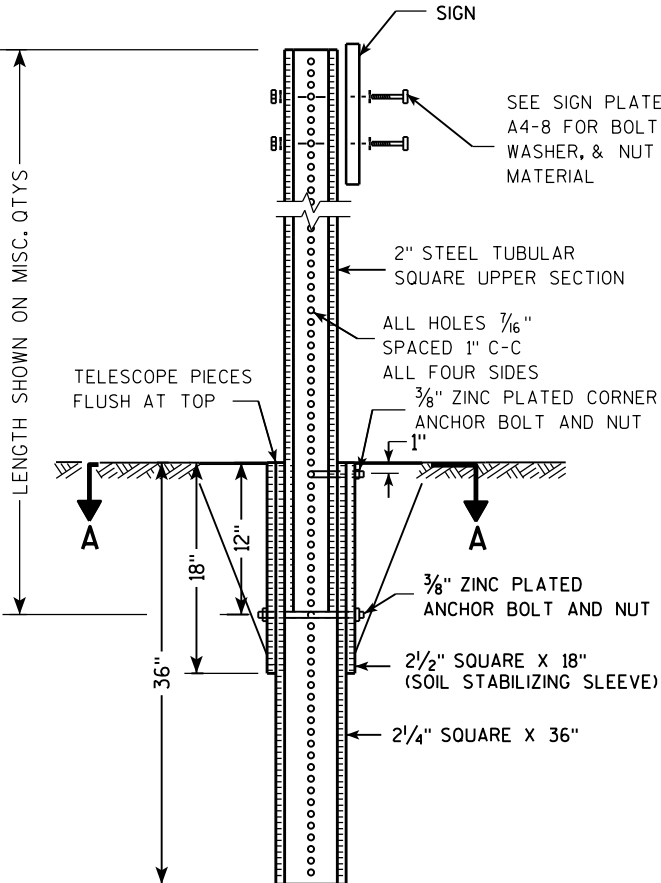
TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM



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).

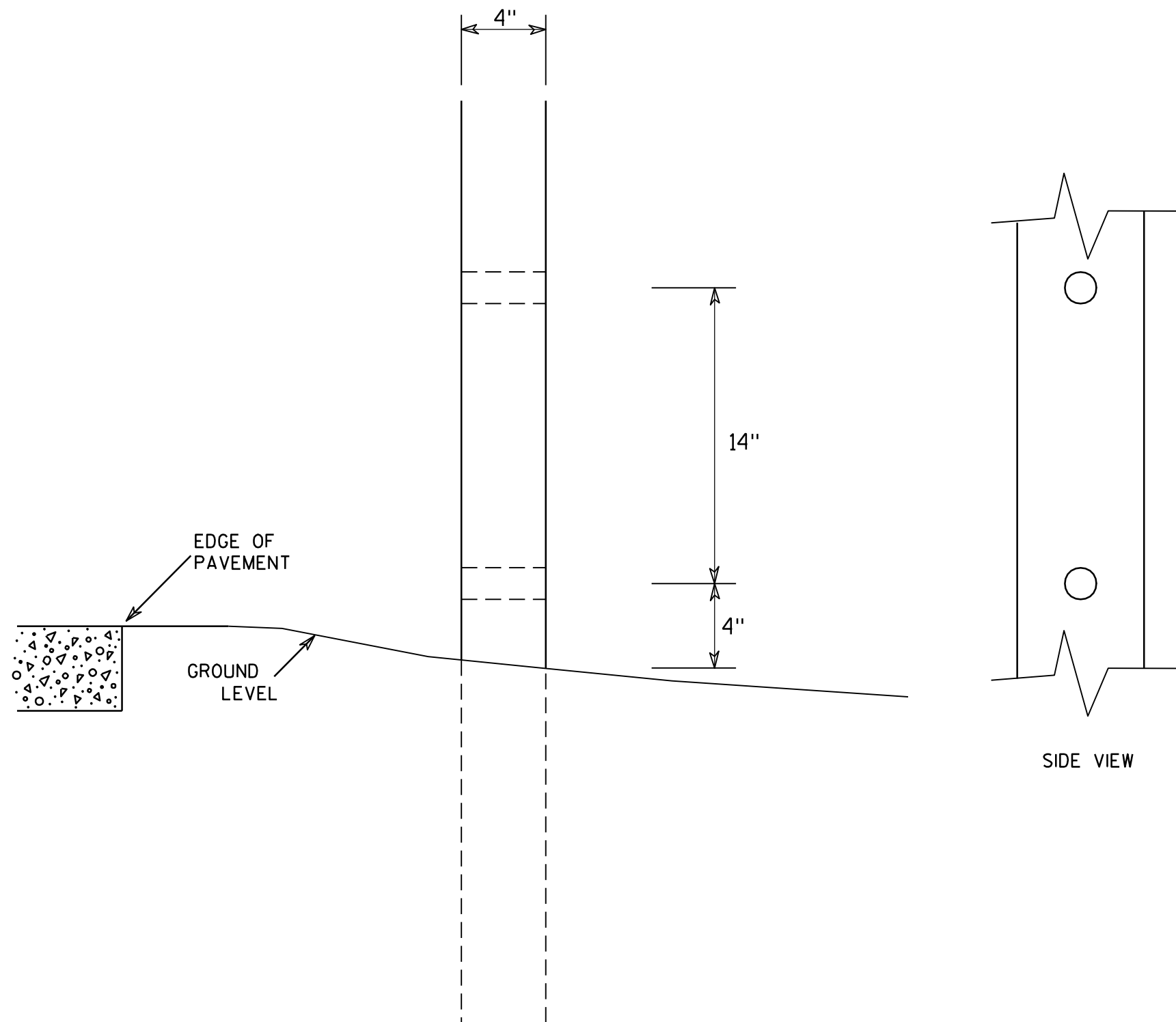
TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 2/05/15 PLAT 70 14-9.9

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

PROJECT NO:

HWY:

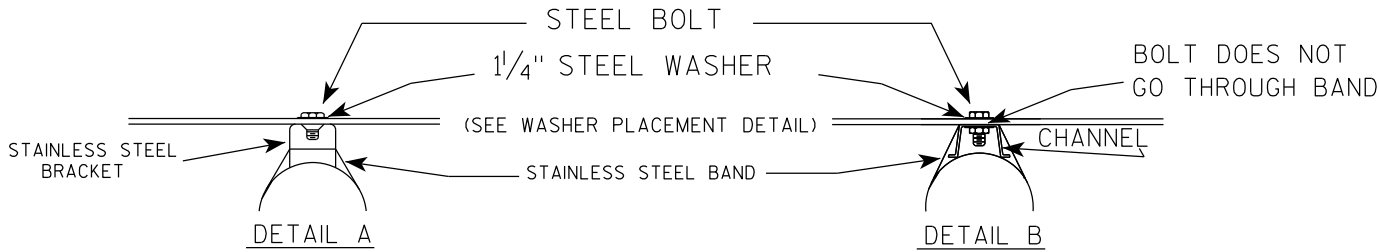
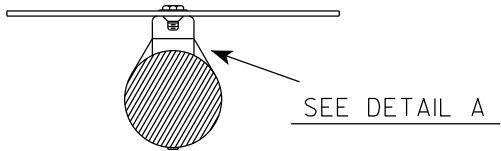
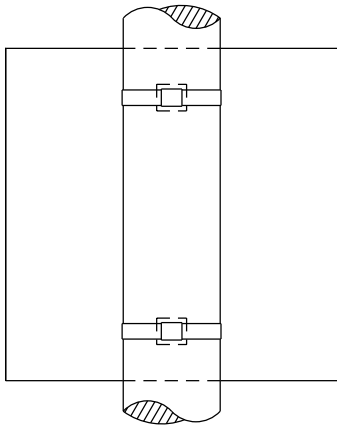
COUNTY:

SHEET NO: 71

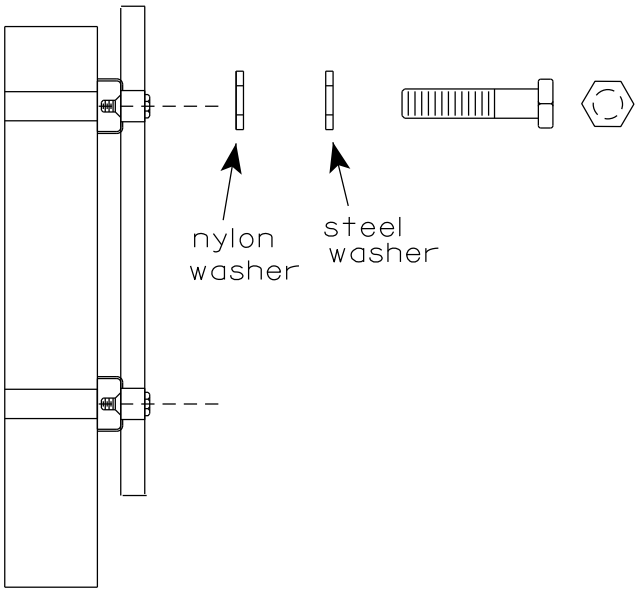
E

BANDING

SINGLE SIGN



WASHER PLACEMENT

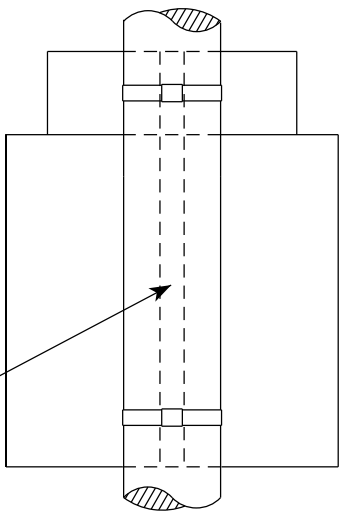


WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

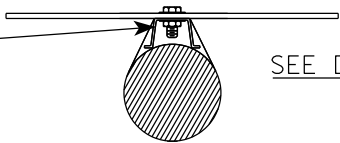
GENERAL NOTES

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

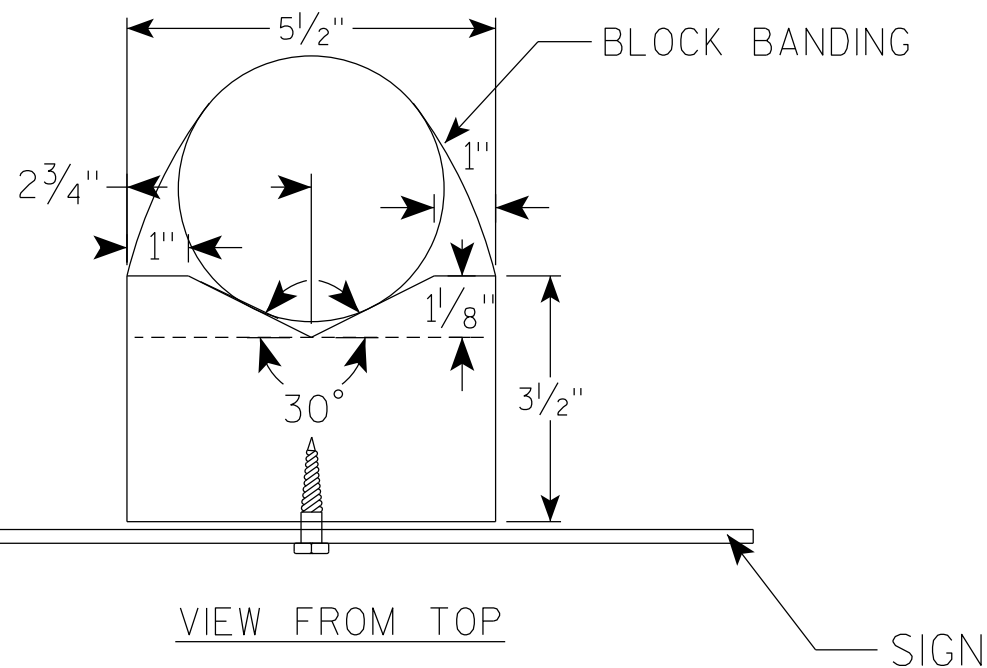
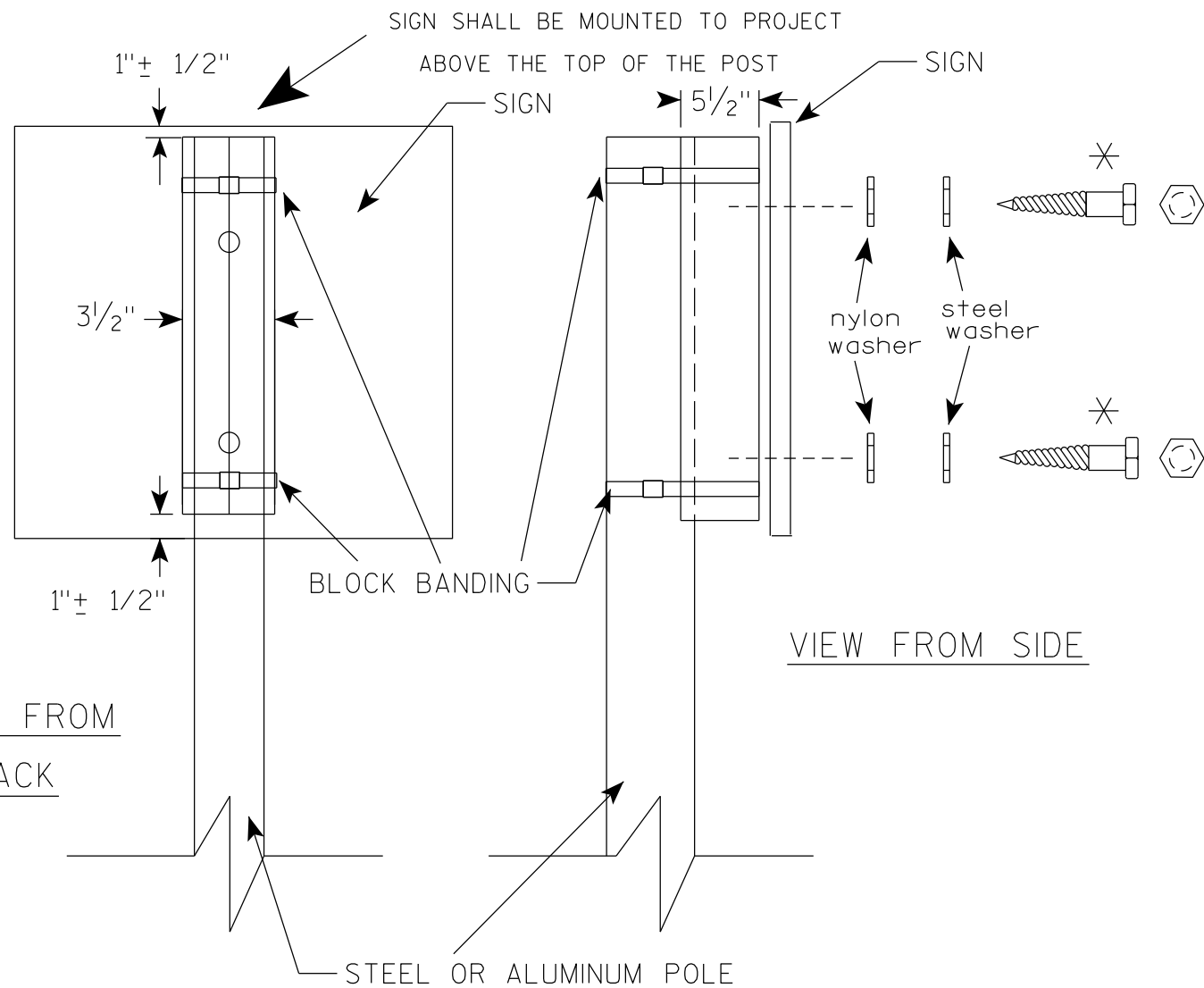


STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer
DATE 6/10/19 PLATE NO. A5-9.4

VIEW FROM
BACK



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 1/4" O.D. X 3/8" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1 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 *Matthew R. Rauch*
for State Traffic Engineer

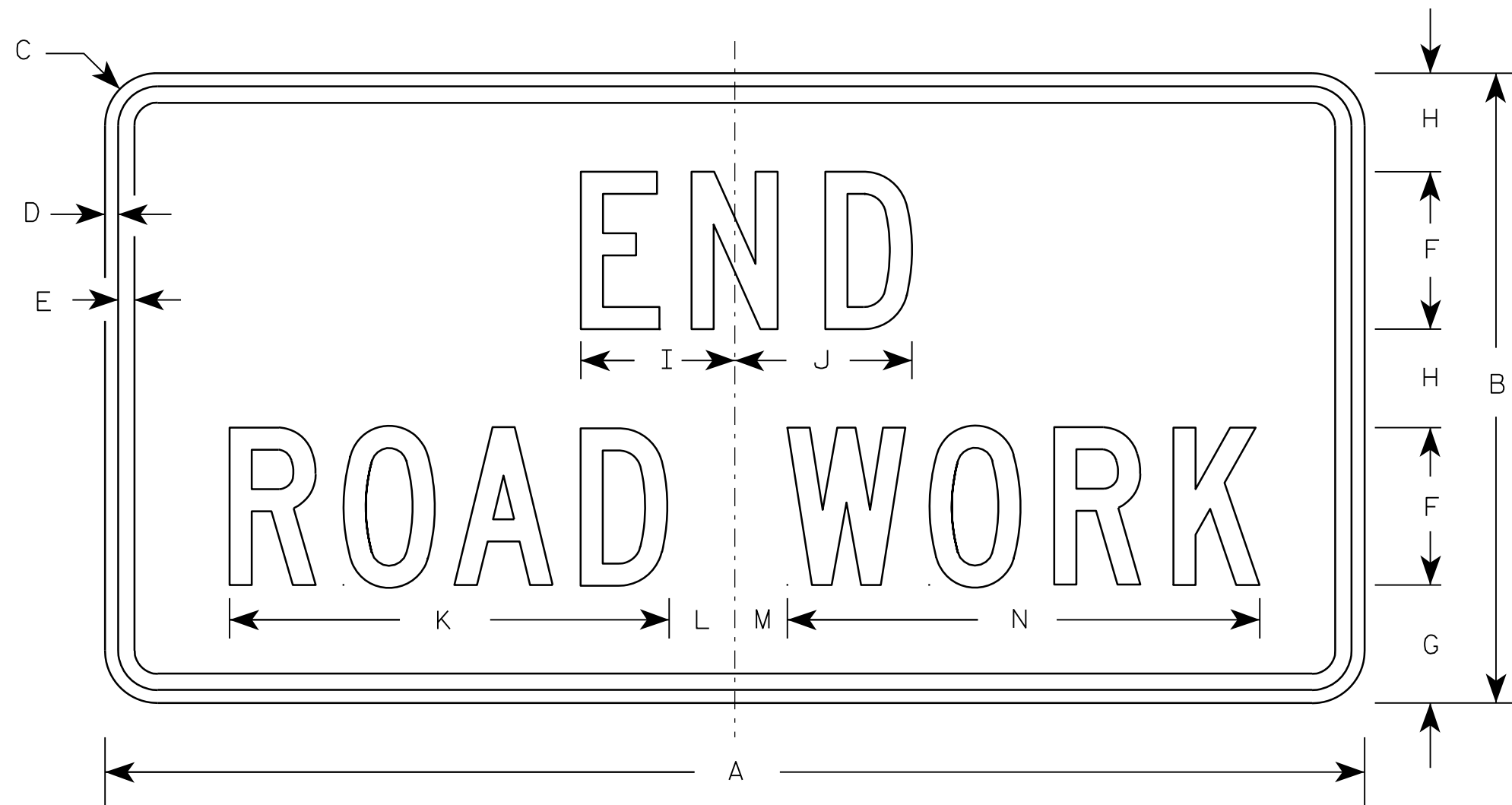
DATE 6/10/19 PLATE NO. A5-10.2

PROJECT NO:

SHEET NO: 73

E

7



G20-2A

Metric equivalent
for this sign is:

SIZE	
1	900 mm X 450 mm
2	1200 mm X 600 mm
3	1200 mm X 600 mm
4	1200 mm X 600 mm
5	1200 mm X 600 mm

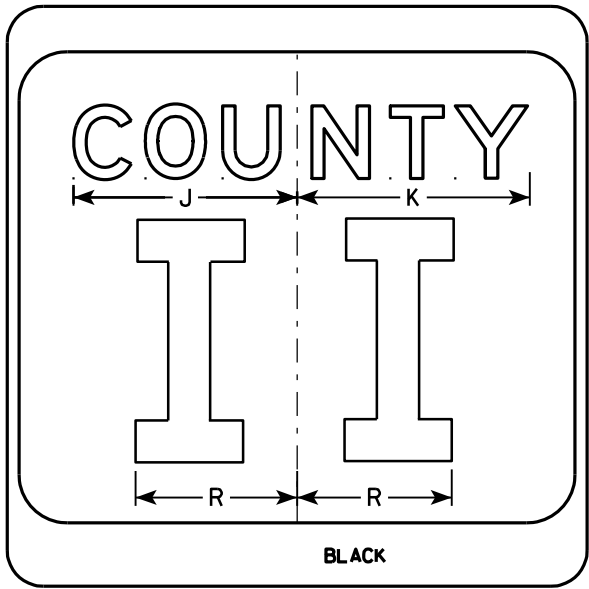
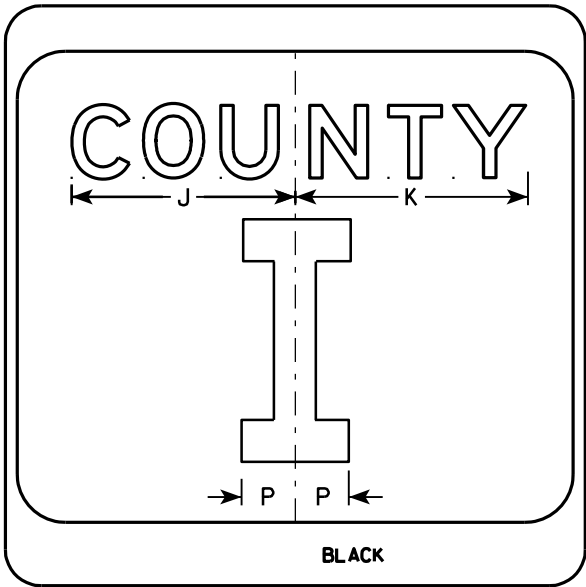
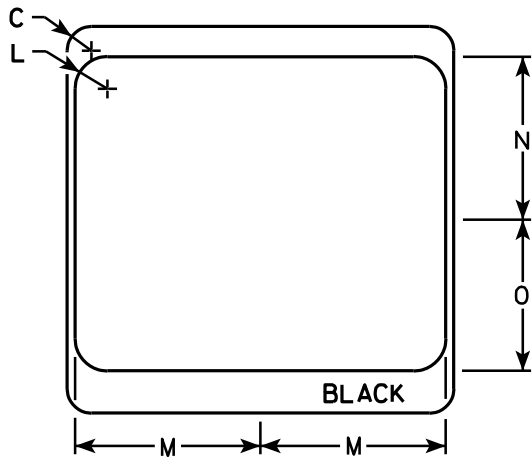
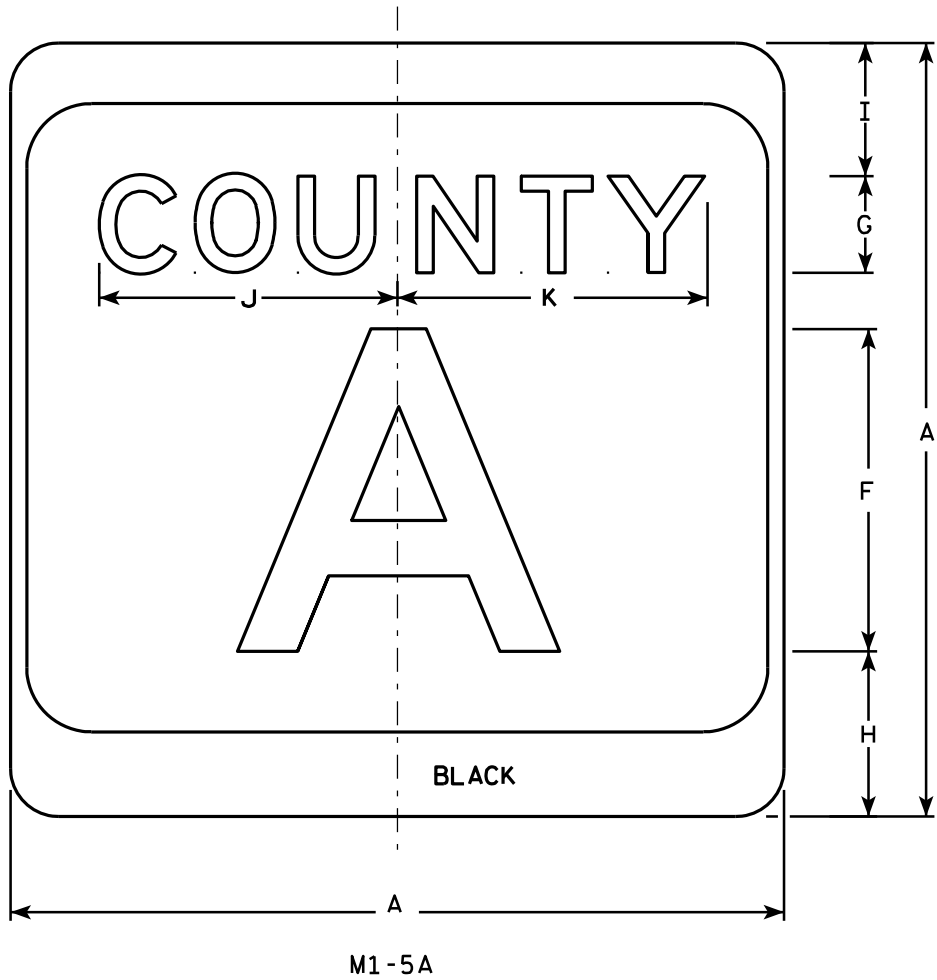
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area sq. m.
1	36	18	1 1/8	3/8	1/2	4	3 3/4	2 1/2	4 1/8	4 1/8	11 1/8	2	1	12 1/8													4.5	0.41
2	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
3	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
4	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
5	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72

NOTES

- Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:
Background - Orange
Message - Black
- 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.

7

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: 75	E
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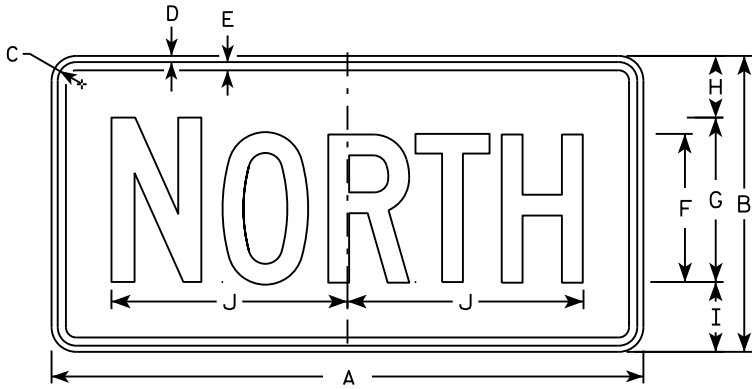
CTH MARKER

M1-5A FOR ASSEMBLIES

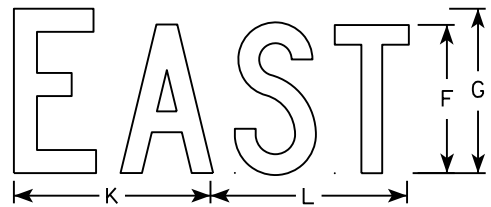
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

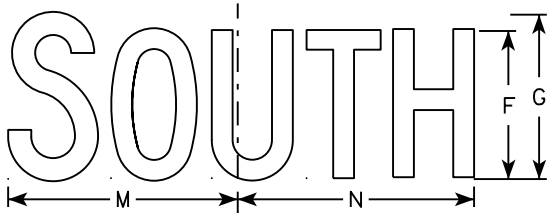
DATE 9/27/11 PLATE NO. M1-5A.8



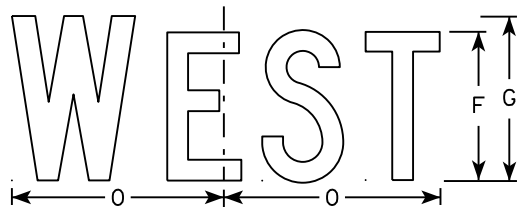
M3-1
MM3-1
MP3-1



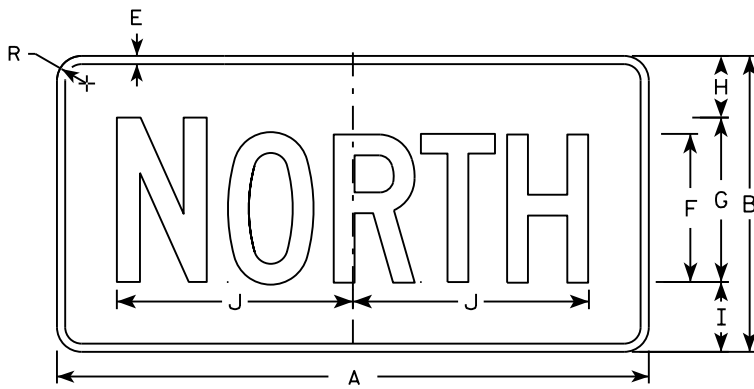
M3-2
MM3-2
MP3-2



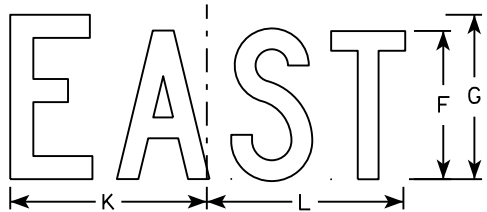
M3-3
MM3-3
MP3-3



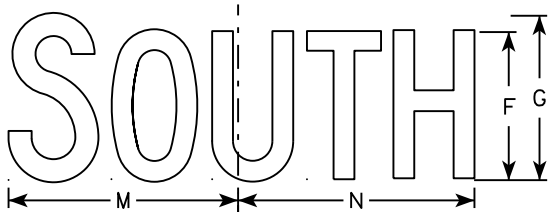
M3-4
MM3-4
MP3-4



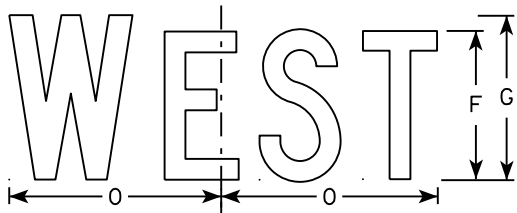
MB3-1
MK3-1
MN3-1



MB3-2
MK3-2
MN3-2



MB3-3
MK3-3
MN3-3



MB3-4
MK3-4
MN3-4

NOTES

1. All Signs Type II - Type H
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. M3-1 thru M3-4 Background - White
Message - Black
MB3-1 thru MB3-4 Background - Blue
Message - White
MK3-1 thru MK3-4 Background - Green
Message - White
MM3-1 thru MM3-4 Background - White
Message - Green
MN3-1 thru MN3-4 Background - Brown
Message - White
MP3-1 thru MP3-4 Background - White
Message - Blue
6. 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

STANDARD SIGNS
M3-1 thru M3-4
SERIES

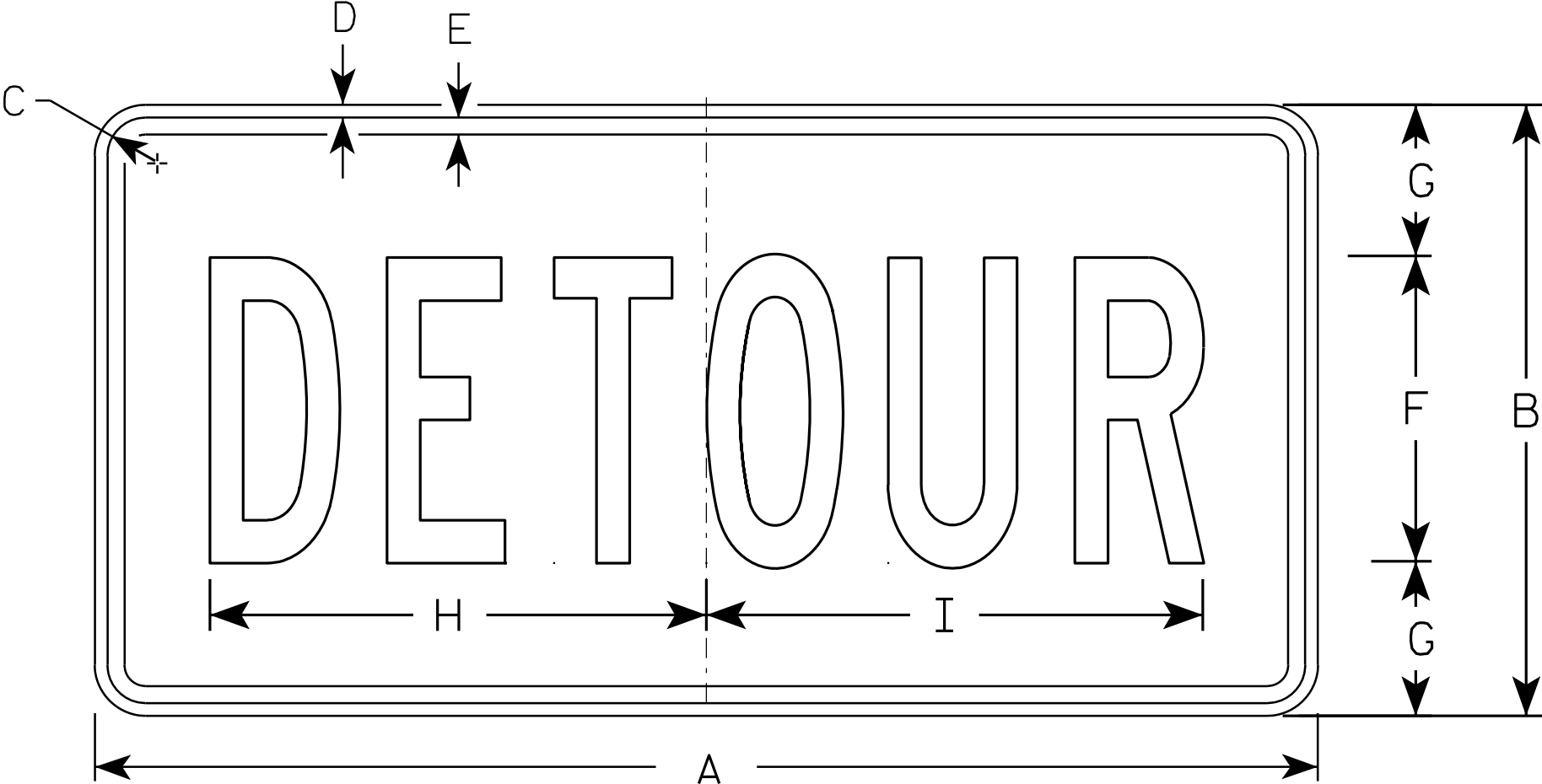
WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE NO. 76 M3-1.14

NOTES

- 1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:
 - Background - Orange
 - Message - Black
- 3. Message Series - B
- 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.



M4 - 8

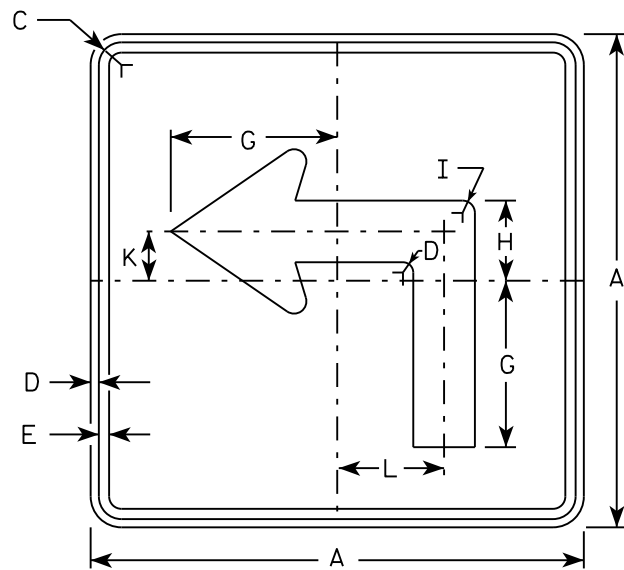
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	3	10	10 1/4																		2.0
3	36	18	1 1/8	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5
4																											
5																											

STANDARD SIGN
M4 - 8

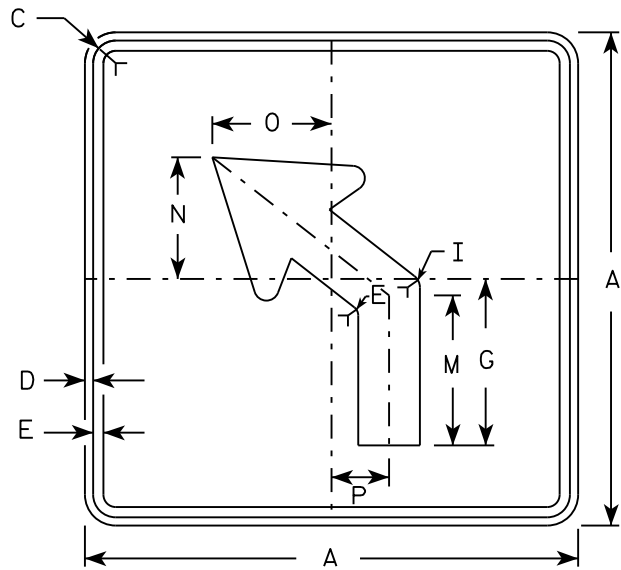
WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

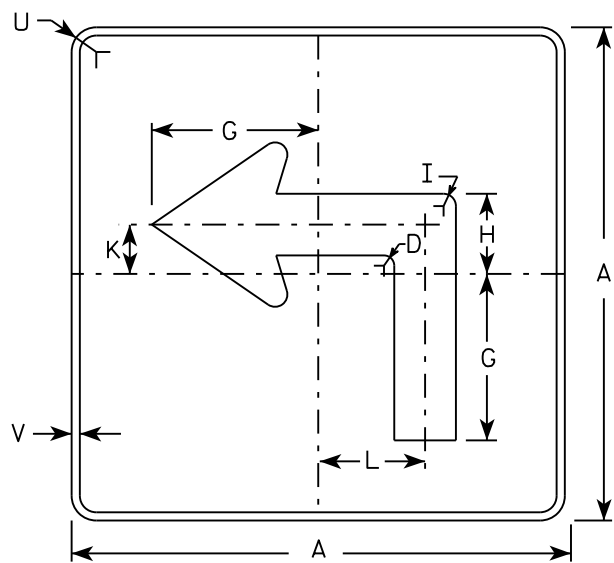
DATE 11/10/10 PLATE NO. M4-8.2



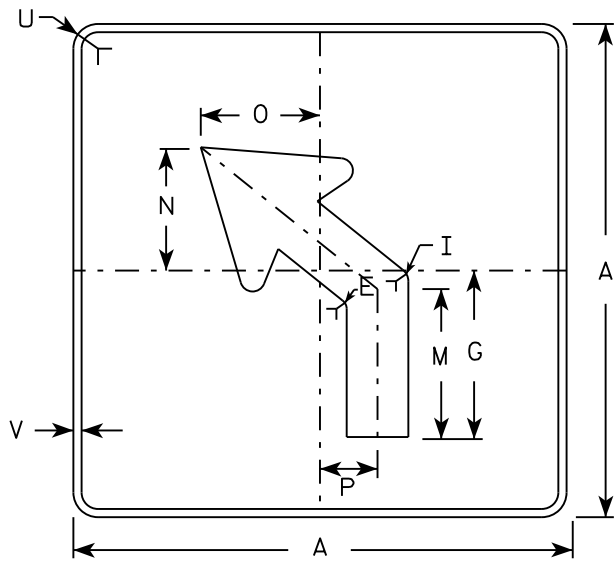
M5-1L
MM5-1L
M05-1L
MP5-1L



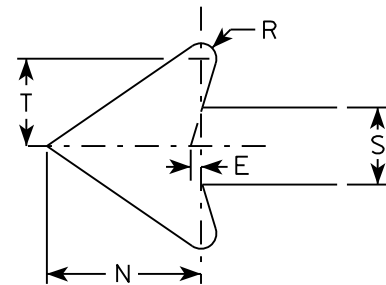
M5-2L
MM5-2L
M05-2L
MP5-2L



MB5-1L
MK5-1L
MN5-1L
MR5-1L



MB5-2L
MK5-2L
MN5-2L
MR5-2L



NOTES

- Signs are Type II - Type H reflective except as shown
- 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.
- | | |
|-----------------|---|
| M5-1 and M5-2 | Background - White |
| | Message - Black |
| MB5-1 and MB5-2 | Background - Blue |
| | Message - White |
| MK5-1 and MK5-2 | Background - Green |
| | Message - White |
| MM5-1 and MM5-2 | Background - White |
| | Message - Green |
| MN5-1 and MN5-2 | Background - Brown |
| | Message - White |
| M05-1 and M05-2 | Background - Orange - Type F Reflective |
| | Message - Black |
| MP5-1 and MP5-2 | Background - White - Type H Reflective |
| | Message - Blue |
| MR5-1 and MR5-2 | Background - Brown |
| | Message - Yellow |
- M5-1R same as M5-1L except arrow points right.
- M5-2R same as M5-2L except arrow tilts 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	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3	1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25
4	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25
5	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25

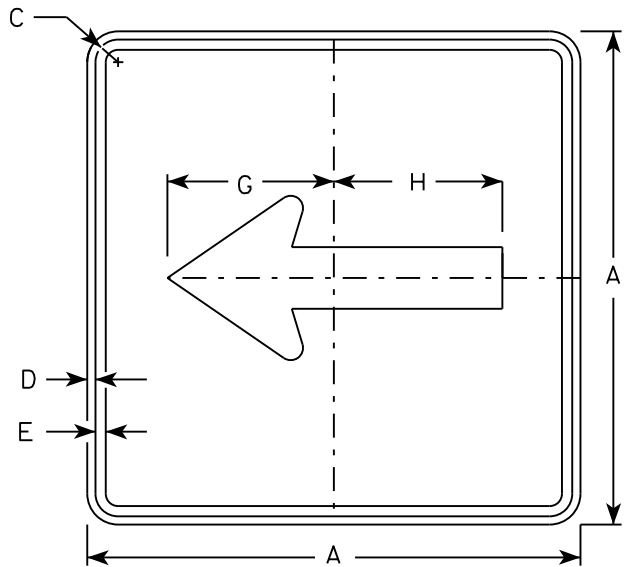
PROJECT NO:	HWY:	COUNTY:	SHEET NO:	E
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STANDARD SIGN
M5-1 & M5-2

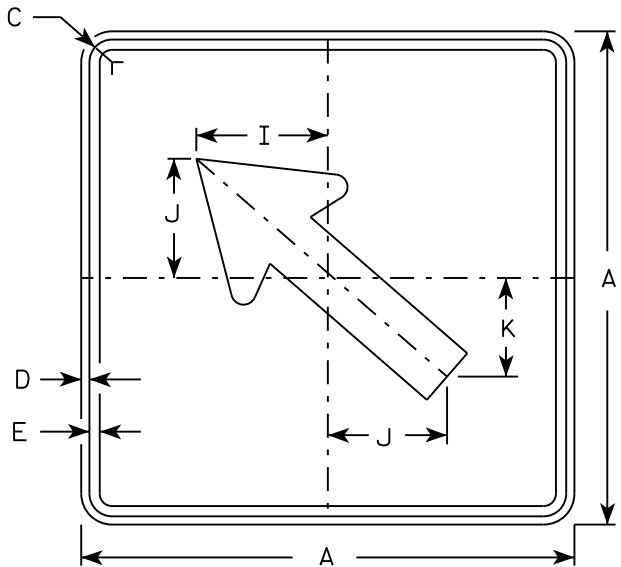
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

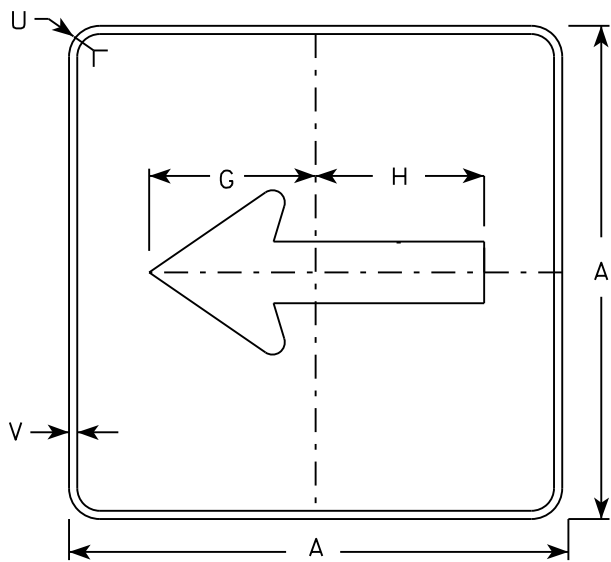
DATE 10/15/15 PLATE 78 M5-1.13



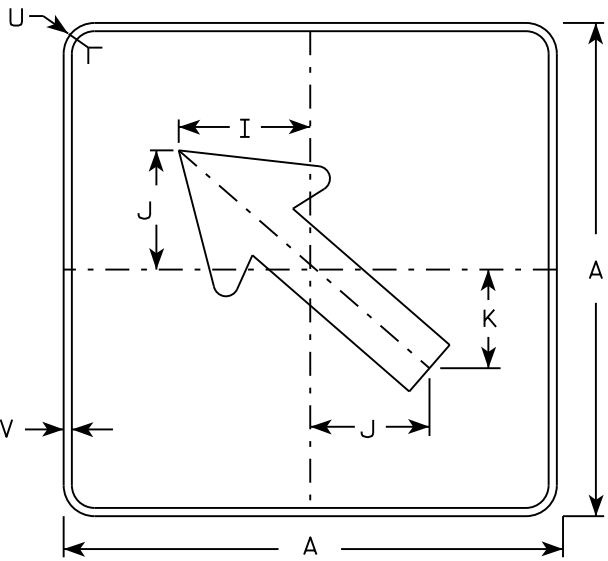
M6 - 1
MM6 - 1
M06 - 1
MP6 - 1



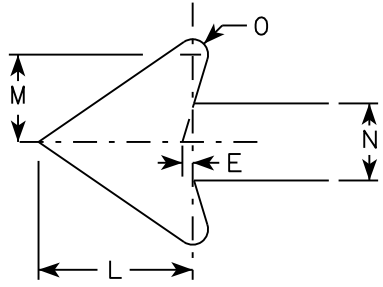
M6 - 2
MM6 - 2
M06 - 2
MP6 - 2



MB6 - 1
MK6 - 1
MN6 - 1
MR6 - 1



MB6 - 2
MK6 - 2
MN6 - 2
MR6 - 2



NOTES

- 1. Signs are Type II - Type H except as Shown
- 2. Color:
Background - See note 4
Message - See note 4
- 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. M6-1 and M6-2 Background - White
Message - Black
MB6-1 and MB6-2 Background - Blue
Message - White
MK6-1 and MK6-2 Background - Green
Message - White
MM6-1 and MM6-2 Background - White
Message - Green
MN6-1 and MN6-2 Background - Brown
Message - White
M06-1 and M06-2 Background - Orange - Type F Reflective
Message - Black
MP6-1 and MP6-2 Background - White
Message - Blue
MR6-1 and MR6-2 Background - Brown
Message - Yellow

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:

DATE 10/15/15

PLAT 79

SHEET NO:

E

STANDARD SIGN
M6 - 1 & M6 - 2
SERIES

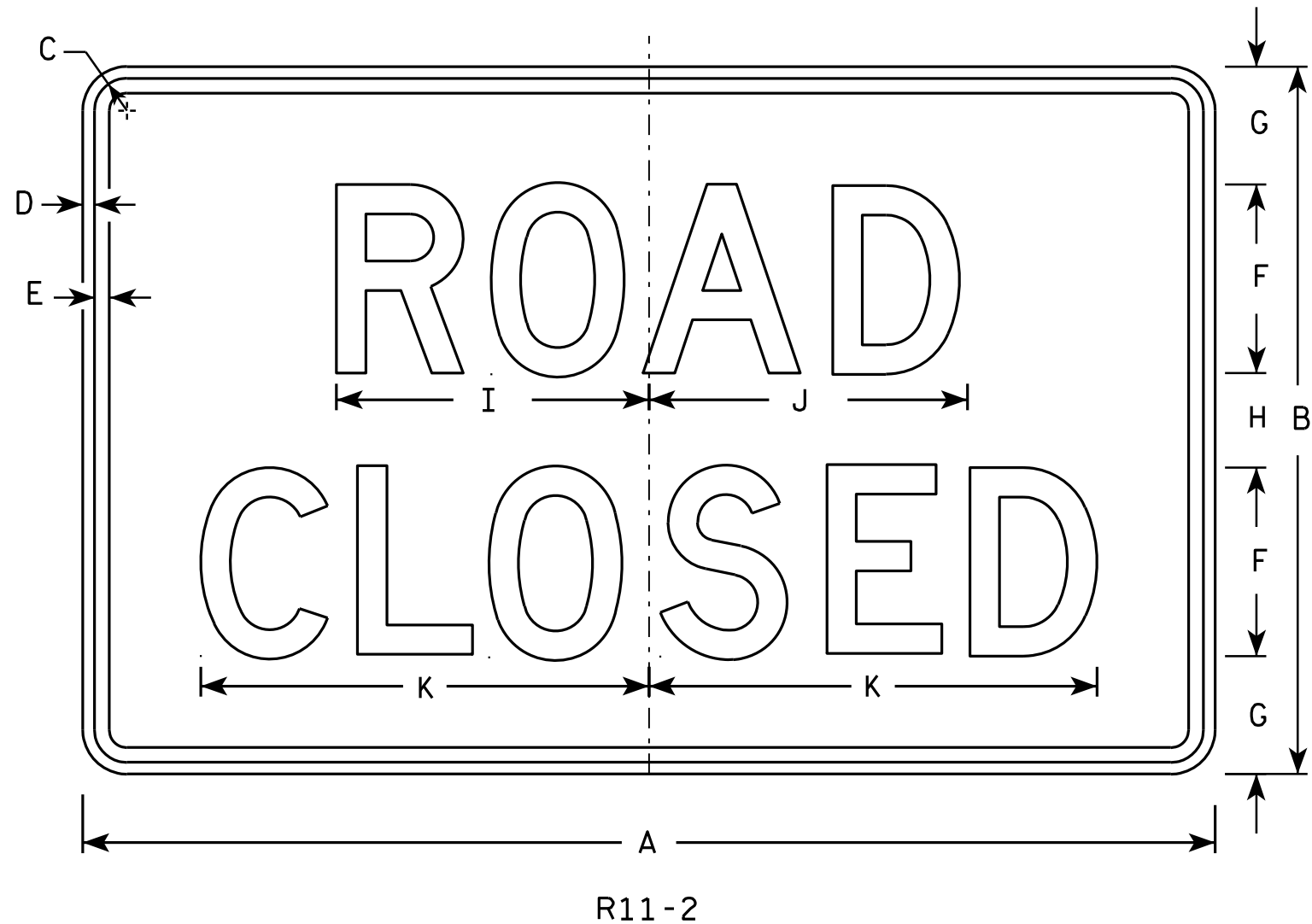
WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

DATE 10/15/15

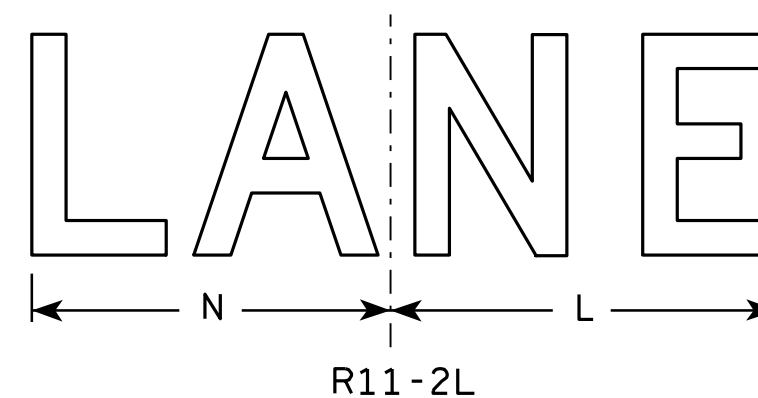
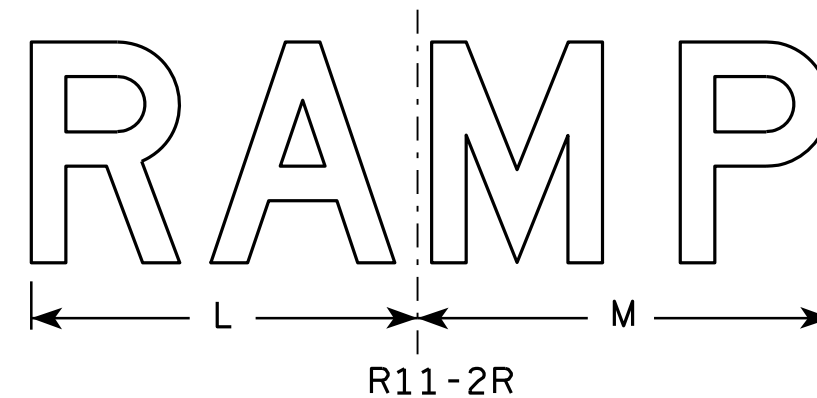
PLAT 79

M6-1.15



NOTES

- Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:
Background - White
Message - Black
- Message Series - D
- 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.
- Modify the message as required.

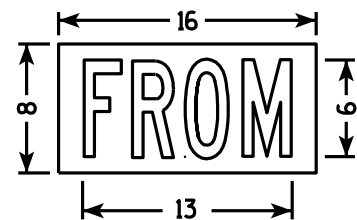
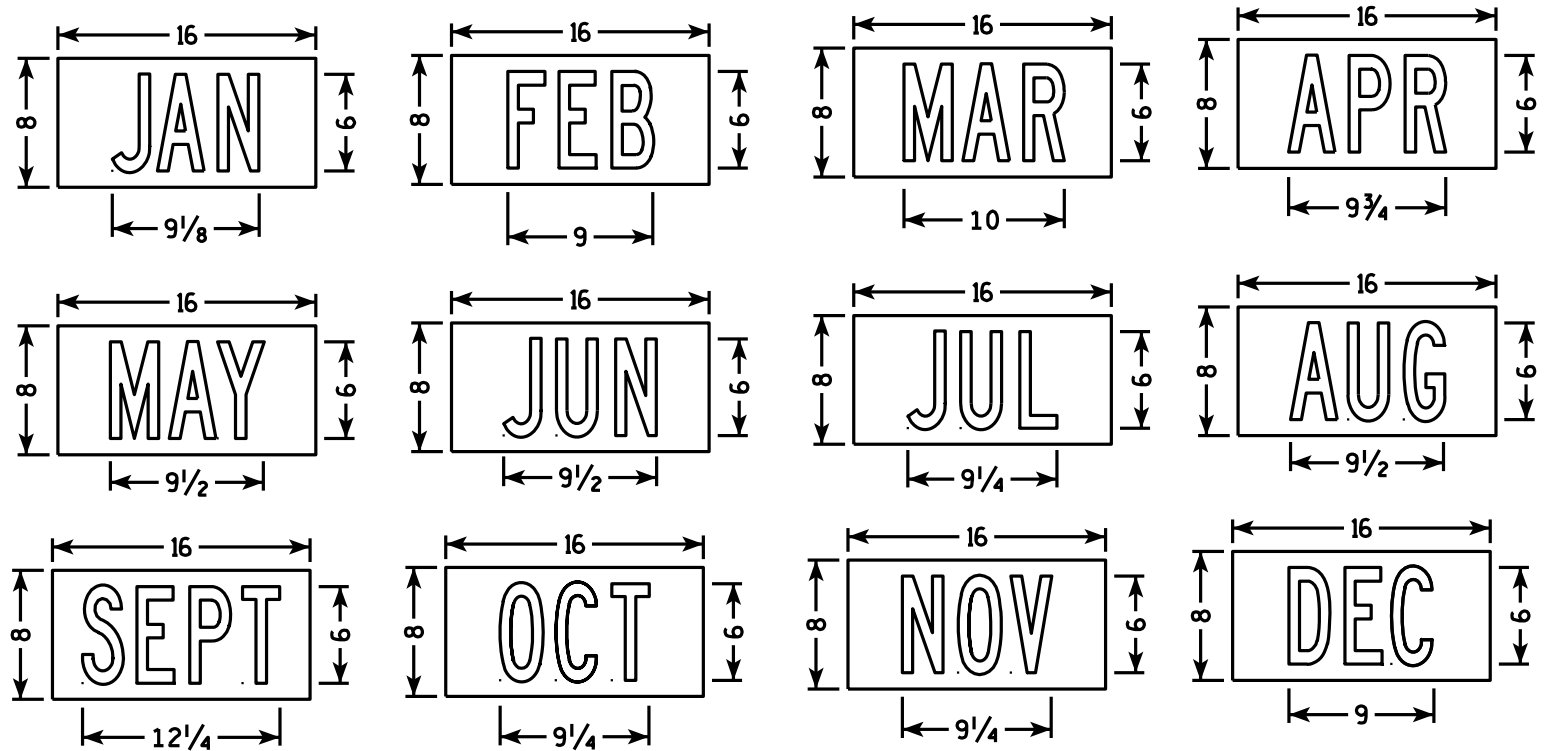
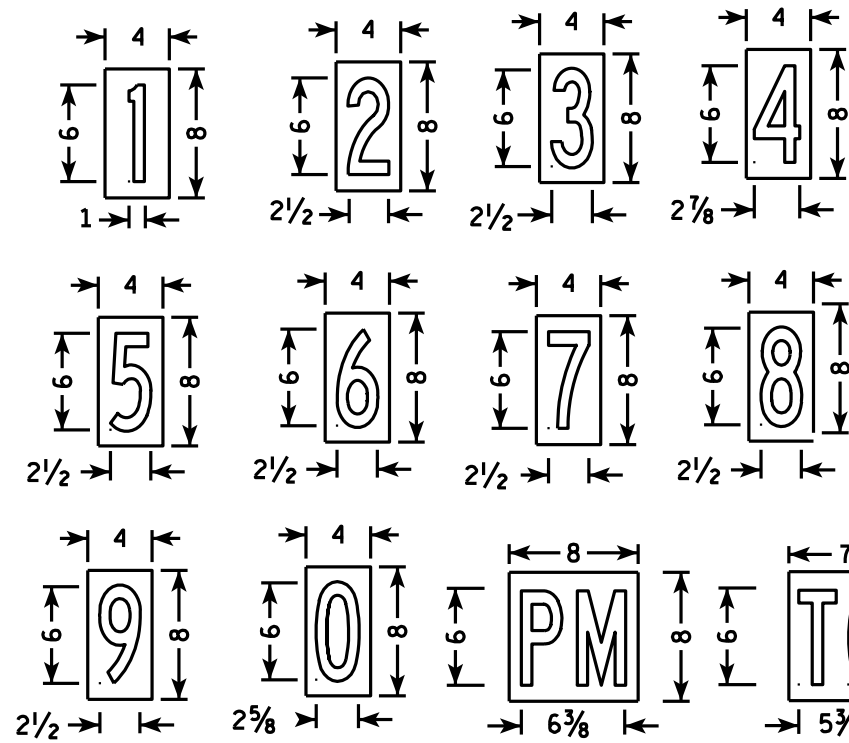
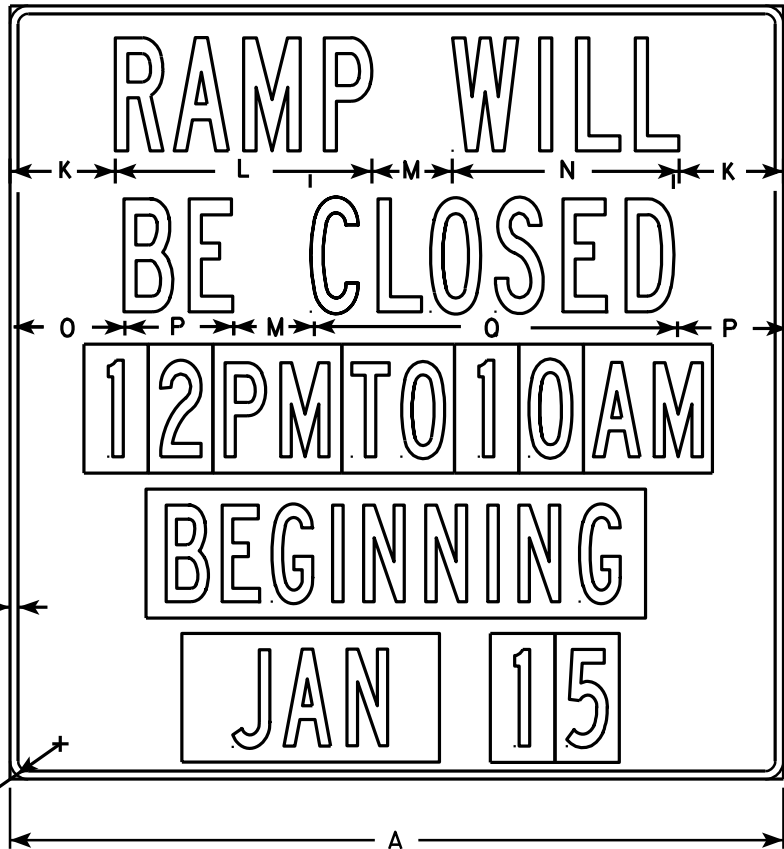


SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	1 3⁄8	1⁄2	5⁄8	8	5	4	13 1⁄4	13 1⁄2	19	14	15	13													10.0
2M	48	30	1 3⁄8	1⁄2	5⁄8	8	5	4	13 1⁄4	13 1⁄2	19	14	15	13													10.0
3	48	30	1 3⁄8	1⁄2	5⁄8	8	5	4	13 1⁄4	13 1⁄2	19	14	15	13													10.0
4	48	30	1 3⁄8	1⁄2	5⁄8	8	5	4	13 1⁄4	13 1⁄2	19	14	15	13													10.0
5	48	30	1 3⁄8	1⁄2	5⁄8	8	5	4	13 1⁄4	13 1⁄2	19	14	15	13													10.0

STANDARD SIGN R11-2

WISCONSIN DEPT OF TRANSPORTATION
APPROVED *Matthew R. Rauch*
for State Traffic Engineer
DATE 4/1/11 PLATE NO. R11-2.10

PROJECT NO: HWY: COUNTY: SHEET NO: 80 E



NOTES

- 1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:
Background - White
Message - Black
- 3. Message Series - B
- 4. Message plaques consist of Type H Reflective sheeting with the appropriate non-reflective black message applied to .040 aluminum and screwed to the base sign.

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		2 1/4	1/2		2	6	7	3		6 1/2	15 7/8	5	14 1/8	6 7/8	6 3/4	22 1/2										16.0
2M	48		2 1/4	1/2		2	6	7	3		6 1/2	15 7/8	5	14 1/8	6 7/8	6 3/4	22 1/2										16.0
3																											
4																											
5																											

STANDARD SIGN
R11-51

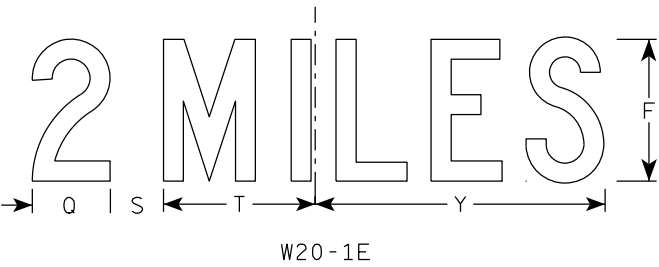
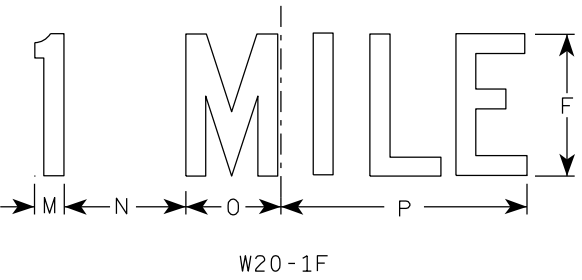
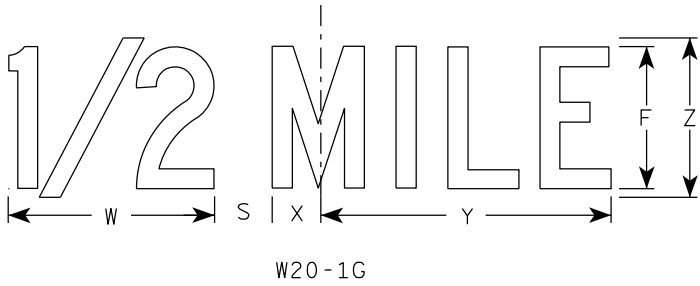
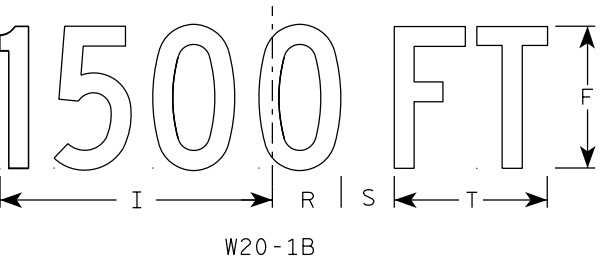
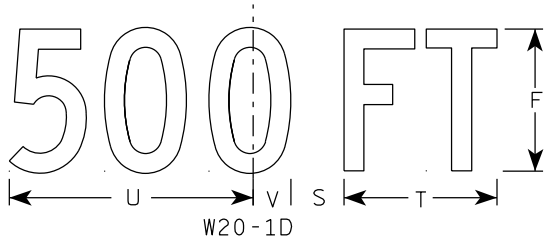
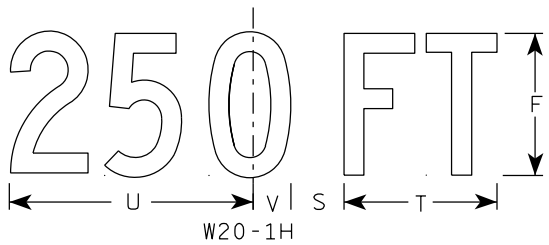
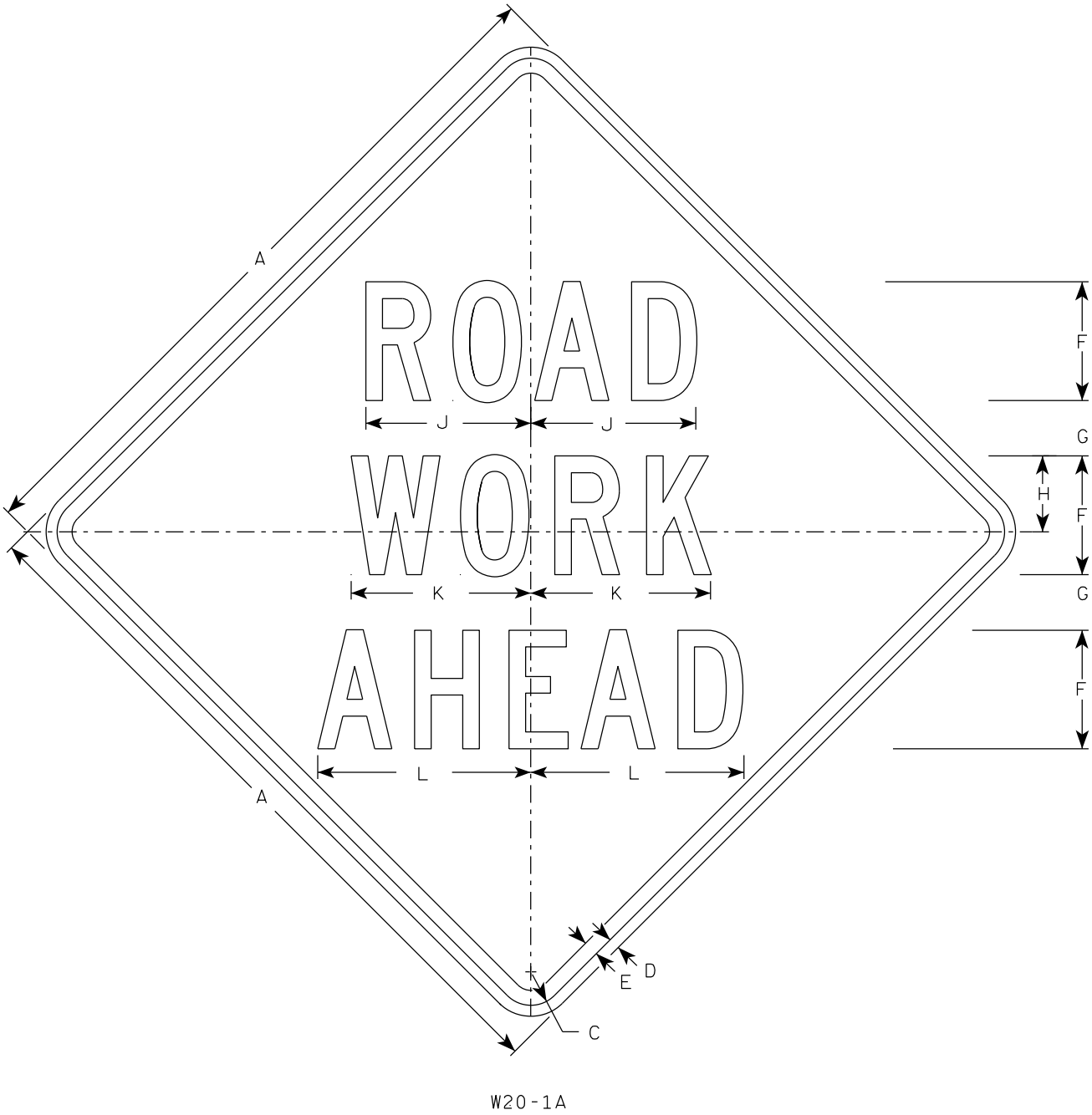
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 4/1/11 PLATE NO. R11-51.4

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
Background - Orange
Message - Black
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.



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	A _{req} sq. ft.
1	36		1 5/8	5/8	3/4	5	2 5/8	3 1/4	10 1/8	7	7 5/8	8 7/8	1 1/8	4 1/2	3 1/2	9	3 1/4	2 1/2	2 1/4	5 5/8	9	1 3/8	8	1 3/4	10 3/4	6	9.0
2S	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
2M	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
3	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
4	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
5	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0

STANDARD SIGN
W20-1A, B, C, D, E, F, G & H

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

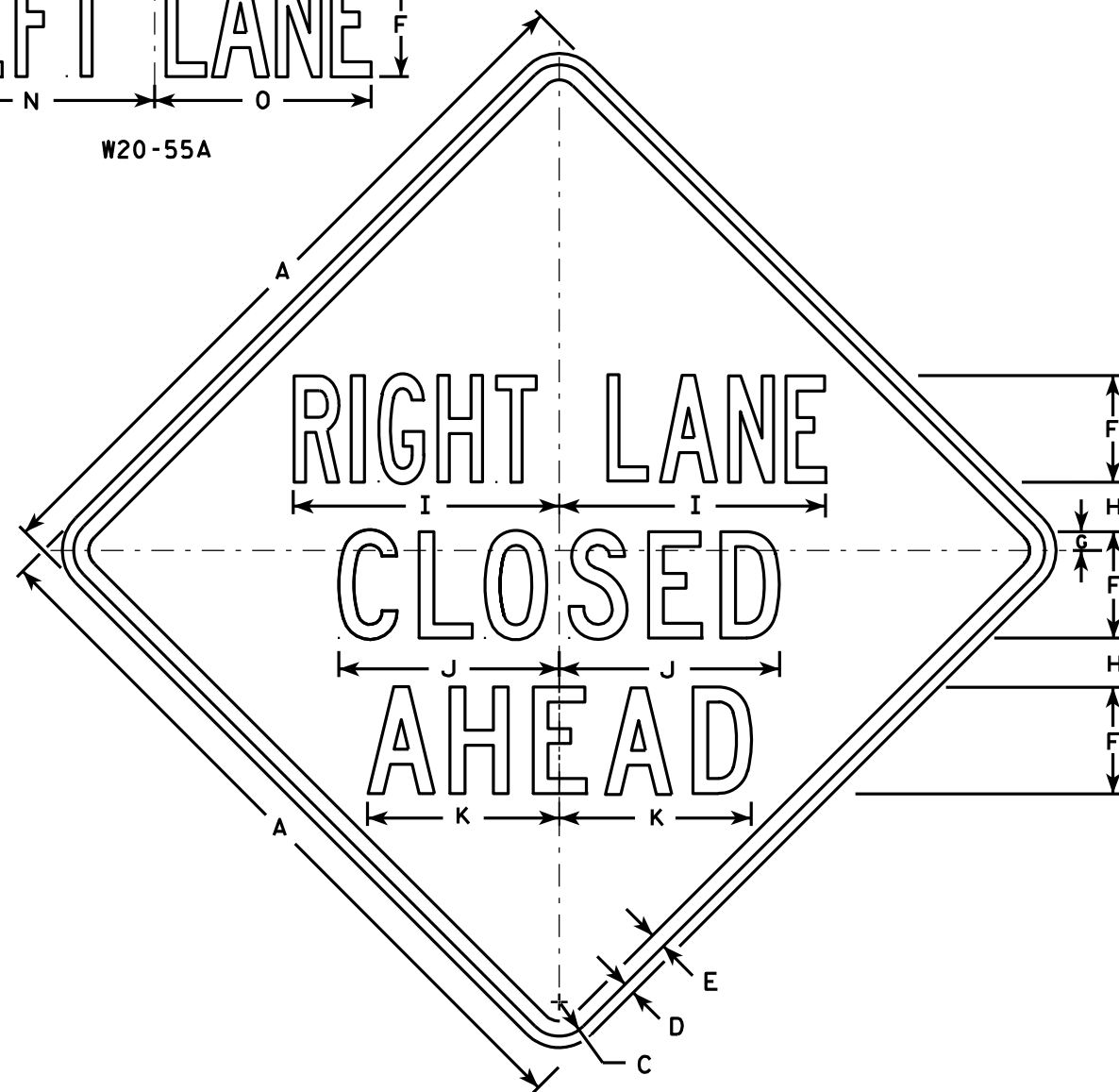
DATE 3/25/2020 PLATE NO. W20-1.11

CENTER LANE

W20-56A

LEFT LANE

W20-55A



W20-5A

500 FT

W20-5D

1000 FT

W20-5C

1500 FT

W20-5B

1/2 MILE

W20-5G

1 MILE

W20-5F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Orange
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. "----- LANE" is Series B.
All other copy is Series C.

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	36	6	1 5/8	5/8	3/4	5	7/8	2 1/2	13 1/8	10 3/4	9 1/2	14 1/4	13 5/8	12	12	1 3/8	1 1/8	4 1/2	3 1/2	9	1 7/8	5 5/8	10 1/8	2 1/2	1 3/4	8	9.0
2S	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
2M	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
3	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
4	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
5	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0

PROJECT NO:

HWY:

COUNTY:

STANDARD SIGN
W20-5A, B, C, D, F & G

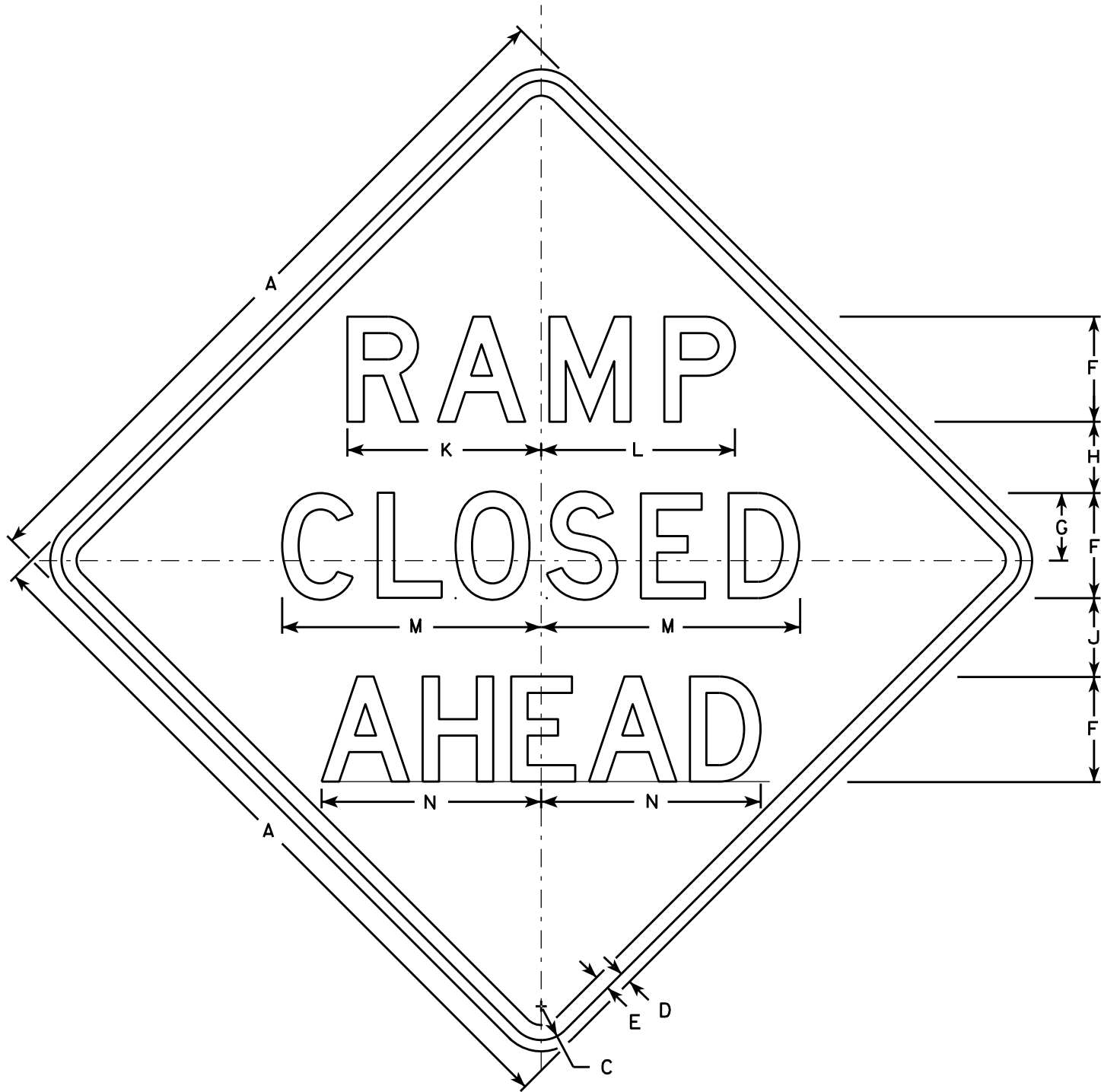
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

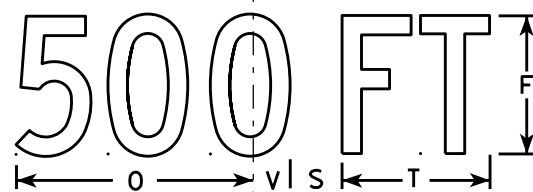
DATE 3/18/11 PLATE NO. W20-5.11

SHEET NO: 83

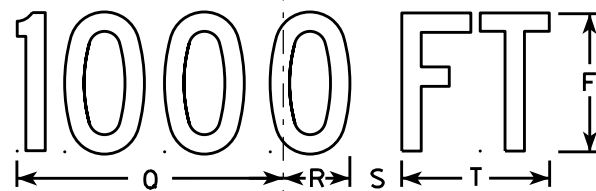
E



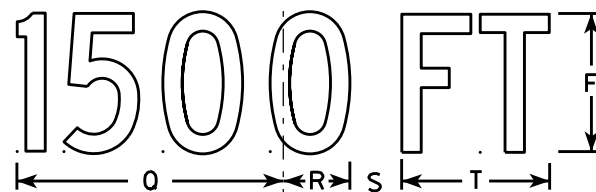
W20-53A



W20-53D



W20-53C



W20-53B



W20-53G



W20-53F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Orange
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. Lines 1 and 2 are Series D.
Line 3 is Series D for AHEAD and Series C for all other distances.

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	36		1 5/8	5/8	3/4	5	3 3/8	3 1/2	1 1/8	4	9 1/4	9 1/4	12 1/2	11	9	6	10 1/8	2 1/2	1 7/8	5 5/8	8	1 3/8	4 1/2	3 1/2	10 3/4	1 3/4	9.0
2S	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	12 7/8	12 7/8	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
2M	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	12 7/8	12 7/8	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
3	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	12 7/8	12 7/8	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
4	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	12 7/8	12 7/8	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
5	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	12 7/8	12 7/8	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0

STANDARD SIGN
W20-53A,B,C,D,F,G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 5/27/15 PLATE NO. W20-53.1

84

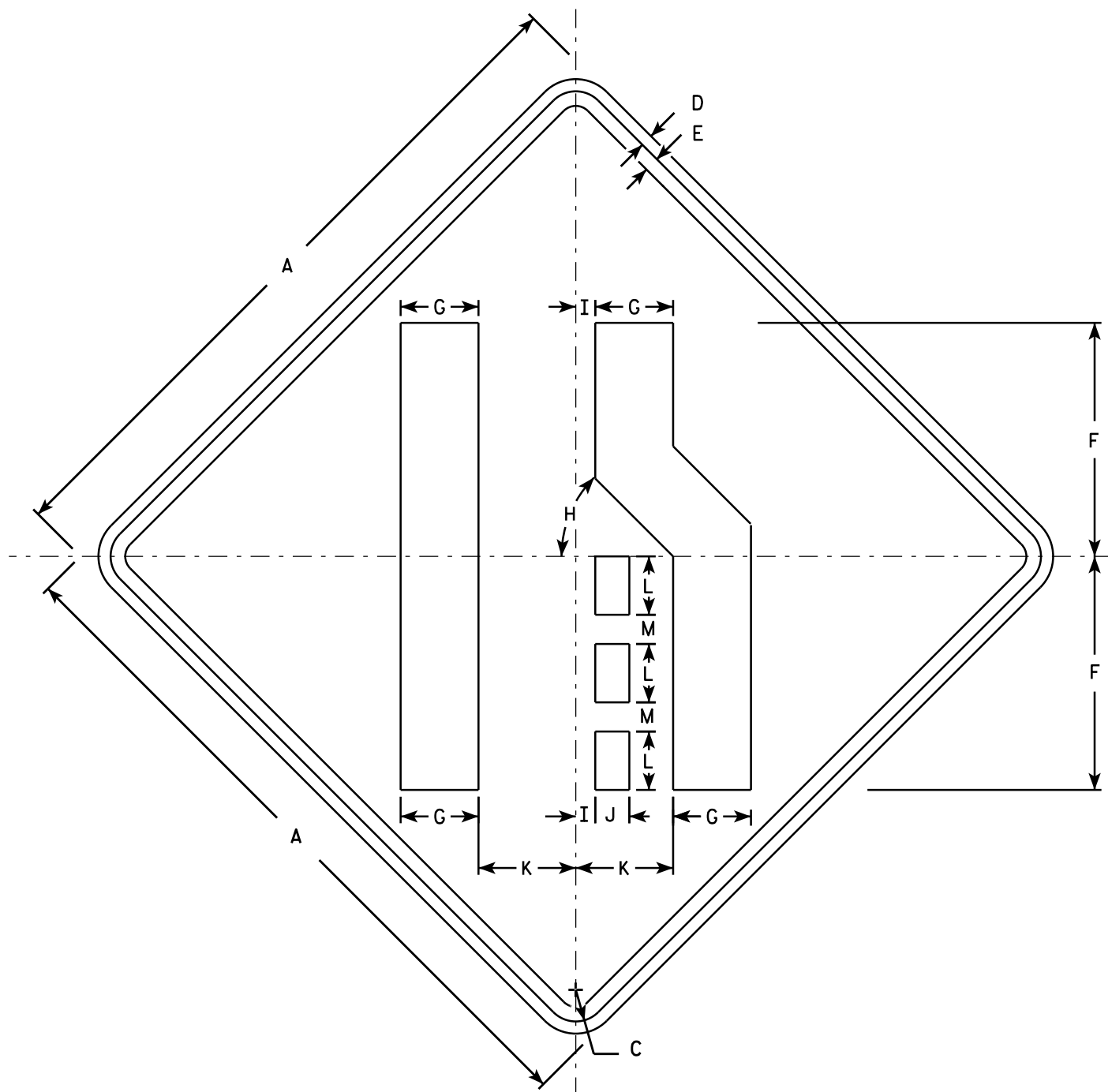
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



W04-2R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Orange
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. W04-2L is the same as W04-2R except the symbol is reversed along the vertical centerline.

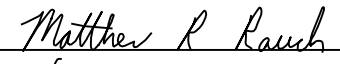
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
2S	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
2M	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
3	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
4	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
5	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0

STANDARD SIGN

W04-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED



For State Traffic Engineer

DATE 11/20/13

PLATE 85

W04-2.1

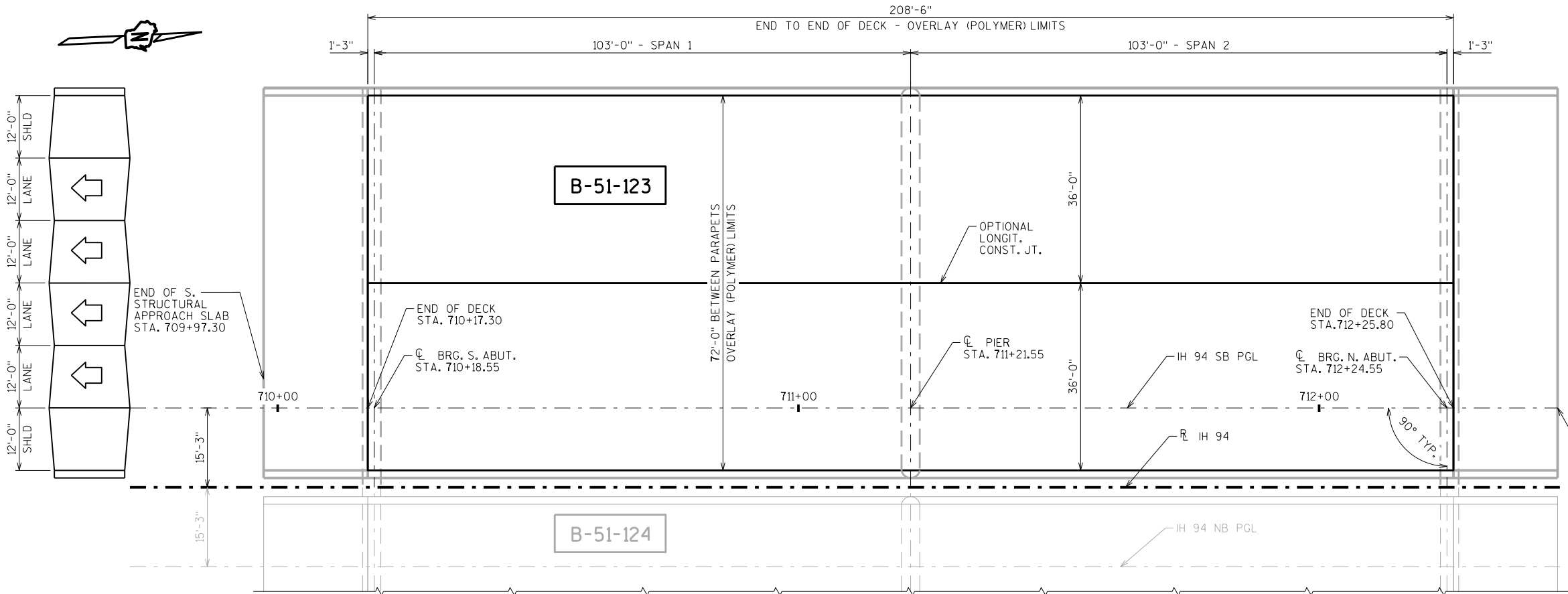
SHEET NO: E

DESIGN DATA

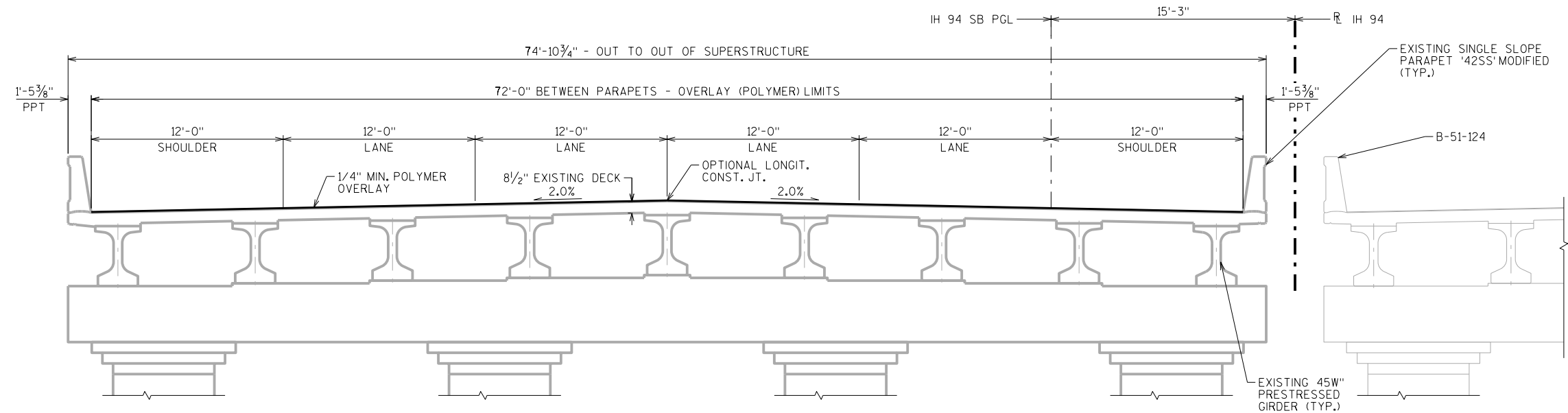
LIVE LOAD:
DESIGN LOADING: HL-93
INVENTORY RATING FACTOR: RF = 1.00
OPERATING RATING FACTOR: RF = 1.94
WISCONSIN STANDARD PERMIT VEHICLE (WIS.-SPV): 250(KIPS)

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.
DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLAN.
DECK SURFACE PREPARATION IS INCLUDED IN THE BID "POLYMER OVERLAY".
END OF N. STRUCTURAL APPROACH SLAB STA. 712+45.80



PLAN
POLYMER OVERLAY



CROSS SECTION THRU ROADWAY
LOOKING NORTH

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTALS
509,5100.S	POLYMER OVERLAY	SY	1668

LIST OF DRAWINGS

1. POLYMER OVERLAY

STRUCTURE DESIGN CONTACTS:
ENGELS VARGAS (608) 267-7111
DOMINIQUE BECHLE (608) 261-8205

NO.	DATE	REVISION	BY
BUREAU OF STRUCTURES			
ACCEPTED		CHIEF STRUCTURES DESIGN ENGINEER	DATE
STRUCTURE B-51-123			
IH 94/IH 41 SB OVER BRAUN ROAD			
COUNTY	RACINE	VILLAGE	MT. PLEASANT
DESIGN SPEC. REHABILITATION N/A			
DESIGNED BY	DESIGNED CK'D. RATINGS	DRAWN BY	PLANS CK'D.
EJV		EJV	DMB
POLYMER OVERLAY			SHEET 1 OF 1
			86

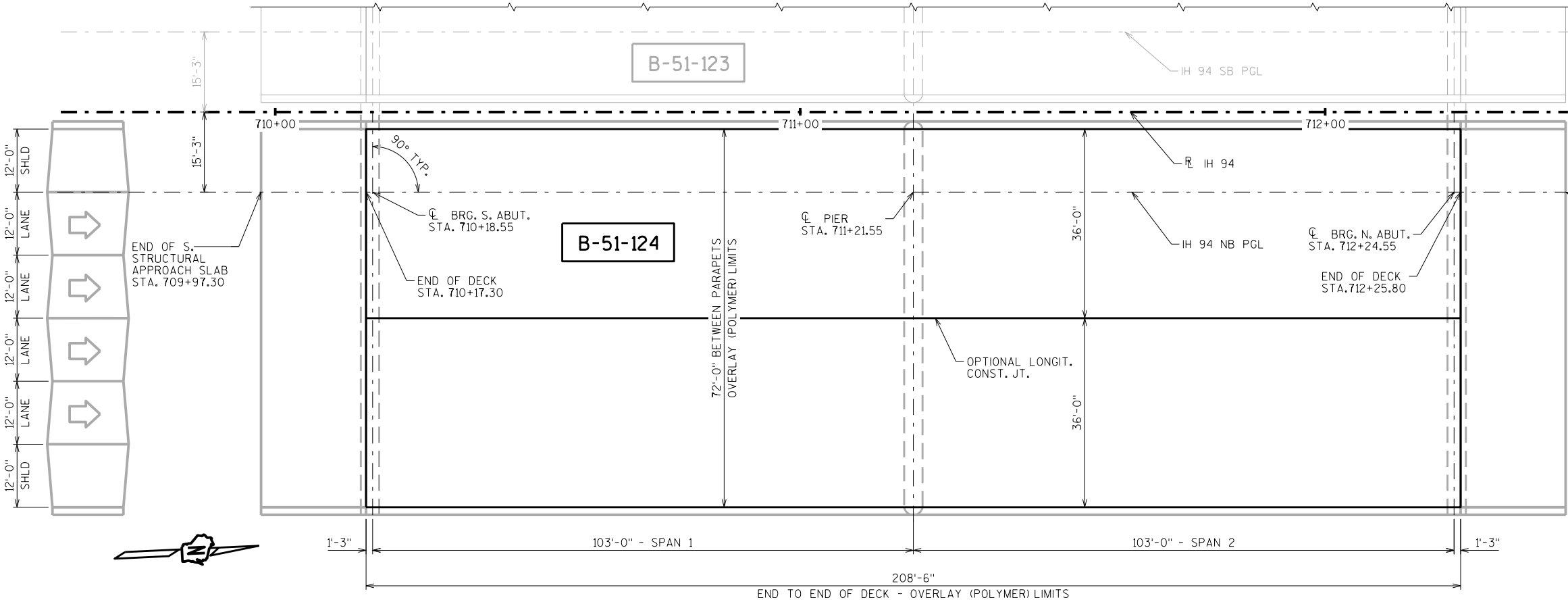
DESIGN DATA

LIVE LOAD:
DESIGN LOADING: HL-93
INVENTORY RATING FACTOR: RF = 1.00
OPERATING RATING FACTOR: RF = 1.94
WISCONSIN STANDARD PERMIT VEHICLE (WIS.-SPV): 250(KIPS)

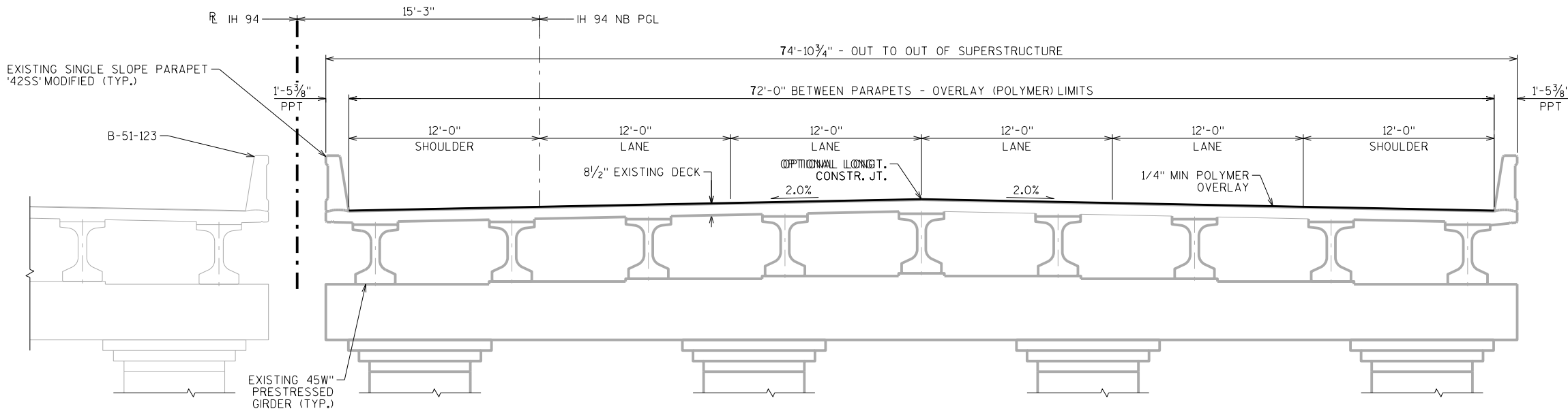
END OF N.
STRUCTURAL
APPROACH SLAB
STA. 712+45.80

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.
DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL
STRUCTURE PLAN.
DECK SURFACE PREPARATION IS INCLUDED IN
THE BID "POLYMER OVERLAY".



