

**STRUCTURAL ENGINEERING CALCULATIONS**

**FOR**

**FIVE FOUR  
OLDHAM VILLAGE – LOT 4  
301 SW OLDHAM PARKWAY  
LEE'S SUMMIT, MO**

**PREPARED BY**

**CHRISTOPHER W. BOOS, P.E.**

**OF**

**BOB D. CAMPBELL & COMPANY, INC.  
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4338 BELLEVIEW  
KANSAS CITY, MISSOURI 64111  
(816) 531-4144**

**FOR**

**SHAW HOFSTRA + ASSOCIATES  
1800 CENTRAL STREET, SUITE 203  
KANSAS CITY, MO 64108  
(816) 421-0505**



<b>Project:</b>	Five Four
<b>Project No.:</b>	KRM2502
<b>Location:</b>	Lee's Summit, MO
<b>By:</b>	CWB
<b>Date:</b>	10/15/2025

## Structural Design Criteria

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### Building Code:

International Building Code (IBC 2018)

Concrete: ACI 318-14  
 Steel: AISC 360-16  
 Wood: NDS 2018  
 Connections: ASCE 7-16  
 ANSI as approved in 2016

### Basic Load Combinations (ASCE7)

#### Allowable Stress Design (ASD)

- 1.) D
- 2.) D + L
- 3.) D + (Lr or S or R)
- 4.) D + 0.75L + 0.75(Lr or S or R)
- 5.) D + (0.6W or 0.7E)
- 6a.) D + 0.75L + 0.75(0.6W) + 0.75(Lr or S or R)
- 6b.) D + 0.75L + 0.75(0.7E) + 0.75S
- 7.) 0.6D + 0.6W
- 8.) 0.6D + 0.7E

#### Strength Design (LRFD)

- 1.) 1.4D
- 2.) 1.2D + 1.6L + 0.5(Lr or S or R)
- 3.) 1.2D + 1.6(Lr or S or R) + (L or 0.5W)
- 4.) 1.2D + 1.0W + L + 0.5(Lr or S or R)
- 5.) 1.2D + 1.0E + L + 0.2S
- 6.) 0.9D + 1.0W
- 7.) 0.9D + 1.0E

### Structural Design Loads

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#### Live Loads:

Roof 25 psf

### Geotechnical Report

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Report # 24-5632  
 By: Cook, Flatt & Strobel Engineers  
 Description: 2,000 psf allowable soil bearing

### Materials

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**Steel:** Beams & Columns: ASTM A992, Grade 50  
 Miscellaneous steel: ASTM A36  
 Tubes & Pipes: ASTM A500, Grade B

**Concrete:** 3500 psi (footings, grade beams)  
 4000 psi (interior flatwork)  
 4500 psi w/ 6% +/- 1% air entrainment (exterior flatwork)

**Reinf. Steel:** ASTM A615 or A706 Grade 60 steel

**Wood:** Joists, beams, & trusses No. 2 DF-L or SP  
 LVL Members Fb=2,600psf, E=1,900ksi  
 PSL Members Fb=2,900psf, E=2,000ksi

- A. The soils investigation was prepared by Cook, Flatt & Strobel Engineers. The report number is 24-5632 and the telephone number is (913) 627-9040.
- B. Footings are designed to bear on undisturbed soil or select engineered fill capable of safely supporting 2,000psf.

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## Main Wind Force Resisting Systems Wind Loads

International Building Code 2018 / ASCE7-21

Spreadsheet password = bdc

ASCE 7-16:

### Chapter 26 - General Requirements

Occupancy Risk Category  
Basic Wind Speed, V  
Wind Directionality Factor, Kd  
Exposure Category  
Topographic Factor, Kzt  
Gust Effect Factor, G  
Enclosure Classification  
Internal Pressure Coefficient, Gcpi (Case 1)  
Internal Pressure Coefficient, Gcpi (Case 2)

II
109 mph
0.85
C
1.00
0.85
Enclosed
0.18
-0.18

Table 1.5-2  
Figure 26.5-1A, B, C  
Table 26.6-1  
Section 26.7.3  
Section 26.8.2  
Section 26.11.1  
Section 26.12  
Table 26.13-1  
Table 26.13-1

### Chapter 27 - Wind Loads on Buildings - MWFRS (Directional Procedure)

#### Windward Wall - Case 1 (Positive Internal Pressure)

z (ft)	Kz p. 205	Velocity Pressure, qz qz = 0.00256KzKztKdV <sup>2</sup>	Cp p. 207	Design Wind Pressure p = qGCp - qi(Gcpi)
0-15	0.85	21.98	0.8	11.87 psf
16-20	0.90	23.27	0.8	12.75 psf
21-25	0.94	24.30	0.8	13.45 psf
26-30	0.98	25.34	0.8	14.16 psf
31-40	1.04	26.89	0.8	15.21 psf
41-50	1.09	28.18	0.8	16.09 psf
51-60	1.13	29.21	0.8	16.79 psf
61-70	1.17	30.25	0.8	17.50 psf
71-80	1.21	31.28	0.8	18.20 psf
81-90	1.24	32.06	0.8	18.73 psf
91-100	1.26	32.57	0.8	19.08 psf

#### Design Wind Pressure Windward + Leeward

22.19 psf  
23.07 psf  
23.78 psf  
24.48 psf  
25.54 psf  
26.41 psf  
27.12 psf  
27.82 psf  
28.52 psf  
29.05 psf  
29.40 psf

#### Leeward Wall - Case 1 (Positive Internal Pressure)

Mean Roof Height h (ft)	Kz p. 205	Velocity Pressure, qz qz = 0.00256KzKztKdV <sup>2</sup>	Cp p. 264	Design Wind Pressure p = qGCp - qi(Gcpi)
30	0.66	17.06	-0.5	-10.32 psf

#### Side Wall - Case 1 (Positive Internal Pressure)

Mean Roof Height h (ft)	Kz p. 205	Velocity Pressure, qz qz = 0.00256KzKztKdV <sup>2</sup>	Cp p. 264	Design Wind Pressure p = qGCp - qi(Gcpi)
30	0.66	17.06	-0.7	-13.22 psf

#### Windward Wall - Case 2 (Negative Internal Pressure)

z (ft)	Kz p. 205	Velocity Pressure, qz qz = 0.00256KzKztKdV <sup>2</sup>	Cp p. 207	Design Wind Pressure p = qGCp - qi(Gcpi)
0-15	0.85	21.98	0.8	18.01 psf
16-20	0.90	23.27	0.8	18.89 psf
21-25	0.94	24.30	0.8	19.60 psf
26-30	0.98	25.34	0.8	20.30 psf
31-40	1.04	26.89	0.8	21.35 psf
41-50	1.09	28.18	0.8	22.23 psf
51-60	1.13	29.21	0.8	22.94 psf
61-70	1.17	30.25	0.8	23.64 psf
71-80	1.21	31.28	0.8	24.34 psf
81-90	1.24	32.06	0.8	24.87 psf
91-100	1.26	32.57	0.8	25.22 psf

#### Design Wind Pressure Windward + Leeward

22.19 psf  
23.07 psf  
23.78 psf  
24.48 psf  
25.54 psf  
26.41 psf  
27.12 psf  
27.82 psf  
28.52 psf  
29.05 psf  
29.40 psf

#### Leeward Wall - Case 2 (Negative Internal Pressure)

Mean Roof Height h (ft)	Kz p. 205	Velocity Pressure, qz qz = 0.00256KzKztKdV <sup>2</sup>	Cp p. 264	Design Wind Pressure p = qGCp - qi(Gcpi)
30	0.66	17.06	-0.5	-4.18 psf

#### Side Wall - Case 1 (Negative Internal Pressure)

Mean Roof Height h (ft)	Kz p. 205	Velocity Pressure, qz qz = 0.00256KzKztKdV <sup>2</sup>	Cp p. 264	Design Wind Pressure p = qGCp - qi(Gcpi)
30	0.66	17.06	-0.7	-7.08 psf

<b>Project:</b>	54th Street
<b>Project No.:</b>	KRM2102
<b>Location:</b>	
<b>By:</b>	CWB
<b>Date:</b>	10/15/2025

## Components & Cladding Wind Loads (h<60ft)

International Building Code 2018 / ASCE7-16

Basic Wind Speed, V	109	mph
Internal Pressure Coefficient, GCpi (+/-)	0.18	
Mean Roof Height, h	26	ft
Exposure Category	C	
Topographic Factor, Kzt	1.00	
Wind Directionality Factor, Kd	0.85	
Velocity Pressure Coefficient, Kz	1.04	
Length, L	130	ft
Depth, B	110	ft
"a"	10.4	ft

Kz	Exposure	
	B	C
h (ft)		
15	0.7	0.85
20	0.7	0.9
25	0.7	0.94
30	0.7	0.98
40	0.76	1.04
50	0.81	1.09
60	0.85	1.13
70	0.89	1.17
80	0.93	1.21
90	0.96	1.24
100	0.99	1.26

qz (psf)	26.9	Components and Cladding Low Slope (Roof Angle <math>\leq 3</math> degrees)											
		GCp											
		Zone 1		Zone 1'		Zone 2		Zone 3		Zone 4		Zone 5	
EWA (SF)	10	-1.70	0.30	-0.90	0.30	-2.30	0.30	-3.20	0.30	-0.99	0.90	-1.26	0.90
	20	-1.60	0.25	-0.90	0.25	-2.15	0.25	-2.90	0.25	-0.95	0.86	-1.17	0.86
	50	-1.40	0.22	-0.90	0.22	-1.95	0.22	-2.45	0.22	-0.89	0.78	-1.04	0.78
	100	-1.30	0.20	-0.90	0.20	-1.80	0.20	-2.15	0.20	-0.81	0.74	-0.95	0.74
	200	-1.20	0.20	-0.75	0.20	-1.60	0.20	-1.80	0.20	-0.79	0.70	-0.86	0.70
	500	-1.00	0.20	-0.55	0.20	-1.40	0.20	-1.40	0.20	-0.72	0.63	-0.72	0.63
	1000	-1.00	0.20	-0.40	0.20	-1.40	0.20	-1.40	0.20	-0.72	0.63	-0.72	0.63

Wind Load (psf): 1.0W													
		ROOF								WALL			
		Zone 1		Zone 1'		Zone 2		Zone 3		Zone 4		Zone 5	
EWA (SF)	10	-50.5	12.9	-29.0	12.9	-66.7	12.9	-90.9	12.9	-31.5	29.0	-38.7	29.0
	20	-47.9	11.6	-29.0	11.6	-62.6	11.6	-82.8	11.6	-30.2	27.8	-36.3	27.8
	50	-42.5	10.8	-29.0	10.8	-57.3	10.8	-70.7	10.8	-28.8	25.9	-32.7	25.9
	100	-39.8	10.2	-29.0	10.2	-53.2	10.2	-62.6	10.2	-26.6	24.7	-30.2	24.7
	200	-37.1	10.2	-25.0	10.2	-47.9	10.2	-53.2	10.2	-26.1	23.7	-27.8	23.7
	500	-31.7	10.2	-19.6	10.2	-42.5	10.2	-42.5	10.2	-24.2	21.8	-24.2	21.8
	1000	-31.7	10.2	-15.6	10.2	-42.5	10.2	-42.5	10.2	-24.2	21.8	-24.2	21.8

Wind Load (psf): 0.6W													
		ROOF								WALL			
		Zone 1		Zone 1'		Zone 2		Zone 3		Zone 4		Zone 5	
EWA (SF)	10	-30.3	7.7	-17.4	7.7	-40.0	7.7	-54.5	7.7	-18.9	17.4	-23.2	17.4
	20	-28.7	6.9	-17.4	6.9	-37.6	6.9	-49.7	6.9	-18.1	16.7	-21.8	16.7
	50	-25.5	6.5	-17.4	6.5	-34.4	6.5	-42.4	6.5	-17.3	15.5	-19.6	15.5
	100	-23.9	6.1	-17.4	6.1	-31.9	6.1	-37.6	6.1	-16.0	14.8	-18.1	14.8
	200	-22.3	6.1	-15.0	6.1	-28.7	6.1	-31.9	6.1	-15.7	14.2	-16.7	14.2
	500	-19.0	6.1	-11.8	6.1	-25.5	6.1	-25.5	6.1	-14.5	13.1	-14.5	13.1
	1000	-19.0	6.1	-9.4	6.1	-25.5	6.1	-25.5	6.1	-14.5	13.1	-14.5	13.1

<b>Project:</b>	Five Four
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<b>Date:</b>	10/15/2025

## Seismic Loads

International Building Code 2021 / ASCE7-16

Spreadsheet password = bdc

Occupancy Risk Category	II	(ASCE 7-16)
S <sub>s</sub>	10.0 %g	(Table 1.5-1)
S <sub>1</sub>	6.8 %g	(Figure 22-1)
Site Class (per soil report or assume D)	D	(Figure 22-2)
Site Coefficient, F <sub>a</sub>	1.6	(Table 20.3-1)
Site Coefficient, F <sub>v</sub>	2.4	(Table 11.4-1)
Importance Factor, I	1.0	(Table 11.4-2)

### 11.4.3 Site coefficients and adjusted maximum considered earthquake response acceleration parameters

for short periods, S <sub>ms</sub> = F <sub>a</sub> *S <sub>s</sub>	0.160	(Equation 11.4-1)
at 1-second period, S <sub>m1</sub> = F <sub>v</sub> *S <sub>1</sub>	0.1632	(Equation 11.4-2)

### 11.4.4 Design spectral response acceleration parameters

S <sub>ds</sub> = (2/3)*S <sub>ms</sub>	0.107	
S <sub>d1</sub> = (2/3)*S <sub>m1</sub>	0.109	
Seismic Design Category	B	(Tables 11.6-1 and 11.6-2)

### 12.8 Equivalent Lateral Force Procedure

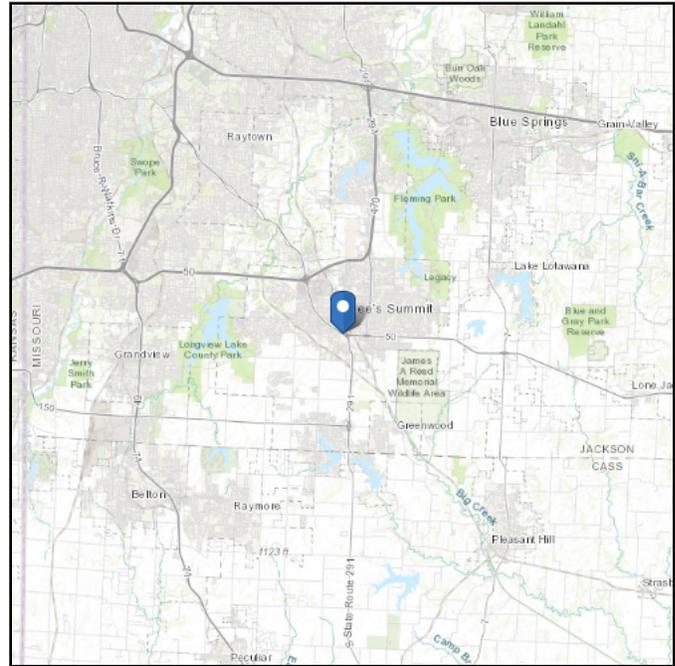
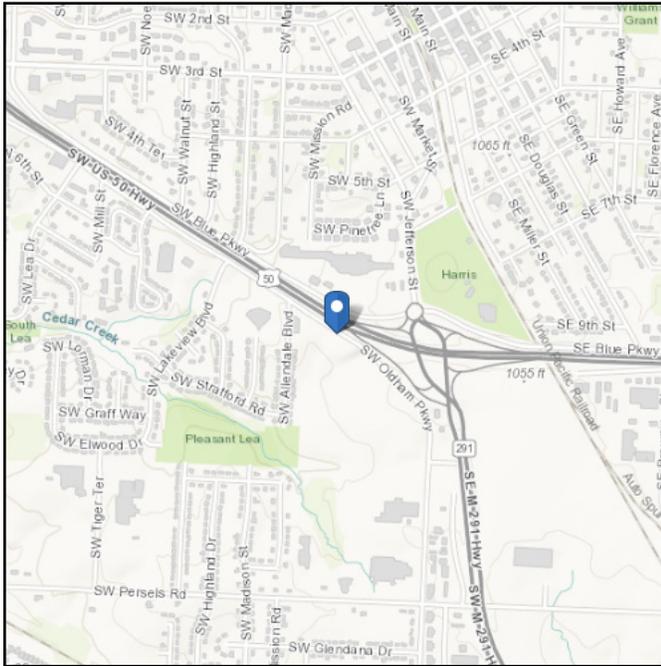
Seismic Force Resisting System:		
Response Modification Factor, R	3.0	(Table 12.2-1)
C <sub>s</sub> = S <sub>ds</sub> /(R/I)	0.036	
Seismic Base Shear, V = C <sub>s</sub> W	<b>0.036 W</b>	(12.8-1)
W = Effective seismic weight per Section 12.7.2		

# ASCE Hazards Report

**Address:**  
301 SW Oldham Pkwy  
Lees Summit, Missouri  
64081

**Standard:** ASCE/SEI 7-16  
**Risk Category:** II  
**Soil Class:** D - Default (see Section 11.4.3)

**Latitude:** 38.903673  
**Longitude:** -94.380517  
**Elevation:** 1032.7673414015724 ft (NAVD 88)



## Wind

### Results:

Wind Speed	109 Vmph
10-year MRI	76 Vmph
25-year MRI	83 Vmph
50-year MRI	88 Vmph
100-year MRI	94 Vmph

Data Source: ASCE/SEI 7-16, Fig. 26.5-1B and Figs. CC.2-1–CC.2-4, and Section 26.5.2

Date Accessed: Mon Oct 06 2025

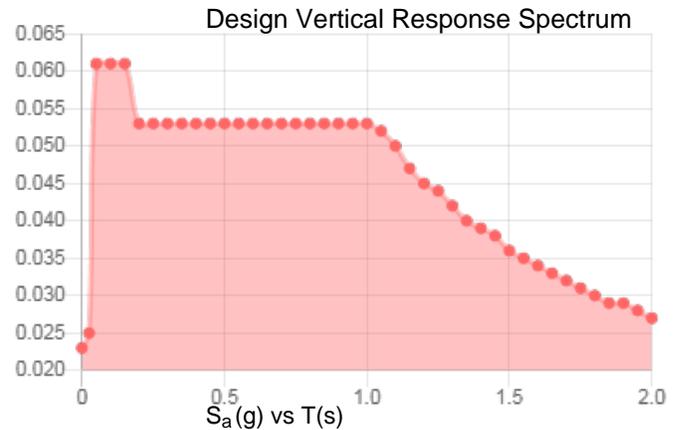
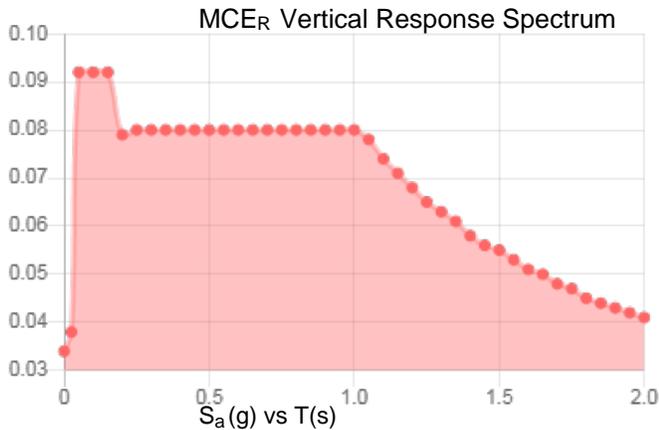
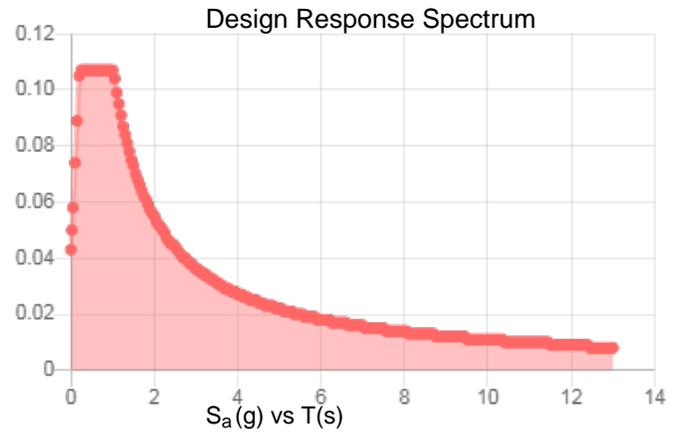
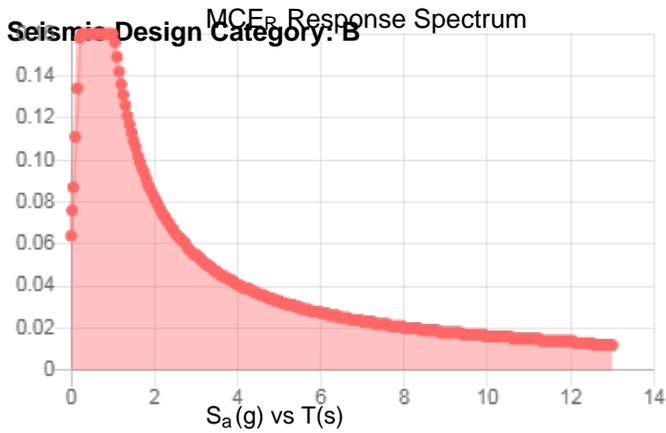
Value provided is 3-second gust wind speeds at 33 ft above ground for Exposure C Category, based on linear interpolation between contours. Wind speeds are interpolated in accordance with the 7-16 Standard. Wind speeds correspond to approximately a 7% probability of exceedance in 50 years (annual exceedance probability = 0.00143, MRI = 700 years).

Site is not in a hurricane-prone region as defined in ASCE/SEI 7-16 Section 26.2.

**Site Soil Class:** D - Default (see Section 11.4.3)

**Results:**

$S_s$ :	0.1	$S_{D1}$ :	0.109
$S_1$ :	0.068	$T_L$ :	12
$F_a$ :	1.6	PGA :	0.047
$F_v$ :	2.4	PGA <sub>M</sub> :	0.076
$S_{MS}$ :	0.16	$F_{PGA}$ :	1.6
$S_{M1}$ :	0.164	$I_e$ :	1
$S_{DS}$ :	0.107	$C_v$ :	0.7



**Data Accessed:** Mon Oct 06 2025

**Date Source:**

**USGS Seismic Design Maps based on ASCE/SEI 7-16 and ASCE/SEI 7-16 Table 1.5-2. Additional data for site-specific ground motion procedures in accordance with ASCE/SEI 7-16 Ch. 21 are available from USGS.**

## Snow

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**Results:**

Ground Snow Load,  $p_g$  : 20 lb/ft<sup>2</sup>  
Mapped Elevation: 1032.8 ft  
Data Source: ASCE/SEI 7-16, Table 7.2-8  
Date Accessed: Mon Oct 06 2025

Values provided are ground snow loads. In areas designated "case study required," extreme local variations in ground snow loads preclude mapping at this scale. Site-specific case studies are required to establish ground snow loads at elevations not covered.

Snow load values are mapped to a 0.5 mile resolution. This resolution can create a mismatch between the mapped elevation and the site-specific elevation in topographically complex areas. Engineers should consult the local authority having jurisdiction in locations where the reported 'elevation' and 'mapped elevation' differ significantly from each other.

## Rain

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**Results:**

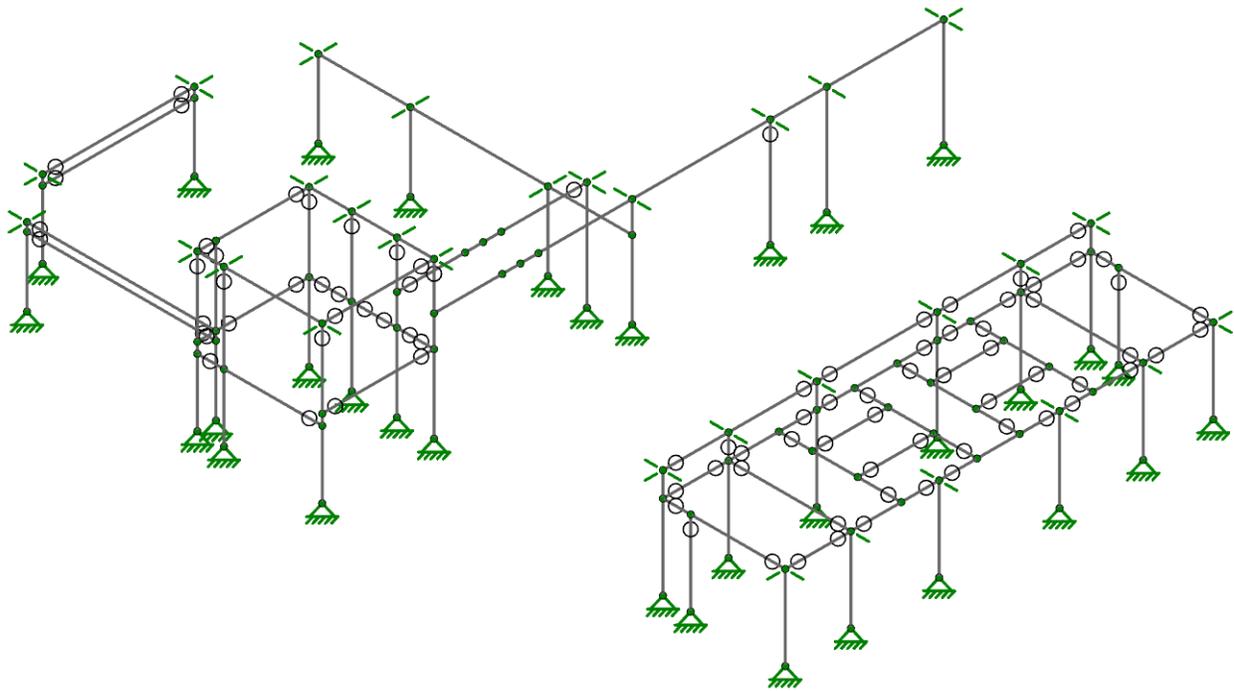
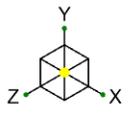
15-minute Precipitation Intensity: 7.49 in./h  
60-minute Precipitation Intensity: 3.51 in./h

**Data Source:** NOAA National Weather Service, Precipitation Frequency Data Server, Atlas 14 (<https://www.nws.noaa.gov/oh/hdsc/>)  
**Date Accessed:** Mon Oct 06 2025

The ASCE Hazard Tool is provided for your convenience, for informational purposes only, and is provided “as is” and without warranties of any kind. The location data included herein has been obtained from information developed, produced, and maintained by third party providers; or has been extrapolated from maps incorporated in the ASCE standard. While ASCE has made every effort to use data obtained from reliable sources or methodologies, ASCE does not make any representations or warranties as to the accuracy, completeness, reliability, currency, or quality of any data provided herein. Any third-party links provided by this Tool should not be construed as an endorsement, affiliation, relationship, or sponsorship of such third-party content by or from ASCE.

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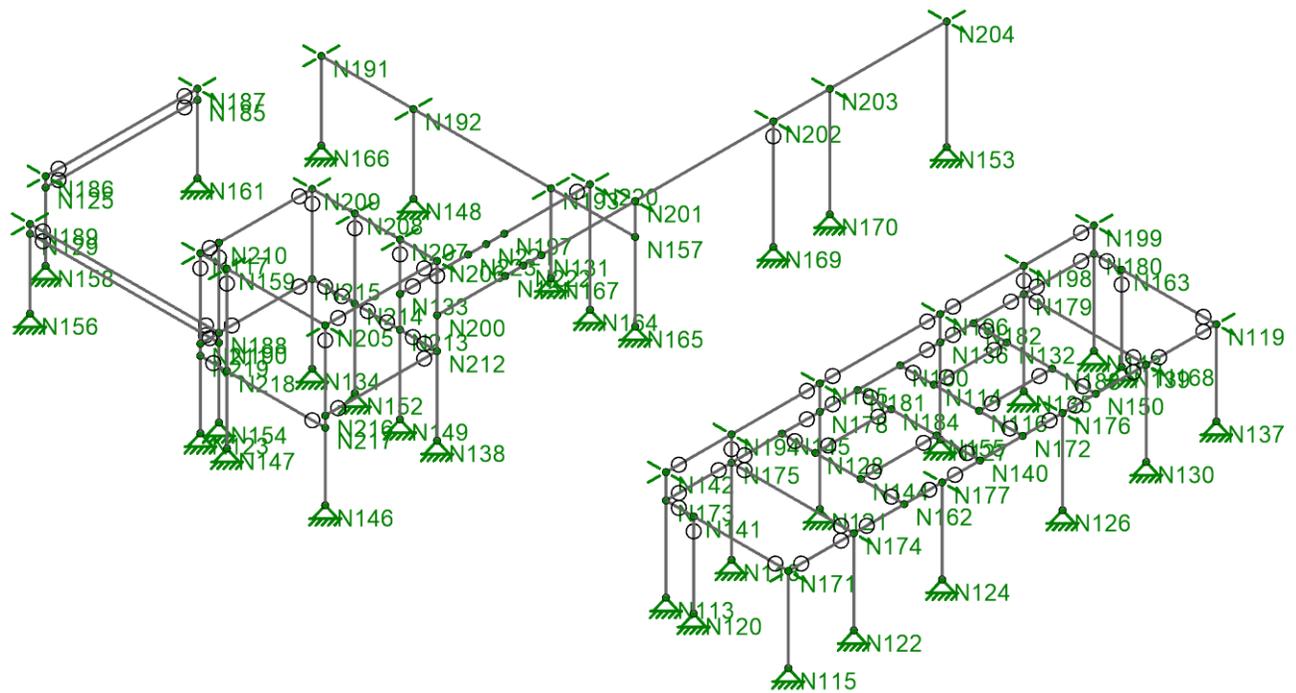
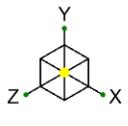


Envelope Only Solution



BDC  
EJS  
KRM2301

SK-1  
Oct 15, 2025 at 01:16 PM  
Roof Steel.r3d

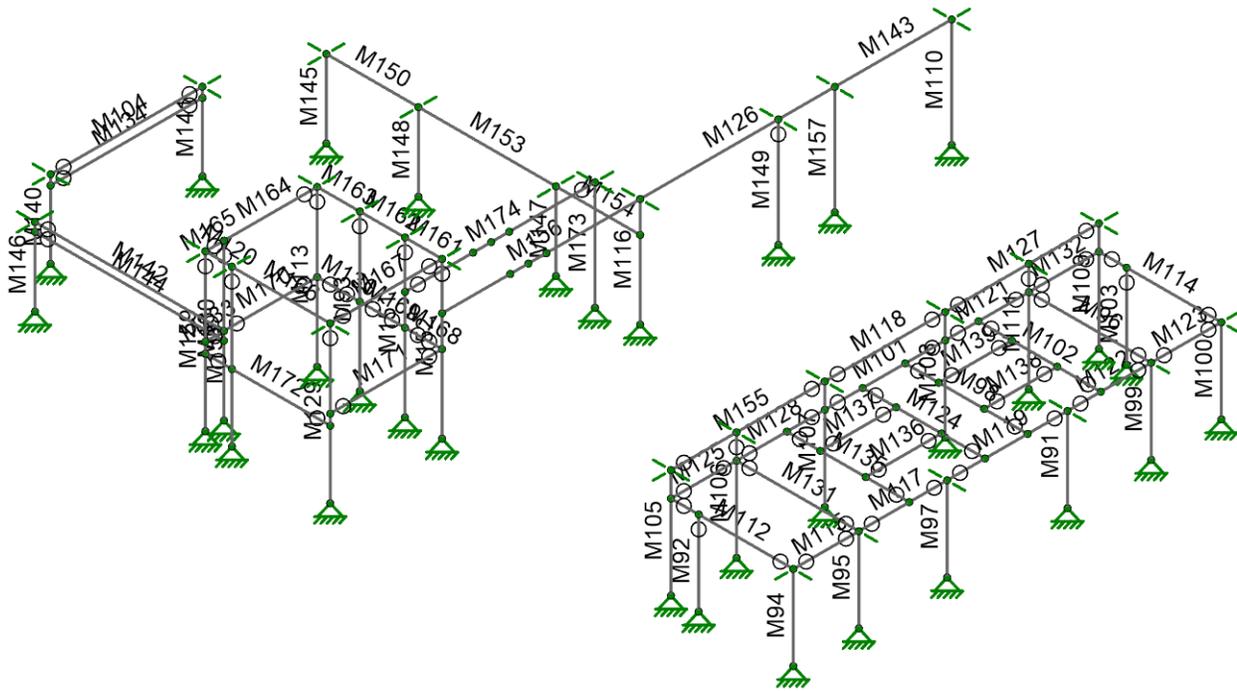
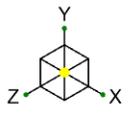


Envelope Only Solution



BDC  
EJS  
KRM2301

SK-2  
Oct 15, 2025 at 01:17 PM  
Roof Steel.r3d

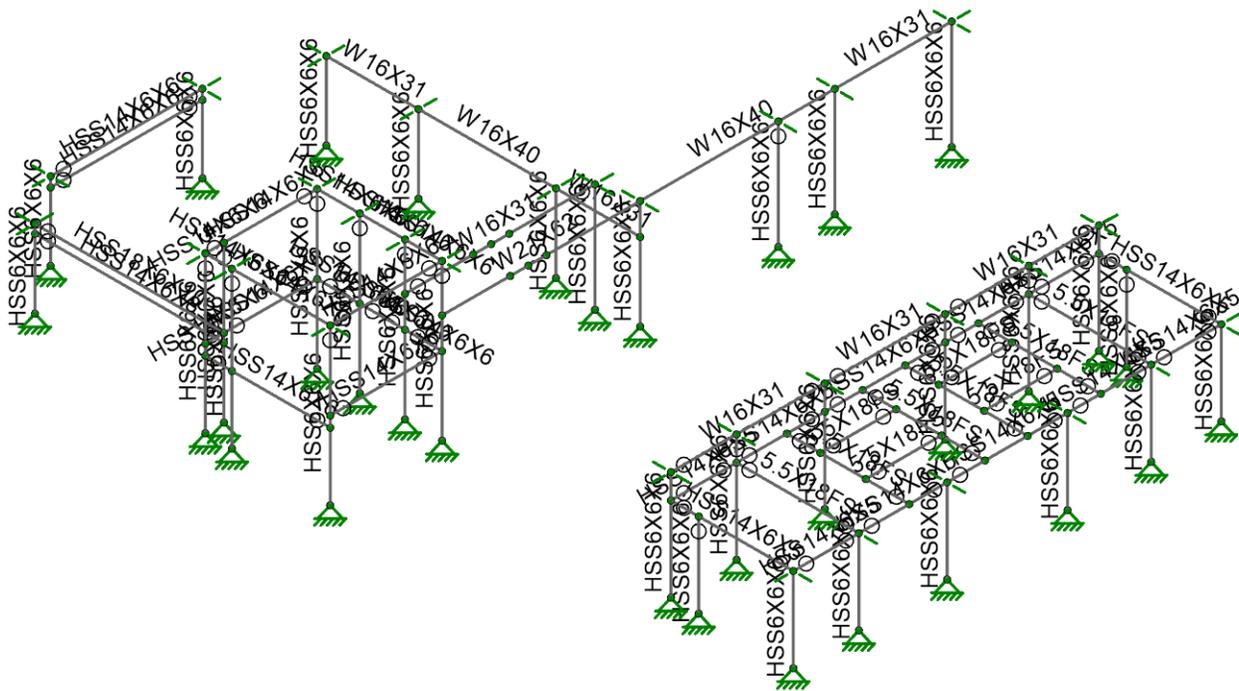
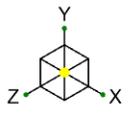


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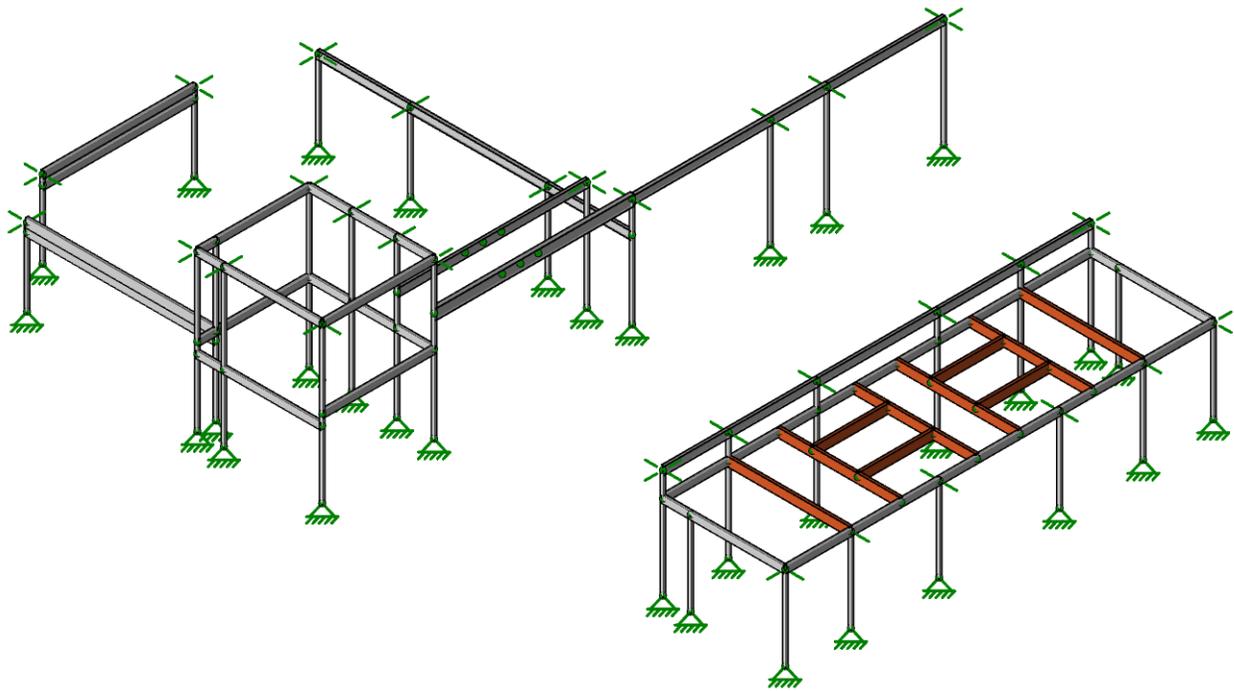
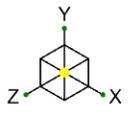


BDC  
EJS  
KRM2301

SK-3  
Oct 15, 2025 at 01:18 PM  
Roof Steel.r3d







Envelope Only Solution

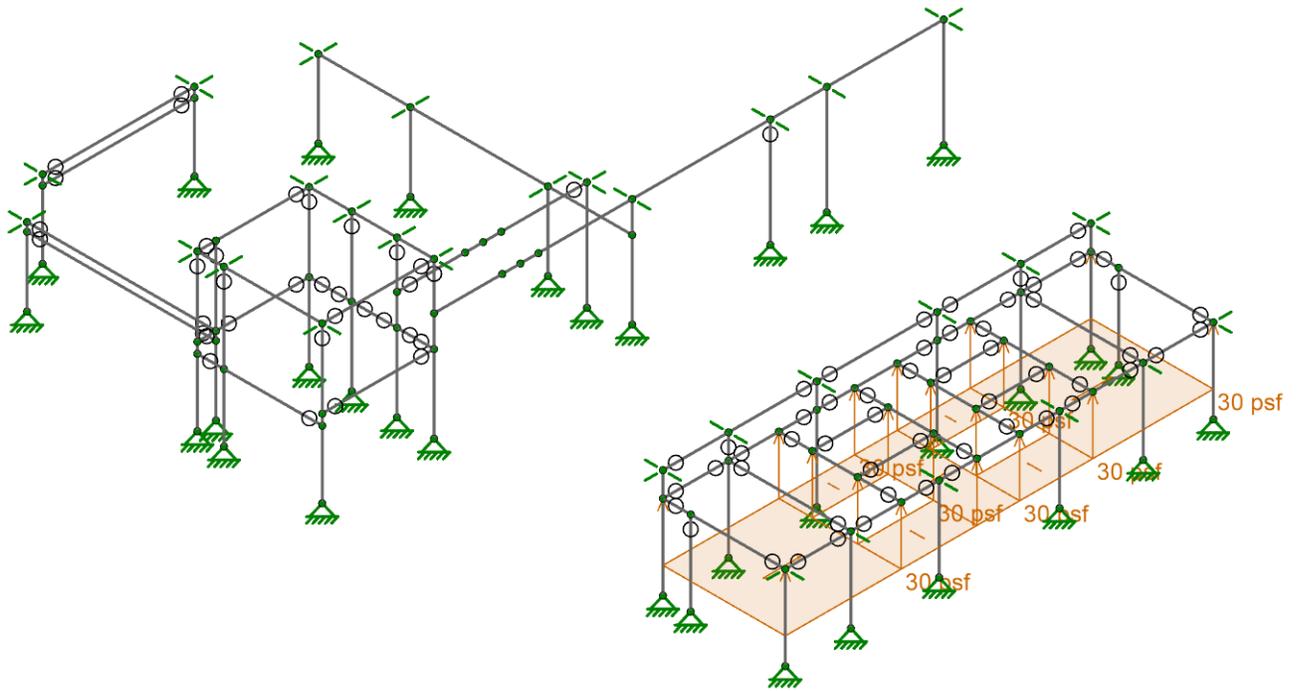
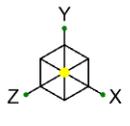


BDC  
EJS  
KRM2301

SK-6  
Oct 15, 2025 at 01:19 PM  
Roof Steel.r3d





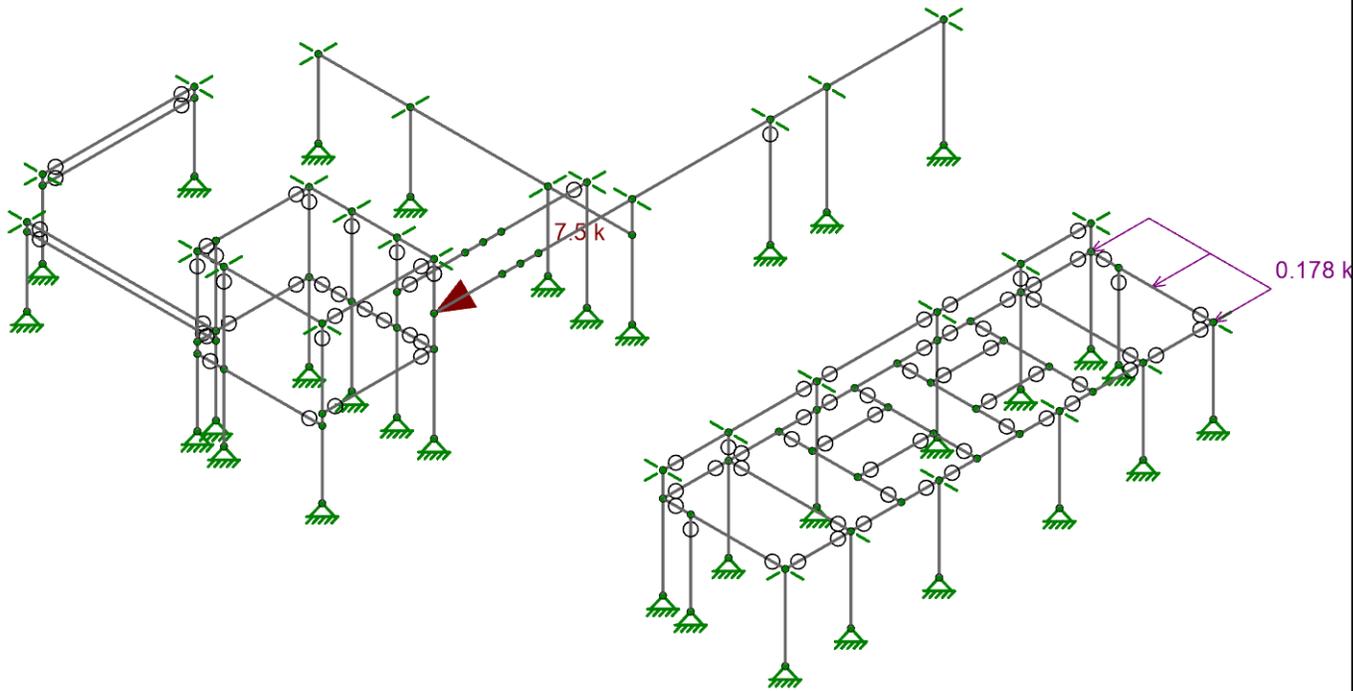
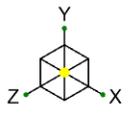


Loads: BLC 3, WL (uplift)  
Envelope Only Solution



BDC  
EJS  
KRM2301

SK-9  
Oct 15, 2025 at 01:21 PM  
Roof Steel.r3d

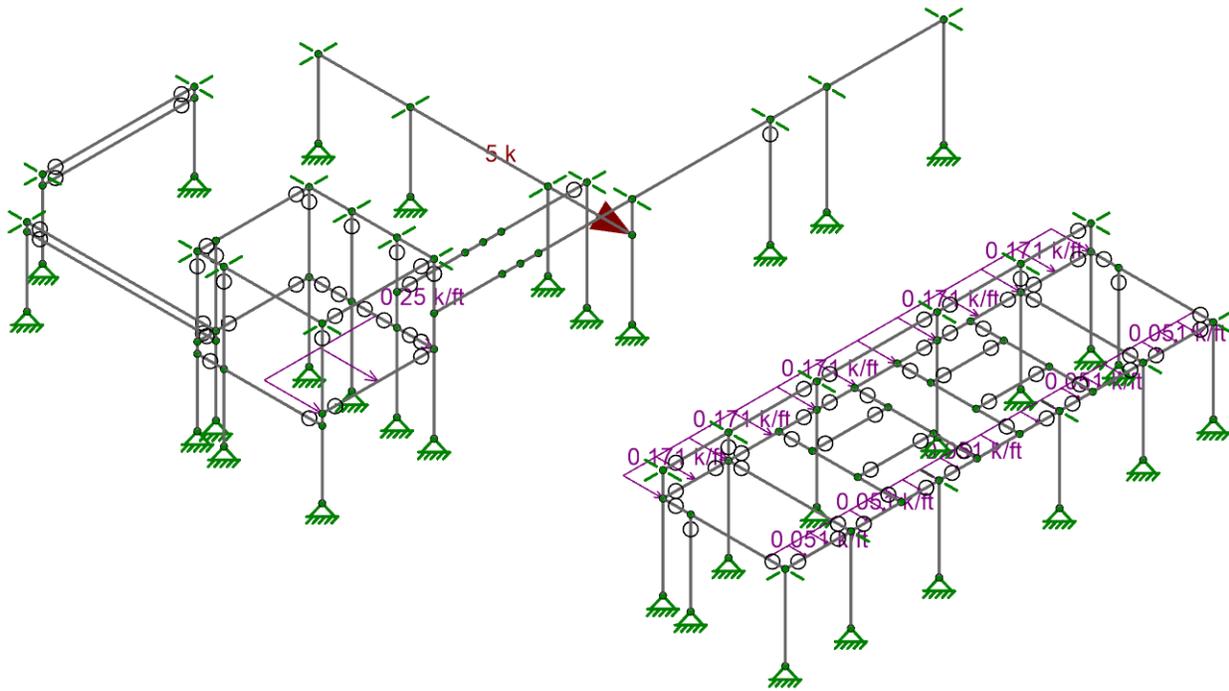
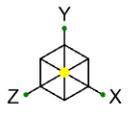


Loads: BLC 4, WL (+Z)  
Envelope Only Solution



BDC  
EJS  
KRM2301

SK-10  
Oct 15, 2025 at 01:21 PM  
Roof Steel.r3d

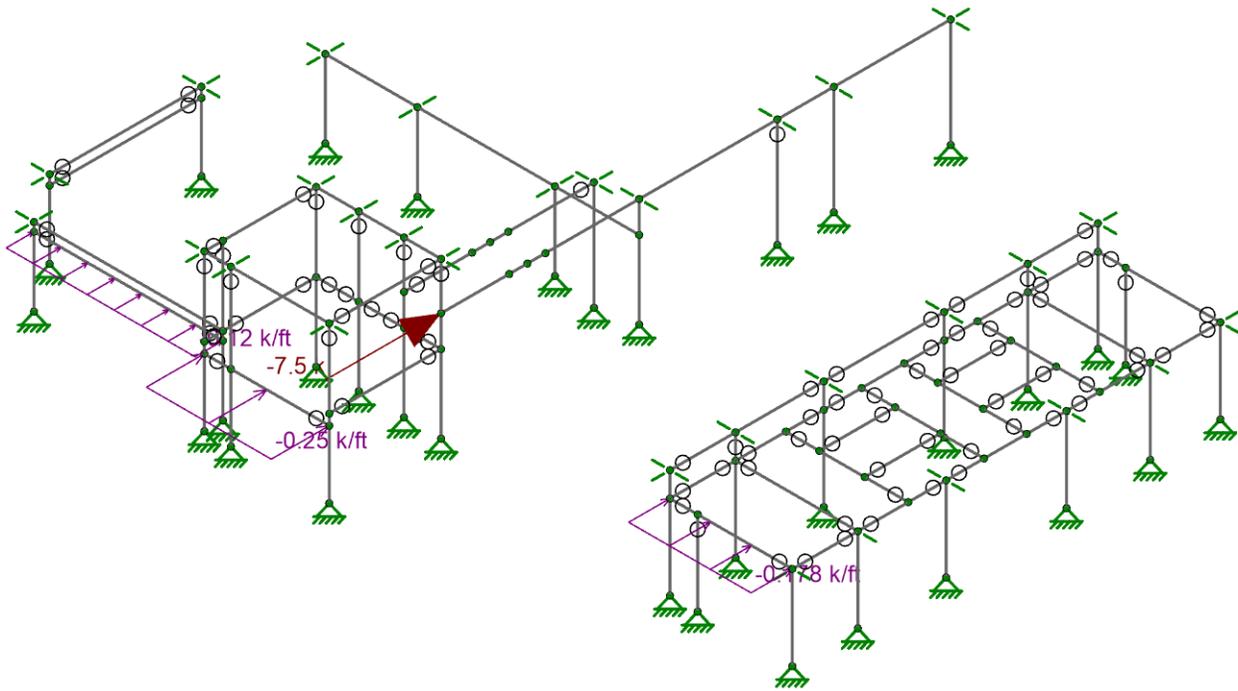
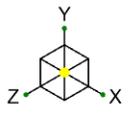


Loads: BLC 5, WL (+X)  
Envelope Only Solution



BDC  
EJS  
KRM2301

SK-11  
Oct 15, 2025 at 01:21 PM  
Roof Steel.r3d



Loads: BLC 6, WL (-Z)  
Envelope Only Solution

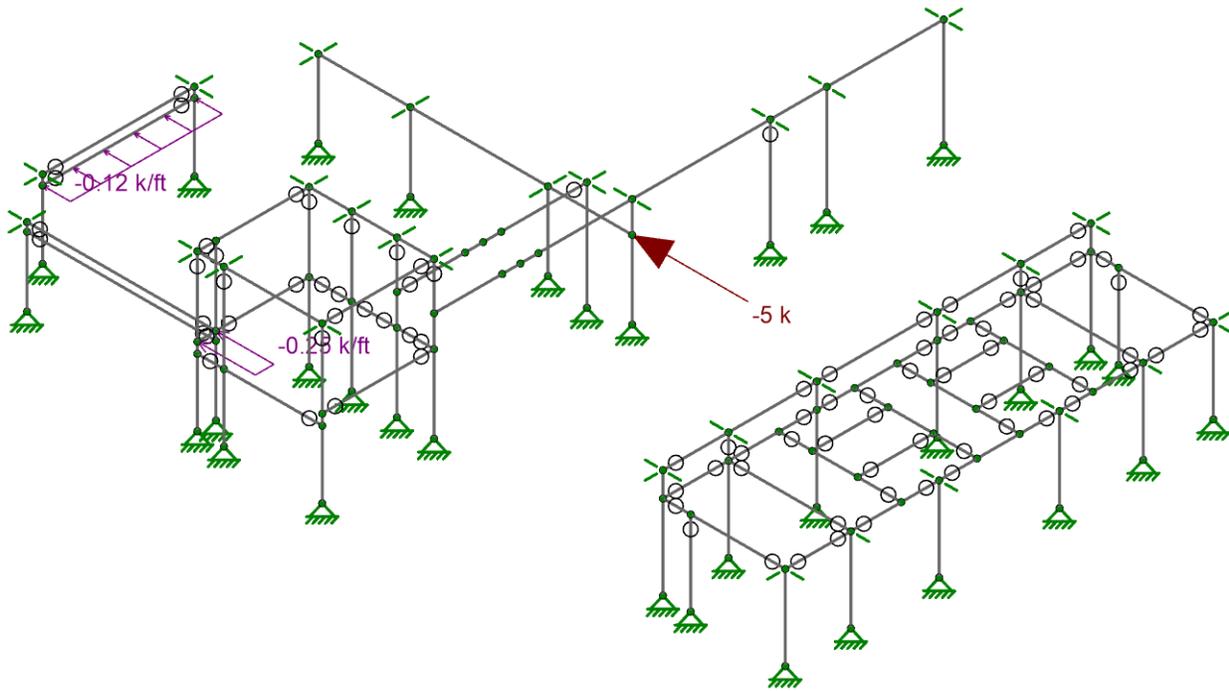
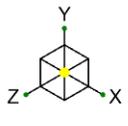


BDC  
EJS  
KRM2301

SK-12

Oct 15, 2025 at 01:21 PM

Roof Steel.r3d



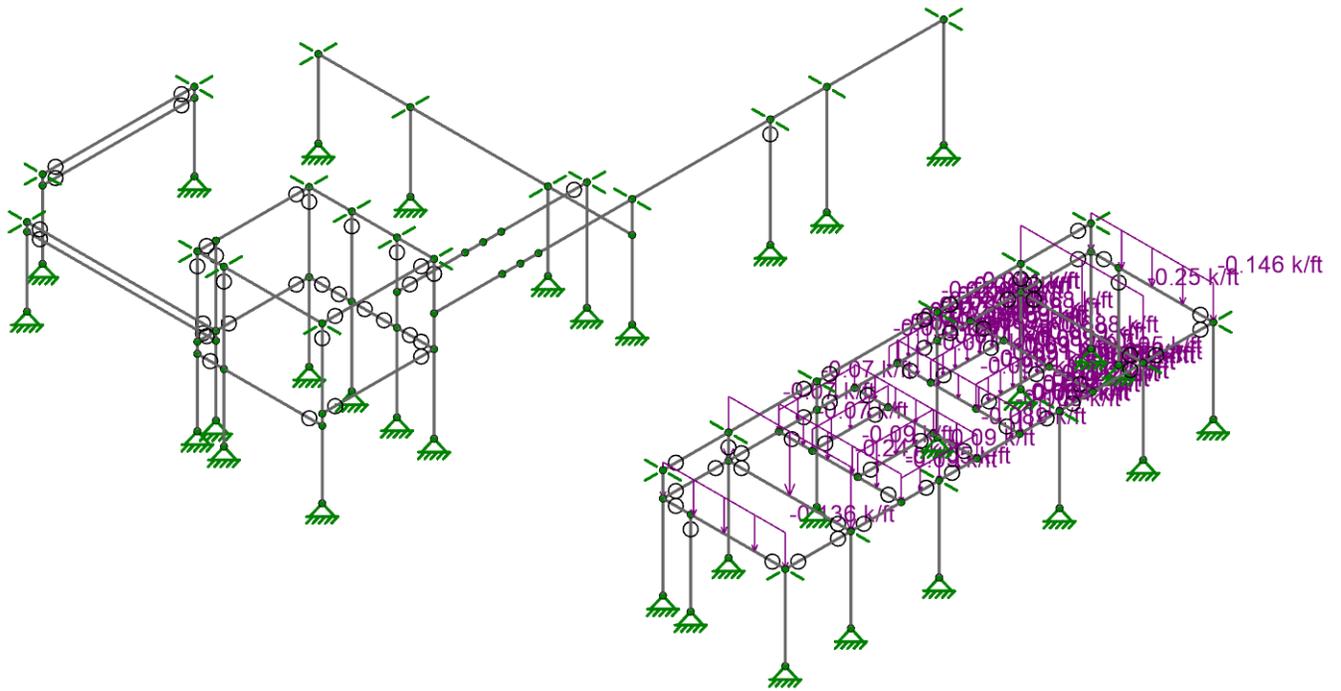
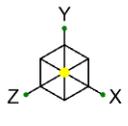
Loads: BLC 7, WL (-X)  
Envelope Only Solution



BDC  
EJS  
KRM2301

SK-13  
Oct 15, 2025 at 01:22 PM  
Roof Steel.r3d



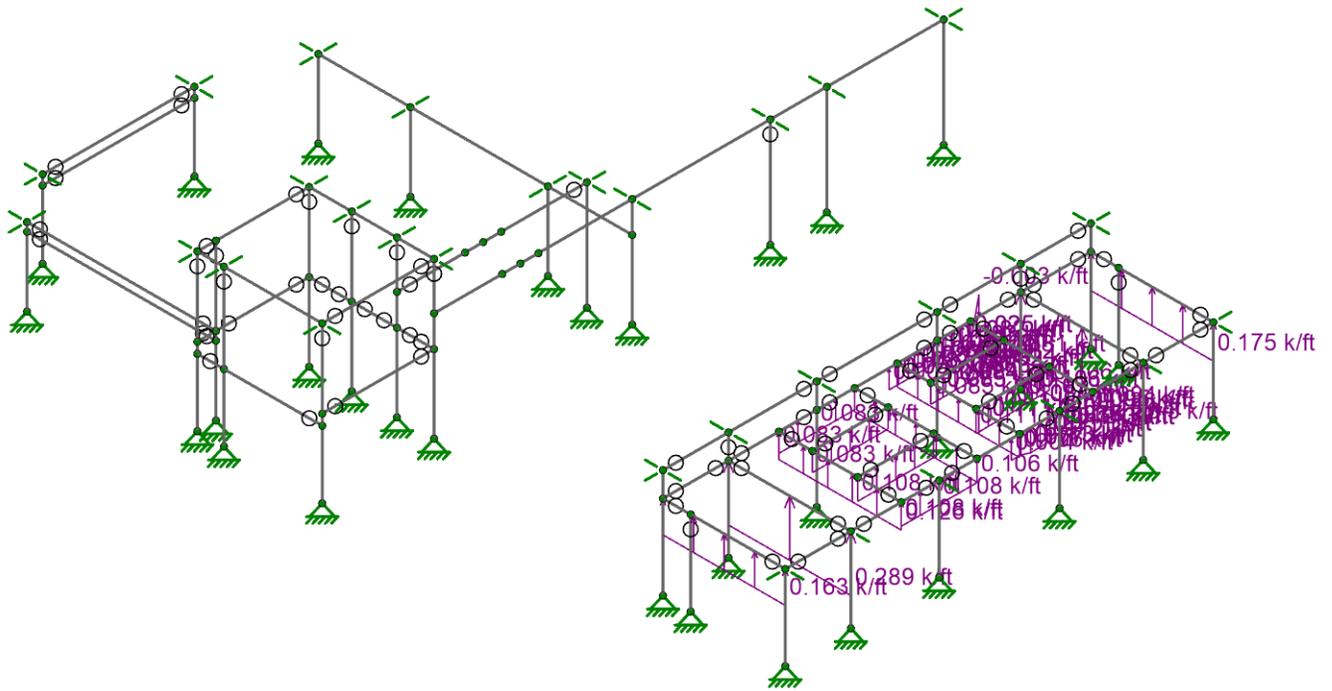
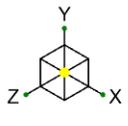


Loads: BLC 9, BLC 2 Transient Area Loads  
Envelope Only Solution



BDC  
EJS  
KRM2301

SK-15  
Oct 15, 2025 at 01:22 PM  
Roof Steel.r3d



Loads: BLC 10, BLC 3 Transient Area Loads  
Envelope Only Solution



BDC  
EJS  
KRM2301

SK-16

Oct 15, 2025 at 01:23 PM

Roof Steel.r3d



**Node Coordinates**

	Label	X [in]	Y [in]	Z [in]	Detach From Diaphragm
1	N113	-443.988	0	-179.887	
2	N114	-377.25	168	-647.141	
3	N115	-200	0	-179.887	
4	N116	-286.75	168	-647.141	
5	N117	-1192.504	311	0	
6	N118	-443.988	0	-310.641	
7	N119	-200	168	-1033.387	
8	N120	-388.763	0	-179.887	
9	N121	-443.988	0	-486.629	
10	N122	-200	0	-310.641	
11	N123	-1192.504	0	0	
12	N124	-200	0	-486.629	
13	N125	-1636.25	135.5	-135.136	
14	N126	-200	0	-726.646	
15	N127	-443.988	0	-726.646	
16	N128	-377.25	168	-411.141	
17	N129	-1569.244	138	-37.004	
18	N130	-200	0	-893.501	
19	N131	-943.487474	217	-430.876	
20	N132	-377.25	168	-793.001	
21	N133	-1017.505	217	-223.008	
22	N134	-1192.505	0	-223.008	
23	N135	-443.988	0	-893.501	
24	N136	-443.988	168	-726.646	
25	N137	-200	0	-1033.387	
26	N138	-943.488	0	-223.008	
27	N139	-388.763	0	-1033.387	
28	N140	-200	168	-562.141	
29	N141	-388.763	168	-179.887	
30	N142	-443.988	217	-179.887	
31	N143	-443.988	0	-1033.387	
32	N144	-286.75	168	-411.141	
33	N145	-443.988	168	-411.141	
34	N146	-943.488	0	0	
35	N147	-1139.505	0	0	
36	N148	-1385.494	0	-618.007	
37	N149	-1017.505	0	-223.008	
38	N150	-200	168	-793.001	
39	N151	-943.487656	217	-358.876	
40	N152	-1107.495	0	-223.008	
41	N153	-943.487	0	-1239.232	
42	N154	-1192.504	0	-37.004	
43	N155	-286.75	168	-562.141	
44	N156	-1569.244	0	-37.004	
45	N157	-943.487	155	-618.007	
46	N158	-1636.25	0	-135.136	
47	N159	-1139.505	311	0	
48	N160	-443.988	168	-647.141	
49	N161	-1636.25	0	-437.885	
50	N162	-200	168	-411.141	
51	N163	-388.763	168	-1033.387	
52	N164	-1017.505	0	-601.876	
53	N165	-943.487	0	-618.007	
54	N166	-1569.244	0	-618.007	
55	N167	-1111.494	0	-618.007	

