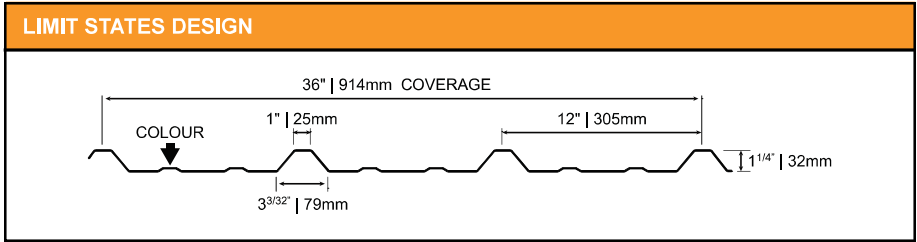


1. Based on ASTM A 653 structural steel.
2. Values in row "S" are based on strength.
3. Values in row "D" are based on deflection of 1/180th span.
4. Web crippling not included in strength calculation. See example.
5. Limit States Design principles were used in accordance with CSA Standard S136-12.



SECTION PROPERTIES | Per Foot of Width

Base Steel Thickness (inches)	Weight [G90] (psf)	Yield Stress (ksi)	Section Modulus		Deflection Moment of Inertia (in ⁴)	Specified Web Crippling Data			
			Midspan (in ³)	Support (in ³)		Pe1 End (lb)	Pe2 End (lb)	Pi1 Interior (lb)	Pi1 Interior (lb)
0.0135	0.72	50	0.0268	0.0219	0.0309	19.3	4.82	37.5	6.38
0.0180	0.94	33	0.0406	0.0343	0.0435	24.2	6.04	46.8	7.96
0.0180	0.94	50	0.0385	0.0326	0.0430	36.6	9.15	70.9	12.1
0.0180	0.94	80	0.0376	0.0315	0.0426	43.5	10.9	84.4	14.3
0.0240	1.23	33	0.0571	0.0476	0.0579	45.4	11.3	87.6	14.9
0.0300	1.53	33	0.0710	0.0613	0.0722	73.5	18.4	142	24.1

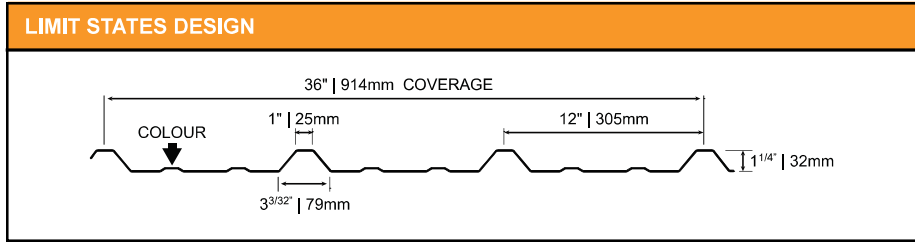
LLF = 1.50; IMPF = 0.90; NORMAL OCCUPANCY = 1.0

LOAD TABLE | Maximum Uniformly Distributed Specified Loads (psf).

