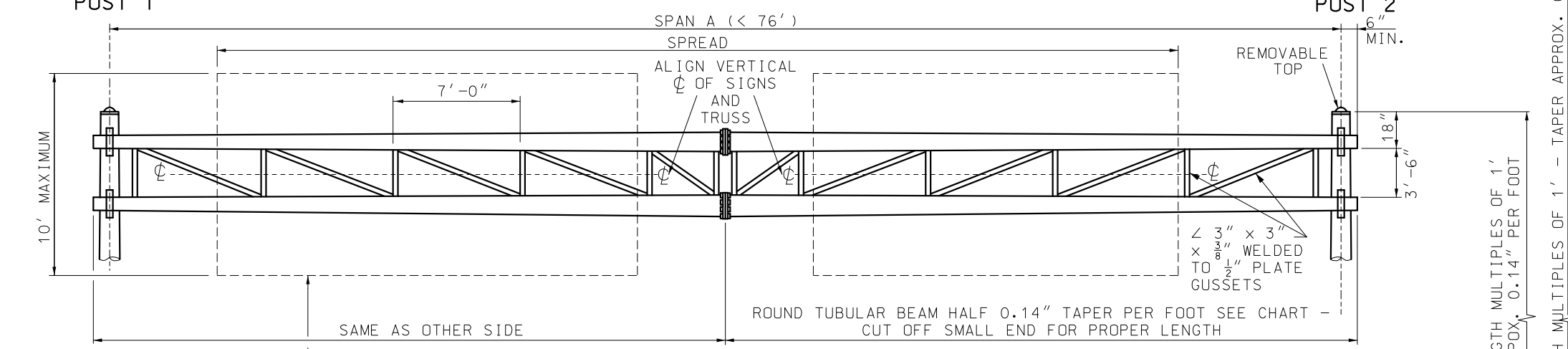


TWO END POST			
TYPE	GA	D INCHES	ALLOWABLE MOMENT-FT-LBS.
S-2315	3	15	120 000
S-2316.5	3	16.5	147 000
S-2318	3	18	177 000
S-27716	7+7	16	214 000
S-2018	0	18	222 000
S-27718	7+7	18	255 000
S-23316.5	3+3	16.5	292 000
S-23317	3+3	17	328 000
S-20018	0+0	18	453 000



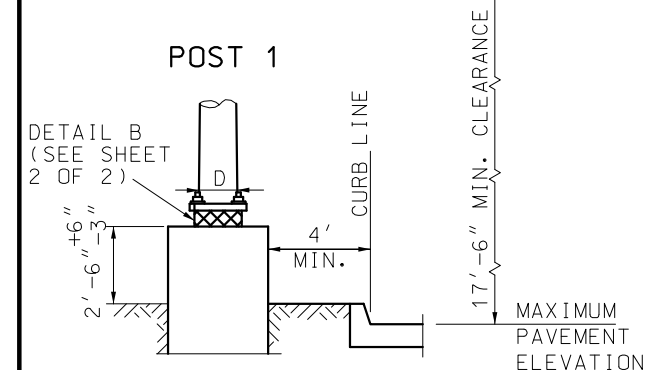
\* EXAMPLE: IF SLOPE IS 1V:6H, THE DENOMINATOR IS 6

GENERAL NOTES:

