

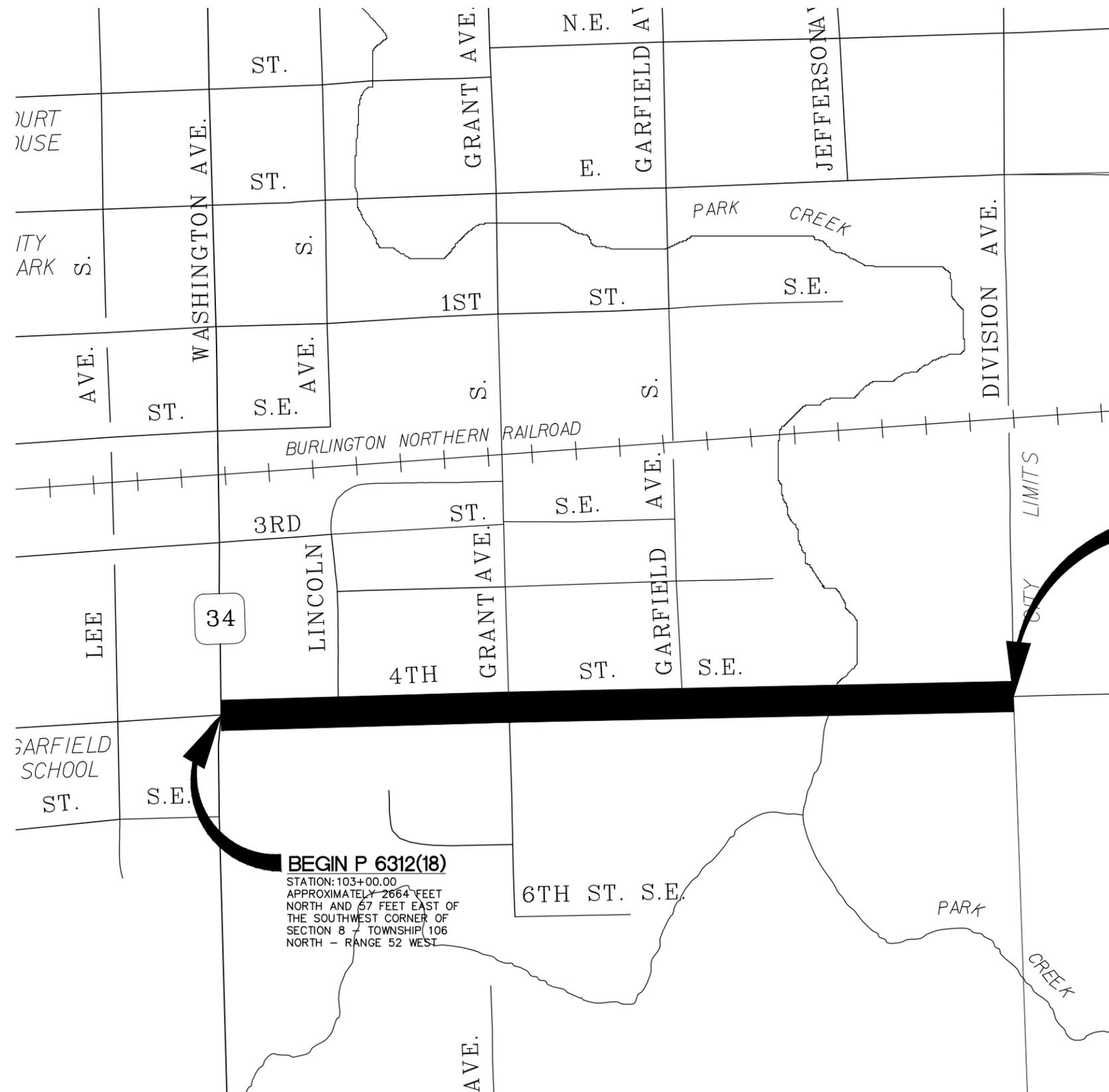
# Section S: Permanent Signring

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	P 6312(18)	S1	S7

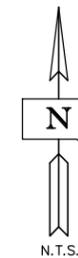
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- S1 GENERAL LAYOUT WITH INDEX OF SHEETS
- S2 ESTIMATE OF QUANTITIES WITH PERMANENT SIGNING NOTES
- S3 SIGN TABLE
- S4-S6 PERMANENT SIGNING LAYOUT
- S7 STANDARD PLATES AND DETAILS



**BEGIN P 6312(18)**  
 STATION: 103+00.00  
 APPROXIMATELY 2664 FEET NORTH AND 67 FEET EAST OF THE SOUTHWEST CORNER OF SECTION 8 - TOWNSHIP 106 NORTH - RANGE 52 WEST

**END P 6312(18)**  
 STATION: 128+68.00  
 APPROXIMATELY 2664 FEET NORTH AND 2609 FEET EAST OF THE SOUTHWEST CORNER OF SECTION 8 - TOWNSHIP 106 NORTH - RANGE 52 WEST



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**SECTION 5 ESTIMATE OF QUANTITIES**

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
110E0130	Remove Traffic Sign	30	Each
110E7150	Remove Sign for Reset	2	Each
632E1320	2.0" x 2.0" Perforated Tube Post	155.3	Ft
632E3203	Flat Aluminum Sign, Nonremovable Copy High Intensity	82.8	SqFt
632E3205	Flat Aluminum Sign, Nonremovable Copy Super/Very High Intensity	15.0	SqFt
632E3500	Reset Sign	2	Each

**PERMANENT SIGNING**

The Contractor shall furnish all signs, posts, stiffeners, bases, hardware, and labor for installation of permanent signs in size, type, and quantity as shown in these plans and/or as required by the Engineer.

