



## Preliminary Structural Analysis of 50ft Rooftop Pole

**Site Number: XXXXX**

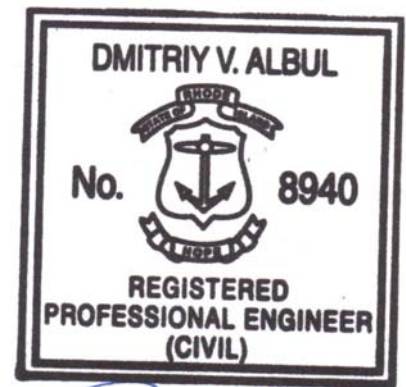
**Site Name: XXXXX**

**County: County**

**Location: Pawtucket, RI**

Checked By:

Patrick Botimer  
Armor Tower, Inc.



*D. Albul*  
3-11-2010

### Customer

Street address

Street address2

City, State zip

March 17, 2010

Customer  
Address  
Address2  
City, State zip



RE: Site number – Site name  
Site Location

Dear Customer:

We have completed the preliminary proof-of-concept analysis of the subject rooftop tower site and **have found it to be adequate within the scope of this analysis to support the proposed rooftop tower.** Wind forces were calculated according to the requirements of EIA 222-F standard for Providence County, RI for 90 mph (fastest mile) wind speed with no ice and 61 mph wind with ½" ice. The results of this analysis are based on a site visit on February 12, 2010.

The tower is to be a concealed pole mounted to proposed rooftop framing above the office area of the warehouse. The office roof is approximately 28 feet above ground level. The assumed design consists of steel framing 4 feet above the rooftop with a 24 inch diameter pole extending to 78 feet above ground level. Radio equipment cabinets are also to be added to the steel framed platform.

The results of our analysis show no overstresses in the existing building columns located under the proposed tower. Lateral loads are transmitted through the floor and roof to masonry shear walls which are adequate for the applied loading.

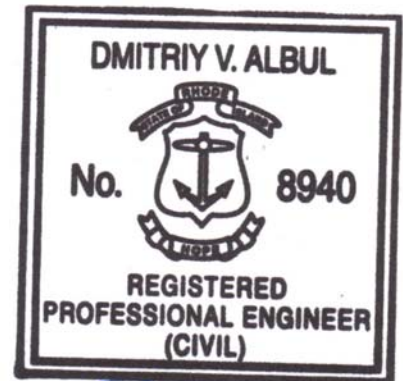
No conclusions, expressed or implied, shall indicate that Armor Tower has made an evaluation of the original design, materials, fabrication, or potential erection deficiencies. Any information contrary to that assumed for the purpose of preparing this analysis could alter the findings and conclusions stated.

We appreciate the opportunity to provide our services to Customer and Enduser. If you have any questions concerning this analysis, please contact us.

Sincerely,

Jeff Triezenberg  
ARMOR TOWER, INC.

(enclosures)

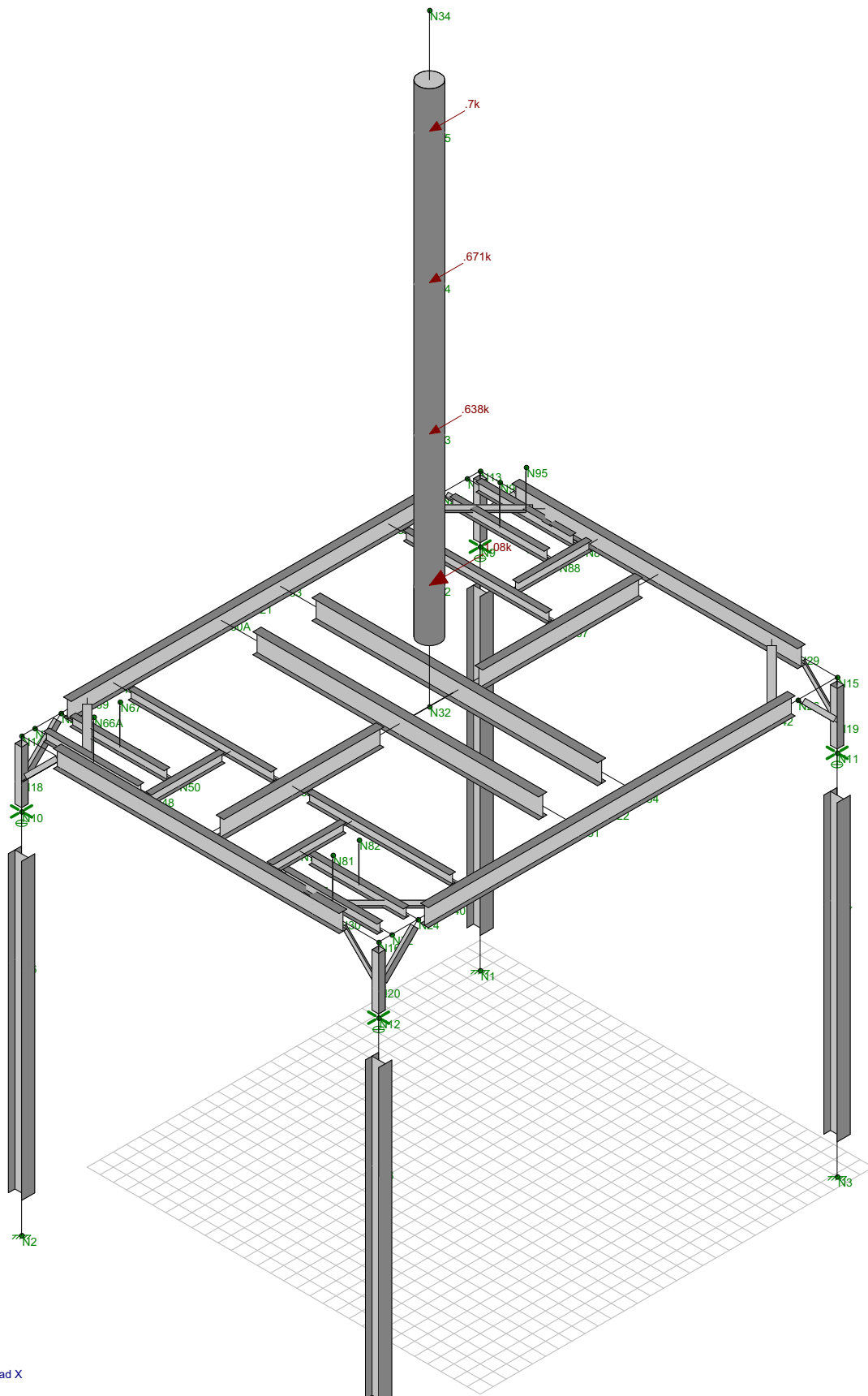


*D. Albul*  
3-11-2010



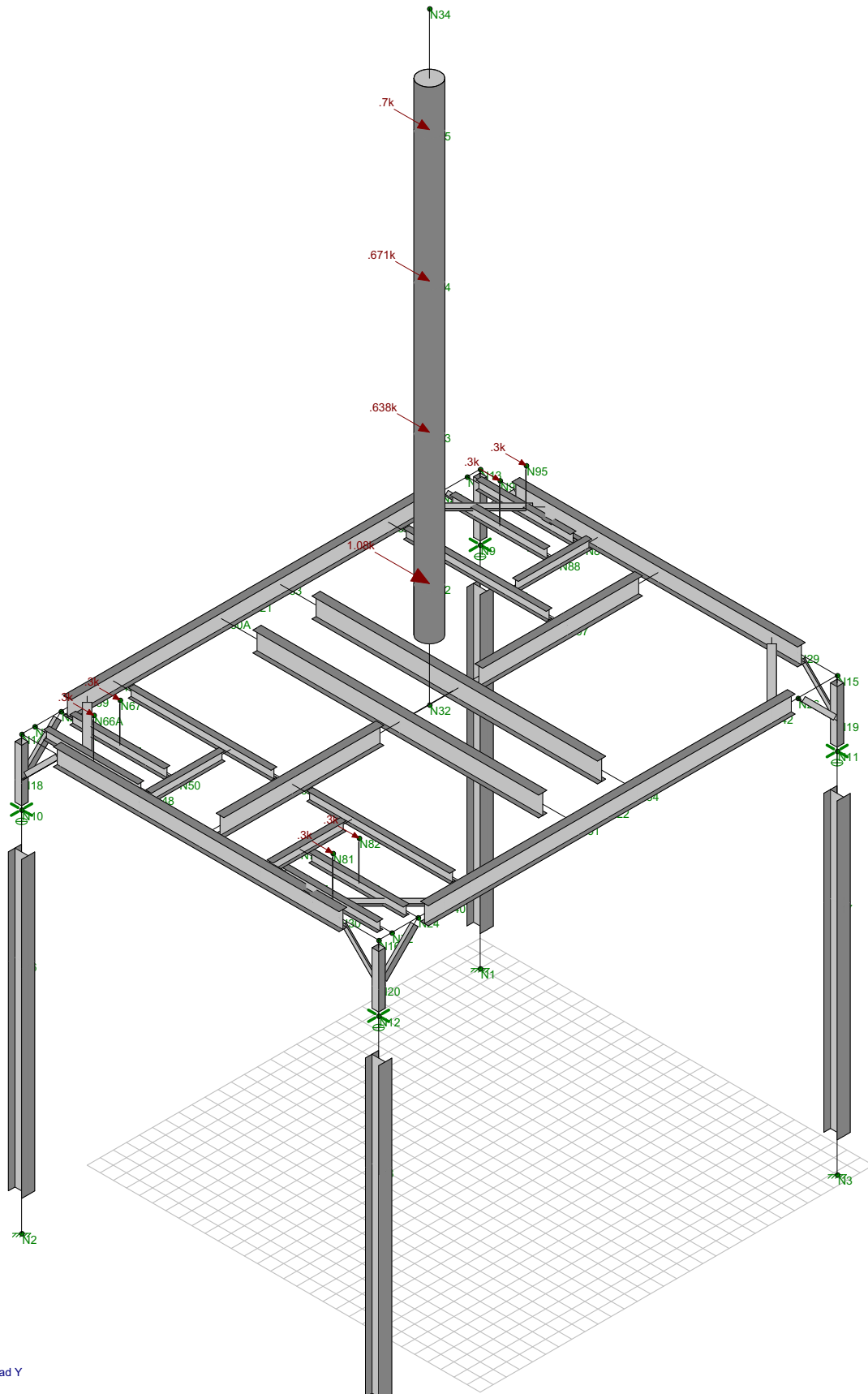
[www.armortower.com](http://www.armortower.com)  
1 North Main Street, Ste 312, Cortland, NY 13045

607.591.5381 Fax: 866.870.0840



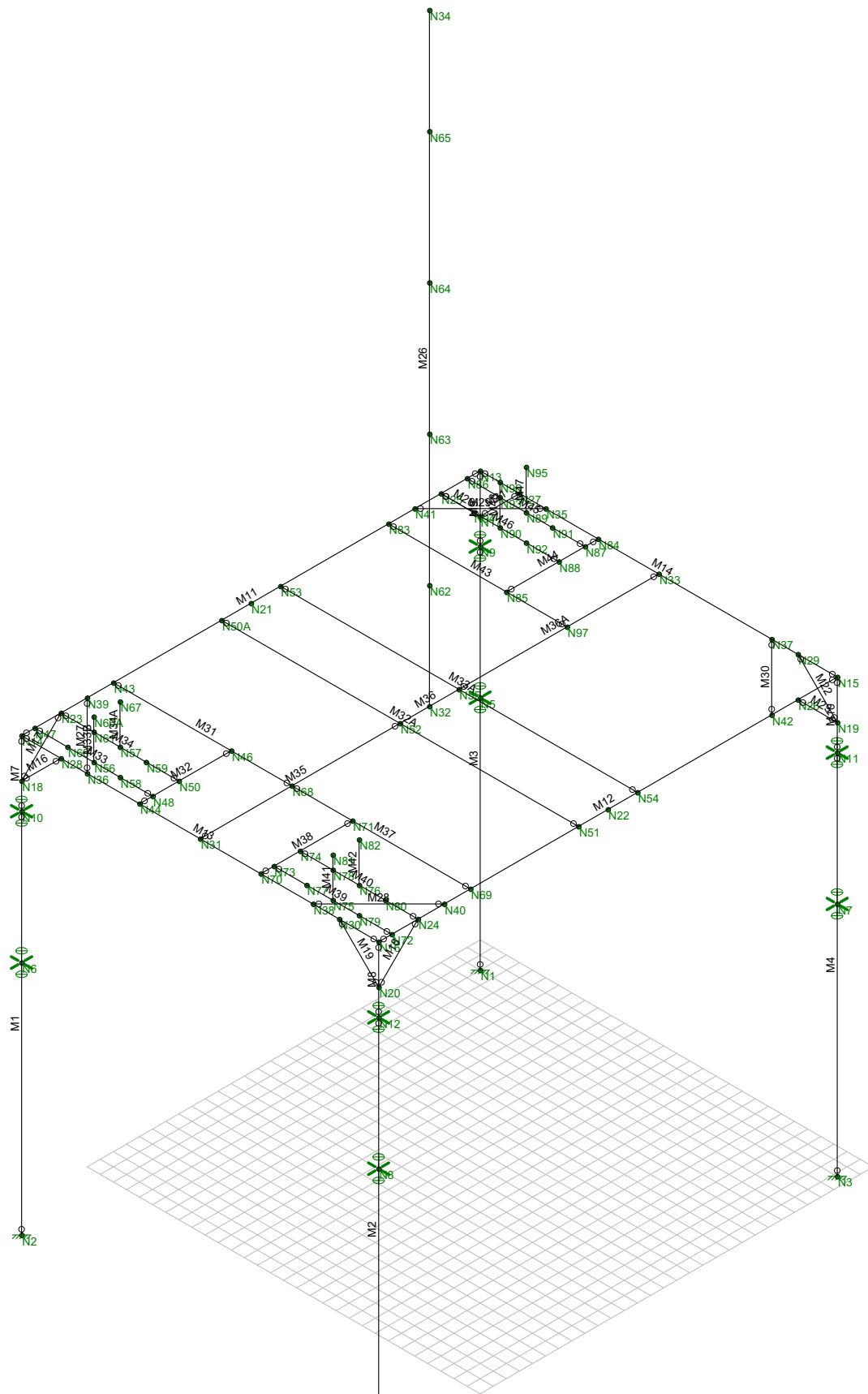
Loads: BLC 5, Wind Load X  
Solution: Envelope

Armor Tower	Frame Analysis	Feb 26, 2010 at 10:52 AM
Jeff Triezenberg		Prelim Rooftop Platform.r3d



Loads: BLC 6, Wind Load Y  
Solution: Envelope

Armor Tower	Frame Analysis	
Jeff Triezenberg		Feb 26, 2010 at 10:52 AM
<input type="text"/>		Prelim Rooftop Platform.r3d



Solution: Envelope

Armor Tower

Jeff Triezenberg

Frame Analysis

Feb 26, 2010 at 10:51 AM

Prelim Rooftop Platform.r3d

Client:   
Project:   
Calculated By: JST  
Date: Feb 2010

## ARMOR TOWER, INC.

1 N. Main St. Suite 312  
Cortland, NY 13045  
(607) 591-5381



```
CaAa (Length, Width, FlatRound) := Aspect ← Length / Width
if FlatRound = "Round"
  CA ← 0.8 if Aspect ≤ 7
  CA ← 0.8 + (Aspect - 7) / 18 * 0.4 if 7 < Aspect < 25
  CA ← 1.2 if Aspect ≥ 25
if FlatRound = "Flat"
  CA ← 1.4 if Aspect ≤ 7
  CA ← 1.4 + (Aspect - 7) / 18 * 0.6 if 7 < Aspect < 25
  CA ← 2.0 if Aspect ≥ 25
CA * Length * Width
```

$$\text{AntennaWindForce}(\text{CaAa}, V, z, h) := .00256 \cdot \left(\frac{V}{\text{mph}}\right)^2 \cdot \left(\frac{z}{33 \cdot \text{ft}}\right)^{\frac{2}{7}} \cdot (1.69) \cdot \text{psf} \cdot \text{CaAa}$$

### Forces on the pole

78 ft - 68 ft

$$\text{Area}_1 := \text{CaAa}(10\text{ft}, 24\text{in}, \text{"Round"}) = 16 \cdot \text{ft}^2$$

$$\text{Shear} := \text{AntennaWindForce}(\text{Area}_1, 90\text{mph}, 72\text{ft}, 78\text{ft}) = 700.7 \text{ lbf}$$

68 ft - 58 ft

$$\text{Area}_2 := \text{CaAa}(10\text{ft}, 24\text{in}, \text{"Round"}) = 16 \cdot \text{ft}^2$$

$$\text{Shear} := \text{AntennaWindForce}(\text{Area}_2, 90\text{mph}, 62\text{ft}, 78\text{ft}) = 671.4 \text{ lbf}$$

58 ft - 48 ft

$$\text{Area}_3 := \text{CaAa}(10\text{ft}, 24\text{in}, \text{"Round"}) = 16 \cdot \text{ft}^2$$

$$\text{Shear} := \text{AntennaWindForce}(\text{Area}_3, 90\text{mph}, 52\text{ft}, 78\text{ft}) = 638.5 \text{ lbf}$$

Client:   
Project:   
Calculated By: JST  
Date: Feb 2010

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48 ft - 32 ft

$$\text{Area}_{4.1} := \text{CaAa}(16\text{ft}, 24\text{in}, \text{"Round"}) = 26.3111 \cdot \text{ft}^2$$

$$\text{Area}_{4.2} := \text{CaAa}(16\text{ft}, 30\text{in}, \text{"Round"}) = 32 \cdot \text{ft}^2$$

$$\text{Area}_4 := \frac{\text{Area}_{4.1} + \text{Area}_{4.2}}{2} = 29.2 \text{ft}^2$$

$$\text{Shear} := \text{AntennaWindForce}(\text{Area}_4, 90\text{mph}, 40\text{ft}, 78\text{ft}) = 1079.5 \text{ lbf}$$

### Existing loads on columns

$$A := 27.25\text{ft} \cdot 35\text{ft} = 953.8 \text{ft}^2$$

$$\text{LL} := 60\text{psf} \cdot A = 57225 \text{ lbf}$$

$$\text{DL} := 60\text{psf} \cdot A = 57225 \text{ lbf} \quad \text{floor slab}$$

$$\text{SL} := 30\text{psf} \cdot A = 28612.5 \text{ lbf}$$

$$\text{RL} := 40\text{psf} \cdot A = 38150 \text{ lbf} \quad \text{roof Dead Load}$$

### Wind Load from cabinets

$$\text{Area}_5 := \text{CaAa}(6\text{ft}, 24\text{in}, \text{"Flat"}) = 16.8 \cdot \text{ft}^2$$

$$\text{Shear} := \text{AntennaWindForce}(\text{Area}_5, 90\text{mph}, 35\text{ft}, 78\text{ft}) = 598.7 \text{ lbf}$$



***Joint Coordinates and Temperatures***

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diap...
1	N1	2	2	0	0	
2	N2	37	2	0	0	
3	N3	2	29.25	0	0	
4	N4	37	29.25	0	0	
5	N5	2	2	18	0	
6	N6	37	2	18	0	
7	N7	2	29.25	18	0	
8	N8	37	29.25	18	0	
9	N9	2	2	28	0	
10	N10	37	2	28	0	
11	N11	2	29.25	28	0	
12	N12	37	29.25	28	0	
13	N13	2	2	33	0	
14	N14	37	2	33	0	
15	N15	2	29.25	33	0	
16	N16	37	29.25	33	0	
17	N17	2	2	30	0	
18	N18	37	2	30	0	
19	N19	2	29.25	30	0	
20	N20	37	29.25	30	0	
21	N21	19.5	2	33	0	
22	N22	19.5	29.25	33	0	
23	N23	34	2	33	0	
24	N24	34	29.25	33	0	
25	N25	5	2	33	0	
26	N26	5	29.25	33	0	
27	N27	2	5	33	0	
28	N28	37	5	33	0	
29	N29	2	26.25	33	0	
30	N30	37	26.25	33	0	
31	N31	37	15.625	33	0	
32	N32	19.5	15.625	33	0	
33	N33	2	15.625	33	0	
34	N34	19.5	15.625	79	0	
35	N35	2	7	33	0	
36	N36	37	7	33	0	
37	N37	2	24.25	33	0	
38	N38	37	24.25	33	0	
39	N39	32	2	33	0	
40	N40	32	29.25	33	0	
41	N41	7	2	33	0	
42	N42	7	29.25	33	0	
43	N43	30	2	33	0	
44	N44	37	11	33	0	
45	N46	30	11	33	0	
46	N47	36	2	33	0	
47	N48	36	11	33	0	
48	N50	34	11	33	0	
49	N50A	21.75	2	33	0	
50	N51	21.75	29.25	33	0	
51	N52	21.75	15.625	33	0	
52	N53	17.25	2	33	0	
53	N54	17.25	29.25	33	0	
54	N55	17.25	15.625	33	0	
55	N56	36	6.5	33	0	
56	N57	34	6.5	33	0	

