

VALLEY DECK CATALOG



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Valley Joist + Deck is a member in good standing of the Steel Deck Institute

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History of Steel Deck:

Valley Joist + Deck has been a part of the Steel Deck Institute since 1989. Valley has served both national and local accounts and continues to grow its customer base.

Service:

We are with you the whole way. Our account managers are knowledgeable about you and your needs, so they can advise, expedite, and execute. No client is ever just a number, no project too big or too small. All projects and customers are given the focus they deserve.

Quality:

Every piece of deck we produce is customer built, so the attention is in the details. We check and double check each element along the way, so you can rest assured. We believe in a well balance of quality and quantity.

Safety:

Our employees are the backbone of our success, so we train them how to operate safely and efficiently. Our vision of safety does not stop with us, it extends from our plants to the job sites to the engineered finished product.

Plant Locations:

Valley Joist + Deck's deck rolling facility location is in Fort Payne, AL.

Deck Types:

At Valley we offer a variety of decks per application required.

Roof Decks:

1.5B

Form Decks:

0.6 Form

1.0 Form

1.5 Form

2.0 Form

Composite Decks:

1.5 Composite

2.0 Composite

Application	Cover Width	Deck Type	Available Gages	Available Finishes							
				White Primer	Gray Primer	G30	G60	G90	G30 + W or G	G60 + W or G	G90 + W or G
Roof	36"	1.5B	22	A	A	N/A	A	A	A	A	A
			20	A	A	N/A	A	A	A	A	A
			18	A	A	N/A	A	A	A	A	A
Non-Composite Floor	30"	0.6 Form	28	N/A	N/A	N/A	A	A	N/A	N/A	N/A
			26	N/A	N/A	N/A	A	A	N/A	N/A	N/A
			24	N/A	N/A	N/A	A	A	N/A	N/A	N/A
			22	N/A	N/A	N/A	A	A	N/A	N/A	N/A
	30"	1.0 Form	26	N/A	N/A	N/A	A	A	N/A	N/A	N/A
			24	N/A	N/A	N/A	A	A	N/A	N/A	N/A
			22	N/A	N/A	N/A	A	A	N/A	N/A	N/A
			20	N/A	N/A	N/A	A	A	N/A	N/A	N/A
	36"	1.5 Form	22	N/A	N/A	N/A	A	A	N/A	N/A	N/A
			20	N/A	N/A	N/A	A	A	N/A	N/A	N/A
			18	N/A	N/A	N/A	A	A	N/A	N/A	N/A
	36"	2.0 Form	22	N/A	N/A	N/A	A	A	N/A	N/A	N/A
			20	N/A	N/A	N/A	A	A	N/A	N/A	N/A
			18	N/A	N/A	N/A	A	A	N/A	N/A	N/A
Composite Floor	36"	1.5 Comp.	22	N/A	N/A	N/A	A	A	N/A	N/A	N/A
			20	N/A	N/A	N/A	A	A	N/A	N/A	N/A
			18	N/A	N/A	N/A	A	A	N/A	N/A	N/A
	36"	2.0 Comp.	22	N/A	N/A	N/A	A	A	N/A	N/A	N/A
			20	N/A	N/A	N/A	A	A	N/A	N/A	N/A
			18	N/A	N/A	N/A	A	A	N/A	N/A	N/A

Abbreviations:

W = White Primer

G = Gray Primer

A = Available

N/A = Not Available

G30, G60, & G90 = Galvanization finish (30, 60, & 90 – Ounces of Zinc per square foot)

Notes:

1. All primers meet ASTM A1008 SS.
2. All galvanized finishes meet ASTM A653 SS.
3. When a welded deck attachment is specified, Valley Joist + Deck supplies weld washers for 24, 26, and 28 gage decks as recommended by the Steel Deck Institute. Weld washers **ARE NOT** included for any roof deck.
4. An extra charge for deck lengths less than 5'-0" applies to all deck purchases. Contact plant for price and availability.

WHITE PAINT DISCLAIMER AND LETTER OF UNDERSTANDING

Valley Joist + Deck will supply white painted cold rolled steel roof deck. However, prior to manufacturing and subsequent delivery, it is important that the buyer fully understand the limitations of a white primer. White paint is not recommended as a primer, nor can white primer suffice as a finish coat because it is substantially affected by rust staining. Consequently, Valley Joist + Deck will not be responsible for any charges resulting from rust on the painted deck surface or edges.

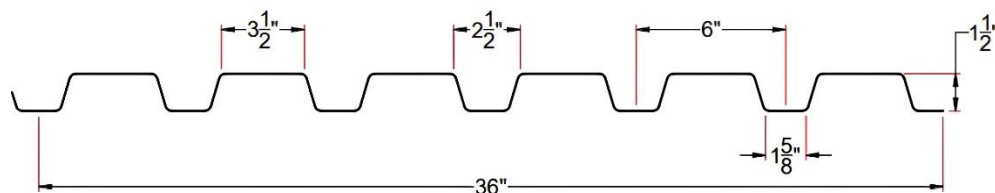
White Deck primer should not be specified if appearance is a strong consideration without a second field applied finish coat. Please understand that Valley Joist + Deck will not be invoiced or back charged for field painting due to rust stains.

B-Deck Grade 50

ASD



1.5 B-Deck



Features

- Vented Option



Nestable Side Lap

Section Properties

Strength KSI	Profile	Gage	Wt. lb/ft ²	Thickness in.	I _{d+} in. ⁴ /ft.	I _{d-} in. ⁴ /ft.	S _{e+} in. ³ /ft.	S _{e-} in. ³ /ft.	M ₊ /Ω ft.-lb./ft.	M ₋ /Ω ft.-lb./ft.	V _N /Ω lb./ft.
F _y =50	1.5B22	22	1.6	0.0295	0.144	0.164	0.171	0.169	427	422	2419
F _y =50	1.5B20	20	1.9	0.0358	0.181	0.203	0.213	0.217	531	541	2924
F _y =50	1.5B18	18	2.5	0.0474	0.254	0.277	0.288	0.300	719	749	3842

Notes: 1. Section properties and strengths are calculated in accordance with AISI S100-16, ANSI/SDI RD-2017 & ANSI/SDI SD-2022.

Allowable Web Crippling Reactions (R_N/Ω) - lb/ft

Bearing Length of Webs												
One Flange Loading							Two Flange Loading					
Deck	End Bearing			Interior Bearing			End Bearing			Interior Bearing		
Gage	1 1/2"	2"	3"	1 1/2"	2"	3"	1 1/2"	2"	3"	1 1/2"	2"	3"
22	814	895	1030	1165	1264	1429	814	876	982	1415	1546	1767
20	1162	1272	1459	1694	1832	2062	1237	1328	1481	2082	2268	2579
18	1942	1942	2118	2412	2906	3126	2242	2394	2650	3616	3920	4428

Notes: 2. Web crippling reactions are calculated in accordance with AISI S100-16, ANSI/SDI RD-2017 & ANSI/SDI SD-2022.

Superimposed Allowable Inward Uniform Loads (psf) and Maximum Construction Spans - ASD

Gage	Span Condition	2'-0"	3'-0"	4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	Max Cons. Span
22	Single	853	379	213	137	95	70	53	42	34	28	24	8'-3"
	Double	772	359	206	133	93	68	52	41	34	28	23	10'-3"
	Triple	933	442	255	165	115	85	65	52	42	35	29	10'-3"
20	Single	1063	472	266	170	118	87	66	52	43	35	30	10'-2"
	Double	981	459	263	170	119	88	67	53	43	36	30	12'-7"
	Triple	1182	563	326	211	148	109	84	66	54	44	37	12'-7"
18	Single	1437	639	359	230	160	117	90	71	57	48	40	13'-3"
	Double	1344	632	363	235	164	121	93	73	60	49	41	16'-4"
	Triple	1613	774	448	291	204	150	116	92	74	61	52	16'-4"

Notes: 3. Superimposed allowable uniform loads & maximum construction spans conform to AISI S100-16, ANSI/SDI RD-2017 & ANSI/SDI SD-2022.

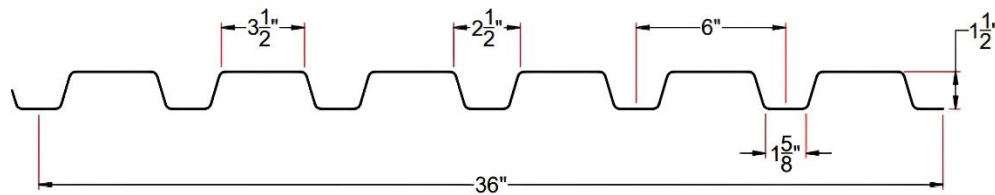
4. Maximum construction spans include a check for deck self-weight plus a service concentrated load of 200 lbs. per one foot section of deck. This exceeds IBC requirements.

5. The tabulated values do not account for web crippling. The required bearing is determined based on specific span conditions.

B-Deck Grade 50

ASD

1.5 B-Deck



Features
- Vented Option

Uniform Superimposed Service Loads That Cause L/240 Deflection (psf)

Gage	Span Condition	2'-0"	3'-0"	4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"
22	Single	1194	354	149	76	44	28	19	13	10	7	6
	Double	2875	852	359	184	106	67	45	32	23	17	13
	Triple	2250	667	281	144	83	52	35	25	18	14	10
20	Single	1501	445	188	96	56	35	23	16	12	9	7
	Double	3613	1070	452	231	134	84	56	40	29	22	17
	Triple	2827	838	353	181	105	66	44	31	23	17	13
18	Single	2106	624	263	135	78	49	33	23	17	13	10
	Double	5070	1502	634	324	188	118	79	56	41	30	23
	Triple	3968	1176	496	254	147	93	62	44	32	24	18

Note: 6. For service loads that cause L/120 deflection multiply by 2.0. For loads that cause L/180 deflection multiply by 1.5. For loads that cause L/360, multiply by 0.667.

Maximum Cantilever Construction Spans

Span Condition	Gage	Span
Single	22	2'-1"
	20	2'-8"
	18	3'-8"
Double or Triple	22	2'-1"
	20	2'-8"
	18	3'-8"

Note: 7. Maximum cantilever spans were calculated using a 200 lb service load in conjunction with a 10 psf uniform distributed load.

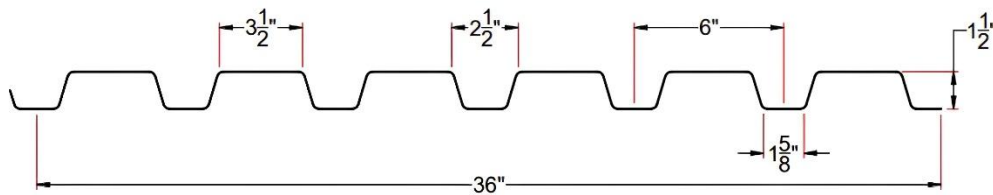
8. Maximum cantilever spans were calculated in accordance with ANSI/SDI RD-2017 & ANSI/SDI SD-2022.

B-Deck

Grade 50

LRFD

1.5 B-Deck



Features

- Vented Option



Nestable Side Lap

Section Properties

Strength KSI	Profile	Gage	Wt. lb/ft ²	Thickness in.	I _{d+} in. ⁴ /ft.	I _{d-} in. ⁴ /ft.	S _{e+} in. ³ /ft.	S _{e-} in. ³ /ft.	ΦM ₊ ft.-lb./ft.	ΦM ₋ ft.-lb./ft.	ΦV _N lb./ft.
F _y =50	1.5B22	22	1.6	0.0295	0.144	0.164	0.171	0.169	641	634	3677
F _y =50	1.5B20	20	1.9	0.0358	0.181	0.203	0.213	0.217	799	814	4444
F _y =50	1.5B18	18	2.5	0.0474	0.254	0.277	0.288	0.300	1080	1125	5840

Note: 1. Section properties and strengths are calculated in accordance with AISI S100-16, ANSI/SDI RD-2017 & ANSI/SDI SD-2022.

Design Web Crippling Reactions (ΦR_n) - lb/ft

Bearing Length of Webs												
One Flange Loading							Two Flange Loading					
Deck	End Bearing			Interior Bearing			End Bearing			Interior Bearing		
Gage	1 1/2"	2"	3"	1 1/2"	2"	3"	1 1/2"	2"	3"	1 1/2"	2"	3"
22	1245	1369	1576	1733	1880	2126	1245	1341	1502	2105	2300	2628
20	1777	1947	2232	2520	2725	3067	1893	2032	2266	3097	3373	3836
18	2971	2971	3240	3588	4322	4649	3430	3663	4055	5379	5831	6587

Note: 2. Web crippling reactions are calculated in accordance with AISI S100-16, ANSI/SDI RD-2017 & ANSI/SDI SD-2022.

Superimposed Design Inward Uniform Loads (psf) and Maximum Construction Spans - LRFD

Gage	Span Condition	2'-0"	3'-0"	4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	Max Cons. Span
22	Single	1283	570	321	205	143	105	80	63	51	42	36	7'-10"
	Double	1162	541	309	200	139	103	79	62	50	42	35	12'-3"
	Triple	1405	665	383	248	173	128	98	78	63	52	44	12'-3"
20	Single	1598	710	399	256	178	130	100	79	64	53	44	9'-8"
	Double	1478	691	396	256	179	132	101	80	65	54	45	13'-9"
	Triple	1781	848	490	317	222	164	126	100	81	67	56	13'-9"
18	Single	2160	960	540	346	240	176	135	107	86	71	60	12'-9"
	Double	2024	951	546	353	246	182	139	110	89	74	62	16'-0"
	Triple	2432	1165	675	438	306	226	174	138	112	92	78	16'-0"

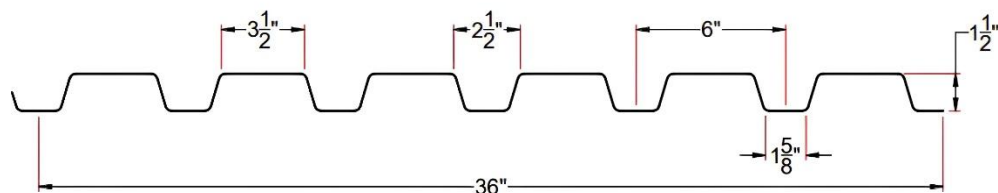
Note: 3. Superimposed allowable uniform loads & maximum construction spans conform to AISI S100-16, ANSI/SDI RD-2017 & ANSI/SDI SD-2022.

- Maximum construction spans include a check for deck self-weight plus a service concentrated load of 200 lbs. per one foot section of deck. This exceeds IBC requirements.
- The tabulated values do not account for web crippling. The required bearing is determined based on specific span conditions.

B-Deck Grade 50

LRFD

1.5 B-Deck



Features
- Vented Option

Uniform Superimposed Service Loads That Cause L/240 Deflection (psf)

Gage	Span Condition	2'-0"	3'-0"	4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"
22	Single	1194	354	149	76	44	28	19	13	10	7	6
	Double	2875	852	359	184	106	67	45	32	23	17	13
	Triple	2250	667	281	144	83	52	35	25	18	14	10
20	Single	1501	445	188	96	56	35	23	16	12	9	7
	Double	3613	1070	452	231	134	84	56	40	29	22	17
	Triple	2827	838	353	181	105	66	44	31	23	17	13
18	Single	2106	624	263	135	78	49	33	23	17	13	10
	Double	5070	1502	634	324	188	118	79	56	41	30	23
	Triple	3968	1176	496	254	147	93	62	44	32	24	18

Note: 6. For service loads that cause L/120 deflection multiply by 2.0. For loads that cause L/180 deflection multiply by 1.5. For loads that cause L/360, multiply by 0.667.

Maximum Cantilever Construction Spans

Span Condition	Gage	Span
Single	22	2'-1"
	20	2'-8"
	18	3'-8"
Double or Triple	22	2'-1"
	20	2'-8"
	18	3'-8"

Note: 7. Maximum cantilever spans were calculated using a 200 lb service load in conjunction with a 10 psf uniform distributed load.

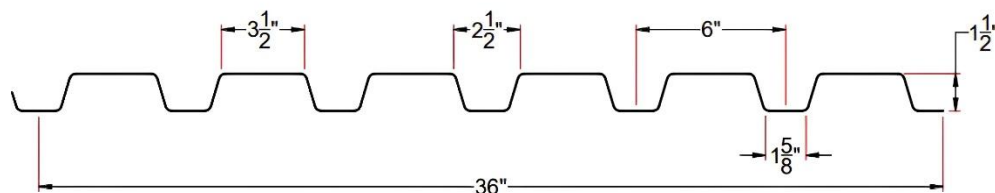
8. Maximum cantilever spans were calculated in accordance with ANSI/SDI RD-2017 & ANSI/SDI SD-2022.

B-Deck Grade 80

ASD



1.5 B-Deck



Features

- Vented Option



Nestable Side Lap

Section Properties

Strength KSI	Profile	Gage	Wt. lb/ft ²	Thickness in.	I _{d+} in. ⁴ /ft.	I _{d-} in. ⁴ /ft.	S _{e+} in. ³ /ft.	S _{e-} in. ³ /ft.	M ₊ /Ω ft.-lb./ft.	M ₋ /Ω ft.-lb./ft.	V _N /Ω lb./ft.
F _y =60	1.5B22	22	1.6	0.0295	0.142	0.162	0.164	0.165	491	494	2419
F _y =60	1.5B20	20	1.9	0.0358	0.179	0.201	0.210	0.211	629	632	3509
F _y =60	1.5B18	18	2.5	0.0474	0.250	0.277	0.286	0.300	856	898	4610

Note: 1. Section properties and strengths are calculated in accordance with AISI S100-16, ANSI/SDI RD-2017 & ANSI/SDI SD-2022.

Allowable Web Crippling Reactions (R_N/Ω)- lb/ft

Bearing Length of Webs												
One Flange Loading							Two Flange Loading					
Deck	End Bearing			Interior Bearing			End Bearing			Interior Bearing		
Gage	1 1/2"	2"	3"	1 1/2"	2"	3"	1 1/2"	2"	3"	1 1/2"	2"	3"
22	977	1074	1236	1398	1516	1715	976	1052	1178	1698	1856	2120
20	1394	1527	1751	2033	2198	2474	1485	1594	1777	2498	2721	3095
18	2330	2330	2541	2894	3487	3751	2690	2873	3180	4339	4704	5314

Note: 2. Web crippling reactions are calculated in accordance with AISI S100-16, ANSI/SDI RD-2017 & ANSI/SDI SD-2022.

Superimposed Allowable Inward Uniform Loads (psf) and Maximum Construction Spans - ASD

Gage	Span Condition	2'-0"	3'-0"	4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	Max Cons. Span
22	Single	982	436	246	157	109	80	61	48	39	32	27	9'-6"
	Double	879	415	239	155	108	80	61	48	39	32	27	11'-9"
	Triple	1052	507	295	192	134	99	76	60	49	41	34	11'-9"
20	Single	1257	559	314	201	140	103	79	62	50	42	35	11'-11"
	Double	1151	537	308	199	139	102	78	62	50	42	35	14'-9"
	Triple	1388	659	381	247	172	127	98	77	63	52	44	14'-9"
18	Single	1713	761	428	274	190	140	107	85	69	57	48	15'-7"
	Double	1613	758	436	282	197	145	111	88	71	59	50	17'-10"
	Triple	1936	929	538	349	245	181	139	110	89	74	62	17'-10"

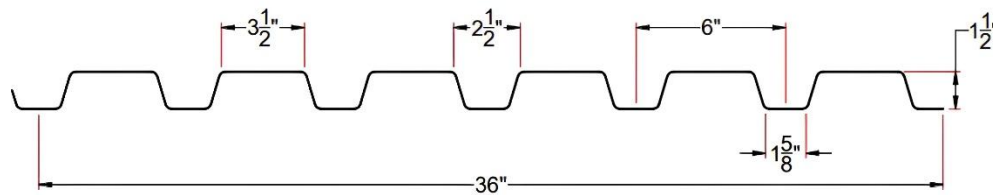
Note: 3. Superimposed allowable uniform loads & maximum construction spans conform to AISI S100-16, ANSI/SDI RD-2017 & ANSI/SDI SD-2022.

- Maximum construction spans include a check for deck self-weight plus a service concentrated load of 200 lbs. per one foot section of deck. This exceeds IBC requirements.
- The tabulated values do not account for web crippling. The required bearing is determined based on specific span conditions.

B-Deck Grade 80

ASD

1.5 B-Deck



Features
- Vented Option

Uniform Superimposed Service Loads That Cause L/240 Deflection (psf)

Gage	Span Condition	2'-0"	3'-0"	4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"
22	Single	1170	347	146	75	43	27	18	13	9	7	5
	Double	2816	835	352	180	104	66	44	31	23	17	13
	Triple	2204	653	276	141	82	51	34	24	18	13	10
20	Single	1477	437	185	94	55	34	23	16	12	9	7
	Double	3555	1053	444	227	132	83	56	39	28	21	16
	Triple	2782	824	348	178	103	65	43	31	22	17	13
18	Single	2074	614	259	133	77	48	32	23	17	12	10
	Double	4992	1479	624	319	185	116	78	55	40	30	23
	Triple	3907	1158	488	250	145	91	61	43	31	23	18

Note: 6. For service loads that cause L/120 deflection multiply by 2.0. For loads that cause L/180 deflection multiply by 1.5. For loads that cause L/360, multiply by 0.667.

Maximum Cantilever Construction Spans

Span Condition	Gage	Span
Single	22	2'-5"
	20	3'-1"
	18	4'-4"
Double or Triple	22	2'-5"
	20	3'-1"
	18	4'-4"

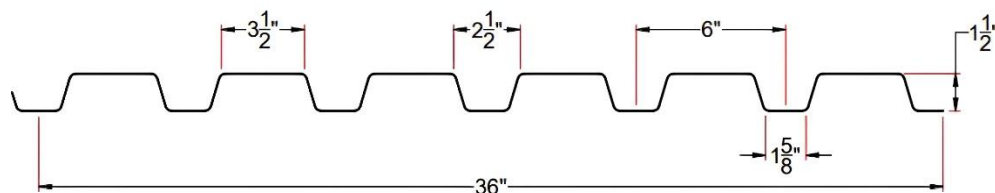
Note: 7. Maximum cantilever spans were calculated using a 200 lb service load in conjunction with a 10 psf uniform distributed load.

8. Maximum cantilever spans were calculated in accordance with ANSI/SDI RD-2017 & ANSI/SDI SD-2022.

B-Deck Grade 80

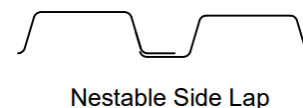
LRFD

1.5 B-Deck



Features

- Vented Option



Section Properties

Strength KSI	Profile	Gage	Wt. lb/ft ²	Thickness in.	I _{d+} in. ⁴ /ft.	I _{d-} in. ⁴ /ft.	S _{e+} in. ³ /ft.	S _{e-} in. ³ /ft.	ΦM ₊ ft.-lb./ft.	ΦM ₋ ft.-lb./ft.	ΦV _N lb./ft.
F _y =60	1.5B22	22	1.6	0.0295	0.142	0.162	0.164	0.165	738	743	3677
F _y =60	1.5B20	20	1.9	0.0358	0.179	0.201	0.210	0.211	945	950	5334
F _y =60	1.5B18	18	2.5	0.0474	0.250	0.277	0.286	0.300	1287	1350	7007

Note: 1. Section properties and strengths are calculated in accordance with AISI S100-16, ANSI/SDI RD-2017 & ANSI/SDI SD-2022.

Design Web Crippling Reactions (ΦR_n) - lb/ft

Bearing Length of Webs												
One Flange Loading							Two Flange Loading					
Deck	End Bearing			Interior Bearing			End Bearing			Interior Bearing		
Gage	1 1/2"	2"	3"	1 1/2"	2"	3"	1 1/2"	2"	3"	1 1/2"	2"	3"
22	1495	1643	1891	2079	2256	2551	1494	1609	1803	2526	2760	3154
20	2133	2336	2678	3025	3269	3681	2271	2438	2719	3716	4048	4603
18	3566	3566	3888	4305	5186	5579	4116	4396	4866	6455	6997	7904

Note: 2. Web crippling reactions are calculated in accordance with AISI S100-16, ANSI/SDI RD-2017 & ANSI/SDI SD-2022.

Superimposed Design Inward Uniform Loads (psf) and Maximum Construction Spans - LRFD

Gage	Span Condition	2'-0"	3'-0"	4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	Max Cons. Span
22	Single	1476	656	369	236	164	120	92	73	59	49	41	9'-0"
	Double	1324	625	359	233	162	120	92	73	59	49	41	13'-3"
	Triple	1585	764	443	288	202	149	115	91	74	61	51	13'-3"
20	Single	1890	840	473	302	210	154	118	93	76	62	53	11'-4"
	Double	1732	808	463	299	208	154	118	93	76	62	53	14'-11"
	Triple	2091	992	573	371	259	191	147	116	94	78	66	14'-11"
18	Single	2574	1144	644	412	286	210	161	127	103	85	72	15'-0"
	Double	2429	1141	655	424	296	218	167	132	107	89	75	17'-7"
	Triple	2918	1398	809	525	368	271	208	165	134	111	93	17'-7"

Note: 3. Superimposed allowable uniform loads & maximum construction spans conform to AISI S100-16, ANSI/SDI RD-2017 & ANSI/SDI SD-2022.

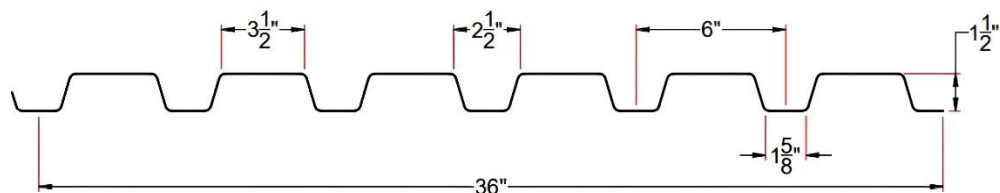
4. Maximum construction spans include a check for deck self-weight plus a service concentrated load of 200 lbs. per one foot section of deck. This exceeds IBC requirements.

5. The tabulated values do not account for web crippling. The required bearing is determined based on specific span conditions.

B-Deck Grade 80

LRFD

1.5 B-Deck



Features

- Vented Option

Uniform Superimposed Service Loads That Cause L/240 Deflection (psf)

Gage	Span Condition	2'-0"	3'-0"	4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"
22	Single	1170	347	146	75	43	27	18	13	9	7	5
	Double	2816	835	352	180	104	66	44	31	23	17	13
	Triple	2204	653	276	141	82	51	34	24	18	13	10
20	Single	1477	437	185	94	55	34	23	16	12	9	7
	Double	3555	1053	444	227	132	83	56	39	28	21	16
	Triple	2782	824	348	178	103	65	43	31	22	17	13
18	Single	2074	614	259	133	77	48	32	23	17	12	10
	Double	4992	1479	624	319	185	116	78	55	40	30	23
	Triple	3907	1158	488	250	145	91	61	43	31	23	18

Note: 6. For service loads that cause L/120 deflection multiply by 2.0. For loads that cause L/180 deflection multiply by 1.5. For loads that cause L/360, multiply by 0.667.

Maximum Cantilever Construction Spans

Span Condition	Gage	Span
Single	22	2'-5"
	20	3'-1"
	18	4'-4"
Double or Triple	22	2'-5"
	20	3'-1"
	18	4'-4"

Note: 7. Maximum cantilever spans were calculated using a 200 lb service load in conjunction with a 10 psf uniform distributed load.

8. Maximum cantilever spans were calculated in accordance with ANSI/SDI RD-2017 & ANSI/SDI SD-2022.

1. General

1.1 Related Documents: Drawings and General Provisions of the contract, including general and supplementary conditions and division 1 specification sections, apply to this section.

1.2 Summary:

This section pertains to steel roof deck.

A. Related Sections:

1. Division 5 Sections: Structural steel, steel joists or cold formed steel framing that support the steel roof deck.

B. Requirements for field painting, fire proofing, roof sumps, flashings, drains, collars, gutters, downspouts, insulation, and other miscellaneous items are specified elsewhere.

1.3 Submittals:

A. General: submit each item in this article according to the conditions of the contract and division 1 specification sections

B. Product data for each type of decking specified, including dimensions of individual components, profiles, and finishes.

C. Shop drawings showing the location of deck units, anchorage details, accessories specified on the contract documents, and other information required for a thorough review.

D. Product certification (if required certifying that the supplied products comply with specified requirements.

E. Welder Certificated signed by the contractor certifying that welders comply with requirements specified under "Quality Assurance" Article 1.4. If mechanical fasteners are used, independent test reports if evaluation reports shall be provided by the fastener manufacturer.

1.4 Quality Assurance:

A. Codes and standards: Comply with applicable provisions of the following specifications:

1. AISI S100-07 w/s2-10, North American Specification for the Design of Cold-Formed Steel Structural Members, Including Supplement 2.

2. AWS D1.3:2017, Structural Welding Code-Sheet Steel

3. ANSI/SDI RD-2022, Standard for Steel Roof Deck

B. Certify that each welder has satisfactorily passed AWS qualification tests for welding process involved, and, if applicable, has undergone recertification.

1.5 Delivery, Storage, and Handling:

A. Protect steel deck from corrosion, deformation, and other damage during delivery, storage, and handling.

B. If ground storage is needed, the deck bundles must be stored off the ground, with one end elevated to provide drainage. Bundles must be protected against condensation with a ventilated waterproof covering. Bundles must be stacked so there is no danger of tipping, sliding, rolling, shifting or material damage. Bundles must be periodically check for tightness and retightened, as necessary.

C. Deck bundles placed on the building frame must be placed near a main supporting beam at a column or wall. In no case are the bundles to be placed on unbolted framed or on unattached

2. Products

2.1: A manufacturer offering deck products to be incorporated into the work must be a member of the Steel Deck Institute.

2.2 Materials: [The specifier must choose the appropriate section(s) and eliminate those not applicable.]

- A. Sheet steel for deck and accessories shall conform to ANSI/SDI RD-2022, Section 2.1A, 2.1B, 2.1C, and 2.1D.
- B. Steel deck and accessories shall be [ASTM A1008 bare steel] [galvanized to G60 minimum in accordance with ASTM A653] [ASTM A1008 steel prime painted with manufacture's standard prime paint].
- C. The deck type and thickness shall be as shown on the plans.
or
- D. The deck shall be ____ with a minimum metal thickness of ____.
or
- E. The deck shall be selected to provide the load capacities shown on the drawings and as determined using the ANSI/SDI RD-2022 construction loading criteria.
- F. Whenever possible, the deck shall be multi-span.
- G. The deck type provided shall be capable of supporting the superimposed live loads as shown on the plans.
- H. Ridge and valley plates, flat plates at changes of deck direction, sump pans and side closure shall be the standard type provided by the deck manufacturer unless indicated otherwise on the plans.

3. Execution

3.1: Examine support framing and field conditions for compliance with requirements for installation tolerances and other conditions affecting performance of work of this section. All OSHA rules for erection must be followed.

3.2 Preparation:

- A. Place deck in accordance with approved installation drawings.
- B. Locate deck bundles to prevent overloading of support members.

3.3 Installation: General

- A. Install deck panels and accessories according to ANSI/SDI RD-2022 and in accordance with approved installation drawings and requirements of this section.
- B. Place deck panels on structural supports and adjust to final position with ends aligned. Attach firmly to the supports immediately after placement to form a safe working platform.
- C. Cut and neatly fit deck units and accessories around opening and other work projecting through or adjacent to the decking.
- D. Trades that subsequently cut unscheduled opening through the deck are responsible for

3.4 Installation: Roof Deck

- A. Fasten deck and accessories in accordance with requirements of ANSI/SDI RD-2022, Sections 3.1, 3.2, and 3.4.
- B. End Bearing: Install deck ends over supports with a minimum end bearing of 1-1/2 inches (38 mm) unless otherwise shown on approved installation drawings or manufacturer's literature.
- C. Side closures: Fasten to supporting structure and deck in accordance with approved installation drawings.
- D. Ridge and valley plates, flat plates at changes of deck direction and sump pans, shall be fastened to the deck in accordance with approved installation drawings.

3.5 Repairs: Before placement of roof insulation and roof covering, the deck shall be inspected for tears, dents or other damage that may prevent the deck from acting as a structural roof base. The need for repair of damaged deck shall be determined by the Architect or Engineer of Record based on structural performance, unless aesthetics have been specifically addressed in the contract documents.

3.6 Construction Guidelines:

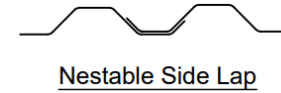
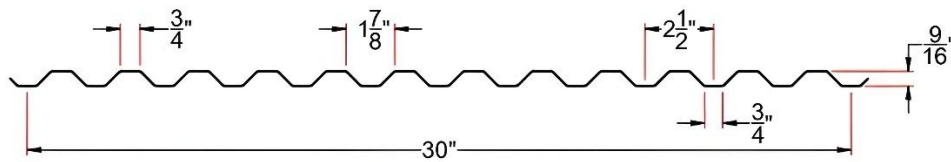
- A. Do not use deck units as a working platform or storage area until units are in position and permanently attached to the structure.
- B. Construction loads must not exceed load carrying capacity of the deck.

9/16" Form Deck

Grade 80

ASD

0.6 Form Deck



Section Properties

Strength KSI	Profile	Gage	Wt. lb/ft ²	Thickness in.	I _{d+} in. ⁴ /ft.	I _{d-} in. ⁴ /ft.	S _{e+} in. ³ /ft.	S _{e-} in. ³ /ft.	M ₊ /Ω ft.-lb./ft.	M ₋ /Ω ft.-lb./ft.	V _N /Ω lb./ft.
F _y =60	0.6F28	28	0.7	0.0149	0.010	0.010	0.034	0.033	102	99	1562
F _y =60	0.6F26	26	0.9	0.0179	0.013	0.013	0.043	0.042	129	126	1873
F _y =60	0.6F24	24	1.2	0.0239	0.017	0.017	0.058	0.057	174	171	2492
F _y =60	0.6F22	22	1.4	0.0295	0.021	0.021	0.071	0.071	213	213	3066

Note: 1. Section properties and strengths are calculated in accordance with AISI S100-16, ANSI/SDI NC-2017 & ANSI/SDI SD-2022.

Allowable Web Crippling Reactions (R_N/Ω)- lb/ft

Bearing Length of Webs				
One Flange Loading				
Deck	End Bearing		Interior Bearing	
Gage	1 1/2"	2"	1 1/2"	2"
28	548	609	773	849
26	763	846	1094	1197
24	1284	1416	1883	2050
22	1873	2059	2791	3027

Note: 2. Web crippling reactions are calculated in accordance with AISI S100-16, ANSI/SDI NC-2017 & ANSI/SDI SD-2022.

Bare Deck Superimposed Allowable Inward Uniform Loads (psf)- ASD

Gage	Span Condition	1'-0"	1'-6"	2'-0"	2'-6"	3'-0"	3'-6"	4'-0"	4'-6"	5'-0"	5'-6"	6'-0"
28	Single	814	362	204	130	90	66	51	40	33	27	23
	Double	753	343	195	125	87	64	49	39	32	26	22
	Triple	922	425	242	156	109	80	61	49	39	33	27
26	Single	1030	458	257	165	114	84	64	51	41	34	29
	Double	952	436	248	159	111	82	63	49	40	33	28
	Triple	1165	539	308	198	138	102	78	62	50	41	35
24	Single	1389	617	347	222	154	113	87	69	56	46	39
	Double	1290	591	336	216	151	111	85	67	54	45	38
	Triple	1576	730	417	269	188	138	106	84	68	56	47
22	Single	1701	756	425	272	189	139	106	84	68	56	47
	Double	1604	735	418	269	187	138	106	84	68	56	47
	Triple	1960	909	520	335	234	172	132	104	85	70	59

Note: 3. Superimposed allowable uniform loads and maximum construction spans conform to AISI S100-16, ANSI/SDI NC-2017 & ANSI/SDI SD-2022.

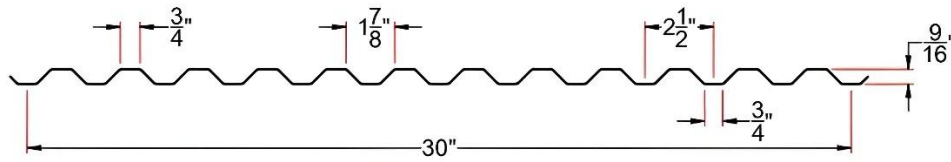
4. The tabulated values do not account for web crippling. The required bearing is based on specific span conditions.

9/16" Form Deck

Grade 80

ASD

0.6 Form Deck



Bare Deck Uniform Superimposed Service Loads That Cause L/240 Deflection (psf)

Gage	Span Condition	1'-0"	1'-6"	2'-0"	2'-6"	3'-0"	3'-6"	4'-0"	4'-6"	5'-0"	5'-6"	6'-0"
28	Single	645	191	81	41	24	15	10	7	5	4	3
	Double	1554	460	194	99	58	36	24	17	12	9	7
	Triple	1216	360	152	78	45	28	19	13	10	7	6
26	Single	775	230	97	50	29	18	12	9	6	5	4
	Double	1865	553	233	119	69	43	29	20	15	11	9
	Triple	1459	432	182	93	54	34	23	16	12	9	7
24	Single	1033	306	129	66	38	24	16	11	8	6	5
	Double	2486	737	311	159	92	58	39	27	20	15	12
	Triple	1946	577	243	125	72	45	30	21	16	12	9
22	Single	1226	363	153	78	45	29	19	13	10	7	6
	Double	2952	875	369	189	109	69	46	32	24	18	14
	Triple	2311	685	289	148	86	54	36	25	18	14	11

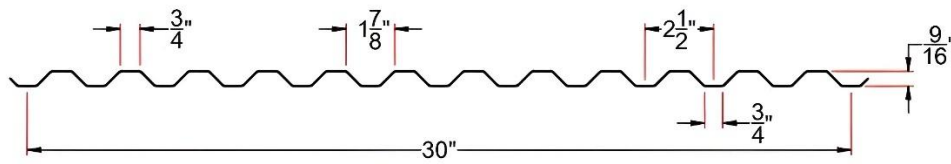
Note: 5. For service loads that cause L/120 deflection multiply by 2.0. For loads that cause L/180 deflection multiply by 1.5. For loads that cause L/360, multiply by 0.667.

9/16" Form Deck

Grade 80

ASD

0.6 Form Deck



Maximum Unshored Spans – Normal Weight Concrete 145 pcf

Slab Depth		Maximum Unshored Spans				
Total	Thickness	Wt. (psf)	Gage	1	2	3
2 1/2"	2"	30	28	2'-3"	2'-8"	2'-8"
		31	26	2'-8"	3'-3"	3'-3"
		31	24	3'-5"	4'-1"	4'-2"
		31	22	4'-0"	4'-9"	4'-10"
3"	2 1/2"	36	28	2'-2"	2'-7"	2'-7"
		37	26	2'-7"	3'-1"	3'-2"
		37	24	3'-4"	3'-11"	4'-0"
		37	22	3'-10"	4'-7"	4'-7"
3 1/2"	3"	42	28	2'-1"	2'-6"	2'-6"
		43	26	2'-6"	2'-0"	3'-0"
		43	24	3'-2"	3'-9"	3'-10"
		43	22	3'-8"	4'-4"	4'-5"
4"	3 1/2"	48	28	2'-0"	2'-5"	2'-6"
		49	26	2'-5"	2'-11"	2'-11"
		49	24	3'-1"	3'-8"	3'-8"
		49	22	3'-7"	4'-3"	4'-3"
4 1/2"	4"	54	28	2'-0"	2'-4"	2'-5"
		55	26	2'-5"	2'-10"	2'-10"
		55	24	3'-0"	3'-6"	3'-7"
		55	22	3'-6"	4'-1"	4'-2"
5"	4 1/2"	61	28	1'-11"	2'-4"	2'-4"
		61	26	2'-4"	2'-9"	2'-9"
		61	24	2'-11"	3'-5"	3'-6"
		61	22	3'-4"	3'-11"	4'-0"

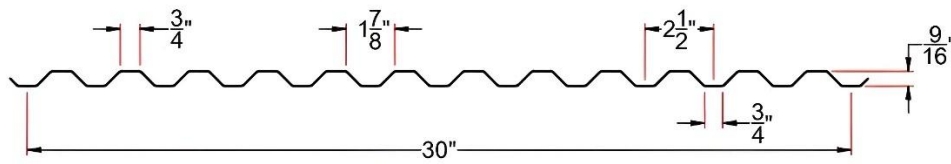
- Note:**
- All construction spans are based on a 20 psf and/or a 150 plf construction load in conjunction with deck plus concrete self-weight and a 3 psf concrete ponding allowance.
 - Web crippling has not been taken into consideration in the maximum unshored spans. Web crippling should be determined based on specific span conditions.
 - Tables have been calculated in accordance with ANSI/SDI NC-2017 & ANSI/SDI SD-2022.

9/16" Form Deck

Grade 80

ASD

0.6 Form Deck



Maximum Unshored Spans – Light Weight Concrete 115 pcf

Slab Depth		Maximum Unshored Spans				
Total	Thickness	Wt. (psf)	Gage	1	2	3
2 1/2"	2"	25	28	2' - 3"	2' - 9"	2' - 9"
		25	26	2' - 9"	3' - 4"	3' - 5"
		25	24	3' - 7"	4' - 3"	4' - 4"
		26	22	4' - 2"	5' - 0"	5' - 1"
3"	2 1/2"	30	28	2' - 3"	2' - 8"	2' - 8"
		30	26	2' - 8"	3' - 3"	3' - 3"
		30	24	3' - 5"	4' - 1"	4' - 2"
		30	22	4' - 0"	4' - 9"	4' - 10"
3 1/2"	3"	34	28	2' - 2"	2' - 7"	2' - 8"
		35	26	2' - 7"	3' - 2"	3' - 2"
		35	24	3' - 4"	4' - 0"	4' - 0"
		35	22	3' - 11"	4' - 7"	4' - 8"
4"	3 1/2"	39	28	2' - 1"	2' - 6"	2' - 7"
		39	26	2' - 7"	3' - 1"	3' - 1"
		40	24	3' - 3"	3' - 10"	3' - 11"
		40	22	3' - 9"	4' - 6"	4' - 6"
4 1/2"	4"	44	28	2' - 1"	2' - 6"	2' - 6"
		44	26	2' - 6"	3' - 0"	3' - 0"
		44	24	3' - 2"	3' - 9"	3' - 9"
		45	22	3' - 8"	4' - 4"	4' - 5"
5"	4 1/2"	49	28	2' - 0"	2' - 5"	2' - 5"
		49	26	2' - 5"	2' - 11"	2' - 11"
		49	24	3' - 1"	3' - 8"	3' - 8"
		49	22	3' - 7"	4' - 3"	4' - 3"

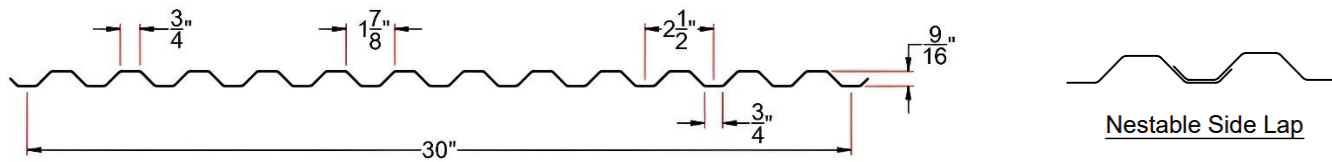
- Note:**
- All construction spans are based on a 20 psf and/or a 150 plf construction load in conjunction with deck plus concrete self-weight and a 3 psf concrete ponding allowance.
 - Web crippling has not been taken into consideration in the maximum unshored spans. Web crippling should be determined based on specific span conditions.
 - Tables have been calculated in accordance with ANSI/SDI NC-2017 & ANSI/SDI SD-2022.

9/16" Form Deck

Grade 80

LRFD

0.6 Form Deck



Section Properties

Strength KSI	Profile	Gage	Wt. lb/ft ²	Thickness in.	I _{d+} in. ⁴ /ft.	I _{d-} in. ⁴ /ft.	S _{e+} in. ³ /ft.	S _{e-} in. ³ /ft.	ΦM ₊ ft.-lb./ft.	ΦM ₋ ft.-lb./ft.	ΦV _N lb./ft.
F _y =60	0.6F28	28	0.7	0.0149	0.010	0.010	0.034	0.033	153	149	2375
F _y =60	0.6F26	26	0.9	0.0179	0.013	0.013	0.043	0.042	194	189	2848
F _y =60	0.6F24	24	1.2	0.0239	0.017	0.017	0.058	0.057	261	257	3788
F _y =60	0.6F22	22	1.4	0.0295	0.021	0.021	0.071	0.071	320	320	4660

Note: 1. Section properties and strengths are calculated in accordance with AISI S100-16, ANSI/SDI NC-2017 & ANSI/SDI SD-2022.

Design Web Crippling Reactions (ΦR_n) - lb/ft

Bearing Length of Webs				
One Flange Loading				
Deck	End Bearing		Interior Bearing	
Gage	1 1/2"	2"	1 1/2"	2"
28	838	1182	1150	1262
26	1168	1674	1628	1781
24	1965	2881	2801	3049
22	2866	4270	4152	4503

Note: 2. Web crippling reactions are calculated in accordance with AISI S100-16, ANSI/SDI NC-2017 & ANSI/SDI SD-2022.

Bare Deck Superimposed Allowable Inward Uniform Loads (psf)- LRFD

Gage	Span Condition	1'-0"	1'-6"	2'-0"	2'-6"	3'-0"	3'-6"	4'-0"	4'-6"	5'-0"	5'-6"	6'-0"
28	Single	1224	544	306	196	136	100	77	60	49	40	34
	Double	1132	516	293	188	131	96	74	58	47	39	33
	Triple	1388	639	364	235	163	120	92	73	59	49	41
26	Single	1548	688	387	248	172	126	97	76	62	51	43
	Double	1433	655	372	239	167	123	94	74	60	50	42
	Triple	1753	811	463	298	208	153	117	93	75	62	52
24	Single	2088	928	522	334	232	170	131	103	84	69	58
	Double	1941	888	505	325	226	166	128	101	82	68	57
	Triple	2373	1099	628	405	282	208	159	126	102	84	71
22	Single	2556	1136	639	409	284	209	160	126	102	84	71
	Double	2414	1106	629	405	282	207	159	126	102	84	71
	Triple	2951	1367	781	504	351	259	198	157	127	105	88

Note: 3. Superimposed allowable uniform loads and maximum construction spans conform to AISI S100-16, ANSI/SDI NC-2017 & ANSI/SDI SD-2022.

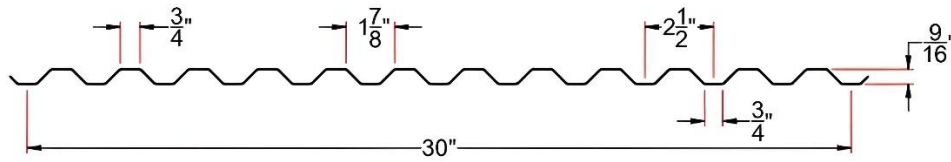
4. The tabulated values do not account for web crippling. The required bearing is based on specific span conditions.

9/16" Form Deck

Grade 80

LRFD

0.6 Form Deck



Bare Deck Uniform Superimposed Service Loads That Cause L/240 Deflection (psf)

Gage	Span Condition	1'-0"	1'-6"	2'-0"	2'-6"	3'-0"	3'-6"	4'-0"	4'-6"	5'-0"	5'-6"	6'-0"
28	Single	645	191	81	41	24	15	10	7	5	4	3
	Double	1554	460	194	99	58	36	24	17	12	9	7
	Triple	1216	360	152	78	45	28	19	13	10	7	6
26	Single	775	230	97	50	29	18	12	9	6	5	4
	Double	1865	553	233	119	69	43	29	20	15	11	9
	Triple	1459	432	182	93	54	34	23	16	12	9	7
24	Single	1033	306	129	66	38	24	16	11	8	6	5
	Double	2486	737	311	159	92	58	39	27	20	15	12
	Triple	1946	577	243	125	72	45	30	21	16	12	9
22	Single	1226	363	153	78	45	29	19	13	10	7	6
	Double	2952	875	369	189	109	69	46	32	24	18	14
	Triple	2311	685	289	148	86	54	36	25	18	14	11

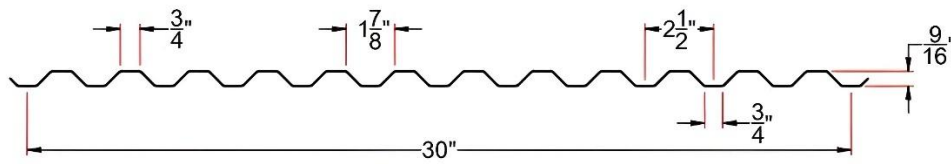
Note: 5. For service loads that cause L/120 deflection multiply by 2.0. For loads that cause L/180 deflection multiply by 1.5. For loads that cause L/360, multiply by 0.667.

9/16" Form Deck

Grade 80

LRFD

0.6 Form Deck



Maximum Unshored Spans – Normal Weight Concrete 145 pcf

Slab Depth		Maximum Unshored Spans				
Total	Thickness	Wt. (psf)	Gage	1	2	3
2 1/2"	2"	48	28	2'- 2"	2'- 8"	2'- 8"
		48	26	2'- 7"	3'- 1"	3'- 2"
		49	24	3'- 2"	3'-10"	3'-10"
		50	22	3'- 9"	4'- 5"	4'- 6"
3"	2 1/2"	58	28	2'- 2"	2'- 7"	2'- 7"
		58	26	2'- 6"	3'- 0"	3'- 0"
		58	24	3'- 1"	3'- 8"	3'- 8"
		59	22	3'- 7"	4'- 3"	4'- 3"
3 1/2"	3"	68	28	2'- 1"	2'- 6"	2'- 6"
		68	26	2'- 5"	2'-10"	2'-11"
		68	24	3'- 0"	3'- 6"	3'- 7"
		69	22	3'- 5"	4'- 0"	4'- 1"
4"	3 1/2"	77	28	2'- 0"	2'- 5"	2'- 5"
		77	26	2'- 4"	2'- 9"	2'-10"
		78	24	2'-10"	3'- 5"	3'- 5"
		78	22	3'- 4"	3'-11"	3'-11"
4 1/2"	4"	87	28	2'- 0"	2'- 4"	2'- 4"
		87	26	2'- 3"	2'- 8"	2'- 9"
		87	24	2'- 9"	3'- 3"	3'- 4"
		88	22	3'- 2"	3'- 9"	3'-10"
5"	4 1/2"	97	28	1'-11"	2'- 3"	2'- 4"
		97	26	2'- 3"	2'- 8"	2'- 8"
		97	24	2'- 8"	3'- 2"	3'- 3"
		98	22	3'- 1"	3'- 8"	3'- 8"

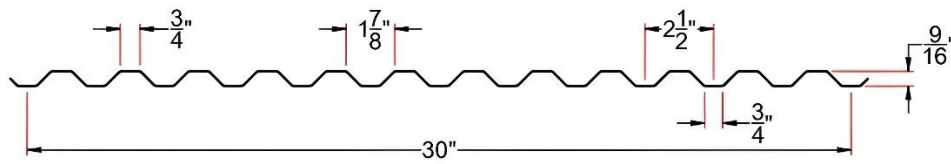
- Note:**
- All construction spans are based on a 20 psf and/or a 150 plf construction load in conjunction with deck plus concrete self-weight and a 3 psf concrete ponding allowance.
 - Web crippling has not been taken into consideration in the maximum unshored spans. Web crippling should be determined based on specific span conditions.
 - Tables have been calculated in accordance with ANSI/SDI NC-2017 & ANSI/SDI SD-2022.

9/16" Form Deck

Grade 80

LRFD

0.6 Form Deck



Maximum Unshored Spans – Light Weight Concrete 115 pcf

Slab Depth		Maximum Unshored Spans				
Total	Thickness	Wt. (psf)	Gage	1	2	3
2 1/2"	2"	39	28	2'-3"	2'-9"	2'-9"
		40	26	2'-8"	3'-2"	3'-3"
		40	24	3'-4"	4'-0"	4'-0"
		41	22	3'-11"	4'-7"	4'-8"
3"	2 1/2"	47	28	2'-2"	2'-8"	2'-8"
		47	26	2'-7"	3'-1"	3'-2"
		48	24	3'-3"	3'-10"	3'-10"
		48	22	3'-9"	4'-5"	4'-6"
3 1/2"	3"	55	28	2'-2"	2'-7"	2'-7"
		55	26	2'-6"	3'-0"	3'-1"
		55	24	3'-1"	3'-8"	3'-9"
		56	22	3'-7"	4'-3"	4'-4"
4"	3 1/2"	62	28	2'-1"	2'-6"	2'-6"
		63	26	2'-5"	2'-11"	3'-0"
		63	24	3'-0"	3'-7"	3'-7"
		64	22	3'-6"	4'-2"	4'-2"
4 1/2"	4"	70	28	2'-1"	2'-5"	2'-6"
		70	26	2'-5"	2'-10"	2'-11"
		71	24	2'-11"	3'-6"	3'-6"
		71	22	3'-5"	3'-0"	4'-1"
5"	4 1/2"	78	28	2'-0"	2'-5"	2'-5"
		78	26	2'-4"	2'-9"	2'-10"
		78	24	2'-10"	3'-5"	3'-5"
		79	22	3'-4"	3'-11"	3'-11"

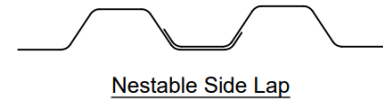
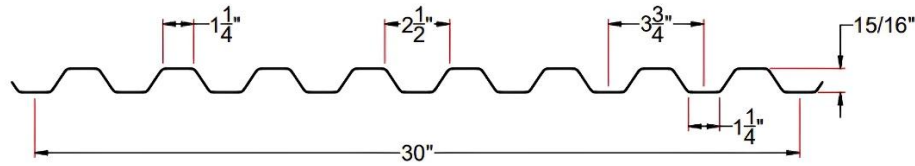
- Note:**
- All construction spans are based on a 20 psf and/or a 150 plf construction load in conjunction with deck plus concrete self-weight and a 3 psf concrete ponding allowance.
 - Web crippling has not been taken into consideration in the maximum unshored spans. Web crippling should be determined based on specific span conditions.
 - Tables have been calculated in accordance with ANSI/SDI NC-2017 & ANSI/SDI SD-2022.

1" Form Deck

Grade 80

ASD

1.0 Form Deck



Section Properties

Strength KSI	Profile	Gage	Wt. lb/ft ²	Thickness in.	I _{d+} in. ⁴ /ft.	I _{d-} in. ⁴ /ft.	S _{e+} in. ³ /ft.	S _{e-} in. ³ /ft.	M ₊ /Ω ft.-lb./ft.	M ₋ /Ω ft.-lb./ft.	V _N /Ω lb./ft.
F _y =60	1.0F26	26	0.9	0.0179	0.035	0.035	0.063	0.063	189	189	1550
F _y =60	1.0F24	24	1.2	0.0239	0.049	0.049	0.094	0.093	281	278	2061
F _y =60	1.0F22	22	1.5	0.0295	0.062	0.062	0.125	0.124	374	371	2533
F _y =60	1.0F20	20	1.9	0.0358	0.077	0.077	0.156	0.155	467	464	3060

Note: 1. Section properties and strengths are calculated in accordance with AISI S100-16, ANSI/SDI NC-2017 & ANSI/SDI SD-2022.

Allowable Web Crippling Reactions (R_n/Ω)- lb/ft

Bearing Length of Webs						
One Flange Loading						
Deck	End Bearing			Interior Bearing		
Gage	1 1/2"	2"	3"	1 1/2"	2"	3"
26	461	511	594	511	603	690
24	925	1021	1004	1152	1254	1248
22	1363	1498	1466	1767	1917	1898
20	1944	2129	2075	2602	2813	2771

Note: 2. Web crippling reactions are calculated in accordance with AISI S100-16, ANSI/SDI NC-2017 & ANSI/SDI SD-2022.

Bare Deck Superimposed Allowable Inward Uniform Loads (psf)- ASD

Gage	Span Condition	2'-0"	2'-6"	3'-0"	3'-6"	4'-0"	4'-6"	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"
26	Single	377	241	168	123	94	75	60	50	42	36	31
	Double	360	234	164	121	93	74	60	50	42	36	31
	Triple	442	289	203	151	116	92	75	62	52	44	38
24	Single	563	360	250	184	141	111	90	74	63	53	46
	Double	527	344	241	178	137	109	88	73	61	52	45
	Triple	644	423	298	221	170	135	110	91	77	65	56
22	Single	749	479	333	244	187	148	120	99	83	71	61
	Double	696	455	320	237	182	145	117	97	82	70	60
	Triple	848	560	395	294	226	180	146	121	102	87	75
20	Single	934	598	415	305	234	185	149	124	104	88	76
	Double	867	568	399	296	228	181	147	121	102	87	75
	Triple	1055	697	493	366	282	224	182	151	127	109	94

Note: 3. Superimposed allowable uniform loads and maximum construction spans conform to AISI S100-16, ANSI/SDI NC-2017 & ANSI/SDI SD-2022.

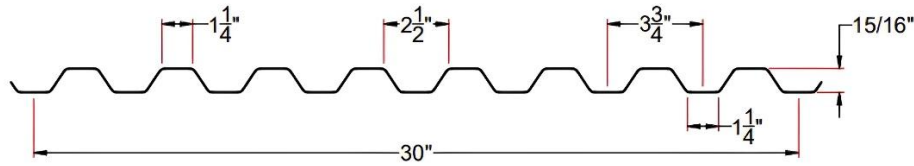
4. The tabulated values do not account for web crippling. The required bearing is based on specific span conditions.

1" Form Deck

Grade 80

ASD

1.0 Form Deck



Bare Deck Uniform Superimposed Service Loads That Cause L/240 Deflection (psf)

Gage	Span Condition	2'-0"	2'-6"	3'-0"	3'-6"	4'-0"	4'-6"	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"
26	Single	274	140	81	51	34	24	18	13	10	8	6
	Double	660	338	196	123	83	58	42	32	24	19	15
	Triple	517	265	153	96	65	45	33	25	19	15	12
24	Single	395	202	117	74	49	35	25	19	15	12	9
	Double	952	487	282	178	119	84	61	46	35	28	22
	Triple	745	381	221	139	93	65	48	36	28	22	17
22	Single	508	260	151	95	64	45	33	24	19	15	12
	Double	1224	627	363	228	153	107	78	59	45	36	29
	Triple	958	490	284	179	120	84	61	46	35	28	22
20	Single	621	318	184	116	78	55	40	30	23	18	14
	Double	1496	766	443	279	187	131	96	72	55	44	35
	Triple	1171	599	347	218	146	103	75	56	43	34	27

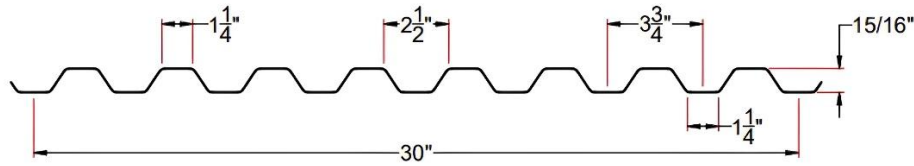
Note: 5. For service loads that cause L/120 deflection multiply by 2.0. For loads that cause L/180 deflection multiply by 1.5. For loads that cause L/360, multiply by 0.667.

1" Form Deck

Grade 80

ASD

1.0 Form Deck



Maximum Unshored Spans – Normal Weight Concrete 145 pcf

Slab Depth		Maximum Unshored Spans				
Total	Thickness	Wt. (psf)	Gage	1	2	3
3"	2"	34	26	3'- 7"	4'- 3"	4'- 4"
		34	24	4'-10"	5'- 9"	5'-10"
		35	22	5'-11"	7'- 0"	7'- 1"
		35	20	6'-10"	8'- 1"	8'-0"
3 1/2"	2 1/2"	40	26	3'- 5"	4'- 1"	4'- 2"
		40	24	4'- 8"	5'- 6"	5'- 6"
		41	22	5'- 8"	6'- 8"	6'- 9"
		41	20	6'- 7"	7'- 8"	7'- 8"
4"	3"	46	26	3'- 4"	3'-11"	4'-0"
		46	24	4'- 5"	5'- 3"	5'- 4"
		47	22	5'- 5"	6'- 4"	6'- 5"
		47	20	6'- 3"	7'- 4"	7'- 5"
4 1/2"	3 1/2"	52	26	3'- 3"	3'-10"	3'-10"
		53	24	4'- 4"	5'- 1"	5'- 1"
		53	22	5'- 3"	6'- 1"	6'- 2"
		53	20	6'- 0"	7'- 0"	7'- 1"
5"	4"	58	26	3'- 2"	3'- 8"	3'- 9"
		59	24	4'- 2"	4'-11"	4'-11"
		59	22	5'- 0"	5'-11"	6'-0"
		59	20	5'-10"	6'- 9"	6'-10"
5 1/2"	4 1/2"	64	26	3'- 1"	3'- 7"	3'- 8"
		65	24	4'- 0"	4'- 9"	4'- 9"
		65	22	4'-11"	5'- 8"	5'- 9"
		65	20	5'- 7"	6'- 7"	6'- 7"

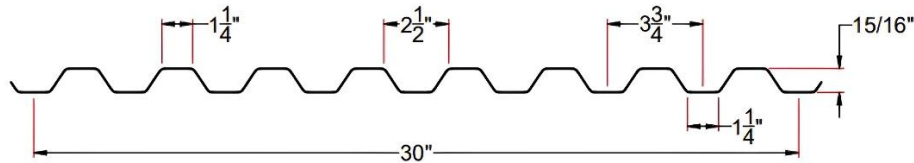
- Note:**
- All construction spans are based on a 20 psf and/or a 150 plf construction load in conjunction with deck plus concrete self-weight and a 3 psf concrete ponding allowance.
 - Web crippling has not been taken into consideration in the maximum unshored spans. Web crippling should be determined based on specific span conditions.
 - Tables have been calculated in accordance with ANSI/SDI NC-2017 & ANSI/SDI SD-2022.

1" Form Deck

Grade 80

ASD

1.0 Form Deck



Maximum Unshored Spans – Light Weight Concrete 115 pcf

Slab Depth		Maximum Unshored Spans				
Total	Thickness	Wt. (psf)	Gage	1	2	3
3"	2"	28	26	3'-9"	4'-5"	4'-6"
		28	24	5'-1"	6'-0"	6'-1"
		29	22	6'-3"	7'-5"	7'-6"
		29	20	7'-2"	8'-5"	8'-5"
3 1/2"	2 1/2"	33	26	3'-7"	4'-3"	4'-4"
		33	24	4'-11"	5'-9"	5'-10"
		33	22	6'-0"	7'-1"	7'-2"
		34	20	6'-11"	8'-1"	8'-1"
4"	3"	37	26	3'-6"	4'-2"	4'-2"
		38	24	4'-9"	5'-7"	5'-8"
		38	22	5'-9"	6'-10"	6'-11"
		38	20	6'-8"	7'-10"	7'-10"
4 1/2"	3 1/2"	42	26	3'-5"	4'-0"	4'-1"
		42	24	4'-7"	5'-5"	5'-5"
		43	22	5'-7"	6'-7"	6'-8"
		43	20	6'-6"	7'-7"	7'-7"
5"	4"	47	26	3'-4"	3'-11"	4'-0"
		47	24	4'-5"	5'-3"	5'-3"
		48	22	5'-5"	6'-4"	6'-5"
		48	20	6'-3"	7'-4"	7'-5"
5 1/2"	4 1/2"	52	26	3'-3"	3'-10"	3'-10"
		52	24	4'-4"	5'-1"	5'-2"
		52	22	5'-3"	6'-2"	6'-2"
		53	20	6'-1"	7'-1"	7'-2"

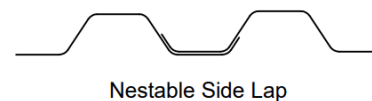
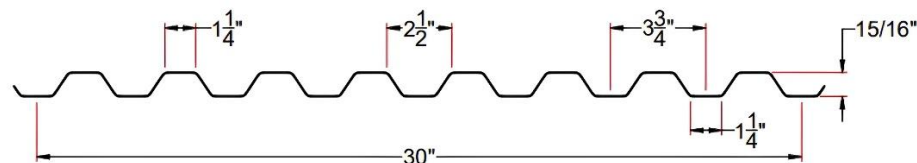
- Note:**
- All construction spans are based on a 20 psf and/or a 150 plf construction load in conjunction with deck plus concrete self-weight and a 3 psf concrete ponding allowance.
 - Web crippling has not been taken into consideration in the maximum unshored spans. Web crippling should be determined based on specific span conditions.
 - Tables have been calculated in accordance with ANSI/SDI NC-2017 & ANSI/SDI SD-2022.