All existing signs, posts, and hardware removed as per these plans remain property of the City and shall be transported to a local location as directed by the local contact. The Contractor shall notify the local contact two days prior to time of delivery so correct placement for storage and inventory of materials can be made upon receipt.

The Contractor shall provide all labor and equipment necessary to install permanent signing, remove existing signs, and reset existing signs as detailed in these plans and/or as required by the Engineer. Payment for furnishing and installing permanent signs will be paid for at the contract unit price for each type of sign based on sheeting requirements per square foot of sign. All signs shall have type IV sheeting as per ASTM designation D4956 with the exception of those noted under Sheeting Requirements for Super/Very High Intensity Sign, which shall have Type XI sheeting. Payment for new signposts, hardware, bases, and labor will be made at the contract unit price per foot for 2.0" x 2.0" Perforated Tube Post. See breakaway post details regarding posts, hardware, bases, and footings. Measurement of post lengths for payment will be for above ground post lengths as field measured. The sign post contract items shall include post bases and all hardware. The lengths of the posts in the sign tables are approximate lengths only. The post lengths shall be verified by the Contractor. The Contractor is urged to cut posts to length on job site after verification of post length. The installation height of the signs shall not exceed the minimum by more than 0.5 feet.

The Contractor shall stake the signs and the Engineer will verify the location prior to installation. The lateral distance from the roadway and the height of the sign shall be established by the Contractor according to the Standard Plates and Special Details in the plans and the MUTCD. When signs are vertically mounted in succession, they shall be 1-2 inches apart. Lateral placement of signs shall be determined by the Engineer.

**SHEETING REQUIREMENTS**

All legend and border utilizing the color black shall be vinyl or screen printed black, non-reflectorized material. All other legend and border shall be of same type of sheeting as the background of the same sign. All signs, except as noted below, shall have High Intensity Prismatic retro-reflective background, Type IV (referenced as HI in Table of Permanent Signing) as per ASTM designation D4956. The following signs shall have micro-cube corner prismatic reflectorized background, Type XI (referenced as DG in Table of Permanent Signs) as per ASTM designation D4956: R1-1 STOP

**EXISTING TRAFFIC SIGNS**

The Contractor shall remove, salvage or relocate signs, posts and bases as shown in the Table of Permanent Signing. All existing posts, bases and signs listed in the table are scheduled for removal or salvage shall be dismantled and delivered to the City and salvaged signs shall be stockpiled separately from removals signs. All bolts, nuts and washers shall be placed in individual 5 gallon pails. Backing materials shall be separated from the signs and the aluminum U-Channel may be reused at the Contractor's discretion and upon approval of the Engineer.

All costs for labor and equipment necessary to remove, dismantle and deliver existing signs to the respective owners shall be included in the contract unit price per each for "Remove Traffic Sign", "Remove Traffic Sign for Reset" or "Reset Traffic Sign".

**PERFORATED TUBE POST**

The Contractor shall use Telespar brand (or equal) post and bases on all new standard highway signs as approved by Engineer. All post materials shall conform to Section 982 of the Specifications, and be in accordance with ASTM specifications. The height of the post shall not exceed the minimum height needed by more than 0.5 feet. Any portion that extends above the sign shall be cut off. No separate payment will be made for cutting the post or for that length cut off. All posts and bases shall be accompanied by Certificates of Compliance and shall meet all safety standards as set forth in the current edition of the Manual on Uniform Traffic Control Devices (MUTCD).

Payment for 2.0" x 2.0" perforated tube post shall include all costs for labor, equipment and materials necessary to complete the following work:

1. Furnish all posts, stiffeners, breakaway bases, soil stabilizers and hardware.
2. Assembly and installation of breakaway base sign supports as per details shown in these plans.
3. Assembly of sign(s) to sign post as per erection details for Highway Signs as shown in these plans.
4. Installation of signposts and sign(s).

**FURNISH & INSTALL FLAT ALUMINUM SIGNS / NON-REMOVABLE COPY HIGH INTENSITY & SUPER / VERY HIGH INTENSITY**

The payment for new signs in the Table of Permanent Signing shall include all labor (including installing date decals), equipment, and materials to complete the work, and shall be paid for at the contract unit price per square foot for "Flat Aluminum Sign / Nonremovable Copy High Intensity" or "Flat Aluminum Sign / Nonremovable Copy Super / Very high intensity".