**Joint Coordinates and Temperatures (Continued)**

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diap...
57	N58	36	8.5	33	0	
58	N59	34	8.5	33	0	
59	N60	36	4.5	33	0	
60	N61	34	4.5	33	0	
61	N62	19.5	15.625	41	0	
62	N63	19.5	15.625	51	0	
63	N64	19.5	15.625	61	0	
64	N65	19.5	15.625	71	0	
65	N66A	36	6.5	36	0	
66	N67	34	6.5	36	0	
67	N68	30	15.625	33	0	
68	N69	30	29.25	33	0	
69	N70	37	20.25	33	0	
70	N71	30	20.25	33	0	
71	N72	36	29.25	33	0	
72	N73	36	20.25	33	0	
73	N74	34	20.25	33	0	
74	N75	36	24.75	33	0	
75	N76	34	24.75	33	0	
76	N77	36	22.75	33	0	
77	N78	34	22.75	33	0	
78	N79	36	26.75	33	0	
79	N80	34	26.75	33	0	
80	N81	36	24.75	36	0	
81	N82	34	24.75	36	0	
82	N83	9	2	33	0	
83	N84	2	11	33	0	
84	N85	9	11	33	0	
85	N86	3	2	33	0	
86	N87	3	11	33	0	
87	N88	5	11	33	0	
88	N89	3	6.5	33	0	
89	N90	5	6.5	33	0	
90	N91	3	8.5	33	0	
91	N92	5	8.5	33	0	
92	N93	3	4.5	33	0	
93	N94	5	4.5	33	0	
94	N95	3	6.5	36	0	
95	N96	5	6.5	36	0	
96	N97	9	15.625	33	0	

**Material Takeoff**

	Material	Size	Pieces	Length[ft]	Weight[K]
1	General				
2	RIGID		7	22.5	0
3	Total General		7	22.5	0
4					
5	Hot Rolled Steel				
6	A36 Gr.36	C6X8.2	4	28.3	.2
7	A36 Gr.36	L4X4X4	8	33.9	.2
8	A36 Gr.36	W12X65	4	112	7.3
9	A500 Gr.46	HSS20X0.5	1	46	4.5
10	A500 Gr.46	HSS6X6X4	4	20	.4
11	A992	W16X36	6	155	5.6
12	A992	W18X55	2	54.5	3
13	A992	W8X18	12	115.9	2.1

**Material Takeoff (Continued)**

	Material	Size	Pieces	Length(ft)	Weight(K)
14	Total HR Steel		41	565.6	23.2

**Member Primary Data**

	Label	I Joint	J Joint	K Joint	Rotate(de...)	Section/Shape	Type	Design List	Material	Design Rules
1	M1	N2	N10			W12X65	Beam	Wide Flange	A36 Gr.36	Typical
2	M2	N4	N12			W12X65	Beam	Wide Flange	A36 Gr.36	Typical
3	M3	N1	N9			W12X65	Beam	Wide Flange	A36 Gr.36	Typical
4	M4	N3	N11			W12X65	Beam	Wide Flange	A36 Gr.36	Typical
5	M7	N10	N14			HSS6X6X4	Beam	Wide Flange	A500 Gr.46	Typical
6	M8	N12	N16			HSS6X6X4	Beam	Wide Flange	A500 Gr.46	Typical
7	M9	N9	N13			HSS6X6X4	Beam	Wide Flange	A500 Gr.46	Typical
8	M10	N11	N15			HSS6X6X4	Beam	Wide Flange	A500 Gr.46	Typical
9	M11	N14	N13			W16X36	Beam	Wide Flange	A992	Typical
10	M12	N16	N15			W16X36	Beam	Wide Flange	A992	Typical
11	M13	N16	N14			W16X36	Beam	Wide Flange	A992	Typical
12	M14	N13	N15			W16X36	Beam	Wide Flange	A992	Typical
13	M16	N18	N28			L4X4X4	Beam	Wide Flange	A36 Gr.36	Typical
14	M17	N18	N23			L4X4X4	Beam	Wide Flange	A36 Gr.36	Typical
15	M18	N20	N24			L4X4X4	Beam	Wide Flange	A36 Gr.36	Typical
16	M19	N20	N30			L4X4X4	Beam	Wide Flange	A36 Gr.36	Typical
17	M20	N17	N25			L4X4X4	Beam	Wide Flange	A36 Gr.36	Typical
18	M21	N17	N27			L4X4X4	Beam	Wide Flange	A36 Gr.36	Typical
19	M22	N19	N29			L4X4X4	Beam	Wide Flange	A36 Gr.36	Typical
20	M23	N19	N26			L4X4X4	Beam	Wide Flange	A36 Gr.36	Typical
21	M26	N32	N34			HSS20X0.5	Beam	Wide Flange	A500 Gr.46	Typical
22	M27	N39	N36		90	C6X8.2	Beam	Wide Flange	A36 Gr.36	Typical
23	M28	N38	N40		90	C6X8.2	Beam	Wide Flange	A36 Gr.36	Typical
24	M29	N41	N35		90	C6X8.2	Beam	Wide Flange	A36 Gr.36	Typical
25	M30	N37	N42		90	C6X8.2	Beam	Wide Flange	A36 Gr.36	Typical
26	M31	N43	N68			W8X18	Beam	Wide Flange	A992	Typical
27	M32	N46	N44			W8X18	Beam	Wide Flange	A992	Typical
28	M33	N47	N48			W8X18	Beam	Wide Flange	A992	Typical
29	M34	N23	N50			W8X18	Beam	Wide Flange	A992	Typical
30	M32A	N50A	N51			W18X55	Beam	Wide Flange	A992	Typical
31	M33A	N53	N54			W18X55	Beam	Wide Flange	A992	Typical
32	M36	N52	N55			RIGID	None	None	RIGID	Typical
33	M33B	N56	N66A			RIGID	None	None	RIGID	Typical
34	M34A	N57	N67			RIGID	None	None	RIGID	Typical
35	M35	N31	N52			W16X36	Beam	Wide Flange	A992	Typical
36	M36A	N55	N33			W16X36	Beam	Wide Flange	A992	Typical
37	M37	N69	N68			W8X18	Beam	Wide Flange	A992	Typical
38	M38	N71	N70			W8X18	Beam	Wide Flange	A992	Typical
39	M39	N72	N73			W8X18	Beam	Wide Flange	A992	Typical
40	M40	N24	N74			W8X18	Beam	Wide Flange	A992	Typical
41	M41	N75	N81			RIGID	None	None	RIGID	Typical
42	M42	N76	N82			RIGID	None	None	RIGID	Typical
43	M43	N83	N97			W8X18	Beam	Wide Flange	A992	Typical
44	M44	N85	N84			W8X18	Beam	Wide Flange	A992	Typical
45	M45	N86	N87			W8X18	Beam	Wide Flange	A992	Typical
46	M46	N25	N88			W8X18	Beam	Wide Flange	A992	Typical
47	M47	N89	N95			RIGID	None	None	RIGID	Typical
48	M48	N90	N96			RIGID	None	None	RIGID	Typical

**Hot Rolled Steel Properties**

	Label	E [ksi]	G [ksi]	Nu	Therm (\1E5 F)	Density[k/ft^3]	Yield[ksi]
1	A36 Gr.36	29000	11154	.3	.65	.49	36
2	A572 Gr.50	29000	11154	.3	.65	.49	50
3	A992	29000	11154	.3	.65	.49	50
4	A500 Gr.42	29000	11154	.3	.65	.49	42
5	A500 Gr.46	29000	11154	.3	.65	.49	46

**Hot Rolled Steel Section Sets**

	Label	Shape	Type	Design List	Material	Design Rules	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	HR1A	W10X17	Beam	Wide Flange	A36 Gr.36	Typical	4.99	3.56	81.9	.16

**General Section Sets**

	Label	Shape	Type	Material	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	GEN1A	RE4X4	Beam	gen_Conc3NW	16	21.333	21.333	31.573
2	RIGID		None	RIGID	1e+6	1e+6	1e+6	1e+6

**Hot Rolled Steel Design Parameters**

	Label	Shape	Length...	Lbyy[ft]	Lbzz[ft]	Lcomp to...	Lcomp b...	Kyy	Kzz	Cm-yy	Cm-zz	Cb	y sway	z sway	Function
1	M1	W12X65	28												Lateral
2	M2	W12X65	28												Lateral
3	M3	W12X65	28												Lateral
4	M4	W12X65	28												Lateral
5	M7	HSS6X6...	5	2	2										Lateral
6	M8	HSS6X6...	5	2	2										Lateral
7	M9	HSS6X6...	5	2	2										Lateral
8	M10	HSS6X6...	5	2	2										Lateral
9	M11	W16X36	35	16	16										Lateral
10	M12	W16X36	35	16	16										Lateral
11	M13	W16X36	27.25	13.6	13.6										Lateral
12	M14	W16X36	27.25	13.6	13.6										Lateral
13	M16	L4X4X4	4.243												Lateral
14	M17	L4X4X4	4.243												Lateral
15	M18	L4X4X4	4.243												Lateral
16	M19	L4X4X4	4.243												Lateral
17	M20	L4X4X4	4.243												Lateral
18	M21	L4X4X4	4.243												Lateral
19	M22	L4X4X4	4.243												Lateral
20	M23	L4X4X4	4.243												Lateral
21	M26	HSS20X...	46												Lateral
22	M27	C6X8.2	7.071												Lateral
23	M28	C6X8.2	7.071												Lateral
24	M29	C6X8.2	7.071												Lateral
25	M30	C6X8.2	7.071												Lateral
26	M31	W8X18	13.625												Lateral
27	M32	W8X18	7	9	9										Lateral
28	M33	W8X18	9												Lateral
29	M34	W8X18	9												Lateral
30	M32A	W18X55	27.25	13.6	13.6										Lateral
31	M33A	W18X55	27.25	13.6	13.6										Lateral
32	M35	W16X36	15.25												Lateral
33	M36A	W16X36	15.25												Lateral
34	M37	W8X18	13.625												Lateral
35	M38	W8X18	7	9	9										Lateral

**Hot Rolled Steel Design Parameters (Continued)**

	Label	Shape	Length...	Lbv[ft]	Lbzz[ft]	Lcomp to...	Lcomp b...	Kvy	Kzz	Cm-vy	Cm-zz	Cb	v swayz	sway	Function
36	M39	W8X18	9												Lateral
37	M40	W8X18	9												Lateral
38	M43	W8X18	13.625												Lateral
39	M44	W8X18	7	9	9										Lateral
40	M45	W8X18	9												Lateral
41	M46	W8X18	9												Lateral

**Basic Load Cases**

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distribu...	Area (Member)	Surface (Plate)
1	self wt	DL			-1	8				
2	Cabinet Weights	DL				36				
3	Metal Grating	DL							1	
4	Live Load	LL				4			3	
5	Wind Load X	WLX				4				
6	Wind Load Y	WLY				10				
7	Snow Load	SL				4			1	
8	BLC 3 Transient ...	None						37		
9	BLC 4 Transient ...	None						60		
10	BLC 7 Transient ...	None						39		

**Load Combinations**

	Description	SolvePDe...	SRSS	BLC Factor	BLC Factor	BLC Factor	BLC Factor	BLC Factor	BLC Factor	BLC Factor	BLC Factor	BLC Factor
1	Case 2Y	Yes	Y	DL	1.2	LL	1.6	SL	.5			
2	Case 3Y		Y	DL	1.2	SL	1.6	WL	.8			
3	Case 4Y	Yes	Y	DL	1.2	WLY	1.6	LL	.5			
4	Case 4 X	Yes	Y	DL	1.2	WLX	1.6	LL	.5			

**Member Area Loads (BLC 3 : Metal Grating)**

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
1	N14	N43	N46	N44	Z	A-B	-.011

**Member Area Loads (BLC 4 : Live Load)**

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
1	N43	N23	N50	N46	Z	A-B	-.04
2	N69	N24	N74	N71	Z	A-B	-.04
3	N83	N25	N88	N85	Z	A-B	-.04

**Member Area Loads (BLC 7 : Snow Load)**

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
1	N43	N14	N44	N46	Z	A-B	-.03

**Member Distributed Loads (BLC 8 : BLC 3 Transient Area Loads)**

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,d...	Start Location[ft, %]	End Location[ft, %]
1	M27	Z	-.015	-.015	0	.707
2	M27	Z	-.023	-.023	.707	1.414
3	M27	Z	-.031	-.031	2.121	2.828
4	M27	Z	-.008	-.008	3.536	4.243
5	M31	Z	-.012	-.012	0	1.363
6	M31	Z	-.024	-.024	1.363	2.725
7	M31	Z	-.016	-.016	2.725	4.088
8	M31	Z	-.024	-.024	4.088	5.45

**Member Distributed Loads (BLC 8 : BLC 3 Transient Area Loads) (Continued)**

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,d...	Start Location[ft, %]	End Location[ft, %]
9	M31	Z	-.016	-.016	5.45	6.813
10	M31	Z	-.016	-.016	6.813	8.175
11	M31	Z	-.016	-.016	8.175	9.538
12	M33	Z	-.018	-.018	0	.9
13	M33	Z	-.012	-.012	.9	1.8
14	M34	Z	-.024	-.024	0	.9
15	M34	Z	-.012	-.012	.9	1.8
16	M34	Z	-.03	-.03	1.8	2.7
17	M34	Z	-.018	-.018	2.7	3.6
18	M34	Z	-.048	-.048	3.6	4.5
19	M34	Z	-.048	-.048	4.5	5.4
20	M34	Z	-.024	-.024	5.4	6.3
21	M13	Z	-.002	-.002	16.35	19.075
22	M13	Z	-.004	-.004	19.075	21.8
23	M13	Z	-.006	-.006	21.8	24.525
24	M13	Z	-.004	-.004	24.525	27.25
25	M27	Z	-.008	-.008	4.243	4.95
26	M27	Z	-.008	-.008	4.95	5.657
27	M33	Z	-.018	-.018	1.8	2.7
28	M33	Z	-.006	-.006	2.7	3.6
29	M33	Z	-.012	-.012	3.6	4.5
30	M33	Z	-.018	-.018	4.5	5.4
31	M33	Z	-.012	-.012	5.4	6.3
32	M33	Z	-.018	-.018	6.3	7.2
33	M33	Z	-.006	-.006	7.2	8.1
34	M33	Z	-.018	-.018	8.1	9
35	M34	Z	-.048	-.048	6.3	7.2
36	M34	Z	-.024	-.024	7.2	8.1
37	M34	Z	-.048	-.048	8.1	9

**Member Distributed Loads (BLC 9 : BLC 4 Transient Area Loads)**

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,d...	Start Location[ft, %]	End Location[ft, %]
1	M27	Z	-.064	-.064	0	.707
2	M27	Z	-.064	-.064	.707	1.414
3	M27	Z	-.127	-.127	2.121	2.828
4	M31	Z	-.041	-.041	0	1.363
5	M31	Z	-.091	-.091	1.363	2.725
6	M31	Z	-.066	-.066	2.725	4.088
7	M34	Z	-.037	-.037	0	.9
8	M34	Z	-.012	-.012	.9	1.8
9	M34	Z	-.05	-.05	1.8	2.7
10	M34	Z	-.05	-.05	2.7	3.6
11	M34	Z	-.1	-.1	3.6	4.5
12	M34	Z	-.1	-.1	4.5	5.4
13	M34	Z	-.05	-.05	5.4	6.3
14	M34	Z	-.1	-.1	6.3	7.2
15	M34	Z	-.05	-.05	7.2	8.1
16	M34	Z	-.1	-.1	8.1	9
17	M31	Z	-.099	-.099	4.088	5.45
18	M31	Z	-.066	-.066	5.45	6.813
19	M31	Z	-.066	-.066	6.813	8.175
20	M31	Z	-.066	-.066	8.175	9.538
21	M28	Z	-.127	-.127	4.243	4.95
22	M28	Z	-.064	-.064	5.657	6.364
23	M28	Z	-.064	-.064	6.364	7.071
24	M37	Z	-.041	-.041	0	1.363
25	M37	Z	-.091	-.091	1.363	2.725

**Member Distributed Loads (BLC 9 : BLC 4 Transient Area Loads) (Continued)**

	Member Label	Direction	Start Magnitude[k/ft....	End Magnitude[k/ft.d...	Start Location[ft.%]	End Location[ft.%]
26	M37	Z	-.066	-.066	2.725	4.088
27	M40	Z	-.037	-.037	0	.9
28	M40	Z	-.012	-.012	.9	1.8
29	M40	Z	-.05	-.05	1.8	2.7
30	M40	Z	-.05	-.05	2.7	3.6
31	M40	Z	-.1	-.1	3.6	4.5
32	M40	Z	-.1	-.1	4.5	5.4
33	M40	Z	-.05	-.05	5.4	6.3
34	M40	Z	-.1	-.1	6.3	7.2
35	M40	Z	-.05	-.05	7.2	8.1
36	M40	Z	-.1	-.1	8.1	9
37	M37	Z	-.099	-.099	4.088	5.45
38	M37	Z	-.066	-.066	5.45	6.813
39	M37	Z	-.066	-.066	6.813	8.175
40	M37	Z	-.066	-.066	8.175	9.538
41	M29	Z	-.064	-.064	0	.707
42	M29	Z	-.064	-.064	.707	1.414
43	M29	Z	-.127	-.127	2.121	2.828
44	M43	Z	-.041	-.041	0	1.363
45	M43	Z	-.091	-.091	1.363	2.725
46	M43	Z	-.066	-.066	2.725	4.088
47	M46	Z	-.037	-.037	0	.9
48	M46	Z	-.012	-.012	.9	1.8
49	M46	Z	-.05	-.05	1.8	2.7
50	M46	Z	-.05	-.05	2.7	3.6
51	M46	Z	-.1	-.1	3.6	4.5
52	M46	Z	-.1	-.1	4.5	5.4
53	M46	Z	-.05	-.05	5.4	6.3
54	M46	Z	-.1	-.1	6.3	7.2
55	M46	Z	-.05	-.05	7.2	8.1
56	M46	Z	-.1	-.1	8.1	9
57	M43	Z	-.099	-.099	4.088	5.45
58	M43	Z	-.066	-.066	5.45	6.813
59	M43	Z	-.066	-.066	6.813	8.175
60	M43	Z	-.066	-.066	8.175	9.538

**Member Distributed Loads (BLC 10 : BLC 7 Transient Area Loads)**

	Member Label	Direction	Start Magnitude[k/ft....	End Magnitude[k/ft.d...	Start Location[ft.%]	End Location[ft.%]
1	M13	Z	-.005	-.005	16.35	19.075
2	M13	Z	-.011	-.011	19.075	21.8
3	M13	Z	-.005	-.005	21.8	24.525
4	M13	Z	-.016	-.016	24.525	27.25
5	M27	Z	-.042	-.042	0	.707
6	M27	Z	-.042	-.042	.707	1.414
7	M27	Z	-.104	-.104	2.121	2.828
8	M27	Z	-.021	-.021	3.536	4.243
9	M27	Z	-.021	-.021	4.243	4.95
10	M27	Z	-.042	-.042	4.95	5.657
11	M27	Z	-.021	-.021	5.657	6.364
12	M27	Z	-.021	-.021	6.364	7.071
13	M31	Z	-.033	-.033	0	1.363
14	M31	Z	-.065	-.065	1.363	2.725
15	M33	Z	-.049	-.049	0	.9
16	M33	Z	-.016	-.016	.9	1.8
17	M33	Z	-.049	-.049	1.8	2.7
18	M33	Z	-.033	-.033	2.7	3.6
19	M33	Z	-.016	-.016	3.6	4.5

**Member Distributed Loads (BLC 10 : BLC 7 Transient Area Loads) (Continued)**

	Member Label	Direction	Start Magnitude[k/ft....	End Magnitude[k/ft.d...	Start Location[ft.%]	End Location[ft.%]
20	M33	Z	-.049	-.049	4.5	5.4
21	M33	Z	-.016	-.016	5.4	6.3
22	M33	Z	-.049	-.049	6.3	7.2
23	M33	Z	-.033	-.033	7.2	8.1
24	M34	Z	-.082	-.082	0	.9
25	M34	Z	-.033	-.033	.9	1.8
26	M34	Z	-.066	-.066	1.8	2.7
27	M34	Z	-.049	-.049	2.7	3.6
28	M34	Z	-.115	-.115	3.6	4.5
29	M34	Z	-.131	-.131	4.5	5.4
30	M34	Z	-.066	-.066	5.4	6.3
31	M31	Z	-.043	-.043	2.725	4.088
32	M31	Z	-.065	-.065	4.088	5.45
33	M31	Z	-.043	-.043	5.45	6.813
34	M31	Z	-.043	-.043	6.813	8.175
35	M31	Z	-.043	-.043	8.175	9.538
36	M33	Z	-.049	-.049	8.1	9
37	M34	Z	-.131	-.131	6.3	7.2
38	M34	Z	-.066	-.066	7.2	8.1
39	M34	Z	-.131	-.131	8.1	9

