



North Dakota Department of Transportation

Grant Levi, P.E.
Director

Jack Dalrymple
Governor

October 2, 2015

ADDENDUM 2 – JOB 9

TO: All prospective bidders on project SHE-1-999(025), Job No. 9, scheduled for the October 9, 2015 bid opening.

The following plan and request for proposal revisions shall be made:

Plan Revisions:

See attached summary from Vance Hanson; Stanley Consultants Inc, dated September 30, 2015 for an explanation.

Request for Proposal Revisions:

Remove and replace pages 7-8 of 10 of the Proposal pages located at the beginning of the Request for Proposal, with the enclosed pages revised 10/2/2015.

Page 7 of 10:

Item 754 0110 FLAT SHEET FOR SIGNS-TYPE XI REFL SHEETING; quantity decreased from 6198 to 6166 SF.

Item 754 0210 GALV STEEL POSTS-STANDARD PIPE; quantity decreased from 2365 to 2342 LF.

Item 754 0214 GALV STEEL POSTS-W-SHAPE POSTS (TWO OR MORE); quantity increased from 351 to 649 LF.

Page 8 of 10:

Item 754 1100 CLASS AE CONCRETE-SIGN FOUNDATIONS; quantity decreased from 39.8 to 38.9 CY

Item 754 1104 REMOVE SIGN FOUNDATION; quantity decreased from 99 to 97 EA.

This addendum is to be incorporated into the bidder's proposal for this project.

Expedite bid files should be updated by downloading the addendum file from the Bid Express on-line bidding exchange at <http://www.bidx.com/> or the Department's web page (<http://www.dot.nd.gov>) and load it into the Expedite program.

For


CAL J. GENDREAU – CONSTRUCTION SERVICES ENGINEER

80:plm

Enclosure



A Stanley Group Company
Engineering, Environmental and Construction Services - Worldwide

September 30, 2015

ADDENDUM 2

Job No. 9

TO: All prospective bidders and suppliers on Project SHE-1-999(025)
PCN 20639, Job No. 2, scheduled for the October 9, 2015 bid
opening.

Revisions for SHE-1-999(025):

Remove and Replace Plan Sheets:

- Section 8 Sheet 1
- Section 110 Sheet 9
- Section 110 Sheet 10
- Section 110 Sheet 14
- Section 110 Sheet 15
- Section 110 Sheet 17
- Section 110 Sheet 18
- Section 110 Sheet 19
- Section 110 Sheet 20
- Section 110 Sheet 21
- Section 110 Sheet 36
- Section 110 Sheet 37
- Section 110 Sheet 44
- Section 110 Sheet 61
- Section 110 Sheet 62
- Section 110 Sheet 76
- Section 110 Sheet 77
- Section 110 Sheet 77a
- Section 110 Sheet 90
- Section 110 Sheet 92
- Section 110 Sheet 93
- Section 110 Sheet 96

Section 8

- Remove and Replace Sheet 1.
- Revised quantity for bid item 754-214 Galv Steel Post-W-Shape Posts (two or more).
- Change in the quantities for bid items 754 110, 754 210, 754 1100, and 754 1104

Section 110

- Remove and Replace Sheet 9.
- Revised the post type for sign 160.792 Rt mdn from perforated tube to steel post. Moved to Section 110 Sheet 19.

Section 110

- Remove and Replace Sheet 10.
- Revised the post type for sign from steel post to perforated tube for 156-5 Rt. Moved from Section 110 Sheet 15.
- Revised Quantity for Perforated Tube.

Section 110

- Remove and Replace Sheet 14.
- Removed signs 917.043-1 Lt and 917.043-2 Lt mdn.

Section 110

- Remove and Replace Sheet 15.
- Revised the post type for sign from steel post to perforated tube for 156-5 Rt. Moved to Section 110 Sheet 10.
- Added a notes for signs 156-5 Rt and 156-4 Rt mdn.

Section 110

- Remove and Replace Sheet 17.
- Summary list shifted due to removal of signs 917.043-1 Lt and 917.043-2 Lt mdn.

Section 110

- Remove and Replace Sheet 18.
- Summary list shifted due to removal of signs 917.043-1 Lt and 917.043-2 Lt mdn.

Section 110

- Remove and Replace Sheet 19.
- Revised Post Type for sign 160.792 Rt mdn, and added note referring to Standard Drawing D-754-85G. Moved from Section 110 Sheet 9.

Section 110

- Remove and Replace Sheet 20.
- Added notes to signs 152.949 Lt and 152.949 Lt mdn referring to standard drawing D-754-85G.

Section 110

- Remove and Replace Sheet 21.
- Revised total quantities due to removal of signs 917.043-1 Lt and 917.043-2 Lt mdn.

Section 110

- Remove and Replace Sheet 36.
- Revised notes to signs 152.949 Lt, 152.949 Lt mdn, and 156-5 Rt.

Section 110

- Remove and Replace Sheet 37.
- Revised post type for 160.792 Rt mdn. Moved to Section 110 Sheet 19.

Section 110

- Remove and Replace Sheet 44.
- Removed signs 917.043-1 Lt and 917.043-2 Lt mdn.

Section 110

- Remove and Replace Sheet 61.
- Removed signs 917.043-1 Lt and 917.043-2 Lt mdn.

Section 110

- Remove and Replace Sheet 62.
- Revised Special Assembly for signs 156-4 Rt mdn and 156-5 Rt.

Section 110

- Remove and Replace Sheet 76.
- Updated State Route marker symbol for sign 6.

Section 110

- Remove and Replace Sheet 77.
- Updated State Route marker symbol for sign 8.



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Section 110

- Add Sheet 77a.
- Added new detail sheet for the new state route marker design.

Section 110

- Remove and Replace Sheet 90.
- Removed signs 917.043-1 Lt and 917.043-2 Lt mdn and Special Assembly B.

Section 110

- Remove and Replace Sheet 92.
- Revised flashing beacon sign size.

Section 110

- Remove and Replace Sheet 93.
- Revised special assembly K (Added sign 160.792 Rt mdn from Section 110 Sheet 96) and L (Added sign 156-5 Rt from Section 110 Sheet 92) signs and notes.

Section 110

- Remove and Replace Sheet 96.
- Removed Special Assembly Y (sign moved to SA-K, Section 110 Sheet 93).

This addendum is to be incorporated into bidder's proposal for this project.

Sincerely,

A handwritten signature in black ink that reads 'Vance Hanson'. The signature is written in a cursive style with a large, looped 'V' and 'H'.

Vance Hanson
Project Manager

Enclosure(s): Revised Plan Sheets Project#: SHE-1-999(025)

cc: NDDOT

BID ITEMS

Project: SHE-1-999(025) (PCN-20639)

Bidder must type or neatly print unit prices in numerals, make extensions for each item, and total. Do not carry unit prices further than three (3) decimal places.

Item No.	Spec No.	Code No.	Description	Unit	Approx. Quantity	Unit Price		Amount	
						\$\$\$\$	000	\$\$\$\$	00
001	103	0100	CONTRACT BOND	L SUM	1.				
002	251	0200	SEEDING CLASS II	ACRE	.380				
003	253	0201	HYDRAULIC MULCH	ACRE	.380				
004	702	0100	MOBILIZATION	L SUM	1.				
005	704	0100	FLAGGING	MHR	100.				
006	704	1000	TRAFFIC CONTROL SIGNS	UNIT	1,832.				
007	704	1060	DELINEATOR DRUMS	EA	80.				
008	704	1067	TUBULAR MARKERS	EA	76.				
009	704	1087	SEQUENCING ARROW PANEL-TYPE C	EA	2.				
010	754	0110	FLAT SHEET FOR SIGNS-TYPE XI REFL SHEETING	SF	6,166.				
011	754	0112	FLAT SHEET FOR SIGNS-TYPE IV REFL SHEETING	SF	699.				
012	754	0206	STEEL GALV POSTS-TELESCOPING PERFORATED TUBE	LF	4,548.				
013	754	0210	GALV STEEL POST-STANDARD PIPE	LF	2,342.				
014	754	0214	GALV STEEL POSTS-W-SHAPE POSTS(TWO OR MORE)	LF	649.				
015	754	0534	PANEL FOR SIGNS-TYPE IV REFLECTIVE SHEETING	SF	1,641.				
016	754	0541	OVERLAY PANEL-TYPE IV REFLECTIVE SHEETING	SF	294.				

BID ITEMS

Project: SHE-1-999(025) (PCN-20639)

Bidder must type or neatly print unit prices in numerals, make extensions for each item, and total. Do not carry unit prices further than three (3) decimal places.

Item No.	Spec No.	Code No.	Description	Unit	Approx. Quantity	Unit Price		Amount	
						\$\$\$\$\$	000	\$\$\$\$\$	00
017	754	0592	RESET SIGN PANEL	EA	39.				
018	754	1100	CLASS AE CONCRETE-SIGN FOUNDATIONS	CY	38.900				
019	754	1104	REMOVE SIGN FOUNDATION	EA	97.				
			TOTAL SUM BID						

ESTIMATED QUANTITIES

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SHE-1-999(025)	8	1

TOTAL ESTIMATED QUANTITIES							
SPEC	CODE	ITEM	UNIT	Mandan	Bismarck	Mainline	QUANTITY
103	100	CONTRACT BOND	L SUM			1	1
251	200	SEEDING CLASS II	ACRE			0.38	0.38
253	201	HYDRAULIC MULCH	ACRE			0.38	0.38
702	100	MOBILIZATION	L SUM			1	1
704	100	FLAGGING	MHR			100	100
704	1000	TRAFFIC CONTROL SIGNS	UNIT			1832	1832
704	1060	DELINEATOR DRUMS	EA			80	80
704	1067	TUBULAR MARKERS	EA			76	76
704	1087	SEQUENCING ARROW PANEL – TYPE C	EA			2	2
754	112	FLAT SHEET FOR SIGNS TYPE IV REFL SHEETING	SF		97	602	699
754	110	FLAT SHEET FOR SIGNS TYPE XI REFL SHEETING	SF	308	50	5808	6166
754	206	STEEL GALV POSTS-TELESCOPING PERFORATED TUBE	LF	101	63	4384	4548
754	210	GALV STEEL POSTS-STANDARD PIPE	LF	92		2250	2342
754	214	GALV STEEL POSTS-W-SHAPE POSTS (TWO OR MORE)	LF			649	649
754	534	PANEL FOR SIGNS-TYPE IV REFLECTIVE SHEETING	SF			1641	1641
754	541	OVERLAY PANEL-TYPE IV REFLECTIVE SHEETING	SF			294	294
754	592	RESET SIGN PANEL	EA			39	39
754	1100	CLASS AE CONCRETE-SIGN FOUNDATIONS	CY	0.4		38.5	38.9
754	1104	REMOVE SIGN FOUNDATION	EA	2		95.0	97.0

This document was originally issued and sealed by Vance Hanson, Registration Number PE-8522, on 09/30/15 and the original document is stored at the North Dakota Department of Transportation.

