

## GRAVITY LOAD, WESTERN RIB

	span type	load type	Gravity - Total Allowable Load in psf, (span in feet)									
			3	3.5	4	4.5	5	6	7	8	9	10
29 Gage(Fy=80ksi)	single span	stress	108.4	79.6	61.0	48.2	39.0	27.1	19.9	15.2	12.0	9.8
		deflection	127.0	80.0	53.6	37.6	27.4	15.9	10.0	6.7	4.7	3.4
	2 spans	stress	92.5	67.9	52.0	41.1	33.3	23.1	17.0	13.0	10.3	8.3
		deflection	285.2	179.6	120.3	84.5	61.6	35.6	22.4	15.0	10.6	7.7
	3 spans or more	stress	107.9	79.3	60.7	48.0	38.8	27.0	19.8	15.2	12.0	9.7
		deflection	237.2	149.3	100.1	70.3	51.2	29.6	18.7	12.5	8.8	6.4
	span type	load type	Gravity - Total Allowable Load in psf, (span in feet)									
			3	3.5	4	4.5	5	6	7	8	9	10
26 Gage(Fy=80ksi)	single span	stress	197.4	145.1	111.1	87.7	71.1	49.4	36.3	27.8	21.9	17.8
		deflection	209.4	131.9	88.3	62.0	45.2	26.2	16.5	11.0	7.8	5.7
	2 spans	stress	166.1	122.0	93.4	73.8	59.8	41.5	30.5	23.4	18.5	14.9
		deflection	476.1	299.8	200.8	141.1	102.8	59.5	37.5	25.1	17.6	12.9
	3 spans or more	stress	193.8	142.4	109.0	86.1	69.8	48.5	35.6	27.3	21.5	17.4
		deflection	395.9	249.3	167.0	117.3	85.5	49.5	31.2	20.9	14.7	10.7
	span type	load type	Gravity - Total Allowable Load in psf, (span in feet)									
			3	3.5	4	4.5	5	6	7	8	9	10
24 Gage(Fy=50ksi)	single span	stress	290.1	213.2	163.2	128.9	104.4	72.5	53.3	40.8	32.2	26.1
		deflection	291.8	183.8	123.1	86.5	63.0	36.5	23.0	15.4	10.8	7.9
	2 spans	stress	260.8	191.6	146.7	115.9	93.9	65.2	47.9	36.7	29.0	23.5
		deflection	698.4	439.8	294.6	206.9	150.8	87.3	55.0	36.8	25.9	18.9
	3 spans or more	stress	304.4	223.6	171.2	135.3	109.6	76.1	55.9	42.8	33.8	27.4
		deflection	580.8	365.7	245.0	172.1	125.4	72.6	45.7	30.6	21.5	15.7
	span type	load type	Gravity Total Allowable Load in psf, (span in feet)									
			3	3.5	4	4.5	5	6	7	8	9	10
22 Gage(Fy=50ksi)	single span	stress	404.7	297.3	227.6	179.9	145.7	101.2	74.3	56.9	45.0	36.4
		deflection	397.5	250.3	167.7	117.8	85.9	49.7	31.3	21.0	14.7	10.7
	2 spans	stress	365.9	268.8	205.8	162.6	131.7	91.5	67.2	51.5	40.7	32.9
		deflection	957.5	603.0	403.9	283.7	206.8	119.7	75.4	50.5	35.5	25.9
	3 spans or more	stress	427.0	313.7	240.2	189.8	153.7	106.8	78.4	60.0	47.4	38.4
		deflection	796.3	501.4	335.9	235.9	172.0	99.5	62.7	42.0	29.5	21.5

Section Properties			Top in Compression			Bott. in Compression		
gauge	fy	wt	ix	sx	ma	ix	sx	ma
	(ksi)	(psf)	(in <sup>4</sup> /ft)	(in <sup>3</sup> /ft)	(kip-in)	(in <sup>4</sup> /ft)	(in <sup>3</sup> /ft)	(kip-in)
29	80	0.62	0.0399	0.0407	1.4635	0.0372	0.0847	1.2481
26	80	0.86	0.0658	0.0743	2.6653	0.0621	0.0624	2.2419
24	50	1.10	0.0917	0.1090	3.9168	0.0911	0.0979	3.5208
22	50	1.40	0.1249	0.1521	5.4630	0.1249	0.1375	4.9392
max. deflection		180						

