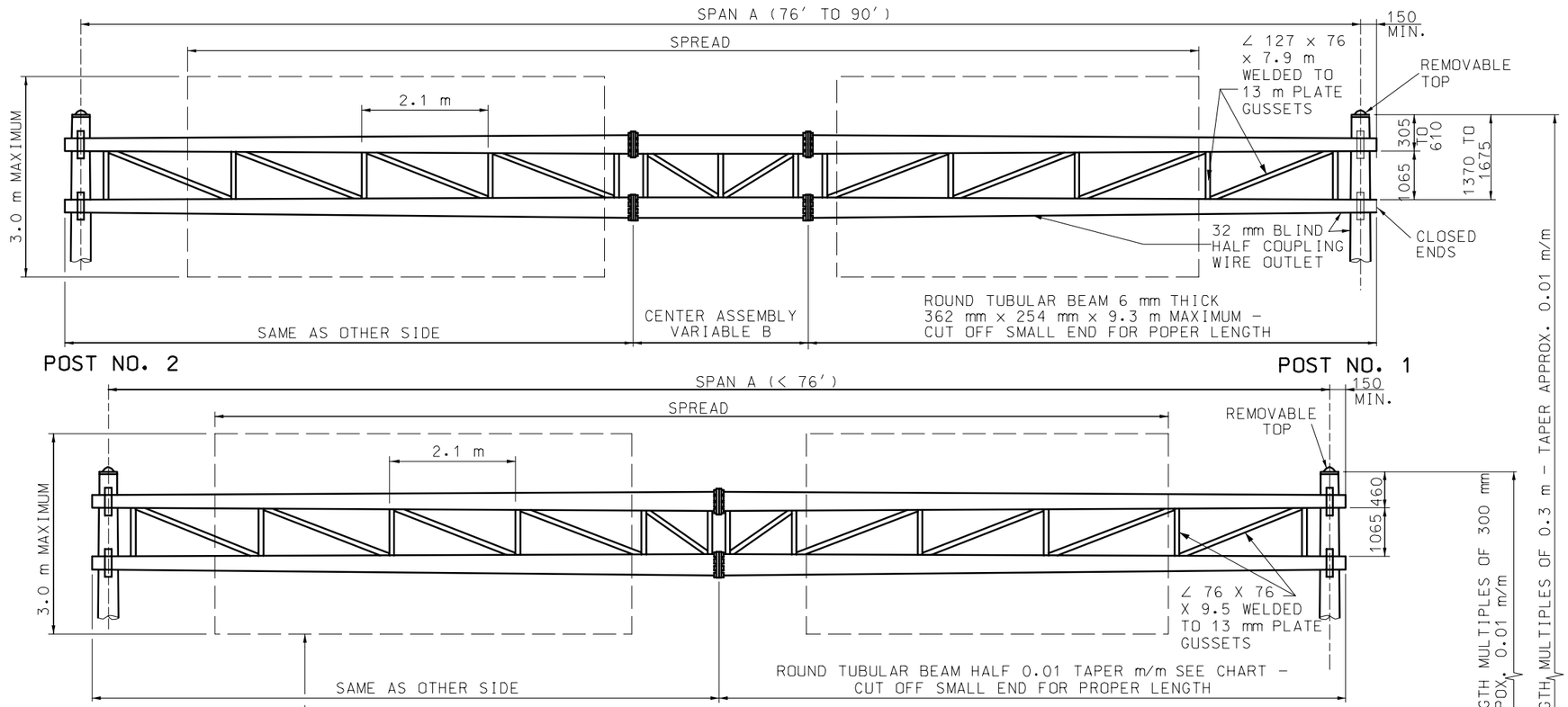
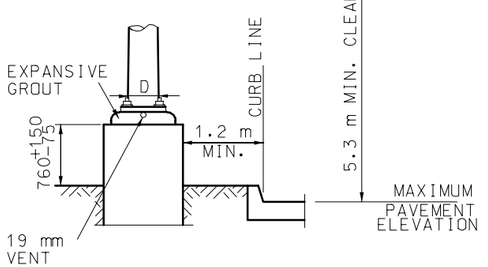
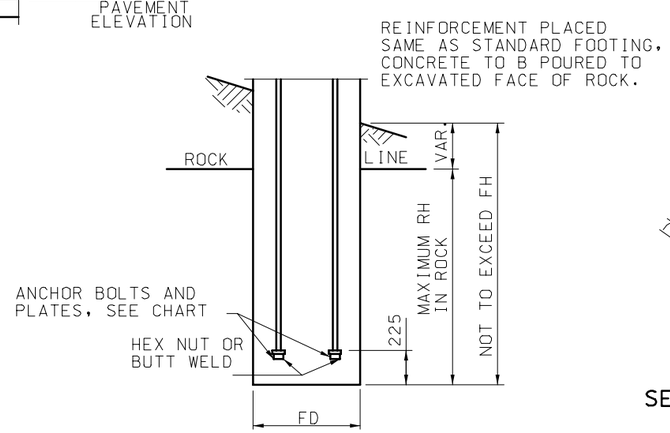
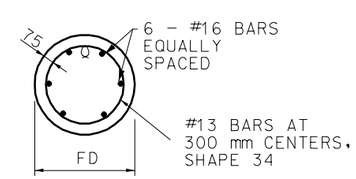


