

DOUBLE TEE

TYPE "A" LOAD TABLE

8DT 14+2

Table of safe superimposed live load (psf)

Normal Weight Concrete

2" Normal Weight Topping

8'-0" x 14" Double Tee

Strand Pattern	Span, ft													
	14	16	18	20	22	24	26	28	30	32	34	36	38	
28-S	200*	141*	100*	71*	49*	33*								
48-S			157*	117*	87*	65*	47*	33*						
68-S				176*	136*	106*	82*	62	44	28				
68-D1							144*	117*	95*	77*	62*	47	34	
Dead Load	f_t	116	152	192	238	288	343	402	466	535	609	688	771	859
	f_b	-355	-464	-587	-725	-878	-1044	-1226	-1422	-1632	-1857	-2097	-2351	-2619
	a	0.026	0.044	0.071	0.108	0.158	0.224	0.309	0.416	0.548	0.709	0.904	1.156	1.410
100 plf Live Load	f_t	8	11	14	18	22	26	30	35	41	46	52	59	66
	f_b	-53	-70	-88	-109	-132	-158	-185	-215	-247	-281	-317	-355	-396
	a	0.003	0.005	0.008	0.013	0.019	0.027	0.037	0.049	0.065	0.084	0.107	0.135	0.167

*Capacity governed by ultimate strength

Values below heavy line require release strengths higher than 3500 psi

$f'_c = 5000$ psi

$f_{pu} = 270,000$ psi

Notation

f_t = top fiber stress, psi (after assumed 22% loss) (precast section)

f_b = bottom fiber stress, psi (after assumed 22% loss)

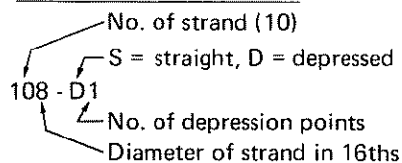
a = center deflection, in.

$0.001 l^2 \alpha$ = initial center camber, in. (after assumed 10% loss)

l = span (ft)

M_u = ult. moment capacity, in.-kips

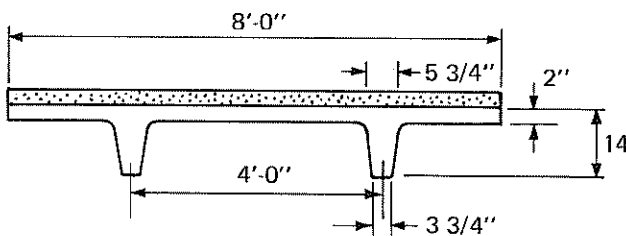
Strand Pattern Designation



Section Properties

- I = 6539 in.⁴
- Y_b = 11.97 in.
- Y_t = 4.03 in.
- Z_b = 546 in.³
- Z_t = 1623 in.³
- wt = 519 plf
- 65 psf

See preceding page for untopped section properties.



Strand Pattern	Eccentricity in.		Prestress alone				α	M_u
			end		center			
	end	ctr	f_t	f_b	f_t	f_b		
28-S	8.51	8.51	-146	1043	-146	1043	0.493	1016
48-S	4.51	4.51	-16	1244	-16	1244	0.523	1392
68-S	3.84	3.84	44	1655	44	1655	0.669	1875
68-D1	3.84	8.01	44	1655	-387	2971	1.152	2726

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