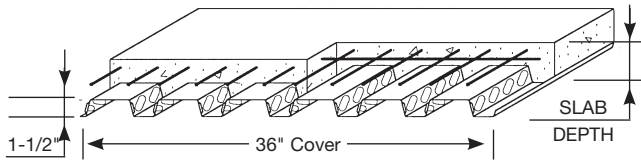


Composite Deck Sectional Properties

(Per foot of width)

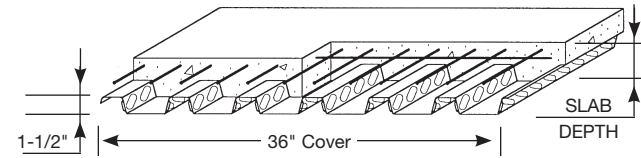


Wheeling
Composite Deck



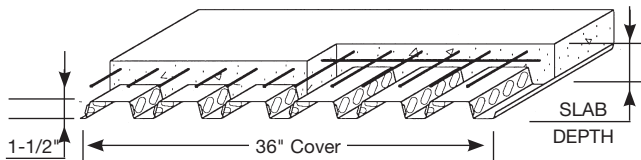
1.5 SB

Gage	t in	Wd psf	Sp in ³	Sn in ³	Ip in ⁴	In in ⁴	As in ²	Fy ksi
22	0.0295	1.7	0.172	0.180	0.146	0.182	0.478	50
20	0.0358	2.0	0.218	0.229	0.190	0.221	0.581	50
19	0.0418	2.4	0.262	0.273	0.241	0.259	0.678	40
18	0.0474	2.7	0.301	0.311	0.284	0.294	0.769	40
16	0.0600	3.4	0.388	0.394	0.374	0.373	0.973	40



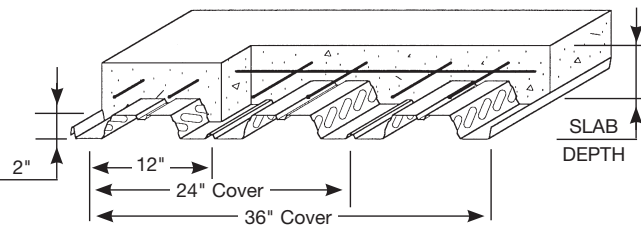
1.5 SBR

Gage	t in	Wd psf	Sp in ³	Sn in ³	Ip in ⁴	In in ⁴	As in ²	Fy ksi
22	0.0295	1.7	0.180	0.172	0.182	0.146	0.478	50
20	0.0358	2.0	0.229	0.218	0.221	0.190	0.581	50
19	0.0418	2.4	0.273	0.262	0.259	0.241	0.678	40
18	0.0474	2.7	0.311	0.301	0.294	0.284	0.769	40
16	0.0600	3.4	0.394	0.388	0.373	0.374	0.973	40



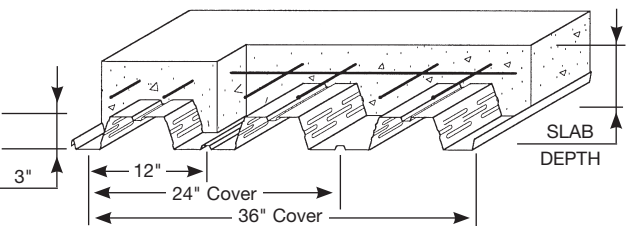
1.5 SBI and 1.5 SBN

Gage	t in	Wd psf	Sp in ³	Sn in ³	I _{DS} in ⁴	I _{DM} in ⁴	As in ²	Fy ksi
22	0.0299	1.82	0.192	0.199	0.185	0.196	0.496	38
20	0.0358	2.16	0.236	0.249	0.228	0.235	0.595	38
19	0.0418	2.5	0.280	0.295	0.270	0.273	0.712	38
18	0.0474	2.85	0.323	0.335	0.311	0.312	0.788	38
16	0.0598	3.57	0.415	0.421	0.395	0.395	0.995	38