TWO END POST			
TYPE	GA mm	D mm	ALLOWABLE MOMENT-kN m
S-2315	6.5786	380	162.5
S-2316.5	6.5786	420	199.0
S-2318	6.5786	460	240.0
S-27716	4.5720+7 4.5270	405	290.0
S-2018	8.6360	460	301.0
S-27718	4.5720+7 4.5720	460	345.5
S-23316.5	6.5786+5 6.5786	420	395.5
S-23317	6.5786+5 6.5786	430	444.5
S-20018	8.6360+0 8.6360	460	614.0

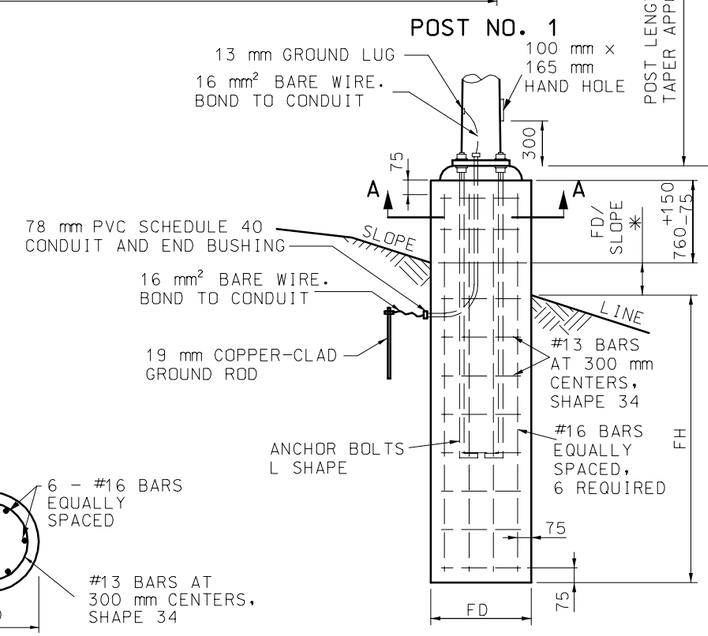




MODIFIED FOOTING IN SOLID ROCK



SECTION A-A



ELEVATION

* EXAMPLE: IF SLOPE IS 1:6, THE DENOMINATOR IS 6

GENERAL NOTES:

ALL DIMENSIONS SHOWN ARE IN mm UNLESS OTHERWISE NOTED.

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 SIGNS CENTERED VERTICALLY.

FOOTINGS

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

HIGHWAY SIGNING
TUBULAR SUPPORT STEEL
- TYPE S

TWO TUBES

DATE:_____ EFFECTIVE: 04-01-2005 **M903.06H** 1/2

SPAN A	SPREAD IN m													STRUCTURE						
														TUBULAR BEAMS			CENTER SECTION B			
m	9.1	10.7	12.2	13.7	15.2	16.2	18.3	19.8	21.3	22.9	24.4	25.9	27.4	GA	THICK-NESS mm	LARGE DIA. mm	MIN. L m	THICK-NESS mm	O.D. mm	LENGTH m
12.2	27.9													3	6.5786	241	6.2			
13.7	24.5	26.8												3	6.5786	241	7.0			
15.2	26.2	28.6	31.2											3	6.5786	267	7.8			
16.8	22.1	24.3	26.4	28.8										3	6.5786	267	8.5			
18.3	24.7	26.8	29.2	31.6	33.8									7	4.5720	356	9.3			
19.8	21.7	23.8	26.0	28.2	30.5	32.7								7	4.5720	356	10.0			
21.3	24.3	26.4	28.2	30.1	32.1	34.2	36.6							3	4.5720	356	10.8			
22.9	21.2	23.0	24.9	26.8	28.6	30.7	32.7	34.7						3	6.5786	356	11.6			
23.2	27.4	28.6	30.3	32.5	34.4	36.9	39.5	41.8	43.9	46.6				3	6.5786	362	9.3	7.925	362	4.9
24.1	28.8	30.3	32.2	34.0	35.7	38.1	40.1	42.7	45.5	48.3				3	6.5786	362	8.7	7.925	362	7.0
25.3	25.7	26.8	27.9	29.9	31.6	33.4	35.8	38.3	40.3	43.2	46.3			3	6.5786	362	9.3	7.925	362	7.0
26.2	27.6	28.7	29.9	31.3	33.1	35.1	37.3	38.5	41.5	43.9	46.5	48.5		3	6.5786	362	8.7	7.925	362	9.1
27.4	25.0	26.0	27.3	28.8	30.4	32.1	33.7	35.8	37.4	39.6	41.4	43.3	45.1	3	6.5786	362	9.3	7.925	362	9.1

