

ALLOWABLE FORMWORK LOADS AND REQUIRED BEARING LENGTHS

1½" 2.0E PWLVL

Span (ft)	Thickness (in)		1½									
	Depth (in)		3½	4	5½	6	7¼	8	9¼	10	11¼	11¾
2	Concrete (plf)	Simple	1293	1552	2515	2918	3958					
		Continuous	1293	1552	2515	2918	3958					
	Total Load (plf)		1293	1552	2515	2918	3958					
	Min. End Bearing (in)		3.5	3.5	3.5	3.5	3.5					
	Min. Int. Bearing (in)		5.25	5.25	5.25	6	8					
3	Concrete (plf)	Simple	751	883	1328	1496	1968	2293	2569			
		Continuous	751	883	1328	1496	1968	2293	2569			
	Total Load (plf)		751	883	1328	1496	1968	2293	2569			
	Min. End Bearing (in)		3.5	3.5	3.5	3.5	3.5	3.5	3.5			
	Min. Int. Bearing (in)		5.25	5.25	5.25	5.25	6.25	7.25	8			
4	Concrete (plf)	Simple	357	533	902	1005	1285	1469	1807	1902		
		Continuous	416	616	902	1005	1285	1469	1807	1902		
	Total Load (plf)		529	616	902	1005	1285	1469	1807	1902		
	Min. End Bearing (in)		3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		
	Min. Int. Bearing (in)		5.25	5.25	5.25	5.25	5.5	6.25	7.5	8		
5	Concrete (plf)	Simple	165	246	642	757	954	1080	1307	1453	1509	
		Continuous	213	319	683	757	954	1080	1307	1453	1509	
	Total Load (plf)		385	473	683	757	954	1080	1307	1453	1509	
	Min. End Bearing (in)		3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
	Min. Int. Bearing (in)		5.25	5.25	5.25	5.25	5.25	5.75	7	7.75	8	
6	Concrete (plf)	Simple	89	133	347	451	758	854	1023	1131	1250	
		Continuous	123	184	481	607	758	854	1023	1131	1250	
	Total Load (plf)		264	336	549	607	758	854	1023	1131	1250	
	Min. End Bearing (in)		3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
	Min. Int. Bearing (in)		5.25	5.25	5.25	5.25	5.25	5.5	6.5	7.25	8	
7	Concrete (plf)	Simple		79	208	270	478	643	841	925	1067	
		Continuous	77	116	302	393	629	706	841	925	1067	
	Total Load (plf)		193	245	435	506	629	706	841	925	1067	
	Min. End Bearing (in)		3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
	Min. Int. Bearing (in)		5.25	5.25	5.25	5.25	5.25	5.25	6.25	7	8	
8	Concrete (plf)	Simple			134	174	309	415	643	783	904	930
		Continuous		77	202	263	465	602	713	783	904	930
	Total Load (plf)			186	331	387	537	602	713	783	904	930
	Min. End Bearing (in)			3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
	Min. Int. Bearing (in)			5.25	5.25	5.25	5.25	5.25	6.25	6.75	7.75	8
9	Concrete (plf)	Simple			81	105	187	252	391	494	705	825
		Continuous			126	164	290	390	604	678	780	825
	Total Load (plf)				260	304	428	511	619	678	780	825
	Min. End Bearing (in)				3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
	Min. Int. Bearing (in)				5.25	5.25	5.25	5.25	6	6.5	7.5	8
10	Concrete (plf)	Simple				66	118	160	248	314	448	528
		Continuous			81	106	188	253	393	497	686	732
	Total Load (plf)				210	245	345	412	536	598	686	732
	Min. End Bearing (in)				3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
	Min. Int. Bearing (in)				5.25	5.25	5.25	5.25	5.75	6.5	7.5	8
11	Concrete (plf)	Simple					78	106	164	208	298	351
		Continuous				71	127	171	266	336	480	565
	Total Load (plf)					202	284	339	441	508	613	652
	Min. End Bearing (in)					3.5	3.5	3.5	3.5	3.5	3.5	3.5
	Min. Int. Bearing (in)					5.25	5.25	5.25	5.25	6	7.25	7.75
12	Concrete (plf)	Simple						72	113	143	205	242
		Continuous					88	119	186	235	336	396
	Total Load (plf)						238	284	369	425	526	580
	Min. End Bearing (in)						3.5	3.5	3.5	3.5	3.5	3.5
	Min. Int. Bearing (in)						5.25	5.25	5.25	5.5	6.75	7.5

