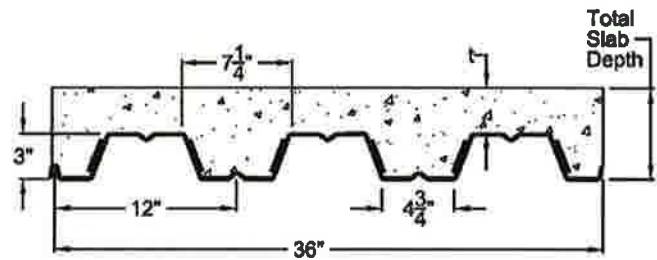


## 3 VLI

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		
3VLI22	0.0295	1.77	0.730	0.414	0.729	0.426	1528	50
3VLI20	0.0358	2.14	0.920	0.534	0.919	0.551	2698	50
3VLI19	0.0418	2.50	1.104	0.654	1.102	0.676	3678	50
3VLI18	0.0474	2.84	1.254	0.770	1.252	0.797	4729	50
3VLI16	0.0598	3.58	1.580	1.013	1.580	1.013	5309	40

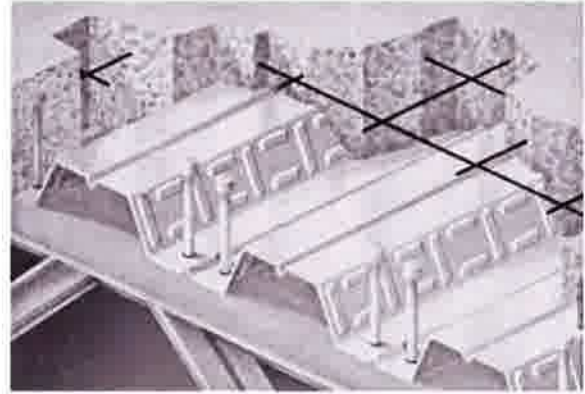
### (N=9.35) NORMAL WEIGHT CONCRETE (145 PCF)

