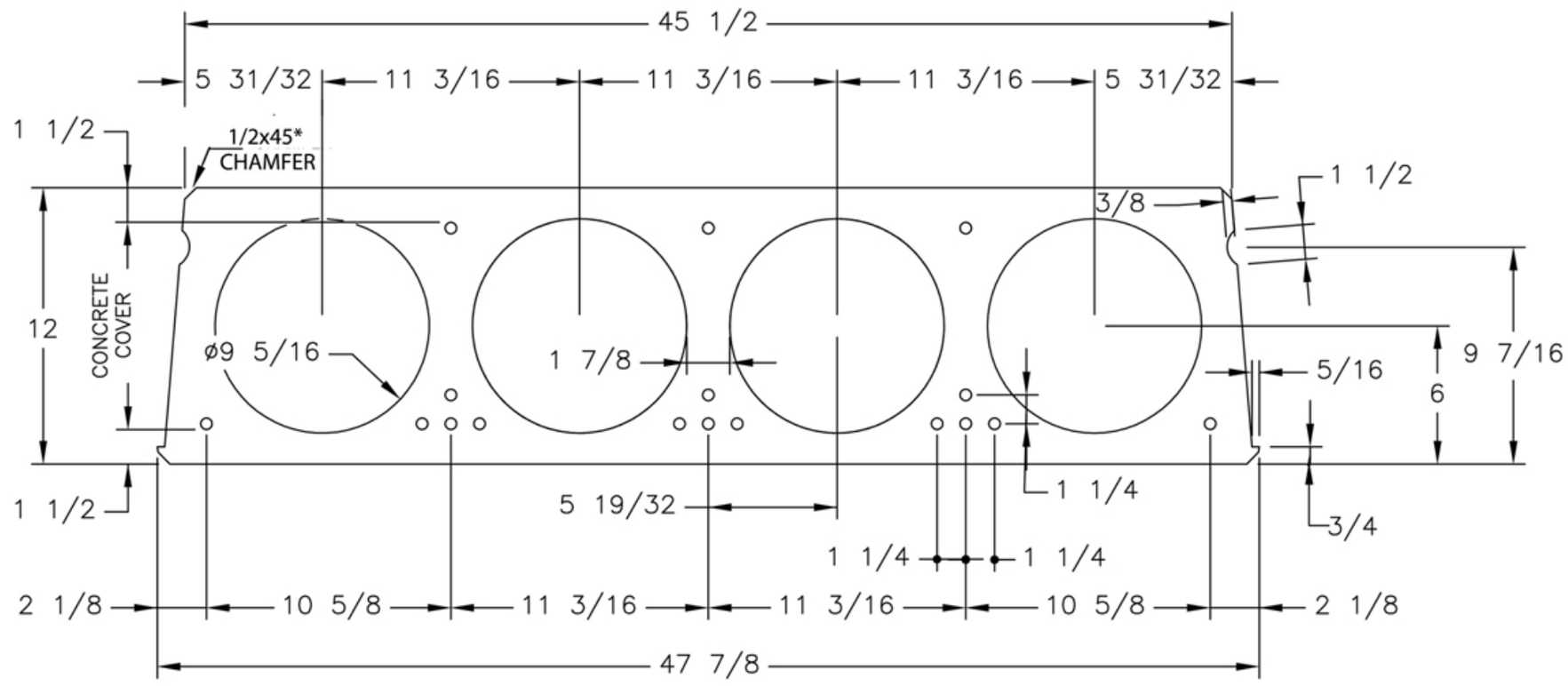
12" Slab and Reinforcing Geometry



1248 Load Table of Allowable Superimposed Service Loads psf

Strand Ø	Strands Row 1	Strands Row 2	Area of Steel in²	Vc kip	Mn kip-ft	Span (feet)																								
						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
3/8"	7	0	0.60	24.5	119	27	22	17	13	9	5	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3/8"	8	0	0.68	25.0	135	39	32	27	22	17	14	10	6	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1/2"	5	0	0.76	24.2	149	49	41	36	31	25	21	17	13	9	6	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3/8"	8	0	0.85	25.3	162	171	155	143	131	120	110	101	92	85	78	71	65	60	54	49	45	40	36	33	29	26	22	19	16	13	10
1/2"	6	0	0.92	24.8	177	192	175	162	149	136	126	116	106	98	90	83	76	70	64	59	54	49	45	41	37	33	30	26	23	20	16
3/8"	8	2	0.94	25.5	175	190	172	160	147	134	124	114	104	97	89	81	75	69	63	58	53	48	44	40	36	32	29	25	22	19	15
1/2"	7	4	1.07	25.5	204	219	210	195	180	165	154	142	131	122	113	104	97	89	82	77	71	65	60	55	51	47	43	39	35	31	27
0.6"	5	0	1.09	24.7	206	211	201	190	178	166	155	143	132	123	114	105	98	90	83	77	72	66	61	56	51	47	43	39	35	32	28
1/2"	8	0	1.22	26.1	231	226	216	208	200	191	179	167	155	145	134	124	116	108	100	94	87	80	75	70	64	60	55	51	47	42	38
0.6"	6	0	1.30	25.4	242	219	209	201	193	185	178	172	165	155	144	134	125	117	108	101	94	87	82	76	71	66	61	56	52	47	43
0.6"	7	0	1.52	26.2	278	227	217	209	200	192	185	178	171	166	160	154	146	139	131	124	116	108	102	95	89	84	78	73	68	63	58
1/2"	8	2	1.53	26.7	274	233	222	214	205	197	190	183	176	170	164	158	148	139	129	121	114	106	99	93	87	81	76	71	66	61	56
1/2"	8	4	1.68	27.0	294	236	226	217	209	200	193	186	179	173	166	160	150	141	131	124	116	109	103	98	92	87	83	79	74	69	65
0.6"	8	0	1.74	26.9	312	235	224	216	208	199	192	185	178	172	166	160	151	141	132	124	117	110	104	98	92	88	84	79	76	72	68

Note: Load tables provided for reference only. The user is responsible for ultimate design approvals
Service load includes 10 psf dead load
Highlighted values (bottom left) indicate web shear or flexural shear controls
Highlighted values (upper right) indicate long-time camber less than zero with no superimposed service loads
Slabs designed according to ACI-318M-14
UltraSpan reserves the right to update these load tables at any time

Slab Section and Material Properties

Net Area	283	in²	Strength of Concrete	7250	psi
Moment of Inertia	5188	in⁴	Strength at Transfer	4060	psi
Centroid from Slab Bottom	5.91	in	Unit Weight of Concrete	150	pcf
Section Modulus, Top	850	in³	Ultimate Steel Strength	270	ksi
Section Modulus, Bottom	878	in³	Strand Jacking Stress	202	ksi
Web Width	9	in	Strand Type	Low Relaxation	
V/S Ratio	2.41	in	Grout Joint Requirements	1044	sf/cy
Self Weight	74	psf	Self weights are based on ungrouted section.		

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