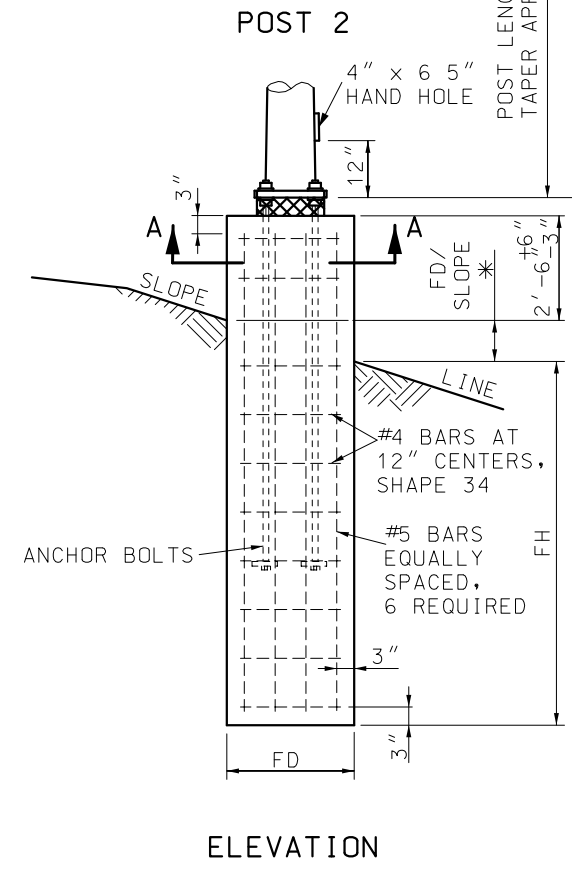
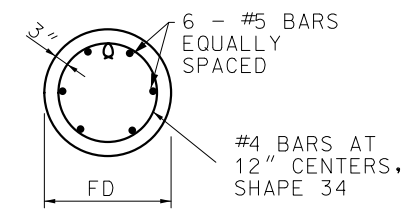
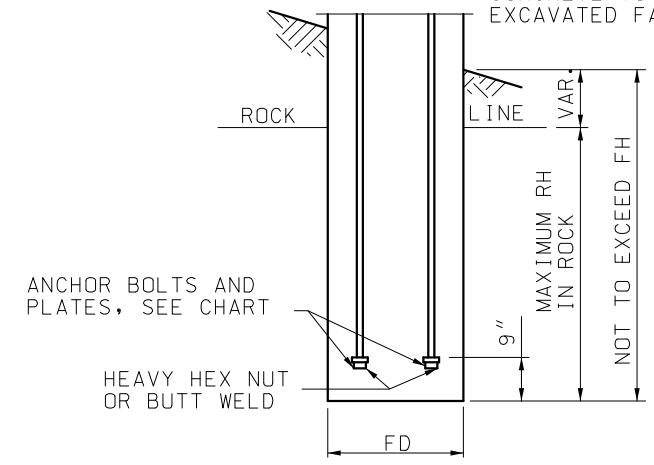
USE LONGEST POST AND SPAN A (NEXT GREATER IF NOT CHARTED) TO DETERMINE END POSTS AND STRUCTURE DESIGNS. MAXIMUM SIGN AREA FOR GIVEN SPREAD (INTERPOLATE FOR UNCHARTED SPREADS) NOT TO BE EXCEEDED. SUPPORTS DESIGNED BY END POST TYPE AND SPAN A (I.E. S-2315-40 ETC.).

ALL ANCHOR BOLTS SHALL BE FULLY GALVANIZED HIGH STRENGTH ANCHOR BOLTS.

ALL SIGNS SHALL BE CENTERED VERTICALLY ABOUT THE HORIZONTAL  $\phi$  OF THE TRUSS.



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



**MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION**  
 105 WEST CAPITOL  
 JEFFERSON CITY, MO 65102  
 1-888-ASK-MODOT (1-888-275-6636)

