

MAD

PROJECT ID: 1000-20-83

WITH: 1009-43-70

COUNTY: STATEWIDE

FEBRUARY 2024

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 Plot

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

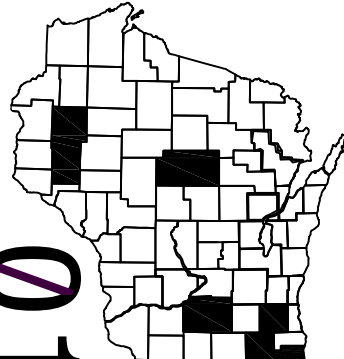
Computer Earthwork Data

Section No. 9

Cross Sections

TOTAL SHEETS = 140

01



N

DESIGN DESIGNATION

A.A.D.T.

=

A.A.D.T.

=

D.H.V.

=

D.D.

=

T.

=

DESIGN SPEED

=

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


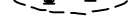
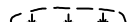








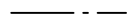

TELEPHONE









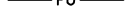

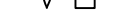
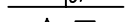




WATER

UTILITY PEDESTAL

POWER POLE

TELEPHONE POLE





STATE OF WISCONSIN

DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

STATEWIDE TYPE I

SIGN REPLACEMENT

LOCATIONS ON STN PER ANNUAL PLAN

VAR HWY

STATEWIDE

C WAUSAU TYPE I/ II

SIGN REPLACEMENT

LOCATIONS ON STN PER ANNUAL PLAN

USH 51 & STH 29

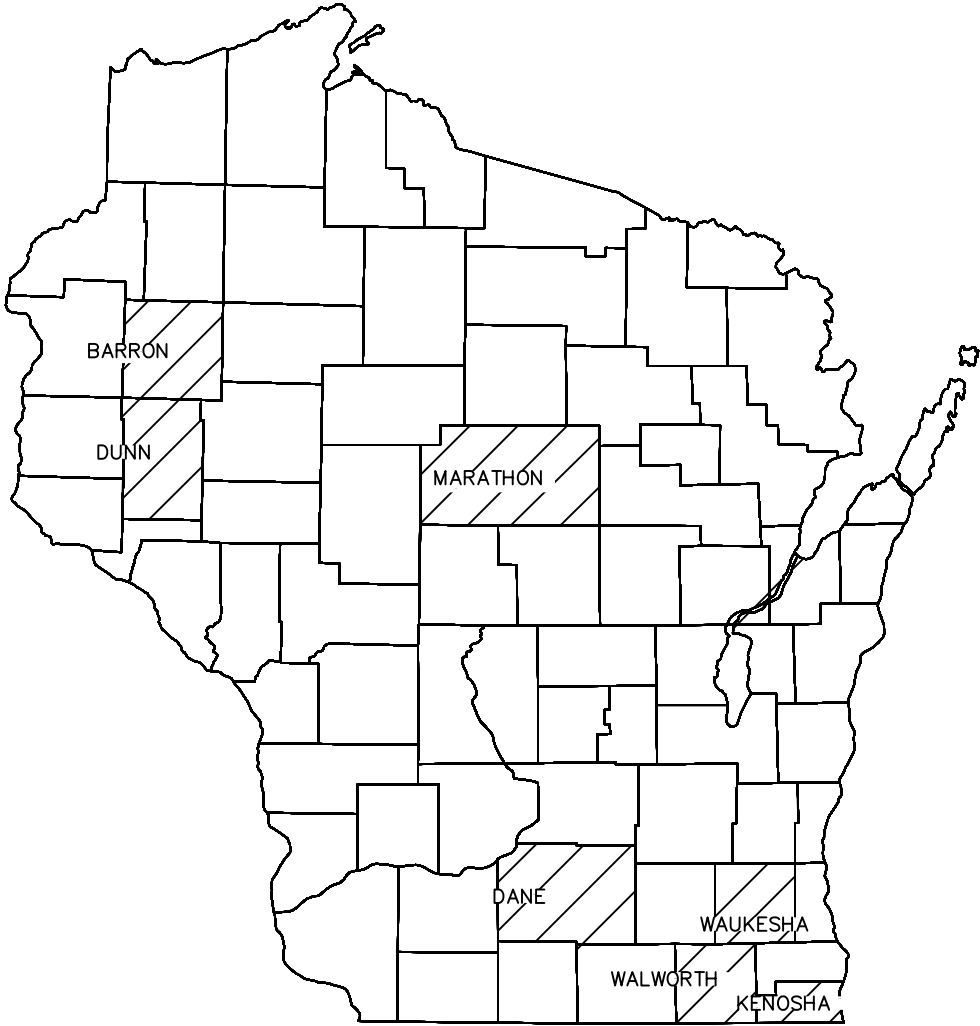
MARATHON

STATE PROJECT NUMBER

1000-20-83

STATE PROJECT NUMBER

1009-43-70



LAYOUT

SCALE 0

TOTAL NET LENGTH OF CENTERLINE =

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, COUNTY COUNTY, NAD83 (YEAR), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

STATE PROJECT

FEDERAL PROJECT

PROJECT

CONTRACT

1000-20-83

1009-43-70

STATE OF WISCONSIN

DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor

Designer

Project Manager

Regional Examiner

Regional Supervisor

JEANNIE SILVER

MATT RAUCH

APPROVED FOR THE DEPARTMENT

DATE: 11/01/2023

Matthew R. Rauch

(Signature)

E

FILE NAME : C:\BBOX\DRV\BBOX\DTSD\DTSD-BTO\TRAFFIC\SIGNING\CADDS\SIGNCADD\TYPE 1 REPLACEMENTS\2024\010101_T1_10002084.DWG

PLOT DATE : 11/30/2023 11:06 AM

PLOT BY : CLARK, CLYDE J

PLOT NAME :

WISDOT/CADDS SHEET 10

GENERAL NOTES

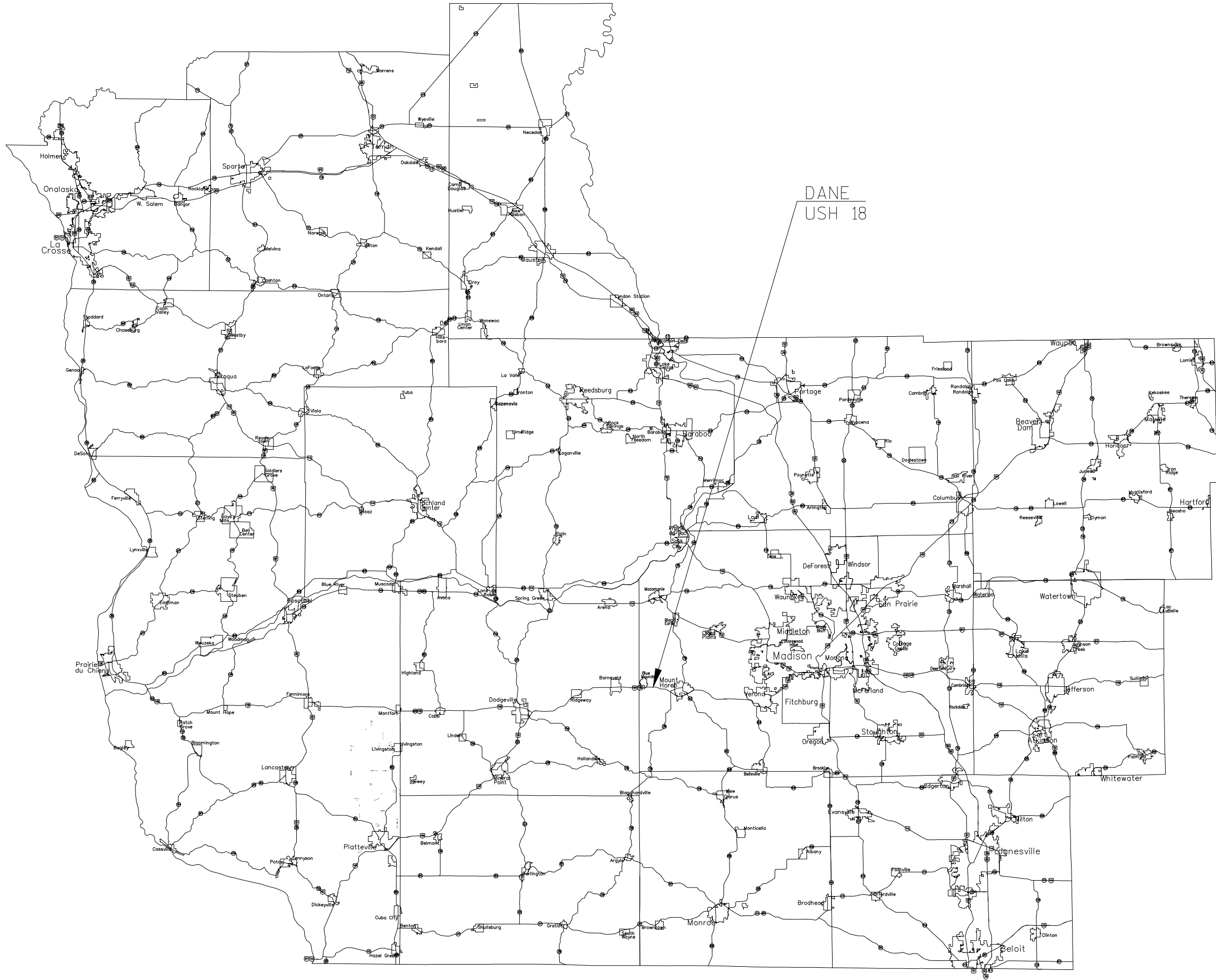
THERE ARE UTILITY FACILITIES WITHIN THE PROJECT AREA THAT ARE NOT SHOWN ON THE PLANS. COORDINATE CONSTRUCTION ACTIVITIES WITH A CALL TO DIGGERS HOTLINE AND/OR A DIRECT CALL TO THE UTILITIES THAT HAVE FACILITIES IN THE AREA. NOT ALL UTILITIES ARE MEMBERS OF DIGGERS HOTLINE.

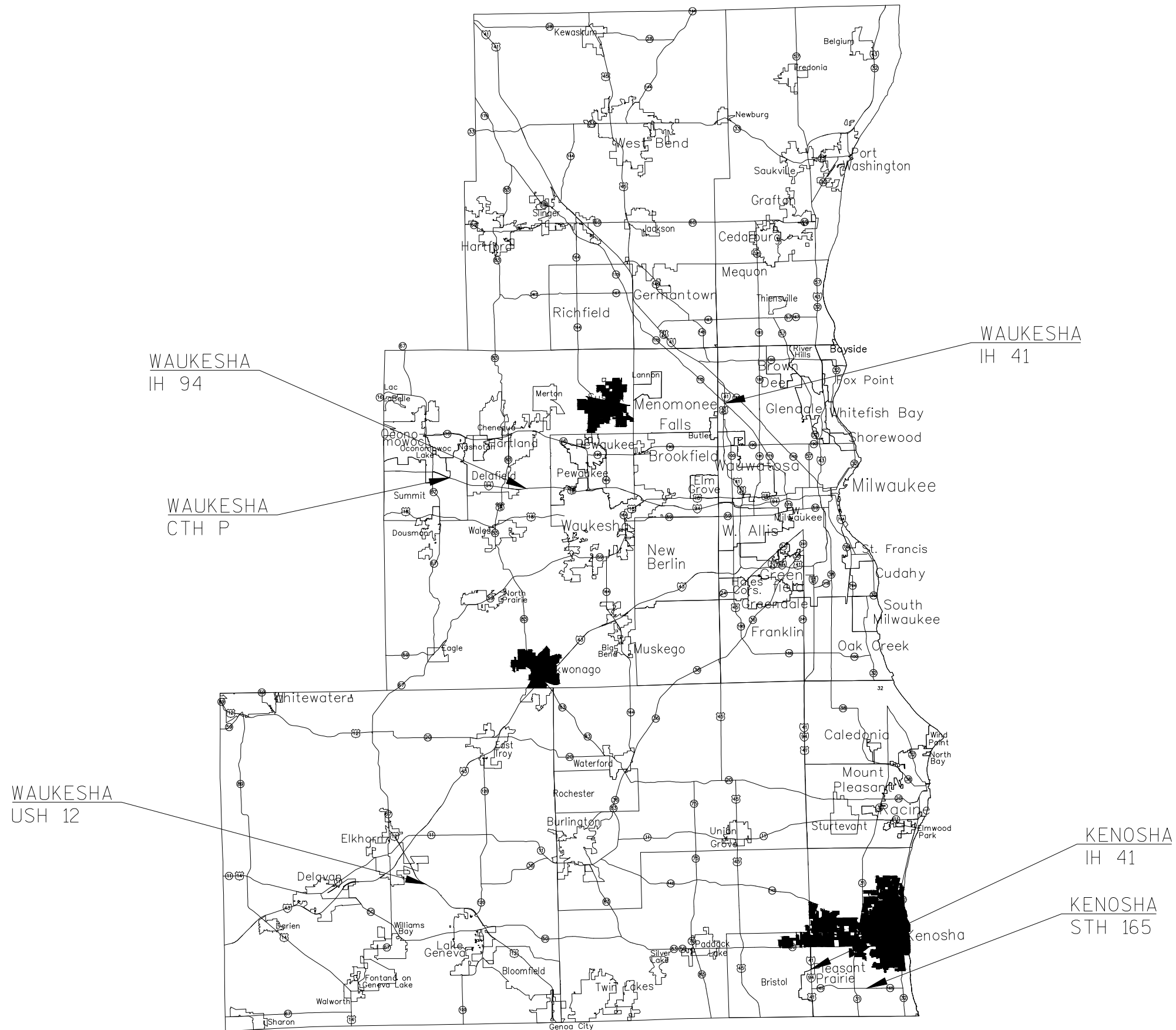


Dial **811** or (800) 242-8511
www.DiggersHotline.com

Ryan A. Mayer, P.E.
State Signing Engineer
WisDOT Bureau of Traffic Operations
Central Office Sign Shop
3609 Pierstorff St
Madison, WI 53704
Desk - (608) 246-3810
Cell - (608) 235-6941
ryan.mayer@dot.wi.gov

Jeannie Silver, P.E.
State Marking Engineer
Wisconsin DOT Bureau of Traffic Operations
3609 Pierstorff St. Madison, WI 53704
(608) 246-5408
jeannie.silver@dot.wi.gov

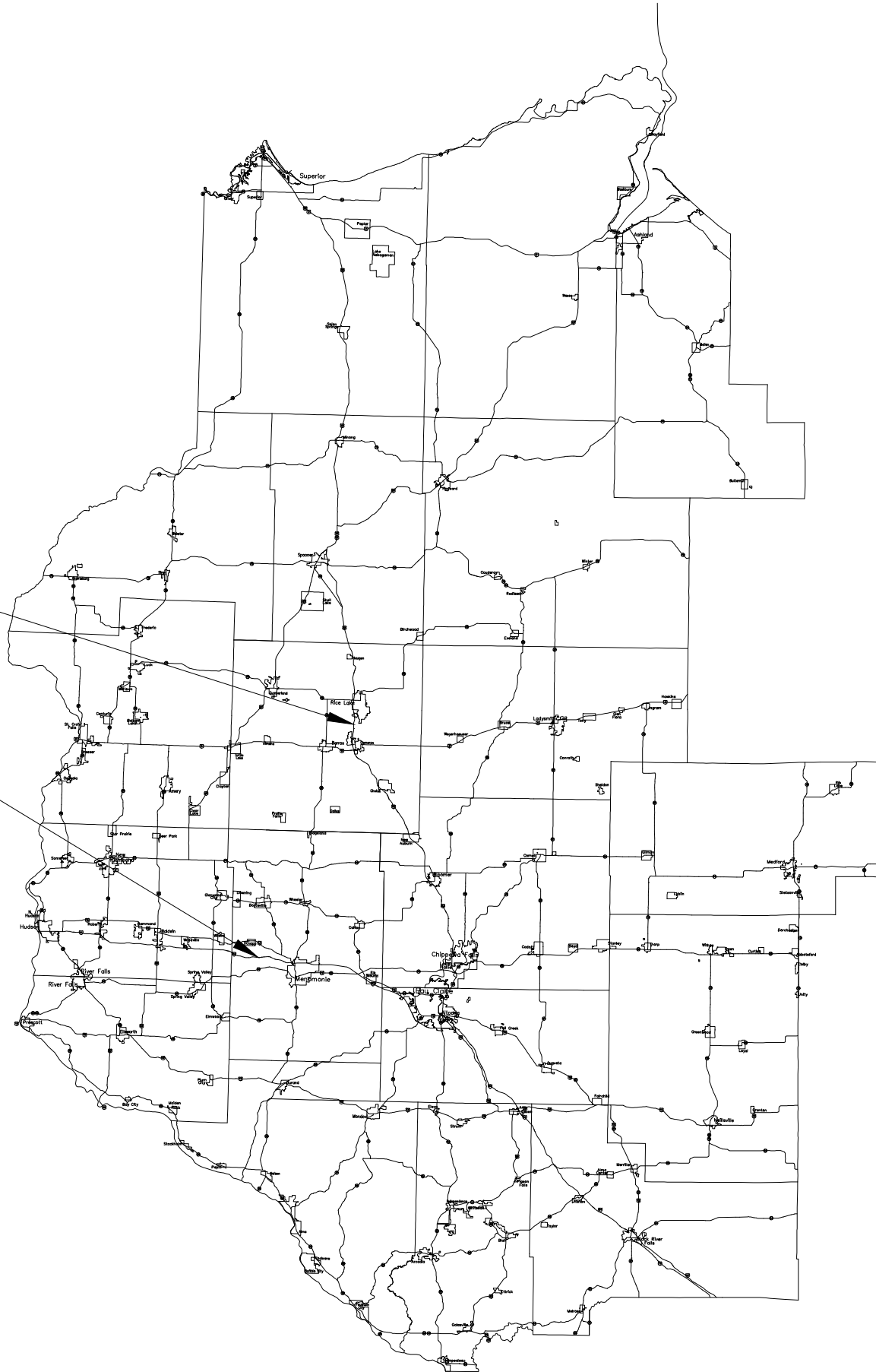


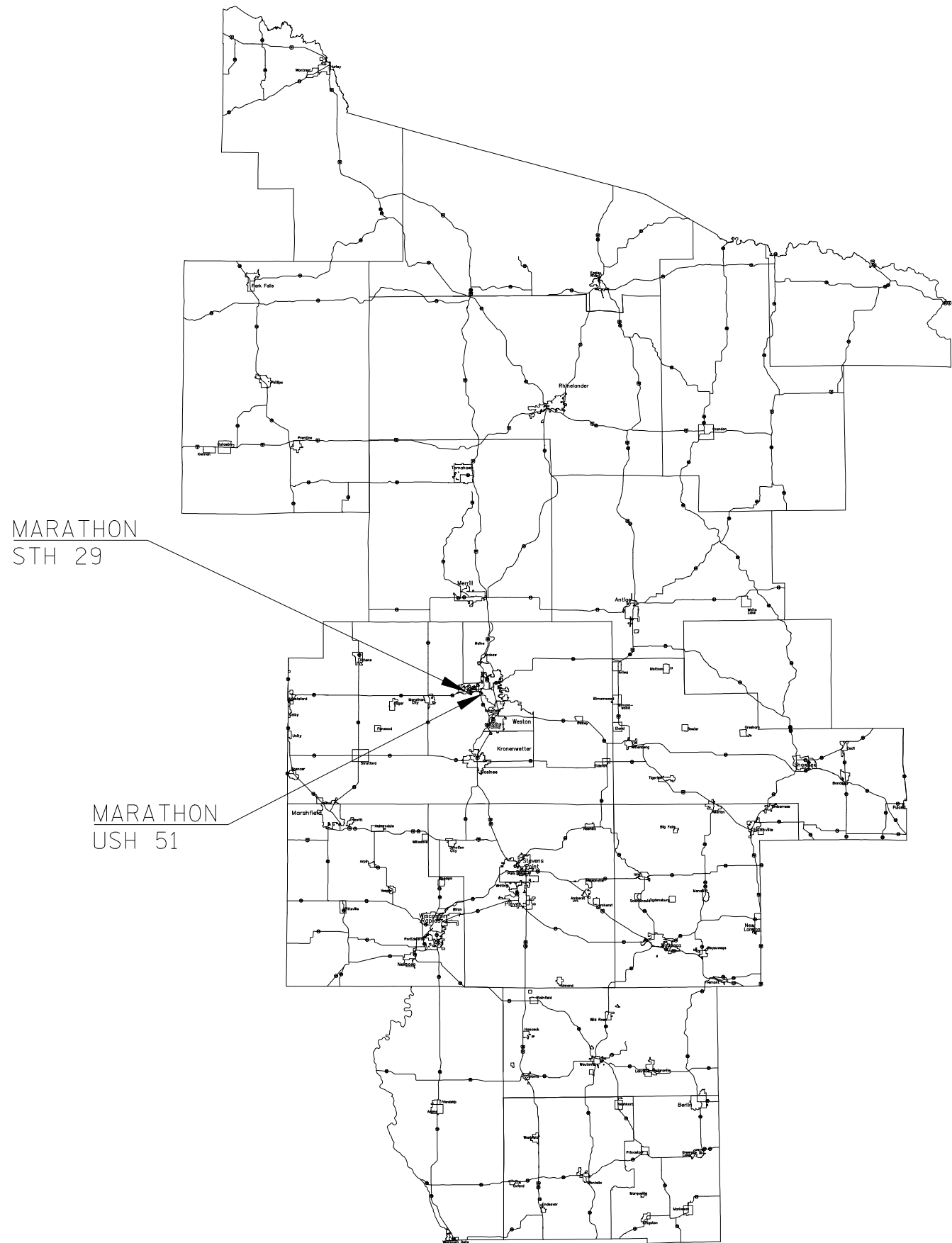




BARRON
USH 53

DUNN
IH 94





	EXISTING SIGN MOUNTED ON POST(S)
	EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
	PROPOSED SIGN MOUNTED ON POST(S)
	PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
	SIGN BRIDGE
	CANTILEVER SIGN BRIDGE
	DENOTES SIGN NUMBER
(X)	INDICATES SIGN SIZE

NOTES:

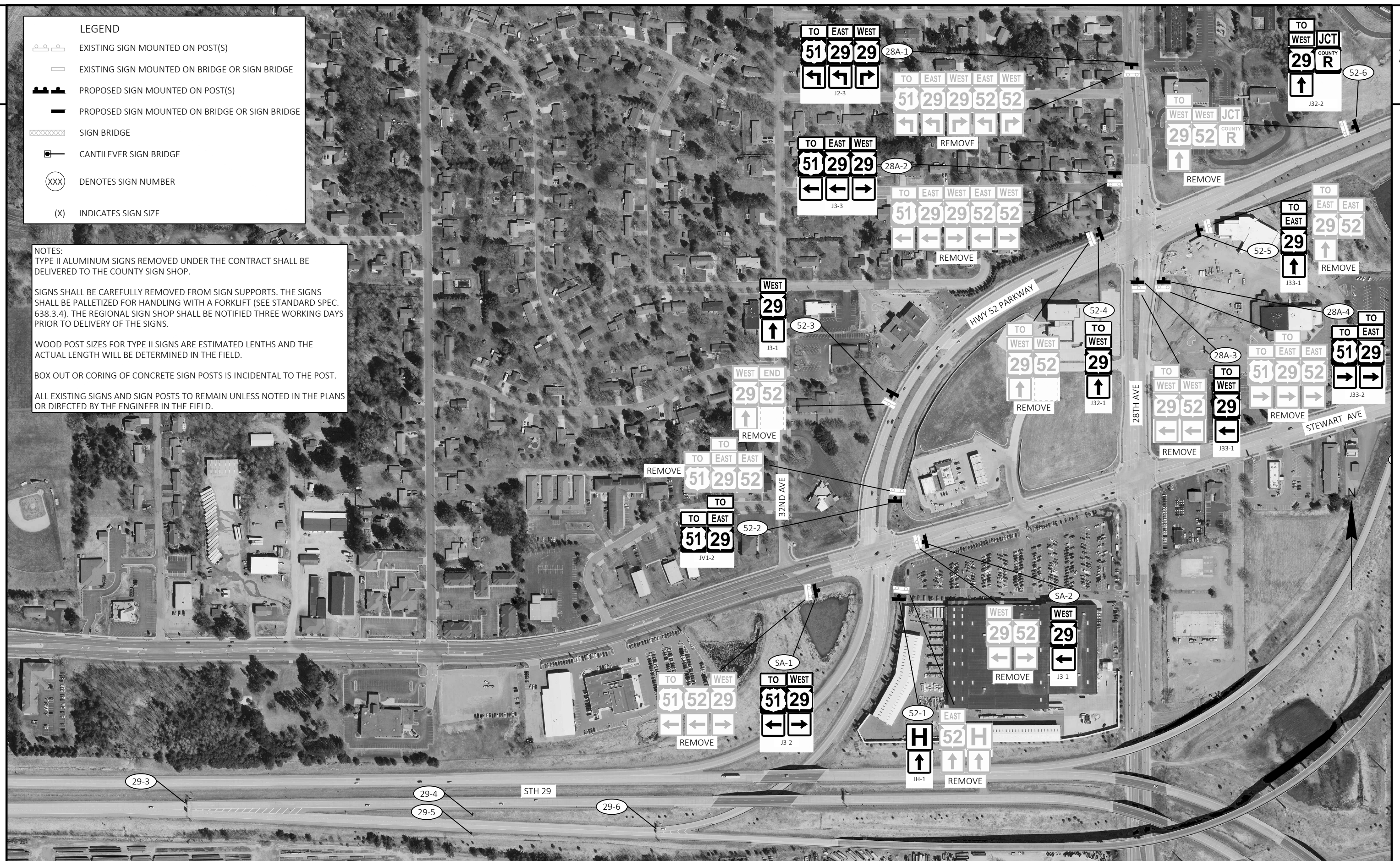
TYPE II ALUMINUM SIGNS REMOVED UNDER THE CONTRACT SHALL BE DELIVERED TO THE COUNTY SIGN SHOP.

SIGNS SHALL BE CAREFULLY REMOVED FROM SIGN SUPPORTS. THE SIGNS SHALL BE PALLETIZED FOR HANDLING WITH A FORKLIFT (SEE STANDARD SPEC. 638.3.4). THE REGIONAL SIGN SHOP SHALL BE NOTIFIED THREE WORKING DAYS PRIOR TO DELIVERY OF THE SIGNS.

WOOD POST SIZES FOR TYPE II SIGNS ARE ESTIMATED LENGTHS AND THE ACTUAL LENGTH WILL BE DETERMINED IN THE FIELD.

BOX OUT OR CORING OF CONCRETE SIGN POSTS IS INCIDENTAL TO THE POST.

ALL EXISTING SIGNS AND SIGN POSTS TO REMAIN UNLESS NOTED IN THE PLANS OR DIRECTED BY THE ENGINEER IN THE FIELD.





LEGEND

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PROPOSED SIGN MOUNTED ON POST(S)

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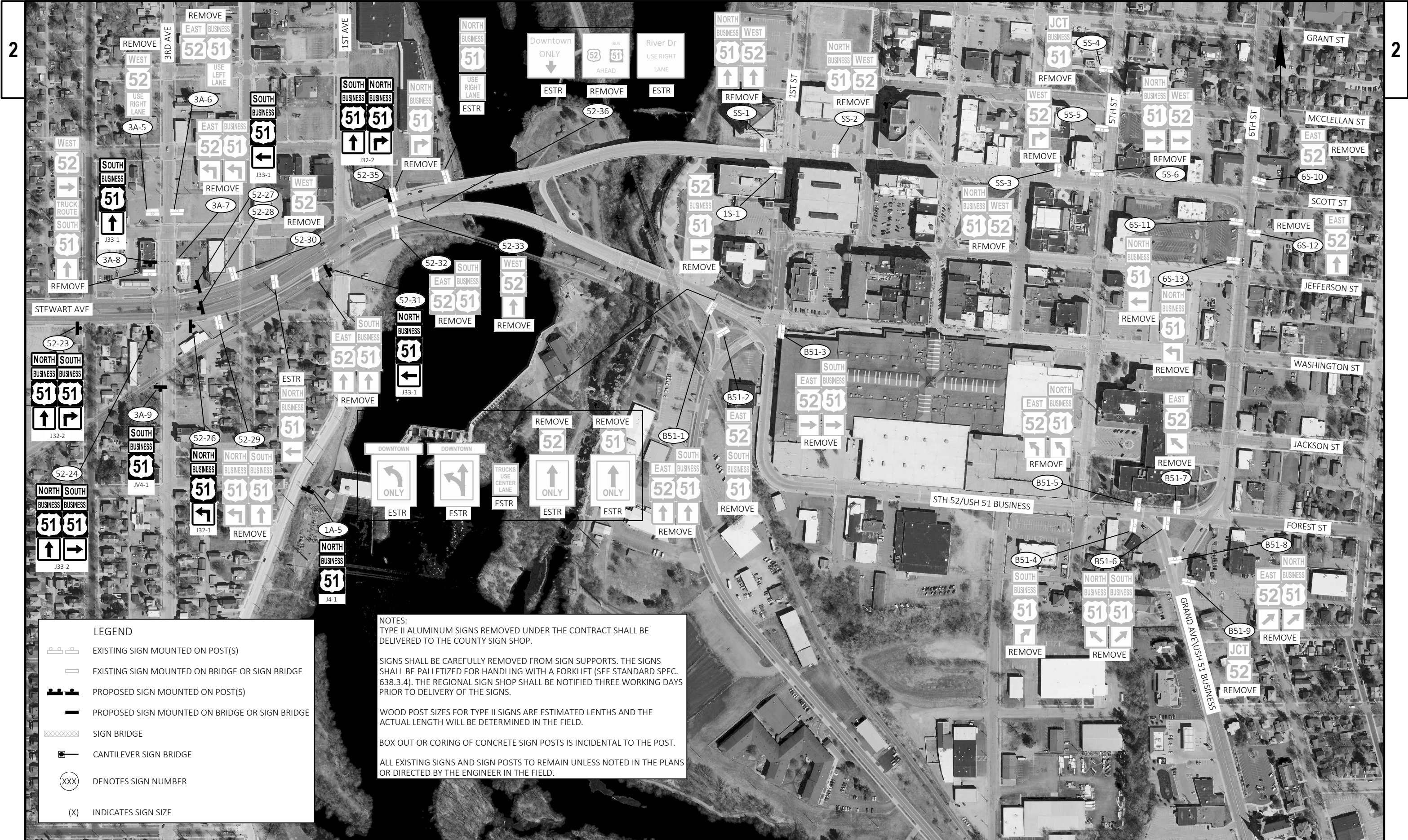
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Estimate Of Quantities

		1000-20-83		1009-43-70	
Line	Item	Item Description	Unit	Total	Qty
0002	204.0247	Removing Ancillary Structure with Restoration (structure) 01. S-37-62	EACH	1.000	1.000
0004	204.0247	Removing Ancillary Structure with Restoration (structure) 02. S-37-63	EACH	1.000	1.000
0006	531.1100	Concrete Masonry Ancillary Structures Type NS	CY	29.200	13.200
0008	531.1140	Steel Reinforcement HS Ancillary Structures Type NS	LB	2,776.000	1,260.000
0010	531.1160	Steel Reinforcement HS Coated Ancillary Structures Type NS	LB	1,100.000	1,100.000
0012	531.2024	Drilling Shaft 24-Inch	LF	133.000	82.000
0014	531.2036	Drilling Shaft 36-Inch	LF	42.000	42.000
0016	531.6020	Foundation Two-Shaft Type FC-II (structure) 01. S-37-165	EACH	1.000	1.000
0018	532.6010	Truss Cantilever 4-Chord Type I (structure) 01. S-37-164	EACH	1.000	1.000
0020	532.6020	Truss Cantilever 4-Chord Type II (structure) 01. S-37-165	EACH	1.000	1.000
0022	619.1000	Mobilization	EACH	1.000	0.750
0024	634.0618	Posts Wood 4x6-Inch X 18-FT	EACH	93.000	11.000
0026	635.0200	Sign Supports Structural Steel HS	LB	8,060.000	4,924.000
0028	635.9010.S	Sign Supports Shorten Structural Steel	EACH	30.000	24.000
0030	635.9020.S	Sign Supports Replacing Base Connection Bolts Legacy System	EACH	61.000	61.000
0032	637.1220	Signs Type I Reflective SH	SF	15,676.000	12,814.000
0034	637.1230	Signs Type I Reflective F	SF	1,135.000	777.000
0036	637.2210	Signs Type II Reflective H	SF	1,249.560	271.500
0038	637.2220	Signs Type II Reflective SH	SF	269.500	269.500
0040	638.2101	Moving Signs Type I	EACH	1.000	1.000
0042	638.2601	Removing Signs Type I	EACH	158.000	138.000
0044	638.2602	Removing Signs Type II	EACH	65.000	65.000
0046	638.3000	Removing Small Sign Supports	EACH	74.000	9.000
0048	638.3100	Removing Structural Steel Sign Supports	EACH	20.000	14.000
0050	650.6501	Construction Staking Structure Layout (structure) 01. S-37-164	EACH	1.000	1.000
0052	650.6501	Construction Staking Structure Layout (structure) 02. S-67-165	EACH	1.000	1.000
0054	650.9911	Construction Staking Supplemental Control (project) 01. 1009-43-70	EACH	1.000	1.000
0056	SPV.0060	Special 01. Traffic Control Special	EACH	1.000	0.750

PROJECT 1000-20-83 TOTALS	531.1100 Concrete Masonry Ancillary Structures Type NS CY	531.1140 Steel Reinforcement HS Ancillary Structures Type NS LBS	531.2024 Drilling Shaft 24-Inch LF	634.0618 Posts Wood 4x6-In x 18-FT EACH	635.0200 Sign Supports Structural Steel HS LBS	637.1220 Sign Type I Reflective SH SF	637.1230 Sign Type I Reflective F SF	638.2101 Moving Sign Type I EACH	638.2210 Sign Type II Reflective H SF	637.2220 Sign Type II Reflective SH SF	638.2601 Removing Signs Type I EACH	638.3000 Removing Small Sign Supports EACH	638.3100 Removing Structural Steel Sign Supports EACH	635.9020.S Sign Supports Replacing Base Connection Bolts Legacy System EACH	635.9010.S Sign Supports Shorten Structural Steel EACH	SPV.0060.01 Traffic Control Special EACH	619.1000 Mobilization EACH
IH 94 Dunn						427.5					4			4			
USH 53 Barron	6.4	568	26		2206	228					3	9					
IH 41 Kenosha						4239.5	267		98	180	53			12	2		
IH 41 Waukesha	1.6	142	13	3	578			1	25		1		4				
IH 94 Waukesha	1.6	142	13		553	54					1		2				
STH 165 Kenosha						900				36	16						
CTH P Waukesha				5		296.5			117	53.5	12		4				
USH 12 Walworth	1.8	204	15	3	846	2,204	510		31.5		22		2	20			
USH 18 Dane	1.8	204	15		741	4687.5					28		2	27	18		
Projectwide															4	0.75	0.75
Total	13.2	1260	82	11	4924	13036.5	777	1	271.5	269.5	140	9	14	63	24	0.75	0.75

Dunn IH 94

Sign Number	Route	PLM	Interchange	Location	Sign Code and Description	Width	Height	Order Lines	637.1220 Sign Type I Reflective SH SF	638.2601 Removing Signs Type I EACH	635.9020.S Sign Supports Replacing Base Connection Bolts Legacy System EACH
NW-94-1	IH 94 Eastbound	43.48	AFTER STH 25	Right	D2-3 Destination/Distance (Three) with Die Cut Letters	180	84	B 2 Elk Mound 8 Eau Claire 21	105	1	1
NW-94-2	IH 94 Eastbound	46.54		Right	D2-3 Destination/Distance (Three) with Die Cut Letters	180	84	Elk Mound 5 Eau Claire 18 Madison 189	105	1	1
NW-94-3	IH 94 Eastbound	52.75		Right	D2-3 Destination/Distance (Three) with Die Cut Letters	180	90	312 6 Eau Clarie 12 Madison 183	112.5	1	1
NW-94-4	IH 94 Eastbound	82.17		Right	D2-3 Destination/Distance (Three) with Die Cut Letters	168	90	37 4 Tomah 82 Madison 176	105	1	1
SUBTOTALS									427.5	4	4

Barron USH 53

Sign Number	Route	PLM	Location	Sign Code and Description	Width	Height	Order Lines	531.1100 Concrete Masonry Ancillary Structures Type NS CY	531.1140 Steel Reinforcement HS Ancillary Structures Type NS LBS	531.2024 Drilling Shaft 24-Inch LF	635.0200 Sign Supports Structural Steel HS LBS	637.1220 Sign Type I Reflective SH SF	638.2601 Removing Signs Type I EACH	638.3000 Removing Small Sign Supports EACH	Comments
NW-53-1	USH 53 Northbound	118.02	Right	E5-63 144W x 60H Tourist Info EXIT 000	144	60	Tourist Info Exit 140	1.6	142	6.5	554	60	1	3	W6-15
NW-53-2	USH 53 Northbound	120.89	Right	E10-62 144W x 54H Hospital Next Right	144	54	Hospital Exit 143	1.6	142	6.5	545	54	1	3	W6-15
NW-53-3	USH 53 Southbound	81.32	Right	E10-62 144W x 54H Hospital Next Right	144	54	Hospital Exit 143	1.6	142	6.5	554	54	1	3	W6-15
NW-53-4	USH 53 Southbound	83.44	Right	E5-63 144W x 60H Tourist Info EXIT 000	144	60	Tourist Info Exit 140	1.6	142	6.5	553	60			W6-15
								6.4	568	26	2206	228	3	9	

Kenosha IH 41 Northbound

Sign Number	Route	PLM	Location	Sign Code and Description	Width	Height	Order Lines	637.1220 Sign Type I Reflective SH SF	638.2601 Removing Signs Type I EACH	635.9020.S Sign Supports Replacing Base Connection Bolts Legacy System EACH	635.9010.S Sign Supports Shorten Structural Steel EACH	Comments
SE-41-1	IH 41 Northbound	Kenosha Scale 0.33	Right	D12-3 120W x 60H Wisconsin Travel Information	120	60	Traffic Information 1610 AM Important When Flashing	50	1	1		
SE-41-2	IH 41 Northbound	000.670 mi	Median	E8-1 Sequence Sign-Highways __ Miles	180	96	165 1 C 2 1/4 50 3 1/4	120	1			S-30-26
SE-41-3	IH 41 Northbound	001.220 mi	Right	D4-52 156W x 126H Crash Investigation Site EXIT [000]	156	126	Crash Investigation Site Exit 347	136.5	1	1		
SE-41-4	IH 41 Northbound	001.490 mi	Right	SP- - ANY SPECIAL SIGN E10-53 120W x 18H Vending Machines	168 -	90 -	Rest Area Tourist Info EXIT 347 Vending Machines	105	1	1	2	Remove Plaque
SE-41-5	IH 41 Northbound	Off to 165 1.81	Exit Ramp Overhead	E6-1 Exit Gore Sign (Overhead)	96	72	REST AREA TOURIST Information [DA]	48	1			S-30-231
SE-41-6	IH 41 Northbound	Off to 165 1.81	Exit Ramp Overhead	E6-1 Exit Gore Sign (Overhead)	120	96	165-Q Frontage Rd Lakeview PKWY [DA]	80	1			S-30-231
SE-41-7	IH 41 Northbound	STH 165 001.840 mi	Right	SP- - ANY SPECIAL SIGN	168	96	Kenosha Area Tourist Info Tune Radio To 1180 AM	112	1	1		
SE-41-7B	IH 41 Northbound	Off to 165 1.86	Exit Ramp Overhead	E6-1 Exit Gore Sign (Overhead)	96	84	Rest Area Tourist Information Only [DA]	56	1			S-30-12
SE-41-8	IH 41 Northbound	Off to 165 1.95	Exit Ramp Overhead	E6-1 Exit Gore Sign (Overhead)	180	96	Q West To West Frontage Rd [LB] ONLY [R3-6-L]	120	1			S-30-248
SE-41-9	IH 41 Northbound	Off to 165 1.95	Exit Ramp Overhead	E6-1 Exit Gore Sign (Overhead)	180	90	165 East To East Frontage Rd [RA] ONLY [RA]	112.5	1			S-30-248
SE-41-10	IH 41 Northbound	002.670 mi	Median	E8-1 Sequence Sign-Highways __ Miles	180	96	C 1/2 50 1 1/4 158 3 3/4	120	1			S-30-220
SE-41-11	IH 41 Northbound	2.97	Right	SP- - ANY SPECIAL SIGN	192	54	41 Follow 41	72	1	1		Norths removed
SE-41-12	IH 41 Northbound	3.57	Right	E9-1 (Area) Next _ Exits	132	54	Kenosha NEXT 3 EXITS	49.5	1	1		
SE-41-13	IH 41 Northbound	4.01	Right	E1-5-P Exit Number for E1-1 & E4-1 E1-1-A Advance Exit Guide Sign, __ Mile	120 228	30 162	Exit 344 50 Kenosha Lake Geneva 3/4 MILE	25 256.5	1	1		
SE-41-14	IH 41 Northbound	4.23	Median	E8-1 Sequence Sign-Highways __ Miles	180	96	50 1/2 158 2 142 3 3/4	120	1			S-30-230
SE-41-15	IH 41 Northbound	4.65	Overhead	E5-51	180	108	94 West 41 Milwaukee Ahead	135	1			S-30-32
Total								1718	16	7	2	

Kenosha IH 41 Northbound Continued

Kenosha IH 41 Northbound Continued								637.1220 Sign Type I Reflective SH SF	637.1230 Sign Type I Reflective F SF	638.2210 Sign Type II Reflective H SF	637.2220 Sign Type II Reflective SH SF	638.2601 Removing Signs Type I EACH	635.9020.S Sign Supports Replacing Base Connection Bolts Legacy System EACH	Comments
Sign Number	Route	PLM	Location	Sign Code and Description	Width	Height	Order Lines							
SE-41-16	IH 41 Northbound	4.65	Overhead	E1-5-P Exit Number for E1-1 & E4-1	120	30	Exit 344 50	25						S-30-32
				E6-1 Exit Gore Sign (Overhead)	192	114	Kenosha Lake Geneva	152				1		
				E11-1-E Exit (Double Tilt Right Arrows) Only	192	48	[TR] Exit Only [TR]		64					
SE-41-17	IH 41 Northbound	Off to 50 4.97	Exit Ramp Overhead	D16-1-L Destination Guide Sign (Left Arrow)	36	72	WEST 50 ONLY [LT]				18	1		S-30-237
SE-41-18	IH 41 Northbound	Off to 50 4.97	Exit Ramp Overhead	D16-1-L Destination Guide Sign (Left Arrow)	36	72	WEST 50 ONLY [LT]				18	1		S-30-237
SE-41-19	IH 41 Northbound	Off to 50 4.97	Exit Ramp Overhead	D16-1-A Destination Guide Sign (Up Arrow)	96	78	94 West To 71st Street [UA]	52				1		S-30-237
SE-41-20	IH 41 Northbound	Off to 50 4.97	Exit Ramp Overhead	D16-1-A Destination Guide Sign (Up Arrow)	96	78	94 West To 71st Street [UA]	52				1		S-30-237
SE-41-21	IH 41 Northbound	Off to 50 4.97	Exit Ramp Overhead	D16-1-R Destination Guide Sign (Right Arrow)	36	72	East 50 ONLY [RT]				18	1		S-30-237
SE-41-22	IH 41 Northbound	Off to 50 4.97	Exit Ramp Overhead	D16-1-R Destination Guide Sign (Right Arrow)	36	72	East 50 ONLY [RT]				18	1		S-30-237
SE-41-23	IH 41 Northbound	5.26	On Ramp Overhead	R3-5-L 42x48 Left Only Arrow	42	48	[LA] ONLY			14		1		S-30-239
SE-41-24	IH 41 Northbound	5.26	On Ramp Overhead	R3-6-L 42x48 Left/Up Arrow	42	48	[LA/UA]			14		1		S-30-239
SE-41-25	IH 41 Northbound	5.26	On Ramp Overhead	D16-1-A Destination Guide Sign (Up Arrow)	36	72	WEST 94 ONLY [UA]				18	1		S-30-239
SE-41-26	IH 41 Northbound	5.26	On Ramp Overhead	R3-5-R 42x48 Right Only Arrow	42	48	[RA] ONLY			14		1		S-30-239
SE-41-27	IH 41 Northbound	5.81	Overhead	E1-5-P Exit Number for E1-1 & E4-1	120	30	EXIT 342 158	25						S-30-31
				E6-51 Advanced Exit Guide Sign (Overhead)	168	114	Kenosha 1/2 Mile	133				1		
				E11-1 Exit (Single Down Arrow) Only	168	36	EXIT [DA] ONLY		42					
SE-41-28	IH 41 Northbound	5.82	Median	D2-3 Destination/Distance (Three) with Die Cut Letters	180	96	158 1/2 142 2 1/4 E 4	120				1		S-30-222
SE-41-29	IH 41 Northbound	5.89	Right	E3-1 Destination - Next Right - Exit Number	228	84	Downtown Kenosha Area Museums EXIT 342	133				1	1	
SE-41-30	IH 41 Northbound	5.99	Right	E3-1 Destination - Next Right - Exit Number	192	60	Kenosha Airport EXIT 342	80				1	1	
SE-41-31	IH 41 Northbound	6.33	Overhead	E1-5-P Exit Number for E1-1 & E4-1	120	30	Exit 342 158	25						S-30-22
				E6-1 Exit Gore Sign (Overhead)	168	84	Kenosha [TR]	98				1		
				E11-1 Exit (Single Down Arrow) Only	168	42	EXIT ONLY		49					
SE-41-32	IH 41 Southbound	78.09	Overhead	E1-5-P Exit Number for E1-1 & E4-1	120	30	EXIT 344 50	25						S-30-24
				E6-51 Advanced Exit Guide Sign (Overhead)	192	144	Kenosha Lake Geneva 1/2 MILE	192				1		
				E11-1 Exit (Single Down Arrow) Only	192	36	EXIT [DA] ONLY		48					
Total								1112	203	42	90	17	2	

Kenosha IH 41 Southbound

Kenosha IH 41 Southbound								637.1220 Sign Type I Reflective SH SF	637.1230 Sign Type I Reflective F SF	638.2210 Sign Type II Reflective H SF	637.2220 Sign Type II Reflective SH SF	638.2601 Removing Signs Type I EACH	635.9020.S Sign Supports Replacing Base Connection Bolts Legacy System EACH	Comments
Sign Number	Route	PLM	Location	Sign Code and Description	Width	Height	Order Lines							
SE-41-33	IH 41 Southbound	78.3	Median	D2-3 Destination/Distance (Three) with Die Cut Letters	180	96	50 1/4 C 2 165 3 1/2	120				1		S-30-222
SE-41-34	IH 41 Southbound	78.51	Overhead	E1-4 Diagrammatic Guide Sign	180	108	94 East 41 Chicago Ahead	135				1		S-30-33
SE-41-35	IH 41 Southbound	78.51	Overhead	E1-5-P Exit Number for E1-1 & E4-1	120	30	EXIT 344	25						S-30-33
				E6-1 Exit Gore Sign (Overhead)	192	114	50 Kenosha Lake Geneva	152				1		
				E11-1-E Exit (Double Tilt Right Arrows) Only	192	48	[TR} EXIT ONLY [TR}		64					
SE-41-36	IH 41 Southbound	Off to 50 78.82	Exit Ramp Overhead	R3-5-L 42x48 Left Only Arrow	42	48	[LA] ONLY			14	[LA] ONLY	1		S-30-240
SE-41-37	IH 41 Southbound	Off to 50 78.82	Exit Ramp Overhead	R3-6-L 42x48 Left/Up Arrow	42	48	[LA/UA]			14	[LA/UA]	1		S-30-240
SE-41-38	IH 41 Southbound	Off to 50 78.82	Exit Ramp Overhead	E7-1 Overhead Arrow Per Lane Guide Sign [1 Arrow]	36	72	To 50 ONLY [UA]				18	1		S-30-240
SE-41-39	IH 41 Southbound	Off to 50 78.82	Exit Ramp Overhead	R3-5-R 42x48 Right Only Arrow	42	48	[RA] ONLY			14	[RA] ONLY	1		S-30-240
SE-41-40	IH 41 Southbound	STH 50 79.07	On Ramp Overhead	E7-1 Overhead Arrow Per Lane Guide Sign [1 Arrow]	36	72	East 50 ONLY [LT]				18	1		S-30-238
SE-41-45	IH 41 Southbound	STH 50 79.07	On Ramp Overhead	R3-6-L 42x48 Left/Up Arrow	42	48	[LA/UA]			14	[LA/UA]	1		S-30-238
SE-41-46	IH 41 Southbound	STH 50 79.07	On Ramp Overhead	E7-1 Overhead Arrow Per Lane Guide Sign [1 Arrow]	36	72	East 94 ONLY [UA]				18	1		S-30-239
SE-41-47	IH 41 Southbound	STH 50 79.07	On Ramp Overhead	E7-1 Overhead Arrow Per Lane Guide Sign [1 Arrow]	36	72	WEST 50 ONLY [RT]				18	1		S-30-238
SE-41-48	IH 41 Southbound	STH 50 79.07	On Ramp Overhead	E7-1 Overhead Arrow Per Lane Guide Sign [1 Arrow]	36	72	WEST 50 ONLY [RT]				18	1		S-30-238
SE-41-49	IH 41 Southbound	79.94	Median	D2-3 Destination/Distance (Three) with Die Cut Letters	204	90	C 1/2 165 1 3/4 Russell Rd 4 3/4	127.5				1		S-30-230
SE-41-50	IH 41 Southbound	CTH C 080.770 mi	Right	D4-52 156W x 126H Crash Investigation Site EXIT [000]	156	126	Crash Investigation Site Exit 347	136.5				1	1	
SE-41-51	IH 41 Southbound	081.060 mi	Right	E3-1 Destination - Next Right - Exit Number	216	84	Bristol Renaissance Faire EXIT 347	120				1	1	
SE-41-52	IH 41 Southbound		Median	D2-3 Destination/Distance (Three) with Die Cut Letters	192	90	165 1/4 Russell Rd 3 1/4 41 3 3/4	120				1		S-30-220
SE-41-53	IH 41 Southbound	81.6	Right	D2-1 Destination	156	36	Chicago 46	39				1	1	
SE-41-54	IH 41 Southbound	83.52	Overhead	E1-5-P Exit Number for E1-1 & E4-1	108	30	EXIT 1A	22.5						S-30-26
				E1-1-A Advance Exit Guide Sign, __ Mile	156	108	Lane A1 County Russell Rd 1 MILE	117				1		
SE-41-55	IH 41 Southbound	83.52	Overhead	E1-5-P Exit Number for E1-1 & E4-1	96	48	Left EXIT 1B	32						S-30-26
				E6-1 Overhead Exit Sign	156	114	41 SOUTH Waukegan 1 1/2 MILES	123.5				1		
SE-41-56	IH 41 Southbound	83.52	Overhead	E1-5-P Exit Number for E1-1 & E4-1	108	30	EIXT 1A	22.5						S-30-35
				E6-1 Overhead Exit Sign	156	108	Lane A1 County Russel Rd 1/4 MILE	117				1		
Total								1409.5	64	56	90	20	3	

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Waukesha IH 41

Sign Number	Route	PLM	Location	Sign Code and Description	Width	Height	Order Lines	531.1100 Concrete Masonry Ancillary Structures Type NS CY	531.1140 Steel Reinforcement HS Ancillary Structures Type NS LBS	531.2024 Drilling Shaft 24-Inch CY	634.0618 Posts Wood 4x6-In x 18-FT EACH	635.0200 Sign Supports Structural Steel HS LBS	637.2101 Moving Sign Type I EACH	638.2210 Sign Type II Reflective H SF	638.2601 Removing Signs Type I EACH	638.3100 Removing Structural Steel Sign Supports EACH	Comments
SE-41-57	IH 41 Southbound	028.690 mi	Right	I-2-3-A City Of [Brookfield]	120	30	VILLAGE OF Menomonee Falls				3			25	1	2	Remove Type I replace with Type II
SE-41-58	IH 41 Southbound	029.240 mi	Right	E10-61 Hospital	-	-	Hospital Exit 51A-B	1.6	142	13		578	1			2	Corten. Use existing sign 2 W6x15
SUBTOTAL								1.6	142	13	3	578	1	25	1	4	

Waukesha IH 94

Sign Number	Route	PLM	Location	Sign Code and Description	Width	Height	Order Lines	531.1100 Concrete Masonry Ancillary Structures Type NS CY	531.1140 Steel Reinforcement HS Ancillary Structures Type NS LBS	531.2024 Drilling Shaft 24-Inch CY	635.0200 Sign Supports Structural Steel HS LBS	637.1220 Sign Type I Reflective SH SF	638.2601 Removing Signs Type I EACH	638.3100 Removing Structural Steel Sign Supports EACH	Comments
SE-94-1	IH 94 Westbound	049.86 mi	Right	E10-61 Hospital	144	54	Hospital Exit 297	1.6	142	13	553	54	1	2	CORTEN. Behind barrier wall 2-W6x15
SUBTOTALS								1.6	142	13	553	54	1	2	

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Kenosha STH 165

Sign Number	Route	PLM	Interchange	Location	Sign Code and Description	Width	Height	Order Lines	637.1220 Sign Type I Reflective SH SF	637.2220 Sign Type II Reflective SH SF	638.2601 Removing Signs Type I EACH	Comments
SE-165-1	STH 165 Eastbound	CTH ML 005.170 mi	CTH ML	Overhead	E6-53 Overhead Roundabout Guide Sign Ahead, Right Arrows	84	96	EAST 165 [UA/RA] SOUTH ML	56		1	S-30-232
SE-165-2	STH 165 Eastbound	CTH ML 005.170 mi	CTH ML	Overhead	E6-52 Overhead Roundabout Guide Sign Left, Ahead Arrows	108	96	EAST 165 Springbrook[LA/UA] Rd	72		1	S-30-232
SE-165-3	STH 165 Eastbound	CTH ML 005.220 mi	CTH ML	Overhead	E7-1 Overhead Arrow Per Lane Guide Sign [1 Arrow]	36	72	EAST 165 ONLY [RB]		18	1	S-30-608
SE-165-4	STH 165 Eastbound	CTH ML 005.220 mi	CTH ML	Overhead	E6-52 Overhead Roundabout Guide Sign Left, Ahead Arrows	108	78	Springbrook Rd WEST [LA.UA] 165	58.5		1	S-30-608
SE-165-5	STH 165 Eastbound	CTH EZ 005.490 mi	CTH EZ	Overhead	E6-52 Overhead Roundabout Guide Sign Left, Ahead Arrows	60	90	NORTH 39th Ave [LB]	37.5		1	S-30-234
SE-165-6	STH 165 Eastbound	CTH EZ 005.490 mi	CTH EZ	Overhead	E7-3 Overhead Arrow Per Lane Guide Sign [3 Arrows]	144	96	EAST 165 NORTH LA/UA/RA SOUTH 39TH EZ	96		1	S-30-234
SE-165-7	STH 165 Eastbound	CTH EZ 005.580 mi	CTH EZ	Overhead	E6-52 Overhead Roundabout Guide Sign Left, Ahead Arrows	96	102	NORTH 39TH AVE WEST [LA/UA] 165	68		1	S-30-610
SE-165-8	STH 165 Eastbound	CTH EZ 005.580 mi	CTH EZ	Overhead	E6-53 Overhead Roundabout Guide Sign Ahead, Right Arrows	96	102	NORTH 39th Ave [UA/RA] EAST 165	68		1	S-30-610
SE-165-9	STH 165 Westbound	CTH EZ 001.470 mi	CTH EZ	Overhead	E6-52 Overhead Roundabout Guide Sign Left, Ahead Arrows	96	96	WEST 165 SOUTH [LA/UA] EZ	64		1	S-30-235
SE-165-10	STH 165 Westbound	CTH EZ 001.470 mi	CTH EZ	Overhead	E6-53 Overhead Roundabout Guide Sign Ahead, Right Arrows	96	96	WEST 165 [UA/RA]NORTH 39th Ave	64		1	S-30-235
SE-165-11	STH 165 Westbound	CTH EZ 001.530 mi	CTH EZ	Overhead	E6-53 Overhead Roundabout Guide Sign Ahead, Right Arrows	96	90	SOUTH EZ [UA/RA] WEST 165	60		1	S-30-611
SE-165-12	STH 165 Westbound	CTH EZ 001.530 mi	CTH EZ	Overhead	E6-52 Overhead Roundabout Guide Sign Left, Ahead Arrows	96	90	SOUTH EZ EAST UA/RA 165	60		1	S-30-611
SE-165-13	STH 165 Westbound	CTH ML 001.790 mi	CTH ML	Overhead	E6-53 Overhead Roundabout Guide Sign Ahead, Right Arrows	108	96	WEST 165 [UA/RA] Springbrook Rd	72		1	S-30-233
SE-165-14	STH 165 Westbound	CTH ML 001.800 mi	CTH ML	Overhead	E6-52 Overhead Roundabout Guide Sign Left, Ahead Arrows	96	96	WEST 165 SOUTH [LA/UA] ML	64		1	S-30-233
SE-165-15	STH 165 Westbound	CTH ML 001.880 mi	CTH ML	Overhead	E7-1 Overhead Arrow Per Lane Guide Sign [1 Arrow]	36	72	WEST 165 ONLY [RB]		18	1	S-30-609
SE-165-16	STH 165 Westbound	CTH ML 001.880 mi	CTH ML	Overhead	E6-52 Overhead Roundabout Guide Sign Left, Ahead Arrows	96	90	SOUTH ML EAST [LA/UA] 165	60		1	S-30-609
SUBTOTALS									900	36	16	

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Waukesha CTH P at IH 94								634.0618 Posts Wood 4x6-In x 18-FT EACH	637.1220 Sign Type I Reflective SH SF	638.2210 Sign Type II Reflective H SF	637.2220 Sign Type II Reflective SH SF	638.2601 Removing Signs Type I EACH	638.3100 Removing Structural Steel Sign Supports EACH	Comments	
Sign Number	Route	PLM	Location	Sign Code and Description	Width	Height	Order Lines								
SE-P-1	CTH P Northbound	Delafield Rd 000.000 mi	Right	D1-62 Roundabout Destination - Direction Sign	120	78	P to 94 blank N Sawyer Rd DR [RAB Symbol] Delafield Rd	3		65		1	2	Remove Type I, Change to Type II	
SE-P-2	CTH P Northbound	I-94 000.110 mi	Overhead	E6-51 Advanced Exit Guide Sign (Overhead)	84	78	94 EAST Milwaukee ONLY [RT]		45.5			1		S-67-903	
SE-P-3	CTH P Northbound	I-94 000.110 mi	Overhead	E6-51 Advanced Exit Guide Sign (Overhead)	84	66	To 94 West Madison [DA]		38.5			1		S-67-903	
SE-P-4	CTH P Northbound	I-94 000.180 mi	Overhead	E6-51 Advanced Exit Guide Sign (Overhead)	48	66	WEST 94 [LT]				22	1		S-67-903	
SE-P-5	CTH P Northbound	I-94 000.180 mi	Overhead	E6-51 Advanced Exit Guide Sign (Overhead)	36	54	P DA				13.5	1		REMOVE JPANEL/ TYPE II SIGN S-67-903	
SE-P-6	CTH P Southbound	I-94 000.050 mi	Right	D1-62 Roundabout Destination - Direction Sign	96	78	P TO 94 EAST S Sawyer Rd [RAB SYMBOL] West 94	2		52		1	2	Remove Type I, Change to Type II	
SE-P-7	CTH P Southbound	I-94 000.080 mi	Overhead	E6-51 Advanced Exit Guide Sign (Overhead)	84	78	To 94 East South Sawyer Rd [DA]		45.5			1		S-67-902	
SE-P-8	CTH P Southbound	I-94 000.080 mi	Overhead	E6-51 Advanced Exit Guide Sign (Overhead)	84	66	To 94 East Milwaukee [DA]		38.5			1		S-67-902	
SE-P-9	CTH P Southbound	I-94 000.080 mi	Overhead	E6-51 Advanced Exit Guide Sign (Overhead)	72	78	94 WEST Madison ONLY [DA]		39			1		S-67-902	
SE-P-10	CTH P Southbound	I-94 000.190 mi	Overhead	E6-51 Advanced Exit Guide Sign (Overhead)	36	72	East 94 ONLY [DA]				18	1		S-67-904	
SE-P-11	CTH P Southbound	I-94 000.190 mi	Overhead	E6-51 Advanced Exit Guide Sign (Overhead)	96	66	To DR Delafield Rd [DA]		44			1		S-67-904	
SE-P-12	CTH P Southbound	I-94 000.190 mi	Overhead	E6-51 Advanced Exit Guide Sign (Overhead)	84	78	East 94-P Sawyer Rd [DA]		45.5			1		S-67-904	
SUBTOTALS								5	296.5	117	53.5	12	4		
PROJECT NO: 1000-20-83			HWY: CTH P		COUNTY: WAUKESHA			MISCELLANEOUS QUANTITIES						SHEET: E	

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Walworth USH 12 Eastbound

SIGN NUMBER	Route	PLM	Location	Sign Code and Description	Width	Height	Order Lines	634.0618 Posts Wood 4x6-In x 18-FT EACH	637.1220 Sign Type I Reflective SH SF	637.1230 Sign Type I Reflective F SF	638.2210 Sign Type II Reflective H SF	638.2601 Removing Signs Type I EACH	638.3100 Removing Structural Steel Sign Supports EACH	635.9020.S Sign Supports Replacing Base Connection Bolts Legacy System EACH	COMMENTS
.12-1	USH 12 Eastbound	STH 67 [East Jct] 19.18	Right	D1-70 Entrance Direction Sign (One Arrow)	108	42	12 EAST Lake Geneva [TR]	3			32	1	2		Change to Type II Currently 12 East Lake Geneva Delavean Via Freeway
.12-2	USH 12 Eastbound	Off to NN 21.59	Collector Right	E3-1 Destination - Next Right - Exit Number	168	54	Gateway Tech NEXT RIGHT		63			1		1	
.12-3	USH 12 Eastbound	23.12	Right	D2-3 Destination/Distance (Three) with Die Cut Letters	192	84	Lake Geneva 6 Genoa City 16 Chicago 61		112			1		1	
SE-12-4	USH 12 Eastbound	27.53	Right	E1-5-P Exit Number for E1-1 & E4-1 E1-1-A Advance Exit Guide Sign, __ Mile	120 228	30 192	EXIT 328 NORTH TO 120-H-36 Lake Geneva Burlington 1 MILE		25 304			1		1	
.12-5	USH 12 Eastbound	30.88	Right	D2-3 Destination/Distance (Three) with Die Cut Letters	204	84	Pell Lake Dr 4 Genoa City 8 Chicago 54		119			1		1	
SE-12-6	USH 12 Eastbound	33.65	Right	E1-5-P Exit Number for E1-1 & E4-1 E1-1-A Advance Exit Guide Sign, __ Mile	120 228	30 78	EXIT 335 Pell Lake Dr 1 MILE		25 124			1		1	
SE-12-7	USH 12 Eastbound	34.53	Right	E1-5-P Exit Number for E1-1 & E4-1 E4-1-A Exit Direction Sign with Arrow	120 264	30 48	EXIT 335 Pell Lake Dr [TR]		25 88			1		1	
.12-8	USH 12 Eastbound	37.22	Median	W19-1 180W x 102H Freeway Ends __Mile	180	102	FREEWAY ENDS 1 MILE			128		1		1	
.12-9	USH 12 Eastbound	37.22	Right	W19-1 180W x 102H Freeway Ends __Mile	180	102	FREEWAY ENDS 1 MILE			128		1		1	
SUBTOTAL								3	885	255	31.5	9	2	8	

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Walworth USH 12 Westbound																
Sign Number	Route	PLM	Location	Sign Code and Description	Width	Height	Order Lines	531.1100 Concrete Masonry Ancillary Structures Type NS CY	531.1140 Steel Reinforcement HS Ancillary Structures Type NS LBS	531.2024 Drilling Shaft 24-Inch CY	635.0200 Sign Supports Structural Steel HS LBS	637.1220 Sign Type I Reflective SH SF	637.1230 Sign Type I Reflective F SF	638.2601 Removing Signs Type I EACH	635.9020.S Sign Supports Replacing Base Connection Bolts Legacy System EACH	COMMENTS
12-10	USH 12 Westbound	11.35	Right	E8-1-A Seq. Sign - City Name - Name- Highways - __ Miles	168	90	Elkhorn 5 IH 43 6 Madison 65					105		1	1	
12-11	USH 12 Westbound	18.3	Right	W19-1 180W x 102H Freeway Ends __Mile	180	102	FREEWAY ENDS 1 MILE						128	1	1	
12-12	USH 12 Westbound	18.3	Median	W19-1 180W x 102H Freeway Ends __Mile	180	102	FREEWAY ENDS 1 MILE						128	1	1	
SE-12-13	USH 12 Westbound	2.86	Right	E1-5-P Exit Number for E1-1 & E4-1 E1-1-A Advance Exit Guide Sign, __ Mile	120 228	30 78	EXIT 335 Pell Lake Dr 1 MILE							1	1	
SE-12-14	USH 12 Westbound	3.73	Right	E1-5-P Exit Number for E1-1 & E4-1 E4-1-A Exit Direction Sign with Arrow	120 264	30 48	EXIT 335 Pell Lake Dr [TR]							1	1	
12-15	USH 12 Westbound	4.71	Right	D2-3 Destination/Distance (Three) with Die Cut Letters	204	96	Lake Geneva 4 43 12 Madison 71					136		1	1	
12-16	USH 12 Westbound	7.52	Right	E9-1 (Area) Next _ Exits	156	54	Lake Geneva NEXT 2 EXITS					59		1	1	
SE-12-17	USH 12 Westbound	7.99	Right	E1-5-P Exit Number for E1-1 & E4-1 E1-1-A Advance Exit Guide Sign, __ Mile	180 228	30 192	EXIT 330 A - B SOUTH 50-120-H Lake Geneva Kenosha 1 MILE					38 304		1	1	
12-18	USH 12 Westbound	8.14	Right	E3-1 Destination - Next Right - Exit Number	180	84	Big Foot Beach State Park Exit 330 A - B					105		1	1	
12-19	USH 12 Westbound	8.5	Right	E3-1 Destination - Next Right - Exit Number	120	60	Delavan Exit 321	2	204	15	846	50		1	1	currently By-pass Lake Geneva Dealvan via Freeway Ahead W8x18
12-20	USH 12 Westbound	9.76	Right	E3-1 Destination - Next Right - Exit Number	132	60	East Troy EXIT 328					55		1	1	
SE-12-21	USH 12 Westbound	STH 120 9.92	Right	E1-5-P Exit Number for E1-1 & E4-1 E4-1-A Exit Direction Sign with Arrow	120 276	30 156	EXIT 328 NORTH TO 120-H-36 Lake Geneva [TR] Burlington					25 299		1	1	
12-22	USH 12 Westbound	17.38	Overhead	E6-51 Advanced Exit Guide Sign (Overhead)	144	144	43 South Delavan Beloit 1/4 Mile					144		1		S-64-14
SUBTOTAL								1.8	204	15	846	1319	255	13	12	
PROJECT NO: 1000-20-83				HWY: USH 12			COUNTY: WALWORTH			MISCELLANEOUS QUANTITIES					SHEET:	

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Dane USH 18 Eastbound								531.1100 Concrete Masonry Ancillary Structures Type NS CY	531.1140 Steel Reinforcement HS Ancillary Structures Type NS LBS	531.2024 Drilling Shaft 24-Inch CY	635.0200 Sign Supports Structural Steel HS LBS	637.1220 Sign Type I Reflective SH SF	638.2601 Removing Signs Type I EACH	638.3100 Removing Structural Steel Sign Supports EACH	635.9020.S Sign Supports Replacing Base Connection Bolts Legacy System EACH	635.9010.S Sign Supports Shorten Structural Steel EACH	Comments	
SW-18-1	USH 18 Eastbound	Cth F 75.42	Right	D7-51 [Name State Park] [1] Mile	156	132	Blue Mound State Park Bringham County Park NEXT LEFT					143	1		1			
SW-18-2	USH 18 Eastbound	Cth F 75.76	Right	D2-2 Destination/Distance (Two) with Die Cut Letters	168	84	Mt Horeb 3 Verona 14 Madison 22	1.8	204	15	741	98	1	2			W8-18	
SW-18-3 Vacant																		
SW-18-4	USH 18 Eastbound	Cth E 78.53	Right	E1-5-P Exit Number for E1-1 & E4-1	108	30	Exit 65					22.5	1		1	2		
				E1-1-A Advance Exit Guide Sign, __ Mile	264	162	78 TO 92 Mt Horeb Blanchardville 1/2 MILE					297						
SW-18-5	USH 18 Eastbound	Cth E 78.38	Right	E3-1 Destination - Next Right - Exit Number	180	84	Military Ridge State Trail EXIT 65					105	1		1			
SW-18-6	USH 18 Eastbound	Cth E 78.53	Right	E3-1 Destination - Next Right - Exit Number	108	30	EXIT 65					22.5	1		1	2		
				E4-1-A Exit Direction Sign with Arrow	288	132	78 TO 92 Mt Horeb TR Blanchardville					264						
SW-18-7	USH 18 Eastbound	On Ramp From STH 78 79.88	Right	D2-2 Destination/Distance (Two) with Die Cut Letters	156	60	Verona 10 Madison 18					65	1		1			
SW-18-8	USH 18 Eastbound	Off Ramp To CTH ID 81.56	Right	E1-5-P Exit Number for E1-1 & E4-1	108	30	Exit 69 ID					22.5	1		1			
				E1-1-A Advance Exit Guide Sign, __ Mile	180	120	Mt Horeb EXIT 1/2 MILE					150						
SW-18-9	USH 18 Eastbound	Off Ramp To CTH ID 81.98	Right	E1-5-P Exit Number for E1-1 & E4-1	108	30	EXIT 69					22.5	1		1			
				E4-1-A Exit Direction Sign with Arrow	216	90	ID TR Mt Horeb					135						
SW-18-10	USH 18 Eastbound	Off Ramp To CTH PD 83.22	Right	E1-5-sP Stacked Exit Number for E1-1 & E4-1	108	30	EXIT 70					22.5	1		1	2		
				E1-1-A Advance Exit Guide Sign, __ Mile	228	120	PD To P CROSS Plains EXIT 1/2 MILE											
SW-18-11- Vacant																		
SW-18-12	USH 18 Eastbound	Springdale Center Rd 84.73	Right	D2-2 Destination/Distance (Two) with Die Cut Letters	156	60	Verona 5 Madison 13					65	1		1		Mileage changed	
SW-18-13	USH 18 Eastbound	85.99	Right	D2-3 Destination/Distance (Three) with Die Cut Letters	168	84	Barneveld 3 Mt Horeb 11 Madison 30					98	1		1			
SW-18-14	USH 18 Eastbound	Off Ramp To Cth G 88.74	Right	E8-1 Sequence Sign-Highways __ Miles	216	126	Verona Exits Bus 18-151 3/4 Hwy 69 2 Hwy PB 3 1/2					189	1		1			
SW-18-15	USH 18 Eastbound	On Ramp From CTH G 89.1	Right	E1-5-P Exit Number for E1-1 & E4-1	108	30	EXIT 76					22.5	1		1	2		
				E1-1-A Advance Exit Guide Sign, __ Mile	252	162	BUS 18 151 Epic Lane W Verona Ave 1/2 MILE					283.5						
SW-18-16	USH 18 Eastbound	Off ramp to CTH MV 89.44	Right	E1-5-P Exit Number for E1-1 & E4-1	108	30	EXIT 76					22.5	1		1	2		
				E4-1-A Exit Direction Sign with Arrow	276	132	Bus 18 151 Epic Lane [TR] W Verona Ave					253						
SW-18-17	USH 18 Eastbound	89.74	Right	E1-5-P Exit Number for E1-1 & E4-1	108	30	EXIT 77					22.5	1		1			
				E1-1-A Advance Exit Guide Sign, __ Mile	144	162	69 Verona Monroe 1 MILE					162						
SW-18-18 Vacant																		
TOTAL								1.8	204	15	741	2487.5	15	2	14	10		
PROJECT NO: 1000-20-83				HWY: USH 18				COUNTY: DANE			MISCELLANEOUS QUANTITIES					SHEET:		E

3

3

Dane USH 18 Westbound

Sign Number	Route	PLM	Location	Sign Code and Description	Width	Height	Order Lines	637.1220 Sign Type I Reflective SH SF	637.2220 Sign Type II Reflective SH SF	638.2601 Removing Signs Type I EACH	638.3100 Removing Structural Steel Sign Supports EACH	635.9020.S Sign Supports Replacing Base Connection Bolts Legacy System EACH	635.9010.S Sign Supports Shorten Structural Steel EACH	Comments
SW-18-19	USH 18 Westbound	Off Ramp to Exit 75 34.72	Right	E1-5-P Exit Number for E1-1 & E4-1 E4-1-A Exit Direction Sign with Arrow	108 240	30 90	Exit 75 G Mt Vernon [TR]	22.5 150		1		1		
SW-18-20	USH 18 Westbound	Spring Rose Rd 35.92	Right	D2-3 Destination/Distance (Three) with Die Cut Letters	192	84	Mt Horeb 5 Dodgeville 27 Dubuque 75	112		1		1		Changed Mileage
SW-18-21	USH 18 Westbound	Despins Ln 38.99	Right	E1-5-P Exit Number for E1-1 & E4-1 E1-1-A Advance Exit Guide Sign, __ Mile	108 228	30 120	Exit 70 PD TO P Cross Plains EXIT 1/2 Mile	22.5 190		1		1	2	
SW-18-22	USH 18 Westbound	Off Ramp to Exit 70 39.46	Right	E1-5-P Exit Number for E1-1 & E4-1 E4-1-A Exit Direction Sign with Arrow	108 264	30 90	EXIT 70 P TO PD TR Cross Plains	22.5 165		1		1	2	
SW-18-23	USH 18 Westbound	On Ramp from Exit 70 40.47	Right	E1-5-P Exit Number for E1-1 & E4-1 E1-1-A Advance Exit Guide Sign, __ Mile	108 180	30 126	EXIT 69 ID TO 92 Mt Horeb EXIT 1 MILE	22.5 157.5		1		1	2	
SW-18-24	USH 18 Westbound	Off Ramp to Exit 69 41.12	Right	E3-1 Destination - Next Right - Exit Number	180	84	Military Ridge State Trail EXIT 69	105		1		1		
SW-18-25	USH 18 Westbound	Off Ramp to Exit 69 41.28	Right	E1-5-P Exit Number for E1-1 & E4-1 E1-1-A Advance Exit Guide Sign, __ Mile	108 216	30 96	Exit 69 ID to 92 [TR] Mt Horeb	22.5 144		1		1	2	
SW-18-26	USH 18 Westbound	On Ramp from Exit 69 42.09	Right	D2-3 Destination/Distance (Three) with Die Cut Letters	180	84	Barneveld 10 Dodgeville 21 Dubuque 69	105		1		1		added Barneveld
SW-18-27	USH 18 Westbound	Off Ramp to Exit 65 44.05	Right	E1-5-P Exit Number for E1-1 & E4-1 E1-1-A Advance Exit Guide Sign, __ Mile	108 264	30 162	EXIT 65 78 Mt Horeb Blanchardville 1/2 MILE	22.5 297		1		1		
SW-18-28	USH 18 Westbound	Off Ramp to Exit 65 44.54	Right Right	E1-5-P Exit Number for E1-1 & E4-1 E4-1-A Exit Direction Sign with Arrow	108 288	30 132	EXIT 65 78 Mt Horeb [TR] Blanchardville	22.5 264		1		1		
SW-18-29	USH 18 Westbound	Cth E 45.67	Right	D2-3 Destination/Distance (Three) with Die Cut Letters	180	84	Barneveld 6 Dodgeville 18 Dubuque 65	105		1		1		line 1 changed to Barneveld
SW-18-30 Vacant														
SW-18-31	USH 18 Westbound	Cave Of The Mounds Rd 47.88	Right	E3-1 Destination - Next Right - Exit Number	156	132	Blue Mound State Park Brigham County Park NEXT RIGHT	143		1		1		
SW-18-32	USH 18 Westbound	Cth F 48.48	Right	D2-3 Destination/Distance (Three) with Die Cut Letters	180	84	Barneveld 3 Dodgeville 15 Dubuque 62	105		1		1		Changed Mileage
							TOTAL	2200	0	13	0	13	8	

Marathon County
ALL ITEMS CATEGORY 0010

Location	531.1100 Concrete Masonry Ancillary Structures Type NS CY	531.1140 Steel Reinforcement HS Ancillary Structures Type NS LBS	531.2024 Drilling Shaft 24-Inch LF	634.0618 Posts Wood 4x6-In x 18-FT EACH	635.0200 Sign Supports Structural Steel HS LBS	637.1220 Sign Type I Reflective SH SF	637.1230 Sign Type I Reflective F SF	637.2210 Sign Type II Reflective H SF	638.2601 Removing Signs Type I EACH	638.2602 Removing Signs Type II EACH	638.3000 Removing Small Sign Supports EACH	638.3100 Removing Structural Steel Sign Supports EACH	635.9010.S Sign Supports Shorten Structural Steel EACH	650.6501 Construction Staking Structure Layout 01. S-37-164 EACH	650.6501 Construction Staking Structure Layout 02. S-37-165 EACH	SPV.0060.01 Traffic Control Special EACH	619.1000 Mobilization EACH
USH 51	6	906	51	5	3136	1813.50	203.00	49.50	14	6	6	6	6	1	1		
USH 51 Business				5				54.50		9	5						
STH 52				18				249.50	1	21	27						
STH 29						1048.50	155.00		5								
Wausau Local				54				624.56		29	27						
1009-43-70																0.25	0.25
Total	6	906	51	82	3136	2862.00	358.00	978.06	20	65	65	6	6	1	1	0.25	0.25

Marathon USH 51																						
Sign Number	Route	PLM/MM	Interchange	Location	Sign Code and Description	Width	Height	Order Lines	531.1100 Concrete Masonry Ancillary Structures Type NS CY	531.1140 Steel Reinforcement HS Ancillary Structures Type NS LBS	531.2000 Drilling Shaft 24-Inch LF	634.0618 Posts Wood 4x6-In x 18-FT EACH	635.0200 Sign Supports Structural Steel HS LBS	635.9010.5 Sign Supports Shorten Structural Steel EACH	637.1220 Sign Type I Reflective SH SF	637.1230 Sign Type I Reflective F SF	637.2210 Sign Type II Reflective H SF	638.2601 Removing Signs Type I EACH	638.2602 Removing Signs Type II EACH	638.3000 Removing Small Sign Supports EACH	638.3100 Removing Structural Steel Sign Supports EACH	Comments
NC-51-1	USH 51 Northbound	Bridge St 4.87	Bridge St	OVERHEAD	E1-5P Exit Number	108	30	EXIT 193							22.5							ON STRUCTURE S-37-164
					E6-1 Advanced Exit Guide Sign	168	84	BRIDGE ST							98			1				
					E11-1C Exit (Single Down Arrow) Only	168	36	EXIT ONLY								42						
NC-51-2	USH 51 Northbound	Bridge St 5.02	Bridge St	OVERHEAD	E1-5P Exit Number	108	30	EXIT 193							22.5							ON STRUCTURE S-37-165
					E6-1 Advanced Exit Guide Sign	168	84	BRIDGE ST							98			1				
					E11-1C Exit (Double Rt Dia Arrows) Only	168	48	EXIT ONLY								56						
NC-51-5	USH 51 Southbound	194.8	Bridge St	MEDIAN	E1-5P Exit Number	108	30	EXIT 193							22.5							W10x22
					E1-1A Advance Exit Guide Sign, __ Mile	180	126	BRIDGE ST 1 1/4 MILES	2	302	17		1082		157.5			1			2	
NC-51-6	USH 51 Southbound	CUT 127.68	CUT	OVERHEAD	E8-1 Sec. Sign - City Name - Name-Highways - Miles	216	90	52 BRIDGE ST 1/4 Stewart Ave 1 29 West 1 1/4							135			1				S-37-64
NC-51-7	USH 51 Southbound	Bridge St 122.87	Bridge St	RT	E1-5P Exit Number	108	30	EXIT 193	2	302	17		977		22.5			1			2	W10x22
					E4-1A Exit Direction Sign with Arrow	228	96	BRIDGE ST (TR)							152							
NC-51-8	USH 51 Southbound	Bridge St 123.17	Bridge St	RT	E1-5P Exit Number	108	30	EXIT 192							22.5							CUT I-BEAMS
					E1-1A Advance Exit Guide Sign, __ Mile	180	66	STEWART AVE 1/2 Mile					2		82.5			1				
NC-51-11	USH 51 Southbound	Bridge St 123.48	Bridge St	OVERHEAD	E8-1 Sec. Sign - City Name - Name-Highways - Miles	264	90	Stewart Ave 1/4 29 West 1/4 NN North Mtn Rd 2 1/4							165			1				S-37-65
NC-51-12	USH 51 Southbound	Bridge St 123.6	Bridge St	OVERHEAD	E1-5P Exit Number	108	30	EXIT 192							22.5							S-37-66
					E6-1 Advanced Exit Guide Sign	180	42	STEWART AVE							52.5			1				
					E11-1 Exit (Single Down Arrow) Only	180	36	EXIT (TR) ONLY								45						
NC-51-13	USH 51 Northbound	191	STH 29	LT	E8-1 Sec. Sign - City Name - Name-Highways - Miles	204	90	29 West 1/4 Sherman St 1/2 Stewart Ave 1							127.5			1				S-37-58
NC-51-14	USH 51 Northbound	191.6	STH 29	OVERHEAD	E1-5P Exit Number	108	30	Exit 192							22.5							CUT I-BEAMS
					E1-1A Advance Exit Guide Sign, __ Mile	180	66	Stewart Ave 1/4 Mile					2		82.5			1				
NC-51-15	USH 51 Northbound	192	STH 29	OVERHEAD	E1-5P Exit Number	108	30	Exit 192							22.5							CUT I-BEAMS
					E4-1A Exit Direction Sign with Arrow	228	48	Stewart Ave (TR)							76			1				
NC-51-16	USH 51 Northbound	192.2	STH 52	LT	E8-1 Sec. Sign - City Name - Name-Highways - Miles	228	96	52 Bridge St 3/4 K 1/2 Bus 51 2 WW 4 1/2							152			1				S-37-61
NC-51-17	USH 51 Northbound	STH 52 4.46	STH 52	RT	E1-5P Exit Number	108	30	Exit 193							22.5							W10x22
					E1-51A Advance Exit Guide Sign, Exit __ Mile	180	126	52 Bridge St 3/4 Mile	2	302	17		1082		157.5			1			2	
NC-51-18	USH 51 Southbound	192.8	STH 52	OVERHEAD	E1-5P Exit Number	108	30	Exit 192							22.5							S-37-82
					E6-1 Advanced Exit Guide Sign	180	42	Stewart Ave							52.5							
					E11-1C Exit (Double Rt Dia Arrows) Only	180	48	(TR) Exit Only (TR)								60			1			

Marathon USH 51							531.1100 Concrete Masonry Ancillary Structures Type NS CY	531.1140 Steel Reinforcement HS Ancillary Structures Type NS LBS	531.2000 Drilling Shaft 24-Inch LF	634.0618 Posts Wood 4x6-In x 18-Ft EACH	635.0200 Sign Supports Structural Steel HS LBS	635.9010.S Sign Supports Shorten Structural Steel EACH	637.1220 Sign Type I Reflective SH Sft	637.1230 Sign Type I Reflective F Sft	637.2210 Sign Type II Reflective H Sft	638.2601 Removing Signs Type I EACH	638.2602 Removing Signs Type II EACH	638.3000 Removing Small Sign Supports EACH	638.3100 Removing Structural Steel Sign Supports EACH	Comments
NC-51-20	USH 51 Southbound	RT	J3-1 24Wx57H Directional Assembly (1 Headed Route Panel)	24	57	EAST 52 [LT]				1					9.50					
NC-51-21	USH 51 Southbound	RT	J2-1 24Wx57H Route Turn Assembly (1 Head Panel) 24Wx57H Route Turn Assembly (1 Head Panel)	24	57	EAST 52 [LA]				1					9.50					
NC-51-22	USH 51 Northbound Off Ramp	RT	J2-1 24Wx57H Route Turn Assembly (1 Head Panel)	24	57	EAST 52 [RA]				1					9.50					
NC 51-23	USH 51 Northbound Off Ramp	RT	J3-1 24Wx57H Directional Assembly (1 Headed Route Panel)	24	57	EAST 52 [RT]				1					9.50					
NC-51-24	USH 51 Southbound Off Ramp	RT	J3-2 48Wx57H Directional Assembly (2Headed Route Panel)			EAST WEST 52 52 [LT] [RT]											1	1		
NC 51-25	USH 51 Southbound Off Ramp	LT	J3-1 24Wx57H Directional Assembly (1 Headed Route Panel)			EAST 52 [LA]											1	1		
NC-51-26	USH 51 Southbound Off Ramp	RA	J33-1 24Wx69H Trailblazer Directional WITH Cardinal	24	69	10 WEST 29 [UA]				1					11.50		1	1		
NC-51-27	USH 51 Northbound Off Ramp	RT	J3-1 24Wx57H Directional Assembly (1 Headed Route Panel)			EAST 52 [RA]											1	1		
NC-51-28	USH 51 Northbound Off Ramp	LT	J3-1 24Wx57H Directional Assembly (1 Headed Route Panel)			WEST 52 [LA]											1	1		
NC-51-29	USH 51 Northbound Off Ramp	LI	J3-2 48Wx57H Directional Assembly (2Headed Route Panel)			WEST EAST 52 52 [LT] [RT]											1	1		
Total							6	906	51	5	3136	6	1813.5	203	49.5	14	6	6	6	

Marathon USH 51 Business							634.0618 Posts Wood 4x6-In x 18 FT EACH	637.2210 Sign Type II Reflective H SF	638.2602 Removing Signs Type II EACH	638.3000 Removing Small Sign Supports EACH	Comments
Sign Number	Route	Location	Sign Code and Description	Width	Height	Order Lines					
NC-B51-1	Washington St Eastbound	RT OVERHEAD	JV Any Vertically Configured J-Panel			EAST 52 [UA]SOUTH BUSINESS 51 [UA]			1		CITY OWNED STRUCTURE
NC-B51-2	Washington St Eastbound	RT	JV Any Vertically Configured J-Panel			EAST 52 SOUTH BUSINESS 51 [UA]			1		ON SIGNAL POLE
NC-B51-3	Washington St Eastbound	LT	JV Any Vertically Configured J-Panel			EAST 52 [RA]SOUTH BUSINESS 51 [RA]			1	1	
NC-B51-4	Forest St Eastbound	RT	JV Any Vertically Configured J-Panel			SOUTH BUSINESS 52 [RB]			1		ON SIGN STRUCTURE
NC-B51-5	Forest St Eastbound	LT	JV Any Vertically Configured J-Panel			EAST 52 [LB]NORTH BUSINESS 51 [LB]			1		ON SIGN STRUCTURE
NC-B51-6	Forest St Eastbound	RT	JV Any Vertically Configured J-Panel			NORTH BUSINESS 51 [TL]SOUTH BUSINESS 51 [TR]			1	1	
NC-B51-7	Forest St Eastbound	RT	J3-1 24Wx57H Directional Assembly (1 Headed Route Panel)			EAST 52 [TL]			1	1	
NC-B51-8	Grand Ave Northbound	LT	JV Any Vertically Configured J-Panel			EAST 52 [TR]NORTH BUSINESS 51 [TR]			1	1	
NC-B51-9	Grand Ave Northbound	RT	J1-1 24Wx39H Junction or End Assembly			JCT 52			1	1	ON LIGHT POLE
NC-B51-10	Grand Ave Southbound	RT	J1-1 24Wx39H Junction or End Assembly			JCT BUSINESS 51	1	8.50			
NC-B51-11	Grand Ave Southbound	RT	J33-2 48Wx69H Trailblazer Directional WITH Cardinal	48	69	SOUTH BUSINESS 51 [UA]NORTH BUSINESS 51 [RA]	2	23.00			
NC-B51-12	Grand Ave Northbound	RT	J33-1 24Wx69H Trailblazer Directional WITH Cardinal	24	69	NORTH BUSINESS 51 [LA]	1	11.50			
NC-B51-13	Grand Ave Northbound	RT	J32-1 24Wx69H Trailblazer Advance Turn WITH Cardinal	24	69	NORTH BUSINESS 51 [LT]	1	11.50			
Total							5	54.50	9	5	

Marathon STH 52

Sign Number	Route	Location	Sign Code and Description	Width	Height	Order Lines	634.0618 Posts Wood 4x6-In x 18-FT EACH	637.2210 Sign Type II Reflective II SF	638.2601 Removing Signs Type I EACH	638.2602 Removing Signs Type II EACH	638.3000 Removing Small Sign Supports EACH	Comments
NC 52-1	HWY 52 PRKWY Northbound	RT	24Wx45H Hospital Assembly with Arrow	24	45	HOSPITAL ARROW [BLUE]	1	7.50		1	2	
NC-52-2	HWY 52 PRKWY Northbound	RT	JV Any Verically Configured J-Pane	48	48	TO 51 FAST 29	1	16.00		1	2	
NC-52-3	HWY 52 PRKWY Westbound	RT	J3 1 24Wx57H Directional Assembly (1 Headed Route Panel)	24	57	WEST 29 [UA]	1	9.50		1	1	
NC-52-4	HWY 52 PRKWY Westbound	RT	J32-1 24Wx69H Trailblazer Advance Turn WITH Cardinal	24	69	TO WEST 29 [UA]	1	11.50		1	1	
NC-52-5	HWY 52 PRKWY Eastbound	RT	J33-1 24Wx69H Trailblazer Directional WITH Cardinal	24	69	TO EAST 29 [UA]	1	11.50		1	1	BUS STOP SIGN ON EXISTING POST
NC-52-6	HWY 52 PRKWY Westbound	RT	JV Any Verically Configured J-Pane	48	69	TO WEST 29 [UA] JCT COUNTY R	1	23.00		1	2	
NC-52-7	HWY 52 PRKWY Eastbound	RT	J32-3 72Wx69H Trailblazer Advance Turn WITH Cardinal	72	69	NORTH 51 SOUTH [UA] 51 [RT] EAST 29 [RT]	2	34.50		1	2	
NC-52-8	HWY 52 PRKWY Westbound	RT	J32 1 24Wx69H Trailblazer Advance Turn WITH Cardinal	24	69	TO WEST 29 [UA]	1	11.50		1	2	
NC 52-11	HWY 52 PRKWY Eastbound	RT	J2-1 24Wx57H Route Turn Assembly (1 Head Panel)	24	57	NORTH 51 [LT]	1	9.50		1	1	

Marathon STH 52							634.0618 Posts Wood 4x6-In x 18-FT EACH	637.2210 Sign Type II Reflective II SF	638.2601 Removing Signs Type I EACH	638.2602 Removing Signs Type II EACH	638.3000 Removing Small Sign Supports EACH	Comments
Sign Number	Route	Location	Sign Code and Description	Width	Height	Order Lines						
NC-52-13	HWY 52 PRKWY Westbound	RT	J4-1 24Wx36H Reassurance Assembly (1 Headed Route Panel)			WEST 52				1	1	
NC-52-15	Stewart Ave Eastbound	RT	J4-1 24Wx36H Reassurance Assembly (1 Headed Route Panel)			EAST 52				1	1	ATTACHED TO EXISTING FOLDING SIGN
NC-52-18	HWY 52 PRKWY Westbound	RT	J4-1 24Wx36H Reassurance Assembly (1 Headed Route Panel)			WEST 52				1		HOSPITAL SIGN TO REMAIN IN PLACE
NC 52 20	HWY 52 PRKWY Westbound	RT	J4-1 24Wx36H Reassurance Assembly (1 Headed Route Panel)			WEST 52				1	1	
NC-52-21	Stewart Ave Eastbound	RT	J4-1 24Wx36H Reassurance Assembly (1 Headed Route Panel)			EAST 52				1	1	
NC-52-22	Stewart Ave Westbound	RT	J4-1 24Wx36H Reassurance Assembly (1 Headed Route Panel)			WEST 52				1	1	
NC-52-23	Stewart Ave Eastbound	RT	J32-2 48Wx69H Trailblazer Advance Turn WITH Cardinal	48	69	NORTH SOUTH BUSINESS BUSINESS 51 51 [UA] [RT]	2	23.00				
NC 52 24	Stewart Ave Eastbound	RT	J33-2 48Wx69H Trailblazer Directional WITH Cardinal	48	69	NORTH SOUTH BUSINESS BUSINESS 51 51 [UA] [RA]	2	23.00				
NC 52 26	Stewart Ave Eastbound	RT	J32-1 24Wx69H Trailblazer Advance Turn WITH Cardinal	24	69	NORTH BUSINESS 51 [LT]	1	11.50				
NC 52 27	Stewart Ave Westbound	RT	J33-1 24Wx69H Trailblazer Directional WITH Cardinal	24	69	SOUTH BUSINESS 51 [LA]	1	11.50				
NC 52 28	Stewart Ave Westbound	MEDIAN	J33-1 24Wx69H Trailblazer Directional WITH Cardinal	24	69	SOUTH BUSINESS 51 [LA]	1	11.50				
NC-52-29	Stewart Ave Eastbound	RT	J32-2 48Wx69H Trailblazer Advance Turn WITH Cardinal			NORTH SOUTH BUS BUS 51 51 [LT] [UA]				1	2	
NC-52-30	Stewart Ave Westbound	RT	J4-1 24Wx36H Reassurance Assembly (1 Headed Route Panel)			WEST 52				1	1	

Marathon STH 52							634.0618 Posts Wood 4x6-In x 18-FT EACH	637.2210 Sign Type II Reflective H ST	638.2601 Removing Signs Type I EACH	638.2602 Removing Signs Type II EACH	638.3000 Removing Small Sign Supports EACH	Comments
Sign Number	Route	Location	Sign Code and Description	Width	Height	Order Lines						
NC 52-31	Stewart Ave Eastbound	RT	J33-1 24Wx69H Trailblazer Directional WITH Cardinal	24	69	NORTH BUSINESS 51 [LA]	1	11.50		1	2	
NC 52-32	Stewart Ave Eastbound	RT	JV Any Verically Configured J Pane			SOUTH EAST BUS 52 51				1	2	
NC-52-33	Stewart Ave Westbound	LT	J3-1 24Wx57H Directional Assembly (1 Headed Route Panel)			WEST 52				1	1	
NC-52-35	Stewart Ave Westbound	RT	J32-2 48Wx69H Trailblazer Advance Turn WITH Cardinal	48	69	SOUTH BUSINFSS 51 [UA]	NORTH BUSINFSS 51 [RT]	23.00		1		ON LIGHT POLE
NC-52-36	Stewart Ave Eastbound	OVERHEAD				BUS 52 51 AHEAD			1			
Total							18	249.50	1	21	27	

