

SPAN A	SPREAD FEET											
	15	20	25	30	35	40	45	50	55	60	65	70
31'-6"	143	152										
35'-0"	126	138	153									
41'-3"	106	120	130	144								
41'-6"	124	134	144	155								
45'-0"	102	112	121	132	144							
51'-3"	78	88	98	108	118	129						
51'-6"	109	119	129	141	154	168						
55'-0"	88	98	108	119	131	142	155					
61'-3"	69	80	91	101	110	121	130	142				
61'-6"		115	124	133	144	157	170	182				
65'-0"		98	107	117	128	140	152	164	176			
71'-3"		80	89	98	109	121	132	144	156	164		
71'-6"		110	121	131	142	152	162	173	184	197		
75'-0"		94	104	114	124	139	144	154	165	176	187	
81'-3"		84	94	104	116	126	131	146	157	168	179	190

W=40 POUNDS PER SQUARE FOOT.

TYPE NO.	SPAN A	GA.	DIMENSIONS		END POST	
			GA.	D	GA.	D
S-1310	31'-6" THRU 41'-3"	3	8.8"	6" x 20'	3	10"
S-1310	41'-6" THRU 51'-3"	3	9.5"	6" x 25'	3	10"
S-1310	51'-6" THRU 61'-3"	3	10.5"	6.3" x 30'	3	10"
S-1312	61'-6" THRU 71'-3"	7	14"	9.1" x 35'	3	12"
S-1312	71'-6" THRU 81'-3"	7	16"	10.4" x 40'	3	12"

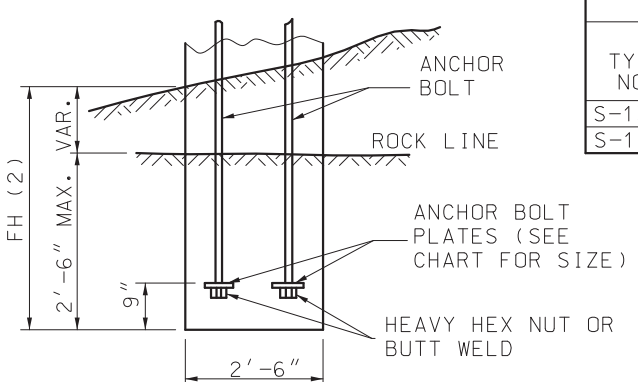
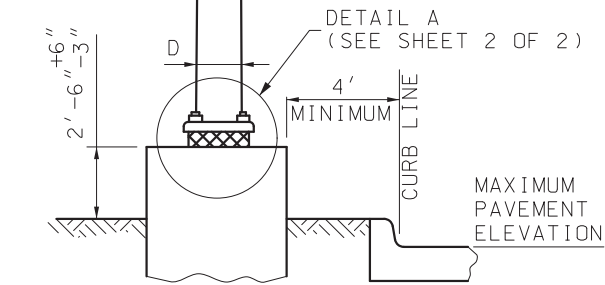
NOTES:  
DESIGN SPANS IN EVEN 3" INCREMENTS. SPECIFY SPAN A REQUIRED. FOR SPAN LENGTHS LESS THAN MAXIMUM FOR A DESIGNATED RANGE, THE LARGER DIAMETER OF THE CROSS BEAM IS HELD AND THE SMALLER DIAMETER WILL INCREASE AS LENGTH IS REDUCED. DESIGN POSTS IN EVEN 1" INCREMENTS.

TYPE NO.	DIA. FD	ESTIMATED QUANTITIES FOOTING						
		CLASS B CONCRETE		REINFORCING STEEL				
		1' DEPTH	1" DEPTH	#5	#4 (3)	TOTAL		
S-1310	2'-6"	0.1818	0.01515	6	8'-9"	10	7'-2"	103
S-1312	2'-6"	0.1818	0.01515	6	10'-3"	12	7'-2"	121

(3) ESTIMATED QUANTITY FOR REINFORCING STEEL IS BASED ON A 1V:2H SLOPE.