**Joint Loads and Enforced Displacements (BLC 1 : self wt)**

	Joint Label	L,D,M	Direction	Magnitude[(k.k-ft), (in.rad), (k*s^2/f...
1	N10	L	Z	-38
2	N9	L	Z	-38
3	N11	L	Z	-38
4	N12	L	Z	-38
5	N6	L	Z	-58
6	N8	L	Z	-58
7	N7	L	Z	-58
8	N5	L	Z	-58

**Joint Loads and Enforced Displacements (BLC 2 : Cabinet Weights)**

	Joint Label	L,D,M	Direction	Magnitude[(k.k-ft), (in.rad), (k*s^2/f...
1	N60	L	Z	-375
2	N61	L	Z	-375
3	N56	L	Z	-375
4	N57	L	Z	-375
5	N57	L	Z	-375
6	N56	L	Z	-375
7	N58	L	Z	-375
8	N59	L	Z	-375
9	N66A	L	Z	-375
10	N66A	L	Z	-375
11	N67	L	Z	-375
12	N67	L	Z	-375
13	N75	L	Z	-375
14	N75	L	Z	-375
15	N76	L	Z	-375
16	N76	L	Z	-375
17	N77	L	Z	-375
18	N78	L	Z	-375
19	N79	L	Z	-375
20	N80	L	Z	-375
21	N81	L	Z	-375
22	N81	L	Z	-375



**Joint Loads and Enforced Displacements (BLC 2 : Cabinet Weights) (Continued)**

	Joint Label	L,D,M	Direction	Magnitude[(k,k-ft), (in,rad), (k*s^2/f...
23	N82	L	Z	-.375
24	N82	L	Z	-.375
25	N89	L	Z	-.375
26	N89	L	Z	-.375
27	N90	L	Z	-.375
28	N90	L	Z	-.375
29	N91	L	Z	-.375
30	N92	L	Z	-.375
31	N93	L	Z	-.375
32	N94	L	Z	-.375
33	N95	L	Z	-.375
34	N95	L	Z	-.375
35	N96	L	Z	-.375
36	N96	L	Z	-.375

**Joint Loads and Enforced Displacements (BLC 4 : Live Load)**

	Joint Label	L,D,M	Direction	Magnitude[(k,k-ft), (in,rad), (k*s^2/f...
1	N6	L	Z	-.58
2	N8	L	Z	-.58
3	N5	L	Z	-.58
4	N7	L	Z	-.58

**Joint Loads and Enforced Displacements (BLC 5 : Wind Load X)**

	Joint Label	L,D,M	Direction	Magnitude[(k,k-ft), (in,rad), (k*s^2/f...
1	N65	L	X	.7
2	N64	L	X	.671
3	N63	L	X	.638
4	N62	L	X	1.08

**Joint Loads and Enforced Displacements (BLC 6 : Wind Load Y)**

	Joint Label	L,D,M	Direction	Magnitude[(k,k-ft), (in,rad), (k*s^2/f...
1	N65	L	Y	.7
2	N64	L	Y	.671
3	N63	L	Y	.638
4	N62	L	Y	1.08
5	N66A	L	Y	.3
6	N67	L	Y	.3
7	N81	L	Y	.3
8	N82	L	Y	.3
9	N95	L	Y	.3
10	N96	L	Y	.3

**Joint Loads and Enforced Displacements (BLC 7 : Snow Load)**

	Joint Label	L,D,M	Direction	Magnitude[(k,k-ft), (in,rad), (k*s^2/f...
1	N10	L	Z	-.29
2	N9	L	Z	-.29
3	N11	L	Z	-.29
4	N12	L	Z	-.29

**Member Point Loads**

Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
No Data to Print ...			

**Envelope Joint Displacements**

	Joint		X [in]	lc	Y [in]	lc	Z [in]	lc	X Rotation ...	lc	Y Rotation ...	lc	Z Rotation [...]	lc
1	N1	max	0	1	0	1	0	3	0	1	0	1	0	3
2		min	0	3	0	3	0	1	0	1	0	1	0	4
3	N2	max	0	3	0	1	0	3	0	1	0	1	0	1
4		min	0	4	0	3	0	1	0	1	0	1	0	3
5	N3	max	0	3	0	4	0	4	0	1	0	1	0	3
6		min	0	4	0	3	0	1	0	1	0	1	0	1
7	N4	max	0	1	0	4	0	4	0	1	0	1	0	4
8		min	0	3	0	3	0	1	0	1	0	1	0	3
9	N5	max	0	3	0	3	-.06	3	0	1	0	3	0	3
10		min	0	1	0	1	-.092	1	0	3	0	1	0	4
11	N6	max	0	4	0	3	-.06	3	0	1	0	4	0	1
12		min	0	3	0	1	-.093	1	0	3	0	3	0	3
13	N7	max	0	4	0	3	-.058	4	0	4	0	4	0	3
14		min	0	3	0	4	-.09	1	0	3	0	3	0	1
15	N8	max	0	3	0	3	-.062	4	0	4	0	3	0	4
16		min	0	1	0	4	-.092	1	0	3	0	1	0	3
17	N9	max	0	3	0	3	-.071	3	0	1	0	1	0	3
18		min	0	1	0	1	-.107	1	0	1	0	1	0	4
19	N10	max	0	4	0	3	-.072	3	0	1	0	1	0	1
20		min	0	3	0	1	-.109	1	0	1	0	1	0	3
21	N11	max	0	4	0	3	-.069	4	0	1	0	1	0	3
22		min	0	3	0	4	-.104	1	0	1	0	1	0	1
23	N12	max	0	3	0	3	-.074	4	0	1	0	1	0	4
24		min	0	1	0	4	-.108	1	0	1	0	1	0	3
25	N13	max	-.002	1	.064	3	-.072	4	1.036e-3	4	3.116e-4	4	1.757e-6	3
26		min	-.008	4	.008	4	-.108	1	-2.501e-3	3	-3.132e-4	3	-8.95e-8	4
27	N14	max	-.007	3	.076	3	-.074	3	1.023e-3	4	2.194e-4	3	-2.698e-7	1
28		min	-.013	4	.001	4	-.11	1	-2.533e-3	3	7.703e-5	1	-1.626e-6	3
29	N15	max	-.01	3	.063	3	-.068	4	-9.032e-4	1	3.116e-4	4	9.755e-7	3
30		min	-.02	4	.006	4	-.104	1	-4.129e-3	3	-7.073e-5	1	-3.335e-7	1
31	N16	max	-.017	3	.074	3	-.075	3	-8.738e-4	1	9.885e-5	4	3.656e-7	4
32		min	-.025	4	0	4	-.109	1	-4.154e-3	3	-1.492e-4	3	-1.253e-6	3
33	N17	max	-.033	3	.024	3	-.072	3	1.034e-4	1	-4.523e-4	3	1.757e-6	3
34		min	-.067	1	-.016	1	-.109	1	-1.047e-3	3	-8.683e-4	1	-8.95e-8	4
35	N18	max	.063	4	.021	3	-.073	3	3.881e-4	1	6.691e-4	1	-2.698e-7	1
36		min	.028	3	-.034	1	-.111	1	-1.15e-3	3	2.786e-4	3	-1.626e-6	3
37	N19	max	-.045	4	.059	3	-.07	4	-3.144e-4	4	-7.945e-4	4	9.755e-7	3
38		min	-.076	3	.019	4	-.105	1	-1.464e-3	3	-1.064e-3	3	-3.335e-7	1
39	N20	max	.066	3	.08	3	-.076	4	-3.731e-4	4	6.329e-4	3	3.656e-7	4
40		min	.044	1	.03	4	-.11	1	-1.858e-3	3	2.839e-4	1	-1.253e-6	3
41	N21	max	-.005	3	1.193	3	-.272	3	1.036e-3	4	1.294e-3	4	1.929e-5	3
42		min	-.01	4	-.002	4	-.56	1	-2.458e-3	3	5.705e-5	3	-6.69e-5	4
43	N22	max	-.013	3	1.194	3	-.425	4	-8.98e-4	1	1.436e-3	4	1.611e-5	4
44		min	-.022	4	-.011	4	-.622	3	-4.107e-3	3	1.897e-4	3	7.882e-7	3
45	N23	max	-.007	3	.222	3	-.119	3	1.023e-3	4	-1.311e-3	3	1.264e-5	1
46		min	-.014	4	.002	1	-.204	1	-2.533e-3	3	-2.945e-3	4	-4.353e-3	3
47	N24	max	-.017	3	.222	3	-.171	4	-8.738e-4	1	-2.494e-3	1	2.866e-4	4
48		min	-.026	4	-.017	4	-.194	1	-4.154e-3	3	-3.293e-3	3	-4.4e-3	3
49	N25	max	-.002	1	.222	3	-.114	3	1.036e-3	4	2.654e-3	1	4.63e-3	3
50		min	-.007	4	-.04	4	-.196	1	-2.501e-3	3	1.218e-3	3	-1.122e-3	4
51	N26	max	-.009	3	.189	3	-.106	4	-9.032e-4	1	2.946e-3	3	4.171e-3	3
52		min	-.02	4	.006	1	-.165	1	-4.129e-3	3	1.3e-3	4	-1.335e-5	1
53	N27	max	.027	4	.064	3	-.1	4	-7.941e-4	4	3.116e-4	4	4.397e-3	3
54		min	-.198	3	.008	4	-.139	1	-1.047e-3	3	-3.132e-4	3	-1.225e-3	4
55	N28	max	.178	3	.076	3	-.118	4	-1.236e-3	4	2.194e-4	3	1.534e-5	1
56		min	-.019	4	.001	4	-.16	1	-1.514e-3	3	7.703e-5	1	-4.11e-3	3

**Envelope Joint Displacements (Continued)**

	Joint		X [in]	lc	Y [in]	lc	Z [in]	lc	X Rotation ...	lc	Y Rotation ...	lc	Z Rotation [...]	lc
57	N29	max	.161	3	.062	3	-.081	3	6.98e-4	1	3.116e-4	4	3.868e-3	3
58		min	-.018	1	.006	4	-.126	1	4.657e-4	3	-7.073e-5	1	-1.305e-5	1
59	N30	max	-.024	1	.073	3	-.1	3	1.43e-3	1	9.885e-5	4	4.691e-4	4
60		min	-.203	3	0	4	-.156	1	9.493e-4	3	-1.492e-4	3	-4.177e-3	3
61	N31	max	.265	4	.075	3	-.231	3	3.084e-4	3	8.651e-5	4	4.259e-3	3
62		min	-.026	3	0	4	-.294	1	1.619e-5	4	2.769e-5	3	3.31e-5	4
63	N32	max	.266	4	1.149	3	-.578	4	2.075e-4	1	2.775e-2	4	1.077e-5	3
64		min	-.026	3	-.005	4	-.664	1	-1.73e-3	3	3.81e-4	3	-3.426e-5	4
65	N33	max	.265	4	.064	3	-.16	4	3.712e-4	3	3.048e-4	4	8.785e-5	1
66		min	-.026	3	.007	4	-.206	1	1.565e-4	4	-1.257e-4	3	-4.323e-3	3
67	N34	max	17.939	4	4.381	3	-.58	4	2.09e-4	1	3.328e-2	4	1.077e-5	3
68		min	.185	3	-.11	1	-.666	1	-7.068e-3	3	3.837e-4	3	-3.426e-5	4
69	N35	max	.064	4	.064	3	-.12	4	-7.749e-4	4	3.072e-4	4	1.774e-3	3
70		min	-.275	3	.008	4	-.162	1	-8.904e-4	3	-2.261e-4	3	-1.911e-3	4
71	N36	max	.248	3	.076	3	-.15	4	-1.266e-3	4	1.394e-4	3	1.536e-5	1
72		min	-.01	1	.001	4	-.198	1	-1.503e-3	1	6.595e-5	1	-1.836e-3	4
73	N37	max	.229	3	.063	3	-.095	3	7.536e-4	1	3.024e-4	4	2.115e-3	4
74		min	-.018	1	.006	4	-.144	1	6.549e-4	3	-5.364e-5	1	-2.759e-6	1
75	N38	max	-.001	4	.074	3	-.128	3	1.481e-3	1	8.548e-5	4	1.911e-3	4
76		min	-.276	3	0	4	-.194	1	1.17e-3	3	-8.4e-5	3	-1.63e-3	3
77	N39	max	-.007	3	.338	3	-.152	3	1.04e-3	4	-1.329e-3	3	4.041e-4	4
78		min	-.013	4	.002	1	-.276	1	-2.476e-3	3	-3.046e-3	4	-5.639e-3	3
79	N40	max	-.017	3	.339	3	-.241	4	-8.818e-4	1	-2.564e-3	1	-2.911e-5	1
80		min	-.025	4	-.018	4	-.269	3	-4.114e-3	3	-3.493e-3	3	-5.629e-3	3
81	N41	max	-.002	1	.344	3	-.145	3	1.042e-3	1	2.83e-3	1	5.817e-3	3
82		min	-.007	4	-.061	4	-.265	1	-2.44e-3	3	1.27e-3	3	-4.892e-4	4
83	N42	max	-.01	3	.308	3	-.142	4	-9.142e-4	1	3.296e-3	3	5.848e-3	3
84		min	-.02	4	.006	1	-.241	3	-4.1e-3	3	1.571e-3	4	-1.356e-5	1
85	N43	max	-.007	3	.494	3	-.184	3	1.039e-3	4	-1.246e-3	3	6.212e-4	4
86		min	-.013	4	0	4	-.348	1	-2.473e-3	3	-2.876e-3	4	-7.174e-3	3
87	N44	max	.191	3	.075	3	-.206	4	-6.961e-4	3	8.759e-5	3	3.053e-3	3
88		min	-.011	1	0	4	-.265	1	-1.024e-3	1	6.357e-5	1	-3.334e-3	4
89	N46	max	.191	3	.494	3	-.416	3	1.616e-4	1	-1.741e-3	3	1.955e-3	3
90		min	-.011	1	-.002	4	-.685	4	-1.986e-3	4	-4.959e-3	4	-1.905e-3	4
91	N47	max	-.007	3	.123	3	-.089	3	1.023e-3	4	-1.274e-3	3	2.209e-5	1
92		min	-.013	4	.003	1	-.141	1	-2.533e-3	3	-2.797e-3	4	-3.966e-3	3
93	N48	max	.191	3	.123	3	-.259	3	-7.026e-4	3	-2.99e-3	3	-5.615e-6	1
94		min	-.011	1	.003	1	-.32	1	-1.029e-3	4	-6.306e-3	4	-3.938e-3	3
95	N50	max	.191	3	.223	3	-.326	3	-5.157e-4	1	-2.419e-3	3	1.577e-5	1
96		min	-.011	1	.002	1	-.431	4	-1.348e-3	4	-5.782e-3	4	-4.673e-3	3
97	N50A	max	-.005	3	1.149	3	-.269	3	1.037e-3	4	2.397e-4	4	-6.178e-6	1
98		min	-.011	4	-.006	4	-.551	1	-2.461e-3	3	-7.698e-4	1	-3.27e-3	3
99	N51	max	-.014	3	1.149	3	-.457	4	-8.951e-4	1	4.295e-4	4	2.485e-4	4
100		min	-.023	4	-.006	4	-.612	3	-4.108e-3	3	-9.528e-4	3	-3.324e-3	3
101	N52	max	.266	4	1.15	3	-.588	3	2.075e-4	1	2.775e-2	4	1.077e-5	3
102		min	-.026	3	-.006	4	-1.327	4	-1.73e-3	3	3.81e-4	3	-3.426e-5	4
103	N53	max	-.004	3	1.149	3	-.266	3	1.036e-3	4	1.773e-3	4	3.244e-3	3
104		min	-.01	4	-.004	4	-.546	1	-2.455e-3	3	4.007e-4	3	-9.033e-6	1
105	N54	max	-.013	3	1.149	3	-.374	4	-9.009e-4	1	1.855e-3	4	3.399e-3	3
106		min	-.022	4	-.004	4	-.601	3	-4.105e-3	3	1.022e-3	1	-5.913e-4	4
107	N55	max	.266	4	1.149	3	.172	4	2.075e-4	1	2.775e-2	4	1.077e-5	3
108		min	-.026	3	-.004	4	-.648	1	-1.73e-3	3	3.81e-4	3	-3.426e-5	4
109	N56	max	.092	3	.123	3	-.217	3	-1.624e-3	4	-3.958e-3	3	1.702e-5	1
110		min	-.01	1	.003	1	-.275	1	-1.67e-3	3	-8.432e-3	4	-1.832e-3	3
111	N57	max	.092	3	.222	3	-.27	3	-2.002e-3	1	-3.462e-3	3	1.359e-5	1
112		min	-.011	1	.002	1	-.371	1	-2.371e-3	4	-8.083e-3	4	-1.834e-3	3
113	N58	max	.136	3	.123	3	-.245	3	-8.374e-4	3	-3.528e-3	3	1.702e-5	1

**Envelope Joint Displacements (Continued)**

Joint		X [in]	lc	Y [in]	lc	Z [in]	lc	X Rotation ...	lc	Y Rotation ...	lc	Z Rotation [...]	lc
114		min	1	.003	1	-.304	1	-8.867e-4	1	-7.487e-3	4	-1.834e-3	3
115	N59	max	3	.136	3	-.305	3	-9.751e-4	1	-2.999e-3	3	1.359e-5	1
116		min	1	.002	1	-.404	1	-1.534e-3	4	-7.06e-3	4	-1.836e-3	3
117	N60	max	3	.123	3	-.167	3	-2.323e-3	3	-2.765e-3	3	1.702e-5	1
118		min	1	.003	1	-.224	1	-2.423e-3	1	-5.928e-3	4	-1.831e-3	3
119	N61	max	3	.222	3	-.212	3	-2.752e-3	3	-2.506e-3	3	1.359e-5	1
120		min	1	.002	1	-.308	1	-3.201e-3	4	-5.799e-3	4	-1.832e-3	3
121	N62	max	4	1.448	3	-.578	4	2.082e-4	1	3.033e-2	4	1.077e-5	3
122		min	3	-.018	4	-.664	1	-4.231e-3	3	3.822e-4	3	-3.426e-5	4
123	N63	max	4	2.078	3	-.579	4	2.086e-4	1	3.221e-2	4	1.077e-5	3
124		min	3	-.04	1	-.665	1	-6.043e-3	3	3.831e-4	3	-3.426e-5	4
125	N64	max	4	2.862	3	-.579	4	2.089e-4	1	3.306e-2	4	1.077e-5	3
126		min	3	-.065	1	-.665	1	-6.86e-3	3	3.835e-4	3	-3.426e-5	4
127	N65	max	4	3.703	3	-.58	4	2.09e-4	1	3.327e-2	4	1.077e-5	3
128		min	3	-.09	1	-.666	1	-7.068e-3	3	3.837e-4	3	-3.426e-5	4
129	N66A	max	3	.183	3	-.217	3	-1.624e-3	4	-3.958e-3	3	1.702e-5	1
130		min	1	.062	1	-.275	1	-1.67e-3	3	-8.432e-3	4	-1.832e-3	3
131	N67	max	3	.295	3	-.27	3	-2.002e-3	1	-3.462e-3	3	1.359e-5	1
132		min	1	.074	1	-.371	1	-2.371e-3	4	-8.083e-3	4	-1.834e-3	3
133	N68	max	4	.494	3	-.42	3	1.152e-4	1	-1.996e-3	3	3.685e-5	4
134		min	3	-.003	4	-.76	4	-6.274e-4	3	-6.03e-3	4	-5.742e-3	3
135	N69	max	3	.494	3	-.31	4	-8.844e-4	1	-2.441e-3	1	-4.163e-5	1
136		min	4	-.005	4	-.356	3	-4.113e-3	3	-3.443e-3	3	-7.128e-3	3
137	N70	max	4	.074	3	-.189	3	1.065e-3	3	8.596e-5	4	3.402e-3	4
138		min	3	0	4	-.261	1	8.851e-4	4	-3.22e-5	3	1.007e-4	1
139	N71	max	4	.494	3	-.456	3	2.189e-3	4	-2.259e-3	1	1.975e-3	4
140		min	3	-.004	4	-.669	4	-1.359e-4	3	-4.878e-3	4	7.255e-5	1
141	N72	max	3	.122	3	-.107	4	-8.738e-4	1	-2.393e-3	1	5.435e-4	4
142		min	4	-.007	4	-.137	1	-4.154e-3	3	-3.087e-3	3	-4.05e-3	3
143	N73	max	4	.122	3	-.235	3	1.071e-3	4	-3.686e-3	3	5.775e-4	4
144		min	3	-.007	4	-.31	1	8.93e-4	3	-6.083e-3	4	-3.975e-3	3
145	N74	max	4	.223	3	-.319	3	1.444e-3	4	-3.254e-3	3	1.694e-4	4
146		min	3	-.017	4	-.422	4	5.5e-4	3	-5.603e-3	4	-4.717e-3	3
147	N75	max	4	.122	3	-.214	3	1.603e-3	1	-5.841e-3	1	1.566e-3	4
148		min	3	-.007	4	-.265	1	1.049e-3	3	-8.104e-3	4	-1.991e-3	3
149	N76	max	4	.223	3	-.297	3	2.326e-3	4	-5.427e-3	1	1.568e-3	4
150		min	3	-.017	4	-.348	1	1.155e-3	3	-7.762e-3	4	-1.987e-3	3
151	N77	max	4	.122	3	-.231	3	8.844e-4	1	-4.984e-3	1	1.566e-3	4
152		min	3	-.007	4	-.293	1	4.204e-4	3	-7.206e-3	4	-1.989e-3	3
153	N78	max	4	.223	3	-.315	3	1.552e-3	4	-4.51e-3	1	1.568e-3	4
154		min	3	-.017	4	-.385	4	4.708e-4	3	-6.803e-3	4	-1.985e-3	3
155	N79	max	4	.122	3	-.177	3	2.321e-3	1	-4.308e-3	1	1.566e-3	4
156		min	3	-.007	4	-.216	1	1.857e-3	3	-5.687e-3	4	-1.993e-3	3
157	N80	max	4	.223	3	-.256	3	3.096e-3	4	-4.124e-3	1	1.568e-3	4
158		min	3	-.017	4	-.29	1	2.015e-3	3	-5.547e-3	4	-1.989e-3	3
159	N81	max	1	.084	3	-.214	3	1.603e-3	1	-5.841e-3	1	1.566e-3	4
160		min	3	-.065	4	-.265	1	1.049e-3	3	-8.104e-3	4	-1.991e-3	3
161	N82	max	1	.181	3	-.297	3	2.326e-3	4	-5.427e-3	1	1.568e-3	4
162		min	3	-.101	4	-.348	1	1.155e-3	3	-7.762e-3	4	-1.987e-3	3
163	N83	max	3	.502	3	-.176	3	1.04e-3	1	2.79e-3	1	7.209e-3	3
164		min	4	-.063	4	-.335	1	-2.443e-3	3	1.226e-3	3	-3.485e-5	1
165	N84	max	4	.064	3	-.153	4	-3.374e-4	3	3.061e-4	4	1.134e-4	1
166		min	3	.007	4	-.198	1	-4.879e-4	1	-1.795e-4	3	-2.74e-3	3
167	N85	max	4	.502	3	-.151	4	1.787e-3	4	2.561e-3	1	8.744e-5	1
168		min	3	-.063	4	-.489	1	-5.68e-4	3	-4.916e-4	4	-1.741e-3	3
169	N86	max	1	.115	3	-.086	3	1.036e-3	4	2.473e-3	1	4.287e-3	3
170		min	4	-.009	4	-.137	1	-2.501e-3	3	1.16e-3	3	-1.395e-3	4