Sta/RP	Sign No.	Assembly No.	Flat Sheet For Signs		Sign Support Length				Support Size	Max Post Len	Sleeve Length				Sleeve Size	Anchor EA	Anchor LF	Anchor Size	Reset Sign Panel EA	Reset Sign Support EA	Break-Away EA	Comments
			IV SF	XI SF	1st LF	2nd LF	3rd LF	4th LF		LF	1st LF	2nd LF	3rd LF	4th LF								
I-94 Westbound																						
157.358 Rt		10		7.5	10.2				2.25 x 2.25 12 ga	10.6						1	4	2.5 x 2.5 12 ga				
Sub Total			0.0	7.5	Total 10.2											Total 4			0	0	0	
Rest Area 119.5																						
3.0067 Rt		12		20.0	13.2	13.5			2.25 x 2.25 12 ga	14.0	4.3	4.6			2	4	3 x 3 7 ga				2	
3.0676 Rt	SN-11		18.0		14.3	14.5	14.8		2.5 x 2.5 12 ga	15.1					3	4	3 x 3 7 ga				3	
3.1005 Rt		14		4.0	10.4				2 x 2 12 ga	13.0					1	4	2.25 x 2.25 12 ga					
3.1098 Rt	SA-N			10.0	11.7				2.5 x 2.5 10 ga	13.3					1	4	3 x 3 7 ga				1	
3.177 Rt	SN-O			0.0																	Mount on Existing Supports	
Sub Total			18.0	34.0	Total 92.4										Total 28			0	0	6		
Rest Area 118.5																						
1.2931 Rt		7		1.5																	Mount on Existing Supports	
1.2988 Rt		7		1.5																	Mount on Existing Supports	
1.3229 Rt		22		6.0																	Mount on Existing Supports	
3.1763 Rt		50		2.0																	Mount on Existing Supports	
Sub Total			0.0	11.0	Total 0.0										Total 0			0	0	0		
Exit I-194 Bismarck																						
920.345 Lt mdn	SA-AB			21.0																	Mount on Existing Supports	
Sub Total			0.0	21.0	Total 0.0										Total 0			0	0	0		
Scenic View 151																						
151.737 Rt		9		5.0	13.5				2.25 x 2.25 12 ga	15.0					1	4	2.5 x 2.5 12 ga					
Sub Total			0.0	5.0	Total 13.5										Total 4			0	0	0		

Basis of Estimate
Sign Support Lengths

The sign support lengths have been calculated using the following vertical clearances:

Urban/rural expressway and freeway - 84" (Offset - 60")

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Sign Summary
Perforated Tube
I-94

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
N.D.	SHE-1-999(025)	110	10

Sta/RP	Sign No.	Assembly No.	Flat Sheet For Signs		Sign Support Length				Support Size	Max Post Len	Sleeve Length				Sleeve Size	Anchor EA	Anchor LF	Anchor Size	Reset Sign Panel EA	Reset Sign Support EA	Break-Away EA	Comments
			IV SF	XI SF	1st LF	2nd LF	3rd LF	4th LF		LF	1st LF	2nd LF	3rd LF	4th LF								
Rest Area 168.5																						
1.4912 Lt		4		3.9	12.7				2 x 2 12 ga	13.6					1	4	2.25 x 2.25 12 ga					
1.5833 Lt		15		6.3	10.4				2.25 x 2.25 12 ga	11.6					1	4	2.5 x 2.5 12 ga					
1.5917 Rt		15		6.3	12.4				2.5 x 2.5 12 ga	14.5					1	4	3 x 3 7 ga					
1.6845 Lt		9		5.0	13.4				2.25 x 2.25 12 ga	15.0					1	4	2.5 x 2.5 12 ga					
1.7288 Rt		12		20.0	16.6	17.1	17.6		2.5 x 2.5 10 ga	18.2					3	4	3 x 3 7 ga			3		
3.0988 Lt		9		5.0	10.3				2 x 2 12 ga	11.5					1	4	2.25 x 2.25 12 ga					
3.1363 Lt		15		6.3	11.2				2.25 x 2.25 12 ga	11.6					1	4	2.5 x 2.5 12 ga					
3.2373 Lt		4			12.4				2 x 2 12 ga	13.6					1	4	2.25 x 2.25 12 ga					
Sub Total			0.0	52.8			Total 134.1								Total 40			0	0	3		
Exit 156-Morton I-194																						
156-5 Rt	SA-I			16.0	13.9	14.4			2.25 x 2.25 12 ga	15.3	4.6	5.1			2	4	3 x 3 7 ga			2	Mount on existing support	
Sub Total			0.0	16.0			Total 28.3								Total 8			0	0	2		
Grand Total			137.5	1156.7			Total 1887.6								Total 544			0	0	120		

Basis of Estimate
Sign Support Lengths

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Urban/rural expressway and freeway - 84" (Offset - 60")

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STATE	PROJECT NO.	SECTION NO.	SHEET NO.
N.D.	SHE-1-999(025)	110	14

Sta/RP	Sign/Assembly No.	Flat Sheet For Signs		Panel For Signs		Overlay Panel		Galv Steel Post Standard Pipe		Size	Galv Steel Post W-Shape Posts			Max Post Len LF	Post Space FT	Revise Fuse Joint EA	Std Pipe Fdn			W-Shape Pile LF	Remove Sign Fdns		Reset Sign Panel EA	Reset Sign Support EA	Stub Post EA	Multi Dir Base EA	Comments	
		IV SF	XI SF	IV SF	XI SF	IV SF	XI SF	1st LF	2nd LF		3rd LF	1st LF	2nd LF				3rd LF	Dia FT	Dep FT		Vol CY	Conc Fdn EA						W-Shape Pile EA
Exit 147-Morton ND 25																												
1.1851 Lt	SA-Q	8.8						10.8		3.5				21.3														
1.228 Lt	SA-F	22.0						14.8		3.5				16.6			1.3	6.0	0.3			1						
1.2294 Rt	SA-E	19.3						13.4		3.5				16.1			1.3	6.0	0.3			1						
147.031 Rt	SN-15			52.3				13.0	13.0	4				13.9	4.8		1.3	7.5	0.8			2						
3.155 Lt	SA-Q	8.8						10.2		3.5				21.3														
3.1773 Rt	SA-D	7.2						13.0		3.5				25.5														
3.2109 Rt	SA-E	19.3						14.3		3.5				16.1			1.3	6.0	0.3									
3.2118 Lt	SA-F	22.0						14.4		3.5				16.6			1.3	6.0	0.3			1						
Sub Total		0.0	107.4	52.3	0.0	0.0	0.0	Total 116.9				Total 0.0							2.0	0	5	0	0	0	0	0		
Exit 153-Morton ND 1806																												
1.2316 Lt	SA-Q	8.8						10.5		3.5				21.3														
153.874 Rt	SN-17			52.3				12.8	12.8	4				13.9	4.8		1.3	7.5	0.8			2						
3.2529 Lt	SA-Q	8.8						10.9		3.5				21.3														
3.2855 Rt	SA-E	19.3																				2					Reset Sign on Existing Supports	
Sub Total		0.0	36.9	52.3	0.0	0.0	0.0	Total 47.0				Total 0.0							0.8	0	2	0	2	0	0	0		
Exit 155-Morton I-94B																												
155.09 Rt	SA-T	16.0						17.2		4				17.3			1.3	7.5	0.4			1						
917.043-3 Rt	SA-S	20.0						14.4		5				23.2			1.8	6.5	0.6			1						
917.043-4 Rt	SA-T	16.0						18.3		5				27.7														
917.043-5 Rt	SA-U	12.5						11.6		3.5				15.0														
Sub Total		0.0	64.5	0.0	0.0	0.0	0.0	Total 61.5				Total 0.0							1.0	0	2	0	0	0	0	0		

Basis of Estimate
Sign Support Lengths

The sign support lengths have been calculated using the following vertical clearances:

Urban/rural expressway and freeway - 84" (Offset - 60")

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Sign Summary
Round Steel Pipe and W-Shape
I-94

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
N.D.	SHE-1-999(025)	110	15

Sta/RP	Sign/Assembly No.	Flat Sheet For Signs		Panel For Signs		Overlay Panel		Galv Steel Post Standard Pipe		Size	Galv Steel Post W-Shape Posts			Max Post Len LF	Post Space FT	Revise Fuse Joint EA	Std Pipe Fdn			W-Shape Pile LF	Remove Sign Fdns		Reset Sign Panel EA	Reset Sign Support EA	Stub Post EA	Multi Dir Base EA	Comments	
		IV SF	XI SF	IV SF	XI SF	IV SF	XI SF	1st LF	2nd LF		3rd LF	1st LF	2nd LF				3rd LF	Dia FT	Dep FT		Vol CY	Conc Fdn EA						W-Shape Pile EA
Exit 156-Morton I-194																												
155.026-1	Lt m SA-U		12.5																									
155.026-2	Rt SA-J	11.7																										
156-1	Rt mdn SA-T		16.0																									
156-2	Rt SA-T		16.0																									
156-3	Rt SA-V		9.0																									
156-4	Rt mdn SA-L		16.0																								Mount on existing barrier mounted support	
156-6	Rt SA-V		9.0																									
156-7	Rt SA-S		20.0					15.1		5				23.2			1.8	6.5	0.6			1						
Sub Total		11.7	98.5	0.0	0.0	0.0	0.0	Total 15.1					Total 0.0								0.6	0	1	0	0	0	0	0
Exit 157-Burleigh Tyler																												
1.2113	Rt SA-Q		8.8					9.2		3.5				21.3														
1.327	Rt SA-S		20.0																									
1.3339	Lt SA-Q		8.8					10.7		3.5				21.3														
157.414	Rt SN-18			52.3				13.0	13.0	4				13.9	4.8		1.3	7.5	0.8				2					
3.1477	Lt SA-Q		8.8					10.5		3.5				21.3														
3.1477	Rt SA-Q		8.8					10.4		3.5				21.3														
3.2693	Rt SA-W		8.0					11.8		3.5				23.5														
3.2723	Lt SA-F		22.0					12.5		3.5				16.6														
Sub Total		0.0	85.2	52.3	0.0	0.0	0.0	Total 90.9					Total 0.0								0.8	0	0	2	0	0	0	0
Exit 159-US-83																												
1.1811	Lt SA-F		22.0					11.2		3.5				16.6														
159.272	Rt SN-19			52.3				13.2	13.2	4				13.9	4.8		1.3	7.5	0.8				2					
3.2036	Lt SA-F		22.0					11.2		3.5				16.6														
Sub Total		0.0	44.0	52.3	0.0	0.0	0.0	Total 48.8					Total 0.0								0.8	0	2	0	0	0	0	0

Basis of Estimate
Sign Support Lengths

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Urban/rural expressway and freeway - 84" (Offset - 60")

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Sign Summary
Round Steel Pipe and W-Shape
I-94

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
N.D.	SHE-1-999(025)	110	17

Sta/RP	Sign/ Assembly No.	Flat Sheet For Signs		Panel For Signs		Overlay Panel		Galv Steel Post Standard Pipe		Size	Galv Steel Post W-Shape Posts			Max Post Len LF	Post Space FT	Revise Fuse Joint EA	Std Pipe Fdn			W-Shape Pile LF	Remove Sign Fdns		Reset Sign Panel EA	Reset Sign Support EA	Stub Post EA	Multi Dir Base EA	Comments			
		IV SF	XI SF	IV SF	XI SF	IV SF	XI SF	1st LF	2nd LF		3rd LF	1st LF	2nd LF				3rd LF	Dia FT	Dep FT		Vol CY	Conc Fdn EA						W-Shape Pile EA		
Exit 182-ND-14/US-83																														
1.2011 Lt	SA-Q		8.8					11.2		3.5																				
1.3025 Lt	SA-F		22.0																											
1.3062 Rt	SA-E		6.0					14.2		3.5				16.1			1.3	6.0	0.3			1		1						
3.2542 Lt	SA-Q		8.8					11.0		3.5				21.3																
3.2949 Lt	SA-F		19.0					16.7		4				17.6			1.3	7.5	0.4			1		1						
3.2987 Rt	SA-E				19.3			13.1		3.5				16.1			1.3	6.0	0.3			1								
Sub Total		0.0	64.6	19.3	0.0	0.0	0.0	Total 66.2				Total 0.0							1.0	0	3	0	2	0	0	0				
Exit 190-405th St																														
1.2185 Lt	SA-Q		8.8					10.4		3.5				21.3																
1.262 Lt	SA-F		22.0					12.4		3.5				16.6																
1.2685 Rt	SA-E		19.3					12.7		3.5				16.1																
3.2613 Lt	SA-Q		8.8					10.6		3.5				21.3																
3.3091 Lt	SA-F		22.0					13.0		3.5				16.6																
3.3138 Rt	SA-E		19.3					13.1		3.5				16.1			1.3	6.0	0.3			1								
Sub Total		0.0	100.2	0.0	0.0	0.0	0.0	Total 72.2				Total 0.0							0.3	0	1	0	0	0	0	0	0			
Exit 195-20th Ave																														
1.1851 Lt	SA-Q		8.8					10.3		3.5				21.3																
1.2718 Lt	SA-F		22.0					12.3		3.5				16.6																
1.2784 Rt	SA-E		19.3					12.5		3.5				16.1																
3.2051 Lt	SA-Q		8.8					10.3		3.5				21.3																
3.2509 Lt	SA-F		22.0																											
3.2575 Rt	SA-E		19.3					13.1		3.5				16.1			1.3	6.0	0.3			1								
Sub Total		0.0	100.2	0.0	0.0	0.0	0.0	Total 58.4				Total 0.0							0.3	0	1	0	0	0	0	0	0			

Basis of Estimate
Sign Support Lengths

The sign support lengths have been calculated using the following vertical clearances:

Urban/rural expressway and freeway - 84" (Offset - 60")

This document was originally issued and sealed by Vance Hanson, Registration Number PE-8522, on 09/30/15 and the original document is stored at the North Dakota Department of Transportation.