Marathon STH 29									637.1220 Sign Type I Reflective SH SF	637.1230 Sign Type I Reflective F SF	638.2601 Removing Signs Type I EACH	Comments
Sign Number	Route	MM	Interchange	Location	Sign Code and Description	Width	Height	Order Lines				
NC-29-1	STH 29 EASTBOUND	163.6	USH 51	LT	E8-1 Seq. Sign - City Name - Name Highways - Miles	276	90	Stewart Ave 3/4 NN North Mtn Rd 2 3/4 N Rib Mtn Dr 4 1/2	172.5			
NC-29-2	STH 29 EASTBOUND	164.3	USH 51	OVERHEAD	F1-5P Exit Number	156	30	EXIT 164 A-B	32.5		1	ON EXISTING STRUCTURE S-37-39
					E6-1 Advanced Exit Guide Sign	168	114	51 North Wausau Merrill	133			
					E11-1E Exit (Single Down Arrow) Only	168	36	Exit (TR) Only		42		
NC-29-3	STH 29 EASTBOUND	164.5	USH 51	OVERHEAD	E1-5P Exit Number	156	30	EXIT 164 A-B	32.5		1	ON EXISTING STRUCTURE S-37-70
					E6-1 Advanced Exit Guide Sign	192	114	51 North Wausau Merrill	152			
					F11-1F Exit (Double Rt Dia Arrows) Only	192	48	(TR) Exit Only (TR)		64.0		
NC-29-4	USH 51/STH 52 Ramp Eastbound	164.7	USH 51	LT	F1-SAP Left	60	24	LEFT Stewart Avenue	10		1	
					E6-1 Advanced Exit Guide Sign	120	60		50			
NC-29-6	USH 51/STH 52 Ramp Eastbound	164.9	USH 51	OVERHEAD	F1-5BP Direction and Exit Number	132	48	Left EXIT 164 A	44		1	
					F6-1 Advanced Exit Guide Sign	168	42	WAUSAU	49			
					E11-1D Exit (Single Lt Dia Arrow) Only	168	42	Exit (LR) Only		49.0		
NC-29-19	STH 29 EASTBOUND	161	USH 51	LT	F8-1 Seq. Sign - City Name - Name- Highways - Miles	264	90	72nd Ave 1 1/4 Stewart Ave NN North Mtn Rd 5 1/2	165			
NC-29-20	STH 29 EASTBOUND	163.1	USH 51	RT	E1-5P Exit Number			EXIT 164 A-B			1	
					E1-51-A Advance Exit Guide Sign, Exit ___ Mile	156	192	51 52 Wausau Merrill 1 1/4 Miles	208			
Total									1048.5	155.0	5	

Wausau Local Streets

Sign Number	Route	Location	Sign Code and Description	Width	Height	Order Lines	634.0618 Posts Wood 4x6-In x 18 FT EACH	637.2210 Sign Type II Reflective H SF	638.2602 Removing Signs Type II EACH	638.3000 Removing Small Sign Supports EACH	Comments
NC-5A-1	Stewart Ave Eastbound	RT	J3-2 48Wx57H Directional Assembly (2 Headed Panel)	48	57	TO WEST 51 29 [LT] [RT]	1	19.00	1	2	
NC-5A-2	Stewart Ave Westbound	LT	J3-1 24Wx57H Directional Assembly (1 Headed Route Panel)	24	57	WEST 29 [LA]	1	9.50	1	1	
NC-1A-1	N 1st Ave Northbound	LT	J3-2 48Wx57H Directional Assembly (2 Headed Panel)	48	57	WEST EAST 52 52 [LA] [RA]	1	19.00			
NC-1A-2	N 1st Ave Northbound	RT	J3-2 48Wx57H Directional Assembly (2 Headed Panel)	48	57	WEST EAST 52 52 [LA] [RA]	1	19.00			
NC-1A-3	N 1st Ave Northbound	LT	J1-1 24Wx39H Junction or End Assembly	24	39	JCT 52	1	6.50			
NC-1A-4	N 1st Ave Northbound	RT	J1-1 24Wx39H Junction or End Assembly	24	39	JCT 52	1	6.50			
NC-1A-5	N 1st Ave Northbound	RT	JV Any Vertically Configured J-Pane	24	48	NORTH BUSINESS 51	1	8.00			
NC-1A-6	N 1st Ave Northbound	RT	J4-1 24Wx36H Reassurance Assembly (1 Headed Route Panel)	24	48	NORTH BUSINESS 51	1	8.00			
NC-3A-1	N 3rd Ave Northbound	LT	J1-1 24Wx39H Junction or End Assembly	24	39	JCT 52	1	6.50			
NC-3A-2	N 3rd Ave Northbound	RT	J1-1 24Wx39H Junction or End Assembly	24	39	JCT 52	1	6.50			
NC-3A-3	N 3rd Ave Northbound	LT	J3-2 48Wx57H Directional Assembly (2 Headed Panel)	48	57	WEST EAST 52 52 [LA] [RA]	1	19.00			
NC-3A-4	N 3rd Ave Northbound	RT	J3-2 48Wx57H Directional Assembly (2 Headed Panel)	48	57	WEST EAST 52 52 [LA] [RA]	1	19.00			
NC-3A-5	3rd Avenue Southbound	RT	J3-1 24Wx57H Directional Assembly (1 Headed Route Panel)			WEST 52 USE RIGHT LANE			1	1	

Wausau Local Streets							634.0618 Posts Wood 4x6-In x 18 FT EACH	637.2210 Sign Type II Reflective H SF	638.2602 Removing Signs Type II EACH	638.3000 Removing Small Sign Supports EACH	Comments
Sign Number	Route	Location	Sign Code and Description	Width	Height	Order Lines					
NC-3A-6	3rd Avenue Southbound	LT	IV Any Vertical y Configured J-Panel			EAST BUSINESS 52 51 BLANK USE LEFT LANE			1	2	
NC 3A 7	3rd Avenue Southbound	LT				EAST BUSINESS 52 51 [LT] [LT]			1		ON OVERHEAD SIGN SUPPORT
NC-3A-8	3rd Avenue Southbound	RT	J33-1 24Wx69H Trailblazer Directional WITH Cardinal	24	69	SOUTH BUSINESS 51 [UA]		11.50	1		ON OVERHEAD SIGN SUPPORT
NC-3A-9	3rd Avenue Southbound	RT	IV Any Vertical y Configured J-Panel	24	48	SOUTH BUSINESS 51	1	8.00			
NC-3A-10	3rd Avenue Southbound	RT	J32-1 24Wx69H Trailblazer Advance Turn WITH Cardinal	24	69	SOUTH BUSINESS 51 [LT]	1	11.50			
NC 3A 11	3rd Avenue Southbound	RT	J33-1 24Wx69H Trailblazer Directional WITH Cardinal	24	69	SOUTH BUSINESS 51 [LA]	1	11.50			
NC-17A-1	S 17th Avenue Northbound	RT	J3-1 24Wx57H Directional Assembly (1 Headed Route Panel)			FAST 52 [RA]			1		ON EXISTING WOOD POLE
NC 18A 1	S 18th Avenue Northbound	RT	J3-1 24Wx57H Directional Assembly (1 Headed Route Panel)			EAST 52 [RA]			1	1	
NC-28A-1	28th Ave Southbound	RT	J2-3 72Wx57H Route Turn Assembly (3 Headed Route Panel)	72	57	TO EAST WEST 51 29 29 [LA] [LA] [RA]	2	28.50	1	2	
NC-28A-2	28th Ave Southbound	RT	J3-3 72Wx57H Directional Assembly (3 Headed Panel)	72	57	TO EAST WEST 51 29 29 [LT] [LT] [RT]	2	28.50	1	2	
NC-28A-3	28th Ave Northbound	MEDIAN	J33-1 24Wx69H Trailblazer Directional WITH Cardinal	24	69	TO WEST 29 [LT]	1	11.50	1	1	
NC-28A-4	28th Ave Northbound	RT	J33-2 48Wx69H Trailblazer Directional WITH Cardinal	48	69	TO EAST 51 29 [RA] [RA]	2	23.00	1	2	

Wausau Local Streets

Sign Number	Route	Location	Sign Code and Description	Width	Height	Order Lines	634.0618 Posts Wood 4x6-In x 18-Ft EACH	637.2210 Sign Type II Reflective H 5F	638.2602 Removing Signs Type II EACH	638.3000 Removing Small Sign Supports EACH	Comments
NC-BS-1	Bridge St Westbound	RI	J1 1 24Wx39H Junction or End Assembly	24	36	END S2	1	6.00			
NC-BS-2	Bridge St Eastbound	RT	J4-1 24Wx36H Reassurance Assembly (1 Headed Route Panel)	24	36	EAST S2	1	6.00			
NC-BS-3	Bridge St Eastbound	RT	J32-2 48Wx69H Trailblazer Advance Turn WITH Cardinal	48	69	NORTH BUSINESS S1 [UA] SOUTH BUSINESS S1 [RT]	2	23.00			
NC-BS-4	Bridge St Westbound	RT	J4-1 24Wx36H Reassurance Assembly (1 Headed Route Panel)	24	36	WEST S2	1	6.00			
NC-BS-5	Bridge St Eastbound	RT	J33-2 48Wx69H Trailblazer Directional WITH Cardinal	48	69	NORTH BUSINESS S1 [UA] SOUTH BUSINESS S1 [RA]	2	23.00			
NC-BS-6	Bridge St Eastbound	RT	J33-1 24Wx69H Trailblazer Directional WITH Cardinal	24	69	SOUTH BUSINESS S1 [LA]	1	11.50			
NC-BS-7	Bridge St Eastbound	RI	J32 1 24Wx69H Trailblazer Advance Turn WITH Cardinal	24	69	NORTH BUSINESS S1 [LT]	1	11.50			
NC-BS-8	Bridge St Westbound	RT	J32-1 24Wx69H Trailblazer Advance Turn WITH Cardinal	24	69	SOUTH BUSINESS S1 [LT]	1	11.50			
NC-BS-9	Bridge St Eastbound	RT	J33-1 24Wx69H Trailblazer Directional WITH Cardinal	24	69	NORTH BUSINESS S1 [LT]	1	11.50			
NC-BS-10	Bridge St Westbound	RT	J33 2 48Wx69H Trailblazer Directional WITH Cardinal	48	69	SOUTH BUSINESS S1 [UA] NORTH BUSINESS S1 [RA]	2	23.00			
NC-BS-11	Bridge St Eastbound	RT	J4-1 24Wx36H Reassurance Assembly (1 Headed Route Panel)	24	36	EAST S2	1	6.00			

Wausau Local Streets

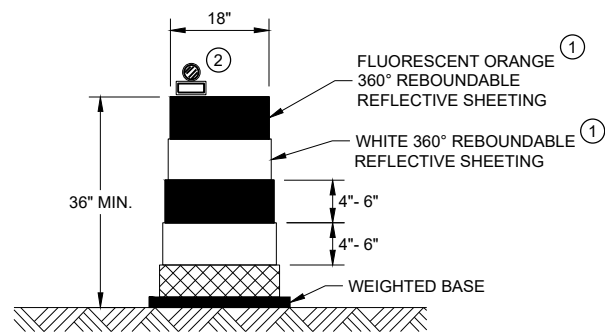
Sign Number	Route	Location	Sign Code and Description	Width	Height	Order Lines		634.0618 Posts Wood 4x6-In x 18 FT EACH	637.2210 Sign Type II Reflective H SF	638.2602 Removing Signs Type II EACH	638.3000 Removing Small Sign Supports EACH	Comments
NC-BS-12	Bridge St Westbound	RT	J32-2 48Wx69H Trailblazer Advance Turn WITH Cardinal	48	69	SOUTH BUSINESS 51 [UA]	NORTH BUSINESS 51 [RT]	2	23.00			
NC-BS-13	Bridge St Westbound	RT	J4-1 24Wx36H Reassurance Assembly (1 Headed Route Panel)	24	36		WEST 52	1	6.00			
NC-BS-14	Bridge St Eastbound	RT	J2-1 24Wx57H Route Turn Assembly (1 Head Panel)	24	57		EAST 52 [LT]	1	9.50			
NC-BS-15	Bridge St Eastbound	RT	J3-1 24Wx57H Directional Assembly (1 Headed Route Panel)	24	57		EAST 52 [LA]	1	9.50			
NC-BS-16	Bridge St Eastbound	LT	J3-1 24Wx57H Directional Assembly (1 Headed Route Panel)	24	57		EAST 52 [LA]	1	9.50			
NC-SS-1	Scott St Westbound	RT	JV Any Vertically Configured J-Panel				NORTH BUSINESS WEST 51 52 [UA] [UA]			1	2	
NC-SS-2	Scott St Westbound	RT	JV Any Vertically Configured J-Panel				NORTH BUSINESS WEST 51 52			1	2	
NC-SS-3	Scott St Westbound	RT	JV Any Vertically Configured J-Panel				NORTH BUSINESS WEST 51 52			1	2	
NC-TS-1	W Thompson St Eastbound	RT	JV Any Vertically Configured J-Panel	24	48		SOUTH BUSINESS 51	1	8.00			
NC-TS-2	W Thompson St Westbound	RT	J33-1 24Wx69H Trailblazer Directional WITH Cardinal	24	69		NORTH BUSINESS 51 [RA]	1	11.50			
NC-TS-3	W Thompson St Westbound	RT	J32-1 24Wx69H Trailblazer Advance Turn WITH Cardinal	24	69		NORTH BUSINESS 51 [RT]	1	11.50			
NC-TS-4	W Thompson St Eastbound	RT	J32-1 24Wx69H Trailblazer Advance Turn WITH Cardinal	24	69		SOUTH BUSINESS 51 [RT]	1	11.50			
NC-TS-5	W Thompson St Westbound	RT	JV Any Vertically Configured J-Panel	24	48		NORTH BUSINESS 51	1	8.00			

Wausau Local Streets							634.0618 Posts Wood 4x6-In x 18 FT EACH	637.2210 Sign Type II Reflective H SF	638.2607 Removing Signs Type II EACH	638.3000 Removing Small Sign Supports EACH	Comments
Sign Number	Route	Location	Sign Code and Description	Width	Height	Order Lines					
NC-TS-6	W Thompson St Eastbound	RT	J33-1 24Wx69H Trailblazer Directional WITH Cardinal	24	69	SOUTH BUSINESS 51 [RA]	1	11.50	1		ON LIGHT POLE
NC-1S-1	1st St Southbound	RT	JV Any Vertical y Configured J-Panel			52 BUSINESS 51 [RA]			1		ON SIGNAL POLE
NC-3S-1	N 3rd St Southbound	RT	M6-1	21	21	ARROW		3.06			ADD TO EXISTING SIGN POST
NC-5S-1	N 5th St Southbound	RT	J2-1 24Wx57H Route Turn Assembly (1 Head Panel)	24	57	WEST 52 [RT]	1	9.50			
NC-5S-2	N 5th St Southbound	RT	J3-1 24Wx57H Directional Assembly (1 Headed Route Panel)	24	57	WEST 52 [RA]	1	9.50			
NC-5S-3	N 5th St Southbound	RT	J2-1 24Wx57H Route Turn Assembly (1 Head Panel)			WEST 52 [UA]			1		ON LIGHT POLE
NC-5S-4	N 5th St Southbound	RT	JV Any Vertical y Configured J-Panel			JC- BUSINESS 51			1	1	
NC-5S-5	N 5th St Southbound	RT	J2-1 24Wx57H Route Turn Assembly (1 Head Panel)			WEST 52 [RT]			1	1	
NC-5S-6	N 5th St Southbound	RT	JV Any Vertical y Configured J-Panel			NORTH BUSINESS WEST 51 52 [RA] [RA]			1	1	
NC-6S-2	N 6th St Northbound	RT	J3-2 48Wx57H Directional Assembly (2 Headed Panel)	48	57	WEST EAST 52 52 [LA] [UA]	1	19.00			
NC-6S-3	N 6th St Northbound	LT	J3-2 48Wx57H Directional Assembly (2 Headed Panel)	48	57	WEST EAST 52 52 [LA] [UA]	1	19.00			
NC-6S-4	N 6th St Northbound	RT	J2-2 48Wx57H Route Turn Assembly (2 Headed Route Panel)	48	57	WEST EAST 52 52 [LT] [UA]	1	19.00			
NC-6S-5	N 6th St Northbound	RT	J4-1 24Wx36H Reassurance Assembly (1 Headed Route Panel)	24	39	JC- 52	1	6.50			
NC-6S-6	N 6th St Northbound	RT	J4-1 24Wx36H Reassurance Assembly (1 Headed Route Panel)			EAST 52			1	1	
NC-6S-7	N 6th St Northbound	RT	J4-1 24Wx36H Reassurance Assembly (1 Headed Route Panel)			EAST 52			1	1	
NC-6S-8	N 6th St Northbound	RT	J2-1 24Wx57H Route Turn Assembly (1 Head Panel)			EAST 52 [UA]			1		ON UTILITY POLE
NC-6S-9	N 6th St Northbound	RT	J2-1 24Wx57H Route Turn Assembly (1 Head Panel)			EAST 52 [UA]			1		ON UTILITY POLE

Wausau Local Streets							634.0618 Posts Wood 4x6-In x 18 FT EACH	637.2210 Sign Type II Reflective H SF	638.2602 Removing Signs Type II EACH	638.3000 Removing Small Sign Supports EACH	Comments
Sign Number	Route	Location	Sign Code and Description	Width	Height	Order Lines					
NC 6S 10	N 6th St Northbound	RT	J4-1 24Wx36H Reassurance Assembly (1 Headed Route Pane)			EAST 52			1		ON LIGHT POLE
NC-6S-11	N 6th St Northbound	LT	JV Any Vertically Configured J-Pane			NORTH BUSINESS 52 [LA]			1	1	
NC 6S 12	N 6th St Northbound	LT	J2-1 24Wx57H Route Turn Assembly (1 Head Pane)			EAST 52 [UA]			1		ON LIGHT POLE
NC-6S-13	N 6th St Northbound	RT	JV Any Vertically Configured J-Pane			NORTH BUSINESS 52 [LT]			1	1	
Total							54	624.56	29	27	

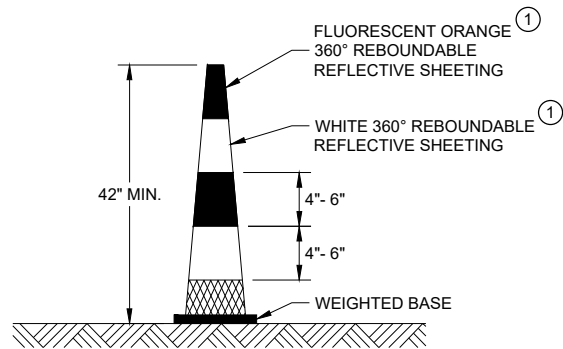
Standard Detail Drawing List

15C11-10B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-09A	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15D12-12A	TRAFFIC CONTROL, LANE CLOSURE, WITH TEMPORARY RUMBLE STRIPS
15D14-06	TRAFFIC CONTROL, TWO LANE CLOSURE ON FREEWAY OR EXPRESSWAY
15D15-07A	TRAFFIC CONTROL, PARALLEL ENTRANCE RAMP WITHIN LANE CLOSURE
15D15-07B	TRAFFIC CONTROL, ENTRANCE RAMP WITHIN LANE CLOSURE
15D15-07C	TRAFFIC CONTROL, TAPERED ENTRANCE RAMP WITHIN LANE CLOSURE
15D15-07E	TRAFFIC CONTROL, PARALLEL EXIT RAMP WITHIN LANE CLOSURE
15D16-06	TRAFFIC CONTROL, EXIT RAMP CLOSURE
15D20-07A	TRAFFIC CONTROL, SINGLE LANE CLOSURE, DIVIDED NON-FREEWAY/EXPRESSWAY
15D20-07B	TRAFFIC CONTROL, SINGLE RIGHT LANE CLOSURE, UNDIVIDED NON-FREEWAY/EXPRESSWAY
15D20-07C	TRAFFIC CONTROL, SINGLE LEFT LANE CLOSURE, UNDIVIDED NON-FREEWAY/EXPRESSWAY
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
15D37-03	TRAFFIC CONTROL, 2-LANE ROUNDABOUT
15D40-05A	TRAFFIC CONTROL, FULL LANE SHIFT NON-FREEWAY OR MULTILANE DIVIDED 45 MPH AND UNDER
15D40-05B	TRAFFIC CONTROL, FULL LANE SHIFT MULTILANE DIVIDED 50 MPH AND OVER
15D40-05C	TRAFFIC CONTROL, PARTIAL LANE SHIFT NON-FREEWAY/EXPRESSWAY OR MULTILANE DIVIDED 45 MPH AND UNDER
15D40-05D	TRAFFIC CONTROL, PARTIAL LANE SHIFT MULTILANE DIVIDED 50 MPH AND GREATER
15D50-03A	TRAFFIC CONTROL, ADDED LANE CLOSURE WITHOUT LANE SHIFT
15D50-03B	TRAFFIC CONTROL, ADDED LANE CLOSURE WITH LANE SHIFT



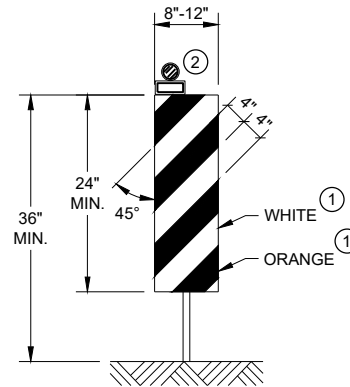
DRUM

BALLAST WIDTHS
RANGE FROM 24"-36"



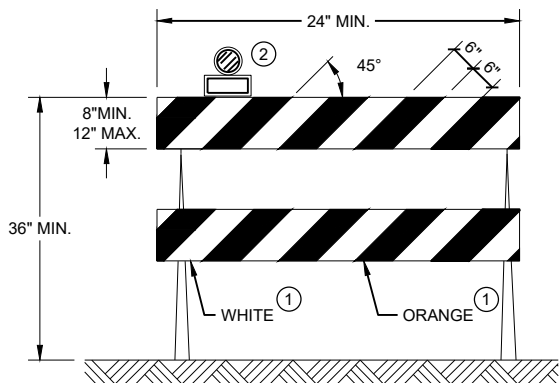
42" CONE

DO NOT USE IN TAPERS
½ SPACING OF DRUMS
BALLAST WIDTHS
RANGE FROM 14"-20"



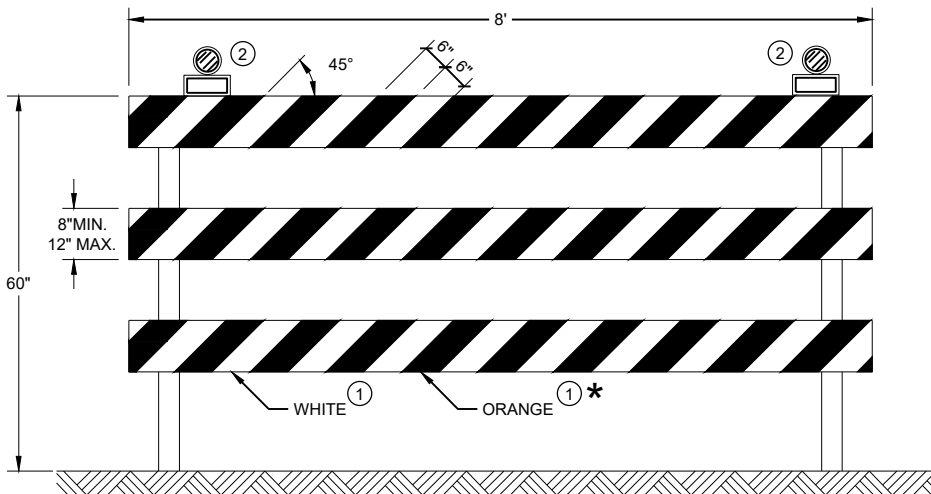
VERTICAL PANEL

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



TYPE II BARRICADE

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



TYPE III BARRICADE

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

* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

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
November 2022 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

FHWA

LEGEND

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

GENERAL NOTES

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

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

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

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

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

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

FLAGGING

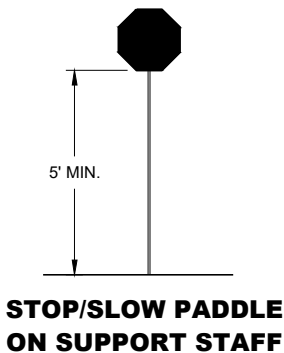
FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT REMOVE TEMPORARY PORTABLE RUMBLE STRIPS PRIOR TO COVERING OR REMOVING ALL ADVANCE SIGNING.

- ① FOR MOVING WORK OPERATIONS, POST ADDITIONAL W20-7A FLAGGER SIGNS AT APPROXIMATELY 3,500' INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.
- ② SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

WHEN THE DISTANCE BETWEEN FLAGGERS EXCEEDS 2 MILES, A PILOT CAR IS REQUIRED. WHEN CURVES REDUCE SIGHT DISTANCE BELOW 400', A PILOT CAR IS REQUIRED.

TEMPORARY PORTABLE RUMBLE STRIPS

- UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS.
- ③ EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS PLACED TRANSVERSE ACROSS THE LANE AT THE LOCATIONS SHOWN. WITHIN EACH ARRAY, SPACING BETWEEN RUMBLE STRIPS SHALL BE 15 FEET ON CENTER
- ONLY USE TEMPORARY PORTABLE RUMBLE STRIPS FROM THE APPROVED PRODUCTS LIST.
- INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS.
- PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.
- DO NOT INSTALL TEMPORARY PORTABLE RUMBLE STRIPS ON GRAVEL, MILLED SURFACES, OR ASPHALT THAT HAS BEEN PAVED LESS THAN 12 HOURS.

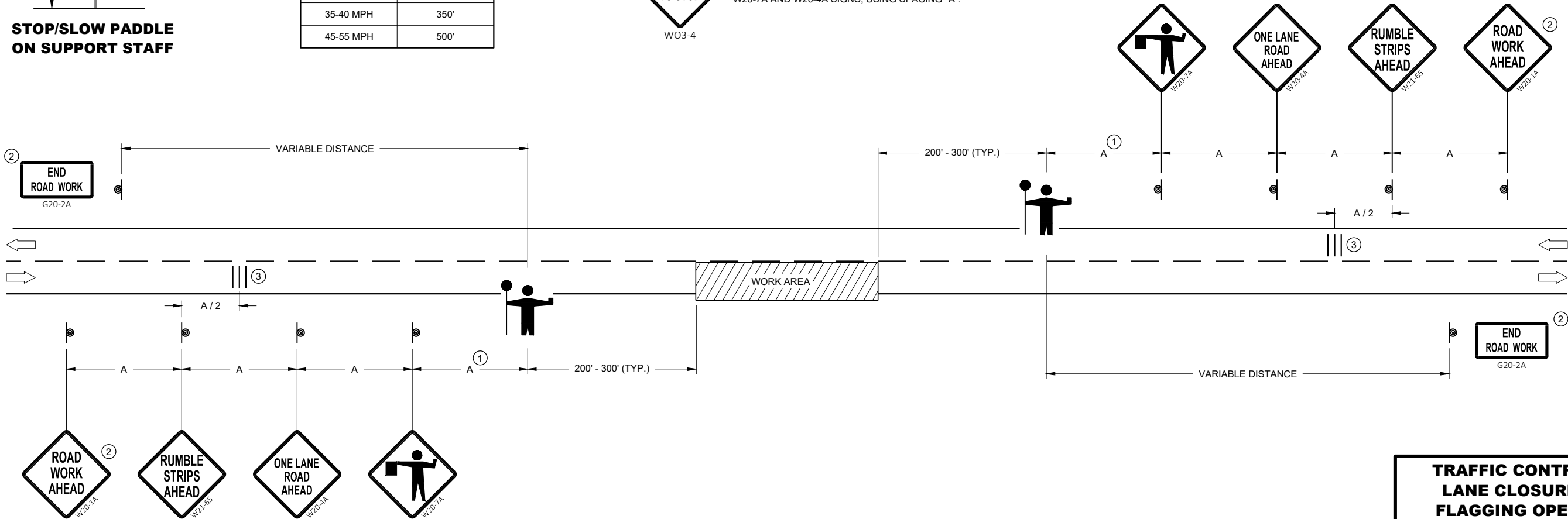


SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

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



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



TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2022 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	

GENERAL NOTES

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 SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

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

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

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

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING LINE IF LANE CLOSURE IS TO BE IN PLACE 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

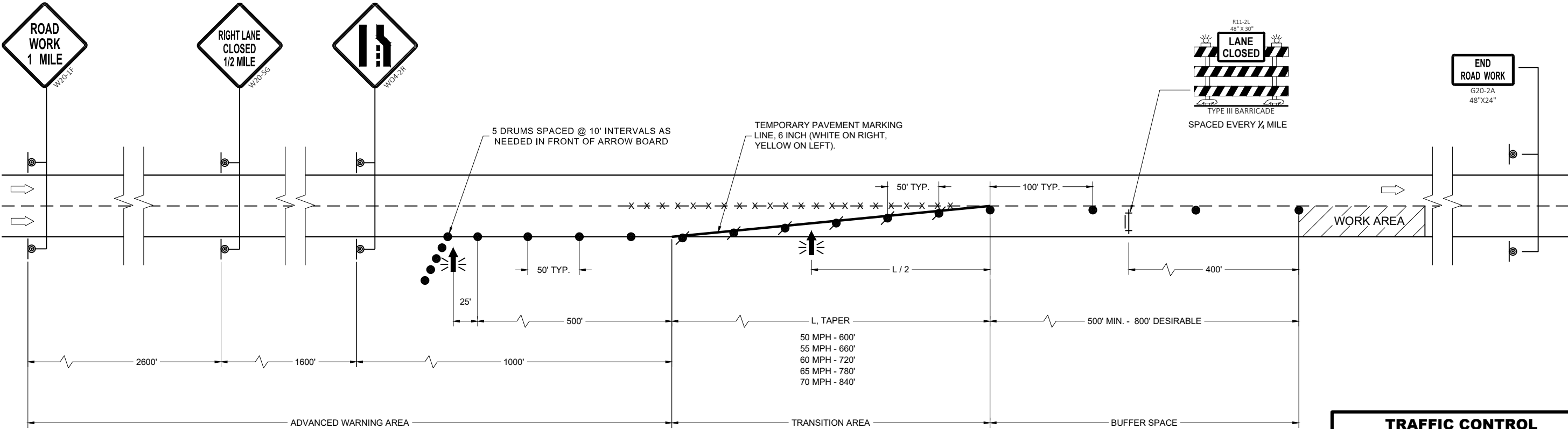
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP OR INTERSECTION. THE LANE CLOSURE MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE ONE HALF THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS.

LEGEND

- 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)
- REMOVING PAVEMENT MARKINGS
- DIRECTION OF TRAFFIC
- WORK AREA
- FLASHING ARROW BOARD



TRAFFIC CONTROL LANE CLOSURE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED September 2023 DATE	/S/ Andrew Heidtke ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
FHWA	

LEGEND

- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- REMOVING PAVEMENT MARKINGS
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- WORK AREA

GENERAL NOTES

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

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

"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

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

CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROW BOARDS AND LANE CLOSURE DRUMS.

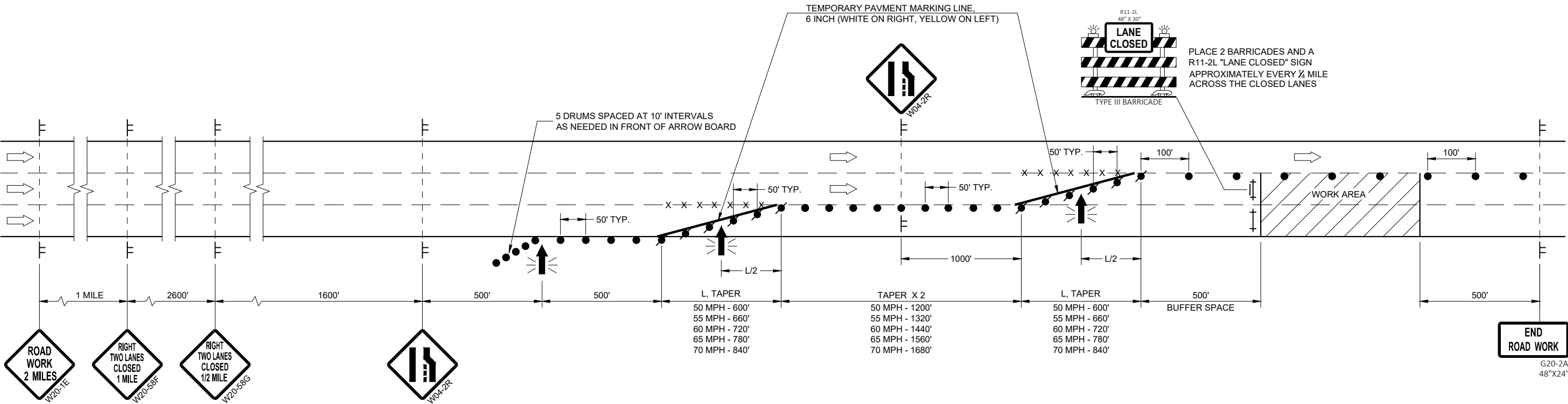
WHEN A RAMP OR SIDE ROAD INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

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.

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

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING LINE IF LANE CLOSURE IS TO BE IN PLACE 4 OR MORE CONTINUOUS DAYS AND NIGHTS.



TRAFFIC CONTROL, TWO LANE CLOSURE ON FREEWAY OR EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE
/S/ Andrew Heidtke
STATEWIDE WORK ZONE TRAFFIC
SAFETY ENGINEER
FHWA

LEGEND

- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
- TYPE III BARRICADE WITH ATTACHED SIGN
- DIRECTION OF TRAFFIC

GENERAL NOTES

THE INSTALLATIONS SHOWN ON THIS SHEET ARE TYPICAL EXAMPLES AND ARE NOT INTENDED TO REPRESENT ANY PARTICULAR RAMP. AT SPECIFIC FIELD LOCATIONS, SIMILAR INSTALLATIONS SHALL BE USED AND ADJUSTED TO THE GEOMETRICS OF THE RAMP AS COORDINATED WITH 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.

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

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

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

SEE SEPARATE LANE CLOSURE DETAIL FOR TYPICAL SPACING OF TYPE III BARRICADES AND R11-2L "LANE CLOSED" SIGNS.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONSECUTIVE DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS. USE SUPPORTS THAT PROVIDE A MINIMUM OF 5 FEET FROM THE BOTTOM OF THE SIGN TO THE PAVEMENT.

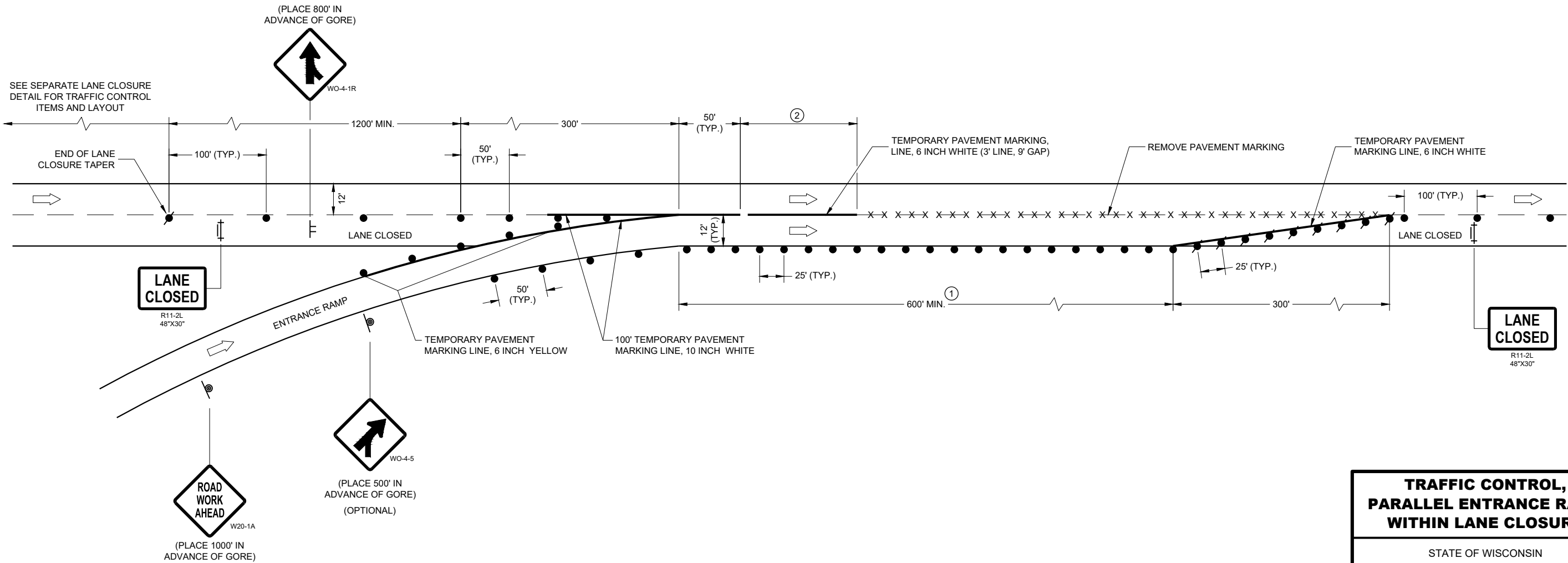
IF INDICATED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE FLEXIBLE TUBULAR MARKERS FOR DRUMS IN THE GORE BETWEEN THE ENTRANCE RAMP AND MAINLINE TRAFFIC.

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.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING LINES IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

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

- ① EXTEND THE LENGTH OF THE MERGE ARE IF THE ENTERING (DESIGN) SPEED IS LESS THAN 50MPH OR IF THE MAINLINE GRADE EXCEEDS ±2.2%.
- ② END TEMPORARY PAVEMENT MARKING LINE AT ½ THE LENGTH OF FULL WIDTH OF THE ACCELERATION LANE.



**TRAFFIC CONTROL,
PARALLEL ENTRANCE RAMP
WITHIN LANE CLOSURE**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

LEGEND

- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
- TYPE III BARRICADE WITH ATTACHED SIGN
- DIRECTION OF TRAFFIC

GENERAL NOTES

THE INSTALLATIONS SHOWN ON THIS SHEET ARE TYPICAL EXAMPLES AND ARE NOT INTENDED TO REPRESENT ANY PARTICULAR RAMP. AT SPECIFIC FIELD LOCATIONS, SIMILAR INSTALLATIONS SHALL BE USED AND ADJUSTED TO THE GEOMETRICS OF THE RAMP AS COORDINATED WITH 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.

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

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

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

SEE SEPARATE LANE CLOSURE DETAIL FOR TYPICAL SPACING OF TYPE III BARRICADES AND R11-2L "LANE CLOSED" SIGNS.

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

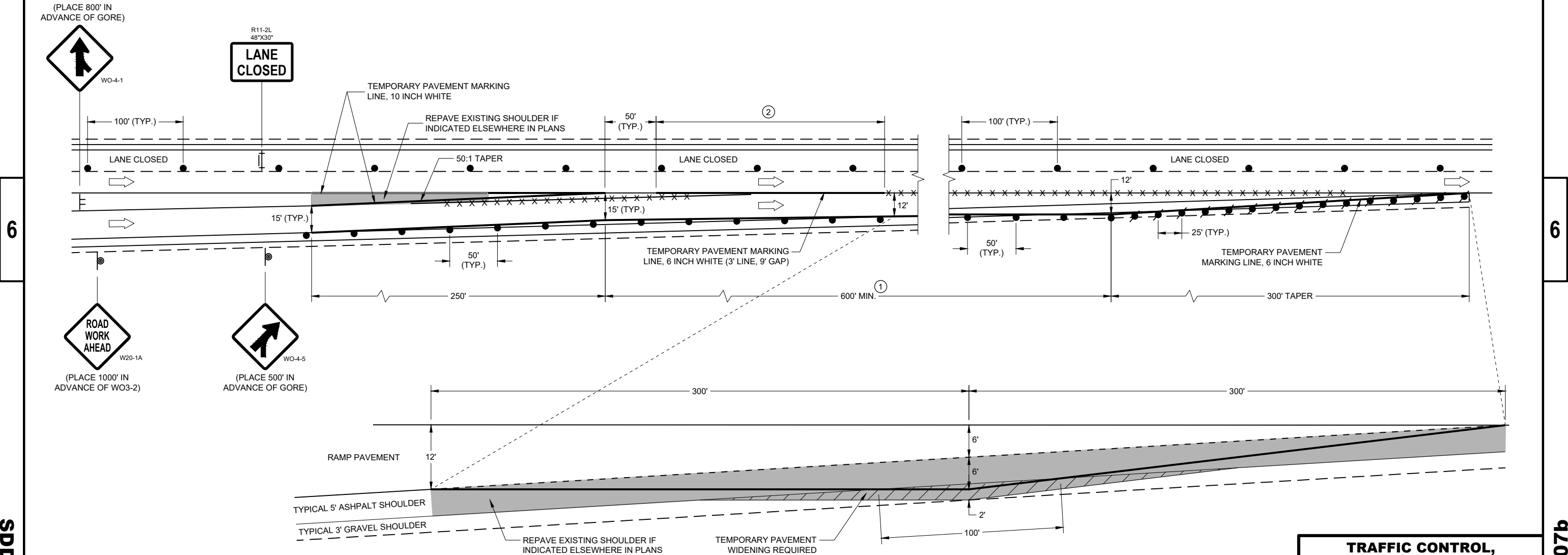
IF INDICATED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE FLEXIBLE TUBULAR MARKERS /OR DRUMS IN THE GORE BETWEEN THE EXIT RAMP AND MAINLINE TRAFFIC.

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.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING LINES IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

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

- 1 EXTEND THE LENGTH OF THE MERGE AREA IF THE ENTERING (DESIGN) SPEED OF THE RAMP IS LESS THAN 50 MPH OR IF THE MAINLINE GRADE EXCEEDS ±2.2%.
- 2 END TEMPORARY PAVEMENT MARKING LINE AT ½ THE LENGTH OF FULL WIDTH OF THE ACCELERATION LANE.



TEMPORARY PAVEMENT DETAIL

(EXISTING RAMP DIMENSIONS MAY VARY, ADJUST TEMPORARY PAVEMENT ACCORDINGLY)

TRAFFIC CONTROL, ENTRANCE RAMP WITHIN LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

SDD 15D15-07b

SDD 15D15-07b

LEGEND

- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
- TYPE III BARRICADE WITH ATTACHED SIGN
- FLAGS, 16" X 16" MIN., ORANGE
- DIRECTION OF TRAFFIC

GENERAL NOTES

THE INSTALLATIONS SHOWN ON THIS SHEET ARE TYPICAL EXAMPLES AND ARE NOT INTENDED TO REPRESENT ANY PARTICULAR RAMP. AT SPECIFIC FIELD LOCATIONS, SIMILAR INSTALLATIONS SHALL BE USED AND ADJUSTED TO THE GEOMETRICS OF THE RAMP AS COORDINATED WITH 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.

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

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

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

SEE SEPARATE LANE CLOSURE DETAIL FOR TYPICAL SPACING OF TYPE III BARRICADES AND R11-2L "LANE CLOSED" SIGNS.

YIELD SIGN AND WARNING SIGNS ON ENTRANCE RAMP ARE ALSO APPROPRIATE FOR CLOSURE OF THE MAINLINE LEFT LANE. OMIT THE YIELD SIGN IF MORE THAN ONE LANE REMAINS OPEN ON THE MAINLINE AND THE RAMP TAPER IS AT LEAST AS LONG AS THE NORMAL ENTRANCE RAMP TAPER AT THE SITE.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONSECUTIVE DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS. USE SUPPORTS THAT PROVIDE A MINIMUM OF 5 FEET FROM THE BOTTOM OF THE SIGN TO THE PAVEMENT.

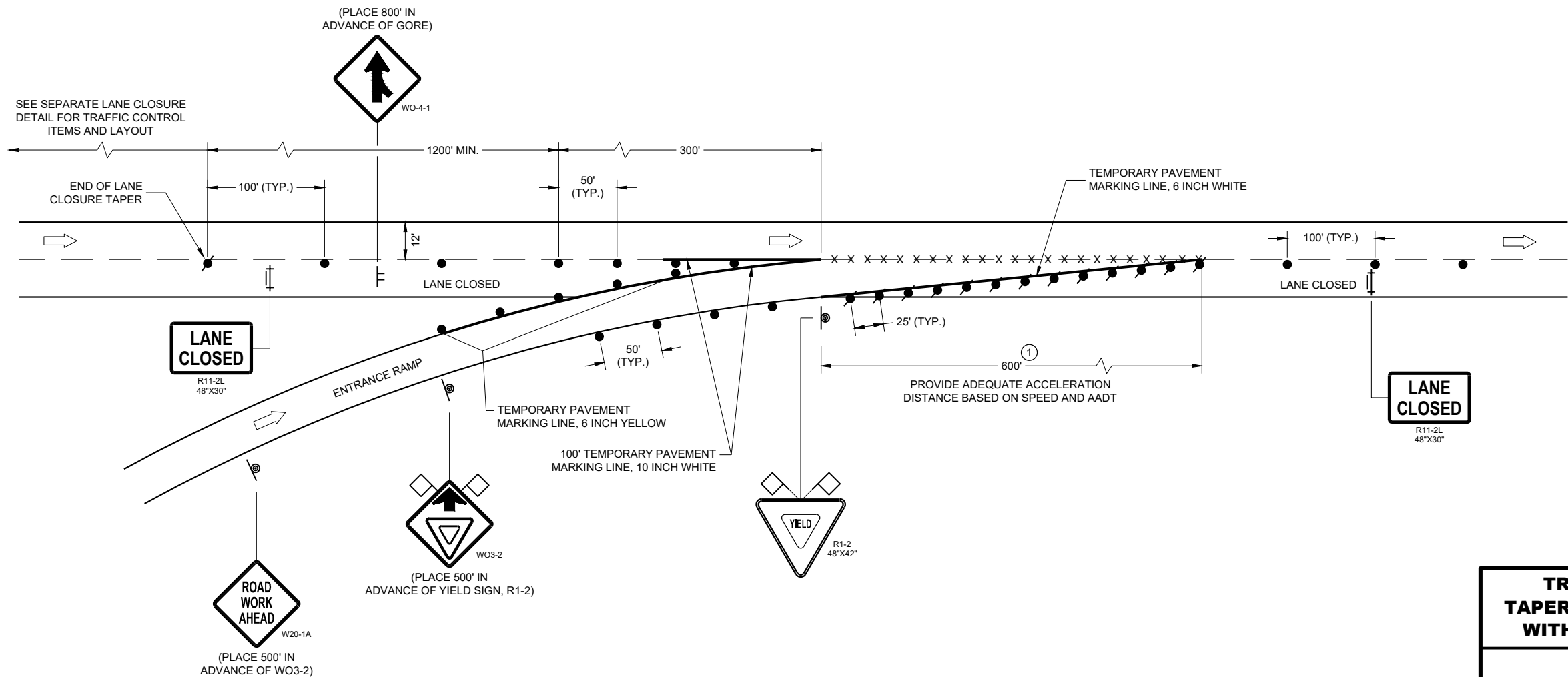
IF INDICATED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE FLEXIBLE TUBULAR MARKERS FOR DRUMS IN THE GORE BETWEEN THE ENTRANCE RAMP AND MAINLINE TRAFFIC.

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.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING LINES IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

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

1 CONSULT WITH REGIONAL WORK ZONE ENGINEER IF NEED TO REDUCE LENGTH EXISTS.



**TRAFFIC CONTROL,
TAPERED ENTRANCE RAMP
WITHIN LANE CLOSURE**








STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

LEGEND

-  SIGN ON PERMANENT SUPPORT
-  SIGN ON TEMPORARY SUPPORT
-  TRAFFIC CONTROL DRUM
-  TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
-  REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
-  TYPE III BARRICADE WITH ATTACHED SIGN
-  DIRECTION OF TRAFFIC

GENERAL NOTES

THE INSTALLATIONS SHOWN ON THIS SHEET ARE TYPICAL EXAMPLES AND ARE NOT INTENDED TO REPRESENT ANY PARTICULAR RAMP. AT SPECIFIC FIELD LOCATIONS, SIMILAR INSTALLATIONS SHALL BE USED AND ADJUSTED TO THE GEOMETRICS OF THE RAMP AS COORDINATED WITH 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.

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

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

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

SEE SEPARATE LANE CLOSURE DETAIL FOR TYPICAL SPACING OF TYPE III BARRICADES AND R11-2L "LANE CLOSED" SIGNS.

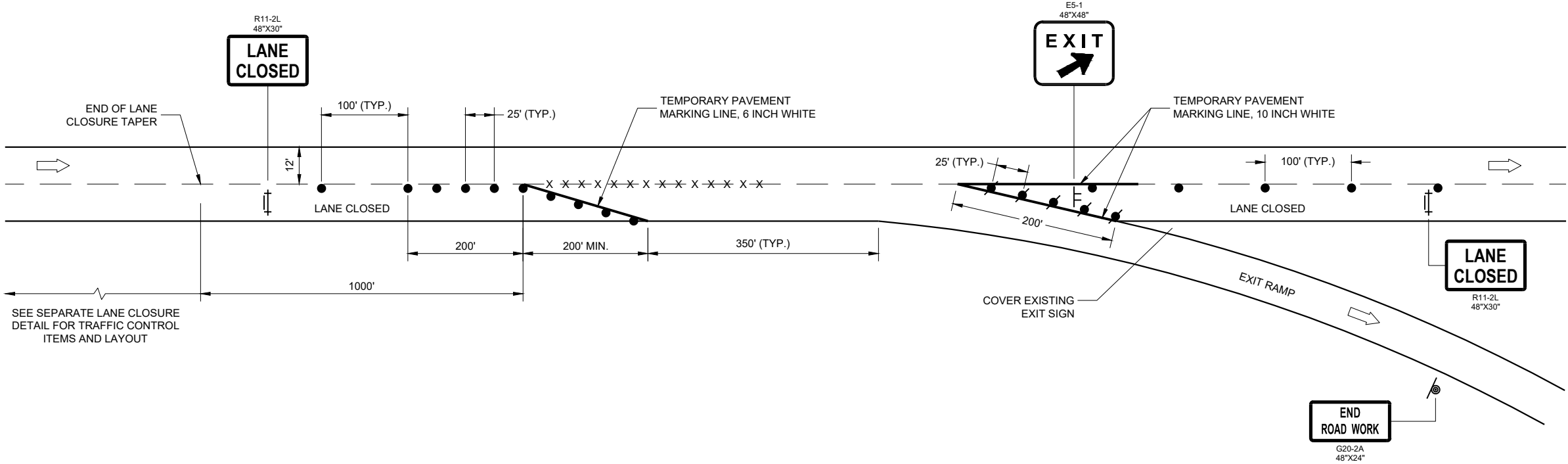
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONSECUTIVE DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

IF INDICATED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE FLEXIBLE TUBULAR MARKERS FOR DRUMS IN THE GORE BETWEEN THE EXIT RAMP AND MAINLINE TRAFFIC.

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.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING LINES IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

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



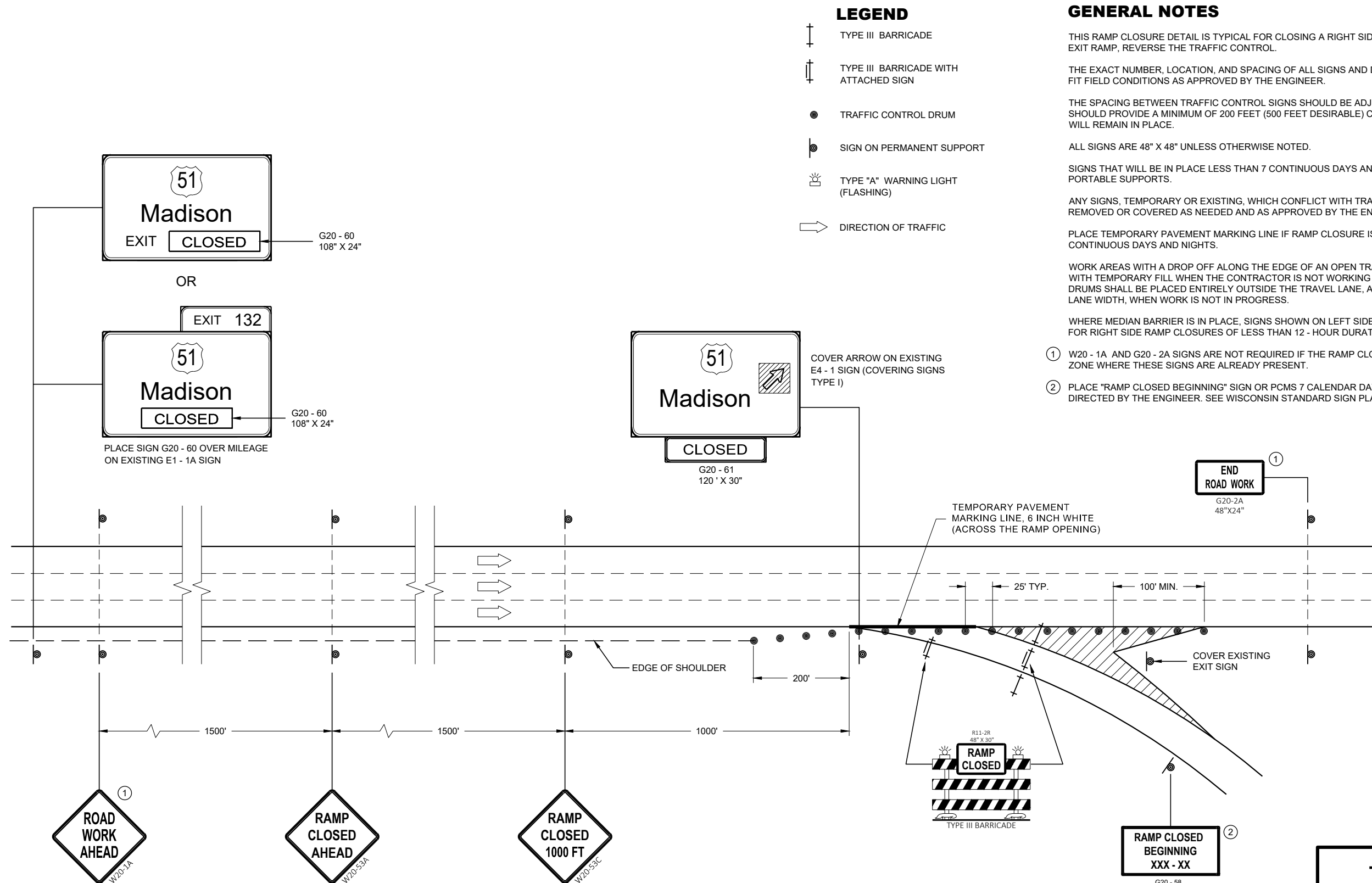
**TRAFFIC CONTROL,
PARALLEL EXIT RAMP
WITHIN LANE CLOSURE**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA



TRAFFIC CONTROL,
EXIT RAMP CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Andrew Heidtke
ROADWAY STANDARDS DEVELOPMENT
ENGINEER

FHWA

LEGEND

- 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

GENERAL NOTES

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.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING LINE IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

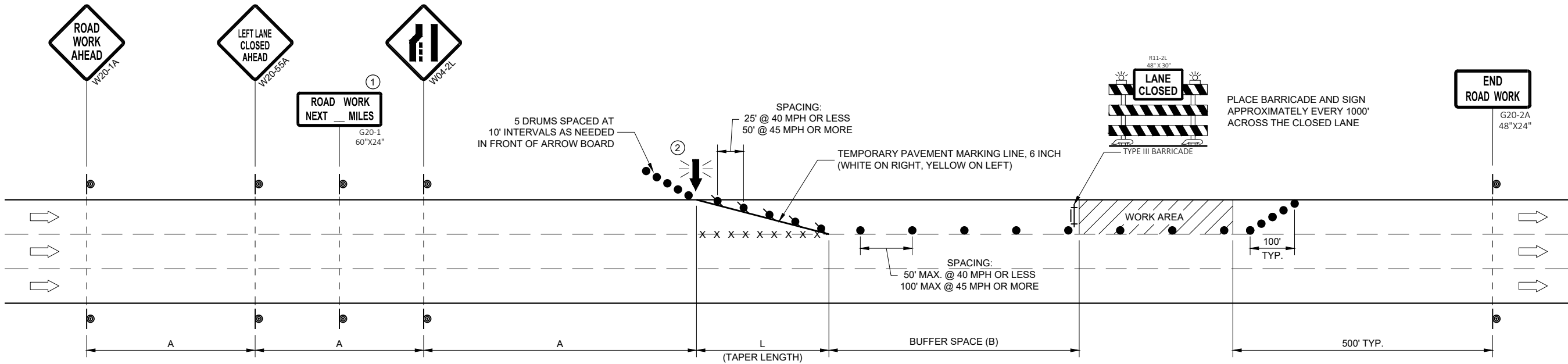
CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROW BOARDS AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

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.

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'

TRAFFIC CONTROL, SINGLE LANE CLOSURE, DIVIDED NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

LEGEND

- 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

GENERAL NOTES

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.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING LINE IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROW BOARDS AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

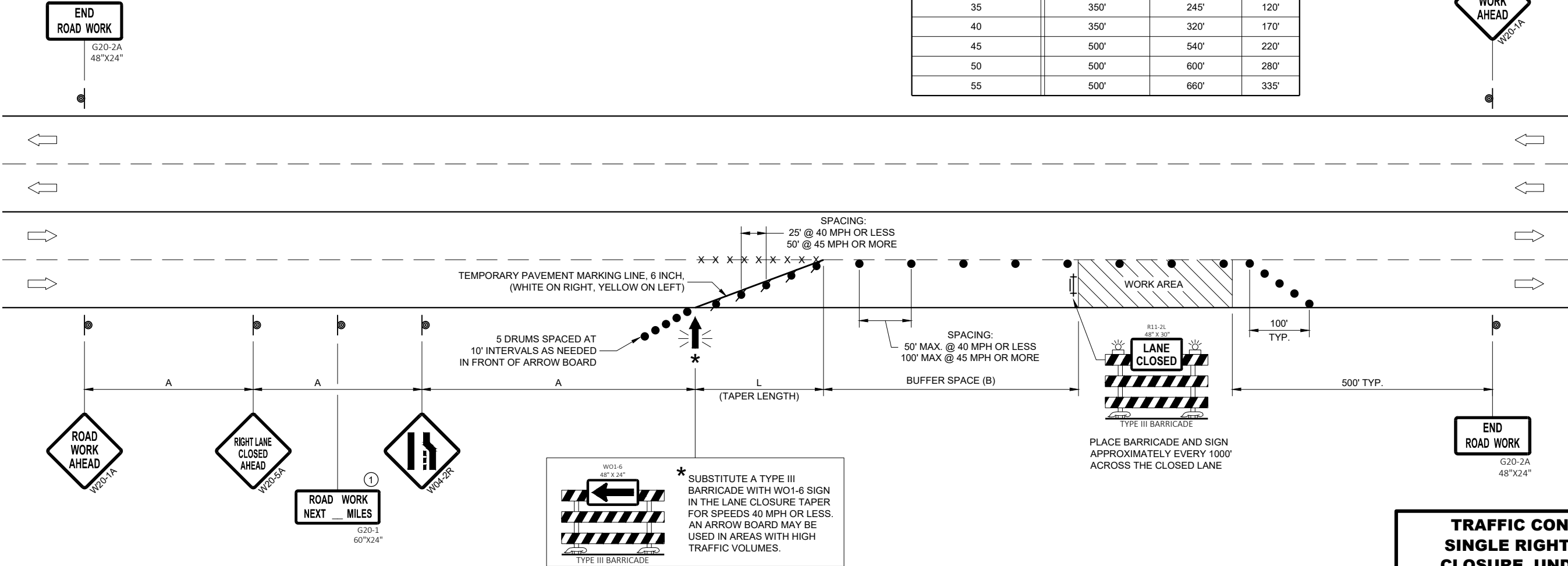
BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

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

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

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'
50	500'	600'	280'
55	500'	660'	335'

① OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.



**TRAFFIC CONTROL,
SINGLE RIGHT LANE
CLOSURE, UNDIVIDED
NON-FREEWAY/EXPRESSWAY**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

LEGEND

- 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

GENERAL NOTES

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.

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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.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING LINE IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROW BOARDS AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

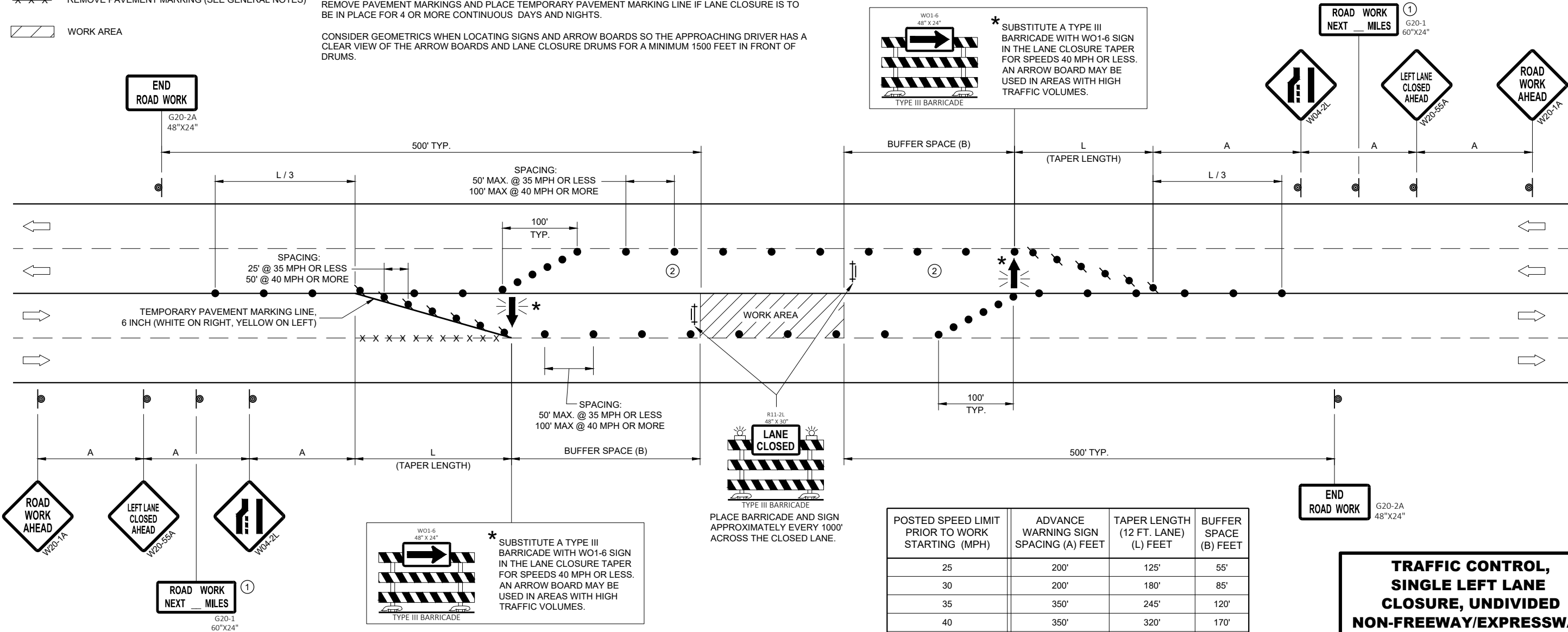
DUE TO LACK OF SHOULDER/MEDIAN, ARROW BOARD IS PLACED AT THE THE END OF THE TAPER.

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.

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 LANE MAY BE OPENED WHEN WORKERS ARE NOT PRESENT IN THE WORK AREA.



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'
50	500'	600'	280'
55	500'	660'	335'

**TRAFFIC CONTROL,
SINGLE LEFT LANE
CLOSURE, UNDIVIDED
NON-FREEWAY/EXPRESSWAY**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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.

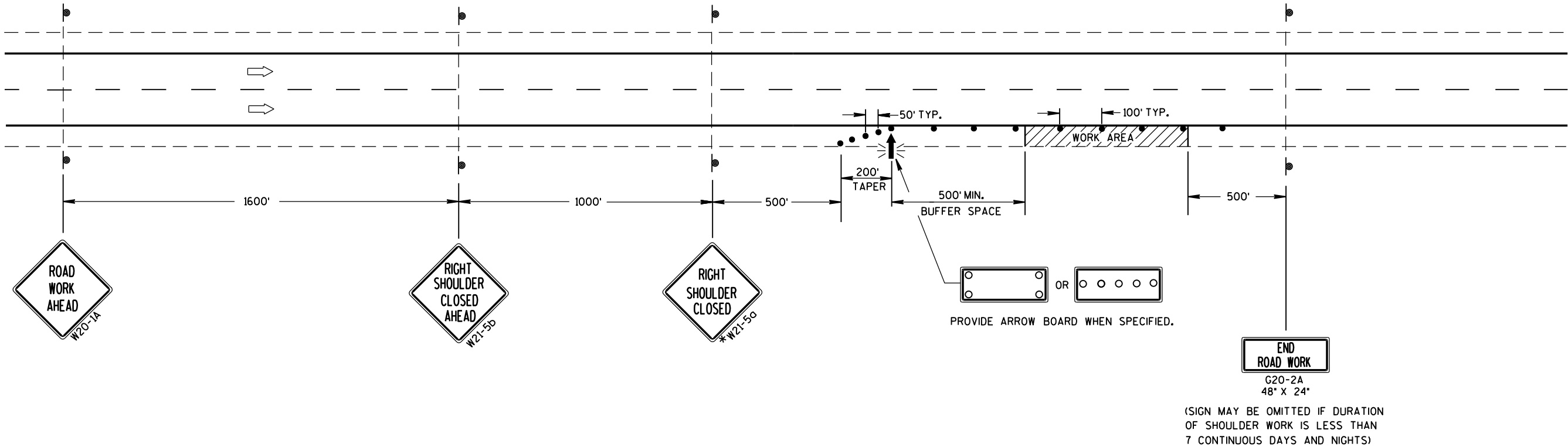
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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 TRAFFIC
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.

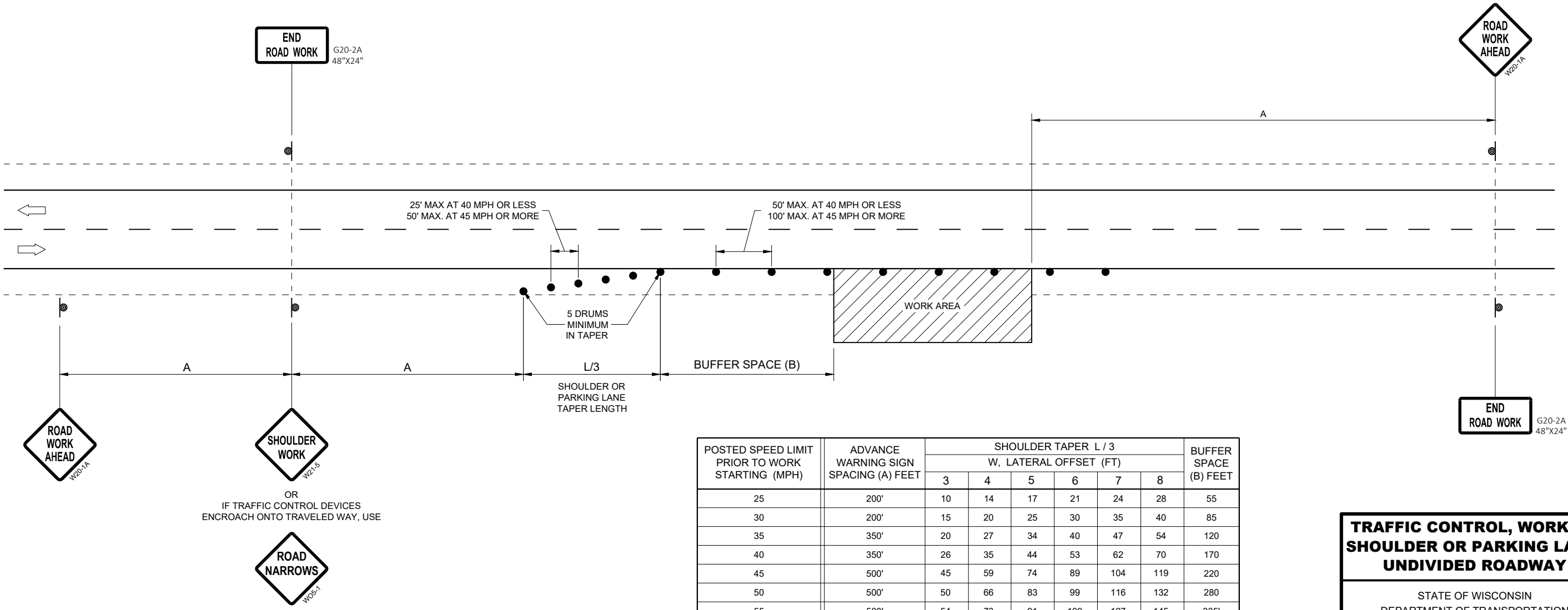
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

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

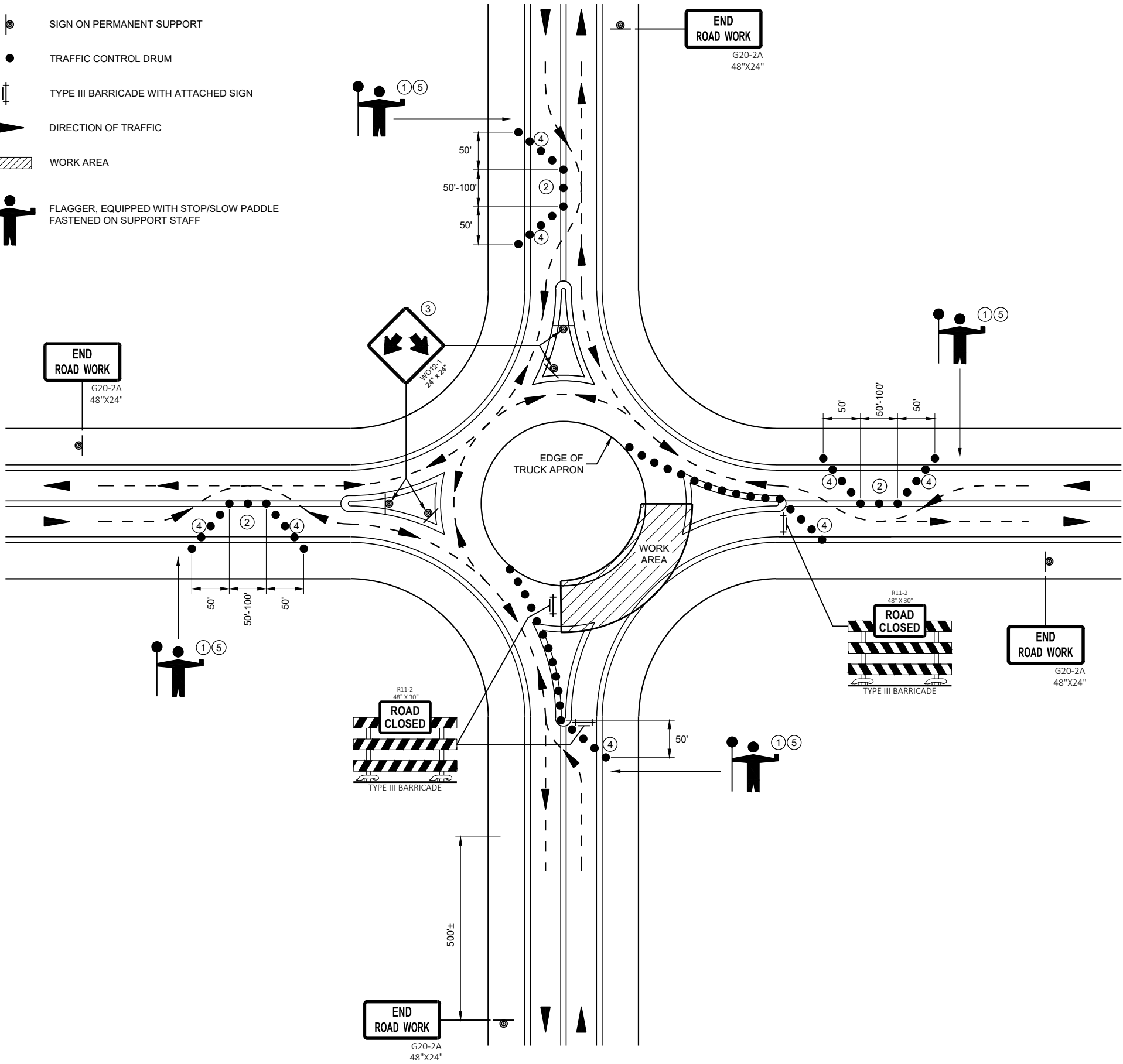
APPROVED
May 2020 /S/ Andrew Heidtke
DATE STATEWIDE WORK ZONE TRAFFIC
SAFETY ENGINEER
FHWA

SDD 15D28 - 04

SDD 15D28 - 04

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE WITH ATTACHED SIGN
- DIRECTION OF TRAFFIC
- WORK AREA
- FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF



GENERAL NOTES

ALL SIGNS ARE 48"X48" BLACK ON ORANGE UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 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.

ONLY ONE QUADRANT OF TRAFFIC SHALL BE RELEASED AT A TIME.

FLAGGERS SHALL CONTROL TRAFFIC ON ALL APPROACHES OF THE ONE-LANE ROUNDABOUT. ONE FLAGGER SHALL BE DESIGNATED LEAD FLAGGER.

NIGHT TIME WORK REQUIRES ADDITIONAL LIGHTING AT FLAGGER STATION(S).

- ① FLAGGERS SHALL BE IN DIRECT RADIO CONTACT AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING IS NOT IN EFFECT, COVER OR REMOVE ALL TEMPORARY TRAFFIC CONTROL SIGNS.
- ② ADJUST CHANNELIZING DEVICES TO ACCOMMODATE FOR TURNING RADIUS OF LARGE VEHICLES AS DIRECTED BY THE ENGINEER.
- ③ GUIDE SIGN WITH ROAD NAMES MAY BE USED IN LIEU OF THE DOUBLE ARROW (W012-1) SIGN.
- ④ THE TWO- WAY TAPER SHOULD BE 50 FEET USING 5 EQUALLY SPACED DRUMS.
- ⑤ FOLLOW SDD 15C12 FOR FLAGGING AND ADVANCE WARNING.

RECOMMENDED REDUCED DRUM SPACING WITHIN ROUNDABOUT

MPH	DRUM SPACING (FT)
0-40	25
45-55	50







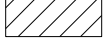
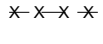

TRAFFIC CONTROL,
FLAGGING OPERATION,
ROUNDABOUT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

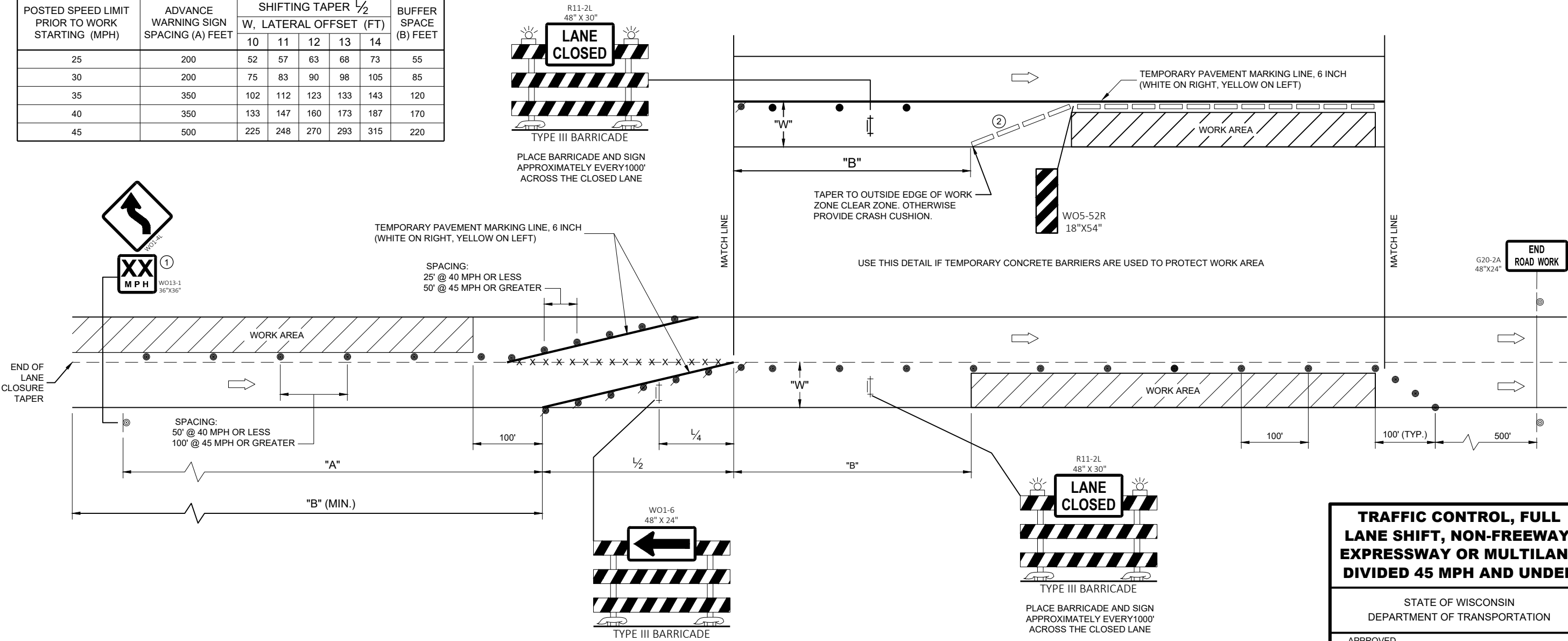
LEGEND

- 
- TYPE III BARRICADE WITH ATTACHED SIGN
- 
- SIGN ON PERMANENT SUPPORT
- 
- TRAFFIC CONTROL DRUM
- 
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- 
- TYPE "A" WARNING LIGHT (FLASHING)
- 
- DIRECTION OF TRAFFIC
- 
- WORK AREA
- 
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
- 
- CONCRETE BARRIER TEMPORARY PRECAST

POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	SHIFTING TAPER $\frac{L}{2}$					BUFFER SPACE (B) FEET
		W, LATERAL OFFSET (FT)					
		10	11	12	13	14	
25	200	52	57	63	68	73	55
30	200	75	83	90	98	105	85
35	350	102	112	123	133	143	120
40	350	133	147	160	173	187	170
45	500	225	248	270	293	315	220

GENERAL NOTES

- 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 SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIRABLE) DISTANCE TO EXISTING SIGNS.
- THIS LANE CLOSURE IS TYPICAL FOR LANE SHIFT RIGHT - REVERSE FOR SHIFTING LEFT.
- ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.
- "WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.
- 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. NO WARNING LIGHTS SHALL BE WORKING ON ANY "COVERED" OR "DOWNED" SIGNS.
- CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARDS SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.
- FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.
- REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING LINES IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.
- WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.
- IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.
- ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE SHIFT OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP. THE LANE SHIFT MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE 1/2 THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.
- ① USE ONLY IF DESIGN SPEED IS 10 MPH BELOW POSTED SPEED.
- ② BARRIER FLARE RATE: 6:1 @ 40 MPH OR LESS
8:1 @ 45 MPH OR GREATER



TRAFFIC CONTROL, FULL
LANE SHIFT, NON-FREEWAY/
EXPRESSWAY OR MULTILANE
DIVIDED 45 MPH AND UNDER










STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

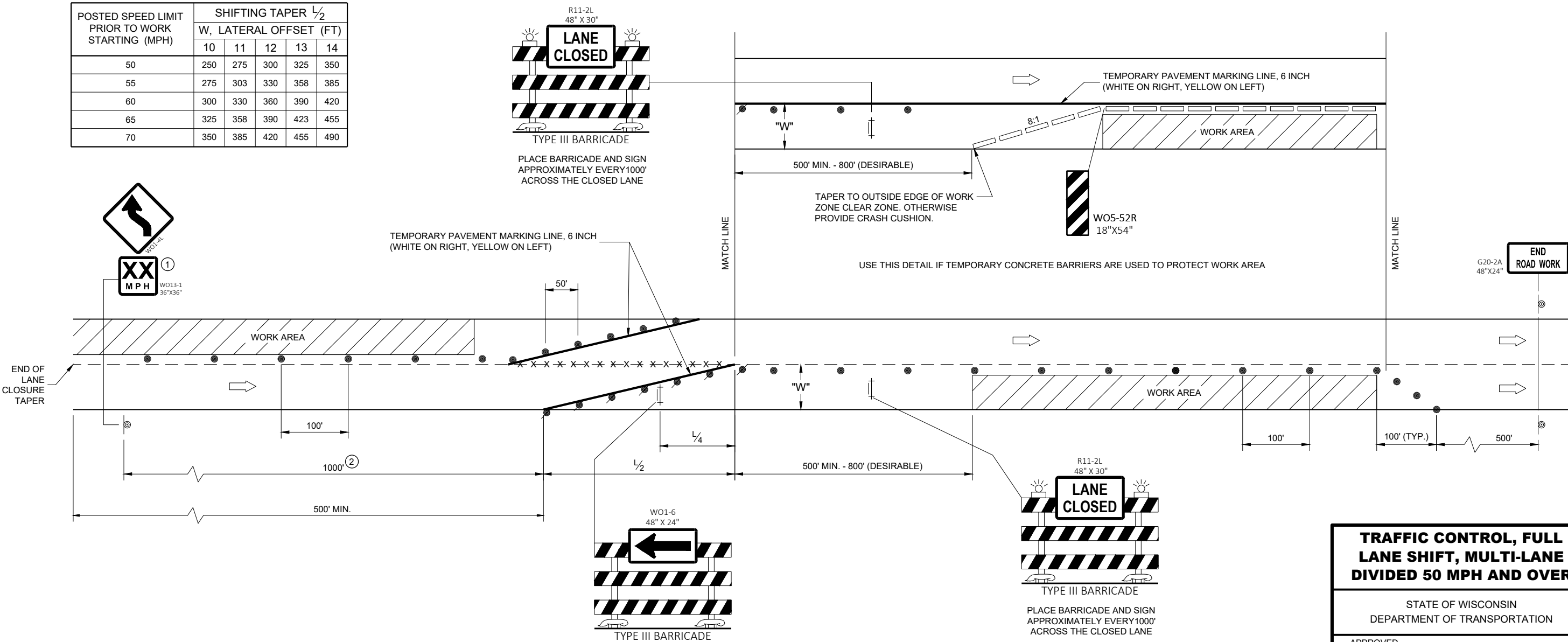
LEGEND

-  TYPE III BARRICADE WITH ATTACHED SIGN
-  SIGN ON PERMANENT SUPPORT
-  TRAFFIC CONTROL DRUM
-  TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
-  TYPE "A" WARNING LIGHT (FLASHING)
-  DIRECTION OF TRAFFIC
-  WORK AREA
-  REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
-  CONCRETE BARRIER TEMPORARY PRECAST

POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	SHIFTING TAPER $\frac{L}{2}$ W, LATERAL OFFSET (FT)				
	10	11	12	13	14
50	250	275	300	325	350
55	275	303	330	358	385
60	300	330	360	390	420
65	325	358	390	423	455
70	350	385	420	455	490

GENERAL NOTES

- 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 SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIRABLE) DISTANCE TO EXISTING SIGNS.
- THIS LANE CLOSURE IS TYPICAL FOR LANE SHIFT RIGHT - REVERSE FOR SHIFTING LEFT.
- ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.
- "WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.
- 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. NO WARNING LIGHTS SHALL BE WORKING ON ANY "COVERED" OR "DOWNED" SIGNS.
- CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARDS SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.
- FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.
- REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING LINES IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.
- WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.
- IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.
- ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE SHIFT OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP. THE LANE SHIFT MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE $\frac{1}{2}$ THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.
- 1 USE ONLY IF DESIGN SPEED IS 10 MPH BELOW POSTED SPEED.
- 2 IF BEGINNING OF LANE SHIFT IS 1200' OF LESS FROM THE END OF THE LANE CLOSURE TAPER, PLACE THE WO1-4L SIGN 200 FEET AFTER THE END OF THE LANE CLOSURE TAPER.



TRAFFIC CONTROL, FULL LANE SHIFT, MULTI-LANE DIVIDED 50 MPH AND OVER







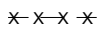
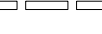

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

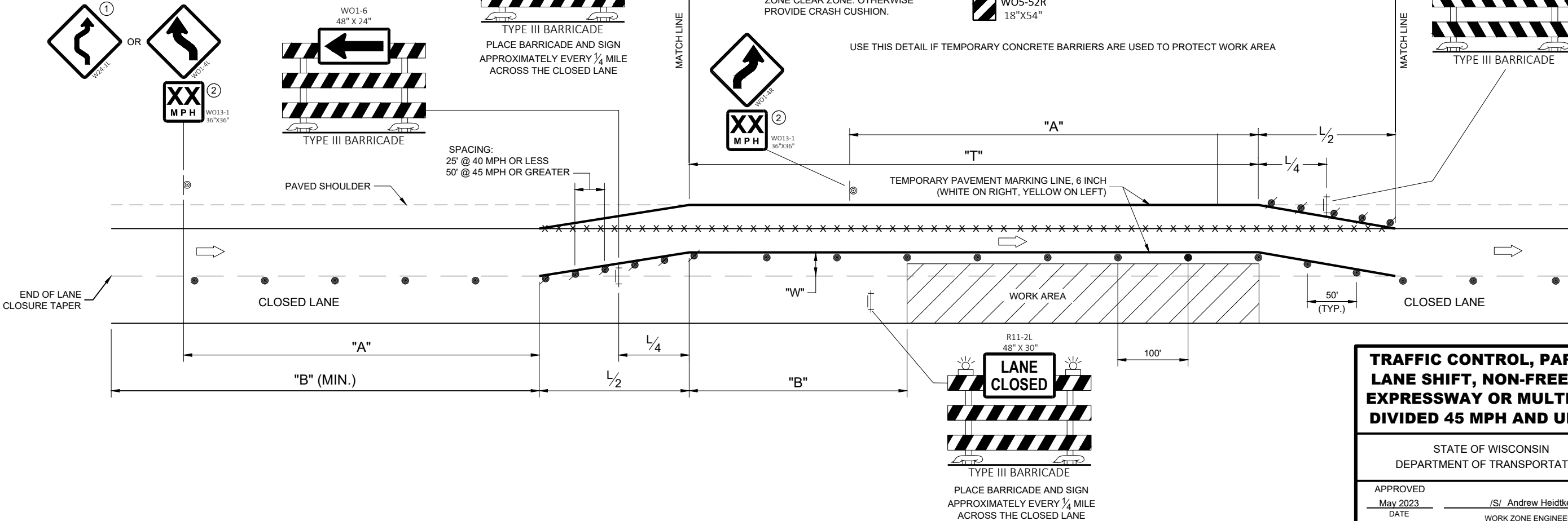
/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

LEGEND

-  TYPE III BARRICADE WITH ATTACHED SIGN
-  SIGN ON PERMANENT SUPPORT
-  TRAFFIC CONTROL DRUM
-  TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
-  TYPE "A" WARNING LIGHT (FLASHING)
-  DIRECTION OF TRAFFIC
-  WORK AREA
-  REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
-  CONCRETE BARRIER TEMPORARY PRECAST

POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	SHIFTING TAPER $\frac{L}{2}$ W, LATERAL OFFSET (FT)									BUFFER SPACE (B) FEET
		1	2	3	4	5	6	7	8	9	
25	200	5	10	16	21	26	31	36	42	47	55
30	200	8	15	23	30	38	45	53	60	68	85
35	350	10	20	31	41	51	61	71	82	92	120
40	350	13	27	40	53	67	80	93	107	120	170
45	500	23	45	68	90	113	135	158	180	203	220



**TRAFFIC CONTROL, PARTIAL
LANE SHIFT, NON-FREEWAY/
EXPRESSWAY OR MULTILANE
DIVIDED 45 MPH AND UNDER**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

GENERAL NOTES

- 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 SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIRABLE) DISTANCE TO EXISTING SIGNS.
- THIS LANE CLOSURE IS TYPICAL FOR LANE SHIFT LEFT - REVERSE FOR SHIFTING RIGHT.
- ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.
- "WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.
- 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. NO WARNING LIGHTS SHALL BE WORKING ON ANY "COVERED" OR "DOWNED" SIGNS.
- CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARDS SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.
- FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

- REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING LINES IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.
- WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.
- IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE SHIFT OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP. THE LANE SHIFT MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE 1/2 THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

- 1 USE ONLY WHEN T<600', OMIT W01-4R.
- 2 IF NEEDED, USE ONLY IF DESIGN SPEED IS 10 MPH BELOW POSTED SPEED.
- 3 BARRIER FLARE RATE: 6:1 @ 40 MPH OR LESS
8:1 @ 45 MPH OR GREATER

	TYPE III BARRICADE WITH ATTACHED SIGN
	SIGN ON PERMANENT SUPPORT
	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
	TYPE "A" WARNING LIGHT (FLASHING)
	DIRECTION OF TRAFFIC
	WORK AREA
	REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
	CONCRETE BARRIER TEMPORARY PRECAST

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

THIS LANE CLOSURE IS TYPICAL FOR LANE SHIFT LEFT - REVERSE FOR SHIFTING RIGHT.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

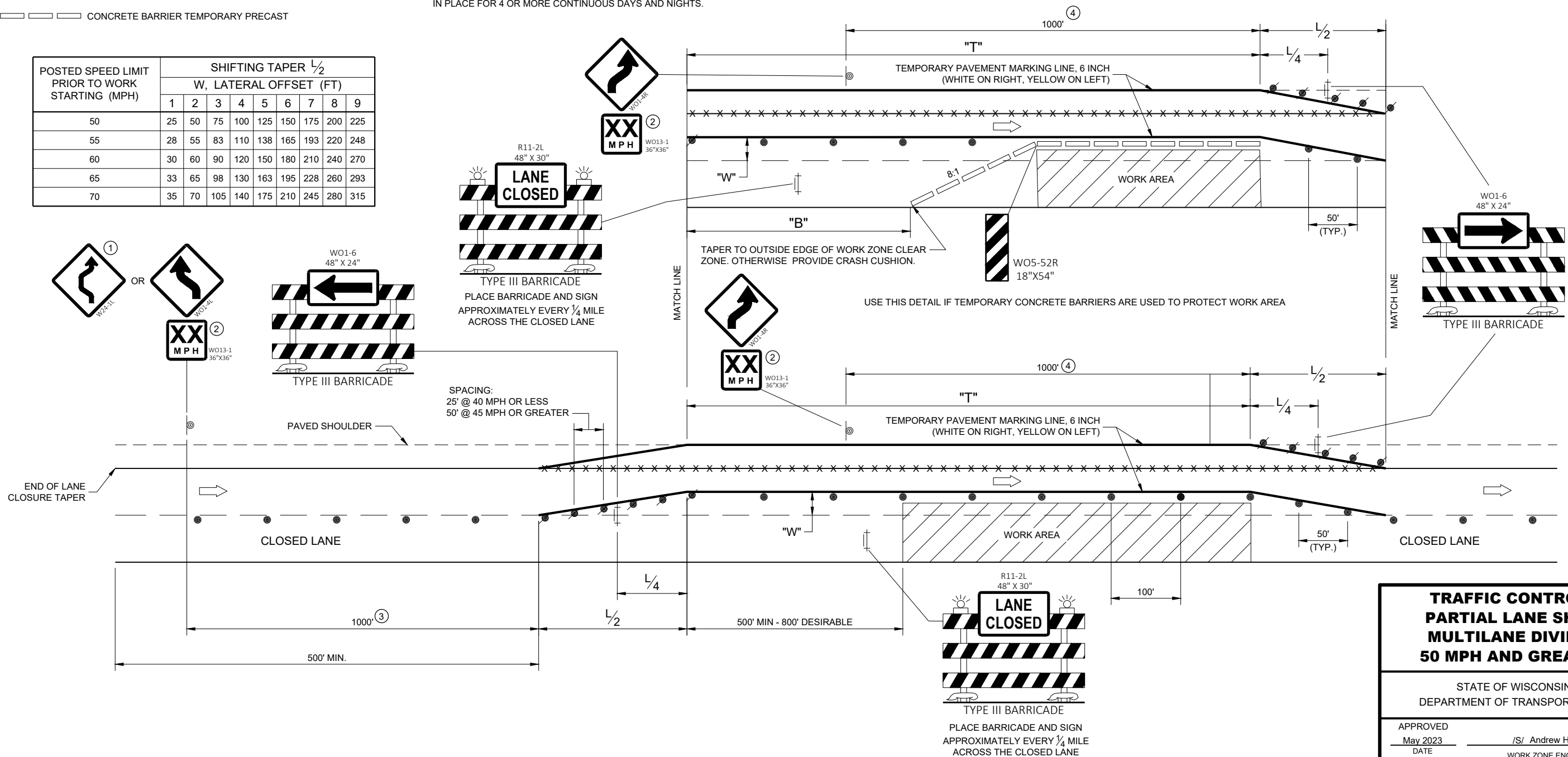
CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARDS SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING LINES IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

- ① USE ONLY WHEN T<600', OMIT W01-4R.
- ② IF NEEDED, USE ONLY IF DESIGN SPEED IS 10 MPH BELOW POSTED SPEED.
- ③ IF THE BEGINNING OF LANE SHIFT TAPER IS 1200 FEET OR LESS FROM END OF LANE CLOSURE TAPER, PLACE THE W01-4L SIGN 200 FEET AFTER THE END OF THE LANE CLOSURE TAPER.
- ④ IF THE BEGINNING OF THE SECOND LANE SHIFT TAPER IS 1200 FEET OR LESS FROM END OF THE FIRST LANE CLOSURE TAPER, PLACE THE W01-4L SIGN 200 FEET AFTER THE END OF THE FIRST LANE CLOSURE TAPER.

POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	SHIFTING TAPER $\frac{1}{2}$								
	W, LATERAL OFFSET (FT)								
	1	2	3	4	5	6	7	8	9
50	25	50	75	100	125	150	175	200	225
55	28	55	83	110	138	165	193	220	248
60	30	60	90	120	150	180	210	240	270
65	33	65	98	130	163	195	228	260	293
70	35	70	105	140	175	210	245	280	315



**TRAFFIC CONTROL,
PARTIAL LANE SHIFT
MULTILANE DIVIDED
50 MPH AND GREATER**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Andrew Heidtke

WORK ZONE ENGINEER

LEGEND



TYPE III BARRICADE WITH ATTACHED SIGN



SIGN ON PERMANENT SUPPORT



TRAFFIC CONTROL DRUM



TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT



TYPE "A" WARNING LIGHT (FLASHING)



DIRECTION OF TRAFFIC



WORK AREA

POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	SHIFTING TAPER $\frac{L}{2}$ W, LATERAL OFFSET (FT)					
		3	4	5	6	7	8
25	200	10	14	17	21	24	28
30	200	15	20	25	30	35	40
35	350	20	27	34	40	47	54
40	350	26	35	44	53	62	70
45	500	45	59	74	89	104	119
50	500	50	66	83	99	116	132
55	500	54	73	91	109	127	145

GENERAL NOTES

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"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36"x36" SIGNS MAY BE USED IF APPROVED BY THE REGIONAL TRAFFIC UNIT.

