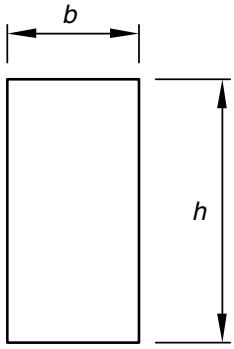
3.9 Rectangular Beam Load Tables

3



f'_c = 5000 psi

f_{pu} = 270,000 psi

$^1/_2$-in.-diameter, low-relaxation strand

Normalweight Concrete

Section Properties							
Designation	*b* in.	*h* in.	*A* in.^{2}	*I* In.^{4}	y_b in.	*S* in.^{3}	*wt* lb/ft
12RB16	12	16	192	4096	8.00	512	200
12RB20	12	20	240	8000	10.00	800	250
12RB24	12	24	288	13,824	12.00	1152	300
12RB28	12	28	336	21,952	14.00	1568	350
12RB32	12	32	384	32,768	16.00	2048	400
12RB36	12	36	432	46,656	18.00	2592	450
16RB24	16	24	384	18,432	12.00	1536	400
16RB28	16	28	448	29,269	14.00	2091	467
16RB32	16	32	512	43,691	16.00	2731	533
16RB36	16	36	576	62,208	18.00	3456	600
16RB40	16	40	640	85,333	20.00	4267	667

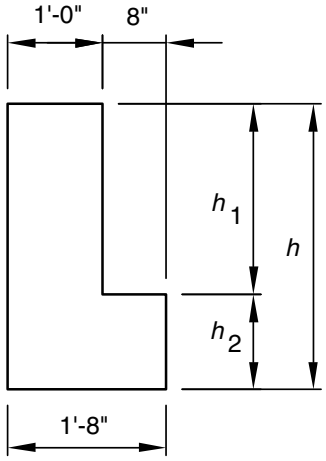
1. Check local area for availability of other sizes.
2. Safe loads shown include 50% superimposed dead load and 50% live load. 800 psi top tension has been allowed, therefore, additional top reinforcement is required.
3. Safe loads can be significantly increased by use of structural composite topping.

Key
3550 – Safe superimposed service load, lb/ft
0.4 – Estimated camber at erection, in.
0.2 – Estimated long-time camber, in.

Table of safe superimposed service load, lb/ft, and cambers, in.