**Node Coordinates (Continued)**

	Label	X [in]	Y [in]	Z [in]	Detach From Diaphragm
56	N168	-200	168	-893.501	
57	N169	-943.487	0	-893.512	
58	N170	-943.487	0	-1006.137	
59	N171	-200	168	-179.887	
60	N172	-200	168	-647.141	
61	N173	-443.988	168	-179.887	
62	N174	-200	168	-310.641	
63	N175	-443.988	168	-310.641	
64	N176	-200	168	-726.646	
65	N177	-200	168	-486.629	
66	N178	-443.988	168	-486.629	
67	N179	-443.988	168	-893.501	
68	N180	-443.988	168	-1033.387	
69	N181	-443.988	168	-562.141	
70	N182	-443.988	168	-793.001	
71	N183	-286.75	168	-793.001	
72	N184	-377.25	168	-562.141	
73	N185	-1636.25	135.5	-437.885	
74	N186	-1636.25	155	-135.136	
75	N187	-1636.25	155	-437.885	
76	N188	-1192.504	155	-37.004	
77	N189	-1569.244	155	-37.004	
78	N190	-1192.504	138	-37.004	
79	N191	-1569.244	155	-618.007	
80	N192	-1385.494	155	-618.007	
81	N193	-1111.494	155	-618.007	
82	N194	-443.988	217	-310.641	
83	N195	-443.988	217	-486.629	
84	N196	-443.988	217	-726.646	
85	N197	-1017.505	217	-430.876	
86	N198	-443.988	217	-893.501	
87	N199	-443.988	217	-1033.387	
88	N200	-943.488	217	-223.008	
89	N201	-943.487	217	-618.007	
90	N202	-943.487	217	-893.512	
91	N203	-943.487	217	-1006.137	
92	N204	-943.487	217	-1239.232	
93	N205	-943.488	311	0	
94	N206	-943.488	311	-223.008	
95	N207	-1017.505	311	-223.008	
96	N208	-1107.495	311	-223.008	
97	N209	-1192.505	311	-223.008	
98	N210	-1192.504	311	-37.004	
99	N211	-1192.504	155	0	
100	N212	-943.488	155	-223.008	
101	N213	-1017.505	155	-223.008	
102	N214	-1107.495	155	-223.008	
103	N215	-1192.505	155	-223.008	
104	N216	-943.488	155	0	
105	N217	-943.488	134	0	
106	N218	-1139.505	134	0	
107	N219	-1192.504	134	0	
108	N220	-1017.505	217	-601.876	
109	N221	-1017.505	217	-394.876	
110	N222	-943.487565	217	-394.876	

**Node Coordinates (Continued)**

	Label	X [in]	Y [in]	Z [in]	Detach From Diaphragm
111	N223	-1017.505	217	-358.876	

**Node Boundary Conditions**

	Node Label	X [k/in]	Y [k/in]	Z [k/in]
1	N113	Reaction	Reaction	Reaction
2	N115	Reaction	Reaction	Reaction
3	N117	Reaction		Reaction
4	N118	Reaction	Reaction	Reaction
5	N119	Reaction		Reaction
6	N120	Reaction	Reaction	Reaction
7	N121	Reaction	Reaction	Reaction
8	N122	Reaction	Reaction	Reaction
9	N123	Reaction	Reaction	Reaction
10	N124	Reaction	Reaction	Reaction
11	N126	Reaction	Reaction	Reaction
12	N127	Reaction	Reaction	Reaction
13	N130	Reaction	Reaction	Reaction
14	N134	Reaction	Reaction	Reaction
15	N135	Reaction	Reaction	Reaction
16	N137	Reaction	Reaction	Reaction
17	N138	Reaction	Reaction	Reaction
18	N139	Reaction	Reaction	Reaction
19	N142	Reaction		Reaction
20	N143	Reaction	Reaction	Reaction
21	N146	Reaction	Reaction	Reaction
22	N147	Reaction	Reaction	Reaction
23	N148	Reaction	Reaction	Reaction
24	N149	Reaction	Reaction	Reaction
25	N152	Reaction	Reaction	Reaction
26	N153	Reaction	Reaction	Reaction
27	N154	Reaction	Reaction	Reaction
28	N156	Reaction	Reaction	Reaction
29	N158	Reaction	Reaction	Reaction
30	N159			Reaction
31	N161	Reaction	Reaction	Reaction
32	N164	Reaction	Reaction	Reaction
33	N165	Reaction	Reaction	Reaction
34	N166	Reaction	Reaction	Reaction
35	N167	Reaction	Reaction	Reaction
36	N168	Reaction		
37	N169	Reaction	Reaction	Reaction
38	N170	Reaction	Reaction	Reaction
39	N171	Reaction		Reaction
40	N174	Reaction		
41	N176	Reaction		
42	N177	Reaction		
43	N186	Reaction		Reaction
44	N187	Reaction		Reaction
45	N189	Reaction		Reaction
46	N191	Reaction		Reaction
47	N192			Reaction
48	N193			Reaction
49	N194	Reaction		
50	N195	Reaction		
51	N196	Reaction		

**Node Boundary Conditions (Continued)**

	Node Label	X [k/in]	Y [k/in]	Z [k/in]
52	N198	Reaction		
53	N199	Reaction		Reaction
54	N201	Reaction		
55	N202	Reaction		
56	N203	Reaction		
57	N204	Reaction		Reaction
58	N205	Reaction		Reaction
59	N206	Reaction		Reaction
60	N207			Reaction
61	N208			Reaction
62	N209	Reaction		Reaction
63	N220	Reaction		Reaction

**Hot Rolled Steel Properties**

	Label	E [ksi]	G [ksi]	Nu	Therm. Coeff. [1e <sup>6</sup> F <sup>-1</sup> ]	Density [k/ft <sup>3</sup> ]	Yield [ksi]	Ry	Fu [ksi]	Rt
1	A992	29000	11154	0.3	0.65	0.49	50	1.1	65	1.1
2	A36 Gr.36	29000	11154	0.3	0.65	0.49	36	1.5	58	1.2
3	A572 Gr.50	29000	11154	0.3	0.65	0.49	50	1.1	65	1.1
4	A500 Gr.B RND	29000	11154	0.3	0.65	0.527	42	1.4	58	1.3
5	A500 Gr.B RECT	29000	11154	0.3	0.65	0.527	46	1.4	58	1.3
6	A500 Gr.C RND	29000	11154	0.3	0.65	0.527	46	1.4	62	1.3
7	A500 Gr.C RECT	29000	11154	0.3	0.65	0.527	50	1.4	62	1.3
8	A53 Gr.B	29000	11154	0.3	0.65	0.49	35	1.6	60	1.2
9	A1085	29000	11154	0.3	0.65	0.49	50	1.4	65	1.3
10	A913 Gr.65	29000	11154	0.3	0.65	0.49	65	1.1	80	1.1

**Wood Properties**

	Label	Type	Database	Species	Grade	Cm	Ci	Emod	Nu	Therm. Coeff. [1e <sup>6</sup> F <sup>-1</sup> ]	Density [k/ft <sup>3</sup> ]
1	DF	Solid Sawn	Visually Graded	Douglas Fir-Larch	No.1			1	0.3	0.3	0.035
2	SP	Solid Sawn	Visually Graded	Southern Pine	No.1			1	0.3	0.3	0.035
3	HF	Solid Sawn	Visually Graded	Hem-Fir	No.1			1	0.3	0.3	0.035
4	SPF	Solid Sawn	Visually Graded	Spruce-Pine-fir	No.1			1	0.3	0.3	0.035
5	24F-1.8E DF Balanced	Glulam	NDS Table 5A	24F-1.8E DF BAL	na			1	0.3	0.3	0.035
6	24F-1.8E DF Unbalanced	Glulam	NDS Table 5A	24F-1.8E DF UNBAL	na			1	0.3	0.3	0.035
7	24F-1.8E SP Balanced	Glulam	NDS Table 5A	24F-1.8E SP BAL	na			1	0.3	0.3	0.035
8	24F-1.8E SP Unbalanced	Glulam	NDS Table 5A	24F-1.8E SP UNBAL	na			1	0.3	0.3	0.035
9	1.3E-1600F VERSALAM	SCL	Boise Cascade	1.3E-1600F VERSALAM	na			1	0.3	0.3	0.035
10	1.35E LSL SolidStart	SCL	Louisiana Pacific	1.35E LSL SolidStart	na			1	0.3	0.3	0.035
11	1.3E RIGIDLAM LVL	SCL	Roseburg Forest Products	1.3E RIGIDLAM LVL	na			1	0.3	0.3	0.035
12	2.0E DF Parallam PSL	SCL	TrusJoist	2.0E DF Parallam PSL	na			1	0.3	0.3	0.035
13	LVL PRL 1.5E 2250F	Custom	N/A	LVL PRL 1.5E 2250F	na			1	0.3	0.3	0.035
14	LVL Microlam 1.9E 2600F	Custom	N/A	LVL Microlam 1.9E 2600F	na			1	0.3	0.3	0.035
15	PSL Parallam 2.0E 2900F	Custom	N/A	PSL Parallam 2.0E 2900F	na			1	0.3	0.3	0.035
16	LSL TimberStrand 1.55E 2325F	Custom	N/A	LSL TimberStrand 1.55E 2325F	na			1	0.3	0.3	0.035

**Hot Rolled Steel Section Sets**

	Label	Shape	Type	Design List	Material	Design Rule	Area [in <sup>2</sup> ]	Iyy [in <sup>4</sup> ]	Izz [in <sup>4</sup> ]	J [in <sup>4</sup> ]
1	Patio Column	HSS6X6X6	Column	Tube	A500 Gr.C RECT	Typical	7.58	39.5	39.5	64.6
2	Patio Tube Steel Beam	HSS14X6X5	Beam	Tube	A500 Gr.C RECT	Typical	11.1	72.3	271	186
3	Int Tube Steel Beam	HSS14X6X6	Beam	Tube	A500 Gr.C RECT	Typical	13.2	84.1	317	219
4	Tube Steel Wind Girt	HSS14X6X6	Beam	Tube	A500 Gr.C RECT	Typical	13.2	84.1	317	219
5	Column	HSS6X6X6	Column	Tube	A500 Gr.C RECT	Typical	7.58	39.5	39.5	64.6

**Hot Rolled Steel Section Sets (Continued)**

Label	Shape	Type	Design List	Material	Design Rule	Area [in <sup>2</sup> ]	Iyy [in <sup>4</sup> ]	Izz [in <sup>4</sup> ]	J [in <sup>4</sup> ]
6 Int Wide Flange Beam	W16X31	Beam	Wide Flange	A992	Typical	9.13	12.4	375	0.461

**Wood Section Sets**

Label	Shape	Type	Design List	Material	Design Rule	Area [in <sup>2</sup> ]	Iyy [in <sup>4</sup> ]	Izz [in <sup>4</sup> ]	J [in <sup>4</sup> ]
1 Patio Glulam	5.5X18FS	Beam	Glulam Western	24F-1.8E DF Balanced	Typical	99	249.562	2673	806.226

**Member Primary Data**

	Label	I Node	J Node	Section/Shape	Type	Design List	Material	Design Rule
1	M91	N126	N176	Patio Column	Column	Tube	A500 Gr.C RECT	Typical
2	M92	N120	N141	Patio Column	Column	Tube	A500 Gr.C RECT	Typical
3	M93	N152	N208	Column	Column	Tube	A500 Gr.C RECT	Typical
4	M94	N115	N171	Patio Column	Column	Tube	A500 Gr.C RECT	Typical
5	M95	N122	N174	Patio Column	Column	Tube	A500 Gr.C RECT	Typical
6	M96	N168	N179	Patio Glulam	Beam	Glulam Western	24F-1.8E DF Balanced	Typical
7	M97	N124	N177	Patio Column	Column	Tube	A500 Gr.C RECT	Typical
8	M98	N172	N160	Patio Glulam	Beam	Glulam Western	24F-1.8E DF Balanced	Typical
9	M99	N130	N168	Patio Column	Column	Tube	A500 Gr.C RECT	Typical
10	M100	N137	N119	Patio Column	Column	Tube	A500 Gr.C RECT	Typical
11	M101	N178	N136	Patio Tube Steel Beam	Beam	Tube	A500 Gr.C RECT	Typical
12	M102	N150	N182	Patio Glulam	Beam	Glulam Western	24F-1.8E DF Balanced	Typical
13	M103	N139	N163	Patio Column	Column	Tube	A500 Gr.C RECT	Typical
14	M104	N186	N187	Int Tube Steel Beam	Beam	Tube	A500 Gr.C RECT	Typical
15	M105	N113	N142	Patio Column	Column	Tube	A500 Gr.C RECT	Typical
16	M106	N118	N194	Patio Column	Column	Tube	A500 Gr.C RECT	Typical
17	M107	N121	N195	Patio Column	Column	Tube	A500 Gr.C RECT	Typical
18	M108	N127	N196	Patio Column	Column	Tube	A500 Gr.C RECT	Typical
19	M109	N143	N199	Patio Column	Column	Tube	A500 Gr.C RECT	Typical
20	M110	N153	N204	Column	Column	Tube	A500 Gr.C RECT	Typical
21	M111	N135	N198	Patio Column	Column	Tube	A500 Gr.C RECT	Typical
22	M112	N171	N173	Patio Tube Steel Beam	Beam	Tube	A500 Gr.C RECT	Typical
23	M113	N134	N209	Column	Column	Tube	A500 Gr.C RECT	Typical
24	M114	N119	N180	Patio Tube Steel Beam	Beam	Tube	A500 Gr.C RECT	Typical
25	M115	N171	N174	Patio Tube Steel Beam	Beam	Tube	A500 Gr.C RECT	Typical
26	M116	N165	N201	Column	Column	Tube	A500 Gr.C RECT	Typical
27	M117	N174	N177	Patio Tube Steel Beam	Beam	Tube	A500 Gr.C RECT	Typical
28	M118	N196	N195	Int Wide Flange Beam	Beam	Wide Flange	A992	Typical
29	M119	N177	N176	Patio Tube Steel Beam	Beam	Tube	A500 Gr.C RECT	Typical
30	M120	N117	N159	Int Tube Steel Beam	Beam	Tube	A500 Gr.C RECT	Typical
31	M121	N136	N179	Patio Tube Steel Beam	Beam	Tube	A500 Gr.C RECT	Typical
32	M122	N176	N168	Patio Tube Steel Beam	Beam	Tube	A500 Gr.C RECT	Typical
33	M123	N168	N119	Patio Tube Steel Beam	Beam	Tube	A500 Gr.C RECT	Typical
34	M124	N140	N181	Patio Glulam	Beam	Glulam Western	24F-1.8E DF Balanced	Typical
35	M125	N173	N175	Patio Tube Steel Beam	Beam	Tube	A500 Gr.C RECT	Typical
36	M126	N203	N201	W16X40	Beam	Wide Flange	A992	Typical
37	M127	N199	N196	Int Wide Flange Beam	Beam	Wide Flange	A992	Typical
38	M128	N175	N178	Patio Tube Steel Beam	Beam	Tube	A500 Gr.C RECT	Typical
39	M129	N146	N205	Column	Column	Tube	A500 Gr.C RECT	Typical
40	M130	N214	N215	Tube Steel Wind Girt	Beam	Tube	A500 Gr.C RECT	Typical
41	M131	N174	N175	Patio Glulam	Beam	Glulam Western	24F-1.8E DF Balanced	Typical
42	M132	N179	N180	Patio Tube Steel Beam	Beam	Tube	A500 Gr.C RECT	Typical
43	M133	N188	N211	Tube Steel Wind Girt	Beam	Tube	A500 Gr.C RECT	Typical
44	M134	N125	N185	Tube Steel Wind Girt	Beam	Tube	A500 Gr.C RECT	Typical
45	M135	N162	N145	Patio Glulam	Beam	Glulam Western	24F-1.8E DF Balanced	Typical

**Member Primary Data (Continued)**

	Label	I Node	J Node	Section/Shape	Type	Design List	Material	Design Rule
46	M136	N144	N155	Patio Glulam	Beam	Glulam Western	24F-1.8E DF Balanced	Typical
47	M137	N128	N184	Patio Glulam	Beam	Glulam Western	24F-1.8E DF Balanced	Typical
48	M138	N116	N183	Patio Glulam	Beam	Glulam Western	24F-1.8E DF Balanced	Typical
49	M139	N114	N132	Patio Glulam	Beam	Glulam Western	24F-1.8E DF Balanced	Typical
50	M140	N158	N186	Column	Column	Tube	A500 Gr.C RECT	Typical
51	M141	N161	N187	Column	Column	Tube	A500 Gr.C RECT	Typical
52	M142	N188	N189	HSS18X6X10	Beam	Tube	A500 Gr.C RECT	Typical
53	M143	N204	N203	Int Wide Flange Beam	Beam	Wide Flange	A992	Typical
54	M144	N190	N129	HSS14X6X8	Beam	Tube	A500 Gr.C RECT	Typical
55	M145	N166	N191	Column	Column	Tube	A500 Gr.C RECT	Typical
56	M146	N156	N189	Column	Column	Tube	A500 Gr.C RECT	Typical
57	M147	N167	N193	Column	Column	Tube	A500 Gr.C RECT	Typical
58	M148	N148	N192	Column	Column	Tube	A500 Gr.C RECT	Typical
59	M149	N169	N202	Column	Column	Tube	A500 Gr.C RECT	Typical
60	M150	N191	N192	Int Wide Flange Beam	Beam	Wide Flange	A992	Typical
61	M151	N149	N207	Column	Column	Tube	A500 Gr.C RECT	Typical
62	M152	N138	N206	Column	Column	Tube	A500 Gr.C RECT	Typical
63	M153	N192	N193	W16X40	Beam	Wide Flange	A992	Typical
64	M154	N193	N157	Int Wide Flange Beam	Beam	Wide Flange	A992	Typical
65	M155	N195	N142	Int Wide Flange Beam	Beam	Wide Flange	A992	Typical
66	M156	N201	N200	W21X62	Beam	Wide Flange	A992	Typical
67	M157	N170	N203	Column	Column	Tube	A500 Gr.C RECT	Typical
68	M158	N147	N159	Column	Column	Tube	A500 Gr.C RECT	Typical
69	M159	N123	N117	Column	Column	Tube	A500 Gr.C RECT	Typical
70	M160	N154	N210	Column	Column	Tube	A500 Gr.C RECT	Typical
71	M161	N206	N207	Int Tube Steel Beam	Beam	Tube	A500 Gr.C RECT	Typical
72	M162	N207	N208	Int Tube Steel Beam	Beam	Tube	A500 Gr.C RECT	Typical
73	M163	N208	N209	Int Tube Steel Beam	Beam	Tube	A500 Gr.C RECT	Typical
74	M164	N209	N210	Int Tube Steel Beam	Beam	Tube	A500 Gr.C RECT	Typical
75	M165	N210	N117	Int Tube Steel Beam	Beam	Tube	A500 Gr.C RECT	Typical
76	M166	N159	N205	Int Tube Steel Beam	Beam	Tube	A500 Gr.C RECT	Typical
77	M167	N205	N206	Int Tube Steel Beam	Beam	Tube	A500 Gr.C RECT	Typical
78	M168	N212	N213	Tube Steel Wind Girt	Beam	Tube	A500 Gr.C RECT	Typical
79	M169	N213	N214	Tube Steel Wind Girt	Beam	Tube	A500 Gr.C RECT	Typical
80	M170	N215	N188	Tube Steel Wind Girt	Beam	Tube	A500 Gr.C RECT	Typical
81	M171	N212	N216	Tube Steel Wind Girt	Beam	Tube	A500 Gr.C RECT	Typical
82	M172	N217	N219	Tube Steel Wind Girt	Beam	Tube	A500 Gr.C RECT	Typical
83	M173	N164	N220	Column	Column	Tube	A500 Gr.C RECT	Typical
84	M174	N220	N133	Int Wide Flange Beam	Beam	Wide Flange	A992	Typical

**Member Advanced Data**

	Label	I Release	J Release	Physical	Deflection Ratio Options	Seismic DR
1	M91			Yes	** NA **	None
2	M92		BenPIN	Yes	** NA **	None
3	M93		BenPIN	Yes	** NA **	None
4	M94			Yes	** NA **	None
5	M95			Yes	** NA **	None
6	M96	BenPIN	BenPIN	Yes	Default	None
7	M97			Yes	** NA **	None
8	M98	BenPIN	BenPIN	Yes	Default	None
9	M99			Yes	** NA **	None
10	M100			Yes	** NA **	None
11	M101	BenPIN	BenPIN	Yes	Default	None
12	M102	BenPIN	BenPIN	Yes	Default	None
13	M103		BenPIN	Yes	** NA **	None



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 Designer : EJS  
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**Member Advanced Data (Continued)**

	Label	I Release	J Release	Physical	Deflection Ratio Options	Seismic DR
14	M104	BenPIN	BenPIN	Yes	Default	None
15	M105			Yes	** NA **	None
16	M106		BenPIN	Yes	** NA **	None
17	M107			Yes	** NA **	None
18	M108			Yes	** NA **	None
19	M109			Yes	** NA **	None
20	M110			Yes	** NA **	None
21	M111		BenPIN	Yes	** NA **	None
22	M112	BenPIN	BenPIN	Yes	Default	None
23	M113		BenPIN	Yes	** NA **	None
24	M114	BenPIN	BenPIN	Yes	Default	None
25	M115	BenPIN	BenPIN	Yes	Default	None
26	M116			Yes	** NA **	None
27	M117	BenPIN	BenPIN	Yes	Default	None
28	M118	BenPIN	BenPIN	Yes	Default	None
29	M119	BenPIN	BenPIN	Yes	Default	None
30	M120			Yes	Default	None
31	M121	BenPIN	BenPIN	Yes	Default	None
32	M122	BenPIN	BenPIN	Yes	Default	None
33	M123	BenPIN	BenPIN	Yes	Default	None
34	M124	BenPIN	BenPIN	Yes	Default	None
35	M125	BenPIN	BenPIN	Yes	Default	None
36	M126			Yes	Default	None
37	M127	BenPIN	BenPIN	Yes	Default	None
38	M128	BenPIN	BenPIN	Yes	Default	None
39	M129		BenPIN	Yes	** NA **	None
40	M130	BenPIN	BenPIN	Yes	Default	None
41	M131	BenPIN	BenPIN	Yes	Default	None
42	M132	BenPIN	BenPIN	Yes	Default	None
43	M133	BenPIN	BenPIN	Yes	Default	None
44	M134	BenPIN	BenPIN	Yes	Default	None
45	M135	BenPIN	BenPIN	Yes	Default	None
46	M136	BenPIN	BenPIN	Yes	Default	None
47	M137	BenPIN	BenPIN	Yes	Default	None
48	M138	BenPIN	BenPIN	Yes	Default	None
49	M139	BenPIN	BenPIN	Yes	Default	None
50	M140			Yes	** NA **	None
51	M141			Yes	** NA **	None
52	M142	BenPIN	BenPIN	Yes	Default	None
53	M143			Yes	Default	None
54	M144	BenPIN	BenPIN	Yes	Default	None
55	M145			Yes	** NA **	None
56	M146			Yes	** NA **	None
57	M147			Yes	** NA **	None
58	M148			Yes	** NA **	None
59	M149		BenPIN	Yes	** NA **	None
60	M150			Yes	Default	None
61	M151		BenPIN	Yes	** NA **	None
62	M152		BenPIN	Yes	** NA **	None
63	M153			Yes	Default	None
64	M154			Yes	Default	None
65	M155	BenPIN	BenPIN	Yes	Default	None
66	M156			Yes	Default	None
67	M157			Yes	** NA **	None
68	M158		BenPIN	Yes	** NA **	None

**Member Advanced Data (Continued)**

	Label	I Release	J Release	Physical	Deflection Ratio Options	Seismic DR
69	M159		BenPIN	Yes	** NA **	None
70	M160		BenPIN	Yes	** NA **	None
71	M161			Yes	Default	None
72	M162			Yes	Default	None
73	M163			Yes	Default	None
74	M164	BenPIN		Yes	Default	None
75	M165		BenPIN	Yes	Default	None
76	M166			Yes	Default	None
77	M167	BenPIN	BenPIN	Yes	Default	None
78	M168	BenPIN	BenPIN	Yes	Default	None
79	M169	BenPIN	BenPIN	Yes	Default	None
80	M170	BenPIN	BenPIN	Yes	Default	None
81	M171	BenPIN	BenPIN	Yes	Default	None
82	M172	BenPIN	BenPIN	Yes	Default	None
83	M173			Yes	** NA **	None
84	M174	BenPIN	BenPIN	Yes	Default	None

**Hot Rolled Steel Design Parameters**

	Label	Shape	Length [in]	Lb y-y [in]	Lcomp top [in]	Channel Conn.	a [in]	Function
1	M91	Patio Column	168		Lbyy	N/A	N/A	Lateral
2	M92	Patio Column	168		Lbyy	N/A	N/A	Lateral
3	M93	Column	311		Lbyy	N/A	N/A	Lateral
4	M94	Patio Column	168		Lbyy	N/A	N/A	Lateral
5	M95	Patio Column	168		Lbyy	N/A	N/A	Lateral
6	M97	Patio Column	168		Lbyy	N/A	N/A	Lateral
7	M99	Patio Column	168		Lbyy	N/A	N/A	Lateral
8	M100	Patio Column	168		Lbyy	N/A	N/A	Lateral
9	M101	Patio Tube Steel Beam	240.017		Lbyy	N/A	N/A	Lateral
10	M103	Patio Column	168		Lbyy	N/A	N/A	Lateral
11	M104	Int Tube Steel Beam	302.749		Lbyy	N/A	N/A	Lateral
12	M105	Patio Column	217		Lbyy	N/A	N/A	Lateral
13	M106	Patio Column	217		Lbyy	N/A	N/A	Lateral
14	M107	Patio Column	217		Lbyy	N/A	N/A	Lateral
15	M108	Patio Column	217		Lbyy	N/A	N/A	Lateral
16	M109	Patio Column	217		Lbyy	N/A	N/A	Lateral
17	M110	Column	217		Lbyy	N/A	N/A	Lateral
18	M111	Patio Column	217		Lbyy	N/A	N/A	Lateral
19	M112	Patio Tube Steel Beam	243.988	24	Lbyy	N/A	N/A	Lateral
20	M113	Column	311		Lbyy	N/A	N/A	Lateral
21	M114	Patio Tube Steel Beam	243.988	24	Lbyy	N/A	N/A	Lateral
22	M115	Patio Tube Steel Beam	130.754		Lbyy	N/A	N/A	Lateral
23	M116	Column	217		Lbyy	N/A	N/A	Lateral
24	M117	Patio Tube Steel Beam	175.988		Lbyy	N/A	N/A	Lateral
25	M118	Int Wide Flange Beam	240.017	24	Lbyy	N/A	N/A	Lateral
26	M119	Patio Tube Steel Beam	240.017		Lbyy	N/A	N/A	Lateral
27	M120	Int Tube Steel Beam	52.999	24	Lbyy	N/A	N/A	Lateral
28	M121	Patio Tube Steel Beam	166.855		Lbyy	N/A	N/A	Lateral
29	M122	Patio Tube Steel Beam	166.855		Lbyy	N/A	N/A	Lateral
30	M123	Patio Tube Steel Beam	139.886		Lbyy	N/A	N/A	Lateral
31	M125	Patio Tube Steel Beam	130.754		Lbyy	N/A	N/A	Lateral
32	M126	W16X40	388.13	24	Lbyy	N/A	N/A	Lateral
33	M127	Int Wide Flange Beam	306.741	24	Lbyy	N/A	N/A	Lateral
34	M128	Patio Tube Steel Beam	175.988		Lbyy	N/A	N/A	Lateral
35	M129	Column	311		Lbyy	N/A	N/A	Lateral
36	M130	Tube Steel Wind Girt	85.01		Lbyy	N/A	N/A	Lateral

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

	Label	Shape	Length [in]	Lb y-y [in]	Lcomp top [in]	Channel Conn.	a [in]	Function
37	M132	Patio Tube Steel Beam	139.886		Lbyy	N/A	N/A	Lateral
38	M133	Tube Steel Wind Girt	37.004		Lbyy	N/A	N/A	Lateral
39	M134	Tube Steel Wind Girt	302.749		Lbyy	N/A	N/A	Lateral
40	M140	Column	155		Lbyy	N/A	N/A	Lateral
41	M141	Column	155		Lbyy	N/A	N/A	Lateral
42	M142	HSS18X6X10	376.74		Lbyy	N/A	N/A	Lateral
43	M143	Int Wide Flange Beam	233.095	24	Lbyy	N/A	N/A	Lateral
44	M144	HSS14X6X8	376.74		Lbyy	N/A	N/A	Lateral
45	M145	Column	155		Lbyy	N/A	N/A	Lateral
46	M146	Column	155		Lbyy	N/A	N/A	Lateral
47	M147	Column	155		Lbyy	N/A	N/A	Lateral
48	M148	Column	155		Lbyy	N/A	N/A	Lateral
49	M149	Column	217		Lbyy	N/A	N/A	Lateral
50	M150	Int Wide Flange Beam	183.75	24	Lbyy	N/A	N/A	Lateral
51	M151	Column	311		Lbyy	N/A	N/A	Lateral
52	M152	Column	311		Lbyy	N/A	N/A	Lateral
53	M153	W16X40	274	24	Lbyy	N/A	N/A	Lateral
54	M154	Int Wide Flange Beam	168.007	24	Lbyy	N/A	N/A	Lateral
55	M155	Int Wide Flange Beam	306.742	24	Lbyy	N/A	N/A	Lateral
56	M156	W21X62	394.999	24	Lbyy	N/A	N/A	Lateral
57	M157	Column	217		Lbyy	N/A	N/A	Lateral
58	M158	Column	311		Lbyy	N/A	N/A	Lateral
59	M159	Column	311		Lbyy	N/A	N/A	Lateral
60	M160	Column	311		Lbyy	N/A	N/A	Lateral
61	M161	Int Tube Steel Beam	74.017	24	Lbyy	N/A	N/A	Lateral
62	M162	Int Tube Steel Beam	89.99	24	Lbyy	N/A	N/A	Lateral
63	M163	Int Tube Steel Beam	85.01	24	Lbyy	N/A	N/A	Lateral
64	M164	Int Tube Steel Beam	186.004	24	Lbyy	N/A	N/A	Lateral
65	M165	Int Tube Steel Beam	37.004	24	Lbyy	N/A	N/A	Lateral
66	M166	Int Tube Steel Beam	196.017		Lbyy	N/A	N/A	Lateral
67	M167	Int Tube Steel Beam	223.008	24	Lbyy	N/A	N/A	Lateral
68	M168	Tube Steel Wind Girt	74.017		Lbyy	N/A	N/A	Lateral
69	M169	Tube Steel Wind Girt	89.99		Lbyy	N/A	N/A	Lateral
70	M170	Tube Steel Wind Girt	186.004		Lbyy	N/A	N/A	Lateral
71	M171	Tube Steel Wind Girt	223.008		Lbyy	N/A	N/A	Lateral
72	M172	Tube Steel Wind Girt	249.016		Lbyy	N/A	N/A	Lateral
73	M173	Column	217		Lbyy	N/A	N/A	Lateral
74	M174	Int Wide Flange Beam	378.868	24	Lbyy	N/A	N/A	Lateral

**Wood Design Parameters**

	Label	Shape	Length [in]	le2 [in]	le-bend top [in]	Cr	y sway	z sway
1	M96	Patio Glulam	243.988	24	Lbyy			
2	M98	Patio Glulam	243.988	24	Lbyy			
3	M102	Patio Glulam	243.988	24	Lbyy			
4	M124	Patio Glulam	243.988	24	Lbyy			
5	M131	Patio Glulam	243.988	24	Lbyy			
6	M135	Patio Glulam	243.988	24	Lbyy			
7	M136	Patio Glulam	151	24	Lbyy			
8	M137	Patio Glulam	151	24	Lbyy			
9	M138	Patio Glulam	145.86	24	Lbyy			
10	M139	Patio Glulam	145.86	24	Lbyy			

**Node Loads and Enforced Displacements (BLC 4 : WL (+Z))**

	Node Label	L, D, M	Direction	Magnitude [(k, k-ft), (in, rad), (k*s <sup>2</sup> /in, k*s <sup>2</sup> *in)]
1	N200	L	Z	7.5

**Node Loads and Enforced Displacements (BLC 5 : WL (+X))**

	Node Label	L, D, M	Direction	Magnitude [(k, k-ft), (in, rad), (k*s <sup>2</sup> /in, k*s <sup>2</sup> *in)]
1	N157	L	X	5

**Node Loads and Enforced Displacements (BLC 6 : WL (-Z))**

	Node Label	L, D, M	Direction	Magnitude [(k, k-ft), (in, rad), (k*s <sup>2</sup> /in, k*s <sup>2</sup> *in)]
1	N200	L	Z	-7.5

**Node Loads and Enforced Displacements (BLC 7 : WL (-X))**

	Node Label	L, D, M	Direction	Magnitude [(k, k-ft), (in, rad), (k*s <sup>2</sup> /in, k*s <sup>2</sup> *in)]
1	N157	L	X	-5

**Member Point Loads**

No Data to Print...			
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**Wall Panel Point Loads**

No Data to Print...			
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**Diaphragm Point Loads**

No Data to Print...			
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**Member Distributed Loads (BLC 1 : DL)**

	Member Label	Direction	Start Magnitude [k/ft, F, psf, k-ft/in]	End Magnitude [k/ft, F, psf, k-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
1	M101	Y	-0.09	-0.09	0	%100
2	M104	Y	-0.05	-0.05	0	%100
3	M118	Y	-0.3	-0.3	0	%100
4	M118	Y	-0.525	-0.525	0	%100
5	M120	Y	-0.28	-0.28	0	%100
6	M121	Y	-0.09	-0.09	0	%100
7	M125	Y	-0.09	-0.09	0	%100
8	M126	Y	-0.5	-0.5	0	%100
9	M127	Y	-0.3	-0.3	0	%100
10	M127	Y	-0.525	-0.525	0	%100
11	M128	Y	-0.09	-0.09	0	%100
12	M130	Y	-0.425	-0.425	0	%100
13	M132	Y	-0.09	-0.09	0	%100
14	M142	Y	-0.625	-0.625	0	%100
15	M143	Y	-0.5	-0.5	0	%100
16	M150	Y	-1	-1	0	%100
17	M153	Y	-1	-1	0	%100
18	M154	Y	-0.815	-0.815	0	%100
19	M155	Y	-0.525	-0.525	0	%100
20	M155	Y	-0.3	-0.3	0	%100
21	M156	Y	-0.6	-0.6	0	%100
22	M161	Y	-0.28	-0.28	0	%100
23	M162	Y	-0.28	-0.28	0	%100

**Member Distributed Loads (BLC 1 : DL) (Continued)**

Member	Label	Direction	Start Magnitude [k/ft, F, psf, k-ft/in]	End Magnitude [k/ft, F, psf, k-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
24	M163	Y	-0.28	-0.28	0	%100
25	M164	Y	-0.125	-0.125	0	%100
26	M165	Y	-0.125	-0.125	0	%100
27	M166	Y	-0.28	-0.28	0	%100
28	M167	Y	-0.125	-0.125	0	%100
29	M168	Y	-0.025	-0.025	0	%100
30	M169	Y	-0.425	-0.425	0	%100
31	M170	Y	-0.025	-0.025	0	%100
32	M174	Y	-0.1	-0.1	0	%100

**Member Distributed Loads (BLC 2 : RLL)**

Member	Label	Direction	Start Magnitude [k/ft, F, psf, k-ft/in]	End Magnitude [k/ft, F, psf, k-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
1	M104	Y	-0.05	-0.05	0	%100
2	M118	Y	-0.525	-0.525	0	%100
3	M120	Y	-0.28	-0.28	0	%100
4	M126	Y	-0.5	-0.5	0	%100
5	M127	Y	-0.525	-0.525	0	%100
6	M130	Y	-0.425	-0.425	0	%100
7	M142	Y	-0.625	-0.625	0	%100
8	M143	Y	-0.5	-0.5	0	%100
9	M150	Y	-1	-1	0	%100
10	M153	Y	-1	-1	0	%100
11	M154	Y	-0.815	-0.815	0	%100
12	M155	Y	-0.525	-0.525	0	%100
13	M156	Y	-0.6	-0.6	0	%100
14	M161	Y	-0.28	-0.28	0	%100
15	M162	Y	-0.28	-0.28	0	%100
16	M163	Y	-0.28	-0.28	0	%100
17	M164	Y	-0.125	-0.125	0	%100
18	M165	Y	-0.125	-0.125	0	%100
19	M166	Y	-0.28	-0.28	0	%100
20	M167	Y	-0.125	-0.125	0	%100
21	M168	Y	-0.025	-0.025	0	%100
22	M169	Y	-0.425	-0.425	0	%100
23	M170	Y	-0.025	-0.025	0	%100
24	M171	Y	-0.025	-0.025	0	%100
25	M174	Y	-0.1	-0.1	0	%100

**Member Distributed Loads (BLC 4 : WL (+Z))**

Member	Label	Direction	Start Magnitude [k/ft, F, psf, k-ft/in]	End Magnitude [k/ft, F, psf, k-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
1	M114	Z	0.178	0.178	0	%100

**Member Distributed Loads (BLC 5 : WL (+X))**

Member	Label	Direction	Start Magnitude [k/ft, F, psf, k-ft/in]	End Magnitude [k/ft, F, psf, k-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
1	M101	X	0.12	0.12	0	%100
2	M101	X	0.051	0.051	0	%100
3	M115	X	0.051	0.051	0	%100
4	M117	X	0.051	0.051	0	%100
5	M119	X	0.051	0.051	0	%100
6	M121	X	0.051	0.051	0	%100
7	M121	X	0.12	0.12	0	%100
8	M122	X	0.051	0.051	0	%100



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**Member Distributed Loads (BLC 5 : WL (+X)) (Continued)**

Member	Label	Direction	Start Magnitude [k/ft, F, psf, k-ft/in]	End Magnitude [k/ft, F, psf, k-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
9	M123	X	0.051	0.051	0	%100
10	M125	X	0.12	0.12	0	%100
11	M125	X	0.051	0.051	0	%100
12	M128	X	0.12	0.12	0	%100
13	M128	X	0.051	0.051	0	%100
14	M132	X	0.051	0.051	0	%100
15	M132	X	0.12	0.12	0	%100
16	M171	X	0.25	0.25	0	%100

**Member Distributed Loads (BLC 6 : WL (-Z))**

Member	Label	Direction	Start Magnitude [k/ft, F, psf, k-ft/in]	End Magnitude [k/ft, F, psf, k-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
1	M112	Z	-0.178	-0.178	0	%100
2	M144	Z	-0.12	-0.12	0	%100
3	M172	Z	-0.25	-0.25	0	%100

**Member Distributed Loads (BLC 7 : WL (-X))**

Member	Label	Direction	Start Magnitude [k/ft, F, psf, k-ft/in]	End Magnitude [k/ft, F, psf, k-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
1	M133	X	-0.25	-0.25	0	%100
2	M134	X	-0.12	-0.12	0	%100

**Member Distributed Loads (BLC 8 : BLC 1 Transient Area Loads)**

Member	Label	Direction	Start Magnitude [k/ft, F, psf, k-ft/in]	End Magnitude [k/ft, F, psf, k-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
1	M96	Y	-0.25	-0.25	2.46e-13	243.988
2	M102	Y	-0.105	-0.105	0	243.988
3	M114	Y	-0.146	-0.146	3.801e-13	243.988
4	M101	Y	-0.002	-0.049	144.01	163.212
5	M101	Y	-0.049	-0.073	163.212	182.413
6	M101	Y	-0.073	-0.072	182.413	201.614
7	M101	Y	-0.072	-0.071	201.614	220.816
8	M101	Y	-0.071	-0.024	220.816	240.017
9	M121	Y	-0.12	-0.07	0	16.686
10	M121	Y	-0.07	-0.069	16.686	33.371
11	M121	Y	-0.069	-0.069	33.371	50.056
12	M121	Y	-0.069	-0.021	50.056	66.742
13	M121	Y	-0.021	0.002	66.742	83.428
14	M139	Y	-0.071	-0.071	0	24.31
15	M139	Y	-0.071	-0.07	24.31	48.62
16	M139	Y	-0.07	-0.069	48.62	72.93
17	M139	Y	-0.069	-0.069	72.93	97.24
18	M139	Y	-0.069	-0.068	97.24	121.55
19	M139	Y	-0.068	-0.068	121.55	145.86
20	M101	Y	-0.07	-0.07	0.004	75.511
21	M128	Y	-0.07	-0.07	100.501	175.988
22	M137	Y	-0.07	-0.07	0.0009167	150.998
23	M117	Y	-0.09	-0.09	100.5	175.988
24	M119	Y	-0.09	-0.09	0.003	75.512
25	M136	Y	-0.09	-0.09	0.0004375	150.999
26	M112	Y	-0.136	-0.136	8.171e-14	243.988
27	M131	Y	-0.241	-0.241	2.842e-14	243.988
28	M135	Y	-0.105	-0.105	1.954e-14	243.988
29	M119	Y	-0.003	-0.064	144.01	163.212
30	M119	Y	-0.064	-0.094	163.212	182.413

**Member Distributed Loads (BLC 8 : BLC 1 Transient Area Loads) (Continued)**

Member	Label	Direction	Start Magnitude [k/ft, F, psf, k-ft/in]	End Magnitude [k/ft, F, psf, k-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
31	M119	Y	-0.094	-0.093	182.413	201.614
32	M119	Y	-0.093	-0.092	201.614	220.816
33	M119	Y	-0.092	-0.031	220.816	240.017
34	M122	Y	-0.063	-0.101	0	13.348
35	M122	Y	-0.101	-0.119	13.348	26.697
36	M122	Y	-0.119	-0.098	26.697	40.045
37	M122	Y	-0.098	-0.079	40.045	53.394
38	M122	Y	-0.079	-0.079	53.394	66.742
39	M138	Y	-0.093	-0.092	0	24.31
40	M138	Y	-0.092	-0.091	24.31	48.62
41	M138	Y	-0.091	-0.09	48.62	72.93
42	M138	Y	-0.09	-0.089	72.93	97.24
43	M138	Y	-0.089	-0.089	97.24	121.55
44	M138	Y	-0.089	-0.088	121.55	145.86
45	M98	Y	-0.089	-0.089	2.514e-13	243.988
46	M124	Y	-0.089	-0.089	2.345e-13	243.988

**Member Distributed Loads (BLC 9 : BLC 2 Transient Area Loads)**

Member	Label	Direction	Start Magnitude [k/ft, F, psf, k-ft/in]	End Magnitude [k/ft, F, psf, k-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
1	M96	Y	-0.25	-0.25	2.46e-13	243.988
2	M102	Y	-0.105	-0.105	0	243.988
3	M114	Y	-0.146	-0.146	3.801e-13	243.988
4	M101	Y	-0.002	-0.049	144.01	163.212
5	M101	Y	-0.049	-0.073	163.212	182.413
6	M101	Y	-0.073	-0.072	182.413	201.614
7	M101	Y	-0.072	-0.071	201.614	220.816
8	M101	Y	-0.071	-0.024	220.816	240.017
9	M121	Y	-0.12	-0.07	0	16.686
10	M121	Y	-0.07	-0.069	16.686	33.371
11	M121	Y	-0.069	-0.069	33.371	50.056
12	M121	Y	-0.069	-0.021	50.056	66.742
13	M121	Y	-0.021	0.002	66.742	83.428
14	M139	Y	-0.071	-0.071	0	24.31
15	M139	Y	-0.071	-0.07	24.31	48.62
16	M139	Y	-0.07	-0.069	48.62	72.93
17	M139	Y	-0.069	-0.069	72.93	97.24
18	M139	Y	-0.069	-0.068	97.24	121.55
19	M139	Y	-0.068	-0.068	121.55	145.86
20	M101	Y	-0.07	-0.07	0.004	75.511
21	M128	Y	-0.07	-0.07	100.501	175.988
22	M137	Y	-0.07	-0.07	0.0009167	150.998
23	M117	Y	-0.09	-0.09	100.5	175.988
24	M119	Y	-0.09	-0.09	0.003	75.512
25	M136	Y	-0.09	-0.09	0.0004375	150.999
26	M112	Y	-0.136	-0.136	8.171e-14	243.988
27	M131	Y	-0.241	-0.241	2.842e-14	243.988
28	M135	Y	-0.105	-0.105	1.954e-14	243.988
29	M119	Y	-0.003	-0.064	144.01	163.212
30	M119	Y	-0.064	-0.094	163.212	182.413
31	M119	Y	-0.094	-0.093	182.413	201.614
32	M119	Y	-0.093	-0.092	201.614	220.816
33	M119	Y	-0.092	-0.031	220.816	240.017
34	M122	Y	-0.063	-0.101	0	13.348
35	M122	Y	-0.101	-0.119	13.348	26.697
36	M122	Y	-0.119	-0.098	26.697	40.045

**Member Distributed Loads (BLC 9 : BLC 2 Transient Area Loads) (Continued)**

Member	Label	Direction	Start Magnitude [k/ft, F, psf, k-ft/in]	End Magnitude [k/ft, F, psf, k-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
37	M122	Y	-0.098	-0.079	40.045	53.394
38	M122	Y	-0.079	-0.079	53.394	66.742
39	M138	Y	-0.093	-0.092	0	24.31
40	M138	Y	-0.092	-0.091	24.31	48.62
41	M138	Y	-0.091	-0.09	48.62	72.93
42	M138	Y	-0.09	-0.089	72.93	97.24
43	M138	Y	-0.089	-0.089	97.24	121.55
44	M138	Y	-0.089	-0.088	121.55	145.86
45	M98	Y	-0.089	-0.089	2.514e-13	243.988
46	M124	Y	-0.089	-0.089	2.345e-13	243.988

**Member Distributed Loads (BLC 10 : BLC 3 Transient Area Loads)**

Member	Label	Direction	Start Magnitude [k/ft, F, psf, k-ft/in]	End Magnitude [k/ft, F, psf, k-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
1	M96	Y	0.3	0.3	2.46e-13	243.988
2	M102	Y	0.126	0.126	0	243.988
3	M114	Y	0.175	0.175	3.801e-13	243.988
4	M101	Y	0.003	0.059	144.01	163.212
5	M101	Y	0.059	0.087	163.212	182.413
6	M101	Y	0.087	0.087	182.413	201.614
7	M101	Y	0.087	0.086	201.614	220.816
8	M101	Y	0.086	0.029	220.816	240.017
9	M121	Y	0.144	0.084	0	16.686
10	M121	Y	0.084	0.083	16.686	33.371
11	M121	Y	0.083	0.082	33.371	50.056
12	M121	Y	0.082	0.025	50.056	66.742
13	M121	Y	0.025	-0.003	66.742	83.428
14	M139	Y	0.085	0.085	0	24.31
15	M139	Y	0.085	0.084	24.31	48.62
16	M139	Y	0.084	0.083	48.62	72.93
17	M139	Y	0.083	0.082	72.93	97.24
18	M139	Y	0.082	0.082	97.24	121.55
19	M139	Y	0.082	0.081	121.55	145.86
20	M101	Y	0.083	0.083	0.004	75.511
21	M128	Y	0.083	0.083	100.501	175.988
22	M137	Y	0.083	0.083	0.0009167	150.998
23	M117	Y	0.108	0.108	100.5	175.988
24	M119	Y	0.108	0.108	0.003	75.512
25	M136	Y	0.108	0.108	0.0004375	150.999
26	M112	Y	0.163	0.163	8.171e-14	243.988
27	M131	Y	0.289	0.289	2.842e-14	243.988
28	M135	Y	0.126	0.126	1.954e-14	243.988
29	M119	Y	0.004	0.077	144.01	163.212
30	M119	Y	0.077	0.113	163.212	182.413
31	M119	Y	0.113	0.112	182.413	201.614
32	M119	Y	0.112	0.111	201.614	220.816
33	M119	Y	0.111	0.037	220.816	240.017
34	M122	Y	0.076	0.121	0	13.348
35	M122	Y	0.121	0.143	13.348	26.697
36	M122	Y	0.143	0.118	26.697	40.045
37	M122	Y	0.118	0.095	40.045	53.394
38	M122	Y	0.095	0.094	53.394	66.742
39	M138	Y	0.111	0.11	0	24.31
40	M138	Y	0.11	0.11	24.31	48.62
41	M138	Y	0.11	0.108	48.62	72.93
42	M138	Y	0.108	0.107	72.93	97.24

**Member Distributed Loads (BLC 10 : BLC 3 Transient Area Loads) (Continued)**

Member	Label	Direction	Start Magnitude [k/ft, F, psf, k-ft/in]	End Magnitude [k/ft, F, psf, k-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
43	M138	Y	0.107	0.106	97.24	121.55
44	M138	Y	0.106	0.106	121.55	145.86
45	M98	Y	0.106	0.106	2.514e-13	243.988
46	M124	Y	0.106	0.106	2.345e-13	243.988

**Member Area Loads (BLC 1 : DL)**

	Node A	Node B	Node C	Node D	Direction	Load Direction	Magnitude [psf]
1	N119	N150	N182	N180	Y	A-B	-25
2	N132	N182	N160	N114	Y	A-B	-25
3	N181	N184	N128	N145	Y	A-B	-25
4	N155	N140	N162	N144	Y	A-B	-25
5	N162	N171	N173	N145	Y	A-B	-25
6	N150	N183	N116	N172	Y	A-B	-25
7	N172	N140	N181	N160	Y	A-B	-25

**Member Area Loads (BLC 2 : RLL)**

	Node A	Node B	Node C	Node D	Direction	Load Direction	Magnitude [psf]
1	N119	N150	N182	N180	Y	A-B	-25
2	N132	N182	N160	N114	Y	A-B	-25
3	N181	N184	N128	N145	Y	A-B	-25
4	N155	N140	N162	N144	Y	A-B	-25
5	N162	N171	N173	N145	Y	A-B	-25
6	N150	N183	N116	N172	Y	A-B	-25
7	N172	N140	N181	N160	Y	A-B	-25

**Member Area Loads (BLC 3 : WL (uplift))**

	Node A	Node B	Node C	Node D	Direction	Load Direction	Magnitude [psf]
1	N119	N150	N182	N180	Y	A-B	30
2	N132	N182	N160	N114	Y	A-B	30
3	N181	N184	N128	N145	Y	A-B	30
4	N155	N140	N162	N144	Y	A-B	30
5	N162	N171	N173	N145	Y	A-B	30
6	N150	N183	N116	N172	Y	A-B	30
7	N172	N140	N181	N160	Y	A-B	30

**Load Combinations**

	Description	Solve	P-Delta	BLC	Factor								
1	DL	Yes	Y	DL	1								
2	RLL	Yes	Y	RLL	1.25								
3	DL+RLL	Yes	Y	DL	1	RLL	1.25						
4	DL+0.6WL (UP)	Yes	Y	DL	1	3	0.6						
5	DL+0.6WL+Z	Yes	Y	DL	1	3	0.6	4	0.6				
6	DL+0.6WL+X	Yes	Y	DL	1	3	0.6	5	0.6				
7	DL+0.6WL-Z	Yes	Y	DL	1	3	0.6	6	0.6				
8	DL+0.6WL-X	Yes	Y	DL	1	3	0.6	7	0.6				
9	DL+.42WL+Z+.42WL+X	Yes	Y	DL	1	3	0.6	4	0.42	5	0.42		
10	DL+.42WL+Z+.42WL-X	Yes	Y	DL	1	3	0.6	4	0.42	7	0.42		
11	DL+.42WL-Z+.42WL+X	Yes	Y	DL	1	3	0.6	6	0.42	5	0.42		
12	DL+.42WL-Z+.42WL-X	Yes	Y	DL	1	3	0.6	6	0.42	7	0.42		
13		Yes	Y	DL	1	3	0.45	RLL	0.75				

**Load Combinations (Continued)**

	Description	Solve	P-Delta	BLC	Factor								
14		Yes	Y	DL	1	3	0.45	4	0.45	RLL	0.75		
15		Yes	Y	DL	1	3	0.45	5	0.45	RLL	0.75		
16		Yes	Y	DL	1	3	0.45	6	0.45	RLL	0.75		
17		Yes	Y	DL	1	3	0.45	7	0.45	RLL	0.75		
18		Yes	Y	DL	1	3	0.45	4	0.31	5	0.31	RLL	0.75
19		Yes	Y	DL	1	3	0.45	4	0.31	7	0.31	RLL	0.75
20		Yes	Y	DL	1	3	0.45	6	0.31	5	0.31	RLL	0.75
21		Yes	Y	DL	1	3	0.45	6	0.31	7	0.31	RLL	0.75
22	0.6DL+0.6WL(UP)	Yes	Y	DL	0.6	3	0.6						

**Load Combination Design**

	Description	Service	Hot Rolled	Cold Formed	Wood	Concrete	Masonry	Aluminum	Stainless	Connection
1	DL		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
2	RLL		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
3	DL+RLL		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
4	DL+0.6WL (UP)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
5	DL+0.6WL+Z		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
6	DL+0.6WL+X		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
7	DL+0.6WL-Z		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
8	DL+0.6WL-X		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
9	DL+.42WL+Z+.42WL+X		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
10	DL+.42WL+Z+.42WL-X		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
11	DL+.42WL-Z+.42WL+X		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
12	DL+.42WL-Z+.42WL-X		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
13			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
14			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
15			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
16			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
17			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
18			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
19			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
20			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
21			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
22	0.6DL+0.6WL(UP)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

**Node Reactions**

No Data to Print...

**Node Reactions - Overstrength or Capacity Limit**

No Data to Print...

**Member Section Forces**

No Data to Print...

**Maximum Member Section Forces**

No Data to Print...

**Member End Reactions**

No Data to Print...

**Member 2nd/1st Moment Ratios**

No Data to Print...

**Member Section Deflections - Service**

No Data to Print...

**Member Section Deflections - Strength**

No Data to Print...

**Beam Deflections**

No Data to Print...

**Beam Deflection Checks**

No Data to Print...

**AISC 15TH (360-16): ASD Member Steel Code Checks**

No Data to Print...

**AWC NDS-18 / SDPWS-21 ASD Member Wood Code Checks**

No Data to Print...

**X-Direction Story Drift - Service**

No Data to Print...

**Z-Direction Story Drift - Service**

No Data to Print...

**X-Direction Story Drift - Strength**

No Data to Print...

**Z-Direction Story Drift - Strength**

No Data to Print...

