DIST.	COUNTY	ROUTE	POST MILES 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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TRUSS FRAME QUANTITIES (WEIGHT - lb)

PANEL LENGTH ft	PANEL DEPTH - in					
	70	80	90	100	110	120
40.0	5,157	5,344	5,359	5,520	5,520	5,520
42.0	5,414	5,611	5,628	5,796	5,796	5,796
44.0	5,672	5,877	5,895	6,071	6,071	6,071
46.0	5,930	6,146	6,164	6,347	6,347	6,347
48.0	6,188	6,413	6,433	6,625	6,625	6,625
50.0	6,444	6,680	6,700	6,900	6,900	6,900
52.0	6,702	6,947	6,969	7,176	7,176	7,176
54.0	6,960	7,213	7,235	7,452	7,452	7,452
56.0	7,218	7,482	7,504	7,727	7,727	7,727
58.0	7,476	7,749	7,771	8,005	8,005	8,005
60.0	7,734	8,016	8,040	8,280	8,280	8,280
62.0	7,992	8,283	8,309	8,556	8,556	8,556
64.0	8,250	8,549	8,576	8,832	8,832	8,832
66.0	8,508	8,818	8,845	9,107	9,107	9,107
68.0	8,765	9,085	9,112	9,385	9,385	9,385
70.0	9,023	9,352	9,381	9,661	9,661	9,661
72.0	10,295	10,368	10,448	10,800	11,197	11,197
74.0	10,582	10,657	10,736	11,100	11,508	11,508
76.0	10,869	10,944	11,027	11,400	11,819	11,819
78.0	11,153	11,232	11,318	11,700	12,130	12,130
80.0	11,440	11,519	11,607	12,000	12,441	12,441
82.0	11,726	11,808	11,898	12,299	12,751	12,751
84.0	12,013	12,097	12,189	12,599	13,062	13,062
86.0	12,297	12,383	12,478	12,899	13,373	13,373
88.0	12,584	12,672	12,769	13,201	13,864	13,864
90.0	12,870	12,961	13,060	13,501	13,995	13,995
92.0	13,157	13,247	13,349	13,801	14,306	14,306
94.0	13,441	13,536	13,640	14,101	14,616	14,616
96.0	13,728	13,825	13,929	14,400	14,927	14,927
98.0	14,015	14,112	14,220	14,700	15,238	15,238
100.0	14,299	14,400	14,511	15,000	15,549	15,549
102.0	19,412	19,870	20,165	20,534	20,534	20,534
104.0	19,791	20,260	20,560	20,935	20,935	20,935
106.0	20,172	20,648	20,957	21,338	21,338	21,338
108.0	20,553	21,038	21,352	21,740	21,740	21,740
110.0	20,933	21,429	21,746	22,143	22,143	22,143
112.0	21,314	21,817	22,143	22,546	22,546	22,546
114.0	21,693	22,207	22,538	22,948	22,948	22,948
116.0	22,075	22,597	22,932	23,351	23,351	23,351
118.0	22,456	22,987	23,329	23,755	23,755	23,755
120.0	22,835	23,375	23,724	24,156	24,156	24,156
122.0	23,217	23,766	24,121	24,559	24,559	24,559
124.0	23,598	24,156	24,515	24,960	24,960	24,960
126.0	23,977	24,546	24,910	25,364	25,364	25,364
128.0	24,359	24,934	25,307	25,767	25,767	25,767
130.0	24,740	25,324	25,701	26,169	26,169	26,169
132.0	25,119	25,714	26,096	26,572	26,572	26,572
134.0	25,501	26,102	26,493	26,973	26,973	26,973
136.0	25,882	26,493	26,887	27,377	27,377	27,377
138.0	26,261	26,883	27,282	27,780	27,780	27,780
140.0	26,643	27,273	27,679	28,181	28,181	28,181
142.0	27,022	27,661	28,073	28,585	28,585	28,585
144.0	27,403	28,051	28,468	28,988	28,988	28,988
145.0	27,785	28,442	28,865	32,150	32,150	32,150

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 76.0 ft.

POST QUANTITIES (WEIGHT - lbs/ea)

POST TYPE 18'-9"	PANEL DEPTH - in						Column "A"
	70	80	90	100	110	120	lb/ft
I-S	1,922	1,982	2,044	2,103	2,103	2,103	76.20
II-S	2,213	2,282	2,352	2,421	2,421	2,421	87.76
III-S	2,504	2,582	2,661	2,738	2,738	2,738	99.25
IV-S	2,795	2,881	2,970	3,056	3,056	3,056	110.75
V-S	3,331	3,435	3,541	3,644	3,644	3,644	132.32
VI-S			6,814	7,013	7,013	7,013	254.22
VII-S			6,814	7,013	7,013	7,013	254.22

Note:
Weight 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"= 18'-9". Column "A" lb/ft to be added or subtracted from weights shown on table. (See Example)

FOUNDATION QUANTITIES FOR SPREAD FOOTING

POST TYPE	BAR REINF STEEL, lb	CLASS "A" CONC, yd^3	STRUCT EXCAV, yd^3	STRUCT BACKFILL, yd^3
I-S	3,009	14.6	38.8	24.3
II-S	3,009	14.6	38.8	24.3
III-S	3,148	15.8	42.8	26.9
IV-S	3,816	18.0	50.0	32.0
V-S	5,260	20.9	56.6	35.7
VI-S	5,445	22.8	62.5	39.8
VII-S	5,794	24.6	68.7	43.9