Sign Summary
Round Steel Pipe and W-Shape

I-94

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
N.D.	SHE-1-999(025)	110	18

Sta/RP	Sign/ Assembly No.	Flat Sheet For Signs		Panel For Signs		Overlay Panel		Galv Steel Post Standard Pipe		Size	Galv Steel Post W-Shape Posts			Max Post Len LF	Post Space FT	Revise Fuse Joint EA	Std Pipe Fdn			W-Shape Pile LF	Remove Sign Fdns		Reset Sign Panel EA	Reset Sign Support EA	Stub Post EA	Multi Dir Base EA	Comments	
		IV SF	XI SF	IV SF	XI SF	IV SF	XI SF	1st LF	2nd LF		3rd LF	1st LF	2nd LF				3rd LF	Dia FT	Dep FT		Vol CY	Conc Fdn EA						W-Shape Pile EA
Exit 200-ND-3																												
1.2248 Lt	SA-Q		8.8					11.1		3.5																		
1.2679 Lt	SA-F		22.0					13.0		3.5																		
1.2698 Rt	SA-E		13.3					12.6		3.5																		
3.2609 Lt	SA-Q		8.8					10.6		3.5																		
3.3096 Lt	SA-F		22.0					13.0		3.5																		
3.3115 Rt	SA-E		19.3					13.0		3.5							1.3	6.0	0.3			1						
Sub Total		0.0	94.2	0.0	0.0	0.0	0.0	Total 73.2			Total 0.0										0.3	0	1	0	0	0	0	0
Exit 205-30th Ave																												
1.2021 Lt	SA-Q		8.8					10.3		3.5																		
1.2493 Lt	SA-F		19.3					13.5		3.5							1.3	6.0	0.3			1						
1.2512 Rt	SA-E		22.0					13.5		3.5																		
3.2016 Lt	SA-Q		8.8					10.1		3.5							1.3	4.5	0.2									
3.2486 Lt	SA-F		22.0					12.7		3.5																		
3.2505 Rt	SA-E		19.3					12.9		3.5							1.3	6.0	0.3			1						
Sub Total		0.0	100.2	0.0	0.0	0.0	0.0	Total 73.1			Total 0.0										0.8	0	2	0	0	0	0	0
Exit 208-ND-3/Lake Ave																												
1.19 Lt	SA-Q		8.8					10.4		3.5																		
1.2406 Lt	SA-F		22.0					15.9		3.5							1.3	6.5	0.3			1						
1.2424 Rt	SA-E		19.3					12.7		3.5																		
Sub Total		0.0	50.1	0.0	0.0	0.0	0.0	Total 38.9			Total 0.0										0.3	0	1	0	0	0	0	0

Basis of Estimate
Sign Support Lengths

The sign support lengths have been calculated using the following vertical clearances:

Urban/rural expressway and freeway - 84" (Offset - 60")

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Sign Summary
Round Steel Pipe and W-Shape
I-94

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
N.D.	SHE-1-999(025)	110	19

Sta/RP	Sign/ Assembly No.	Flat Sheet For Signs		Panel For Signs		Overlay Panel		Galv Steel Post Standard Pipe			Galv Steel Post W-Shape Posts			Max Post Len LF	Post Space FT	Revise Fuse Joint EA	Std Pipe Fdn			W-Shape Pile LF	Remove Sign Fdns		Reset Sign Panel EA	Reset Sign Support EA	Stub Post EA	Multi Dir Base EA	Comments		
		IV SF	XI SF	IV SF	XI SF	IV SF	XI SF	1st LF	2nd LF	Size	1st LF	2nd LF	3rd LF				Dia FT	Dep FT	Vol CY		Conc Fdn EA	W-Shape Pile EA							
I-94 Eastbound																													
102.435 Rt	SN-1				99.0					W5x16	15.1	16.5		17.2	8.5							28		2					
102.693 Rt	SA-T		16.0						16.8	4				17.3				1.3	7.0	0.4									
107.037 Rt	SN-3				116.8					W6x20	17.2	17.2		22.4	7.3							28		2					
108.037 Rt	SN-5				99.0					W6x20	16.6	17.8		21.7	8.5							28		2					
109.034 Rt	SA-S		20.0						14.7	5				23.2				1.8	6.5	0.6				1					
109.244 Rt	SN-6				181.3					W8x28	22.6	23.9		24.4	7.3							28		2					
110.002 Rt	SN-8				211.0					W10x39	23.7	24.7		33.5	7.3							28		2					
111.093 Rt	SA-S		20.0						14.6	5				23.2				1.8	6.5	0.6				1					
117.034 Rt	SN-9				62.3				12.4	12.4	5			15.0	3.3			1.8	8.0	1.4				2					
123.2 Rt	SA-S		20.0						13.9	4				14.4				1.3	7.5	0.4				1					
133.788 Rt	SN-12				236.3					W10x39	19.4	21.4		28.7	11.3							28		2					
145.355 Rt	SN-14				120.0					W6x20	15.9	17.3		18.0	10.0							28		2					
147.183 Rt	SA-S		20.0						14.7	5				23.2				1.8	6.5	0.6				1					
151.583 Rt	SA-S		20.0						13.4	3.5				13.5				1.3	6.5	0.3				1					
151.72 Rt	SN-16				63.8					W5x16	17.8	18.9		21.8	4.3							28		2					
152.843 Rt	SA-S		20.0						15.3	5				23.2				1.8	6.5	0.6				1					
155.026-3 Lt	SA-U		12.5						11.5	3.5				15.0															
157.865 Rt	SA-J	11.7							13.3	3.5				18.1				1.3	5.5	0.3				1					
157.97 Rt mdn	SA-S		20.0						12.3	3.5				13.5															
160.103 Rt	SA-S		20.0						15.5	5				23.2				1.8	6.5	0.6				1					
160.103 Rt md	SA-S		20.0						15.5	5				23.2				1.8	6.5	0.6				1					
160.792 Rt md	SA-K		16.0						14.4	3.5				15.6				1.3	6.0	0.3									Pully Winch fold-down (D-754-85G)
162.103 Rt	SA-S		20.0						14.6	5				23.2				1.8	6.5	0.6				1					
171.023 Rt	SA-M		25.2						19.0	5				20.0				1.8	8.0	0.7				1					
171.212 Rt	SA-S		20.0						15.6	5				23.2				1.8	6.5	0.6				1					
177.191 Rt	SA-S		20.0						15.0	5				23.2				1.8	6.5	0.6				1					
183.156 Rt	SA-S		20.0						15.4	5				23.2				1.8	6.5	0.6				1					
190.11 Rt	SA-S		20.0						13.3	3.5				13.5															
201.229 Rt	SA-M		25.2						19.7	5				20.0				1.8	8.5	0.8				1					
201.429 Rt	SA-S		20.0																										
Sub Total		11.7	394.9	1189.5	0.0	0.0	0.0	Total	323.0			Total	305.9					10.4	224	27	6	0	0	0	0				

Basis of Estimate
Sign Support Lengths

The sign support lengths have been calculated using the following vertical clearances:

Urban/rural expressway and freeway - 84" (Offset - 60")

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Sign Summary
Round Steel Pipe and W-Shape
I-94

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
N.D.	SHE-1-999(025)	110	20

Sta/RP	Sign/Assembly No.	Flat Sheet For Signs		Panel For Signs		Overlay Panel		Galv Steel Post Standard Pipe		Size	Galv Steel Post W-Shape Posts			Max Post Len LF	Post Space FT	Revise Fuse Joint EA	Std Pipe Fdn			W-Shape Pile LF	Remove Sign Fdns		Reset Sign Panel EA	Reset Sign Support EA	Stub Post EA	Multi Dir Base EA	Comments	
		IV SF	XI SF	IV SF	XI SF	IV SF	XI SF	1st LF	2nd LF		3rd LF	1st LF	2nd LF				3rd LF	Dia FT	Dep FT		Vol CY	Conc Fdn EA						W-Shape Pile EA
I-94 Westbound																												
102.051 Lt	SA-S		20.0					12.5		3.5																		
103.138 Rt	SA-T		16.0					17.3		4								1.3	7.5	0.4								
107.673 Lt	SA-S		20.0					14.5		5								1.8	6.5	0.6		1						
109.699 Lt	SA-S		20.0					14.0		4																		
122.641 Lt	SA-S		20.0					14.8		5								1.8	6.5	0.6		1						
152.949 Lt	SA-K		16.0					18.5		5								1.8	6.5	0.6		1						Standard Drawing D-754-85G
152.949 Lt md	SA-K		16.0					17.5		5								1.8	6.5	0.6		1						Standard Drawing D-754-85G
158.73 Lt	SA-S		20.0					13.1		3.5								1.3	6.5	0.3		1						
158.73 Lt mdn	SA-S		20.0					14.8		5								1.8	6.5	0.6		1						
158.926 Lt	SA-J	11.7						12.5		3.5																		
160.103 Lt	SA-S		20.0					14.2		4								1.3	7.5	0.4		1						
160.103 Lt md	SA-S		20.0					14.3		4								1.3	7.5	0.4		1						
160.202 Lt	SA-X		16.0																									
160.202 Lt md	SA-X		16.0																									
160.942 Lt	SA-M		25.2					18.4		5								1.8	8.0	0.7		1						
169.8328 Rt	SA-S		20.0					15.0		5								1.8	6.5	0.6		1						
175.801 Lt	SA-S		20.0					16.2		5								1.8	7.0	0.6		1						
181.8 Lt	SA-S		20.0					14.9		5								1.8	6.5	0.6		1						
189.424 Lt	SA-S		20.0					14.4		4								1.3	7.5	0.4		1						
189.613 Lt	SA-J	11.7						12.8		3.5																		
200.073 Lt	SA-S		20.0					15.4		5								1.8	6.5	0.6		1						
204.63 Lt	SA-M		25.2					18.7		5								1.8	8.0	0.7		1						
207.98 Lt	SA-S		20.0					15.5		5								1.8	6.5	0.6		1						
917.043 Rt	SA-V		9.0					9.4		3.5								1.3	4.5	0.2								
Sub Total		23.4	419.4	0.0	0.0	0.0	0.0	Total 328.5			Total 0.0								9.4	0	16	0	0	0	0	0		
Rest Area 168.5																												
3.0094 Rt	SA-S		20.0					15.8		5								1.8	6.5	0.6		1						
Sub Total		0.0	20.0	0.0	0.0	0.0	0.0	Total 15.8			Total 0.0								0.6	0	1	0	0	0	0	0		

Basis of Estimate
Sign Support Lengths

The sign support lengths have been calculated using the following vertical clearances:

Urban/rural expressway and freeway - 84" (Offset - 60")

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Sign Summary
Round Steel Pipe and W-Shape
I-94

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
N.D.	SHE-1-999(025)	110	21

Sta/RP	Sign/Assembly No.	Flat Sheet For Signs		Panel For Signs		Overlay Panel		Galv Steel Post Standard Pipe		Size	Galv Steel Post W-Shape Posts			Max Post Len	Post Space	Revise Fuse Joint	Std Pipe Fdn			W-Shape Pile	Remove Sign Fdns		Reset Sign Panel	Reset Sign Support	Stub Post	Multi Dir Base	Comments			
		IV	XI	IV	XI	IV	XI	1st	2nd		1st	2nd	3rd	LF	FT	EA	Dia	Dep	Vol	LF	Conc Fdn	W-Shape Pile	EA	EA	EA	EA	EA			
Exit I-194 Bismarck																														
0.701 Lt	SA-S		20.0																											
1.848 Lt	SN-24																												Mounted on Overhead Sign Structure	
1.848 Rt	SN-25																												Mounted on Overhead Sign Structure	
1.878 Rt	SN-3				19.5						W4x13	13.4	14.1		35.7	3.3														
1.903 Rt mdn	SA-Q		8.8																											
1.923 Lt	SA-Z		24.0					10.8		3.5					14.8			1.3	5.5	0.3										
1.928 Lt	SA-F		22.0																											
920.321 Rt	SA-X		16.0																											
920.346 Lt	SA-AA		25.0					10.7		3.5					15.6			1.3	5.5	0.3										
920.359 Lt md	SA-Q		8.8					9.2		3.5					21.3			1.3	4.5	0.2										
920.360 Lt	SA-Q		8.8					9.2		3.5					21.3			1.3	4.5	0.2										
920.468 Rt	SA-S		20.0																											
920.469 Lt	SA-S		20.0																											
Sub Total		0.0	173.4	19.5	0.0	294.0	0.0	Total 39.8							Total 27.5				1.0	28	2	0	0	0	0	0				
Grand Total		46.8	3045.1	1539.3	0.0	294.0	0.0	Total 2340.3							Total 333.4				38.7	252	89	8	18	0	0	0				

Basis of Estimate
Sign Support Lengths

The sign support lengths have been calculated using the following vertical clearances:

Urban/rural expressway and freeway - 84" (Offset - 60")

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Sign Summary
Round Steel Pipe and W-Shape
I-94

