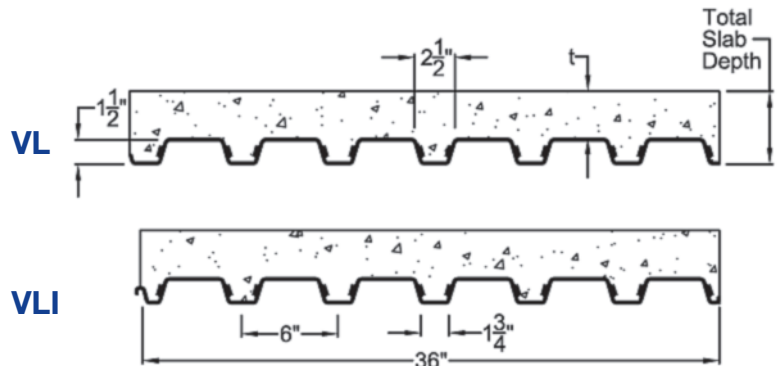


## 1.5 VL, VLI

Maximum Sheet Length 42'-0"  
 Extra Charge for Lengths Under 6'-0"  
 ICBO Approved (NO. 3415)



Interlocking side lap is not drawn to show actual detail.

### STEEL SECTION PROPERTIES

Deck Type	Design Thickness in	Deck Weight psf	Section Properties				V <sub>a</sub> lbs/ft	F <sub>y</sub> ksi
			I <sub>p</sub> in <sup>4</sup> /ft	S <sub>p</sub> in <sup>3</sup> /ft	I <sub>n</sub> in <sup>4</sup> /ft	S <sub>n</sub> in <sup>3</sup> /ft		
1.5VL22	0.0295	1.78	0.143	0.169	0.177	0.179	2754	50
1.5VL20	0.0358	2.14	0.186	0.224	0.222	0.231	3322	50
1.5VL19	0.0418	2.49	0.230	0.271	0.260	0.282	3857	50
1.5VL18	0.0474	2.82	0.272	0.311	0.295	0.324	4350	50
1.5VL16	0.0598	3.54	0.373	0.404	0.373	0.411	4336	40

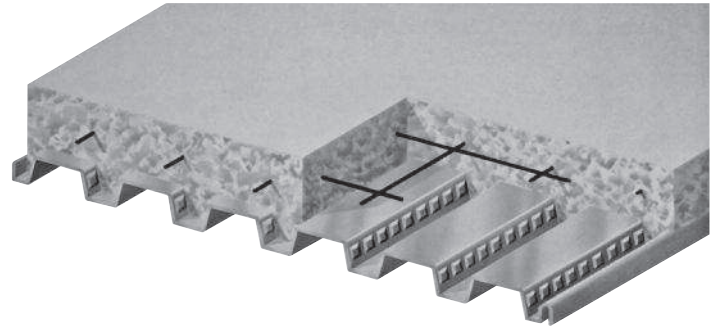
### (N=9.35) NORMAL WEIGHT CONCRETE (145 PCF)

