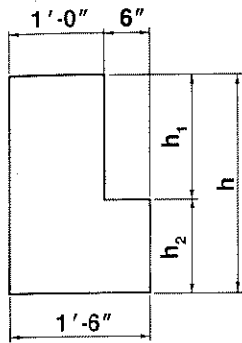


L-SHAPED BEAMS

Normal Weight Concrete



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

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

Designation	Section Properties							
	h (in.)	h ₁ /h ₂ (in.)	A (in. ²)	I (in. ⁴)	y _b (in.)	Z _b (in. ³)	Z _t (in. ³)	wt (plf)
18LB20	20	12/8	288	9696	9.00	1077	882	300
18LB24	24	12/12	360	16,762	10.80	1552	1270	375
18LB28	28	16/12	408	26,611	12.59	2114	1727	425
18LB32	32	20/12	456	39,695	14.42	2753	2258	475
18LB36	36	24/12	504	56,407	16.29	3463	2862	525
18LB40	40	24/16	576	77,568	18.00	4309	3526	600
18LB44	44	28/16	624	103,153	19.85	5197	4271	650
18LB48	48	32/16	672	133,705	21.71	6159	5086	700
18LB52	52	36/16	720	169,613	23.60	7187	5972	750
18LB56	56	40/16	768	211,264	25.50	8285	6927	800
18LB60	60	44/16	816	259,046	27.41	9451	7949	850

Key

- 6486 — 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
18LB20	9	6.26	6486	5068	4053	3303	2732	2288	1935	1650	1414	1218								
			0.3	0.4	0.5	0.6	0.7	0.8	0.9	0.9	1.0	1.1								
18LB24	10	7.67	9179	7182	5753	4696	3891	3266	2769	2369	2041	1769	1541	1349	1184					
			0.3	0.3	0.4	0.5	0.5	0.6	0.7	0.8	0.8	0.9	1.0	1.0	1.1					
18LB28	12	8.93			8039	6578	5466	4600	3914	3360	2906	2531	2216	1949	1722	1524	1351	1200		
					0.3	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		
18LB32	14	10.22				8814	7331	6176	5260	4521	3916	3414	2994	2639	2335	2074	1847	1650	1476	1323
						0.4	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
18LB36	16	11.52					9358	7903	6744	5807	5040	4405	3872	3422	3037	2706	2419	2168	1948	1755
							0.4	0.5	0.5	0.6	0.7	0.7	0.8	0.9	0.9	1.0	1.1	1.1	1.2	1.2
18LB40	18	12.52						9693	8284	7146	6215	5443	4797	4250	3783	3380	3026	2718	2447	2208
							0.4	0.5	0.5	0.6	0.7	0.7	0.8	0.9	0.9	1.0	1.0	1.1	1.1	
18LB44	19	14.19							8729	7601	6666	5883	5219	4653	4166	3743	3370	3042	2752	
							0.5	0.6	0.6	0.7	0.7	0.8	0.9	0.9	1.0	1.0	1.1	1.1		
18LB48	21	15.48								9166	8048	7110	6313	5629	5041	4531	4086	3695	3351	
							0.5	0.6	0.6	0.7	0.8	0.8	0.9	0.9	1.0	1.0	1.1	1.1		
18LB52	23	16.78									9538	8427	7486	6683	5992	5393	4871	4412	4007	
							0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
18LB56	25	18.07										9842	8752	7820	7019	6324	5718	5186	4717	
							0.6	0.6	0.7	0.7	0.8	0.8	0.9	0.9	1.0	1.0	1.1	1.1		
18LB60	27	19.36												9026	8116	7326	6630	6020	5481	
							0.6	0.7	0.7	0.8	0.8	0.9	0.9	1.0	1.0	1.1	1.1			