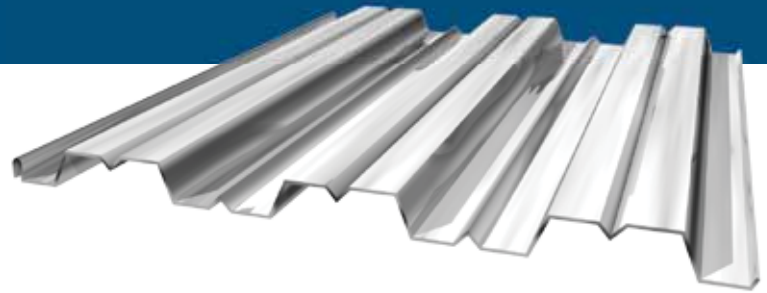




# 2.0" Composite Floor Deck



## Composite Floor Deck brought to you by the Customer Service Leader

Cordeck is a full-service manufacturer and stocking distributor of corrugated steel deck, flashing and trim, and other building construction accessories. Cordeck's mission is to provide excellent customer service. This mission is the foundation for industry wide recognition as service leader for prompt, reliable deliveries, guaranteed quality, and large inventory of gauges and profiles. You can be certain of the product's total, maximum effectiveness, along with our ability to deliver the industry's highest quality, service, value, and customer satisfaction. Please contact us for further information. At Cordeck, we're devoted to our customers. We stand ready to earn, and keep, your full confidence and trust.

## Features and Benefits

**Prompt lead times** are our specialty. All orders are promptly produced and shipped to meet your on-site specifications.

**Project management and engineering services** are offered by Cordeck's full, expert, in-house engineering and detailing services to assure optimal planing and design. Our experienced engineers and technicians provide individual customer service and attention to detail from concept to completion.

**SDI Membership** by the manufacturer guarantees product quality in accordance to the Steel Deck Institute (SDI).

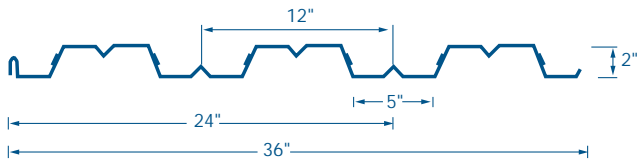
**On-spec, guaranteed quality.** Our production staff are true craftsmen, not just interested in getting the job done, but in doing it perfectly.

**Form spans shown** in the table are maximum unshored clear span lengths based on Load and Resistance Factor Design (LRFD) rationale. Form loading is based upon the SDI form span criteria that allows for the sequence of construction live loading that usually occurs during the construction phase with the placement of wet concrete by concrete by construction workers. This form span loading is represented by combinations of uniformly applied dead load and 20 psf construction load or uniformly applied dead load superimposed with 150 lb. mid-span concentrated load.

**Superimposed uniform live loads** shown in the tables are based on the SDI Composite Deck Design Handbook employing LRFD rationale. Composite deck slabs are single span condition with the deck serving as the positive reinforcing for the slab. Research has shown that the presence of shear studs for composite beam design influences the moment capacity of the composite deck system. When the number of shear studs present are sufficient quantity, the composite deck slab can achieve its full ultimate moment capacity.

**Welded wire fabric** 1" below top surface of slab is recommended. If welded wire fabric is not used, the superimposed live loads in the following tables should be reduced by 10%.

# 2.0" Composite Floor Deck



Gage	t in	Wd psf	Sp in <sup>2</sup> /ft	Sn in <sup>3</sup> /ft	Ip in <sup>4</sup> /ft	In in <sup>4</sup> /ft	Va lbs/ft	Fy ksi
22	0.030	1.62	0.263	0.266	0.324	0.321	1832	50
20	0.036	1.97	0.341	0.346	0.409	0.406	2698	50
19	0.042	2.30	0.420	0.426	0.492	0.489	3190	50
18	0.047	2.61	0.495	0.504	0.559	0.558	3608	50
16	0.060	3.29	0.653	0.653	0.704	0.704	3618	40

