

DOUBLE TEE

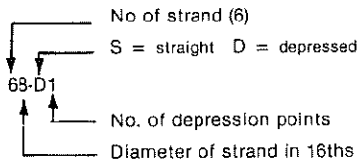
8'-0" x 16"
Lightweight Concrete

Section Properties

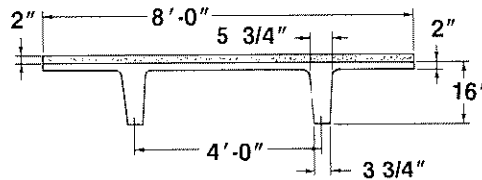
Untopped Topped

A =	325 in. ²	—
I =	6634 in. ⁴	10,094 in. ⁴
Y _b =	11.93 in.	13.99 in.
Y _t =	4.07 in.	4.01 in.
Z _b =	556 in. ³	721 in. ³
Z _t =	1630 in. ³	2517 in. ³
wt =	260 plf	460 plf
	33 psf	58 psf
V/S =	1.29 in.	

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

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

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

8LDT16

Table of safe superimposed service load (psf) and cambers

No Topping

Strand Pattern	e_e e_c	Span, ft.																					
		16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54	56	
28-S	9.93	168	130	101	79	62	50	39	31														
	9.93	0.3	0.3	0.4	0.4	0.4	0.5	0.5	0.5														
48-S	8.93				165	135	111	92	77	65	55	46	39	33									
	8.93				0.8	0.9	1.1	1.2	1.3	1.4	1.5	1.5	1.6	1.6									
68-S	5.93				190	156	129	108	91	77	65	55	47	40	34								
	5.93				0.8	0.9	1.0	1.2	1.3	1.4	1.4	1.5	1.5	1.5	1.5								
68-D1	5.93							181	153	130	111	96	83	72	62	54	47	41	36	31			
	9.43							1.4	1.6	1.8	2.0	2.2	2.4	2.5	2.7	2.8	2.8	2.9	2.9	2.8			
88-D1	3.93																58	51	45	40	35	31	
	9.18																3.7	3.8	3.9	3.9	3.9	3.8	

8LDT16 + 2

Table of safe superimposed service load (psf) and cambers

2" Normal Weight Topping

Strand Pattern	e_e e_c	Span, ft.																			
		16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48			
28-S	9.93	175	132	98	74	55	40														
	9.93	0.2	0.3	0.3	0.4	0.4	0.4														
48-S	8.93				172	137	111	89	72	58	46	36									
	8.93				0.8	0.9	1.1	1.2	1.3	1.4	1.5	1.5									
68-S	5.93				169	138	113	92	76	62	50	41									
	5.93				0.9	1.0	1.2	1.3	1.4	1.4	1.5	1.5									
68-D1	5.93							192	159	133	111	93	79	66	55	46	38				
	9.43							1.4	1.6	1.8	2.0	2.2	2.4	2.5	2.7	2.8	2.8				
88-D1	3.93																51	41			
	9.18																3.7	3.8			

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.