

# Extruded Hollow Core

PRESTRESSED CONCRETE SLAB

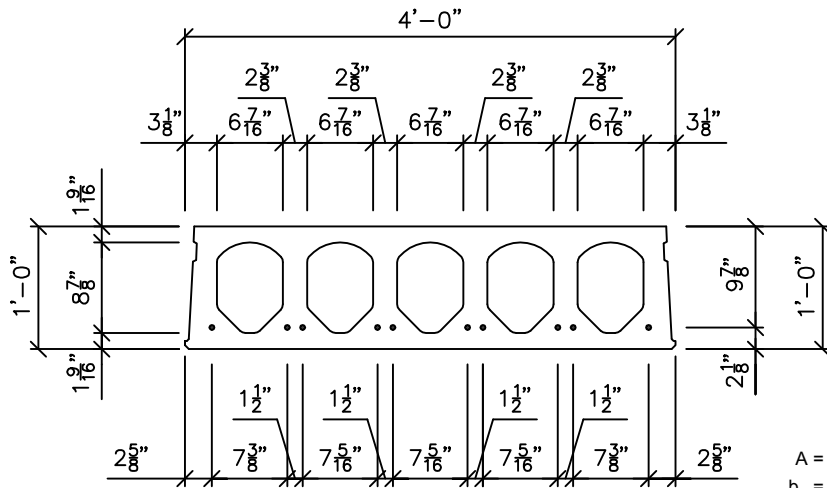
# 12" X 48" Heavy Section

Safe Load Table

UNIFORMLY DISTRIBUTED SUPERIMPOSED SERVICE LOAD IN PSF

Standard Designation	Strands No. & Size	Strand Area Sq. In.	M Ft.-Kips per Unit	$\phi M_n$ 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	48	49	50												
1248H-217*	10 - 6/10	2.170	221.3	377.2	1109	1035	971	913	861	815	773	735	700	668	618	565	517	474	436	402	371	342	316	293	271	251	233	216	201	187	173	161	149	139	129	119	110	102	94	87												
1248H-204	8 - 6/10 & 2 - 1/2	2.042	231.5	357.9	1109	1035	971	913	861	815	773	735	700	668	638	594	545	501	461	425	392	362	335	311	288	267	248	231	214	199	185	173	160	149	139	129	120	111	103	95												
1248H-179	4 - 6/10 & 6 - 1/2	1.786	209.7	318.3	1109	1035	971	913	861	815	773	735	685	623	569	521	478	440	406	375	346	319	295	273	252	234	216	200	186	172	159	148	137	127	117	108	100	92	85	78												
1248H-148	4 - 6/10 & 4 - 1/2	1.480	183.5	269.0	1109	1035	971	913	861	773	695	627	568	516	470	430	394	361	332	306	282	261	241	223	207	192	178	164	151	139	128	118	108	100	91	83	76	69	63	57												
1248H-117	4 - 6/10 & 2 - 1/2	1.174	157.3	217.6	1109	995	874	772	686	613	549	495	447	405	368	335	306	279	256	235	216	198	182	168	155	142	131	121	111	103	94	87	80	73	65	59	52															
1248H-92	6 - 1/2	0.918	135.5	173.0	894	777	681	600	532	473	423	379	341	308	279	252	229	208	190	173	158	144	131	120	109	99	90	82	75	68	61	55																				
1248H-61	4 - 1/2	0.612	109.3	117.6	586	507	441	386	340	300	266	236	210	188	168	150	134	120	107	96	86	76	68	60	53																											

controlled by: ultimate  shear  service



\* Strand Stressed to 62% of Ultimate

$A = 326.95 \text{ in}^2$        $f'_c = 9000 \text{ psi}$   
 $b_w = 14.38 \text{ in}$        $f'_{ci} = 3500 \text{ psi}$   
 $I_g = 5578.32 \text{ in}^4$        $f_{pu} = 270 \text{ ksi}$   
 $y_b = 5.803 \text{ in}$

**NOTES:**

- 1) Grouted weight of structural unit is 92 psf or 368 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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