HIGHWAY	Exit	REFERENCE POINT	LEFT RIGHT	DIR. FACING	SIGN NUMBER	SIGN DESCRIPTION	WIDTH	HEIGHT	NOTES	TYPE IV SF	TYPE XI SF
I-94		152.746	Rt	W	M3-2-36	EAST	36	18	Mount new sign on existing support	4.50	
I-94		152.746	Rt	W	M1-1-36	I-94	36	36	Mount new sign on existing support	7.20	
I-94		152.843	Rt mdn	W	R2-1-48	SPEED LIMIT 60	48	60	Mount new sign on existing support		20.00
I-94		152.843	Rt	W	R2-1-48	SPEED LIMIT 60	48	60	New sign, support, and foundation, see Summary Sheet		20.00
I-94		152.949	Lt	E	W20-3-48	ROAD CLOSED 1/2 MILE STORM GATE	48	48	New sign, support, and foundation, pully fold-down, see Summary Sheet, Standard Drawing D-754-85G		16.00
I-94		152.949	Lt mdn	E	W20-3-48	ROAD CLOSED 1/2 MILE STORM GATE	48	48	New sign, support, and foundation, pully fold-down, see Summary Sheet, Standard Drawing D-754-85G		16.00
I-94		153.31	Rt	E	R2-1-48	SPEED LIMIT 60	48	60	Mount new sign on existing support		20.00
I-94		153.874	Rt	W	SN-17	EXIT 153 45 DEGREE ARROW	114	66	New sign, support, and foundation, see Summary Sheet	52.25	
I-94	Exit 153	1.2316	Lt	W	R5-1A-42	WRONG WAY	42	30	New sign and new support on existing foundation		8.75
I-94	Exit 153	3.2529	Lt	E	R5-1A-42	WRONG WAY	42	30	New sign and new support on existing foundation		8.75
I-94	Exit 153	3.2855	Rt	W	R1-1-48	STOP SIGN	48	48	Mount new sign on existing support		13.25
I-94	Exit 153	3.2855	Rt	S	R6-1(L)-36	LEFT ONE WAY	36	12	Mount new sign on existing support		3.00
I-94	Exit 153	3.2855	Rt	N	R6-1(R)-36	RIGHT ONE WAY	36	12	Mount new sign on existing support		3.00
I-94		155.09	Rt	W	W4-6(L)-48	MERGING TRAFFIC	48	48	New sign, support, and foundation, see Summary Sheet		16.00
I-94	Exit 155	155.026-1	Lt mdn	E	M6-2-60	LARGE 45 DEGREE ARROW	60	30	Mount new sign on existing support	12.50	
I-94	Exit 155	155.026-3	Lt	S	W1-6-60	LARGE SINGLE ARROW	60	30	New sign and new support on existing foundation		12.50
I-94	Exit 155	155.026-2	Rt	W	M3-2-36	EAST	36	18	Mount new sign on existing support	4.50	
I-94	Exit 155	155.026-2	Rt	W	M1-1-36	I-94	36	36	Mount new sign on existing support	7.20	
I-94	Exit 156	156-2	Rt	E	W4-1R-48	MERGING TRAFFIC	48	48	Mount new sign on existing support		16.00
I-94	Exit 156	156-1	Rt mdn	W	W4-3L-48	MERGING TRAFFIC	48	48	Mount new sign on existing support		16.00
I-94	Exit 156	156-3	Rt	W	R8-3-24	NO PARKING	24	30	Mount new sign on existing support		5.00
I-94	Exit 156	156-4	Rt mdn	W	W5-2M-48	WATCH FOR ICE ON BRIDGE FLASHING LIGHT	48	48	Mount new fold down sign on existing support		16.00
I-94	Exit 156	156-5	Rt	W	W5-2M-48	WATCH FOR ICE ON BRIDGE FLASHING LIGHT	48	48	Mount new fold down sign on existing support		16.00
I-94	Exit 156	156-6	Rt	W	R8-3-24	NO PARKING	24	24	Mount new sign on existing support		4.00
I-94	Exit 156	156-7	Rt	W	R2-1-48	SPEED LIMIT 60	48	60	New sign, support, and foundation, see Summary Sheet		20.00
I-94	Exit 157	1.327	Rt	W	W13-2-48	25 MPH	48	60	Mount new sign on existing support		20.00
I-94		157.358	Rt	N	R2-1-30	SPEED LIMIT 35	30	36	New sign and support, see Summary Sheet		7.50
I-94		157.414	Rt	W	SN-18	EXIT 157 45 DEGREE ARROW	114	66	New sign, support, and foundation, see Summary Sheet	52.25	
I-94		157.865	Rt	W	M3-2-36	EAST	36	18	New sign, support, and foundation, see Summary Sheet	4.50	
I-94		157.865	Rt	W	M1-1-36	I-94	36	36	New sign, support, and foundation, see Summary Sheet	7.20	
I-94		157.97	Rt mdn	W	R2-1-48	SPEED LIMIT 60	48	60	New sign and new support on existing foundation		20.00
I-94		157.972	Rt	W	R2-1-48	SPEED LIMIT 60	48	60	Mount new sign on existing support		20.00
I-94	Exit 157	3.1477	Lt	W	R5-1A-42	WRONG WAY	42	30	New sign and new support on existing foundation		8.75
I-94	Exit 157	3.1477	Rt	W	R5-1A-42	WRONG WAY	42	30	New sign and new support on existing foundation		8.75
Subtotal This Sheet										152.10	335.25

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Sign Layout
I-94

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SHE-1-999(025)	110	37

HIGHWAY	Exit	REFERENCE POINT	LEFT RIGHT	DIR. FACING	SIGN NUMBER	SIGN DESCRIPTION	WIDTH	HEIGHT	NOTES	TYPE IV SF	TYPE XI SF
I-94	Exit 157	3.2693	Rt	E	R1-2-36	YIELD	36	36	New sign and new support on existing foundation		3.90
I-94	Exit 157	3.2723	Lt	E	R6-1(L)-36	ONE WAY LEFT	36	12	New sign and new support on existing foundation		3.00
I-94	Exit 157	3.2723	Lt	S	R6-1(R)-36	ONE WAY RIGHT	36	12	New sign and new support on existing foundation		3.00
I-94	Exit 157	3.2723	Lt	E	R5-1-48	DO NOT ENTER	48	48	New sign and new support on existing foundation		16.00
I-94	Exit 157	1.2113	Rt	W	R5-1A-42	WRONG WAY	42	30	New sign and new support on existing foundation		8.75
I-94		158.73	Lt mdn	E	R2-1-48	SPEED LIMIT 60	48	60	New sign, support, and foundation, see Summary Sheet		20.00
I-94		158.73	Lt	E	R2-1-48	SPEED LIMIT 60	48	60	New sign, support, and foundation, see Summary Sheet		20.00
I-94		158.926	Lt	E	M3-4-36	WEST	36	18	New sign and new support on existing foundation	4.50	
I-94		158.926	Lt	E	M1-1-36	I-94	36	36	New sign and new support on existing foundation	7.20	
I-94		159.272	Rt	W	SN-19	EXIT 159 45 DEGREE ARROW	114	66	New sign and new support on existing foundation	52.25	
I-94	Exit 159	1.1811	Lt	N	R6-1(L)-36	ONE WAY LEFT	36	12	New sign and new support on existing foundation		3.00
I-94	Exit 159	1.1811	Lt	S	R6-1(R)-36	ONE WAY RIGHT	36	12	New sign and new support on existing foundation		3.00
I-94	Exit 159	1.1811	Lt	E	R5-1-48	DO NOT ENTER	48	48	New sign and new support on existing foundation		16.00
I-94	Exit 159	3.2036	Lt	N	R6-1(L)-36	ONE WAY LEFT	36	12	New sign and new support on existing foundation		3.00
I-94	Exit 159	3.2036	Lt	S	R6-1(R)-36	ONE WAY RIGHT	36	12	New sign and new support on existing foundation		3.00
I-94	Exit 159	3.2036	Lt	E	R5-1-48	DO NOT ENTER	48	48	New sign and new support on existing foundation		16.00
I-94		160.103	Rt mdn	W	R2-1-48	SPEED LIMIT 75	48	60	New sign, support, and foundation, see Summary Sheet		20.00
I-94		160.103	Rt	W	R2-1-48	SPEED LIMIT 75	48	60	New sign, support, and foundation, see Summary Sheet		20.00
I-94		160.103	Lt	E	R2-1-48	SPEED LIMIT 60	48	60	New sign, support, and foundation, see Summary Sheet		20.00
I-94		160.103	Lt mdn	E	R2-1-48	SPEED LIMIT 60	48	60	New sign, support, and foundation, see Summary Sheet		20.00
I-94		160.202	Lt	E	W3-5-48	REDUCED SPEED AHEAD	48	48	Mount new sign on existing support		16.00
I-94		160.202	Lt mdn	E	W3-5-48	REDUCED SPEED AHEAD	48	48	Mount new sign on existing support		16.00
I-94		160.792	Rt mdn	W	W20-3-48	ROAD CLOSED 1/2 MILE STORM GATE	48	48	New sign, support, pully winch fold-down, see Summary Sheet, Standard Drawing D-754-85G		16.00
I-94		160.942	Lt	E	M3-4-36	WEST	36	18	New sign, support, and foundation, see Summary Sheet	4.50	
I-94		160.942	Lt	E	M1-1-36	I-94	36	36	New sign, support, and foundation, see Summary Sheet	7.20	
I-94		160.942	Lt	E	M3-1-36	NORTH	36	18	New sign, support, and foundation, see Summary Sheet	4.50	
I-94		160.942	Lt	E	M1-4-36	US 83	36	36	New sign, support, and foundation, see Summary Sheet	9.00	
I-94		161.278	Rt	W	SN-20	EXIT 161 45 DEGREE ARROW	108	66	New sign, support, and foundation, see Summary Sheet	49.50	
I-94	Exit 161	161.439-9	Lt	N	R3-1(R)-48	NO RIGHT TURN	48	48	Mount new sign on existing support		16.00
I-94	Exit 161	161.439-11	Rt	S	R2-1-30	SPEED LIMIT 40	30	36	Mount new sign on existing light pole		7.50
I-94	Exit 161	161.439-10	Rt	S	M1-4-24	US 83	24	24	Mount new sign on existing support	4.00	
I-94	Exit 161	161.439-10	Rt	S	M3-2-24	EAST	24	12	Mount new sign on existing support	2.00	
I-94	Exit 161	161.439-10	Rt	S	M1-1-24	INTERSTATE 94	24	24	Mount new sign on existing support	3.20	
I-94	Exit 161	161.439-10	Rt	S	M3-3-24	SOUTH	24	12	Mount new sign on existing support	2.00	
I-94	Exit 161	161.439-10	Rt	S	M6-1-21	DIRECTIONAL ARROW	21	15	Mount new sign on existing support	2.19	
Subtotal This Sheet										152.04	270.15

