

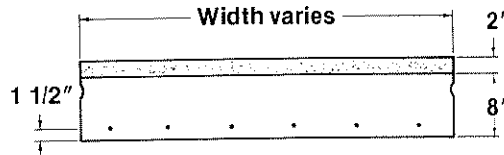
SOLID FLAT SLAB

8" Thick
Normal Weight Concrete

Strand Patterns

Producer may vary size and strength of strands. See "explanation of load tables"

Safe loads shown include dead load of 10 psf for untopped members and 15 psf for topped members. Remainder is live load. Long-time cambers include superimposed dead load but do not include live load.



$f'_c = 5000$ psi
 $f'_{ci} = 3500$ psi

Section Properties per foot of width

| | Untopped | Topped |
|-------|-------------------------|-------------------------|
| A | 96.00 in. ² | — |
| I | 512.00 in. ⁴ | 907.50 in. ⁴ |
| Y_b | 4.00 in. | 4.81 in. |
| Y_t | 4.00 in. | 5.19 in. |
| Z_b | 128.00 in. ³ | 188.68 in. ³ |
| Z_t | 128.00 in. ³ | 174.85 in. ³ |
| b_w | 12.00 in. | 12.00 in. |
| wt | 100 psf | 125 psf |
| V/S | 4.00 in. | |

Key

- 248 — Safe superimposed service load, psf
- 0.1 — Estimated camber at erection, in.
- 0.1 — Estimated long-time camber, in.

FS8

Table of safe superimposed service load (psf) and cambers

No Topping

| Strand Designation Code | Span, ft. | | | | | | | | | | | | | | | |
|-------------------------|-----------|-----|-----|-----|-----|------|------|-----|------|------|------|------|------|------|------|----|
| | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 |
| 30-S | 248 | 206 | 171 | 142 | 118 | 98 | 80 | | | | | | | | | |
| | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | | | | | | | | | |
| | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | -0.1 | -0.1 | | | | | | | | | |
| 40-S | | 280 | 248 | 211 | 179 | 153 | 130 | 109 | 90 | 74 | | | | | | |
| | | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | | | | | | |
| | | 0.2 | 0.2 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | -0.1 | -0.2 | | | | | | |
| 50-S | | | 267 | 227 | 194 | 165 | 140 | 119 | 100 | 84 | 70 | | | | | |
| | | | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.1 | 0.1 | 0.0 | 0.0 | | | | | |
| | | | 0.2 | 0.2 | 0.2 | 0.2 | 0.1 | 0.1 | 0.0 | -0.1 | -0.2 | | | | | |
| 60-S | | | | 270 | 232 | 200 | 172 | 148 | 127 | 108 | 92 | 77 | 65 | | | |
| | | | | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.2 | 0.2 | 0.2 | 0.1 | 0.0 | | | |
| | | | | 0.4 | 0.3 | 0.3 | 0.3 | 0.3 | 0.2 | 0.1 | 0.0 | -0.1 | -0.3 | | | |
| 70-S | | | | | 271 | 235 | 204 | 177 | 153 | 132 | 114 | 98 | 84 | 71 | 59 | |
| | | | | | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.3 | 0.3 | 0.2 | 0.1 | 0.0 | |
| | | | | | 0.5 | 0.5 | 0.5 | 0.4 | 0.4 | 0.3 | 0.2 | 0.1 | 0.0 | -0.1 | -0.3 | |

FS8 + 2

Table of safe superimposed service load (psf) and cambers

2" Normal Weight Topping

| Strand Designation Code | Span, ft. | | | | | | | | | | | | |
|-------------------------|-----------|-----|-----|------|------|------|------|------|------|------|------|------|----|
| | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 |
| 40-S | 273 | 232 | 192 | 155 | 123 | 96 | 72 | | | | | | |
| | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | | | | | | |
| | 0.1 | 0.0 | 0.0 | -0.1 | -0.1 | -0.2 | -0.3 | | | | | | |
| 50-S | | 298 | 249 | 206 | 170 | 139 | 111 | 87 | 66 | | | | |
| | | 0.2 | 0.2 | 0.2 | 0.2 | 0.1 | 0.1 | 0.0 | 0.0 | | | | |
| | | 0.2 | 0.1 | 0.1 | 0.0 | -0.1 | -0.2 | -0.3 | -0.4 | | | | |
| 60-S | | | 258 | 217 | 181 | 150 | 123 | 99 | 77 | 58 | | | |
| | | | 0.3 | 0.3 | 0.3 | 0.2 | 0.2 | 0.2 | 0.1 | 0.0 | | | |
| | | | 0.2 | 0.2 | 0.1 | 0.0 | -0.1 | -0.2 | -0.4 | -0.5 | | | |
| 70-S | | | | 263 | 223 | 189 | 158 | 131 | 108 | 86 | 67 | 50 | |
| | | | | 0.4 | 0.4 | 0.4 | 0.4 | 0.3 | 0.3 | 0.2 | 0.1 | 0.0 | |
| | | | | 0.3 | 0.3 | 0.2 | 0.1 | 0.0 | -0.1 | -0.3 | -0.5 | -0.7 | |

Bold type — Capacity governed by stresses, others governed by flexural or shear strength