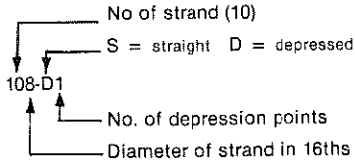
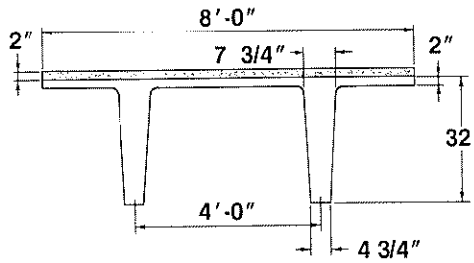


# DOUBLE TEE

## Strand Pattern Designation



8'-0" x 32"  
Normal Weight Concrete



## Section Properties

	Untopped	Topped
A =	567 in. <sup>2</sup>	—
I =	55,464 in. <sup>4</sup>	71,886 in. <sup>4</sup>
Y <sub>b</sub> =	21.21 in.	23.66 in.
Y <sub>t</sub> =	10.79 in.	10.34 in.
Z <sub>b</sub> =	2615 in. <sup>3</sup>	3038 in. <sup>3</sup>
Z <sub>t</sub> =	5140 in. <sup>3</sup>	6952 in. <sup>3</sup>
wt =	591 plf	791 plf
	74 psf	99 psf
V/S =	1.79 in.	

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

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

f'<sub>c</sub> = 5000 psi  
f<sub>pu</sub> = 270,000 psi  
Low-relaxation strand

**8DT32**

Table of safe superimposed service load (psf) and cambers

No Topping

Strand Pattern	e <sub>e</sub> e <sub>c</sub>	Span, ft.																						
		50	52	54	56	58	60	62	64	66	68	70	72	74	76	78	80	82	84	86	88	90	92	94
128-D1	12.04	182	164	147	133	120	108	98	88	79	71	64	57	51	45	40								
	17.96	1.4	1.5	1.5	1.5	1.6	1.6	1.6	1.5	1.5	1.5	1.4	1.3	1.2	1.0	0.8								
148-D1	9.71		193	175	159	144	131	119	108	98	89	80	73	66	59	53	48	42						
	17.71		1.6	1.7	1.7	1.8	1.8	1.9	1.9	1.8	1.8	1.8	1.7	1.6	1.5	1.3	1.2	1.0						
168-D1	8.21			184	168	153	139	127	116	106	97	88	80	73	66	60	54	49	44					
	17.46			1.9	2.0	2.0	2.1	2.1	2.1	2.2	2.1	2.1	2.0	2.0	1.8	1.7	1.5	1.3	1.1					
188-D1	6.82				174	159	146	133	122	112	103	94	86	79	72	66	60	54	49					
	17.21				2.2	2.3	2.3	2.4	2.4	2.4	2.4	2.4	2.3	2.3	2.2	2.0	1.8	1.6	1.4					
208-D1	5.71										127	117	107	99	91	83	77	70	64	59	54	49		
	16.96										2.6	2.7	2.7	2.6	2.6	2.5	2.4	2.3	2.1	1.9	1.7	1.4		
228-D1	4.80															103	95	87	80	74	67	62	57	52
	16.71															2.9	2.8	2.8	2.7	2.5	2.4	2.2	2.0	1.7

**8DT32 + 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.																					
		44	46	48	50	52	54	56	58	60	62	64	66	68	70	72	74	76	78	80			
108-D1	15.31	200	176	155	137	121	106	93	81	71	61	53	45										
	18.21	1.1	1.1	1.2	1.2	1.2	1.3	1.3	1.3	1.3	1.2	1.2	1.1										
128-D1	12.04			198	176	157	140	125	111	98	87	77	68	59									
	17.96			1.3	1.4	1.5	1.5	1.6	1.6	1.6	1.5	1.5	1.5										
148-D1	9.71				188	169	152	136	122	109	98	87	78	69	61								
	17.71				1.6	1.7	1.7	1.8	1.8	1.9	1.9	1.8	1.8	1.8	1.7								
168-D1	8.21					198	178	161	145	131	118	106	96	86	77	68							
	17.46					1.8	1.9	2.0	2.0	2.1	2.1	2.1	2.2	2.1	2.1	2.0							
188-D1	6.82									167	151	137	124	112	101	92	83	74	66				
	17.21									2.2	2.3	2.3	2.4	2.4	2.4	2.4	2.3	2.3					
208-D1	5.71															117	106	96	87	79	71		
	16.96															2.6	2.7	2.7	2.6	2.6	2.5		

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.