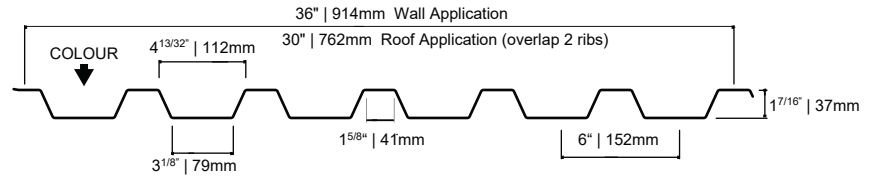


1. Based on ASTM A 653 structural steel.
2. Values in row "S" are based on strength.
3. Values in row "D" are based on deflection of 1/180th span.
4. Web crippling not included in strength calculation. See example.
5. Limit States Design principles were used in accordance with CSA Standard S136-16.

LIMIT STATES DESIGN

SECTION PROPERTIES | Per Foot of Width

Base Steel Thickness (in.)	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)	Pi2 Interior (lb)
0.0180	1.04	33	0.0884	0.0847	0.0923	62.1	15.5	119	20.2
0.0180	1.04	50	0.0822	0.0778	0.0881	94.1	23.5	180	30.5
0.0240	1.36	33	0.130	0.128	0.129	116	29.1	222	37.7
0.0300	1.69	33	0.176	0.175	0.162	188	47.1	359	61.0

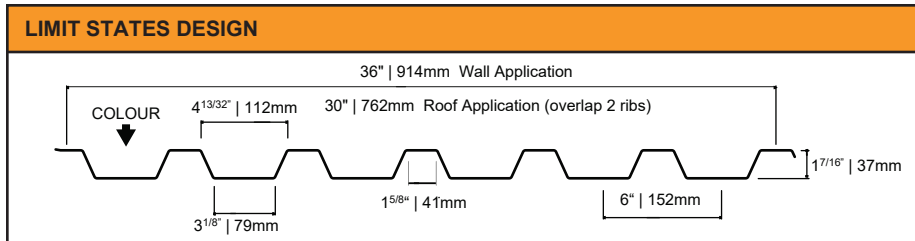
LLF = 1.40; IMPF = 0.75; NORMAL OCCUPANCY = 1.0

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

Span Length (ft)		1-Span Base Steel Thickness (in.)				2-Span Base Steel Thickness (in.)				3-Span Base Steel Thickness (in.)			
		0.0180	0.0180	0.0240	0.0300	0.0180	0.0180	0.0240	0.0300	0.0180	0.0180	0.0240	0.0300
Y.S.* (ksi)		33	50	33	33	33	50	33	33	33	50	33	33
4.0	S	78	110	115	155	75	104	113	154	94	130	142	193
4.0	D	168	160	234	295	403	384	562	708	317	303	442	558
4.5	S	62	87	91	123	59	82	89	122	74	103	112	152
4.5	D	118	112	164	207	283	270	394	497	223	212	311	392
5.0	S	50	70	74	99	48	67	72	99	60	83	91	123
5.0	D	86	82	120	151	206	197	288	362	162	155	226	285
5.5	S	41	58	61	82	40	55	60	82	49	69	75	102
5.5	D	65	62	90	113	155	148	216	272	122	116	170	214
6.0	S	35	49	51	69	33	46	50	69	42	58	63	86
6.0	D	50	47	69	87	119	114	166	210	94	90	131	165
6.5	S	30	42	44	59	28	39	43	58	35	49	54	73
6.5	D	39	37	55	69	94	90	131	165	74	71	103	130
7.0	S	26	36	38	51	24	34	37	50	31	43	46	63
7.0	D	31	30	44	55	75	72	105	132	59	56	83	104
7.5	S	22	31	33	44	21	30	32	44	27	37	40	55
7.5	D	25	24	36	45	61	58	85	107	48	46	67	85
8.0	S	20	28	29	39	19	26	28	39	23	33	35	48
8.0	D	21	20	29	37	50	48	70	88	40	38	55	70
8.5	S	17	24	26	34	17	23	25	34	21	29	31	43
8.5	D	17	17	24	31	42	40	59	74	33	32	46	58
9.0	S	15	22	23	31	15	21	22	30	18	26	28	38
9.0	D	15	14	21	26	35	34	49	62	28	27	39	46
9.5	S	14	20	20	28	13	18	20	27	17	23	25	34
9.5	D	13	12	17	22	30	29	42	53	24	23	33	42
10.0	S	13	18	18	25	12	17	18	25	15	21	23	31
10.0	D	11	10	15	19	26	25	36	45	20	19	28	36

