

Extruded Hollow Core

PRESTRESSED CONCRETE SLAB

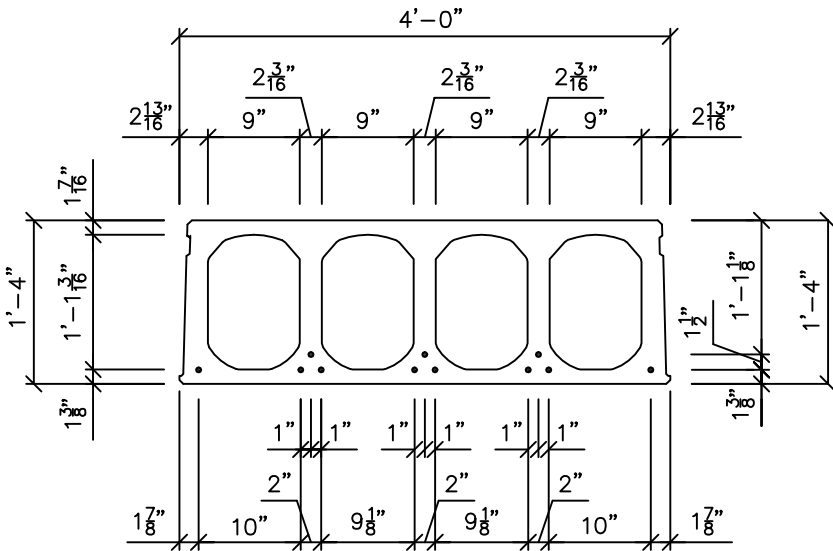
16" X 48" Light Section

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.																																						
					30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65			
1648-239	11 - 6/10	2.387	388.5	593.4	386	371	358	345	332	321	310	299	290	280	272	263	255	247	240	233	227	220	214	208	203	197	190	180	169	160	151	142	134	126	119	112	105	99	93	87			
1648-226	9 - 6/10 & 2 - 1/2	2.259	371.9	563.9	383	369	355	342	330	318	307	297	287	278	269	261	253	245	238	231	225	218	212	206	200	189	178	168	158	149	140	132	124	117	109	103	96	90	84	79			
1648-213	7 - 6/10 & 4 - 1/2	2.131	357.3	537.8	383	368	355	342	329	318	307	297	287	278	269	261	253	245	238	231	225	218	212	201	189	178	167	157	148	139	131	123	115	108	101	95	89	83	77	72			
1648-179	4 - 6/10 & 6 - 1/2	1.786	316.1	462.0	376	361	348	335	323	312	301	291	281	272	264	255	248	240	226	212	200	189	177	166	156	146	137	128	120	112	105	98	91	85	79	73	67	62	57	53			
1648-148	4 - 6/10 & 4 - 1/2	1.480	281.7	396.0	370	355	342	329	318	306	296	286	270	253	237	222	208	195	183	172	161	151	142	133	125	118	110	103	96	89	83	76	70	65	59	54	50						
1648-117	4 - 6/10 & 2 - 1/2	1.174	241.4	318.5	355	341	316	293	272	252	234	218	203	189	176	164	153	143	133	124	115	107	100	93	86	80	74	69	64	59	54	50											
1648-77	5 - 1/2	0.765	187.5	211.4	221	202	185	170	156	143	131	120	110	101	92	84	77	70	64	58	52																						

controlled by: ultimate shear service



$A = 351.9 \text{ in}^2$ $f'_c = 9000 \text{ psi}$
 $b_w = 11.234 \text{ in}$ $f'_{ci} = 3500 \text{ psi}$
 $I_g = 11581.1 \text{ in}^4$ $f_{pu} = 270 \text{ ksi}$
 $y_b = 7.917 \text{ in}$

NOTES:

- 1) Grouted weight of structural unit is 99 psf or 396 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 show 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.



Molin Concrete Products Company • 415 Lilac Street • Lino Lakes, MN 55014
 Office: 651.786.7722 • 800.336.6546 • Fax: 651.786.0229
 www.molin.com • e-mail: info@molin.com

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