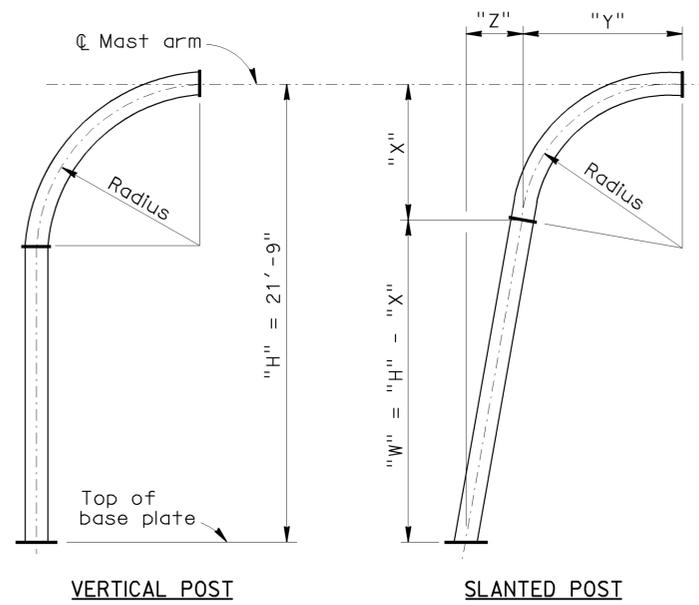
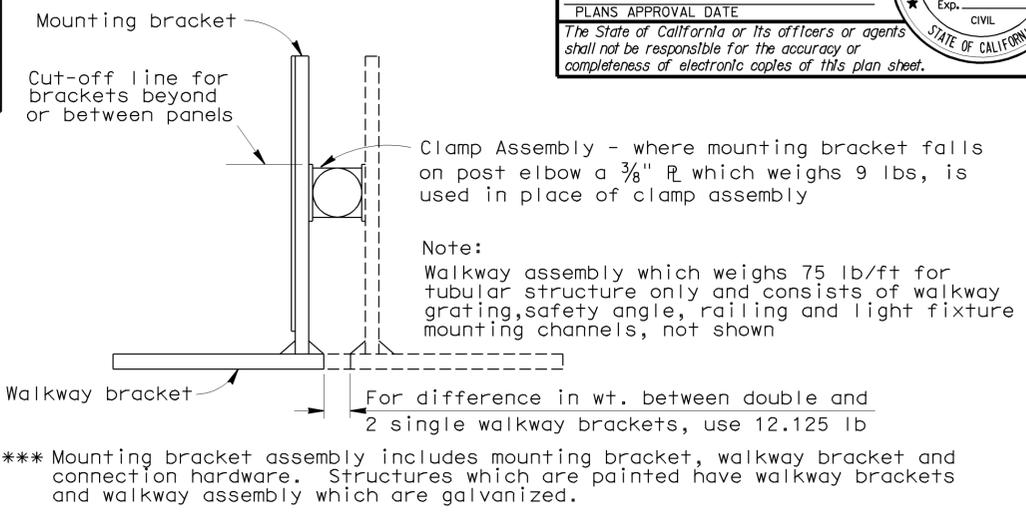


SLANTED POST OFFSET	
RADIUS	12'
"X"	9'-11"
"Y"	11'-10"
"Z" = "W" x .17632698	



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							



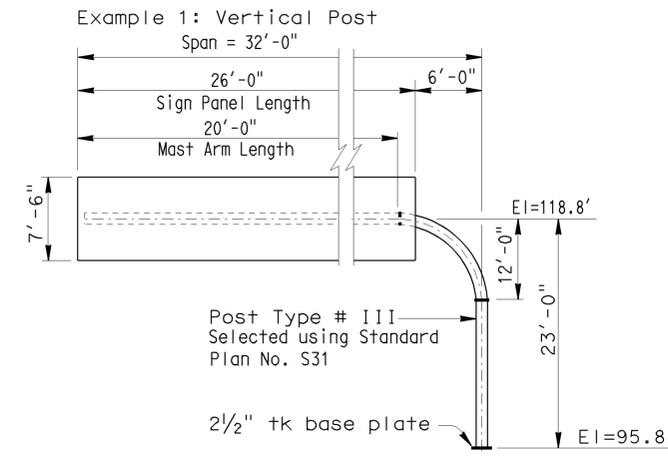
SLANTED POST QUANTITIES (lb)								
POST #	PIPE SPEC	RADIUS (ft)	lb/ft	HEIGHT (ft) FROM BASE PLATE TO CENTER OF MAST ARM				
				21	23	25	27	29
I	20" NPS x 1/2" tk	12	104.09	2,921.10	3,132.74	3,346.58	3,558.22	3,769.87
II	24" NPS x 1/2" tk		125.46	3,520.75	3,778.68	4,034.42	4,287.95	4,543.68
III	24" 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

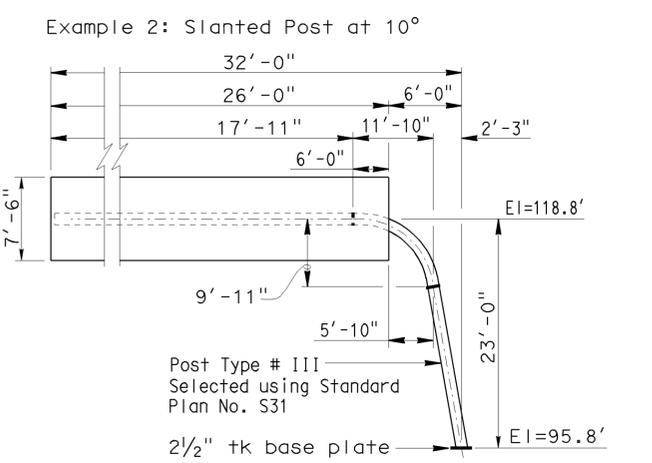
Mounting bracket assemblies: (See Note 1)
No. of bracket = 26'/5.5 = 5 + 1 = 6 brackets = 6 brackets
Clamp assembly (Not at elbow) = 385 lbs
Mounting brackets = 660 lbs
Mounting bracket elbow = 9 lbs

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 = 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

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.

ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE SHOWN

THIS SHEET NOT A PART OF CONTRACT PLANS

OVERHEAD SIGNS - TUBULAR SINGLE POST TYPE

QUANTITIES	16
-------------------	-----------