Designation	Number strand	y_s in.	Span, ft																	
			16	18	20	22	24	26	28	30	32	34	36	40	42	44	46	48	50	52
12RB16	5	3.00	3550	2770	2210	1790	1480	1230	1040											
			0.4	0.5	0.6	0.8	0.9	1.0	1.1											
			0.2	0.2	0.2	0.2	0.3	0.3	0.3											
12RB20	8	3.00	6160	4820	3860	3150	2620	2200	1860	1600	1380	1190	1040							
			0.4	0.5	0.6	0.7	0.9	1.0	1.1	1.3	1.4	1.5	1.7							
			0.2	0.2	0.3	0.3	0.4	0.4	0.4	0.5	0.5	0.5	0.5							
12RB24	10	3.60	8950	7010	5630	4610	3830	3230	2740	2360	2040	1780	1560	1370	1210	1070	960			
			0.4	0.4	0.5	0.7	0.8	0.9	1.0	1.1	1.3	1.4	1.5	1.6	1.8	1.9	2.0			
			0.2	0.2	0.3	0.3	0.3	0.4	0.4	0.5	0.5	0.6	0.6	0.6	0.6	0.7	0.6			
12RB28	12	4.00		9780	7860	6440	5370	4530	3860	3320	2890	2520	2220	1960	1740	1550	1380	1240	1110	1000
				0.4	0.5	0.6	0.7	0.8	0.9	1.0	1.2	1.3	1.4	1.5	1.7	1.8	1.9	2.0	2.1	2.2
				0.2	0.2	0.3	0.3	0.4	0.4	0.5	0.5	0.6	0.6	0.7	0.7	0.7	0.8	0.8	0.8	0.8
12RB32	13	4.77				8320	6930	5850	5000	4310	3750	3280	2890	2560	2270	2030	1820	1630	1470	1330
						0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9
						0.2	0.3	0.3	0.3	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6
12RB36	15	5.07					9010	7620	6520	5630	4900	4290	3790	3360	2990	2680	2410	2170	1960	1780
							0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8
							0.2	0.3	0.3	0.4	0.4	0.4	0.5	0.5	0.6	0.6	0.6	0.6	0.7	0.7
16RB24	13	3.54		9390	7540	6170	5130	4320	3680	3160	2730	2380	2090	1840	1620	1440	1280	1140	1020	
				0.4	0.5	0.6	0.8	0.9	1.0	1.1	1.2	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	
				0.2	0.2	0.3	0.3	0.4	0.4	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.5	
16RB28	14	3.71				8730	7270	6130	5230	4510	3910	3420	3010	2660	2360	2100	1880	1680	1510	1360
						0.5	0.6	0.7	0.8	0.9	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	1.9
						0.2	0.2	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3
16RB32	18	4.67					9340	7890	6740	5810	5050	4420	3890	3450	3070	2740	2450	2210	1990	1800
							0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.5	1.6	1.7	1.8	1.9	2.0
							0.3	0.3	0.4	0.4	0.5	0.5	0.5	0.6	0.6	0.6	0.7	0.7	0.7	0.7
16RB36	20	5.40						9940	5800	7340	6390	5600	4940	4380	3900	3490	3130	2820	2550	2310
								0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8
								0.3	0.3	0.4	0.4	0.4	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6
16RB40	22	6.00								9120	7940	6970	6160	5470	4880	4370	3930	3550	3210	2910
										0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6	1.7
										0.3	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.6	0.6	0.6

3.10 L-Beam Load Tables



f'_c = 5000 psi

f_{pu} = 270,000 psi

$^1/_2$-in.-diameter, low-relaxation strand

Normalweight Concrete

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 lb/ft
20LB20	20	12/8	304	10,160	8.74	1163	902	317
20LB24	24	12/12	384	17,568	10.50	1673	1301	400
20LB28	28	16/12	432	27,883	12.22	2282	1767	450
20LB32	32	20/12	480	41,600	14.00	2971	2311	500
20LB36	36	24/12	528	59,119	15.82	3737	2930	550
20LB40	40	24/16	608	81,282	17.47	4653	3608	633
20LB44	44	28/16	656	108,107	19.27	5610	4372	683
20LB48	48	32/16	704	140,133	21.09	6645	5208	733
20LB52	52	36/16	752	177,752	22.94	7749	6117	783
20LB56	56	40/16	800	221,355	24.80	8926	7095	833
20LB60	60	44/16	848	271,332	26.68	10,170	8143	883

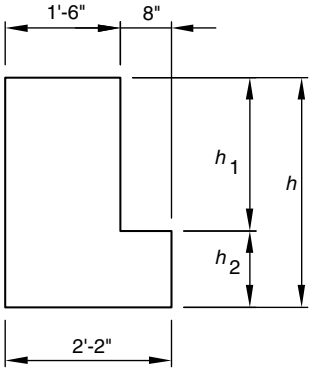
1. Check local area for availability of other sizes.
2. Safe loads shown include 50% superimposed dead load and 50% live load. 800 psi top tension has been allowed, therefore, additional top reinforcement is required.
3. Safe loads can be significantly increased by use of structural composite topping.

Key
6560 – Safe superimposed service load, lb/ft
0.3 – Estimated camber at erection, in.
0.1 – Estimated long-time camber, in.

Table of safe superimposed service load, lb/ft, and cambers, in.

