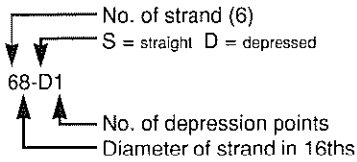


**Strand Pattern Designation**



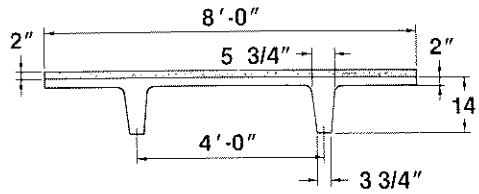
Safe loads shown include dead load of 10 psf for untopped members and 15 psf for topped members. Remainder is live load. Long-time cambers include superimposed dead load but do not include live load.

**Key**

- 176 — Safe superimposed service load, psf
- 0.2 — Estimated camber at erection, in.
- 0.3 — Estimated long-time camber, in.

**DOUBLE TEE**

**8'-0" x 14"**  
**Lightweight Concrete**



**Section Properties**

	Untopped	Topped
A	306 in. <sup>2</sup>	—
I	4,508 in. <sup>4</sup>	7,173 in. <sup>4</sup>
y <sub>b</sub>	10.51 in.	12.40 in.
y <sub>t</sub>	3.40 in.	3.60 in.
Z <sub>b</sub>	429 in. <sup>3</sup>	578 in. <sup>3</sup>
Z <sub>t</sub>	1,292 in. <sup>3</sup>	1,992 in. <sup>3</sup>
wt	244 plf	444 plf
	31 psf	56 psf
V/S	1.25 in.	

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

**8LDT14**

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

**No Topping**

Strand Pattern	e <sub>e</sub> e <sub>c</sub>	Span, ft.																
		14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46
28-S	8.51	176	142	110	85	66	52	41	32									
	8.51	0.2	0.3	0.4	0.4	0.5	0.5	0.5	0.5									
48-S	7.51				173	139	113	93	77	64	53	45	37	31				
	7.51				0.8	1.0	1.1	1.2	1.4	1.5	1.6	1.7	1.7	1.7				
68-S	4.51				186	150	122	100	83	70	58	49	41	35				
	4.51				0.7	0.9	1.0	1.1	1.2	1.3	1.3	1.4	1.4	1.3				
68-D1	4.51									109	93	80	69	59	51	44	38	33
	8.01									2.1	2.3	2.5	2.7	2.8	2.9	3.0	3.1	3.0

**8LDT14 + 2**

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

**2" Normal Weight Topping**

Strand Pattern	e <sub>e</sub> e <sub>c</sub>	Span, ft.																
		14	16	18	20	22	24	26	28	30	32	34	36	38	40	42		
28-S	8.51	189	149	112	83	61	44	31										
	8.51	0.2	0.3	0.4	0.4	0.5	0.5	0.5										
48-S	7.51				187	147	117	93	74	59	47	36						
	7.51				0.8	1.0	1.1	1.2	1.4	1.5	1.6	1.7						
68-S	4.51				170	136	109	88	71	58	46							
	4.51				0.9	1.0	1.1	1.2	1.3	1.3	1.4							
68-D1	4.51									112	93	77	64	53	44	33		
	8.01									2.1	2.3	2.5	2.7	2.8	2.9	3.0		

Strength based on strain compatibility; bottom tension limited to  $12\sqrt{f'_c}$ ; see pages 2-3-2-6 for explanation. Shaded values require release strengths higher than 3500 psi.