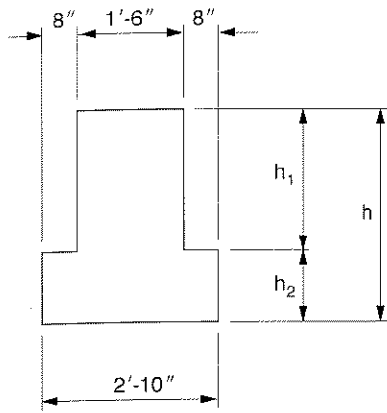


INVERTED TEE BEAMS

Normal Weight Concrete



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

1/2 in. diameter
 low-relaxation strand

Section Properties								
Designation	h in.	h_1/h_2 in.	A in ²	I in ⁴	y_b in.	S_b in ³	S_t in ³	wt plf
34IT20	20	12/8	488	16,082	8.43	1,908	1,390	508
34IT24	24	12/12	624	27,825	10.15	2,741	2,009	650
34IT28	28	16/12	696	44,130	11.79	3,743	2,722	725
34IT32	32	20/12	768	65,856	13.50	4,878	3,560	800
34IT36	36	24/12	840	93,616	15.26	6,136	4,513	875
34IT40	40	24/16	976	128,656	16.85	7,635	5,558	1,017
34IT44	44	28/16	1,048	171,157	18.58	9,212	6,733	1,092
34IT48	48	32/16	1,120	221,906	20.34	10,910	8,023	1,167
34IT52	52	36/16	1,192	281,504	22.13	12,721	9,424	1,242
34IT56	56	40/16	1,264	350,546	23.95	14,637	10,938	1,317
34IT60	60	44/16	1,336	429,623	25.78	16,662	12,556	1,392

1. Check local area for availability of other sizes.
2. Safe loads shown include 50% superimposed dead load and 50% live load. 800 psi top tension has been allowed, therefore additional top reinforcement is required.
3. Safe loads can be significantly increased by use of structural composite topping.

Key

- 8,164 — Safe superimposed service load, plf
- 0.4 — Estimated camber at erection, in.
- 0.1 — Estimated long-time camber, in.

Table of safe superimposed service load (plf) and cambers

Designation	No. Strand	e	Span, ft																			
			18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50			
34IT20	14	9.48	8164	6525	5313	4391	3674	3104	2645	2269	1958	1697	1476	1287	1125	984						
			0.4	0.5	0.6	0.7	0.8	0.9	1.0	1.0	1.1	1.2	1.2	1.3	1.3	1.3						
			0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.0					
34IT24	17	7.32	9171	7478	6190	5187	4392	3750	3225	2790	2425	2116	1853	1626	1429	1258	1107	974				
			0.4	0.5	0.6	0.6	0.7	0.8	0.9	0.9	1.0	1.1	1.1	1.2	1.2	1.2	1.2	1.2	1.2	1.2		
			0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0	-0.1			
34IT28	20	8.63	8675	7295	6200	5316	4593	3994	3492	3067	2704	2392	2121	1885	1678	1495						
			0.5	0.6	0.7	0.7	0.8	0.9	1.0	1.0	1.1	1.1	1.2	1.2	1.2	1.3	1.3					
			0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.1	
34IT32	23	10.00	9743	8301	7138	6186	5397	4736	4177	3699	3288	2932	2621	2348	2107							
			0.5	0.6	0.7	0.7	0.8	0.9	1.0	1.0	1.1	1.1	1.2	1.2	1.3	1.3						
			0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	
34IT36	24	12.32	9477	8239	7207	6340	5605	4978	4439	3971	3563	3205	2892									
			0.7	0.7	0.8	0.9	1.0	1.0	1.1	1.2	1.3	1.3	1.4									
			0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
34IT40	30	12.30	9771	8550	7527	6662	5923	5287	4735	4254	3832	3460										
			0.6	0.7	0.8	0.8	0.9	1.0	1.0	1.1	1.1	1.2	1.2									
			0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4								
34IT44	30	14.04	9478	8406	7490	6702	6019	5423	4900	4439												
			0.7	0.7	0.8	0.9	0.9	1.0	1.0	1.1	1.1	1.2	1.2									
			0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2								
34IT48	33	15.42	9049	8110	7295	6585	5962	5412														
			0.8	0.8	0.9	0.9	1.0	1.0	1.1	1.1	1.2	1.2										
			0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3								
34IT52	36	16.81	9637	8691	7848	7116	6470															
			0.8	0.9	0.9	1.0	1.0															
			0.3	0.3	0.3	0.3	0.3															
34IT56	39	18.21	9208	8360	7611																	
			0.9	0.9	1.0																	
			0.3	0.3	0.3																	
34IT60	42	19.59	9689	8831																		
			0.8	0.9																		
			0.2	0.2																		