Total Slab Depth D Wt. Conc. Area Conc.	Gage	Maximum Unshored Clear Spans			Superimposed Live Loads - PSF: NO STUDS														
		Single Span	Double Span	Triple Span	Span - Feet and Inches														
					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"	12'-6"
4" 39 PSF 36 in <sup>2</sup>	22	7'-4"	9'-6"	9'-9"	274	239	211	188	145	129	115	104	94	85	78	71	65	59	54
	20	8'-7"	10'-10"	11'-2"	310	269	236	210	188	170	155	117	106	96	87	80	73	67	61
	19	9'-9"	11'-11"	12'-4"	344	298	261	231	207	186	169	155	142	106	97	88	81	74	68
	18	10'-9"	12'-9"	12'-9"	373	324	285	253	228	206	188	172	159	147	137	103	95	87	81
	16	11'-1"	13'-2"	13'-5"	400	376	330	292	261	235	214	195	180	166	154	143	109	100	93
4-1/2" 45 PSF 42.0 in <sup>2</sup>	22	6'-11"	9'-0"	9'-4"	319	278	245	190	168	150	134	121	109	99	90	83	76	69	63
	20	8'-2"	10'-3"	10'-7"	361	313	275	244	219	198	152	136	123	112	102	93	85	78	72
	19	9'-2"	11'-5"	11'-9"	400	346	303	268	240	216	196	180	136	124	113	103	94	86	79
	18	10'-2"	12'-4"	12'-4"	400	376	331	295	264	239	218	200	184	171	130	119	110	102	94
5" 51 PSF 48 in <sup>2</sup>	22	6'-7"	8'-7"	8'-11"	364	317	279	217	192	171	153	138	125	113	103	94	86	79	72
	20	7'-9"	9'-10"	10'-2"	400	356	313	278	249	193	173	156	141	128	116	106	97	89	82
	19	8'-9"	10'-11"	11'-3"	400	394	345	306	273	247	224	172	156	141	128	117	107	99	91
	18	9'-7"	11'-10"	11'-11"	400	400	377	336	301	273	249	228	210	162	148	136	126	116	107
	16	9'-11"	12'-0"	12'-4"	400	400	400	386	346	312	283	259	238	187	171	157	144	133	123
5-1/2" 57 PSF 54 in <sup>2</sup>	22	6'-4"	8'-0"	8'-6"	400	355	278	244	216	192	172	155	140	127	116	106	97	89	81
	20	7'-5"	9'-5"	9'-9"	400	400	351	312	244	217	194	175	158	143	131	119	109	100	92
	19	8'-4"	10'-5"	10'-9"	400	400	388	343	307	277	215	193	175	159	144	132	121	111	102
	18	9'-2"	11'-4"	11'-7"	400	400	400	377	338	306	279	256	199	182	167	153	141	130	121
6" 63 PSF 60 in <sup>2</sup>	22	6'-1"	7'-5"	8'-2"	400	394	308	270	239	213	191	172	156	141	129	118	108	99	90
	20	7'-1"	9'-1"	9'-4"	400	400	390	346	271	241	215	194	175	159	145	132	121	111	102
	19	8'-0"	10'-1"	10'-5"	400	400	400	381	340	307	239	215	194	176	160	146	134	123	113
	18	8'-10"	10'-11"	11'-3"	400	400	400	400	375	339	309	243	221	202	185	170	157	145	134
	16	9'-1"	11'-1"	11'-5"	400	400	400	400	400	388	352	322	255	233	213	195	180	166	154
6-1/2" 69 PSF 66 in <sup>2</sup>	22	5'-11"	6'-11"	7'-11"	400	390	339	297	263	234	210	189	171	155	141	129	118	108	99
	20	6'-11"	8'-9"	9'-0"	400	400	400	337	297	264	237	213	193	175	159	145	133	122	112
	19	7'-10"	9'-8"	10'-0"	400	400	400	400	374	293	262	236	213	193	176	161	147	135	124
	18	8'-7"	10'-6"	10'-11"	400	400	400	400	400	373	340	268	243	222	203	187	172	159	147
16	8'-10"	10'-8"	11'-0"	400	400	400	400	400	400	387	309	280	256	234	215	198	183	169	

## Product Information Design

- Cordeck certifies that our composite floor deck has been evaluated in accordance with the applicable SDI standards and property values for the Uniform Load Tables and meets or exceeds SDI requirements.
- The rib width limitations shown are taken at the theoretical intersection points of the flange and web projections. Depending on the radius used, the load table could vary from that shown.