Notes:

- Table values apply to joists loaded and supported on the member faces showing the narrow edge of all veneers (beam orientation).
- Values shown are the maximum uniform loads in pounds per lineal foot (plf), that can be applied to the beam in addition to its own weight.
- Table values have been adjusted by a factor of $C_M = 0.9$ for outside exposure (above ground) and $C_D = 1.25$ for construction load duration.
- Span is measured from center of bearing to center of bearing.
- Table values for CONCRETE LOAD are limited by deflection equal to the lesser of ¼ inch or $L/360$, where L is the length of the span.
- Provide lateral restraint at supports and along the compression edge of each beam at intervals not to exceed 24".
- Contact Pacific Woodtech or consult a professional engineer to analyze conditions outside the scope of this table (e.g. different bearing conditions, concentrated loads) or for multiple spans if the length of any span is less than half the length of an adjacent span.

HOW TO USE THESE TABLES:

- Calculate the TOTAL LOAD and the CONCRETE LOAD on the beam in pounds per lineal foot (plf). Neglect self weight. Total Load = DL + LL + CL.
- Select a column header that matches the width of the beams under consideration.
- Locate under SPAN a span that meets or exceeds the required span.
- Scan from left to right within the SPAN row until you find a cell where both the maximum TOTAL LOAD and the maximum CONCRETE LOAD meet or exceed the required loads. Use the CONCRETE LOAD value that corresponds to the intended span condition – simple or continuous.
- Check the bearing length requirements.
- Select the beam depth at the top of the column.