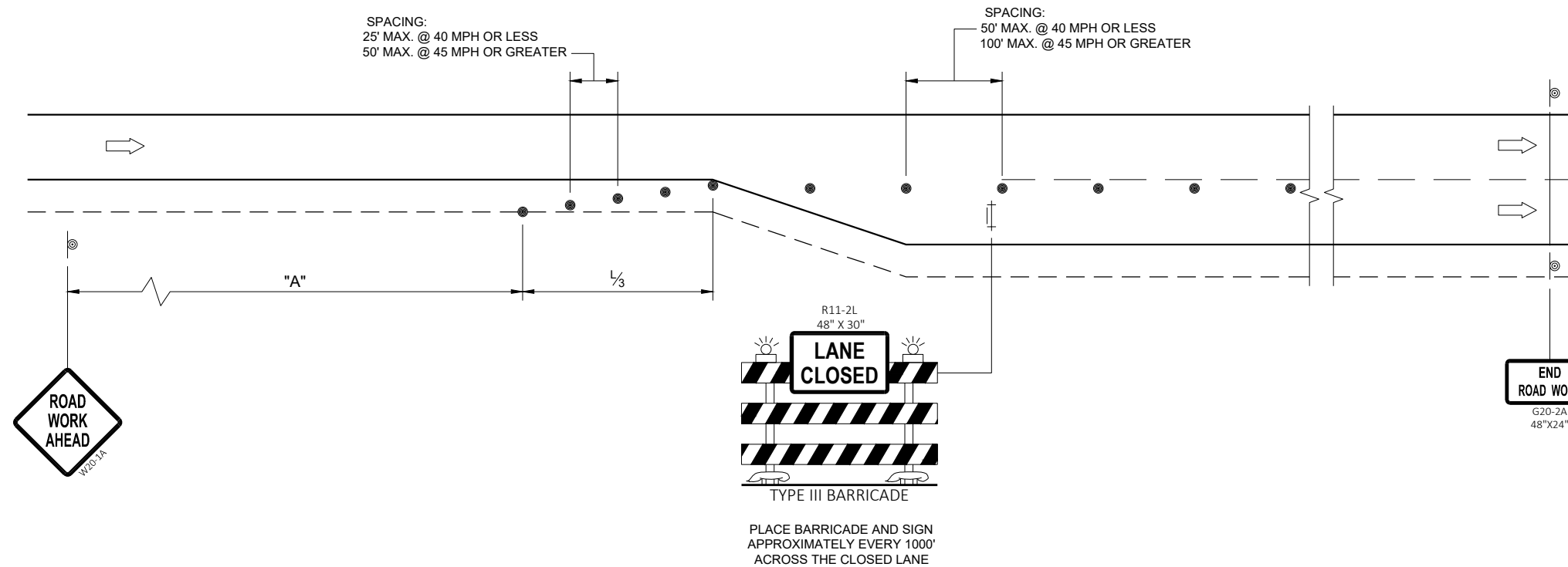
"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

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 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.

W20-1 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 WORK IS LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS.



6

6 |

SDD 15D50-03a

SDD 15D50-03a

**TRAFFIC CONTROL
ADDED LANE CLOSURE
WITHOUT LANE SHIFT**








STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

LEGEND

- 
- TYPE III BARRICADE WITH ATTACHED SIGN
- 
- SIGN ON PERMANENT SUPPORT
- 
- TRAFFIC CONTROL DRUM
- 
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- 
- TYPE "A" WARNING LIGHT (FLASHING)
- 
- DIRECTION OF TRAFFIC
- 
- WORK AREA

POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	SHIFTING TAPER (L/2) FEET
25	200	60
30	200	90
35	350	120
40	350	160
45	500	270
50	500	300
55	500	330

GENERAL NOTES

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"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36"x36" SIGNS MAY BE USED IF APPROVED BY THE REGIONAL TRAFFIC UNIT.

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

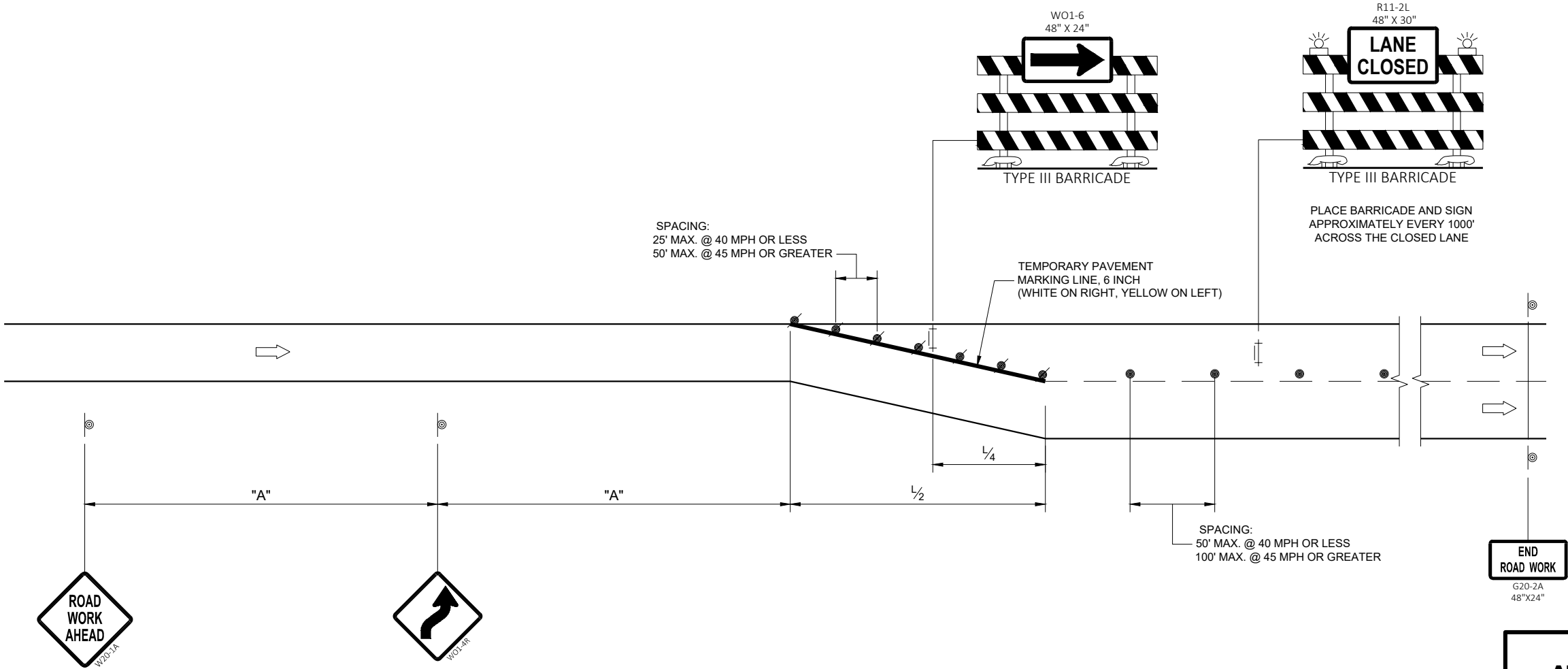
ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

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

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

W20-1 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 WORK IS LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS.

PLACE TEMPORARY PAVEMENT MARKING AND PLACE TEMPORARY PAVEMENT LINE IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.



**TRAFFIC CONTROL,
ADDED LANE CLOSURE
WITH LANE SHIFT**

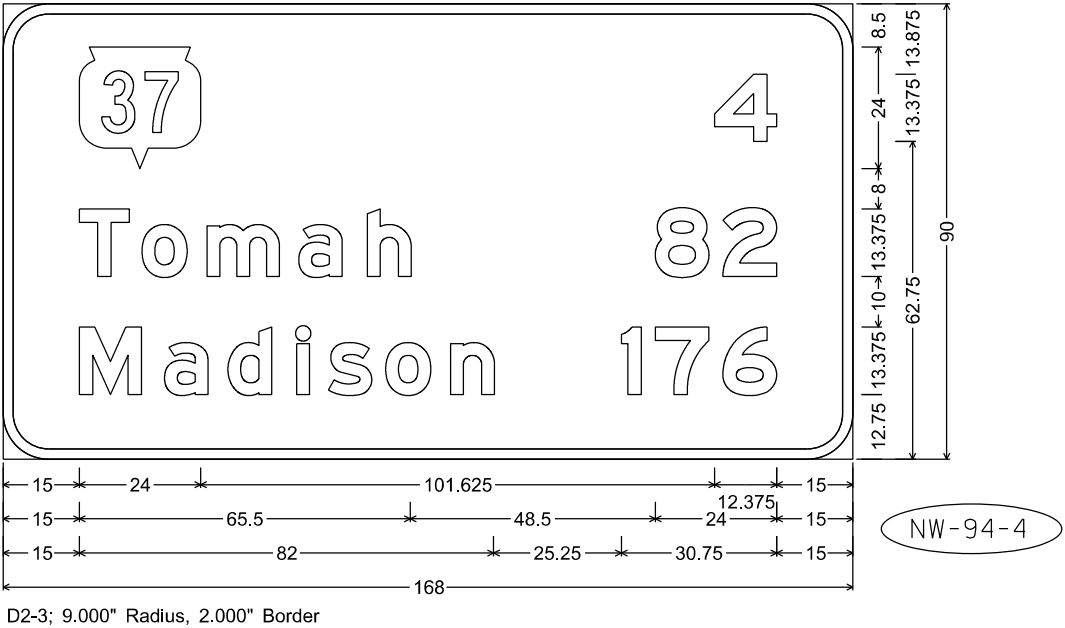
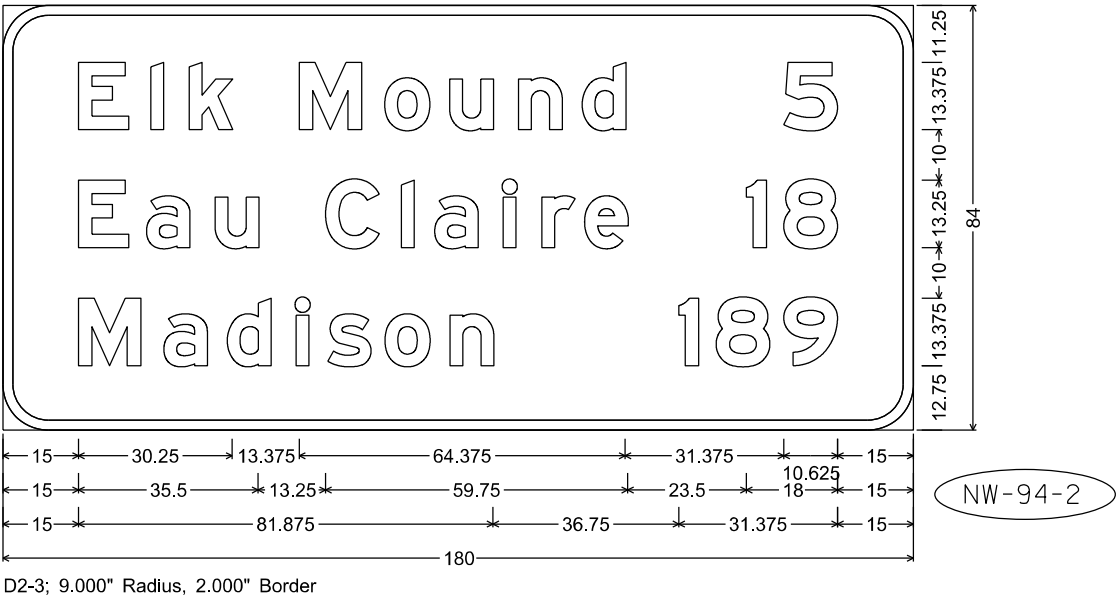
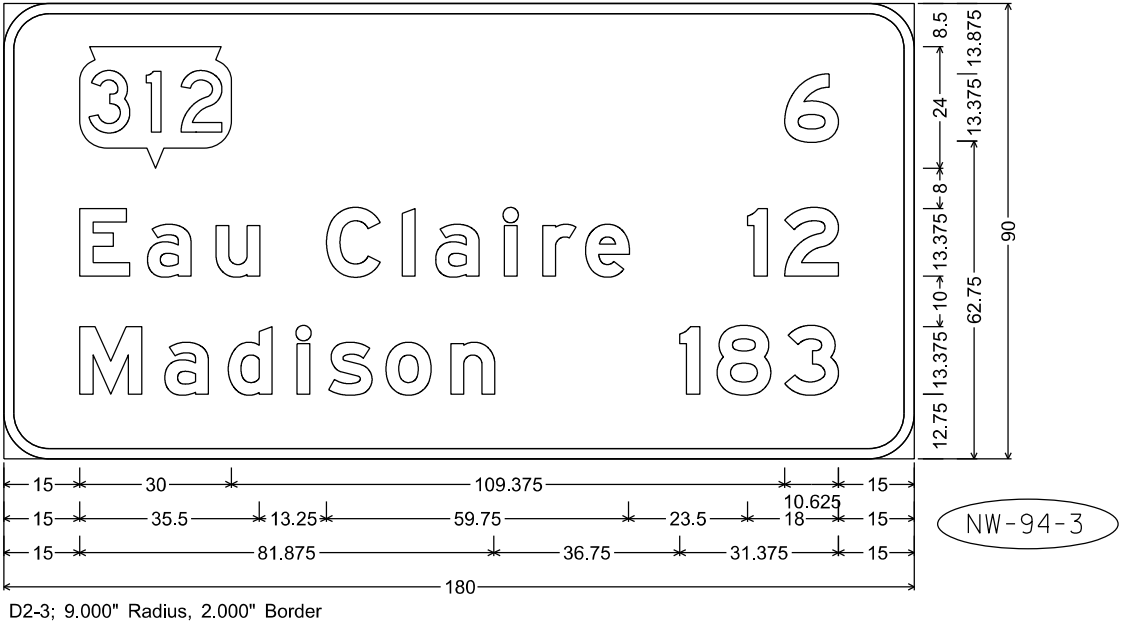
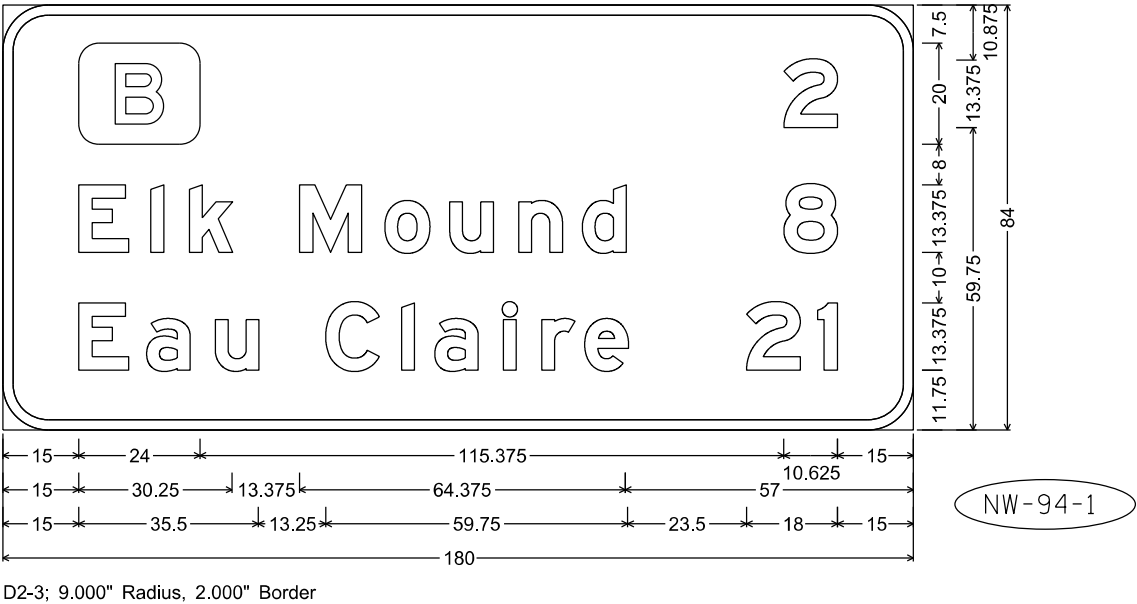
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

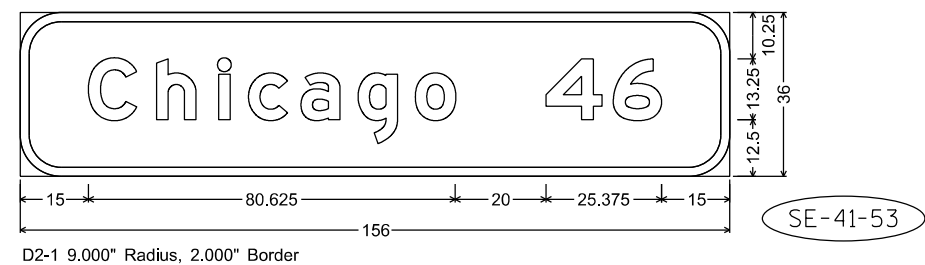
FHWA

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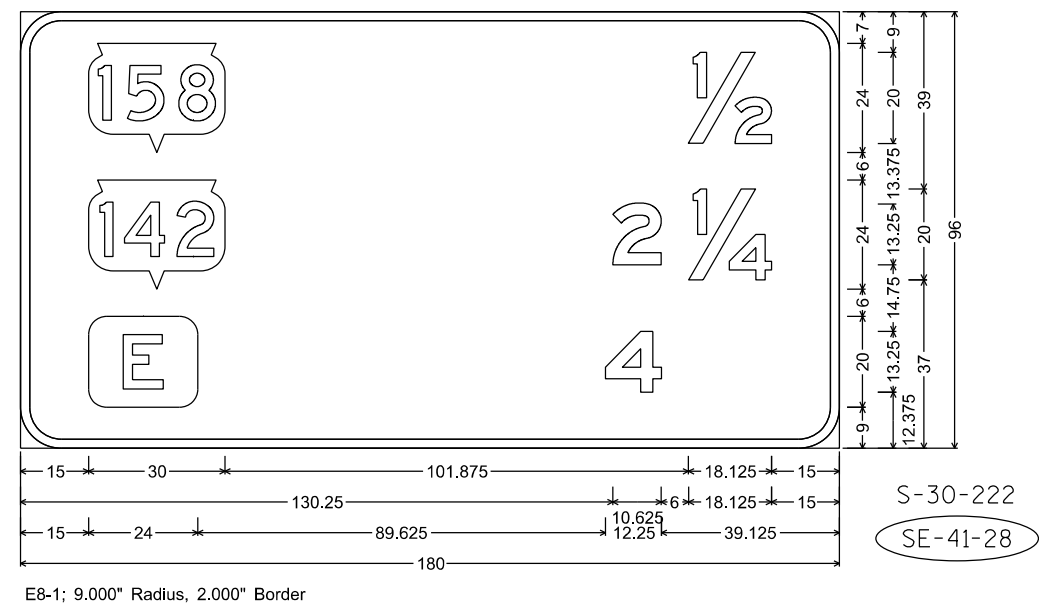
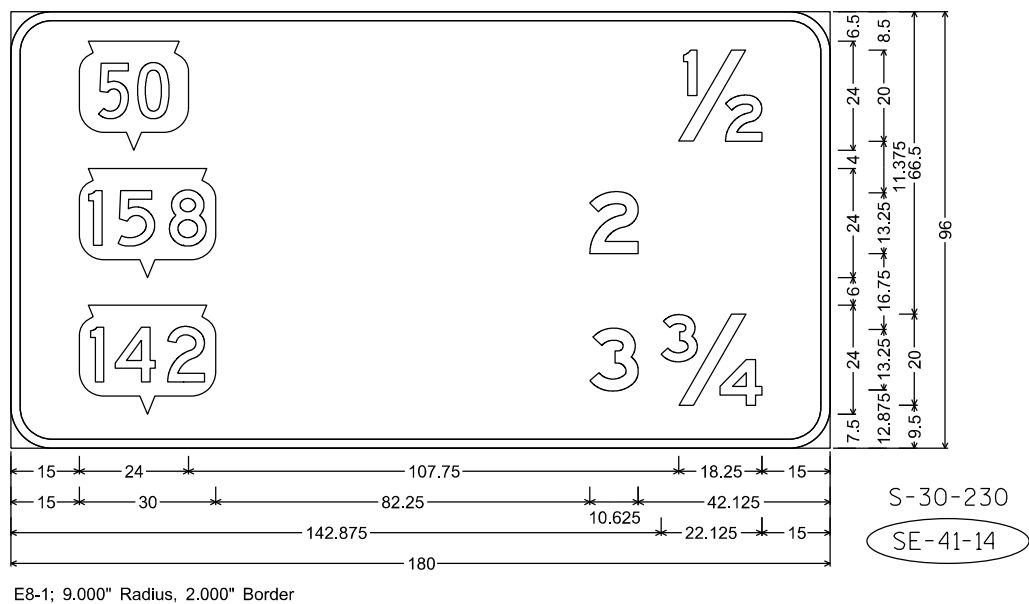
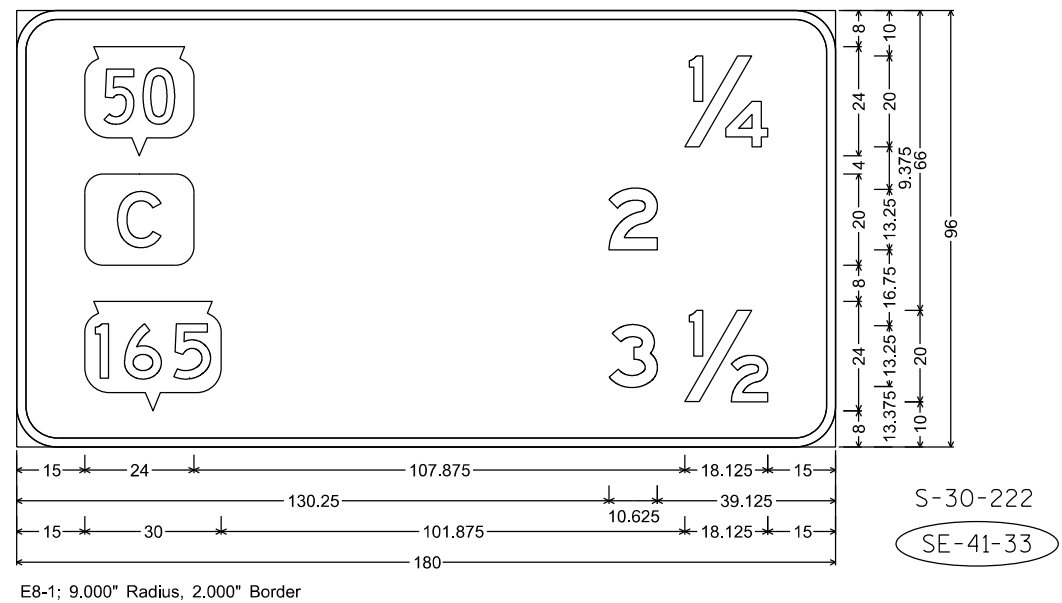
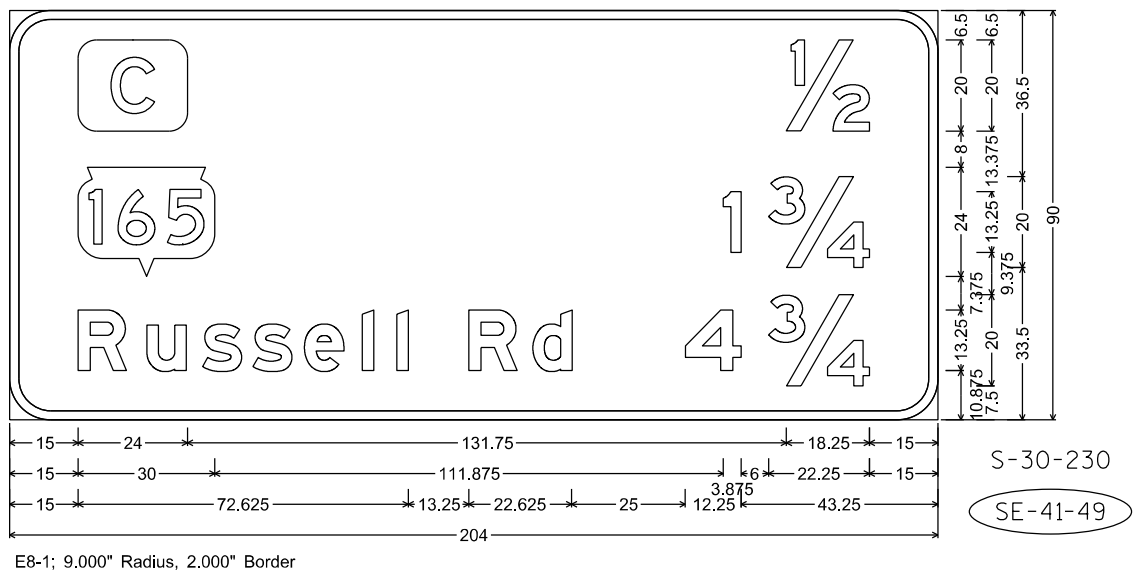
- 1. All Signs Type I - Type SH Reflective
- 2. Color:
Background - Green or as noted
Message - White
- 3. Message Series - E Modified



7



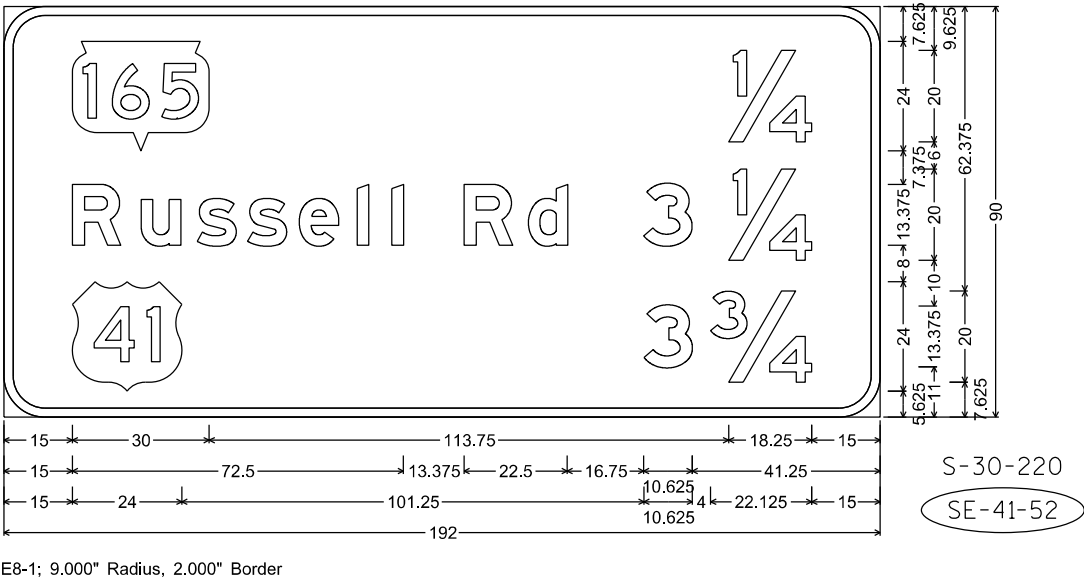
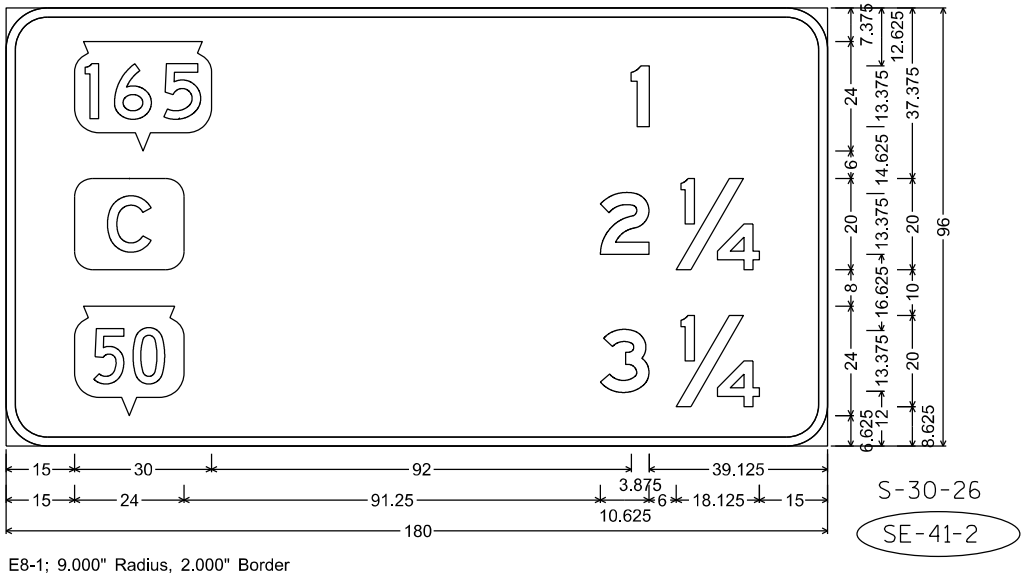
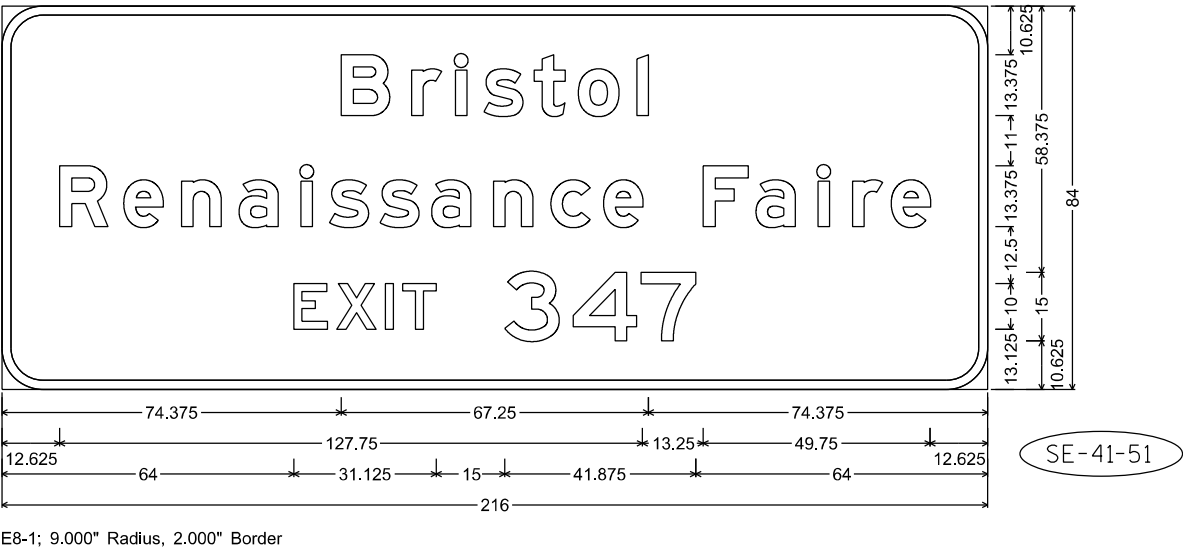
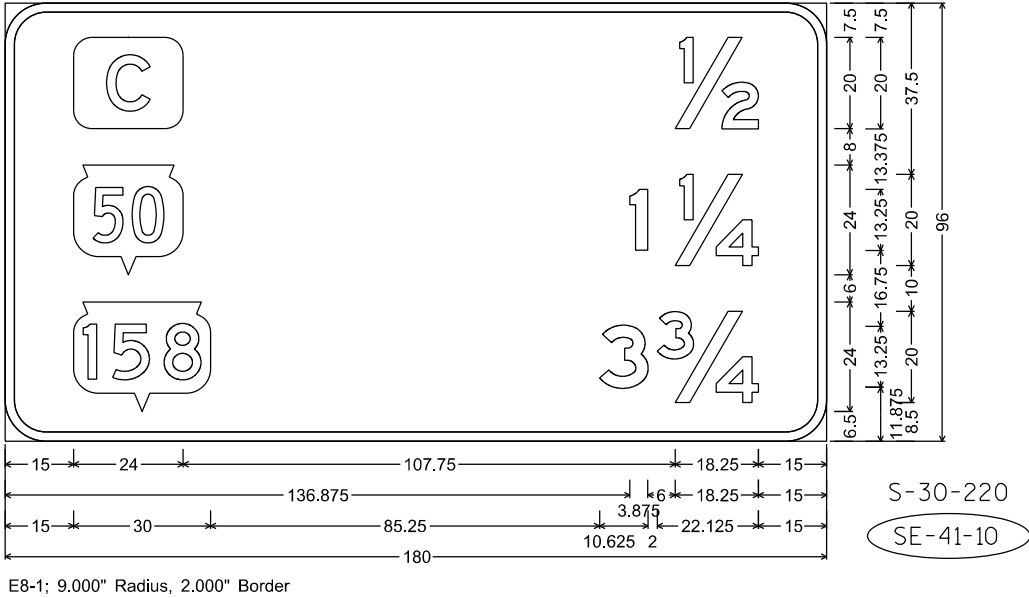
- NOTES
- 1. All Signs Type I - Type SH Reflective
 - 2. Color:
Background - Green
Message - White
 - 3. Message Series - E Modified except all CAP words Series E



7

NOTES

- 1. All Signs Type I - Type SH Reflective
- 2. Color:
Background - Green or as noted
Message - White
- 3. Message Series - E Modified except all CAP words Series E



NOTES

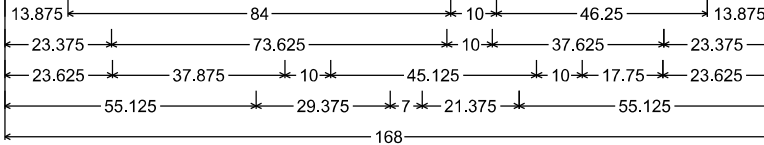
1. All Signs Type I - Type SH Reflective

2. Color:

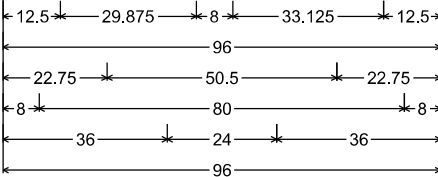
Background - Blue

Message - White

3. Message Series - E Modified except all CAP words Series E, or as noted.

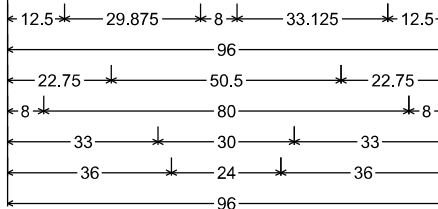


SE-41-7



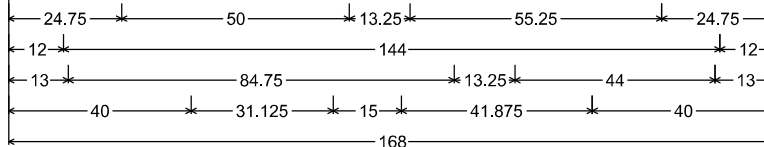
S-30-231

SE-41-5



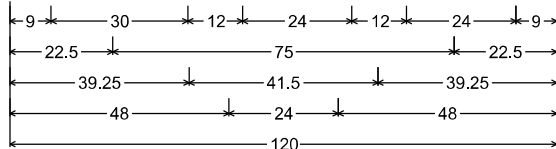
S-30-12

SE-41-7B



SE-41-4

"REST", E Mod; "AREA", E Mod; "TOURIST", E Mod; "INFO", E Mod; "EXIT", E; "347", E



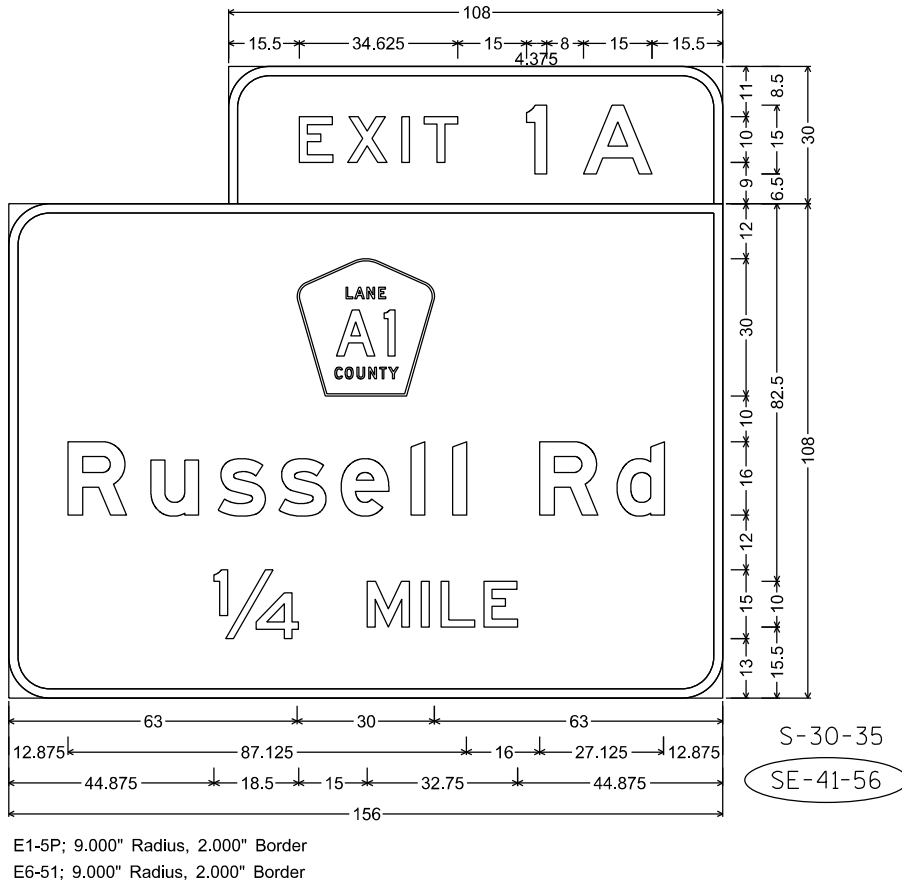
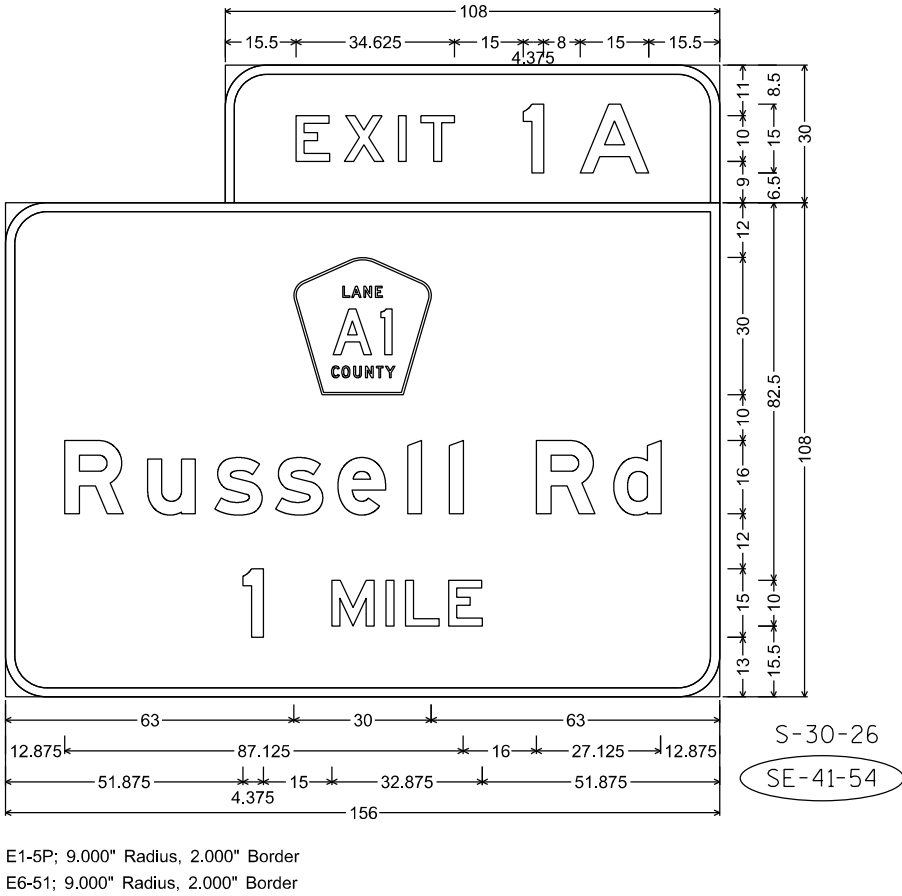
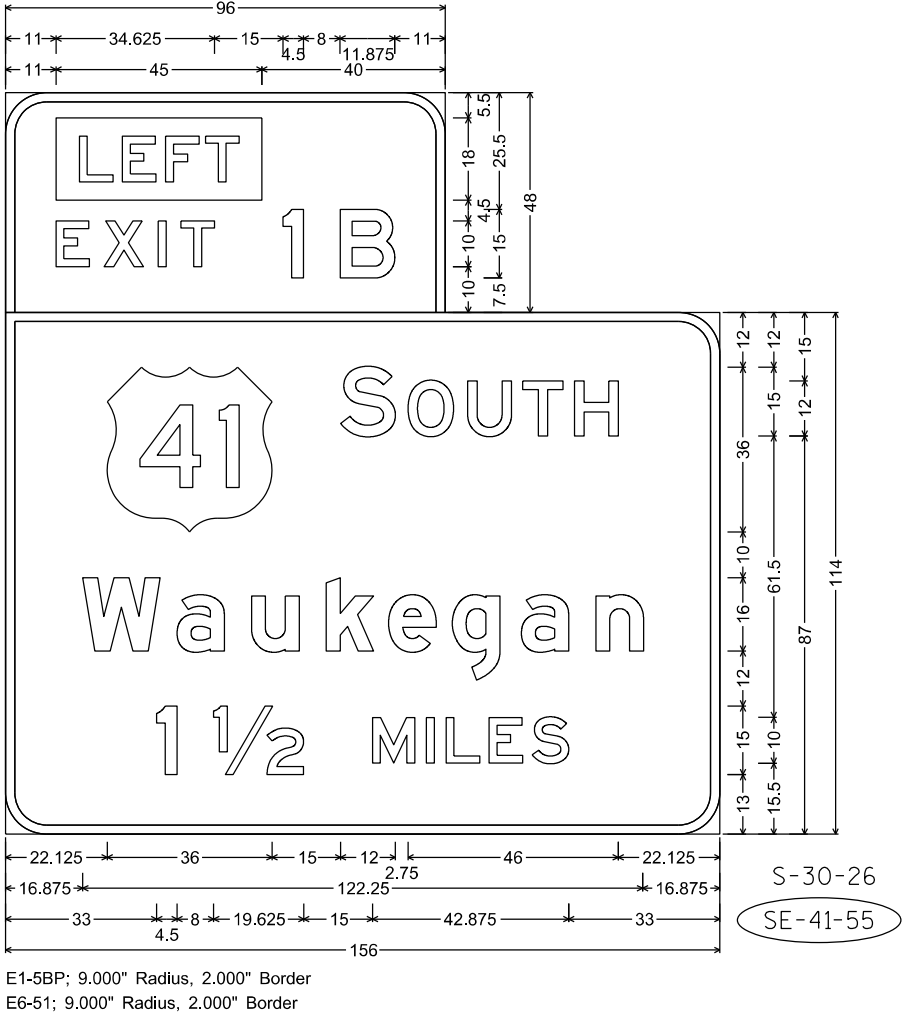
S-30-231

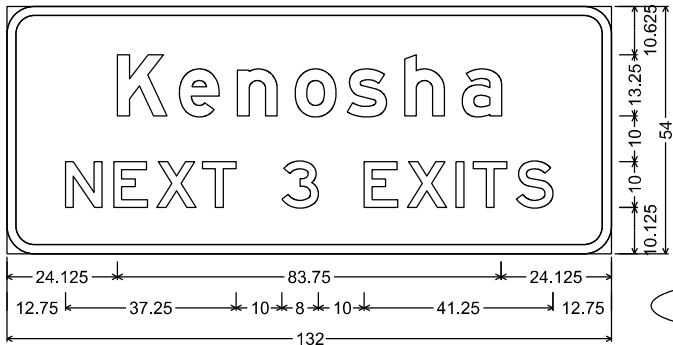
SE-41-6

"Lakeview", E Mod; "Pkwy", E Mod

NOTES

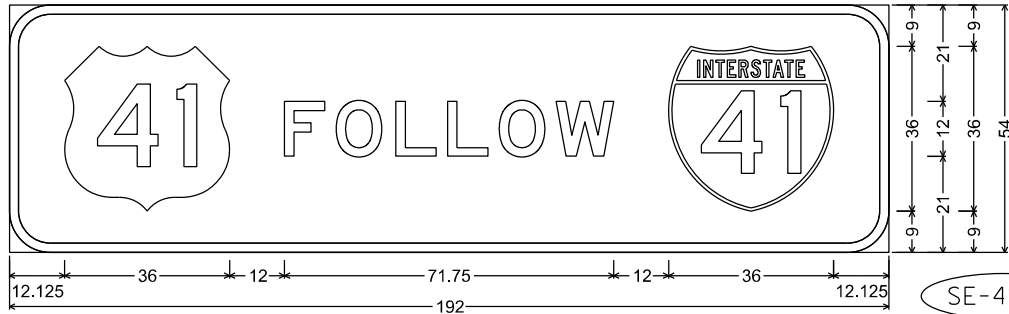
- 1. All Signs Type I - Type SH Reflective
- 2. Color:
Background - Green
Message - White
- 3. Message Series - E Modified except all CAP words Series E





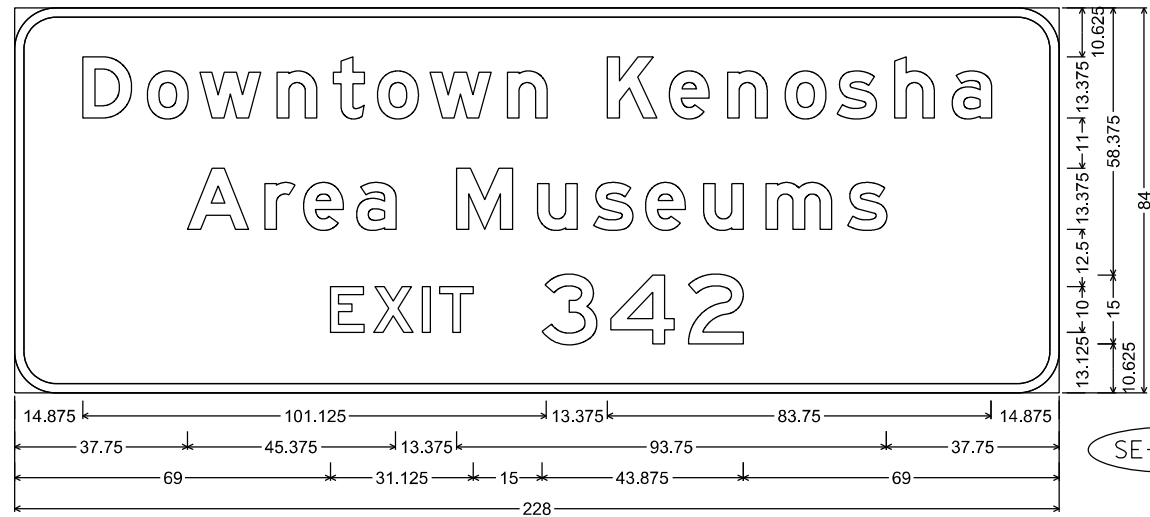
SE-41-12

E3-1; 6.000" Radius, 2.000" Border



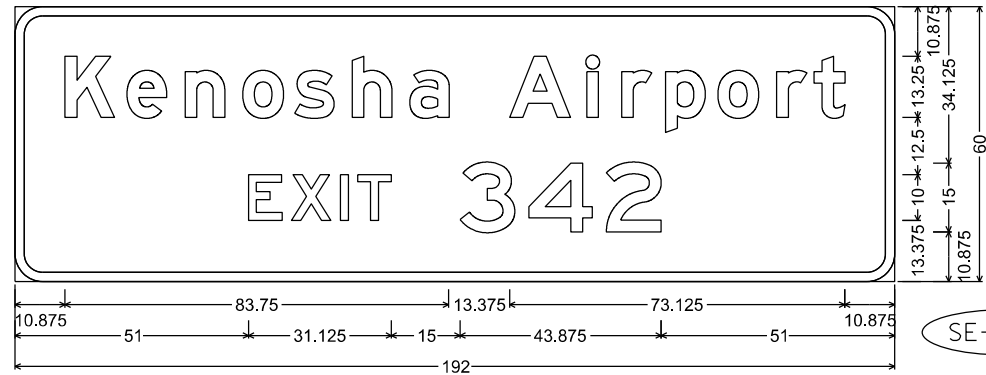
SE-41-11

9.000" Radius, 2.000" Border



SE-41-29

E3-1; 9.000" Radius, 2.000" Border

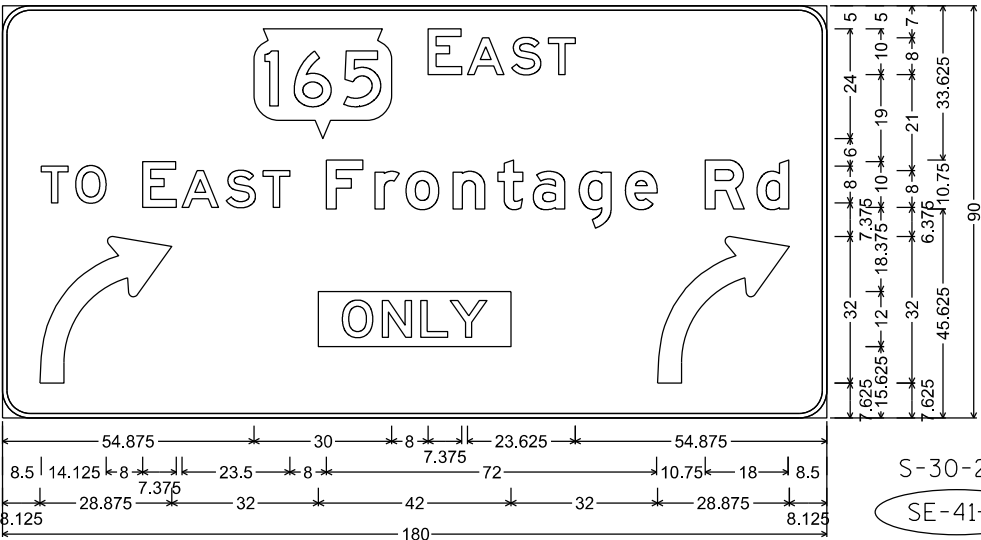


SE-41-30

E3-1; 6.000" Radius, 2.000" Border

NOTES

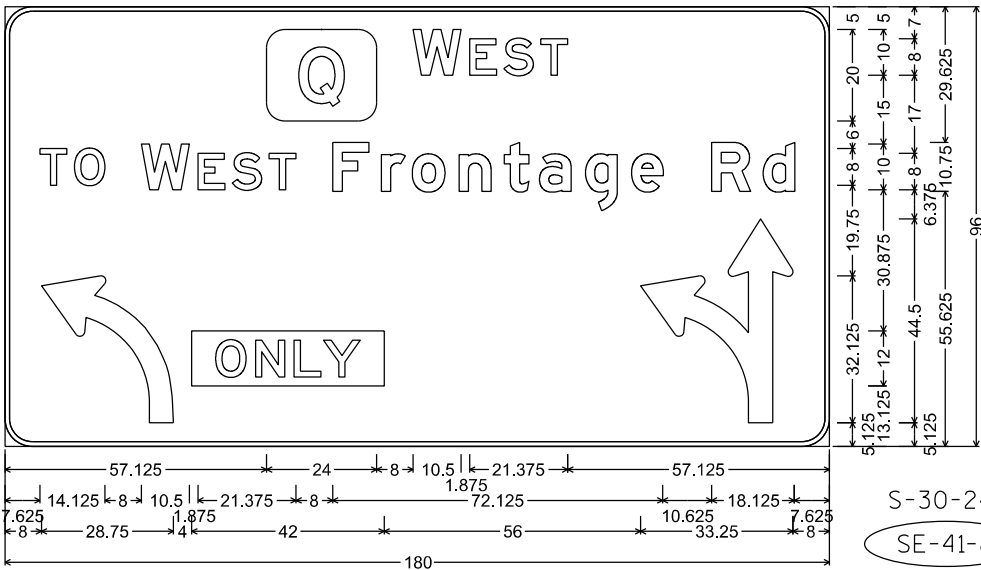
- 1. All Signs Type I - Type SH Reflective
 - 2. Color:
 - Background - Green
 - Message - White
 - 3. Message Series - E Modified except all CAP words Series E
 - 4. ONLY Plaque background on Yellow Type F Reflective
- Sheeting with Black Non-Reflective Message



S-30-248

SE-41-9

D16-1; 6.000" Radius, 1.000" Border
"EAST", E; "TO", E; "EAST", E; "Frontage", E Mod; "Rd", E Mod



S-30-248

SE-41-8

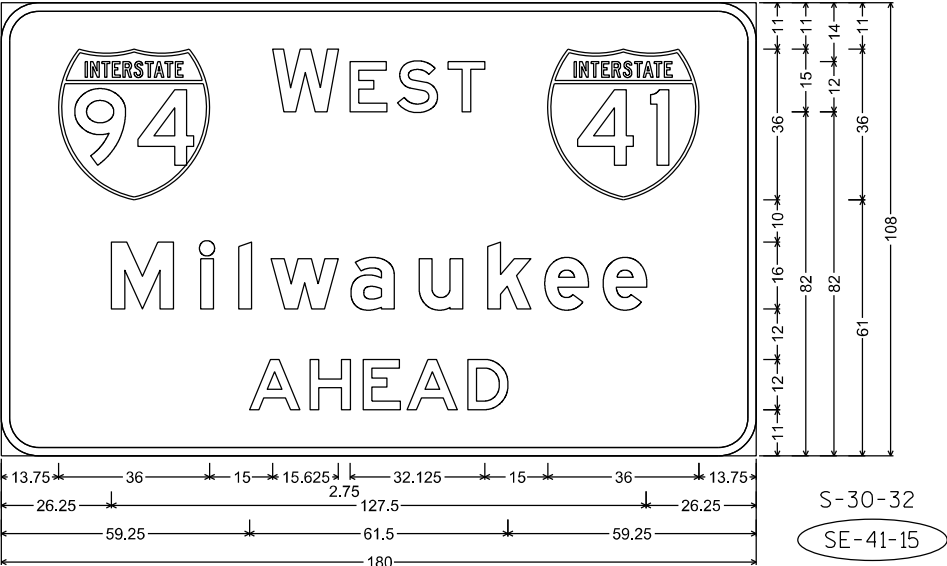
D16-1; 6.000" Radius, 1.000" Border
Square County Q M1-55-1; "WEST", E; "TO", E; "WEST", E; "Frontage", E Mod; "Rd", E Mod



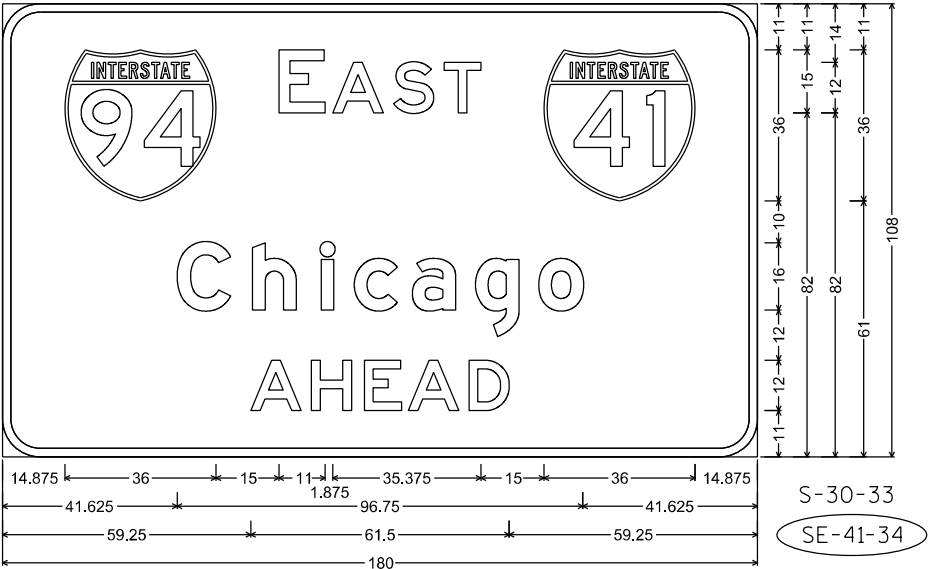
No border, Black on Fluorescent yellow;
"ONLY", E;

NOTES

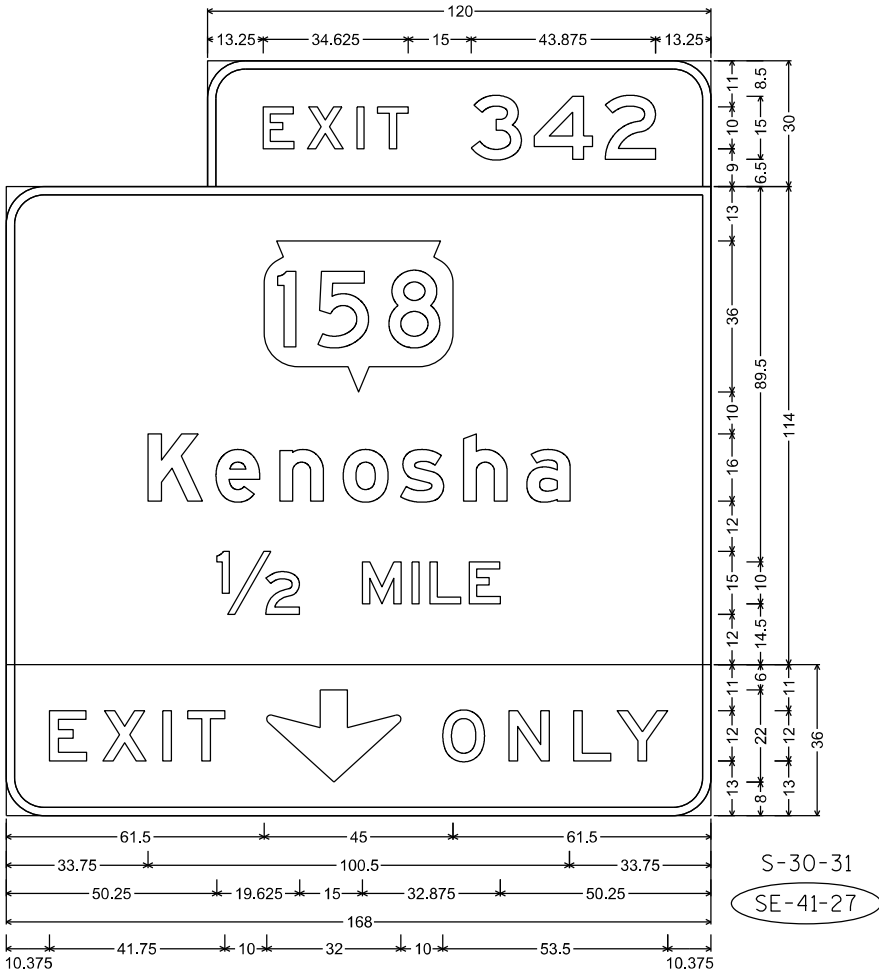
- 1. All Signs Type I - Type SH Reflective
- 2. Color:
Background - Green
Message - White
- 3. Message Series - E Modified except all CAP words Series E or as noted
- 4. Exit Only Panel on Yellow Type F Reflective Sheeting with Black Non-Reflective Message



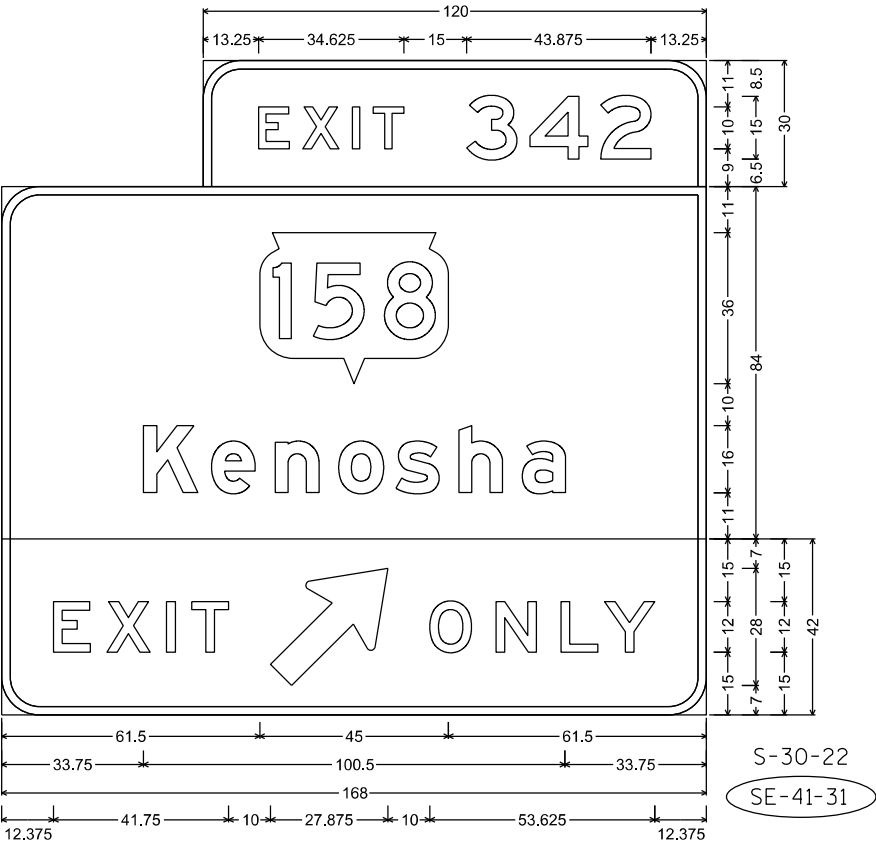
E6-51; 9.000" Radius, 2.000" Border



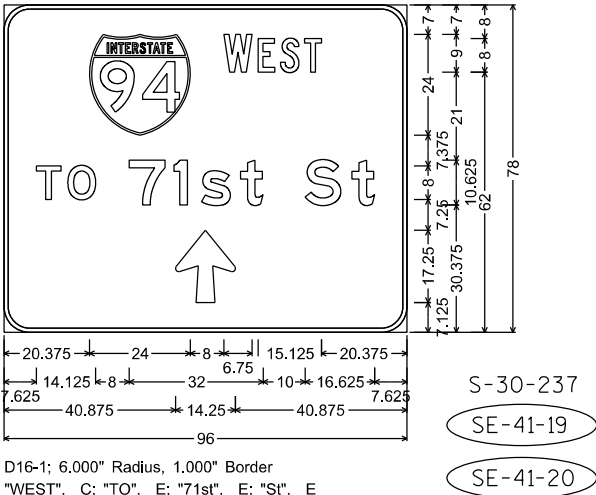
E6-51; 9.000" Radius, 2.000" Border



E1-5P; 9.000" Radius, 2.000" Border
E6-51; 9.000" Radius, 2.000" Border
E11-1; 9.000" Radius, 2.000" Border, Black on Yellow



E1-5P; 9.000" Radius, 2.000" Border
E6-51; 9.000" Radius, 2.000" Border
E11-1D; 9.000" Radius, 2.000" Border, Black on Yellow



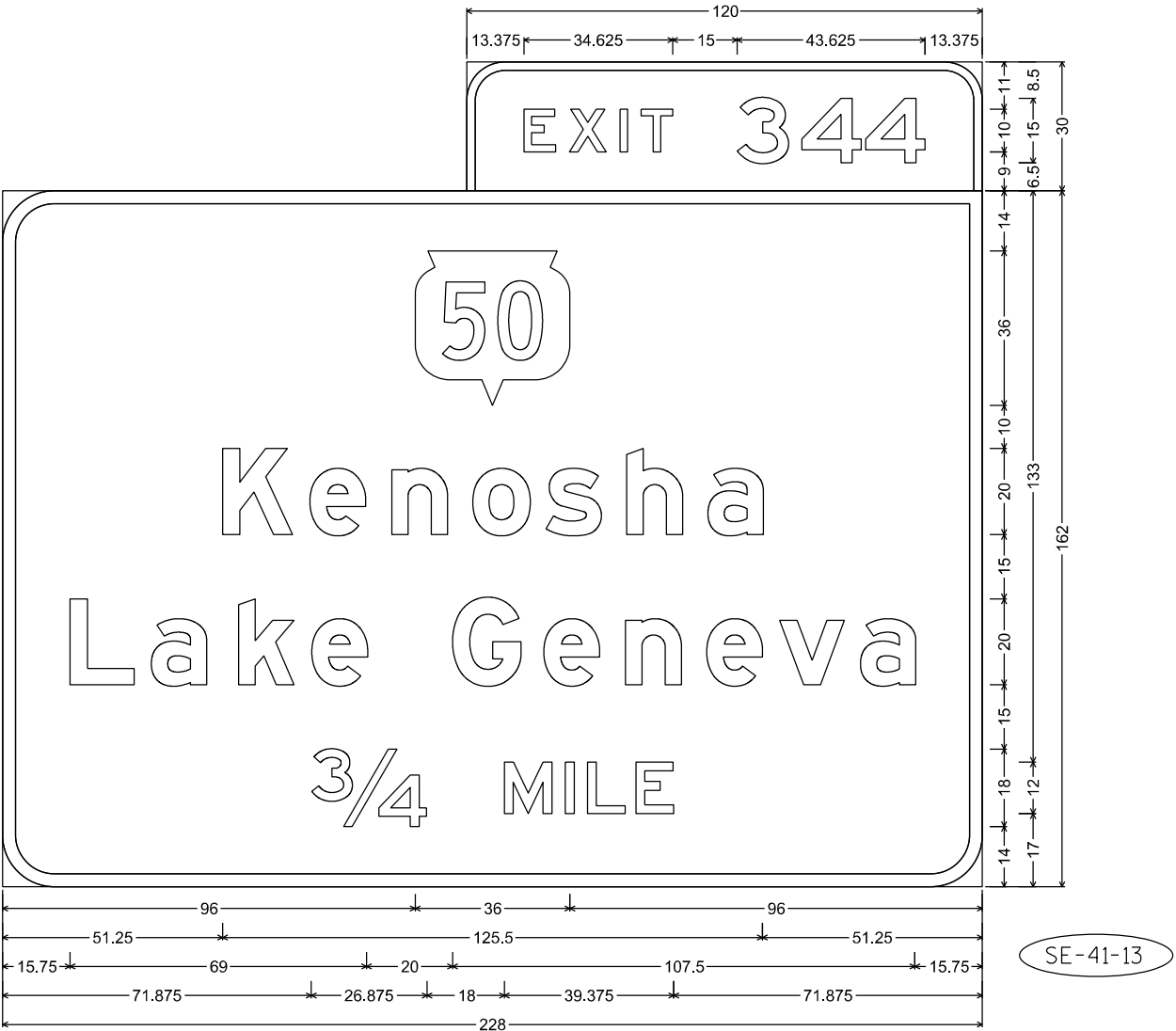
D16-1; 6.000" Radius, 1.000" Border
"WEST", C; "TO", E; "71st", E; "St", E

NOTES

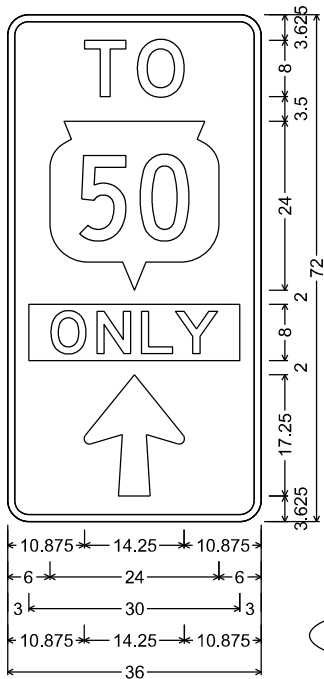
1. All Signs Type I - Type SH Reflective
2. Color:

Background - Green

Message - White
3. Message Series - E Modified except all CAP words Series E



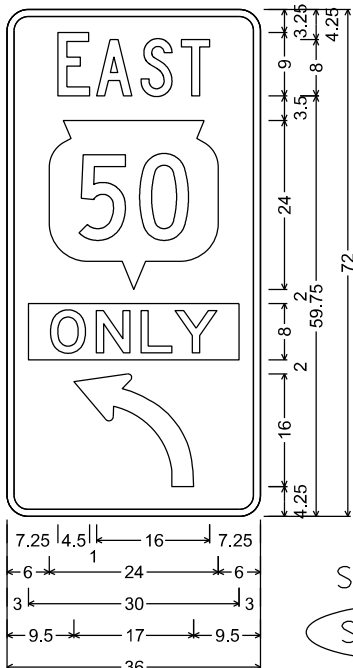
E1-5P; 9.000" Radius, 2.000" Border
E1-1A; 12.000" Radius, 3.000" Border



S-30-240

SE-41-38

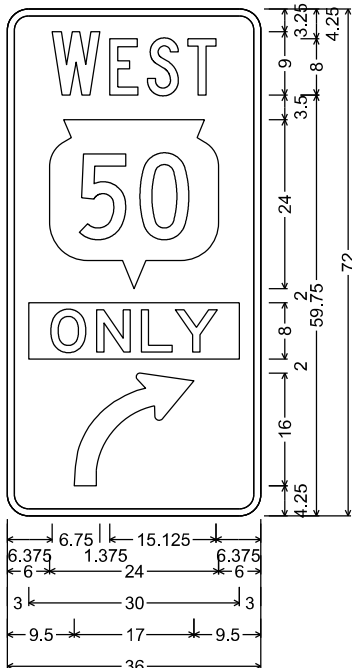
D16-1; 3.000" Radius, 1.000" Border
"TO", E



S-30-238

SE-41-40

D16-1L; 3.000" Radius, 1.000" Border

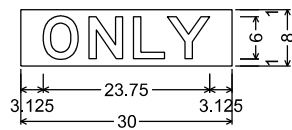


S-30-238

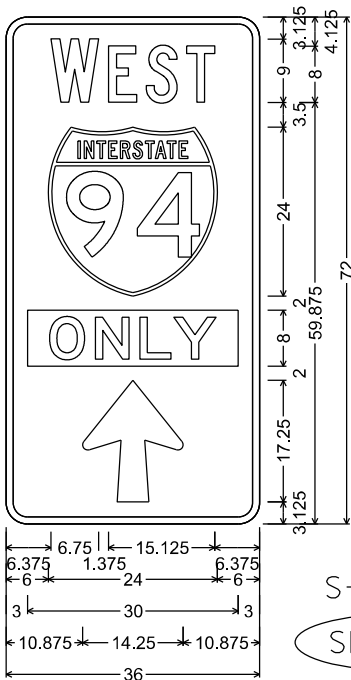
SE-41-47

SE-41-48

D16-1R; 3.000" Radius, 1.000" Border



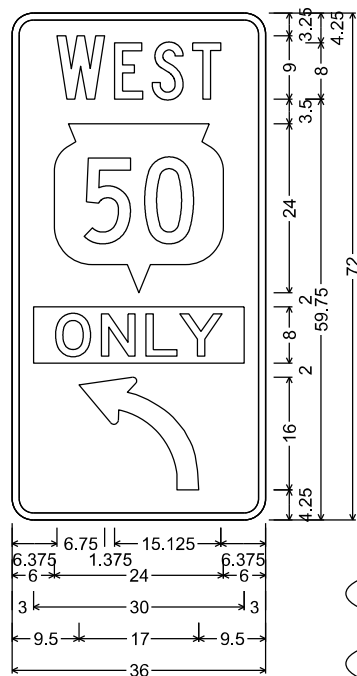
No border, Black on Fluorescent yellow;
"ONLY", E



S-30-239

SE-41-25

D16-1; 3.000" Radius, 1.000" Border

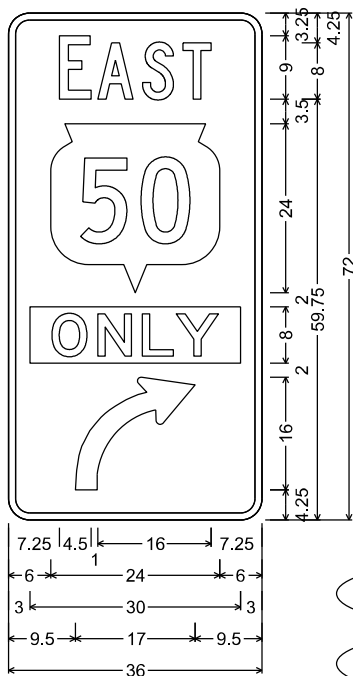


S-30-237

SE-41-17

SE-41-18

D16-1L; 3.000" Radius, 1.000" Border

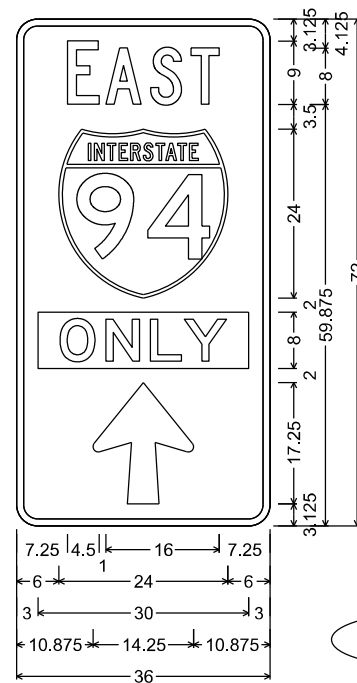


S-30-237

SE-41-21

SE-41-22

D16-1R; 3.000" Radius, 1.000" Border



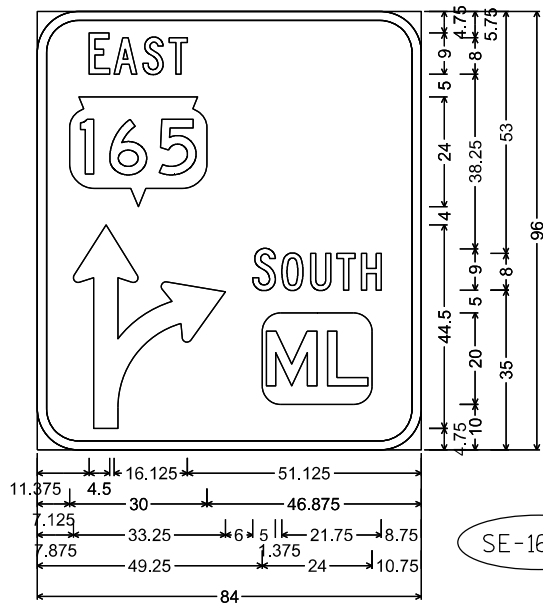
S-30-238

SE-41-46

D16-1; 3.000" Radius, 1.000" Border

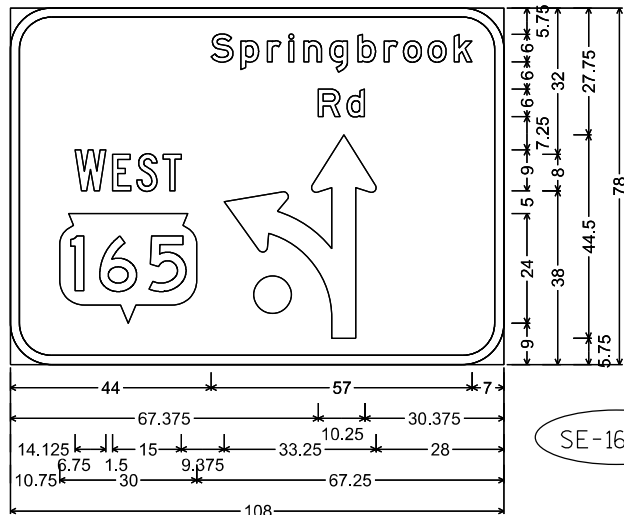
NOTES

1. All Signs Type II - Type SH Reflective
2. Color:
Background - Green
Message - White
3. Message Series - C or as noted
4. ONLY Plaque background on Yellow Type F Reflective
Sheeting with Black Non-Reflective Message



SE-165-1

E6-53; 9.000" Radius, 2.000" Border
"EAST", C; "SOUTH", C

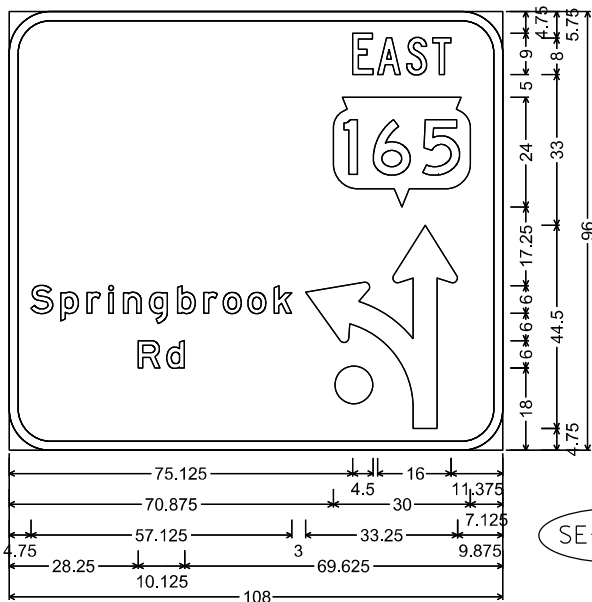


SE-165-4

E6-52; 9.000" Radius, 2.000" Border
"WEST", C

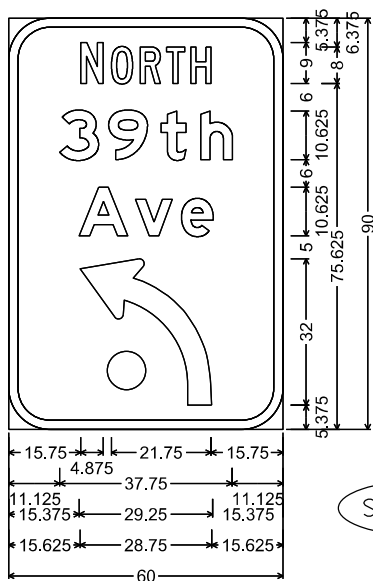
NOTES

1. All Signs Type I - Type SH Reflective
2. Color:
Background - Green
Message - White
3. Message Series - E Modified except all CAP words Series E or as noted.



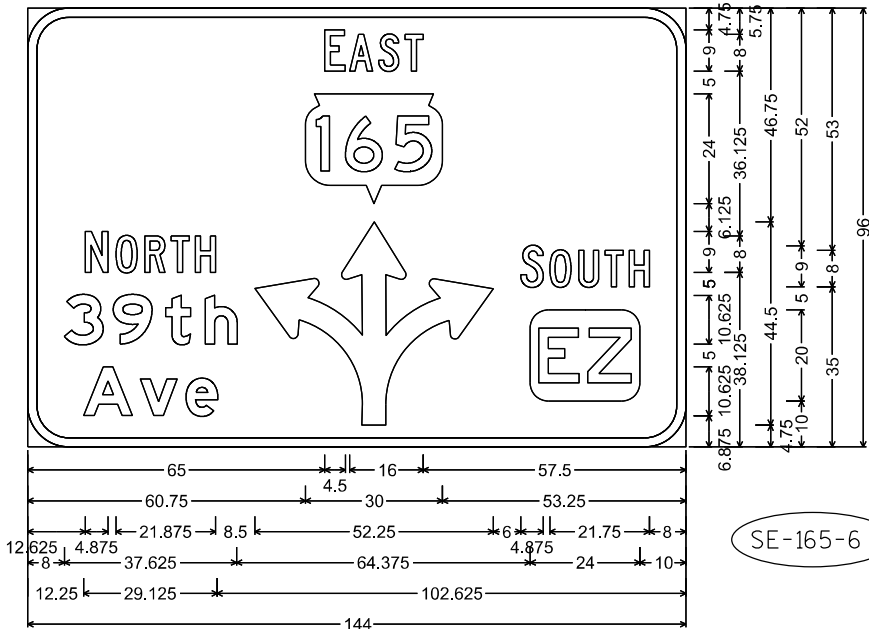
SE-165-2

E6-52; 9.000" Radius, 2.000" Border
"EAST", C



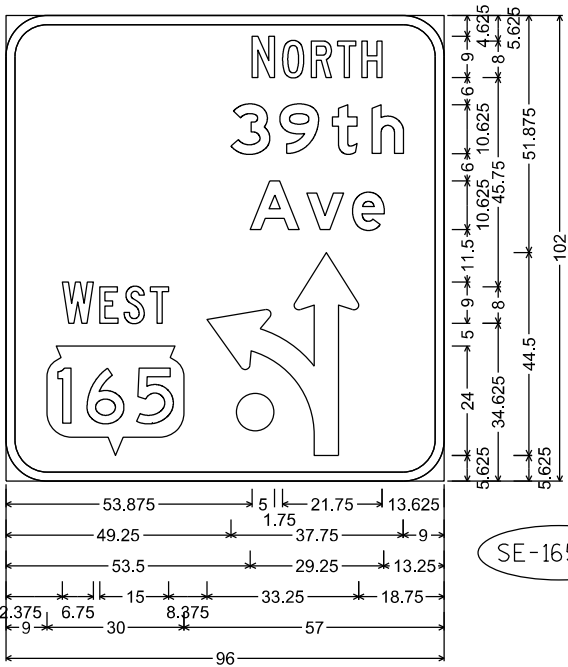
SE-165-5

E6-54L; 9.000" Radius, 2.000" Border
"NORTH", C



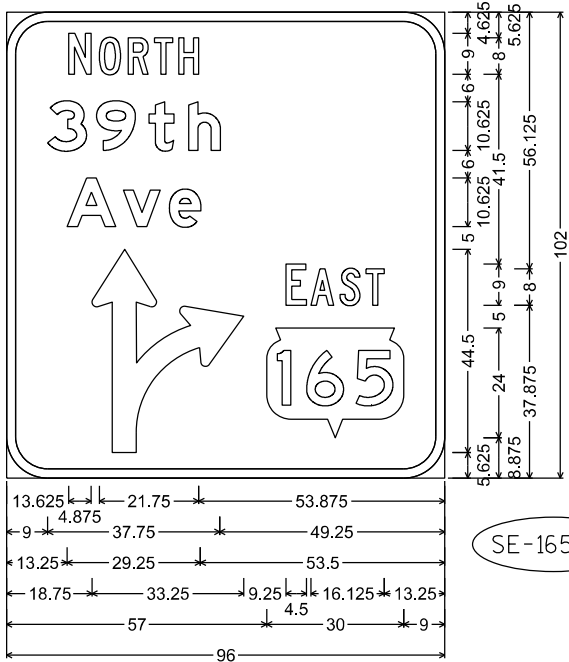
SE-165-6

E6-53 Mod; 9.000" Radius, 2.000" Border
"EAST", C; "NORTH", C; "SOUTH", C



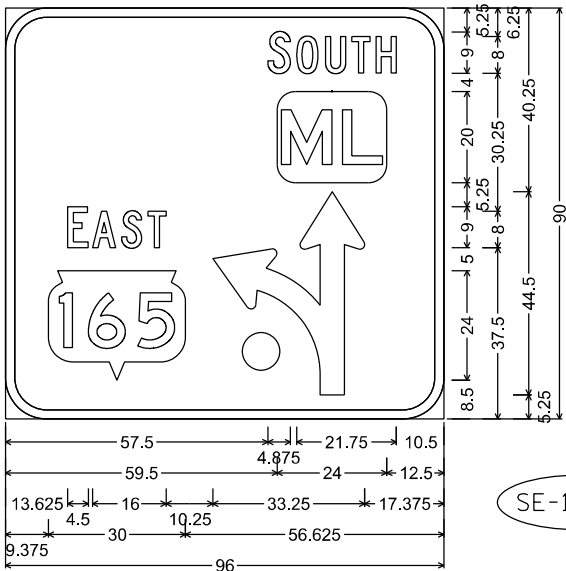
SE-165-7

E6-52; 9.000" Radius, 2.000" Border
"NORTH", C; "WEST", C



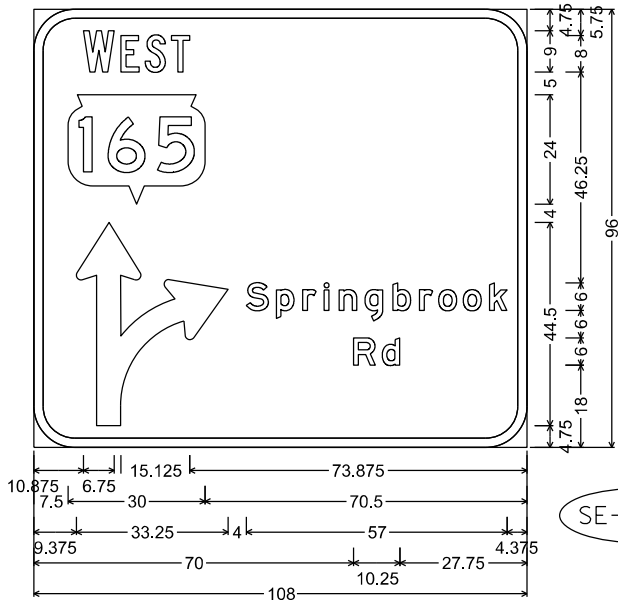
SE-165-8

E6-53; 9.000" Radius, 2.000" Border
"NORTH", C; "EAST", C



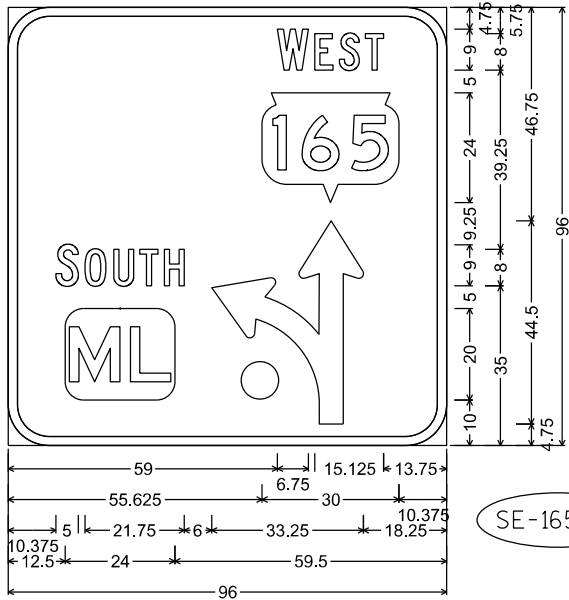
SE-165-16

E6-52; 9.000" Radius, 2.000" Border
"SOUTH", C; "EAST", C



SE-165-13

E6-53; 9.000" Radius, 2.000" Border
"WEST", C

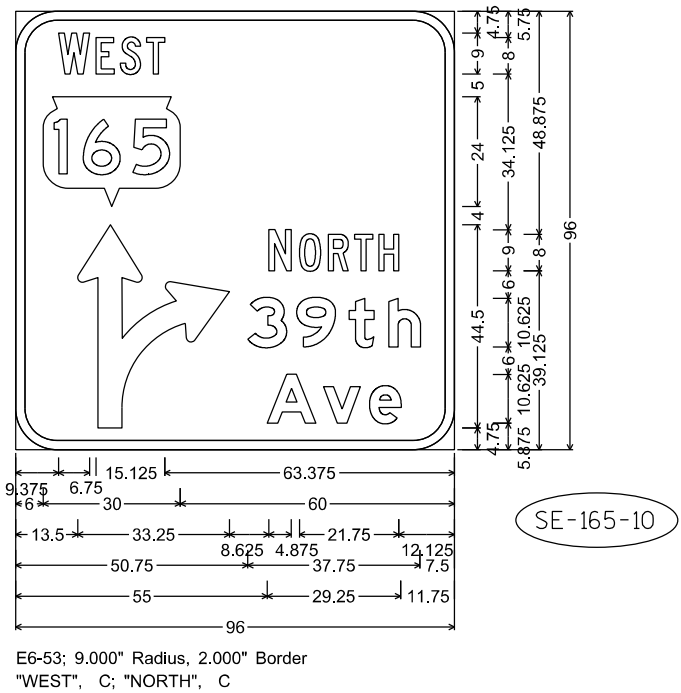
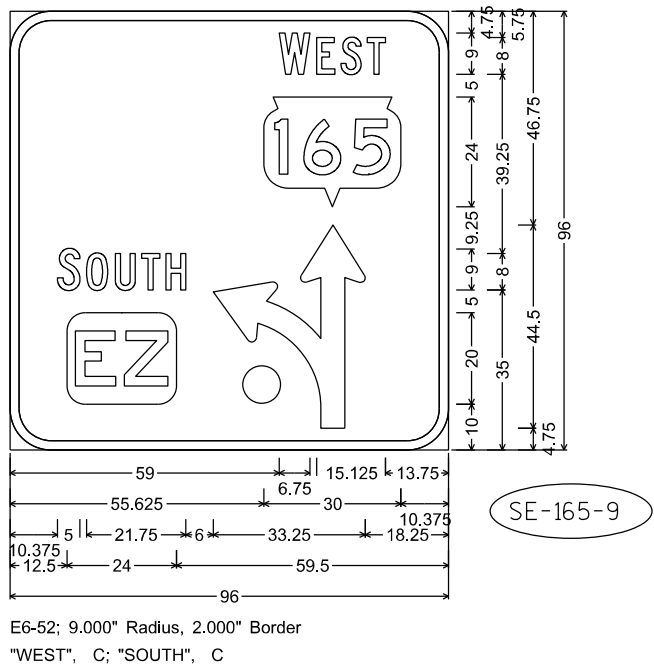


SE-165-14

E6-52; 9.000" Radius, 2.000" Border
"WEST", C; "SOUTH", C

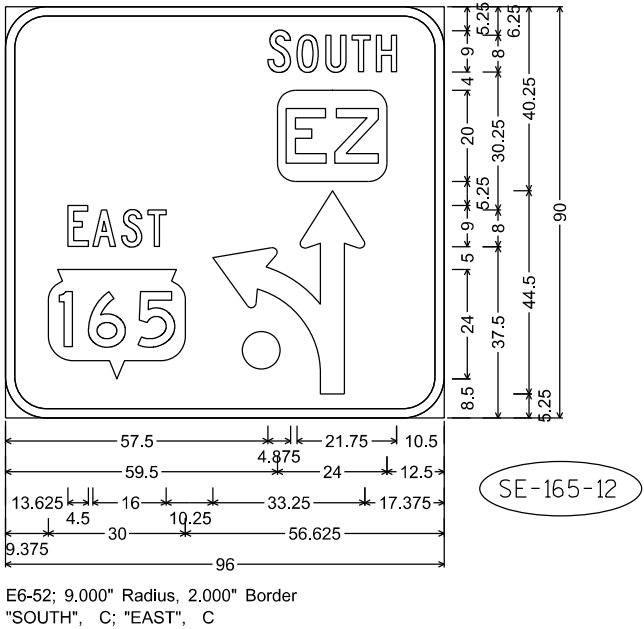
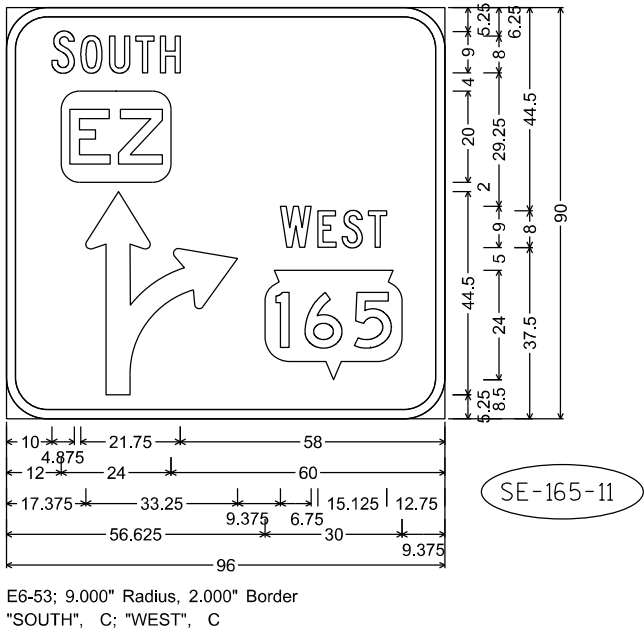
NOTES

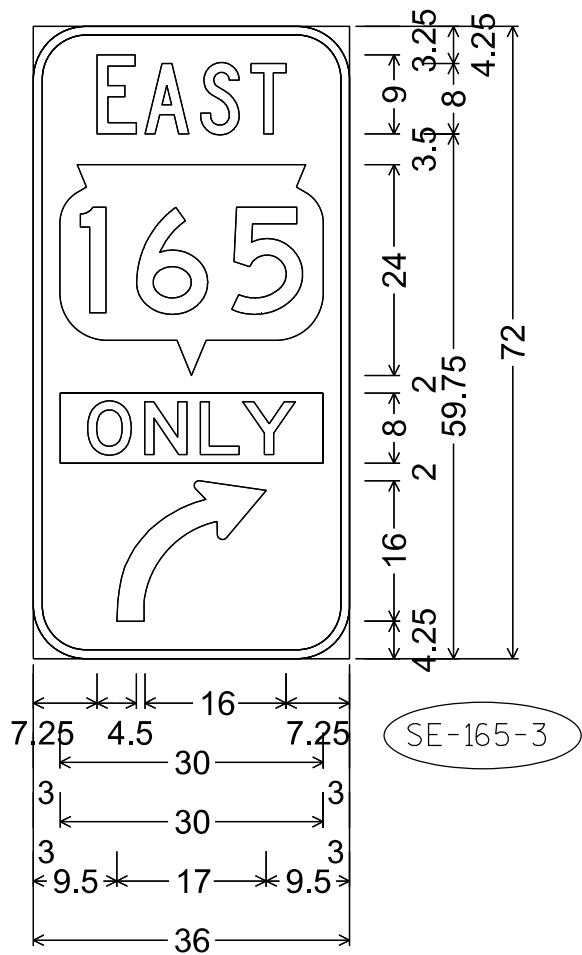
1. All Signs Type I - Type SH Reflective
2. Color:
Background - Green
Message - White
3. Message Series - E Modified except all CAP words Series E or as noted.