1" Form Deck

Grade 80

LRFD

1.0 Form Deck



Section Properties

Strength KSI	Profile	Gage	Wt. lb/ft ²	Thickness in.	I _{d+} in. ⁴ /ft.	I _{d-} in. ⁴ /ft.	S _{e+} in. ³ /ft.	S _{e-} in. ³ /ft.	ΦM+ ft.-lb./ft.	ΦM- ft.-lb./ft.	ΦV _N lb./ft.
F _y =60	1.0F26	26	0.9	0.0179	0.035	0.035	0.063	0.063	284	284	2719
F _y =60	1.0F24	24	1.2	0.0239	0.049	0.049	0.094	0.093	423	419	4207
F _y =60	1.0F22	22	1.5	0.0295	0.062	0.062	0.125	0.124	563	558	5177
F _y =60	1.0F20	20	1.9	0.0358	0.077	0.077	0.156	0.155	702	698	6261

Note: 1. Section properties and strengths are calculated in accordance with AISI S100-16, ANSI/SDI NC-2017 & ANSI/SDI SD-2022.

Design Web Crippling Reactions (ΦR_n) - lb/ft

Bearing Length of Webs						
One Flange Loading						
Deck	End Bearing			Interior Bearing		
Gage	1 1/2"	2"	3"	1 1/2"	2"	3"
26	705	781	909	820	897	1026
24	1416	1562	1535	1714	1866	1856
22	2086	2292	2243	2628	2851	2823
20	2974	3258	3175	3871	4185	4122

Note: 2. Web crippling reactions are calculated in accordance with AISI S100-16, ANSI/SDI NC-2017 & ANSI/SDI SD-2022.

Bare Deck Superimposed Allowable Inward Uniform Loads (psf)- ASD

Gage	Span Condition	2'-0"	2'-6"	3'-0"	3'-6"	4'-0"	4'-6"	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"
26	Single	567	363	252	185	142	112	91	75	63	54	46
	Double	548	355	248	183	140	111	90	75	63	53	46
	Triple	675	439	308	227	175	138	112	93	78	67	58
24	Single	846	541	376	276	212	167	135	112	94	80	69
	Double	811	525	366	270	207	164	133	110	93	79	68
	Triple	1001	650	455	336	258	205	166	137	116	98	85
22	Single	1125	720	500	367	281	222	180	149	125	107	92
	Double	1076	697	487	360	276	219	177	147	123	105	91
	Triple	1325	863	605	447	344	272	221	183	154	131	113
20	Single	1404	899	624	458	351	277	225	186	156	133	115
	Double	1342	870	609	449	345	273	222	183	154	131	113
	Triple	1651	1077	755	558	429	340	276	229	192	164	141

Note: 3. Superimposed allowable uniform loads and maximum construction spans conform to AISI S100-16, ANSI/SDI NC-2017 & ANSI/SDI SD-2022.

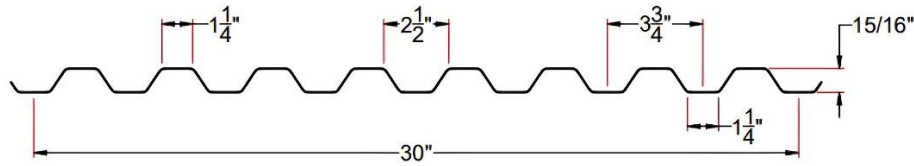
4. The tabulated values do not account for web crippling. The required bearing is based on specific span conditions.

1" Form Deck

Grade 80

LRFD

1.0 Form Deck



Bare Deck Uniform Superimposed Service Loads That Cause L/240 Deflection (psf)

Gage	Span Condition	2'-0"	2'-6"	3'-0"	3'-6"	4'-0"	4'-6"	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"
26	Single	274	140	81	51	34	24	18	13	10	8	6
	Double	660	338	196	123	83	58	42	32	24	19	15
	Triple	517	265	153	96	65	45	33	25	19	15	12
24	Single	395	202	117	74	49	35	25	19	15	12	9
	Double	952	487	282	178	119	84	61	46	35	28	22
	Triple	745	381	221	139	93	65	48	36	28	22	17
22	Single	508	260	151	95	64	45	33	24	19	15	12
	Double	1224	627	363	228	153	107	78	59	45	36	29
	Triple	958	490	284	179	120	84	61	46	35	28	22
20	Single	621	318	184	116	78	55	40	30	23	18	14
	Double	1496	766	443	279	187	131	96	72	55	44	35
	Triple	1171	599	347	218	146	103	75	56	43	34	27

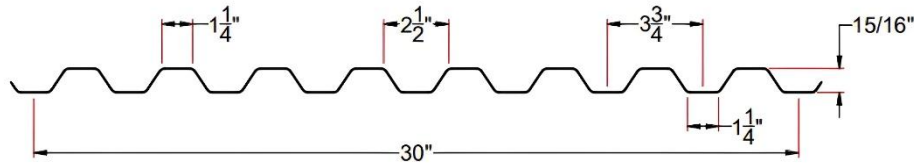
Note: 5. For service loads that cause L/120 deflection multiply by 2.0. For loads that cause L/180 deflection multiply by 1.5. For loads that cause L/360, multiply by 0.667.

1" Form Deck

Grade 80

LRFD

1.0 Form Deck



Maximum Unshored Spans – Normal Weight Concrete 145 pcf

Slab Depth		Maximum Unshored Spans				
Total	Thickness	Wt. (psf)	Gage	1	2	3
3"	2"	54	26	3'-9"	4'-5"	4'-6"
		55	24	5'-0"	5'-0"	5'-0"
		55	22	5'-10"	6'-9"	6'-9"
		55	20	6'-1"	7'-1"	7'-1"
3 1/2"	2 1/2"	64	26	3'-7"	4'-3"	4'-4"
		64	24	4'-10"	5'-8"	5'-9"
		65	22	5'-7"	6'-6"	6'-6"
		65	20	5'-10"	6'-10"	6'-10"
4"	3"	74	26	3'-6"	4'-1"	4'-2"
		74	24	4'-7"	5'-5"	5'-6"
		74	22	5'-5"	6'-4"	6'-4"
		75	20	5'-8"	6'-7"	6'-7"
4 1/2"	3 1/2"	83	26	3'-4"	3'-11"	4'-0"
		84	24	4'-5"	5'-2"	5'-3"
		84	22	5'-3"	6'-1"	6'-1"
		84	20	5'-6"	6'-5"	6'-5"
5"	4"	93	26	3'-3"	3'-10"	3'-10"
		93	24	4'-3"	4'-0"	5'-1"
		94	22	5'-1"	5'-11"	5'-11"
		94	20	5'-4"	6'-3"	6'-3"
5 1/2"	4 1/2"	103	26	3'-2"	3'-8"	3'-9"
		103	24	4'-2"	4'-10"	4'-11"
		103	22	4'-11"	5'-9"	5'-10"
		104	20	5'-2"	6'-1"	6'-1"

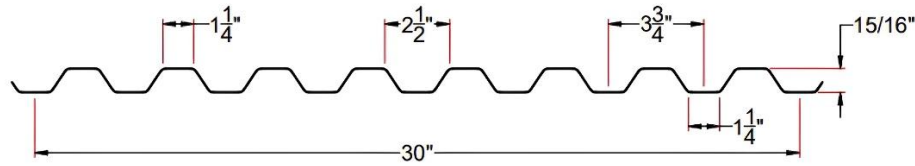
- Note:**
- All construction spans are based on a 20 psf and/or a 150 plf construction load in conjunction with deck plus concrete self-weight and a 3 psf concrete ponding allowance.
 - Web crippling has not been taken into consideration in the maximum unshored spans. Web crippling should be determined based on specific span conditions.
 - Tables have been calculated in accordance with ANSI/SDI NC-2017 & ANSI/SDI SD-2022.

1" Form Deck

Grade 80

LRFD

1.0 Form Deck



Maximum Unshored Spans – Light Weight Concrete 115 pcf

Slab Depth		Maximum Unshored Spans				
Total	Thickness	Wt. (psf)	Gage	1	2	3
3"	2"	44	26	3'-11"	4'-8"	4'-9"
		45	24	5'-4"	6'-3"	6'-4"
		45	22	6'-1"	7'-2"	7'-2"
		45	20	6'-5"	7'-6"	7'-6"
3 1/2"	2 1/2"	52	26	3'-10"	4'-6"	4'-7"
		52	24	5'-1"	6'-0"	6'-1"
		53	22	5'-10"	6'-10"	6'-10"
		53	20	6'-2"	7'-2"	7'-2"
4"	3"	60	26	3'-8"	4'-4"	4'-5"
		60	24	4'-11"	5'-9"	5'-10"
		60	22	5'-8"	6'-8"	6'-8"
		61	20	5'-11"	7'-0"	7'-0"
4 1/2"	3 1/2"	67	26	3'-7"	4'-2"	4'-3"
		68	24	4'-9"	5'-7"	5'-7"
		68	22	5'-6"	6'-5"	6'-5"
		68	20	5'-9"	6'-9"	6'-9"
5"	4"	75	26	3'-5"	4'-1"	4'-1"
		75	24	4'-7"	5'-4"	5'-5"
		76	22	5'-4"	6'-3"	6'-3"
		76	20	5'-7"	6'-0"	6'-7"
5 1/2"	4 1/2"	83	26	3'-4"	4'-0"	4'-0"
		83	24	4'-5"	5'-2"	5'-3"
		83	22	5'-3"	6'-1"	6'-1"
		84	20	5'-6"	6'-5"	6'-5"

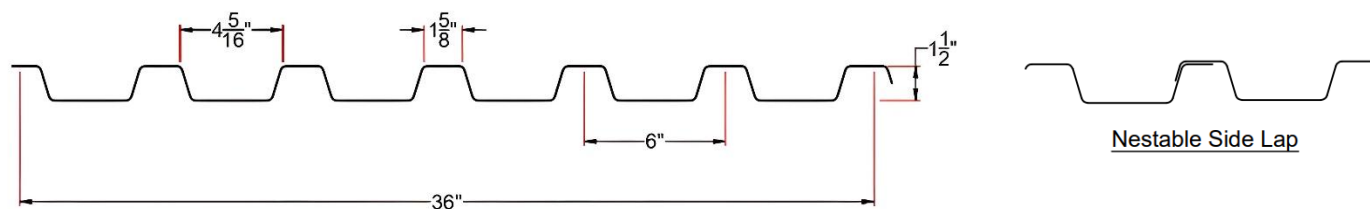
- Note:**
- All construction spans are based on a 20 psf and/or a 150 plf construction load in conjunction with deck plus concrete self-weight and a 3 psf concrete ponding allowance.
 - Web crippling has not been taken into consideration in the maximum unshored spans. Web crippling should be determined based on specific span conditions.
 - Tables have been calculated in accordance with ANSI/SDI NC-2017 & ANSI/SDI SD-2022.

1 ½" Form Deck

Grade 50

ASD

1.5 Form Deck



Section Properties

Strength KSI	Profile	Gage	Wt. lb/ft ²	Thickness in.	I _{d+} in. ⁴ /ft.	I _{d-} in. ⁴ /ft.	S _{e+} in. ³ /ft.	S _{e-} in. ³ /ft.	M+/Ω ft.-lb./ft.	M-/Ω ft.-lb./ft.	V _N /Ω lb./ft.
F _y =50	1.5F22	22	1.6	0.0295	0.164	0.144	0.169	0.171	422	427	2369
F _y =50	1.5F20	20	1.9	0.0358	0.203	0.181	0.217	0.213	541	531	2527
F _y =50	1.5F18	18	2.5	0.0474	0.277	0.254	0.300	0.288	749	719	3322

Notes: 1. Section properties and strengths are calculated in accordance with AISI S100-16, ANSI/SDI NC-2017 & ANSI/SDI SD-2022.

Allowable Web Crippling Reactions (R_n/Ω)- lb/ft

Bearing Length of Webs												
One Flange Loading							Two Flange Loading					
Deck	End Bearing			Interior Bearing			End Bearing			Interior Bearing		
Gage	1 ½"	2"	3"	1 ½"	2"	3"	1 ½"	2"	3"	1 ½"	2"	3"
22	814	895	1030	1165	1264	1429	814	876	982	1415	1546	1767
20	1162	1272	1459	1694	1832	2062	1237	1328	1481	2082	2268	2579
18	1942	1942	2118	2412	2906	3126	2242	2394	2650	3616	3920	4428

Notes: 2. Web crippling reactions are calculated in accordance with AISI S100-16, ANSI/SDI NC-2017 & ANSI/SDI SD-2022.

Bare Deck Superimposed Allowable Inward Uniform Loads (psf) - ASD

Gage	Span Condition	4'-0"	4'-6"	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	9'-0"	10'-0"
22	Single	211	167	135	112	94	80	69	60	53	42	34
	Double	208	165	134	111	94	80	69	60	53	42	34
	Triple	257	205	167	138	116	99	86	75	66	52	42
20	Single	271	214	173	143	120	103	88	77	68	53	43
	Double	257	204	166	138	116	99	86	75	66	52	42
	Triple	316	252	206	171	144	123	107	93	82	65	53
18	Single	374	296	240	198	166	142	122	106	94	74	60
	Double	346	276	224	186	157	134	116	101	89	70	57
	Triple	427	340	278	231	195	167	144	126	111	88	71

Notes: 3. Superimposed allowable uniform loads and maximum construction spans conform to AISI S100-16, ANSI/SDI NC-2017 & ANSI/SDI SD-2022.

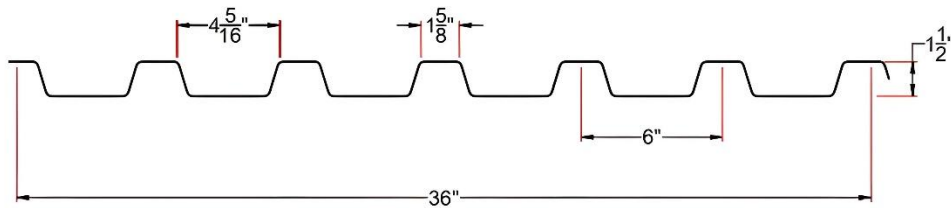
4. The tabulated values do not account for web crippling. The required bearing is based on specific span conditions.

1 ½" Form Deck

Grade 50

ASD

1.5 Form Deck



Bare Deck Uniform Superimposed Service Loads That Cause L/240 Deflection (psf)

Gage	Span Condition	4'-0"	4'-6"	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	9'-0"	10'-0"
22	Single	149	105	76	57	44	35	28	23	19	13	10
	Double	359	252	184	138	106	84	67	55	45	32	23
	Triple	281	198	144	108	83	66	52	43	35	25	18
20	Single	188	132	96	72	56	44	35	28	23	16	12
	Double	452	317	231	174	134	105	84	69	56	40	29
	Triple	353	248	181	136	105	82	66	54	44	31	23
18	Single	263	185	135	101	78	61	49	40	33	23	17
	Double	634	445	324	244	188	148	118	96	79	56	41
	Triple	496	348	254	191	147	116	93	75	62	44	32

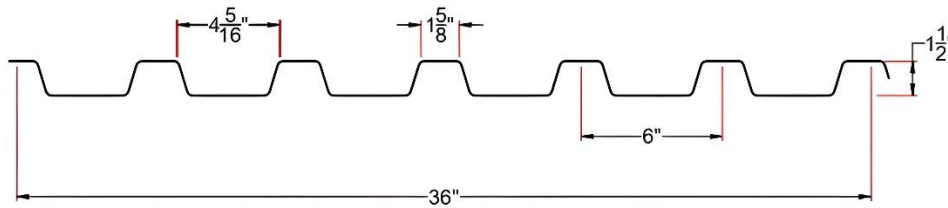
Note: 5. For service loads that cause L/120 deflection multiply by 2.0. For loads that cause L/180 deflection multiply by 1.5. For loads that cause L/360, multiply by 0.667.

1 ½" Form Deck

Grade 50

ASD

1.5 Form Deck



Maximum Unshored Spans – Normal Weight Concrete 145 pcf

Slab Depth		Maximum Unshored Spans				
Total	Thickness	Wt. (psf)	Gage	1	2	3
3 ½"	2"	40	22	6'-2"	7'-3"	7'-4"
		41	20	7'-3"	8'-5"	8'-7"
		41	18	8'-11"	9'-11"	10'-3"
4"	2 ½"	47	22	5'-11"	6'-11"	7'-0"
		47	20	6'-11"	8'-1"	8'-2"
		48	18	8'-6"	9'-5"	9'-9"
4 ½"	3"	53	22	5'-8"	6'-7"	6'-8"
		53	20	6'-8"	7'-9"	7'-10"
		54	18	8'-2"	9'-0"	9'-4"
5"	3 ½"	59	22	5'-6"	6'-5"	6'-5"
		59	20	6'-5"	7'-5"	7'-7"
		60	18	7'-10"	8'-8"	9'-0"
5 ½"	4"	65	22	5'-3"	6'-2"	6'-3"
		65	20	6'-2"	7'-2"	7'-3"
		66	18	7'-7"	8'-4"	8'-8"
6"	4 ½"	71	22	5'-1"	6'-0"	6'-0"
		71	20	6'-0"	6'-11"	7'-0"
		72	18	7'-4"	8'-1"	8'-4"

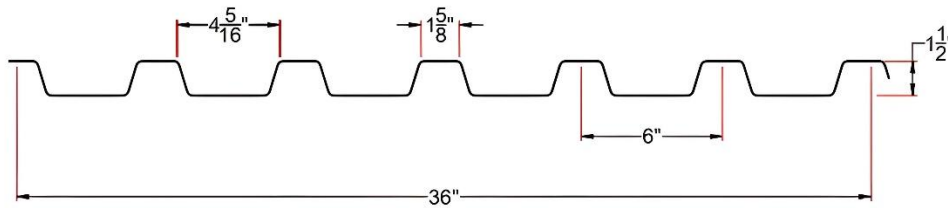
- Note:**
- All construction spans are based on a 20 psf and/or a 150 plf construction load in conjunction with deck plus concrete self-weight and a 3 psf concrete ponding allowance.
 - Web crippling has not been taken into consideration in the maximum unshored spans. Web crippling should be determined based on specific span conditions.
 - Tables have been calculated in accordance with ANSI/SDI NC-2017 & ANSI/SDI SD-2022.

1 ½" Form Deck

Grade 50

ASD

1.5 Form Deck



Maximum Unshored Spans – Light Weight Concrete 115 pcf

Slab Depth		Maximum Unshored Spans				
Total	Thickness	Wt. (psf)	Gage	1	2	3
3 ½"	2"	33	22	6'-7"	7'-8"	7'-10"
		33	20	7'-9"	9'-0"	9'-2"
		34	18	9'-6"	10'-6"	10'-11"
4"	2 ½"	38	22	6'-3"	7'-5"	7'-6"
		38	20	7'-5"	8'-8"	8'-10"
		39	18	9'-2"	10'-1"	10'-5"
4 ½"	3"	43	22	6'-1"	7'-1"	7'-2"
		43	20	7'-2"	8'-4"	8'-5"
		44	18	8'-9"	9'-9"	10'-0"
5"	3 ½"	47	22	5'-10"	6'-10"	6'-11"
		48	20	6'-11"	7'-0"	8'-2"
		48	18	8'-5"	9'-4"	9'-8"
5 ½"	4"	52	22	5'-8"	6'-8"	6'-9"
		53	20	6'-8"	7'-9"	7'-10"
		53	18	8'-2"	9'-1"	9'-4"
6"	4 ½"	57	22	5'-6"	6'-5"	6'-6"
		57	20	6'-6"	7'-6"	7'-7"
		58	18	7'-11"	8'-9"	9'-1"

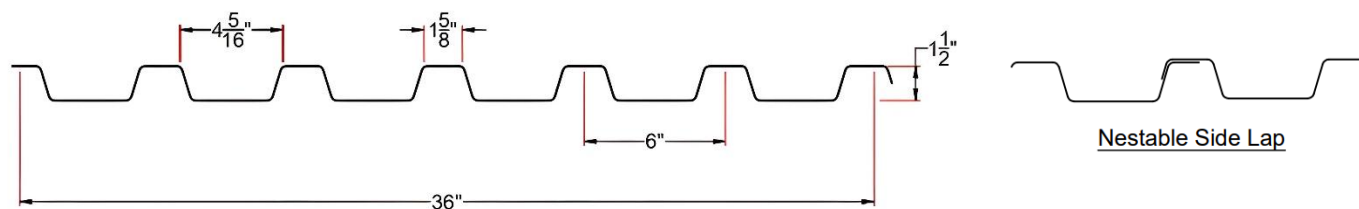
- Note:**
- All construction spans are based on a 20 psf and/or a 150 plf construction load in conjunction with deck plus concrete self-weight and a 3 psf concrete ponding allowance.
 - Web crippling has not been taken into consideration in the maximum unshored spans. Web crippling should be determined based on specific span conditions.
 - Tables have been calculated in accordance with ANSI/SDI NC-2017 & ANSI/SDI SD-2022.

1 ½" Form Deck

Grade 50

LRFD

1.5 Form Deck



Section Properties

Strength KSI	Profile	Gage	Wt. lb/ft ²	Thickness in.	I _{d+} in. ⁴ /ft.	I _{d-} in. ⁴ /ft.	S _{e+} in. ³ /ft.	S _{e-} in. ³ /ft.	ΦM ₊ ft.-lb./ft.	ΦM ₋ ft.-lb./ft.	ΦV _N lb./ft.
F _y =50	1.5F22	22	1.6	0.0295	0.164	0.144	0.169	0.171	679	671	3601
F _y =50	1.5F20	20	1.9	0.0358	0.203	0.181	0.217	0.213	881	829	3841
F _y =50	1.5F18	18	2.5	0.0474	0.277	0.254	0.300	0.288	1211	1129	5049

Notes: 1. Section properties and strengths are calculated in accordance with AISI S100-16, ANSI/SDI NC-2017 & ANSI/SDI SD-2022.

Design Web Crippling Reactions (ΦR_n) - lb/ft

Bearing Length of Webs												
One Flange Loading							Two Flange Loading					
Deck	End Bearing			Interior Bearing			End Bearing			Interior Bearing		
Gage	1 ½"	2"	3"	1 ½"	2"	3"	1 ½"	2"	3"	1 ½"	2"	3"
22	1245	1369	1576	1733	1880	2126	1245	1341	1502	2105	2300	2628
20	1777	1947	2232	2520	2725	3067	1893	2032	2266	3097	3373	3836
18	2971	2971	3240	3588	4322	4649	3430	3663	4055	5379	5831	6587

Notes: 2. Web crippling reactions are calculated in accordance with AISI S100-16, ANSI/SDI NC-2017 & ANSI/SDI SD-2022.

Bare Deck Superimposed Allowable Inward Uniform Loads (psf) - LRFD

Gage	Span Condition	4'-0"	4'-6"	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	9'-0"	10'-0"
22	Single	339	268	217	180	151	129	111	97	85	67	54
	Double	326	259	211	175	147	126	108	95	83	66	53
	Triple	403	321	262	217	183	156	135	118	104	82	67
20	Single	441	348	282	233	196	167	144	125	110	87	71
	Double	400	318	259	215	181	155	134	116	103	81	66
	Triple	492	393	320	266	225	192	166	145	128	101	82
18	Single	606	479	388	320	269	229	198	172	151	120	97
	Double	543	432	352	292	246	210	182	159	140	110	90
	Triple	668	533	435	362	306	261	226	197	174	138	112

Notes: 3. Superimposed allowable uniform loads and maximum construction spans conform to AISI S100-16, ANSI/SDI NC-2017 & ANSI/SDI SD-2022.

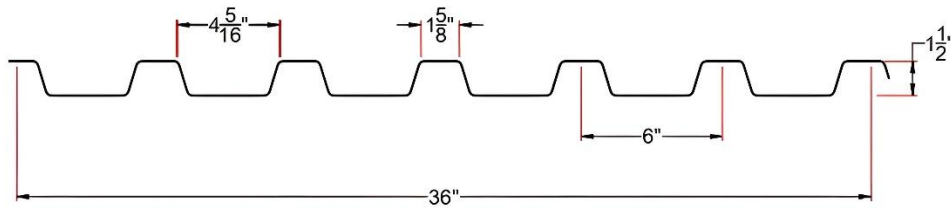
4. The tabulated values do not account for web crippling. The required bearing is based on specific span conditions.

1 ½" Form Deck

Grade 50

LRFD

1.5 Form Deck



Bare Deck Uniform Superimposed Service Loads That Cause L/240 Deflection (psf)

Gage	Span Condition	4'-0"	4'-6"	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	9'-0"	10'-0"
22	Single	149	105	76	57	44	35	28	23	19	13	10
	Double	359	252	184	138	106	84	67	55	45	32	23
	Triple	281	198	144	108	83	66	52	43	35	25	18
20	Single	188	132	96	72	56	44	35	28	23	16	12
	Double	452	317	231	174	134	105	84	69	56	40	29
	Triple	353	248	181	136	105	82	66	54	44	31	23
18	Single	263	185	135	101	78	61	49	40	33	23	17
	Double	634	445	324	244	188	148	118	96	79	56	41
	Triple	496	348	254	191	147	116	93	75	62	44	32

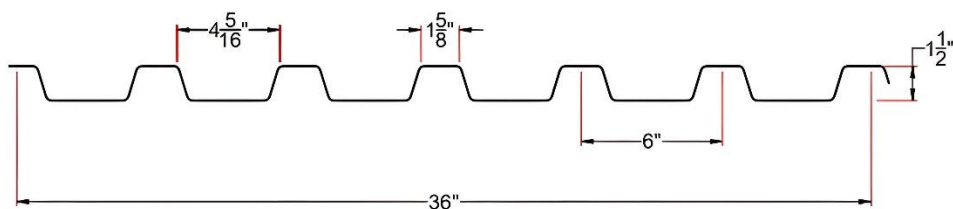
Note: 5. For service loads that cause L/120 deflection multiply by 2.0. For loads that cause L/180 deflection multiply by 1.5. For loads that cause L/360, multiply by 0.667.

1 ½" Form Deck

Grade 50

LRFD

1.5 Form Deck



Maximum Unshored Spans – Normal Weight Concrete 145 pcf

Slab Depth		Maximum Unshored Spans				
Total	Thickness	Wt. (psf)	Gage	1	2	3
3 ½"	2"	64	22	6' - 6"	7' - 7"	7' - 8"
		65	20	7' - 6"	8' - 6"	8' - 9"
		65	18	8' - 1"	9' - 6"	9' - 6"
4"	2 ½"	74	22	6' - 2"	7' - 3"	7' - 4"
		74	20	7' - 3"	8' - 1"	8' - 4"
		75	18	7' - 10"	9' - 2"	9' - 2"
4 ½"	3"	83	22	5' - 11"	6' - 11"	7' - 0"
		84	20	7' - 0"	7' - 8"	8' - 0"
		85	18	7' - 7"	8' - 11"	8' - 11"
5"	3 ½"	93	22	5' - 9"	6' - 8"	6' - 9"
		94	20	6' - 9"	7' - 5"	7' - 8"
		94	18	7' - 5"	8' - 7"	8' - 8"
5 ½"	4"	103	22	5' - 6"	6' - 5"	6' - 6"
		103	20	6' - 6"	7' - 1"	7' - 4"
		104	18	7' - 3"	8' - 3"	8' - 5"
6"	4 ½"	112	22	5' - 4"	6' - 2"	6' - 3"
		113	20	6' - 3"	6' - 10"	7' - 1"
		114	18	7' - 1"	8' - 0"	8' - 3"

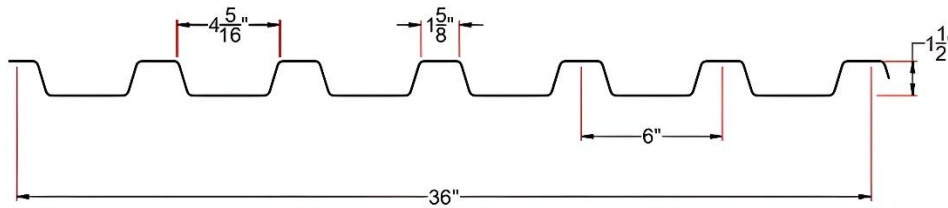
- Note:**
- All construction spans are based on a 20 psf and/or a 150 plf construction load in conjunction with deck plus concrete self-weight and a 3 psf concrete ponding allowance.
 - Web crippling has not been taken into consideration in the maximum unshored spans. Web crippling should be determined based on specific span conditions.
 - Tables have been calculated in accordance with ANSI/SDI NC-2017 & ANSI/SDI SD-2022.

1 ½" Form Deck

Grade 50

LRFD

1.5 Form Deck



Maximum Unshored Spans – Light Weight Concrete 115 pcf

Slab Depth		Maximum Unshored Spans				
Total	Thickness	Wt. (psf)	Gage	1	2	3
3 ½"	2"	52	22	6'-11"	8'-2"	8'-3"
		53	20	7'-11"	9'-1"	9'-3"
		53	18	8'-6"	10'-0"	10'-0"
4"	2 ½"	60	22	6'-8"	7'-9"	7'-10"
		60	20	7'-8"	8'-8"	8'-11"
		61	18	8'-3"	10'-1"	9'-8"
4 ½"	3"	68	22	6'-5"	7'-6"	7'-7"
		68	20	7'-5"	8'-4"	8'-7"
		69	18	8'-0"	9'-4"	9'-4"
5"	3 ½"	75	22	6'-2"	7'-2"	7'-3"
		76	20	7'-3"	8'-0"	8'-3"
		76	18	7'-9"	9'-1"	9'-1"
5 ½"	4"	83	22	5'-11"	6'-11"	7'-0"
		83	20	7'-0"	7'-9"	8'-0"
		84	18	7'-7"	8'-11"	8'-11"
6"	4 ½"	91	22	5'-9"	6'-9"	6'-10"
		91	20	6'-10"	7'-6"	7'-9"
		92	18	7'-5"	8'-8"	8'-9"

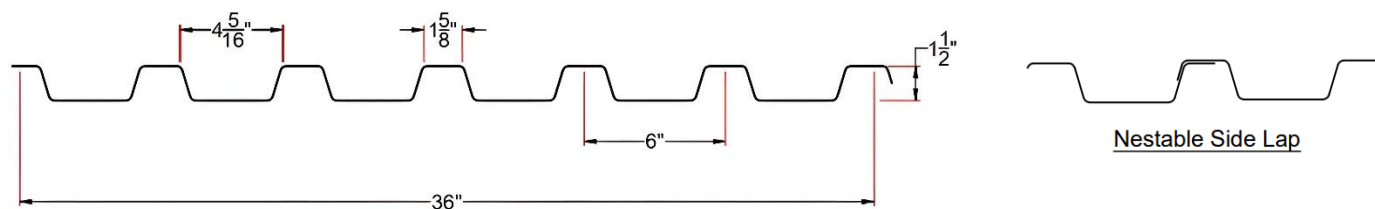
- Note:**
- All construction spans are based on a 20 psf and/or a 150 plf construction load in conjunction with deck plus concrete self-weight and a 3 psf concrete ponding allowance.
 - Web crippling has not been taken into consideration in the maximum unshored spans. Web crippling should be determined based on specific span conditions.
 - Tables have been calculated in accordance with ANSI/SDI NC-2017 & ANSI/SDI SD-2022.

1 ½" Form Deck

Grade 80

ASD

1.5 Form Deck



Section Properties

Strength KSI	Profile	Gage	Wt. lb/ft ²	Thickness in.	I _{d+} in. ⁴ /ft.	I _{d-} in. ⁴ /ft.	S _{e+} in. ³ /ft.	S _{e-} in. ³ /ft.	M+/Ω ft.-lb./ft.	M-/Ω ft.-lb./ft.	V _N /Ω lb./ft.
F _y =60	1.5F22	22	1.6	0.0295	0.162	0.142	0.165	0.164	494	491	2469
F _y =60	1.5F20	20	1.9	0.0358	0.201	0.179	0.211	0.210	632	629	2985
F _y =60	1.5F18	18	2.5	0.0474	0.277	0.250	0.300	0.286	898	856	3915

Notes: 1. Section properties and strengths are calculated in accordance with AISI S100-16, ANSI/SDI NC-2017 & ANSI/SDI SD-2022.

Allowable Web Crippling Reactions (R_n/Ω)- lb/ft

Bearing Length of Webs												
One Flange Loading							Two Flange Loading					
Deck	End Bearing			Interior Bearing			End Bearing			Interior Bearing		
Gage	1 ½"	2"	3"	1 ½"	2"	3"	1 ½"	2"	3"	1 ½"	2"	3"
22	977	1074	1236	1398	1516	1715	976	1052	1178	1698	1856	2120
20	1394	1527	1751	2033	2198	2474	1485	1594	1777	2498	2721	3095
18	2330	2330	2541	2894	3487	3751	2690	2873	3180	4339	4704	5314

Notes: 2. Web crippling reactions are calculated in accordance with AISI S100-16, ANSI/SDI NC-2017 & ANSI/SDI SD-2022.

Bare Deck Superimposed Allowable Inward Uniform Loads (psf) - ASD

Gage	Span Condition	4'-0"	4'-6"	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	9'-0"	10'-0"
22	Single	247	195	158	131	110	94	81	70	62	49	40
	Double	238	189	154	128	107	92	79	69	61	48	39
	Triple	294	234	191	158	134	114	99	86	76	60	49
20	Single	316	250	202	167	140	120	103	90	79	62	51
	Double	304	242	197	163	137	117	101	88	78	62	50
	Triple	374	298	243	202	171	146	126	110	97	77	62
18	Single	449	355	287	238	200	170	147	128	112	89	72
	Double	412	328	267	222	187	160	138	120	106	84	68
	Triple	508	405	331	275	232	198	172	150	132	104	85

Notes: 3. Superimposed allowable uniform loads and maximum construction spans conform to AISI S100-16, ANSI/SDI NC-2017 & ANSI/SDI SD-2022.

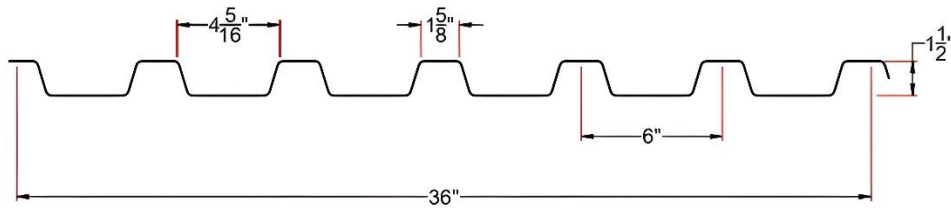
4. The tabulated values do not account for web crippling. The required bearing is based on specific span conditions.

1 ½" Form Deck

Grade 80

ASD

1.5 Form Deck



Bare Deck Uniform Superimposed Service Loads That Cause L/240 Deflection (psf)

Gage	Span Condition	4'-0"	4'-6"	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	9'-0"	10'-0"
22	Single	146	103	75	56	43	34	27	22	18	13	9
	Double	352	247	180	135	104	82	66	53	44	31	23
	Triple	276	194	141	106	82	64	51	42	34	24	18
20	Single	185	130	94	71	55	43	34	28	23	16	12
	Double	444	312	227	171	132	104	83	67	56	39	28
	Triple	348	244	178	134	103	81	65	53	43	31	22
18	Single	259	182	133	100	77	60	48	39	32	23	17
	Double	624	438	319	240	185	145	116	95	78	55	40
	Triple	488	343	250	188	145	114	91	74	61	43	31

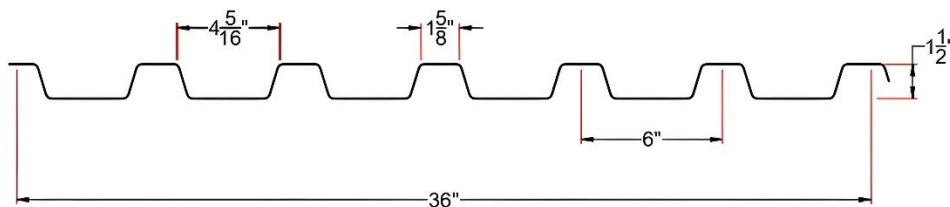
Note: 5. For service loads that cause L/120 deflection multiply by 2.0. For loads that cause L/180 deflection multiply by 1.5. For loads that cause L/360, multiply by 0.667.

1 ½" Form Deck

Grade 80

ASD

1.5 Form Deck



Maximum Unshored Spans – Normal Weight Concrete 145 pcf

Slab Depth		Maximum Unshored Spans				
Total	Thickness	Wt. (psf)	Gage	1	2	3
3 ½"	2"	40	22	6'-10"	8'-0"	8'-1"
		41	20	8'-1"	9'-2"	9'-5"
		41	18	9'-0"	10'-7"	10'-7"
4"	2 ½"	47	22	6'-6"	7'-8"	7'-9"
		47	20	7'-8"	8'-9"	9'-0"
		48	18	8'-9"	10'-2"	10'-2"
4 ½"	3"	53	22	6'-3"	7'-4"	7'-5"
		53	20	7'-4"	8'-4"	8'-7"
		54	18	8'-5"	9'-11"	9'-11"
5"	3 ½"	59	22	6'-0"	7'-1"	7'-2"
		59	20	7'-1"	8'-0"	8'-3"
		60	18	8'-3"	9'-6"	9'-8"
5 ½"	4"	65	22	5'-10"	6'-10"	6'-11"
		65	20	6'-10"	7'-9"	8'-0"
		66	18	8'-0"	9'-2"	9'-5"
6"	4 ½"	71	22	5'-8"	6'-7"	6'-8"
		71	20	6'-7"	7'-6"	7'-9"
		72	18	7'-10"	8'-10"	9'-2"

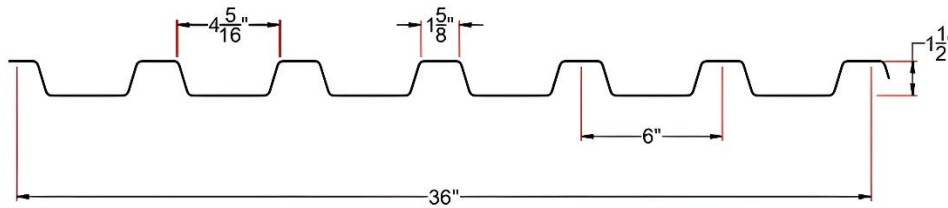
- Note:**
6. All construction spans are based on a 20 psf and/or a 150 plf construction load in conjunction with deck plus concrete self-weight and a 3 psf concrete ponding allowance.
 7. Web crippling has not been taken into consideration in the maximum unshored spans. Web crippling should be determined based on specific span conditions.
 8. Tables have been calculated in accordance with ANSI/SDI NC-2017 & ANSI/SDI SD-2022.

1 ½" Form Deck

Grade 80

ASD

1.5 Form Deck



Maximum Unshored Spans – Light Weight Concrete 115 pcf

Slab Depth		Maximum Unshored Spans				
Total	Thickness	Wt. (psf)	Gage	1	2	3
3 ½"	2"	33	22	7'-4"	8'-7"	8'-8"
		33	20	8'-7"	9'-9"	10'-1"
		34	18	9'-6"	11'-1"	11'-1"
4"	2 ½"	38	22	7'-0"	8'-2"	8'-4"
		38	20	8'-3"	9'-4"	9'-8"
		39	18	9'-2"	10'-9"	10'-9"
4 ½"	3"	43	22	6'-9"	7'-10"	8'-0"
		43	20	7'-11"	9'-0"	9'-3"
		44	18	8'-11"	10'-5"	10'-5"
5"	3 ½"	47	22	6'-6"	7'-7"	7'-8"
		48	20	7'-8"	8'-8"	8'-11"
		48	18	8'-8"	10'-2"	10'-2"
5 ½"	4"	52	22	6'-3"	7'-4"	7'-5"
		53	20	7'-5"	8'-4"	8'-8"
		53	18	8'-6"	9'-11"	9'-11"
6"	4 ½"	57	22	6'-1"	7'-1"	7'-2"
		57	20	7'-2"	8'-1"	8'-4"
		58	18	8'-3"	9'-7"	9'-8"

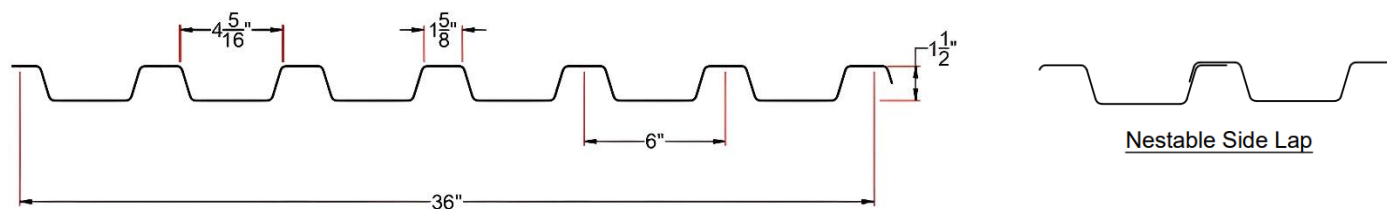
- Note:**
- All construction spans are based on a 20 psf and/or a 150 plf construction load in conjunction with deck plus concrete self-weight and a 3 psf concrete ponding allowance.
 - Web crippling has not been taken into consideration in the maximum unshored spans. Web crippling should be determined based on specific span conditions.
 - Tables have been calculated in accordance with ANSI/SDI NC-2017 & ANSI/SDI SD-2022.

1 ½" Form Deck

Grade 80

LRFD

1.5 Form Deck



Section Properties

Strength KSI	Profile	Gage	Wt. lb/ft ²	Thickness in.	I _{d+} in. ⁴ /ft.	I _{d-} in. ⁴ /ft.	S _{e+} in. ³ /ft.	S _{e-} in. ³ /ft.	ΦM ₊ ft.-lb./ft.	ΦM ₋ ft.-lb./ft.	ΦV _N lb./ft.
F _y =60	1.5F22	22	1.6	0.0295	0.162	0.142	0.165	0.164	743	738	3753
F _y =60	1.5F20	20	1.9	0.0358	0.201	0.179	0.211	0.210	950	945	4537
F _y =60	1.5F18	18	2.5	0.0474	0.277	0.250	0.300	0.286	1350	1287	5951

Notes: 1. Section properties and strengths are calculated in accordance with AISI S100-16, ANSI/SDI NC-2017 & ANSI/SDI SD-2022.

Design Web Crippling Reactions (ΦR_n) - lb/ft

Bearing Length of Webs												
One Flange Loading							Two Flange Loading					
Deck	End Bearing			Interior Bearing			End Bearing			Interior Bearing		
Gage	1 ½"	2"	3"	1 ½"	2"	3"	1 ½"	2"	3"	1 ½"	2"	3"
22	1495	1643	1891	2079	2256	2551	1494	1609	1803	2526	2760	3154
20	2133	2336	2678	3025	3269	3681	2271	2438	2719	3716	4048	4603
18	3566	3566	3888	4305	5186	5579	4116	4396	4866	6455	6997	7904

Notes: 2. Web crippling reactions are calculated in accordance with AISI S100-16, ANSI/SDI NC-2017 & ANSI/SDI SD-2022.

Bare Deck Superimposed Allowable Inward Uniform Loads (psf) - LRFD

Gage	Span Condition	4'-0"	4'-6"	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	9'-0"	10'-0"
22	Single	371	293	238	196	165	141	121	106	93	73	59
	Double	358	284	231	192	162	138	119	104	91	72	59
	Triple	442	352	287	238	201	172	148	129	114	90	73
20	Single	475	375	304	251	211	180	155	135	119	94	76
	Double	457	363	296	245	207	176	152	133	117	93	75
	Triple	563	449	366	304	257	219	190	165	146	115	94
18	Single	675	533	432	357	300	256	220	192	169	133	108
	Double	620	494	402	333	281	240	207	181	159	126	102
	Triple	764	610	498	413	349	298	258	225	198	157	127

Notes: 3. Superimposed allowable uniform loads and maximum construction spans conform to AISI S100-16, ANSI/SDI NC-2017 & ANSI/SDI SD-2022.

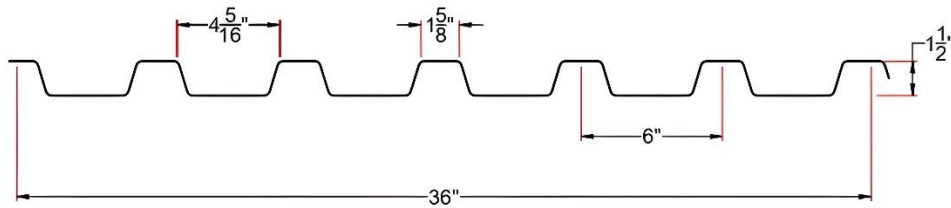
4. The tabulated values do not account for web crippling. The required bearing is based on specific span conditions.

1 ½" Form Deck

Grade 80

LRFD

1.5 Form Deck



Bare Deck Uniform Superimposed Service Loads That Cause L/240 Deflection (psf)

Gage	Span Condition	4'-0"	4'-6"	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	9'-0"	10'-0"
22	Single	146	103	75	56	43	34	27	22	18	13	9
	Double	352	247	180	135	104	82	66	53	44	31	23
	Triple	276	194	141	106	82	64	51	42	34	24	18
20	Single	185	130	94	71	55	43	34	28	23	16	12
	Double	444	312	227	171	132	104	83	67	56	39	28
	Triple	348	244	178	134	103	81	65	53	43	31	22
18	Single	259	182	133	100	77	60	48	39	32	23	17
	Double	624	438	319	240	185	145	116	95	78	55	40
	Triple	488	343	250	188	145	114	91	74	61	43	31

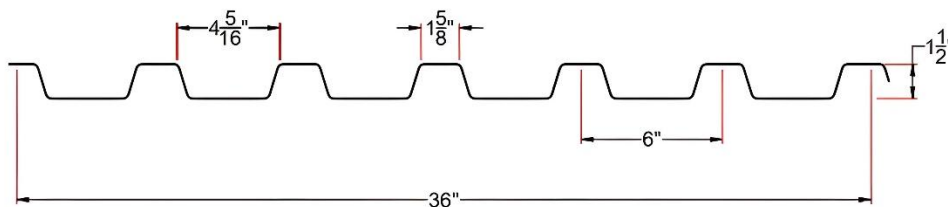
Note: 5. For service loads that cause L/120 deflection multiply by 2.0. For loads that cause L/180 deflection multiply by 1.5. For loads that cause L/360, multiply by 0.667.

1 ½" Form Deck

Grade 80

LRFD

1.5 Form Deck



Maximum Unshored Spans – Normal Weight Concrete 145 pcf

Slab Depth		Maximum Unshored Spans				
Total	Thickness	Wt. (psf)	Gage	1	2	3
3 ½"	2"	64	22	7'- 1"	8'- 2"	8'- 4"
		65	20	7'- 6"	8'- 9"	8'- 9"
		65	18	8'- 1"	10'- 1"	9'- 6"
4"	2 ½"	74	22	6'-10"	7'- 9"	8'- 0"
		74	20	7'- 3"	8'- 6"	8'- 6"
		75	18	7'-10"	9'- 2"	9'- 2"
4 ½"	3"	83	22	6'- 6"	7'- 5"	7'- 8"
		84	20	7'- 0"	8'- 3"	8'- 3"
		85	18	7'- 7"	8'- 11"	8'-11"
5"	3 ½"	93	22	6'- 3"	7'- 2"	7'- 4"
		94	20	6'-10"	8'- 0"	8'- 0"
		94	18	7'- 5"	8'- 8"	8'- 8"
5 ½"	4"	103	22	6'- 1"	6'-10"	7'- 1"
		103	20	6'- 8"	7'- 9"	7'-10"
		104	18	7'- 3"	8'- 5"	8'- 5"
6"	4 ½"	112	22	5'-10"	6'- 8"	6'-10"
		113	20	6'- 6"	7'- 6"	7'- 8"
		114	18	7'- 1"	8'- 3"	8'- 3"

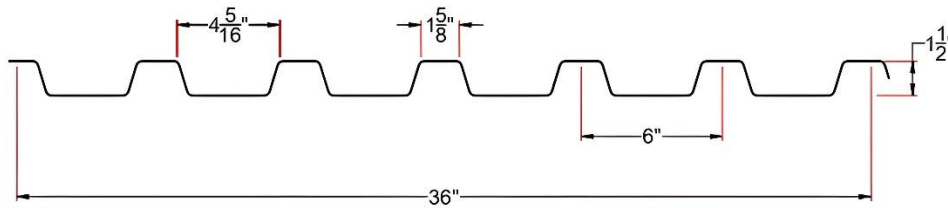
- Note:**
6. All construction spans are based on a 20 psf and/or a 150 plf construction load in conjunction with deck plus concrete self-weight and a 3 psf concrete ponding allowance.
 7. Web crippling has not been taken into consideration in the maximum unshored spans. Web crippling should be determined based on specific span conditions.
 8. Tables have been calculated in accordance with ANSI/SDI NC-2017 & ANSI/SDI SD-2022.

1 ½" Form Deck

Grade 80

LRFD

1.5 Form Deck



Maximum Unshored Spans – Light Weight Concrete 115 pcf

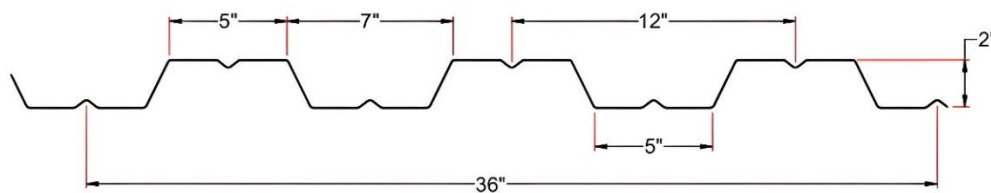
Slab Depth		Maximum Unshored Spans				
Total	Thickness	Wt. (psf)	Gage	1	2	3
3 ½"	2"	52	22	7'- 6"	8'- 9"	8'- 9"
		53	20	7'-11"	9'- 3"	9'- 3"
		53	18	8'- 6"	10'- 0"	10'- 0"
4"	2 ½"	60	22	7'- 3"	8'- 4"	8'- 6"
		60	20	7'- 8"	8'- 11"	8'-11"
		61	18	8'- 3"	10'- 3"	9'- 8"
4 ½"	3"	68	22	7'- 0"	8'- 0"	8'- 3"
		68	20	7'- 5"	8'- 8"	8'- 8"
		69	18	8'- 0"	10'- 0"	9'- 4"
5"	3 ½"	75	22	6'- 9"	7'- 9"	8'- 0"
		76	20	7'- 2"	8'- 5"	8'- 5"
		76	18	7'- 9"	9'- 1"	9'- 1"
5 ½"	4"	83	22	6'- 7"	7'- 5"	7'- 8"
		83	20	7'- 0"	8'- 3"	8'- 3"
		84	18	7'- 7"	8'- 11"	8'-11"
6"	4 ½"	91	22	6'- 4"	7'- 3"	7'- 5"
		91	20	6'-11"	8'- 1"	8'- 1"
		92	18	7'- 5"	8'- 9"	8'- 9"

- Note:**
6. All construction spans are based on a 20 psf and/or a 150 plf construction load in conjunction with deck plus concrete self-weight and a 3 psf concrete ponding allowance.
 7. Web crippling has not been taken into consideration in the maximum unshored spans. Web crippling should be determined based on specific span conditions.
 8. Tables have been calculated in accordance with ANSI/SDI NC-2017 & ANSI/SDI SD-2022.

2" Form Deck Grade 50

ASD

2.0 Form Deck



Nestable Side Lap

Section Properties

Strength KSI	Profile	Gage	Wt. lb/ft ²	Thickness in.	I _d + in. ⁴ /ft.	I _d - in. ⁴ /ft.	S _e + in. ³ /ft.	S _e - in. ³ /ft.	M+/Ω ft.-lb./ft.	M-/Ω ft.-lb./ft.	V _N /Ω lb./ft.
F _y =50	2.0F22	22	1.6	0.0295	0.307	0.304	0.239	0.235	596	586	1991
F _y =50	2.0F20	20	1.9	0.0358	0.384	0.380	0.319	0.308	796	768	2839
F _y =50	2.0F18	18	2.5	0.0474	0.529	0.520	0.459	0.440	1145	1098	3771

Notes: 1. Section properties and strengths are calculated in accordance with AISI S100-16, ANSI/SDI NC-2017 & ANSI/SDI SD-2022.

Allowable Web Crippling Reactions (R_n/Ω)- lb/ft

Bearing Length of Webs												
One Flange Loading							Two Flange Loading					
Deck	End Bearing			Interior Bearing			End Bearing			Interior Bearing		
Gage	2"	3"	4"	2"	3"	4"	2"	3"	4"	2"	3"	4"
22	401	462	513	620	702	770	392	439	479	735	840	928
20	574	658	728	894	1007	1102	597	665	724	1075	1223	1347
18	960	1094	1207	1516	1695	1845	1084	1200	1298	1853	2093	2296

Notes: 2. Web crippling reactions are calculated in accordance with AISI S100-16, ANSI/SDI NC-2017 & ANSI/SDI SD-2022.

Bare Deck Superimposed Allowable Inward Uniform Loads (psf) - ASD

Gage	Span Condition	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	10'-0"	11'-0"
22	Single	191	158	133	113	97	85	75	66	59	48	39
	Double	180	150	126	108	94	82	72	64	57	46	38
	Triple	221	184	156	134	116	101	89	79	71	58	48
20	Single	255	210	177	151	130	113	99	88	79	64	53
	Double	237	197	166	142	123	107	95	84	75	61	50
	Triple	292	243	206	176	153	133	118	104	93	76	63
18	Single	366	303	254	217	187	163	143	127	113	92	76
	Double	337	280	237	203	175	153	135	120	107	87	72
	Triple	414	345	292	251	217	190	167	149	133	108	89

Notes: 3. Superimposed allowable uniform loads and maximum construction spans conform to AISI S100-16, ANSI/SDI NC-2017 & ANSI/SDI SD-2022.

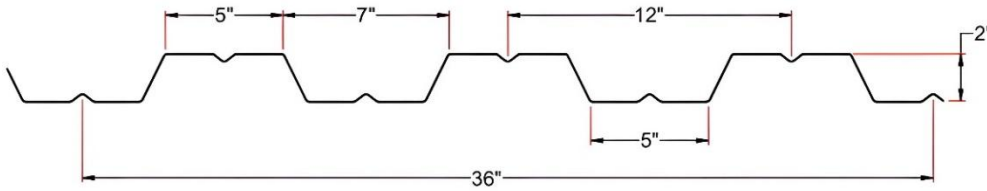
4. The tabulated values do not account for web crippling. The required bearing is based on specific span conditions.

2" Form Deck

Grade 50

ASD

2.0 Form Deck



Bare Deck Uniform Superimposed Service Loads That Cause L/240 Deflection (psf)

Gage	Span Condition	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	10'-0"	11'-0"
22	Single	151	114	88	69	55	45	37	31	26	19	14
	Double	364	274	211	166	133	108	89	74	62	46	34
	Triple	285	214	165	130	104	84	70	58	49	36	27
20	Single	193	145	111	88	70	57	47	39	33	24	18
	Double	464	348	268	211	169	137	113	94	80	58	44
	Triple	363	273	210	165	132	108	89	74	62	45	34
18	Single	270	203	156	123	98	80	66	55	46	34	25
	Double	650	488	376	296	237	193	159	132	111	81	61
	Triple	509	382	294	232	185	151	124	104	87	64	48

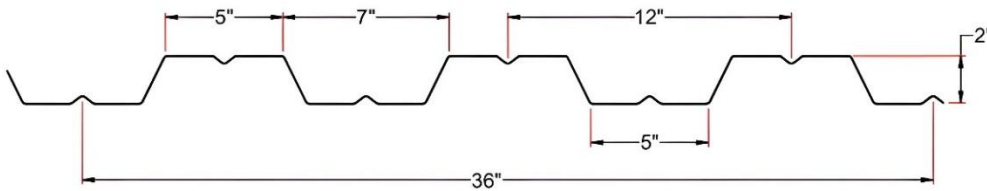
Note: 5. For service loads that cause L/120 deflection multiply by 2.0. For loads that cause L/180 deflection multiply by 1.5. For loads that cause L/360, multiply by 0.667.

2" Form Deck

Grade 50

ASD

2.0 Form Deck



Maximum Unshored Spans – Normal Weight Concrete 145 pcf

Slab Depth		Maximum Unshored Spans				
Total	Thickness	Wt. (psf)	Gage	1	2	3
4"	2"	41	22	7'-9"	8'-10"	9'-2"
		41	20	9'-4"	10'-2"	10'-6"
		42	18	10'-7"	12'-2"	12'-5"
4 ½"	2 ½"	47	22	7'-5"	8'-5"	8'-9"
		47	20	8'-10"	9'-9"	10'-1"
		48	18	10'-3"	11'-8"	12'-0"
5"	3"	53	22	7'-1"	8'-1"	8'-4"
		53	20	8'-6"	9'-4"	9'-8"
		54	18	9'-11"	11'-2"	11'-6"
5 ½"	3 ½"	59	22	6'-10"	7'-9"	8'-0"
		59	20	8'-2"	9'-0"	9'-3"
		60	18	9'-8"	10'-9"	11'-1"
6"	4"	65	22	6'-7"	7'-6"	7'-9"
		65	20	7'-10"	8'-8"	8'-11"
		66	18	9'-5"	10'-4"	10'-8"
6 ½"	4 ½"	71	22	6'-4"	7'-3"	7'-6"
		71	20	7'-7"	8'-4"	8'-8"
		72	18	9'-3"	10'-0"	10'-4"

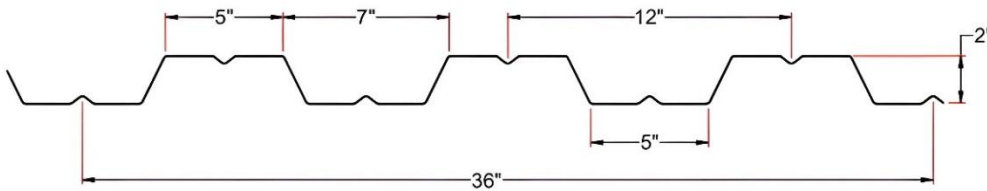
- Note:**
6. All construction spans are based on a 20 psf and/or a 150 plf construction load in conjunction with deck plus concrete self-weight and a 3 psf concrete ponding allowance.
 7. Web crippling has not been taken into consideration in the maximum unshored spans. Web crippling should be determined based on specific span conditions.
 8. Tables have been calculated in accordance with ANSI/SDI NC-2017 & ANSI/SDI SD-2022.

2" Form Deck

Grade 50

ASD

2.0 Form Deck



Maximum Unshored Spans – Light Weight Concrete 115 pcf

Slab Depth		Maximum Unshored Spans				
Total	Thickness	Wt. (psf)	Gage	1	2	3
4"	2"	33	22	8'-3"	9'-5"	9'-9"
		34	20	10'-0"	10'-11"	11'-3"
		34	18	11'-1"	12'-0"	13'-0"
4 ½"	2 ½"	38	22	7'-11"	9'-1"	9'-4"
		39	20	9'-6"	10'-5"	10'-9"
		39	18	10'-9"	12'-6"	12'-7"
5"	3"	43	22	7'-7"	8'-8"	9'-0"
		43	20	9'-2"	10'-0"	10'-4"
		44	18	10'-5"	12'-0"	12'-3"
5 ½"	3 ½"	48	22	7'-4"	8'-5"	8'-8"
		48	20	8'-10"	9'-8"	10'-0"
		49	18	10'-2"	11'-7"	11'-11"
6"	4"	53	22	7'-1"	8'-1"	8'-4"
		53	20	8'-6"	9'-4"	9'-8"
		54	18	9'-11"	11'-2"	11'-7"
6 ½"	4 ½"	57	22	6'-10"	7'-10"	8'-1"
		57	20	8'-3"	9'-1"	9'-4"
		58	18	9'-9"	10'-10"	11'-2"

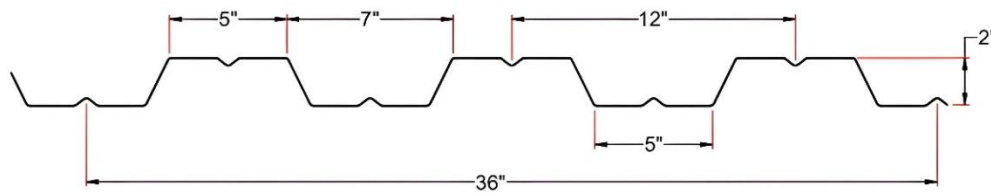
- Note:**
6. All construction spans are based on a 20 psf and/or a 150 plf construction load in conjunction with deck plus concrete self-weight and a 3 psf concrete ponding allowance.
 7. Web crippling has not been taken into consideration in the maximum unshored spans. Web crippling should be determined based on specific span conditions.
 8. Tables have been calculated in accordance with ANSI/SDI NC-2017 & ANSI/SDI SD-2022.

2" Form Deck

Grade 50

LRFD

2.0 Form Deck



Nestable Side Lap

Section Properties

Strength KSI	Profile	Gage	Wt. lb./ft ²	Thickness in.	I _{d+} in. ⁴ /ft.	I _{d-} in. ⁴ /ft.	S _{e+} in. ³ /ft.	S _{e-} in. ³ /ft.	ΦM ₊ ft.-lb./ft.	ΦM ₋ ft.-lb./ft.	ΦV _N lb./ft.
F _y =50	2.0F22	22	1.6	0.0295	0.307	0.304	0.239	0.235	949	949	3026
F _y =50	2.0F20	20	1.9	0.0358	0.384	0.380	0.319	0.308	1268	1249	4315
F _y =50	2.0F18	18	2.5	0.0474	0.529	0.520	0.459	0.440	1838	1811	5732

Notes: 1. Section properties and strengths are calculated in accordance with AISI S100-16, ANSI/SDI NC-2017 & ANSI/SDI SD-2022.

Design Web Crippling Reactions (ΦR_n) - lb/ft

Bearing Length of Webs												
One Flange Loading							Two Flange Loading					
Deck	End Bearing			Interior Bearing			End Bearing			Interior Bearing		
Gage	2"	3"	4"	2"	3"	4"	2"	3"	4"	2"	3"	4"
22	614	707	785	922	1044	1145	600	672	733	1093	1250	1380
20	878	1007	1114	1330	1498	1639	913	1017	1108	1599	1819	2004
18	1469	1674	1847	2255	2521	2744	1659	1836	1986	2756	3113	3415

Notes: 2. Web crippling reactions are calculated in accordance with AISI S100-16, ANSI/SDI NC-2017 & ANSI/SDI SD-2022.

