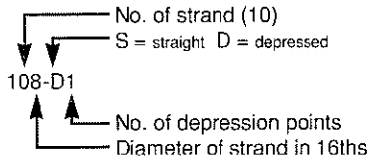


Strand Pattern Designation



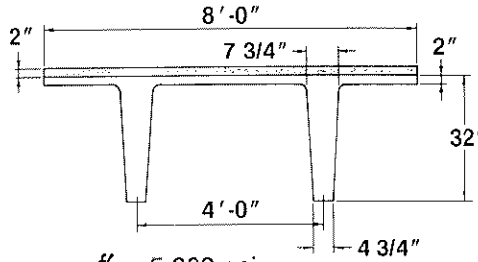
Safe loads shown include dead load of 10 psf for untopped members and 15 psf for topped members. Remainder is live load. Long-time cambers include superimposed dead load but do not include live load.

Key

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

DOUBLE TEE

8'-0" x 32"
Lightweight Concrete



$f'_c = 5,000$ psi
 $f_{pu} = 270,000$ psi

Section Properties

Untopped Topped

Λ	=	567 in. ²	—
I	=	55,464 in. ⁴	77,617 in. ⁴
y_b	=	21.21 in.	24.55 in.
y_t	=	10.79 in.	9.45 in.
Z_b	=	2,615 in. ³	3,162 in. ³
Z_t	=	5,140 in. ³	8,213 in. ³
wt	=	453 plf	653 plf
		57 psf	82 psf
V/S	=	1.79 in.	

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	150	137	125	114	105	96	88	80	73	67	61	56	51	46	42	38	34							
	17.96	2.6	2.7	2.8	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.8	2.7	2.6	2.4	2.2	2.0	1.7							
148-D1	9.71	176	161	148	136	125	114	105	97	89	82	75	69	64	58	53	49	45	41	37					
	17.71	2.9	3.0	3.1	3.2	3.3	3.4	3.5	3.5	3.5	3.5	3.4	3.3	3.2	3.1	2.9	2.7	2.4	2.1						
168-D1	8.21	185	170	157	144	133	123	113	104	97	89	82	76	70	65	60	55	51	47	43	39				
	17.46	3.3	3.4	3.6	3.7	3.8	3.9	4.0	4.0	4.1	4.1	4.1	4.1	4.0	3.9	3.7	3.6	3.4	3.1	2.8	2.5				
188-D1	6.82								129	119	110	102	95	88	82	76	70	64	59	54	50	47	44		
	17.21								4.3	4.4	4.5	4.6	4.6	4.6	4.6	4.5	4.4	4.2	4.0	3.7	3.4	3.1			
208-D1	5.71								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		
	16.96													100	92	85	79	73	67	62	57	52	48	44	
228-D1	4.80																								
	16.71																		81	75	69	64	59	54	50

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	84	86		
108-D1	15.31	194	173	155	138	123	110	98	88	78	69	61	54	47	41									
	18.21	1.8	1.8	2.0	2.1	2.2	2.2	2.3	2.3	2.4	2.4	2.4	2.4	2.4	2.3									
128-D1	12.04			195	175	158	142	128	115	104	94	84	76	68	60	54								
	17.96			2.3	2.4	2.4	2.6	2.7	2.8	2.9	2.9	2.9	2.9	2.9	2.9	2.9								
148-D1	9.71				187	169	153	139	126	114	104	94	85	77	69	62	56							
	17.71				2.8	2.9	3.0	3.1	3.2	3.3	3.4	3.5	3.5	3.5	3.5	3.5	3.4							
168-D1	8.21					178	162	148	135	123	112	102	93	85	77	70	63							
	17.46					3.3	3.4	3.6	3.7	3.8	3.9	4.0	4.0	4.1	4.1	4.1	4.1							
188-D1	6.82																							
	17.21																		4.3	4.4	4.5	4.6	4.6	4.6
208-D1	5.71																							
	16.96																		2.9	2.7	2.4	2.1	1.7	1.3

Strength based on strain compatibility; bottom tension limited to $12\sqrt{f'_c}$; see pages 2-3-2-6 for explanation. Shaded values require release strengths higher than 3500 psi.