PLAN
POLYMER OVERLAY



CROSS SECTION THRU ROADWAY
LOOKING NORTH

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTALS
509,5100.S	POLYMER OVERLAY	SY	1668

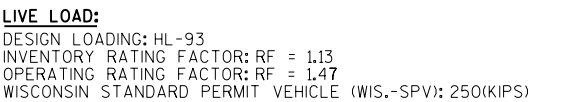
LIST OF DRAWINGS

1. POLYMER OVERLAY

STRUCTURE DESIGN CONTACTS:

ENGELS VARGAS (608) 267-7111
DOMINIQUE BECHLE (608) 261-8205

NO.	DATE	REVISION	BY
 BUREAU OF STRUCTURES			
ACCEPTED		CHIEF STRUCTURES DESIGN ENGINEER	DATE
11/03/20		DMB	
STRUCTURE B-51-124			
IH 94/IH 41NB OVER BRAUN ROAD			
COUNTY	RACINE	VILLAGE	MT. PLEASANT
DESIGN SPEC. REHABILITATION N/A			
DESIGNED BY	DESIGNED CK'D. RATINGS	DRAWN BY	PLANS CK'D.
EJV		EJV	DMB
POLYMER OVERLAY			SHEET 1 OF 1
			87



DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL
STRUCTURE PLANS.

DECK SURFACE PREPARATION IS INCLUDED IN THE BID ITEM "POLYMER OVERLAY".



BID ITEM NUMBER	BID ITEMS	UNIT	TOTALS
509.5100.S	POLYMER OVERLAY	SY	4543

1. POLYMER OVERLAY

STRUCTURE DESIGN CONTACTS:

ENGELS VARGAS	(608) 267-7111
DOMINIQUE BECHLE	(608) 261-8205

NO.	DATE	REVISION	BY
 BUREAU OF STRUCTURES			
ACCEPTED			DMB 11/03/20
CHIEF		STRUCTURE DESIGN ENGINEER	DATE
STRUCTURE B-51-125			
IH 94 SB AND RAMP OVER STH 11 AND CPRR			
COUNTY		RACINE	TOWN YORKVILLE
DESIGN SPEC. REHABILITATION N/A			
DESIGNED BY	EJV	DESIGNED CK'D. RATINGS	DRAWN BY EJV PLANS CK'D. DMB
POLYMER OVERLAY			SHEET 1 OF 1
			88

DESIGN DATA

LIVE LOAD:
DESIGN LOADING: HL-93
INVENTORY RATING FACTOR: RF = 1.12
OPERATING RATING FACTOR: RF = 1.45
WISCONSIN STANDARD PERMIT VEHICLE (WIS.-SPV): 250(KIPS)

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.
DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.
DECK SURFACE PREPARATION IS INCLUDED IN THE BID ITEM "POLYMER OVERLAY".

PLAN

POLYMER OVERLAY

CROSS SECTION THRU ROADWAY

LOOKING NORTH

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTALS
509.5100.S	POLYMER OVERLAY	SY	5196

LIST OF DRAWINGS

1. POLYMER OVERLAY

STRUCTURE DESIGN CONTACTS:

ENGELS VARGAS (608) 267-7111
DOMINIQUE BECHLE (608) 261-8205

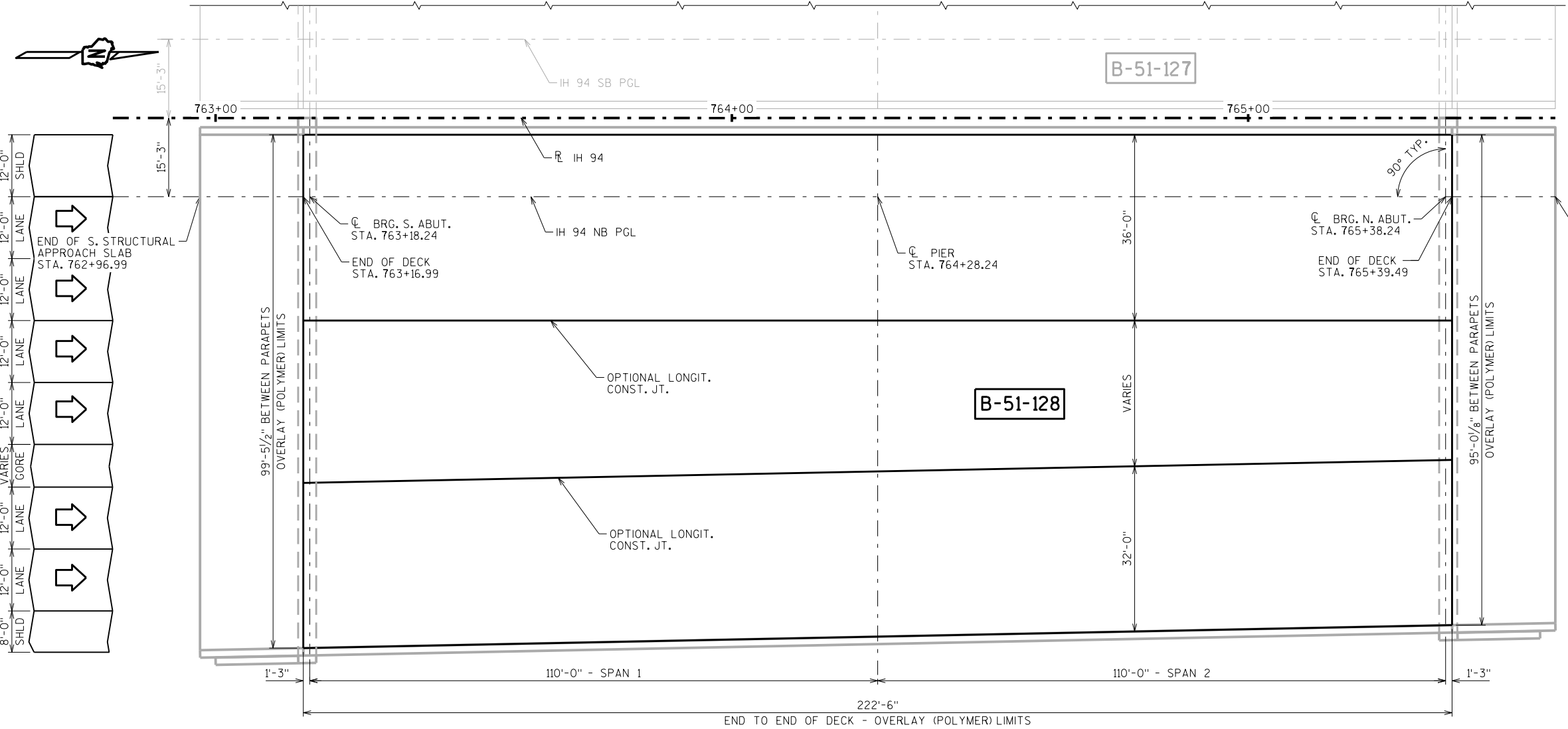
NO.	DATE	REVISION	BY
 WISCONSIN DEPARTMENT OF TRANSPORTATION BUREAU OF STRUCTURES ACCEPTED <i>[Signature]</i> DMB 11/03/20 CHIEF STRUCTURES DESIGN ENGINEER DATE STRUCTURE B-51-126 IH 94 NB AND RAMP OVER STH 11 AND CPRR COUNTY RACINE TOWN YORKVILLE DESIGN SPEC. REHABILITATION N/A DESIGNED BY EJV DESIGNED CK'D. RATINGS DRAWN BY EJV PLANS CK'D. DMB POLYMER OVERLAY SHEET 1 OF 1 89			

DESIGN DATA

LIVE LOAD:
DESIGN LOADING: HL-93
INVENTORY RATING FACTOR: RF = 1.00
OPERATING RATING FACTOR: RF = 1.81
WISCONSIN STANDARD PERMIT VEHICLE (WIS.-SPV): 250(KIPS)

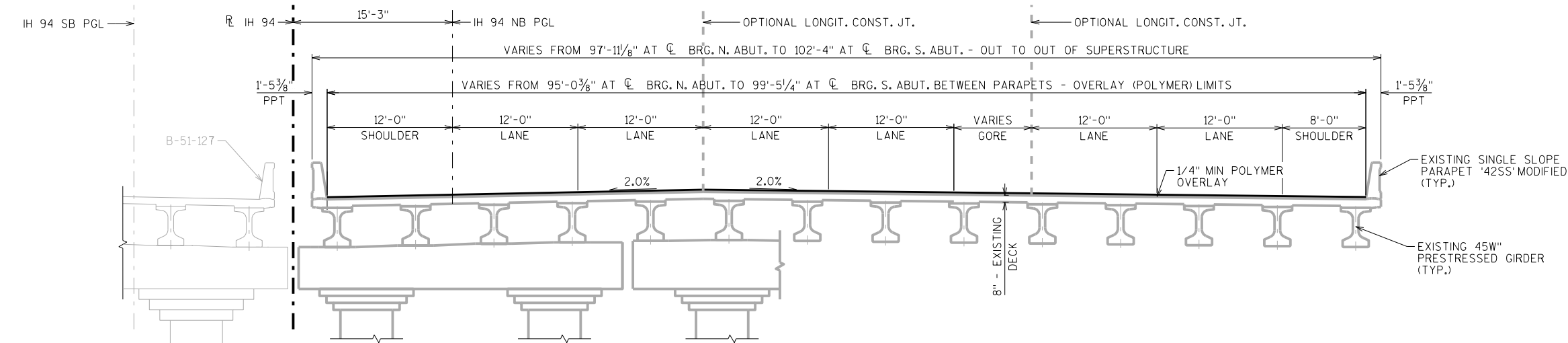
GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.
DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLAN.
DECK SURFACE PREPARATION IS INCLUDED IN THE BID "POLYMER OVERLAY".



PLAN

POLYMER OVERLAY



CROSS SECTION THRU ROADWAY

LOOKING NORTH

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTALS
509.5100.S	POLYMER OVERLAY	SY	2404

LIST OF DRAWINGS

1. POLYMER OVERLAY

STRUCTURE DESIGN CONTACTS:

ENGELS VARGAS (608) 267-7111
DOMINIQUE BECHLE (608) 261-8205

NO.	DATE	REVISION	BY
BUREAU OF STRUCTURES			
ACCEPTED <i>[Signature]</i> DMB 11/03/20			
CHIEF STRUCTURES DESIGN ENGINEER DATE			
STRUCTURE B-51-128			
IH 94/41 NB OVER 58TH ROAD			
COUNTY	RACINE	TOWN	YORKVILLE
DESIGN SPEC. REHABILITATION N/A			
DESIGNED BY	DESIGNED CK'D. RATINGS	DRAWN BY	PLANS CK'D. DMB
EJV		EJV	
POLYMER OVERLAY			SHEET 1 OF 1
			91

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.
DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.
DECK SURFACE PREPARATION IS INCLUDED IN THE BID ITEM "METHACRYLATE FLOOD SEAL".

TRAFFIC VOLUME

IH 94 EB/USH 41 SB
ADT = 114,600 (2035)
R.D.S. = 70 M.P.H.
STH 20
ADT = 40,050 (2030)
R.D.S. = 50 M.P.H.

TOTAL ESTIMATED QUANTITIES

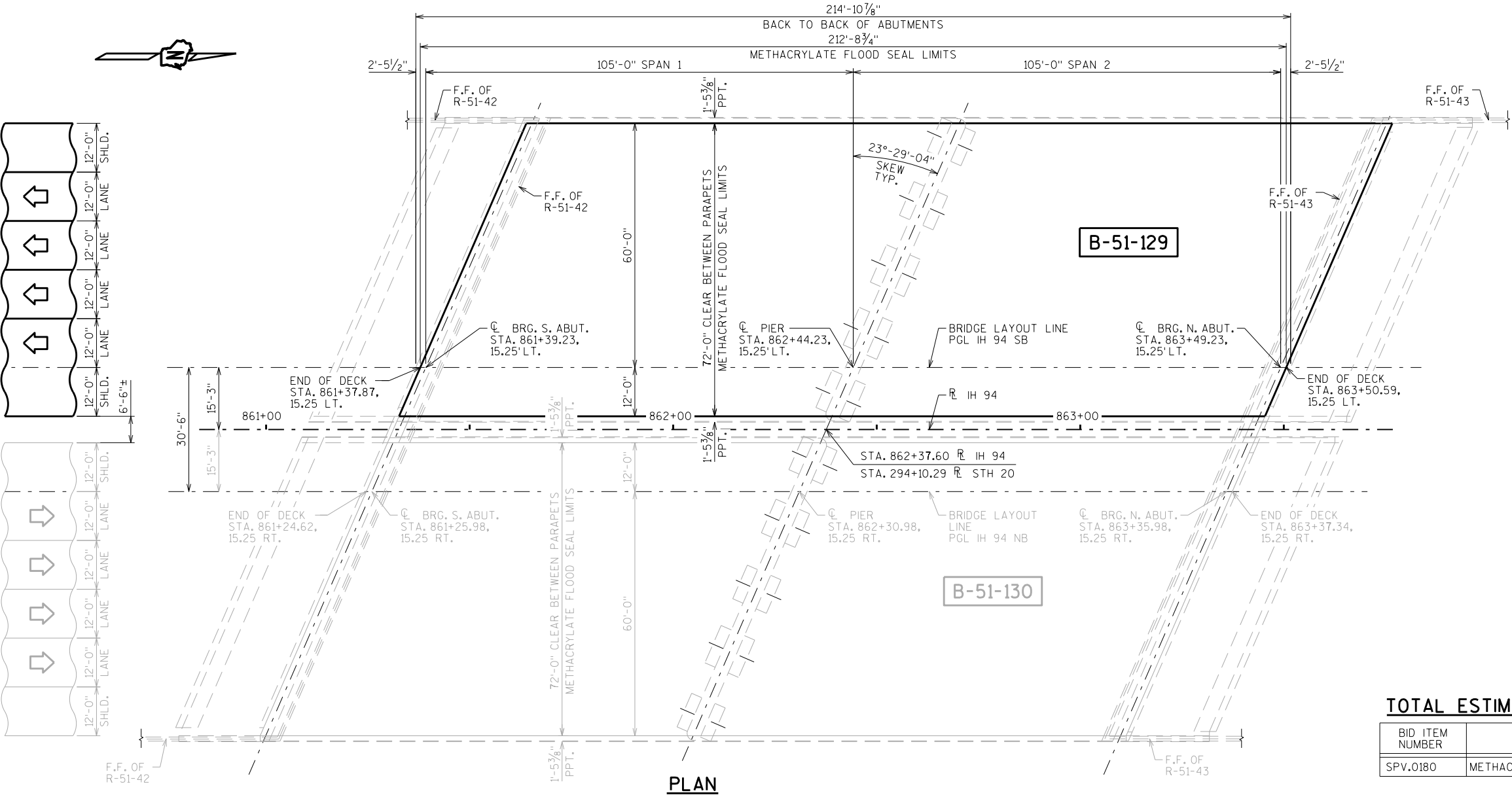
BID ITEM NUMBER	BID ITEMS	UNIT	TOTAL
SPV.0180	METHACRYLATE FLOOD SEAL	SY	1,703

STRUCTURE DESIGN CONTACTS:
ENGELS VARGAS (608) 267-7111
DOMINIQUE BECHLE (608) 261-8205

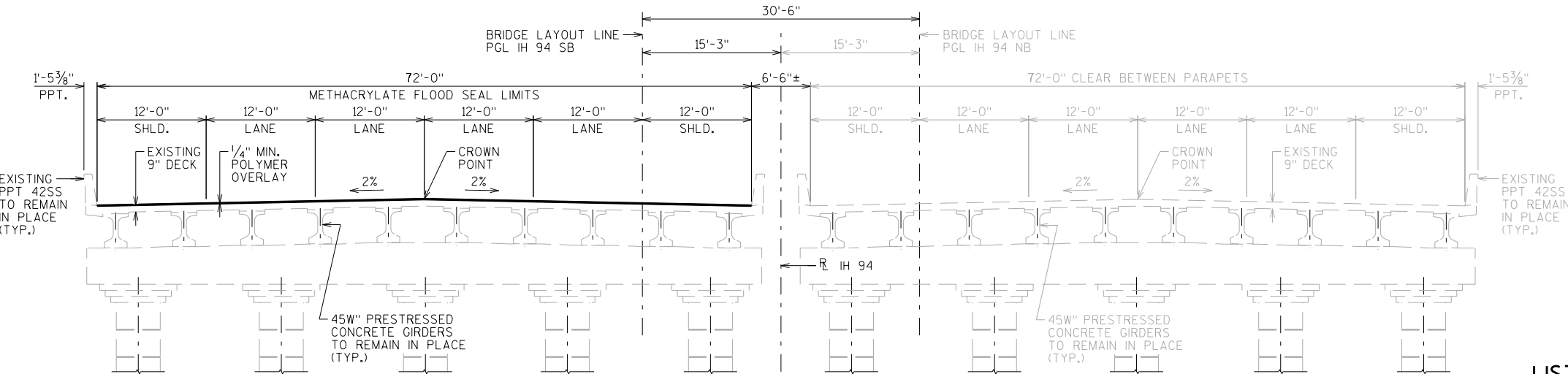
NO.	DATE	REVISION	BY
 WISCONSIN DEPARTMENT OF TRANSPORTATION BUREAU OF STRUCTURES 11/03/20 DATE ACCEPTED CHIEF STRUCTURES DESIGN ENGINEER DMB DATE STRUCTURE B-51-129 IH 94 EB/USH 41 SB OVER STH 20 COUNTY RACINE TOWN YORKVILLE DESIGN SPEC. REHABILATION N/A DESIGNED BY EJV DESIGNED CK'D. DMB DRAWN BY EJV PLANS CK'D. DMB DECK SEALING SHEET 1 OF 1 92			

LIST OF DRAWINGS

1. DECK SEALING



PLAN



B-51-129

CROSS SECTION THRU ROADWAY - LOOKING NORTH

B-51-130

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.
DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.
DECK SURFACE PREPARATION IS INCLUDED IN THE BID ITEM "METHACRYLATE FLOOD SEAL".

TRAFFIC VOLUME

IH 94 WB/USH 41 NB
ADT = 114,600 (2035)
R.D.S. = 70 M.P.H.

STH 20
ADT = 40,050 (2030)
R.D.S. = 50 M.P.H.

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTAL
SPV.0180	METHACRYLATE FLOOD SEAL	SY	1,703

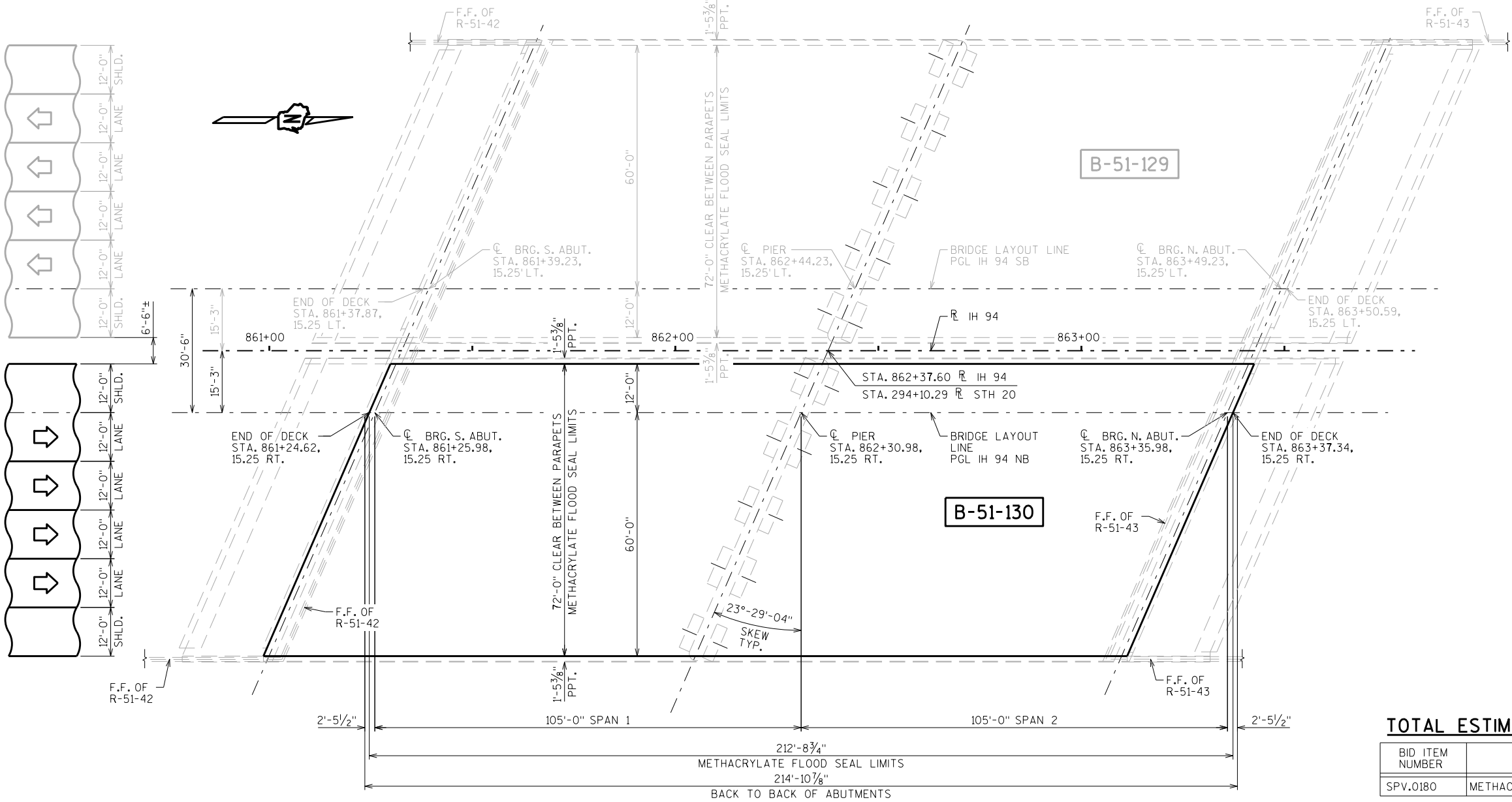
STRUCTURE DESIGN CONTACTS:

ENGELS VARGAS (608) 267-0273
DOMINIQUE BECHLE (608) 261-8205

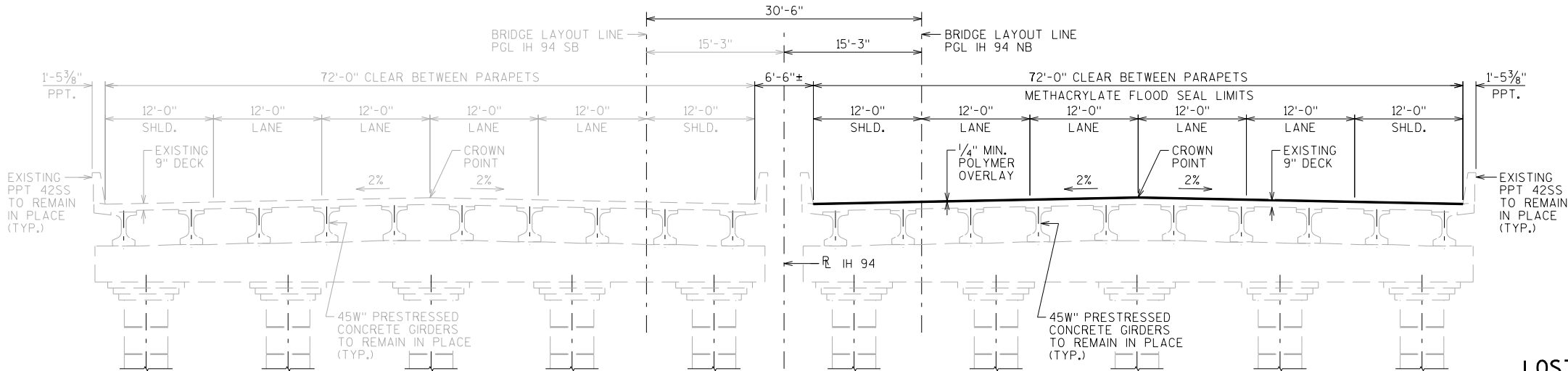
NO.	DATE	REVISION	BY
 BUREAU OF STRUCTURES ACCEPTED  CHIEF STRUCTURES DESIGN ENGINEER 11/03/20 DATE			
STRUCTURE B-51-130			
IH 94 WB/USH 41NB OVER STH 20			
COUNTY	RACINE	TOWN	YORKVILLE
DESIGN SPEC. REHABILITATION N/A			
DESIGNED BY	EJV	DESIGNED CK'D.	DMB
DRAWN BY	EJV	PLANS CK'D.	DMB
DECK SEALING			SHEET 1 OF 1
			93

LOST OF DRAWINGS

1. DECK SEALING



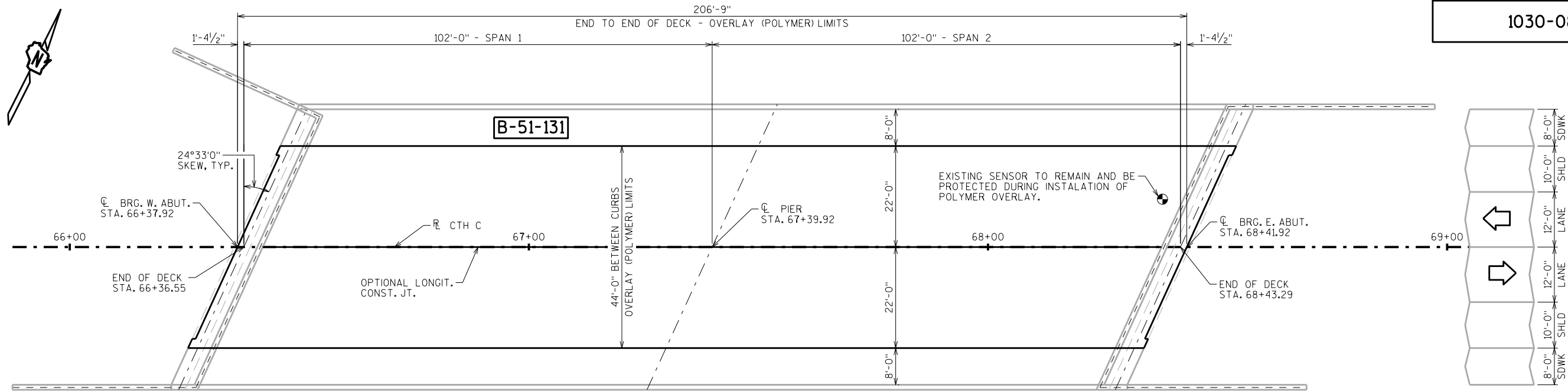
PLAN



B-51-129

B-51-130

CROSS SECTION THRU ROADWAY - LOOKING NORTH



PLAN
POLYMER OVERLAY

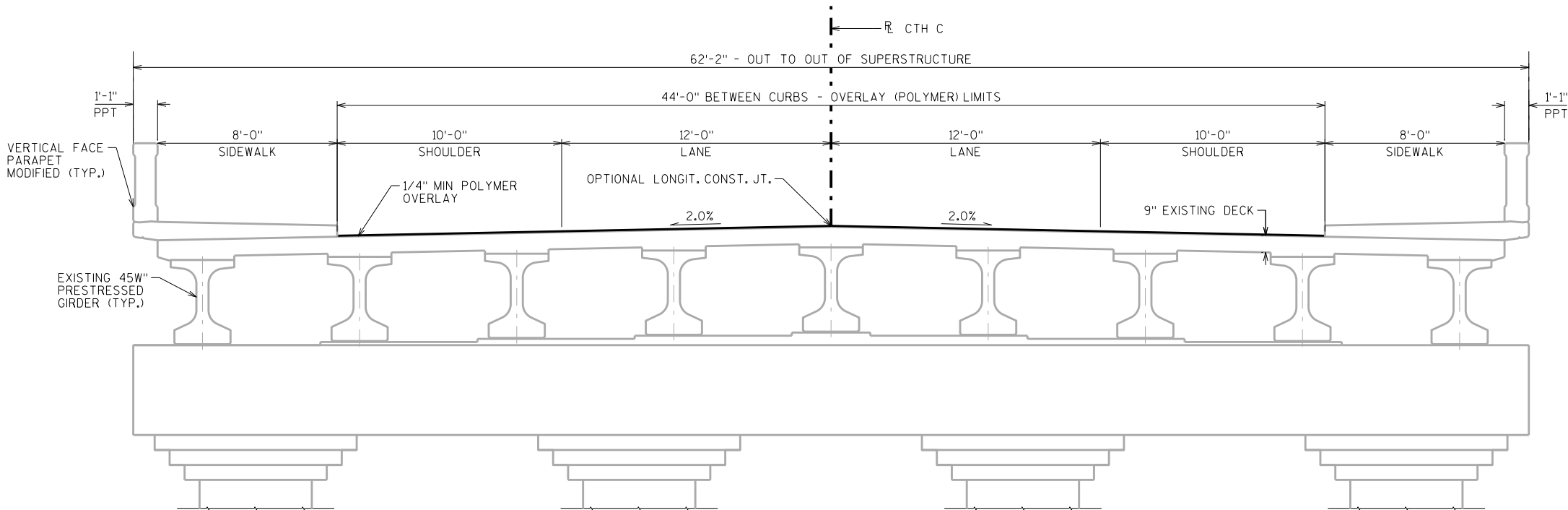
DESIGN DATA

LIVE LOAD:
DESIGN LOADING: HL-93
INVENTORY RATING FACTOR: RF = 1.10
OPERATING RATING FACTOR: RF = 1.42
WISCONSIN STANDARD PERMIT VEHICLE (WIS.-SPV): 250(KIPS)

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.
DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.
DECK SURFACE PREPARATION IS INCLUDED IN THE BID ITEM "POLYMER OVERLAY".

STRUCTURE DESIGN CONTACTS:
ENGELS VARGAS (608) 267-7111
DOMINIQUE BECHLE (608) 261-8205



CROSS SECTION THRU ROADWAY
LOOKING NORTH

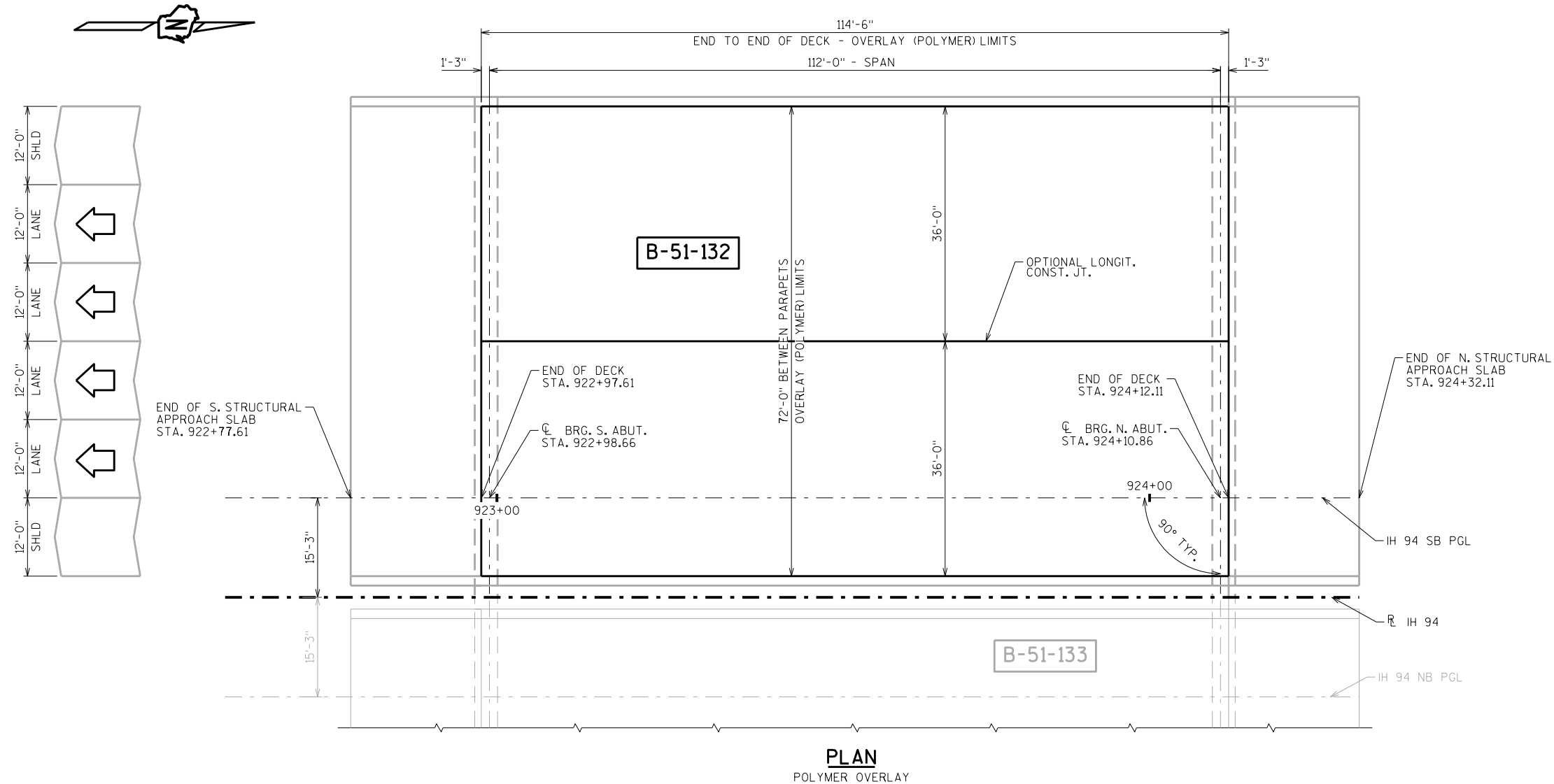
TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTALS
509,5100.S	POLYMER OVERLAY	SY	1011

LIST OF DRAWINGS

1. POLYMER OVERLAY

NO.	DATE	REVISION	BY
BUREAU OF STRUCTURES			
ACCEPTED <i>[Signature]</i> DMB 11/03/20			
CHIEF STRUCTURES DESIGN ENGINEER DATE			
STRUCTURE B-51-131			
CTH C OVER IH 94/IH 41			
COUNTY	RACINE	TOWN	YORKVILLE/MT PLEASANT
DESIGN SPEC. REHABILITATION N/A			
DESIGNED BY	EJV	DESIGNED CK'D. RATINGS	DRAWN BY EJV PLANS CK'D. DMB
POLYMER OVERLAY			SHEET 1 OF 1
			94



DESIGN DATA

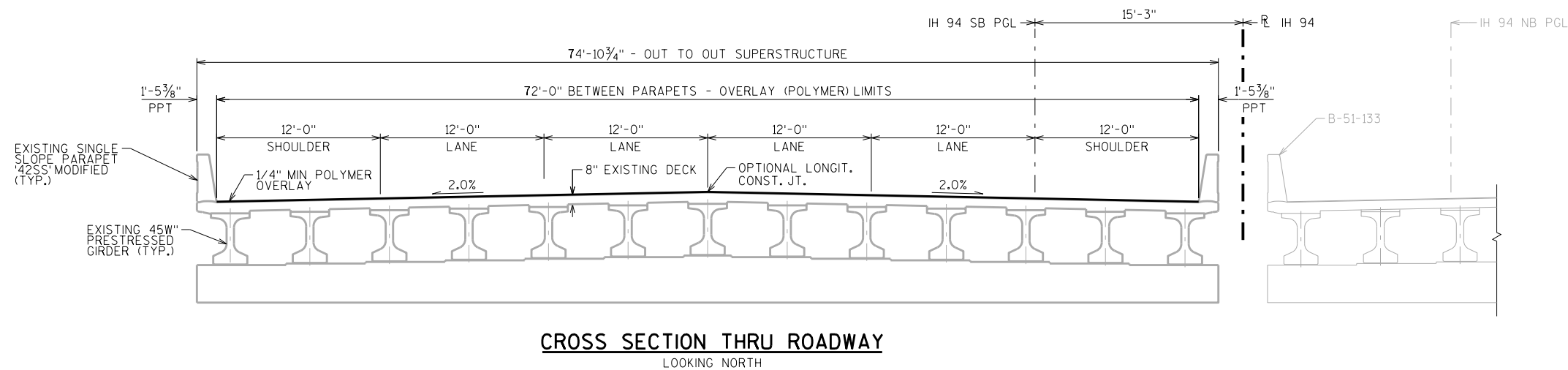
LIVE LOAD:
DESIGN LOADING: HL-93
INVENTORY RATING FACTOR: RF = 1.31
OPERATING RATING FACTOR: RF = 2.10
WISCONSIN STANDARD PERMIT VEHICLE (WIS.-SPV): 250(KIPS)

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

DECK SURFACE PREPARATION IS INCLUDED IN THE BID ITEM "POLYMER OVERLAY".



TOTAL ESTIMATED QUANTITIES

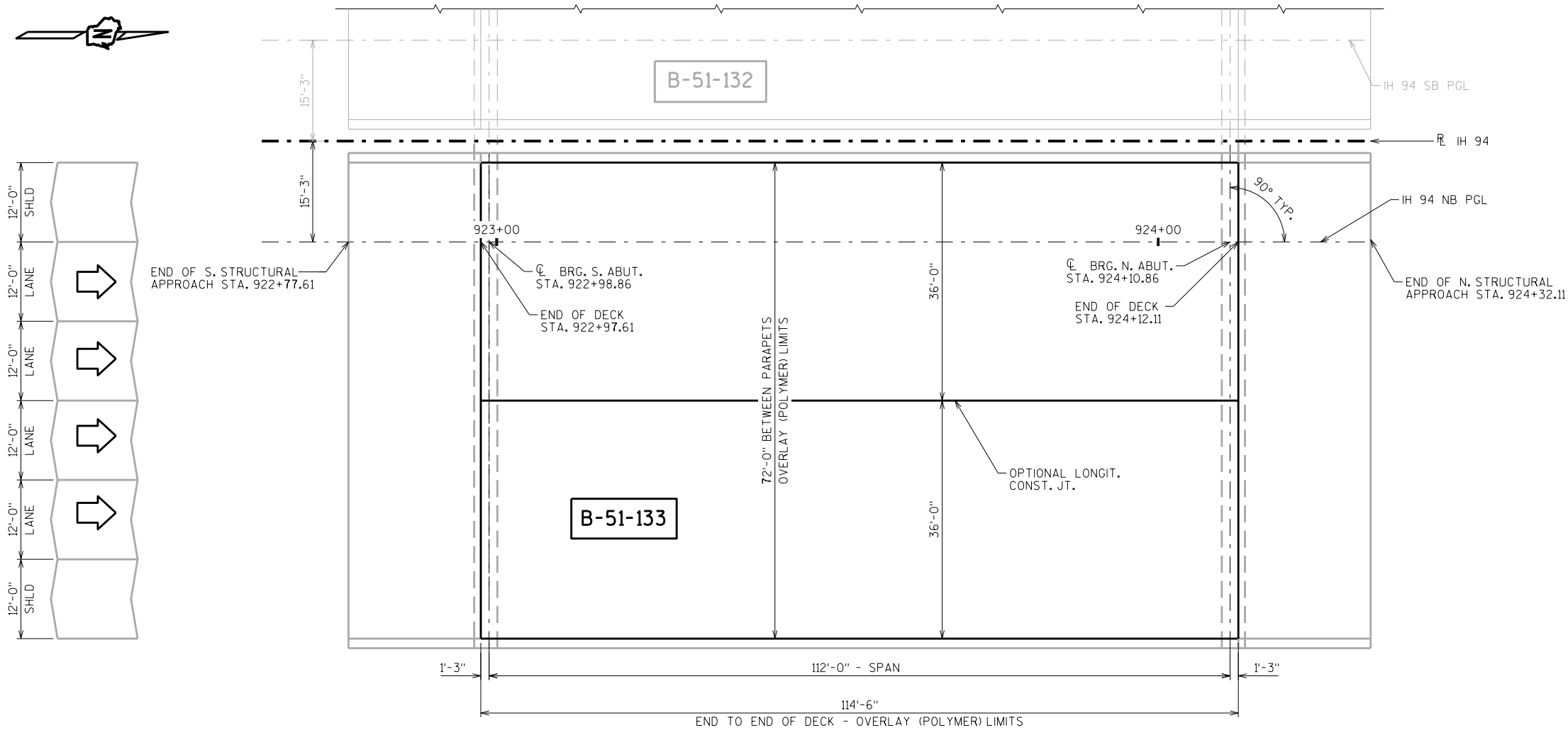
BID ITEM NUMBER	BID ITEMS	UNIT	TOTALS
509.5100.S	POLYMER OVERLAY	SY	916

LIST OF DRAWINGS

1. POLYMER OVERLAY

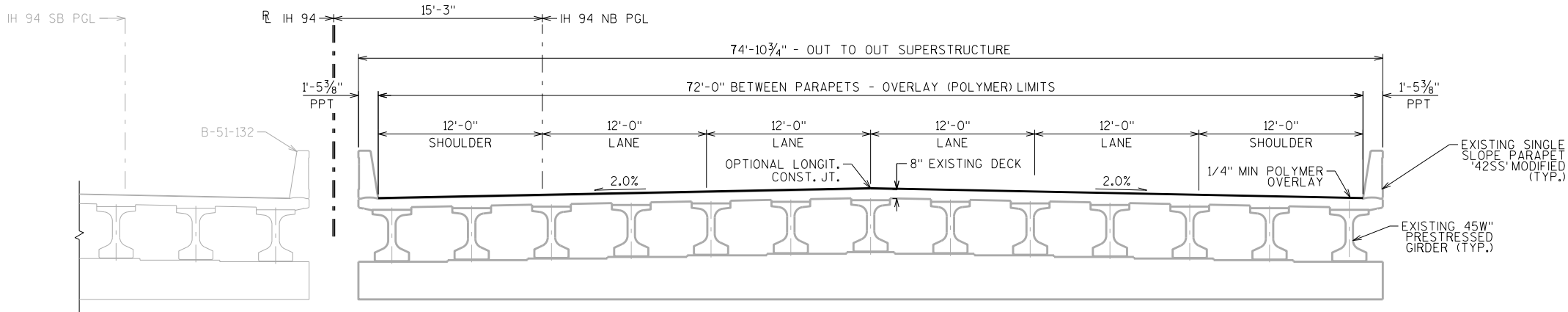
STRUCTURE DESIGN CONTACTS:
ENGELS VARGAS (608) 267-7111
DOMINIQUE BECHLE (608) 261-8205

NO.	DATE	REVISION						BY	
		BUREAU OF STRUCTURES							
ACCEPTED							DMB	11/03/20	
		CHIEF STRUCTURES DESIGN ENGINEER						DATE	
STRUCTURE B-51-132									
IH 94/IH 41 SB OVER KRAUT ROAD									
COUNTY	RACINE					TOWN	YORKVILLE		
DESIGN SPEC. REHABILITATION N/A									
DESIGNED BY	EJV	DESIGNED CK'D.RATINGS	DRAWN BY		EJV	PLANS CK'D.	DMB		
POLYMER OVERLAY						SHEET 1 OF 1			
						95			



PLAN

POLYMER OVERLAY



CROSS SECTION THRU ROADWAY

LOOKING NORTH

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTALS
509.5100.S	POLYMER OVERLAY	SY	916

DESIGN DATA

LIVE LOAD:
DESIGN LOADING: HL-93
INVENTORY RATING FACTOR: RF = 1.31
OPERATING RATING FACTOR: RF = 2.10
WISCONSIN STANDARD PERMIT VEHICLE (WIS.-SPV): 250(KIPS)

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.
DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.
DECK SURFACE PREPARATION IS INCLUDED IN THE BID ITEM "POLYMER OVERLAY".

STRUCTURE DESIGN CONTACTS:

ENGELS VARGAS (608) 451-2178
DOMINIQUE BECHLE (608) 261-8205

NO.	DATE	REVISION	BY
BUREAU OF STRUCTURES			
ACCEPTED <i>[Signature]</i> DMB 11/03/20 CHIEF STRUCTURES DESIGN ENGINEER DATE			
STRUCTURE B-51-133			
IH 94/IH 41NB OVER KRAUT ROAD			
COUNTY	RACINE	TOWN	YORKVILLE
DESIGN SPEC. REHABILITATION N/A			
DESIGNED BY	EJV	DESIGNED CK'D. RATINGS	DRAWN BY EJV PLANS CK'D. DMB
POLYMER OVERLAY			SHEET 1 OF 1
			96

LIST OF DRAWINGS

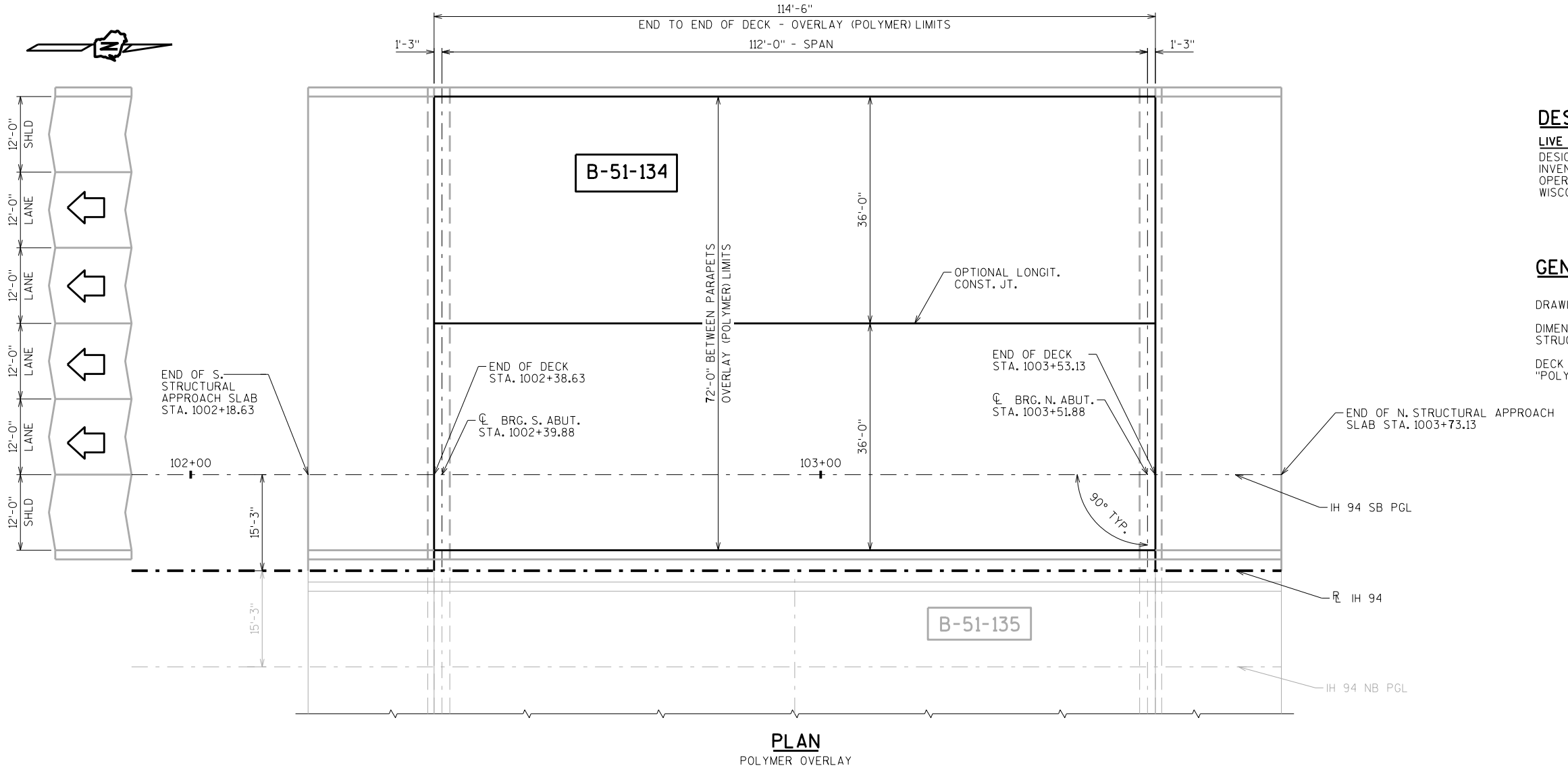
1. POLYMER OVERLAY

DESIGN DATA

LIVE LOAD:
DESIGN LOADING: HL-93
INVENTORY RATING FACTOR: RF = 1.15
OPERATING RATING FACTOR: RF = 1.94
WISCONSIN STANDARD PERMIT VEHICLE (WIS.-SPV): 250(KIPS)

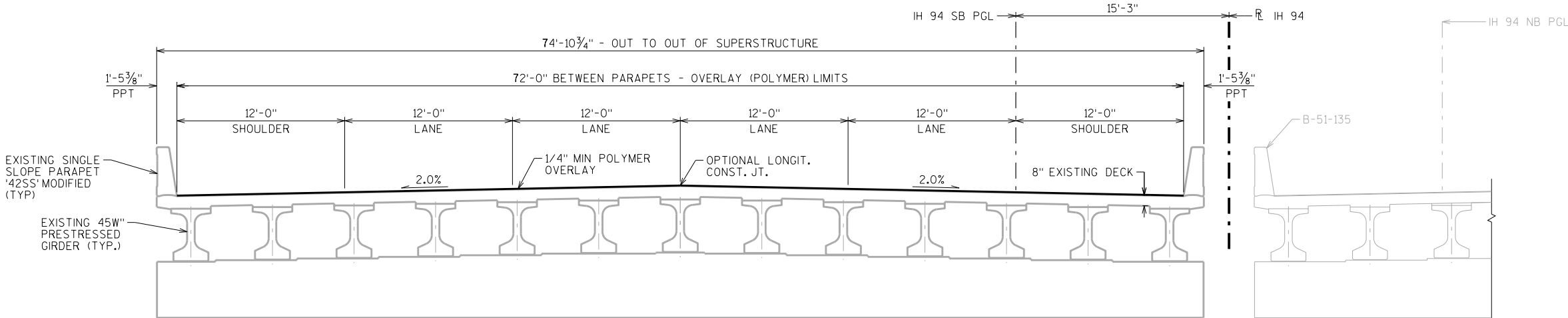
GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.
DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL
STRUCTURE PLANS.
DECK SURFACE PREPARATION IS INCLUDED IN THE BID ITEM
"POLYMER OVERLAY".



PLAN

POLYMER OVERLAY



CROSS SECTION THRU ROADWAY

LOOKING NORTH

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTALS
509.5100.S	POLYMER OVERLAY	SY	916

LIST OF DRAWINGS

1. POLYMER OVERLAY

STRUCTURE DESIGN CONTACTS:
ENGELS VARGAS (608) 267-7111
DOMINIQUE BECHLE (608) 261-8205

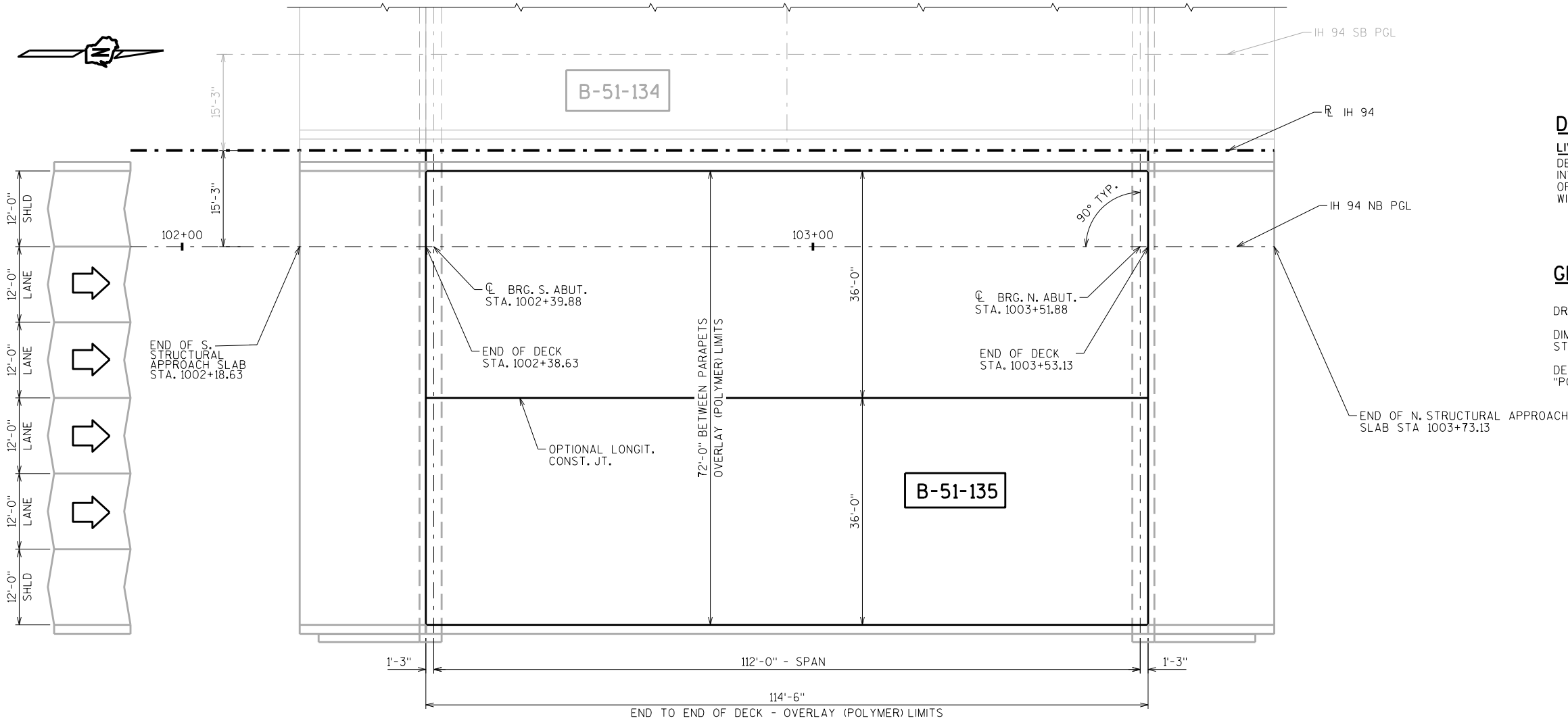
NO.	DATE	REVISION	BY
BUREAU OF STRUCTURES			
ACCEPTED <i>[Signature]</i> DMB 11/03/20 CHIEF STRUCTURES DESIGN ENGINEER DATE			
STRUCTURE B-51-134			
IH 94/IH 41SB OVER GOLF ROAD			
COUNTY	RACINE	TOWN	RAYMOND
DESIGN SPEC. RAHABILITATION N/A			
DESIGNED BY	EJV	DESIGNED CK'D. RATINGS	DRAWN BY EJV PLANS CK'D. DMB
POLYMER OVERLAY			SHEET 1 OF 1
			97

DESIGN DATA

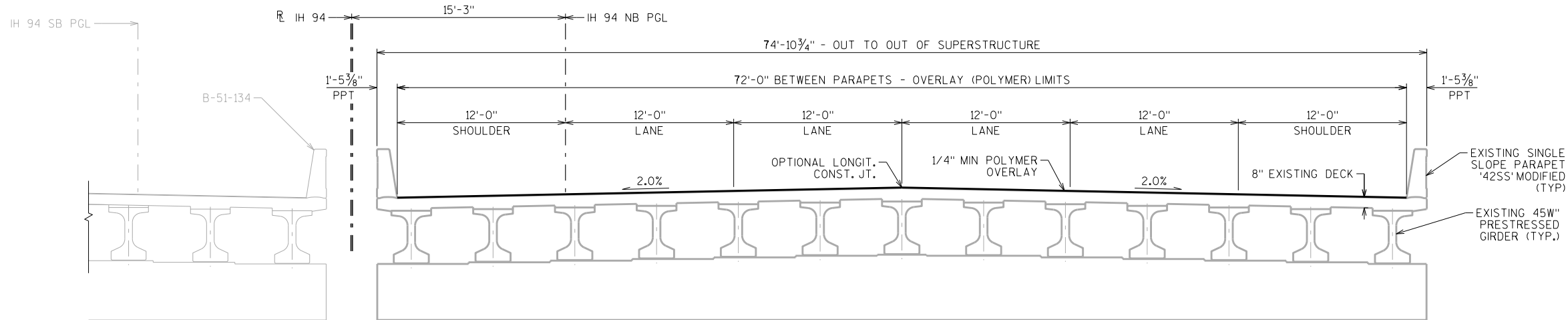
LIVE LOAD:
DESIGN LOADING: HL-93
INVENTORY RATING FACTOR: RF = 1.15
OPERATING RATING FACTOR: RF = 1.94
WISCONSIN STANDARD PERMIT VEHICLE (WIS.-SPV): 250(KIPS)

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.
DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL
STRUCTURE PLANS.
DECK SURFACE PREPARATION IS INCLUDED IN THE BID ITEM
"POLYMER OVERLAY".



PLAN
POLYMER OVERLAY



CROSS SECTION THRU ROADWAY
LOOKING NORTH

TOTAL ESTIMATED QUANTITIES

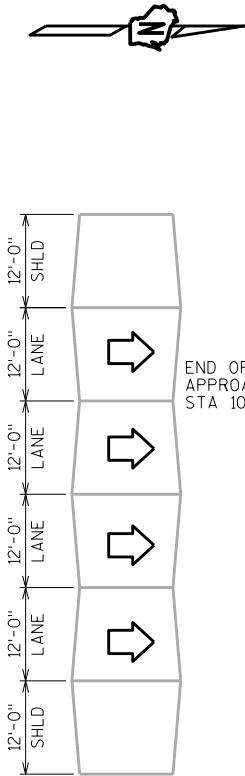
BID ITEM NUMBER	BID ITEMS	UNIT	TOTALS
509.5100.S	POLYMER OVERLAY	SY	916

LIST OF DRAWINGS

1. POLYMER OVERLAY

STRUCTURE DESIGN CONTACTS:
ENGELS VARGAS (608) 267-7111
DOMINIQUE BECHLE (608) 261-8205

NO.	DATE	REVISION	BY
BUREAU OF STRUCTURES			
ACCEPTED <i>[Signature]</i> DMB 11/03/20 CHIEF STRUCTURES DESIGN ENGINEER DATE			
STRUCTURE B-51-135			
IH 94/IH 41NB OVER GOLF ROAD			
COUNTY	RACINE	TOWN	RAYMOND
DESIGN SPEC. RAHABILITATION N/A			
DESIGNED BY	EJV	DESIGNED CK'D. RATINGS	DRAWN BY EJV PLANS CK'D. DMB
POLYMER OVERLAY			SHEET 1 OF 1
			98



END OF S. STRUCTURAL
APPROACH SLAB
STA 1054+55.73

END OF DECK
STA. 1054+75.74

OPTIONAL LONGIT.
CONST. JT.

END TO END OF DECK - OVERLAY (POLYMER) LIMITS

PLAN

POLYMER OVERLAY

END OF DECK
STA. 1056+65.26

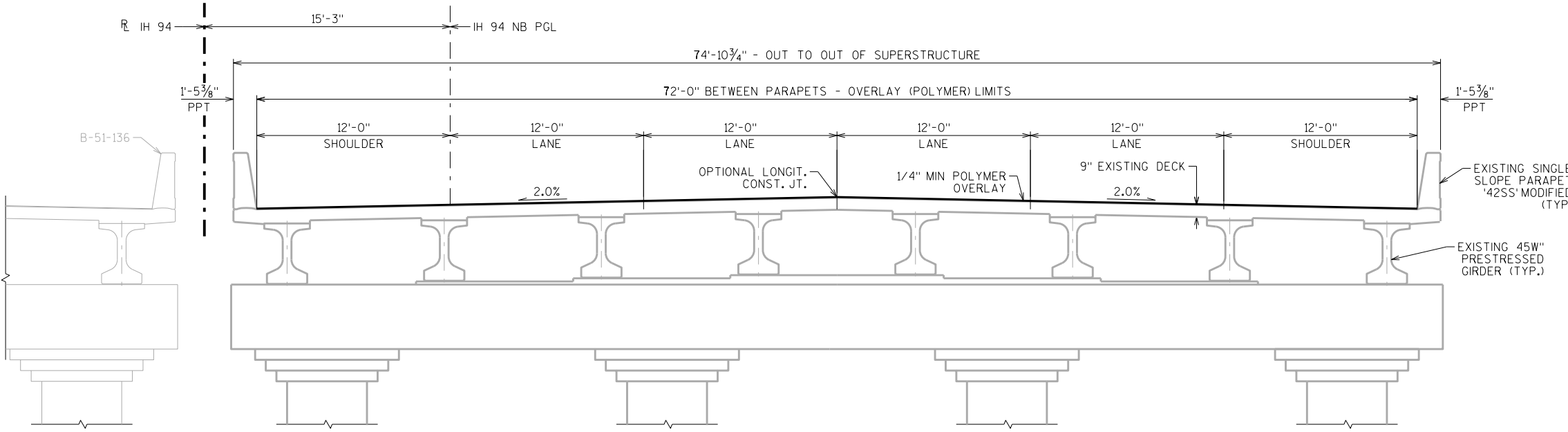
END OF N. STRUCTURAL APPROACH
SLAB STA 1056+85.25

DESIGN DATA

LIVE LOAD:
DESIGN LOADING: HL-93
INVENTORY RATING FACTOR: RF = 1.31
OPERATING RATING FACTOR: RF = 2.05
WISCONSIN STANDARD PERMIT VEHICLE (WIS.-SPV): 250(KIPS)

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.
DIMENSIONS SHOWN ARE BASED ON THE
ORIGINAL STRUCTURE PLANS.
DECK SURFACE PREPARATION IS INCLUDED IN THE BID ITEM
"POLYMER OVERLAY".



CROSS SECTION THRU ROADWAY

LOOKING NORTH

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTALS
509.5100.S	POLYMER OVERLAY	SY	1517

LIST OF DRAWINGS

1. POLYMER OVERLAY

STRUCTURE DESIGN CONTACTS:
ENGELS VARGAS (608) 267-7111
DOMINIQUE BECHLE (608) 261-8205

NO.	DATE	REVISION	BY
BUREAU OF STRUCTURES			
ACCEPTED <i>[Signature]</i> DMB 11/03/20 CHIEF STRUCTURES DESIGN ENGINEER DATE			
STRUCTURE B-51-137			
IH 94/ IH 41 NB OVER CTH K			
COUNTY	RACINE	TOWN	RAYMOND
DESIGN SPEC. REHABILITATION N/A			
DESIGNED BY	EJV	DESIGNED CK'D. RATINGS	DRAWN BY EJV PLANS CK'D. DMB
POLYMER OVERLAY			SHEET 1 OF 1
			100

DESIGN DATA

LIVE LOAD:

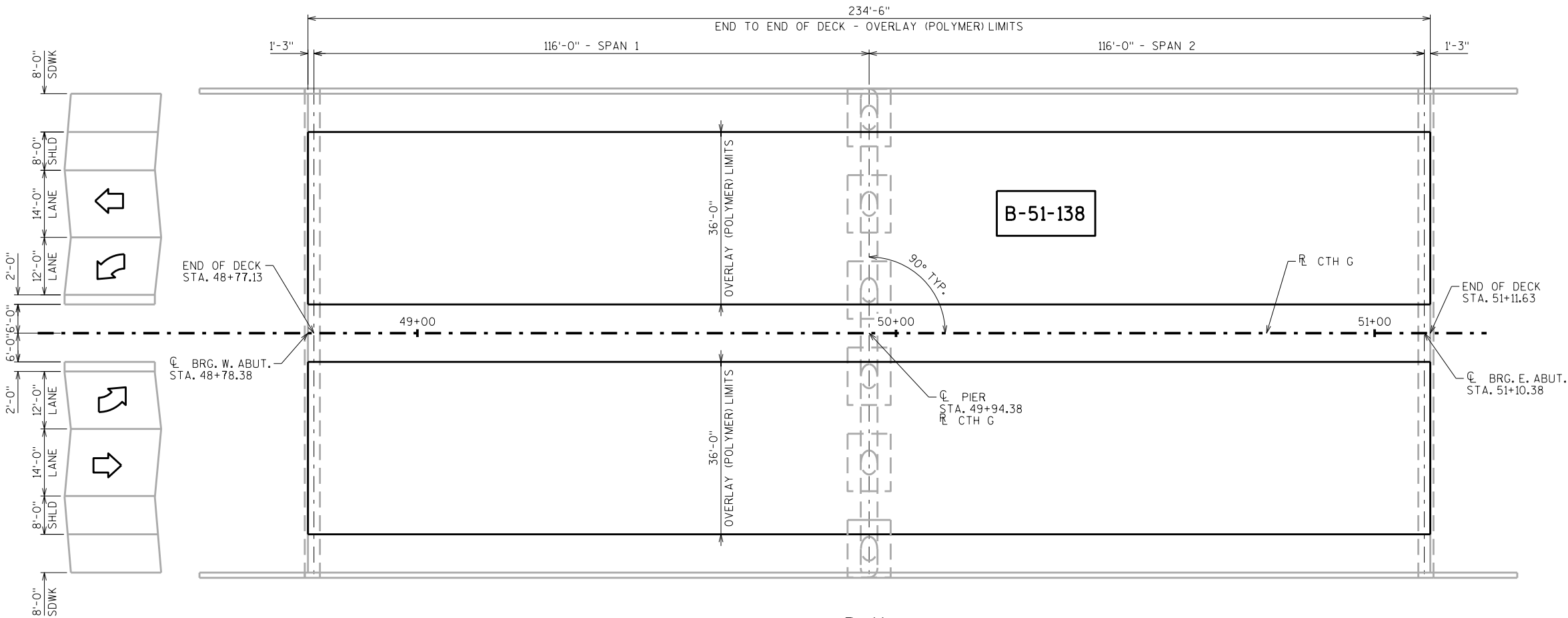
INVENTORY RATING : HS-30
OPERATING RATING : HS-63
WISCONSIN STANDARD PERMIT VEHICLE (WIS.-SPV): 250(KIPS)

GENERAL NOTES

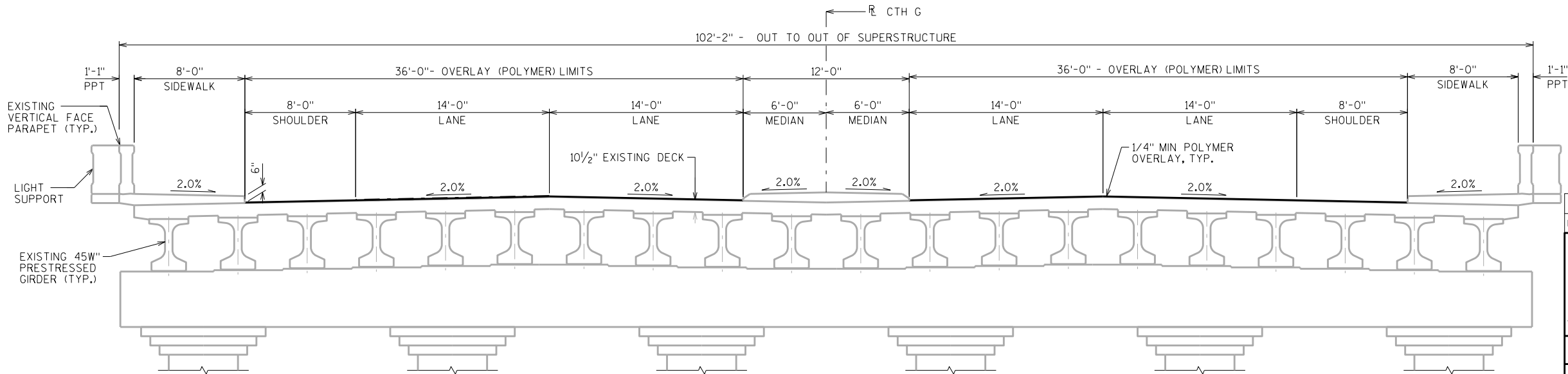
DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL
STRUCTURE PLANS.

DECK SURFACE PREPARATION IS INCLUDED IN THE BID
ITEM "POLYMER OVERLAY".



PLAN
POLYMER OVERLAY



CROSS SECTION THRU ROADWAY
LOOKING WEST

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTALS
509.5100.S	POLYMER OVERLAY	SY	1876

LIST OF DRAWINGS

1. POLYMER OVERLAY

STRUCTURE DESIGN CONTACTS:

ENGELS VARGAS (608) 267-7111
DOMINIQUE BECHLE (608) 261-8205

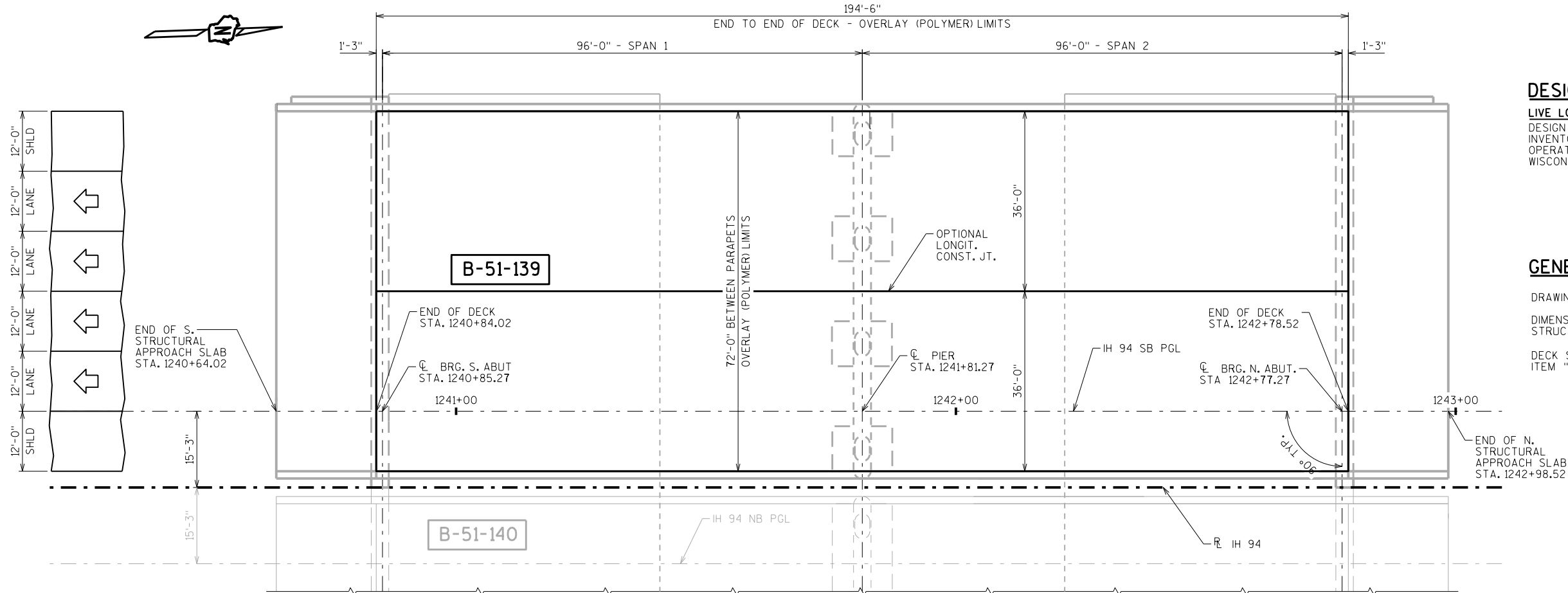
NO.	DATE	REVISION	BY
 BUREAU OF STRUCTURES			
ACCEPTED  DMB 11/03/20 CHIEF STRUCTURES DESIGN ENGINEER DATE			
STRUCTURE B-51-138			
CTH G OVER IH 94/IH 41			
COUNTY	RACINE	TOWN	RAYMOND
DESIGN SPEC. REHABILITATION N/A			
DESIGNED BY	EJV	DESIGNED CK'D. RATINGS	DRAWN BY EJV PLANS CK'D. DMB
POLYMER OVERLAY			SHEET 1 OF 1
			101

DESIGN DATA

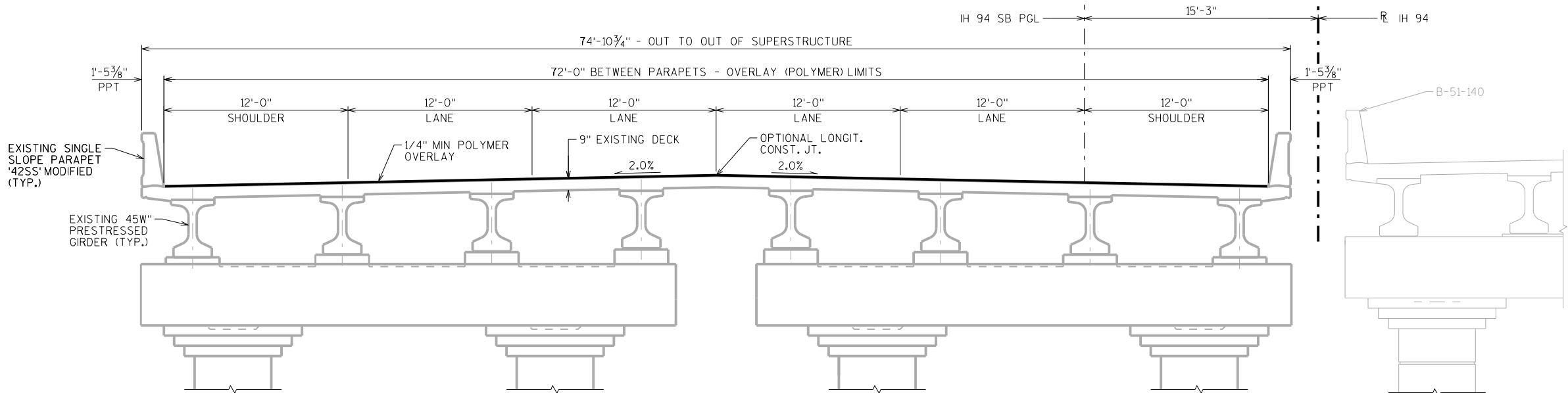
LIVE LOAD:
DESIGN LOADING: HL-93
INVENTORY RATING FACTOR: RF = 1.14
OPERATING RATING FACTOR: RF = 1.99
WISCONSIN STANDARD PERMIT VEHICLE (WIS.-SPV): 250(KIPS)

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.
DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL
STRUCTURE PLANS.
DECK SURFACE PREPARATION IS INCLUDED IN THE BID
ITEM "POLYMER OVERLAY".



PLAN
POLYMER OVERLAY



CROSS SECTION THRU ROADWAY
LOOKING NORTH

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTALS
509.5100.S	POLYMER OVERLAY	SY	1556

LIST OF DRAWINGS

1. POLYMER OVERLAY

STRUCTURE DESIGN CONTACTS:
ENGELS VARGAS (608) 267-7111
DOMINIQUE BECHLE (608) 261-8205

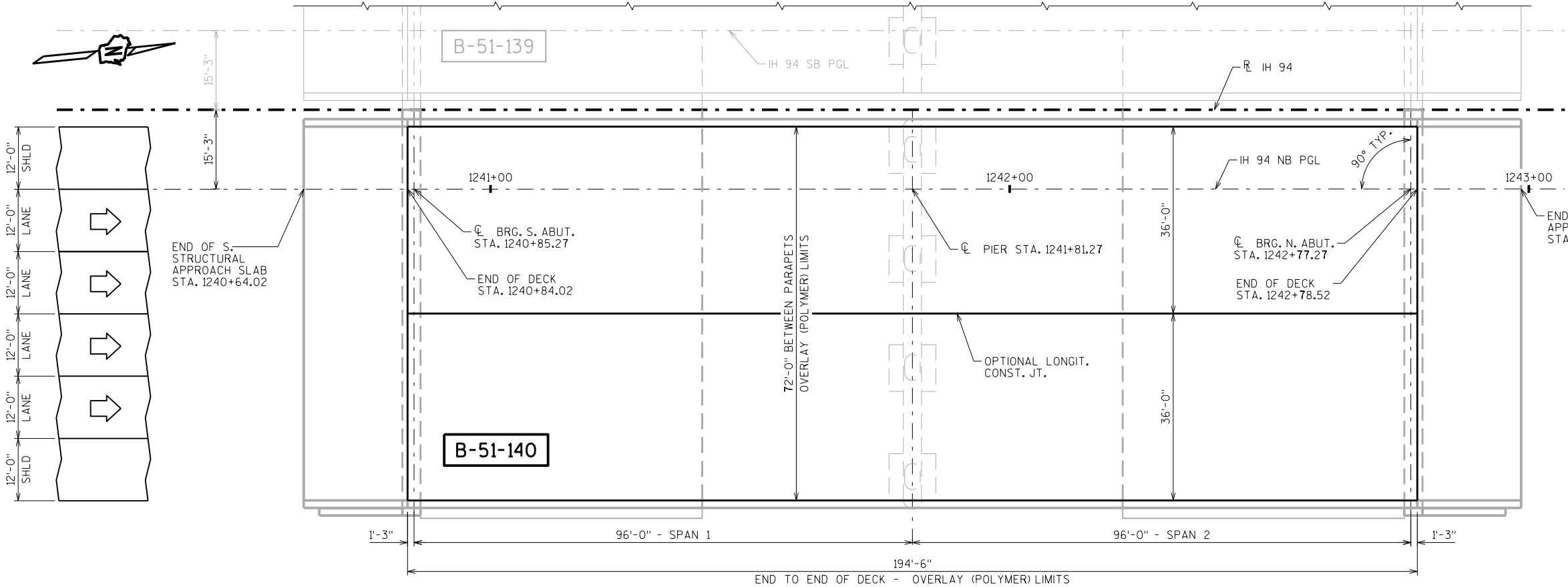
NO.	DATE	REVISION	BY
BUREAU OF STRUCTURES			
ACCEPTED <i>[Signature]</i> DMB 11/03/20			
CHIEF STRUCTURES DESIGN ENGINEER DATE			
STRUCTURE B-51-139			
IH 94/IH SB OVER SEVEN MILE ROAD			
COUNTY	RACINE	TOWN	RAYMOND
DESIGN SPEC. REHABILITATION N/A			
DESIGNED BY	EJV	DESIGNED CK'D. RATINGS	DRAWN BY EJV PLANS CK'D. DMB
POLYMER OVERLAY			SHEET 1 OF 1
			102

DESIGN DATA

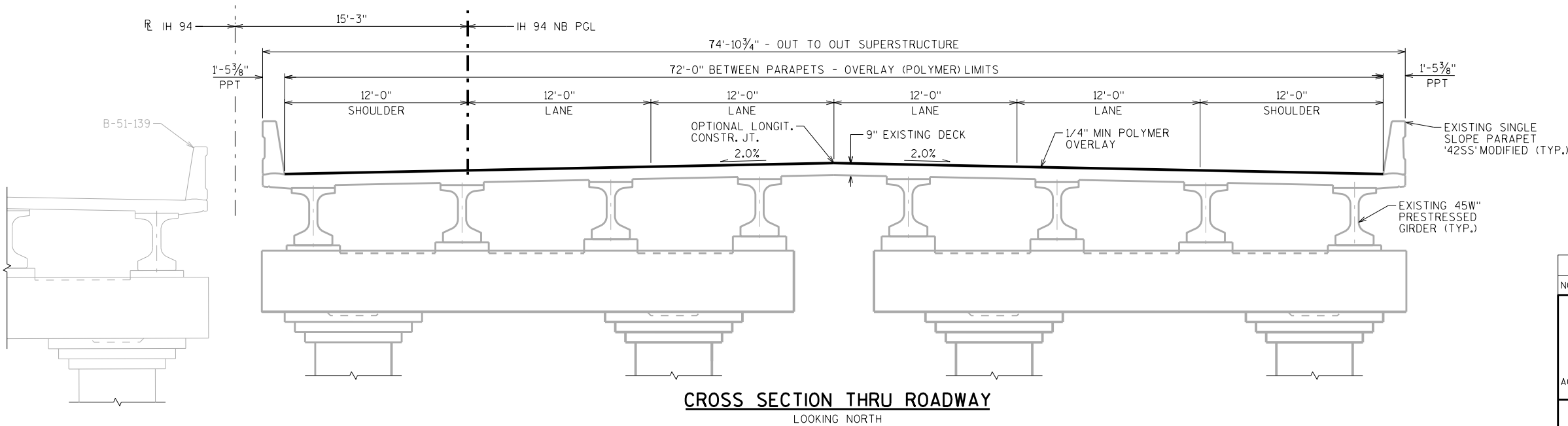
LIVE LOAD:
DESIGN LOADING: HL-93
INVENTORY RATING FACTOR: RF = 1.14
OPERATING RATING FACTOR: RF = 1.99
WISCONSIN STANDARD PERMIT VEHICLE (WIS.-SPV): 250(KIPS)

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.
DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL
STRUCTURE PLANS.
DECK SURFACE PREPARATION IS INCLUDED IN THE BID
ITEM "POLYMER OVERLAY".



PLAN
POLYMER OVERLAY



CROSS SECTION THRU ROADWAY
LOOKING NORTH

TOTAL ESTIMATED QUANTITIES

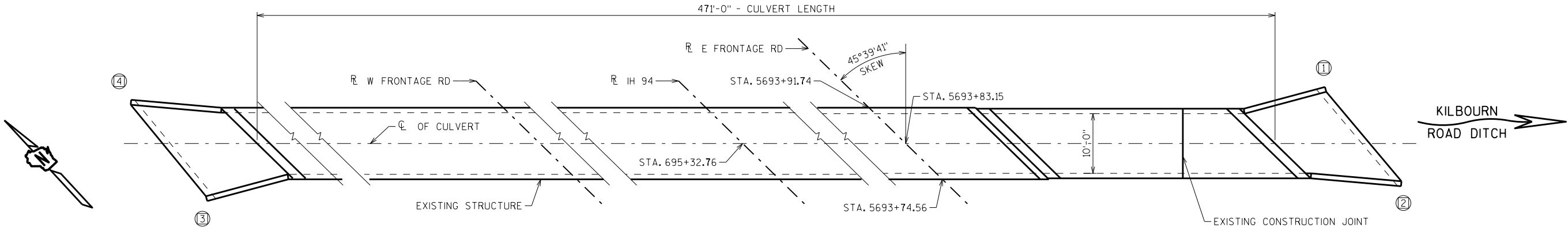
BID ITEM NUMBER	BID ITEMS	UNIT	TOTALS
509.5100.S	POLYMER OVERLAY	SY	1556

LIST OF DRAWINGS
1. POLYMER OVERLAY

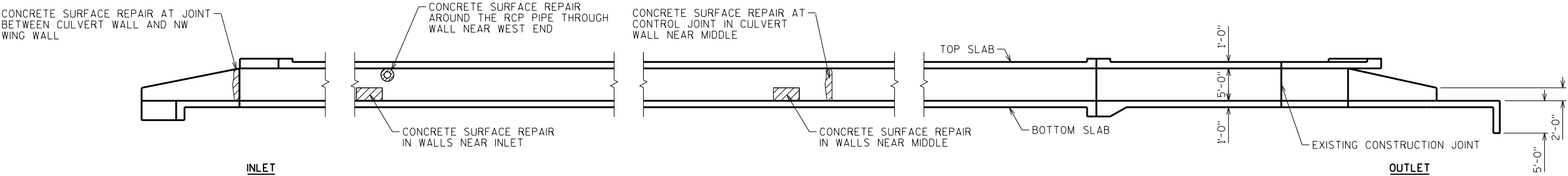
STRUCTURE DESIGN CONTACTS:
ENGELS VARGAS (608) 267-7111
DOMINIQUE BECHLE (608) 261-8205

NO.	DATE	REVISION	BY
BUREAU OF STRUCTURES			
ACCEPTED <i>[Signature]</i> DMB 11/03/20			
CHIEF STRUCTURES DESIGN ENGINEER DATE			
STRUCTURE B-51-140			
IH 94/IH 41NB OVER SEVEN MILE ROAD			
COUNTY	RACINE	TOWN	RAYMOND
DESIGN SPEC. REHABILITATION N/A			
DESIGNED BY	EJV	DESIGNED CK'D. RATINGS	DRAWN BY EJV PLANS CK'D. DMB
POLYMER OVERLAY			SHEET 1 OF 1
			103

INDICATES WING NUMBER



PLAN



ELEVATION

STRUCTURE DESIGN CONTACTS:
AIHAM ALSKIF (608) 261-6113
DOMINIQUE BECHLE (608) 261-8205

LIST OF DRAWINGS
1. CONCRETE SURFACE REPAIR

DESIGN DATA

MATERIAL PROPERTIES:
CONCRETE MASONRY: f'c = 3,500 P.S.I.

TRAFFIC VOLUME

IH 94
ADT = 118,850 (2035)
R.D.S. = 70 M.P.H.

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTALS
509.1500	CONCRETE SURFACE REPAIR	SF	30

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.
EXISTING BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.
CONCRETE SURFACE REPAIR AREAS ARE TO BE DETERMINED BY THE ENGINEER.

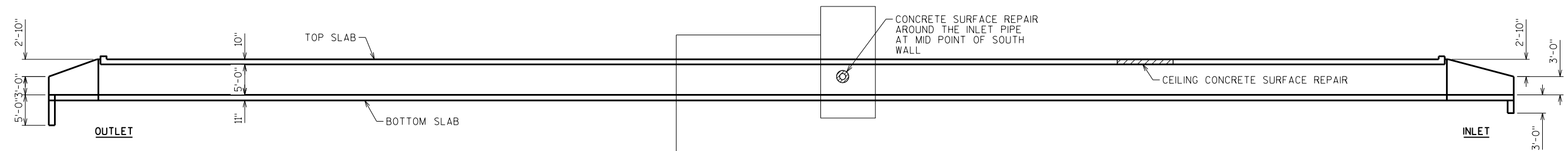
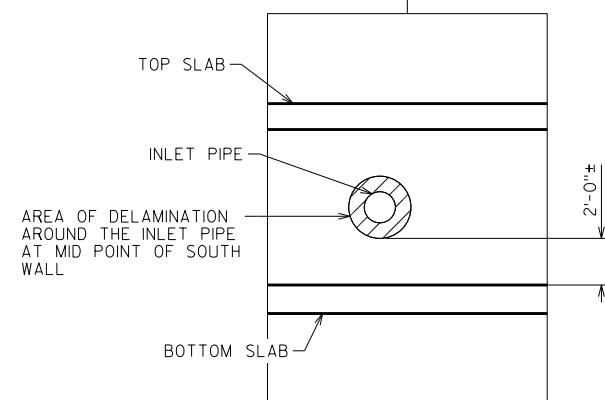
NO.	DATE	REVISION	BY
 BUREAU OF STRUCTURES			
ACCEPTED		DATE	11/03/20
CHIEF STRUCTURES DESIGN ENGINEER			
STRUCTURE C-51-12			
IH 94 OVER KILBOURN ROAD DITCH			
COUNTY	RACINE	TOWN	MOUNT PLEASANT
DESIGN SPEC. N/A - REHABILITATION			
DESIGNED BY	AA	DESIGNED CK'D. EJV	DRAWN BY AA PLANS CK'D. EJV
CONCRETE SURFACE REPAIR			SHEET 1 OF 1
			104

The plan view shows a bridge structure with the following details:

- Orientation:** A north arrow points towards the top-left, and a 'FLOW ROOT RIVER' arrow points towards the left.
- Dimensions:**
 - Overall length: 221'-0"
 - Segment 1 (left): 106'-0"
 - Segment 2 (right): 115'-0"
 - Right abutment width: 15'-2 3/8" (top and bottom), 11'-6 7/8" (sides), with 45° angles.
 - Right pier width: 15'-2 3/8" (top and bottom), 11'-6 7/8" (sides), with 45° angles.
 - Right pier spacing: 50'-0" ±
 - Left abutment width: 8'-8 7/8" (top and bottom), 11'-2 1/4" (top), 8'-6 7/8" (bottom), with 45° and 15° angles.
 - Left pier spacing: 12'-0"
 - Left pier width: 1'-0" TYP.
 - Overall width: 3'-0 5/8"
- Stationing:**
 - STA. 1177+49.94 (top line)
 - STA. 1177+43.11 (middle dashed line)
 - STA. 1177+36.28 (bottom line)
 - Station 1177+94 (bottom line, right side)
- Notes:**
 - "90°00" TYP." with an arrow pointing to the centerline.
 - "CONCRETE SURFACE REPAIR AROUND THE INLET PIPE AT MID POINT OF SOUTH WALL"
 - "LEFT-IN-PLACE FORMS IN THE CEILING. CONCRETE SURFACE REPAIR MAY BE NEEDED"
- Labels:** ①, ②, ③, ④

PLAN

LEFT-IN-PLACE FORMS IN
THE CEILING.
CONCRETE SURFACE
REPAIR MAY BE NEEDED

ELEVATION

DETAIL AT EXISTING INLET PIPE

AIHAM ALSKIF	(608) 261-6113
DOMINIQUE BECHLE	(608) 261-8205

1. CONCRETE SURFACE REPAIR

NO.	DATE	REVISION			BY
		BUREAU OF STRUCTURES			
ACCEPTED				DMB	11/03/20
CHIEF STRUCTURES DESIGN ENGINEER				DATE	
STRUCTURE C-51-51					
IH 94 OVER ROOT RIVER					
COUNTY	RACINE		TOWN		RAYMOND
DESIGN SPEC. N/A - REHABILITATION					
DESIGNED BY	AA	DESIGNED CK'D.	EJV	DRAWN BY	AA
				PLANS CK'D.	EJV
CONCRETE SURFACE REPAIR				SHEET 1 OF 1	
				105	

MATERIAL PROPERTIES:
CONCRETE MASONRY: _____ $f'_c = 3,500$ P.S.I.

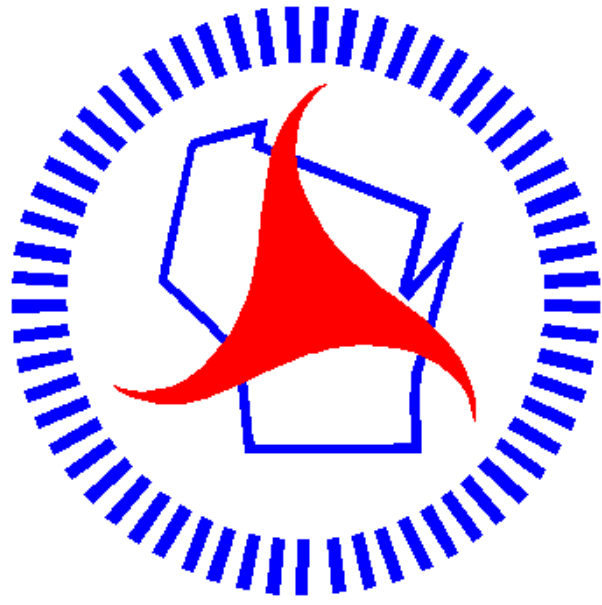
IH 94
ADT = 121,000 (2035)
R.D.S. = 70 M.P.H.

BID ITEM NUMBER	BID ITEMS	UNIT	TOTALS
509.1500	CONCRETE SURFACE REPAIR	SF	10

DRAWINGS SHALL NOT BE SCALED.

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

CONCRETE SURFACE REPAIR AREAS ARE TO BE DETERMINED BY THE ENGINEER.



Wisconsin Department of Transportation

Dedicated people creating transportation solutions through innovation and exceptional service.

