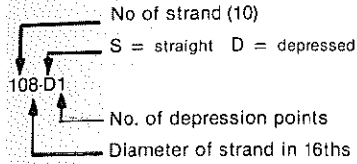


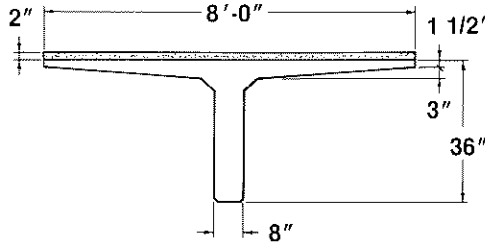
# SINGLE TEE

## 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.

8'-0" x 36"  
Normal Weight Concrete



## Section Properties

	Untopped	Topped
A	= 570 in. <sup>2</sup>	—
I	= 68,917 in. <sup>4</sup>	83,212 in. <sup>4</sup>
Y <sub>b</sub>	= 26.01 in.	28.28 in.
Y <sub>t</sub>	= 9.99 in.	9.72 in.
Z <sub>b</sub>	= 2650 in. <sup>3</sup>	2942 in. <sup>3</sup>
Z <sub>t</sub>	= 6899 in. <sup>3</sup>	8561 in. <sup>3</sup>
wt	= 594 plf	794 plf
	74 psf	99 psf
V/S	= 2.16 in.	

## Key

- 156 — Safe superimposed service load, psf
- 1.6 — Estimated camber at erection, in.
- 2.0 — Estimated long-time camber, in.

$f'_c = 5000$  psi  
 $f_{pu} = 270,000$  psi  
Low-relaxation strand

**8ST36**

Table of safe superimposed service load (psf) and cambers

No Topping

Strand Pattern	e <sub>s</sub> e <sub>c</sub>	Span, ft.																							
		56	58	60	62	64	66	68	70	72	74	76	78	80	82	84	86	88	90	92	94	96	98	100	
128-D1	12.68	156	141	128	116	105	95	86	78	71	64	57	51	46	41										
	22.76	1.6	1.7	1.7	1.8	1.8	1.8	1.8	1.8	1.8	1.7	1.6	1.6	1.4	1.3										
148-D1	10.29	185	168	153	140	127	116	106	97	88	80	73	66	60	54	49	44								
	22.51	1.8	1.9	1.9	2.0	2.0	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.0	1.9	1.8	1.6								
168-D1	8.51								125	115	105	97	89	81	74	68	62	56	51	46					
	22.26								2.4	2.4	2.5	2.5	2.5	2.5	2.4	2.4	2.3	2.2	2.1	1.9					
188-D1	7.12											88	81	74	68	62	57	52							
	22.01											2.8	2.8	2.7	2.7	2.6	2.5	2.3							
208-D1	6.01																	73	67	62	57	52	48		
	21.76																	3.0	3.0	2.8	2.7	2.5	2.3		
228-D1	5.11																						61	56	52
	21.51																						3.1	2.9	2.7

**8ST36 + 2**

Table of safe superimposed service load (psf) and cambers

2" Normal Weight Topping

Strand Pattern	e <sub>s</sub> e <sub>c</sub>	Span, ft.																							
		50	52	54	56	58	60	62	64	66	68	70	72	74	76	78	80	82							
108-D1	16.41	165	147	130	116	102	90	80	70	61	53														
	23.01	1.3	1.3	1.4	1.4	1.4	1.4	1.5	1.5	1.5	1.4	1.4													
128-D1	12.68	183	164	147	132	118	105	94	84	74	66	58	50												
	27.76	1.5	1.6	1.6	1.7	1.7	1.8	1.8	1.8	1.8	1.8	1.8	1.7												
148-D1	10.29				178	160	144	130	117	106	95	85	76	68	60										
	22.51				1.8	1.9	1.9	2.0	2.0	2.1	2.1	2.1	2.2	2.2	2.1										
168-D1	8.51										115	104	94	85	76	69	61								
	22.26										2.4	2.4	2.5	2.5	2.5	2.5	2.4								
188-D1	7.13																	75	68						
	22.01																	2.8	2.8						

Strength based on strain compatibility; bottom tension limited to  $12\sqrt{f'_c}$ ; see pages 2-3-2-5 for explanation  
Values below heavy line require release strengths higher than 3500 psi.