TOTAL SLAB DEPTH	DECK TYPE	SDI Max. Unshored Clear Span			Superimposed Live Load, PSF														
					Clear Span (ft.-in.)														
		1 SPAN	2 SPAN	3 SPAN	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"
5.00 (t=2.00) 45 PSF	3VLI22	9'-2"	10'-7"	11'-8"	216	195	176	161	148	109	99	90	83	76	70	64	59	54	50
	3VLI20	10'-8"	12'-11"	13'-4"	241	216	196	178	163	150	139	129	93	85	78	72	66	61	57
	3VLI19	12'-0"	14'-4"	14'-7"	265	237	214	194	178	163	151	140	131	122	115	79	73	67	62
	3VLI18	12'-10"	15'-1"	15'-1"	289	261	238	218	201	186	173	161	151	142	134	127	92	86	80
	3VLI16	13'-5"	15'-7"	15'-11"	327	294	267	243	223	206	191	178	167	156	147	139	132	96	89
5.50 (t=2.50) 51 PSF	3VLI22	8'-9"	9'-8"	10'-11"	247	222	201	184	137	124	113	103	94	87	80	73	67	62	57
	3VLI20	10'-1"	12'-4"	12'-9"	275	247	223	203	186	171	159	116	106	97	89	82	76	70	65
	3VLI19	11'-4"	13'-8"	14'-2"	302	270	244	222	203	186	172	160	149	107	98	90	83	77	71
	3VLI18	12'-5"	14'-7"	14'-7"	330	298	271	248	229	212	197	184	173	162	153	112	105	98	92
	3VLI16	12'-9"	14'-11"	15'-5"	373	335	304	277	255	235	218	203	190	178	168	159	117	109	102
6.00 (t=3.00) 57 PSF	3VLI22	8'-4"	8'-10"	10'-1"	277	249	226	171	154	140	127	116	106	97	89	82	76	70	65
	3VLI20	9'-8"	11'-10"	12'-3"	309	277	250	228	209	193	143	130	119	109	100	92	85	79	73
	3VLI19	10'-10"	13'-2"	13'-7"	339	304	274	249	227	209	193	179	131	120	110	102	94	87	80
	3VLI18	11'-10"	14'-2"	14'-2"	370	334	304	279	257	238	221	207	194	182	136	126	118	110	103
	3VLI16	12'-2"	14'-4"	14'-10"	400	376	341	311	286	264	245	228	213	200	189	141	132	123	115
6.50 (t=3.50) 63 PSF	3VLI22	8'-0"	8'-3"	9'-4"	307	277	251	190	171	155	141	129	118	108	99	91	84	78	72
	3VLI20	9'-3"	11'-5"	11'-9"	343	307	278	253	232	174	158	144	132	121	111	103	95	87	81
	3VLI19	10'-4"	12'-8"	13'-1"	377	337	304	276	252	232	214	159	146	134	123	113	104	96	89
	3VLI18	11'-4"	13'-9"	13'-10"	400	371	338	309	285	264	246	229	215	162	151	140	131	122	115
	3VLI16	11'-7"	13'-10"	14'-3"	400	400	378	345	317	293	272	253	237	222	169	157	146	136	128
7.00 (t=4.00) 69 PSF	3VLI22	7'-9"	7'-8"	8'-8"	338	304	233	209	188	171	155	142	130	119	109	101	93	86	79
	3VLI20	9'-0"	10'-11"	11'-4"	377	338	305	278	255	192	174	159	145	133	122	113	104	96	89
	3VLI19	10'-1"	12'-3"	12'-7"	400	370	334	303	277	255	236	175	160	147	135	124	115	106	98
	3VLI18	11'-0"	13'-3"	13'-6"	400	400	371	340	313	290	270	252	236	178	166	154	144	135	126
	3VLI16	11'-4"	13'-4"	13'-9"	400	400	400	379	348	322	298	278	260	200	185	172	161	150	140
7.50 (t=4.50) 75 PSF	3VLI22	7'-7"	7'-2"	8'-2"	368	331	254	228	205	186	169	154	141	130	119	110	101	93	86
	3VLI20	8'-9"	10'-2"	11'-0"	400	368	333	303	231	209	190	173	158	145	134	123	113	105	97
	3VLI19	9'-10"	11'-10"	12'-2"	400	400	364	331	302	278	209	191	175	160	147	136	125	116	107
	3VLI18	10'-9"	12'-10"	13'-3"	400	400	400	370	341	316	294	275	210	195	181	168	157	147	138
	3VLI16	11'-0"	12'-11"	13'-4"	400	400	400	400	380	351	325	303	283	218	202	188	175	164	153

