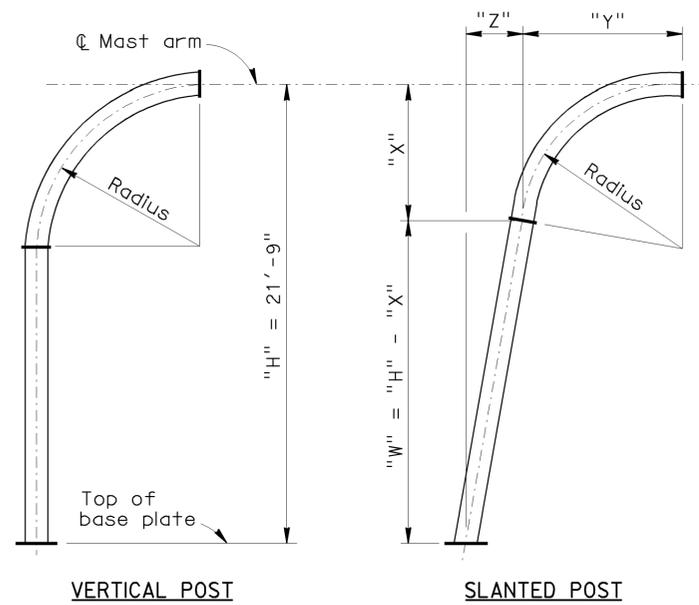
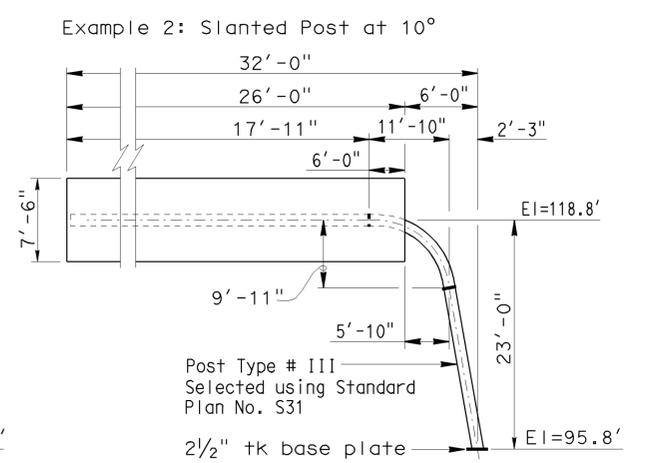
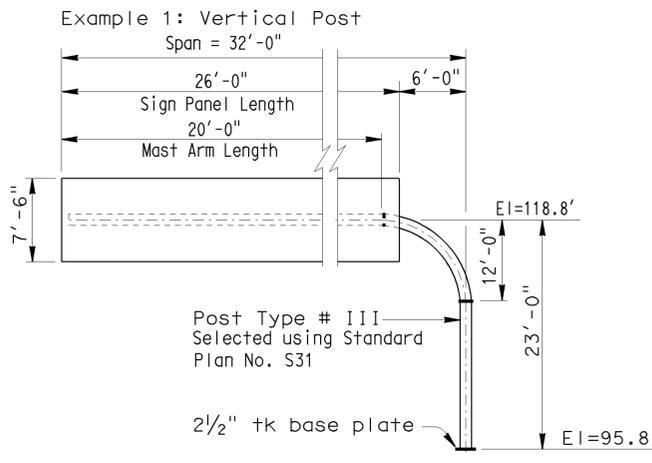
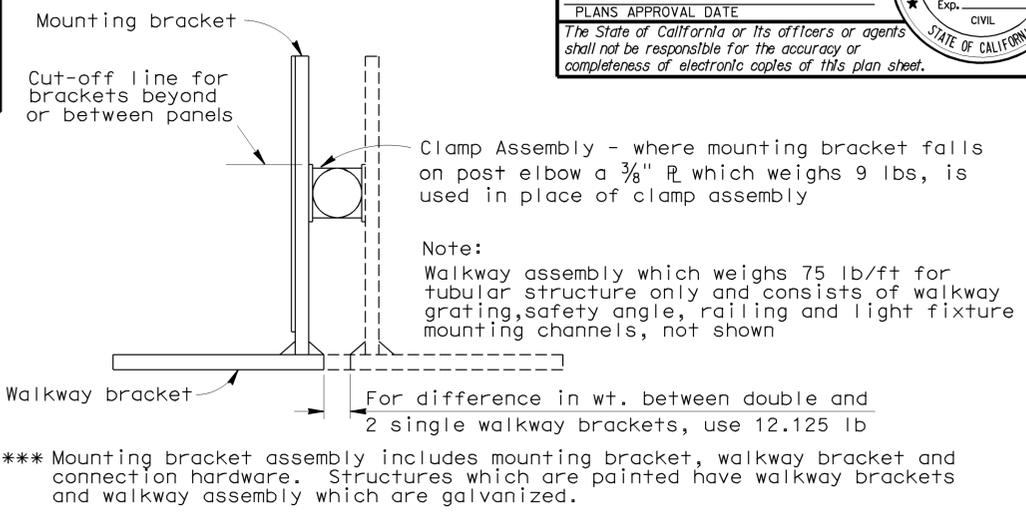


