DIST.	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

REGISTERED ENGINEER - CIVIL

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER No. Exp. CIVIL STATE OF CALIFORNIA

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Caltrans Metric

TRUSS FRAME QUATITIES (WEIGHT - kg)

PANEL LENGTH m	PANEL DEPTH - mm					
	1778	2032	2286	2540	2794	3048
12.19	2339	2424	2431	2504	2504	2504
12.80	2456	2545	2553	2629	2629	2629
13.41	2573	2666	2674	2754	2754	2754
14.02	2690	2788	2796	2879	2879	2879
14.63	2807	2909	2918	3005	3005	3005
15.24	2923	3030	3039	3130	3130	3130
15.85	3040	3151	3161	3255	3255	3255
16.46	3157	3272	3282	3380	3380	3380
17.07	3274	3394	3404	3505	3505	3505
17.68	3391	3515	3525	3631	3631	3631
18.29	3508	3636	3647	3756	3756	3756
18.90	3625	3757	3769	3881	3881	3881
19.51	3742	3878	3890	4006	4006	4006
20.12	3859	4000	4012	4131	4131	4131
20.73	3976	4121	4133	4257	4257	4257
21.34	4093	4242	4255	4382	4382	4382
21.95	4670	4703	4739	4899	5079	5079
22.56	4800	4834	4870	5035	5220	5220
23.17	4930	4964	5002	5171	5361	5361
23.77	5059	5095	5134	5307	5502	5502
24.38	5189	5225	5265	5443	5643	5643
24.99	5319	5356	5397	5579	5784	5784
25.60	5449	5487	5529	5715	5925	5925
26.21	5578	5617	5660	5851	6066	6066
26.82	5708	5748	5792	5988	6207	6207
27.43	5838	5879	5924	6124	6348	6348
28.04	5968	6009	6055	6260	6489	6489
28.65	6097	6140	6187	6396	6630	6630
29.26	6227	6271	6318	6532	6771	6771
29.87	6357	6401	6450	6668	6912	6912
30.48	6486	6532	6582	6804	7053	7053
31.09	8805	9013	9147	9314	9314	9314
31.70	8977	9190	9326	9496	9496	9496
32.31	9150	9366	9506	9679	9679	9679
32.92	9323	9543	9685	9861	9861	9861
33.53	9495	9720	9864	10044	10044	10044
34.14	9668	9896	10044	10227	10227	10227
34.75	9840	10073	10223	10409	10409	10409
35.36	10013	10250	10402	10592	10592	10592
35.97	10186	10427	10582	10775	10775	10775
36.58	10358	10603	10761	10957	10957	10957
37.19	10531	10780	10941	11140	11140	11140
37.80	10704	10957	11120	11322	11322	11322
38.41	10876	11134	11299	11505	11505	11505
39.01	11049	11310	11479	11688	11688	11688
39.62	11222	11487	11658	11870	11870	11870
40.23	11394	11664	11837	12053	12053	12053
40.84	11567	11840	12017	12235	12235	12235
41.45	11740	12017	12196	12418	12418	12418
42.06	11912	12194	12375	12601	12601	12601
42.67	12085	12371	12555	12783	12783	12783
43.28	12257	12547	12734	12966	12966	12966
43.89	12430	12724	12913	13149	13149	13149
44.50	12603	12901	13093	17175	17175	17175

Quantities for stripped span length frame only. For cantilever length see "EXAMPLE". Sign panels, removable frames & walkways are not included. Chord splices are included for spans exceeding 23.16 m.

POST QUANTITIES (WEIGHT - kg)

POST TYPE 5.72 m	PANEL DEPTH - mm						Column "A"
	1778	2032	2286	2540	2794	3048	kg/m
I-S	872	899	927	954	954	954	113.4
II-S	1004	1035	1067	1098	1098	1098	130.6
III-S	1136	1171	1207	1242	1242	1242	147.7
IV-S	1268	1307	1347	1386	1386	1386	164.8
V-S	1511	1558	1606	1653	1653	1653	196.6
VI-S			3091	3181	3181	3181	378.3
VII-S			3091	3181	3181	3181	378.3

Note:
Wt is for each post of a 2 post truss. Quantities include post (length from base plate to top of truss) and split plates. Quantities are based on "h"= 5.72 m. Column "A" kg/m to be added or subtracted from weights shown on table. (See Example)

FOUNDATION QUANTITIES FOR SPREAD FOOTING

POST TYPE	BAR REINF STEEL, kg	CLASS "A" CONC, m^3	STRUCT EXCAV, m^3	STRUCT BACKFILL, m^3
I-S	1365	11.2	29.7	18.6
II-S	1365	11.2	29.7	18.6
III-S	1428	12.1	32.7	20.6
IV-S	1731	13.8	38.2	24.5
V-S	2386	16.0	43.3	27.3
VI-S	2470	17.4	47.8	30.4
VII-S	2628	18.8	52.5	33.6