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

WKE

APR 13, 2021

PROJECT ID:
WITH: 1030-08-75

1030-08-78

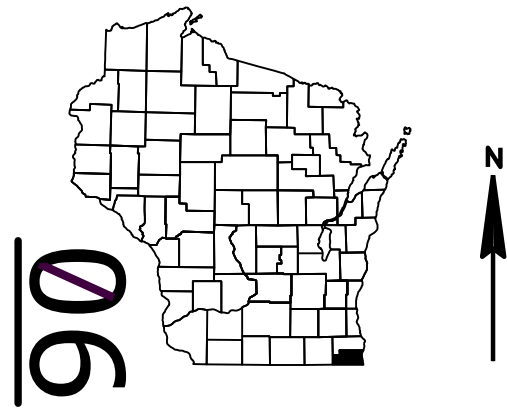
COUNTY:

KENOSHA

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 Plat
Section No.	5	Plan and Profile
Section No.	6	Standard Detail Drawings
Section No.	7	Sign Plates
Section No.	8	Structure Plans
Section No.	9	Computer Earthwork Data
Section No.	0	Cross Sections

TOTAL SHEETS = 104



DESIGN DESIGNATION	WEST FRONTAGE ROAD	EAST FRONTAGE ROAD	IH 41 STH 50 TO STH 158	IH 41 STH 158 TO STH 142	IH 41 STH 142 TO CTH E	IH 41 CTH E TO CTH KR
A.A.D.T.	= 1800 (2015)	= 1500 (2015)	= 91400 (2017)	= 91800 (2017)	= 91400 (2017)	= 86700 (2018)
A.A.D.T.	=	=	=	=	=	=
D.H.V.	=	=	=	=	=	=
D.D.	=	=	=	=	=	=
T.	=	=	=	=	=	=
DESIGN SPEED	= 50 MPH	= 60 MPH	= 70 MPH	= 70 MPH	= 70 MPH	= 70 MPH
ESALS	=	=	=	=	=	=

CONVENTIONAL SYMBOLS

PLAN

CORPORATE LIMITS

PROPERTY LINE

LOT LINE

LIMITED HIGHWAY EASEMENT

EXISTING RIGHT OF WAY

PROPOSED OR NEW R/W LINE

SLOPE INTERCEPT

REFERENCE LINE

EXISTING CULVERT

PROPOSED CULVERT (Box or Pipe)

COMBUSTIBLE FLUIDS

MARSH AREA

WOODED OR SHRUB AREA

PROFILE

GRADE LINE

ORIGINAL GROUND

MARSH OR ROCK PROFILE (To be noted as such)

SPECIAL DITCH

GRADE ELEVATION

CULVERT (Profile View)

UTILITIES

ELECTRIC

FIBER OPTIC

GAS

SANITARY SEWER

STORM SEWER

TELEPHONE

WATER

UTILITY PEDESTAL

POWER POLE

TELEPHONE POLE

ROCK

LABEL

95.36

300'FB'

CAUTION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

IH 41 NORTH SOUTH FREEWAY

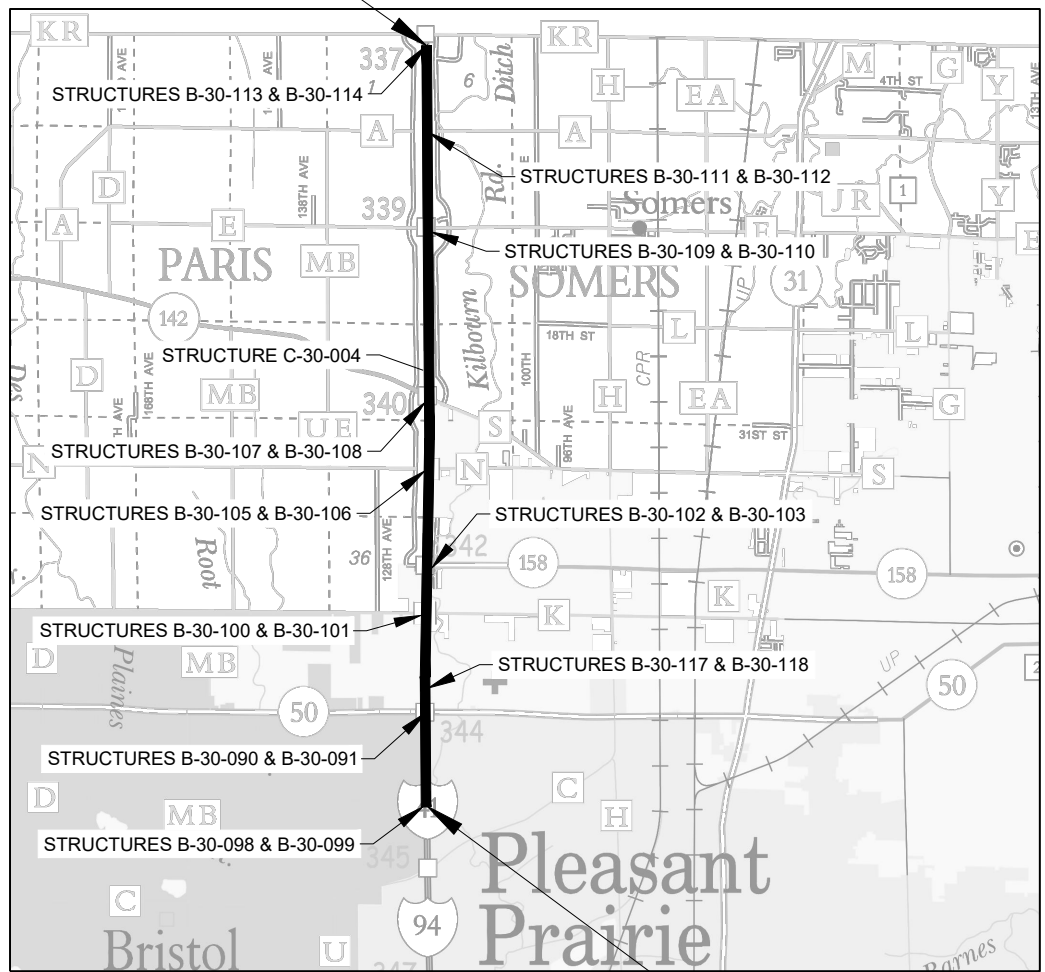
DES PLAINES RIVER TO CTH KR

IH 41

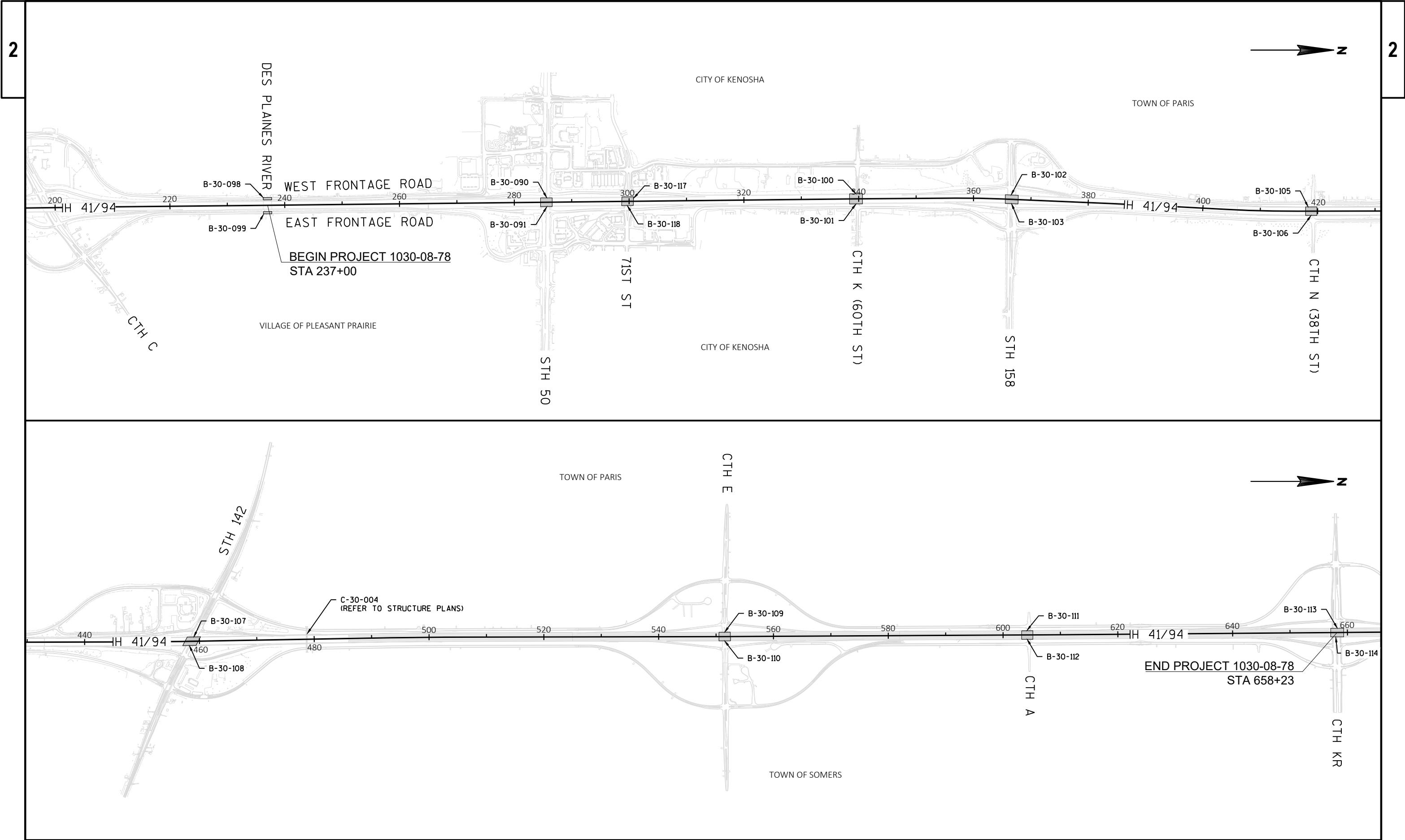
KENOSHA COUNTY

STATE PROJECT NUMBER
1030-08-78

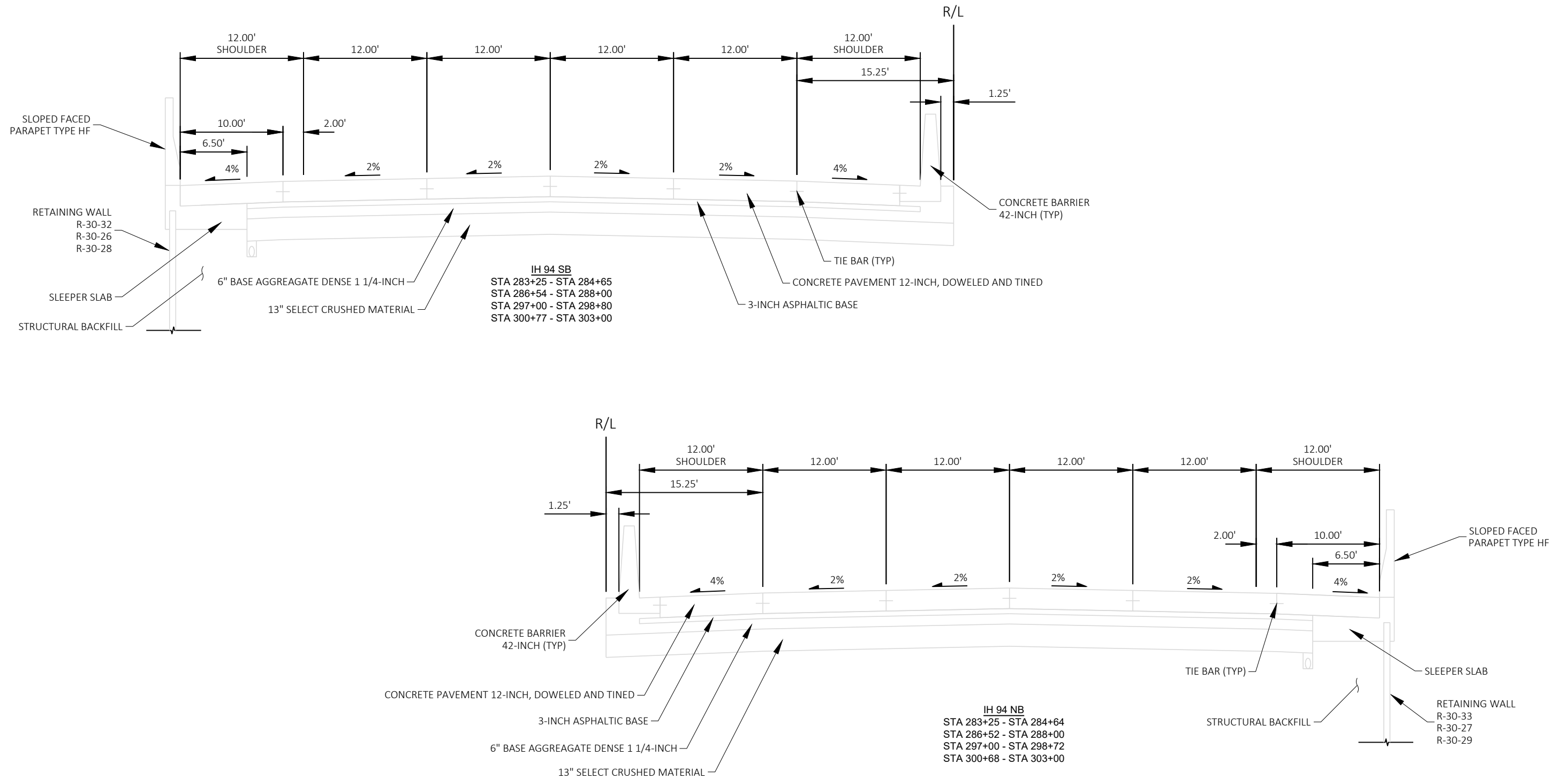
END PROJECT 1030-08-78
STA 658+23

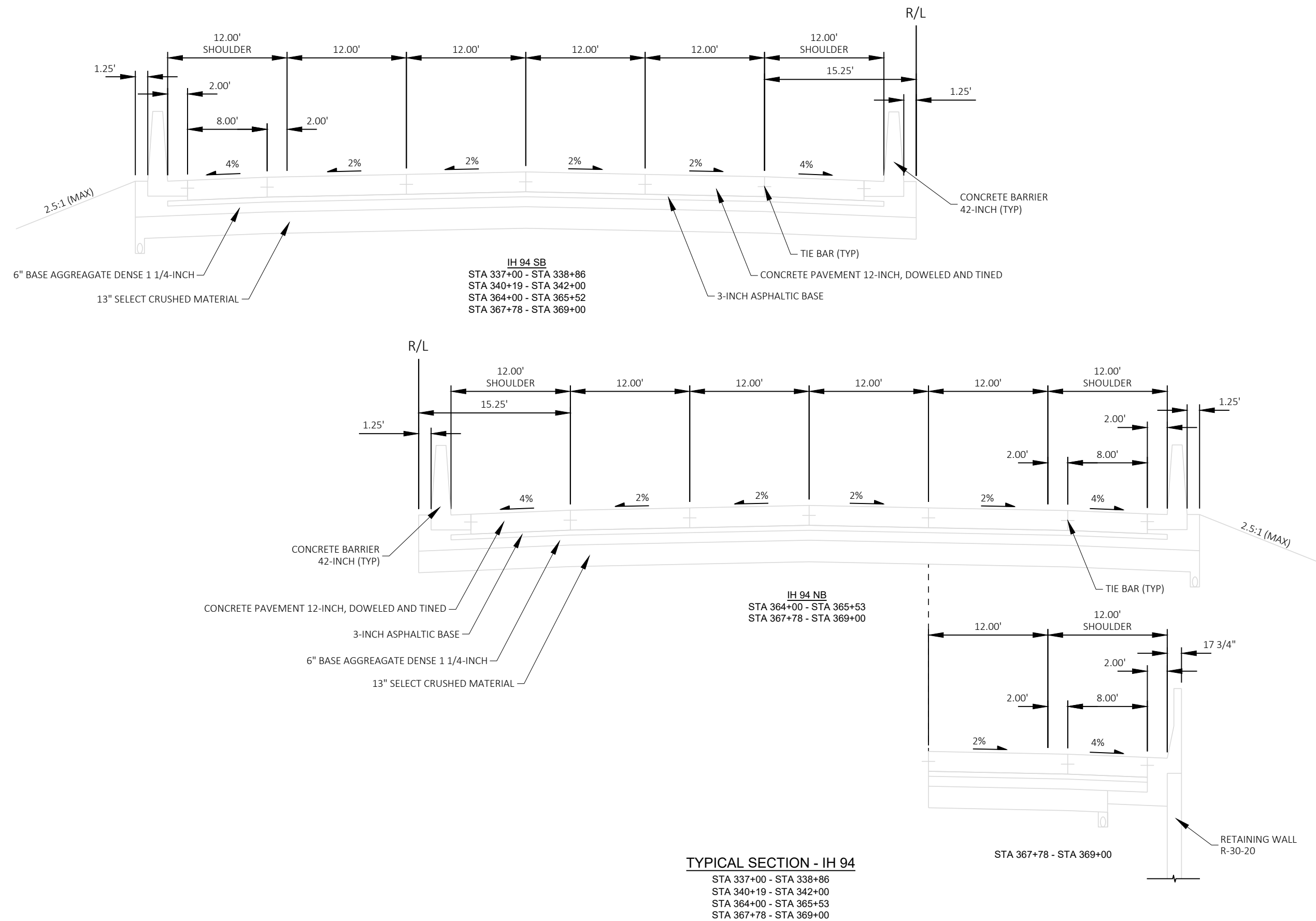


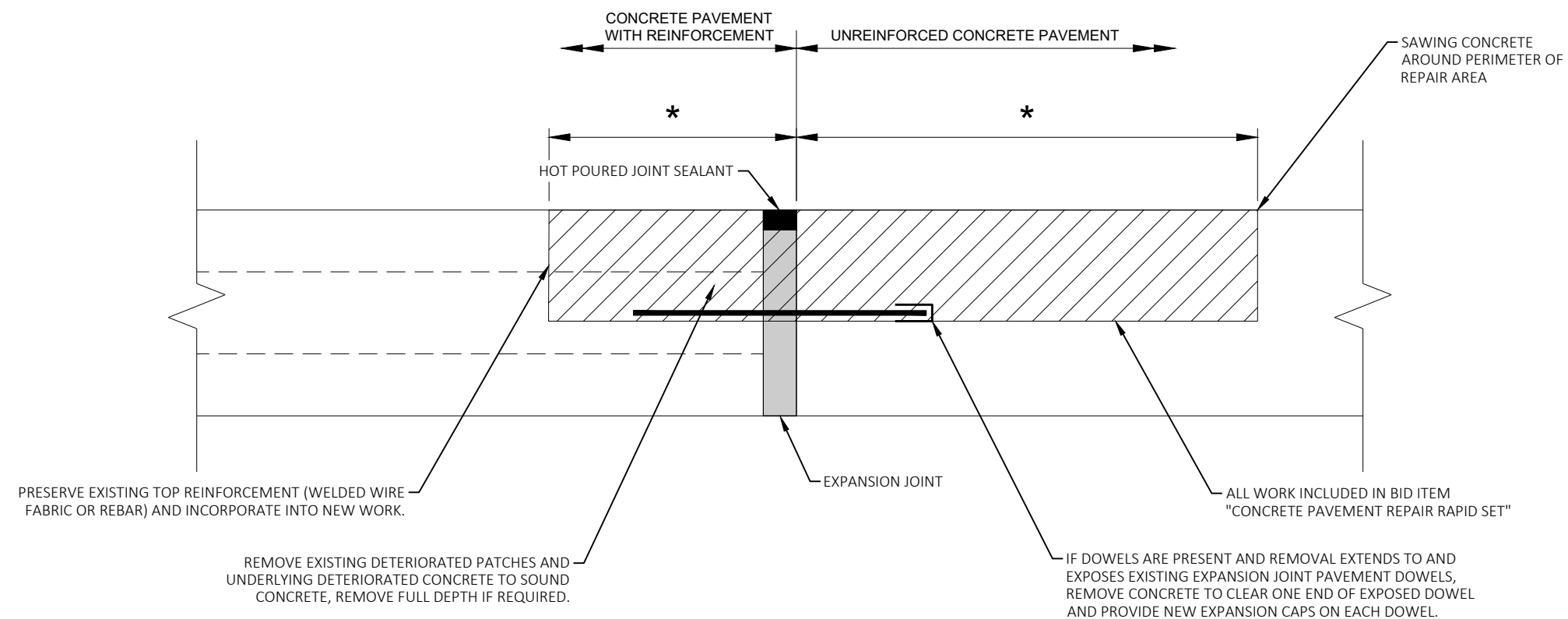
2	GENERAL NOTES THE UTILITY FACILITIES SHOWN IN THE PLANS WITHIN THE PROJECT AREA ARE APPROXIMATE. THE CONTRACTOR SHALL COORDINATE HIS CONSTRUCTION ACTIVITIES WITH A CALL TO DIGGERS HOTLINE AND/OR A DIRECT CALL TO THE UTILITIES THAT HAVE FACILITIES IN THE AREA. NOT ALL UTILITIES ARE MEMBERS OF DIGGERS HOTLINE. EROSION CONTROL BMP'S ARE AT SUGGESTED LOCATIONS. THE ACTUAL LOCATIONS WILL BE DETERMINED BY THE CONTRACTOR'S ECIP AND BY THE ENGINEER. EROSION CONTROL BMP'S SHALL BE MAINTAINED UNTIL THE ENGINEER DETERMINES THAT THE BMP IS NO LONGER REQUIRED. INLET PROTECTION IS REQUIRED AT ALL INLETS AS PER DETAIL OR AS DIRECTED BY THE ENGINEER.					2	
	ORDER OF SECTION 2 DETAIL SHEETS GENERAL NOTES AND UTILITY CONTACTS PROJECT OVERVIEW TYPICAL SECTIONS CONSTRUCTION DETAILS PLAN DETAILS TRAFFIC CONTROL ALIGNMENT LAYOUT						
	OTHER CONTACTS WISCONSIN DEPARTMENT OF TRANSPORTATION EVAN LIMBERATOS - PROJECT MANAGER 141 NW BARSTOW ST WAUKESHA, WI 53187 PHONE: (262) 548-8797 CELL: (414) 750-3362 evan.limberatos@dot.wi.gov WISCONSIN DEPARTMENT OF NATURAL RESOURCES BENTON STELZEL 141 NW BARSTOW ST ROOM 180 WAUKESHA, WI 53188 PHONE: (262) 623-0194 benton.stelzel@wi.gov						
	DIGGERSHOTLINE Dial 811 or (800)242-8511 www.DiggersHotline.com						
		UTILITY CONTACTS ANR PIPELINE CO - GAS/PETROLEUM TODD BRISTER W3925 PIPELINE LANE EDEN, WI 53019 PHONE: (920) 477-2235 todd_brister@transcanada.com AT&T LEGACY - COMMUNICATION LINE KENNETH NINE 110 N MAIN STREET CULVER, IN PHONE: (574) 904-6336 knine@jmceainc.com AT&T LOCAL NETWORK - COMMUNICATION LINE JENNIFER NAVARRO 13500 WATERTOWN PLANK ROAD, SUITE 107 ELM GROVE, WI 53122 PHONE: (414) 459-3564 j.navarro@northwindtech.com AT&T WISCONSIN - COMMUNICATION LINE MIKE VANBOVEN 411 7TH STREET RACINE, WI 53403 PHONE: (262) 676-3958 mv3658@att.com CITY OF KENOSHA - ROAD FACILITY GREG HOLVERSON ROOM 305 625 52ND ST. KENOSHA, WI 53140 PHONE: (262) 287-4700 gholverson@kenosha.org CITY OF KENOSHA - STREET LIGHTING GREG HOLVERSON 3735 65TH STREET KENOSHA, WI 53140 PHONE: (262) 287-4700 gholverson@kenosha.org FRONTIER COMMUNICATIONS OF WI LLC - COMMUNICATION LINE RUSS RYAN 118 DIVISION STREET PLYMOUTH, WI 53073 PHONE: (920) 583-3275 Russell.w.ryan@ftr.com	KENOSHA WATER UTILITY - SEWER STEVE THUSIUS 4401 GREEN BAY ROAD KENOSHA, WI 53144 PHONE: (262) 620-7811 sthusius@kenosha.org KENOSHA WATER UTILITY - WATER STEVE THUSIUS 4401 GREEN BAY ROAD KENOSHA, WI 53144 PHONE: (262) 620-7811 sthusius@kenosha.org LEVEL 3 COMMUNICATIONS LLC - COMMUNICATION LINE SHAD GARCIA 3235 INTERTECH DR, SUITE 600 BROOKFIELD, WI 53045 PHONE: (262) 606-0896 shad.garcia@centurylink.com MIDWEST FIBER NETWORKS LLC - COMMUNICATION LINE RICHARD TRGOVEC 6070 NORTH FLINT RD GLENDALE, WI 53209 PHONE: (414) 459-3554 rtrgovec@midwestfibernetworks.com RACINE WATER WORKS COMMISSION - WATER KEITH HAAS 800 CENTER ST. RACINE, WI 53403 PHONE: (262) 636-9434 keith.haas@cityofracine.org VILLAGE OF BRISTOL - SEWER RANDALL KERKMAN 19801 83RD STREET BRISTOL, WI 53104 PHONE: (262) 857-2368 admin@villageofbristol.org	VILLAGE OF BRISTOL - WATER RANDALL KERKMAN 19801 83RD STREET BRISTOL, WI 53104 PHONE: (262) 857-2368 admin@villageofbristol.org VILLAGE OF MOUNT PLEASANT - SEWER LINSEY WEBER 8811 CAMPUS DR MOUNT PLEASANT, WI 53406 PHONE: (262) 664-7833 lweber@mtpleasantwi.gov WE ENERGIES - ELECTRICITY JAMES NELSON 7815 NORTHWESTERN AVE RACINE, WI 53406 PHONE: (414) 315-1189 james.nelson@we-energies.com WE ENERGIES ELECTRIC DISPATCH PHONE: (800) 662-4797 WE ENERGIES - GAS/PETROLEUM CHRIS DEGRAVE 7815 NORTHWESTERN AVE RACINE, WI 53406 PHONE: (262) 939-9814 chris.degrave@we-energies.com WE ENERGIES GAS DISPATCH PHONE: (800) 261-5325 WISCONSIN DEPARTMENT OF TRANSPORTATION - COMMUNICATION LINE JEFF MADSON STE. 300 433 W. ST. PAUL AVE. MILWAUKEE, WI 53203-3007 PHONE: (414) 225-3723 Jeffrey.Madson@dot.wi.gov WISCONSIN DEPARTMENT OF TRANSPORTATION - STREET LIGHTING ERIC PEREA 141 NW BARSTOW STREET WAUKESHA, WI 53088 PHONE: (262) 574-5422 Eric.Perea@dot.wi.gov			
PROJECT NO: 1030-08-78		HWY: IH 41/94		COUNTY: KENOSHA	GENERAL NOTES AND UTILITY CONTACTS	SHEET 2	E



PROJECT NO: 1030-08-78	HWY: IH 41/94	COUNTY: KENOSHA	PROJECT OVERVIEW	SHEET 3	E
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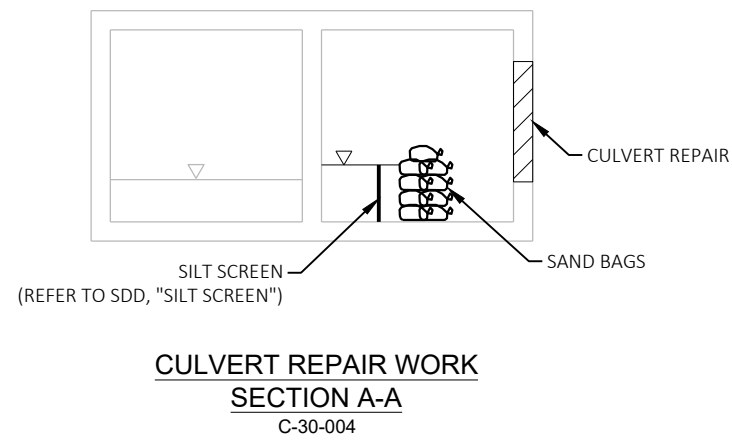
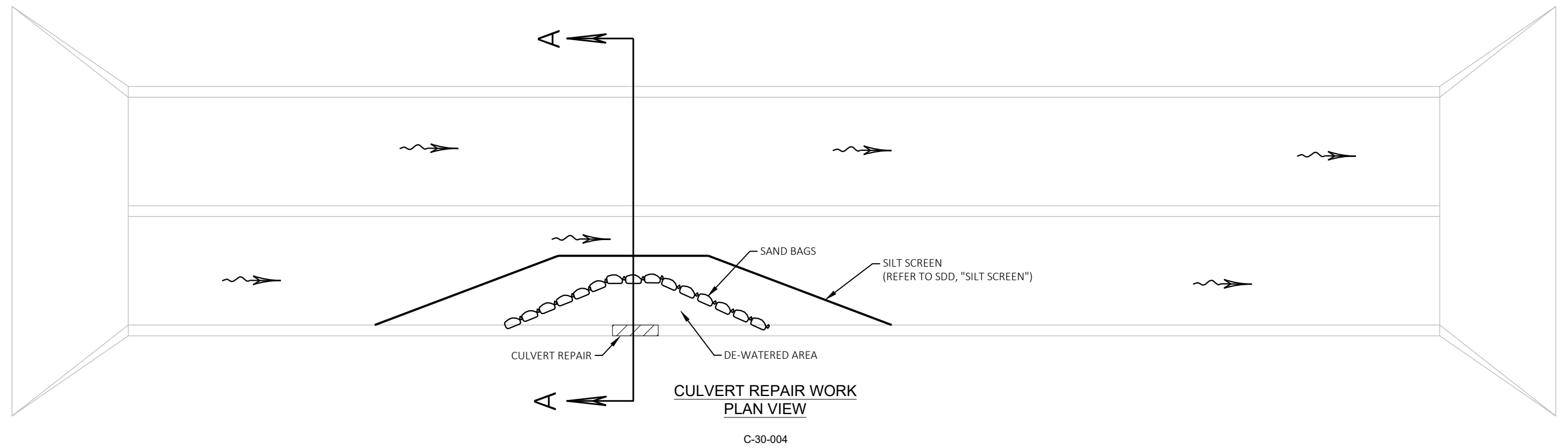


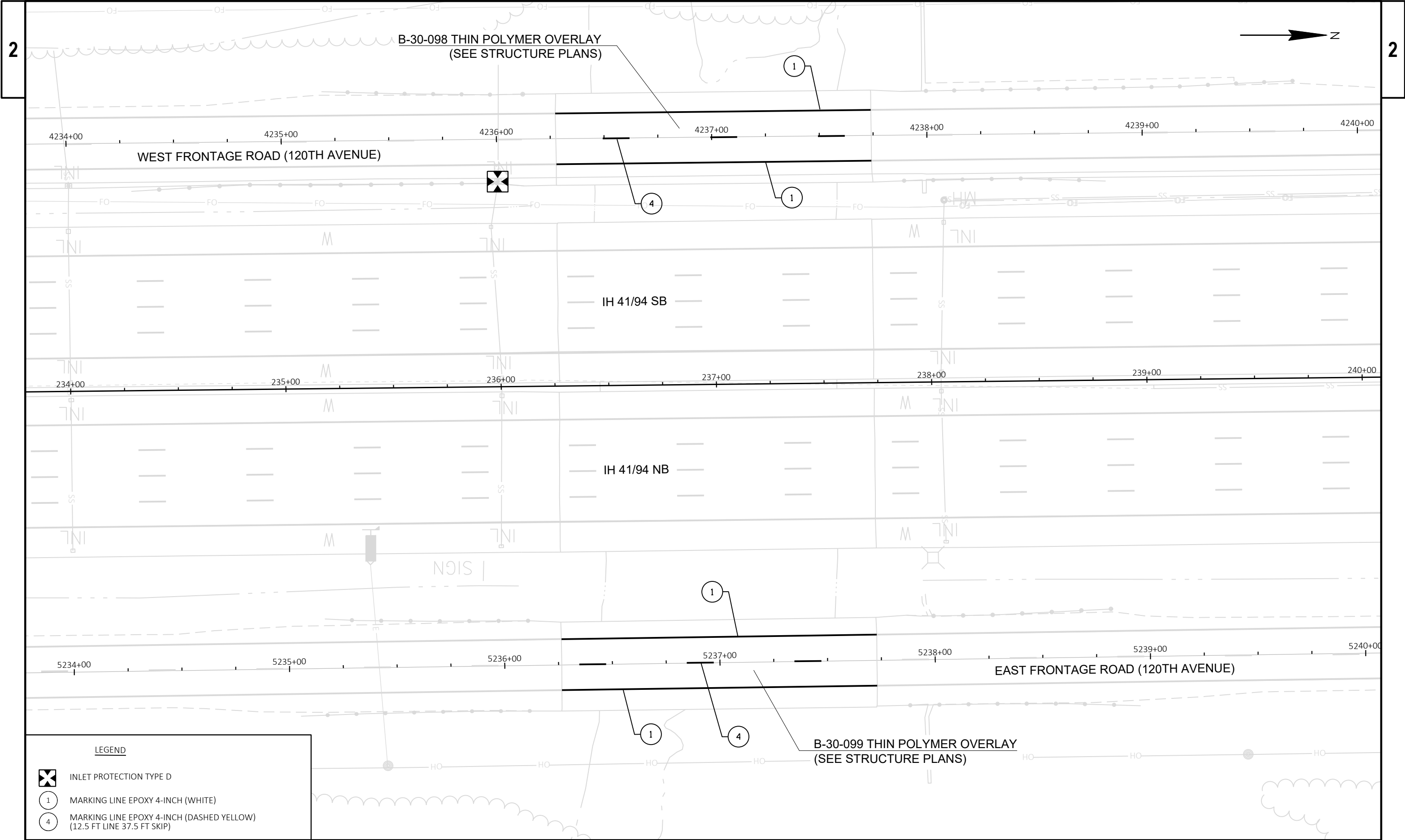


CONCRETE PAVEMENT REPAIR RAPID SET

* DIMENSIONS TO BE DETERMINED BY ENGINEER IN THE FIELD

B-30-090
B-30-091
B-30-100
B-30-102
B-30-103 (SOUTH END)
B-30-117
B-30-118 (NORTH END)





LEGEND



INLET PROTECTION TYPE D



MARKING LINE EPOXY 4-INCH (WHITE)



MARKING LINE EPOXY 4-INCH (DASHED YELLOW)
(12.5 FT LINE 37.5 FT SKIP)

PROJECT NO: 1030-08-78

HWY: IH 41/94

COUNTY: KENOSHA

PLAN DETAILS: B-30-098/99

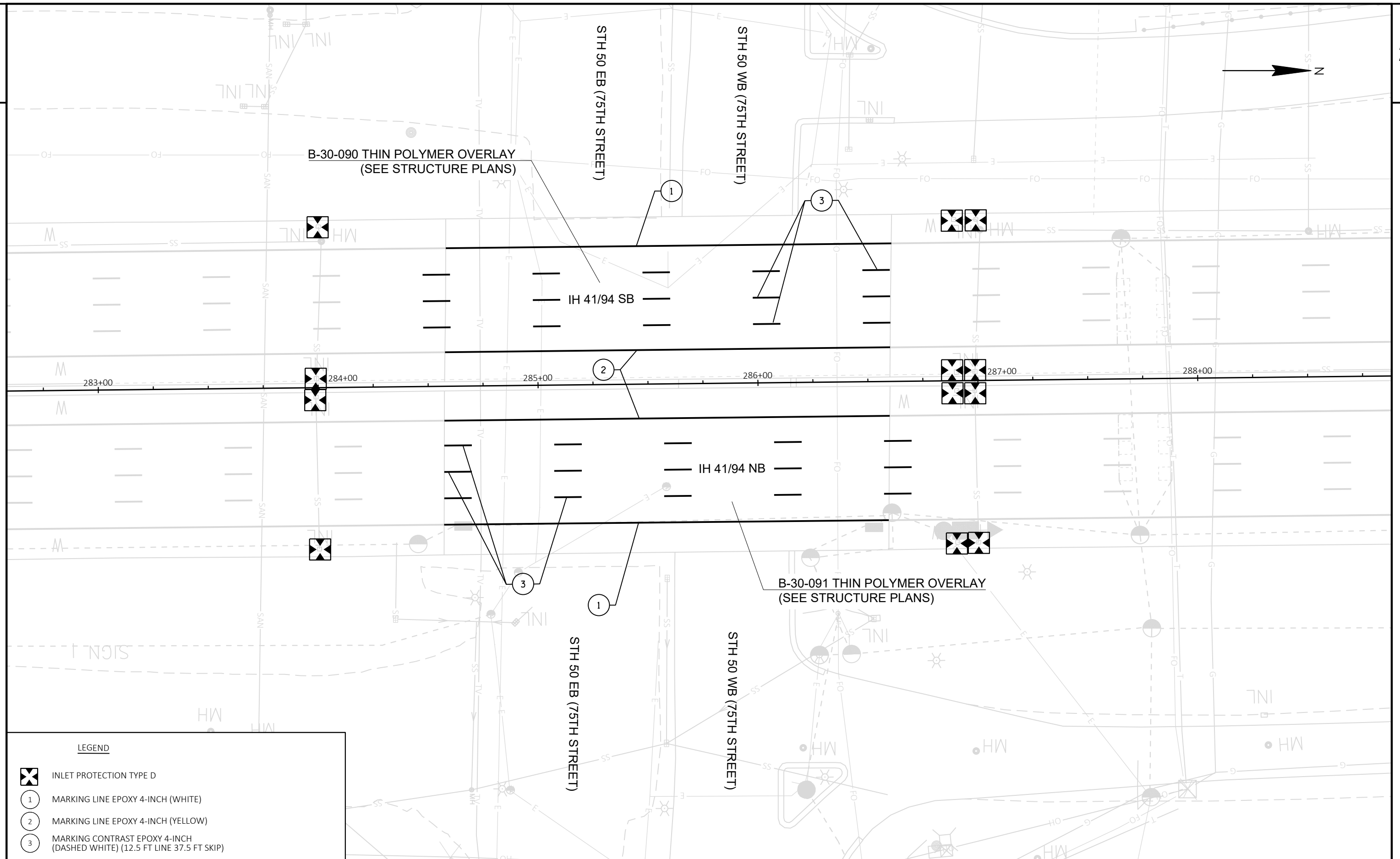
SHEET

8

E

2

2 |



LEGEND



INLET PROTECTION TYPE D



MARKING LINE EPOXY 4-INCH (WHITE)



MARKING LINE EPOXY 4-INCH (YELLOW)



MARKING CONTRAST EPOXY 4-INCH
(DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)

PROJECT NO:	1030-08-78
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HWY: IH 41/94

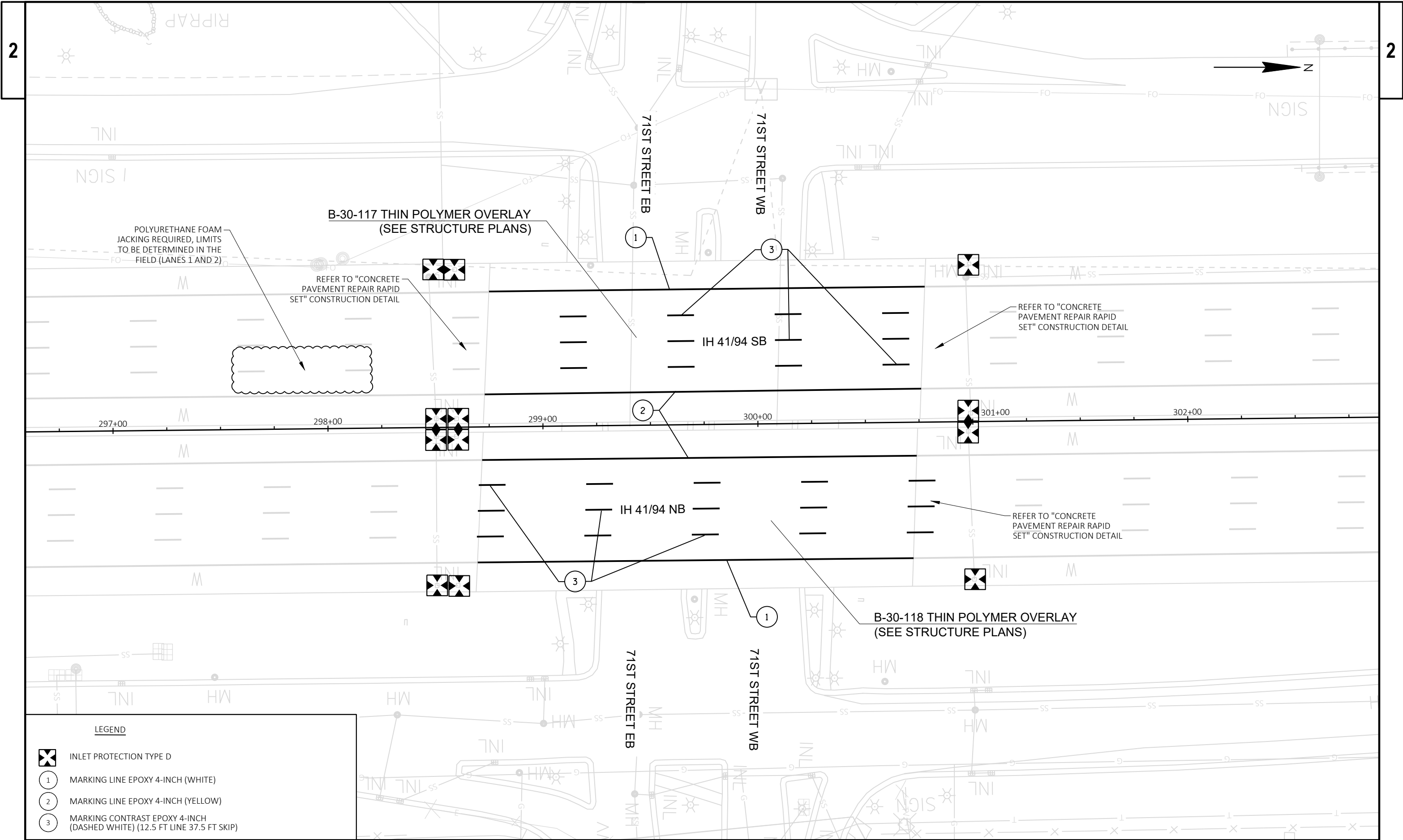
COUNTY: KENOSHA

PLAN DETAILS: B-30-90/91

SHEET

9

11



LEGEND

-  INLET PROTECTION TYPE D
-  MARKING LINE EPOXY 4-INCH (WHITE)
-  MARKING LINE EPOXY 4-INCH (YELLOW)
-  MARKING CONTRAST EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)

PROJECT NO: 1030-08-78

HWY: IH 41/94

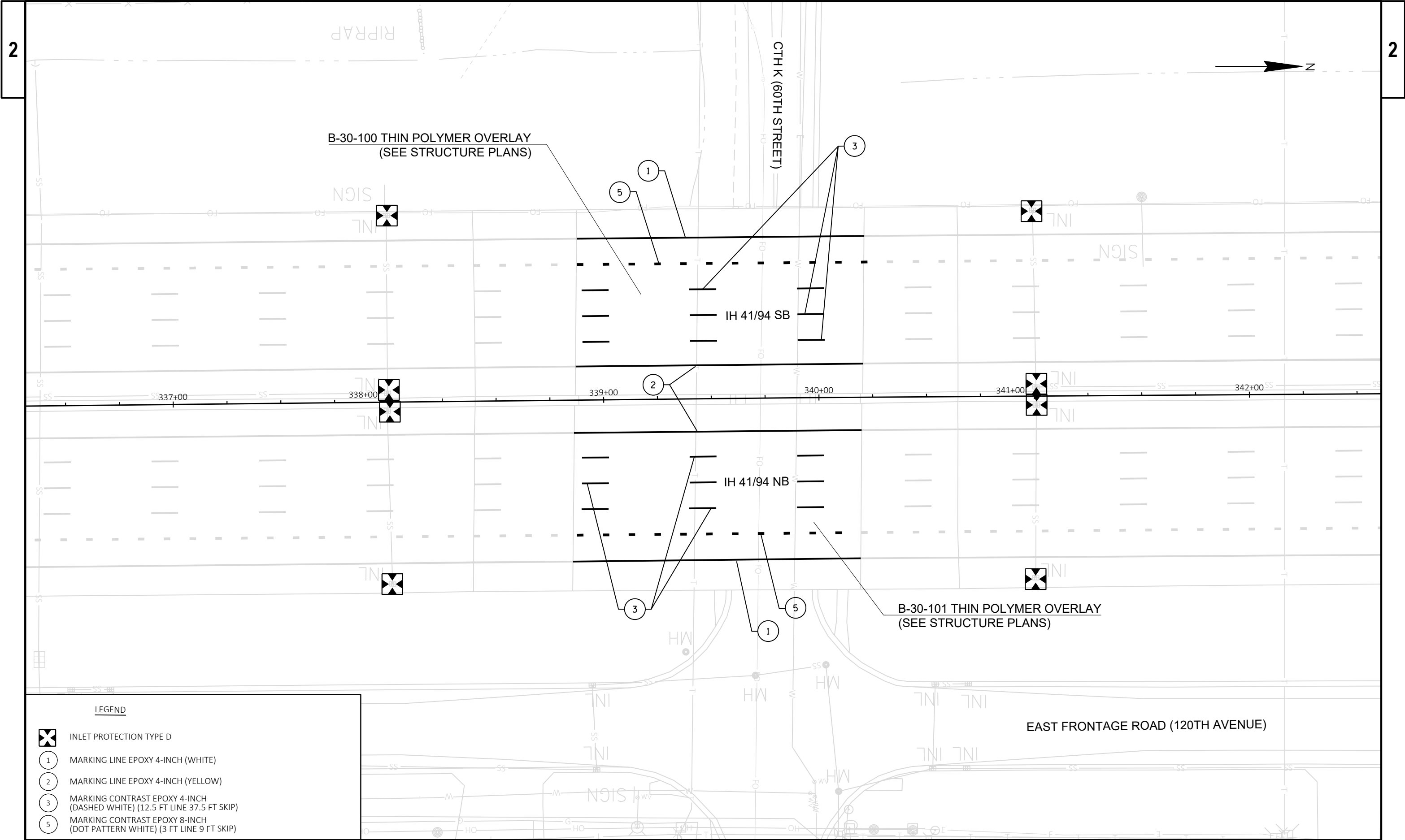
COUNTY: KENOSHA

PLAN DETAILS: B-30-117/118

SHEET

10

E



LEGEND

-  INLET PROTECTION TYPE D
-  MARKING LINE EPOXY 4-INCH (WHITE)
-  MARKING LINE EPOXY 4-INCH (YELLOW)
-  MARKING CONTRAST EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
-  MARKING CONTRAST EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)

PROJECT NO: 1030-08-78

HWY: IH 41/94

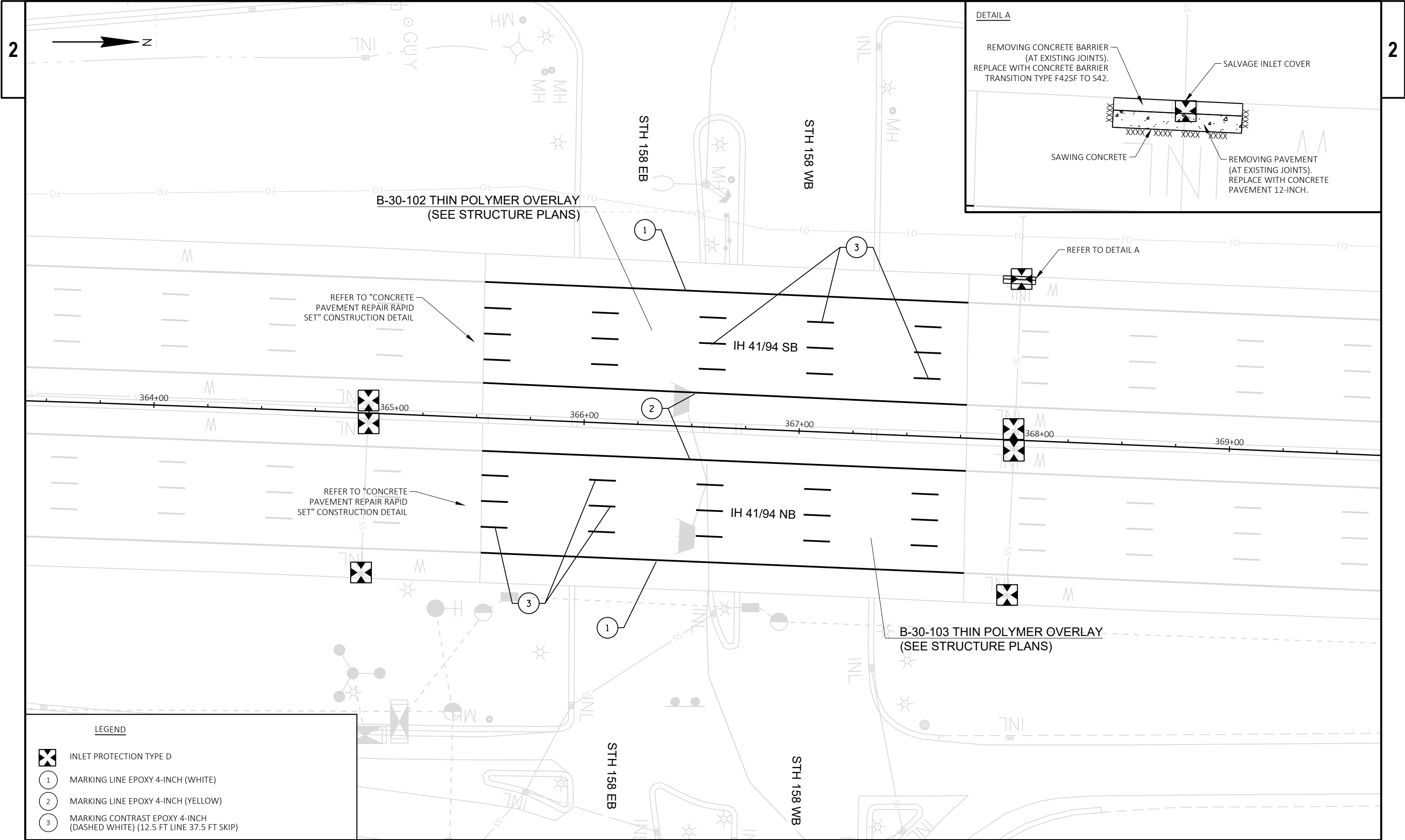
COUNTY: KENOSHA

PLAN DETAILS: B-30-100/101

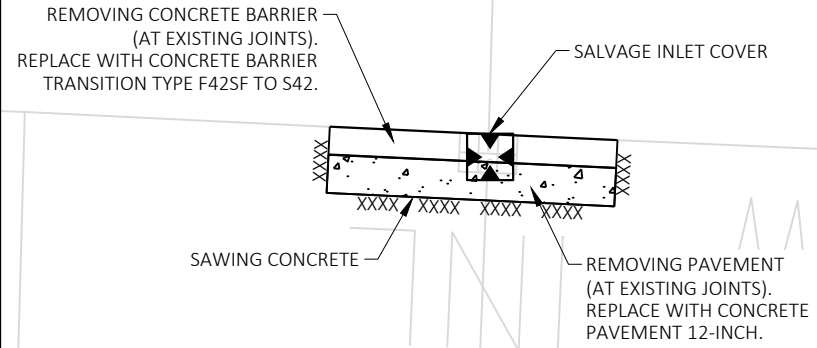
SHEET

11

E

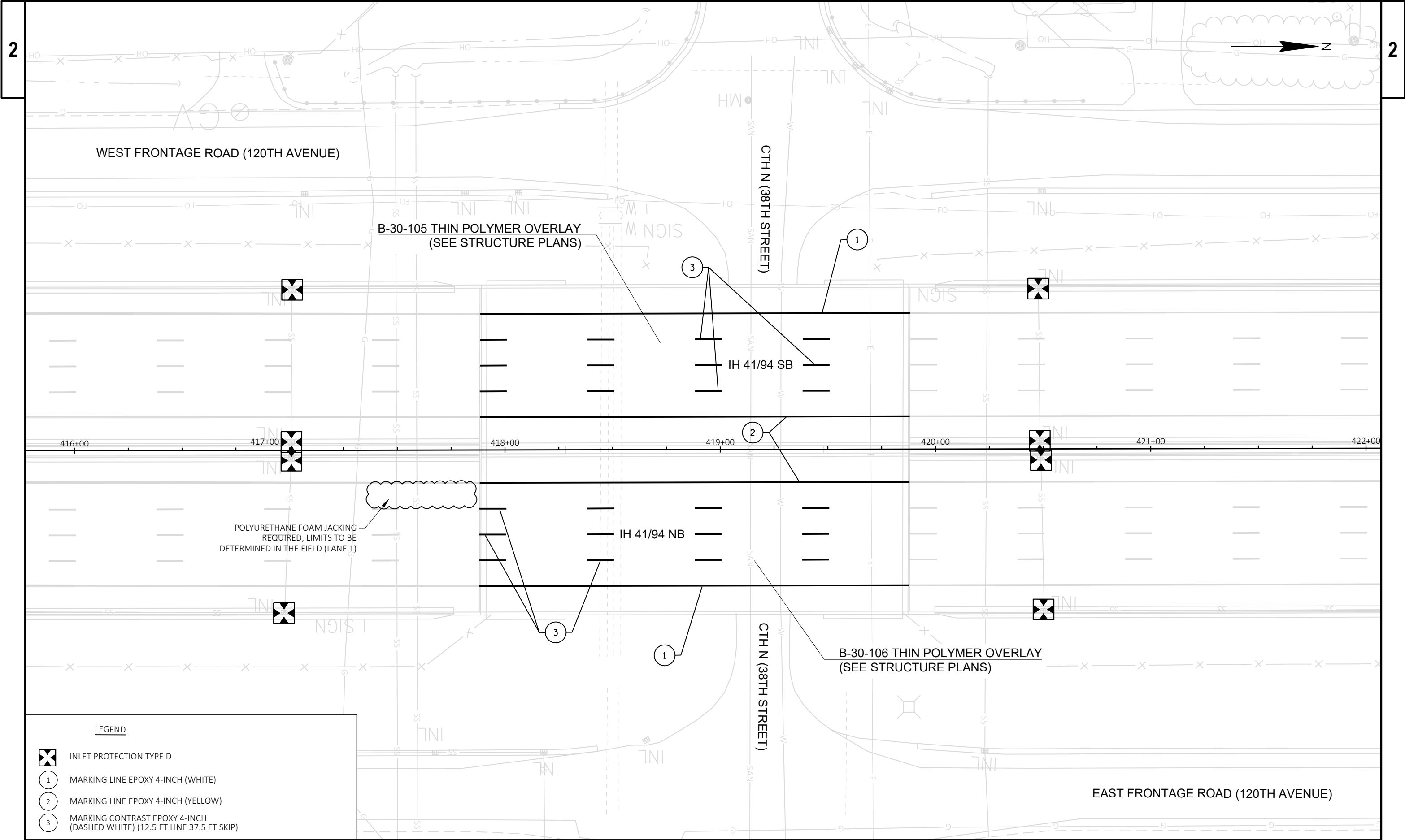


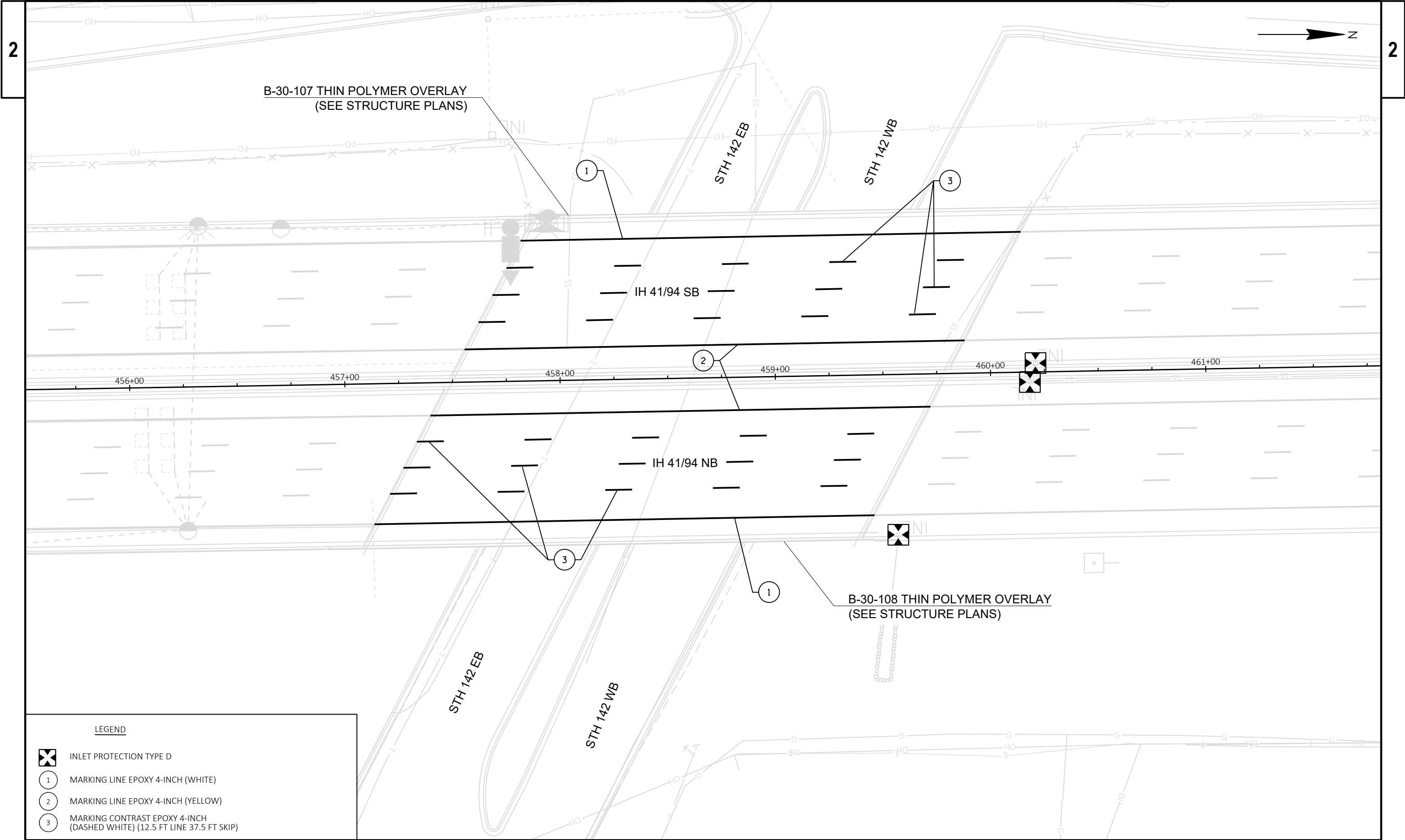
DETAIL A



LEGEND

-  INLET PROTECTION TYPE D
-  MARKING LINE EPOXY 4-INCH (WHITE)
-  MARKING LINE EPOXY 4-INCH (YELLOW)
-  MARKING CONTRAST EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)





LEGEND

-  INLET PROTECTION TYPE D
-  MARKING LINE EPOXY 4-INCH (WHITE)
-  MARKING LINE EPOXY 4-INCH (YELLOW)
-  MARKING CONTRAST EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)

PROJECT NO: 1030-08-78

HWY: IH 41/94

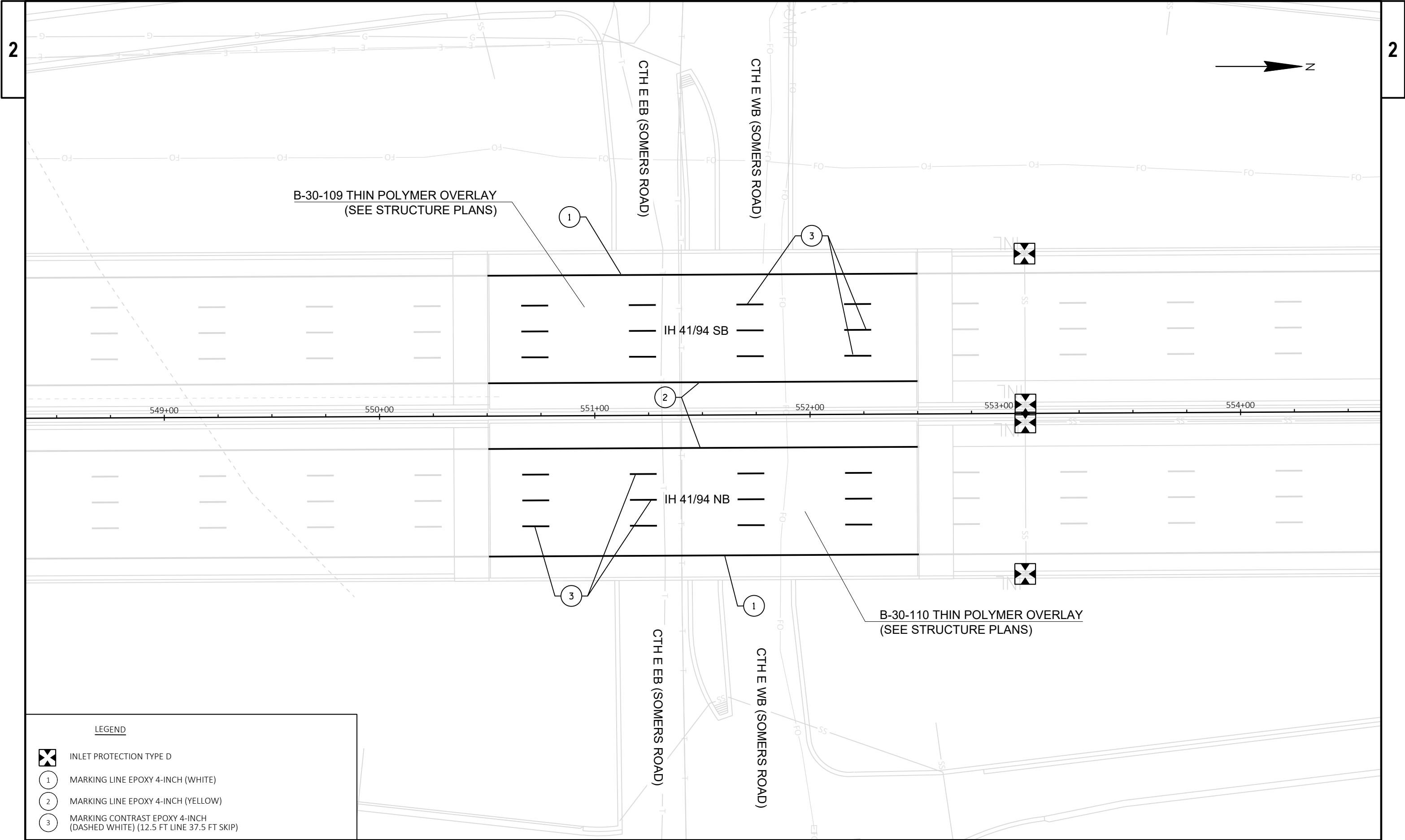
COUNTY: KENOSHA

PLAN DETAILS: B-30-107/108

SHEET

14

E



LEGEND

-  INLET PROTECTION TYPE D
-  MARKING LINE EPOXY 4-INCH (WHITE)
-  MARKING LINE EPOXY 4-INCH (YELLOW)
-  MARKING CONTRAST EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)

PROJECT NO: 1030-08-78

HWY: IH 41/94

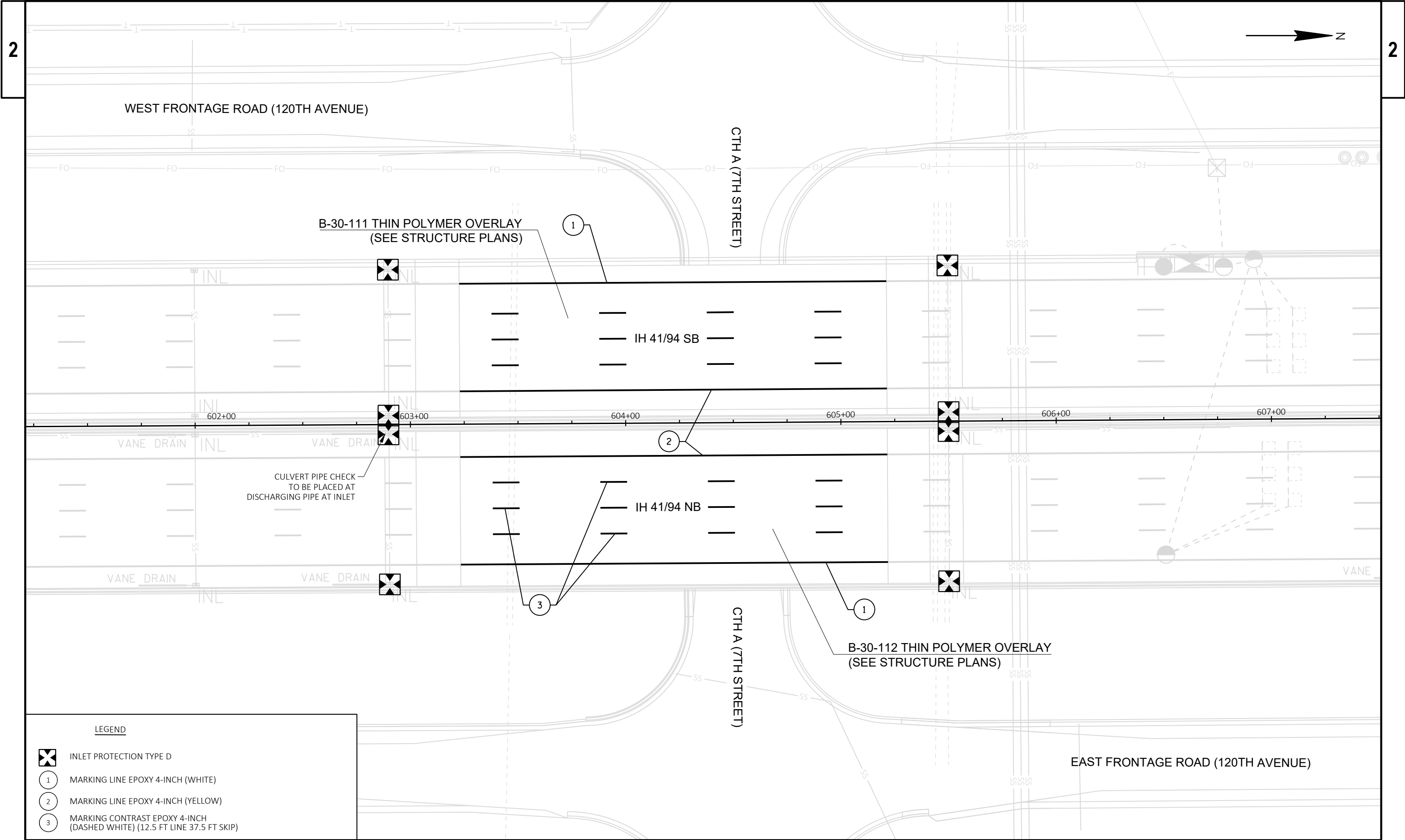
COUNTY: KENOSHA

PLAN DETAILS: B-30-109/110

SHEET

15

E



LEGEND

-  INLET PROTECTION TYPE D
-  MARKING LINE EPOXY 4-INCH (WHITE)
-  MARKING LINE EPOXY 4-INCH (YELLOW)
-  MARKING CONTRAST EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)

PROJECT NO: 1030-08-78

HWY: IH 41/94

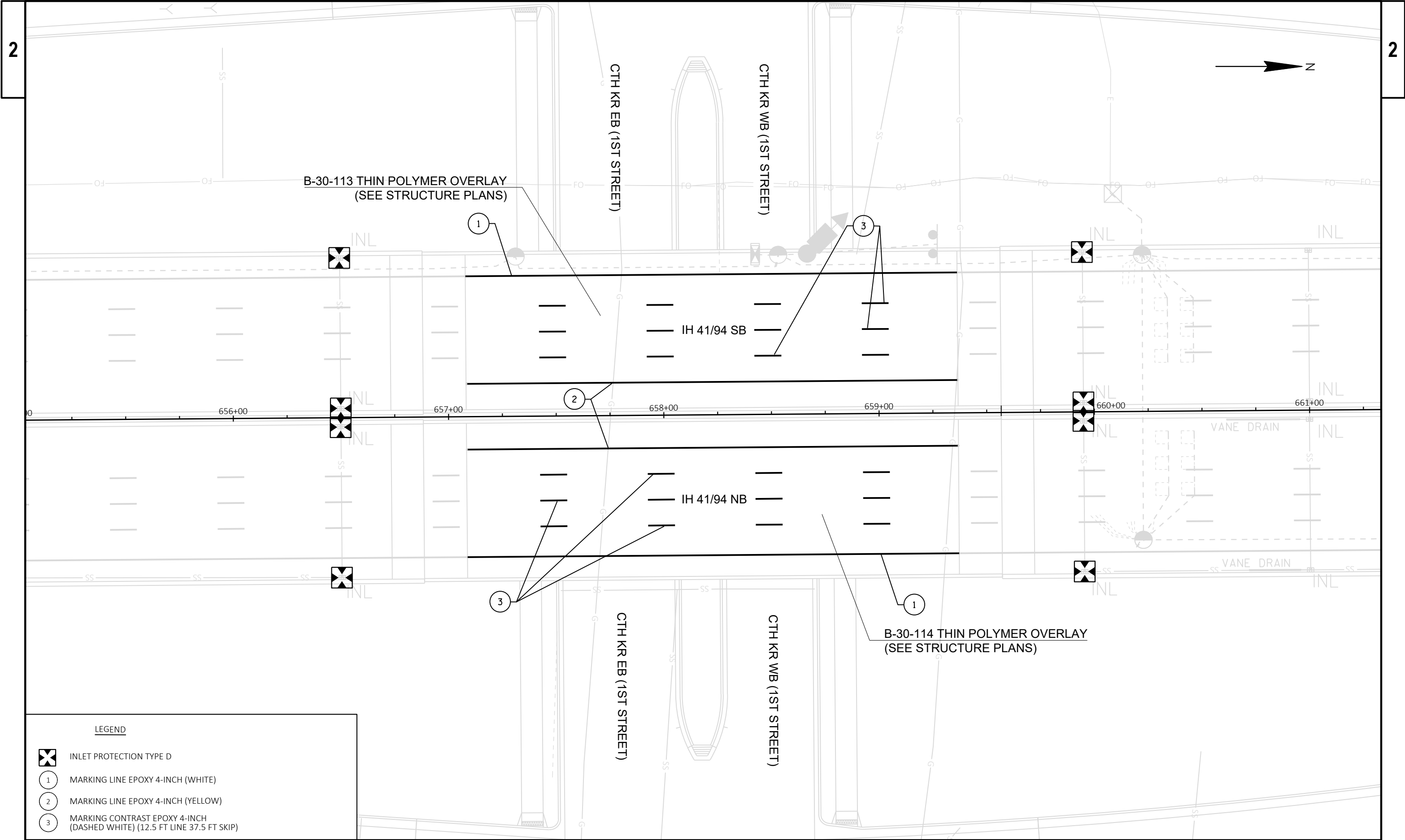
COUNTY: KENOSHA

PLAN DETAILS: B-30-111/112

SHEET

16

E



LEGEND

-  INLET PROTECTION TYPE D
-  MARKING LINE EPOXY 4-INCH (WHITE)
-  MARKING LINE EPOXY 4-INCH (YELLOW)
-  MARKING CONTRAST EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)

PROJECT NO: 1030-08-78

HWY: IH 41/94

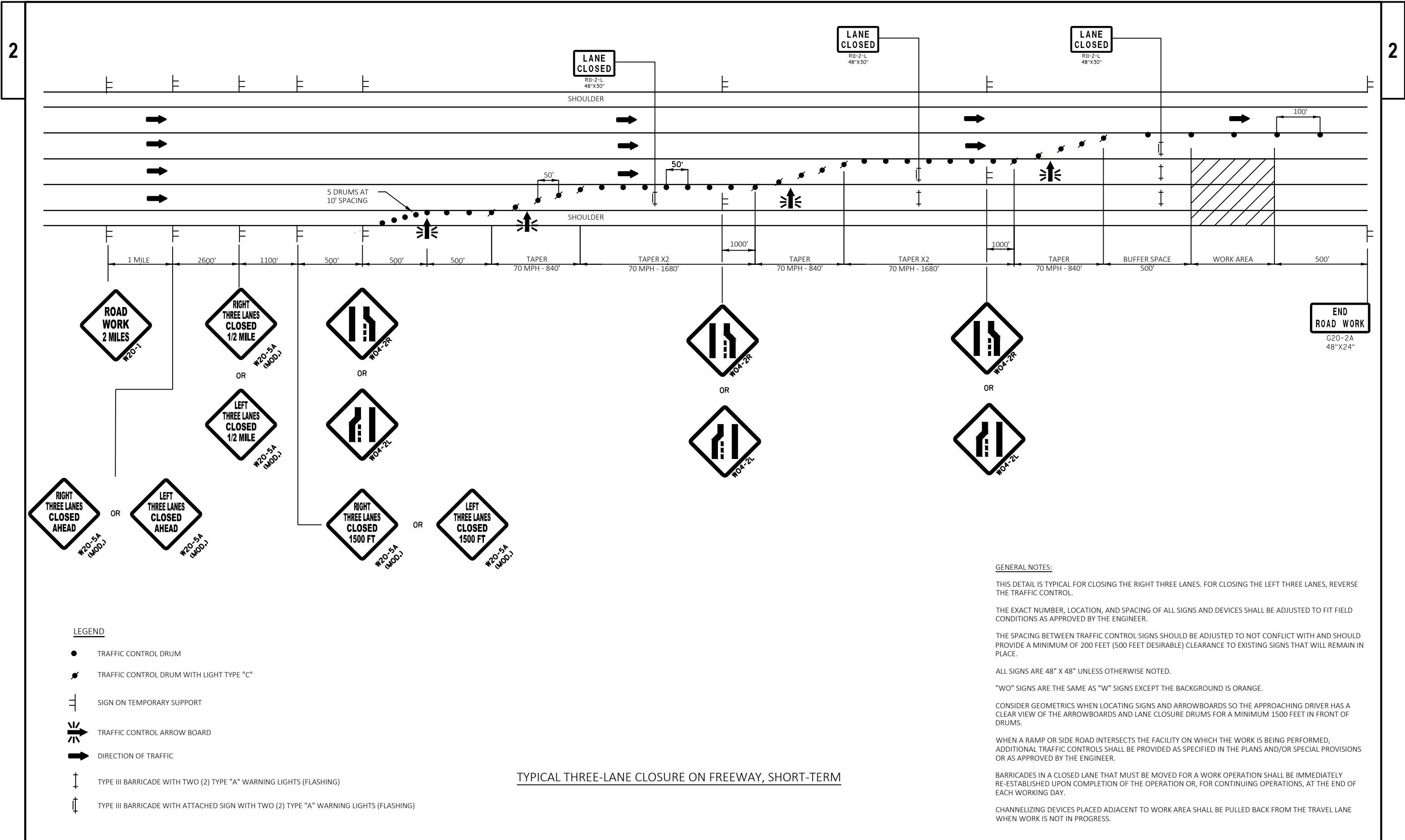
COUNTY: KENOSHA

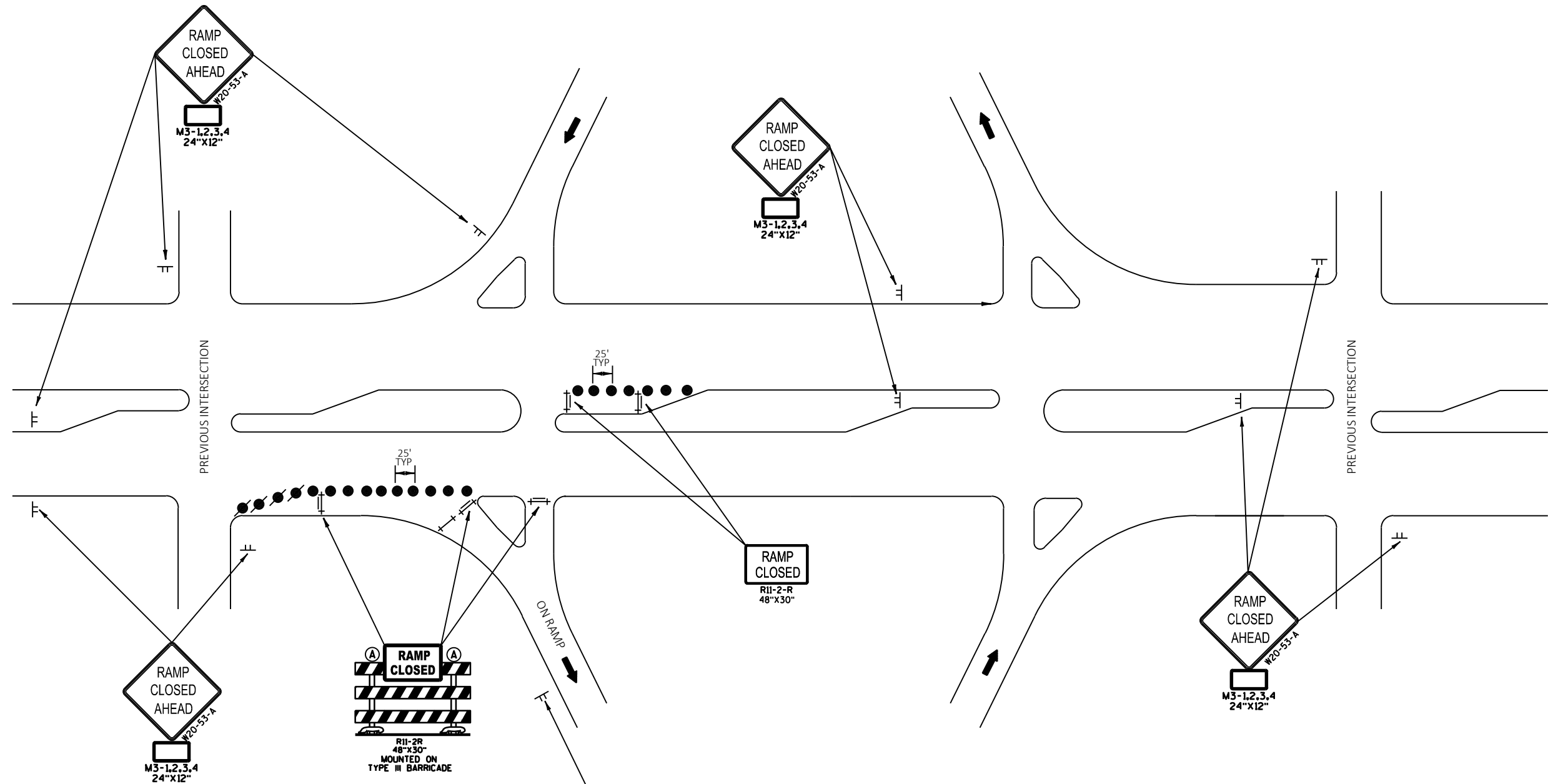
PLAN DETAILS: B-30-113/114

SHEET

17

E



**LEGEND**

- TRAFFIC CONTROL DRUM
- ⦿ TRAFFIC CONTROL WITH TYPE "C" STEADY BURN LIGHT
- ⋈ TYPE III BARRICADE
- ⋈ TYPE III BARRICADE WITH 2 TYPE "A" WARNING LIGHT (FLASHING)
- ⦿ SIGN ON PERMANENT SUPPORT
- ⋈ SIGN ON TEMPORARY SUPPORT
- ➔ DIRECTION OF TRAFFIC

TRAFFIC CONTROL FOR ENTRANCE RAMP CLOSURE
SHORT TERM ONLY

TRAFFIC CONTROL NOTES

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

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

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

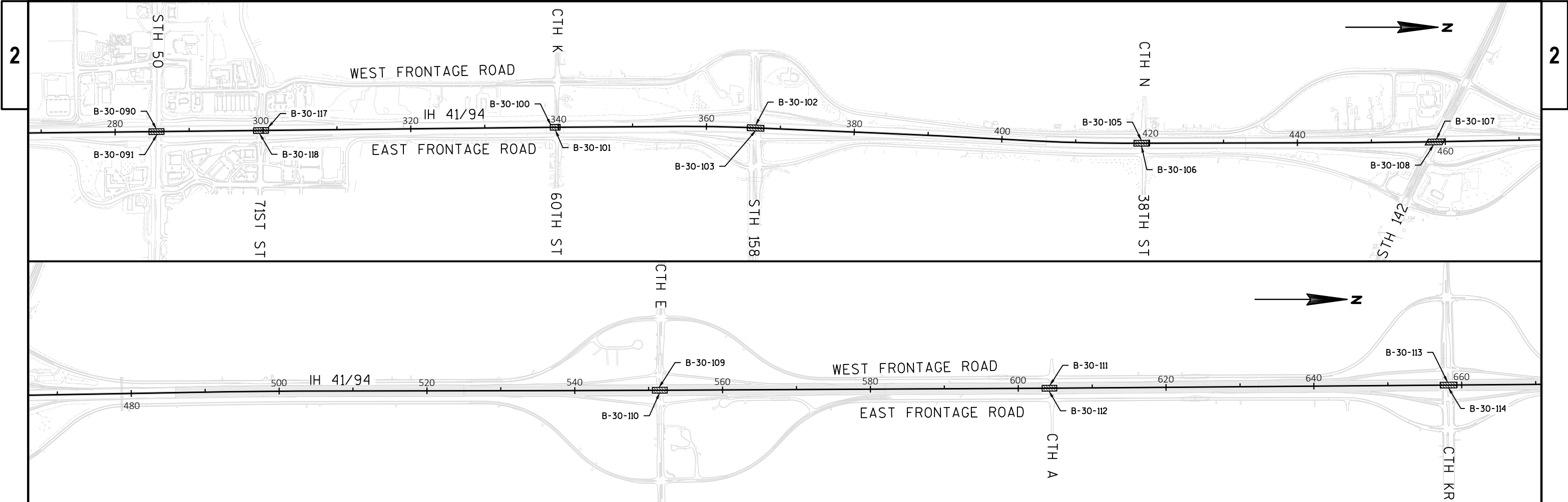
SHORT TERM DEFINED AS 7 DAYS/NIGHTS OR LESS. FOR NIGHT TIME OPERATIONS ALL DRUMS IN TAPERS SHALL HAVE WARNING LIGHT, TYPE C (STEADY BURN). MAY BE APPLIED TO ARTERIALS OR LOCAL ROADS.

NORTH
M3-1
24"x12"

EAST
M3-2
24"x12"

SOUTH
M3-3
24"x12"

WEST
M3-4
24"x12"



GENERAL NOTES:

REFER TO CONSTRUCTION DETAIL, "TYPICAL THREE-LANE CLOSURE ON FREEWAY, SHORT-TERM."

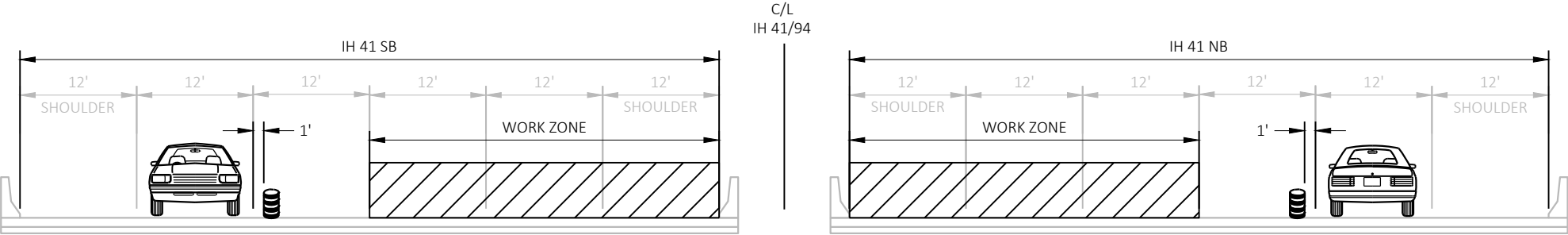
STAGE 1:

A THIN POLYMER OVERLAY (TPO) IS APPLIED ON THE TWO INSIDE LANES AND SHOULDER OF IH 41/94 (BOTH DIRECTIONS). POLYURETHANE FOAM JACKING WILL BE PERFORMED ON THE TWO INSIDE LANES NEAR B-30-117.

ALL WORK COMPLETED DURING STAGE 1 IS NIGHT TIME WORK.

TRAFFIC:

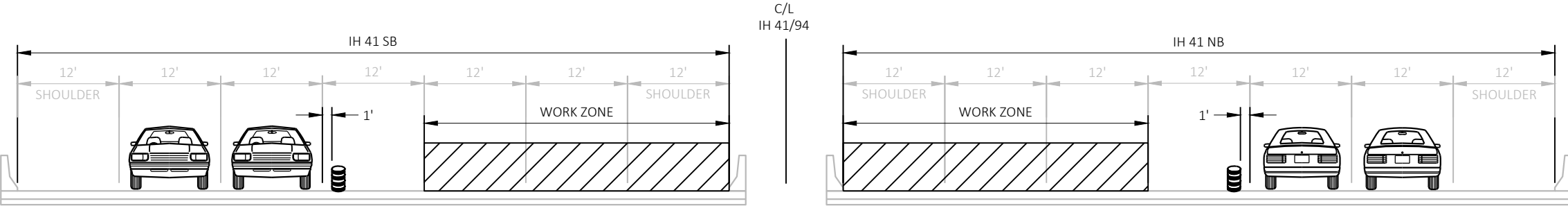
IN THIS STAGE, THE FOLLOWING MOVEMENTS ARE CLOSED:
-THE THREE INSIDE LANES OF IH 41/94



TYPICAL SECTION

IH 41/94 - STAGE 1

B-30-090, B-30-091, B-30-117, B-30-118, B-30-102, B-30-103, B-30-105, B-30-106, B-30-107, B-30-108, B-30-109, B-30-110, B-30-111, B-30-112, B-30-113, B-30-114



TYPICAL SECTION

IH 41/94 - STAGE 1

B-30-100 & B-30-101

PROJECT NO: 1030-08-78

HWY: IH 41/94

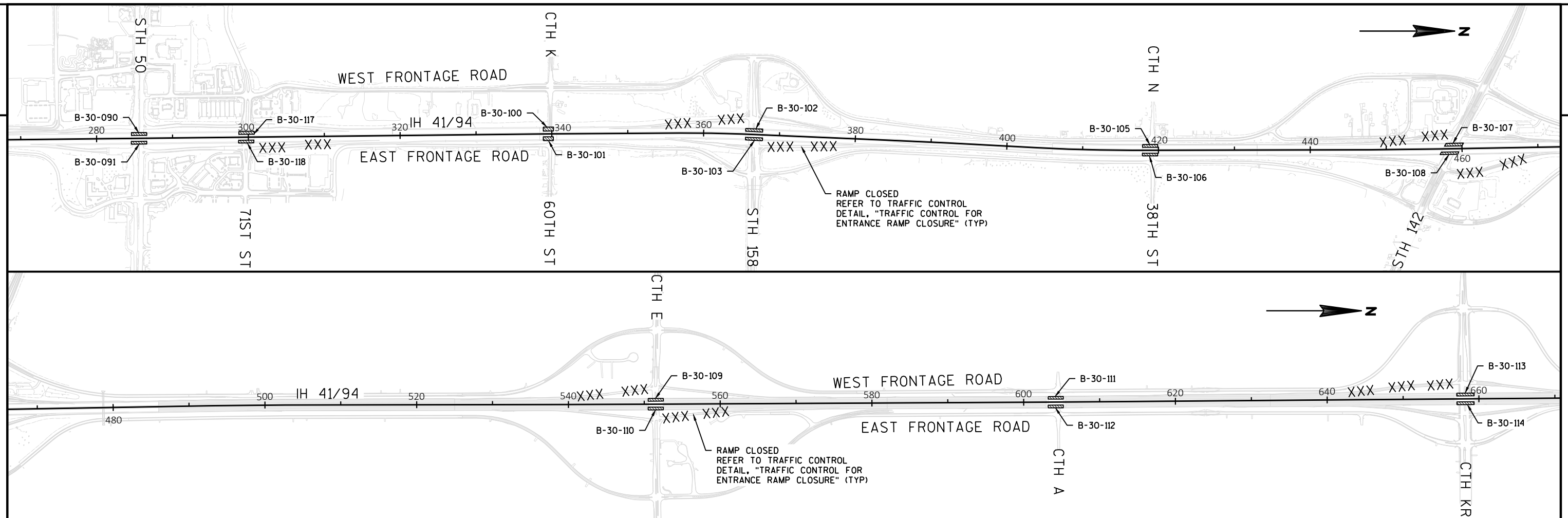
COUNTY: KENOSHA

TRAFFIC CONTROL - STAGE 1 OVERVIEW

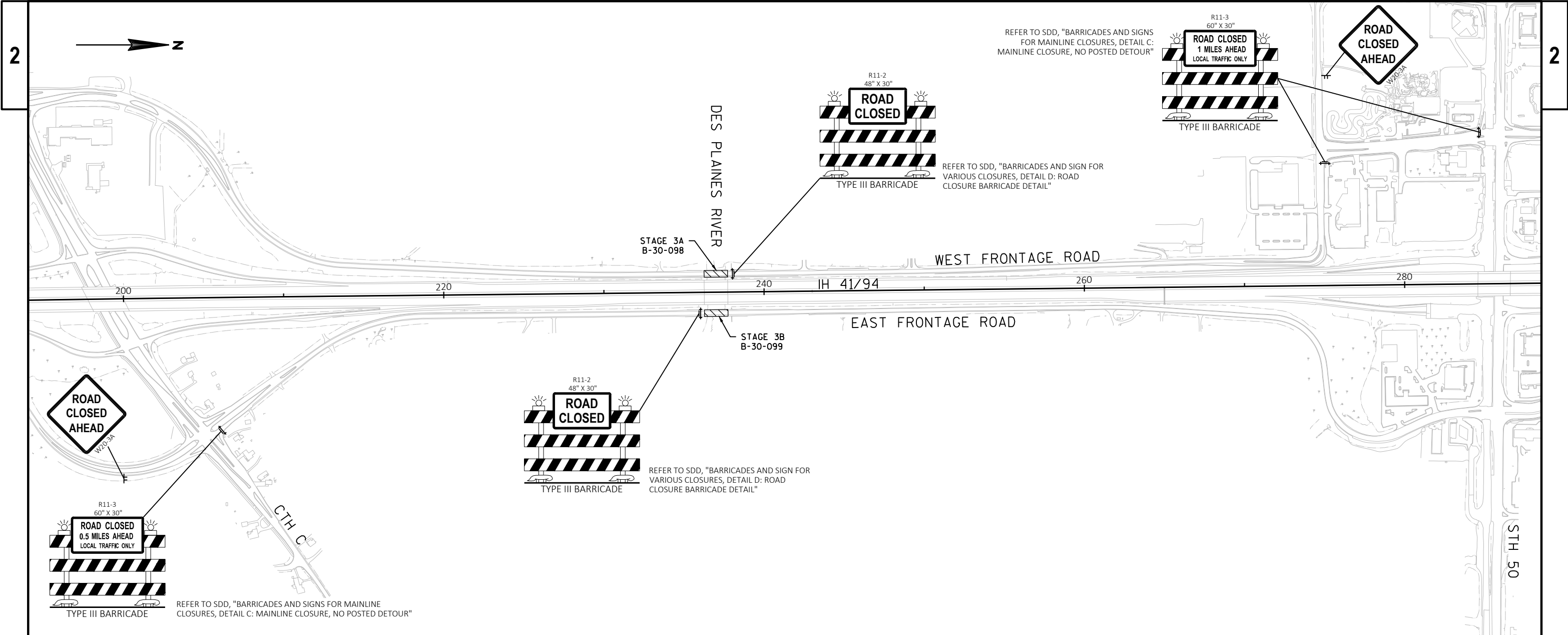
SHEET

20

E



B-30-100 & B-30-101



GENERAL NOTES:

REFER TO SDD, "BARRICADES AND SIGNS FOR MAINLINE, DETOUR, ON RAMP, OFF RAMP CLOSURES AND ADVANCED WIDTH."