**HARDWARE**

Aluminum U-Channel stiffeners shall be used on all standard highway signs greater the 36" in width and shall conform to alloy 6063-T6 or 6061-T6. The U-Channel shall be 2 inches in width and free of holes. The U-Channel stiffeners shall also be used to connect various signs and perforated tube posts together so that an entire sign can be erected as a single installation. Stiffeners may be fastened to signs by use of 1/4" drive rivets with a minimum of one on each end and one centered between each post. Installation of the stiffeners shall be incidental to other contract items.

A 3/8" diameter straight bolt (Grade 8) shall be used in the attachment of the soil stabilizer to post base. All other perforated tube sign post base material shall be fastened with 5/16" diameter corner bolts (Grade 2).

All perforated tube signposts shall have a soil stabilizer attached to the base. Soil stabilizers shall be a red painted MPJ Sign Wedge manufactured by MPJ Enterprises, Inc., 207 Park Ave., Lake Preston, SD 57249 or equal as approved by the Engineer.

**DATE DECALS**

The Contractor shall furnish and install a date decal on each new sign installed on the project. Each decal shall be a self-adhesive sticker approximately 2" x 2" with removable paper backing and black numerals on a white background. The date decal displays the last two digits of the year the sign was manufactured (as illustrated).

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One decal shall be placed in the extreme lower left corner of the back of flat aluminum signs. Sign supports or other obstructions shall not block the view of the date decal upon completion of the sign installation.

All costs, labor and materials for furnishing and installing of date decals on new signs shall be incidental to the various signing bid items.

**SIGN LAYOUT SHOP DRAWING SUBMITTALS**

The Contractor shall submit shop drawings for all guide sign layouts and any other special sign on included in the latest edition of the Standard Highway Signs Manual. Submittals shall be sent in Adobe PDF format to the following email addresses:

- [mkuno@sehinc.com](mailto:mkuno@sehinc.com)
- [Wade.Dahl@state.sd.us](mailto:Wade.Dahl@state.sd.us)
- [Doug.Kinniburgh@state.sd.us](mailto:Doug.Kinniburgh@state.sd.us)

**ACCEPTANCE OF SIGN INSTALLATIONS**

Final acceptance of completed signs will be considered on a sign by sign basis in accordance with section 5.16 of the Specification.