TOTAL SLAB DEPTH	DECK TYPE	SDI Max. Unshored Clear Span			Superimposed Live Load, PSF														
		1 SPAN	2 SPAN	3 SPAN	Clear Span (ft.-in.)														
					5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"
3.50 (t=2.00) 33 PSF	1.5VL22	5'-10"	7'-10"	7'-10"	314	279	230	206	186	169	154	141	130	120	111	100	87	76	67
	1.5VL20	7'-0"	9'-4"	9'-6"	345	306	275	249	227	187	171	157	144	133	124	108	94	82	73
	1.5VL19	7'-11"	10'-3"	10'-8"	372	330	296	268	244	224	186	171	157	145	134	116	101	88	78
	1.5VL18	8'-8"	11'-0"	11'-2"	395	351	315	285	260	238	220	204	168	156	142	123	107	94	82
	1.5VL16	8'-10"	11'-0"	11'-4"	397	353	316	286	261	239	221	205	169	156	145	135	119	105	92
4.00 (t=2.50) 39 PSF	1.5VL22	5'-6"	7'-5"	7'-5"	366	325	267	239	216	196	179	164	151	139	129	119	111	103	96
	1.5VL20	6'-7"	8'-10"	8'-11"	400	356	319	289	239	217	198	182	167	155	143	133	124	115	108
	1.5VL19	7'-5"	9'-9"	10'-1"	400	383	344	311	283	235	215	197	182	168	156	145	135	126	115
	1.5VL18	8'-1"	10'-5"	10'-7"	400	400	365	330	301	276	254	211	194	180	167	156	145	136	122
	1.5VL16	8'-3"	10'-5"	10'-9"	400	400	365	330	301	276	255	211	194	180	167	155	145	136	127
4.50 (t=3.00) 45 PSF	1.5VL22	5'-3"	7'-1"	7'-1"	400	345	307	275	248	225	205	188	173	159	147	136	127	118	109
	1.5VL20	6'-3"	8'-5"	8'-6"	400	400	366	303	274	249	227	208	192	177	164	152	142	132	123
	1.5VL19	7'-1"	9'-3"	9'-7"	400	400	393	356	325	269	246	226	208	192	179	166	155	144	135
	1.5VL18	7'-8"	9'-11"	10'-1"	400	400	400	378	344	316	262	241	222	206	191	178	166	155	145
	1.5VL16	7'-10"	9'-11"	10'-3"	400	400	400	377	344	315	262	240	222	205	190	177	165	155	145
5.00 (t=3.50) 51 PSF	1.5VL22	5'-0"	6'-9"	6'-9"	400	391	347	311	280	254	232	213	195	180	167	154	143	133	124
	1.5VL20	6'-0"	8'-1"	8'-2"	400	400	400	343	310	281	257	236	217	200	186	172	160	149	139
	1.5VL19	6'-9"	8'-11"	9'-2"	400	400	400	400	335	304	278	255	235	218	202	188	175	163	153
	1.5VL18	7'-3"	9'-6"	9'-8"	400	400	400	400	389	324	297	272	251	233	216	201	187	175	164
	1.5VL16	7'-5"	9'-6"	9'-10"	400	400	400	400	388	323	295	271	250	232	215	200	187	175	164
5.50 (t=4.00) 57 PSF	1.5VL22	4'-10"	6'-6"	6'-6"	400	400	388	348	314	285	260	238	219	202	186	173	160	149	138
	1.5VL20	5'-9"	7'-9"	7'-10"	400	400	400	383	346	314	287	263	243	224	208	193	179	167	156
	1.5VL19	6'-5"	8'-6"	8'-9"	400	400	400	400	374	340	311	286	263	243	226	210	196	183	171
	1.5VL18	7'-0"	9'-1"	9'-4"	400	400	400	400	400	363	331	305	281	260	241	225	210	196	183
	1.5VL16	7'-1"	9'-2"	9'-5"	400	400	400	400	400	361	330	303	279	259	240	224	209	195	183
6.00 (t=4.50) 63 PSF	1.5VL22	4'-8"	6'-4"	6'-4"	400	400	400	385	347	315	288	263	242	223	206	191	178	165	153
	1.5VL20	5'-6"	7'-5"	7'-6"	400	400	400	400	383	348	318	292	269	248	230	213	199	185	173
	1.5VL19	6'-2"	8'-2"	8'-5"	400	400	400	400	400	377	344	316	291	270	250	232	217	202	189
	1.5VL18	6'-8"	8'-9"	9'-0"	400	400	400	400	400	400	367	337	311	288	267	249	232	217	203
	1.5VL16	6'-10"	8'-10"	9'-1"	400	400	400	400	400	399	365	335	309	286	266	248	231	216	202

- Notes: 1. Minimum exterior bearing length required is 1.50 inches. Minimum interior bearing length required is 3.00 inches. If these minimum lengths are not provided, web crippling must be checked.  
 2. Always contact Vulcraft when using loads in excess of 200 psf. Such loads often result from concentrated, dynamic, or long term load cases for which reductions due to bond breakage, concrete creep, etc. should be evaluated.  
 3. All fire rated assemblies are subject to an upper live load limit of 250 psf.

## SLAB INFORMATION

Total Slab Depth, in.	Theo. Concrete Volume		Recommended Welded Wire Fabric
	Yd <sup>3</sup> / 100 ft <sup>2</sup>	ft <sup>3</sup> / ft <sup>2</sup>	
3 1/2	0.78	0.211	6x6 - W1.4xW1.4
4	0.94	0.253	6x6 - W1.4xW1.4
4 1/2	1.09	0.294	6x6 - W1.4xW1.4
4 3/4	1.17	0.315	6x6 - W1.4xW1.4
5	1.24	0.336	6x6 - W2.1xW2.1
5 1/2	1.40	0.378	6x6 - W2.1xW2.1
5 3/4	1.48	0.398	6x6 - W2.1xW2.1
6	1.55	0.419	6x6 - W2.1xW2.1