2.0 SB

Gage	t in	Wd psf	Sp in ³	Sn in ³	Ip in ⁴	In in ⁴	As in ²	Fy ksi
22	0.0295	2.0	0.257	0.258	0.317	0.309	0.472	50
20	0.0358	2.3	0.334	0.337	0.402	0.393	0.573	50
19	0.0418	2.7	0.429	0.436	0.494	0.484	0.669	40
18	0.0474	3.0	0.507	0.517	0.557	0.552	0.759	40
16	0.0600	3.7	0.659	0.663	0.705	0.705	0.961	40



3.0 SB

Gage	t in	Wd psf	Sp in ³	Sn in ³	Ip in ⁴	In in ⁴	As in ²	Fy ksi
22	0.0295	2.1	0.428	0.436	0.766	0.749	0.524	50
21	0.0329	2.3	0.493	0.505	0.873	0.854	0.584	50
20	0.0358	2.5	0.551	0.565	0.965	0.945	0.636	50
19	0.0418	2.9	0.698	0.721	1.162	1.146	0.743	40
18	0.0474	3.3	0.820	0.826	1.315	1.311	0.842	40
16	0.0600	4.1	1.051	1.050	1.667	1.667	1.066	40

3.0 SB Normal Weight

145 pcf Normal Weight Concrete



Wheeling
Composite Deck

Total Slab Depth D	Wt. Conc. Area Conc.	Gage	Maximum Unshored Clear Spans			Composite Properties		Superimposed Live Loads - psf: No Studs											
			Single Span	Double Span	Triple Span	Iavg in ⁴ /ft	Sc in ³ /ft	Span - Feet and Inches											
								9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"
5-1/2"	48.3 psf 35.4 in ²	22	9'-1"	9'-5"	9'-10"	9.373	1.331	253	224	198	176	157	141	126	113	102	92	83	75
		21	9'-10"	11'-6"	12'-0"	9.723	1.471	284	251	223	199	178	159	143	129	116	105	95	86
		20	10'-6"	12'-8"	13'-2"	10.014	1.589	310	274	244	217	195	175	158	142	129	117	106	96
		19	10'-6"	12'-10"	13'-4"	10.599	1.830	282	249	221	197	176	158	142	128	115	104	94	85
		18	11'-6"	13'-9"	14'-3"	11.089	2.042	319	282	251	224	201	180	162	147	133	120	109	99
		16	13'-3"	15'-6"	15'-7"	12.125	2.502	319	282	251	224	201	180	162	147	133	120	109	99
6"	54.4 psf 39.5 in ²	22	8'-8"	8'-8"	9'-0"	12.034	1.534	293	259	230	204	182	163	147	132	119	107	97	87
		21	9'-4"	10'-7"	11'-0"	12.472	1.696	328	290	258	230	206	185	166	150	135	123	111	101
		20	10'-0"	12'-2"	12'-7"	12.835	1.832	358	317	282	252	226	203	183	165	150	136	123	112