**Envelope Node Reactions**

	Node Label		X [k]	LC	Y [k]	LC	Z [k]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
1	N113	max	0	3	5.608	3	0.04	7	0	22	0	22	0	22
2		min	-0.004	6	1.87	2	-0.037	5	0	1	0	1	0	1
3	N115	max	0	22	2.817	3	0.01	7	0	22	0	22	0	22
4		min	0	3	0.403	22	-0.009	5	0	1	0	1	0	1
5	N117	max	0.058	8	0	22	0.518	7	0	22	0	22	0	22
6		min	-0.339	6	0	1	0.012	22	0	1	0	1	0	1
7	N118	max	0	3	34.149	3	0.038	7	0	22	0	22	0	22
8		min	-0.016	6	9.447	22	-0.035	5	0	1	0	1	0	1
9	N119	max	0	3	0	22	0	3	0	22	0	22	0	22
10		min	-0.798	6	0	1	-1.073	5	0	1	0	1	0	1
11	N120	max	0	15	6.227	3	0	14	0	22	0	22	0	22
12		min	0	3	0.431	22	-0.005	16	0	1	0	1	0	1
13	N121	max	0	3	34.564	3	0.037	7	0	22	0	22	0	22
14		min	-0.146	6	9.843	22	-0.036	5	0	1	0	1	0	1
15	N122	max	0	22	8.596	3	0.004	7	0	22	LOCKED		0	22
16		min	0	3	0.401	22	-0.003	5	0	1	LOCKED		0	1
17	N123	max	0.031	8	0.17	8	0.451	7	0	22	0	22	0	22

**Envelope Node Reactions (Continued)**

Node Label		X [k]	LC	Y [k]	LC	Z [k]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC	
18		min	-0.267	6	-0.538	2	0.004	22	0	1	0	1	0	1
19	N124	max	0	22	9.177	3	0	16	0	22	0	22	0	22
20		min	0	3	0.622	22	0	14	0	1	0	1	0	1
21	N126	max	0	22	9.006	3	0	16	0	22	LOCKED		0	22
22		min	0	3	0.617	22	0	14	0	1	LOCKED		0	1
23	N127	max	0	3	33.786	3	0.036	7	0	22	0	22	0	22
24		min	-0.138	6	9.607	22	-0.037	5	0	1	0	1	0	1
25	N130	max	0	22	8.627	3	0.003	7	0	22	0	22	0	22
26		min	0	3	0.391	22	-0.004	5	0	1	0	1	0	1
27	N134	max	0	22	9.533	3	0.338	7	0	22	0	22	0	22
28		min	-0.177	6	3.122	22	-0.004	3	0	1	0	1	0	1
29	N135	max	0	3	33.924	3	0.035	7	0	22	0	22	0	22
30		min	-0.016	6	9.352	22	-0.038	5	0	1	0	1	0	1
31	N137	max	0	22	2.965	3	0.009	7	0	22	LOCKED		0	22
32		min	0	3	0.402	22	-0.01	5	0	1	LOCKED		0	1
33	N138	max	0.001	8	26.489	3	-0.001	7	0	22	0	22	0	22
34		min	-0.145	6	7.912	22	-0.213	3	0	1	0	1	0	1
35	N139	max	0	15	6.602	3	0.005	14	0	22	0	22	0	22
36		min	0	3	0.422	22	0	16	0	1	0	1	0	1
37	N142	max	0.027	6	0	22	0.444	7	0	22	0	22	0	22
38		min	0	22	0	1	-0.424	5	0	1	0	1	0	1
39	N143	max	0	3	6.442	3	0.037	7	0	22	0	22	0	22
40		min	-0.004	6	2.205	2	-0.04	5	0	1	0	1	0	1
41	N146	max	0.04	8	9.686	3	0.037	7	0	22	0	22	0	22
42		min	-0.161	6	3.268	22	-0.15	3	0	1	0	1	0	1
43	N147	max	0.069	8	12.079	3	0.46	7	0	22	0	22	0	22
44		min	-0.316	6	3.976	22	-0.018	3	0	1	0	1	0	1
45	N148	max	0.225	3	49.737	3	0	3	0	22	0	22	0	22
46		min	0.062	22	13.643	22	0	22	0	1	0	1	0	1
47	N149	max	0	22	14.825	3	0.007	7	0	22	0	22	0	22
48		min	-0.168	6	4.594	22	-0.051	3	0	1	0	1	0	1
49	N152	max	0	22	13.184	3	0.002	7	0	22	0	22	0	22
50		min	-0.171	6	4.011	22	-0.015	3	0	1	0	1	0	1
51	N153	max	0	17	9.918	3	0.202	3	0	22	0	22	0	22
52		min	0	6	2.896	22	0.056	22	0	1	0	1	0	1
53	N154	max	0	22	29.521	3	0.381	7	0	22	0	22	0	22
54		min	-0.006	6	9.271	22	0.001	22	0	1	0	1	0	1
55	N156	max	0	22	24.897	3	0.078	7	0	22	0	22	0	22
56		min	-0.006	6	7.58	22	0	3	0	1	0	1	0	1
57	N158	max	0.114	8	2.996	3	0	22	0	22	0	22	0	22
58		min	0	1	0.788	2	0	1	0	1	0	1	0	1
59	N159	max	0	22	0	22	0.311	7	LOCKED		0	22	0	22
60		min	0	1	0	1	-0.064	3	LOCKED		0	1	0	1
61	N161	max	0.114	8	2.996	3	0	22	0	22	0	22	0	22
62		min	0	1	0.788	2	0	1	0	1	0	1	0	1
63	N164	max	0	22	4.544	3	0	7	0	22	0	22	0	22
64		min	0	6	1.542	22	0	3	0	1	0	1	0	1
65	N165	max	-0.015	22	51.356	3	0.156	3	0	22	0	22	0	22
66		min	-0.058	3	14.483	22	0.054	22	0	1	0	1	0	1
67	N166	max	0.238	3	12.463	3	0	3	0	22	0	22	0	22
68		min	0.064	22	3.494	22	0	22	0	1	0	1	0	1
69	N167	max	-0.076	22	44.331	3	0.001	3	0	22	0	22	0	22
70		min	-0.279	3	12.199	22	0	22	0	1	0	1	0	1
71	N168	max	0	3	0	22	0	22	0	22	LOCKED		0	22
72		min	-1.825	6	0	1	0	1	0	1	LOCKED		0	1

**Envelope Node Reactions (Continued)**

Node Label		X [k]	LC	Y [k]	LC	Z [k]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC	
73	N169	max	0	22	13.579	3	0.001	14	0	22	0	22	0	22
74		min	0	15	3.934	22	0	16	0	1	0	1	0	1
75	N170	max	0	17	21.027	3	-0.022	22	0	22	0	22	0	22
76		min	0	6	5.973	22	-0.081	3	0	1	0	1	0	1
77	N171	max	0	3	0	22	1.073	7	0	22	LOCKED		0	22
78		min	-0.749	6	0	1	0	22	0	1	LOCKED		0	1
79	N174	max	0	3	0	22	0	22	0	22	0	22	0	22
80		min	-1.824	6	0	1	0	1	0	1	0	1	0	1
81	N176	max	0	3	0	22	0	22	0	22	0	22	0	22
82		min	-1.414	6	0	1	0	1	0	1	0	1	0	1
83	N177	max	0	3	0	22	0	22	0	22	LOCKED		0	22
84		min	-1.41	6	0	1	0	1	0	1	LOCKED		0	1
85	N186	max	0.794	8	0	22	0	22	0	22	0	22	0	22
86		min	0	1	0	1	0	1	0	1	0	1	0	1
87	N187	max	0.794	8	0	22	0	22	0	22	0	22	0	22
88		min	0	1	0	1	0	1	0	1	0	1	0	1
89	N189	max	0.232	8	0	22	1.052	7	0	22	0	22	0	22
90		min	0	22	0	1	0	22	0	1	0	1	0	1
91	N191	max	2.707	8	0	22	0.004	3	0	22	0	22	0	22
92		min	-3.137	6	0	1	0.001	22	0	1	0	1	0	1
93	N192	max	0	22	0	22	-0.005	22	0	22	0	22	0	22
94		min	0	1	0	1	-0.02	3	0	1	0	1	0	1
95	N193	max	0	22	0	22	0.061	3	0	22	0	22	0	22
96		min	0	1	0	1	0.016	22	0	1	0	1	0	1
97	N194	max	0.138	6	0	22	0	22	0	22	0	22	0	22
98		min	0	22	0	1	0	1	0	1	0	1	0	1
99	N195	max	0	3	0	22	0	22	0	22	LOCKED		0	22
100		min	-0.753	6	0	1	0	1	0	1	LOCKED		0	1
101	N196	max	0	3	0	22	0	22	0	22	LOCKED		0	22
102		min	-0.706	6	0	1	0	1	0	1	LOCKED		0	1
103	N198	max	0.138	6	0	22	0	22	0	22	0	22	0	22
104		min	0	22	0	1	0	1	0	1	0	1	0	1
105	N199	max	0.026	6	0	22	0.421	7	0	22	0	22	0	22
106		min	0	22	0	1	-0.441	5	0	1	0	1	0	1
107	N201	max	0.35	3	0	22	0	22	0	22	0	22	0	22
108		min	0.058	6	0	1	0	1	0	1	0	1	0	1
109	N202	max	0.028	6	0	22	0	22	0	22	0	22	0	22
110		min	0.004	22	0	1	0	1	0	1	0	1	0	1
111	N203	max	-0.002	22	0	22	0	22	0	22	0	22	0	22
112		min	-0.012	6	0	1	0	1	0	1	0	1	0	1
113	N204	max	0	6	0	22	4.882	7	0	22	0	22	0	22
114		min	0	22	0	1	-5.193	5	0	1	0	1	0	1
115	N205	max	0.035	8	0	22	-0.04	22	0	22	0	22	0	22
116		min	-0.305	6	0	1	-0.133	3	0	1	0	1	0	1
117	N206	max	-0.001	22	0	22	1.838	3	0	22	0	22	0	22
118		min	-0.37	6	0	1	0.516	22	0	1	0	1	0	1
119	N207	max	0	22	0	22	0.037	3	LOCKED		0	22	0	22
120		min	0	1	0	1	-0.041	6	LOCKED		0	1	0	1
121	N208	max	0	22	0	22	0.019	15	0	22	0	22	0	22
122		min	0	1	0	1	-0.002	7	0	1	0	1	0	1
123	N209	max	0.001	8	0	22	0.391	7	0	22	0	22	0	22
124		min	-0.348	6	0	1	0.003	6	0	1	0	1	0	1
125	N220	max	0	6	0	22	0.022	3	0	22	LOCKED		0	22
126		min	0	22	0	1	-0.003	7	0	1	LOCKED		0	1
127	N173	max	NC		NC		NC		NC		LOCKED		NC	

**Envelope Node Reactions (Continued)**

Node Label		X [k]	LC	Y [k]	LC	Z [k]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
128		min	NC		NC		NC		NC		LOCKED		NC
129	N180	max	NC		NC		NC		NC		LOCKED		NC
130		min	NC		NC		NC		NC		LOCKED		NC
131	N185	max	NC		NC		NC		NC		LOCKED		NC
132		min	NC		NC		NC		NC		LOCKED		NC
133	N129	max	NC		NC		NC		NC		LOCKED		NC
134		min	NC		NC		NC		NC		LOCKED		NC
135	N125	max	NC		NC		NC		NC		LOCKED		NC
136		min	NC		NC		NC		NC		LOCKED		NC
137	Totals:	max	5.279	8	555.242	3	12.045	7					
138		min	-15.261	6	151.824	22	-6.671	5					

**Envelope Node Reactions - Overstrength or Capacity Limit**

No Data to Print...													
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**Envelope Node Displacements**

Node Label		X [in]	LC	Y [in]	LC	Z [in]	LC	X Rotation [rad]	LC	Y Rotation [rad]	LC	Z Rotation [rad]	LC	
1	N113	max	0	6	0	2	0	5	3.112e-4	5	0	22	0	3
2		min	0	3	0	3	0	7	-3.383e-4	7	0	1	-2.225e-5	6
3	N114	max	0.169	6	-0.046	22	0.015	5	2.466e-3	3	8.436e-5	5	9.918e-5	22
4		min	0	3	-0.598	3	-0.015	7	2.559e-4	22	-8.485e-5	7	-2.306e-3	3
5	N115	max	0	3	0	22	0	5	4.534e-5	5	0	22	0	22
6		min	0	22	0	3	0	7	-4.93e-5	7	0	1	0	3
7	N116	max	0.168	6	-0.033	22	0.007	5	2.357e-3	3	8.613e-5	5	1.969e-3	3
8		min	0	3	-0.618	3	-0.007	7	1.808e-4	22	-8.352e-5	7	1.818e-4	22
9	N117	max	0	6	0.002	3	0	22	0	22	9.131e-6	3	-8.756e-5	22
10		min	0	8	0	22	0	7	0	1	-3.927e-6	7	-2.88e-4	3
11	N118	max	0	6	0	22	0	5	3.18e-4	5	0	3	0	3
12		min	0	3	0	3	0	7	-3.371e-4	7	0	6	-9.245e-5	6
13	N119	max	0	6	0	22	0	5	9.134e-5	7	0	22	0	3
14		min	0	3	-0.003	3	0	3	-9.939e-5	5	0	1	0	22
15	N120	max	0	3	0	22	0	16	9.256e-5	5	2.292e-3	7	0	3
16		min	0	15	0	3	0	14	-1.075e-3	7	0	22	-2.543e-6	6
17	N121	max	0	6	0	22	0	5	3.25e-4	5	0	22	0	3
18		min	0	3	0	3	0	7	-3.328e-4	7	0	6	-1.355e-3	6
19	N122	max	0	3	0	22	0	5	1.699e-5	5	0	22	0	22
20		min	0	22	0	3	0	7	-1.801e-5	7	0	1	0	3
21	N123	max	0	6	0	2	0	22	-2.439e-5	22	9.131e-6	3	4.847e-4	8
22		min	0	8	0	8	0	7	-5.14e-3	7	-3.927e-6	7	-3.246e-3	6
23	N124	max	0	3	0	22	0	14	1.068e-8	7	0	22	0	22
24		min	0	22	0	3	0	16	-1.059e-8	5	0	1	0	3
25	N125	max	0	22	-0.001	2	0	22	0	22	0	22	0	22
26		min	-0.015	8	-0.002	3	0	1	0	1	0	1	-6.547e-4	8
27	N126	max	0	3	0	22	0	14	1.079e-8	7	0	22	0	22
28		min	0	22	0	3	0	16	-1.088e-8	5	0	1	0	3
29	N127	max	0	6	0	22	0	5	3.329e-4	5	0	3	0	3
30		min	0	3	0	3	0	7	-3.249e-4	7	0	6	-1.283e-3	6
31	N128	max	0.068	6	-0.021	22	0.015	5	3.034e-4	3	8.273e-5	5	3.741e-5	22
32		min	0	3	-0.388	3	-0.015	7	4.112e-5	22	-8.724e-5	7	-2.66e-3	3
33	N129	max	0.001	6	-0.006	22	0	3	4.777e-4	7	0	22	3.601e-5	6
34		min	0	22	-0.019	3	-0.01	7	-1.037e-6	3	0	1	9.772e-8	22
35	N130	max	0	3	0	22	0	5	1.799e-5	5	0	22	0	22
36		min	0	22	0	3	0	7	-1.699e-5	7	0	1	0	3
37	N131	max	0.096	6	-0.22	22	0.015	5	9.544e-4	3	5.896e-4	6	7.852e-4	6

**Envelope Node Displacements (Continued)**

	Node Label		X [in]	LC	Y [in]	LC	Z [in]	LC	X Rotation [rad]	LC	Y Rotation [rad]	LC	Z Rotation [rad]	LC
38		min	0.003	22	-0.782	3	-0.015	7	2.688e-4	22	-2.087e-5	3	-1.617e-4	17
39	N132	max	0.059	6	-0.019	22	0.015	5	-5.08e-5	22	8.714e-5	5	2.939e-5	22
40		min	0	3	-0.362	3	-0.015	7	-3.853e-4	3	-8.276e-5	7	-2.63e-3	3
41	N133	max	0.205	6	-0.005	22	0	7	1.267e-5	7	1.214e-6	3	1.567e-3	6
42		min	0	22	-0.017	3	0	3	-9.332e-5	3	-8.375e-6	6	1.399e-6	22
43	N134	max	0	6	0	22	0	3	-3.517e-6	22	1.436e-7	3	-2.231e-6	22
44		min	0	22	0	3	0	7	-4.766e-3	7	-9.91e-7	6	-2.482e-3	6
45	N135	max	0	6	0	22	0	5	3.367e-4	5	0	6	0	3
46		min	0	3	0	3	0	7	-3.18e-4	7	0	3	-9.25e-5	6
47	N136	max	0.085	6	-0.009	22	0.021	5	2.883e-4	7	0	3	1.063e-3	6
48		min	0	3	-0.032	3	-0.02	7	-2.954e-4	5	0	6	0	3
49	N137	max	0	3	0	22	0	5	4.933e-5	5	0	22	0	22
50		min	0	22	0	3	0	7	-4.534e-5	7	0	1	0	3
51	N138	max	0	6	0	22	0	3	2.559e-3	3	3.91e-4	6	4.71e-7	8
52		min	0	8	0	3	0	7	2.004e-4	7	-5.666e-5	3	-2.442e-3	6
53	N139	max	0	3	0	22	0	16	1.075e-3	5	0	3	0	3
54		min	0	15	0	3	0	14	-9.256e-5	7	-2.292e-3	5	-2.705e-6	6
55	N140	max	0.165	6	-0.014	22	0	7	-1.177e-4	22	0	22	0	3
56		min	0	3	-0.305	3	0	5	-2.443e-3	3	-1.363e-3	6	0	22
57	N141	max	0	6	0	22	0.016	5	2.468e-4	7	2.292e-3	7	2.04e-5	22
58		min	0	3	-0.006	3	-0.181	7	-2.27e-4	5	0	22	-2.861e-4	3
59	N142	max	0	22	-0.002	2	0	5	5.166e-4	7	0	22	9.503e-7	6
60		min	0	6	-0.007	3	0	7	-4.751e-4	5	0	1	0	3
61	N143	max	0	6	0	2	0	5	3.386e-4	5	0	22	0	3
62		min	0	3	0	3	0	7	-3.111e-4	7	0	1	-2.207e-5	6
63	N144	max	0.067	6	-0.015	22	0.007	5	2.809e-4	3	8.409e-5	5	2.037e-3	3
64		min	0	3	-0.422	3	-0.007	7	2.84e-5	22	-8.538e-5	7	1.015e-4	22
65	N145	max	0.068	6	-0.023	22	0.02	5	3.2e-4	3	0	22	7.066e-4	6
66		min	0	3	-0.136	3	-0.021	7	5.049e-5	22	-4.081e-4	6	0	3
67	N146	max	0	6	0	22	0	3	2.128e-3	3	1.103e-5	3	5.254e-4	8
68		min	0	8	0	3	0	7	7.441e-6	7	-4.744e-6	7	-2.977e-3	6
69	N147	max	0	6	0	22	0	3	3.331e-4	3	3.25e-4	7	6.204e-4	8
70		min	0	8	0	3	0	7	-5.576e-3	7	-7.557e-4	3	-3.494e-3	6
71	N148	max	0	22	0	22	0	22	0	22	-4.194e-5	22	9.737e-4	3
72		min	0	3	0	3	0	3	-1.058e-8	3	-1.569e-4	3	2.669e-4	22
73	N149	max	0	6	0	22	0	3	3.161e-4	3	1.214e-6	3	-2.208e-6	22
74		min	0	22	0	3	0	7	-4.366e-5	7	-8.375e-6	6	-2.473e-3	6
75	N150	max	0.058	6	-0.004	22	0	7	-1.955e-5	22	0	22	0	3
76		min	0	3	-0.079	3	0	5	-3.327e-4	3	-3.031e-4	6	0	22
77	N151	max	0.138	6	-0.203	22	0.016	5	-7.29e-4	22	5.727e-4	6	1.058e-3	6
78		min	0.003	22	-0.722	3	-0.016	7	-2.594e-3	3	-5.546e-5	3	-1.051e-4	17
79	N152	max	0	6	0	22	0	3	6.331e-5	3	2.141e-6	6	-2.207e-6	22
80		min	0	22	0	3	0	7	-7.646e-6	11	-3.103e-7	3	-2.473e-3	6
81	N153	max	0	6	0	22	0	22	-4.757e-4	22	-1.801e-6	22	0	17
82		min	0	17	0	3	0	3	-1.726e-3	3	-1.385e-5	6	0	6
83	N154	max	0	6	0	22	0	22	-1.124e-5	22	5.426e-6	6	-7.311e-8	22
84		min	0	22	0	3	0	7	-5.22e-3	7	1.475e-8	22	-2.694e-5	6
85	N155	max	0.165	6	-0.032	22	0.007	5	-1.956e-4	22	8.35e-5	5	1.985e-3	3
86		min	0	3	-0.612	3	-0.007	7	-2.556e-3	3	-8.618e-5	7	1.796e-4	22
87	N156	max	0	6	0	22	0	3	6.704e-7	3	0	22	-6.945e-8	22
88		min	0	22	0	3	0	7	-3.492e-4	7	0	1	-2.559e-5	6
89	N157	max	0.008	6	-0.013	22	-0.038	22	1.109e-3	3	5.387e-4	15	5.057e-4	3
90		min	-0.008	8	-0.045	3	-0.142	3	2.786e-4	22	1.333e-4	22	1.352e-4	22
91	N158	max	0	22	0	2	0	22	0	22	0	22	4.924e-4	8
92		min	0	8	0	3	0	1	0	1	0	1	0	1

**Envelope Node Displacements (Continued)**

	Node Label		X [in]	LC	Y [in]	LC	Z [in]	LC	X Rotation [rad]	LC	Y Rotation [rad]	LC	Z Rotation [rad]	LC
93	N159	max	0	6	-0.006	22	0	3	0	22	9.626e-6	7	-2.365e-4	22
94		min	0	8	-0.02	3	0	7	0	1	-2.238e-5	3	-8.038e-4	3
95	N160	max	0.169	6	-0.051	22	0.021	5	2.547e-3	3	6.03e-4	6	1.082e-3	6
96		min	0	3	-0.377	3	-0.021	7	3.114e-4	22	0	3	0	3
97	N161	max	0	22	0	2	0	22	0	22	0	22	4.924e-4	8
98		min	0	8	0	3	0	1	0	1	0	1	0	1
99	N162	max	0.067	6	-0.004	22	0	7	2.593e-4	3	2.271e-4	6	0	3
100		min	0	3	-0.098	3	0	5	1.622e-5	22	0	22	0	22
101	N163	max	0	6	0	22	0.181	5	2.27e-4	7	0	3	2.563e-5	22
102		min	0	3	-0.006	3	-0.016	7	-2.47e-4	5	-2.292e-3	5	-2.972e-4	3
103	N164	max	0	6	0	22	0	3	0	7	0	22	0	22
104		min	0	22	0	3	0	7	0	3	0	1	-8.361e-7	6
105	N165	max	0	3	0	22	0	22	-5.043e-4	22	5.387e-4	15	-2.841e-5	8
106		min	0	22	0	3	0	3	-1.919e-3	3	1.333e-4	22	-2.624e-4	15
107	N166	max	0	22	0	22	0	22	0	22	7.835e-5	3	1.034e-3	3
108		min	0	3	0	3	0	3	0	3	2.094e-5	22	2.794e-4	22
109	N167	max	0	3	0	22	0	22	-7.019e-7	22	4.65e-4	3	-3.308e-4	22
110		min	0	22	0	3	0	3	-2.794e-6	3	1.243e-4	22	-1.214e-3	3
111	N168	max	0	6	0	22	0	7	3.425e-5	7	0	22	0	3
112		min	0	3	-0.008	3	0	5	-3.628e-5	5	0	1	0	22
113	N169	max	0	15	0	22	0	16	3.56e-5	5	-8.39e-6	22	0	6
114		min	0	22	0	3	0	14	-3.459e-5	7	-6.45e-5	6	0	22
115	N170	max	0	6	0	22	0	3	7.013e-4	3	2.772e-5	6	4.467e-7	17
116		min	0	17	0	3	0	22	1.929e-4	22	3.606e-6	22	-1.099e-7	6
117	N171	max	0	6	0	22	0	22	9.932e-5	7	0	22	0	3
118		min	0	3	-0.003	3	0	7	-9.134e-5	5	0	1	0	22
119	N172	max	0.168	6	-0.015	22	0	7	2.251e-3	3	1.274e-3	6	0	3
120		min	0	3	-0.314	3	0	5	1.087e-4	22	0	22	0	22
121	N173	max	0.001	6	-0.002	2	0.02	5	2.9e-4	7	0	22	3.493e-5	6
122		min	0	3	-0.005	3	-0.022	7	-2.667e-4	5	0	1	0	3
123	N174	max	0	6	0	22	0	7	3.633e-5	7	0	22	0	3
124		min	0	3	-0.008	3	0	5	-3.426e-5	5	0	1	0	22
125	N175	max	0.002	6	-0.009	22	0.02	5	2.955e-4	7	0	3	1.566e-4	6
126		min	0	3	-0.032	3	-0.021	7	-2.787e-4	5	0	6	0	3
127	N176	max	0	6	0	22	0	7	1.079e-8	7	0	22	0	3
128		min	0	3	-0.008	3	0	5	-1.088e-8	5	0	1	0	22
129	N177	max	0	6	0	22	0	7	1.068e-8	7	0	22	0	3
130		min	0	3	-0.009	3	0	5	-1.059e-8	5	0	1	0	22
131	N178	max	0.09	6	-0.009	22	0.02	5	2.953e-4	7	0	22	1.12e-3	6
132		min	0	3	-0.033	3	-0.021	7	-2.884e-4	5	0	6	0	3
133	N179	max	0.002	6	-0.009	22	0.021	5	2.786e-4	7	0	6	1.569e-4	6
134		min	0	3	-0.032	3	-0.02	7	-2.951e-4	5	0	3	0	3
135	N180	max	0.001	6	-0.002	2	0.022	5	2.667e-4	7	0	22	3.393e-5	6
136		min	0	3	-0.006	3	-0.02	7	-2.902e-4	5	0	1	0	3
137	N181	max	0.166	6	-0.05	22	0.021	5	-3.368e-4	22	0	3	1.102e-3	6
138		min	0	3	-0.367	3	-0.021	7	-2.759e-3	3	-6.4e-4	6	0	3
139	N182	max	0.059	6	-0.02	22	0.021	5	-6.257e-5	22	4.119e-4	6	7.029e-4	6
140		min	0	3	-0.113	3	-0.02	7	-4.051e-4	3	0	22	0	3
141	N183	max	0.058	6	-0.013	22	0.007	5	-3.484e-5	22	8.536e-5	5	1.991e-3	3
142		min	0	3	-0.397	3	-0.007	7	-3.585e-4	3	-8.409e-5	7	9.263e-5	22
143	N184	max	0.166	6	-0.045	22	0.015	5	-2.768e-4	22	8.486e-5	5	9.486e-5	22
144		min	0	3	-0.591	3	-0.015	7	-2.673e-3	3	-8.433e-5	7	-2.339e-3	3
145	N185	max	0	22	-0.001	2	0	22	0	22	0	22	0	22
146		min	-0.015	8	-0.002	3	0	1	0	1	0	1	-6.547e-4	8
147	N186	max	0	22	-0.001	2	0	22	0	22	0	22	0	22

**Envelope Node Displacements (Continued)**

Node Label		X [in]	LC	Y [in]	LC	Z [in]	LC	X Rotation [rad]	LC	Y Rotation [rad]	LC	Z Rotation [rad]	LC	
148		min	0	8	-0.002	3	0	1	0	1	0	1	-8.198e-4	8
149	N187	max	0	22	-0.001	2	0	22	0	22	0	22	0	22
150		min	0	8	-0.002	3	0	1	0	1	0	1	-8.198e-4	8
151	N188	max	0	22	-0.008	22	-0.001	22	6.157e-4	7	5.426e-6	6	6.271e-5	6
152		min	0	8	-0.026	3	-0.495	7	1.204e-7	22	1.475e-8	22	1.706e-7	22
153	N189	max	0	22	-0.007	22	0	22	6.394e-4	7	0	22	4.36e-5	6
154		min	0	8	-0.022	3	0	7	-6.854e-7	3	0	1	1.183e-7	22
155	N190	max	0.001	6	-0.007	22	-0.001	22	-2.018e-6	22	5.426e-6	6	3.762e-5	6
156		min	0	22	-0.023	3	-0.498	7	-3.418e-4	7	1.475e-8	22	1.021e-7	22
157	N191	max	0	6	-0.003	22	0	22	0	3	7.835e-5	3	-5.635e-4	22
158		min	0	8	-0.011	3	0	3	0	22	2.094e-5	22	-2.086e-3	3
159	N192	max	0.003	6	-0.012	22	0	3	2.134e-8	3	-4.194e-5	22	-5.395e-4	22
160		min	-0.002	8	-0.044	3	0	22	0	22	-1.569e-4	3	-1.968e-3	3
161	N193	max	0.006	6	-0.011	22	0	22	5.636e-6	3	4.65e-4	3	2.445e-3	3
162		min	-0.005	8	-0.039	3	0	3	1.416e-6	22	1.243e-4	22	6.663e-4	22
163	N194	max	0	22	-0.011	22	0	5	-2.568e-4	22	0	3	9.2e-4	6
164		min	0	6	-0.039	3	0	7	-7.876e-4	3	0	6	0	3
165	N195	max	0	6	-0.012	22	0	5	4.785e-4	7	0	22	2.157e-3	6
166		min	0	3	-0.04	3	0	7	-4.673e-4	5	0	6	0	3
167	N196	max	0	6	-0.011	22	0	5	4.671e-4	7	0	3	2.035e-3	6
168		min	0	3	-0.039	3	0	7	-4.787e-4	5	0	6	0	3
169	N197	max	0.092	6	-0.206	22	0	7	8.368e-4	3	5.399e-4	6	7.082e-4	6
170		min	0	22	-0.671	3	0	3	2.567e-4	22	4.818e-7	22	6.324e-7	22
171	N198	max	0	22	-0.011	22	0	5	5.095e-4	3	0	6	9.295e-4	6
172		min	0	6	-0.039	3	0	7	1.636e-4	22	0	3	0	3
173	N199	max	0	22	-0.003	2	0	5	4.751e-4	7	0	22	2.426e-6	6
174		min	0	6	-0.008	3	0	7	-5.17e-4	5	0	1	0	3
175	N200	max	0.206	6	-0.009	22	0.018	5	-1.69e-3	22	3.91e-4	6	1.573e-3	6
176		min	0	22	-0.032	3	-0.017	7	-6.025e-3	3	-5.666e-5	3	5.34e-7	8
177	N201	max	0	6	-0.017	22	0.013	5	3.62e-3	3	3.763e-4	6	7.597e-5	6
178		min	0	3	-0.06	3	-0.012	7	1.019e-3	22	4.895e-5	22	-3.088e-4	17
179	N202	max	0	22	-0.005	22	0.008	5	7.899e-4	3	-8.39e-6	22	2.22e-5	6
180		min	0	6	-0.016	3	-0.008	7	2.17e-4	22	-6.45e-5	6	-9.025e-5	17
181	N203	max	0	6	-0.007	22	0.006	5	-3.813e-4	22	2.772e-5	6	2.208e-7	6
182		min	0	22	-0.026	3	-0.005	7	-1.387e-3	3	3.606e-6	22	-8.974e-7	17
183	N204	max	0	22	-0.003	22	0	5	3.468e-3	3	-1.801e-6	22	0	6
184		min	0	6	-0.012	3	0	7	9.555e-4	22	-1.385e-5	6	0	17
185	N205	max	0	6	-0.005	22	0	3	0	22	1.103e-5	3	1.537e-3	3
186		min	0	8	-0.015	3	0	22	0	1	-4.744e-6	7	4.473e-4	22
187	N206	max	0	6	-0.01	22	0	22	0	22	3.238e-5	6	-2.705e-5	22
188		min	0	22	-0.034	3	0	3	0	1	-4.693e-6	3	-9.801e-5	3
189	N207	max	0	6	-0.006	22	0	6	0	22	1.214e-6	3	-4.042e-5	22
190		min	0	22	-0.02	3	0	3	0	1	-8.375e-6	6	-1.378e-4	3
191	N208	max	0	6	-0.005	22	0	7	0	22	2.141e-6	6	3.75e-6	3
192		min	0	22	-0.016	3	0	15	0	1	-3.103e-7	3	1.374e-6	2
193	N209	max	0	6	-0.004	22	0	6	0	22	1.436e-7	3	-4.9e-5	22
194		min	0	8	-0.012	3	0	7	0	1	-9.91e-7	6	-1.782e-4	3
195	N210	max	0	22	-0.009	22	0	22	-2.581e-4	22	5.426e-6	6	-8.116e-5	22
196		min	0	6	-0.029	3	0	7	-8.357e-4	3	1.475e-8	22	-2.698e-4	3
197	N211	max	0.325	6	0.001	3	-0.001	22	4.855e-4	7	9.131e-6	3	1.176e-4	6
198		min	-0.054	8	0	8	-0.495	7	1.409e-5	22	-3.927e-6	7	3.175e-7	22
199	N212	max	0.257	6	-0.007	22	0.214	3	1.421e-4	7	3.91e-4	6	-1.042e-6	22
200		min	0	22	-0.023	3	0.028	7	-9.977e-4	3	-5.666e-5	3	-8.262e-5	6
201	N213	max	0.257	6	-0.004	22	0.013	3	5.218e-5	7	1.214e-6	3	-1.11e-8	22
202		min	0	22	-0.013	3	-0.002	7	-3.764e-4	3	-8.375e-6	6	-1.356e-5	6

**Envelope Node Displacements (Continued)**

Node Label	X [in]	LC	Y [in]	LC	Z [in]	LC	X Rotation [rad]	LC	Y Rotation [rad]	LC	Z Rotation [rad]	LC		
203	N214	max	0.257	6	-0.003	22	0	7	1.398e-5	7	2.141e-6	6	0	22
204		min	0	22	-0.011	3	-0.001	11	-1.306e-4	3	-3.103e-7	3	-1.074e-5	6
205	N215	max	0.257	6	-0.003	22	-0.001	22	-4.951e-6	7	1.436e-7	3	9.303e-6	6
206		min	0	22	-0.008	3	-0.494	7	-5.873e-5	3	-9.91e-7	6	3.428e-8	2
207	N216	max	0.338	6	-0.003	22	0.214	3	4.415e-4	7	1.103e-5	3	3.908e-7	5
208		min	-0.052	8	-0.008	3	0.027	7	-6.082e-5	3	-4.744e-6	7	-3.76e-4	6
209	N217	max	0.32	6	-0.002	22	0.21	3	4.526e-4	16	1.103e-5	3	9.819e-5	8
210		min	-0.051	8	-0.007	3	0.017	7	1.173e-4	22	-4.744e-6	7	-1.203e-3	6
211	N218	max	0.32	6	-0.003	22	0.035	3	1.087e-4	3	3.25e-4	7	-6.019e-5	22
212		min	-0.052	8	-0.009	3	-0.53	7	-6.675e-4	7	-7.557e-4	3	-1.706e-4	15
213	N219	max	0.32	6	0	3	-0.001	22	5.911e-5	3	9.131e-6	3	1.822e-4	8
214		min	-0.052	8	0	8	-0.493	7	-7.201e-4	7	-3.927e-6	7	-6.441e-4	6
215	N220	max	0	22	-0.002	22	0	7	0	7	0	22	1.679e-6	6
216		min	0	6	-0.005	3	0	3	0	3	0	1	0	22
217	N221	max	0.112	6	-0.206	22	0	7	-2.284e-4	22	5.399e-4	6	8.57e-4	6
218		min	0	22	-0.672	3	0	3	-7.428e-4	3	4.818e-7	22	7.652e-7	22
219	N222	max	0.117	6	-0.221	22	0.016	5	-2.325e-4	22	5.88e-4	6	9.216e-4	6
220		min	0.003	22	-0.785	3	-0.015	7	-8.284e-4	3	-4.112e-5	3	-1.334e-4	17
221	N223	max	0.131	6	-0.19	22	0	7	-6.964e-4	22	5.399e-4	6	1.006e-3	6
222		min	0	22	-0.617	3	0	3	-2.267e-3	3	4.818e-7	22	8.98e-7	22

**Envelope Member Section Forces**

Member	Sec	Axial[k]	LC	y Shear[k]	LC	z Shear[k]	LC	Torque[k-ft]	LC	y-y Moment[k-ft]	LC	z-z Moment[k-ft]	LC		
1	M91	1	max	9.006	3	0	22	0	22	0	22	0	22	22	
2			min	0.617	22	0	1	0	1	0	1	0	1	1	
3		2	max	8.909	3	0	22	0	22	0	22	0	22	22	
4			min	0.559	22	0	1	0	1	0	1	0	1	1	
5		3	max	8.812	3	0	22	0	22	0	22	0	22	22	
6			min	0.501	22	0	1	0	1	0	1	0	1	1	
7		4	max	8.715	3	0	22	0	22	0	22	0	22	22	
8			min	0.442	22	0	1	0	1	0	1	0	1	1	
9		5	max	8.618	3	0	22	0	22	0	22	0	22	22	
10			min	0.384	22	0	1	0	1	0	1	0	1	1	
11	M92	1	max	6.227	3	0	22	0	22	0	22	0	22	22	
12			min	0.431	22	0	1	0	1	0	1	0	1	1	
13		2	max	6.13	3	0	22	0	22	0	22	0	22	22	
14			min	0.373	22	0	1	0	1	0	1	0	1	1	
15		3	max	6.033	3	0	22	0	22	0	22	0	22	22	
16			min	0.315	22	0	1	0	1	0	1	0	1	1	
17		4	max	5.936	3	0	22	0	22	0	22	0	22	22	
18			min	0.257	22	0	1	0	1	0	1	0	1	1	
19		5	max	5.838	3	0	22	0	22	0	22	0	22	22	
20			min	0.198	22	0	1	0	1	0	1	0	1	1	
21	M93	1	max	13.184	3	0.188	6	0.002	7	0	22	0	22	22	
22			min	4.011	22	0	22	-0.015	3	0	1	0	1	1	
23		2	max	13.004	3	0.188	6	0.002	7	0	22	0.01	7	-0.001	22
24			min	3.903	22	0	22	-0.015	3	0	1	-0.096	3	-1.217	6
25		3	max	5.5	3	0	22	0.002	7	0	22	0.192	3	-0.002	22
26			min	1.725	22	-0.187	6	-0.015	3	0	1	-0.021	7	-2.418	6
27		4	max	5.32	3	0	22	0.002	7	0	22	0.096	3	-0.001	22
28			min	1.617	22	-0.187	6	-0.015	3	0	1	-0.01	7	-1.209	6
29		5	max	5.14	3	0	22	0.002	7	0	22	0	22	0	22
30			min	1.509	22	-0.187	6	-0.015	3	0	1	0	1	0	1
31	M94	1	max	2.817	3	0	22	0.01	7	0	22	0	22	0	22
32			min	0.403	22	0	1	-0.009	5	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 Moment[k-ft]	LC	z-z Moment[k-ft]	LC	
33		2	max	2.72	3	0	22	0.01	7	0	22	0.034	7	0	22
34			min	0.344	22	0	1	-0.009	5	0	1	-0.031	5	0	1
35		3	max	2.622	3	0	22	0.01	7	0	22	0.068	7	0	22
36			min	0.286	22	0	1	-0.009	5	0	1	-0.062	5	0	1
37		4	max	2.525	3	0	22	0.01	7	0	22	0.101	7	0	22
38			min	0.228	22	0	1	-0.009	5	0	1	-0.093	5	0	1
39		5	max	2.428	3	0	22	0.01	7	0	22	0.135	7	0	22
40			min	0.17	22	0	1	-0.009	5	0	1	-0.124	5	0	1
41	M95	1	max	8.596	3	0	22	0.004	7	0	22	0	22	0	22
42			min	0.401	22	0	1	-0.003	5	0	1	0	1	0	1
43		2	max	8.499	3	0	22	0.004	7	0	22	0.012	7	0	22
44			min	0.343	22	0	1	-0.003	5	0	1	-0.012	5	0	1
45		3	max	8.402	3	0	22	0.004	7	0	22	0.025	7	0	22
46			min	0.285	22	0	1	-0.003	5	0	1	-0.023	5	0	1
47		4	max	8.305	3	0	22	0.004	7	0	22	0.037	7	0	22
48			min	0.227	22	0	1	-0.003	5	0	1	-0.035	5	0	1
49		5	max	8.208	3	0	22	0.004	7	0	22	0.049	7	0	22
50			min	0.168	22	0	1	-0.003	5	0	1	-0.047	5	0	1
51	M96	1	max	1.12	6	5.972	3	0	22	0.047	7	0	22	0	22
52			min	0	1	-0.159	22	0	1	-0.049	5	0	1	0	1
53		2	max	1.12	6	2.986	3	0	22	0.047	7	0	22	0.605	22
54			min	0	1	-0.079	22	0	1	-0.049	5	0	1	-22.768	3
55		3	max	1.12	6	0	22	0	22	0.047	7	0	22	0.807	22
56			min	0	1	0	1	0	1	-0.049	5	0	1	-30.358	3
57		4	max	1.12	6	0.079	22	0	22	0.047	7	0	22	0.605	22
58			min	0	1	-2.986	3	0	1	-0.049	5	0	1	-22.768	3
59		5	max	1.12	6	0.159	22	0	22	0.047	7	0	22	0	22
60			min	0	1	-5.972	3	0	1	-0.049	5	0	1	0	1
61	M97	1	max	9.177	3	0	22	0	22	0	22	0	22	0	22
62			min	0.622	22	0	1	0	1	0	1	0	1	0	1
63		2	max	9.08	3	0	22	0	22	0	22	0	22	0	22
64			min	0.563	22	0	1	0	1	0	1	0	1	0	1
65		3	max	8.983	3	0	22	0	22	0	22	0	22	0	22
66			min	0.505	22	0	1	0	1	0	1	0	1	0	1
67		4	max	8.886	3	0	22	0	22	0	22	0	22	0	22
68			min	0.447	22	0	1	0	1	0	1	0	1	0	1
69		5	max	8.789	3	0	22	0	22	0	22	0	22	0	22
70			min	0.389	22	0	1	0	1	0	1	0	1	0	1
71	M98	1	max	0.396	6	3.475	3	0	22	0.063	7	0	22	0	22
72			min	0	1	0.065	22	0	5	-0.004	2	0	1	0	1
73		2	max	0.396	6	2.34	3	0	22	0.063	7	0	22	-0.281	22
74			min	0	1	0.046	22	0	5	-0.004	2	0	5	-14.778	3
75		3	max	0.396	6	0.005	22	0	5	0.063	7	0	5	-0.372	22
76			min	0	1	-0.188	3	0	1	-0.004	2	0	1	-19.703	3
77		4	max	0.396	6	-0.051	22	0	22	0.063	7	0.002	5	-0.309	22
78			min	0	1	-2.429	3	0	5	-0.004	2	0	1	-15.23	3
79		5	max	0.396	6	-0.07	22	0	22	0.063	7	0	22	0	22
80			min	0	1	-3.564	3	0	5	-0.004	2	0	1	0	1
81	M99	1	max	8.627	3	0	22	0.003	7	0	22	0	22	0	22
82			min	0.391	22	0	1	-0.004	5	0	1	0	1	0	1
83		2	max	8.53	3	0	22	0.003	7	0	22	0.012	7	0	22
84			min	0.332	22	0	1	-0.004	5	0	1	-0.012	5	0	1
85		3	max	8.433	3	0	22	0.003	7	0	22	0.023	7	0	22
86			min	0.274	22	0	1	-0.004	5	0	1	-0.025	5	0	1
87		4	max	8.336	3	0	22	0.003	7	0	22	0.035	7	0	22

**Envelope Member Section Forces (Continued)**

Member	Sec		Axial[k]	LC	y Shear[k]	LC	z Shear[k]	LC	Torque[k-ft]	LC	y-y Moment[k-ft]	LC	z-z Moment[k-ft]	LC	
88		min	0.216	22	0	1	-0.004	5	0	1	-0.037	5	0	1	
89	5	max	8.239	3	0	22	0.003	7	0	22	0.047	7	0	22	
90		min	0.158	22	0	1	-0.004	5	0	1	-0.049	5	0	1	
91	M100	1	max	2.965	3	0	22	0.009	7	0	22	0	22	0	22
92		min	0.402	22	0	1	-0.01	5	0	1	0	1	0	1	
93	2	max	2.868	3	0	22	0.009	7	0	22	0.031	7	0	22	
94		min	0.344	22	0	1	-0.01	5	0	1	-0.034	5	0	1	
95	3	max	2.771	3	0	22	0.009	7	0	22	0.062	7	0	22	
96		min	0.286	22	0	1	-0.01	5	0	1	-0.068	5	0	1	
97	4	max	2.674	3	0	22	0.009	7	0	22	0.093	7	0	22	
98		min	0.228	22	0	1	-0.01	5	0	1	-0.101	5	0	1	
99	5	max	2.576	3	0	22	0.009	7	0	22	0.124	7	0	22	
100		min	0.169	22	0	1	-0.01	5	0	1	-0.135	5	0	1	
101	M101	1	max	0.528	5	5.968	3	0	22	0	22	0	22	0	22
102		min	0	1	0.803	22	-0.556	6	-0.041	6	0	1	0	1	
103	2	max	0.528	5	4.533	3	0	22	0	22	0	22	-3.14	22	
104		min	0	1	0.453	22	-0.043	6	-0.041	6	-1.499	6	-26.253	3	
105	3	max	0.528	5	0.078	3	0	22	0	22	0	22	-4.16	22	
106		min	0	1	-0.001	22	-0.024	6	-0.041	6	-2.264	6	-32.998	3	
107	4	max	0.528	5	-0.448	22	0.093	6	0	22	0	22	-3.116	22	
108		min	0	1	-4.42	3	0	1	-0.041	6	-1.746	6	-25.714	3	
109	5	max	0.528	5	-0.802	22	0.606	6	0	22	0	22	0	22	
110		min	0	1	-5.795	3	0	1	-0.041	6	0	1	0	1	
111	M102	1	max	0.788	6	3.815	3	0	5	0	2	0	22	0	22
112		min	0	1	0.041	22	0	1	-0.014	3	0	1	0	1	
113	2	max	0.788	6	2.496	3	0	5	0	2	0	5	-0.186	22	
114		min	0	1	0.032	22	0	1	-0.014	3	0	1	-16.04	3	
115	3	max	0.788	6	0	22	0	22	0	2	0	22	-0.285	22	
116		min	0	1	-0.194	3	0	5	-0.014	3	0	5	-21.34	3	
117	4	max	0.788	6	-0.047	22	0	5	0	2	0	22	-0.264	22	
118		min	0	1	-2.602	3	0	1	-0.014	3	-0.002	5	-16.581	3	
119	5	max	0.788	6	-0.057	22	0	5	0	2	0	22	0	22	
120		min	0	1	-3.922	3	0	1	-0.014	3	0	1	0	1	
121	M103	1	max	6.602	3	0	22	0	22	0	22	0	22	0	22
122		min	0.422	22	0	1	0	1	0	1	0	1	0	1	
123	2	max	6.505	3	0	22	0	22	0	22	0	22	0	22	
124		min	0.364	22	0	1	0	1	0	1	0	1	0	1	
125	3	max	6.408	3	0	22	0	22	0	22	0	22	0	22	
126		min	0.306	22	0	1	0	1	0	1	0	1	0	1	
127	4	max	6.311	3	0	22	0	22	0	22	0	22	0	22	
128		min	0.247	22	0	1	0	1	0	1	0	1	0	1	
129	5	max	6.214	3	0	22	0	22	0	22	0	22	0	22	
130		min	0.189	22	0	1	0	1	0	1	0	1	0	1	
131	M104	1	max	0	22	2.029	3	0	22	0	22	0	22	0	22
132		min	0	1	0.744	22	0	1	0	1	0	1	0	1	
133	2	max	0	22	1.014	3	0	22	0	22	0	22	-3.52	22	
134		min	0	1	0.372	22	0	1	0	1	0	1	-9.596	3	
135	3	max	0	22	0	22	0	22	0	22	0	22	-4.693	22	
136		min	0	1	0	1	0	1	0	1	0	1	-12.794	3	
137	4	max	0	22	-0.372	22	0	22	0	22	0	22	-3.52	22	
138		min	0	1	-1.014	3	0	1	0	1	0	1	-9.596	3	
139	5	max	0	22	-0.744	22	0	22	0	22	0	22	0	22	
140		min	0	1	-2.029	3	0	1	0	1	0	1	0	1	
141	M105	1	max	5.608	3	0.004	6	0.041	7	0	22	0	22	0	22
142		min	1.87	2	0	1	-0.038	5	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 Moment[k-ft]	LC	z-z Moment[k-ft]	LC	
143	2	max	5.482	3	0.004	6	0.041	7	0	22	0.184	7	0	22	
144		min	1.87	2	0	1	-0.038	5	0	1	-0.17	5	-0.017	6	
145	3	max	5.357	3	0.004	6	0.041	7	0	22	0.369	7	0	22	
146		min	1.87	2	0	1	-0.038	5	0	1	-0.339	5	-0.034	6	
147	4	max	5.232	3	0.004	6	0.041	7	0	22	0.553	7	0	22	
148		min	1.87	2	0	1	-0.038	5	0	1	-0.509	5	-0.05	6	
149	5	max	5.383	3	0.027	6	0.159	5	0	22	0	22	0	22	
150		min	1.815	22	0	1	-0.173	7	0	1	0	1	-0.003	6	
151	M106	1	max	34.149	3	0.016	6	0.041	7	0	22	0	22	0	22
152		min	9.447	22	0	1	-0.039	5	0	1	0	1	0	1	
153	2	max	34.024	3	0.016	6	0.041	7	0	22	0.186	7	0	22	
154		min	9.372	22	0	1	-0.039	5	0	1	-0.175	5	-0.073	6	
155	3	max	33.898	3	0.016	6	0.041	7	0	22	0.371	7	0	22	
156		min	9.297	22	0	1	-0.039	5	0	1	-0.35	5	-0.146	6	
157	4	max	33.773	3	0.016	6	0.041	7	0	22	0.557	7	0	22	
158		min	9.222	22	0	1	-0.039	5	0	1	-0.525	5	-0.219	6	
159	5	max	24.307	3	0.137	6	0.144	5	0	22	0	22	0	22	
160		min	8.279	22	0	1	-0.153	7	0	1	0	1	0	1	
161	M107	1	max	34.564	3	0.161	6	0.041	7	0	22	0	22	0	22
162		min	9.843	22	0	1	-0.04	5	0	1	0	1	0	1	
163	2	max	34.439	3	0.161	6	0.041	7	0	22	0.184	7	0	22	
164		min	9.768	22	0	1	-0.04	5	0	1	-0.18	5	-0.727	6	
165	3	max	34.313	3	0.161	6	0.041	7	0	22	0.369	7	0	22	
166		min	9.692	22	0	1	-0.04	5	0	1	-0.36	5	-1.453	6	
167	4	max	34.188	3	0.161	6	0.041	7	0	22	0.553	7	0	22	
168		min	9.617	22	0	1	-0.04	5	0	1	-0.54	5	-2.18	6	
169	5	max	24.092	3	0	22	0.137	5	0	22	0	22	0.003	6	
170		min	8.173	22	-0.793	6	-0.14	7	0	1	0	1	0	1	
171	M108	1	max	33.786	3	0.152	6	0.04	7	0	22	0	22	0	22
172		min	9.607	22	0	1	-0.041	5	0	1	0	1	0	1	
173	2	max	33.66	3	0.152	6	0.04	7	0	22	0.18	7	0	22	
174		min	9.532	22	0	1	-0.041	5	0	1	-0.184	5	-0.689	6	
175	3	max	33.535	3	0.152	6	0.04	7	0	22	0.36	7	0	22	
176		min	9.457	22	0	1	-0.041	5	0	1	-0.369	5	-1.378	6	
177	4	max	33.41	3	0.152	6	0.04	7	0	22	0.54	7	0	22	
178		min	9.382	22	0	1	-0.041	5	0	1	-0.553	5	-2.066	6	
179	5	max	23.48	3	0	22	0.14	5	0	22	0	22	0.003	6	
180		min	7.964	22	-0.743	6	-0.137	7	0	1	0	1	0	1	
181	M109	1	max	6.442	3	0.004	6	0.038	7	0	22	0	22	0	22
182		min	2.205	2	0	1	-0.041	5	0	1	0	1	0	1	
183	2	max	6.316	3	0.004	6	0.038	7	0	22	0.17	7	0	22	
184		min	2.205	2	0	1	-0.041	5	0	1	-0.185	5	-0.016	6	
185	3	max	6.191	3	0.004	6	0.038	7	0	22	0.339	7	0	22	
186		min	2.205	2	0	1	-0.041	5	0	1	-0.369	5	-0.033	6	
187	4	max	6.065	3	0.004	6	0.038	7	0	22	0.509	7	0	22	
188		min	2.205	2	0	1	-0.041	5	0	1	-0.554	5	-0.049	6	
189	5	max	6.24	3	0.025	6	0.173	5	0	22	0	22	0	22	
190		min	2.107	22	0	1	-0.159	7	0	1	0	1	-0.003	6	
191	M110	1	max	9.918	3	0	6	0.202	3	0	22	0	22	0	22
192		min	2.896	22	0	17	0.056	22	0	1	0	1	0	1	
193	2	max	9.793	3	0	6	0.202	3	0	22	0.914	3	0	17	
194		min	2.821	22	0	17	0.056	22	0	1	0.252	22	0	6	
195	3	max	9.667	3	0	6	0.202	3	0	22	1.828	3	0	17	
196		min	2.745	22	0	17	0.056	22	0	1	0.504	22	0	6	
197	4	max	9.542	3	0	6	0.202	3	0	22	2.742	3	0	17	

**Envelope Member Section Forces (Continued)**

Member	Sec		Axial[k]	LC	y Shear[k]	LC	z Shear[k]	LC	Torque[k-ft]	LC	y-y Moment[k-ft]	LC	z-z Moment[k-ft]	LC
198		min	2.67	22	0	17	0.056	22	0	1	0.755	22	0	6
199	5	max	9.417	3	0	6	0.202	3	0	22	3.656	3	0	17
200		min	2.595	22	0	17	0.056	22	0	1	1.007	22	0	6
201	M111	1	max	33.924	3	0.016	6	0.039	7	0	0	22	0	22
202		min	9.352	22	0	1	-0.041	5	0	1	0	1	0	1
203	2	max	33.799	3	0.016	6	0.039	7	0	22	0.175	7	0	22
204		min	9.277	22	0	1	-0.041	5	0	1	-0.185	5	-0.073	6
205	3	max	33.674	3	0.016	6	0.039	7	0	22	0.35	7	0	22
206		min	9.202	22	0	1	-0.041	5	0	1	-0.371	5	-0.146	6
207	4	max	33.548	3	0.016	6	0.039	7	0	22	0.525	7	0	22
208		min	9.127	22	0	1	-0.041	5	0	1	-0.556	5	-0.22	6
209	5	max	24.062	3	0.137	6	0.153	5	0	22	0	22	0	22
210		min	8.195	22	0	1	-0.144	7	0	1	0	1	0	1
211	M112	1	max	0.583	6	2.207	3	0	14	0.135	7	0	22	22
212		min	0	1	0.037	22	-1.086	7	-0.124	5	0	1	0	1
213	2	max	0.583	6	0.443	3	0	14	0.135	7	0	14	-0.083	22
214		min	0	1	-0.004	22	-0.543	7	-0.124	5	-4.142	7	-6.734	3
215	3	max	0.583	6	-0.045	22	0	14	0.135	7	0.001	14	0.042	22
216		min	0	1	-1.321	3	-0.001	16	-0.124	5	-5.525	7	-4.501	3
217	4	max	0.583	6	-0.086	22	0.542	7	0.135	7	0.001	14	6.7	3
218		min	0	1	-3.086	3	0	1	-0.124	5	-4.149	7	0.374	22
219	5	max	0.583	6	0.988	3	1.088	7	0.135	7	0	22	0	22
220		min	0	1	0.072	22	0	14	-0.124	5	0	1	0	1
221	M113	1	max	9.533	3	0.19	6	0.363	7	0	0	22	0	22
222		min	3.122	22	0	22	-0.004	3	0	1	0	1	0	1
223	2	max	9.353	3	0.19	6	0.363	7	0	22	2.353	7	-0.001	22
224		min	3.014	22	0	22	-0.004	3	0	1	-0.026	3	-1.231	6
225	3	max	4.805	3	0	8	-0.003	22	0	22	4.631	7	0.006	8
226		min	1.559	22	-0.184	6	-0.357	7	0	1	0.033	22	-2.389	6
227	4	max	4.625	3	0	8	-0.003	22	0	22	2.316	7	0.003	8
228		min	1.451	22	-0.184	6	-0.357	7	0	1	0.016	22	-1.194	6
229	5	max	4.445	3	0	8	-0.003	22	0	22	0	22	0	22
230		min	1.343	22	-0.184	6	-0.357	7	0	1	0	1	0	1
231	M114	1	max	0.62	6	2.34	3	1.086	5	0.124	7	0	22	22
232		min	0	1	0.027	22	0	16	-0.135	5	0	1	0	1
233	2	max	0.62	6	0.467	3	0.544	5	0.124	7	4.142	5	-0.049	22
234		min	0	1	-0.008	22	0	16	-0.135	5	-0.001	16	-7.132	3
235	3	max	0.62	6	-0.043	22	0.001	14	0.124	7	5.525	5	0.079	22
236		min	0	1	-1.406	3	0	16	-0.135	5	-0.001	16	-4.744	3
237	4	max	0.62	6	-0.078	22	0	22	0.124	7	4.149	5	7.166	3
238		min	0	1	-3.279	3	-0.542	5	-0.135	5	-0.002	16	0.386	22
239	5	max	0.62	6	1.061	3	0	16	0.124	7	0	22	0	22
240		min	0	1	0.076	22	-1.088	5	-0.135	5	0	1	0	1
241	M115	1	max	0.004	7	0.221	21	0	22	0	0	22	0	22
242		min	-0.003	5	0	2	-0.167	6	0	1	0	1	0	1
243	2	max	0.004	7	0.111	21	0	22	0	22	0	22	0	2
244		min	-0.003	5	0	2	-0.083	6	0	1	-0.341	6	-0.452	1
245	3	max	0.004	7	0	22	0	22	0	22	0	22	0	2
246		min	-0.003	5	0	1	0	1	0	1	-0.454	6	-0.603	1
247	4	max	0.004	7	0	2	0.083	6	0	22	0	22	0	2
248		min	-0.003	5	-0.111	1	0	1	0	1	-0.341	6	-0.452	1
249	5	max	0.004	7	0	2	0.167	6	0	22	0	22	0	22
250		min	-0.003	5	-0.221	1	0	1	0	1	0	1	0	1
251	M116	1	max	51.356	3	0.058	3	0.231	3	0	0	22	0	22
252		min	14.483	22	0.016	22	0.06	22	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 Moment[k-ft]	LC	z-z Moment[k-ft]	LC	
253	2	max	51.231	3	0.058	3	0.231	3	0	22	1.044	3	-0.07	22	
254		min	14.408	22	0.016	22	0.06	22	0	1	0.27	22	-0.262	3	
255	3	max	51.106	3	0.058	3	0.231	3	0	22	2.089	3	-0.14	22	
256		min	14.333	22	0.016	22	0.06	22	0	1	0.54	22	-0.525	3	
257	4	max	43.107	3	0.351	3	0.075	7	0.306	3	3.018	3	1.584	3	
258		min	12.118	22	0.085	6	0.039	3	0.042	6	0.808	22	0.374	6	
259	5	max	42.982	3	0.351	3	0.075	7	0.306	3	3.193	3	-0.001	22	
260		min	12.043	22	0.085	6	0.039	3	0.042	6	1.052	22	-0.012	6	
261	M117	1	max	0	11	2.232	3	0	22	0	0	22	0	22	
262		min	0	9	0.183	22	-0.532	6	0	1	0	1	0	1	
263	2	max	0	11	2.083	3	0	22	0	22	0	22	-0.506	22	
264		min	0	9	0.093	22	-0.42	6	0	1	-1.745	6	-7.91	3	
265	3	max	0	11	1.934	3	0	22	0	22	0	22	-0.684	22	
266		min	0	9	0.004	22	-0.308	6	0	1	-3.079	6	-15.275	3	
267	4	max	0	11	-0.099	22	0.522	6	0	22	0	22	-0.454	22	
268		min	0	9	-2.616	3	0	1	0	1	-2.119	6	-11.231	3	
269	5	max	0	11	-0.149	22	0.634	6	0	22	0	22	0	22	
270		min	0	9	-3.511	3	0	1	0	1	0	1	0	1	
271	M118	1	max	0.004	5	15.124	3	0	22	0	0	22	0	22	
272		min	0	1	5.137	22	0	1	0	6	0	1	0	1	
273	2	max	0.004	5	7.562	3	0	22	0	22	0	22	-19.264	22	
274		min	0	1	2.568	22	0	1	0	6	0	1	-56.72	3	
275	3	max	0.004	5	0	22	0	22	0	22	0	22	-25.686	22	
276		min	0	1	0	1	0	1	0	6	0	1	-75.627	3	
277	4	max	0.004	5	-2.568	22	0	22	0	22	0	22	-19.264	22	
278		min	0	1	-7.562	3	0	1	0	6	0	1	-56.72	3	
279	5	max	0.004	5	-5.137	22	0	22	0	22	0	22	0	22	
280		min	0	1	-15.124	3	0	1	0	6	0	1	0	1	
281	M119	1	max	0	11	5.278	3	0	22	0	0	22	0	22	
282		min	0	9	0.24	22	-0.776	6	0	1	0	1	0	1	
283	2	max	0	11	4.058	3	0	22	0	22	0	22	-1.031	22	
284		min	0	9	0.172	22	-0.623	6	0	1	-3.497	6	-23.342	3	
285	3	max	0	22	0.086	3	0.024	6	0	22	0	22	-1.446	22	
286		min	0	5	-0.001	22	0	1	0	1	-4.397	6	-29.041	3	
287	4	max	0	7	-0.169	22	0.573	6	0	22	0	22	-1.012	22	
288		min	0	5	-3.957	3	0	1	0	1	-3.25	6	-22.861	3	
289	5	max	0	7	-0.241	22	0.726	6	0	22	0	22	0	22	
290		min	0	5	-5.096	3	0	1	0	1	0	1	0	1	
291	M120	1	max	0.012	8	-0.474	22	0.044	3	0	22	0	22	0.1	3
292		min	-0.122	6	-1.657	3	-0.019	7	0	1	0	1	0.035	22	
293	2	max	0.012	8	-0.692	22	0.044	3	0	22	0.048	3	2.343	3	
294		min	-0.122	6	-2.406	3	-0.019	7	0	1	-0.021	7	0.679	22	
295	3	max	0.012	8	-0.909	22	0.044	3	0	22	0.097	3	5.413	3	
296		min	-0.122	6	-3.155	3	-0.019	7	0	1	-0.042	7	1.563	22	
297	4	max	0.012	8	-1.127	22	0.044	3	0	22	0.145	3	9.31	3	
298		min	-0.122	6	-3.904	3	-0.019	7	0	1	-0.062	7	2.686	22	
299	5	max	0.012	8	-1.344	22	0.044	3	0	22	0.193	3	14.034	3	
300		min	-0.122	6	-4.653	3	-0.019	7	0	1	-0.083	7	4.051	22	
301	M121	1	max	0.696	5	4.009	3	0	22	0	0	22	0	22	
302		min	0	1	0.54	22	-0.239	6	-0.939	6	0	1	0	1	
303	2	max	0.696	5	2.934	3	0.118	6	0	22	0	22	-1.468	22	
304		min	0	1	0.301	22	0	1	-0.939	6	-0.211	6	-11.964	3	
305	3	max	0.697	5	-0.013	22	0	22	0	22	0	22	-1.988	22	
306		min	0	1	-1.719	3	-0.313	6	-0.939	6	-0.302	6	-15.106	3	
307	4	max	0.697	5	-0.286	22	0.043	6	0	22	0	22	-1.467	22	