NOTES

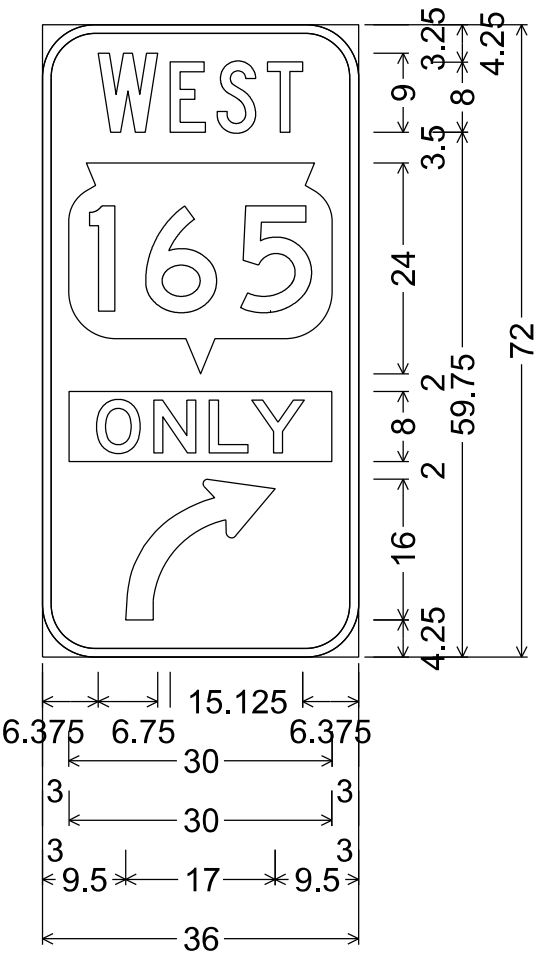
1. All Signs Type I - Type SH Reflective
2. Color:
Background - Green
Message - White
3. Message Series - E Modified except all CAP words Series E or as noted.





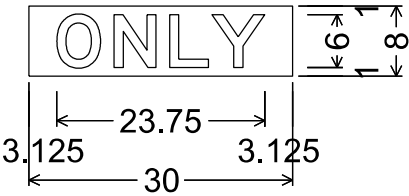
D16-1R; 6.000" Radius, 1.000" Border
"EAST", C

SE-165-3



D16-1R; 6.000" Radius, 1.000" Border
"WEST", C

SE-165-15



No border, White on Fluorescent yellow;
"ONLY" Black, E

NOTES

All Signs Type II - Type SH Reflective

Color:

Background - Green

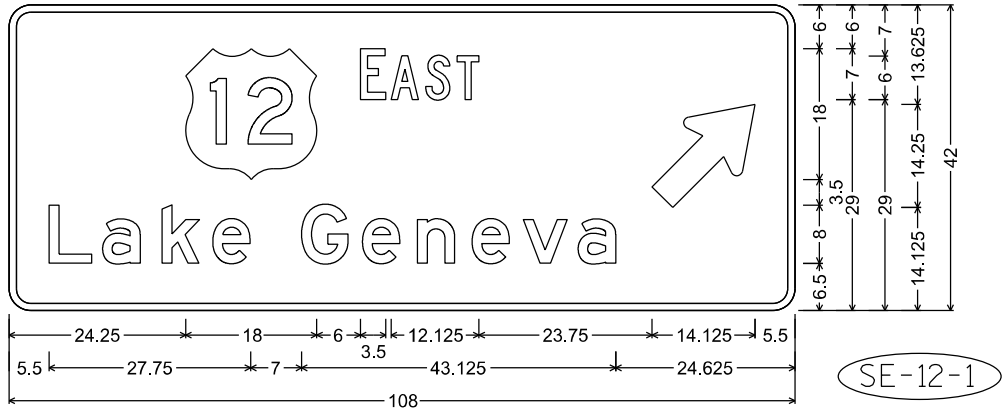
Message - White

Message Series - as noted

ONLY Plaque background on Yellow Type F Reflective

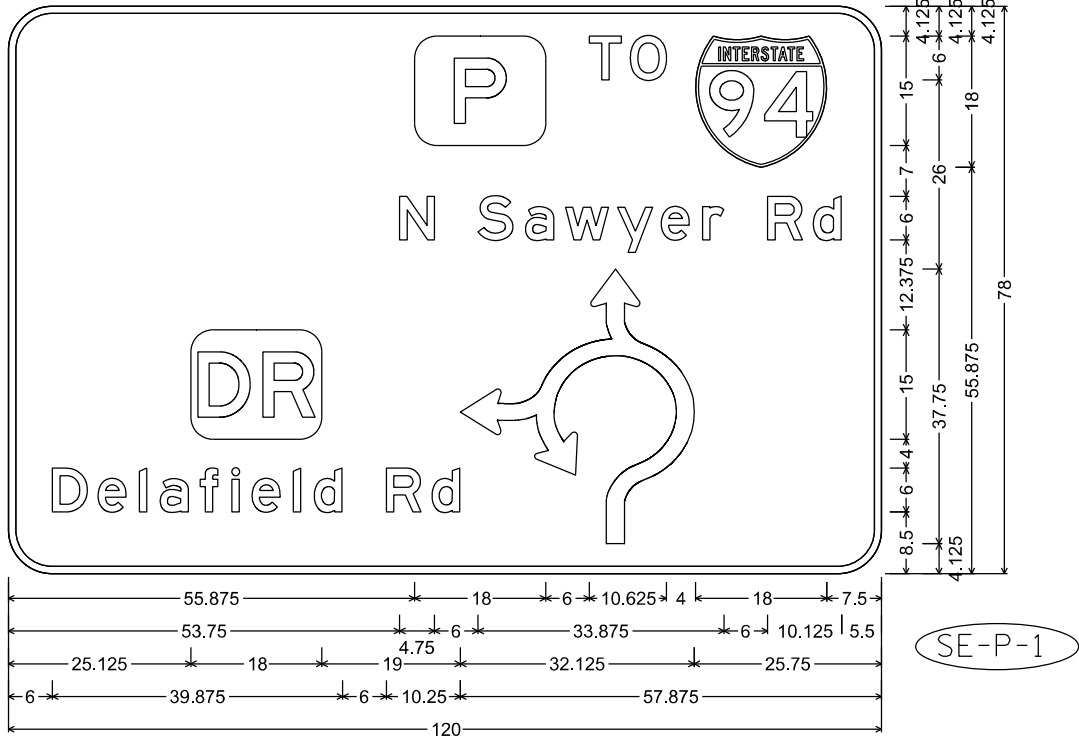
Sheeting with Black Non-Reflective Message

7



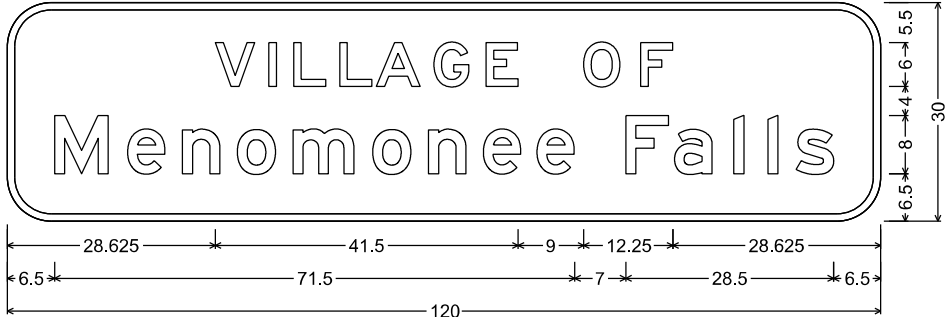
D1-70; 3.000" Radius, 1.000" Border
"EAST", C; "Lake", E; "Geneva", E

SE-12-1



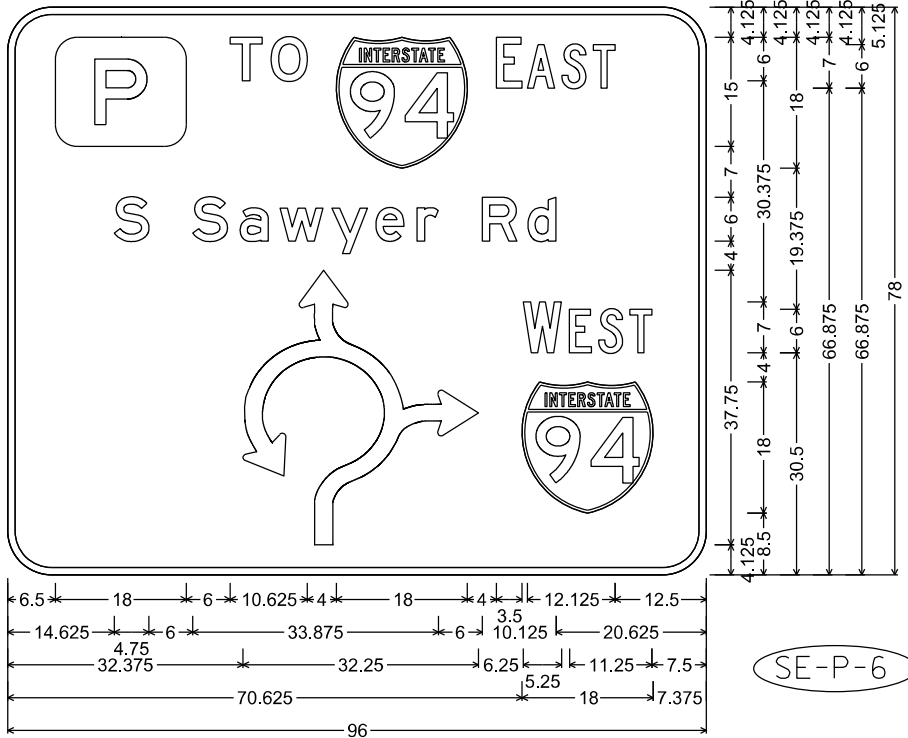
D1-62; 6.000" Radius, 1.000" Border

SE-P-1



I2-3A; 6.000" Radius, 1.000" Border

SE-41-11



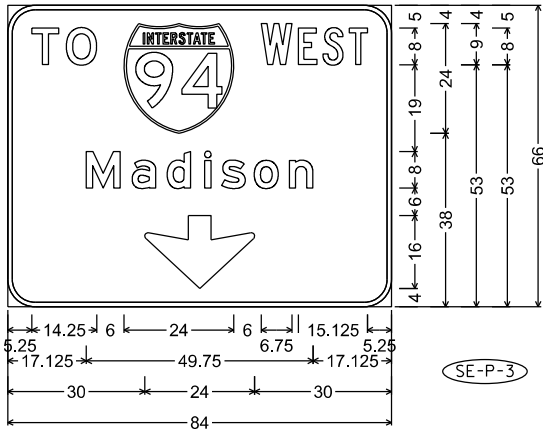
D1-62; 6.000" Radius, 1.000" Border
"TO", E; "EAST", C; "S", E; "Sawyer", E; "Rd", E; "WEST", C

SE-P-6

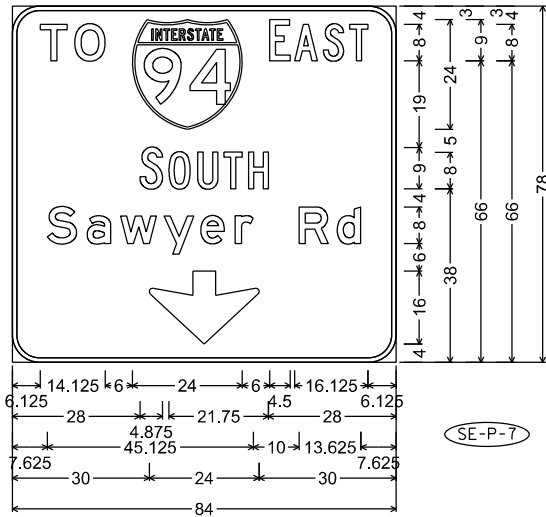
NOTES

- 1. All Signs Type II - Type H Reflective
- 2. Color:
Background - Green
Message - White
- 3. Message Series - E or as noted

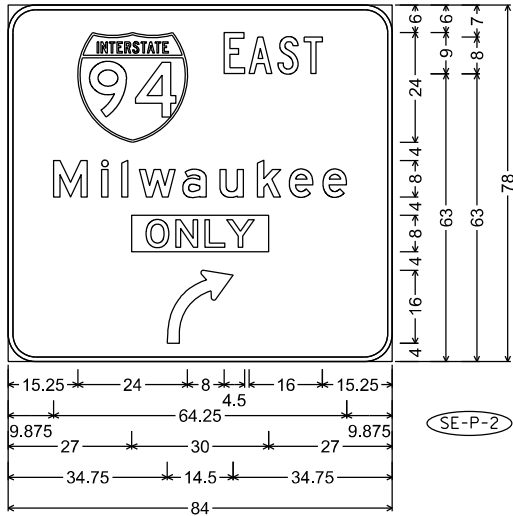
7



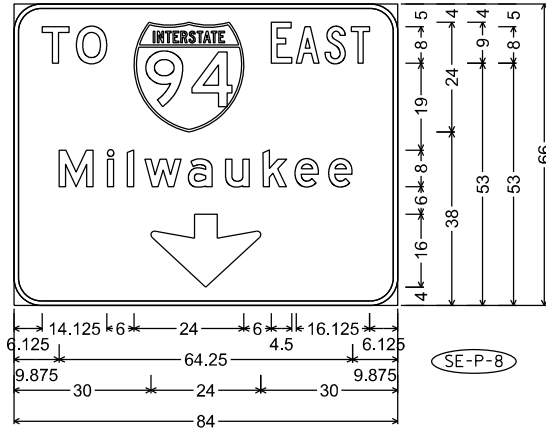
E6-54A; 6.000" Radius, 1.000" Border
"TO", E; "WEST", C; "Madison", E



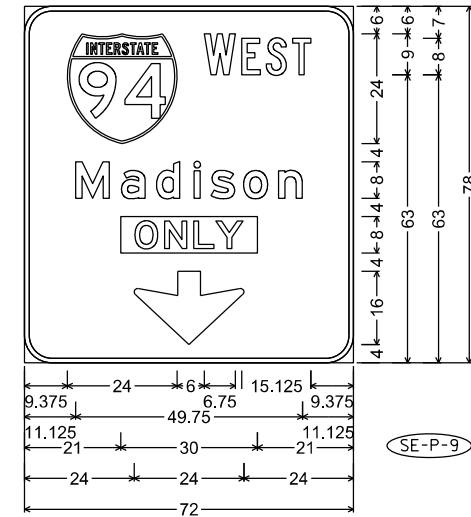
E6-54A; 6.000" Radius, 1.000" Border
"TO", E; "EAST", C; "SOUTH", C;
"Sawyer Rd", E



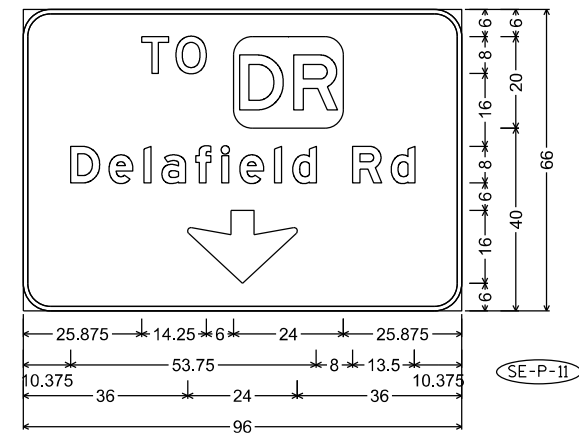
E6-54R; 6.000" Radius, 1.000" Border
"EAST", C; "Milwaukee", E



E6-54A; 6.000" Radius, 1.000" Border
"TO", E; "EAST", C; "Milwaukee", E



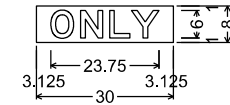
E6-54A; 6.000" Radius, 1.000" Border
"WEST", C; "Madison", E



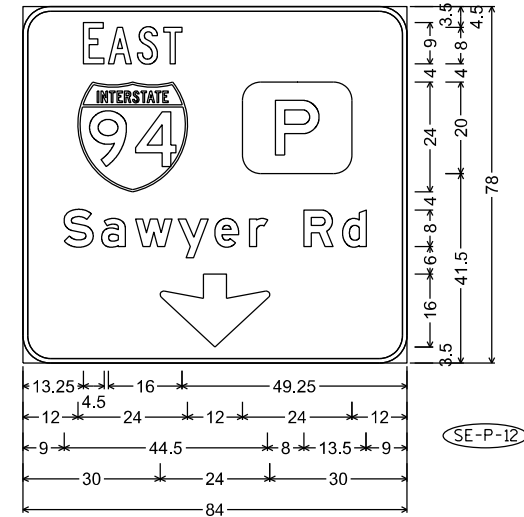
E6-54A; 6.000" Radius, 1.000" Border

NOTES

1. All Signs Type I - Type SH Reflective
2. Color:
Background - Green
Message - White
3. Message Series - E Modified except all CAP words Series E
or as noted
4. ONLY Plaque background on Yellow Type F Reflective
Sheeting with Black Non-Reflective Message



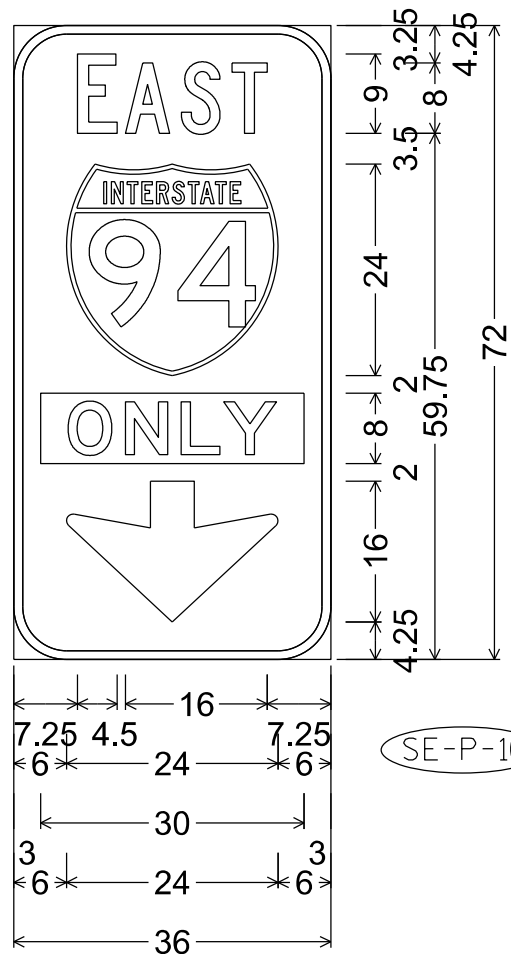
No border, Black on, Fluorescent yellow;
"ONLY" Black, E;



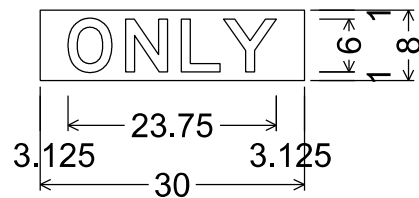
D16-1; 6.000" Radius, 1.000" Border
"EAST", C

NOTES

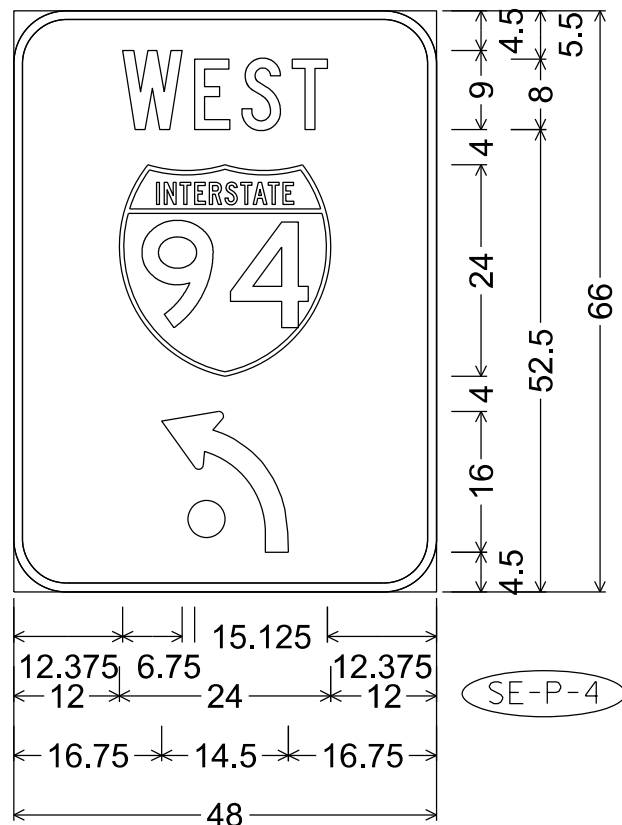
1. All Signs Type II - Type SH Reflective
2. Color:
Background - Green
Message - White
3. Message Series - as noted
4. ONLY Plaque background on Yellow Type F Reflective
Sheeting with Black Non-Reflective Message



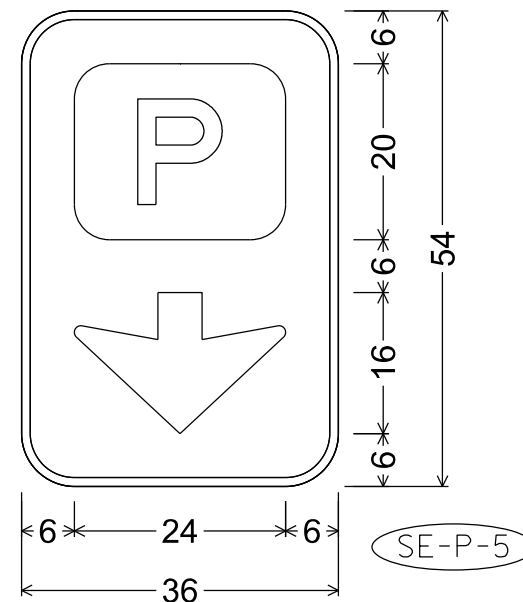
D16-1 MOD; 6.000" Radius, 1.000" Border
"EAST", C;



No border, Black on, Fluorescent yellow;
"ONLY" Black, E;

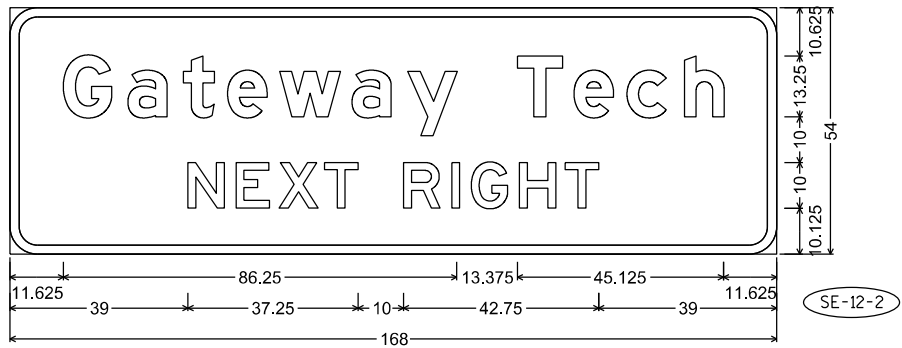


D16-1R; 6.000" Radius, 1.000" Border
"WEST", C;

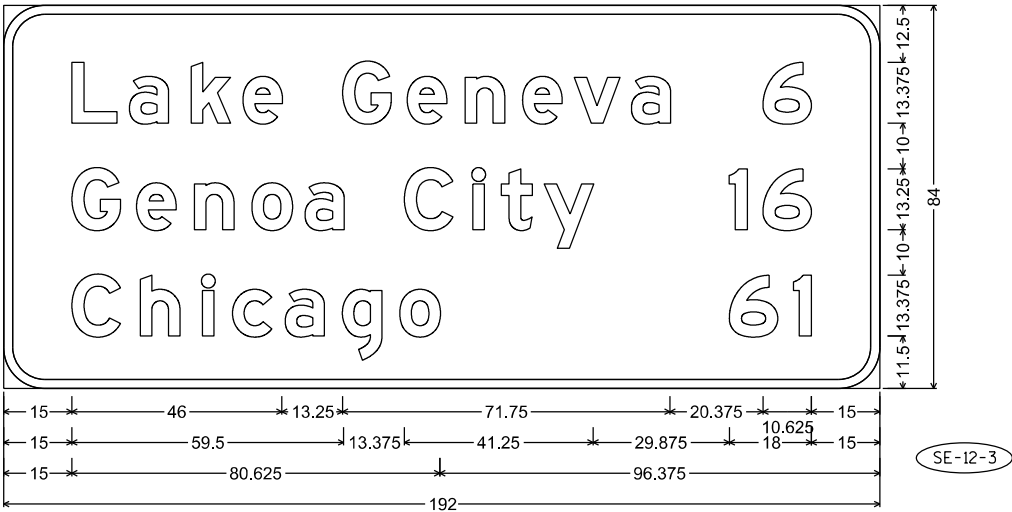


D16-1 MOD; 6.000" Radius, 1.000" Border

7



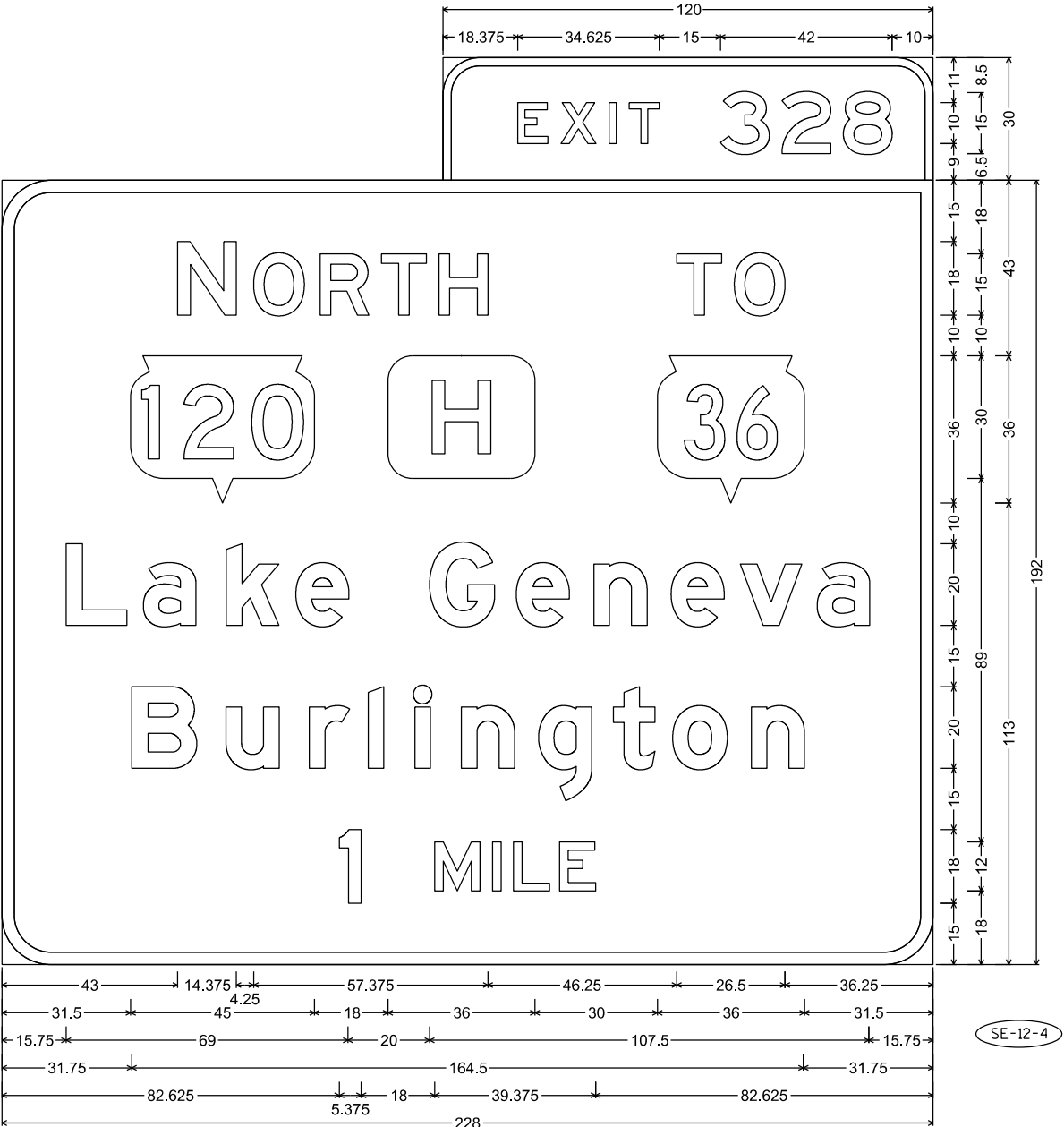
E9-1; 6.000" Radius, 2.000" Border



D2-3; 9.000" Radius, 2.000" Border

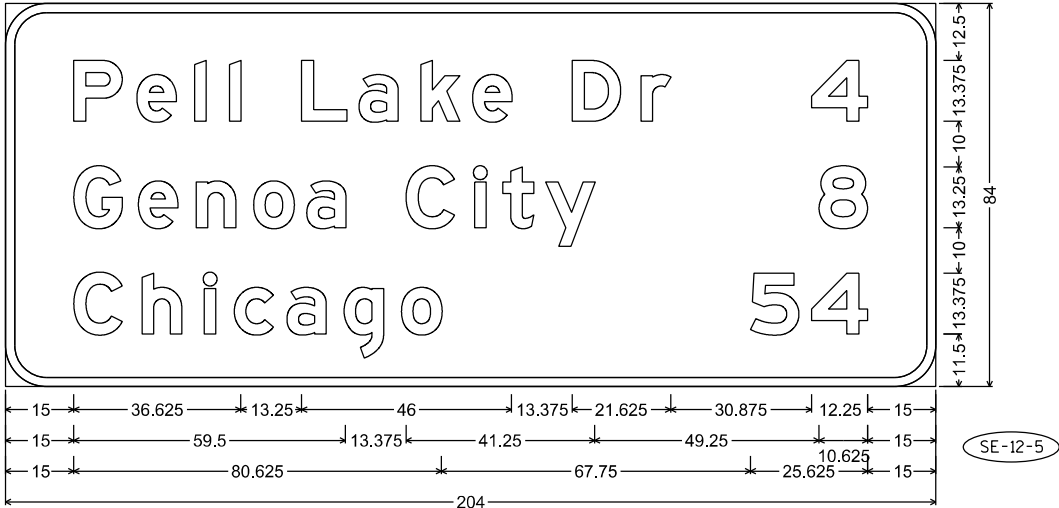
NOTES

- 1. All Signs Type I - Type SH Reflective
- 2. Color:
 - Background - Green
 - Message - White
- 3. Message Series - E Modified except all CAP words Series E

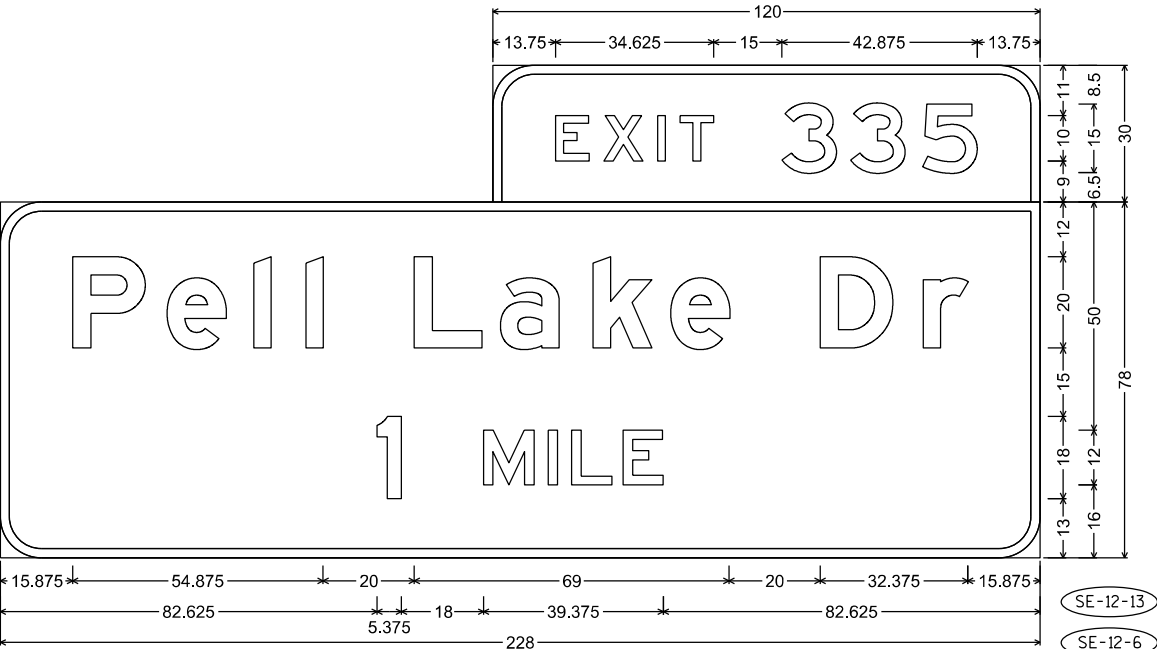


E1-5P; 9.000" Radius, 2.000" Border
E1-1A; 12.000" Radius, 3.000" Border

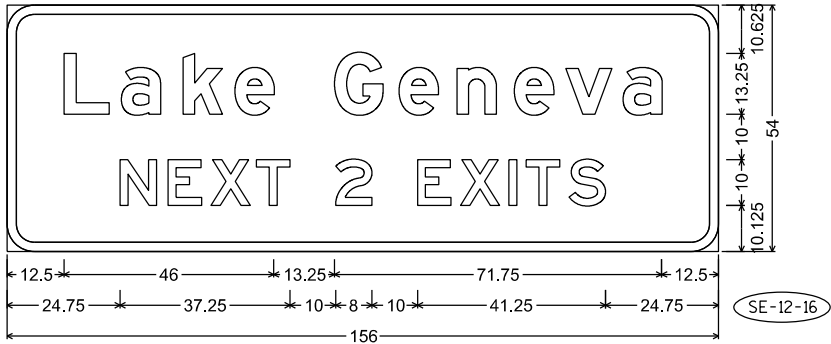
7



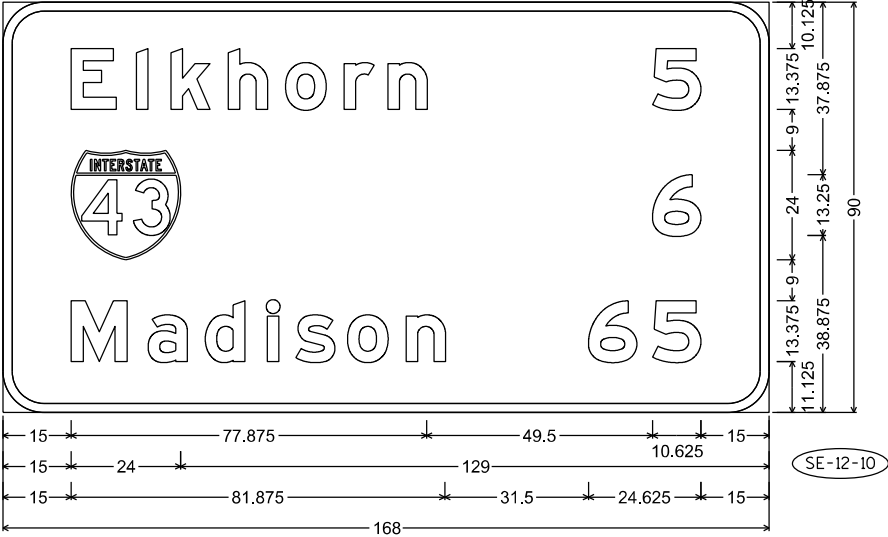
D2-3; 9.000" Radius, 2.000" Border



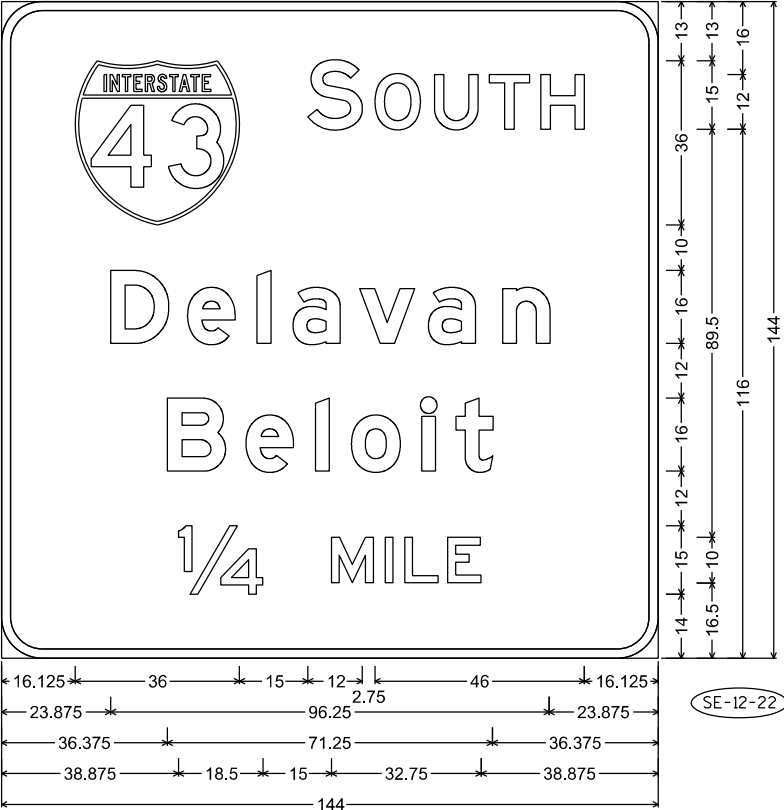
E1-5P; 9.000" Radius, 2.000" Border
E1-1A; 9.000" Radius, 2.000" Border



E9-1; 6.000" Radius, 2.000" Border



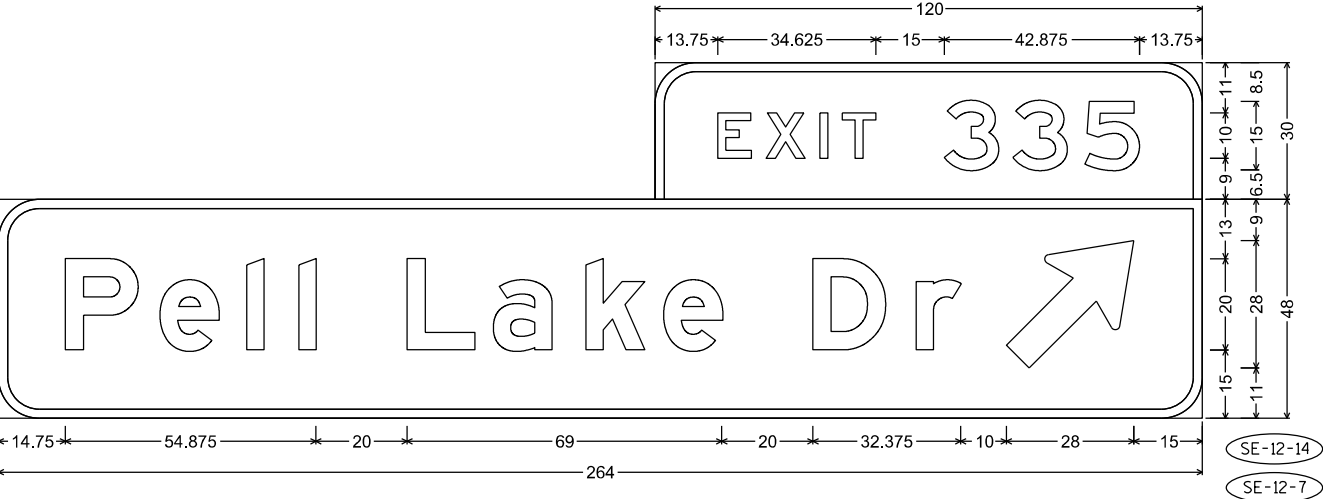
D2-3; 9.000" Radius, 2.000" Border



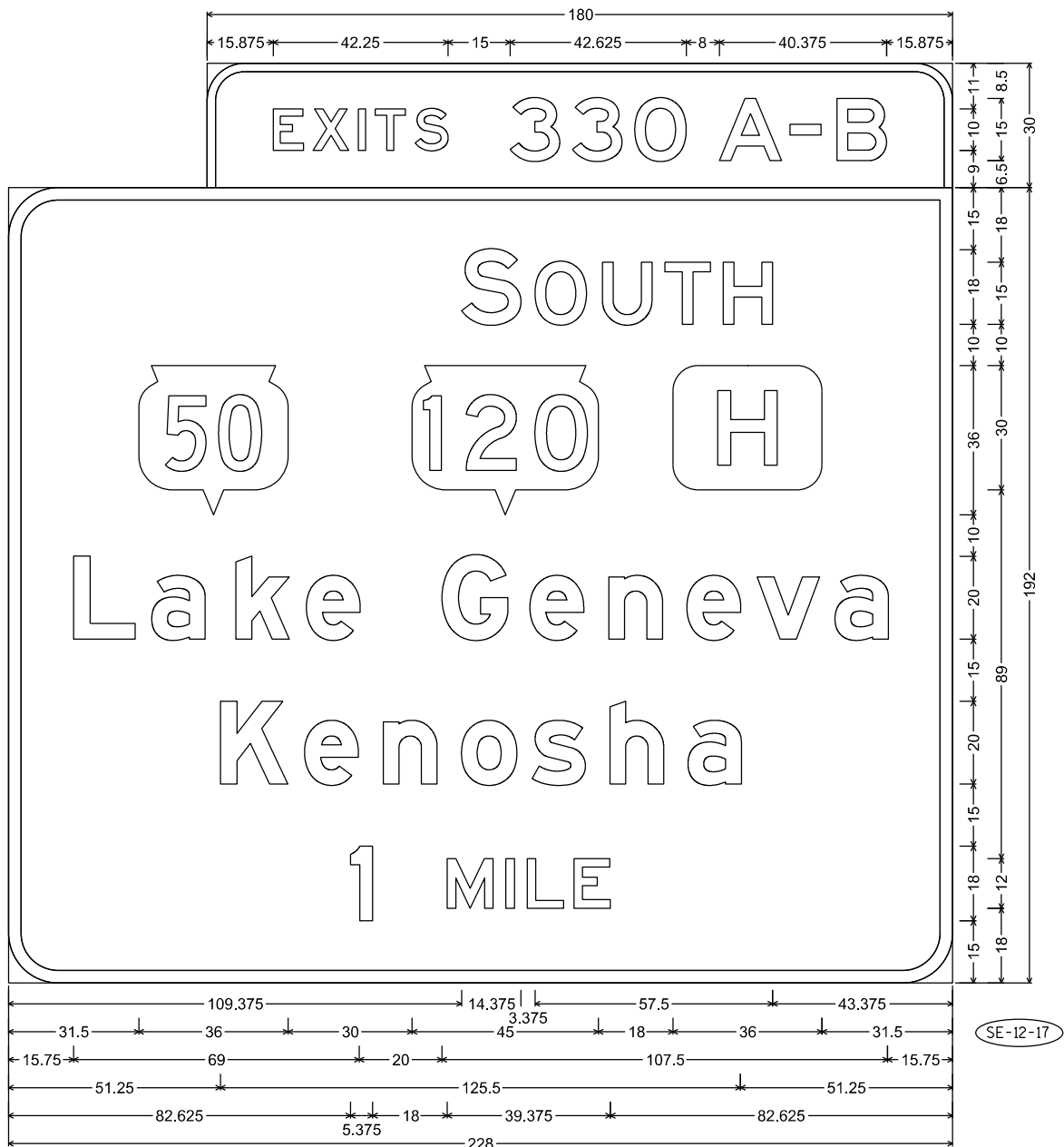
E6-51; 9.000" Radius, 2.000" Border

NOTES

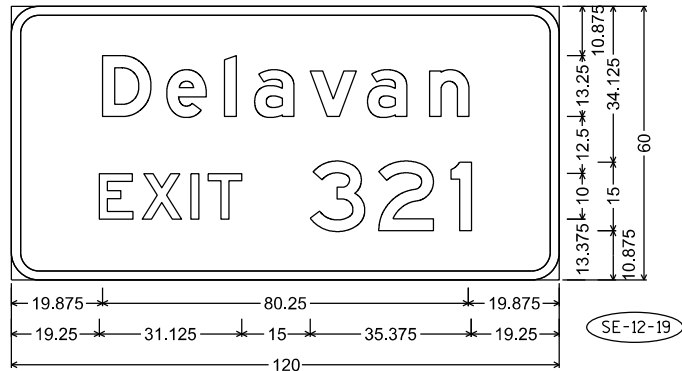
1. All Signs Type I - Type SH Reflective
2. Color:
Background - Green
Message - White
3. Message Series - E Modified except all CAP words Series E



E1-5P; 9.000" Radius, 2.000" Border
E4-1A; 9.000" Radius, 2.000" Border



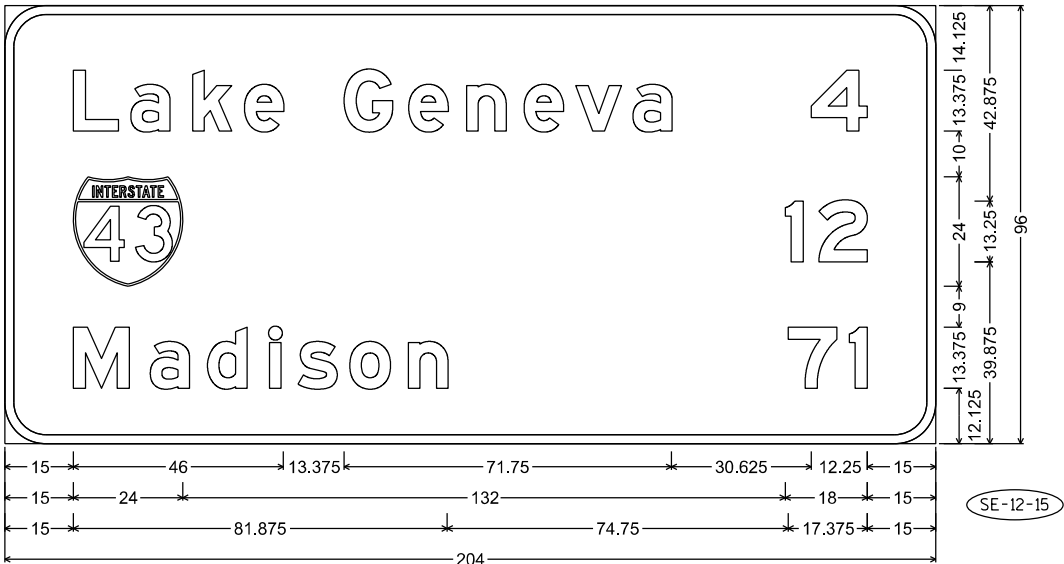
E1-5P; 9.000" Radius, 2.000" Border
E1-1A; 12.000" Radius, 3.000" Border



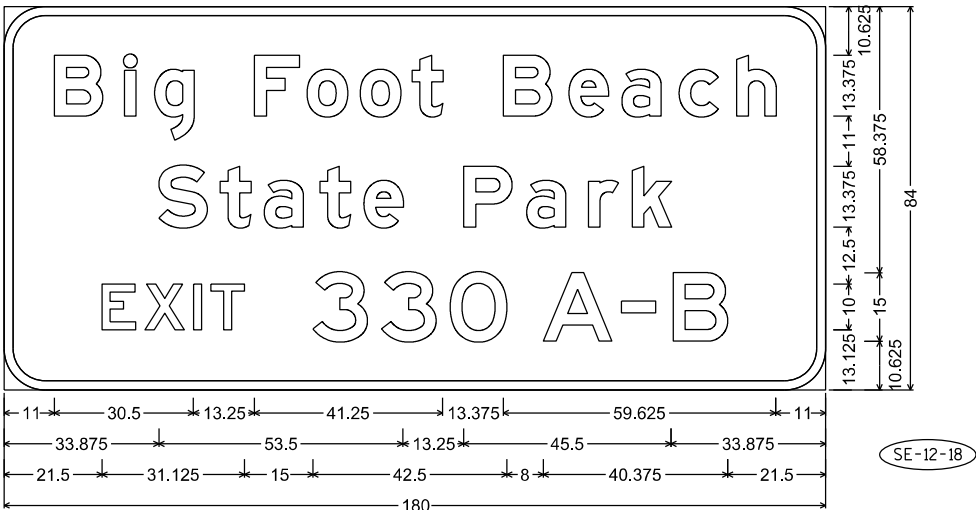
E3-1; 6.000" Radius, 2.000" Border

NOTES

1. All Signs Type I - Type SH Reflective
2. Color:
Background - Green
Message - White
3. Message Series - E Modified except all CAP words Series E

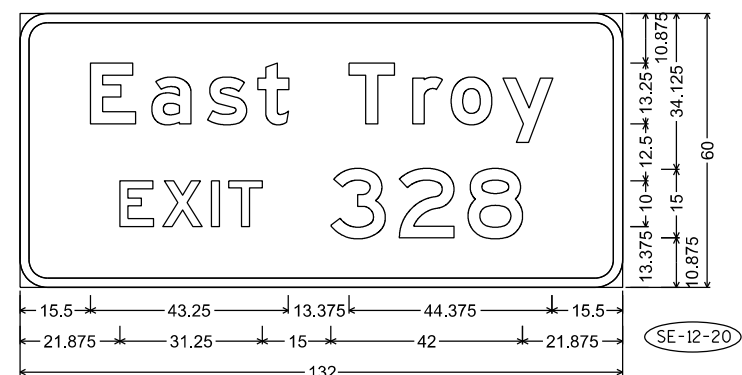


D2-3; 9.000" Radius, 2.000" Border

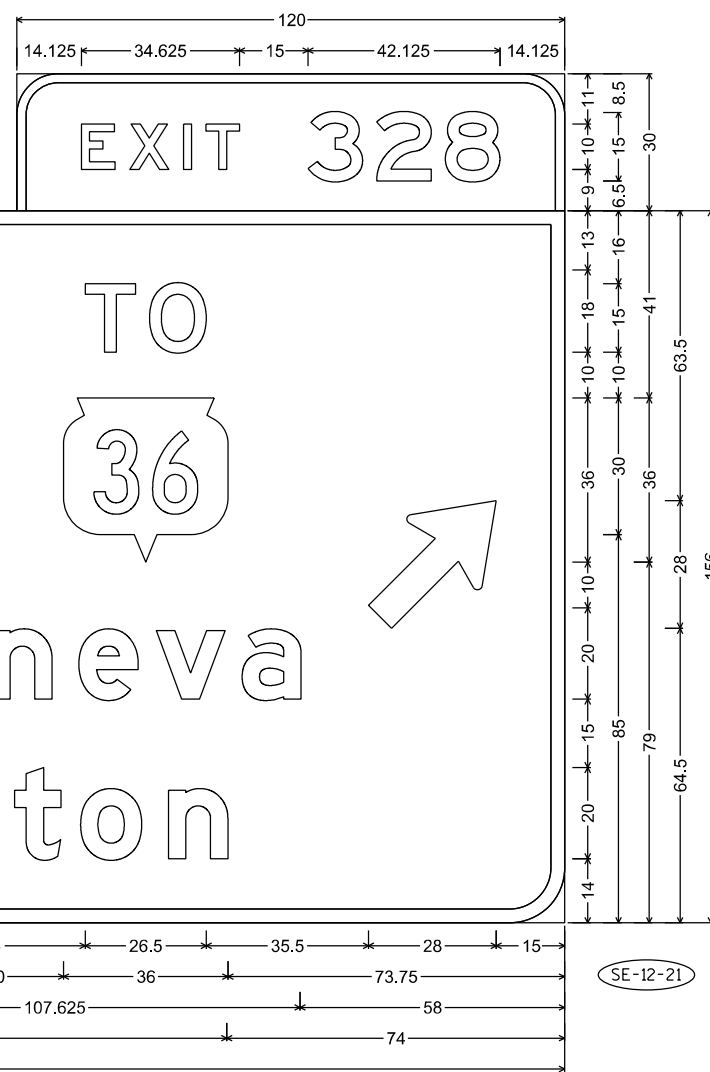


E3-1; 9.000" Radius, 2.000" Border

7



E3-1; 6.000" Radius, 2.000" Border

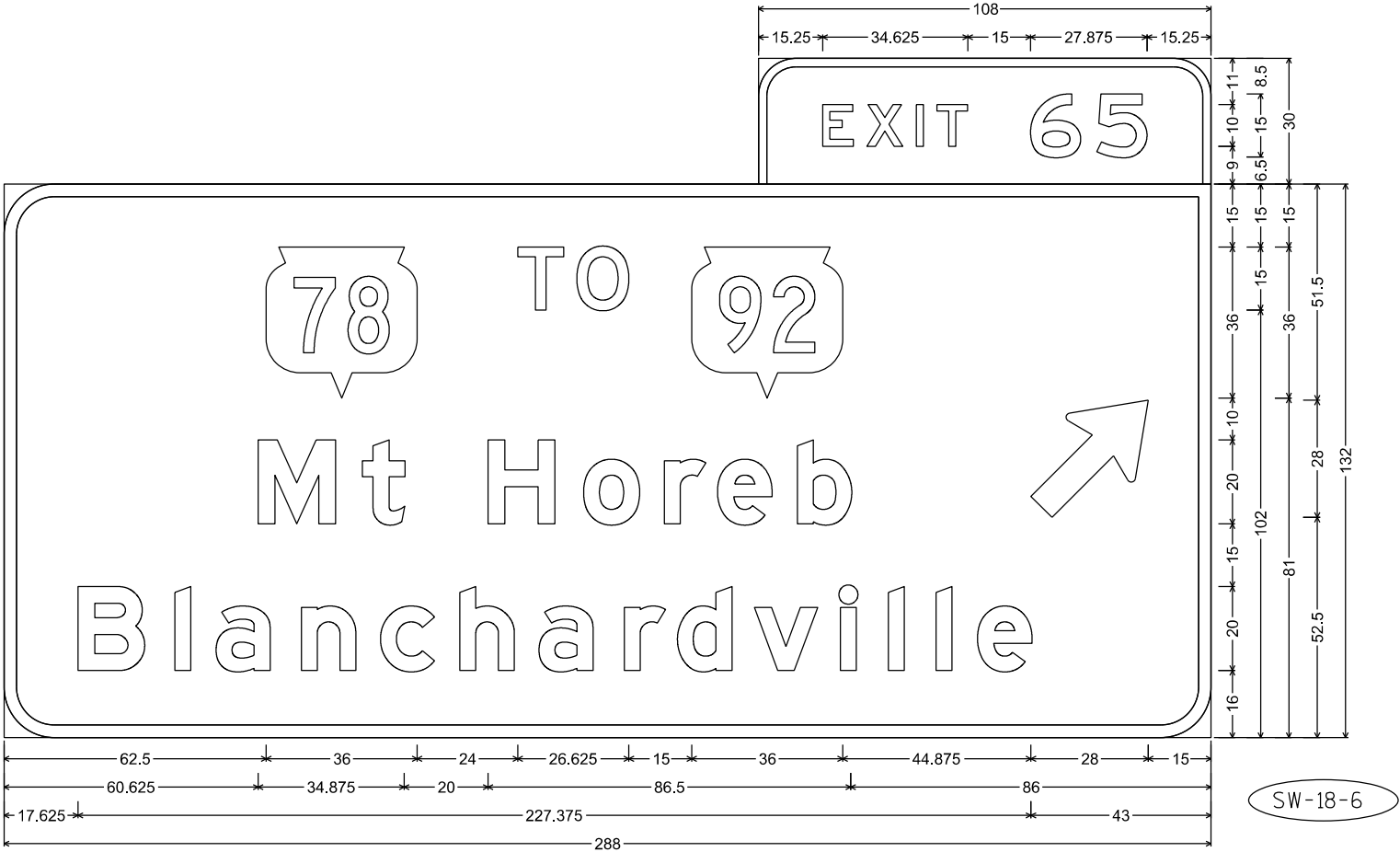


E1-5P; 9.000" Radius, 2.000" Border
E4-1A; 12.000" Radius, 3.000" Border

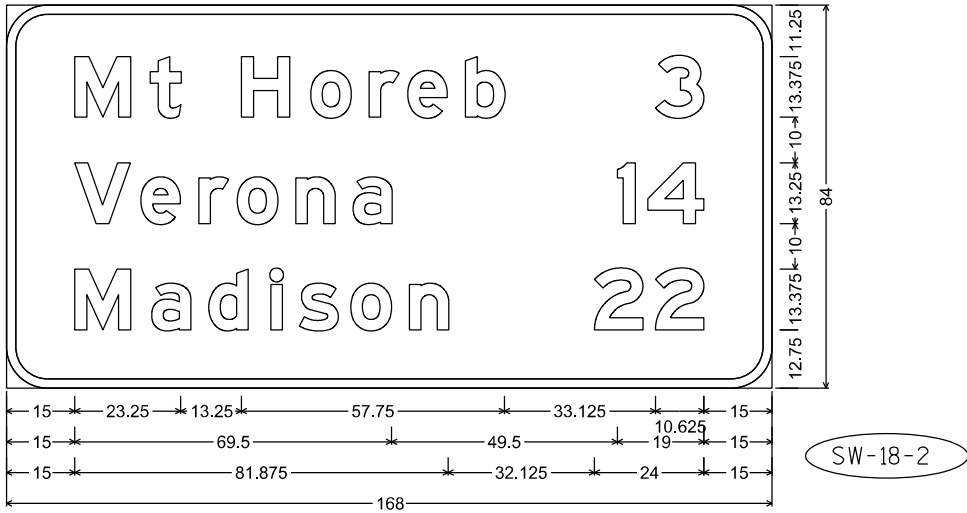
NOTES

1. All Signs Type I - Type SH Reflective
2. Color:
Background - Green
Message - White
3. Message Series - E Modified except all CAP words Series E

7



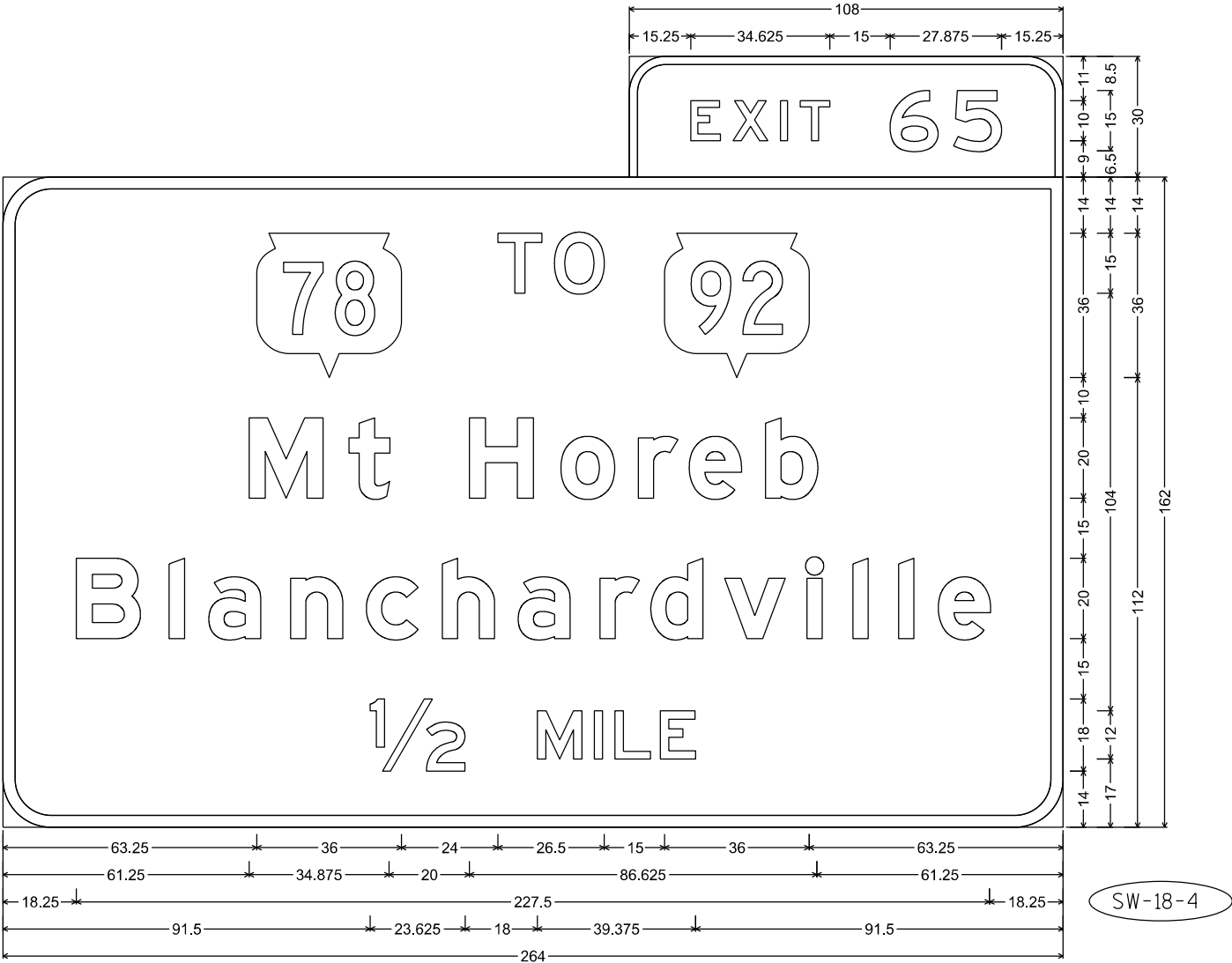
E1-5P; 9.000" Radius, 2.000" Border
E4-1A; 12.000" Radius, 3.000" Border



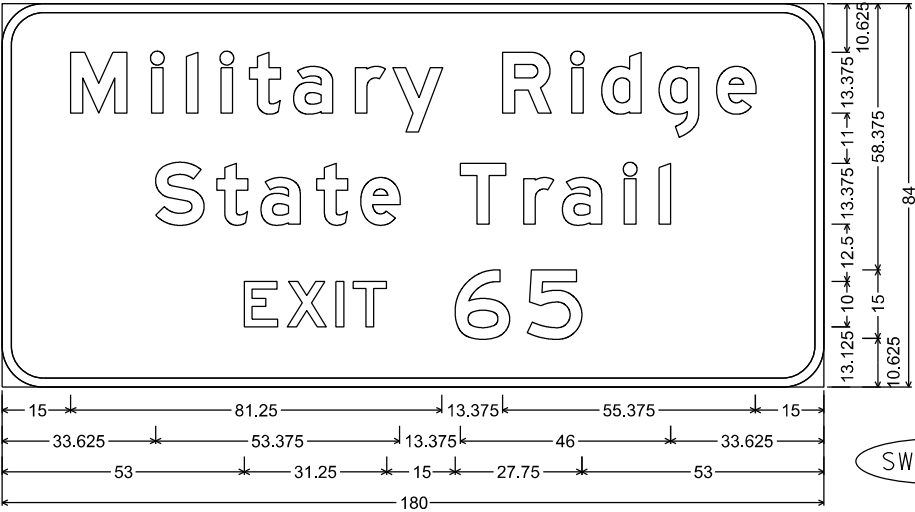
D2-3; 9.000" Radius, 2.000" Border

NOTES

1. All Signs Type I - Type SH Reflective
2. Color:
Background - Green
Message - White
3. Message Series - E Modified except all CAP words Series E

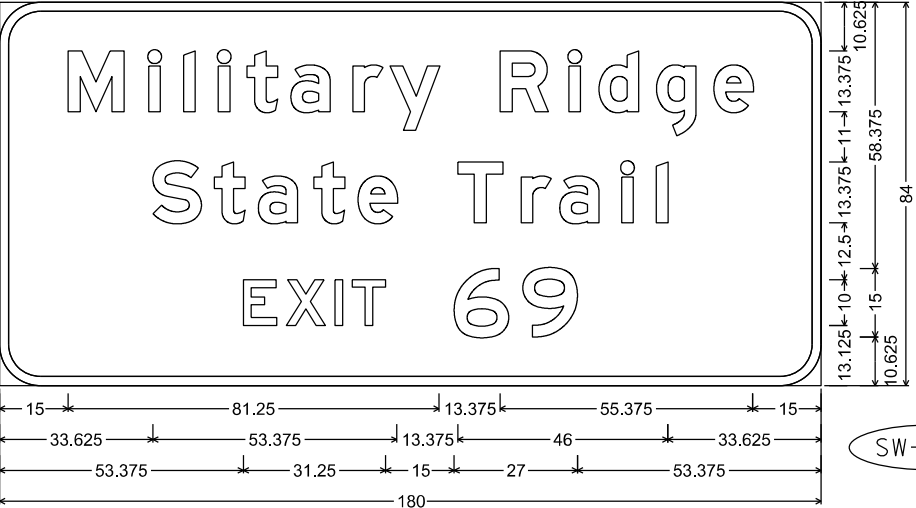


E1-5P; 9.000" Radius, 2.000" Border
E1-1A; 12.000" Radius, 3.000" Border



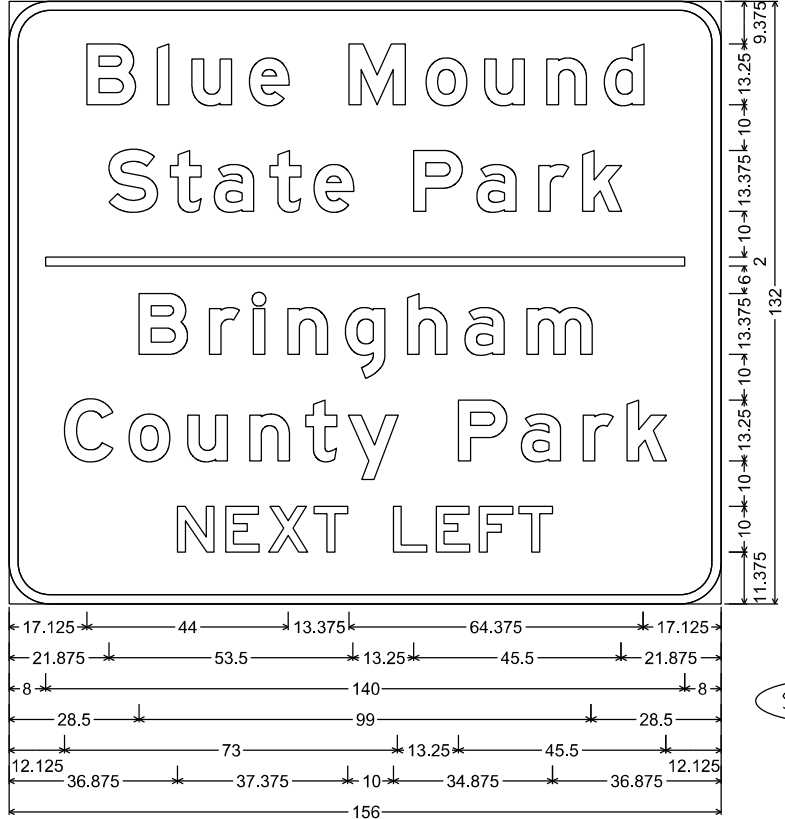
SW-18-5

E3-1; 9.000" Radius, 2.000" Border, White on Brown
"EXIT", E; "65", E



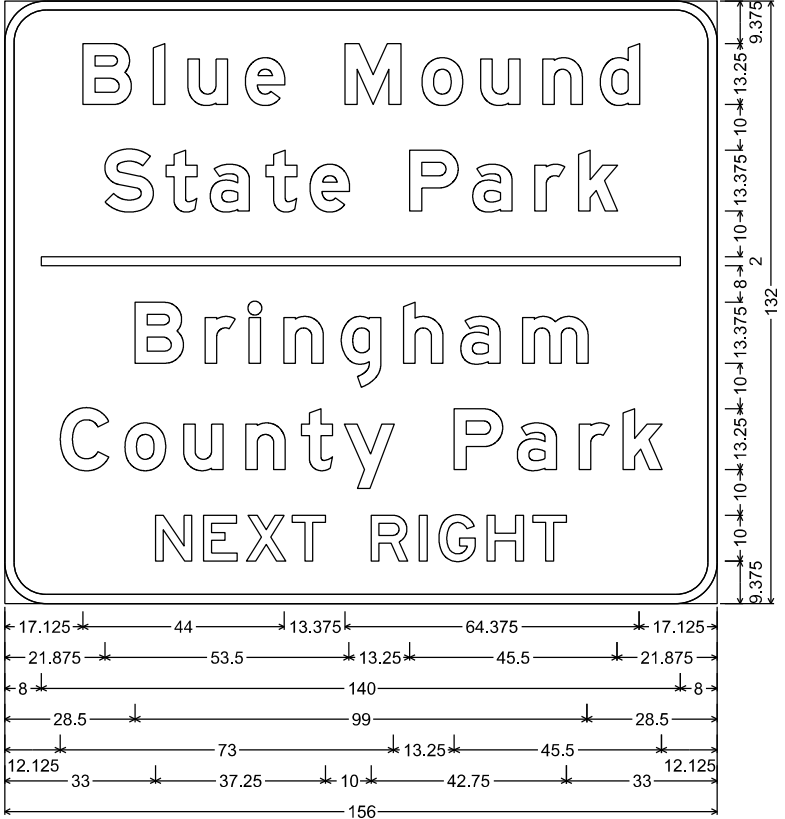
SW-18-24

E3-1; 9.000" Radius, 2.000" Border
"EXIT", E; "69", E



SW-18-1

9.000" Radius, 2.000" Border, White on Brown

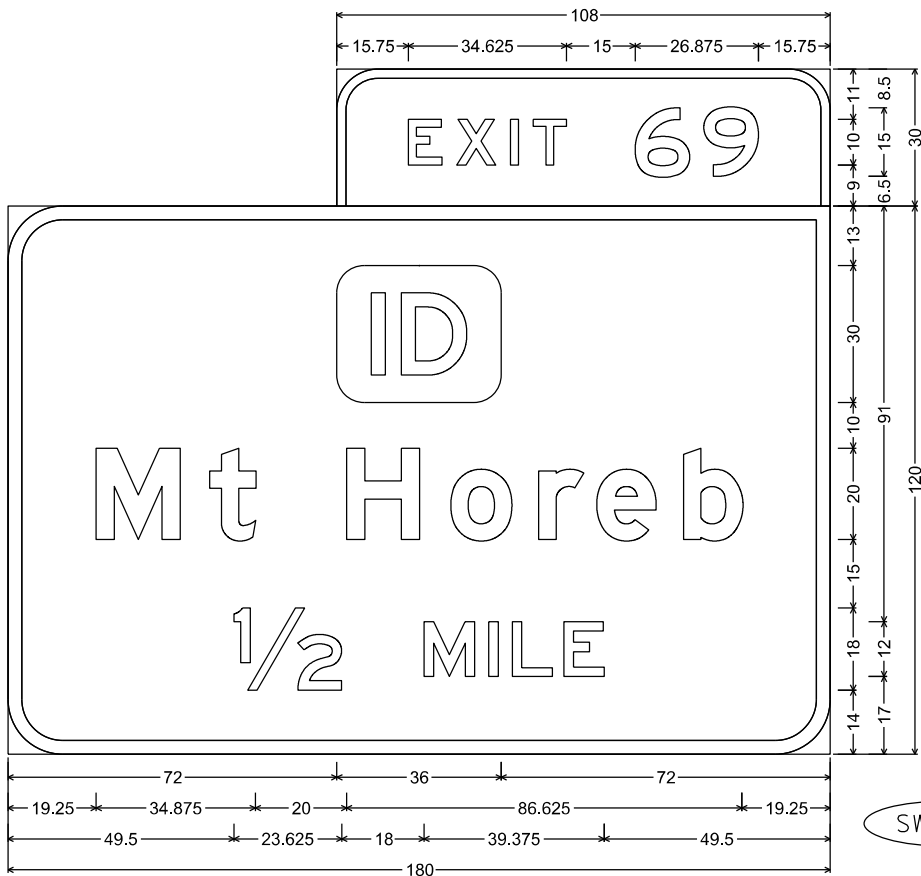


SW-18-31

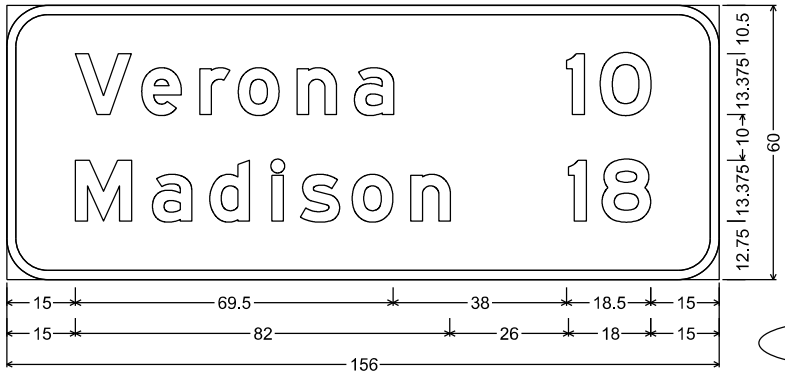
9.000" Radius, 2.000" Border, White on Brown

NOTES

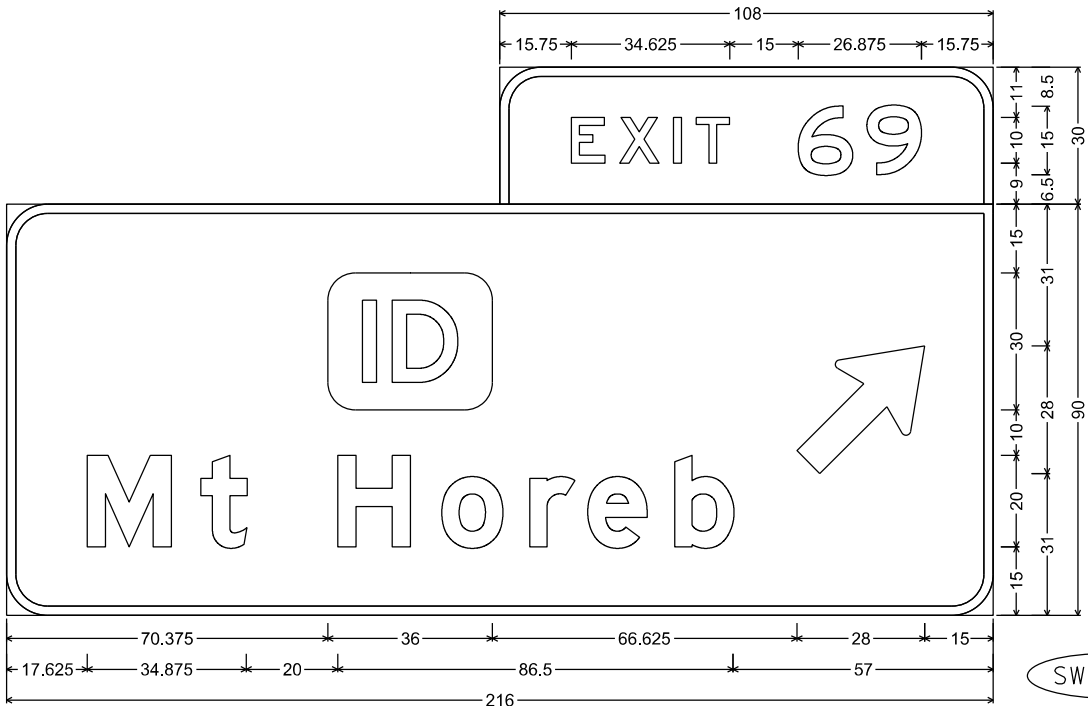
1. All Signs Type I - Type SH Reflective
2. Color:
Background - Brown
Message - White
3. Message Series - E Modified except all CAP words Series E



E1-5P; 9.000" Radius, 2.000" Border
E1-1A; 12.000" Radius, 3.000" Border



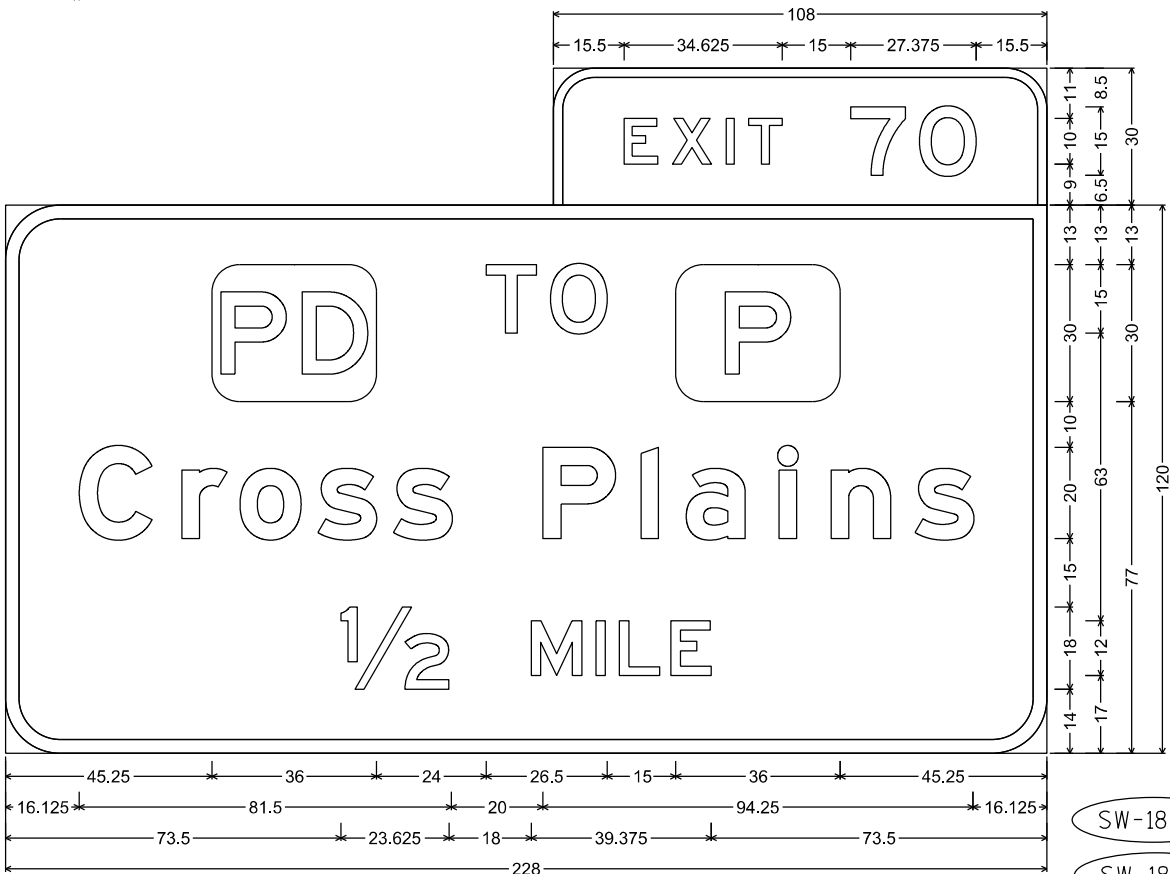
D2-2; 9.000" Radius, 2.000" Border



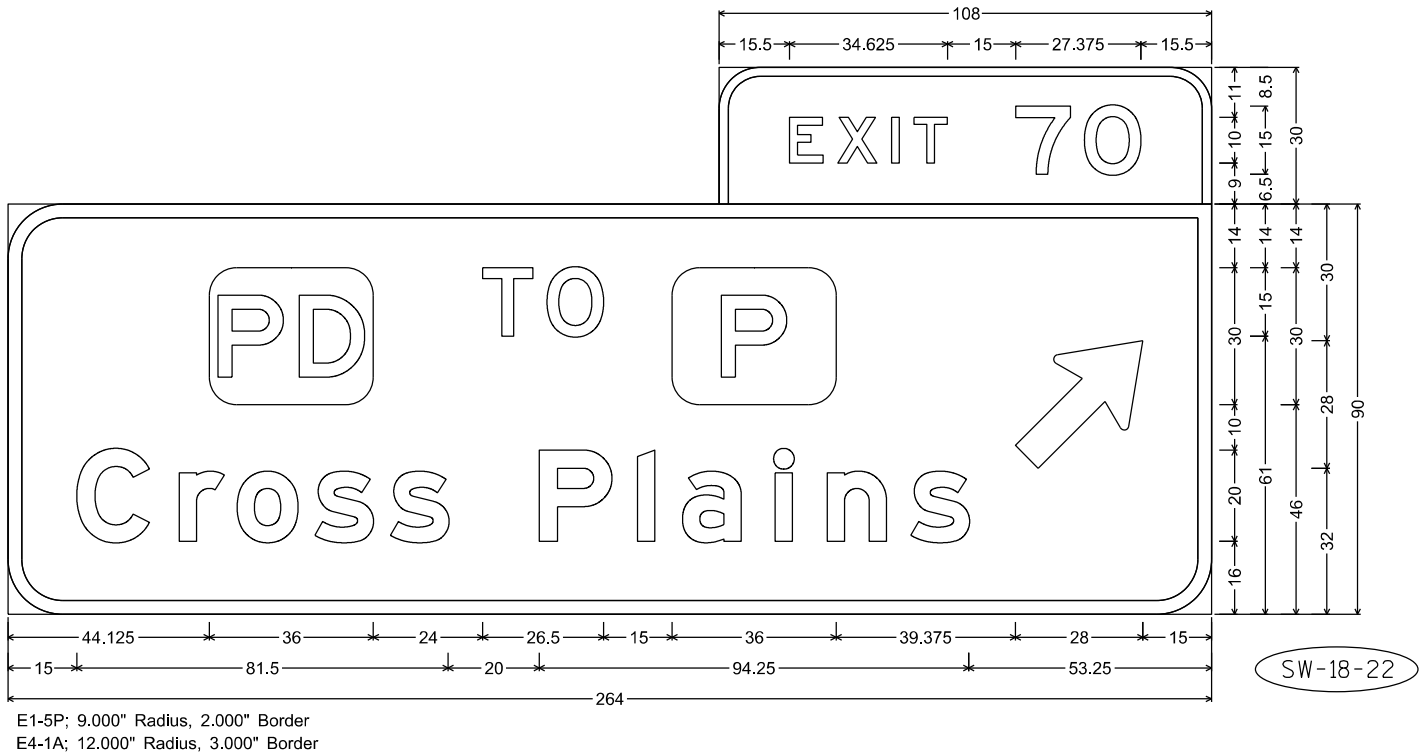
E1-5P; 9.000" Radius, 2.000" Border
E4-1A; 9.000" Radius, 2.000" Border

NOTES

1. All Signs Type I - Type SH Reflective
2. Color:
Background - Green
Message - White
3. Message Series - E Modified except all CAP words Series E



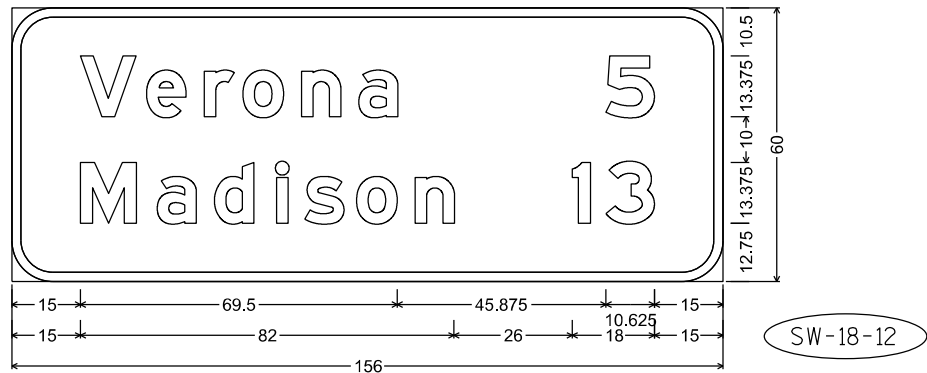
E1-5P; 9.000" Radius, 2.000" Border
E1-1A; 12.000" Radius, 3.000" Border



E1-5P; 9.000" Radius, 2.000" Border
E4-1A; 12.000" Radius, 3.000" Border

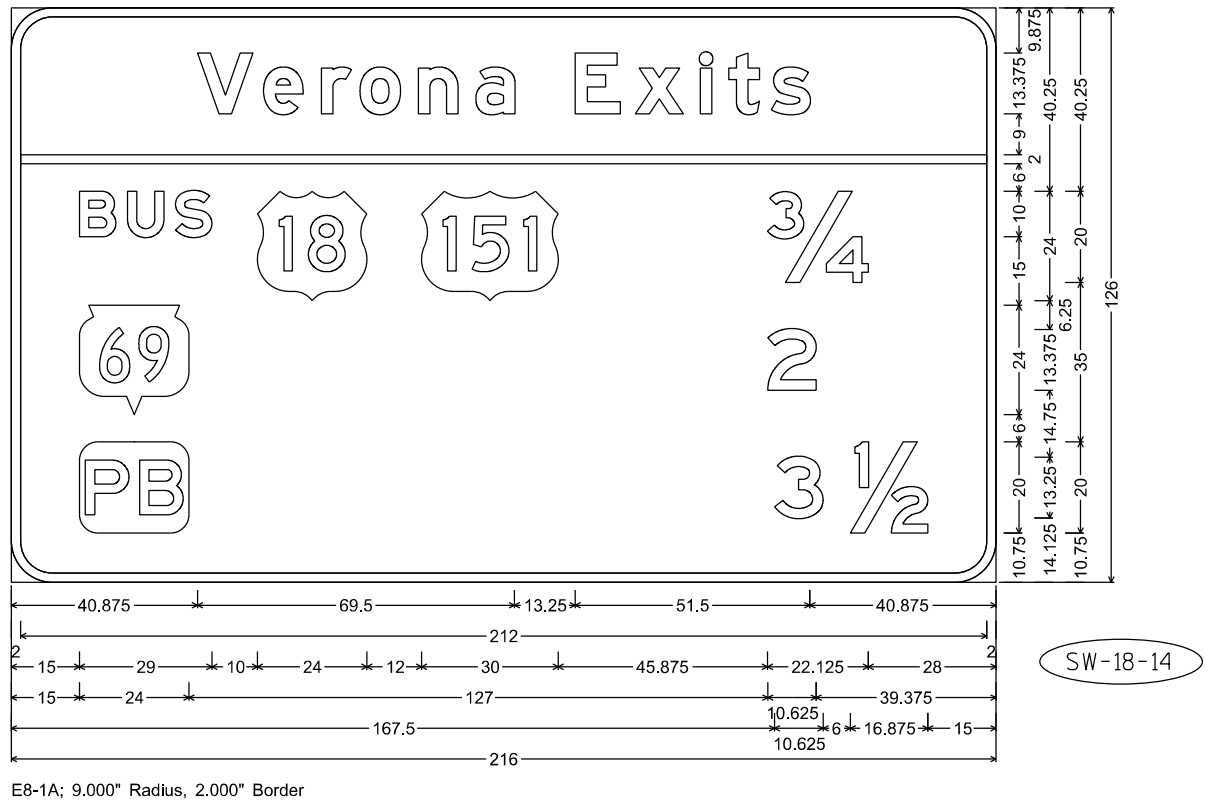
SW-18-22

- NOTES
1. All Signs Type I - Type SH Reflective
 2. Color:
Background - Green
Message - White
 3. Message Series - E Modified except all CAP words Series E



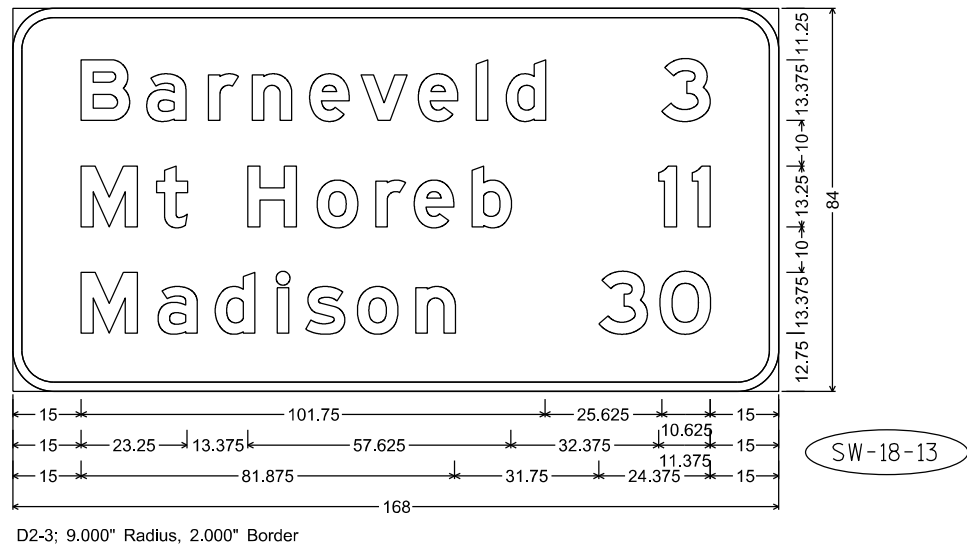
D2-2; 9.000" Radius, 2.000" Border

SW-18-12



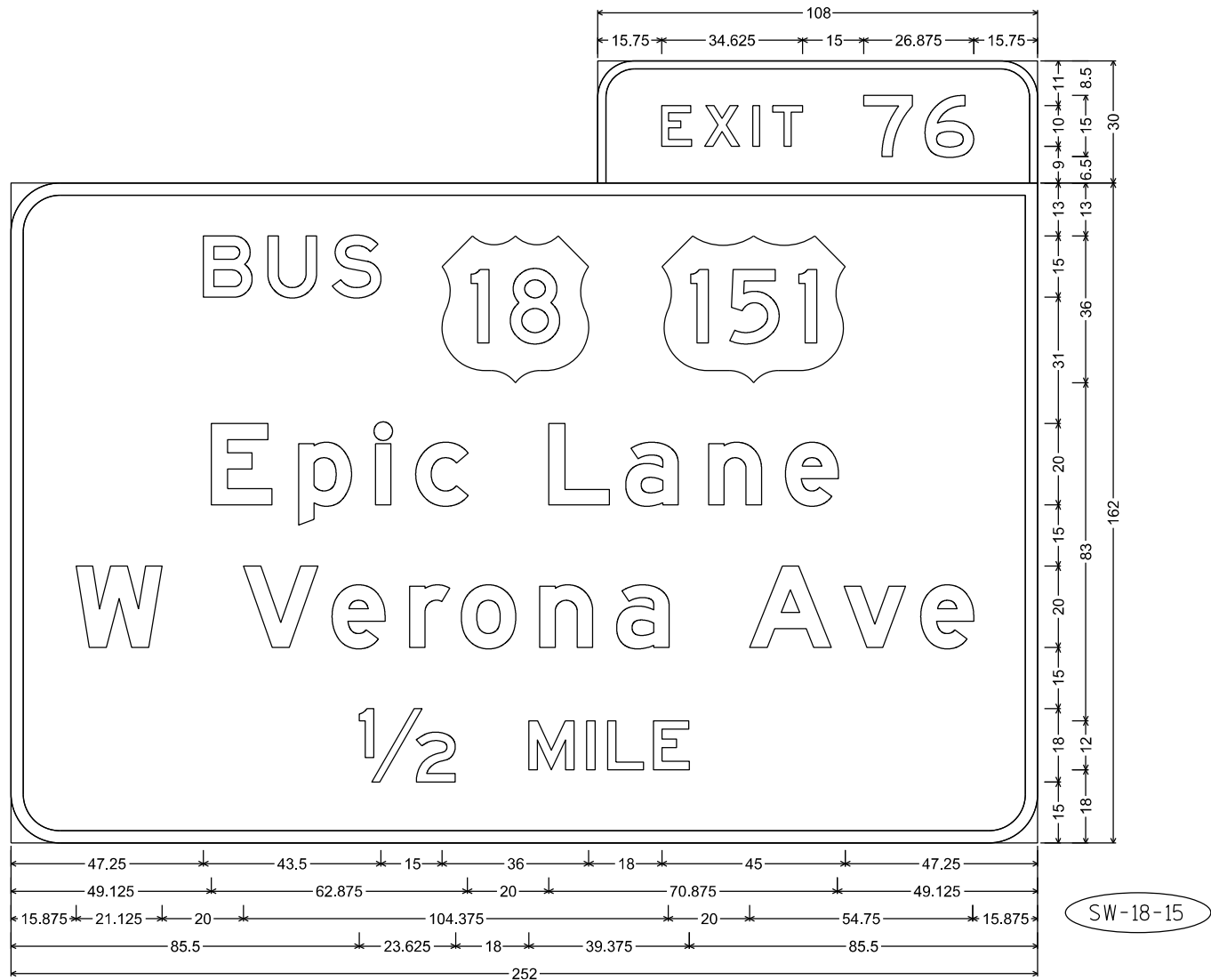
E8-1A; 9.000" Radius, 2.000" Border

SW-18-14



D2-3; 9.000" Radius, 2.000" Border

SW-18-13

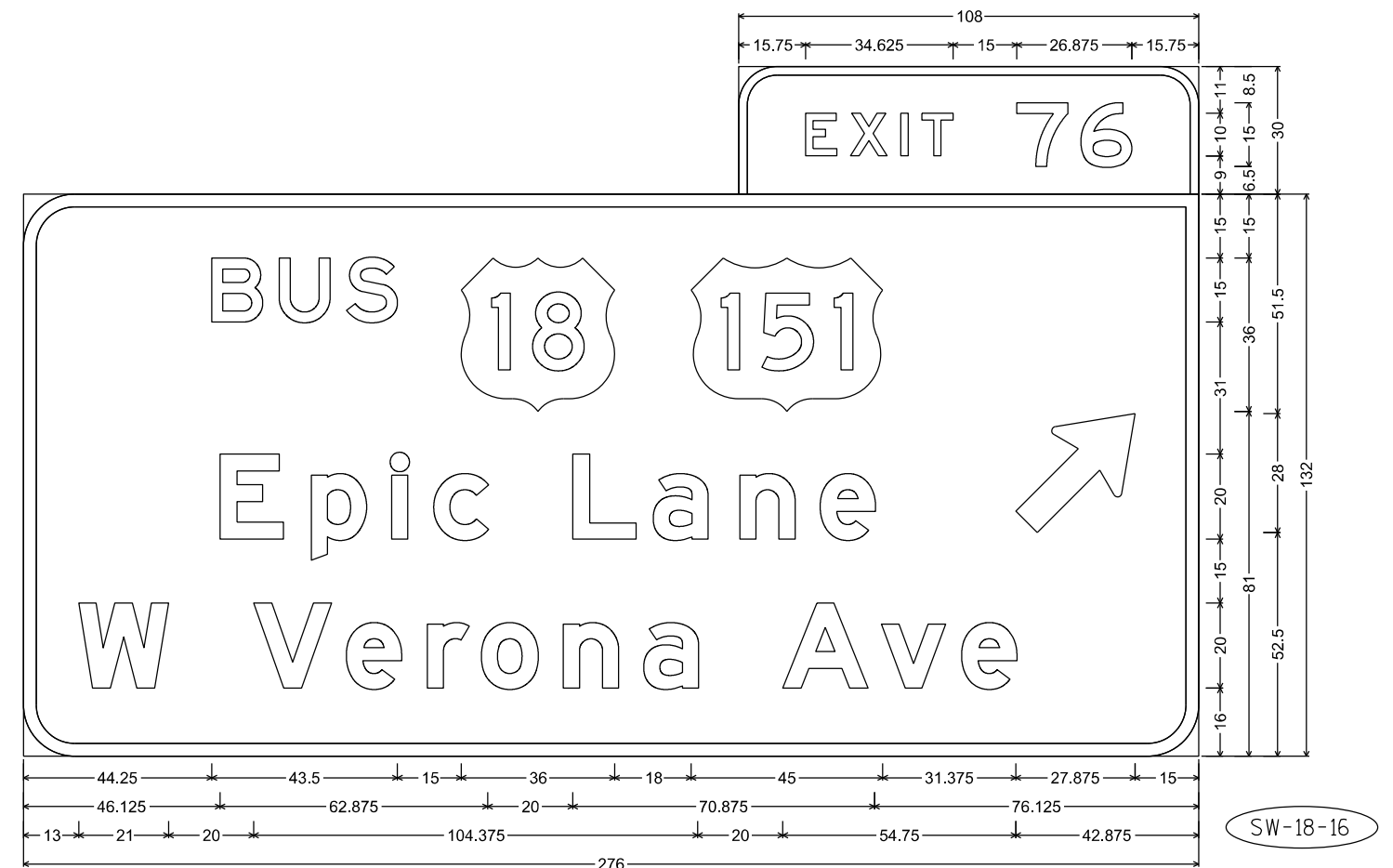


E1-5P; 9.000" Radius, 2.000" Border
E1-1A; 12.000" Radius, 3.000" Border

SW-18-15

NOTES

1. All Signs Type I - Type SH Reflective
2. Color:
Background - Green
Message - White
3. Message Series - E Modified except all CAP words Series E



