

Flexicore Hollow Core

PRESTRESSED CONCRETE SLAB

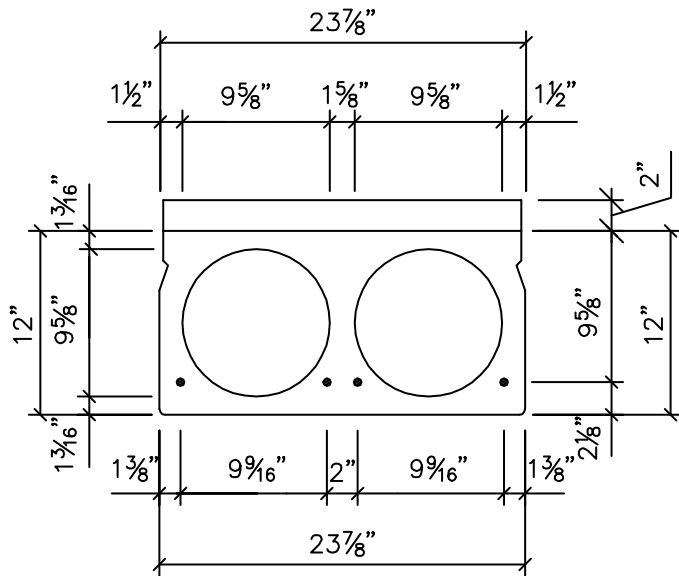
12" X 24" Section 2" Structural Topping

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.																			
					25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
T1224B-60*	4 -1/2	0.612	86.5	123.1	306	292	280	268	257	246	235	213	193	175	158	142	128	115	103	91	81	71	62	54
T1224B-58	4 -1/2	0.576	87.5	109.8	306	292	280	268	253	231	212	195	179	164	151	138	127	117	105	94	83	74	65	56
T1224B-50	2 -1/2 & 2 -7/16	0.504	79.9	98.0	306	289	262	239	218	199	181	166	151	138	126	115	105	96	85	75	65	56		
T1224B-43	4 -7/16	0.432	72.3	85.6	269	243	220	200	181	164	149	136	123	112	101	92	83	75	65	56				
T1224B-38	2 -7/16 & 2 -3/8	0.376	66.4	75.7	229	206	186	168	151	137	123	111	100	90	81	72	65	57	50					
T1224B-32	4 -3/8	0.320	60.4	65.4	188	168	151	135	121	108	97	86	77	68	60	53								

controlled by: ultimate shear service



A =	141 in ²	f _c =	6000 psi
A _c =	174.94 in ²	f _{ci} =	3500 psi
b _w =	4.625 in	f _{ct} =	3000 psi
I _g =	2594.4 in ⁴	f _{pu} =	250 ksi
I _{gc} =	4044.2 in ⁴	f _{pu} * =	270 ksi
y _b =	6.000 in		
y _{bc} =	7.350 in		

* Strand Stressed to 60% of Ultimate

NOTES:

- 1) Grouted weight of topped structural unit is 98 psf or 196 plf based on concrete unit weight of 150 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 shear reinforcing.
- 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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