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Sign Layout
I-94

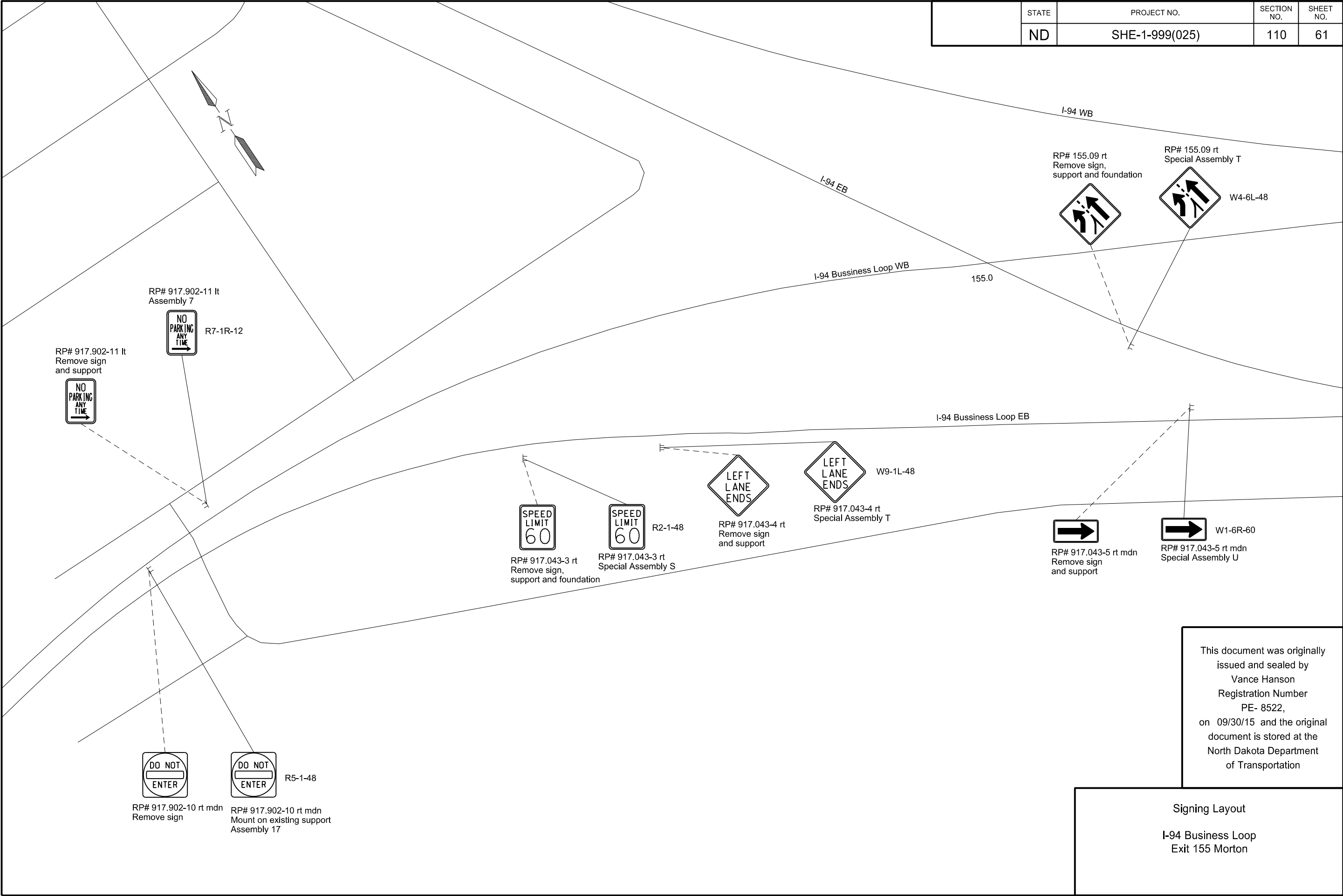
HIGHWAY	Exit	REFERENCE POINT	LEFT RIGHT	DIR. FACING	SIGN NUMBER	SIGN DESCRIPTION	WIDTH	HEIGHT	NOTES	TYPE IV SF	TYPE XI SF
I-94	Exit 205	3.2505	Rt	N	R6-1(R)-36	ONE WAY RIGHT	36	12	New sign, support, and foundation, see Summary Sheet		3.00
I-94	Exit 205	3.2505	Rt	N	R1-1-48	STOP SIGN	48	48	New sign, support, and foundation, see Summary Sheet		13.25
I-94	Exit 205	1.2512	Lt	N	R6-1(L)-36	ONE WAY LEFT	36	12	New sign, support, and foundation, see Summary Sheet		3.00
I-94	Exit 205	1.2512	Lt	S	R6-1(R)-36	ONE WAY RIGHT	36	12	New sign, support, and foundation, see Summary Sheet		3.00
I-94	Exit 205	1.2512	Lt	W	R1-1-48	STOP SIGN	48	48	New sign, support, and foundation, see Summary Sheet		13.25
I-94		207.98	Lt	E	R2-1-48	SPEED LIMIT 75	48	60	New sign, support, and foundation, see Summary Sheet		20.00
I-94	Exit 208	1.19	Lt	E	R5-1A-42	WRONG WAY	42	30	New sign and new support on existing foundation		8.75
I-94	Exit 208	1.2406	Lt	N	R6-1(L)-36	ONE WAY LEFT	36	12	New sign, support, and foundation, see Summary Sheet		3.00
I-94	Exit 208	1.2406	Lt	S	R6-1(R)-36	ONE WAY RIGHT	36	12	New sign, support, and foundation, see Summary Sheet		3.00
I-94	Exit 208	1.2406	Lt	E	R5-1-48	DO NOT ENTER	48	48	New sign, support, and foundation, see Summary Sheet		16.00
I-94	Exit 208	1.2424	Rt	N	R6-1(L)-36	ONE WAY LEFT	36	12	New sign and new support on existing foundation		3.00
I-94	Exit 208	1.2424	Rt	S	R6-1(R)-36	ONE WAY RIGHT	36	12	New sign and new support on existing foundation		3.00
I-94	Exit 208	1.2424	Rt	E	R1-1-48	STOP SIGN	48	48	New sign and new support on existing foundation		13.25
I-94B*	Business Loop	916.581	Lt	E	R10-10L-30	LEFT TURN SIGNAL	30	36	Mount new sign on mast arm		7.50
I-94B*	Business Loop	916.581	Rt	W	R3-5(R)-30	ARROW TO THE RIGHT AND AN ONLY	30	36	Mount new sign on signal pole		7.50
I-94B*	Business Loop	916.581	Rt	W	R10-10L-30	LEFT TRUN SIGNAL	30	36	Mount new sign on mast arm		7.50
I-94B*	Business Loop	917.043	Lt	E	R2-1-30	SPEED LIMT 30	30	36	Mount new sign on light pole		7.50
I-94B*	Business Loop	917.043-3	Rt	W	R2-1-48	SPEED LIMIT 60	48	60	New sign, support, and foundation, see Summary Sheet		20.00
I-94B*	Business Loop	917.043	Rt	E	R3-7L-36	LEFT LANE MUST TURN	36	36	New sign, support, and foundation, see Summary Sheet		9.00
I-94B*	Business Loop	917.043-4	Rt	W	W9-1L-48	LEFT LANE ENDS	48	48	New sign and new support on existing foundation		16.00
I-94B*	Business Loop	917.043-5	Rt mdn	W	W1-6-60	LARGE SINGLE ARROW	60	30	New sign and new support on existing foundation		12.50
I-94B*	Memorial Hwy	917.902-10	Rt mdn	N	R5-1-48	DO NOT ENTER	48	48	Mount new sign on existing support		16.00
I-94B*	Memorial Hwy	917.902-7	Lt	E	R1-2-48	YIELD	48	48	New sign and support, see Summary Sheet		6.93
I-94B*	Memorial Hwy	917.902-11	Lt	S	R7-1-12	NO PARKING ANYTIME	12	18	New sign and support, see Summary Sheet		1.50
I-94B*	Memorial Hwy	917.902-8	Rt	N	R7-1-12	NO PARKING HERE TO CORNER	12	18	Mount new sign on existing support		1.50
I-94B*	Memorial Hwy	917.902-1	Rt mdn	N	R4-7(R)-36	KEEP RIGHT	36	48	New sign and support, see Summary Sheet		12.00
I-94B*	Memorial Hwy	917.902-9	Rt	E	R3-7L-36	LEFT LANE MUST TURN	36	36	New sign, support, and foundation, see Summary Sheet		9.00
I-94B*	Memorial Hwy	917.902-3	Lt	E	W3-3-36	SIGNAL AHEAD	36	36	New sign and support, see Summary Sheet		9.00
I-94B*	Memorial Hwy	917.902-2	Rt mdn	E	R4-7(R)-36	KEEP RIGHT	36	48	New sign and support, see Summary Sheet		12.00
I-94B*	Memorial Hwy	917.902-5	Rt mdn	W	R4-7(R)-36	KEEP RIGHT	36	48	New sign and support, see Summary Sheet		12.00
I-94B*	Memorial Hwy	917.902-4	Rt	N	R2-1-30	SPEED LIMIT 40	30	36	New sign and support, see Summary Sheet		7.50
I-94B*	Memorial Hwy	917.902-6	Lt	E	R2-1-30	SPEED LIMIT 40	30	36	Mount new sign on existing support		7.50
I-194	Exit I-194	1.923	Lt	N	R1-2-48	YIELD SIGN	48	48	New sign, support, and foundation, see Summary Sheet		6.93
Subtotal This Sheet										0	294.86

* Secondary Regional System – Mandan

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Sign Layout
I-94

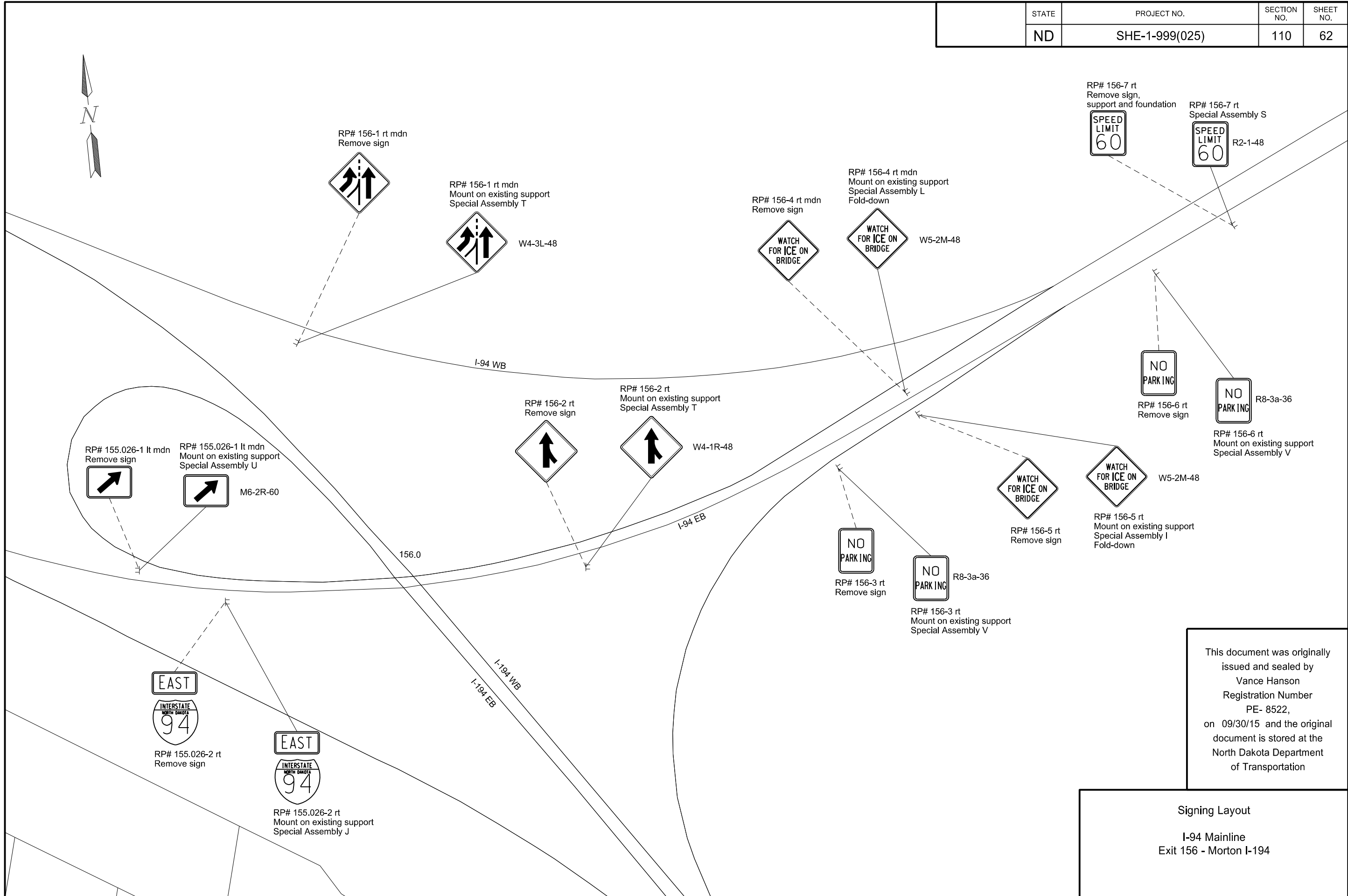
STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SHE-1-999(025)	110	61



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Signing Layout
I-94 Business Loop
Exit 155 Morton

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SHE-1-999(025)	110	62



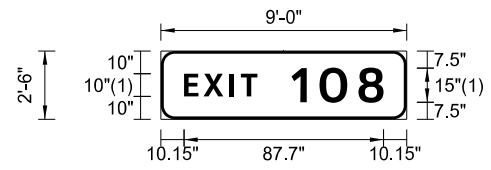
This document was originally issued and sealed by Vance Hanson
 Registration Number PE- 8522,
 on 09/30/15 and the original document is stored at the North Dakota Department of Transportation

Signing Layout
 I-94 Mainline
 Exit 156 - Morton I-194

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SHE-1-999(025)	110	76

SIGN NUMBER	Sign 4
WIDTH x HEIGHT	9'-0" x 2'-6"
BORDER WIDTH	1.25" (inset 0")
CORNER RADIUS	6"
MOUNTING	Ground
BACKGROUND	TYPE: IV Reflective COLOR: Green
LEGEND/BORDER	TYPE: IV Reflective COLOR: White

STATION(S): AREA: 22.5 Sq.Ft.
RP# 107.037 rt
RP# 108.037 rt



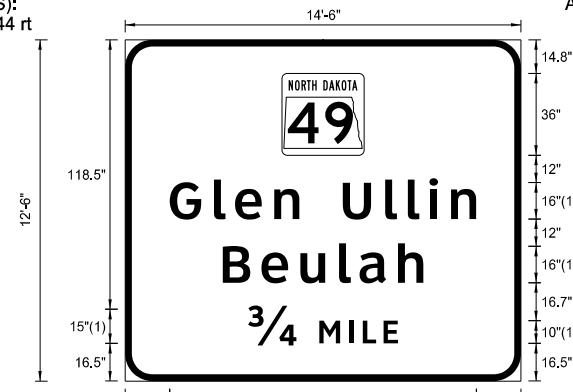
Dimensions are in inches.tenths Letter locations are panel edge to lower left corner