Designation	Number strand	y_s in.	Span, ft																	
			16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50
20LB20	9	2.44	6560	5130	4100	3340	2760	2310	1960	1670	1430	1240	1070							
			0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	1.0	1.1	1.2							
			0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.2							
20LB24	10	2.80	9570	7490	6000	4900	4060	3410	2890	2470	2130	1850	1610	1410	1240	1090	969			
			0.3	0.3	0.4	0.5	0.5	0.6	0.7	0.8	0.9	0.9	1.0	1.0	1.1	1.1	1.2			
			0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.0	0.0			
20LB28	12	3.33			8220	6730	5590	4710	4000	3440	2970	2590	2270	2000	1760	1560	1390	1240	1110	992
					0.4	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	1.3
					0.1	0.1	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	0.0
20LB32	14	3.71				8940	7440	6280	5350	4610	4000	3490	3070	2710	2400	2140	1910	1710	1540	1380
						0.4	0.5	0.5	0.6	0.7	0.7	0.8	0.9	1.0	1.0	1.1	1.2	1.2	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	0.2	0.1
20LB36	16	4.25					9450	7980	6820	5880	5110	4470	3940	3480	3100	2770	2480	2230	2010	1810
							0.4	0.5	0.5	0.6	0.7	0.8	0.8	0.9	1.0	1.1	1.1	1.2	1.2	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	0.2
20LB40	18	4.89						9810	8380	7230	6290	5510	4850	4300	3830	3420	3070	2760	2490	2250
								0.4	0.5	0.6	0.6	0.7	0.8	0.8	0.9	1.0	1.0	1.1	1.1	1.2
								0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3
20LB44	19	5.05								8950	7800	6840	6040	5360	4780	4280	3850	3470	3140	2850
										0.5	0.6	0.6	0.7	0.8	0.8	0.9	0.9	1.0	1.1	1.1
										0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
20LB48	21	5.81									9220	8100	7150	6360	5670	5090	4580	4140	3750	3400
											0.5	0.6	0.6	0.7	0.8	0.8	0.9	0.9	1.0	1.1
											0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3
20LB52	23	6.17										9630	8520	7570	6770	6080	5480	4950	4490	4090
												0.6	0.6	0.7	0.7	0.8	0.9	0.9	1.0	1.0
												0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3
20LB56	25	6.64											9950	8860	7920	7120	6420	5820	5280	4810
													0.6	0.7	0.7	0.8	0.8	0.9	1.0	1.0
													0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3
20LB60	27	7.33													9080	8170	7380	6680	6080	5540
															0.7	0.7	0.8	0.9	0.9	1.0
															0.3	0.3	0.3	0.3	0.3	0.3

3.10 L-Beam Load Tables (cont.)



f'_c = 5000 psi

f_{pu} = 270,000 psi

$^1/_2$-in.-diameter, low-relaxation strand

Normalweight Concrete

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 lb/ft
26LB20	20	12/8	424	14,298	9.09	1573	1311	442
26LB24	24	12/12	528	24,716	10.91	2265	1888	550
26LB28	28	16/12	600	39,241	12.72	3085	2568	625
26LB32	32	20/12	672	58,533	14.57	4017	3358	700
26LB36	36	24/12	744	83,176	16.45	5056	4255	775
26LB40	40	24/16	848	114,381	18.19	6288	5244	883
26LB44	44	28/16	920	152,104	20.05	7586	6351	958
26LB48	48	32/16	992	197,159	21.94	8986	7566	1033
26LB52	52	36/16	1064	250,126	23.83	10,496	8879	1108
26LB56	56	40/16	1136	311,586	25.75	12,100	10,300	1183
26LB60	60	44/16	1208	382,118	27.67	13,810	11,819	1258

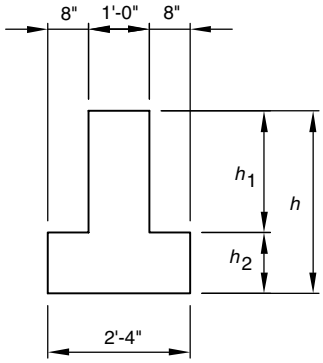
1. Check local area for availability of other sizes.
2. Safe loads shown include 50% superimposed dead load and 50% live load. 800 psi top tension has been allowed, therefore, additional top reinforcement is required.
3. Safe loads can be significantly increased by use of structural composite topping.