Bare Deck Superimposed Allowable Inward Uniform Loads (psf) - LRFD

Gage	Span Condition	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	10'-0"	11'-0"
22	Single	304	251	211	180	155	135	119	105	94	76	63
	Double	289	241	204	174	151	132	116	103	92	75	62
	Triple	355	296	251	215	187	163	144	128	114	93	77
20	Single	406	335	282	240	207	180	158	140	125	101	84
	Double	383	319	269	230	199	174	153	136	122	99	82
	Triple	471	393	333	285	247	216	190	169	151	123	102
18	Single	588	486	408	348	300	261	230	203	181	147	121
	Double	552	460	389	333	288	252	222	197	176	143	118
	Triple	676	565	479	411	356	312	275	244	218	178	147

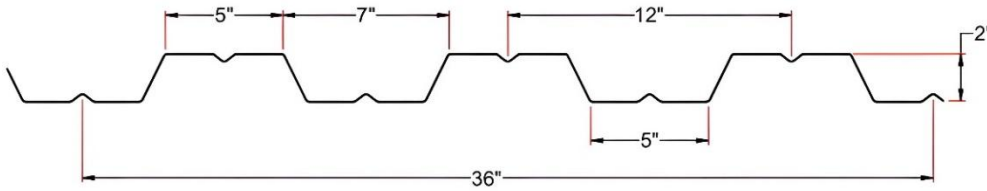
Notes: 3. Superimposed allowable uniform loads and maximum construction spans conform to AISI S100-16, ANSI/SDI NC-2017 & ANSI/SDI SD-2022.

4. The tabulated values do not account for web crippling. The required bearing is based on specific span conditions.

2" Form Deck Grade 50

LRFD

2.0 Form Deck



Bare Deck Uniform Superimposed Service Loads That Cause L/240 Deflection (psf)

Gage	Span Condition	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	10'-0"	11'-0"
22	Single	151	114	88	69	55	45	37	31	26	19	14
	Double	364	274	211	166	133	108	89	74	62	46	34
	Triple	285	214	165	130	104	84	70	58	49	36	27
20	Single	193	145	111	88	70	57	47	39	33	24	18
	Double	464	348	268	211	169	137	113	94	80	58	44
	Triple	363	273	210	165	132	108	89	74	62	45	34
18	Single	270	203	156	123	98	80	66	55	46	34	25
	Double	650	488	376	296	237	193	159	132	111	81	61
	Triple	509	382	294	232	185	151	124	104	87	64	48

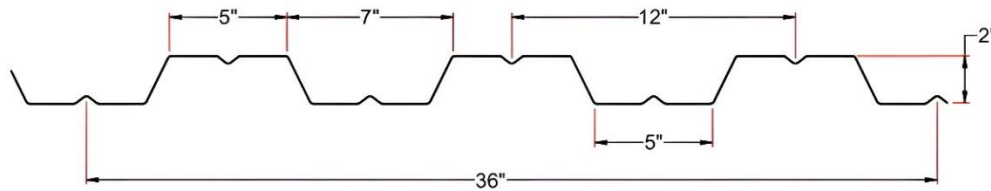
Note: 5. For service loads that cause L/120 deflection multiply by 2.0. For loads that cause L/180 deflection multiply by 1.5. For loads that cause L/360, multiply by 0.667.

2" Form Deck

Grade 50

LRFD

2.0 Form Deck



Maximum Unshored Spans – Normal Weight Concrete 145 pcf

Slab Depth		Maximum Unshored Spans				
Total	Thickness	Wt. (psf)	Gage	1	2	3
4"	2"	65	22	8'-1"	9'-1"	9'-4"
		65	20	8'-11"	10'-4"	10'-6"
		66	18	9'-8"	11'-4"	11'-4"
4 ½"	2 ½"	74	22	7'-8"	8'-7"	8'-11"
		75	20	8'-8"	9'-10"	10'-1"
		76	18	9'-4"	10'-11"	10'-11"
5"	3"	84	22	7'-4"	8'-3"	8'-6"
		85	20	8'-4"	9'-5"	9'-9"
		85	18	9'-1"	10'-7"	10'-7"
5 ½"	3 ½"	94	22	7'-0"	7'-11"	8'-2"
		94	20	8'-2"	9'-1"	9'-4"
		95	18	8'-10"	10'-4"	10'-4"
6"	4"	103	22	6'-9"	7'-7"	7'-10"
		104	20	7'-11"	8'-0"	8'-0"
		105	18	8'-7"	10'-1"	10'-1"
6 ½"	4 ½"	113	22	6'-7"	7'-4"	7'-7"
		114	20	7'-9"	8'-5"	8'-8"
		114	18	8'-5"	10'-1"	9'-10"

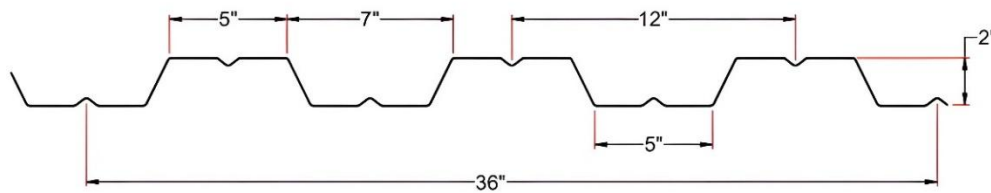
- Note:**
- All construction spans are based on a 20 psf and/or a 150 plf construction load in conjunction with deck plus concrete self-weight and a 3 psf concrete ponding allowance.
 - Web crippling has not been taken into consideration in the maximum unshored spans. Web crippling should be determined based on specific span conditions.
 - Tables have been calculated in accordance with ANSI/SDI NC-2017 & ANSI/SDI SD-2022.

2" Form Deck

Grade 50

LRFD

2.0 Form Deck



Maximum Unshored Spans – Light Weight Concrete 115 pcf

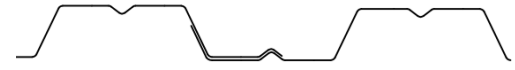
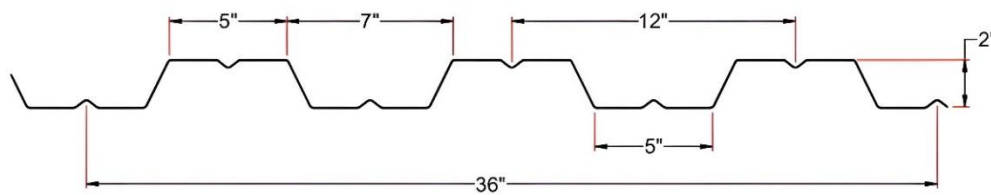
Slab Depth		Maximum Unshored Spans				
Total	Thickness	Wt. (psf)	Gage	1	2	3
4"	2"	53	22	8'- 8"	9'- 8"	10'- 0"
		53	20	9'- 5"	11'- 0"	11'- 0"
		54	18	10'- 2"	11'- 11"	11'-11"
4 ½"	2 ½"	60	22	8'- 3"	9'- 3"	9'- 7"
		61	20	9'- 1"	10'- 7"	10'- 8"
		62	18	9'-10"	11'- 6"	11'- 6"
5"	3"	68	22	7'-11"	8'-11"	9'- 2"
		69	20	8'-10"	10'- 2"	10'- 4"
		69	18	9'- 6"	11'- 2"	11'- 2"
5 ½"	3 ½"	76	22	7'- 7"	8'- 7"	8'-10"
		76	20	8'- 7"	9'-10"	10'- 1"
		77	18	9'- 3"	10'- 11"	10'-11"
6"	4"	83	22	7'- 4"	8'- 3"	8'- 6"
		84	20	8'- 5"	9'- 5"	9'- 9"
		85	18	9'- 1"	10'- 8"	10'- 8"
6 ½"	4 ½"	91	22	7'- 1"	8'- 0"	8'- 3"
		92	20	8'- 2"	9'- 2"	9'- 5"
		92	18	8'-11"	10'- 5"	10'- 5"

- Note:**
6. All construction spans are based on a 20 psf and/or a 150 plf construction load in conjunction with deck plus concrete self-weight and a 3 psf concrete ponding allowance.
 7. Web crippling has not been taken into consideration in the maximum unshored spans. Web crippling should be determined based on specific span conditions.
 8. Tables have been calculated in accordance with ANSI/SDI NC-2017 & ANSI/SDI SD-2022.

2" Form Deck Grade 80

ASD

2.0 Form Deck



Nestable Side Lap

Section Properties

Strength KSI	Profile	Gage	Wt. lb/ft ²	Thickness in.	I _{d+} in. ⁴ /ft.	I _{d-} in. ⁴ /ft.	S _{e+} in. ³ /ft.	S _{e-} in. ³ /ft.	M ₊ /Ω ft.-lb./ft.	M ₋ /Ω ft.-lb./ft.	V _N /Ω lb./ft.
F _y =60	2.0F22	22	1.6	0.0295	0.292	0.287	0.217	0.209	650	626	2001
F _y =60	2.0F20	20	1.9	0.0358	0.362	0.356	0.278	0.267	832	799	2891
F _y =60	2.0F18	18	2.5	0.0474	0.496	0.487	0.398	0.393	1192	1177	4178

Notes: 1. Section properties and strengths are calculated in accordance with AISI S100-16, ANSI/SDI NC-2017 & ANSI/SDI SD-2022.

Allowable Web Crippling Reactions (R_n/Ω)- lb/ft

Bearing Length of Webs												
One Flange Loading							Two Flange Loading					
Deck	End Bearing			Interior Bearing			End Bearing			Interior Bearing		
Gage	2"	3"	4"	2"	3"	4"	2"	3"	4"	2"	3"	4"
22	481	554	616	744	842	924	470	527	575	882	1008	1114
20	689	790	874	1073	1208	1322	716	798	869	1290	1468	1616
18	1152	1313	1448	1819	2034	2214	1301	1440	1558	2224	2512	2755

Notes: 2. Web crippling reactions are calculated in accordance with AISI S100-16, ANSI/SDI NC-2017 & ANSI/SDI SD-2022.

Bare Deck Superimposed Allowable Inward Uniform Loads (psf) - ASD

Gage	Span Condition	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	10'-0"	11'-0"
22	Single	208	172	144	123	106	92	81	72	64	52	43
	Double	191	159	134	115	100	87	77	68	61	49	41
	Triple	234	195	166	142	123	108	95	84	76	61	51
20	Single	266	220	185	158	136	118	104	92	82	67	55
	Double	246	205	173	148	128	112	98	87	78	63	52
	Triple	303	253	214	183	159	139	122	108	97	79	65
18	Single	381	315	265	226	195	169	149	132	118	95	79
	Double	362	301	254	217	188	164	145	128	115	93	77
	Triple	445	371	314	269	233	204	180	160	143	116	96

Notes: 3. Superimposed allowable uniform loads and maximum construction spans conform to AISI S100-16, ANSI/SDI NC-2017 & ANSI/SDI SD-2022.

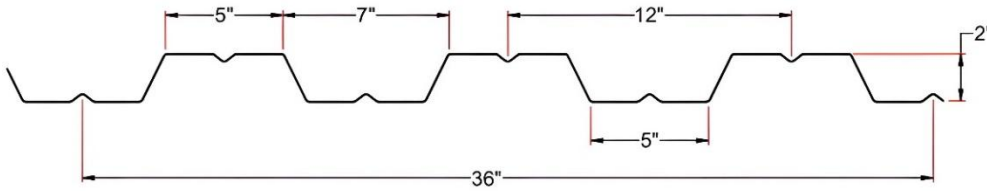
4. The tabulated values do not account for web crippling. The required bearing is based on specific span conditions.

2" Form Deck

Grade 80

ASD

2.0 Form Deck



Bare Deck Uniform Superimposed Service Loads That Cause L/240 Deflection (psf)

Gage	Span Condition	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	10'-0"	11'-0"
22	Single	146	110	85	67	53	43	36	30	25	18	14
	Double	352	264	204	160	128	104	86	72	60	44	33
	Triple	275	207	159	125	100	82	67	56	47	34	26
20	Single	187	141	108	85	68	56	46	38	32	23	18
	Double	451	339	261	205	164	134	110	92	77	56	42
	Triple	353	265	204	161	129	105	86	72	61	44	33
18	Single	265	199	153	121	97	78	65	54	45	33	25
	Double	638	479	369	290	232	189	156	130	109	80	60
	Triple	499	375	289	227	182	148	122	102	86	62	47

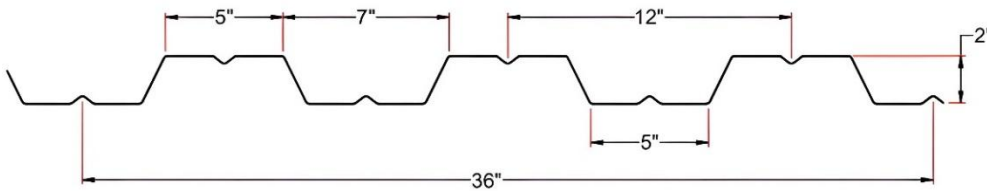
Note: 5. For service loads that cause L/120 deflection multiply by 2.0. For loads that cause L/180 deflection multiply by 1.5. For loads that cause L/360, multiply by 0.667.

2" Form Deck

Grade 80

ASD

2.0 Form Deck



Maximum Unshored Spans – Normal Weight Concrete 145 pcf

Slab Depth		Maximum Unshored Spans				
Total	Thickness	Wt. (psf)	Gage	1	2	3
4"	2"	41	22	8'- 2"	9'- 3"	9'- 7"
		41	20	9'- 7"	10'- 5"	10'- 9"
		42	18	10'- 5"	12'- 2"	12'- 2"
4 ½"	2 ½"	47	22	7'-10"	8'-10"	9'- 1"
		47	20	9'- 1"	9'-11"	10'- 3"
		48	18	10'- 1"	11'- 9"	11'- 9"
5"	3"	53	22	7'- 6"	8'- 5"	8'- 9"
		53	20	8'- 9"	9'- 6"	9'-10"
		54	18	9'- 9"	11'- 4"	11'- 5"
5 ½"	3 ½"	59	22	7'- 2"	8'- 1"	8'- 5"
		59	20	8'- 4"	9'- 2"	9'- 6"
		60	18	9'- 6"	10'-11"	11'- 2"
6"	4"	65	22	6'-11"	7'-10"	8'- 1"
		65	20	8'- 1"	8'-10"	9'- 2"
		66	18	9'- 3"	10'- 6"	10'-10"
6 ½"	4 ½"	71	22	6'- 9"	7'- 7"	7'-10"
		71	20	7'- 9"	8'- 6"	8'-10"
		72	18	9'- 1"	10'- 2"	10'- 6"

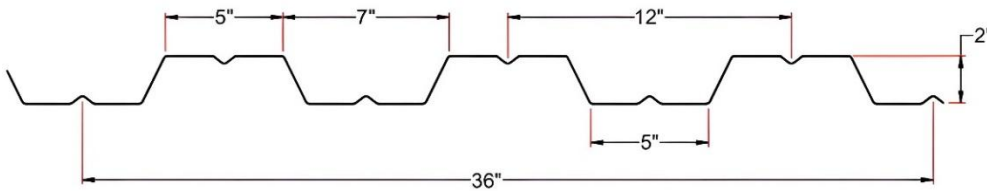
- Note:**
6. All construction spans are based on a 20 psf and/or a 150 plf construction load in conjunction with deck plus concrete self-weight and a 3 psf concrete ponding allowance.
 7. Web crippling has not been taken into consideration in the maximum unshored spans. Web crippling should be determined based on specific span conditions.
 8. Tables have been calculated in accordance with ANSI/SDI NC-2017 & ANSI/SDI SD-2022.

2" Form Deck

Grade 80

ASD

2.0 Form Deck



Maximum Unshored Spans – Light Weight Concrete 115 pcf

Slab Depth		Maximum Unshored Spans				
Total	Thickness	Wt. (psf)	Gage	1	2	3
4"	2"	33	22	8'-9"	9'-11"	10'-3"
		34	20	10'-2"	11'-2"	11'-6"
		34	18	10'-11"	12'-10"	12'-10"
4 ½"	2 ½"	38	22	8'-5"	9'-6"	9'-9"
		39	20	9'-10"	10'-8"	11'-0"
		39	18	10'-7"	12'-5"	12'-5"
5"	3"	43	22	8'-1"	9'-1"	9'-5"
		43	20	9'-5"	10'-3"	10'-7"
		44	18	10'-3"	12'-0"	12'-0"
5 ½"	3 ½"	48	22	7'-9"	8'-9"	9'-1"
		48	20	9'-1"	9'-11"	10'-3"
		49	18	10'-0"	11'-9"	11'-9"
6"	4"	53	22	7'-6"	8'-6"	8'-9"
		53	20	8'-9"	9'-7"	9'-11"
		54	18	9'-9"	11'-5"	11'-6"
6 ½"	4 ½"	57	22	7'-3"	8'-3"	8'-6"
		57	20	8'-5"	9'-3"	9'-7"
		58	18	9'-7"	11'-1"	11'-3"

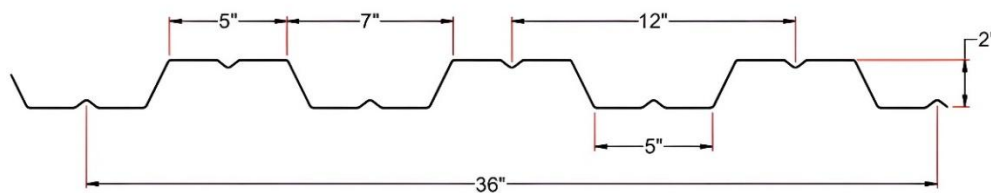
- Note:**
6. All construction spans are based on a 20 psf and/or a 150 plf construction load in conjunction with deck plus concrete self-weight and a 3 psf concrete ponding allowance.
 7. Web crippling has not been taken into consideration in the maximum unshored spans. Web crippling should be determined based on specific span conditions.
 8. Tables have been calculated in accordance with ANSI/SDI NC-2017 & ANSI/SDI SD-2022.

2" Form Deck

Grade 80

LRFD

2.0 Form Deck



Nestable Side Lap

Section Properties

Strength KSI	Profile	Gage	Wt. lb/ft ²	Thickness in.	I _{d+} in. ⁴ /ft.	I _{d-} in. ⁴ /ft.	S _{e+} in. ³ /ft.	S _{e-} in. ³ /ft.	ΦM ₊ ft.-lb./ft.	ΦM ₋ ft.-lb./ft.	ΦV _N lb./ft.
F _y =60	2.0F22	22	1.6	0.0295	0.292	0.287	0.217	0.209	977	941	3042
F _y =60	2.0F20	20	1.9	0.0358	0.362	0.356	0.278	0.267	1251	1202	4394
F _y =60	2.0F18	18	2.5	0.0474	0.496	0.487	0.398	0.393	1791	1769	6351

Notes: 1. Section properties and strengths are calculated in accordance with AISI S100-16, ANSI/SDI NC-2017 & ANSI/SDI SD-2022.

Design Web Crippling Reactions (ΦR_n) - lb/ft

Bearing Length of Webs												
One Flange Loading							Two Flange Loading					
Deck	End Bearing			Interior Bearing			End Bearing			Interior Bearing		
Gage	2"	3"	4"	2"	3"	4"	2"	3"	4"	2"	3"	4"
22	736	848	942	1107	1253	1374	720	806	879	1312	1499	1656
20	1054	1208	1337	1596	1797	1967	1096	1221	1329	1919	2183	2404
18	1763	2009	2216	2706	3026	3293	1990	2203	2383	3308	3736	4098

Notes: 2. Web crippling reactions are calculated in accordance with AISI S100-16, ANSI/SDI NC-2017 & ANSI/SDI SD-2022.

Bare Deck Superimposed Allowable Inward Uniform Loads (psf) - LRFD

Gage	Span Condition	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	10'-0"	11'-0"
22	Single	312	258	217	185	159	139	122	108	96	78	65
	Double	287	239	202	173	150	131	115	102	91	74	61
	Triple	352	294	249	214	185	162	143	127	114	92	77
20	Single	400	331	278	237	204	178	156	139	124	100	83
	Double	370	308	260	222	192	168	148	131	117	95	79
	Triple	456	380	321	275	238	208	184	163	146	118	98
18	Single	573	474	398	339	292	255	224	198	177	143	118
	Double	544	453	382	327	283	247	217	193	172	140	116
	Triple	670	559	473	405	351	306	270	240	214	174	144

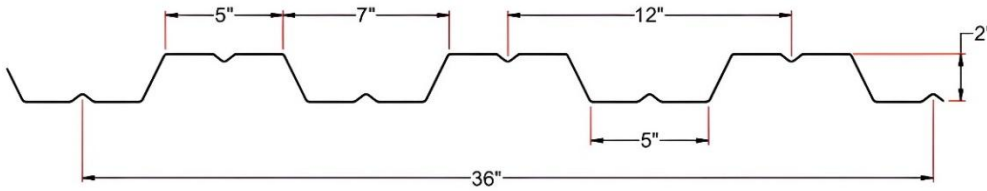
Notes: 3. Superimposed allowable uniform loads and maximum construction spans conform to AISI S100-16, ANSI/SDI NC-2017 & ANSI/SDI SD-2022.

4. The tabulated values do not account for web crippling. The required bearing is based on specific span conditions.

2" Form Deck Grade 80

LRFD

2.0 Form Deck



Bare Deck Uniform Superimposed Service Loads That Cause L/240 Deflection (psf)

Gage	Span Condition	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	10'-0"	11'-0"
22	Single	146	110	85	67	53	43	36	30	25	18	14
	Double	352	264	204	160	128	104	86	72	60	44	33
	Triple	275	207	159	125	100	82	67	56	47	34	26
20	Single	187	141	108	85	68	56	46	38	32	23	18
	Double	451	339	261	205	164	134	110	92	77	56	42
	Triple	353	265	204	161	129	105	86	72	61	44	33
18	Single	265	199	153	121	97	78	65	54	45	33	25
	Double	638	479	369	290	232	189	156	130	109	80	60
	Triple	499	375	289	227	182	148	122	102	86	62	47

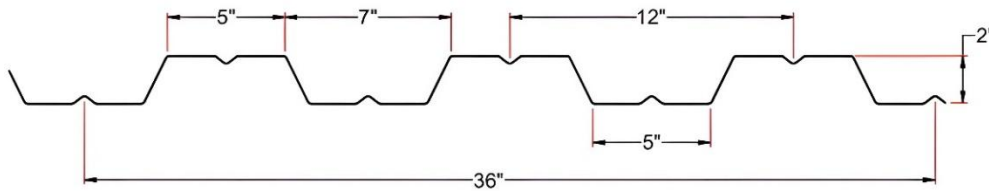
Note: 5. For service loads that cause L/120 deflection multiply by 2.0. For loads that cause L/180 deflection multiply by 1.5. For loads that cause L/360, multiply by 0.667.

2" Form Deck

Grade 80

LRFD

2.0 Form Deck



Maximum Unshored Spans – Normal Weight Concrete 145 pcf

Slab Depth		Maximum Unshored Spans				
Total	Thickness	Wt. (psf)	Gage	1	2	3
4"	2"	65	22	8'-5"	9'-8"	9'-10"
		65	20	8'-11"	10'-5"	10'-5"
		66	18	9'-7"	11'-3"	11'-3"
4 ½"	2 ½"	74	22	8'-1"	9'-3"	9'-6"
		75	20	8'-7"	10'-1"	10'-1"
		76	18	9'-3"	10'-11"	10'-11"
5"	3"	84	22	7'-10"	8'-10"	9'-1"
		85	20	8'-4"	10'-1"	9'-9"
		85	18	9'-0"	10'-7"	10'-7"
5 ½"	3 ½"	94	22	7'-8"	8'-6"	8'-9"
		94	20	8'-1"	9'-6"	9'-6"
		95	18	8'-9"	10'-3"	10'-3"
6"	4"	103	22	7'-5"	8'-2"	8'-5"
		104	20	7'-11"	9'-3"	9'-3"
		105	18	8'-7"	10'-0"	10'-0"
6 ½"	4 ½"	113	22	7'-1"	7'-10"	8'-2"
		114	20	7'-9"	9'-0"	9'-1"
		114	18	8'-4"	10'-5"	9'-10"

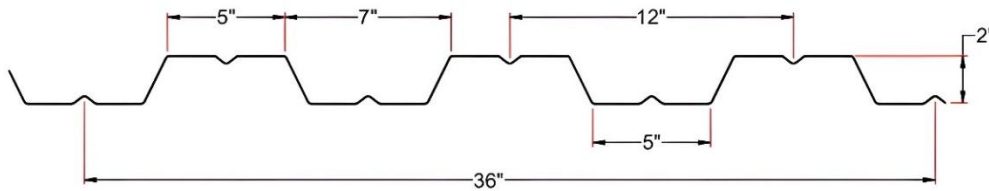
- Note:**
6. All construction spans are based on a 20 psf and/or a 150 plf construction load in conjunction with deck plus concrete self-weight and a 3 psf concrete ponding allowance.
 7. Web crippling has not been taken into consideration in the maximum unshored spans. Web crippling should be determined based on specific span conditions.
 8. Tables have been calculated in accordance with ANSI/SDI NC-2017 & ANSI/SDI SD-2022.

2" Form Deck

Grade 80

LRFD

2.0 Form Deck



Maximum Unshored Spans – Light Weight Concrete 115 pcf

Slab Depth		Maximum Unshored Spans				
Total	Thickness	Wt. (psf)	Gage	1	2	3
4"	2"	53	22	8'-10"	10'-4"	10'-4"
		53	20	9'-4"	11'-0"	11'-0"
		54	18	10'-1"	11'-10"	11'-10"
4 ½"	2 ½"	60	22	8'-7"	9'-11"	10'-0"
		61	20	9'-1"	10'-7"	10'-7"
		62	18	9'-9"	11'-5"	11'-5"
5"	3"	68	22	8'-4"	9'-6"	9'-9"
		69	20	8'-9"	10'-3"	10'-3"
		69	18	9'-6"	11'-1"	11'-1"
5 ½"	3 ½"	76	22	8'-1"	9'-2"	9'-6"
		76	20	8'-7"	10'-0"	10'-0"
		77	18	9'-3"	10'-10"	10'-10"
6"	4"	83	22	7'-11"	8'-10"	9'-2"
		84	20	8'-4"	10'-2"	9'-9"
		85	18	9'-0"	10'-7"	10'-7"
6 ½"	4 ½"	91	22	7'-9"	8'-7"	8'-10"
		92	20	8'-2"	9'-7"	9'-7"
		92	18	8'-10"	10'-0"	10'-4"

- Note:**
6. All construction spans are based on a 20 psf and/or a 150 plf construction load in conjunction with deck plus concrete self-weight and a 3 psf concrete ponding allowance.
 7. Web crippling has not been taken into consideration in the maximum unshored spans. Web crippling should be determined based on specific span conditions.
 8. Tables have been calculated in accordance with ANSI/SDI NC-2017 & ANSI/SDI SD-2022.

Short Form Specification for Non-Composite Floor Deck (Form Deck)



1. General

1.1 Related Documents: Drawings and General Provisions of the contract, including general and supplementary conditions and division 1 specification sections, apply to this section.

1.2 Summary:

This section pertains to non-composite steel floor deck

A. Related Sections:

1. Division 3 Section "Cast in Place Concrete" for concrete fill and reinforcing steel.
2. Division 5 Sections: Structural Steel, Steel Joists or Cold Formed Steel Framing that support the steel non-composite floor deck.
3. Division 7 Section for "Insulating Fill."

1.3 Submittals:

- A. General: submit each item in this article according to the conditions of the contract and division 1 specification sections.
- B. Product data for each type of decking specified, including dimensions of individual components, profiles, and finishes.
- C. Shop drawings showing the location of deck units, anchorage details, accessories specified on the contract documents, and other information required for a thorough review.
- D. Product certification (if required certifying that the supplied products comply with specified requirements.
- E. Welder Certificated signed by the contractor certifying that welders comply with requirements specified under "Quality Assurance" Article 1.4. If mechanical fasteners are used, independent test reports if evaluation reports shall be provided by the fastener manufacturer.

1.4 Quality Assurance:

- A. Codes and standards: Comply with applicable provisions of the following specifications:
 1. AISI S100-07 w/s2-10, North American Specification for the Design of Cold-Formed Steel Structural Members, Including Supplement 2.
 2. AWS D1.3:2017, Structural Welding Code-Sheet Steel
 3. ANSI/SDI NC-2022, Standard for Steel Roof Deck
- B. Certify that each welder has satisfactorily passed AWS qualification tests for welding process involved, and, if applicable, has undergone recertification.
- C. Fire Resistance Assemblies: Provide steel deck units classified by Underwriters Laboratories (UL) in the "Fire Resistance Directory" for design number _____. (If a fire rated assembly is required.)
 1. Identify Steel Deck bundles with labels bearing the UL mark.

1.5 Delivery, Storage, and Handling:

- A. Protect steel deck from corrosion, deformation, and other damage during delivery, storage, and handling.

Short Form Specification for Non-Composite Floor Deck (Form Deck)



- B. If ground storage is needed, the deck bundles must be stored off the ground, with one end elevated to provide drainage. Bundles must be protected against condensation with a ventilated waterproof covering. Bundles must be stacked so there is no danger of tipping, sliding, rolling, shifting or material damage. Bundles must be periodically check for tightness and retightened, as necessary.
- C. Deck bundles placed on the building frame must be placed near a main supporting beam at a column or wall. In no case are the bundles to be placed on unbolted framed or on unattached and/or unbrided joists. The structural frame must be properly braced to receive the bundles.

2. Products

2.1: A manufacturer offering deck products to be incorporated into the work must be a member of the Steel Deck Institute.

2.2 Materials: [The specifier must choose the appropriate section(s) and eliminate those not applicable.]

- A. Sheet steel for deck and accessories shall conform to ANSI/SDI NC-2022, Section 2.1A, 2.1B, 2.1C, and 2.1D.
- B. Steel deck and accessories shall be [ASTM A1008 bare steel] [galvanized to G60 minimum in accordance with ASTM A653] [ASTM A1008 steel prime painted with manufacture's standard prime paint].
- C. The deck type and thickness shall be as shown on the plans.
or
- D. The deck shall be ____ with a minimum metal thickness of ____.
or
- E. The deck shall be selected to provide the load capacities shown on the drawings and as determined using the ANSI/SDI NC-2022 construction loading criteria.
- F. Whenever possible, the deck shall be multi-span.
- G. The deck type provided shall be capable of supporting the superimposed live loads as shown on the plans.
- H. Pour stops, columns closures, end closures, cover plates, and girder fillers shall be the standard type provided by the deck manufacturer unless indicated otherwise on plans.

3. Execution

3.1: Examine support framing and field conditions for compliance with requirements for installation tolerances and other conditions affecting performance of work of this section. All OSHA rules for erection must be followed.

3.2 Preparation:

- A. Place deck in accordance with approved installation drawings.
- B. Do not place deck panels on partially cured concrete support structures without permission of the designer (as defined in ANSI/SDI NC-2022).
- C. Locate deck bundles to prevent overloading of support members.

Short Form Specification for Non-Composite Floor Deck (Form Deck)



3.3 Installation: General

- A. Install deck panels and accessories according to ANSI/SDI NC-2022 and in accordance with approved installation drawings and requirements of this section.
- B. Install temporary shoring, if required, before placing concrete.
- C. Place deck panels on structural supports and adjust to final position with ends aligned. Attach firmly to the supports immediately after placement to form a safe working platform.
- D. Cut and neatly fit deck units and accessories around opening and other work projecting through or adjacent to the decking.
- E. Trades that subsequently cut unscheduled opening through the deck are responsible for reinforcing the openings.

3.4 Installation: Non-Composite Floor Deck

- A. Fasten deck and accessories in accordance with requirements of ANSI/SDI NC-2022, Sections 3.1, 3.2, and 3.4.
- B. End Bearing: Install deck ends over supports with a minimum end bearing of 1-1/2 inches (38 mm) unless otherwise shown on approved installation drawings or manufacturer's literature.
- C. Pour Stops and Girder Fillers: Fasten pour stops and girder fillers to supporting structure and deck in accordance with approved installation drawings.
- D. Floor Deck Closures: Fasten column closures, cell closures, and Z closures to deck in accordance with approved installation drawings.

3.5 Repairs: Before concrete placement, the deck shall be inspected for tears, dents, or other damage that may prevent the deck from acting as a tight and substantial form. The need for the repair or temporary shoring of damaged deck shall be determined by the Architect or Engineer of Record based on structural performance unless aesthetics have been specifically addressed in the contract drawings.

3.6 Construction Guidelines:

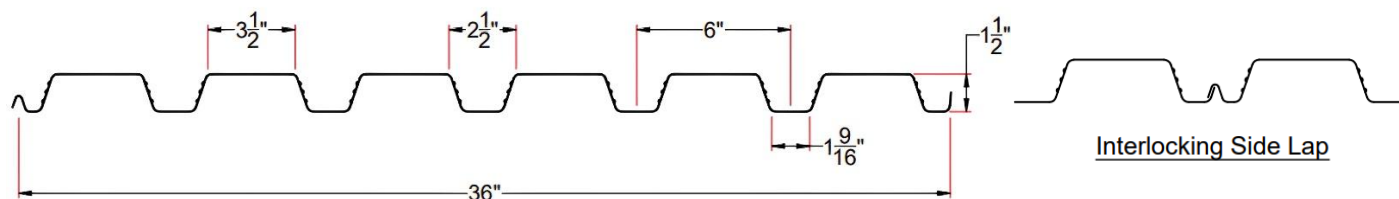
- A. Do not use deck units as a working platform or storage area until units are in position and permanently attached to the structure.
- B. Construction loads must not exceed load carrying capacity of the deck.

1 ½" Composite Deck

Grade 50

ASD

1.5 Composite Deck



Section Properties

Strength KSI	Profile	Gage	Wt. lb/ft ²	Thickness in.	I _d + in. ⁴ /ft.	I _d - in. ⁴ /ft.	S _e + in. ³ /ft.	S _e - in. ³ /ft.	M+/Ω ft.-lb./ft.	M-/Ω ft.-lb./ft.	V _N /Ω lb./ft.
F _y =50	1.5C-22	22	1.6	0.0295	0.141	0.168	0.166	0.177	414	442	2343
F _y =50	1.5C-20	20	1.9	0.0358	0.178	0.207	0.205	0.222	511	554	3280
F _y =50	1.5C-18	18	2.5	0.0474	0.251	0.273	0.280	0.293	699	731	4313

Notes: 1. Section properties and strengths are calculated in accordance with AISI S100-16, ANSI/SDI C-2017 & ANSI/SDI SD-2022.

Allowable Web Crippling Reactions (R_n/Ω)- lb/ft

Bearing Length of Webs												
One Flange Loading							Two Flange Loading					
Deck	End Bearing			Interior Bearing			End Bearing			Interior Bearing		
Gage	1 ½"	2"	3"	1 ½"	2"	3"	1 ½"	2"	3"	1 ½"	2"	3"
22	802	881	1015	1150	1248	1411	800	862	965	1395	1525	1742
20	1144	1254	1437	1673	1809	2036	1217	1306	1456	2053	2236	2543
18	1914	2087	2378	2869	3086	3451	2206	2356	2609	3566	3865	4366

Notes: 2. Web crippling reactions are calculated in accordance with AISI S100-16, ANSI/SDI C-2017 & ANSI/SDI SD-2022.

Bare Deck Superimposed Allowable Inward Uniform Loads (psf) - ASD

Gage	Span Condition	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"
22	Single	133	110	92	78	68	59	52	41	33	27	23
	Double	139	115	97	83	71	62	55	43	35	29	24
	Triple	172	143	120	103	89	78	68	54	44	36	30
20	Single	164	135	114	97	84	73	64	51	41	34	28
	Double	175	145	122	104	90	78	69	54	44	36	31
	Triple	217	180	151	129	112	97	86	68	55	46	38
18	Single	224	185	155	132	114	99	87	69	56	46	39
	Double	230	191	161	137	118	103	91	72	58	48	40
	Triple	286	237	200	171	147	129	113	90	73	60	51

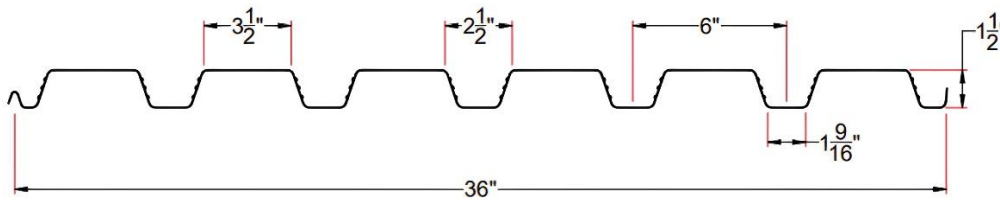
Notes: 3. Superimposed allowable uniform loads and maximum construction spans conform to AISI S100-16, ANSI/SDI C-2017 & ANSI/SDI SD-2022.

4. The tabulated values do not account for web crippling. The required bearing is determined based on specific span conditions.

1 ½" Composite Deck Grade 50

ASD

1.5 Composite Deck



Bare Deck Uniform Superimposed Service Loads That Cause L/240 Deflection (psf)

Gage	Span Condition	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"
22	Single	74	55	43	34	27	22	18	15	13	11	9
	Double	178	134	103	81	65	53	43	36	30	26	22
	Triple	139	105	81	63	51	41	34	28	24	20	17
20	Single	93	70	54	42	34	28	23	19	16	14	12
	Double	224	168	129	102	82	66	55	46	38	33	28
	Triple	175	132	101	80	64	52	43	36	30	26	22
18	Single	130	97	75	59	47	38	32	26	22	19	16
	Double	312	234	181	142	114	92	76	64	54	45	39
	Triple	244	183	141	111	89	72	60	50	42	36	31

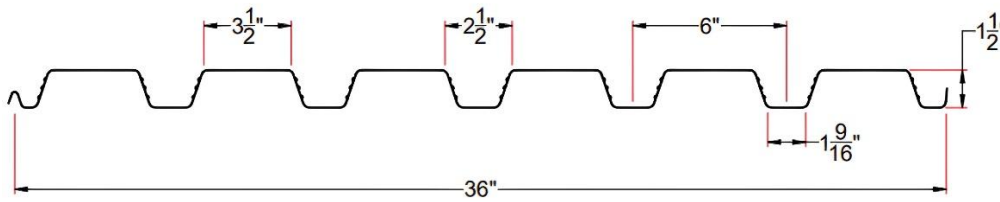
Note: 5. For service loads that cause L/120 deflection multiply by 2.0. For loads that cause L/180 deflection multiply by 1.5. For loads that cause L/360, multiply by 0.667.

1 ½" Composite Deck

Grade 50

ASD

1.5 Composite Deck



Composite Superimposed Allowable Loads Limited To L/360 (psf) – ASD

NWC– 145 PCF, $f'_c = 3000$ PSI

Slab Depth	Slab Thickness	Deck Gage	Span (ft. - in.)								
			5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	9'-0"	10'-0"
3 ½"	2"	22	400	400	369	311	264	227	197	150	117
		20	400	400	400	374	319	274	238	183	144
		18	400	400	400	362	309	266	231	177	139
4"	2 ½"	22	400	400	400	390	332	286	248	189	148
		20	400	400	400	400	400	345	300	231	181
		18	400	400	400	400	389	335	291	224	176
4 ½"	3"	22	400	400	400	400	400	347	301	230	180
		20	400	400	400	400	400	400	364	281	221
		18	400	400	400	400	400	400	355	273	215
5"	3 ½"	22	400	400	400	400	400	400	355	273	214
		20	400	400	400	400	400	400	400	332	262
		18	400	400	400	400	400	400	400	324	255
5 ½"	4"	22	400	400	400	400	400	400	400	316	248
		20	400	400	400	400	400	400	400	385	304
		18	400	400	400	400	400	400	400	377	297
6"	4 ½"	22	400	400	400	400	400	400	400	360	282
		20	400	400	400	400	400	400	400	400	347
		18	400	400	400	400	400	400	400	400	339

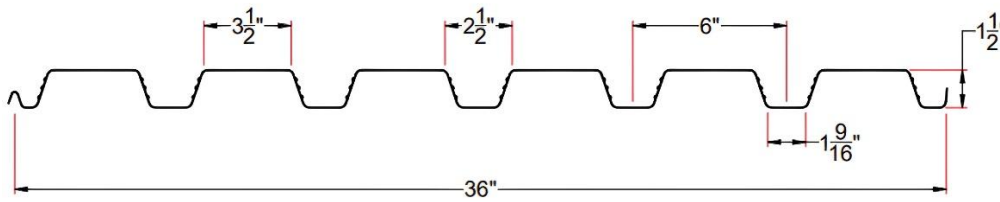
Note: 6. Table conforms to ANSI/SDI C-2017 & ANSI/SDI SD-2022.

1 ½" Composite Deck

Grade 50

ASD

1.5 Composite Deck



Composite Superimposed Allowable Loads Limited To L/360 (psf) – ASD

LWC– 115 PCF, f'_c = 3000 PSI

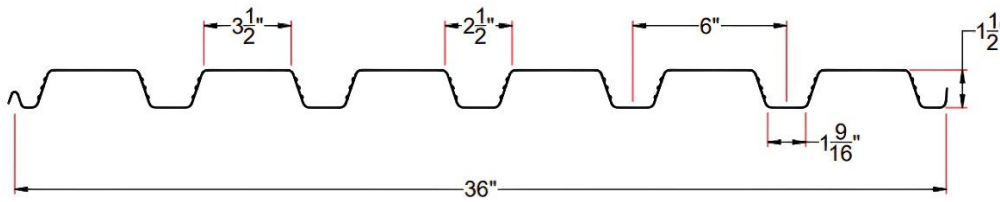
Slab Depth	Slab Thickness	Deck Gage	Span (ft. - in.)								
			5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	9'-0"	10'-0"
3 ½"	2"	22	400	400	352	297	253	218	189	146	114
		20	400	400	400	355	303	262	227	176	139
		18	400	400	400	341	292	252	219	169	133
4"	2 ½"	22	400	400	400	375	320	276	240	185	145
		20	400	400	400	400	383	331	288	223	176
		18	400	400	400	400	370	319	278	215	170
4 ½"	3"	22	400	400	400	400	390	336	292	225	178
		20	400	400	400	400	400	400	352	272	216
		18	400	400	400	400	400	390	340	263	208
5"	3 ½"	22	400	400	400	400	400	399	347	268	212
		20	400	400	400	400	400	400	384	324	257
		18	400	400	400	400	400	400	372	314	249
5 ½"	4"	22	400	400	400	400	400	400	400	311	246
		20	400	400	400	400	400	400	400	376	298
		18	400	400	400	400	400	400	400	366	290
6"	4 ½"	22	400	400	400	400	400	400	400	355	280
		20	400	400	400	400	400	400	400	400	341
		18	400	400	400	400	400	400	400	400	332

Note: 6. Table conforms to ANSI/SDI C-2017 & ANSI/SDI SD-2022.

1 ½" Composite Deck Grade 50

ASD

1.5 Composite Deck



Maximum Unshored Spans – Normal Weight Concrete 145 pcf

Slab Depth		Maximum Unshored Spans				
Total	Thickness	Wt. (psf)	Gage	1	2	3
3 ½"	2"	35	22	6' - 4"	7' - 5"	7' - 6"
		36	20	7' - 4"	8' - 7"	8' - 8"
		36	18	9' - 0"	10' - 0"	10' - 4"
4"	2 ½"	41	22	6' - 0"	7' - 1"	7' - 2"
		42	20	7' - 0"	8' - 2"	8' - 3"
		42	18	8' - 6"	9' - 6"	9' - 10"
4 ½"	3"	47	22	5' - 9"	6' - 9"	6' - 10"
		48	20	6' - 8"	7' - 9"	7' - 10"
		48	18	8' - 1"	9' - 1"	9' - 4"
5"	3 ½"	53	22	5' - 7"	6' - 6"	6' - 7"
		54	20	6' - 5"	7' - 5"	7' - 6"
		54	18	7' - 9"	8' - 8"	9' - 0"
5 ½"	4"	59	22	5' - 4"	6' - 3"	6' - 4"
		60	20	6' - 2"	7' - 2"	7' - 3"
		60	18	7' - 6"	8' - 4"	8' - 8"
6"	4 ½"	65	22	5' - 2"	6' - 1"	6' - 1"
		66	20	5' - 11"	6' - 0"	6' - 0"
		66	18	7' - 2"	8' - 1"	8' - 4"

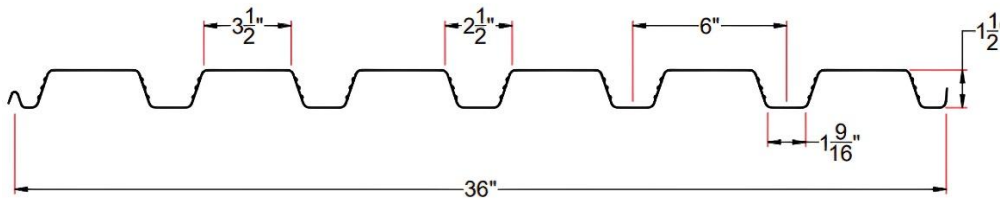
- Note:**
- All construction spans are based on a 20 psf and/or a 150 plf construction load in conjunction with deck plus concrete self-weight and a 3 psf concrete ponding allowance.
 - Web crippling has not been taken into consideration in the maximum unshored spans. Web crippling should be determined based on specific span conditions.
 - Tables have been calculated in accordance with ANSI/SDI C-2017 & ANSI/SDI SD-2022.

1 ½" Composite Deck

Grade 50

ASD

1.5 Composite Deck



Maximum Unshored Spans – Light Weight Concrete 115 pcf

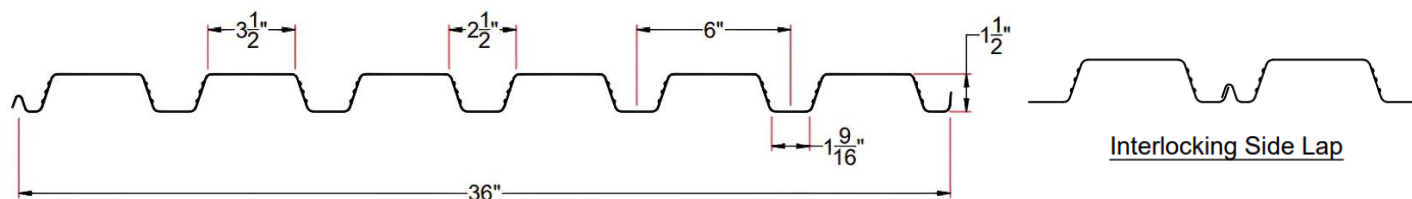
Slab Depth		Maximum Unshored Spans				
Total	Thickness	Wt. (psf)	Gage	1	2	3
3 ½"	2"	29	22	6'-9"	7'-11"	8'-0"
		29	20	7'-9"	9'-2"	9'-3"
		30	18	9'-7"	10'-7"	11'-0"
4"	2 ½"	34	22	6'-5"	7'-7"	7'-8"
		34	20	7'-5"	8'-9"	8'-10"
		35	18	9'-1"	10'-2"	10'-6"
4 ½"	3"	38	22	6'-2"	7'-3"	7'-4"
		39	20	7'-1"	8'-4"	8'-5"
		39	18	8'-9"	9'-9"	10'-0"
5"	3 ½"	43	22	5'-11"	7'-0"	7'-1"
		44	20	6'-10"	8'-0"	8'-1"
		44	18	8'-4"	9'-4"	9'-8"
5 ½"	4"	48	22	5'-9"	6'-9"	6'-10"
		48	20	6'-7"	7'-9"	7'-10"
		49	18	8'-1"	9'-0"	9'-4"
6"	4 ½"	53	22	5'-7"	6'-6"	6'-7"
		53	20	6'-5"	7'-6"	7'-7"
		54	18	7'-10"	8'-9"	9'-0"

- Note:**
- All construction spans are based on a 20 psf and/or a 150 plf construction load in conjunction with deck plus concrete self-weight and a 3 psf concrete ponding allowance.
 - Web crippling has not been taken into consideration in the maximum unshored spans. Web crippling should be determined based on specific span conditions.
 - Tables have been calculated in accordance with ANSI/SDI C-2017 & ANSI/SDI SD-2022.

1 ½" Composite Deck Grade 50

LRFD

1.5 Composite Deck



Section Properties

Strength KSI	Profile	Gage	Wt. lb/ft ²	Thickness in.	I _d + in. ⁴ /ft.	I _d - in. ⁴ /ft.	S _e + in. ³ /ft.	S _e - in. ³ /ft.	ΦM+ ft.-lb./ft.	ΦM- ft.-lb./ft.	ΦV _N lb./ft.
F _y =50	1.5C-22	22	1.6	0.0295	0.141	0.168	0.166	0.177	623	664	3561
F _y =50	1.5C-20	20	1.9	0.0358	0.178	0.207	0.205	0.222	769	833	4986
F _y =50	1.5C-18	18	2.5	0.0474	0.251	0.273	0.280	0.293	1050	1099	6556

Notes: 1. Section properties and strengths are calculated in accordance with AISI S100-16, ANSI/SDI C-2017 & ANSI/SDI SD-2022.

Design Web Crippling Reactions (ΦR_n) - lb/ft

Bearing Length of Webs												
One Flange Loading							Two Flange Loading					
Deck	End Bearing			Interior Bearing			End Bearing			Interior Bearing		
Gage	1 ½"	2"	3"	1 ½"	2"	3"	1 ½"	2"	3"	1 ½"	2"	3"
22	1227	1348	1553	1711	1856	2099	1224	1319	1476	2075	2268	2591
20	1750	1919	2199	2489	2691	3029	1862	1998	2228	3054	3326	3783
18	2928	3193	3638	4268	4590	5133	3375	3605	3992	5304	5749	6494

Notes: 2. Web crippling reactions are calculated in accordance with AISI S100-16, ANSI/SDI C-2017 & ANSI/SDI SD-2022.

Bare Deck Superimposed Allowable Inward Uniform Loads (psf) - LRFD

Gage	Span Condition	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"
22	Single	199	165	138	118	102	89	78	61	50	41	35
	Double	209	173	146	124	107	94	82	65	53	44	37
	Triple	259	215	181	155	134	117	103	81	66	54	46
20	Single	246	203	171	146	126	109	96	76	62	51	43
	Double	262	217	183	156	135	118	103	82	66	55	46
	Triple	326	270	228	194	168	146	129	102	83	68	58
18	Single	336	278	233	199	171	149	131	104	84	69	58
	Double	346	287	241	206	178	155	136	108	87	72	61
	Triple	430	357	301	257	222	193	170	135	109	90	76

Notes: 3. Superimposed allowable uniform loads and maximum construction spans conform to AISI S100-16, ANSI/SDI C-2017 & ANSI/SDI SD-2022.

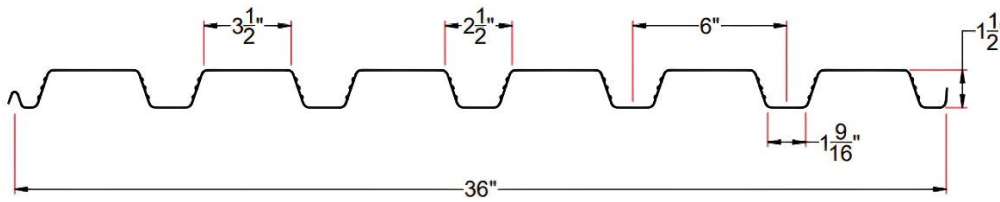
4. The tabulated values do not account for web crippling. The required bearing is determined based on specific span conditions.

1 ½" Composite Deck Grade 50



LRFD

1.5 Composite Deck



Bare Deck Uniform Superimposed Service Loads That Cause L/240 Deflection (psf)

Gage	Span Condition	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"
22	Single	74	55	43	34	27	22	18	15	13	11	9
	Double	178	134	103	81	65	53	43	36	30	26	22
	Triple	139	105	81	63	51	41	34	28	24	20	17
20	Single	93	70	54	42	34	28	23	19	16	14	12
	Double	224	168	129	102	82	66	55	46	38	33	28
	Triple	175	132	101	80	64	52	43	36	30	26	22
18	Single	130	97	75	59	47	38	32	26	22	19	16
	Double	312	234	181	142	114	92	76	64	54	45	39
	Triple	244	183	141	111	89	72	60	50	42	36	31

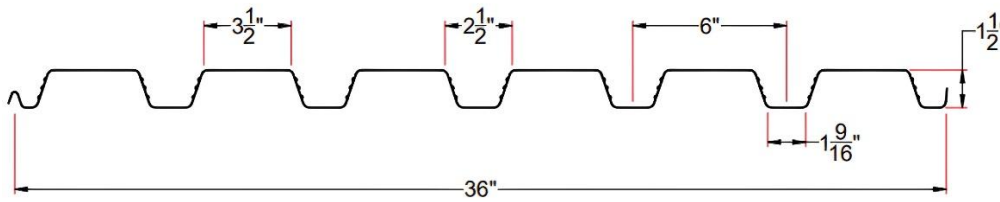
Note: 5. For service loads that cause L/120 deflection multiply by 2.0. For loads that cause L/180 deflection multiply by 1.5. For loads that cause L/360, multiply by 0.667.

1 ½" Composite Deck

Grade 50

LRFD

1.5 Composite Deck



Composite Superimposed Allowable Loads Limited To L/360 (psf) – LRFD NWC– 145 PCF, $f'_c = 3000$ PSI

Slab Depth	Slab Thickness	Deck Gage	Span (ft. - in.)								
			5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	9'-0"	10'-0"
3 ½"	2"	22	640	640	590	498	422	363	315	240	187
		20	640	640	640	598	510	438	381	293	230
		18	640	640	640	579	494	426	370	283	222
4"	2 ½"	22	640	640	640	624	531	458	397	302	237
		20	640	640	640	640	640	552	480	370	290
		18	640	640	640	640	622	536	466	358	282
4 ½"	3"	22	640	640	640	640	640	555	482	368	288
		20	640	640	640	640	640	640	582	450	354
		18	640	640	640	640	640	640	568	437	344
5"	3 ½"	22	640	640	640	640	640	640	568	437	342
		20	640	640	640	640	640	640	640	531	419
		18	640	640	640	640	640	640	640	518	408
5 ½"	4"	22	640	640	640	640	640	640	640	506	397
		20	640	640	640	640	640	640	640	616	486
		18	640	640	640	640	640	640	640	603	475
6"	4 ½"	22	640	640	640	640	640	640	640	576	451
		20	640	640	640	640	640	640	640	640	555
		18	640	640	640	640	640	640	640	640	542

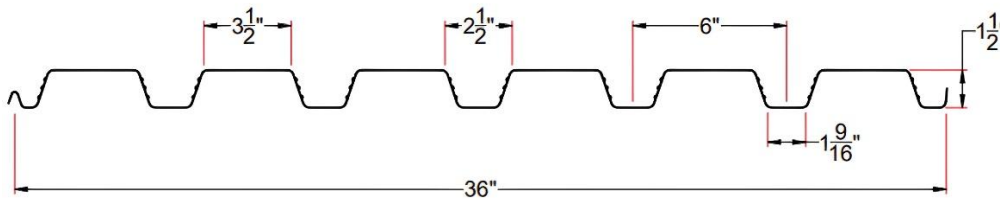
Note: 6. Table conforms to ANSI/SDI C-2017 & ANSI/SDI SD-2022.

1 ½" Composite Deck

Grade 50

LRFD

1.5 Composite Deck



Composite Superimposed Allowable Loads Limited To L/360 (psf) – LRFD LWC– 115 PCF, f'_c = 3000 PSI

Slab Depth	Slab Thickness	Deck Gage	Span (ft. - in.)								
			5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	9'-0"	10'-0"
3 ½"	2"	22	640	640	563	475	405	349	302	234	182
		20	640	640	640	568	485	419	363	282	222
		18	640	640	640	546	467	403	350	270	213
4"	2 ½"	22	640	640	640	600	512	442	384	296	232
		20	640	640	640	640	613	530	461	357	282
		18	640	640	640	640	592	510	445	344	272
4 ½"	3"	22	640	640	640	640	624	538	467	360	285
		20	640	640	640	640	640	640	563	435	346
		18	640	640	640	640	640	624	544	421	333
5"	3 ½"	22	640	640	640	640	640	638	555	429	339
		20	640	640	640	640	640	640	614	518	411
		18	640	640	640	640	640	640	595	502	398
5 ½"	4"	22	640	640	640	640	640	640	640	498	394
		20	640	640	640	640	640	640	640	602	477
		18	640	640	640	640	640	640	640	586	464
6"	4 ½"	22	640	640	640	640	640	640	640	568	448
		20	640	640	640	640	640	640	640	640	546
		18	640	640	640	640	640	640	640	640	531

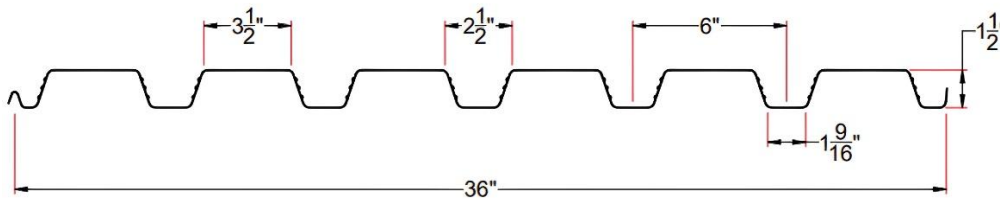
Note: 6. Table conforms to ANSI/SDI C-2017 & ANSI/SDI SD-2022.

1 ½" Composite Deck

Grade 50

LRFD

1.5 Composite Deck



Maximum Unshored Spans – Normal Weight Concrete 145 pcf

Slab Depth		Maximum Unshored Spans				
Total	Thickness	Wt. (psf)	Gage	1	2	3
3 ½"	2"	56	22	6' - 4"	7' - 5"	7' - 6"
		56	20	7' - 3"	8' - 6"	8' - 7"
		57	18	8' - 1"	9' - 6"	9' - 6"
4"	2 ½"	65	22	6' - 0"	7' - 1"	7' - 2"
		66	20	6' - 11"	8' - 1"	8' - 2"
		67	18	7' - 10"	9' - 2"	9' - 2"
4 ½"	3"	75	22	5' - 9"	6' - 9"	6' - 10"
		75	20	6' - 7"	7' - 8"	7' - 9"
		76	18	7' - 7"	8' - 10"	8' - 10"
5"	3 ½"	85	22	5' - 6"	6' - 5"	6' - 6"
		85	20	6' - 4"	7' - 4"	7' - 5"
		86	18	7' - 4"	8' - 7"	8' - 7"
5 ½"	4"	94	22	5' - 4"	6' - 2"	6' - 3"
		95	20	6' - 1"	7' - 1"	7' - 2"
		96	18	7' - 2"	8' - 3"	8' - 4"
6"	4 ½"	104	22	5' - 2"	6' - 0"	6' - 1"
		104	20	5' - 10"	6' - 10"	6' - 11"
		105	18	7' - 0"	8' - 0"	8' - 2"

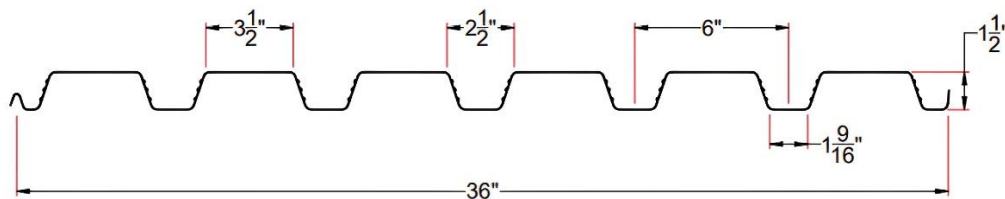
- Note:**
- All construction spans are based on a 20 psf and/or a 150 plf construction load in conjunction with deck plus concrete self-weight and a 3 psf concrete ponding allowance.
 - Web crippling has not been taken into consideration in the maximum unshored spans. Web crippling should be determined based on specific span conditions.
 - Tables have been calculated in accordance with ANSI/SDI C-2017 & ANSI/SDI SD-2022.

1 ½" Composite Deck

Grade 50

LRFD

1.5 Composite Deck



Maximum Unshored Spans – Light Weight Concrete 115 pcf

Slab Depth		Maximum Unshored Spans				
Total	Thickness	Wt. (psf)	Gage	1	2	3
3 ½"	2"	46	22	6'-9"	7'-11"	8'-0"
		46	20	7'-9"	9'-1"	9'-3"
		47	18	8'-6"	10'-0"	10'-0"
4"	2 ½"	53	22	6'-5"	7'-6"	7'-8"
		54	20	7'-5"	8'-8"	8'-9"
		54	18	8'-3"	10'-1"	9'-7"
4 ½"	3"	61	22	6'-2"	7'-3"	7'-4"
		61	20	7'-1"	8'-3"	8'-4"
		62	18	7'-11"	9'-4"	9'-4"
5"	3 ½"	69	22	5'-11"	6'-11"	7'-0"
		69	20	6'-10"	7'-11"	8'-0"
		70	18	7'-9"	9'-1"	9'-1"
5 ½"	4"	76	22	5'-9"	6'-8"	6'-9"
		77	20	6'-7"	7'-8"	7'-9"
		77	18	7'-6"	8'-10"	8'-10"
6"	4 ½"	84	22	5'-6"	6'-6"	6'-6"
		84	20	6'-4"	7'-4"	7'-6"
		85	18	7'-4"	8'-7"	8'-7"

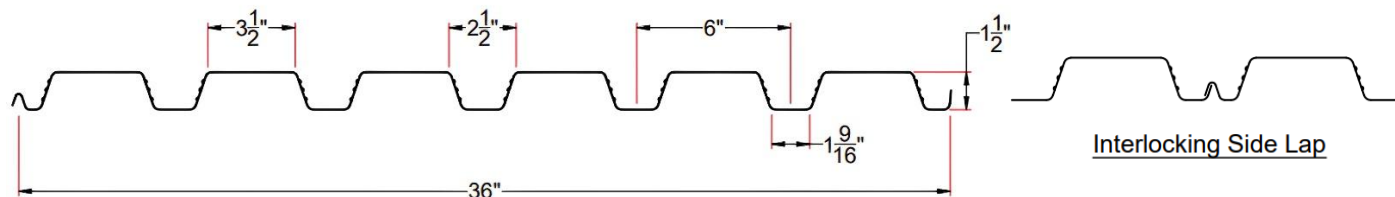
- Note:**
7. All construction spans are based on a 20 psf and/or a 150 plf construction load in conjunction with deck plus concrete self-weight and a 3 psf concrete ponding allowance.
 8. Web crippling has not been taken into consideration in the maximum unshored spans. Web crippling should be determined based on specific span conditions.
 9. Tables have been calculated in accordance with ANSI/SDI C-2017 & ANSI/SDI SD-2022.

1 ½" Composite Deck

Grade 80

ASD

1.5 Composite Deck



Section Properties

Strength KSI	Profile	Gage	Wt. lb/ft ²	Thickness in.	I _d + in. ⁴ /ft.	I _d - in. ⁴ /ft.	S _e + in. ³ /ft.	S _e - in. ³ /ft.	M+/Ω ft.-lb./ft.	M-/Ω ft.-lb./ft.	V _N /Ω lb./ft.
F _y =60	1.5C-22	22	1.6	0.0295	0.139	0.166	0.162	0.173	485	518	2493
F _y =60	1.5C-20	20	1.9	0.0358	0.173	0.204	0.434	0.203	1299	608	3708
F _y =60	1.5C-18	18	2.5	0.0474	0.244	0.273	0.276	0.292	826	874	4874

Notes: 1. Section properties and strengths are calculated in accordance with AISI S100-16, ANSI/SDI C-2017 & ANSI/SDI SD-2022.

Allowable Web Crippling Reactions (R_n/Ω)- lb/ft

Bearing Length of Webs												
One Flange Loading							Two Flange Loading					
Deck	End Bearing			Interior Bearing			End Bearing			Interior Bearing		
Gage	1 ½"	2"	3"	1 ½"	2"	3"	1 ½"	2"	3"	1 ½"	2"	3"
22	962	1057	1218	1380	1498	1693	960	1034	1158	1674	1830	2090
20	1373	1505	1724	2008	2171	2443	1460	1567	1747	2464	2683	3052
18	2297	2504	2854	3443	3703	4141	2647	2827	3131	4279	4638	5239

Notes: 2. Web crippling reactions are calculated in accordance with AISI S100-16, ANSI/SDI C-2017 & ANSI/SDI SD-2022.