		19	10'-0"	12'-4"	12'-9"	13.563	2.109	326	288	256	228	204	183	165	149	134	121	110	99
		18	11'-0"	13'-2"	13'-8"	14.181	2.354	369	327	290	259	233	209	189	170	154	140	127	116
		16	12'-7"	14'-10"	15'-2"	15.483	2.886	369	327	290	259	233	209	189	170	154	140	127	116
6-1/2"	60.4 psf 43.8 in ²	22	8'-3"	8'-0"	8'-4"	15.164	1.745	335	296	262	234	209	187	168	151	136	123	111	100
		21	8'-11"	9'-9"	10'-2"	15.702	1.929	375	332	295	263	236	212	190	172	155	141	127	116
		20	9'-6"	11'-4"	11'-10"	16.149	2.084	400	362	322	288	258	232	209	189	171	156	141	129
		19	9'-7"	11'-10"	12'-3"	17.045	2.399	372	329	293	261	234	210	189	170	154	139	126	114
		18	10'-6"	12'-8"	13'-1"	17.811	2.679	400	373	332	297	266	240	216	195	177	161	146	133
		16	12'-0"	14'-3"	14'-9"	19.426	3.290	400	373	332	297	266	240	216	195	177	161	146	133
7"	66.5 psf 48.2 in ²	22	8'-1"	7'-5"	7'-9"	18.801	1.963	378	334	296	264	236	212	190	171	154	140	126	114
		21	8'-9"	9'-1"	9'-5"	19.455	2.170	400	374	333	297	266	239	215	195	176	159	145	131
		20	9'-3"	10'-7"	11'-0"	19.997	2.344	400	400	364	325	292	262	237	214	194	176	160	146
		19	9'-4"	11'-2"	11'-8"	21.084	2.699	400	372	331	295	264	237	214	193	175	158	143	130
		18	10'-2"	12'-2"	12'-7"	22.021	3.016	400	400	375	336	301	271	245	222	201	182	166	151
		16	11'-8"	13'-9"	14'-3"	23.995	3.708	400	400	375	336	301	271	245	222	201	182	166	151
7-1/2"	72.5 psf 52.8 in ²	22	7'-10"	6'-11"	7'-2"	22.985	2.185	400	373	331	295	264	237	213	192	173	157	142	128
		21	8'-6"	8'-5"	8'-10"	23.768	2.416	400	400	372	332	298	268	241	218	197	179	162	148
		20	9'-0"	9'-10"	10'-3"	24.419	2.610	400	400	400	363	326	294	265	240	218	198	180	164
		19	9'-1"	10'-6"	10'-11"	25.720	3.007	400	400	370	330	296	266	240	216	196	177	161	146
		18	9'-11"	11'-9"	12'-2"	26.850	3.363	400	400	400	376	337	304	274	248	225	205	187	170
		16	11'-4"	13'-3"	13'-9"	29.231	4.139	400	400	400	376	337	304	274	248	225	205	187	170