Key
9670 – Safe superimposed service load, lb/ft
0.4 – Estimated camber at erection, in.
0.2 – Estimated long-time camber, in.

Table of safe superimposed service load, lb/ft, and cambers, in.

Designation	Number strand	y_s in.	Span, ft																	
			16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50
26LB20	15	2.67	9670	7560	6050	4930	4080	3420	2900	2480	2130	1840	1600	1400	1230	1080	950			
			0.4	0.5	0.6	0.7	0.8	1.0	1.1	1.2	1.4	1.5	1.6	1.7	1.8	1.9	1.9			
			0.2	0.3	0.3	0.4	0.4	0.5	0.5	0.6	0.6	0.7	0.7	0.7	0.7	0.7	0.6			
26LB24	15	2.67			9160	7490	6220	5230	4440	3810	3290	2860	2500	2190	1930	1710	1520	1350	1200	1070
					0.5	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.3	1.4	1.5	1.5	1.5	1.5
					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	0.1	0.1	0.0
26LB28	18	3.33					8430	7170	6050	5200	4510	3930	3450	3040	2690	2390	2130	1900	1700	1530
							0.6	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.3	1.4	1.5	1.5	1.6
							0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2
26LB32	21	4.00						9260	7900	6800	5910	5160	4540	4010	3560	3180	2840	2550	2290	2060
								0.6	0.7	0.7	0.8	0.9	1.0	1.1	1.2	1.2	1.3	1.4	1.5	1.5
								0.2	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3
26LB36	24	4.50								8720	7580	6640	5850	5180	4610	4120	3690	3320	3000	2710
										0.7	0.8	0.9	0.9	1.0	1.1	1.2	1.3	1.3	1.4	1.5
										0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
26LB40	27	5.11									9370	8210	7240	6420	5720	5120	4600	4140	3740	3390
											0.7	0.8	0.9	0.9	1.0	1.1	1.2	1.2	1.3	1.4
											0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4
26LB44	28	5.29											8990	7980	7120	6380	5740	5180	4690	4260
													0.8	0.8	0.9	1.0	1.0	1.1	1.2	1.2
													0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
26LB48	32	5.75												9630	8600	7720	6960	6290	5700	5190
														0.8	0.9	1.0	1.0	1.1	1.2	1.3
														0.3	0.4	0.4	0.4	0.4	0.4	0.4
26LB52	35	6.29														9130	8240	7450	6770	6160
																0.9	1.0	1.1	1.1	1.2
																0.4	0.4	0.4	0.4	0.5
26LB56	37	7.00															9530	8640	7850	7150
																	0.9	1.0	1.1	1.1
																	0.4	0.4	0.4	0.4
26LB60	38	7.68																9900	9000	8210
																		0.9	0.9	1.0
																		0.3	0.3	0.3

3.11 Inverted-Tee Beam Load Tables



f'_c = 5000 psi

f_{pu} = 270,000 psi

$^1/_2$-in.-diameter, low-relaxation strand

Normalweight Concrete

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 lb/ft
28IT20	20	12/8	368	11,688	7.91	1478	967	383
28IT24	24	12/12	480	20,275	9.60	2112	1408	500
28IT28	28	16/12	528	32,076	11.09	2892	1897	550
28IT32	32	20/12	576	47,872	12.67	3778	2477	600
28IT36	36	24/12	624	68,101	14.31	4759	3140	650
28IT40	40	24/16	736	93,503	15.83	5907	3869	767
28IT44	44	28/16	784	124,437	17.43	7139	4683	817
28IT48	48	32/16	832	161,424	19.08	8460	5582	867
28IT52	52	36/16	880	204,884	20.76	9869	6558	917
28IT56	56	40/16	928	255,229	22.48	11,354	7614	967
28IT60	60	44/16	976	312,866	24.23	12,912	8747	1017