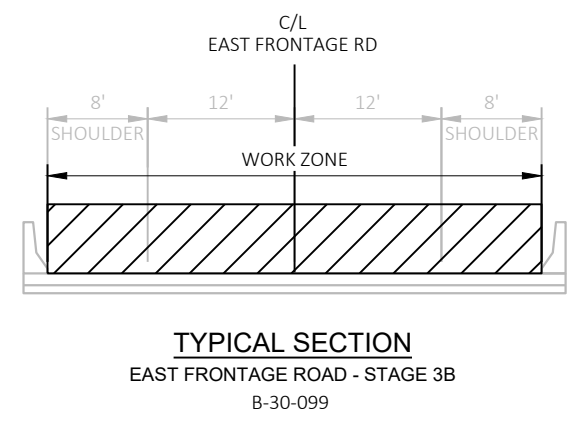
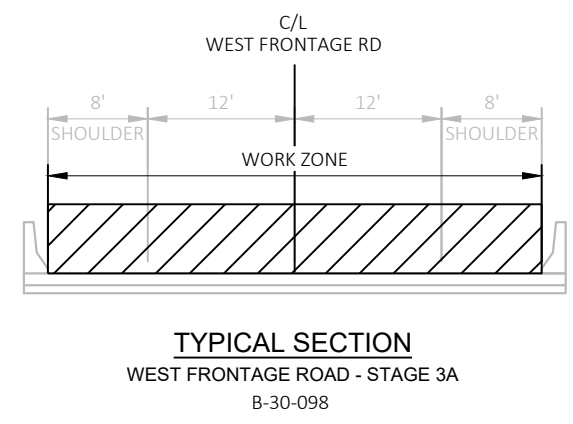
STAGE 3:

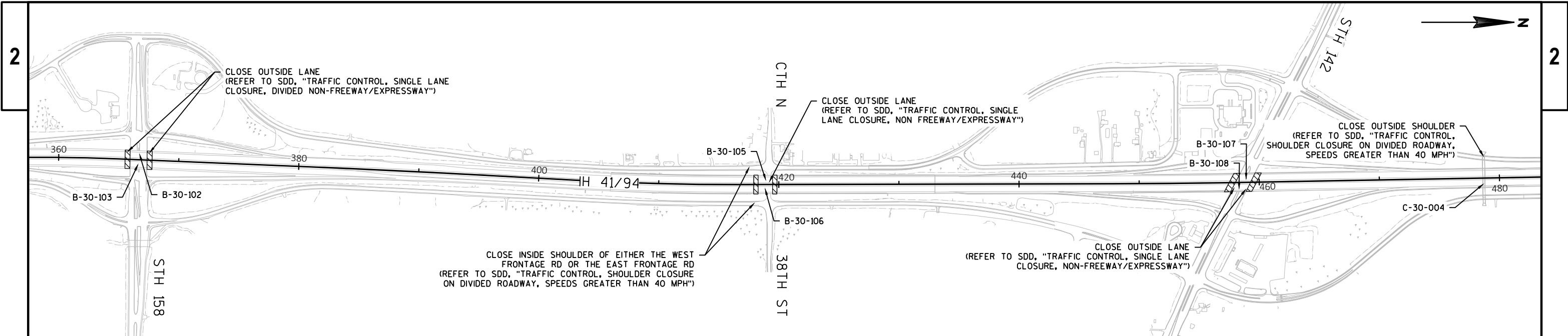
A THIN POLYMER OVERLAY (TPO) IS APPLIED ON THE WEST FRONTAGE ROAD (STAGE 3A) AND THE EAST FRONTAGE ROAD (STAGE 3B).

ALL WORK COMPLETED DURING STAGE 3 IS NIGHT TIME WORK.

TRAFFIC:

IN THIS STAGE, THE FOLLOWING MOVEMENTS ARE CLOSED:
-THE WEST FRONTAGE ROAD (STAGE 3A)
-THE EAST FRONTAGE ROAD (STAGE 3B)





GENERAL NOTES:

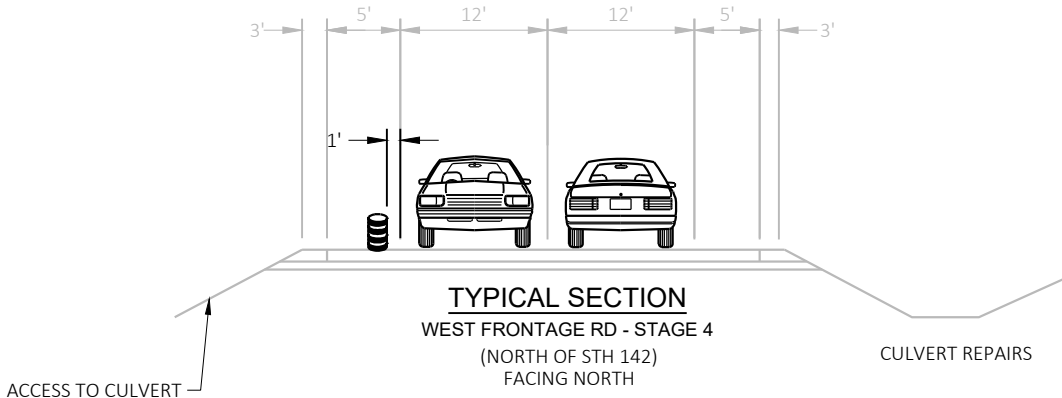
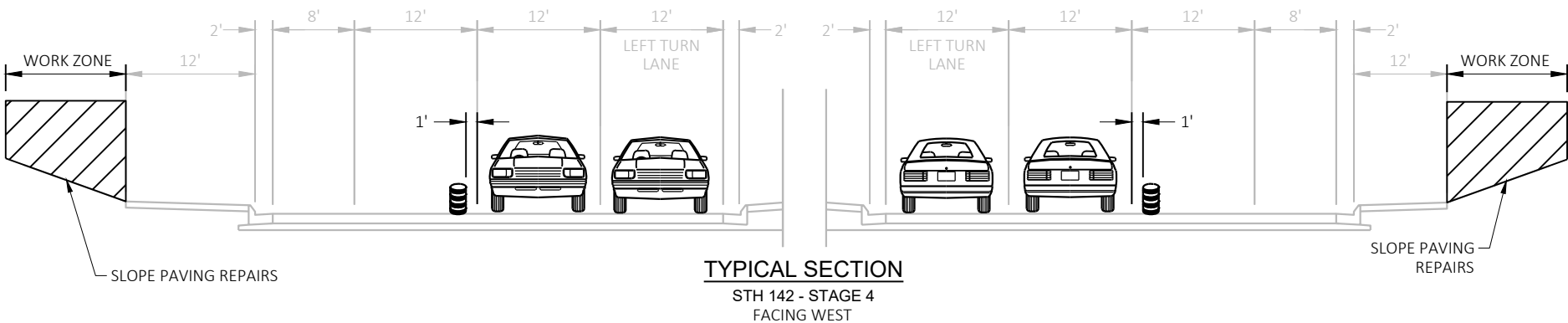
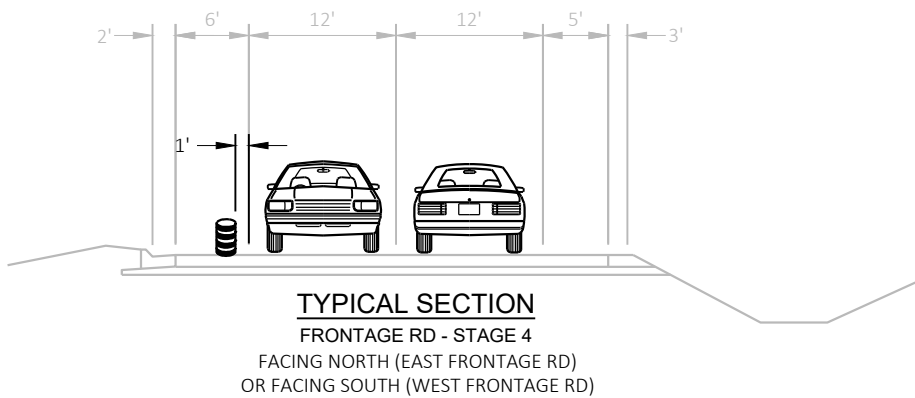
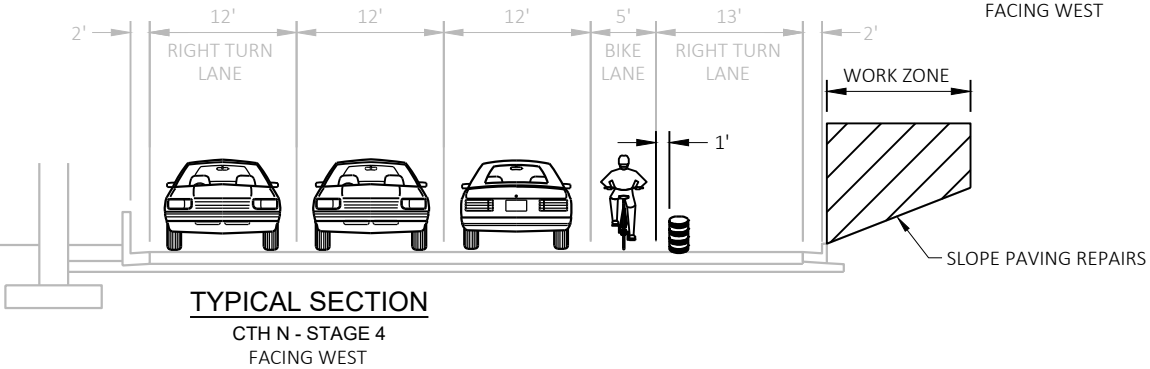
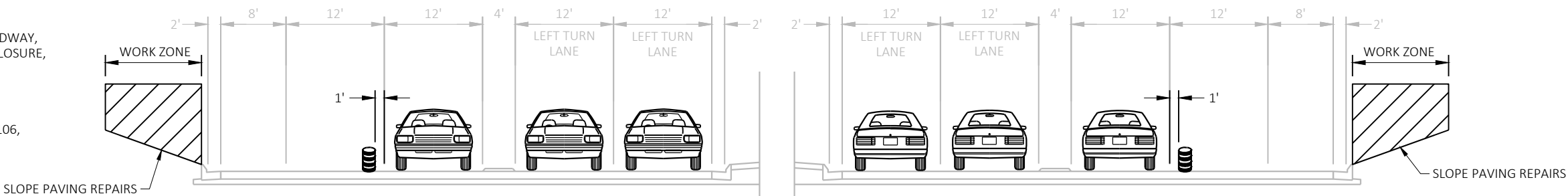
REFER TO SDD, "TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH" AND "TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON FREEWAY/EXPRESSWAY."

STAGE 4:

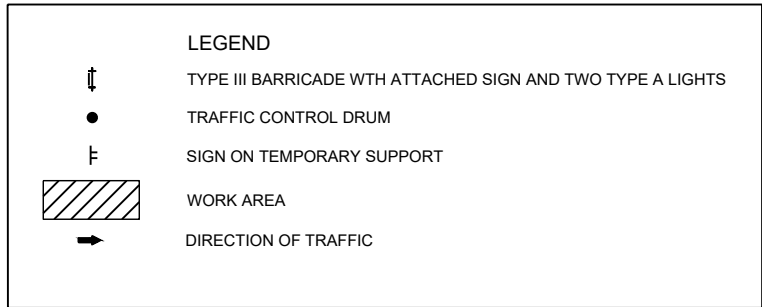
SLOPE PAVING WILL BE REPAIRED AT B-30-102, B-30-103, B-30-105, B-30-106, B-30-107, AND B-30-108. CULVERT WILL BE REPAIRED AT C-30-004.

TRAFFIC:

IN THIS STAGE, THE FOLLOWING MOVEMENTS ARE CLOSED:
-THE OUTSIDE LANES & SHOULDERS OF STH 158
-THE INSIDE SHOULDER OF THE WEST FRONTAGE RD OR EAST FRONTAGE RD
-THE OUTSIDE LANE OF CTH N/38TH ST WB
-THE OUTSIDE LANES & SHOULDERS OF STH 142
-THE OUTSIDE SHOULDER OF THE WEST FRONTAGE RD

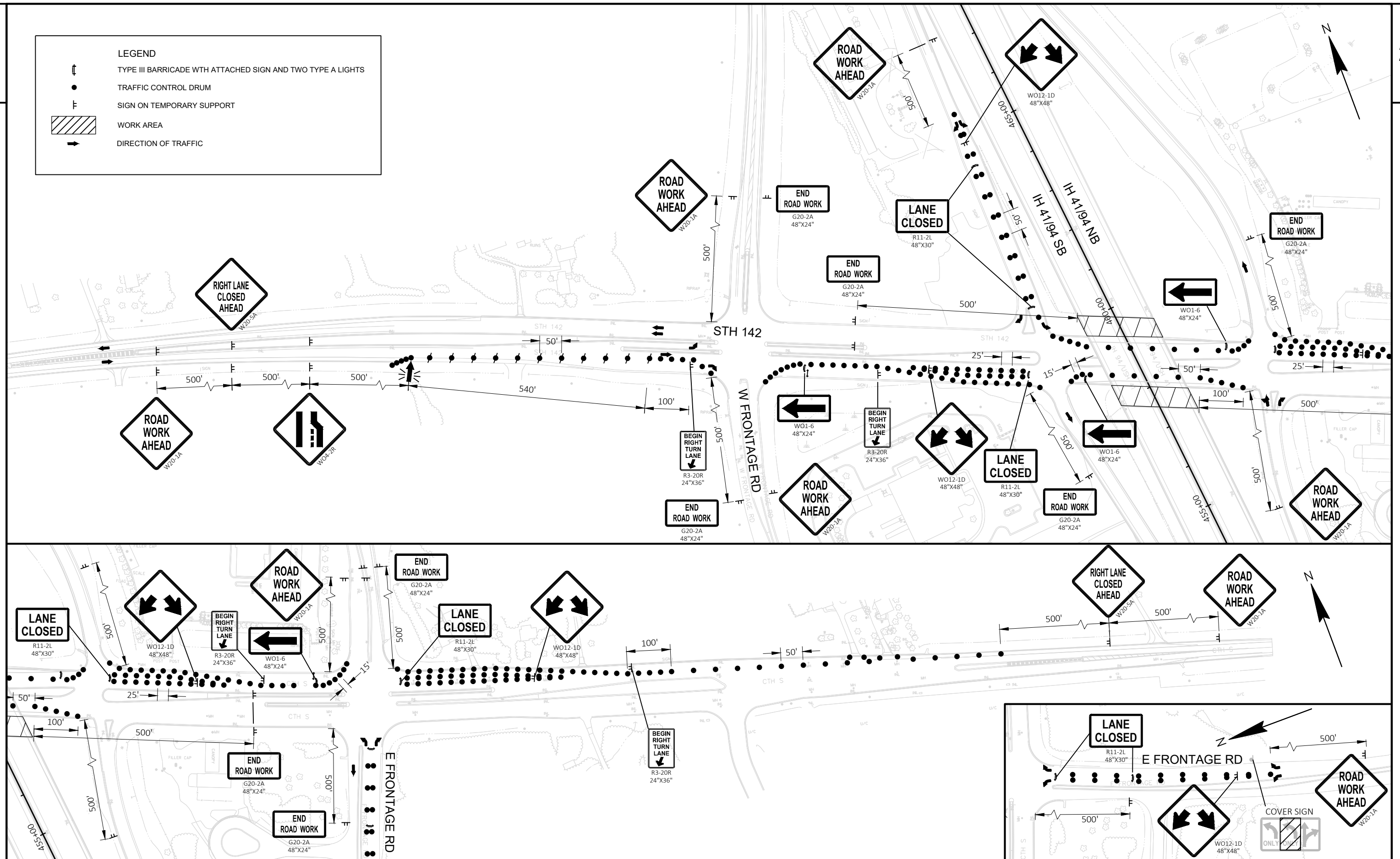






LEGEND

- ↑ TYPE III BARRICADE WITH ATTACHED SIGN AND TWO TYPE A LIGHTS
- TRAFFIC CONTROL DRUM
- F SIGN ON TEMPORARY SUPPORT
- ▨ WORK AREA
- DIRECTION OF TRAFFIC



PROJECT NO: 1030-08-78

HWY: IH 41/94

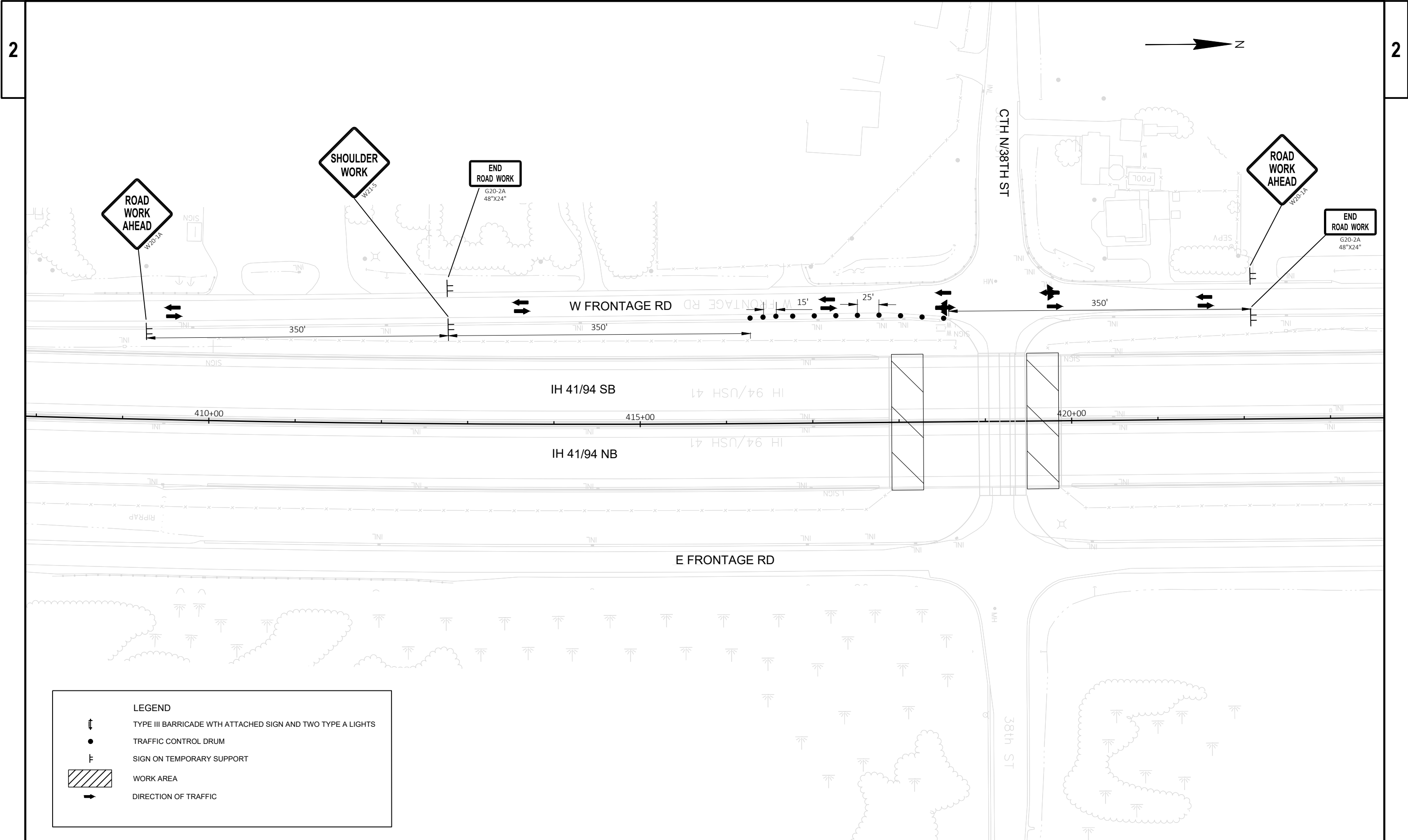
COUNTY: KENOSHA

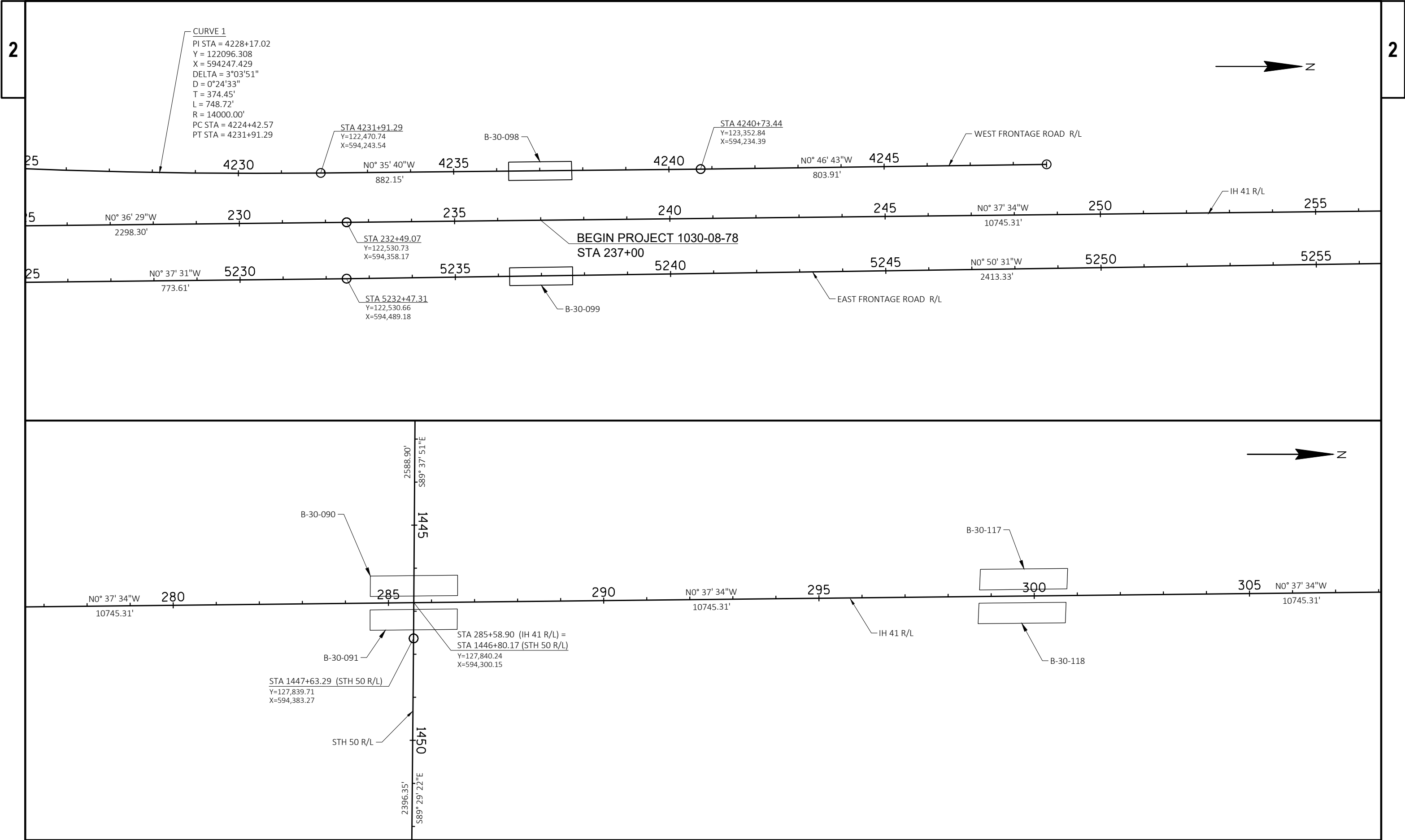
TRAFFIC CONTROL - STAGE 4 (STH 142)

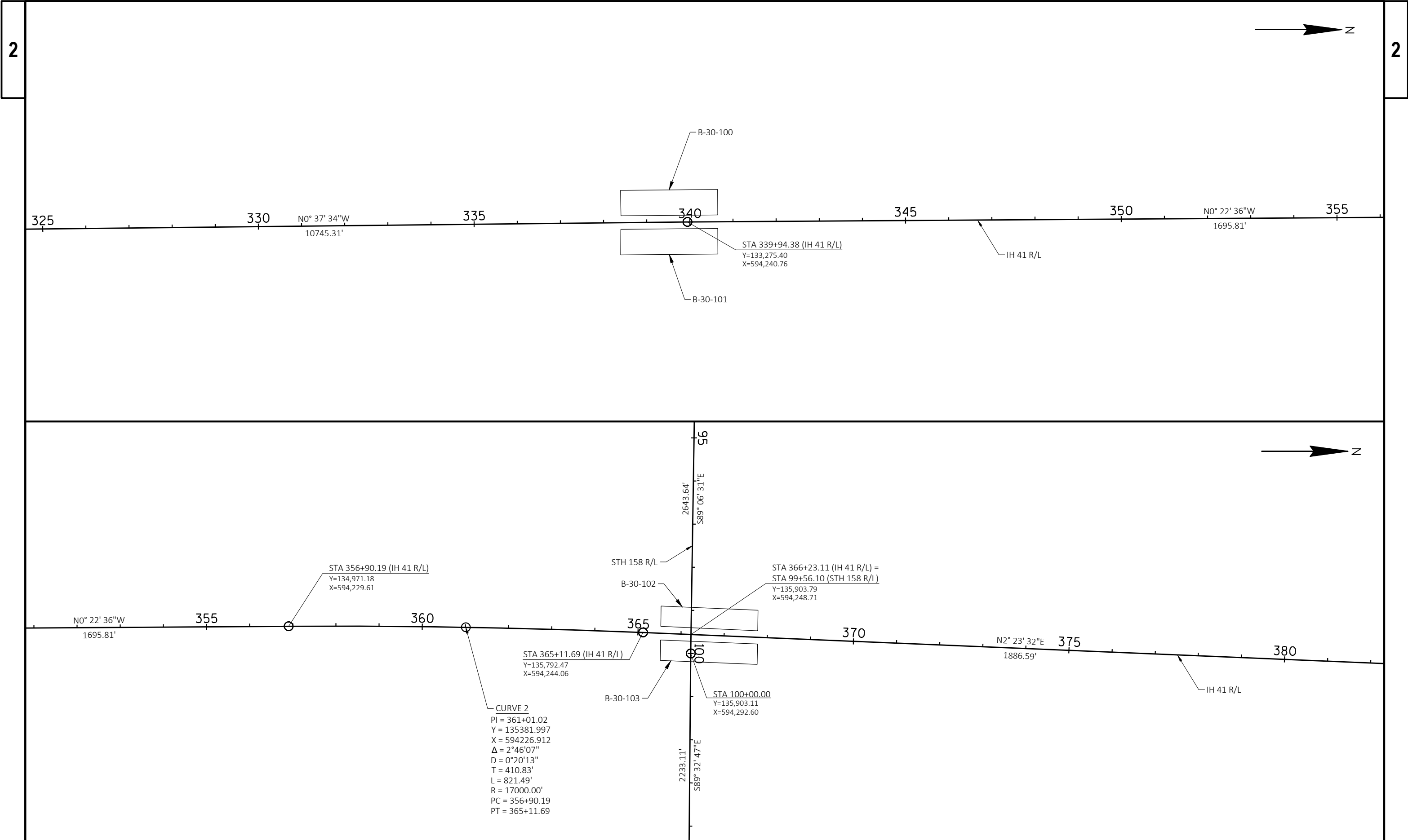
SHEET

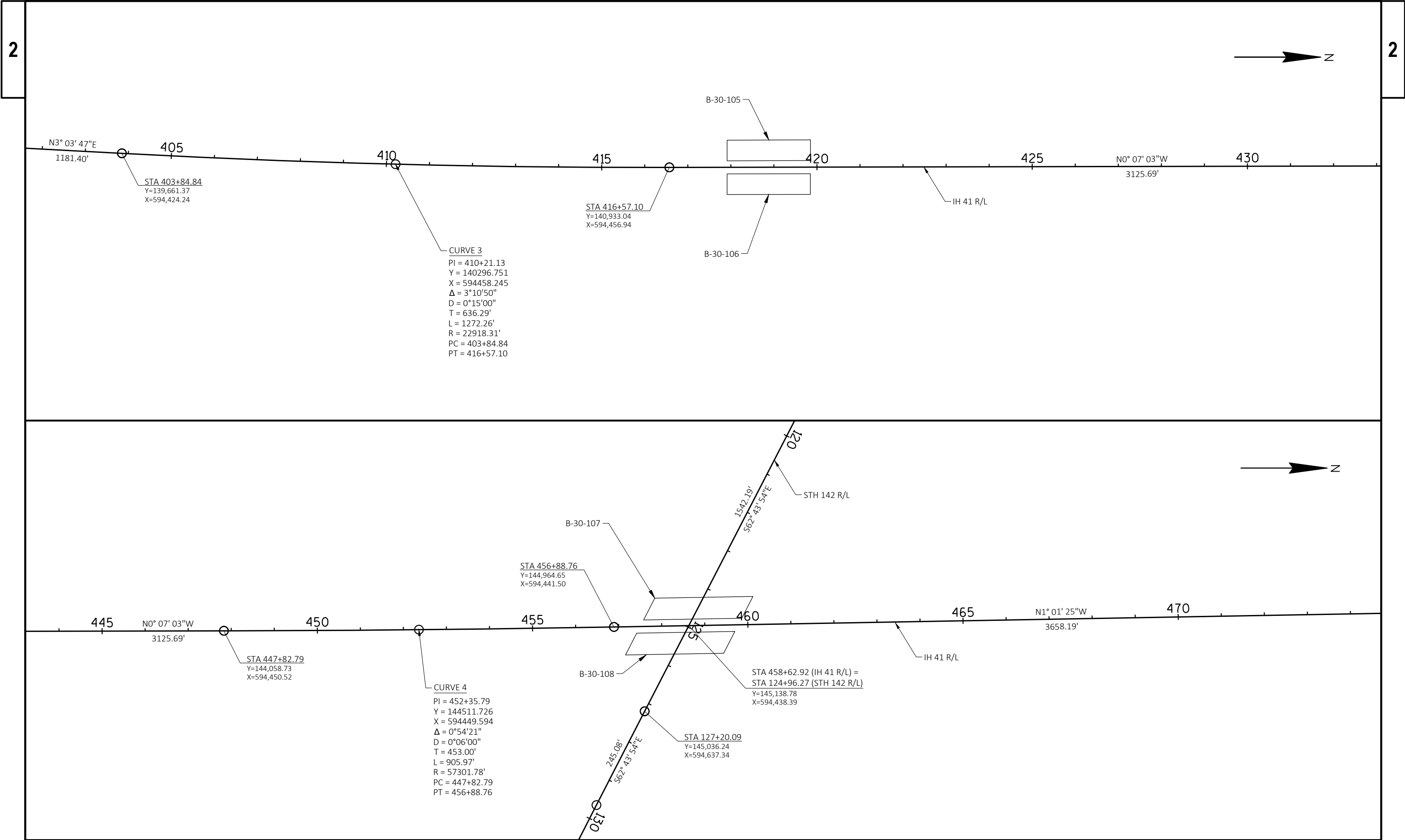
26

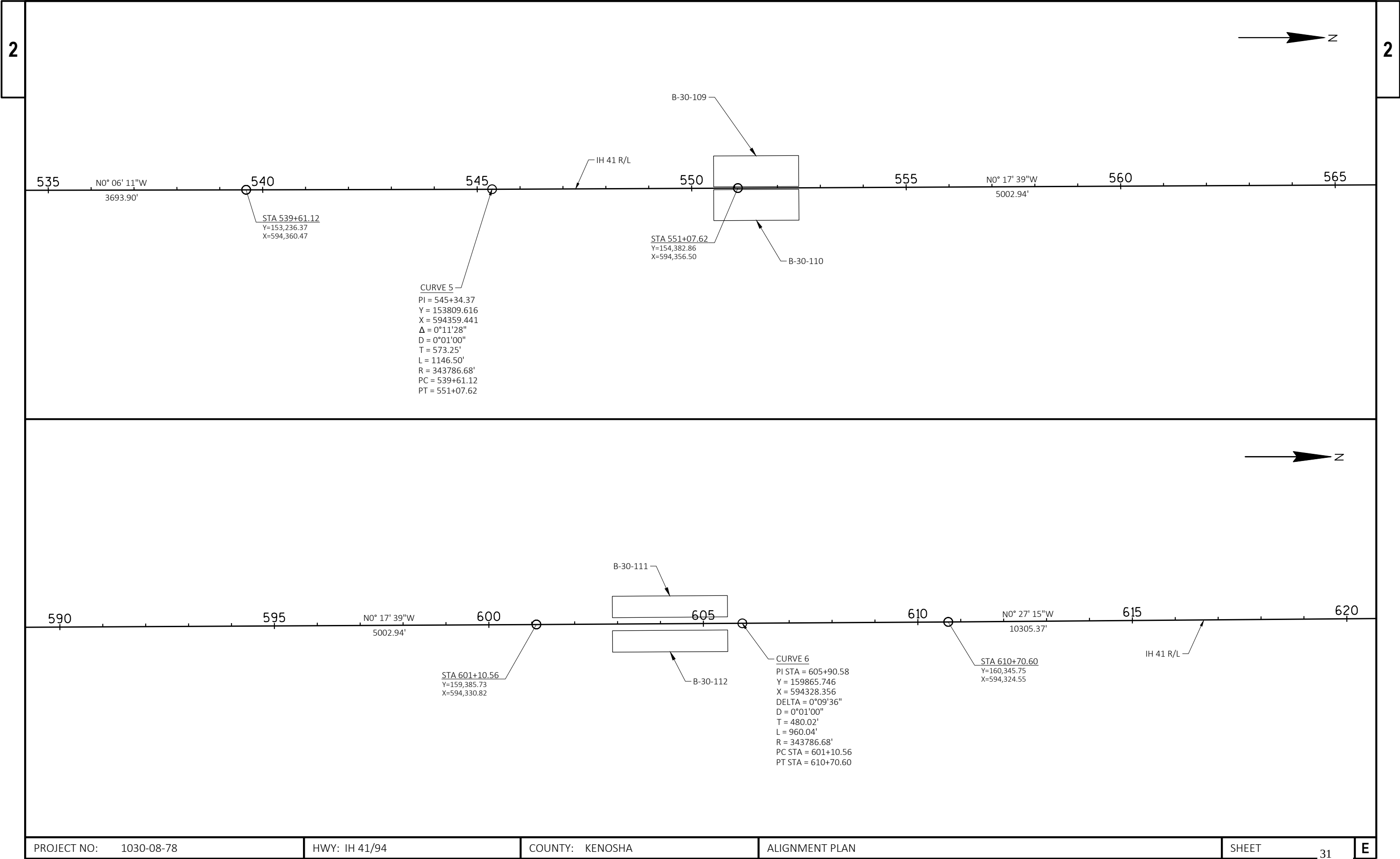
E

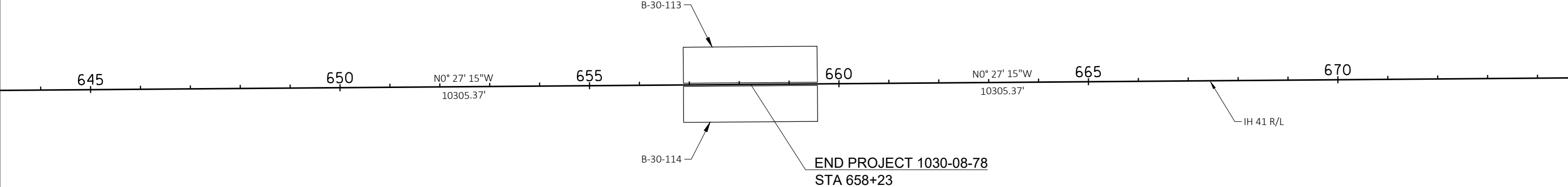












Estimate Of Quantities By Plan Sets

1030-08-78					
Line	Item	Item Description	Unit	Total	Qty
0002	204.0100	Removing Concrete Pavement	SY	3.000	3.000
0004	204.0157	Removing Concrete Barrier	LF	15.000	15.000
0012	213.0100	Finishing Roadway (project) 0002. 1030-08-78	EACH	1.000	1.000
0014	415.0120	Concrete Pavement 12-Inch	SY	3.000	3.000
0018	416.0610	Drilled Tie Bars	EACH	5.000	5.000
0020	502.4204	Adhesive Anchors No. 4 Bar	EACH	16.000	16.000
0022	505.0400	Bar Steel Reinforcement HS Structures	LB	69.000	69.000
0024	509.1500	Concrete Surface Repair	SF	5.000	5.000
0026	509.5100.S	Polymer Overlay	SY	30,746.000	30,746.000
0028	517.1010.S	Concrete Staining (structure) 0001. B-30-105	SF	6.000	6.000
0030	603.3255	Concrete Barrier Transition Type F42SF to S42	EACH	1.000	1.000
0032	604.9010.S	Slope Paving Repair Crushed Aggregate	CY	25.000	25.000
0034	604.9015.S	Reseal Crushed Aggregate Slope Paving	SY	1,960.000	1,960.000
0036	611.9710	Salvaged Inlet Covers	EACH	1.000	1.000
0038	612.0206	Pipe Underdrain Unperforated 6-Inch	LF	20.000	20.000
0040	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	200.000	200.000
0042	619.1000	Mobilization	EACH	0.500	0.500
0050	628.1550	Silt Screen	LF	45.000	45.000
0052	628.1905	Mobilizations Erosion Control	EACH	2.000	2.000
0054	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0056	628.7020	Inlet Protection Type D	EACH	89.000	89.000
0058	628.7555	Culvert Pipe Checks	EACH	1.000	1.000
0064	642.5401	Field Office Type D	EACH	0.500	0.500
0066	643.0300	Traffic Control Drums	DAY	18,923.000	18,923.000
0068	643.0420	Traffic Control Barricades Type III	DAY	1,190.000	1,190.000
0070	643.0705	Traffic Control Warning Lights Type A	DAY	2,380.000	2,380.000
0072	643.0715	Traffic Control Warning Lights Type C	DAY	5,760.000	5,760.000
0074	643.0800	Traffic Control Arrow Boards	DAY	384.000	384.000
0076	643.0900	Traffic Control Signs	DAY	3,394.000	3,394.000
0078	643.0920	Traffic Control Covering Signs Type II	EACH	4.000	4.000
0082	643.4100.S	Traffic Control Interim Lane Closure	EACH	72.000	72.000
0084	643.5000	Traffic Control	EACH	0.500	0.500
0086	645.0111	Geotextile Type DF Schedule A	SY	120.000	120.000
0088	646.1020	Marking Line Epoxy 4-Inch	LF	7,959.000	7,959.000
0106	646.9000	Marking Removal Line 4-Inch	LF	10,851.000	10,851.000
0108	646.9100	Marking Removal Line 8-Inch	LF	69.000	69.000
0114	649.0150	Temporary Marking Line Removable Tape 4-Inch	LF	11,497.000	11,497.000
0116	649.0250	Temporary Marking Line Removable Tape 8-Inch	LF	69.000	69.000
0118	690.0250	Sawing Concrete	LF	22.000	22.000
0122	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	900.000	900.000

Estimate Of Quantities By Plan Sets

1030-08-78					
Line	Item	Item Description	Unit	Total	Qty
0124	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	1,140.000	1,140.000
0126	SPV.0025	Special 0001. Concrete Pavement Repair Rapid Set	CF	680.000	680.000
0128	SPV.0060	Special 0001. Traffic Control Close-Open Freeway Entrance Ramp	EACH	36.000	36.000
0130	SPV.0060	Special 0002. Sand Bags	EACH	150.000	150.000
0134	SPV.0075	Special 0002. Pavement Cleanup Project 1030-08-78	HRS	30.000	30.000
0136	SPV.0085	Special 0001. Foam-Jacking	LB	300.000	300.000
0140	SPV.0090	Special 0001. Marking Line Contrast Epoxy 4-Inch	LF	2,892.000	2,892.000
0142	SPV.0090	Special 0002. Marking Line Contrast Epoxy 8-Inch	LF	69.000	69.000
0146	SPV.0105	Special 0002. Survey Project 1030-08-78	LS	1.000	1.000
0148	SPV.0165	Special 0001. Full Depth Culvert Wall Repair	SF	16.000	16.000

3

REMOVALS

						204.0100	204.0157
						REMOVING PAVEMENT SY	REMOVING CONCRETE BARRIER LF
CATEGORY	LOCATION	STATION	TO	STATION	OFFSET		
1000	IH 41/B-30-102	367+92	-	368+07	LT	3	15

SAWCUTS

						690.0250
						SAWING CONCRETE LF
CATEGORY	LOCATION	STATION	TO	STATION	OFFSET	
1000	IH 41/B-30-102	367+92	-	368+07	LT	22

3

CONCRETE ITEMS

						415.0120	416.0610	603.3255
						CONCRETE PAVEMENT 12-INCH SY	DRILLED TIE BARS EACH	CONCRETE BARRIER TRANSITION TYPE F42SF TO S42 EACH
CATEGORY	LOCATION	STATION	TO	STATION	OFFSET			
1000	IH 41/B-30-102	367+92	-	368+07	LT	3	5	1

CONCRETE PAVEMENT REPAIR RAPID SET

				SPV.0025.0001
				CONCRETE PAVEMENT REPAIR RAPID SET
CATEGORY	LOCATION	CF	COMMENTS	
1000	IH 41/B-30-102	285	SOUTH END	
	IH 41/B-30-103	10	SOUTH END	
	IH 41/B-30-117	70	NORTH END	
	IH 41/B-30-117	200	SOUTH END	
	IH 41/B-30-118	115	NORTH END	
TOTAL		680		

INLETS

				611.9710	628.7555
				SALVAGE INLET COVER EACH	CULVERT PIPE CHECKS EACH
CATEGORY	LOCATION	STATION	OFFSET		
1000	IH 41/B-30-102	368+00	74' LT	1	--
	IH 41/B-30-112	602+90	4' RT	--	1
TOTAL				1	1

FOAM-JACKING

				SPV.0085.0001
				FOAM-JACKING
CATEGORY	LOCATION	LB	COMMENTS	
1000	IH 41/B-30-117	200	SUNKEN SLABS IN LANE 1 AND 2	
	IH 41/B-30-106	100	SUNKEN SLABS IN LANE 1	
TOTAL		300		

3

EROSION CONTROL										
628.7020 INLET PROTECTION TYPE D EACH					628.7020 INLET PROTECTION TYPE D EACH					
CATEGORY	LOCATION	STATION	LOCATION	EACH	LOCATION	STATION	LOCATION	EACH		
1000	WEST FRONTAGE ROAD IH 41/94	4236+00	20' RT	1	IH 41/94	368+00	72' RT	1		
		284+00	74' RT	1		368+00	5' RT	1		
		284+00	5.9' RT	1		368+00	5' LT	1		
		284+00	5' LT	1		368+00	75' LT	1		
		284+00	73' LT	1		416+97	76' RT	1		
		286+89	74'RT	1			417+00	5' RT	1	
		286+89	6' RT	1			417+00	4' LT	1	
		286+89	5'LT	1			417+00	76' LT	1	
		286+89	74' LT	1			420+50	75' RT	1	
		287+00	74'RT	1			420+49	5' RT	1	
		286+99	6' RT	1			420+48	4' LT	1	
		286+99	5' LT	1			420+47	74' LT	1	
		286+99	73' LT	1			459+55	74' RT	1	
		298+51	74' RT	1			460+18	4.5' RT	1	
		298+50	4' RT	1			460+21	4' LT	1	
		298+50	4' LT	1			553+00	75' RT	1	
		298+49	73' LT	1			553+00	4' RT	1	
		298+61	74' RT	1			553+00	4' LT	1	
		298+61	6' RT	1			553+00	74' LT	1	
		298+61	4' LT	1			602+90	74' RT	1	
		298+59	74' LT	1			602+90	4' RT	1	
		300+98	73' RT	1			602+90	4' LT	1	
		300+97	5' RT	1			602+90	72' LT	1	
		300+97	5' LT	1			605+50	74' RT	1	
		301+00	73' LT	1			605+50	4.5' RT	1	
		338+02	84.5' RT	1			605+50	4' LT	1	
		338+00	4' RT	1			605+50	72' LT	1	
		338+00	6' LT	1			656+50	74' RT	1	
		338+01	87' LT	1			656+50	4' RT	1	
		341+00	85' RT	1			656+50	4' LT	1	
		341+01	4' RT	1			656+50	74' LT	1	
		341+01	5.5' LT	1			659+95	74' RT	1	
		341+01	86' LT	1			659+95	4' RT	1	
		365+00	74.5' RT	1			659+95	4' LT	1	
		365+00	5' RT	1			659+95	74' LT	1	
		365+00	6' LT	1						
						UNDISTRIBUTED	18			
						TOTAL	89			

EROSION CONTROL					
		628.1550	628.1905	628.1910	SPV.0060.0002
		SILT SCREEN	MOBILIZATIONS EROSION CONTROL	MOBILIZATIONS EMERGENCY EROSION CONTROL	SAND BAGS
CATEGORY	LOCATION	LF	EACH	EACH	EACH
1000	C-30-004	45	2	2	150

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MOBILIZATION		
		619.1000 MOBILIZATION EACH
CATEGORY	LOCATION	
1000	PROJECT	0.5
TOTAL:		0.5

TRAFFIC CONTROL		
		643.5000 TRAFFIC CONTROL EACH
CATEGORY	LOCATION	
1000	PROJECT	0.5
TOTAL:		0.5

TRAFFIC CONTROL																												
				643.0300		643.0420		643.0705		643.0715		643.0800		643.0900		643.0920			643.4100.S		649.0150			649.0250		SPV.0060.0001		
				TRAFFIC		TRAFFIC		TRAFFIC		TRAFFIC		TRAFFIC		TRAFFIC			TRAFFIC		TRAFFIC		TEMPORARY MARKING LINE REMOVEABLE TAPE			TRAFFIC CONTROL				
				CONROL		CONROL		CONROL		CONROL		CONROL		CONROL			CONROL		CONROL		4-INCH			CLOSE-OPEN				
				DRUMS		BARRICADES		WARNING		WARNING		ARROW		COVERING SIGNS			INTERIM		12.5 FT LINE 37.5 SKIP			FREEWAY						
				TYPE III		TYPE A		TYPE C		TYPE C		BOARDS		TYPE II SIGNS			CLOSURE		3 FT LINE 9 FT SKIP			ENTRANCE RAMP						
CATEGORY	STAGE	LOCATION	DAYS	*EACH	DAY	*EACH	DAY	*EACH	DAY	*EACH	DAY	*EACH	DAY	*EACH	DAY	CYCLES	NO.	EACH	EACH	LF	LF	LF	LF	EACH	COMMENTS			
1000	1	B-30-090	2	146	292	6	12	12	24	51	102	4	8	21	42	--	--	--	2	202	--	150	--	--				
	1	B-30-091	2	141	282	6	12	12	24	51	102	4	8	21	42	--	--	--	2	203	--	150	--	--				
	1	B-30-100	2	183	366	7	14	14	28	51	102	4	8	22	44	--	--	--	2	134	--	75	--	--				
	1	B-30-101	2	141	282	6	12	12	24	50	100	4	8	21	42	--	--	--	2	134	--	75	--	--				
	1	B-30-102	2	209	418	9	18	18	36	50	100	4	8	24	48	--	--	--	2	225	--	150	--	--				
	1	B-30-103	2	145	290	6	12	12	24	51	102	4	8	21	42	--	--	--	2	225	--	150	--	--				
	1	B-30-105	2	155	310	6	12	12	24	51	102	4	8	21	42	--	--	--	2	200	--	100	--	--				
	1	B-30-106	2	150	300	6	12	12	24	50	100	4	8	21	42	--	--	--	2	200	--	100	--	--				
	1	B-30-107	2	167	334	8	16	16	32	51	102	4	8	22	44	--	--	--	2	232	--	150	--	--				
	1	B-30-108	2	194	388	8	16	16	32	51	102	4	8	22	44	--	--	--	2	232	--	150	--	--				
	1	B-30-109	2	147	294	6	12	12	24	51	102	4	8	20	40	--	--	--	2	200	--	100	--	--				
	1	B-30-110	2	147	294	6	12	12	24	51	102	4	8	21	42	--	--	--	2	200	--	100	--	--				
	1	B-30-111	2	142	284	6	12	12	24	51	102	4	8	21	42	--	--	--	2	199	--	100	--	--				
	1	B-30-112	2	157	314	6	12	12	24	51	102	4	8	21	42	--	--	--	2	199	--	100	--	--				
	1	B-30-113	2	157	314	6	12	12	24	51	102	4	8	21	42	--	--	--	2	229	--	100	--	--				
	1	B-30-114	2	143	286	6	12	12	24	51	102	4	8	20	40	--	--	--	2	229	--	100	--	--				
	1	B-30-117	2	171	342	7	14	14	28	49	98	4	8	23	46	--	--	--	2	203	--	100	--	--				
	1	B-30-118	2	141	282	6	12	12	24	50	100	4	8	20	40	--	--	--	2	202	--	150	--	--				
SUBTOTAL STAGE 1				5672		234		468		1824		144		766		0			36	3648	0	2100	0	0				
1000	2	B-30-090	2	180	360	10	20	20	40	75	150	4	8	22	44	--	--	--	2	--	203	150	--	--	Close SB Entrance Ramp from STH 158			
	2	B-30-091	2	163	326	6	12	12	24	66	132	4	8	20	40	--	--	--	2	--	202	150	--	--	Close NB Entrance Ramp from CTH C			
	2	B-30-100	2	197	394	8	16	16	32	63	126	4	8	22	44	--	--	--	2	--	134	75	36	--	Close SB Entrance Ramp from STH 158			
	2	B-30-101	2	171	342	7	14	14	28	61	122	4	8	21	42	--	--	--	2	--	134	75	33	--	Close NB Entrance Ramp from 71st St			
	2	B-30-102	2	264	528	9	18	18	36	81	162	4	8	25	50	--	--	--	2	--	225	150	--	--	Close SB Entrance Ramp from STH 142			
	2	B-30-103	2	196	392	7	14	14	28	87	174	4	8	21	42	--	--	--	2	--	225	150	--	--	Close NB Entrance Ramp from 71st St			
	2	B-30-105	2	175	350	8	16	16	32	70	140	4	8	22	44	--	--	--	2	--	200	100	--	--	Close SB Entrance Ramp from STH 142			
	2	B-30-106	2	226	452	11	22	22	44	63	126	4	8	24	48	--	--	--	2	--	200	100	--	--	Close NB Entrance Ramp from 71st St			
	2	B-30-107	2	193	386	9	18	18	36	76	152	4	8	23	46	--	--	--	2	--	232	150	--	--	Close NB Entrance Ramp from STH 158			
	2	B-30-108	2	216	432	10	20	20	40	81	162	4	8	23	46	--	--	--	2	--	232	150	--	--	Close SB Entrance Ramp from CTH E			
	2	B-30-109	2	211	422	7	14	14	28	73	146	4	8	22	44	--	--	--	2	--	200	100	--	--	Close NB Entrance Ramp from STH 142			
	2	B-30-110	2	209	418	10	20	20	40	76	152	4	8	22	44	--	--	--	2	--	200	100	--	--	Close SB Entrance Ramp from CTH KR			
	2	B-30-111	2	161	322	7	14	14	28	60	120	4	8	21	42	--	--	--	2	--	199	100	--	--	Close NB Entrance Ramp from STH 158			
	2	B-30-112	2	192	384	9	18	18	36	66	132	4	8	23	46	--	--	--	2	--	199	100	--	--	Close SB Entrance Ramp from CTH KR			
	2	B-30-113	2	196	392	7	14	14	28	73	146	4	8	22	44	--	--	--	2	--	229	100	--	--	Close NB Entrance Ramp from CTH E			
	2	B-30-114	2	168	336	6	12	12	24	74	148	4	8	21	42	--	--	--	2	--	229	100	--	--	Close SB Entrance Ramp from STH 11			
	2	B-30-117	2	217	434	9	18	18	36	85	170	4	8	25	50	--	--	--	2	--	203	100	--	--	Close NB Enrance Ramp from STH 158			
	2	B-30-118	2	201	402	9	18	18	36	82	164	4	8	23	46	--	--	--	2	--	203	150	--	--	Close SB Entrance Ramp from CTH C			
	2	RAMP	6	52	312	13	78	26	156	--	--	--	--	24	151	--	--	--	--	--	--	--	--	6	SB Entrance Ramp from STH 158			
	2	RAMP	4	25	100	6	24	12	48	--	--	--	--	25	107	--	--	--	--	--	--	--	--	4	SB Entrance Ramp from STH 142			
	2	RAMP	2	28	56	6	12	12	24	--	--	--	--	25	57	--	--	--	--	--	--	--	--	2	SB Entrance Ramp from CTH E			
	2	RAMP	4	125	500	20	80	40	160	25	100	--	--	32	135	--	--	--	--	--	--	--	--	4	SB Entrance Ramp from CTH KR			
	2	RAMP	2	24	48	6	12	12	24	--	--	--	--	25	57	--	--	--	--	--	--	--	--	2	SB Entrance Ramp from STH 11			
	2	RAMP	4	35	140	7	28	14	56	--	--	--	--	25	107	--	--	--	--	--	--	--	--	4	NB Entrance Ramp from CTH C			
	2	RAMP	6	41	246	10	60	20	120	5	30	--	--	28	175	--	--	--	--	--	--	--	--	6	NB Entrance Ramp from 71st St			
	2	RAMP	4	90	360	12	48	24	96	--	--	--	--	27	115	--	--	--	--	--	--	--	--	4	NB Entrance Ramp from STH 158			
	2	RAMP	2	32	64	6	12	12	24	--	--	--	--	25	57	--	--	--	--	--	--	--	--	2	NB Entrance Ramp from STH 142			
	2	RAMP	2	29	58	7	14	14	28	--	--	--	--	25	57	--	--	--	--	--	--	--	--	2	NB Entrance Ramp from CTH E			
SUBTOTAL STAGE 2				8956		666		1332		2762		160		1822		0			36	0	3649	2100	69	36				
PROJECT NO: 1030-08-78						HWY: IH 41/94						COUNTY: KENOSHA						MISCELLANEOUS QUANTITIES						SHEET:				E

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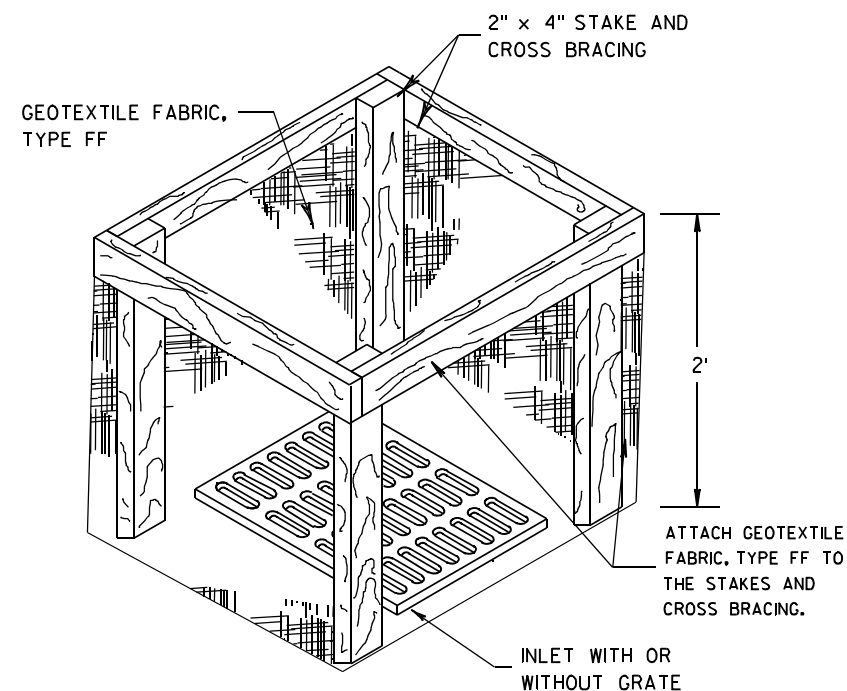
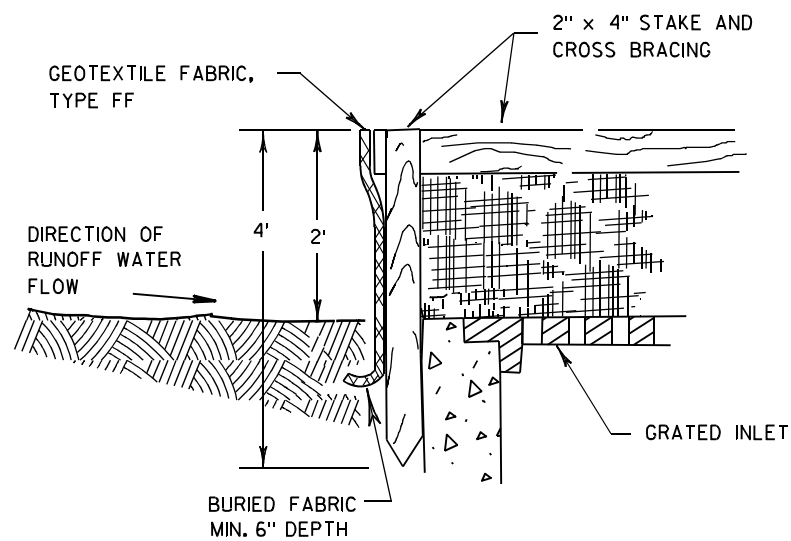
TRAFFIC CONTROL CONTINUED																											
			643.0300		643.0420		643.0705		643.0715		643.0800		643.0900		643.0920			643.4100.S		649.0150			649.0250			SPV.0060.0001	
			TRAFFIC		TRAFFIC		TRAFFIC		TRAFFIC		TRAFFIC		TRAFFIC		TRAFFIC			CONTROL		TEMPORARY MARKING LINE			REMOVEABLE TAPE			TRAFFIC CONTROL	
			CONROL		CONROL		CONROL		CONROL		CONROL		CONROL		CONROL			INTERIM		4-INCH			8-INCH			CLOSE-OPEN	
			DRUMS		BARRICADES		WARNING		WARNING		ARROW		SIGNS		COVERING SIGNS			LANE		12.5 FT LINE			37.5 SKIP			FREEWAY	
CATEGORY	STAGE	LOCATION	DAYS	*EACH	DAY	*EACH	DAY	*EACH	DAY	*EACH	DAY	*EACH	DAY	*EACH	DAY	CYCLES	NO.	EACH	CLOSURE	YELLOW	WHITE	3 FT LINE	9 FT SKIP	ENTRANCE RAMP	COMMENTS		
1000	3	WFR	2	--	--	7	14	14	28	--	--	--	--	6	12	--	--	--	--	--	--	--	--	--	West Frontage Road		
		EFR	2	--	--	6	12	12	24	--	--	--	--	5	10	--	--	--	--	--	--	--	--	--	East Frontage Road		
SUBTOTAL STAGE 3				0		26		52		0		0		22		0		0	0	0	0	0	0	0			
1000	4	STH 158	1	210	210	13	13	26	26	11	11	1	1	36	36	1	2	2	--	--	--	--	--	--	Slope Paving Repairs		
		CTH N	1	16	16	1	1	2	2	--	--	--	--	10	10	--	--	--	--	--	--	--	--	--	Slope Paving Repairs		
		STH 142	1	258	258	12	12	24	24	11	11	1	1	46	46	1	1	1	--	--	--	--	--	--	Slope Paving Repairs		
		EFR or WFR**	1	11	11	--	--	--	--	--	--	--	--	5	5	--	--	--	--	--	--	--	--	--	Slope Paving Repairs		
		C-30-004	1	15	15	--	--	--	--	--	--	1	1	8	8	--	--	--	--	--	--	--	--	--	Culvert Repairs		
SUBTOTAL STAGE 4				510		26		52		22		3		105		3		0	0	0	0	0	0	0			
UNDISTRIBUTED				3785		238		476		1152		77		679		1											
TOTAL:				18923		1190		2380		5760		384		3394		4		72	11497			69			36		
* FOR INFORMATION ONLY																											
**BASED ON WFR COUNTS																											

PAVEMENT MARKINGS

				646.1020			646.9000	646.9100	SPV.0090.0001	SPV.0090.0002
				MARKING LINE					MARKING LINE	MARKING LINE
				EPOXY 4-INCH			MARKING REMOVAL	MARKING REMOVAL	MARKING LINE CONTRAST	CONTRAST EPOXY 8-INCH
				12.5 FT LINE 37.5 SKIP			LINE 4-INCH	LINE 8-INCH	EPOXY 4-INCH	3 FT LINE 9 FT SKIP
				YELLOW	WHITE	DASHED YELLOW			12.5 FT LINE 37.5 SKIP	DOT PATTERN
CATEGORY	LOCATION	STATION	TO STATION	LF	LF	LF	LF	LF	DASHED WHITE	WHITE
1000	B-30-098	4236+27	4237+75	--	293	38	331	--	--	--
	B-30-099	5236+25	5237+75	--	293	38	331	--	--	--
	B-30-090	284+50	286+75	202	203	--	593	--	188	--
	B-30-091	284+50	286+75	203	202	--	593	--	188	--
	B-30-117	298+72	300+75	203	203	--	556	--	150	--
	B-30-118	298+72	300+75	202	203	--	593	--	188	--
	B-30-100	338+87	340+20	134	134	--	381	36	113	36
	B-30-101	338+87	340+20	134	134	--	381	33	113	33
	B-30-102	365+50	367+78	225	225	--	638	--	188	--
	B-30-103	365+50	367+78	225	225	--	638	--	188	--
	B-30-105	417+88	419+87	200	200	--	550	--	150	--
	B-30-106	417+88	419+87	200	200	--	550	--	150	--
	B-30-107	457+13	460+13	232	232	--	652	--	188	--
	B-30-108	457+13	460+13	232	232	--	652	--	188	--
	B-30-109	550+50	552+50	200	200	--	550	--	150	--
	B-30-110	550+50	552+50	200	200	--	550	--	150	--
	B-30-111	603+23	605+21	199	199	--	548	--	150	--
	B-30-112	603+23	605+21	199	199	--	548	--	150	--
	B-30-113	657+08	659+37	229	229	--	608	--	150	--
	B-30-114	657+08	659+37	229	229	--	608	--	150	--
SUBTOTAL				3648	4235	76	10851	69	2892	69
TOTAL:						7,959	10,851	69	2,892	69

Standard Detail Drawing List

08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E12-01	SILT SCREEN
08E15-01	CULVERT PIPE CHECK
13C01-19	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
14B36-02E	42-INCH SINGLE-FACED F SHAPE CONCRETE BARRIER TO 42-INCH SSCB TRANSITION
14B36-02F	42-INCH SINGLE-FACED F SHAPE CONCRETE BARRIER TO 42-INCH SSCB TRANSITION
15C02-08A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-08B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C08-20A	LONGITUDINAL MARKING (MAINLINE)
15C11-07B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15D20-05A	TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
15D21-07B	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D27-03	TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH
15D28-04	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS
15D39-02	TRAFFIC CONTROL, DROP-OFF SIGNING



INLET PROTECTION, TYPE A

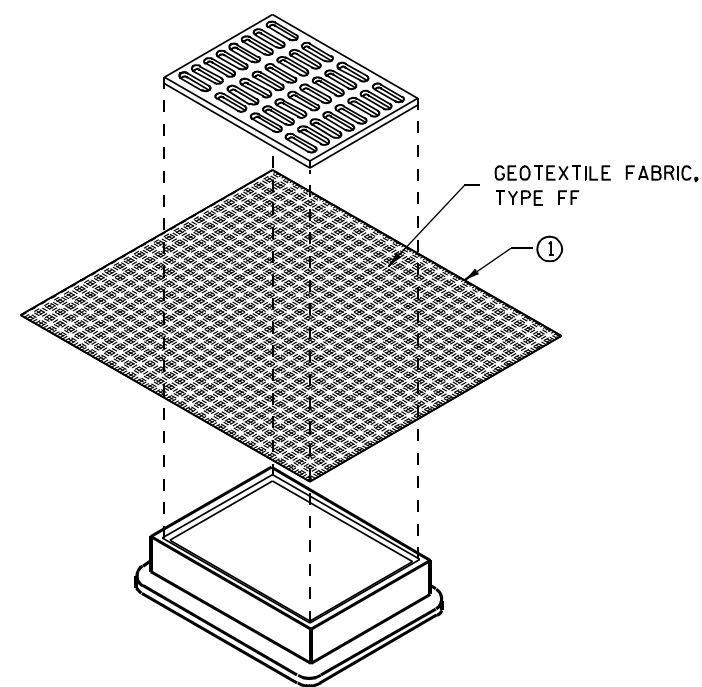
GENERAL NOTES

INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

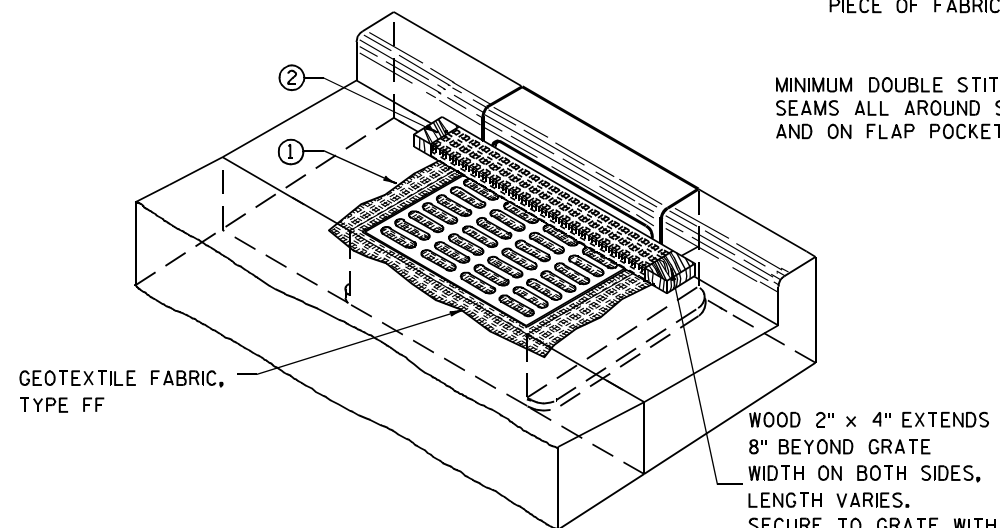
WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

- ① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.
- ② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.
- ③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.



**INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)**

(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)



INLET PROTECTION, TYPE C (WITH CURB BOX)

INSTALLATION NOTES

TYPE B & C

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

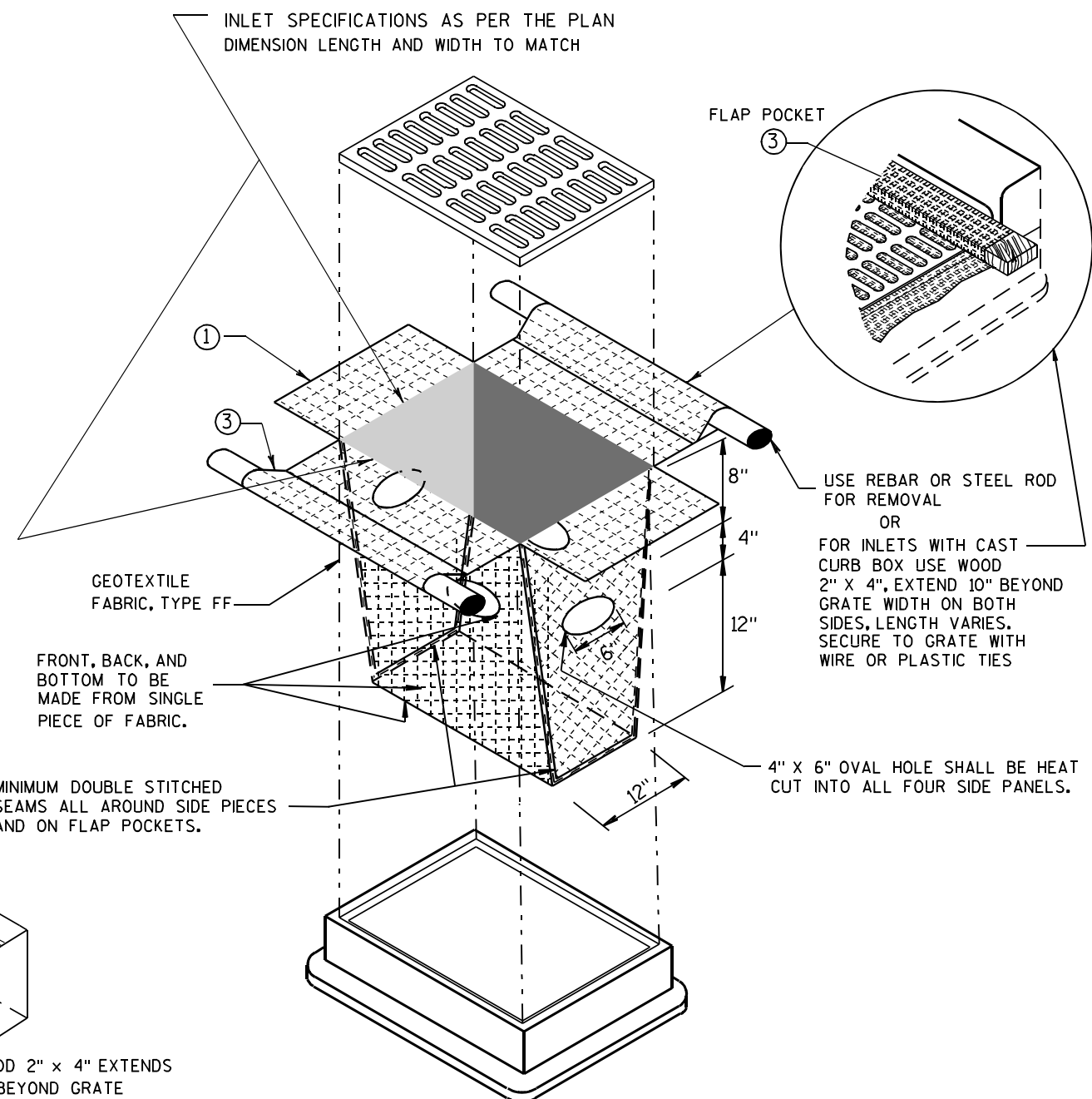
THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE D

DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLOWER THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.



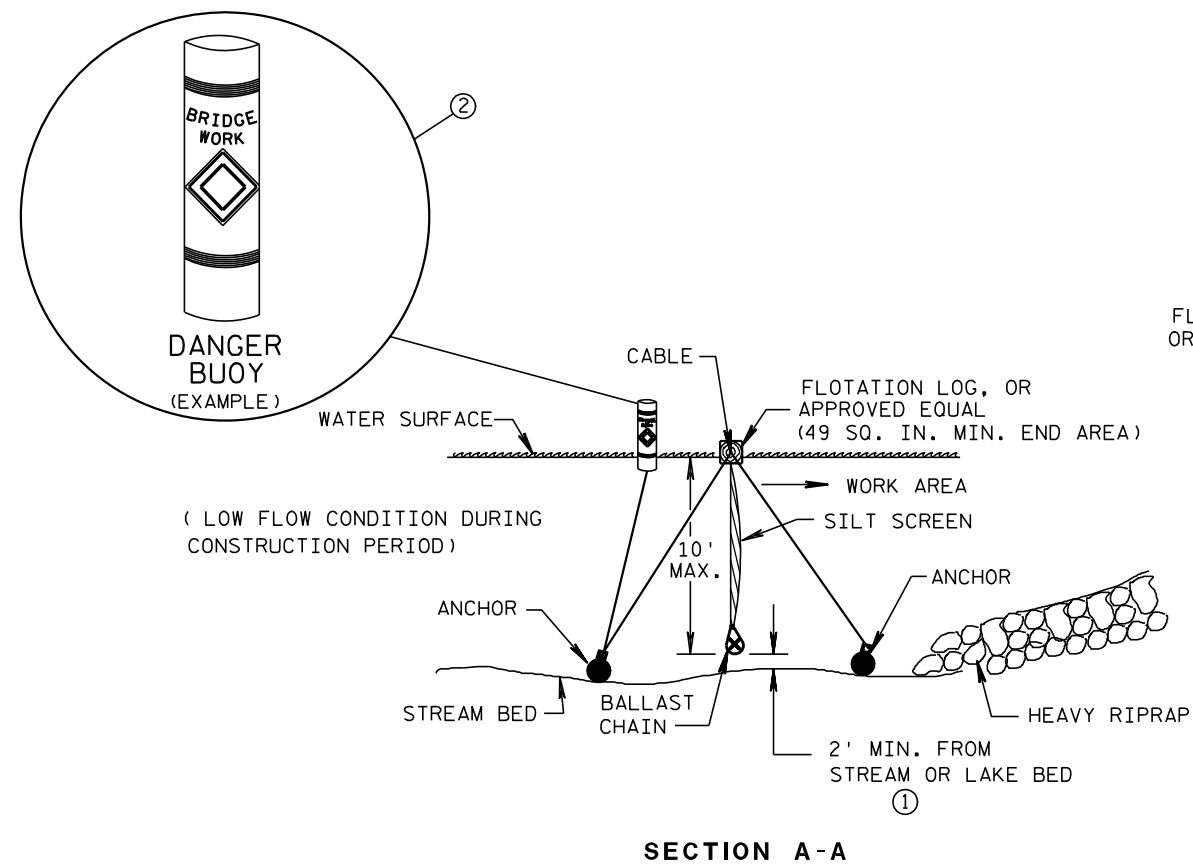
INLET PROTECTION, TYPE D

(CAN BE INSTALLED IN ANY INLET TYPE WITH OR WITHOUT A CURB BOX AS PER NOTE ②)

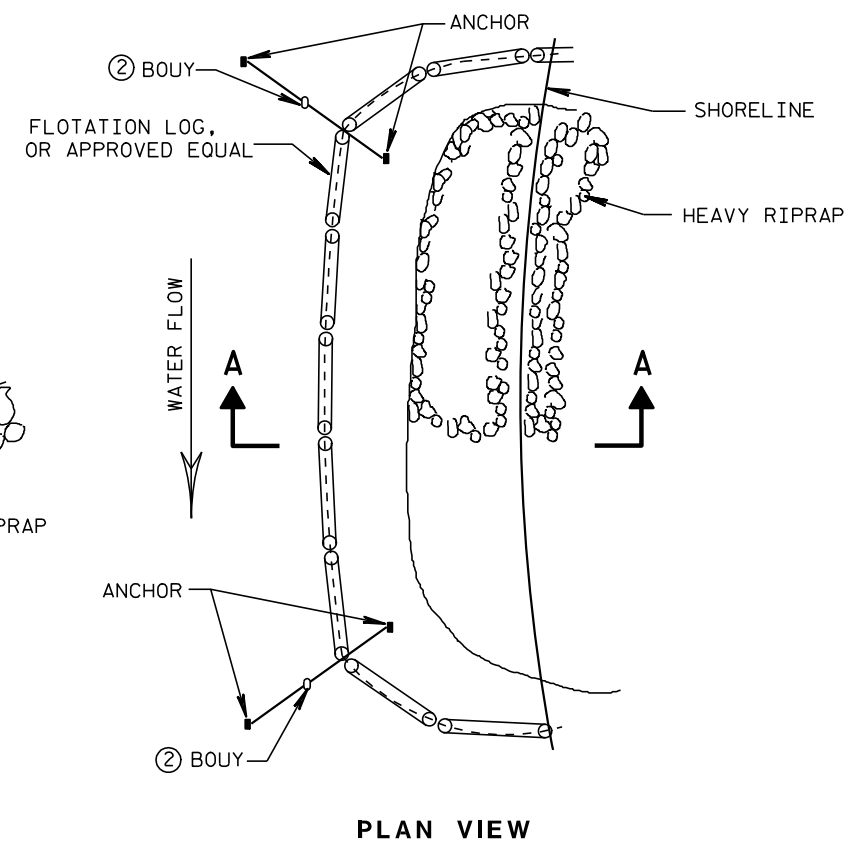
**INLET PROTECTION
TYPE A, B, C, AND D**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/16/02 /S/ Beth Connolly
DATE 41
FHWA CHIEF ROADWAY DEVELOPMENT ENGINEER



SILT SCREEN PLACEMENT DETAIL



GENERAL NOTES

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

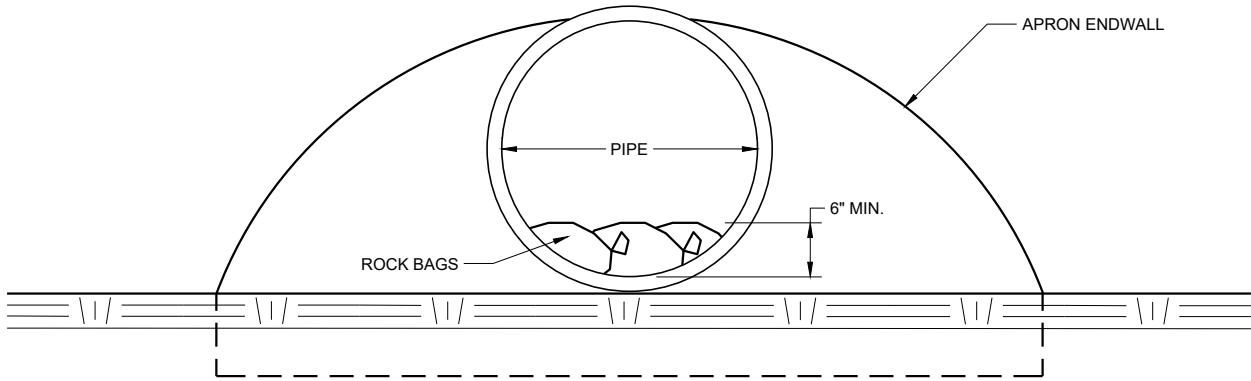
- ① 2' MINIMUM SHALL BE MAINTAINED DURING CONSTRUCTION PERIOD.
- ② USE AS DIRECTED BY COAST GUARD OR DNR PERMIT WHEN WORKING IN NAVIGABLE WATERWAYS.

SILT SCREEN

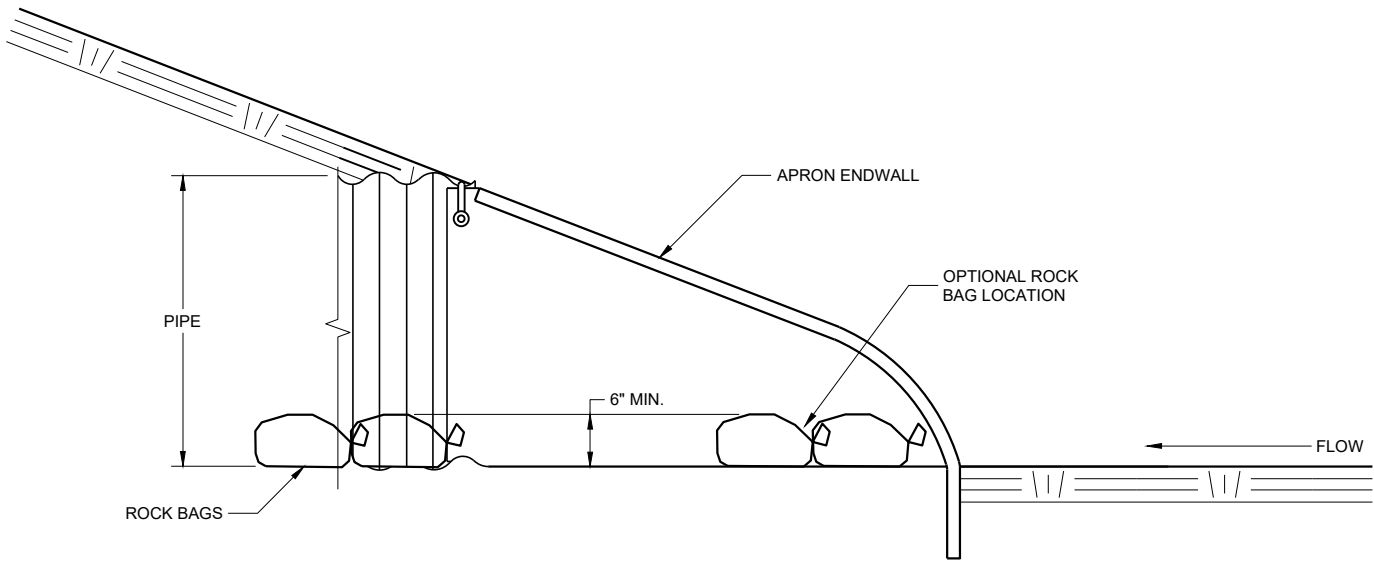
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/04/02 /S/ Beth Conn-----
DATE CHIEF ROADWAY DEVELOPER 42 ENGINEER
FHWA



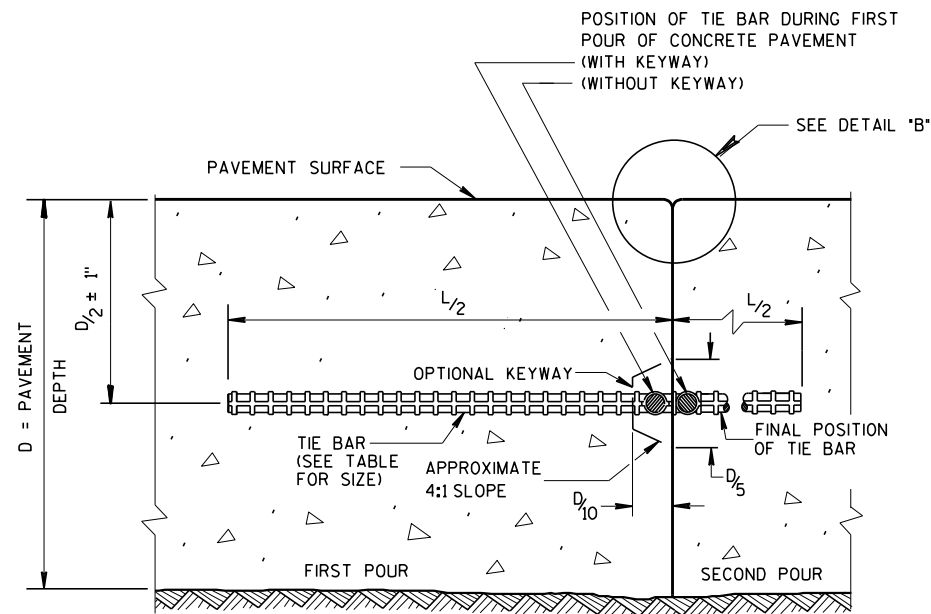
END VIEW



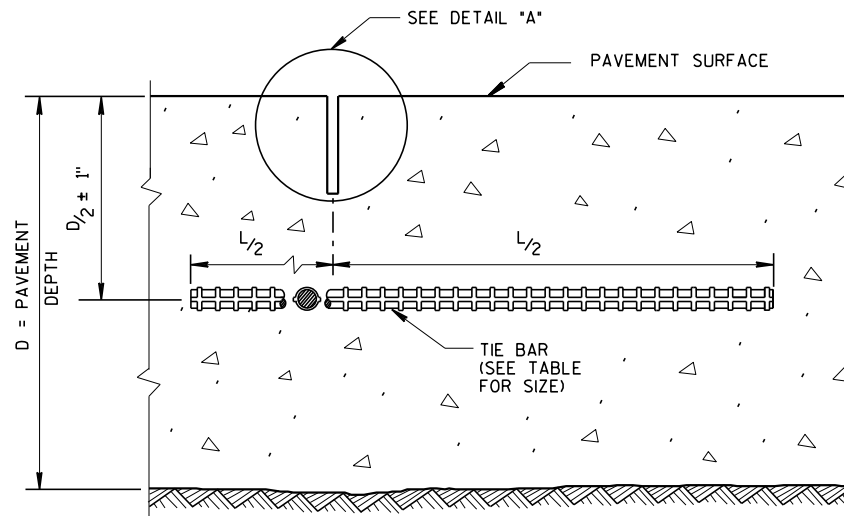
SIDE VIEW

CULVERT PIPE CHECK
(INSTALL ON INLET END ONLY)

CULVERT PIPE CHECK		
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION		
APPROVED May 2019 DATE	/S/ Daniel Schave EROSION CONTROL ENGI	43



CONSTRUCTION JOINT



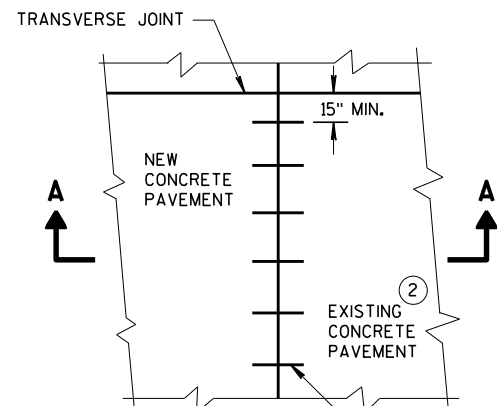
SAWED JOINT

GENERAL NOTES

CREATE A LONGITUDINAL JOINT FOR PAVEMENT WIDTHS GREATER THAN 15 FEET.

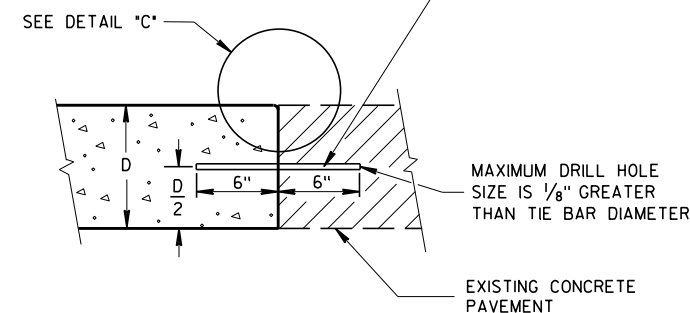
CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

- ① ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.
- ② PAVEMENT THAT WAS IN PLACE PRIOR TO THE CONTRACT.

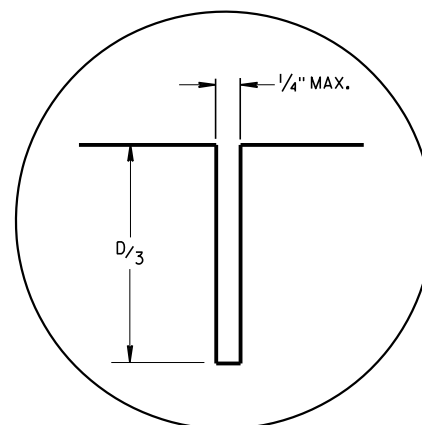


PLAN VIEW

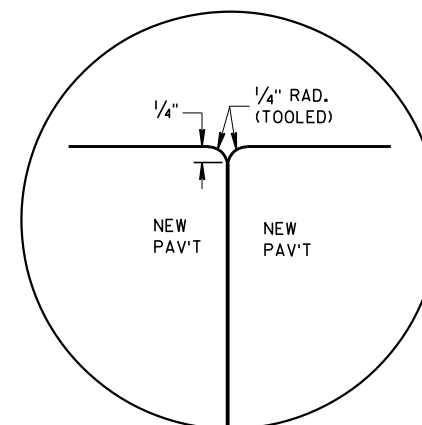
NO. 6 TIE BARS SPACED 30" C-C, INSTALLED PERPENDICULAR TO THE LONGITUDINAL JOINT. ①



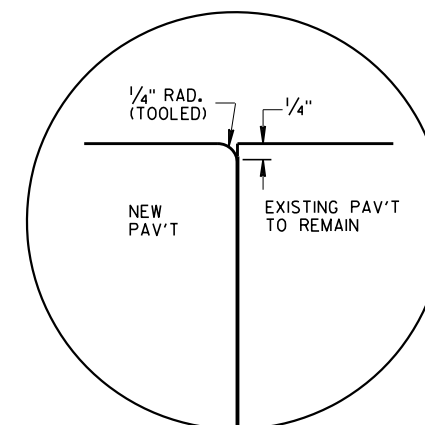
SECTION A-A
LONGITUDINAL CONSTRUCTION JOINT
TIE BARS ANCHORED
INTO EXISTING PAVEMENT



DETAIL "A"



DETAIL "B"



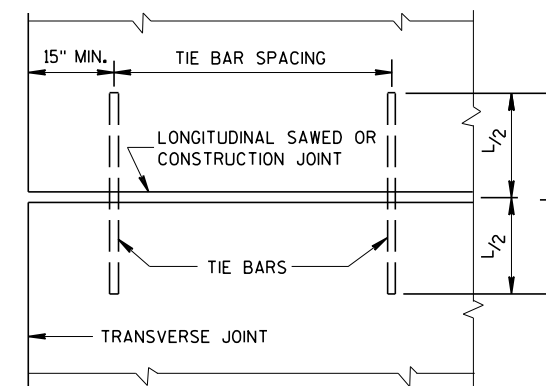
DETAIL "C"

TIE BAR TABLE

PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4 *	30"	24" **

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

** CONFORM TO 15" MINIMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.

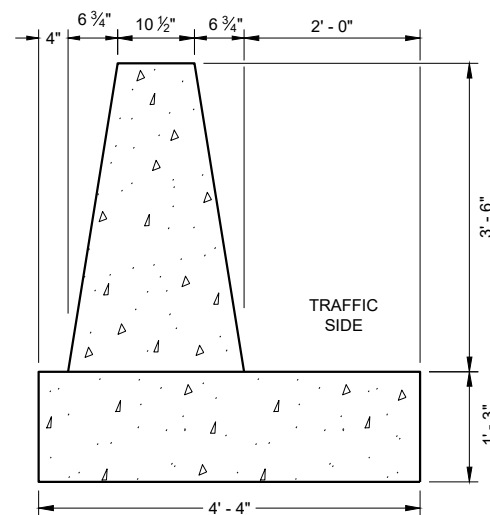
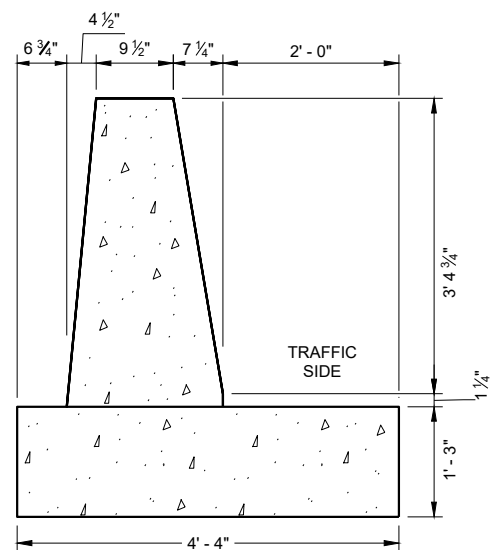
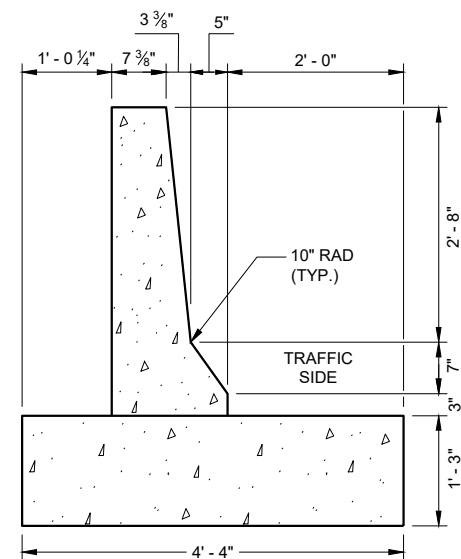
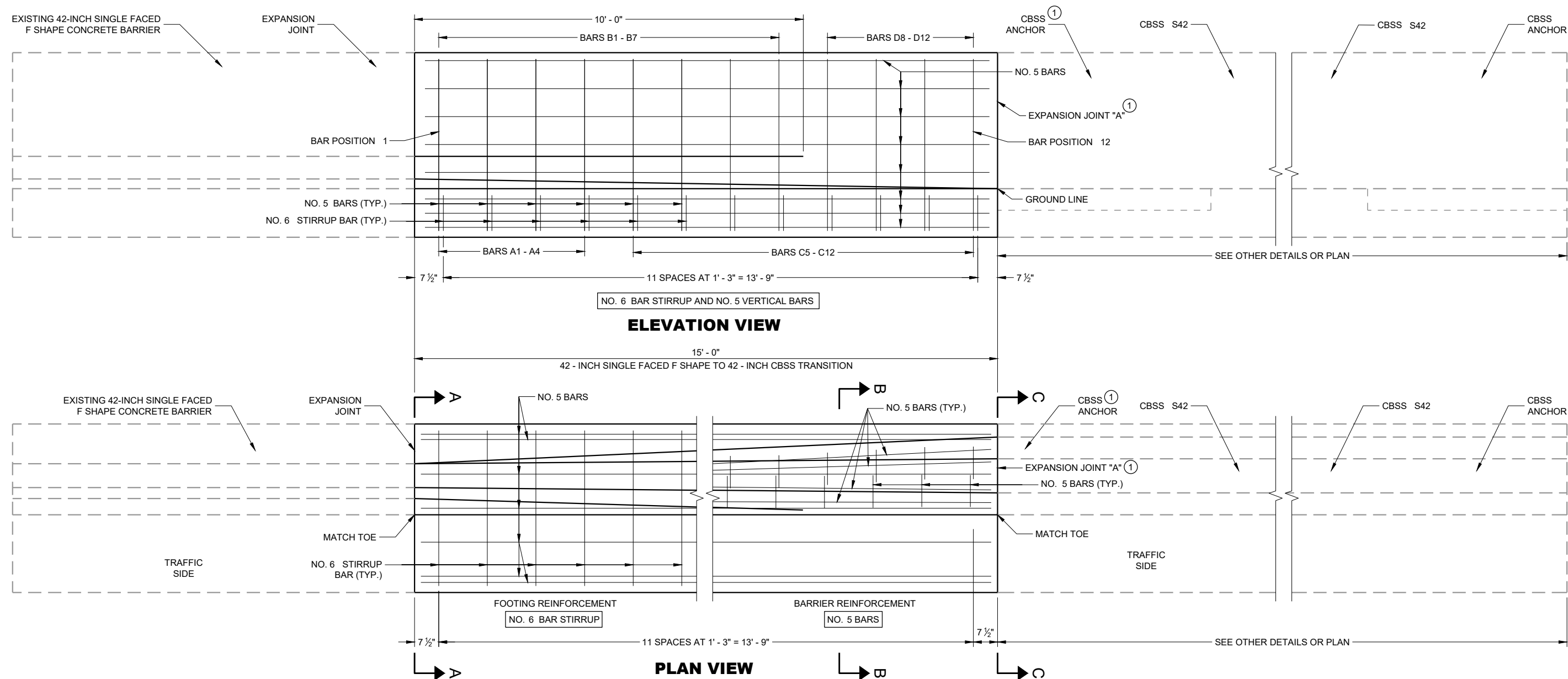


PLAN VIEW
SHOWING LOCATION OF TIE BARS

CONCRETE PAVEMENT
LONGITUDINAL JOINTS AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018 /S/ Peter Kern
DATE PAVEMENT SUPE 44
FHWA

**GENERAL NOTES**

CONSTRUCT PER STANDARD SPECIFICATION 603.

SPLICES OF LONGITUDINAL BARS TO BE 2' LONG AND FIRMLY TIED AND FASTENED TOGETHER UNLESS OTHERWISE NOTED.

4000 PSI CONCRETE AIR ENTRAINMENT PER STANDARD SPECIFICATIONS SECTION 501.

USE 3/4" BEVEL OR 1" RADIUS ON ALL EXPOSED SHARP EDGES UNLESS OTHERWISE NOTED.

THE NUMBER IN BAR DESIGNATION REPRESENTS THE BARS LOCATION.

2" CLEAR COVER TYPICAL.