- Notes: 1. Minimum exterior bearing length required is 2.50 inches. Minimum interior bearing length required is 5.00 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>	
5	1.08	0.292	6x6 - W1.4xW1.4
5 1/2	1.23	0.333	6x6 - W1.4xW1.4
6	1.39	0.375	6x6 - W1.4xW1.4
6 1/4	1.47	0.396	6x6 - W1.4xW1.4
6 1/2	1.54	0.417	6x6 - W2.1xW2.1
7	1.70	0.458	6x6 - W2.1xW2.1
7 1/4	1.77	0.479	6x6 - W2.1xW2.1
7 1/2	1.85	0.500	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																
		1 SPAN	2 SPAN	3 SPAN	Clear Span (ft.-in.)																
					8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"		
5.00 (t=2.00) 35 PSF	3VLI22	10'-2"	12'-4"	12'-9"	141	127	115	105	96	67	60	54	49	45	40						
	3VLI20	11'-11"	14'-2"	14'-7"	163	147	133	121	110	102	94	87	59	54	49	44	40				
	3VLI19	13'-4"	15'-7"	15'-7"	185	166	150	136	124	114	105	97	90	84	79	52	47	43			
	3VLI18	13'-9"	16'-1"	16'-1"	244	222	204	188	174	162	151	142	133	126	119	112	85	79	75		
	3VLI16	14'-5"	16'-11"	16'-11"	277	254	234	217	202	189	177	166	157	149	141	134	127	99	94		
5.50 (t=2.50) 39 PSF	3VLI22	9'-8"	11'-7"	12'-2"	161	145	131	120	85	77	69	62	56	51	46	42					
	3VLI20	11'-3"	13'-7"	14'-0"	186	167	151	138	126	116	107	74	67	61	56	51	46	42			
	3VLI19	12'-8"	15'-0"	15'-1"	211	189	171	155	142	130	120	111	103	96	65	59	54	49	45		
	3VLI18	13'-4"	15'-7"	15'-7"	278	253	232	214	198	184	172	161	152	143	135	103	97	91	85		
	3VLI16	14'-0"	16'-4"	16'-5"	316	289	267	247	230	215	202	190	179	170	161	153	146	114	107		
6.00 (t=3.00) 44 PSF	3VLI22	9'-3"	10'-9"	11'-9"	181	163	147	107	96	86	78	70	63	57	52	47	43				
	3VLI20	10'-9"	13'-1"	13'-6"	209	188	170	155	141	130	93	84	76	69	63	57	52	47	43		
	3VLI19	12'-1"	14'-5"	14'-8"	237	212	192	174	159	146	135	125	116	80	73	67	61	56	51		
	3VLI18	12'-11"	15'-2"	15'-2"	312	284	261	240	223	207	193	181	170	161	124	116	109	102	96		
	3VLI16	13'-7"	15'-9"	16'-0"	354	325	299	277	258	241	226	213	201	190	181	172	135	128	121		
6.25 (t=3.25) 46 PSF	3VLI22	9'-1"	10'-4"	11'-6"	191	172	155	113	101	91	82	74	67	60	55	50	45	41			
	3VLI20	10'-6"	12'-10"	13'-3"	221	198	179	163	149	137	98	88	80	73	66	60	55	50	46		
	3VLI19	11'-10"	14'-2"	14'-6"	250	224	202	184	168	154	142	131	93	84	77	70	64	59	54		
	3VLI18	12'-9"	15'-0"	15'-0"	329	300	275	253	235	218	204	191	180	169	131	122	115	108	101		
	3VLI16	13'-4"	15'-6"	15'-10"	374	343	316	293	272	254	239	225	212	201	190	151	143	135	128		
6.50 (t=3.50) 48 PSF	3VLI22	8'-11"	10'-0"	11'-4"	200	180	134	119	107	96	86	78	70	64	58	52	47	43			
	3VLI20	10'-4"	12'-7"	13'-0"	232	209	189	172	157	114	103	93	84	77	70	63	58	53	48		
	3VLI19	11'-7"	14'-0"	14'-4"	263	236	213	193	176	162	149	138	98	89	81	74	68	62	57		
	3VLI18	12'-7"	14'-9"	14'-9"	346	316	289	267	247	230	215	201	189	178	138	129	121	113	107		
	3VLI16	13'-0"	15'-2"	15'-7"	393	360	332	308	286	268	251	236	223	211	200	159	150	142	134		
7.25 (t=4.25) 55 PSF	3VLI22	8'-5"	9'-1"	10'-4"	230	173	153	137	122	110	99	89	81	73	66	60	55	49	45		
	3VLI20	9'-9"	12'-0"	12'-5"	267	240	217	197	146	131	118	107	97	88	80	73	66	61	55		
	3VLI19	10'-11"	13'-4"	13'-9"	302	271	244	222	203	186	137	124	112	102	93	85	78	71	65		
	3VLI18	12'-0"	14'-4"	14'-4"	398	362	332	306	284	264	246	231	217	169	158	148	139	130	123		
	3VLI16	12'-4"	14'-6"	15'-0"	400	381	353	329	307	288	271	256	207	194	183	173	163	154			

- Notes:
1. Minimum exterior bearing length required is 2.50 inches. Minimum interior bearing length required is 5.00 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.

COMPOSITE