**Envelope Member Section Forces (Continued)**

Member	Sec		Axial[k]	LC	y Shear[k]	LC	z Shear[k]	LC	Torque[k-ft]	LC	y-y Moment[k-ft]	LC	z-z Moment[k-ft]	LC	
308		min	0	1	-2.173	3	0	1	-0.939	6	-0.771	6	-8.342	3	
309	5	max	0.697	5	-0.558	22	0.4	6	0	22	0	22	0	22	
310		min	0	1	-2.627	3	0	1	-0.939	6	0	1	0	1	
311	M122	1	max	0	7	3.522	3	0	22	22	0	22	0	22	
312		min	0	5	0.144	22	-0.687	6	0	1	0	1	0	1	
313	2	max	0	7	2.598	3	0	22	0	22	0	22	-0.42	22	
314		min	0	5	0.101	22	-0.581	6	0	1	-2.204	6	-10.715	3	
315	3	max	0	9	-0.005	22	0.313	6	0	22	0	22	-0.623	22	
316		min	0	11	-1.747	3	0	1	0	1	-2.917	6	-13.127	3	
317	4	max	0	9	-0.09	22	0.42	6	0	22	0	22	-0.459	22	
318		min	0	11	-1.888	3	0	1	0	1	-1.643	6	-6.809	3	
319	5	max	0	9	-0.174	22	0.526	6	0	22	0	22	0	22	
320		min	0	11	-2.029	3	0	1	0	1	0	1	0	1	
321	M123	1	max	0.003	5	0.237	12	0	22	22	0	22	0	22	
322		min	-0.003	7	0	2	-0.178	6	0	1	0	1	0	1	
323	2	max	0.003	5	0.118	12	0	22	0	22	0	22	0	2	
324		min	-0.003	7	0	2	-0.089	6	0	1	-0.39	6	-0.518	4	
325	3	max	0.003	5	0	22	0	22	0	22	0	22	0	2	
326		min	-0.003	7	0	1	0	1	0	1	-0.52	6	-0.69	4	
327	4	max	0.003	5	0	2	0.089	6	0	22	0	22	0	2	
328		min	-0.003	7	-0.118	3	0	1	0	1	-0.39	6	-0.518	4	
329	5	max	0.003	5	0	2	0.178	6	0	22	0	22	0	22	
330		min	-0.003	7	-0.237	3	0	1	0	1	0	1	0	1	
331	M124	1	max	0.494	6	3.507	3	0	7	0.005	2	0	22	0	22
332		min	0	1	0.066	22	0	1	-0.068	5	0	1	0	1	
333	2	max	0.494	6	2.372	3	0	7	0.005	2	0	7	-0.286	22	
334		min	0	1	0.046	22	0	1	-0.068	5	0	1	-14.939	3	
335	3	max	0.494	6	0.005	22	0	22	0.005	2	0	22	-0.382	22	
336		min	0	1	-0.194	3	0	7	-0.068	5	0	7	-19.924	3	
337	4	max	0.494	6	-0.053	22	0	7	0.005	2	0	22	-0.32	22	
338		min	0	1	-2.464	3	0	1	-0.068	5	-0.002	7	-15.412	3	
339	5	max	0.494	6	-0.073	22	0	7	0.005	2	0	22	0	22	
340		min	0	1	-3.599	3	0	1	-0.068	5	0	1	0	1	
341	M125	1	max	0.877	7	0.712	21	0	22	0.161	6	0	22	0	22
342		min	0	1	0	2	-0.559	6	0	1	0	1	0	1	
343	2	max	0.877	7	0.356	21	0	22	0.161	6	0	22	0	2	
344		min	0	1	0	2	-0.279	6	0	1	-1.142	6	-1.454	1	
345	3	max	0.877	7	0	22	0	22	0.161	6	0	22	0	2	
346		min	0	1	0	1	0	1	0	1	-1.523	6	-1.939	1	
347	4	max	0.877	7	0	2	0.279	6	0.161	6	0	22	0	2	
348		min	0	1	-0.356	1	0	1	0	1	-1.142	6	-1.454	1	
349	5	max	0.877	7	0	2	0.559	6	0.161	6	0	22	0	22	
350		min	0	1	-0.712	1	0	1	0	1	0	1	0	1	
351	M126	1	max	4.939	7	7.486	3	0.012	6	0.001	17	-0.001	22	37.377	3
352		min	-5.138	5	2.078	22	0.002	22	0	6	-0.009	6	10.311	22	
353	2	max	4.939	7	-0.543	22	0.012	6	0.001	17	0.085	6	14.94	3	
354		min	-5.138	5	-1.936	3	0.002	22	0	6	0.011	22	4.107	22	
355	3	max	4.939	7	1.719	3	-0.002	22	0.001	17	-0.002	22	-5.563	22	
356		min	-5.138	5	0.47	22	-0.017	6	0	6	-0.012	6	-20.055	3	
357	4	max	4.939	7	-2.151	22	-0.002	22	0.001	17	-0.019	22	4.13	3	
358		min	-5.138	5	-7.702	3	-0.017	6	0	6	-0.145	6	1.233	22	
359	5	max	4.939	7	-4.772	22	-0.002	22	0.001	17	-0.036	22	104.496	3	
360		min	-5.138	5	-17.124	3	-0.017	6	0	6	-0.279	6	29.22	22	
361	M127	1	max	0.264	7	6.24	3	0	22	0	22	0	22	0	22
362		min	-0.27	5	2.107	22	0	1	-0.003	6	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 Moment[k-ft]	LC	z-z Moment[k-ft]	LC	
363		2	max	0.264	7	-1.175	22	0	22	0	22	0	22	-2.976	22
364			min	-0.27	5	-3.425	3	0	1	-0.003	6	0	1	-8.993	3
365		3	max	0.129	7	10.973	3	0	22	0	22	0	22	16.733	3
366			min	-0.127	5	3.737	22	0	1	-0.003	6	0	1	5.814	22
367		4	max	0.129	7	1.309	3	0	22	0	22	0	22	-7.581	22
368			min	-0.127	5	0.455	22	0	1	-0.003	6	0	1	-22.513	3
369		5	max	0.129	7	-2.828	22	0	22	0	22	0	22	0	22
370			min	-0.127	5	-8.355	3	0	1	-0.003	6	0	1	0	1
371	M128	1	max	0.696	7	2.874	3	0	22	0.946	6	0	22	0	22
372			min	0	1	0.587	22	-0.445	6	0	1	0	1	0	1
373		2	max	0.696	7	2.395	3	0	22	0.946	6	0	22	-1.627	22
374			min	0	1	0.3	22	-0.068	6	0	1	-0.941	6	-9.659	3
375		3	max	0.696	7	1.916	3	0.308	6	0.946	6	0	22	-2.201	22
376			min	0	1	0.013	22	0	1	0	1	-0.502	6	-17.562	3
377		4	max	0.696	7	-0.31	22	0	22	0.946	6	0	22	-1.606	22
378			min	0	1	-2.95	3	-0.033	6	0	1	-0.567	6	-12.746	3
379		5	max	0.696	7	-0.566	22	0.343	6	0.946	6	0	22	0	22
380			min	0	1	-4.003	3	0	1	0	1	0	1	0	1
381	M129	1	max	9.686	3	0.181	6	0.036	7	0	22	0	22	0	22
382			min	3.268	22	-0.044	8	-0.174	3	0	1	0	1	0	1
383		2	max	9.507	3	0.181	6	0.036	7	0	22	0.235	7	0.283	8
384			min	3.16	22	-0.044	8	-0.174	3	0	1	-1.126	3	-1.173	6
385		3	max	8.194	3	0.035	8	0.147	3	0	22	-0.524	22	0.447	8
386			min	2.569	22	-0.287	6	0.04	22	0	1	-1.911	3	-3.716	6
387		4	max	8.014	3	0.035	8	0.147	3	0	22	-0.262	22	0.224	8
388			min	2.461	22	-0.287	6	0.04	22	0	1	-0.955	3	-1.858	6
389		5	max	7.835	3	0.035	8	0.147	3	0	22	0	22	0	22
390			min	2.354	22	-0.287	6	0.04	22	0	1	0	1	0	1
391	M130	1	max	0	22	3.558	3	0	22	0.172	3	0	22	0	22
392			min	-0.355	6	1.006	22	0	1	-0.045	7	0	1	0	1
393		2	max	0	22	1.779	3	0	22	0.172	3	0	22	-1.336	22
394			min	-0.355	6	0.503	22	0	1	-0.045	7	0	1	-4.726	3
395		3	max	0	22	0	22	0	22	0.172	3	0	22	-1.781	22
396			min	-0.355	6	0	1	0	1	-0.045	7	0	1	-6.302	3
397		4	max	0	22	-0.503	22	0	22	0.172	3	0	22	-1.336	22
398			min	-0.355	6	-1.779	3	0	1	-0.045	7	0	1	-4.726	3
399		5	max	0	22	-1.006	22	0	22	0.172	3	0	22	0	22
400			min	-0.355	6	-3.558	3	0	1	-0.045	7	0	1	0	1
401	M131	1	max	1.125	6	5.755	3	0	22	0.049	7	0	22	0	22
402			min	0	1	-0.147	22	0	1	-0.047	5	0	1	0	1
403		2	max	1.125	6	2.877	3	0	22	0.049	7	0	22	0.561	22
404			min	0	1	-0.074	22	0	1	-0.047	5	0	1	-21.939	3
405		3	max	1.125	6	0	22	0	22	0.049	7	0	22	0.748	22
406			min	0	1	0	1	0	1	-0.047	5	0	1	-29.252	3
407		4	max	1.125	6	0.074	22	0	22	0.049	7	0	22	0.561	22
408			min	0	1	-2.877	3	0	1	-0.047	5	0	1	-21.939	3
409		5	max	1.125	6	0.147	22	0	22	0.049	7	0	22	0	22
410			min	0	1	-5.755	3	0	1	-0.047	5	0	1	0	1
411	M132	1	max	0.877	5	0.761	21	0	22	0	22	0	22	0	22
412			min	0	1	0	2	-0.598	6	-0.152	6	0	1	0	1
413		2	max	0.877	5	0.381	21	0	22	0	22	0	22	0	2
414			min	0	1	0	2	-0.299	6	-0.152	6	-1.307	6	-1.664	1
415		3	max	0.877	5	0	22	0	22	0	22	0	22	0	2
416			min	0	1	0	1	0	1	-0.152	6	-1.743	6	-2.219	1
417		4	max	0.877	5	0	2	0.299	6	0	22	0	22	0	2

**Envelope Member Section Forces (Continued)**

Member	Sec		Axial[k]	LC	y Shear[k]	LC	z Shear[k]	LC	Torque[k-ft]	LC	y-y Moment[k-ft]	LC	z-z Moment[k-ft]	LC	
418		min	0	1	-0.381	3	0	1	-0.152	6	-1.307	6	-1.664	1	
419	5	max	0.877	5	0	2	0.598	6	0	22	0	22	0	22	
420		min	0	1	-0.761	3	0	1	-0.152	6	0	1	0	1	
421	M133	1	max	0.211	7	0.074	3	0	22	-0.001	22	0	22	0	22
422		min	0.003	22	0	2	-0.231	8	-0.302	6	0	1	0	1	
423	2	max	0.211	7	0.037	3	0	22	-0.001	22	0	22	0	2	
424		min	0.003	22	0	2	-0.116	8	-0.302	6	-0.134	8	-0.043	3	
425	3	max	0.211	7	0	22	0	22	-0.001	22	0	22	0	2	
426		min	0.003	22	0	1	0	1	-0.302	6	-0.178	8	-0.057	3	
427	4	max	0.211	7	0	2	0.116	8	-0.001	22	0	22	0	2	
428		min	0.003	22	-0.037	1	0	1	-0.302	6	-0.134	8	-0.043	3	
429	5	max	0.211	7	0	2	0.231	8	-0.001	22	0	22	0	22	
430		min	0.003	22	-0.074	1	0	1	-0.302	6	0	1	0	1	
431	M134	1	max	0	22	0.609	21	0.908	8	0	22	0	22	0	22
432		min	0	1	0	2	0	1	0	1	0	1	0	1	
433	2	max	0	22	0.305	21	0.454	8	0	22	4.296	8	0	2	
434		min	0	1	0	2	0	1	0	1	0	1	-2.883	1	
435	3	max	0	22	0	22	0	22	0	22	5.729	8	0	2	
436		min	0	1	0	1	0	1	0	1	0	1	-3.844	1	
437	4	max	0	22	0	2	0	22	0	22	4.296	8	0	2	
438		min	0	1	-0.305	1	-0.454	8	0	1	0	1	-2.883	1	
439	5	max	0	22	0	2	0	22	0	22	0	22	0	22	
440		min	0	1	-0.609	1	-0.908	8	0	1	0	1	0	1	
441	M135	1	max	0.717	6	3.868	3	0	22	0.012	3	0	22	0	22
442		min	0	1	0.042	22	0	7	0	2	0	1	0	1	
443	2	max	0.717	6	2.548	3	0	22	0.012	3	0	22	-0.19	22	
444		min	0	1	0.033	22	0	7	0	2	0	7	-16.306	3	
445	3	max	0.717	6	0	22	0	7	0.012	3	0	7	-0.288	22	
446		min	0	1	-0.202	3	0	1	0	2	0	1	-21.686	3	
447	4	max	0.717	6	-0.047	22	0	22	0.012	3	0.002	7	-0.266	22	
448		min	0	1	-2.657	3	0	7	0	2	0	1	-16.861	3	
449	5	max	0.717	6	-0.057	22	0	22	0.012	3	0	22	0	22	
450		min	0	1	-3.977	3	0	7	0	2	0	1	0	1	
451	M136	1	max	0	22	1.431	3	0	22	0.029	5	0	22	0	22
452		min	0	7	0.023	22	0	1	-0.029	2	0	1	0	1	
453	2	max	0	22	0.715	3	0	22	0.029	5	0	22	-0.053	22	
454		min	0	7	0.011	22	0	1	-0.029	2	0	1	-3.375	3	
455	3	max	0	22	0	22	0	22	0.029	5	0	22	-0.071	22	
456		min	0	7	0	1	0	1	-0.029	2	0	1	-4.501	3	
457	4	max	0	22	-0.011	22	0	22	0.029	5	0	22	-0.053	22	
458		min	0	7	-0.715	3	0	1	-0.029	2	0	1	-3.375	3	
459	5	max	0	22	-0.023	22	0	22	0.029	5	0	22	0	22	
460		min	0	7	-1.431	3	0	1	-0.029	2	0	1	0	1	
461	M137	1	max	0.001	7	1.136	3	0	22	0.099	3	0	22	0	22
462		min	0	1	0.038	22	0	1	0.018	22	0	1	0	1	
463	2	max	0.001	7	0.568	3	0	22	0.099	3	0	22	-0.09	22	
464		min	0	1	0.019	22	0	1	0.018	22	0	1	-2.679	3	
465	3	max	0.001	7	0	22	0	22	0.099	3	0	22	-0.121	22	
466		min	0	1	0	1	0	1	0.018	22	0	1	-3.572	3	
467	4	max	0.001	7	-0.019	22	0	22	0.099	3	0	22	-0.09	22	
468		min	0	1	-0.568	3	0	1	0.018	22	0	1	-2.679	3	
469	5	max	0.001	7	-0.038	22	0	22	0.099	3	0	22	0	22	
470		min	0	1	-1.136	3	0	1	0.018	22	0	1	0	1	
471	M138	1	max	0	22	1.393	3	0	22	0.028	2	0	22	0	22
472		min	0	5	0.021	22	0	1	-0.037	7	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 Moment[k-ft]	LC	z-z Moment[k-ft]	LC	
473	2	max	0	22	0.69	3	0	22	0.028	2	0	22	-0.049	22	
474		min	0	5	0.011	22	0	1	-0.037	7	0	1	-3.163	3	
475	3	max	0	22	0	22	0	22	0.028	2	0	22	-0.066	22	
476		min	0	5	-0.006	3	0	1	-0.037	7	0	1	-4.199	3	
477	4	max	0	22	-0.011	22	0	22	0.028	2	0	22	-0.051	22	
478		min	0	5	-0.692	3	0	1	-0.037	7	0	1	-3.136	3	
479	5	max	0	22	-0.022	22	0	22	0.028	2	0	22	0	22	
480		min	0	5	-1.371	3	0	1	-0.037	7	0	1	0	1	
481	M139	1	max	0.001	5	1.106	3	0	-0.022	22	0	22	0	22	
482		min	0	1	0.037	22	0	1	-0.103	3	0	1	0	1	
483	2	max	0.001	5	0.547	3	0	22	-0.022	22	0	22	-0.084	22	
484		min	0	1	0.019	22	0	1	-0.103	3	0	1	-2.511	3	
485	3	max	0.001	5	0	22	0	22	-0.022	22	0	22	-0.113	22	
486		min	0	1	-0.005	3	0	1	-0.103	3	0	1	-3.333	3	
487	4	max	0.001	5	-0.018	22	0	22	-0.022	22	0	22	-0.085	22	
488		min	0	1	-0.549	3	0	1	-0.103	3	0	1	-2.489	3	
489	5	max	0.001	5	-0.038	22	0	22	-0.022	22	0	22	0	22	
490		min	0	1	-1.088	3	0	1	-0.103	3	0	1	0	1	
491	M140	1	max	2.996	3	0	22	0	22	0	22	22	0	22	
492		min	0.788	2	-0.115	8	0	1	0	1	0	1	0	1	
493	2	max	2.907	3	0	22	0	22	0	22	0	22	0.37	8	
494		min	0.788	2	-0.115	8	0	1	0	1	0	1	0	1	
495	3	max	2.817	3	0	22	0	22	0	22	0	22	0.74	8	
496		min	0.788	2	-0.115	8	0	1	0	1	0	1	0	1	
497	4	max	2.727	3	0	22	0	22	0	22	0	22	1.109	8	
498		min	0.788	2	-0.115	8	0	1	0	1	0	1	0	1	
499	5	max	2.029	3	0.796	8	0	22	0	22	0	22	0	22	
500		min	0.744	22	0	1	0	1	0	1	0	1	0	1	
501	M141	1	max	2.996	3	0	22	0	22	0	22	22	0	22	
502		min	0.788	2	-0.115	8	0	1	0	1	0	1	0	1	
503	2	max	2.907	3	0	22	0	22	0	22	0	22	0.37	8	
504		min	0.788	2	-0.115	8	0	1	0	1	0	1	0	1	
505	3	max	2.817	3	0	22	0	22	0	22	0	22	0.74	8	
506		min	0.788	2	-0.115	8	0	1	0	1	0	1	0	1	
507	4	max	2.727	3	0	22	0	22	0	22	0	22	1.109	8	
508		min	0.788	2	-0.115	8	0	1	0	1	0	1	0	1	
509	5	max	2.029	3	0.796	8	0	22	0	22	0	22	0	22	
510		min	0.744	22	0	1	0	1	0	1	0	1	0	1	
511	M142	1	max	0.243	8	23.551	3	0	22	0.027	7	0	22	0	22
512		min	0	22	6.772	22	0	1	-0.001	3	0	1	0	1	
513	2	max	0.243	8	11.776	3	0	22	0.027	7	0	22	-39.866	22	
514		min	0	22	3.386	22	0	1	-0.001	3	0	1	-138.635	3	
515	3	max	0.243	8	0	22	0	22	0.027	7	0	22	-53.155	22	
516		min	0	22	0	1	0	1	-0.001	3	0	1	-184.846	3	
517	4	max	0.243	8	-3.386	22	0	22	0.027	7	0	22	-39.866	22	
518		min	0	22	-11.776	3	0	1	-0.001	3	0	1	-138.635	3	
519	5	max	0.243	8	-6.772	22	0	22	0.027	7	0	22	0	22	
520		min	0	22	-23.551	3	0	1	-0.001	3	0	1	0	1	
521	M143	1	max	4.975	7	9.416	3	0	22	0	17	0	22	3.656	3
522		min	-5.1	5	2.595	22	0	6	0	6	0	1	1.007	22	
523	2	max	4.975	7	3.802	3	0	22	0	17	0	22	-7.837	22	
524		min	-5.1	5	1.048	22	0	6	0	6	-0.002	6	-28.44	3	
525	3	max	4.975	7	-0.5	22	0	22	0	17	-0.001	22	-9.167	22	
526		min	-5.1	5	-1.812	3	0	6	0	6	-0.004	6	-33.274	3	
527	4	max	4.975	7	-2.047	22	0	22	0	17	-0.001	22	-2.983	22	

**Envelope Member Section Forces (Continued)**

Member	Sec		Axial[k]	LC	y Shear[k]	LC	z Shear[k]	LC	Torque[k-ft]	LC	y-y Moment[k-ft]	LC	z-z Moment[k-ft]	LC	
528		min	-5.1	5	-7.426	3	0	6	0	6	-0.006	6	-10.845	3	
529	5	max	4.975	7	-3.594	22	0	22	0	17	-0.001	22	38.846	3	
530		min	-5.1	5	-13.04	3	0	6	0	6	-0.009	6	10.715	22	
531	M144	1	max	0	22	0.988	21	0	22	0.564	7	0	22	0	22
532		min	-0.053	6	0	2	-1.13	7	0.001	22	0	1	0	1	
533	2	max	0	22	0.494	21	0	22	0.564	7	0	22	0	2	
534		min	-0.053	6	0	2	-0.565	7	0.001	22	-6.653	7	-5.817	1	
535	3	max	0	22	0	22	0	22	0.564	7	0	22	0	2	
536		min	-0.053	6	0	1	0	1	0.001	22	-8.871	7	-7.755	1	
537	4	max	0	22	0	2	0.565	7	0.564	7	0	22	0	2	
538		min	-0.053	6	-0.494	1	0	1	0.001	22	-6.653	7	-5.817	1	
539	5	max	0	22	0	2	1.13	7	0.564	7	0	22	0	22	
540		min	-0.053	6	-0.988	1	0	1	0.001	22	0	1	0	1	
541	M145	1	max	12.463	3	-0.064	22	0	22	0	22	0	22	0	22
542		min	3.494	22	-0.238	3	0	1	0	1	0	1	0	1	
543	2	max	12.374	3	-0.064	22	0	22	0	22	0	3	0.769	3	
544		min	3.44	22	-0.238	3	0	1	0	1	0	22	0.208	22	
545	3	max	12.284	3	-0.064	22	0	22	0	22	0	3	1.537	3	
546		min	3.386	22	-0.238	3	0	1	0	1	0	22	0.415	22	
547	4	max	12.195	3	-0.064	22	0	22	0	22	0	3	2.306	3	
548		min	3.332	22	-0.238	3	0	1	0	1	0	22	0.623	22	
549	5	max	12.105	3	-0.064	22	0	22	0	22	0	3	3.074	3	
550		min	3.279	22	-0.238	3	0	1	0	1	0	22	0.831	22	
551	M146	1	max	24.897	3	0.006	6	0.08	7	0	22	0	22	0	22
552		min	7.58	22	0	22	0	3	0	1	0	1	0	1	
553	2	max	24.808	3	0.006	6	0.08	7	0	22	0.257	7	0	22	
554		min	7.527	22	0	22	0	3	0	1	-0.001	3	-0.019	6	
555	3	max	24.718	3	0.006	6	0.08	7	0	22	0.514	7	0	22	
556		min	7.473	22	0	22	0	3	0	1	-0.001	3	-0.038	6	
557	4	max	24.629	3	0.006	6	0.08	7	0	22	0.771	7	0	22	
558		min	7.419	22	0	22	0	3	0	1	-0.002	3	-0.057	6	
559	5	max	23.551	3	0	22	0	22	0	22	0.001	3	0	22	
560		min	6.772	22	-0.048	6	-1.063	7	0	1	-0.027	7	0	1	
561	M147	1	max	44.331	3	0.279	3	0.001	3	0	22	0	22	0	22
562		min	12.199	22	0.076	22	0	22	0	1	0	1	0	1	
563	2	max	44.241	3	0.279	3	0.001	3	0	22	0.002	3	-0.246	22	
564		min	12.145	22	0.076	22	0	22	0	1	0.001	22	-0.901	3	
565	3	max	44.152	3	0.279	3	0.001	3	0	22	0.004	3	-0.491	22	
566		min	12.092	22	0.076	22	0	22	0	1	0.001	22	-1.803	3	
567	4	max	44.062	3	0.279	3	0.001	3	0	22	0.006	3	-0.737	22	
568		min	12.038	22	0.076	22	0	22	0	1	0.002	22	-2.704	3	
569	5	max	43.972	3	0.279	3	0.001	3	0	22	0.008	3	-0.983	22	
570		min	11.984	22	0.076	22	0	22	0	1	0.002	22	-3.605	3	
571	M148	1	max	49.737	3	-0.062	22	0	3	0	22	0	22	0	22
572		min	13.643	22	-0.224	3	0	22	0	1	0	1	0	1	
573	2	max	49.647	3	-0.062	22	0	3	0	22	0	3	0.725	3	
574		min	13.589	22	-0.224	3	0	22	0	1	0	22	0.199	22	
575	3	max	49.558	3	-0.062	22	0	3	0	22	0	3	1.45	3	
576		min	13.536	22	-0.224	3	0	22	0	1	0	22	0.397	22	
577	4	max	49.468	3	-0.062	22	0	3	0	22	0	3	2.174	3	
578		min	13.482	22	-0.224	3	0	22	0	1	0	22	0.596	22	
579	5	max	49.378	3	-0.062	22	0	3	0	22	0	3	2.899	3	
580		min	13.428	22	-0.224	3	0	22	0	1	0	22	0.795	22	
581	M149	1	max	13.579	3	0	22	0	22	0	22	0	22	0	22
582		min	3.934	22	0	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 Moment[k-ft]	LC	z-z Moment[k-ft]	LC	
583	2	max	13.454	3	0	22	0	22	0	22	0	22	0	22	
584		min	3.859	22	0	1	0	1	0	1	0	1	0	1	
585	3	max	13.328	3	0	22	0	22	0	22	0	22	0	22	
586		min	3.784	22	0	1	0	1	0	1	0	1	0	1	
587	4	max	13.203	3	0	22	0	22	0	22	0	22	0	22	
588		min	3.709	22	0	1	0	1	0	1	0	1	0	1	
589	5	max	13.077	3	0	22	0	22	0	22	0	22	0	22	
590		min	3.633	22	0	1	0	1	0	1	0	1	0	1	
591	M150	1	max	2.814	8	12.105	3	0.004	3	0	22	0	22	3.074	3
592		min	-3.03	6	3.279	22	0.001	22	0	3	0	1	0.831	22	
593	2	max	2.814	8	3.373	3	0.004	3	0	22	0.015	3	-7.187	22	
594		min	-3.03	6	0.91	22	0.001	22	0	3	0.004	22	-26.552	3	
595	3	max	2.814	8	-1.458	22	0.004	3	0	22	0.031	3	-6.139	22	
596		min	-3.03	6	-5.359	3	0.001	22	0	3	0.008	22	-22.749	3	
597	4	max	2.814	8	-3.826	22	0.004	3	0	22	0.046	3	14.481	3	
598		min	-3.03	6	-14.092	3	0.001	22	0	3	0.012	22	3.975	22	
599	5	max	2.814	8	-6.194	22	0.004	3	0	22	0.061	3	85.139	3	
600		min	-3.03	6	-22.824	3	0.001	22	0	3	0.016	22	23.155	22	
601	M151	1	max	14.825	3	0.188	6	0.007	7	0	22	0	22	0	22
602		min	4.594	22	0	22	-0.053	3	0	1	0	1	0	1	
603	2	max	14.645	3	0.188	6	0.007	7	0	22	0.047	7	-0.001	22	
604		min	4.486	22	0	22	-0.053	3	0	1	-0.342	3	-1.216	6	
605	3	max	10.376	3	0	22	0.007	7	0	22	0.469	3	-0.002	22	
606		min	3.178	22	-0.185	6	-0.047	3	0	1	-0.066	7	-2.416	6	
607	4	max	6.154	3	0	22	0.004	7	0	22	0.188	3	-0.001	22	
608		min	1.828	22	-0.188	6	-0.029	3	0	1	-0.025	7	-1.217	6	
609	5	max	5.974	3	0	22	0.004	7	0	22	0	22	0	22	
610		min	1.72	22	-0.188	6	-0.029	3	0	1	0	1	0	1	
611	M152	1	max	26.489	3	0.18	6	-0.004	7	0	22	0	22	0	22
612		min	7.912	22	-0.001	8	-0.271	3	0	1	0	1	0	1	
613	2	max	26.309	3	0.18	6	-0.004	7	0	22	-0.029	7	0.004	8	
614		min	7.804	22	-0.001	8	-0.271	3	0	1	-1.758	3	-1.166	6	
615	3	max	25.068	3	0.004	3	-0.147	22	0	22	0.131	7	0.001	16	
616		min	7.291	22	-0.214	6	-1.408	7	0	1	-5.229	3	-2.583	6	
617	4	max	4.259	3	-0.001	22	-0.517	22	0.229	6	11.946	3	-0.004	22	
618		min	1.375	22	-0.191	6	-1.844	3	-0.033	3	3.352	22	-1.239	6	
619	5	max	4.08	3	-0.001	22	-0.517	22	0.229	6	0	22	0	22	
620		min	1.267	22	-0.191	6	-1.844	3	-0.033	3	0	1	0	1	
621	M153	1	max	2.918	8	26.555	3	-0.004	22	0	22	0.061	3	88.038	3
622		min	-2.929	6	7.234	22	-0.016	3	0	3	0.016	22	23.95	22	
623	2	max	2.918	8	13.482	3	-0.004	22	0	22	-0.009	22	-7.175	22	
624		min	-2.929	6	3.671	22	-0.016	3	0	3	-0.033	3	-26.233	3	
625	3	max	2.918	8	0.409	3	-0.004	22	0	22	-0.034	22	-17.964	22	
626		min	-2.929	6	0.109	22	-0.016	3	0	3	-0.127	3	-65.879	3	
627	4	max	2.918	8	-3.454	22	-0.004	22	0	22	-0.059	22	-8.417	22	
628		min	-2.929	6	-12.664	3	-0.016	3	0	3	-0.221	3	-30.901	3	
629	5	max	2.918	8	-7.016	22	-0.004	22	0	22	-0.084	22	78.703	3	
630		min	-2.929	6	-25.737	3	-0.016	3	0	3	-0.315	3	21.466	22	
631	M154	1	max	2.793	8	18.235	3	0.044	3	-0.002	22	-0.084	22	75.098	3
632		min	-3.058	6	4.968	22	0.011	6	-0.008	3	-0.315	3	20.483	22	
633	2	max	2.793	8	11.708	3	0.044	3	-0.002	22	-0.043	22	22.694	3	
634		min	-3.058	6	3.191	22	0.011	6	-0.008	3	-0.16	3	6.205	22	
635	3	max	2.793	8	5.181	3	0.044	3	-0.002	22	-0.001	22	-1.854	22	
636		min	-3.058	6	1.414	22	0.011	6	-0.008	3	-0.036	6	-6.863	3	
637	4	max	2.793	8	-0.363	22	0.044	3	-0.002	22	0.15	3	-3.695	22	

**Envelope Member Section Forces (Continued)**

Member	Sec		Axial[k]	LC	y Shear[k]	LC	z Shear[k]	LC	Torque[k-ft]	LC	y-y Moment[k-ft]	LC	z-z Moment[k-ft]	LC	
638		min	-3.058	6	-1.346	3	0.011	6	-0.008	3	0.003	6	-13.575	3	
639	5	max	2.793	8	-2.139	22	0.044	3	-0.002	22	0.306	3	2.56	3	
640		min	-3.058	6	-7.873	3	0.011	6	-0.008	3	0.042	6	0.684	22	
641	M155	1	max	0.132	5	8.968	3	0	22	0.003	6	0	0	22	
642		min	-0.13	7	3.036	22	0	1	0	1	0	1	0	1	
643	2	max	0.132	5	-0.247	22	0	22	0.003	6	0	22	-8.911	22	
644		min	-0.13	7	-0.697	3	0	1	0	1	0	1	-26.424	3	
645	3	max	0.132	5	-3.529	22	0	22	0.003	6	0	22	8.911	3	
646		min	-0.13	7	-10.361	3	0	1	0	1	0	1	3.154	22	
647	4	max	0.267	5	4.281	3	0	22	0.003	6	0	22	-1.109	22	
648		min	-0.273	7	1.468	22	0	1	0	1	0	1	-3.518	3	
649	5	max	0.267	5	-1.815	22	0	22	0.003	6	0	22	0	22	
650		min	-0.273	7	-5.383	3	0	1	0	1	0	1	0	1	
651	M156	1	max	5.046	7	25.85	3	0.014	6	0	22	0.17	3	107.689	3
652		min	-5.035	5	7.271	22	-0.006	3	-0.012	6	-0.237	6	30.271	22	
653	2	max	5.046	7	14.228	3	0.014	6	0	22	0.118	3	-16.105	22	
654		min	-5.035	5	4.001	22	-0.006	3	-0.012	6	-0.121	6	-57.212	3	
655	3	max	5.046	7	2.615	3	0.014	6	0	22	0.066	3	-35.575	22	
656		min	-5.035	5	0.731	22	-0.006	3	-0.012	6	-0.004	6	-126.492	3	
657	4	max	5.046	7	-2.538	22	0.014	6	0	22	0.112	6	-28.142	22	
658		min	-5.035	5	-8.996	3	-0.006	3	-0.012	6	0.005	22	-100.233	3	
659	5	max	5.046	7	-5.808	22	0.014	6	0	22	0.229	6	21.615	3	
660		min	-5.035	5	-20.618	3	-0.006	3	-0.012	6	-0.033	3	6.195	22	
661	M157	1	max	21.027	3	0	6	-0.022	22	0	22	0	0	22	
662		min	5.973	22	0	17	-0.081	3	0	1	0	1	0	1	
663	2	max	20.901	3	0	6	-0.022	22	0	22	-0.101	22	0	17	
664		min	5.898	22	0	17	-0.081	3	0	1	-0.367	3	0	6	
665	3	max	20.776	3	0	6	-0.022	22	0	22	-0.202	22	0	17	
666		min	5.823	22	0	17	-0.081	3	0	1	-0.735	3	0	6	
667	4	max	20.65	3	0	6	-0.022	22	0	22	-0.303	22	0.001	17	
668		min	5.747	22	0	17	-0.081	3	0	1	-1.102	3	0	6	
669	5	max	20.525	3	0	6	-0.022	22	0	22	-0.404	22	0.001	17	
670		min	5.672	22	0	17	-0.081	3	0	1	-1.47	3	0	6	
671	M158	1	max	12.079	3	0.342	6	0.501	7	0	22	0	0	22	
672		min	3.976	22	-0.073	8	-0.023	3	0	1	0	1	0	1	
673	2	max	11.899	3	0.342	6	0.501	7	0	22	3.246	7	0.472	8	
674		min	3.868	22	-0.073	8	-0.023	3	0	1	-0.148	3	-2.215	6	
675	3	max	11.32	3	0.017	8	0.027	3	0.107	7	4.152	7	0.225	8	
676		min	3.39	22	-0.171	6	-0.32	7	-0.249	3	-0.346	3	-2.212	6	
677	4	max	11.14	3	0.017	8	0.027	3	0.107	7	2.076	7	0.112	8	
678		min	3.282	22	-0.171	6	-0.32	7	-0.249	3	-0.173	3	-1.106	6	
679	5	max	10.96	3	0.017	8	0.027	3	0.107	7	0	22	0	22	
680		min	3.174	22	-0.171	6	-0.32	7	-0.249	3	0	1	0	1	
681	M159	1	max	0.17	8	0.266	6	0.451	7	0	22	0	0	22	
682		min	-0.538	2	-0.031	8	0.004	22	0	1	0	1	0	1	
683	2	max	-0.01	8	0.266	6	0.451	7	0	22	2.923	7	0.2	8	
684		min	-0.589	3	-0.031	8	0.004	22	0	1	0.027	22	-1.72	6	
685	3	max	-0.201	22	0.044	8	0.003	3	0	22	3.92	7	0.569	8	
686		min	-1.053	3	-0.221	6	-0.302	7	0	1	-0.039	3	-2.868	6	
687	4	max	-0.309	22	0.044	8	0.003	3	0	22	1.96	7	0.284	8	
688		min	-1.233	3	-0.221	6	-0.302	7	0	1	-0.019	3	-1.434	6	
689	5	max	-0.416	22	0.044	8	0.003	3	0	22	0	22	0	22	
690		min	-1.412	3	-0.221	6	-0.302	7	0	1	0	1	0	1	
691	M160	1	max	29.521	3	0.006	6	0.469	7	0	22	0	0	22	
692		min	9.271	22	0	22	0.001	22	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 Moment[k-ft]	LC	z-z Moment[k-ft]	LC	
693		2	max	29.342	3	0.006	6	0.469	7	0	22	3.042	7	0	22
694			min	9.164	22	0	22	0.001	22	0	1	0.006	22	-0.04	6
695		3	max	3.738	3	0.007	6	-0.001	22	0	22	3.729	7	0.089	6
696			min	1.305	22	0	22	-0.288	7	0	1	0.011	22	0	22
697		4	max	3.558	3	0.007	6	-0.001	22	0	22	1.865	7	0.045	6
698			min	1.197	22	0	22	-0.288	7	0	1	0.005	22	0	22
699		5	max	3.378	3	0.007	6	-0.001	22	0	22	0	22	0	22
700			min	1.089	22	0	22	-0.288	7	0	1	0	1	0	1
701	M161	1	max	0.186	6	1.017	3	0.007	3	0	22	0.229	6	-0.433	22
702			min	0	22	0.3	22	-0.045	6	0	1	-0.033	3	-1.493	3
703		2	max	0.186	6	-0.003	22	0.007	3	0	22	0.159	6	-0.662	22
704			min	0	22	-0.029	3	-0.045	6	0	1	-0.023	3	-2.255	3
705		3	max	0.186	6	-0.307	22	0.007	3	0	22	0.09	6	-0.423	22
706			min	0	22	-1.074	3	-0.045	6	0	1	-0.013	3	-1.405	3
707		4	max	0.186	6	-0.611	22	0.007	3	0	22	0.02	6	1.059	3
708			min	0	22	-2.12	3	-0.045	6	0	1	-0.003	3	0.285	22
709		5	max	0.186	6	-0.915	22	0.007	3	0	22	0.007	3	5.135	3
710			min	0	22	-3.166	3	-0.045	6	0	1	-0.05	6	1.461	22
711	M162	1	max	0.009	6	2.808	3	0.008	6	0	22	0.007	3	5.135	3
712			min	0	22	0.806	22	-0.001	3	0	1	-0.05	6	1.461	22
713		2	max	0.009	6	1.536	3	0.008	6	0	22	0.005	3	1.063	3
714			min	0	22	0.437	22	-0.001	3	0	1	-0.034	6	0.296	22
715		3	max	0.009	6	0.265	3	0.008	6	0	22	0.003	3	-0.177	22
716			min	0	22	0.067	22	-0.001	3	0	1	-0.019	6	-0.626	3
717		4	max	0.009	6	-0.302	22	0.008	6	0	22	0.001	3	0.076	7
718			min	0	22	-1.007	3	-0.001	3	0	1	-0.004	6	-0.002	2
719		5	max	0.009	6	-0.671	22	0.008	6	0	22	0.012	6	3.151	3
720			min	0	22	-2.279	3	-0.001	3	0	1	-0.002	3	0.956	22
721	M163	1	max	0	22	2.862	3	0	3	0	22	0.012	6	3.151	3
722			min	-0.171	6	0.838	22	-0.002	6	0	1	-0.002	3	0.956	22
723		2	max	0	22	1.66	3	0	3	0	22	0.009	6	-0.219	22
724			min	-0.171	6	0.489	22	-0.002	6	0	1	-0.001	3	-0.853	3
725		3	max	0	22	0.459	3	0	3	0	22	0.006	6	-0.775	22
726			min	-0.171	6	0.14	22	-0.002	6	0	1	-0.001	3	-2.73	3
727		4	max	0	22	-0.209	22	0	3	0	22	0.003	6	-0.714	22
728			min	-0.171	6	-0.742	3	-0.002	6	0	1	0	3	-2.479	3
729		5	max	0	22	-0.558	22	0	3	0	22	0	22	-0.035	22
730			min	-0.171	6	-1.944	3	-0.002	6	0	1	0	1	-0.1	3
731	M164	1	max	0.046	7	2.502	3	0	22	0.1	3	0	22	0	22
732			min	0	22	0.785	22	-0.001	6	0.035	22	0	1	0	1
733		2	max	0.046	7	1.225	3	0	22	0.1	3	0	22	-2.263	22
734			min	0	22	0.383	22	-0.001	6	0.035	22	-0.004	6	-7.22	3
735		3	max	0.046	7	-0.018	2	0	22	0.1	3	0	22	-2.965	22
736			min	0	22	-0.052	3	-0.001	6	0.035	22	-0.009	6	-9.491	3
737		4	max	0.046	7	-0.423	22	0	22	0.1	3	0	22	-2.105	22
738			min	0	22	-1.33	3	-0.001	6	0.035	22	-0.013	6	-6.813	3
739		5	max	0.046	7	-0.826	22	0	22	0.1	3	0	22	0.813	3
740			min	0	22	-2.607	3	-0.001	6	0.035	22	-0.018	6	0.286	2
741	M165	1	max	-0.001	22	0.772	3	0.006	6	0.1	3	0	22	0.813	3
742			min	-0.232	7	0.263	22	0	22	0.035	22	-0.018	6	0.286	2
743		2	max	-0.001	22	0.518	3	0.006	6	0.1	3	0	22	0.316	3
744			min	-0.232	7	0.183	22	0	22	0.035	22	-0.013	6	0.075	2
745		3	max	-0.001	22	0.264	3	0.006	6	0.1	3	0	22	0.06	8
746			min	-0.232	7	0.093	2	0	22	0.035	22	-0.009	6	-0.043	2
747		4	max	-0.001	22	0.039	8	0.006	6	0.1	3	0	22	-0.014	22

**Envelope Member Section Forces (Continued)**

Member	Sec		Axial[k]	LC	y Shear[k]	LC	z Shear[k]	LC	Torque[k-ft]	LC	y-y Moment[k-ft]	LC	z-z Moment[k-ft]	LC	
748		min	-0.232	7	-0.028	2	0	22	0.035	22	-0.004	6	-0.091	3	
749	5	max	-0.001	22	-0.058	22	0.006	6	0.1	3	0	22	0	22	
750		min	-0.232	7	-0.244	3	0	22	0.035	22	0	1	0	1	
751	M166	1	max	0.033	6	6.308	3	0.003	3	0	22	0.024	7	14.034	3
752		min	-0.003	8	1.83	22	-0.001	7	0	1	-0.055	3	4.051	22	
753	2	max	0.033	6	3.538	3	0.003	3	0	22	0.018	7	-1.781	22	
754		min	-0.003	8	1.026	22	-0.001	7	0	1	-0.042	3	-6.069	3	
755	3	max	0.033	6	0.768	3	0.003	3	0	22	0.012	7	-4.328	22	
756		min	-0.003	8	0.221	22	-0.001	7	0	1	-0.028	3	-14.861	3	
757	4	max	0.033	6	-0.583	22	0.003	3	0	22	0.006	7	-3.59	22	
758		min	-0.003	8	-2.002	3	-0.001	7	0	1	-0.014	3	-12.34	3	
759	5	max	0.033	6	-1.387	22	0.003	3	0	22	0	22	1.493	3	
760		min	-0.003	8	-4.772	3	-0.001	7	0	1	0	1	0.433	22	
761	M167	1	max	0	22	3.062	3	0	22	-0.433	22	0	22	0	22
762		min	0	1	0.966	22	0	1	-1.493	3	0	1	0	1	
763	2	max	0	22	1.531	3	0	22	-0.433	22	0	22	-3.367	22	
764		min	0	1	0.483	22	0	1	-1.493	3	0	1	-10.67	3	
765	3	max	0	22	0	22	0	22	-0.433	22	0	22	-4.489	22	
766		min	0	1	0	1	0	1	-1.493	3	0	1	-14.227	3	
767	4	max	0	22	-0.483	22	0	22	-0.433	22	0	22	-3.367	22	
768		min	0	1	-1.531	3	0	1	-1.493	3	0	1	-10.67	3	
769	5	max	0	22	-0.966	22	0	22	-0.433	22	0	22	0	22	
770		min	0	1	-3.062	3	0	1	-1.493	3	0	1	0	1	
771	M168	1	max	-0.001	22	0.322	3	0	22	1.709	3	0	22	0	22
772		min	-1.05	6	0.096	2	0	1	-0.247	7	0	1	0	1	
773	2	max	-0.001	22	0.161	3	0	22	1.709	3	0	22	-0.111	2	
774		min	-1.05	6	0.048	2	0	1	-0.247	7	0	1	-0.373	3	
775	3	max	-0.001	22	0	22	0	22	1.709	3	0	22	-0.149	2	
776		min	-1.05	6	0	1	0	1	-0.247	7	0	1	-0.497	3	
777	4	max	-0.001	22	-0.048	2	0	22	1.709	3	0	22	-0.111	2	
778		min	-1.05	6	-0.161	3	0	1	-0.247	7	0	1	-0.373	3	
779	5	max	-0.001	22	-0.096	2	0	22	1.709	3	0	22	0	22	
780		min	-1.05	6	-0.322	3	0	1	-0.247	7	0	1	0	1	
781	M169	1	max	-0.001	22	3.767	3	0	22	0.556	3	0	22	0	22
782		min	-0.705	6	1.065	22	0	1	-0.086	7	0	1	0	1	
783	2	max	-0.001	22	1.883	3	0	22	0.556	3	0	22	-1.497	22	
784		min	-0.705	6	0.532	22	0	1	-0.086	7	0	1	-5.296	3	
785	3	max	-0.001	22	0	22	0	22	0.556	3	0	22	-1.996	22	
786		min	-0.705	6	0	1	0	1	-0.086	7	0	1	-7.062	3	
787	4	max	-0.001	22	-0.532	22	0	22	0.556	3	0	22	-1.497	22	
788		min	-0.705	6	-1.883	3	0	1	-0.086	7	0	1	-5.296	3	
789	5	max	-0.001	22	-1.065	22	0	22	0.556	3	0	22	0	22	
790		min	-0.705	6	-3.767	3	0	1	-0.086	7	0	1	0	1	
791	M170	1	max	0.683	7	0.81	3	0	22	0	22	0	22	0	22
792		min	0.002	22	0.242	2	0	1	-0.058	6	0	1	0	1	
793	2	max	0.683	7	0.405	3	0	22	0	22	0	22	-0.704	2	
794		min	0.002	22	0.121	2	0	1	-0.058	6	0	1	-2.355	3	
795	3	max	0.683	7	0	22	0	22	0	22	0	22	-0.939	2	
796		min	0.002	22	0	1	0	1	-0.058	6	0	1	-3.14	3	
797	4	max	0.683	7	-0.121	2	0	22	0	22	0	22	-0.704	2	
798		min	0.002	22	-0.405	3	0	1	-0.058	6	0	1	-2.355	3	
799	5	max	0.683	7	-0.242	2	0	22	0	22	0	22	0	22	
800		min	0.002	22	-0.81	3	0	1	-0.058	6	0	1	0	1	
801	M171	1	max	1.421	7	0.739	3	1.394	6	0.268	6	0	22	0	22
802		min	0.09	22	0.269	22	0	1	-0.004	3	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 Moment[k-ft]	LC	z-z Moment[k-ft]	LC	
803	2	max	1.421	7	0.37	3	0.697	6	0.268	6	4.857	6	-0.938	22	
804		min	0.09	22	0.135	22	0	1	-0.004	3	0	1	-2.576	3	
805	3	max	1.421	7	0	22	0	22	0.268	6	6.476	6	-1.251	22	
806		min	0.09	22	0	1	0	1	-0.004	3	0	1	-3.435	3	
807	4	max	1.421	7	-0.135	22	0	22	0.268	6	4.857	6	-0.938	22	
808		min	0.09	22	-0.37	3	-0.697	6	-0.004	3	0	1	-2.576	3	
809	5	max	1.421	7	-0.269	22	0	22	0.268	6	0	22	0	22	
810		min	0.09	22	-0.739	3	-1.394	6	-0.004	3	0	1	0	1	
811	M172	1	max	0.003	3	0.398	15	-0.006	22	-0.091	22	0	22	0	22
812		min	-0.961	6	0.038	2	-1.391	7	-1.07	7	0	1	0	1	
813	2	max	0.003	3	0.147	15	-0.006	22	-0.091	22	-0.031	22	-0.196	2	
814		min	-0.961	6	0.038	2	-0.613	7	-1.07	7	-5.196	7	-1.414	15	
815	3	max	0.003	3	0.038	2	0.166	7	-0.091	22	-0.061	22	-0.392	2	
816		min	-0.961	6	-0.15	8	-0.021	3	-1.07	7	-6.355	7	-1.528	15	
817	4	max	0.003	3	0.038	2	0.944	7	-0.091	22	-0.092	22	0.378	8	
818		min	-0.961	6	-0.4	8	-0.021	3	-1.07	7	-3.477	7	-0.588	2	
819	5	max	-0.001	22	0.238	6	0.968	7	-0.052	22	0	22	0	22	
820		min	-0.489	6	-0.21	3	0.007	22	-0.253	16	0	1	0	1	
821	M173	1	max	4.544	3	0	6	0	22	0	22	0	22	0	22
822		min	1.542	22	0	22	0	1	0	1	0	1	0	1	
823	2	max	4.419	3	0	6	0	22	0	22	0	22	0	22	
824		min	1.467	22	0	22	0	1	0	1	0	1	0	6	
825	3	max	4.293	3	0	6	0	22	0	22	0	22	0	22	
826		min	1.392	22	0	22	0	1	0	1	0	1	-0.001	6	
827	4	max	4.168	3	0	6	0	22	0	22	0	22	0	22	
828		min	1.317	22	0	22	0	1	0	1	0	1	-0.001	6	
829	5	max	4.042	3	0	6	0	22	0	22	0	22	0	22	
830		min	1.241	22	0	22	0	1	0	1	0	1	-0.002	6	
831	M174	1	max	0.022	3	4.042	3	0	22	0	22	0	22	0	22
832		min	-0.003	7	1.241	22	0	1	-0.002	6	0	1	0	1	
833	2	max	0.022	3	2.021	3	0	22	0	22	0	22	-7.349	22	
834		min	-0.003	7	0.621	22	0	1	-0.002	6	0	1	-23.93	3	
835	3	max	0.022	3	0	3	0	22	0	22	0	22	-9.799	22	
836		min	-0.003	7	0	7	0	1	-0.002	6	0	1	-31.908	3	
837	4	max	0.022	3	-0.621	22	0	22	0	22	0	22	-7.349	22	
838		min	-0.003	7	-2.021	3	0	1	-0.002	6	0	1	-23.931	3	
839	5	max	0.022	3	-1.241	22	0	22	0	22	0	22	0	22	
840		min	-0.003	7	-4.042	3	0	1	-0.002	6	0	1	0	1	

**Envelope Maximum Member Section Forces**

Member		Axial[k]	Loc[in]	Lcy Shear[k]	Loc[in]	Lcz Shear[k]	Loc[in]	LC Torque[k-ft]	Loc[in]	Lcy-y Moment[k-ft]	Loc[in]	Lcz-z Moment[k-ft]	Loc[in]	LC
1	M91	max	9.006	0	3	0	168	22	0	168	22	0	168	22
2		min	0.384	168	22	0	0	1	0	0	1	0	0	1
3	M92	max	6.227	0	3	0	168	22	0	168	22	0	168	22
4		min	0.198	168	22	0	0	1	0	0	1	0	0	1
5	M93	max	13.184	0	3	0.188	152.26	6	0.002	152.26	7	0	311	22
6		min	1.509	311	22	-0.187	155.5	6	-0.015	155.5	3	0	0	1
7	M94	max	2.817	0	3	0	168	22	0.01	168	7	0	168	22
8		min	0.17	168	22	0	0	1	-0.009	0	5	0	0	1
9	M95	max	8.596	0	3	0	168	22	0.004	168	7	0	168	22
10		min	0.168	168	22	0	0	1	-0.003	0	5	0	0	1
11	M96	max	1.12	243.988	6	5.972	0	3	0	243.988	22	0.047	243.988	7
12		min	0	0	1	-5.972	243.988	3	0	0	1	-0.049	0	5
13	M97	max	9.177	0	3	0	168	22	0	168	22	0	168	22
14		min	0.389	168	22	0	0	1	0	0	1	0	0	1

**Envelope Maximum Member Section Forces (Continued)**

Member	Axial[k]	Loc[in]	Lcy	Shear[k]	Loc[in]	Lcz	Shear[k]	Loc[in]	LC Torque[k-ft]	Loc[in]	Lcy-y Moment[k-ft]	Loc[in]	Lcz-z Moment[k-ft]	Loc[in]	LC					
15	M98	max	0.396	243.988	6	3.475	0	3	0	175.366	5	0.063	86.412	7	0.002	177.908	5	0	243.988	22
16		min	0	0	1	-3.564	243.988	3	0	177.908	5	-0.004	177.908	2	0	86.412	5	-19.783	111.828	3
17	M99	max	8.627	0	3	0	168	22	0.003	168	7	0	168	22	0.047	168	7	0	168	22
18		min	0.158	168	22	0	0	1	-0.004	0	5	0	0	1	-0.049	168	5	0	0	1
19	M100	max	2.965	0	3	0	168	22	0.009	168	7	0	168	22	0.124	168	7	0	168	22
20		min	0.169	168	22	0	0	1	-0.01	0	5	0	0	1	-0.135	168	5	0	0	1
21	M101	max	0.528	160.011	5	5.968	0	3	0.606	240.017	6	0	240.017	22	0	240.017	22	0	240.017	22
22		min	0	0	1	-5.795	240.017	3	-0.556	0	6	-0.041	77.505	6	-2.267	122.509	6	-33.021	127.509	3
23	M102	max	0.788	243.988	6	3.815	0	3	0	243.988	5	0	243.988	2	0	86.412	5	0	243.988	22
24		min	0	0	1	-3.922	243.988	3	0	88.954	5	-0.014	0	3	-0.002	177.908	5	-21.412	111.828	3
25	M103	max	6.602	0	3	0	168	22	0	168	22	0	168	22	0	168	22	0	168	22
26		min	0.189	168	22	0	0	1	0	0	1	0	0	1	0	0	1	0	0	1
27	M104	max	0	302.749	22	2.029	0	3	0	302.749	22	0	302.749	22	0	302.749	22	0	302.749	22
28		min	0	0	1	-2.029	302.749	3	0	0	1	0	0	1	0	0	1	-12.794	151.375	3
29	M105	max	5.608	0	3	0.027	217	6	0.159	217	5	0	217	22	0.684	169.531	7	0.105	169.531	6
30		min	1.815	217	22	0	0	1	-0.173	169.531	7	0	0	1	-0.629	169.531	5	-0.052	167.271	6
31	M106	max	34.149	0	3	0.137	217	6	0.144	217	5	0	217	22	0.605	169.531	7	0.541	169.531	6
32		min	8.279	217	22	0	0	1	-0.153	169.531	7	0	0	1	-0.571	169.531	5	-0.225	167.271	6
33	M107	max	34.564	0	3	0.161	167.271	6	0.137	217	5	0	217	22	0.569	167.271	7	0.003	217	6
34		min	8.173	217	22	-0.793	169.531	6	-0.14	169.531	7	0	0	1	-0.555	167.271	5	-3.135	169.531	6
35	M108	max	33.786	0	3	0.152	167.271	6	0.14	217	5	0	217	22	0.555	167.271	7	0.003	217	6
36		min	7.964	217	22	-0.743	169.531	6	-0.137	169.531	7	0	0	1	-0.569	167.271	5	-2.937	169.531	6
37	M109	max	6.442	0	3	0.025	217	6	0.173	217	5	0	217	22	0.629	169.531	7	0.098	169.531	6
38		min	2.107	217	22	0	0	1	-0.159	169.531	7	0	0	1	-0.685	169.531	5	-0.051	167.271	6
39	M110	max	9.918	0	3	0	217	6	0.202	217	3	0	217	22	3.656	217	3	0	217	17
40		min	2.595	217	22	0	0	17	0.056	0	22	0	0	1	0	0	1	0	217	6
41	M111	max	33.924	0	3	0.137	217	6	0.153	217	5	0	217	22	0.571	169.531	7	0.543	169.531	6
42		min	8.195	217	22	0	0	1	-0.144	169.531	7	0	0	1	-0.604	169.531	5	-0.226	167.271	6
43	M112	max	0.583	188.074	6	2.532	190.616	3	1.088	243.988	7	0.135	188.074	7	0.002	188.074	14	8.039	188.074	3
44		min	0	0	1	-3.233	188.074	3	-1.086	0	7	-0.124	190.616	5	-5.525	121.994	7	-7.016	76.246	3
45	M113	max	9.533	0	3	0.19	152.26	6	0.363	152.26	7	0	311	22	4.631	155.5	7	0.006	155.5	8
46		min	1.343	311	22	-0.184	155.5	6	-0.357	155.5	7	0	0	1	-0.051	152.26	3	-2.411	152.26	6
47	M114	max	0.62	188.074	6	2.7	190.616	3	1.086	0	5	0.124	188.074	7	5.525	121.994	5	8.589	188.074	3
48		min	0	0	1	-3.435	188.074	3	-1.088	243.988	5	-0.135	0	5	-0.002	188.074	16	-7.427	76.246	3
49	M115	max	0.004	130.754	7	0.221	0	21	0.167	130.754	6	0	130.754	22	0	130.754	22	0	130.754	22
50		min	-0.003	0	5	-0.221	130.754	1	-0.167	0	6	0	0	1	-0.454	65.377	6	-0.603	65.377	1
51	M116	max	51.356	0	3	0.351	217	3	0.231	153.708	3	0.306	217	3	3.193	217	3	1.782	155.969	3
52		min	12.043	217	22	0.016	0	22	0.039	155.969	3	0	0	1	0	0	1	-0.743	153.708	3
53	M117	max	0	98.993	11	2.232	0	3	0.634	175.988	6	0	175.988	22	0	175.988	22	0	175.988	22
54		min	0	0	9	-3.511	175.988	3	-0.532	0	6	0	0	1	-3.371	100.826	6	-17.203	100.826	3
55	M118	max	0.004	240.017	5	15.124	0	3	0	240.017	22	0	240.017	22	0	240.017	22	0	240.017	22
56		min	0	0	1	-15.124	240.017	3	0	0	1	0	0	6	0	0	1	-75.627	120.008	3
57	M119	max	0	75.005	11	5.278	0	3	0.726	240.017	6	0	240.017	22	0	240.017	22	0	240.017	22
58		min	0	77.505	5	-5.096	240.017	3	-0.776	0	6	0	0	1	-4.407	110.008	6	-29.131	145.01	3
59	M120	max	0.012	52.999	8	-0.474	0	22	0.044	52.999	3	0	52.999	22	0.193	52.999	3	14.034	52.999	3
60		min	-0.122	0	6	-4.653	52.999	3	-0.019	0	7	0	0	1	-0.083	52.999	7	0.035	0	22
61	M121	max	0.697	166.855	5	4.009	0	3	0.4	166.855	6	0	166.855	22	0.239	66.047	6	0	166.855	22
62		min	0	0	1	-2.627	166.855	3	-0.447	67.785	6	-0.939	67.785	6	-0.78	119.927	6	-17.358	66.047	3
63	M122	max	0	66.047	7	3.522	0	3	0.526	166.855	6	0	166.855	22	0	166.855	22	0	166.855	22
64		min	0	67.785	11	-2.029	166.855	3	-0.687	0	6	0	0	1	-3.318	66.047	6	-15.503	66.047	3
65	M123	max	0.003	139.886	5	0.237	0	12	0.178	139.886	6	0	139.886	22	0	139.886	22	0	139.886	22
66		min	-0.003	0	7	-0.237	139.886	3	-0.178	0	6	0	0	1	-0.52	69.943	6	-0.69	69.943	4
67	M124	max	0.494	86.412	6	3.507	0	3	0	243.988	7	0.005	175.366	2	0	86.412	7	0	243.988	22
68		min	0	0	1	-3.599	243.988	3	0	88.954	7	-0.068	88.954	5	-0.002	177.908	7	-20.009	111.828	3
69	M125	max	0.877	130.754	7	0.712	0	21	0.559	130.754	6	0.161	130.754	6	0	130.754	22	0	130.754	22

**Envelope Maximum Member Section Forces (Continued)**

Member	Axial[k]	Loc[in]	Lcy Shear[k]	Loc[in]	Lcz Shear[k]	Loc[in]	LC Torque[k-ft]	Loc[in]	Lcy-y Moment[k-ft]	Loc[in]	Lcz-z Moment[k-ft]	Loc[in]	LC							
70	min	0	0	1	-0.712	130.754	1	-0.559	0	6	0	0	1	-1.523	65.377	6	-1.939	65.377	1	
71	M126	max	4.939	109.162	7	9.571	113.205	3	0.012	109.162	6	0.001	388.13	17	0.099	113.205	6	104.496	388.13	3
72		min	-5.138	0	5	-17.124	388.13	3	-0.017	113.205	6	0	113.205	6	-0.279	388.13	6	-21.322	210.237	3
73	M127	max	0.264	137.394	7	12.584	140.59	3	0	306.741	22	0	306.741	22	0	306.741	22	29.279	140.59	3
74		min	-0.27	0	5	-11.076	137.394	3	0	0	1	-0.003	0	6	0	0	1	-23.074	239.641	3
75	M128	max	0.696	98.993	7	2.874	0	3	0.402	98.993	6	0.946	98.993	6	0	175.988	22	0	175.988	22
76		min	0	0	1	-4.003	175.988	3	-0.445	0	6	0	0	1	-0.963	51.33	6	-19.44	100.826	3
77	M129	max	9.686	0	3	1.128	152.26	6	0.147	311	3	0	311	22	1.241	136.062	7	0.483	132.823	8
78		min	2.354	311	22	-0.287	155.5	6	-1.357	136.062	7	0	0	1	-1.924	132.823	3	-3.738	152.26	6
79	M130	max	0	85.01	22	3.558	0	3	0	85.01	22	0.172	85.01	3	0	85.01	22	0	85.01	22
80		min	-0.355	0	6	-3.558	85.01	3	0	0	1	-0.045	0	7	0	0	1	-6.302	42.505	3
81	M131	max	1.125	243.988	6	5.755	0	3	0	243.988	22	0.049	243.988	7	0	243.988	22	0.748	121.994	22
82		min	0	0	1	-5.755	243.988	3	0	0	1	-0.047	0	5	0	0	1	-29.252	121.994	3
83	M132	max	0.877	139.886	5	0.761	0	21	0.598	139.886	6	0	139.886	22	0	139.886	22	0	139.886	22
84		min	0	0	1	-0.761	139.886	3	-0.598	0	6	-0.152	0	6	-1.743	69.943	6	-2.219	69.943	1
85	M133	max	0.211	37.004	7	0.074	0	3	0.231	37.004	8	-0.001	37.004	22	0	37.004	22	0	37.004	22
86		min	0.003	0	22	-0.074	37.004	1	-0.231	0	8	-0.302	0	6	-0.178	18.502	8	-0.057	18.502	3
87	M134	max	0	302.749	22	0.609	0	21	0.908	0	8	0	302.749	22	5.729	151.375	8	0	302.749	22
88		min	0	0	1	-0.609	302.749	1	-0.908	302.749	8	0	0	1	0	0	1	-3.844	151.375	1
89	M135	max	0.717	175.366	6	3.868	0	3	0	175.366	7	0.012	86.412	3	0.002	177.908	7	0	243.988	22
90		min	0	0	1	-3.977	243.988	3	0	177.908	7	0	177.908	2	0	86.412	7	-21.765	111.828	3
91	M136	max	0	151	22	1.431	0	3	0	151	22	0.029	151	5	0	151	22	0	151	22
92		min	0	0	7	-1.431	151	3	0	0	1	-0.029	0	2	0	0	1	-4.501	75.5	3
93	M137	max	0.001	151	7	1.136	0	3	0	151	22	0.099	151	3	0	151	22	0	151	22
94		min	0	0	1	-1.136	151	3	0	0	1	0.018	0	22	0	0	1	-3.572	75.5	3
95	M138	max	0	145.86	22	1.393	0	3	0	145.86	22	0.028	145.86	2	0	145.86	22	0	145.86	22
96		min	0	0	5	-1.371	145.86	3	0	0	1	-0.037	0	7	0	0	1	-4.199	72.93	3
97	M139	max	0.001	145.86	5	1.106	0	3	0	145.86	22	-0.022	145.86	22	0	145.86	22	0	145.86	22
98		min	0	0	1	-1.088	145.86	3	0	0	1	-0.103	0	3	0	0	1	-3.333	72.93	3
99	M140	max	2.996	0	3	0.796	155	8	0	155	22	0	155	22	0	155	22	1.285	135.625	8
100		min	0.744	155	22	-0.115	0	8	0	0	1	0	0	1	0	0	1	0	0	1
101	M141	max	2.996	0	3	0.796	155	8	0	155	22	0	155	22	0	155	22	1.285	135.625	8
102		min	0.744	155	22	-0.115	0	8	0	0	1	0	0	1	0	0	1	0	0	1
103	M142	max	0.243	376.74	8	23.551	0	3	0	376.74	22	0.027	376.74	7	0	376.74	22	0	376.74	22
104		min	0	0	22	-23.551	376.74	3	0	0	1	-0.001	0	3	0	0	1	-184.846	188.37	3
105	M143	max	4.975	233.095	7	9.416	0	3	0	233.095	22	0	233.095	17	0	0	22	38.846	233.095	3
106		min	-5.1	0	5	-13.04	233.095	3	0	0	6	0	0	6	-0.009	233.095	6	-34.692	97.123	3
107	M144	max	0	376.74	22	0.988	0	21	1.13	376.74	7	0.564	376.74	7	0	376.74	22	0	376.74	22
108		min	-0.053	0	6	-0.988	376.74	1	-1.13	0	7	0.001	0	22	-8.871	188.37	7	-7.755	188.37	1
109	M145	max	12.463	0	3	-0.064	155	22	0	155	22	0	155	22	0	155	3	3.074	155	3
110		min	3.279	155	22	-0.238	0	3	0	0	1	0	0	1	0	0	1	0	0	1
111	M146	max	24.897	0	3	0.006	137.24	6	0.08	137.24	7	0	155	22	1.404	138.854	7	0	155	22
112		min	6.772	155	22	-0.048	138.854	6	-1.063	138.854	7	0	0	1	-0.027	155	7	-0.068	137.24	6
113	M147	max	44.331	0	3	0.279	155	3	0.001	155	3	0	155	22	0.008	155	3	0	0	22
114		min	11.984	155	22	0.076	0	22	0	0	22	0	0	1	0	0	1	-3.605	155	3
115	M148	max	49.737	0	3	-0.062	155	22	0	155	3	0	155	22	0	155	3	2.899	155	3
116		min	13.428	155	22	-0.224	0	3	0	0	22	0	0	1	0	0	1	0	0	1
117	M149	max	13.579	0	3	0	217	22	0	217	22	0	217	22	0	217	22	0	217	22
118		min	3.633	217	22	0	0	1	0	0	1	0	0	1	0	0	1	0	0	1
119	M150	max	2.814	183.75	8	12.105	0	3	0.004	183.75	3	0	183.75	22	0.061	183.75	3	85.139	183.75	3
120		min	-3.03	0	6	-22.824	183.75	3	0.001	0	22	0	0	3	0	0	1	-29.043	63.164	3
121	M151	max	14.825	0	3	0.188	152.26	6	0.007	152.26	7	0	311	22	0.469	155.5	3	0	311	22
122		min	1.72	311	22	-0.188	217.052	6	-0.053	0	3	0	0	1	-0.67	152.26	3	-2.416	155.5	6
123	M152	max	26.489	0	3	0.18	152.26	6	-0.004	152.26	7	0.229	311	6	14.435	217.052	3	0.009	152.26	8
124		min	1.267	311	22	-0.214	155.5	6	-1.844	217.052	3	-0.033	217.052	3	-8.155	213.813	16	-2.583	155.5	6