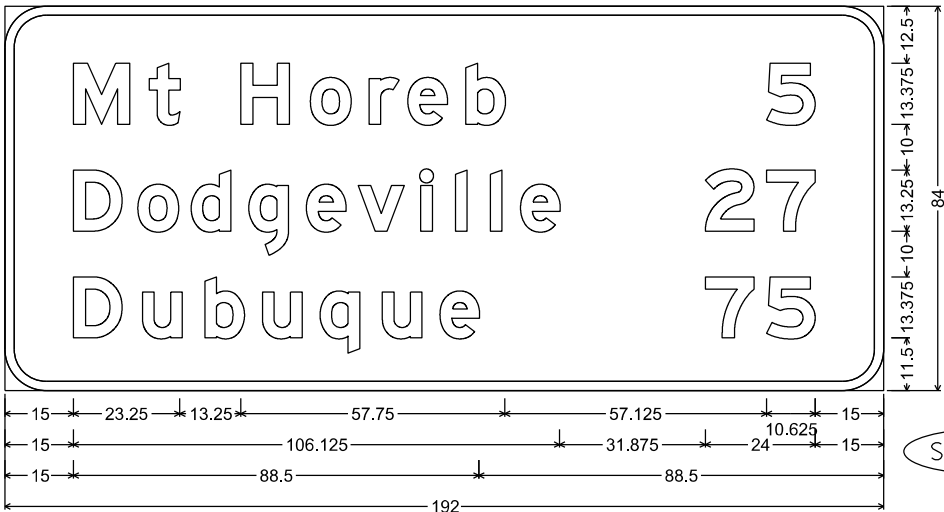
E1-5P; 9.000" Radius, 2.000" Border
E4-1A; 12.000" Radius, 3.000" Border

SW-18-16



E1-5P; 9.000" Radius, 2.000" Border
E1-1A; 12.000" Radius, 3.000" Border

SW-18-17

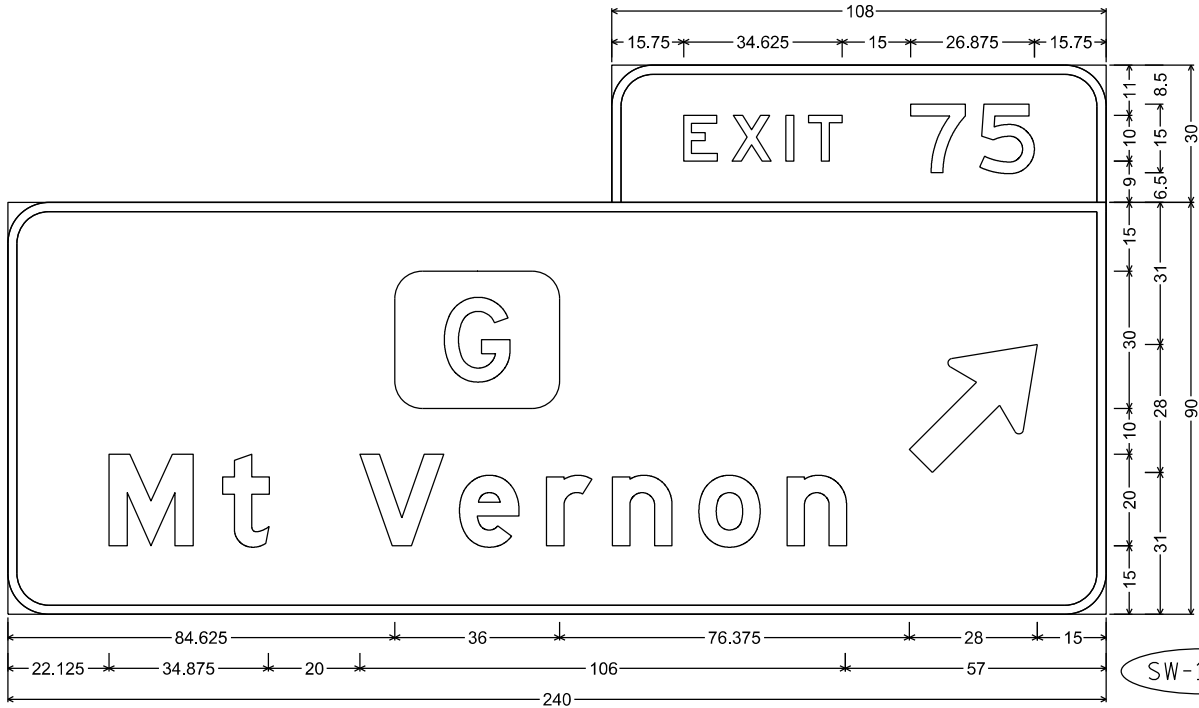


SW-18-20

D2-3; 9.000" Radius, 2.000" Border

NOTES

1. All Signs Type I - Type SH Reflective
2. Color:
Background - Green
Message - White
3. Message Series - E Modified except all CAP words Series E

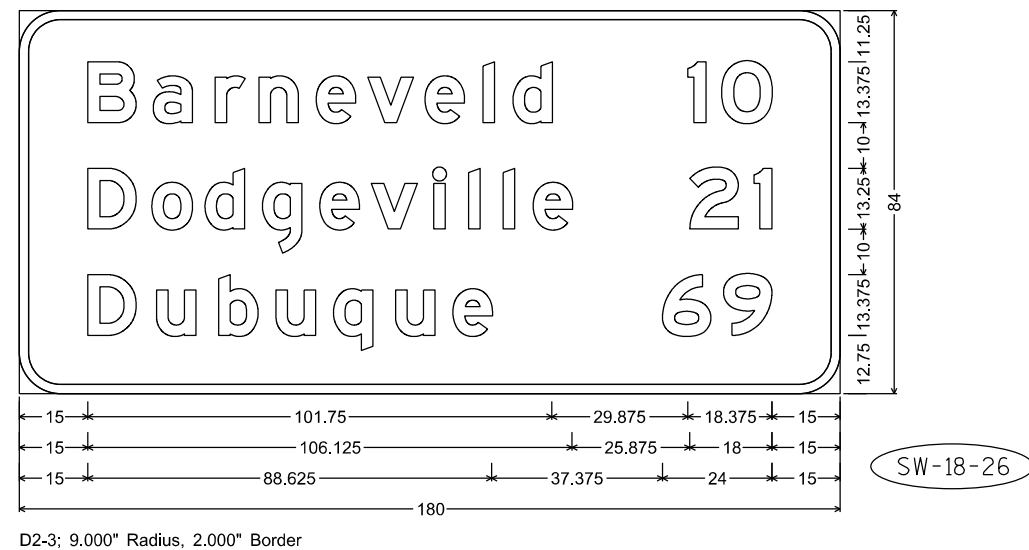
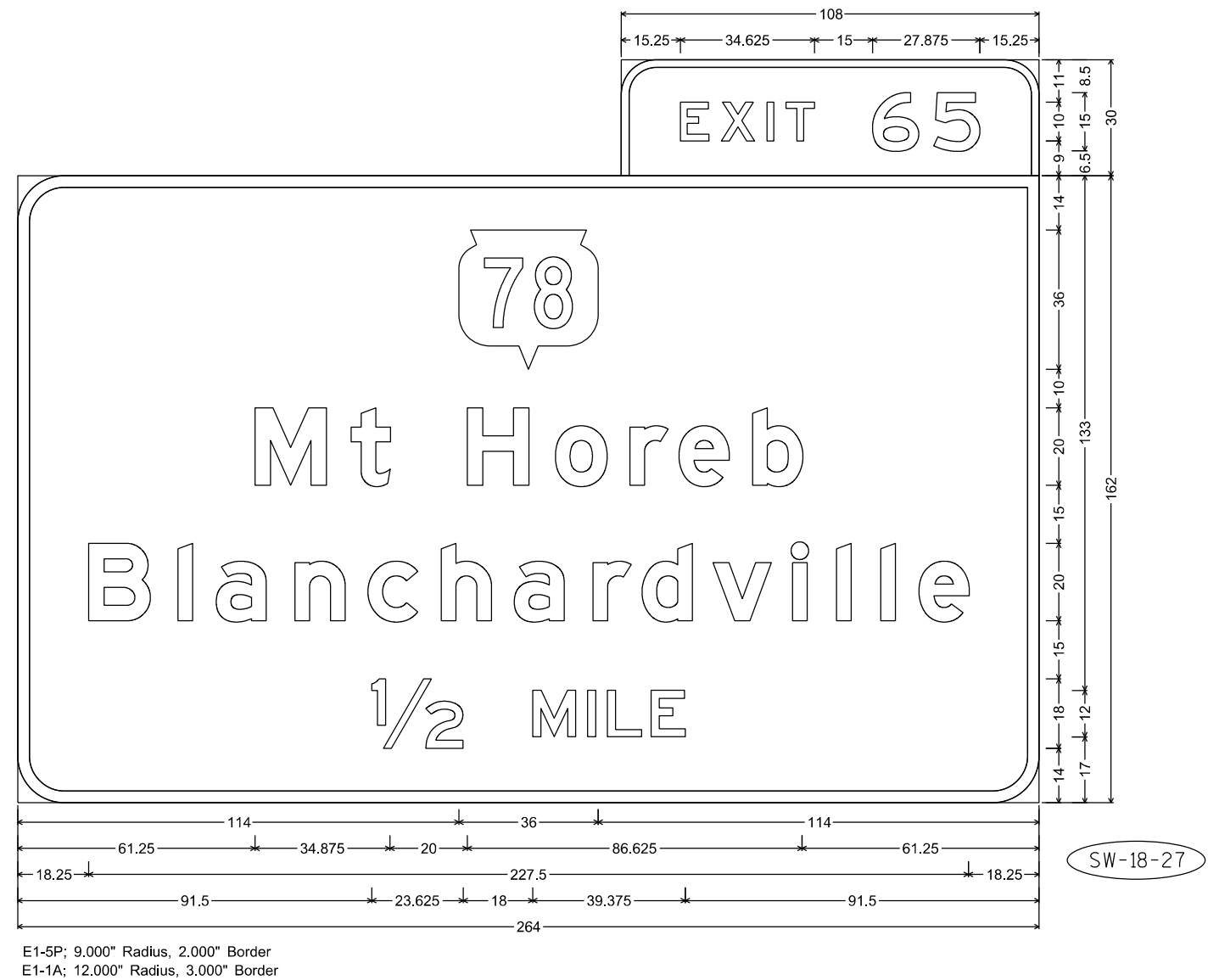
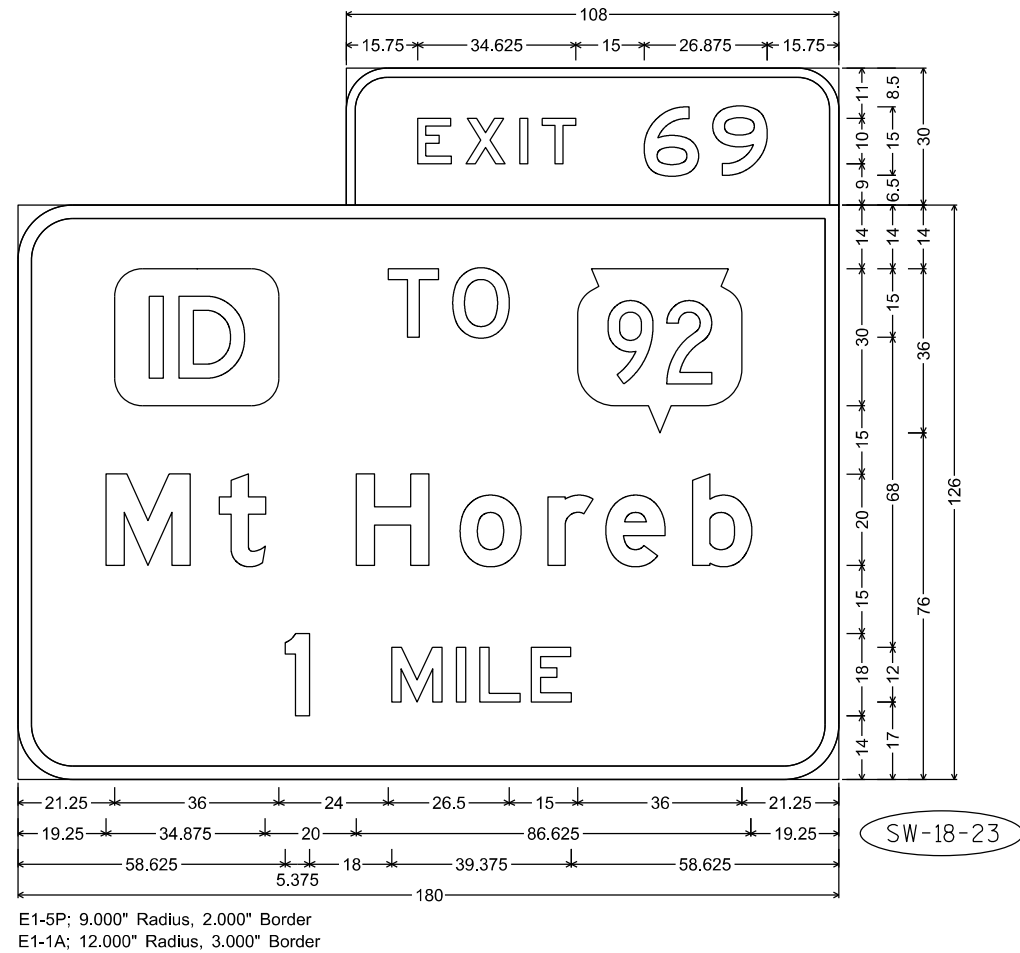


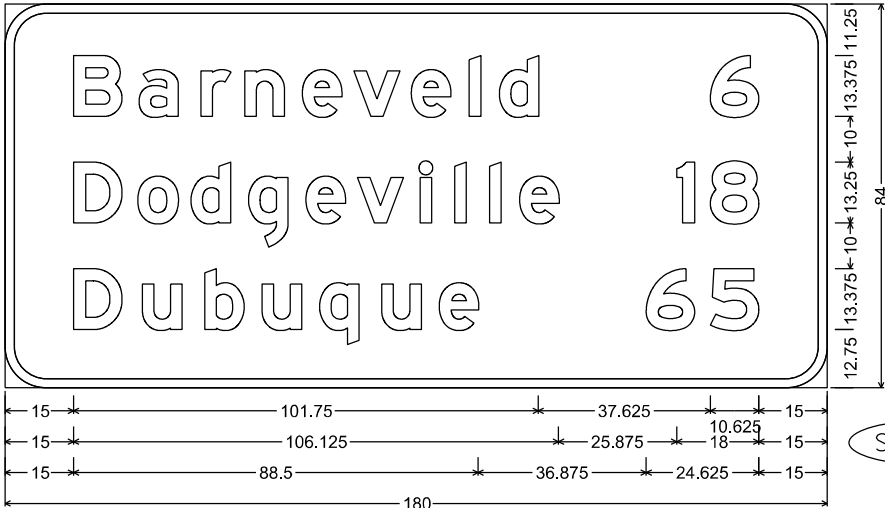
E1-5P; 9.000" Radius, 2.000" Border
E4-1A; 9.000" Radius, 2.000" Border

SW-18-19

NOTES

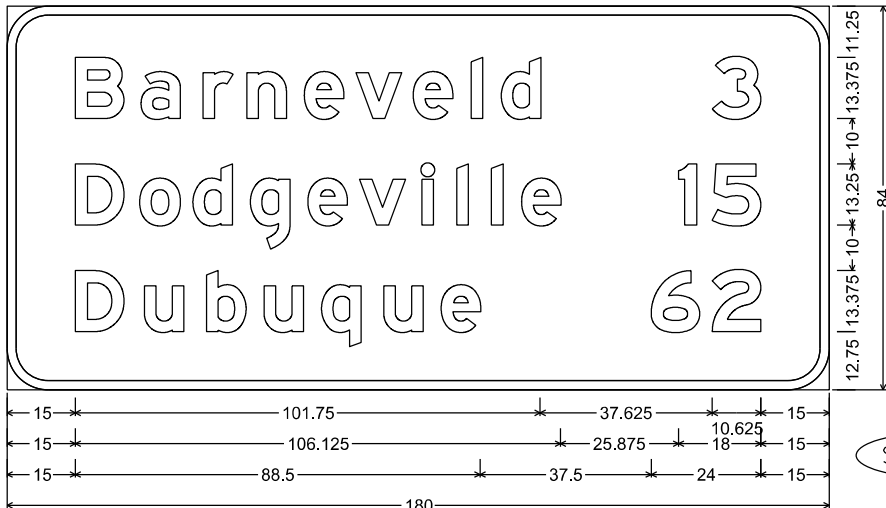
1. All Signs Type I - Type SH Reflective
2. Color:
Background - Green
Message - White
3. Message Series - E Modified except all CAP words Series E





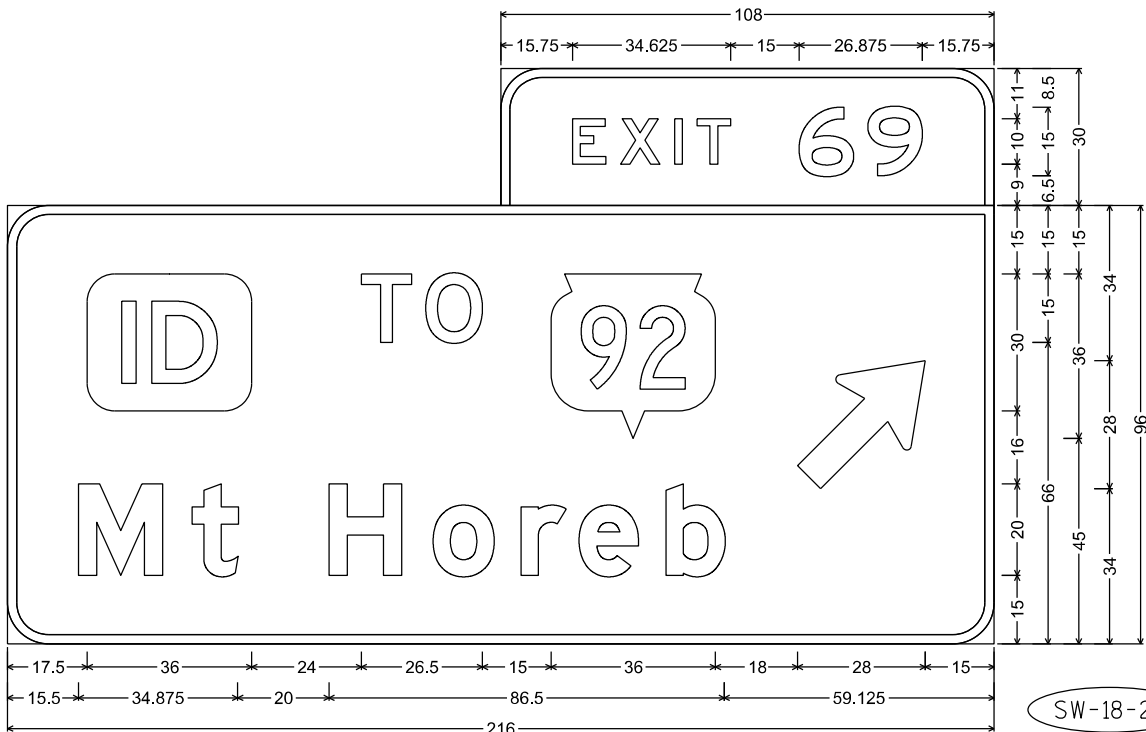
D2-3; 9,000" Radius, 2,000" Border

SW-18-29



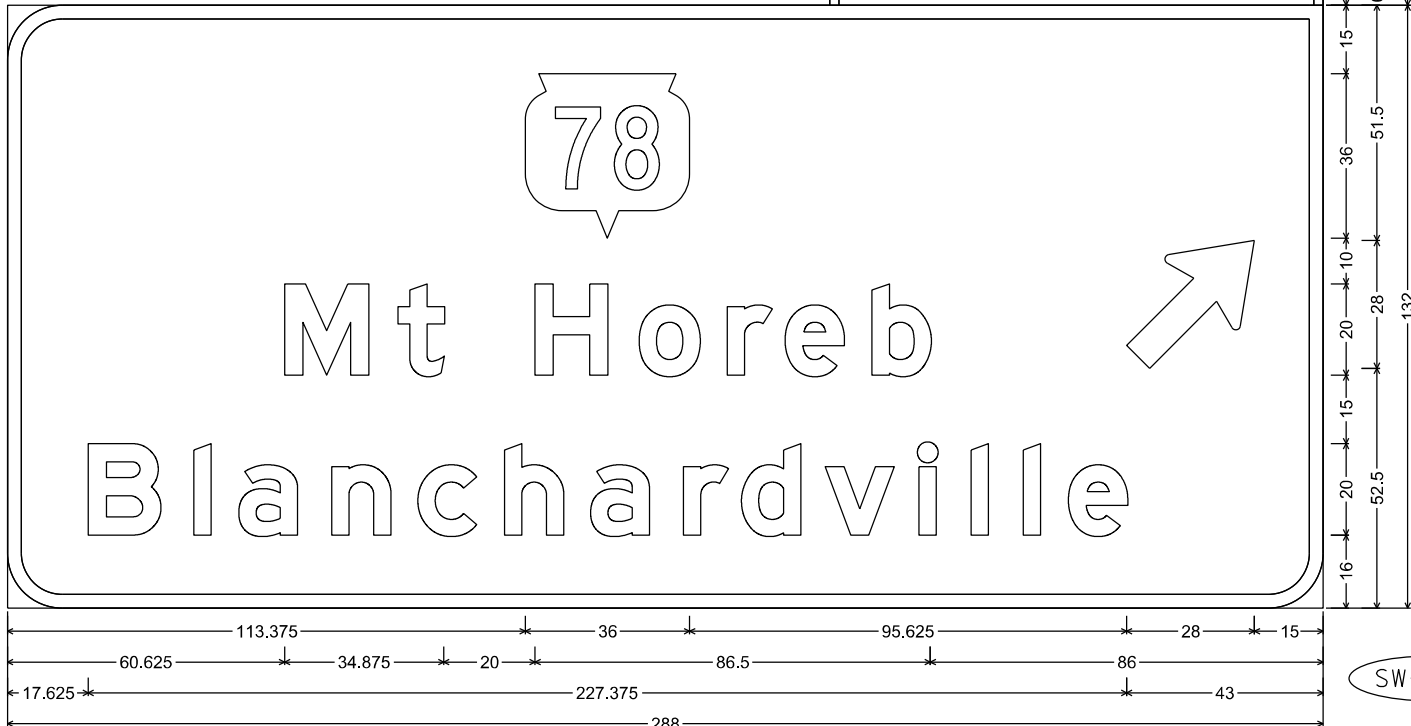
D2-3; 9,000" Radius, 2,000" Border

SW-18-32



E1-5P; 9,000" Radius, 2,000" Border
E4-1A; 9,000" Radius, 2,000" Border

SW-18-25



E1-5P; 9,000" Radius, 2,000" Border
E4-1A; 9,000" Radius, 2,000" Border

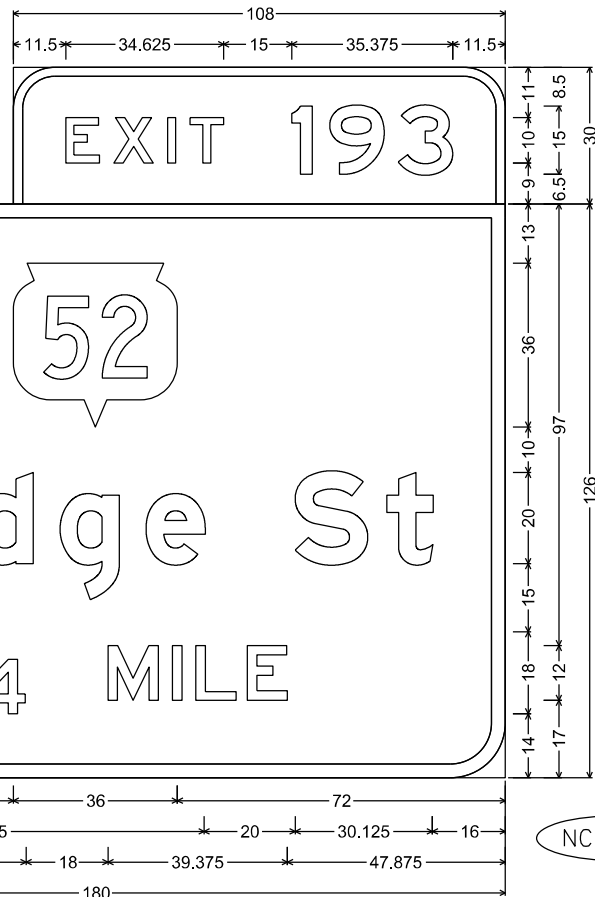
SW-18-28

NOTES

1. All Signs Type I - Type SH Reflective
2. Color:
Background - Green
Message - White
3. Message Series - E Modified except all CAP words Series E

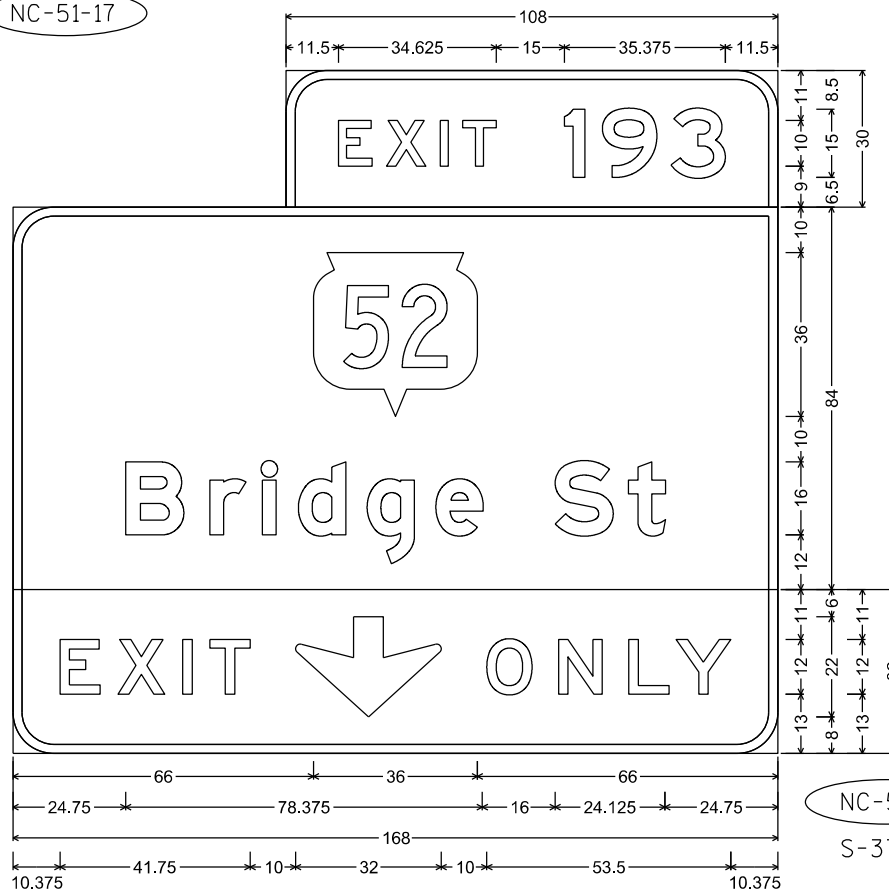
7

7



E1-5P; 9.000" Radius, 2.000" Border
E1-1A; 12.000" Radius, 3.000" Border

NC-51-17



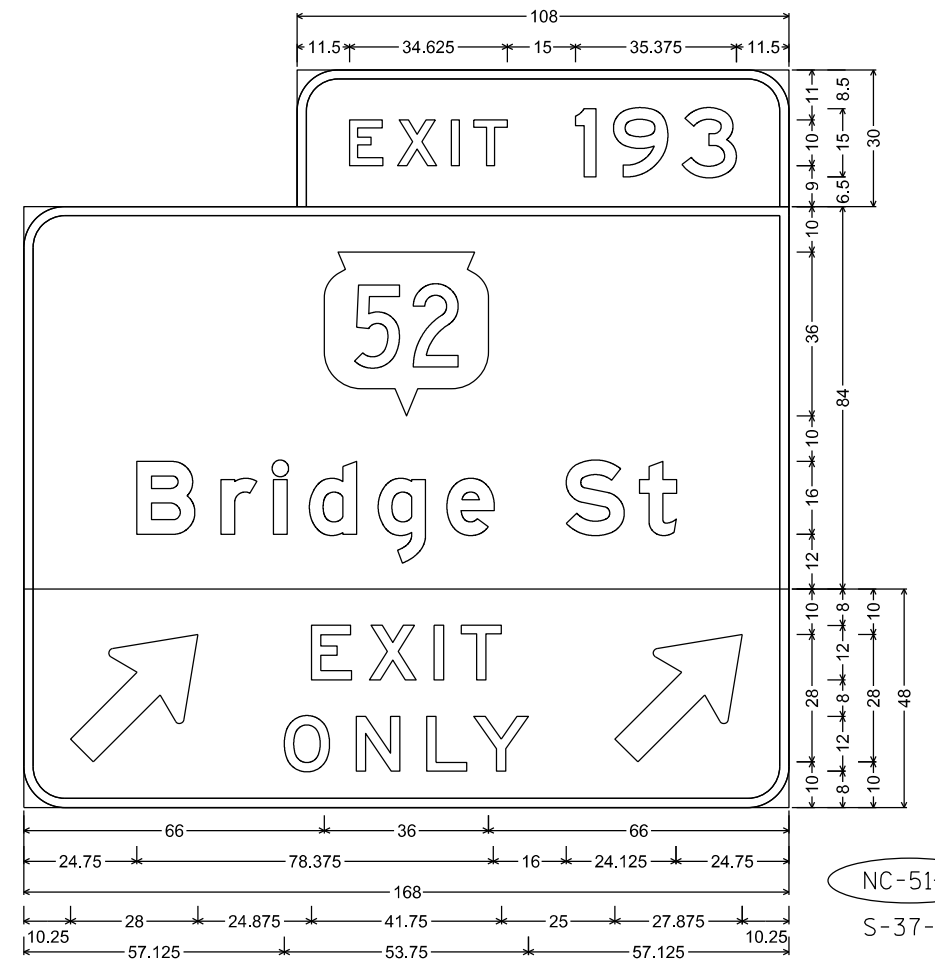
E1-5P; 9.000" Radius, 2.000" Border
E6-1; 9.000" Radius, 2.000" Border
E11-1; 9.000" Radius, 2.000" Border, Black on Yellow

NC-51-1

S-37-164

NOTES

1. All Signs Type I - Type SH Reflective
2. Color:
Background - Green
Message - White
3. Message Series - E Modified except all CAP words Series E
4. Exit Only Panel on Yellow Type F Reflective Sheeting
with Black Non-Reflective Message



E1-5P; 9.000" Radius, 2.000" Border
E6-1; 9.000" Radius, 2.000" Border
E11-1E; 9.000" Radius, 2.000" Border, Black on Yellow

NC-51-2

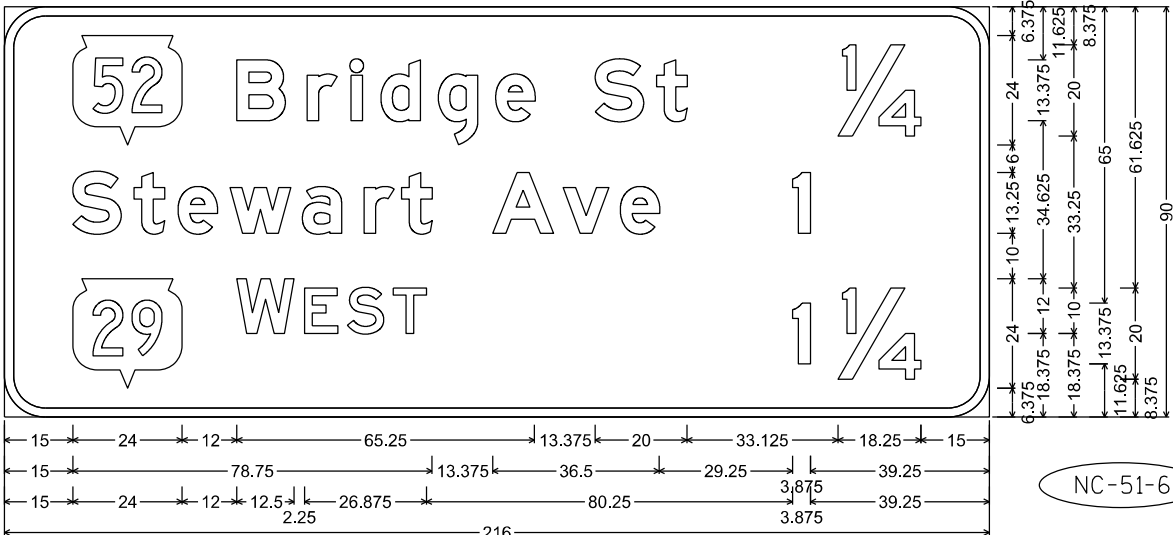
S-37-165

NOTES

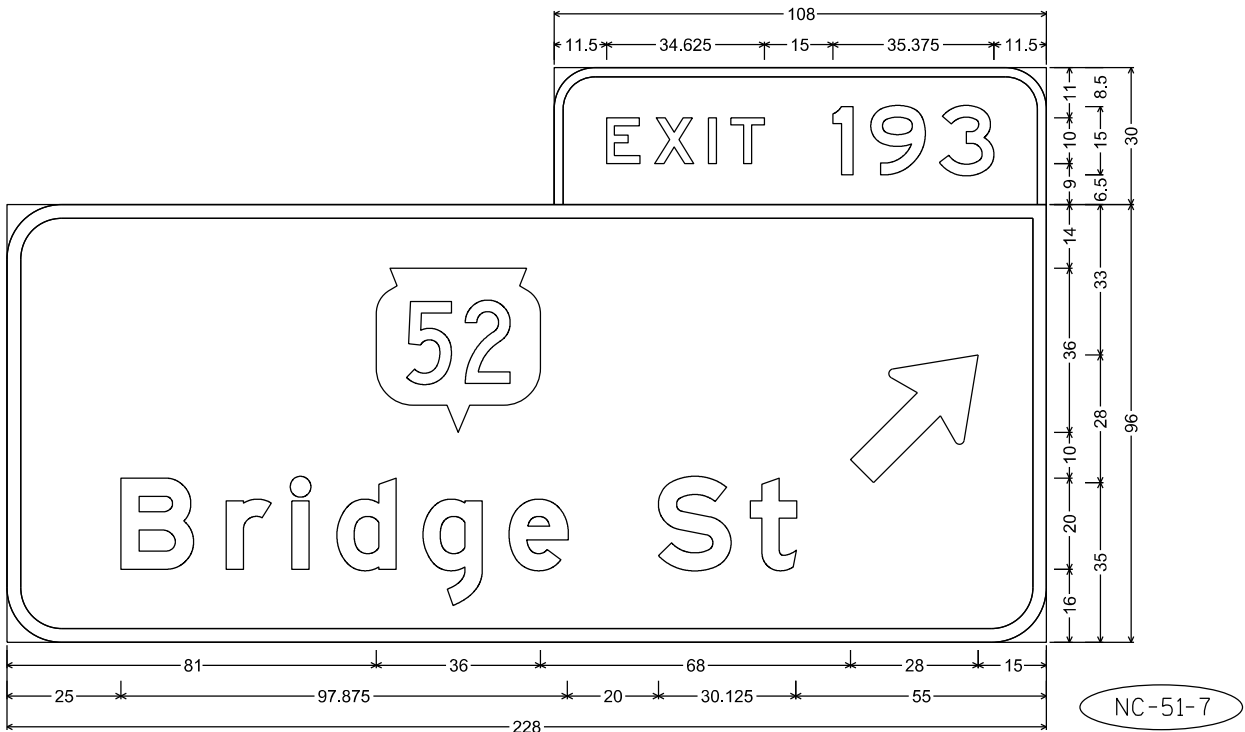
1. All Signs Type I - Type SH Reflective
2. Color:

Background - Green

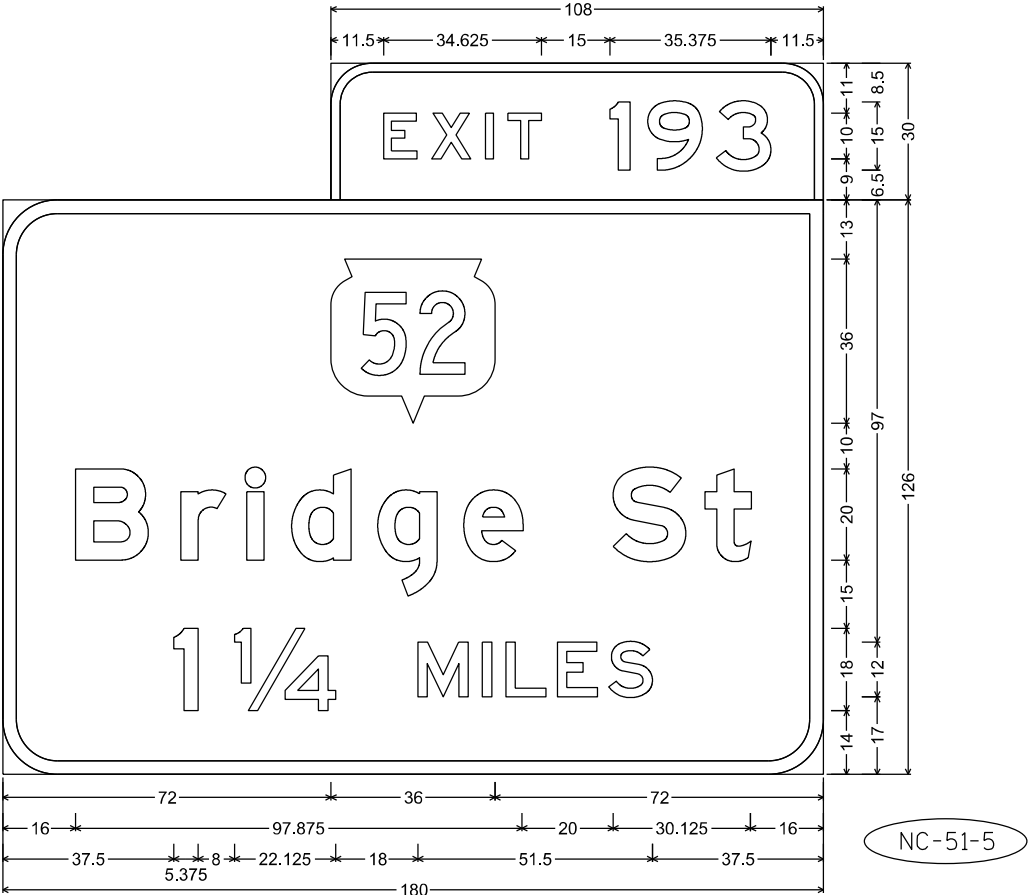
Message - White
3. Message Series - E Modified except all CAP words Series E



E8-1; 9.000" Radius, 2.000" Border

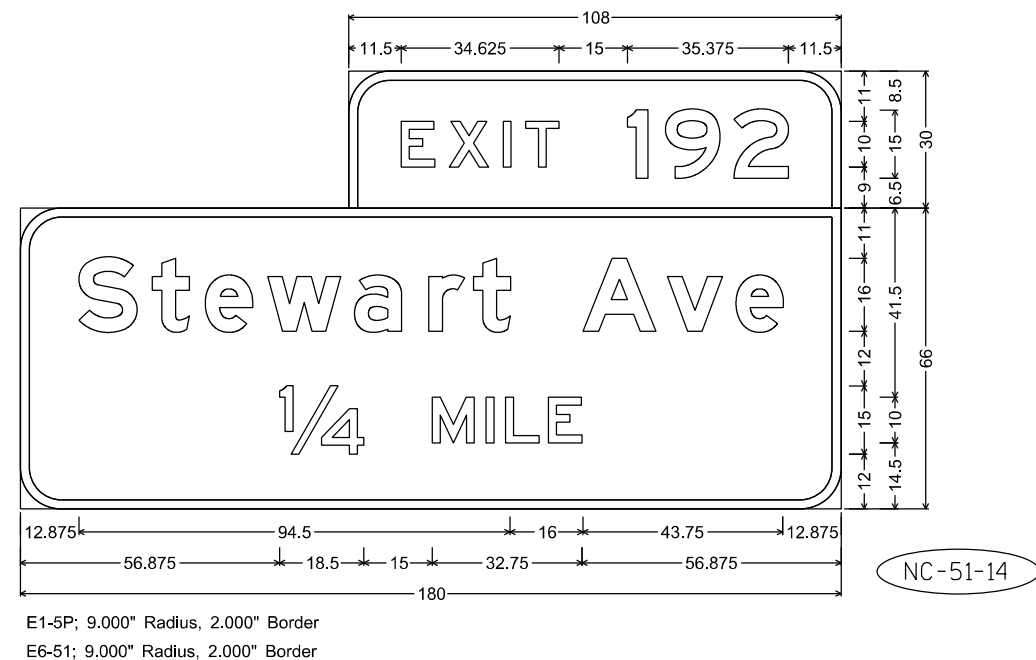
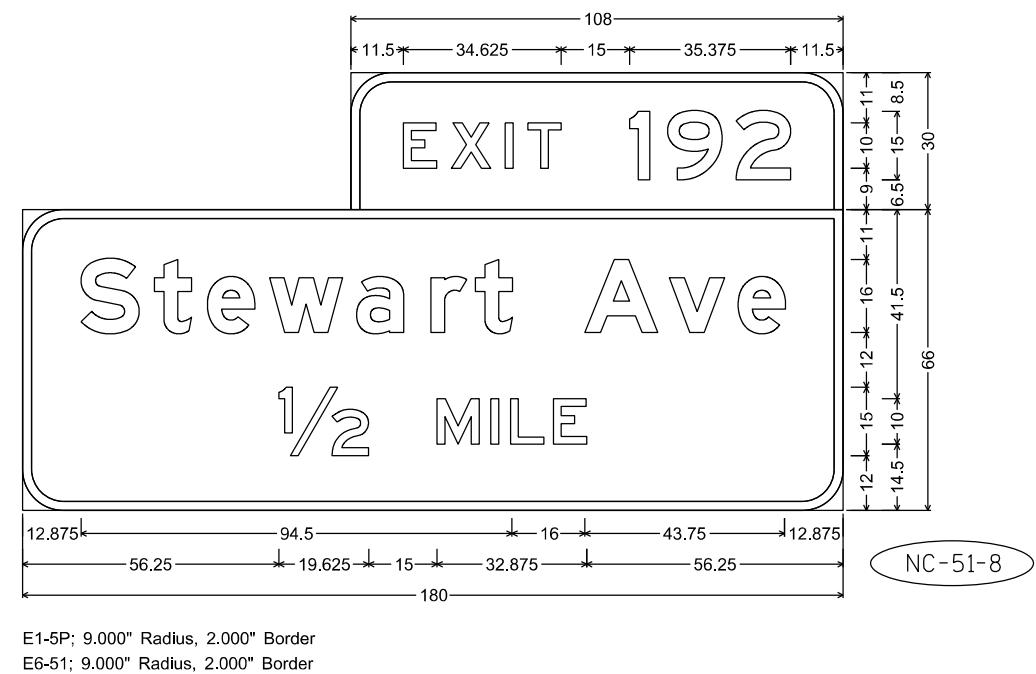


E1-5P; 9.000" Radius, 2.000" Border
E4-1A; 12.000" Radius, 3.000" Border



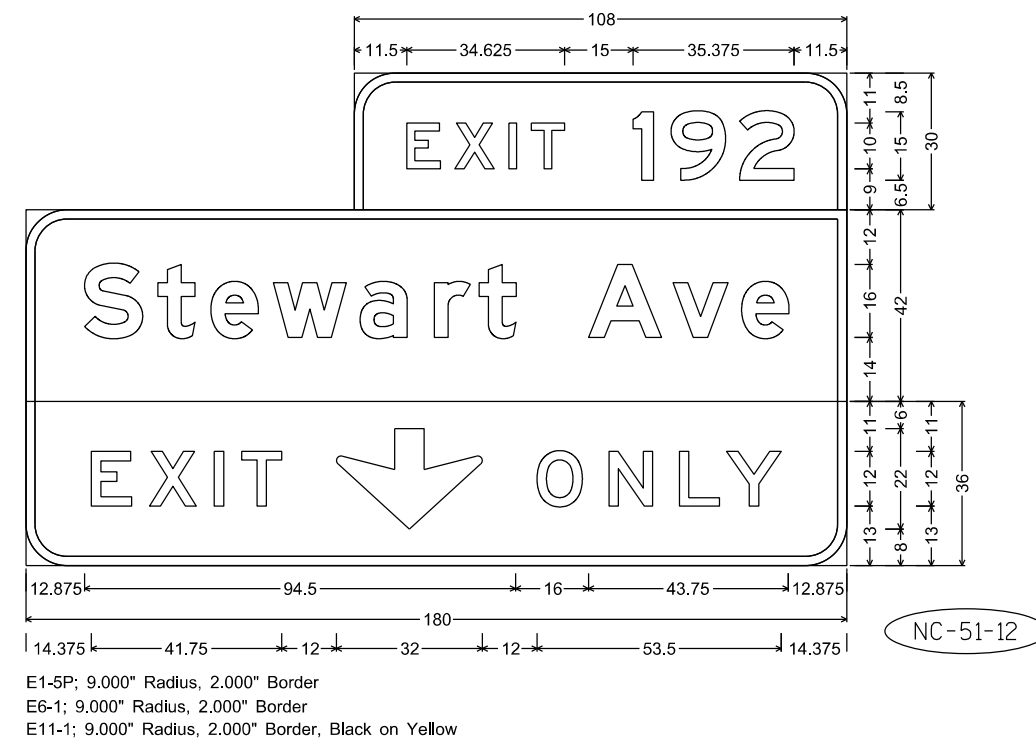
E1-5P; 9.000" Radius, 2.000" Border
E1-1A; 12.000" Radius, 3.000" Border

7

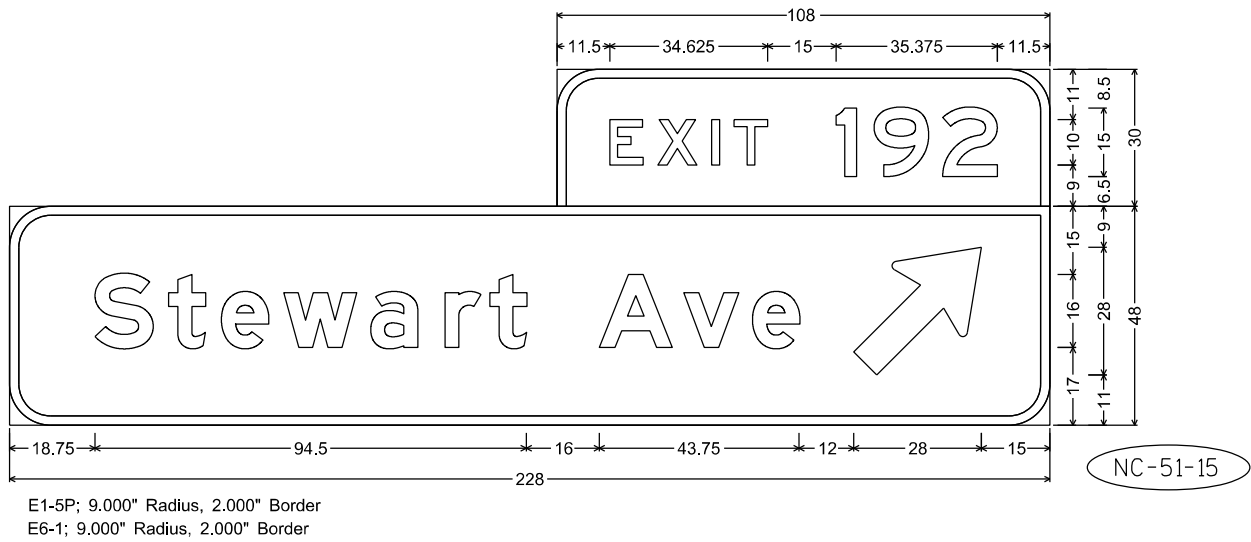


NOTES

1. All Signs Type I - Type SH Reflective
2. Color:
Background - Green
Message - White
3. Message Series - E Modified except all CAP words Series E
4. Exit Only Panel on Yellow Type F Reflective Sheeting with Black Non-Reflective Message

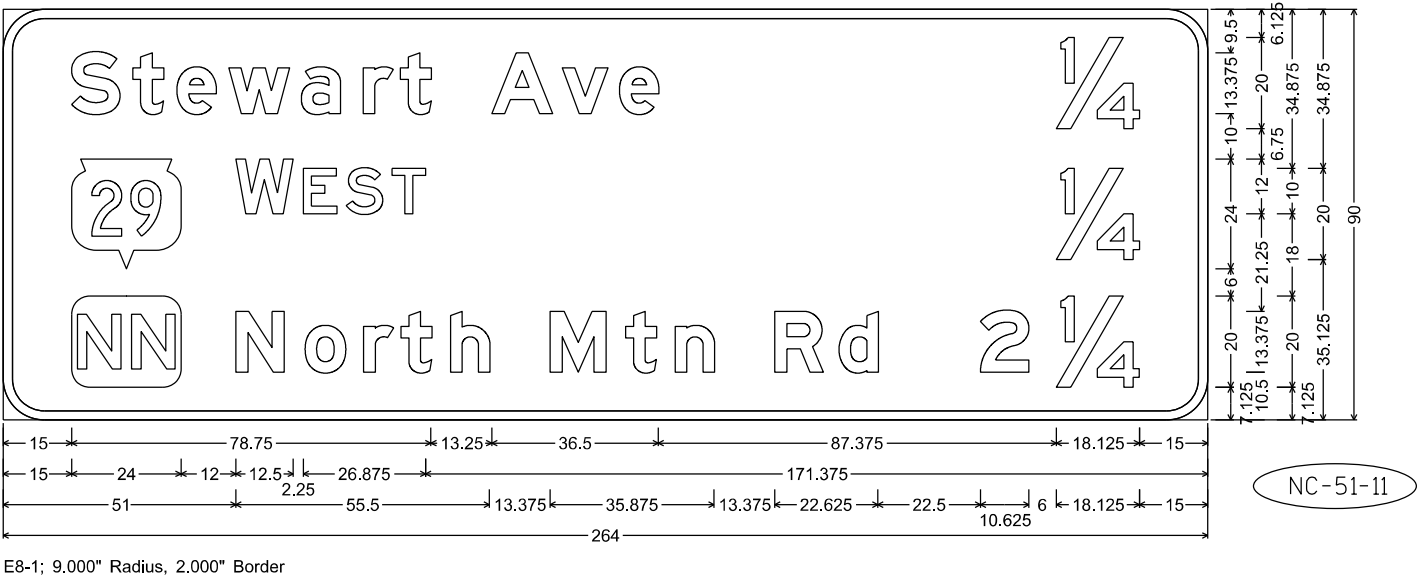
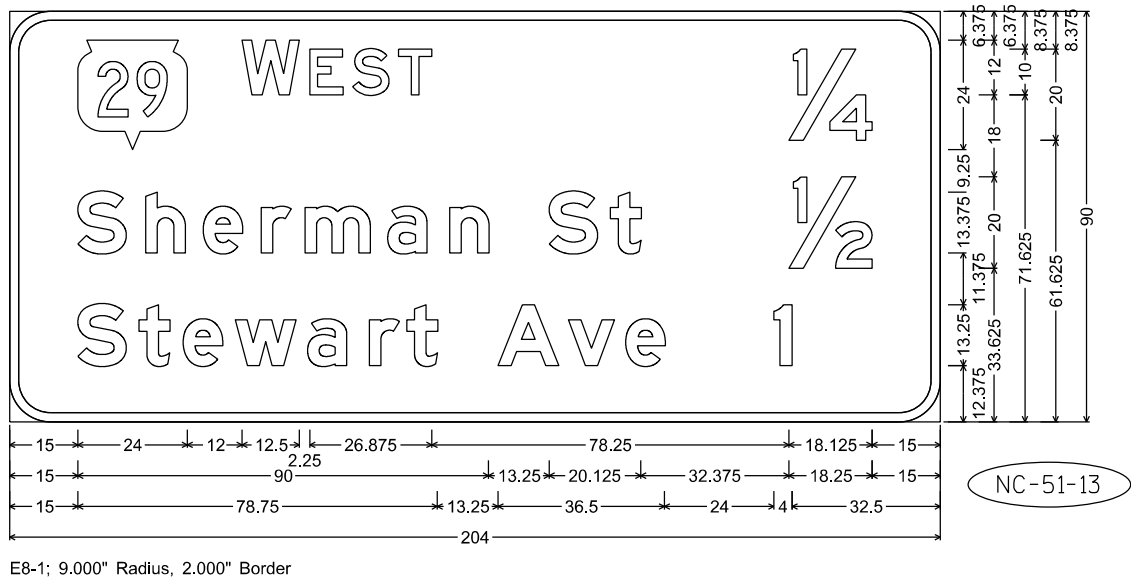


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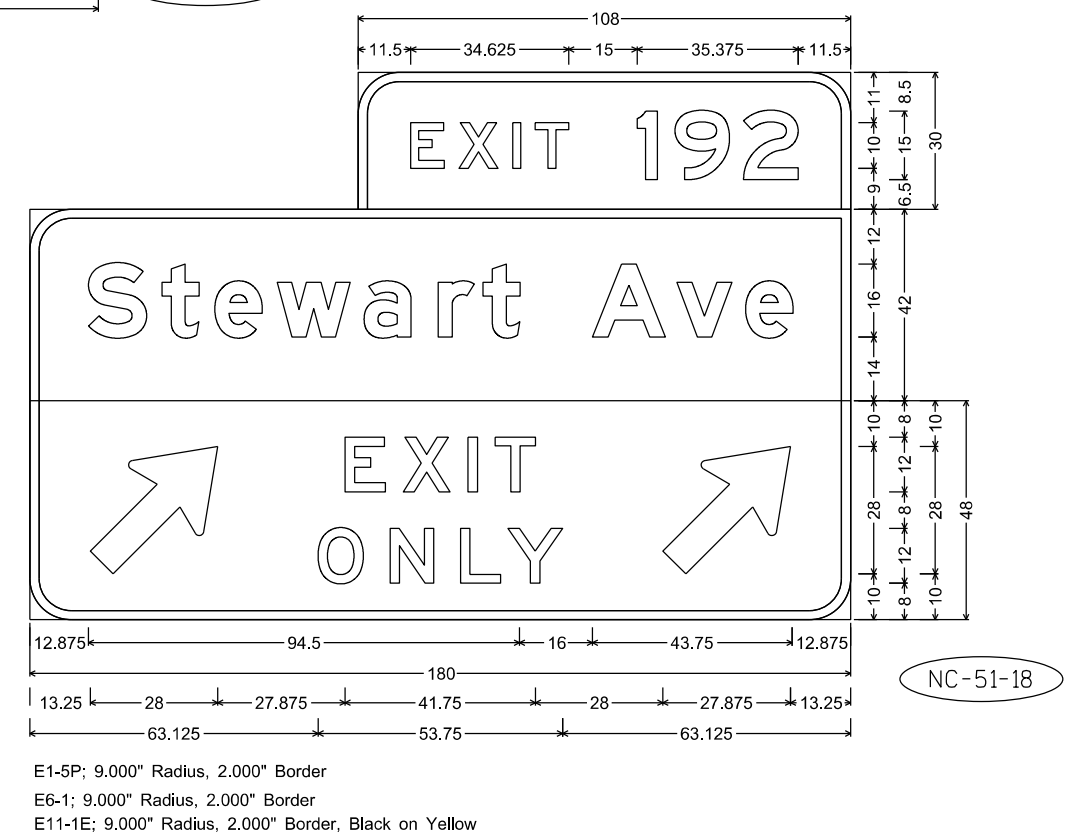
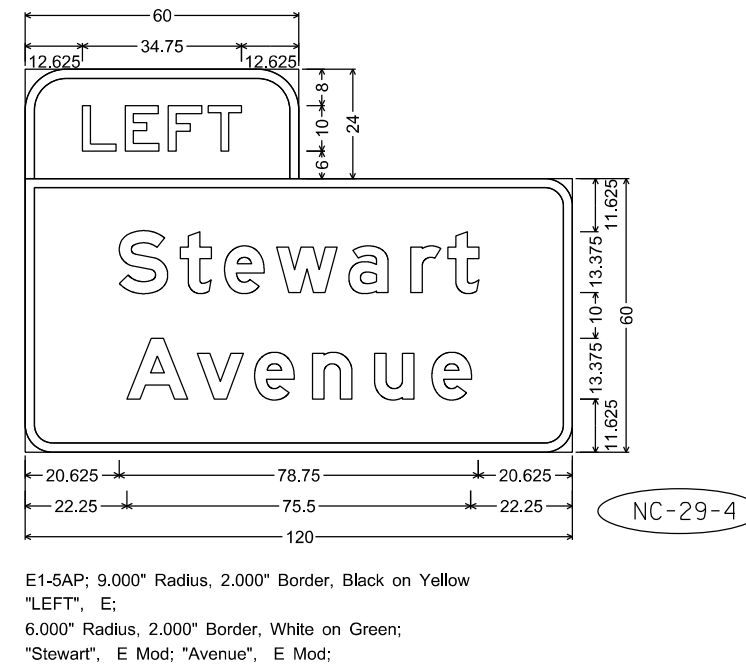
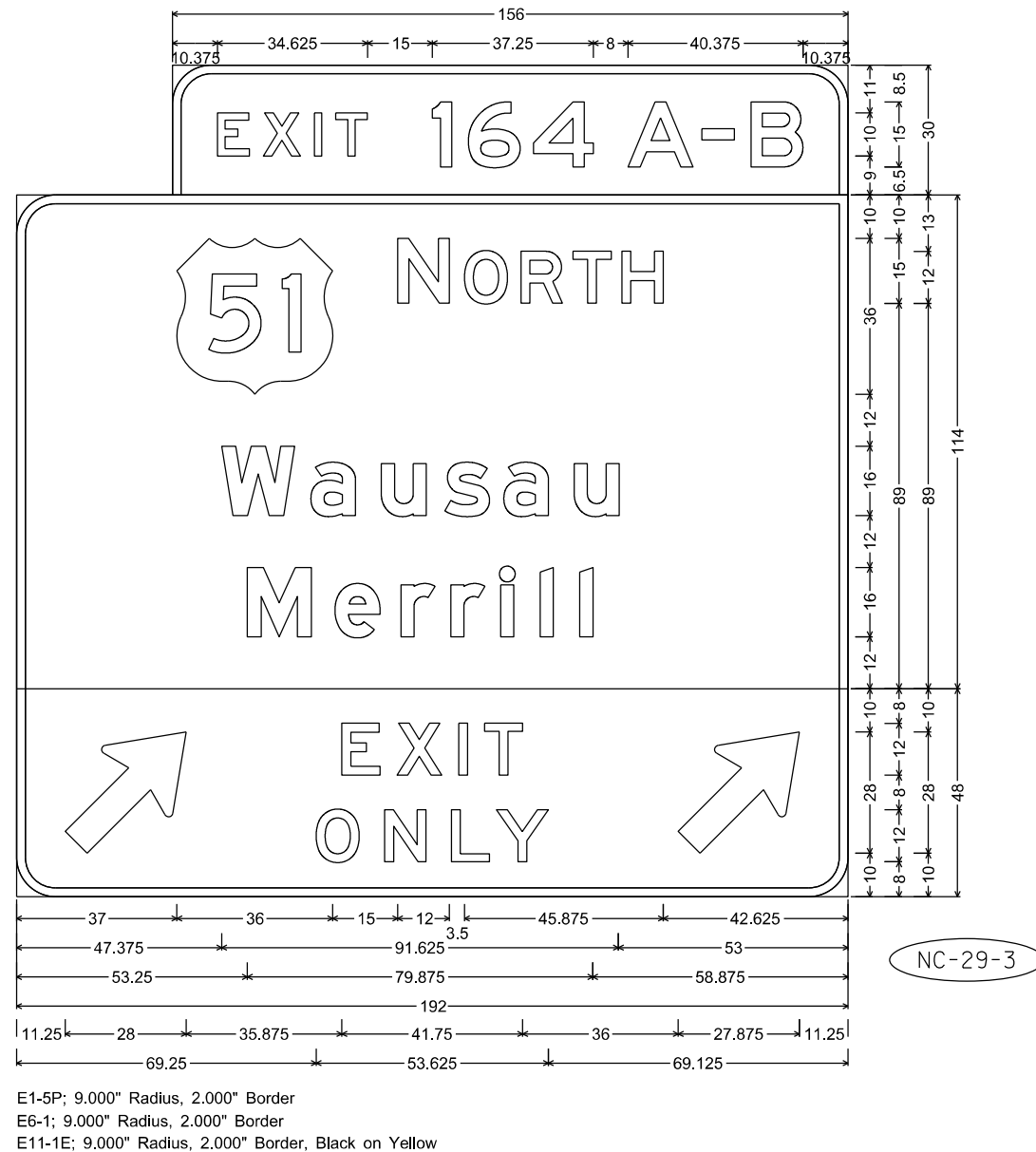
NOTES

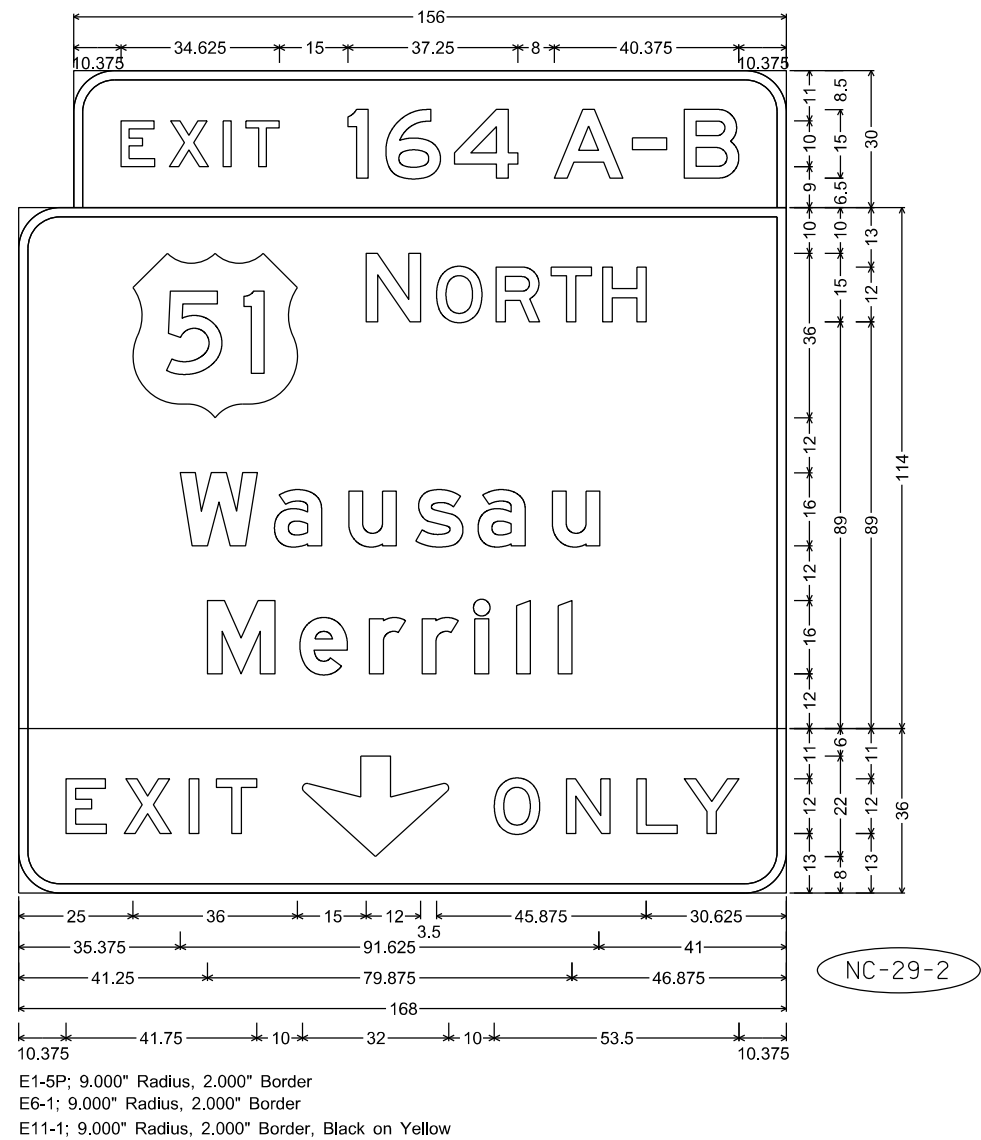
- 1. All Signs Type I - Type SH Reflective
- 2. Color:
Background - Green
Message - White
- 3. Message Series - E Modified except all CAP words Series E



NOTES

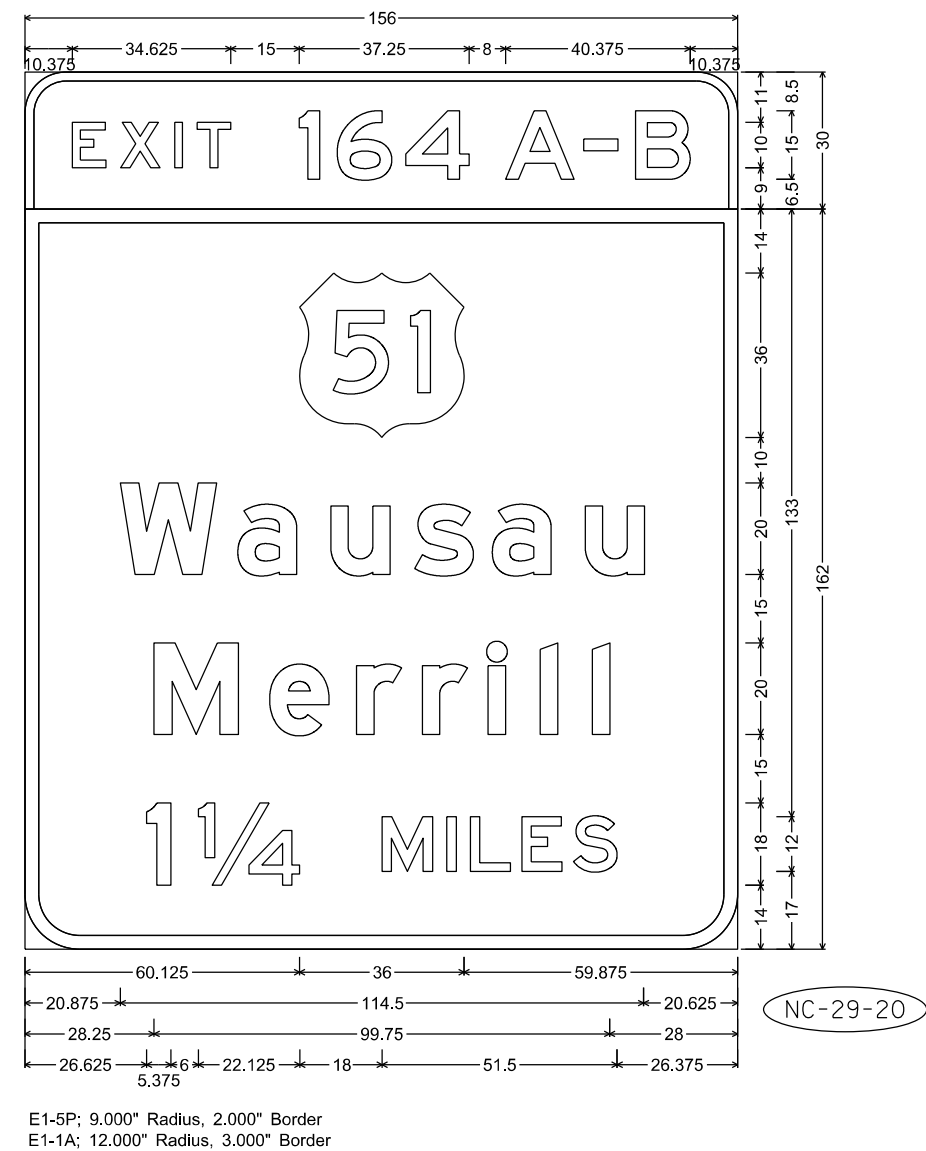
1. All Signs Type I - Type SH Reflective
2. Color:
 - Background - Green
 - Message - White
3. Message Series - E Modified except all CAP words Series E
4. Exit Only Panel on Yellow Type F Reflective Sheeting with Black Non-Reflective Message





NOTES

1. All Signs Type I - Type SH Reflective
2. Color:
Background - Green
Message - White
3. Message Series - E Modified except all CAP words Series E
4. Exit Only Panel on Yellow Type F Reflective Sheeting with Black Non-Reflective Message

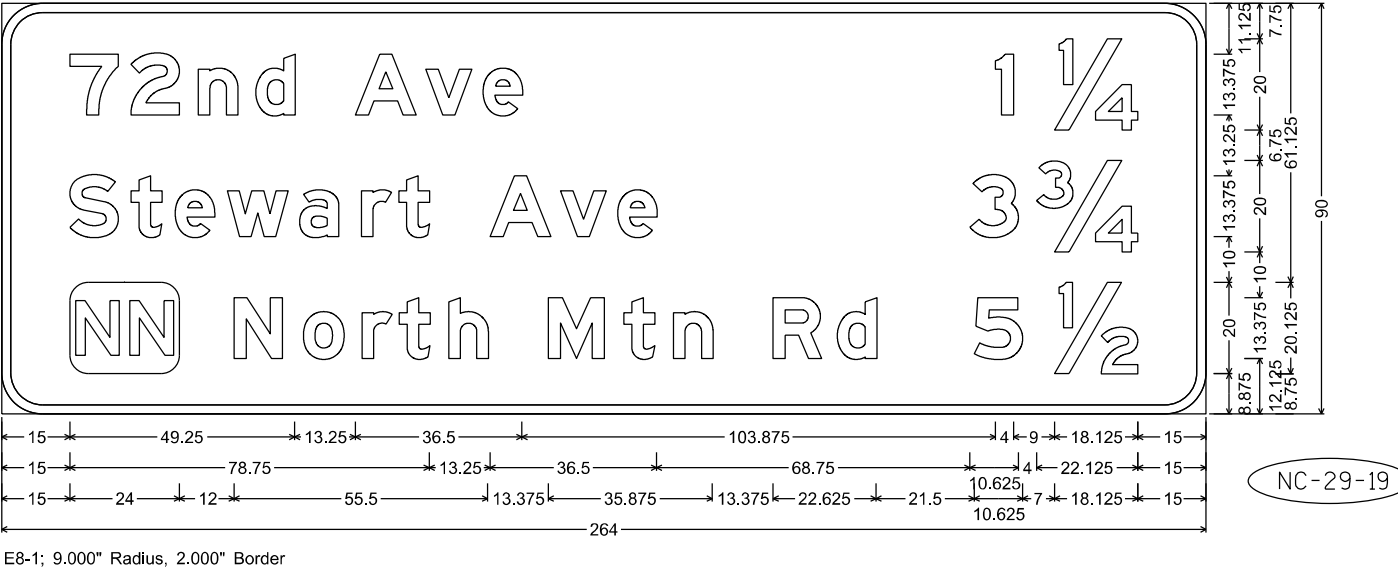
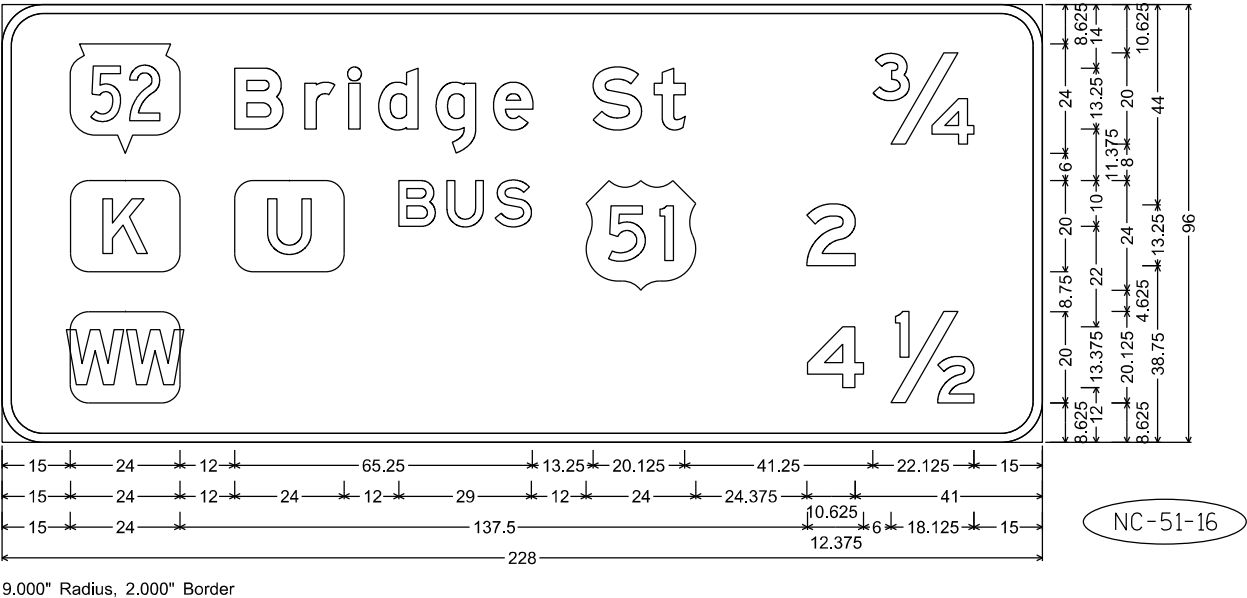
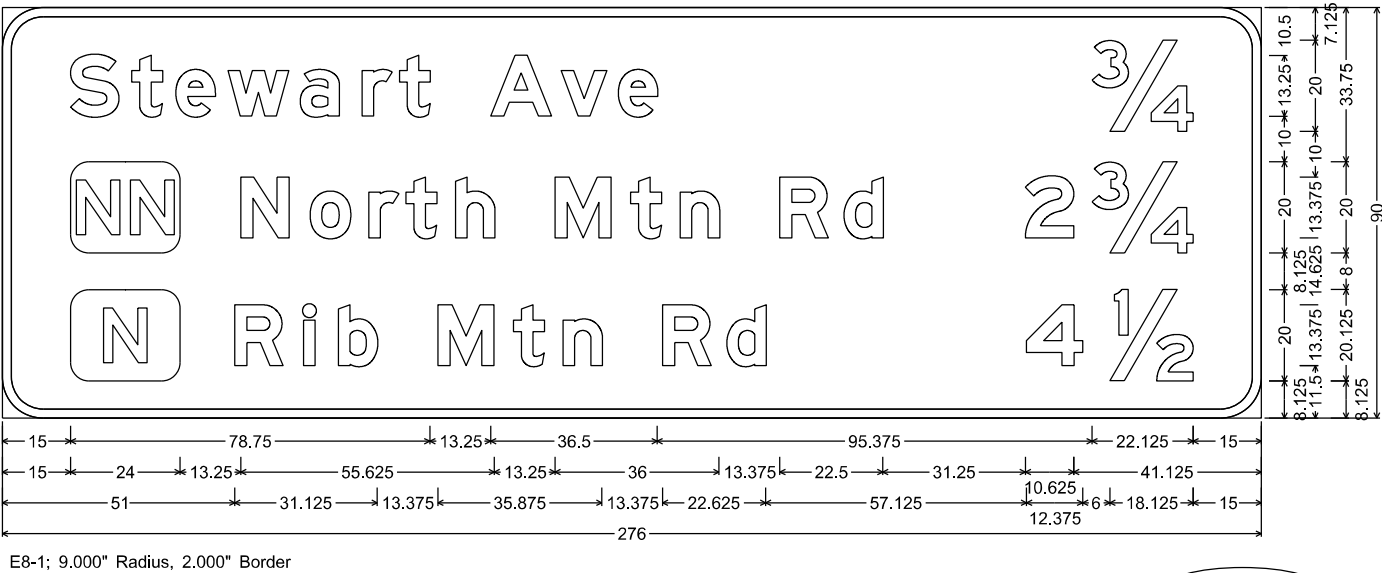
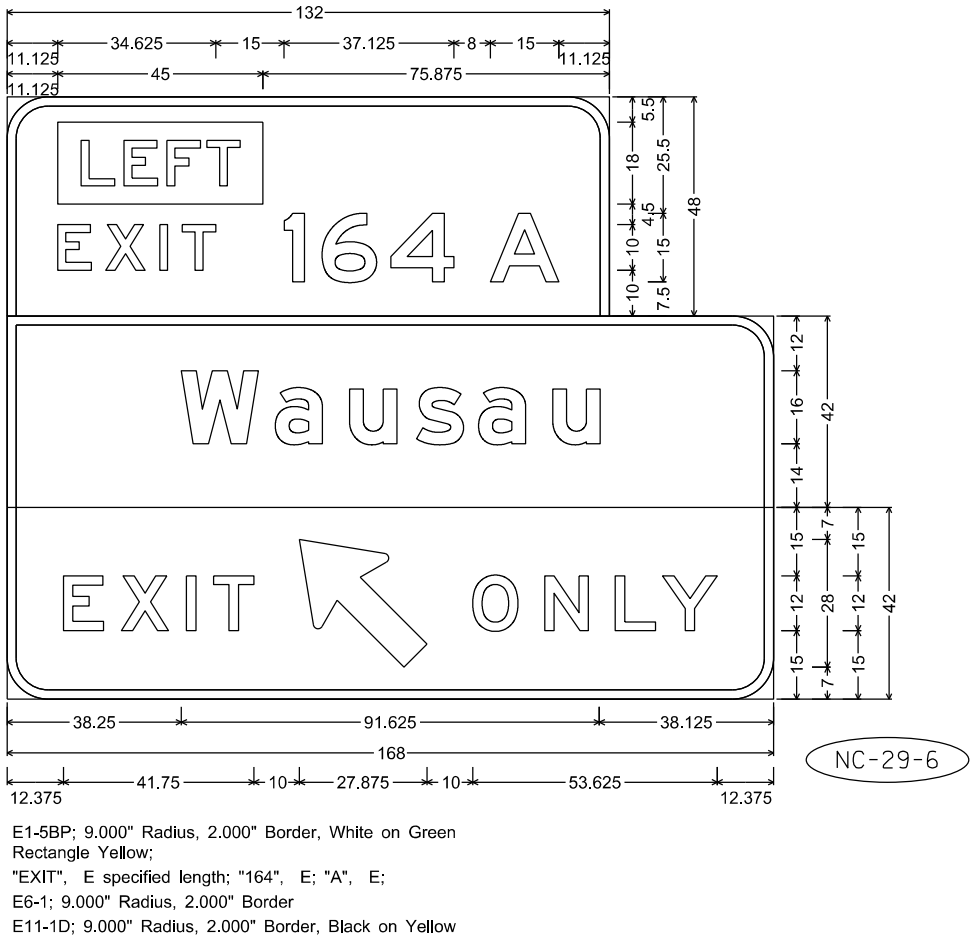


NOTES

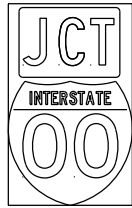
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2. Color:

Background - Green

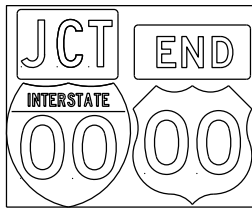
Message - White
3. Message Series - E Modified except all CAP words Series E
4. Exit Only Panel on Yellow Type F Reflective Sheeting with Black Non-Reflective Message



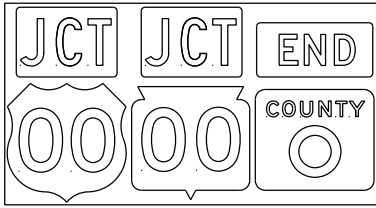
TYPICAL ASSEMBLIES



J1-1



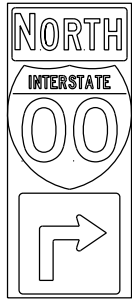
J1-2



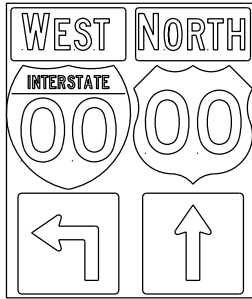
J1-3



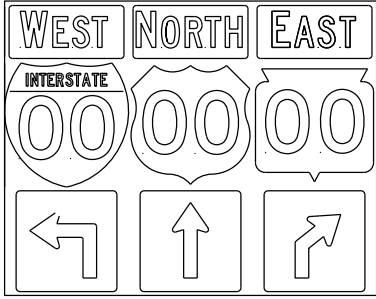
JR1-1



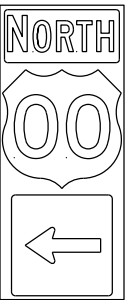
J2-1



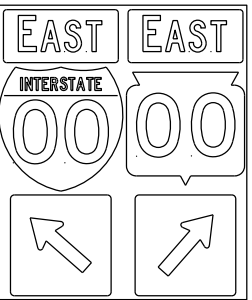
J2-2



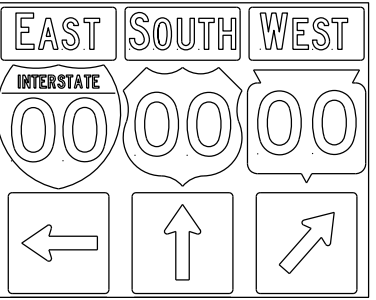
J2-3



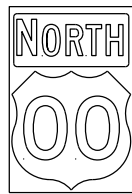
J3-1



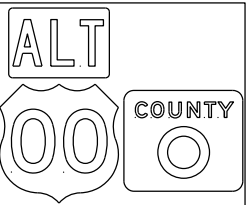
J3-2



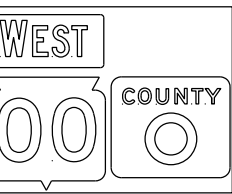
J3-3



J4-1



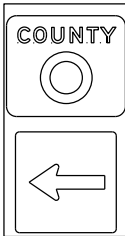
J4-2



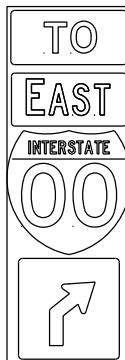
J4-2



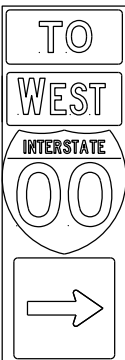
J12-1



J13-1



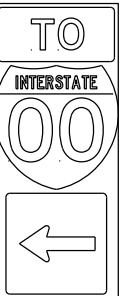
J32-1



J33-1



J22-1



J23-1



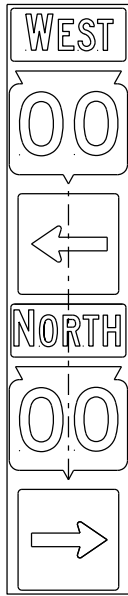
JR13-1



JR23-1

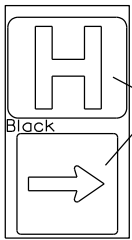


JR99-1



JV

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

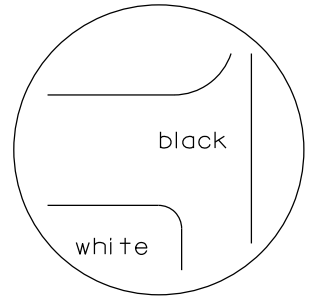
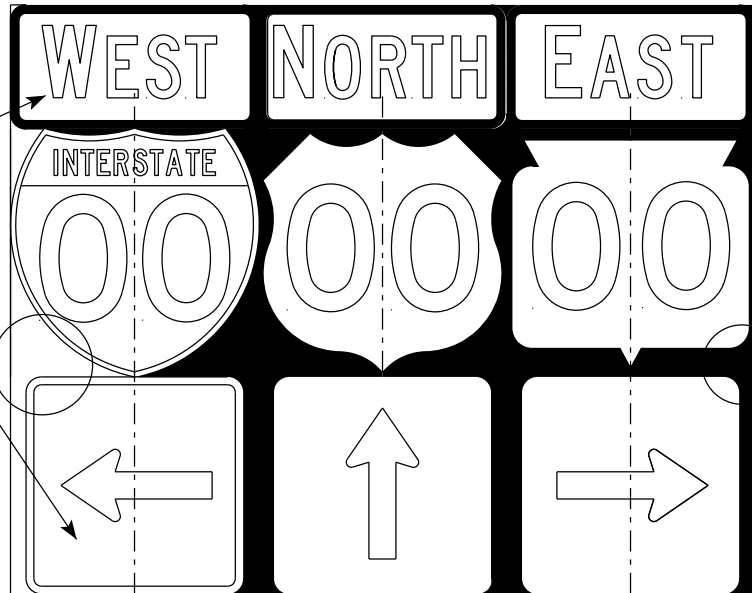
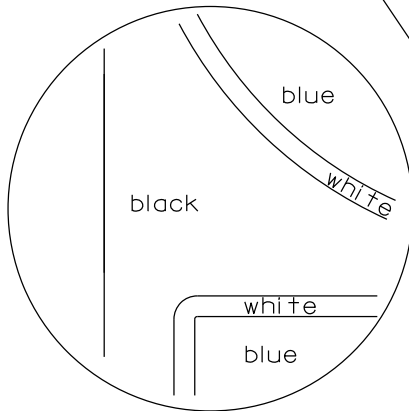


JH-1

Blue Background

Black

blue background
with interstate



black background

ROUTE MARKERS & COMPONENTS
IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

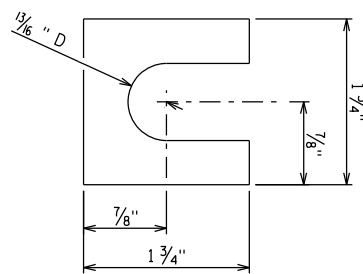
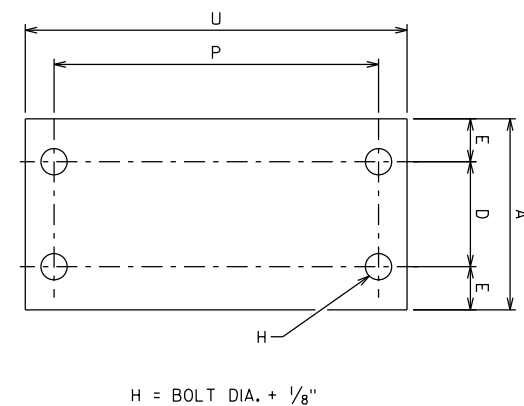
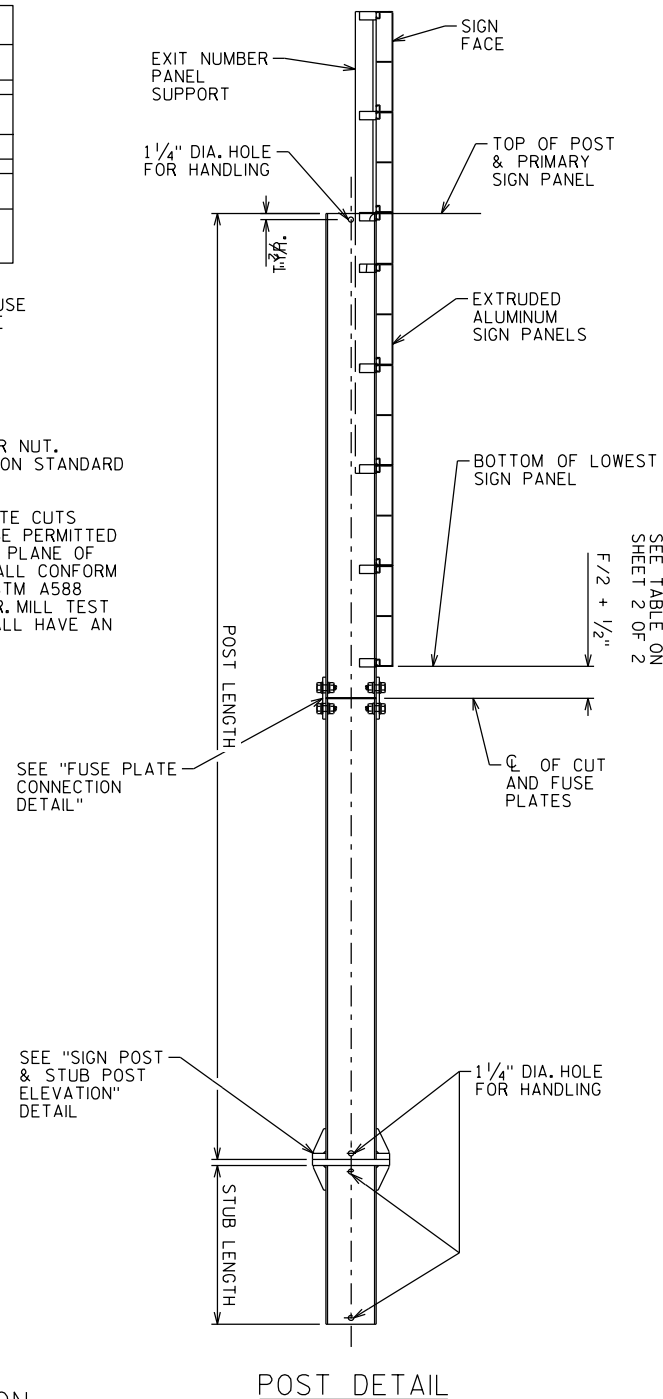
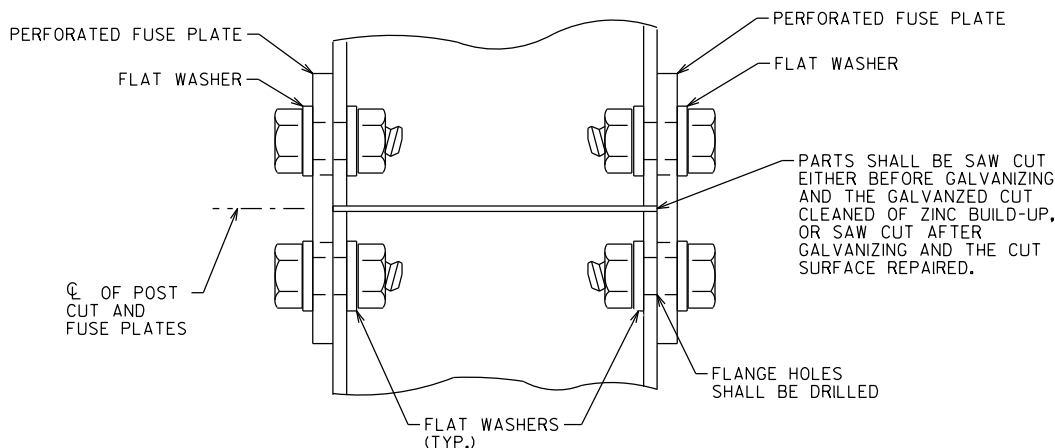
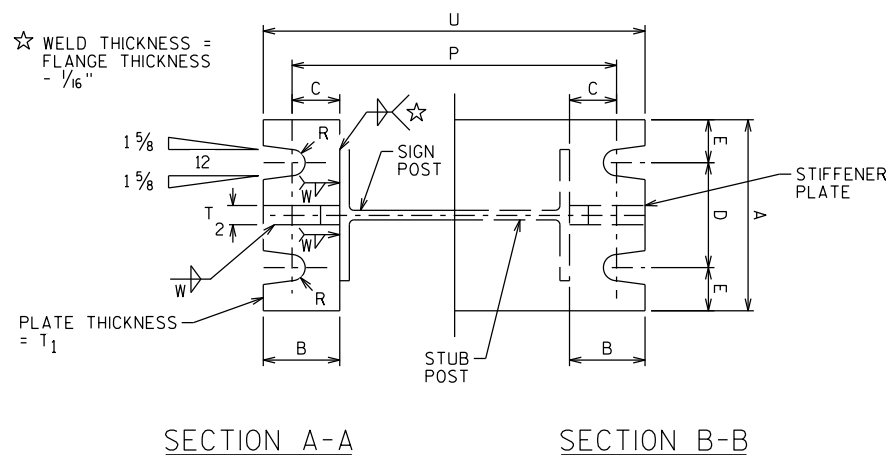
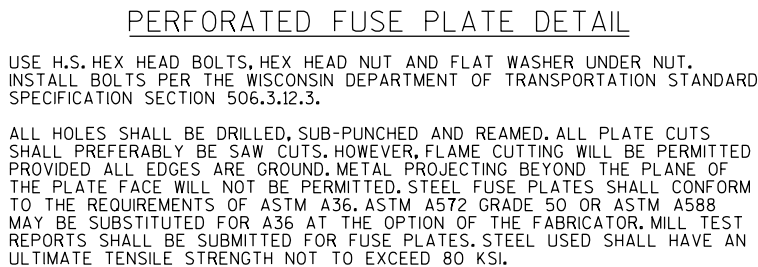
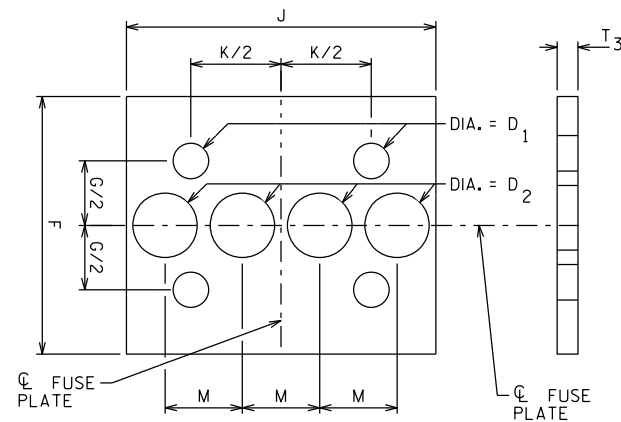
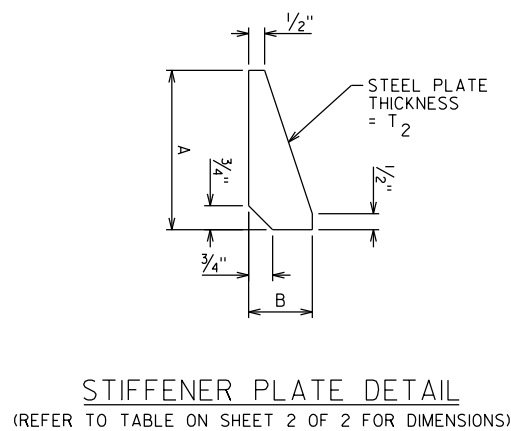
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/18/21 PLATE NO. A2-1S.9

PROJECT NO:

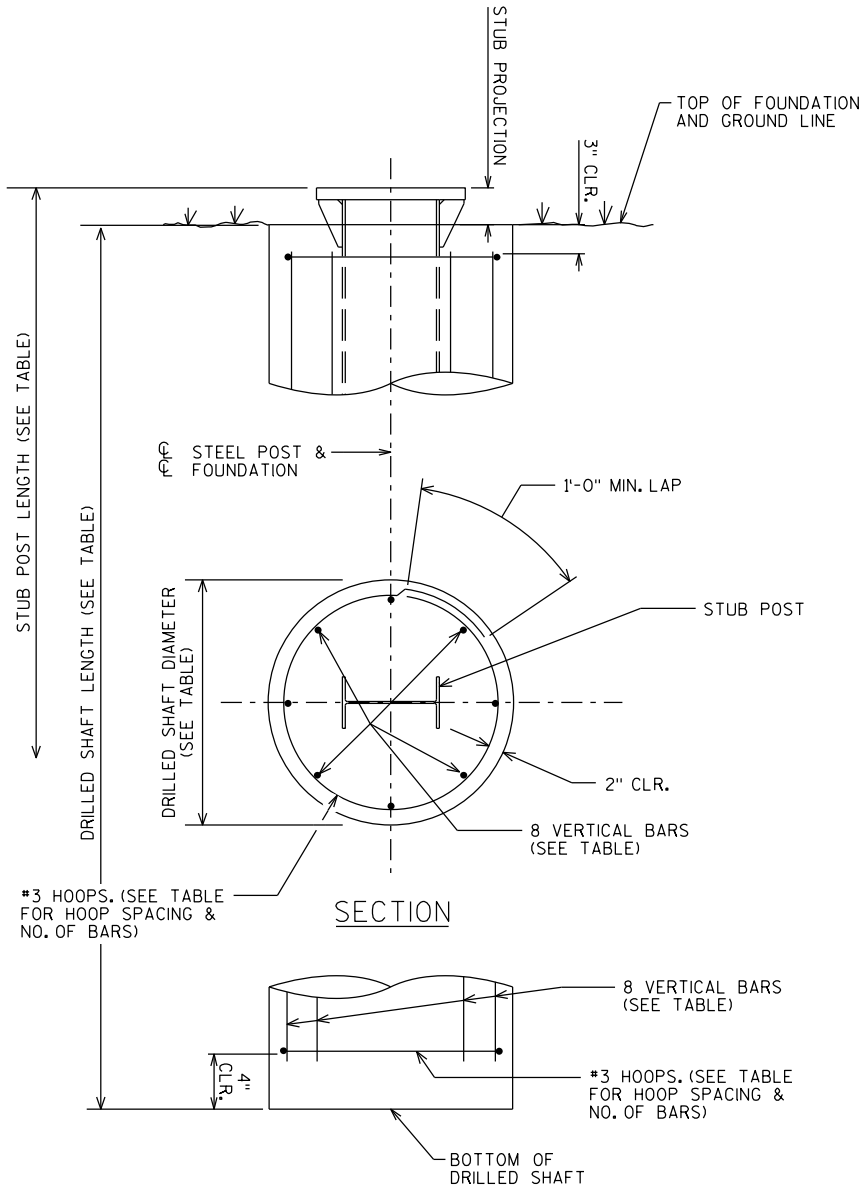
SHEET NO:

E

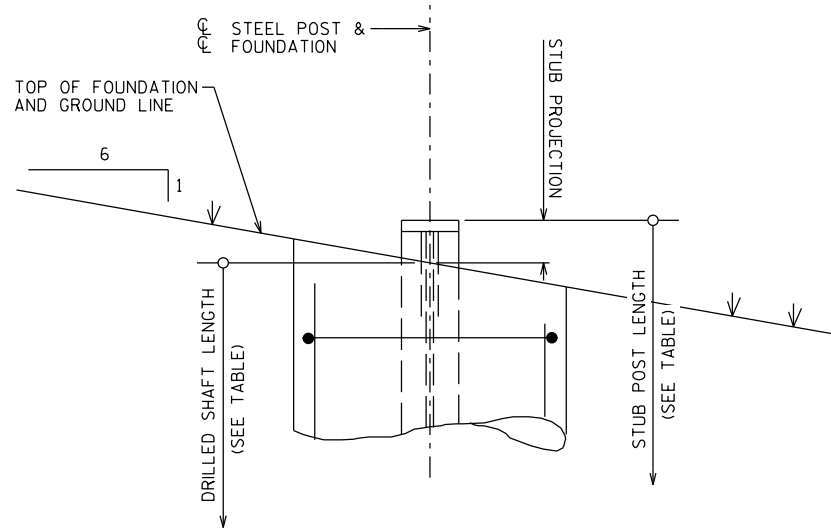


1. ASSEMBLE SIGN POST, BOLT KEEPER PLATE, AND STUB POST WITH BOLTS AND THREE FLAT WASHERS PER BOLT AS SHOWN.
2. SHIM AS REQUIRED TO PLUMB POST.
3. PRIOR TO BOLT TIGHTENING, LUBRICATE BASE CONNECTION BOLTS WITH BEESWAX OR OTHER HIGH-WAX LUBRICANT.
4. TIGHTEN ALL BOLTS THE MAXIMUM POSSIBLE WITH A 12" OR 15" WRENCH TO BED WASHERS & SHIMS AND TO CLEAN BOLT THREADS.
5. LOOSEN EACH BOLT IN TURN AND RETIGHTEN IN A SYSTEMATIC ORDER TO THE PERSCRIBED TORQUE. (SEE TABLE FOR PERSCRIBED TORQUE). DO NOT OVER-TIGHTEN.
6. BURR THREADS AT JUNCTION WITH NUT USING A CENTER PUNCH TO PREVENT NUT LOOSENING.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE BTO TYPE 1 SIGNS			
DRAWN BY		PLANS CK'D.	
CONNECTION & FOUNDATION DETAILS 1 OF 2		SHEET A3-1.20	



FOUNDATION DETAIL




SHAFT PLACEMENT

FOUNDATION DATA TABLE

POST SHAPE	STUB LENGTH	STUB PROJECTION	DRILLED SHAFT DIAMETER	DRILLED SHAFT LENGTH	VERTICAL BARS		HOOPS		CONCRETE VOLUME	TOTAL REINF. WEIGHT
					SIZE	LENGTH	MAX SPA.	NO.		
W6X15	2'-6"	3"	24"	6'-6"	#5	5'-11"	10"	9	0.8 CY	71 LB
W8X18	2'-6"	3"	24"	7'-6"	#6	6'-11"	12"	8	0.9 CY	102 LB
W8X21	3'-0"	2½"	24"	8'-0"	#6	7'-5"	12"	9	1.0 CY	110 LB
W10X22	3'-0"	2½"	24"	8'-6"	#7	7'-11"	12"	9	1.0 CY	151 LB
W12X26	3'-0"	2½"	24"	10'-0"	#7	9'-5"	12"	11	1.2 CY	180 LB

◆ QUANTITIES SHOWN ARE FOR ONE DRILLED SHAFT

BASE CONNECTION & FUSE PLATE DATA TABLE

		BASE CONNECTION DATA										BOLT KEEPER PLATE DATA		PERFORATED FUSE PLATE DATA												
POST SHAPE	WEIGHT PER FOOT	BOLT SIZE & TORQUE	A	B	C	D	E	T1	T2	W	R	P	U	F	G	J	K	M	D1	D2	T3	BOLT DIA.	WGT. EA. LBS	BOLT LENGTH	V 	
W6X15	15 LB	5/8" DIA. X 4"	5"	2"	1/4"	2 3/4"	1/8"	1/4"	1/2"	1/4"	1/32"	8 1/2"	10"	5"	2 1/2"	6"	3 1/2"	1 1/2"	1 1/16"	1 1/4"	3/8"	5/8"	2.4	2	73.0 LB	
W8X18	18 LB	36 TO 38 FT-LB										10 5/8"	12 7/8"	5"	2 1/2"	5 1/4"	2 3/4"	1 1/4"	1 1/16"	1 1/16"	3/8"	5/8"	2.0	2	83.0 LB	
W8X21	21 LB	3/4" DIA. X 4 3/4"	6"	2 1/4"	1 3/8"	3 1/2"	1 1/4"	1 1/2"	3/4"	5/16"	1/32"	11"	12 3/4"	5 1/2"	2 1/2"	5 1/4"	2 3/4"	1 1/4"	1 3/16"	1"	1/2"	3/4"	3.1	2 1/4"	124.0 LB	
W10X22	22 LB											12 7/8"	14 5/8"	6"	3"	5 3/4"	2 3/4"	1 3/8"	1 3/16"	1 1/8"	1/2"	3/4"	3.9	2 1/4"	134.0 LB	
W12X26	26 LB											15"	16 3/4"	6"	3"	6 1/2"	3 1/2"	1 5/8"	1 3/16"	1 1/2"	3/4"	4.5	2 1/4"	152.0 LB		

■ TOTAL STRUCTURAL CARBON STEEL WEIGHT FOR ONE POST
= V + (POST LENGTH X POST WEIGHT PER FOOT)

"V" INCLUDES STUB POST, BASE PLATES, STIFFENER
PLATES, PERFORATED FUSE PLATES, BOLTS, NUTS, AND
WASHERS.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED

MATERIALS SHALL CONFORM TO THE WISCONSIN DEPARTMENT OF
TRANSPORTATION STANDARD SPECIFICATIONS SECTION 506, UNLESS
NOTED OTHERWISE.

