

DOUBLE TEE

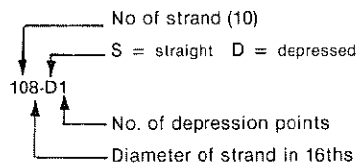
8'-0" x 24"
Lightweight Concrete

Section Properties

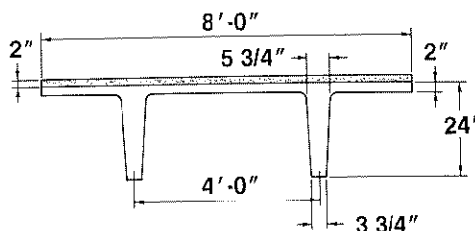
Untopped Topped

A =	401 in. ²	—
I =	20,985 in. ⁴	29,853 in. ⁴
Y _b =	17.15 in.	19.94 in.
Y _t =	6.85 in.	6.06 in.
Z _b =	1224 in. ³	1497 in. ³
Z _t =	3063 in. ³	4926 in. ³
wt =	320 plf	520 plf
	40 psf	65 psf
V/S =	1.41 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

- 116 — Safe superimposed service load, psf
- 1.1 — Estimated camber at erection, in.
- 1.4 — Estimated long-time camber, in.

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

8LDT24

Table of safe superimposed service load (psf) and cambers

No Topping

Strand Pattern	e_e e_c	Span, ft.																							
		36	38	40	42	44	46	48	50	52	54	56	58	60	62	64	66	68	70	72	74	76	78	80	
68-S	11.15	116	101	88	77	67	59	52	45	39	34	30													
	11.15	1.1	1.2	1.3	1.4	1.4	1.4	1.4	1.4	1.4	1.3	1.3													
88-S	9.15	141	123	108	95	84	74	66	58	51	45	40	35	31											
	9.15	1.2	1.3	1.4	1.5	1.6	1.6	1.6	1.7	1.7	1.6	1.6	1.5	1.4											
88-D1	9.15	197	173	153	136	121	101	97	87	78	70	63	57	51	46	41	37	33	29						
	14.40	1.8	1.9	2.1	2.2	2.4	2.5	2.7	2.8	2.9	3.0	3.0	3.1	3.1	3.0	3.0	2.9	2.8	2.6						
108-D1	7.15								111	100	91	82	74	68	61	56	50	46	41	37	34	30			
	14.15								3.3	3.4	3.6	3.7	3.8	3.9	4.0	4.1	4.1	4.0	3.9	3.8	3.6	3.4			
128-D1	5.48																63	58	53	48	44	40	37	33	
	13.90																4.8	4.9	4.9	4.8	4.7	4.5	4.3		
148-D1	4.29																						46	42	
	13.65																						5.6	5.5	

8LDT24 + 2

Table of safe superimposed service load (psf) and cambers

2" Normal Weight Topping

Strand Pattern	e_e e_c	Span, ft.																							
		26	28	30	32	34	36	38	40	42	44	46	48	50	52	54	56	58	60	62					
48-S	14.15	190	157	130	108	90	75	62	51	42	33														
	14.15	0.6	0.7	0.7	0.8	0.8	0.9	0.9	1.0	1.0	1.0														
68-S	11.15			181	153	130	110	94	80	68	57	48	40	33											
	11.15			0.9	1.0	1.1	1.2	1.2	1.3	1.4	1.4	1.4	1.4	1.4											
88-S	9.15				191	163	140	121	104	90	77	66	57	48	41										
	9.15				1.1	1.2	1.2	1.3	1.4	1.5	1.6	1.6	1.6	1.7	1.7										
68-D1	11.15				190	163	140	120	103	89	77	66	56	48	40	34									
	14.65				1.2	1.2	1.4	1.6	1.7	1.8	1.9	1.9	2.0	2.0	2.1	2.1									
88-D1	9.15					196	171	149	131	115	101	88	77	68	59	51	44	38							
	14.40					1.8	1.9	2.1	2.2	2.4	2.5	2.7	2.8	2.9	3.0	3.0	3.1	3.1							
108-D1	7.15													104	92	82	72	64	56	50	43				
	14.15													3.3	3.4	3.6	3.7	3.8	3.9	4.0	4.1				

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.