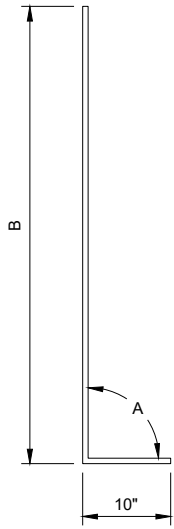
- ① EXPANSION JOINT "A" MAY BE REPLACED WITH A COLD JOINT PROVIDED THAT 3 FEET OF LAP OF LONGITUDINAL STEEL IS PROVIDED. IF COLD JOINT IS USED, ANCHOR IS NOT REQUIRED.

**42 - INCH SINGLE FACED F SHAPE
CONCRETE BARRIER TO 42 - INCH SINGLE
SLOPE CONCRETE BARRIER TRANSITION**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION 45

"A" BAR CHART
BAR POSITIONS
1 - 4

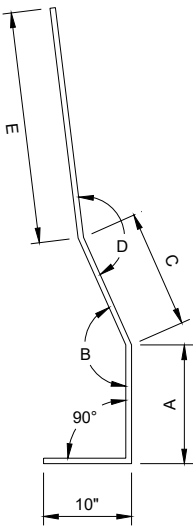
BAR	A	B
A1	90°	4' - 4 3/4"
A2	89°	4' - 5"
A3	88°	4' - 5"
A4	88°	4' - 5"



"A" BAR
BENDING DETAIL

"B" BAR CHART
BAR POSITIONS
1 - 7

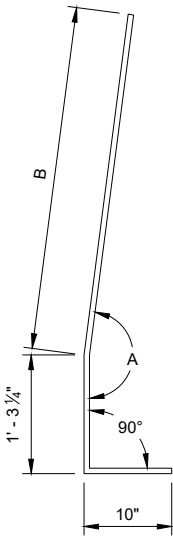
BAR	A	B	C	D	E
B1	1' - 3"	148°	8 1/2"	154°	2' - 6 3/4"
B2	1' - 3"	149°	8 1/2"	156°	2' - 6 1/2"
B3	1' - 3"	152°	8 1/2"	159°	2' - 6 1/2"
B4	1' - 2 1/2"	157°	8 1/2"	165°	2' - 6 1/2"
B5	1' - 2 1/2"	160°	8 1/2"	168°	2' - 6 1/2"
B6	1' - 2 1/2"	163°	8 1/2"	172°	2' - 6 1/2"
B7	1' - 2"	166°	8 1/2"	176°	2' - 7"



"B" BAR
BENDING DETAIL

"C" BAR CHART
BAR POSITIONS
5 - 12

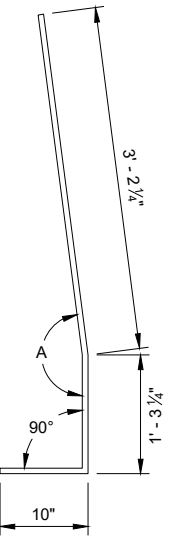
BAR	A	B
C5	177°	3' - 1 3/4"
C6	176°	3' - 1 3/4"
C7	175°	3' - 1 3/4"
C8	174°	3' - 2"
C9	174°	3' - 2"
C10	173°	3' - 2"
C11	172°	3' - 2"
C12	171°	3' - 2"



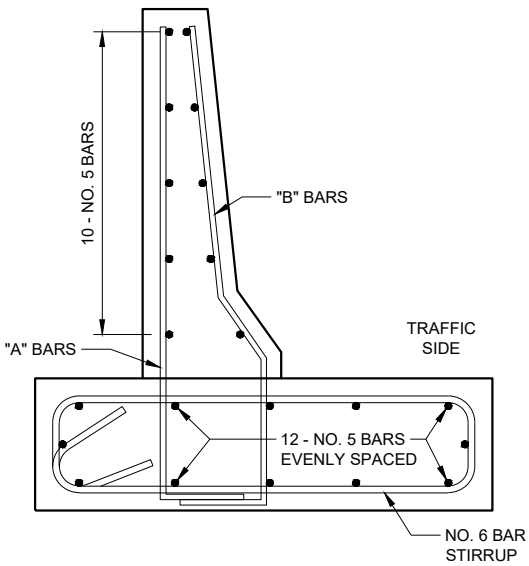
"C" BAR
BENDING DETAIL

"D" BAR CHART
BAR POSITIONS
8 - 12

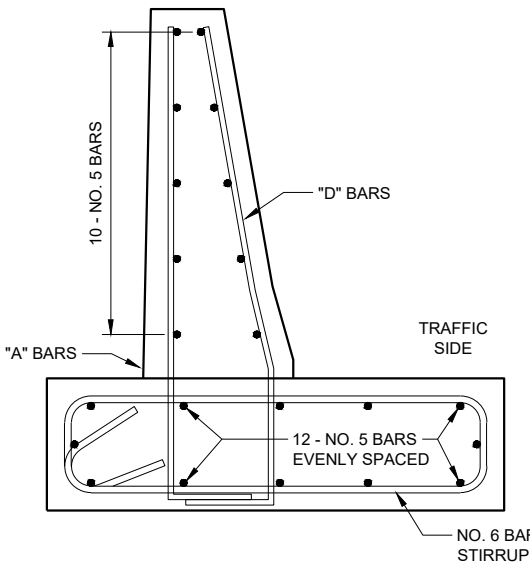
BAR	A
D8	170°
D9	170°
D10	170°
D11	171°
D12	171°



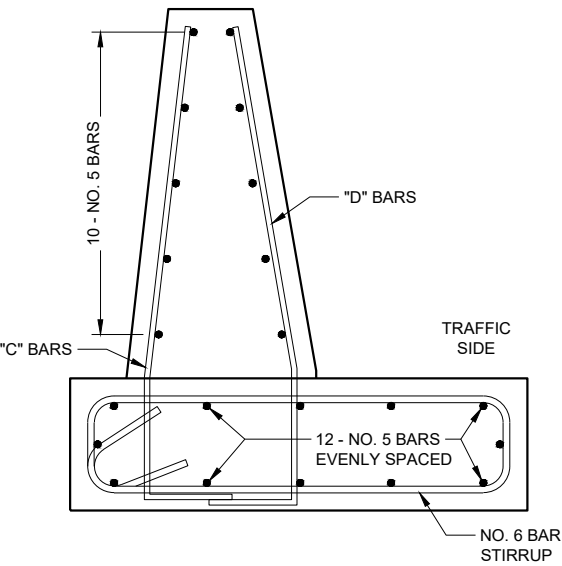
"D" BAR
BENDING DETAIL



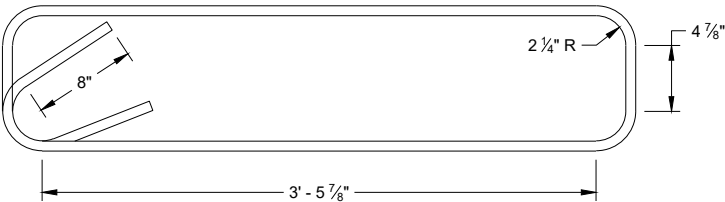
BAR DETAIL
BAR POSITIONS 1 - 4



BAR DETAIL
BAR POSITION 5 - 7



BAR DETAIL
BAR POSITIONS 8 - 12

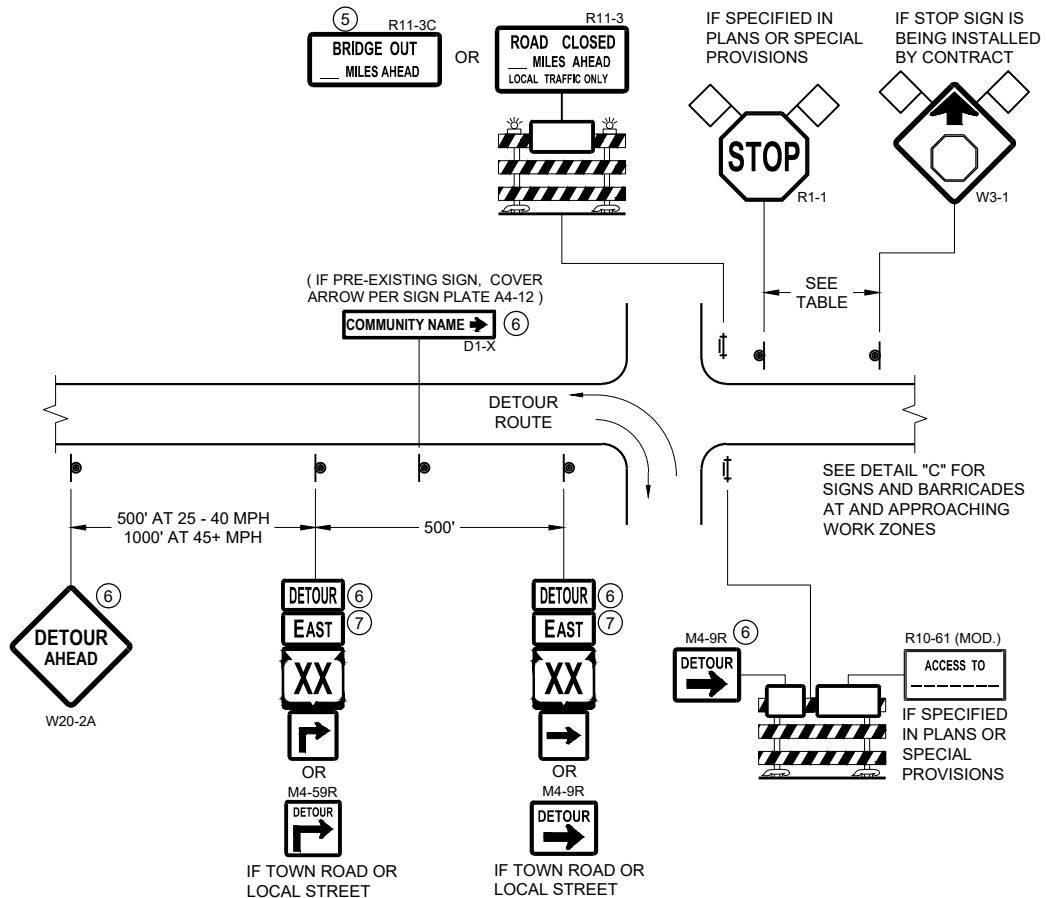


STIRRUP BAR
BENDING DETAIL

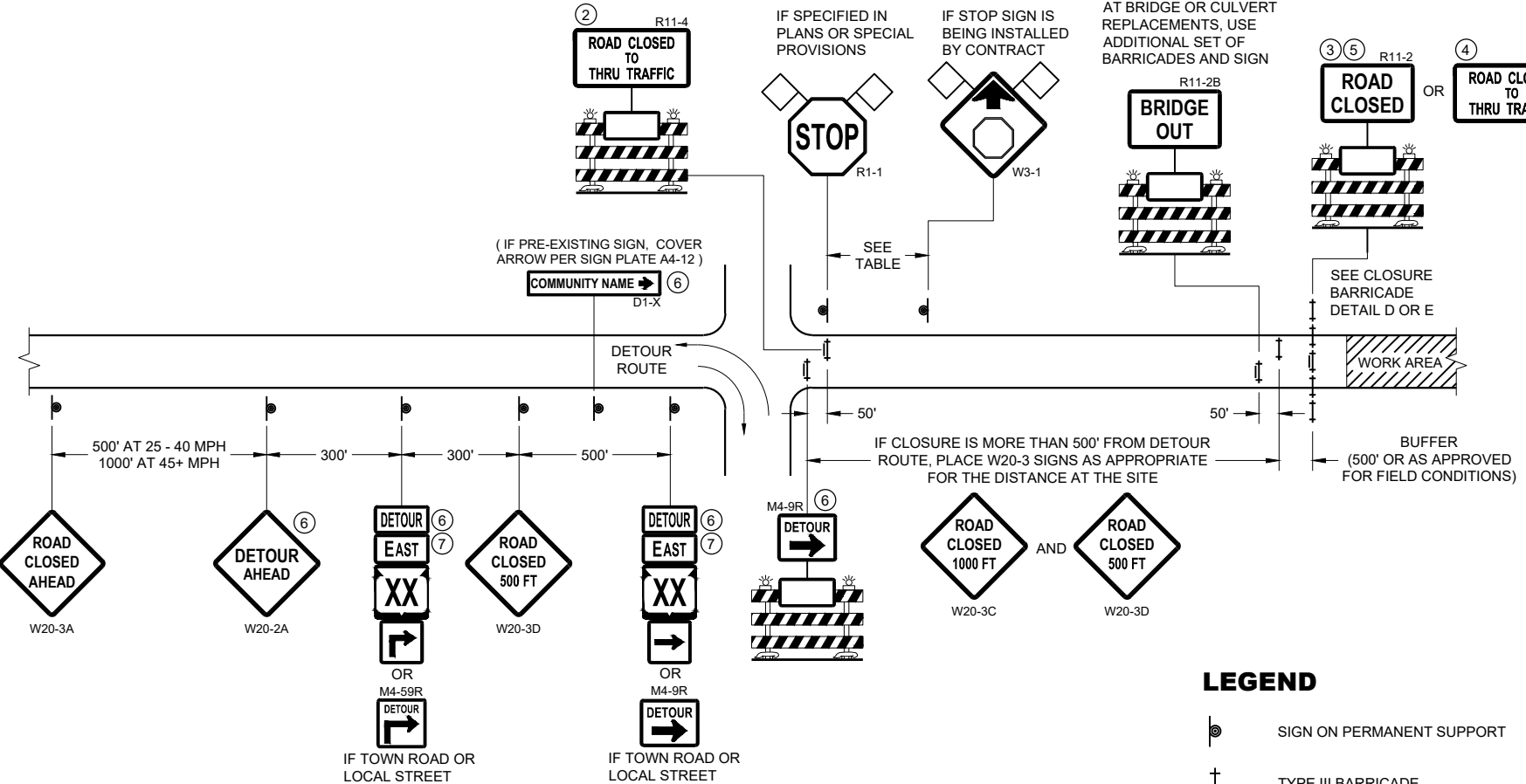
42 - INCH SINGLE FACED F SHAPE
CONCRETE BARRIER TO 42 - INCH SINGLE
SLOPE CONCRETE BARRIER TRANSITION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT ENGINEER 46
FHWA



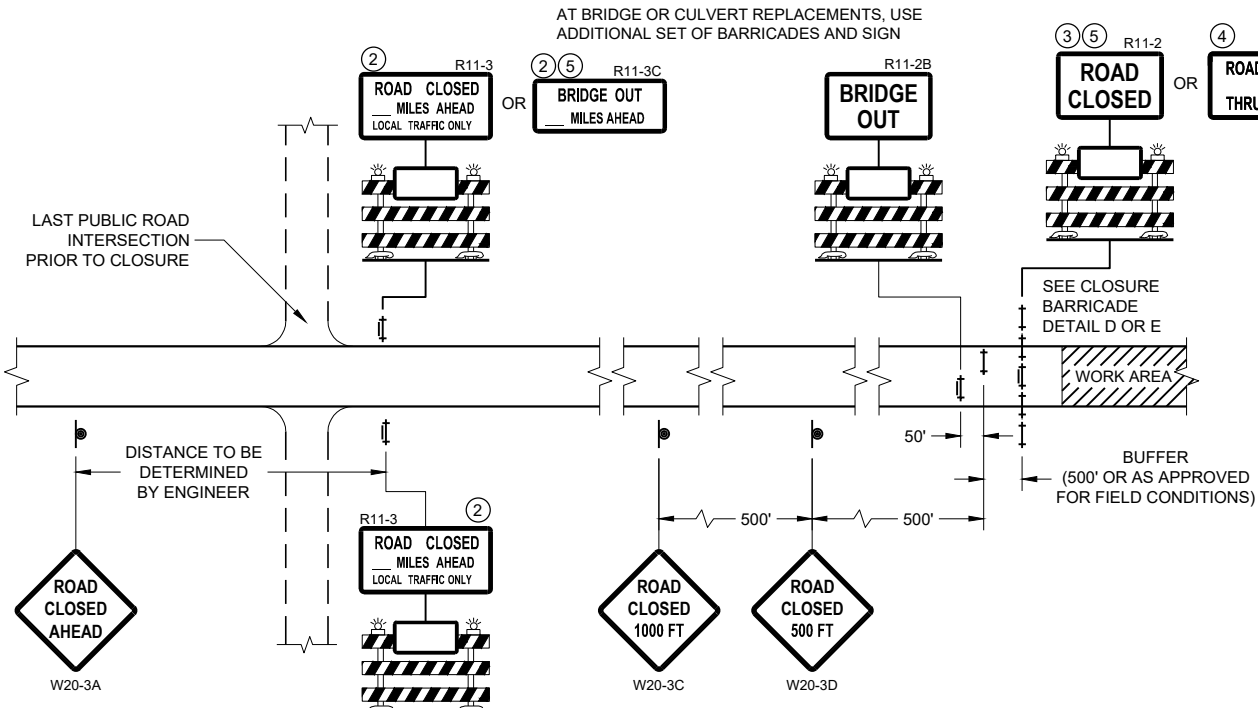
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR
WORK ZONE GREATER THAN OR EQUAL TO ½ MILE FROM
DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR
WORK ZONE LESS THAN ½ MILE FROM
DETOUR ROUTE (1000 FEET IF URBAN)

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

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



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

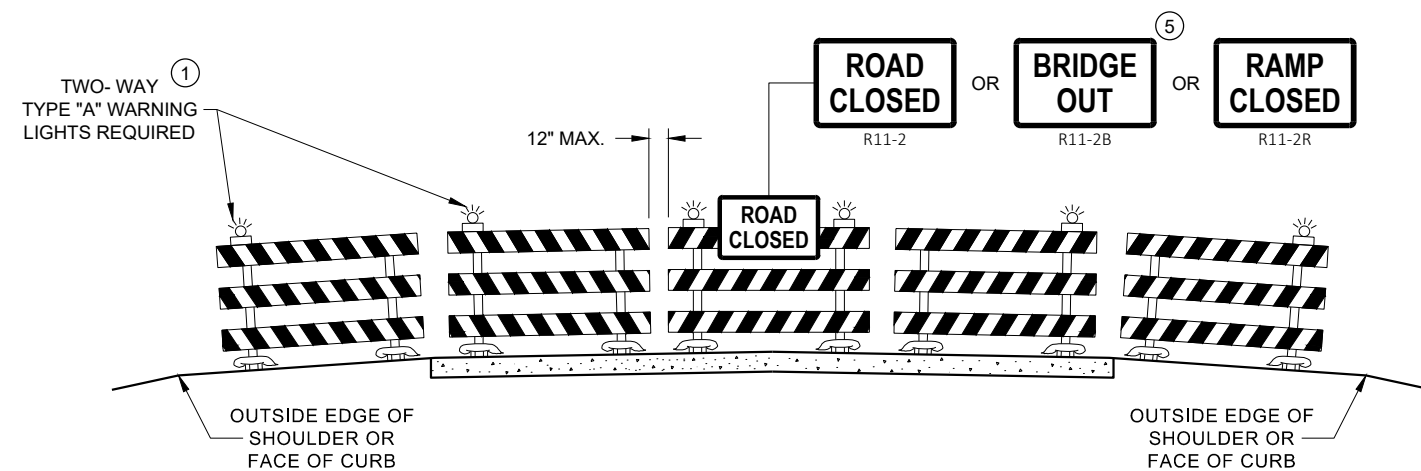
SEE SDD 15C2-SHEET "b"
FOR GENERAL NOTES
AND FOOTNOTES ① THROUGH ⑦

**BARRICADES AND SIGNS
FOR MAINLINE CLOSURES**

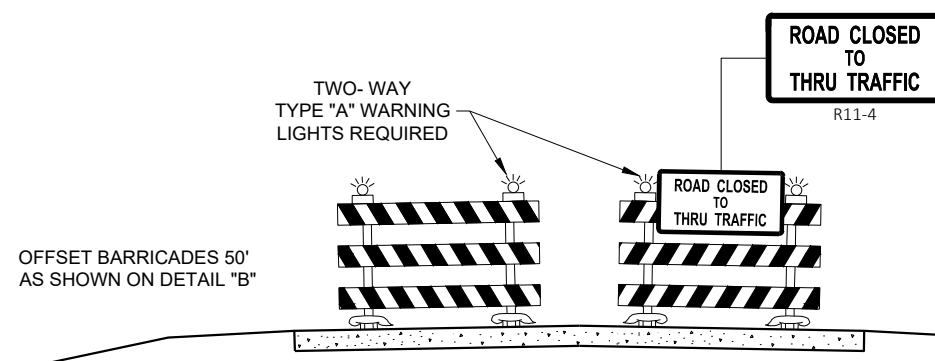
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 47

FHWA



DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW



DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW

SEE SDD 15C2 - SHEET "a" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

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

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

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:

R11 - 2 SHALL BE 48" X 30"

R11 - 3 SHALL, R11 - 4 AND R10 - 61 SHALL BE 60 " X 30"

M4 - 9 SHALL BE 30" X 24"

M3 - X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)

M4 - 8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)

M1 - 4, M1 - 5A AND M1 - 6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)

MO5 - 1 AND MO6 - 1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)

D1 - X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

R1 - 1 SHALL BE 36" X 36"

- ① TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8 FOOT LIGHT SPACING).
- ② THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT AN INTERSECTION.
- ③ FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "D".
- ④ FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "E".
- ⑤ FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11 - 2 AND R11 - 3 SIGNS.
- ⑥ INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.
- ⑦ "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

BARRICADES AND SIGNS FOR VARIOUS CLOSURES

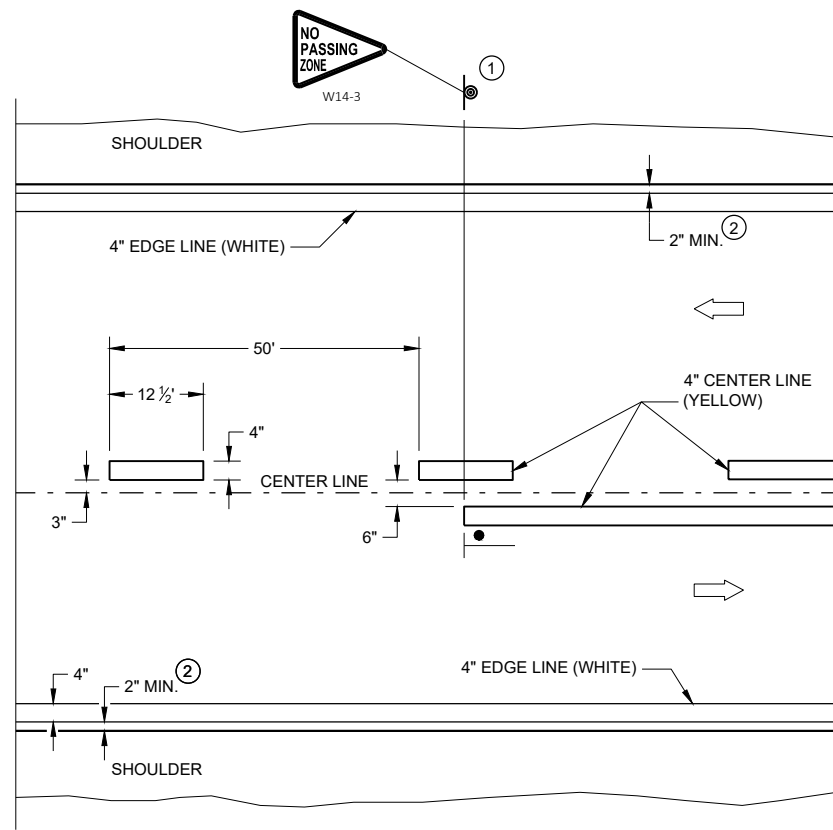
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE

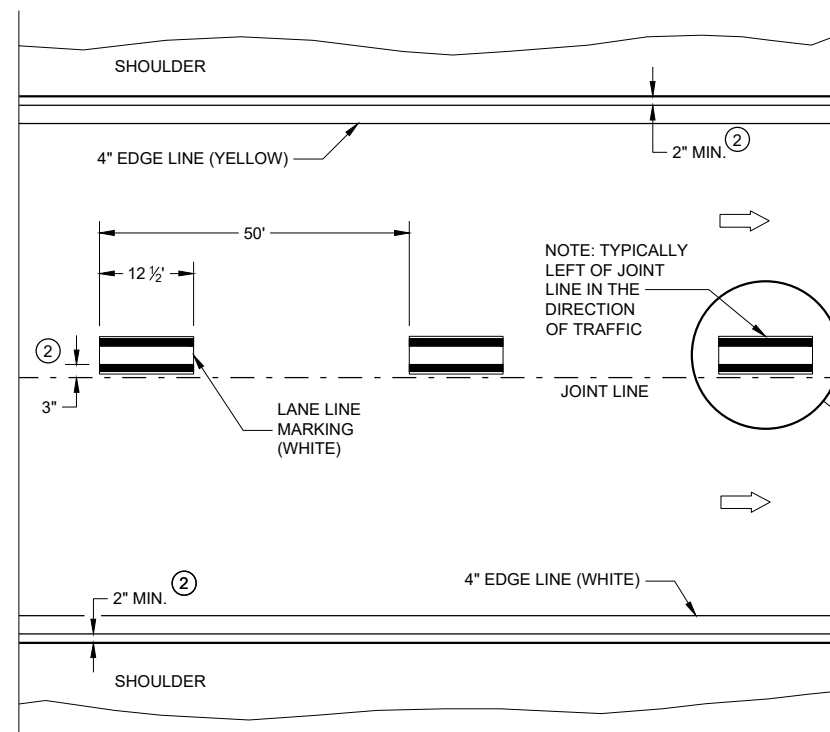
/S/ Andrew Heidtke
WORK ZONE ENGINEER

48

FHWA

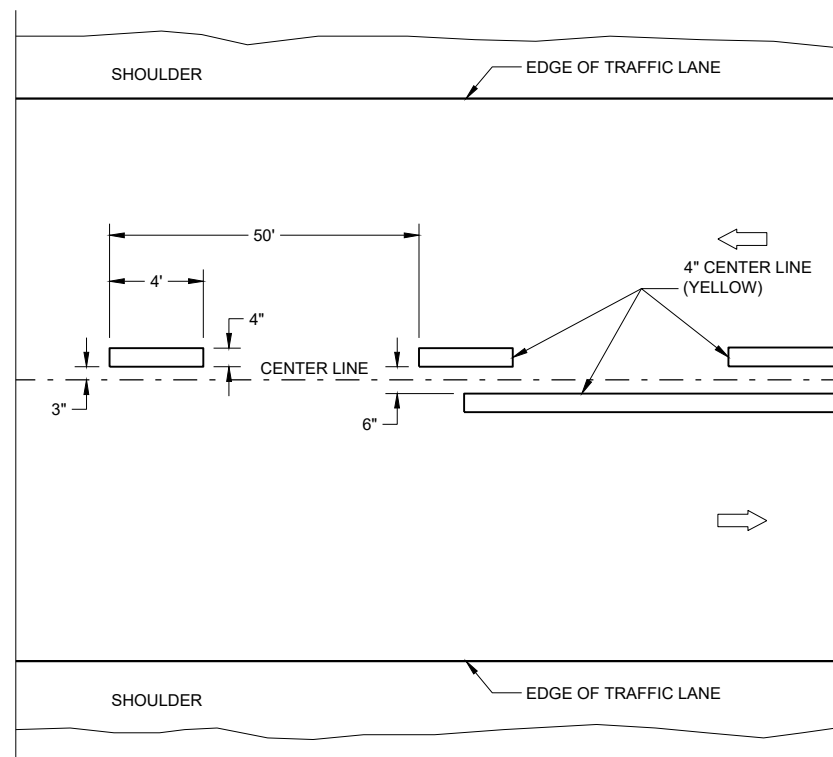


TWO WAY TRAFFIC

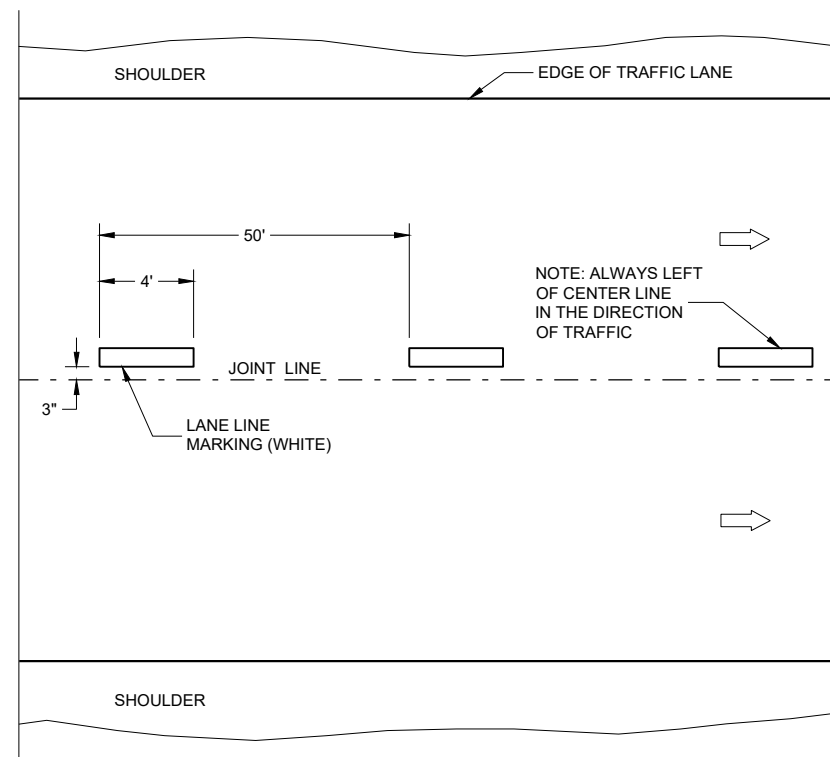


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

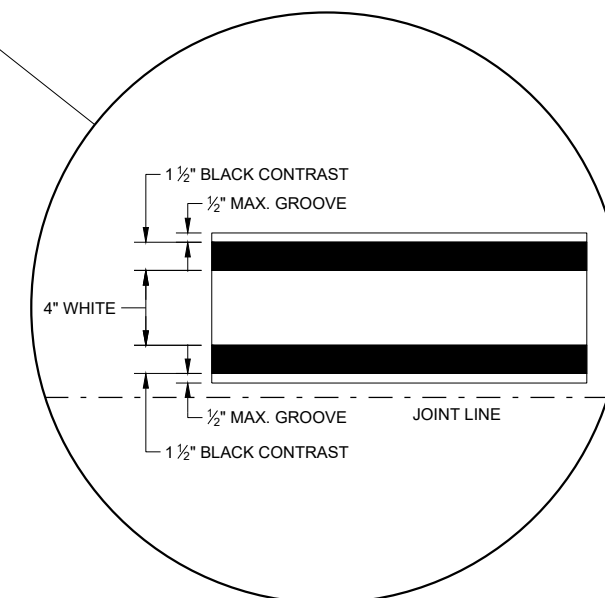
GENERAL NOTES

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

- ① LOCATE THE NO PASSING ZONE W14-3 SIGN WITH 50 FEET OF THE "T" MARKING
- ② MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

LEGEND

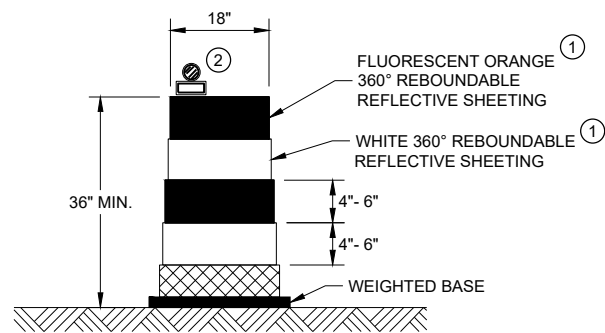
-  "T" MARKING
 SIGN ON PERMANENT SUPPORT
 DIRECTION OF TRAFFIC



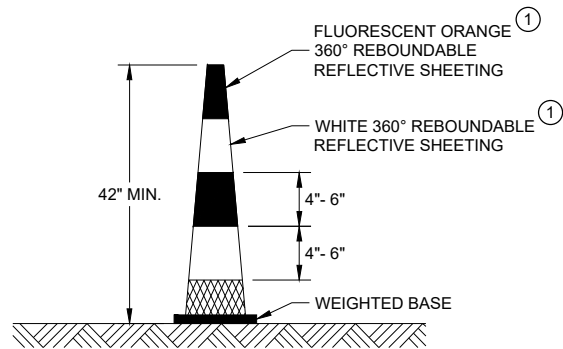
LONGITUDINAL MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020 _____ /S/ Matthew Rauch
DATE STATEWIDE SIGNING AND M 49
ENGINEER

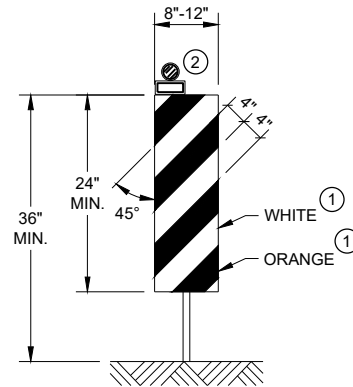


DRUM



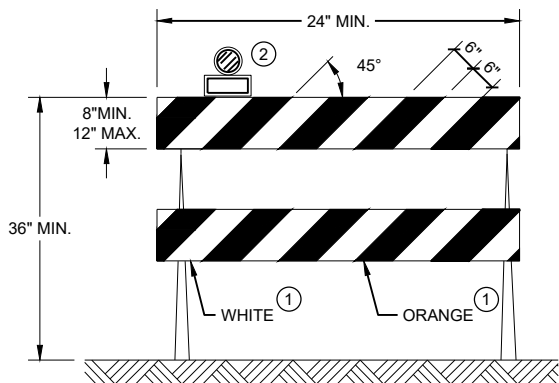
42" CONE

DO NOT USE IN TAPERS
½ SPACING OF DRUMS



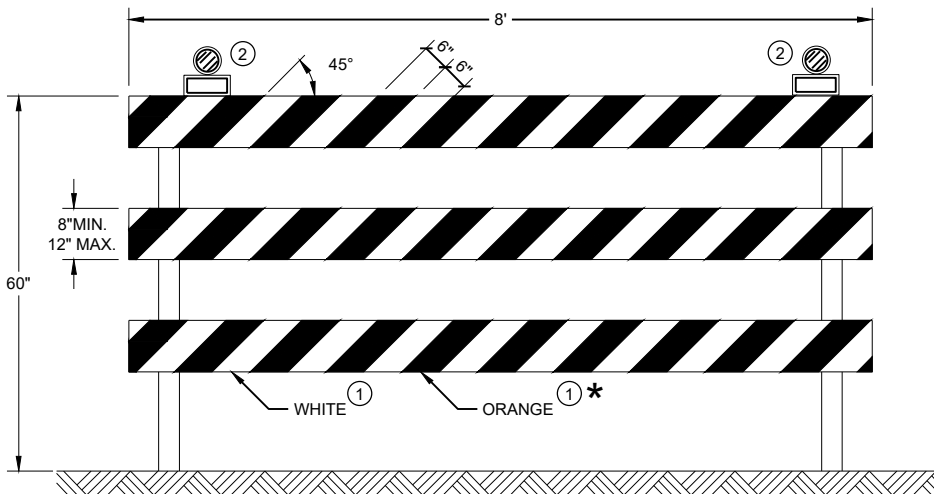
VERTICAL PANEL

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



TYPE II BARRICADE

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



TYPE III BARRICADE

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

* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

GENERAL NOTES

- ① REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
- ② LOCATION OF WARNING LIGHTS WHEN SHOWN ON THE PLAN.

CHANNELIZING DEVICES
DRUMS, CONES, BARRICADES
AND VERTICAL PANELS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 50
FHWA

	SIGN ON PERMANENT SUPPORT
	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
	TYPE III BARRICADE WITH ATTACHED SIGN
	TYPE "A" WARNING LIGHT (FLASHING)
	FLASHING ARROW BOARD
	DIRECTION OF TRAFFIC
	REMOVE PAVEMENT MARKING (SEE GENERAL NOTES)
	WORK AREA

FOR WORK ON ROADWAYS WITH SPEEDS GREATER THAN 45MPH, USE SDD 15D12.

THIS LANE CLOSURE DETAIL IS TYPICAL FOR CLOSING THE LEFT LANE. FOR A RIGHT LANE CLOSURE, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR ROADWAYS WITH EITHER TWO OR THREE LANES IN EACH DIRECTION.

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 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. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE MAY BE MOUNTED ON TEMPORARY SUPPORTS.

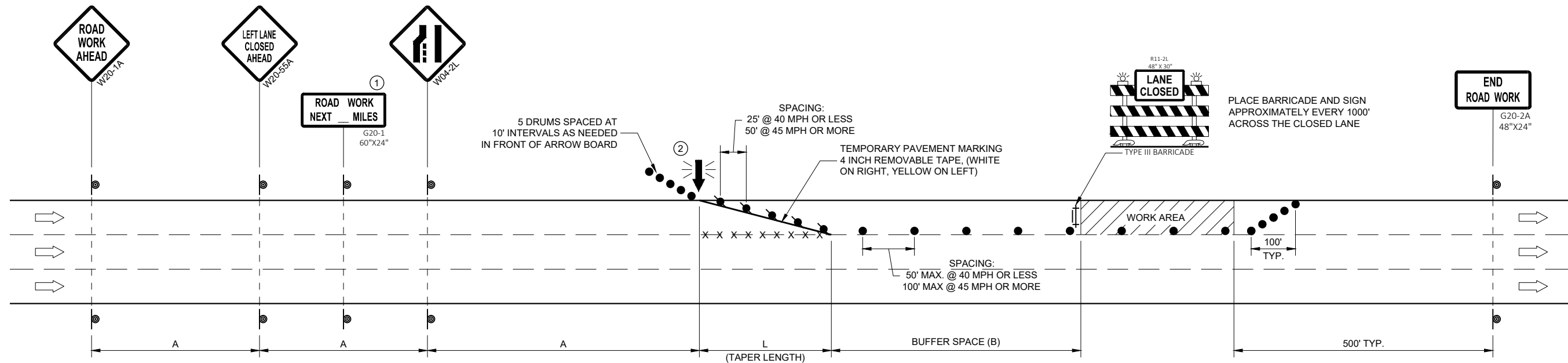
THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

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

W20-1A, G20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

- ① OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.
- ② WHERE THE SHOULDER OR TERRACE HAS INSUFFICIENT SPACE TO PLACE THE ARROW BOARD AS SHOWN, PLACE THE ARROW BOARD AT THE END OF THE TAPER.



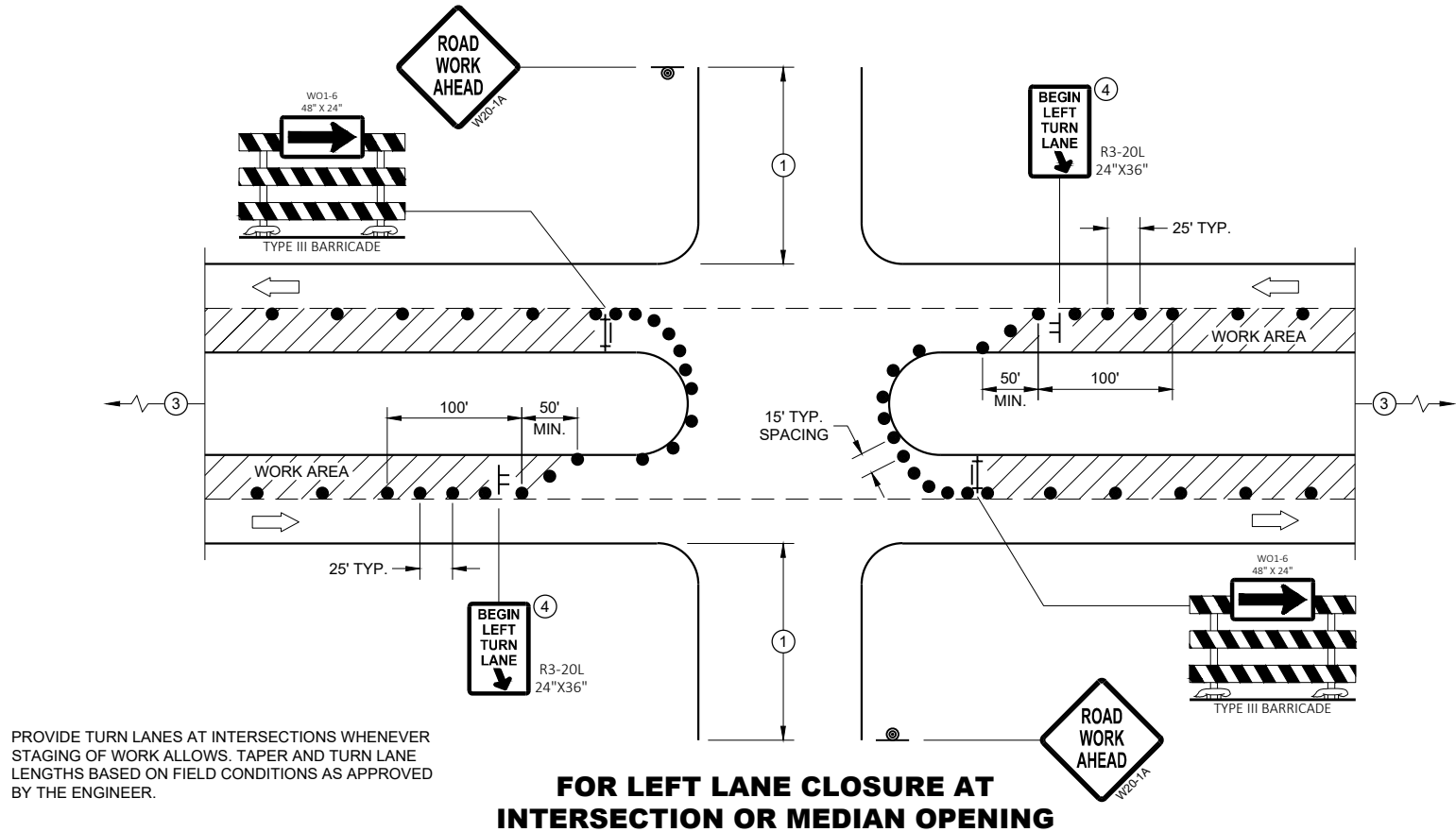
POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	TAPER LENGTH (12 FT. LANE) (L) FEET	BUFFER SPACE (B) FEET
25	200'	125'	55'
30	200'	180'	85'
35	350'	245'	120'
40	350'	320'	170'
45	500'	540'	220'

APPROVED
May 2020
 DATE

/S/ Andrew Heidtke
 STATEWIDE WORK ZONE T
 SAFETY ENGINEER

51

FWHA



GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" MAY BE USED IF APPROVED BY THE DISTRICT 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. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

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

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

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

SIGNS THAT WILL REMAIN IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE MAY BE MOUNTED ON PORTABLE SUPPORTS.

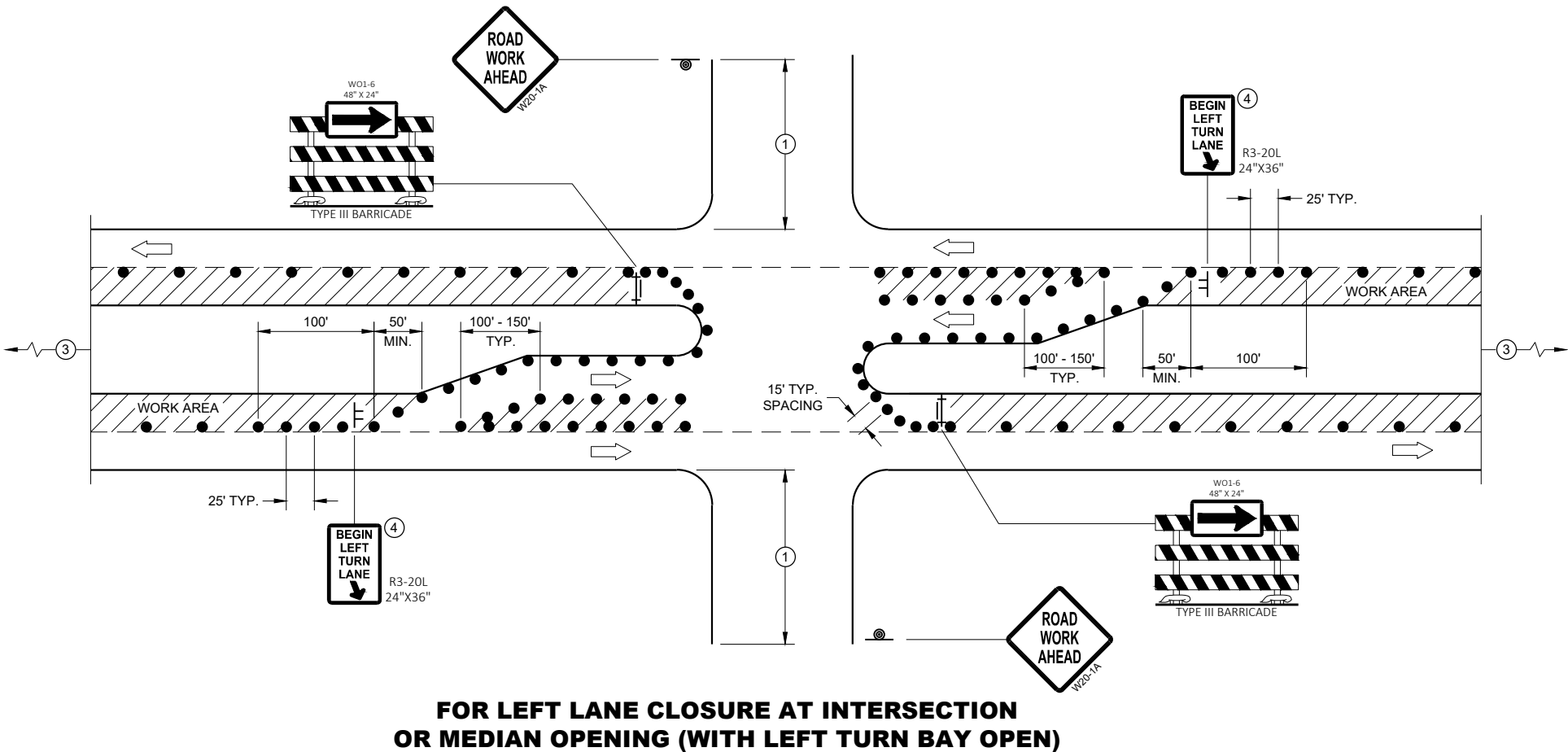
BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

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

- ① 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35 - 40 MPH.
200' IF 25 - 30 MPH.
- ② ALSO USE BARRICADE AND 15 FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS
- ③ SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.
- ④ MINIMUM MOUNTING HEIGHT OF 5 FEET FROM EDGE OF PAVEMENT (AT EDGE LINE LOCATION) TO BOTTOM OF SIGN.

LEGEND

- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE WITH ATTACHED SIGN
- DIRECTION OF TRAFFIC
- FLAGS, 16" X 16" MIN., ORANGE
- WORK AREA



TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LEFT LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2020 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 52
FHWA

LEGEND

- TRAFFIC CONTROL DRUM
- ⦿ SIGN ON PERMANENT SUPPORT
- ➡ DIRECTION OF TRAFFIC
- ⚡➡ FLASHING ARROW BOARD
- ▨ WORK AREA

GENERAL NOTES

THIS DETAIL IS TYPICAL FOR CLOSING THE RIGHT SHOULDER. FOR CLOSING THE LEFT SHOULDER, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR DIVIDED ROADWAYS WITH ANY NUMBER OF TRAVEL LANES.

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

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

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

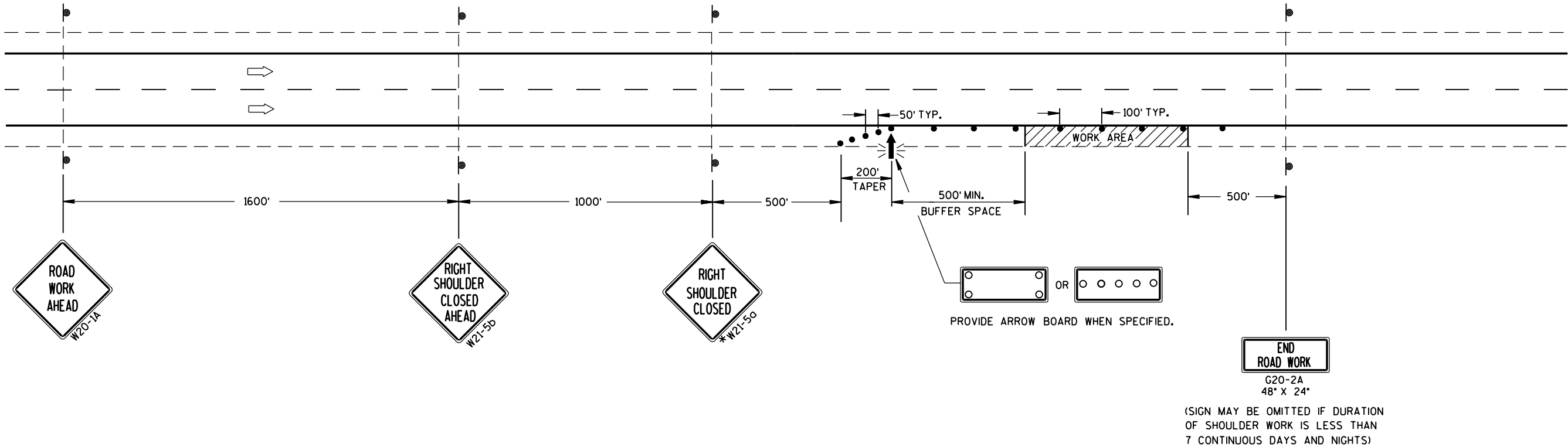
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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.

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

WHEN A 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.

*FOR SHORT DURATION SHOULDER WORK OF LESS THAN ONE HOUR, THE W21-5a SIGN MAY BE OMITTED.



TRAFFIC CONTROL SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH		
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION		
APPROVED		
June 2016	/S/ Peter Amakobe Atepe	
DATE	STATEWIDE WORK ZONE	IC
FHWA	SAFETY ENGINEER	53

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.

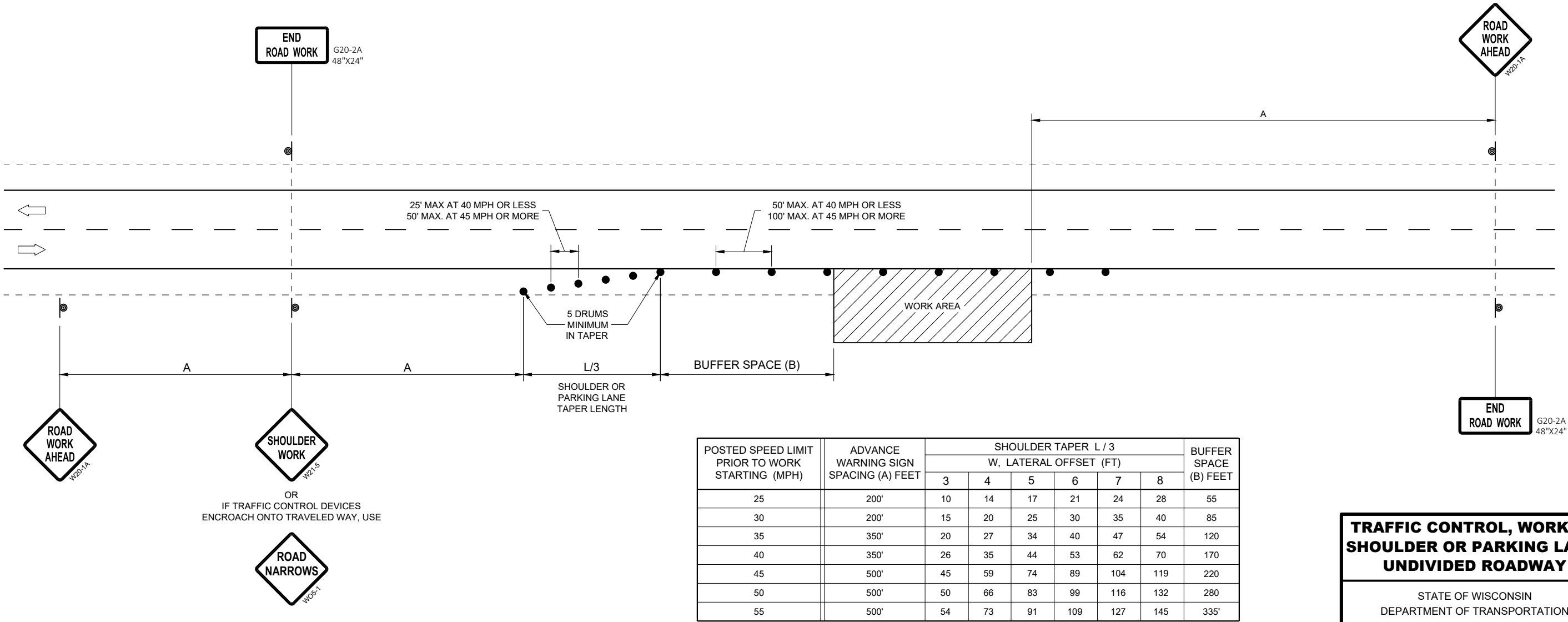
ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

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.



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'

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

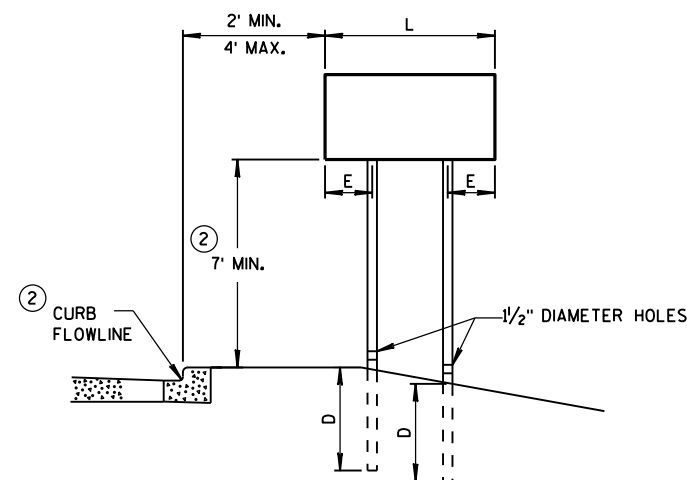
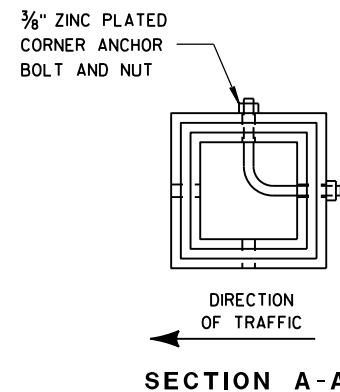
APPROVED
May 2020 /S/ Andrew Heidtke
DATE STATEWIDE WORK ZONE T SAFETY ENGINEER 54
FHWA



TUBULAR STEEL POSTS

AREA OF SIGN INSTALLATION (SQ. FT.)	NUMBER OF REQUIRED TUBULAR STEEL 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 LARGER THAN 27 SQ.FT. SHALL NOT BE MOUNTED ON TUBULAR STEEL POSTS.

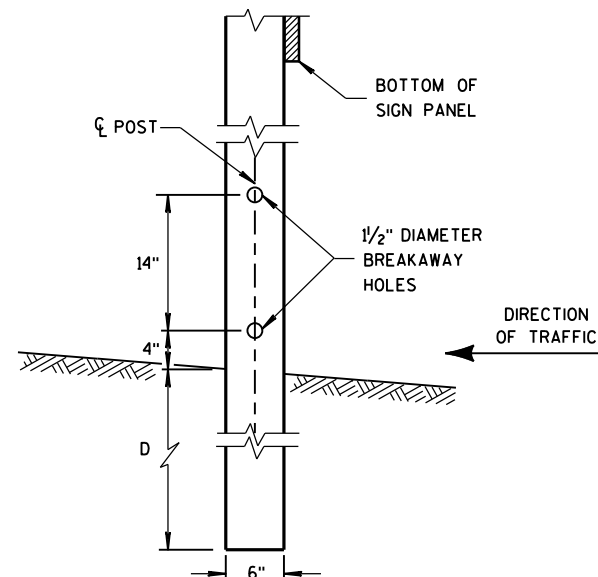


URBAN AREA

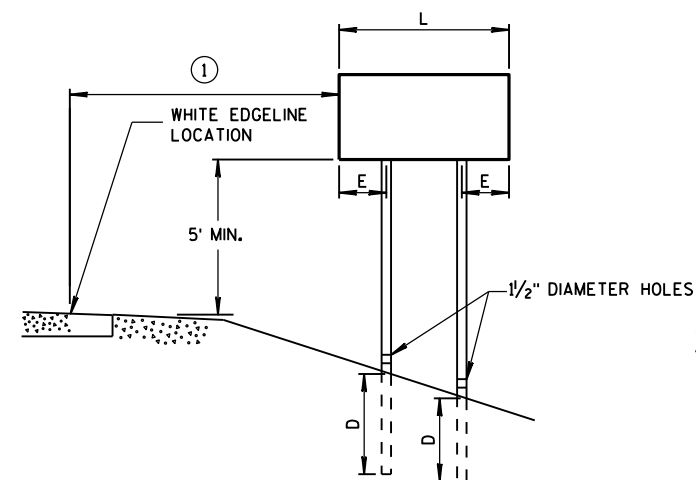
POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

WOOD POST
EMBEDMENT DEPTH

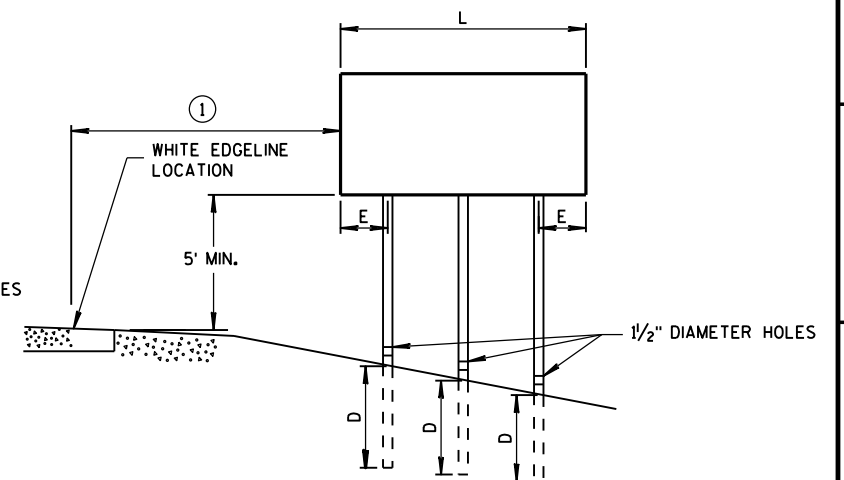
AREA OF SIGN INSTALLATION (SQ. FT.)	D (MIN)
20 OR LESS	4'
GREATER THAN 20	5'



4"x6" WOOD POST MODIFICATION



RURAL AREA



GENERAL NOTES

- ① 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.
- ② THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK AND NO PARKING, VERTICAL CLEARANCE MAY BE REDUCED TO 5 FOOT MINIMUM. OFFSET OF SIGNS IS MEASURED FROM THE CURB FLOWLINE.
- ③ FOR SIGNS REQUIRING 4 POSTS, SPACE INTERMEDIATE POSTS EVENLY.

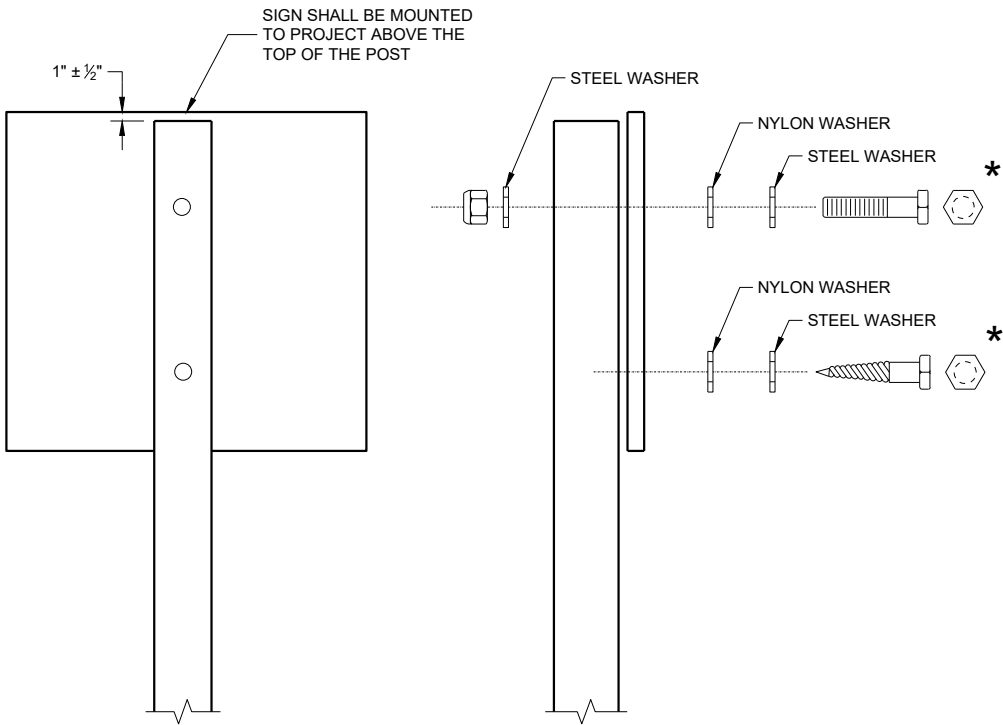
4" X 6" WOOD POST

POST SPACING REQUIREMENTS		NUMBER OF WOOD POSTS REQUIRED
L	E	
48" OR LESS AND LESS THAN 20 SQ. FT.	-	1
LESS THAN 60"	12"	2
60" TO 120"	L/5	2
GREATER THAN 120" LESS THAN 168"	12"	3
168" AND GREATER	12"	4

SEE NOTE (3)

TEMPORARY TRAFFIC CONTROL SIGN MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION⁵⁵



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 POST (4" x 6")
LAG SCREWS - ¾" x 3"
MACHINE BOLTS - ⅝" x 6 ½" OR 7" LENGTH W/NUTS

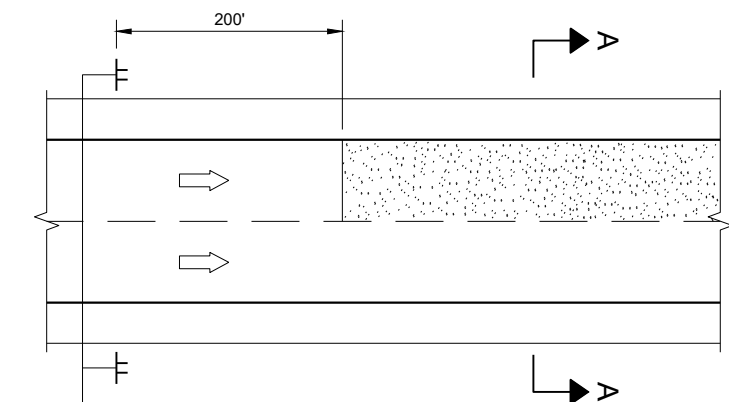
SQUARE STEEL POST (2" x 2")
MACHINE BOLTS - ¾" x 3 ¼" LENGTH W/NUTS
RIVETS - ⅝" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM
BODY/MANDREL O.D. FLANGE 0.720 - 0.765 INCH,
GRIP RANGE 0.042 - 0.375 INCH

WASHERS (ALL POSTS) -
1 ¼" O.D. x ⅜" I.D. x ⅛" STEEL
1 ¼" O.D. x ⅜" I.D. x 0.080 NYLON

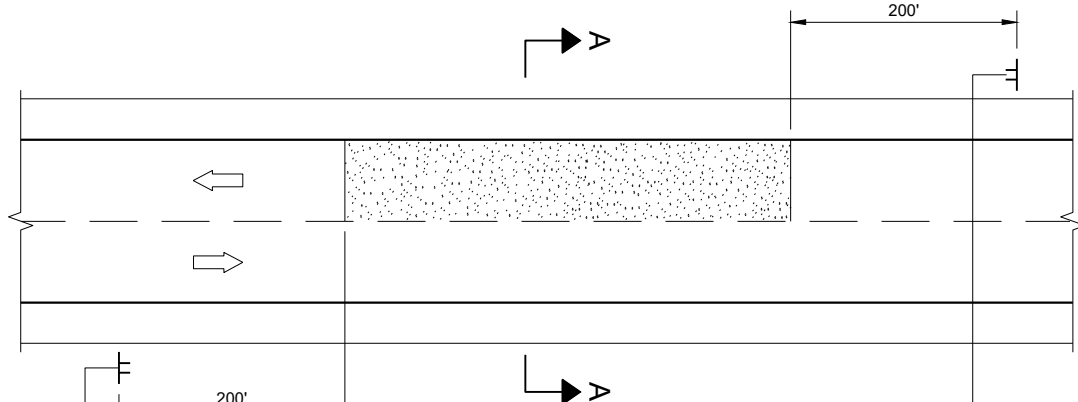
* TWO DIFFERENT FASTENING SYSTEMS ARE SHOWN FOR ILLUSTRATION PURPOSES. ON ANY INDIVIDUAL SIGN, EITHER ONE OR THE OTHER SYSTEM SHALL BE USED. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA. FOR A SINGLE POST INSTALLATION, ALL SIGNS GREATER THAN 9 SQ. FT. REQUIRE THE USE OF 3 FASTENERS.

ATTACHMENT OF SIGNS TO POSTS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED June 2017 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER 56

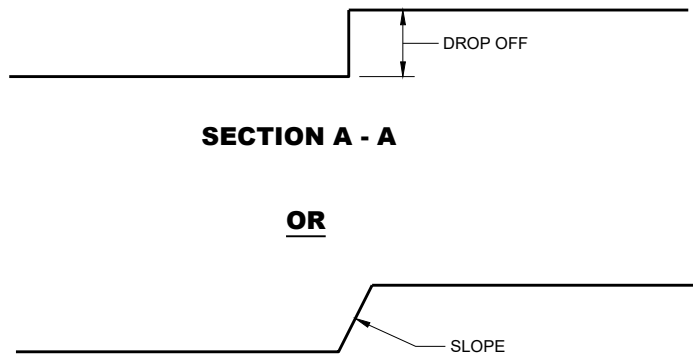
FHWA



MULTI-LANE



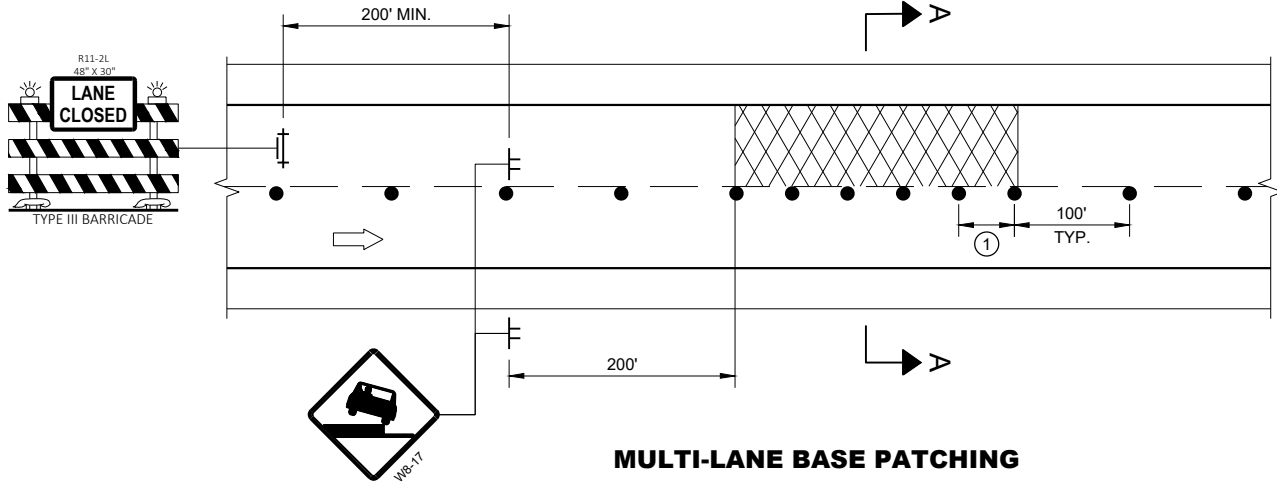
TWO-WAY TWO LANE



SECTION A - A

OR

SECTION A - A



MULTI-LANE BASE PATCHING

ADJACENT LANE DROP-OFFS

GENERAL NOTES

FOR SPOT LOCATIONS USE ENGINEERING JUDGEMENT WHEN PLACING ADDITIONAL SIGNS.

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

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

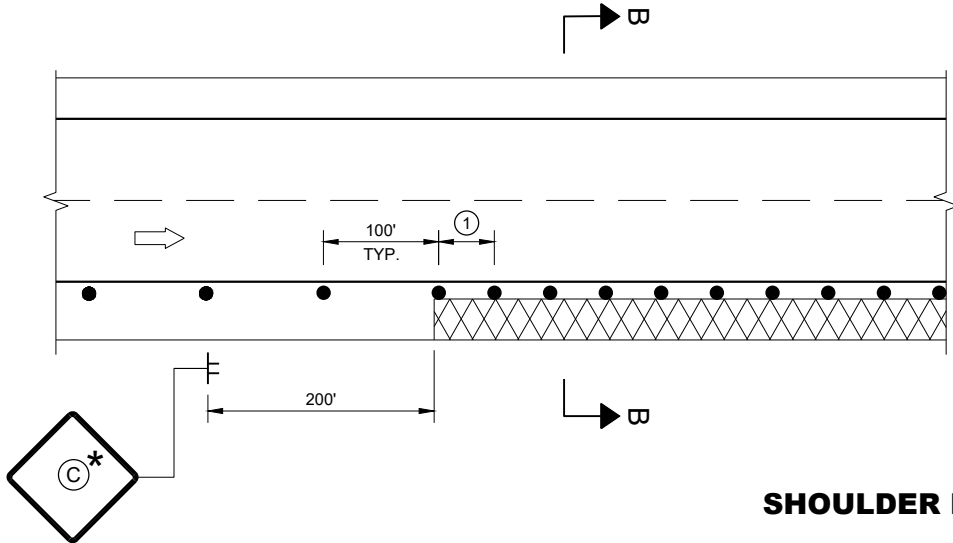
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

* IF THE DROP-OFF IS CONTINUOUS ALONG THE PROJECT, PLACE ADDITIONAL SIGNS EVERY 1 MILE AND AFTER EVERY ENTRANCE RAMP.

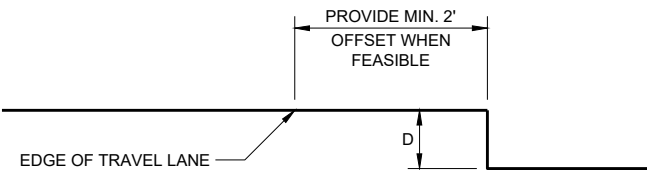
① USE CLOSER SPACING WHEN DELINEATING DROP-OFF.

LEGEND

- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- WORK AREA WITH DROP-OFF
- MILLED SURFACE



SHOULDER DROP-OFFS



SECTION B - B

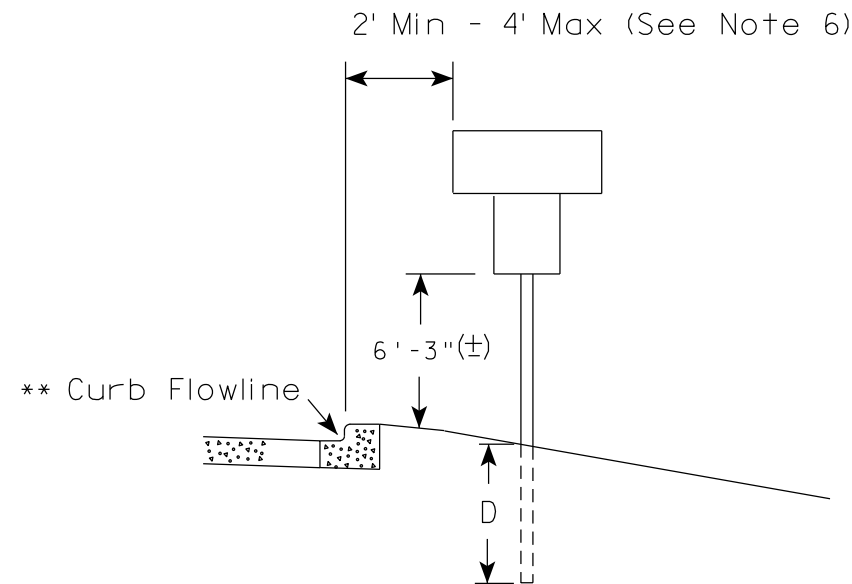
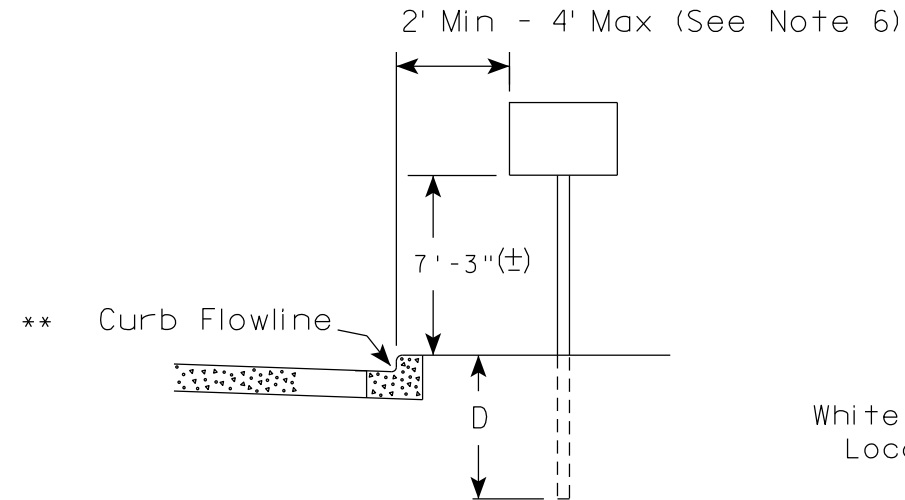
D	SIGN (C)
< 2" WITH A SLOPE STEEPER THAN 3:1	LOW SHOULDER WO8-9
2" < 6" WITH A SLOPE STEEPER THAN 3:1	SHOULDER DROP - OFF W8-9A PROVIDE A 3:1 OR FLATTER SLOPE OF MATERIAL ADJACENT TO THE PAVEMENT

TRAFFIC CONTROL,
DROP-OFF SIGNING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

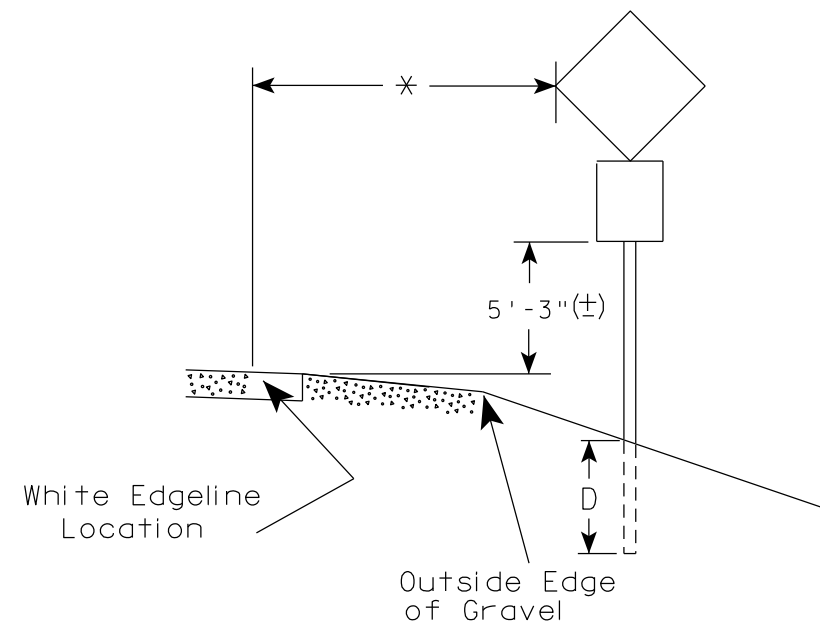
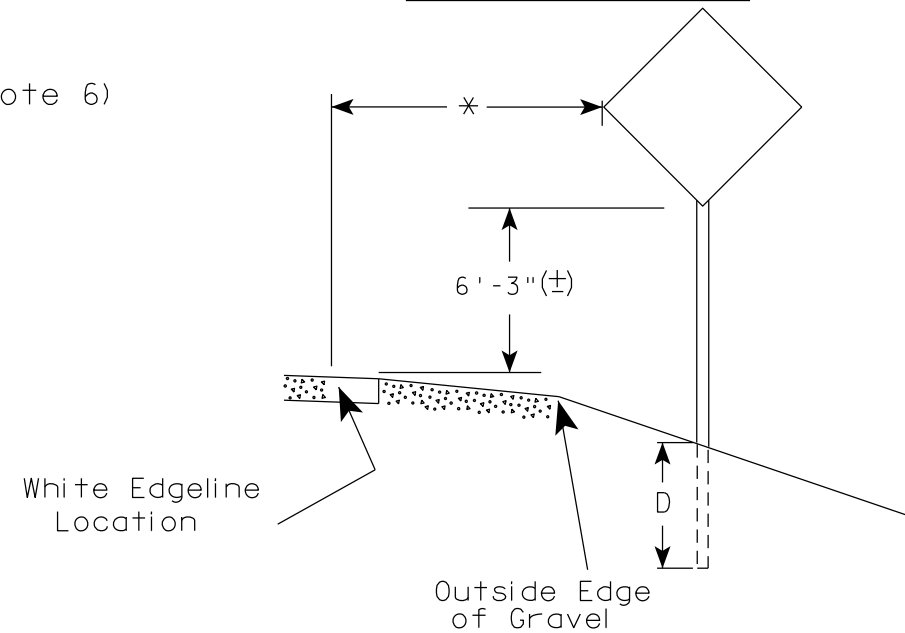
APPROVED
March 2018 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 57
FHWA

URBAN AREA



** 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.

RURAL AREA (See Note 2)



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

POST EMBEDMENT DEPTH

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

GENERAL NOTES

- Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
- 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" (±).
- For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
- Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
- Offset distance shall be consistent with existing signs or consistent throughout length of project.
- The (±) tolerance for mounting height is 3 inches.
- Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the Engineer.

TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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

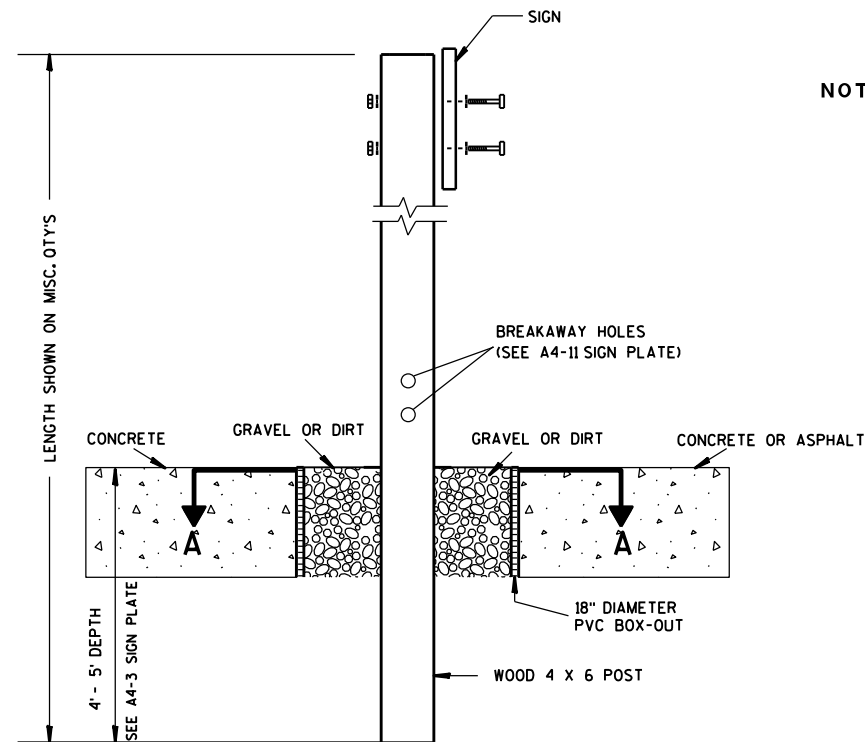
PROJECT NO:

HWY:

COUNTY:

SHEET NO: 58

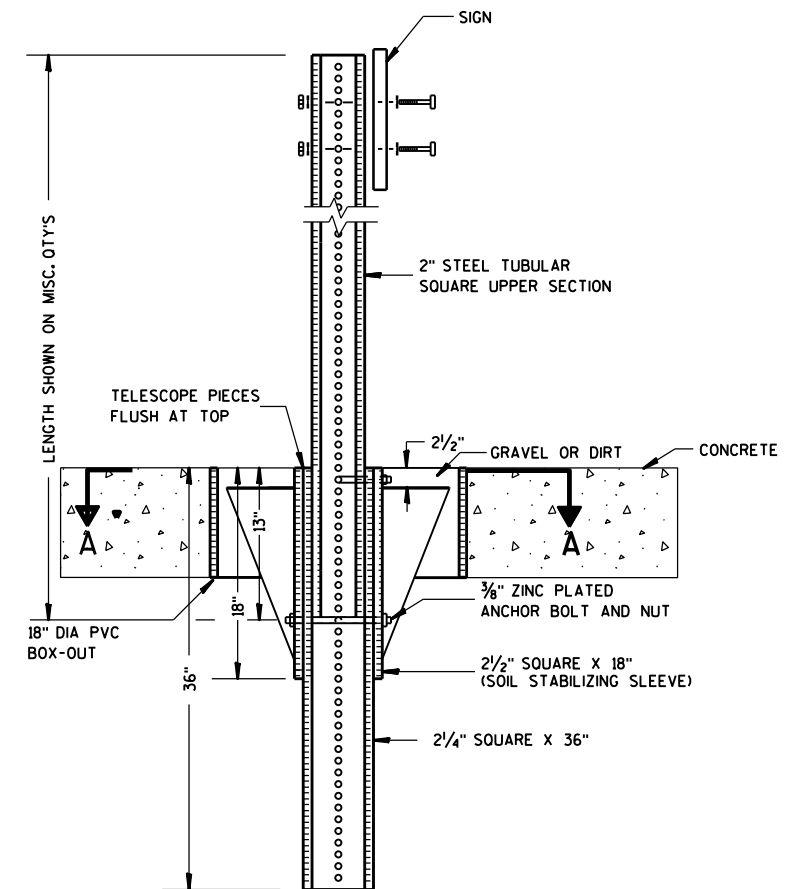
E



ELEVATION VIEW

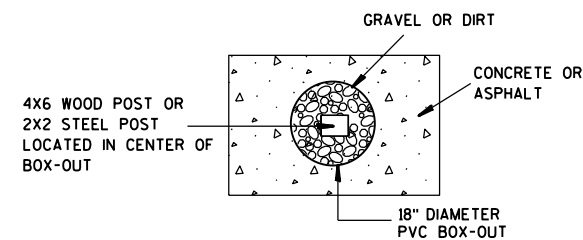
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST
BOX-OUTS
A4-3B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 1/27/14 PLAT 59 A4-3B.1

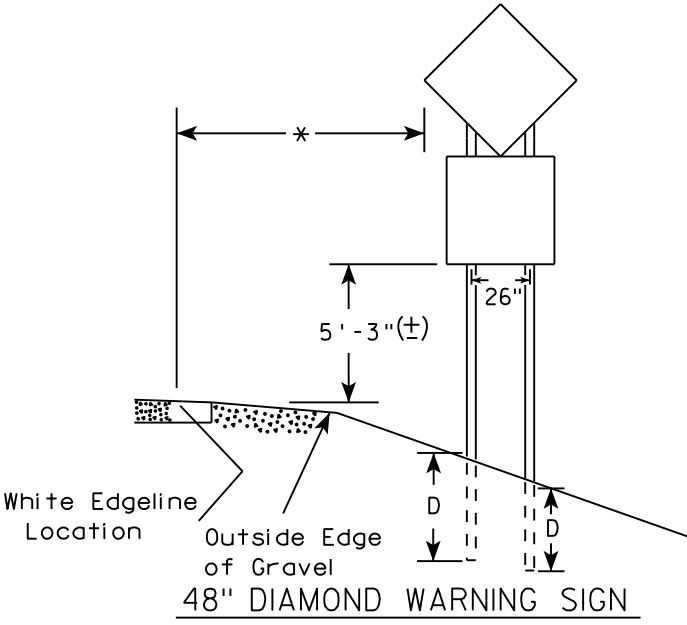
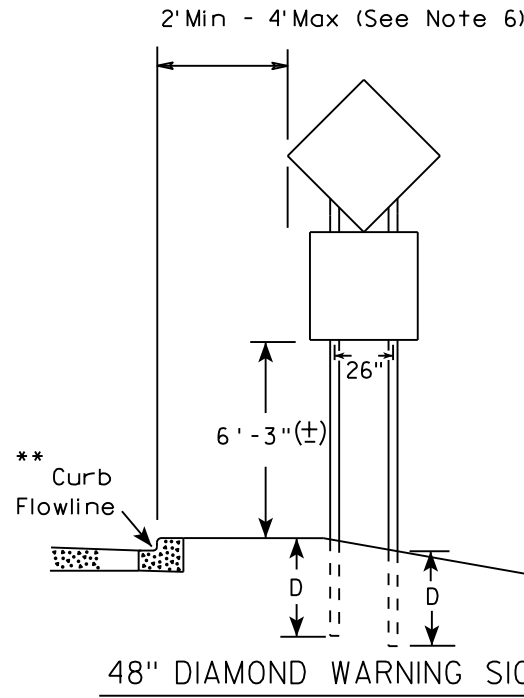
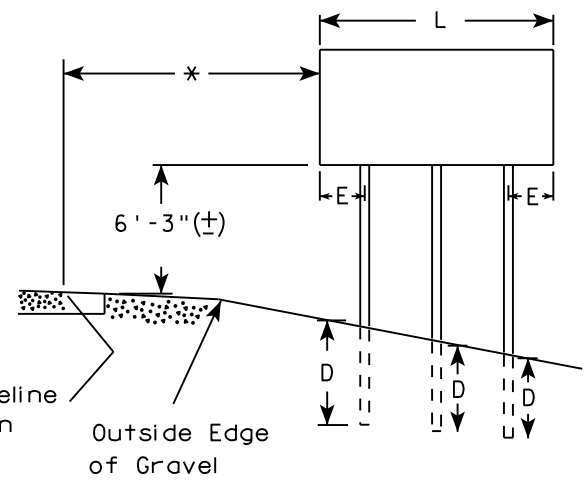
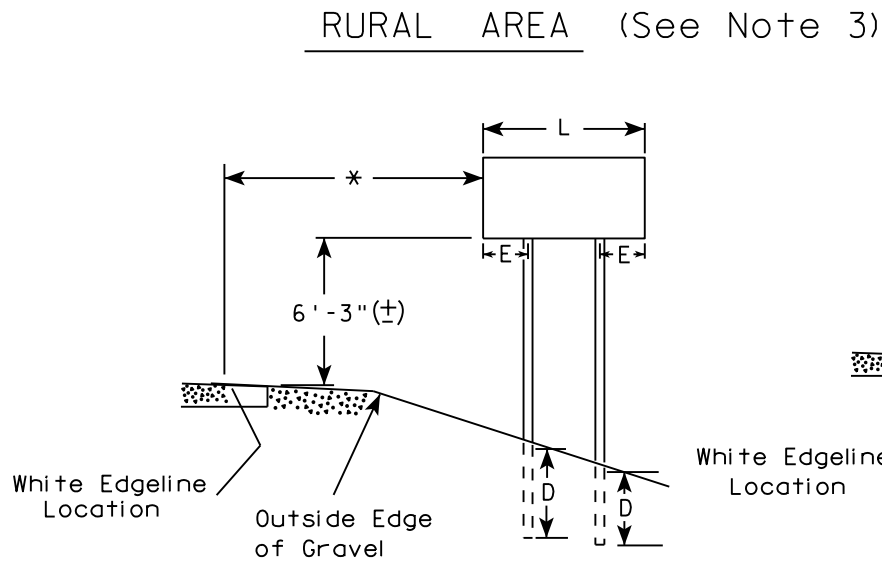
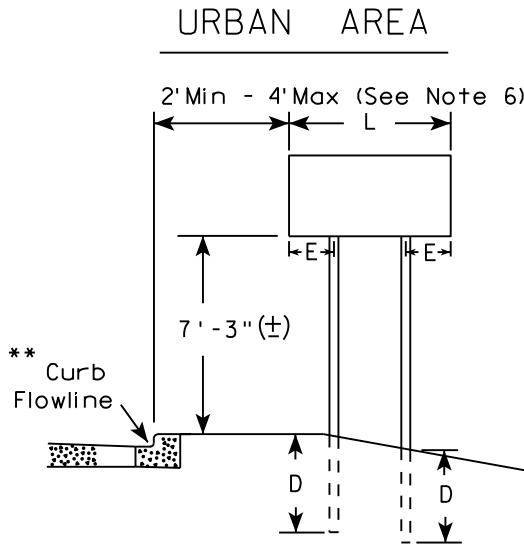
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



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

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

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

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

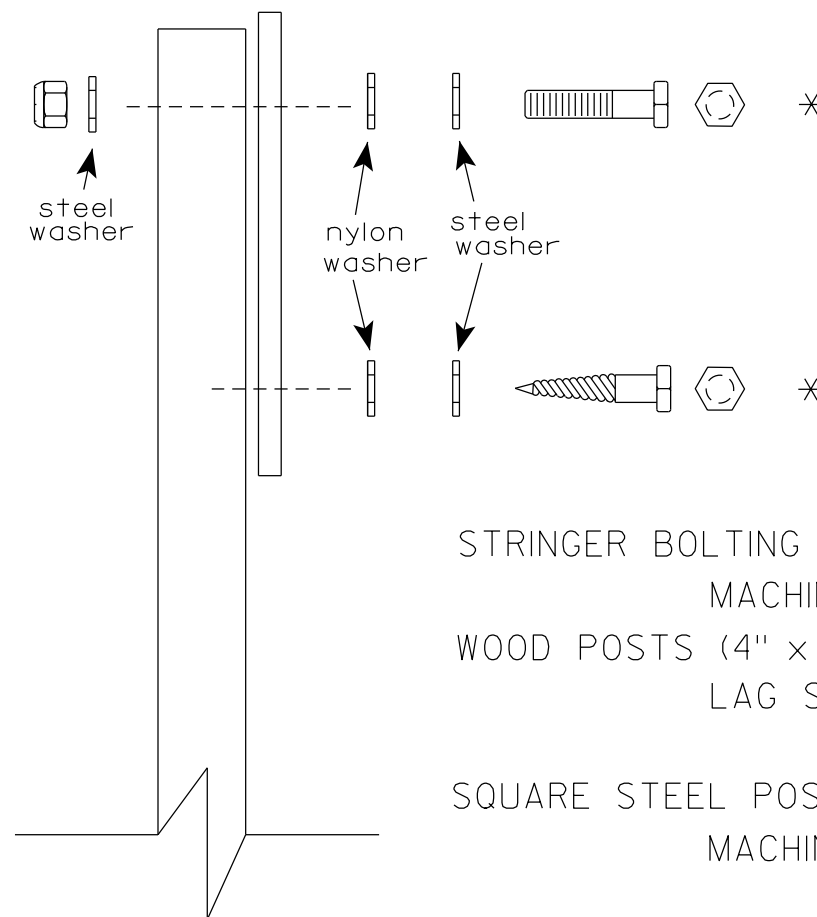
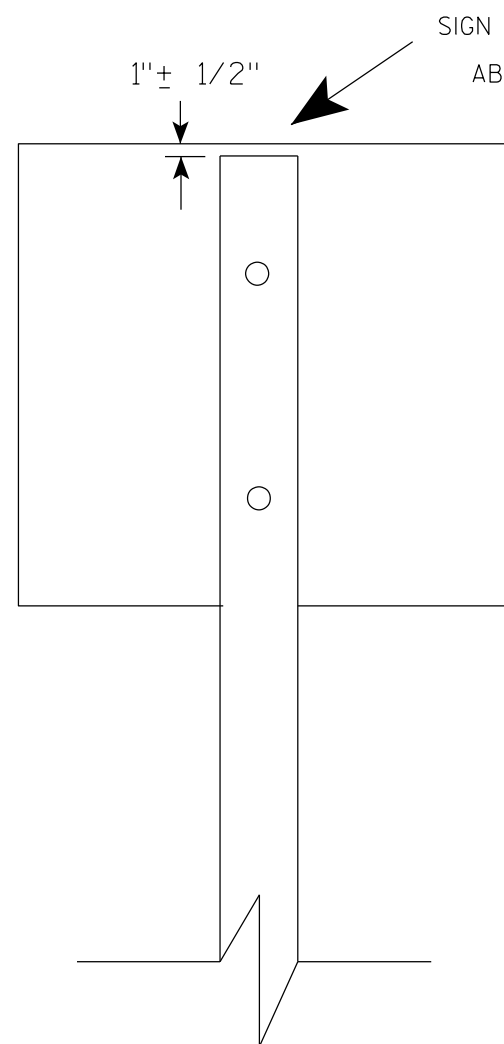
SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
L	E
Greater than 48" Less than 60"	12"
60" to 108"	L/5

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	<i>Matthew R. Rauch</i> 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.