**Envelope Joint Displacements (Continued)**

	Joint		X [in]	lc	Y [in]	lc	Z [in]	lc	X Rotation ...	lc	Y Rotation ...	lc	Z Rotation [...]	lc
171	N87	max	.179	4	.115	3	-.161	4	-1.174e-4	4	4.102e-3	1	4.257e-3	3
172		min	-.234	3	-.01	4	-.25	1	-3.709e-4	1	5.417e-4	4	-1.403e-3	4
173	N88	max	.179	4	.222	3	-.17	4	5.174e-4	4	3.554e-3	1	4.928e-3	3
174		min	-.234	3	-.04	4	-.343	1	-4.362e-4	3	6.248e-5	4	-9.882e-4	4
175	N89	max	.086	4	.115	3	-.167	4	-6.555e-4	4	6.091e-3	1	2.144e-3	3
176		min	-.118	3	-.01	4	-.235	1	-1.222e-3	3	1.979e-3	4	-1.722e-3	4
177	N90	max	.086	4	.222	3	-.194	4	-3.89e-4	4	5.751e-3	1	2.146e-3	3
178		min	-.118	3	-.04	4	-.321	1	-1.582e-3	3	1.674e-3	4	-1.719e-3	4
179	N91	max	.127	4	.115	3	-.173	4	6.313e-5	4	5.207e-3	1	2.146e-3	3
180		min	-.17	3	-.01	4	-.249	1	-4.138e-4	3	1.34e-3	4	-1.722e-3	4
181	N92	max	.127	4	.222	3	-.192	4	3.84e-4	4	4.774e-3	1	2.148e-3	3
182		min	-.17	3	-.04	4	-.341	1	-7.198e-4	3	9.576e-4	4	-1.719e-3	4
183	N93	max	.044	4	.115	3	-.141	4	-1.374e-3	4	4.483e-3	1	2.142e-3	3
184		min	-.067	3	-.01	4	-.199	1	-1.851e-3	3	1.808e-3	4	-1.722e-3	4
185	N94	max	.044	4	.222	3	-.173	4	-1.159e-3	4	4.374e-3	1	2.143e-3	3
186		min	-.067	3	-.04	4	-.275	1	-2.262e-3	3	1.705e-3	4	-1.719e-3	4
187	N95	max	.214	1	.159	3	-.167	4	-6.555e-4	4	6.091e-3	1	2.144e-3	3
188		min	.019	3	.014	4	-.235	1	-1.222e-3	3	1.979e-3	4	-1.722e-3	4
189	N96	max	.202	1	.279	3	-.194	4	-3.89e-4	4	5.751e-3	1	2.146e-3	3
190		min	.003	3	-.026	4	-.321	1	-1.582e-3	3	1.674e-3	4	-1.719e-3	4
191	N97	max	.266	4	.502	3	-.022	4	1.89e-4	1	2.443e-3	1	5.825e-3	3
192		min	-.026	3	-.063	4	-.427	1	-5.935e-4	3	-1.787e-3	4	-1.775e-4	4

**Envelope Joint Reactions**

	Joint		X [k]	lc	Y [k]	lc	Z [k]	lc	MX [k-ft]	lc	MY [k-ft]	lc	MZ [k-ft]	lc
1	N2	max	0	4	0	3	238.582	1	0	1	0	1	0	3
2		min	0	3	0	1	155.053	3	0	1	0	1	0	1
3	N4	max	0	3	0	3	237.042	1	0	1	0	1	0	3
4		min	0	1	0	4	159.097	4	0	1	0	1	0	4
5	N1	max	0	3	0	3	236.192	1	0	1	0	1	0	4
6		min	0	1	0	1	153.789	3	0	1	0	1	0	3
7	N3	max	0	4	0	3	230.936	1	0	1	0	1	0	1
8		min	0	3	0	4	150.276	4	0	1	0	1	0	3
9	N6	max	0	3	0	1	0	1	0	1	0	1	0	3
10		min	0	4	0	3	0	1	0	1	0	1	0	1
11	N8	max	0	1	0	4	0	1	0	1	0	1	0	3
12		min	0	3	0	3	0	1	0	1	0	1	0	4
13	N5	max	0	1	0	1	0	1	0	1	0	1	0	4
14		min	0	3	0	3	0	1	0	1	0	1	0	3
15	N7	max	0	3	0	4	0	1	0	1	0	1	0	1
16		min	0	4	0	3	0	1	0	1	0	1	0	3
17	N10	max	-3.358	3	3.766	1	0	1	0	1	0	1	.003	3
18		min	-7.316	4	.981	3	0	1	0	1	0	1	0	1
19	N12	max	-5.711	1	-3.21	4	0	1	0	1	0	1	.002	3
20		min	-7.87	3	-5.409	3	0	1	0	1	0	1	0	4
21	N9	max	7.112	1	2.028	1	0	1	0	1	0	1	0	4
22		min	3.475	3	.223	3	0	1	0	1	0	1	-.003	3
23	N11	max	7.753	3	-1.804	4	0	1	0	1	0	1	0	1
24		min	3.936	4	-3.618	3	0	1	0	1	0	1	-.002	3
25	Totals:	max	0	3	0	4	942.753	1						
26		min	-4.942	4	-7.822	3	623.856	3						

**Envelope Member Section Stresses**

Member	Sec		Axial[ksi]	lc	y Shear[...]	lc	z Shear[...]	lc	y-Top[ksi]	lc	y-Bot[ksi]	lc	z-Top[ksi]	lc	z-Bot[ksi]	lc	
1	M1	1	max	12.491	1	0	1	0	1	0	1	0	1	0	1	0	1
2			min	8.118	3	0	1	0	1	0	1	0	1	0	1	0	1
3		2	max	12.463	1	0	1	0	1	0	1	0	1	0	1	0	1
4			min	8.089	3	0	1	0	1	0	1	0	1	0	1	0	1
5		3	max	12.434	1	0	1	0	1	0	1	0	1	0	1	0	1
6			min	8.061	3	0	1	0	1	0	1	0	1	0	1	0	1
7		4	max	3.903	1	0	1	0	1	0	1	0	1	0	1	0	1
8			min	2.87	3	0	1	0	1	0	1	0	1	0	1	0	1
9		5	max	3.874	1	0	1	0	1	0	1	0	1	0	1	0	1
10			min	2.841	3	0	1	0	1	0	1	0	1	0	1	0	1
11	M2	1	max	12.411	1	0	1	0	1	0	1	0	1	0	1	0	1
12			min	8.33	4	0	1	0	1	0	1	0	1	0	1	0	1
13		2	max	12.382	1	0	1	0	1	0	1	0	1	0	1	0	1
14			min	8.301	4	0	1	0	1	0	1	0	1	0	1	0	1
15		3	max	12.353	1	0	1	0	1	0	1	0	1	0	1	0	1
16			min	8.273	4	0	1	0	1	0	1	0	1	0	1	0	1
17		4	max	3.822	1	0	1	0	1	0	1	0	1	0	1	0	1
18			min	3.082	4	0	1	0	1	0	1	0	1	0	1	0	1
19		5	max	3.794	1	0	1	0	1	0	1	0	1	0	1	0	1
20			min	3.053	4	0	1	0	1	0	1	0	1	0	1	0	1
21	M3	1	max	12.366	1	0	1	0	1	0	1	0	1	0	1	0	1
22			min	8.052	3	0	1	0	1	0	1	0	1	0	1	0	1
23		2	max	12.337	1	0	1	0	1	0	1	0	1	0	1	0	1
24			min	8.023	3	0	1	0	1	0	1	0	1	0	1	0	1
25		3	max	12.309	1	0	1	0	1	0	1	0	1	0	1	0	1
26			min	7.995	3	0	1	0	1	0	1	0	1	0	1	0	1
27		4	max	3.778	1	0	1	0	1	0	1	0	1	0	1	0	1
28			min	2.804	3	0	1	0	1	0	1	0	1	0	1	0	1
29		5	max	3.749	1	0	1	0	1	0	1	0	1	0	1	0	1
30			min	2.775	3	0	1	0	1	0	1	0	1	0	1	0	1
31	M4	1	max	12.091	1	0	1	0	1	0	1	0	1	0	1	0	1
32			min	7.868	4	0	1	0	1	0	1	0	1	0	1	0	1
33		2	max	12.062	1	0	1	0	1	0	1	0	1	0	1	0	1
34			min	7.839	4	0	1	0	1	0	1	0	1	0	1	0	1
35		3	max	12.034	1	0	1	0	1	0	1	0	1	0	1	0	1
36			min	7.811	4	0	1	0	1	0	1	0	1	0	1	0	1
37		4	max	3.503	1	0	1	0	1	0	1	0	1	0	1	0	1
38			min	2.62	4	0	1	0	1	0	1	0	1	0	1	0	1
39		5	max	3.474	1	0	1	0	1	0	1	0	1	0	1	0	1
40			min	2.591	4	0	1	0	1	0	1	0	1	0	1	0	1
41	M7	1	max	2.66	1	-.349	3	-1.207	3	0	1	0	1	0	1	0	1
42			min	1.659	3	-1.357	1	-2.635	4	0	1	0	1	0	1	0	1
43		2	max	2.655	1	-.349	3	-1.207	3	-1.534	3	5.963	1	-5.305	3	11.579	4
44			min	1.654	3	-1.357	1	-2.635	4	-5.963	1	1.534	3	-11.579	4	5.305	3
45		3	max	.267	3	.905	1	1.757	4	-2.046	3	7.951	1	-7.072	3	15.439	4
46			min	-.809	1	.233	3	.805	3	-7.951	1	2.046	3	-15.439	4	7.072	3
47		4	max	.262	3	.905	1	1.757	4	-1.023	3	3.976	1	-3.536	3	7.719	4
48			min	-.814	1	.233	3	.805	3	-3.976	1	1.023	3	-7.719	4	3.536	3
49		5	max	.257	3	.905	1	1.757	4	0	1	0	1	0	1	0	1
50			min	-.819	1	.233	3	.805	3	0	1	0	1	0	1	0	1
51	M8	1	max	2.64	3	1.955	3	-2.055	1	0	1	0	1	0	1	0	1
52			min	2.365	1	1.156	4	-2.834	3	0	1	0	1	0	1	0	1
53		2	max	2.635	3	1.955	3	-2.055	1	8.591	3	-5.081	4	-9.031	1	12.456	3
54			min	2.36	1	1.156	4	-2.834	3	5.081	4	-8.591	3	-12.456	3	9.031	1
55		3	max	-.64	4	-.771	4	1.89	3	11.454	3	-6.775	4	-12.041	1	16.61	3
56			min	-1.61	3	-1.303	3	1.37	1	6.775	4	-11.454	3	-16.61	3	12.041	1

**Envelope Member Section Stresses (Continued)**

Member	Sec		Axial[ksi]	lc	y Shear[...]	lc	z Shear[...]	lc	y-Top[ksi]	lc	y-Bot[ksi]	lc	z-Top[ksi]	lc	z-Bot[ksi]	lc	
57		4	max	-.645	4	-.771	4	1.89	3	5.727	3	-3.387	4	-6.02	1	8.305	3
58			min	-1.615	3	-1.303	3	1.37	1	3.387	4	-5.727	3	-8.305	3	6.02	1
59		5	max	-.65	4	-.771	4	1.89	3	0	1	0	1	0	1	0	1
60			min	-1.62	3	-1.303	3	1.37	1	0	1	0	1	0	1	0	1
61	M9	1	max	2.203	1	-.077	3	2.561	1	0	1	0	1	0	1	0	1
62			min	1.417	3	-.729	1	1.249	3	0	1	0	1	0	1	0	1
63		2	max	2.198	1	-.077	3	2.561	1	-.34	3	3.206	1	11.253	1	-5.49	3
64			min	1.412	3	-.729	1	1.249	3	-3.206	1	.34	3	5.49	3	-11.253	1
65		3	max	.229	3	.486	1	-.833	3	-.455	3	4.274	1	15.003	1	-7.318	3
66			min	-.723	1	.052	3	-1.707	1	-4.274	1	.455	3	7.318	3	-15.003	1
67		4	max	.224	3	.486	1	-.833	3	-.227	3	2.137	1	7.502	1	-3.659	3
68			min	-.728	1	.052	3	-1.707	1	-2.137	1	.227	3	3.659	3	-7.502	1
69		5	max	.219	3	.486	1	-.833	3	0	1	0	1	0	1	0	1
70			min	-.733	1	.052	3	-1.707	1	0	1	0	1	0	1	0	1
71	M10	1	max	1.618	3	1.304	3	2.788	3	0	1	0	1	0	1	0	1
72			min	.745	4	.648	4	1.413	4	0	1	0	1	0	1	0	1
73		2	max	1.613	3	1.304	3	2.788	3	5.732	3	-2.847	4	12.253	3	-6.211	4
74			min	.74	4	.648	4	1.413	4	2.847	4	-5.732	3	6.211	4	-12.253	3
75		3	max	-1.103	4	-.432	4	-.942	4	7.642	3	-3.796	4	16.339	3	-8.281	4
76			min	-2.026	3	-.869	3	-1.859	3	3.796	4	-7.642	3	8.281	4	-16.339	3
77		4	max	-1.108	4	-.432	4	-.942	4	3.821	3	-1.898	4	8.169	3	-4.141	4
78			min	-2.031	3	-.869	3	-1.859	3	1.898	4	-3.821	3	4.141	4	-8.169	3
79		5	max	-1.114	4	-.432	4	-.942	4	0	1	0	1	0	1	0	1
80			min	-2.036	3	-.869	3	-1.859	3	0	1	0	1	0	1	0	1
81	M11	1	max	-.367	3	-.022	3	.088	3	0	1	0	1	0	1	0	1
82			min	-.448	1	-.541	4	-.061	4	0	1	0	1	0	1	0	1
83		2	max	.668	1	1.069	4	-.003	1	4.767	4	-1.682	3	1.387	4	-.058	1
84			min	.421	3	.243	3	-.199	3	1.682	3	-4.767	4	.058	1	-1.387	4
85		3	max	.668	1	-.043	3	.012	3	7.284	1	-2.983	3	.005	1	12.231	3
86			min	.423	3	-2.194	4	-.039	4	2.983	3	-7.284	1	-12.231	3	-.005	1
87		4	max	.669	1	-.265	3	.186	3	2.653	1	-.012	4	1.259	4	.033	1
88			min	.425	3	-.719	1	-.002	1	.012	4	-2.653	1	-.033	1	-1.259	4
89		5	max	-.345	4	.71	1	-.001	1	0	1	0	1	0	1	0	1
90			min	-.448	1	1.35	3	-.076	3	0	1	0	1	0	1	0	1
91	M12	1	max	-.321	4	-.327	1	.069	3	0	1	0	1	0	1	0	1
92			min	-.358	1	-.813	3	-.005	1	0	1	0	1	0	1	0	1
93		2	max	.649	3	1.017	3	.023	4	4.799	4	-3.117	1	.957	3	1.366	4
94			min	.484	4	.601	1	-.199	3	3.117	1	-4.799	4	-1.366	4	-.957	3
95		3	max	.65	3	-.086	3	.061	4	9.644	3	-6.078	4	1.577	4	12.633	3
96			min	.46	4	-2.24	4	-.014	3	6.078	4	-9.644	3	-12.633	3	-1.577	4
97		4	max	.651	3	-.328	4	.206	3	2.19	3	.931	4	.894	3	1.988	4
98			min	.435	4	-1.151	3	-.074	4	-.931	4	-2.19	3	-1.988	4	-.894	3
99		5	max	-.279	4	1.514	3	.095	4	0	1	0	1	0	1	0	1
100			min	-.36	1	.983	4	-.173	3	0	1	0	1	0	1	0	1
101	M13	1	max	-.168	4	-.358	4	-.005	1	0	1	0	1	0	1	0	1
102			min	-.306	3	-.999	3	-.263	3	0	1	0	1	0	1	0	1
103		2	max	.349	1	.865	3	.216	4	1.87	1	-.352	3	-.138	1	9.61	3
104			min	.131	4	.704	4	.005	1	.352	3	-1.87	1	-9.61	3	.138	1
105		3	max	.354	1	.373	3	.114	3	4.809	1	-4.007	4	10.997	4	.505	3
106			min	.142	4	.163	4	-.204	4	4.007	4	-4.809	1	-.505	3	-10.997	4
107		4	max	.35	1	-.556	3	.223	3	3.085	3	-1.771	4	9.917	3	3.576	4
108			min	.131	4	-.84	1	-.216	4	1.771	4	-3.085	3	-3.576	4	-9.917	3
109		5	max	-.11	3	.382	1	.149	4	0	1	0	1	0	1	0	1
110			min	-.243	1	-.307	3	-.274	3	0	1	0	1	0	1	0	1
111	M14	1	max	-.055	3	.379	3	.269	3	0	1	0	1	0	1	0	1
112			min	-.156	4	-.112	1	-.004	1	0	1	0	1	0	1	0	1
113		2	max	.246	3	.522	1	.004	1	2.586	3	-1.548	4	9.929	3	.117	1