**Envelope Maximum Member Section Forces (Continued)**

Member	Axial[k]	Loc[in]	LCy	Shear[k]	Loc[in]	LCz	Shear[k]	Loc[in]	LC Torque[k-ft]	Loc[in]	LCy-y	Moment[k-ft]	Loc[in]	LCz-z	Moment[k-ft]	Loc[in]	LC			
125	M153	max	2.918	274	8	26.555	0	3	-0.004	274	22	0	274	22	0.061	0	3	88.038	0	3
126		min	-2.929	0	6	-25.737	274	3	-0.016	0	3	0	0	3	-0.315	274	3	-65.912	139.854	3
127	M154	max	2.793	168.007	8	18.235	0	3	0.044	168.007	3	-0.002	168.007	22	0.306	168.007	3	75.098	0	3
128		min	-3.058	0	6	-7.873	168.007	3	0.011	0	6	-0.008	0	3	-0.315	0	3	-14.06	117.255	3
129	M155	max	0.267	306.742	5	10.724	178.933	3	0	306.742	22	0.003	306.742	6	0	306.742	22	30.848	175.738	3
130		min	-0.273	178.933	7	-13.18	175.738	3	0	0	1	0	0	1	0	0	1	-26.579	70.295	3
131	M156	max	5.046	394.999	7	25.85	0	3	0.014	394.999	6	0	394.999	22	0.229	394.999	6	107.689	0	3
132		min	-5.035	0	5	-20.618	394.999	3	-0.006	0	3	-0.012	259.218	6	-0.237	0	6	-128.899	218.072	3
133	M157	max	21.027	0	3	0	217	6	-0.022	217	22	0	217	22	0	0	22	0.001	217	17
134		min	5.672	217	22	0	0	17	-0.081	0	3	0	0	1	-1.47	217	3	0	217	6
135	M158	max	12.079	0	3	0.342	132.823	6	0.501	132.823	7	0.107	311	7	5.545	132.823	7	0.806	132.823	8
136		min	3.174	311	22	-0.171	136.062	6	-0.32	136.062	7	-0.249	136.062	3	-0.389	136.062	3	-3.785	132.823	6
137	M159	max	0.17	0	8	0.266	132.823	6	0.451	132.823	7	0	311	22	4.994	132.823	7	0.629	152.26	8
138		min	-1.412	311	3	-0.223	136.062	6	-0.517	136.062	7	0	0	1	-0.039	155.5	3	-2.939	132.823	6
139	M160	max	29.521	0	3	0.058	152.26	6	0.469	136.062	7	0	311	22	5.323	136.062	7	0.089	155.5	6
140		min	1.089	311	22	0	0	22	-0.753	139.302	7	0	0	1	0	0	1	-0.141	152.26	6
141	M161	max	0.186	74.017	6	1.017	0	3	0.007	74.017	3	0	74.017	22	0.229	0	6	5.135	74.017	3
142		min	0	0	22	-3.166	74.017	3	-0.045	0	6	0	0	1	-0.05	74.017	6	-2.256	17.733	3
143	M162	max	0.009	89.99	6	2.808	0	3	0.008	89.99	6	0	89.99	22	0.012	89.99	6	5.135	0	3
144		min	0	0	22	-2.279	89.99	3	-0.001	0	3	0	0	1	-0.05	0	6	-0.677	49.682	3
145	M163	max	0	85.01	22	2.862	0	3	0	85.01	3	0	85.01	22	0.012	0	6	3.151	0	3
146		min	-0.171	0	6	-1.944	85.01	3	-0.002	0	6	0	0	1	-0.002	0	3	-2.885	50.475	3
147	M164	max	0.046	186.004	7	2.502	0	3	0	186.004	22	0.1	186.004	3	0	0	22	0.813	186.004	3
148		min	0	0	22	-2.607	186.004	3	-0.001	0	6	0.035	0	22	-0.018	186.004	6	-9.495	91.064	3
149	M165	max	-0.001	37.004	22	0.772	0	3	0.006	37.004	6	0.1	37.004	3	0	37.004	22	0.813	0	3
150		min	-0.232	0	7	-0.244	37.004	3	0	0	22	0.035	0	22	-0.018	0	6	-0.091	28.138	3
151	M166	max	0.033	196.017	6	6.308	0	3	0.003	196.017	3	0	196.017	22	0.024	0	7	14.034	0	3
152		min	-0.003	0	8	-4.772	196.017	3	-0.001	0	7	0	0	1	-0.055	0	3	-15.294	112.301	3
153	M167	max	0	223.008	22	3.062	0	3	0	223.008	22	-0.433	223.008	22	0	223.008	22	0	223.008	22
154		min	0	0	1	-3.062	223.008	3	0	0	1	-1.493	0	3	0	0	1	-14.227	111.504	3
155	M168	max	-0.001	74.017	22	0.322	0	3	0	74.017	22	1.709	74.017	3	0	74.017	22	0	74.017	22
156		min	-1.05	0	6	-0.322	74.017	3	0	0	1	-0.247	0	7	0	0	1	-0.497	37.008	3
157	M169	max	-0.001	89.99	22	3.767	0	3	0	89.99	22	0.556	89.99	3	0	89.99	22	0	89.99	22
158		min	-0.705	0	6	-3.767	89.99	3	0	0	1	-0.086	0	7	0	0	1	-7.062	44.995	3
159	M170	max	0.683	186.004	7	0.81	0	3	0	186.004	22	0	186.004	22	0	186.004	22	0	186.004	22
160		min	0.002	0	22	-0.81	186.004	3	0	0	1	-0.058	0	6	0	0	1	-3.14	93.002	3
161	M171	max	1.421	223.008	7	0.739	0	3	1.394	0	6	0.268	223.008	6	6.476	111.504	6	0	223.008	22
162		min	0.09	0	22	-0.739	223.008	3	-1.394	223.008	6	-0.004	0	3	0	0	1	-3.435	111.504	3
163	M172	max	0.003	194.544	3	0.446	197.138	6	1.041	194.544	7	-0.052	249.016	22	0	249.016	22	1.479	197.138	6
164		min	-0.961	0	6	-0.432	194.544	8	-1.391	0	7	-1.07	0	7	-6.446	111.538	7	-1.639	98.569	15
165	M173	max	4.544	0	3	0	217	6	0	217	22	0	217	22	0	217	22	0	0	22
166		min	1.241	217	22	0	0	22	0	0	1	0	0	1	0	0	1	-0.002	217	6
167	M174	max	0.022	240.739	3	4.042	0	3	0	378.868	22	0	378.868	22	0	378.868	22	0	378.868	22
168		min	-0.003	209.167	7	-4.042	378.868	3	0	0	1	-0.002	209.167	6	0	0	1	-31.908	189.434	3

**Envelope Member End Reactions**

Member	Member End	Axial[k]	LC	y Shear[k]	LC	z Shear[k]	LC	Torque[k-ft]	LC	y-y Moment[k-ft]	LC	z-z Moment[k-ft]	LC
1	M91	I	max	9.006	3	0	22	0	22	0	22	0	22
2			min	0.617	22	0	1	0	1	0	1	0	1
3		J	max	8.618	3	0	22	0	22	0	22	0	22
4			min	0.384	22	0	1	0	1	0	1	0	1
5	M92	I	max	6.227	3	0	22	0	22	0	22	0	22
6			min	0.431	22	0	1	0	1	0	1	0	1
7		J	max	5.838	3	0	22	0	22	0	22	0	22
8			min	0.198	22	0	1	0	1	0	1	0	1

**Envelope Member End Reactions (Continued)**

	Member	Member End		Axial[k]	LC	y Shear[k]	LC	z Shear[k]	LC	Torque[k-ft]	LC	y-y Moment[k-ft]	LC	z-z Moment[k-ft]	LC
9	M93	I	max	13.184	3	0.188	6	0.002	7	0	22	0	22	0	22
10			min	4.011	22	0	22	-0.015	3	0	1	0	1	0	1
11		J	max	5.14	3	0	22	0.002	7	0	22	0	22	0	22
12			min	1.509	22	-0.187	6	-0.015	3	0	1	0	1	0	1
13	M94	I	max	2.817	3	0	22	0.01	7	0	22	0	22	0	22
14			min	0.403	22	0	1	-0.009	5	0	1	0	1	0	1
15		J	max	2.428	3	0	22	0.01	7	0	22	0.135	7	0	22
16			min	0.17	22	0	1	-0.009	5	0	1	-0.124	5	0	1
17	M95	I	max	8.596	3	0	22	0.004	7	0	22	0	22	0	22
18			min	0.401	22	0	1	-0.003	5	0	1	0	1	0	1
19		J	max	8.208	3	0	22	0.004	7	0	22	0.049	7	0	22
20			min	0.168	22	0	1	-0.003	5	0	1	-0.047	5	0	1
21	M96	I	max	1.12	6	5.972	3	0	22	0.047	7	0	22	0	22
22			min	0	1	-0.159	22	0	1	-0.049	5	0	1	0	1
23		J	max	1.12	6	0.159	22	0	22	0.047	7	0	22	0	22
24			min	0	1	-5.972	3	0	1	-0.049	5	0	1	0	1
25	M97	I	max	9.177	3	0	22	0	22	0	22	0	22	0	22
26			min	0.622	22	0	1	0	1	0	1	0	1	0	1
27		J	max	8.789	3	0	22	0	22	0	22	0	22	0	22
28			min	0.389	22	0	1	0	1	0	1	0	1	0	1
29	M98	I	max	0.396	6	3.475	3	0	22	0.063	7	0	22	0	22
30			min	0	1	0.065	22	0	5	-0.004	2	0	1	0	1
31		J	max	0.396	6	-0.07	22	0	22	0.063	7	0	22	0	22
32			min	0	1	-3.564	3	0	5	-0.004	2	0	1	0	1
33	M99	I	max	8.627	3	0	22	0.003	7	0	22	0	22	0	22
34			min	0.391	22	0	1	-0.004	5	0	1	0	1	0	1
35		J	max	8.239	3	0	22	0.003	7	0	22	0.047	7	0	22
36			min	0.158	22	0	1	-0.004	5	0	1	-0.049	5	0	1
37	M100	I	max	2.965	3	0	22	0.009	7	0	22	0	22	0	22
38			min	0.402	22	0	1	-0.01	5	0	1	0	1	0	1
39		J	max	2.576	3	0	22	0.009	7	0	22	0.124	7	0	22
40			min	0.169	22	0	1	-0.01	5	0	1	-0.135	5	0	1
41	M101	I	max	0.528	5	5.968	3	0	22	0	22	0	22	0	22
42			min	0	1	0.803	22	-0.556	6	-0.041	6	0	1	0	1
43		J	max	0.528	5	-0.802	22	0.606	6	0	22	0	22	0	22
44			min	0	1	-5.795	3	0	1	-0.041	6	0	1	0	1
45	M102	I	max	0.788	6	3.815	3	0	5	0	2	0	22	0	22
46			min	0	1	0.041	22	0	1	-0.014	3	0	1	0	1
47		J	max	0.788	6	-0.057	22	0	5	0	2	0	22	0	22
48			min	0	1	-3.922	3	0	1	-0.014	3	0	1	0	1
49	M103	I	max	6.602	3	0	22	0	22	0	22	0	22	0	22
50			min	0.422	22	0	1	0	1	0	1	0	1	0	1
51		J	max	6.214	3	0	22	0	22	0	22	0	22	0	22
52			min	0.189	22	0	1	0	1	0	1	0	1	0	1
53	M104	I	max	0	22	2.029	3	0	22	0	22	0	22	0	22
54			min	0	1	0.744	22	0	1	0	1	0	1	0	1
55		J	max	0	22	-0.744	22	0	22	0	22	0	22	0	22
56			min	0	1	-2.029	3	0	1	0	1	0	1	0	1
57	M105	I	max	5.608	3	0.004	6	0.041	7	0	22	0	22	0	22
58			min	1.87	2	0	1	-0.038	5	0	1	0	1	0	1
59		J	max	5.383	3	0.027	6	0.159	5	0	22	0	22	0	22
60			min	1.815	22	0	1	-0.173	7	0	1	0	1	-0.003	6
61	M106	I	max	34.149	3	0.016	6	0.041	7	0	22	0	22	0	22
62			min	9.447	22	0	1	-0.039	5	0	1	0	1	0	1
63		J	max	24.307	3	0.137	6	0.144	5	0	22	0	22	0	22

**Envelope Member End Reactions (Continued)**

Member	Member End		Axial[k]	LC	y Shear[k]	LC	z Shear[k]	LC	Torque[k-ft]	LC	y-y Moment[k-ft]	LC	z-z Moment[k-ft]	LC
64		min	8.279	22	0	1	-0.153	7	0	1	0	1	0	1
65	M107	max	34.564	3	0.161	6	0.041	7	0	22	0	22	0	22
66		min	9.843	22	0	1	-0.04	5	0	1	0	1	0	1
67		max	24.092	3	0	22	0.137	5	0	22	0	22	0.003	6
68		min	8.173	22	-0.793	6	-0.14	7	0	1	0	1	0	1
69	M108	max	33.786	3	0.152	6	0.04	7	0	22	0	22	0	22
70		min	9.607	22	0	1	-0.041	5	0	1	0	1	0	1
71		max	23.48	3	0	22	0.14	5	0	22	0	22	0.003	6
72		min	7.964	22	-0.743	6	-0.137	7	0	1	0	1	0	1
73	M109	max	6.442	3	0.004	6	0.038	7	0	22	0	22	0	22
74		min	2.205	2	0	1	-0.041	5	0	1	0	1	0	1
75		max	6.24	3	0.025	6	0.173	5	0	22	0	22	0	22
76		min	2.107	22	0	1	-0.159	7	0	1	0	1	-0.003	6
77	M110	max	9.918	3	0	6	0.202	3	0	22	0	22	0	22
78		min	2.896	22	0	17	0.056	22	0	1	0	1	0	1
79		max	9.417	3	0	6	0.202	3	0	22	3.656	3	0	17
80		min	2.595	22	0	17	0.056	22	0	1	1.007	22	0	6
81	M111	max	33.924	3	0.016	6	0.039	7	0	22	0	22	0	22
82		min	9.352	22	0	1	-0.041	5	0	1	0	1	0	1
83		max	24.062	3	0.137	6	0.153	5	0	22	0	22	0	22
84		min	8.195	22	0	1	-0.144	7	0	1	0	1	0	1
85	M112	max	0.583	6	2.207	3	0	14	0.135	7	0	22	0	22
86		min	0	1	0.037	22	-1.086	7	-0.124	5	0	1	0	1
87		max	0.583	6	0.988	3	1.088	7	0.135	7	0	22	0	22
88		min	0	1	0.072	22	0	14	-0.124	5	0	1	0	1
89	M113	max	9.533	3	0.19	6	0.363	7	0	22	0	22	0	22
90		min	3.122	22	0	22	-0.004	3	0	1	0	1	0	1
91		max	4.445	3	0	8	-0.003	22	0	22	0	22	0	22
92		min	1.343	22	-0.184	6	-0.357	7	0	1	0	1	0	1
93	M114	max	0.62	6	2.34	3	1.086	5	0.124	7	0	22	0	22
94		min	0	1	0.027	22	0	16	-0.135	5	0	1	0	1
95		max	0.62	6	1.061	3	0	16	0.124	7	0	22	0	22
96		min	0	1	0.076	22	-1.088	5	-0.135	5	0	1	0	1
97	M115	max	0.004	7	0.221	21	0	22	0	22	0	22	0	22
98		min	-0.003	5	0	2	-0.167	6	0	1	0	1	0	1
99		max	0.004	7	0	2	0.167	6	0	22	0	22	0	22
100		min	-0.003	5	-0.221	1	0	1	0	1	0	1	0	1
101	M116	max	51.356	3	0.058	3	0.231	3	0	22	0	22	0	22
102		min	14.483	22	0.016	22	0.06	22	0	1	0	1	0	1
103		max	42.982	3	0.351	3	0.075	7	0.306	3	3.193	3	-0.001	22
104		min	12.043	22	0.085	6	0.039	3	0.042	6	1.052	22	-0.012	6
105	M117	max	0	11	2.232	3	0	22	0	22	0	22	0	22
106		min	0	9	0.183	22	-0.532	6	0	1	0	1	0	1
107		max	0	11	-0.149	22	0.634	6	0	22	0	22	0	22
108		min	0	9	-3.511	3	0	1	0	1	0	1	0	1
109	M118	max	0.004	5	15.124	3	0	22	0	22	0	22	0	22
110		min	0	1	5.137	22	0	1	0	6	0	1	0	1
111		max	0.004	5	-5.137	22	0	22	0	22	0	22	0	22
112		min	0	1	-15.124	3	0	1	0	6	0	1	0	1
113	M119	max	0	11	5.278	3	0	22	0	22	0	22	0	22
114		min	0	9	0.24	22	-0.776	6	0	1	0	1	0	1
115		max	0	7	-0.241	22	0.726	6	0	22	0	22	0	22
116		min	0	5	-5.096	3	0	1	0	1	0	1	0	1
117	M120	max	0.012	8	-0.474	22	0.044	3	0	22	0	22	0.1	3
118		min	-0.122	6	-1.657	3	-0.019	7	0	1	0	1	0.035	22

**Envelope Member End Reactions (Continued)**

Member	Member End		Axial[k]	LC y	Shear[k]	LC z	Shear[k]	LC Torque[k-ft]	LC y-y Moment[k-ft]	LC z-z Moment[k-ft]	LC			
119	J	max	0.012	8	-1.344	22	0.044	3	0	22	0.193	3	14.034	3
120		min	-0.122	6	-4.653	3	-0.019	7	0	1	-0.083	7	4.051	22
121	M121	max	0.696	5	4.009	3	0	22	0	22	0	22	0	22
122		min	0	1	0.54	22	-0.239	6	-0.939	6	0	1	0	1
123	J	max	0.697	5	-0.558	22	0.4	6	0	22	0	22	0	22
124		min	0	1	-2.627	3	0	1	-0.939	6	0	1	0	1
125	M122	max	0	7	3.522	3	0	22	0	22	0	22	0	22
126		min	0	5	0.144	22	-0.687	6	0	1	0	1	0	1
127	J	max	0	9	-0.174	22	0.526	6	0	22	0	22	0	22
128		min	0	11	-2.029	3	0	1	0	1	0	1	0	1
129	M123	max	0.003	5	0.237	12	0	22	0	22	0	22	0	22
130		min	-0.003	7	0	2	-0.178	6	0	1	0	1	0	1
131	J	max	0.003	5	0	2	0.178	6	0	22	0	22	0	22
132		min	-0.003	7	-0.237	3	0	1	0	1	0	1	0	1
133	M124	max	0.494	6	3.507	3	0	7	0.005	2	0	22	0	22
134		min	0	1	0.066	22	0	1	-0.068	5	0	1	0	1
135	J	max	0.494	6	-0.073	22	0	7	0.005	2	0	22	0	22
136		min	0	1	-3.599	3	0	1	-0.068	5	0	1	0	1
137	M125	max	0.877	7	0.712	21	0	22	0.161	6	0	22	0	22
138		min	0	1	0	2	-0.559	6	0	1	0	1	0	1
139	J	max	0.877	7	0	2	0.559	6	0.161	6	0	22	0	22
140		min	0	1	-0.712	1	0	1	0	1	0	1	0	1
141	M126	max	4.939	7	7.486	3	0.012	6	0.001	17	-0.001	22	37.377	3
142		min	-5.138	5	2.078	22	0.002	22	0	6	-0.009	6	10.311	22
143	J	max	4.939	7	-4.772	22	-0.002	22	0.001	17	-0.036	22	104.496	3
144		min	-5.138	5	-17.124	3	-0.017	6	0	6	-0.279	6	29.22	22
145	M127	max	0.264	7	6.24	3	0	22	0	22	0	22	0	22
146		min	-0.27	5	2.107	22	0	1	-0.003	6	0	1	0	1
147	J	max	0.129	7	-2.828	22	0	22	0	22	0	22	0	22
148		min	-0.127	5	-8.355	3	0	1	-0.003	6	0	1	0	1
149	M128	max	0.696	7	2.874	3	0	22	0.946	6	0	22	0	22
150		min	0	1	0.587	22	-0.445	6	0	1	0	1	0	1
151	J	max	0.696	7	-0.566	22	0.343	6	0.946	6	0	22	0	22
152		min	0	1	-4.003	3	0	1	0	1	0	1	0	1
153	M129	max	9.686	3	0.181	6	0.036	7	0	22	0	22	0	22
154		min	3.268	22	-0.044	8	-0.174	3	0	1	0	1	0	1
155	J	max	7.835	3	0.035	8	0.147	3	0	22	0	22	0	22
156		min	2.354	22	-0.287	6	0.04	22	0	1	0	1	0	1
157	M130	max	0	22	3.558	3	0	22	0.172	3	0	22	0	22
158		min	-0.355	6	1.006	22	0	1	-0.045	7	0	1	0	1
159	J	max	0	22	-1.006	22	0	22	0.172	3	0	22	0	22
160		min	-0.355	6	-3.558	3	0	1	-0.045	7	0	1	0	1
161	M131	max	1.125	6	5.755	3	0	22	0.049	7	0	22	0	22
162		min	0	1	-0.147	22	0	1	-0.047	5	0	1	0	1
163	J	max	1.125	6	0.147	22	0	22	0.049	7	0	22	0	22
164		min	0	1	-5.755	3	0	1	-0.047	5	0	1	0	1
165	M132	max	0.877	5	0.761	21	0	22	0	22	0	22	0	22
166		min	0	1	0	2	-0.598	6	-0.152	6	0	1	0	1
167	J	max	0.877	5	0	2	0.598	6	0	22	0	22	0	22
168		min	0	1	-0.761	3	0	1	-0.152	6	0	1	0	1
169	M133	max	0.211	7	0.074	3	0	22	-0.001	22	0	22	0	22
170		min	0.003	22	0	2	-0.231	8	-0.302	6	0	1	0	1
171	J	max	0.211	7	0	2	0.231	8	-0.001	22	0	22	0	22
172		min	0.003	22	-0.074	1	0	1	-0.302	6	0	1	0	1
173	M134	max	0	22	0.609	21	0.908	8	0	22	0	22	0	22

**Envelope Member End Reactions (Continued)**

Member	Member End		Axial[k]	LC	y Shear[k]	LC	z Shear[k]	LC	Torque[k-ft]	LC	y-y Moment[k-ft]	LC	z-z Moment[k-ft]	LC	
174		min	0	1	0	2	0	1	0	1	0	1	0	1	
175	J	max	0	22	0	2	0	22	0	22	0	22	0	22	
176		min	0	1	-0.609	1	-0.908	8	0	1	0	1	0	1	
177	M135	I	max	0.717	6	3.868	3	0	22	0.012	3	0	22	0	22
178		min	0	1	0.042	22	0	7	0	2	0	1	0	1	
179	J	max	0.717	6	-0.057	22	0	22	0.012	3	0	22	0	22	
180		min	0	1	-3.977	3	0	7	0	2	0	1	0	1	
181	M136	I	max	0	22	1.431	3	0	22	0.029	5	0	22	0	22
182		min	0	7	0.023	22	0	1	-0.029	2	0	1	0	1	
183	J	max	0	22	-0.023	22	0	22	0.029	5	0	22	0	22	
184		min	0	7	-1.431	3	0	1	-0.029	2	0	1	0	1	
185	M137	I	max	0.001	7	1.136	3	0	22	0.099	3	0	22	0	22
186		min	0	1	0.038	22	0	1	0.018	22	0	1	0	1	
187	J	max	0.001	7	-0.038	22	0	22	0.099	3	0	22	0	22	
188		min	0	1	-1.136	3	0	1	0.018	22	0	1	0	1	
189	M138	I	max	0	22	1.393	3	0	22	0.028	2	0	22	0	22
190		min	0	5	0.021	22	0	1	-0.037	7	0	1	0	1	
191	J	max	0	22	-0.022	22	0	22	0.028	2	0	22	0	22	
192		min	0	5	-1.371	3	0	1	-0.037	7	0	1	0	1	
193	M139	I	max	0.001	5	1.106	3	0	22	-0.022	22	0	22	0	22
194		min	0	1	0.037	22	0	1	-0.103	3	0	1	0	1	
195	J	max	0.001	5	-0.038	22	0	22	-0.022	22	0	22	0	22	
196		min	0	1	-1.088	3	0	1	-0.103	3	0	1	0	1	
197	M140	I	max	2.996	3	0	22	0	22	0	22	0	22	0	22
198		min	0.788	2	-0.115	8	0	1	0	1	0	1	0	1	
199	J	max	2.029	3	0.796	8	0	22	0	22	0	22	0	22	
200		min	0.744	22	0	1	0	1	0	1	0	1	0	1	
201	M141	I	max	2.996	3	0	22	0	22	0	22	0	22	0	22
202		min	0.788	2	-0.115	8	0	1	0	1	0	1	0	1	
203	J	max	2.029	3	0.796	8	0	22	0	22	0	22	0	22	
204		min	0.744	22	0	1	0	1	0	1	0	1	0	1	
205	M142	I	max	0.243	8	23.551	3	0	22	0.027	7	0	22	0	22
206		min	0	22	6.772	22	0	1	-0.001	3	0	1	0	1	
207	J	max	0.243	8	-6.772	22	0	22	0.027	7	0	22	0	22	
208		min	0	22	-23.551	3	0	1	-0.001	3	0	1	0	1	
209	M143	I	max	4.975	7	9.416	3	0	22	0	17	0	22	3.656	3
210		min	-5.1	5	2.595	22	0	6	0	6	0	1	1.007	22	
211	J	max	4.975	7	-3.594	22	0	22	0	17	-0.001	22	38.846	3	
212		min	-5.1	5	-13.04	3	0	6	0	6	-0.009	6	10.715	22	
213	M144	I	max	0	22	0.988	21	0	22	0.564	7	0	22	0	22
214		min	-0.053	6	0	2	-1.13	7	0.001	22	0	1	0	1	
215	J	max	0	22	0	2	1.13	7	0.564	7	0	22	0	22	
216		min	-0.053	6	-0.988	1	0	1	0.001	22	0	1	0	1	
217	M145	I	max	12.463	3	-0.064	22	0	22	0	22	0	22	0	22
218		min	3.494	22	-0.238	3	0	1	0	1	0	1	0	1	
219	J	max	12.105	3	-0.064	22	0	22	0	22	0	3	3.074	3	
220		min	3.279	22	-0.238	3	0	1	0	1	0	22	0.831	22	
221	M146	I	max	24.897	3	0.006	6	0.08	7	0	22	0	22	0	22
222		min	7.58	22	0	22	0	3	0	1	0	1	0	1	
223	J	max	23.551	3	0	22	0	22	0	22	0.001	3	0	22	
224		min	6.772	22	-0.048	6	-1.063	7	0	1	-0.027	7	0	1	
225	M147	I	max	44.331	3	0.279	3	0.001	3	0	22	0	22	0	22
226		min	12.199	22	0.076	22	0	22	0	1	0	1	0	1	
227	J	max	43.972	3	0.279	3	0.001	3	0	22	0.008	3	-0.983	22	
228		min	11.984	22	0.076	22	0	22	0	1	0.002	22	-3.605	3	

**Envelope Member End Reactions (Continued)**

	Member	Member End		Axial[k]	LC	y Shear[k]	LC	z Shear[k]	LC	Torque[k-ft]	LC	y-y Moment[k-ft]	LC	z-z Moment[k-ft]	LC
229	M148	I	max	49.737	3	-0.062	22	0	3	0	22	0	22	0	22
230			min	13.643	22	-0.224	3	0	22	0	1	0	1	0	1
231		J	max	49.378	3	-0.062	22	0	3	0	22	0	3	2.899	3
232			min	13.428	22	-0.224	3	0	22	0	1	0	22	0.795	22
233	M149	I	max	13.579	3	0	22	0	22	0	22	0	22	0	22
234			min	3.934	22	0	1	0	1	0	1	0	1	0	1
235		J	max	13.077	3	0	22	0	22	0	22	0	22	0	22
236			min	3.633	22	0	1	0	1	0	1	0	1	0	1
237	M150	I	max	2.814	8	12.105	3	0.004	3	0	22	0	22	3.074	3
238			min	-3.03	6	3.279	22	0.001	22	0	3	0	1	0.831	22
239		J	max	2.814	8	-6.194	22	0.004	3	0	22	0.061	3	85.139	3
240			min	-3.03	6	-22.824	3	0.001	22	0	3	0.016	22	23.155	22
241	M151	I	max	14.825	3	0.188	6	0.007	7	0	22	0	22	0	22
242			min	4.594	22	0	22	-0.053	3	0	1	0	1	0	1
243		J	max	5.974	3	0	22	0.004	7	0	22	0	22	0	22
244			min	1.72	22	-0.188	6	-0.029	3	0	1	0	1	0	1
245	M152	I	max	26.489	3	0.18	6	-0.004	7	0	22	0	22	0	22
246			min	7.912	22	-0.001	8	-0.271	3	0	1	0	1	0	1
247		J	max	4.08	3	-0.001	22	-0.517	22	0.229	6	0	22	0	22
248			min	1.267	22	-0.191	6	-1.844	3	-0.033	3	0	1	0	1
249	M153	I	max	2.918	8	26.555	3	-0.004	22	0	22	0.061	3	88.038	3
250			min	-2.929	6	7.234	22	-0.016	3	0	3	0.016	22	23.95	22
251		J	max	2.918	8	-7.016	22	-0.004	22	0	22	-0.084	22	78.703	3
252			min	-2.929	6	-25.737	3	-0.016	3	0	3	-0.315	3	21.466	22
253	M154	I	max	2.793	8	18.235	3	0.044	3	-0.002	22	-0.084	22	75.098	3
254			min	-3.058	6	4.968	22	0.011	6	-0.008	3	-0.315	3	20.483	22
255		J	max	2.793	8	-2.139	22	0.044	3	-0.002	22	0.306	3	2.56	3
256			min	-3.058	6	-7.873	3	0.011	6	-0.008	3	0.042	6	0.684	22
257	M155	I	max	0.132	5	8.968	3	0	22	0.003	6	0	22	0	22
258			min	-0.13	7	3.036	22	0	1	0	1	0	1	0	1
259		J	max	0.267	5	-1.815	22	0	22	0.003	6	0	22	0	22
260			min	-0.273	7	-5.383	3	0	1	0	1	0	1	0	1
261	M156	I	max	5.046	7	25.85	3	0.014	6	0	22	0.17	3	107.689	3
262			min	-5.035	5	7.271	22	-0.006	3	-0.012	6	-0.237	6	30.271	22
263		J	max	5.046	7	-5.808	22	0.014	6	0	22	0.229	6	21.615	3
264			min	-5.035	5	-20.618	3	-0.006	3	-0.012	6	-0.033	3	6.195	22
265	M157	I	max	21.027	3	0	6	-0.022	22	0	22	0	22	0	22
266			min	5.973	22	0	17	-0.081	3	0	1	0	1	0	1
267		J	max	20.525	3	0	6	-0.022	22	0	22	-0.404	22	0.001	17
268			min	5.672	22	0	17	-0.081	3	0	1	-1.47	3	0	6
269	M158	I	max	12.079	3	0.342	6	0.501	7	0	22	0	22	0	22
270			min	3.976	22	-0.073	8	-0.023	3	0	1	0	1	0	1
271		J	max	10.96	3	0.017	8	0.027	3	0.107	7	0	22	0	22
272			min	3.174	22	-0.171	6	-0.32	7	-0.249	3	0	1	0	1
273	M159	I	max	0.17	8	0.266	6	0.451	7	0	22	0	22	0	22
274			min	-0.538	2	-0.031	8	0.004	22	0	1	0	1	0	1
275		J	max	-0.416	22	0.044	8	0.003	3	0	22	0	22	0	22
276			min	-1.412	3	-0.221	6	-0.302	7	0	1	0	1	0	1
277	M160	I	max	29.521	3	0.006	6	0.469	7	0	22	0	22	0	22
278			min	9.271	22	0	22	0.001	22	0	1	0	1	0	1
279		J	max	3.378	3	0.007	6	-0.001	22	0	22	0	22	0	22
280			min	1.089	22	0	22	-0.288	7	0	1	0	1	0	1
281	M161	I	max	0.186	6	1.017	3	0.007	3	0	22	0.229	6	-0.433	22
282			min	0	22	0.3	22	-0.045	6	0	1	-0.033	3	-1.493	3
283		J	max	0.186	6	-0.915	22	0.007	3	0	22	0.007	3	5.135	3

**Envelope Member End Reactions (Continued)**

Member	Member End		Axial[k]	LC	y Shear[k]	LC	z Shear[k]	LC	Torque[k-ft]	LC	y-y Moment[k-ft]	LC	z-z Moment[k-ft]	LC	
284		min	0	22	-3.166	3	-0.045	6	0	1	-0.05	6	1.461	22	
285	M162	I	max	0.009	6	2.808	3	0.008	6	0	0.007	3	5.135	3	
286		min	0	22	0.806	22	-0.001	3	0	1	-0.05	6	1.461	22	
287		J	max	0.009	6	-0.671	22	0.008	6	0	0.012	6	3.151	3	
288		min	0	22	-2.279	3	-0.001	3	0	1	-0.002	3	0.956	22	
289	M163	I	max	0	22	2.862	3	0	3	0	0.012	6	3.151	3	
290		min	-0.171	6	0.838	22	-0.002	6	0	1	-0.002	3	0.956	22	
291		J	max	0	22	-0.558	22	0	3	0	0	22	-0.035	22	
292		min	-0.171	6	-1.944	3	-0.002	6	0	1	0	1	-0.1	3	
293	M164	I	max	0.046	7	2.502	3	0	22	0.1	3	0	22	0	22
294		min	0	22	0.785	22	-0.001	6	0.035	22	0	1	0	1	
295		J	max	0.046	7	-0.826	22	0	22	0.1	3	0	22	0.813	3
296		min	0	22	-2.607	3	-0.001	6	0.035	22	-0.018	6	0.286	2	
297	M165	I	max	-0.001	22	0.772	3	0.006	6	0.1	3	0	22	0.813	3
298		min	-0.232	7	0.263	22	0	22	0.035	22	-0.018	6	0.286	2	
299		J	max	-0.001	22	-0.058	22	0.006	6	0.1	3	0	22	0	22
300		min	-0.232	7	-0.244	3	0	22	0.035	22	0	1	0	1	
301	M166	I	max	0.033	6	6.308	3	0.003	3	0	22	0.024	7	14.034	3
302		min	-0.003	8	1.83	22	-0.001	7	0	1	-0.055	3	4.051	22	
303		J	max	0.033	6	-1.387	22	0.003	3	0	22	0	22	1.493	3
304		min	-0.003	8	-4.772	3	-0.001	7	0	1	0	1	0.433	22	
305	M167	I	max	0	22	3.062	3	0	22	-0.433	22	0	22	0	22
306		min	0	1	0.966	22	0	1	-1.493	3	0	1	0	1	
307		J	max	0	22	-0.966	22	0	22	-0.433	22	0	22	0	22
308		min	0	1	-3.062	3	0	1	-1.493	3	0	1	0	1	
309	M168	I	max	-0.001	22	0.322	3	0	22	1.709	3	0	22	0	22
310		min	-1.05	6	0.096	2	0	1	-0.247	7	0	1	0	1	
311		J	max	-0.001	22	-0.096	2	0	22	1.709	3	0	22	0	22
312		min	-1.05	6	-0.322	3	0	1	-0.247	7	0	1	0	1	
313	M169	I	max	-0.001	22	3.767	3	0	22	0.556	3	0	22	0	22
314		min	-0.705	6	1.065	22	0	1	-0.086	7	0	1	0	1	
315		J	max	-0.001	22	-1.065	22	0	22	0.556	3	0	22	0	22
316		min	-0.705	6	-3.767	3	0	1	-0.086	7	0	1	0	1	
317	M170	I	max	0.683	7	0.81	3	0	22	0	22	0	22	0	22
318		min	0.002	22	0.242	2	0	1	-0.058	6	0	1	0	1	
319		J	max	0.683	7	-0.242	2	0	22	0	22	0	22	0	22
320		min	0.002	22	-0.81	3	0	1	-0.058	6	0	1	0	1	
321	M171	I	max	1.421	7	0.739	3	1.394	6	0.268	6	0	22	0	22
322		min	0.09	22	0.269	22	0	1	-0.004	3	0	1	0	1	
323		J	max	1.421	7	-0.269	22	0	22	0.268	6	0	22	0	22
324		min	0.09	22	-0.739	3	-1.394	6	-0.004	3	0	1	0	1	
325	M172	I	max	0.003	3	0.398	15	-0.006	22	-0.091	22	0	22	0	22
326		min	-0.961	6	0.038	2	-1.391	7	-1.07	7	0	1	0	1	
327		J	max	-0.001	22	0.238	6	0.968	7	-0.052	22	0	22	0	22
328		min	-0.489	6	-0.21	3	0.007	22	-0.253	16	0	1	0	1	
329	M173	I	max	4.544	3	0	6	0	22	0	22	0	22	0	22
330		min	1.542	22	0	22	0	1	0	1	0	1	0	1	
331		J	max	4.042	3	0	6	0	22	0	22	0	22	0	22
332		min	1.241	22	0	22	0	1	0	1	0	1	-0.002	6	
333	M174	I	max	0.022	3	4.042	3	0	22	0	22	0	22	0	22
334		min	-0.003	7	1.241	22	0	1	-0.002	6	0	1	0	1	
335		J	max	0.022	3	-1.241	22	0	22	0	22	0	22	0	22
336		min	-0.003	7	-4.042	3	0	1	-0.002	6	0	1	0	1	

**Envelope Member 2nd/1st Moment Ratios**

Member		y-y Moment [k-ft]	2nd/1st Ratio	Loc [in]	LC	z-z Moment [k-ft]	2nd/1st Ratio	Loc [in]	LC	
1	M91	max	NC	NC		NC	NC			
2		min	NC	NC		NC	NC			
3	M92	max	NC	NC		NC	NC			
4		min	NC	NC		NC	NC			
5	M93	max	0.022	2.629	155.5	11	-0.009	1.275	155.5	3
6		min	-0.021	0.921	155.5	7	-0.002	1.071	155.5	22
7	M94	max	-0.066	1.086	168	18	NC	NC		
8		min	0.135	1.051	168	7	NC	NC		
9	M95	max	-0.025	1.087	168	18	NC	NC		
10		min	0.049	1.053	168	7	NC	NC		
11	M96	max	NC	NC		-4.867	1	121.994	12	
12		min	NC	NC		0.807	1	121.994	22	
13	M97	max	NC	NC		NC	NC			
14		min	NC	NC		NC	NC			
15	M98	max	0.001	1.011	177.908	21	-4.372	1.001	114.369	6
16		min	0.001	0.999	177.908	9	-4.369	1	114.369	7
17	M99	max	0.025	1.087	168	20	NC	NC		
18		min	-0.049	1.053	168	5	NC	NC		
19	M100	max	0.066	1.086	168	20	NC	NC		
20		min	-0.135	1.051	168	5	NC	NC		
21	M101	max	-1.588	0.982	122.509	11	-12.048	1.001	122.509	5
22		min	-1.683	0.971	122.509	15	-13.417	1	160.011	2
23	M102	max	-0.001	1.012	177.908	20	-4.584	1.001	114.369	6
24		min	-0.002	1	177.908	5	-10.682	1	111.828	2
25	M103	max	NC	NC		NC	NC			
26		min	NC	NC		NC	NC			
27	M104	max	NC	NC		-4.973	1	151.375	2	
28		min	NC	NC		-7.822	1	151.375	1	
29	M105	max	-0.335	1.086	169.531	18	0.081	1.066	169.531	15
30		min	0.684	1.051	169.531	7	0.074	1.043	169.531	9
31	M106	max	-0.303	1.087	169.531	18	0.286	1.071	169.531	20
32		min	0.605	1.053	169.531	7	0.379	1.047	169.531	9
33	M107	max	-0.295	1.086	167.271	18	-1.653	1.063	169.531	20
34		min	0.569	1.054	167.271	7	-2.195	1.042	169.531	9
35	M108	max	0.295	1.086	167.271	20	-1.547	1.06	169.531	18
36		min	-0.569	1.054	167.271	5	-2.056	1.04	169.531	11
37	M109	max	0.335	1.086	169.531	20	0.075	1.065	169.531	15
38		min	-0.685	1.051	169.531	5	0.068	1.043	169.531	11
39	M110	max	1.678	1	217	5	NC	NC		
40		min	3.656	1	217	3	NC	NC		
41	M111	max	0.303	1.087	169.531	20	0.287	1.068	169.531	18
42		min	-0.604	1.053	169.531	5	0.38	1.045	169.531	11
43	M112	max	-2.861	1.003	121.994	20	2.079	1	188.074	6
44		min	-5.525	1.001	121.994	7	2.079	1	188.074	7
45	M113	max	3.664	1.115	155.5	16	-0.009	1.271	152.26	3
46		min	0.054	1.002	155.5	6	-0.013	1.024	152.26	8
47	M114	max	2.862	1.004	121.994	18	2.191	1	188.074	6
48		min	5.525	1.001	121.994	5	2.191	1	188.074	5
49	M115	max	-0.454	1	65.377	6	-0.362	1	65.377	22
50		min	-0.341	1	65.377	15	-0.603	1	65.377	1
51	M116	max	1.052	0.952	217	22	1.17	1.001	155.969	8
52		min	3.193	0.819	217	3	0.536	0.999	155.969	11
53	M117	max	-1.756	1.025	100.826	20	-4.263	1	100.826	8
54		min	-3.371	1.016	100.826	6	-4.263	1	100.826	6
55	M118	max	NC	NC		-25.686	1	120.008	22	

**Envelope Member 2nd/1st Moment Ratios (Continued)**

Member		y-y Moment [k-ft]	2nd/1st Ratio	Loc [in]	LC	z-z Moment [k-ft]	2nd/1st Ratio	Loc [in]	LC	
56		min	NC			-75.627	1	120.008	3	
57	M119	max	-2.289	1.016	110.008	20	-7.631	1	125.009	7
58		min	-4.407	1.011	110.008	6	-7.63	1	125.009	6
59	M120	max	0.069	1.583	52.999	21	6.759	1	52.999	8
60		min	0.032	-17.166	52.999	16	6.701	1	52.999	6
61	M121	max	-0.546	0.966	119.927	11	-5.993	1	66.047	5
62		min	-0.575	0.949	119.927	15	-1.989	1	81.689	22
63	M122	max	-1.73	1.027	66.047	18	-7.404	1	66.047	2
64		min	-2.323	1.018	66.047	11	-3.834	1	66.047	6
65	M123	max	-0.52	1	69.943	6	-0.414	1	69.943	22
66		min	-0.269	1	69.943	18	-0.69	1	69.943	4
67	M124	max	-0.001	1.012	177.908	19	-4.43	1.001	114.369	6
68		min	-0.001	0.999	177.908	11	-4.426	1	114.369	5
69	M125	max	-0.787	1	65.377	20	-1.939	1	65.377	12
70		min	-1.066	1	65.377	9	-1.939	1	65.377	3
71	M126	max	-0.276	1.105	388.13	15	81.725	1.003	388.13	16
72		min	-0.036	1.021	388.13	22	48.735	1	388.13	5
73	M127	max	NC	NC			12.674	1	140.59	2
74		min	NC	NC			16.728	1	140.59	7
75	M128	max	-0.674	0.972	51.33	11	-6.726	1.001	100.826	7
76		min	-0.712	0.958	51.33	15	-19.44	1	100.826	3
77	M129	max	-1.924	1.053	132.823	3	-0.023	1.108	155.5	3
78		min	-0.892	1.005	155.5	12	-0.008	1.032	155.5	22
79	M130	max	NC	NC			-2.969	1	42.505	12
80		min	NC	NC			-6.302	1	42.505	3
81	M131	max	NC	NC			-29.252	1	121.994	3
82		min	NC	NC			-15.56	1	121.994	2
83	M132	max	-1.307	1	69.943	15	-2.219	1	69.943	3
84		min	-0.9	1	69.943	18	-2.219	1	69.943	4
85	M133	max	-0.134	1	18.502	17	-0.057	1	18.502	6
86		min	-0.125	1	18.502	10	-0.034	1	18.502	22
87	M134	max	4.296	1	151.375	17	-3.844	1	151.375	21
88		min	2.96	1	151.375	19	-2.306	1	151.375	22
89	M135	max	0.001	1.013	177.908	18	-4.655	1.001	114.369	6
90		min	0.002	1	177.908	7	-0.289	1	124.536	22
91	M136	max	NC	NC			-2.236	1	75.5	2
92		min	NC	NC			-0.071	1	75.5	22
93	M137	max	NC	NC			-0.121	1	75.5	22
94		min	NC	NC			-0.862	1	75.5	4
95	M138	max	NC	NC			-0.066	1	74.449	22
96		min	NC	NC			-2.113	1	72.93	1
97	M139	max	NC	NC			-0.113	1	72.93	22
98		min	NC	NC			-1.728	1	72.93	1
99	M140	max	NC	NC			0.664	1.003	135.625	21
100		min	NC	NC			1.285	1.002	135.625	8
101	M141	max	NC	NC			0.964	1.003	135.625	17
102		min	NC	NC			0.899	1.002	135.625	10
103	M142	max	NC	NC			-146.344	1	188.37	21
104		min	NC	NC			-184.846	1	188.37	3
105	M143	max	-0.008	1.105	233.095	15	30.434	1	233.095	16
106		min	-0.001	1.021	233.095	22	17.866	1	233.095	5
107	M144	max	-6.653	1	188.37	16	-7.755	1	188.37	21
108		min	-6.21	1	188.37	11	-4.653	1	188.37	22
109	M145	max	NC	NC			1.384	1	155	8
110		min	NC	NC			1.385	1	155	6

**Envelope Member 2nd/1st Moment Ratios (Continued)**

Member		y-y Moment [k-ft]	2nd/1st Ratio	Loc [in]	LC	z-z Moment [k-ft]	2nd/1st Ratio	Loc [in]	LC	
111	M146	max	1.071	1.045	138.854	16	-0.001	1.133	137.24	3
112		min	-0.002	0.765	137.24	3	-0.011	0.964	137.24	17
113	M147	max	0.008	1.181	155	3	-1.68	1	155	6
114		min	0.002	1.048	155	22	-1.595	1	155	8
115	M148	max	NC	NC			1.349	1	155	8
116		min	NC	NC			1.299	1	155	6
117	M149	max	NC	NC			NC	NC		
118		min	NC	NC			NC	NC		
119	M150	max	0.061	1.083	183.75	3	38.587	1	183.75	9
120		min	0.016	1.022	183.75	22	66.525	1	183.75	21
121	M151	max	-0.024	1.561	152.26	11	-0.009	1.27	155.5	3
122		min	0.093	0.954	152.26	7	-0.002	1.07	155.5	22
123	M152	max	11.444	1.005	217.052	16	-0.02	1.143	217.052	3
124		min	6.377	1	217.052	5	-0.005	1.038	217.052	22
125	M153	max	-0.315	1.083	274	3	39.939	1	0	10
126		min	-0.084	1.022	274	22	68.773	1	0	20
127	M154	max	-0.315	1.083	0	3	75.098	1	0	3
128		min	-0.084	1.022	0	22	34.139	1	0	5
129	M155	max	NC	NC			10.623	1	175.738	22
130		min	NC	NC			17.62	1	175.738	5
131	M156	max	0.108	1.158	394.999	18	-100.45	1.004	218.072	16
132		min	0.088	1.015	0	7	-60.4	0.999	218.072	5
133	M157	max	-0.696	1	217	5	0	1.009	217	6
134		min	-1.13	0.999	217	16	0	0.993	217	20
135	M158	max	4.169	1.081	132.823	16	-1.886	1.093	132.823	20
136		min	-0.105	1.019	136.063	22	0.242	0.989	132.823	3
137	M159	max	3.952	1.103	132.823	16	-0.023	1.101	132.823	3
138		min	0.125	0.97	132.823	15	-0.008	1.03	132.823	22
139	M160	max	4.161	1.111	136.063	16	-0.001	1.093	152.26	3
140		min	0.026	0.842	155.5	15	-0.033	0.947	152.26	17
141	M161	max	0.108	1.158	0	18	2.454	1	74.017	7
142		min	-0.012	0.977	0	5	5.135	1	74.017	3
143	M162	max	-0.024	1.158	0	18	2.454	1	0	7
144		min	0.003	0.977	0	5	5.135	1	0	3
145	M163	max	0.006	1.158	0	18	1.594	1	0	6
146		min	-0.001	0.977	0	5	1.591	1	0	7
147	M164	max	-0.01	1.097	186.004	18	-4.959	1	91.064	6
148		min	-0.005	0.972	186.004	17	-4.942	1	91.064	8
149	M165	max	-0.01	1.097	0	18	0.532	1	0	8
150		min	-0.005	0.972	0	17	0.497	0.997	0	6
151	M166	max	-0.02	1.583	0	21	-7.44	1	112.301	6
152		min	-0.009	-17.166	0	16	-7.417	1	112.301	8
153	M167	max	NC	NC			-6.745	1	111.504	2
154		min	NC	NC			-11.529	1	111.504	13
155	M168	max	NC	NC			-0.497	1	37.008	3
156		min	NC	NC			-0.438	1	37.008	13
157	M169	max	NC	NC			-3.327	1	44.995	12
158		min	NC	NC			-5.568	1	44.995	13
159	M170	max	NC	NC			-2.765	1	93.002	21
160		min	NC	NC			-3.14	1	93.002	3
161	M171	max	4.857	1	111.504	15	-2.895	1	111.504	19
162		min	3.346	1	111.504	18	-3.435	1	111.504	3
163	M172	max	-4.948	1.016	111.538	16	-1.639	1.007	98.569	15
164		min	-0.276	0.98	194.544	18	-1.457	0.999	93.381	17
165	M173	max	NC	NC			-0.001	1.141	217	20

**Envelope Member 2nd/1st Moment Ratios (Continued)**

Member		y-y Moment [k-ft]	2nd/1st Ratio	Loc [in]	LC	z-z Moment [k-ft]	2nd/1st Ratio	Loc [in]	LC
166		min	NC	NC		-0.001	1.081	217	9
167	M174	max	NC	NC		-31.908	1	189.434	3
168		min	NC	NC		-16.331	1	189.434	7

**Envelope Member Torsion Stresses**

Member	Sec		Torque[k-ft]	LC Torsion Shear[ksi]	LCy-y Warp Shear[ksi]	LCz-z Warp Shear[ksi]	LCz-Top Warp Bend[ksi]	LCz-Bot Warp Bend[ksi]	LC		
1	M91	1	max	0	22	0	22	NC	NC	NC	NC
2			min	0	1	0	1	NC	NC	NC	NC
3		2	max	0	22	0	22	NC	NC	NC	NC
4			min	0	1	0	1	NC	NC	NC	NC
5		3	max	0	22	0	22	NC	NC	NC	NC
6			min	0	1	0	1	NC	NC	NC	NC
7		4	max	0	22	0	22	NC	NC	NC	NC
8			min	0	1	0	1	NC	NC	NC	NC
9		5	max	0	22	0	22	NC	NC	NC	NC
10			min	0	1	0	1	NC	NC	NC	NC
11	M92	1	max	0	22	0	22	NC	NC	NC	NC
12			min	0	1	0	1	NC	NC	NC	NC
13		2	max	0	22	0	22	NC	NC	NC	NC
14			min	0	1	0	1	NC	NC	NC	NC
15		3	max	0	22	0	22	NC	NC	NC	NC
16			min	0	1	0	1	NC	NC	NC	NC
17		4	max	0	22	0	22	NC	NC	NC	NC
18			min	0	1	0	1	NC	NC	NC	NC
19		5	max	0	22	0	22	NC	NC	NC	NC
20			min	0	1	0	1	NC	NC	NC	NC
21	M93	1	max	0	22	0	22	NC	NC	NC	NC
22			min	0	1	0	1	NC	NC	NC	NC
23		2	max	0	22	0	22	NC	NC	NC	NC
24			min	0	1	0	1	NC	NC	NC	NC
25		3	max	0	22	0	22	NC	NC	NC	NC
26			min	0	1	0	1	NC	NC	NC	NC
27		4	max	0	22	0	22	NC	NC	NC	NC
28			min	0	1	0	1	NC	NC	NC	NC
29		5	max	0	22	0	22	NC	NC	NC	NC
30			min	0	1	0	1	NC	NC	NC	NC
31	M94	1	max	0	22	0	22	NC	NC	NC	NC
32			min	0	1	0	1	NC	NC	NC	NC
33		2	max	0	22	0	22	NC	NC	NC	NC
34			min	0	1	0	1	NC	NC	NC	NC
35		3	max	0	22	0	22	NC	NC	NC	NC
36			min	0	1	0	1	NC	NC	NC	NC
37		4	max	0	22	0	22	NC	NC	NC	NC
38			min	0	1	0	1	NC	NC	NC	NC
39		5	max	0	22	0	22	NC	NC	NC	NC
40			min	0	1	0	1	NC	NC	NC	NC
41	M95	1	max	0	22	0	22	NC	NC	NC	NC
42			min	0	1	0	1	NC	NC	NC	NC
43		2	max	0	22	0	22	NC	NC	NC	NC
44			min	0	1	0	1	NC	NC	NC	NC
45		3	max	0	22	0	22	NC	NC	NC	NC
46			min	0	1	0	1	NC	NC	NC	NC
47		4	max	0	22	0	22	NC	NC	NC	NC
48			min	0	1	0	1	NC	NC	NC	NC
49		5	max	0	22	0	22	NC	NC	NC	NC

**Envelope Member Torsion Stresses (Continued)**

Member	Sec	Torque[k-ft]	LC Torsion Shear[ksi]	LCy-y Warp Shear[ksi]	LCz-z Warp Shear[ksi]	LCz-Top Warp Bend[ksi]	LCz-Bot Warp Bend[ksi]	LC		
50		min	0	1	0	1	NC	NC	NC	NC
51	M96	1	max	0.047	7	0.004	7	NC	NC	NC
52		min	-0.049	5	-0.004	5	NC	NC	NC	NC
53		2	max	0.047	7	0.004	7	NC	NC	NC
54		min	-0.049	5	-0.004	5	NC	NC	NC	NC
55		3	max	0.047	7	0.004	7	NC	NC	NC
56		min	-0.049	5	-0.004	5	NC	NC	NC	NC
57		4	max	0.047	7	0.004	7	NC	NC	NC
58		min	-0.049	5	-0.004	5	NC	NC	NC	NC
59		5	max	0.047	7	0.004	7	NC	NC	NC
60		min	-0.049	5	-0.004	5	NC	NC	NC	NC
61	M97	1	max	0	22	0	22	NC	NC	NC
62		min	0	1	0	1	NC	NC	NC	NC
63		2	max	0	22	0	22	NC	NC	NC
64		min	0	1	0	1	NC	NC	NC	NC
65		3	max	0	22	0	22	NC	NC	NC
66		min	0	1	0	1	NC	NC	NC	NC
67		4	max	0	22	0	22	NC	NC	NC
68		min	0	1	0	1	NC	NC	NC	NC
69		5	max	0	22	0	22	NC	NC	NC
70		min	0	1	0	1	NC	NC	NC	NC
71	M98	1	max	0.063	7	0.005	7	NC	NC	NC
72		min	-0.004	2	0	2	NC	NC	NC	NC
73		2	max	0.063	7	0.005	7	NC	NC	NC
74		min	-0.004	2	0	2	NC	NC	NC	NC
75		3	max	0.063	7	0.005	7	NC	NC	NC
76		min	-0.004	2	0	2	NC	NC	NC	NC
77		4	max	0.063	7	0.005	7	NC	NC	NC
78		min	-0.004	2	0	2	NC	NC	NC	NC
79		5	max	0.063	7	0.005	7	NC	NC	NC
80		min	-0.004	2	0	2	NC	NC	NC	NC
81	M99	1	max	0	22	0	22	NC	NC	NC
82		min	0	1	0	1	NC	NC	NC	NC
83		2	max	0	22	0	22	NC	NC	NC
84		min	0	1	0	1	NC	NC	NC	NC
85		3	max	0	22	0	22	NC	NC	NC
86		min	0	1	0	1	NC	NC	NC	NC
87		4	max	0	22	0	22	NC	NC	NC
88		min	0	1	0	1	NC	NC	NC	NC
89		5	max	0	22	0	22	NC	NC	NC
90		min	0	1	0	1	NC	NC	NC	NC
91	M100	1	max	0	22	0	22	NC	NC	NC
92		min	0	1	0	1	NC	NC	NC	NC
93		2	max	0	22	0	22	NC	NC	NC
94		min	0	1	0	1	NC	NC	NC	NC
95		3	max	0	22	0	22	NC	NC	NC
96		min	0	1	0	1	NC	NC	NC	NC
97		4	max	0	22	0	22	NC	NC	NC
98		min	0	1	0	1	NC	NC	NC	NC
99		5	max	0	22	0	22	NC	NC	NC
100		min	0	1	0	1	NC	NC	NC	NC
101	M101	1	max	0	22	0	22	NC	NC	NC
102		min	-0.041	6	-0.011	6	NC	NC	NC	NC
103		2	max	0	22	0	22	NC	NC	NC
104		min	-0.041	6	-0.011	6	NC	NC	NC	NC

**Envelope Member Torsion Stresses (Continued)**

Member	Sec	max	Torque[k-ft]	LC Torsion Shear[ksi]	LCy-y Warp Shear[ksi]	LCz-z Warp Shear[ksi]	LCz-Top Warp Bend[ksi]	LCz-Bot Warp Bend[ksi]	LC
105	3	max	0	22	0	22	NC	NC	NC
106		min	-0.041	6	-0.011	6	NC	NC	NC
107	4	max	0	22	0	22	NC	NC	NC
108		min	-0.041	6	-0.011	6	NC	NC	NC
109	5	max	0	22	0	22	NC	NC	NC
110		min	-0.041	6	-0.011	6	NC	NC	NC
111	M102	1	max	0	2	0	2	NC	NC
112		min	-0.014	3	-0.001	3	NC	NC	NC
113	2	max	0	2	0	2	NC	NC	NC
114		min	-0.014	3	-0.001	3	NC	NC	NC
115	3	max	0	2	0	2	NC	NC	NC
116		min	-0.014	3	-0.001	3	NC	NC	NC
117	4	max	0	2	0	2	NC	NC	NC
118		min	-0.014	3	-0.001	3	NC	NC	NC
119	5	max	0	2	0	2	NC	NC	NC
120		min	-0.014	3	-0.001	3	NC	NC	NC
121	M103	1	max	0	22	0	22	NC	NC
122		min	0	1	0	1	NC	NC	NC
123	2	max	0	22	0	22	NC	NC	NC
124		min	0	1	0	1	NC	NC	NC
125	3	max	0	22	0	22	NC	NC	NC
126		min	0	1	0	1	NC	NC	NC
127	4	max	0	22	0	22	NC	NC	NC
128		min	0	1	0	1	NC	NC	NC
129	5	max	0	22	0	22	NC	NC	NC
130		min	0	1	0	1	NC	NC	NC
131	M104	1	max	0	22	0	22	NC	NC
132		min	0	1	0	1	NC	NC	NC
133	2	max	0	22	0	22	NC	NC	NC
134		min	0	1	0	1	NC	NC	NC
135	3	max	0	22	0	22	NC	NC	NC
136		min	0	1	0	1	NC	NC	NC
137	4	max	0	22	0	22	NC	NC	NC
138		min	0	1	0	1	NC	NC	NC
139	5	max	0	22	0	22	NC	NC	NC
140		min	0	1	0	1	NC	NC	NC
141	M105	1	max	0	22	0	22	NC	NC
142		min	0	1	0	1	NC	NC	NC
143	2	max	0	22	0	22	NC	NC	NC
144		min	0	1	0	1	NC	NC	NC
145	3	max	0	22	0	22	NC	NC	NC
146		min	0	1	0	1	NC	NC	NC
147	4	max	0	22	0	22	NC	NC	NC
148		min	0	1	0	1	NC	NC	NC
149	5	max	0	22	0	22	NC	NC	NC
150		min	0	1	0	1	NC	NC	NC
151	M106	1	max	0	22	0	22	NC	NC
152		min	0	1	0	1	NC	NC	NC
153	2	max	0	22	0	22	NC	NC	NC
154		min	0	1	0	1	NC	NC	NC
155	3	max	0	22	0	22	NC	NC	NC
156		min	0	1	0	1	NC	NC	NC
157	4	max	0	22	0	22	NC	NC	NC
158		min	0	1	0	1	NC	NC	NC
159	5	max	0	22	0	22	NC	NC	NC