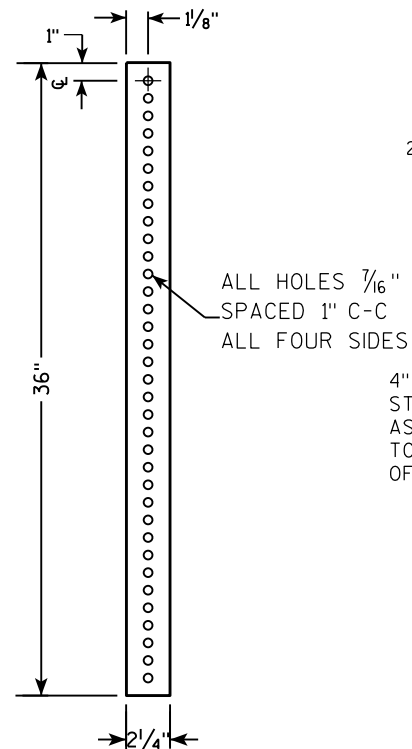
Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

- STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)
- MACHINE BOLTS - $\frac{5}{16}$ " X 1-3/4" Length w/ lock nuts
- WOOD POSTS (4" x 6")
- LAG SCREWS - $\frac{3}{8}$ " X 3" (NO STRINGERS ON BACK OF SIGN)
 $\frac{3}{8}$ " X 4" (STRINGERS ON BACK OF SIGN)
- SQUARE STEEL POSTS (2" x 2")
- MACHINE BOLTS - $\frac{3}{8}$ " X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
 $\frac{3}{8}$ " X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)
- RIVETS - $\frac{9}{32}$ " (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 $\frac{3}{8}$ " I.D. X $\frac{1}{16}$ " STEEL
 - 1-1/4" O.D. X $\frac{3}{8}$ " I.D. X .080 NYLON

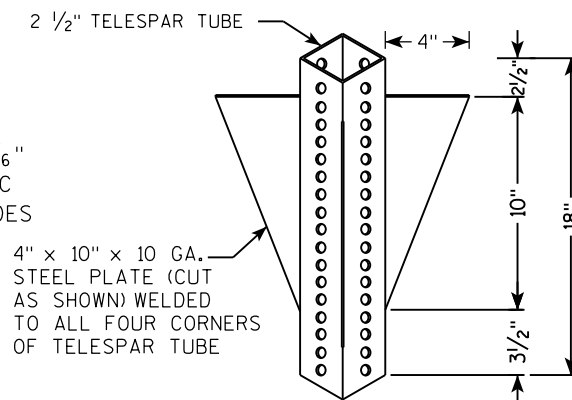
* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require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

ATTACHMENT OF SIGNS TO POSTS	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 4/1/2020	PLATE NO. A4-8.9

**2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH**



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



LENGTH SHOWN ON MISC. QTY'S
 18" DIA SCHEDULE 40 PVC BOX-OUT
 TELESCOPE PIECES FLUSH AT TOP
 36"
 18"
 13"
 2 1/2"
 2 1/4" SQUARE X 36"
 2 1/2" SQUARE X 18" (SOIL STABILIZING SLEEVE)
 3/8" ZINC PLATED ANCHOR BOLT AND NUT
 2 1/2" GRAVEL OR DIRT
 3/8" ZINC PLATED CORNER ANCHOR BOLT AND NUT
 ALL HOLES 7/16" SPACED 1" C-C ALL FOUR SIDES
 2" STEEL TUBULAR SQUARE UPPER SECTION
 SEE SIGN PLATE A4-8 FOR BOLT WASHER, & NUT MATERIAL
 SIGN

LENGTH SHOWN ON MISC. QTY'S

TELESCOPE PIECES FLUSH AT TOP

2" STEEL TUBULAR SQUARE UPPER SECTION

ALL HOLES $\frac{7}{16}$ " SPACED 1" C-C ALL FOUR SIDES

$\frac{3}{8}$ " ZINC PLATED CORNER ANCHOR BOLT AND NUT

1"

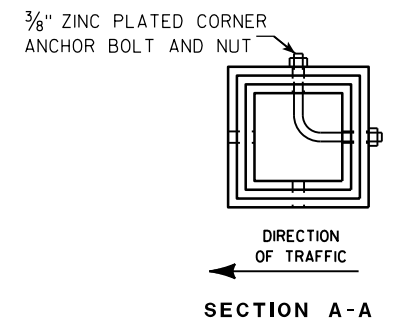
$\frac{3}{8}$ " ZINC PLATED ANCHOR BOLT AND NUT

2 1/2" SQUARE X 18" (SOIL STABILIZING SLEEVE)

2 1/4" SQUARE X 36"

SEE SIGN PLATE A4-8 FOR BOLT WASHER, & NUT MATERIAL

SIGN



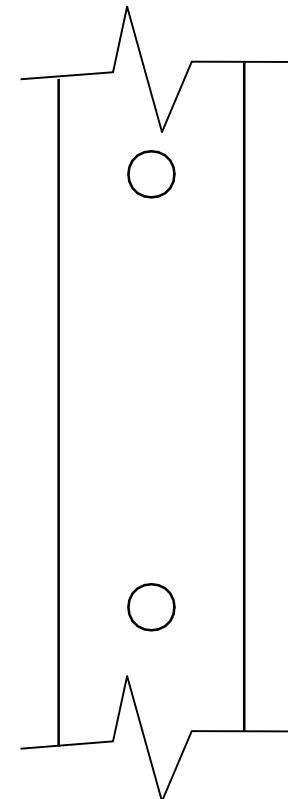
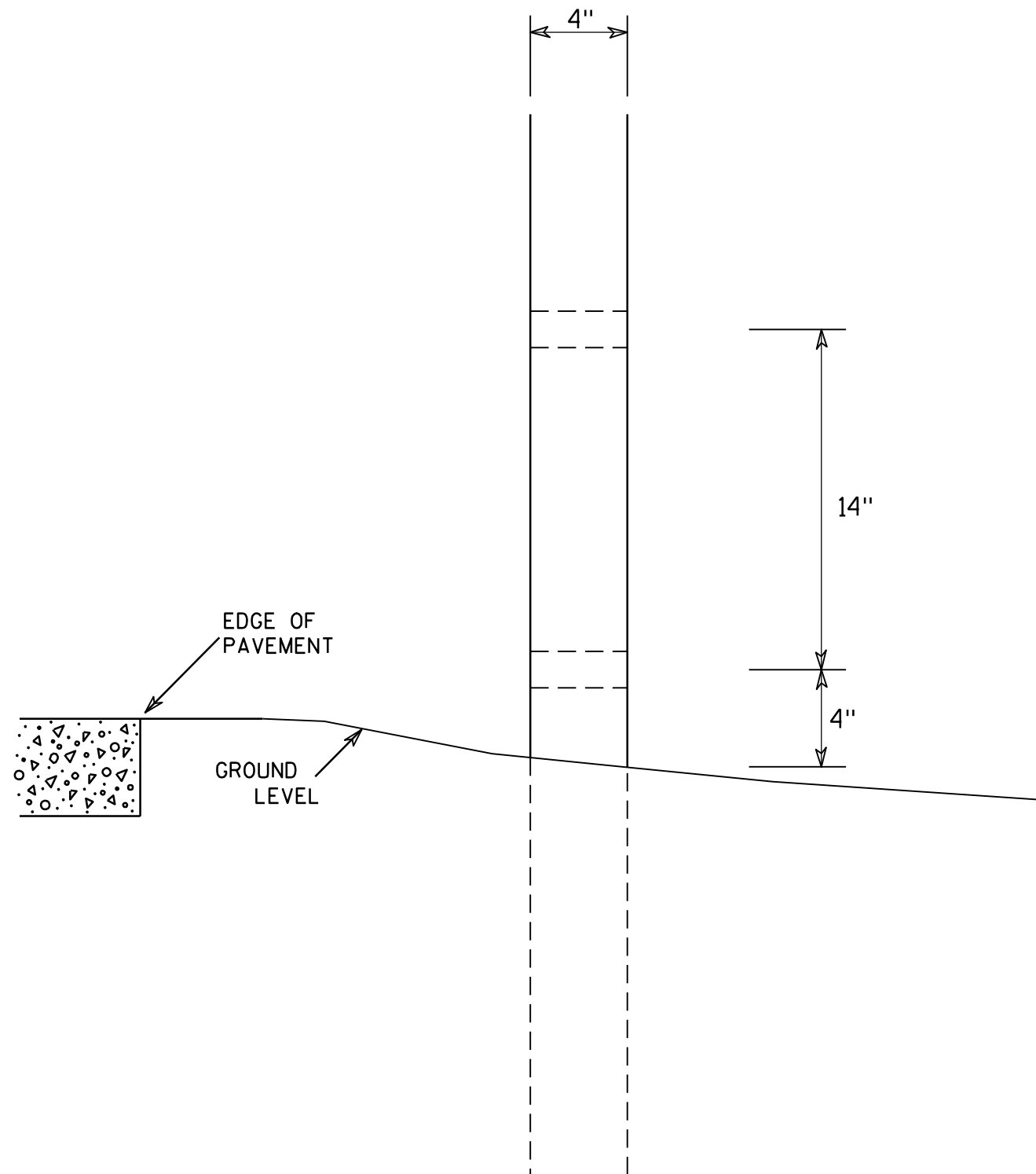
Area of Sign Installation (Sq. Ft.)	Number of Required Posts
9 or less	1
Greater than 9 less than or equal to 18	2
Greater than 18 less than or equal to 27	3

TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 2/05/15 PLAT 62 14-9.9



SIDE VIEW

GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1 1/2" diameter holes drilled perpendicular to the roadway centerline.

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Chester J. Spang
for State Traffic Engineer

DATE 3/27/97

PLATE NO. A4-11.2

PROJECT NO:

HWY:

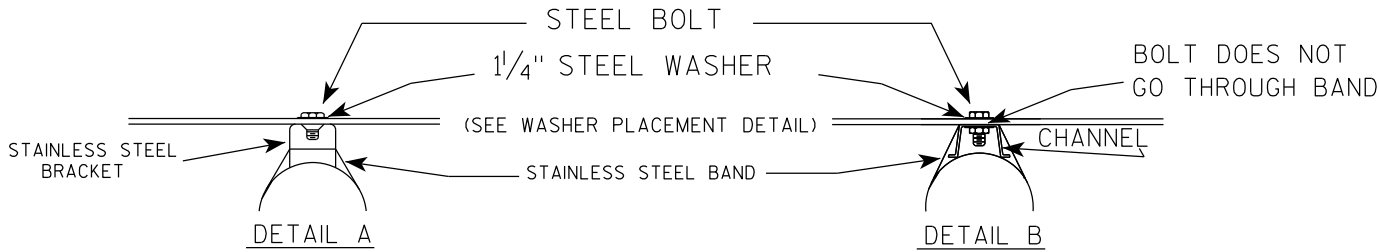
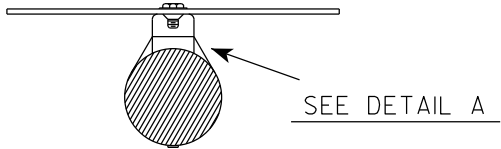
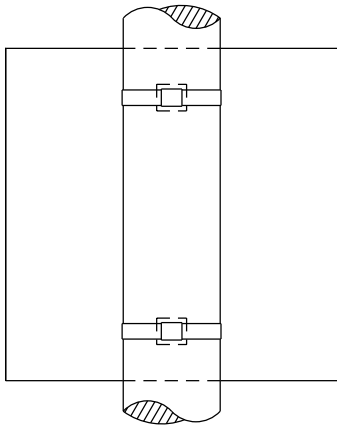
COUNTY:

SHEET NO: 63

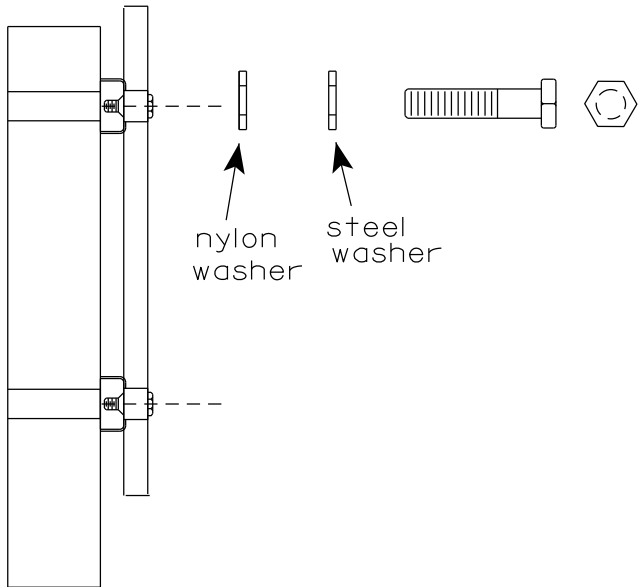
E

BANDING

SINGLE SIGN



WASHER PLACEMENT

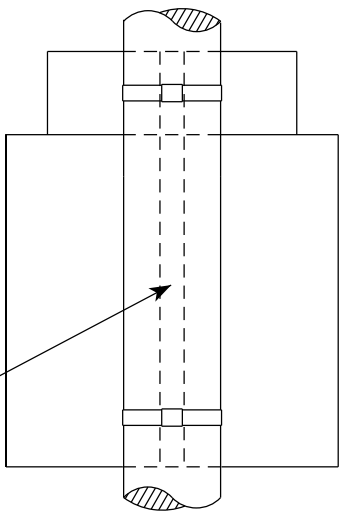


WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

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

SEE DETAIL B

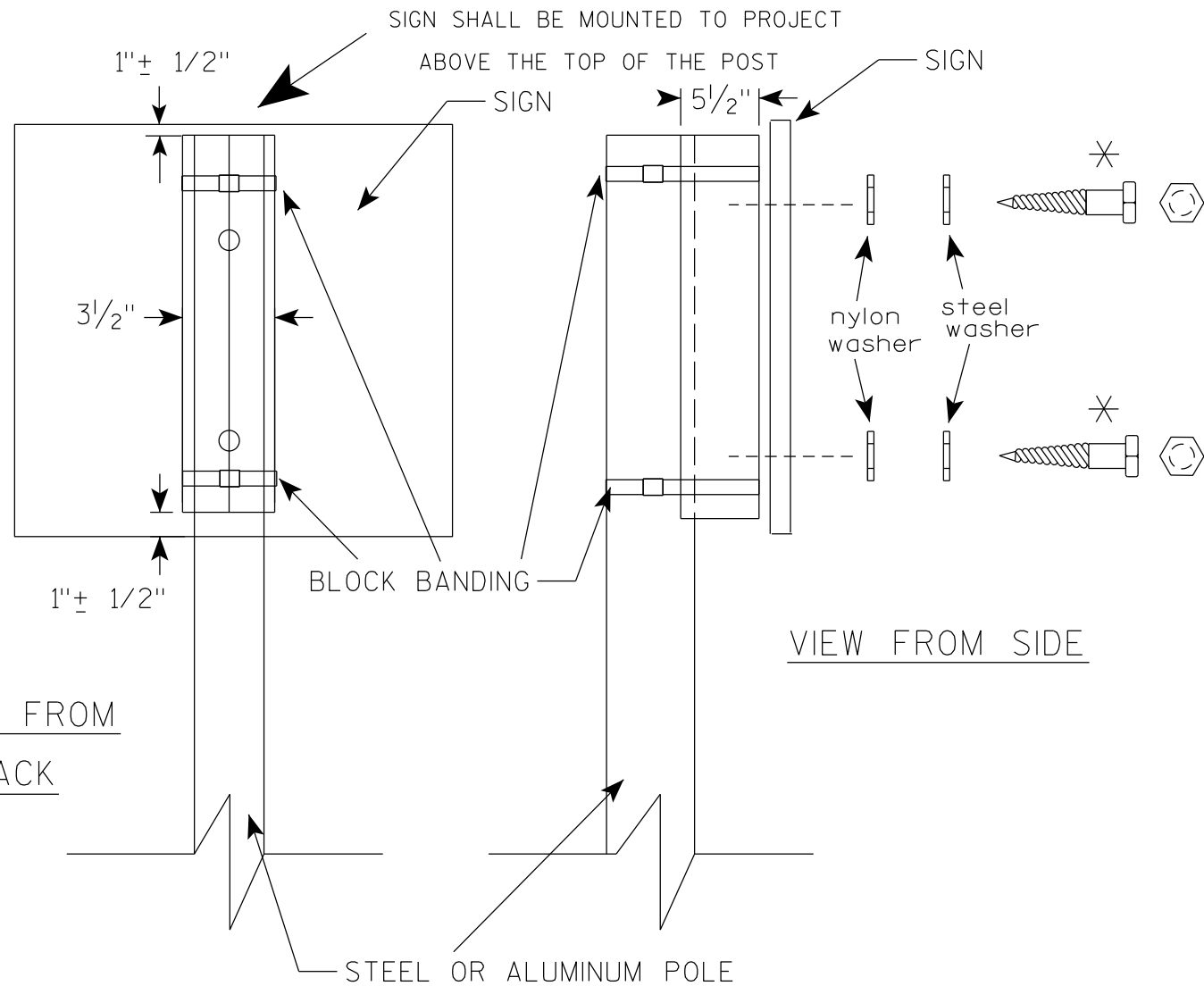
STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

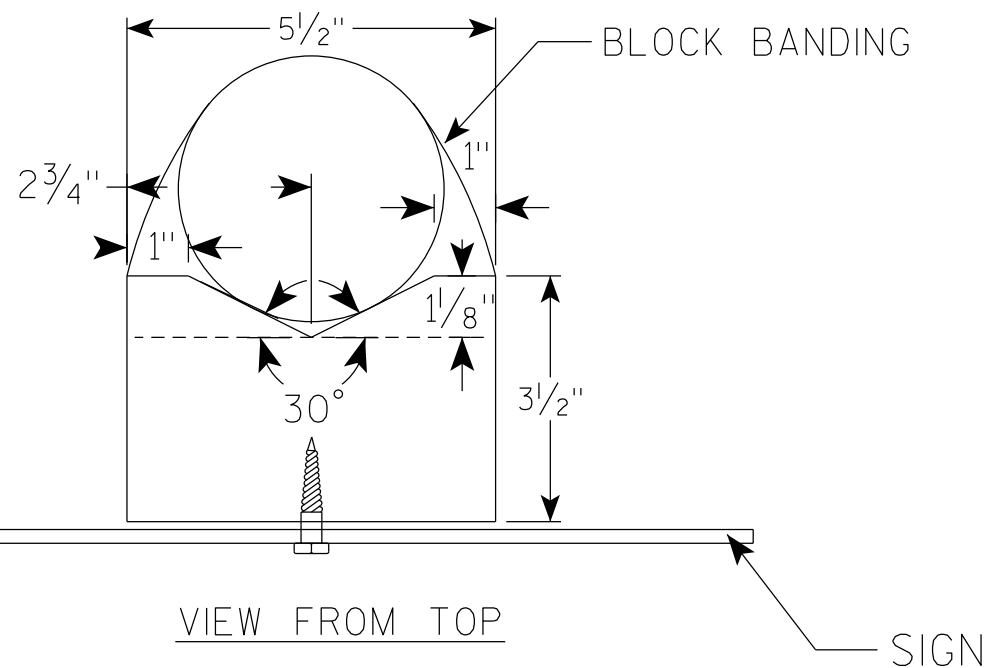
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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

VIEW FROM
BACK



VIEW FROM SIDE



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, $\frac{3}{4}$ " 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 $1\frac{1}{4}$ " O.D. X $\frac{3}{8}$ " I.D. X $\frac{1}{16}$ "
8. NYLON WASHERS SHALL BE $1\frac{1}{4}$ " O.D. X $\frac{3}{8}$ " I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✱ LAG BOLTS SHALL BE $\frac{3}{8}$ " X $2\frac{1}{2}$ "

BLOCK BANDING DETAIL
(V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

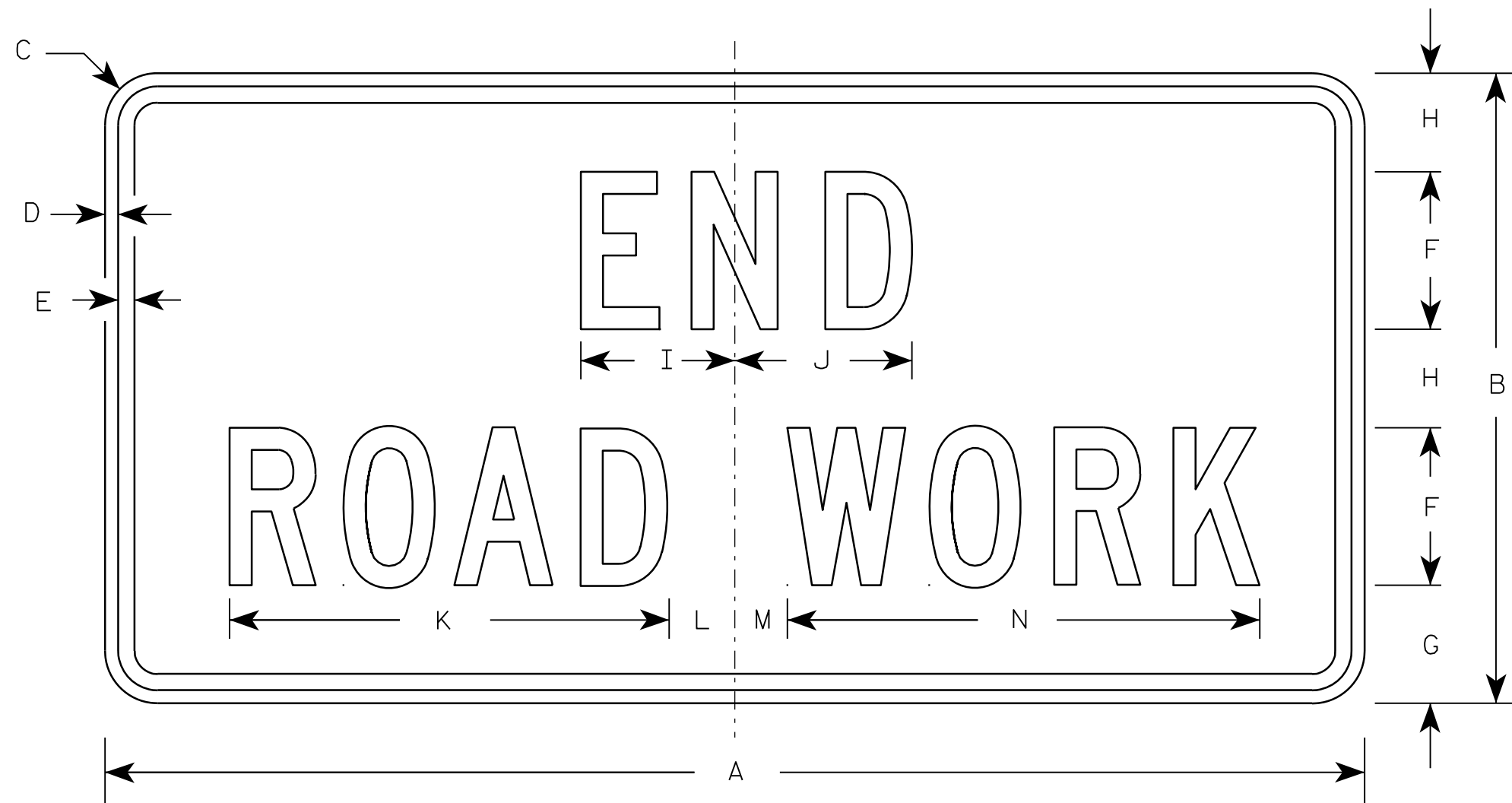
DATE 6/10/19 PLATE NO. A5-10.2

PROJECT NO:

SHEET NO: 65

E

7



G20-2A

Metric equivalent
for this sign is:

SIZE	
1	900 mm X 450 mm
2	1200 mm X 600 mm
3	1200 mm X 600 mm
4	1200 mm X 600 mm
5	1200 mm X 600 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 sq. m.
1	36	18	1 1/8	3/8	1/2	4	3 3/4	2 1/2	4 1/8	4 1/8	11 1/8	2	1	12 1/8													4.5	0.41
2	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
3	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
4	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
5	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72

NOTES

- Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:
Background - Orange
Message - Black
- 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.

7

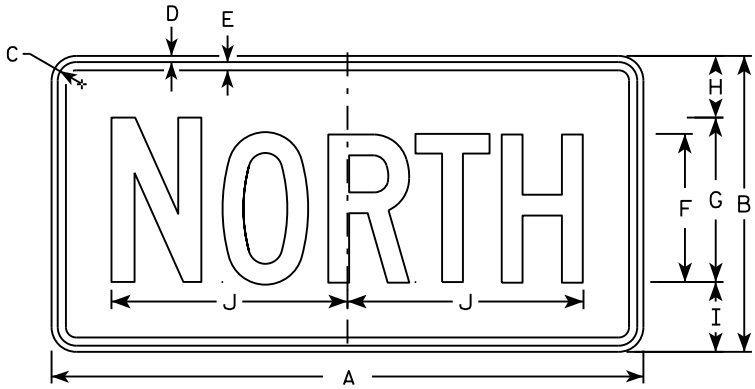
PROJECT NO:

HWY:

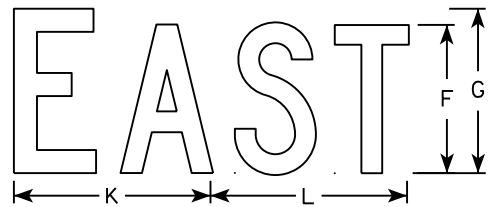
COUNTY:

SHEET NO: 66

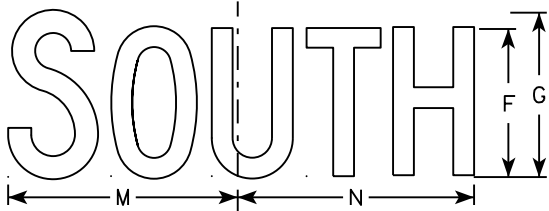
E



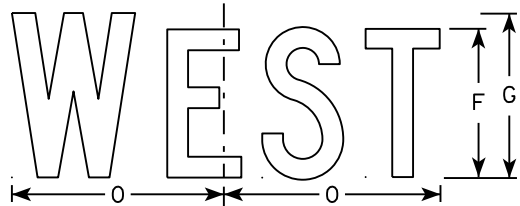
M3-1
MM3-1
MP3-1



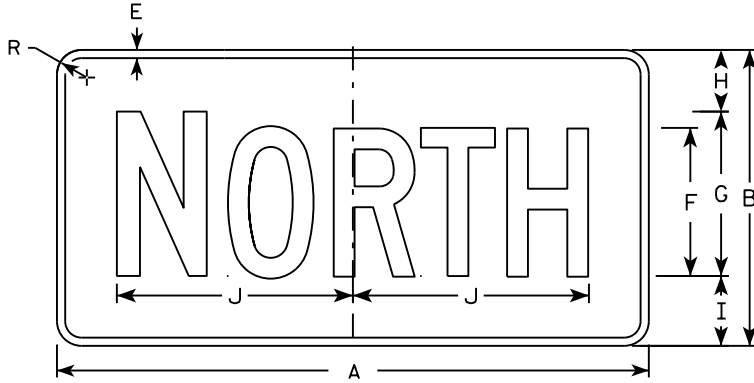
M3-2
MM3-2
MP3-2



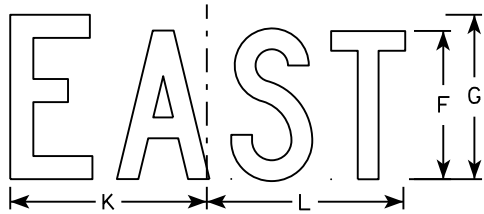
M3-3
MM3-3
MP3-3



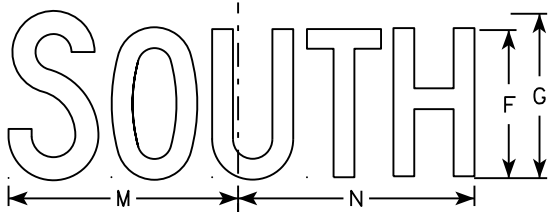
M3-4
MM3-4
MP3-4



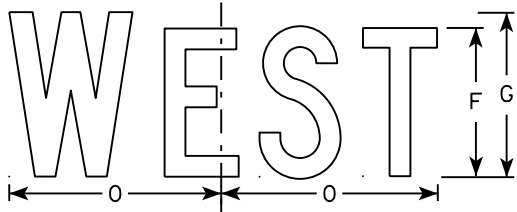
MB3-1
MK3-1
MN3-1



MB3-2
MK3-2
MN3-2



MB3-3
MK3-3
MN3-3



MB3-4
MK3-4
MN3-4

NOTES

1. All Signs Type II - Type H
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. M3-1 thru M3-4 Background - White
Message - Black
MB3-1 thru MB3-4 Background - Blue
Message - White
MK3-1 thru MK3-4 Background - Green
Message - White
MM3-1 thru MM3-4 Background - White
Message - Green
MN3-1 thru MN3-4 Background - Brown
Message - White
MP3-1 thru MP3-4 Background - White
Message - Blue
6. Note the first letter of each direction is larger than the remainder of the message.

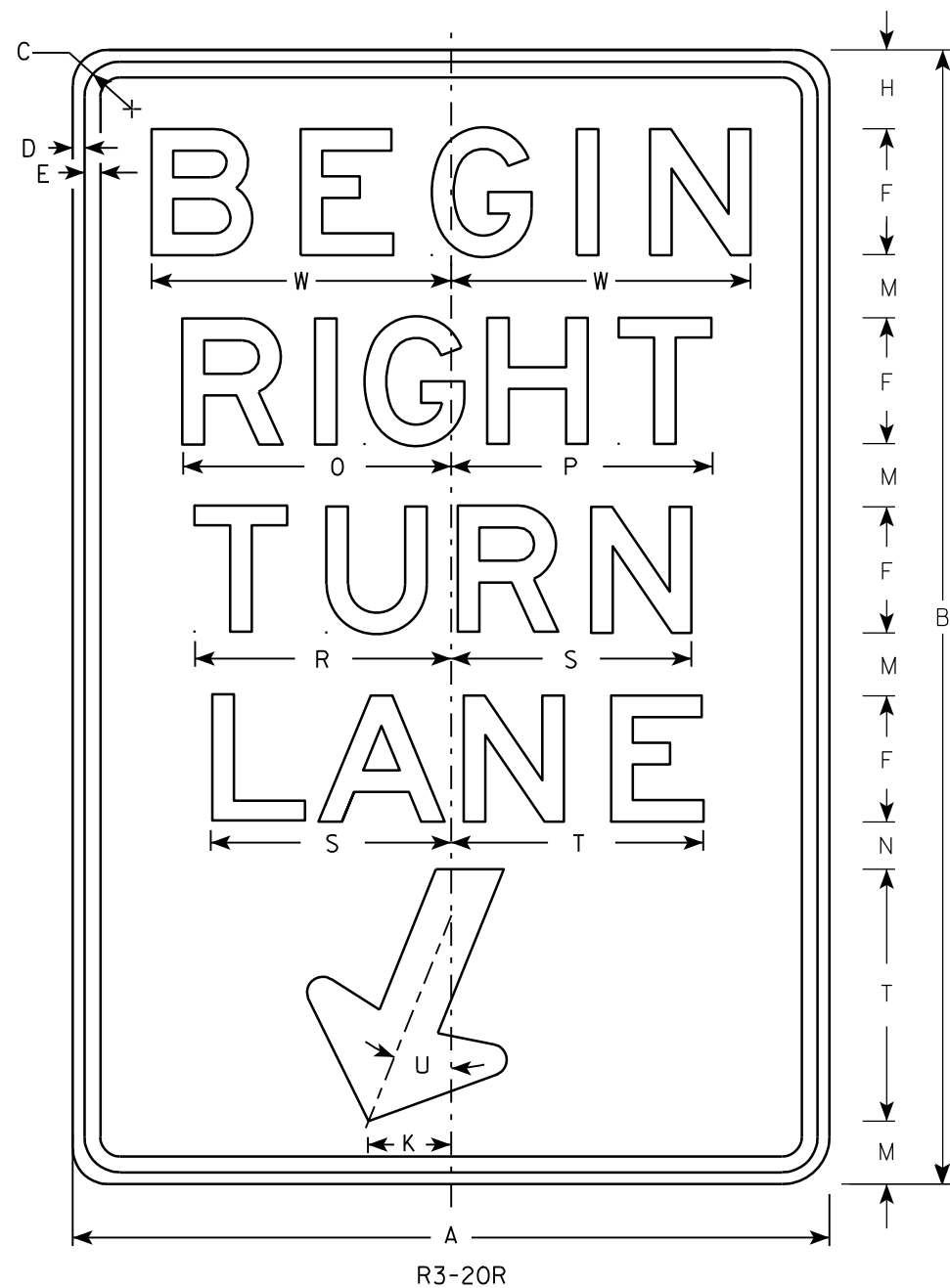
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4			1 1/2									2.00
3	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
4	36	18	1 1/8	3/8	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

STANDARD SIGNS
M3-1 thru M3-4
SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

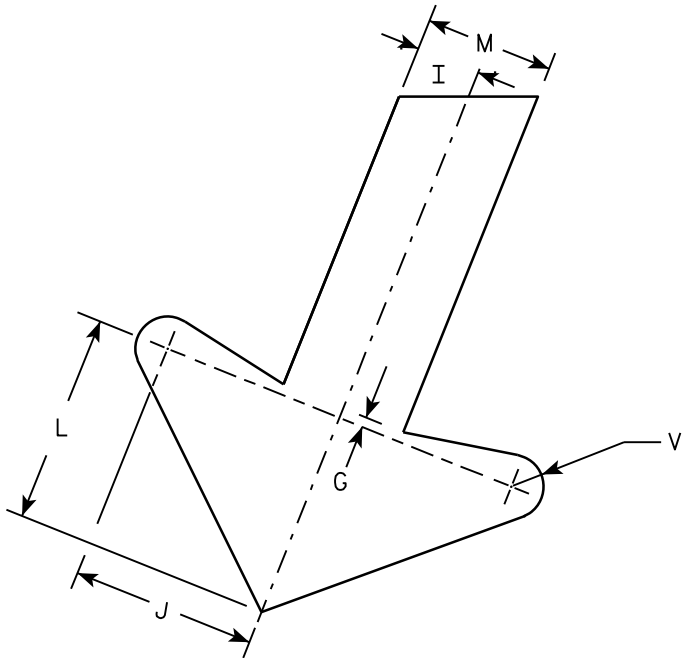
DATE 10/15/15 PLATE NO. 67 M3-1.14



R3-20R

NOTES

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



ARROW 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																											
2S	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	8 1/2	8 1/4		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
2M	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	8 1/2	8 1/4		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
3	36	54	1 3/4	1/2	5/8	6	3/8	3 3/4	1 1/2	4 1/4	4	4 7/8	3	2 1/4	12 3/4	12 1/2		12 1/4	11 1/2	12	22°	3/4	13 1/4				13.5
4																											
5																											

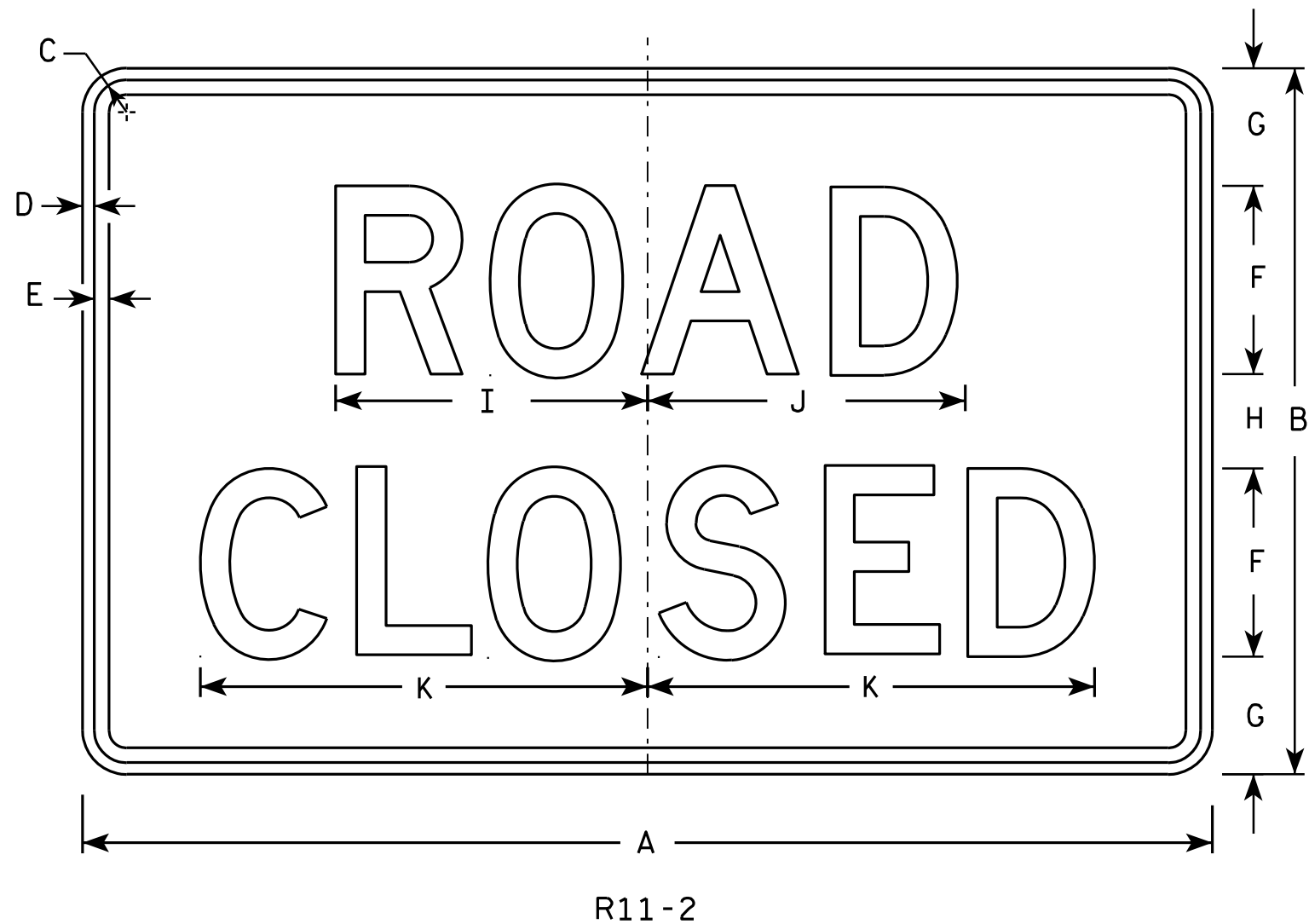
PROJECT NO:

HWY:

COUNTY:

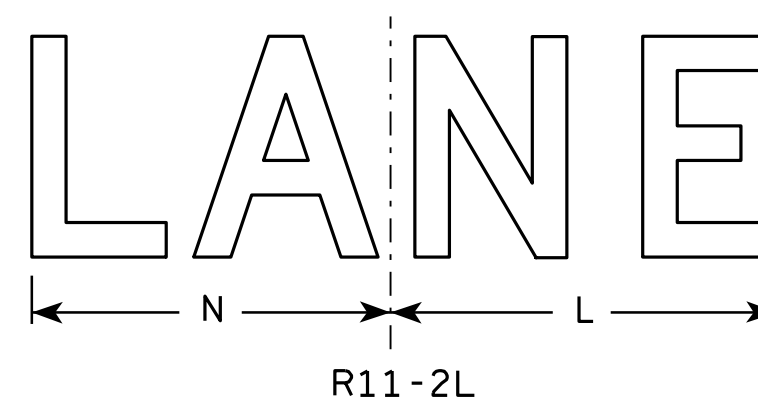
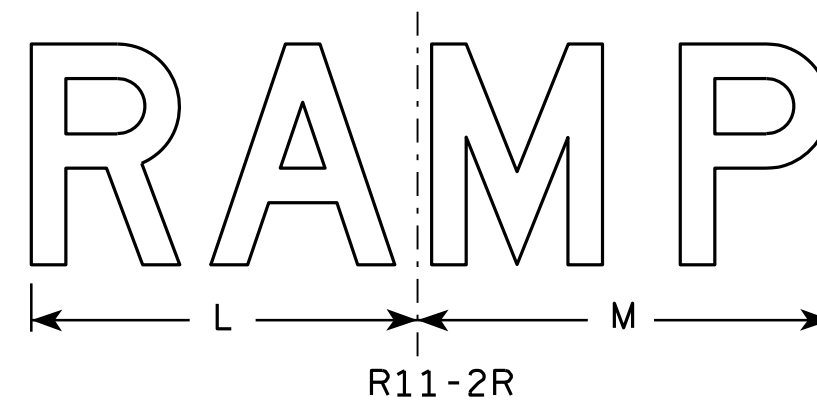
SHEET NO: 68

E



NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - Black
3. Message Series - D
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. Modify the message as required.



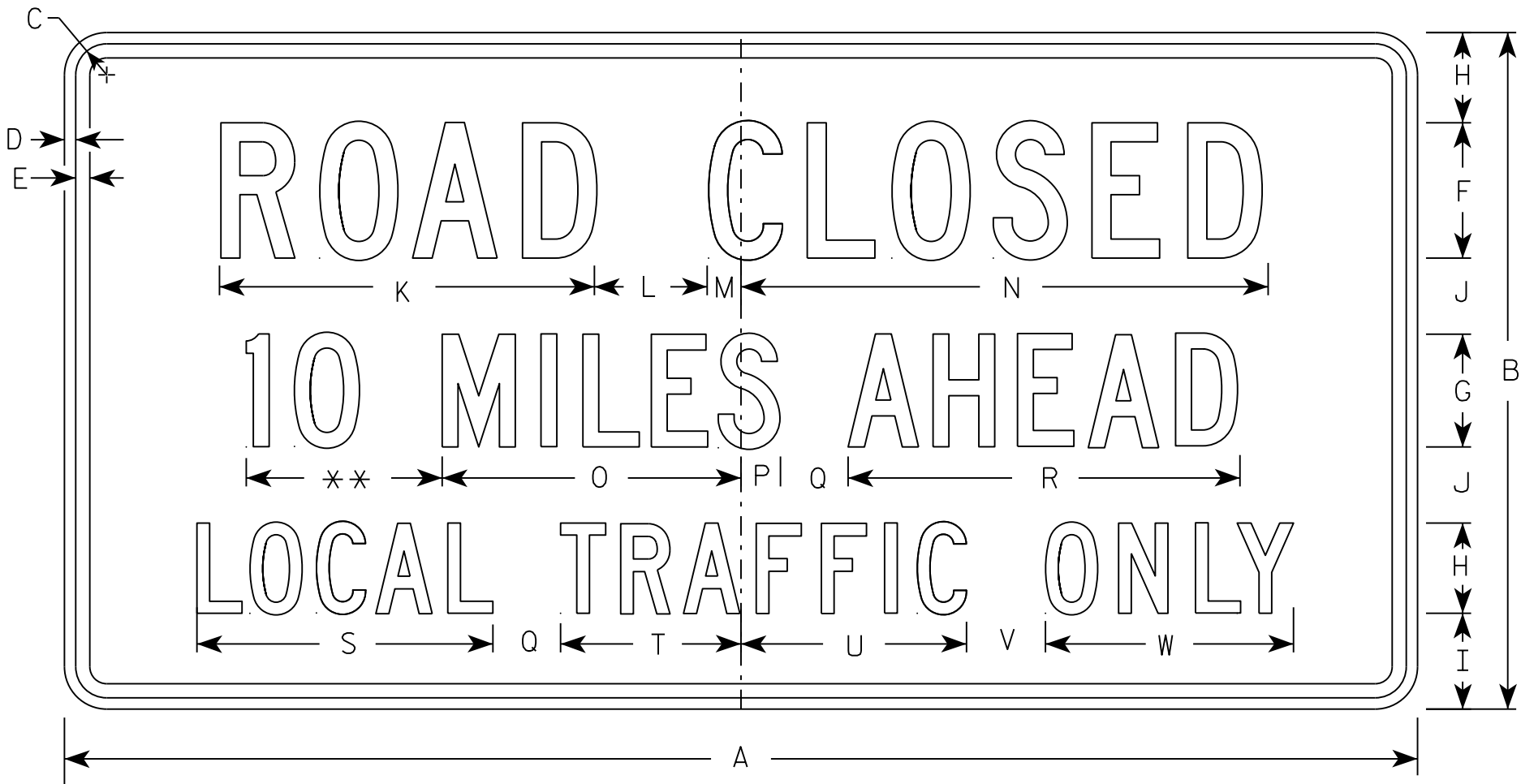
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	1 3⁄8	1⁄2	5⁄8	8	5	4	13 1⁄4	13 1⁄2	19	14	15	13													10.0
2M	48	30	1 3⁄8	1⁄2	5⁄8	8	5	4	13 1⁄4	13 1⁄2	19	14	15	13													10.0
3	48	30	1 3⁄8	1⁄2	5⁄8	8	5	4	13 1⁄4	13 1⁄2	19	14	15	13													10.0
4	48	30	1 3⁄8	1⁄2	5⁄8	8	5	4	13 1⁄4	13 1⁄2	19	14	15	13													10.0
5	48	30	1 3⁄8	1⁄2	5⁄8	8	5	4	13 1⁄4	13 1⁄2	19	14	15	13													10.0

STANDARD SIGN	
R11-2	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> for State Traffic Engineer
DATE <u>4/1/11</u>	PLATE NO. <u>R11-2.10</u>

PROJECT NO:	HWY:	COUNTY:	SHEET NO: 69	E
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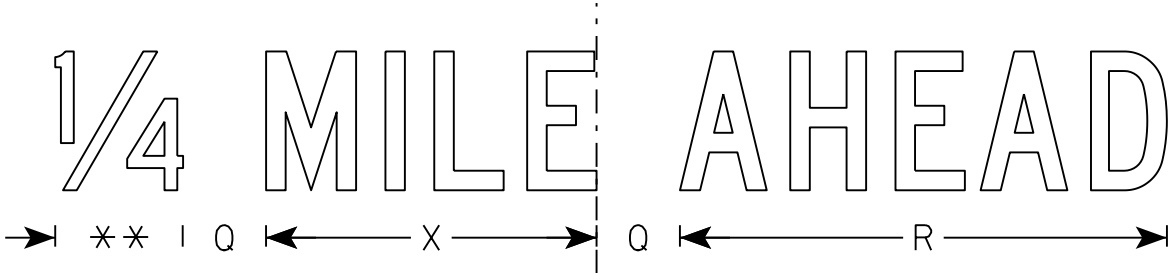
NOTES

- 1. Sign is Type II - Type H Reflective
- 2. Color:
 - Background - White
 - Message - Black
- 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. Substitute appropriate numerals to nearest quarter mile and optically adjust spacing to achieve proper balance.



R11-3

** See Note 5

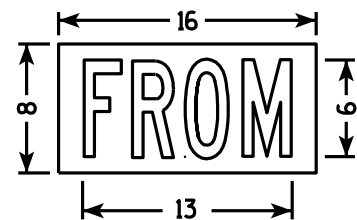
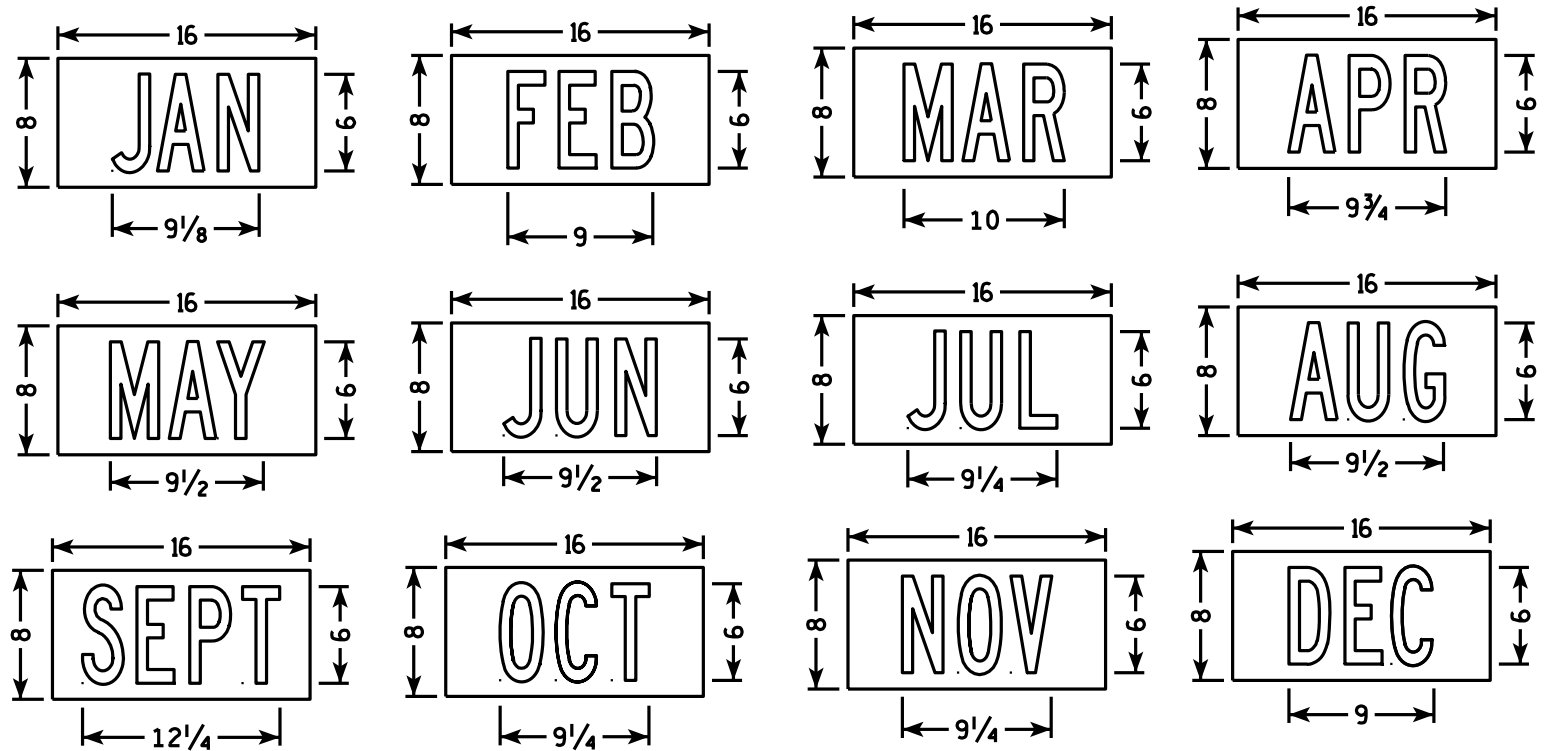
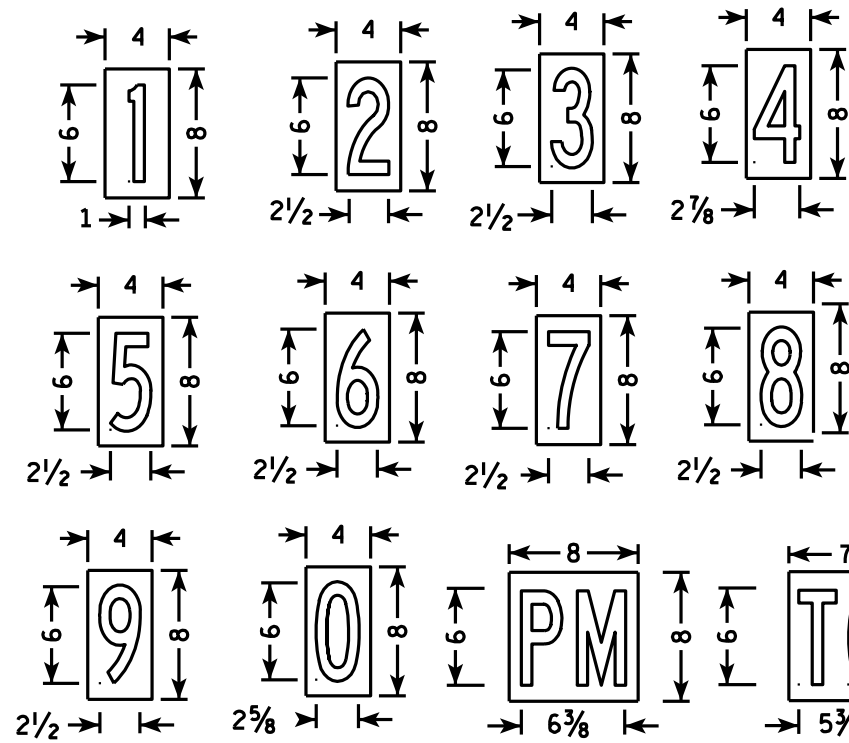
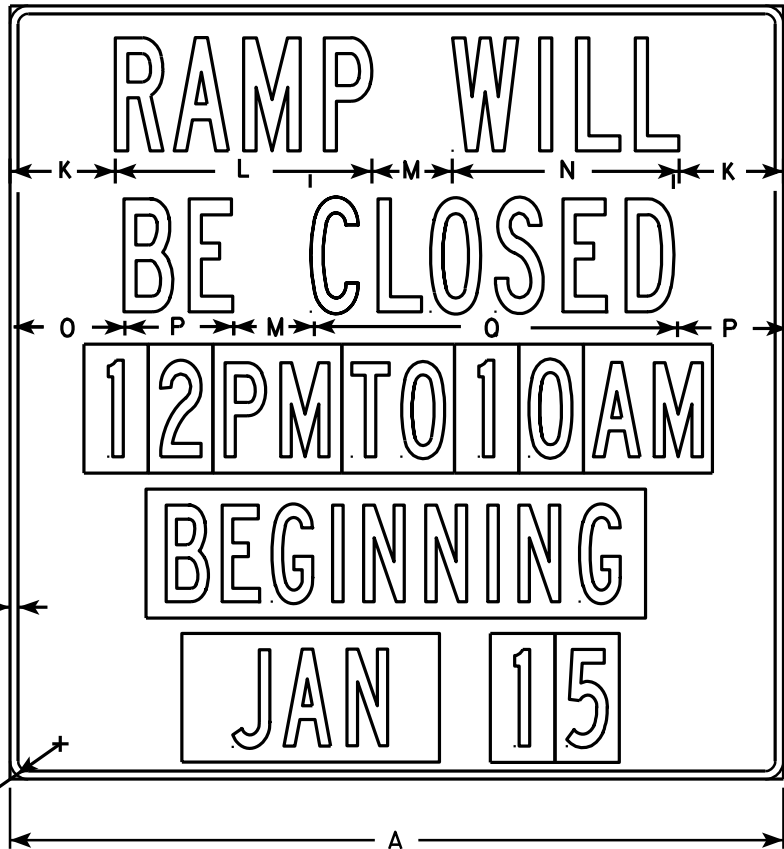


SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	18	1 3⁄8	1⁄2	5⁄8	4	3	2 1⁄2	2	2	11 1⁄8	3	1 1⁄8	15 1⁄4	8	1 1⁄2	2	10 3⁄4	8 3⁄8	4 3⁄4	6 1⁄2	2	6 3⁄4	7 1⁄8			4.5
2S	60	30	1 3⁄8	1⁄2	5⁄8	6	5	4	4 1⁄4	3 3⁄8	16 5⁄8	5	1 1⁄2	23	13 1⁄4	1 3⁄4	3	17 3⁄8	13 1⁄8	8	10	3 1⁄2	11	11 7⁄8			12.5
2M	60	30	1 3⁄8	1⁄2	5⁄8	6	5	4	4 1⁄4	3 3⁄8	16 5⁄8	5	1 1⁄2	23	13 1⁄4	1 3⁄4	3	17 3⁄8	13 1⁄8	8	10	3 1⁄2	11	11 7⁄8			12.5
3																											
4																											
5																											

STANDARD SIGN
R11-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer
DATE 3/15/17 PLATE NO. R11-3.8



NOTES

- 1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:
Background - White
Message - Black
- 3. Message Series - B
- 4. Message plaques consist of Type H Reflective sheeting with the appropriate non-reflective black message applied to .040 aluminum and screwed to the base sign.

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		2 1/4	1/2		2	6	7	3		6 1/2	15 7/8	5	14 1/8	6 7/8	6 3/4	22 1/2										16.0
2M	48		2 1/4	1/2		2	6	7	3		6 1/2	15 7/8	5	14 1/8	6 7/8	6 3/4	22 1/2										16.0
3																											
4																											
5																											

STANDARD SIGN
R11-51

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 4/1/11 PLATE NO. R11-51.4

PROJECT NO:

HWY:

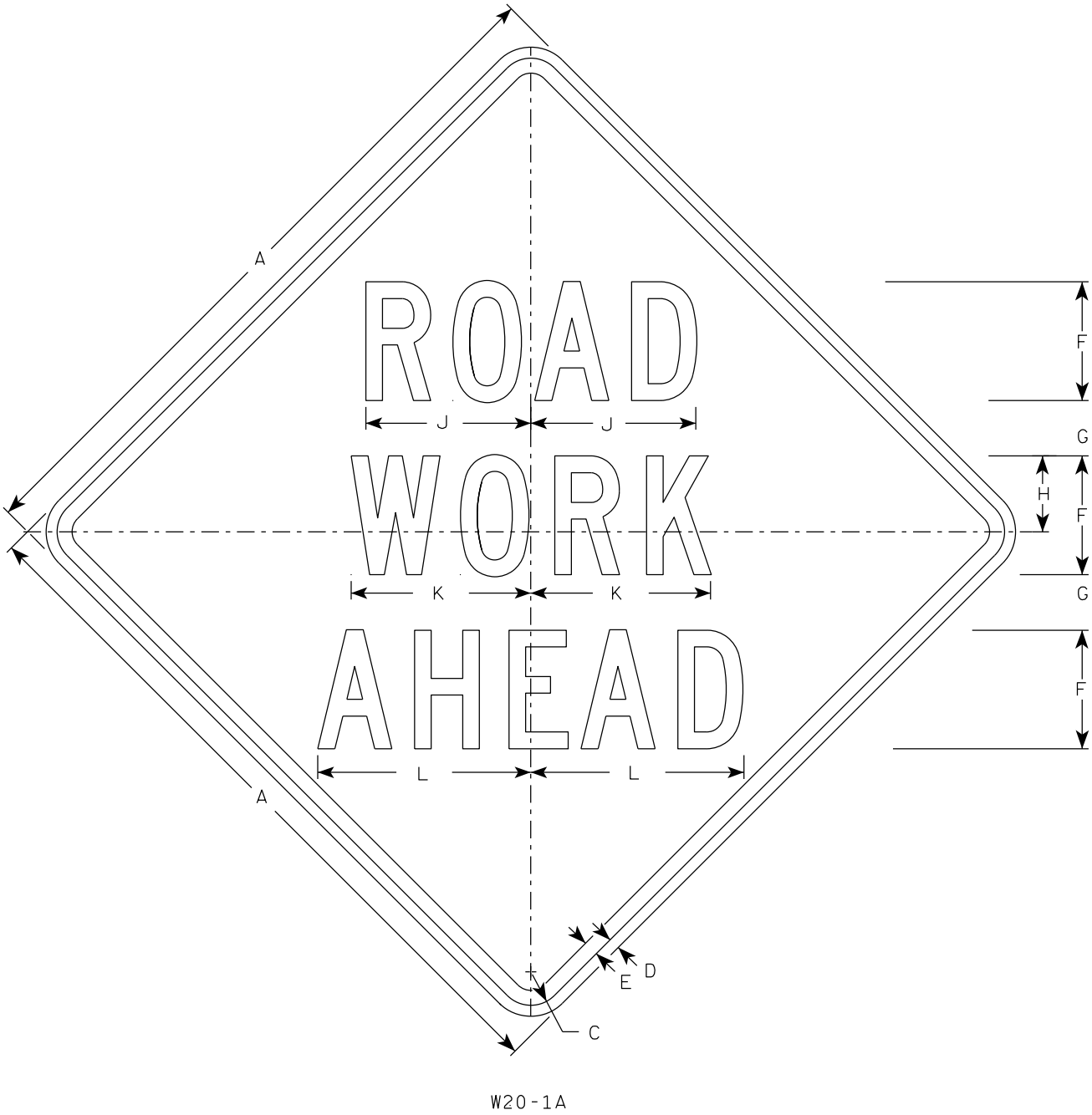
COUNTY:

SHEET NO: 71

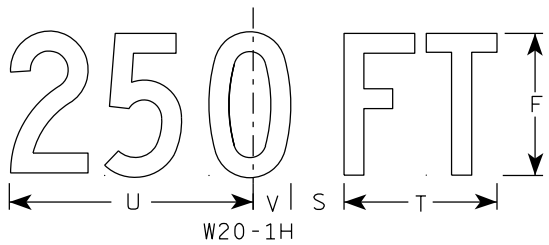
E

NOTES

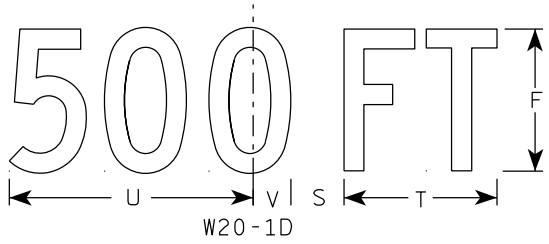
- 1. Sign is Type II - Type F Reflective
- 2. Color:
 - Background - Orange
 - Message - Black
- 3. Message Series - C
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



W20-1A



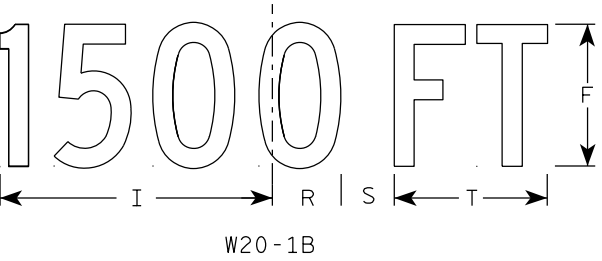
W20-1H



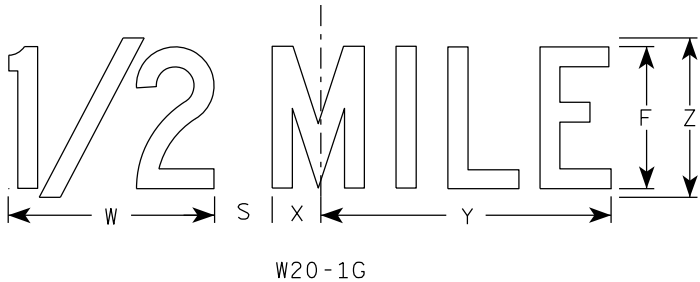
W20-1D



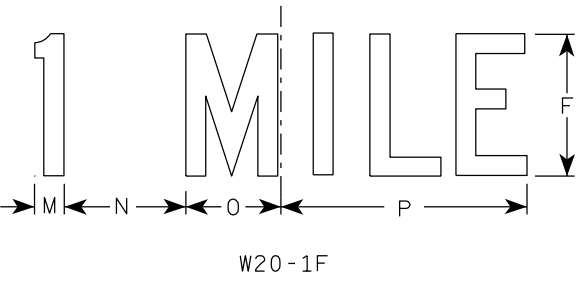
W20-1C



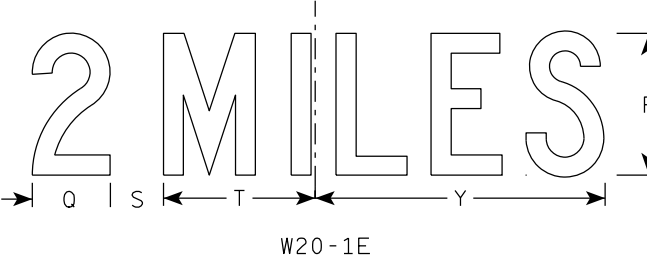
W20-1B



W20-1G



W20-1F



W20-1E

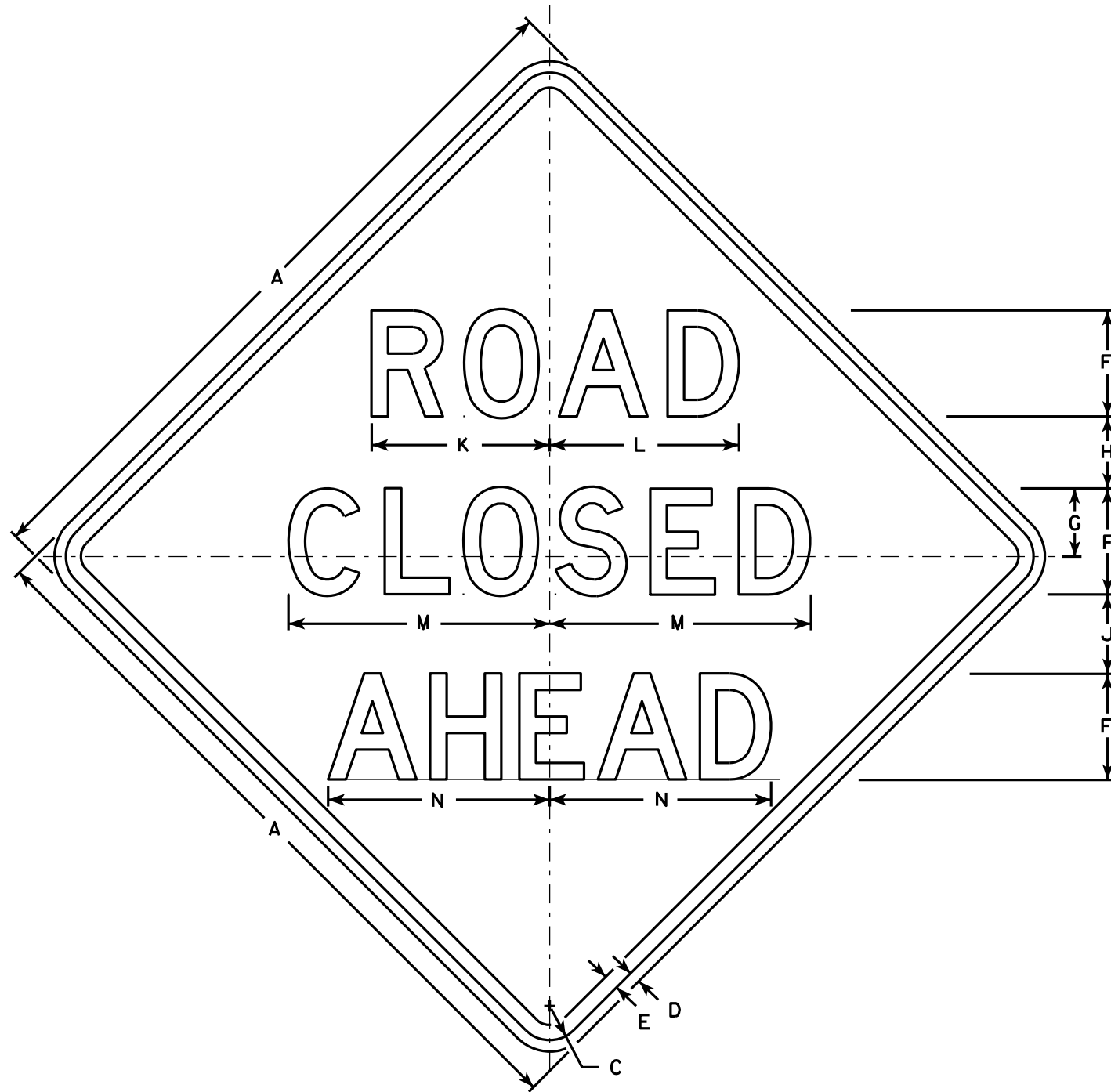
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	A _{req} sq. ft.
1	36		1 5/8	5/8	3/4	5	2 5/8	3 1/4	10 1/8	7	7 5/8	8 7/8	1 1/8	4 1/2	3 1/2	9	3 1/4	2 1/2	2 1/4	5 5/8	9	1 3/8	8	1 3/4	10 3/4	6	9.0
2S	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
2M	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
3	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
4	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
5	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0

STANDARD SIGN
W20-1A, B, C, D, E, F, G & H

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/25/2020 PLATE NO. W20-1.11



W20-3A

500 FT

W20-3D

1000 FT

W20-3C

1500 FT

W20-3B

1/2 MILE

W20-3G

1 MILE

W20-3F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Orange
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. Lines 1 and 2 are Series D.
Line 3 is Series D for AHEAD and Series C for all other distances.

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	36		1 5/8	5/8	3/4	5	3 3/8	3 1/2	1 1/8	4	8 3/8	8 7/8	12 1/2	11	9	6	10 1/8	2 1/2	1 7/8	5 5/8	8	1 3/8	4 1/2	3 1/2	10 3/4	1 3/4	9.0
2S	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
2M	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
3	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
4	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
5	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0

STANDARD SIGN
W20-3A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-3.7

PROJECT NO:

HWY:

COUNTY:

SHEET NO: 73

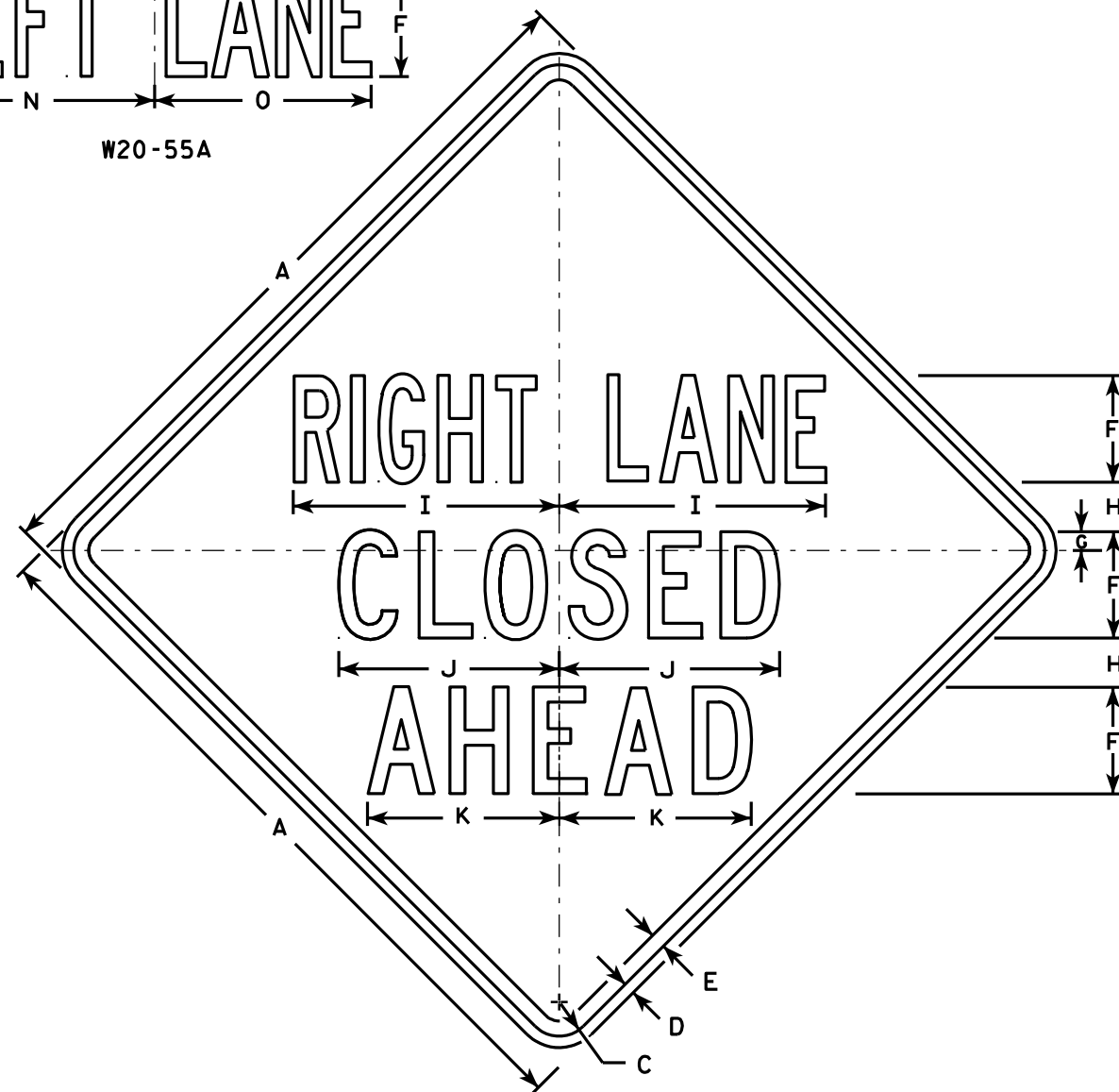
E

CENTER LANE

W20-56A

LEFT LANE

W20-55A



W20-5A

500 FT

W20-5D

1000 FT

W20-5C

1500 FT

W20-5B

1/2 MILE

W20-5G

1 MILE

W20-5F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Orange
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. "----- LANE" is Series B.
All other copy is Series C.

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	36	6	1 5/8	5/8	3/4	5	7/8	2 1/2	13 1/8	10 3/4	9 1/2	14 1/4	13 5/8	12	12	1 3/8	1 1/8	4 1/2	3 1/2	9	1 7/8	5 5/8	10 1/8	2 1/2	1 3/4	8	9.0
2S	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
2M	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
3	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
4	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
5	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0

PROJECT NO:

HWY:

COUNTY:

STANDARD SIGN
W20-5A, B, C, D, F & G

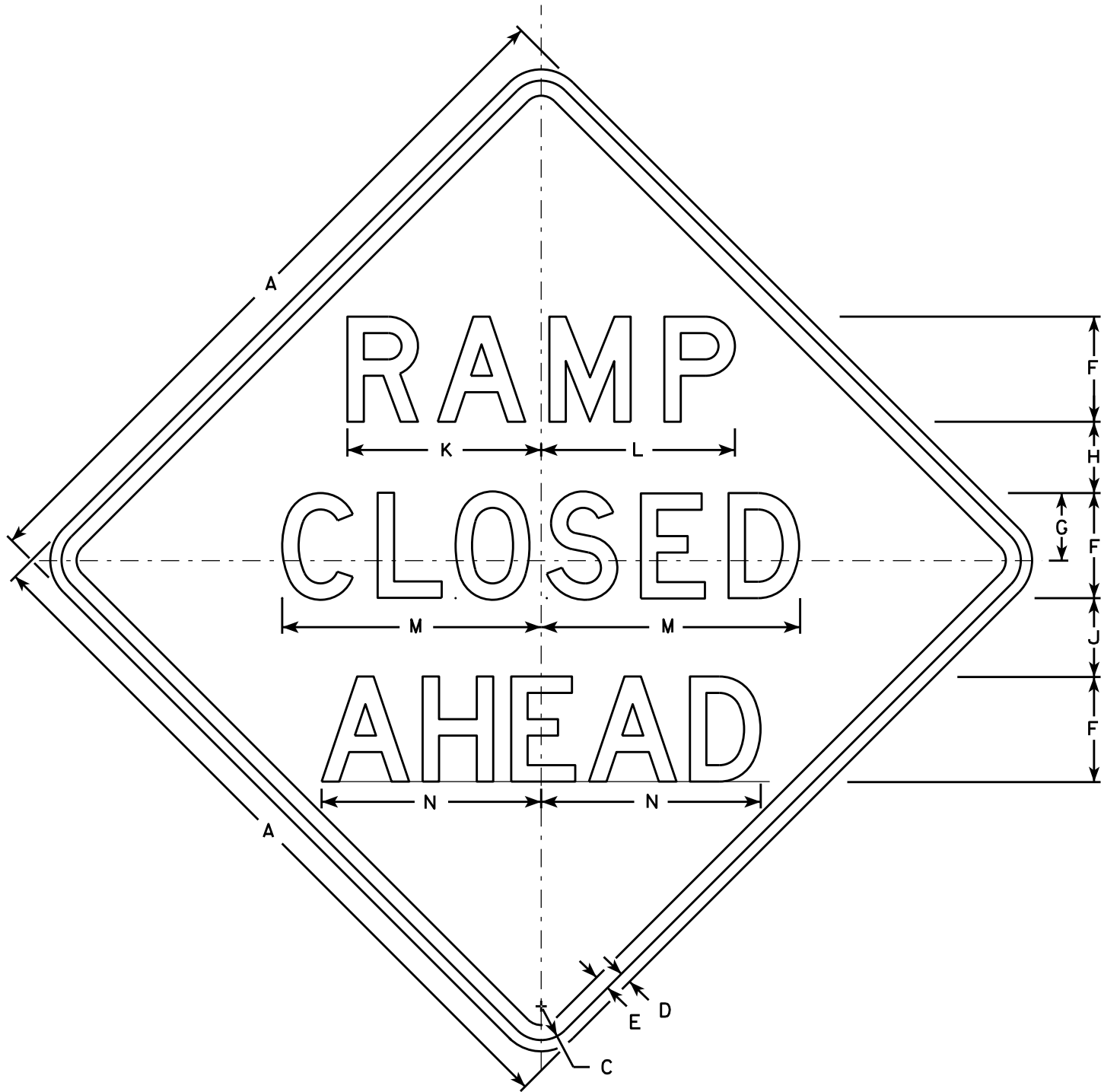
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

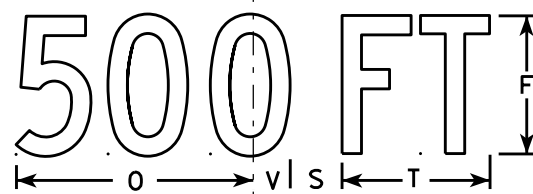
DATE 3/18/11 PLATE NO. W20-5.11

SHEET NO: 74

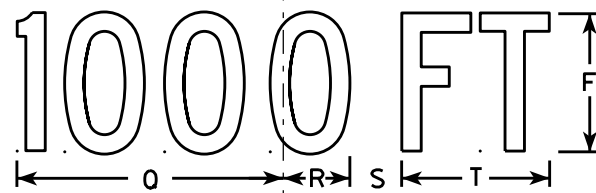
E



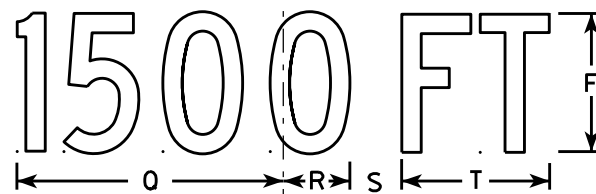
W20-53A



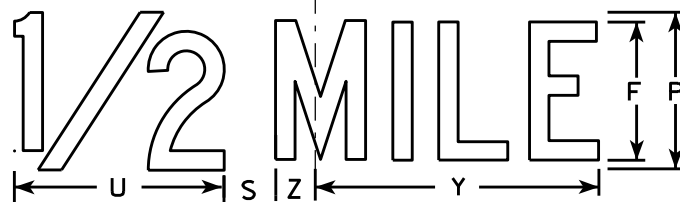
W20-53D



W20-53C



W20-53B



W20-53G



W20-53F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Orange
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. Lines 1 and 2 are Series D.
Line 3 is Series D for AHEAD and Series C for all other distances.

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	36		1 5/8	5/8	3/4	5	3 3/8	3 1/2	1 1/8	4	9 1/4	9 1/4	12 1/2	11	9	6	10 1/8	2 1/2	1 7/8	5 5/8	8	1 3/8	4 1/2	3 1/2	10 3/4	1 3/4	9.0
2S	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	12 7/8	12 7/8	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
2M	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	12 7/8	12 7/8	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
3	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	12 7/8	12 7/8	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
4	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	12 7/8	12 7/8	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
5	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	12 7/8	12 7/8	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0

STANDARD SIGN
W20-53A,B,C,D,F,G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 5/27/15 PLATE NO. W20-53.1

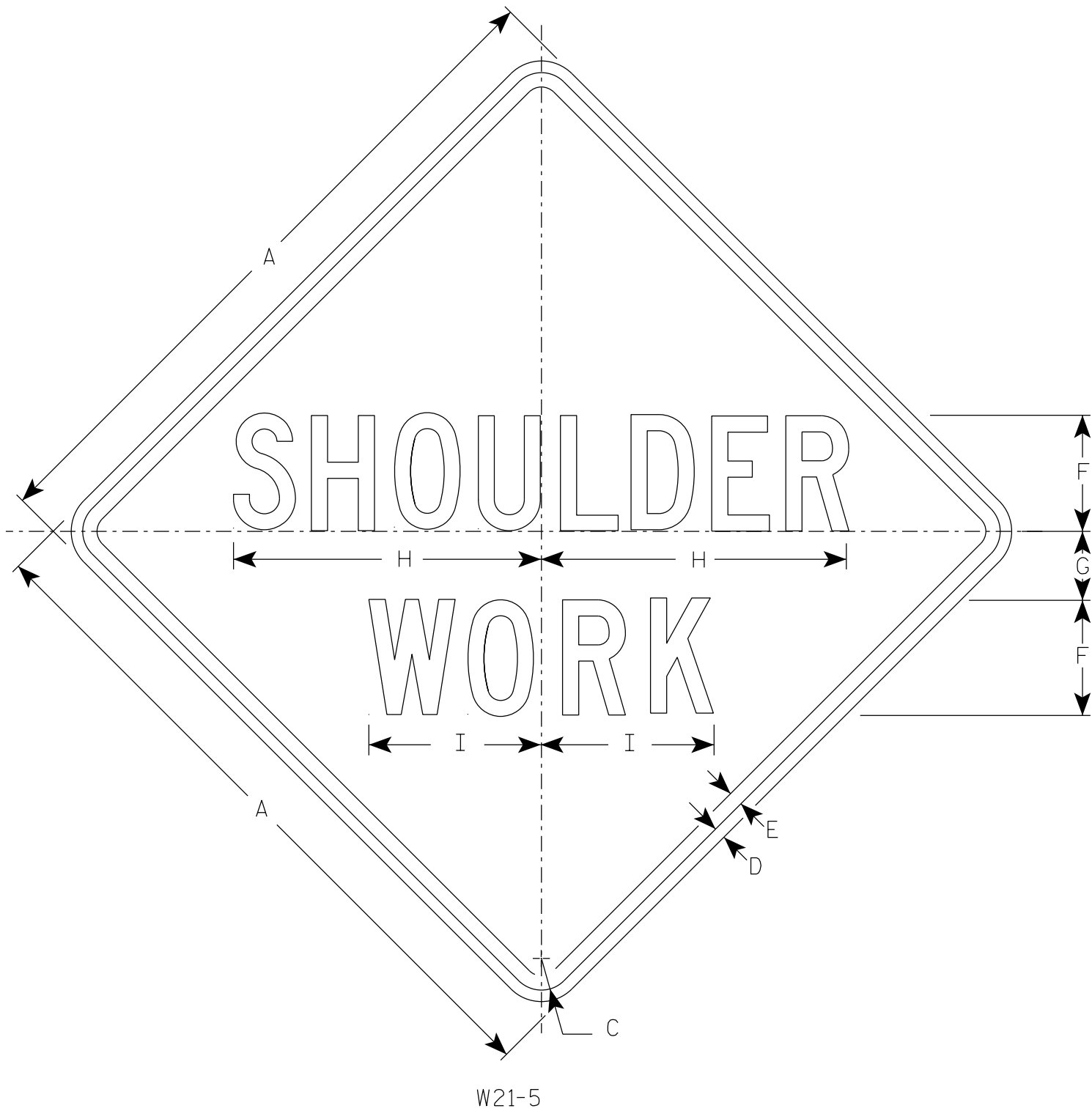
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



NOTES

- 1. Sign is Type II - Type F Reflective
- 2. Color:
 - Background - Orange
 - Message - Black
- 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.

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	36		1 5/8	5/8	3/4	6	3 1/2	16	9																		9.0
2S	48		2 1/4	3/4	1	8	5	21 3/8	11 1/4																		16.0
2M	48		2 1/4	3/4	1	8	5	21 3/8	11 1/4																		16.0
3	48		2 1/4	3/4	1	8	5	21 3/8	11 1/4																		16.0
4	48		2 1/4	3/4	1	8	5	21 3/8	11 1/4																		16.0
5	48		2 1/4	3/4	1	8	5	21 3/8	11 1/4																		16.0

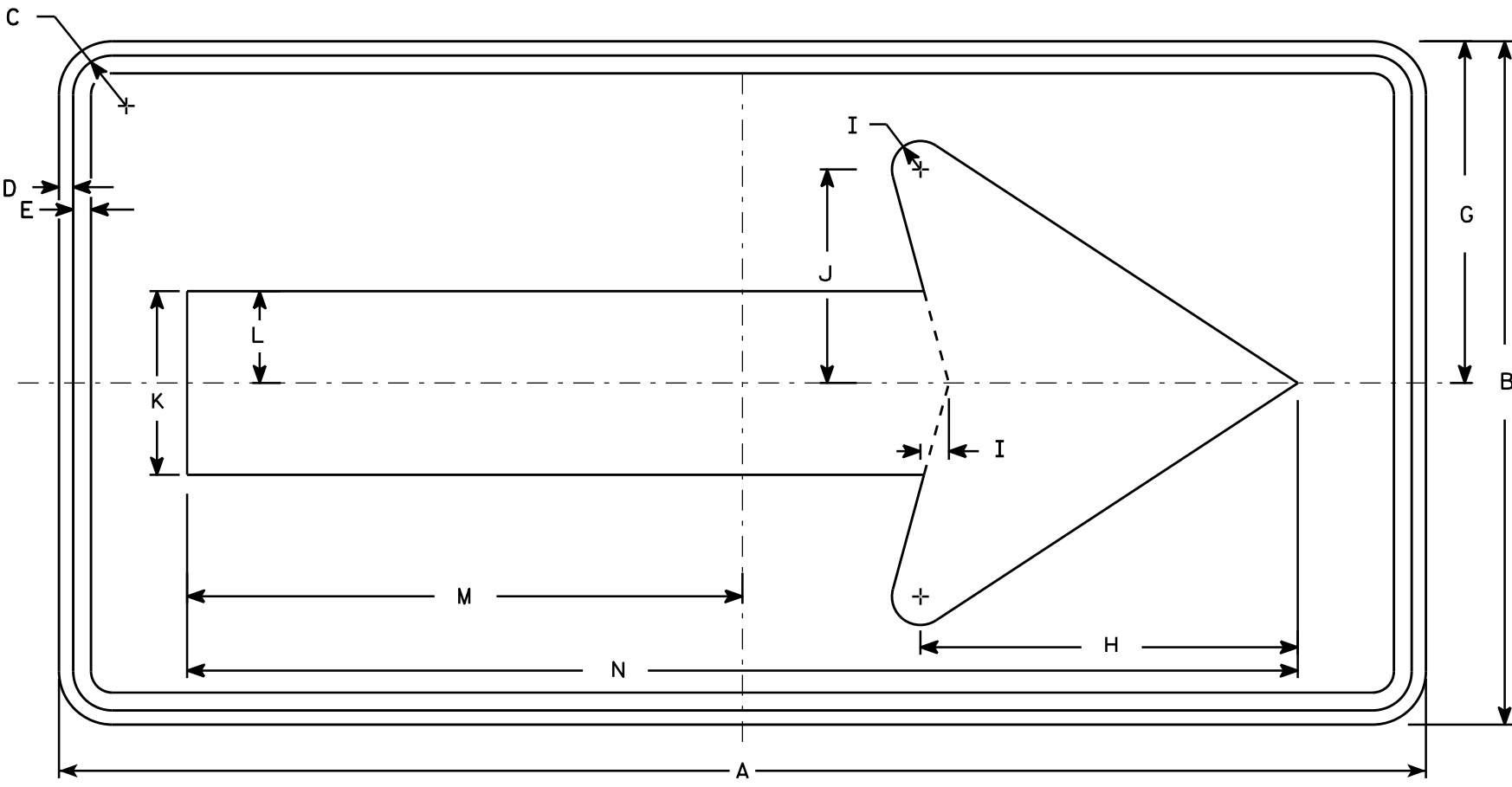
STANDARD SIGN

W21-5

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 4/30/2020 PLATE NO. W21-5.6



W01-6

NOTES

- 1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:
Background - Orange
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.

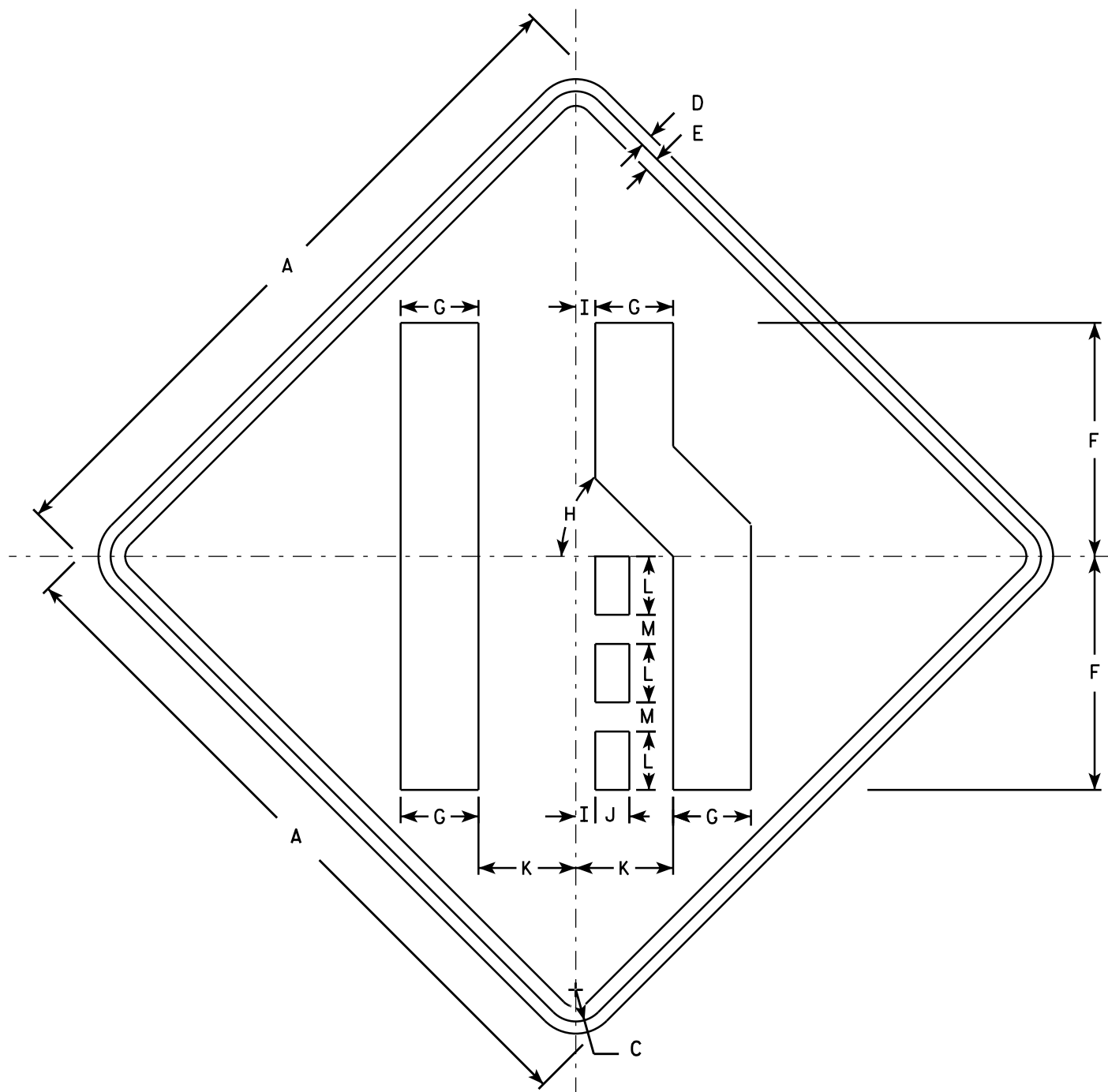
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	24	1 3⁄8	1⁄2	5⁄8		12	13 1⁄4	1	7 1⁄2	6 1⁄2	3 1⁄4	19 1⁄2	39													8.0
2M	48	24	1 3⁄8	1⁄2	5⁄8		12	13 1⁄4	1	7 1⁄2	6 1⁄2	3 1⁄4	19 1⁄2	39													8.0
3	60	30	1 3⁄8	1⁄2	5⁄8		15	16 1⁄4	1 1⁄4	9 1⁄4	8	4	24 3⁄8	48 3⁄4													12.5
4	60	30	1 3⁄8	1⁄2	5⁄8		15	16 1⁄4	1 1⁄4	9 1⁄4	8	4	24 3⁄8	48 3⁄4													12.5
5	60	30	1 3⁄8	1⁄2	5⁄8		15	16 1⁄4	1 1⁄4	9 1⁄4	8	4	24 3⁄8	48 3⁄4													12.5

STANDARD SIGN
W01-6

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE NO. 77 W01-6.1



W04-2R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Orange
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. W04-2L is the same as W04-2R except the symbols is reversed along the vertical centerline.