MODIFIED FOOTING IN SOLID ROCK		
TYPE NO.	ANCHOR BOLT (1)	ANCHOR BOLT PLATE
S-1310	1 1/2" DIA.	3 1/2" x 3 1/2" x 3/4"
S-1312	1 3/4" DIA.	3 1/2" x 3 1/2" x 3/4"

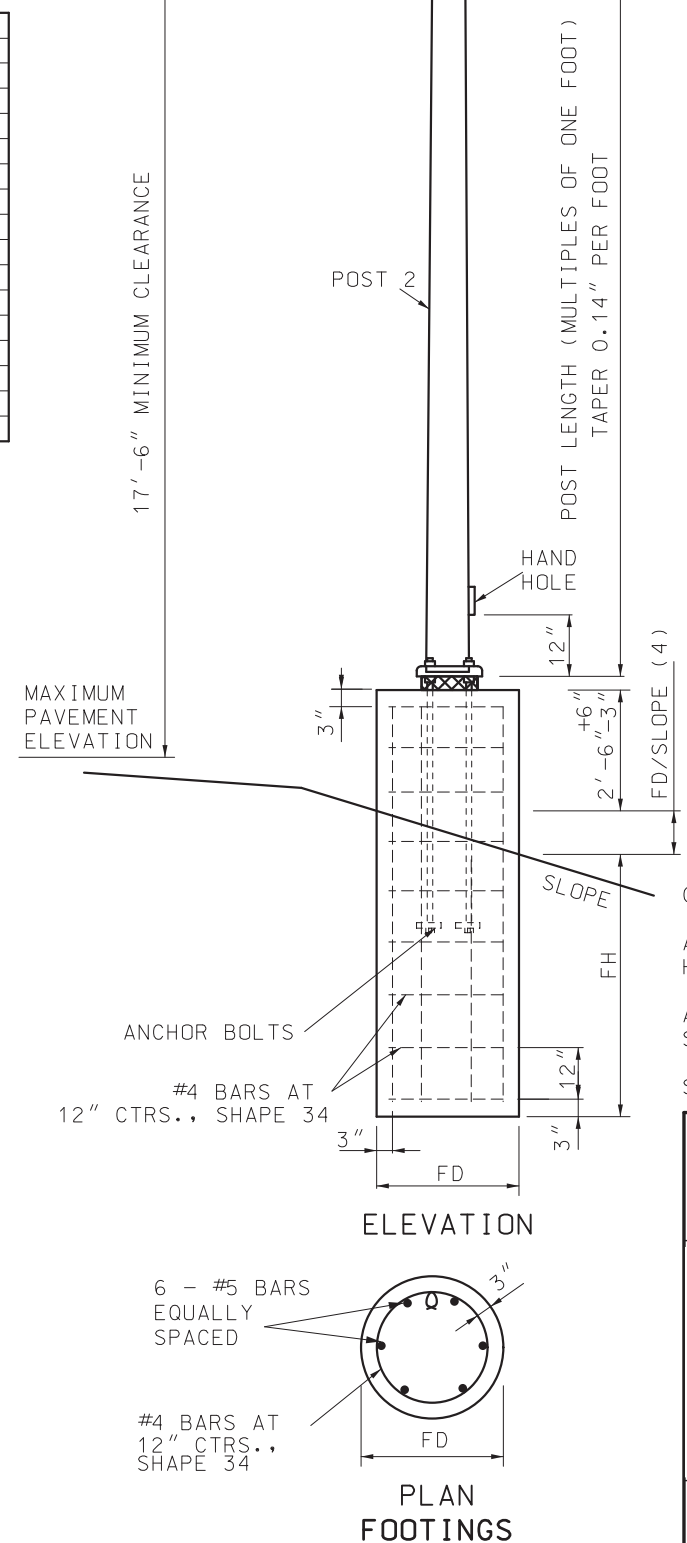
(1) ANCHOR BOLT LENGTH AS REQUIRED



REINFORCEMENT PLACED SAME AS STANDARD FOOTING. CONCRETE TO BE POURED TO EXCAVATED FACE OF ROCK.

**MODIFIED FOOTING IN SOLID ROCK**

(2) NOT TO EXCEED 5' FOR S-1310, NOT TO EXCEED 6'-6" FOR S-1312.



(4) EXAMPLE: IF SLOPE IS 1V:6H, THE DENOMINATOR IS 6

**GENERAL NOTES:**

- ALL SIGNS SHALL BE CENTERED VERTICALLY ABOUT THE HORIZONTAL C OF THE ARM.
- ALL ANCHOR BOLTS SHALL BE FULLY GALVANIZED HIGH STRENGTH ANCHOR BOLTS.
- SEE SHEET 2 OF 2 FOR DETAILS A, B AND C.

**MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION**

105 WEST CAPITOL  
JEFFERSON CITY, MO 65102  
1-888-ASK-MODOT (1-888-275-6636)

**HIGHWAY SIGNING**

**TUBULAR SUPPORT STEEL**

**TYPE S**

**ONE TUBE**

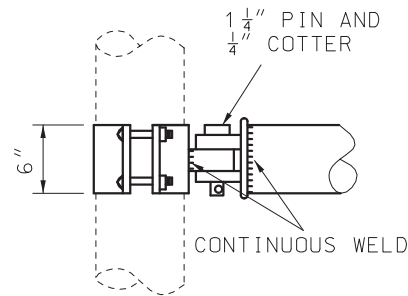
STATE OF MISSOURI  
NICOLE A. KOLB HOOD  
NUMBER PE-2001018754  
PROFESSIONAL ENGINEER  
THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE EFFECTIVE: 10/01/2022

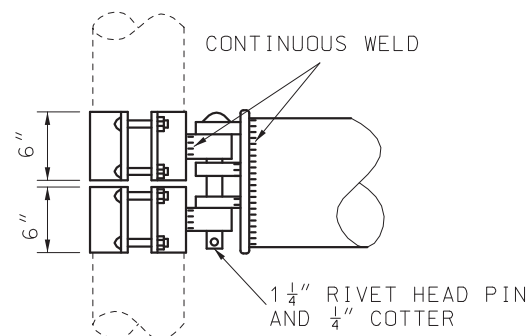
DATE PREPARED: 7/19/2022

**903.05L**

SHEET NO.  
1 OF 2

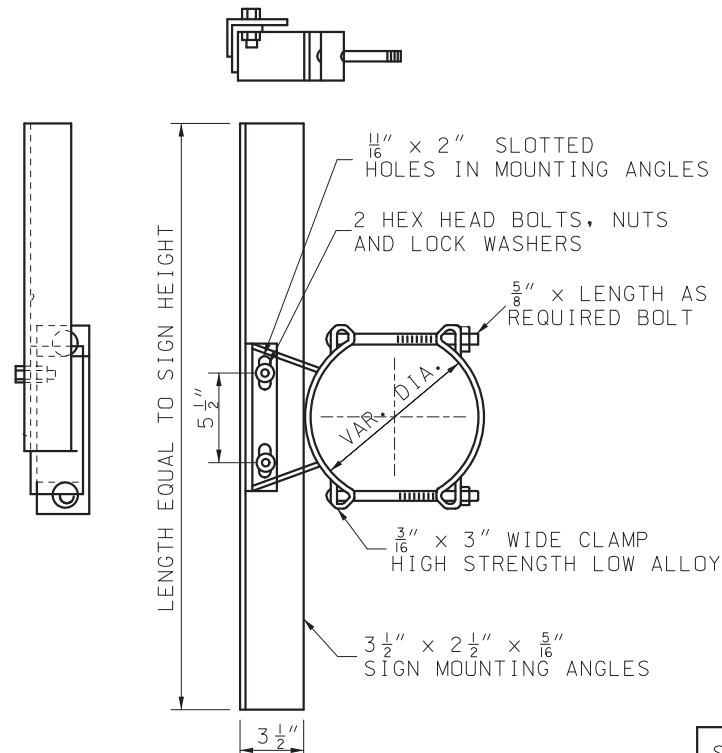


TUBE DIAMETER EQUAL TO OR LESS THAN 10 1/2" AT CENTER OF SPAN



TUBE DIAMETER GREATER THAN 10 1/2" AT CENTER OF SPAN

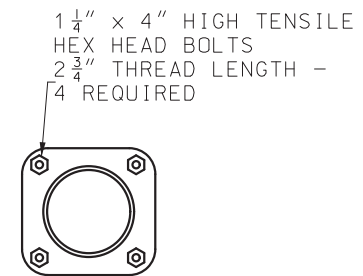
DETAIL B  
BEAM CLAMP



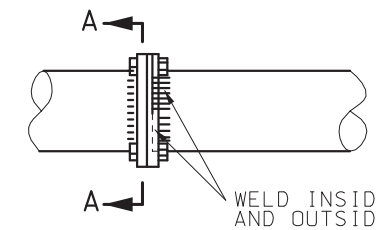
NOTE: MINIMUM OF TWO BRACKETS ARE REQUIRED FOR SIGNS OVER 42" IN LENGTH.