## Material

All steel to be used in Cordeck composite floor deck will be galvanized, prime painted, or a combination of the two.

### 1. Prime Painted

- Composite deck shall receive one coat of standard gray primer paint over cleaned and pretreated steel.
- The primer coat is intended to protect the steel for only a reasonably short period of exposure, in normal atmospheric conditions, and shall be considered an impermanent and provisional coating.

# 2.0" Composite Floor Deck

- c. Field painting of prime painted material is recommended especially where the deck is exposed.

## 2. Galvanized

- a. All steel shall be coated to conform to ASTM A924 G-60 or G-90 or to Federal Specification QQ-S-775.
- b. Galvanized finish in G-60 or G-90 coating is desirable in high moisture atmospheric conditions.

- c. Cordeck shall not be responsible for the cleaning of the underside of steel deck to ensure bond of fireproofing. Adherence of fireproofing material is dependent on many variables. The adhesion ability of fireproofing materials is the responsibility of the fireproofing applicator.

## 3. Accessories

- a. Cordeck can supply end and side closures, pour stops, deck plates, rubber cell closures, screws, and other accessories needed to complete the project.

2.0" Composite Floor Deck Normal Weight Concrete (145 PCF)																				
Total Slab Depth D Wt. Conc. Area Conc.	Gage	Maximum Unshored Clear Spans			Superimposed Live Loads - Studs @1'-0" o.c.															
		Single Span	Double Span	Triple Span	Span - Feet and Inches															
					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"	12'-6"	
4-1/2" 45 PSF 29.6 in <sup>2</sup>	22	6'-11"	9'-0"	9'-3"	400	400	400	400	400	376	329	290	257	228	204	182	164	147	133	
	20	8'-2"	10'-3"	10'-7"	400	400	400	400	400	400	396	349	310	276	247	217	190	167	148	
	19	9'-2"	11'-4"	11'-9"	400	400	400	400	400	400	400	400	358	307	265	231	202	178	157	
	18	10'-2"	12'-4"	12'-4"	400	400	400	400	400	400	400	400	400	377	323	279	243	213	187	166
	16	10'-5"	12'-6"	12'-11"	400	400	400	400	400	400	400	400	369	328	292	262	235	212	192	174
5" 51 PSF 33.8 in <sup>2</sup>	22	6'-7"	8'-7"	8'-10"	400	400	400	400	400	400	381	336	297	264	236	211	190	171	154	
	20	7'-9"	9'-10"	10'-2"	400	400	400	400	400	400	400	400	360	321	288	259	233	211	191	
	19	8'-9"	10'-10"	11'-3"	400	400	400	400	400	400	400	400	400	373	335	301	271	238	211	
	18	9'-7"	11'-10"	11'-11"	400	400	400	400	400	400	400	400	400	400	374	325	285	250	222	
	16	9'-11"	11'-11"	12'-4"	400	400	400	400	400	400	400	400	382	341	305	274	247	224	203	
5-1/2" 57 PSF 38.1 in <sup>2</sup>	22	6'-4"	8'-0"	8'-6"	400	400	400	400	400	400	400	382	338	301	269	241	216	194	175	
	20	7'-5"	9'-5"	9'-9"	400	400	400	400	400	400	400	400	400	367	328	295	266	240	218	
	19	8'-4"	10'-5"	10'-9"	400	400	400	400	400	400	400	400	400	400	383	345	311	282	256	
	18	9'-2"	11'-4"	11'-7"	400	400	400	400	400	400	400	400	400	400	400	389	352	320	289	
	16	9'-5"	11'-6"	11'-10"	400	400	400	400	400	400	400	400	400	389	348	313	283	256	232	
6" 63 PSF 42.7 in <sup>2</sup>	22	6'-1"	7'-5"	8'-2"	400	400	400	400	400	400	400	400	379	337	301	270	242	218	197	
	20	7'-1"	9'-1"	9'-4"	400	400	400	400	400	400	400	400	400	400	369	331	299	270	245	
	19	8'-0"	10'-0"	10'-4"	400	400	400	400	400	400	400	400	400	400	400	388	351	318	289	
	18	8'-10"	10'-11"	11'-3"	400	400	400	400	400	400	400	400	400	400	400	400	397	361	328	
	16	9'-1"	11'-1"	11'-5"	400	400	400	400	400	400	400	400	400	400	391	352	318	288	261	
6-1/2" 69 PSF 47.4 in <sup>2</sup>	22	5'-11"	6'-11"	7'-10"	400	400	400	400	400	400	400	400	400	373	333	299	269	242	218	
	20	6'-11"	8'-9"	9'-0"	400	400	400	400	400	400	400	400	400	400	400	368	332	300	272	
	19	7'-10"	9'-8"	10'-0"	400	400	400	400	400	400	400	400	400	400	400	400	390	354	321	
	18	8'-7"	10'-6"	10'-10"	400	400	400	400	400	400	400	400	400	400	400	400	400	400	366	
	16	8'-10"	10'-8"	11'-0"	400	400	400	400	400	400	400	400	400	400	400	391	353	320	290	

