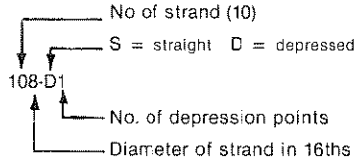


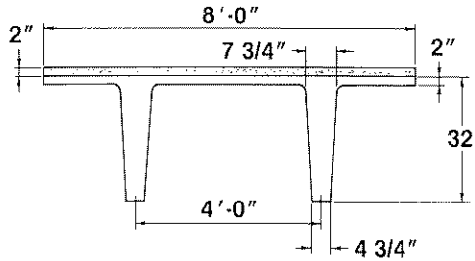
# DOUBLE TEE

## 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 32"  
Lightweight Concrete



## Section Properties

	Untopped	Topped
A =	567 in. <sup>2</sup>	—
I =	55,464 in. <sup>4</sup>	77,617 in. <sup>4</sup>
Y <sub>b</sub> =	21.21 in.	24.55 in.
Y <sub>t</sub> =	10.79 in.	9.45 in.
Z <sub>b</sub> =	2615 in. <sup>3</sup>	3167 in. <sup>3</sup>
Z <sub>t</sub> =	5140 in. <sup>3</sup>	8213 in. <sup>3</sup>
wt =	453 plf	653 plf
	57 psf	82 psf
V/S =	1.79 in.	

## Key

- 147 — Safe superimposed service load, psf
- 2.7 — Estimated camber at erection, in.
- 3.2 — Estimated long-time camber, in.

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

### 8LDT32

Table of safe superimposed service load (psf) and cambers

No Topping

Strand Pattern	$e_e$ $e_c$	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	12.04	147	134	122	112	102	93	85	78	71	65	59	54	49	45	40	37	33						
	17.96	2.7	2.7	2.6	2.9	2.9	3.0	3.0	3.0	3.0	2.9	2.8	2.7	2.6	2.5	2.3	2.0	1.8						
		3.2	3.3	3.3	3.3	3.3	3.2	3.1	3.0	2.9	2.8	2.6	2.3	2.0	1.7	1.3	0.8	0.2						
148-D1	9.71	173	158	145	133	122	112	103	94	87	80	73	67	62	57	52	47	43	39	36				
	17.71	2.9	2.9	3.1	3.2	3.3	3.4	3.5	3.6	3.6	3.5	3.5	3.4	3.3	3.2	3.1	2.9	2.7	2.4	2.1				
		3.6	3.5	3.8	3.8	3.9	3.9	3.9	3.8	3.7	3.5	3.3	3.1	2.8	2.5	2.2	1.8	1.4	0.8	0.3				
168-D1	8.21	182	167	153	141	130	120	111	102	94	87	80	74	69	63	58	54	49	45	41	38			
	17.46	2.9	2.9	3.1	3.2	3.3	3.4	3.5	4.0	4.0	4.1	4.1	4.1	4.0	3.9	3.7	3.6	3.4	3.1	2.8	2.5			
		4.1	4.2	4.3	4.4	4.5	4.5	4.5	4.5	4.4	4.3	4.2	4.0	3.8	3.5	3.1	2.7	2.3	1.9	1.4	0.8	0.1		
188-D1	6.82							126	117	108	100	93	86	80	74	68	63	59	54	50	46	42		
	17.21							4.3	4.4	4.5	4.6	4.6	4.6	4.6	4.5	4.5	4.4	4.2	4.0	3.7	3.4	3.1		
								5.0	5.0	5.0	4.9	4.7	4.6	4.3	4.1	3.7	3.3	2.8	2.2	1.7	1.1	0.4		
208-D1	5.71													98	91	84	78	73	67	62	57	52	48	
	16.96													5.1	5.1	5.1	5.0	4.9	4.7	4.5	4.3	4.0		
														5.3	5.1	4.9	4.6	4.2	3.8	3.3	2.8	2.1	1.4	
228-D1	4.80																	81	75	69	64	59	54	50
	16.71																	5.5	5.5	5.4	5.2	5.0	4.8	4.5
																		5.1	4.7	4.3	3.8	3.2	2.6	1.8

### 8LDT32 + 2

Table of safe superimposed service load (psf) and cambers

2" Normal Weight Topping

Strand Pattern	$e_e$ $e_c$	Span, ft.																					
		46	48	50	52	54	56	58	60	62	64	66	68	70	72	74	76	78	80	82			
108-D1	15.31	190	169	151	135	135	120	107	96	85	76	67	59	52									
	18.21	1.8	1.8	2.0	2.1	2.1	2.2	2.3	2.3	2.4	2.4	2.4	2.4	2.4									
		1.8	1.7	1.9	1.9	1.8	1.8	1.7	1.7	1.6	1.4	1.2	1.0	0.8									
128-D1	12.04			191	171	154	139	125	113	101	91	82	73	66	58								
	17.96			2.3	2.4	2.4	2.7	2.7	2.8	2.9	2.9	3.0	3.0	3.0	3.0								
				2.2	2.2	2.2	2.3	2.2	2.1	2.0	1.8	1.6	1.4	1.1	0.8								
148-D1	9.71				183	166	150	136	123	112	101	92	83	75	67								
	17.71				2.8	2.9	2.9	3.1	3.2	3.3	3.4	3.5	3.6	3.6	3.5								
					2.6	2.6	2.4	2.5	2.5	2.4	2.2	2.0	1.8	1.5	1.1								
168-D1	8.21						175	159	145	132	120	110	100	91	83	75	68						
	17.46						3.3	3.4	3.6	3.7	3.8	3.9	4.0	4.0	4.1	4.1	4.1						
							3.0	3.0	2.9	2.8	2.7	2.6	2.4	2.1	1.8	1.5	1.1						
188-D1	6.82													116	106	97	88	81	73				
	17.21													4.3	4.4	4.5	4.6	4.6	4.6				
														2.9	2.7	2.4	2.1	1.7	1.3				
208-D1	5.71																			85	78		
	16.96																			5.1	5.1		
																				1.9	1.5		

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.