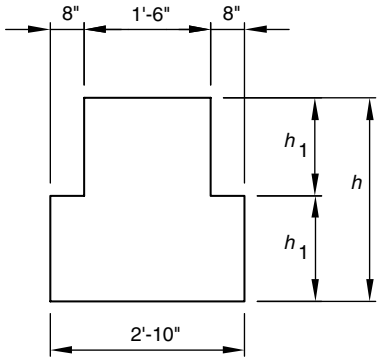
1. Check local area for availability of other sizes.
2. Safe loads shown include 50% superimposed dead load and 50% live load. 800 psi top tension has been allowed, therefore, additional top reinforcement is required.
3. Safe loads can be significantly increased by use of structural composite topping.

Key
8510 – Safe superimposed service load, lb/ft
0.2 – Estimated camber at erection, in.
0.1 – Estimated long-time camber, in.

Table of safe superimposed service load, lb/ft, and cambers, in.

Design-ation	Number strand	y_s(end) in.	Span, ft																	
			16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50
28IT20	**9**	**2.44**	6510	5070	4040	3280	2710	2260	1900	1610	1380	1180	1020							
			0.2	0.3	0.4	0.4	0.5	0.5	0.6	0.7	0.7	0.7	0.8							
			0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	–0.1							
28IT24	**18**	**2.73**	9610	7500	5990	4880	4030	3370	2850	2420	2080	1790	1550	1350	1170	1020				
			0.2	0.3	0.3	0.4	0.4	0.5	0.6	0.6	0.7	0.7	0.7	0.8	0.8	0.8				
			0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	–0.1	–0.2				
28IT28	**13**	**3.08**			8350	6820	5650	4750	4030	3450	2970	2580	2250	1970	1730	1530	1350	1190	1060	
					0.3	0.3	0.4	0.5	0.5	0.6	0.6	0.7	0.7	0.8	0.8	0.8	0.9	0.8	0.8	
					0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	–0.1	–0.2	–0.2	
28IT32	**15**	**3.47**				9040	7520	5330	5380	4620	4000	3490	3050	2690	2370	2110	1870	1670	1490	1330
						0.3	0.4	0.4	0.5	0.5	0.6	0.6	0.7	0.7	0.8	0.8	0.9	0.9	0.9	0.9
						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	–0.1
28IT36	**16**	**3.50**					9830	8290	7070	6090	5280	4610	4060	3580	3180	2830	2530	2270	2040	1830
							0.3	0.4	0.4	0.5	0.5	0.6	0.6	0.7	0.7	0.8	0.8	0.9	0.9	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	0.0	–0.1
28IT40	**19**	**4.21**							8630	7440	6460	5640	4960	4390	3890	3470	3100	2780	2500	2250
									0.4	0.5	0.5	0.6	0.6	0.7	0.7	0.8	0.8	0.8	0.9	0.9
									0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
28IT44	**20**	**4.40**								9180	7980	6990	6160	5460	4860	4340	3890	3500	3160	2850
										0.4	0.5	0.5	0.6	0.6	0.7	0.7	0.7	0.8	0.8	0.8
										0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0
28IT48	**22**	**4.55**									9710	8520	7520	6670	5950	5330	4790	4320	3900	3540
											0.4	0.5	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
28IT52	**24**	**5.17**										9980	8820	7830	6990	6270	5640	4100	4610	4190
												0.5	0.5	0.6	0.6	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
28IT56	**26**	**5.23**												9300	8310	7460	6730	6080	5520	5020
														0.5	0.6	0.6	0.7	0.7	0.8	0.8
														0.2	0.2	0.2	0.2	0.2	0.2	0.2
28IT60	**28**	**5.57**													9640	8660	7820	7080	6430	5850
															0.6	0.6	0.7	0.7	0.8	0.8
															0.2	0.2	0.2	0.2	0.2	0.2