Span Length (ft)		1-Span Base Steel Thickness (inches)					2-Span Base Steel Thickness (inches)					3-Span Base Steel Thickness (inches)							
		0.0135	0.0180	0.0180	0.0240	0.0300	0.0135	0.0180	0.0180	0.0240	0.0300	0.0135	0.0180	0.0180	0.0240	0.0300			
2.0	S	134	134	192	223	188	234	110	113	163	187	157	202	137	142	204	234	196	253
2.0	D	375	527	522	516	701	875	900	1264	1252	1239	1683	2101	709	996	986	976	1325	1654
2.5	S	86	86	123	143	121	150	70	73	104	120	101	129	88	91	131	150	126	162
2.5	D	192	270	267	264	359	448	461	647	641	634	862	1076	363	510	505	500	679	847
3.0	S	60	60	85	99	84	104	49	50	73	83	70	90	61	63	91	104	87	112
3.0	D	111	156	155	153	208	259	267	375	371	367	499	622	210	295	292	289	393	490
3.5	S	44	44	63	73	61	77	36	37	53	61	51	66	45	46	67	76	64	83
3.5	D	70	98	97	96	131	163	168	236	234	231	314	392	132	186	184	182	247	309
4.0	S	33	34	48	56	47	59	27	28	41	47	39	51	34	35	51	59	49	63
4.0	D	47	66	65	65	88	109	112	158	156	155	210	263	89	124	123	122	166	207
4.5	S	26	26	38	44	37	46	22	22	32	37	31	40	27	28	40	46	39	50
4.5	D	33	46	46	45	62	77	79	111	110	109	148	184	62	87	87	86	116	145
5.0	S	21	21	31	36	30	37	18	18	26	30	25	32	22	23	33	37	31	40
5.0	D	24	34	33	33	45	56	58	81	80	79	108	134	45	64	63	62	85	106
5.5	S	18	18	25	30	25	31	14	15	22	25	21	27	18	19	27	31	26	33
5.5	D	18	25	25	25	34	42	43	61	60	60	81	101	34	48	47	47	64	80
6.0	S	15	15	21	25	21	26	12	13	18	21	17	22	15	16	23	26	22	28
6.0	D	14	20	19	19	26	32	33	47	46	46	62	78	26	37	37	36	49	61
6.5	S	13	13	18	21	18	22	10	11	15	18	15	19	13	13	19	22	19	24
6.5	D	11	15	15	15	20	26	26	37	36	36	49	61	21	29	29	28	39	48
7.0	S	11	11	16	18	15	19	9	9	13	15	13	17	11	12	17	19	16	21
7.0	D	9	12	12	12	16	20	21	29	29	29	39	49	17	23	23	23	31	39
7.5	S	10	10	14	16	13	17	8	8	12	13	11	14	10	10	15	17	14	18
7.5	D	7	10	10	10	13	17	17	24	24	23	32	40	13	19	19	19	25	31
8.0	S	8	8	12	14	12	15	7	7	10	12	10	13	9	9	13	15	12	16
8.0	D	6	8	8	8	11	14	14	20	20	19	26	33	11	16	15	15	21	26

*Y.S. = Yield Strength

1. Based on ASTM A 653 structural steel.
2. Values in row "S" are based on strength.
3. Values in row "D" are based on deflection of 1/180th span.
4. Web crippling not included in strength calculation. See example.
5. Limit States Design principles were used in accordance with CSA Standard S136-12.



SECTION PROPERTIES Per Metre of Width									
Base Steel Thickness (mm)	Mass [Z275] (kg/m ²)	Yield Stress (MPa)	Section Modulus		Deflection Moment of Inertia (x10 ⁶ mm ⁴)	Specified Web Crippling Data			
			Midspan (x10 ³ mm ³)	Support (x10 ³ mm ³)		Pe1 End (kN)	Pe2 End (kN)	Pi1 Interior (kN)	Pi1 Interior (kN)
0.343	3.51	345	1.44	1.18	0.0423	0.282	0.070	0.548	0.093
0.457	4.59	230	2.18	1.85	0.0594	0.356	0.089	0.691	0.117
0.457	4.59	345	2.07	1.76	0.0588	0.535	0.134	1.04	0.176
0.457	4.59	550	2.02	1.69	0.0582	0.639	0.160	1.24	0.211
0.610	6.02	230	3.07	2.56	0.0790	0.669	0.167	1.29	0.220
0.762	7.46	230	3.82	3.29	0.0987	1.08	0.271	2.09	0.355