							Superimposed Live Loads - psf: Studs @ 1'-0" O.C.												
D, Wc, Ac	Gage	Single Span	Double Span	Triple Span	Stud Factors		Span - Feet and Inches												
					2' o.c.	3' o.c.	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	
5-1/2"	48.3 psf 35.4 in ²	22	9'-1"	9'-5"	9'-10"	0.96	0.88	372	330	294	263	236	213	193	175	159	144	132	120
		21	9'-10"	11'-6"	12'-0"	0.94	0.86	400	366	327	293	264	238	215	196	178	162	148	136
		20	10'-6"	12'-8"	13'-2"	0.92	0.85	400	396	354	318	286	258	234	213	194	177	160	144
		19	10'-6"	12'-10"	13'-4"	0.93	0.86	400	372	332	297	267	241	219	198	181	165	150	138
		18	11'-6"	13'-9"	14'-3"	0.91	0.84	400	400	373	335	302	273	247	225	205	187	172	157
		16	13'-3"	15'-6"	15'-7"	0.87	0.81	400	400	400	400	373	338	307	272	242	216	193	174
6"	54.4 psf 39.5 in ²	22	8'-8"	8'-8"	9'-0"	0.97	0.88	400	377	336	301	270	244	220	200	181	165	151	138
		21	9'-4"	10'-7"	11'-0"	0.94	0.87	400	400	374	335	302	273	247	224	204	186	170	156
		20	10'-0"	12'-2"	12'-7"	0.92	0.86	400	400	400	364	328	297	269	244	223	204	186	171
		19	10'-0"	12'-4"	12'-9"	0.93	0.86	400	400	380	340	306	277	251	228	207	189	173	158
		18	11'-0"	13'-2"	13'-8"	0.91	0.84	400	400	400	384	346	313	284	259	236	216	197	181
		16	12'-7"	14'-10"	15'-2"	0.87	0.82	400	400	400	400	400	391	355	324	296	272	247	222
6-1/2"	60.4 psf 43.8 in ²	22	8'-3"	8'-0"	8'-4"	0.97	0.89	400	400	378	338	304	274	248	225	204	186	170	155
		21	8'-11"	9'-9"	10'-2"	0.94	0.87	400	400	400	378	340	307	278	253	230	210	192	176
		20	9'-6"	11'-4"	11'-10"	0.93	0.86	400	400	400	400	370	335	303	276	252	230	210	193
		19	9'-7"	11'-10"	12'-3"	0.94	0.86	400	400	400	384	345	312	283	257	234	213	195	179
		18	10'-6"	12'-8"	13'-1"	0.91	0.84	400	400	400	400	391	354	321	292	267	244	223	205
		16	12'-0"	14'-3"	14'-9"	0.87	0.82	400	400	400	400	400	400	400	368	336	308	283	261
7"	66.5 psf 48.2 in ²	22	8'-1"	7'-5"	7'-9"	0.97	0.89	400	400	400	376	338	305	276	250	227	207	189	173
		21	8'-9"	9'-1"	9'-5"	0.94	0.88	400	400	400	400	378	342	310	281	256	234	214	196
		20	9'-3"	10'-7"	11'-0"	0.93	0.87	400	400	400	400	400	373	338	307	280	256	235	215
		19	9'-4"	11'-2"	11'-8"	0.94	0.87	400	400	400	400	384	347	315	286	260	238	217	199
		18	10'-2"	12'-2"	12'-7"	0.91	0.85	400	400	400	400	400	394	358	326	297	272	249	229
		16	11'-8"	13'-9"	14'-3"	0.87	0.82	400	400	400	400	400	400	400	400	377	345	317	292
7-1/2"	72.5 psf 52.8 in ²	22	7'-10"	6'-11"	7'-2"	0.97	0.90	400	400	400	400	372	335	303	275	250	228	208	190
		21	8'-6"	8'-5"	8'-10"	0.95	0.88	400	400	400	400	400	376	341	310	282	258	236	216
		20	9'-0"	9'-10"	10'-3"	0.93	0.87	400	400	400	400	400	400	373	339	309	283	259	238
		19	9'-1"	10'-6"	10'-11"	0.94	0.87	400	400	400	400	400	382	347	315	287	262	240	220
		18	9'-11"	11'-9"	12'-2"	0.92	0.85	400	400	400	400	400	400	395	360	328	300	275	253
		16	11'-4"	13'-3"	13'-9"	0.88	0.83	400	400	400	400	400	400	400	400	400	382	351	324