FOR BIDDING PURPOSES ONLY

# Permanent Signing Table

EXISTING STATION	NEW STATION	SIGN										POST		REMARKS
		DESCRIPTION	CODE	WIDTH (IN)	HEIGHT (IN)	FACING TRAFFIC	REMOVE EXISTING	REMOVE SIGN FOR RESET	NUMBER OF NEW SIGNS	FLAT ALUMINUM SIGN, HIGH INTENSITY	FLAT ALUMINUM SIGN, VERY HIGH INTENSITY	NUMBER OF NEW POSTS	2.0" SQ TUBE (FT)	
103+02 - L	103+06 - L	STOP	R1-1	36	36	WESTBOUND	1		1		7.50	1	10.0	REMOVE EX. SIGN FROM UTILITY POLE AND INSTALL NEW SIGN ON NEW POST
105+42 - R	105+42 - R	SPEED LIMIT 20	R2-1	24	30	EASTBOUND	2		1	5.00		1	11.5	REMOVE EX. SIGNS AND POST AND INSTALL NEW SIGNS ON NEW POST
		SNOW ROUTE, NO PARKING IF OVER 2 INCHES	R7-203	18	24				1	3.00				
105+63 - L	105+68 - L	SNOW ROUTE, NO PARKING IF OVER 2 INCHES	R7-203	18	24	WESTBOUND	1		1	3.00		1	9.0	REMOVE EX. SIGN FROM UTILITY POLE AND INSTALL NEW SIGN ON NEW POST
106+56 - L	106+67 - L	SE FOURTH ST	D3-1	36	9	NORTHBOUND	4		1	2.30		1	8.7	REMOVE EX. SIGNS AND POST AND INSTALL NEW SIGNS ON NEW POST. SIGNS SHALL BE MOUNTED BACK TO BACK
		SE FOURTH ST	D3-1	36	9	SOUTHBOUND			1	2.30				
		S LINCOLN AVE	D3-1	36	9	EASTBOUND			1	2.30				
		S LINCOLN AVE	D3-1	36	9	WESTBOUND			1	2.30				
106+87 - L	106+92 - L	SNOW ROUTE, NO PARKING IF OVER 2 INCHES	R7-203	18	24	WESTBOUND	1		1	3.00		1	9.0	REMOVE EX. SIGN FROM UTILITY POLE AND INSTALL NEW SIGN ON NEW POST
108+17 - L	108+22 - L	SPEED LIMIT 20	R2-1	24	30	WESTBOUND	1		1	5.00		1	9.5	REMOVE EX. SIGN FROM UTILITY POLE AND INSTALL NEW SIGN ON NEW POST
108+53 - R	108+53 - R	SPEED LIMIT 20	R2-1	24	30	WESTBOUND	1		1	5.00		1	9.5	REMOVE EX. SIGN AND POST AND INSTALL NEW SIGN ON NEW POST
109+41 - L	109+46 - L	SNOW ROUTE, NO PARKING IF OVER 2 INCHES	R7-203	18	24	WESTBOUND	1		1	3.00		1	9.0	REMOVE EX. SIGN FROM UTILITY POLE AND INSTALL NEW SIGN ON NEW POST
111+68 - L	111+56 - L	SE FOURTH ST	D3-1	36	9	NORTHBOUND	4		1	2.30		1	8.7	REMOVE EX. SIGNS AND POST AND INSTALL NEW SIGNS ON NEW POST. SIGNS SHALL BE MOUNTED BACK TO BACK
		SE FOURTH ST	D3-1	36	9	SOUTHBOUND			1	2.30				
		S GRANT AVE	D3-1	36	9	EASTBOUND			1	2.30				
		S GRANT AVE	D3-1	36	9	WESTBOUND			1	2.30				
113+45 - L	113+50 - L	SNOW ROUTE, NO PARKING IF OVER 2 INCHES	R7-203	18	24	WESTBOUND	1		1	3.00		1	9.0	REMOVE EX. SIGN FROM UTILITY POLE AND INSTALL NEW SIGN ON NEW POST
116+02 - L	116+07 - L	SPEED LIMIT 20	R2-1	24	30	WESTBOUND	1		1	5.00		1	9.5	REMOVE EX. SIGN FROM UTILITY POLE AND INSTALL NEW SIGN ON NEW POST
117+31 - L	117+10 - L	SNOW ROUTE, NO PARKING IF OVER 2 INCHES	R7-203	18	24	WESTBOUND	1		1	3.00		1	9.0	REMOVE EX. SIGN FROM UTILITY POLE AND INSTALL NEW SIGN ON NEW POST
117+37 - L	117+97 - L	SE FOURTH ST	D3-1	36	9	NORTHBOUND	4		1	2.30		1	8.7	REMOVE EX. SIGNS AND POST AND INSTALL NEW SIGNS ON NEW POST. SIGNS SHALL BE MOUNTED BACK TO BACK
		SE FOURTH ST	D3-1	36	9	SOUTHBOUND			1	2.30				
		S GARFIELD AVE	D3-1	36	9	EASTBOUND			1	2.30				
		S GARFIELD AVE	D3-1	36	9	WESTBOUND			1	2.30				
122+10 - L	122+15 - L	SNOW ROUTE, NO PARKING IF OVER 2 INCHES	R7-203	18	24	WESTBOUND	1		1	3.00		1	9.0	REMOVE EX. SIGN FROM UTILITY POLE AND INSTALL NEW SIGN ON NEW POST
123+03 - R	123+03 - R	AUTHORIZED PERSONNEL ONLY	SPECIAL 1	12	18	SOUTHBOUND	0	1	0	0.00		1	7.0	REMOVE EX. SIGNS FOR RESET ON NEW POST
		NO TRESPASSING VIOLATORS WILL BE PROSECUTED	SPECIAL 2	12	18	SOUTHBOUND	0	1	0	0.00				
116+02 - L	116+07 - L	SPEED LIMIT 20	R2-1	24	30	WESTBOUND	1		1	5.00		1	9.5	REMOVE EX. SIGN FROM UTILITY POLE AND INSTALL NEW SIGN ON NEW POST
128+37 - R	128+37 - R	STOP	R1-1	36	36	WESTBOUND	1		1		7.50	0	0.0	REMOVE EX. SIGN FROM UTILITY POLE AND INSTALL NEW SIGN ON UTILITY POST
128+42 - L	128+42 - L	SE FOURTH ST	D3-1	36	9	NORTHBOUND	4		1	2.30		1	8.7	REMOVE EX. SIGNS AND POST AND INSTALL NEW SIGNS ON NEW POST. SIGNS SHALL BE MOUNTED BACK TO BACK
		SE FOURTH ST	D3-1	36	9	SOUTHBOUND			1	2.30				
		S DIVISION AVE	D3-1	36	9	EASTBOUND			1	2.30				
		S DIVISION AVE	D3-1	36	9	WESTBOUND			1	2.30				
<b>TOTALS</b>							<b>30</b>	<b>2</b>	<b>30</b>	<b>82.80</b>	<b>15.00</b>	<b>17</b>	<b>155.3</b>	