ALLOWABLE FORMWORK LOADS AND REQUIRED BEARING LENGTHS

1 3/4" 2.0E PWLVL

Span (ft)	Thickness (in)		1 3/4									
	Depth (in)		3 1/2	4	5 1/2	6	7 1/4	8	9 1/4	10	11 1/4	11 3/8
2	Concrete (plf)	Simple	1508	1811	2934	3404	4618					
		Continuous	1508	1811	2934	3404	4618					
	Total Load (plf)		1508	1811	2934	3404	4618					
	Min. End Bearing (in)		3.5	3.5	3.5	3.5	3.5					
	Min. Int. Bearing (in)		5.25	5.25	5.25	6	8					
3	Concrete (plf)	Simple	876	1030	1550	1745	2296	2675	2998			
		Continuous	876	1030	1550	1745	2296	2675	2998			
	Total Load (plf)		876	1030	1550	1745	2296	2675	2998			
	Min. End Bearing (in)		3.5	3.5	3.5	3.5	3.5	3.5	3.5			
	Min. Int. Bearing (in)		5.25	5.25	5.25	5.25	6.25	7.25	8			
4	Concrete (plf)	Simple	416	622	1052	1173	1499	1714	2108	2218		
		Continuous	486	719	1052	1173	1499	1714	2108	2218		
	Total Load (plf)		617	719	1052	1173	1499	1714	2108	2218		
	Min. End Bearing (in)		3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		
	Min. Int. Bearing (in)		5.25	5.25	5.25	5.25	5.5	6.25	7.5	8		
5	Concrete (plf)	Simple	192	287	748	883	1113	1261	1525	1695	1760	
		Continuous	249	372	796	883	1113	1261	1525	1695	1760	
	Total Load (plf)		449	552	796	883	1113	1261	1525	1695	1760	
	Min. End Bearing (in)		3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
	Min. Int. Bearing (in)		5.25	5.25	5.25	5.25	5.25	5.75	7	7.75	8	
6	Concrete (plf)	Simple	103	155	405	526	885	996	1194	1319	1458	
		Continuous	144	215	561	708	885	996	1194	1319	1458	
	Total Load (plf)		309	393	640	708	885	996	1194	1319	1458	
	Min. End Bearing (in)		3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
	Min. Int. Bearing (in)		5.25	5.25	5.25	5.25	5.25	5.5	6.5	7.25	8	
7	Concrete (plf)	Simple	62	92	242	315	558	750	981	1080	1245	
		Continuous	90	135	353	458	734	824	981	1080	1245	
	Total Load (plf)		225	286	508	590	734	824	981	1080	1245	
	Min. End Bearing (in)		3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
	Min. Int. Bearing (in)		5.25	5.25	5.25	5.25	5.25	5.25	6.25	7	8	
8	Concrete (plf)	Simple		156	203	360	484	750	913	1055	1085	
		Continuous		90	236	306	542	702	832	913	1055	1085
	Total Load (plf)			217	386	452	627	702	832	913	1055	1085
	Min. End Bearing (in)			3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
	Min. Int. Bearing (in)			5.25	5.25	5.25	5.25	5.25	6.25	6.75	7.75	8
9	Concrete (plf)	Simple		94	123	218	294	456	577	822	962	
		Continuous		147	191	338	455	705	791	910	962	
	Total Load (plf)			303	355	500	597	722	791	910	962	
	Min. End Bearing (in)			3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
	Min. Int. Bearing (in)			5.25	5.25	5.25	5.25	5.25	6	6.5	7.5	8
10	Concrete (plf)	Simple		77	138	186	289	366	523	616		
		Continuous		95	123	219	295	458	579	801	854	
	Total Load (plf)			244	286	403	481	625	698	801	854	
	Min. End Bearing (in)			3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
	Min. Int. Bearing (in)			5.25	5.25	5.25	5.25	5.25	5.75	6.5	7.5	8
11	Concrete (plf)	Simple			91	123	192	243	348	409		
		Continuous		64	83	148	199	310	392	560	659	
	Total Load (plf)			201	235	331	396	515	592	715	761	
	Min. End Bearing (in)			3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
	Min. Int. Bearing (in)			5.25	5.25	5.25	5.25	5.25	5.25	6	7.25	7.75
12	Concrete (plf)	Simple			62	84	132	167	239	282		
		Continuous			103	139	217	274	392	462		
	Total Load (plf)				277	331	431	496	614	677		
	Min. End Bearing (in)				3.5	3.5	3.5	3.5	3.5	3.5	3.5	
	Min. Int. Bearing (in)				5.25	5.25	5.25	5.25	5.25	5.5	6.75	7.5