# 2.0" Composite Floor Deck

2.0" Composite Floor Deck Lightweight Concrete (110 PCF)																				
Total Slab Depth D Wt. Conc. Area Conc.	Gage	Maximum Unshored Clear Spans			Superimposed Live Loads - PSF: NO STUDS															
		Single Span	Double Span	Triple Span	Span - Feet and Inches															
					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"	12'-6"	13'-0"	
4" 30 PSF 36 in <sup>2</sup>	22	8'-1"	10'-3"	10'-7"	238	209	186	167	152	120	108	98	90	82	75	69	64	59	55	
	20	9'-6"	11'-8"	12'-1"	268	235	209	187	169	153	140	129	101	92	84	78	72	66	61	
	19	10'-10"	13'-0"	13'-2"	297	260	230	206	185	168	153	141	130	121	93	86	79	73	68	
	18	11'-7"	13'-7"	13'-7"	324	285	253	227	205	187	171	158	146	136	127	119	92	86	80	
	16	12'-3"	14'-3"	14'-4"	377	330	292	261	235	214	195	179	165	153	143	133	118	98	91	
4-1/2" 35 PSF 42 in <sup>2</sup>	22	7'-8"	9'-10"	10'-2"	276	243	216	194	155	139	126	114	104	96	88	81	75	69	64	
	20	9'-0"	11'-3"	11'-7"	312	273	243	217	196	178	163	128	117	107	98	90	83	77	72	
	19	10'-3"	12'-5"	12'-9"	346	302	268	239	215	195	178	164	151	118	108	100	92	85	79	
	18	11'-2"	13'-1"	13'-1"	376	331	294	264	238	217	199	183	170	158	147	116	107	100	93	
	16	11'-7"	13'-8"	13'-10"	400	384	340	303	273	248	227	208	192	178	166	155	123	114	106	
5" 39 PSF 48 in <sup>2</sup>	22	7'-4"	9'-5"	9'-9"	315	277	247	197	176	159	143	130	119	109	100	92	85	79	73	
	20	8'-7"	10'-9"	11'-2"	355	312	276	248	224	203	161	146	133	122	112	103	95	88	82	
	19	9'-9"	11'-11"	12'-4"	394	345	305	272	245	223	203	187	147	135	124	114	105	97	90	
	18	10'-9"	12'-9"	12'-9"	400	377	335	300	272	247	227	209	193	180	143	132	122	114	106	
	16	11'-0"	13'-1"	13'-5"	400	400	387	346	311	283	258	237	219	203	189	151	140	130	121	
5-1/4" 42 PSF 51 in <sup>2</sup>	22	7'-2"	9'-3"	9'-7"	334	294	262	209	187	168	152	138	126	116	106	98	90	84	78	
	20	8'-5"	10'-7"	10'-11"	377	331	293	263	237	190	171	155	142	130	119	110	101	94	87	
	19	9'-6"	11'-8"	12'-1"	400	366	324	289	260	236	216	198	156	143	131	121	111	103	95	
	18	10'-6"	12'-7"	12'-7"	400	400	355	319	288	263	241	222	205	191	151	140	130	121	113	
	16	10'-9"	12'-10"	13'-3"	400	400	400	367	330	300	274	252	232	215	173	160	148	138	128	
5-1/2" 44 PSF 54 in <sup>2</sup>	22	7'-0"	9'-1"	9'-5"	353	311	277	222	198	178	161	147	134	122	113	104	96	89	82	
	20	8'-3"	10'-4"	10'-9"	399	350	310	278	251	201	181	165	150	137	126	116	107	99	92	
	19	9'-4"	11'-6"	11'-10"	400	387	342	306	275	250	228	182	165	151	139	128	118	109	101	
	18	10'-3"	12'-5"	12'-5"	400	400	376	337	305	278	254	234	217	174	160	148	138	128	119	
	16	10'-6"	12'-7"	13'-0"	400	400	400	388	350	317	290	266	246	228	184	170	157	146	136	
6-1/4" 51 PSF 63 in <sup>2</sup>	22	6'-8"	8'-7"	8'-11"	400	362	291	258	231	208	188	171	156	143	131	121	112	103	96	
	20	7'-9"	9'-10"	10'-2"	400	400	361	323	260	234	211	192	175	160	147	135	125	115	107	
	19	8'-9"	10'-11"	11'-3"	400	400	398	356	320	291	233	212	193	176	162	149	137	127	118	
	18	9'-8"	11'-10"	11'-11"	400	400	400	392	355	323	296	273	220	202	187	173	160	149	139	
	16	9'-11"	12'-0"	12'-5"	400	400	400	400	400	369	337	310	253	232	214	198	183	170	158	