FABRICATION SHALL CONFORM TO THE WISCONSIN DEPARTMENT OF
TRANSPORTATION STANDARD SPECIFICATIONS SECTION 506.

ALL POST, POST STUBS & ATTACHMENTS SHALL BE ASTM
A709 GRADE 50, GALVANIZED IN ACCORDANCE WITH ASTM A123.

THE POST, BASE PLATES, UPPER SIX INCHES OF STUB POST, FLANGE
SPLICE PLATE AND FUSE PLATE SHALL BE GALVANIZED AFTER
FABRICATION.

H.S. BOLTS, WASHERS, & NUTS SHALL BE A325 GALVANIZED.

FOUNDATION MATERIAL PROPERTIES

CONCRETE MASONRY F'C = 3,500 P.S.I.
BAR STEEL REINFORCEMENT (UNCOATED), GRADE 60 FY = 60,000 P.S.I.

DESIGN DATA

DESIGN CONFORMS TO AASHTO LRFD SPECIFICATIONS FOR
STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND
TRAFFIC SIGNALS 1ST EDITION 2015 (WITH 2017 & 2018 INTERIM
REVISIONS).

DEAD LOADS (DL):

- STEEL POST SELF WEIGHT
- SIGN PANEL WEIGHT = 3 PSF

WIND LOADS (WL):

WIND LOADS WERE APPLIED TO THE PROJECTED AREAS OF THE SIGN
PANELS AND THE STEEL SIGN POSTS.

- BASIC WIND SPEED = 76 MPH
- MEAN RECURRENCE INTERVAL (MRI) = 10 YEARS
- HEIGHT & EXPOSURE FACTOR = 1.00
- DIRECTIONALITY FACTOR = 0.85
- GUST EFFECT FACTOR = 1.14

WIND LOAD CASES:

- WL CASE 1: 1.0 X NORMAL WIND
- WL CASE 2: 1.0 X TRANSVERSE WIND
- WL CASE 3: 0.75 X NORMAL WIND + 0.75 X TRANSVERSE WIND

LOAD COMBINATIONS:

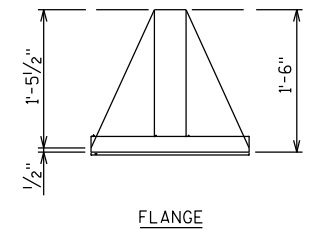
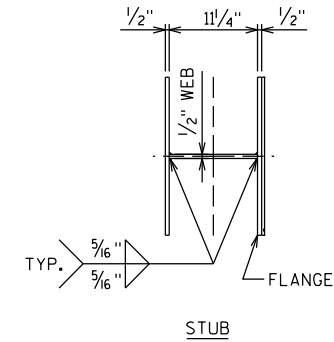
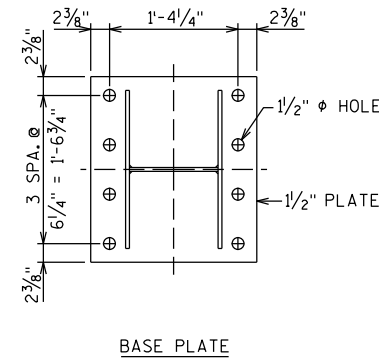
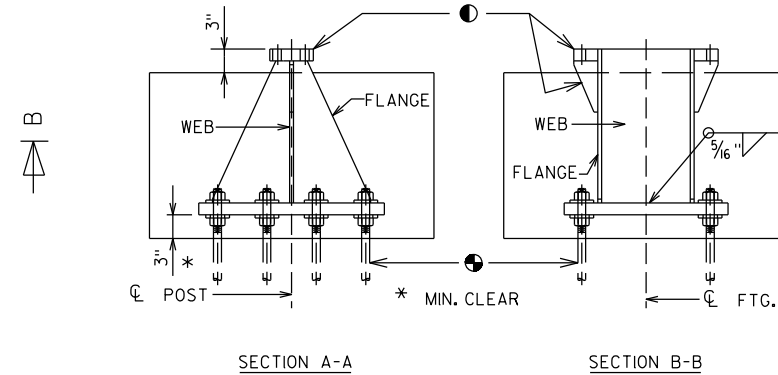
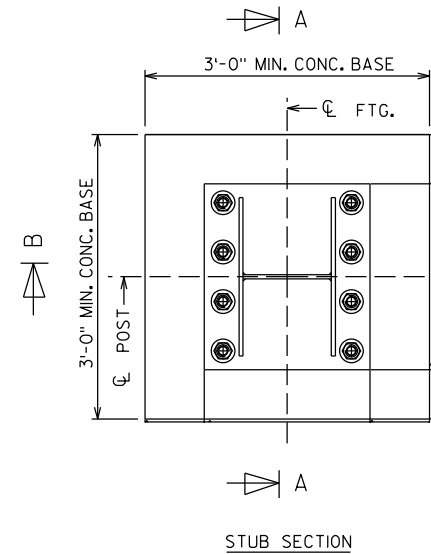
LOAD COMBINATION	TYPE	DL FACTOR	WL FACTOR
STRENGTH I	GRAVITY	1.25	-
EXTREME I	WIND	1.10	1.0
		0.9	1.0
SERVICE I	DEFLECTION	1.0	1.0

FOUNDATION DESIGN DATA

THE FOUNDATION DESIGN ASSUMED COHESIONLESS SOILS (LOOSE
SAND) ABOVE THE WATER TABLE WITH THE FOLLOWING PROPERTIES:

- SOIL UNIT WEIGHT = 115 PCF
- ANGLE OF INTERNAL FRICTION = 24 DEGREES
- SOIL MODULUS PARAMETER = 25 LB/IN³

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE BTO TYPE I SIGNS			
		DRAWN BY	PLANS CK'D.
CONNECTION & FOUNDATION DETAILS 2 OF 2		SHEET A3-120	



- SEE BASE CONNECTION DETAILS ON "CONNECTIONS & FOUNDATION DETAILS" SHEETS.
- ADHESIVE ANCHORS 1/4-INCHES. ALLOWABLE PULL OUT CAPACITY = 15 KIPS. EMBED 1'-3" INTO ROCK.

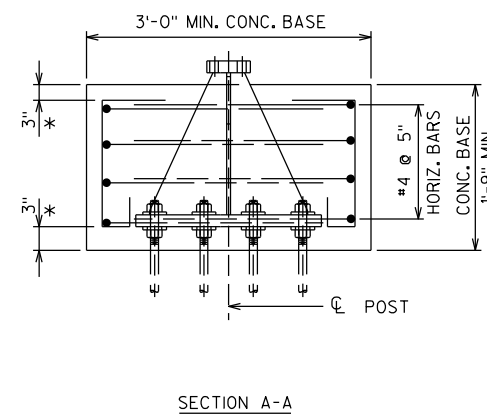
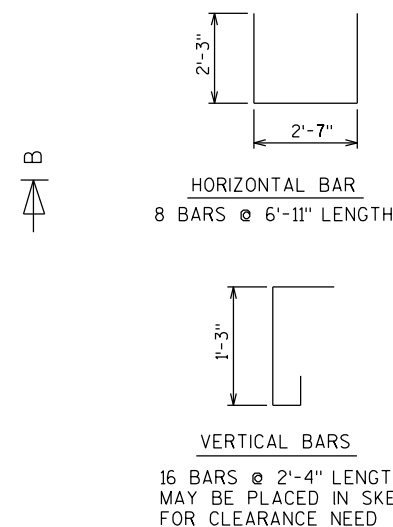
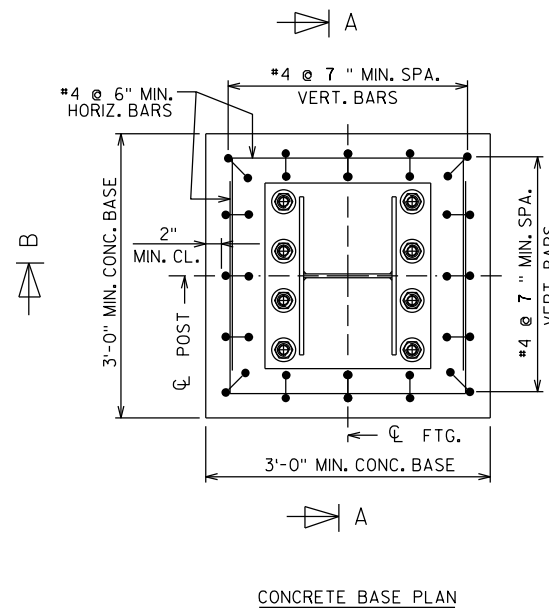
GENERAL NOTES:

QUANTITIES PER BASE:
 REINFORCING STEEL = 62 LB
 CONCRETE = 0.6 CY
 STRUCTURAL STEEL = 335 LB

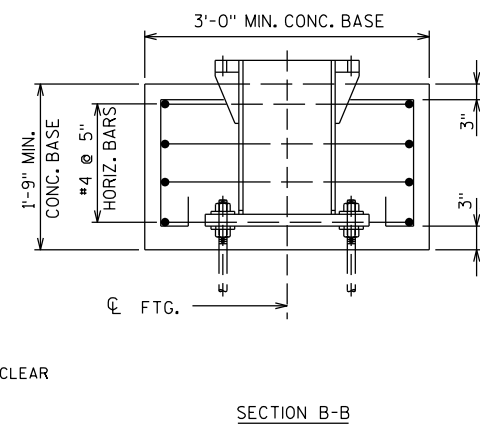
ALL MATERIALS, EXCEPT FOR ANCHOR ROD, NUTS, AND WASHERS, SHALL BE ASTM A709 GRADE 50. ALL MATERIALS TO BE GALVANIZED AFTER FABRICATION.

IF ROCK IS ENCOUNTERED PRIOR TO REACHING THE MINIMUM DRILLED SHAFT EMBEDMENT DEPTH DEFINED ON THE FOUNDATION DATA TABLE OF THE "CONNECTIONS & FOUNDATION DETAILS 2 OF 2" SHEET, THE CONTRACTOR SHALL INSTALL A TEST ADHESIVE ANCHOR AND DETERMINE THE PULL-OUT CAPACITY. IF THE FIELD TEST RESULTS IN A PULL-OUT CAPACITY GREATER THAN OR EQUAL TO 15 KIPS, THE CONTRACTOR MAY INSTALL THE ALTERNATE CONCRETE BASE AND BREAK-WAY STUB PER THE DETAILS ON THIS SHEET.

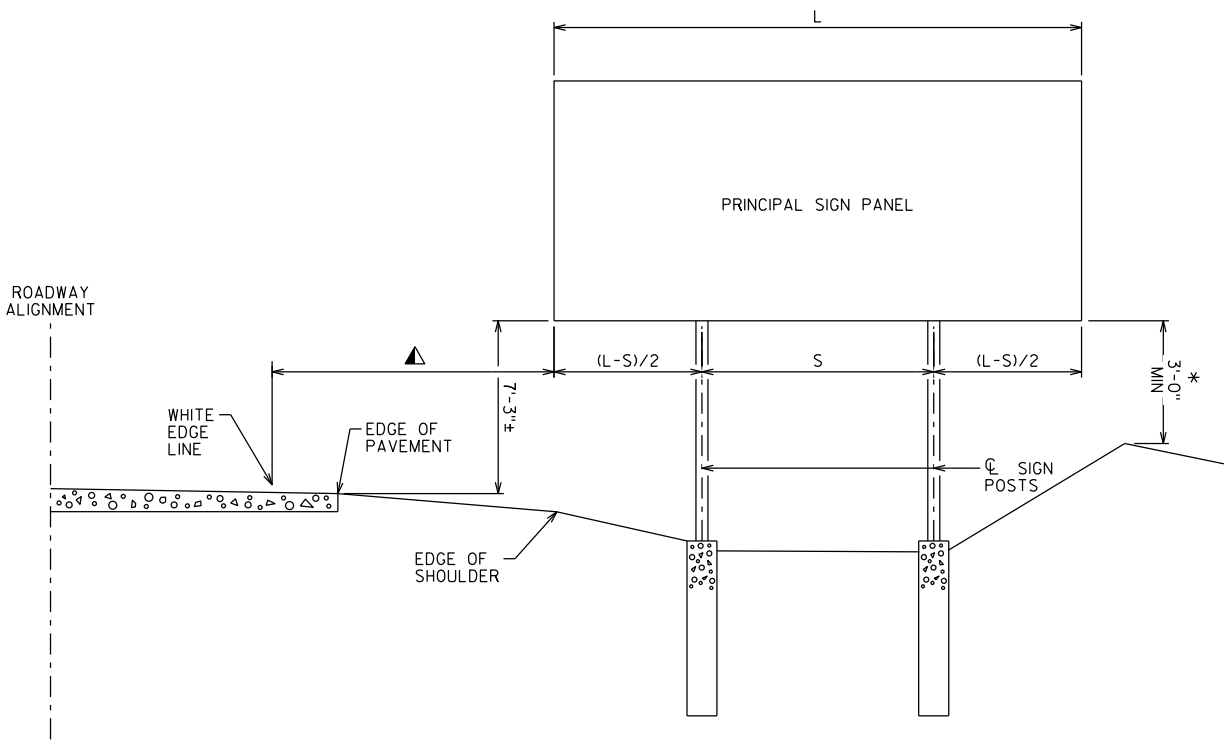
CONCRETE BASE DETAILS



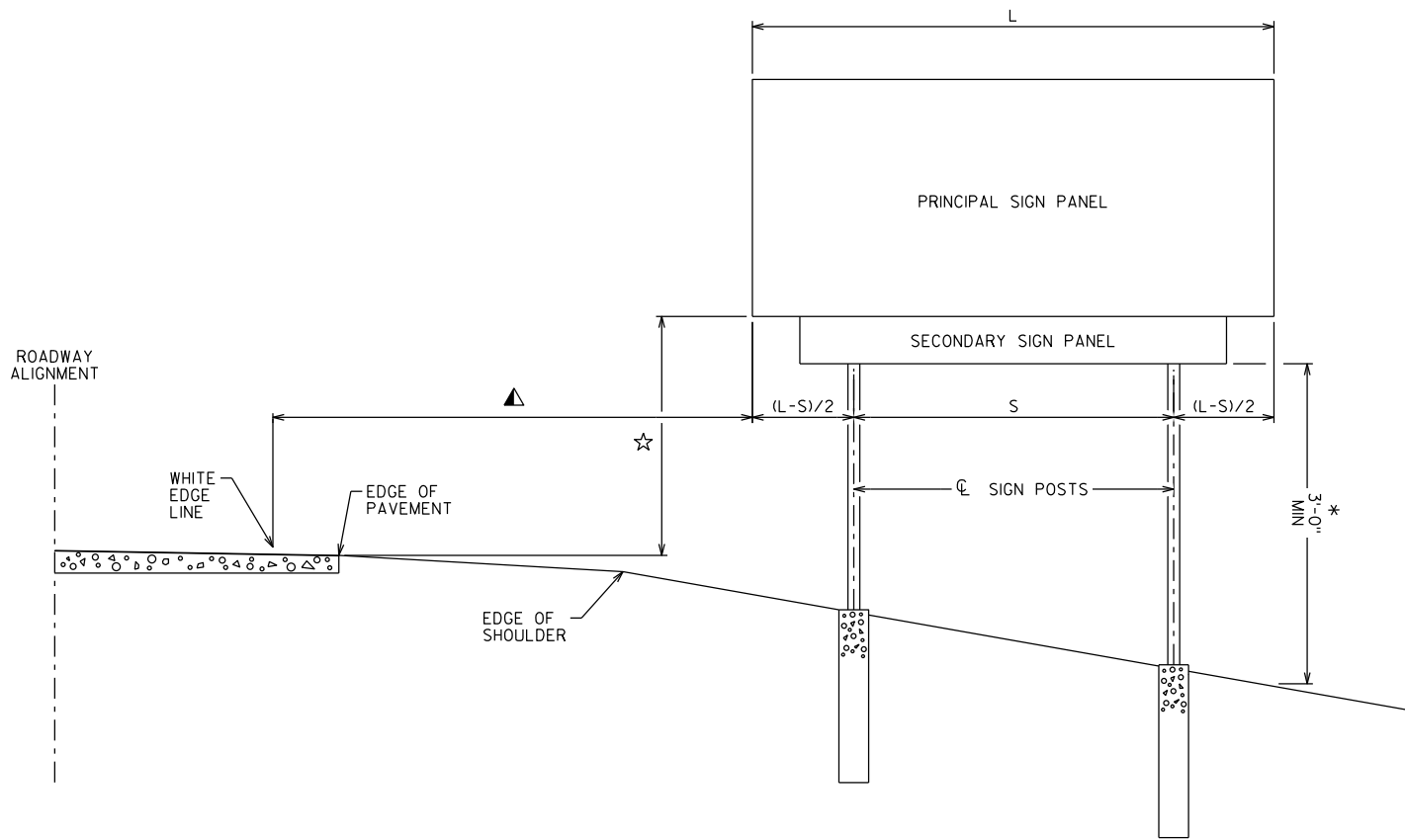
* MIN. CLEAR



NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE BTO TYPE I SIGNS			
DRAWN BY		PLANS CK'D.	
ALTERNATE BREAK-AWAY BASE ON ROCK		SHEET A3-1M.2	



INSTALLATION WITHOUT SECONDARY SIGN



INSTALLATION WITH SECONDARY SIGN

TYPE 1 SIGN INSTALLATION NOTES:

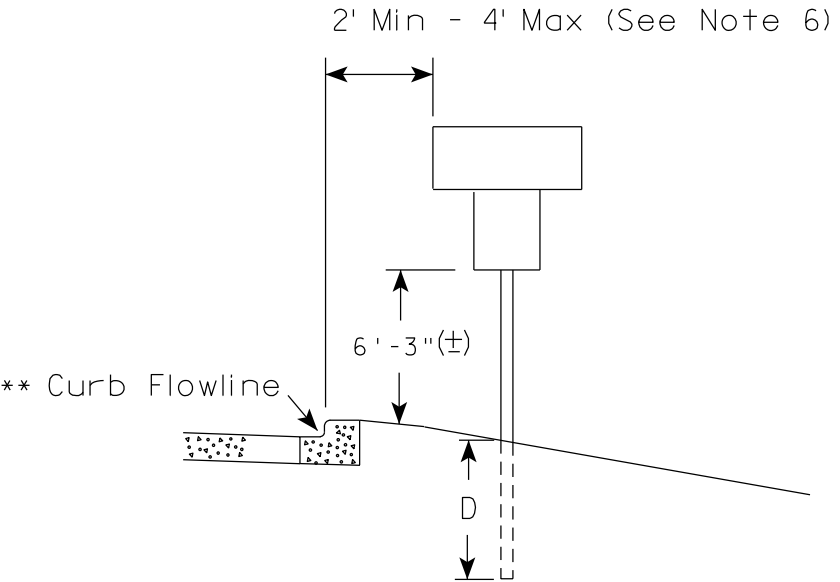
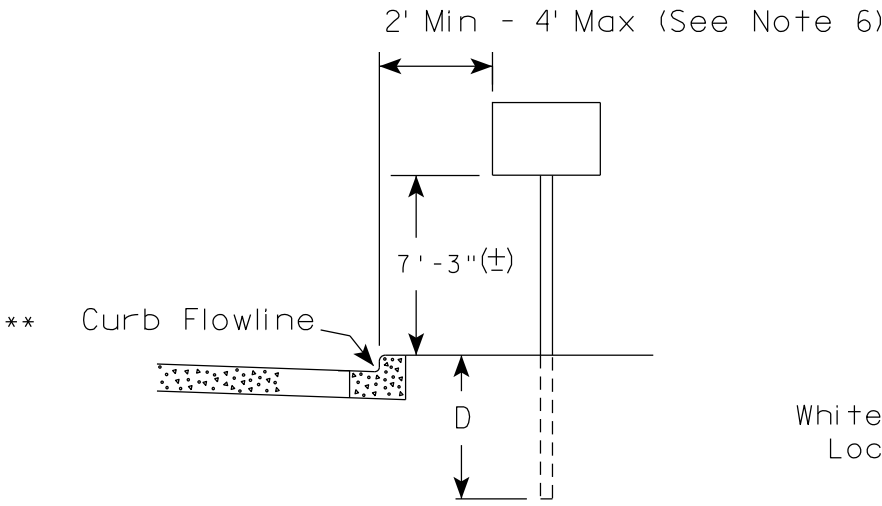
- FOR A 2-POST INSTALLATION, "S" EQUALS $3L/5$, BUT SHALL NOT BE LESS THAN 6'-0".
- FOR A 3-POST INSTALLATION, "S" EQUALS $5L/7$, BUT SHALL NOT BE LESS THAN 12'-0". THE SPACING BETWEEN ANY TWO POSTS SHALL NOT BE LESS THAN 6'-0".
- ▲ UNLESS NOTED IN THE PLANS, THE SIGN OFFSET DISTANCE SHALL BE A MINIMUM OF 17'-6" FROM THE WHITE EDGE LINE, DESIRABLE 30'-0".
- THE ± TOLERANCE SHOWN ON THIS SHEETS IS 3".
- THE VERTICAL SIGN HEIGHT CLEARANCES SHOWN ON THIS SHEET ARE MEASURED FROM THE BOTTOM OF THE SIGN PANEL TO THE NEAR EDGE OF PAVEMENT.
- ☆ THE VERTICAL CLEARANCE SHALL BE 8'-3"± WHEN THE SECONDARY SIGN HEIGHT IS 3'-0" OR LESS, FOR SECONDARY SIGN HEIGHTS LARGER THAN 3'-0", THE VERTICAL CLEARANCE TO THE BOTTOM OF THE SECONDARY SIGN PANEL SHALL BE 5'-3"±.
- * THE VERTICAL SIGN GROUND CLEARANCE ON RIGHT END OF SIGN SHALL BE A MINIMUM OF 3'-0"±.

POST LENGTHS SHOWN IN THE MISCELLANEOUS QUANTITIES ARE ESTIMATED LENGTHS. THE CONTRACTOR SHALL VERIFY POST LENGTHS AT THE TIME OF FINAL GRADING.

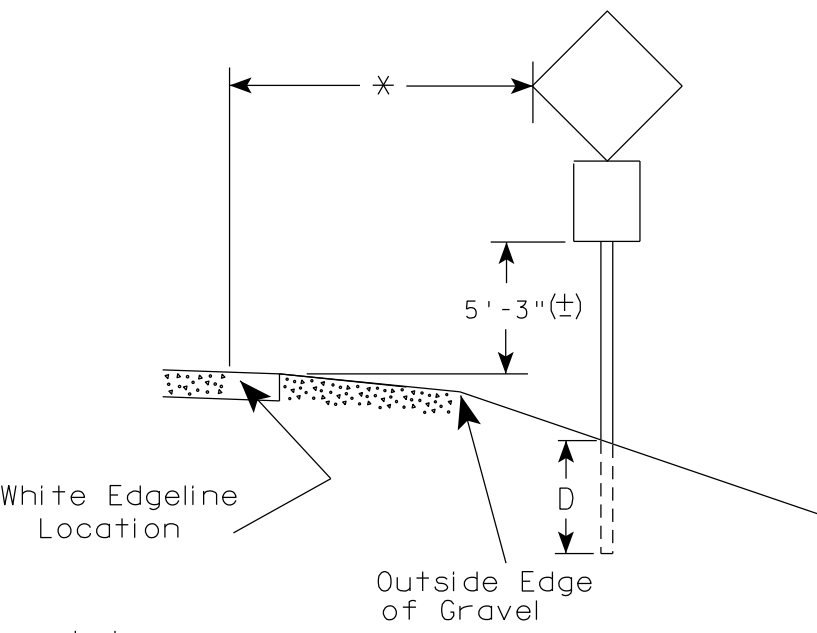
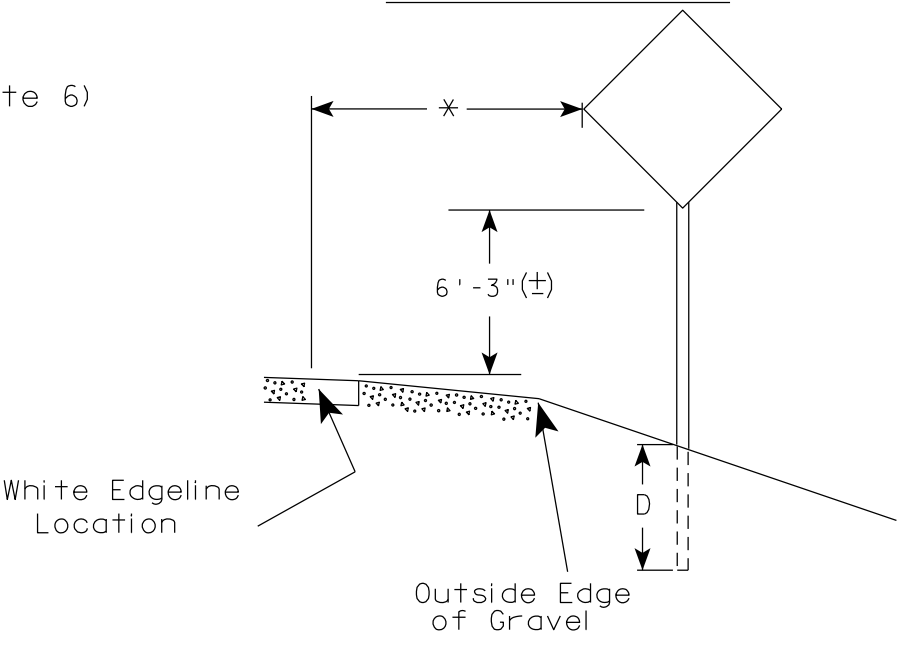
REFER TO THE TRAFFIC ENGINEERING OPERATIONS AND SAFETY MANUAL FOR FURTHER GUIDANCE ON MINIMUM VERTICAL CLEARANCE REQUIREMENTS.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE BTO TYPE I SIGNS			
		DRAWN BY	PLANS CK'D.
TYPICAL TYPE I SIGN INSTALLATION		SHEET A4-1.10	

URBAN AREA



RURAL AREA (See Note 2)



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.

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

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

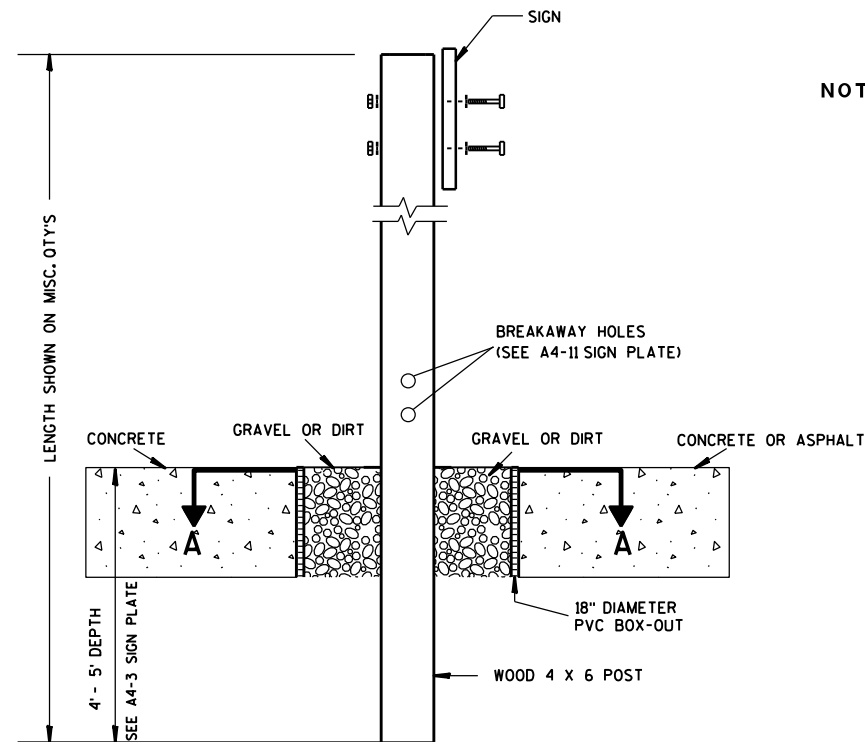
POST EMBEDMENT DEPTH	
Area of Sign Installation (Sq.Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

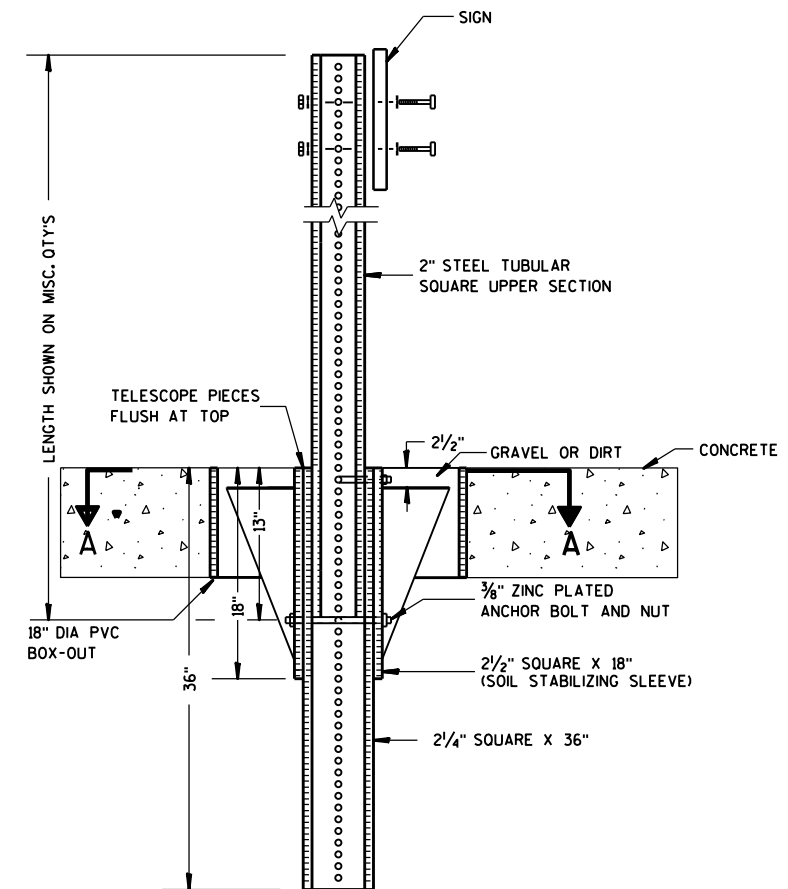
DATE 5/13/2020 PLATE NO. A4-3.22



ELEVATION VIEW

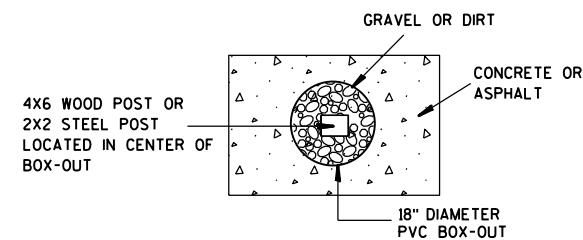
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST
BOX-OUTS
A4-3B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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

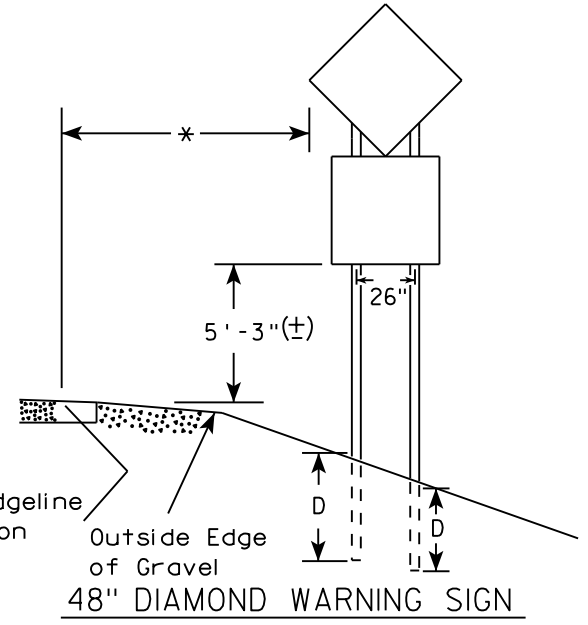
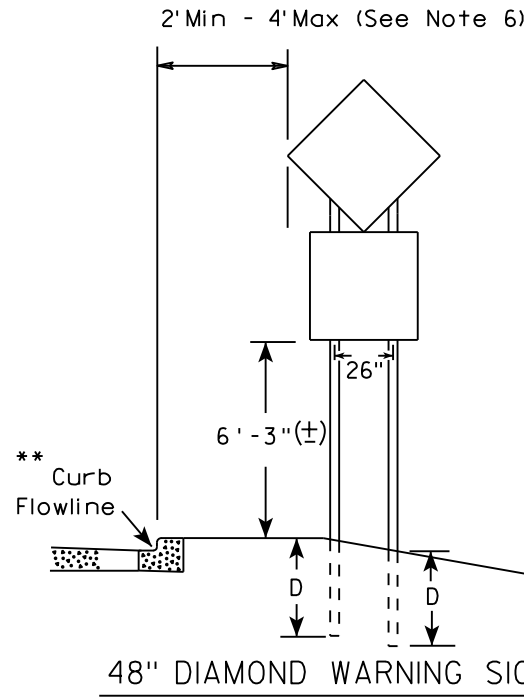
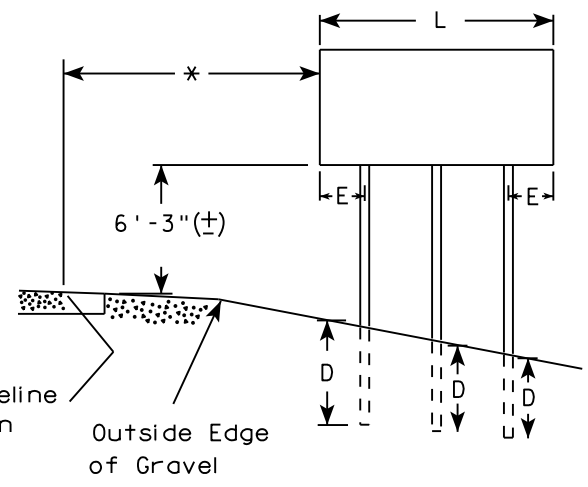
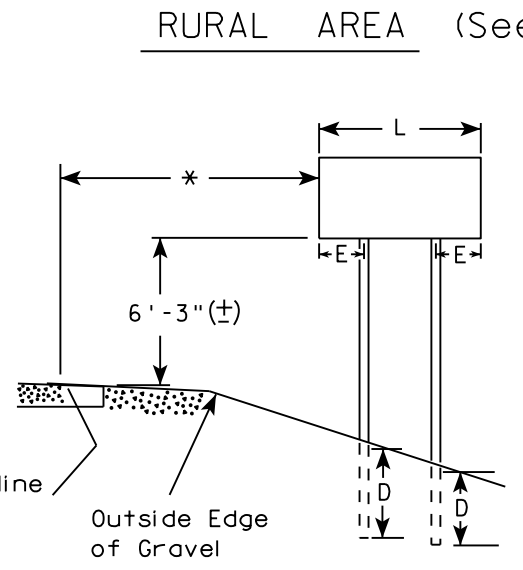
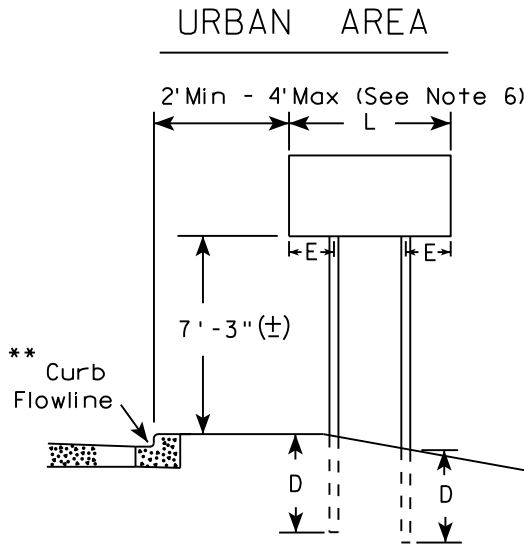
PROJECT NO:

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'

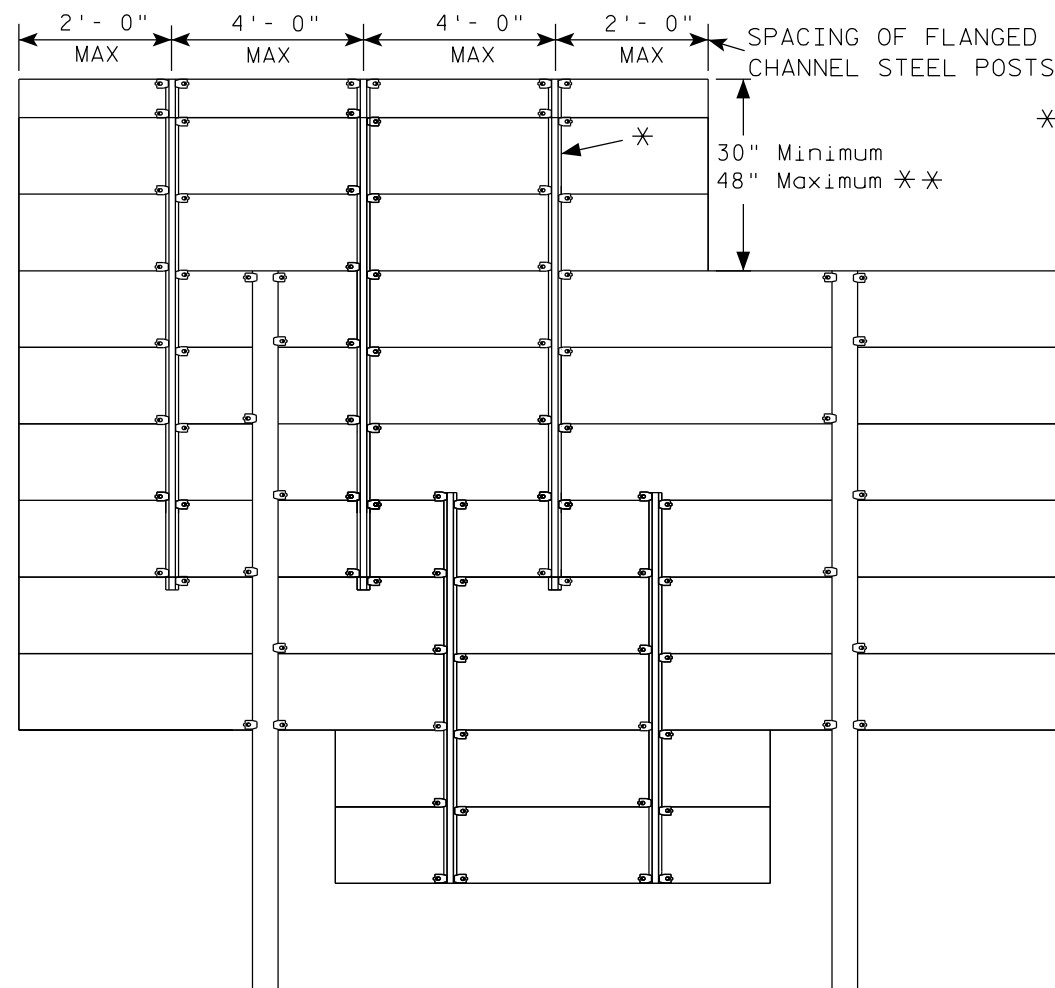
TYPICAL INSTALLATION
OF TYPE II SIGNS
ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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

GROUND MOUNTED SIGN



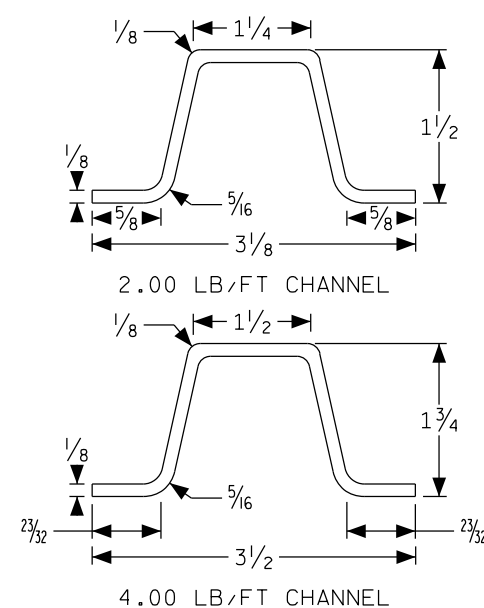
* = 2.00 lb/ft AND 4.00 lb/ft FLANGED CHANNEL, MIN. YIELD STRENGTH = 60,000 PSI (GRADE 60) GALVANIZED

* * = FOR 48" HEIGHT PANELS ON OVERHEAD STRUCTURES, ENTIRE SIGN SHALL BE CENTERED VERTICALLY ABOUT THE DEPTH OF THE TRUSS.

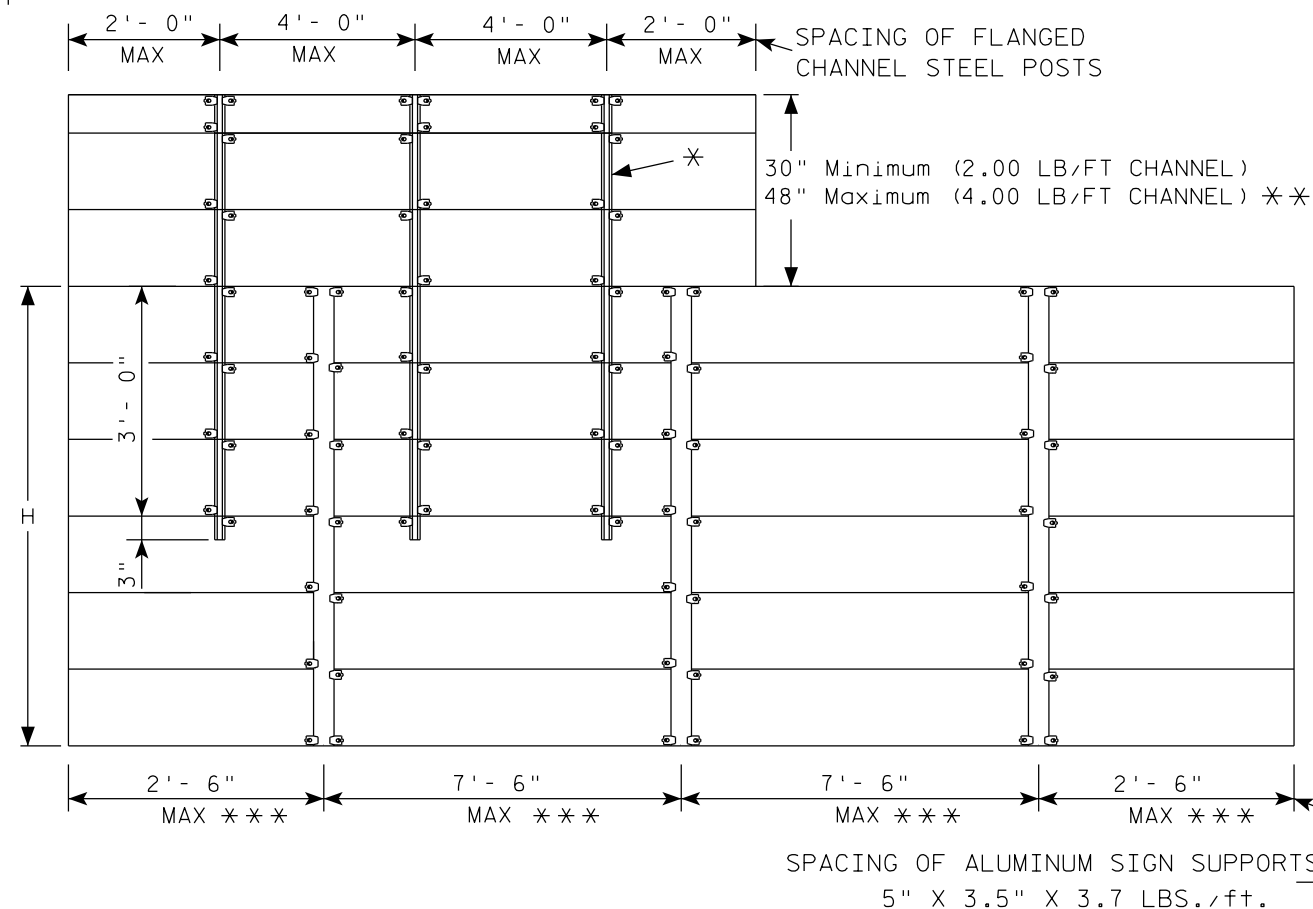
* * * THESE SPACING DISTANCES SHALL ONLY BE USED WHEN THE MAIN SIGN HAS A MAXIMUM HEIGHT (DIMENSION H) OF 15 FT OR LESS. FOR SIGNS WITH A HEIGHT OF GREATER THAN 15 FT, STRUCTURAL CALCULATIONS SHALL BE PERFORMED.

FLANGE CHANNEL DETAILS

NOT TO SCALE



SIGN BRIDGE MOUNTED SIGN



GENERAL NOTES

1. Flanged channel steel posts shall conform to size and material above, and shall be considered as incidental to other items in the contract.
2. Number of Flanged channel steel supports varies with length of panel and shall be spaced as shown:
 PANEL LENGTH 8'-0" OR LESS = 2 CHANNELS
 PANEL LENGTH 9'-0" - 12'-0" = 3 CHANNELS
 PANEL LENGTH 13'-0" OR MORE = 4 CHANNELS
 If the flanged channel steel posts can not be horizontally spaced as shown, they can be moved so as to securely hold the sign.

3. The EXIT NUMBER PANEL shall normally be positioned above the guide sign aligned with the right edge of the guide sign. If the guide sign indicates a left exit, the EXIT NUMBER PANEL shall be aligned with the left edge of the guide sign.
4. If the bolt holes in the top panel (EXIT NUMBER), or sub panel (NEXT EXIT) line up with holes in main sign panel, stitch bolts shall be used in addition to the channels.
5. Provide post clips for each sign as shown. (Please note the differences between a ground mounted versus Sign bridge mounted sign as far as number of clips required on the main supports or beams)
6. Structural steel sign supports shall extend to the top of the main signs, as shown on the above details.

ATTACHMENT OF GUIDE SIGNS TO SUPPORTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matthew R. Rauch
 for State Traffic Engineer

DATE 1/07/20

PLATE NO. A4-6.12

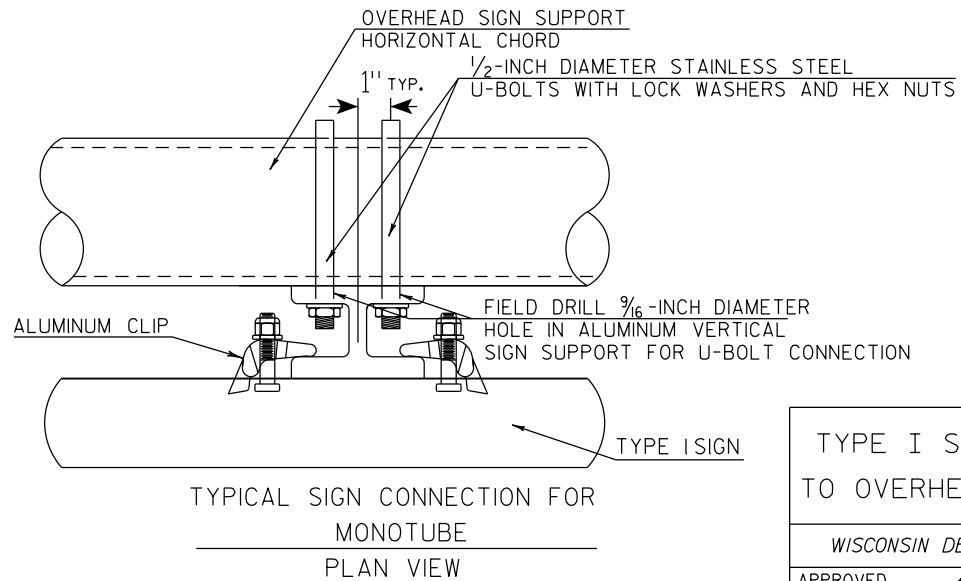
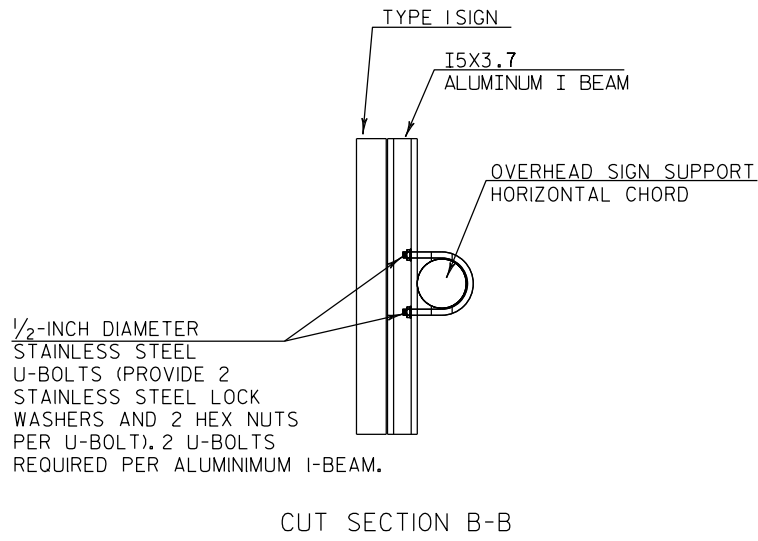
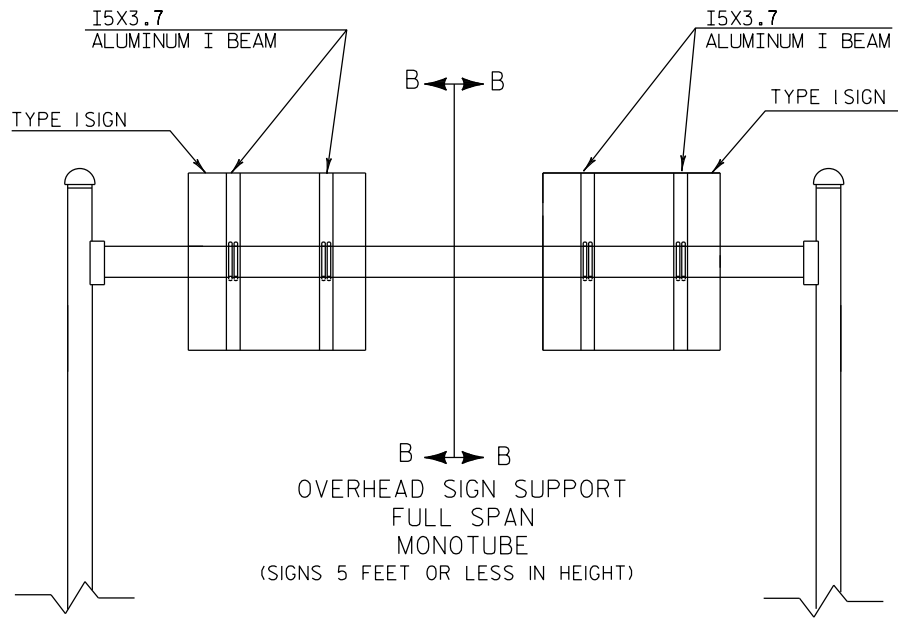
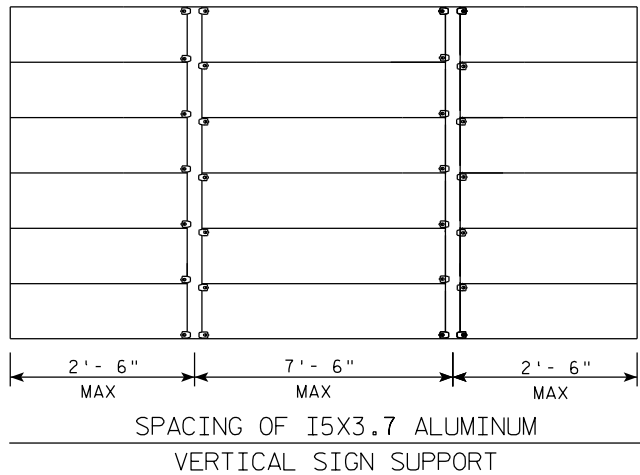
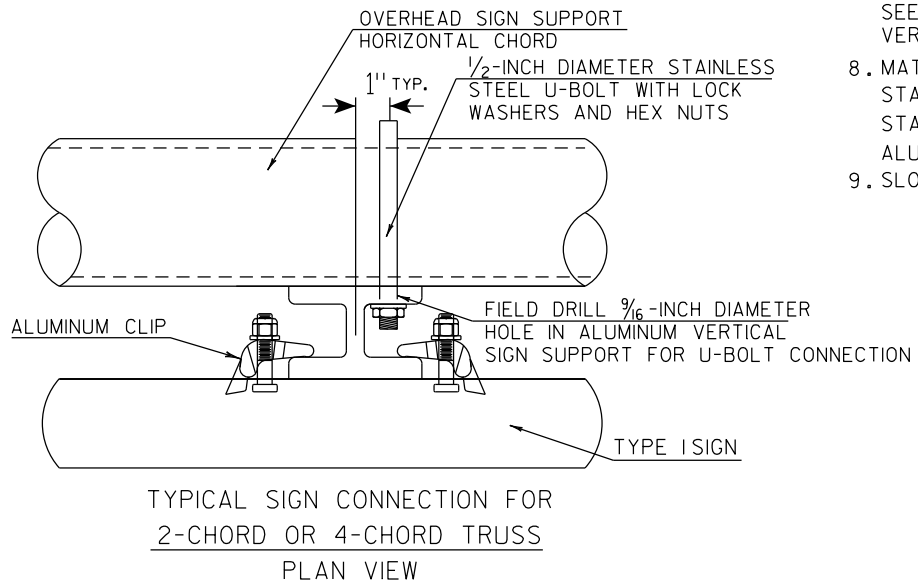
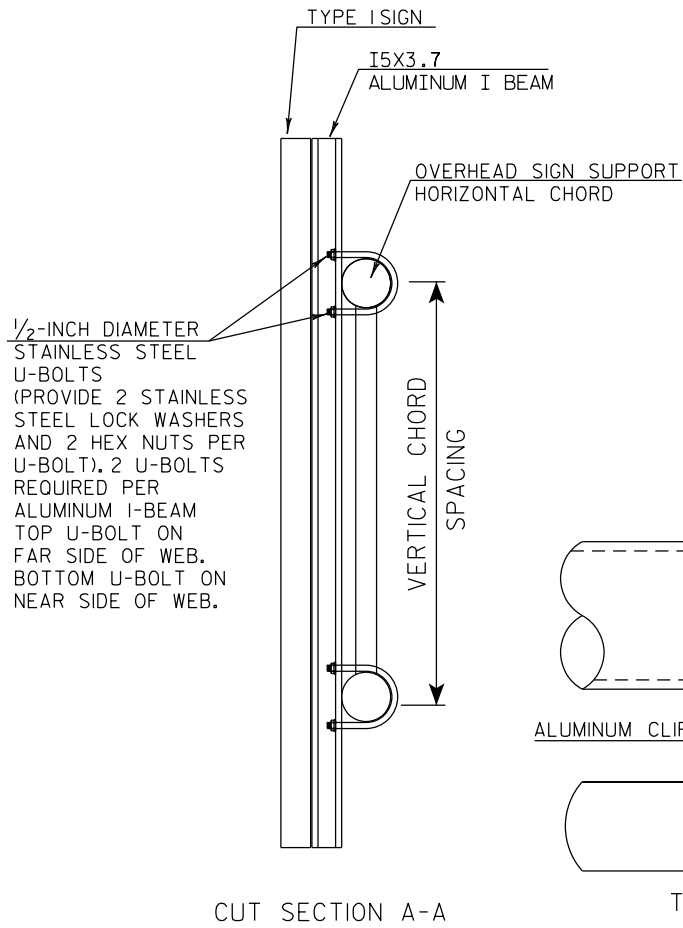
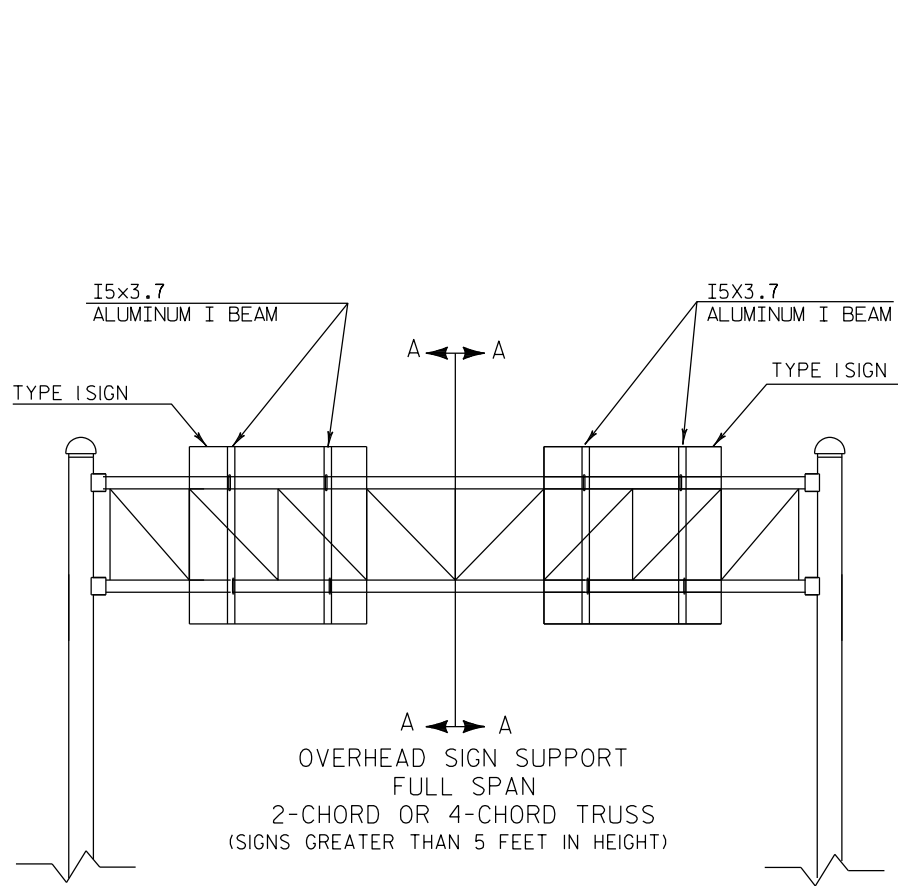
PROJECT NO:

SHEET NO:

E

GENERAL NOTES

1. USE STAINLESS STEEL U-BOLTS, WASHERS, AND NUTS.
2. USE CLIPS ON EVERY EXTRUDED PANEL JOINT PER SIGN PLATE A4-6.
3. USE ALUMINUM VERTICAL SIGN SUPPORT BEAMS HAVING A 5 INCH BEAM DEPTH AND WEIGHT OF 3.7 LBS PER FOOT.
4. U-BOLTS SHALL BE STAINLESS STEEL AND MANUFACTURED TO THE PROPER SIZE TO FIT THE CHORDS OF THE OVERHEAD SIGN STRUCTURE.
5. DIAMETER OF U-BOLTS SHALL BE AS SHOWN.
6. THE LENGTH OF THE ALUMINUM VERTICAL SIGN SUPPORT BEAMS SHALL BE THE SAME AS THE HEIGHT OF THE SIGN THEY ARE SUPPORTING. BEAM LENGTHS MAY BE LONGER FOR PROPER ATTACHMENT TO CHORDS.
7. MINIMUM NUMBER OF BRACKETS PER SIGN IS TWO. SEE DETAIL BELOW FOR SPACING OF ALUMINUM VERTICAL SIGN SUPPORTS
8. MATERIAL NOTES:
STAINLESS STEEL U-BOLTS AND LOCKWASHERS ASTM 304.
STAINLESS STEEL HEX NUTS ASTM A276.
ALUMINUM I-BEAMS ARE 6061-T6.
9. SLOTTED HOLES IN I-BEAMS ARE NOT ALLOWED



TYPE I SIGN CONNECTION TO OVERHEAD SIGN SUPPORT

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matthew R. Rauch
State Traffic Engineer

DATE 1/07/20

PLATE NO. A4-7A.1

PROJECT NO:

HWY:

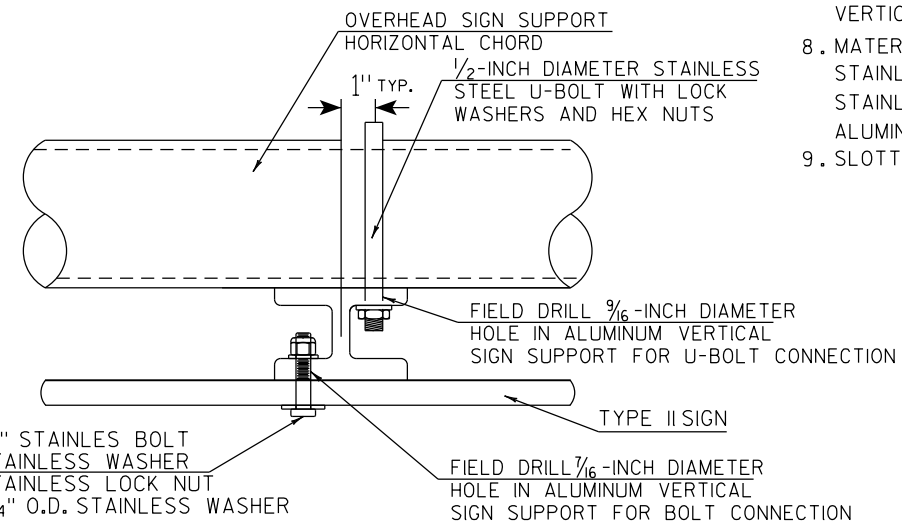
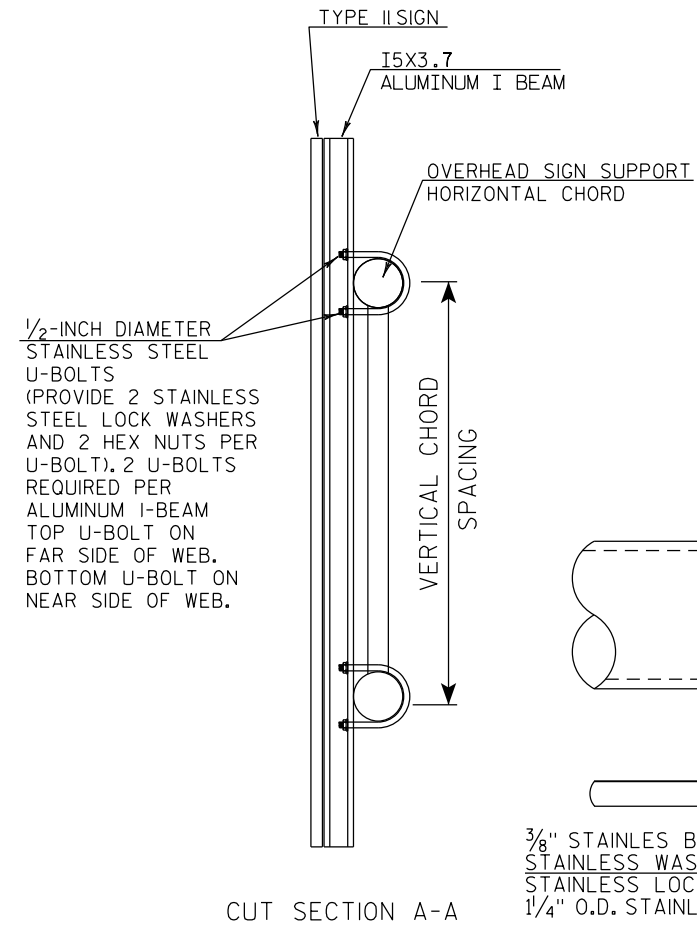
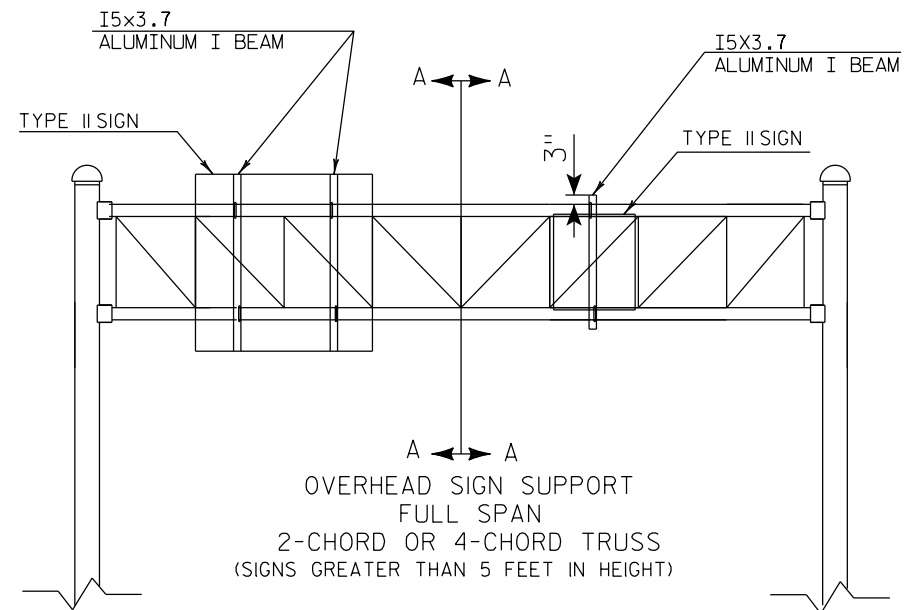
COUNTY:

SHEET NO:

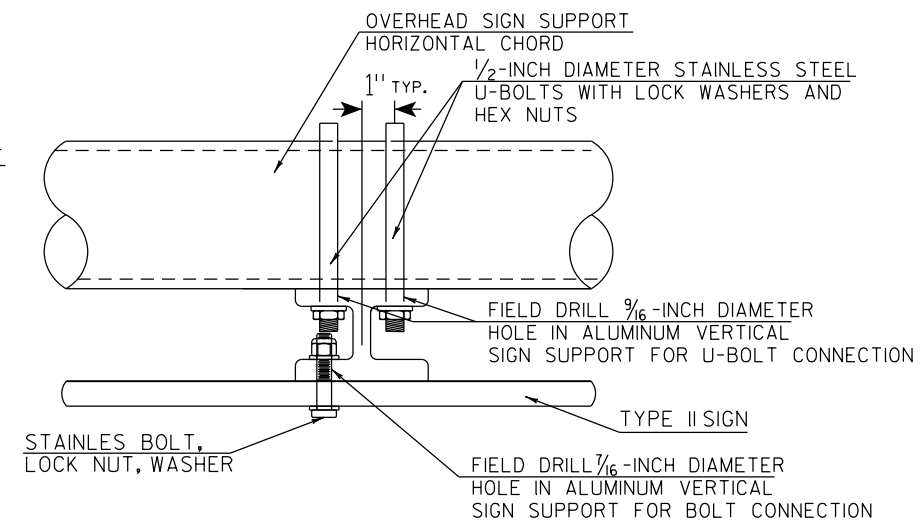
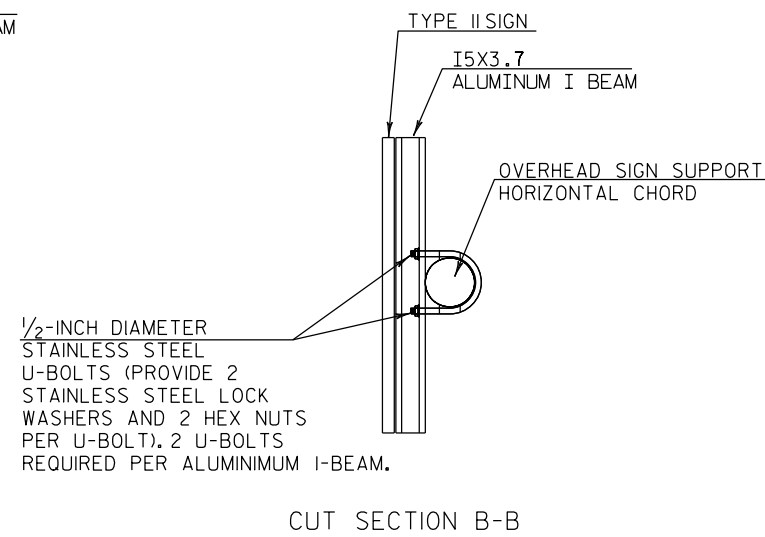
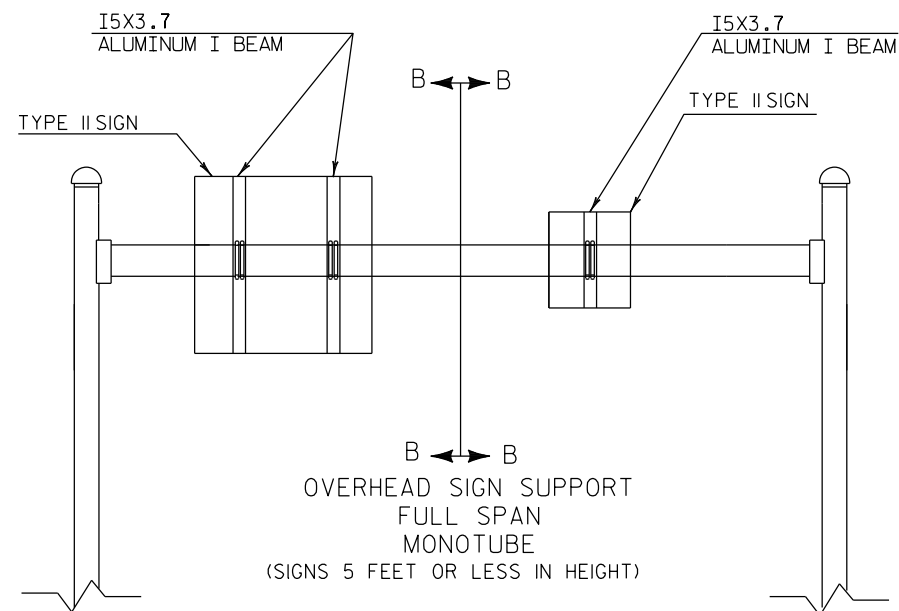
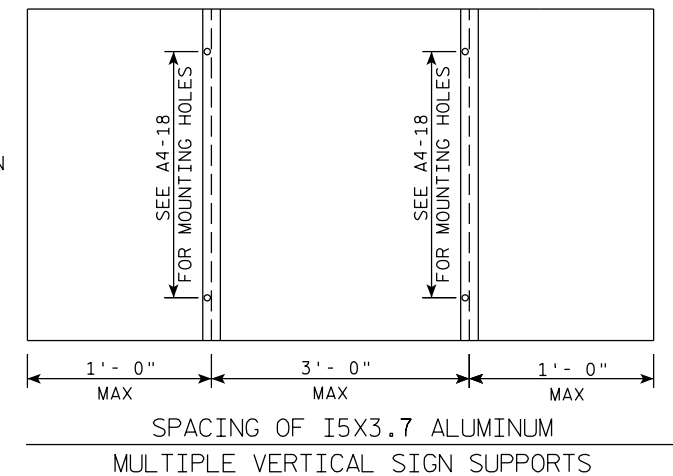
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GENERAL NOTES

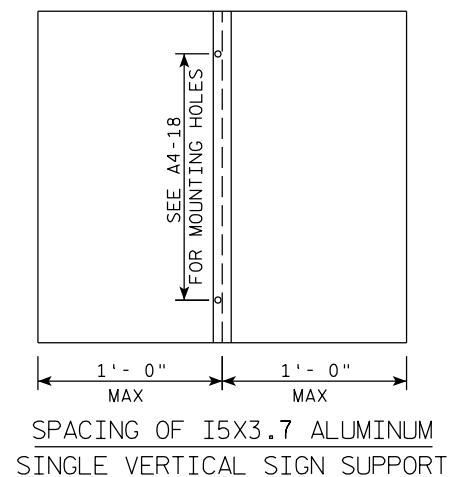
1. USE STAINLESS STEEL U-BOLTS, WASHERS, AND NUTS.
2. USE STAINLESS BOLTS AT BOLT HOLES IN SIGN PANEL PER SIGN PLATE A4-18.
3. USE ALUMINUM VERTICAL SIGN SUPPORT BEAMS HAVING A 5 INCH BEAM DEPTH AND WEIGHT OF 3.7 LBS PER FOOT.
4. U-BOLTS SHALL BE STAINLESS STEEL AND MANUFACTURED TO THE PROPER SIZE TO FIT THE CHORDS OF THE OVERHEAD SIGN STRUCTURE.
5. DIAMETER OF U-BOLTS SHALL BE AS SHOWN.
6. THE LENGTH OF THE ALUMINUM VERTICAL SIGN SUPPORT BEAMS SHALL BE THE SAME AS THE HEIGHT OF THE SIGN THEY ARE SUPPORTING. BEAM LENGTHS MAY BE LONGER FOR PROPER ATTACHMENT TO CHORDS.
7. SEE DETAIL BELOW FOR SPACING OF ALUMINUM VERTICAL SIGN SUPPORTS
8. MATERIAL NOTES:
STAINLESS STEEL U-BOLTS, BOLTS, AND LOCKWASHERS ASTM 304.
STAINLESS STEEL HEX NUTS ASTM A276.
ALUMINUM I-BEAMS ARE 6061-T6.
9. SLOTTED HOLES IN I-BEAMS ARE NOT ALLOWED



TYPICAL SIGN CONNECTION FOR
2-CHORD OR 4-CHORD TRUSS
PLAN VIEW



TYPICAL SIGN CONNECTION FOR
MONOTUBE
PLAN VIEW



SPACING OF I5X3.7 ALUMINUM
SINGLE VERTICAL SIGN SUPPORT

TYPE II SIGN CONNECTION
TO OVERHEAD SIGN SUPPORT

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/07/20 PLATE NO. A4-7B.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E
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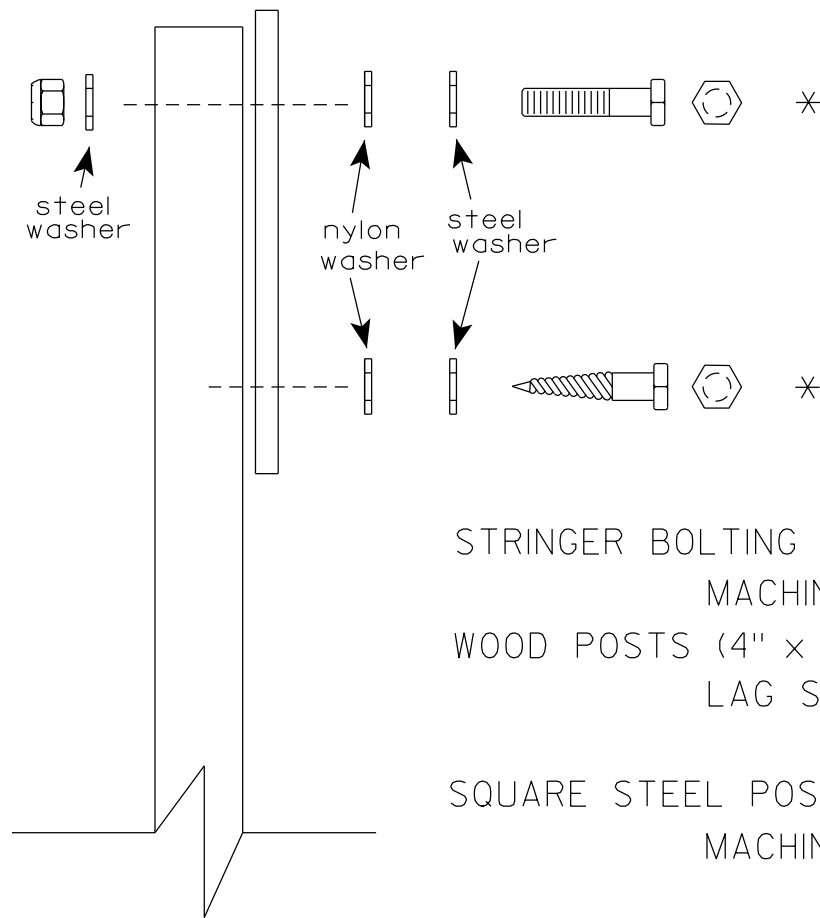
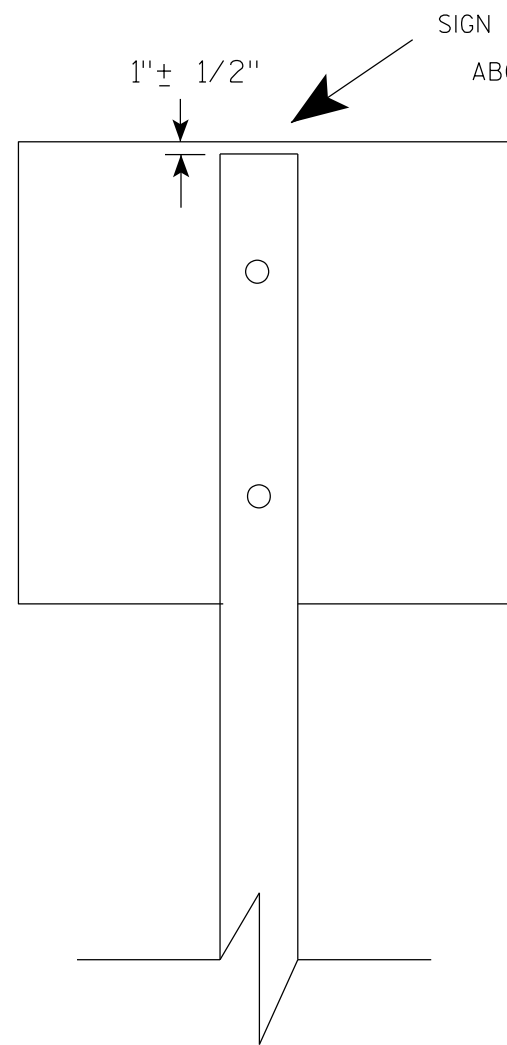
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PLOT DATE : 7-Jan-2020

PL0T BY : dotc4c

PLOT NAME :

PLOT SCALE : \$\$.....plotscale.....\$\$ WISDOT/CADDS SHEET 42



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.

