

SINGLE TEE

TYPE "A" LOAD TABLE

8ST 36+2

Table of safe superimposed live load (psf)

Normal Weight Concrete 2" Normal Weight Topping 8'-0" x 36" Single Tee

Strand Pattern	Span, ft																							
	46	48	50	52	54	56	58	60	62	64	66	68	70	72	74	76	78	80	82	84	86	88	90	
68-S	75*	62*	51*	41*	32*	24*																		
88-S	113*	97*	83*	70*	59*	49*	40*	32*	25*															
108-S	153*	134*	117*	102*	88*	76*	66*	56*	47*	39*	32*	25*												
88-D1	152*	133*	116*	101*	88*	76*	65*	56*	47*	39*	32*	25*												
108-D1	206*	183*	162*	144*	127*	112*	99*	87*	77*	67*	58*	50*												
128-D1			200*	179*	160*	143*	128*	114*	101*	90*	80*	70*	42*	36*	29*									
148-D1						172*	155*	139*	125*	113*	101*	90*	81*	72*	63*	56*	49*							
168-D1												109*	99*	89*	80*	71*	63*	41	34	27				
188-D1																	77*	68	59	51	44	37	31	
Dead Load	f_t	365	397	431	466	503	541	580	621	663	706	751	798	845	894	945	996	1050	1104	1160	1217	1276	1336	1397
	f_b	-950	-1035	-1123	-1215	-1310	-1409	-1511	-1617	-1727	-1840	-1957	-2077	-2201	-2329	-2460	-2595	-2733	-2875	-3021	-3170	-3323	-3479	-3639
	a	0.310	0.368	0.433	0.507	0.589	0.681	0.784	0.898	1.024	1.162	1.315	1.481	1.663	1.862	2.077	2.311	2.564	2.838	3.132	3.449	3.790	4.155	4.545
100 plf Live Load	f_t	29	32	34	37	40	43	46	50	53	56	60	64	68	72	76	80	84	89	93	98	102	107	112
	f_b	-107	-117	-127	-137	-148	-159	-171	-183	-195	-208	-222	-235	-249	-264	-279	-294	-310	-326	-342	-359	-377	-394	-412
	a	0.028	0.033	0.039	0.046	0.054	0.062	0.071	0.082	0.093	0.106	0.120	0.135	0.151	0.170	0.189	0.210	0.233	0.258	0.285	0.314	0.345	0.378	0.414

*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

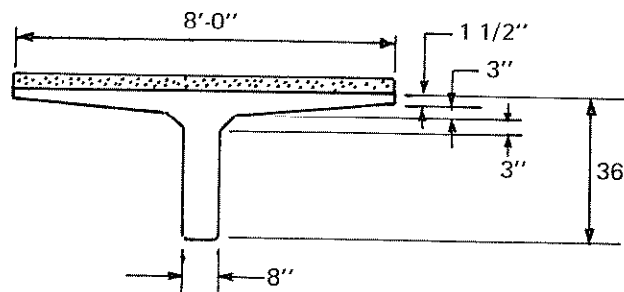
- 108 - D1
- No. of strand (10)
- S = straight, D = depressed
- No. of depression points
- Diameter of strand in 16ths

Section Properties

- I = 83,212 in.⁴
- Y_b = 28.28 in.
- Y_t = 9.72 in.
- Z_b = 2942 in.³
- Z_t = 8561 in.³
- wt = 794 plf
- 99 psf

See preceding page for untopped section properties.

Strand Pattern	Eccentricity in.		Prestress alone					
			end		center		α	M_u
	end	ctr	f_t	f_b	f_t	f_b		
68-S	19.34	19.34	-142	1226	-142	1226	0.220	6788
88-S	17.51	17.51	-141	1509	-141	1509	0.266	8415
108-S	16.81	16.81	-154	1827	-154	1827	0.319	10,148
88-D1	17.51	23.26	-141	1509	-292	1901	0.324	10,125
108-D1	16.81	23.01	-154	1827	-356	2355	0.397	12,452
128-D1	13.01	22.76	-35	1805	-418	2801	0.444	14,405
148-D1	10.58	22.51	69	1816	-476	3238	0.492	16,275
168-D1	8.76	22.26	174	1827	-531	3667	0.539	18,071
188-D1	7.12	22.01	293	1804	-583	4087	0.582	19,762



Normal Weight Concrete
2" Normal Weight Topping
8'-0" x 36" Single Tee

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