Form No. TW1 Rev. a

Safe Load Table

8" x 16" flexicore® SECTION

UNIFORMLY DISTRIBUTED SUPERIMPOSED* LOAD IN LBS. PER SQ. FT.

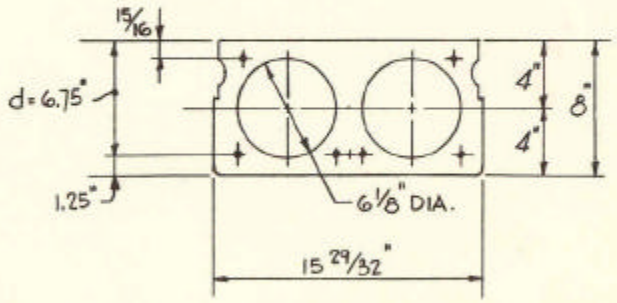
STD. DESIG-NATION	TENSILE STEEL AREA SQ. IN.	SIMPLE SPANS IN FEET AND INCHES																																
		10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"	15'-6"	16'-0"	16'-6"	17'-0"	17'-6"	18'-0"	18'-6"	19'-0"	19'-6"	20'-0"	20'-6"	21'-0"	21'-6"	22'-0"	22'-6"	23'-0"	23'-6"	24'-0"	24'-6"	25'-0"	25'-6"	26'-0"
W 148	1.485							475	436	401	370	343	318	294	270	247	225	205	187	168	152	138	125	113	102	92	82	72	62	53	49	46	43	40
W 123	1.227			558	506	460	420	384	353	324	298	274	254	235	217	202	187	174	161	150	140	128	116	104	93	83	73	64	55	49	46	43	40	
W 99	0.994	550	494	445	403	365	332	303	277	253	233	213	196	181	167	154	142	131	121	112	104	96	88	81	75	69	63	54	48	45	42	40		
W 92	0.920	508	455	410	370	335	305	278	253	232	213	194	179	164	151	139	128	118	109	100	92	85	78	72	66	60	55	50	46	42	38			
W 88**	0.884	486	435	392	354	320	291	264	241	220	202	185	170	156	143	132	121	111	102	94	87	79	73	67	61	56	51	46	42	38				
W 86	0.862	472	423	381	344	310	281	256	234	213	194	178	164	150	138	127	117	107	98	90	83	76	70	64	58	53	48	44	40	35				
W 80	0.804	438	391	351	318	287	260	236	215	196	179	164	150	137	126	115	105	96	88	81	74	67	61	56	51	46	41	37						
W 75	0.746	406	363	326	294	265	240	217	198	180	164	149	136	124	114	104	95	86	79	72	66	60	54	49	44	39	35							
W 74**	0.742	403	359	323	291	262	237	215	196	178	162	148	135	123	113	103	94	85	78	71	65	59	53	48	43	39								
W 69	0.693	373	334	298	269	242	219	198	180	163	148	135	123	111	101	92	84	76	69	63	57	51	46	41	36									
W 64	0.641	340	303	271	244	219	198	178	161	146	132	120	109	98	89	81	73	66	59	54	48	43	38	32										
W 61**	0.614	325	289	259	232	208	188	169	153	138	125	113	103	93	84	76	68	61	55	49	44	39	35											
W 59	0.589	310	276	247	221	198	178	160	145	131	118	106	96	87	78	71	63	57	51	45	40	35												
W 54	0.543	282	251	223	200	178	160	144	130	116	103	94	85	76	68	61	54	48	43	37														
W 50**	0.497	255	226	201	180	160	143	128	115	103	92	82	73	65	58	51	45	40	35															
W 45	0.451	226	200	177	158	140	125	111	99	88	78	69	61	54	48	42	36																	
W 41	0.411	202	179	157	139	123	109	97	86	75	67	59	52	45	39	33																		
W 39**	0.393	190	167	147	130	114	101	89	79	69	61	53	47	40	34																			
W 37	0.371	177	156	136	120	106	93	82	72	63	55	47	41	35																				
W 33	0.332	153	134	117	102	89	78	68	59	51	44	37																						
W 30**	0.301	135	117	102	88	77	66	57	49	41	34																							
W22**	0.221	84	71	60	50	41	33																											

*INCLUDES THE LIVE LOAD PLUS ANY DEAD LOAD THAT IS ADDITIONAL TO THE WEIGHT OF THE BARE GROUTED SLABS IN PLACE.

REMARKS

1. Safe loads for greater steel content must not be extrapolated. A balanced slab has 1.705 sq. in. of steel for ACI Code allowables of 20,000 - 1688 - 8.
2. Safe superimposed $w_s = \frac{6M}{L^2} - 56.3$ lbs. (w_s in lbs. per sq. ft., M is in ft.-lbs. per slab, L is in ft.)
3. The maximun span without stirrups = $\frac{3320}{w_{D+s}}$. With stirrups used it is $\frac{8820}{w_{D+s}}$.
4. The table is based upon dead load and grout of 75 lbs. per lin. ft. or $w_D = 56.3$ lbs. per sq. ft.
5. Stirrups are needed for all loadings above the heavy dashed line.
6. The above tabulated load contemplate a depth, d, to the centroid of the steel of 6.75 in.
7. Minimum total wall thickness (bl) = 3.22 in.
8. Load computations are in accordance with **1951 ACI 318 CODE.**
9. Deflections in reinforced concrete members under service loads depend on the elastic properties of concrete and steel, as well as on shrinkage and creep which, in turn, are influenced by temperature and humidity, curing conditions, age of concrete at the time of loading and other factors. Therefore, all simple methods of computation of deflection are necessarily approximate.
   a. The safe loads above the solid stepped line have been reduced from the actual safe load as calculated in Item 2. This reduction improves the deflection characteristics under normal loading.
   b. The elastic deflection (calculated on the basis of a cracked section) due to the design w_s only is not likely to exceed 1/360 of the span.
   c. With an actual w_s of less than 40% of the design w_s and assuming an uncracked section, the total elastic deflection, due to the dead load of the slab and the actual w_s, is not likely to exceed 1/720 of the span.
   d. Under the conditions described in (c) and using a long-time deflection multiplier of 2.0, the long time deflection is not likely to exceed 1/360 of the span.

** Indicates slabs with 2 rods tensile steel.



THE FLEXICORE CO., INC.
Dayton, Ohio

October 30, 1962