## UPLIFT LOAD, WESTERN RIB

	span type	load type	Uplift - Total Allowable Load in psf, (span in feet)									
			3	3.5	4	4.5	5	6	7	8	9	10
29 Gage(Fy=80ksi)	single span	stress	92.5	67.9	52.0	41.1	33.3	23.1	17.0	13.0	10.3	8.3
		deflection	118.4	74.6	49.9	35.1	25.6	14.8	9.3	6.2	4.4	3.2
	2 spans	stress	108.4	79.6	61.0	48.2	39.0	27.1	19.9	15.2	12.0	9.8
		deflection	305.9	192.6	129.0	90.6	66.1	38.2	24.1	16.1	11.3	8.3
	3 spans or more	stress	126.5	93.0	71.2	56.2	45.5	31.6	23.2	17.8	14.1	11.4
		deflection	254.4	160.2	107.3	75.4	54.9	31.8	20.0	13.4	9.4	6.9
	span type	load type	Uplift - Total Allowable Load in psf, (span in feet)									
			3	3.5	4	4.5	5	6	7	8	9	10
26 Gage(Fy=80ksi)	single span	stress	166.1	122.0	93.4	73.8	59.8	41.5	30.5	23.4	18.5	14.9
		deflection	197.6	124.5	83.4	58.6	42.7	24.7	15.6	10.4	7.3	5.3
	2 spans	stress	197.4	145.1	111.1	87.7	71.1	49.4	36.3	27.8	21.9	17.8
		deflection	504.4	317.7	212.8	149.5	109.0	63.1	39.7	26.6	18.7	13.6
	3 spans or more	stress	230.4	169.3	129.6	102.4	83.0	57.6	42.3	32.4	25.6	20.7
		deflection	419.5	264.2	177.0	124.3	90.6	52.4	33.0	22.1	15.5	11.3
	span type	load type	Uplift - Total Allowable Load in psf, (span in feet)									
			3	3.5	4	4.5	5	6	7	8	9	10
24 Gage(Fy=50ksi)	single span	stress	260.8	191.6	146.7	115.9	93.9	65.2	47.9	36.7	29.0	23.5
		deflection	289.9	182.6	122.3	85.9	62.6	36.2	22.8	15.3	10.7	7.8
	2 spans	stress	290.1	213.2	163.2	128.9	104.4	72.5	53.3	40.8	32.2	26.1
		deflection	703.0	442.7	296.6	208.3	151.8	87.9	55.3	37.1	26.0	19.0
	3 spans or more	stress	338.6	248.8	190.5	150.5	121.9	84.7	62.2	47.6	37.6	30.5
		deflection	584.6	368.2	246.6	173.2	126.3	73.1	46.0	30.8	21.7	15.8
	span type	load type	Uplift - Total Allowable Load in psf, (span in feet)									
			3	3.5	4	4.5	5	6	7	8	9	10
22 Gage(Fy=50ksi)	single span	stress	365.9	268.8	205.8	162.6	131.7	91.5	67.2	51.5	40.7	32.9
		deflection	397.5	250.3	167.7	117.8	85.9	49.7	31.3	21.0	14.7	10.7
	2 spans	stress	404.7	297.3	227.6	179.9	145.7	101.2	74.3	56.9	45.0	36.4
		deflection	957.5	603.0	403.9	283.7	206.8	119.7	75.4	50.5	35.5	25.9
	3 spans or more	stress	472.3	347.0	265.7	209.9	170.0	118.1	86.7	66.4	52.5	42.5
		deflection	796.3	501.4	335.9	235.9	172.0	99.5	62.7	42.0	29.5	21.5

Section Properties			Top in Compression			Bott. in Compression		
gage	fy	wt	ix	sx	ma	ix	sx	ma
	(ksi)	(psf)	(in <sup>4</sup> /ft)	(in <sup>3</sup> /ft)	(kip-in)	(in <sup>4</sup> /ft)	(in <sup>3</sup> /ft)	(kip-in)
29	80	0.62	0.0399	0.0407	1.4635	0.0372	0.0847	1.2481
26	80	0.86	0.0658	0.0743	2.6653	0.0621	0.0624	2.2419
24	50	1.10	0.0917	0.1090	3.9168	0.0911	0.0979	3.5208
22	50	1.40	0.1249	0.1521	5.4630	0.1249	0.1375	4.9392
max. deflection		180						