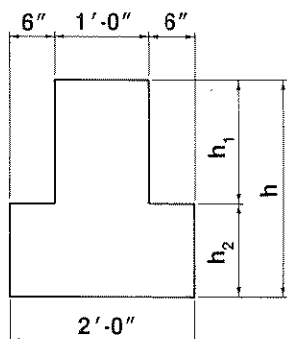


INVERTED TEE BEAMS

Normal Weight Concrete



$$f'_c = 5000 \text{ psi}$$

$$f_{pu} = 270,000 \text{ psi}$$

Section Properties								
Designation	h (in.)	h ₁ /h ₂ (in.)	A (in. ²)	I (in. ⁴)	y _b (in.)	Z _b (in. ³)	Z ₁ (in. ³)	wt (plf)
24IT20	20	12/8	336	10,981	8.29	1325	938	350
24IT24	24	12/12	432	19,008	10.00	1901	1358	450
24IT28	28	16/12	480	30,131	11.60	2598	1837	500
24IT32	32	20/12	528	44,969	13.27	3388	2401	550
24IT36	36	24/12	576	63,936	15.00	4262	3045	600
24IT40	40	24/16	672	87,845	16.57	5301	3749	700
24IT44	44	28/16	720	116,877	18.27	6397	4542	750
24IT48	48	32/16	768	151,552	20.00	7578	5413	800
24IT52	52	36/16	816	192,275	21.76	8836	6358	850
24IT56	56	40/16	864	239,445	23.56	10,163	7381	900
24IT60	60	44/16	912	293,460	25.37	11,567	8474	950

Key

- 6888 — Safe superimposed service load, plf
- 0.3 — Estimated camber at erection, in.
- 0.1 — Estimated long-time camber, in.

Safe loads shown include 50% dead load and 50% live load. 800 psi top tension has been allowed, therefore additional top reinforcement is required.

Table of safe superimposed service load (plf) and cambers

Designation	No. Strand	e	Span, ft.																		
			16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	
24IT20	9	6.20	6888	5376	4294	3494	2886	2412	2033	1726	1474	1266									
			0.3	0.3	0.4	0.5	0.6	0.7	0.8	0.8	0.9										
			0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0								
24IT24	11	7.17	9759	7625	6099	4970	4111	3443	2913	2485	2135	1845	1601								
			0.2	0.3	0.3	0.4	0.5	0.5	0.6	0.7	0.7	0.8	0.8								
			0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0								
24IT28	13	8.44			8505	6951	5768	4848	4118	3529	3047	2648	2313	2030	1786						
					0.3	0.4	0.4	0.5	0.6	0.6	0.7	0.7	0.8	0.8	0.9						
					0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0					
24IT32	15	9.77				9248	7691	6480	5519	4744	4109	3583	3138	2760	2437	2159	1919	1709			
						0.3	0.4	0.5	0.5	0.6	0.6	0.7	0.8	0.8	0.9	0.9	1.0	1.0			
						0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0		
24IT36	16	11.50					9879	8337	7114	6127	5320	4644	4077	3598	3189	2836	2531	2265	2031	1825	
							0.4	0.4	0.5	0.5	0.6	0.6	0.7	0.7	0.8	0.9	0.9	0.9	1.0	1.0	
							0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0
24IT40	19	12.02						8675	7475	6494	5680	4998	4421	3928	3504	3137	2816	2535	2286		
							0.4	0.5	0.5	0.6	0.6	0.7	0.7	0.8	0.8	0.9	0.9	1.0	1.0		
							0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0
24IT44	20	13.73							9300	8083	7075	6230	5514	4903	4378	3922	3525	3176	2868		
							0.4	0.5	0.5	0.6	0.6	0.7	0.7	0.8	0.8	0.9	0.9	1.0	1.0		
							0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0
24IT48	22	15.08								9723	8522	7515	6663	5935	5309	4766	4293	3877	3510		
							0.5	0.5	0.6	0.6	0.7	0.7	0.8	0.8	0.9	0.9	1.0	1.0			
							0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
24IT52	24	16.44									8917	7916	7061	6326	5688	5132	4644	4213			
							0.5	0.6	0.6	0.7	0.7	0.8	0.8	0.9	0.9	1.0	1.0				
							0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
24IT56	26	17.82										9279	8287	7433	6692	6046	5480	4979			
							0.6	0.6	0.7	0.7	0.8	0.8	0.9	0.9	1.0	1.0					
							0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
24IT60	28	19.18											9597	8616	7766	7025	6374	5800			
							0.6	0.6	0.7	0.7	0.8	0.8	0.9	0.9	1.0	1.0					
							0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1