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ALLOWABLE FORMWORK LOADS AND REQUIRED BEARING LENGTHS

2 1/2" 2.0E PWLVL

Span (ft)	Thickness (in)		2 1/2"									
	Depth (in)		3 1/2	4	5 1/2	6	7 1/4	8	9 1/4	10	11 1/4	11 7/8
2	Concrete (plf)	Simple	2154	2587	4192	4863	6597					
		Continuous	2154	2587	4192	4863	6597					
	Total Load (plf)		2154	2587	4192	4863	6597					
	Min. End Bearing (in)		3.5	3.5	3.5	3.5	3.5					
	Min. Int. Bearing (in)		5.25	5.25	5.25	6	8					
3	Concrete (plf)	Simple	1251	1471	2214	2493	3279	3821	4282			
		Continuous	1251	1471	2214	2493	3279	3821	4282			
	Total Load (plf)		1251	1471	2214	2493	3279	3821	4282			
	Min. End Bearing (in)		3.5	3.5	3.5	3.5	3.5	3.5	3.5			
	Min. Int. Bearing (in)		5.25	5.25	5.25	5.25	6.25	7.25	8			
4	Concrete (plf)	Simple	595	889	1503	1676	2142	2449	3012	3169		
		Continuous	694	1027	1503	1676	2142	2449	3012	3169		
	Total Load (plf)		881	1027	1503	1676	2142	2449	3012	3169		
	Min. End Bearing (in)		3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		
	Min. Int. Bearing (in)		5.25	5.25	5.25	5.25	5.5	6.25	7.5	8		
5	Concrete (plf)	Simple	274	410	1069	1261	1590	1801	2178	2422	2514	
		Continuous	355	531	1138	1261	1590	1801	2178	2422	2514	
	Total Load (plf)		642	789	1138	1261	1590	1801	2178	2422	2514	
	Min. End Bearing (in)		3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
	Min. Int. Bearing (in)		5.25	5.25	5.25	5.25	5.25	5.75	7	7.75	8	
6	Concrete (plf)	Simple	148	221	578	751	1264	1424	1706	1885	2084	
		Continuous	205	307	801	1011	1264	1424	1706	1885	2084	
	Total Load (plf)		441	561	915	1011	1264	1424	1706	1885	2084	
	Min. End Bearing (in)		3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
	Min. Int. Bearing (in)		5.25	5.25	5.25	5.25	5.25	5.5	6.5	7.25	8	
7	Concrete (plf)	Simple	88	132	346	450	797	1071	1401	1542	1778	
		Continuous	128	193	504	655	1048	1177	1401	1542	1778	
	Total Load (plf)		321	408	726	843	1048	1177	1401	1542	1778	
	Min. End Bearing (in)		3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
	Min. Int. Bearing (in)		5.25	5.25	5.25	5.25	5.25	5.25	6.25	7	8	
8	Concrete (plf)	Simple	85	223	290	514	692	1072	1305	1506	1551	
		Continuous	85	128	337	438	774	1003	1189	1305	1506	1551
	Total Load (plf)		244	310	552	646	895	1003	1189	1305	1506	1551
	Min. End Bearing (in)		3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
	Min. Int. Bearing (in)		5.25	5.25	5.25	5.25	5.25	5.25	6.25	6.75	7.75	8
9	Concrete (plf)	Simple			135	175	312	420	651	824	1175	1375
		Continuous		79	209	273	483	650	1007	1130	1301	1375
	Total Load (plf)			244	433	507	714	852	1032	1130	1301	1375
	Min. End Bearing (in)			3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
	Min. Int. Bearing (in)			5.25	5.25	5.25	5.25	5.25	6	6.5	7.5	8
10	Concrete (plf)	Simple		85	111	197	266	413	523	747	880	
		Continuous		135	176	313	422	654	828	1144	1220	
	Total Load (plf)			349	409	575	687	893	997	1144	1220	
	Min. End Bearing (in)			3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
	Min. Int. Bearing (in)			5.25	5.25	5.25	5.25	5.25	5.75	6.5	7.5	8
11	Concrete (plf)	Simple			73	130	176	274	347	497	585	
		Continuous		91	119	211	285	443	560	800	941	
	Total Load (plf)			287	336	473	566	735	846	1021	1087	
	Min. End Bearing (in)			3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
	Min. Int. Bearing (in)			5.25	5.25	5.25	5.25	5.25	5.25	6	7.25	7.75
12	Concrete (plf)	Simple				89	120	188	239	342	403	
		Continuous		63	82	147	199	309	392	560	659	
	Total Load (plf)			240	281	396	473	615	708	877	966	
	Min. End Bearing (in)			3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
	Min. Int. Bearing (in)			5.25	5.25	5.25	5.25	5.25	5.25	5.5	6.75	7.5