Bare Deck Superimposed Allowable Inward Uniform Loads (psf) - ASD

Gage	Span Condition	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"
22	Single	155	128	108	92	79	69	61	48	39	32	27
	Double	162	134	113	97	84	73	64	51	41	34	29
	Triple	201	167	141	120	104	91	80	63	51	42	36
20	Single	416	344	289	246	212	185	162	128	104	86	72
	Double	192	159	134	114	98	86	75	60	48	40	34
	Triple	238	198	166	142	123	107	94	74	60	50	42
18	Single	264	219	184	156	135	118	103	82	66	55	46
	Double	275	228	192	164	141	123	108	86	70	58	48
	Triple	341	283	239	204	176	154	135	107	87	72	60

Notes: 3. Superimposed allowable uniform loads and maximum construction spans conform to AISI S100-16, ANSI/SDI C-2017 & ANSI/SDI SD-2022.

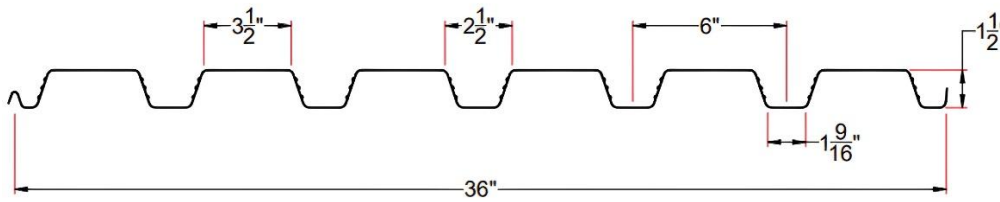
4. The tabulated values do not account for web crippling. The required bearing is determined based on specific span conditions.

1 ½" Composite Deck Grade 80



ASD

1.5 Composite Deck



Bare Deck Uniform Superimposed Service Loads That Cause L/240 Deflection (psf)

Gage	Span Condition	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"
22	Single	73	55	42	33	27	22	18	15	12	11	9
	Double	175	132	101	80	64	52	43	36	30	26	22
	Triple	137	103	79	62	50	41	33	28	24	20	17
20	Single	91	69	53	42	33	27	22	19	16	13	11
	Double	220	165	127	100	80	65	54	45	38	32	28
	Triple	172	129	100	78	63	51	42	35	30	25	22
18	Single	128	96	74	58	46	38	31	26	22	19	16
	Double	307	231	178	140	112	91	75	62	53	45	38
	Triple	240	181	139	109	88	71	59	49	41	35	30

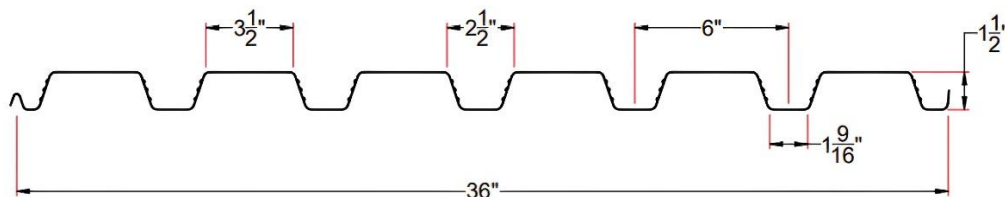
Note: 5. For service loads that cause L/120 deflection multiply by 2.0. For loads that cause L/180 deflection multiply by 1.5. For loads that cause L/360, multiply by 0.667.

1 ½" Composite Deck

Grade 80

ASD

1.5 Composite Deck



Composite Superimposed Allowable Loads Limited To L/360 (psf) – ASD NWC– 145 PCF, $f'_c = 3000$ PSI

Slab Depth	Slab Thickness	Deck Gage	Span (ft. - in.)									
			5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	9'-0"	10'-0"	
3 ½"	2"	22	400	400	369	311	264	227	197	150	117	
		20	400	400	400	374	319	274	238	183	144	
		18	400	400	400	362	309	266	231	177	139	
4"	2 ½"	22	400	400	400	390	332	286	248	189	148	
		20	400	400	400	400	400	345	300	231	181	
		18	400	400	400	400	389	335	291	224	176	
4 ½"	3"	22	400	400	400	400	400	347	301	230	180	
		20	400	400	400	400	400	400	364	281	221	
		18	400	400	400	400	400	400	355	273	215	
5"	3 ½"	22	400	400	400	400	400	400	355	273	214	
		20	400	400	400	400	400	400	400	332	262	
		18	400	400	400	400	400	400	400	324	255	
5 ½"	4"	22	400	400	400	400	400	400	400	316	248	
		20	400	400	400	400	400	400	400	400	385	304
		18	400	400	400	400	400	400	400	400	377	297
6"	4 ½"	22	400	400	400	400	400	400	400	360	282	
		20	400	400	400	400	400	400	400	400	400	347
		18	400	400	400	400	400	400	400	400	400	339

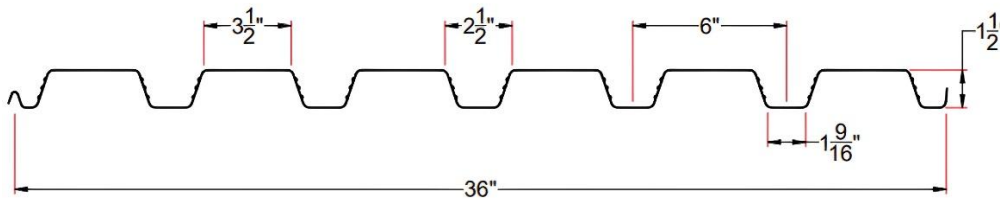
Note: 6. Table conforms to ANSI/SDI C-2017 & ANSI/SDI SD-2022.

1 ½" Composite Deck

Grade 80

ASD

1.5 Composite Deck



Composite Superimposed Allowable Loads Limited To L/360 (psf) – ASD LWC– 115 PCF, f'_c = 3000 PSI

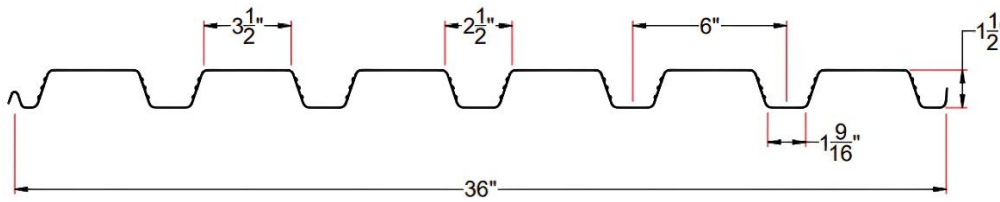
Slab Depth	Slab Thickness	Deck Gage	Span (ft. - in.)								
			5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	9'-0"	10'-0"
3 ½"	2"	22	400	400	352	297	253	218	189	146	114
		20	400	400	400	355	303	262	227	176	139
		18	400	400	400	341	292	252	219	169	133
4"	2 ½"	22	400	400	400	375	320	276	240	185	145
		20	400	400	400	400	383	331	288	223	176
		18	400	400	400	400	370	319	278	215	170
4 ½"	3"	22	400	400	400	400	390	336	292	225	178
		20	400	400	400	400	400	400	352	272	216
		18	400	400	400	400	400	390	340	263	208
5"	3 ½"	22	400	400	400	400	400	399	347	268	212
		20	400	400	400	400	400	400	384	324	257
		18	400	400	400	400	400	400	372	314	249
5 ½"	4"	22	400	400	400	400	400	400	400	311	246
		20	400	400	400	400	400	400	400	376	298
		18	400	400	400	400	400	400	400	366	290
6"	4 ½"	22	400	400	400	400	400	400	400	355	280
		20	400	400	400	400	400	400	400	400	341
		18	400	400	400	400	400	400	400	400	332

Note: 6. Table conforms to ANSI/SDI C-2017 & ANSI/SDI SD-2022.

1 ½" Composite Deck Grade 80

ASD

1.5 Composite Deck



Maximum Unshored Spans – Normal Weight Concrete 145 pcf

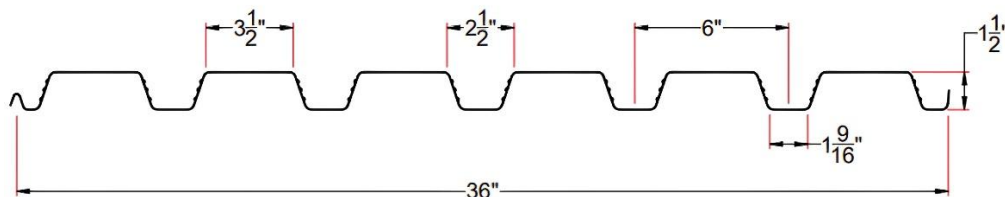
Slab Depth		Maximum Unshored Spans				
Total	Thickness	Wt. (psf)	Gage	1	2	3
3 ½"	2"	35	22	7'- 1"	8'- 4"	8'- 5"
		36	20	8'- 4"	9'- 9"	9'- 9"
		36	18	9'- 1"	10'- 7"	10'- 7"
4"	2 ½"	41	22	6'- 9"	7'-11"	8'- 0"
		42	20	8'- 0"	9'- 5"	9'- 5"
		42	18	8'- 8"	10'- 2"	10'- 2"
4 ½"	3"	47	22	6'- 5"	7'- 6"	7'- 7"
		48	20	7'- 9"	9'- 1"	9'- 1"
		48	18	8'- 5"	9'-10"	9'-10"
5"	3 ½"	53	22	6'- 2"	7'- 3"	7'- 4"
		54	20	7'- 6"	8'- 10"	8'-10"
		54	18	8'- 2"	9'- 5"	9'- 7"
5 ½"	4"	59	22	5'-11"	6'-11"	7'- 0"
		60	20	7'- 4"	8'- 7"	8'- 7"
		60	18	7'-11"	9'- 1"	9'- 4"
6"	4 ½"	65	22	5'- 9"	6'- 8"	6'- 9"
		66	20	7'- 2"	8'- 4"	8'- 4"
		66	18	7'- 9"	8'- 9"	9'- 1"

- Note:**
- All construction spans are based on a 20 psf and/or a 150 plf construction load in conjunction with deck plus concrete self-weight and a 3 psf concrete ponding allowance.
 - Web crippling has not been taken into consideration in the maximum unshored spans. Web crippling should be determined based on specific span conditions.
 - Tables have been calculated in accordance with ANSI/SDI C-2017 & ANSI/SDI SD-2022.

1 ½" Composite Deck Grade 80

ASD

1.5 Composite Deck



Maximum Unshored Spans – Light Weight Concrete 115 pcf

Slab Depth		Maximum Unshored Spans				
Total	Thickness	Wt. (psf)	Gage	1	2	3
3 ½"	2"	29	22	7'-6"	8'-10"	8'-11"
		29	20	8'-9"	10'-3"	10'-3"
		30	18	9'-6"	11'-1"	11'-1"
4"	2 ½"	34	22	7'-2"	8'-5"	8'-6"
		34	20	8'-5"	9'-10"	9'-10"
		35	18	9'-2"	10'-9"	10'-9"
4 ½"	3"	38	22	6'-11"	8'-1"	8'-2"
		39	20	8'-2"	9'-7"	9'-7"
		39	18	8'-10"	10'-4"	10'-4"
5"	3 ½"	43	22	6'-8"	7'-9"	7'-10"
		44	20	7'-11"	9'-3"	9'-3"
		44	18	8'-7"	10'-1"	10'-1"
5 ½"	4"	48	22	6'-5"	7'-6"	7'-7"
		48	20	7'-9"	9'-0"	9'-0"
		49	18	8'-5"	9'-10"	9'-10"
6"	4 ½"	53	22	6'-2"	7'-3"	7'-4"
		53	20	7'-6"	8'-10"	8'-10"
		54	18	8'-2"	9'-6"	9'-7"

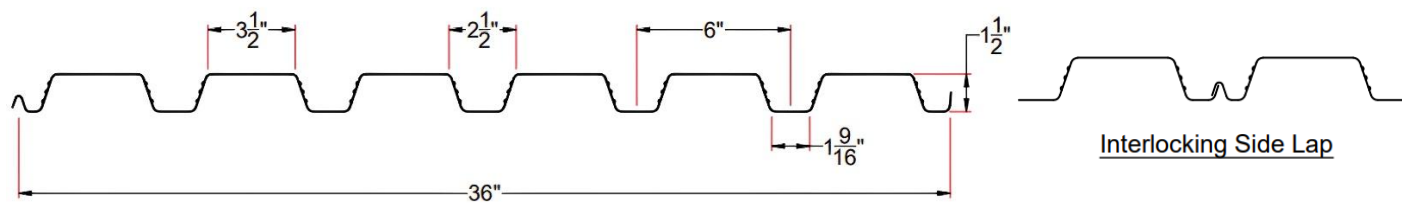
- Note:**
- All construction spans are based on a 20 psf and/or a 150 plf construction load in conjunction with deck plus concrete self-weight and a 3 psf concrete ponding allowance.
 - Web crippling has not been taken into consideration in the maximum unshored spans. Web crippling should be determined based on specific span conditions.
 - Tables have been calculated in accordance with ANSI/SDI C-2017 & ANSI/SDI SD-2022.

1 ½" Composite Deck

Grade 80

LRFD

1.5 Composite Deck



Section Properties

Strength KSI	Profile	Gage	Wt. lb/ft ²	Thickness in.	I _{d+} in. ⁴ /ft.	I _{d-} in. ⁴ /ft.	S _{e+} in. ³ /ft.	S _{e-} in. ³ /ft.	ΦM ₊ ft.-lb./ft.	ΦM ₋ ft.-lb./ft.	ΦV _N lb./ft.
F _y =60	1.5C-22	22	1.6	0.0295	0.139	0.166	0.162	0.173	729	779	3789
F _y =60	1.5C-20	20	1.9	0.0358	0.173	0.204	0.434	0.203	1953	914	5417
F _y =60	1.5C-18	18	2.5	0.0474	0.244	0.273	0.276	0.292	1242	1314	7116

Notes: 1. Section properties and strengths are calculated in accordance with AISI S100-16, ANSI/SDI C-2017 & ANSI/SDI SD-2022.

Design Web Crippling Reactions (ΦR_n) - lb/ft

Bearing Length of Webs												
One Flange Loading							Two Flange Loading					
Deck	End Bearing			Interior Bearing			End Bearing			Interior Bearing		
Gage	1 ½"	2"	3"	1 ½"	2"	3"	1 ½"	2"	3"	1 ½"	2"	3"
22	1472	1618	1864	2053	2228	2519	1469	1583	1772	2490	2722	3109
20	2100	2302	2638	2986	3229	3634	2234	2398	2673	3665	3991	4539
18	3514	3832	4366	5121	5509	6160	4050	4326	4790	6365	6899	7793

Notes: 2. Web crippling reactions are calculated in accordance with AISI S100-16, ANSI/SDI C-2017 & ANSI/SDI SD-2022.

Bare Deck Superimposed Allowable Inward Uniform Loads (psf) - LRFD

Gage	Span Condition	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"
22	Single	233	193	162	138	119	104	91	72	58	48	41
	Double	244	202	170	145	126	110	96	76	62	51	43
	Triple	302	251	212	181	156	136	120	95	77	64	54
20	Single	625	516	434	370	319	278	244	193	156	129	109
	Double	288	238	201	171	148	129	113	90	73	60	51
	Triple	358	297	250	213	184	161	141	112	91	75	63
18	Single	397	328	276	235	203	177	155	123	99	82	69
	Double	413	342	288	246	212	185	163	129	105	86	73
	Triple	512	425	358	306	264	231	203	161	130	108	91

Notes: 3. Superimposed allowable uniform loads and maximum construction spans conform to AISI S100-16, ANSI/SDI C-2017 & ANSI/SDI SD-2022.

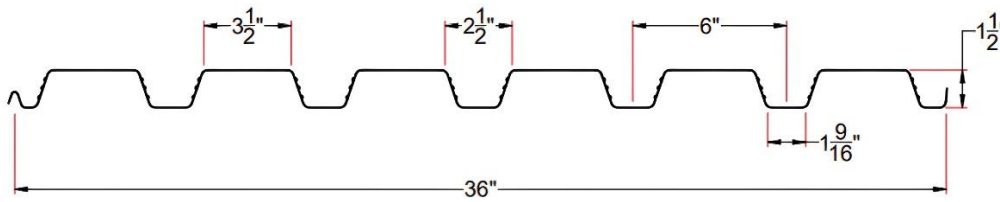
4. The tabulated values do not account for web crippling. The required bearing is determined based on specific span conditions.

1 ½" Composite Deck Grade 80



LRFD

1.5 Composite Deck



Bare Deck Uniform Superimposed Service Loads That Cause L/240 Deflection (psf)

Gage	Span Condition	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"
22	Single	73	55	42	33	27	22	18	15	12	11	9
	Double	175	132	101	80	64	52	43	36	30	26	22
	Triple	137	103	79	62	50	41	33	28	24	20	17
20	Single	91	69	53	42	33	27	22	19	16	13	11
	Double	220	165	127	100	80	65	54	45	38	32	28
	Triple	172	129	100	78	63	51	42	35	30	25	22
18	Single	128	96	74	58	46	38	31	26	22	19	16
	Double	307	231	178	140	112	91	75	62	53	45	38
	Triple	240	181	139	109	88	71	59	49	41	35	30

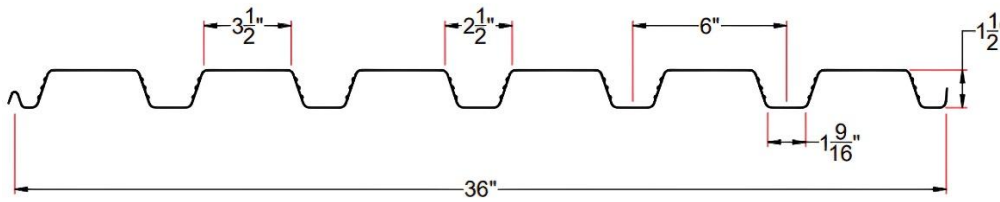
Note: 5. For service loads that cause L/120 deflection multiply by 2.0. For loads that cause L/180 deflection multiply by 1.5. For loads that cause L/360, multiply by 0.667.

1 ½" Composite Deck

Grade 80

LRFD

1.5 Composite Deck



Composite Superimposed Allowable Loads Limited To L/360 (psf) – LRFD NWC– 145 PCF, $f'_c = 3000$ PSI

Slab Depth	Slab Thickness	Deck Gage	Span (ft. - in.)								
			5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	9'-0"	10'-0"
3 ½"	2"	22	640	640	590	498	422	363	315	240	187
		20	640	640	640	598	510	438	381	293	230
		18	640	640	640	579	494	426	370	283	222
4"	2 ½"	22	640	640	640	624	531	458	397	302	237
		20	640	640	640	640	640	552	480	370	290
		18	640	640	640	640	622	536	466	358	282
4 ½"	3"	22	640	640	640	640	640	555	482	368	288
		20	640	640	640	640	640	640	582	450	354
		18	640	640	640	640	640	640	568	437	344
5"	3 ½"	22	640	640	640	640	640	640	568	437	342
		20	640	640	640	640	640	640	640	531	419
		18	640	640	640	640	640	640	640	518	408
5 ½"	4"	22	640	640	640	640	640	640	640	506	397
		20	640	640	640	640	640	640	640	616	486
		18	640	640	640	640	640	640	640	603	475
6"	4 ½"	22	640	640	640	640	640	640	640	576	451
		20	640	640	640	640	640	640	640	640	555
		18	640	640	640	640	640	640	640	640	542

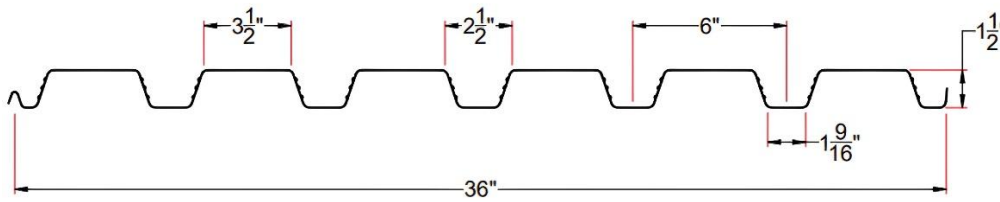
Note: 6. Table conforms to ANSI/SDI C-2017 & ANSI/SDI SD-2022.

1 ½" Composite Deck

Grade 80

LRFD

1.5 Composite Deck



Composite Superimposed Allowable Loads Limited To L/360 (psf) – LRFD LWC– 115 PCF, f'_c = 3000 PSI

Slab Depth	Slab Thickness	Deck Gage	Span (ft. - in.)								
			5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	9'-0"	10'-0"
3 ½"	2"	22	640	640	563	475	405	349	302	234	182
		20	640	640	640	568	485	419	363	282	222
		18	640	640	640	546	467	403	350	270	213
4"	2 ½"	22	640	640	640	600	512	442	384	296	232
		20	640	640	640	640	613	530	461	357	282
		18	640	640	640	640	592	510	445	344	272
4 ½"	3"	22	640	640	640	640	624	538	467	360	285
		20	640	640	640	640	640	640	563	435	346
		18	640	640	640	640	640	624	544	421	333
5"	3 ½"	22	640	640	640	640	640	638	555	429	339
		20	640	640	640	640	640	640	614	518	411
		18	640	640	640	640	640	640	595	502	398
5 ½"	4"	22	640	640	640	640	640	640	640	498	394
		20	640	640	640	640	640	640	640	602	477
		18	640	640	640	640	640	640	640	586	464
6"	4 ½"	22	640	640	640	640	640	640	640	568	448
		20	640	640	640	640	640	640	640	640	546
		18	640	640	640	640	640	640	640	640	531

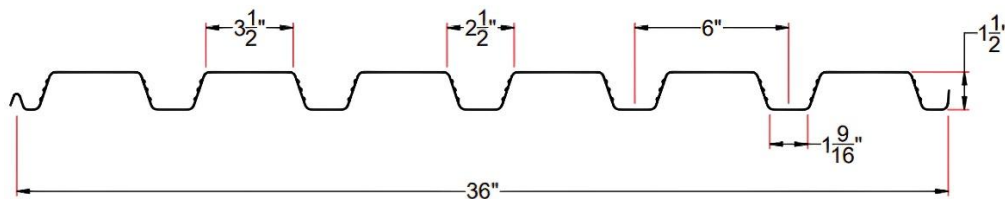
Note: 6. Table conforms to ANSI/SDI C-2017 & ANSI/SDI SD-2022.

1 ½" Composite Deck

Grade 80

LRFD

1.5 Composite Deck



Maximum Unshored Spans – Normal Weight Concrete 145 pcf

Slab Depth		Maximum Unshored Spans				
Total	Thickness	Wt. (psf)	Gage	1	2	3
3 ½"	2"	56	22	7'- 1"	8'- 3"	8'- 3"
		56	20	7'- 6"	8'- 9"	8'- 9"
		57	18	8'- 1"	10'- 1"	9'- 6"
4"	2 ½"	65	22	6'- 9"	7'-11"	8'- 0"
		66	20	7'- 2"	8'- 11"	8'- 5"
		67	18	7'- 9"	9'- 1"	9'- 1"
4 ½"	3"	75	22	6'- 5"	7'- 6"	7'- 7"
		75	20	6'-11"	8'- 2"	8'- 2"
		76	18	7'- 6"	8'- 10"	8'-10"
5"	3 ½"	85	22	6'- 2"	7'- 2"	7'- 3"
		85	20	6'- 9"	7'- 11"	7'-11"
		86	18	7'- 4"	8'- 7"	8'- 7"
5 ½"	4"	94	22	5'-11"	6'-11"	7'- 0"
		95	20	6'- 7"	7'- 8"	7'- 8"
		96	18	7'- 1"	8'- 4"	8'- 4"
6"	4 ½"	104	22	5'- 9"	6'- 8"	6'- 9"
		104	20	6'- 5"	7'- 6"	7'- 6"
		105	18	6'-11"	8'- 2"	8'- 2"

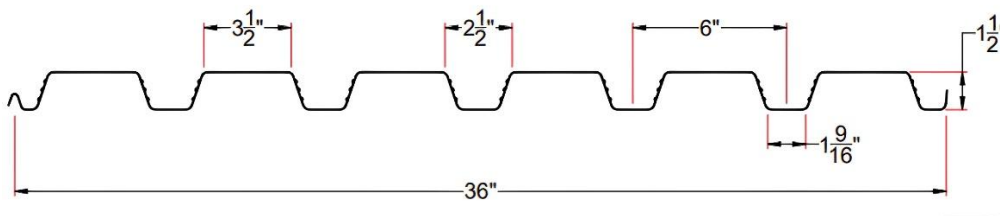
- Note:**
- All construction spans are based on a 20 psf and/or a 150 plf construction load in conjunction with deck plus concrete self-weight and a 3 psf concrete ponding allowance.
 - Web crippling has not been taken into consideration in the maximum unshored spans. Web crippling should be determined based on specific span conditions.
 - Tables have been calculated in accordance with ANSI/SDI C-2017 & ANSI/SDI SD-2022.

1 ½" Composite Deck

Grade 80

LRFD

1.5 Composite Deck



Maximum Unshored Spans – Light Weight Concrete 115 pcf

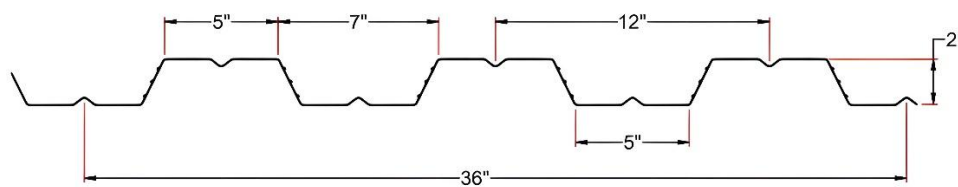
Slab Depth		Maximum Unshored Spans				
Total	Thickness	Wt. (psf)	Gage	1	2	3
3 ½"	2"	46	22	7'-5"	8'-9"	8'-9"
		46	20	7'-10"	9'-2"	9'-2"
		47	18	8'-6"	10'-7"	9'-11"
4"	2 ½"	53	22	7'-2"	8'-5"	8'-5"
		54	20	7'-7"	8'-10"	8'-10"
		54	18	8'-2"	10'-2"	9'-7"
4 ½"	3"	61	22	6'-11"	8'-1"	8'-1"
		61	20	7'-4"	8'-7"	8'-7"
		62	18	7'-11"	9'-3"	9'-3"
5"	3 ½"	69	22	6'-8"	7'-9"	7'-10"
		69	20	7'-1"	8'-4"	8'-4"
		70	18	7'-8"	9'-0"	9'-0"
5 ½"	4"	76	22	6'-5"	7'-6"	7'-7"
		77	20	6'-11"	8'-1"	8'-1"
		77	18	7'-6"	8'-9"	8'-9"
6"	4 ½"	84	22	6'-2"	7'-2"	7'-3"
		84	20	6'-9"	7'-11"	7'-11"
		85	18	7'-4"	8'-7"	8'-7"

- Note:**
7. All construction spans are based on a 20 psf and/or a 150 plf construction load in conjunction with deck plus concrete self-weight and a 3 psf concrete ponding allowance.
 8. Web crippling has not been taken into consideration in the maximum unshored spans. Web crippling should be determined based on specific span conditions.
 9. Tables have been calculated in accordance with ANSI/SDI C-2017 & ANSI/SDI SD-2022.

2" Composite Deck Grade 50

ASD

2.0 Composite Deck



Nestable Side Lap

Section Properties

Strength KSI	Profile	Gage	Wt. lb/ft ²	Thickness in.	I _{d+} in. ⁴ /ft.	I _{d-} in. ⁴ /ft.	S _{e+} in. ³ /ft.	S _{e-} in. ³ /ft.	M+/Ω ft.-lb./ft.	M-/Ω ft.-lb./ft.	V _N /Ω lb./ft.
F _y =50	2.0C22	22	1.6	0.0295	0.307	0.304	0.239	0.235	596	586	1991
F _y =50	2.0C20	20	1.9	0.0358	0.384	0.380	0.319	0.308	796	768	2839
F _y =50	2.0C18	18	2.5	0.0474	0.529	0.520	0.459	0.440	1145	1098	3771

Notes: 1. Section properties and strengths are calculated in accordance with AISI S100-16, ANSI/SDI C-2017 & ANSI/SDI SD-2022.

Allowable Web Crippling Reactions (R_N/Ω)- lb/ft

Bearing Length of Webs												
One Flange Loading							Two Flange Loading					
Deck	End Bearing			Interior Bearing			End Bearing			Interior Bearing		
Gage	2"	3"	4"	2"	3"	4"	2"	3"	4"	2"	3"	4"
22	401	462	513	620	702	770	392	439	479	735	840	928
20	574	658	728	894	1007	1102	597	665	724	1075	1223	1347
18	960	1094	1207	1516	1695	1845	1084	1200	1298	1853	2093	2296

Notes: 2. Web crippling reactions are calculated in accordance with AISI S100-16, ANSI/SDI C-2017 & ANSI/SDI SD-2022.

Bare Deck Superimposed Allowable Inward Uniform Loads (psf) - ASD

Gage	Span Condition	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"
22	Single	133	113	97	85	75	59	48	39	33	28	24
	Double	126	108	94	82	72	57	46	38	32	28	24
	Triple	156	134	116	101	89	71	58	48	40	34	30
20	Single	177	151	130	113	99	79	64	53	44	38	32
	Double	166	142	123	107	95	75	61	50	42	36	31
	Triple	206	176	153	133	118	93	76	63	53	45	39
18	Single	254	217	187	163	143	113	92	76	64	54	47
	Double	237	203	175	153	135	107	87	72	60	52	45
	Triple	292	251	217	190	167	133	108	89	75	64	55

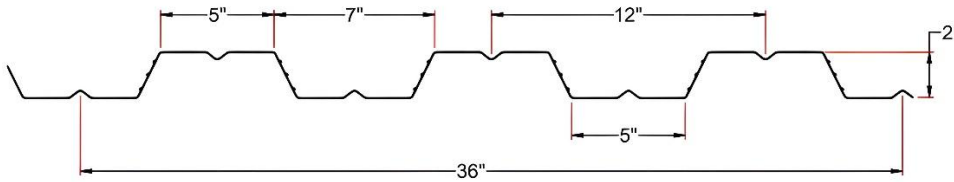
Notes: 3. Superimposed allowable uniform loads and maximum construction spans conform to AISI S100-16, ANSI/SDI C-2017 & ANSI/SDI SD-2022.

4. The tabulated values do not account for web crippling. The required bearing is determined based on specific span conditions.

2" Composite Deck Grade 50

ASD

2.0 Composite Deck



Bare Deck Uniform Superimposed Service Loads That Cause L/240 Deflection (psf)

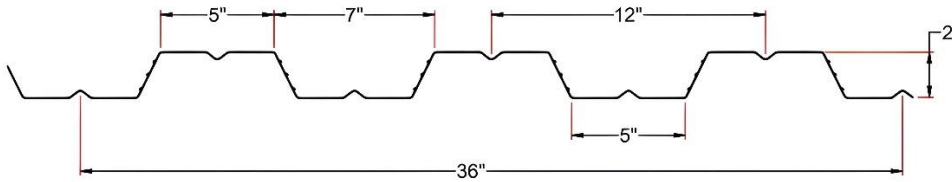
Gage	Span Condition	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"
22	Single	88	69	55	45	37	26	19	14	11	9	7
	Double	211	166	133	108	89	62	46	34	26	21	17
	Triple	165	130	104	84	70	49	36	27	21	16	13
20	Single	111	88	70	57	47	33	24	18	14	11	9
	Double	268	211	169	137	113	80	58	44	34	26	21
	Triple	210	165	132	108	89	62	45	34	26	21	17
18	Single	156	123	98	80	66	46	34	25	20	15	12
	Double	376	296	237	193	159	111	81	61	47	37	30
	Triple	294	232	185	151	124	87	64	48	37	29	23

Note: 5. For service loads that cause L/120 deflection multiply by 2.0. For loads that cause L/180 deflection multiply by 1.5. For loads that cause L/360, multiply by 0.667.

2" Composite Deck Grade 50

ASD

2.0 Composite Deck



Composite Superimposed Allowable Loads Limited To $L/360$ (psf) – ASD

NWC– 145 PCF, $f'_c = 3000$ PSI

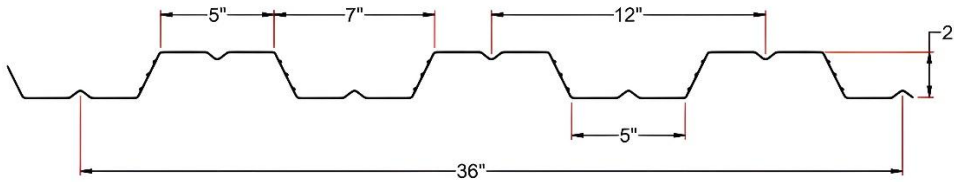
Slab Depth	Slab Thickness	Deck Gage	Span (ft. - in.)								
			7'-0"	7'-6"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"
4"	2"	22	338	292	254	196	154	124	100	82	68
		20	400	353	307	238	189	152	124	102	85
		18	400	400	400	313	249	202	166	138	116
4 ½"	2 ½"	22	400	353	307	237	187	150	122	100	83
		20	400	400	372	288	229	185	151	125	104
		18	400	400	400	379	302	245	202	168	141
5"	3"	22	400	400	363	281	222	178	145	119	99
		20	400	400	400	341	271	219	179	148	124
		18	400	400	400	400	357	290	239	200	168
5 ½"	3 ½"	22	400	400	400	326	258	207	169	139	116
		20	400	400	400	396	314	254	208	173	144
		18	400	400	400	400	400	337	278	232	196
6"	4"	22	400	400	400	372	294	237	193	160	133
		20	400	400	400	400	359	291	238	198	166
		18	400	400	400	400	400	386	318	266	224
6 ½"	4 ½"	22	400	400	400	400	332	267	218	180	150
		20	400	400	400	400	400	328	269	223	187
		18	400	400	400	400	400	400	359	300	253

Note: 6. Table conforms to ANSI/SDI C-2017 & ANSI/SDI SD-2022.

2" Composite Deck Grade 50

ASD

2.0 Composite Deck



Composite Superimposed Allowable Loads Limited To $L/360$ (psf) – ASD

LWC– 115 PCF, $f'_c = 3000$ PSI

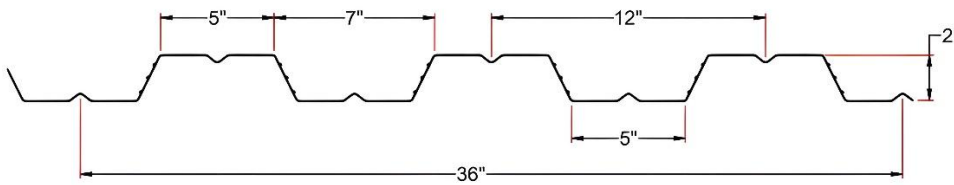
Slab Depth	Slab Thickness	Deck Gage	Span (ft. - in.)								
			7'-0"	7'-6"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"
4"	2"	22	329	284	248	192	152	123	100	83	69
		20	395	342	298	232	184	149	123	102	85
		18	400	400	387	302	242	197	162	136	115
4 1/2"	2 1/2"	22	399	345	301	233	185	150	123	101	85
		20	400	400	362	282	224	182	150	125	105
		18	400	400	400	367	293	239	198	165	140
5"	3"	22	400	400	357	277	220	178	146	121	101
		20	400	400	400	334	266	216	178	149	125
		18	400	400	400	400	348	284	235	197	167
5 1/2"	3 1/2"	22	400	400	400	322	256	207	170	141	118
		20	400	400	400	388	310	251	207	173	146
		18	400	400	400	400	400	330	273	229	194
6"	4"	22	400	400	400	368	293	237	195	162	136
		20	400	400	400	400	355	288	238	199	167
		18	400	400	400	400	400	379	314	263	223
6 1/2"	4 1/2"	22	400	400	400	400	330	268	220	183	154
		20	400	400	400	400	400	325	268	224	189
		18	400	400	400	400	400	400	354	297	252

Note: 6. Table conforms to ANSI/SDI C-2017 & ANSI/SDI SD-2022.

2" Composite Deck Grade 50

ASD

2.0 Composite Deck



Maximum Unshored Spans – Normal Weight Concrete 145 pcf

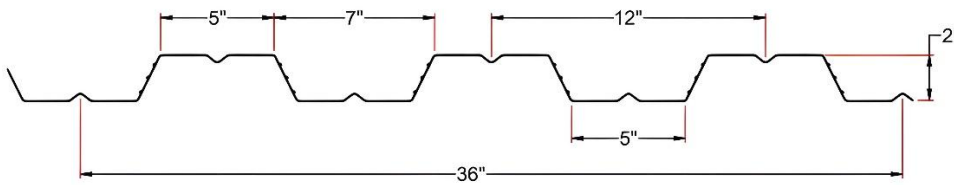
Slab Depth		Maximum Unshored Spans				
Total	Thickness	Wt. (psf)	Gage	1	2	3
4"	2"	41	22	7'-9"	8'-10"	9'-2"
		41	20	9'-4"	10'-2"	10'-6"
		42	18	10'-7"	12'-2"	12'-5"
4 ½"	2 ½"	47	22	7'-5"	8'-5"	8'-9"
		47	20	8'-10"	9'-9"	10'-1"
		48	18	10'-3"	11'-8"	12'-0"
5"	3"	53	22	7'-1"	8'-1"	8'-4"
		53	20	8'-6"	9'-4"	9'-8"
		54	18	9'-11"	11'-2"	11'-6"
5 ½"	3 ½"	59	22	6'-10"	7'-9"	8'-0"
		59	20	8'-2"	9'-0"	9'-3"
		60	18	9'-8"	10'-9"	11'-1"
6"	4"	65	22	6'-7"	7'-6"	7'-9"
		65	20	7'-10"	8'-8"	8'-11"
		66	18	9'-5"	10'-4"	10'-8"
6 ½"	4 ½"	71	22	6'-4"	7'-3"	7'-6"
		71	20	7'-7"	8'-4"	8'-8"
		72	18	9'-3"	10'-0"	10'-4"

- Note:**
7. All construction spans are based on a 20 psf and/or a 150 plf construction load in conjunction with deck plus concrete self-weight and a 3 psf concrete ponding allowance.
 8. Web crippling has not been taken into consideration in the maximum unshored spans. Web crippling should be determined based on specific span conditions.
 9. Tables have been calculated in accordance with ANSI/SDI C-2017 & ANSI/SDI SD-2022.

2" Composite Deck Grade 50

ASD

2.0 Composite Deck



Maximum Unshored Spans – Light Weight Concrete 115 pcf

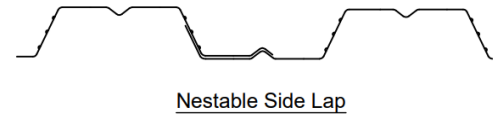
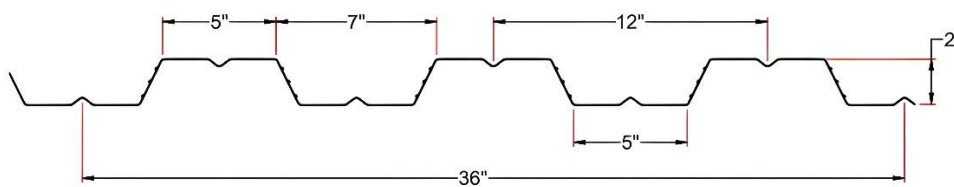
Slab Depth		Maximum Unshored Spans				
Total	Thickness	Wt. (psf)	Gage	1	2	3
4"	2"	33	22	8'-3"	9'-5"	9'-9"
		34	20	10'-0"	10'-11"	11'-3"
		34	18	11'-1"	12'-0"	13'-0"
4 1/2"	2 1/2"	38	22	7'-11"	9'-1"	9'-4"
		39	20	9'-6"	10'-5"	10'-9"
		39	18	10'-9"	12'-6"	12'-7"
5"	3"	43	22	7'-7"	8'-8"	9'-0"
		43	20	9'-2"	10'-0"	10'-4"
		44	18	10'-5"	12'-0"	12'-3"
5 1/2"	3 1/2"	48	22	7'-4"	8'-5"	8'-8"
		48	20	8'-10"	9'-8"	10'-0"
		49	18	10'-2"	11'-7"	11'-11"
6"	4"	53	22	7'-1"	8'-1"	8'-4"
		53	20	8'-6"	9'-4"	9'-8"
		54	18	9'-11"	11'-2"	11'-7"
6 1/2"	4 1/2"	57	22	6'-10"	7'-10"	8'-1"
		58	20	8'-3"	9'-1"	9'-4"
		58	18	9'-9"	10'-10"	11'-2"

- Note:**
- All construction spans are based on a 20 psf and/or a 150 plf construction load in conjunction with deck plus concrete self-weight and a 3 psf concrete ponding allowance.
 - Web crippling has not been taken into consideration in the maximum unshored spans. Web crippling should be determined based on specific span conditions.
 - Tables have been calculated in accordance with ANSI/SDI C-2017 & ANSI/SDI SD-2022.

2" Composite Deck Grade 50

LRFD

2.0 Composite Deck



Section Properties

Strength KSI	Profile	Gage	Wt. lb./ft ²	Thickness in.	I _{d+} in. ⁴ /ft.	I _{d-} in. ⁴ /ft.	S _{e+} in. ³ /ft.	S _{e-} in. ³ /ft.	ΦM ₊ ft.-lb./ft.	ΦM ₋ ft.-lb./ft.	ΦV _N lb./ft.
F _y =50	2.0C22	22	1.6	0.0295	0.307	0.304	0.239	0.235	949	949	3026
F _y =50	2.0C20	20	1.9	0.0358	0.384	0.380	0.319	0.308	1268	1249	4315
F _y =50	2.0C18	18	2.5	0.0474	0.529	0.520	0.459	0.440	1838	1811	5732

Notes: 1. Section properties and strengths are calculated in accordance with AISI S100-16, ANSI/SDI C-2017 & ANSI/SDI SD-2022.

Design Web Crippling Reactions (ΦR_n) - lb/ft

Bearing Length of Webs												
One Flange Loading							Two Flange Loading					
Deck	End Bearing			Interior Bearing			End Bearing			Interior Bearing		
Gage	2"	3"	4"	2"	3"	4"	2"	3"	4"	2"	3"	4"
22	614	707	785	922	1044	1145	600	672	733	1093	1250	1380
20	878	1007	1114	1330	1498	1639	913	1017	1108	1599	1819	2004
18	1469	1674	1847	2255	2521	2744	1659	1836	1986	2756	3113	3415

Notes: 2. Web crippling reactions are calculated in accordance with AISI S100-16, ANSI/SDI C-2017 & ANSI/SDI SD-2022.

Bare Deck Superimposed Allowable Inward Uniform Loads (psf) - LRFD

Gage	Span Condition	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"
22	Single	211	180	155	135	119	94	76	63	53	45	39
	Double	204	174	151	132	116	92	75	62	52	45	38
	Triple	251	215	187	163	144	114	93	77	65	55	48
20	Single	282	240	207	180	158	125	101	84	70	60	52
	Double	269	230	199	174	153	122	99	82	69	59	51
	Triple	333	285	247	216	190	151	123	102	86	73	63
18	Single	408	348	300	261	230	181	147	121	102	87	75
	Double	389	333	288	252	222	176	143	118	100	85	73
	Triple	479	411	356	312	275	218	178	147	124	106	91

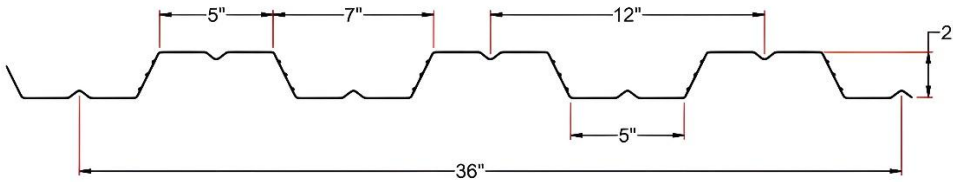
Notes: 3. Superimposed allowable uniform loads and maximum construction spans conform to AISI S100-16, ANSI/SDI C-2017 & ANSI/SDI SD-2022.

4. The tabulated values do not account for web crippling. The required bearing is determined based on specific span conditions.

2" Composite Deck Grade 50

LRFD

2.0 Composite Deck



Bare Deck Uniform Superimposed Service Loads That Cause L/240 Deflection (psf)

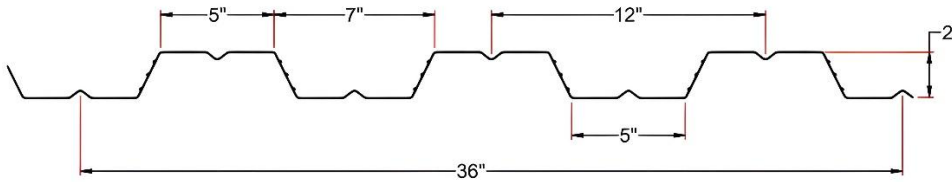
Gage	Span Condition	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"
22	Single	88	69	55	45	37	26	19	14	11	9	7
	Double	211	166	133	108	89	62	46	34	26	21	17
	Triple	165	130	104	84	70	49	36	27	21	16	13
20	Single	111	88	70	57	47	33	24	18	14	11	9
	Double	268	211	169	137	113	80	58	44	34	26	21
	Triple	210	165	132	108	89	62	45	34	26	21	17
18	Single	156	123	98	80	66	46	34	25	20	15	12
	Double	376	296	237	193	159	111	81	61	47	37	30
	Triple	294	232	185	151	124	87	64	48	37	29	23

Note: 5. For service loads that cause L/120 deflection multiply by 2.0. For loads that cause L/180 deflection multiply by 1.5. For loads that cause L/360, multiply by 0.667.

2" Composite Deck Grade 50

LRFD

2.0 Composite Deck



Composite Superimposed Allowable Loads Limited To $L/360$ (psf) – LRFD NWC– 145 PCF, $f'_c = 3000$ PSI

Slab Depth	Slab Thickness	Deck Gage	Span (ft. - in.)								
			7'-0"	7'-6"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"
4"	2"	22	541	467	406	314	246	198	160	131	109
		20	640	565	491	381	302	243	198	163	136
		18	640	640	640	501	398	323	266	221	186
4 ½"	2 ½"	22	640	565	491	379	299	240	195	160	133
		20	640	640	595	461	366	296	242	200	166
		18	640	640	640	606	483	392	323	269	226
5"	3"	22	640	640	581	450	355	285	232	190	158
		20	640	640	640	546	434	350	286	237	198
		18	640	640	640	640	571	464	382	320	269
5 ½"	3 ½"	22	640	640	640	522	413	331	270	222	186
		20	640	640	640	634	502	406	333	277	230
		18	640	640	640	640	640	539	445	371	314
6"	4"	22	640	640	640	595	470	379	309	256	213
		20	640	640	640	640	574	466	381	317	266
		18	640	640	640	640	640	618	509	426	358
6 ½"	4 ½"	22	640	640	640	640	531	427	349	288	240
		20	640	640	640	640	640	525	430	357	299
		18	640	640	640	640	640	640	574	480	405

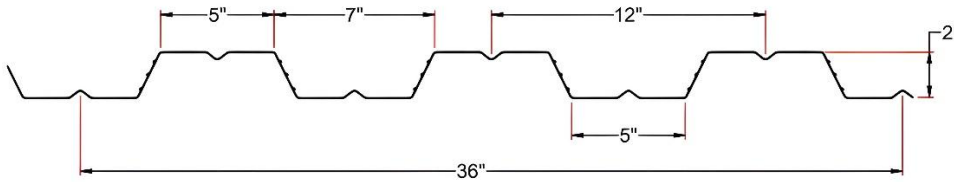
Note: 6. Table conforms to ANSI/SDI C-2017 & ANSI/SDI SD-2022.

2" Composite Deck Grade 50



LRFD

2.0 Composite Deck



Composite Superimposed Allowable Loads Limited To $L/360$ (psf) – LRFD LWC– 115 PCF, $f'_c = 3000$ PSI

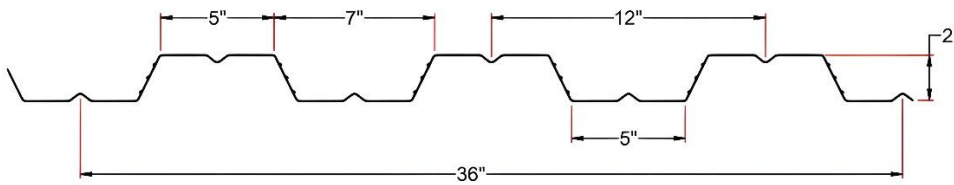
Slab Depth	Slab Thickness	Deck Gage	Span (ft. - in.)								
			7'-0"	7'-6"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"
4"	2"	22	526	454	397	307	243	197	160	133	110
		20	632	547	477	371	294	238	197	163	136
		18	640	640	619	483	387	315	259	218	184
4 1/2"	2 1/2"	22	638	552	482	373	296	240	197	162	136
		20	640	640	579	451	358	291	240	200	168
		18	640	640	640	587	469	382	317	264	224
5"	3"	22	640	640	571	443	352	285	234	194	162
		20	640	640	640	534	426	346	285	238	200
		18	640	640	640	640	557	454	376	315	267
5 1/2"	3 1/2"	22	640	640	640	515	410	331	272	226	189
		20	640	640	640	621	496	402	331	277	234
		18	640	640	640	640	640	528	437	366	310
6"	4"	22	640	640	640	589	469	379	312	259	218
		20	640	640	640	640	568	461	381	318	267
		18	640	640	640	640	640	606	502	421	357
6 1/2"	4 1/2"	22	640	640	640	640	528	429	352	293	246
		20	640	640	640	640	640	520	429	358	302
		18	640	640	640	640	640	640	566	475	403

Note: 6. Table conforms to ANSI/SDI C-2017 & ANSI/SDI SD-2022.

2" Composite Deck Grade 50

LRFD

2.0 Composite Deck



Maximum Unshored Spans – Normal Weight Concrete 145 pcf

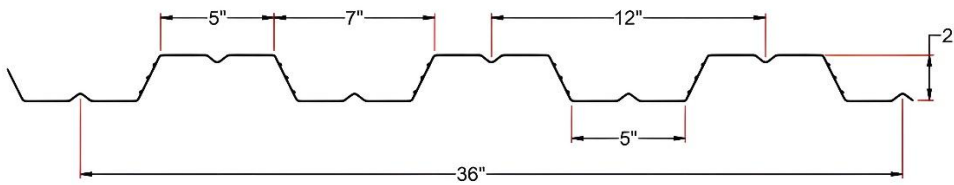
Slab Depth		Maximum Unshored Spans				
Total	Thickness	Wt. (psf)	Gage	1	2	3
4"	2"	65	22	8'-1"	9'-1"	9'-4"
		65	20	8'-11"	10'-4"	10'-6"
		66	18	9'-8"	11'-4"	11'-4"
4 ½"	2 ½"	74	22	7'-8"	8'-7"	8'-11"
		75	20	8'-8"	9'-10"	10'-1"
		76	18	9'-4"	10'-11"	10'-11"
5"	3"	84	22	7'-4"	8'-3"	8'-6"
		85	20	8'-4"	9'-5"	9'-9"
		85	18	9'-1"	10'-7"	10'-7"
5 ½"	3 ½"	94	22	7'-0"	7'-11"	8'-2"
		94	20	8'-2"	9'-1"	9'-4"
		95	18	8'-10"	10'-4"	10'-4"
6"	4"	103	22	6'-9"	7'-7"	7'-10"
		104	20	7'-11"	8'-0"	8'-0"
		105	18	8'-7"	10'-1"	10'-1"
6 ½"	4 ½"	113	22	6'-7"	7'-4"	7'-7"
		114	20	7'-9"	8'-5"	8'-8"
		114	18	8'-5"	10'-1"	9'-10"

- Note:**
- All construction spans are based on a 20 psf and/or a 150 plf construction load in conjunction with deck plus concrete self-weight and a 3 psf concrete ponding allowance.
 - Web crippling has not been taken into consideration in the maximum unshored spans. Web crippling should be determined based on specific span conditions.
 - Tables have been calculated in accordance with ANSI/SDI C-2017 & ANSI/SDI SD-2022.

2" Composite Deck Grade 50

LRFD

2.0 Composite Deck



Maximum Unshored Spans – Light Weight Concrete 115 pcf

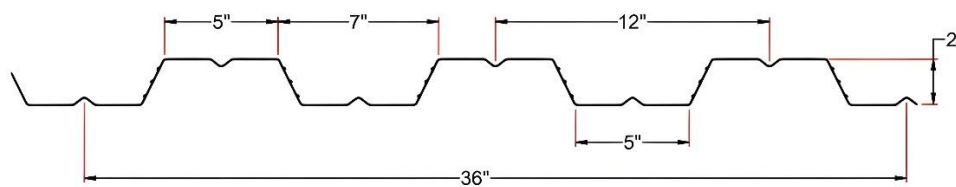
Slab Depth		Maximum Unshored Spans				
Total	Thickness	Wt. (psf)	Gage	1	2	3
4"	2"	53	22	8'- 8"	9'- 8"	10'- 0"
		53	20	9'- 5"	11'- 0"	11'- 0"
		54	18	10'- 2"	11'- 11"	11'- 11"
4 ½"	2 ½"	60	22	8'- 3"	9'- 3"	9'- 7"
		61	20	9'- 1"	10'- 7"	10'- 8"
		62	18	9'- 10"	11'- 6"	11'- 6"
5"	3"	68	22	7'- 11"	8'- 11"	9'- 2"
		69	20	8'- 10"	10'- 2"	10'- 4"
		69	18	9'- 6"	11'- 2"	11'- 2"
5 ½"	3 ½"	76	22	7'- 7"	8'- 7"	8'- 10"
		76	20	8'- 7"	9'- 10"	10'- 1"
		77	18	9'- 3"	10'- 11"	10'- 11"
6"	4"	83	22	7'- 4"	8'- 3"	8'- 6"
		84	20	8'- 5"	9'- 5"	9'- 9"
		85	18	9'- 1"	10'- 8"	10'- 8"
6 ½"	4 ½"	91	22	7'- 1"	8'- 0"	8'- 3"
		92	20	8'- 2"	9'- 2"	9'- 5"
		92	18	8'- 11"	10'- 5"	10'- 5"

- Note:**
- All construction spans are based on a 20 psf and/or a 150 plf construction load in conjunction with deck plus concrete self-weight and a 3 psf concrete ponding allowance.
 - Web crippling has not been taken into consideration in the maximum unshored spans. Web crippling should be determined based on specific span conditions.
 - Tables have been calculated in accordance with ANSI/SDI C-2017 & ANSI/SDI SD-2022.

2" Composite Deck Grade 80

ASD

2.0 Composite Deck



Nestable Side Lap

Section Properties

Strength KSI	Profile	Gage	Wt. lb/ft ²	Thickness in.	I _{d+} in. ⁴ /ft.	I _{d-} in. ⁴ /ft.	S _{e+} in. ³ /ft.	S _{e-} in. ³ /ft.	M ₊ /Ω ft.-lb./ft.	M ₋ /Ω ft.-lb./ft.	V _N /Ω lb./ft.
F _y =60	2.0C22	22	1.6	0.0295	0.292	0.287	0.217	0.209	650	626	2001
F _y =60	2.0C20	20	1.9	0.0358	0.362	0.356	0.278	0.267	832	799	2891
F _y =60	2.0C18	18	2.5	0.0474	0.496	0.487	0.398	0.393	1192	1177	4178

Notes: 1. Section properties and strengths are calculated in accordance with AISI S100-16, ANSI/SDI C-2017 & ANSI/SDI SD-2022.

Allowable Web Crippling Reactions (R_N/Ω) - lb/ft

Bearing Length of Webs												
One Flange Loading							Two Flange Loading					
Deck	End Bearing			Interior Bearing			End Bearing			Interior Bearing		
Gage	2"	3"	4"	2"	3"	4"	2"	3"	4"	2"	3"	4"
22	481	554	616	744	842	924	470	527	575	882	1008	1114
20	689	790	874	1073	1208	1322	716	798	869	1290	1468	1616
18	1152	1313	1448	1819	2034	2214	1301	1440	1558	2224	2512	2755

Notes: 2. Web crippling reactions are calculated in accordance with AISI S100-16, ANSI/SDI C-2017 & ANSI/SDI SD-2022.

Bare Deck Superimposed Allowable Inward Uniform Loads (psf) - ASD

Gage	Span Condition	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"
22	Single	144	123	106	92	81	64	52	43	36	31	27
	Double	134	115	100	87	77	61	49	41	34	29	25
	Triple	166	142	123	108	95	76	61	51	43	37	32
20	Single	185	158	136	118	104	82	67	55	46	39	34
	Double	173	148	128	112	98	78	63	52	44	38	32
	Triple	214	183	159	139	122	97	79	65	55	47	40
18	Single	265	226	195	169	149	118	95	79	66	56	49
	Double	254	217	188	164	145	115	93	77	65	55	48
	Triple	314	269	233	204	180	143	116	96	81	69	60

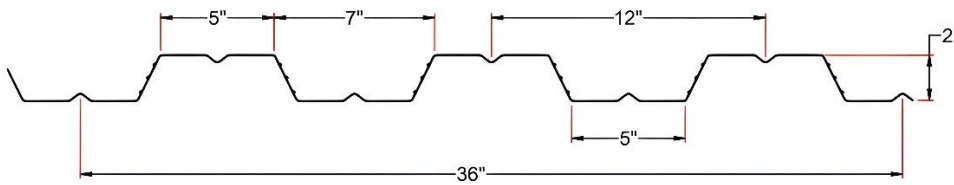
Notes: 3. Superimposed allowable uniform loads and maximum construction spans conform to AISI S100-16, ANSI/SDI C-2017 & ANSI/SDI SD-2022.

4. The tabulated values do not account for web crippling. The required bearing is determined based on specific span conditions.

2" Composite Deck Grade 80

ASD

2.0 Composite Deck



Bare Deck Uniform Superimposed Service Loads That Cause L/240 Deflection (psf)

Gage	Span Condition	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"
22	Single	85	67	53	43	36	25	18	14	11	8	7
	Double	204	160	128	104	86	60	44	33	25	20	16
	Triple	159	125	100	82	67	47	34	26	20	16	13
20	Single	108	85	68	56	46	32	23	18	14	11	9
	Double	261	205	164	134	110	77	56	42	33	26	21
	Triple	204	161	129	105	86	61	44	33	26	20	16
18	Single	153	121	97	78	65	45	33	25	19	15	12
	Double	369	290	232	189	156	109	80	60	46	36	29
	Triple	289	227	182	148	122	86	62	47	36	28	23

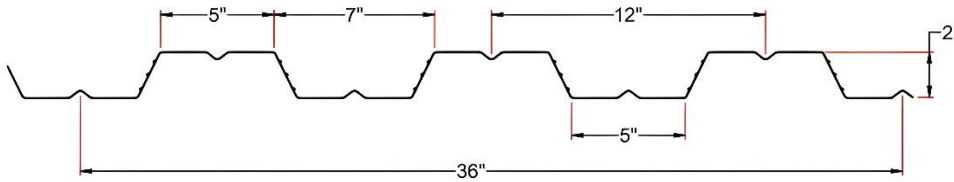
Note: 5. For service loads that cause L/120 deflection multiply by 2.0. For loads that cause L/180 deflection multiply by 1.5. For loads that cause L/360, multiply by 0.667.

2" Composite Deck Grade 80



ASD

2.0 Composite Deck



Composite Superimposed Allowable Loads Limited To $L/360$ (psf) – ASD

NWC– 145 PCF, $f'_c = 3000$ PSI

Slab Depth	Slab Thickness	Deck Gage	Span (ft. - in.)								
			7'-0"	7'-6"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"
4"	2"	22	338	292	254	196	154	124	100	82	68
		20	400	353	307	238	189	152	124	102	85
		18	400	400	400	313	249	202	166	138	116
4 ½"	2 ½"	22	400	353	307	237	187	150	122	100	83
		20	400	400	372	288	229	185	151	125	104
		18	400	400	400	379	302	245	202	168	141
5"	3"	22	400	400	363	281	222	178	145	119	99
		20	400	400	400	341	271	219	179	148	124
		18	400	400	400	400	357	290	239	200	168
5 ½"	3 ½"	22	400	400	400	326	258	207	169	139	116
		20	400	400	400	396	314	254	208	173	144
		18	400	400	400	400	400	337	278	232	196
6"	4"	22	400	400	400	372	294	237	193	160	133
		20	400	400	400	400	359	291	238	198	166
		18	400	400	400	400	400	386	318	266	224
6 ½"	4 ½"	22	400	400	400	400	332	267	218	180	150
		20	400	400	400	400	400	328	269	223	187
		18	400	400	400	400	400	400	359	300	253

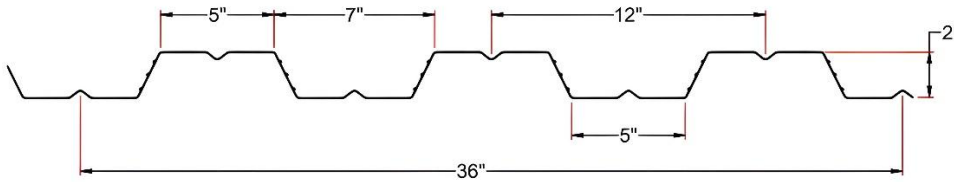
Note: 6. Table conforms to ANSI/SDI C-2017 & ANSI/SDI SD-2022.

2" Composite Deck Grade 80



ASD

2.0 Composite Deck



Composite Superimposed Allowable Loads Limited To $L/360$ (psf) – ASD

LWC– 115 PCF, $f'_c = 3000$ PSI

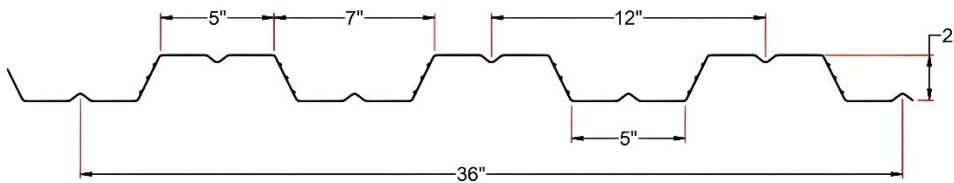
Slab Depth	Slab Thickness	Deck Gage	Span (ft. - in.)								
			7'-0"	7'-6"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"
4"	2"	22	329	284	248	192	152	123	100	83	69
		20	395	342	298	232	184	149	123	102	85
		18	400	400	387	302	242	197	162	136	115
4 ½"	2 ½"	22	399	345	301	233	185	150	123	101	85
		20	400	400	362	282	224	182	150	125	105
		18	400	400	400	367	293	239	198	165	140
5"	3"	22	400	400	357	277	220	178	146	121	101
		20	400	400	400	334	266	216	178	149	125
		18	400	400	400	400	348	284	235	197	167
5 ½"	3 ½"	22	400	400	400	322	256	207	170	141	118
		20	400	400	400	388	310	251	207	173	146
		18	400	400	400	400	400	330	273	229	194
6"	4"	22	400	400	400	368	293	237	195	162	136
		20	400	400	400	400	355	288	238	199	167
		18	400	400	400	400	400	379	314	263	223
6 ½"	4 ½"	22	400	400	400	400	330	268	220	183	154
		20	400	400	400	400	400	325	268	224	189
		18	400	400	400	400	400	400	354	297	252

Note: 6. Table conforms to ANSI/SDI C-2017 & ANSI/SDI SD-2022.

