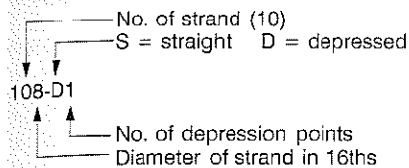


**Strand Pattern Designation**



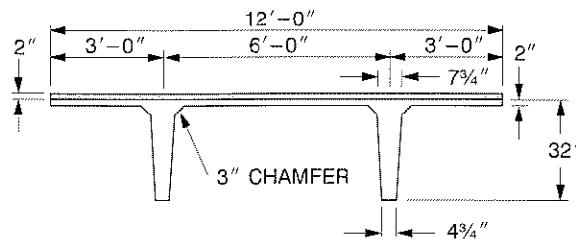
Safe loads shown include dead load of 10 psf for untopped members and 15 psf for topped members. Remainder is live load. Long-time cambers include superimposed dead load but do not include live load.

**Key**

- 180 — Safe superimposed service load, psf
- 1.0 — Estimated camber at erection, in.
- 1.3 — Estimated long-time camber, in.

**DOUBLE TEE**

**12'-0" x 32"**  
**Normal Weight Concrete**



$f'_c = 5,000$  psi  
 $f_{pu} = 270,000$  psi

**Section Properties**

	Untopped	Topped
A	= 690 in <sup>2</sup>	—
I	= 64,620 in <sup>4</sup>	82,413 in <sup>4</sup>
y <sub>b</sub>	= 22.75 in.	25.25 in.
y <sub>t</sub>	= 9.25 in.	8.75 in.
S <sub>b</sub>	= 2,840 in <sup>3</sup>	3,264 in <sup>3</sup>
S <sub>t</sub>	= 6,986 in <sup>3</sup>	9,421 in <sup>3</sup>
wt	= 719 plf	1,019 plf
V/S	= 60 psf	85 psf
		1.70 in.

**12DT32**

**Table of safe superimposed service load (psf) and cambers (in.)**

**No Topping**

Strand Pattern	e <sub>e</sub> , in. e <sub>c</sub> , in.	Span, ft																						
		40	42	44	46	48	50	52	54	56	58	60	62	64	66	68	70	72	74	76	78	80	82	84
128-D1	11.08	180	159	142	126	112	100	89	80	71	63	56	49	43	38	33	29							
	19.50	1.0	1.0	1.1	1.1	1.1	1.2	1.2	1.2	1.2	1.2	1.1	1.1	1.0	0.9	0.8	0.6							
		1.3	1.4	1.5	1.5	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.5	1.4	1.3	1.2	1.0	0.8						
148-D1	9.89	189	169	151	136	122	109	98	88	79	71	64	57	51	45	40	35	31	27					
	19.25	1.2	1.2	1.3	1.4	1.4	1.5	1.5	1.5	1.5	1.5	1.5	1.4	1.3	1.3	1.2	1.0	0.8	0.7					
		1.6	1.7	1.8	1.9	1.9	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.8	1.7	1.5	1.3	1.1	0.8					
168-D1	9.75				160	144	130	117	106	96	87	78	71	64	57	51	46	41	37	32	28			
	19.00				1.6	1.6	1.7	1.8	1.8	1.9	1.9	1.9	1.9	1.8	1.8	1.7	1.6	1.5	1.3	1.2	0.9			
					2.2	2.3	2.3	2.4	2.5	2.5	2.5	2.5	2.4	2.4	2.3	2.2	2.1	1.9	1.7	1.5	1.1			
188-D1	8.36									110	100	91	83	75	68	62	56	50	45	41	36	32		
	18.75									2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.0	1.9	1.8	1.6	1.4	1.2		
										2.8	2.8	2.9	2.9	2.8	2.8	2.7	2.6	2.4	2.3	2.1	1.8	1.5		
208-D1	7.25														86	78	71	65	59	54	49	44	39	
	18.50														2.4	2.4	2.4	2.3	2.3	2.2	2.1	1.9	1.7	
															3.2	3.2	3.1	3.0	2.9	2.8	2.6	2.4	2.1	
228-D1	6.34																	68	62	56	51	46		
	18.25																	2.6	2.5	2.5	2.3	2.2		
																		3.4	3.3	3.1	2.9	2.7		

**12DT32+2**

**Table of safe superimposed service load (psf) and cambers (in.)**

**2" Normal Weight Topping**

Strand Pattern	e <sub>e</sub> , in. e <sub>c</sub> , in.	Span, ft																						
		40	42	44	46	48	50	52	54	56	58	60	62	64	66	68	70	72	74	76	78	80	82	84
128-D1	11.08	199	174	152	133	117	102	89	78	67	58	50	42	35	29									
	19.50	0.9	1.0	1.0	1.1	1.1	1.1	1.2	1.2	1.2	1.2	1.2	1.1	1.1	1.0									
		1.0	1.1	1.1	1.1	1.1	1.0	1.0	0.9	0.8	0.7	0.5	0.3	0.1										
148-D1	9.89	184	162	143	127	112	99	87	76	67	58	50	43	36	30									
	19.25	1.2	1.2	1.3	1.4	1.4	1.5	1.5	1.5	1.5	1.5	1.5	1.4	1.3	1.3									
		1.3	1.3	1.3	1.4	1.3	1.3	1.3	1.2	1.1	0.9	0.8	0.6	0.4	0.1									
168-D1	9.75				152	135	120	107	95	84	74	65	57	50	43	37	31	26						
	19.00				1.6	1.6	1.7	1.8	1.8	1.9	1.9	1.9	1.9	1.8	1.8	1.7	1.6	1.5						
					1.6	1.7	1.7	1.6	1.6	1.5	1.5	1.3	1.1	0.9	0.7	0.4	0.1	-0.2						
188-D1	8.36									100	89	79	70	62	55	48	42	36	30	25				
	18.75									2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.0	1.9	1.8	1.6				
										1.8	1.7	1.6	1.5	1.3	1.1	0.9	0.6	0.2	-0.1	-0.6				
208-D1	7.25														74	66	58	51	45	39	33	28		
	18.50														2.4	2.4	2.4	2.3	2.3	2.2	2.1	1.9		
															1.7	1.5	1.3	1.0	0.7	0.4	-0.1	-0.5		
228-D1	6.34																	54	48	41	35	28		
	18.25																	2.6	2.5	2.5	2.3	2.2		
																		1.1	0.8	0.4	0.0	-0.5		

Strength based on strain compatibility; bottom tension limited to  $12\sqrt{f'_c}$ ; see pages 2-2-2-6 for explanation. Shaded values require release strengths higher than 3500 psi.