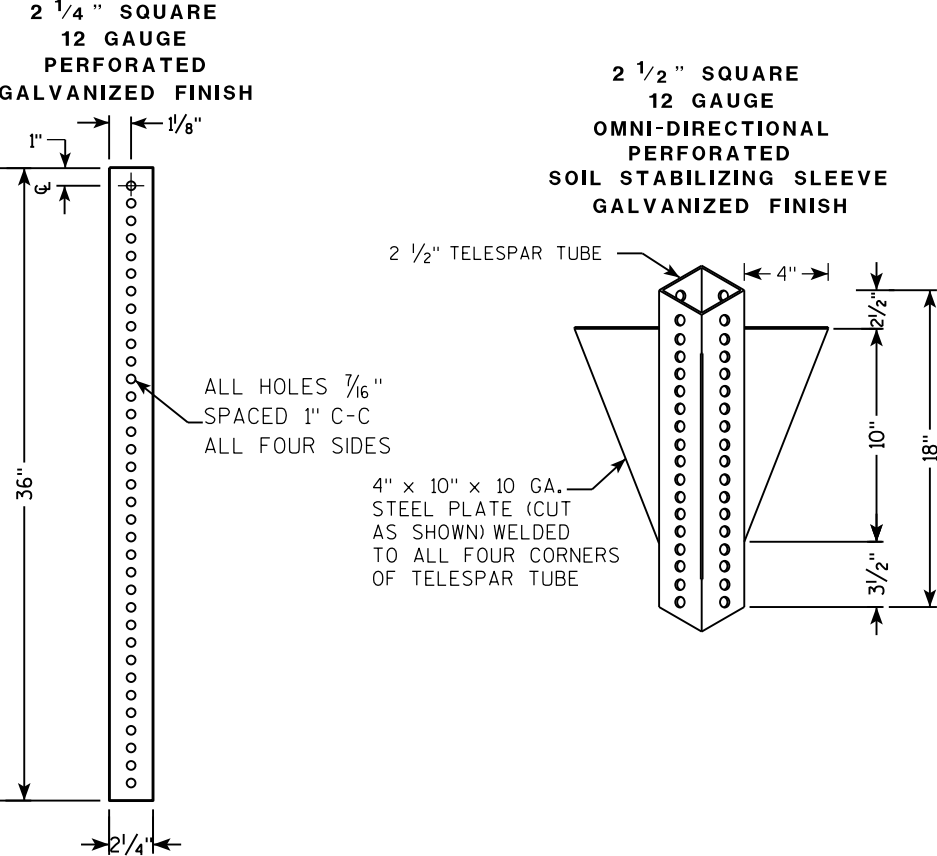
Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

- 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

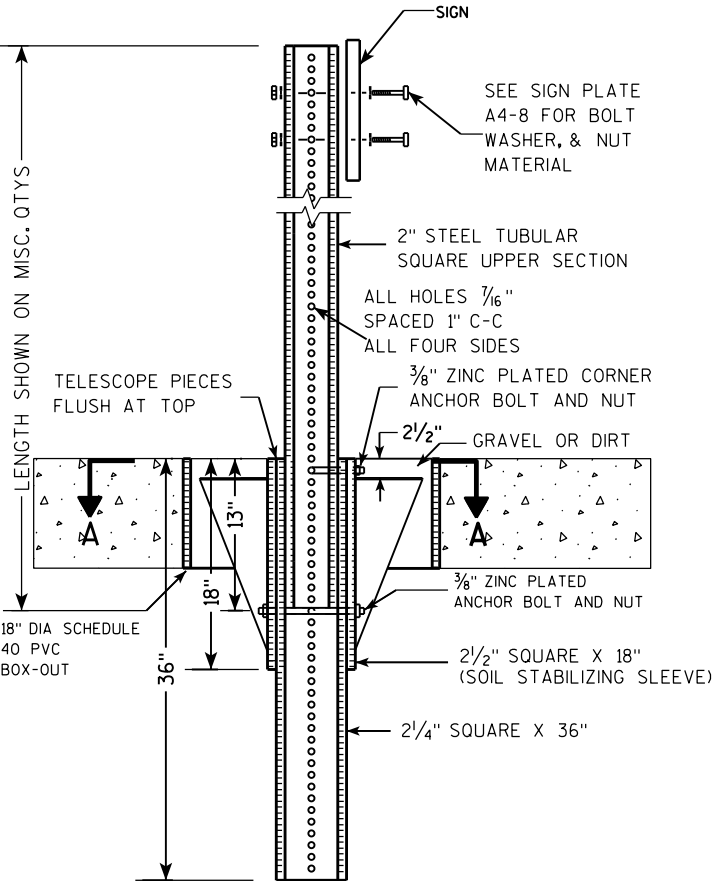
* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require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

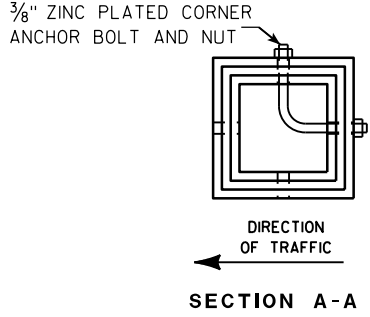
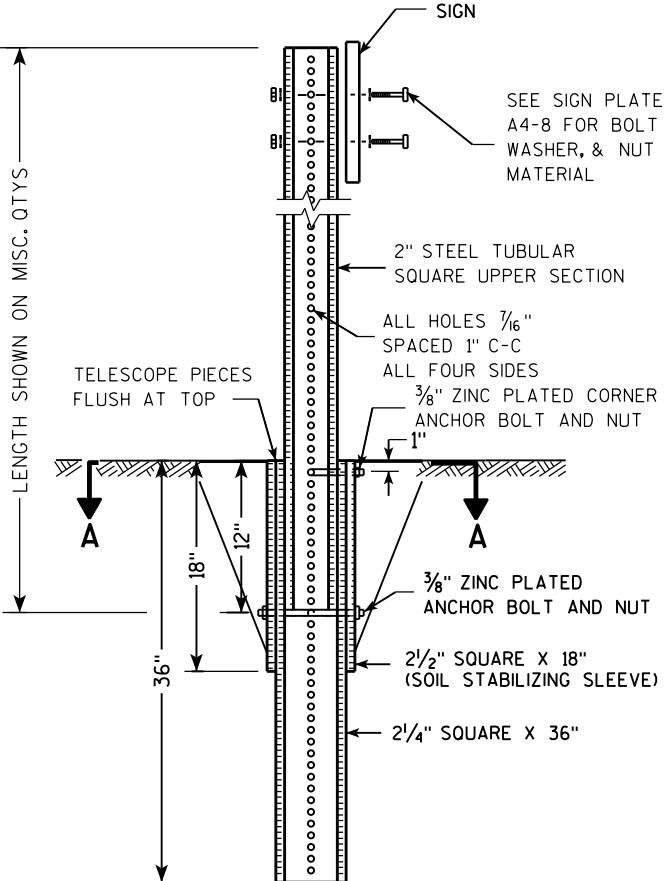
TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM



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

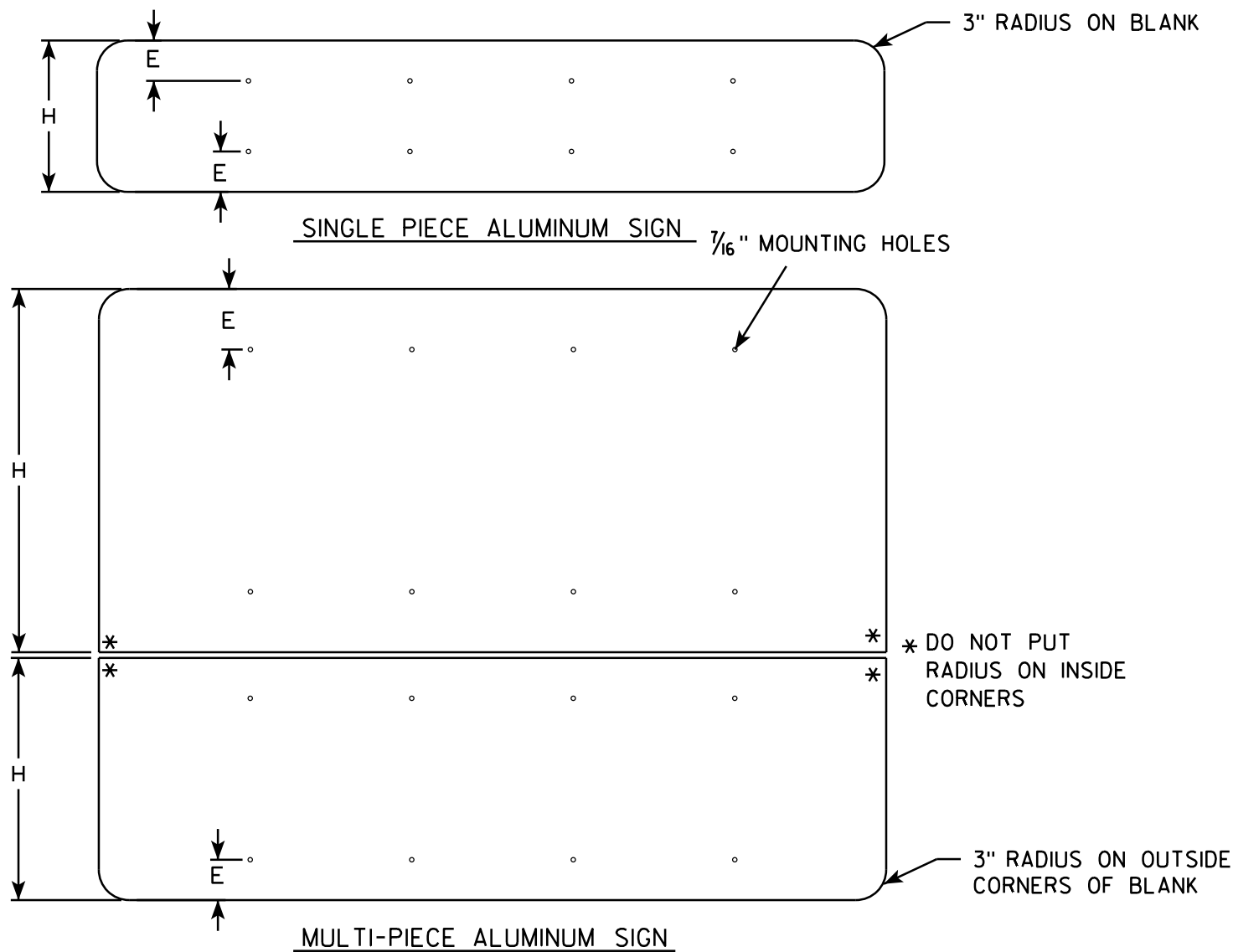
Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

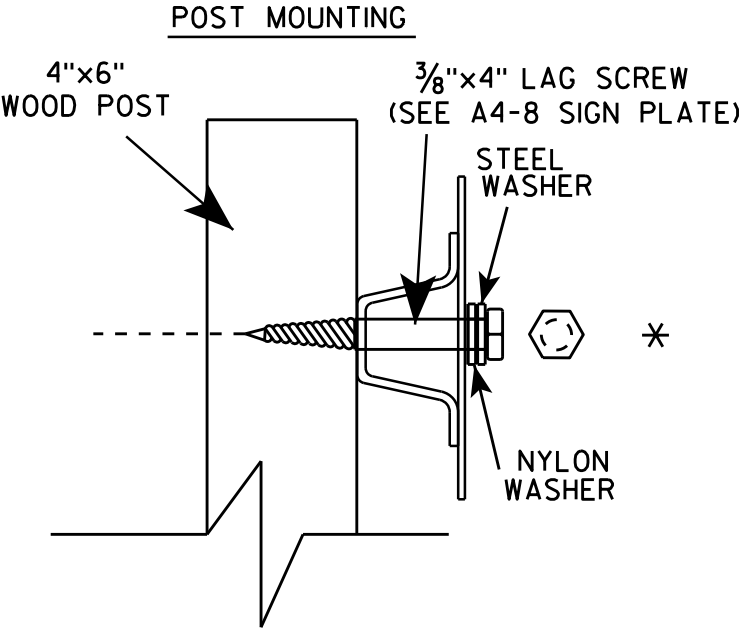
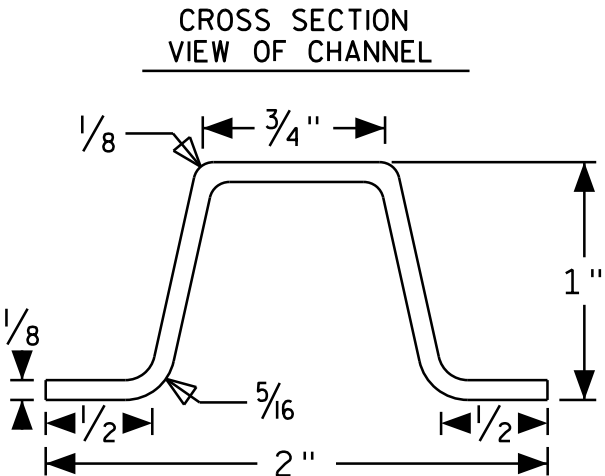
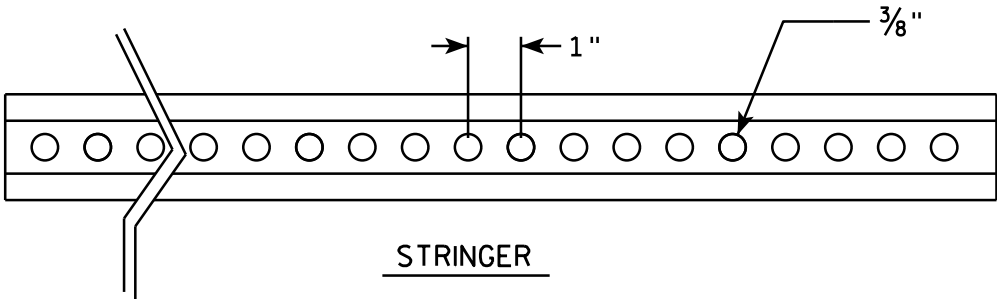
DATE 2/05/15 PLATE NO. A4-9.9



GENERAL NOTES

- ALL SIGNS OVER 60" IN WIDTH SHALL HAVE A 3" RADIUS ON THE OUTSIDE CORNERS OF THE ALUMINUM BLANK.
- MOUNTING HOLES SHALL BE 7/16" DIAMETER.
- SEE CHART FOR HOLE SPACING REQUIREMENTS
- FOR SIGN PANELS WITH DIMENSION (H) 36" AND OVER, DIMENSION E SHALL BE 6"
- FOR SIGN PANELS WITH DIMENSION (H) UNDER 36", DIMENSION E SHALL BE 4"
- SIGN STRINGER MATERIAL SHALL CONSIST OF STEEL CHANNEL POST SECTIONS, WEIGHING 1.12 LBS/FT IN ACCORDANCE WITH SECTION 633.2.1 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.
- SEE SIGN PLATE A4-8 FOR SIGN STRINGER BOLTING REQUIREMENTS.

SIGN WIDTH	STRINGER WIDTH	POSTS	HOLE SPACING	MOUNTING HOLES			
78"	72"	2	16"	15"	31"	47"	63"
84"	72"	2	17"	16 1/2"	33 1/2"	50 1/2"	67 1/2"
90"	72"	2	18"	18"	36"	54"	72"
96"	90"	2	19"	19 1/2"	38 1/2"	57 1/2"	76 1/2"
102"	90"	2	20"	21"	41"	61"	81"
108"	90"	2	21"	22 1/2"	43 1/2"	64 1/2"	85 1/2"
114"	108"	3	15"	12"	27"	42"	57" 72" 87" 102"
120"	108"	3	16"	12"	28"	44"	60" 76" 92" 108"
126"	108"	3	17"	12"	29"	46"	63" 80" 97" 114"
132"	126"	3	18"	12"	30"	48"	66" 84" 102" 120"
138"	126"	3	19"	12"	31"	50"	69" 88" 107" 126"
144"	126"	3	20"	12"	32"	52"	72" 92" 112" 132"



SIGN STRINGER
MOUNTING REQUIREMENTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 4/26/16 PLATE NO. A4-18.1

7



Punch 7/16" x 7/8" ovalholes beginning 6" in from end
of extrusion 12" CC on both edges of 6" and 12" panels.

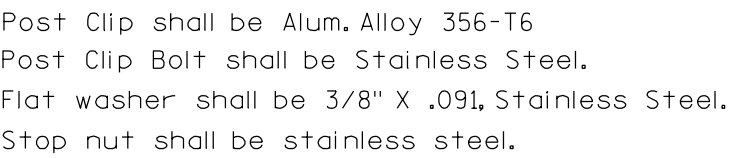
Technical drawing of a 90-degree elbow fitting. The drawing shows a cross-section of the fitting, which is a quarter-circle with a radius of $\frac{1}{8}$ inch. The thickness of the fitting is $\frac{1}{2}$ inch by $\frac{1}{64}$ inch. The drawing is labeled "220R" and includes dimension lines and arrows indicating the dimensions.

DETAIL A (EDGE WRAP JOINT)

DETAIL A (EDGE WRAP JOINT)



Post Clip shall be Alum. Alloy 356-T6
Post Clip Bolt shall be Stainless Steel.
Flat washer shall be 3/8" X .091, Stainless Steel.
Stop nut shall be stainless steel.

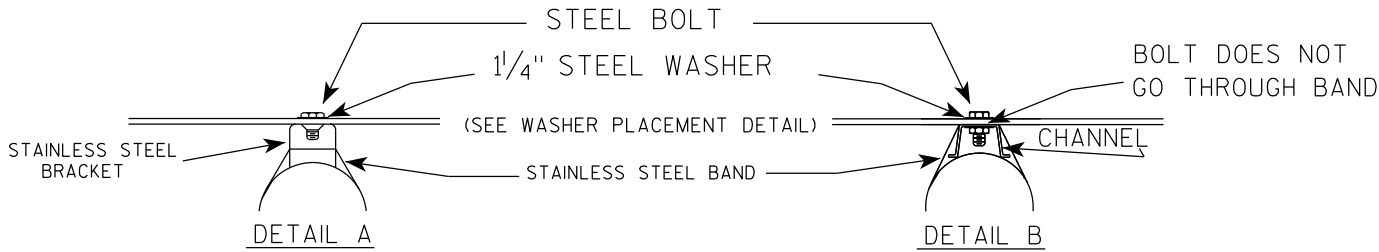
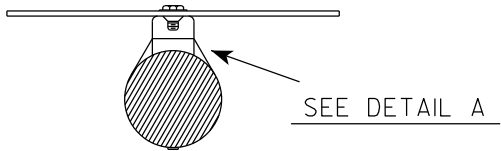
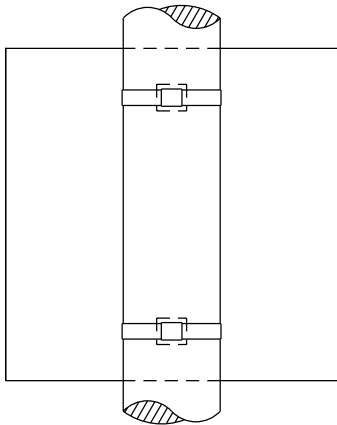


1. The contractor may select any brand of extrusion that conforms to the illustrations or meets with the approval of the engineer, but all extrusions used on this contract shall be of the same brand.
2. Panel Stitch Bolts shall be used to assemble adjacent panels. Maximum stitch bolt spacing shall be 24" C-C, and a minimum of 4 bolts shall be used to connect any two extrusions.
3. Post Clips shall be used to attach the sign panel to the sign support.
4. Edge wrapping of sign sheeting required on all extrusions joints shown in Detail A.

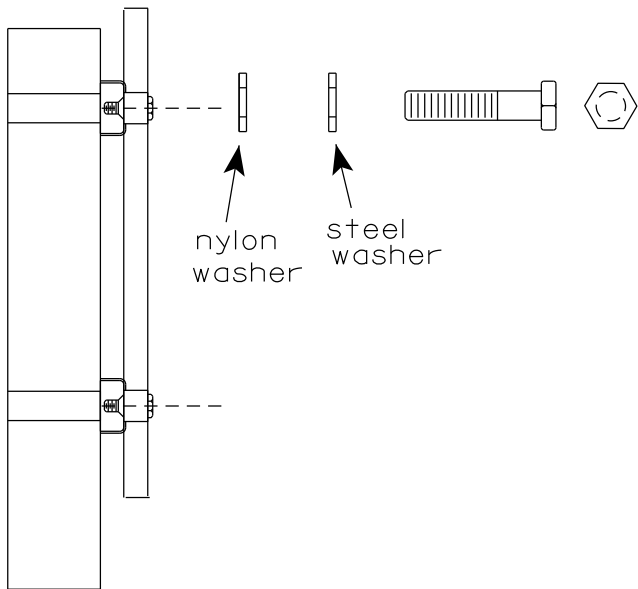
ALUMINUM EXTRUSIONS FOR TYPE I SIGNS	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<u>Matthew R Rauch</u> for State Traffic Engineer
DATE <u>1/07/20</u>	PLATE NO. <u>A5-2.10</u>

BANDING

SINGLE SIGN



WASHER PLACEMENT

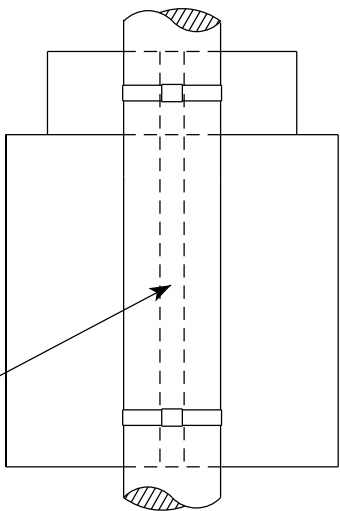


WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

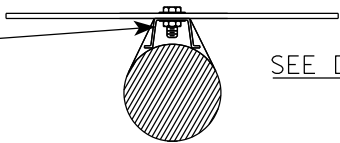
GENERAL NOTES

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



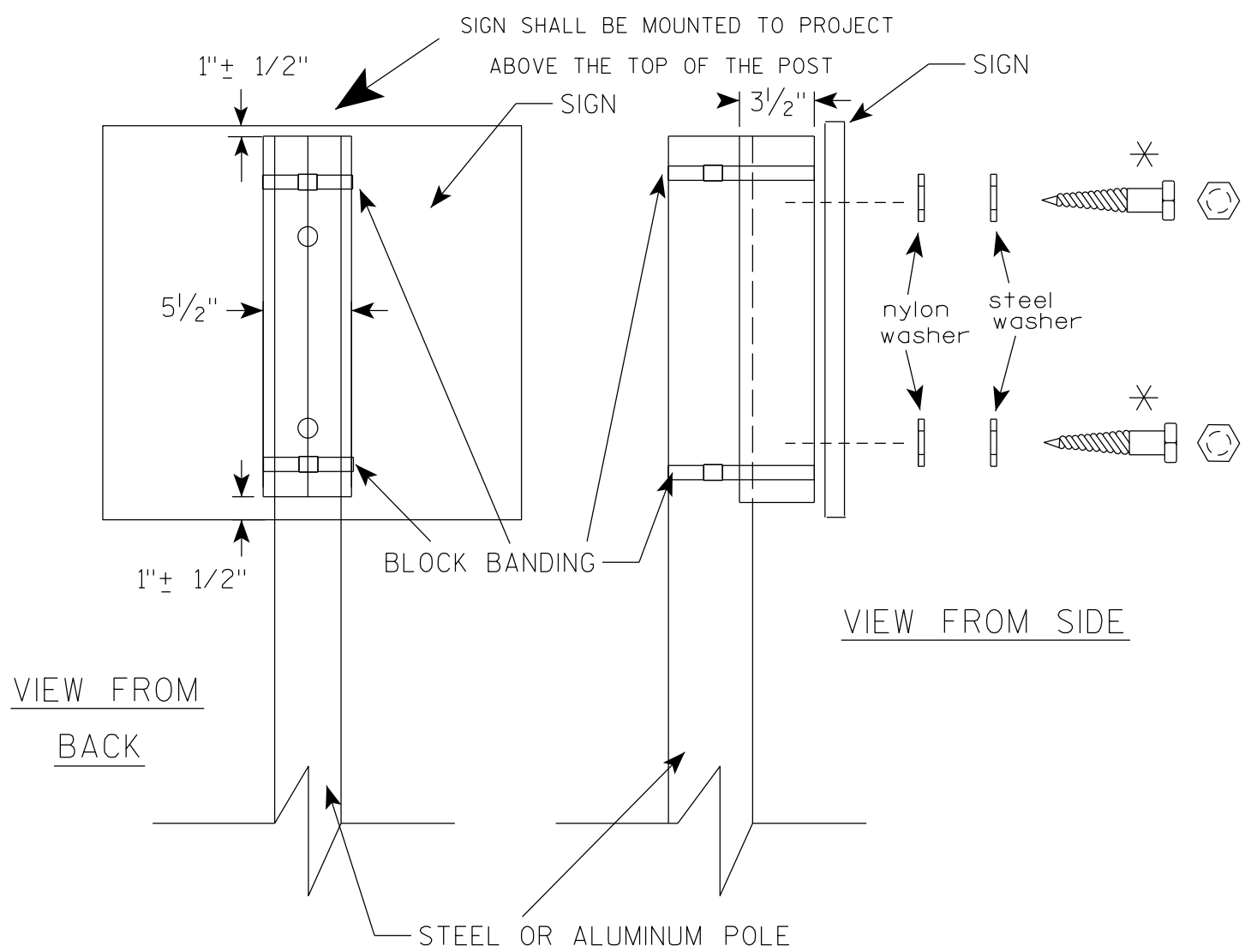
CHANNEL
SEE TYPICAL PANEL
INSTALLATION SHEET



STANDARD SIGN
SIGN BANDING DETAILS

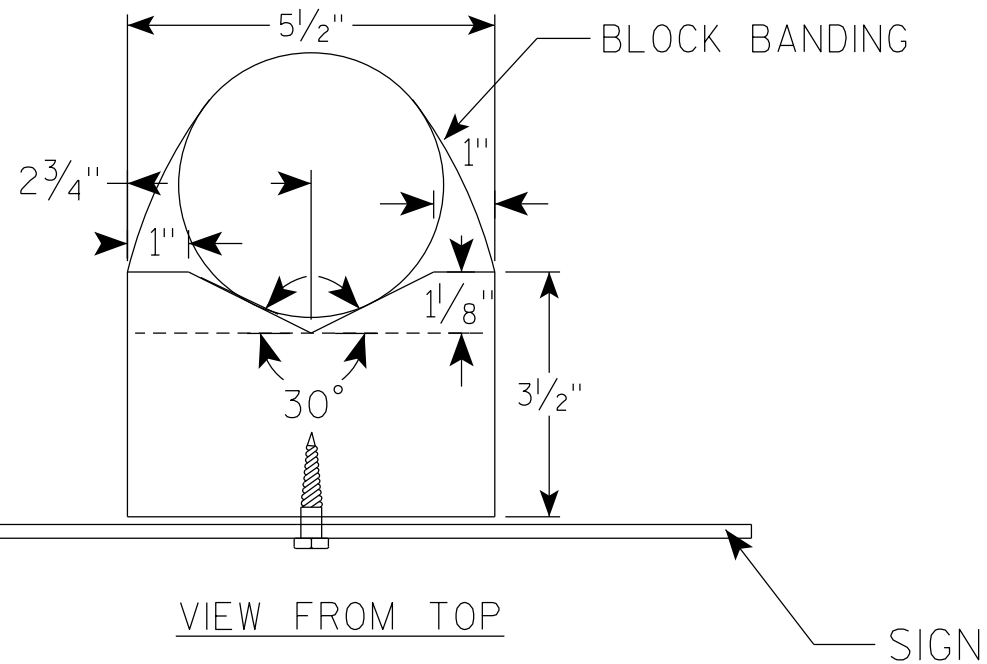
WISCONSIN DEPT OF TRANSPORTATION

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



VIEW FROM
BACK

VIEW FROM SIDE



VIEW FROM TOP

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 $\frac{1}{4}$ " O.D. X $\frac{3}{8}$ " I.D. X $\frac{1}{16}$ "
8. NYLON WASHERS SHALL BE $\frac{1}{4}$ " 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

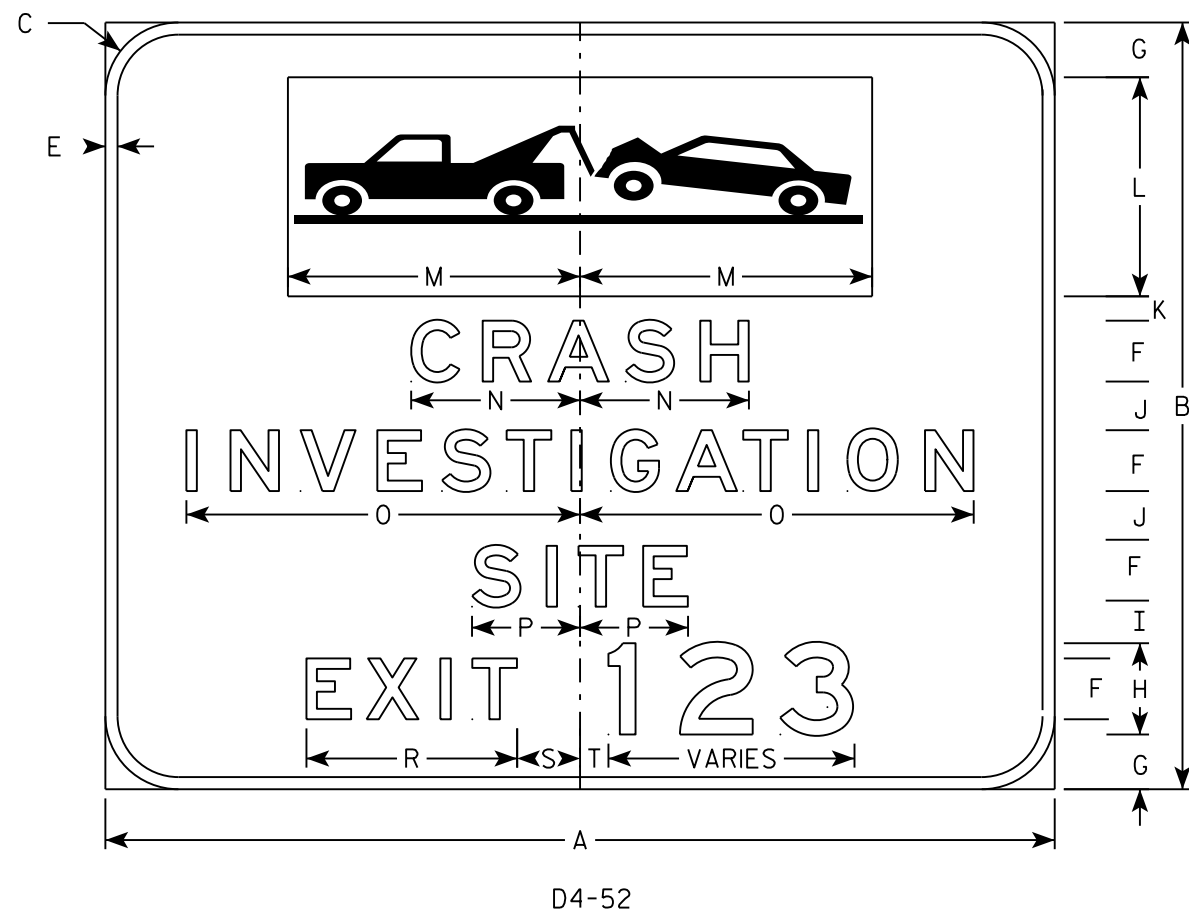
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 4/19/2022 PLATE NO. A5-10.3

PROJECT NO:

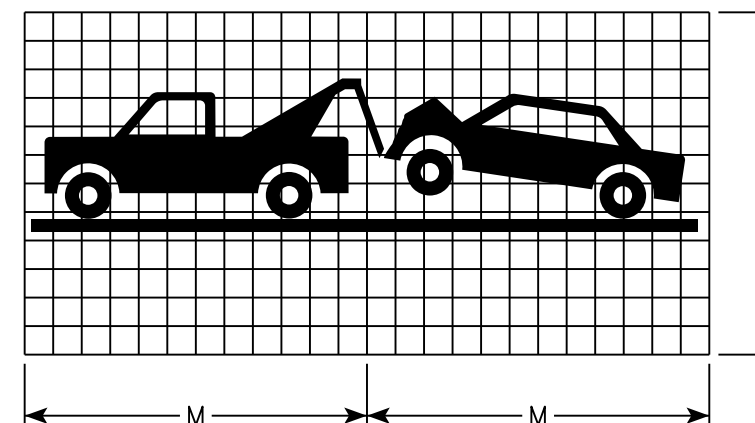
SHEET NO:

E



NOTES

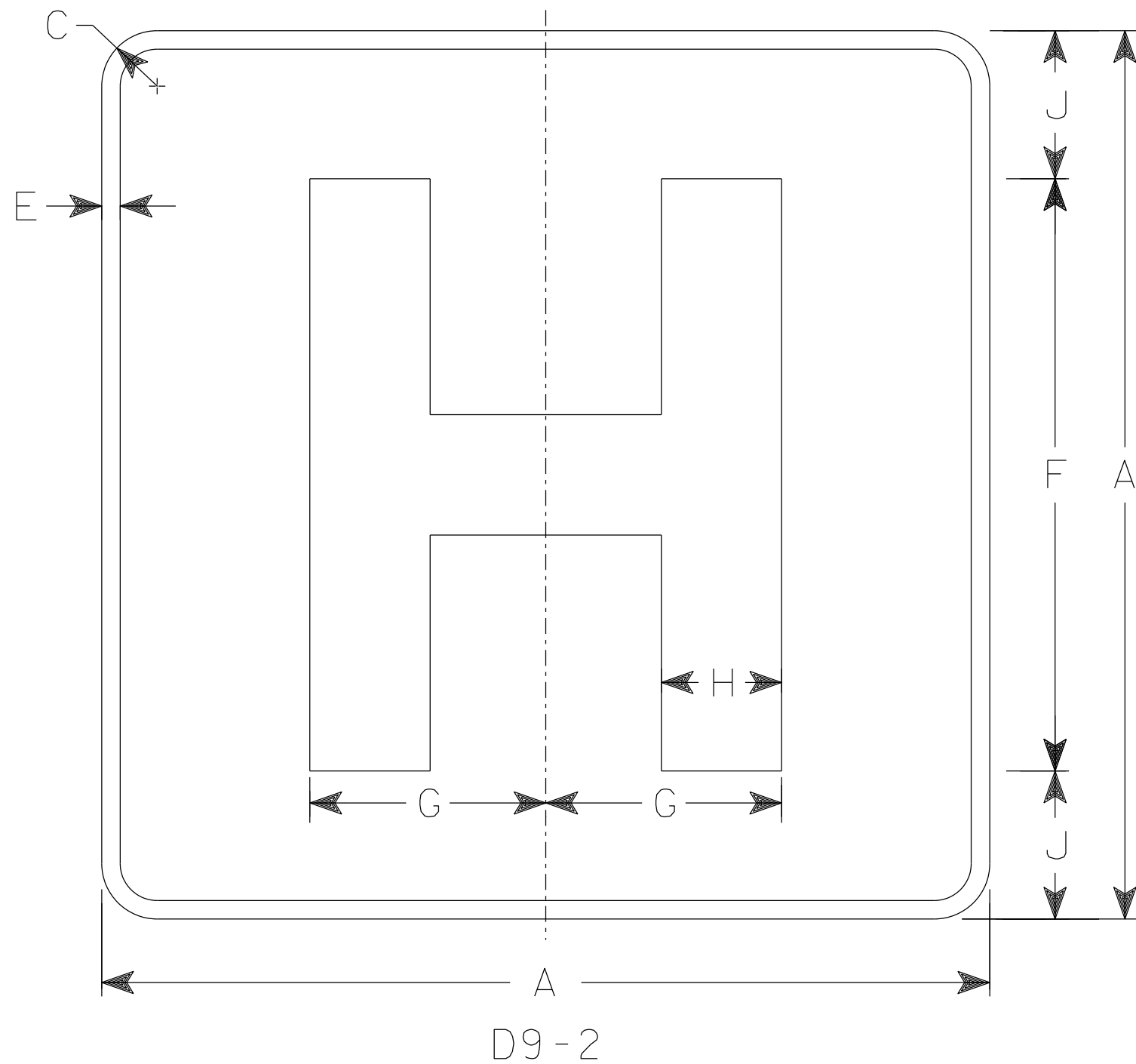
1. Sign is Type I - Type SH Reflective
2. Color:
Background - BLUE
Message - WHITE
3. Message Series - E
4. Logo shall be white in color mounted on 96 x 36
.040 aluminum with Blue SH Reflective Background sheeting.



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																											
3																											
4	156	126	12		2	10	9	15	7	8	4	36	48	27 3/4	64 3/4	17 3/4		34 5/8	10 3/8	4 5/8							136.5
5	156	126	12		2	10	9	15	7	8	4	36	48	27 3/4	64 3/4	17 3/4		34 5/8	10 3/8	4 5/8							136.5

STANDARD SIGN D4-52	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	 <small>for State Traffic Engineer</small>
DATE <u>3/15/17</u>	PLATE NO. <u>D4-52.2</u>

7



NOTES

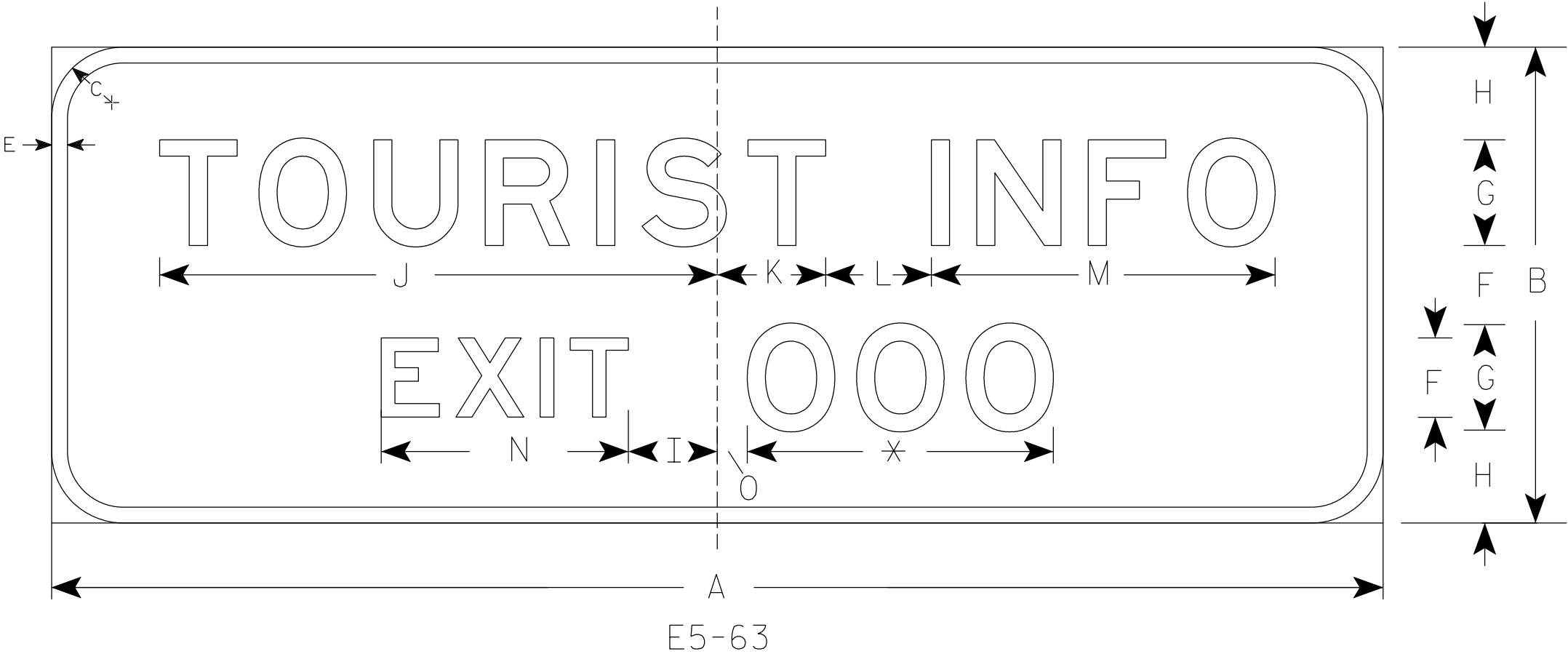
1. Sign is Type II - Type H Reflective
2. Color:
Background - Blue
Message - White
3. Message Series - E Modified
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18		1 1/8		1/2	12	4 3/4	2 3/8		3																	2.25
2S	24		1 1/2		1/2	16	6 3/8	3 1/4		4																	4.0
2M	24		1 1/2		1/2	16	6 3/8	3 1/4		4																	4.0
3	36		2 1/4		3/4	24	9 1/2	4 7/8		6																	9.0
4																											
5																											

NOTES

- 1. Sign is Type I - Type SH Reflective
- 2. Color:
 - Background - Blue
 - Message - White
- 3. Message Series - E



*Varies

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																											
3																											
4	168	60	9		2	10	13 ³ / ₈	11 ⁵ / ₈	11 ¹ / ₄	70 ³ / ₈	13 ⁵ / ₈	13 ³ / ₈	43 ³ / ₈	31 ¹ / ₈	3 ³ / ₄												70
5																											

PROJECT NO:

HWY:

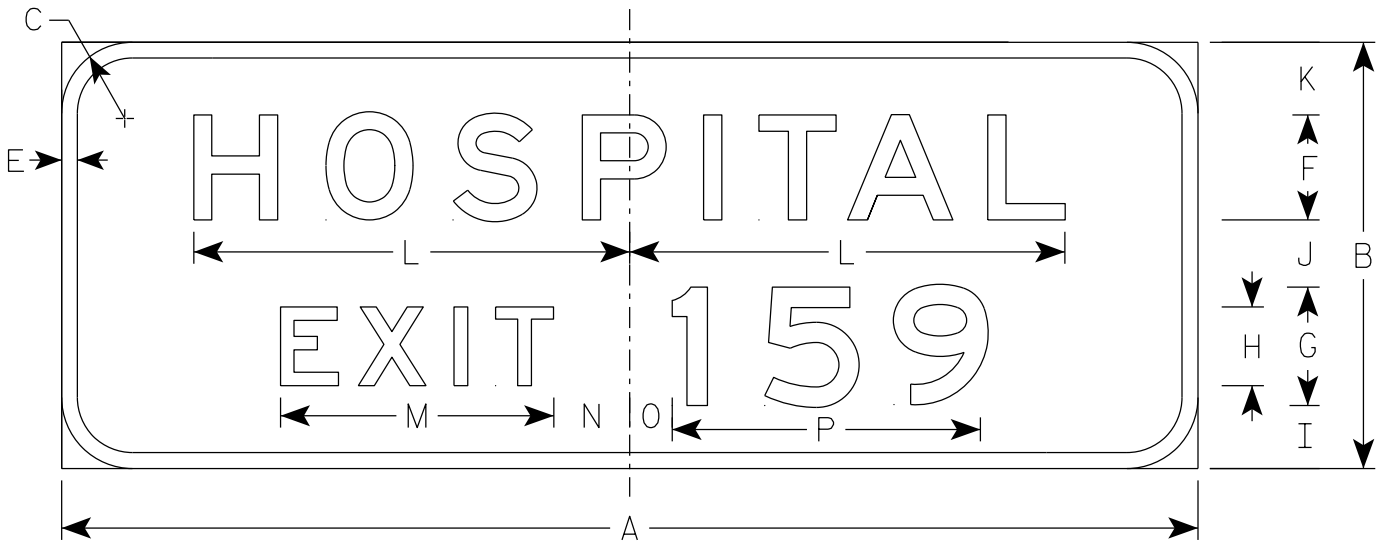
COUNTY:

SHEET NO:

E

NOTES

- 1. Sign is Type I - Type SH Reflective
- 2. Color:
Background - Blue
Message - White
- 3. Message Series - E
- 4. Apply proper Exit Numbers and letters, optically center to adjust spacing to achieve proper balance.



E10-61

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																											
3																											
4	144	54	9		2	13 ³ / ₈	15	10	8	8 ¹ / ₂	9 ¹ / ₄	55 ¹ / ₄	34 ⁵ / ₈	9 ⁵ / ₈	5 ³ / ₈	39											54.0
5	144	54	9		2	13 ³ / ₈	15	10	8	8 ¹ / ₂	9 ¹ / ₄	55 ¹ / ₄	34 ⁵ / ₈	9 ⁵ / ₈	5 ³ / ₈	39											54.0

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E

TYPICAL SIGNS
E10-61

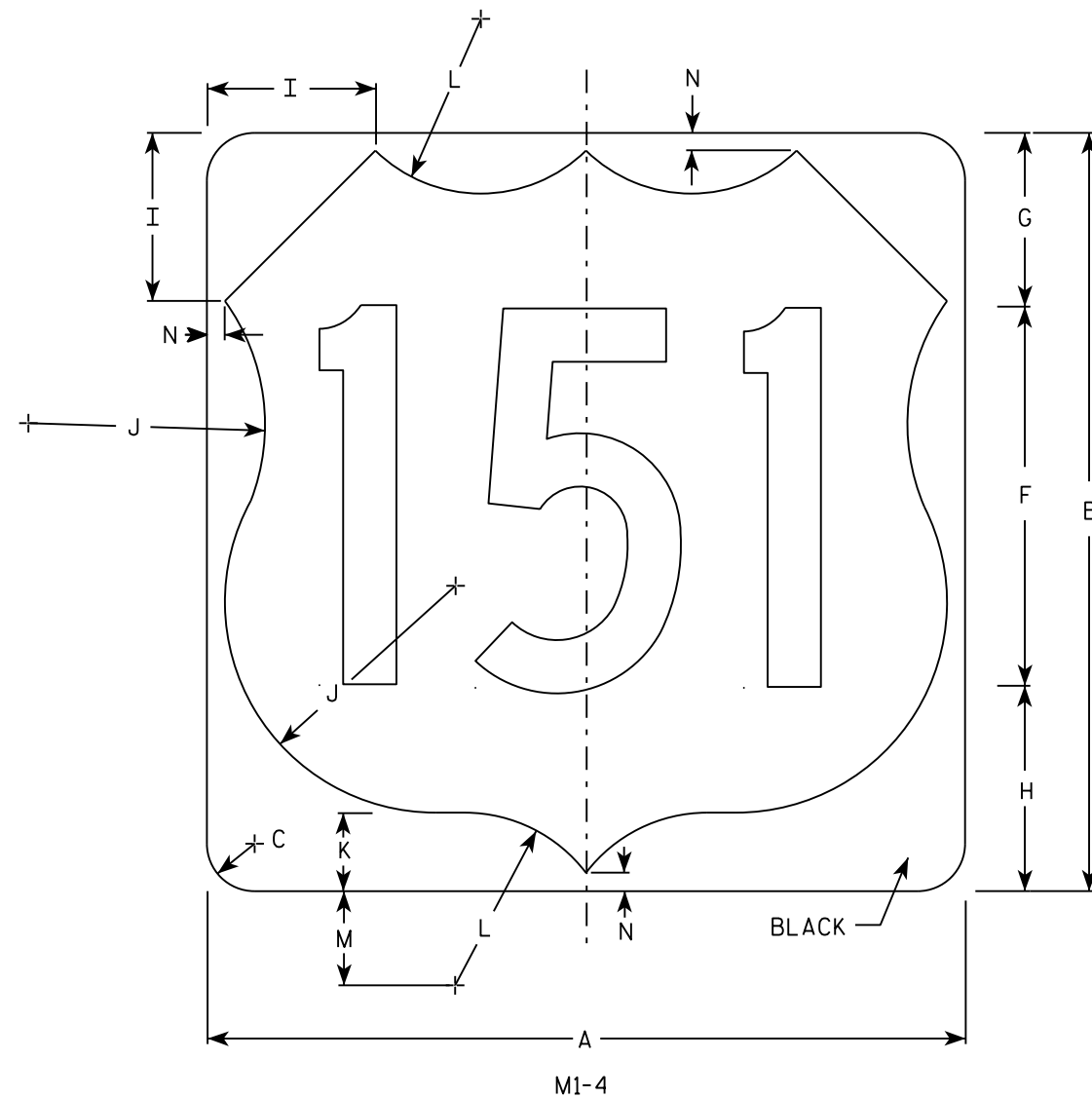
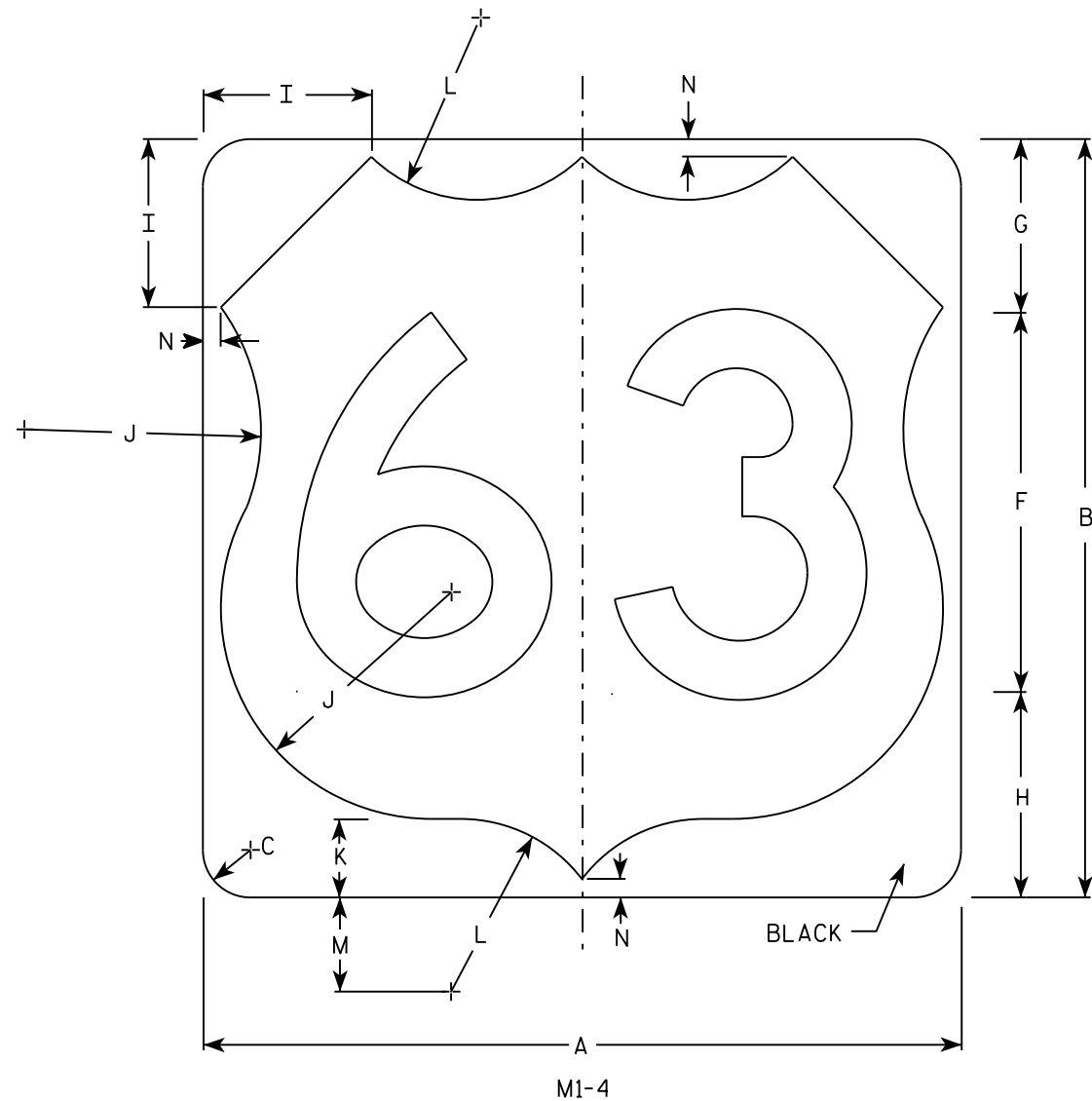
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 11/5/2020 PLATE NO. E10-61.4

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
Background - White
Message - Black
3. Message Series - D except 3 number signs 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	Areq. sq. ft.
1																											
2	24	24	1 1/2			12	5 1/2	6 1/2	5	7 1/2	2 1/2	5 1/2	3	1/2													4.0
3	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0
4	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0
5	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E
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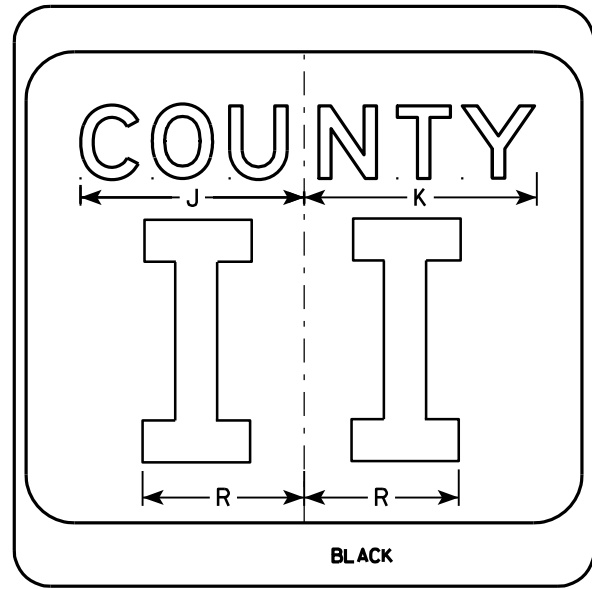
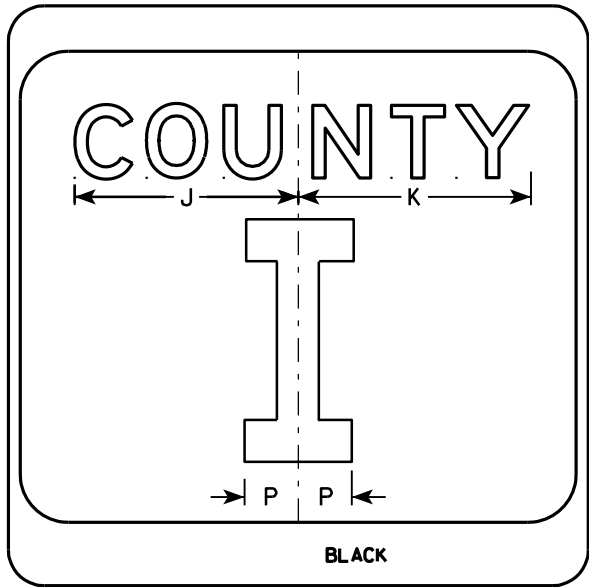
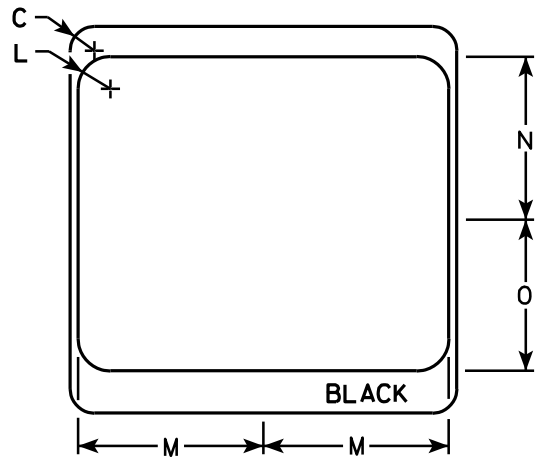
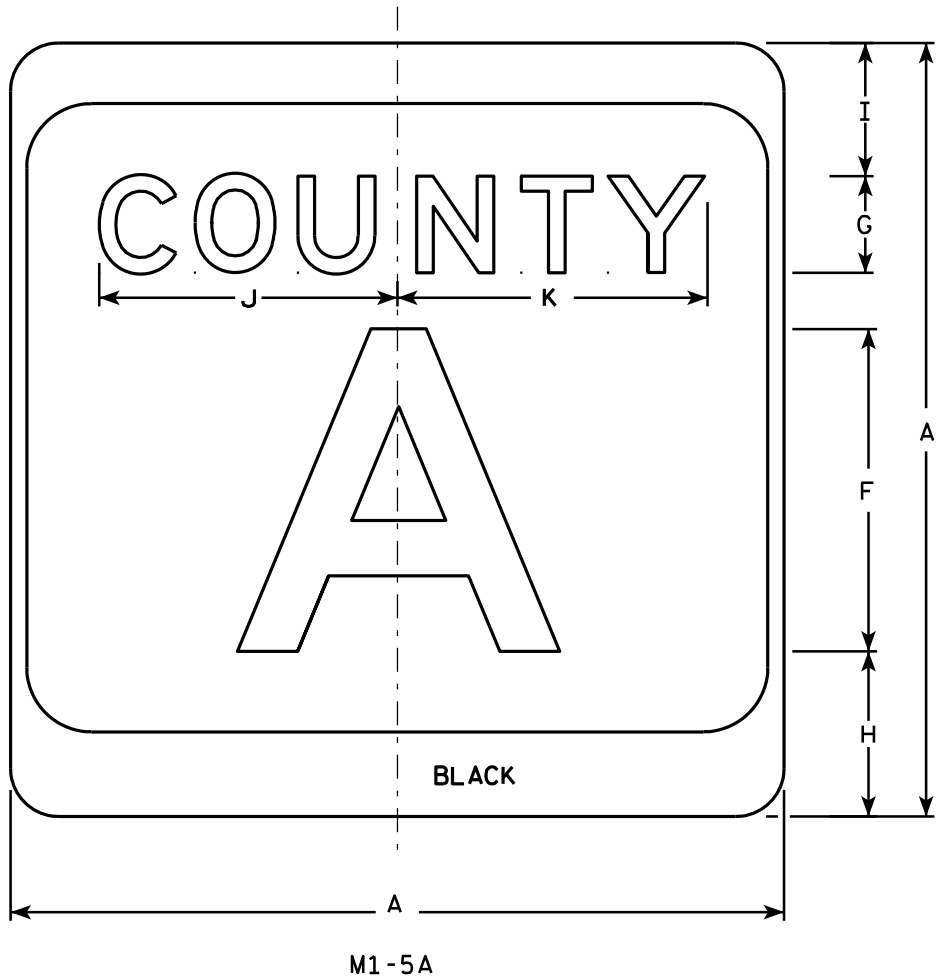
USH MARKER
M1-4 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/16/18 PLATE NO. M1-4.10

7



NOTES

1. Sign is Type II - see Note 7 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White & Black - See Note 7
Message - Black
3. Message Series - see Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Message Series E for 1 letter.
Message Series D for 2 letters unless message is too big then Series C.
Message Series C for 3 letters unless message is too big then Series B.
6. Substitute appropriate letters & optically center to achieve proper balance.
7. Permanent Signs
Background - Type H Reflective
Detour or temporary Signs
Background - Reflective

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24		1 1/2			10	3	5 1/8	4 1/8	9 1/4	9 5/8	2	11 1/2	10 1/8	9 3/8	2 1/4		6 5/8									4.0
3	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0
4	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0
5	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

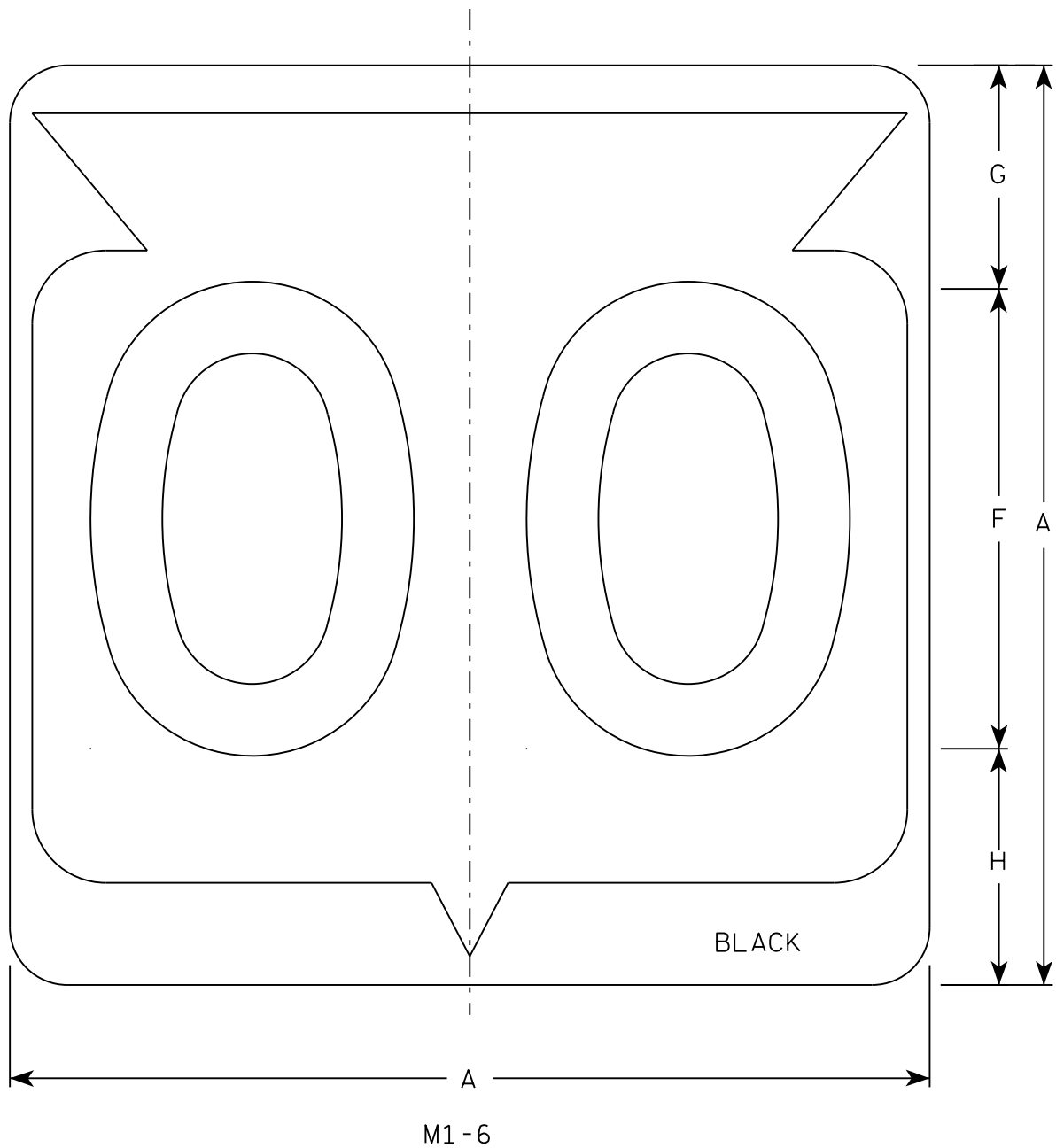
E

CTH MARKER
M1-5A FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

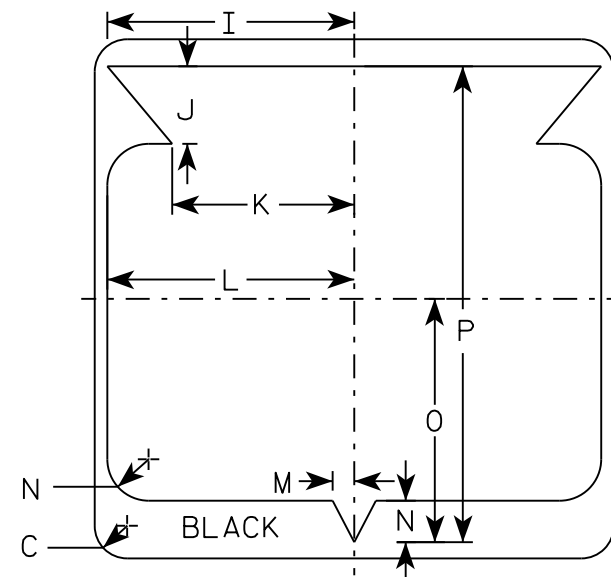
APPROVED *Matthew R. Rauch*
For State Traffic Engineer

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



NOTES

1. Sign is Type II - Type H Reflective
2. Color:
Background - White
Message - Black
3. Message Series - D except 3 number signs 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																											
2	24		1 1/2			12	5 1/2	6 1/2	10 1/4	2 1/2	8 7/8	11 1/2	1	1 7/8	11 1/4	21 7/8											4.0
3	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0
4	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0
5	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0

STATE ROUTE MARKER
M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/16/18 PLATE NO. M1-6.10

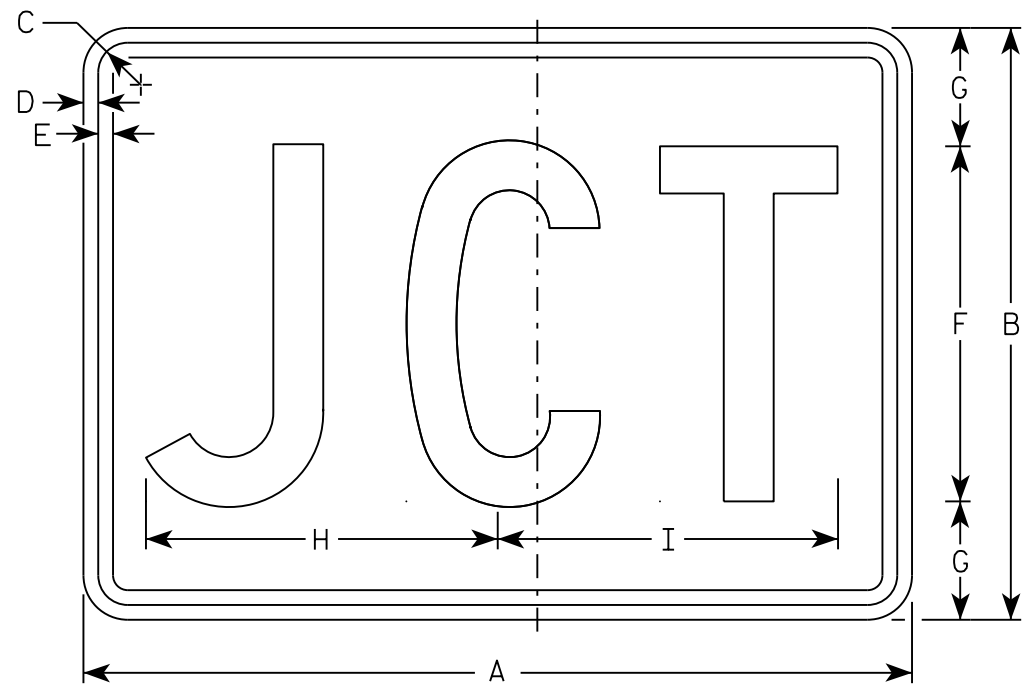
PROJECT NO:

HWY:

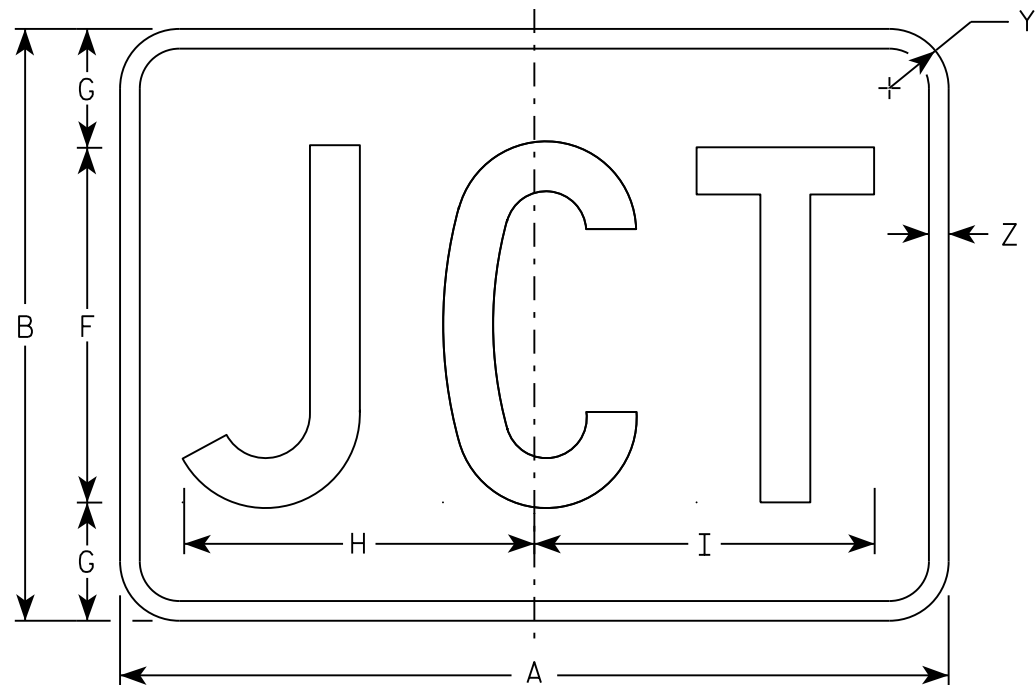
COUNTY:

SHEET NO:

E



M2-1
MM2-1
MP2-1



MB2-1
MK2-1
MN2-1
MR2-1

NOTES

- 1. Sign is 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. M2-1 Background - White
 Message - Black
 MB2-1 Background - Blue
 Message - White
 MK2-1 Background - Green
 Message - White
 MM2-1 Background - White
 Message - Green
 MN2-1 Background - Brown
 Message - White
 MP2-1 Background - White
 Message - Blue
 MR2-1 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	15	1 1/8	3/8	3/8	9	3	8 7/8	8 5/8																1 1/2	1/2	2.20
3	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40
4	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40
5	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40

STANDARD SIGN

M2 - 1

WISCONSIN DEPT OF TRANSPORTATION

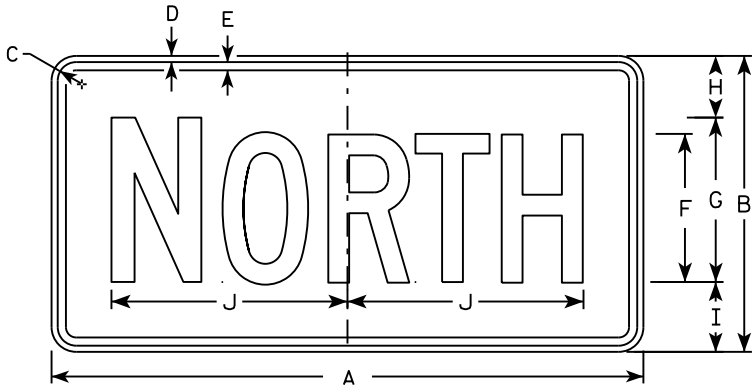
APPROVED

Matthew R. Rauch

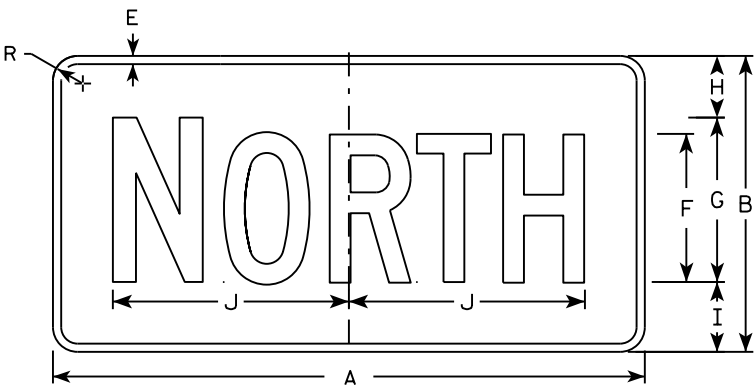
For State Traffic Engineer

DATE 10/15/15

PLATE NO. M2-1.12



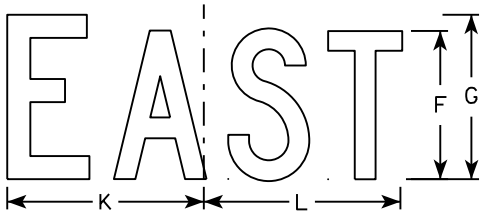
M3-1
MM3-1
MP3-1



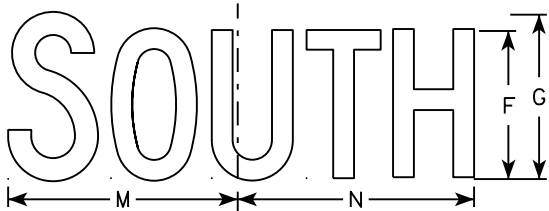
MB3-1
MK3-1
MN3-1



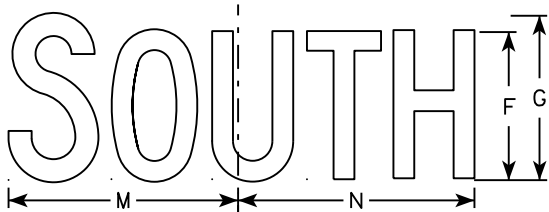
M3-2
MM3-2
MP3-2



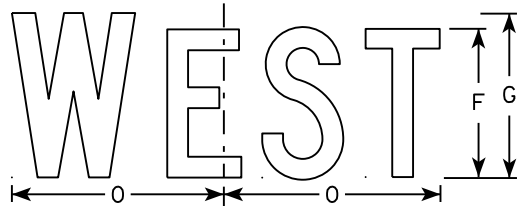
MB3-2
MK3-2
MN3-2



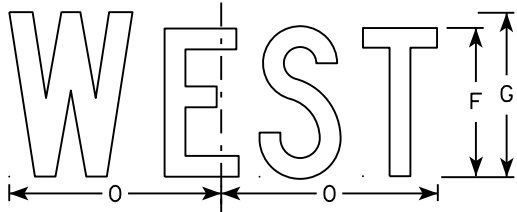
M3-3
MM3-3
MP3-3



MB3-3
MK3-3
MN3-3



M3-4
MM3-4
MP3-4



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.

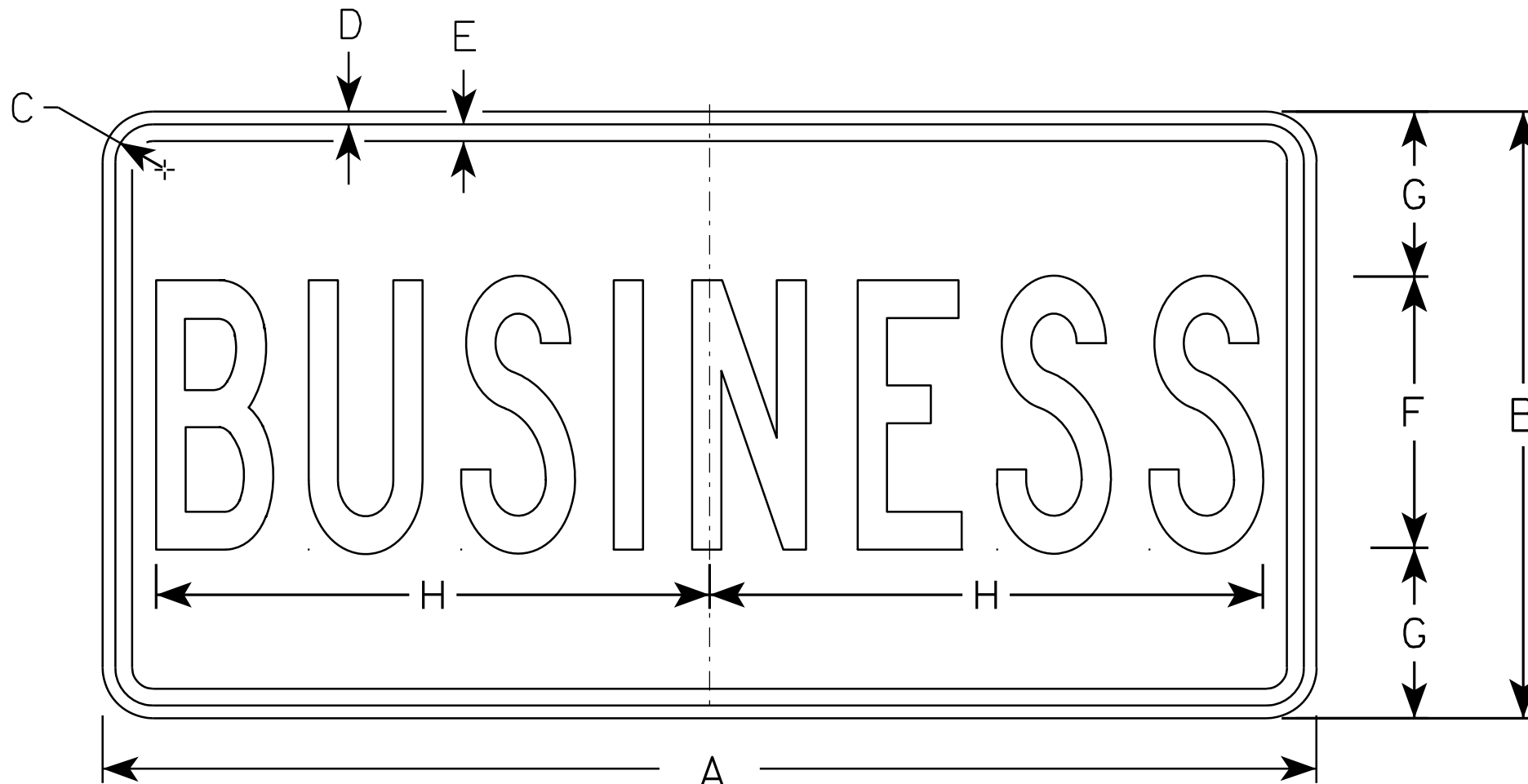
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4			1 1/2									2.00
3	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
4	36	18	1 1/8	3/8	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. M3-1.14



M4 - 3

NOTES

1. Sign is Type II - See Note 5 - reference
WIS DOT Standard Specification for HIGHWAY
and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White - See Note 5
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.
5. Permanent Signs
Background - Type H Reflective
Detour or other 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	12	1 1/8	3/8	3/8	5	3 1/2	9 5/8																			2.0
3	36	18	1 1/8	3/8	1/2	8	5	16 3/8																			4.5
4																											
5																											

STANDARD SIGN

M4 - 3

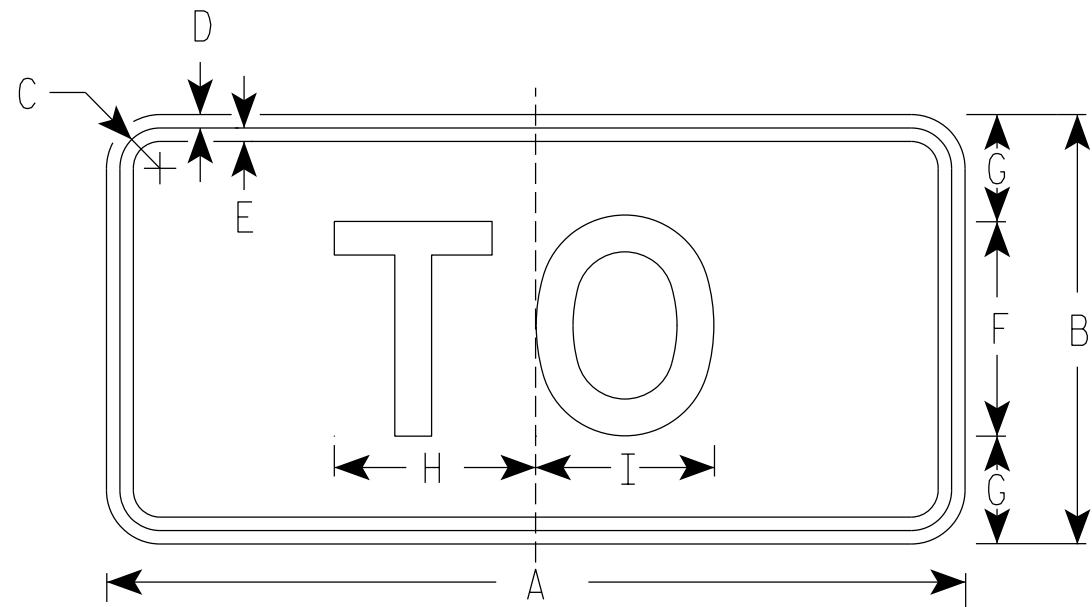
WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

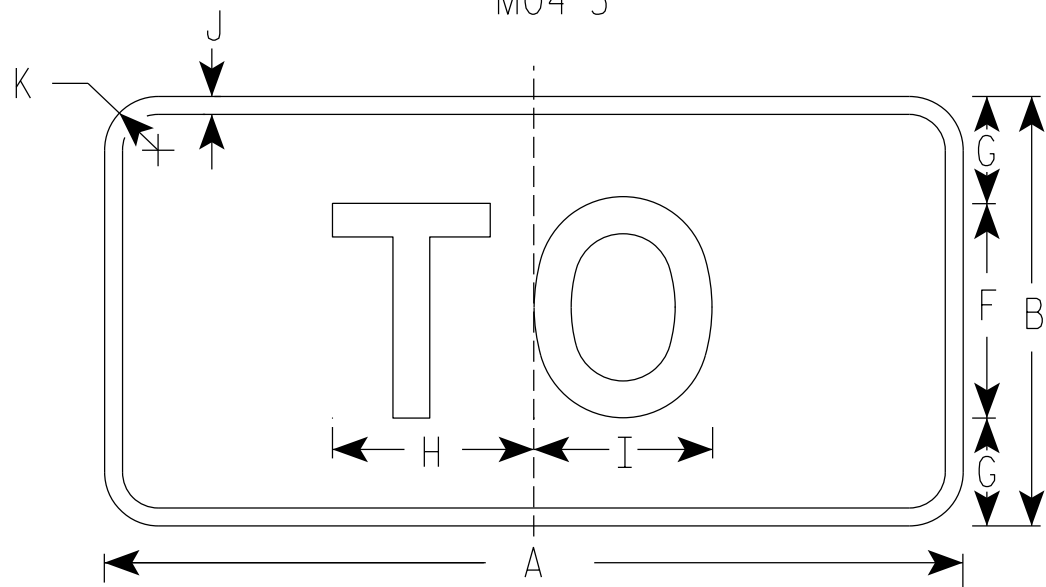
DATE 11/10/10 PLATE NO. M4-3.5

PROJECT NO: HWY: COUNTY: SHEET NO: E

7



M4-5
MM4-5
MP4-5
M04-5



MB4-5
MK4-5
MN4-5

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
Background - See note 5
Message - See note 5
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M4-5 Background - White
Message - Black
MB4-5 Background - Blue
Message - White
MK4-5 Background - Green
Message - White
MM4-5 Background - White
Message - Green
MN4-5 Background - Brown
Message - White
MP4-5 Background - White
Message - Blue
M04-5 Background - Orange Type F Reflective
Message - Black

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	5 3/8	5 1/4	1/2	1 1/2																2.00
3	36	18	1 3/8	3/8	1/2	9	4 1/2	8 1/4	8 3/8	1/2	1 1/2																4.5
4	36	18	1 3/8	3/8	1/2	9	4 1/2	8 1/4	8 3/8	1/2	1 1/2																4.5
5	36	18	1 3/8	3/8	1/2	9	4 1/2	8 1/4	8 3/8	1/2	1 1/2																4.5

PROJECT NO:	HWY:	COUNTY:	SHEET NO:	E
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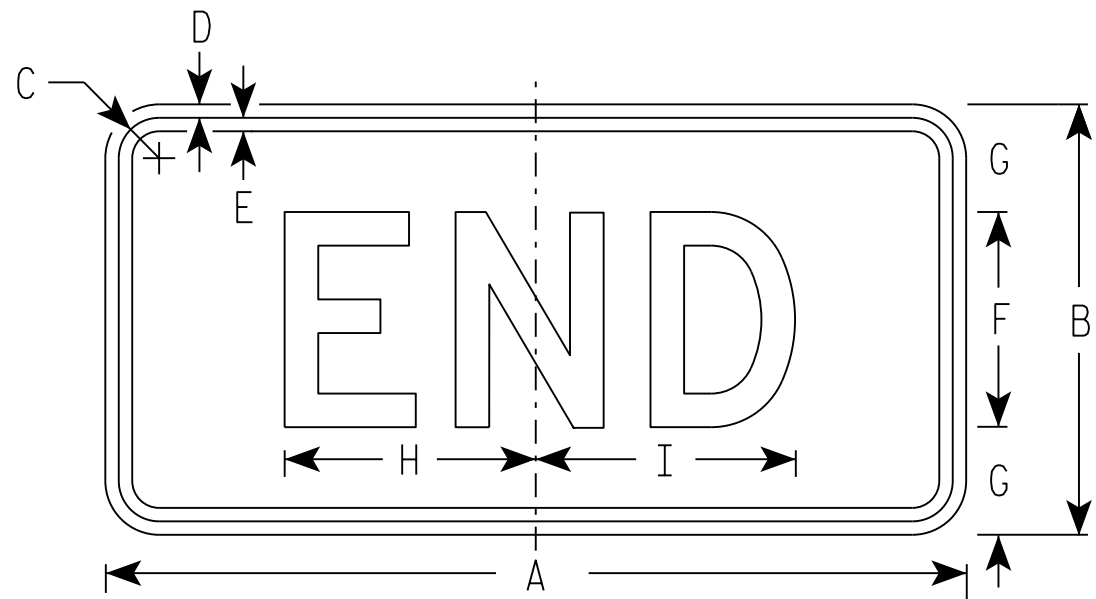
STANDARD SIGN
M4-5

WISCONSIN DEPT OF TRANSPORTATION

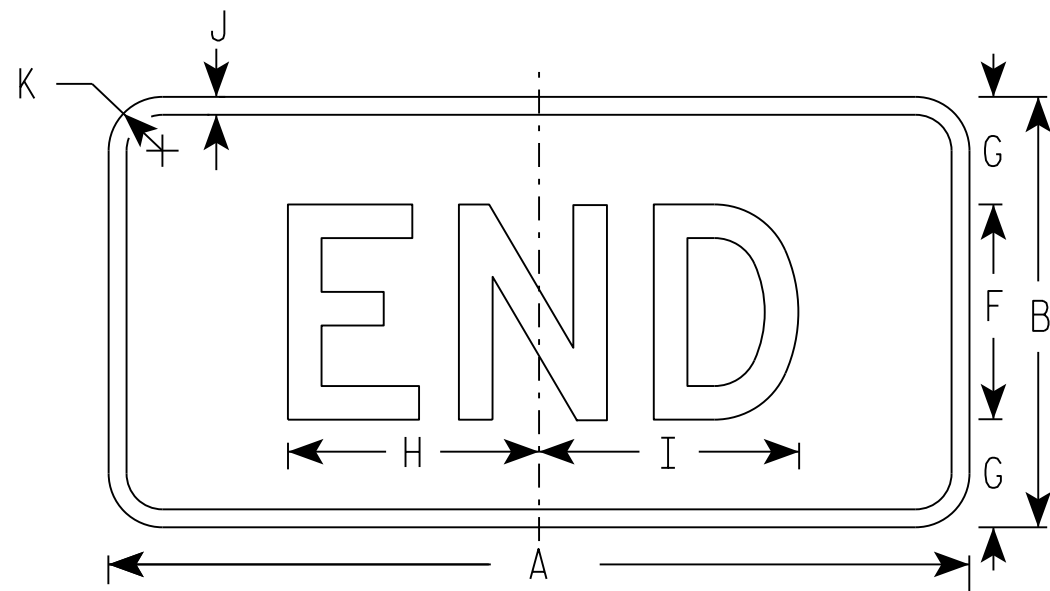
APPROVED
Matthew R. Rauch
State Traffic Engineer

DATE 03/7/19 PLATE NO. M4-5.9

7



M4-6
MM4-6
MP4-6



MB4-6
MK4-6
MN4-6
MR4-6

NOTES

- Sign is Type II - Type H
- Color:
 - Background - See note 5
 - Message - See note 5
- 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.
- M4-6 Background - White
Message - Black
- MB4-6 Background - Blue
Message - White
- MK4-6 Background - Green
Message - White
- MM4-6 Background - White
Message - Green
- MN4-6 Background - Brown
Message - White
- MP4-6 Background - White
Message - Blue
- MR4-6 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	24	12	1 1/8	3/8	3/8	6	3	7	7 1/4	1/2	1 1/2																2.00
3	36	18	1 1/8	3/8	1/2	9	4 1/2	12	11 7/8	1/2	1 1/2																4.5
4	36	18	1 1/8	3/8	1/2	9	4 1/2	12	11 7/8	1/2	1 1/2																4.5
5	36	18	1 1/8	3/8	1/2	9	4 1/2	12	11 7/8	1/2	1 1/2																4.5

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

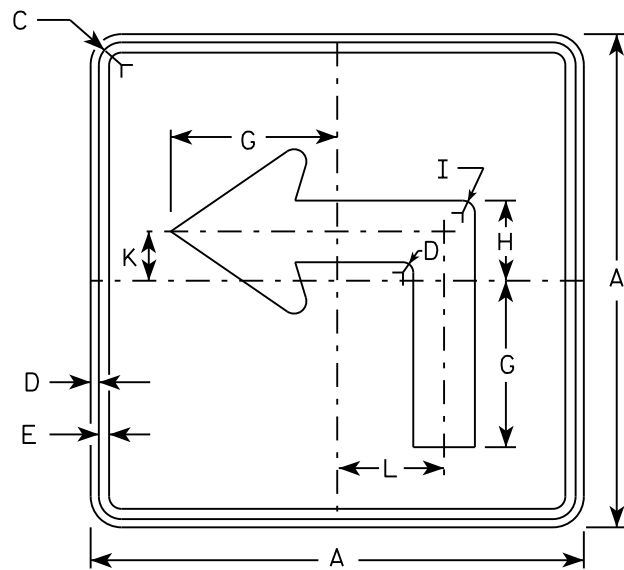
E

STANDARD SIGN
M4-6

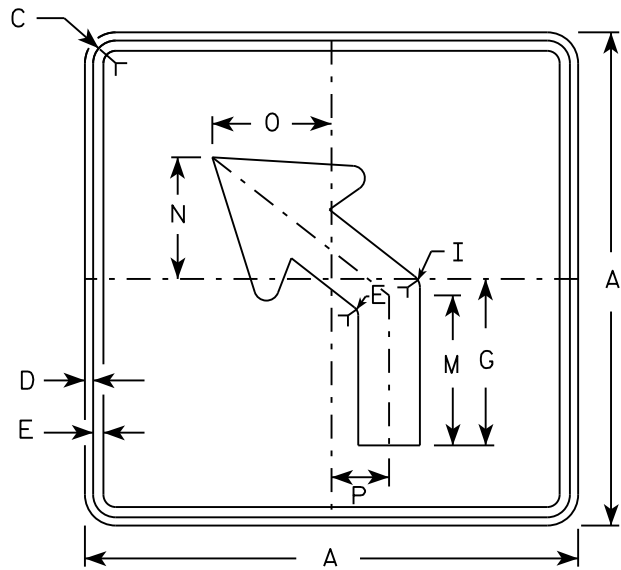
WISCONSIN DEPT OF TRANSPORTATION

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Matthew R. Rauch
for State Traffic Engineer

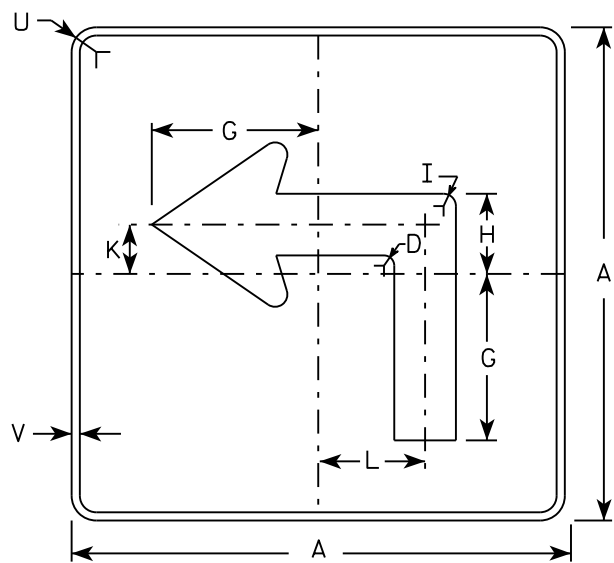
DATE 10/15/15 PLATE NO. M4-7.9



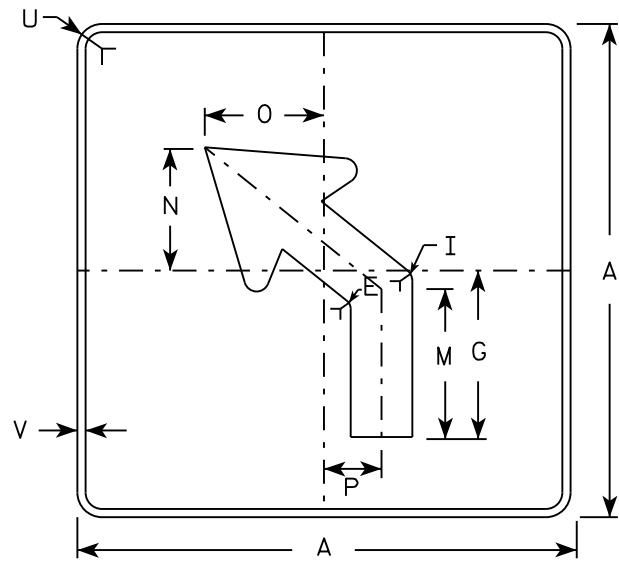
M5-1L
MM5-1L
M05-1L
MP5-1L



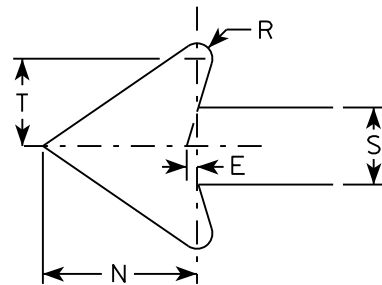
M5-2L
MM5-2L
M05-2L
MP5-2L



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.

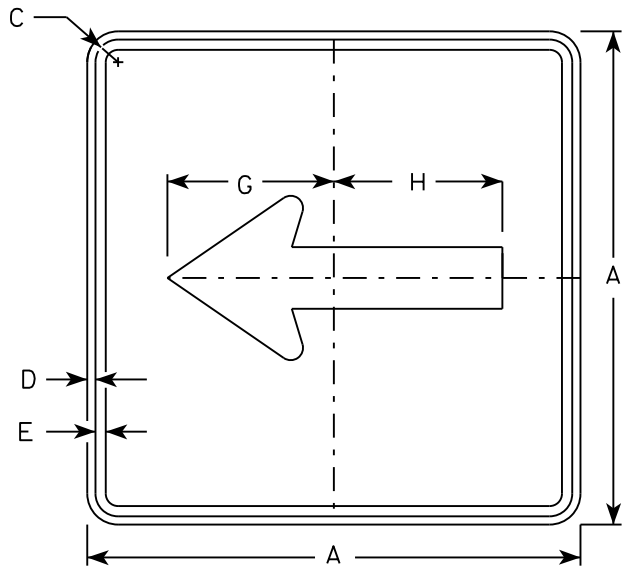
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3	1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25
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

STANDARD SIGN
M5-1 & M5-2

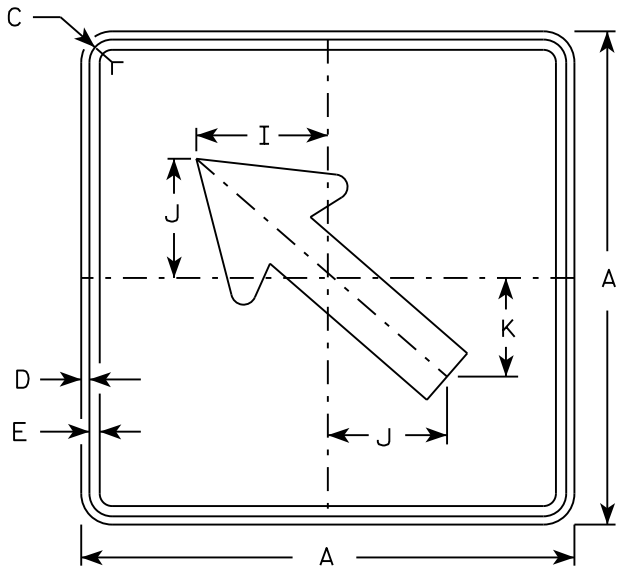
WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

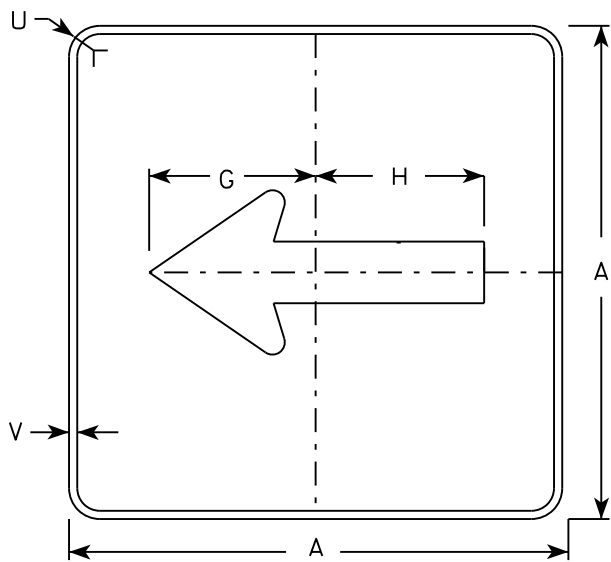
DATE 10/15/15 PLATE NO. M5-1.13



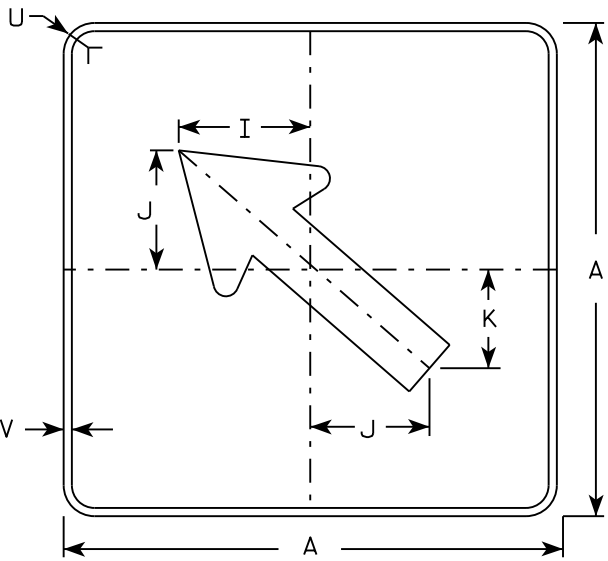
M6 - 1
MM6 - 1
M06 - 1
MP6 - 1



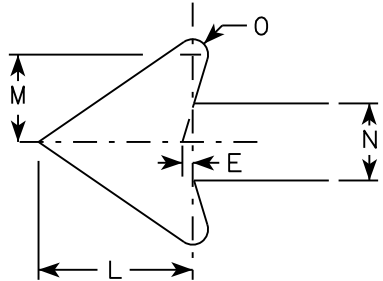
M6 - 2
MM6 - 2
M06 - 2
MP6 - 2



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



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



NOTES

- Signs are Type II - Type H 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.
- 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:

SHEET NO:

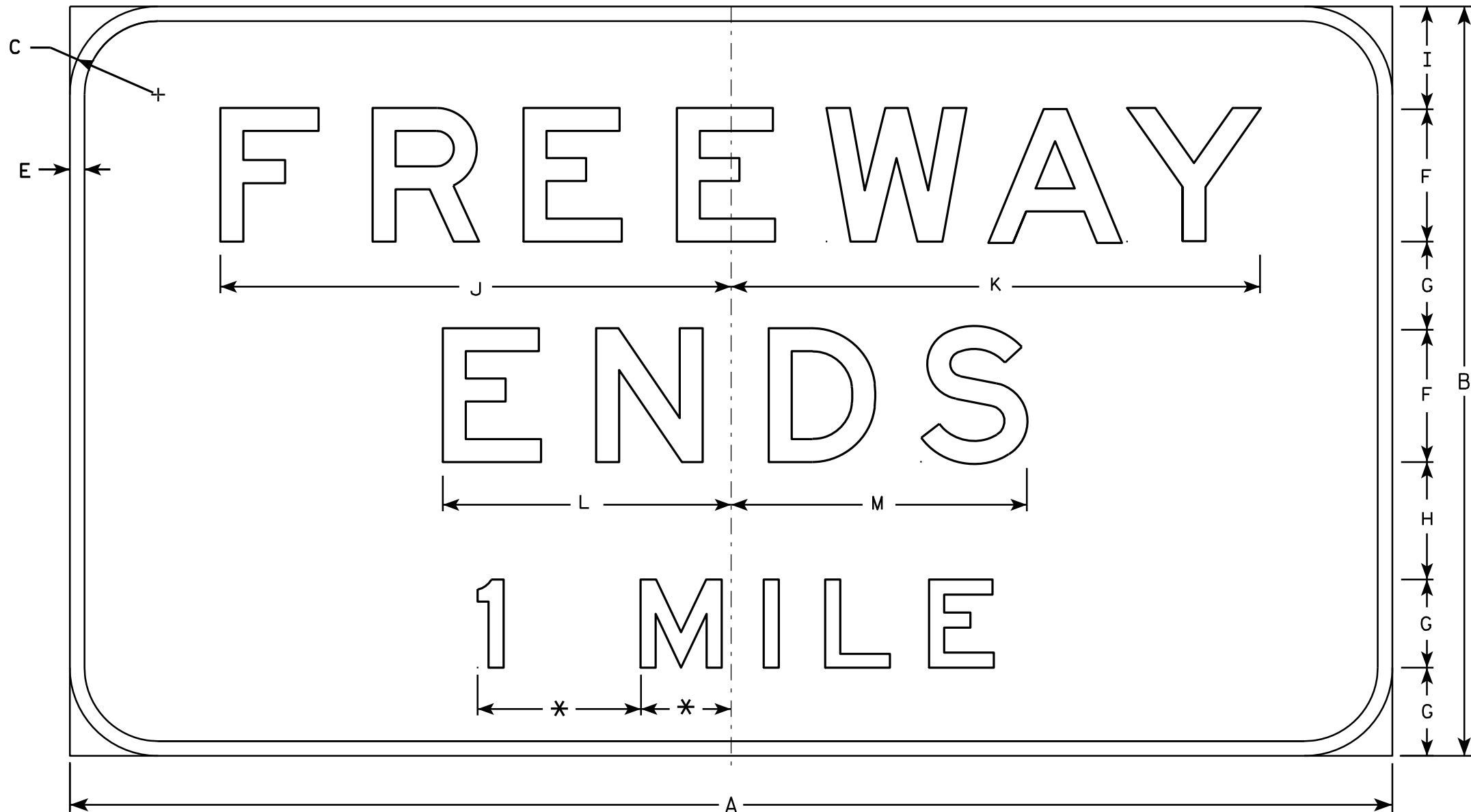
E

STANDARD SIGN
M6 - 1 & M6 - 2
SERIES

WISCONSIN DEPT OF TRANSPORTATION

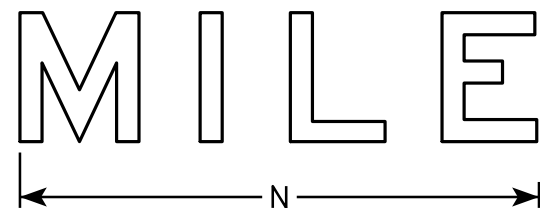
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 10/15/15 PLATE NO. M6-1.15



W19-1

* Varies



NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2																											
3																											
4	180	102	12	2		18	12	16	14	69 1/2	72	39 1/4	40 1/4	48 1/4													127.5
5	180	102	12	2		18	12	16	14	69 1/2	72	39 1/4	40 1/4	48 1/4													127.5

STANDARD SIGN
W19-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/13/13 PLATE NO. W19-1.2

PROJECT NO:	HWY:	COUNTY:	SHEET NO:	E
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DESIGN DATA

DESIGNED ACCORDING TO THE AASHTO "LRFD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS", 1ST EDITION AND INTERIM SPECIFICATIONS, AND THE WISDOT BRIDGE MANUAL.