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ALLOWABLE FORMWORK LOADS AND REQUIRED BEARING LENGTHS

3 1/2" 2.0E PWLVL

Span (ft)	Thickness (in)		3 1/2									
	Depth (in)		3 1/2	4	5 1/2	6	7 1/4	8	9 1/4	10	11 1/4	11 1/2
2	Concrete (plf)	Simple	3016	3621	5869	6808	9235					
		Continuous	3016	3621	5869	6808	9235					
	Total Load (plf)		3016	3621	5869	6808	9235					
	Min. End Bearing (in)		3.5	3.5	3.5	3.5	3.5					
	Min. Int. Bearing (in)		5.25	5.25	5.25	6	8					
3	Concrete (plf)	Simple	1752	2059	3099	3491	4591	5350	5995			
		Continuous	1752	2059	3099	3491	4591	5350	5995			
	Total Load (plf)		1752	2059	3099	3491	4591	5350	5995			
	Min. End Bearing (in)		3.5	3.5	3.5	3.5	3.5	3.5	3.5			
	Min. Int. Bearing (in)		5.25	5.25	5.25	5.25	6.25	7.25	8			
4	Concrete (plf)	Simple	833	1244	2105	2346	2999	3428	4216	4437		
		Continuous	972	1438	2105	2346	2999	3428	4216	4437		
	Total Load (plf)		1234	1438	2105	2346	2999	3428	4216	4437		
	Min. End Bearing (in)		3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		
	Min. Int. Bearing (in)		5.25	5.25	5.25	5.25	5.5	6.25	7.5	8		
5	Concrete (plf)	Simple	384	574	1497	1766	2226	2521	3050	3391	3520	
		Continuous	498	744	1593	1766	2226	2521	3050	3391	3520	
	Total Load (plf)		899	1104	1593	1766	2226	2521	3050	3391	3520	
	Min. End Bearing (in)		3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
	Min. Int. Bearing (in)		5.25	5.25	5.25	5.25	5.25	5.75	7	7.75	8	
6	Concrete (plf)	Simple	207	310	809	1052	1769	1993	2388	2639	2917	
		Continuous	287	430	1122	1416	1769	1993	2388	2639	2917	
	Total Load (plf)		617	785	1281	1416	1769	1993	2388	2639	2917	
	Min. End Bearing (in)		3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
	Min. Int. Bearing (in)		5.25	5.25	5.25	5.25	5.25	5.5	6.5	7.25	8	
7	Concrete (plf)	Simple	123	185	485	630	1115	1500	1961	2159	2490	
		Continuous	180	270	705	917	1467	1647	1961	2159	2490	
	Total Load (plf)		449	572	1016	1181	1467	1647	1961	2159	2490	
	Min. End Bearing (in)		3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
	Min. Int. Bearing (in)		5.25	5.25	5.25	5.25	5.25	5.25	6.25	7	8	
8	Concrete (plf)	Simple	79	118	312	406	720	969	1500	1827	2109	2171
		Continuous	120	180	471	613	1084	1404	1664	1827	2109	2171
	Total Load (plf)		341	435	772	904	1253	1404	1664	1827	2109	2171
	Min. End Bearing (in)		3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
	Min. Int. Bearing (in)		5.25	5.25	5.25	5.25	5.25	5.25	6.25	6.75	7.75	8
9	Concrete (plf)	Simple		71	188	246	436	588	912	1153	1645	1925
		Continuous	74	111	293	382	676	910	1410	1582	1821	1925
	Total Load (plf)		268	341	607	710	999	1193	1444	1582	1821	1925
	Min. End Bearing (in)		3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
	Min. Int. Bearing (in)		5.25	5.25	5.25	5.25	5.25	5.25	6	6.5	7.5	8
10	Concrete (plf)	Simple			118	155	276	373	579	733	1046	1232
		Continuous		71	189	247	439	591	916	1159	1602	1708
	Total Load (plf)			275	489	572	805	962	1250	1396	1602	1708
	Min. End Bearing (in)			3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
	Min. Int. Bearing (in)			5.25	5.25	5.25	5.25	5.25	5.75	6.5	7.5	8
11	Concrete (plf)	Simple			77	102	182	246	384	486	695	819
		Continuous			127	166	296	399	620	784	1120	1318
	Total Load (plf)				402	471	663	792	1029	1185	1429	1522
	Min. End Bearing (in)				3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
	Min. Int. Bearing (in)				5.25	5.25	5.25	5.25	5.25	6	7.25	7.75
12	Concrete (plf)	Simple				69	124	169	263	334	479	564
		Continuous			88	115	206	278	433	549	784	923
	Total Load (plf)				336	394	555	663	862	992	1227	1353
	Min. End Bearing (in)				3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
	Min. Int. Bearing (in)				5.25	5.25	5.25	5.25	5.25	5.5	6.75	7.5

See notes on page 12