3.11 Inverted-Tee Beam Load Tables (cont.)



f'_c = 5000 psi

f_{pu} = 270,000 psi

$^1/_2$-in.-diameter, low-relaxation strand

Normalweight Concrete

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 lb/ft
34IT20	20	12/8	488	16,082	8.43	1908	1390	508
34IT24	24	12/12	624	27,825	10.15	2741	2009	650
34IT28	28	16/12	696	44,130	11.79	3743	2722	725
34IT32	32	20/12	768	65,856	13.50	4878	3560	800
34IT36	36	24/12	840	93,616	15.26	6135	4514	875
34IT40	40	24/16	976	128,656	16.85	7635	5558	1017
34IT44	44	28/16	1048	171,157	18.58	9212	6733	1092
34IT48	48	23/16	1120	221,906	20.34	10,910	8023	1167
34IT52	52	36/16	1192	281,504	22.13	12,721	9424	1242
34IT60	60	44/16	1336	439,623	25.78	17,053	12,847	1392

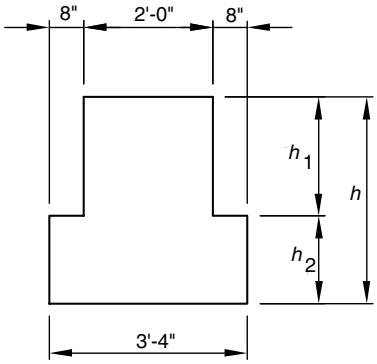
1. Check local area for availability of other sizes.
2. Safe loads shown include 50% superimposed dead load and 50% live load. 800 psi top tension has been allowed, therefore, additional top reinforcement is required.
3. Safe loads can be significantly increased by use of structural composite topping.

Key
7820 – Safe superimposed service load, lb/ft
0.4 – Estimated camber at erection, in.
0.1 – Estimated long-time camber, in.

Table of safe superimposed service load, lb/ft, and cambers, in.

Designation	Number strand	y_s in.	Span, ft																	
			16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50
34IT20	14	2.29		7820	6250	5090	4200	3520	2970	2530	2170	1870	1620	1410	1230	1080				
				0.4	0.5	0.6	0.7	0.7	0.8	0.9	1.0	1.1	1.1	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	0.1	0.1				
34IT24	17	2.59			9220	7520	6230	5220	4430	3780	3260	2820	2460	2150	1880	1660	1460	1290	1140	1000
					0.4	0.5	0.6	0.7	0.7	0.8	0.9	1.0	1.1	1.1	1.2	1.2	1.2	1.3	1.3	1.2
					0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.0	–0.1
34IT28	20	3.00					8640	7270	6180	5300	4580	3990	3490	3070	2710	2400	2130	1900	1690	1510
							0.5	0.6	0.7	0.7	0.8	0.9	1.0	1.0	1.1	1.2	1.2	1.3	1.3	1.3
							0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.1
34IT32	23	3.48						9580	8170	7030	6090	5320	4670	4120	3650	3250	2900	2590	2320	2090
								0.5	0.6	0.7	0.8	0.8	0.9	1.0	1.0	1.1	1.2	1.2	1.3	1.3
								0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2
34IT36	24	3.50								9220	8010	7010	6170	5460	4860	4330	3880	3490	3140	2840
										0.6	0.7	0.7	0.8	0.9	0.9	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
34IT40	30	4.40									9720	8510	7490	6630	5900	5270	4730	4250	3830	3460
											0.6	0.7	0.8	0.9	0.9	1.0	1.1	1.1	1.2	1.3
											0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4
34IT44	30	4.40											9360	8300	7400	6630	5950	5370	4850	4400
													0.7	0.7	0.8	0.9	0.9	1.0	1.0	1.1
													0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2
34IT48	33	4.73													8960	8030	7230	6530	5910	5370
															0.8	0.8	0.9	1.0	1.0	1.1
															0.3	0.3	0.3	0.3	0.3	0.3
34IT52	36	5.22														9500	8560	7740	7020	6390
																0.8	0.9	0.9	1.0	1.0
																0.3	0.3	0.3	0.3	0.3
34IT56	39	5.59																	8260	7530
																			1.0	1.0
																			0.3	0.3
34IT60	40	6.00																	9560	8720
																			0.8	0.9
																			0.3	0.3