**Envelope Member Torsion Stresses (Continued)**

Member	Sec	Torque[k-ft]	LC Torsion Shear[ksi]	LCy-y Warp Shear[ksi]	LCz-z Warp Shear[ksi]	LCz-Top Warp Bend[ksi]	LCz-Bot Warp Bend[ksi]	LC		
160		min	0	1	0	1	NC	NC	NC	NC
161	M107	1	max	0	22	0	22	NC	NC	NC
162		min	0	1	0	1	NC	NC	NC	NC
163		2	max	0	22	0	22	NC	NC	NC
164		min	0	1	0	1	NC	NC	NC	NC
165		3	max	0	22	0	22	NC	NC	NC
166		min	0	1	0	1	NC	NC	NC	NC
167		4	max	0	22	0	22	NC	NC	NC
168		min	0	1	0	1	NC	NC	NC	NC
169		5	max	0	22	0	22	NC	NC	NC
170		min	0	1	0	1	NC	NC	NC	NC
171	M108	1	max	0	22	0	22	NC	NC	NC
172		min	0	1	0	1	NC	NC	NC	NC
173		2	max	0	22	0	22	NC	NC	NC
174		min	0	1	0	1	NC	NC	NC	NC
175		3	max	0	22	0	22	NC	NC	NC
176		min	0	1	0	1	NC	NC	NC	NC
177		4	max	0	22	0	22	NC	NC	NC
178		min	0	1	0	1	NC	NC	NC	NC
179		5	max	0	22	0	22	NC	NC	NC
180		min	0	1	0	1	NC	NC	NC	NC
181	M109	1	max	0	22	0	22	NC	NC	NC
182		min	0	1	0	1	NC	NC	NC	NC
183		2	max	0	22	0	22	NC	NC	NC
184		min	0	1	0	1	NC	NC	NC	NC
185		3	max	0	22	0	22	NC	NC	NC
186		min	0	1	0	1	NC	NC	NC	NC
187		4	max	0	22	0	22	NC	NC	NC
188		min	0	1	0	1	NC	NC	NC	NC
189		5	max	0	22	0	22	NC	NC	NC
190		min	0	1	0	1	NC	NC	NC	NC
191	M110	1	max	0	22	0	22	NC	NC	NC
192		min	0	1	0	1	NC	NC	NC	NC
193		2	max	0	22	0	22	NC	NC	NC
194		min	0	1	0	1	NC	NC	NC	NC
195		3	max	0	22	0	22	NC	NC	NC
196		min	0	1	0	1	NC	NC	NC	NC
197		4	max	0	22	0	22	NC	NC	NC
198		min	0	1	0	1	NC	NC	NC	NC
199		5	max	0	22	0	22	NC	NC	NC
200		min	0	1	0	1	NC	NC	NC	NC
201	M111	1	max	0	22	0	22	NC	NC	NC
202		min	0	1	0	1	NC	NC	NC	NC
203		2	max	0	22	0	22	NC	NC	NC
204		min	0	1	0	1	NC	NC	NC	NC
205		3	max	0	22	0	22	NC	NC	NC
206		min	0	1	0	1	NC	NC	NC	NC
207		4	max	0	22	0	22	NC	NC	NC
208		min	0	1	0	1	NC	NC	NC	NC
209		5	max	0	22	0	22	NC	NC	NC
210		min	0	1	0	1	NC	NC	NC	NC
211	M112	1	max	0.135	7	0.036	7	NC	NC	NC
212		min	-0.124	5	-0.033	5	NC	NC	NC	NC
213		2	max	0.135	7	0.036	7	NC	NC	NC
214		min	-0.124	5	-0.033	5	NC	NC	NC	NC

**Envelope Member Torsion Stresses (Continued)**

Member	Sec		Torque[k-ft]	LC Torsion Shear[ksi]	LCy-y Warp Shear[ksi]	LCz-z Warp Shear[ksi]	LCz-Top Warp Bend[ksi]	LCz-Bot Warp Bend[ksi]	LC
215	3	max	0.135	7	0.036	7	NC	NC	NC
216		min	-0.124	5	-0.033	5	NC	NC	NC
217	4	max	0.135	7	0.036	7	NC	NC	NC
218		min	-0.124	5	-0.033	5	NC	NC	NC
219	5	max	0.135	7	0.036	7	NC	NC	NC
220		min	-0.124	5	-0.033	5	NC	NC	NC
221	M113	1	max	0	22	0	22	NC	NC
222		min	0	1	0	1	NC	NC	NC
223	2	max	0	22	0	22	NC	NC	NC
224		min	0	1	0	1	NC	NC	NC
225	3	max	0	22	0	22	NC	NC	NC
226		min	0	1	0	1	NC	NC	NC
227	4	max	0	22	0	22	NC	NC	NC
228		min	0	1	0	1	NC	NC	NC
229	5	max	0	22	0	22	NC	NC	NC
230		min	0	1	0	1	NC	NC	NC
231	M114	1	max	0.124	7	0.033	7	NC	NC
232		min	-0.135	5	-0.036	5	NC	NC	NC
233	2	max	0.124	7	0.033	7	NC	NC	NC
234		min	-0.135	5	-0.036	5	NC	NC	NC
235	3	max	0.124	7	0.033	7	NC	NC	NC
236		min	-0.135	5	-0.036	5	NC	NC	NC
237	4	max	0.124	7	0.033	7	NC	NC	NC
238		min	-0.135	5	-0.036	5	NC	NC	NC
239	5	max	0.124	7	0.033	7	NC	NC	NC
240		min	-0.135	5	-0.036	5	NC	NC	NC
241	M115	1	max	0	22	0	22	NC	NC
242		min	0	1	0	1	NC	NC	NC
243	2	max	0	22	0	22	NC	NC	NC
244		min	0	1	0	1	NC	NC	NC
245	3	max	0	22	0	22	NC	NC	NC
246		min	0	1	0	1	NC	NC	NC
247	4	max	0	22	0	22	NC	NC	NC
248		min	0	1	0	1	NC	NC	NC
249	5	max	0	22	0	22	NC	NC	NC
250		min	0	1	0	1	NC	NC	NC
251	M116	1	max	0	22	0	22	NC	NC
252		min	0	1	0	1	NC	NC	NC
253	2	max	0	22	0	22	NC	NC	NC
254		min	0	1	0	1	NC	NC	NC
255	3	max	0	22	0	22	NC	NC	NC
256		min	0	1	0	1	NC	NC	NC
257	4	max	0.306	3	0.164	3	NC	NC	NC
258		min	0.042	6	0.022	6	NC	NC	NC
259	5	max	0.306	3	0.164	3	NC	NC	NC
260		min	0.042	6	0.022	6	NC	NC	NC
261	M117	1	max	0	22	0	22	NC	NC
262		min	0	1	0	1	NC	NC	NC
263	2	max	0	22	0	22	NC	NC	NC
264		min	0	1	0	1	NC	NC	NC
265	3	max	0	22	0	22	NC	NC	NC
266		min	0	1	0	1	NC	NC	NC
267	4	max	0	22	0	22	NC	NC	NC
268		min	0	1	0	1	NC	NC	NC
269	5	max	0	22	0	22	NC	NC	NC

**Envelope Member Torsion Stresses (Continued)**

Member	Sec		Torque[k-ft]	LC Torsion Shear[ksi]	LCy-y Warp Shear[ksi]	LCz-z Warp Shear[ksi]	LCz-Top Warp Bend[ksi]	LCz-Bot Warp Bend[ksi]	LC
270		min	0	1	0	1	NC	NC	NC
271	M118	1	max	0	22	0	22	NC	NC
272		min	0	6	-0.002	6	NC	NC	NC
273		2	max	0	22	0	22	NC	NC
274		min	0	6	-0.002	6	NC	NC	NC
275		3	max	0	22	0	22	NC	NC
276		min	0	6	-0.002	6	NC	NC	NC
277		4	max	0	22	0	22	NC	NC
278		min	0	6	-0.002	6	NC	NC	NC
279		5	max	0	22	0	22	NC	NC
280		min	0	6	-0.002	6	NC	NC	NC
281	M119	1	max	0	22	0	22	NC	NC
282		min	0	1	0	1	NC	NC	NC
283		2	max	0	22	0	22	NC	NC
284		min	0	1	0	1	NC	NC	NC
285		3	max	0	22	0	22	NC	NC
286		min	0	1	0	1	NC	NC	NC
287		4	max	0	22	0	22	NC	NC
288		min	0	1	0	1	NC	NC	NC
289		5	max	0	22	0	22	NC	NC
290		min	0	1	0	1	NC	NC	NC
291	M120	1	max	0	22	0	22	NC	NC
292		min	0	1	0	1	NC	NC	NC
293		2	max	0	22	0	22	NC	NC
294		min	0	1	0	1	NC	NC	NC
295		3	max	0	22	0	22	NC	NC
296		min	0	1	0	1	NC	NC	NC
297		4	max	0	22	0	22	NC	NC
298		min	0	1	0	1	NC	NC	NC
299		5	max	0	22	0	22	NC	NC
300		min	0	1	0	1	NC	NC	NC
301	M121	1	max	0	22	0	22	NC	NC
302		min	-0.939	6	-0.247	6	NC	NC	NC
303		2	max	0	22	0	22	NC	NC
304		min	-0.939	6	-0.247	6	NC	NC	NC
305		3	max	0	22	0	22	NC	NC
306		min	-0.939	6	-0.247	6	NC	NC	NC
307		4	max	0	22	0	22	NC	NC
308		min	-0.939	6	-0.247	6	NC	NC	NC
309		5	max	0	22	0	22	NC	NC
310		min	-0.939	6	-0.247	6	NC	NC	NC
311	M122	1	max	0	22	0	22	NC	NC
312		min	0	1	0	1	NC	NC	NC
313		2	max	0	22	0	22	NC	NC
314		min	0	1	0	1	NC	NC	NC
315		3	max	0	22	0	22	NC	NC
316		min	0	1	0	1	NC	NC	NC
317		4	max	0	22	0	22	NC	NC
318		min	0	1	0	1	NC	NC	NC
319		5	max	0	22	0	22	NC	NC
320		min	0	1	0	1	NC	NC	NC
321	M123	1	max	0	22	0	22	NC	NC
322		min	0	1	0	1	NC	NC	NC
323		2	max	0	22	0	22	NC	NC
324		min	0	1	0	1	NC	NC	NC

**Envelope Member Torsion Stresses (Continued)**

Member	Sec	Torque[k-ft]	LC Torsion Shear[ksi]	LCy-y Warp Shear[ksi]	LCz-z Warp Shear[ksi]	LCz-Top Warp Bend[ksi]	LCz-Bot Warp Bend[ksi]	LC							
325	3	max	0	22	0	22	NC	NC	NC	NC					
326		min	0	1	0	1	NC	NC	NC	NC					
327	4	max	0	22	0	22	NC	NC	NC	NC					
328		min	0	1	0	1	NC	NC	NC	NC					
329	5	max	0	22	0	22	NC	NC	NC	NC					
330		min	0	1	0	1	NC	NC	NC	NC					
331	M124	1	max	0.005	2	0	2	NC	NC	NC	NC				
332		min	-0.068	5	-0.006	5	NC	NC	NC	NC					
333	2	max	0.005	2	0	2	NC	NC	NC	NC					
334		min	-0.068	5	-0.006	5	NC	NC	NC	NC					
335	3	max	0.005	2	0	2	NC	NC	NC	NC					
336		min	-0.068	5	-0.006	5	NC	NC	NC	NC					
337	4	max	0.005	2	0	2	NC	NC	NC	NC					
338		min	-0.068	5	-0.006	5	NC	NC	NC	NC					
339	5	max	0.005	2	0	2	NC	NC	NC	NC					
340		min	-0.068	5	-0.006	5	NC	NC	NC	NC					
341	M125	1	max	0.161	6	0.042	6	NC	NC	NC	NC				
342		min	0	1	0	1	NC	NC	NC	NC					
343	2	max	0.161	6	0.042	6	NC	NC	NC	NC					
344		min	0	1	0	1	NC	NC	NC	NC					
345	3	max	0.161	6	0.042	6	NC	NC	NC	NC					
346		min	0	1	0	1	NC	NC	NC	NC					
347	4	max	0.161	6	0.042	6	NC	NC	NC	NC					
348		min	0	1	0	1	NC	NC	NC	NC					
349	5	max	0.161	6	0.042	6	NC	NC	NC	NC					
350		min	0	1	0	1	NC	NC	NC	NC					
351	M126	1	max	0.001	17	0	22	0	22	0	17	0.013	17	0.013	17
352		min	0	6	0	1	0	1	0	6	-0.003	6	-0.003	6	
353	2	max	0.001	17	0.005	17	0	22	0	17	0.003	17	0.003	17	
354		min	0	6	-0.001	6	0	1	0	6	-0.001	6	-0.001	6	
355	3	max	0.001	17	0.006	17	0	22	0	17	0	22	0	22	
356		min	0	6	-0.002	6	0	1	0	6	0	1	0	1	
357	4	max	0.001	17	0.005	17	0	22	0	17	0.001	6	0.001	6	
358		min	0	6	-0.001	6	0	1	0	6	-0.003	17	-0.003	17	
359	5	max	0.001	17	0	22	0	22	0	17	0.003	6	0.003	6	
360		min	0	6	0	1	0	1	0	6	-0.013	17	-0.013	17	
361	M127	1	max	0	22	0	22	NC	NC	NC	NC	NC	NC	NC	
362		min	-0.003	6	-0.033	6	NC	NC	NC	NC	NC	NC	NC	NC	
363	2	max	0	22	0	22	NC	NC	NC	NC	NC	NC	NC	NC	
364		min	-0.003	6	-0.033	6	NC	NC	NC	NC	NC	NC	NC	NC	
365	3	max	0	22	0	22	NC	NC	NC	NC	NC	NC	NC	NC	
366		min	-0.003	6	-0.033	6	NC	NC	NC	NC	NC	NC	NC	NC	
367	4	max	0	22	0	22	NC	NC	NC	NC	NC	NC	NC	NC	
368		min	-0.003	6	-0.033	6	NC	NC	NC	NC	NC	NC	NC	NC	
369	5	max	0	22	0	22	NC	NC	NC	NC	NC	NC	NC	NC	
370		min	-0.003	6	-0.033	6	NC	NC	NC	NC	NC	NC	NC	NC	
371	M128	1	max	0.946	6	0.249	6	NC	NC	NC	NC	NC	NC	NC	
372		min	0	1	0	1	NC	NC	NC	NC	NC	NC	NC	NC	
373	2	max	0.946	6	0.249	6	NC	NC	NC	NC	NC	NC	NC	NC	
374		min	0	1	0	1	NC	NC	NC	NC	NC	NC	NC	NC	
375	3	max	0.946	6	0.249	6	NC	NC	NC	NC	NC	NC	NC	NC	
376		min	0	1	0	1	NC	NC	NC	NC	NC	NC	NC	NC	
377	4	max	0.946	6	0.249	6	NC	NC	NC	NC	NC	NC	NC	NC	
378		min	0	1	0	1	NC	NC	NC	NC	NC	NC	NC	NC	
379	5	max	0.946	6	0.249	6	NC	NC	NC	NC	NC	NC	NC	NC	

**Envelope Member Torsion Stresses (Continued)**

Member	Sec	Torque[k-ft]	LC Torsion Shear[ksi]	LCy-y Warp Shear[ksi]	LCz-z Warp Shear[ksi]	LCz-Top Warp Bend[ksi]	LCz-Bot Warp Bend[ksi]	LC		
380		min	0	1	0	1	NC	NC	NC	NC
381	M129	1	max	0	22	0	22	NC	NC	NC
382		min	0	1	0	1	NC	NC	NC	NC
383		2	max	0	22	0	22	NC	NC	NC
384		min	0	1	0	1	NC	NC	NC	NC
385		3	max	0	22	0	22	NC	NC	NC
386		min	0	1	0	1	NC	NC	NC	NC
387		4	max	0	22	0	22	NC	NC	NC
388		min	0	1	0	1	NC	NC	NC	NC
389		5	max	0	22	0	22	NC	NC	NC
390		min	0	1	0	1	NC	NC	NC	NC
391	M130	1	max	0.172	3	0.038	3	NC	NC	NC
392		min	-0.045	7	-0.01	7	NC	NC	NC	NC
393		2	max	0.172	3	0.038	3	NC	NC	NC
394		min	-0.045	7	-0.01	7	NC	NC	NC	NC
395		3	max	0.172	3	0.038	3	NC	NC	NC
396		min	-0.045	7	-0.01	7	NC	NC	NC	NC
397		4	max	0.172	3	0.038	3	NC	NC	NC
398		min	-0.045	7	-0.01	7	NC	NC	NC	NC
399		5	max	0.172	3	0.038	3	NC	NC	NC
400		min	-0.045	7	-0.01	7	NC	NC	NC	NC
401	M131	1	max	0.049	7	0.004	7	NC	NC	NC
402		min	-0.047	5	-0.004	5	NC	NC	NC	NC
403		2	max	0.049	7	0.004	7	NC	NC	NC
404		min	-0.047	5	-0.004	5	NC	NC	NC	NC
405		3	max	0.049	7	0.004	7	NC	NC	NC
406		min	-0.047	5	-0.004	5	NC	NC	NC	NC
407		4	max	0.049	7	0.004	7	NC	NC	NC
408		min	-0.047	5	-0.004	5	NC	NC	NC	NC
409		5	max	0.049	7	0.004	7	NC	NC	NC
410		min	-0.047	5	-0.004	5	NC	NC	NC	NC
411	M132	1	max	0	22	0	22	NC	NC	NC
412		min	-0.152	6	-0.04	6	NC	NC	NC	NC
413		2	max	0	22	0	22	NC	NC	NC
414		min	-0.152	6	-0.04	6	NC	NC	NC	NC
415		3	max	0	22	0	22	NC	NC	NC
416		min	-0.152	6	-0.04	6	NC	NC	NC	NC
417		4	max	0	22	0	22	NC	NC	NC
418		min	-0.152	6	-0.04	6	NC	NC	NC	NC
419		5	max	0	22	0	22	NC	NC	NC
420		min	-0.152	6	-0.04	6	NC	NC	NC	NC
421	M133	1	max	-0.001	22	0	22	NC	NC	NC
422		min	-0.302	6	-0.067	6	NC	NC	NC	NC
423		2	max	-0.001	22	0	22	NC	NC	NC
424		min	-0.302	6	-0.067	6	NC	NC	NC	NC
425		3	max	-0.001	22	0	22	NC	NC	NC
426		min	-0.302	6	-0.067	6	NC	NC	NC	NC
427		4	max	-0.001	22	0	22	NC	NC	NC
428		min	-0.302	6	-0.067	6	NC	NC	NC	NC
429		5	max	-0.001	22	0	22	NC	NC	NC
430		min	-0.302	6	-0.067	6	NC	NC	NC	NC
431	M134	1	max	0	22	0	22	NC	NC	NC
432		min	0	1	0	1	NC	NC	NC	NC
433		2	max	0	22	0	22	NC	NC	NC
434		min	0	1	0	1	NC	NC	NC	NC

**Envelope Member Torsion Stresses (Continued)**

Member	Sec		Torque[k-ft]	LC Torsion Shear[ksi]	LCy-y Warp Shear[ksi]	LCz-z Warp Shear[ksi]	LCz-Top Warp Bend[ksi]	LCz-Bot Warp Bend[ksi]	LC
435	3	max	0	22	0	22	NC	NC	NC
436		min	0	1	0	1	NC	NC	NC
437	4	max	0	22	0	22	NC	NC	NC
438		min	0	1	0	1	NC	NC	NC
439	5	max	0	22	0	22	NC	NC	NC
440		min	0	1	0	1	NC	NC	NC
441	M135	1	max	0.012	3	0.001	3	NC	NC
442		min	0	2	0	2	NC	NC	NC
443	2	max	0.012	3	0.001	3	NC	NC	NC
444		min	0	2	0	2	NC	NC	NC
445	3	max	0.012	3	0.001	3	NC	NC	NC
446		min	0	2	0	2	NC	NC	NC
447	4	max	0.012	3	0.001	3	NC	NC	NC
448		min	0	2	0	2	NC	NC	NC
449	5	max	0.012	3	0.001	3	NC	NC	NC
450		min	0	2	0	2	NC	NC	NC
451	M136	1	max	0.029	5	0.002	5	NC	NC
452		min	-0.029	2	-0.002	2	NC	NC	NC
453	2	max	0.029	5	0.002	5	NC	NC	NC
454		min	-0.029	2	-0.002	2	NC	NC	NC
455	3	max	0.029	5	0.002	5	NC	NC	NC
456		min	-0.029	2	-0.002	2	NC	NC	NC
457	4	max	0.029	5	0.002	5	NC	NC	NC
458		min	-0.029	2	-0.002	2	NC	NC	NC
459	5	max	0.029	5	0.002	5	NC	NC	NC
460		min	-0.029	2	-0.002	2	NC	NC	NC
461	M137	1	max	0.099	3	0.008	3	NC	NC
462		min	0.018	22	0.001	22	NC	NC	NC
463	2	max	0.099	3	0.008	3	NC	NC	NC
464		min	0.018	22	0.001	22	NC	NC	NC
465	3	max	0.099	3	0.008	3	NC	NC	NC
466		min	0.018	22	0.001	22	NC	NC	NC
467	4	max	0.099	3	0.008	3	NC	NC	NC
468		min	0.018	22	0.001	22	NC	NC	NC
469	5	max	0.099	3	0.008	3	NC	NC	NC
470		min	0.018	22	0.001	22	NC	NC	NC
471	M138	1	max	0.028	2	0.002	2	NC	NC
472		min	-0.037	7	-0.003	7	NC	NC	NC
473	2	max	0.028	2	0.002	2	NC	NC	NC
474		min	-0.037	7	-0.003	7	NC	NC	NC
475	3	max	0.028	2	0.002	2	NC	NC	NC
476		min	-0.037	7	-0.003	7	NC	NC	NC
477	4	max	0.028	2	0.002	2	NC	NC	NC
478		min	-0.037	7	-0.003	7	NC	NC	NC
479	5	max	0.028	2	0.002	2	NC	NC	NC
480		min	-0.037	7	-0.003	7	NC	NC	NC
481	M139	1	max	-0.022	22	-0.002	22	NC	NC
482		min	-0.103	3	-0.008	3	NC	NC	NC
483	2	max	-0.022	22	-0.002	22	NC	NC	NC
484		min	-0.103	3	-0.008	3	NC	NC	NC
485	3	max	-0.022	22	-0.002	22	NC	NC	NC
486		min	-0.103	3	-0.008	3	NC	NC	NC
487	4	max	-0.022	22	-0.002	22	NC	NC	NC
488		min	-0.103	3	-0.008	3	NC	NC	NC
489	5	max	-0.022	22	-0.002	22	NC	NC	NC

**Envelope Member Torsion Stresses (Continued)**

Member	Sec	min	Torque[k-ft]	LC	Torsion Shear[ksi]	LCy-y	Warp Shear[ksi]	LCz-z	Warp Shear[ksi]	LCz-Top	Warp Bend[ksi]	LCz-Bot	Warp Bend[ksi]	LC	
490		min	-0.103	3	-0.008	3	NC		NC		NC		NC		
491	M140	1	max	0	22	0	22	NC		NC		NC		NC	
492		min	0	1	0	1	NC		NC		NC		NC		
493		2	max	0	22	0	22	NC		NC		NC		NC	
494		min	0	1	0	1	NC		NC		NC		NC		
495		3	max	0	22	0	22	NC		NC		NC		NC	
496		min	0	1	0	1	NC		NC		NC		NC		
497		4	max	0	22	0	22	NC		NC		NC		NC	
498		min	0	1	0	1	NC		NC		NC		NC		
499		5	max	0	22	0	22	NC		NC		NC		NC	
500		min	0	1	0	1	NC		NC		NC		NC		
501	M141	1	max	0	22	0	22	NC		NC		NC		NC	
502		min	0	1	0	1	NC		NC		NC		NC		
503		2	max	0	22	0	22	NC		NC		NC		NC	
504		min	0	1	0	1	NC		NC		NC		NC		
505		3	max	0	22	0	22	NC		NC		NC		NC	
506		min	0	1	0	1	NC		NC		NC		NC		
507		4	max	0	22	0	22	NC		NC		NC		NC	
508		min	0	1	0	1	NC		NC		NC		NC		
509		5	max	0	22	0	22	NC		NC		NC		NC	
510		min	0	1	0	1	NC		NC		NC		NC		
511	M142	1	max	0.027	7	0.003	7	NC		NC		NC		NC	
512		min	-0.001	3	0	3	NC		NC		NC		NC		
513		2	max	0.027	7	0.003	7	NC		NC		NC		NC	
514		min	-0.001	3	0	3	NC		NC		NC		NC		
515		3	max	0.027	7	0.003	7	NC		NC		NC		NC	
516		min	-0.001	3	0	3	NC		NC		NC		NC		
517		4	max	0.027	7	0.003	7	NC		NC		NC		NC	
518		min	-0.001	3	0	3	NC		NC		NC		NC		
519		5	max	0.027	7	0.003	7	NC		NC		NC		NC	
520		min	-0.001	3	0	3	NC		NC		NC		NC		
521	M143	1	max	0	17	0	22	0	22	0	17	0	17	0	17
522		min	0	6	0	1	0	1	0	6	0	6	0	6	0
523		2	max	0	17	0	17	0	22	0	17	0	17	0	17
524		min	0	6	0	6	0	1	0	6	0	6	0	6	0
525		3	max	0	17	0	17	0	22	0	17	0	22	0	22
526		min	0	6	0	6	0	1	0	6	0	1	0	1	0
527		4	max	0	17	0	17	0	22	0	17	0	6	0	6
528		min	0	6	0	6	0	1	0	6	0	17	0	17	0
529		5	max	0	17	0	22	0	22	0	17	0	6	0	6
530		min	0	6	0	1	0	1	0	6	0	17	0	17	0
531	M144	1	max	0.564	7	0.097	7	NC		NC		NC		NC	
532		min	0.001	22	0	22	NC		NC		NC		NC		
533		2	max	0.564	7	0.097	7	NC		NC		NC		NC	
534		min	0.001	22	0	22	NC		NC		NC		NC		
535		3	max	0.564	7	0.097	7	NC		NC		NC		NC	
536		min	0.001	22	0	22	NC		NC		NC		NC		
537		4	max	0.564	7	0.097	7	NC		NC		NC		NC	
538		min	0.001	22	0	22	NC		NC		NC		NC		
539		5	max	0.564	7	0.097	7	NC		NC		NC		NC	
540		min	0.001	22	0	22	NC		NC		NC		NC		
541	M145	1	max	0	22	0	22	NC		NC		NC		NC	
542		min	0	1	0	1	NC		NC		NC		NC		
543		2	max	0	22	0	22	NC		NC		NC		NC	
544		min	0	1	0	1	NC		NC		NC		NC		

**Envelope Member Torsion Stresses (Continued)**

Member	Sec	max	Torque[k-ft]	LC Torsion Shear[ksi]	LCy-y Warp Shear[ksi]	LCz-z Warp Shear[ksi]	LCz-Top Warp Bend[ksi]	LCz-Bot Warp Bend[ksi]	LC			
545	3	max	0	22	0	22	NC	NC	NC			
546		min	0	1	0	1	NC	NC	NC			
547	4	max	0	22	0	22	NC	NC	NC			
548		min	0	1	0	1	NC	NC	NC			
549	5	max	0	22	0	22	NC	NC	NC			
550		min	0	1	0	1	NC	NC	NC			
551	M146	1	max	0	22	0	22	NC	NC			
552		min	0	1	0	1	NC	NC	NC			
553	2	max	0	22	0	22	NC	NC	NC			
554		min	0	1	0	1	NC	NC	NC			
555	3	max	0	22	0	22	NC	NC	NC			
556		min	0	1	0	1	NC	NC	NC			
557	4	max	0	22	0	22	NC	NC	NC			
558		min	0	1	0	1	NC	NC	NC			
559	5	max	0	22	0	22	NC	NC	NC			
560		min	0	1	0	1	NC	NC	NC			
561	M147	1	max	0	22	0	22	NC	NC			
562		min	0	1	0	1	NC	NC	NC			
563	2	max	0	22	0	22	NC	NC	NC			
564		min	0	1	0	1	NC	NC	NC			
565	3	max	0	22	0	22	NC	NC	NC			
566		min	0	1	0	1	NC	NC	NC			
567	4	max	0	22	0	22	NC	NC	NC			
568		min	0	1	0	1	NC	NC	NC			
569	5	max	0	22	0	22	NC	NC	NC			
570		min	0	1	0	1	NC	NC	NC			
571	M148	1	max	0	22	0	22	NC	NC			
572		min	0	1	0	1	NC	NC	NC			
573	2	max	0	22	0	22	NC	NC	NC			
574		min	0	1	0	1	NC	NC	NC			
575	3	max	0	22	0	22	NC	NC	NC			
576		min	0	1	0	1	NC	NC	NC			
577	4	max	0	22	0	22	NC	NC	NC			
578		min	0	1	0	1	NC	NC	NC			
579	5	max	0	22	0	22	NC	NC	NC			
580		min	0	1	0	1	NC	NC	NC			
581	M149	1	max	0	22	0	22	NC	NC			
582		min	0	1	0	1	NC	NC	NC			
583	2	max	0	22	0	22	NC	NC	NC			
584		min	0	1	0	1	NC	NC	NC			
585	3	max	0	22	0	22	NC	NC	NC			
586		min	0	1	0	1	NC	NC	NC			
587	4	max	0	22	0	22	NC	NC	NC			
588		min	0	1	0	1	NC	NC	NC			
589	5	max	0	22	0	22	NC	NC	NC			
590		min	0	1	0	1	NC	NC	NC			
591	M150	1	max	0	22	0	22	0	22	0	22	
592		min	0	3	0	1	0	1	0	3	0	3
593	2	max	0	22	0	22	0	22	0	22	0	22
594		min	0	3	0	3	0	1	0	3	0	3
595	3	max	0	22	0	22	0	22	0	22	0	22
596		min	0	3	0	3	0	1	0	1	0	1
597	4	max	0	22	0	22	0	22	0	22	0	3
598		min	0	3	0	3	0	1	0	3	0	22
599	5	max	0	22	0	22	0	22	0	22	0	3

**Envelope Member Torsion Stresses (Continued)**

Member	Sec	LC	Torque[k-ft]	Torsion Shear[ksi]	LCy-y Warp Shear[ksi]	LCz-z Warp Shear[ksi]	LCz-Top Warp Bend[ksi]	LCz-Bot Warp Bend[ksi]	LC						
600		min	0	3	0	1	0	3	0	22	0	22			
601	M151	1	max	0	22	0	22	NC	NC	NC	NC	NC			
602		min	0	1	0	1	NC	NC	NC	NC	NC	NC			
603		2	max	0	22	0	22	NC	NC	NC	NC	NC			
604		min	0	1	0	1	NC	NC	NC	NC	NC	NC			
605		3	max	0	22	0	22	NC	NC	NC	NC	NC			
606		min	0	1	0	1	NC	NC	NC	NC	NC	NC			
607		4	max	0	22	0	22	NC	NC	NC	NC	NC			
608		min	0	1	0	1	NC	NC	NC	NC	NC	NC			
609		5	max	0	22	0	22	NC	NC	NC	NC	NC			
610		min	0	1	0	1	NC	NC	NC	NC	NC	NC			
611	M152	1	max	0	22	0	22	NC	NC	NC	NC	NC			
612		min	0	1	0	1	NC	NC	NC	NC	NC	NC			
613		2	max	0	22	0	22	NC	NC	NC	NC	NC			
614		min	0	1	0	1	NC	NC	NC	NC	NC	NC			
615		3	max	0	22	0	22	NC	NC	NC	NC	NC			
616		min	0	1	0	1	NC	NC	NC	NC	NC	NC			
617		4	max	0.229	6	0.123	6	NC	NC	NC	NC	NC			
618		min	-0.033	3	-0.018	3	NC	NC	NC	NC	NC	NC			
619		5	max	0.229	6	0.123	6	NC	NC	NC	NC	NC			
620		min	-0.033	3	-0.018	3	NC	NC	NC	NC	NC	NC			
621	M153	1	max	0	22	0	22	0	22	0	22	0	22		
622		min	0	3	0	1	0	1	0	3	0	3	0	3	
623		2	max	0	22	0	22	0	22	0	22	0	22	0	22
624		min	0	3	0	3	0	1	0	3	0	3	0	3	
625		3	max	0	22	0	22	0	22	0	22	0	22	0	22
626		min	0	3	0	3	0	1	0	3	0	1	0	1	
627		4	max	0	22	0	22	0	22	0	22	0	3	0	3
628		min	0	3	0	3	0	1	0	3	0	22	0	22	
629		5	max	0	22	0	22	0	22	0	22	0	3	0	3
630		min	0	3	0	1	0	1	0	3	0	22	0	22	
631	M154	1	max	-0.002	22	0	22	0	22	-0.001	22	-0.041	22	-0.041	22
632		min	-0.008	3	0	1	0	1	-0.004	3	-0.161	3	-0.161	3	
633		2	max	-0.002	22	-0.009	22	0	22	-0.001	22	-0.017	22	-0.017	22
634		min	-0.008	3	-0.036	3	0	1	-0.002	3	-0.066	3	-0.066	3	
635		3	max	-0.002	22	-0.012	22	0	22	-0.001	22	0	22	0	22
636		min	-0.008	3	-0.047	3	0	1	-0.002	3	0	1	0	1	
637		4	max	-0.002	22	-0.009	22	0	22	-0.001	22	0.066	3	0.066	3
638		min	-0.008	3	-0.036	3	0	1	-0.002	3	0.017	22	0.017	22	
639		5	max	-0.002	22	0	22	0	22	-0.001	22	0.161	3	0.161	3
640		min	-0.008	3	0	1	0	1	-0.004	3	0.041	22	0.041	22	
641	M155	1	max	0.003	6	0.034	6	NC	NC	NC	NC	NC	NC	NC	NC
642		min	0	1	0	1	NC	NC	NC	NC	NC	NC	NC	NC	NC
643		2	max	0.003	6	0.034	6	NC	NC	NC	NC	NC	NC	NC	NC
644		min	0	1	0	1	NC	NC	NC	NC	NC	NC	NC	NC	NC
645		3	max	0.003	6	0.034	6	NC	NC	NC	NC	NC	NC	NC	NC
646		min	0	1	0	1	NC	NC	NC	NC	NC	NC	NC	NC	NC
647		4	max	0.003	6	0.034	6	NC	NC	NC	NC	NC	NC	NC	NC
648		min	0	1	0	1	NC	NC	NC	NC	NC	NC	NC	NC	NC
649		5	max	0.003	6	0.034	6	NC	NC	NC	NC	NC	NC	NC	NC
650		min	0	1	0	1	NC	NC	NC	NC	NC	NC	NC	NC	NC
651	M156	1	max	0	22	0	22	0	22	0	22	-0.004	22	-0.004	22
652		min	-0.012	6	0	1	0	1	-0.002	6	-0.089	6	-0.089	6	
653		2	max	0	22	-0.001	22	0	22	0	22	-0.001	22	-0.001	22
654		min	-0.012	6	-0.03	6	0	1	-0.001	6	-0.027	6	-0.027	6	

**Envelope Member Torsion Stresses (Continued)**

Member	Sec	max	Torque[k-ft]	LC Torsion Shear[ksi]	LCy-y Warp Shear[ksi]	LCz-z Warp Shear[ksi]	LCz-Top Warp Bend[ksi]	LCz-Bot Warp Bend[ksi]	LC
655	3	max	0	22	-0.002	22	0	22	0
656		min	-0.012	6	-0.037	6	0	1	0
657	4	max	0	22	-0.001	22	0	22	0.027
658		min	-0.012	6	-0.03	6	0	1	0.001
659	5	max	0	22	0	22	0	22	0.089
660		min	-0.012	6	0	1	0	1	-0.002
661	M157	1	max	0	22	0	22	NC	NC
662		min	0	1	0	1	NC	NC	NC
663	2	max	0	22	0	22	NC	NC	NC
664		min	0	1	0	1	NC	NC	NC
665	3	max	0	22	0	22	NC	NC	NC
666		min	0	1	0	1	NC	NC	NC
667	4	max	0	22	0	22	NC	NC	NC
668		min	0	1	0	1	NC	NC	NC
669	5	max	0	22	0	22	NC	NC	NC
670		min	0	1	0	1	NC	NC	NC
671	M158	1	max	0	22	0	22	NC	NC
672		min	0	1	0	1	NC	NC	NC
673	2	max	0	22	0	22	NC	NC	NC
674		min	0	1	0	1	NC	NC	NC
675	3	max	0.107	7	0.058	7	NC	NC	NC
676		min	-0.249	3	-0.134	3	NC	NC	NC
677	4	max	0.107	7	0.058	7	NC	NC	NC
678		min	-0.249	3	-0.134	3	NC	NC	NC
679	5	max	0.107	7	0.058	7	NC	NC	NC
680		min	-0.249	3	-0.134	3	NC	NC	NC
681	M159	1	max	0	22	0	22	NC	NC
682		min	0	1	0	1	NC	NC	NC
683	2	max	0	22	0	22	NC	NC	NC
684		min	0	1	0	1	NC	NC	NC
685	3	max	0	22	0	22	NC	NC	NC
686		min	0	1	0	1	NC	NC	NC
687	4	max	0	22	0	22	NC	NC	NC
688		min	0	1	0	1	NC	NC	NC
689	5	max	0	22	0	22	NC	NC	NC
690		min	0	1	0	1	NC	NC	NC
691	M160	1	max	0	22	0	22	NC	NC
692		min	0	1	0	1	NC	NC	NC
693	2	max	0	22	0	22	NC	NC	NC
694		min	0	1	0	1	NC	NC	NC
695	3	max	0	22	0	22	NC	NC	NC
696		min	0	1	0	1	NC	NC	NC
697	4	max	0	22	0	22	NC	NC	NC
698		min	0	1	0	1	NC	NC	NC
699	5	max	0	22	0	22	NC	NC	NC
700		min	0	1	0	1	NC	NC	NC
701	M161	1	max	0	22	0	22	NC	NC
702		min	0	1	0	1	NC	NC	NC
703	2	max	0	22	0	22	NC	NC	NC
704		min	0	1	0	1	NC	NC	NC
705	3	max	0	22	0	22	NC	NC	NC
706		min	0	1	0	1	NC	NC	NC
707	4	max	0	22	0	22	NC	NC	NC
708		min	0	1	0	1	NC	NC	NC
709	5	max	0	22	0	22	NC	NC	NC

**Envelope Member Torsion Stresses (Continued)**

Member	Sec		Torque[k-ft]	LC Torsion	Shear[ksi]	LCy-y Warp	Shear[ksi]	LCz-z Warp	Shear[ksi]	LCz-Top Warp	Bend[ksi]	LCz-Bot Warp	Bend[ksi]	LC
710		min	0	1	0	1	NC		NC		NC		NC	
711	M162	1	max	0	22	0	22	NC		NC		NC		NC
712		min	0	1	0	1	NC		NC		NC		NC	
713		2	max	0	22	0	22	NC		NC		NC		NC
714		min	0	1	0	1	NC		NC		NC		NC	
715		3	max	0	22	0	22	NC		NC		NC		NC
716		min	0	1	0	1	NC		NC		NC		NC	
717		4	max	0	22	0	22	NC		NC		NC		NC
718		min	0	1	0	1	NC		NC		NC		NC	
719		5	max	0	22	0	22	NC		NC		NC		NC
720		min	0	1	0	1	NC		NC		NC		NC	
721	M163	1	max	0	22	0	22	NC		NC		NC		NC
722		min	0	1	0	1	NC		NC		NC		NC	
723		2	max	0	22	0	22	NC		NC		NC		NC
724		min	0	1	0	1	NC		NC		NC		NC	
725		3	max	0	22	0	22	NC		NC		NC		NC
726		min	0	1	0	1	NC		NC		NC		NC	
727		4	max	0	22	0	22	NC		NC		NC		NC
728		min	0	1	0	1	NC		NC		NC		NC	
729		5	max	0	22	0	22	NC		NC		NC		NC
730		min	0	1	0	1	NC		NC		NC		NC	
731	M164	1	max	0.1	3	0.022	3	NC		NC		NC		NC
732		min	0.035	22	0.008	22	NC		NC		NC		NC	
733		2	max	0.1	3	0.022	3	NC		NC		NC		NC
734		min	0.035	22	0.008	22	NC		NC		NC		NC	
735		3	max	0.1	3	0.022	3	NC		NC		NC		NC
736		min	0.035	22	0.008	22	NC		NC		NC		NC	
737		4	max	0.1	3	0.022	3	NC		NC		NC		NC
738		min	0.035	22	0.008	22	NC		NC		NC		NC	
739		5	max	0.1	3	0.022	3	NC		NC		NC		NC
740		min	0.035	22	0.008	22	NC		NC		NC		NC	
741	M165	1	max	0.1	3	0.022	3	NC		NC		NC		NC
742		min	0.035	22	0.008	22	NC		NC		NC		NC	
743		2	max	0.1	3	0.022	3	NC		NC		NC		NC
744		min	0.035	22	0.008	22	NC		NC		NC		NC	
745		3	max	0.1	3	0.022	3	NC		NC		NC		NC
746		min	0.035	22	0.008	22	NC		NC		NC		NC	
747		4	max	0.1	3	0.022	3	NC		NC		NC		NC
748		min	0.035	22	0.008	22	NC		NC		NC		NC	
749		5	max	0.1	3	0.022	3	NC		NC		NC		NC
750		min	0.035	22	0.008	22	NC		NC		NC		NC	
751	M166	1	max	0	22	0	22	NC		NC		NC		NC
752		min	0	1	0	1	NC		NC		NC		NC	
753		2	max	0	22	0	22	NC		NC		NC		NC
754		min	0	1	0	1	NC		NC		NC		NC	
755		3	max	0	22	0	22	NC		NC		NC		NC
756		min	0	1	0	1	NC		NC		NC		NC	
757		4	max	0	22	0	22	NC		NC		NC		NC
758		min	0	1	0	1	NC		NC		NC		NC	
759		5	max	0	22	0	22	NC		NC		NC		NC
760		min	0	1	0	1	NC		NC		NC		NC	
761	M167	1	max	-0.433	22	-0.097	22	NC		NC		NC		NC
762		min	-1.493	3	-0.333	3	NC		NC		NC		NC	
763		2	max	-0.433	22	-0.097	22	NC		NC		NC		NC
764		min	-1.493	3	-0.333	3	NC		NC		NC		NC	

**Envelope Member Torsion Stresses (Continued)**

Member	Sec		Torque[k-ft]	LC Torsion Shear[ksi]	LCy-y Warp Shear[ksi]	LCz-z Warp Shear[ksi]	LCz-Top Warp Bend[ksi]	LCz-Bot Warp Bend[ksi]	LC
765	3	max	-0.433	22	-0.097	22	NC	NC	NC
766		min	-1.493	3	-0.333	3	NC	NC	NC
767	4	max	-0.433	22	-0.097	22	NC	NC	NC
768		min	-1.493	3	-0.333	3	NC	NC	NC
769	5	max	-0.433	22	-0.097	22	NC	NC	NC
770		min	-1.493	3	-0.333	3	NC	NC	NC
771	M168	1	max	1.709	3	0.381	3	NC	NC
772		min	-0.247	7	-0.055	7	NC	NC	NC
773	2	max	1.709	3	0.381	3	NC	NC	NC
774		min	-0.247	7	-0.055	7	NC	NC	NC
775	3	max	1.709	3	0.381	3	NC	NC	NC
776		min	-0.247	7	-0.055	7	NC	NC	NC
777	4	max	1.709	3	0.381	3	NC	NC	NC
778		min	-0.247	7	-0.055	7	NC	NC	NC
779	5	max	1.709	3	0.381	3	NC	NC	NC
780		min	-0.247	7	-0.055	7	NC	NC	NC
781	M169	1	max	0.556	3	0.124	3	NC	NC
782		min	-0.086	7	-0.019	7	NC	NC	NC
783	2	max	0.556	3	0.124	3	NC	NC	NC
784		min	-0.086	7	-0.019	7	NC	NC	NC
785	3	max	0.556	3	0.124	3	NC	NC	NC
786		min	-0.086	7	-0.019	7	NC	NC	NC
787	4	max	0.556	3	0.124	3	NC	NC	NC
788		min	-0.086	7	-0.019	7	NC	NC	NC
789	5	max	0.556	3	0.124	3	NC	NC	NC
790		min	-0.086	7	-0.019	7	NC	NC	NC
791	M170	1	max	0	22	0	22	NC	NC
792		min	-0.058	6	-0.013	6	NC	NC	NC
793	2	max	0	22	0	22	NC	NC	NC
794		min	-0.058	6	-0.013	6	NC	NC	NC
795	3	max	0	22	0	22	NC	NC	NC
796		min	-0.058	6	-0.013	6	NC	NC	NC
797	4	max	0	22	0	22	NC	NC	NC
798		min	-0.058	6	-0.013	6	NC	NC	NC
799	5	max	0	22	0	22	NC	NC	NC
800		min	-0.058	6	-0.013	6	NC	NC	NC
801	M171	1	max	0.268	6	0.06	6	NC	NC
802		min	-0.004	3	-0.001	3	NC	NC	NC
803	2	max	0.268	6	0.06	6	NC	NC	NC
804		min	-0.004	3	-0.001	3	NC	NC	NC
805	3	max	0.268	6	0.06	6	NC	NC	NC
806		min	-0.004	3	-0.001	3	NC	NC	NC
807	4	max	0.268	6	0.06	6	NC	NC	NC
808		min	-0.004	3	-0.001	3	NC	NC	NC
809	5	max	0.268	6	0.06	6	NC	NC	NC
810		min	-0.004	3	-0.001	3	NC	NC	NC
811	M172	1	max	-0.091	22	-0.02	22	NC	NC
812		min	-1.07	7	-0.238	7	NC	NC	NC
813	2	max	-0.091	22	-0.02	22	NC	NC	NC
814		min	-1.07	7	-0.238	7	NC	NC	NC
815	3	max	-0.091	22	-0.02	22	NC	NC	NC
816		min	-1.07	7	-0.238	7	NC	NC	NC
817	4	max	-0.091	22	-0.02	22	NC	NC	NC
818		min	-1.07	7	-0.238	7	NC	NC	NC
819	5	max	-0.052	22	-0.012	22	NC	NC	NC

**Envelope Member Torsion Stresses (Continued)**

Member	Sec	Torque[k-ft]	LC Torsion Shear[ksi]	LCy-y Warp Shear[ksi]	LCz-z Warp Shear[ksi]	LCz-Top Warp Bend[ksi]	LCz-Bot Warp Bend[ksi]	LC		
820		min	-0.253	16	-0.056	16	NC	NC	NC	NC
821	M173	1	max	0	22	0	22	NC	NC	NC
822		min	0	1	0	1	NC	NC	NC	NC
823		2	max	0	22	0	22	NC	NC	NC
824		min	0	1	0	1	NC	NC	NC	NC
825		3	max	0	22	0	22	NC	NC	NC
826		min	0	1	0	1	NC	NC	NC	NC
827		4	max	0	22	0	22	NC	NC	NC
828		min	0	1	0	1	NC	NC	NC	NC
829		5	max	0	22	0	22	NC	NC	NC
830		min	0	1	0	1	NC	NC	NC	NC
831	M174	1	max	0	22	0	22	NC	NC	NC
832		min	-0.002	6	-0.02	6	NC	NC	NC	NC
833		2	max	0	22	0	22	NC	NC	NC
834		min	-0.002	6	-0.02	6	NC	NC	NC	NC
835		3	max	0	22	0	22	NC	NC	NC
836		min	-0.002	6	-0.02	6	NC	NC	NC	NC
837		4	max	0	22	0	22	NC	NC	NC
838		min	-0.002	6	-0.02	6	NC	NC	NC	NC
839		5	max	0	22	0	22	NC	NC	NC
840		min	-0.002	6	-0.02	6	NC	NC	NC	NC

**Envelope Member Section Stresses**

Member	Sec	Axial[ksi]	LC y Shear[ksi]	LC z Shear[ksi]	LC y-Top[ksi]	LC y-Bot[ksi]	LC z-Top[ksi]	LC z-Bot[ksi]	LC								
1	M91	1	max	1.188	3	0	22	0	22	0	22	0	22	0	22		
2		min	0.081	22	0	1	0	1	0	1	0	1	0	1	0	1	
3		2	max	1.175	3	0	22	0	22	0	22	0	22	0	22	0	22
4		min	0.074	22	0	1	0	1	0	1	0	1	0	1	0	1	
5		3	max	1.163	3	0	22	0	22	0	22	0	22	0	22	0	22
6		min	0.066	22	0	1	0	1	0	1	0	1	0	1	0	1	
7		4	max	1.15	3	0	22	0	22	0	22	0	22	0	22	0	22
8		min	0.058	22	0	1	0	1	0	1	0	1	0	1	0	1	
9		5	max	1.137	3	0	22	0	22	0	22	0	22	0	22	0	22
10		min	0.051	22	0	1	0	1	0	1	0	1	0	1	0	1	
11	M92	1	max	0.821	3	0	22	0	22	0	22	0	22	0	22	0	22
12		min	0.057	22	0	1	0	1	0	1	0	1	0	1	0	1	
13		2	max	0.809	3	0	22	0	22	0	22	0	22	0	22	0	22
14		min	0.049	22	0	1	0	1	0	1	0	1	0	1	0	1	
15		3	max	0.796	3	0	22	0	22	0	22	0	22	0	22	0	22
16		min	0.042	22	0	1	0	1	0	1	0	1	0	1	0	1	
17		4	max	0.783	3	0	22	0	22	0	22	0	22	0	22	0	22
18		min	0.034	22	0	1	0	1	0	1	0	1	0	1	0	1	
19		5	max	0.77	3	0	22	0	22	0	22	0	22	0	22	0	22
20		min	0.026	22	0	1	0	1	0	1	0	1	0	1	0	1	
21	M93	1	max	1.739	3	0.054	6	0	7	0	22	0	22	0	22	0	22
22		min	0.529	22	0	22	-0.004	3	0	1	0	1	0	1	0	1	
23		2	max	1.716	3	0.054	6	0	7	1.109	6	-0.001	22	0.009	7	0.087	3
24		min	0.515	22	0	22	-0.004	3	0.001	22	-1.109	6	-0.087	3	-0.009	7	
25		3	max	0.726	3	0	22	0	7	2.204	6	-0.002	22	0.175	3	0.019	7
26		min	0.228	22	-0.054	6	-0.004	3	0.002	22	-2.204	6	-0.019	7	-0.175	3	
27		4	max	0.702	3	0	22	0	7	1.102	6	-0.001	22	0.088	3	0.009	7
28		min	0.213	22	-0.054	6	-0.004	3	0.001	22	-1.102	6	-0.009	7	-0.088	3	
29		5	max	0.678	3	0	22	0	7	0	22	0	22	0	22	0	22
30		min	0.199	22	-0.054	6	-0.004	3	0	1	0	1	0	1	0	1	
31	M94	1	max	0.372	3	0	22	0.003	7	0	22	0	22	0	22	0	22

**Envelope Member Section Stresses (Continued)**

Member	Sec		Axial[ksi]	LC	y Shear[ksi]	LC	z Shear[ksi]	LC	y-Top[ksi]	LC	y-Bot[ksi]	LC	z-Top[ksi]	LC	z-Bot[ksi]	LC	
32		min	0.053	22	0	1	-0.003	5	0	1	0	1	0	1	0	1	
33	2	max	0.359	3	0	22	0.003	7	0	22	0	22	0.031	7	0.028	5	
34		min	0.045	22	0	1	-0.003	5	0	1	0	1	-0.028	5	-0.031	7	
35	3	max	0.346	3	0	22	0.003	7	0	22	0	22	0.062	7	0.057	5	
36		min	0.038	22	0	1	-0.003	5	0	1	0	1	-0.057	5	-0.062	7	
37	4	max	0.333	3	0	22	0.003	7	0	22	0	22	0.092	7	0.085	5	
38		min	0.03	22	0	1	-0.003	5	0	1	0	1	-0.085	5	-0.092	7	
39	5	max	0.32	3	0	22	0.003	7	0	22	0	22	0.123	7	0.113	5	
40		min	0.022	22	0	1	-0.003	5	0	1	0	1	-0.113	5	-0.123	7	
41	M95	1	max	1.134	3	0	22	0.001	7	0	22	0	22	0	22	0	22
42		min	0.053	22	0	1	-0.001	5	0	1	0	1	0	1	0	1	
43	2	max	1.121	3	0	22	0.001	7	0	22	0	22	0.011	7	0.011	5	
44		min	0.045	22	0	1	-0.001	5	0	1	0	1	-0.011	5	-0.011	7	
45	3	max	1.108	3	0	22	0.001	7	0	22	0	22	0.023	7	0.021	5	
46		min	0.038	22	0	1	-0.001	5	0	1	0	1	-0.021	5	-0.023	7	
47	4	max	1.096	3	0	22	0.001	7	0	22	0	22	0.034	7	0.032	5	
48		min	0.03	22	0	1	-0.001	5	0	1	0	1	-0.032	5	-0.034	7	
49	5	max	1.083	3	0	22	0.001	7	0	22	0	22	0.045	7	0.042	5	
50		min	0.022	22	0	1	-0.001	5	0	1	0	1	-0.042	5	-0.045	7	
51	M96	1	max	0.011	6	0.09	3	0	22	0	22	0	22	0	22	0	22
52		min	0	1	-0.002	22	0	1	0	1	0	1	0	1	0	1	
53	2	max	0.011	6	0.045	3	0	22	0.92	3	0.024	22	0	22	0	22	
54		min	0	1	-0.001	22	0	1	-0.024	22	-0.92	3	0	1	0	1	
55	3	max	0.011	6	0	22	0	22	1.227	3	0.033	22	0	22	0	22	
56		min	0	1	0	1	0	1	-0.033	22	-1.227	3	0	1	0	1	
57	4	max	0.011	6	0.001	22	0	22	0.92	3	0.024	22	0	22	0	22	
58		min	0	1	-0.045	3	0	1	-0.024	22	-0.92	3	0	1	0	1	
59	5	max	0.011	6	0.002	22	0	22	0	22	0	22	0	22	0	22	
60		min	0	1	-0.09	3	0	1	0	1	0	1	0	1	0	1	
61	M97	1	max	1.211	3	0	22	0	22	0	22	0	22	0	22	0	22
62		min	0.082	22	0	1	0	1	0	1	0	1	0	1	0	1	
63	2	max	1.198	3	0	22	0	22	0	22	0	22	0	22	0	22	
64		min	0.074	22	0	1	0	1	0	1	0	1	0	1	0	1	
65	3	max	1.185	3	0	22	0	22	0	22	0	22	0	22	0	22	
66		min	0.067	22	0	1	0	1	0	1	0	1	0	1	0	1	
67	4	max	1.172	3	0	22	0	22	0	22	0	22	0	22	0	22	
68		min	0.059	22	0	1	0	1	0	1	0	1	0	1	0	1	
69	5	max	1.159	3	0	22	0	22	0	22	0	22	0	22	0	22	
70		min	0.051	22	0	1	0	1	0	1	0	1	0	1	0	1	
71	M98	1	max	0.004	6	0.053	3	0	22	0	22	0	22	0	22	0	22
72		min	0	1	0.001	22	0	5	0	1	0	1	0	1	0	1	
73	2	max	0.004	6	0.035	3	0	22	0.597	3	-0.011	22	0	22	0	5	
74		min	0	1	0.001	22	0	5	0.011	22	-0.597	3	0	5	0	1	
75	3	max	0.004	6	0	22	0	5	0.796	3	-0.015	22	0	5	0	22	
76		min	0	1	-0.003	3	0	1	0.015	22	-0.796	3	0	1	0	5	
77	4	max	0.004	6	-0.001	22	0	22	0.615	3	-0.012	22	0	5	0	22	
78		min	0	1	-0.037	3	0	5	0.012	22	-0.615	3	0	1	0	5	
79	5	max	0.004	6	-0.001	22	0	22	0	22	0	22	0	22	0	22	
80		min	0	1	-0.054	3	0	5	0	1	0	1	0	1	0	1	
81	M99	1	max	1.138	3	0	22	0.001	7	0	22	0	22	0	22	0	22
82		min	0.052	22	0	1	-0.001	5	0	1	0	1	0	1	0	1	
83	2	max	1.125	3	0	22	0.001	7	0	22	0	22	0.011	7	0.011	5	
84		min	0.044	22	0	1	-0.001	5	0	1	0	1	-0.011	5	-0.011	7	
85	3	max	1.112	3	0	22	0.001	7	0	22	0	22	0.021	7	0.022	5	
86		min	0.036	22	0	1	-0.001	5	0	1	0	1	-0.022	5	-0.021	7	

**Envelope Member Section Stresses (Continued)**

Member	Sec		Axial[ksi]	LC	y Shear[ksi]	LC	z Shear[ksi]	LC	y-Top[ksi]	LC	y-Bot[ksi]	LC	z-Top[ksi]	LC	z-Bot[ksi]	LC	
87		4	max	1.1	3	0	22	0.001	7	0	22	0	22	0.032	7	0.034	5
88			min	0.028	22	0	1	-0.001	5	0	1	0	1	-0.034	5	-0.032	7
89		5	max	1.087	3	0	22	0.001	7	0	22	0	22	0.042	7	0.045	5
90			min	0.021	22	0	1	-0.001	5	0	1	0	1	-0.045	5	-0.042	7
91	M100	1	max	0.391	3	0	22	0.003	7	0	22	0	22	0	22	0	22
92			min	0.053	22	0	1	-0.003	5	0	1	0	1	0	1	0	1
93		2	max	0.378	3	0	22	0.003	7	0	22	0	22	0.028	7	0.031	5
94			min	0.045	22	0	1	-0.003	5	0	1	0	1	-0.031	5	-0.028	7
95		3	max	0.366	3	0	22	0.003	7	0	22	0	22	0.057	7	0.062	5
96			min	0.038	22	0	1	-0.003	5	0	1	0	1	-0.062	5	-0.057	7
97		4	max	0.353	3	0	22	0.003	7	0	22	0	22	0.085	7	0.092	5
98			min	0.03	22	0	1	-0.003	5	0	1	0	1	-0.092	5	-0.085	7
99		5	max	0.34	3	0	22	0.003	7	0	22	0	22	0.113	7	0.123	5
100			min	0.022	22	0	1	-0.003	5	0	1	0	1	-0.123	5	-0.113	7
101	M101	1	max	0.048	5	0.781	3	0	22	0	22	0	22	0	22	0	22
102			min	0	1	0.105	22	-0.186	6	0	1	0	1	0	1	0	1
103		2	max	0.048	5	0.593	3	0	22	8.138	3	-0.973	22	0	22	0.746	6
104			min	0	1	0.059	22	-0.014	6	0.973	22	-8.138	3	-0.746	6	0	1
105		3	max	0.048	5	0.01	3	0	22	10.228	3	-1.289	22	0	22	1.127	6
106			min	0	1	0	22	-0.008	6	1.289	22	-10.228	3	-1.127	6	0	1
107		4	max	0.048	5	-0.059	22	0.031	6	7.97	3	-0.966	22	0	22	0.869	6
108			min	0	1	-0.579	3	0	1	0.966	22	-7.97	3	-0.869	6	0	1
109		5	max	0.048	5	-0.105	22	0.203	6	0	22	0	22	0	22	0	22
110			min	0	1	-0.759	3	0	1	0	1	0	1	0	1	0	1
111	M102	1	max	0.008	6	0.058	3	0	5	0	22	0	22	0	22	0	22
112			min	0	1	0.001	22	0	1	0	1	0	1	0	1	0	1
113		2	max	0.008	6	0.038	3	0	5	0.648	3	-0.008	22	0	5	0	22
114			min	0	1	0	22	0	1	0.008	22	-0.648	3	0	1	0	5
115		3	max	0.008	6	0	22	0	22	0.862	3	-0.012	22	0	22	0	5
116			min	0	1	-0.003	3	0	5	0.012	22	-0.862	3	0	5	0	1
117		4	max	0.008	6	-0.001	22	0	5	0.67	3	-0.011	22	0	22	0	5
118			min	0	1	-0.039	3	0	1	0.011	22	-0.67	3	0	5	0	1
119		5	max	0.008	6	-0.001	22	0	5	0	22	0	22	0	22	0	22
120			min	0	1	-0.059	3	0	1	0	1	0	1	0	1	0	1
121	M103	1	max	0.871	3	0	22	0	22	0	22	0	22	0	22	0	22
122			min	0.056	22	0	1	0	1	0	1	0	1	0	1	0	1
123		2	max	0.858	3	0	22	0	22	0	22	0	22	0	22	0	22
124			min	0.048	22	0	1	0	1	0	1	0	1	0	1	0	1
125		3	max	0.845	3	0	22	0	22	0	22	0	22	0	22	0	22
126			min	0.04	22	0	1	0	1	0	1	0	1	0	1	0	1
127		4	max	0.833	3	0	22	0	22	0	22	0	22	0	22	0	22
128			min	0.033	22	0	1	0	1	0	1	0	1	0	1	0	1
129		5	max	0.82	3	0	22	0	22	0	22	0	22	0	22	0	22
130			min	0.025	22	0	1	0	1	0	1	0	1	0	1	0	1
131	M104	1	max	0	22	0.224	3	0	22	0	22	0	22	0	22	0	22
132			min	0	1	0.082	22	0	1	0	1	0	1	0	1	0	1
133		2	max	0	22	0.112	3	0	22	2.543	3	-0.933	22	0	22	0	22
134			min	0	1	0.041	22	0	1	0.933	22	-2.543	3	0	1	0	1
135		3	max	0	22	0	22	0	22	3.39	3	-1.244	22	0	22	0	22
136			min	0	1	0	1	0	1	1.244	22	-3.39	3	0	1	0	1
137		4	max	0	22	-0.041	22	0	22	2.543	3	-0.933	22	0	22	0	22
138			min	0	1	-0.112	3	0	1	0.933	22	-2.543	3	0	1	0	1
139		5	max	0	22	-0.082	22	0	22	0	22	0	22	0	22	0	22
140			min	0	1	-0.224	3	0	1	0	1	0	1	0	1	0	1
141	M105	1	max	0.74	3	0.001	6	0.012	7	0	22	0	22	0	22	0	22