**Envelope Member Section Stresses (Continued)**

Member	Sec		Axial[ksi]	lc	v Shear[...]	lc	z Shear[...]	lc	v-Top[ksi]	lc	v-Bot[ksi]	lc	z-Top[ksi]	lc	z-Bot[ksi]	lc
114		min	.186	1	.372	3	-.21	3	1.548	4	-2.586	3	-.117	1	-9.929	3
115	3	max	.246	3	-.247	4	.003	1	2.622	1	-2.319	4	.569	3	7.18	4
116		min	.189	1	-.402	3	-.143	3	2.319	4	-2.622	1	-7.18	4	-5.69	3
117	4	max	.229	3	-.31	4	.113	4	.483	1	.467	3	.706	4	9.438	3
118		min	.189	1	-.465	3	-.143	3	-.467	3	-.483	1	-9.438	3	-.706	4
119	5	max	-.127	1	.762	3	.237	3	0	1	0	1	0	1	0	1
120		min	-.168	4	.262	4	-.054	4	0	1	0	1	0	1	0	1
121	M16	1	max	4.581	1	.014	1	0	1	0	1	0	1	0	1	1
122		min	1.169	3	.014	1	0	1	0	1	0	1	0	1	0	1
123	2	max	4.578	1	.007	1	0	1	.045	1	-.045	1	.09	1	-.101	1
124		min	1.166	3	.007	1	0	1	.045	1	-.045	1	.09	1	-.101	1
125	3	max	4.575	1	0	1	0	1	.06	1	-.06	1	.12	1	-.135	1
126		min	1.163	3	0	1	0	1	.06	1	-.06	1	.12	1	-.135	1
127	4	max	4.572	1	-.007	1	0	1	.045	1	-.045	1	.09	1	-.101	1
128		min	1.16	3	-.007	1	0	1	.045	1	-.045	1	.09	1	-.101	1
129	5	max	4.569	1	-.014	1	0	1	0	1	0	1	0	1	0	1
130		min	1.157	3	-.014	1	0	1	0	1	0	1	0	1	0	1
131	M17	1	max	8.888	4	.014	1	0	1	0	1	0	1	0	1	1
132		min	4.089	3	.014	1	0	1	0	1	0	1	0	1	0	1
133	2	max	8.885	4	.007	1	0	1	.045	1	-.045	1	.09	1	-.101	1
134		min	4.086	3	.007	1	0	1	.045	1	-.045	1	.09	1	-.101	1
135	3	max	8.881	4	0	1	0	1	.06	1	-.06	1	.12	1	-.135	1
136		min	4.083	3	0	1	0	1	.06	1	-.06	1	.12	1	-.135	1
137	4	max	8.878	4	-.007	1	0	1	.045	1	-.045	1	.09	1	-.101	1
138		min	4.08	3	-.007	1	0	1	.045	1	-.045	1	.09	1	-.101	1
139	5	max	8.875	4	-.014	1	0	1	0	1	0	1	0	1	0	1
140		min	4.077	3	-.014	1	0	1	0	1	0	1	0	1	0	1
141	M18	1	max	9.526	3	.014	1	0	1	0	1	0	1	0	1	1
142		min	6.937	1	.014	1	0	1	0	1	0	1	0	1	0	1
143	2	max	9.523	3	.007	1	0	1	.045	1	-.045	1	.09	1	-.101	1
144		min	6.934	1	.007	1	0	1	.045	1	-.045	1	.09	1	-.101	1
145	3	max	9.52	3	0	1	0	1	.06	1	-.06	1	.12	1	-.135	1
146		min	6.931	1	0	1	0	1	.06	1	-.06	1	.12	1	-.135	1
147	4	max	9.517	3	-.007	1	0	1	.045	1	-.045	1	.09	1	-.101	1
148		min	6.928	1	-.007	1	0	1	.045	1	-.045	1	.09	1	-.101	1
149	5	max	9.514	3	-.014	1	0	1	0	1	0	1	0	1	0	1
150		min	6.925	1	-.014	1	0	1	0	1	0	1	0	1	0	1
151	M19	1	max	6.635	3	.014	1	0	1	0	1	0	1	0	1	1
152		min	3.902	4	.014	1	0	1	0	1	0	1	0	1	0	1
153	2	max	6.632	3	.007	1	0	1	.045	1	-.045	1	.09	1	-.101	1
154		min	3.899	4	.007	1	0	1	.045	1	-.045	1	.09	1	-.101	1
155	3	max	6.629	3	0	1	0	1	.06	1	-.06	1	.12	1	-.135	1
156		min	3.896	4	0	1	0	1	.06	1	-.06	1	.12	1	-.135	1
157	4	max	6.626	3	-.007	1	0	1	.045	1	-.045	1	.09	1	-.101	1
158		min	3.893	4	-.007	1	0	1	.045	1	-.045	1	.09	1	-.101	1
159	5	max	6.623	3	-.014	1	0	1	0	1	0	1	0	1	0	1
160		min	3.89	4	-.014	1	0	1	0	1	0	1	0	1	0	1
161	M20	1	max	8.645	1	.014	1	0	1	0	1	0	1	0	1	1
162		min	4.229	3	.014	1	0	1	0	1	0	1	0	1	0	1
163	2	max	8.642	1	.007	1	0	1	.045	1	-.045	1	.09	1	-.101	1
164		min	4.226	3	.007	1	0	1	.045	1	-.045	1	.09	1	-.101	1
165	3	max	8.639	1	0	1	0	1	.06	1	-.06	1	.12	1	-.135	1
166		min	4.223	3	0	1	0	1	.06	1	-.06	1	.12	1	-.135	1
167	4	max	8.636	1	-.007	1	0	1	.045	1	-.045	1	.09	1	-.101	1
168		min	4.22	3	-.007	1	0	1	.045	1	-.045	1	.09	1	-.101	1
169	5	max	8.633	1	-.014	1	0	1	0	1	0	1	0	1	0	1
170		min	4.217	3	-.014	1	0	1	0	1	0	1	0	1	0	1



**Envelope Member Section Stresses (Continued)**

	Member	Sec		Axial[ksi]	lc y	Shear[...]	lc z	Shear[...]	lc y-Top[ksi]	lc y-Bot[ksi]	lc z-Top[ksi]	lc z-Bot[ksi]	lc
171	M21	1	max	2.467	1	.014	1	0	1	0	1	0	1
172			min	.25	3	.014	1	0	1	0	1	0	1
173		2	max	2.464	1	.007	1	0	1	.045	1	-.045	1
174			min	.247	3	.007	1	0	1	.045	1	-.045	1
175		3	max	2.461	1	0	1	0	1	.06	1	-.06	1
176			min	.244	3	0	1	0	1	.06	1	-.06	1
177		4	max	2.458	1	-.007	1	0	1	.045	1	-.045	1
178			min	.241	3	-.007	1	0	1	.045	1	-.045	1
179		5	max	2.455	1	-.014	1	0	1	0	1	0	1
180			min	.237	3	-.014	1	0	1	0	1	0	1
181	M22	1	max	4.445	3	.014	1	0	1	0	1	0	1
182			min	2.207	4	.014	1	0	1	0	1	0	1
183		2	max	4.442	3	.007	1	0	1	.045	1	-.045	1
184			min	2.204	4	.007	1	0	1	.045	1	-.045	1
185		3	max	4.439	3	0	1	0	1	.06	1	-.06	1
186			min	2.201	4	0	1	0	1	.06	1	-.06	1
187		4	max	4.436	3	-.007	1	0	1	.045	1	-.045	1
188			min	2.198	4	-.007	1	0	1	.045	1	-.045	1
189		5	max	4.433	3	-.014	1	0	1	0	1	0	1
190			min	2.195	4	-.014	1	0	1	0	1	0	1
191	M23	1	max	9.403	3	.014	1	0	1	0	1	0	1
192			min	4.786	4	.014	1	0	1	0	1	0	1
193		2	max	9.4	3	.007	1	0	1	.045	1	-.045	1
194			min	4.783	4	.007	1	0	1	.045	1	-.045	1
195		3	max	9.397	3	0	1	0	1	.06	1	-.06	1
196			min	4.78	4	0	1	0	1	.06	1	-.06	1
197		4	max	9.394	3	-.007	1	0	1	.045	1	-.045	1
198			min	4.777	4	-.007	1	0	1	.045	1	-.045	1
199		5	max	9.391	3	-.014	1	0	1	0	1	0	1
200			min	4.773	4	-.014	1	0	1	0	1	0	1
201	M26	1	max	.188	1	.348	3	0	3	.002	1	9.304	3
202			min	.188	1	0	1	-.357	4	-9.304	3	-.002	1
203		2	max	.141	1	.227	3	0	3	.001	1	4.806	3
204			min	.141	3	0	1	-.234	4	-4.806	3	-.001	1
205		3	max	.094	1	.155	3	0	3	0	1	1.975	3
206			min	.094	4	0	1	-.16	4	-1.975	3	0	1
207		4	max	.047	1	.079	3	0	3	0	1	.351	3
208			min	.047	1	0	1	-.082	4	-.351	3	0	1
209		5	max	0	1	0	3	0	3	0	1	0	1
210			min	0	1	0	1	-.001	4	0	1	0	1
211	M27	1	max	1.748	3	0	1	-.119	3	0	1	0	1
212			min	-1.284	4	0	1	-.283	1	0	1	0	1
213		2	max	1.748	3	0	1	-.047	3	0	1	0	1
214			min	-1.284	4	0	1	-.113	1	0	1	0	1
215		3	max	1.748	3	0	1	.057	1	0	1	0	1
216			min	-1.284	4	0	1	.02	3	0	1	0	1
217		4	max	1.748	3	0	1	.1	1	0	1	0	1
218			min	-1.284	4	0	1	.045	3	0	1	0	1
219		5	max	1.748	3	0	1	.132	1	0	1	0	1
220			min	-1.284	4	0	1	.061	3	0	1	0	1
221	M28	1	max	-.027	1	0	1	-.042	3	0	1	0	1
222			min	-1.625	3	0	1	-.076	1	0	1	0	1
223		2	max	-.027	1	0	1	-.029	3	0	1	0	1
224			min	-1.625	3	0	1	-.062	1	0	1	0	1
225		3	max	-.027	1	0	1	-.015	3	0	1	0	1
226			min	-1.625	3	0	1	-.049	1	0	1	0	1
227		4	max	-.027	1	0	1	.073	1	0	1	0	1

**Envelope Member Section Stresses (Continued)**

Member	Sec		Axial[ksi]	lc	v Shear...	lc	z Shear...	lc	v-Top[ksi]	lc	v-Bot[ksi]	lc	z-Top[ksi]	lc	z-Bot[ksi]	lc
228		min	-1.625	3	0	1	.032	4	0	1	0	1	-7.021	1	1.075	3
229	5	max	-.027	1	0	1	.196	1	0	1	0	1	0	1	0	1
230		min	-1.625	3	0	1	.079	4	0	1	0	1	0	1	0	1
231	M29	1	max	1.688	3	0	1	-.079	3	0	1	0	1	0	1	0
232		min	-.026	1	0	1	-.196	1	0	1	0	1	0	1	0	1
233	2	max	1.688	3	0	1	-.032	3	0	1	0	1	-2.965	3	2.546	1
234		min	-.026	1	0	1	-.073	1	0	1	0	1	-7.021	1	1.075	3
235	3	max	1.688	3	0	1	.049	1	0	1	0	1	-3.241	3	2.569	1
236		min	-.026	1	0	1	.015	3	0	1	0	1	-7.084	1	1.175	3
237	4	max	1.688	3	0	1	.062	1	0	1	0	1	-1.994	3	1.42	1
238		min	-.026	1	0	1	.029	3	0	1	0	1	-3.916	1	.723	3
239	5	max	1.688	3	0	1	.076	1	0	1	0	1	0	1	0	1
240		min	-.026	1	0	1	.042	3	0	1	0	1	0	1	0	1
241	M30	1	max	.592	4	0	1	-.026	1	0	1	0	1	0	1	0
242		min	-1.327	3	0	1	-.026	1	0	1	0	1	0	1	0	1
243	2	max	.592	4	0	1	-.013	1	0	1	0	1	-1.121	1	.406	1
244		min	-1.327	3	0	1	-.013	1	0	1	0	1	-1.121	1	.406	1
245	3	max	.592	4	0	1	0	1	0	1	0	1	-1.494	1	.542	1
246		min	-1.327	3	0	1	0	1	0	1	0	1	-1.494	1	.542	1
247	4	max	.592	4	0	1	.013	1	0	1	0	1	-1.121	1	.406	1
248		min	-1.327	3	0	1	.013	1	0	1	0	1	-1.121	1	.406	1
249	5	max	.592	4	0	1	.026	1	0	1	0	1	0	1	0	1
250		min	-1.327	3	0	1	.026	1	0	1	0	1	0	1	0	1
251	M31	1	max	.324	4	.843	1	.007	4	0	1	0	1	0	1	0
252		min	.003	3	.46	4	-.065	3	0	1	0	1	0	1	0	1
253	2	max	.324	4	.53	1	.007	4	3.531	1	-1.995	4	.337	4	3.023	3
254		min	.003	3	.323	4	-.065	3	1.995	4	-3.531	1	-3.023	3	-.337	4
255	3	max	.324	4	.185	3	.007	4	5.269	1	-3.224	4	.674	4	6.045	3
256		min	.003	3	.17	4	-.065	3	3.224	4	-5.269	1	-6.045	3	-.674	4
257	4	max	.35	4	-.52	4	.126	3	4.104	1	-2.715	4	.656	4	5.882	3
258		min	-.053	3	-.796	1	-.014	4	2.715	4	-4.104	1	-5.882	3	-.656	4
259	5	max	.35	4	-.559	4	.126	3	0	1	0	1	0	1	0	1
260		min	-.053	3	-.835	1	-.014	4	0	1	0	1	0	1	0	1
261	M32	1	max	.014	4	.715	1	.039	4	0	1	0	1	0	1	0
262		min	-.126	3	.573	4	-.085	3	0	1	0	1	0	1	0	1
263	2	max	.014	4	.695	1	.039	4	1.823	1	-1.455	4	.941	4	2.037	3
264		min	-.126	3	.553	4	-.085	3	1.455	4	-1.823	1	-2.037	3	-.941	4
265	3	max	.014	4	.675	1	.039	4	3.594	1	-2.858	4	1.882	4	4.074	3
266		min	-.126	3	.533	4	-.085	3	2.858	4	-3.594	1	-4.074	3	-1.882	4
267	4	max	.014	4	-.457	4	.17	3	2.931	1	-2.413	4	1.086	4	1.749	3
268		min	-.126	3	-.632	1	-.062	4	2.413	4	-2.931	1	-1.749	3	-1.086	4
269	5	max	.014	4	-1.29	4	0	3	0	1	0	1	0	1	0	1
270		min	-.126	3	-1.509	1	-.033	4	0	1	0	1	0	1	0	1
271	M33	1	max	.02	3	.855	1	0	3	0	1	0	1	0	1	0
272		min	-.019	4	.727	3	0	1	0	1	0	1	0	1	0	1
273	2	max	.02	3	.785	1	0	3	2.722	1	-2.336	3	.004	3	0	1
274		min	-.019	4	.679	3	0	1	2.336	3	-2.722	1	0	1	-.004	3
275	3	max	.112	3	.485	1	0	3	4.952	3	-4.384	4	.008	3	0	1
276		min	-.019	4	-.564	3	0	1	4.384	4	-4.952	3	0	1	-.008	3
277	4	max	.112	3	-.767	4	0	1	2.907	3	-2.623	4	.004	3	0	1
278		min	-.019	4	-.853	3	0	3	2.623	4	-2.907	3	0	1	-.004	3
279	5	max	.112	3	-.812	4	0	1	0	1	0	1	0	1	0	1
280		min	-.019	4	-.898	3	0	3	0	1	0	1	0	1	0	1
281	M34	1	max	.067	4	1.155	1	0	3	0	1	0	1	0	1	0
282		min	-.259	3	.833	3	0	1	0	1	0	1	0	1	0	1
283	2	max	.067	4	1.006	1	0	3	3.584	1	-2.647	3	.004	3	0	1
284		min	-.259	3	.76	3	0	1	2.647	3	-3.584	1	0	1	-.004	3

**Envelope Member Section Stresses (Continued)**

Member	Sec		Axial[ksi]	lc y	Shear[...]	lc z	Shear[...]	lc y-Top[ksi]	lc y-Bot[ksi]	lc z-Top[ksi]	lc z-Bot[ksi]	lc					
285		3	max	.067	4	.511	1	0	3	5.863	1	-4.876	4	.008	3	0	1
286			min	-.259	3	-.555	3	0	1	4.876	4	-5.863	1	0	1	-.008	3
287		4	max	.067	4	-.84	4	0	1	3.76	1	-3	4	.004	3	0	1
288			min	-.168	3	-.989	1	0	3	3	4	-3.76	1	0	1	-.004	3
289		5	max	.067	4	-.97	4	0	1	0	1	0	1	0	1	0	1
290			min	-.168	3	-1.287	1	0	3	0	1	0	1	0	1	0	1
291	M32A	1	max	.006	4	2.105	4	.002	3	0	1	0	1	0	1	0	1
292			min	-.076	3	.135	3	-.026	4	0	1	0	1	0	1	0	1
293		2	max	.006	4	2.041	4	.002	3	12.178	4	-.605	3	.117	3	1.66	4
294			min	-.076	3	.071	3	-.026	4	.605	3	-12.178	4	-1.66	4	-.117	3
295		3	max	.014	4	1.977	4	.028	4	23.982	4	-4.418	1	.234	3	3.607	4
296			min	-.076	3	-.546	3	0	1	4.418	1	-23.982	4	-3.607	4	-.234	3
297		4	max	.066	3	-.364	1	.028	4	12.123	4	-2.326	1	.085	3	1.803	4
298			min	.001	1	-2.032	4	-.001	3	2.326	1	-12.123	4	-1.803	4	-.085	3
299		5	max	.066	3	-.428	1	.028	4	0	1	0	1	0	1	0	1
300			min	.001	1	-2.096	4	-.001	3	0	1	0	1	0	1	0	1
301	M33A	1	max	.003	1	.375	1	.002	3	0	1	0	1	0	1	0	1
302			min	-.063	3	-1.329	4	-.025	4	0	1	0	1	0	1	0	1
303		2	max	.003	1	.312	1	.002	3	2.018	1	7.994	4	.122	3	1.654	4
304			min	-.063	3	-1.393	4	-.025	4	-7.994	4	-2.018	1	-1.654	4	-.122	3
305		3	max	.078	3	-.259	1	.028	4	6.882	3	16.362	4	.244	3	3.596	4
306			min	-.05	4	-1.456	4	0	1	-16.362	4	-6.882	3	-3.596	4	-.244	3
307		4	max	.078	3	1.383	4	.028	4	3.628	3	7.939	4	.092	3	1.798	4
308			min	-.05	4	-.586	3	-.001	3	-7.939	4	-3.628	3	-1.798	4	-.092	3
309		5	max	.078	3	1.32	4	.028	4	0	1	0	1	0	1	0	1
310			min	-.05	4	-.65	3	-.001	3	0	1	0	1	0	1	0	1
311	M36	1	max	0	4	0	1	0	1	0	1	0	1	0	1	0	1
312			min	0	3	0	1	0	1	0	1	0	1	0	1	0	1
313		2	max	0	4	0	1	0	1	0	1	0	1	0	1	0	1
314			min	0	3	0	1	0	1	0	1	0	1	0	1	0	1
315		3	max	0	4	0	1	0	1	0	1	0	1	0	1	0	1
316			min	0	3	0	1	0	1	0	1	0	1	0	1	0	1
317		4	max	0	1	0	1	0	1	0	1	0	1	0	1	0	1
318			min	0	4	0	1	0	1	0	1	0	1	0	1	0	1
319		5	max	0	1	0	1	0	1	0	1	0	1	0	1	0	1
320			min	0	4	0	1	0	1	0	1	0	1	0	1	0	1
321	M33B	1	max	0	1	0	1	0	1	0	1	0	1	0	1	0	1
322			min	0	3	0	1	0	1	0	1	0	1	0	1	0	1
323		2	max	0	1	0	1	0	1	0	1	0	1	0	1	0	1
324			min	0	3	0	1	0	1	0	1	0	1	0	1	0	1
325		3	max	0	1	0	1	0	1	0	1	0	1	0	1	0	1
326			min	0	3	0	1	0	1	0	1	0	1	0	1	0	1
327		4	max	0	1	0	1	0	1	0	1	0	1	0	1	0	1
328			min	0	3	0	1	0	1	0	1	0	1	0	1	0	1
329		5	max	0	1	0	1	0	1	0	1	0	1	0	1	0	1
330			min	0	3	0	1	0	1	0	1	0	1	0	1	0	1
331	M34A	1	max	0	1	0	1	0	1	0	1	0	1	0	1	0	1
332			min	0	3	0	1	0	1	0	1	0	1	0	1	0	1
333		2	max	0	1	0	1	0	1	0	1	0	1	0	1	0	1
334			min	0	3	0	1	0	1	0	1	0	1	0	1	0	1
335		3	max	0	1	0	1	0	1	0	1	0	1	0	1	0	1
336			min	0	3	0	1	0	1	0	1	0	1	0	1	0	1
337		4	max	0	1	0	1	0	1	0	1	0	1	0	1	0	1
338			min	0	3	0	1	0	1	0	1	0	1	0	1	0	1
339		5	max	0	1	0	1	0	1	0	1	0	1	0	1	0	1
340			min	0	3	0	1	0	1	0	1	0	1	0	1	0	1
341	M35	1	max	.231	4	.399	1	.037	3	0	1	0	1	0	1	0	1