GALVANIZED SIGN BRACKET ASSEMBLY

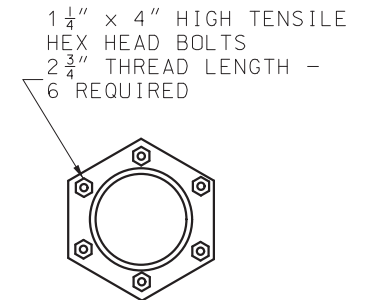
SIGN HEIGHT (INCHES)	MAXIMUM LIN. FT. OF SIGN WIDTH PER BRACKET
48 & UNDER	13
60	8
72	5



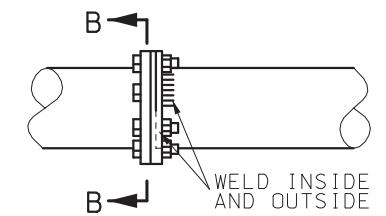
SECTION A-A



TUBE DIAMETER 9 1/2" AND UNDER



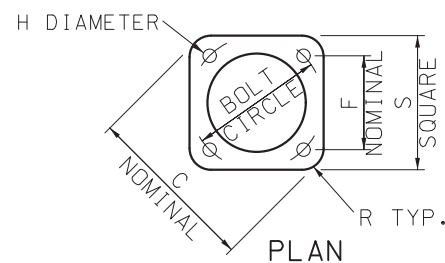
SECTION B-B



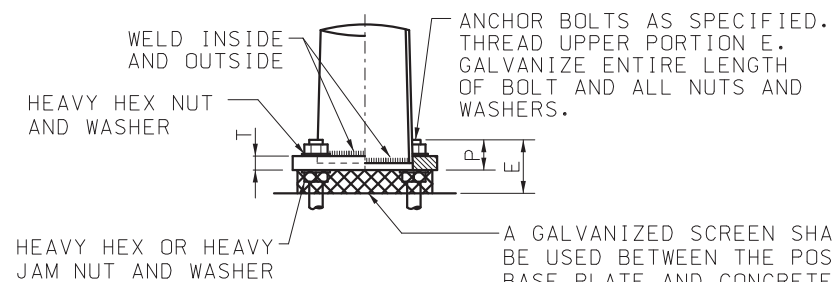
TUBE DIAMETER OVER 9 1/2"

DETAIL C  
BEAM SPLICE

POST BASE DIMENSIONS AND DATA												
TYPE NO.	BOLT CIRCLE	C	F	H	S	R	P	T	E	ANCHOR BOLT	FOOTING	
											FH	FD
S-1310	13 1/2"	17 1/2"	9 9/16"	1 3/4"	14 1/8"	3 1/8"	3 3/4"	1 1/2"	7"	1 1/2" x 60"	5'-0"	2'-6"
S-1312	16"	21"	11 5/16"	2 1/8"	17"	3 3/4"	4 1/2"	2"	7 1/2"	1 3/4" x 90"	6'-6"	2'-6"



DETAIL A  
POST BASE DETAIL



ELEVATION

ANCHOR BOLTS AS SPECIFIED. THREAD UPPER PORTION E. GALVANIZE ENTIRE LENGTH OF BOLT AND ALL NUTS AND WASHERS.

A GALVANIZED SCREEN SHALL BE USED BETWEEN THE POST BASE PLATE AND CONCRETE BASE. SCREENS SHALL BE PRESS-FORMED OF 3 OR 4 MESH, 21 GAGE OR HEAVIER, STAINLESS STEEL OR HOT-DIPPED GALVANIZED WIRE SCREEN OR APPROVED EQUIVALENT, THAT WILL PROVIDE A FRICTION-TIGHT FIT WHEN INSTALLED.

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JEFFERSON CITY, MO 65102  
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**HIGHWAY SIGNING**

TUBULAR SUPPORT STEEL  
TYPE S  
ONE TUBE

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

SHEET NO.  
2 OF 2

DATE EFFECTIVE: 10/01/2022

DATE PREPARED: 7/19/2022

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