JUNCTURE CONNECTIONS

UPPER & LOWER CHORD CONNECTIONS (CAP PLATES & RING, WEDGE PLATES & NO ANGLES) kg/EA POST

POST TYPE	FRAME WIDTH, mm			
	610	762	914	1067
I-S	231	227	300	335
II-S	253	251	330	369
III-S	276	318	361	403
IV-S	298	345	345	437
V-S	344	398	452	506
VI-S	344	398	452	506
VII-S	344	398	452	506

WEIGHT OF ANCHOR BOLTS w/NUTS A307

POST TYPE	kg @ EA POST TOTAL WT BOLTS & NUTS
I-S	303
II-S	303
III-S	303
IV-S	354
V-S	517
VI-S	517
VII-S	517

GUSSET WEIGHT (kg)

POST TYPE	kg GUSSET TOTAL WT EA POST
I-S	57
II-S	57
III-S	57
IV-S	57
V-S	57
VI-S	68
VII-S	68

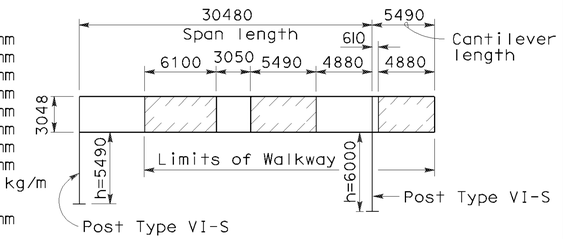
BASE PLATE

POST TYPE	WT (kg) EA POST
I-S	234
II-S	234
III-S	277
IV-S	323
V-S	391
VI-S	582
VII-S	582

EXAMPLE

Given :

Sign panel depth	= 3048 mm
Span length	= 3048 mm
Cantilever length	= 5490 mm
Sign panel length	= 6100 mm
Sign panel length	= 4880 mm
Sign panel length	= 5490 mm
Left post type VI-S	= 5490 mm
Right post type VI-S	= 6020 mm
Walkway assembly	= 111.6 kg/m
Span=30.48 m,	
Frame width STD Plan S11	= 1067 mm



REMOVABLE SIGN PANEL FRAME

		(kg)
Span length	Truss	= 7,053
Cantilever length (Note 1)	Truss	= 1,270
Removable Sign panel frame	6100	= 224
Removable Sign panel frame	5490(Note 2)	= 218
Removable Sign panel frame	4880	= 181
Lt post type VI-S 3181 - (378.3 x .23)		= 3,098
Lt post juncture connection type VI-S		= 506
Rt post type VI-S 3181 + (378.3 x .3)		= 3,287
Rt post juncture connection type VI-S		= 506
Walkway assembly 111.6 kg/m x 25 m		= 2,790
Bolt & Nuts Type VI-S		= 517
Bolt & Nuts Type VI-S		= 517
Gusset Type VI-S		= 68
Gusset Type VI-S		= 68
Base Plate Type VI-S		= 582
Base Plate Type VI-S		= 582
Sub total		=21,467
+3.5% for galvanizing		= 751
Total		=22,218

LAMINATED SIGN PANEL MOUNTING I-BEAM

		(kg)
Span length	Truss	= 7,053
Cantilever length (Note 1)	Truss	= 1,270
Mounting I-Beam	6100	= 114
Mounting I-Beam	5490 (Note 2)	= 114
Mounting I-Beam	4880	= 114
Lt post type VI-S 3181 - (378.3 x .23)		= 3,098
Lt post juncture connection type VI-S		= 506
Rt post type VI-S 3181 + (378.3 x .3)		= 3,287
Rt post juncture connection type VI-S		= 506
Walkway assembly 111.6 kg/m x 25 m		= 2,790
Bolt & Nuts Type VI-S		= 517
Bolt & Nuts Type VI-S		= 517
Gusset Type VI-S		= 68
Gusset Type VI-S		= 68
Base Plate Type VI-S		= 582
Base Plate Type VI-S		= 582
Sub total		=21,186
+3.5% for galvanizing		= 742
Total		=21,928

Post Type	Specification of pipe post	
		Split (mm)
I-S	Pipe NPS 14 x 12.7 TK	127
II-S	Pipe NPS 16 x 12.7 TK	152
III-S	Pipe NPS 18 x 12.7 TK	178
IV-S	Pipe NPS 20 x 12.7 TK	203
V-S	Pipe NPS 24 x 12.7 TK	203
VI-S	Pipe NPS 24 x 24.6 TK	254
VII-S	Pipe NPS 24 x 24.6 TK	254

Notes:

1. Cantilever frame weight = Span frame length weight x $\frac{\text{Cantilever length}}{\text{Span length}} = 7053 \times \frac{5.49}{30.48} = 1270$
2. For weight of Removable Sign Panel Frame or Mounting Beams see "Overhead Sign Truss Single Post Type" sheet.
3. Walkway assembly includes grating, brackets, safety railing, light fixture supports and all fittings.
4. For Mounting I-Beam spacing and numbers, see Standard Plan S19.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

THIS SHEET NOT A PART OF CONTRACT PLANS

OVERHEAD SIGNS-TRUSS TWO POST TYPE

QUANTITIES | **12**