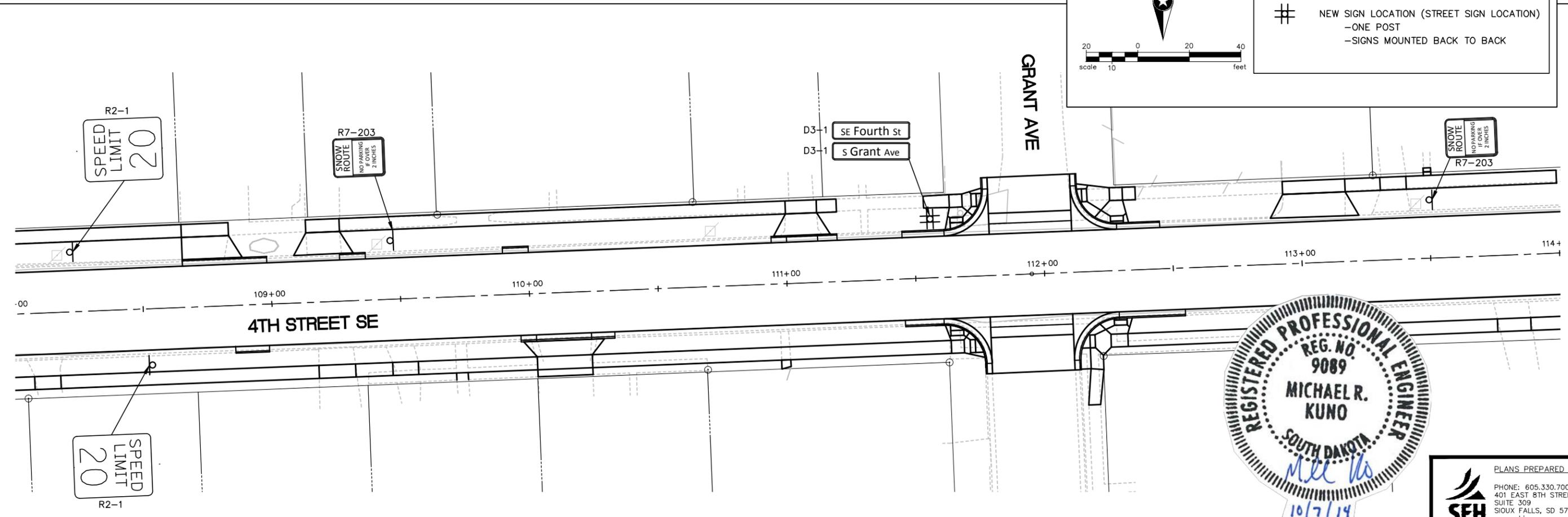
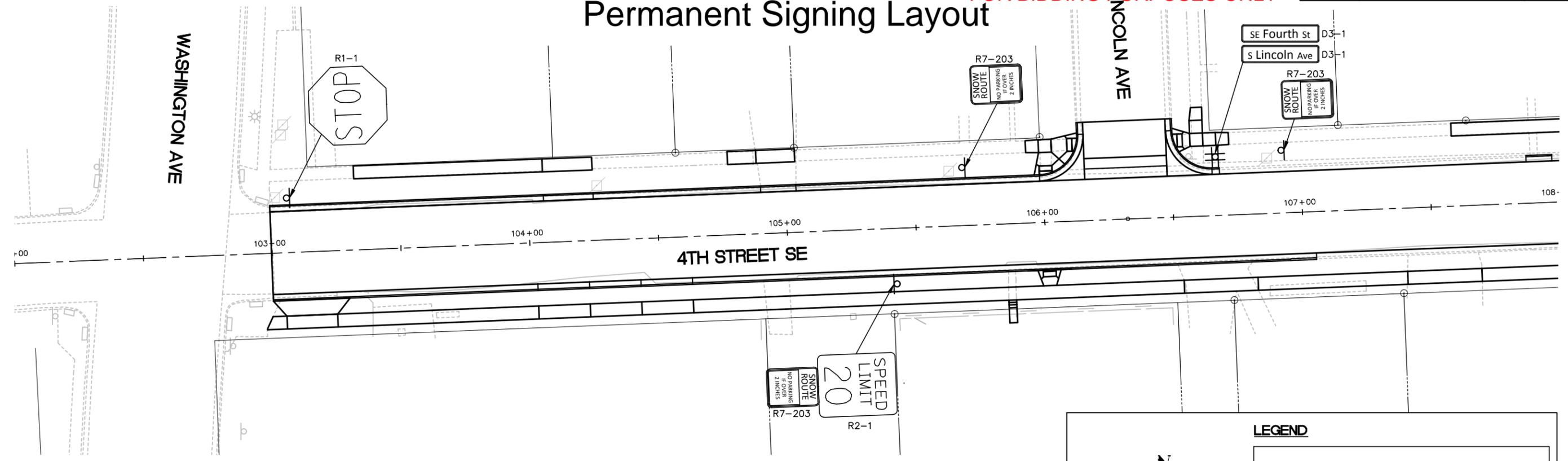