## (N=14.15) LIGHTWEIGHT CONCRETE (110 PCF)

TOTAL SLAB DEPTH	DECK TYPE	SDI Max. Unshored Clear Span			Superimposed Live Load, PSF Clear Span (ft.-in.)														
		1 SPAN	2 SPAN	3 SPAN	5'-0	5'-6	6'-0	6'-6	7'-0	7'-6	8'-0	8'-6	9'-0	9'-6	10'-0	10'-6	11'-0	11'-6	12'-0
3.50 (t=2.00) 26 PSF	1.5VL22	6'-4	8'-5	8'-6	278	247	222	185	167	152	139	124	105	89	76	66	57	50	44
	1.5VL20	7'-8	9'-7	9'-11	305	271	243	220	201	184	154	135	114	97	83	72	62	54	48
	1.5VL19	8'-8	10'-7	11'-0	329	292	262	237	216	198	173	145	122	104	89	77	67	58	51
	1.5VL18	9'-6	11'-4	11'-9	350	311	279	252	230	211	184	153	129	110	94	81	71	62	54
	1.5VL16	9'-8	11'-5	11'-10	352	312	280	253	231	212	195	171	144	122	105	91	79	69	61
4.00 (t=2.50) 30 PSF	1.5VL22	6'-0	8'-1	8'-1	324	288	258	215	194	177	161	148	136	126	113	98	85	75	66
	1.5VL20	7'-3	9'-7	9'-9	355	315	283	256	233	195	178	164	151	140	123	106	92	81	71
	1.5VL19	8'-2	10'-7	10'-11	382	339	304	275	251	230	212	178	164	152	131	113	99	86	76
	1.5VL18	8'-11	11'-4	11'-5	400	360	323	292	266	244	225	209	175	162	139	120	104	91	80
	1.5VL16	9'-1	11'-4	11'-8	400	360	323	292	266	244	225	209	195	162	151	134	116	102	90
4.50 (t=3.00) 35 PSF	1.5VL22	5'-9	7'-8	7'-8	372	330	275	246	223	202	185	170	156	145	134	125	116	106	93
	1.5VL20	6'-11	9'-2	9'-4	400	361	324	293	246	223	204	188	173	160	149	139	129	114	101
	1.5VL19	7'-9	10'-1	10'-5	400	388	348	315	287	264	221	203	188	174	162	151	140	122	107
	1.5VL18	8'-6	10'-10	11'-0	400	400	369	334	305	279	258	239	200	186	173	161	147	129	114
	1.5VL16	8'-7	10'-10	11'-2	400	400	369	334	304	279	257	239	199	185	172	160	150	140	126
4.75 (t=3.25) 37 PSF	1.5VL22	5'-7	7'-7	7'-7	396	352	293	263	237	216	197	181	167	154	143	133	124	115	108
	1.5VL20	6'-9	9'-0	9'-1	400	385	345	312	262	238	218	200	184	171	159	148	138	129	118
	1.5VL19	7'-7	9'-11	10'-3	400	400	371	336	306	281	235	216	200	185	172	160	150	140	126
	1.5VL18	8'-3	10'-7	10'-9	400	400	393	356	324	298	274	231	213	198	184	171	160	150	133
	1.5VL16	8'-5	10'-7	11'-0	400	400	392	355	324	297	274	230	212	197	183	171	159	149	140
5.00 (t=3.50) 39 PSF	1.5VL22	5'-6	7'-5	7'-5	400	374	311	279	252	229	209	192	177	164	152	141	131	123	115
	1.5VL20	6'-7	8'-10	8'-11	400	400	367	332	278	253	231	212	196	181	168	157	146	137	128
	1.5VL19	7'-5	9'-9	10'-1	400	400	394	356	325	273	250	230	212	197	183	170	159	149	140
	1.5VL18	8'-1	10'-5	10'-7	400	400	400	378	344	316	291	245	226	210	195	182	170	159	149
	1.5VL16	8'-3	10'-5	10'-9	400	400	400	377	343	315	291	244	225	209	194	181	169	159	149
5.75 (t=4.25) 46 PSF	1.5VL22	5'-2	7'-0	7'-0	400	400	367	329	297	270	247	227	209	193	179	166	155	145	135
	1.5VL20	6'-2	8'-4	8'-5	400	400	400	362	327	298	272	250	231	214	199	185	172	161	151
	1.5VL19	7'-0	9'-2	9'-6	400	400	400	400	383	322	295	271	250	232	215	201	187	175	165
	1.5VL18	7'-7	9'-10	10'-0	400	400	400	400	400	372	314	289	267	247	230	214	200	188	176
	1.5VL16	7'-9	9'-10	10'-2	400	400	400	400	400	371	312	287	265	246	229	213	199	187	175

- Notes: 1. Minimum exterior bearing length required is 1.50 inches. Minimum interior bearing length required is 3.00 inches. If these minimum lengths are not provided, web crippling must be checked.
2. Always contact Vulcraft when using loads in excess of 200 psf. Such loads often result from concentrated, dynamic, or long term load cases for which reductions due to bond breakage, concrete creep, etc. should be evaluated.
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