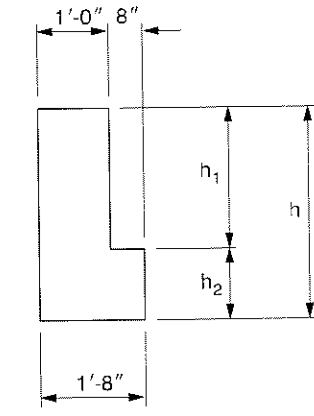


L-BEAMS

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 |
| 20LB20 | 20 | 12/8 | 304 | 10,160 | 8.74 | 1,163 | 902 | 317 |
| 20LB24 | 24 | 12/12 | 384 | 17,568 | 10.50 | 1,673 | 1,301 | 400 |
| 20LB28 | 28 | 16/12 | 432 | 27,883 | 12.22 | 2,282 | 1,767 | 450 |
| 20LB32 | 32 | 20/12 | 480 | 41,600 | 14.00 | 2,971 | 2,311 | 500 |
| 20LB36 | 36 | 24/12 | 528 | 59,119 | 15.82 | 3,737 | 2,930 | 550 |
| 20LB40 | 40 | 24/16 | 608 | 81,282 | 17.47 | 4,653 | 3,608 | 633 |
| 20LB44 | 44 | 28/16 | 656 | 108,107 | 19.27 | 5,610 | 4,372 | 683 |
| 20LB48 | 48 | 32/16 | 704 | 140,133 | 21.09 | 6,645 | 5,208 | 733 |
| 20LB52 | 52 | 36/16 | 752 | 177,752 | 22.94 | 7,749 | 6,117 | 783 |
| 20LB56 | 56 | 40/16 | 800 | 221,355 | 24.80 | 8,926 | 7,095 | 833 |
| 20LB60 | 60 | 44/16 | 848 | 271,332 | 26.68 | 10,170 | 8,143 | 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

- 6,471 — Safe superimposed service load, plf
- 0.3 — 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 | | | | | | | | | | | | | | | | | |
|-------------|------------|-------|----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----|-----|-----|
| | | | 16 | 18 | 20 | 22 | 24 | 26 | 28 | 30 | 32 | 34 | 36 | 38 | 40 | 42 | 44 | 46 | 48 | 50 |
| 20LB20 | 9 | 6.00 | 6471 | 5053 | 4038 | 3288 | 2717 | 2273 | 1920 | 1636 | 1403 | 1210 | 1049 | | | | | | | |
| | | | 0.3 | 0.4 | 0.5 | 0.5 | 0.6 | 0.7 | 0.8 | 0.9 | 1.0 | 1.0 | 1.1 | | | | | | | |
| 20LB24 | 10 | 7.37 | 9518 | 7444 | 5961 | 4864 | 4029 | 3380 | 2865 | 2449 | 2108 | 1826 | 1590 | 1390 | 1219 | 1072 | | | | |
| | | | 0.3 | 0.3 | 0.4 | 0.4 | 0.5 | 0.6 | 0.7 | 0.8 | 0.9 | 0.9 | 1.0 | 1.0 | 1.1 | | | | | |
| 20LB28 | 12 | 8.56 | 8193 | 6701 | 5566 | 4682 | 3981 | 3416 | 2953 | 2569 | 2248 | 1976 | 1744 | 1544 | 1370 | 1219 | 1087 | 970 | | |
| | | | 0.3 | 0.4 | 0.5 | 0.5 | 0.6 | 0.7 | 0.8 | 0.8 | 0.9 | 1.0 | 1.0 | 1.1 | 1.1 | 1.1 | 1.1 | 1.2 | 1.2 | |
| 20LB32 | 14 | 9.80 | 8820 | 7330 | 6187 | 5272 | 4534 | 3931 | 3430 | 3011 | 2656 | 2353 | 2092 | 1866 | 1669 | 1496 | 1343 | | | |
| | | | 0.4 | 0.4 | 0.5 | 0.6 | 0.6 | 0.7 | 0.8 | 0.8 | 0.9 | 1.0 | 1.0 | 1.1 | 1.1 | 1.1 | 1.1 | 1.2 | 1.2 | |
| 20LB36 | 16 | 11.05 | 9335 | 7881 | 6727 | 5796 | 5034 | 4402 | 3873 | 3425 | 3043 | 2714 | 2428 | 2180 | 1961 | 1768 | | | | |
| | | | 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 | 1.1 | 1.2 | 1.2 | | |
| 20LB40 | 18 | 11.99 | 9663 | 8253 | 7116 | 6185 | 5413 | 4767 | 4220 | 3752 | 3350 | 3002 | 2698 | 2431 | 2196 | | | | | |
| | | | 0.4 | 0.5 | 0.5 | 0.6 | 0.6 | 0.7 | 0.8 | 0.8 | 0.9 | 1.0 | 1.0 | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 |
| 20LB44 | 19 | 13.61 | 8866 | 7718 | 6766 | 5969 | 5294 | 4717 | 4221 | 3791 | 3416 | 3087 | 2797 | | | | | | | |
| | | | 0.5 | 0.6 | 0.7 | 0.7 | 0.8 | 0.8 | 0.9 | 0.9 | 1.0 | 1.0 | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 |
| 20LB48 | 21 | 14.86 | 9231 | 8101 | 7155 | 6353 | 5669 | 5081 | 4570 | 4125 | 3735 | 3390 | | | | | | | | |
| | | | 0.5 | 0.6 | 0.6 | 0.7 | 0.7 | 0.8 | 0.8 | 0.9 | 0.9 | 1.0 | 1.0 | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 |
| 20LB52 | 23 | 16.12 | 9545 | 8438 | 7500 | 6700 | 6011 | 5415 | 4894 | 4437 | 4033 | | | | | | | | | |
| | | | 0.5 | 0.6 | 0.6 | 0.7 | 0.8 | 0.8 | 0.9 | 0.9 | 1.0 | 1.0 | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 |
| 20LB56 | 25 | 17.37 | 9817 | 8733 | 7808 | 7012 | 6323 | 5721 | 5192 | 4726 | | | | | | | | | | |
| | | | 0.6 | 0.6 | 0.7 | 0.7 | 0.8 | 0.8 | 0.9 | 0.9 | 0.9 | 1.0 | 1.0 | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 |
| 20LB60 | 27 | 18.63 | 8996 | 8086 | 7296 | 6608 | 6004 | 5470 | | | | | | | | | | | | |
| | | | 0.6 | 0.7 | 0.7 | 0.8 | 0.9 | 0.9 | 0.9 | 0.9 | 1.0 | 1.0 | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 |