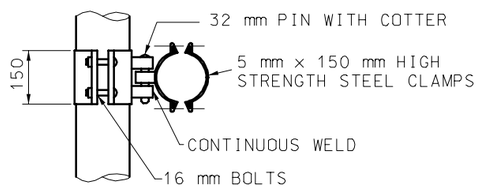
MAXIMUM SIGN AREA IN SQ. METERS

POSTS FOR MAXIMUM AREA									
LENGTH OF POSTS IN m									
5.5	5.8	6.1	6.4	6.7	7.0	7.3	7.6	7.9	8.2
S-2315	S-2315	S-2315	S-2316.5	S-2316.5	S-2316.5	S-2318	S-2318	S-2318	S-2318
S-2315	S-2315	S-2315	S-2316.5	S-2316.5	S-2316.5	S-2318	S-2318	S-2318	S-2318
S-2315	S-2316.5	S-2316.5	S-2316.5	S-2318	S-2318	S-2318	S-27716	S-27716	S-27716
S-2315	S-2316.5	S-2316.5	S-2316.5	S-2318	S-2318	S-2318	S-2318	S-27716	S-27716
S-2318	S-27716	S-27716	S-27716	S-2018	S-27718	S-27718	S-27718	S-23316.5	S-23316.5
S-2318	S-27716	S-27716	S-27716	S-27716	S-27718	S-27718	S-27718	S-23316.5	S-23316.5
S-27716	S-27716	S-27716	S-27718	S-27718	S-27718	S-23316.5	S-23316.5	S-23316.5	S-23317
S-27716	S-27716	S-27716	S-2018	S-27718	S-27718	S-27718	S-23316.5	S-23316.5	S-23316.5
S-27716	S-27718	S-27718	S-27718	S-23316.5	S-23316.5	S-23317	S-23317	S-23317	S-20018
S-2018	S-27718	S-27718	S-23316.5	S-23316.5	S-23317	S-23317	S-23317	S-20018	S-20018
S-27716	S-2018	S-27718	S-27718	S-23316.5	S-23316.5	S-23316.5	S-23317	S-23317	S-20018
S-2018	S-27718	S-27718	S-23316.5	S-23316.5	S-23317	S-23317	S-23317	S-20018	S-20018
S-27716	S-27718	S-27718	S-23316.5	S-23316.5	S-23316.5	S-23317	S-23317	S-20018	S-20018

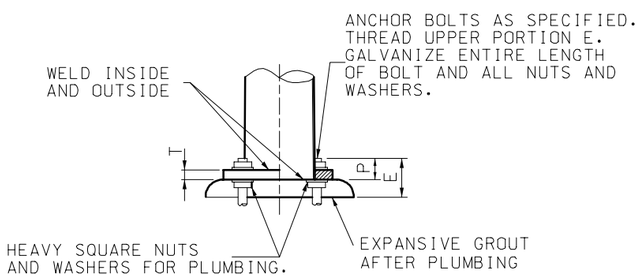
BASE DATA										FOOTINGS								ESTIMATED QUANTITIES OF STANDARD FOOTINGS					
										IN EARTH				IN SOLID ROCK				CLASS B CONC	REINFORCING STEEL				TOTAL
												ANCHOR BOLTS			ANCHOR BOLTS				#16 BARS		#13 BARS ✳		
TYPE NO.	BOLT CIRCLE mm	C mm	F mm	H mm	P mm	R mm	S mm	T mm	E mm	DIA. FD mm	FH mm	DIA. mm	LENGTH mm	RH MAX mm	DIA. mm	LENGTH mm	PLATES mm	m^3/m	NO.	LENGTH	NO.	LENGTH	kg
S-2315	559	727	394	60	121	118	584	51	216	760	2440	51	2440	915	51	AS REQUIRED SEE ROCK FOOTING	89 x 89 x 19	0.50	6	3580	13	2180	61
S-2316.5	597	775	422	60	121	127	622	51	216	915	3050	51	2440	915	51		89 x 89 x 19	0.64	6	4265	15	2670	80
S-2318	648	838	457	60	121	140	673	51	216	915	3050	51	2440	915	51		89 x 89 x 19	0.64	6	4265	15	2670	80
S-27716	597	775	422	67	140	127	622	64	241	915	3050	57	2440	915	57		114 x 114 x 19	0.64	6	4265	15	2670	80
S-2018	648	838	457	67	140	140	673	64	241	1065	3355	57	2440	1220	57		114 x 114 x 19	0.95	6	4645	17	3140	96
S-27718	648	838	457	73	152	140	673	64	267	1065	3355	64	3050	1220	64		127 x 127 x 25	0.95	6	4645	17	3140	96
S-23316.5	597	775	422	86	178	127	622	76	305	1065	3660	76	3660	1220	76		127 x 127 x 25	0.95	6	4950	18	3140	102
S-23317	648	838	457	86	178	140	673	76	305	1065	3660	76	3660	1220	76		127 x 127 x 25	0.95	6	4950	18	3140	102
S-20018	648	838	457	86	178	140	673	76	305	1220	3660	76	3660	1525	76		127 x 127 x 25	1.13	6	5030	18	3625	112