- 1) Refer to the Design Notes, Note 7, for information on live load limits for fire-rated construction. See Page CD-3.
- 2) If stud spacing exceeds 1'-0" o.c., reduce live load by applicable stud factor listed above for actual stud spacing.
- 3) If welded wire fabric is not used, the live loads should be reduced by 10%.

3.0 SB Light Weight

115 pcf Light Weight Concrete



Wheeling Composite Deck

Composite Deck

Total Slab Depth D	Wt. Conc. Area Conc.	Gage	Maximum Unshored Clear Spans			Composite Properties		Superimposed Live Loads - psf: No Studs											
			Single Span	Double Span	Triple Span	Iavg in ⁴ /ft	Sc in ³ /ft	Span - Feet and Inches											
								9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"
5-1/2"	38.3 psf 35.4 in ²	22	9'-11"	11'-1"	11'-6"	7.518	1.284	251	222	197	176	158	142	128	115	104	95	86	78
		21	10'-10"	13'-0"	13'-5"	7.837	1.417	280	248	221	197	177	160	144	130	118	107	98	89
		20	11'-6"	13'-9"	14'-3"	8.100	1.529	304	270	240	215	193	174	158	143	130	118	108	98
		19	11'-7"	13'-11"	14'-5"	8.630	1.758	277	245	218	195	175	158	142	129	117	106	96	88
		18	12'-8"	14'-11"	15'-5"	9.068	1.957	311	276	246	221	198	179	162	147	133	121	111	101
		16	14'-7"	16'-9"	16'-6"	9.989	2.389	311	276	246	221	198	179	162	147	133	121	111	101
6"	43.1 psf 39.5 in ²	22	9'-6"	10'-2"	10'-7"	9.634	1.482	290	257	229	204	183	165	149	134	122	110	100	91
		21	10'-4"	12'-5"	12'-11"	10.031	1.635	324	287	256	229	206	185	167	152	138	125	114	104
		20	11'-0"	13'-3"	13'-8"	10.360	1.764	352	312	278	249	224	202	183	166	151	137	125	115
		19	11'-1"	13'-5"	13'-10"	11.016	2.027	320	284	253	226	203	183	165	150	136	123	112	102
		18	12'-1"	14'-4"	14'-10"	11.567	2.258	360	320	285	256	230	207	188	170	155	141	129	118
		16	13'-10"	16'-1"	16'-0"	12.718	2.757	360	320	285	256	230	207	188	170	155	141	129	118
6-1/4"	45.5 psf 41.6 in ²	22	9'-4"	9'-10"	10'-3"	10.828	1.584	311	275	245	219	196	177	159	144	131	118	108	98
		21	10'-1"	12'-0"	12'-6"	11.270	1.748	347	307	274	245	220	198	179	163	148	134	122	112
		20	10'-9"	13'-0"	13'-5"	11.635	1.886	377	334	298	267	240	217	196	178	162	147	135	123
		19	10'-10"	13'-2"	13'-7"	12.363	2.167	343	304	271	242	218	196	177	160	146	132	121	110
		18	11'-10"	14'-1"	14'-7"	12.977	2.414	386	343	306	274	246	222	201	183	166	151	138	126
		16	13'-7"	15'-10"	15'-10"	14.260	2.950	386	343	306	274	246	222	201	183	166	151	138	126
6-1/2"	47.9 psf 43.8 in ²	22	9'-1"	9'-6"	9'-10"	12.118	1.688	332	294	262	234	210	189	170	154	140	127	115	105
		21	9'-10"	11'-7"	12'-1"	12.607	1.863	370	328	293	262	235	212	192	174	158	144	131	119
		20	10'-6"	12'-9"	13'-2"	13.011	2.010	400	357	318	285	257	232	210	190	173	158	144	132
		19	10'-7"	12'-11"	13'-4"	13.818	2.309	366	325	289	259	233	210	189	172	156	142	129	118
		18	11'-7"	13'-10"	14'-3"	14.500	2.574	400	366	327	293	263	238	215	195	178	162	148	135
		16	13'-3"	15'-6"	15'-8"	15.926	3.147	400	366	327	293	263	238	215	195	178	162	148	135
7-1/4"	55.1 psf 50.5 in ²	22	8'-7"	8'-7"	8'-11"	16.598	2.010	397	352	313	280	251	226	204	185	168	153	139	127
		21	9'-4"	10'-5"	10'-10"	17.251	2.219	400	393	350	314	282	254	230	209	190	173	158	144
		20	9'-11"	12'-1"	12'-6"	17.789	2.394	400	400	381	342	307	278	251	228	208	190	173	159
		19	10'-0"	12'-3"	12'-8"	18.863	2.751	400	389	347	310	279	252	227	206	187	171	156	142
		18	10'-11"	13'-1"	13'-7"	19.781	3.070	400	400	391	351	316	285	259	235	214	195	178	163
		16	12'-6"	14'-9"	15'-2"	21.700	3.761	400	400	391	351	316	285	259	235	214	195	178	163