**Envelope Member Section Stresses (Continued)**

Member	Sec		Axial[ksf]	lc	v Shear[ksf]	lc	z Shear[ksf]	lc	v-Top[ksf]	lc	v-Bot[ksf]	lc	z-Top[ksf]	lc	z-Bot[ksf]	lc	
342		min	-.01	3	.297	3	0	4	0	1	0	1	0	1	0	1	
343	2	max	.231	4	.364	1	.037	3	1.447	1	-1.057	3	1.463	3	-.006	4	
344		min	-.01	3	.261	3	0	4	1.057	3	-1.447	1	.006	4	-1.463	3	
345	3	max	-.239	4	-.192	3	0	4	2.382	1	-1.721	3	2.483	3	-.01	4	
346		min	-.011	3	-.279	1	-.032	3	1.721	3	-2.382	1	.01	4	-2.483	3	
347	4	max	.239	4	-.227	3	0	4	1.258	1	-.927	3	1.242	3	-.005	4	
348		min	-.011	3	-.314	1	-.032	3	.927	3	-1.258	1	.005	4	-1.242	3	
349	5	max	.239	4	-.262	3	0	4	0	1	0	1	0	1	0	1	
350		min	-.011	3	-.35	1	-.032	3	0	1	0	1	0	1	0	1	
351	M36A	1	max	.002	1	.196	1	.028	4	0	1	0	1	0	1	0	1
352		min	-.132	4	.16	4	-.001	1	0	1	0	1	0	1	0	1	
353	2	max	.002	1	.161	1	.028	4	.677	1	-.539	4	1.088	4	.041	1	
354		min	-.132	4	.125	4	-.001	1	.539	4	-.677	1	-.041	1	-1.088	4	
355	3	max	.002	1	.126	1	.028	4	1.22	1	-.945	4	2.175	4	.082	1	
356		min	-.132	4	.089	4	-.001	1	.945	4	-1.22	1	-.082	1	-2.175	4	
357	4	max	.026	3	-.141	4	.001	1	.762	1	-.599	4	1.282	4	.049	1	
358		min	-.133	4	-.183	1	-.033	4	.599	4	-.762	1	-.049	1	-1.282	4	
359	5	max	.026	3	-.176	4	.001	1	0	1	0	1	0	1	0	1	
360		min	-.133	4	-.219	1	-.033	4	0	1	0	1	0	1	0	1	
361	M37	1	max	.325	4	.656	1	0	1	0	1	0	1	0	1	0	1
362		min	-.027	3	.355	3	-.064	3	0	1	0	1	0	1	0	1	
363	2	max	.325	4	.425	1	0	1	2.779	1	-1.557	3	-.037	1	3.007	3	
364		min	-.027	3	.256	3	-.064	3	1.557	3	-2.779	1	-3.007	3	.037	1	
365	3	max	.325	4	.162	4	0	1	4.22	1	-2.561	3	-.075	1	6.014	3	
366		min	-.027	3	.145	3	-.064	3	2.561	3	-4.22	1	-6.014	3	.075	1	
367	4	max	.351	4	-.417	3	.125	3	3.345	1	-2.195	3	-.073	1	5.851	3	
368		min	.006	1	-.645	1	.002	1	2.195	3	-3.345	1	-5.851	3	.073	1	
369	5	max	.351	4	-.456	3	.125	3	0	1	0	1	0	1	0	1	
370		min	.006	1	-.684	1	.002	1	0	1	0	1	0	1	0	1	
371	M38	1	max	.125	3	.608	1	0	1	0	1	0	1	0	1	0	1
372		min	.002	1	.474	3	-.08	3	0	1	0	1	0	1	0	1	
373	2	max	.125	3	.588	1	0	1	1.545	1	-1.198	3	-.023	1	1.929	3	
374		min	.002	1	.454	3	-.08	3	1.198	3	-1.545	1	-1.929	3	.023	1	
375	3	max	.125	3	.567	1	0	1	3.038	1	-2.345	3	-.047	1	3.858	3	
376		min	.002	1	.433	3	-.08	3	2.345	3	-3.038	1	-3.858	3	.047	1	
377	4	max	.125	3	-.366	3	.15	3	2.509	1	-1.994	3	-.145	1	1.84	3	
378		min	.002	1	-.517	1	-.005	1	1.994	3	-2.509	1	-1.84	3	.145	1	
379	5	max	.125	3	-1.074	3	.032	4	0	1	0	1	0	1	0	1	
380		min	.002	1	-1.31	1	.015	1	0	1	0	1	0	1	0	1	
381	M39	1	max	.013	1	.858	3	0	1	0	1	0	1	0	1	0	1
382		min	-.019	4	.772	4	0	3	0	1	0	1	0	1	0	1	
383	2	max	.013	1	.832	3	0	1	2.809	3	-2.524	4	0	1	.004	3	
384		min	-.019	4	.747	4	0	3	2.524	4	-2.809	3	-.004	3	0	1	
385	3	max	.013	1	.566	3	0	3	4.822	3	-4.256	4	0	1	.008	3	
386		min	-.085	3	-.481	1	0	1	4.256	4	-4.822	3	-.008	3	0	1	
387	4	max	.013	1	-.662	3	0	3	2.526	1	-2.242	3	0	1	.004	3	
388		min	-.085	3	-.747	1	0	1	2.242	3	-2.526	1	-.004	3	0	1	
389	5	max	.013	1	-.687	3	0	3	0	1	0	1	0	1	0	1	
390		min	-.085	3	-.773	1	0	1	0	1	0	1	0	1	0	1	
391	M40	1	max	.243	3	.981	1	0	1	0	1	0	1	0	1	0	1
392		min	-.003	1	.838	4	0	3	0	1	0	1	0	1	0	1	
393	2	max	.243	3	.898	1	0	1	3.122	1	-2.712	4	0	1	.004	3	
394		min	-.003	1	.794	4	0	3	2.712	4	-3.122	1	-.004	3	0	1	
395	3	max	.243	3	.571	3	0	3	5.171	1	-4.544	4	0	1	.009	3	
396		min	-.003	1	.486	4	0	1	4.544	4	-5.171	1	-.009	3	0	1	
397	4	max	.152	3	-.705	3	0	3	3.226	1	-2.463	3	0	1	.004	3	
398		min	-.003	1	-.885	1	0	1	2.463	3	-3.226	1	-.004	3	0	1	

**Envelope Member Section Stresses (Continued)**

Member	Sec		Axial[ksi]	lc y	Shear[...]	lc z	Shear[...]	lc y-Top[ksi]	lc y-Bot[ksi]	lc z-Top[ksi]	lc z-Bot[ksi]	lc					
399		5	max	.152	3	-.779	3	0	3	0	1	0	1	0	1	0	1
400			min	-.003	1	-1.064	1	0	1	0	1	0	1	0	1	0	1
401	M41	1	max	0	1	0	1	0	1	0	1	0	1	0	1	0	1
402			min	0	4	0	1	0	1	0	1	0	1	0	1	0	1
403		2	max	0	1	0	1	0	1	0	1	0	1	0	1	0	1
404			min	0	4	0	1	0	1	0	1	0	1	0	1	0	1
405		3	max	0	1	0	1	0	1	0	1	0	1	0	1	0	1
406			min	0	4	0	1	0	1	0	1	0	1	0	1	0	1
407		4	max	0	1	0	1	0	1	0	1	0	1	0	1	0	1
408			min	0	4	0	1	0	1	0	1	0	1	0	1	0	1
409		5	max	0	1	0	1	0	1	0	1	0	1	0	1	0	1
410			min	0	4	0	1	0	1	0	1	0	1	0	1	0	1
411	M42	1	max	0	1	0	1	0	1	0	1	0	1	0	1	0	1
412			min	0	1	0	1	0	1	0	1	0	1	0	1	0	1
413		2	max	0	1	0	1	0	1	0	1	0	1	0	1	0	1
414			min	0	1	0	1	0	1	0	1	0	1	0	1	0	1
415		3	max	0	1	0	1	0	1	0	1	0	1	0	1	0	1
416			min	0	1	0	1	0	1	0	1	0	1	0	1	0	1
417		4	max	0	1	0	1	0	1	0	1	0	1	0	1	0	1
418			min	0	1	0	1	0	1	0	1	0	1	0	1	0	1
419		5	max	0	1	0	1	0	1	0	1	0	1	0	1	0	1
420			min	0	1	0	1	0	1	0	1	0	1	0	1	0	1
421	M43	1	max	.002	1	.656	1	.066	3	0	1	0	1	0	1	0	1
422			min	-.041	4	.371	4	-.002	4	0	1	0	1	0	1	0	1
423		2	max	.002	1	.425	1	.066	3	2.779	1	-1.636	4	3.101	3	.081	4
424			min	-.041	4	.272	4	-.002	4	1.636	4	-2.779	1	-.081	4	-3.101	3
425		3	max	.002	1	.177	3	.066	3	4.219	1	-2.719	4	6.201	3	.162	4
426			min	-.041	4	.155	1	-.002	4	2.719	4	-4.219	1	-.162	4	-6.201	3
427		4	max	.003	1	-.447	4	.003	4	3.345	1	-2.349	4	6.034	3	.158	4
428			min	-.069	4	-.645	1	-.129	3	2.349	4	-3.345	1	-.158	4	-6.034	3
429		5	max	.003	1	-.486	4	.003	4	0	1	0	1	0	1	0	1
430			min	-.069	4	-.684	1	-.129	3	0	1	0	1	0	1	0	1
431	M44	1	max	.003	4	.608	1	.078	3	0	1	0	1	0	1	0	1
432			min	-.129	3	.521	4	-.002	1	0	1	0	1	0	1	0	1
433		2	max	.003	4	.588	1	.078	3	1.545	1	-1.322	4	1.868	3	.04	1
434			min	-.129	3	.501	4	-.002	1	1.322	4	-1.545	1	-.04	1	-1.868	3
435		3	max	.003	4	.567	1	.078	3	3.038	1	-2.592	4	3.737	3	.08	1
436			min	-.129	3	.481	4	-.002	1	2.592	4	-3.038	1	-.08	1	-3.737	3
437		4	max	.003	4	-.403	4	0	1	2.508	1	-2.212	4	1.594	3	.107	1
438			min	-.13	3	-.517	1	-.156	3	2.212	4	-2.508	1	-.107	1	-1.594	3
439		5	max	.003	4	-1.195	4	.009	1	0	1	0	1	0	1	0	1
440			min	-.13	3	-1.317	3	-.018	4	0	1	0	1	0	1	0	1
441	M45	1	max	.04	4	.773	4	0	1	0	1	0	1	0	1	0	1
442			min	.006	1	.687	3	0	3	0	1	0	1	0	1	0	1
443		2	max	.04	4	.747	4	0	1	2.525	4	-2.241	3	0	1	.005	3
444			min	.006	1	.661	3	0	3	2.241	3	-2.525	4	-.005	3	0	1
445		3	max	.104	3	-.481	4	0	1	4.824	3	-4.256	1	0	1	.009	3
446			min	.006	1	-.566	3	0	3	4.256	1	-4.824	3	-.009	3	0	1
447		4	max	.104	3	-.747	1	0	3	2.81	3	-2.526	1	0	1	.005	3
448			min	.006	1	-.833	3	0	1	2.526	1	-2.81	3	-.005	3	0	1
449		5	max	.104	3	-.773	1	0	3	0	1	0	1	0	1	0	1
450			min	.006	1	-.858	3	0	1	0	1	0	1	0	1	0	1
451	M46	1	max	0	1	.981	1	0	1	0	1	0	1	0	1	0	1
452			min	-.246	3	.751	3	0	3	0	1	0	1	0	1	0	1
453		2	max	0	1	.898	1	0	1	3.122	1	-2.424	3	0	1	.005	3
454			min	-.246	3	.708	3	0	3	2.424	3	-3.122	1	-.005	3	0	1
455		3	max	0	1	.497	1	0	1	5.17	1	-4.54	4	0	1	.009	3

**Envelope Member Section Stresses (Continued)**

Member	Sec		Axial[ksi]	lc	y Shear[k]	lc	z Shear[k]	lc	y-Top[ksi]	lc	y-Bot[ksi]	lc	z-Top[ksi]	lc	z-Bot[ksi]	lc	
456		min	-.246	3	-.561	3	0	3	4.54	4	-5.17	1	-.009	3	0	1	
457	4	max	0	1	-.79	4	0	3	3.226	1	-2.743	4	0	1	.005	3	
458		min	-.155	3	-.885	1	0	1	2.743	4	-3.226	1	-.005	3	0	1	
459	5	max	0	1	-.864	4	0	3	0	1	0	1	0	1	0	1	
460		min	-.155	3	-1.064	1	0	1	0	1	0	1	0	1	0	1	
461	M47	1	max	0	1	0	1	0	1	0	1	0	1	0	1	0	1
462		min	0	3	0	1	0	1	0	1	0	1	0	1	0	1	
463	2	max	0	1	0	1	0	1	0	1	0	1	0	1	0	1	
464		min	0	3	0	1	0	1	0	1	0	1	0	1	0	1	
465	3	max	0	1	0	1	0	1	0	1	0	1	0	1	0	1	
466		min	0	3	0	1	0	1	0	1	0	1	0	1	0	1	
467	4	max	0	1	0	1	0	1	0	1	0	1	0	1	0	1	
468		min	0	3	0	1	0	1	0	1	0	1	0	1	0	1	
469	5	max	0	1	0	1	0	1	0	1	0	1	0	1	0	1	
470		min	0	3	0	1	0	1	0	1	0	1	0	1	0	1	
471	M48	1	max	0	4	0	1	0	1	0	1	0	1	0	1	0	1
472		min	0	1	0	1	0	1	0	1	0	1	0	1	0	1	
473	2	max	0	4	0	1	0	1	0	1	0	1	0	1	0	1	
474		min	0	1	0	1	0	1	0	1	0	1	0	1	0	1	
475	3	max	0	4	0	1	0	1	0	1	0	1	0	1	0	1	
476		min	0	1	0	1	0	1	0	1	0	1	0	1	0	1	
477	4	max	0	4	0	1	0	1	0	1	0	1	0	1	0	1	
478		min	0	1	0	1	0	1	0	1	0	1	0	1	0	1	
479	5	max	0	4	0	1	0	1	0	1	0	1	0	1	0	1	
480		min	0	1	0	1	0	1	0	1	0	1	0	1	0	1	

**Envelope Member Section Forces**

Member	Sec		Axial[k]	lc	y Shear[k]	lc	z Shear[k]	lc	Torque[k-ft]	lc	y-y Momen...	lc	z-z Momen...	lc	
1	M1	1	max	238.582	1	0	1	0	1	0	1	0	1	0	1
2		min	155.053	3	0	1	0	1	0	1	0	1	0	1	1
3		2	max	238.036	1	0	1	0	1	0	1	0	1	0	1
4		min	154.507	3	0	1	0	1	0	1	0	1	0	1	1
5		3	max	237.49	1	0	1	0	1	0	1	0	1	0	1
6		min	153.961	3	0	1	0	1	0	1	0	1	0	1	1
7		4	max	74.544	1	0	1	0	1	0	1	0	1	0	1
8		min	54.815	3	0	1	0	1	0	1	0	1	0	1	1
9		5	max	73.998	1	0	1	0	1	0	1	0	1	0	1
10		min	54.269	3	0	1	0	1	0	1	0	1	0	1	1
11	M2	1	max	237.042	1	0	1	0	1	0	1	0	1	0	1
12		min	159.097	4	0	1	0	1	0	1	0	1	0	1	1
13		2	max	236.496	1	0	1	0	1	0	1	0	1	0	1
14		min	158.551	4	0	1	0	1	0	1	0	1	0	1	1
15		3	max	235.95	1	0	1	0	1	0	1	0	1	0	1
16		min	158.005	4	0	1	0	1	0	1	0	1	0	1	1
17		4	max	73.005	1	0	1	0	1	0	1	0	1	0	1
18		min	58.859	4	0	1	0	1	0	1	0	1	0	1	1
19		5	max	72.459	1	0	1	0	1	0	1	0	1	0	1
20		min	58.313	4	0	1	0	1	0	1	0	1	0	1	1
21	M3	1	max	236.192	1	0	1	0	1	0	1	0	1	0	1
22		min	153.789	3	0	1	0	1	0	1	0	1	0	1	1
23		2	max	235.646	1	0	1	0	1	0	1	0	1	0	1
24		min	153.243	3	0	1	0	1	0	1	0	1	0	1	1
25		3	max	235.1	1	0	1	0	1	0	1	0	1	0	1
26		min	152.697	3	0	1	0	1	0	1	0	1	0	1	1
27		4	max	72.154	1	0	1	0	1	0	1	0	1	0	1
28		min	53.551	3	0	1	0	1	0	1	0	1	0	1	1

**Envelope Member Section Forces (Continued)**

Member	Sec		Axial[k]	lc	y Shear[k]	lc	z Shear[k]	lc	Torque[k-ft]	lc	y-y Momen...	lc	z-z Momen...	lc	
29		5	max	71.608	1	0	1	0	1	0	1	0	1	0	1
30			min	53.006	3	0	1	0	1	0	1	0	1	0	1
31	M4	1	max	230.936	1	0	1	0	1	0	1	0	1	0	1
32			min	150.276	4	0	1	0	1	0	1	0	1	0	1
33		2	max	230.39	1	0	1	0	1	0	1	0	1	0	1
34			min	149.73	4	0	1	0	1	0	1	0	1	0	1
35		3	max	229.844	1	0	1	0	1	0	1	0	1	0	1
36			min	149.184	4	0	1	0	1	0	1	0	1	0	1
37		4	max	66.898	1	0	1	0	1	0	1	0	1	0	1
38			min	50.038	4	0	1	0	1	0	1	0	1	0	1
39		5	max	66.353	1	0	1	0	1	0	1	0	1	0	1
40			min	49.492	4	0	1	0	1	0	1	0	1	0	1
41	M7	1	max	13.898	1	-974	3	-3.368	3	.003	3	0	1	0	1
42			min	8.669	3	-3.786	1	-7.351	4	0	1	0	1	0	1
43		2	max	13.871	1	-.974	3	-3.368	3	.003	3	-4.21	3	4.732	1
44			min	8.643	3	-3.786	1	-7.351	4	0	1	-9.189	4	1.217	3
45		3	max	1.394	3	2.524	1	4.901	4	0	1	-5.612	3	6.31	1
46			min	-4.227	1	.65	3	2.245	3	0	1	-12.252	4	1.624	3
47		4	max	1.368	3	2.524	1	4.901	4	0	1	-2.806	3	3.155	1
48			min	-4.254	1	.65	3	2.245	3	0	1	-6.126	4	.812	3
49		5	max	1.341	3	2.524	1	4.901	4	0	1	0	1	0	1
50			min	-4.28	1	.65	3	2.245	3	0	1	0	1	0	1
51	M8	1	max	13.791	3	5.454	3	-5.733	1	.002	3	0	1	0	1
52			min	12.359	1	3.226	4	-7.908	3	0	4	0	1	0	1
53		2	max	13.764	3	5.454	3	-5.733	1	.002	3	-7.167	1	-4.032	4
54			min	12.332	1	3.226	4	-7.908	3	0	4	-9.885	3	-6.818	3
55		3	max	-3.344	4	-2.151	4	5.273	3	0	1	-9.555	1	-5.376	4
56			min	-8.411	3	-3.636	3	3.822	1	0	1	-13.181	3	-9.09	3
57		4	max	-3.37	4	-2.151	4	5.273	3	0	1	-4.778	1	-2.688	4
58			min	-8.438	3	-3.636	3	3.822	1	0	1	-6.591	3	-4.545	3
59		5	max	-3.397	4	-2.151	4	5.273	3	0	1	0	1	0	1
60			min	-8.464	3	-3.636	3	3.822	1	0	1	0	1	0	1
61	M9	1	max	11.508	1	-.216	3	7.144	1	0	4	0	1	0	1
62			min	7.406	3	-2.035	1	3.486	3	-.003	3	0	1	0	1
63		2	max	11.482	1	-.216	3	7.144	1	0	4	8.93	1	2.544	1
64			min	7.379	3	-2.035	1	3.486	3	-.003	3	4.357	3	.27	3
65		3	max	1.198	3	1.357	1	-2.323	3	0	1	11.907	1	3.392	1
66			min	-3.778	1	.144	3	-4.763	1	0	1	5.808	3	.361	3
67		4	max	1.171	3	1.357	1	-2.323	3	0	1	5.953	1	1.696	1
68			min	-3.805	1	.144	3	-4.763	1	0	1	2.904	3	.181	3
69		5	max	1.144	3	1.357	1	-2.323	3	0	1	0	1	0	1
70			min	-3.831	1	.144	3	-4.763	1	0	1	0	1	0	1
71	M10	1	max	8.455	3	3.639	3	7.779	3	0	1	0	1	0	1
72			min	3.892	4	1.807	4	3.943	4	-.002	3	0	1	0	1
73		2	max	8.428	3	3.639	3	7.779	3	0	1	9.724	3	-2.259	4
74			min	3.865	4	1.807	4	3.943	4	-.002	3	4.929	4	-4.549	3
75		3	max	-5.764	4	-1.205	4	-2.629	4	0	1	12.966	3	-3.012	4
76			min	-10.584	3	-2.426	3	-5.187	3	0	1	6.572	4	-6.065	3
77		4	max	-5.791	4	-1.205	4	-2.629	4	0	1	6.483	3	-1.506	4
78			min	-10.611	3	-2.426	3	-5.187	3	0	1	3.286	4	-3.032	3
79		5	max	-5.818	4	-1.205	4	-2.629	4	0	1	0	1	0	1
80			min	-10.638	3	-2.426	3	-5.187	3	0	1	0	1	0	1
81	M11	1	max	-3.894	3	-.101	3	.53	3	0	1	0	1	0	1
82			min	-4.751	1	-2.529	4	-.369	4	0	1	0	1	0	1
83		2	max	7.076	1	4.999	4	-.016	1	0	3	.811	4	-7.916	3
84			min	4.467	3	1.137	3	-1.198	3	0	4	.034	1	-22.444	4
85		3	max	7.082	1	-.202	3	.07	3	0	3	.003	1	-14.042	3