SYMBOL	X	Y	WID	HT	ANGLE

LETTER POSITION (X)							LENGTH	SIZE	SERIES
E	X	I	T	1	0	8	87.7	10,15	ClearviewHwy-5-W
10.2	18.7	30.2	35.1	57.4	69.7	86.9			

SIGN NUMBER	Sign 6
WIDTH x HEIGHT	14'-6" x 12'-6"
BORDER WIDTH	3" (inset 0")
CORNER RADIUS	12"
MOUNTING	Ground
BACKGROUND	TYPE: IV Reflective COLOR: Green
LEGEND/BORDER	TYPE: IV Reflective COLOR: Black/White

STATION(S): AREA: 181.3 Sq.Ft.
RP# 109.244 rt



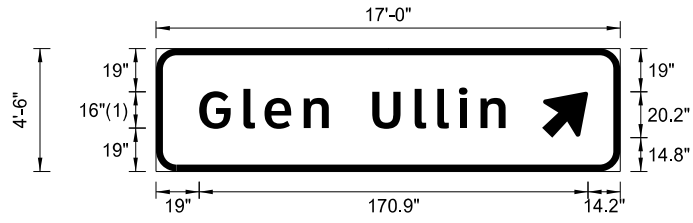
Dimensions are in inches.tenths Letter locations are panel edge to lower left corner

SYMBOL	X	Y	WID	HT	ANGLE
M1-5_GS2	69	99.3	36	36	0

LETTER POSITION (X)										LENGTH	SIZE	SERIES
G	l	e	n		U	l	l	i	n	134.7	16/13	ClearviewHwy-5-W
19.6	39.1	48.3	65.6	76.7	95.7	114.4	124.2	133.8	143.3			
B	e	u	l	a	h					88.2	16/13	ClearviewHwy-5-W
42.9	59.9	77.1	94.1	103	120							
3/4	M	I	L	E						65.9	15,10	ClearviewHwy-5-W
54.1	85.4	98.5	104.5	113.6								

SIGN NUMBER	Sign 5
WIDTH x HEIGHT	17'-0" x 4'-6"
BORDER WIDTH	3" (inset 0")
CORNER RADIUS	9"
MOUNTING	Ground
BACKGROUND	TYPE: IV Reflective COLOR: Green
LEGEND/BORDER	TYPE: IV Reflective COLOR: Black/White

STATION(S): AREA: 76.5 Sq.Ft.
RP# 108.037 rt



Dimensions are in inches.tenths Letter locations are panel edge to lower left corner

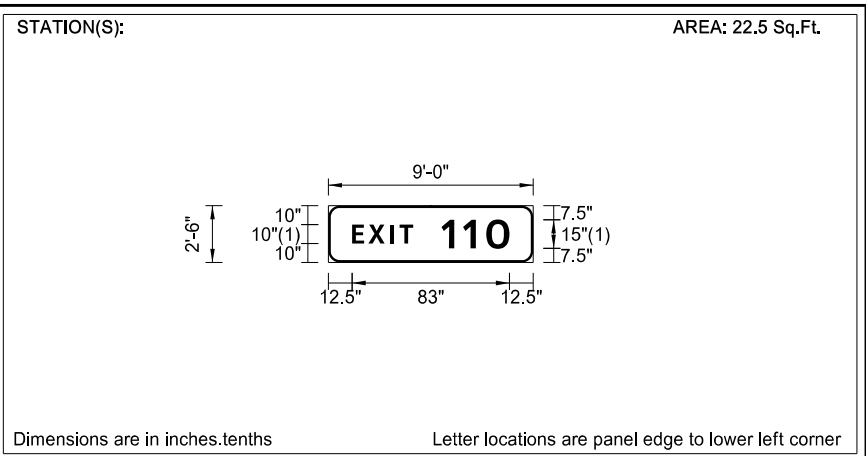
SYMBOL	X	Y	WID	HT	ANGLE
AREXIT	169.7	14.8	22.3	25	45

LETTER POSITION (X)										LENGTH	SIZE	SERIES
G	l	e	n		U	l	l	i	n	134.7	16/13	ClearviewHwy-5-W
19	38.4	47.6	64.9	76	95	113.7	123.6	133.1	142.6			

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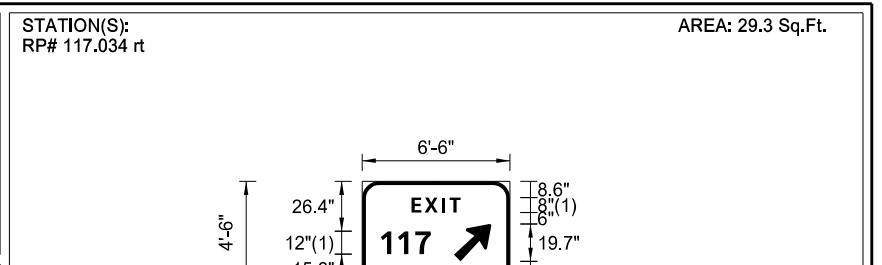
Sign Details
I-94

SIGN NUMBER	name
WIDTH x HEIGHT	9'-0" x 2'-6"
BORDER WIDTH	1.25" (inset 0")
CORNER RADIUS	6"
MOUNTING	Overhead
BACKGROUND	TYPE: IV Reflective
	COLOR: Green
LEGEND/BORDER	TYPE: IV Reflective
	COLOR: White
SYMBOL	



LETTER POSITION (X)							LENGTH	SIZE	SERIES
E	X	I	T	1	1	0	83	10,15	ClearviewHwy-5-W
12.5	21.1	32.5	37.5	59.7	71	83.3			

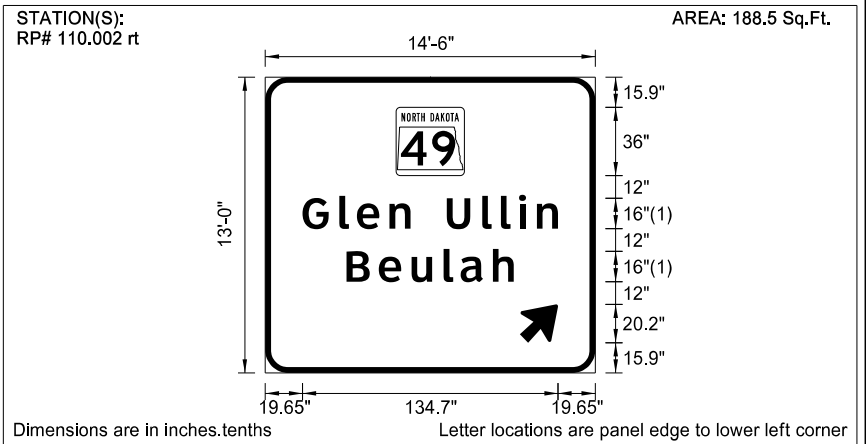
SIGN NUMBER	Sign 9
WIDTH x HEIGHT	6'-6" x 4'-6"
BORDER WIDTH	2" (inset 0")
CORNER RADIUS	9"
MOUNTING	Ground
BACKGROUND	TYPE: IV Reflective
	COLOR: Green
LEGEND/BORDER	TYPE: IV Reflective
	COLOR: White
SYMBOL	



LETTER POSITION (X)						LENGTH	SIZE	SERIES		
ARGORE						48.4	11.8	15.1	25	45

LETTER POSITION (X)						LENGTH	SIZE	SERIES
E	X	I	T			25.8	8	ClearviewHwy-5-W
26.1	33	42.1	46.1					
1	1	7				26.5	12	ClearviewHwy-5-W
9.9	18.9	28						

SIGN NUMBER	Sign 8
WIDTH x HEIGHT	14'-6" x 13'-0"
BORDER WIDTH	3" (inset 0")
CORNER RADIUS	12"
MOUNTING	Ground
BACKGROUND	TYPE: IV Reflective
	COLOR: Green
LEGEND/BORDER	TYPE: IV Reflective
	COLOR: Black/White
SYMBOL	



LETTER POSITION (X)										LENGTH	SIZE	SERIES
G	l	e	n	U	l	l	i	n		134.7	16/13	ClearviewHwy-5-W
19.6	39.1	48.3	65.6	76.7	95.7	114.4	124.2	133.8	143.3			
B	e	u	l	a	h					88.2	16/13	ClearviewHwy-5-W
42.9	59.9	77.1	94.1	103	120							

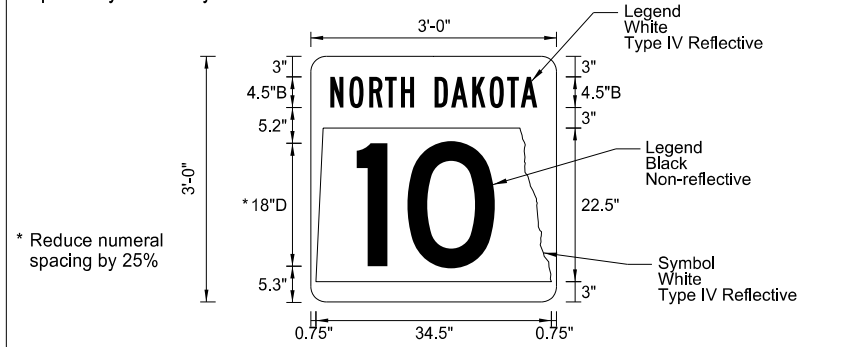
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Sign Details
I-94

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	1-999(025)	110	77a

SIGN NUMBER	M1-5-36
WIDTH x HEIGHT	3'-0" x 3'-0"
BORDER WIDTH	0" (inset 0")
CORNER RADIUS	2.25"
MOUNTING	Ground
BACKGROUND	TYPE: Non-reflective COLOR: Black
LEGEND/BORDER	TYPE: Non-refl / IV Reflective COLOR: Black/White

STATION(S): Expressways / Freeways
AREA: 9.0 Sq.Ft.



* Reduce numeral spacing by 25%

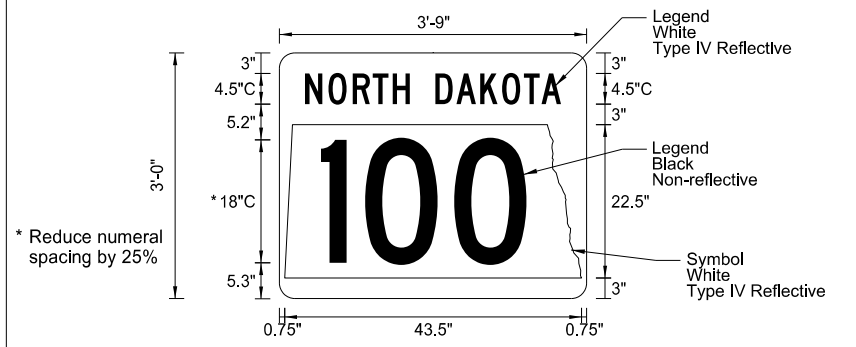
Dimensions are in inches.tenths Letter locations are panel edge to lower left corner

SYMBOL	X	Y	WID	HT	ANGLE
ND_1-2	0.8	3	34.5	22.5	0

LETTER POSITION (X)											LENGTH	SIZE	SERIES
N	O	R	T	H	D	A	K	O	T	A	30.3	4.5	B 2000
2.8	5.6	8.6	10.9	13.2	18.1	20.6	23.6	26.2	28.7	30.7			
1	0										Varies	18	D 2000
(A)	(A)												

SIGN NUMBER	M1-5-45
WIDTH x HEIGHT	3'-9" x 3'-0"
BORDER WIDTH	0" (inset 0")
CORNER RADIUS	2.25"
MOUNTING	Ground
BACKGROUND	TYPE: Non-reflective COLOR: Black
LEGEND/BORDER	TYPE: Non-refl / IV Reflective COLOR: Black/White

STATION(S): Expressways / Freeways
AREA: 11.3 Sq.Ft.