2" Composite Deck Grade 80

ASD

2.0 Composite Deck



Maximum Unshored Spans – Normal Weight Concrete 145 pcf

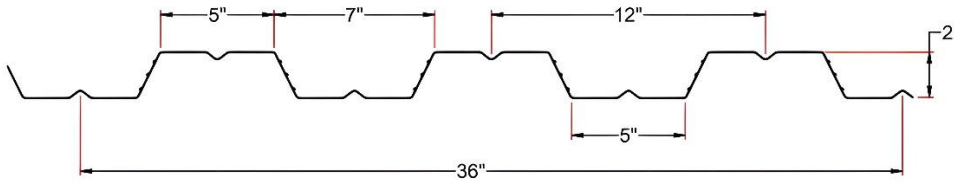
Slab Depth		Maximum Unshored Spans				
Total	Thickness	Wt. (psf)	Gage	1	2	3
4"	2"	41	22	8'-2"	9'-3"	9'-7"
		41	20	9'-7"	10'-5"	10'-9"
		42	18	10'-5"	12'-2"	12'-2"
4 ½"	2 ½"	47	22	7'-10"	8'-10"	9'-1"
		47	20	9'-1"	9'-11"	10'-3"
		48	18	10'-1"	11'-9"	11'-9"
5"	3"	53	22	7'-6"	8'-5"	8'-9"
		53	20	8'-9"	9'-6"	9'-10"
		54	18	9'-9"	11'-4"	11'-5"
5 ½"	3 ½"	59	22	7'-2"	8'-1"	8'-5"
		59	20	8'-4"	9'-2"	9'-6"
		60	18	9'-6"	10'-11"	11'-2"
6"	4"	65	22	6'-11"	7'-10"	8'-1"
		65	20	8'-1"	8'-10"	9'-2"
		66	18	9'-3"	10'-6"	10'-10"
6 ½"	4 ½"	71	22	6'-9"	7'-7"	7'-10"
		71	20	7'-9"	8'-6"	8'-10"
		72	18	9'-1"	10'-2"	10'-6"

- Note:**
- All construction spans are based on a 20 psf and/or a 150 plf construction load in conjunction with deck plus concrete self-weight and a 3 psf concrete ponding allowance.
 - Web crippling has not been taken into consideration in the maximum unshored spans. Web crippling should be determined based on specific span conditions.
 - Tables have been calculated in accordance with ANSI/SDI C-2017 & ANSI/SDI SD-2022.

2" Composite Deck Grade 80

ASD

2.0 Composite Deck



Maximum Unshored Spans – Light Weight Concrete 115 pcf

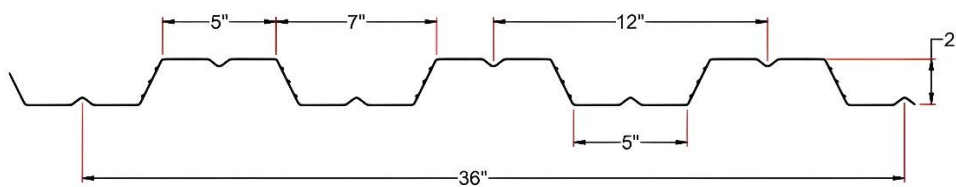
Slab Depth		Maximum Unshored Spans				
Total	Thickness	Wt. (psf)	Gage	1	2	3
4"	2"	33	22	8'-9"	9'-11"	10'-3"
		34	20	10'-2"	11'-2"	11'-6"
		34	18	10'-11"	12'-10"	12'-10"
4 ½"	2 ½"	38	22	8'-5"	9'-6"	9'-9"
		39	20	9'-10"	10'-8"	11'-0"
		39	18	10'-7"	12'-5"	12'-5"
5"	3"	43	22	8'-1"	9'-1"	9'-5"
		43	20	9'-5"	10'-3"	10'-7"
		44	18	10'-3"	12'-0"	12'-0"
5 ½"	3 ½"	48	22	7'-9"	8'-9"	9'-1"
		48	20	9'-1"	9'-11"	10'-3"
		49	18	10'-0"	11'-9"	11'-9"
6"	4"	53	22	7'-6"	8'-6"	8'-9"
		53	20	8'-9"	9'-7"	9'-11"
		54	18	9'-9"	11'-5"	11'-6"
6 ½"	4 ½"	57	22	7'-3"	8'-3"	8'-6"
		58	20	8'-5"	9'-3"	9'-7"
		58	18	9'-7"	11'-1"	11'-3"

- Note:**
7. All construction spans are based on a 20 psf and/or a 150 plf construction load in conjunction with deck plus concrete self-weight and a 3 psf concrete ponding allowance.
 8. Web crippling has not been taken into consideration in the maximum unshored spans. Web crippling should be determined based on specific span conditions.
 9. Tables have been calculated in accordance with ANSI/SDI C-2017 & ANSI/SDI SD-2022.

2" Composite Deck Grade 80

LRFD

2.0 Composite Deck



Nestable Side Lap

Section Properties

Strength KSI	Profile	Gage	Wt. lb/ft ²	Thickness in.	I _{d+} in. ⁴ /ft.	I _{d-} in. ⁴ /ft.	S _{e+} in. ³ /ft.	S _{e-} in. ³ /ft.	ΦM ₊ ft.-lb./ft.	ΦM ₋ ft.-lb./ft.	ΦV _N lb./ft.
F _y =60	2.0C22	22	1.6	0.0295	0.292	0.287	0.217	0.209	977	941	3042
F _y =60	2.0C20	20	1.9	0.0358	0.362	0.356	0.278	0.267	1251	1202	4394
F _y =60	2.0C18	18	2.5	0.0474	0.496	0.487	0.398	0.393	1791	1769	6351

Notes: 1. Section properties and strengths are calculated in accordance AISI S100-16, ANSI/SDI C-2017 & ANSI/SDI SD-2022.

Design Web Crippling Reactions (ΦR_n) - lb/ft

Bearing Length of Webs												
One Flange Loading							Two Flange Loading					
Deck	End Bearing			Interior Bearing			End Bearing			Interior Bearing		
Gage	2"	3"	4"	2"	3"	4"	2"	3"	4"	2"	3"	4"
22	736	848	942	1107	1253	1374	720	806	879	1312	1499	1656
20	1054	1208	1337	1596	1797	1967	1096	1221	1329	1919	2183	2404
18	1763	2009	2216	2706	3026	3293	1990	2203	2383	3308	3736	4098

Notes: 2. Web crippling reactions are calculated in accordance with AISI S100-16, ANSI/SDI C-2017 & ANSI/SDI SD-2022.

Bare Deck Superimposed Allowable Inward Uniform Loads (psf) - LRFD

Gage	Span Condition	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"
22	Single	217	185	159	139	122	96	78	65	54	46	40
	Double	202	173	150	131	115	91	74	61	52	44	38
	Triple	249	214	185	162	143	114	92	77	64	55	48
20	Single	278	237	204	178	156	124	100	83	70	59	51
	Double	260	222	192	168	148	117	95	79	66	56	49
	Triple	321	275	238	208	184	146	118	98	83	70	61
18	Single	398	339	292	255	224	177	143	118	100	85	73
	Double	382	327	283	247	217	172	140	116	97	83	72
	Triple	473	405	351	306	270	214	174	144	121	104	89

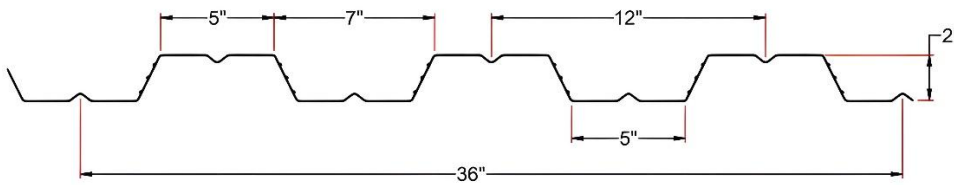
Notes: 3. Superimposed allowable uniform loads and maximum construction spans conform to AISI S100-16, ANSI/SDI C-2017 & ANSI/SDI SD-2022.

4. The tabulated values do not account for web crippling. The required bearing is determined based on specific span conditions.

2" Composite Deck Grade 80

LRFD

2.0 Composite Deck



Bare Deck Uniform Superimposed Service Loads That Cause L/240 Deflection (psf)

Gage	Span Condition	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"
22	Single	85	67	53	43	36	25	18	14	11	8	7
	Double	204	160	128	104	86	60	44	33	25	20	16
	Triple	159	125	100	82	67	47	34	26	20	16	13
20	Single	108	85	68	56	46	32	23	18	14	11	9
	Double	261	205	164	134	110	77	56	42	33	26	21
	Triple	204	161	129	105	86	61	44	33	26	20	16
18	Single	153	121	97	78	65	45	33	25	19	15	12
	Double	369	290	232	189	156	109	80	60	46	36	29
	Triple	289	227	182	148	122	86	62	47	36	28	23

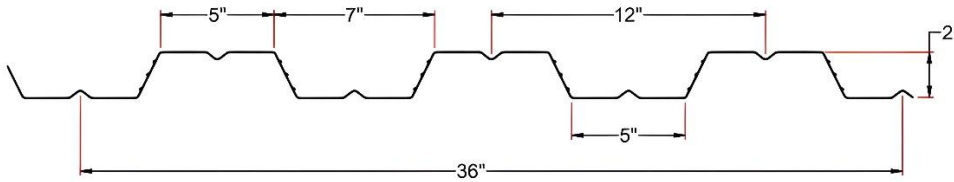
Note: 5. For service loads that cause L/120 deflection multiply by 2.0. For loads that cause L/180 deflection multiply by 1.5. For loads that cause L/360, multiply by 0.667.

2" Composite Deck Grade 80



LRFD

2.0 Composite Deck



Composite Superimposed Allowable Loads Limited To $L/360$ (psf) – ASD

NWC– 145 PCF, $f'_c = 3000$ PSI

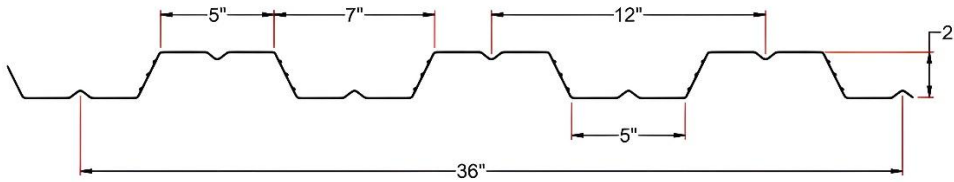
Slab Depth	Slab Thickness	Deck Gage	Span (ft. - in.)								
			7'-0"	7'-6"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"
4"	2"	22	541	467	406	314	246	198	160	131	109
		20	640	565	491	381	302	243	198	163	136
		18	640	640	640	501	398	323	266	221	186
4 ½"	2 ½"	22	640	565	491	379	299	240	195	160	133
		20	640	640	595	461	366	296	242	200	166
		18	640	640	640	606	483	392	323	269	226
5"	3"	22	640	640	581	450	355	285	232	190	158
		20	640	640	640	546	434	350	286	237	198
		18	640	640	640	640	571	464	382	320	269
5 ½"	3 ½"	22	640	640	640	522	413	331	270	222	186
		20	640	640	640	634	502	406	333	277	230
		18	640	640	640	640	640	539	445	371	314
6"	4"	22	640	640	640	595	470	379	309	256	213
		20	640	640	640	640	574	466	381	317	266
		18	640	640	640	640	640	618	509	426	358
6 ½"	4 ½"	22	640	640	640	640	531	427	349	288	240
		20	640	640	640	640	640	525	430	357	299
		18	640	640	640	640	640	640	574	480	405

Note: 6. Table conforms to ANSI/SDI C-2017 & ANSI/SDI SD-2022.

2" Composite Deck Grade 80

LRFD

2.0 Composite Deck



Composite Superimposed Allowable Loads Limited To $L/360$ (psf) – ASD

LWC– 115 PCF, $f'_c = 3000$ PSI

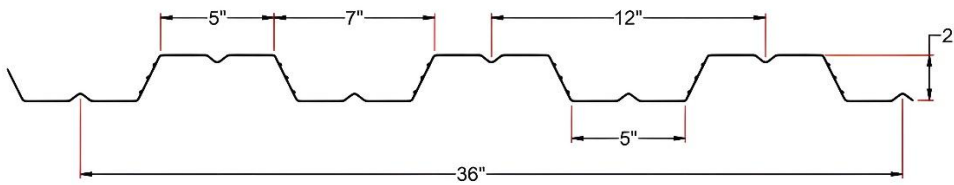
Slab Depth	Slab Thickness	Deck Gage	Span (ft. - in.)								
			7'-0"	7'-6"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"
4"	2"	22	526	454	397	307	243	197	160	133	110
		20	632	547	477	371	294	238	197	163	136
		18	640	640	619	483	387	315	259	218	184
4 ½"	2 ½"	22	638	552	482	373	296	240	197	162	136
		20	640	640	579	451	358	291	240	200	168
		18	640	640	640	587	469	382	317	264	224
5"	3"	22	640	640	571	443	352	285	234	194	162
		20	640	640	640	534	426	346	285	238	200
		18	640	640	640	640	557	454	376	315	267
5 ½"	3 ½"	22	640	640	640	515	410	331	272	226	189
		20	640	640	640	621	496	402	331	277	234
		18	640	640	640	640	640	528	437	366	310
6"	4"	22	640	640	640	589	469	379	312	259	218
		20	640	640	640	640	568	461	381	318	267
		18	640	640	640	640	640	606	502	421	357
6 ½"	4 ½"	22	640	640	640	640	528	429	352	293	246
		20	640	640	640	640	640	520	429	358	302
		18	640	640	640	640	640	640	566	475	403

Note: 6. Table conforms to ANSI/SDI C-2017 & ANSI/SDI SD-2022.

2" Composite Deck Grade 80

LRFD

2.0 Composite Deck



Maximum Unshored Spans – Normal Weight Concrete 145 pcf

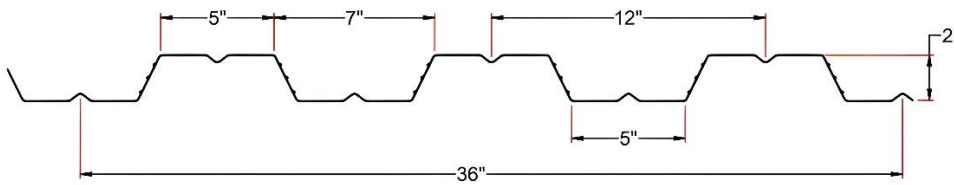
Slab Depth		Maximum Unshored Spans				
Total	Thickness	Wt. (psf)	Gage	1	2	3
4"	2"	65	22	8'-5"	9'-8"	9'-10"
		65	20	8'-11"	10'-5"	10'-5"
		66	18	9'-7"	11'-3"	11'-3"
4 ½"	2 ½"	74	22	8'-1"	9'-3"	9'-6"
		75	20	8'-7"	10'-1"	10'-1"
		76	18	9'-3"	10'-11"	10'-11"
5"	3"	84	22	7'-10"	8'-10"	9'-1"
		85	20	8'-4"	10'-1"	9'-9"
		85	18	9'-0"	10'-7"	10'-7"
5 ½"	3 ½"	94	22	7'-8"	8'-6"	8'-9"
		94	20	8'-1"	9'-6"	9'-6"
		95	18	8'-9"	10'-3"	10'-3"
6"	4"	103	22	7'-5"	8'-2"	8'-5"
		104	20	7'-11"	9'-3"	9'-3"
		105	18	8'-7"	10'-0"	10'-0"
6 ½"	4 ½"	113	22	7'-1"	7'-10"	8'-2"
		114	20	7'-9"	9'-0"	9'-1"
		114	18	8'-4"	10'-5"	9'-10"

- Note:**
- All construction spans are based on a 20 psf and/or a 150 plf construction load in conjunction with deck plus concrete self-weight and a 3 psf concrete ponding allowance.
 - Web crippling has not been taken into consideration in the maximum unshored spans. Web crippling should be determined based on specific span conditions.
 - Tables have been calculated in accordance with ANSI/SDI C-2017 & ANSI/SDI SD-2022.

2" Composite Deck Grade 80

LRFD

2.0 Composite Deck



Maximum Unshored Spans – Light Weight Concrete 115 pcf

Slab Depth		Maximum Unshored Spans				
Total	Thickness	Wt. (psf)	Gage	1	2	3
4"	2"	53	22	8'-10"	10'-4"	10'-4"
		53	20	9'-4"	11'-0"	11'-0"
		54	18	10'-1"	11'-10"	11'-10"
4 ½"	2 ½"	60	22	8'-7"	9'-11"	10'-0"
		61	20	9'-1"	10'-7"	10'-7"
		62	18	9'-9"	11'-5"	11'-5"
5"	3"	68	22	8'-4"	9'-6"	9'-9"
		69	20	8'-9"	10'-3"	10'-3"
		69	18	9'-6"	11'-1"	11'-1"
5 ½"	3 ½"	76	22	8'-1"	9'-2"	9'-6"
		76	20	8'-7"	10'-0"	10'-0"
		77	18	9'-3"	10'-10"	10'-10"
6"	4"	83	22	7'-11"	8'-10"	9'-2"
		84	20	8'-4"	10'-2"	9'-9"
		85	18	9'-0"	10'-7"	10'-7"
6 ½"	4 ½"	91	22	7'-9"	8'-7"	8'-10"
		92	20	8'-2"	9'-7"	9'-7"
		92	18	8'-10"	10'-0"	10'-4"

- Note:**
- All construction spans are based on a 20 psf and/or a 150 plf construction load in conjunction with deck plus concrete self-weight and a 3 psf concrete ponding allowance.
 - Web crippling has not been taken into consideration in the maximum unshored spans. Web crippling should be determined based on specific span conditions.
 - Tables have been calculated in accordance with ANSI/SDI C-2017 & ANSI/SDI SD-2022.

1. General

1.1 Related Documents: Drawings and General Provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Section, apply to this section.

1.2 Summary:

This section pertains to composite steel floor deck.

A. Related Sections:

1. Division 3 Section "Cast in Place Concrete" for the concrete fill and reinforcing steel.
2. Division 5 Sections: Structural Steel, Steel Joists or Cold Formed Steel Framing that support the steel floor deck.

1.3 Submittals:

- A. General: Submit each item in this Article according to the conditions of the Contract and Division 1 Specification Sections.
- B. Product Data for each type of decking specified, including dimensions of individual components, profiles, and finishes.
- C. Shop Drawings showing location of deck units, anchorage details, accessories specified on the contract documents, and other information required for a thorough review.
- D. Product Certificates (if required) certifying that the supplied products comply with specified requirements.
- E. Welder Certificates signed by the Contractor certifying that welders comply with requirements specified under "Quality Assurance" Article 1.4. If the mechanical fasteners are used, independent test reports or evaluation reports shall be provided by the fastener manufacturer.

1.4 Quality Assurance:

- A. Codes and Standards: Comply with applicable provisions of the following specifications:
 1. AISI S100-07 w/S2-10, North American Specification for Design of Cold Formed Steel Structural Members, Including Supplement 2.
 2. AWS D1.3:2017, Structural Welding Code-Sheet Steel
 3. ANSI/SDI C-2022, Standard for Composite Steel Floor Deck-Slabs
- B. Certify that each welder has satisfactorily passed AWS qualification tests for welding process involved, and, if applicable, has undergone recertification.
- C. Fire Resistance Assemblies: Provide steel deck units classified by Underwriters Laboratories (UL) in the "Fire Resistance Directory" for design number _____. (If a fire rated assembly is required.)
 1. Identify Steel Deck bundles with labels bearing the UL mark.

1.5 Delivery, Storage, and Handling:

- A. Protect steel deck from corrosion, deformation, and other damage during delivery, storage, and handling.
- B. If ground storage is needed, the deck bundles must be stored off the ground, with one end elevated to provide drainage. Bundles must be protected against condensation with a ventilated waterproof covering. Bundles must be stacked so there is no danger of tipping, sliding, rolling, shifting or material damage. Bundles must be periodically check for tightness and retightened, as necessary.

- C. Deck bundles placed on the building frame must be placed near a main supporting beam at a column or wall. In no case are the bundles to be placed on unbolted framed or on unattached and/or unbridged joists. The structural frame must be properly braced to receive the bundles.

2. Products

2.1: A manufacturer offering deck products to be incorporated into the work must be a member of the Steel Deck Institute.

2.2 Materials: [The specifier must choose the appropriate section(s) and eliminate those not applicable.]

- A. Sheet steel for deck and accessories shall conform to ANSI/SDI C-2022, Section 2.1A, 2.1B, 2.1C, and 2.1D.
- B. Steel deck and accessories shall be [ASTM A1008 bare steel] [galvanized to G60 minimum in accordance with ASTM A653] [ASTM A1008 steel prime painted with manufacture's standard prime paint].
- C. The deck type and thickness shall be as shown on the plans.
or
- D. The deck shall be ____ with a minimum metal thickness of ____.
or
- E. The deck shall be selected to provide the load capacities shown on the drawings and as determined using the ANSI/SDI C-2022 construction loading criteria.
- F. Whenever possible, the deck shall be multi-span.
- G. The deck type provided shall be capable of supporting the superimposed live loads as shown on the plans.
- H. Pour stops, columns closures, end closures, cover plates, and girder fillers shall be the standard type provided by the deck manufacturer unless indicated otherwise on plans.

3. Execution

3.1: Examine support framing and field conditions for compliance with requirements for installation tolerances and other conditions affecting performance of work of this section. All OSHA rules for erection must be followed.

3.2 Preparation:

- A. Place deck in accordance with approved installation drawings.
- B. Do not place deck panels on partially cured concrete support structures without permission of the designer (as defined in ANSI/SDI C-2022).
- C. Locate deck bundles to prevent overloading of support members.

3.3 Installation: General

- A. Install deck panels and accessories according to ANSI/SDI C-2022 and in accordance with approved installation drawings and requirements of this section.
- B. Install temporary shoring, if required, before placing concrete.

- C. Place deck panels on structural supports and adjust to final position with ends aligned. Attach firmly to the supports immediately after placement to form a safe working platform.
- D. Cut and neatly fit deck units and accessories around opening and other work projecting through or adjacent to the decking.
- E. Trades that subsequently cut unscheduled opening through the deck are responsible for reinforcing the openings.

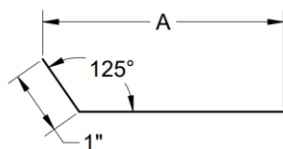
3.4 Installation: Composite Floor Deck:

- A. Fasten deck and accessories in accordance with requirements of ANSI/SDI C-2022, Sections 3.1, 3.2, and 3.4.
- B. End Bearing: Install deck ends over supports with a minimum end bearing of 1-1/2 inches (38 mm) unless otherwise shown on approved installation drawings or manufacturer's literature.
- C. Pour Stops and Girder Fillers: Fasten pour stops and girder fillers to supporting structure and deck in accordance with approved installation drawings.
- D. Floor Deck Closures: Fasten column closures, cell closures, and Z closures to deck in accordance with approved installation drawings.

3.5 Repairs: Before concrete placement, the deck shall be inspected for tears, dents, or other damage that may prevent the deck from acting as a tight and substantial form. The need for the repair or temporary shoring of damaged deck shall be determined by the Architect or Engineer of Record based on structural performance unless aesthetics have been specifically addressed in the contract drawings.

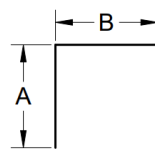
3.6 Construction Guidelines:

- A. Do not use deck units as a working platform or storage area until units are in position and permanently attached to the structure.
- B. Construction loads must not exceed load carrying capacity of the deck.



A = 4" - 10"

GIRDER FILLER (G60 Coating 10 ft. Long)



A = 1 1/2"

A = 2"

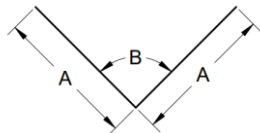
A = 3"

B = 1 1/2"

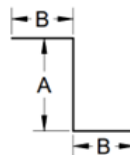
B = 1"

B = 1"

END CLOSURE (20 GA. thick G60 Coating 10 ft. Long)



**RIDGE/VALLEY PLATE END CLOSURE
(20 GA. thick G60 Coating 10 ft. Long)**



A = 1 1/2"

A = 2"

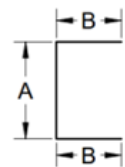
A = 3"

B = 1"

B = 1"

B = 1"

ZEE CLOSURE (20 GA. thick G60 Coating 10 ft. Long)



A = 1 1/2"

A = 2"

A = 3"

B = 1"

B = 1"

B = 1"

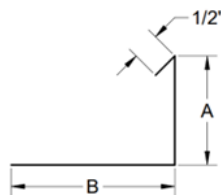
B = 1"

B = 1"

B = 1"

SIDE CLOSURE

(20 GA. thick G60 Coating 10 ft. Long)

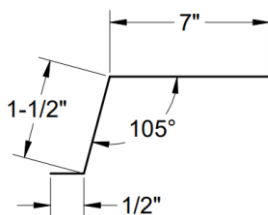


A = *VARIES SEE TABLE

B = *VARIES SEE TABLE

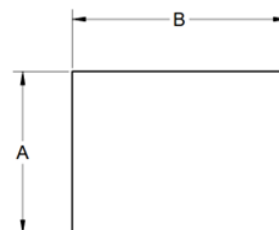
GA. = *VARIES SEE TABLE

POUR STOP (G60 Coating 10 ft. Long)



ROOF FINISH STRIP

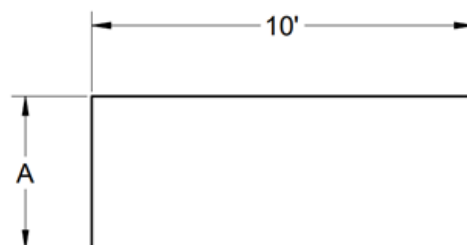
(20 GA. thick G60 Coating 10 ft. Long)



A = 12"

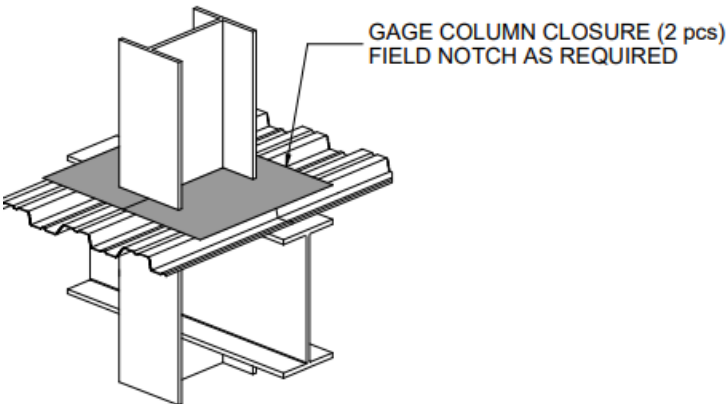
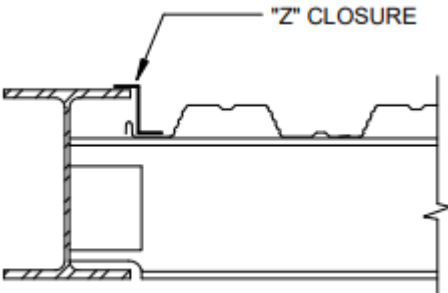
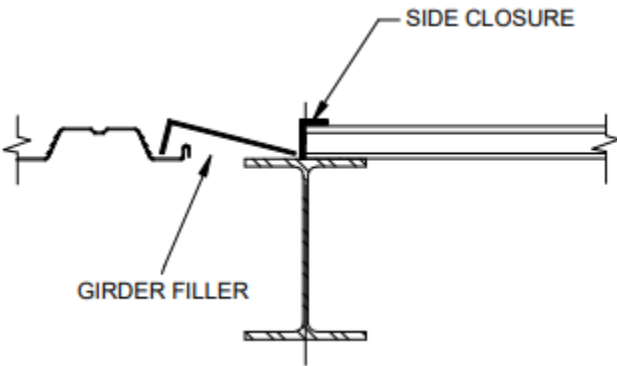
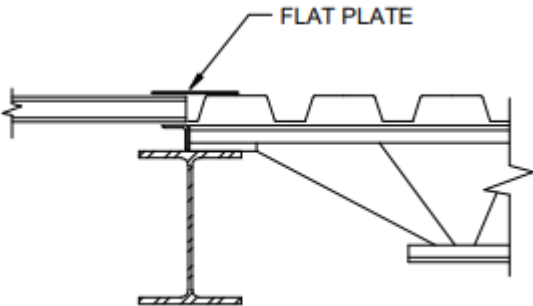
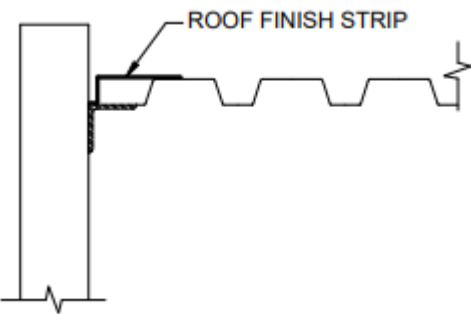
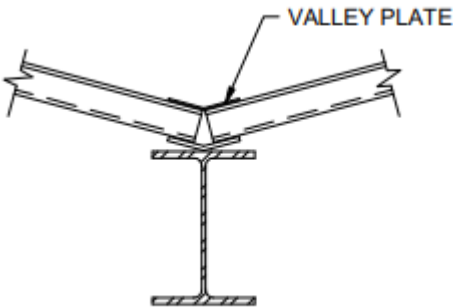
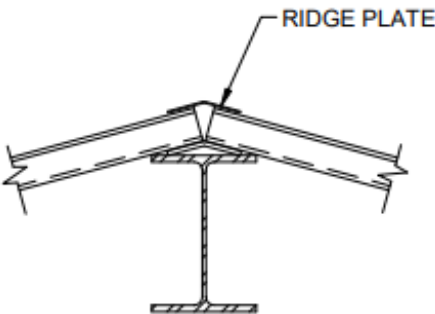
B = 24"

COLUMN CLOSURE (20 GA. thick G60 Coating)

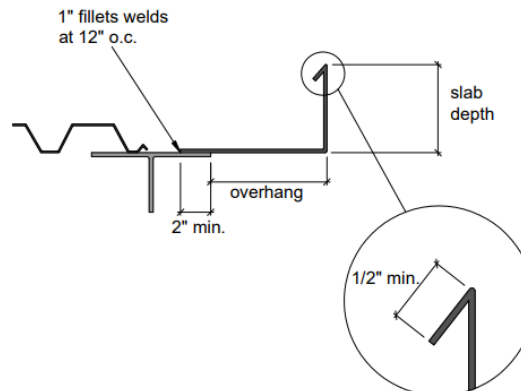


A = *VARIES

FLAT PLATE (20 GA. thick G60 Coating 10 ft. Long)



SLAB DEPTH (in.)	Pour Stop Gage Overhang (in.)												
	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	12"
4"	20	20	20	20	18	18	16	14	12	12	12	10	10
4 ¼"	20	20	20	18	18	16	16	14	12	12	12	10	10
4 ½"	20	20	20	18	18	16	16	14	12	12	12	10	10
4 ¾"	20	20	18	18	16	16	14	14	12	12	10	10	10
5"	20	20	18	18	16	16	14	14	12	12	10	10	
5 ¼"	20	18	18	16	16	14	14	12	12	12	10	10	
5 ½"	20	18	18	16	16	14	14	12	12	12	10	10	
5 ¾"	20	18	16	16	14	14	12	12	12	12	10	10	
6"	18	18	16	16	14	14	12	12	12	10	10	10	
6 ¼"	18	18	16	14	14	12	12	12	12	10	10		
6 ½"	18	16	16	14	14	12	12	12	12	10	10		
6 ¾"	18	16	14	14	14	12	12	12	10	10	10		
7"	18	16	14	14	12	12	12	12	10	10	10		
7 ¼"	16	16	14	14	12	12	12	10	10	10			
7 ½"	16	14	14	12	12	12	12	10	10	10			
7 ¾"	16	14	14	12	12	12	10	10	10	10			
8"	14	14	12	12	12	12	10	10	10				
8 ¼"	14	14	12	12	12	10	10	10	10				
8 ½"	14	12	12	12	12	10	10	10					
8 ¾"	14	12	12	12	12	10	10	10					
9"	14	12	12	12	10	10	10						
9 ¼"	12	12	12	12	10	10	10						
9 ½"	12	12	12	10	10	10							
9 ¾"	12	12	12	10	10	10							
10"	12	12	10	10	10	10							
10 ¼"	12	12	10	10	10								
10 ½"	12	12	10	10	10								
10 ¾"	12	10	10	10									
11"	12	10	10	10									
11 ¼"	12	10	10										
11 ½"	10	10	10										
11 ¾"	10	10											
12"	10	10											



Type	Thickness Inches
20	0.0358
18	0.0474
16	0.0598
14	0.0747
12	0.1046
11	0.1196
10	0.1345

Valley Joist & Deck manufactures deck products that have been certified to Underwriters Laboratories Inc. (UL Inc.) fire resistance ratings. If you need further information on Valley Joist & Deck's fire resistance ratings, you can visit [Product iQ | UL Solutions](#). For all other inquiries see list of UL certifications below:

Roof - Ceiling:

Roof - Ceiling:	Deck Type:
P211.....	F (IR) & B (WR)
P225.....	F (IR) & B (WR)
P230.....	F (IR) & B (WR)
P231.....	B (WR-VENTED)
P246.....	B (WR-VENTED) & 0.6 FD (VS)
P404.....	F (IR) & B (WR)
P509.....	B (WR-VENTED)
P510.....	F (IR) & B (WR)
P921.....	F (IR), B (WR), B (WR-VENTED) & 0.6 FD (VS)
P923.....	F (IR), B (WR), B (WR-VENTED) & 0.6 FD (VS)

Floor - Ceiling:

D216.....	1.5 Comp. (WVC 1-1/2) & 2.0 Comp. (WVC 2)
D502.....	1.5 Comp. (WVC 1-1/2) & 2.0 Comp. (WVC 2)
D826.....	1.5 Comp. (WVC 1-1/2) & 2.0 Comp. (WVC 2)
D907.....	1.5 Comp. (WVC 1-1/2) & 2.0 Comp. (WVC 2)
D908.....	1.5 Comp. (WVC 1-1/2) & 2.0 Comp. (WVC 2)
D914.....	1.5 Comp. (WVC 1-1/2) & 2.0 Comp. (WVC 2)
D916.....	1.5 Comp. (WVC 1-1/2) & 2.0 Comp. (WVC 2)
D919.....	1.5 Comp. (WVC 1-1/2) & 2.0 Comp. (WVC 2)
D920.....	1.5 Comp. (WVC 1-1/2) & 2.0 Comp. (WVC 2)
D922.....	1.5 Comp. (WVC 1-1/2) & 2.0 Comp. (WVC 2)
D923.....	1.5 Comp. (WVC 1-1/2) & 2.0 Comp. (WVC 2)
D925.....	1.5 Comp. (WVC 1-1/2) & 2.0 Comp. (WVC 2)
D927.....	1.5 Comp. (WVC 1-1/2) & 2.0 Comp. (WVC 2)
D929.....	1.5 Comp. (WVC 1-1/2) & 2.0 Comp. (WVC 2)
D931.....	1.5 Comp. (WVC 1-1/2) & 2.0 Comp. (WVC 2)
D957.....	1.5 Comp. (WVC 1-1/2) & 2.0 Comp. (WVC 2)
D985.....	1.5 Comp. (WVC 1-1/2) & 2.0 Comp. (WVC 2)
D988.....	1.5 Comp. (WVC 1-1/2) & 2.0 Comp. (WVC 2)
D998.....	1.5 Comp. (WVC 1-1/2) & 2.0 Comp. (WVC 2)

Valley Joist & Deck's type "B" Deck or 1-1/2" WR (Wide Rib) deck is approved for use as a component in Factory Mutual's compliant roof systems. See below for description of FM Global Test and Ratings:

Test Description:

Valley Joist Type B steel roof deck is secured to structural supports using fasteners FM Approved for securing steel deck to structural supports or with 0.625 in (16 mm) diameter puddle welds as described in the tables below. A minimum 1.5 in. (38 mm) thick FM Approved polyisocyanurate insulation board or 0.25 in. (6 mm) thick FM Approved gypsum insulation boards is installed with edges along the centerline of the top flange and covered with an adhered roof covering or with a mechanically attached roof covering with in-row fastener spacing less than or equal to one-half of the deck span, per proprietary listings.

Meets wind rating per securement of the deck and securement of the above deck components.

The deck is secured to structural supports using fasteners FM Approved for securing steel deck to structural supports or with welds as described below. The side laps of Type B steel roof decks are secured using fasteners FM Approved for securing steel deck side laps. In lieu of mechanical fasteners, the decks are secured to supports with puddle welds as noted in Tables A through B.

Table 1. Allowable Span Limit Table, Steel Deck secured with FM Approved Fasteners

Valley Joist & Deck Type B Steel Deck						
Deck Design Thickness	Wind Rating - One Span					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	72	1829	72	1829	72	1829
20 (0.0358 [0.91])	80	2032	80	2032	80	2032
18 (0.0474 [1.2])	92	2337	92	2337	92	2337

Deck Design Thickness	Wind Rating - Two Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	85	2159	85	2159	85	2159
20 (0.0358 [0.91])	94	2388	94	2388	94	2388
18 (0.0474 [1.2])	109	2769	109	2769	109	2769

Deck Design Thickness	Wind Rating - Three or More Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	85	2159	85	2159	85	2159
20 (0.0358 [0.91])	94	2388	94	2388	94	2388
18 (0.0474 [1.2])	109	2769	109	2769	109	2769

Table A							
Deck Yield		Weld Diameter		Weld Spacing		Weld Electrode	
psi	MPa	in.	mm	in.	mm	psi	MPa
50000	345	0.625	16	6	152	70000	483

Valley Joist & Deck Type B Steel Deck						
Deck Design Thickness	Wind Rating - One Span					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	72	1829	72	1829	72	1829
20 (0.0358 [0.91])	80	2032	80	2032	80	2032
18 (0.0474 [1.2])	92	2337	92	2337	92	2337

Deck Design Thickness	Wind Rating - Two Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	85	2159	85	2159	85	2159
20 (0.0358 [0.91])	94	2388	94	2388	94	2388
18 (0.0474 [1.2])	109	2769	109	2769	109	2769

Deck Design Thickness	Wind Rating - Three or More Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	85	2159	85	2159	85	2159
20 (0.0358 [0.91])	94	2388	94	2388	94	2388
18 (0.0474 [1.2])	109	2769	109	2769	109	2769

Table B							
Deck Yield		Weld Diameter		Weld Spacing		Weld Electrode	
psi	MPa	in.	mm	in.	mm	psi	MPa
50000	345	0.625	16	12	305	70000	483

Valley Joist & Deck Type B Steel Deck						
Deck Design Thickness	Wind Rating - One Span					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	72	1829	72	1829	72	1829
20 (0.0358 [0.91])	80	2032	80	2032	80	2032
18 (0.0474 [1.2])	92	2337	92	2337	92	2337

Deck Design Thickness	Wind Rating - Two Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	85	2159	85	2159	85	2159
20 (0.0358 [0.91])	94	2388	94	2388	94	2388
18 (0.0474 [1.2])	109	2769	109	2769	109	2769

Deck Design Thickness	Wind Rating - Three or More Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	85	2159	85	2159	85	2159
20 (0.0358 [0.91])	94	2388	94	2388	94	2388
18 (0.0474 [1.2])	109	2769	109	2769	109	2769

Job No.	-	Date	-
Job Name	-		
Customer	-	DETAILED:	-
		CHECKED:	-

DECK SUPPLIED BY:

☒ VALLEY JOIST ☐ OTHERS



SHEET NO. _____ of _____

VALLEY JOIST DECK ACCESSORIES

JOB NUMBER: - _____

PROJECT: - _____

LOCATION: _____

SHEET _____ OF _____

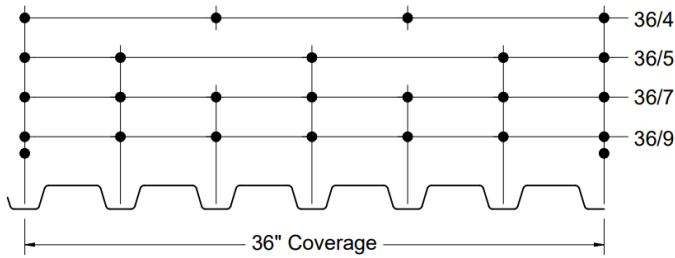
DETAILED: -

CHECKED: - _____

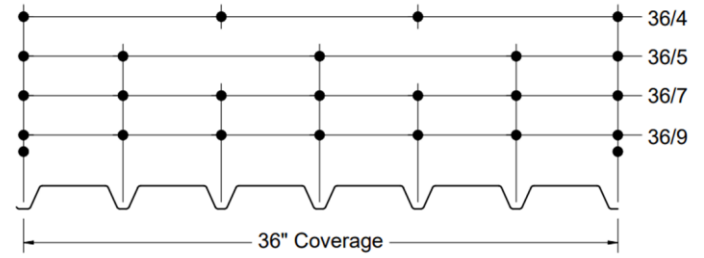
1.) GIRDER FILLER GF# (A= 4, 5, 6, 7, 8, 9, 10) *GA G60 10'-0" LG	2.) END CLOSURES EC# STD: 20GA G60 10'-0" LG	3.) SIDE CLOSURES SC# STD: 20GA G60 10'-0" LG	4.) POUR STOP PS# *GA G60 10'-0" LG *1" RETURN @ 20 GA OR LIGHTER	5.) COLUMN CLOSURE CC STD: 20GA G60 12" x 24"
6.) RIDGE / VALLEY PLATE RV# STD: 20GA G60 10'-0" LG	7.) ZEE CLOSURES ZC# STD: 20GA G60 10'-0" LG	8.) ROOF FINISH STRIP FS7 20GA G60 10'-0" LG U.N.O.	9.) FLAT PLATE FP1 STD: 20GA G60 10'-0" LG	

[illegible]

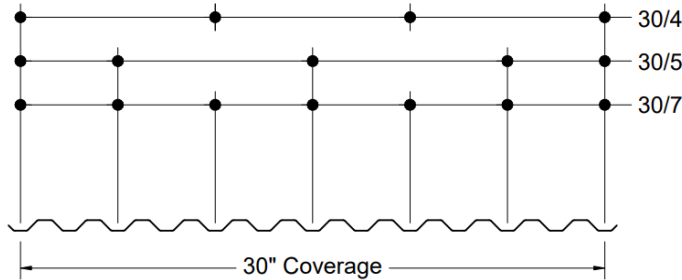
Typical Deck Connection Patterns



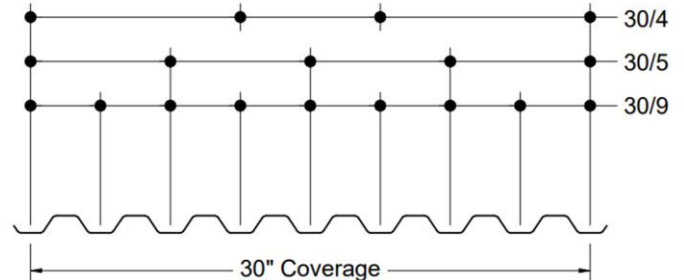
1.5B Deck (1 1/2" WR)
1.5C Deck (1 1/2" Composite)



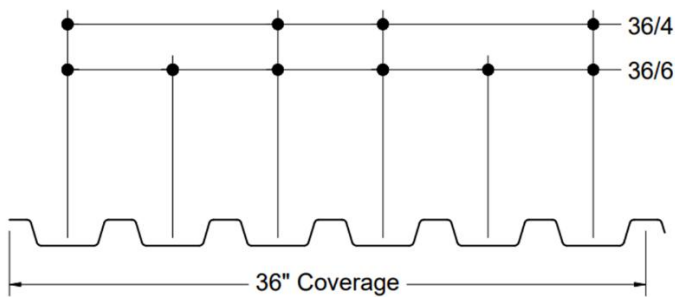
1.5F Deck (1 1/2" IR)



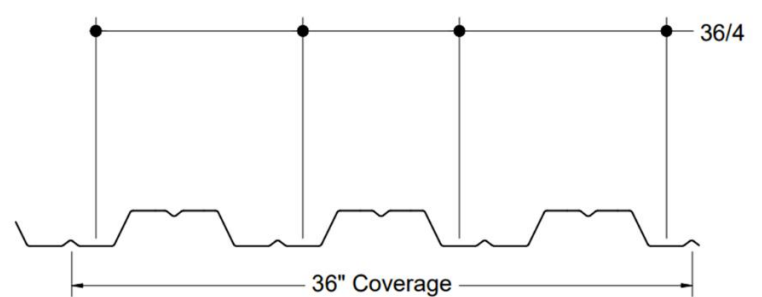
0.6 Form Deck (9/16" Form)



1.0 Form Deck (15/16" Form)



1.5 Form Deck (1 1/2" Form)
1.5C Inv. Deck (1 1/2" Composite Inverted)



2.0 Form Deck (2" Form)
2.0C Deck (2" Composite)

Diaphragm Design Example

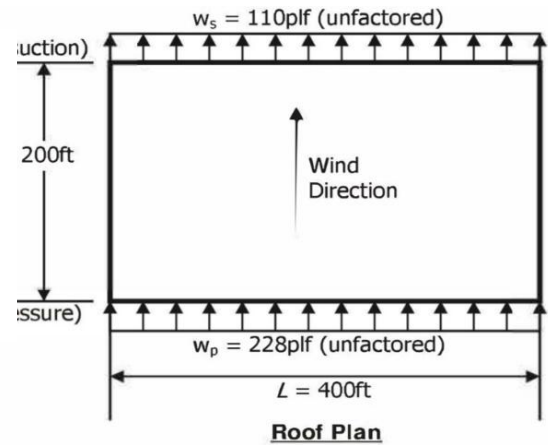
Joist Spacing = 6'-0"

Deck Type: 1.5B 22 Gauge
(Minimum 3-Span Condition)

Attachment Pattern: 36/9 with 5/8" Puddle Welds at Supports

Side Lap Fasteners: #10 Screws

Note: $w = w_p + w_s = 288 \text{ plf} + 110 \text{ plf} = 398 \text{ plf}$



LRFD

The loads given are to be factored, using a wind load factor of $\gamma_w = 1.6$, the required diaphragm shear delivered to the end walls is:

$$R_{\text{ultimate}} = \frac{\gamma_w w L}{2} = 127 \text{ kips}$$

Along the 200 ft. end wall, the average shear is:

$$S_U = \frac{R_{\text{ultimate}}}{b} = 635 \text{ plf}$$

From page 129, with 2 - #10 side lap screws per span, the design strength is:

$$\Phi S_n = 0.75 \times 1349 \text{ plf} = 1012 \text{ plf} > 635 \text{ plf OK}$$

The deflection at the center line of the diaphragm is:

$$\Delta_{CL} = \frac{5wL^4}{384EI} + \frac{wL^2}{8bG'}$$

Where G' is equal to:

$$\text{Bare decks with a triple span condition: } G' = \frac{K_2}{K_4 + \frac{0.3D_n}{l_v} + 3K_1l_v}$$

$$\text{Filled decks with a triple span condition: } G' = \frac{K_2}{K_4 + 3K_1l_v} + K_3$$

The first term accounts for the bending which is not applicable to most diaphragms because they are short, deep and shear sensitive. Therefore, in this example the deflection at the centerline will be taken as:

$$\Delta_{CL} = \frac{wL^2}{8bG'}$$

$$\Delta_{CL} = \frac{wL^2}{8bG'} = \frac{0.398 \times 400^2}{8 \times 200 \times 69.59} = 0.572 \text{ in}$$

ASD

The required diaphragm shear delivered to the end wall is:

$$R = \frac{wL}{2} = 79 \text{ kips}$$

Along the 200 ft. end wall, the average shear is:

$$S = \frac{R}{b} = 395 \text{ plf}$$

$$\frac{S_n}{\Omega} = \frac{1349 \text{ plf}}{2.15} = 627 \text{ plf} > 395 \text{ plf OK}$$

Deck Type: 1.5B

Deck Gage: 22 (t = 0.0295")
Support Fasteners: 5/8" Puddle Weld or Equivalent
Sidelap Fasteners: #10 Screws

	ΦLRFD	ΩASD
Fy: 50 ksi	Seismic: 0.55	Seismic: 3.00
Fu: 65 ksi	Wind: 0.75	Wind: 2.15
Fxx: 60 ksi	Other: 0.60	Other: 2.65

Nominal Shear Diaphragm Strength, PLF/ Span, Ft.

Type of Fill	Fastener Layout	Sidelap Conn. per Span	3	3.5	4	4.5	5	5.5	6	6.5	7	K ₁ ft. ⁻¹
No Fill (Bare Deck) K ₂ = 870 kip/in. K ₄ = 3.54	36/9 D _n = 95	0	2257	1986	1768	1566	1399	--	--	--	--	0.324
		1	2400	2119	1892	1700	1519	1372	1248	--	--	0.272
		2	2536	2247	2011	1817	1640	1481	1349	1237	1141	0.234
		3	2665	2370	2127	1925	1756	1591	1449	1330	1227	0.206
		4	2788	2488	2239	2031	1855	1700	1550	1422	1313	0.183
		5	2904	2601	2347	2133	1952	1797	1650	1515	1399	0.165
		6	3015	2710	2452	2233	2047	1886	1748	1608	1485	0.151
	36/7 D _n = 95	0	1444	1256	1092	965	863	--	--	--	--	0.486
		1	1610	1405	1243	1099	984	889	811	--	--	0.377
		2	1769	1549	1376	1233	1104	999	911	837	773	0.308
		3	1919	1688	1503	1352	1225	1109	1012	930	860	0.261
		4	2062	1821	1626	1467	1334	1218	1112	1023	946	0.226
		5	2198	1949	1745	1577	1437	1319	1213	1115	1032	0.199
		6	2325	2070	1860	1685	1538	1413	1306	1208	1118	0.178
	36/5 D _n = 608	0	1278	1124	1001	892	798	--	--	--	--	0.583
		1	1419	1256	1123	1014	918	830	756	--	--	0.433
		2	1549	1379	1239	1122	1024	940	857	787	727	0.345
		3	1667	1494	1348	1226	1122	1033	956	880	813	0.286
		4	1774	1600	1451	1324	1215	1121	1040	969	899	0.245
		5	1872	1698	1547	1417	1304	1206	1121	1046	980	0.214
		6	1960	1788	1637	1504	1389	1288	1199	1120	1051	0.190
	36/4 D _n = 865	0	979	861	765	674	601	--	--	--	--	0.729
		1	1116	990	888	803	722	651	593	--	--	0.509
		2	1237	1108	999	908	830	761	693	636	586	0.391
		3	1345	1214	1102	1006	924	853	791	728	673	0.318
		4	1439	1309	1196	1097	1011	936	871	813	759	0.267
		5	1521	1394	1281	1181	1093	1016	947	886	832	0.231
		6	1593	1470	1359	1259	1170	1090	1019	956	899	0.203

Nominal Shear Due To Panel Buckling (S_n), PLF/ Span, Ft.

Buckling:	ΦLRFD	ΩASD
	0.80	2.00

Type of Fill	Deck Profile	I in ⁴ /ft.	3	3.5	4	4.5	5	5.5	6	6.5	7
No Fill	B (WR)	0.179	6546	4810	3682	2909	2357	1948	1637	1394	1202

- Notes:**
1. Nominal shear and stiffness values are in compliance with the Steel Deck Institute's Deck Design Manual, DDM04 & AISI S100-16 (2020) w/S2-20.
 2. All nominal shear and stiffness values are based on a 3-span condition.
 3. An underline (###) denotes nominal shear values may be limited by shear buckling.
 4. The values shown as a dash (--); the conditions do not meet the Steel Deck Institute's side lap connection requirements.

Deck Type: 1.5B

Deck Gage: 20 (t = 0.0358")

Support Fasteners: 5/8" Puddle Weld or Equivalent

Sidelap Fasteners: #10 Screws

	ΦLRFD	ΩASD
Fy: 50 ksi	Seismic: 0.55	Seismic: 3.00
Fu: 65 ksi	Wind: 0.75	Wind: 2.15
Fxx: 60 ksi	Other: 0.60	Other: 2.65

Nominal Shear Diaphragm Strength, PLF/ Span, Ft.

Type of Fill	Fastener Layout	Sidelap Conn. per Span	3	3.5	4	4.5	5	5.5	7	7.5	8	K ₁ ft. ⁻¹
No Fill (Bare Deck) K ₂ = 1056 kip/in. K ₄ = 3.54	36/9	0	3080	2710	2413	2151	1923	--	--	--	--	0.358
		1	3271	2888	2578	2325	1960	1882	1714	--	--	0.300
		2	3453	3059	2738	2473	1947	2029	1849	1696	1566	0.258
		3	3626	3224	2893	2618	1933	2175	1983	1820	1681	0.227
		4	3791	3382	3043	2760	1919	2318	2117	1944	1796	0.202
		5	3948	3535	3188	2897	1904	2440	2252	2068	1911	0.182
		6	4096	3680	3329	3031	1888	2560	2371	2192	2026	0.166
	36/7	0	1971	1714	1497	1324	1185	--	--	--	--	0.537
		1	2193	1913	1694	1503	1346	1217	1110	--	--	0.417
		2	2405	2106	1870	1679	1507	1364	1245	1144	1057	0.340
		3	2607	2292	2041	1836	1668	1511	1379	1268	1173	0.288
		4	2799	2471	2206	1989	1829	1657	1513	1392	1288	0.249
		5	2981	2642	2365	2137	1945	1786	1648	1516	1403	0.220
		6	3152	2805	2519	2282	1929	1913	1767	1640	1518	0.197
	36/5	0	1744	1534	1366	1224	1095	--	--	--	--	0.644
		1	1933	1710	1529	1381	1257	1136	1036	--	--	0.479
		2	2107	1875	1684	1526	1418	1279	1170	1075	994	0.381
		3	2265	2029	1831	1664	1579	1402	1298	1199	1109	0.316
		4	2410	2172	1969	1796	1740	1520	1410	1313	1224	0.270
		5	2541	2304	2098	1921	1846	1634	1518	1417	1327	0.236
		6	2660	2425	2219	2039	1816	1744	1623	1517	1422	0.209
	36/4	0	1335	1176	1048	927	827	--	--	--	--	0.805
		1	1519	1348	1208	1092	988	893	813	--	--	0.562
		2	1682	1505	1357	1233	1150	1038	947	869	802	0.432
		3	1827	1648	1495	1365	1311	1156	1073	993	917	0.350
		4	1954	1776	1621	1487	1472	1269	1180	1102	1032	0.295
		5	2065	1891	1737	1601	1633	1375	1282	1200	1126	0.255
		6	2162	1994	1842	1705	1749	1475	1379	1293	1216	0.224

Nominal Shear Due To Panel Buckling (S_n), PLF/ Span, Ft.

Buckling:	ΦLRFD	ΩASD
	0.80	2.00

Type of Fill	Deck Profile	I in ⁴ /ft.	3	3.5	4	4.5	5	5.5	7	7.5	8
No Fill	B (WR)	0.219	8805	6469	4953	3913	3170	2620	2201	1876	1617

- Notes:**
1. Nominal shear and stiffness values are in compliance with the Steel Deck Institute's Deck Design Manual, DDM04 & AISI S100-16 (2020) w/S2-20.
 2. All nominal shear and stiffness values are based on a 3-span condition.
 3. An underline (###) denotes nominal shear values may be limited by shear buckling.
 4. The values shown as a dash (--); the conditions do not meet the Steel Deck Institute's side lap connection requirements.

Deck Type: 1.5B

Deck Gage: 18 (t = 0.0474")
 Support Fasteners: 5/8" Puddle Weld or Equivalent
 Sidelap Fasteners: #10 Screws

	ΦLRFD	ΩASD
Fy: 50 ksi	Seismic: 0.55	Seismic: 3.00
Fu: 65 ksi	Wind: 0.75	Wind: 2.15
Fxx: 60 ksi	Other: 0.60	Other: 2.65

Nominal Shear Diaphragm Strength, PLF/ Span, Ft.

Type of Fill	Fastener Layout	Sidelap Conn. per Span	3	3.5	4	4.5	5	5.5	7	7.5	8	K ₁ ft. ⁻¹
No Fill (Bare Deck) K ₂ = 1398 kip/in. K ₄ = 3.54	36/9	0	3998	3517	3133	2815	2518	--	--	--	--	0.412
		1	4288	3788	3383	3051	2542	2499	2278	--	--	0.345
		2	4562	4046	3625	3277	2521	2722	2483	2280	2107	0.297
		3	4820	4293	3858	3495	2500	2932	2687	2469	2282	0.261
		4	5064	4529	4082	3707	2477	3119	2886	2658	2458	0.233
		5	5292	4753	4297	3912	2454	3302	3059	2847	2633	0.210
		6	5507	4966	4504	4110	2430	3481	3229	3008	2808	0.191
	36/7	0	2558	2224	1955	1730	1549	--	--	--	--	0.618
		1	2895	2528	2239	2002	1795	1625	1483	--	--	0.479
		2	3215	2819	2505	2251	2040	1848	1688	1552	1436	0.392
		3	3516	3097	2761	2487	2286	2070	1892	1741	1611	0.331
		4	3799	3363	3008	2716	2531	2268	2093	1930	1787	0.287
		5	4063	3614	3245	2937	2507	2461	2274	2112	1962	0.253
		6	4310	3852	3471	3151	2481	2650	2452	2280	2129	0.226
	36/5	0	2264	1991	1773	1595	1433	--	--	--	--	0.741
		1	2550	2258	2021	1825	1679	1519	1386	--	--	0.551
		2	2808	2505	2254	2044	1924	1716	1587	1463	1353	0.438
		3	3041	2732	2471	2250	2170	1901	1761	1639	1529	0.364
		4	3248	2940	2673	2445	2408	2077	1928	1798	1684	0.311
		5	3434	3128	2860	2627	2363	2245	2089	1952	1830	0.271
		6	3599	3300	3033	2797	2317	2405	2243	2100	1972	0.241
	36/4	0	1733	1526	1360	1214	1085	--	--	--	--	0.926
		1	2010	1787	1603	1451	1331	1203	1096	--	--	0.647
		2	2251	2020	1826	1661	1576	1402	1298	1195	1105	0.497
		3	2460	2228	2028	1856	1822	1578	1466	1367	1280	0.403
		4	2638	2411	2210	2034	2067	1744	1624	1519	1425	0.339
		5	2791	2572	2374	2196	2278	1899	1774	1663	1564	0.293
		6	2922	2713	2520	2344	2214	2043	1914	1799	1696	0.258

Nominal Shear Due To Panel Buckling (S_n), PLF/ Span, Ft.

Buckling:	ΦLRFD	ΩASD
	0.80	2.00

Type of Fill	Deck Profile	I in ⁴ /ft.	3	3.5	4	4.5	5	5.5	7	7.5	8
No Fill	B (WR)	0.292	13485	9908	7585	5993	4855	4012	3371	2873	2477

- Notes:**
1. Nominal shear and stiffness values are in compliance with the Steel Deck Institute's Deck Design Manual, DDM04 & AISI S100-16 (2020) w/S2-20.
 2. All nominal shear and stiffness values are based on a 3-span condition.
 3. An underline (###) denotes nominal shear values may be limited by shear buckling.
 4. The values shown as a dash (--); the conditions do not meet the Steel Deck Institute's side lap connection requirements.

Deck Type: 1.5B

Deck Gage: 22 (t = 0.0295")
Support Fasteners #12 Screws
Sidelap Fasteners: #10 Screws

	ΦLRFD	ΩASD
Fy: 50 ksi	Seismic: 0.70	Seismic: 2.30
Fu: 65 ksi	Wind: 0.80	Wind: 2.00
Fxx: 60 ksi	Other: 0.65	Other: 2.50

Nominal Shear Diaphragm Strength, PLF/ Span, Ft.

Type of Fill	Fastener Layout	Sidelap Conn. per Span	3	3.5	4	4.5	5	5.5	6	6.5	7	K ₁ ft. ⁻¹
No Fill (Bare Deck) K ₂ = 870 kip/in. K ₄ = 3.54	36/9 D _n = 95	0	1142	1004	895	792	708	--	--	--	--	0.366
		1	1281	1135	1016	918	722	748	681	--	--	0.301
		2	1408	1256	1130	1025	711	858	782	717	662	0.255
		3	1521	1367	1237	1126	700	951	881	810	748	0.222
		4	1623	1469	1336	1222	688	1038	964	899	835	0.196
		5	1714	1562	1428	1311	675	1120	1043	974	<u>913</u>	0.176
		6	1796	1646	1513	1395	662	1199	1118	<u>1047</u>	<u>983</u>	0.159
	36/7 D _n = 95	0	731	635	553	488	437	--	--	--	--	0.549
		1	893	782	694	622	557	504	460	--	--	0.414
		2	1040	918	820	739	678	614	560	515	476	0.333
		3	1172	1043	937	849	715	712	658	608	563	0.278
		4	1289	1157	1045	951	702	803	744	692	647	0.239
		5	1392	1259	1145	1047	688	890	826	770	721	0.209
		6	1482	1351	1237	1136	673	972	905	846	793	0.186
	36/5 D _n = 608	0	647	569	506	451	404	--	--	--	--	0.659
		1	782	696	625	567	524	474	432	--	--	0.474
		2	895	807	732	667	645	565	524	488	453	0.370
		3	988	901	825	758	673	649	604	564	529	0.304
		4	1065	982	906	839	650	725	678	635	597	0.257
		5	1127	1049	976	910	626	795	746	702	662	0.223
		6	1178	1106	1037	972	602	858	808	763	721	0.197
	36/4 D _n = 865	0	495	436	387	341	304	--	--	--	--	0.823
		1	625	559	504	458	425	384	349	--	--	0.554
		2	726	660	603	553	545	472	439	410	382	0.417
		3	803	741	685	634	648	549	513	481	453	0.334
		4	863	806	752	703	616	617	580	546	516	0.279
		5	908	857	808	761	585	676	639	605	573	0.240
		6	943	898	853	809	554	728	691	657	625	0.210

Nominal Shear Due To Panel Buckling (S_n), PLF/ Span, Ft.

Buckling:	ΦLRFD	ΩASD
	0.80	2.00

Type of Fill	Deck Profile	I in ⁴ /ft.	3	3.5	4	4.5	5	5.5	6	6.5	7
No Fill	B (WR)	0.179	6546	4810	3682	2909	2357	1948	1637	1394	1202

- Notes:**
1. Nominal shear and stiffness values are in compliance with the Steel Deck Institute's Deck Design Manual, DDM04 & AISI S100-16 (2020) w/S2-20.
 2. All nominal shear and stiffness values are based on a 3-span condition.
 3. An underline (###) denotes nominal shear values may be limited by shear buckling.
 4. The values shown as a dash (--); the conditions do not meet the Steel Deck Institute's side lap connection requirements.

Deck Type: 1.5B

Deck Gage: 20 (t = 0.0358")
Support Fasteners #12 Screws
Sidelap Fasteners: #10 Screws

	ΦLRFD	ΩASD
Fy: 50 ksi	Seismic: 0.70	Seismic: 2.30
Fu: 65 ksi	Wind: 0.80	Wind: 2.00
Fxx: 60 ksi	Other: 0.65	Other: 2.50

Nominal Shear Diaphragm Strength, PLF/ Span, Ft.

Type of Fill	Fastener Layout	Sidelap Conn. per Span	3	3.5	4	4.5	5	5.5	6	6.5	7	K ₁ ft. ⁻¹
No Fill (Bare Deck) K ₂ = 1056 kip/in. K ₄ = 3.54	36/9 D _n = 95	0	1386	1219	1086	968	865	--	--	--	--	0.403
		1	1571	1393	1248	1128	875	927	845	--	--	0.331
		2	1738	1553	1399	1269	860	1067	980	900	831	0.281
		3	1886	1698	1539	1403	845	1187	1100	1024	946	0.244
		4	2017	1830	1668	1528	829	1301	1209	1128	1057	0.216
		5	2132	1949	1786	1644	811	1409	1313	1227	1152	0.193
		6	2234	2056	1895	1751	794	1511	1411	1322	<u>1243</u>	0.175
	36/7 D _n = 95	0	887	771	674	596	533	--	--	--	--	0.605
		1	1103	967	859	771	694	628	574	--	--	0.456
		2	1296	1146	1025	925	855	772	708	651	602	0.366
		3	1467	1309	1178	1069	863	898	830	772	718	0.306
		4	1617	1456	1319	1203	845	1018	944	879	822	0.263
		5	1746	1587	1447	1327	826	1131	1052	982	920	0.230
		6	1858	1702	1563	1441	806	1238	1154	1080	1014	0.205
	36/5 D _n = 608	0	785	690	615	551	493	--	--	--	--	0.726
		1	964	860	773	701	654	588	540	--	--	0.522
		2	1111	1004	912	833	815	707	656	612	573	0.408
		3	1230	1125	1033	951	808	816	761	712	668	0.334
		4	1325	1226	1136	1054	777	915	857	804	757	0.283
		5	1401	1309	1223	1144	745	1005	944	890	840	0.246
		6	1462	1378	1298	1221	714	1084	1024	968	917	0.217
	36/4 D _n = 865	0	601	529	471	417	372	--	--	--	--	0.907
		1	772	692	625	568	533	479	440	--	--	0.610
		2	902	823	753	692	695	593	552	516	484	0.459
		3	999	925	858	797	774	692	648	609	573	0.368
		4	1071	1005	942	883	732	779	734	693	655	0.307
		5	1125	1067	1009	954	691	854	809	767	728	0.264
		6	1166	1115	1063	1013	651	917	873	832	793	0.231

Nominal Shear Due To Panel Buckling (S_n), PLF/ Span, Ft.

