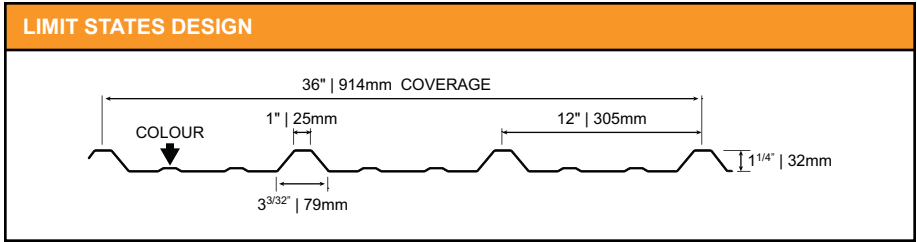


1. Based on ASTM A 653 structural steel.
2. Values in row "S" are based on strength.
3. Values in row "D" are based on deflection of 1/180th span.
4. Web crippling not included in strength calculation. See example.
5. Limit States Design principles were used in accordance with CSA Standard S136-12.



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	20.7	5.17	40.2	6.84
0.0180	0.94	33	0.0406	0.0343	0.0435	25.9	6.47	50.2	8.53
0.0180	0.94	50	0.0385	0.0326	0.0430	39.2	9.80	76.0	12.9
0.0180	0.94	80	0.0376	0.0315	0.0426	46.6	11.7	90.4	15.4
0.0240	1.23	33	0.0571	0.0476	0.0579	48.6	12.2	93.8	16.0
0.0300	1.53	33	0.0710	0.0613	0.0722	78.7	19.7	152	25.8

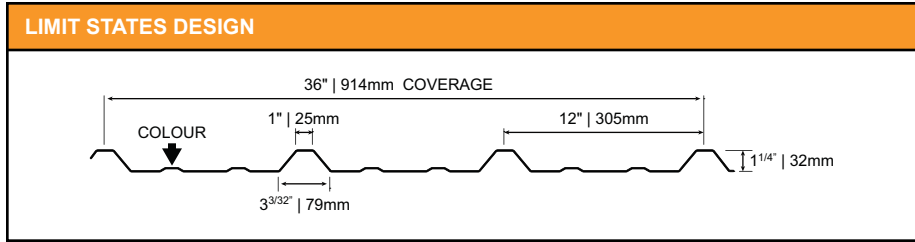
LLF = 1.40; IMPF = 0.75; NORMAL OCCUPANCY = 1.0

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			
	Y.S.* (ksi)	50	33	50	80	33	50	33	50	80	33	50	33	50	80	33	50	33	
2.0	S	144	144	206	239	202	251	117	121	175	201	168	217	147	152	219	251	210	271
2.0	D	450	632	626	620	842	1050	1080	1517	1502	1487	2020	2521	850	1195	1183	1171	1591	1985
2.5	S	92	92	132	153	129	161	75	78	112	128	108	139	94	97	140	161	135	173
2.5	D	230	324	320	317	431	538	553	777	769	761	1034	1291	435	612	606	600	814	1017
3.0	S	64	64	92	106	90	112	52	54	78	89	75	96	65	67	97	111	93	120
3.0	D	133	187	185	184	249	311	320	449	445	441	598	747	252	354	351	347	471	588
3.5	S	47	47	67	78	66	82	38	40	57	66	55	71	48	50	71	82	69	88
3.5	D	84	118	117	116	157	196	201	283	280	277	377	470	159	223	221	218	297	370
4.0	S	36	36	51	60	50	63	29	30	44	50	42	54	37	38	55	63	53	68
4.0	D	56	79	78	77	105	131	135	190	188	186	252	315	106	149	148	146	199	248
4.5	S	28	28	41	47	40	50	23	24	35	40	33	43	29	30	43	50	42	53
4.5	D	39	55	55	54	74	92	95	133	132	131	177	221	75	105	104	103	140	174
5.0	S	23	23	33	38	32	40	19	19	28	32	27	35	23	24	35	40	34	43
5.0	D	29	40	40	40	54	67	69	97	96	95	129	161	54	76	76	75	102	127
5.5	S	19	19	27	32	27	33	16	16	23	27	22	29	19	20	29	33	28	36
5.5	D	22	30	30	30	40	51	52	73	72	71	97	121	41	57	57	56	76	95
6.0	S	16	16	23	27	22	28	13	13	19	22	19	24	16	17	24	28	23	30
6.0	D	17	23	23	23	31	39	40	56	56	55	75	93	31	44	44	43	59	74
6.5	S	14	14	20	23	19	24	11	11	17	19	16	21	14	14	21	24	20	26
6.5	D	13	18	18	18	25	31	31	44	44	43	59	73	25	35	34	34	46	58
7.0	S	12	12	17	20	16	20	10	10	14	16	14	18	12	12	18	20	17	22
7.0	D	10	15	15	14	20	25	25	35	35	35	47	59	20	28	28	27	37	46
7.5	S	10	10	15	17	14	18	8	9	12	14	12	15	10	11	16	18	15	19
7.5	D	9	12	12	12	16	20	20	29	28	28	38	48	16	23	22	22	30	38
8.0	S	9	9	13	15	13	16	7	8	11	13	11	14	9	9	14	16	13	17
8.0	D	7	10	10	10	13	16	17	24	23	23	32	39	13	19	18	18	25	31