# 2.0" Composite Floor Deck

2.0" Composite Floor Deck Lightweight Concrete (110 PCF)																				
Total Slab Depth D Wt. Conc. Area Conc.	Gage	Maximum Unshored Clear Spans			Superimposed Live Loads - Studs @ 1'0" o.c.															
		Single Span	Double Span	Triple Span	Span - Feet and Inches															
					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"	12'-6"	13'-0"	
4-1/2" 35 PSF 36 in <sup>2</sup>	22	7'-8"	9'-10"	10'-2"	400	400	400	400	384	337	284	241	207	179	156	136	120	106	94	
	20	9'-0"	11'-2"	11'-7"	400	400	400	400	400	365	307	261	224	194	168	147	130	115	102	
	19	10'-3"	12'-5"	12'-9"	400	400	400	400	400	390	328	279	239	207	180	157	139	123	109	
	18	11'-2"	13'-1"	13'-1"	398	393	389	386	383	381	347	295	253	218	190	166	146	129	115	
	16	11'-7"	13'-7"	13'-10"	400	398	393	389	386	383	360	321	281	243	211	185	162	144	128	
5" 39 PSF 48 in <sup>2</sup>	22	7'-4"	9'-5"	9'-9"	400	400	400	400	400	390	345	306	274	240	208	182	161	142	126	
	20	8'-7"	10'-9"	11'-1"	400	400	400	400	400	400	400	350	300	259	225	197	174	154	136	
	19	9'-9"	11'-11"	12'-4"	400	400	400	400	400	400	400	373	320	276	240	210	185	164	146	
	18	10'-9"	12'-9"	12'-9"	400	398	393	390	387	384	382	380	338	292	254	222	195	173	154	
	16	11'-0"	13'-5"	13'-5"	400	400	399	394	390	387	384	374	335	302	273	245	217	192	170	
5-1/4" 42 PSF 51 in <sup>2</sup>	22	7'-2"	9'-3"	9'-6"	400	400	400	400	400	400	368	327	292	262	236	209	184	163	145	
	20	8'-5"	10'-7"	10'-11"	400	400	400	400	400	400	400	395	343	297	258	226	199	176	156	
	19	9'-6"	11'-8"	12'-1"	400	400	400	400	400	400	400	400	366	316	275	241	212	188	167	
	18	10'-6"	12'-7"	12'-7"	400	400	395	392	388	386	383	382	380	334	290	254	224	198	176	
	16	10'-9"	12'-10"	13'-3"	400	400	400	396	392	389	386	383	358	323	289	262	238	217	195	
5-1/2" 44 PSF 54 in <sup>2</sup>	22	7'-0"	9'-1"	9'-4"	400	400	400	400	400	400	392	348	311	279	251	227	205	186	165	
	20	8'-3"	10'-4"	10'-8"	400	400	400	400	400	400	400	400	377	338	294	257	226	200	178	
	19	9'-4"	11'-6"	11'-10"	400	400	400	400	400	400	400	400	400	360	313	274	241	213	190	
	18	10'-3"	12'-5"	12'-5"	400	400	398	393	390	387	385	383	381	377	330	289	254	225	200	
	16	10'-6"	12'-7"	13'-0"	400	400	400	399	394	391	388	385	382	344	308	279	254	232	212	
6-1/4" 51 PSF 63 in <sup>2</sup>	22	6'-7"	8'-7"	8'-11"	400	400	400	400	400	400	400	400	367	329	297	268	243	220	200	
	20	7'-9"	9'-10"	10'-2"	400	400	400	400	400	400	400	400	400	400	362	328	298	271	247	
	19	8'-9"	10'-11"	11'-3"	400	400	400	400	400	400	400	400	400	400	400	383	344	305	271	
	18	9'-8"	11'-10"	11'-11"	400	400	400	399	395	392	389	387	381	380	398	376	363	321	285	
	16	9'-11"	12'-0"	12'-5"	400	400	400	400	400	397	393	390	384	381	365	331	301	275	251	