SLANTED POST OFFSET	
RADIUS	12'
"X"	9'-11"
"Y"	11'-10"
"Z" = "W" x .17632698	



MAST ARM QUANTITIES						
POST #	PIPE SPEC	FIELD SPLICE (ONE PAIR) (lb)	FIELD SPLICE BOLT & NUTS SET (lb)	1/4" END PLATE FOR CANTILEVER (lb)	3/4" SQUARE BAR ON MAST ARM (lb/ft)	MAST ARM PIPE (lb/ft)
I	20" NPS x 3/8" tk	337.3	37.47	44.09	1.909	78.62
II	24" NPS x 3/8" tk	798.1	79.36	44.09		94.61
III	24" NPS x 5/8" tk	798.1	79.36	59.52		94.61
IV	30" NPS x 3/8" tk	1,336	114.64	85.98		118.74
V	30" NPS x 5/8" tk	1,336	114.64	85.98		118.74
VI	30" NPS x 3/4" tk	1,336	114.64	85.98		118.74

MOUNTING BRACKET ASSEMBLY QUANTITIES (lb) / MOUNTING BRACKET									
POST #	PIPE SPEC	CLAMP ASSEMBLY (BEHIND THE PANELS) INCLUDE WT 4x20 lb/ft, RODS, 1/4" TRIANGULAR PLATE	MOUNTING BRACKET (INCLUDE VERTICAL CHANNEL C5x6.7 lb/ft, HORIZONTAL W5x16 lb/ft BOLTS & NUTS)						GUSSET SUPPORT AT ELBOW
			DEPTH OF SIGN PANEL, in						
			70	80	90	100	110	120	
I	20" NPS x 1/2" tk	72.7	99	104	110	117	121	128	9
II	24" NPS x 1/2" tk	77							
III	24" NPS x 5/8" tk	77							
IV	30" NPS x 1/2" tk	86							
V	30" NPS x 5/8" tk	86							
VI	30" NPS x 3/4" tk	86							



Note 1: For mounting configuration on post-side of field splice, see "DETAIL B" on Standard Plan S33. Plate used on elbow may be ignored in quantities.

SLANTED POST QUANTITIES (lb)								
POST #	PIPE SPEC	RADIUS (ft)	lb/ft	HEIGHT (ft) FROM BASE PLATE TO CENTER OF MAST ARM				
				21	23	25	27	29
I	20" NPS x 1/2" tk	12	104.09	2,921.10	3,132.74	3,346.58	3,558.22	3,769.87
II	24" NPS x 1/2" tk		125.46	3,520.75	3,778.68	4,034.42	4,287.95	4,543.68
III	24" NPS x 5/8" tk		155.96	4,376.13	4,695.80	5,013.26	5,330.72	5,648.19
IV	30" NPS x 1/2" tk		157.58	4,422.43	4,744.30	5,066.17	5,385.84	5,705.50
V	30" NPS x 5/8" tk		195.95	5,500.48	5,899.51	6,298.54	6,697.57	7,096.61
VI	30" NPS x 3/4" tk		233.91	6,565.30	7,043.70	7,519.89	7,996.08	8,472.28