* 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	0.302	0.075	0.587	0.100
0.457	4.59	230	2.18	1.85	0.0594	0.382	0.095	0.740	0.126
0.457	4.59	345	2.07	1.76	0.0588	0.573	0.143	1.11	0.189
0.457	4.59	550	2.02	1.69	0.0582	0.685	0.171	1.33	0.226
0.610	6.02	230	3.07	2.56	0.0790	0.717	0.179	1.38	0.235
0.762	7.46	230	3.82	3.29	0.0987	1.16	0.290	2.24	0.380

LLF = 1.40; IMPF = 0.75; 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			
YS* (MPa)		345	230	345	550	230	345	230	345	550	230	345	230	345	550	230	345		
1.0	S	2.56	2.58	3.67	4.28	3.63	4.52	2.09	2.18	3.11	3.59	3.02	3.89	2.61	2.73	3.89	4.48	3.78	4.87
1.0	D	4.88	6.86	6.79	6.72	9.13	11.4	11.7	16.5	16.3	16.1	21.9	27.4	9.22	13.0	12.8	12.7	17.3	21.5
1.2	S	1.77	1.79	2.55	2.97	2.52	3.14	1.45	1.52	2.16	2.49	2.10	2.70	1.82	1.89	2.70	3.11	2.62	3.38
1.2	D	2.82	3.97	3.93	3.89	5.28	6.59	6.78	9.52	9.43	9.33	12.7	15.8	5.34	7.50	7.42	7.35	10.0	12.5
1.4	S	1.30	1.32	1.87	2.19	1.85	2.30	1.07	1.11	1.59	1.83	1.54	1.99	1.33	1.39	1.99	2.29	1.93	2.48
1.4	D	1.78	2.50	2.47	2.45	3.33	4.15	4.27	6.00	5.94	5.87	7.98	10.0	3.36	4.72	4.68	4.63	6.29	7.85
1.6	S	1.00	1.01	1.43	1.67	1.42	1.76	0.82	0.85	1.22	1.40	1.18	1.52	1.02	1.07	1.52	1.75	1.48	1.90
1.6	D	1.19	1.67	1.66	1.64	2.23	2.78	2.86	4.02	3.98	3.94	5.35	6.68	2.25	3.16	3.13	3.10	4.41	5.26
1.8	S	0.79	0.80	1.13	1.32	1.12	1.39	0.65	0.67	0.96	1.11	0.93	1.20	0.81	0.84	1.20	1.38	1.17	1.50
1.8	D	0.84	1.18	1.16	1.15	1.57	1.95	2.01	2.82	2.79	2.76	3.76	4.69	1.58	2.22	2.20	2.18	2.96	3.69
2.0	S	0.64	0.64	0.92	1.07	0.91	1.13	0.52	0.55	0.78	0.90	0.76	0.97	0.65	0.68	0.97	1.12	0.94	1.22
2.0	D	0.61	0.86	0.85	0.84	1.14	1.42	1.46	2.06	2.04	2.02	2.74	3.42	1.15	1.62	1.60	1.59	2.16	2.69
2.2	S	0.53	0.53	0.76	0.88	0.75	0.93	0.43	0.45	0.64	0.74	0.62	0.80	0.54	0.56	0.80	0.93	0.78	1.01
2.2	D	0.46	0.64	0.64	0.63	0.86	1.07	1.10	1.55	1.53	1.51	2.06	2.57	0.87	1.22	1.20	1.19	1.62	2.02
2.4	S	0.44	0.45	0.64	0.74	0.63	0.78	0.36	0.38	0.54	0.62	0.52	0.68	0.45	0.47	0.68	0.78	0.66	0.84
2.4	D	0.35	0.50	0.49	0.49	0.66	0.82	0.85	1.19	1.18	1.17	1.58	1.98	0.67	0.94	0.93	0.92	1.25	1.56
2.6	S	0.38	0.38	0.54	0.63	0.54	0.67	0.31	0.32	0.46	0.53	0.45	0.58	0.39	0.40	0.58	0.66	0.56	0.72
2.6	D	0.28	0.39	0.39	0.38	0.52	0.65	0.67	0.94	0.93	0.92	1.25	1.56	0.52	0.74	0.73	0.72	0.98	1.23
2.8	S	0.33	0.33	0.47	0.55	0.46	0.58	0.27	0.28	0.40	0.46	0.39	0.50	0.33	0.35	0.50	0.57	0.48	0.62
2.8	D	0.22	0.31	0.31	0.31	0.42	0.52	0.53	0.75	0.74	0.73	1.00	1.25	0.42	0.59	0.58	0.58	0.79	0.98
3.0	S	0.28	0.29	0.41	0.48	0.40	0.50	0.23	0.24	0.35	0.40	0.34	0.43	0.29	0.30	0.43	0.50	0.42	0.54
3.0	D	0.18	0.25	0.25	0.25	0.34	0.42	0.43	0.61	0.60	0.60	0.81	1.01	0.34	0.48	0.48	0.47	0.64	0.80

*Y.S. = Yield Strength