JUNCTURE CONNECTIONS

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

POST TYPE	FRAME WIDTH, in			
	24	30	36	42
I-S	509	500	661	739
II-S	558	553	728	813
III-S	608	701	796	888
IV-S	657	761	761	963
V-S	758	877	996	1,116
VI-S	758	877	996	1,116
VII-S	758	877	996	1,116

GUSSET WEIGHT (lb)

POST TYPE	lb GUSSET TOTAL WT EA POST
I-S	126
II-S	126
III-S	126
IV-S	126
V-S	126
VI-S	150
VII-S	150

BASE PLATE

POST TYPE	WT (lb) EA POST
I-S	516
II-S	516
III-S	611
IV-S	712
V-S	862
VI-S	1,283
VII-S	1,283

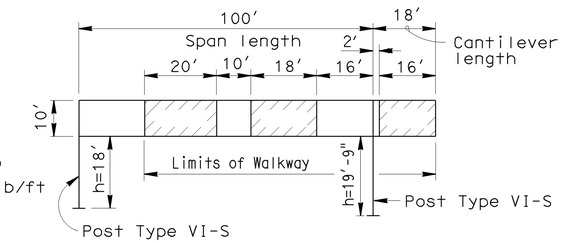
WEIGHT OF ANCHOR BOLTS w/NUTS A307

POST TYPE	lb @ EA POST TOTAL WT BOLTS & NUTS
I-S	668
II-S	668
III-S	668
IV-S	780
V-S	1,140
VI-S	1,140
VII-S	1,140

EXAMPLE

Given :

Sign panel depth	= 10'
Span length	= 100'
Cantilever length	= 18'
Sign panel length	= 20'
Sign panel length	= 16'
Sign panel length	= 18'
Left post type VI-S	= 18'
Right post type VI-S	= 19'-9"
Walkway assembly	= 75.0 lb/ft
Span=100 ft,	
Frame width STD Plan S11	= 3'



REMOVABLE SIGN PANEL FRAME

Truss weight frame for:		(lb)
Span length	Truss Frame Chart	= 15,549
Cantilever length (Note 1)	Truss Frame Chart	= 2,799
Removable sign panel frame	20'	= 494
Removable sign panel frame	18' (Note 2)	= 481
Removable sign panel frame	16'	= 399
Lt post type VI-S 7013 - (254.22 x 0.75)		= 6,822
Lt post juncture connection type VI-S		= 996
Rt post type VI-S 7013 + (254.22 x 1.0)		= 7,267
Rt post juncture connection type VI-S		= 996
Walkway assembly 75 lb/ft x 82'		= 6,150
Bolt & Nuts Type VI-S		= 1,140
Bolt & Nuts Type VI-S		= 1,140
Gusset Type VI-S		= 150
Gusset Type VI-S		= 150
Base Plate Type VI-S		= 1,283
Base Plate Type VI-S		= 1,283
Sub total		= 47,099
+3.5% for galvanizing		= 1,649
Total		= 48,748

LAMINATED SIGN PANEL MOUNTING I-BEAM

Truss weight frame for:		(lb)
Span length	Truss Frame Chart	= 15,549
Cantilever length (Note 1)	Truss Frame Chart	= 2,799
Mounting I-Beam	20'	= 251
Mounting I-Beam	18' (Note 2)	= 251
Mounting I-Beam	16'	= 251
Lt post type VI-S 7013 - (254.22 x 0.75)		= 6,822
Lt post juncture connection type VI-S		= 996
Rt post type VI-S 7013 + (254.22 x 1.0)		= 7,267
Rt post juncture connection type VI-S		= 996
Walkway assembly 75 lb/ft x 82'		= 6,150
Bolt & Nuts Type VI-S		= 1,140
Bolt & Nuts Type VI-S		= 1,140
Gusset Type VI-S		= 150
Gusset Type VI-S		= 150
Base Plate Type VI-S		= 1,283
Base Plate Type VI-S		= 1,283
Sub total		= 46,478
+3.5% for galvanizing		= 1,627
Total		= 48,105

Notes:

1. Cantilever frame weight = Span frame length weight x $\frac{\text{Cantilever length}}{\text{Span length}} = 15{,}549 \times \frac{18.0}{100} = 2{,}799$
2. For weight of removable sign panel frame or mounting beams see "OVERHEAD SIGN TRUSS SINGLE POST TYPE" sheet, reference sheet number 10.
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.

POST TYPE	SPECIFICATION OF PIPE POST	
		Split (in)
I-S	14" NPS x 1/2" TK	5.0
II-S	16" NPS x 1/2" TK	6.0
III-S	18" NPS x 1/2" TK	7.0
IV-S	20" NPS x 1/2" TK	8.0
V-S	24" NPS x 1/2" TK	8.0
VI-S	24" NPS x 31/32" TK	10.0
VII-S	24" NPS x 31/32" TK	10.0

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

THIS SHEET NOT A PART OF CONTRACT PLANS

OVERHEAD SIGNS-TRUSS TWO POST TYPE

QUANTITIES | **12**