3.11 Inverted-Tee Beam Load Tables (cont.)



$f_c' = 5000$ psi

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

$^1/_2$-in.-diameter, low-relaxation strand

Normalweight Concrete

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 lb/ft
40IT20	20	12/8	608	20,321	8.74	2325	1805	633
40IT24	24	12/12	768	35,136	10.50	3346	2603	800
40IT28	28	16/12	864	55,765	12.22	4563	3534	900
40IT32	32	20/12	960	83,200	14.00	5943	4622	1000
40IT36	36	24/12	1056	118,237	15.82	7474	5859	1000
40IT40	40	24/16	1216	162,564	17.47	9305	7215	1267
40IT44	44	28/16	1312	216,215	19.27	11,220	8743	1367
40IT48	48	32/16	1408	280,266	21.09	13,289	10,415	1467
40IT52	52	36/16	1504	355,503	22.94	15,497	12,233	1567

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
8420 – Safe superimposed service load, lb/ft
0.5 – Estimated camber at erection, in.
0.2 – Estimated long-time camber, in.

Table of safe superimposed service load, lb/ft, and cambers, in.

Designation	Number strand	y_s in.	Span, ft																	
			16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50
40IT20	**18**	**2.22**			8420	6870	5680	4760	4030	3440	2960	2560	2220	1940	1690	1490	1310	1150	1010	
					0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.3	1.4	1.4	1.5	1.5	1.5	
					0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.1	0.0	–0.1	
40IT24	**22**	**2.67**				9990	8280	6960	5900	5050	4360	3780	3300	2890	2540	2240	1980	1750	1550	1380
						0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.2	1.3	1.4	1.4	1.4	1.5	1.5
						0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.1	0.0
40IT28	**26**	**3.08**						9670	8230	7070	6120	5330	4670	4110	3640	3230	2870	2560	2290	2050
								0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.2	1.3	1.4	1.4	1.5	1.5
								0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3
40IT32	**30**	**3.33**								9520	8260	7220	6350	5610	4980	4440	3970	3560	3190	2880
										0.8	0.8	0.9	1.0	1.1	1.2	1.3	1.3	1.4	1.5	1.5
										0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
40IT36	**32**	**3.50**										9410	8290	7340	6530	5840	5230	4710	4250	3840
												0.8	0.9	1.0	1.1	1.1	1.2	1.3	1.4	1.4
												0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.3	0.3
40IT40	**38**	**4.32**												8940	7960	7120	6390	5760	5200	4700
														0.9	1.0	1.1	1.2	1.2	1.3	1.4
														0.4	0.4	0.4	0.4	0.4	0.4	0.4
40IT44	**40**	**4.40**													9950	8910	8020	7230	6550	5940
															0.9	1.0	1.1	1.1	1.2	1.3
															0.3	0.4	0.4	0.4	0.4	0.4
40IT48	**44**	**4.87**															9650	8720	7910	7190
																	1.0	1.1	1.2	1.2
																	0.4	0.4	0.4	0.4
40IT52	**46**	**5.05**																	9490	8640
																			1.1	1.1
																			0.4	0.4