* Reduce numeral spacing by 25%

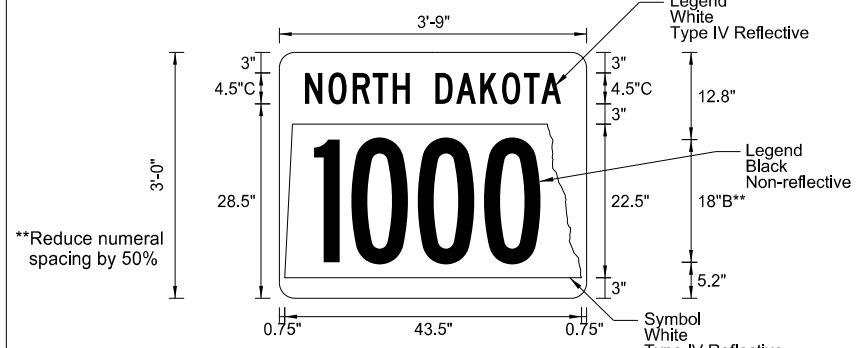
Dimensions are in inches.tenths Letter locations are panel edge to lower left corner

SYMBOL	X	Y	WID	HT	ANGLE
ND_3-4	0.8	3	43.5	22.5	0

LETTER POSITION (X)											LENGTH	SIZE	SERIES
N	O	R	T	H	D	A	K	O	T	A	37.5	4.5	C 2000
3.8	7.2	10.7	13.7	16.6	22.8	25.9	29.4	32.6	35.8	38.4			
1	0	0									Varies	18	C 2000
(A)	(A)	(A)											

SIGN NUMBER	M1-5-45
WIDTH x HEIGHT	3'-9" x 3'-0"
BORDER WIDTH	0" (inset 0")
CORNER RADIUS	2.25"
MOUNTING	Ground
BACKGROUND	TYPE: Non-reflective COLOR: Black
LEGEND/BORDER	TYPE: Non-refl / IV Reflective COLOR: Black/White

STATION(S): Expressways / Freeways
AREA: 11.3 Sq.Ft.

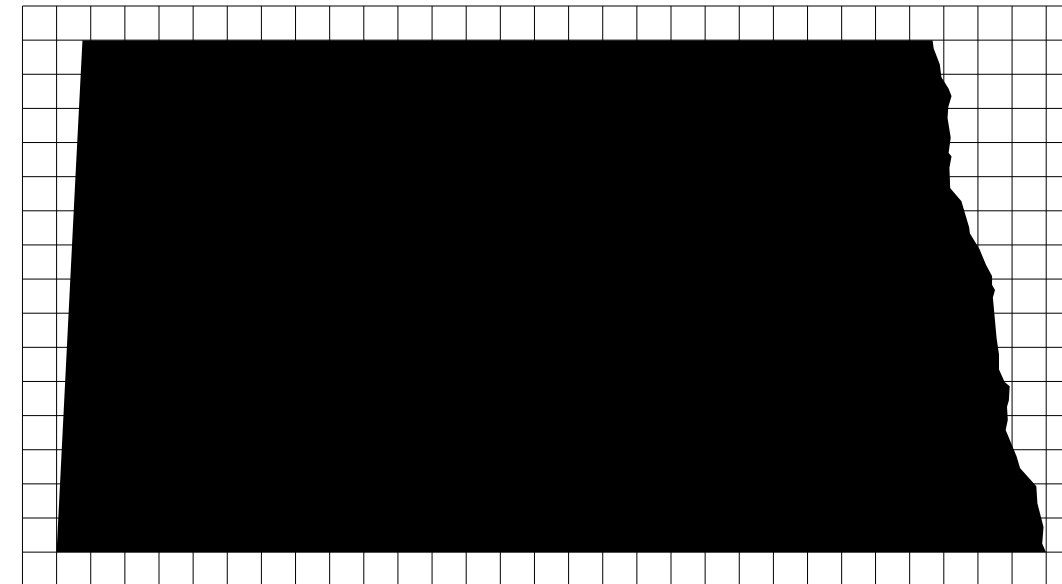


**Reduce numeral spacing by 50%

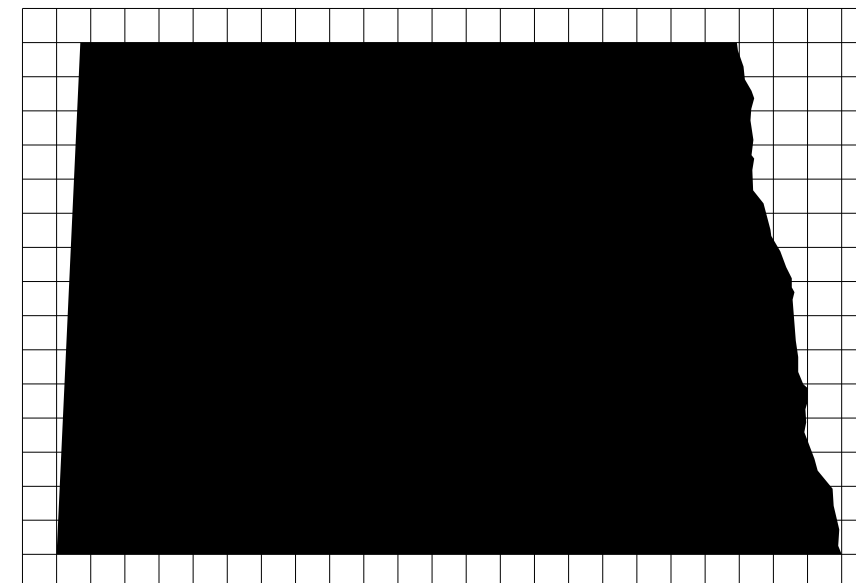
Dimensions are in inches.tenths Letter locations are panel edge to lower left corner

SYMBOL	X	Y	WID	HT	ANGLE
ND_3-4	0.8	3	43.5	22.5	0

LETTER POSITION (X)											LENGTH	SIZE	SERIES
N	O	R	T	H	D	A	K	O	T	A	37.5	4.5	C 2000
3.8	7.2	10.7	13.7	16.6	22.8	25.9	29.4	32.6	35.8	38.4			
1	0	0	0								Varies	18	B 2000
(A)	(A)	(A)	(A)										



ND 3-4



ND 1-2

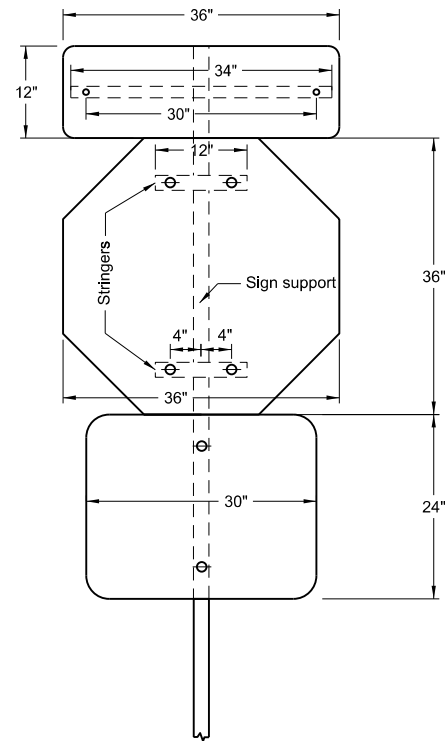
Note: Contact NDDOT Design Division for the North Dakota symbol.

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Sign Details
ND Route Markers
Expressways and Freeways

(A) Optically space numerals about vertical centerline.

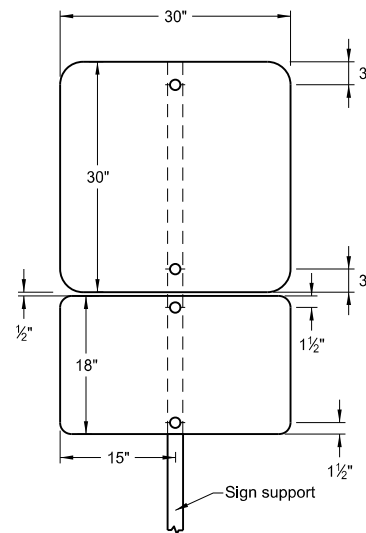
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SHE-1-999(025)	110	90



Special Assembly A

- | | |
|-----------------------|-----------------------|
| US 83 - RP 92.217 Rt | US 83 - RP 110.647 Lt |
| US 83 - RP 93.475 Rt | US 83 - RP 111.664 Lt |
| US 83 - RP 94.479 Rt | US 83 - RP 111.666 Rt |
| US 83 - RP 95.476 Rt | US 83 - RP 111.973 Rt |
| US 83 - RP 96.260 Rt | US 83 - RP 112.708 Lt |
| US 83 - RP 97.549 Rt | US 83 - RP 112.712 Rt |
| US 83 - RP 97.557 Rt | US 83 - RP 125.399 Lt |
| US 83 - RP 99.368 Rt | US 83 - RP 125.824 Lt |
| US 83 - RP 99.370 Rt | US 83 - RP 126.610 Rt |
| US 83 - RP 99.756 Rt | US 83 - RP 127.156 Lt |
| US 83 - RP 101.633 Rt | US 83 - RP 127.171 Rt |
| US 83 - RP 102.624 Lt | US 83 - RP 127.408 Lt |
| US 83 - RP 102.638 Rt | US 83 - RP 127.422 Rt |
| US 83 - RP 104.637 Rt | US 83 - RP 127.592 Lt |
| US 83 - RP 105.632 Lt | US 83 - RP 127.605 Rt |
| US 83 - RP 105.643 Rt | US 83 - RP 92.962 Lt |
| US 83 - RP 106.645 Rt | US 83 - RP 95.462 Lt |
| US 83 - RP 107.650 Rt | US 83 - RP 98.615 Lt |
| US 83 - RP 108.642 Lt | US 83 - RP 107.639 Lt |
| US 83 - RP 108.651 Rt | US 83 - RP 123.654 Lt |

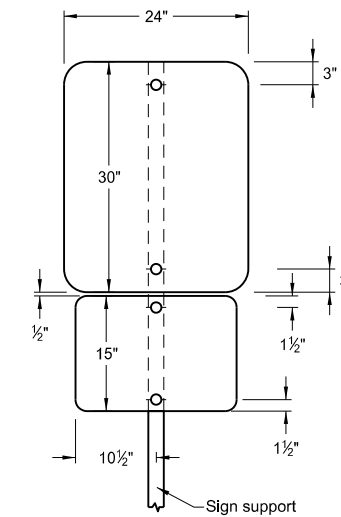
Design Area: 15.46 SF
Pay Area: 18.46 SF



Special Assembly C

US 83 - RP 126.181 Rt

Design Area: 10.00 SF
Pay Area: 10.00 SF



Special Assembly D

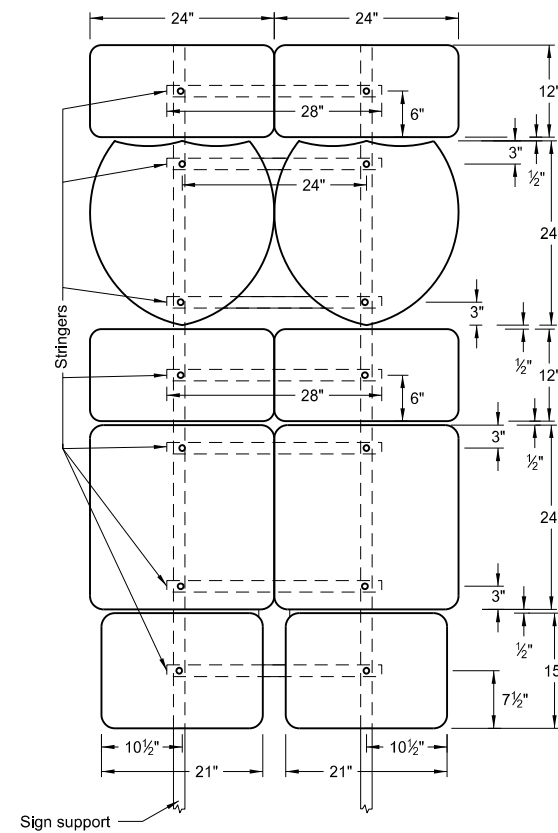
EXIT 147 - RP 3.1773 Rt (Steel)
EXIT 147 - RP 147.183 Lt
EXIT I-194 - RP 0.344 Lt

Design Area: 7.19 SF
Pay Area: 7.19 SF

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Special Assembly Details

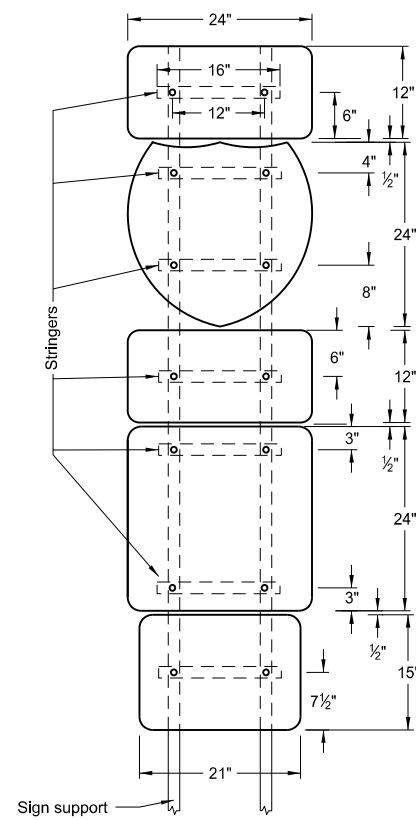
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SHE-1-999(025)	110	92