Buckling:	ΦLRFD	ΩASD
	0.80	2.00

Type of Fill	Deck Profile	I in ⁴ /ft.	3	3.5	4	4.5	5	5.5	6	6.5	7
No Fill	B (WR)	0.219	8805	6469	4953	3913	3170	2620	2201	1876	1617

- Notes:**
1. Nominal shear and stiffness values are in compliance with the Steel Deck Institute's Deck Design Manual, DDM04 & AISI S100-16 (2020) w/S2-20.
 2. All nominal shear and stiffness values are based on a 3-span condition.
 3. An underline (###) denotes nominal shear values may be limited by shear buckling.
 4. The values shown as a dash (--); the conditions do not meet the Steel Deck Institute's side lap connection requirements.

Deck Type: 1.5B

Deck Gage: 18 (t = 0.0474")
Support Fasteners #12 Screws
Sidelap Fasteners: #10 Screws

	ΦLRFD	ΩASD
Fy: 50 ksi	Seismic: 0.70	Seismic: 2.30
Fu: 65 ksi	Wind: 0.80	Wind: 2.00
Fxx: 60 ksi	Other: 0.65	Other: 2.50

Nominal Shear Diaphragm Strength, PLF/ Span, Ft.

Type of Fill	Fastener Layout	Sidelap Conn. per Span	3	3.5	4	4.5	5	5.5	6	6.5	7	K ₁ ft. ⁻¹
No Fill (Bare Deck) K ₂ = 1398 kip/in. K ₄ = 3.54	36/9 D _n = 95	0	1835	1615	1438	1292	1156	--	--	--	--	0.464
		1	2116	1878	1683	1522	1156	1268	1156	--	--	0.381
		2	2362	2116	1909	1735	1133	1462	1353	1251	1157	0.324
		3	2578	2330	2116	1934	1109	1641	1523	1420	1329	0.281
		4	2765	2520	2305	2117	1084	1810	1684	1574	1476	0.248
		5	2927	2688	2475	2285	1057	1969	1837	1720	1616	0.223
		6	3067	2838	2628	2439	1030	2117	1982	1860	1751	0.202
	36/7 D _n = 95	0	1174	1021	897	794	711	--	--	--	--	0.696
		1	1501	1317	1171	1053	957	867	791	--	--	0.525
		2	1788	1585	1420	1283	1158	1073	991	917	849	0.422
		3	2036	1824	1647	1497	1132	1262	1168	1087	1016	0.352
		4	2247	2035	1851	1693	1104	1439	1337	1247	1167	0.303
		5	2426	2218	2034	1872	1073	1605	1495	1398	1312	0.265
		6	2577	2377	2196	2033	1042	1759	1644	1542	1450	0.236
	36/5 D _n = 608	0	1039	914	814	732	658	--	--	--	--	0.835
		1	1309	1169	1053	955	903	803	743	--	--	0.601
		2	1523	1381	1259	1153	1098	981	912	851	797	0.469
		3	1689	1554	1432	1323	1052	1142	1066	999	939	0.385
		4	1818	1693	1576	1469	1004	1285	1206	1135	1070	0.326
		5	1918	1804	1696	1593	956	1411	1331	1257	1190	0.283
		6	1996	1894	1794	1698	908	1521	1441	1368	1300	0.250
	36/4 D _n = 865	0	796	700	624	557	498	--	--	--	--	1.044
		1	1052	945	855	779	744	658	610	--	--	0.702
		2	1237	1134	1042	961	989	826	771	721	677	0.528
		3	1370	1276	1189	1109	1000	971	912	858	809	0.424
		4	1464	1382	1303	1228	936	1093	1033	978	927	0.354
		5	1532	1462	1392	1323	875	1195	1136	1081	1030	0.304
		6	1583	1522	1461	1399	817	1280	1224	1171	1120	0.266

Nominal Shear Due To Panel Buckling (S_n), PLF/ Span, Ft.

Buckling:	ΦLRFD	ΩASD
	0.80	2.00

Type of Fill	Deck Profile	I in ⁴ /ft.	3	3.5	4	4.5	5	5.5	6	6.5	7
No Fill	B (WR)	0.292	13485	9908	7585	5993	4855	4012	3371	2873	2477

- Notes:**
1. Nominal shear and stiffness values are in compliance with the Steel Deck Institute's Deck Design Manual, DDM04 & AISI S100-16 (2020) w/S2-20.
 2. All nominal shear and stiffness values are based on a 3-span condition.
 3. An underline (###) denotes nominal shear values may be limited by shear buckling.
 4. The values shown as a dash (--); the conditions do not meet the Steel Deck Institute's side lap connection requirements.

Deck Type: 0.6 Form

Deck Gage: 28 (t = 0.0149")
Support Fasteners 16 ga. Weld Washer
Sidelap Fasteners: #10 Screws

	Bare Deck Diaphragm		Filled Diaphragm	
	ΦLRFD	ΩASD	ΦLRFD	ΩASD
Fy: 60 ksi	Seismic: 0.55	Seismic: 3.00	Seismic: 0.50	Seismic: 3.25
Fu: 62 ksi	Wind: 0.75	Wind: 2.15	Wind: 0.50	Wind: 3.25
Fxx: 60 ksi	Other: 0.60	Other: 2.65	Other: 0.50	Other: 3.25

Nominal Shear Diaphragm Strength, PLF/ Span, Ft.

Type of Fill	Fastener Layout	Sidelap Conn. per Span	1.5	2	2.5	3	3.5	4	4.5	5	5.5	K ₁ ft. ⁻¹
No Fill (Bare Deck) K ₂ = 440 kip/in. K ₄ = 3.09	30/7 D _n = 88	0	1355	<u>1077</u>	<u>887</u>	<u>752</u>	<u>651</u>	<u>572</u>	<u>507</u>	<u>455</u>	--	0.413
		1	1442	<u>1155</u>	<u>956</u>	<u>812</u>	<u>704</u>	<u>621</u>	<u>553</u>	<u>496</u>	<u>450</u>	0.321
		2	1523	<u>1230</u>	<u>1022</u>	<u>871</u>	<u>757</u>	<u>668</u>	<u>598</u>	<u>537</u>	<u>487</u>	0.263
		3	1598	<u>1301</u>	<u>1087</u>	<u>929</u>	<u>809</u>	<u>715</u>	<u>640</u>	<u>578</u>	<u>524</u>	0.222
		4	1668	<u>1369</u>	<u>1149</u>	<u>985</u>	<u>859</u>	<u>761</u>	<u>682</u>	<u>617</u>	<u>562</u>	0.192
	30/5 D _n = 187	0	1033	<u>837</u>	<u>697</u>	<u>594</u>	<u>517</u>	<u>457</u>	<u>405</u>	<u>363</u>	--	0.551
		1	1082	<u>884</u>	<u>739</u>	<u>632</u>	<u>551</u>	<u>487</u>	<u>435</u>	<u>390</u>	<u>354</u>	0.398
		2	1128	<u>928</u>	<u>780</u>	<u>670</u>	<u>585</u>	<u>518</u>	<u>464</u>	<u>418</u>	<u>379</u>	0.312
		3	1170	<u>970</u>	<u>820</u>	<u>706</u>	<u>618</u>	<u>548</u>	<u>492</u>	<u>445</u>	<u>404</u>	0.257
		4	1209	<u>1011</u>	<u>858</u>	<u>741</u>	<u>650</u>	<u>577</u>	<u>519</u>	<u>471</u>	<u>429</u>	0.218
	30/4 D _n = 322	0	863	<u>713</u>	<u>601</u>	<u>517</u>	<u>452</u>	<u>400</u>	<u>358</u>	<u>321</u>	--	0.620
		1	921	<u>773</u>	<u>658</u>	<u>569</u>	<u>500</u>	<u>445</u>	<u>400</u>	<u>362</u>	<u>328</u>	0.433
		2	972	<u>828</u>	<u>711</u>	<u>619</u>	<u>546</u>	<u>487</u>	<u>439</u>	<u>399</u>	<u>365</u>	0.333
		3	1015	<u>876</u>	<u>760</u>	<u>666</u>	<u>590</u>	<u>528</u>	<u>477</u>	<u>435</u>	<u>399</u>	0.271
		4	1053	<u>920</u>	<u>805</u>	<u>710</u>	<u>632</u>	<u>568</u>	<u>514</u>	<u>469</u>	<u>431</u>	0.228
2 1/2" 145 pcf Above Deck	30/4 K ₃ = 2377 kip/in.	0	6017	<u>5738</u>	<u>5570</u>	<u>5459</u>	<u>5379</u>	<u>5319</u>	<u>5272</u>	<u>5235</u>	--	0.620
		1	6155	<u>5841</u>	<u>5653</u>	<u>5527</u>	<u>5438</u>	<u>5371</u>	<u>5318</u>	<u>5276</u>	<u>5242</u>	0.433
		2	6292	<u>5944</u>	<u>5735</u>	<u>5596</u>	<u>5497</u>	<u>5422</u>	<u>5364</u>	<u>5318</u>	<u>5280</u>	0.333
		3	6429	<u>6047</u>	<u>5818</u>	<u>5665</u>	<u>5555</u>	<u>5474</u>	<u>5410</u>	<u>5359</u>	<u>5317</u>	0.271
		4	6567	<u>6150</u>	<u>5900</u>	<u>5733</u>	<u>5614</u>	<u>5525</u>	<u>5456</u>	<u>5400</u>	<u>5355</u>	0.228
2 1/2" 110 pcf Above Deck	30/4 K ₃ = 2377 kip/in.	0	4357	<u>4078</u>	<u>3910</u>	<u>3799</u>	<u>3719</u>	<u>3659</u>	<u>3612</u>	<u>3575</u>	--	0.620
		1	4495	<u>4181</u>	<u>3993</u>	<u>3867</u>	<u>3778</u>	<u>3711</u>	<u>3658</u>	<u>3616</u>	<u>3582</u>	0.433
		2	4632	<u>4284</u>	<u>4075</u>	<u>3936</u>	<u>3837</u>	<u>3762</u>	<u>3704</u>	<u>3658</u>	<u>3620</u>	0.333
		3	4769	<u>4387</u>	<u>4158</u>	<u>4005</u>	<u>3895</u>	<u>3814</u>	<u>3750</u>	<u>3699</u>	<u>3657</u>	0.271
		4	4907	<u>4490</u>	<u>4240</u>	<u>4073</u>	<u>3954</u>	<u>3865</u>	<u>3796</u>	<u>3740</u>	<u>3695</u>	0.228
Type I Insulating Fill	30/4 K ₃ = 257 kip/in.	0	1564	<u>1285</u>	<u>1117</u>	<u>1006</u>	<u>926</u>	<u>866</u>	<u>819</u>	<u>782</u>	--	0.620
		1	1702	<u>1388</u>	<u>1200</u>	<u>1074</u>	<u>985</u>	<u>918</u>	<u>865</u>	<u>823</u>	<u>789</u>	0.433
		2	1839	<u>1491</u>	<u>1282</u>	<u>1143</u>	<u>1044</u>	<u>969</u>	<u>911</u>	<u>865</u>	<u>827</u>	0.333
		3	1976	<u>1594</u>	<u>1365</u>	<u>1212</u>	<u>1102</u>	<u>1021</u>	<u>957</u>	<u>906</u>	<u>864</u>	0.271
		4	2114	<u>1697</u>	<u>1447</u>	<u>1280</u>	<u>1161</u>	<u>1072</u>	<u>1003</u>	<u>947</u>	<u>902</u>	0.228
Type II Insulating Fill	30/4 K ₃ = 257 kip/in.	0	1833	<u>1554</u>	<u>1386</u>	<u>1275</u>	<u>1195</u>	<u>1135</u>	<u>1088</u>	<u>1051</u>	--	0.620
		1	1971	<u>1657</u>	<u>1469</u>	<u>1343</u>	<u>1254</u>	<u>1187</u>	<u>1134</u>	<u>1092</u>	<u>1058</u>	0.433
		2	2108	<u>1760</u>	<u>1551</u>	<u>1412</u>	<u>1313</u>	<u>1238</u>	<u>1180</u>	<u>1134</u>	<u>1096</u>	0.333
		3	2245	<u>1863</u>	<u>1634</u>	<u>1481</u>	<u>1371</u>	<u>1290</u>	<u>1226</u>	<u>1175</u>	<u>1133</u>	0.271
		4	2383	<u>1966</u>	<u>1716</u>	<u>1549</u>	<u>1430</u>	<u>1341</u>	<u>1272</u>	<u>1216</u>	<u>1171</u>	0.228

Nominal Shear Due To Panel Buckling (S_n), PLF/ Span, Ft.

Buckling:	Φ LRFD	Ω ASD
	0.80	2.00

Type of Fill	Deck Profile	I in ⁴ /ft.	1.5	2	2.5	3	3.5	4	4.5	5	5.5
No Fill	0.6 Form	0.011	2004	1127	721	501	368	282	223	180	149

- Notes:**
1. Nominal shear and stiffness values are in compliance with the Steel Deck Institute's Deck Design Manual, DDM04 & AISI S100-16 (2020) w/S2-20.
 2. All nominal shear and stiffness values are based on a 3-span condition.
 3. An underline (###) denotes nominal shear values may be limited by shear buckling.
 4. The values shown as a dash (--); the conditions do not meet the Steel Deck Institute's side lap connection requirements.

Deck Type: 0.6 Form

Deck Gage: 26 (t = 0.0179")

Support Fasteners 16 ga. Weld Washer

Sidelap Fasteners: #10 Screws

	Bare Deck Diaphragm		Filled Diaphragm	
	ΦLRFD	ΩASD	ΦLRFD	ΩASD
Fy: 60 ksi	Seismic: 0.55	Seismic: 3.00	Seismic: 0.50	Seismic: 3.25
Fu: 62 ksi	Wind: 0.75	Wind: 2.15	Wind: 0.50	Wind: 3.25
Fxx: 60 ksi	Other: 0.60	Other: 2.65	Other: 0.50	Other: 3.25

Nominal Shear Diaphragm Strength, PLF/ Span, Ft.

Type of Fill	Fastener Layout	Sidelap Conn. per Span	1.5	2	2.5	3	3.5	4	4.5	5	5.5	K ₁ ft. ⁻¹
No Fill (Bare Deck) K ₂ = 528 kip/in. K ₄ = 3.09	30/7 D _n = 67	0	1743	1385	<u>1141</u>	<u>966</u>	<u>837</u>	<u>737</u>	<u>654</u>	<u>586</u>	--	0.454
		1	1857	<u>1488</u>	<u>1231</u>	<u>1046</u>	<u>908</u>	<u>800</u>	<u>714</u>	<u>641</u>	<u>581</u>	0.353
		2	1963	<u>1586</u>	<u>1319</u>	<u>1124</u>	<u>977</u>	<u>863</u>	<u>772</u>	<u>695</u>	<u>631</u>	0.288
		3	2062	<u>1680</u>	<u>1404</u>	<u>1200</u>	<u>1045</u>	<u>924</u>	<u>828</u>	<u>749</u>	<u>680</u>	0.244
		4	2154	<u>1770</u>	<u>1486</u>	<u>1274</u>	<u>1112</u>	<u>985</u>	<u>883</u>	<u>799</u>	<u>729</u>	0.211
	30/5 D _n = 142	0	1328	1076	896	<u>764</u>	<u>665</u>	<u>587</u>	<u>522</u>	<u>468</u>	--	0.605
		1	1393	1138	<u>952</u>	<u>814</u>	<u>710</u>	<u>628</u>	<u>562</u>	<u>505</u>	<u>457</u>	0.438
		2	1453	1196	<u>1006</u>	<u>863</u>	<u>754</u>	<u>668</u>	<u>599</u>	<u>541</u>	<u>490</u>	0.343
		3	1508	1252	<u>1058</u>	<u>911</u>	<u>797</u>	<u>708</u>	<u>635</u>	<u>576</u>	<u>523</u>	0.282
		4	1560	1305	<u>1109</u>	<u>958</u>	<u>840</u>	<u>746</u>	<u>671</u>	<u>609</u>	<u>556</u>	0.239
	30/4 D _n = 245	0	1109	917	773	<u>664</u>	<u>581</u>	<u>515</u>	<u>462</u>	<u>414</u>	--	0.681
		1	1187	996	849	<u>734</u>	<u>645</u>	<u>573</u>	<u>515</u>	<u>468</u>	<u>424</u>	0.476
		2	1253	1068	918	<u>800</u>	<u>705</u>	<u>629</u>	<u>567</u>	<u>516</u>	<u>472</u>	0.366
		3	1310	1131	<u>982</u>	<u>861</u>	<u>763</u>	<u>684</u>	<u>618</u>	<u>563</u>	<u>516</u>	0.297
		4	1358	1188	<u>1041</u>	<u>919</u>	<u>818</u>	<u>735</u>	<u>666</u>	<u>608</u>	<u>559</u>	0.250
2 1/2" 145 pcf Above Deck	30/4 K ₃ = 2377 kip/in.	0	6337	5978	5762	5618	5516	5439	5379	5331	--	0.681
		1	6518	6114	5871	5709	5594	5507	5439	5385	5341	0.476
		2	6700	6250	5980	5800	5671	5575	5500	5440	5391	0.366
		3	6881	6386	6089	5890	5749	5643	5560	5494	5440	0.297
		4	7062	6522	6197	5981	5827	5711	5621	5549	5490	0.250
2 1/2" 110 pcf Above Deck	30/4 K ₃ = 2377 kip/in.	0	4677	4318	4102	3958	3856	3779	3719	3671	--	0.681
		1	4858	4454	4211	4049	3934	3847	3779	3725	3681	0.476
		2	5040	4590	4320	4140	4011	3915	3840	3780	3731	0.366
		3	5221	4726	4429	4230	4089	3983	3900	3834	3780	0.297
		4	5402	4862	4537	4321	4167	4051	3961	3889	3830	0.250
Type I Insulating Fill	30/4 K ₃ = 257 kip/in.	0	1884	1525	1309	1165	1063	986	926	878	--	0.681
		1	2065	1661	1418	1256	1141	1054	986	932	888	0.476
		2	2247	1797	1527	1347	1218	1122	1047	987	938	0.366
		3	2428	1933	1636	1437	1296	1190	1107	1041	987	0.297
		4	2609	2069	1744	1528	1374	1258	1168	1096	1037	0.250
Type II Insulating Fill	30/4 K ₃ = 257 kip/in.	0	2153	1794	1578	1434	1332	1255	1195	1147	--	0.681
		1	2334	1930	1687	1525	1410	1323	1255	1201	1157	0.476
		2	2516	2066	1796	1616	1487	1391	1316	1256	1207	0.366
		3	2697	2202	1905	1706	1565	1459	1376	1310	1256	0.297
		4	2878	2338	2013	1797	1643	1527	1437	1365	1306	0.250

Nominal Shear Due To Panel Buckling (S_n), PLF/ Span, Ft.

Buckling:	Φ LRFD	Ω ASD
	0.80	2.00

Type of Fill	Deck Profile	I in ⁴ /ft.	1.5	2	2.5	3	3.5	4	4.5	5	5.5
No Fill	0.6 Form	0.013	2606	1466	938	652	479	367	290	235	194

- Notes:**
1. Nominal shear and stiffness values are in compliance with the Steel Deck Institute's Deck Design Manual, DDM04 & AISI S100-16 (2020) w/S2-20.
 2. All nominal shear and stiffness values are based on a 3-span condition.
 3. An underline (###) denotes nominal shear values may be limited by shear buckling.
 4. The values shown as a dash (--); the conditions do not meet the Steel Deck Institute's side lap connection requirements.

Deck Type: 0.6 Form

Deck Gage: 24 (t = 0.0239")

Support Fasteners 16 ga. Weld Washer

Sidelap Fasteners: #10 Screws

	Bare Deck Diaphragm		Filled Diaphragm	
	ΦLRFD	ΩASD	ΦLRFD	ΩASD
Fy: 60 ksi	Seismic: 0.55	Seismic: 3.00	Seismic: 0.50	Seismic: 3.25
Fu: 62 ksi	Wind: 0.75	Wind: 2.15	Wind: 0.50	Wind: 3.25
Fxx: 60 ksi	Other: 0.60	Other: 2.65	Other: 0.50	Other: 3.25

Nominal Shear Diaphragm Strength, PLF/ Span, Ft.

Type of Fill	Fastener Layout	Sidelap Conn. per Span	1.5	2	2.5	3	3.5	4	4.5	5	5.5	K ₁ ft. ⁻¹
No Fill (Bare Deck) K ₂ = 705 kip/in. K ₄ = 3.09	30/7 D _n = 43	0	1801	1431	1179	999	865	762	678	608	--	0.522
		1	1973	1588	1317	1120	973	859	768	692	628	0.406
		2	2129	1734	1449	1238	1078	954	854	773	704	0.332
		3	2268	1870	1574	1352	1181	1047	939	850	777	0.281
		4	2392	1996	1693	1461	1280	1137	1022	927	847	0.243
	30/5 D _n = 92	0	1373	1112	926	789	687	607	542	486	--	0.696
		1	1470	1206	1011	866	756	669	600	542	491	0.504
		2	1557	1293	1092	941	823	730	656	594	542	0.395
		3	1635	1373	1169	1012	888	790	710	645	590	0.324
		4	1705	1447	1242	1080	951	848	764	694	636	0.275
	30/4 D _n = 159	0	1146	947	799	686	600	532	477	430	--	0.783
		1	1261	1067	913	792	697	621	559	508	465	0.548
		2	1352	1168	1014	889	788	705	637	580	532	0.421
		3	1424	1253	1103	976	871	784	711	650	598	0.342
		4	1482	1324	1180	1055	948	858	782	716	660	0.288
2 1/2" 145 pcf Above Deck	30/4 K ₃ = 2377 kip/in.	0	6384	6013	5791	5642	5536	5457	5395	5345	--	0.783
		1	6664	6223	5958	5782	5656	5561	5488	5429	5381	0.548
		2	6943	6432	6126	5922	5776	5666	5581	5513	5457	0.421
		3	7222	6642	6293	6061	5895	5771	5674	5597	5533	0.342
		4	7502	6851	6461	6201	6015	5876	5767	5681	5610	0.288
2 1/2" 110 pcf Above Deck	30/4 K ₃ = 2377 kip/in.	0	4724	4353	4131	3982	3876	3797	3735	3685	--	0.783
		1	5004	4563	4298	4122	3996	3901	3828	3769	3721	0.548
		2	5283	4772	4466	4262	4116	4006	3921	3853	3797	0.421
		3	5562	4982	4633	4401	4235	4111	4014	3937	3873	0.342
		4	5842	5191	4801	4541	4355	4216	4107	4021	3950	0.288
Type I Insulating Fill	30/4 K ₃ = 257 kip/in.	0	1931	1560	1338	1189	1083	1004	942	892	--	0.783
		1	2211	1770	1505	1329	1203	1108	1035	976	928	0.548
		2	2490	1979	1673	1469	1323	1213	1128	1060	1004	0.421
		3	2769	2189	1840	1608	1442	1318	1221	1144	1080	0.342
		4	3049	2398	2008	1748	1562	1423	1314	1228	1157	0.288
Type II Insulating Fill	30/4 K ₃ = 257 kip/in.	0	2200	1829	1607	1458	1352	1273	1211	1161	--	0.783
		1	2480	2039	1774	1598	1472	1377	1304	1245	1197	0.548
		2	2759	2248	1942	1738	1592	1482	1397	1329	1273	0.421
		3	3038	2458	2109	1877	1711	1587	1490	1413	1349	0.342
		4	3318	2667	2277	2017	1831	1692	1583	1497	1426	0.288

Nominal Shear Due To Panel Buckling (S_n), PLF/ Span, Ft.

Buckling:	Φ LRFD	Ω ASD
	0.80	2.00

Type of Fill	Deck Profile	I in ⁴ /ft.	1.5	2	2.5	3	3.5	4	4.5	5	5.5
No Fill	0.6 Form	0.018	4132	2324	1488	1033	759	581	459	372	307

- Notes:**
1. Nominal shear and stiffness values are in compliance with the Steel Deck Institute's Deck Design Manual, DDM04 & AISI S100-16 (2020) w/S2-20.
 2. All nominal shear and stiffness values are based on a 3-span condition.
 3. An underline (###) denotes nominal shear values may be limited by shear buckling.
 4. The values shown as a dash (--); the conditions do not meet the Steel Deck Institute's side lap connection requirements.

Deck Type: 0.6 Form

Deck Gage: 22 (t = 0.0295")

Support Fasteners: 5/8" Puddle Weld or Equiv.

Sidelap Fasteners: #10 Screws

	Bare Deck Diaphragm		Filled Diaphragm	
	ΦLRFD	ΩASD	ΦLRFD	ΩASD
Fy: 60 ksi	Seismic: 0.55	Seismic: 3.00	Seismic: 0.50	Seismic: 3.25
Fu: 62 ksi	Wind: 0.75	Wind: 2.15	Wind: 0.50	Wind: 3.25
Fxx: 60 ksi	Other: 0.60	Other: 2.65	Other: 0.50	Other: 3.25

Nominal Shear Diaphragm Strength, PLF/ Span, Ft.

Type of Fill	Fastener Layout	Sidelap Conn. per Span	1.5	2	2.5	3	3.5	4	4.5	5	5.5	K ₁ ft. ⁻¹
No Fill (Bare Deck) K ₂ = 870 kip/in. K ₄ = 3.09	30/7 D _n = 32	0	2648	2104	1733	<u>1468</u>	<u>1271</u>	<u>1120</u>	<u>998</u>	<u>897</u>	--	0.583
		1	2886	2320	1923	<u>1636</u>	<u>1420</u>	<u>1253</u>	<u>1121</u>	<u>1012</u>	<u>918</u>	0.453
		2	3101	2522	<u>2105</u>	<u>1798</u>	<u>1565</u>	<u>1384</u>	<u>1239</u>	<u>1121</u>	<u>1022</u>	0.370
		3	3295	2711	<u>2279</u>	<u>1955</u>	<u>1707</u>	<u>1512</u>	<u>1355</u>	<u>1227</u>	<u>1121</u>	0.313
		4	3470	2887	<u>2444</u>	<u>2106</u>	<u>1844</u>	<u>1637</u>	<u>1470</u>	<u>1333</u>	<u>1218</u>	0.271
	30/5 D _n = 67	0	2018	1635	1361	1161	<u>1009</u>	<u>892</u>	<u>798</u>	<u>717</u>	--	0.777
		1	2153	1764	1479	1267	<u>1105</u>	<u>978</u>	<u>876</u>	<u>793</u>	<u>720</u>	0.562
		2	2274	1884	1591	<u>1369</u>	<u>1197</u>	<u>1062</u>	<u>953</u>	<u>864</u>	<u>789</u>	0.440
		3	2383	1996	1697	<u>1467</u>	<u>1287</u>	<u>1144</u>	<u>1028</u>	<u>933</u>	<u>853</u>	0.361
		4	2480	2100	1798	<u>1561</u>	<u>1374</u>	<u>1224</u>	<u>1102</u>	<u>1001</u>	<u>917</u>	0.307
	30/4 D _n = 116	0	1685	1393	1174	1009	882	<u>782</u>	<u>702</u>	<u>635</u>	--	0.875
		1	1844	1558	1332	1155	<u>1016</u>	<u>905</u>	<u>814</u>	<u>739</u>	<u>677</u>	0.611
		2	1972	1699	1472	1289	<u>1141</u>	<u>1021</u>	<u>922</u>	<u>839</u>	<u>770</u>	0.469
		3	2075	1819	1597	<u>1411</u>	<u>1258</u>	<u>1131</u>	<u>1025</u>	<u>936</u>	<u>860</u>	0.381
		4	2159	1921	1707	<u>1522</u>	<u>1365</u>	<u>1234</u>	<u>1122</u>	<u>1028</u>	<u>947</u>	0.321
2 1/2" 145 pcf Above Deck	30/4 K ₃ = 2377 kip/in.	0	7083	6537	6210	5991	5835	5719	5628	5555	--	0.875
		1	7466	6825	6440	6183	6000	5862	5755	5670	5600	0.611
		2	7849	7112	6670	6375	6164	6006	5883	5785	5704	0.469
		3	8233	7400	6900	6566	6328	6150	6011	5900	5809	0.381
		4	8616	7687	7130	6758	6493	6294	6139	6015	5913	0.321
2 1/2" 110 pcf Above Deck	30/4 K ₃ = 2377 kip/in.	0	5423	4877	4550	4331	4175	4059	3968	3895	--	0.875
		1	5806	5165	4780	4523	4340	4202	4095	4010	3940	0.611
		2	6189	5452	5010	4715	4504	4346	4223	4125	4044	0.469
		3	6573	5740	5240	4906	4668	4490	4351	4240	4149	0.381
		4	6956	6027	5470	5098	4833	4634	4479	4355	4253	0.321
Type I Insulating Fill	30/4 K ₃ = 257 kip/in.	0	2630	2084	1757	1538	1382	1266	1175	1102	--	0.875
		1	3013	2372	1987	1730	1547	1409	1302	1217	1147	0.611
		2	3396	2659	2217	1922	1711	1553	1430	1332	1251	0.469
		3	3780	2947	2447	2113	1875	1697	1558	1447	1356	0.381
		4	4163	3234	2677	2305	2040	1841	1686	1562	1460	0.321
Type II Insulating Fill	30/4 K ₃ = 257 kip/in.	0	2899	2353	2026	1807	1651	1535	1444	1371	--	0.875
		1	3282	2641	2256	1999	1816	1678	1571	1486	1416	0.611
		2	3665	2928	2486	2191	1980	1822	1699	1601	1520	0.469
		3	4049	3216	2716	2382	2144	1966	1827	1716	1625	0.381
		4	4432	3503	2946	2574	2309	2110	1955	1831	1729	0.321

Nominal Shear Due To Panel Buckling (S_n), PLF/ Span, Ft.

Buckling:	Φ LRFD	Ω ASD
	0.80	2.00

Type of Fill	Deck Profile	I in ⁴ /ft.	1.5	2	2.5	3	3.5	4	4.5	5	5.5
No Fill	0.6 Form	0.021	5432	3055	1955	1358	998	764	604	489	404

- Notes:**
1. Nominal shear and stiffness values are in compliance with the Steel Deck Institute's Deck Design Manual, DDM04 & AISI S100-16 (2020) w/S2-20.
 2. All nominal shear and stiffness values are based on a 3-span condition.
 3. An underline (###) denotes nominal shear values may be limited by shear buckling.
 4. The values shown as a dash (--); the conditions do not meet the Steel Deck Institute's side lap connection requirements.

Deck Type: 0.6 Form

Deck Gage: 28 (t = 0.0149")
 Support Fasteners: #12 Screws
 Sidelap Fasteners: #10 Screws

	Bare Deck Diaphragm		Filled Diaphragm	
	ΦLRFD	ΩASD	ΦLRFD	ΩASD
Fy: 60 ksi	Seismic: 0.70	Seismic: 2.30	Seismic: 0.50	Seismic: 3.25
Fu: 62 ksi	Wind: 0.80	Wind: 2.00	Wind: 0.50	Wind: 3.25
Fxx: 60 ksi	Other: 0.65	Other: 2.50	Other: 0.50	Other: 3.25

Nominal Shear Diaphragm Strength, PLF/ Span, Ft.

Type of Fill	Fastener Layout	Sidelap Conn. per Span	1.5	2	2.5	3	3.5	4	4.5	5	5.5	K ₁ ft. ⁻¹
No Fill (Bare Deck) K ₂ = 440 kip/in. K ₄ = 3.09	30/7 D _n = 88	0	646	513	423	358	310	<u>273</u>	<u>242</u>	<u>217</u>	--	0.468
		1	729	589	490	418	<u>363</u>	<u>321</u>	<u>287</u>	<u>258</u>	<u>234</u>	0.353
		2	801	658	553	<u>474</u>	<u>414</u>	<u>367</u>	<u>329</u>	<u>298</u>	<u>271</u>	0.284
		3	863	721	612	<u>528</u>	<u>463</u>	<u>411</u>	<u>370</u>	<u>335</u>	<u>307</u>	0.237
		4	915	777	666	<u>579</u>	<u>510</u>	<u>455</u>	<u>409</u>	<u>372</u>	<u>341</u>	0.204
	30/5 D _n = 187	0	492	399	332	283	246	218	193	<u>173</u>	--	0.624
		1	539	444	374	321	280	248	<u>223</u>	<u>200</u>	<u>182</u>	0.435
		2	580	485	412	356	313	<u>278</u>	<u>250</u>	<u>227</u>	<u>207</u>	0.334
		3	614	522	448	390	<u>344</u>	<u>306</u>	<u>276</u>	<u>251</u>	<u>230</u>	0.271
		4	643	555	481	421	<u>373</u>	<u>334</u>	<u>302</u>	<u>275</u>	<u>252</u>	0.228
	30/4 D _n = 322	0	411	340	286	246	215	191	171	153	--	0.702
		1	465	397	341	297	262	234	<u>211</u>	<u>192</u>	<u>176</u>	0.472
		2	505	442	388	342	305	<u>274</u>	<u>248</u>	<u>227</u>	<u>208</u>	0.356
		3	534	478	426	381	<u>343</u>	<u>311</u>	<u>283</u>	<u>260</u>	<u>239</u>	0.285
		4	555	506	458	415	<u>377</u>	<u>344</u>	<u>315</u>	<u>290</u>	<u>268</u>	0.238
2 1/2" 145 pcf Above Deck	30/4 K ₃ = 2377 kip/in.	0	5432	5299	5219	5166	5128	5100	5077	5060	--	0.702
		1	5570	5402	5302	5235	5187	5151	5123	5101	5083	0.472
		2	5707	5505	5384	5304	5246	5203	5169	5142	5120	0.356
		3	5844	5608	5467	5372	5305	5254	5215	5183	5158	0.285
		4	5982	5711	5549	5441	5364	5306	5261	5225	5195	0.238
2 1/2" 110 pcf Above Deck	30/4 K ₃ = 2377 kip/in.	0	3772	3639	3559	3506	3468	3440	3417	3400	--	0.702
		1	3910	3742	3642	3575	3527	3491	3463	3441	3423	0.472
		2	4047	3845	3724	3644	3586	3543	3509	3482	3460	0.356
		3	4184	3948	3807	3712	3645	3594	3555	3523	3498	0.285
		4	4322	4051	3889	3781	3704	3646	3601	3565	3535	0.238
Type I Insulating Fill	30/4 K ₃ = 257 kip/in.	0	979	846	766	713	675	647	624	607	--	0.702
		1	1117	949	849	782	734	698	670	648	630	0.472
		2	1254	1052	931	851	793	750	716	689	667	0.356
		3	1391	1155	1014	919	852	801	762	730	705	0.285
		4	1529	1258	1096	988	911	853	808	772	742	0.238
Type II Insulating Fill	30/4 K ₃ = 257 kip/in.	0	1248	1115	1035	982	944	916	893	876	--	0.702
		1	1386	1218	1118	1051	1003	967	939	917	899	0.472
		2	1523	1321	1200	1120	1062	1019	985	958	936	0.356
		3	1660	1424	1283	1188	1121	1070	1031	999	974	0.285
		4	1798	1527	1365	1257	1180	1122	1077	1041	1011	0.238

Nominal Shear Due To Panel Buckling (S_n), PLF/ Span, Ft.

Buckling:	Φ LRFD	Ω ASD
	0.80	2.00

Type of Fill	Deck Profile	I in ⁴ /ft.	1.5	2	2.5	3	3.5	4	4.5	5	5.5
No Fill	0.6 Form	0.011	2004	1127	721	501	368	282	223	180	149

- Notes:**
1. Nominal shear and stiffness values are in compliance with the Steel Deck Institute's Deck Design Manual, DDM04 & AISI S100-16 (2020) w/S2-20.
 2. All nominal shear and stiffness values are based on a 3-span condition.
 3. An underline (###) denotes nominal shear values may be limited by shear buckling.
 4. The values shown as a dash (--); the conditions do not meet the Steel Deck Institute's side lap connection requirements.

Deck Type: 0.6 Form

Deck Gage: 26 (t = 0.0179")
 Support Fasteners: #12 Screws
 Sidelap Fasteners: #10 Screws

	Bare Deck Diaphragm		Filled Diaphragm	
	Φ LRFD	Ω ASD	Φ LRFD	Ω ASD
Fy: 60 ksi	Seismic: 0.70	Seismic: 2.30	Seismic: 0.50	Seismic: 3.25
Fu: 62 ksi	Wind: 0.80	Wind: 2.00	Wind: 0.50	Wind: 3.25
Fxx: 60 ksi	Other: 0.65	Other: 2.50	Other: 0.50	Other: 3.25

Nominal Shear Diaphragm Strength, PLF/ Span, Ft.

Type of Fill	Fastener Layout	Sidelap Conn. per Span	1.5	2	2.5	3	3.5	4	4.5	5	5.5	K ₁ ft. ⁻¹
No Fill (Bare Deck) K ₂ = 528 kip/in. K ₄ = 3.09	30/7 D _n = 67	0	775	616	507	430	372	328	<u>291</u>	<u>261</u>	--	0.513
		1	884	716	596	508	442	<u>391</u>	<u>349</u>	<u>315</u>	<u>286</u>	0.387
		2	977	806	679	583	<u>509</u>	<u>451</u>	<u>405</u>	<u>367</u>	<u>335</u>	0.311
		3	1055	886	754	<u>653</u>	<u>573</u>	<u>510</u>	<u>458</u>	<u>416</u>	<u>380</u>	0.260
		4	1121	957	824	<u>718</u>	<u>634</u>	<u>566</u>	<u>510</u>	<u>464</u>	<u>425</u>	0.223
	30/5 D _n = 142	0	591	479	398	340	296	261	232	208	--	0.684
		1	652	538	453	389	340	301	270	<u>245</u>	<u>222</u>	0.477
		2	704	592	504	436	383	340	<u>306</u>	<u>278</u>	<u>254</u>	0.366
		3	748	639	550	480	423	<u>378</u>	<u>341</u>	<u>310</u>	<u>284</u>	0.297
		4	785	680	592	520	462	<u>414</u>	<u>374</u>	<u>341</u>	<u>313</u>	0.250
	30/4 D _n = 245	0	493	408	344	295	258	229	205	184	--	0.770
		1	564	482	416	363	320	286	258	<u>235</u>	<u>215</u>	0.517
		2	614	540	475	421	376	338	307	<u>280</u>	<u>258</u>	0.390
		3	649	584	524	471	425	<u>385</u>	<u>352</u>	<u>323</u>	<u>298</u>	0.313
		4	675	619	563	512	467	<u>427</u>	<u>392</u>	<u>362</u>	<u>336</u>	0.261
2 1/2" 145 pcf Above Deck	30/4 K ₃ = 2377 kip/in.	0	5539	5379	5283	5220	5174	5140	5113	5092	--	0.770
		1	5720	5515	5392	5310	5252	5208	5173	5146	5124	0.517
		2	5902	5651	5501	5401	5329	5276	5234	5201	5173	0.390
		3	6083	5787	5610	5492	5407	5344	5294	5255	5223	0.313
		4	6264	5923	5719	5582	5485	5412	5355	5309	5272	0.261
2 1/2" 110 pcf Above Deck	30/4 K ₃ = 2377 kip/in.	0	3879	3719	3623	3560	3514	3480	3453	3432	--	0.770
		1	4060	3855	3732	3650	3592	3548	3513	3486	3464	0.517
		2	4242	3991	3841	3741	3669	3616	3574	3541	3513	0.390
		3	4423	4127	3950	3832	3747	3684	3634	3595	3563	0.313
		4	4604	4263	4059	3922	3825	3752	3695	3649	3612	0.261
Type I Insulating Fill	30/4 K ₃ = 257 kip/in.	0	1086	926	830	767	721	687	660	639	--	0.770
		1	1267	1062	939	857	799	755	720	693	671	0.517
		2	1449	1198	1048	948	876	823	781	748	720	0.390
		3	1630	1334	1157	1039	954	891	841	802	770	0.313
		4	1811	1470	1266	1129	1032	959	902	856	819	0.261
Type II Insulating Fill	30/4 K ₃ = 257 kip/in.	0	1355	1195	1099	1036	990	956	929	908	--	0.770
		1	1536	1331	1208	1126	1068	1024	989	962	940	0.517
		2	1718	1467	1317	1217	1145	1092	1050	1017	989	0.390
		3	1899	1603	1426	1308	1223	1160	1110	1071	1039	0.313
		4	2080	1739	1535	1398	1301	1228	1171	1125	1088	0.261

Nominal Shear Due To Panel Buckling (S_n), PLF/ Span, Ft.

Buckling:	Φ LRFD	Ω ASD
	0.80	2.00

Type of Fill	Deck Profile	I in ⁴ /ft.	1.5	2	2.5	3	3.5	4	4.5	5	5.5
No Fill	0.6 Form	0.013	2606	1466	938	652	479	367	290	235	194

- Notes:**
1. Nominal shear and stiffness values are in compliance with the Steel Deck Institute's Deck Design Manual, DDM04 & AISI S100-16 (2020) w/S2-20.
 2. All nominal shear and stiffness values are based on a 3-span condition.
 3. An underline (###) denotes nominal shear values may be limited by shear buckling.
 4. The values shown as a dash (--); the conditions do not meet the Steel Deck Institute's side lap connection requirements.

Deck Type: 0.6 Form

Deck Gage: 24 (t = 0.0239")
Support Fasteners: #12 Screws
Sidelap Fasteners: #10 Screws

	Bare Deck Diaphragm		Filled Diaphragm	
	Φ LRFD	Ω ASD	Φ LRFD	Ω ASD
Fy: 60 ksi	Seismic: 0.70	Seismic: 2.30	Seismic: 0.50	Seismic: 3.25
Fu: 62 ksi	Wind: 0.80	Wind: 2.00	Wind: 0.50	Wind: 3.25
Fxx: 60 ksi	Other: 0.65	Other: 2.50	Other: 0.50	Other: 3.25

Nominal Shear Diaphragm Strength, PLF/ Span, Ft.

Type of Fill	Fastener Layout	Sidelap Conn. per Span	1.5	2	2.5	3	3.5	4	4.5	5	5.5	K ₁ ft. ⁻¹
No Fill (Bare Deck) K ₂ = 705 kip/in. K ₄ = 3.09	30/7 D _n = 43	0	1035	822	677	574	497	438	389	350	--	0.593
		1	1201	976	813	694	604	534	478	432	393	0.447
		2	1339	1111	938	807	706	627	563	510	466	0.359
		3	1452	1228	1051	913	803	715	644	585	536	0.300
		4	1544	1330	1153	1010	894	800	722	658	603	0.258
	30/5 D _n = 92	0	789	639	532	454	395	349	312	280	--	0.791
		1	883	730	616	530	463	411	369	334	304	0.552
		2	960	810	692	600	528	470	423	384	352	0.423
		3	1023	879	761	666	589	527	476	433	397	0.344
		4	1074	939	823	726	646	581	526	480	441	0.289
	30/4 D _n = 159	0	659	545	459	395	345	306	274	247	--	0.889
		1	765	657	568	497	440	393	355	323	296	0.598
		2	836	741	656	584	523	472	429	392	361	0.450
		3	884	803	725	655	594	541	495	456	421	0.361
		4	918	849	780	714	655	602	555	514	477	0.301
2 1/2" 145 pcf Above Deck	30/4 K ₃ = 2377 kip/in.	0	5753	5540	5412	5327	5266	5220	5184	5156	--	0.889
		1	6033	5750	5580	5466	5385	5325	5278	5240	5209	0.598
		2	6312	5959	5747	5606	5505	5430	5371	5324	5285	0.450
		3	6591	6169	5915	5746	5625	5534	5464	5407	5361	0.361
		4	6871	6378	6082	5885	5745	5639	5557	5491	5437	0.301
2 1/2" 110 pcf Above Deck	30/4 K ₃ = 2377 kip/in.	0	4093	3880	3752	3667	3606	3560	3524	3496	--	0.889
		1	4373	4090	3920	3806	3725	3665	3618	3580	3549	0.598
		2	4652	4299	4087	3946	3845	3770	3711	3664	3625	0.450
		3	4931	4509	4255	4086	3965	3874	3804	3747	3701	0.361
		4	5211	4718	4422	4225	4085	3979	3897	3831	3777	0.301
Type I Insulating Fill	30/4 K ₃ = 257 kip/in.	0	1300	1087	959	874	813	767	731	703	--	0.889
		1	1580	1297	1127	1013	932	872	825	787	756	0.598
		2	1859	1506	1294	1153	1052	977	918	871	832	0.450
		3	2138	1716	1462	1293	1172	1081	1011	954	908	0.361
		4	2418	1925	1629	1432	1292	1186	1104	1038	984	0.301
Type II Insulating Fill	30/4 K ₃ = 257 kip/in.	0	1569	1356	1228	1143	1082	1036	1000	972	--	0.889
		1	1849	1566	1396	1282	1201	1141	1094	1056	1025	0.598
		2	2128	1775	1563	1422	1321	1246	1187	1140	1101	0.450
		3	2407	1985	1731	1562	1441	1350	1280	1223	1177	0.361
		4	2687	2194	1898	1701	1561	1455	1373	1307	1253	0.301

Nominal Shear Due To Panel Buckling (S_n), PLF/ Span, Ft.

Buckling:	Φ LRFD	Ω ASD
	0.80	2.00

Type of Fill	Deck Profile	I in ⁴ /ft.	1.5	2	2.5	3	3.5	4	4.5	5	5.5
No Fill	0.6 Form	0.018	4132	2324	1488	1033	759	581	459	372	307

- Notes:**
1. Nominal shear and stiffness values are in compliance with the Steel Deck Institute's Deck Design Manual, DDM04 & AISI S100-16 (2020) w/S2-20.
 2. All nominal shear and stiffness values are based on a 3-span condition.
 3. An underline (###) denotes nominal shear values may be limited by shear buckling.
 4. The values shown as a dash (--); the conditions do not meet the Steel Deck Institute's side lap connection requirements.

Deck Type: 0.6 Form

Deck Gage: 22 (t = 0.0295")
Support Fasteners: #12 Screws
Sidelap Fasteners: #10 Screws

	Bare Deck Diaphragm		Filled Diaphragm	
	ΦLRFD	ΩASD	ΦLRFD	ΩASD
Fy: 60 ksi	Seismic: 0.70	Seismic: 2.30	Seismic: 0.50	Seismic: 3.25
Fu: 62 ksi	Wind: 0.80	Wind: 2.00	Wind: 0.50	Wind: 3.25
Fxx: 60 ksi	Other: 0.65	Other: 2.50	Other: 0.50	Other: 3.25

Nominal Shear Diaphragm Strength, PLF/ Span, Ft.

Type of Fill	Fastener Layout	Sidelap Conn. per Span	1.5	2	2.5	3	3.5	4	4.5	5	5.5	K ₁ ft. ⁻¹
No Fill (Bare Deck) K ₂ = 870 kip/in. K ₄ = 3.09	30/7 D _n = 32	0	1278	1016	837	709	614	541	482	433	--	0.659
		1	1504	1224	1022	874	761	673	602	<u>545</u>	<u>497</u>	0.497
		2	1687	1406	1191	1027	900	<u>799</u>	<u>717</u>	<u>651</u>	<u>595</u>	0.399
		3	1833	1561	1342	1168	<u>1030</u>	<u>919</u>	<u>828</u>	<u>753</u>	<u>690</u>	0.334
		4	1950	1693	1475	1297	<u>1152</u>	<u>1032</u>	<u>934</u>	<u>851</u>	<u>781</u>	0.286
	30/5 D _n = 67	0	974	789	657	560	487	431	385	346	--	0.878
		1	1102	914	772	664	581	516	463	419	383	0.613
		2	1204	1021	875	760	669	597	537	488	<u>447</u>	0.470
		3	1285	1112	966	848	752	673	<u>608</u>	<u>554</u>	<u>509</u>	0.382
		4	1351	1189	1047	927	828	745	<u>676</u>	<u>618</u>	<u>568</u>	0.321
	30/4 D _n = 116	0	814	673	567	487	426	378	339	306	--	0.988
		1	956	825	715	627	555	497	449	409	375	0.664
		2	1047	934	831	742	666	602	548	<u>502</u>	<u>463</u>	0.500
		3	1107	1012	920	835	760	694	<u>637</u>	<u>587</u>	<u>544</u>	0.401
		4	1148	1069	988	910	838	<u>773</u>	<u>715</u>	<u>664</u>	<u>618</u>	0.335
2 1/2" 145 pcf Above Deck	30/4 K ₃ = 2377 kip/in.	0	5954	5690	5532	5427	5352	5295	5251	5216	--	0.988
		1	6337	5978	5762	5619	5516	5439	5379	5331	5292	0.664
		2	6720	6265	5992	5810	5680	5583	5507	5446	5396	0.500
		3	7104	6553	6222	6002	5844	5726	5635	5561	5501	0.401
		4	7487	6840	6452	6194	6009	5870	5762	5676	5606	0.335
2 1/2" 110 pcf Above Deck	30/4 K ₃ = 2377 kip/in.	0	4294	4030	3872	3767	3692	3635	3591	3556	--	0.988
		1	4677	4318	4102	3959	3856	3779	3719	3671	3632	0.664
		2	5060	4605	4332	4150	4020	3923	3847	3786	3736	0.500
		3	5444	4893	4562	4342	4184	4066	3975	3901	3841	0.401
		4	5827	5180	4792	4534	4349	4210	4102	4016	3946	0.335
Type I Insulating Fill	30/4 K ₃ = 257 kip/in.	0	1501	1237	1079	974	899	842	798	763	--	0.988
		1	1884	1525	1309	1166	1063	986	926	878	839	0.664
		2	2267	1812	1539	1357	1227	1130	1054	993	943	0.500
		3	2651	2100	1769	1549	1391	1273	1182	1108	1048	0.401
		4	3034	2387	1999	1741	1556	1417	1309	1223	1153	0.335
Type II Insulating Fill	30/4 K ₃ = 257 kip/in.	0	1770	1506	1348	1243	1168	1111	1067	1032	--	0.988
		1	2153	1794	1578	1435	1332	1255	1195	1147	1108	0.664
		2	2536	2081	1808	1626	1496	1399	1323	1262	1212	0.500
		3	2920	2369	2038	1818	1660	1542	1451	1377	1317	0.401
		4	3303	2656	2268	2010	1825	1686	1578	1492	1422	0.335

Nominal Shear Due To Panel Buckling (S_n), PLF/ Span, Ft.

Buckling:	Φ LRFD	Ω ASD
	0.80	2.00

Type of Fill	Deck Profile	I in ⁴ /ft.	1.5	2	2.5	3	3.5	4	4.5	5	5.5
No Fill	0.6 Form	0.021	5432	3055	1955	1358	998	764	604	489	404

- Notes:**
1. Nominal shear and stiffness values are in compliance with the Steel Deck Institute's Deck Design Manual, DDM04 & AISI S100-16 (2020) w/S2-20.
 2. All nominal shear and stiffness values are based on a 3-span condition.
 3. An underline (###) denotes nominal shear values may be limited by shear buckling.
 4. The values shown as a dash (--); the conditions do not meet the Steel Deck Institute's side lap connection requirements.

Deck Type: 1.0 Form



Deck Gage: 26 (t = 0.0179")

Support Fasteners: 16 ga. Weld Washer

Sidelap Fasteners: #10 Screws

	Bare Deck Diaphragm		Filled Diaphragm	
	ΦLRFD	ΩASD	ΦLRFD	ΩASD
Fy: 60 ksi	Seismic: 0.55	Seismic: 3.00	Seismic: 0.50	Seismic: 3.25
Fu: 62 ksi	Wind: 0.75	Wind: 2.15	Wind: 0.50	Wind: 3.25
Fxx: 60 ksi	Other: 0.60	Other: 2.65	Other: 0.50	Other: 3.25

Nominal Shear Diaphragm Strength, PLF/ Span, Ft.

Type of Fill	Fastener Layout	Sidelap Conn. per Span	2	2.5	3	3.5	4	4.5	5	5.5	6	K ₁ ft. ⁻¹
No Fill (Bare Deck) K ₂ = 528 kip/in. K ₄ = 3.42	30/9 D _n = 18	0	1694	1389	1173	<u>1011</u>	<u>881</u>	<u>780</u>	<u>699</u>	--	--	0.363
		1	1837	1513	1282	<u>1110</u>	<u>972</u>	<u>860</u>	<u>772</u>	<u>699</u>	<u>638</u>	0.295
		2	1975	1634	<u>1388</u>	<u>1204</u>	<u>1062</u>	<u>941</u>	<u>844</u>	<u>765</u>	<u>699</u>	0.249
		3	2107	1751	<u>1492</u>	<u>1297</u>	<u>1145</u>	<u>1022</u>	<u>917</u>	<u>831</u>	<u>759</u>	0.215
		4	2232	1865	<u>1593</u>	<u>1388</u>	<u>1227</u>	<u>1099</u>	<u>989</u>	<u>897</u>	<u>820</u>	0.189
	30/5 D _n = 341	0	1075	895	764	664	578	510	457	--	--	0.605
		1	1137	951	814	709	623	551	<u>493</u>	<u>445</u>	<u>406</u>	0.438
		2	1196	1006	863	754	668	591	<u>529</u>	<u>478</u>	<u>436</u>	0.343
		3	1252	1058	911	797	707	<u>631</u>	<u>565</u>	<u>511</u>	<u>466</u>	0.282
		4	1304	1108	957	839	746	<u>670</u>	<u>602</u>	<u>544</u>	<u>497</u>	0.239
	30/4 D _n = 628	0	887	745	639	558	487	430	384	--	--	0.727
		1	995	848	733	644	572	510	456	<u>412</u>	<u>376</u>	0.498
		2	1089	939	820	724	647	584	529	478	436	0.378
		3	1169	1021	900	800	718	<u>650</u>	<u>592</u>	<u>544</u>	<u>496</u>	0.305
		4	1238	1094	972	870	<u>784</u>	<u>712</u>	<u>652</u>	<u>600</u>	<u>555</u>	0.256
2 1/2" 145 pcf Above Deck	30/4 K ₃ = 2377 kip/in.	0	5930	5724	5587	5489	5415	5358	5312	--	--	0.727
		1	6112	5869	5708	5592	5506	5439	5385	5341	5304	0.498
		2	6293	6015	5829	5696	5597	5519	5457	5407	5364	0.378
		3	6474	6160	5950	5800	5687	5600	5530	5473	5425	0.305
		4	6656	6305	6071	5903	5778	5680	5602	5538	5485	0.256
2 1/2" 110 pcf Above Deck	30/4 K ₃ = 2377 kip/in.	0	4270	4064	3927	3829	3755	3698	3652	--	--	0.727
		1	4452	4209	4048	3932	3846	3779	3725	3681	3644	0.498
		2	4633	4355	4169	4036	3937	3859	3797	3747	3704	0.378
		3	4814	4500	4290	4140	4027	3940	3870	3813	3765	0.305
		4	4996	4645	4411	4243	4118	4020	3942	3878	3825	0.256
Type I Insulating Fill	30/4 K ₃ = 257 kip/in.	0	1477	1271	1134	1036	962	905	859	--	--	0.727
		1	1659	1416	1255	1139	1053	986	932	888	851	0.498
		2	1840	1562	1376	1243	1144	1066	1004	954	911	0.378
		3	2021	1707	1497	1347	1234	1147	1077	1020	972	0.305
		4	2203	1852	1618	1450	1325	1227	1149	1085	1032	0.256
Type II Insulating Fill	30/4 K ₃ = 257 kip/in.	0	1746	1540	1403	1305	1231	1174	1128	--	--	0.727
		1	1928	1685	1524	1408	1322	1255	1201	1157	1120	0.498
		2	2109	1831	1645	1512	1413	1335	1273	1223	1180	0.378
		3	2290	1976	1766	1616	1503	1416	1346	1289	1241	0.305
		4	2472	2121	1887	1719	1594	1496	1418	1354	1301	0.256

Nominal Shear Due To Panel Buckling (S_n), PLF/ Span, Ft.

Buckling:	Φ LRFD	Ω ASD
	0.80	2.00

Type of Fill	Deck Profile	I in ⁴ /ft.	2	2.5	3	3.5	4	4.5	5	5.5	6
No Fill	1.0 Form	0.038	3196	2045	1420	1043	799	631	511	423	355

- Notes:**
1. Nominal shear and stiffness values are in compliance with the Steel Deck Institute's Deck Design Manual, DDM04 & AISI S100-16 (2020) w/S2-20.
 2. All nominal shear and stiffness values are based on a 3-span condition.
 3. An underline (###) denotes nominal shear values may be limited by shear buckling.
 4. The values shown as a dash (--); the conditions do not meet the Steel Deck Institute's side lap connection requirements.

Deck Type: 1.0 Form

Deck Gage: 24 (t = 0.0239")

Support Fasteners: 16 ga. Weld Washer

Sidelap Fasteners: #10 Screws

	Bare Deck Diaphragm			Filled Diaphragm	
	Φ LRFD	Ω ASD		Φ LRFD	Ω ASD
Fy: 60 ksi	Seismic: 0.55	Seismic: 3.00		Seismic: 0.50	Seismic: 3.25
Fu: 62 ksi	Wind: 0.75	Wind: 2.15		Wind: 0.50	Wind: 3.25
Fxx: 60 ksi	Other: 0.60	Other: 2.65		Other: 0.50	Other: 3.25

Nominal Shear Diaphragm Strength, PLF/ Span, Ft.

Type of Fill	Fastener Layout	Sidelap Conn. per Span	2	2.5	3	3.5	4	4.5	5	5.5	6	K ₁ ft. ⁻¹
No Fill (Bare Deck) K ₂ = 705 kip/in. K ₄ = 3.42	30/9 D _n = 12	0	1750	1435	1212	1048	914	810	726	--	--	0.417
		1	1969	1625	1378	1195	1053	934	<u>838</u>	<u>759</u>	<u>694</u>	0.340
		2	2174	1807	1539	1338	1181	<u>1057</u>	<u>950</u>	<u>861</u>	<u>787</u>	0.286
		3	2365	1981	1695	1477	<u>1307</u>	<u>1171</u>	<u>1060</u>	<u>963</u>	<u>880</u>	0.248
		4	2543	2145	1845	<u>1613</u>	<u>1430</u>	<u>1283</u>	<u>1163</u>	<u>1063</u>	<u>973</u>	0.218
	30/5 D _n = 221	0	1111	925	789	686	601	531	476	--	--	0.696
		1	1205	1011	866	755	669	593	532	481	439	0.504
		2	1292	1092	940	823	730	655	587	532	485	0.395
		3	1373	1169	1011	888	789	710	643	582	532	0.324
		4	1447	1241	1079	951	847	763	694	633	<u>578</u>	0.275
	30/4 D _n = 407	0	917	770	660	576	507	448	401	--	--	0.835
		1	1078	924	802	707	630	567	512	463	423	0.573
		2	1207	1054	928	825	740	670	611	561	516	0.436
		3	1309	1163	1038	931	841	766	701	<u>646</u>	<u>598</u>	0.352
		4	1390	1254	1132	1026	933	854	<u>786</u>	<u>726</u>	<u>675</u>	0.295
2 1/2" 145 pcf Above Deck	30/4 K ₃ = 2377 kip/in.	0	5965	5752	5610	5508	5432	5373	5326	--	--	0.835
		1	6244	5975	5796	5668	5572	5497	5438	5389	5348	0.573
		2	6523	6199	5982	5828	5712	5621	5549	5490	5441	0.436
		3	6803	6422	6168	5987	5851	5746	5661	5592	5534	0.352
		4	7082	6646	6355	6147	5991	5870	5773	5693	5627	0.295
2 1/2" 110 pcf Above Deck	30/4 K ₃ = 2377 kip/in.	0	4305	4092	3950	3848	3772	3713	3666	--	--	0.835
		1	4584	4315	4136	4008	3912	3837	3778	3729	3688	0.573
		2	4863	4539	4322	4168	4052	3961	3889	3830	3781	0.436
		3	5143	4762	4508	4327	4191	4086	4001	3932	3874	0.352
		4	5422	4986	4695	4487	4331	4210	4113	4033	3967	0.295
Type I Insulating Fill	30/4 K ₃ = 257 kip/in.	0	1512	1299	1157	1055	979	920	873	--	--	0.835
		1	1791	1522	1343	1215	1119	1044	985	936	895	0.573
		2	2070	1746	1529	1375	1259	1168	1096	1037	988	0.436
		3	2350	1969	1715	1534	1398	1293	1208	1139	1081	0.352
		4	2629	2193	1902	1694	1538	1417	1320	1240	1174	0.295
Type II Insulating Fill	30/4 K ₃ = 257 kip/in.	0	1781	1568	1426	1324	1248	1189	1142	--	--	0.835
		1	2060	1791	1612	1484	1388	1313	1254	1205	1164	0.573
		2	2339	2015	1798	1644	1528	1437	1365	1306	1257	0.436
		3	2619	2238	1984	1803	1667	1562	1477	1408	1350	0.352
		4	2898	2462	2171	1963	1807	1686	1589	1509	1443	0.295

Nominal Shear Due To Panel Buckling (S_n), PLF/ Span, Ft.

Buckling:	Φ LRFD	Ω ASD
	0.80	2.00

Type of Fill	Deck Profile	I in ⁴ /ft.	2	2.5	3	3.5	4	4.5	5	5.5	6
No Fill	1.0 Form	0.051	4949	3168	2200	1616	1237	978	792	654	550

- Notes:**
1. Nominal shear and stiffness values are in compliance with the Steel Deck Institute's Deck Design Manual, DDM04 & AISI S100-16 (2020) w/S2-20.
 2. All nominal shear and stiffness values are based on a 3-span condition.
 3. An underline (###) denotes nominal shear values may be limited by shear buckling.
 4. The values shown as a dash (--); the conditions do not meet the Steel Deck Institute's side lap connection requirements.

Deck Type: 1.0 Form



Deck Gage: 22 (t = 0.0295")

Support Fasteners: 5/8" Puddle Weld or Equiv.

Sidelap Fasteners: #10 Screws

	Bare Deck Diaphragm			Filled Diaphragm	
	Φ LRFD	Ω ASD		Φ LRFD	Ω ASD
Fy: 60 ksi	Seismic: 0.55	Seismic: 3.00		Seismic: 0.50	Seismic: 3.25
Fu: 62 ksi	Wind: 0.75	Wind: 2.15		Wind: 0.50	Wind: 3.25
Fxx: 60 ksi	Other: 0.60	Other: 2.65		Other: 0.50	Other: 3.25

Nominal Shear Diaphragm Strength, PLF/ Span, Ft.