VERTICAL POST QUANTITIES (lb)								
POST #	PIPE SPEC	RADIUS (ft)	lb/ft	HEIGHT (ft) FROM BASE PLATE TO CENTER OF MAST ARM				
				21	23	25	27	29
I	20" NPS x 1/2" tk	12	104.09	2,905.66	3,112.90	3,322.33	3,531.77	3,739.00
II	24" NPS x 1/2" tk		125.46	3,503.11	3,754.43	4,005.76	4,257.08	4,508.41
III	24" NPS x 5/8" tk		155.96	4,354.09	4,667.14	4,977.99	5,291.04	5,604.09
IV	30" NPS x 1/2" tk		157.58	4,398.18	4,713.43	5,030.90	5,346.16	5,661.41
V	30" NPS x 5/8" tk		195.95	5,469.61	5,866.63	6,256.65	6,649.07	7,041.49
VI	30" NPS x 3/4" tk		233.91	6,530.03	6,999.61	7,469.18	7,936.56	8,406.14

BASE PLATE	
POST #	WT (lb)
I	721
II	890.6
III	890.6
IV	1177
V	1177
VI	1413

GUSSETS AT BASE	
POST #	WT (lb)
I	150
II	150
III	150
IV	181
V	181
VI	181

WT OF ANCHOR BOLTS W/NUT A307	
POST #	lb @ EA POST TOTAL WT BOLTS & NUTS
I	780
II	996
III	996
IV	1140
V	1140
VI	1140

Anchor bolts A307, bolts & nuts = 996 lbs
 Base plate = 891 lbs
 Gussets at post & base plate = 150 lbs
 Post: Use table "VERTICAL POST QUANTITIES", post III data
 Right side: post III = 4,667.14 - (pipe length for 2 1/2" tk base plate) = 4,667.14 - (2 1/2"/12) x 155.96 = 4,635 lbs
 Mast arm:
 Length of mast arm = 20'-0"
 Weight = 20' x 94.61 lb/ft = 1,892 lbs
 Field splice plates (One pair) = 798 lbs
 Bolts & nuts = 79 lbs
 End plate for cantilever 3/4" square bar on mast arm = 60 lbs
 3/4" square bar on mast arm = 20' x 1.909 lb/ft = 38 lbs
 Mounting bracket assemblies: (See Note 1)
 No. of bracket = 26'/5.5 = 5 + 1 = 6 brackets
 Clamp assembly (Not at elbow) = 385 lbs
 Mounting brackets = 660 lbs
 Mounting bracket elbow = 9 lbs
 Walkway assembly:
 Total weight (26' x 75 lb/ft) = 1,950 lbs
 Subtotal: = 12,543 lbs
 Galvanized structure + 3.5% = 439 lbs
 Total weight: = 12,982 lbs

Anchor bolts A307, bolts & nuts = 996 lbs
 Base plate = 891 lbs
 Gussets at post & base plate = 150 lbs
 Post: Use table "SLANTED POST QUANTITIES", post III data
 Right side: post III = 4,695.80 - (pipe length for 2 1/2" tk base plate) = 4,695.80 - (2 1/2"/12) x 155.96 = 4,663 lbs
 Mast arm:
 Length of mast arm = 17'-11"
 Weight = 17.91' x 94.61 lb/ft = 1,694 lbs
 Field splice plate (One pair) = 798 lbs
 Bolts & nuts = 79 lbs
 End plate for cantilever 3/4" square bar on mast arm = 60 lbs
 3/4" square bar on mast arm = 17.91' x 1.909 lb/ft = 34 lbs
 Mounting bracket assemblies: (See Note 1)
 No. of bracket = 26'/5.5 = 5 + 1 (See Note 1) = 6 brackets
 Clamp assembly (Not at elbow) = 385 lbs
 Mounting brackets = 660 lbs
 Gusset support at elbow = 9 lbs
 Walkway assembly:
 Total weight (26' x 75 lb/ft) = 1,950 lbs
 Subtotal: = 12,369 lbs
 Galvanized structure + 3.5% = 433 lbs
 Total weight: = 12,802 lbs

ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE SHOWN

THIS SHEET NOT A PART OF CONTRACT PLANS

OVERHEAD SIGNS - TUBULAR SINGLE POST TYPE

QUANTITIES **16**