**Envelope Member Section Forces (Continued)**

Member	Sec		Axial[k]	lc	y Shear[k]	lc	z Shear[k]	lc	Torque[k-ft]	lc	y-y Momen...	lc	z-z Momen...	lc
86		min	4.484	3	-10.267	4	-.235	4	0	4	-7.15	3	-34.294	1
87	4	max	7.09	1	-1.242	3	1.12	3	0	3	.736	4	-.056	4
88		min	4.502	3	-3.366	1	-.015	1	0	4	-.019	1	-12.492	1
89	5	max	-3.661	4	3.321	1	-.006	1	0	1	0	1	0	1
90		min	-4.744	1	.632	3	-.455	3	0	1	0	1	0	1
91	M12	1	max	-3.398	4	-1.53	1	.413	3	0	1	0	1	1
92		min	-3.798	1	-3.803	3	-.032	1	0	1	0	1	0	1
93	2	max	6.874	3	4.759	3	.138	4	0	3	.56	3	-14.673	1
94		min	5.135	4	2.811	1	-1.193	3	0	4	-.798	4	-22.594	4
95	3	max	6.887	3	-.403	3	.367	4	0	3	.922	4	-28.614	4
96		min	4.872	4	-10.479	4	-.083	3	0	4	-7.385	3	-45.404	3
97	4	max	6.9	3	-1.535	4	1.237	3	0	3	.522	3	4.381	4
98		min	4.608	4	-5.385	3	-.447	4	0	4	-1.162	4	-10.311	3
99	5	max	-2.957	4	7.083	3	.568	4	0	1	0	1	0	1
100		min	-3.811	1	4.597	4	-1.037	3	0	1	0	1	0	1
101	M13	1	max	-1.784	4	-1.677	4	-.031	1	0	1	0	1	1
102		min	-3.239	3	-4.675	3	-1.58	3	0	1	0	1	0	1
103	2	max	3.702	1	4.048	3	1.299	4	0	3	-.08	1	-1.657	3
104		min	1.391	4	3.295	4	.027	1	0	4	-5.618	3	-8.805	1
105	3	max	3.756	1	1.744	3	.684	3	0	3	6.429	4	-18.867	4
106		min	1.504	4	.761	4	-1.227	4	0	4	-.295	3	-22.642	1
107	4	max	3.709	1	-2.602	3	1.339	3	0	3	5.797	3	-8.337	4
108		min	1.391	4	-3.929	1	-1.301	4	0	4	-2.09	4	-14.522	3
109	5	max	-1.162	3	1.786	1	.896	4	0	1	0	1	0	1
110		min	-2.578	1	-1.435	3	-1.645	3	0	1	0	1	0	1
111	M14	1	max	-.582	3	1.771	3	1.618	3	0	1	0	1	1
112		min	-1.65	4	-.523	1	-.025	1	0	1	0	1	0	1
113	2	max	2.605	3	2.442	1	.025	1	0	1	5.804	3	-7.289	4
114		min	1.97	1	1.741	3	-1.261	3	0	3	-.068	1	-12.176	3
115	3	max	2.611	3	-1.155	4	.018	1	0	1	.333	3	-10.917	4
116		min	2.007	1	-1.88	3	-.859	3	0	3	-4.197	4	-12.346	1
117	4	max	2.428	3	-1.45	4	.677	4	0	1	.412	4	2.2	3
118		min	2.007	1	-2.175	3	-.859	3	0	3	-5.517	3	-2.276	1
119	5	max	-1.342	1	3.565	3	1.423	3	0	1	0	1	0	1
120		min	-1.78	4	1.225	4	-.327	4	0	1	0	1	0	1
121	M16	1	max	8.887	1	.012	1	0	1	.002	3	0	1	1
122		min	2.268	3	.012	1	0	1	0	1	0	1	0	1
123	2	max	8.881	1	.006	1	0	1	.002	3	.007	1	-.007	1
124		min	2.262	3	.006	1	0	1	0	1	.007	1	-.007	1
125	3	max	8.875	1	0	1	0	1	.002	3	.009	1	-.009	1
126		min	2.256	3	0	1	0	1	0	1	.009	1	-.009	1
127	4	max	8.869	1	-.006	1	0	1	.002	3	.007	1	-.007	1
128		min	2.25	3	-.006	1	0	1	0	1	.007	1	-.007	1
129	5	max	8.863	1	-.012	1	0	1	.002	3	0	1	0	1
130		min	2.244	3	-.012	1	0	1	0	1	0	1	0	1
131	M17	1	max	17.242	4	.012	1	0	1	.002	3	0	1	1
132		min	7.934	3	.012	1	0	1	0	1	0	1	0	1
133	2	max	17.236	4	.006	1	0	1	.002	3	.007	1	-.007	1
134		min	7.928	3	.006	1	0	1	0	1	.007	1	-.007	1
135	3	max	17.23	4	0	1	0	1	.002	3	.009	1	-.009	1
136		min	7.922	3	0	1	0	1	0	1	.009	1	-.009	1
137	4	max	17.224	4	-.006	1	0	1	.002	3	.007	1	-.007	1
138		min	7.916	3	-.006	1	0	1	0	1	.007	1	-.007	1
139	5	max	17.218	4	-.012	1	0	1	.002	3	0	1	0	1
140		min	7.91	3	-.012	1	0	1	0	1	0	1	0	1
141	M18	1	max	18.481	3	.012	1	0	1	.001	3	0	1	1
142		min	13.458	1	.012	1	0	1	0	4	0	1	0	1



**Envelope Member Section Forces (Continued)**

Member	Sec		Axial[k]	lc	y Shear[k]	lc	z Shear[k]	lc	Torque[k-ft]	lc	y-y Momen...	lc	z-z Momen...	lc	
143		2	max	18.475	3	.006	1	0	1	.001	3	.007	1	-.007	1
144			min	13.452	1	.006	1	0	1	0	4	.007	1	-.007	1
145		3	max	18.469	3	0	1	0	1	.001	3	.009	1	-.009	1
146			min	13.446	1	0	1	0	1	0	4	.009	1	-.009	1
147		4	max	18.463	3	-.006	1	0	1	.001	3	.007	1	-.007	1
148			min	13.44	1	-.006	1	0	1	0	4	.007	1	-.007	1
149		5	max	18.457	3	-.012	1	0	1	.001	3	0	1	0	1
150			min	13.434	1	-.012	1	0	1	0	4	0	1	0	1
151	M19	1	max	12.873	3	.012	1	0	1	.002	3	0	1	0	1
152			min	7.569	4	.012	1	0	1	0	4	0	1	0	1
153		2	max	12.867	3	.006	1	0	1	.002	3	.007	1	-.007	1
154			min	7.563	4	.006	1	0	1	0	4	.007	1	-.007	1
155		3	max	12.861	3	0	1	0	1	.002	3	.009	1	-.009	1
156			min	7.558	4	0	1	0	1	0	4	.009	1	-.009	1
157		4	max	12.855	3	-.006	1	0	1	.002	3	.007	1	-.007	1
158			min	7.552	4	-.006	1	0	1	0	4	.007	1	-.007	1
159		5	max	12.849	3	-.012	1	0	1	.002	3	0	1	0	1
160			min	7.546	4	-.012	1	0	1	0	4	0	1	0	1
161	M20	1	max	16.771	1	.012	1	0	1	0	4	0	1	0	1
162			min	8.204	3	.012	1	0	1	-.002	3	0	1	0	1
163		2	max	16.765	1	.006	1	0	1	0	4	.007	1	-.007	1
164			min	8.199	3	.006	1	0	1	-.002	3	.007	1	-.007	1
165		3	max	16.759	1	0	1	0	1	0	4	.009	1	-.009	1
166			min	8.193	3	0	1	0	1	-.002	3	.009	1	-.009	1
167		4	max	16.753	1	-.006	1	0	1	0	4	.007	1	-.007	1
168			min	8.187	3	-.006	1	0	1	-.002	3	.007	1	-.007	1
169		5	max	16.747	1	-.012	1	0	1	0	4	0	1	0	1
170			min	8.181	3	-.012	1	0	1	-.002	3	0	1	0	1
171	M21	1	max	4.787	1	.012	1	0	1	0	4	0	1	0	1
172			min	.484	3	.012	1	0	1	-.003	3	0	1	0	1
173		2	max	4.781	1	.006	1	0	1	0	4	.007	1	-.007	1
174			min	.478	3	.006	1	0	1	-.003	3	.007	1	-.007	1
175		3	max	4.775	1	0	1	0	1	0	4	.009	1	-.009	1
176			min	.473	3	0	1	0	1	-.003	3	.009	1	-.009	1
177		4	max	4.769	1	-.006	1	0	1	0	4	.007	1	-.007	1
178			min	.467	3	-.006	1	0	1	-.003	3	.007	1	-.007	1
179		5	max	4.763	1	-.012	1	0	1	0	4	0	1	0	1
180			min	.461	3	-.012	1	0	1	-.003	3	0	1	0	1
181	M22	1	max	8.624	3	.012	1	0	1	0	1	0	1	0	1
182			min	4.282	4	.012	1	0	1	-.002	3	0	1	0	1
183		2	max	8.618	3	.006	1	0	1	0	1	.007	1	-.007	1
184			min	4.276	4	.006	1	0	1	-.002	3	.007	1	-.007	1
185		3	max	8.612	3	0	1	0	1	0	1	.009	1	-.009	1
186			min	4.27	4	0	1	0	1	-.002	3	.009	1	-.009	1
187		4	max	8.606	3	-.006	1	0	1	0	1	.007	1	-.007	1
188			min	4.264	4	-.006	1	0	1	-.002	3	.007	1	-.007	1
189		5	max	8.6	3	-.012	1	0	1	0	1	0	1	0	1
190			min	4.258	4	-.012	1	0	1	-.002	3	0	1	0	1
191	M23	1	max	18.242	3	.012	1	0	1	0	1	0	1	0	1
192			min	9.284	4	.012	1	0	1	0	3	0	1	0	1
193		2	max	18.236	3	.006	1	0	1	0	1	.007	1	-.007	1
194			min	9.278	4	.006	1	0	1	0	3	.007	1	-.007	1
195		3	max	18.23	3	0	1	0	1	0	1	.009	1	-.009	1
196			min	9.272	4	0	1	0	1	0	3	.009	1	-.009	1
197		4	max	18.224	3	-.006	1	0	1	0	1	.007	1	-.007	1
198			min	9.266	4	-.006	1	0	1	0	3	.007	1	-.007	1
199		5	max	18.218	3	-.012	1	0	1	0	1	0	1	0	1

**Envelope Member Section Forces (Continued)**

Member	Sec		Axial[k]	lc	y Shear[k]	lc	z Shear[k]	lc	Torque[k-ft]	lc	y-y Momen...	lc	z-z Momen...	lc
200		min	9.261	4	-.012	1	0	1	0	3	0	1	0	1
201	M26	1 max	5.353	1	4.958	3	-.002	3	0	1	108.668	4	105.45	3
202		min	5.353	1	-.001	1	-5.085	4	0	1	.047	3	-.026	1
203		2 max	4.015	1	3.235	3	-.001	3	0	1	56.315	4	54.468	3
204		min	4.015	3	0	1	-3.335	4	0	1	.027	3	-.015	1
205		3 max	2.677	1	2.211	3	-.001	3	0	1	23.232	4	22.388	3
206		min	2.677	4	0	1	-2.281	4	0	1	.012	3	-.007	1
207		4 max	1.338	1	1.131	3	0	3	0	1	4.22	4	3.983	3
208		min	1.338	1	0	1	-1.17	4	0	1	.003	3	-.002	1
209		5 max	0	1	.003	3	0	3	0	1	0	1	0	1
210		min	0	1	0	1	-.015	4	0	1	0	1	0	1
211	M27	1 max	4.195	3	0	1	-.157	3	0	1	0	1	0	1
212		min	-3.082	4	0	1	-.372	1	-.002	3	0	1	0	1
213		2 max	4.195	3	0	1	-.062	3	0	1	-.182	3	0	1
214		min	-3.082	4	0	1	-.149	1	-.002	3	-.426	1	0	1
215		3 max	4.195	3	0	1	.075	1	0	1	-.202	3	0	1
216		min	-3.082	4	0	1	.026	3	-.002	3	-.455	1	0	1
217		4 max	4.195	3	0	1	.131	1	0	1	-.126	3	0	1
218		min	-3.082	4	0	1	.06	3	-.002	3	-.275	1	0	1
219		5 max	4.195	3	0	1	.174	1	0	1	0	1	0	1
220		min	-3.082	4	0	1	.08	3	-.002	3	0	1	0	1
221	M28	1 max	-.065	1	0	1	-.055	3	0	4	0	1	0	1
222		min	-3.901	3	0	1	-.099	1	-.001	3	0	1	0	1
223		2 max	-.065	1	0	1	-.038	3	0	4	-.082	3	0	1
224		min	-3.901	3	0	1	-.082	1	-.001	3	-.16	1	0	1
225		3 max	-.065	1	0	1	-.02	3	0	4	-.133	3	0	1
226		min	-3.901	3	0	1	-.065	1	-.001	3	-.29	1	0	1
227		4 max	-.065	1	0	1	.097	1	0	4	-.122	3	0	1
228		min	-3.901	3	0	1	.042	4	-.001	3	-.288	1	0	1
229		5 max	-.065	1	0	1	.258	1	0	4	0	1	0	1
230		min	-3.901	3	0	1	.104	4	-.001	3	0	1	0	1
231	M29	1 max	4.052	3	0	1	-.104	3	.002	3	0	1	0	1
232		min	-.062	1	0	1	-.258	1	0	4	0	1	0	1
233		2 max	4.052	3	0	1	-.042	3	.002	3	-.122	3	0	1
234		min	-.062	1	0	1	-.097	1	0	4	-.288	1	0	1
235		3 max	4.052	3	0	1	.065	1	.002	3	-.133	3	0	1
236		min	-.062	1	0	1	.02	3	0	4	-.29	1	0	1
237		4 max	4.052	3	0	1	.082	1	.002	3	-.082	3	0	1
238		min	-.062	1	0	1	.038	3	0	4	-.16	1	0	1
239		5 max	4.052	3	0	1	.099	1	.002	3	0	1	0	1
240		min	-.062	1	0	1	.055	3	0	4	0	1	0	1
241	M30	1 max	1.421	4	0	1	-.035	1	0	3	0	1	0	1
242		min	-3.184	3	0	1	-.035	1	0	1	0	1	0	1
243		2 max	1.421	4	0	1	-.017	1	0	3	-.046	1	0	1
244		min	-3.184	3	0	1	-.017	1	0	1	-.046	1	0	1
245		3 max	1.421	4	0	1	0	1	0	3	-.061	1	0	1
246		min	-3.184	3	0	1	0	1	0	1	-.061	1	0	1
247		4 max	1.421	4	0	1	.017	1	0	3	-.046	1	0	1
248		min	-3.184	3	0	1	.017	1	0	1	-.046	1	0	1
249		5 max	1.421	4	0	1	.035	1	0	3	0	1	0	1
250		min	-3.184	3	0	1	.035	1	0	1	0	1	0	1
251	M31	1 max	1.706	4	1.578	1	.025	4	.003	4	0	1	0	1
252		min	.018	3	.861	4	-.225	3	0	1	0	1	0	1
253		2 max	1.706	4	.993	1	.025	4	.003	4	.085	4	-2.529	4
254		min	.018	3	.604	4	-.225	3	0	1	-.765	3	-4.476	1
255		3 max	1.706	4	.346	3	.025	4	.003	4	.171	4	-4.087	4
256		min	.018	3	.318	4	-.225	3	0	1	-1.53	3	-6.678	1

**Envelope Member Section Forces (Continued)**

Member	Sec		Axial[k]	lc	y Shear[k]	lc	z Shear[k]	lc	Torque[k-ft]	lc	y-y Momen...	lc	z-z Momen...	lc	
257		4	max	1.842	4	-.974	4	.437	3	.003	4	.166	4	-3.441	4
258			min	-.281	3	-1.49	1	-.049	4	0	1	-1.488	3	-5.201	1
259		5	max	1.842	4	-1.047	4	.437	3	.003	4	0	1	0	1
260			min	-.281	3	-1.564	1	-.049	4	0	1	0	1	0	1
261	M32	1	max	.072	4	1.339	1	.136	4	.002	1	0	1	0	1
262			min	-.662	3	1.073	4	-.295	3	-.002	4	0	1	0	1
263		2	max	.072	4	1.301	1	.136	4	.002	1	.238	4	-1.844	4
264			min	-.662	3	1.035	4	-.295	3	-.002	4	-.515	3	-2.31	1
265		3	max	.072	4	1.264	1	.136	4	.002	1	.476	4	-3.623	4
266			min	-.662	3	.997	4	-.295	3	-.002	4	-1.031	3	-4.555	1
267		4	max	.073	4	-.856	4	.588	3	.002	1	.275	4	-3.058	4
268			min	-.665	3	-1.184	1	-.216	4	-.002	4	-.443	3	-3.715	1
269		5	max	.073	4	-2.415	4	.001	3	.002	1	0	1	0	1
270			min	-.664	3	-2.826	1	-.113	4	-.002	4	0	1	0	1
271	M33	1	max	.107	3	1.601	1	0	3	.016	4	0	1	0	1
272			min	-.103	4	1.362	3	0	1	.008	3	0	1	0	1
273		2	max	.107	3	1.47	1	0	3	.016	4	0	3	-2.961	3
274			min	-.103	4	1.271	3	0	1	.008	3	0	1	-3.45	1
275		3	max	.587	3	.909	1	0	3	.016	4	.002	3	-5.557	4
276			min	-.103	4	-1.056	3	0	1	.008	3	0	1	-6.277	3
277		4	max	.587	3	-1.437	4	0	1	-.003	3	0	3	-3.324	4
278			min	-.103	4	-1.597	3	0	3	-.006	1	0	1	-3.685	3
279		5	max	.587	3	-1.521	4	0	1	-.003	3	0	1	0	1
280			min	-.103	4	-1.681	3	0	3	-.006	1	0	1	0	1
281	M34	1	max	.352	4	2.162	1	0	3	.015	4	0	1	0	1
282			min	-1.364	3	1.56	3	0	1	.006	3	0	1	0	1
283		2	max	.352	4	1.884	1	0	3	.015	4	0	3	-3.355	3
284			min	-1.364	3	1.422	3	0	1	.006	3	0	1	-4.542	1
285		3	max	.352	4	.957	1	0	3	.015	4	.002	3	-6.18	4
286			min	-1.364	3	-1.04	3	0	1	.006	3	0	1	-7.431	1
287		4	max	.352	4	-1.573	4	0	1	-.003	3	0	3	-3.802	4
288			min	-.884	3	-1.851	1	0	3	-.007	1	0	1	-4.765	1
289		5	max	.352	4	-1.816	4	0	1	-.003	3	0	1	0	1
290			min	-.884	3	-2.41	1	0	3	-.007	1	0	1	0	1
291	M32A	1	max	.102	4	14.867	4	.017	3	-.006	3	0	1	0	1
292			min	-1.231	3	.953	3	-.242	4	-.26	4	0	1	0	1
293		2	max	.102	4	14.417	4	.017	3	-.006	3	.116	3	-4.954	3
294			min	-1.231	3	.502	3	-.242	4	-.26	4	-1.65	4	-99.75	4
295		3	max	.228	4	13.966	4	.263	4	.013	3	.233	3	-36.183	1
296			min	-1.231	3	-3.858	3	.006	1	-.26	4	-3.584	4	-196.429	4
297		4	max	1.076	3	-2.571	1	.263	4	.258	4	.085	3	-19.05	1
298			min	.018	1	-14.35	4	-.012	3	.01	1	-1.792	4	-99.294	4
299		5	max	1.076	3	-3.022	1	.263	4	.258	4	0	1	0	1
300			min	.018	1	-14.801	4	-.012	3	.01	1	0	1	0	1
301	M33A	1	max	.046	1	2.651	1	.018	3	.003	1	0	1	0	1
302			min	-1.028	3	-9.385	4	-.241	4	-.245	4	0	1	0	1
303		2	max	.046	1	2.2	1	.018	3	.003	1	.121	3	65.473	4
304			min	-1.028	3	-9.836	4	-.241	4	-.245	4	-1.644	4	-16.525	1
305		3	max	1.262	3	-1.832	1	.262	4	-.004	1	.243	3	134.017	4
306			min	-.809	4	-10.287	4	.007	1	-.245	4	-3.574	4	-56.367	3
307		4	max	1.262	3	9.77	4	.262	4	.244	4	.092	3	65.026	4
308			min	-.809	4	-4.137	3	-.013	3	-.009	3	-1.787	4	-29.718	3
309		5	max	1.262	3	9.32	4	.262	4	.244	4	0	1	0	1
310			min	-.809	4	-4.588	3	-.013	3	-.009	3	0	1	0	1
311	M36	1	max	3.04	4	26.533	4	-.069	1	1.153	1	.285	4	-.019	3
312			min	-.142	3	2.685	3	-2.498	3	-51.88	3	.064	3	-.518	4
313		2	max	3.04	4	26.533	4	-.069	1	1.153	1	.142	4	-3.039	3