Type of Fill	Fastener Layout	Sidelap Conn. per Span	2	2.5	3	3.5	4	4.5	5	5.5	6	K ₁ ft. ⁻¹
No Fill (Bare Deck) K ₂ = 870 kip/in. K ₄ = 3.42	30/9 D _n = 8	0	2573	2109	1782	1541	1348	1194	1071	--	--	0.466
		1	2874	2371	2011	1742	1535	1365	1225	1110	1015	0.379
		2	3158	2622	2232	1939	1712	1531	1378	1250	1143	0.319
		3	3424	2862	2447	2132	1885	1689	1528	1389	1271	0.276
		4	3672	3091	2654	2319	2055	1843	1670	1525	1398	0.243
	30/5 D _n = 161	0	1633	1360	1160	1009	887	785	703	--	--	0.777
		1	1763	1478	1266	1104	977	870	780	706	644	0.562
		2	1883	1590	1368	1196	1061	952	856	776	708	0.440
		3	1995	1696	1466	1286	1143	1028	932	845	772	0.361
		4	2099	1797	1560	1373	1224	1102	1001	915	836	0.307
	30/4 D _n = 297	0	1348	1132	971	848	749	662	593	--	--	0.933
		1	1570	1344	1167	1027	915	823	746	675	616	0.639
		2	1751	1526	1341	1191	1067	965	880	808	744	0.486
		3	1897	1681	1495	1339	1209	1098	1005	925	857	0.392
		4	2015	1811	1630	1473	1338	1222	1123	1037	962	0.328
2 1/2" 145 pcf Above Deck	30/4 K ₃ = 2377 kip/in.	0	6465	6152	5944	5795	5683	5596	5526	--	--	0.933
		1	6849	6459	6199	6014	5874	5766	5680	5609	5550	0.639
		2	7232	6766	6455	6233	6066	5936	5833	5748	5677	0.486
		3	7615	7072	6710	6452	6258	6107	5986	5887	5805	0.392
		4	7999	7379	6966	6671	6449	6277	6140	6027	5933	0.328
2 1/2" 110 pcf Above Deck	30/4 K ₃ = 2377 kip/in.	0	4805	4492	4284	4135	4023	3936	3866	--	--	0.933
		1	5189	4799	4539	4354	4214	4106	4020	3949	3890	0.639
		2	5572	5106	4795	4573	4406	4276	4173	4088	4017	0.486
		3	5955	5412	5050	4792	4598	4447	4326	4227	4145	0.392
		4	6339	5719	5306	5011	4789	4617	4480	4367	4273	0.328
Type I Insulating Fill	30/4 K ₃ = 257 kip/in.	0	2012	1699	1491	1342	1230	1143	1073	--	--	0.933
		1	2396	2006	1746	1561	1421	1313	1227	1156	1097	0.639
		2	2779	2313	2002	1780	1613	1483	1380	1295	1224	0.486
		3	3162	2619	2257	1999	1805	1654	1533	1434	1352	0.392
		4	3546	2926	2513	2218	1996	1824	1687	1574	1480	0.328
Type II Insulating Fill	30/4 K ₃ = 257 kip/in.	0	2281	1968	1760	1611	1499	1412	1342	--	--	0.933
		1	2665	2275	2015	1830	1690	1582	1496	1425	1366	0.639
		2	3048	2582	2271	2049	1882	1752	1649	1564	1493	0.486
		3	3431	2888	2526	2268	2074	1923	1802	1703	1621	0.392
		4	3815	3195	2782	2487	2265	2093	1956	1843	1749	0.328

Nominal Shear Due To Panel Buckling (S_n), PLF/ Span, Ft.

Buckling:	Φ LRFD	Ω ASD
	0.80	2.00

Type of Fill	Deck Profile	I in ⁴ /ft.	2	2.5	3	3.5	4	4.5	5	5.5	6
No Fill	1.0 Form	0.063	6791	4346	3018	2218	1698	1341	1087	898	755

- Notes:**
1. Nominal shear and stiffness values are in compliance with the Steel Deck Institute's Deck Design Manual, DDM04 & AISI S100-16 (2020) w/S2-20.
 2. All nominal shear and stiffness values are based on a 3-span condition.
 3. An underline (###) denotes nominal shear values may be limited by shear buckling.
 4. The values shown as a dash (--); the conditions do not meet the Steel Deck Institute's side lap connection requirements.

Deck Type: 1.0 Form

Deck Gage: 20 (t = 0.0358")

Support Fasteners: 5/8" Puddle Weld or Equiv.

Sidelap Fasteners: #10 Screws

	Bare Deck Diaphragm			Filled Diaphragm	
	ΦLRFD	ΩASD		ΦLRFD	ΩASD
Fy: 60 ksi	Seismic: 0.55	Seismic: 3.00		Seismic: 0.50	Seismic: 3.25
Fu: 62 ksi	Wind: 0.75	Wind: 2.15		Wind: 0.50	Wind: 3.25
Fxx: 60 ksi	Other: 0.60	Other: 2.65		Other: 0.50	Other: 3.25

Nominal Shear Diaphragm Strength, PLF/ Span, Ft.

Type of Fill	Fastener Layout	Sidelap Conn. per Span	2	2.5	3	3.5	4	4.5	5	5.5	6	K ₁ ft. ⁻¹
No Fill (Bare Deck) K ₂ = 1056 kip/in. K ₄ = 3.42	30/9 D _n = 6	0	3512	2879	2432	2103	<u>1843</u>	<u>1634</u>	<u>1466</u>	--	--	0.515
		1	3915	3229	2738	<u>2372</u>	<u>2090</u>	<u>1862</u>	<u>1672</u>	<u>1516</u>	<u>1386</u>	0.419
		2	4294	3565	<u>3035</u>	<u>2636</u>	<u>2327</u>	<u>2081</u>	<u>1877</u>	<u>1702</u>	<u>1557</u>	0.353
		3	4651	3887	<u>3322</u>	<u>2894</u>	<u>2559</u>	<u>2292</u>	<u>2074</u>	<u>1889</u>	<u>1728</u>	0.305
		4	4984	<u>4194</u>	<u>3600</u>	<u>3145</u>	<u>2786</u>	<u>2499</u>	<u>2263</u>	<u>2067</u>	<u>1899</u>	0.268
	30/5 D _n = 121	0	2229	1856	1583	1377	1215	1076	964	--	--	0.859
		1	2402	2014	1725	1504	1331	1189	<u>1066</u>	<u>966</u>	<u>882</u>	0.620
		2	2564	2164	1861	1628	1444	<u>1296</u>	<u>1169</u>	<u>1059</u>	<u>967</u>	0.485
		3	2714	2306	1993	1748	1554	<u>1396</u>	<u>1267</u>	<u>1152</u>	<u>1053</u>	0.399
		4	2854	2442	2119	1865	<u>1661</u>	<u>1495</u>	<u>1358</u>	<u>1243</u>	<u>1138</u>	0.338
	30/4 D _n = 222	0	1840	1545	1325	1157	1024	908	813	--	--	1.031
		1	2138	1829	1587	1396	1244	1120	1017	<u>922</u>	<u>841</u>	0.705
		2	2381	2073	1821	1616	1449	<u>1310</u>	<u>1194</u>	<u>1096</u>	<u>1012</u>	0.536
		3	2578	2282	2029	1816	<u>1638</u>	<u>1489</u>	<u>1362</u>	<u>1253</u>	<u>1160</u>	0.432
		4	2738	2458	2210	1996	<u>1812</u>	<u>1655</u>	<u>1520</u>	<u>1403</u>	<u>1302</u>	0.362
2 1/2" 145 pcf Above Deck	30/4 K ₃ = 2377 kip/in.	0	7036	6609	6324	6121	5968	5849	5755	--	--	1.031
		1	7549	7019	6666	6414	6225	6077	5960	5863	5783	0.705
		2	8062	7429	7008	6707	6481	6305	6165	6050	5954	0.536
		3	8574	7839	7350	7000	6737	6533	6370	6236	6125	0.432
		4	9087	8250	7691	7293	6994	6761	6575	6423	6296	0.362
2 1/2" 110 pcf Above Deck	30/4 K ₃ = 2377 kip/in.	0	5376	4949	4664	4461	4308	4189	4095	--	--	1.031
		1	5889	5359	5006	4754	4565	4417	4300	4203	4123	0.705
		2	6402	5769	5348	5047	4821	4645	4505	4390	4294	0.536
		3	6914	6179	5690	5340	5077	4873	4710	4576	4465	0.432
		4	7427	6590	6031	5633	5334	5101	4915	4763	4636	0.362
Type I Insulating Fill	30/4 K ₃ = 257 kip/in.	0	2583	2156	1871	1668	1515	1396	1302	--	--	1.031
		1	3096	2566	2213	1961	1772	1624	1507	1410	1330	0.705
		2	3609	2976	2555	2254	2028	1852	1712	1597	1501	0.536
		3	4121	3386	2897	2547	2284	2080	1917	1783	1672	0.432
		4	4634	3797	3238	2840	2541	2308	2122	1970	1843	0.362
Type II Insulating Fill	30/4 K ₃ = 257 kip/in.	0	2852	2425	2140	1937	1784	1665	1571	--	--	1.031
		1	3365	2835	2482	2230	2041	1893	1776	1679	1599	0.705
		2	3878	3245	2824	2523	2297	2121	1981	1866	1770	0.536
		3	4390	3655	3166	2816	2553	2349	2186	2052	1941	0.432
		4	4903	4066	3507	3109	2810	2577	2391	2239	2112	0.362

Nominal Shear Due To Panel Buckling (S_n), PLF/ Span, Ft.

Buckling:	Φ LRFD	Ω ASD
	0.80	2.00

Type of Fill	Deck Profile	I in ⁴ /ft.	2	2.5	3	3.5	4	4.5	5	5.5	6
No Fill	1.0 Form	0.077	9128	5842	4057	2980	2282	1803	1460	1207	1014

- Notes:**
1. Nominal shear and stiffness values are in compliance with the Steel Deck Institute's Deck Design Manual, DDM04 & AISI S100-16 (2020) w/S2-20.
 2. All nominal shear and stiffness values are based on a 3-span condition.
 3. An underline (###) denotes nominal shear values may be limited by shear buckling.
 4. The values shown as a dash (--); the conditions do not meet the Steel Deck Institute's side lap connection requirements.

Deck Type: 1.0 Form



Deck Gage: 26 (t = 0.0179")
 Support Fasteners: #12 Screws
 Sidelap Fasteners: #10 Screws

	Bare Deck Diaphragm		Filled Diaphragm	
	ΦLRFD	ΩASD	ΦLRFD	ΩASD
Fy: 60 ksi	Seismic: 0.70	Seismic: 2.30	Seismic: 0.50	Seismic: 3.25
Fu: 62 ksi	Wind: 0.80	Wind: 2.00	Wind: 0.50	Wind: 3.25
Fxx: 60 ksi	Other: 0.65	Other: 2.50	Other: 0.50	Other: 3.25

Nominal Shear Diaphragm Strength, PLF/ Span, Ft.

Type of Fill	Fastener Layout	Sidelap Conn. per Span	2	2.5	3	3.5	4	4.5	5	5.5	6	K ₁ ft. ⁻¹
No Fill (Bare Deck) K ₂ = 528 kip/in. K ₄ = 3.42	30/9 D _n = 18	0	753	618	522	450	392	347	311	--	--	0.410
		1	893	740	629	546	481	427	383	347	317	0.326
		2	1020	854	731	637	564	505	456	<u>413</u>	<u>378</u>	0.270
		3	1132	959	827	724	643	577	<u>524</u>	<u>479</u>	<u>438</u>	0.231
		4	1233	1056	917	807	719	<u>648</u>	<u>588</u>	<u>539</u>	<u>496</u>	0.201
	30/5 D _n = 341	0	478	398	340	295	257	227	203	--	--	0.684
		1	538	453	389	340	301	267	239	216	197	0.477
		2	591	504	436	383	340	306	276	249	228	0.366
		3	638	550	479	423	378	340	310	282	258	0.297
		4	680	592	520	461	413	374	341	313	288	0.250
	30/4 D _n = 628	0	395	332	284	248	217	191	171	--	--	0.821
		1	494	427	374	331	296	267	243	220	201	0.540
		2	564	501	447	402	363	330	302	279	258	0.402
		3	614	558	506	461	421	386	356	330	307	0.321
		4	649	600	553	510	471	436	404	376	<u>352</u>	0.267
2 1/2" 145 pcf Above Deck	30/4 K ₃ = 2377 kip/in.	0	5358	5267	5206	5162	5129	5104	5083	--	--	0.821
		1	5540	5412	5326	5266	5220	5184	5156	5133	5113	0.540
		2	5721	5557	5447	5369	5310	5265	5228	5199	5174	0.402
		3	5902	5702	5568	5473	5401	5345	5301	5264	5234	0.321
		4	6084	5847	5689	5576	5492	5426	5373	5330	5295	0.267
2 1/2" 110 pcf Above Deck	30/4 K ₃ = 2377 kip/in.	0	3698	3607	3546	3502	3469	3444	3423	--	--	0.821
		1	3880	3752	3666	3606	3560	3524	3496	3473	3453	0.540
		2	4061	3897	3787	3709	3650	3605	3568	3539	3514	0.402
		3	4242	4042	3908	3813	3741	3685	3641	3604	3574	0.321
		4	4424	4187	4029	3916	3832	3766	3713	3670	3635	0.267
Type I Insulating Fill	30/4 K ₃ = 257 kip/in.	0	905	814	753	709	676	651	630	--	--	0.821
		1	1087	959	873	813	767	731	703	680	660	0.540
		2	1268	1104	994	916	857	812	775	746	721	0.402
		3	1449	1249	1115	1020	948	892	848	811	781	0.321
		4	1631	1394	1236	1123	1039	973	920	877	842	0.267
Type II Insulating Fill	30/4 K ₃ = 257 kip/in.	0	1174	1083	1022	978	945	920	899	--	--	0.821
		1	1356	1228	1142	1082	1036	1000	972	949	929	0.540
		2	1537	1373	1263	1185	1126	1081	1044	1015	990	0.402
		3	1718	1518	1384	1289	1217	1161	1117	1080	1050	0.321
		4	1900	1663	1505	1392	1308	1242	1189	1146	1111	0.267

Nominal Shear Due To Panel Buckling (S_n), PLF/ Span, Ft.

Buckling:	Φ LRFD	Ω ASD
	0.80	2.00

Type of Fill	Deck Profile	I in ⁴ /ft.	2	2.5	3	3.5	4	4.5	5	5.5	6
No Fill	1.0 Form	0.038	3196	2045	1420	1043	799	631	511	423	355

- Notes:**
1. Nominal shear and stiffness values are in compliance with the Steel Deck Institute's Deck Design Manual, DDM04 & AISI S100-16 (2020) w/S2-20.
 2. All nominal shear and stiffness values are based on a 3-span condition.
 3. An underline (###) denotes nominal shear values may be limited by shear buckling.
 4. The values shown as a dash (--); the conditions do not meet the Steel Deck Institute's side lap connection requirements.

Deck Type: 1.0 Form

Deck Gage: 24 (t = 0.0239")
Support Fasteners: #12 Screws
Sidelap Fasteners: #10 Screws

	Bare Deck Diaphragm		Filled Diaphragm	
	ΦLRFD	ΩASD	ΦLRFD	ΩASD
Fy: 60 ksi	Seismic: 0.70	Seismic: 2.30	Seismic: 0.50	Seismic: 3.25
Fu: 62 ksi	Wind: 0.80	Wind: 2.00	Wind: 0.50	Wind: 3.25
Fxx: 60 ksi	Other: 0.65	Other: 2.50	Other: 0.50	Other: 3.25

Nominal Shear Diaphragm Strength, PLF/ Span, Ft.

Type of Fill	Fastener Layout	Sidelap Conn. per Span	2	2.5	3	3.5	4	4.5	5	5.5	6	K ₁ ft. ⁻¹
No Fill (Bare Deck) K ₂ = 705 kip/in. K ₄ = 3.42	30/9 D _n = 12	0	1006	825	697	602	525	465	417	--	--	0.474
		1	1220	1012	861	748	660	590	529	480	439	0.376
		2	1410	1185	1016	887	786	704	638	581	532	0.312
		3	1576	1342	1161	1019	906	815	739	676	623	0.266
		4	1720	1483	1294	1143	1021	921	838	768	708	0.233
	30/5 D _n = 221	0	639	532	453	394	345	305	273	--	--	0.791
		1	730	616	529	463	410	368	329	298	272	0.552
		2	810	692	600	528	470	423	384	349	319	0.423
		3	879	761	666	589	527	475	433	397	365	0.344
		4	939	822	726	646	580	526	480	441	407	0.289
	30/4 D _n = 407	0	527	443	380	331	291	257	230	--	--	0.949
		1	676	588	516	457	409	370	337	309	283	0.624
		2	776	695	624	562	510	465	427	394	365	0.465
		3	843	773	707	647	594	547	506	470	438	0.371
		4	889	830	771	715	664	617	575	538	504	0.308
2 1/2" 145 pcf Above Deck	30/4 K ₃ = 2377 kip/in.	0	5512	5390	5308	5250	5206	5172	5145	--	--	0.949
		1	5791	5613	5494	5409	5346	5296	5257	5224	5197	0.624
		2	6071	5837	5680	5569	5485	5420	5368	5326	5290	0.465
		3	6350	6060	5867	5729	5625	5544	5480	5427	5383	0.371
		4	6629	6283	6053	5888	5765	5669	5592	5529	5476	0.308
2 1/2" 110 pcf Above Deck	30/4 K ₃ = 2377 kip/in.	0	3852	3730	3648	3590	3546	3512	3485	--	--	0.949
		1	4131	3953	3834	3749	3686	3636	3597	3564	3537	0.624
		2	4411	4177	4020	3909	3825	3760	3708	3666	3630	0.465
		3	4690	4400	4207	4069	3965	3884	3820	3767	3723	0.371
		4	4969	4623	4393	4228	4105	4009	3932	3869	3816	0.308
Type I Insulating Fill	30/4 K ₃ = 257 kip/in.	0	1059	937	855	797	753	719	692	--	--	0.949
		1	1338	1160	1041	956	893	843	804	771	744	0.624
		2	1618	1384	1227	1116	1032	967	915	873	837	0.465
		3	1897	1607	1414	1276	1172	1091	1027	974	930	0.371
		4	2176	1830	1600	1435	1312	1216	1139	1076	1023	0.308
Type II Insulating Fill	30/4 K ₃ = 257 kip/in.	0	1328	1206	1124	1066	1022	988	961	--	--	0.949
		1	1607	1429	1310	1225	1162	1112	1073	1040	1013	0.624
		2	1887	1653	1496	1385	1301	1236	1184	1142	1106	0.465
		3	2166	1876	1683	1545	1441	1360	1296	1243	1199	0.371
		4	2445	2099	1869	1704	1581	1485	1408	1345	1292	0.308

Nominal Shear Due To Panel Buckling (S_n), PLF/ Span, Ft.

Buckling:	Φ LRFD	Ω ASD
	0.80	2.00

Type of Fill	Deck Profile	I in ⁴ /ft.	2	2.5	3	3.5	4	4.5	5	5.5	6
No Fill	1.0 Form	0.051	4949	3168	2200	1616	1237	978	792	654	550

- Notes:**
1. Nominal shear and stiffness values are in compliance with the Steel Deck Institute's Deck Design Manual, DDM04 & AISI S100-16 (2020) w/S2-20.
 2. All nominal shear and stiffness values are based on a 3-span condition.
 3. An underline (###) denotes nominal shear values may be limited by shear buckling.
 4. The values shown as a dash (--); the conditions do not meet the Steel Deck Institute's side lap connection requirements.

Deck Type: 1.0 Form



Deck Gage: 22 (t = 0.0295")
 Support Fasteners: #12 Screws
 Sidelap Fasteners: #10 Screws

	Bare Deck Diaphragm		Filled Diaphragm	
	ΦLRFD	ΩASD	ΦLRFD	ΩASD
Fy: 60 ksi	Seismic: 0.70	Seismic: 2.30	Seismic: 0.50	Seismic: 3.25
Fu: 62 ksi	Wind: 0.80	Wind: 2.00	Wind: 0.50	Wind: 3.25
Fxx: 60 ksi	Other: 0.65	Other: 2.50	Other: 0.50	Other: 3.25

Nominal Shear Diaphragm Strength, PLF/ Span, Ft.

Type of Fill	Fastener Layout	Sidelap Conn. per Span	2	2.5	3	3.5	4	4.5	5	5.5	6	K ₁ ft. ⁻¹
No Fill (Bare Deck) K ₂ = 870 kip/in. K ₄ = 3.42	30/9 D _n = 8	0	1242	1018	860	744	651	577	517	--	--	0.527
		1	1534	1274	1085	943	833	745	671	608	556	0.418
		2	1789	1508	1296	1132	1004	900	816	745	684	0.347
		3	2009	1717	1490	1311	1167	1050	954	873	805	0.296
		4	2196	1904	1668	1477	1322	1194	1087	997	920	0.258
	30/5 D _n = 161	0	789	657	560	487	428	379	339	--	--	0.878
		1	913	771	664	581	515	462	416	377	344	0.613
		2	1020	874	760	669	596	537	488	447	408	0.470
		3	1111	966	847	751	673	608	554	508	469	0.382
		4	1189	1047	927	828	745	676	617	568	525	0.321
	30/4 D _n = 297	0	651	547	469	409	362	320	286	--	--	1.054
		1	851	742	653	580	520	471	429	394	364	0.693
		2	980	882	795	720	654	598	550	508	472	0.517
		3	1063	981	902	830	764	706	655	609	569	0.412
		4	1117	1049	981	915	853	797	745	698	655	0.342
2 1/2" 145 pcf Above Deck	30/4 K ₃ = 2377 kip/in.	0	5656	5505	5404	5332	5278	5236	5202	--	--	1.054
		1	6039	5811	5659	5551	5470	5406	5356	5314	5280	0.693
		2	6422	6118	5915	5770	5661	5577	5509	5454	5407	0.517
		3	6806	6425	6171	5989	5853	5747	5662	5593	5535	0.412
		4	7189	6731	6426	6208	6045	5917	5816	5732	5663	0.342
2 1/2" 110 pcf Above Deck	30/4 K ₃ = 2377 kip/in.	0	3996	3845	3744	3672	3618	3576	3542	--	--	1.054
		1	4379	4151	3999	3891	3810	3746	3696	3654	3620	0.693
		2	4762	4458	4255	4110	4001	3917	3849	3794	3747	0.517
		3	5146	4765	4511	4329	4193	4087	4002	3933	3875	0.412
		4	5529	5071	4766	4548	4385	4257	4156	4072	4003	0.342
Type I Insulating Fill	30/4 K ₃ = 257 kip/in.	0	1203	1052	951	879	825	783	749	--	--	1.054
		1	1586	1358	1206	1098	1017	953	903	861	827	0.693
		2	1969	1665	1462	1317	1208	1124	1056	1001	954	0.517
		3	2353	1972	1718	1536	1400	1294	1209	1140	1082	0.412
		4	2736	2278	1973	1755	1592	1464	1363	1279	1210	0.342
Type II Insulating Fill	30/4 K ₃ = 257 kip/in.	0	1472	1321	1220	1148	1094	1052	1018	--	--	1.054
		1	1855	1627	1475	1367	1286	1222	1172	1130	1096	0.693
		2	2238	1934	1731	1586	1477	1393	1325	1270	1223	0.517
		3	2622	2241	1987	1805	1669	1563	1478	1409	1351	0.412
		4	3005	2547	2242	2024	1861	1733	1632	1548	1479	0.342

Nominal Shear Due To Panel Buckling (S_n), PLF/ Span, Ft.

Buckling:	Φ LRFD	Ω ASD
	0.80	2.00

Type of Fill	Deck Profile	I in ⁴ /ft.	2	2.5	3	3.5	4	4.5	5	5.5	6
No Fill	1.0 Form	0.063	6791	4346	3018	2218	1698	1341	1087	898	755

- Notes:**
1. Nominal shear and stiffness values are in compliance with the Steel Deck Institute's Deck Design Manual, DDM04 & AISI S100-16 (2020) w/S2-20.
 2. All nominal shear and stiffness values are based on a 3-span condition.
 3. An underline (###) denotes nominal shear values may be limited by shear buckling.
 4. The values shown as a dash (--); the conditions do not meet the Steel Deck Institute's side lap connection requirements.

Deck Type: 1.0 Form



Deck Gage: 20 (t = 0.0358")
 Support Fasteners: #12 Screws
 Sidelap Fasteners: #10 Screws

	Bare Deck Diaphragm		Filled Diaphragm	
	ΦLRFD	ΩASD	ΦLRFD	ΩASD
Fy: 60 ksi	Seismic: 0.70	Seismic: 2.30	Seismic: 0.50	Seismic: 3.25
Fu: 62 ksi	Wind: 0.80	Wind: 2.00	Wind: 0.50	Wind: 3.25
Fxx: 60 ksi	Other: 0.65	Other: 2.50	Other: 0.50	Other: 3.25

Nominal Shear Diaphragm Strength, PLF/ Span, Ft.

Type of Fill	Fastener Layout	Sidelap Conn. per Span	2	2.5	3	3.5	4	4.5	5	5.5	6	K ₁ ft. ⁻¹
No Fill (Bare Deck) K ₂ = 1056 kip/in. K ₄ = 3.42	30/9 D _n = 6	0	1507	1235	1044	902	791	701	629	--	--	0.580
		1	1894	1576	1343	1168	1032	923	834	757	692	0.461
		2	2228	1883	1621	1419	1259	1130	1024	936	862	0.382
		3	2510	2155	1876	1653	1474	1328	1207	1106	<u>1019</u>	0.326
		4	2746	2394	2106	1870	1677	1517	1383	<u>1270</u>	<u>1173</u>	0.285
	30/5 D _n = 121	0	956	796	679	591	521	461	414	--	--	0.967
		1	1122	949	817	716	635	570	516	468	427	0.675
		2	1262	1084	944	832	743	669	608	557	513	0.518
		3	1378	1203	1058	940	844	763	696	639	590	0.421
		4	1476	1306	1161	1040	938	852	780	718	664	0.354
	30/4 D _n = 222	0	789	663	569	496	440	390	349	--	--	1.161
		1	1052	921	812	723	649	588	536	493	455	0.764
		2	1213	1098	994	903	823	754	695	643	597	0.569
		3	1312	1218	1126	1041	963	893	830	774	724	0.454
		4	1376	1299	1221	1145	1073	1005	943	886	834	0.377
2 1/2" 145 pcf Above Deck	30/4 K ₃ = 2377 kip/in.	0	5817	5633	5511	5424	5358	5307	5267	--	--	1.161
		1	6329	6043	5853	5717	5615	5535	5472	5420	5376	0.764
		2	6842	6454	6195	6010	5871	5763	5677	5606	5547	0.569
		3	7355	6864	6536	6303	6127	5991	5882	5793	5718	0.454
		4	7867	7274	6878	6596	6384	6219	6087	5979	5889	0.377
2 1/2" 110 pcf Above Deck	30/4 K ₃ = 2377 kip/in.	0	4157	3973	3851	3764	3698	3647	3607	--	--	1.161
		1	4669	4383	4193	4057	3955	3875	3812	3760	3716	0.764
		2	5182	4794	4535	4350	4211	4103	4017	3946	3887	0.569
		3	5695	5204	4876	4643	4467	4331	4222	4133	4058	0.454
		4	6207	5614	5218	4936	4724	4559	4427	4319	4229	0.377
Type I Insulating Fill	30/4 K ₃ = 257 kip/in.	0	1364	1180	1058	971	905	854	814	--	--	1.161
		1	1876	1590	1400	1264	1162	1082	1019	967	923	0.764
		2	2389	2001	1742	1557	1418	1310	1224	1153	1094	0.569
		3	2902	2411	2083	1850	1674	1538	1429	1340	1265	0.454
		4	3414	2821	2425	2143	1931	1766	1634	1526	1436	0.377
Type II Insulating Fill	30/4 K ₃ = 257 kip/in.	0	1633	1449	1327	1240	1174	1123	1083	--	--	1.161
		1	2145	1859	1669	1533	1431	1351	1288	1236	1192	0.764
		2	2658	2270	2011	1826	1687	1579	1493	1422	1363	0.569
		3	3171	2680	2352	2119	1943	1807	1698	1609	1534	0.454
		4	3683	3090	2694	2412	2200	2035	1903	1795	1705	0.377

Nominal Shear Due To Panel Buckling (S_n), PLF/ Span, Ft.

Buckling:	Φ LRFD	Ω ASD
	0.80	2.00

Type of Fill	Deck Profile	I in ⁴ /ft.	2	2.5	3	3.5	4	4.5	5	5.5	6
No Fill	1.0 Form	0.077	9128	5842	4057	2980	2282	1803	1460	1207	1014

- Notes:**
1. Nominal shear and stiffness values are in compliance with the Steel Deck Institute's Deck Design Manual, DDM04 & AISI S100-16 (2020) w/S2-20.
 2. All nominal shear and stiffness values are based on a 3-span condition.
 3. An underline (###) denotes nominal shear values may be limited by shear buckling.
 4. The values shown as a dash (--); the conditions do not meet the Steel Deck Institute's side lap connection requirements.

Deck Type: 1.5 Form



Deck Gage: 22 (t = 0.0295")

Support Fasteners: 5/8" Puddle Weld or Equiv.

Sidelap Fasteners: #10 Screws

	Bare Deck Diaphragm			Filled Diaphragm	
	ΦLRFD	ΩASD		ΦLRFD	ΩASD
Fy: 50 ksi	Seismic: 0.55	Seismic: 3.00		Seismic: 0.50	Seismic: 3.25
Fu: 65 ksi	Wind: 0.75	Wind: 2.15		Wind: 0.50	Wind: 3.25
Fxx: 60 ksi	Other: 0.60	Other: 2.65		Other: 0.50	Other: 3.25

Nominal Shear Diaphragm Strength, PLF/ Span, Ft.

Type of Fill	Fastener Layout	Sidelap Conn. per Span	3	3.5	4	4.5	5	5.5	6	6.5	7	K ₁ ft. ⁻¹
No Fill (Bare Deck) K ₂ = 870 kip/in. K ₄ = 3.55	36/6 D _n = 37	0	933	805	707	630	568	--	--	--	--	0.648
		1	1297	1125	992	886	801	730	671	--	--	0.468
		2	1634	1427	1264	1133	1027	938	863	798	743	0.367
		3	1941	1708	1522	1370	1244	1139	1050	973	906	0.301
		4	2217	1967	1763	1594	1452	1333	1231	1143	1066	0.256
		5	2462	2203	1986	1804	1650	1519	1406	1307	1221	0.222
		6	2678	2416	2193	2001	1837	1696	1573	1466	1372	0.196
	36/4 D _n = 389	0	690	595	524	467	421	--	--	--	--	0.972
		1	870	754	665	594	537	490	450	--	--	0.617
		2	1040	906	802	719	650	594	546	505	470	0.452
		3	1199	1051	934	839	761	696	640	593	552	0.356
		4	1346	1187	1059	954	868	795	733	680	633	0.294
		5	1482	1315	1178	1066	971	891	823	764	713	0.251
		6	1606	1434	1291	1172	1071	985	911	847	791	0.218
2 1/2" 145 pcf Above Deck	36/4 K ₃ = 2377 kip/in.	0	5609	5508	5432	5373	5326	--	--	--	--	0.972
		1	5810	5680	5583	5507	5446	5397	5355	--	--	0.617
		2	6011	5853	5734	5641	5567	5506	5456	5413	5376	0.452
		3	6212	6025	5884	5775	5687	5616	5556	5506	5462	0.356
		4	6413	6197	6035	5909	5808	5725	5657	5598	5549	0.294
		5	6614	6369	6186	6043	5929	5835	5757	5691	5635	0.251
		6	6815	6542	6337	6177	6049	5945	5858	5784	5721	0.218
2 1/2" 110 pcf Above Deck	36/4 K ₃ = 2377 kip/in.	0	3949	3848	3772	3713	3666	--	--	--	--	0.972
		1	4150	4020	3923	3847	3786	3737	3695	--	--	0.617
		2	4351	4193	4074	3981	3907	3846	3796	3753	3716	0.452
		3	4552	4365	4224	4115	4027	3956	3896	3846	3802	0.356
		4	4753	4537	4375	4249	4148	4065	3997	3938	3889	0.294
		5	4954	4709	4526	4383	4269	4175	4097	4031	3975	0.251
		6	5155	4882	4677	4517	4389	4285	4198	4124	4061	0.218
Type I Insulating Fill	36/4 K ₃ = 257 kip/in.	0	1156	1055	979	920	873	--	--	--	--	0.972
		1	1357	1227	1130	1054	993	944	902	--	--	0.617
		2	1558	1400	1281	1188	1114	1053	1003	960	923	0.452
		3	1759	1572	1431	1322	1234	1163	1103	1053	1009	0.356
		4	1960	1744	1582	1456	1355	1272	1204	1145	1096	0.294
		5	2161	1916	1733	1590	1476	1382	1304	1238	1182	0.251
		6	2362	2089	1884	1724	1596	1492	1405	1331	1268	0.218
Type II Insulating Fill	36/4 K ₃ = 257 kip/in.	0	1425	1324	1248	1189	1142	--	--	--	--	0.972
		1	1626	1496	1399	1323	1262	1213	1171	--	--	0.617
		2	1827	1669	1550	1457	1383	1322	1272	1229	1192	0.452
		3	2028	1841	1700	1591	1503	1432	1372	1322	1278	0.356
		4	2229	2013	1851	1725	1624	1541	1473	1414	1365	0.294
		5	2430	2185	2002	1859	1745	1651	1573	1507	1451	0.251
		6	2631	2358	2153	1993	1865	1761	1674	1600	1537	0.218

Nominal Shear Due To Panel Buckling (S_n), PLF/ Span, Ft.

Buckling:	Φ LRFD	Ω ASD
	0.80	2.00

Type of Fill	Deck Profile	I in ⁴ /ft.	3	3.5	4	4.5	5	5.5	6	6.5	7
No Fill	1.5 Form	0.173	6379	4687	3588	2835	2296	1898	1595	1359	1172

- Notes:**
1. Nominal shear and stiffness values are in compliance with the Steel Deck Institute's Deck Design Manual, DDM04 & AISI S100-16 (2020) w/S2-20.
 2. All nominal shear and stiffness values are based on a 3-span condition.
 3. An underline (###) denotes nominal shear values may be limited by shear buckling.
 4. The values shown as a dash (--); the conditions do not meet the Steel Deck Institute's side lap connection requirements.

Deck Type: 1.5 Form

Deck Gage: 20 (t = 0.0358")

Support Fasteners: 5/8" Puddle Weld or Equiv.

Sidelap Fasteners: #10 Screws

	Bare Deck Diaphragm			Filled Diaphragm	
	ΦLRFD	ΩASD		ΦLRFD	ΩASD
Fy: 50 ksi	Seismic: 0.55	Seismic: 3.00		Seismic: 0.50	Seismic: 3.25
Fu: 65 ksi	Wind: 0.75	Wind: 2.15		Wind: 0.50	Wind: 3.25
Fxx: 60 ksi	Other: 0.60	Other: 2.65		Other: 0.50	Other: 3.25

Nominal Shear Diaphragm Strength, PLF/ Span, Ft.

Type of Fill	Fastener Layout	Sidelap Conn. per Span	3	3.5	4	4.5	5	5.5	6	6.5	7	K ₁ ft. ⁻¹
No Fill (Bare Deck) K ₂ = 1056 kip/in. K ₄ = 3.55	36/6 D _n = 28	0	1303	1117	978	869	782	--	--	--	--	0.716
		1	1841	1578	1381	1227	1104	1004	920	--	--	0.517
		2	2378	2038	1784	1585	1427	1297	1189	1098	1019	0.405
		3	2915	2499	2187	1944	1749	1590	1458	1346	1249	0.332
		4	3453	2959	2590	2302	2072	1883	1726	1594	1480	0.282
		5	3990	3420	2993	2660	2394	2176	1995	<u>1842</u>	<u>1710</u>	0.245
		6	4527	3881	3396	3018	2716	2469	<u>2264</u>	<u>2090</u>	<u>1940</u>	0.216
	36/4 D _n = 291	0	968	830	726	645	581	--	--	--	--	1.074
		1	1237	1060	928	825	742	675	618	--	--	0.681
		2	1506	1290	1129	1004	903	821	753	695	645	0.498
		3	1774	1521	1331	1183	1065	968	887	819	760	0.393
		4	2043	1751	1532	1362	1226	1114	1021	943	876	0.325
		5	2312	1981	1734	1541	1387	1261	1156	1067	991	0.276
		6	2580	2212	1935	1720	1548	1407	1290	1191	1106	0.241
2 1/2" 145 pcf Above Deck	36/4 K ₃ = 2377 kip/in.	0	5868	5730	5626	5545	5481	--	--	--	--	1.074
		1	6137	5960	5828	5725	5642	5575	5518	--	--	0.681
		2	6406	6190	6029	5904	5803	5721	5653	5595	5545	0.498
		3	6674	6421	6231	6083	5965	5868	5787	5719	5660	0.393
		4	6943	6651	6432	6262	6126	6014	5921	5843	5776	0.325
		5	7212	6881	6634	6441	6287	6161	6056	5967	5891	0.276
		6	7480	7112	6835	6620	6448	6307	6190	6091	6006	0.241
2 1/2" 110 pcf Above Deck	36/4 K ₃ = 2377 kip/in.	0	4208	4070	3966	3885	3821	--	--	--	--	1.074
		1	4477	4300	4168	4065	3982	3915	3858	--	--	0.681
		2	4746	4530	4369	4244	4143	4061	3993	3935	3885	0.498
		3	5014	4761	4571	4423	4305	4208	4127	4059	4000	0.393
		4	5283	4991	4772	4602	4466	4354	4261	4183	4116	0.325
		5	5552	5221	4974	4781	4627	4501	4396	4307	4231	0.276
		6	5820	5452	5175	4960	4788	4647	4530	4431	4346	0.241
Type I Insulating Fill	36/4 K ₃ = 257 kip/in.	0	1415	1277	1173	1092	1028	--	--	--	--	1.074
		1	1684	1507	1375	1272	1189	1122	1065	--	--	0.681
		2	1953	1737	1576	1451	1350	1268	1200	1142	1092	0.498
		3	2221	1968	1778	1630	1512	1415	1334	1266	1207	0.393
		4	2490	2198	1979	1809	1673	1561	1468	1390	1323	0.325
		5	2759	2428	2181	1988	1834	1708	1603	1514	1438	0.276
		6	3027	2659	2382	2167	1995	1854	1737	1638	1553	0.241
Type II Insulating Fill	36/4 K ₃ = 257 kip/in.	0	1684	1546	1442	1361	1297	--	--	--	--	1.074
		1	1953	1776	1644	1541	1458	1391	1334	--	--	0.681
		2	2222	2006	1845	1720	1619	1537	1469	1411	1361	0.498
		3	2450	2202	2016	1872	1756	1662	1583	1516	1459	0.393
		4	2705	2421	2208	2042	1910	1801	1711	1634	1569	0.324
		5	2960	2640	2399	2212	2063	1940	1838	1752	1678	0.276
		6	3216	2859	2591	2382	2216	2079	1966	1870	1787	0.240

Nominal Shear Due To Panel Buckling (S_n), PLF/ Span, Ft.

Buckling:	Φ LRFD	Ω ASD
	0.80	2.00

Type of Fill	Deck Profile	I in ⁴ /ft.	3	3.5	4	4.5	5	5.5	6	6.5	7
No Fill	1.5 Form	0.210	8530	6267	4798	3791	3071	2538	2132	1817	1567

- Notes:**
1. Nominal shear and stiffness values are in compliance with the Steel Deck Institute's Deck Design Manual, DDM04 & AISI S100-16 (2020) w/S2-20.
 2. All nominal shear and stiffness values are based on a 3-span condition.
 3. An underline (###) denotes nominal shear values may be limited by shear buckling.
 4. The values shown as a dash (--); the conditions do not meet the Steel Deck Institute's side lap connection requirements.

Deck Type: 1.5 Form

Deck Gage: 18 (t = 0.0474")

Support Fasteners: 5/8" Puddle Weld or Equiv.

Sidelap Fasteners: #10 Screws

	Bare Deck Diaphragm			Filled Diaphragm	
	ΦLRFD	ΩASD		ΦLRFD	ΩASD
Fy: 50 ksi	Seismic: 0.55	Seismic: 3.00		Seismic: 0.50	Seismic: 3.25
Fu: 65 ksi	Wind: 0.75	Wind: 2.15		Wind: 0.50	Wind: 3.25
Fxx: 60 ksi	Other: 0.60	Other: 2.65		Other: 0.50	Other: 3.25

Nominal Shear Diaphragm Strength, PLF/ Span, Ft.

Type of Fill	Fastener Layout	Sidelap Conn. per Span	3	3.5	4	4.5	5	5.5	6	6.5	7	K ₁ ft. ⁻¹
No Fill (Bare Deck) K ₂ = 1398 kip/in. K ₄ = 3.55	36/6 D _n = 18	0	1692	1450	1269	1128	1015	--	--	--	--	0.823
		1	2510	2152	1883	1674	1506	1369	1255	--	--	0.595
		2	3329	2853	2497	2219	1997	1816	1665	1536	1427	0.465
		3	4148	3555	3111	2765	2489	2262	2074	1914	1778	0.382
		4	4966	4257	3725	3311	2980	2709	2483	2292	2128	0.324
		5	5785	4959	4339	3857	3471	3155	2893	2670	2479	0.282
		6	6604	5660	4953	4402	3962	3602	3302	3048	2830	0.249
	36/4 D _n = 191	0	1257	1077	943	838	754	--	--	--	--	1.235
		1	1666	1428	1250	1111	1000	909	833	--	--	0.783
		2	2075	1779	1557	1384	1245	1132	1038	958	889	0.573
		3	2485	2130	1864	1656	1491	1355	1242	1147	1065	0.452
		4	2894	2481	2171	1929	1736	1579	1447	1336	1240	0.373
		5	3303	2831	2478	2202	1982	1802	1652	1525	1416	0.318
		6	3000	3182	2785	2475	2228	2025	1856	1714	1591	0.277
2 1/2" 145 pcf Above Deck	36/4 K ₃ = 2377 kip/in.	0	6157	5977	5843	5738	5654	--	--	--	--	1.235
		1	6566	6328	6150	6011	5900	5809	5733	--	--	0.783
		2	6975	6679	6457	6284	6145	6032	5938	5858	5789	0.573
		3	7385	7030	6764	6556	6391	6255	6142	6047	5965	0.452
		4	7794	7381	7071	6829	6636	6479	6347	6236	6140	0.373
		5	8203	7731	7378	7102	6882	6702	6552	6425	6316	0.318
		6	8613	8082	7685	7375	7128	6925	6756	6614	6491	0.277
2 1/2" 110 pcf Above Deck	36/4 K ₃ = 2377 kip/in.	0	4497	4317	4183	4078	3994	--	--	--	--	1.235
		1	4906	4668	4490	4351	4240	4149	4073	--	--	0.783
		2	5315	5019	4797	4624	4485	4372	4278	4198	4129	0.573
		3	5725	5370	5104	4896	4731	4595	4482	4387	4305	0.452
		4	6134	5721	5411	5169	4976	4819	4687	4576	4480	0.373
		5	6543	6071	5718	5442	5222	5042	4892	4765	4656	0.318
		6	6953	6422	6025	5715	5468	5265	5096	4954	4831	0.277
Type I Insulating Fill	36/4 K ₃ = 257 kip/in.	0	1704	1524	1390	1285	1201	--	--	--	--	1.235
		1	2113	1875	1697	1558	1447	1356	1280	--	--	0.783
		2	2522	2226	2004	1831	1692	1579	1485	1405	1336	0.573
		3	2932	2577	2311	2103	1938	1802	1689	1594	1512	0.452
		4	3341	2928	2618	2376	2183	2026	1894	1783	1687	0.373
		5	3750	3278	2925	2649	2429	2249	2099	1972	1863	0.318
		6	4160	3629	3232	2922	2675	2472	2303	2161	2038	0.277
Type II Insulating Fill	36/4 K ₃ = 257 kip/in.	0	1973	1793	1659	1554	1470	--	--	--	--	1.235
		1	2382	2144	1966	1827	1716	1625	1549	--	--	0.783
		2	2791	2495	2273	2100	1961	1848	1754	1674	1605	0.573
		3	3201	2846	2580	2372	2207	2071	1958	1863	1781	0.452
		4	3610	3197	2887	2645	2452	2295	2163	2052	1956	0.373
		5	4019	3547	3194	2918	2698	2518	2368	2241	2132	0.318
		6	4429	3898	3501	3191	2944	2741	2572	2430	2307	0.277

Nominal Shear Due To Panel Buckling (S_n), PLF/ Span, Ft.

Buckling:	Φ LRFD	Ω ASD
	0.80	2.00

Type of Fill	Deck Profile	I in ⁴ /ft.	3	3.5	4	4.5	5	5.5	6	6.5	7
No Fill	1.5 Form	0.277	12958	9520	7289	5759	4665	3855	3240	2760	2380

- Notes:**
1. Nominal shear and stiffness values are in compliance with the Steel Deck Institute's Deck Design Manual, DDM04 & AISI S100-16 (2020) w/S2-20.
 2. All nominal shear and stiffness values are based on a 3-span condition.
 3. An underline (###) denotes nominal shear values may be limited by shear buckling.
 4. The values shown as a dash (--); the conditions do not meet the Steel Deck Institute's side lap connection requirements.

Deck Type: 1.5 Form

Deck Gage: 22 (t = 0.0295")
Support Fasteners: #12 Screws
Sidelap Fasteners: #10 Screws

	Bare Deck Diaphragm		Filled Diaphragm	
	ΦLRFD	ΩASD	ΦLRFD	ΩASD
Fy: 50 ksi	Seismic: 0.70	Seismic: 2.30	Seismic: 0.50	Seismic: 3.25
Fu: 65 ksi	Wind: 0.80	Wind: 2.00	Wind: 0.50	Wind: 3.25
Fxx: 60 ksi	Other: 0.65	Other: 2.50	Other: 0.50	Other: 3.25

Nominal Shear Diaphragm Strength, PLF/ Span, Ft.

Type of Fill	Fastener Layout	Sidelap Conn. per Span	3	3.5	4	4.5	5	5.5	6	6.5	7	K ₁ ft. ⁻¹
No Fill (Bare Deck) K ₂ = 870 kip/in. K ₄ = 3.55	36/6 D _n = 37	0	483	414	362	322	290	--	--	--	--	0.732
		1	885	759	664	590	531	483	443	--	--	0.511
		2	1287	1103	965	858	772	702	644	594	552	0.392
		3	1689	1448	1267	1126	1013	921	845	780	724	0.318
		4	2091	1792	1568	1394	1255	1141	1046	965	896	0.268
		5	2493	2137	1870	1662	1496	1360	1247	1151	1068	0.231
		6	2895	2482	2171	1930	1737	1579	1448	1336	1241	0.203
	36/4 D _n = 389	0	359	308	269	239	215	--	--	--	--	1.098
		1	560	480	420	373	336	305	280	--	--	0.665
		2	761	652	571	507	457	415	380	351	326	0.477
		3	962	824	721	641	577	525	481	444	412	0.372
		4	1163	997	872	775	698	634	581	537	498	0.305
		5	1364	1169	1023	909	818	744	682	629	585	0.258
		6	1565	1341	1174	1043	939	854	782	722	671	0.224
2 1/2" 145 pcf Above Deck	36/4 K ₃ = 2377 kip/in.	0	5259	5208	5169	5139	5115	--	--	--	--	1.098
		1	5460	5380	5320	5273	5236	5205	5180	--	--	0.665
		2	5661	5552	5471	5407	5357	5315	5280	5251	5226	0.477
		3	5862	5724	5621	5541	5477	5425	5381	5344	5312	0.372
		4	6063	5897	5772	5675	5598	5534	5481	5437	5398	0.305
		5	6264	6069	5923	5809	5718	5644	5582	5529	5485	0.258
		6	6465	6241	6074	5943	5839	5754	5682	5622	5571	0.224
2 1/2" 110 pcf Above Deck	36/4 K ₃ = 2377 kip/in.	0	3599	3548	3509	3479	3455	--	--	--	--	1.098
		1	3800	3720	3660	3613	3576	3545	3520	--	--	0.665
		2	4001	3892	3811	3747	3697	3655	3620	3591	3566	0.477
		3	4202	4064	3961	3881	3817	3765	3721	3684	3652	0.372
		4	4403	4237	4112	4015	3938	3874	3821	3777	3738	0.305
		5	4604	4409	4263	4149	4058	3984	3922	3869	3825	0.258
		6	4805	4581	4414	4283	4179	4094	4022	3962	3911	0.224
Type I Insulating Fill	36/4 K ₃ = 257 kip/in.	0	806	755	716	686	662	--	--	--	--	1.098
		1	1007	927	867	820	783	752	727	--	--	0.665
		2	1208	1099	1018	954	904	862	827	798	773	0.477
		3	1409	1271	1168	1088	1024	972	928	891	859	0.372
		4	1610	1444	1319	1222	1145	1081	1028	984	945	0.305
		5	1811	1616	1470	1356	1265	1191	1129	1076	1032	0.258
		6	2012	1788	1621	1490	1386	1301	1229	1169	1118	0.224
Type II Insulating Fill	36/4 K ₃ = 257 kip/in.	0	1075	1024	985	955	931	--	--	--	--	1.098
		1	1276	1196	1136	1089	1052	1021	996	--	--	0.665
		2	1477	1368	1287	1223	1173	1131	1096	1067	1042	0.477
		3	1678	1540	1437	1357	1293	1241	1197	1160	1128	0.372
		4	1879	1713	1588	1491	1414	1350	1297	1253	1214	0.305
		5	2080	1885	1739	1625	1534	1460	1398	1345	1301	0.258
		6	2281	2057	1890	1759	1655	1570	1498	1438	1387	0.224

Nominal Shear Due To Panel Buckling (S_n), PLF/ Span, Ft.

Buckling:	Φ LRFD	Ω ASD
	0.80	2.00

Type of Fill	Deck Profile	I in ⁴ /ft.	3	3.5	4	4.5	5	5.5	6	6.5	7
No Fill	1.5 Form	0.173	6379	4687	3588	2835	2296	1898	1595	1359	1172

- Notes:**
1. Nominal shear and stiffness values are in compliance with the Steel Deck Institute's Deck Design Manual, DDM04 & AISI S100-16 (2020) w/S2-20.
 2. All nominal shear and stiffness values are based on a 3-span condition.
 3. An underline (###) denotes nominal shear values may be limited by shear buckling.
 4. The values shown as a dash (--); the conditions do not meet the Steel Deck Institute's side lap connection requirements.

Deck Type: 1.5 Form

Deck Gage: 20 (t = 0.0358")
Support Fasteners: #12 Screws
Sidelap Fasteners: #10 Screws

	Bare Deck Diaphragm		Filled Diaphragm	
	ΦLRFD	ΩASD	ΦLRFD	ΩASD
Fy: 50 ksi	Seismic: 0.70	Seismic: 2.30	Seismic: 0.50	Seismic: 3.25
Fu: 65 ksi	Wind: 0.80	Wind: 2.00	Wind: 0.50	Wind: 3.25
Fxx: 60 ksi	Other: 0.65	Other: 2.50	Other: 0.50	Other: 3.25

Nominal Shear Diaphragm Strength, PLF/ Span, Ft.

Type of Fill	Fastener Layout	Sidelap Conn. per Span	3	3.5	4	4.5	5	5.5	6	6.5	7	K ₁ ft. ⁻¹
No Fill (Bare Deck) K ₂ = 1056 kip/in. K ₄ = 3.55	36/6 D _n = 28	0	586	503	440	391	352	--	--	--	--	0.806
		1	1124	963	843	749	674	613	562	--	--	0.562
		2	1661	1424	1246	1107	997	906	831	767	712	0.432
		3	2198	1884	1649	1466	1319	1199	1099	1015	942	0.351
		4	2736	2345	2052	1824	1641	1492	1368	1263	1172	0.295
		5	3273	2805	2455	2182	1964	1785	1637	1511	1403	0.255
		6	3810	3266	2858	2540	2286	2078	1905	1759	1633	0.224
	36/4 D _n = 291	0	436	373	327	290	261	--	--	--	--	1.209
		1	704	604	528	469	423	384	352	--	--	0.733
		2	973	834	730	649	584	531	486	449	417	0.526
		3	1242	1064	931	828	745	677	621	573	532	0.410
		4	1510	1294	1133	1007	906	824	755	697	647	0.336
		5	1779	1525	1334	1186	1067	970	889	821	762	0.285
		6	2048	1755	1536	1365	1229	1117	1024	945	878	0.247
2 1/2" 145 pcf Above Deck	36/4 K ₃ = 2377 kip/in.	0	5336	5273	5227	5190	5161	--	--	--	--	1.209
		1	5604	5504	5428	5369	5323	5284	5252	--	--	0.733
		2	5873	5734	5630	5549	5484	5431	5386	5349	5317	0.526
		3	6142	5964	5831	5728	5645	5577	5521	5473	5432	0.410
		4	6410	6194	6033	5907	5806	5724	5655	5597	5547	0.336
		5	6679	6425	6234	6086	5967	5870	5789	5721	5662	0.285
		6	6948	6655	6436	6265	6129	6017	5924	5845	5778	0.247
2 1/2" 110 pcf Above Deck	36/4 K ₃ = 2377 kip/in.	0	3676	3613	3567	3530	3501	--	--	--	--	1.209
		1	3944	3844	3768	3709	3663	3624	3592	--	--	0.733
		2	4213	4074	3970	3889	3824	3771	3726	3689	3657	0.526
		3	4482	4304	4171	4068	3985	3917	3861	3813	3772	0.410
		4	4750	4534	4373	4247	4146	4064	3995	3937	3887	0.336
		5	5019	4765	4574	4426	4307	4210	4129	4061	4002	0.285
		6	5288	4995	4776	4605	4469	4357	4264	4185	4118	0.247
Type I Insulating Fill	36/4 K ₃ = 257 kip/in.	0	883	820	774	737	708	--	--	--	--	1.209
		1	1151	1051	975	916	870	831	799	--	--	0.733
		2	1420	1281	1177	1096	1031	978	933	896	864	0.526
		3	1689	1511	1378	1275	1192	1124	1068	1020	979	0.410
		4	1957	1741	1580	1454	1353	1271	1202	1144	1094	0.336
		5	2226	1972	1781	1633	1514	1417	1336	1268	1209	0.285
		6	2495	2202	1983	1812	1676	1564	1471	1392	1325	0.247
Type II Insulating Fill	36/4 K ₃ = 257 kip/in.	0	1152	1089	1043	1006	977	--	--	--	--	1.209
		1	1420	1320	1244	1185	1139	1100	1068	--	--	0.733
		2	1689	1550	1446	1365	1300	1247	1202	1165	1133	0.526
		3	1958	1780	1647	1544	1461	1393	1337	1289	1248	0.410
		4	2226	2010	1849	1723	1622	1540	1471	1413	1363	0.336
		5	2495	2241	2050	1902	1783	1686	1605	1537	1478	0.285
		6	2764	2471	2252	2081	1945	1833	1740	1661	1594	0.247

Nominal Shear Due To Panel Buckling (S_n), PLF/ Span, Ft.

Buckling:	Φ_{LRFD}	Ω_{ASD}
	0.80	2.00

Type of Fill	Deck Profile	I in ⁴ /ft.	3	3.5	4	4.5	5	5.5	6	6.5	7
No Fill	1.5 Form	0.210	8530	6267	4798	3791	3071	2538	2132	1817	1567

- Notes:**
1. Nominal shear and stiffness values are in compliance with the Steel Deck Institute's Deck Design Manual, DDM04 & AISI S100-16 (2020) w/S2-20.
 2. All nominal shear and stiffness values are based on a 3-span condition.
 3. An underline (###) denotes nominal shear values may be limited by shear buckling.
 4. The values shown as a dash (--); the conditions do not meet the Steel Deck Institute's side lap connection requirements.

Deck Type: 1.5 Form

Deck Gage: 18 (t = 0.0474")
 Support Fasteners: #12 Screws
 Sidelap Fasteners: #10 Screws

	Bare Deck Diaphragm		Filled Diaphragm	
	ΦLRFD	ΩASD	ΦLRFD	ΩASD
Fy: 50 ksi	Seismic: 0.70	Seismic: 2.30	Seismic: 0.50	Seismic: 3.25
Fu: 65 ksi	Wind: 0.80	Wind: 2.00	Wind: 0.50	Wind: 3.25
Fxx: 60 ksi	Other: 0.65	Other: 2.50	Other: 0.50	Other: 3.25

Nominal Shear Diaphragm Strength, PLF/ Span, Ft.

Type of Fill	Fastener Layout	Sidelap Conn. per Span	3	3.5	4	4.5	5	5.5	6	6.5	7	K ₁ ft. ⁻¹
No Fill (Bare Deck) K ₂ = 1398 kip/in. K ₄ = 3.55	36/6 D _n = 18	0	776	666	582	518	466	--	--	--	--	0.928
		1	1595	1367	1196	1063	957	870	798	--	--	0.647
		2	2414	2069	1810	1609	1448	1317	1207	1114	1034	0.497
		3	3232	2771	2424	2155	1939	1763	1616	1492	1385	0.403
		4	4051	3472	3038	2701	2431	2210	2026	1870	1736	0.339
		5	4870	4174	3652	3247	2922	2656	2435	2248	2087	0.293
		6	5688	4876	4266	3792	3413	3103	2844	2625	2438	0.258
	36/4 D _n = 191	0	577	494	433	385	346	--	--	--	--	1.392
		1	986	845	740	657	592	538	493	--	--	0.843
		2	1395	1196	1047	930	837	761	698	644	598	0.605
		3	1805	1547	1354	1203	1083	984	902	833	773	0.472
		4	2214	1898	1661	1476	1328	1208	1107	1022	949	0.387
		5	2623	2249	1968	1749	1574	1431	1312	1211	1124	0.327
		6	3000	2600	2275	2022	1820	1654	1516	1400	1300	0.284
2 1/2" 145 pcf Above Deck	36/4 K ₃ = 2377 kip/in.	0	5477	5394	5333	5285	5246	--	--	--	--	1.392
		1	5886	5745	5640	5557	5492	5438	5393	--	--	0.843
		2	6295	6096	5947	5830	5737	5661	5598	5544	5498	0.605
		3	6705	6447	6254	6103	5983	5884	5802	5733	5673	0.472
		4	7114	6798	6561	6376	6228	6108	6007	5922	5849	0.387
		5	7523	7149	6868	6649	6474	6331	6212	6111	6024	0.327
		6	7933	7500	7175	6922	6720	6554	6416	6300	6200	0.284
2 1/2" 110 pcf Above Deck	36/4 K ₃ = 2377 kip/in.	0	3817	3734	3673	3625	3586	--	--	--	--	1.392
		1	4226	4085	3980	3897	3832	3778	3733	--	--	0.843
		2	4635	4436	4287	4170	4077	4001	3938	3884	3838	0.605
		3	5045	4787	4594	4443	4323	4224	4142	4073	4013	0.472
		4	5454	5138	4901	4716	4568	4448	4347	4262	4189	0.387
		5	5863	5489	5208	4989	4814	4671	4552	4451	4364	0.327
		6	6273	5840	5515	5262	5060	4894	4756	4640	4540	0.284
Type I Insulating Fill	36/4 K ₃ = 257 kip/in.	0	1024	941	880	832	793	--	--	--	--	1.392
		1	1433	1292	1187	1104	1039	985	940	--	--	0.843
		2	1842	1643	1494	1377	1284	1208	1145	1091	1045	0.605
		3	2252	1994	1801	1650	1530	1431	1349	1280	1220	0.472
		4	2661	2345	2108	1923	1775	1655	1554	1469	1396	0.387
		5	3070	2696	2415	2196	2021	1878	1759	1658	1571	0.327
		6	3480	3047	2722	2469	2267	2101	1963	1847	1747	0.284
Type II Insulating Fill	36/4 K ₃ = 257 kip/in.	0	1293	1210	1149	1101	1062	--	--	--	--	1.392
		1	1702	1561	1456	1373	1308	1254	1209	--	--	0.843
		2	2111	1912	1763	1646	1553	1477	1414	1360	1314	0.605
		3	2521	2263	2070	1919	1799	1700	1618	1549	1489	0.472
		4	2930	2614	2377	2192	2044	1924	1823	1738	1665	0.387
		5	3339	2965	2684	2465	2290	2147	2028	1927	1840	0.327
		6	3749	3316	2991	2738	2536	2370	2232	2116	2016	0.284

Nominal Shear Due To Panel Buckling (S_n), PLF/ Span, Ft.

Buckling:	Φ LRFD	Ω ASD
	0.80	2.00

Type of Fill	Deck Profile	I in ⁴ /ft.	3	3.5	4	4.5	5	5.5	6	6.5	7
No Fill	1.5 Form	0.273	12818	9417	7210	5697	4614	3814	3204	2730	2354

- Notes:**
1. Nominal shear and stiffness values are in compliance with the Steel Deck Institute's Deck Design Manual, DDM04 & AISI S100-16 (2020) w/S2-20.
 2. All nominal shear and stiffness values are based on a 3-span condition.
 3. An underline (###) denotes nominal shear values may be limited by shear buckling.
 4. The values shown as a dash (--); the conditions do not meet the Steel Deck Institute's side lap connection requirements.

Deck Type: 1.5 Composite

Deck Gage: 22 (t = 0.0295")

Support Fasteners: 5/8" Puddle Weld or Equiv.

Sidelap Fasteners: #10 Screws

	Bare Deck Diaphragm		Filled Diaphragm	
	ΦLRFD	ΩASD	ΦLRFD	ΩASD
Fy: 50 ksi	Seismic: 0.55	Seismic: 3.00	Seismic: 0.50	Seismic: 3.25
Fu: 65 ksi	Wind: 0.75	Wind: 2.15	Wind: 0.50	Wind: 3.25
Fxx: 60 ksi	Other: 0.60	Other: 2.65	Other: 0.50	Other: 3.25

Nominal Shear Diaphragm Strength, PLF/ Span, Ft.

Type of Fill	Fastener Layout	Sidelap Conn. per Span	4	5	6	7	8	9	10	11	12	K ₁ ft. ⁻¹
No Fill (Bare Deck) K ₂ = 870 kip/in. K ₄ = 3.54	36/4 D _n = 864	0	725	569	--	--	--	--	--	--	--	0.744
		1	876	690	566	--	--	--	--	--	--	0.517
		2	1014	811	667	564	487	426	--	--	--	0.396
		3	1135	931	767	650	562	493	439	394	357	0.321
		4	1250	1035	868	736	637	560	499	449	<u>407</u>	0.269
		5	1359	1132	965	822	713	627	559	<u>504</u>	<u>457</u>	0.232
		6	1461	1224	1048	908	788	694	<u>620</u>	<u>558</u>	<u>507</u>	0.204
		7	1556	1313	1129	987	863	<u>761</u>	<u>680</u>	<u>613</u>	<u>558</u>	0.182
		8	1645	1397	1207	1058	<u>939</u>	<u>828</u>	<u>740</u>	<u>668</u>	<u>608</u>	0.164
2 1/2" 145 pcf Above Deck	36/4 K ₃ = 2377 kip/in.	0	5679	5523	--	--	--	--	--	--	--	0.744
		1	5829	5644	5520	--	--	--	--	--	--	0.517
		2	5980	5764	5620	5517	5440	5380	--	--	--	0.396
		3	6131	5885	5721	5603	5515	5447	5392	5348	5310	0.321
		4	6282	6005	5821	5690	5591	5514	5453	5402	5361	0.269
		5	6432	6126	5922	5776	5666	5581	5513	5457	5411	0.232
		6	6583	6247	6022	5862	5742	5648	5573	5512	5461	0.204
		7	6734	6367	6123	5948	5817	5715	5634	5567	5511	0.182
		8	6885	6488	6223	6034	5892	5782	5694	5622	5562	0.164
2 1/2" 110 pcf Above Deck	36/4 K ₃ = 2377 kip/in.	0	4019	3863	--	--	--	--	--	--	--	0.744
		1	4169	3984	3860	--	--	--	--	--	--	0.517
		2	4320	4104	3960	3857	3780	3720	--	--	--	0.396
		3	4471	4225	4061	3943	3855	3787	3732	3688	3650	0.321
		4	4622	4345	4161	4030	3931	3854	3793	3742	3701	0.269
		5	4772	4466	4262	4116	4006	3921	3853	3797	3751	0.232
		6	4923	4587	4362	4202	4082	3988	3913	3852	3801	0.204
		7	5074	4707	4463	4288	4157	4055	3974	3907	3851	0.182
		8	5225	4828	4563	4374	4232	4122	4034	3962	3902	0.164
Type I Insulating Fill	36/4 K ₃ = 257 kip/in.	0	1226	1070	--	--	--	--	--	--	--	0.744
		1	1376	1191	1067	--	--	--	--	--	--	0.517
		2	1527	1311	1167	1064	987	927	--	--	--	0.396
		3	1678	1432	1268	1150	1062	994	939	895	857	0.321
		4	1829	1552	1368	1237	1138	1061	1000	949	908	0.269
		5	1979	1673	1469	1323	1213	1128	1060	1004	958	0.232
		6	2130	1794	1569	1409	1289	1195	1120	1059	1008	0.204
		7	2281	1914	1670	1495	1364	1262	1181	1114	1058	0.182
		8	2432	2035	1770	1581	1439	1329	1241	1169	1109	0.164
Type II Insulating Fill	36/4 K ₃ = 257 kip/in.	0	1495	1339	--	--	--	--	--	--	--	0.744
		1	1645	1460	1336	--	--	--	--	--	--	0.517
		2	1796	1580	1436	1333	1256	1196	--	--	--	0.396
		3	1947	1701	1537	1419	1331	1263	1208	1164	1126	0.321
		4	2098	1821	1637	1506	1407	1330	1269	1218	1177	0.269
		5	2248	1942	1738	1592	1482	1397	1329	1273	1227	0.232
		6	2399	2063	1838	1678	1558	1464	1389	1328	1277	0.204
		7	2550	2183	1939	1764	1633	1531	1450	1383	1327	0.182
		8	2701	2304	2039	1850	1708	1598	1510	1438	1378	0.164

Deck Type: 1.5 Composite



Nominal Shear Due To Panel Buckling (S_n), PLF/ Span, Ft.