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

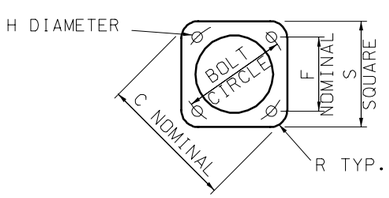
TUBE DIA. (mm)	A (mm)	B (mm)	NO. OF BOLTS
240	290	320	4
265	370	350	4
355	440	430	6



BEAM CLAMP DETAIL

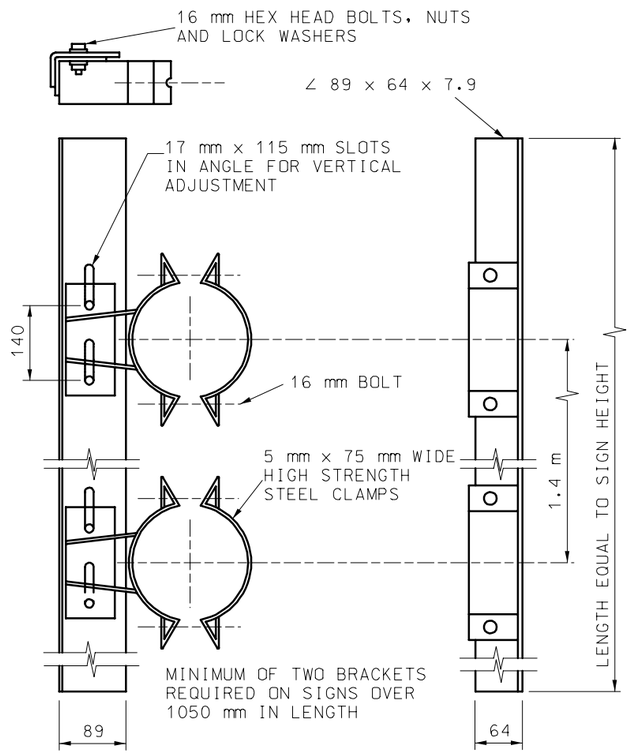


ELEVATION

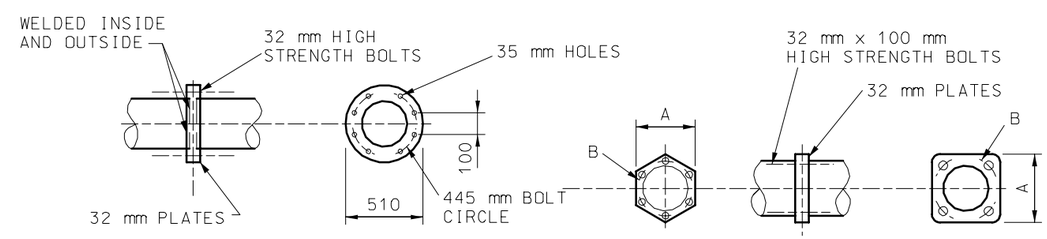


PLAN

POST BASE DETAIL



GALVANIZED SIGN BRACKET ASSEMBLY



SPANS 23.2 m TO 27.4

SPANS UP TO 23.2 m

BEAM SPLICE DETAIL

SIGN HEIGHT mm	MAX. m OF SIGN WIDTH PER BRACKET
≤1200	4.8
1500	4.8
1800	4.5
2100	3.3
2400	1.8
2700	1.2
3000	0.9

GENERAL NOTES:

ALL DIMENSIONS SHOWN ARE IN mm UNLESS OTHERWISE NOTED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

HIGHWAY SIGNING
TUBULAR SUPPORT STEEL
– TYPE S

TWO TUBES

DATE:_____ EFFECTIVE: 04-01-2005 **M903.06H** 2/2