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	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
2S	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
2M	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
3	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
4	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
5	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0

STANDARD SIGN

W04-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matthew R. Rauch

For State Traffic Engineer

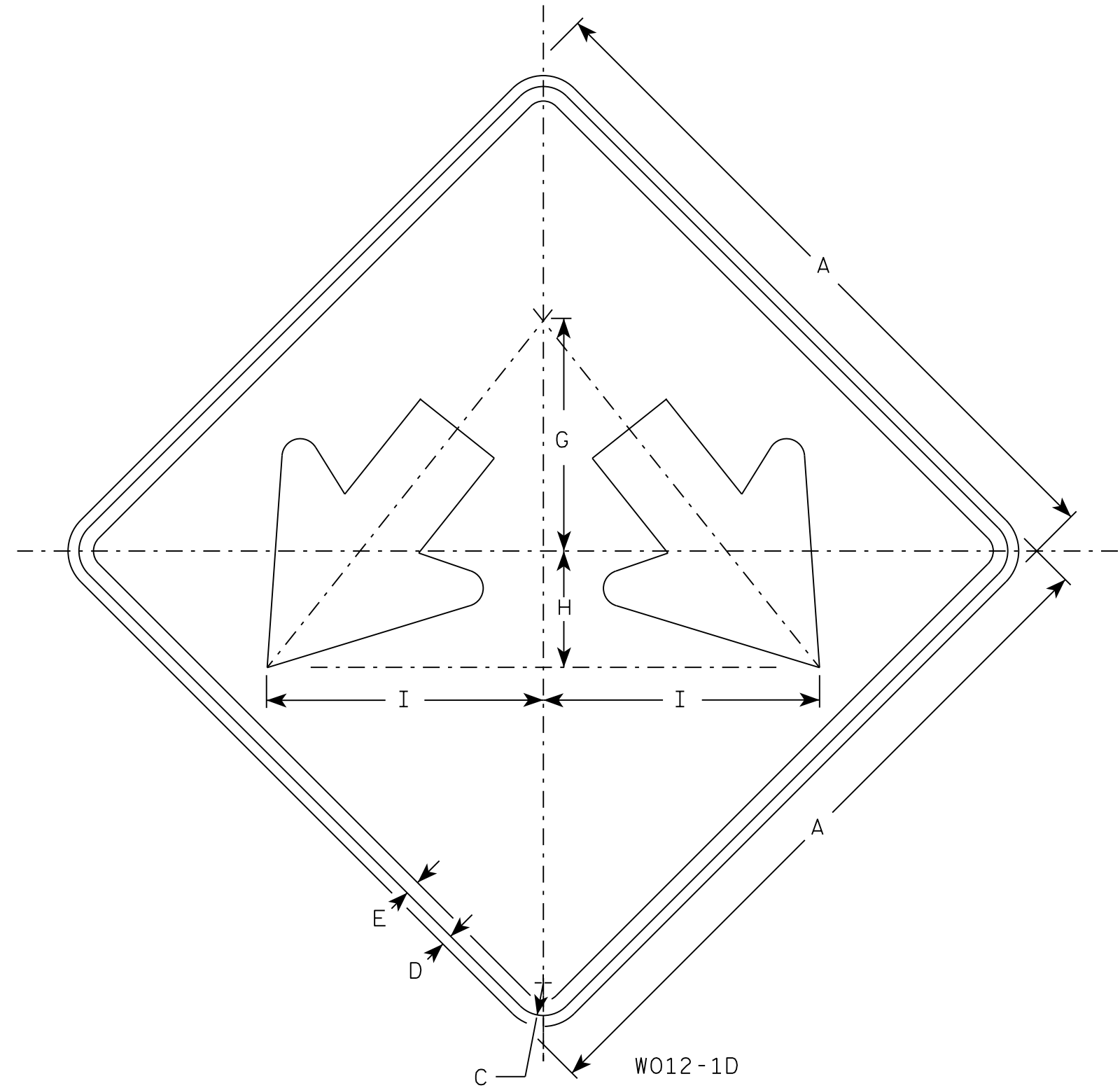
DATE 11/20/13

PLATE 78

W04-2.1

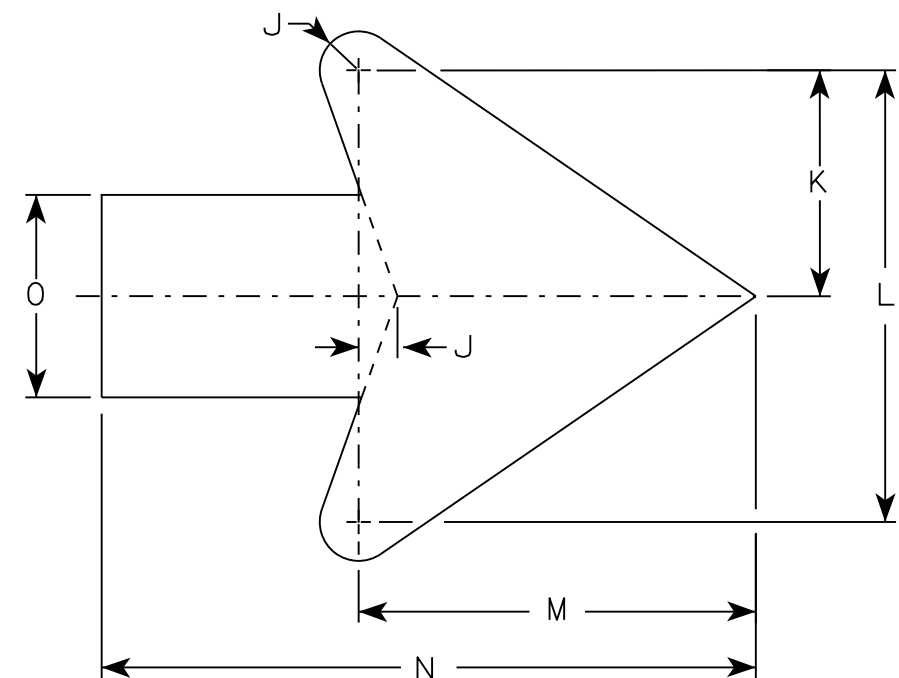
SHEET NO:

E



NOTES

- 1. Sign is Type II - Type F Reflective
- 2. Color:
Background - Orange
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.



Arrow 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	24		1 1/8	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
2S	24		1 1/8	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
2M	24		1 1/8	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
3	30		1 3/8	1/2	5/8		10	5	11 7/8	3/4	4 1/2	9	7 7/8	13	4												6.25
4	36		1 3/8	1/2	5/8		12	6	14 1/4	1	5 1/2	10 7/8	9 5/8	15 3/4	4 3/4												9.0
5	36		1 3/8	1/2	5/8		12	6	14 1/4	1	5 1/2	10 7/8	9 5/8	15 3/4	4 3/4												9.0

STANDARD SIGN
W012-1D

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 7/28/16 PLATE NO. W012-1D.2
79

DESIGN DATA

LIVE LOAD:
DESIGN LOADING: HS-25
INVENTORY RATING: HS-21
OPERATING RATING: HS-54
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) = 200 KIPS

STRUCTURE IS DESIGNED FOR A 1 1/2" SACRIFICIAL WEARING SURFACE, PLACED AT INITIAL CONSTRUCTION INTEGRAL WITH THE DECK. THE DESIGN DOES NOT PROVIDE FOR ADDITIONAL LOADS DUE TO A FUTURE WEARING SURFACE.

TRAFFIC DATA

IH 41/94
A.A.D.T. = 90,600 (2020)
A.A.D.T. = 107,200 (2040)
RDS = 70 MPH

NOTES

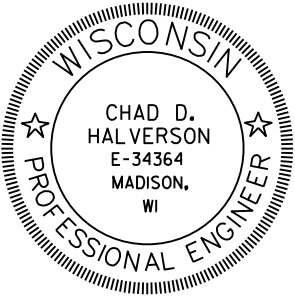
- DRAWINGS SHALL NOT BE SCALED.
- DECK SURFACE PREPARATION IS INCLUDED IN THE BID ITEM "POLYMER OVERLAY".
- DIMENSIONS ARE BASED ON ORIGINAL STRUCTURE PLANS.
- TRAFFIC WILL BE STAGED TO PLACE POLYMER OVERLAY. SEE ROADWAY PLANS FOR STAGING DETAILS.
- PROPOSED WORK INCLUDES PLACEMENT OF POLYMER OVERLAY ON BRIDGE DECK SURFACE. POLYMER OVERLAY IS NOT APPLIED TO APPROACH SLABS.

LIST OF DRAWINGS

1. GENERAL PLAN POLYMER OVERLAY

TOTAL ESTIMATED QUANTITIES

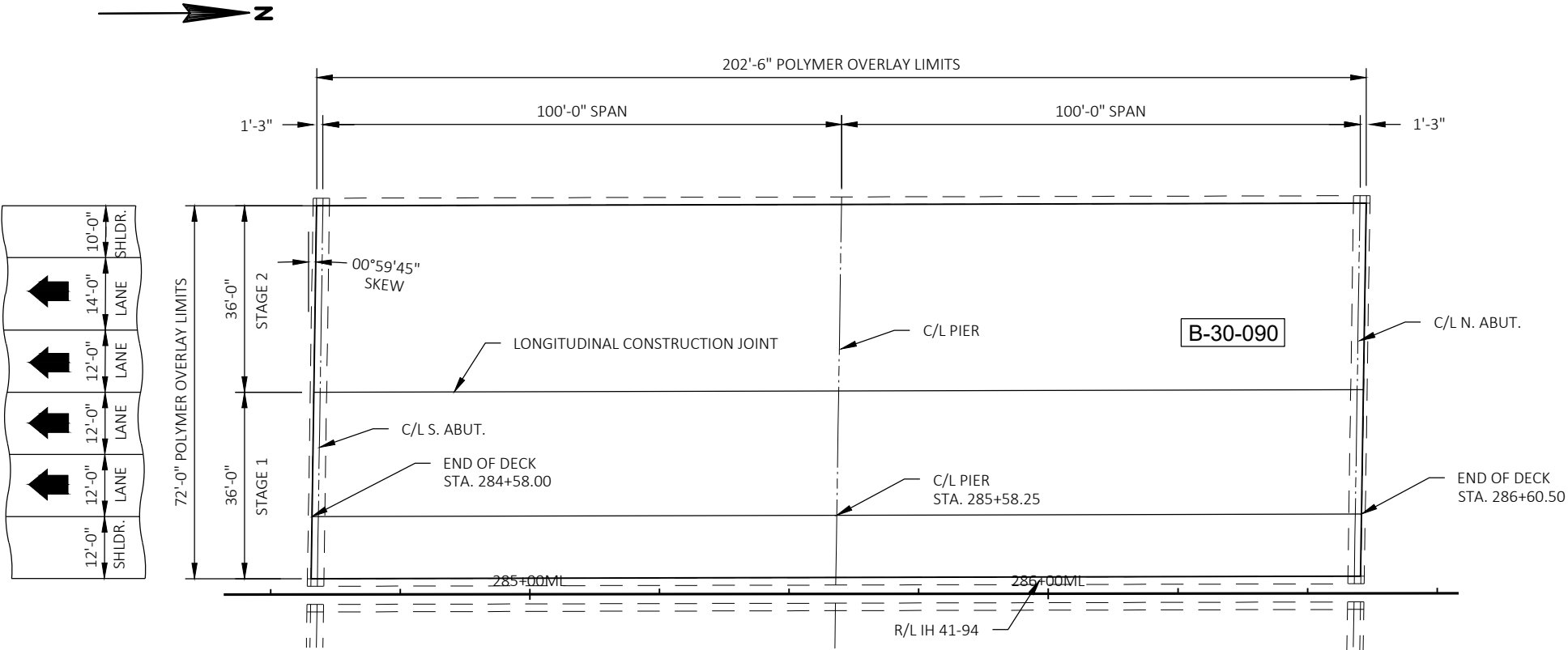
BID ITEM NO.	BID ITEMS.	UNIT	TOTAL
509,5100.5	POLYMER OVERLAY	SY	1,620



Chad Halverson
June 23, 2020

NO.	DATE	REVISION	BY
KL Engineering [A] Better Experience			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
ACCEPTED	<i>Chad Halverson</i>	SDR	11/19/20
CHIEF STRUCTURES DESIGN ENGINEER		DATE	
STRUCTURE B-30-090			
IH 41 SB / 94 EB OVER STH 50			
COUNTY	KENOSHA	TOWN/CITY/VILLAGE	BRISTOL
DESIGN SPEC. REHABILITATION N/A			
DESIGNED BY	CDH	DESIGN CK'D.	CAH
DRAWN BY	STD	PLANS CK'D.	CDH
GENERAL PLAN POLYMER OVERLAY			SHEET 1 OF 1 80

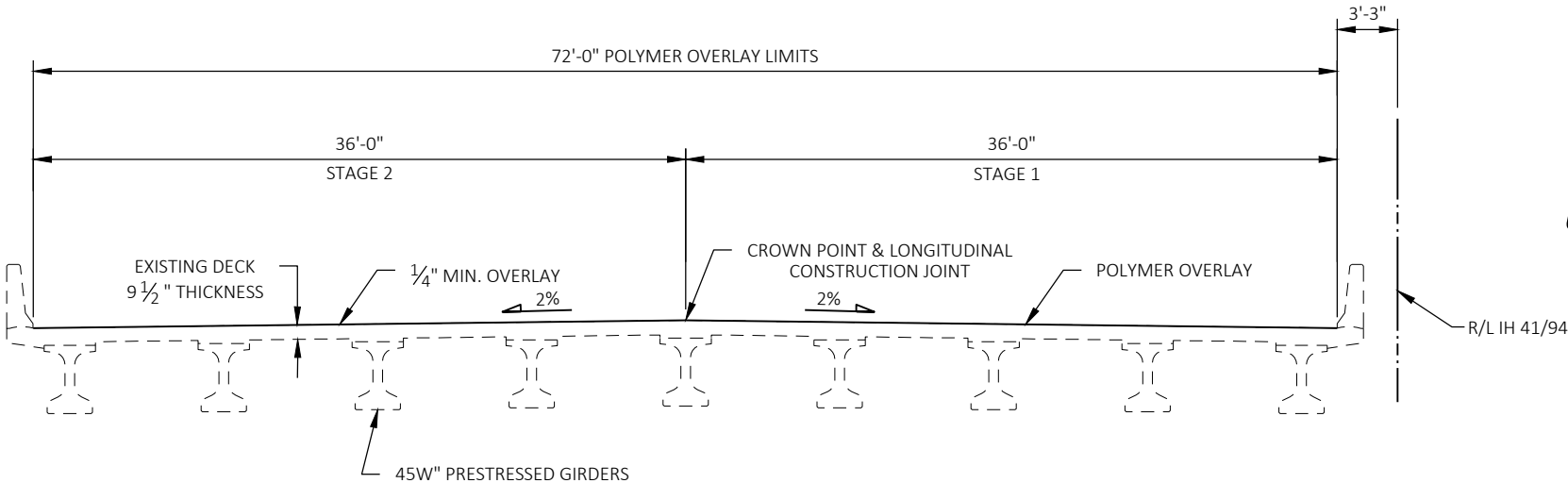
STRUCTURE DESIGN CONTACTS
BUREAU OF STRUCTURES:
AARON BONK (608) 261-0261
CONSULTANT:
CHAD HALVERSON (608) 663-1218



PLAN

TOP OF DECK SHOWN
(POLYMER OVERLAY)

B-30-091



TYPICAL DECK SECTION

LOOKING NORTH

DESIGN DATA

LIVE LOAD:
DESIGN LOADING: HS-25
INVENTORY RATING: HS-21
OPERATING RATING: HS-54
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) = 200 KIPS

STRUCTURE IS DESIGNED FOR A 1 1/2" SACRIFICIAL WEARING SURFACE, PLACED AT INITIAL CONSTRUCTION INTEGRAL WITH THE DECK. THE DESIGN DOES NOT PROVIDE FOR ADDITIONAL LOADS DUE TO A FUTURE WEARING SURFACE.

TRAFFIC DATA

IH 41/94
A.A.D.T. = 90,600 (2020)
A.A.D.T. = 107,200 (2040)
RDS = 70 MPH

NOTES

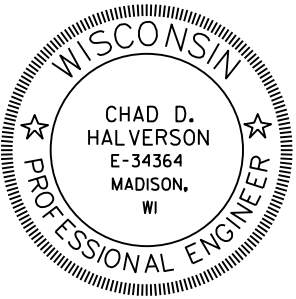
- DRAWINGS SHALL NOT BE SCALED.
- DECK SURFACE PREPARATION IS INCLUDED IN THE BID ITEM "POLYMER OVERLAY".
- DIMENSIONS ARE BASED ON ORIGINAL STRUCTURE PLANS.
- TRAFFIC WILL BE STAGED TO PLACE POLYMER OVERLAY. SEE ROADWAY PLANS FOR STAGING DETAILS.
- PROPOSED WORK INCLUDES PLACEMENT OF POLYMER OVERLAY ON BRIDGE DECK SURFACE. POLYMER OVERLAY IS NOT APPLIED TO APPROACH SLABS.

LIST OF DRAWINGS

1. GENERAL PLAN POLYMER OVERLAY

TOTAL ESTIMATED QUANTITIES

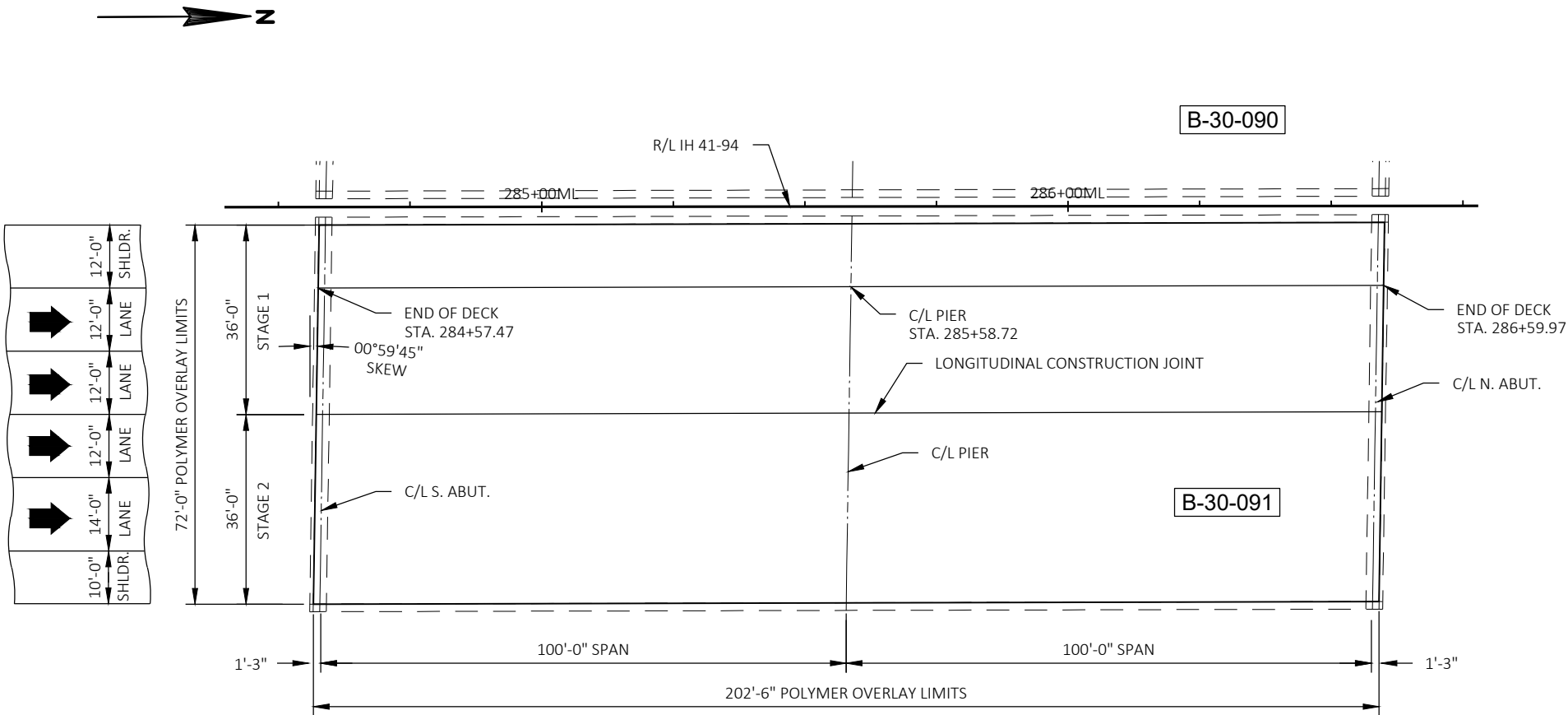
BID ITEM NO.	BID ITEMS.	UNIT	TOTAL
509,5100.S	POLYMER OVERLAY	SY	1,620



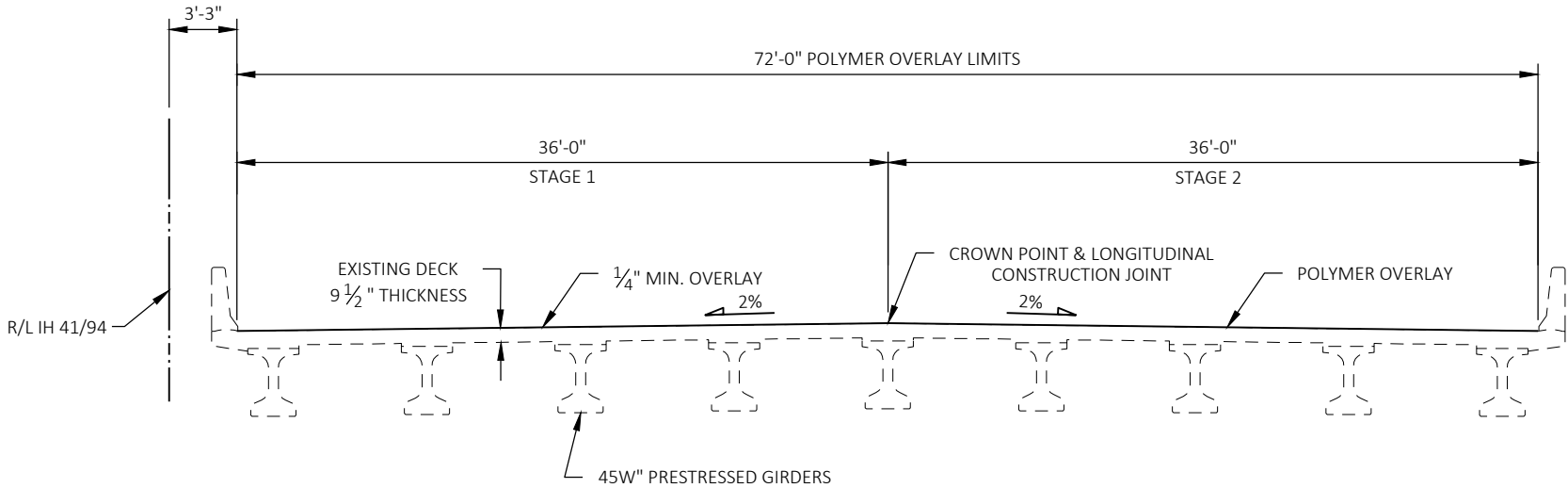
Chad Halverson
June 23, 2020

NO.	DATE	REVISION	BY
 [A] Better Experience			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
ACCEPTED		SDR	11/19/20
CHIEF STRUCTURES DESIGN ENGINEER		DATE	
STRUCTURE B-30-091			
IH 41 NB / 94 WB OVER STH 50			
COUNTY	KENOSHA	TOWN/CITY/VILLAGE	BRISTOL
DESIGN SPEC. REHABILITATION N/A			
DESIGNED BY	CDH	DESIGN CK'D.	CAH
DRAWN BY	STD	PLANS CK'D.	CDH
GENERAL PLAN POLYMER OVERLAY			SHEET 1 OF 1 81

STRUCTURE DESIGN CONTACTS
BUREAU OF STRUCTURES:
AARON BONK (608) 261-0261
CONSULTANT:
CHAD HALVERSON (608) 663-1218



PLAN
TOP OF DECK SHOWN
(POLYMER OVERLAY)



TYPICAL DECK SECTION
LOOKING NORTH

LIVE LOAD:
DESIGN LOADING: HS-25
INVENTORY RATING: HS-26
OPERATING RATING: HS-49
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV): 250 KIPS

STRUCTURE WAS INITIALLY DESIGNED FOR A 1 1/2" WEARING SURFACE, PLACED AT INITIAL CONSTRUCTION INTEGRAL WITH THE DECK. THE DESIGN DOES NOT PROVIDE FOR ADDITIONAL LOADS DUE TO A FUTURE WEARING SURFACE.

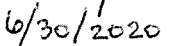
ADT = 3,385 (2010)
ADT = 8,130 (2035)
RDS = 60 MPH

1. GENERAL PLAN AND ELEVATION



BID ITEM NO.	BID ITEMS	UNIT	TOTAL
509.5100.S	POLYMER OVERLAY	SY	652

CONSULTANT:
MICHAEL RADTKE (414) 347-1607



emcs^{inc}

1300 W. Canal Street, Suite 200
Milwaukee, WI 53233
414.347.1607 Fax 414.347.1347

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED *[Signature]* SDR **11/19/20**
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-30-98

WEST FRONTAGE ROAD OVER DES PLAINES RIVER

COUNTY	KENOSHA	TOWN	BRISTOL
--------	---------	------	---------

DESIGN SPEC.	REHABILITATION N/A
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DESIGNED BY JRM	DESIGN CK'D. MDR	DRAWN BY JRM	PLANS CK'D. MDR
--------------------	---------------------	-----------------	--------------------

GENERAL PLAN
POLYMER OVERLAY

SHEET 1 OF 1
32

DESIGN DATA

LIVE LOAD:
DESIGN LOADING: HS-25
INVENTORY RATING: HS-26
OPERATING RATING: HS-49
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV): 250 KIPS

STRUCTURE RATING INCLUDES 5 PSF POLYMER OVERLAY.

STRUCTURE WAS INITIALLY DESIGNED FOR A 1/2" WEARING SURFACE, PLACED AT INITIAL CONSTRUCTION INTEGRAL WITH THE DECK. THE DESIGN DOES NOT PROVIDE FOR ADDITIONAL LOADS DUE TO A FUTURE WEARING SURFACE.

TRAFFIC DATA

E FRONTAGE ROAD

ADT = 2,204 (2010)
ADT = 4,030 (2035)
RDS = 60 MPH

NOTES

DRAWINGS SHALL NOT BE SCALED.

DECK SURFACE PREPARATION IS INCLUDED IN THE BID ITEM "POLYMER OVERLAY".

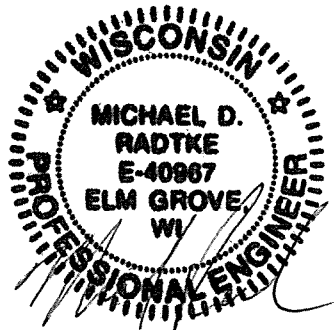
DIMENSIONS ARE BASED ON ORIGINAL STRUCTURE PLANS.

TRAFFIC WILL BE STAGED TO PLACE POLYMER OVERLAY. SEE ROADWAY PLANS FOR STAGING DETAILS.

PROPOSED WORK INCLUDES PLACEMENT OF POLYMER OVERLAY ON BRIDGE DECK SURFACE. POLYMER OVERLAY IS NOT APPLIED TO APPROACH SLABS.

LIST OF DRAWINGS

1. GENERAL PLAN AND ELEVATION



6/30/2020

NO.	DATE	REVISION	BY
emcs inc 1300 W. Canal Street, Suite 200 Milwaukee, WI 53233 414.347.1607 Fax 414.347.1347			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
ACCEPTED	SDR 11/19/20		DATE
CHIEF STRUCTURES DESIGN ENGINEER			
STRUCTURE B-30-99			
EAST FRONTAGE ROAD OVER DES PLAINES RIVER			
COUNTY	KENOSHA	TOWN	BRISTOL
DESIGN SPEC. REHABILITATION N/A			
DESIGNED BY	JRM	DESIGN CK'D.	MDR
DRAWN BY	JRM	PLANS CK'D.	MDR
GENERAL PLAN POLYMER OVERLAY			SHEET 1 OF 1 83

STRUCTURES DESIGN CONTACTS

BUREAU OF STRUCTURES:
AARON BONK (608) 261-0261
CONSULTANT:
MICHAEL RADTKE (414) 347-1607

PLOT DATE : 6/18/2020

PLOT BY : mdr

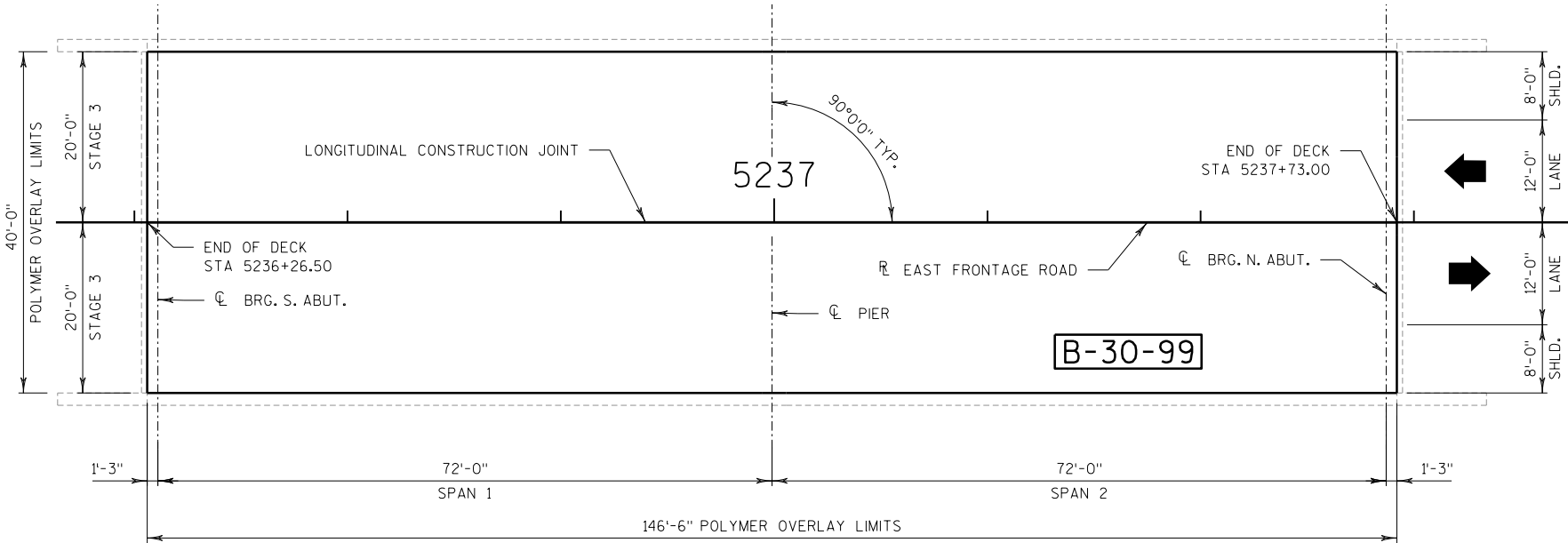
B-30-97

DES PLAINES
RIVER

5236

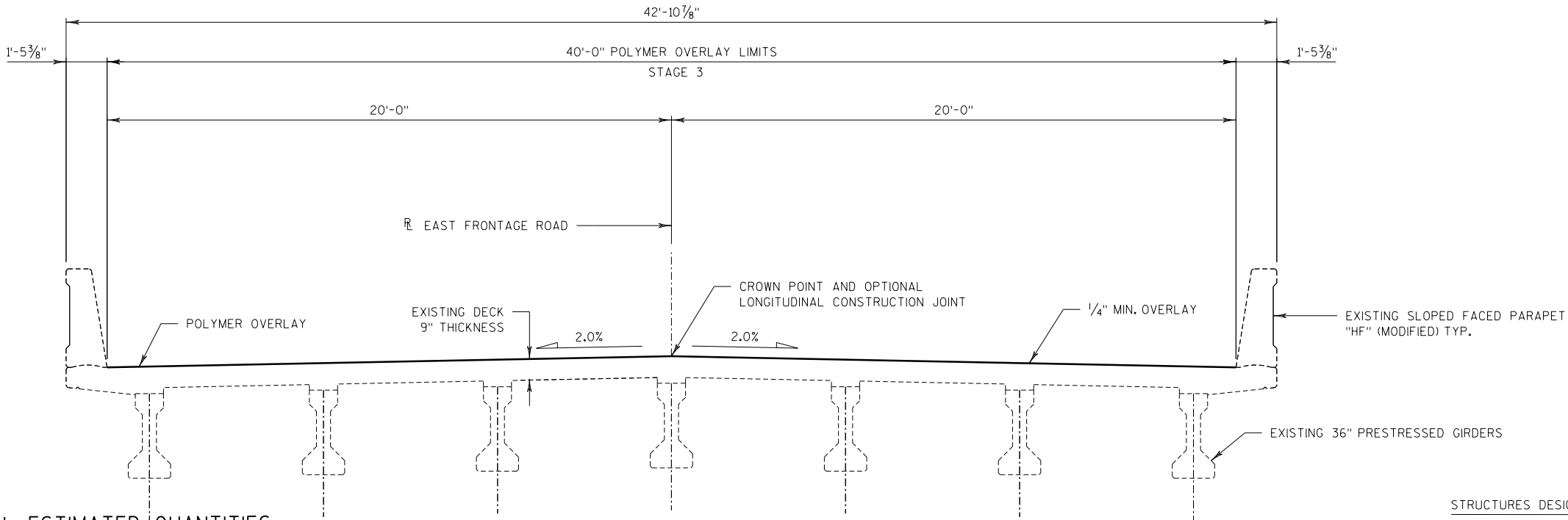
5237

5238



PLAN

TOP OF DECK SHOWN
(POLYMER OVERLAY)



TOTAL ESTIMATED QUANTITIES

BID ITEM NO.	BID ITEMS	UNIT	TOTAL
509.5100.S	POLYMER OVERLAY	SY	652

CROSS SECTION THRU ROADWAY

LOOKING NORTH

DESIGN DATA

LIVE LOAD:
DESIGN LOADING: HS-25
INVENTORY RATING: HS-25
OPERATING RATING: HS-69
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) = 250 KIPS

STRUCTURE IS DESIGNED FOR A 1 1/2" SACRIFICIAL WEARING SURFACE, PLACED AT INITIAL CONSTRUCTION INTEGRAL WITH THE DECK. THE DESIGN DOES NOT PROVIDE FOR ADDITIONAL LOADS DUE TO A FUTURE WEARING SURFACE.

TRAFFIC DATA

IH 41/94
A.A.D.T. = 90,600 (2020)
A.A.D.T. = 107,200 (2040)
RDS = 70 MPH

NOTES

- DRAWINGS SHALL NOT BE SCALED.
- DECK SURFACE PREPARATION IS INCLUDED IN THE BID ITEM "POLYMER OVERLAY".
- DIMENSIONS ARE BASED ON ORIGINAL STRUCTURE PLANS.
- TRAFFIC WILL BE STAGED TO PLACE POLYMER OVERLAY. SEE ROADWAY PLANS FOR STAGING DETAILS.
- PROPOSED WORK INCLUDES PLACEMENT OF POLYMER OVERLAY ON BRIDGE DECK SURFACE. POLYMER OVERLAY IS NOT APPLIED TO APPROACH SLABS.

LIST OF DRAWINGS

1. GENERAL PLAN POLYMER OVERLAY

TOTAL ESTIMATED QUANTITIES

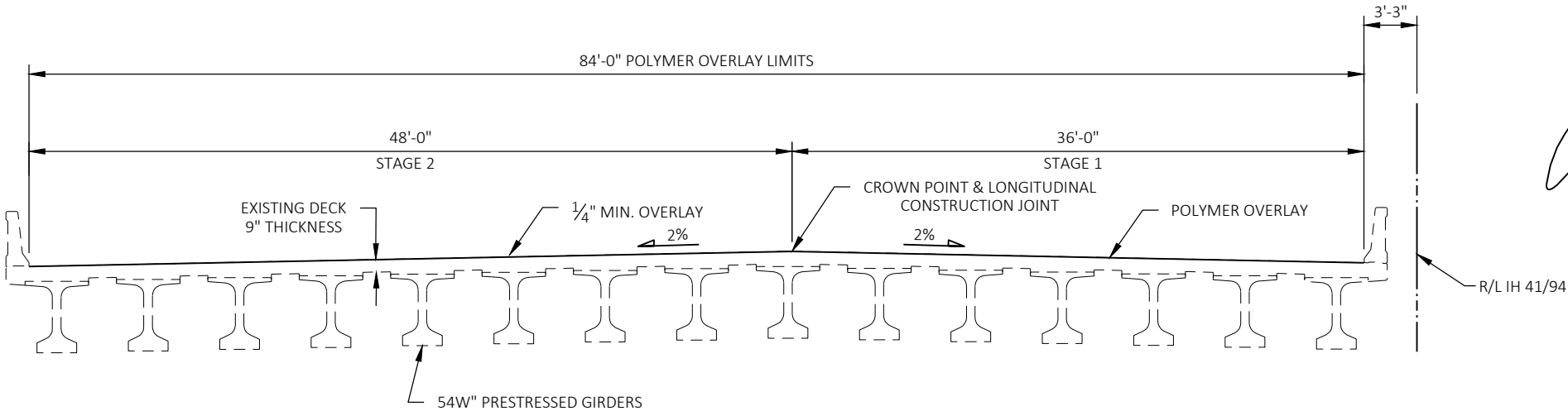
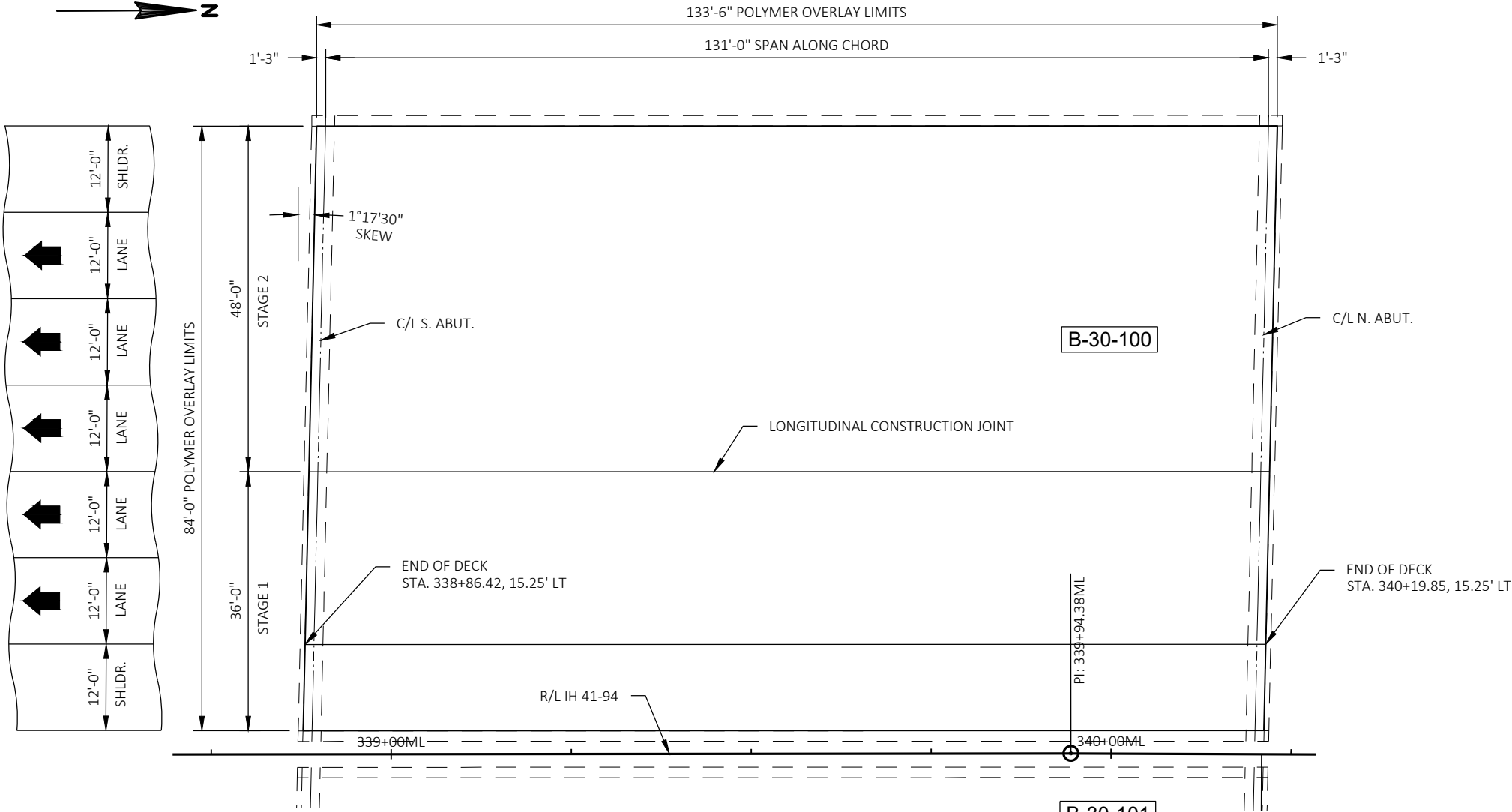
BID ITEM NO.	BID ITEMS.	UNIT	TOTAL
509,5100.S	POLYMER OVERLAY	SY	1,246



Chad Halverson
June 23, 2020

NO.	DATE	REVISION	BY
			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
ACCEPTED		SDR	11/19/20
CHIEF STRUCTURES DESIGN ENGINEER		DATE	
STRUCTURE B-30-100			
IH 41 SB / 94 EB OVER CTH K			
COUNTY	KENOSHA	TOWN/CITY/VILLAGE	BRISTOL/PARIS
DESIGN SPEC. REHABILITATION N/A			
DESIGNED BY	CDH	DESIGN CK'D.	CAH
DRAWN BY	STD	PLANS CK'D.	CDH
GENERAL PLAN POLYMER OVERLAY			SHEET 1 OF 1 84

STRUCTURE DESIGN CONTACTS
BUREAU OF STRUCTURES:
AARON BONK (608) 261-0261
CONSULTANT:
CHAD HALVERSON (608) 663-1218



LIVE LOAD:
DESIGN LOADING: HS-25
INVENTORY RATING: HS-25
OPERATING RATING: HS-69
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) = 250 KIPS

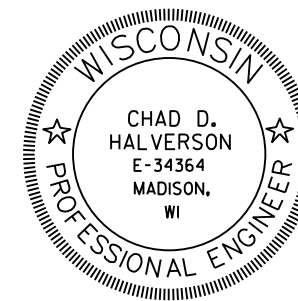
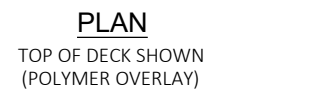
TRAFFIC DATA

A.A.D.T. = 90,600 (2020)
A.A.D.T. = 107,200 (2040)
RDS = 70 MPH

PROPOSED WORK INCLUDES PLACEMENT OF POLYMER OVERLAY ON BRIDGE DECK SURFACE. POLYMER OVERLAY IS NOT APPLIED TO APPROACH SLABS.

1. GENERAL PLAN POLYMER OVERLAY

BID ITEM NO.	BID ITEMS.	UNIT	TOTAL
509.5100.S	POLYMER OVERLAY	SY	1,246



June 23, 2020

BUREAU OF STRUCTURES:
AARON BONK (608) 261-0261
CONSULTANT:
CHAD HALVERSON (608) 663-1218

NO.	DATE	REVISION	BY
			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
ACCEPTED	 CHIEF STRUCTURES DESIGN ENGINEER		SDR 11/19/20 DATE
STRUCTURE B-30-101			
IH 41 NB / 94 WB OVER CTH K			
COUNTY	KENOSHA	TOWN/CITY/VILLAGE BRISTOL/PARIS	
DESIGN SPEC. REHABILITATION N/A			
DESIGNED BY	CDH	DESIGN CK'D.	CAH
DRAWN BY	STD	PLANS CK'D.	CDH
GENERAL PLAN POLYMER OVERLAY		SHEET 1 OF 1 85	

DESIGN DATA

LIVE LOAD:
DESIGN LOADING: HS25
INVENTORY RATING: HS-26
OPERATING RATING: HS-57
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV): 250 KIPS

STRUCTURE RATING INCLUDES 5 PSF POLYMER OVERLAY.

STRUCTURE WAS INITIALLY DESIGNED FOR A 1½" WEARING SURFACE, PLACED AT INITIAL CONSTRUCTION INTEGRAL WITH THE DECK. THE DESIGN DOES NOT PROVIDE FOR ADDITIONAL LOADS DUE TO A FUTURE WEARING SURFACE.

TRAFFIC DATA

IH 41/94
ADT = 90,600 (2020)
ADT = 107,200 (2040)
RDS = 70 MPH

STH 158
ADT = 11,940 (2003)
ADT = 27,800 (2035)
RDS = 50 MPH

NOTES

DRAWINGS SHALL NOT BE SCALED.

DECK SURFACE PREPARATION IS INCLUDED IN THE BID ITEM "POLYMER OVERLAY".

DIMENSIONS ARE BASED ON ORIGINAL STRUCTURE PLANS.

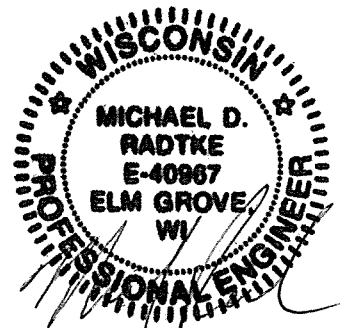
TRAFFIC WILL BE STAGED TO PLACE POLYMER OVERLAY. SEE ROADWAY PLANS FOR STAGING DETAILS.

PROPOSED WORK INCLUDES PLACEMENT OF POLYMER OVERLAY ON BRIDGE DECK SURFACE. POLYMER OVERLAY IS NOT APPLIED TO APPROACH SLABS.

▲ RESEAL CRUSHED AGGREGATE SLOPE PAVING AS DIRECTED BY THE FIELD ENGINEER. QUANTITIES SHOWN ON PLANS ARE APPROXIMATE.

LIST OF DRAWINGS

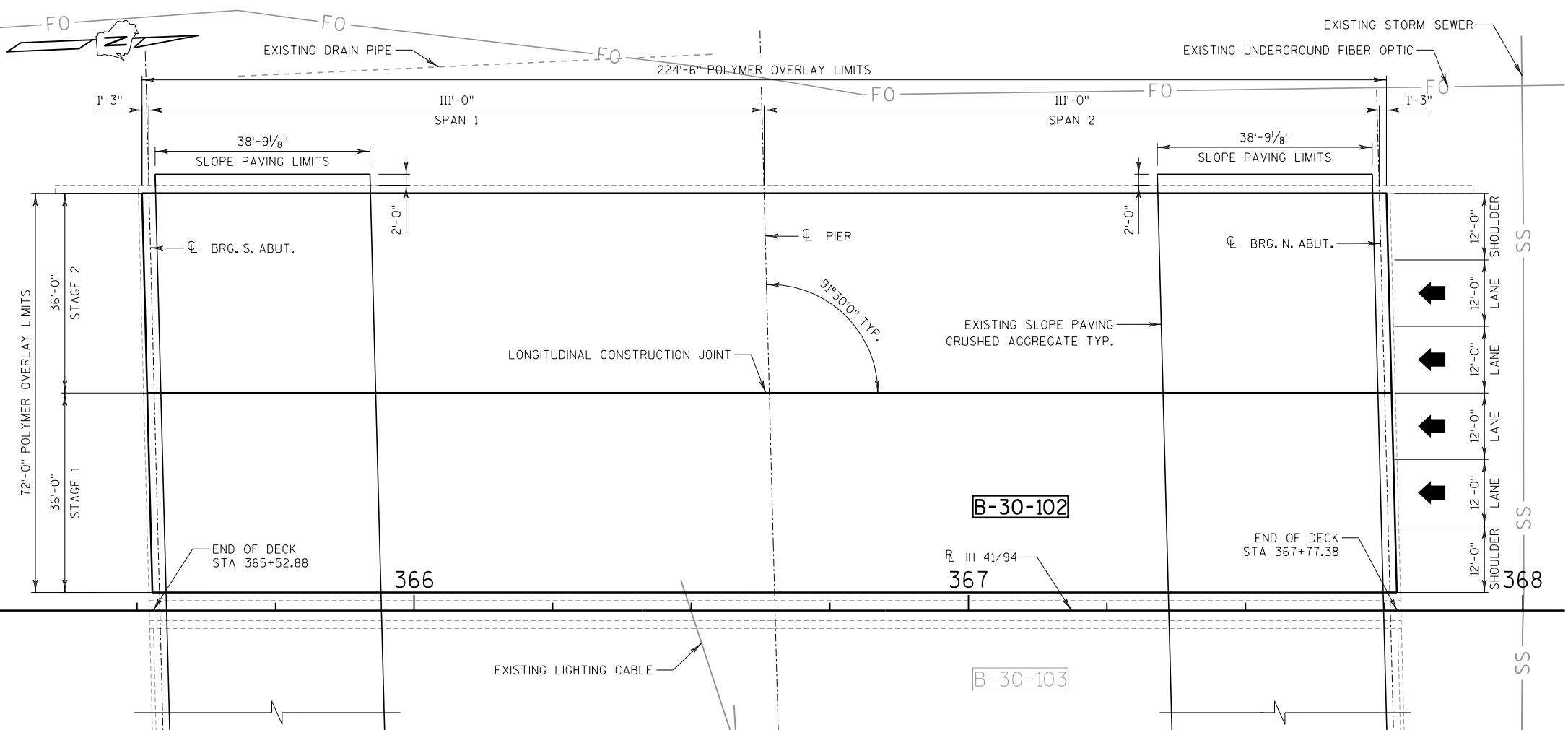
1. GENERAL PLAN AND ELEVATION



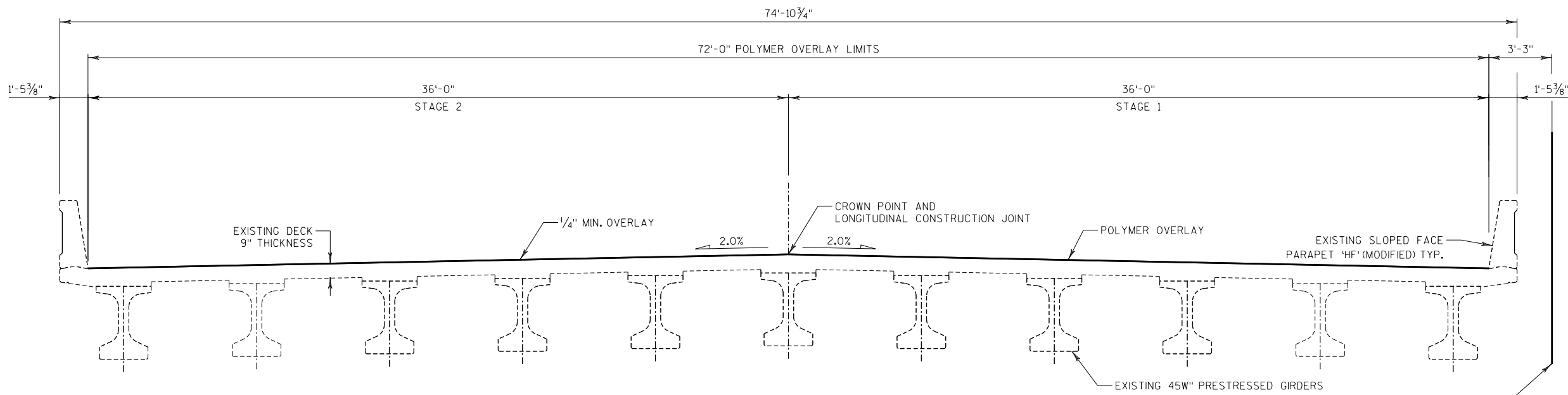
6/30/2020

8

8



PLAN
TOP OF DECK SHOWN
(POLYMER OVERLAY)



CROSS SECTION THRU ROADWAY
LOOKING NORTH

TOTAL ESTIMATED QUANTITIES

BID ITEM NO.	BID ITEMS	UNIT	TOTAL
509.5100.S	POLYMER OVERLAY	SY	1,796
604.9015.S	RESEAL CRUSHED AGGREGATE SLOPE PAVING	SY	530

STRUCTURES DESIGN CONTACTS

BUREAU OF STRUCTURES:
AARON BONK (608) 261-0261
CONSULTANT:
MICHAEL RADTKE (414) 347-1607

NO.	DATE	REVISION	BY
emcs inc 1300 W. Canal Street, Suite 200 Milwaukee, WI 53233 414.347.1607 Fax 414.347.1347			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION ACCEPTED <i>[Signature]</i> SDR 11/19/20 CHIEF STRUCTURES DESIGN ENGINEER DATE			
STRUCTURE B-30-102			
IH41 SB/IH94 EB OVER STH 158			
COUNTY	KENOSHA	TOWN	PARIS
DESIGN SPEC. REHABILITATION N/A			
DESIGNED BY	JRM	DESIGN CK'D.	MDR
DRAWN BY	JRM	PLANS CK'D.	MDR
GENERAL PLAN POLYMER OVERLAY			SHEET 1 OF 1 86

DESIGN DATA

LIVE LOAD:
DESIGN LOADING: HS-25
INVENTORY RATING: HS-26
OPERATING RATING: HS-57
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV): 250 KIPS

STRUCTURE RATING INCLUDES 5 PSF POLYMER OVERLAY.

STRUCTURE WAS INITIALLY DESIGNED FOR A 1/2" WEARING SURFACE, PLACED AT INITIAL CONSTRUCTION INTEGRAL WITH THE DECK. THE DESIGN DOES NOT PROVIDE FOR ADDITIONAL LOADS DUE TO A FUTURE WEARING SURFACE.

TRAFFIC DATA

IH 41/94 STH 158
ADT = 90,600 (2020) ADT = 11,940 (2003)
ADT = 107,200 (2040) ADT = 27,800 (2035)
RDS = 70 MPH RDS = 50 MPH

NOTES

DRAWINGS SHALL NOT BE SCALED.

DECK SURFACE PREPARATION IS INCLUDED IN THE BID ITEM "POLYMER OVERLAY".

DIMENSIONS ARE BASED ON ORIGINAL STRUCTURE PLANS.

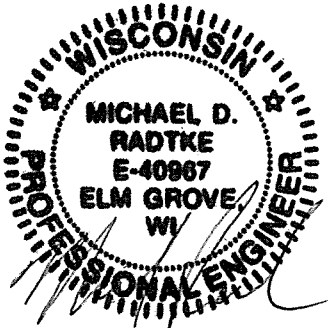
TRAFFIC WILL BE STAGED TO PLACE POLYMER OVERLAY. SEE ROADWAY PLANS FOR STAGING DETAILS.

PROPOSED WORK INCLUDES PLACEMENT OF POLYMER OVERLAY ON BRIDGE DECK SURFACE. POLYMER OVERLAY IS NOT APPLIED TO APPROACH SLABS.

▲ RESEAL CRUSHED AGGREGATE SLOPE PAVING AS DIRECTED BY THE FIELD ENGINEER. QUANTITIES SHOWN ON PLANS ARE APPROXIMATE.

LIST OF DRAWINGS

1. GENERAL PLAN AND ELEVATION

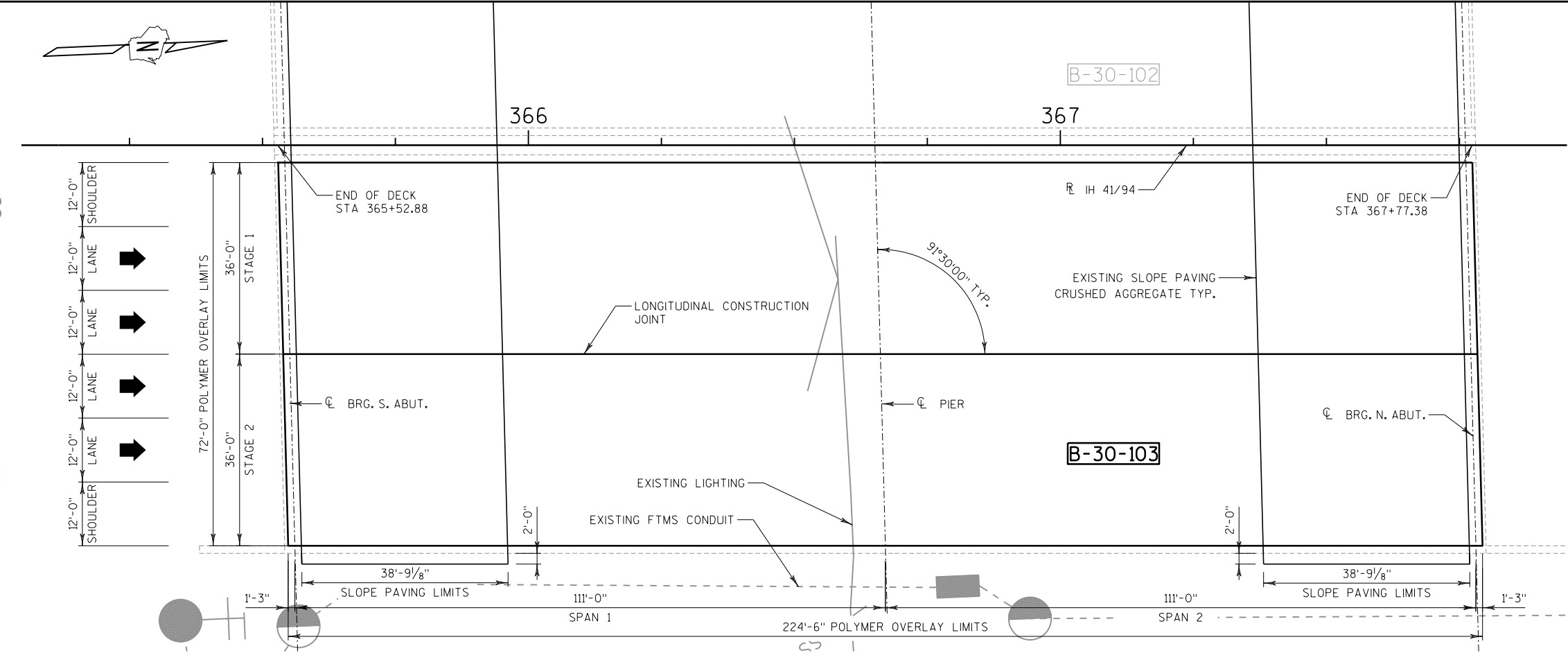


6/30/2020

NO.		DATE		REVISION		BY	
8				emcs inc			
1300 W. Canal Street, Suite 200		Milwaukee, WI 53233		414.347.1607 Fax 414.347.1347			
STATE OF WISCONSIN		DEPARTMENT OF TRANSPORTATION		ACCEPTED		SDR 11/19/20	
CHIEF STRUCTURES DESIGN ENGINEER		DATE					
STRUCTURE B-30-103							
IH41NB/IH94 WB OVER STH 158							
COUNTY KENOSHA		TOWN SOMERS					
DESIGN SPEC.		REHABILITATION N/A					
DESIGNED BY JRM		DESIGN CK'D. MDR		DRAWN BY JRM		PLANS CK'D. MDR	
GENERAL PLAN		POLYMER OVERLAY		SHEET 1 OF 1		87	

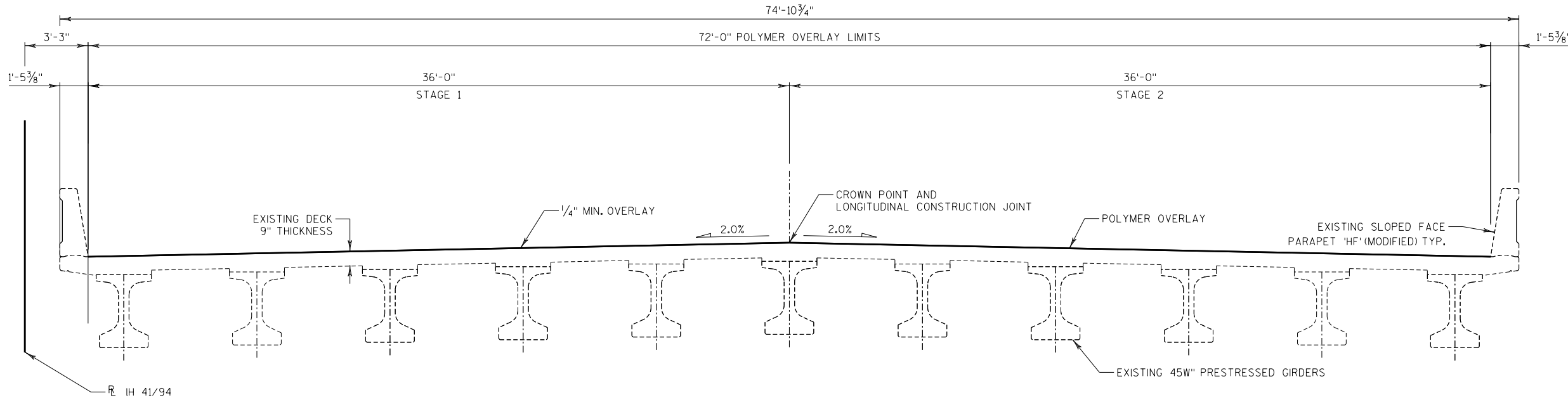
STRUCTURES DESIGN CONTACTS

BUREAU OF STRUCTURES:
AARON BONK (608) 261-0261
CONSULTANT:
MICHAEL RADTKE (414) 347-1607



PLAN

TOP OF DECK SHOWN
(POLYMER OVERLAY)

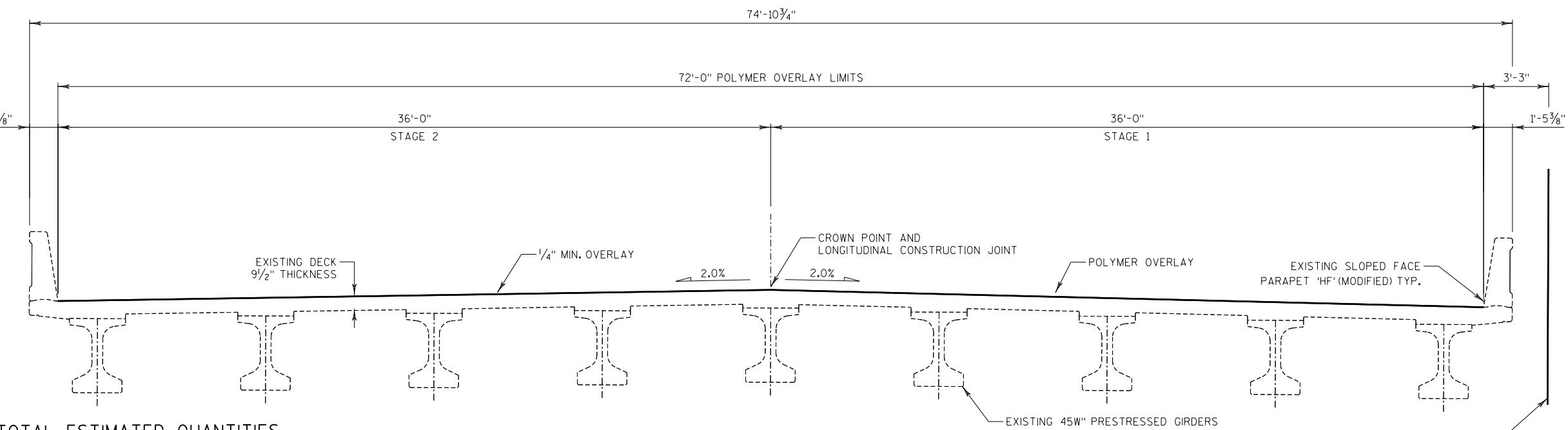
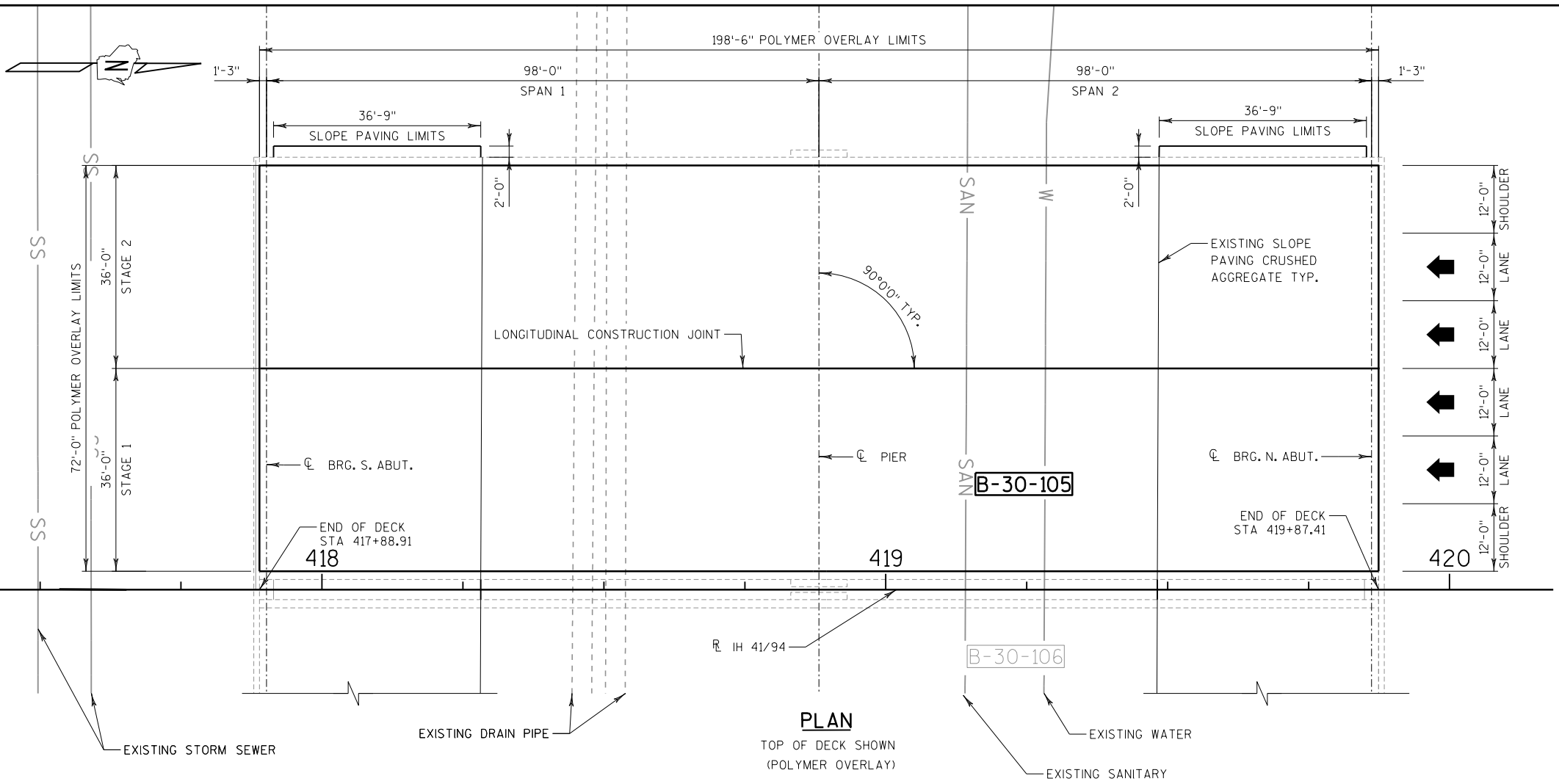


CROSS SECTION THRU ROADWAY

LOOKING NORTH

TOTAL ESTIMATED QUANTITIES

BID ITEM NO.	BID ITEMS	UNIT	TOTAL
509.5100.S	POLYMER OVERLAY	SY	1,796
604.9015.S	RESEAL CRUSHED AGGREGATE SLOPE PAVING	SY	410



TOTAL ESTIMATED QUANTITIES

BID ITEM NO.	BID ITEMS	UNIT	TOTAL
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	8
509.1500	CONCRETE SURFACE REPAIR	SF	5
509.5100.S	POLYMER OVERLAY	SY	1,588
517.1010.S	CONCRETE STAINING B-30-105	SF	6
604.9015.S	RESEAL CRUSHED AGGREGATE SLOPE PAVING	SY	220

DESIGN DATA

LIVE LOAD:
DESIGN LOADING: HS-25
INVENTORY RATING: HS-24
OPERATING RATING: HS-41
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV): 229 KIPS

STRUCTURE RATING INCLUDES 5 PSF POLYMER OVERLAY.

STRUCTURE WAS INITIALLY DESIGNED FOR A 1 1/2" WEARING SURFACE, PLACED AT INITIAL CONSTRUCTION INTEGRAL WITH THE DECK. THE DESIGN DOES NOT PROVIDE FOR ADDITIONAL LOADS DUE TO A FUTURE WEARING SURFACE.

TRAFFIC DATA

IH 41/94 CTH N
ADT = 90,600 (2020) ADT = 2,890 (2030)
ADT = 107,200 (2040) RDS = 50 MPH
RDS = 70 MPH

NOTES

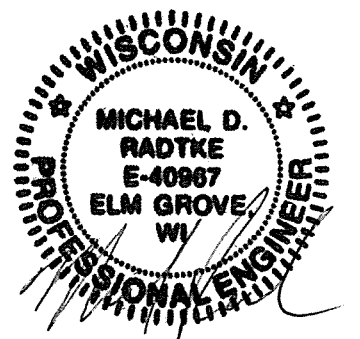
DRAWINGS SHALL NOT BE SCALED.
DECK SURFACE PREPARATION IS INCLUDED IN THE BID ITEM "POLYMER OVERLAY".
DIMENSIONS ARE BASED ON ORIGINAL STRUCTURE PLANS.
TRAFFIC WILL BE STAGED TO PLACE POLYMER OVERLAY. SEE ROADWAY PLANS FOR STAGING DETAILS.

PROPOSED WORK INCLUDES PLACEMENT OF POLYMER OVERLAY ON BRIDGE DECK SURFACE. POLYMER OVERLAY IS NOT APPLIED TO APPROACH SLABS.

RESEAL CRUSHED AGGREGATE SLOPE PAVING AS DIRECTED BY THE FIELD ENGINEER. QUANTITIES SHOWN ON PLANS ARE APPROXIMATE.

LIST OF DRAWINGS

- GENERAL PLAN AND ELEVATION
- MASKWALL REPAIR



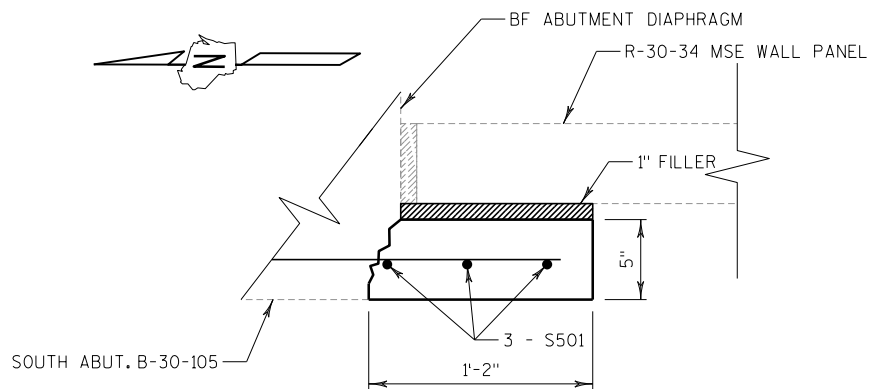
NO.	DATE	REVISION	BY
emcs inc 1300 W. Canal Street, Suite 200 Milwaukee, WI 53233 414.347.1607 Fax 414.347.1347			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION ACCEPTED <i>[Signature]</i> SDR 11/19/20 CHIEF STRUCTURES DESIGN ENGINEER DATE			
STRUCTURE B-30-105			
IH41 SB/IH94 EB OVER CTH N			
COUNTY	KENOSHA	TOWN	PARIS
DESIGN SPEC. REHABILITATION N/A			
DESIGNED BY	JRM	DESIGN CK'D.	MDR
DRAWN BY	JRM	PLANS CK'D.	MDR
GENERAL PLAN POLYMER OVERLAY			SHEET 1 OF 2 88

STRUCTURES DESIGN CONTACTS
BUREAU OF STRUCTURES:
AARON BONK (608) 261-0261
CONSULTANT:
MICHAEL RADTKE (414) 347-1607

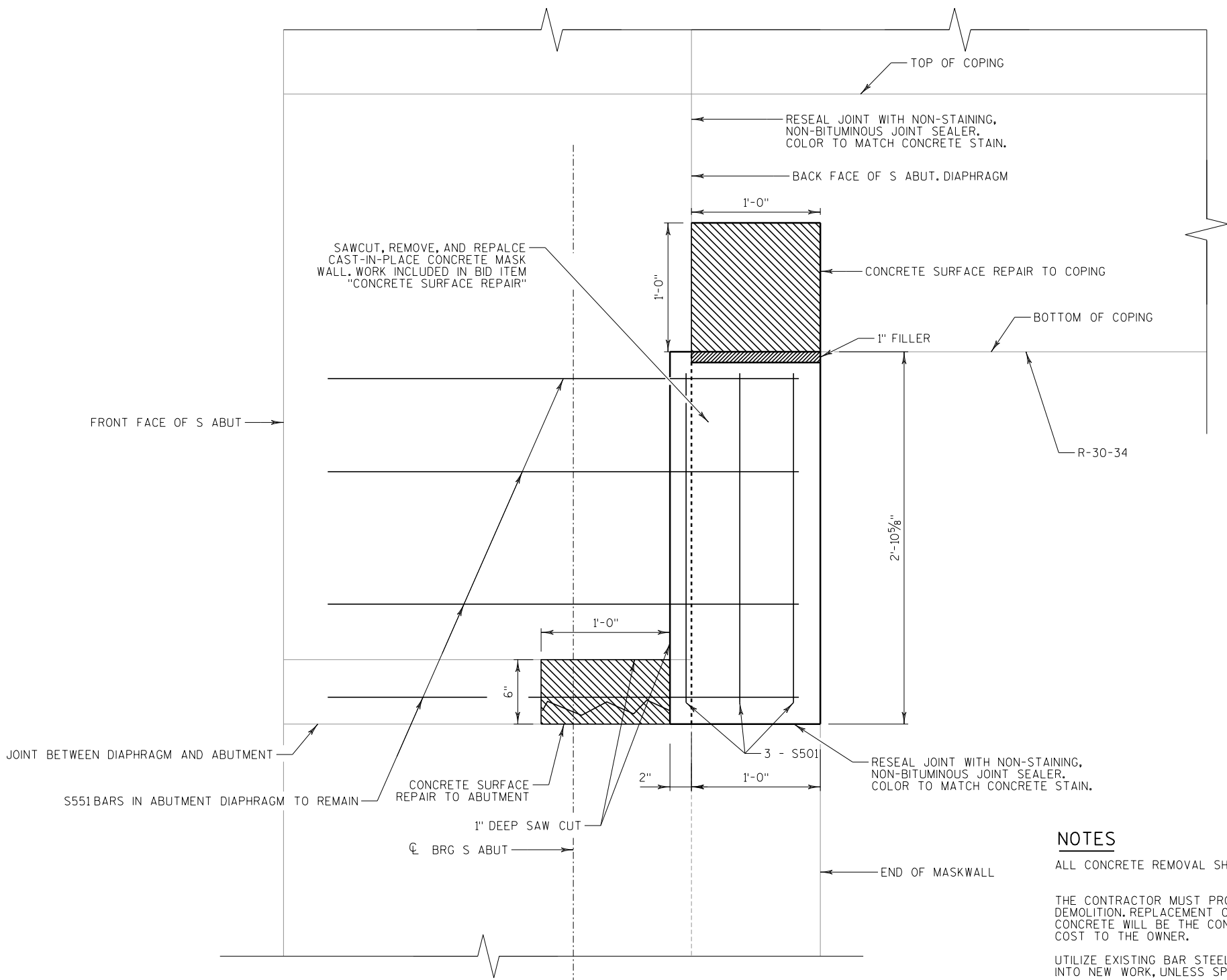
BILL OF BARS

BAR MARK	CONT	NO. REQ'D	LENGTH	LOCATION
S501	X	3	2'-6"	MASKWALL REPAIR

NOTE:
BAR DIMENSIONS ARE OUT TO OUT OF BAR.
THE FIRST OR FIRST TWO DIGITS
OF A BAR MARK SIGNIFIES THE BAR SIZE



PLAN OF MASKWALL REPAIR



ELEVATION OF MASKWALL REPAIR

NOTES

ALL CONCRETE REMOVAL SHALL BE DEFINED BY A 1 INCH DEEP SAW CUT.

THE CONTRACTOR MUST PROTECT THE EXISTING REINFORCEMENT STEEL THAT REMAINS DURING DEMOLITION. REPLACEMENT OF COMPONENTS DAMAGED DURING THE REMOVAL OF THE EXISTING CONCRETE WILL BE THE CONTRACTORS RESPONSIBILITY AND REPLACED AT NO ADDITIONAL COST TO THE OWNER.

UTILIZE EXISTING BAR STEEL REINFORCEMENT WHERE SHOWN AND EXTEND 24 BAR DIAMETERS INTO NEW WORK, UNLESS SPECIFIED OTHERWISE.

CONCRETE SURFACE REPAIR QUANTITIES TO BE DETERMINED IN THE FIELD AT THE DIRECTION OF THE FIELD ENGINEER.

1" FILLER AND JOINT SEALANT TO BE INCLUDED IN THE BID ITEM "CONCRETE SURFACE REPAIR".

CONTRACTOR SHALL STAIN CONCRETE REPAIRS TO MATCH EXISTING PIGMENT "BAGUETTE" COLOR NO. SW 6123, FN 124, COMPLETE WORK UNDER BID ITEM "CONCRETE STAINING B-30-105".

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-30-105			
DRAWN BY		JRM	PLANS CK'D. MDR
MASKWALL REPAIR		SHEET 89	2 OF 2

DESIGN DATA

LIVE LOAD:
DESIGN LOADING: HS-25
INVENTORY RATING: HS-24
OPERATING RATING: HS-41
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV): 229 KIPS

STRUCTURE RATING INCLUDES 5 PSF POLYMER OVERLAY.

STRUCTURE WAS INITIALLY DESIGNED FOR A 1/2" WEARING SURFACE, PLACED AT INITIAL CONSTRUCTION INTEGRAL WITH THE DECK. THE DESIGN DOES NOT PROVIDE FOR ADDITIONAL LOADS DUE TO A FUTURE WEARING SURFACE.

TRAFFIC DATA

IH 41/94
ADT = 90,600 (2020)
ADT = 107,200 (2040)
RDS = 70 MPH

CTH N
ADT = 2,890 (2030)
RDS = 50 MPH

NOTES

DRAWINGS SHALL NOT BE SCALED.

DECK SURFACE PREPARATION IS INCLUDED IN THE BID ITEM "POLYMER OVERLAY".

DIMENSIONS ARE BASED ON ORIGINAL STRUCTURE PLANS.

TRAFFIC WILL BE STAGED TO PLACE POLYMER OVERLAY. SEE ROADWAY PLANS FOR STAGING DETAILS.

PROPOSED WORK INCLUDES PLACEMENT OF POLYMER OVERLAY ON BRIDGE DECK SURFACE. POLYMER OVERLAY IS NOT APPLIED TO APPROACH SLABS.

▲ RESEAL CRUSHED AGGREGATE SLOPE PAVING AS DIRECTED BY THE FIELD ENGINEER. QUANTITIES SHOWN ON PLANS ARE APPROXIMATE.

LIST OF DRAWINGS

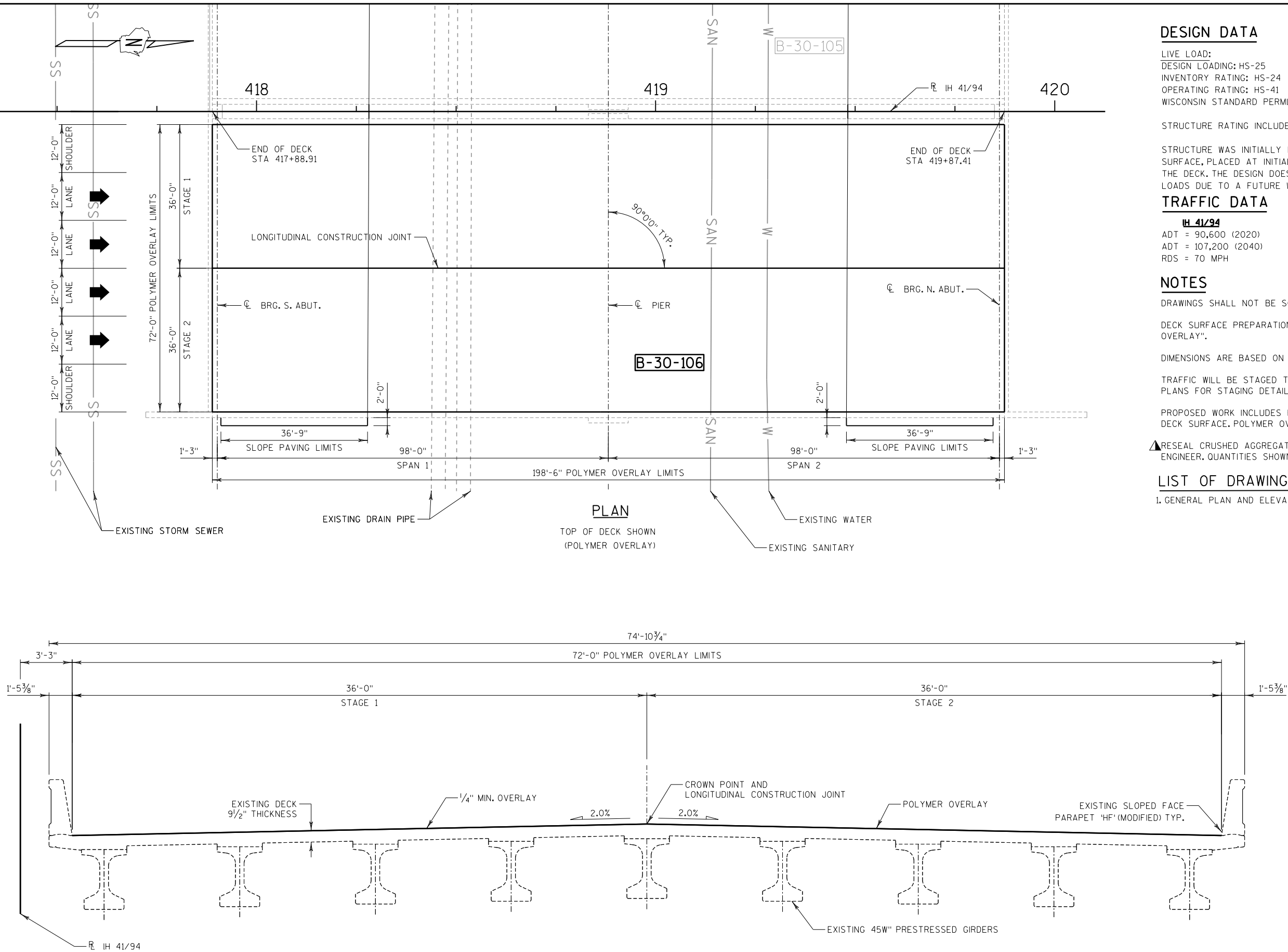
1. GENERAL PLAN AND ELEVATION



6/30/2020

8

8



TOTAL ESTIMATED QUANTITIES

BID ITEM NO.	BID ITEMS	UNIT	TOTAL
509.5100.S	POLYMER OVERLAY	SY	1,588
▲ 604.9015.S	RESEAL CRUSHED AGGREGATE SLOPE PAVING	SY	260

CROSS SECTION THRU ROADWAY

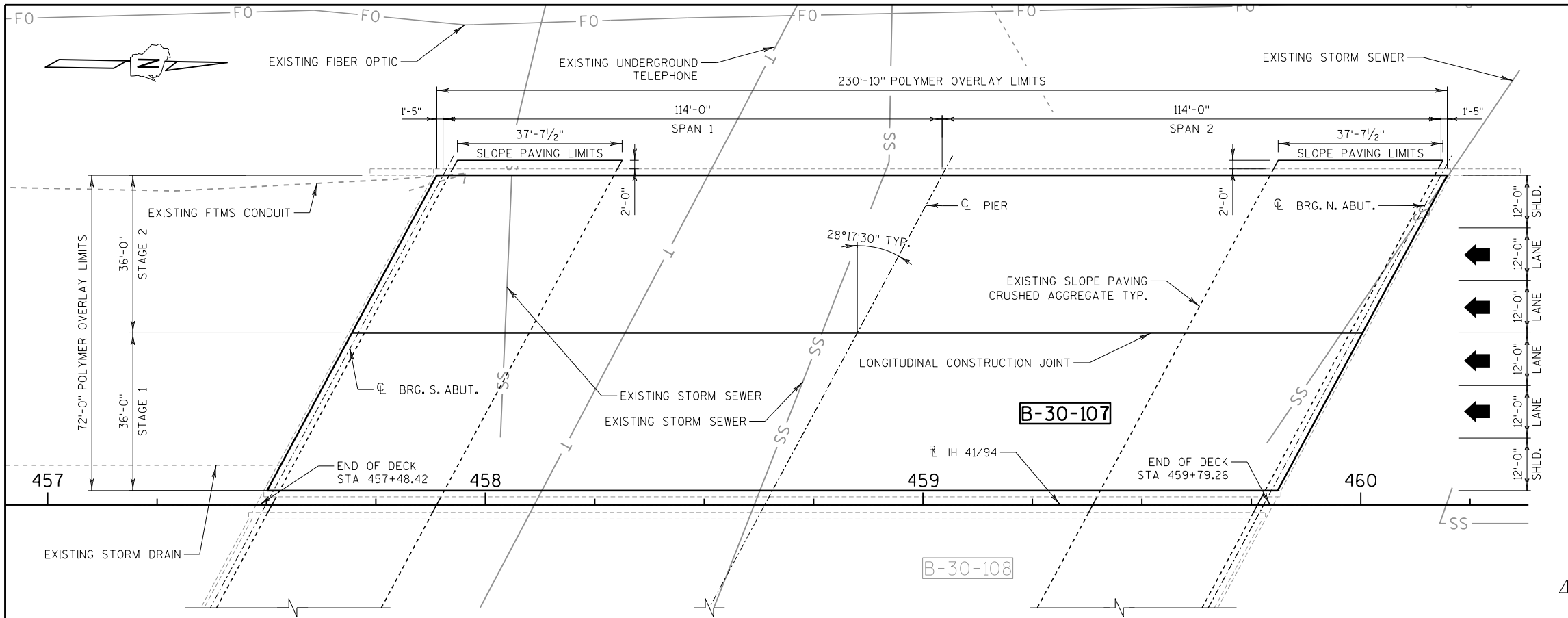
LOOKING NORTH

STRUCTURES DESIGN CONTACTS

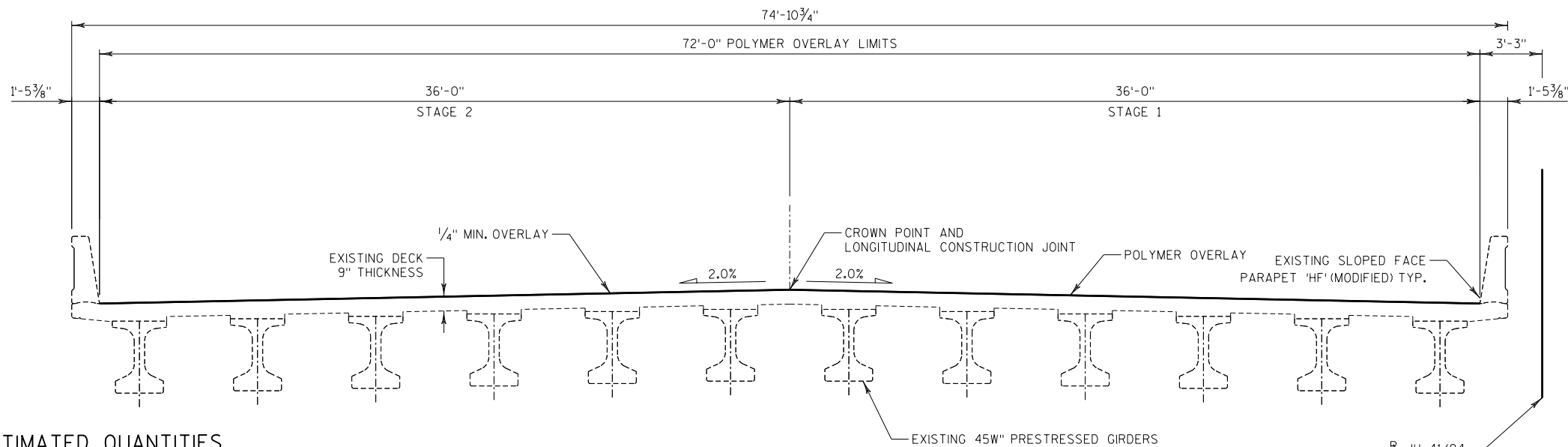
BUREAU OF STRUCTURES:
AARON BONK (608) 261-0261
CONSULTANT:
MICHAEL RADTKE (414) 347-1607

GENERAL PLAN
POLYMER OVERLAY

SHEET 1 OF 1
90



PLAN
TOP OF DECK SHOWN
(POLYMER OVERLAY)



CROSS SECTION THRU ROADWAY
LOOKING NORTH

TOTAL ESTIMATED QUANTITIES

BID ITEM NO.	BID ITEMS	UNIT	TOTAL
509.5100.S	POLYMER OVERLAY	SY	1,847
604.9010.S	SLOPE PAVING REPAIR CRUSHED AGGREGATE	CY	7
604.9015.S	RESEAL CRUSHED AGGREGATE SLOPE PAVING	SY	280
612.0206	PIPE UNDERDRAIN UNPERFORATED 6-INCH	LF	10
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	100
645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	60

DESIGN DATA

LIVE LOAD:
DESIGN LOADING: HS-25
INVENTORY RATING: HS-26
OPERATING RATING: HS-50
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV): 246 KIPS

SSTRUCTURE RATING INCLUDES 5 PSF POLYMER OVERLAY.

STRUCTURE WAS INITIALLY DESIGNED FOR A 1 1/2" WEARING SURFACE, PLACED AT INITIAL CONSTRUCTION INTEGRAL WITH THE DECK. THE DESIGN DOES NOT PROVIDE FOR ADDITIONAL LOADS DUE TO A FUTURE WEARING SURFACE.

TRAFFIC DATA

IH 41/94
ADT = 90,600 (2020)
ADT = 107,200 (2040)
RDS = 70 MPH

STH 142
ADT = 4,828 (2010)
ADT = 14,190 (2035)
RDS = 50 MPH

NOTES

DRAWINGS SHALL NOT BE SCALED.

DECK SURFACE PREPARATION IS INCLUDED IN THE BID ITEM "POLYMER OVERLAY".

DIMENSIONS ARE BASED ON ORIGINAL STRUCTURE PLANS.

TRAFFIC WILL BE STAGED TO PLACE POLYMER OVERLAY. SEE ROADWAY PLANS FOR STAGING DETAILS.

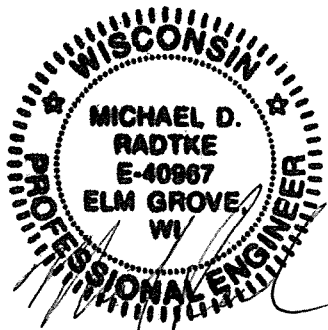
PROPOSED WORK INCLUDES PLACEMENT OF POLYMER OVERLAY ON BRIDGE DECK SURFACE. POLYMER OVERLAY IS NOT APPLIED TO APPROACH SLABS.

RESEAL SLOPE PAVING CRUSHED AGGREGATE AND SLOPE PAVING REPAIR CRUSHED AGGREGATE AS DIRECTED BY THE FIELD ENGINEER. QUANTITIES SHOWN ON PLANS ARE APPROXIMATE.

PROVIDE SLOPE DRAIN LATERALLY ALONG LOCATION OF EXISTING SLOPE PAVING FAILURE NEAR THE SOUTH ABUTMENT. SLOPE DRAIN TOWARDS THE WEST TO SLOPE AWAY FROM THE BRIDGE.

