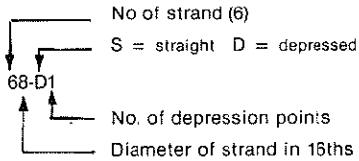


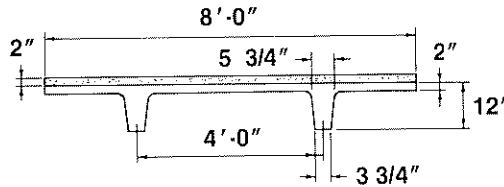
DOUBLE TEE

8'-0" x 12"
Lightweight Concrete

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.



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

Section Properties

	Untopped	Topped
A =	287 in. ²	—
I =	2872 in. ⁴	4819 in. ⁴
$Y_b =$	9.13 in.	10.82 in.
$Y_t =$	2.87 in.	3.18 in.
$Z_b =$	315 in. ³	445 in. ³
$Z_t =$	1001 in. ³	1515 in. ³
wt =	229 plf	429 plf
	29 psf	54 psf
V/S =	1.22 in.	

Key

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

8LDT12

Table of safe superimposed service load (psf) and cambers

No Topping

Strand Pattern	e_e e_c	Span, ft.															
		12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42
28-S	7.13	186	144	116	89	68	52	40	31								
	7.13	0.2	0.3	0.4	0.5	0.6	0.6	0.7	0.7								
48-S	5.13		195	150	118	93	75	61	49	40	33						
	5.13		0.6	0.7	0.9	1.0	1.1	1.2	1.3	1.3	1.4						
68-S	3.13			166	131	104	84	68	56	46	38	31					
	3.13			0.6	0.8	0.9	1.0	1.0	1.1	1.1	1.1	1.0					
68-D1	3.13										71	60	51	44	37	32	
	6.63										2.6	2.8	3.0	3.1	3.2	3.2	

8LDT12+2

Table of safe superimposed service load (psf) and cambers

2" Normal Weight Topping

Strand Pattern	e_e e_c	Span, ft.												
		14	16	18	20	22	24	26	28	30	32	34	36	38
28-S	7.13	157	123	90	65	47	32							
	7.13	0.3	0.4	0.5	0.5	0.6	0.6							
48-S	5.13		172	131	101	78	61	47	35					
	5.13		0.7	0.9	1.0	1.1	1.2	1.3	1.3					
68-S	3.13			158	124	97	77	60	47					
	3.13			0.8	0.9	1.0	1.0	1.1	1.1					
68-D1	3.13									71	58	46	33	
	6.63									2.6	2.8	3.0	3.1	

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.