LLF = 1.50; IMPF = 0.90; NORMAL OCCUPANCY = 1.0

LOAD TABLE Maximum Uniformly Distributed Specified Loads (kPa).																			
Span Length (m)		1-Span Base Steel Thickness (mm)					2-Span Base Steel Thickness (mm)					3-Span Base Steel Thickness (mm)							
		0.343	0.457	0.457	0.610	0.762	0.343	0.457	0.457	0.610	0.762	0.343	0.457	0.457	0.610	0.762			
Y.S.*(MPa)		345	230	345	550	230	345	230	345	550	230	345	230	345	230	345	550	230	230
1.0	S	2.39	2.41	3.42	4.00	3.39	4.21	1.95	2.04	2.91	3.35	2.82	3.63	2.44	2.55	3.63	4.19	3.53	4.54
1.0	D	4.07	5.71	5.66	5.60	7.61	9.49	9.76	13.7	13.6	13.4	18.3	22.8	7.69	10.8	10.7	10.6	14.4	18.0
1.2	S	1.66	1.67	2.38	2.78	2.35	2.93	1.36	1.41	2.02	2.33	1.96	2.52	1.69	1.77	2.52	2.91	2.45	3.15
1.2	D	2.35	3.31	3.27	3.24	4.40	5.49	5.65	7.94	7.86	7.77	10.6	13.2	4.45	6.25	6.19	6.12	8.32	10.4
1.4	S	1.22	1.23	1.75	2.04	1.73	2.15	1.00	1.04	1.48	1.71	1.44	1.85	1.24	1.30	1.85	2.14	1.80	2.32
1.4	D	1.48	2.08	2.06	2.04	2.77	3.46	3.56	5.00	4.95	4.90	6.65	8.30	2.80	3.94	3.90	3.86	5.24	6.54
1.6	S	0.93	0.94	1.34	1.56	1.32	1.65	0.76	0.80	1.14	1.31	1.10	1.42	0.95	0.99	1.42	1.63	1.38	1.77
1.6	D	0.99	1.39	1.38	1.37	1.86	2.32	2.38	3.35	3.31	3.28	4.46	5.56	1.88	2.64	2.61	2.58	3.51	4.38
1.8	S	0.74	0.74	1.06	1.23	1.05	1.30	0.60	0.63	0.90	1.03	0.87	1.12	0.75	0.79	1.12	1.29	1.09	1.40
1.8	D	0.70	0.98	0.97	0.96	1.30	1.63	1.67	2.35	2.33	2.30	3.13	3.91	1.32	1.85	1.83	1.81	2.47	3.08
2.0	S	0.60	0.60	0.86	1.00	0.85	1.05	0.49	0.51	0.73	0.84	0.71	0.91	0.61	0.64	0.91	1.05	0.88	1.14
2.0	D	0.51	0.71	0.71	0.70	0.95	1.19	1.22	1.71	1.70	1.68	2.28	2.85	0.96	1.35	1.34	1.32	1.80	2.24
2.2	S	0.49	0.50	0.71	0.83	0.70	0.87	0.40	0.42	0.60	0.69	0.58	0.75	0.50	0.53	0.75	0.86	0.73	0.94
2.2	D	0.38	0.54	0.53	0.53	0.71	0.89	0.92	1.29	1.28	1.26	1.71	2.14	0.72	1.01	1.00	0.99	1.35	1.69
2.4	S	0.41	0.42	0.59	0.69	0.59	0.73	0.34	0.35	0.50	0.58	0.49	0.63	0.42	0.44	0.63	0.73	0.61	0.79
2.4	D	0.29	0.41	0.41	0.40	0.55	0.69	0.71	0.99	0.98	0.97	1.32	1.65	0.56	0.78	0.77	0.77	1.04	1.30
2.6	S	0.35	0.36	0.51	0.59	0.50	0.62	0.29	0.30	0.43	0.50	0.42	0.54	0.36	0.38	0.54	0.62	0.52	0.67
2.6	D	0.23	0.33	0.32	0.32	0.43	0.54	0.56	0.78	0.77	0.76	1.04	1.30	0.44	0.61	0.61	0.60	0.82	1.02
2.8	S	0.30	0.31	0.44	0.51	0.43	0.54	0.25	0.26	0.37	0.43	0.36	0.46	0.31	0.32	0.46	0.53	0.45	0.58
2.8	D	0.19	0.26	0.26	0.25	0.35	0.43	0.44	0.62	0.62	0.61	0.83	1.04	0.35	0.49	0.49	0.48	0.65	0.82
3.0	S	0.27	0.27	0.38	0.44	0.38	0.47	0.22	0.23	0.32	0.37	0.31	0.40	0.27	0.28	0.40	0.47	0.39	0.50
3.0	D	0.15	0.21	0.21	0.21	0.28	0.35	0.36	0.51	0.50	0.50	0.68	0.84	0.28	0.40	0.40	0.39	0.53	0.66

*Y.S. = Yield Strength