FOUNDATION DESIGNED ACCORDING TO THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 8TH EDITION

DEAD LOAD: WT. OF SIGN AND SUPPORTING STRUCTURE
ICE LOAD: 3 PSF TO ONE FACE OF SIGN & SURFACE OF MEMBERS
WIND PRESSURE: 115 MPH (3-SEC. GUST SPEED) TO SIGN AREA & EXPOSED MEMBERS (700 YEAR MEAN RECURRENCE INTERVAL)

WIND COMPONENTS	NORMAL	TRANSVERSE
LOAD CASE 1:	1.00	0.00
LOAD CASE 2:	0.00	1.00
LOAD CASE 3:	0.75	0.75

LOAD COMBINATIONS	
STRENGTH I:	1.25 DC + 1.6 LL
EXTREME I (MAX DC):	1.1 DC + 1.0 W + 1.0 ICE
EXTREME I (MIN DC):	0.9 DC + 1.0 W
SERVICE I:	1.0 DC + 1.0 W
FATIGUE:	1.0 NW (NATURAL WIND GUST)
	1.0 TrG (TRUCK INDUCED GUST)

MATERIAL PROPERTIES

CONCRETE MASONRY f_c = 3,500 PSI

HIGH STRENGTH STEEL REINFORCEMENT, GRADE 60 f_y = 60,000 PSI

STRUCTURAL ANGLES, PLATES & BARS - ASTM A709 GRADE 36 f_y = 36,000 PSI

CHORD PIPE - ASTM A500 GRADE C f_y = 46,000 PSI

COLUMN PIPE
DESIGN TRUSS TYPE I - ASTM A500 GRADE C f_y = 46,000 PSI
DESIGN TRUSS TYPE II - API-5L PSL-2 GRADE 46 OR ASTM A1085 f_y = 46,000 PSI

HIGH STRENGTH BOLTS - ASTM A312S GRADE A325 f_y = 92,000 PSI

ANCHOR RODS - ASTM F1554 GRADE 55 f_y = 55,000 PSI

HEAVY HEX NUTS - ASTM A563 GRADE DH OR ASTM A194 GRADE 2H

WASHERS - ASTM F436

DTI WASHERS - ASTM F959 TYPE 325

FOUNDATION DATA

SIGN STRUCTURE FOUNDATIONS ARE SUPPORTED ON DRILLED SHAFTS THAT HAVE BEEN DESIGNED FOR SITES WHERE SOILS EXHIBIT A PHI-ANGLE GREATER THAN OR EQUAL TO 24° (GRANULAR SOILS), OR A COHESION VALUE GREATER THAN OR EQUAL TO 750 PSF (COHESIVE SOILS) AND A UNIT WEIGHT OF 125 PCF. THE GROUND WATER TABLE FOR DESIGN IS ASSUMED TO BE AT A DEPTH OF 10'-0" BELOW THE GROUND SURFACE, ACTUAL WATER LEVEL AT SITE MAY VARY. THE REGION GEOTECHNICAL ENGINEER SHALL VISUALLY INSPECT THE SUBSURFACE SOILS DURING THE DRILLING OF THE SHAFT HOLE TO CONFIRM THESE PROPERTIES PRIOR TO PLACEMENT OF THE DRILLED SHAFT CONCRETE.

IT IS ANTICIPATED THAT DRILLING INTO ROCK WILL BE REQUIRED PER THE DETAILS IN THE PLAN. DRILLING INTO ROCK IS INCLUDED IN THE ITEM "DRILLING SHAFT 36-INCH".

TOTAL ESTIMATED QUANTITIES

BID ITEM NO.	BID ITEM	UNIT	S-37-164	S-37-165
204.0247.01	REMOVING ANCILLARY STRUCTURE WITH RESTORATION S-37-62	EA	1	----
204.0247.02	REMOVING ANCILLARY STRUCTURE WITH RESTORATION S-37-63	EA	----	1
531.1100	CONCRETE MASONRY ANCILLARY STRUCTURES TYPE NS	CY	10	----
531.1140	STEEL REINFORCEMENT HS ANCILLARY STRUCTURES TYPE NS	LB	610	----
531.1160	STEEL REINFORCEMENT HS COATED ANCILLARY STRUCTURES TYPE NS	LB	1,100	----
531.2036	DRILLING SHAFT 36-INCH	LF	10	32
531.6020	FOUNDATION TWO-SHAFT TYPE FC-II S-37-165	EA	----	1
532.6010	TRUSS CANTILEVER 4-CHORD TYPE I S-37-164	EA	1	----
532.6020	TRUSS CANTILEVER 4-CHORD TYPE II S-37-165	EA	----	1

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

ALTERNATE DESIGNS ARE NOT ALLOWED.

DIMENSIONS AND ELEVATIONS ARE BASED ON EXISTING PLANS. CONTRACTOR SHALL MAINTAIN THE DIMENSIONS PROVIDED AND ADJUST THE ELEVATIONS AS NECESSARY.

ALL REINFORCING BARS ARE IN ENGLISH UNITS. THE FIRST DIGIT OF A THREE-DIGIT BAR MARK OR THE FIRST TWO DIGITS OF A FOUR-DIGIT BAR MARK SIGNIFIES THE BAR SIZE.

SIGN BRIDGE ID PLAQUES SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "TRUSS CANTILEVER 4-CHORD (TYPE)" FOR EACH APPLICABLE SIGN STRUCTURE IN THE PLAN SET. LOCATE THE ID PLAQUE ON THE FREEWAY SIDE OF THE SUPPORT COLUMN SO THAT IT CAN BE SEEN FROM THE ROADWAY. FABRICATE AND INSTALL THE ID PLAQUE IN ACCORDANCE WITH S.D.D. 12 A 4-3.

UNLESS DETAILED OTHERWISE IN THE PLANS, ALL H.S. BOLTED CONNECTIONS SHALL BE MADE WITH ¾" DIA A325 GALVANIZED BOLTS. FIELD CONNECTIONS SHALL BE INSTALLED WITH DTI WASHERS.

WELDED CONNECTIONS CAN BE USED IN LIEU OF BOLTED CONNECTIONS, IF A TRUSS UNIT CAN BE GALVANIZED IN ONE PIECE.

WELD TEST AS PER AWS D1.1.

SEE SIGN PLATE NO. A4-6, A4-7A & A4-7B OF THE SIGN PLATE MANUAL FOR INSTRUCTIONS ON CENTERING SIGNS VERTICALLY ON THE TRUSS.

SIGNS OR BLANKS SHALL BE INSTALLED ON TRUSS AT TIME OF ERECTION. BLANKS SHALL BE ¾ THE LENGTH OF THE CANTILEVER SPAN, 2'-0" DEEPER THAN THE C/L TO C/L OF CHORDS, AND SHALL BE CENTERED ON THE BRIDGE. SIGNS SHALL BE AS DESIGNATED ON THE PLANS.

THE INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL-INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION OF THE TYPE AND LOCATION OF UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE.

CONTRACTOR SHALL SUBMIT SHOP DRAWINGS PER THE REQUIREMENTS IN THE STANDARD SPECIFICATIONS PRIOR TO FABRICATION OF THE STRUCTURE. CONTRACTOR SHALL SHOW SIGNS ON THE SHOP DRAWINGS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR DRILLING OR EXCAVATING AND MAINTAINING A STABLE AND OPEN HOLE FOR SUBSEQUENT INSTALLATION OF CONCRETE MASONRY FOR THE DRILLED SHAFTS. PARTIAL OR FULL DEPTH TEMPORARY CASING MAY BE REQUIRED TO MAINTAIN THE STABILITY OF THE EXCAVATED HOLE FOR THE SIGN SUPPORT PRIOR TO FILLING THE HOLE WITH CONCRETE. PERMANENT CASING MADE FROM STEEL OR CORRUGATED METAL PIPE MAY BE USED IN LIEU OF TEMPORARY CASING. TEMPORARY/PERMANENT CASING, IF USED, SHALL BE INCIDENTAL TO THE BID ITEM "DRILLING SHAFT 36-INCH".

STRUCTURE DATA

STRUCTURE ID	SIGN AREA	SIGN DEPTH	FOUNDATION TYPE	TRUSS TYPE
S-37-164	162.5 SF	10'-0"	NON-STANDARD TYPE II	TYPE I
S-37-165	176.5 SF	11'-0"		TYPE II

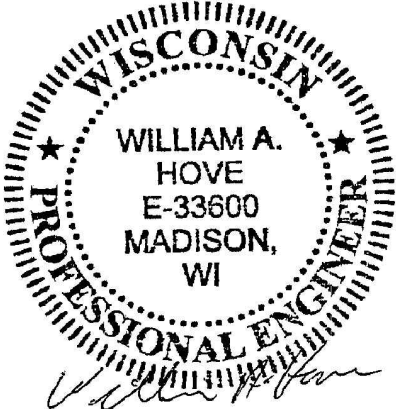
LIST OF DRAWINGS:

1. GENERAL NOTES & DESIGN DATA
2. LAYOUT S-37-164
3. LAYOUT S-37-165
4. STANDARD - SEE BELOW
5. STANDARD - SEE BELOW
6. STANDARD - SEE BELOW
7. STANDARD - SEE BELOW
8. STANDARD - SEE BELOW
9. 4-CHORD TRUSS CANTILEVER NON-STANDARD FOUNDATION

LIST OF STANDARD DESIGN DRAWINGS

4. I. 4-CHORD TRUSS CANTILEVER DETAILS
5. II. 4-CHORD TRUSS CANTILEVER CONNECTIONS 1
6. III. 4-CHORD TRUSS CANTILEVER CONNECTIONS 2
7. IV. 4-CHORD TRUSS CANTILEVER CONNECTIONS 3
8. V. 4-CHORD TRUSS CANTILEVER FOUNDATIONS

THESE ARE STANDARD DESIGN PLANS DEVELOPED AND MAINTAINED BY THE WISDOT. THE DESIGNER CERTIFIES THAT THE DESIGN AND PLAN DETAILS CHOSEN ARE CONSISTENT WITH THE GUIDANCE PROVIDED IN THE CURRENT WISDOT BRIDGE MANUAL CHAPTER 39.



11/9/2023

STATE PROJECT NUMBER

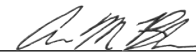
1009-43-70

TRAFFIC VOLUME

A.D.T. (2019) = 38,600
R.D.S. = 65 MPH

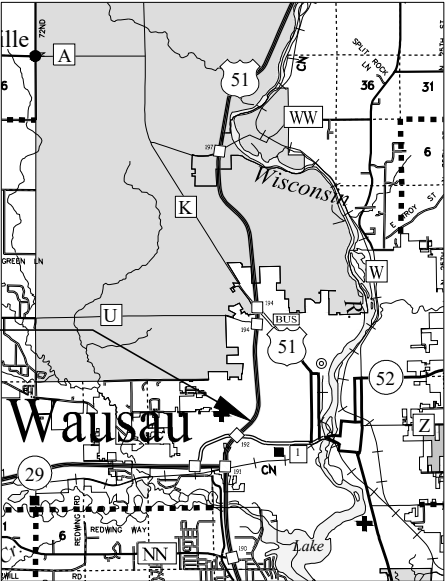
STRUCTURE DESIGN CONTACTS:

AARON BONK (WISDOT BOS) 608-261-0261
BILL HOVE (CORRE, INC.) 262-393-1260

NO.	DATE	REVISION	BY
<div>CORRE</div>			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORATION			
ACCEPTED		SDR 11/14/23	DATE
CHIEF STRUCTURES DESIGN ENGINEER			
4-CHORD CANTILEVER			
USH 51 SIGN BRIDGES			
COUNTY	MARATHON	CITY	WAUSAU
DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATION			
DESIGNED BY	DESIGNED CK'D	ETP BY	DRAWN PKF PLANS CK'D BH
GENERAL NOTES & DESIGN DATA			SHEET 1 OF 9

I.D.

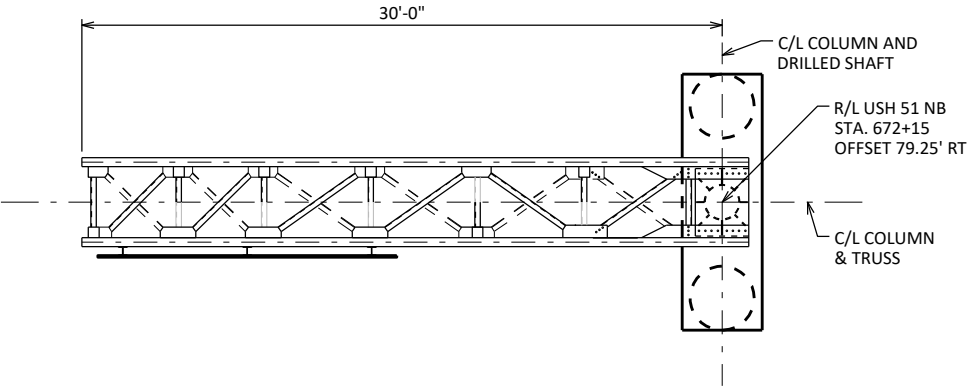
DATE:



LOCATION MAP

LEGEND

- ☆ ELEVATIONS ALONG C/L OF TRUSS.
- XX SIGN NUMBER, SEE PERMANENT SIGNING PLAN.
- ▲ POINT OF MIN. VERTICAL CLEARANCE
STA. 672+15, 64.0' RT.
ELEV. 1290.79
- ELEVATIONS ARE BASED ON AS-BUILT PLANS AND ARE TO BE ADJUSTED AS REQUIRED TO MAINTAIN THE DIMENSIONS SHOWN.
- SHAFTS TO BE DRILLED A MINIMUM OF 3'-0" INTO SOUND ROCK, INCLUDED IN ITEM "DRILLING SHAFT 36-INCH".
- BEDROCK LOCATION FROM S-37-62 AS-BUILT PLAN.

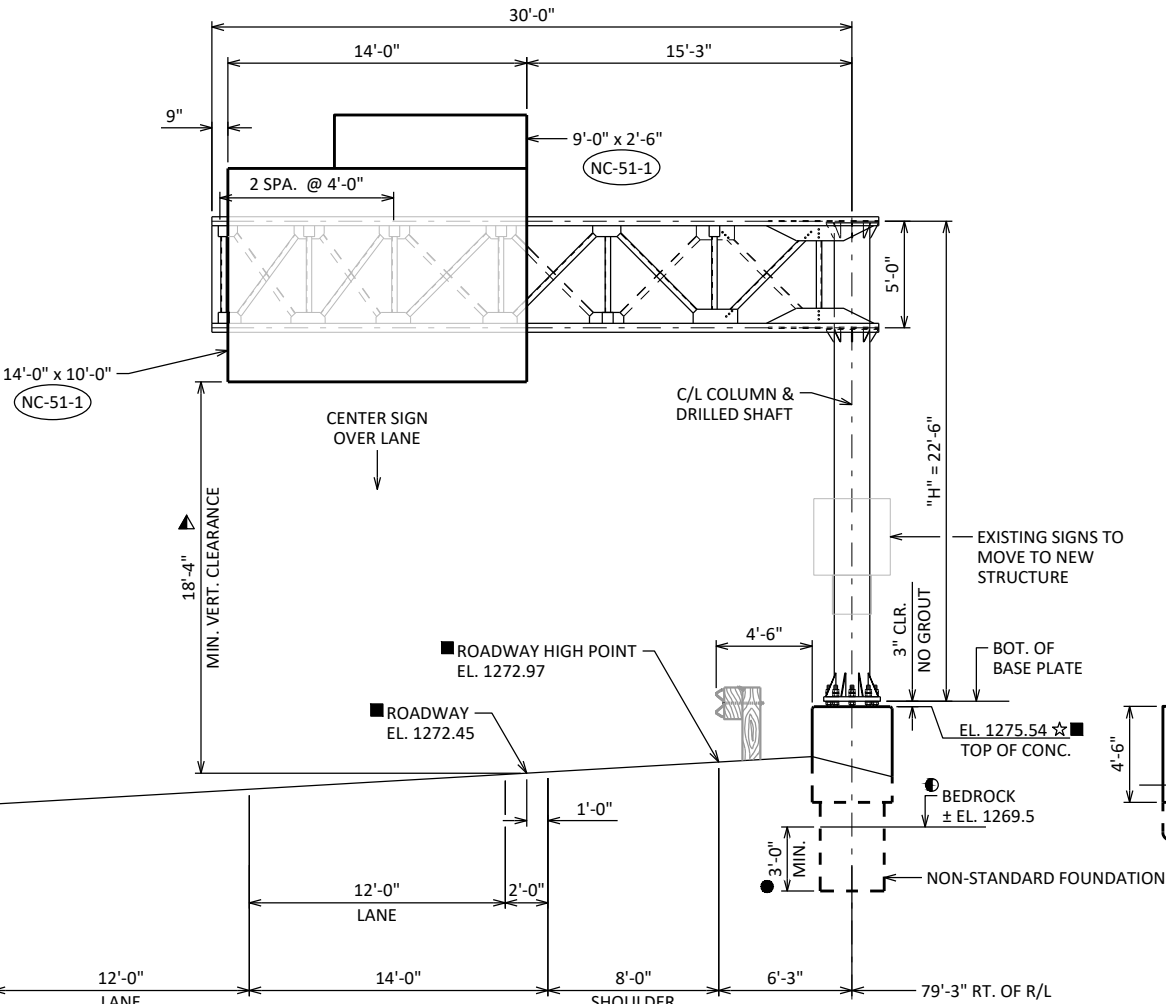


PLAN

STA. 672+15 (USH 51 NB)
(0.4 MILES S. OF W. BRIDGE ST.)

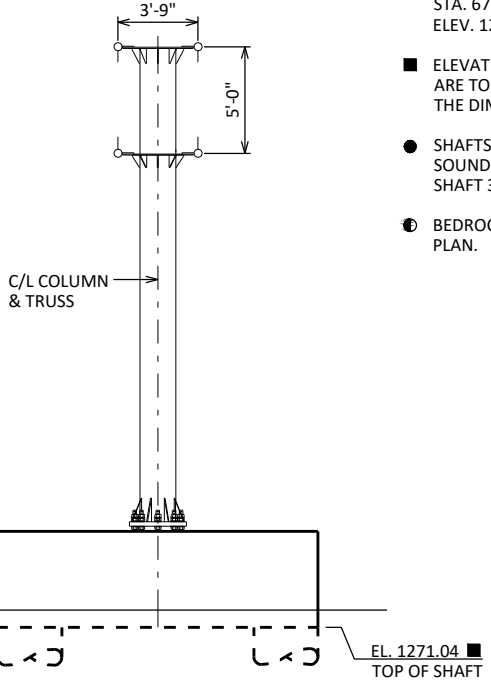
NOTES

STATIONS ARE BASED ON AS-BUILT PLANS FOR S-37-62. STRUCTURE S-37-164 TO BE LOCATED 15'-0" NORTH OF EXISTING STRUCTURE S-37-62.



ELEVATION

LOOKING NORTH AT F.F. OF SIGN



END VIEW

LOOKING WEST AT END OF SIGN

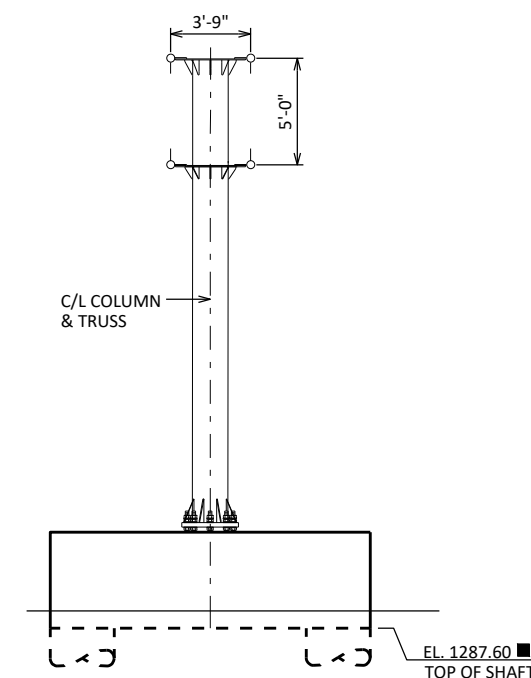
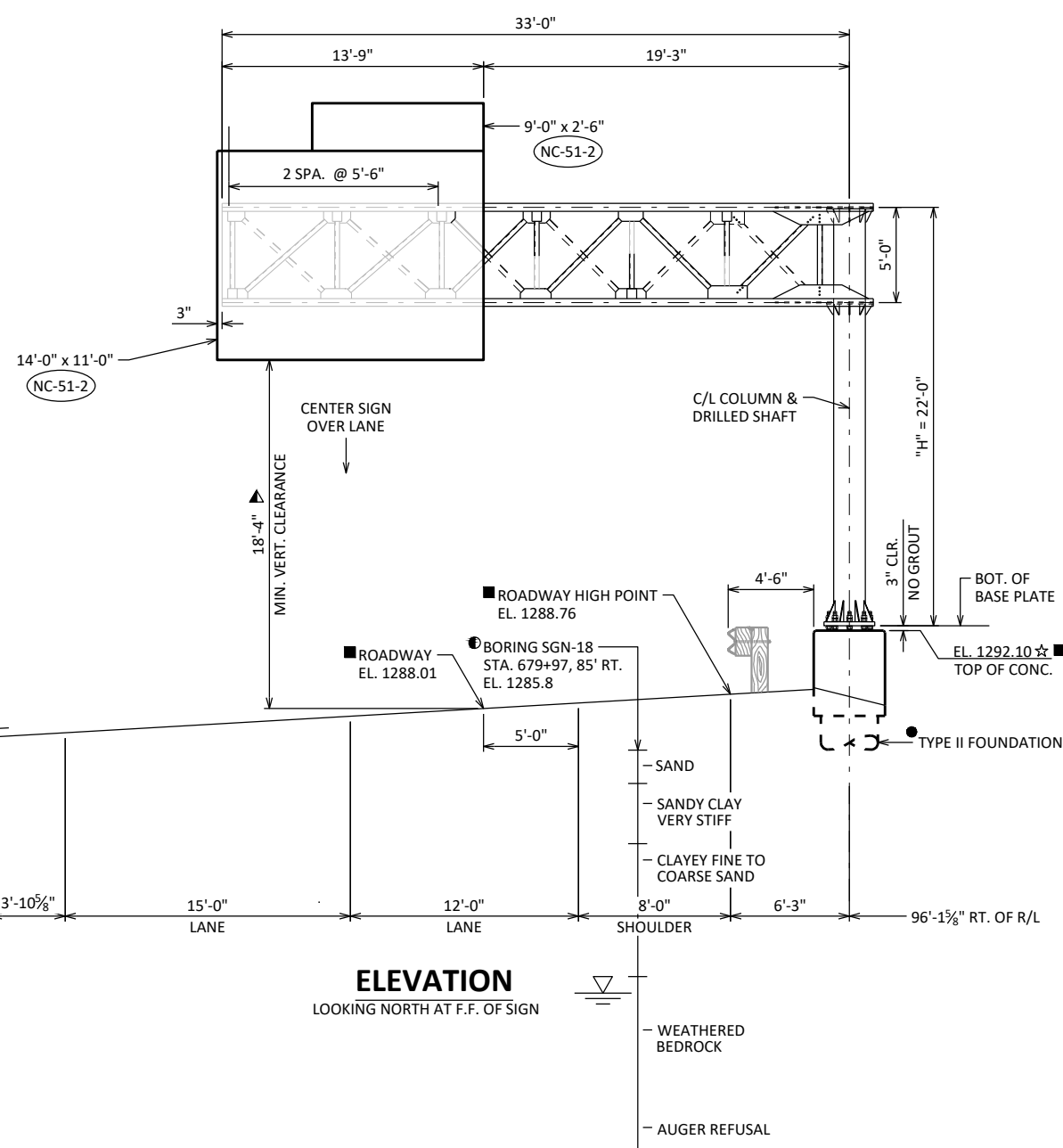
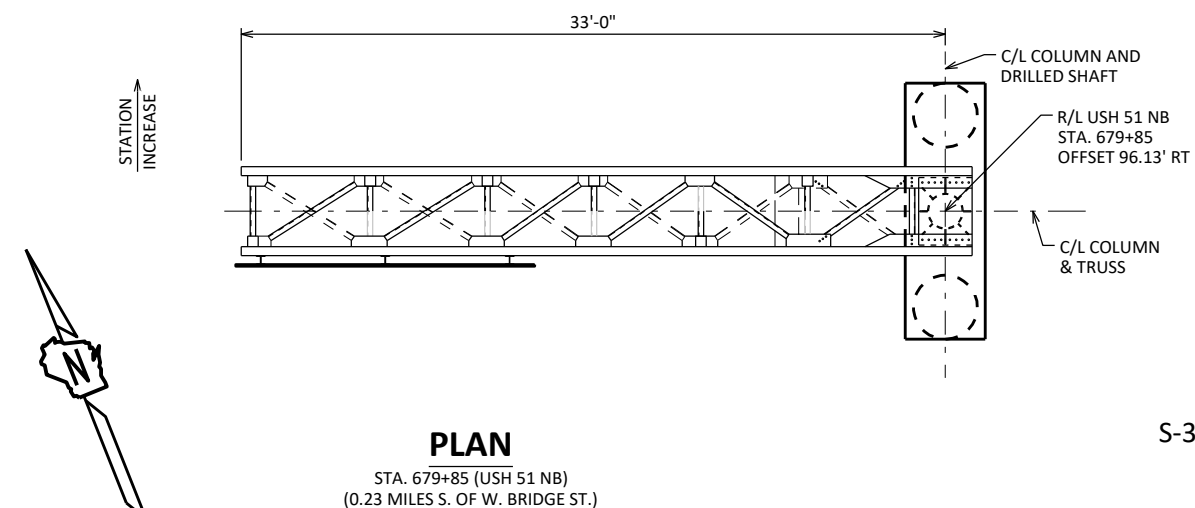
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE S-37-164			
DRAWN BY		PKF	PLANS CK'D BH
LAYOUT		SHEET 2 OF 9	

SCALE =



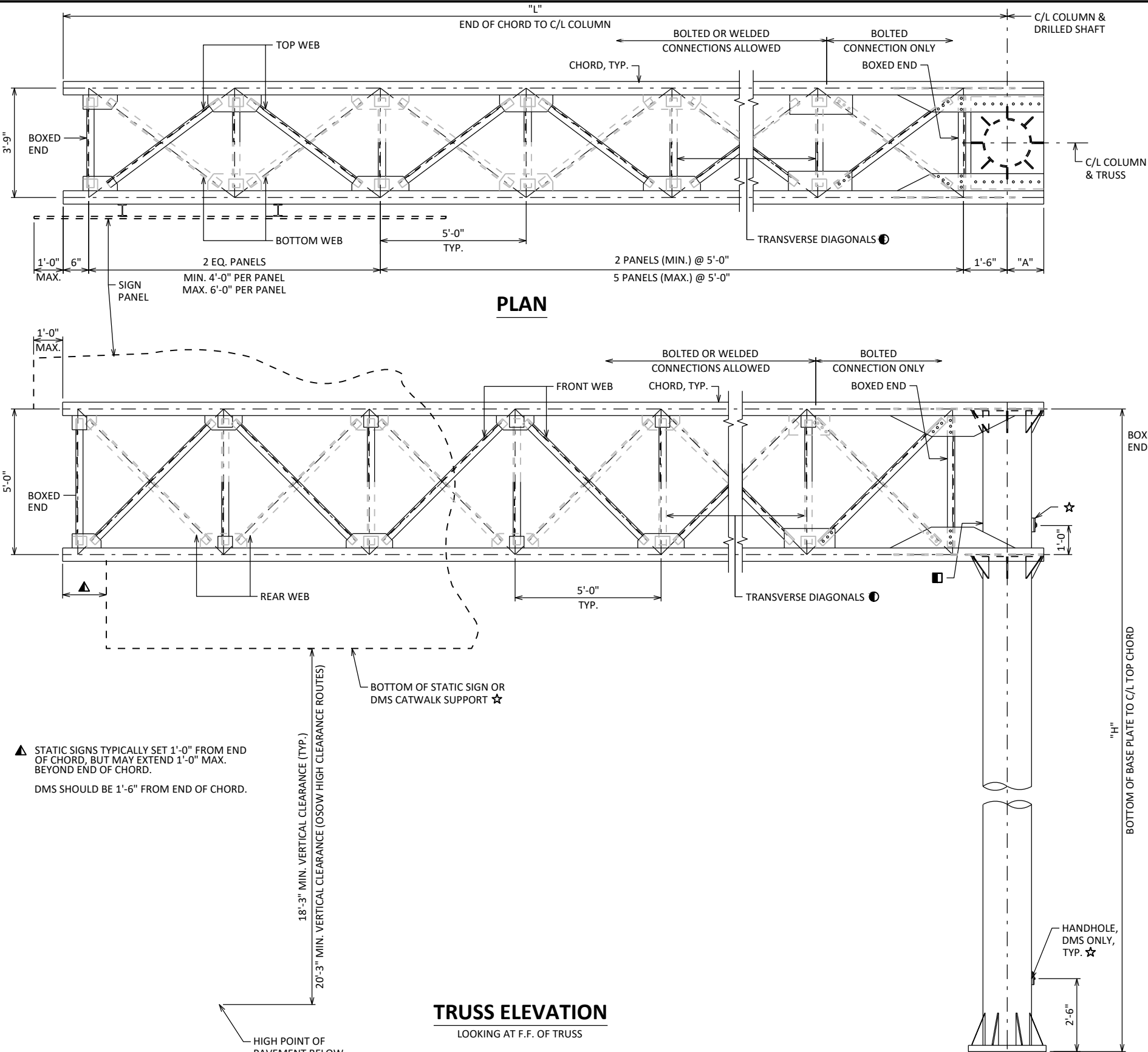
STATIONS ARE BASED ON AS-BUILT PLANS FOR S-37-63. STRUCTURE S-37-165 TO BE LOCATED 15'-0" SOUTH OF EXISTING STRUCTURE S-37-63.

- ★ ELEVATIONS ALONG C/L OF TRUSS.
- SIGN NUMBER, SEE PERMANENT SIGNING PLAN.
- ▲ POINT OF MIN. VERTICAL CLEARANCE
STA. 679+85, 76.9' RT.
ELEV. 1306.35
- ELEVATIONS ARE BASED ON AS-BUILT PLANS AND
ARE TO BE ADJUSTED AS REQUIRED TO MAINTAIN
THE DIMENSIONS SHOWN.
- ① HISTORIC BORING FROM S-37-63 AS-BUILT PLAN.
- SHAFTS TO EXTEND 16'-0" BELOW BOTTOM OF
CAP. THIS MAY REQUIRE DRILLING INTO ROCK,
WHICH IS INCLUDED IN THE ITEM "DRILLING
SHAFT 36-INCH".



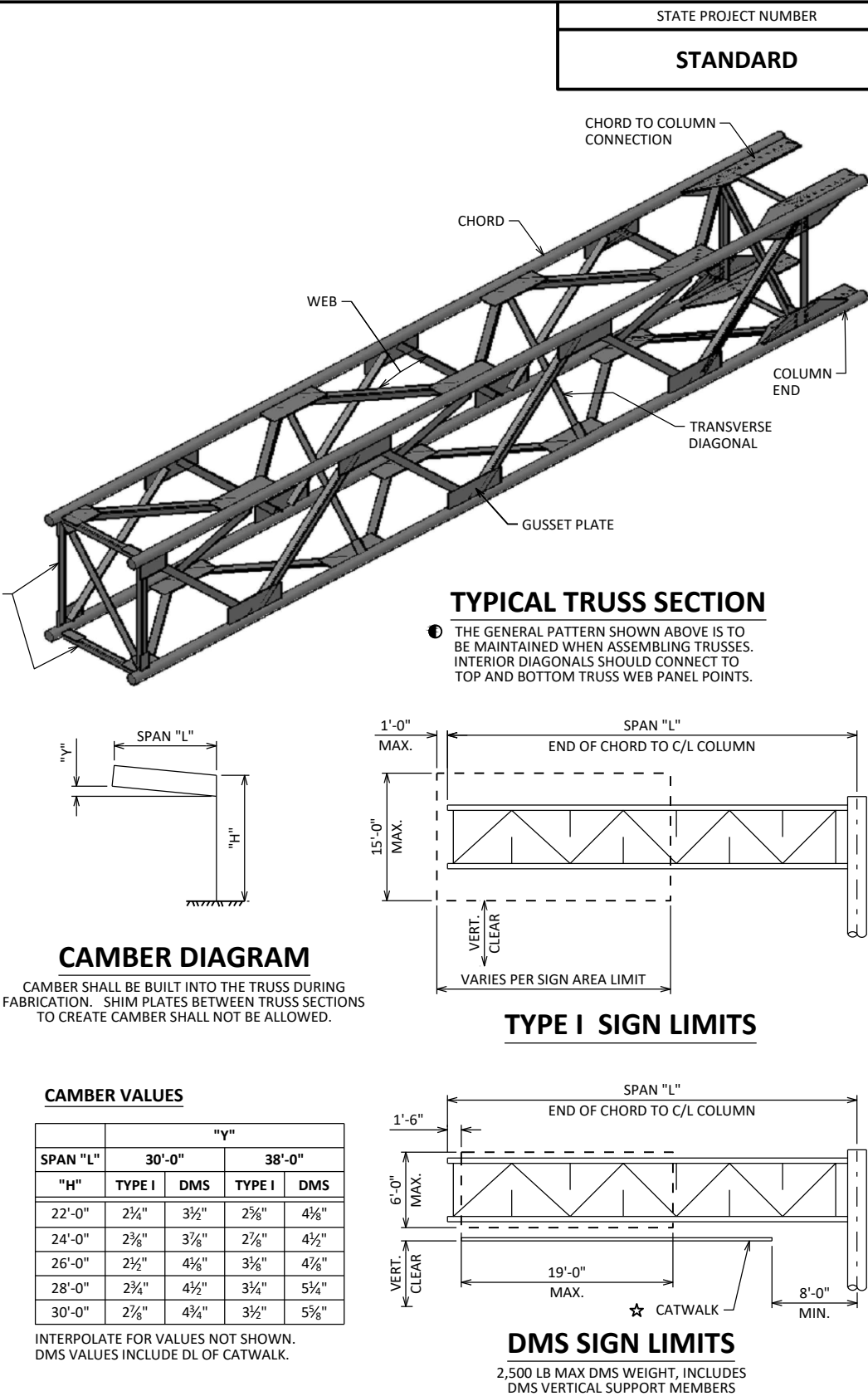
LOOKING WEST AT END OF SIGN

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE S-37-165			
	DRAWN BY	PKF	PLANS CK'D BH
LAYOUT		SHEET 3 OF 9	



CANTILEVER 4-CHORD TRUSS MEMBER TABLE

STANDARD DESIGN TYPE	TYPE I SIGN AREA (SQ. FT.)	DMS AREA (SQ. FT.)	MAXIMUM SPAN "L"	MAXIMUM COLUMN HEIGHT "H"	DIM. "A"	COLUMN "OD" X THK.	CHORD "OD" X THK	WEB W X D X THK	BOXED END W X D X THK	TRANSVERSE DIAGONAL W X D X THK
I	264	114	30'-0"	30'-0"	1'-3"	20.00" X 0.500"	5.000" X 0.375"	L3 X 3 X ¼"	L3 X 3 X ¼"	L3 X 3 X ¼"
II	240	114	38'-0"	30'-0"	1'-4½"	24.00" X 0.500"	5.563" X 0.375"	L3 X 3 X ⅙"	L3 X 3 X ¼"	L3 X 3 X ¼"



CAMBER DIAGRAM

CAMBER SHALL BE BUILT INTO THE TRUSS DURING FABRICATION. SHIM PLATES BETWEEN TRUSS SECTIONS TO CREATE CAMBER SHALL NOT BE ALLOWED.

CAMBER VALUES

SPAN "L"	"H"			
	TYPE I	DMS	TYPE I	DMS
22'-0"	2¼"	3½"	2⅝"	4⅛"
24'-0"	2⅜"	3⅞"	2⅞"	4½"
26'-0"	2½"	4⅞"	3⅞"	4⅞"
28'-0"	2¾"	4½"	3¼"	5¼"
30'-0"	2⅞"	4¾"	3½"	5⅝"

INTERPOLATE FOR VALUES NOT SHOWN. DMS VALUES INCLUDE DL OF CATWALK.

LEGEND

- ☆ FOR OSS WITH DMS ONLY, PROVIDE HANDHOLES AS SHOWN. SEE "CATWALK DETAILS" AND "ELECTRICAL DETAILS" SHEETS.
- FOR OSS WITH DMS ONLY, DRILL AND TAP FOR 2 - 2" STD. PIPE THREADS. LOCATE CENTER OF BOTTOM HOLE 6" FROM TOP OF BOTTOM CHORD AND SPACE VERTICALLY AT 6" C/C. PLACE CONDUIT PLUG IN HOLES THAT ARE NOT USED FOR WIRING SIGN PANELS. SEE "ELECTRICAL DETAILS" SHEET.

STATE PROJECT NUMBER

STANDARD

TYPICAL TRUSS SECTION

THE GENERAL PATTERN SHOWN ABOVE IS TO BE MAINTAINED WHEN ASSEMBLING TRUSSES. INTERIOR DIAGONALS SHOULD CONNECT TO TOP AND BOTTOM TRUSS WEB PANEL POINTS.

CAMBER DIAGRAM

CAMBER SHALL BE BUILT INTO THE TRUSS DURING FABRICATION. SHIM PLATES BETWEEN TRUSS SECTIONS TO CREATE CAMBER SHALL NOT BE ALLOWED.

CAMBER VALUES

SPAN "L"	"H"			
	TYPE I	DMS	TYPE I	DMS
22'-0"	2¼"	3½"	2⅝"	4⅛"
24'-0"	2⅜"	3⅞"	2⅞"	4½"
26'-0"	2½"	4⅞"	3⅞"	4⅞"
28'-0"	2¾"	4½"	3¼"	5¼"
30'-0"	2⅞"	4¾"	3½"	5⅝"

INTERPOLATE FOR VALUES NOT SHOWN. DMS VALUES INCLUDE DL OF CATWALK.

TYPE I SIGN LIMITS

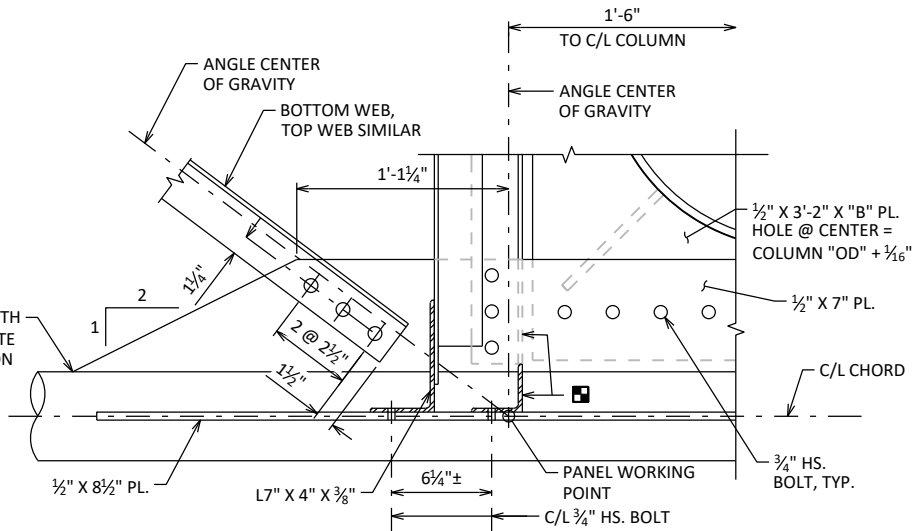
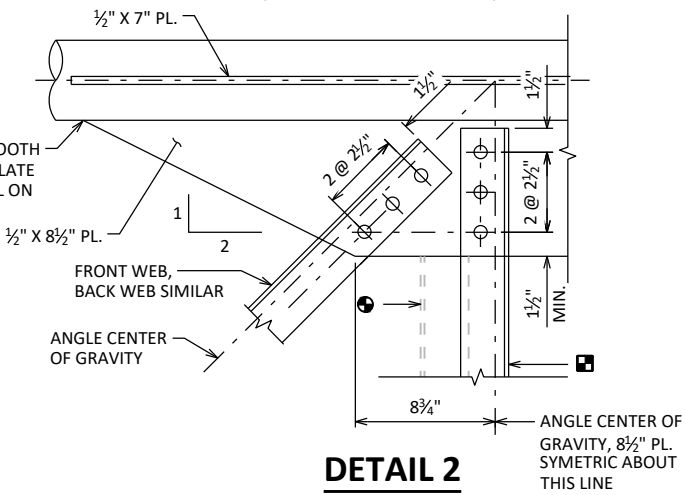
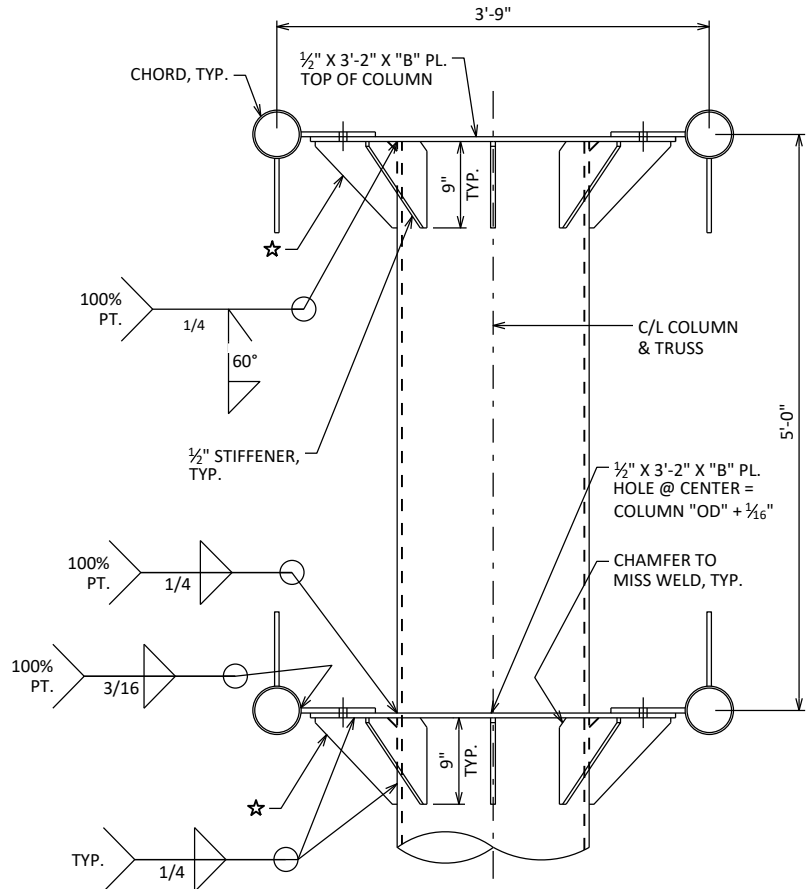
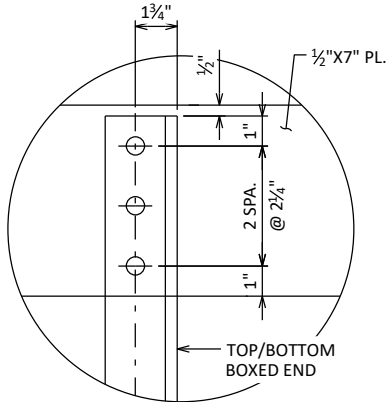
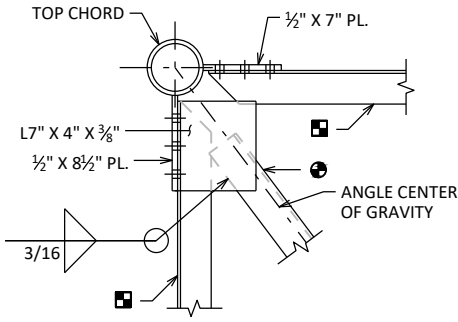
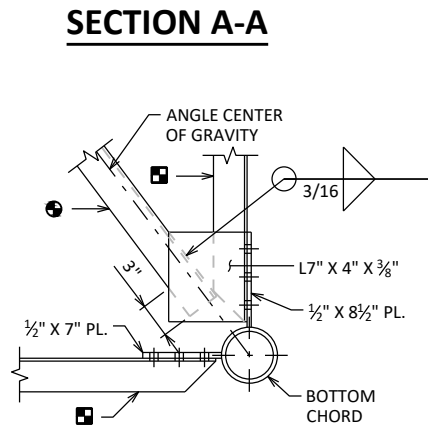
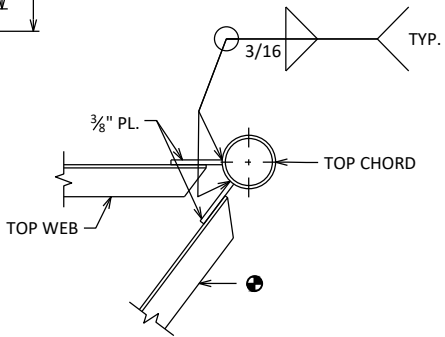
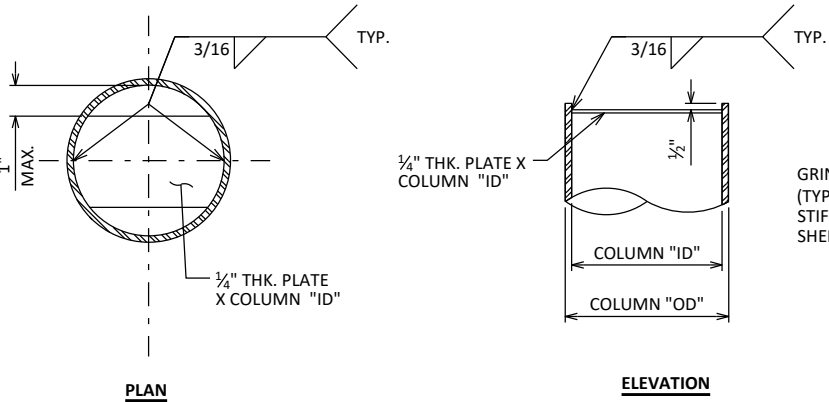
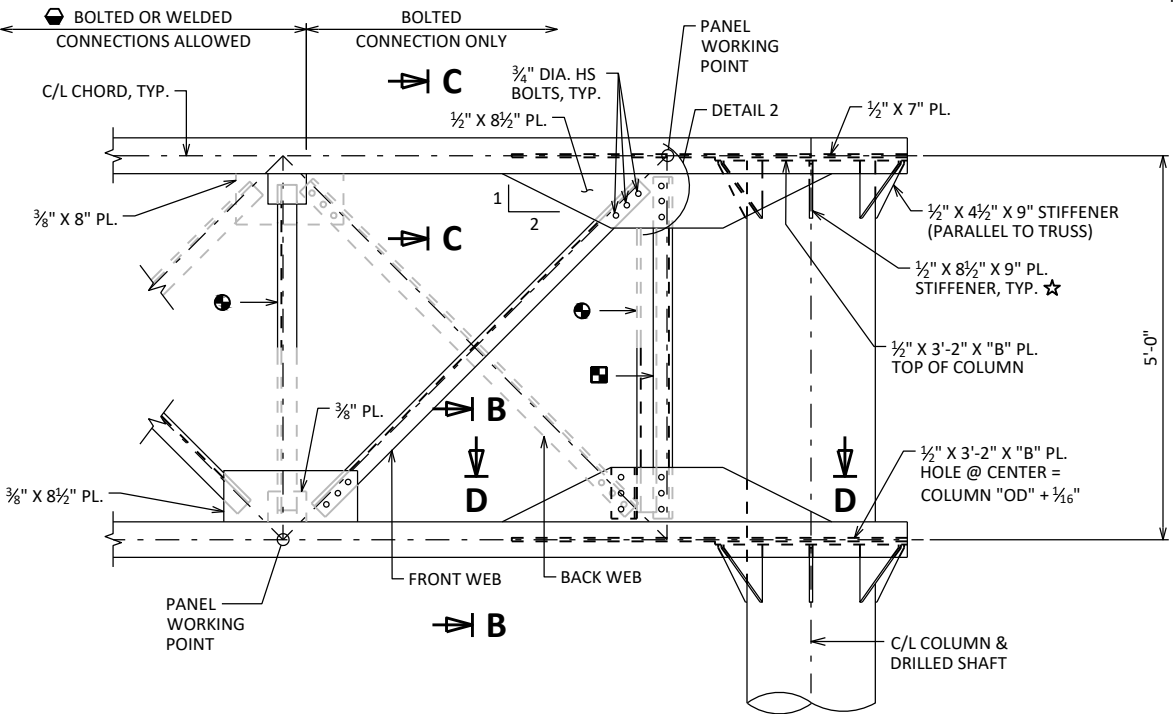
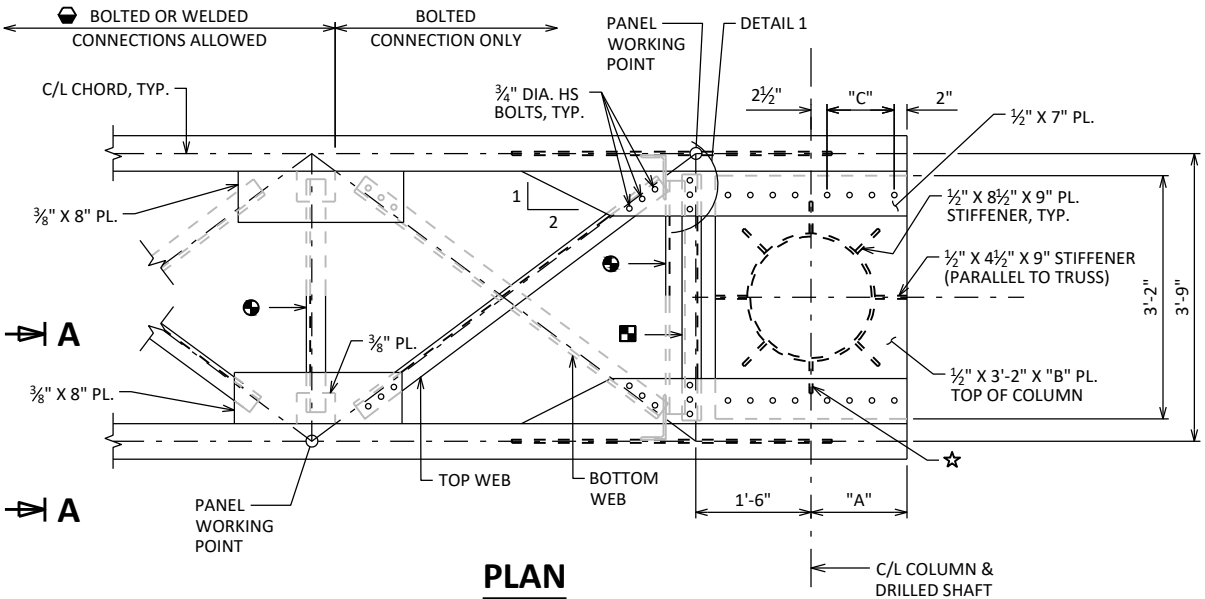
DMS SIGN LIMITS

2,500 LB MAX DMS WEIGHT, INCLUDES DMS VERTICAL SUPPORT MEMBERS

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
UPDATED: JAN. 2023			
DRAWN BY		BOS	PLANS CK'D BOS
4-CHORD TRUSS CANTILEVER DETAILS		SHEET I	

TRUSS TO COLUMN CONNECTION DATA

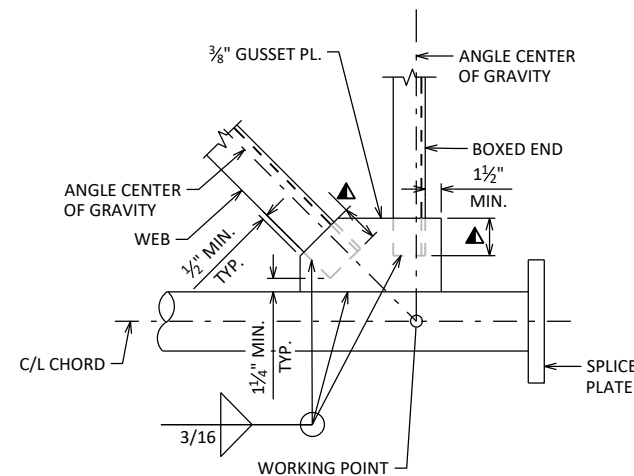
STANDARD DESIGN TYPE	"A"	"B"	"C"
I	1'-3"	2'-6"	3 SPA. @ 3 1/2"
II	1'-4 1/2"	2'-9"	4 SPA. @ 3"



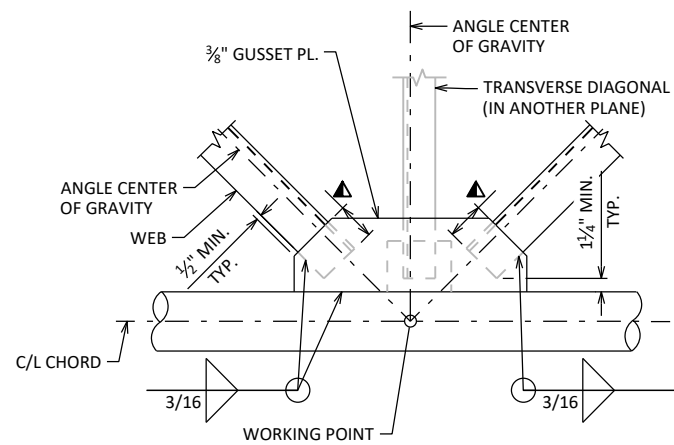
- LEGEND**
- TRANSVERSE DIAGONAL
 - BOXED END AT SUPPORT
 - WELDED CONNECTIONS MAY BE USED IF UNIT CAN BE GALVANIZED IN ONE PIECE. FIRST BAY MUST BE BOLTED.
 - ☆ 1/2" X 7" X 9" STIFFENER TYPE II STANDARD DESIGN ONLY. TYP. OPPOSITE SIDE.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
UPDATED: JAN. 2023			
DRAWN BY BOS		PLANS CK'D BOS	
4-CHORD TRUSS CANTILEVER CONNECTIONS 1		SHEET II	

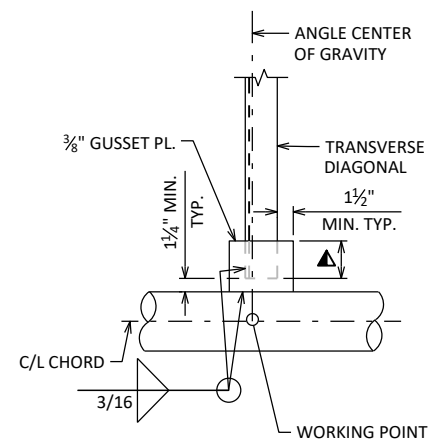
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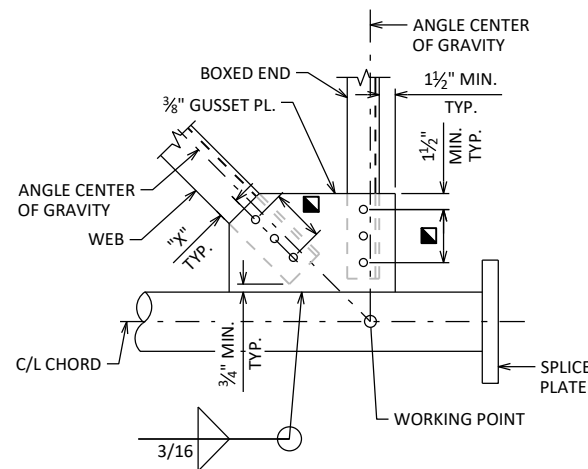
WELDED BOXED END CONNECTION
CONNECTION SHOWN AT CHORD SPLICE,
CONNECTION AT COLUMN END SIMILAR



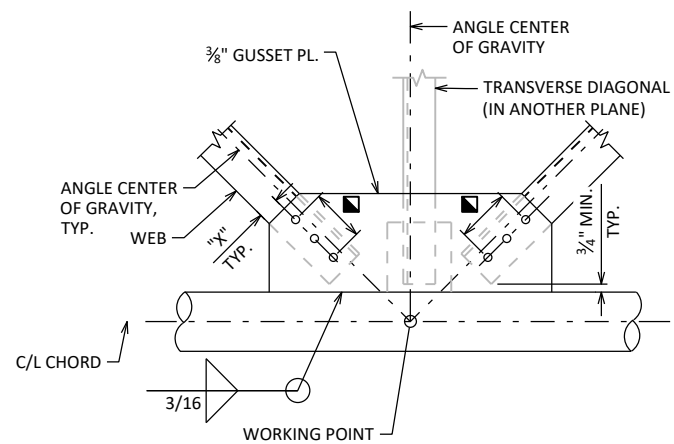
WELDED PANEL CONNECTION



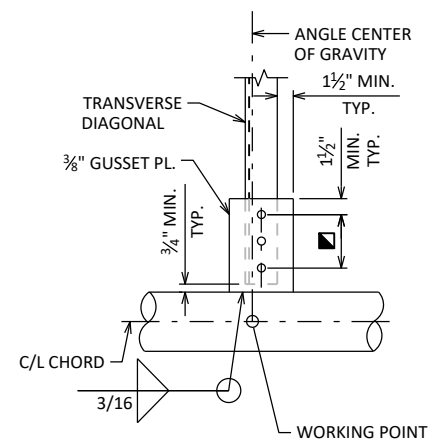
WELDED TRANSVERSE DIAGONAL CONNECTION
WEB MEMBERS NOT SHOWN FOR CLARITY



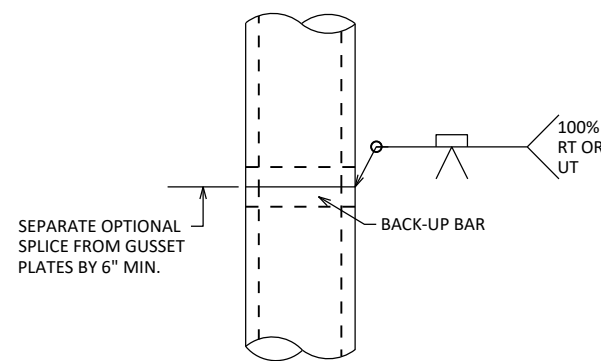
BOLTED BOXED END CONNECTION
CONNECTION SHOWN AT CHORD SPLICE,
CONNECTION AT COLUMN END SIMILAR



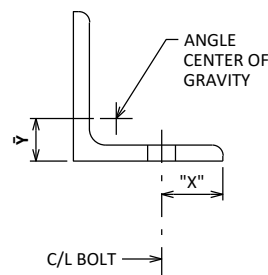
BOLTED PANEL CONNECTION



BOLTED TRANSVERSE DIAGONAL CONNECTION
WEB MEMBERS NOT SHOWN FOR CLARITY



**OPTIONAL COLUMN
OR CHORD SPLICE
DETAIL**

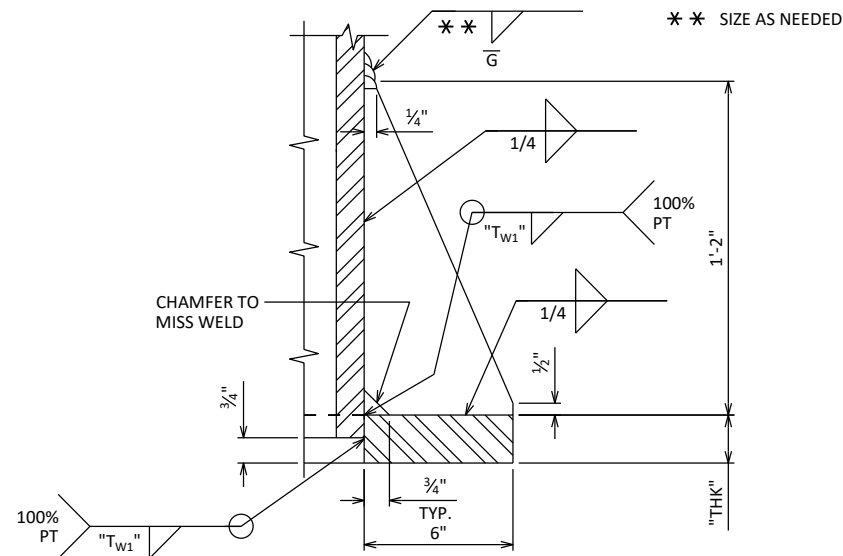


ANGLE DATA			
ANGLE SIZE	Y	X	
L3 X 3 X 3/4	0.84"	1 1/4"	
L3 X 3 X 5/16	0.86"	1 1/4"	

MEMBER CONNECTION DATA

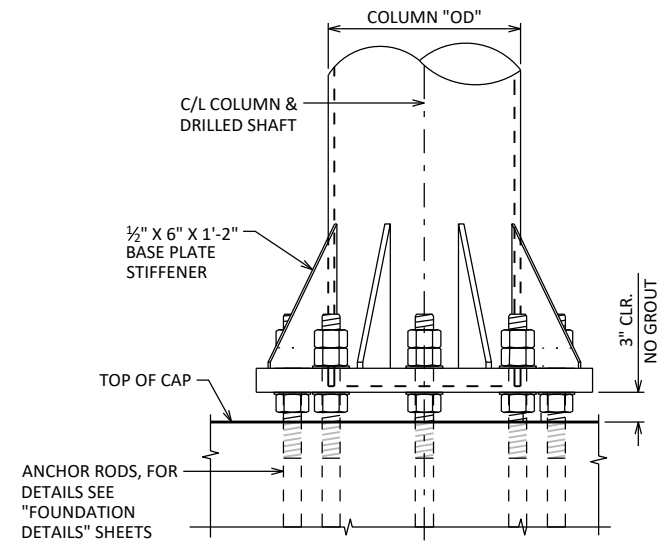
STANDARD DESIGN TYPE	WELD LEG MIN. LENGTH	NO. OF BOLTS
	▲	■
I	3"	3
II	3"	3

FOR ALL ANGLE TO GUSSET CONNECTIONS,
BOLT SPACING = 2 1/2"

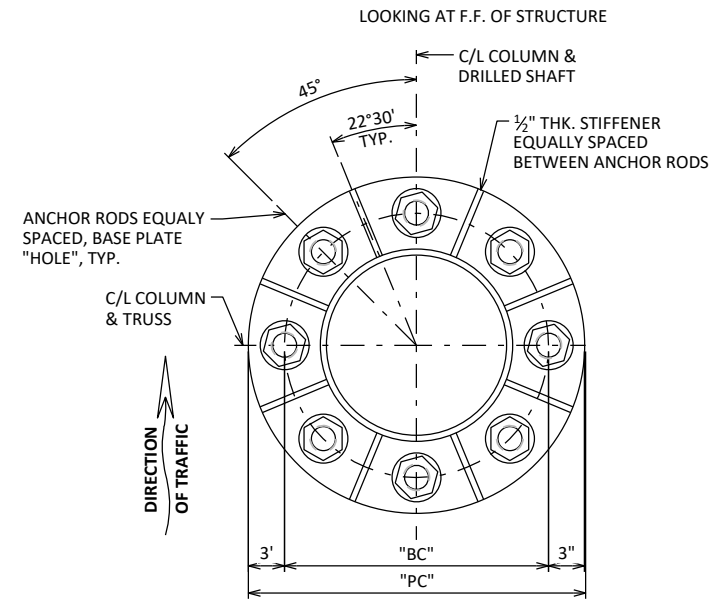


BASE PLATE STIFFENER DETAIL

NOTE:
FABRICATOR HAS THE OPTION TO USE NON-MITERED
RECTANGULAR GUSSET PLATES IN LIEU OF MITERED
PLATES SHOWN IN THESE DETAILS.



BASE PLATE & COLUMN DETAIL

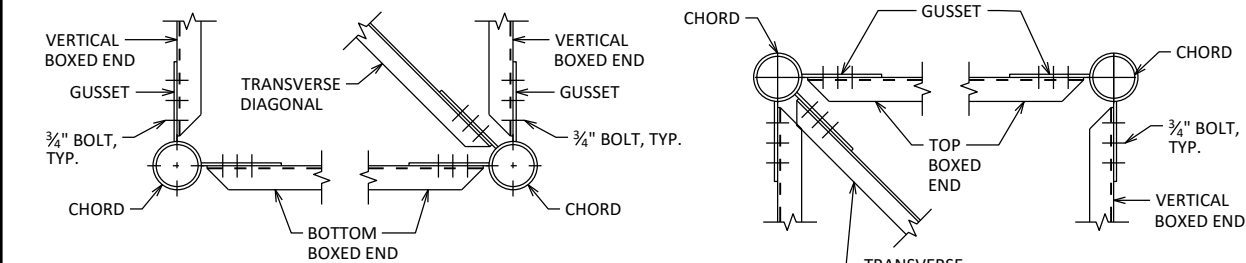


BASE PLATE

CANTILEVER 4-CHORD COLUMN DATA

STANDARD DESIGN TYPE	COLUMN \"OD\" X THK	BASE PLATE				
		\"THK\"	\"TW1\"	\"HOLE\"	\"BC\"	\"PC\"
I	20.00\" X 0.500\"	2"	5/16"	2 3/4"	2'-2"	2'-8"
II	24.00\" X 0.500\"	2 1/2"	5/16"	2 3/4"	2'-6"	3'-0"

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
UPDATED: JAN. 2023			
DRAWN BY BOS		PLANS CK'D BOS	
4-CHORD TRUSS CANTILEVER CONNECTIONS 2		SHEET III	

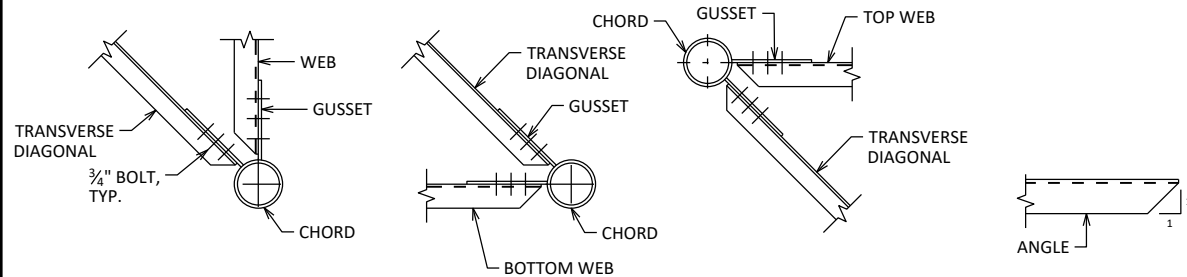


END VIEW 1

END VIEW 2

END VIEW 3

END VIEW 4



END VIEW 5

END VIEW 6

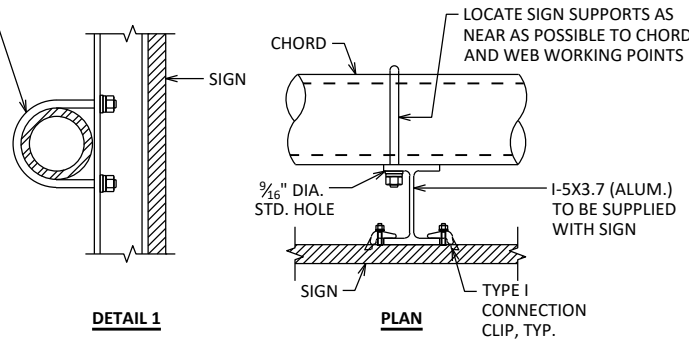
END VIEW 7

CLIP DETAIL

TRUSS CONNECTION DETAILS

1/2" DIA. STAINLESS STEEL U-BOLT WITH 2 LOCK WASHERS, 2 FLAT WASHERS AND 2 HEX NUTS PER BOLT. 2 BOLTS REQUIRED PER I-BEAM. LOCATE TOP AND BOTTOM U-BOLTS ON OPPOSITE SIDES OF FLANGE.

MEMBER ORIENTATION FOR BOLTED CONNECTIONS SHOWN, WELDED CONNECTIONS SIMILAR

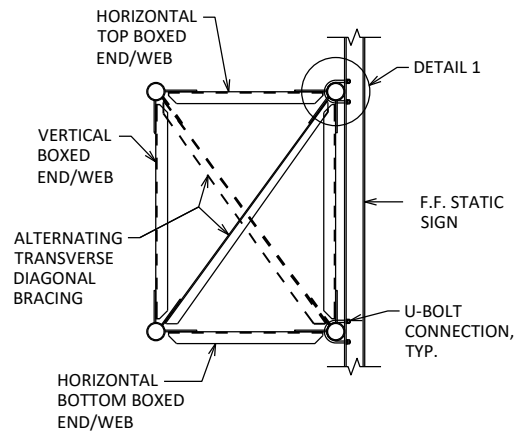


DETAIL 1

PLAN

TYPICAL SIGN CONNECTION

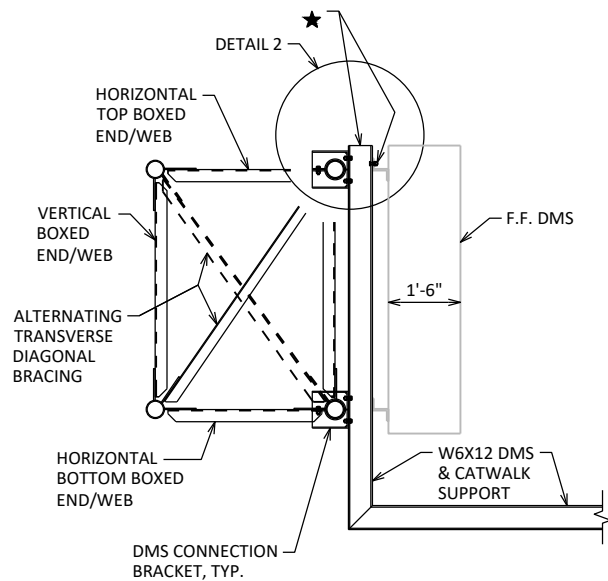
USE FOR TYPE I AND II SIGNS, TYPE I SIGN SHOWN. SEE SIGN PLATE MANUAL A4-7A AND A4-7B FOR DETAILS.



SECTION THRU TRUSS - STATIC SIGN

FOR SIGN CONNECTION

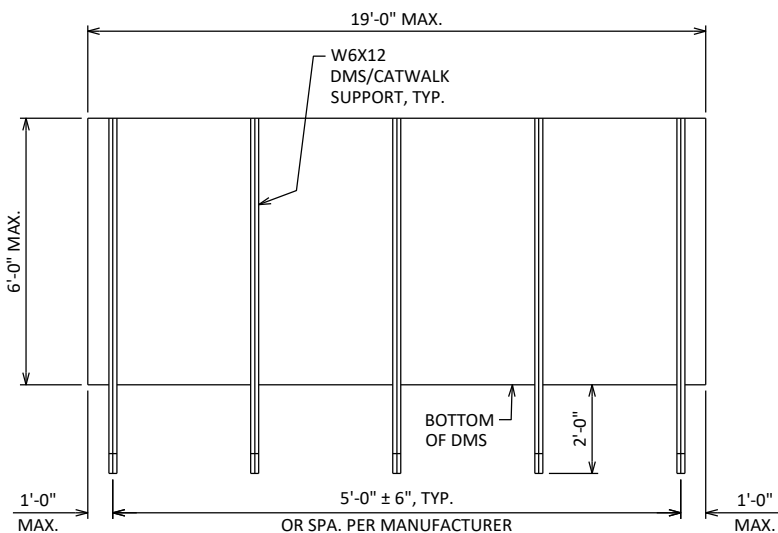
ALUMINUM I-5X3.7 I-BEAMS ARE TO BE SUPPLIED WITH THE SIGN PANEL. HARDWARE TO BE SUPPLIED BY THE CONTRACTOR.



SECTION THRU TRUSS - DMS

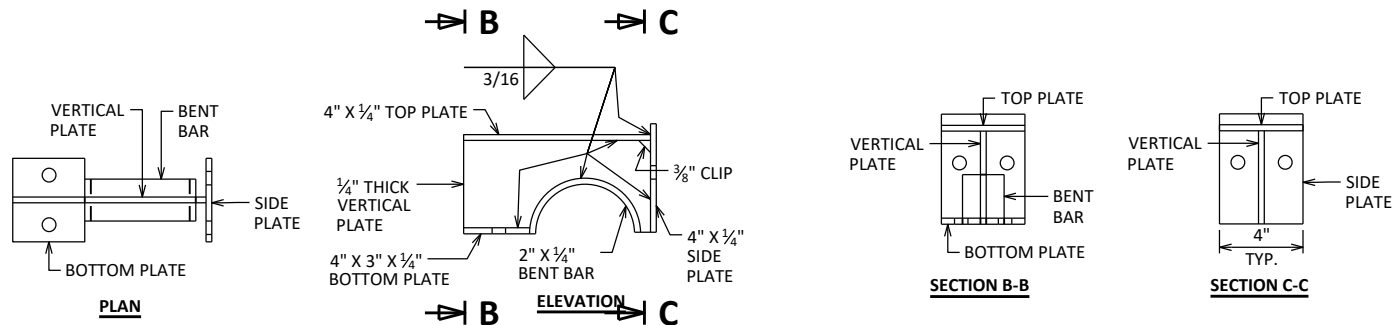
FOR DMS/CATWALK CONNECTIONS

★ W6X12 SUPPORTS AND HARDWARE ARE TO BE SUPPLIED BY THE CONTRACTOR. 1/2" STAINLESS BOLT, NUT, WASHER AND LOCK WASHER REQUIRED, 4 PER W6X12. FIELD DRILLED HOLES IN STEEL SUPPORTS MUST BE COLD GALVANIZED



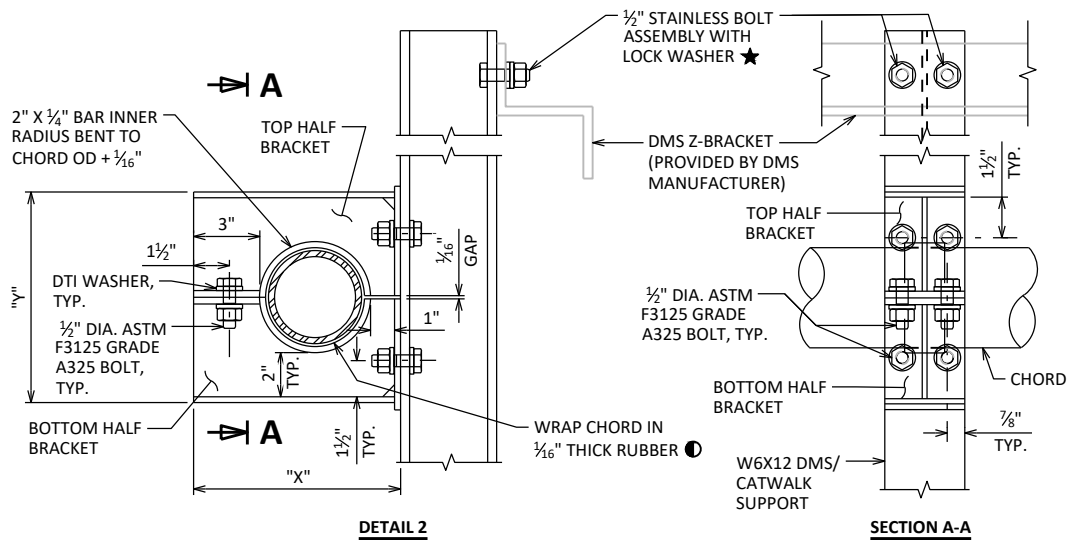
DMS MOUNTING POST SPACING DETAIL

POST SPACING MAY BE ADJUSTED AS REQUIRED IF SPACING CONFLICTS WITH GUSSET PLATES OF TRUSS WITHIN TOLERANCES NOTED.



DMS WELDED PLATE CONNECTION DETAILS

TOP HALF OF BRACKET SHOWN, BOTTOM HALF SIMILAR.



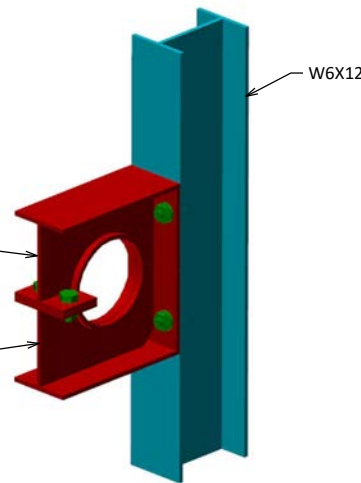
DETAIL 2

SECTION A-A

TYPICAL DMS CONNECTION

● NEOPRENE, GRADE 45±5, OTHERWISE MEETING THE REQUIREMENTS OF STD. SPEC. 506.2.6.1

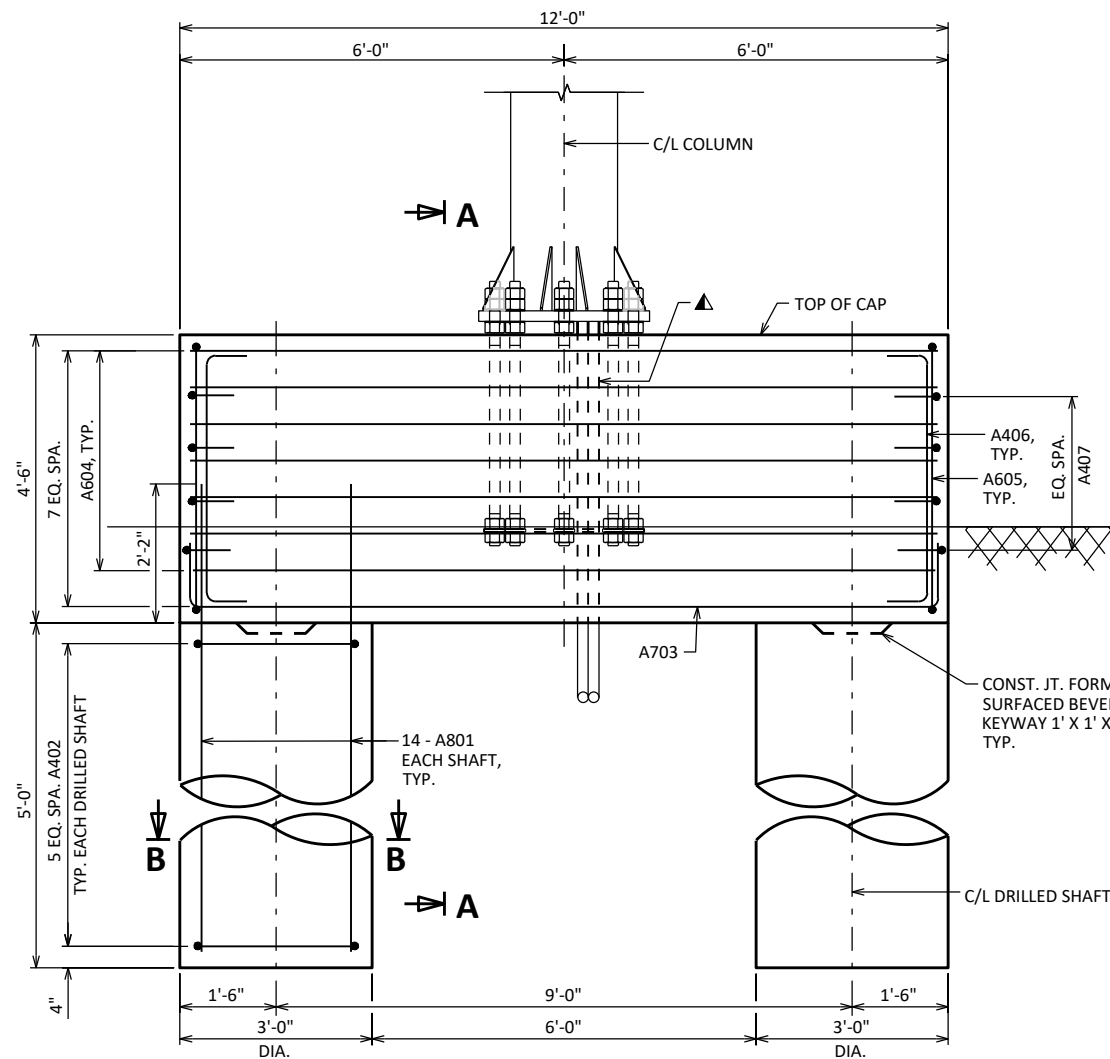
CHORD "OD"	"X"	"Y"
5.000"	9 13/16"	10 1/16"
5.563"	10 3/8"	10 3/8"



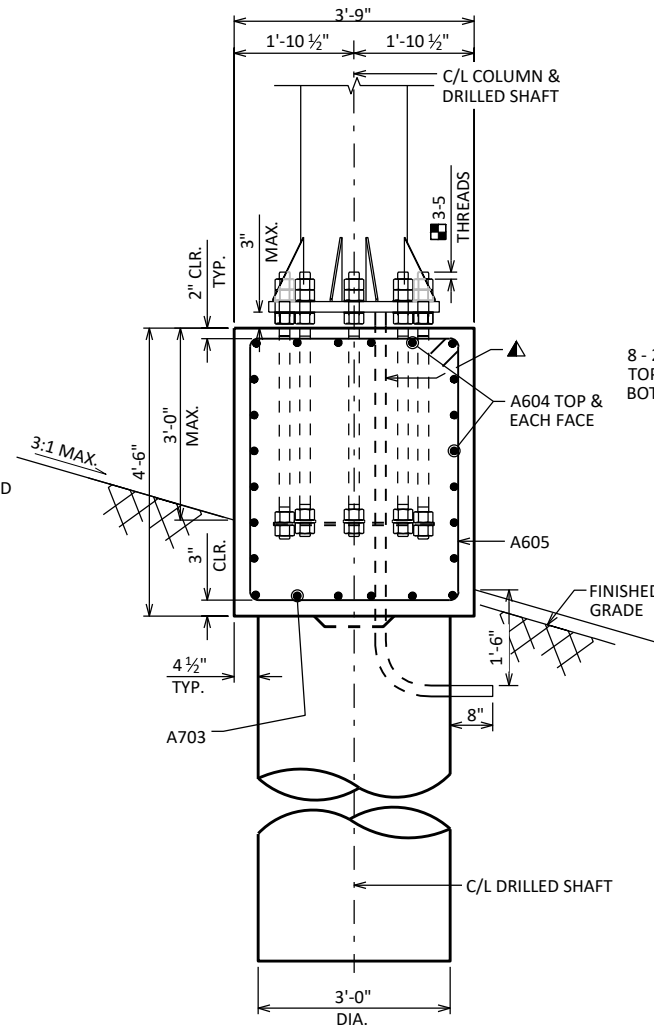
3-D VIEW OF DMS CONNECTION

CHORD NOT SHOW FOR CLARITY

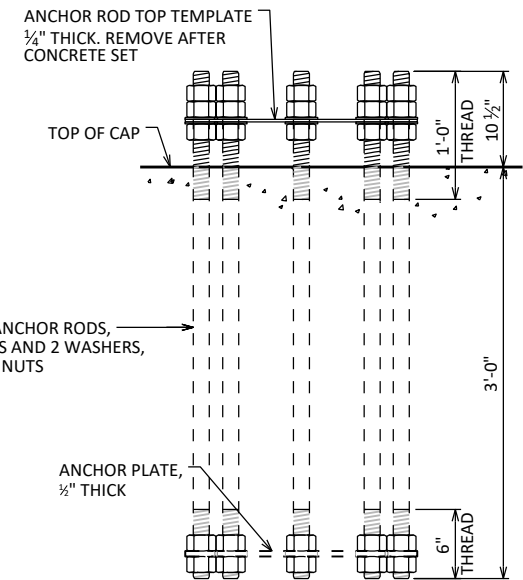
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
UPDATED: JAN. 2023			
DRAWN BY BOS		PLANS CK'D BOS	
4-CHORD TRUSS CANTILEVER CONNECTIONS 3		SHEET IV	



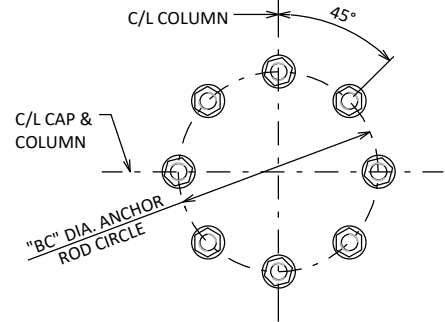
ELEVATION



SECTION A-A



ELEVATION

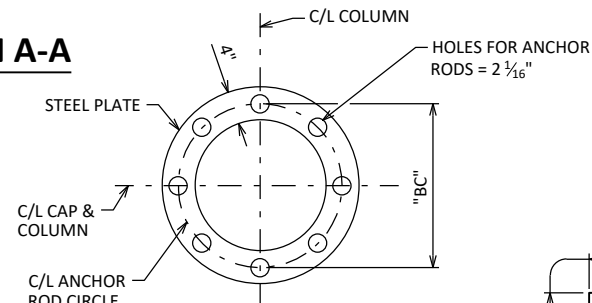


PLAN

ANCHOR ROD ASSEMBLY DETAILS

SINGLE ANCHOR ASSEMBLY SHOWN, 8 ANCHOR RODS PER ASSEMBLY

CENTER ANCHOR ROD ASSEMBLY AND MAKE SURE IT IS PLUMB. MAINTAIN ANCHOR ROD PROJECTION ABOVE TOP OF CONCRETE AS DETAILED. ANCHOR ROD ASSEMBLY SHALL BE RIGIDLY SECURED IN POSITION DURING AND AFTER CONCRETE PLACEMENT. DO NOT WELD THE ANCHORS.

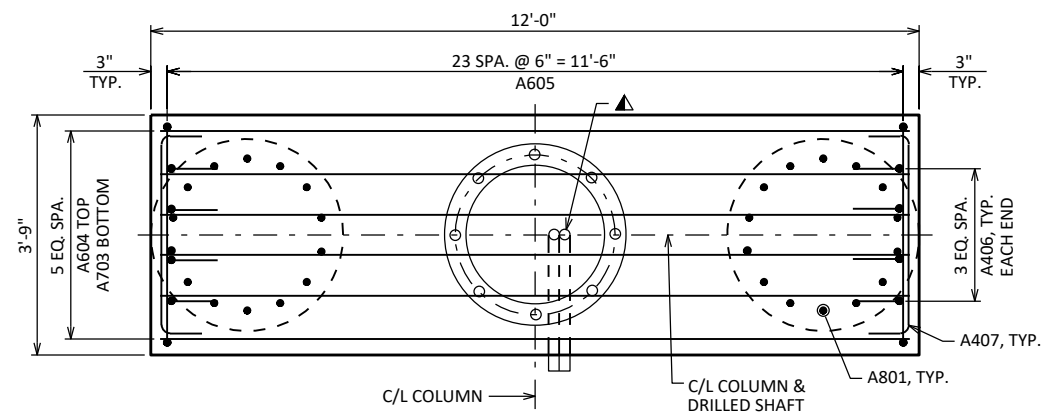


A402

A703, A406, A407

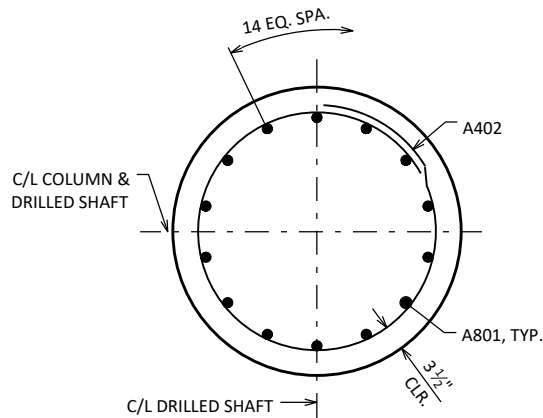
LEGEND

- REFERS TO THE STANDARD TRUSS CANTILEVER 4-CHORD TYPE.
- ANCHOR ROD STICK OUT IN FINAL CONDITION. EXCESSIVE STICK OUT BEYOND DIMENSION SHOWN TO BE CUT OFF AFTER PLACING STRUCTURE. ANCHORS TO BE ULTRASONIC TESTED TO DETERMINE EMBEDDED LENGTH MEETS REQUIREMENTS PRIOR TO CUTTING. NOTE REMAINING LENGTH ON AS-BUILT.
- ▲ 2 - 2" DIA. NON-METALLIC CONDUITS. INSTALL ONLY WITH DMS. EXTEND CONDUITS AS SHOWN AND CAP OR SEAL EACH END WITH A SUITABLE REMOVABLE PLUG. PLACE CONDUITS UNDER COLUMN ADJACENT TO DMS. CONDUITS INCIDENTAL TO THE FOUNDATION BID ITEMS.



PLAN

DESIGNER SHALL BE NOTIFIED, IF SOUND ROCK IS NOT ENCOUNTERED WITHIN 2 FEET FROM THE BOTTOM OF THE CAP, FOR REDESIGN OF THE DRILLED SHAFTS. DO NOT FABRICATE SHAFT REINFORCEMENT UNTIL DRILLING FOR SHAFT IS COMPLETE



SECTION B-B

TYPICAL FOR EACH DRILLED SHAFT FOOTING

ESTIMATED QUANTITIES - NON-STANDARD FOUNDATION

STANDARD DESIGN TYPE	CONCRETE MASONRY (CY)	STEEL REINFORCEMENT HS (LBS)	STEEL REINFORCEMENT HS COATED (LBS)	ANCHOR ASSEMBLY 2-INCH (EACH)	FOUNDATION DRILLING 36" DIA. (LF)
I/II	10	610	1,100	1	10

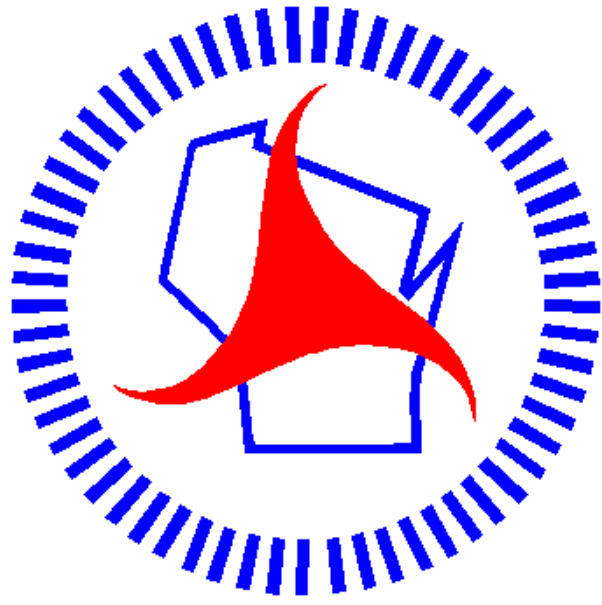
** QUANTITIES ARE FOR INFORMATION ONLY.

BILL OF BARS - NON-STANDARD FOUNDATION

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

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR MARK	LOCATION
A801		28	7'-2"			DRILLED SHAFT - VERTICAL
A402		12	9'-0"	X		DRILLED SHAFT - HORIZONTAL
A703	X	6	13'-7"	X		CAP - LONGITUDINAL - BOTTOM
A604	X	18	11'-8"			CAP - LONGITUDINAL - TOP & SIDES
A605	X	24	15'-10"	X		CAP - STIRRUP
A406	X	8	4'-7"	X		CAP - VERTICAL - EACH END
A407	X	8	3'-11"	X		CAP - HORIZONTAL - EACH END

Notes



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