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

**HIGHWAY SIGNING**  
 TUBULAR SUPPORT STEEL  
 TYPE S  
 TWO TUBES

DATE EFFECTIVE: 01/01/2021	903.06K	SHEET NO. 1 OF 2
DATE PREPARED: 10/14/2020		

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

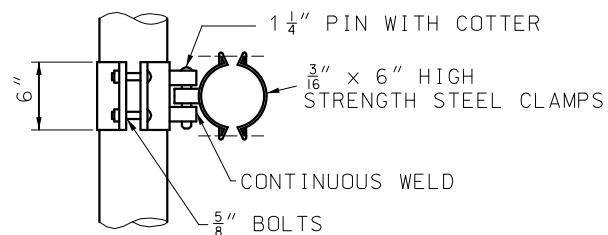
SPAN A FEET	SPREAD IN FEET													STRUCTURE					POSTS FOR MAXIMUM AREA																													
														TUBULAR BEAMS			CENTER SECTION B		LENGTH OF POSTS IN FEET																													
	GA	LARGE DIA.	MIN. L	THICKNESS	O.D.	LENGTH	18	19	20	21	22	23	24	25	26	27																																
40	300																3	9.5"	20.5'														S-2315	S-2315	S-2315	S-2316.5	S-2316.5	S-2316.5	S-2318	S-2318	S-2318	S-2318	S-2318	S-2318				
45	264	288															3	9.5"	23.0'															S-2315	S-2315	S-2315	S-2316.5	S-2316.5	S-2316.5	S-2318	S-2318	S-2318	S-2318	S-2318	S-2318			
50	282	308	336														3	10.5"	25.5'																S-2315	S-2316.5	S-2316.5	S-2316.5	S-2316.5	S-2318	S-2318	S-2318	S-2318	S-2318	S-2318			
55	238	262	284	310													3	10.5"	28.0'																	S-2315	S-2316.5	S-2316.5	S-2316.5	S-2318	S-2318	S-2318	S-2318	S-2318	S-2318	S-2318		
60	266	288	314	340	364												7	14.0"	30.5'																		S-2318	S-27716	S-27716	S-27716	S-27716	S-2018	S-27718	S-27718	S-27718	S-27718	S-23316.5	S-23316.5
65	234	256	280	304	328	352											7	14.0"	33.0'																													
70	262	284	304	324	346	368	394										3	14.0"	35.5'																													
75	228	248	268	288	308	330	352	374									3	14.0"	38.0'																													
76	295	308	326	350	370	397	425	450	472	502							3	14.25"	30.5'	312"	14.238"	16'																										
79	310	326	347	366	384	410	432	460	490	520							3	14.25"	28.5'	312"	14.238"	23'																										
83	277	288	300	322	340	360	385	412	434	465	498						3	14.25"	30.5'	312"	14.238"	23'																										
86	297	309	322	337	356	378	402	425	447	473	500	522					3	14.25"	28.0'	312"	14.238"	30'																										
90	269	280	294	310	327	345	363	385	403	426	446	466	485				3	14.25"	30.5'	312"	14.238"	30'																										