Buckling:	Φ_{LRFD}	Ω_{ASD}
	0.80	2.00

Type of Fill	Deck Profile	I in ⁴ /ft.	4	5	6	7	8	9	10	11	12
No Fill	1.5 Comp.	0.173	3591	2298	1596	1173	898	709	575	475	399

- Notes:**
1. Nominal shear and stiffness values are in compliance with the Steel Deck Institute's Deck Design Manual, DDM04 & AISI S100-16 (2020) w/S2-20.
 2. All nominal shear and stiffness values are based on a 3-span condition.
 3. An underline (###) denotes nominal shear values may be limited by shear buckling.
 4. The values shown as a dash (--); the conditions do not meet the Steel Deck Institute's side lap connection requirements.

Deck Type: 1.5 Composite



Deck Gage: 20 (t = 0.0358")

Support Fasteners: 5/8" Puddle Weld or Equiv.

Sidelap Fasteners: #10 Screws

	Bare Deck Diaphragm		Filled Diaphragm	
	ΦLRFD	ΩASD	ΦLRFD	ΩASD
Fy: 50 ksi	Seismic: 0.55	Seismic: 3.00	Seismic: 0.50	Seismic: 3.25
Fu: 65 ksi	Wind: 0.75	Wind: 2.15	Wind: 0.50	Wind: 3.25
Fxx: 60 ksi	Other: 0.60	Other: 2.65	Other: 0.50	Other: 3.25

Nominal Shear Diaphragm Strength, PLF/ Span, Ft.

Type of Fill	Fastener Layout	Sidelap Conn. per Span	4	5	6	7	8	9	10	11	12	K ₁ ft. ⁻¹
No Fill (Bare Deck) K ₂ = 1056 kip/in. K ₄ = 3.54	36/4 D _n = 646	0	996	784	--	--	--	--	--	--	--	0.822
		1	1198	945	776	--	--	--	--	--	--	0.570
		2	1377	1106	911	771	667	585	--	--	--	0.437
		3	1540	1266	1045	886	767	675	601	540	489	0.354
		4	1694	1401	1179	1001	868	764	681	613	<u>557</u>	0.297
		5	1840	1531	1305	1117	969	854	762	<u>686</u>	<u>624</u>	0.256
		6	1977	1656	1417	1232	1070	943	<u>842</u>	<u>760</u>	<u>691</u>	0.225
		7	2105	1775	1525	1333	1170	<u>1033</u>	<u>923</u>	<u>833</u>	<u>758</u>	0.201
		8	2226	1888	1630	1428	<u>1269</u>	<u>1122</u>	<u>1004</u>	<u>906</u>	<u>825</u>	0.181
2 1/2" 145 pcf Above Deck	36/4 K ₃ = 2377 kip/in.	0	5963	5750	--	--	--	--	--	--	--	0.822
		1	6164	5911	5743	--	--	--	--	--	--	0.570
		2	6366	6073	5877	5738	5633	5551	--	--	--	0.437
		3	6567	6234	6012	5853	5734	5641	5567	5506	5456	0.354
		4	6769	6395	6146	5968	5834	5731	5648	5580	5523	0.297
		5	6970	6556	6280	6083	5935	5820	5728	5653	5590	0.256
		6	7172	6717	6415	6198	6036	5910	5809	5726	5657	0.225
		7	7373	6879	6549	6313	6137	5999	5889	5799	5724	0.201
		8	7575	7040	6683	6428	6237	6089	5970	5873	5792	0.181
2 1/2" 110 pcf Above Deck	36/4 K ₃ = 2377 kip/in.	0	4303	4090	--	--	--	--	--	--	--	0.822
		1	4504	4251	4083	--	--	--	--	--	--	0.570
		2	4706	4413	4217	4078	3973	3891	--	--	--	0.437
		3	4907	4574	4352	4193	4074	3981	3907	3846	3796	0.354
		4	5109	4735	4486	4308	4174	4071	3988	3920	3863	0.297
		5	5310	4896	4620	4423	4275	4160	4068	3993	3930	0.256
		6	5512	5057	4755	4538	4376	4250	4149	4066	3997	0.225
		7	5713	5219	4889	4653	4477	4339	4229	4139	4064	0.201
		8	5915	5380	5023	4768	4577	4429	4310	4213	4132	0.181
Type I Insulating Fill	36/4 K ₃ = 257 kip/in.	0	1510	1297	--	--	--	--	--	--	--	0.822
		1	1711	1458	1290	--	--	--	--	--	--	0.570
		2	1913	1620	1424	1285	1180	1098	--	--	--	0.437
		3	2114	1781	1559	1400	1281	1188	1114	1053	1003	0.354
		4	2316	1942	1693	1515	1381	1278	1195	1127	1070	0.297
		5	2517	2103	1827	1630	1482	1367	1275	1200	1137	0.256
		6	2719	2264	1962	1745	1583	1457	1356	1273	1204	0.225
		7	2920	2426	2096	1860	1684	1546	1436	1346	1271	0.201
		8	3122	2587	2230	1975	1784	1636	1517	1420	1339	0.181
Type II Insulating Fill	36/4 K ₃ = 257 kip/in.	0	1779	1566	--	--	--	--	--	--	--	0.822
		1	1980	1727	1559	--	--	--	--	--	--	0.570
		2	2182	1889	1693	1554	1449	1367	--	--	--	0.437
		3	2383	2050	1828	1669	1550	1457	1383	1322	1272	0.354
		4	2585	2211	1962	1784	1650	1547	1464	1396	1339	0.297
		5	2786	2372	2096	1899	1751	1636	1544	1469	1406	0.256
		6	2988	2533	2231	2014	1852	1726	1625	1542	1473	0.225
		7	3189	2695	2365	2129	1953	1815	1705	1615	1540	0.201
		8	3391	2856	2499	2244	2053	1905	1786	1689	1608	0.181

Deck Type: 1.5 Composite



Nominal Shear Due To Panel Buckling (S_n), PLF/ Span, Ft.

Buckling:	Φ_{LRFD}	Ω_{ASD}
	0.80	2.00

Type of Fill	Deck Profile	I in ⁴ /ft.	4	5	6	7	8	9	10	11	12
No Fill	1.5 Comp.	0.210	4802	3073	2134	1568	1200	948	768	635	534

- Notes:**
1. Nominal shear and stiffness values are in compliance with the Steel Deck Institute's Deck Design Manual, DDM04 & AISI S100-16 (2020) w/S2-20.
 2. All nominal shear and stiffness values are based on a 3-span condition.
 3. An underline (###) denotes nominal shear values may be limited by shear buckling.
 4. The values shown as a dash (--); the conditions do not meet the Steel Deck Institute's side lap connection requirements.

Deck Type: 1.5 Composite



Deck Gage: 18 (t = 0.0474")

Support Fasteners: 5/8" Puddle Weld or Equiv.

Sidelap Fasteners: #10 Screws

	Bare Deck Diaphragm		Filled Diaphragm	
	ΦLRFD	ΩASD	ΦLRFD	ΩASD
Fy: 50 ksi	Seismic: 0.55	Seismic: 3.00	Seismic: 0.50	Seismic: 3.25
Fu: 65 ksi	Wind: 0.75	Wind: 2.15	Wind: 0.50	Wind: 3.25
Fxx: 60 ksi	Other: 0.60	Other: 2.65	Other: 0.50	Other: 3.25

Nominal Shear Diaphragm Strength, PLF/ Span, Ft.

Type of Fill	Fastener Layout	Sidelap Conn. per Span	4	5	6	7	8	9	10	11	12	K ₁ ft. ⁻¹
No Fill (Bare Deck) K ₂ = 1398 kip/in. K ₄ = 3.54	36/4 D _n = 424	0	1305	1029	--	--	--	--	--	--	--	0.946
		1	1604	1274	1049	--	--	--	--	--	--	0.656
		2	1862	1520	1254	1064	922	811	--	--	--	0.502
		3	2104	1735	1459	1240	1075	948	845	762	692	0.407
		4	2332	1936	1649	1415	1229	1084	968	873	794	0.342
		5	2543	2128	1820	1586	1382	1220	1091	<u>985</u>	<u>897</u>	0.295
		6	2740	2310	1985	1736	1536	1357	<u>1214</u>	<u>1097</u>	<u>999</u>	0.259
		7	2921	2482	2144	1880	1671	<u>1493</u>	<u>1336</u>	<u>1208</u>	<u>1101</u>	0.231
		8	3088	2644	2295	2020	1800	<u>1620</u>	<u>1459</u>	<u>1320</u>	<u>1204</u>	0.209
2 1/2" 145 pcf Above Deck	36/4 K ₃ = 2377 kip/in.	0	6280	6004	--	--	--	--	--	--	--	0.946
		1	6587	6249	6024	--	--	--	--	--	--	0.656
		2	6894	6495	6229	6039	5897	5786	--	--	--	0.502
		3	7201	6740	6434	6215	6050	5922	5820	5737	5667	0.407
		4	7508	6986	6638	6390	6204	6059	5943	5848	5769	0.342
		5	7815	7232	6843	6565	6357	6195	6066	5960	5872	0.295
		6	8122	7477	7048	6741	6511	6332	6189	6071	5974	0.259
		7	8429	7723	7252	6916	6664	6468	6311	6183	6076	0.231
		8	8736	7968	7457	7092	6818	6605	6434	6295	6179	0.209
2 1/2" 110 pcf Above Deck	36/4 K ₃ = 2377 kip/in.	0	4620	4344	--	--	--	--	--	--	--	0.946
		1	4927	4589	4364	--	--	--	--	--	--	0.656
		2	5234	4835	4569	4379	4237	4126	--	--	--	0.502
		3	5541	5080	4774	4555	4390	4262	4160	4077	4007	0.407
		4	5848	5326	4978	4730	4544	4399	4283	4188	4109	0.342
		5	6155	5572	5183	4905	4697	4535	4406	4300	4212	0.295
		6	6462	5817	5388	5081	4851	4672	4529	4411	4314	0.259
		7	6769	6063	5592	5256	5004	4808	4651	4523	4416	0.231
		8	7076	6308	5797	5432	5158	4945	4774	4635	4519	0.209
Type I Insulating Fill	36/4 K ₃ = 257 kip/in.	0	1827	1551	--	--	--	--	--	--	--	0.946
		1	2134	1796	1571	--	--	--	--	--	--	0.656
		2	2441	2042	1776	1586	1444	1333	--	--	--	0.502
		3	2748	2287	1981	1762	1597	1469	1367	1284	1214	0.407
		4	3055	2533	2185	1937	1751	1606	1490	1395	1316	0.342
		5	3362	2779	2390	2112	1904	1742	1613	1507	1419	0.295
		6	3669	3024	2595	2288	2058	1879	1736	1618	1521	0.259
		7	3976	3270	2799	2463	2211	2015	1858	1730	1623	0.231
		8	4283	3515	3004	2639	2365	2152	1981	1842	1726	0.209
Type II Insulating Fill	36/4 K ₃ = 257 kip/in.	0	2096	1820	--	--	--	--	--	--	--	0.946
		1	2403	2065	1840	--	--	--	--	--	--	0.656
		2	2710	2311	2045	1855	1713	1602	--	--	--	0.502
		3	3017	2556	2250	2031	1866	1738	1636	1553	1483	0.407
		4	3324	2802	2454	2206	2020	1875	1759	1664	1585	0.342
		5	3631	3048	2659	2381	2173	2011	1882	1776	1688	0.295
		6	3938	3293	2864	2557	2327	2148	2005	1887	1790	0.259
		7	4245	3539	3068	2732	2480	2284	2127	1999	1892	0.231
		8	4552	3784	3273	2908	2634	2421	2250	2111	1995	0.209

Deck Type: 1.5 Composite



Nominal Shear Due To Panel Buckling (S_n), PLF/ Span, Ft.

Buckling:	Φ_{LRFD}	Ω_{ASD}
	0.80	2.00

Type of Fill	Deck Profile	I in ⁴ /ft.	4	5	6	7	8	9	10	11	12
No Fill	1.5 Comp.	0.273	7216	4618	3207	2356	1804	1425	1155	954	802

- Notes:**
1. Nominal shear and stiffness values are in compliance with the Steel Deck Institute's Deck Design Manual, DDM04 & AISI S100-16 (2020) w/S2-20.
 2. All nominal shear and stiffness values are based on a 3-span condition.
 3. An underline (###) denotes nominal shear values may be limited by shear buckling.
 4. The values shown as a dash (--); the conditions do not meet the Steel Deck Institute's side lap connection requirements.

Deck Type: 1.5 Composite



Deck Gage: 22 (t = 0.0295")
Support Fasteners: #12 Screws
Sidelap Fasteners: #10 Screws

	Bare Deck Diaphragm		Filled Diaphragm	
	ΦLRFD	ΩASD	ΦLRFD	ΩASD
Fy: 50 ksi	Seismic: 0.70	Seismic: 2.30	Seismic: 0.50	Seismic: 3.25
Fu: 65 ksi	Wind: 0.80	Wind: 2.00	Wind: 0.50	Wind: 3.25
Fxx: 60 ksi	Other: 0.65	Other: 2.50	Other: 0.50	Other: 3.25

Nominal Shear Diaphragm Strength, PLF/ Span, Ft.

Type of Fill	Fastener Layout	Sidelap Conn. per Span	4	5	6	7	8	9	10	11	12	K ₁ ft. ⁻¹
No Fill (Bare Deck) K ₂ = 870 kip/in. K ₄ = 3.54	36/4 D _n = 864	0	367	288	--	--	--	--	--	--	--	0.841
		1	511	409	336	--	--	--	--	--	--	0.561
		2	630	521	437	370	321	282	--	--	--	0.421
		3	735	616	527	456	396	349	311	281	255	0.337
		4	828	703	607	532	471	416	372	335	305	0.281
		5	909	781	680	600	535	482	432	390	355	0.241
		6	978	852	748	664	595	538	490	445	<u>406</u>	0.211
		7	1038	914	810	723	651	591	540	<u>497</u>	<u>456</u>	0.187
		8	1089	970	867	779	704	642	<u>588</u>	<u>542</u>	<u>502</u>	0.169
2 1/2" 145 pcf Above Deck	36/4 K ₃ = 2377 kip/in.	0	5294	5215	--	--	--	--	--	--	--	0.841
		1	5445	5336	5263	--	--	--	--	--	--	0.561
		2	5595	5456	5364	5297	5248	5209	--	--	--	0.421
		3	5746	5577	5464	5384	5323	5276	5238	5208	5182	0.337
		4	5897	5698	5565	5470	5398	5343	5299	5263	5232	0.281
		5	6048	5818	5665	5556	5474	5410	5359	5317	5283	0.241
		6	6198	5939	5766	5642	5549	5477	5419	5372	5333	0.211
		7	6349	6059	5866	5728	5625	5544	5480	5427	5383	0.187
		8	6500	6180	5967	5814	5700	5611	5540	5482	5433	0.169
2 1/2" 110 pcf Above Deck	36/4 K ₃ = 2377 kip/in.	0	3634	3555	--	--	--	--	--	--	--	0.841
		1	3785	3676	3603	--	--	--	--	--	--	0.561
		2	3935	3796	3704	3637	3588	3549	--	--	--	0.421
		3	4086	3917	3804	3724	3663	3616	3578	3548	3522	0.337
		4	4237	4038	3905	3810	3738	3683	3639	3603	3572	0.281
		5	4388	4158	4005	3896	3814	3750	3699	3657	3623	0.241
		6	4538	4279	4106	3982	3889	3817	3759	3712	3673	0.211
		7	4689	4399	4206	4068	3965	3884	3820	3767	3723	0.187
		8	4840	4520	4307	4154	4040	3951	3880	3822	3773	0.169
Type I Insulating Fill	36/4 K ₃ = 257 kip/in.	0	841	762	--	--	--	--	--	--	--	0.841
		1	992	883	810	--	--	--	--	--	--	0.561
		2	1142	1003	911	844	795	756	--	--	--	0.421
		3	1293	1124	1011	931	870	823	785	755	729	0.337
		4	1444	1245	1112	1017	945	890	846	810	779	0.281
		5	1595	1365	1212	1103	1021	957	906	864	830	0.241
		6	1745	1486	1313	1189	1096	1024	966	919	880	0.211
		7	1896	1606	1413	1275	1172	1091	1027	974	930	0.187
		8	2047	1727	1514	1361	1247	1158	1087	1029	980	0.169
Type II Insulating Fill	36/4 K ₃ = 257 kip/in.	0	1110	1031	--	--	--	--	--	--	--	0.841
		1	1261	1152	1079	--	--	--	--	--	--	0.561
		2	1411	1272	1180	1113	1064	1025	--	--	--	0.421
		3	1562	1393	1280	1200	1139	1092	1054	1024	998	0.337
		4	1713	1514	1381	1286	1214	1159	1115	1079	1048	0.281
		5	1864	1634	1481	1372	1290	1226	1175	1133	1099	0.241
		6	2014	1755	1582	1458	1365	1293	1235	1188	1149	0.211
		7	2165	1875	1682	1544	1441	1360	1296	1243	1199	0.187
		8	2316	1996	1783	1630	1516	1427	1356	1298	1249	0.169

Deck Type: 1.5 Composite



Nominal Shear Due To Panel Buckling (S_n), PLF/ Span, Ft.

Buckling:	Φ LRFD	Ω ASD
	0.80	2.00

Type of Fill	Deck Profile	I in ⁴ /ft.	4	5	6	7	8	9	10	11	12
No Fill	1.5 Comp.	0.173	3591	2298	1596	1173	898	709	575	475	399

- Notes:**
1. Nominal shear and stiffness values are in compliance with the Steel Deck Institute's Deck Design Manual, DDM04 & AISI S100-16 (2020) w/S2-20.
 2. All nominal shear and stiffness values are based on a 3-span condition.
 3. An underline (###) denotes nominal shear values may be limited by shear buckling.
 4. The values shown as a dash (--); the conditions do not meet the Steel Deck Institute's side lap connection requirements.

Deck Type: 1.5 Composite



Deck Gage: 20 (t = 0.0358")
Support Fasteners: #12 Screws
Sidelap Fasteners: #10 Screws

	Bare Deck Diaphragm		Filled Diaphragm	
	ΦLRFD	ΩASD	ΦLRFD	ΩASD
Fy: 50 ksi	Seismic: 0.70	Seismic: 2.30	Seismic: 0.50	Seismic: 3.25
Fu: 65 ksi	Wind: 0.80	Wind: 2.00	Wind: 0.50	Wind: 3.25
Fxx: 60 ksi	Other: 0.65	Other: 2.50	Other: 0.50	Other: 3.25

Nominal Shear Diaphragm Strength, PLF/ Span, Ft.

Type of Fill	Fastener Layout	Sidelap Conn. per Span	4	5	6	7	8	9	10	11	12	K ₁ ft. ⁻¹
No Fill (Bare Deck) K ₂ = 1056 kip/in. K ₄ = 3.54	36/4 D _n = 646	0	448	353	--	--	--	--	--	--	--	0.926
		1	636	514	423	--	--	--	--	--	--	0.618
		2	792	657	558	474	411	362	--	--	--	0.464
		3	928	781	670	585	511	451	403	364	331	0.371
		4	1046	893	773	680	605	541	484	437	398	0.310
		5	1147	993	868	768	687	620	564	510	465	0.265
		6	1232	1081	955	850	764	692	632	581	533	0.232
		7	1305	1159	1033	926	837	761	697	<u>642</u>	<u>594</u>	0.207
		8	1366	1227	1103	996	904	826	759	<u>700</u>	<u>650</u>	0.186
2 1/2" 145 pcf Above Deck	36/4 K ₃ = 2377 kip/in.	0	5378	5283	--	--	--	--	--	--	--	0.926
		1	5580	5444	5353	--	--	--	--	--	--	0.618
		2	5781	5605	5487	5404	5341	5292	--	--	--	0.464
		3	5983	5766	5622	5519	5441	5381	5333	5294	5261	0.371
		4	6184	5927	5756	5634	5542	5471	5414	5367	5328	0.310
		5	6386	6089	5890	5749	5643	5560	5494	5440	5395	0.265
		6	6587	6250	6025	5864	5744	5650	5575	5514	5462	0.232
		7	6789	6411	6159	5979	5844	5739	5655	5587	5530	0.207
		8	6990	6572	6293	6094	5945	5829	5736	5660	5597	0.186
2 1/2" 110 pcf Above Deck	36/4 K ₃ = 2377 kip/in.	0	3718	3623	--	--	--	--	--	--	--	0.926
		1	3920	3784	3693	--	--	--	--	--	--	0.618
		2	4121	3945	3827	3744	3681	3632	--	--	--	0.464
		3	4323	4106	3962	3859	3781	3721	3673	3634	3601	0.371
		4	4524	4267	4096	3974	3882	3811	3754	3707	3668	0.310
		5	4726	4429	4230	4089	3983	3900	3834	3780	3735	0.265
		6	4927	4590	4365	4204	4084	3990	3915	3854	3802	0.232
		7	5129	4751	4499	4319	4184	4079	3995	3927	3870	0.207
		8	5330	4912	4633	4434	4285	4169	4076	4000	3937	0.186
Type I Insulating Fill	36/4 K ₃ = 257 kip/in.	0	925	830	--	--	--	--	--	--	--	0.926
		1	1127	991	900	--	--	--	--	--	--	0.618
		2	1328	1152	1034	951	888	839	--	--	--	0.464
		3	1530	1313	1169	1066	988	928	880	841	808	0.371
		4	1731	1474	1303	1181	1089	1018	961	914	875	0.310
		5	1933	1636	1437	1296	1190	1107	1041	987	942	0.265
		6	2134	1797	1572	1411	1291	1197	1122	1061	1009	0.232
		7	2336	1958	1706	1526	1391	1286	1202	1134	1077	0.207
		8	2537	2119	1840	1641	1492	1376	1283	1207	1144	0.186
Type II Insulating Fill	36/4 K ₃ = 257 kip/in.	0	1194	1099	--	--	--	--	--	--	--	0.926
		1	1396	1260	1169	--	--	--	--	--	--	0.618
		2	1597	1421	1303	1220	1157	1108	--	--	--	0.464
		3	1799	1582	1438	1335	1257	1197	1149	1110	1077	0.371
		4	2000	1743	1572	1450	1358	1287	1230	1183	1144	0.310
		5	2202	1905	1706	1565	1459	1376	1310	1256	1211	0.265
		6	2403	2066	1841	1680	1560	1466	1391	1330	1278	0.232
		7	2605	2227	1975	1795	1660	1555	1471	1403	1346	0.207
		8	2806	2388	2109	1910	1761	1645	1552	1476	1413	0.186

Deck Type: 1.5 Composite



Nominal Shear Due To Panel Buckling (S_n), PLF/ Span, Ft.

Buckling:	Φ_{LRFD}	Ω_{ASD}
	0.80	2.00

Type of Fill	Deck Profile	I in ⁴ /ft.	4	5	6	7	8	9	10	11	12
No Fill	1.5 Comp.	0.210	4802	3073	2134	1568	1200	948	768	635	534

- Notes:**
1. Nominal shear and stiffness values are in compliance with the Steel Deck Institute's Deck Design Manual, DDM04 & AISI S100-16 (2020) w/S2-20.
 2. All nominal shear and stiffness values are based on a 3-span condition.
 3. An underline (###) denotes nominal shear values may be limited by shear buckling.
 4. The values shown as a dash (--); the conditions do not meet the Steel Deck Institute's side lap connection requirements.

Deck Type: 1.5 Composite



Deck Gage: 18 (t = 0.0474")
Support Fasteners: #12 Screws
Sidelap Fasteners: #10 Screws

	Bare Deck Diaphragm		Filled Diaphragm	
	ΦLRFD	ΩASD	ΦLRFD	ΩASD
Fy: 50 ksi	Seismic: 0.70	Seismic: 2.30	Seismic: 0.50	Seismic: 3.25
Fu: 65 ksi	Wind: 0.80	Wind: 2.00	Wind: 0.50	Wind: 3.25
Fxx: 60 ksi	Other: 0.65	Other: 2.50	Other: 0.50	Other: 3.25

Nominal Shear Diaphragm Strength, PLF/ Span, Ft.

Type of Fill	Fastener Layout	Sidelap Conn. per Span	4	5	6	7	8	9	10	11	12	K ₁ ft. ⁻¹
No Fill (Bare Deck) K ₂ = 1398 kip/in. K ₄ = 3.54	36/4 D _n = 424	0	599	472	--	--	--	--	--	--	--	1.066
		1	875	717	592	--	--	--	--	--	--	0.712
		2	1106	921	785	678	589	520	--	--	--	0.534
		3	1303	1103	951	832	739	656	587	531	484	0.427
		4	1468	1264	1101	972	867	782	710	642	586	0.356
		5	1606	1404	1237	1100	987	894	815	749	688	0.305
		6	1719	1525	1358	1217	1099	999	915	842	780	0.267
		7	1813	1629	1465	1324	1202	1098	1009	932	<u>865</u>	0.238
		8	1890	1718	1560	1420	1297	1191	1098	<u>1017</u>	<u>946</u>	0.214
2 1/2" 145 pcf Above Deck	36/4 K ₃ = 2377 kip/in.	0	5533	5407	--	--	--	--	--	--	--	1.066
		1	5840	5652	5527	--	--	--	--	--	--	0.712
		2	6147	5898	5731	5613	5524	5454	--	--	--	0.534
		3	6454	6143	5936	5788	5677	5591	5522	5465	5418	0.427
		4	6761	6389	6141	5964	5831	5727	5644	5577	5520	0.356
		5	7068	6635	6345	6139	5984	5864	5767	5688	5623	0.305
		6	7375	6880	6550	6314	6138	6000	5890	5800	5725	0.267
		7	7682	7126	6755	6490	6291	6137	6013	5912	5827	0.238
		8	7989	7371	6959	6665	6445	6273	6136	6023	5930	0.214
2 1/2" 110 pcf Above Deck	36/4 K ₃ = 2377 kip/in.	0	3873	3747	--	--	--	--	--	--	--	1.066
		1	4180	3992	3867	--	--	--	--	--	--	0.712
		2	4487	4238	4071	3953	3864	3794	--	--	--	0.534
		3	4794	4483	4276	4128	4017	3931	3862	3805	3758	0.427
		4	5101	4729	4481	4304	4171	4067	3984	3917	3860	0.356
		5	5408	4975	4685	4479	4324	4204	4107	4028	3963	0.305
		6	5715	5220	4890	4654	4478	4340	4230	4140	4065	0.267
		7	6022	5466	5095	4830	4631	4477	4353	4252	4167	0.238
		8	6329	5711	5299	5005	4785	4613	4476	4363	4270	0.214
Type I Insulating Fill	36/4 K ₃ = 257 kip/in.	0	1080	954	--	--	--	--	--	--	--	1.066
		1	1387	1199	1074	--	--	--	--	--	--	0.712
		2	1694	1445	1278	1160	1071	1001	--	--	--	0.534
		3	2001	1690	1483	1335	1224	1138	1069	1012	965	0.427
		4	2308	1936	1688	1511	1378	1274	1191	1124	1067	0.356
		5	2615	2182	1892	1686	1531	1411	1314	1235	1170	0.305
		6	2922	2427	2097	1861	1685	1547	1437	1347	1272	0.267
		7	3229	2673	2302	2037	1838	1684	1560	1459	1374	0.238
		8	3536	2918	2506	2212	1992	1820	1683	1570	1477	0.214
Type II Insulating Fill	36/4 K ₃ = 257 kip/in.	0	1349	1223	--	--	--	--	--	--	--	1.066
		1	1656	1468	1343	--	--	--	--	--	--	0.712
		2	1963	1714	1547	1429	1340	1270	--	--	--	0.534
		3	2270	1959	1752	1604	1493	1407	1338	1281	1234	0.427
		4	2577	2205	1957	1780	1647	1543	1460	1393	1336	0.356
		5	2884	2451	2161	1955	1800	1680	1583	1504	1439	0.305
		6	3191	2696	2366	2130	1954	1816	1706	1616	1541	0.267
		7	3498	2942	2571	2306	2107	1953	1829	1728	1643	0.238
		8	3805	3187	2775	2481	2261	2089	1952	1839	1746	0.214

Deck Type: 1.5 Composite



Nominal Shear Due To Panel Buckling (S_n), PLF/ Span, Ft.

Buckling:	Φ_{LRFD}	Ω_{ASD}
	0.80	2.00

Type of Fill	Deck Profile	I in ⁴ /ft.	4	5	6	7	8	9	10	11	12
No Fill	1.5 Comp.	0.273	7216	4618	3207	2356	1804	1425	1155	954	802

- Notes:**
1. Nominal shear and stiffness values are in compliance with the Steel Deck Institute's Deck Design Manual, DDM04 & AISI S100-16 (2020) w/S2-20.
 2. All nominal shear and stiffness values are based on a 3-span condition.
 3. An underline (###) denotes nominal shear values may be limited by shear buckling.
 4. The values shown as a dash (--); the conditions do not meet the Steel Deck Institute's side lap connection requirements.

Deck Type: 2.0 Form & Composite



Deck Gage: 22 (t = 0.0295")

Support Fasteners: 5/8" Puddle Weld or Equiv.

Sidelap Fasteners: #10 Screws

	Bare Deck Diaphragm			Filled Diaphragm		
	ΦLRFD	ΩASD		ΦLRFD	ΩASD	
Fy: 50 ksi	Seismic: 0.55	Seismic: 3.00		Seismic: 0.50	Seismic: 3.25	
Fu: 65 ksi	Wind: 0.75	Wind: 2.15		Wind: 0.50	Wind: 3.25	
Fxx: 60 ksi	Other: 0.60	Other: 2.65		Other: 0.50	Other: 3.25	

Nominal Shear Diaphragm Strength, PLF/ Span, Ft.

Type of Fill	Fastener Layout	Sidelap Conn. per Span	4	5	6	7	8	9	10	11	12	K ₁ ft. ⁻¹
No Fill (Bare Deck) K ₂ = 870 kip/in. K ₄ = 3.17	36/4 D _n = 141	0	602	481	--	--	--	--	--	--	--	0.833
		1	785	628	523	--	--	--	--	--	--	0.558
		2	967	774	645	553	484	430	--	--	--	0.419
		3	1105	921	767	658	575	512	460	419	384	0.336
		4	1228	1042	889	762	667	593	534	485	445	0.280
		5	1336	1147	998	867	759	674	607	552	506	0.240
		6	1432	1243	1090	966	850	756	680	618	567	0.210
		7	1515	1329	1175	1047	941	837	753	685	628	0.187
		8	1587	1407	1253	1123	1014	918	827	751	689	0.168
2 1/2" 145 pcf Above Deck	36/4 K ₃ = 2377 kip/in.	0	5573	5438	--	--	--	--	--	--	--	0.833
		1	5774	5599	5483	--	--	--	--	--	--	0.558
		2	5975	5760	5617	5514	5438	5378	--	--	--	0.419
		3	6176	5921	5751	5629	5538	5467	5410	5364	5325	0.336
		4	6377	6082	5885	5744	5639	5556	5491	5437	5392	0.280
		5	6578	6242	6019	5859	5739	5646	5571	5510	5459	0.240
		6	6779	6403	6153	5974	5840	5735	5652	5583	5526	0.210
		7	6980	6564	6287	6089	5940	5824	5732	5656	5593	0.187
		8	7181	6725	6421	6203	6041	5914	5812	5729	5660	0.168
2 1/2" 110 pcf Above Deck	36/4 K ₃ = 2377 kip/in.	0	3913	3778	--	--	--	--	--	--	--	0.833
		1	4114	3939	3823	--	--	--	--	--	--	0.558
		2	4315	4100	3957	3854	3778	3718	--	--	--	0.419
		3	4516	4261	4091	3969	3878	3807	3750	3704	3665	0.336
		4	4717	4422	4225	4084	3979	3896	3831	3777	3732	0.280
		5	4918	4582	4359	4199	4079	3986	3911	3850	3799	0.240
		6	5119	4743	4493	4314	4180	4075	3992	3923	3866	0.210
		7	5320	4904	4627	4429	4280	4164	4072	3996	3933	0.187
		8	5521	5065	4761	4543	4381	4254	4152	4069	4000	0.168
Type I Insulating Fill	36/4 K ₃ = 257 kip/in.	0	1120	985	--	--	--	--	--	--	--	0.833
		1	1321	1146	1030	--	--	--	--	--	--	0.558
		2	1522	1307	1164	1061	985	925	--	--	--	0.419
		3	1723	1468	1298	1176	1085	1014	957	911	872	0.336
		4	1924	1629	1432	1291	1186	1103	1038	984	939	0.280
		5	2125	1789	1566	1406	1286	1193	1118	1057	1006	0.240
		6	2326	1950	1700	1521	1387	1282	1199	1130	1073	0.210
		7	2527	2111	1834	1636	1487	1371	1279	1203	1140	0.187
		8	2728	2272	1968	1750	1588	1461	1359	1276	1207	0.168
Type II Insulating Fill	36/4 K ₃ = 257 kip/in.	0	1389	1254	--	--	--	--	--	--	--	0.833
		1	1590	1415	1299	--	--	--	--	--	--	0.558
		2	1791	1576	1433	1330	1254	1194	--	--	--	0.419
		3	1992	1737	1567	1445	1354	1283	1226	1180	1141	0.336
		4	2193	1898	1701	1560	1455	1372	1307	1253	1208	0.280
		5	2394	2058	1835	1675	1555	1462	1387	1326	1275	0.240
		6	2595	2219	1969	1790	1656	1551	1468	1399	1342	0.210
		7	2796	2380	2103	1905	1756	1640	1548	1472	1409	0.187
		8	2997	2541	2237	2019	1857	1730	1628	1545	1476	0.168

Deck Type: 2.0 Form & Composite



Nominal Shear Due To Panel Buckling (S_n), PLF/ Span, Ft.

Buckling:	Φ LRFD	Ω ASD
	0.80	2.00

Type of Fill	Deck Profile	I in ⁴ /ft.	4	5	6	7	8	9	10	11	12
No Fill	2.0 Comp.	0.296	13440	8600	5970	4385	3360	2655	2150	1775	1490

- Notes:**
1. Nominal shear and stiffness values are in compliance with the Steel Deck Institute's Deck Design Manual, DDM04 & AISI S100-16 (2020) w/S2-20.
 2. All nominal shear and stiffness values are based on a 3-span condition.
 3. An underline (###) denotes nominal shear values may be limited by shear buckling.
 4. The values shown as a dash (--); the conditions do not meet the Steel Deck Institute's side lap connection requirements.

Deck Type: 2.0 Form & Composite



Deck Gage: 20 (t = 0.0358")

Support Fasteners: 5/8" Puddle Weld or Equiv.

Sidelap Fasteners: #10 Screws

	Bare Deck Diaphragm			Filled Diaphragm		
	ΦLRFD	ΩASD		ΦLRFD	ΩASD	
Fy: 50 ksi	Seismic: 0.55	Seismic: 3.00		Seismic: 0.50	Seismic: 3.25	
Fu: 65 ksi	Wind: 0.75	Wind: 2.15		Wind: 0.50	Wind: 3.25	
Fxx: 60 ksi	Other: 0.60	Other: 2.65		Other: 0.50	Other: 3.25	

Nominal Shear Diaphragm Strength, PLF/ Span, Ft.

Type of Fill	Fastener Layout	Sidelap Conn. per Span	4	5	6	7	8	9	10	11	12	K ₁ ft. ⁻¹
No Fill (Bare Deck) K ₂ = 1056 kip/in. K ₄ = 3.17	36/4 D _n = 105	0	830	664	--	--	--	--	--	--	--	0.920
		1	1077	861	718	--	--	--	--	--	--	0.616
		2	1311	1058	882	756	662	588	--	--	--	0.463
		3	1497	1255	1046	897	785	698	628	571	523	0.371
		4	1663	1410	1211	1038	908	807	726	660	605	0.309
		5	1810	1552	1349	1179	1031	917	825	750	688	0.265
		6	1939	1681	1472	1304	1155	1026	924	840	770	0.232
		7	2052	1798	1587	1413	1270	1136	1022	929	852	0.206
		8	2151	1904	1693	1516	1367	1242	1121	1019	934	0.186
2 1/2" 145 pcf Above Deck	36/4 K ₃ = 2377 kip/in.	0	5819	5635	--	--	--	--	--	--	--	0.920
		1	6087	5850	5691	--	--	--	--	--	--	0.616
		2	6356	6065	5871	5732	5628	5547	--	--	--	0.463
		3	6625	6280	6050	5885	5762	5666	5590	5527	5475	0.371
		4	6893	6495	6229	6039	5897	5786	5697	5625	5564	0.309
		5	7162	6710	6408	6193	6031	5905	5805	5723	5654	0.265
		6	7431	6924	6587	6346	6165	6025	5912	5820	5744	0.232
		7	7699	7139	6766	6500	6300	6144	6020	5918	5833	0.206
		8	7968	7354	6945	6653	6434	6264	6127	6016	5923	0.186
2 1/2" 110 pcf Above Deck	36/4 K ₃ = 2377 kip/in.	0	4159	3975	--	--	--	--	--	--	--	0.920
		1	4427	4190	4031	--	--	--	--	--	--	0.616
		2	4696	4405	4211	4072	3968	3887	--	--	--	0.463
		3	4965	4620	4390	4225	4102	4006	3930	3867	3815	0.371
		4	5233	4835	4569	4379	4237	4126	4037	3965	3904	0.309
		5	5502	5050	4748	4533	4371	4245	4145	4063	3994	0.265
		6	5771	5264	4927	4686	4505	4365	4252	4160	4084	0.232
		7	6039	5479	5106	4840	4640	4484	4360	4258	4173	0.206
		8	6308	5694	5285	4993	4774	4604	4467	4356	4263	0.186
Type I Insulating Fill	36/4 K ₃ = 257 kip/in.	0	1366	1182	--	--	--	--	--	--	--	0.920
		1	1634	1397	1238	--	--	--	--	--	--	0.616
		2	1903	1612	1418	1279	1175	1094	--	--	--	0.463
		3	2172	1827	1597	1432	1309	1213	1137	1074	1022	0.371
		4	2440	2042	1776	1586	1444	1333	1244	1172	1111	0.309
		5	2709	2257	1955	1740	1578	1452	1352	1270	1201	0.265
		6	2978	2471	2134	1893	1712	1572	1459	1367	1291	0.232
		7	3246	2686	2313	2047	1847	1691	1567	1465	1380	0.206
		8	3515	2901	2492	2200	1981	1811	1674	1563	1470	0.186
Type II Insulating Fill	36/4 K ₃ = 257 kip/in.	0	1635	1451	--	--	--	--	--	--	--	0.920
		1	1903	1666	1507	--	--	--	--	--	--	0.616
		2	2172	1881	1687	1548	1444	1363	--	--	--	0.463
		3	2441	2096	1866	1701	1578	1482	1406	1343	1291	0.371
		4	2709	2311	2045	1855	1713	1602	1513	1441	1380	0.309
		5	2978	2526	2224	2009	1847	1721	1621	1539	1470	0.265
		6	3247	2740	2403	2162	1981	1841	1728	1636	1560	0.232
		7	3515	2955	2582	2316	2116	1960	1836	1734	1649	0.206
		8	3784	3170	2761	2469	2250	2080	1943	1832	1739	0.186

Deck Type: 2.0 Form & Composite



Nominal Shear Due To Panel Buckling (S_n), PLF/ Span, Ft.

Buckling:	Φ LRFD	Ω ASD
	0.80	2.00

Type of Fill	Deck Profile	I in ⁴ /ft.	4	5	6	7	8	9	10	11	12
No Fill	2.0 Comp.	0.377	18610	11910	8270	6075	4650	3675	2975	2460	2065

- Notes:**
1. Nominal shear and stiffness values are in compliance with the Steel Deck Institute's Deck Design Manual, DDM04 & AISI S100-16 (2020) w/S2-20.
 2. All nominal shear and stiffness values are based on a 3-span condition.
 3. An underline (###) denotes nominal shear values may be limited by shear buckling.
 4. The values shown as a dash (--); the conditions do not meet the Steel Deck Institute's side lap connection requirements.

Deck Type: 2.0 Form & Composite



Deck Gage: 18 (t = 0.0474")

Support Fasteners: 5/8" Puddle Weld or Equiv.

Sidelap Fasteners: #10 Screws

	Bare Deck Diaphragm			Filled Diaphragm		
	ΦLRFD	ΩASD		ΦLRFD	ΩASD	
Fy: 50 ksi	Seismic: 0.55	Seismic: 3.00		Seismic: 0.50	Seismic: 3.25	
Fu: 65 ksi	Wind: 0.75	Wind: 2.15		Wind: 0.50	Wind: 3.25	
Fxx: 60 ksi	Other: 0.60	Other: 2.65		Other: 0.50	Other: 3.25	

Nominal Shear Diaphragm Strength, PLF/ Span, Ft.

Type of Fill	Fastener Layout	Sidelap Conn. per Span	4	5	6	7	8	9	10	11	12	K ₁ ft. ⁻¹
No Fill (Bare Deck) K ₂ = 1398 kip/in. K ₄ = 3.17	36/4 D _n = 69	0	1092	874	--	--	--	--	--	--	--	1.059
		1	1477	1181	984	--	--	--	--	--	--	0.708
		2	1789	1488	1241	1063	931	827	--	--	--	0.532
		3	2059	1736	1492	1283	1123	998	898	817	748	0.426
		4	2293	1960	1699	1494	1315	1169	1052	956	877	0.355
		5	2496	2161	1891	1673	1496	1340	1206	1096	1005	0.305
		6	2669	2340	2066	1840	1653	1498	1359	1236	1133	0.267
		7	2817	2499	2226	1995	1801	1638	1499	1376	1261	0.237
		8	2944	2639	2370	2138	1940	1771	1625	1500	1389	0.214
2 1/2" 145 pcf Above Deck	36/4 K ₃ = 2377 kip/in.	0	6092	5854	--	--	--	--	--	--	--	1.059
		1	6502	6181	5968	--	--	--	--	--	--	0.708
		2	6911	6509	6241	6049	5905	5794	--	--	--	0.532
		3	7320	6836	6513	6283	6110	5976	5868	5780	5707	0.426
		4	7730	7164	6786	6517	6315	6158	6032	5929	5843	0.355
		5	8139	7491	7059	6751	6519	6340	6196	6078	5980	0.305
		6	8548	7819	7332	6985	6724	6521	6359	6227	6116	0.267
		7	8958	8146	7605	7219	6929	6703	6523	6375	6253	0.237
		8	9367	8474	7878	7453	7133	6885	6687	6524	6389	0.214
2 1/2" 110 pcf Above Deck	36/4 K ₃ = 2377 kip/in.	0	4432	4194	--	--	--	--	--	--	--	1.059
		1	4842	4521	4308	--	--	--	--	--	--	0.708
		2	5251	4849	4581	4389	4245	4134	--	--	--	0.532
		3	5660	5176	4853	4623	4450	4316	4208	4120	4047	0.426
		4	6070	5504	5126	4857	4655	4498	4372	4269	4183	0.355
		5	6479	5831	5399	5091	4859	4680	4536	4418	4320	0.305
		6	6888	6159	5672	5325	5064	4861	4699	4567	4456	0.267
		7	7298	6486	5945	5559	5269	5043	4863	4715	4593	0.237
		8	7707	6814	6218	5793	5473	5225	5027	4864	4729	0.214
Type I Insulating Fill	36/4 K ₃ = 257 kip/in.	0	1639	1401	--	--	--	--	--	--	--	1.059
		1	2049	1728	1515	--	--	--	--	--	--	0.708
		2	2458	2056	1788	1596	1452	1341	--	--	--	0.532
		3	2867	2383	2060	1830	1657	1523	1415	1327	1254	0.426
		4	3277	2711	2333	2064	1862	1705	1579	1476	1390	0.355
		5	3686	3038	2606	2298	2066	1887	1743	1625	1527	0.305
		6	4095	3366	2879	2532	2271	2068	1906	1774	1663	0.267
		7	4505	3693	3152	2766	2476	2250	2070	1922	1800	0.237
		8	4914	4021	3425	3000	2680	2432	2234	2071	1936	0.214
Type II Insulating Fill	36/4 K ₃ = 257 kip/in.	0	1908	1670	--	--	--	--	--	--	--	1.059
		1	2318	1997	1784	--	--	--	--	--	--	0.708
		2	2727	2325	2057	1865	1721	1610	--	--	--	0.532
		3	3136	2652	2329	2099	1926	1792	1684	1596	1523	0.426
		4	3546	2980	2602	2333	2131	1974	1848	1745	1659	0.355
		5	3955	3307	2875	2567	2335	2156	2012	1894	1796	0.305
		6	4364	3635	3148	2801	2540	2337	2175	2043	1932	0.267
		7	4774	3962	3421	3035	2745	2519	2339	2191	2069	0.237
		8	5183	4290	3694	3269	2949	2701	2503	2340	2205	0.214

Nominal Shear Due To Panel Buckling (S_n), PLF/ Span, Ft.

Buckling:	Φ_{LRFD}	Ω_{ASD}
	0.80	2.00

Type of Fill	Deck Profile	I in ⁴ /ft.	4	5	6	7	8	9	10	11	12
No Fill	2.0 Comp.	0.510	28766	18410	12785	9393	7191	5682	4603	3804	3196

- Notes:**
1. Nominal shear and stiffness values are in compliance with the Steel Deck Institute's Deck Design Manual, DDM04 & AISI S100-16 (2020) w/S2-20.
 2. All nominal shear and stiffness values are based on a 3-span condition.
 3. An underline (###) denotes nominal shear values may be limited by shear buckling.
 4. The values shown as a dash (--); the conditions do not meet the Steel Deck Institute's side lap connection requirements.

Deck Type: 2.0 Form & Composite



Deck Gage: 22 (t = 0.0295")
Support Fasteners: #12 Screws
Sidelap Fasteners: #10 Screws

	Bare Deck Diaphragm		Filled Diaphragm	
	ΦLRFD	ΩASD	ΦLRFD	ΩASD
Fy: 50 ksi	Seismic: 0.70	Seismic: 2.30	Seismic: 0.50	Seismic: 3.25
Fu: 65 ksi	Wind: 0.80	Wind: 2.00	Wind: 0.50	Wind: 3.25
Fxx: 60 ksi	Other: 0.65	Other: 2.50	Other: 0.50	Other: 3.25

Nominal Shear Diaphragm Strength, PLF/ Span, Ft.

Type of Fill	Fastener Layout	Sidelap Conn. per Span	4	5	6	7	8	9	10	11	12	K ₁ ft. ⁻¹
No Fill (Bare Deck) K ₂ = 870 kip/in. K ₄ = 3.17	36/4 D _n = 141	0	304	243	--	--	--	--	--	--	--	0.941
		1	487	397	331	--	--	--	--	--	--	0.604
		2	618	525	453	393	344	306	--	--	--	0.445
		3	721	626	548	486	435	391	352	320	293	0.352
		4	800	708	630	564	509	463	424	390	357	0.291
		5	860	775	700	633	576	527	485	448	416	0.249
		6	906	829	758	693	636	586	541	502	468	0.217
		7	942	873	807	745	688	638	593	552	517	0.192
		8	970	908	847	789	734	685	639	598	562	0.172
2 1/2" 145 pcf Above Deck	36/4 K ₃ = 2377 kip/in.	0	5240	5172	--	--	--	--	--	--	--	0.941
		1	5441	5333	5261	--	--	--	--	--	--	0.604
		2	5642	5494	5395	5324	5271	5230	--	--	--	0.445
		3	5843	5655	5529	5439	5372	5319	5277	5243	5214	0.352
		4	6044	5816	5663	5554	5472	5409	5358	5316	5281	0.291
		5	6245	5976	5797	5669	5573	5498	5438	5389	5348	0.249
		6	6446	6137	5931	5784	5673	5587	5519	5462	5415	0.217
		7	6647	6298	6065	5899	5774	5677	5599	5535	5482	0.192
		8	6848	6459	6199	6013	5874	5766	5679	5609	5549	0.172
2 1/2" 110 pcf Above Deck	36/4 K ₃ = 2377 kip/in.	0	3580	3512	--	--	--	--	--	--	--	0.941
		1	3781	3673	3601	--	--	--	--	--	--	0.604
		2	3982	3834	3735	3664	3611	3570	--	--	--	0.445
		3	4183	3995	3869	3779	3712	3659	3617	3583	3554	0.352
		4	4384	4156	4003	3894	3812	3749	3698	3656	3621	0.291
		5	4585	4316	4137	4009	3913	3838	3778	3729	3688	0.249
		6	4786	4477	4271	4124	4013	3927	3859	3802	3755	0.217
		7	4987	4638	4405	4239	4114	4017	3939	3875	3822	0.192
		8	5188	4799	4539	4353	4214	4106	4019	3949	3889	0.172
Type I Insulating Fill	36/4 K ₃ = 257 kip/in.	0	787	719	--	--	--	--	--	--	--	0.941
		1	988	880	808	--	--	--	--	--	--	0.604
		2	1189	1041	942	871	818	777	--	--	--	0.445
		3	1390	1202	1076	986	919	866	824	790	761	0.352
		4	1591	1363	1210	1101	1019	956	905	863	828	0.291
		5	1792	1523	1344	1216	1120	1045	985	936	895	0.249
		6	1993	1684	1478	1331	1220	1134	1066	1009	962	0.217
		7	2194	1845	1612	1446	1321	1224	1146	1082	1029	0.192
		8	2395	2006	1746	1560	1421	1313	1226	1156	1096	0.172
Type II Insulating Fill	36/4 K ₃ = 257 kip/in.	0	1056	988	--	--	--	--	--	--	--	0.941
		1	1257	1149	1077	--	--	--	--	--	--	0.604
		2	1458	1310	1211	1140	1087	1046	--	--	--	0.445
		3	1659	1471	1345	1255	1188	1135	1093	1059	1030	0.352
		4	1860	1632	1479	1370	1288	1225	1174	1132	1097	0.291
		5	2061	1792	1613	1485	1389	1314	1254	1205	1164	0.249
		6	2262	1953	1747	1600	1489	1403	1335	1278	1231	0.217
		7	2463	2114	1881	1715	1590	1493	1415	1351	1298	0.192
		8	2664	2275	2015	1829	1690	1582	1495	1425	1365	0.172

Deck Type: 2.0 Form & Composite



Nominal Shear Due To Panel Buckling (S_n), PLF/ Span, Ft.

Buckling:	Φ LRFD	Ω ASD
	0.80	2.00

Type of Fill	Deck Profile	I in ⁴ /ft.	4	5	6	7	8	9	10	11	12
No Fill	2.0 Comp.	0.296	13440	8600	5970	4385	3360	2655	2150	1775	1490

- Notes:**
1. Nominal shear and stiffness values are in compliance with the Steel Deck Institute's Deck Design Manual, DDM04 & AISI S100-16 (2020) w/S2-20.
 2. All nominal shear and stiffness values are based on a 3-span condition.
 3. An underline (###) denotes nominal shear values may be limited by shear buckling.
 4. The values shown as a dash (--); the conditions do not meet the Steel Deck Institute's side lap connection requirements.

Deck Type: 2.0 Form & Composite



Deck Gage: 20 (t = 0.0358")
Support Fasteners: #12 Screws
Sidelap Fasteners: #10 Screws

	Bare Deck Diaphragm		Filled Diaphragm	
	ΦLRFD	ΩASD	ΦLRFD	ΩASD
Fy: 50 ksi	Seismic: 0.70	Seismic: 2.30	Seismic: 0.50	Seismic: 3.25
Fu: 65 ksi	Wind: 0.80	Wind: 2.00	Wind: 0.50	Wind: 3.25
Fxx: 60 ksi	Other: 0.65	Other: 2.50	Other: 0.50	Other: 3.25

Nominal Shear Diaphragm Strength, PLF/ Span, Ft.

Type of Fill	Fastener Layout	Sidelap Conn. per Span	4	5	6	7	8	9	10	11	12	K ₁ ft. ⁻¹
No Fill (Bare Deck) K ₂ = 1056 kip/in. K ₄ = 3.17	36/4 D _n = 105	0	373	299	--	--	--	--	--	--	--	1.037
		1	609	506	421	--	--	--	--	--	--	0.666
		2	779	663	574	504	445	396	--	--	--	0.490
		3	907	792	697	620	556	503	459	418	383	0.388
		4	1003	895	801	720	652	594	545	503	466	0.321
		5	1074	976	887	807	737	677	624	578	538	0.274
		6	1127	1040	957	881	812	750	696	647	604	0.239
		7	1168	1091	1015	943	876	815	760	711	666	0.212
		8	1199	1132	1063	995	932	872	818	768	723	0.190
2 1/2" 145 pcf Above Deck	36/4 K ₃ = 2377 kip/in.	0	5313	5231	--	--	--	--	--	--	--	1.037
		1	5582	5446	5355	--	--	--	--	--	--	0.666
		2	5851	5660	5534	5443	5375	5322	--	--	--	0.490
		3	6119	5875	5713	5597	5510	5442	5388	5343	5306	0.388
		4	6388	6090	5892	5750	5644	5561	5495	5441	5396	0.321
		5	6657	6305	6071	5904	5778	5681	5603	5539	5486	0.274
		6	6925	6520	6250	6057	5913	5800	5710	5636	5575	0.239
		7	7194	6735	6429	6211	6047	5920	5818	5734	5665	0.212
		8	7463	6950	6608	6364	6181	6039	5925	5832	5754	0.190
2 1/2" 110 pcf Above Deck	36/4 K ₃ = 2377 kip/in.	0	3653	3571	--	--	--	--	--	--	--	1.037
		1	3922	3786	3695	--	--	--	--	--	--	0.666
		2	4191	4000	3874	3783	3715	3662	--	--	--	0.490
		3	4459	4215	4053	3937	3850	3782	3728	3683	3646	0.388
		4	4728	4430	4232	4090	3984	3901	3835	3781	3736	0.321
		5	4997	4645	4411	4244	4118	4021	3943	3879	3826	0.274
		6	5265	4860	4590	4397	4253	4140	4050	3976	3915	0.239
		7	5534	5075	4769	4551	4387	4260	4158	4074	4005	0.212
		8	5803	5290	4948	4704	4521	4379	4265	4172	4094	0.190
Type I Insulating Fill	36/4 K ₃ = 257 kip/in.	0	860	778	--	--	--	--	--	--	--	1.037
		1	1129	993	902	--	--	--	--	--	--	0.666
		2	1398	1207	1081	990	922	869	--	--	--	0.490
		3	1666	1422	1260	1144	1057	989	935	890	853	0.388
		4	1935	1637	1439	1297	1191	1108	1042	988	943	0.321
		5	2204	1852	1618	1451	1325	1228	1150	1086	1033	0.274
		6	2472	2067	1797	1604	1460	1347	1257	1183	1122	0.239
		7	2741	2282	1976	1758	1594	1467	1365	1281	1212	0.212
		8	3010	2497	2155	1911	1728	1586	1472	1379	1301	0.190
Type II Insulating Fill	36/4 K ₃ = 257 kip/in.	0	1129	1047	--	--	--	--	--	--	--	1.037
		1	1398	1262	1171	--	--	--	--	--	--	0.666
		2	1667	1476	1350	1259	1191	1138	--	--	--	0.490
		3	1935	1691	1529	1413	1326	1258	1204	1159	1122	0.388
		4	2204	1906	1708	1566	1460	1377	1311	1257	1212	0.321
		5	2473	2121	1887	1720	1594	1497	1419	1355	1302	0.274
		6	2741	2336	2066	1873	1729	1616	1526	1452	1391	0.239
		7	3010	2551	2245	2027	1863	1736	1634	1550	1481	0.212
		8	3279	2766	2424	2180	1997	1855	1741	1648	1570	0.190

Deck Type: 2.0 Form & Composite



Nominal Shear Due To Panel Buckling (S_n), PLF/ Span, Ft.

Buckling:	Φ LRFD	Ω ASD
	0.80	2.00

Type of Fill	Deck Profile	I in ⁴ /ft.	4	5	6	7	8	9	10	11	12
No Fill	2.0 Comp.	0.377	18610	11910	8270	6075	4650	3675	2975	2460	2065

- Notes:**
1. Nominal shear and stiffness values are in compliance with the Steel Deck Institute's Deck Design Manual, DDM04 & AISI S100-16 (2020) w/S2-20.
 2. All nominal shear and stiffness values are based on a 3-span condition.
 3. An underline (###) denotes nominal shear values may be limited by shear buckling.
 4. The values shown as a dash (--); the conditions do not meet the Steel Deck Institute's side lap connection requirements.

Deck Type: 2.0 Form & Composite



Deck Gage: 18 (t = 0.0474")
Support Fasteners: #12 Screws
Sidelap Fasteners: #10 Screws

	Bare Deck Diaphragm		Filled Diaphragm	
	ΦLRFD	ΩASD	ΦLRFD	ΩASD
Fy: 50 ksi	Seismic: 0.70	Seismic: 2.30	Seismic: 0.50	Seismic: 3.25
Fu: 65 ksi	Wind: 0.80	Wind: 2.00	Wind: 0.50	Wind: 3.25
Fxx: 60 ksi	Other: 0.65	Other: 2.50	Other: 0.50	Other: 3.25

Nominal Shear Diaphragm Strength, PLF/ Span, Ft.

Type of Fill	Fastener Layout	Sidelap Conn. per Span	4	5	6	7	8	9	10	11	12	K ₁ ft. ⁻¹
No Fill (Bare Deck) K ₂ = 1398 kip/in. K ₄ = 3.17	36/4 D _n = 69	0	501	401	--	--	--	--	--	--	--	1.193
		1	844	704	599	--	--	--	--	--	--	0.766
		2	1087	934	812	716	638	575	--	--	--	0.564
		3	1263	1114	988	883	796	722	660	608	562	0.446
		4	1388	1253	1131	1025	933	854	786	727	675	0.369
		5	1477	1358	1246	1143	1052	970	899	835	779	0.315
		6	1542	1439	1337	1241	1152	1072	999	933	875	0.275
		7	1590	1501	1410	1321	1237	1159	1087	1021	961	0.243
		8	1626	1549	1469	1388	1309	1234	1164	1099	1039	0.219
2 1/2" 145 pcf Above Deck	36/4 K ₃ = 2377 kip/in.	0	5447	5338	--	--	--	--	--	--	--	1.193
		1	5857	5665	5538	--	--	--	--	--	--	0.766
		2	6266	5993	5811	5681	5583	5507	--	--	--	0.564
		3	6675	6320	6083	5914	5788	5689	5610	5546	5492	0.446
		4	7085	6648	6356	6148	5992	5871	5774	5694	5628	0.369
		5	7494	6975	6629	6382	6197	6053	5938	5843	5765	0.315
		6	7903	7303	6902	6616	6402	6235	6101	5992	5901	0.275
		7	8313	7630	7175	6850	6606	6417	6265	6141	6038	0.243
		8	8722	7958	7448	7084	6811	6599	6429	6290	6174	0.219
2 1/2" 110 pcf Above Deck	36/4 K ₃ = 2377 kip/in.	0	3787	3678	--	--	--	--	--	--	--	1.193
		1	4197	4005	3878	--	--	--	--	--	--	0.766
		2	4606	4333	4151	4021	3923	3847	--	--	--	0.564
		3	5015	4660	4423	4254	4128	4029	3950	3886	3832	0.446
		4	5425	4988	4696	4488	4332	4211	4114	4034	3968	0.369
		5	5834	5315	4969	4722	4537	4393	4278	4183	4105	0.315
		6	6243	5643	5242	4956	4742	4575	4441	4332	4241	0.275
		7	6653	5970	5515	5190	4946	4757	4605	4481	4378	0.243
		8	7062	6298	5788	5424	5151	4939	4769	4630	4514	0.219
Type I Insulating Fill	36/4 K ₃ = 257 kip/in.	0	994	885	--	--	--	--	--	--	--	1.193
		1	1404	1212	1085	--	--	--	--	--	--	0.766
		2	1813	1540	1358	1228	1130	1054	--	--	--	0.564
		3	2222	1867	1630	1461	1335	1236	1157	1093	1039	0.446
		4	2632	2195	1903	1695	1539	1418	1321	1241	1175	0.369
		5	3041	2522	2176	1929	1744	1600	1485	1390	1312	0.315
		6	3450	2850	2449	2163	1949	1782	1648	1539	1448	0.275
		7	3860	3177	2722	2397	2153	1964	1812	1688	1585	0.243
		8	4269	3505	2995	2631	2358	2146	1976	1837	1721	0.219
Type II Insulating Fill	36/4 K ₃ = 257 kip/in.	0	1263	1154	--	--	--	--	--	--	--	1.193
		1	1673	1481	1354	--	--	--	--	--	--	0.766
		2	2082	1809	1627	1497	1399	1323	--	--	--	0.564
		3	2491	2136	1899	1730	1604	1505	1426	1362	1308	0.446
		4	2901	2464	2172	1964	1808	1687	1590	1510	1444	0.369
		5	3310	2791	2445	2198	2013	1869	1754	1659	1581	0.315
		6	3719	3119	2718	2432	2218	2051	1917	1808	1717	0.275
		7	4129	3446	2991	2666	2422	2233	2081	1957	1854	0.243
		8	4538	3774	3264	2900	2627	2415	2245	2106	1990	0.219

Deck Type: 2.0 Form & Composite



Nominal Shear Due To Panel Buckling (S_n), PLF/ Span, Ft.

Buckling:	Φ_{LRFD}	Ω_{ASD}
	0.80	2.00

Type of Fill	Deck Profile	I in ⁴ /ft.	4	5	6	7	8	9	10	11	12
No Fill	2.0 Comp.	0.510	28766	18410	12785	9393	7191	5682	4603	3804	3196

- Notes:**
1. Nominal shear and stiffness values are in compliance with the Steel Deck Institute's Deck Design Manual, DDM04 & AISI S100-16 (2020) w/S2-20.
 2. All nominal shear and stiffness values are based on a 3-span condition.
 3. An underline (###) denotes nominal shear values may be limited by shear buckling.
 4. The values shown as a dash (--); the conditions do not meet the Steel Deck Institute's side lap connection requirements.