**Envelope Member Section Stresses (Continued)**

Member	Sec		Axial[ksi]	LC	y Shear[ksi]	LC	z Shear[ksi]	LC	y-Top[ksi]	LC	y-Bot[ksi]	LC	z-Top[ksi]	LC	z-Bot[ksi]	LC	
142		min	0.247	2	0	1	-0.011	5	0	1	0	1	0	1	0	1	
143	2	max	0.723	3	0.001	6	0.012	7	0.015	6	0	22	0.168	7	0.155	5	
144		min	0.247	2	0	1	-0.011	5	0	1	-0.015	6	-0.155	5	-0.168	7	
145	3	max	0.707	3	0.001	6	0.012	7	0.031	6	0	22	0.336	7	0.309	5	
146		min	0.247	2	0	1	-0.011	5	0	1	-0.031	6	-0.309	5	-0.336	7	
147	4	max	0.69	3	0.001	6	0.012	7	0.046	6	0	22	0.504	7	0.464	5	
148		min	0.247	2	0	1	-0.011	5	0	1	-0.046	6	-0.464	5	-0.504	7	
149	5	max	0.71	3	0.008	6	0.046	5	0.003	6	0	22	0	22	0	22	
150		min	0.239	22	0	1	-0.05	7	0	1	-0.003	6	0	1	0	1	
151	M106	1	max	4.505	3	0.005	6	0.012	7	0	22	0	22	0	22	0	22
152		min	1.246	22	0	1	-0.011	5	0	1	0	1	0	1	0	1	
153	2	max	4.489	3	0.005	6	0.012	7	0.067	6	0	22	0.169	7	0.16	5	
154		min	1.236	22	0	1	-0.011	5	0	1	-0.067	6	-0.16	5	-0.169	7	
155	3	max	4.472	3	0.005	6	0.012	7	0.133	6	0	22	0.338	7	0.319	5	
156		min	1.226	22	0	1	-0.011	5	0	1	-0.133	6	-0.319	5	-0.338	7	
157	4	max	4.456	3	0.005	6	0.012	7	0.2	6	0	22	0.508	7	0.479	5	
158		min	1.217	22	0	1	-0.011	5	0	1	-0.2	6	-0.479	5	-0.508	7	
159	5	max	3.207	3	0.04	6	0.042	5	0	22	0	22	0	22	0	22	
160		min	1.092	22	0	1	-0.044	7	0	1	0	1	0	1	0	1	
161	M107	1	max	4.56	3	0.046	6	0.012	7	0	22	0	22	0	22	0	22
162		min	1.299	22	0	1	-0.012	5	0	1	0	1	0	1	0	1	
163	2	max	4.543	3	0.046	6	0.012	7	0.662	6	0	22	0.168	7	0.164	5	
164		min	1.289	22	0	1	-0.012	5	0	1	-0.662	6	-0.164	5	-0.168	7	
165	3	max	4.527	3	0.046	6	0.012	7	1.324	6	0	22	0.336	7	0.328	5	
166		min	1.279	22	0	1	-0.012	5	0	1	-1.324	6	-0.328	5	-0.336	7	
167	4	max	4.51	3	0.046	6	0.012	7	1.986	6	0	22	0.504	7	0.492	5	
168		min	1.269	22	0	1	-0.012	5	0	1	-1.986	6	-0.492	5	-0.504	7	
169	5	max	3.178	3	0	22	0.04	5	0	22	0.003	6	0	22	0	22	
170		min	1.078	22	-0.23	6	-0.04	7	-0.003	6	0	1	0	1	0	1	
171	M108	1	max	4.457	3	0.044	6	0.012	7	0	22	0	22	0	22	0	22
172		min	1.267	22	0	1	-0.012	5	0	1	0	1	0	1	0	1	
173	2	max	4.441	3	0.044	6	0.012	7	0.628	6	0	22	0.164	7	0.168	5	
174		min	1.258	22	0	1	-0.012	5	0	1	-0.628	6	-0.168	5	-0.164	7	
175	3	max	4.424	3	0.044	6	0.012	7	1.256	6	0	22	0.328	7	0.336	5	
176		min	1.248	22	0	1	-0.012	5	0	1	-1.256	6	-0.336	5	-0.328	7	
177	4	max	4.408	3	0.044	6	0.012	7	1.883	6	0	22	0.492	7	0.504	5	
178		min	1.238	22	0	1	-0.012	5	0	1	-1.883	6	-0.504	5	-0.492	7	
179	5	max	3.098	3	0	22	0.04	5	0	22	0.002	6	0	22	0	22	
180		min	1.051	22	-0.215	6	-0.039	7	-0.002	6	0	1	0	1	0	1	
181	M109	1	max	0.85	3	0.001	6	0.011	7	0	22	0	22	0	22	0	22
182		min	0.291	2	0	1	-0.012	5	0	1	0	1	0	1	0	1	
183	2	max	0.833	3	0.001	6	0.011	7	0.015	6	0	22	0.155	7	0.168	5	
184		min	0.291	2	0	1	-0.012	5	0	1	-0.015	6	-0.168	5	-0.155	7	
185	3	max	0.817	3	0.001	6	0.011	7	0.03	6	0	22	0.309	7	0.336	5	
186		min	0.291	2	0	1	-0.012	5	0	1	-0.03	6	-0.336	5	-0.309	7	
187	4	max	0.8	3	0.001	6	0.011	7	0.045	6	0	22	0.464	7	0.505	5	
188		min	0.291	2	0	1	-0.012	5	0	1	-0.045	6	-0.505	5	-0.464	7	
189	5	max	0.823	3	0.007	6	0.05	5	0.003	6	0	22	0	22	0	22	
190		min	0.278	22	0	1	-0.046	7	0	1	-0.003	6	0	1	0	1	
191	M110	1	max	1.308	3	0	22	0.058	3	0	22	0	22	0	22	0	22
192		min	0.382	22	0	17	0.016	22	0	1	0	1	0	1	0	1	
193	2	max	1.292	3	0	22	0.058	3	0	6	0	17	0.833	3	-0.23	22	
194		min	0.372	22	0	17	0.016	22	0	17	0	6	0.23	22	-0.833	3	
195	3	max	1.275	3	0	22	0.058	3	0	6	0	17	1.666	3	-0.459	22	
196		min	0.362	22	0	17	0.016	22	0	17	0	6	0.459	22	-1.666	3	

**Envelope Member Section Stresses (Continued)**

Member	Sec		Axial[ksi]	LC	y Shear[ksi]	LC	z Shear[ksi]	LC	y-Top[ksi]	LC	y-Bot[ksi]	LC	z-Top[ksi]	LC	z-Bot[ksi]	LC
197	4	max	1.259	3	0	22	0.058	3	0	6	0	17	2.499	3	-0.689	22
198		min	0.352	22	0	17	0.016	22	0	17	0	6	0.689	22	-2.499	3
199	5	max	1.242	3	0	22	0.058	3	0	6	0	17	3.332	3	-0.918	22
200		min	0.342	22	0	17	0.016	22	0	17	0	6	0.918	22	-3.332	3
201	M111	1	max	4.476	3	0.005	6	0.011	7	0	22	0	22	0	22	22
202		min	1.234	22	0	1	-0.012	5	0	1	0	1	0	1	0	1
203	2	max	4.459	3	0.005	6	0.011	7	0.067	6	0	22	0.16	7	0.169	5
204		min	1.224	22	0	1	-0.012	5	0	1	-0.067	6	-0.169	5	-0.16	7
205	3	max	4.442	3	0.005	6	0.011	7	0.133	6	0	22	0.319	7	0.338	5
206		min	1.214	22	0	1	-0.012	5	0	1	-0.133	6	-0.338	5	-0.319	7
207	4	max	4.426	3	0.005	6	0.011	7	0.2	6	0	22	0.479	7	0.507	5
208		min	1.204	22	0	1	-0.012	5	0	1	-0.2	6	-0.507	5	-0.479	7
209	5	max	3.174	3	0.04	6	0.044	5	0	22	0	22	0	22	0	22
210		min	1.081	22	0	1	-0.042	7	0	1	0	1	0	1	0	1
211	M112	1	max	0.053	6	0.289	3	0	14	0	22	0	22	0	22	22
212		min	0	1	0.005	22	-0.364	7	0	1	0	1	0	1	0	1
213	2	max	0.053	6	0.058	3	0	14	2.087	3	-0.026	22	0	14	2.063	7
214		min	0	1	-0.001	22	-0.182	7	0.026	22	-2.087	3	-2.063	7	0	14
215	3	max	0.053	6	-0.006	22	0	14	1.395	3	0.013	22	0	14	2.751	7
216		min	0	1	-0.173	3	0	16	-0.013	22	-1.395	3	-2.751	7	0	14
217	4	max	0.053	6	-0.011	22	0.182	7	-0.116	22	2.077	3	0.001	14	2.066	7
218		min	0	1	-0.404	3	0	1	-2.077	3	0.116	22	-2.066	7	-0.001	14
219	5	max	0.052	6	0.129	3	0.365	7	0	22	0	22	0	22	0	22
220		min	0	1	0.009	22	0	14	0	1	0	1	0	1	0	1
221	M113	1	max	1.258	3	0.055	6	0.105	7	0	22	0	22	0	22	22
222		min	0.412	22	0	22	-0.001	3	0	1	0	1	0	1	0	1
223	2	max	1.234	3	0.055	6	0.105	7	1.122	6	-0.001	22	2.145	7	0.024	3
224		min	0.398	22	0	22	-0.001	3	0.001	22	-1.122	6	-0.024	3	-2.145	7
225	3	max	0.634	3	0	8	-0.001	22	2.177	6	0.005	8	4.221	7	-0.03	22
226		min	0.206	22	-0.053	6	-0.103	7	-0.005	8	-2.177	6	0.03	22	-4.221	7
227	4	max	0.61	3	0	8	-0.001	22	1.088	6	0.003	8	2.111	7	-0.015	22
228		min	0.191	22	-0.053	6	-0.103	7	-0.003	8	-1.088	6	0.015	22	-2.111	7
229	5	max	0.586	3	0	8	-0.001	22	0	22	0	22	0	22	0	22
230		min	0.177	22	-0.053	6	-0.103	7	0	1	0	1	0	1	0	1
231	M114	1	max	0.056	6	0.306	3	0.364	5	0	22	0	22	0	22	22
232		min	0	1	0.004	22	0	16	0	1	0	1	0	1	0	1
233	2	max	0.056	6	0.061	3	0.182	5	2.211	3	-0.015	22	2.063	5	0	16
234		min	0	1	-0.001	22	0	16	0.015	22	-2.211	3	0	16	-2.063	5
235	3	max	0.056	6	-0.006	22	0	14	1.47	3	0.025	22	2.751	5	0.001	16
236		min	0	1	-0.184	3	0	16	-0.025	22	-1.47	3	-0.001	16	-2.751	5
237	4	max	0.056	6	-0.01	22	0	22	-0.12	22	2.221	3	2.066	5	0.001	16
238		min	0	1	-0.429	3	-0.182	5	-2.221	3	0.12	22	-0.001	16	-2.066	5
239	5	max	0.056	6	0.139	3	0	16	0	22	0	22	0	22	0	22
240		min	0	1	0.01	22	-0.365	5	0	1	0	1	0	1	0	1
241	M115	1	max	0	7	0.029	21	0	22	0	22	0	22	0	22	22
242		min	0	5	0	2	-0.056	6	0	1	0	1	0	1	0	1
243	2	max	0	7	0.014	21	0	22	0.14	21	0	2	0	22	0.17	6
244		min	0	5	0	2	-0.028	6	0	2	-0.14	1	-0.17	6	0	1
245	3	max	0	7	0	22	0	22	0.187	21	0	2	0	22	0.226	6
246		min	0	5	0	1	0	1	0	2	-0.187	1	-0.226	6	0	1
247	4	max	0	7	0	2	0.028	6	0.14	21	0	2	0	22	0.17	6
248		min	0	5	-0.014	1	0	1	0	2	-0.14	1	-0.17	6	0	1
249	5	max	0	7	0	2	0.056	6	0	22	0	22	0	22	0	22
250		min	0	5	-0.029	1	0	1	0	1	0	1	0	1	0	1
251	M116	1	max	6.775	3	0.017	3	0.067	3	0	22	0	22	0	22	22

**Envelope Member Section Stresses (Continued)**

Member	Sec		Axial[ksi]	LC	y Shear[ksi]	LC	z Shear[ksi]	LC	y-Top[ksi]	LC	y-Bot[ksi]	LC	z-Top[ksi]	LC	z-Bot[ksi]	LC
252		min	1.911	22	0.004	22	0.017	22	0	1	0	1	0	1	0	1
253	2	max	6.759	3	0.017	3	0.067	3	0.239	3	-0.064	22	0.952	3	-0.246	22
254		min	1.901	22	0.004	22	0.017	22	0.064	22	-0.239	3	0.246	22	-0.952	3
255	3	max	6.742	3	0.017	3	0.067	3	0.478	3	-0.128	22	1.904	3	-0.492	22
256		min	1.891	22	0.004	22	0.017	22	0.128	22	-0.478	3	0.492	22	-1.904	3
257	4	max	5.687	3	0.101	3	0.022	7	-0.341	6	1.443	3	2.75	3	-0.737	22
258		min	1.599	22	0.025	6	0.011	3	-1.443	3	0.341	6	0.737	22	-2.75	3
259	5	max	5.67	3	0.101	3	0.022	7	0.011	6	-0.001	22	2.91	3	-0.958	22
260		min	1.589	22	0.025	6	0.011	3	0.001	22	-0.011	6	0.958	22	-2.91	3
261	M117	1	max	0	11	0.292	3	0	22	0	22	0	22	0	22	0
262		min	0	9	0.024	22	-0.178	6	0	1	0	1	0	1	0	1
263	2	max	0	11	0.273	3	0	22	2.452	3	-0.157	22	0	22	0.869	6
264		min	0	9	0.012	22	-0.141	6	0.157	22	-2.452	3	-0.869	6	0	1
265	3	max	0	11	0.253	3	0	22	4.735	3	-0.212	22	0	22	1.533	6
266		min	0	9	0.001	22	-0.103	6	0.212	22	-4.735	3	-1.533	6	0	1
267	4	max	0	11	-0.013	22	0.175	6	3.481	3	-0.141	22	0	22	1.055	6
268		min	0	9	-0.342	3	0	1	0.141	22	-3.481	3	-1.055	6	0	1
269	5	max	0	11	-0.019	22	0.212	6	0	22	0	22	0	22	0	22
270		min	0	9	-0.46	3	0	1	0	1	0	1	0	1	0	1
271	M118	1	max	0	5	3.459	3	0	22	0	22	0	22	0	22	0
272		min	0	1	1.175	22	0	1	0	1	0	1	0	1	0	1
273	2	max	0	5	1.729	3	0	22	14.43	3	-4.901	22	0	22	0	22
274		min	0	1	0.587	22	0	1	4.901	22	-14.43	3	0	1	0	1
275	3	max	0	5	0	22	0	22	19.239	3	-6.534	22	0	22	0	22
276		min	0	1	0	1	0	1	6.534	22	-19.239	3	0	1	0	1
277	4	max	0	5	-0.587	22	0	22	14.43	3	-4.901	22	0	22	0	22
278		min	0	1	-1.729	3	0	1	4.901	22	-14.43	3	0	1	0	1
279	5	max	0	5	-1.175	22	0	22	0	22	0	22	0	22	0	22
280		min	0	1	-3.459	3	0	1	0	1	0	1	0	1	0	1
281	M119	1	max	0	11	0.691	3	0	22	0	22	0	22	0	22	0
282		min	0	9	0.031	22	-0.26	6	0	1	0	1	0	1	0	1
283	2	max	0	11	0.531	3	0	22	7.235	3	-0.32	22	0	22	1.741	6
284		min	0	9	0.023	22	-0.209	6	0.32	22	-7.235	3	-1.741	6	0	1
285	3	max	0	22	0.011	3	0.008	6	9.002	3	-0.448	22	0	22	2.189	6
286		min	0	5	0	22	0	1	0.448	22	-9.002	3	-2.189	6	0	1
287	4	max	0	7	-0.022	22	0.192	6	7.086	3	-0.314	22	0	22	1.618	6
288		min	0	5	-0.518	3	0	1	0.314	22	-7.086	3	-1.618	6	0	1
289	5	max	0	7	-0.032	22	0.243	6	0	22	0	22	0	22	0	22
290		min	0	5	-0.667	3	0	1	0	1	0	1	0	1	0	1
291	M120	1	max	0.001	8	-0.052	22	0.013	3	-0.009	22	0.027	3	0	22	0
292		min	-0.009	6	-0.183	3	-0.005	7	-0.027	3	0.009	22	0	1	0	1
293	2	max	0.001	8	-0.077	22	0.013	3	-0.18	22	0.621	3	0.021	3	0.009	7
294		min	-0.009	6	-0.266	3	-0.005	7	-0.621	3	0.18	22	-0.009	7	-0.021	3
295	3	max	0.001	8	-0.101	22	0.013	3	-0.414	22	1.434	3	0.041	3	0.018	7
296		min	-0.009	6	-0.349	3	-0.005	7	-1.434	3	0.414	22	-0.018	7	-0.041	3
297	4	max	0.001	8	-0.125	22	0.013	3	-0.712	22	2.467	3	0.062	3	0.027	7
298		min	-0.009	6	-0.432	3	-0.005	7	-2.467	3	0.712	22	-0.027	7	-0.062	3
299	5	max	0.001	8	-0.149	22	0.013	3	-1.073	22	3.719	3	0.083	3	0.036	7
300		min	-0.009	6	-0.515	3	-0.005	7	-3.719	3	1.073	22	-0.036	7	-0.083	3
301	M121	1	max	0.063	5	0.525	3	0	22	0	22	0	22	0	22	0
302		min	0	1	0.071	22	-0.08	6	0	1	0	1	0	1	0	1
303	2	max	0.063	5	0.384	3	0.039	6	3.709	3	-0.455	22	0	22	0.105	6
304		min	0	1	0.039	22	0	1	0.455	22	-3.709	3	-0.105	6	0	1
305	3	max	0.063	5	-0.002	22	0	22	4.682	3	-0.616	22	0	22	0.15	6
306		min	0	1	-0.225	3	-0.105	6	0.616	22	-4.682	3	-0.15	6	0	1

**Envelope Member Section Stresses (Continued)**

Member	Sec		Axial[ksi]	LC	y Shear[ksi]	LC	z Shear[ksi]	LC	y-Top[ksi]	LC	y-Bot[ksi]	LC	z-Top[ksi]	LC	z-Bot[ksi]	LC	
307		4	max	0.063	5	-0.037	22	0.015	6	2.586	3	-0.455	22	0	22	0.384	6
308			min	0	1	-0.284	3	0	1	0.455	22	-2.586	3	-0.384	6	0	1
309		5	max	0.063	5	-0.073	22	0.134	6	0	22	0	22	0	22	0	22
310			min	0	1	-0.344	3	0	1	0	1	0	1	0	1	0	1
311	M122	1	max	0	7	0.461	3	0	22	0	22	0	22	0	22	0	22
312			min	0	5	0.019	22	-0.23	6	0	1	0	1	0	1	0	1
313		2	max	0	7	0.34	3	0	22	3.321	3	-0.13	22	0	22	1.097	6
314			min	0	5	0.013	22	-0.195	6	0.13	22	-3.321	3	-1.097	6	0	1
315		3	max	0	9	-0.001	22	0.105	6	4.069	3	-0.193	22	0	22	1.452	6
316			min	0	11	-0.229	3	0	1	0.193	22	-4.069	3	-1.452	6	0	1
317		4	max	0	9	-0.012	22	0.141	6	2.111	3	-0.142	22	0	22	0.818	6
318			min	0	11	-0.247	3	0	1	0.142	22	-2.111	3	-0.818	6	0	1
319		5	max	0	9	-0.023	22	0.176	6	0	22	0	22	0	22	0	22
320			min	0	11	-0.266	3	0	1	0	1	0	1	0	1	0	1
321	M123	1	max	0	5	0.031	12	0	22	0	22	0	22	0	22	0	22
322			min	0	7	0	2	-0.06	6	0	1	0	1	0	1	0	1
323		2	max	0	5	0.015	12	0	22	0.16	12	0	2	0	22	0.194	6
324			min	0	7	0	2	-0.03	6	0	2	-0.16	4	-0.194	6	0	1
325		3	max	0	5	0	22	0	22	0.214	12	0	2	0	22	0.259	6
326			min	0	7	0	1	0	1	0	2	-0.214	4	-0.259	6	0	1
327		4	max	0	5	0	2	0.03	6	0.16	12	0	2	0	22	0.194	6
328			min	0	7	-0.015	3	0	1	0	2	-0.16	4	-0.194	6	0	1
329		5	max	0	5	0	2	0.06	6	0	22	0	22	0	22	0	22
330			min	0	7	-0.031	3	0	1	0	1	0	1	0	1	0	1
331	M124	1	max	0.005	6	0.053	3	0	7	0	22	0	22	0	22	0	22
332			min	0	1	0.001	22	0	1	0	1	0	1	0	1	0	1
333		2	max	0.005	6	0.036	3	0	7	0.604	3	-0.012	22	0	7	0	22
334			min	0	1	0.001	22	0	1	0.012	22	-0.604	3	0	1	0	7
335		3	max	0.005	6	0	22	0	22	0.805	3	-0.015	22	0	22	0	7
336			min	0	1	-0.003	3	0	7	0.015	22	-0.805	3	0	7	0	1
337		4	max	0.005	6	-0.001	22	0	7	0.623	3	-0.013	22	0	22	0	7
338			min	0	1	-0.037	3	0	1	0.013	22	-0.623	3	0	7	0	1
339		5	max	0.005	6	-0.001	22	0	7	0	22	0	22	0	22	0	22
340			min	0	1	-0.055	3	0	1	0	1	0	1	0	1	0	1
341	M125	1	max	0.079	7	0.093	21	0	22	0	22	0	22	0	22	0	22
342			min	0	1	0	2	-0.187	6	0	1	0	1	0	1	0	1
343		2	max	0.079	7	0.047	21	0	22	0.451	21	0	2	0	22	0.569	6
344			min	0	1	0	2	-0.094	6	0	2	-0.451	1	-0.569	6	0	1
345		3	max	0.079	7	0	22	0	22	0.601	21	0	2	0	22	0.758	6
346			min	0	1	0	1	0	1	0	2	-0.601	1	-0.758	6	0	1
347		4	max	0.079	7	0	2	0.094	6	0.451	21	0	2	0	22	0.569	6
348			min	0	1	-0.047	1	0	1	0	2	-0.451	1	-0.569	6	0	1
349		5	max	0.079	7	0	2	0.187	6	0	22	0	22	0	22	0	22
350			min	0	1	-0.093	1	0	1	0	1	0	1	0	1	0	1
351	M126	1	max	0.419	7	1.534	3	0.002	6	-1.911	22	6.927	3	-0.002	22	0.012	6
352			min	-0.435	5	0.426	22	0	22	-6.927	3	1.911	22	-0.012	6	0.002	22
353		2	max	0.419	7	-0.111	22	0.002	6	-0.761	22	2.769	3	0.124	6	-0.016	22
354			min	-0.435	5	-0.397	3	0	22	-2.769	3	0.761	22	0.016	22	-0.124	6
355		3	max	0.419	7	0.352	3	0	22	3.717	3	-1.031	22	-0.002	22	0.017	6
356			min	-0.435	5	0.096	22	-0.002	6	1.031	22	-3.717	3	-0.017	6	0.002	22
357		4	max	0.419	7	-0.441	22	0	22	-0.229	22	0.765	3	-0.027	22	0.211	6
358			min	-0.435	5	-1.578	3	-0.002	6	-0.765	3	0.229	22	-0.211	6	0.027	22
359		5	max	0.419	7	-0.978	22	0	22	-5.415	22	19.366	3	-0.053	22	0.405	6
360			min	-0.435	5	-3.509	3	-0.002	6	-19.366	3	5.415	22	-0.405	6	0.053	22
361	M127	1	max	0.029	7	1.427	3	0	22	0	22	0	22	0	22	0	22

**Envelope Member Section Stresses (Continued)**

Member	Sec		Axial[ksi]	LC	y Shear[ksi]	LC	z Shear[ksi]	LC	y-Top[ksi]	LC	y-Bot[ksi]	LC	z-Top[ksi]	LC	z-Bot[ksi]	LC	
362		min	-0.03	5	0.482	22	0	1	0	1	0	1	0	1	0	1	
363	2	max	0.029	7	-0.269	22	0	22	2.288	3	-0.757	22	0	22	0	22	
364		min	-0.03	5	-0.783	3	0	1	0.757	22	-2.288	3	0	1	0	1	
365	3	max	0.014	7	2.51	3	0	22	-1.479	22	4.257	3	0	22	0	22	
366		min	-0.014	5	0.855	22	0	1	-4.257	3	1.479	22	0	1	0	1	
367	4	max	0.014	7	0.299	3	0	22	5.727	3	-1.929	22	0	22	0	22	
368		min	-0.014	5	0.104	22	0	1	1.929	22	-5.727	3	0	1	0	1	
369	5	max	0.014	7	-0.647	22	0	22	0	22	0	22	0	22	0	22	
370		min	-0.014	5	-1.911	3	0	1	0	1	0	1	0	1	0	1	
371	M128	1	max	0.063	7	0.376	3	0	22	0	22	0	22	0	22	0	22
372		min	0	1	0.077	22	-0.149	6	0	1	0	1	0	1	0	1	
373	2	max	0.063	7	0.313	3	0	22	2.994	3	-0.504	22	0	22	0.468	6	
374		min	0	1	0.039	22	-0.023	6	0.504	22	-2.994	3	-0.468	6	0	1	
375	3	max	0.063	7	0.251	3	0.103	6	5.444	3	-0.682	22	0	22	0.25	6	
376		min	0	1	0.002	22	0	1	0.682	22	-5.444	3	-0.25	6	0	1	
377	4	max	0.063	7	-0.041	22	0	22	3.951	3	-0.498	22	0	22	0.282	6	
378		min	0	1	-0.386	3	-0.011	6	0.498	22	-3.951	3	-0.282	6	0	1	
379	5	max	0.063	7	-0.074	22	0.115	6	0	22	0	22	0	22	0	22	
380		min	0	1	-0.524	3	0	1	0	1	0	1	0	1	0	1	
381	M129	1	max	1.278	3	0.052	6	0.01	7	0	22	0	22	0	22	0	22
382		min	0.431	22	-0.013	8	-0.05	3	0	1	0	1	0	1	0	1	
383	2	max	1.254	3	0.052	6	0.01	7	1.069	6	0.257	8	0.214	7	1.027	3	
384		min	0.417	22	-0.013	8	-0.05	3	-0.257	8	-1.069	6	-1.027	3	-0.214	7	
385	3	max	1.081	3	0.01	8	0.043	3	3.386	6	0.408	8	-0.478	22	1.742	3	
386		min	0.339	22	-0.083	6	0.012	22	-0.408	8	-3.386	6	-1.742	3	0.478	22	
387	4	max	1.057	3	0.01	8	0.043	3	1.693	6	0.204	8	-0.239	22	0.871	3	
388		min	0.325	22	-0.083	6	0.012	22	-0.204	8	-1.693	6	-0.871	3	0.239	22	
389	5	max	1.034	3	0.01	8	0.043	3	0	22	0	22	0	22	0	22	
390		min	0.311	22	-0.083	6	0.012	22	0	1	0	1	0	1	0	1	
391	M130	1	max	0	22	0.394	3	0	22	0	22	0	22	0	22	0	22
392		min	-0.027	6	0.111	22	0	1	0	1	0	1	0	1	0	1	
393	2	max	0	22	0.197	3	0	22	1.252	3	-0.354	22	0	22	0	22	
394		min	-0.027	6	0.056	22	0	1	0.354	22	-1.252	3	0	1	0	1	
395	3	max	0	22	0	22	0	22	1.67	3	-0.472	22	0	22	0	22	
396		min	-0.027	6	0	1	0	1	0.472	22	-1.67	3	0	1	0	1	
397	4	max	0	22	-0.056	22	0	22	1.252	3	-0.354	22	0	22	0	22	
398		min	-0.027	6	-0.197	3	0	1	0.354	22	-1.252	3	0	1	0	1	
399	5	max	0	22	-0.111	22	0	22	0	22	0	22	0	22	0	22	
400		min	-0.027	6	-0.394	3	0	1	0	1	0	1	0	1	0	1	
401	M131	1	max	0.011	6	0.087	3	0	22	0	22	0	22	0	22	0	22
402		min	0	1	-0.002	22	0	1	0	1	0	1	0	1	0	1	
403	2	max	0.011	6	0.044	3	0	22	0.886	3	0.023	22	0	22	0	22	
404		min	0	1	-0.001	22	0	1	-0.023	22	-0.886	3	0	1	0	1	
405	3	max	0.011	6	0	22	0	22	1.182	3	0.03	22	0	22	0	22	
406		min	0	1	0	1	0	1	-0.03	22	-1.182	3	0	1	0	1	
407	4	max	0.011	6	0.001	22	0	22	0.886	3	0.023	22	0	22	0	22	
408		min	0	1	-0.044	3	0	1	-0.023	22	-0.886	3	0	1	0	1	
409	5	max	0.011	6	0.002	22	0	22	0	22	0	22	0	22	0	22	
410		min	0	1	-0.087	3	0	1	0	1	0	1	0	1	0	1	
411	M132	1	max	0.079	5	0.1	21	0	22	0	22	0	22	0	22	0	22
412		min	0	1	0	2	-0.2	6	0	1	0	1	0	1	0	1	
413	2	max	0.079	5	0.05	21	0	22	0.516	21	0	2	0	22	0.651	6	
414		min	0	1	0	2	-0.1	6	0	2	-0.516	1	-0.651	6	0	1	
415	3	max	0.079	5	0	22	0	22	0.688	21	0	2	0	22	0.868	6	
416		min	0	1	0	1	0	1	0	2	-0.688	1	-0.868	6	0	1	

**Envelope Member Section Stresses (Continued)**

Member	Sec		Axial[ksi]	LC	y Shear[ksi]	LC	z Shear[ksi]	LC	y-Top[ksi]	LC	y-Bot[ksi]	LC	z-Top[ksi]	LC	z-Bot[ksi]	LC	
417	4	max	0.079	5	0	2	0.1	6	0.516	21	0	2	0	22	0.651	6	
418		min	0	1	-0.05	3	0	1	0	2	-0.516	1	-0.651	6	0	1	
419	5	max	0.079	5	0	2	0.2	6	0	22	0	22	0	22	0	22	
420		min	0	1	-0.1	3	0	1	0	1	0	1	0	1	0	1	
421	M133	1	max	0.016	7	0.008	3	0	22	0	22	0	22	0	22	0	22
422		min	0	22	0	2	-0.067	8	0	1	0	1	0	1	0	1	
423	2	max	0.016	7	0.004	3	0	22	0.011	3	0	2	0	22	0.057	8	
424		min	0	22	0	2	-0.033	8	0	2	-0.011	3	-0.057	8	0	1	
425	3	max	0.016	7	0	22	0	22	0.015	3	0	2	0	22	0.076	8	
426		min	0	22	0	1	0	1	0	2	-0.015	3	-0.076	8	0	1	
427	4	max	0.016	7	0	2	0.033	8	0.011	3	0	2	0	22	0.057	8	
428		min	0	22	-0.004	1	0	1	0	2	-0.011	3	-0.057	8	0	1	
429	5	max	0.016	7	0	2	0.067	8	0	22	0	22	0	22	0	22	
430		min	0	22	-0.008	1	0	1	0	1	0	1	0	1	0	1	
431	M134	1	max	0	22	0.067	21	0.263	8	0	22	0	22	0	22	0	22
432		min	0	1	0	2	0	1	0	1	0	1	0	1	0	1	
433	2	max	0	22	0.034	21	0.131	8	0.764	21	0	2	1.839	8	0	22	
434		min	0	1	0	2	0	1	0	2	-0.764	1	0	1	-1.839	8	
435	3	max	0	22	0	22	0	22	1.018	21	0	2	2.452	8	0	22	
436		min	0	1	0	1	0	1	0	2	-1.018	1	0	1	-2.452	8	
437	4	max	0	22	0	2	0	22	0.764	21	0	2	1.839	8	0	22	
438		min	0	1	-0.034	1	-0.131	8	0	2	-0.764	1	0	1	-1.839	8	
439	5	max	0	22	0	2	0	22	0	22	0	22	0	22	0	22	
440		min	0	1	-0.067	1	-0.263	8	0	1	0	1	0	1	0	1	
441	M135	1	max	0.007	6	0.059	3	0	22	0	22	0	22	0	22	0	22
442		min	0	1	0.001	22	0	7	0	1	0	1	0	1	0	1	
443	2	max	0.007	6	0.039	3	0	22	0.659	3	-0.008	22	0	22	0	7	
444		min	0	1	0	22	0	7	0.008	22	-0.659	3	0	7	0	1	
445	3	max	0.007	6	0	22	0	7	0.876	3	-0.012	22	0	7	0	22	
446		min	0	1	-0.003	3	0	1	0.012	22	-0.876	3	0	1	0	7	
447	4	max	0.007	6	-0.001	22	0	22	0.681	3	-0.011	22	0	7	0	22	
448		min	0	1	-0.04	3	0	7	0.011	22	-0.681	3	0	1	0	7	
449	5	max	0.007	6	-0.001	22	0	22	0	22	0	22	0	22	0	22	
450		min	0	1	-0.06	3	0	7	0	1	0	1	0	1	0	1	
451	M136	1	max	0	22	0.022	3	0	22	0	22	0	22	0	22	0	22
452		min	0	7	0	22	0	1	0	1	0	1	0	1	0	1	
453	2	max	0	22	0.011	3	0	22	0.136	3	-0.002	22	0	22	0	22	
454		min	0	7	0	22	0	1	0.002	22	-0.136	3	0	1	0	1	
455	3	max	0	22	0	22	0	22	0.182	3	-0.003	22	0	22	0	22	
456		min	0	7	0	1	0	1	0.003	22	-0.182	3	0	1	0	1	
457	4	max	0	22	0	22	0	22	0.136	3	-0.002	22	0	22	0	22	
458		min	0	7	-0.011	3	0	1	0.002	22	-0.136	3	0	1	0	1	
459	5	max	0	22	0	22	0	22	0	22	0	22	0	22	0	22	
460		min	0	7	-0.022	3	0	1	0	1	0	1	0	1	0	1	
461	M137	1	max	0	7	0.017	3	0	22	0	22	0	22	0	22	0	22
462		min	0	1	0.001	22	0	1	0	1	0	1	0	1	0	1	
463	2	max	0	7	0.009	3	0	22	0.108	3	-0.004	22	0	22	0	22	
464		min	0	1	0	22	0	1	0.004	22	-0.108	3	0	1	0	1	
465	3	max	0	7	0	22	0	22	0.144	3	-0.005	22	0	22	0	22	
466		min	0	1	0	1	0	1	0.005	22	-0.144	3	0	1	0	1	
467	4	max	0	7	0	22	0	22	0.108	3	-0.004	22	0	22	0	22	
468		min	0	1	-0.009	3	0	1	0.004	22	-0.108	3	0	1	0	1	
469	5	max	0	7	-0.001	22	0	22	0	22	0	22	0	22	0	22	
470		min	0	1	-0.017	3	0	1	0	1	0	1	0	1	0	1	
471	M138	1	max	0	22	0.021	3	0	22	0	22	0	22	0	22	0	22

**Envelope Member Section Stresses (Continued)**

Member	Sec		Axial[ksi]	LC	y Shear[ksi]	LC	z Shear[ksi]	LC	y-Top[ksi]	LC	y-Bot[ksi]	LC	z-Top[ksi]	LC	z-Bot[ksi]	LC	
472		min	0	5	0	22	0	1	0	1	0	1	0	1	0	1	
473	2	max	0	22	0.01	3	0	22	0.128	3	-0.002	22	0	22	0	22	
474		min	0	5	0	22	0	1	0.002	22	-0.128	3	0	1	0	1	
475	3	max	0	22	0	22	0	22	0.17	3	-0.003	22	0	22	0	22	
476		min	0	5	0	3	0	1	0.003	22	-0.17	3	0	1	0	1	
477	4	max	0	22	0	22	0	22	0.127	3	-0.002	22	0	22	0	22	
478		min	0	5	-0.01	3	0	1	0.002	22	-0.127	3	0	1	0	1	
479	5	max	0	22	0	22	0	22	0	22	0	22	0	22	0	22	
480		min	0	5	-0.021	3	0	1	0	1	0	1	0	1	0	1	
481	M139	1	max	0	5	0.017	3	0	22	0	22	0	22	0	22	0	22
482		min	0	1	0.001	22	0	1	0	1	0	1	0	1	0	1	
483	2	max	0	5	0.008	3	0	22	0.101	3	-0.003	22	0	22	0	22	
484		min	0	1	0	22	0	1	0.003	22	-0.101	3	0	1	0	1	
485	3	max	0	5	0	22	0	22	0.135	3	-0.005	22	0	22	0	22	
486		min	0	1	0	3	0	1	0.005	22	-0.135	3	0	1	0	1	
487	4	max	0	5	0	22	0	22	0.101	3	-0.003	22	0	22	0	22	
488		min	0	1	-0.008	3	0	1	0.003	22	-0.101	3	0	1	0	1	
489	5	max	0	5	-0.001	22	0	22	0	22	0	22	0	22	0	22	
490		min	0	1	-0.016	3	0	1	0	1	0	1	0	1	0	1	
491	M140	1	max	0.395	3	0	22	0	22	0	22	0	22	0	22	0	22
492		min	0.104	2	-0.033	8	0	1	0	1	0	1	0	1	0	1	
493	2	max	0.383	3	0	22	0	22	0	22	0.337	8	0	22	0	22	
494		min	0.104	2	-0.033	8	0	1	-0.337	8	0	1	0	1	0	1	
495	3	max	0.372	3	0	22	0	22	0	22	0.674	8	0	22	0	22	
496		min	0.104	2	-0.033	8	0	1	-0.674	8	0	1	0	1	0	1	
497	4	max	0.36	3	0	22	0	22	0	22	1.011	8	0	22	0	22	
498		min	0.104	2	-0.033	8	0	1	-1.011	8	0	1	0	1	0	1	
499	5	max	0.268	3	0.23	8	0	22	0	22	0	22	0	22	0	22	
500		min	0.098	22	0	1	0	1	0	1	0	1	0	1	0	1	
501	M141	1	max	0.395	3	0	22	0	22	0	22	0	22	0	22	0	22
502		min	0.104	2	-0.033	8	0	1	0	1	0	1	0	1	0	1	
503	2	max	0.383	3	0	22	0	22	0	22	0.337	8	0	22	0	22	
504		min	0.104	2	-0.033	8	0	1	-0.337	8	0	1	0	1	0	1	
505	3	max	0.372	3	0	22	0	22	0	22	0.674	8	0	22	0	22	
506		min	0.104	2	-0.033	8	0	1	-0.674	8	0	1	0	1	0	1	
507	4	max	0.36	3	0	22	0	22	0	22	1.011	8	0	22	0	22	
508		min	0.104	2	-0.033	8	0	1	-1.011	8	0	1	0	1	0	1	
509	5	max	0.268	3	0.23	8	0	22	0	22	0	22	0	22	0	22	
510		min	0.098	22	0	1	0	1	0	1	0	1	0	1	0	1	
511	M142	1	max	0.009	8	1.247	3	0	22	0	22	0	22	0	22	0	22
512		min	0	22	0.359	22	0	1	0	1	0	1	0	1	0	1	
513	2	max	0.009	8	0.623	3	0	22	16.222	3	-4.665	22	0	22	0	22	
514		min	0	22	0.179	22	0	1	4.665	22	-16.222	3	0	1	0	1	
515	3	max	0.009	8	0	22	0	22	21.629	3	-6.22	22	0	22	0	22	
516		min	0	22	0	1	0	1	6.22	22	-21.629	3	0	1	0	1	
517	4	max	0.009	8	-0.179	22	0	22	16.222	3	-4.665	22	0	22	0	22	
518		min	0	22	-0.623	3	0	1	4.665	22	-16.222	3	0	1	0	1	
519	5	max	0.009	8	-0.359	22	0	22	0	22	0	22	0	22	0	22	
520		min	0	22	-1.247	3	0	1	0	1	0	1	0	1	0	1	
521	M143	1	max	0.545	7	2.154	3	0	22	-0.256	22	0.93	3	0	22	0	22
522		min	-0.559	5	0.593	22	0	6	-0.93	3	0.256	22	0	1	0	1	
523	2	max	0.545	7	0.87	3	0	22	7.235	3	-1.994	22	-0.001	22	0.006	6	
524		min	-0.559	5	0.24	22	0	6	1.994	22	-7.235	3	-0.006	6	0.001	22	
525	3	max	0.545	7	-0.114	22	0	22	8.465	3	-2.332	22	-0.001	22	0.011	6	
526		min	-0.559	5	-0.414	3	0	6	2.332	22	-8.465	3	-0.011	6	0.001	22	

**Envelope Member Section Stresses (Continued)**

Member	Sec		Axial[ksi]	LC	y Shear[ksi]	LC	z Shear[ksi]	LC	y-Top[ksi]	LC	y-Bot[ksi]	LC	z-Top[ksi]	LC	z-Bot[ksi]	LC
527	4	max	0.545	7	-0.468	22	0	22	2.759	3	-0.759	22	-0.002	22	0.017	6
528		min	-0.559	5	-1.698	3	0	6	0.759	22	-2.759	3	-0.017	6	0.002	22
529	5	max	0.545	7	-0.822	22	0	22	-2.726	22	9.883	3	-0.003	22	0.023	6
530		min	-0.559	5	-2.982	3	0	6	-9.883	3	2.726	22	-0.023	6	0.003	22
531	M144	1	max	0	22	0.084	21	0	22	0	22	0	22	0	22	0
532		min	-0.003	6	0	2	-0.264	7	0	1	0	1	0	1	0	1
533	2	max	0	22	0.042	21	0	22	1.215	21	0	2	0	22	2.281	7
534		min	-0.003	6	0	2	-0.132	7	0	2	-1.215	1	-2.281	7	0	1
535	3	max	0	22	0	22	0	22	1.621	21	0	2	0	22	3.041	7
536		min	-0.003	6	0	1	0	1	0	2	-1.621	1	-3.041	7	0	1
537	4	max	0	22	0	2	0.132	7	1.215	21	0	2	0	22	2.281	7
538		min	-0.003	6	-0.042	1	0	1	0	2	-1.215	1	-2.281	7	0	1
539	5	max	0	22	0	2	0.264	7	0	22	0	22	0	22	0	22
540		min	-0.003	6	-0.084	1	0	1	0	1	0	1	0	1	0	1
541	M145	1	max	1.644	3	-0.019	22	0	22	0	22	0	22	0	22	0
542		min	0.461	22	-0.069	3	0	1	0	1	0	1	0	1	0	1
543	2	max	1.632	3	-0.019	22	0	22	-0.189	22	0.7	3	0	22	0	22
544		min	0.454	22	-0.069	3	0	1	-0.7	3	0.189	22	0	1	0	1
545	3	max	1.621	3	-0.019	22	0	22	-0.378	22	1.401	3	0	3	0	22
546		min	0.447	22	-0.069	3	0	1	-1.401	3	0.378	22	0	1	0	3
547	4	max	1.609	3	-0.019	22	0	22	-0.568	22	2.101	3	0	3	0	22
548		min	0.44	22	-0.069	3	0	1	-2.101	3	0.568	22	0	22	0	3
549	5	max	1.597	3	-0.019	22	0	22	-0.757	22	2.802	3	0	3	0	22
550		min	0.433	22	-0.069	3	0	1	-2.802	3	0.757	22	0	22	0	3
551	M146	1	max	3.285	3	0.002	6	0.023	7	0	22	0	22	0	22	0
552		min	1	22	0	22	0	3	0	1	0	1	0	1	0	1
553	2	max	3.273	3	0.002	6	0.023	7	0.017	6	0	22	0.234	7	0	3
554		min	0.993	22	0	22	0	3	0	22	-0.017	6	0	3	-0.234	7
555	3	max	3.261	3	0.002	6	0.023	7	0.035	6	0	22	0.468	7	0.001	3
556		min	0.986	22	0	22	0	3	0	22	-0.035	6	-0.001	3	-0.468	7
557	4	max	3.249	3	0.002	6	0.023	7	0.052	6	0	22	0.703	7	0.001	3
558		min	0.979	22	0	22	0	3	0	22	-0.052	6	-0.001	3	-0.703	7
559	5	max	3.107	3	0	22	0	22	0	22	0	22	0.001	3	0.025	7
560		min	0.893	22	-0.014	6	-0.308	7	0	1	0	1	-0.025	7	-0.001	3
561	M147	1	max	5.848	3	0.081	3	0	3	0	22	0	22	0	22	0
562		min	1.609	22	0.022	22	0	22	0	1	0	1	0	1	0	1
563	2	max	5.837	3	0.081	3	0	3	0.821	3	-0.224	22	0.002	3	0	22
564		min	1.602	22	0.022	22	0	22	0.224	22	-0.821	3	0	22	-0.002	3
565	3	max	5.825	3	0.081	3	0	3	1.643	3	-0.448	22	0.004	3	-0.001	22
566		min	1.595	22	0.022	22	0	22	0.448	22	-1.643	3	0.001	22	-0.004	3
567	4	max	5.813	3	0.081	3	0	3	2.464	3	-0.672	22	0.006	3	-0.001	22
568		min	1.588	22	0.022	22	0	22	0.672	22	-2.464	3	0.001	22	-0.006	3
569	5	max	5.801	3	0.081	3	0	3	3.286	3	-0.895	22	0.008	3	-0.002	22
570		min	1.581	22	0.022	22	0	22	0.895	22	-3.286	3	0.002	22	-0.008	3
571	M148	1	max	6.562	3	-0.018	22	0	3	0	22	0	22	0	22	0
572		min	1.8	22	-0.065	3	0	22	0	1	0	1	0	1	0	1
573	2	max	6.55	3	-0.018	22	0	3	-0.181	22	0.661	3	0	3	0	22
574		min	1.793	22	-0.065	3	0	22	-0.661	3	0.181	22	0	22	0	3
575	3	max	6.538	3	-0.018	22	0	3	-0.362	22	1.321	3	0	3	0	22
576		min	1.786	22	-0.065	3	0	22	-1.321	3	0.362	22	0	22	0	3
577	4	max	6.526	3	-0.018	22	0	3	-0.543	22	1.982	3	0	3	0	22
578		min	1.779	22	-0.065	3	0	22	-1.982	3	0.543	22	0	22	0	3
579	5	max	6.514	3	-0.018	22	0	3	-0.724	22	2.642	3	0	3	0	22
580		min	1.772	22	-0.065	3	0	22	-2.642	3	0.724	22	0	22	0	3
581	M149	1	max	1.791	3	0	22	0	22	0	22	0	22	0	22	0

**Envelope Member Section Stresses (Continued)**

Member	Sec		Axial[ksi]	LC	y Shear[ksi]	LC	z Shear[ksi]	LC	y-Top[ksi]	LC	y-Bot[ksi]	LC	z-Top[ksi]	LC	z-Bot[ksi]	LC	
582		min	0.519	22	0	1	0	1	0	1	0	1	0	1	0	1	
583	2	max	1.775	3	0	22	0	22	0	22	0	22	0	22	0	22	
584		min	0.509	22	0	1	0	1	0	1	0	1	0	1	0	1	
585	3	max	1.758	3	0	22	0	22	0	22	0	22	0	22	0	22	
586		min	0.499	22	0	1	0	1	0	1	0	1	0	1	0	1	
587	4	max	1.742	3	0	22	0	22	0	22	0	22	0	22	0	22	
588		min	0.489	22	0	1	0	1	0	1	0	1	0	1	0	1	
589	5	max	1.725	3	0	22	0	22	0	22	0	22	0	22	0	22	
590		min	0.479	22	0	1	0	1	0	1	0	1	0	1	0	1	
591	M150	1	max	0.308	8	2.768	3	0.001	3	-0.211	22	0.782	3	0	22	0	22
592		min	-0.332	6	0.75	22	0	22	-0.782	3	0.211	22	0	1	0	1	
593	2	max	0.308	8	0.771	3	0.001	3	6.755	3	-1.828	22	0.041	3	-0.011	22	
594		min	-0.332	6	0.208	22	0	22	1.828	22	-6.755	3	0.011	22	-0.041	3	
595	3	max	0.308	8	-0.333	22	0.001	3	5.787	3	-1.562	22	0.082	3	-0.022	22	
596		min	-0.332	6	-1.226	3	0	22	1.562	22	-5.787	3	0.022	22	-0.082	3	
597	4	max	0.308	8	-0.875	22	0.001	3	-1.011	22	3.684	3	0.123	3	-0.033	22	
598		min	-0.332	6	-3.223	3	0	22	-3.684	3	1.011	22	0.033	22	-0.123	3	
599	5	max	0.308	8	-1.417	22	0.001	3	-5.891	22	21.659	3	0.164	3	-0.044	22	
600		min	-0.332	6	-5.22	3	0	22	-21.659	3	5.891	22	0.044	22	-0.164	3	
601	M151	1	max	1.956	3	0.054	6	0.002	7	0	22	0	22	0	22	0	22
602		min	0.606	22	0	22	-0.015	3	0	1	0	1	0	1	0	1	
603	2	max	1.932	3	0.054	6	0.002	7	1.108	6	-0.001	22	0.043	7	0.312	3	
604		min	0.592	22	0	22	-0.015	3	0.001	22	-1.108	6	-0.312	3	-0.043	7	
605	3	max	1.369	3	0	22	0.002	7	2.202	6	-0.002	22	0.427	3	0.06	7	
606		min	0.419	22	-0.053	6	-0.014	3	0.002	22	-2.202	6	-0.06	7	-0.427	3	
607	4	max	0.812	3	0	22	0.001	7	1.11	6	-0.001	22	0.171	3	0.023	7	
608		min	0.241	22	-0.054	6	-0.008	3	0.001	22	-1.11	6	-0.023	7	-0.171	3	
609	5	max	0.788	3	0	22	0.001	7	0	22	0	22	0	22	0	22	
610		min	0.227	22	-0.054	6	-0.008	3	0	1	0	1	0	1	0	1	
611	M152	1	max	3.495	3	0.052	6	-0.001	7	0	22	0	22	0	22	0	22
612		min	1.044	22	0	8	-0.078	3	0	1	0	1	0	1	0	1	
613	2	max	3.471	3	0.052	6	-0.001	7	1.063	6	0.004	8	-0.026	7	1.602	3	
614		min	1.03	22	0	8	-0.078	3	-0.004	8	-1.063	6	-1.602	3	0.026	7	
615	3	max	3.307	3	0.001	3	-0.043	22	2.355	6	0.001	16	0.12	7	4.766	3	
616		min	0.962	22	-0.062	6	-0.407	7	-0.001	16	-2.355	6	-4.766	3	-0.12	7	
617	4	max	0.562	3	0	22	-0.15	22	1.129	6	-0.004	22	10.888	3	-3.055	22	
618		min	0.181	22	-0.055	6	-0.533	3	0.004	22	-1.129	6	3.055	22	-10.888	3	
619	5	max	0.538	3	0	22	-0.15	22	0	22	0	22	0	22	0	22	
620		min	0.167	22	-0.055	6	-0.533	3	0	1	0	1	0	1	0	1	
621	M153	1	max	0.247	8	5.442	3	-0.001	22	-4.439	22	16.316	3	0.089	3	-0.024	22
622		min	-0.248	6	1.482	22	-0.002	3	-16.316	3	4.439	22	0.024	22	-0.089	3	
623	2	max	0.247	8	2.763	3	-0.001	22	4.862	3	-1.33	22	-0.013	22	0.048	3	
624		min	-0.248	6	0.752	22	-0.002	3	1.33	22	-4.862	3	-0.048	3	0.013	22	
625	3	max	0.247	8	0.084	3	-0.001	22	12.209	3	-3.329	22	-0.049	22	0.184	3	
626		min	-0.248	6	0.022	22	-0.002	3	3.329	22	-12.209	3	-0.184	3	0.049	22	
627	4	max	0.247	8	-0.708	22	-0.001	22	5.727	3	-1.56	22	-0.086	22	0.321	3	
628		min	-0.248	6	-2.595	3	-0.002	3	1.56	22	-5.727	3	-0.321	3	0.086	22	
629	5	max	0.247	8	-1.438	22	-0.001	22	-3.978	22	14.586	3	-0.122	22	0.458	3	
630		min	-0.248	6	-5.274	3	-0.002	3	-14.586	3	3.978	22	-0.458	3	0.122	22	
631	M154	1	max	0.306	8	4.17	3	0.009	3	-5.211	22	19.105	3	-0.225	22	0.843	3
632		min	-0.335	6	1.136	22	0.002	6	-19.105	3	5.211	22	-0.843	3	0.225	22	
633	2	max	0.306	8	2.678	3	0.009	3	-1.579	22	5.773	3	-0.114	22	0.428	3	
634		min	-0.335	6	0.73	22	0.002	6	-5.773	3	-1.579	22	-0.428	3	0.114	22	
635	3	max	0.306	8	1.185	3	0.009	3	1.746	3	-0.472	22	-0.003	22	0.096	6	
636		min	-0.335	6	0.323	22	0.002	6	0.472	22	-1.746	3	-0.096	6	0.003	22	

**Envelope Member Section Stresses (Continued)**

Member	Sec		Axial[ksi]	LC	y Shear[ksi]	LC	z Shear[ksi]	LC	y-Top[ksi]	LC	y-Bot[ksi]	LC	z-Top[ksi]	LC	z-Bot[ksi]	LC	
637	4	max	0.306	8	-0.083	22	0.009	3	3.453	3	-0.94	22	0.402	3	-0.008	6	
638		min	-0.335	6	-0.308	3	0.002	6	0.94	22	-3.453	3	0.008	6	-0.402	3	
639	5	max	0.306	8	-0.489	22	0.009	3	-0.174	22	0.651	3	0.818	3	-0.111	6	
640		min	-0.335	6	-1.801	3	0.002	6	-0.651	3	0.174	22	0.111	6	-0.818	3	
641	M155	1	max	0.014	5	2.051	3	0	22	0	22	0	22	0	22	0	
642		min	-0.014	7	0.694	22	0	1	0	1	0	1	0	1	0	1	
643	2	max	0.014	5	-0.056	22	0	22	6.722	3	-2.267	22	0	22	0	22	
644		min	-0.014	7	-0.159	3	0	1	2.267	22	-6.722	3	0	1	0	1	
645	3	max	0.014	5	-0.807	22	0	22	-0.802	22	2.267	3	0	22	0	22	
646		min	-0.014	7	-2.37	3	0	1	-2.267	3	0.802	22	0	1	0	1	
647	4	max	0.029	5	0.979	3	0	22	0.895	3	-0.282	22	0	22	0	22	
648		min	-0.03	7	0.336	22	0	1	0.282	22	-0.895	3	0	1	0	1	
649	5	max	0.029	5	-0.415	22	0	22	0	22	0	22	0	22	0	22	
650		min	-0.03	7	-1.231	3	0	1	0	1	0	1	0	1	0	1	
651	M156	1	max	0.276	7	3.077	3	0.001	6	-2.868	22	10.202	3	0.146	3	0.204	6
652		min	-0.275	5	0.866	22	-0.001	3	-10.202	3	2.868	22	-0.204	6	-0.146	3	
653	2	max	0.276	7	1.694	3	0.001	6	5.42	3	-1.526	22	0.102	3	0.104	6	
654		min	-0.275	5	0.476	22	-0.001	3	1.526	22	-5.42	3	-0.104	6	-0.102	3	
655	3	max	0.276	7	0.311	3	0.001	6	11.983	3	-3.37	22	0.057	3	0.003	6	
656		min	-0.275	5	0.087	22	-0.001	3	3.37	22	-11.983	3	-0.003	6	-0.057	3	
657	4	max	0.276	7	-0.302	22	0.001	6	9.496	3	-2.666	22	0.097	6	-0.004	22	
658		min	-0.275	5	-1.071	3	-0.001	3	2.666	22	-9.496	3	0.004	22	-0.097	6	
659	5	max	0.276	7	-0.691	22	0.001	6	-0.587	22	2.048	3	0.197	6	0.029	3	
660		min	-0.275	5	-2.455	3	-0.001	3	-2.048	3	0.587	22	-0.029	3	-0.197	6	
661	M157	1	max	2.774	3	0	-0.006	22	0	22	0	22	0	22	0	22	
662		min	0.788	22	0	17	-0.024	3	0	1	0	1	0	1	0	1	
663	2	max	2.757	3	0	6	-0.006	22	0	6	0	17	-0.092	22	0.335	3	
664		min	0.778	22	0	17	-0.024	3	0	17	0	6	-0.335	3	0.092	22	
665	3	max	2.741	3	0	6	-0.006	22	0	6	0	17	-0.184	22	0.67	3	
666		min	0.768	22	0	17	-0.024	3	0	17	0	6	-0.67	3	0.184	22	
667	4	max	2.724	3	0	6	-0.006	22	0	6	0.001	17	-0.276	22	1.005	3	
668		min	0.758	22	0	17	-0.024	3	-0.001	17	0	6	-1.005	3	0.276	22	
669	5	max	2.708	3	0	6	-0.006	22	0	6	0.001	17	-0.368	22	1.339	3	
670		min	0.748	22	0	17	-0.024	3	-0.001	17	0	6	-1.339	3	0.368	22	
671	M158	1	max	1.593	3	0.099	6	0.145	7	0	22	0	22	0	22	0	
672		min	0.525	22	-0.021	8	-0.007	3	0	1	0	1	0	1	0	1	
673	2	max	1.57	3	0.099	6	0.145	7	2.019	6	0.43	8	2.958	7	0.135	3	
674		min	0.51	22	-0.021	8	-0.007	3	-0.43	8	-2.019	6	-0.135	3	-2.958	7	
675	3	max	1.493	3	0.005	8	0.008	3	2.016	6	0.205	8	3.784	7	0.315	3	
676		min	0.447	22	-0.049	6	-0.093	7	-2.05	8	-2.016	6	-0.315	3	-3.784	7	
677	4	max	1.47	3	0.005	8	0.008	3	1.008	6	0.102	8	1.892	7	0.158	3	
678		min	0.433	22	-0.049	6	-0.093	7	-0.102	8	-1.008	6	-0.158	3	-1.892	7	
679	5	max	1.446	3	0.005	8	0.008	3	0	22	0	22	0	22	0	22	
680		min	0.419	22	-0.049	6	-0.093	7	0	1	0	1	0	1	0	1	
681	M159	1	max	0.022	8	0.077	6	0.13	7	0	22	0	22	0	22	0	
682		min	-0.071	2	-0.009	8	0.001	22	0	1	0	1	0	1	0	1	
683	2	max	-0.001	8	0.077	6	0.13	7	1.568	6	0.182	8	2.664	7	-0.024	22	
684		min	-0.078	3	-0.009	8	0.001	22	-0.182	8	-1.568	6	0.024	22	-2.664	7	
685	3	max	-0.026	22	0.013	8	0.001	3	2.614	6	0.518	8	3.572	7	0.035	3	
686		min	-0.139	3	-0.064	6	-0.087	7	-0.518	8	-2.614	6	-0.035	3	-3.572	7	
687	4	max	-0.041	22	0.013	8	0.001	3	1.307	6	0.259	8	1.786	7	0.018	3	
688		min	-0.163	3	-0.064	6	-0.087	7	-0.259	8	-1.307	6	-0.018	3	-1.786	7	
689	5	max	-0.055	22	0.013	8	0.001	3	0	22	0	22	0	22	0	22	
690		min	-0.186	3	-0.064	6	-0.087	7	0	1	0	1	0	1	0	1	
691	M160	1	max	3.895	3	0.002	6	0.136	7	0	22	0	22	0	22	0	