MAXIMUM SIGN AREA IN SQ. FEET

TYPE NO.	BOLT CIRCLE	BASE DATA										FOOTINGS										ESTIMATED QUANTITIES OF STANDARD FOOTINGS					
		C	F	H	P	R	S	T	E	IN EARTH					IN SOLID ROCK					CLASS B CONC		REINFORCING STEEL		TOTAL LBS.			
										DIA. FD	FH	ANCHOR DIA.	BOLTS LENGTH	RH MAX	ANCHOR DIA.	BOLTS LENGTH	PLATES	CY/FT	CY/IN	#5 BARS NO.	#4 BARS * NO.						
S-2315	22"	28 5/8"	15 1/2"	2 3/8"	4 3/4"	4 5/8"	23"	2"	8 1/2"	2'-6"	8'	2"	96"	3'	2"	AS REQUIRED SEE ROCK FOOTING	3.5" x 3.5" x 0.75"	0.1818	0.01515	6	11'-9"	13	7'-2"	136			
S-2316.5	23 1/2"	30 1/2"	16 5/8"	2 3/8"	4 3/4"	5"	24 1/2"	2"	8 1/2"	3'-0"	10'	2"	96"	3'	2"	AS REQUIRED SEE ROCK FOOTING	3.5" x 3.5" x 0.75"	0.2618	0.0218	6	14'-0"	15	8'-9"	176			
S-2318	25 1/2"	33"	18"	2 3/8"	4 3/4"	5 1/2"	26 1/2"	2"	8 1/2"	3'-0"	10'	2"	96"	3'	2"	AS REQUIRED SEE ROCK FOOTING	3.5" x 3.5" x 0.75"	0.2618	0.0218	6	14'-0"	15	8'-9"	176			
S-27716	23 1/2"	30 1/2"	16 5/8"	2 5/8"	5 1/2"	5"	24 1/2"	2 1/2"	9 1/2"	3'-0"	10'	2 1/4"	96"	3'	2 1/4"	AS REQUIRED SEE ROCK FOOTING	4.5" x 4.5" x 0.75"	0.2618	0.0218	6	14'-0"	15	8'-9"	176			
S-2018	25 1/2"	33"	18"	2 1/2"	5 1/2"	5 1/2"	26 1/2"	2 1/2"	9 1/2"	3'-6"	11'	2 1/4"	96"	4'	2 1/4"	AS REQUIRED SEE ROCK FOOTING	4.5" x 4.5" x 0.75"	0.3563	0.0297	6	15'-3"	17	10'-4"	212			
S-27718	25 1/2"	33"	16"	2 7/8"	6"	5 1/2"	26 1/2"	2 1/2"	10 1/2"	3'-6"	11'	2 1/2"	120"	4'	2 1/2"	AS REQUIRED SEE ROCK FOOTING	5" x 5" x 1"	0.3563	0.0297	6	15'-3"	17	10'-4"	212			
S-23316.5	23 1/2"	30 1/2"	16 5/8"	3"	7"	5"	24 1/2"	3"	12"	3'-6"	12'	3"	144"	4'	3"	AS REQUIRED SEE ROCK FOOTING	5" x 5" x 1"	0.3563	0.0297	6	16'-3"	18	10'-4"	226			
S-23317	25 1/2"	33"	18"	3 3/8"	7"	5 1/2"	26 1/2"	3"	12"	3'-6"	12'	3"	144"	4'	3"	AS REQUIRED SEE ROCK FOOTING	5" x 5" x 1"	0.3563	0.0297	6	16'-3"	18	10'-4"	226			
S-20018	25 1/2"	33"	18"	3 3/8"	7"	5 1/2"	26 1/2"	3"	12"	4'-0"	12'	3"	144"	5'	3"	AS REQUIRED SEE ROCK FOOTING	5" x 5" x 1"	0.4654	0.0388	6	16'-6"	18	11'-10"	245			