**Envelope Member Section Forces (Continued)**

Member	Sec		Axial[k]	lc	y Shear[k]	lc	z Shear[k]	lc	Torque[k-ft]	lc	y-v Momen...	lc	z-z Momen...	lc	
314		min	-1.142	3	2.685	3	-2.498	3	-51.88	3	-2.747	3	-30.367	4	
315	3	max	3.04	4	26.533	4	-.069	1	53.57	3	-.001	4	-6.06	3	
316		min	-1.142	3	2.685	3	-2.498	3	.911	4	-5.558	3	-60.216	4	
317	4	max	.03	1	21.316	4	2.444	3	53.57	3	-.079	1	24.471	4	
318		min	-1.903	4	-2.668	3	-.127	4	.894	4	-2.808	3	-3.011	3	
319	5	max	.03	1	21.316	4	2.444	3	53.57	3	-.059	3	.49	4	
320		min	-1.903	4	-2.668	3	-.127	4	.894	4	-.287	4	-.009	3	
321	M33B	1	max	.9	1	.482	3	.008	4	0	1	-.011	3	1.445	3
322		min	.9	3	.001	4	.004	3	0	1	-.023	4	.004	4	
323	2	max	.9	1	.482	3	.008	4	0	1	-.008	3	1.083	3	
324		min	.9	3	.001	4	.004	3	0	1	-.017	4	.003	4	
325	3	max	.9	1	.482	3	.008	4	0	1	-.005	3	.722	3	
326		min	.9	3	.001	4	.004	3	0	1	-.011	4	.002	4	
327	4	max	.9	1	.482	3	.008	4	0	1	-.003	3	.361	3	
328		min	.9	3	.001	4	.004	3	0	1	-.006	4	.001	4	
329	5	max	.9	1	.482	3	.008	4	0	1	0	3	0	4	
330		min	.9	3	.001	4	.004	3	0	1	0	4	0	3	
331	M34A	1	max	.9	1	.482	3	.007	4	0	1	-.009	3	1.445	3
332		min	.9	3	.002	1	.003	3	0	1	-.022	4	.005	1	
333	2	max	.9	1	.482	3	.007	4	0	1	-.007	3	1.084	3	
334		min	.9	3	.002	1	.003	3	0	1	-.016	4	.004	1	
335	3	max	.9	1	.482	3	.007	4	0	1	-.005	3	.723	3	
336		min	.9	3	.002	1	.003	3	0	1	-.011	4	.003	1	
337	4	max	.9	1	.482	3	.007	4	0	1	-.002	3	.361	3	
338		min	.9	3	.002	1	.003	3	0	1	-.005	4	.001	1	
339	5	max	.9	1	.482	3	.007	4	0	1	0	3	0	1	
340		min	.9	3	.002	1	.003	3	0	1	0	4	0	3	
341	M35	1	max	2.446	4	1.869	1	.224	3	0	1	0	1	0	1
342		min	-1.109	3	1.388	3	0	4	-.006	3	0	1	0	1	
343	2	max	2.446	4	1.704	1	.224	3	0	1	.855	3	-4.977	3	
344		min	-1.109	3	1.223	3	0	4	-.006	3	.004	4	-6.811	1	
345	3	max	2.535	4	-.898	3	0	4	0	1	1.452	3	-8.103	3	
346		min	-1.113	3	-1.306	1	-.19	3	-.006	3	.006	4	-11.216	1	
347	4	max	2.535	4	-1.063	3	0	4	0	1	.726	3	-4.366	3	
348		min	-1.113	3	-1.471	1	-.19	3	-.006	3	.003	4	-5.922	1	
349	5	max	2.535	4	-1.228	3	0	4	0	1	0	1	0	1	
350		min	-1.113	3	-1.636	1	-.19	3	-.006	3	0	1	0	1	
351	M36A	1	max	.026	1	.918	1	.167	4	.006	3	0	1	0	1
352		min	-1.397	4	.749	4	-.006	1	0	1	0	1	0	1	
353	2	max	.026	1	.753	1	.167	4	.006	3	.636	4	-2.539	4	
354		min	-1.397	4	.584	4	-.006	1	0	1	-.024	1	-3.186	1	
355	3	max	.026	1	.588	1	.167	4	.006	3	1.272	4	-4.449	4	
356		min	-1.397	4	.419	4	-.006	1	0	1	-.048	1	-5.743	1	
357	4	max	.276	3	-.658	4	.007	1	.006	3	.749	4	-2.822	4	
358		min	-1.408	4	-.858	1	-.197	4	0	1	-.028	1	-3.586	1	
359	5	max	.276	3	-.823	4	.007	1	.006	3	0	1	0	1	
360		min	-1.408	4	-1.023	1	-.197	4	0	1	0	1	0	1	
361	M37	1	max	1.709	4	1.229	1	-.003	1	.001	3	0	1	0	1
362		min	-.141	3	.665	3	-.223	3	-.003	4	0	1	0	1	
363	2	max	1.709	4	.796	1	-.003	1	.001	3	-.009	1	-1.974	3	
364		min	-.141	3	.48	3	-.223	3	-.003	4	-.761	3	-3.522	1	
365	3	max	1.709	4	.303	4	-.003	1	.001	3	-.019	1	-3.246	3	
366		min	-.141	3	.272	3	-.223	3	-.003	4	-1.522	3	-5.348	1	
367	4	max	1.844	4	-.78	3	.435	3	.001	3	-.018	1	-2.782	3	
368		min	.033	1	-1.208	1	.005	1	-.003	4	-1.48	3	-4.24	1	
369	5	max	1.844	4	-.853	3	.435	3	.001	3	0	1	0	1	
370		min	.033	1	-1.281	1	.005	1	-.003	4	0	1	0	1	

**Envelope Member Section Forces (Continued)**

Member	Sec		Axial[k]	lc	y Shear[k]	lc	z Shear[k]	lc	Torque[k-ft]	lc	y-y Momen...	lc	z-z Momen...	lc	
371	M38	1	max	.658	3	1.138	1	-.003	1	.002	4	0	1	0	1
372			min	.008	1	.887	3	-.279	3	-.002	3	0	1	0	1
373		2	max	.658	3	1.1	1	-.003	1	.002	4	-.006	1	-1.519	3
374			min	.008	1	.849	3	-.279	3	-.002	3	-.488	3	-1.958	1
375		3	max	.658	3	1.062	1	-.003	1	.002	4	-.012	1	-2.972	3
376			min	.008	1	.812	3	-.279	3	-.002	3	-.976	3	-3.85	1
377		4	max	.656	3	-.685	3	.52	3	.002	4	-.037	1	-2.527	3
378			min	.008	1	-.968	1	-.018	1	-.002	3	-.466	3	-3.179	1
379		5	max	.656	3	-2.01	3	.113	4	.002	4	0	1	0	1
380			min	.008	1	-2.453	1	.05	1	-.002	3	0	1	0	1
381	M39	1	max	.069	1	1.606	3	0	1	-.009	3	0	1	0	1
382			min	-.102	4	1.446	4	0	3	-.016	4	0	1	0	1
383		2	max	.069	1	1.558	3	0	1	-.009	3	0	1	-3.199	4
384			min	-.102	4	1.398	4	0	3	-.016	4	-.001	3	-3.56	3
385		3	max	.069	1	1.06	3	0	3	-.009	3	0	1	-5.394	4
386			min	-.445	3	-.901	1	0	1	-.016	4	-.002	3	-6.112	3
387		4	max	.069	1	-1.239	3	0	3	.008	3	0	1	-2.841	3
388			min	-.445	3	-1.399	1	0	1	.006	1	-.001	3	-3.202	1
389		5	max	.069	1	-1.287	3	0	3	.008	3	0	1	0	1
390			min	-.445	3	-1.447	1	0	1	.006	1	0	1	0	1
391	M40	1	max	1.278	3	1.837	1	0	1	-.008	3	0	1	0	1
392			min	-.015	1	1.568	4	0	3	-.015	4	0	1	0	1
393		2	max	1.278	3	1.68	1	0	1	-.008	3	0	1	-3.437	4
394			min	-.015	1	1.486	4	0	3	-.015	4	-.001	3	-3.957	1
395		3	max	1.278	3	1.07	3	0	3	.008	3	0	1	-5.759	4
396			min	-.015	1	.909	4	0	1	-.015	4	-.002	3	-6.553	1
397		4	max	.798	3	-1.32	3	0	3	.008	3	0	1	-3.122	3
398			min	-.015	1	-1.656	1	0	1	.006	1	-.001	3	-4.089	1
399		5	max	.798	3	-1.459	3	0	3	.008	3	0	1	0	1
400			min	-.015	1	-1.993	1	0	1	.006	1	0	1	0	1
401	M41	1	max	.9	1	.479	3	.007	4	0	1	-.016	1	1.437	3
402			min	.9	4	-.001	1	.005	1	0	1	-.022	4	-.004	1
403		2	max	.9	1	.479	3	.007	4	0	1	-.012	1	1.078	3
404			min	.9	4	-.001	1	.005	1	0	1	-.016	4	-.003	1
405		3	max	.9	1	.479	3	.007	4	0	1	-.008	1	.719	3
406			min	.9	4	-.001	1	.005	1	0	1	-.011	4	-.002	1
407		4	max	.9	1	.479	3	.007	4	0	1	-.004	1	.359	3
408			min	.9	4	-.001	1	.005	1	0	1	-.005	4	-.001	1
409		5	max	.9	1	.479	3	.007	4	0	1	0	3	0	1
410			min	.9	4	-.001	1	.005	1	0	1	0	4	0	3
411	M42	1	max	.9	1	.479	3	.007	4	0	1	-.015	1	1.437	3
412			min	.9	1	-.002	4	.005	1	0	1	-.021	4	-.006	4
413		2	max	.9	1	.479	3	.007	4	0	1	-.011	1	1.078	3
414			min	.9	1	-.002	4	.005	1	0	1	-.016	4	-.005	4
415		3	max	.9	1	.479	3	.007	4	0	1	-.007	1	.718	3
416			min	.9	1	-.002	4	.005	1	0	1	-.01	4	-.003	4
417		4	max	.9	1	.479	3	.007	4	0	1	-.004	1	.359	3
418			min	.9	1	-.002	4	.005	1	0	1	-.005	4	-.002	4
419		5	max	.9	1	.479	3	.007	4	0	1	0	1	0	3
420			min	.9	1	-.002	4	.005	1	0	1	0	3	0	4
421	M43	1	max	.008	1	1.229	1	.23	3	.004	4	0	1	0	1
422			min	-.214	4	.695	4	-.006	4	0	3	0	1	0	1
423		2	max	.008	1	.796	1	.23	3	.004	4	.785	3	-2.073	4
424			min	-.214	4	.509	4	-.006	4	0	3	-.021	4	-3.522	1
425		3	max	.008	1	.332	3	.23	3	.004	4	1.569	3	-3.446	4
426			min	-.214	4	.291	1	-.006	4	0	3	-.041	4	-5.348	1
427		4	max	.014	1	-.838	4	.012	4	.004	4	1.527	3	-2.978	4

**Envelope Member Section Forces (Continued)**

Member	Sec		Axial[k]	lc	y Shear[k]	lc	z Shear[k]	lc	Torque[k-ft]	lc	y-y Momen...	lc	z-z Momen...	lc	
428		min	-.365	4	-1.208	1	-.448	3	0	3	-.04	4	-4.24	1	
429	5	max	.014	1	-.911	4	.012	4	.004	4	0	1	0	1	
430		min	-.365	4	-1.281	1	-.448	3	0	3	0	1	0	1	
431	M44	1	max	.018	4	1.138	1	.27	3	0	3	0	1	0	1
432		min	-.68	3	.976	4	-.006	1	-.004	4	0	1	0	1	
433		2	max	.018	4	1.1	1	.27	3	0	3	.473	3	-1.675	4
434		min	-.68	3	.939	4	-.006	1	-.004	4	-.01	1	-1.958	1	
435		3	max	.018	4	1.062	1	.27	3	0	3	.945	3	-3.285	4
436		min	-.68	3	.901	4	-.006	1	-.004	4	-.02	1	-3.85	1	
437		4	max	.018	4	-.754	4	-.003	1	0	3	.403	3	-2.803	4
438		min	-.682	3	-.968	1	-.542	3	-.004	4	-.027	1	-3.179	1	
439		5	max	.018	4	-2.238	4	.03	1	0	3	0	1	0	1
440		min	-.682	3	-2.466	3	-.062	4	-.004	4	0	1	0	1	
441	M45	1	max	.208	4	1.447	4	0	1	-.001	4	0	1	0	1
442		min	.033	1	1.286	3	0	3	-.011	1	0	1	0	1	
443		2	max	.208	4	1.398	4	0	1	-.001	4	0	1	-2.84	3
444		min	.033	1	1.238	3	0	3	-.011	1	-.001	3	-3.201	4	
445		3	max	.545	3	-.9	4	0	1	.004	4	0	4	-5.394	1
446		min	.033	1	-1.06	3	0	3	-.011	1	-.002	3	-6.114	3	
447		4	max	.545	3	-1.399	1	0	3	.006	1	0	4	-3.201	1
448		min	.033	1	-1.559	3	0	1	.003	3	-.001	3	-3.562	3	
449		5	max	.545	3	-1.447	1	0	3	.006	1	0	1	0	1
450		min	.033	1	-1.607	3	0	1	.003	3	0	1	0	1	
451	M46	1	max	.003	1	1.837	1	0	1	0	4	0	1	0	1
452		min	-1.293	3	1.407	3	0	3	-.009	1	0	1	0	1	
453		2	max	.003	1	1.681	1	0	1	0	4	0	1	-3.073	3
454		min	-1.293	3	1.325	3	0	3	-.009	1	-.001	3	-3.957	1	
455		3	max	.003	1	.93	1	0	1	.005	4	0	4	-5.753	4
456		min	-1.293	3	-1.05	3	0	3	-.009	1	-.002	3	-6.553	1	
457		4	max	.003	1	-1.478	4	0	3	.006	1	0	4	-3.477	4
458		min	-.813	3	-1.656	1	0	1	.003	3	-.001	3	-4.088	1	
459		5	max	.003	1	-1.617	4	0	3	.006	1	0	1	0	1
460		min	-.813	3	-1.992	1	0	1	.003	3	0	1	0	1	
461	M47	1	max	.9	1	.481	3	-.002	4	0	1	.016	1	1.443	3
462		min	.9	3	0	4	-.005	1	0	1	.005	4	.002	4	
463		2	max	.9	1	.481	3	-.002	4	0	1	.012	1	1.082	3
464		min	.9	3	0	4	-.005	1	0	1	.004	4	.001	4	
465		3	max	.9	1	.481	3	-.002	4	0	1	.008	1	.722	3
466		min	.9	3	0	4	-.005	1	0	1	.003	4	0	4	
467		4	max	.9	1	.481	3	-.002	4	0	1	.004	1	.361	3
468		min	.9	3	0	4	-.005	1	0	1	.001	4	0	4	
469		5	max	.9	1	.481	3	-.002	4	0	1	0	1	0	4
470		min	.9	3	0	4	-.005	1	0	1	0	4	0	3	
471	M48	1	max	.9	4	.481	3	-.002	4	0	1	.015	1	1.444	3
472		min	.9	1	0	4	-.005	1	0	1	.005	4	.001	4	
473		2	max	.9	4	.481	3	-.002	4	0	1	.012	1	1.083	3
474		min	.9	1	0	4	-.005	1	0	1	.003	4	0	4	
475		3	max	.9	4	.481	3	-.002	4	0	1	.008	1	.722	3
476		min	.9	1	0	4	-.005	1	0	1	.002	4	0	4	
477		4	max	.9	4	.481	3	-.002	4	0	1	.004	1	.361	3
478		min	.9	1	0	4	-.005	1	0	1	.001	4	0	4	
479		5	max	.9	4	.481	3	-.002	4	0	1	0	1	0	3
480		min	.9	1	0	4	-.005	1	0	1	0	4	0	4	

**Envelope LRFD 3rd Steel Code Checks**

	Member	Shape	Code C...	Loc[ft]	lc	Shear ...	Loc[ft]	Dir	lc	phi*Pnc [k]	phi*Pnt [k]	phi*Mn y-...	phi*Mn z-...	Cb	LRFD E...
1	M1	W12X65	.784	0	1	.000	0	y	1	304.383	618.84	117.45	218.079	1	H1-1a
2	M2	W12X65	.779	0	1	.000	0	y	1	304.383	618.84	117.45	218.079	1	H1-1a
3	M3	W12X65	.776	0	1	.000	0	y	1	304.383	618.84	117.45	218.079	1	H1-1a
4	M4	W12X65	.759	0	1	.000	0	y	1	304.383	618.84	117.45	218.079	1	H1-1a
5	M7	HSS6X6X4	.593	1.979	1	.106	0	z	4	202.838	216.297	38.625	38.625	1...	HSS 7...
6	M8	HSS6X6X4	.719	1.979	3	.114	0	z	3	202.838	216.297	38.625	38.625	1	HSS 7...
7	M9	HSS6X6X4	.499	1.979	1	.103	0	z	1	202.838	216.297	38.625	38.625	1...	HSS 7...
8	M10	HSS6X6X4	.610	2.031	3	.112	0	z	3	202.838	216.297	38.625	38.625	1	HSS 7...
9	M11	W16X36	.412	15.313	4	.082	19.688	y	4	141.801	477	39.46	136.286	1	H1-1b
10	M12	W16X36	.546	15.313	3	.084	19.688	y	4	141.801	477	39.46	136.286	1	H1-1b
11	M13	W16X36	.297	3.122	3	.038	2.839	y	3	193.989	477	39.46	87.088	1...	H1-1b
12	M14	W16X36	.261	5.109	3	.029	24.411	y	3	193.989	477	39.46	173.174	1	H1-1b
13	M16	L4X4X4	.200	0	1	.008	0	y	3	44.424	62.856	- Code ch...			
14	M17	L4X4X4	.388	0	4	.006	0	y	3	44.424	62.856	- Code ch...			
15	M18	L4X4X4	.416	0	3	.004	0	y	3	44.424	62.856	- Code ch...			
16	M19	L4X4X4	.290	0	3	.006	0	y	3	44.424	62.856	- Code ch...			
17	M20	L4X4X4	.378	0	1	.006	0	y	3	44.424	62.856	- Code ch...			
18	M21	L4X4X4	.108	0	1	.008	0	y	3	44.424	62.856	- Code ch...			
19	M22	L4X4X4	.194	0	3	.005	0	y	3	44.424	62.856	- Code ch...			
20	M23	L4X4X4	.411	0	3	.003	0	y	3	44.424	62.856	- Code ch...			
21	M26	HSS20X0.5	.182	0	4	.014	0		4	725.237	1179.9	610.65	610.65	2...	HSS 7...
22	M27	C6X8.2	.302	2.652	3	.015	0	z	1	20.536	77.76	1.992	10.629	1	H1-1a
23	M28	C6X8.2	.172	4.493	1	.010	7.071	z	1	20.536	77.76	1.992	10.629	1	H1-1b
24	M29	C6X8.2	.172	2.652	3	.012	0	z	1	20.536	77.76	1.992	10.629	1	H1-1b
25	M30	C6X8.2	.065	3.536	4	.004	7.071	z	3	20.536	77.76	1.992	10.629	1	H1-1b
26	M31	W8X18	.216	8.941	3	.032	0	y	1	63.612	236.7	17.079	49.507	1...	H1-1b
27	M32	W8X18	.154	4.01	3	.058	7	y	1	127.33	236.7	17.079	53.091	1	H1-1b
28	M33	W8X18	.101	4.5	3	.044	0	y	4	127.33	236.7	17.079	63.75	1...	H1-1b
29	M34	W8X18	.117	4.5	1	.054	9	y	1	127.33	236.7	17.079	63.75	1...	H1-1b
30	M32A	W18X55	.657	13.625	4	.122	0	y	4	341	729	67.082	325.395	1	H1-1b
31	M33A	W18X55	.792	13.625	4	.095	13.625	y	4	341	729	67.082	181.552	1...	H1-1b
32	M35	W16X36	.084	6.99	3	.015	0	y	1	156.092	477	39.46	194.389	1...	H1-1b
33	M36A	W16X36	.061	8.26	4	.009	15.25	y	3	156.092	477	39.46	189.859	1...	H1-1b
34	M37	W8X18	.192	8.941	3	.026	13.625	y	1	63.612	236.7	17.079	49.686	1...	H1-1b
35	M38	W8X18	.131	4.01	3	.050	7	y	1	127.33	236.7	17.079	53.091	1	H1-1b
36	M39	W8X18	.097	4.5	3	.042	0	y	4	127.33	236.7	17.079	63.75	1...	H1-1b
37	M40	W8X18	.107	4.5	3	.045	9	y	1	127.33	236.7	17.079	63.75	1...	H1-1b
38	M43	W8X18	.205	8.941	3	.026	13.625	y	1	63.612	236.7	17.079	50.307	1...	H1-1b
39	M44	W8X18	.141	4.01	3	.050	7	y	1	127.33	236.7	17.079	53.091	1	H1-1b
40	M45	W8X18	.098	4.5	3	.038	0	y	1	127.33	236.7	17.079	63.75	1...	H1-1b
41	M46	W8X18	.104	4.5	3	.045	9	y	1	127.33	236.7	17.079	63.75	1...	H1-1b