D, Wc, Ac	Gage	Single Span	Double Span	Triple Span	Stud Factors		Superimposed Live Loads - psf: Studs @ 1'-0" O.C.												
					2' o.c.	3' o.c.	Span - Feet and Inches												
							9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	
5-1/2"	38.3 psf 35.4 in ²	22	9'-11"	11'-1"	11'-6"	0.92	0.84	379	337	301	271	244	216	190	168	150	134	120	108
		21	10'-10"	13'-0"	13'-5"	0.89	0.83	400	374	334	296	258	226	199	176	156	139	125	113
		20	11'-6"	13'-9"	14'-3"	0.88	0.82	400	400	355	306	266	233	205	182	161	144	129	116
		19	11'-7"	13'-11"	14'-5"	0.89	0.82	400	379	339	305	275	248	219	193	172	154	138	124
		18	12'-8"	14'-11"	15'-5"	0.86	0.80	400	400	381	342	298	261	230	203	181	161	145	130
		16	14'-7"	16'-9"	16'-6"	0.82	0.78	400	400	400	378	329	287	253	224	199	178	159	143
6"	43.1 psf 39.5 in ²	22	9'-6"	10'-2"	10'-7"	0.92	0.84	400	385	344	309	279	252	229	208	190	171	154	138
		21	10'-4"	12'-5"	12'-11"	0.90	0.83	400	400	382	344	310	281	254	225	200	178	160	144
		20	11'-0"	13'-3"	13'-8"	0.88	0.82	400	400	400	373	336	298	262	232	206	184	165	149
		19	11'-1"	13'-5"	13'-10"	0.89	0.82	400	400	388	349	315	285	259	236	216	196	176	158
		18	12'-1"	14'-4"	14'-10"	0.86	0.80	400	400	400	393	355	322	293	259	230	206	185	166
		16	13'-10"	16'-1"	16'-0"	0.83	0.78	400	400	400	400	400	366	322	285	253	226	203	183
6-1/4"	45.5 psf 41.6 in ²	22	9'-4"	9'-10"	10'-3"	0.92	0.85	400	400	366	328	296	268	243	221	202	185	169	155
		21	10'-1"	12'-0"	12'-6"	0.90	0.83	400	400	400	365	330	299	271	247	225	201	180	162
		20	10'-9"	13'-0"	13'-5"	0.88	0.82	400	400	400	396	358	324	295	261	232	207	186	167
		19	10'-10"	13'-2"	13'-7"	0.89	0.82	400	400	400	371	335	303	275	251	229	210	193	177
		18	11'-10"	14'-1"	14'-7"	0.86	0.80	400	400	400	400	378	342	312	284	259	231	207	186
		16	13'-7"	15'-10"	15'-10"	0.83	0.78	400	400	400	400	400	400	361	320	284	254	227	205
6-1/2"	47.9 psf 43.8 in ²	22	9'-1"	9'-6"	9'-10"	0.92	0.85	400	400	387	348	313	284	257	234	214	196	179	165
		21	9'-10"	11'-7"	12'-1"	0.90	0.84	400	400	400	387	349	316	288	262	240	219	201	181
		20	10'-6"	12'-9"	13'-2"	0.88	0.82	400	400	400	400	379	344	313	285	259	231	208	187
		19	10'-7"	12'-11"	13'-4"	0.89	0.82	400	400	400	393	355	321	292	266	243	223	204	188
		18	11'-7"	13'-10"	14'-3"	0.87	0.81	400	400	400	400	400	363	330	302	276	253	231	208
		16	13'-3"	15'-6"	15'-8"	0.83	0.78	400	400	400	400	400	400	400	357	317	283	254	229
7-1/4"	55.1 psf 50.5 in ²	22	8'-7"	8'-7"	8'-11"	0.93	0.86	400	400	400	400	365	331	300	273	250	228	209	192
		21	9'-4"	10'-5"	10'-10"	0.91	0.84	400	400	400	400	400	370	336	306	280	257	236	217
		20	9'-11"	12'-1"	12'-6"	0.89	0.83	400	400	400	400	400	400	366	334	306	280	258	237
		19	10'-0"	12'-3"	12'-8"	0.90	0.83	400	400	400	400	400	376	341	311	284	261	239	220
		18	10'-11"	13'-1"	13'-7"	0.87	0.82	400	400	400	400	400	400	387	353	324	297	273	252
		16	12'-6"	14'-9"	15'-2"	0.84	0.79	400	400	400	400	400	400	400	400	400	375	345	312

1) Refer to the Design Notes, Note 7, for information on live load limits for fire-rated construction. See Page CD-3.
 2) If stud spacing exceeds 1'-0" o.c., reduce live load by applicable stud factor listed above for actual stud spacing.
 3) If welded wire fabric is not used, the live loads should be reduced by 10%.