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# Permanent Signing Layout

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**LEGEND**

- NEW SIGN LOCATION  
-ONE POST
- NEW SIGN LOCATION (STREET SIGN LOCATION)  
-ONE POST  
-SIGNS MOUNTED BACK TO BACK

**Scale:** 1" = 20' (0, 20, 40 feet)

**North Arrow:** N

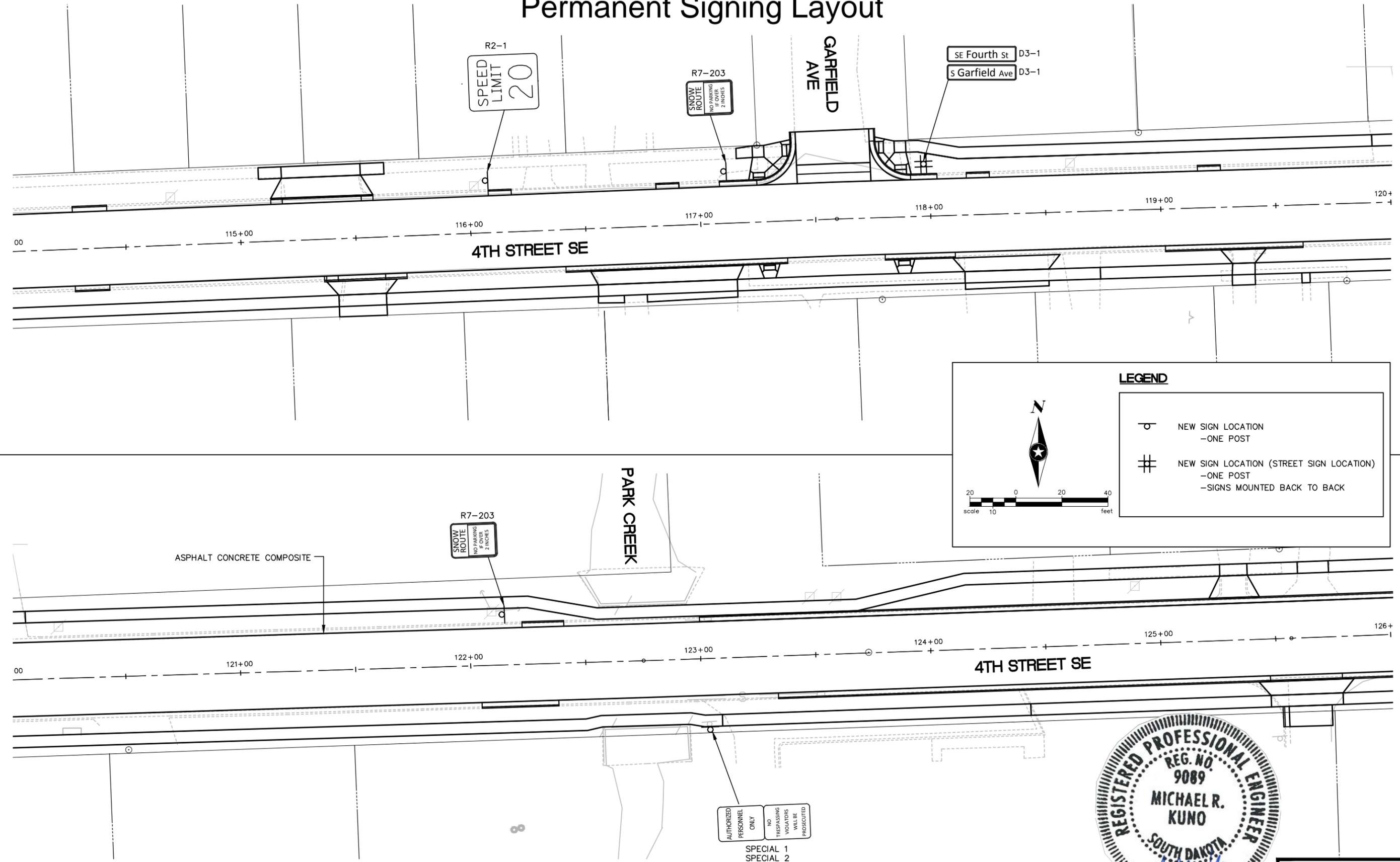


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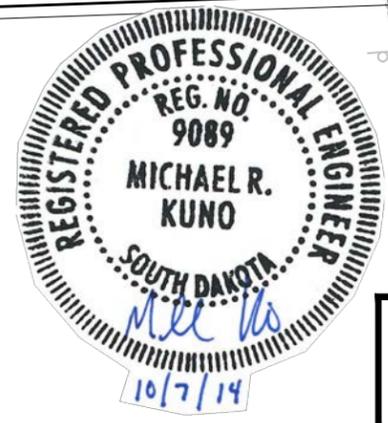
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# Permanent Signing Layout