*Y.S. = Yield Stress

1. Based on ASTM A 653M 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 S136-16.



SECTION PROPERTIES | Per Metre of Width

Base Steel Thickness (mm)	Mass [Z275] (kg/m²)	Yield Stress (MPa)	Section Modulus		Deflection Moment of Inertia (x10⁶ mm⁴)	Specified Web Crippling Data			
			Midspan (x10³ mm³)	Support (x10³ mm³)		Pe1 End (kN)	Pe2 End (kN)	Pi1 Interior (kN)	Pi2 Interior (kN)
0.457	5.06	230	4.74	4.54	0.126	0.916	0.229	1.75	0.297
0.457	5.06	345	4.42	4.18	0.120	1.37	0.344	2.62	0.446
0.610	6.66	230	7.00	6.87	0.176	1.72	0.429	3.27	0.556
0.762	8.26	230	9.43	9.37	0.222	2.78	0.695	5.29	0.900

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)			
		0.457	0.457	0.610	0.762	0.457	0.457	0.610	0.762	0.457	0.457	0.610	0.762
YS* (MPa)		230	345	230	230	230	345	230	230	230	345	230	230
1.0	S	5.61	7.84	8.28	11.2	5.37	7.42	8.13	11.1	6.72	9.27	10.2	13.9
1.0	D	14.6	13.9	20.3	25.6	34.9	33.3	48.7	61.4	27.5	26.3	38.4	48.4
1.2	S	3.90	5.45	5.75	7.75	3.73	5.15	5.64	7.70	4.66	6.44	7.05	9.62
1.2	D	8.42	8.04	11.7	14.8	20.2	19.3	28.2	35.6	15.9	15.2	22.2	28.0
1.4	S	2.86	4.00	4.22	5.69	2.74	3.78	4.15	5.66	3.43	4.73	5.18	7.07
1.4	D	5.30	5.06	7.40	9.33	12.7	12.2	17.8	22.4	10.0	9.57	14.0	17.6
1.6	S	2.19	3.06	3.23	4.36	2.10	2.90	3.17	4.33	2.62	3.62	3.97	5.41
1.6	D	3.55	3.39	4.95	6.25	8.52	8.14	11.9	15.0	6.71	6.41	9.36	11.8
1.8	S	1.73	2.42	2.55	3.44	1.66	2.29	2.51	3.42	2.07	2.86	3.14	4.28
1.8	D	2.49	2.38	3.48	4.39	5.99	5.72	8.35	10.5	4.71	4.50	6.58	8.30
2.0	S	1.40	1.96	2.07	2.79	1.34	1.85	2.03	2.77	1.68	2.32	2.54	3.46
2.0	D	1.82	1.74	2.54	3.20	4.36	4.17	6.09	7.68	3.44	3.28	4.79	6.05
2.2	S	1.16	1.62	1.71	2.31	1.11	1.53	1.68	2.29	1.39	1.92	2.10	2.86
2.2	D	1.37	1.30	1.91	2.40	3.28	3.13	4.57	5.77	2.58	2.46	3.60	4.54
2.4	S	0.97	1.36	1.44	1.94	0.93	1.29	1.41	1.92	1.17	1.61	1.76	2.41
2.4	D	1.05	1.00	1.47	1.85	2.53	2.41	3.52	4.44	1.99	1.90	2.77	3.50
2.6	S	0.83	1.16	1.22	1.65	0.79	1.10	1.20	1.64	0.99	1.37	1.50	2.05
2.6	D	0.83	0.79	1.15	1.46	1.99	1.90	2.77	3.50	1.56	1.49	2.18	2.75
2.8	S	0.72	1.00	1.06	1.42	0.69	0.95	1.04	1.41	0.86	1.18	1.30	1.77
2.8	D	0.66	0.63	0.92	1.17	1.59	1.52	2.22	2.80	1.25	1.20	1.75	2.20
3.0	S	0.62	0.87	0.92	1.24	0.60	0.82	0.90	1.23	0.75	1.03	1.13	1.54
3.0	D	0.54	0.51	0.75	0.95	1.29	1.23	1.80	2.28	1.02	0.97	1.42	1.79

*Y.S. = Yield Stress