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

TUBE DIA.	A	B	NO. OF BOLTS
9 1/2"	11 1/2"	12 1/2"	4
10 1/2"	14 5/8"	14"	4
14.0"	17 1/4"	17"	6



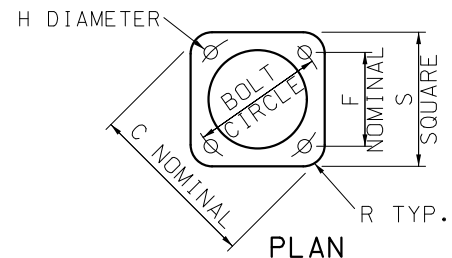
BEAM CLAMP DETAIL



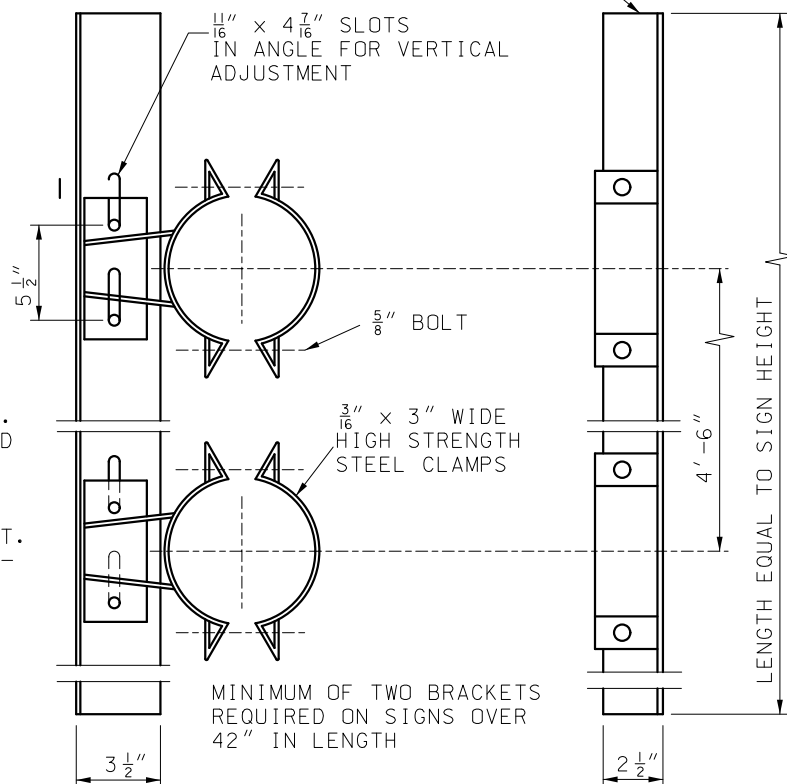
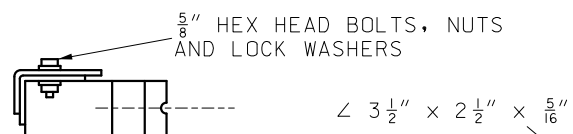
ELEVATION

HEAVY SQUARE NUTS AND WASHERS FOR PLUMBING.

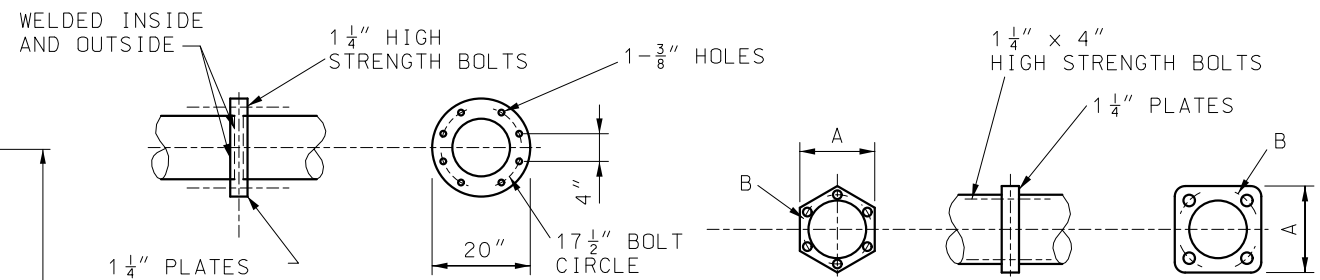
A GALVANIZED SCREEN SHALL BE USED BETWEEN THE POST BASE PLATE AND CONCRETE BASE. SCREENS SHALL BE PRESS-FORMED OF 3 OR 4 MESH, 21 GAGE OR HEAVIER, STAINLESS STEEL OR HOT-DIPPED GALVANIZED WIRE SCREEN OR APPROVED EQUIVALENT. THAT WILL PROVIDE A FRICTION-TIGHT FIT WHEN INSTALLED.



DETAIL B POST BASE DETAIL



GALVANIZED SIGN BRACKET ASSEMBLY



SPANS 76' TO 90'

BEAM SPLICE DETAIL

SPANS UP TO 76'

SIGN HEIGHT INCHES	MAX. LIN. FT. OF SIGN WIDTH PER BRACKET
48 & UNDER	16
60	16
72	15
84	11
96	6
108	4
120	3

**MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION**  
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**STATE OF MISSOURI**  
 NICOLE A. KOLB HOOD  
 NUMBER PE-2001018754  
 PROFESSIONAL ENGINEER

**HIGHWAY SIGNING**  
 TUBULAR SUPPORT STEEL  
 TYPE S  
 TWO TUBES

DATE EFFECTIVE: 01/01/2021  
 DATE PREPARED: 10/14/2020

903.06K

SHEET NO. 2 OF 2

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.