**LEGEND**

-  NEW SIGN LOCATION  
-ONE POST
-  NEW SIGN LOCATION (STREET SIGN LOCATION)  
-ONE POST  
-SIGNS MOUNTED BACK TO BACK



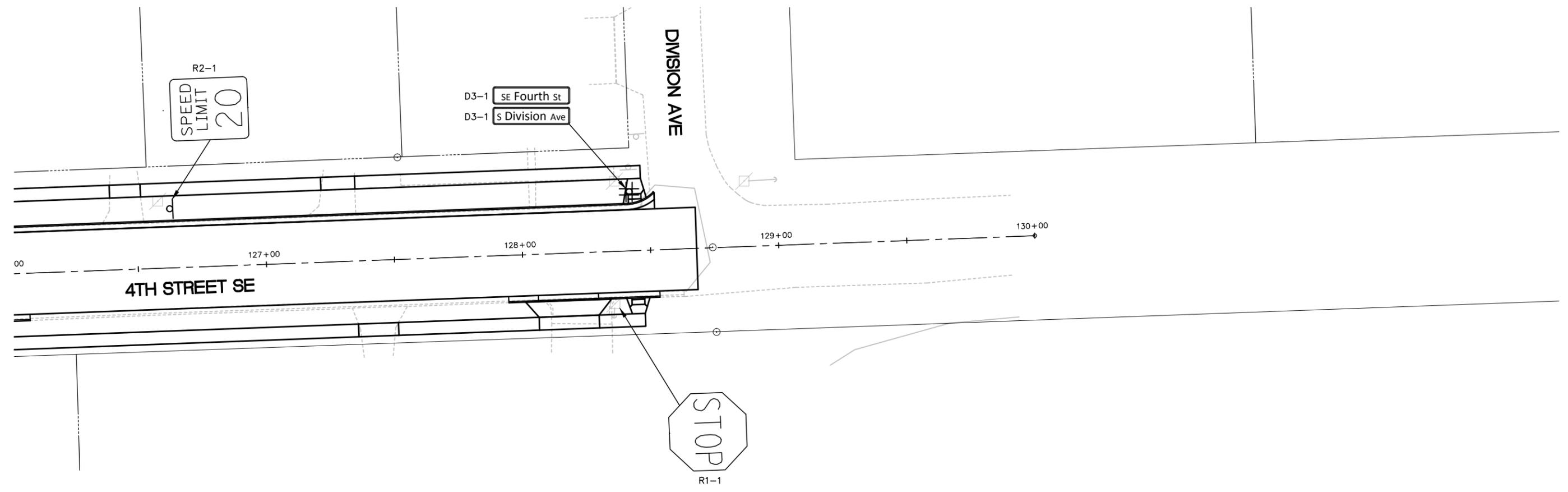
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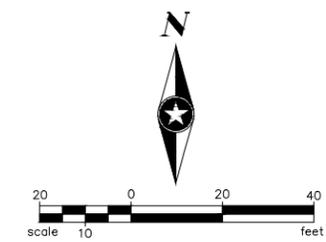
STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	P 6312(18)	S6	S7

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# Permanent Signing Layout



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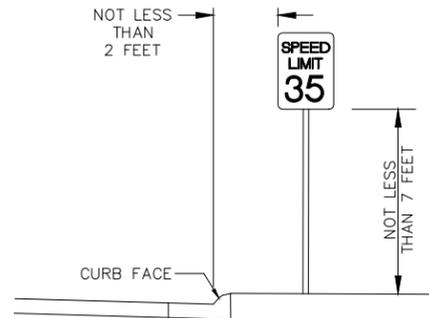
**LEGEND**

-  NEW SIGN LOCATION  
-ONE POST
-  NEW SIGN LOCATION (STREET SIGN LOCATION)  
-ONE POST  
-SIGNS MOUNTED BACK TO BACK

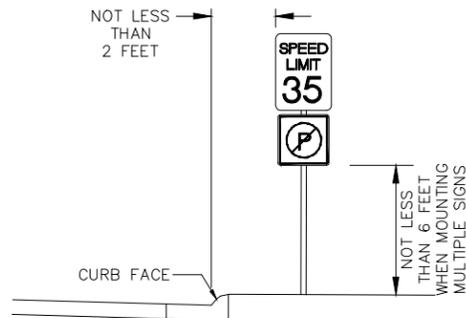


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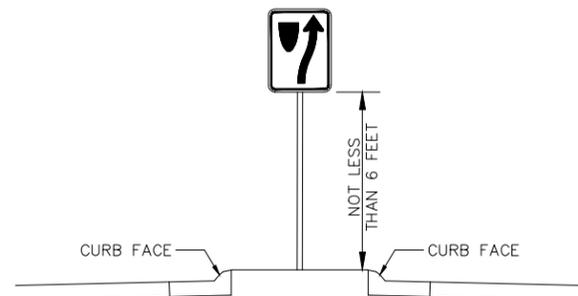
ROADSIDE SINGLE SIGN



