

# DOUBLE TEE

## TYPE "A" LOAD TABLE

**8LDT 20**

Table of safe superimposed live load (psf)

Lightweight Concrete

No Topping

8'-0" x 20" Double Tee

Strand Pattern	Span, ft																					
	28	30	32	34	36	38	40	42	44	46	48	50	52	54	56	58	60	62	64	66	68	70
48-S	106*	88*	74*	62*	52*	44*	36*	30*	25*													
68-S				97*	83*	72*	62*	53*	46*	39*	34*	29*	24*									
88-S				106*	91*	79*	68*	59*	51*	44*	38*	33*	28*	24*								
68-D1						98*	85*	75*	65*	57*	50*	44*	38*	33*	29*	25*						
88-D1									102*	90*	80*	71*	63*	56*	50*	44*	39*	35*	30*	27*		
108-D1															59*	52	47	41	36	32	28	24

Dead Load	f <sub>t</sub>	f <sub>b</sub>	a																				
				146	168	191	216	242	270	299	330	362	396	431	468	506	546	587	630	674	720	767	816
-396	-454	-517	-584	-655	-729	-808	-891	-978	-1069	-1164	-1263	-1366	-1474	-1585	-1700	-1819	-1943	-2070	-2201	-2337	-2476		
0.132	0.175	0.226	0.288	0.362	0.449	0.552	0.671	0.808	0.965	1.144	1.347	1.576	1.832	2.119	2.439	2.793	3.184	3.615	4.089	4.608	5.174		

100 plf Live Load	f <sub>t</sub>	f <sub>b</sub>	a																				
				50	58	66	74	83	93	103	114	125	136	148	161	174	188	202	217	232	248	264	281
-136	-156	-178	-201	-225	-251	-278	-307	-337	-368	-401	-435	-471	-508	-546	-586	-627	-670	-714	-759	-806	-854		
0.038	0.050	0.065	0.083	0.105	0.130	0.159	0.194	0.233	0.279	0.331	0.389	0.455	0.530	0.613	0.705	0.807	0.921	1.045	1.182	1.332	1.496		

\*Capacity governed by ultimate strength

Values below heavy line require release strengths higher than 3500 psi

f<sub>c</sub> = 5000 psi

f<sub>pu</sub> = 270,000 psi

**Notation**

f<sub>t</sub> = top fiber stress, psi (after assumed 25% loss)

f<sub>b</sub> = bottom fiber stress, psi (after assumed 25% loss)

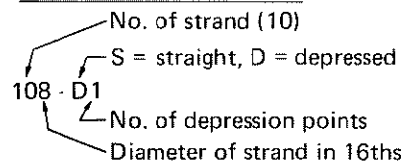
a = center deflection, in.

0.001 l<sup>2</sup> α = initial center camber, in. (after assumed 10% loss)

l = span (ft)

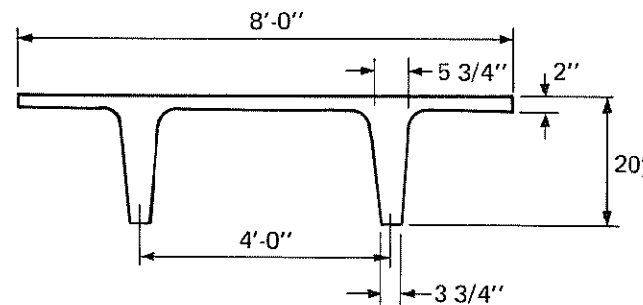
M<sub>u</sub> = ult. moment capacity, in.-kips

**Strand Pattern Designation**



**Section Properties**

- A = 363 in.<sup>2</sup>
- I = 12,551 in.<sup>4</sup>
- y<sub>b</sub> = 14.59 in.
- y<sub>t</sub> = 5.41 in.
- Z<sub>b</sub> = 860 in.<sup>3</sup>
- Z<sub>t</sub> = 2320 in.<sup>3</sup>
- wt = 290 plf
- 36 psf



Strand Pattern	Eccentricity in.		Prestress alone				α	M <sub>u</sub>
			end		center			
	end	ctr	f <sub>t</sub>	f <sub>b</sub>	f <sub>t</sub>	f <sub>b</sub>		
48-S	9.59	9.59	-119	1206	-119	1206	0.594	2177
68-S	8.59	8.59	-123	1658	-123	1658	0.798	3002
88-S	6.09	6.09	22	1707	22	1707	0.755	3206
68-D1	8.59	12.09	-123	1658	-319	2188	1.015	3778
88-D1	6.09	11.84	22	1707	-407	2867	1.229	4764
108-D1	4.59	11.59	168	1755	-486	3521	1.434	5692

**Lightweight Concrete**  
**No Topping**  
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