# 2.0" Composite Floor Deck

## SDI Member

1. All steel deck material is manufactured by Steel Deck Institute members or manufactured in accordance to SDI.
2. Cordeck certifies that all material will be in accordance with the SDI Composite Deck Manual specifications.
3. Cordeck 2" Composite Floor Deck conforms to all applicable SDI Composite Deck Manual specifications.

## Installation

1. Cordeck steel deck shall be installed by qualified and experienced workers.
2. Deck installation drawings shall be submitted to the project architect and engineer for approval prior to the manufacture of materials.
3. Deck shall be placed in accordance with approved erection drawings.
4. Deck sheets shall be butted over supports.
5. End bearing: install deck ends over supports with a minimum end bearing of 1-1/2" or as indicated on erection drawings.
6. Each deck unit shall be placed on supporting steel framework and adjusted to final positions before permanently fastened. Do not use unfastened deck as a working platform or storage area.
7. Cutting of openings through the deck and all skew cutting shall be performed in the field. Openings not shown on the erection drawings such as those required for stack, conduits, plumbing, vents, etc., shall be cut, and reinforced if necessary, in accordance with SDI.

## Attachment

1. Floor deck sheets and accessories shall be attached as soon as possible and all sheets and accessories shall be attached at the end of each working day. Electric arc welding is the best and most economical method for attaching composite deck sheets to structural supports. Welder shall follow close to the placement crew.
2. All welds are to be made from the top of the deck down through the bottom flange of the ribs. Welds shall penetrate and attach all thickness of material to the structural supports.
3. Deck panels are to be fastened to all supports at 12" on center maximum with no less than 3/4" diameter arc spot welds. At deck butt joints, both sheets are to be fastened. Deck panels with spans greater than 5 feet shall have side laps and perimeter edges
4. Puddle welds shall be at least 5/8" diameter or elongated puddle welds with an equal perimeter. Fillet welds, when used, shall be at least 1" long.

Attachment must be determined by the designer as part of the overall building design process. Values given in this document are adequate in most cases.

## Storage and Handling

1. Protect steel deck from corrosion, deformation, and other damage during storage, handling, and installation.
2. Deck not promptly erected shall be stored off the ground, with one end elevated to provide drainage. Bundles must be protected against condensation with a ventilated waterproof covering. Deck should always be protected from snow and salt.
3. Bundles must be stacked so there is no danger of shifting or material damage. Bundles must be checked for tightness, and retightened as necessary.
4. Deck bundles on the building frame must always be placed near a main supporting beam, at a column, or a wall. In no situation are the bundles to be placed on unbolted frames or on unattached and unbridged joists. The structural frame must be properly braced to receive the bundles.

"Whatever it takes"



Toll Free: 877.857.6400  
Ph: 262.857.3000  
Fx: 844.857.3533  
www.cordeck.com