Special Assembly G

Exit 161 - RP 161.439-10 Rt
Exit 161 - RP 161.439-4 Lt

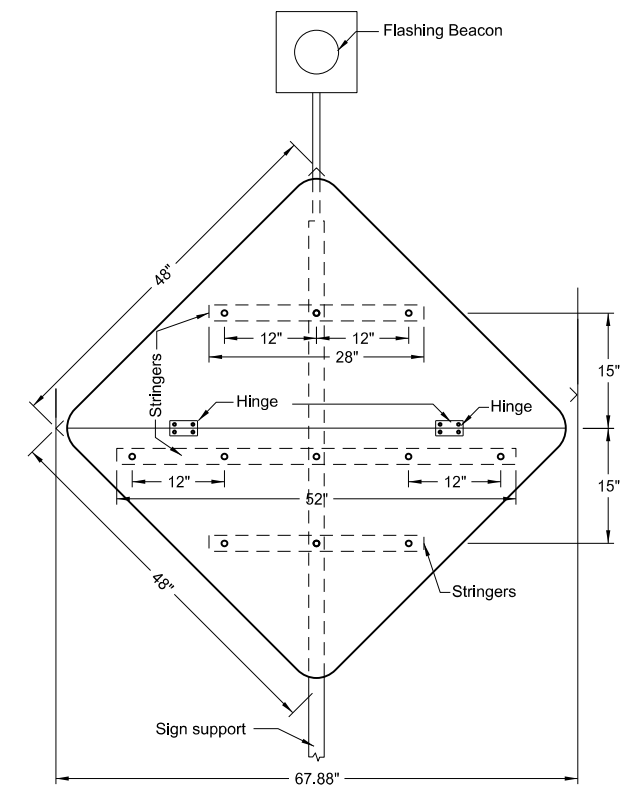
Design Area: 26.78 SF
Pay Area: 26.78 SF



Special Assembly H

Exit 161 - RP 161.439-7 Lt
Exit 161 - RP 161.439-8 Rt

Design Area: 13.39 SF
Pay Area: 13.39 SF



Special Assembly I

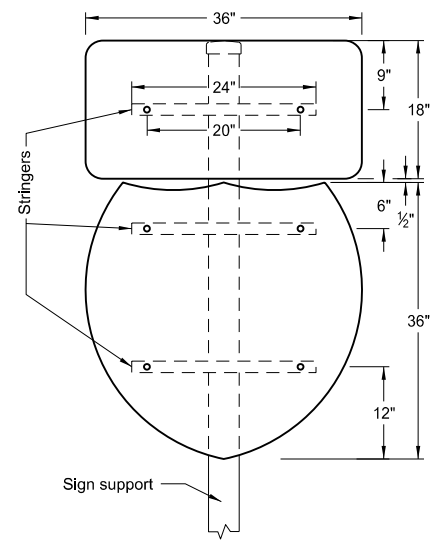
Exit 156 - RP 156-5 Rt

Design Area: 16.00 SF
Pay Area: 16.00 SF

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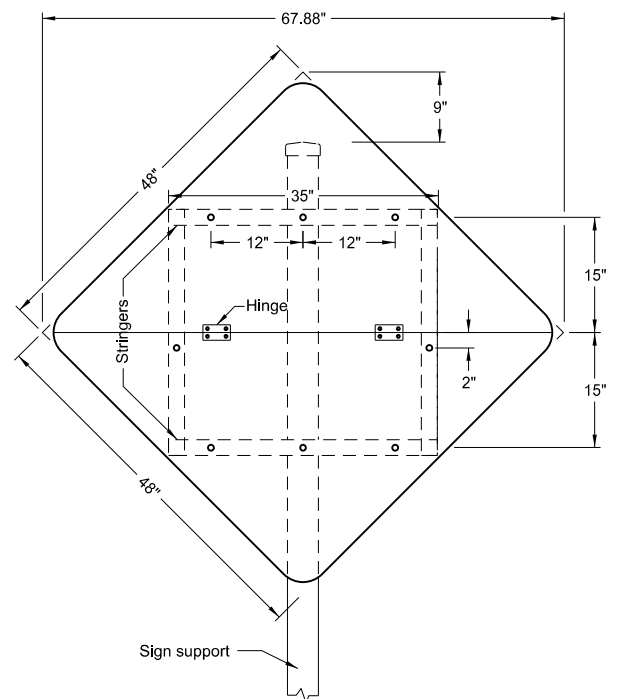
Special Assembly Details

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SHE-1-999(025)	110	93



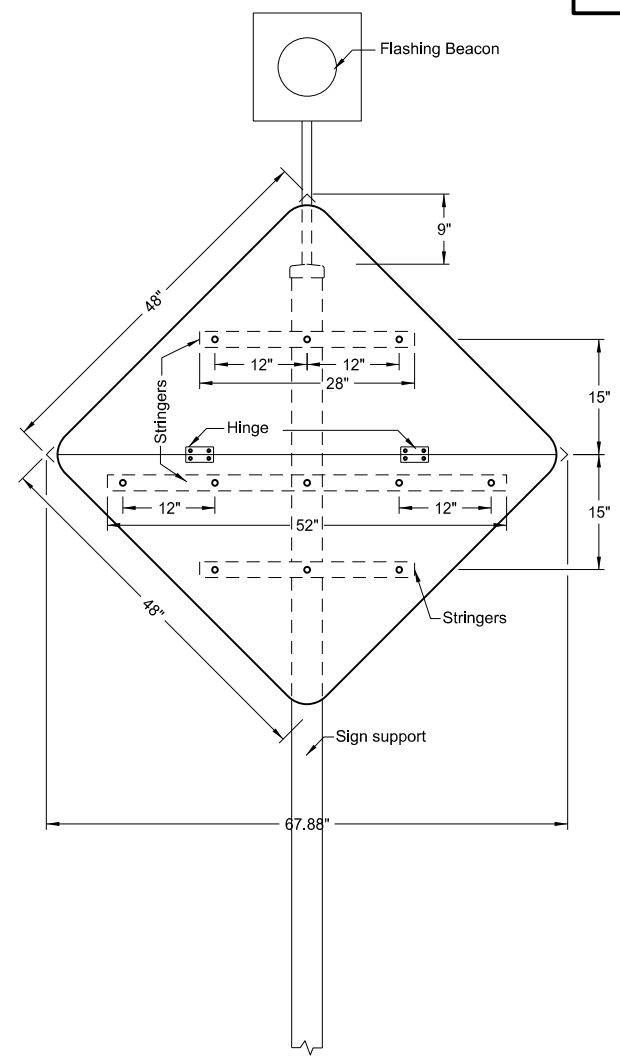
Special Assembly J

Exit 155 - RP 155.026-2 Rt
 RP 157.865 Rt
 RP 158.926 Lt
 RP 189.613 Lt
 RP 152.746 Rt
 RP 182.488 Rt
 RP 194.592 Lt
 RP 195.09 Rt
 RP 200.263 Lt
 Design Area: 11.70 SF
 Pay Area: 11.70 SF



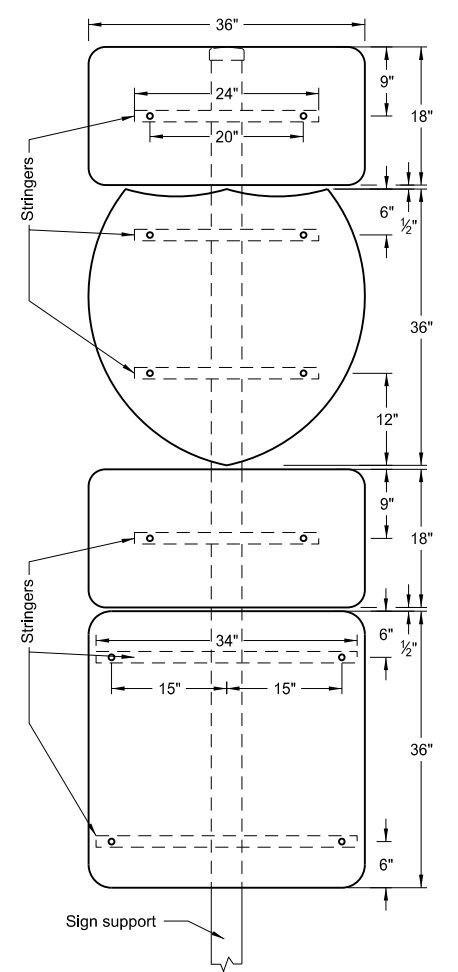
Special Assembly K

RP 152.949 Lt
 RP 152.949 Lt mdn
 RP 160.792 Rt mdn
 Design Area: 16.00 SF
 Pay Area: 16.00 SF
 * SEE D-754-85 G
 FOR PULLEY WINCH DETAILS



Special Assembly L

Exit 156 - RP 156-4 Rt mdn
 Design Area: 16.00 SF
 Pay Area: 16.00 SF



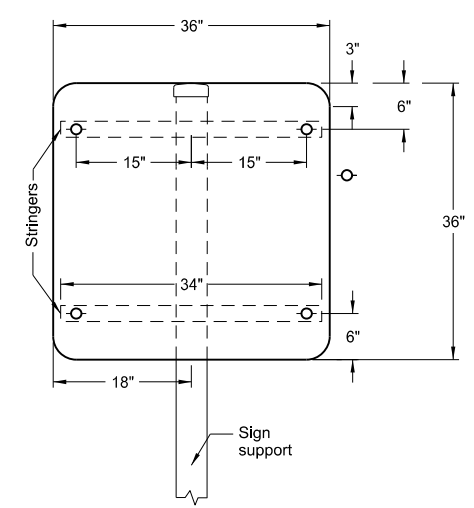
Special Assembly M

RP 171.023 Rt
 RP 201.229 Rt
 RP 160.942 Lt
 RP 204.63 Lt
 Design Area: 25.20 SF
 Pay Area: 25.20 SF

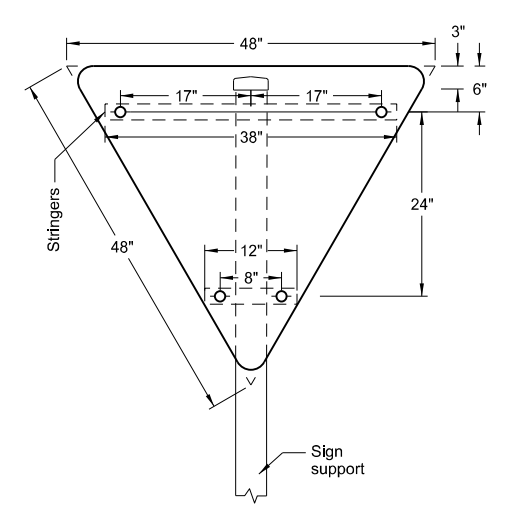
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Special Assembly Details

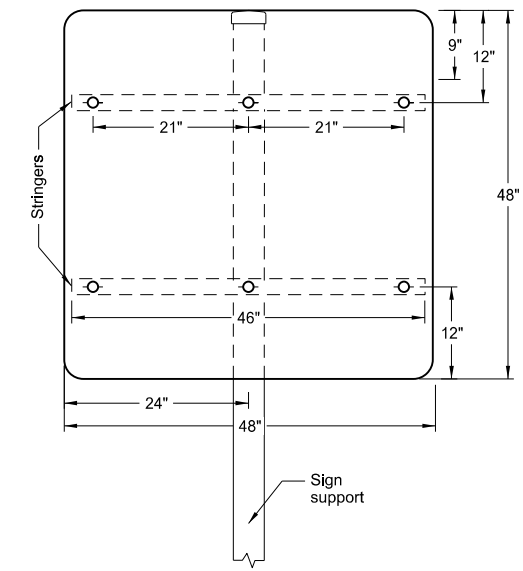
STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SHE-1-999(025)	110	96



Special Assembly V
 Exit 156 - RP 156-3 Rt
 Exit 156 - RP 156-6 Rt
 Business Loop - RP 917.043 Rt
 Design Area = 9.00 SF
 Pay Area = 9.00 SF



Special Assembly W
 Exit 157 - RP 3.2693 Rt
 Exit I-194 - RP 0.922 Rt
 Design Area = 16.00 SF
 Pay Area = 16.00 SF



Special Assembly X
 Exit 102 - RP 1.4252 Rt
 RP 160.202 Lt
 RP 160.202 Lt mdn
 Memorial Hwy - RP 920.321 Rt
 Design Area = 16.00 SF
 Pay Area = 16.00 SF

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Special Assembly Details