

Extruded Hollow Core

PRESTRESSED CONCRETE SLAB

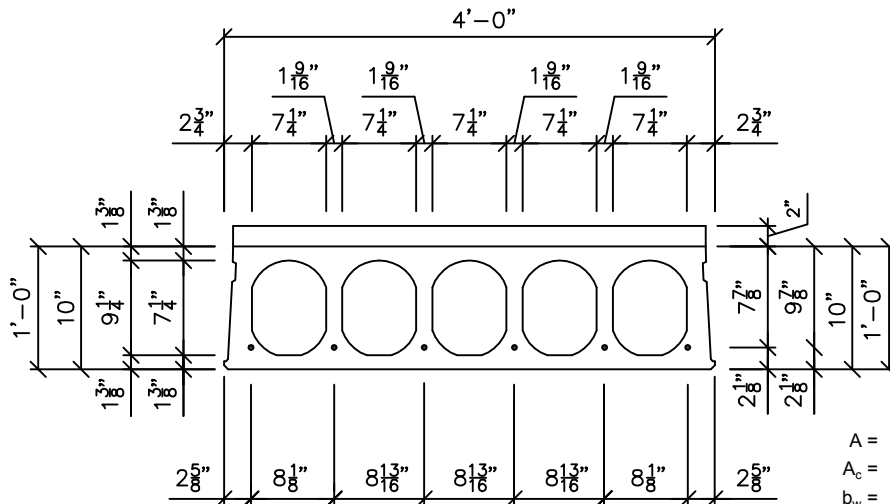
12" X 48" Light Section 2" Structural Topping

Safe Load Table

UNIFORMLY DISTRIBUTED SUPERIMPOSED SERVICE LOAD IN PSF

| Standard Designation | Strands No. & Size | Strand Area Sq. In. | M Ft.-Kips per Unit | ϕM_n Ft.-Kips Per Unit | Span Length (L) in Ft. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------|--------------------|---------------------|---------------------|------------------------------|------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|----|----|----|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| | | | | | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | | | | | | | | | | | | | | |
| T1248-130 | 6 - 6/10 | 1.302 | 168.6 | 239.4 | 874 | 814 | 762 | 715 | 673 | 636 | 602 | 571 | 533 | 483 | 439 | 400 | 365 | 334 | 306 | 281 | 258 | 237 | 219 | 201 | 184 | 167 | 152 | 139 | 126 | 114 | 103 | 93 | 83 | 75 | 66 | 59 | 51 | | | | | | | | | | | | | | |
| T1248-117 | 4 - 6/10 & 2 - 1/2 | 1.174 | 157.0 | 217.6 | 874 | 814 | 762 | 715 | 673 | 636 | 596 | 536 | 483 | 438 | 397 | 361 | 329 | 301 | 275 | 252 | 231 | 212 | 194 | 179 | 163 | 148 | 134 | 121 | 110 | 99 | 88 | 79 | 70 | 62 | 54 | | | | | | | | | | | | | | | | |
| T1248-92 | 6 - 1/2 | 0.918 | 133.9 | 173.0 | 874 | 814 | 757 | 666 | 590 | 525 | 469 | 420 | 378 | 340 | 308 | 278 | 252 | 229 | 208 | 190 | 172 | 157 | 143 | 130 | 118 | 108 | 98 | 87 | 77 | 67 | 59 | 51 | | | | | | | | | | | | | | | | | | | |
| T1248-62 | 4 - 1/2 | 0.612 | 106.3 | 117.6 | 669 | 579 | 504 | 441 | 387 | 342 | 303 | 269 | 239 | 213 | 191 | 170 | 152 | 136 | 121 | 108 | 96 | 86 | 76 | 67 | 59 | 51 | | | | | | | | | | | | | | | | | | | | | | | | | |

controlled by: ultimate shear service



$A = 285.12 \text{ in}^2$ $f'_c = 9000 \text{ psi}$
 $A_c = 344.06 \text{ in}^2$ $f'_{ci} = 3500 \text{ psi}$
 $b_w = 10.626 \text{ in}$ $f'_{ct} = 3000 \text{ psi}$
 $I_g = 5248 \text{ in}^4$ $f_{pu} = 270 \text{ ksi}$
 $I_{gc} = 6442.8 \text{ in}^4$
 $y_b = 6.095 \text{ in}$
 $y_{bc} = 6.935 \text{ in}$

NOTES:

- 1) Grouted weight of topped structural unit is 105 psf or 420 plf based on concrete unit weight of 154 pcf.
- 2) Design is based on ACI Standard, "Building Code Requirements for Reinforced Concrete (ACI318)."
- 3) No shear reinforcement is required for the tabulated loads to the right of the heavy stepped line.
- 4) Tabulated loads are based on $U=1.2D+1.6L$ and with all load superimposed on the structural section considered as live load.
- 5) Tabulated loads in the blue area may be achieved by adding partial concrete corefill.
- 6) Tabulated loads in yellow are controlled by permissible flexural tension at service loads.
- 7) Tabulated loads in bold font have deflections in excess of $L/360$.
- 8) All strand stressed to 70% of ultimate.
- 9) For longer spans and conditions not covered in the load table, consult Molin.



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