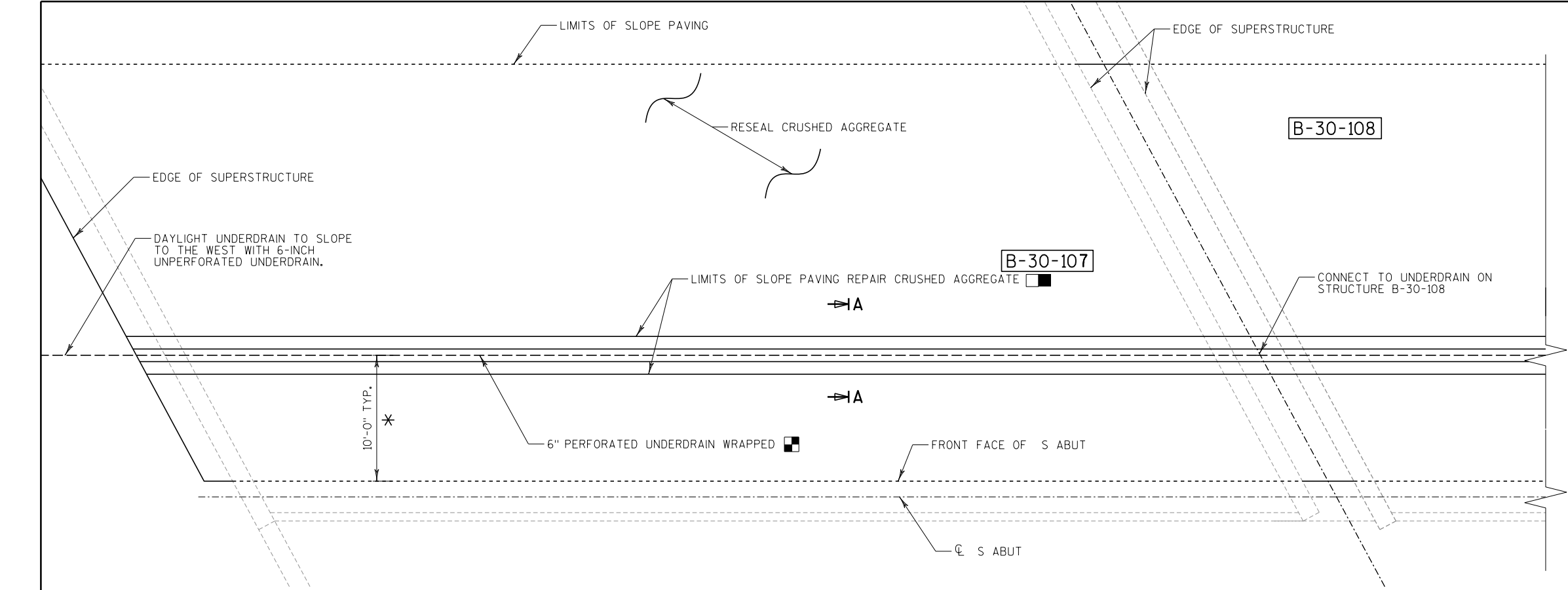
LIST OF DRAWINGS

1. GENERAL PLAN AND ELEVATION
2. SLOPE PAVING REPAIR

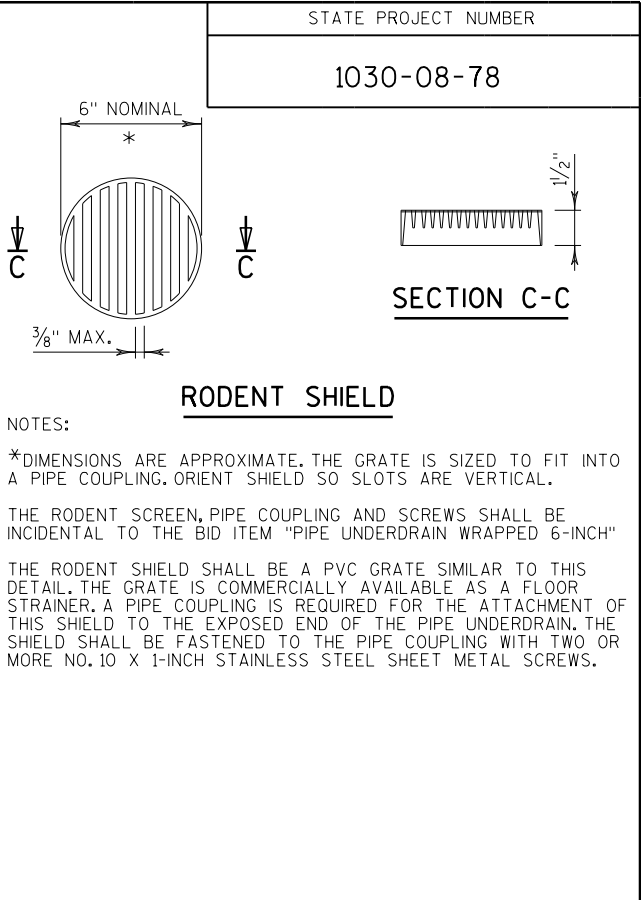


6/30/2020

NO.	DATE	REVISION	BY
emcs inc 1300 W. Canal Street, Suite 200 Milwaukee, WI 53233 414.347.1607 Fax 414.347.1347			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION ACCEPTED <i>[Signature]</i> SDR 11/19/20 CHIEF STRUCTURES DESIGN ENGINEER DATE			
STRUCTURE B-30-107			
IH41 SB/IH94 EB OVER STH 142			
COUNTY	KENOSHA	TOWN	SOMERS
DESIGN SPEC. REHABILITATION N/A			
DESIGNED BY	JRM	DESIGN CK'D.	MDR
DRAWN BY	JRM	PLANS CK'D.	MDR
GENERAL PLAN POLYMER OVERLAY			SHEET 1 OF 2 91



SLOPE REPAIR PLAN



NOTES:

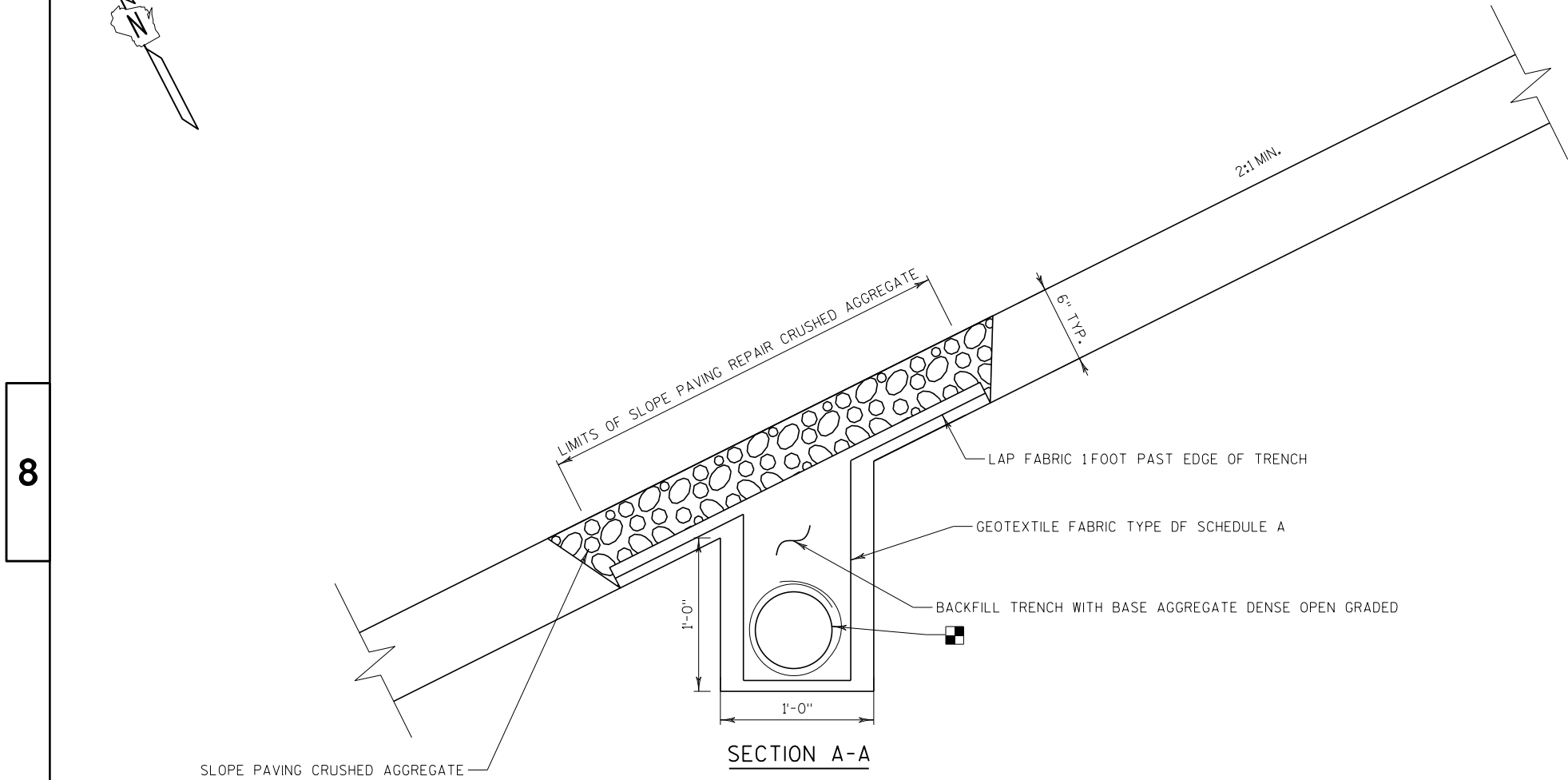
*DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SHIELD SO SLOTS ARE VERTICAL.

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

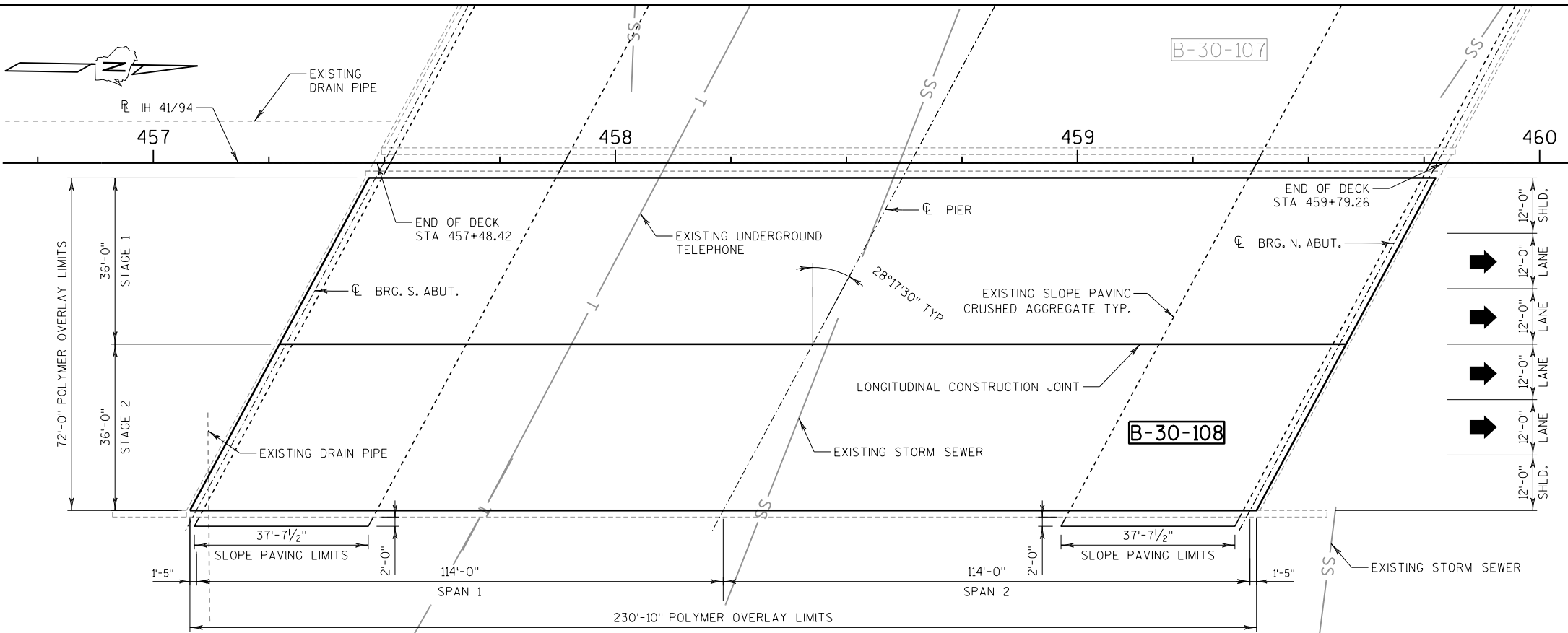
THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH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

NOTES

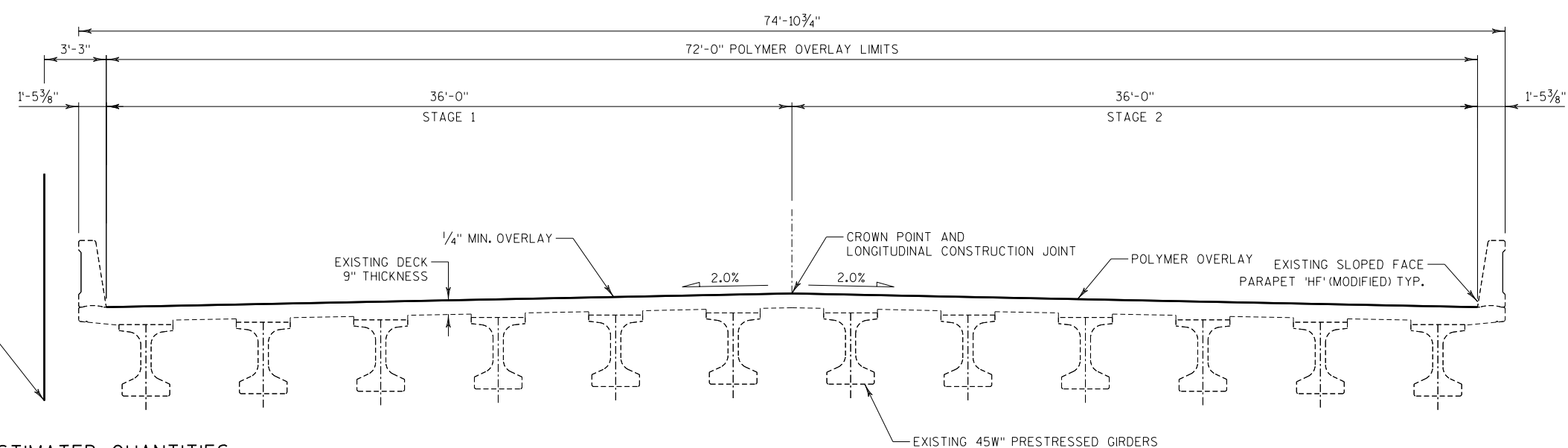
- PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN. PIPE UNDER DRAIN WRAPPED PAID FOR UNDER BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".
 - REPLACE EXISTING CRUSHED AGGREGATE. CONTRACTOR MAY REGRADE DISPLACED CRUSHED AGGREGATE. ADDITIONAL MATERIAL MAY BE NEEDED. COST INCLUDED IN THE BID ITEM "SLOPE PAVING REPAIR CRUSHED AGGREGATE".
 - *10 FT OFFSET FROM FF OF ABUTMENT, FIELD ENGINEER TO VERIFY LOCATION IS IN THE MIDDLE OF THE SLOPE PAVING REPAIR AREA ON B-30-108.
- EXCAVATION AND BASE AGGREGATE DENSE OPEN GRADED ARE INCLUDED IN THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH"
- UNPERFORATED PIPE PAID FOR UNDER BID ITEM "PIPE UNDERDRAIN UNPERFORATED 6-INCH".
- DRAINAGE FABRIC PAID FOR UNDER BID ITEM "GEOTEXTILE TYPE DF SCHEDULE A".
- RESEALING CRUSHED AGGREGATE PAID FOR UNDER BID ITEM " RESEAL CRUSHED AGGREGATE SLOPE PAVING".



NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-30-107			
DRAWN BY		JRM	PLANS CK'D. MDR
SLOPE PAVING REPAIR		SHEET 2 OF 2	
		92	



PLAN
TOP OF DECK SHOWN
(POLYMER OVERLAY)



CROSS SECTION THRU ROADWAY
LOOKING NORTH

TOTAL ESTIMATED QUANTITIES

BID ITEM NO.	BID ITEMS	UNIT	TOTAL
509.5100.S	POLYMER OVERLAY	SY	1,847
604.9010.S	SLOPE PAVING REPAIR CRUSHED AGGREGATE	CY	18
604.9015.S	RESEAL CRUSHED AGGREGATE SLOPE PAVING	SY	260
612.0206	PIPE UNDERDRAIN UNPERFORATED 6-INCH	LF	10
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	100
645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	60

DESIGN DATA

LIVE LOAD:
 DESIGN LOADING: HS-25
 INVENTORY RATING: HS-26
 OPERATING RATING: HS-50
 WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV): 246 KIPS

STRUCTURE RATING INCLUDES 5 PSF POLYMER OVERLAY.

STRUCTURE WAS INITIALLY DESIGNED FOR A 1 1/2" WEARING SURFACE, PLACED AT INITIAL CONSTRUCTION INTEGRAL WITH THE DECK. THE DESIGN DOES NOT PROVIDE FOR ADDITIONAL LOADS DUE TO A FUTURE WEARING SURFACE.

TRAFFIC DATA

IH 41/94	STH 142
ADT = 90,600 (2020)	ADT = 4,828 (2010)
ADT = 107,200 (2040)	ADT = 14,190 (2035)
RDS = 70 MPH	RDS = 50 MPH

NOTES

DRAWINGS SHALL NOT BE SCALED.

DECK SURFACE PREPARATION IS INCLUDED IN THE BID ITEM "POLYMER OVERLAY".

DIMENSIONS ARE BASED ON ORIGINAL STRUCTURE PLANS.

TRAFFIC WILL BE STAGED TO PLACE POLYMER OVERLAY. SEE ROADWAY PLANS FOR STAGING DETAILS.

PROPOSED WORK INCLUDES PLACEMENT OF POLYMER OVERLAY ON BRIDGE DECK SURFACE. POLYMER OVERLAY IS NOT APPLIED TO APPROACH SLABS.

RESEAL CRUSHED AGGREGATE SLOPE PAVING AND SLOPE PAVING REPAIR CRUSHED AGGREGATE AS DIRECTED BY THE FIELD ENGINEER. QUANTITIES SHOWN ON PLANS ARE APPROXIMATE.

PROVIDE SLOPE DRAIN LATERALLY ALONG LOCATION OF EXISTING SLOPE PAVING FAILURE NEAR THE SOUTH ABUTMENT. SLOPE DRAIN TOWARDS THE EAST TO SLOPE AWAY FROM THE BRIDGE.

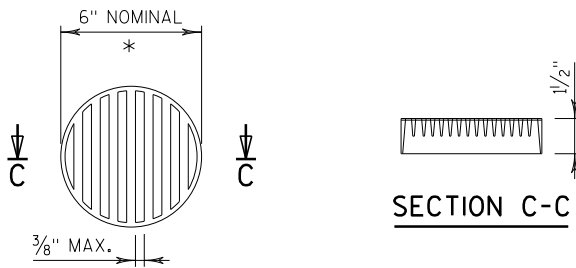
LIST OF DRAWINGS

- GENERAL PLAN AND ELEVATION
- SLOPE PAVING REPAIR



NO.		DATE		REVISION		BY	
emcs inc 1300 W. Canal Street, Suite 200 Milwaukee, WI 53233 414.347.1607 Fax 414.347.1347							
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION ACCEPTED <i>[Signature]</i> SDR 11/19/20 CHIEF STRUCTURES DESIGN ENGINEER DATE							
STRUCTURE B-30-108							
IH41NB/IH94 WB OVER STH 142							
COUNTY KENOSHA				TOWN SOMERS			
DESIGN SPEC. REHABILITATION N/A							
DESIGNED BY JRM	DESIGN CK'D.	MDR	DRAWN BY JRM	PLANS CK'D.	MDR		
GENERAL PLAN POLYMER OVERLAY						SHEET 1 OF 2 93	

STRUCTURES DESIGN CONTACTS
 BUREAU OF STRUCTURES:
 AARON BONK (608) 261-0261
 CONSULTANT:
 MICHAEL RADTKE (414) 347-1607



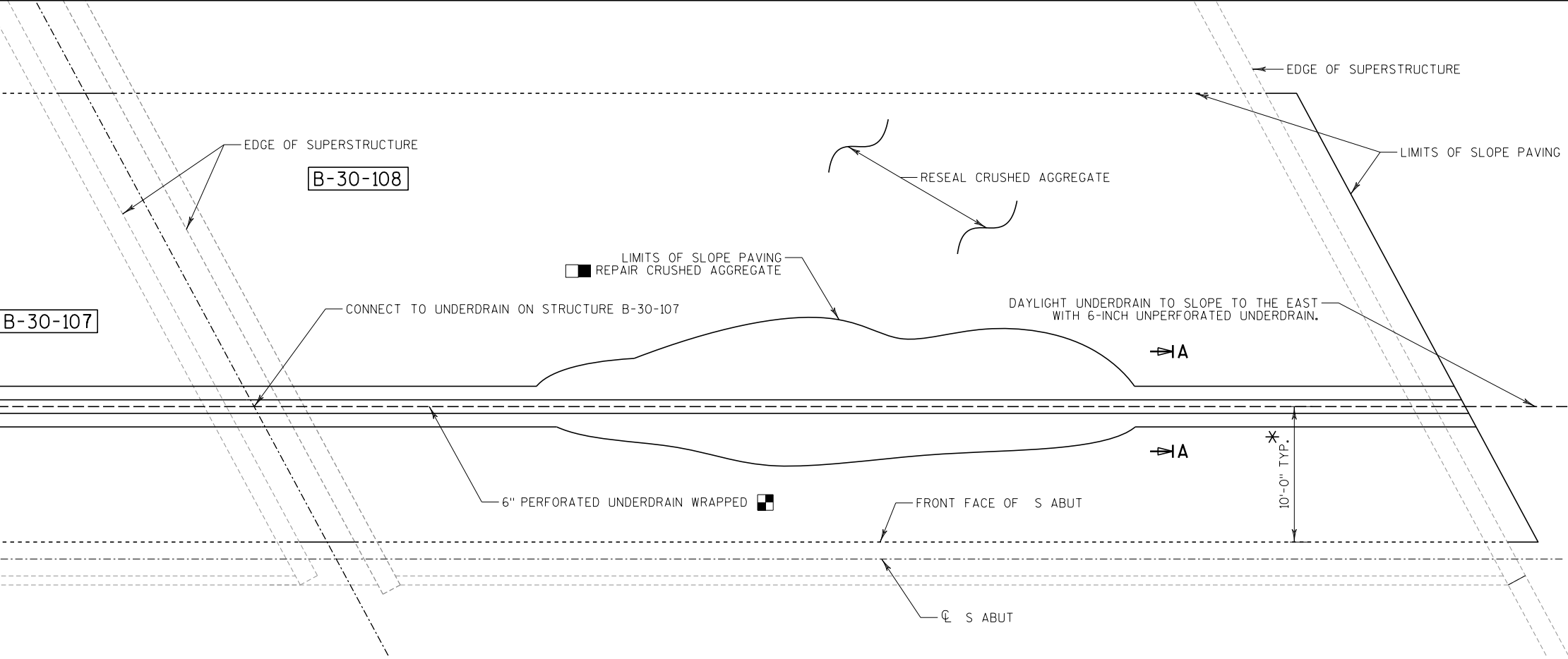
RODENT SHIELD

NOTES:

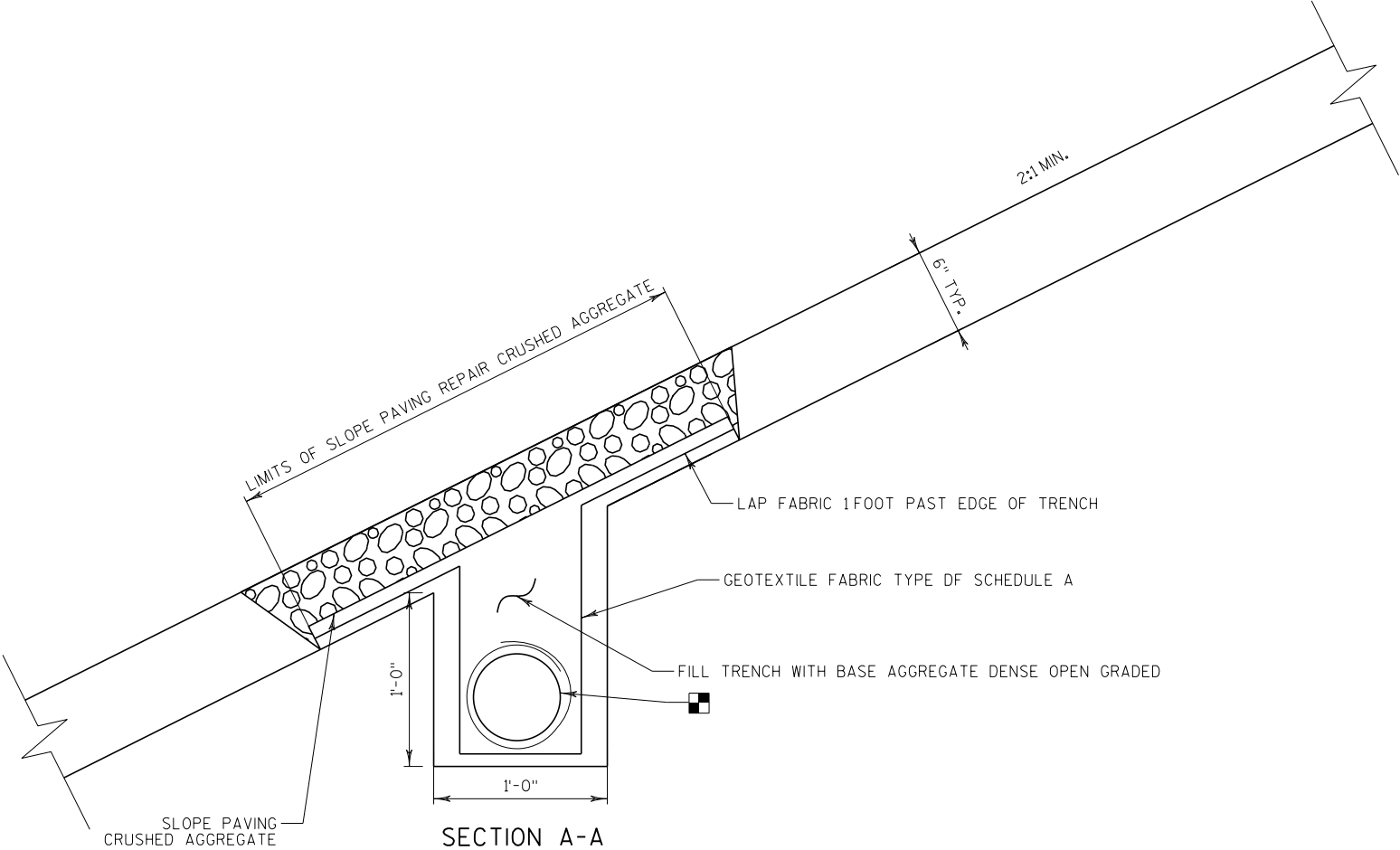
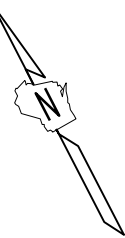
*DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SHIELD SO SLOTS ARE VERTICAL.

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

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



SLOPE REPAIR PLAN



NOTES

PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN. PIPE UNDER DRAIN WRAPPED PAID FOR UNDER BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

REPLACE EXISTING CRUSHED AGGREGATE. CONTRACTOR MAY REGRADE DISPLACED CRUSHED AGGREGATE. ADDITIONAL MATERIAL MAY BE NEEDED. COST INCLUDED IN THE BID ITEM "SLOPE PAVING REPAIR CRUSHED AGGREGATE".

10 FT OFFSET FROM FF OF ABUTMENT, FIELD ENGINEER TO VERIFY LOCATION IS IN THE MIDDLE OF THE SLOPE PAVING REPAIR AREA.

EXCAVATION AND BASE AGGREGATE DENSE OPEN GRADED ARE INCLUDED IN THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

UNPERFORATED PIPE PAID FOR UNDER BID ITEM "PIPE UNDERDRAIN UNPERFORATED 6-INCH".

DRAINAGE FABRIC PAID FOR UNDER BID ITEM "GEOTEXTILE TYPE DF SCHEDULE A".

RESEALING CRUSHED AGGREGATE PAID FOR UNDER BID ITEM " RESEAL CRUSHED AGGREGATE SLOPE PAVING".

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-30-108			
DRAWN BY		JRM	PLANS CK'D. MDR
SLOPE PAVING REPAIR		SHEET 2 OF 2	
		94	

DESIGN DATA

LIVE LOAD:
DESIGN LOADING: HL-93
INVENTORY RATING: RF = 1.08
OPERATING RATING: RF = 1.72
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV): 250 KIPS

STRUCTURE RATING INCLUDES 5 PSF POLYMER OVERLAY

STRUCTURE WAS INITIALLY DESIGNED FOR A FUTURE WEARING
SURFACE OF 20 PSF

TRAFFIC DATA

IH 41/94	CTH E
ADT = 90,000 (2020)	ADT = 3,510 (2005)
ADT = 105,500 (2040)	ADT = 10,150 (2030)
RDS = 70 MPH	RDS = 50 MPH

NOTES

DRAWINGS SHALL NOT BE SCALED.

DECK SURFACE PREPARATION IS INCLUDED IN THE BID ITEM "POLYMER
OVERLAY".

DIMENSIONS ARE BASED ON ORIGINAL STRUCTURE PLANS.

TRAFFIC WILL BE STAGED TO PLACE POLYMER OVERLAY. SEE ROADWAY
PLANS FOR STAGING DETAILS.

PROPOSED WORK INCLUDES PLACEMENT OF POLYMER OVERLAY ON BRIDGE
DECK SURFACE. POLYMER OVERLAY IS NOT APPLIED TO APPROACH SLABS.

LIST OF DRAWINGS

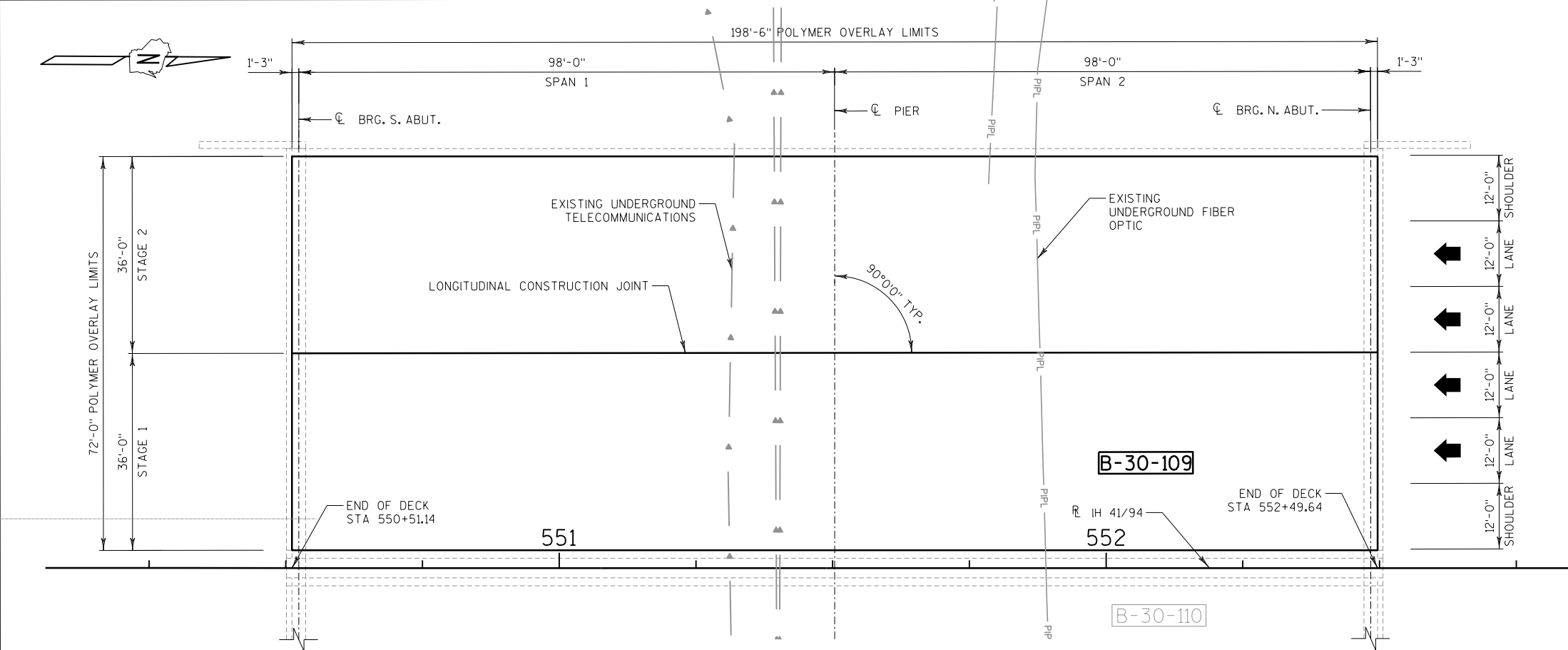
1. GENERAL PLAN AND ELEVATION



6/30/2020

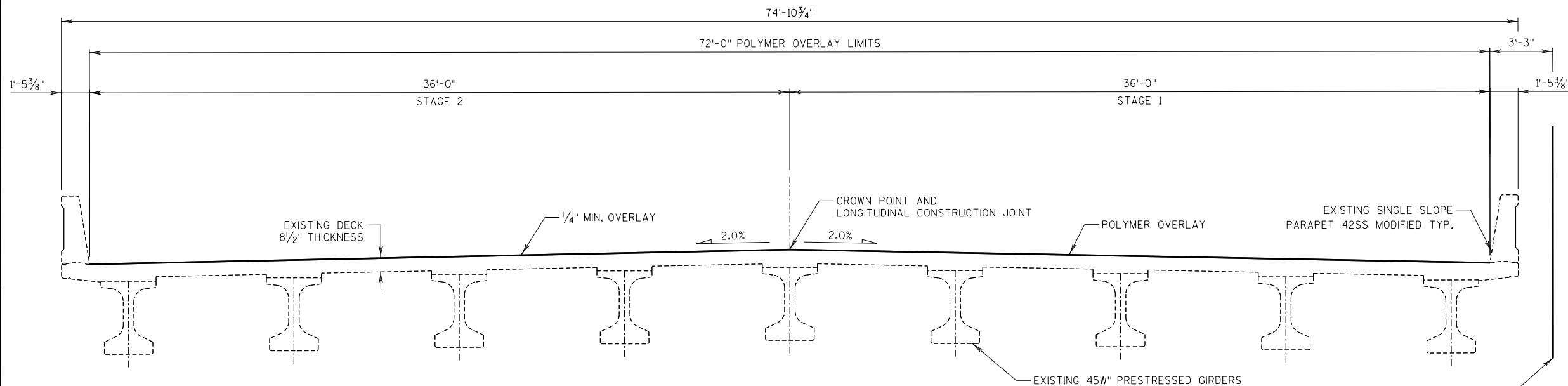
8

8



PLAN

TOP OF DECK SHOWN
(POLYMER OVERLAY)



CROSS SECTION THRU ROADWAY

LOOKING NORTH

TOTAL ESTIMATED QUANTITIES

BID ITEM NO.	BID ITEMS	UNIT	TOTAL
509.5100.S	POLYMER OVERLAY	SY	1,588

STRUCTURES DESIGN CONTACTS

BUREAU OF STRUCTURES:
AARON BONK (608) 261-0261
CONSULTANT:
MICHAEL RADTKE (414) 347-1607

NO.	DATE	REVISION	BY
emcs inc			
1300 W. Canal Street, Suite 200 Milwaukee, WI 53233 414.347.1607 Fax 414.347.1347			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
ACCEPTED	SDR		11/19/20
CHIEF STRUCTURES DESIGN ENGINEER DATE			
STRUCTURE B-30-109			
IH41SB/IH94 EB OVER CTH E			
COUNTY	KENOSHA	TOWN	SOMERS
DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS			
DESIGNED BY	JRM	DESIGN CK'D.	MDR
DRAWN BY	JRM	PLANS CK'D.	MDR
GENERAL PLAN POLYMER OVERLAY			SHEET 1 OF 1 95

DESIGN DATA

LIVE LOAD:
DESIGN LOADING: HL-93
INVENTORY RATING: RF = 1.08
OPERATING RATING: RF = 1.72
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV): 250 KIPS

STRUCTURE RATING INCLUDES 5 PSF POLYMER OVERLAY

STRUCTURE WAS INITIALLY DESIGNED FOR A FUTURE WEARING SURFACE OF 20 PSF

TRAFFIC DATA

IH 41/94
ADT = 90,000 (2020)
ADT = 105,500 (2040)
RDS = 70 MPH

CTH E
ADT = 3,510 (2005)
ADT = 10,150 (2030)
RDS = 50 MPH

NOTES

DRAWINGS SHALL NOT BE SCALED.

DECK SURFACE PREPARATION IS INCLUDED IN THE BID ITEM "POLYMER OVERLAY".

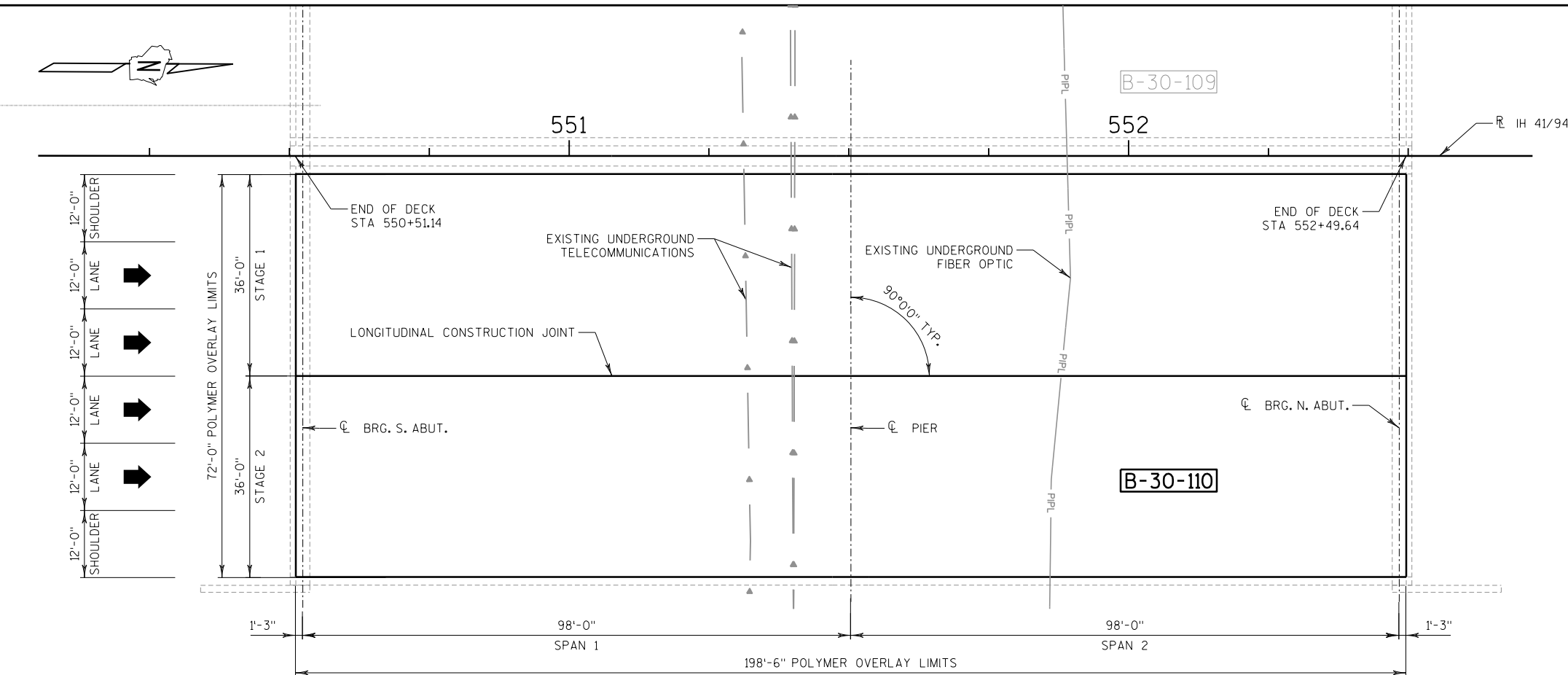
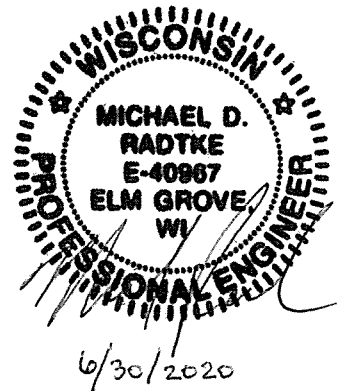
DIMENSIONS ARE BASED ON ORIGINAL STRUCTURE PLANS.

TRAFFIC WILL BE STAGED TO PLACE POLYMER OVERLAY, SEE ROADWAY PLANS FOR STAGING DETAILS.

PROPOSED WORK INCLUDES PLACEMENT OF POLYMER OVERLAY ON BRIDGE DECK SURFACE, POLYMER OVERLAY IS NOT APPLIED TO APPROACH SLABS.

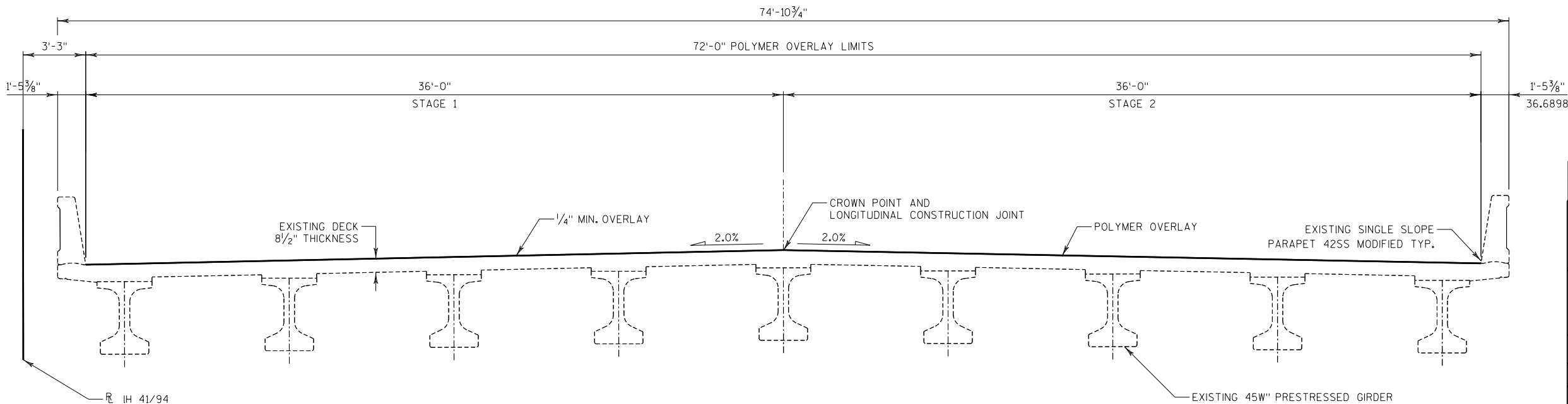
LIST OF DRAWINGS

1. GENERAL PLAN AND ELEVATION



PLAN

TOP OF DECK SHOWN
(POLYMER OVERLAY)



CROSS SECTION THRU ROADWAY

LOOKING NORTH

TOTAL ESTIMATED QUANTITIES

BID ITEM NO.	BID ITEMS	UNIT	TOTAL
509.5100.S	POLYMER OVERLAY	SY	1,588

STRUCTURES DESIGN CONTACTS

BUREAU OF STRUCTURES:
AARON BONK (608) 261-0261
CONSULTANT:
MICHAEL RADTKE (414) 347-1607

NO.	DATE	REVISION	BY
emcs inc 1300 W. Canal Street, Suite 200 Milwaukee, WI 53233 414.347.1607 Fax 414.347.1347			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION ACCEPTED <i>[Signature]</i> SDR 11/19/20 CHIEF STRUCTURES DESIGN ENGINEER DATE			
STRUCTURE B-30-110			
IH41NB/IH94 WB OVER CTH E			
COUNTY	KENOSHA	TOWN	SOMERS
DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS			
DESIGNED BY	JRM	DESIGN CK'D.	MDR
DRAWN BY	JRM	PLANS CK'D.	MDR
GENERAL PLAN POLYMER OVERLAY			SHEET 1 OF 1 96

DESIGN DATA

LIVE LOAD:
DESIGN LOADING: HL-93
INVENTORY RATING: RF = 1.37
OPERATING RATING: RF = 1.78
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV): 250 KIPS

STRUCTURE RATING INCLUDES 5 PSF POLYMER OVERLAY

STRUCTURE WAS INITIALLY DESIGNED FOR A FUTURE WEARING SURFACE OF 20 PSF

TRAFFIC DATA

IH 41/94
ADT = 90,000 (2020)
ADT = 105,500 (2040)
RDS = 70 MPH

CTH A
ADT = 570 (2040)
RDS = 60 MPH

NOTES

DRAWINGS SHALL NOT BE SCALED.

DECK SURFACE PREPARATION IS INCLUDED IN THE BID ITEM "POLYMER OVERLAY".

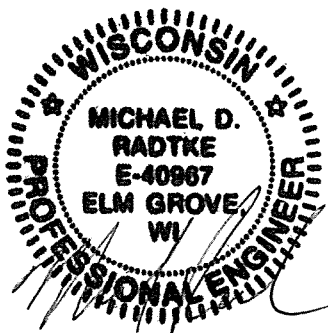
DIMENSIONS ARE BASED ON ORIGINAL STRUCTURE PLANS.

TRAFFIC WILL BE STAGED TO PLACE POLYMER OVERLAY. SEE ROADWAY PLANS FOR STAGING DETAILS.

PROPOSED WORK INCLUDES PLACEMENT OF POLYMER OVERLAY ON BRIDGE DECK SURFACE. POLYMER OVERLAY IS NOT APPLIED TO APPROACH SLABS.

LIST OF DRAWINGS

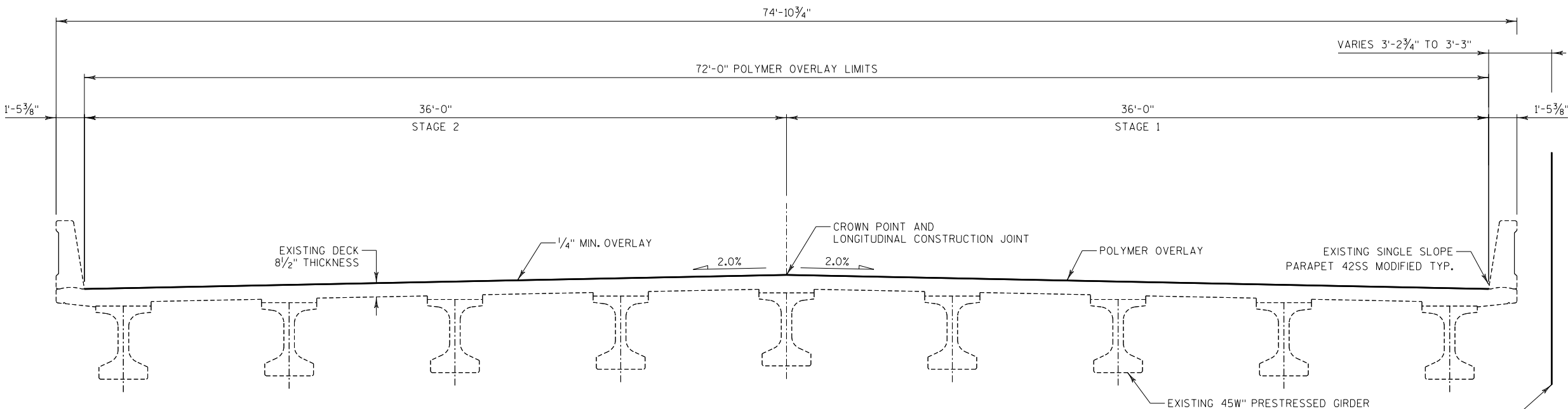
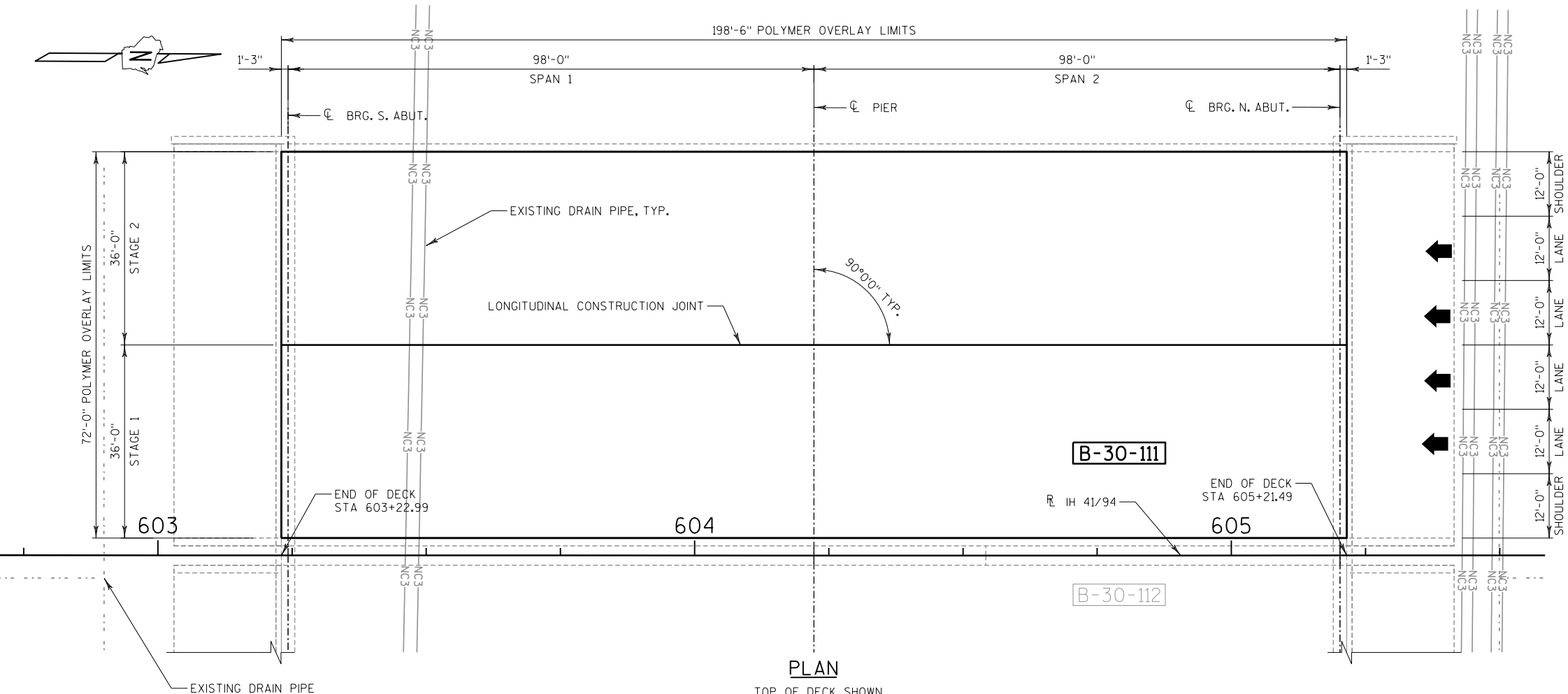
1. GENERAL PLAN AND ELEVATION



6/30/2020

PLAN

TOP OF DECK SHOWN
(POLYMER OVERLAY)



TOTAL ESTIMATED QUANTITIES

BID ITEM NO.	BID ITEMS	UNIT	TOTAL
509.5100.S	POLYMER OVERLAY	SY	1,588

CROSS SECTION THRU ROADWAY

LOOKING NORTH

STRUCTURES DESIGN CONTACTS

BUREAU OF STRUCTURES:
AARON BONK (608) 261-0261
CONSULTANT:
MICHAEL RADTKE (414) 347-1607

NO.	DATE	REVISION	BY
emcs inc 1300 W. Canal Street, Suite 200 Milwaukee, WI 53233 414.347.1607 Fax 414.347.1347			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
ACCEPTED	SDR 11/19/20		DATE
CHIEF STRUCTURES DESIGN ENGINEER			
STRUCTURE B-30-111			
IH41 SB/IH94 EB OVER CTH A			
COUNTY	KENOSHA	TOWN	PARIS
DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS			
DESIGNED BY	JRM	DESIGN CK'D.	MDR
DRAWN BY	JRM	PLANS CK'D.	MDR
GENERAL PLAN POLYMER OVERLAY			SHEET 1 OF 1 -97

LIVE LOAD:
DESIGN LOADING: HL-93
INVENTORY RATING: RF = 1.37
OPERATING RATING: RF = 1.78
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV): 250 KIPS

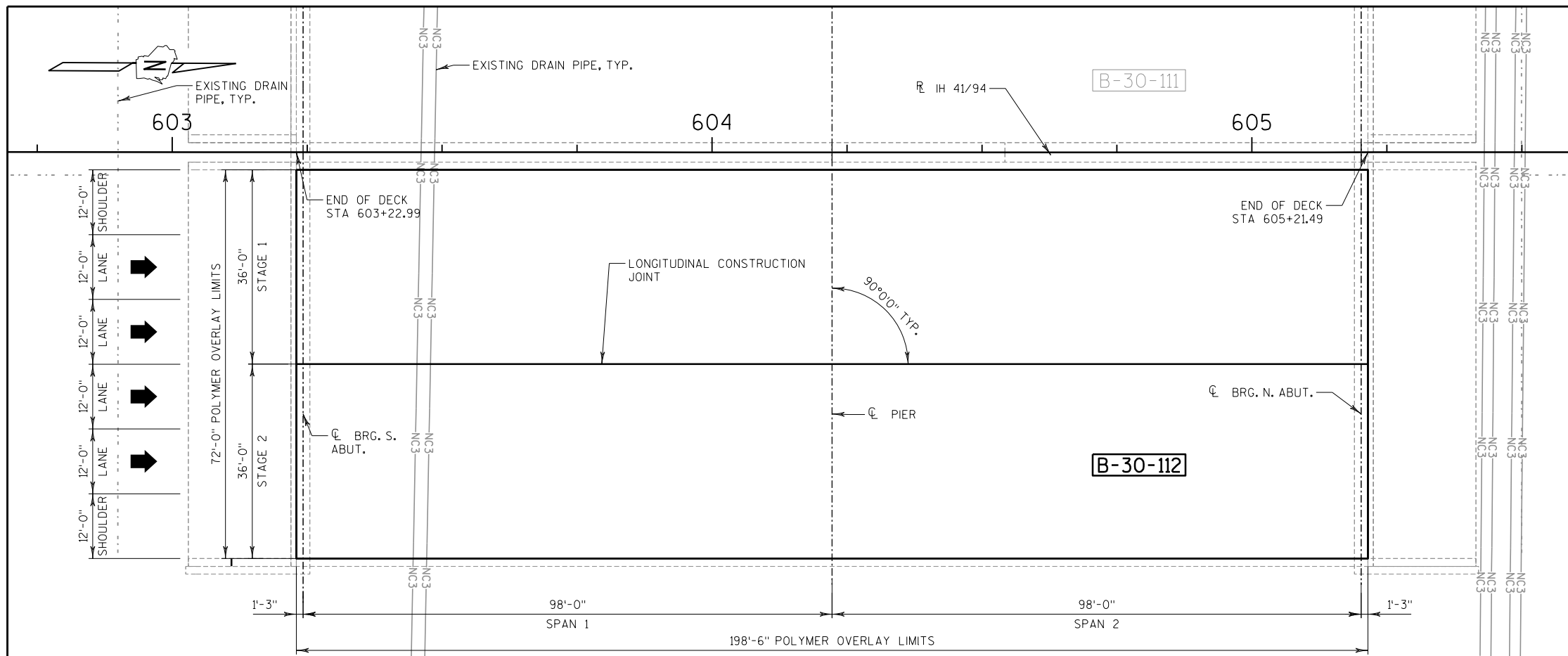
STRUCTURE WAS INITIALLY DESIGNED FOR A FUTURE WEARING SURFACE OF 20 PSF

<u>IH 41/94</u>	<u>CTH A</u>
ADT = 90,000 (2020)	ADT = 570 (2040)
ADT = 105,500 (2040)	RDS = 60 MPH
RDS = 70 MPH	

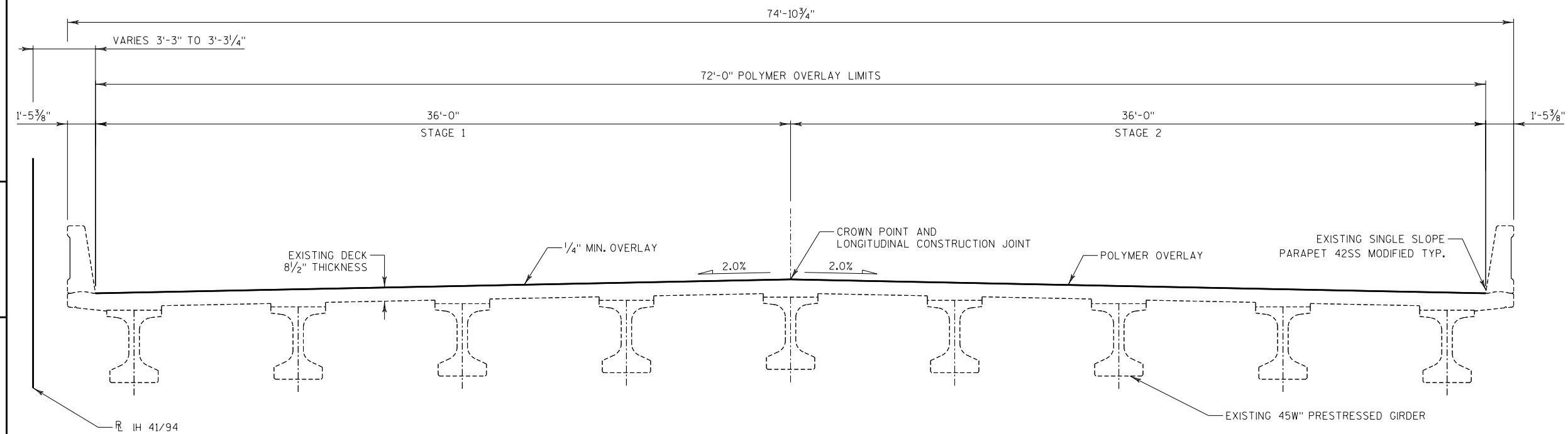
TRAFFIC WILL BE STAGED TO PLACE POLYMER OVERLAY. SEE ROADWAY PLANS FOR STAGING DETAILS.

PROPOSED WORK INCLUDES PLACEMENT OF POLYMER OVERLAY ON BRIDGE DECK SURFACE. POLYMER OVERLAY IS NOT APPLIED TO APPROACH SLABS.

1. GENERAL PLAN AND ELEVATION



PLAN
TOP OF DECK SHOWN
(POLYMER OVERLAY)

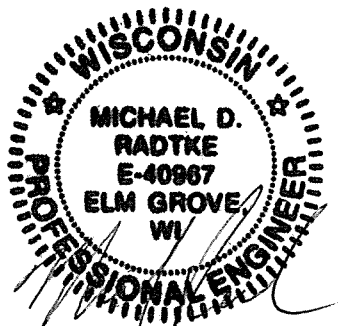


CROSS SECTION THRU ROADWAY
LOOKING NORTH

BID ITEM NO.	BID ITEMS	UNIT	TOTAL
509.5100.S	POLYMER OVERLAY	SY	1,588

BUREAU OF STRUCTURES:
AARON BONK (608) 261-0261

CONSULTANT:
MICHAEL RADTKE (414) 347-1607



6/30/2020

NO.	DATE	REVISION		BY
 1300 W. Canal Street, Suite 200 Milwaukee, WI 53233 414.347.1607 Fax 414.347.1347				
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION ACCEPTED  SDR 11/19/20 CHIEF STRUCTURES DESIGN ENGINEER DATE				
STRUCTURE B-30-112				
IH41NB/IH94 WB OVER CTH A				
COUNTY		KENOSHA	TOWN	SOMERS
DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS				
DESIGNED BY	JRM	DESIGN CK'D.	MDR	DRAWN BY JRM PLANS CK'D. MDR
GENERAL PLAN POLYMER OVERLAY			SHEET 1 OF 1 98	

DESIGN DATA

LIVE LOAD:
DESIGN LOADING: HL-93
INVENTORY RATING FACTOR: RF = 1.04
OPERATING RATING FACTOR: RF = 1.35
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) = 175 KIPS

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

TRAFFIC DATA

IH 41/94
A.A.D.T. = 90,600 (2020)
A.A.D.T. = 107,200 (2040)
RDS = 70 MPH

NOTES

- DRAWINGS SHALL NOT BE SCALED.
- DECK SURFACE PREPARATION IS INCLUDED IN THE BID ITEM "POLYMER OVERLAY".
- DIMENSIONS ARE BASED ON ORIGINAL STRUCTURE PLANS.
- TRAFFIC WILL BE STAGED TO PLACE POLYMER OVERLAY. SEE ROADWAY PLANS FOR STAGING DETAILS.
- PROPOSED WORK INCLUDES PLACEMENT OF POLYMER OVERLAY ON BRIDGE DECK SURFACE. POLYMER OVERLAY IS NOT APPLIED TO APPROACH SLABS.

LIST OF DRAWINGS

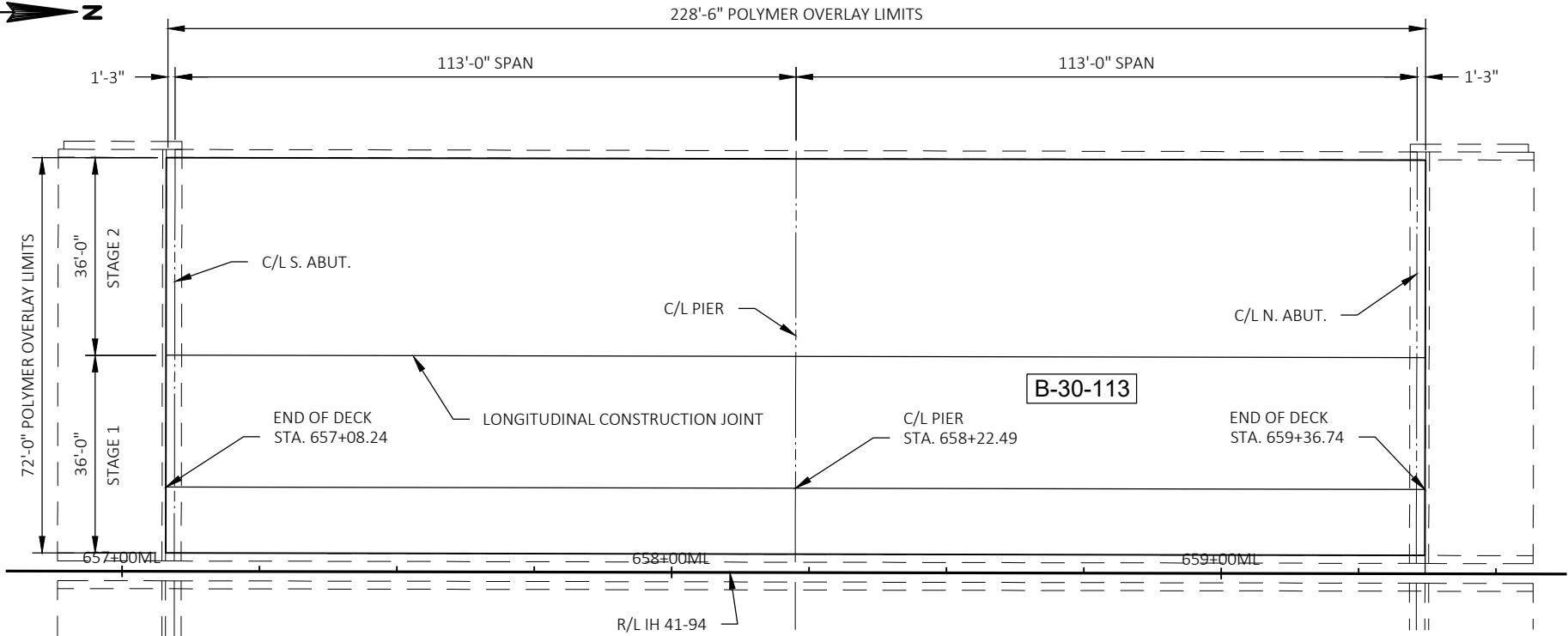
1. GENERAL PLAN POLYMER OVERLAY

TOTAL ESTIMATED QUANTITIES

BID ITEM NO.	BID ITEMS.	UNIT	TOTAL
509,5100.S	POLYMER OVERLAY	SY	1,828

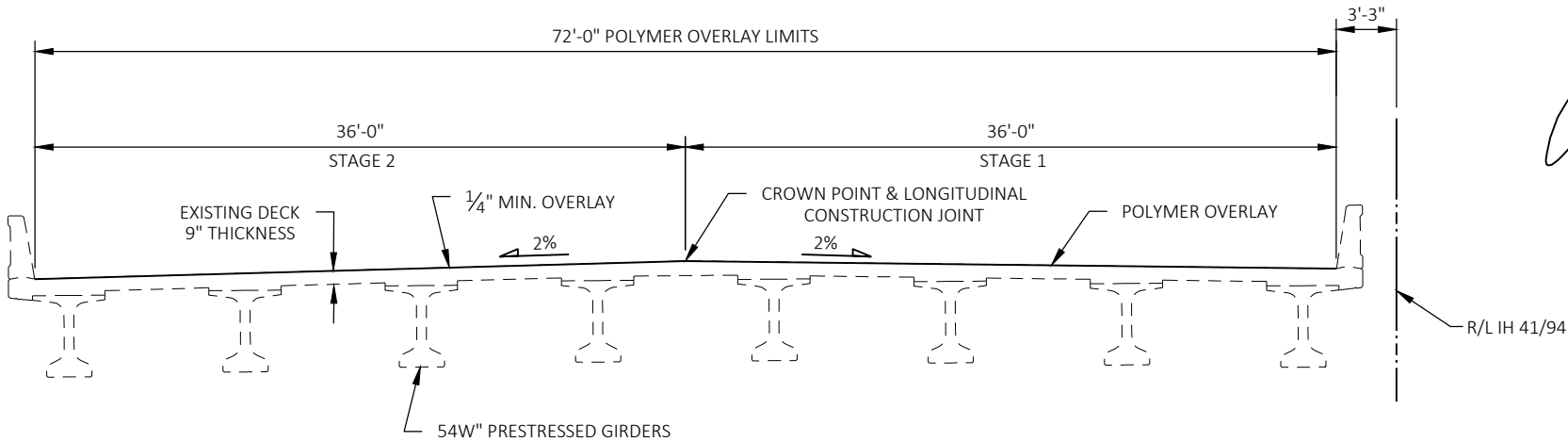


June 23, 2020



PLAN

TOP OF DECK SHOWN
(POLYMER OVERLAY)



TYPICAL DECK SECTION

LOOKING NORTH

NO.	DATE	REVISION	BY
KL Engineering <i>[A] Better Experience</i>			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
ACCEPTED	 SDR		11/19/20
CHIEF STRUCTURES DESIGN ENGINEER		DATE	
STRUCTURE B-30-113			
IH 41 SB / 94 EB OVER CTH KR			
COUNTY	KENOSHA	TOWN/CITY/VILLAGE	MOUNT PLEASANT
DESIGN SPEC. REHABILITATION N/A			
DESIGNED BY	CDH	DESIGN CK'D.	CAH
DRAWN BY	STD	PLANS CK'D.	CDH
GENERAL PLAN POLYMER OVERLAY		SHEET 1 OF 1 99	

STRUCTURE DESIGN CONTACTS
BUREAU OF STRUCTURES:
AARON BONK (608) 261-0261
CONSULTANT:
CHAD HALVERSON (608) 663-1218

DESIGN DATA

LIVE LOAD:
DESIGN LOADING: HL-93
INVENTORY RATING FACTOR: RF = 1.04
OPERATING RATING FACTOR: RF = 1.35
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) = 175 KIPS

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

TRAFFIC DATA

IH 41/94
A.A.D.T. = 90,600 (2020)
A.A.D.T. = 107,200 (2040)
RDS = 70 MPH

NOTES

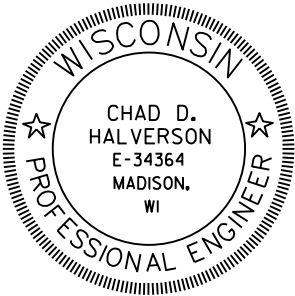
- DRAWINGS SHALL NOT BE SCALED.
- DECK SURFACE PREPARATION IS INCLUDED IN THE BID ITEM "POLYMER OVERLAY".
- DIMENSIONS ARE BASED ON ORIGINAL STRUCTURE PLANS.
- TRAFFIC WILL BE STAGED TO PLACE POLYMER OVERLAY. SEE ROADWAY PLANS FOR STAGING DETAILS.
- PROPOSED WORK INCLUDES PLACEMENT OF POLYMER OVERLAY ON BRIDGE DECK SURFACE. POLYMER OVERLAY IS NOT APPLIED TO APPROACH SLABS.

LIST OF DRAWINGS

1. GENERAL PLAN POLYMER OVERLAY

TOTAL ESTIMATED QUANTITIES

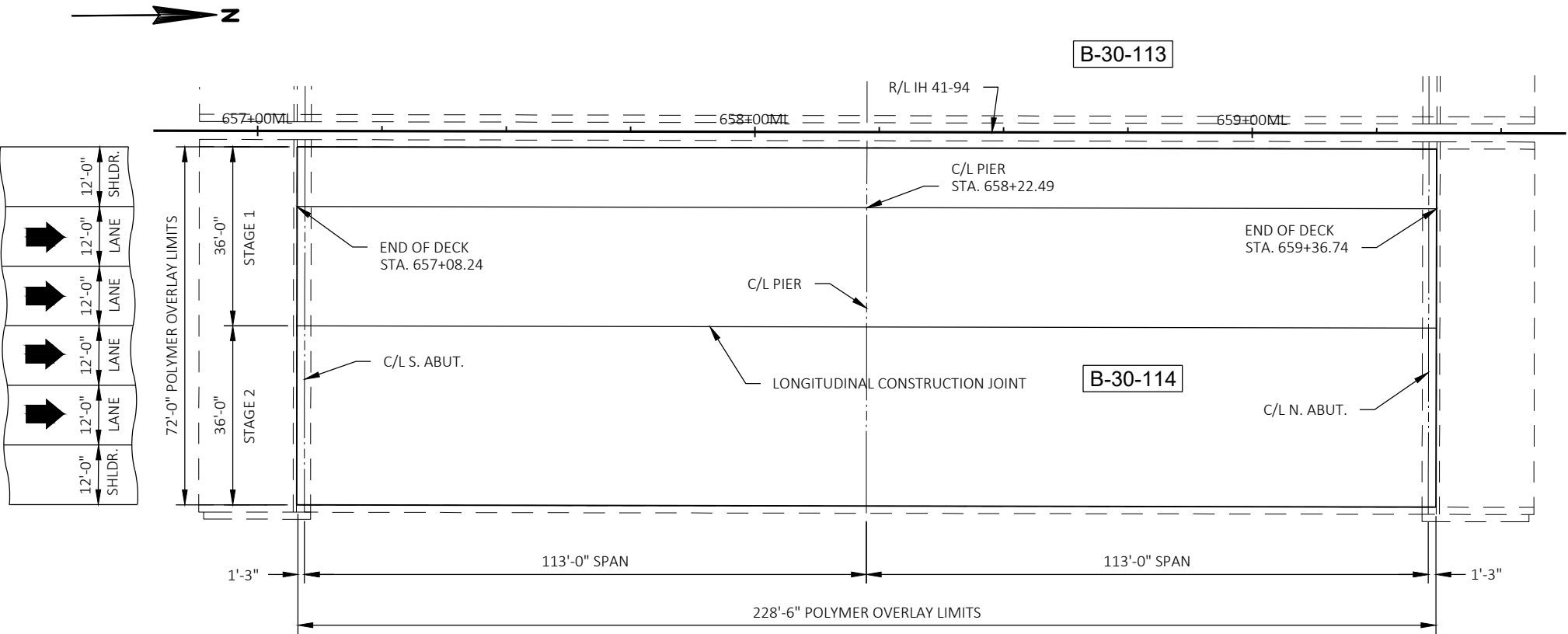
BID ITEM NO.	BID ITEMS.	UNIT	TOTAL
509,5100.S	POLYMER OVERLAY	SY	1,828



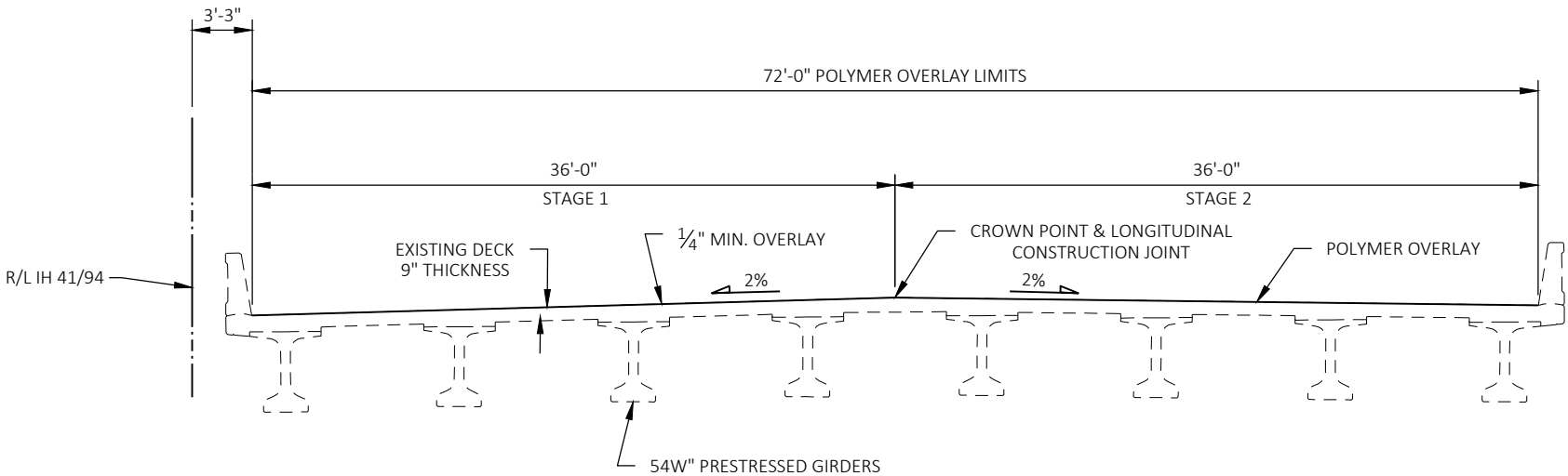
Chad Halverson
June 23, 2020

NO.	DATE	REVISION	BY
			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
ACCEPTED		SDR	11/19/20
CHIEF STRUCTURES DESIGN ENGINEER		DATE	
STRUCTURE B-30-114			
IH 41 NB / 94 WB OVER CTH KR			
COUNTY	KENOSHA	TOWN/CITY/VILLAGE	MOUNT PLEASANT
DESIGN SPEC. REHABILITATION N/A			
DESIGNED BY	CDH	DESIGN CK'D.	CAH
DRAWN BY	STD	PLANS CK'D.	CDH
GENERAL PLAN POLYMER OVERLAY			SHEET 1 OF 1 100

STRUCTURE DESIGN CONTACTS
BUREAU OF STRUCTURES:
AARON BONK (608) 261-0261
CONSULTANT:
CHAD HALVERSON (608) 663-1218



PLAN
TOP OF DECK SHOWN
(POLYMER OVERLAY)



TYPICAL DECK SECTION
LOOKING NORTH

LIVE LOAD:
DESIGN LOADING: HS-25
INVENTORY RATING: HS-21
OPERATING RATING: HS-54
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) = 200 KIPS

TRAFFIC DATA

NOTES

PROPOSED WORK INCLUDES PLACEMENT OF POLYMER OVERLAY ON BRIDGE DECK SURFACE. POLYMER OVERLAY IS NOT APPLIED TO APPROACH SLABS.

1. GENERAL PLAN POLYMER OVERLAY

BID ITEM NO.	BID ITEMS.	UNIT	TOTAL
509.5100.S	POLYMER OVERLAY	SY	1,620



B-30-118



WISCONSIN

★

CHAD D.
HALVERSON
E-34364
MADISON,
WI

PROFESSIONAL ENGINEER

★

NO.	DATE	REVISION	BY
			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
ACCEPTED	 CHIEF STRUCTURES DESIGN ENGINEER		SDR 11/19/20 DATE
STRUCTURE B-30-117			
IH 41 SB / 94 EB OVER 71 ST STREET			
COUNTY	KENOSHA	TOWN/CITY/VILLAGE BRISTOL/PLEASANT PRAIRIE	
DESIGN SPEC. REHABILITATION N/A			
DESIGNED BY	CDH	DESIGN CK'D.	CAH
DRAWN BY	STD	PLANS CK'D.	CDH
GENERAL PLAN POLYMER OVERLAY		SHEET 1 OF 1 101	

DESIGN DATA

LIVE LOAD:
DESIGN LOADING: HS-25
INVENTORY RATING: HS-21
OPERATING RATING: HS-54
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) = 200 KIPS

STRUCTURE WAS DESIGNED FOR A 1 1/2" SACRIFICIAL WEARING SURFACE, PLACED AT INITIAL CONSTRUCTION INTEGRAL WITH THE DECK. THE DESIGN DOES NOT PROVIDE FOR ADDITIONAL LOADS DUE TO A FUTURE WEARING SURFACE.

TRAFFIC DATA

IH 41/94
A.A.D.T. = 90,600 (2020)
A.A.D.T. = 107,200 (2040)
RDS = 70 MPH

NOTES

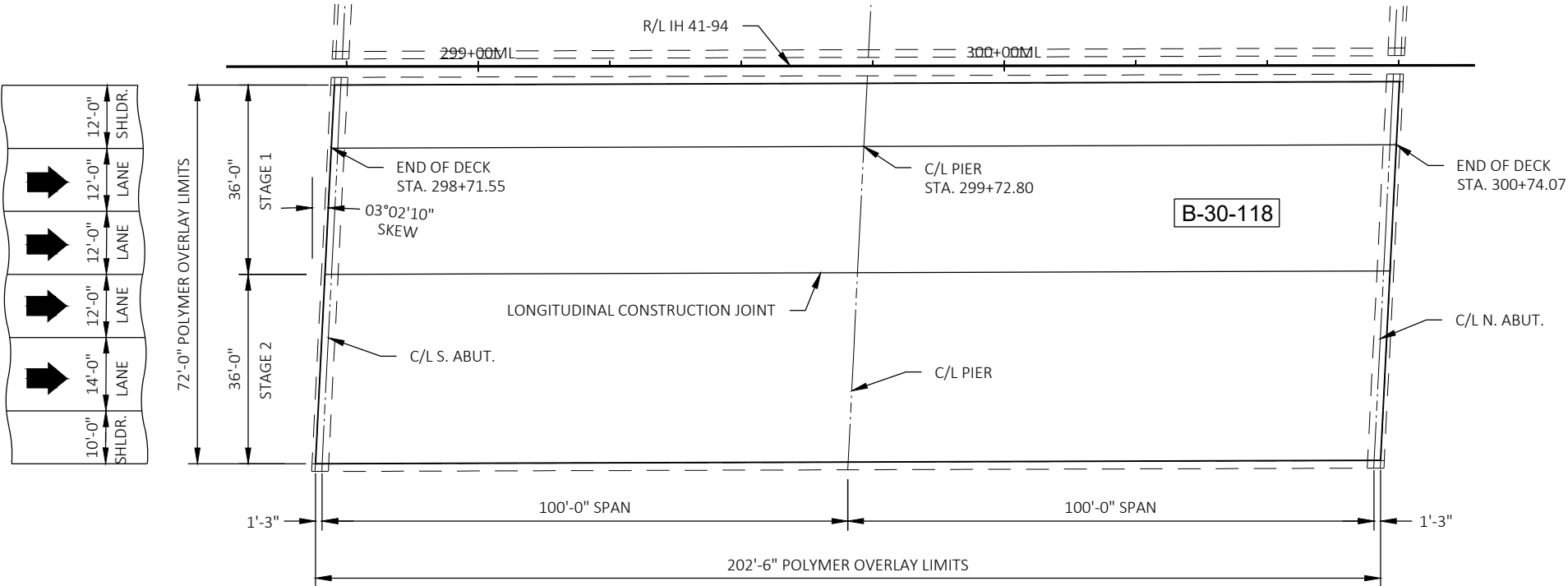
- DRAWINGS SHALL NOT BE SCALED.
- DECK SURFACE PREPARATION IS INCLUDED IN THE BID ITEM "POLYMER OVERLAY".
- DIMENSIONS ARE BASED ON ORIGINAL STRUCTURE PLANS.
- TRAFFIC WILL BE STAGED TO PLACE POLYMER OVERLAY. SEE ROADWAY PLANS FOR STAGING DETAILS.
- PROPOSED WORK INCLUDES PLACEMENT OF POLYMER OVERLAY ON BRIDGE DECK SURFACE. POLYMER OVERLAY IS NOT APPLIED TO APPROACH SLABS.

LIST OF DRAWINGS

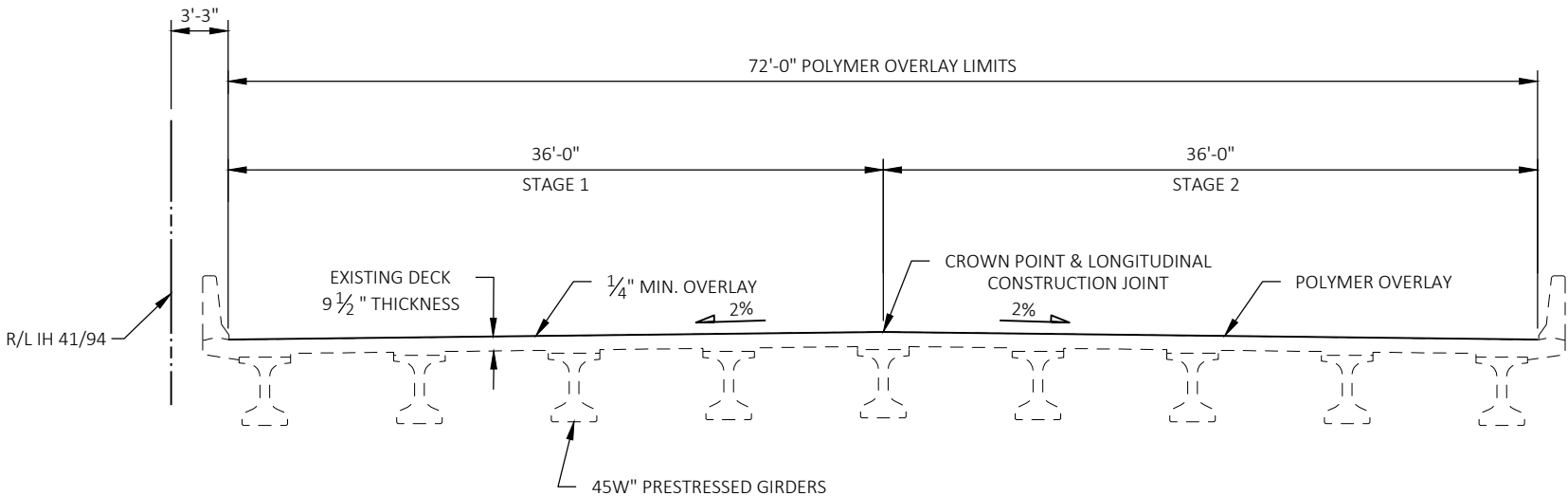
1. GENERAL PLAN POLYMER OVERLAY

TOTAL ESTIMATED QUANTITIES

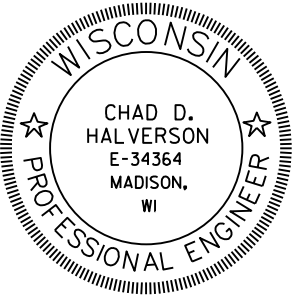
BID ITEM NO.	BID ITEMS.	UNIT	TOTAL
509,5100.S	POLYMER OVERLAY	SY	1,620



PLAN
TOP OF DECK SHOWN
(POLYMER OVERLAY)



TYPICAL DECK SECTION
LOOKING NORTH



June 23, 2020

STRUCTURE DESIGN CONTACTS
BUREAU OF STRUCTURES:
AARON BONK (608) 261-0261
CONSULTANT:
CHAD HALVERSON (608) 663-1218

NO.	DATE	REVISION	BY
KL Engineering [A] Better Experience			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
ACCEPTED	<i>Chad Halverson</i>	SDR	11/19/20
CHIEF STRUCTURES DESIGN ENGINEER DATE			
STRUCTURE B-30-118			
IH 41 NB / 94 WB OVER 71 ST STREET			
COUNTY	KENOSHA	TOWN/CITY/VILLAGE	BRISTOL/PLEASANT PRAIRIE
DESIGN SPEC. REHABILITATION N/A			
DESIGNED BY	CDH	DESIGN CK'D.	CAH
DRAWN BY	STD	PLANS CK'D.	CDH
GENERAL PLAN POLYMER OVERLAY			SHEET 1 OF 1 102

NOTES

DRAWINGS SHALL NOT BE SCALED.

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

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

ALL DIMENSIONS ARE IN FEET AND INCHES UNLESS OTHERWISE NOTED.

THE CONTRACTOR MUST PROTECT THE EXISTING REINFORCEMENT STEEL THAT REMAINS DURING DEMOLITION. REPLACEMENT OF CULVERT COMPONENTS DAMAGED DURING THE REMOVAL OF THE EXISTING WALL WILL BE THE CONTRACTORS RESPONSIBILITY AND REPLACED AT NO ADDITIONAL COST TO THE OWNER.

UTILIZE EXISTING BAR STEEL REINFORCEMENT WHERE SHOWN AND EXTEND 24 BAR DIAMETERS INTO NEW WORK, UNLESS SPECIFIED OTHERWISE.

THE EXITING STRUCTURE, C-30-4, IS A 2-CELL CONCRETE BOX CULVERT. EACH CELL HAS A CLEAR WIDTH OF 8'-0" AND A CLEAR HEIGHT OF 6'-0". THE EXISTING BOX WAS EXTENDED AT THE EAST END AND SHORTENED AT THE WEST END IN 2010 AND 2011.

EXISTING BOX DIMENSIONS ARE BASED ON ORIGINAL STRUCTURE PLANS.

ALL CONCRETE REMOVAL SHALL BE DEFINED BY A 1/2-INCH DEEP SAW CUT. SAW CUTS ARE CONSIDERED INCLUDED IN BID ITEM "FULL DEPTH CULVERT WALL REPAIR".

REMOVAL, DISPOSAL, AND NEW CONCRETE PLACEMENT OF PIPE PENETRATION PATCH REPAIR AREA IS CONSIDERED INCLUDED IN BID ITEM "FULL DEPTH CULVERT WALL REPAIR".

**DESIGN DATA**

LIVE LOAD:
DESIGN LOADING: HS-20

EARTH LOAD:
DESIGN FOR FILL MAX HEIGHT 8 FEET
LIVE LOAD SURCHARGE = 240 PSF
TOTAL UNIT WEIGHT OF SOIL (SATURATED) = 130 PCF
AT REST EARTH PRESSURE COEFFICIENT (K_o) = 0.5

MATERIAL PROPERTIES:

CONCRETE MASONRY _____ f'_c = 3,500 psi
HIGH STRENGTH
BAR STEEL REINFORCEMENT (GRADE 60) _____ f_y = 60,000 psi

TRAFFIC DATA**IH 41/94**

ADT = 90,600 (2020)
ADT = 107,200 (2040)
RDS = 70 MPH

BILL OF BARS

BAR MARK	COAT	NO.	LENGTH	BENT	LOCATION
S401	X	16	1'-6"		WALL ANCHORS
S402	X	18	3'-8"		VERT & HORIZ BARS

TOTAL ESTIMATED QUANTITIES

BID ITEM NO.	BID ITEMS	UNIT	TOTAL
502.4204	ADHESIVE ANCHORS NO. 4 BAR	EACH	16
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	61
SPV.0165.0001	FULL DEPTH CULVERT WALL REPAIR	SF	16

LIST OF DRAWINGS

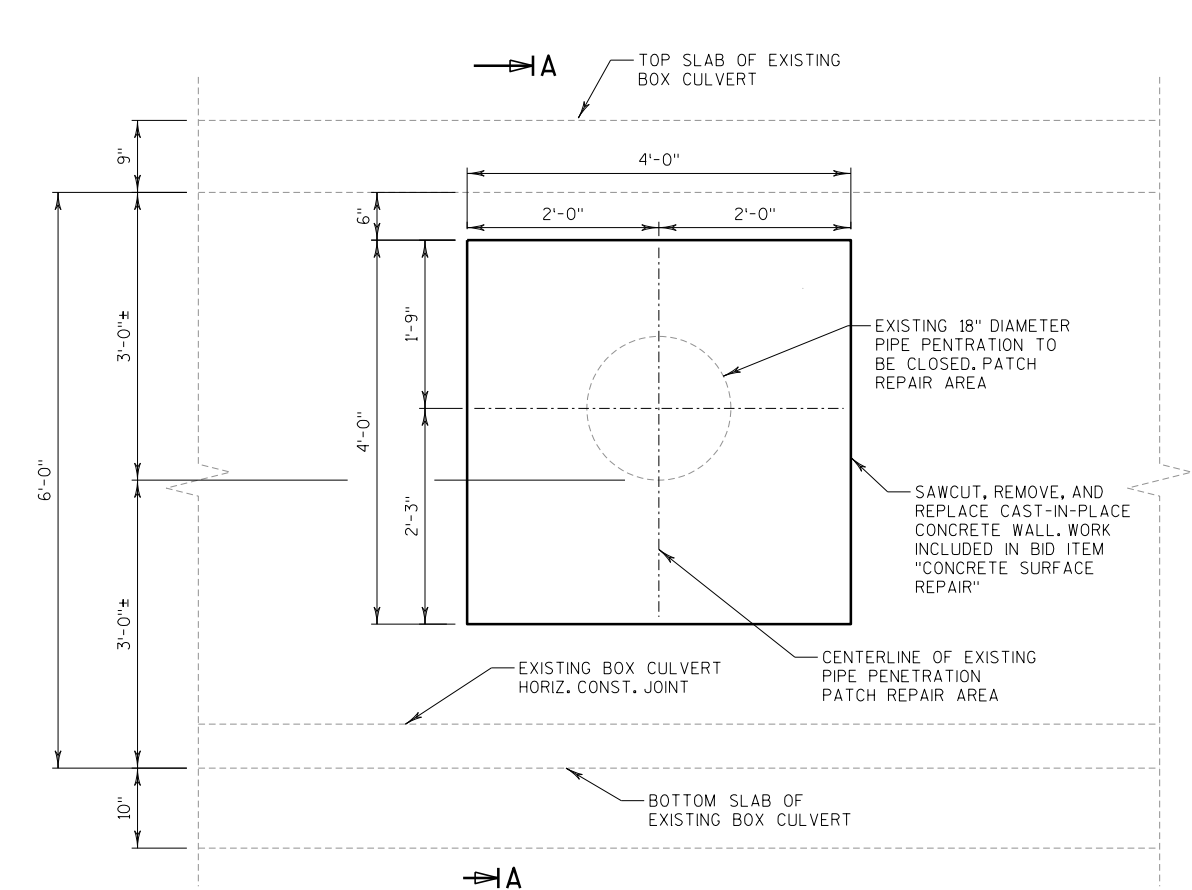
1. BOX CULVERT REPAIR DETAIL

STRUCTURES DESIGN CONTACTS

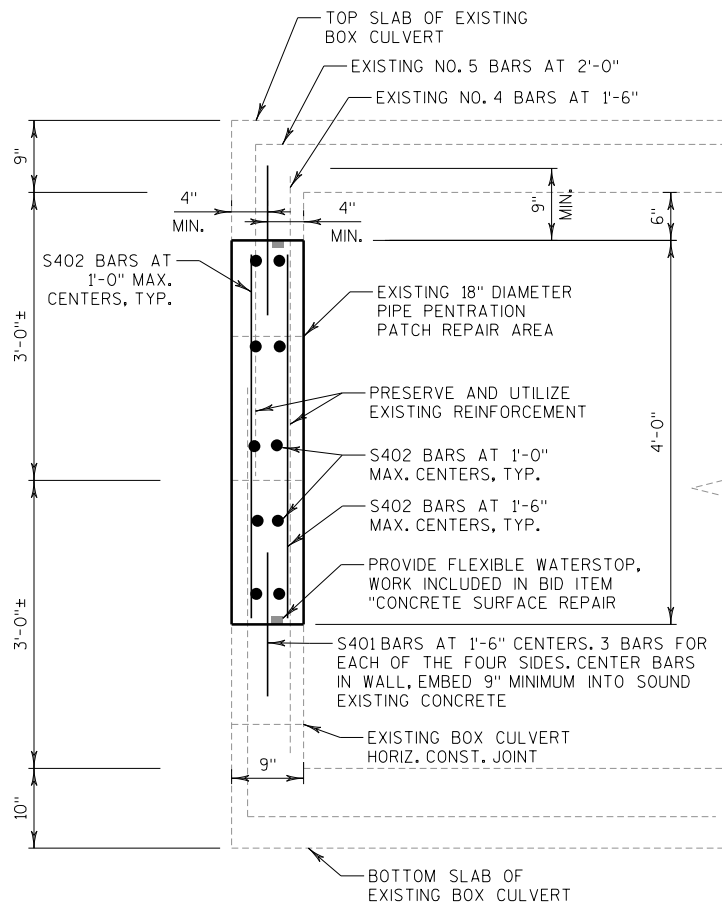
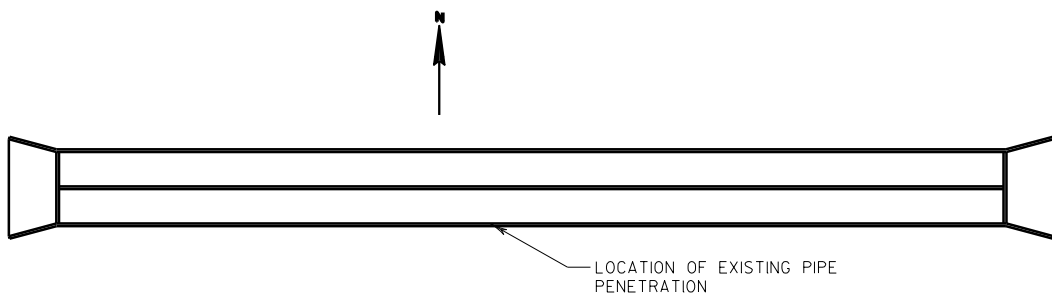
BUREAU OF STRUCTURES:
AARON BONK (608) 261-0261

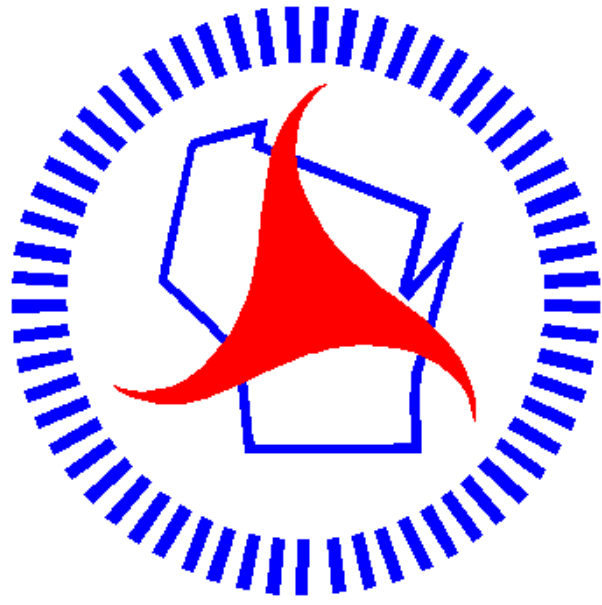
CONSULTANT:
MICHAEL RADTKE (414) 347-1607

NO.	DATE	REVISION	BY
emcs inc 1300 W. Canal Street, Suite 200 Milwaukee, WI 53233 414.347.1607 Fax 414.347.1347			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
ACCEPTED	SDR CHIEF STRUCTURES DESIGN ENGINEER		11/27/20 DATE
STRUCTURE C-30-4			
IH41/IH94 OVER TRIB. TO KILBOURN ROAD DITCH			
COUNTY	KENOSHA	TOWN	PARIS
DESIGN SPEC. REHABILITATION N/A			
DESIGNED BY	MDR	DESIGN CK'D.	JRM
DRAWN BY	MDR	PLANS CK'D.	JRM
BOX CULVERT REPAIR DETAIL			SHEET 1 OF 1 103

**SOUTH WALL ELEVATION**

LOOKING SOUTH AT PIPE PENETRATION
PATCH REPAIR AREA IN SOUTH CELL WALL

**SECTION A-A****PLAN**



Wisconsin Department of Transportation

Dedicated people creating transportation solutions through innovation and exceptional service.

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