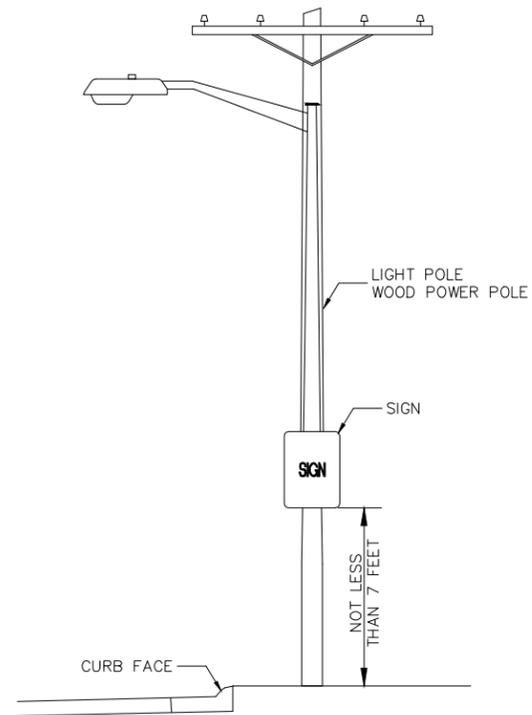
ROADSIDE MULTIPLE SIGN



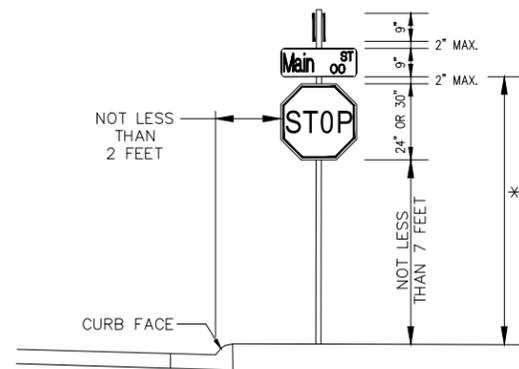
SIGN ON NOSE OF MEDIAN



STREET LIGHT/WOODEN POWER POLE MOUNT

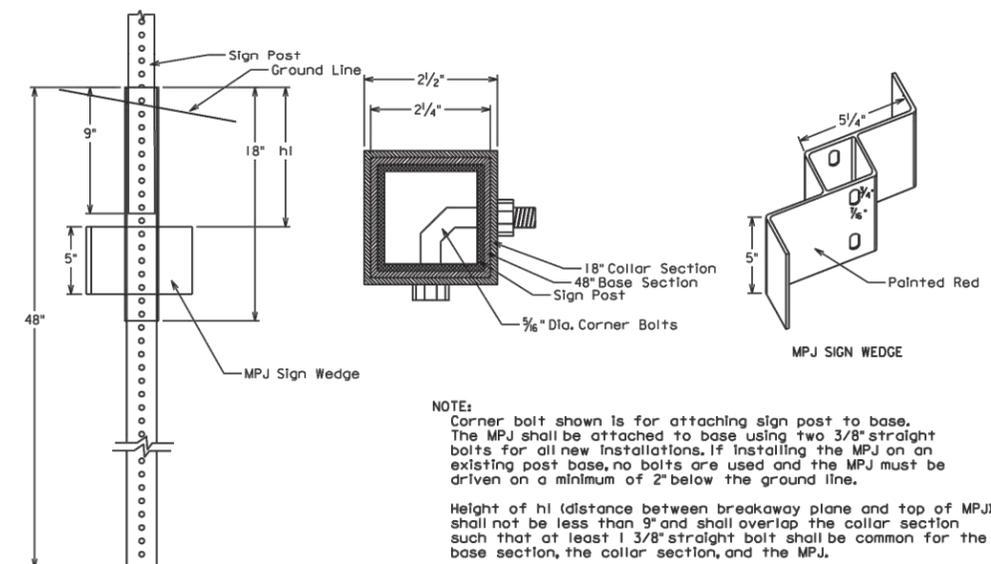


STOP/STREET NAME SIGNS

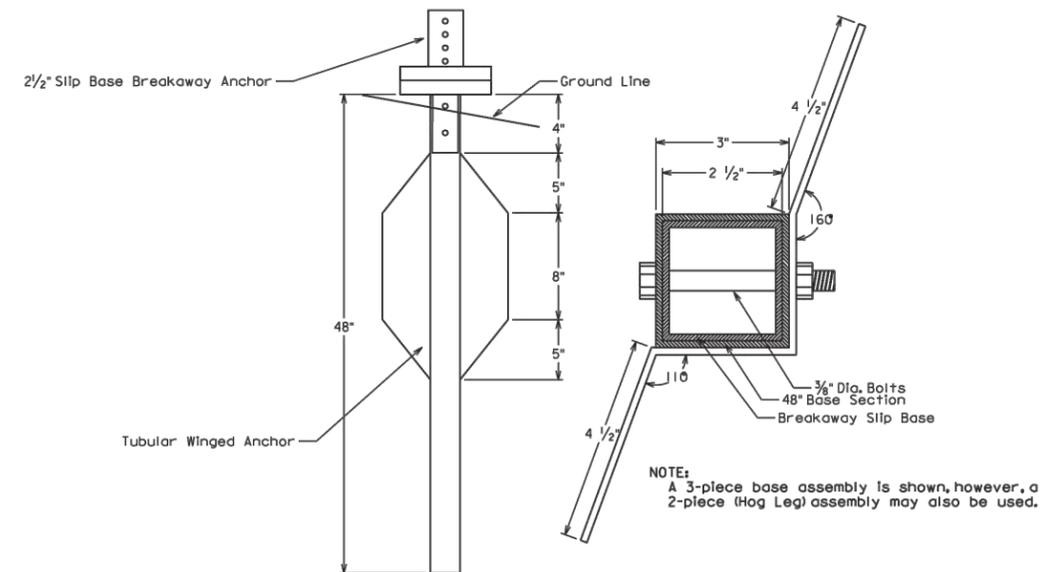


\* 10' WHEN STREET NAME SIGNS ARE MOUNTED ALONE ON POST.

SIGN BASE DETAILS FOR A 2" SIGN POST



SIGN BASE DETAILS FOR A 2 1/2" SIGN POST



March 28, 2014

S  
D  
D  
O  
T

TUBULAR POST BASE DETAILS  
(Typical Soil Installation)

SPECIAL DETAIL  
L21

Sheet 1 of 1