**Envelope Member Section Stresses (Continued)**

Member	Sec		Axial[ksi]	LC	y Shear[ksi]	LC	z Shear[ksi]	LC	y-Top[ksi]	LC	y-Bot[ksi]	LC	z-Top[ksi]	LC	z-Bot[ksi]	LC	
692		min	1.223	22	0	22	0	22	0	1	0	1	0	1	0	1	
693	2	max	3.871	3	0.002	6	0.136	7	0.037	6	0	22	2.772	7	-0.005	22	
694		min	1.209	22	0	22	0	22	0	22	-0.037	6	0.005	22	-2.772	7	
695	3	max	0.493	3	0.002	6	0	22	0	22	0.082	6	3.399	7	-0.01	22	
696		min	0.172	22	0	22	-0.083	7	-0.082	6	0	22	0.01	22	-3.399	7	
697	4	max	0.469	3	0.002	6	0	22	0	22	0.041	6	1.699	7	-0.005	22	
698		min	0.158	22	0	22	-0.083	7	-0.041	6	0	22	0.005	22	-1.699	7	
699	5	max	0.446	3	0.002	6	0	22	0	22	0	22	0	22	0	22	
700		min	0.144	22	0	22	-0.083	7	0	1	0	1	0	1	0	1	
701	M161	1	max	0.014	6	0.113	3	0.002	3	0.396	3	-0.115	22	0.098	6	0.014	3
702		min	0	22	0.033	22	-0.013	6	0.115	22	-0.396	3	-0.014	3	-0.098	6	
703	2	max	0.014	6	0	22	0.002	3	0.598	3	-0.175	22	0.068	6	0.01	3	
704		min	0	22	-0.003	3	-0.013	6	0.175	22	-0.598	3	-0.01	3	-0.068	6	
705	3	max	0.014	6	-0.034	22	0.002	3	0.372	3	-0.112	22	0.038	6	0.006	3	
706		min	0	22	-0.119	3	-0.013	6	0.112	22	-0.372	3	-0.006	3	-0.038	6	
707	4	max	0.014	6	-0.068	22	0.002	3	-0.075	22	0.281	3	0.008	6	0.001	3	
708		min	0	22	-0.235	3	-0.013	6	-0.281	3	0.075	22	-0.001	3	-0.008	6	
709	5	max	0.014	6	-0.101	22	0.002	3	-0.387	22	1.361	3	0.003	3	0.021	6	
710		min	0	22	-0.35	3	-0.013	6	-1.361	3	0.387	22	-0.021	6	-0.003	3	
711	M162	1	max	0.001	6	0.311	3	0.002	6	-0.387	22	1.361	3	0.003	3	0.021	6
712		min	0	22	0.089	22	0	3	-1.361	3	0.387	22	-0.021	6	-0.003	3	
713	2	max	0.001	6	0.17	3	0.002	6	-0.078	22	0.282	3	0.002	3	0.015	6	
714		min	0	22	0.048	22	0	3	-0.282	3	0.078	22	-0.015	6	-0.002	3	
715	3	max	0.001	6	0.029	3	0.002	6	0.166	3	-0.047	22	0.001	3	0.008	6	
716		min	0	22	0.007	22	0	3	0.047	22	-0.166	3	-0.008	6	-0.001	3	
717	4	max	0.001	6	-0.033	22	0.002	6	0	2	0.02	7	0	3	0.002	6	
718		min	0	22	-0.111	3	0	3	-0.02	7	0	2	-0.002	6	0	3	
719	5	max	0.001	6	-0.074	22	0.002	6	-0.253	22	0.835	3	0.005	6	0.001	3	
720		min	0	22	-0.252	3	0	3	-0.835	3	0.253	22	-0.001	3	-0.005	6	
721	M163	1	max	0	22	0.316	3	0	3	-0.253	22	0.835	3	0.005	6	0.001	3
722		min	-0.013	6	0.093	22	0	6	-0.835	3	0.253	22	-0.001	3	-0.005	6	
723	2	max	0	22	0.184	3	0	3	0.226	3	-0.058	22	0.004	6	0.001	3	
724		min	-0.013	6	0.054	22	0	6	0.058	22	-0.226	3	-0.001	3	-0.004	6	
725	3	max	0	22	0.051	3	0	3	0.723	3	-0.205	22	0.003	6	0	3	
726		min	-0.013	6	0.015	22	0	6	0.205	22	-0.723	3	0	3	-0.003	6	
727	4	max	0	22	-0.023	22	0	3	0.657	3	-0.189	22	0.001	6	0	3	
728		min	-0.013	6	-0.082	3	0	6	0.189	22	-0.657	3	0	3	-0.001	6	
729	5	max	0	22	-0.062	22	0	3	0.027	3	-0.009	22	0	22	0	22	
730		min	-0.013	6	-0.215	3	0	6	0.009	22	-0.027	3	0	1	0	1	
731	M164	1	max	0.003	7	0.277	3	0	22	0	22	0	22	0	22	0	22
732		min	0	22	0.087	22	0	6	0	1	0	1	0	1	0	1	
733	2	max	0.003	7	0.135	3	0	22	1.913	3	-0.6	22	0	22	0.002	6	
734		min	0	22	0.042	22	0	6	0.6	22	-1.913	3	-0.002	6	0	22	
735	3	max	0.003	7	-0.002	2	0	22	2.515	3	-0.786	22	0	22	0.004	6	
736		min	0	22	-0.006	3	0	6	0.786	22	-2.515	3	-0.004	6	0	22	
737	4	max	0.003	7	-0.047	22	0	22	1.805	3	-0.558	22	0	22	0.006	6	
738		min	0	22	-0.147	3	0	6	0.558	22	-1.805	3	-0.006	6	0	22	
739	5	max	0.003	7	-0.091	22	0	22	-0.076	2	0.215	3	0	22	0.008	6	
740		min	0	22	-0.288	3	0	6	-0.215	3	0.076	2	-0.008	6	0	22	
741	M165	1	max	0	22	0.085	3	0.002	6	-0.076	2	0.215	3	0	22	0.008	6
742		min	-0.018	7	0.029	22	0	22	-0.215	3	0.076	2	-0.008	6	0	22	
743	2	max	0	22	0.057	3	0.002	6	-0.02	2	0.084	3	0	22	0.006	6	
744		min	-0.018	7	0.02	22	0	22	-0.084	3	0.02	2	-0.006	6	0	22	
745	3	max	0	22	0.029	3	0.002	6	0.011	2	0.016	8	0	22	0.004	6	
746		min	-0.018	7	0.01	2	0	22	-0.016	8	-0.011	2	-0.004	6	0	22	

**Envelope Member Section Stresses (Continued)**

Member	Sec		Axial[ksi]	LC	y Shear[ksi]	LC	z Shear[ksi]	LC	y-Top[ksi]	LC	y-Bot[ksi]	LC	z-Top[ksi]	LC	z-Bot[ksi]	LC	
747	4	max	0	22	0.004	8	0.002	6	0.024	3	-0.004	22	0	22	0.002	6	
748		min	-0.018	7	-0.003	2	0	22	0.004	22	-0.024	3	-0.002	6	0	22	
749	5	max	0	22	-0.006	22	0.002	6	0	22	0	22	0	22	0	22	
750		min	-0.018	7	-0.027	3	0	22	0	1	0	1	0	1	0	1	
751	M166	1	max	0.002	6	0.698	3	0.001	3	-1.073	22	3.719	3	0.01	7	0.024	3
752		min	0	8	0.202	22	0	7	-3.719	3	1.073	22	-0.024	3	-0.01	7	
753	2	max	0.002	6	0.391	3	0.001	3	1.608	3	-0.472	22	0.008	7	0.018	3	
754		min	0	8	0.113	22	0	7	0.472	22	-1.608	3	-0.018	3	-0.008	7	
755	3	max	0.002	6	0.085	3	0.001	3	3.938	3	-1.147	22	0.005	7	0.012	3	
756		min	0	8	0.024	22	0	7	1.147	22	-3.938	3	-0.012	3	-0.005	7	
757	4	max	0.002	6	-0.064	22	0.001	3	3.27	3	-0.951	22	0.003	7	0.006	3	
758		min	0	8	-0.221	3	0	7	0.951	22	-3.27	3	-0.006	3	-0.003	7	
759	5	max	0.002	6	-0.153	22	0.001	3	-0.115	22	0.396	3	0	22	0	22	
760		min	0	8	-0.528	3	0	7	-0.396	3	0.115	22	0	1	0	1	
761	M167	1	max	0	22	0.339	3	0	22	0	22	0	22	0	22	0	22
762		min	0	1	0.107	22	0	1	0	1	0	1	0	1	0	1	
763	2	max	0	22	0.169	3	0	22	2.827	3	-0.892	22	0	22	0	22	
764		min	0	1	0.053	22	0	1	0.892	22	-2.827	3	0	1	0	1	
765	3	max	0	22	0	22	0	22	3.77	3	-1.19	22	0	22	0	22	
766		min	0	1	0	1	0	1	1.19	22	-3.77	3	0	1	0	1	
767	4	max	0	22	-0.053	22	0	22	2.827	3	-0.892	22	0	22	0	22	
768		min	0	1	-0.169	3	0	1	0.892	22	-2.827	3	0	1	0	1	
769	5	max	0	22	-0.107	22	0	22	0	22	0	22	0	22	0	22	
770		min	0	1	-0.339	3	0	1	0	1	0	1	0	1	0	1	
771	M168	1	max	0	22	0.036	3	0	22	0	22	0	22	0	22	0	22
772		min	-0.08	6	0.011	2	0	1	0	1	0	1	0	1	0	1	
773	2	max	0	22	0.018	3	0	22	0.099	3	-0.03	2	0	22	0	22	
774		min	-0.08	6	0.005	2	0	1	0.03	2	-0.099	3	0	1	0	1	
775	3	max	0	22	0	22	0	22	0.132	3	-0.039	2	0	22	0	22	
776		min	-0.08	6	0	1	0	1	0.039	2	-0.132	3	0	1	0	1	
777	4	max	0	22	-0.005	2	0	22	0.099	3	-0.03	2	0	22	0	22	
778		min	-0.08	6	-0.018	3	0	1	0.03	2	-0.099	3	0	1	0	1	
779	5	max	0	22	-0.011	2	0	22	0	22	0	22	0	22	0	22	
780		min	-0.08	6	-0.036	3	0	1	0	1	0	1	0	1	0	1	
781	M169	1	max	0	22	0.417	3	0	22	0	22	0	22	0	22	0	22
782		min	-0.053	6	0.118	22	0	1	0	1	0	1	0	1	0	1	
783	2	max	0	22	0.208	3	0	22	1.403	3	-0.397	22	0	22	0	22	
784		min	-0.053	6	0.059	22	0	1	0.397	22	-1.403	3	0	1	0	1	
785	3	max	0	22	0	22	0	22	1.871	3	-0.529	22	0	22	0	22	
786		min	-0.053	6	0	1	0	1	0.529	22	-1.871	3	0	1	0	1	
787	4	max	0	22	-0.059	22	0	22	1.403	3	-0.397	22	0	22	0	22	
788		min	-0.053	6	-0.208	3	0	1	0.397	22	-1.403	3	0	1	0	1	
789	5	max	0	22	-0.118	22	0	22	0	22	0	22	0	22	0	22	
790		min	-0.053	6	-0.417	3	0	1	0	1	0	1	0	1	0	1	
791	M170	1	max	0.052	7	0.09	3	0	22	0	22	0	22	0	22	0	22
792		min	0	22	0.027	2	0	1	0	1	0	1	0	1	0	1	
793	2	max	0.052	7	0.045	3	0	22	0.624	3	-0.187	2	0	22	0	22	
794		min	0	22	0.013	2	0	1	0.187	2	-0.624	3	0	1	0	1	
795	3	max	0.052	7	0	22	0	22	0.832	3	-0.249	2	0	22	0	22	
796		min	0	22	0	1	0	1	0.249	2	-0.832	3	0	1	0	1	
797	4	max	0.052	7	-0.013	2	0	22	0.624	3	-0.187	2	0	22	0	22	
798		min	0	22	-0.045	3	0	1	0.187	2	-0.624	3	0	1	0	1	
799	5	max	0.052	7	-0.027	2	0	22	0	22	0	22	0	22	0	22	
800		min	0	22	-0.09	3	0	1	0	1	0	1	0	1	0	1	
801	M171	1	max	0.108	7	0.082	3	0.403	6	0	22	0	22	0	22	0	22

**Envelope Member Section Stresses (Continued)**

Member	Sec		Axial[ksi]	LC	y Shear[ksi]	LC	z Shear[ksi]	LC	y-Top[ksi]	LC	y-Bot[ksi]	LC	z-Top[ksi]	LC	z-Bot[ksi]	LC	
802		min	0.007	22	0.03	22	0	1	0	1	0	1	0	1	0	1	
803	2	max	0.108	7	0.041	3	0.202	6	0.683	3	-0.249	22	2.079	6	0	22	
804		min	0.007	22	0.015	22	0	1	0.249	22	-0.683	3	0	1	-2.079	6	
805	3	max	0.108	7	0	22	0	22	0.91	3	-0.332	22	2.772	6	0	22	
806		min	0.007	22	0	1	0	1	0.332	22	-0.91	3	0	1	-2.772	6	
807	4	max	0.108	7	-0.015	22	0	22	0.683	3	-0.249	22	2.079	6	0	22	
808		min	0.007	22	-0.041	3	-0.202	6	0.249	22	-0.683	3	0	1	-2.079	6	
809	5	max	0.108	7	-0.03	22	0	22	0	22	0	22	0	22	0	22	
810		min	0.007	22	-0.082	3	-0.403	6	0	1	0	1	0	1	0	1	
811	M172	1	max	0	3	0.044	15	-0.002	22	0	22	0	22	0	22	0	22
812		min	-0.073	6	0.004	2	-0.402	7	0	1	0	1	0	1	0	1	
813	2	max	0	3	0.016	15	-0.002	22	0.375	15	-0.052	2	-0.013	22	2.224	7	
814		min	-0.073	6	0.004	2	-0.177	7	0.052	2	-0.375	15	-2.224	7	0.013	22	
815	3	max	0	3	0.004	2	0.048	7	0.405	15	-0.104	2	-0.026	22	2.72	7	
816		min	-0.073	6	-0.017	8	-0.006	3	0.104	2	-0.405	15	-2.72	7	0.026	22	
817	4	max	0	3	0.004	2	0.273	7	0.156	2	0.1	8	-0.039	22	1.488	7	
818		min	-0.073	6	-0.044	8	-0.006	3	-0.1	8	-0.156	2	-1.488	7	0.039	22	
819	5	max	0	22	0.026	6	0.28	7	0	22	0	22	0	22	0	22	
820		min	-0.037	6	-0.023	3	0.002	22	0	1	0	1	0	1	0	1	
821	M173	1	max	0.599	3	0	6	0	22	0	22	0	22	0	22	0	22
822		min	0.203	22	0	22	0	1	0	1	0	1	0	1	0	1	
823	2	max	0.583	3	0	6	0	22	0	6	0	22	0	22	0	22	
824		min	0.194	22	0	22	0	1	0	22	0	6	0	1	0	1	
825	3	max	0.566	3	0	6	0	22	0.001	6	0	22	0	22	0	22	
826		min	0.184	22	0	22	0	1	0	22	-0.001	6	0	1	0	1	
827	4	max	0.55	3	0	6	0	22	0.001	6	0	22	0	22	0	22	
828		min	0.174	22	0	22	0	1	0	22	-0.001	6	0	1	0	1	
829	5	max	0.533	3	0	6	0	22	0.002	6	0	22	0	22	0	22	
830		min	0.164	22	0	22	0	1	0	22	-0.002	6	0	1	0	1	
831	M174	1	max	0.002	3	0.925	3	0	22	0	22	0	22	0	22	0	22
832		min	0	7	0.284	22	0	1	0	1	0	1	0	1	0	1	
833	2	max	0.002	3	0.462	3	0	22	6.088	3	-1.87	22	0	22	0	22	
834		min	0	7	0.142	22	0	1	1.87	22	-6.088	3	0	1	0	1	
835	3	max	0.002	3	0	3	0	22	8.117	3	-2.493	22	0	22	0	22	
836		min	0	7	0	5	0	1	2.493	22	-8.117	3	0	1	0	1	
837	4	max	0.002	3	-0.142	22	0	22	6.088	3	-1.87	22	0	22	0	22	
838		min	0	7	-0.462	3	0	1	1.87	22	-6.088	3	0	1	0	1	
839	5	max	0.002	3	-0.284	22	0	22	0	22	0	22	0	22	0	22	
840		min	0	7	-0.925	3	0	1	0	1	0	1	0	1	0	1	

**Envelope Member Section Deflections - Service**

No Data to Print...

**Envelope Member Section Deflections - Strength**

Member	Sec		x [in]	LC	y [in]	LC	z [in]	LC	x Rotate [rad]	LC	(n) L/y Ratio	LC	(n) L/z Ratio	LC	
1	M91	1	max	0	22	0	22	0	22	0	22	NC	22	NC	22
2			min	0	1	0	1	0	1	0	1	NC	1	NC	1
3		2	max	0	22	0	22	0	7	0	22	NC	22	NC	22
4			min	-0.002	3	0	1	0	5	0	1	NC	1	NC	1
5		3	max	0	22	0	22	0	7	0	22	NC	22	NC	22
6			min	-0.004	3	0	1	0	5	0	1	NC	1	NC	1
7		4	max	0	22	0	22	0	7	0	22	NC	22	NC	22
8			min	-0.006	3	0	1	0	5	0	1	NC	1	NC	1
9		5	max	0	22	0	22	0	7	0	22	NC	22	NC	22

**Envelope Member Section Deflections - Strength (Continued)**

Member	Sec		x [in]	LC	y [in]	LC	z [in]	LC	x Rotate [rad]	LC	(n) L/y Ratio	LC	(n) L/z Ratio	LC
10		min	-0.008	3	0	1	0	5	0	1	NC	1	NC	1
11	M92	max	0	22	0	22	0	22	0.002	7	NC	22	NC	22
12		min	0	1	0	1	0	1	0	1	NC	1	NC	1
13		max	0	22	0	22	0.004	5	0.002	7	NC	22	NC	22
14		min	-0.001	3	0	6	-0.045	7	0	1	NC	1	NC	1
15		max	0	22	0	22	0.008	5	0.002	7	NC	22	NC	22
16		min	-0.003	3	0	6	-0.09	7	0	1	NC	1	NC	1
17		max	0	22	0	22	0.012	5	0.002	7	NC	22	NC	22
18		min	-0.004	3	0	6	-0.135	7	0	1	NC	1	NC	1
19		max	0	22	0	22	0.016	5	0.002	7	NC	22	NC	22
20		min	-0.006	3	0	6	-0.181	7	0	1	NC	1	NC	1
21	M93	max	0	22	0	22	0	22	0	6	NC	22	NC	22
22		min	0	1	0	1	0	1	0	3	NC	1	NC	1
23		max	-0.002	22	0	22	0.004	3	0	6	NC	22	NC	22
24		min	-0.006	3	-0.177	6	-0.001	11	0	3	1761.47	6	NC	1
25		max	-0.003	22	0	22	0	7	0	6	NC	22	NC	22
26		min	-0.011	3	-0.257	6	-0.001	11	0	3	1211.179	6	NC	1
27		max	-0.004	22	0	22	0	7	0	6	NC	22	NC	22
28		min	-0.014	3	-0.176	6	-0.004	3	0	3	1764.579	6	NC	1
29		max	-0.005	22	0	22	0	22	0	6	NC	22	NC	22
30		min	-0.016	3	0	6	0	1	0	3	NC	1	NC	1
31	M94	max	0	22	0	22	0	22	0	22	NC	22	NC	22
32		min	0	1	0	1	0	1	0	1	NC	1	NC	1
33		max	0	22	0	22	0.002	5	0	22	NC	22	NC	22
34		min	-0.001	3	0	1	-0.002	7	0	1	NC	1	NC	1
35		max	0	22	0	22	0.003	5	0	22	NC	22	NC	22
36		min	-0.001	3	0	1	-0.003	7	0	1	NC	1	NC	1
37		max	0	22	0	22	0.003	5	0	22	NC	22	NC	22
38		min	-0.002	3	0	1	-0.003	7	0	1	NC	1	NC	1
39		max	0	22	0	22	0	22	0	22	NC	22	NC	22
40		min	-0.003	3	0	1	0	1	0	1	NC	1	NC	1
41	M95	max	0	22	0	22	0	22	0	22	NC	22	NC	22
42		min	0	1	0	1	0	1	0	1	NC	1	NC	1
43		max	0	22	0	22	0.001	5	0	22	NC	22	NC	22
44		min	-0.002	3	0	1	-0.001	7	0	1	NC	1	NC	1
45		max	0	22	0	22	0.001	5	0	22	NC	22	NC	22
46		min	-0.004	3	0	1	-0.001	7	0	1	NC	1	NC	1
47		max	0	22	0	22	0.001	5	0	22	NC	22	NC	22
48		min	-0.006	3	0	1	-0.001	7	0	1	NC	1	NC	1
49		max	0	22	0	22	0	7	0	22	NC	22	NC	22
50		min	-0.008	3	0	1	0	5	0	1	NC	1	NC	1
51	M96	max	0	22	0	22	0	5	0	5	NC	22	NC	22
52		min	0	1	-0.008	3	0	7	0	7	NC	1	NC	1
53		max	0	22	0.006	22	0.005	7	0	5	NC	22	NC	22
54		min	0	6	-0.349	3	-0.005	5	0	7	729.356	3	NC	1
55		max	0	22	0.008	22	0.01	7	0	5	NC	22	NC	22
56		min	-0.001	6	-0.49	3	-0.011	5	0	7	519.666	3	NC	1
57		max	0	22	0.002	22	0.015	7	0	5	NC	22	NC	22
58		min	-0.001	6	-0.361	3	-0.016	5	0	7	729.356	3	NC	1
59		max	0	22	-0.009	22	0.02	7	0	5	NC	22	NC	22
60		min	-0.002	6	-0.032	3	-0.021	5	0	7	NC	1	NC	1
61	M97	max	0	22	0	22	0	22	0	22	NC	22	NC	22
62		min	0	1	0	1	0	1	0	1	NC	1	NC	1
63		max	0	22	0	22	0	7	0	22	NC	22	NC	22
64		min	-0.002	3	0	1	0	5	0	1	NC	1	NC	1

**Envelope Member Section Deflections - Strength (Continued)**

Member	Sec		x [in]	LC	y [in]	LC	z [in]	LC	x Rotate [rad]	LC	(n) L/y Ratio	LC	(n) L/z Ratio	LC	
65		3	max	0	22	0	22	0	7	0	22	NC	22	NC	22
66			min	-0.004	3	0	1	0	5	0	1	NC	1	NC	1
67		4	max	0	22	0	22	0	7	0	22	NC	22	NC	22
68			min	-0.006	3	0	1	0	5	0	1	NC	1	NC	1
69		5	max	0	22	0	22	0	7	0	22	NC	22	NC	22
70			min	-0.009	3	0	1	0	5	0	1	NC	1	NC	1
71	M98	1	max	0	22	-0.015	22	0	5	0	22	NC	22	NC	22
72			min	-0.168	6	-0.314	3	0	7	-0.002	3	NC	1	NC	1
73		2	max	0	22	-0.028	22	0.005	7	0	22	NC	22	NC	22
74			min	-0.168	6	-0.552	3	-0.005	5	-0.002	3	1097.235	3	NC	1
75		3	max	0	22	-0.039	22	0.01	7	0	22	NC	22	NC	22
76			min	-0.169	6	-0.657	3	-0.01	5	-0.002	3	781.521	3	NC	1
77		4	max	0	22	-0.046	22	0.015	7	0	22	NC	22	NC	22
78			min	-0.169	6	-0.584	3	-0.016	5	-0.002	3	1095.14	3	NC	1
79		5	max	0	22	-0.051	22	0.021	7	0	22	NC	22	NC	22
80			min	-0.169	6	-0.377	3	-0.021	5	-0.003	3	NC	1	NC	1
81	M99	1	max	0	22	0	22	0	22	0	22	NC	22	NC	22
82			min	0	1	0	1	0	1	0	1	NC	1	NC	1
83		2	max	0	22	0	22	0.001	5	0	22	NC	22	NC	22
84			min	-0.002	3	0	1	-0.001	7	0	1	NC	1	NC	1
85		3	max	0	22	0	22	0.001	5	0	22	NC	22	NC	22
86			min	-0.004	3	0	1	-0.001	7	0	1	NC	1	NC	1
87		4	max	0	22	0	22	0.001	5	0	22	NC	22	NC	22
88			min	-0.006	3	0	1	-0.001	7	0	1	NC	1	NC	1
89		5	max	0	22	0	22	0	7	0	22	NC	22	NC	22
90			min	-0.008	3	0	1	0	5	0	1	NC	1	NC	1
91	M100	1	max	0	22	0	22	0	22	0	22	NC	22	NC	22
92			min	0	1	0	1	0	1	0	1	NC	1	NC	1
93		2	max	0	22	0	22	0.002	5	0	22	NC	22	NC	22
94			min	-0.001	3	0	1	-0.002	7	0	1	NC	1	NC	1
95		3	max	0	22	0	22	0.003	5	0	22	NC	22	NC	22
96			min	-0.001	3	0	1	-0.003	7	0	1	NC	1	NC	1
97		4	max	0	22	0	22	0.003	5	0	22	NC	22	NC	22
98			min	-0.002	3	0	1	-0.003	7	0	1	NC	1	NC	1
99		5	max	0	22	0	22	0	22	0	22	NC	22	NC	22
100			min	-0.003	3	0	1	0	1	0	1	NC	1	NC	1
101	M101	1	max	0.021	7	-0.009	22	0.09	6	0	22	NC	22	NC	22
102			min	-0.02	5	-0.033	3	0	1	-0.001	6	NC	1	NC	1
103		2	max	0.021	7	-0.044	22	0.154	6	0	22	6963.235	22	NC	22
104			min	-0.021	5	-0.316	3	0	1	-0.001	6	847.006	3	3639.802	6
105		3	max	0.021	7	-0.057	22	0.181	6	0	22	4968.873	22	NC	22
106			min	-0.021	5	-0.428	3	0	1	-0.001	6	606.269	3	2553.154	6
107		4	max	0.021	7	-0.044	22	0.154	6	0	22	6975.255	22	NC	22
108			min	-0.021	5	-0.315	3	0	1	-0.001	6	849.829	3	3511.845	6
109		5	max	0.02	7	-0.009	22	0.085	6	0	22	NC	22	NC	22
110			min	-0.021	5	-0.032	3	0	1	-0.001	6	NC	1	NC	1
111	M102	1	max	0	22	-0.004	22	0	5	0	3	NC	22	NC	22
112			min	-0.058	6	-0.079	3	0	7	0	22	NC	1	NC	1
113		2	max	0	22	-0.011	22	0.005	7	0	3	NC	22	NC	22
114			min	-0.058	6	-0.329	3	-0.005	5	0	22	1012.806	3	NC	1
115		3	max	0	22	-0.016	22	0.01	7	0	3	NC	22	NC	22
116			min	-0.058	6	-0.434	3	-0.01	5	0	22	721.637	3	NC	1
117		4	max	0	22	-0.019	22	0.015	7	0	3	NC	22	NC	22
118			min	-0.059	6	-0.346	3	-0.016	5	0	22	1010.623	3	NC	1
119		5	max	0	22	-0.02	22	0.02	7	0	3	NC	22	NC	22

**Envelope Member Section Deflections - Strength (Continued)**

Member	Sec		x [in]	LC	y [in]	LC	z [in]	LC	x Rotate [rad]	LC	(n) L/y' Ratio	LC	(n) L/z' Ratio	LC
120		min	-0.059	6	-0.113	3	-0.021	5	0	22	NC	1	NC	1
121	M103	max	0	22	0	22	0	22	0	22	NC	22	NC	22
122		min	0	1	0	1	0	1	-0.002	5	NC	1	NC	1
123	2	max	0	22	0	22	0.045	5	0	22	NC	22	NC	22
124		min	-0.002	3	0	6	-0.004	7	-0.002	5	NC	1	NC	1
125	3	max	0	22	0	22	0.09	5	0	22	NC	22	NC	22
126		min	-0.003	3	0	6	-0.008	7	-0.002	5	NC	1	NC	1
127	4	max	0	22	0	22	0.135	5	0	22	NC	22	NC	22
128		min	-0.005	3	0	6	-0.012	7	-0.002	5	NC	1	NC	1
129	5	max	0	22	0	22	0.181	5	0	22	NC	22	NC	22
130		min	-0.006	3	0	6	-0.016	7	-0.002	5	NC	1	NC	1
131	M104	max	0	22	-0.001	2	0	22	0.001	8	NC	22	NC	22
132		min	0	1	-0.002	3	0	1	0	1	NC	1	NC	1
133	2	max	0	22	-0.053	22	0	22	0.001	8	5811.86	22	NC	22
134		min	0	1	-0.144	3	0	1	0	1	2131.808	3	NC	1
135	3	max	0	22	-0.074	22	0	22	0.001	8	4140.95	22	NC	22
136		min	0	1	-0.202	3	0	1	0	1	1518.913	3	NC	1
137	4	max	0	22	-0.053	22	0	22	0.001	8	5811.86	22	NC	22
138		min	0	1	-0.144	3	0	1	0	1	2131.808	3	NC	1
139	5	max	0	22	-0.001	2	0	22	0.001	8	NC	22	NC	22
140		min	0	1	-0.002	3	0	1	0	1	NC	1	NC	1
141	M105	max	0	22	0	22	0	22	0	22	NC	22	NC	22
142		min	0	1	0	1	0	1	0	1	NC	1	NC	1
143	2	max	-0.001	2	0	22	0.016	5	0	22	NC	22	NC	22
144		min	-0.002	3	-0.001	6	-0.017	7	0	1	NC	1	NC	1
145	3	max	-0.001	2	0	22	0.025	5	0	22	NC	22	NC	22
146		min	-0.003	3	-0.002	6	-0.027	7	0	1	NC	1	7936.808	7
147	4	max	-0.002	2	0	22	0.021	5	0	22	NC	22	NC	22
148		min	-0.005	3	-0.001	6	-0.023	7	0	1	NC	1	9337.502	7
149	5	max	-0.002	2	0	22	0	22	0	22	NC	22	NC	22
150		min	-0.007	3	0	1	0	1	0	1	NC	1	NC	1
151	M106	max	0	22	0	22	0	22	0	22	NC	22	NC	22
152		min	0	1	0	1	0	1	0	1	NC	1	NC	1
153	2	max	-0.003	22	0	22	0.016	5	0	22	NC	22	NC	22
154		min	-0.01	3	-0.005	6	-0.017	7	0	1	NC	1	NC	1
155	3	max	-0.006	22	0	22	0.026	5	0	22	NC	22	NC	22
156		min	-0.021	3	-0.006	6	-0.027	7	0	1	NC	1	8019.715	7
157	4	max	-0.009	22	0	22	0.022	5	0	22	NC	22	NC	22
158		min	-0.031	3	-0.002	6	-0.023	7	0	1	NC	1	9561.206	7
159	5	max	-0.011	22	0	22	0	5	0	22	NC	22	NC	22
160		min	-0.039	3	0	1	0	7	0	1	NC	1	NC	1
161	M107	max	0	22	0	22	0	22	0	22	NC	22	NC	22
162		min	0	1	0	1	0	1	0	1	NC	1	NC	1
163	2	max	-0.003	22	0	22	0.017	5	0	22	NC	22	NC	22
164		min	-0.011	3	-0.069	6	-0.017	7	0	1	3141.915	6	NC	1
165	3	max	-0.006	22	0	22	0.026	5	0	22	NC	22	NC	22
166		min	-0.021	3	-0.11	6	-0.027	7	0	1	1970.354	6	8156.892	7
167	4	max	-0.009	22	0	22	0.022	5	0	22	NC	22	NC	22
168		min	-0.032	3	-0.095	6	-0.022	7	0	1	2279.433	6	9801.551	7
169	5	max	-0.012	22	0	22	0	5	0	22	NC	22	NC	22
170		min	-0.04	3	0	1	0	7	0	1	NC	1	NC	1
171	M108	max	0	22	0	22	0	22	0	22	NC	22	NC	22
172		min	0	1	0	1	0	1	0	1	NC	1	NC	1
173	2	max	-0.003	22	0	22	0.017	5	0	22	NC	22	NC	22
174		min	-0.01	3	-0.065	6	-0.017	7	0	1	3318.948	6	NC	1

**Envelope Member Section Deflections - Strength (Continued)**

Member	Sec		x [in]	LC	y [in]	LC	z [in]	LC	x Rotate [rad]	LC	(n) L/y' Ratio	LC	(n) L/z' Ratio	LC	
175		3	max	-0.006	22	0	22	0.027	5	0	22	NC	22	NC	22
176			min	-0.021	3	-0.104	6	-0.026	7	0	1	2082.172	6	8154.38	5
177		4	max	-0.009	22	0	22	0.022	5	0	22	NC	22	NC	22
178			min	-0.031	3	-0.09	6	-0.022	7	0	1	2412.142	6	9798.532	5
179		5	max	-0.011	22	0	22	0	5	0	22	NC	22	NC	22
180			min	-0.039	3	0	1	0	7	0	1	NC	1	NC	1
181	M109	1	max	0	22	0	22	0	22	0	22	NC	22	NC	22
182			min	0	1	0	1	0	1	0	1	NC	1	NC	1
183		2	max	-0.001	2	0	22	0.017	5	0	22	NC	22	NC	22
184			min	-0.002	3	-0.001	6	-0.016	7	0	1	NC	1	NC	1
185		3	max	-0.001	2	0	22	0.027	5	0	22	NC	22	NC	22
186			min	-0.004	3	-0.002	6	-0.025	7	0	1	NC	1	7931.41	5
187		4	max	-0.002	2	0	22	0.023	5	0	22	NC	22	NC	22
188			min	-0.006	3	-0.001	6	-0.021	7	0	1	NC	1	9331.151	5
189		5	max	-0.003	2	0	22	0	22	0	22	NC	22	NC	22
190			min	-0.008	3	0	1	0	1	0	1	NC	1	NC	1
191	M110	1	max	0	22	0	22	0	22	0	22	NC	22	NC	22
192			min	0	1	0	1	0	1	0	6	NC	1	NC	1
193		2	max	-0.001	22	0	17	-0.024	22	0	22	NC	22	8943.818	22
194			min	-0.003	3	0	1	-0.088	3	0	6	NC	1	2464.338	3
195		3	max	-0.002	22	0	17	-0.039	22	0	22	NC	22	5589.886	22
196			min	-0.006	3	0	6	-0.141	3	0	6	NC	1	1540.211	3
197		4	max	-0.003	22	0	17	-0.034	22	0	22	NC	22	6388.442	22
198			min	-0.009	3	0	6	-0.123	3	0	6	NC	1	1760.241	3
199		5	max	-0.003	22	0	22	0	22	0	22	NC	22	NC	22
200			min	-0.012	3	0	1	0	1	0	6	NC	1	NC	1
201	M111	1	max	0	22	0	22	0	22	0	22	NC	22	NC	22
202			min	0	1	0	1	0	1	0	1	NC	1	NC	1
203		2	max	-0.003	22	0	22	0.017	5	0	22	NC	22	NC	22
204			min	-0.01	3	-0.005	6	-0.016	7	0	1	NC	1	NC	1
205		3	max	-0.006	22	0	22	0.027	5	0	22	NC	22	NC	22
206			min	-0.021	3	-0.006	6	-0.026	7	0	1	NC	1	8028.801	5
207		4	max	-0.009	22	0	22	0.023	5	0	22	NC	22	NC	22
208			min	-0.031	3	-0.002	6	-0.022	7	0	1	NC	1	9572.05	5
209		5	max	-0.011	22	0	22	0	5	0	22	NC	22	NC	22
210			min	-0.039	3	0	1	0	7	0	1	NC	1	NC	1
211	M112	1	max	0	22	0	22	0	22	0	5	NC	22	NC	22
212			min	0	1	-0.003	3	0	1	0	7	NC	1	NC	1
213		2	max	0	22	0	22	0.181	7	0	5	NC	22	NC	22
214			min	0	6	-0.041	3	-0.005	5	0	7	6374.36	3	1391.436	7
215		3	max	0	22	0	22	0.257	7	0	5	NC	22	NC	22
216			min	0	6	-0.038	3	-0.01	5	0	7	7168.205	3	989.571	7
217		4	max	0	22	0	22	0.193	7	0	5	NC	22	NC	22
218			min	0	6	-0.008	3	-0.015	5	0	7	NC	1	1379.849	7
219		5	max	0	22	-0.002	2	0.022	7	0	5	NC	22	NC	22
220			min	-0.001	6	-0.005	3	-0.02	5	0	7	NC	1	NC	1
221	M113	1	max	0	22	0	22	0	22	0	3	NC	22	NC	22
222			min	0	1	0	1	0	1	0	6	NC	1	NC	1
223		2	max	-0.001	22	0	22	0	22	0	3	NC	22	NC	22
224			min	-0.004	3	-0.177	6	-0.34	7	0	6	1756.243	6	914.093	7
225		3	max	-0.003	22	0	22	-0.001	22	0	3	NC	22	NC	22
226			min	-0.008	3	-0.257	6	-0.494	7	0	6	1211.578	6	629.364	7
227		4	max	-0.003	22	0	8	-0.001	22	0	3	NC	22	NC	22
228			min	-0.01	3	-0.176	6	-0.339	7	0	6	1770.918	6	918.129	7
229		5	max	-0.004	22	0	22	0	22	0	3	NC	22	NC	22

**Envelope Member Section Deflections - Strength (Continued)**

Member	Sec		x [in]	LC	y [in]	LC	z [in]	LC	x Rotate [rad]	LC	(n) L/y' Ratio	LC	(n) L/z' Ratio	LC
230		min	-0.012	3	0	1	0	1	0	6	NC	1	NC	1
231	M114	max	0	22	0	22	0	22	0	5	NC	22	NC	22
232		min	0	1	-0.003	3	0	1	0	7	NC	1	NC	1
233	2	max	0	22	0	22	0.005	7	0	5	NC	22	NC	22
234		min	0	6	-0.044	3	-0.181	5	0	7	6047.799	3	1391.377	5
235	3	max	0	22	0	22	0.01	7	0	5	NC	22	NC	22
236		min	0	6	-0.04	3	-0.257	5	0	7	6839.66	3	989.524	5
237	4	max	0	22	0	22	0.015	7	0	5	NC	22	NC	22
238		min	0	6	-0.008	3	-0.193	5	0	7	NC	1	1379.773	5
239	5	max	0	22	-0.002	2	0.02	7	0	5	NC	22	NC	22
240		min	-0.001	6	-0.006	3	-0.022	5	0	7	NC	1	NC	1
241	M115	max	0	22	0	22	0	22	0	22	NC	22	NC	22
242		min	0	1	-0.003	3	0	1	0	1	NC	1	NC	1
243	2	max	0	5	-0.001	22	0.004	6	0	22	NC	22	NC	22
244		min	0	7	-0.005	3	0	1	0	1	NC	1	NC	1
245	3	max	0	5	-0.002	22	0.006	6	0	22	NC	22	NC	22
246		min	0	7	-0.007	3	0	1	0	1	NC	1	NC	1
247	4	max	0	5	-0.001	22	0.004	6	0	22	NC	22	NC	22
248		min	0	7	-0.008	3	0	1	0	1	NC	1	NC	1
249	5	max	0	5	0	22	0	22	0	22	NC	22	NC	22
250		min	0	7	-0.008	3	0	1	0	1	NC	1	NC	1
251	M116	max	0	22	0	22	0	22	0.001	15	NC	22	NC	22
252		min	0	1	0	1	0	1	0	22	NC	1	NC	1
253	2	max	-0.004	22	-0.001	8	-0.026	22	0.001	15	NC	22	8357.782	22
254		min	-0.016	3	-0.013	15	-0.098	3	0	22	NC	1	2199.311	3
255	3	max	-0.009	22	0.001	8	-0.041	22	0.001	15	NC	22	5226.021	22
256		min	-0.032	3	-0.017	15	-0.155	3	0	22	NC	1	1381.402	3
257	4	max	-0.013	22	0.009	8	-0.035	22	0.001	15	NC	22	5982.62	22
258		min	-0.047	3	-0.006	6	-0.132	3	0	22	NC	1	1607.55	3
259	5	max	-0.017	22	0	22	0.013	5	0	6	NC	22	NC	22
260		min	-0.06	3	0	1	-0.012	7	0	22	NC	1	NC	1
261	M117	max	0	5	0	22	0	22	0	22	NC	22	NC	22
262		min	0	7	-0.008	3	0	1	0	1	NC	1	NC	1
263	2	max	0	5	-0.003	22	0.046	6	0	22	NC	22	NC	22
264		min	0	7	-0.068	3	0	1	0	1	2959.773	3	3856.721	6
265	3	max	0	5	-0.005	22	0.068	6	0	22	NC	22	NC	22
266		min	0	7	-0.098	3	0	1	0	1	1958.433	3	2604.562	6
267	4	max	0	5	-0.003	22	0.048	6	0	22	NC	22	NC	22
268		min	0	7	-0.074	3	0	1	0	1	2688.972	3	3637.24	6
269	5	max	0	5	0	22	0	22	0	22	NC	22	NC	22
270		min	0	7	-0.009	3	0	1	0	1	NC	1	NC	1
271	M118	max	0	5	-0.011	22	0	22	0.002	6	NC	22	NC	22
272		min	0	7	-0.039	3	0	1	0	1	NC	1	NC	1
273	2	max	0	5	-0.163	22	0	22	0.002	6	1584.498	22	NC	22
274		min	0	7	-0.485	3	0	1	0	1	538.156	3	NC	1
275	3	max	0	5	-0.224	22	0	22	0.002	6	1128.955	22	NC	22
276		min	0	7	-0.665	3	0	1	0	1	383.436	3	NC	1
277	4	max	0	5	-0.163	22	0	22	0.002	6	1584.498	22	NC	22
278		min	0	7	-0.485	3	0	1	0	1	538.156	3	NC	1
279	5	max	0	5	-0.012	22	0	22	0.002	6	NC	22	NC	22
280		min	0	7	-0.04	3	0	1	0	1	NC	1	NC	1
281	M119	max	0	5	0	22	0	22	0	22	NC	22	NC	22
282		min	0	7	-0.009	3	0	1	0	1	NC	1	NC	1
283	2	max	0	5	-0.012	22	0.14	6	0	22	NC	22	NC	22
284		min	0	7	-0.26	3	0	1	0	1	955.499	3	1713.079	6

**Envelope Member Section Deflections - Strength (Continued)**

Member	Sec		x [in]	LC	y [in]	LC	z [in]	LC	x Rotate [rad]	LC	(n) L/y' Ratio	LC	(n) L/z' Ratio	LC	
285	3	max	0	5	-0.017	22	0.195	6	0	22	NC	22	NC	22	
286		min	0	7	-0.359	3	0	1	0	1	684.418	3	1231.525	6	
287	4	max	0	5	-0.012	22	0.138	6	0	22	NC	22	NC	22	
288		min	0	7	-0.259	3	0	1	0	1	958.537	3	1743.659	6	
289	5	max	0	5	0	22	0	22	0	22	NC	22	NC	22	
290		min	0	7	-0.008	3	0	1	0	1	NC	1	NC	1	
291	M120	1	max	0	22	0.002	3	0	22	0	22	NC	22	NC	22
292		min	0	1	0	22	0	1	0	1	NC	1	NC	1	
293	2	max	0	6	-0.001	2	0	7	0	22	NC	22	NC	22	
294		min	0	8	-0.002	3	0	3	0	1	NC	1	NC	1	
295	3	max	0	6	-0.002	22	0	7	0	22	NC	22	NC	22	
296		min	0	8	-0.006	3	0	3	0	1	NC	1	NC	1	
297	4	max	0	6	-0.004	22	0	7	0	22	NC	22	NC	22	
298		min	0	8	-0.012	3	0	3	0	1	NC	1	NC	1	
299	5	max	0	6	-0.006	22	0	22	0	22	NC	22	NC	22	
300		min	0	8	-0.02	3	0	1	0	1	NC	1	NC	1	
301	M121	1	max	0.02	7	-0.009	22	0.085	6	0	22	NC	22	NC	22
302		min	-0.021	5	-0.032	3	0	1	-0.001	6	NC	1	NC	1	
303	2	max	0.02	7	-0.017	22	0.069	6	0	22	NC	22	NC	22	
304		min	-0.021	5	-0.093	3	0	1	-0.001	6	2723.969	3	NC	1	
305	3	max	0.02	7	-0.02	22	0.052	6	0	22	NC	22	NC	22	
306		min	-0.021	5	-0.115	3	0	1	-0.001	6	2007.905	3	NC	1	
307	4	max	0.02	7	-0.017	22	0.031	6	0	22	NC	22	NC	22	
308		min	-0.021	5	-0.087	3	0	1	0	6	3023.595	3	NC	1	
309	5	max	0.02	7	-0.009	22	0.002	6	0	22	NC	22	NC	22	
310		min	-0.021	5	-0.032	3	0	1	0	6	NC	1	NC	1	
311	M122	1	max	0	5	0	22	0	22	0	22	NC	22	NC	22
312		min	0	7	-0.008	3	0	1	0	1	NC	1	NC	1	
313	2	max	0	5	-0.003	22	0.043	6	0	22	NC	22	NC	22	
314		min	0	7	-0.062	3	0	1	0	1	3107.201	3	3845.587	6	
315	3	max	0	5	-0.004	22	0.059	6	0	22	NC	22	NC	22	
316		min	0	7	-0.08	3	0	1	0	1	2311.829	3	2807.128	6	
317	4	max	0	5	-0.003	22	0.04	6	0	22	NC	22	NC	22	
318		min	0	7	-0.055	3	0	1	0	1	3525.587	3	4196.812	6	
319	5	max	0	5	0	22	0	22	0	22	NC	22	NC	22	
320		min	0	7	-0.008	3	0	1	0	1	NC	1	NC	1	
321	M123	1	max	0	5	0	22	0	22	0	22	NC	22	NC	22
322		min	0	7	-0.008	3	0	1	0	1	NC	1	NC	1	
323	2	max	0	5	-0.001	22	0.005	6	0	22	NC	22	NC	22	
324		min	0	7	-0.009	3	0	1	0	1	NC	1	NC	1	
325	3	max	0	5	-0.002	22	0.008	6	0	22	NC	22	NC	22	
326		min	0	7	-0.008	3	0	1	0	1	NC	1	NC	1	
327	4	max	0	5	-0.001	22	0.005	6	0	22	NC	22	NC	22	
328		min	0	7	-0.006	3	0	1	0	1	NC	1	NC	1	
329	5	max	0	22	0	22	0	22	0	22	NC	22	NC	22	
330		min	0	1	-0.003	3	0	1	0	1	NC	1	NC	1	
331	M124	1	max	0	22	-0.014	22	0	5	0.002	3	NC	22	NC	22
332		min	-0.165	6	-0.305	3	0	7	0	22	NC	1	NC	1	
333	2	max	0	22	-0.028	22	0.005	7	0.003	3	NC	22	NC	22	
334		min	-0.165	6	-0.545	3	-0.005	5	0	22	1085.008	3	NC	1	
335	3	max	0	22	-0.038	22	0.01	7	0.003	3	NC	22	NC	22	
336		min	-0.165	6	-0.651	3	-0.01	5	0	22	772.765	3	NC	1	
337	4	max	0	22	-0.045	22	0.016	7	0.003	3	NC	22	NC	22	
338		min	-0.166	6	-0.576	3	-0.015	5	0	22	1082.849	3	NC	1	
339	5	max	0	22	-0.05	22	0.021	7	0.003	3	NC	22	NC	22	

**Envelope Member Section Deflections - Strength (Continued)**

Member	Sec		x [in]	LC	y [in]	LC	z [in]	LC	x Rotate [rad]	LC	(n) L/y' Ratio	LC	(n) L/z' Ratio	LC
340		min	-0.166	6	-0.367	3	-0.021	5	0	22	NC	1	NC	1
341	M125	max	0.022	7	-0.002	2	0.001	6	0	22	NC	22	NC	22
342		min	-0.02	5	-0.005	3	0	1	0	6	NC	1	NC	1
343	2	max	0.022	7	-0.005	2	0.015	6	0	22	NC	22	NC	22
344		min	-0.02	5	-0.017	3	0	1	0	6	NC	1	9459.574	6
345	3	max	0.022	7	-0.008	2	0.021	6	0	22	NC	22	NC	22
346		min	-0.02	5	-0.025	3	0	1	0	6	NC	1	6739.946	6
347	4	max	0.021	7	-0.01	22	0.015	6	0	22	NC	22	NC	22
348		min	-0.02	5	-0.03	3	0	1	0	6	NC	1	9459.574	6
349	5	max	0.021	7	-0.009	22	0.002	6	0	22	NC	22	NC	22
350		min	-0.02	5	-0.032	3	0	1	0	6	NC	1	NC	1
351	M126	max	0.006	5	-0.007	22	0	22	0	6	NC	22	NC	22
352		min	-0.005	7	-0.026	3	0	1	0	17	NC	1	NC	1
353	2	max	0.007	5	-0.002	22	0	22	0	6	NC	22	NC	22
354		min	-0.007	7	-0.006	3	-0.001	6	0	17	NC	1	NC	1
355	3	max	0.009	5	-0.022	22	0.009	6	0	6	NC	22	NC	22
356		min	-0.009	7	-0.079	3	0.001	22	0	17	NC	1	NC	1
357	4	max	0.011	5	-0.005	22	0.017	6	0	6	NC	22	NC	22
358		min	-0.011	7	-0.02	3	0.002	22	0	17	NC	1	NC	1
359	5	max	0.013	5	-0.017	22	0	22	0	6	NC	22	NC	22
360		min	-0.012	7	-0.06	3	0	1	0	17	NC	1	NC	1
361	M127	max	0	22	-0.003	2	0	22	0	6	NC	22	NC	22
362		min	0	1	-0.008	3	0	1	0	1	NC	1	NC	1
363	2	max	0	5	-0.014	22	0	22	0.001	6	NC	22	NC	22
364		min	0	7	-0.044	3	0	1	0	1	NC	1	NC	1
365	3	max	0	5	-0.014	22	0	22	0.001	6	NC	22	NC	22
366		min	0	7	-0.049	3	0	1	0	1	NC	1	NC	1
367	4	max	0	5	-0.036	22	0	22	0.002	6	NC	22	NC	22
368		min	0	7	-0.114	3	0	1	0	1	3683.54	3	NC	1
369	5	max	0	5	-0.011	22	0	22	0.002	6	NC	22	NC	22
370		min	0	7	-0.039	3	0	1	0	1	NC	1	NC	1
371	M128	max	0.021	7	-0.009	22	0.002	6	0	22	NC	22	NC	22
372		min	-0.02	5	-0.032	3	0	1	0	6	NC	1	NC	1
373	2	max	0.021	7	-0.019	22	0.038	6	0	22	NC	22	NC	22
374		min	-0.02	5	-0.102	3	0	1	0	6	2529.911	3	NC	1
375	3	max	0.021	7	-0.023	22	0.063	6	0	22	NC	22	NC	22
376		min	-0.02	5	-0.137	3	0	1	-0.001	6	1692.528	3	NC	1
377	4	max	0.021	7	-0.019	22	0.079	6	0	22	NC	22	NC	22
378		min	-0.02	5	-0.108	3	0	1	-0.001	6	2338.209	3	NC	1
379	5	max	0.021	7	-0.009	22	0.09	6	0	22	NC	22	NC	22
380		min	-0.02	5	-0.033	3	0	1	-0.001	6	NC	1	NC	1
381	M129	max	0	22	0	22	0	22	0	3	NC	22	NC	22
382		min	0	1	0	1	0	1	0	7	NC	1	NC	1
383	2	max	-0.001	22	0.037	8	0.151	3	0	3	NC	22	NC	12
384		min	-0.004	3	-0.216	6	0.004	7	0	7	1437.619	6	2060.724	3
385	3	max	-0.003	22	0.052	8	0.214	3	0	3	NC	22	NC	7
386		min	-0.008	3	-0.339	6	0.027	7	0	7	918.525	6	1455.619	3
387	4	max	-0.004	22	0.035	8	0.145	3	0	3	NC	22	9908.069	7
388		min	-0.012	3	-0.243	6	0.031	7	0	7	1280.744	6	2150.105	3
389	5	max	-0.005	22	0	22	0	22	0	3	NC	22	NC	22
390		min	-0.015	3	0	1	0	1	0	7	NC	1	NC	1
391	M130	max	0	22	-0.003	22	0.001	11	0	3	NC	22	NC	22
392		min	-0.257	6	-0.011	3	0	7	0	7	NC	1	NC	1
393	2	max	0	22	-0.005	22	0.124	7	0	3	NC	22	NC	22
394		min	-0.257	6	-0.016	3	0	22	0	7	NC	1	NC	1

**Envelope Member Section Deflections - Strength (Continued)**

Member	Sec		x [in]	LC	y [in]	LC	z [in]	LC	x Rotate [rad]	LC	(n) L/y' Ratio	LC	(n) L/z' Ratio	LC	
395		3	max	0	22	-0.005	22	0.247	7	0	3	NC	22	NC	22
396			min	-0.257	6	-0.018	3	0.001	22	0	7	NC	1	NC	1
397		4	max	0	22	-0.004	22	0.371	7	0	3	NC	22	NC	22
398			min	-0.257	6	-0.015	3	0.001	22	0	7	NC	1	NC	1
399		5	max	0	22	-0.003	22	0.494	7	0	3	NC	22	NC	22
400			min	-0.257	6	-0.008	3	0.001	22	0	7	NC	1	NC	1
401	M131	1	max	0	22	0	22	0	5	0	5	NC	22	NC	22
402			min	0	1	-0.008	3	0	7	0	7	NC	1	NC	1
403		2	max	0	22	0.006	22	0.005	7	0	5	NC	22	NC	22
404			min	0	6	-0.336	3	-0.005	5	0	7	756.933	3	NC	1
405		3	max	0	22	0.007	22	0.011	7	0	5	NC	22	NC	22
406			min	-0.001	6	-0.473	3	-0.01	5	0	7	539.315	3	NC	1
407		4	max	0	22	0.001	22	0.016	7	0	5	NC	22	NC	22
408			min	-0.001	6	-0.349	3	-0.015	5	0	7	756.933	3	NC	1
409		5	max	0	22	-0.009	22	0.021	7	0	5	NC	22	NC	22
410			min	-0.002	6	-0.032	3	-0.02	5	0	7	NC	1	NC	1
411	M132	1	max	0.02	7	-0.009	22	0.002	6	0	22	NC	22	NC	22
412			min	-0.021	5	-0.032	3	0	1	0	6	NC	1	NC	1
413		2	max	0.02	7	-0.011	2	0.019	6	0	22	NC	22	NC	22
414			min	-0.021	5	-0.032	3	0	1	0	6	NC	1	7725.272	6
415		3	max	0.02	7	-0.008	2	0.027	6	0	22	NC	22	NC	22
416			min	-0.022	5	-0.028	3	0	1	0	6	NC	1	5504.256	6
417		4	max	0.02	7	-0.005	2	0.019	6	0	22	NC	22	NC	22
418			min	-0.022	5	-0.019	3	0	1	0	6	NC	1	7725.272	6
419		5	max	0.02	7	-0.002	2	0.001	6	0	22	NC	22	NC	22
420			min	-0.022	5	-0.006	3	0	1	0	6	NC	1	NC	1
421	M133	1	max	-0.001	22	-0.008	22	0	8	0	6	NC	22	NC	22
422			min	-0.495	7	-0.026	3	0	22	0	22	NC	1	NC	1
423		2	max	-0.001	22	-0.006	22	0.014	8	0	6	NC	22	NC	22
424			min	-0.495	7	-0.019	3	-0.081	6	0	22	NC	1	NC	1
425		3	max	-0.001	22	-0.004	22	0.027	8	0	6	NC	22	NC	22
426			min	-0.495	7	-0.013	3	-0.162	6	0	22	NC	1	NC	1
427		4	max	-0.001	22	-0.002	22	0.041	8	0	6	NC	22	NC	22
428			min	-0.495	7	-0.006	3	-0.244	6	0	22	NC	1	NC	1
429		5	max	-0.001	22	0.001	3	0.054	8	0	6	NC	22	NC	22
430			min	-0.495	7	0	8	-0.325	6	0	22	NC	1	NC	1
431	M134	1	max	0	22	-0.001	2	0	22	0.001	8	NC	22	NC	22
432			min	0	1	-0.002	3	-0.015	8	0	1	NC	1	NC	1
433		2	max	0	22	-0.001	2	0	22	0.001	8	NC	22	NC	22
434			min	0	1	-0.045	3	-0.255	8	0	1	7096.344	1	1263.167	8
435		3	max	0	22	-0.001	2	0	22	0.001	8	NC	2	NC	22
436			min	0	1	-0.062	3	-0.352	8	0	1	5056.145	3	900.007	8
437		4	max	0	22	-0.001	2	0	22	0.001	8	NC	22	NC	22
438			min	0	1	-0.045	3	-0.255	8	0	1	7096.344	1	1263.167	8
439		5	max	0	22	-0.001	2	0	22	0.001	8	NC	22	NC	22
440			min	0	1	-0.002	3	-0.015	8	0	1	NC	1	NC	1
441	M135	1	max	0	22	-0.004	22	0	5	0	22	NC	22	NC	22
442			min	-0.067	6	-0.098	3	0	7	0	3	NC	1	NC	1
443		2	max	0	22	-0.012	22	0.005	7	0	22	NC	22	NC	22
444			min	-0.067	6	-0.352	3	-0.005	5	0	3	996.268	3	NC	1
445		3	max	0	22	-0.018	22	0.01	7	0	22	NC	22	NC	22
446			min	-0.067	6	-0.46	3	-0.01	5	0	3	709.872	3	NC	1
447		4	max	0	22	-0.021	22	0.016	7	0	22	NC	22	NC	22
448			min	-0.068	6	-0.372	3	-0.015	5	0	3	994.177	3	NC	1
449		5	max	0	22	-0.023	22	0.021	7	0	22	NC	22	NC	22

**Envelope Member Section Deflections - Strength (Continued)**

Member	Sec		x [in]	LC	y [in]	LC	z [in]	LC	x Rotate [rad]	LC	(n) L/y' Ratio	LC	(n) L/z' Ratio	LC
450		min	-0.068	6	-0.136	3	-0.02	5	0	3	NC	1	NC	1
451	M136	max	0.007	7	-0.015	22	0.067	6	0	22	NC	22	NC	22
452		min	-0.007	5	-0.422	3	0	1	-0.002	3	NC	1	NC	1
453	2	max	0.007	7	-0.02	22	0.092	6	0	22	NC	22	NC	22
454		min	-0.007	5	-0.489	3	0	1	-0.002	3	7949.425	3	NC	1
455	3	max	0.007	7	-0.024	22	0.116	6	0	22	NC	22	NC	22
456		min	-0.007	5	-0.544	3	0	1	-0.002	3	5663.966	3	NC	1
457	4	max	0.007	7	-0.028	22	0.141	6	0	22	NC	22	NC	22
458		min	-0.007	5	-0.584	3	0	1	-0.002	3	7949.425	3	NC	1
459	5	max	0.007	7	-0.032	22	0.165	6	0	22	NC	22	NC	22
460		min	-0.007	5	-0.612	3	0	1	-0.002	3	NC	1	NC	1
461	M137	max	0.015	7	-0.021	22	0.068	6	0.003	3	NC	22	NC	22
462		min	-0.015	5	-0.388	3	0	1	0	22	NC	1	NC	1
463	2	max	0.015	7	-0.028	22	0.092	6	0.003	3	NC	22	NC	22
464		min	-0.015	5	-0.454	3	0	1	0	22	NC	1	NC	1
465	3	max	0.015	7	-0.034	22	0.117	6	0.002	3	NC	22	NC	22
466		min	-0.015	5	-0.511	3	0	1	0	22	7135.869	3	NC	1
467	4	max	0.015	7	-0.04	22	0.141	6	0.002	3	NC	22	NC	22
468		min	-0.015	5	-0.555	3	0	1	0	22	NC	1	NC	1
469	5	max	0.015	7	-0.045	22	0.166	6	0.002	3	NC	22	NC	22
470		min	-0.015	5	-0.591	3	0	1	0	22	NC	1	NC	1
471	M138	max	0.007	7	-0.033	22	0.168	6	0	22	NC	22	NC	22
472		min	-0.007	5	-0.618	3	0	1	-0.002	3	NC	1	NC	1
473	2	max	0.007	7	-0.028	22	0.141	6	0	22	NC	22	NC	22
474		min	-0.007	5	-0.58	3	0	1	-0.002	3	8810.39	3	NC	1
475	3	max	0.007	7	-0.024	22	0.113	6	0	22	NC	22	NC	22
476		min	-0.007	5	-0.531	3	0	1	-0.002	3	6284.544	3	NC	1
477	4	max	0.007	7	-0.019	22	0.086	6	0	22	NC	22	NC	22
478		min	-0.007	5	-0.469	3	0	1	-0.002	3	8830.393	3	NC	1
479	5	max	0.007	7	-0.013	22	0.058	6	0	22	NC	22	NC	22
480		min	-0.007	5	-0.397	3	0	1	-0.002	3	NC	1	NC	1
481	M139	max	0.015	7	-0.046	22	0.169	6	0.002	3	NC	22	NC	22
482		min	-0.015	5	-0.598	3	0	1	0	22	NC	1	NC	1
483	2	max	0.015	7	-0.039	22	0.141	6	0.002	3	NC	22	NC	22
484		min	-0.015	5	-0.552	3	0	1	0	22	NC	1	NC	1
485	3	max	0.015	7	-0.033	22	0.114	6	0.002	3	NC	22	NC	22
486		min	-0.015	5	-0.499	3	0	1	0	22	7918.079	3	NC	1
487	4	max	0.015	7	-0.026	22	0.086	6	0.003	3	NC	22	NC	22
488		min	-0.015	5	-0.434	3	0	1	0	22	NC	1	NC	1
489	5	max	0.015	7	-0.019	22	0.059	6	0.003	3	NC	22	NC	22
490		min	-0.015	5	-0.362	3	0	1	0	22	NC	1	NC	1
491	M140	max	0	22	0	22	0	22	0	22	NC	22	NC	22
492		min	0	1	0	1	0	1	0	1	NC	1	NC	1
493	2	max	0	2	0.018	8	0	22	0	22	NC	22	NC	22
494		min	-0.001	3	0	1	0	1	0	1	8620.873	8	NC	1
495	3	max	0	2	0.029	8	0	22	0	22	NC	22	NC	22
496		min	-0.001	3	0	1	0	1	0	1	5402.539	8	NC	1
497	4	max	-0.001	2	0.025	8	0	22	0	22	NC	22	NC	22
498		min	-0.002	3	0	1	0	1	0	1	6235.758	8	NC	1
499	5	max	-0.001	2	0	22	0	22	0	22	NC	22	NC	22
500		min	-0.002	3	0	1	0	1	0	1	NC	1	NC	1
501	M141	max	0	22	0	22	0	22	0	22	NC	22	NC	22
502		min	0	1	0	1	0	1	0	1	NC	1	NC	1
503	2	max	0	2	0.018	8	0	22	0	22	NC	22	NC	22
504		min	-0.001	3	0	1	0	1	0	1	8620.873	8	NC	1

**Envelope Member Section Deflections - Strength (Continued)**

Member	Sec		x [in]	LC	y [in]	LC	z [in]	LC	x Rotate [rad]	LC	(n) L/y' Ratio	LC	(n) L/z' Ratio	LC	
505		3	max	0	2	0.029	8	0	22	0	22	NC	22	NC	22
506			min	-0.001	3	0	1	0	1	0	1	5402.539	8	NC	1
507		4	max	-0.001	2	0.025	8	0	22	0	22	NC	22	NC	22
508			min	-0.002	3	0	1	0	1	0	1	6235.758	8	NC	1
509		5	max	-0.001	2	0	22	0	22	0	22	NC	22	NC	22
510			min	-0.002	3	0	1	0	1	0	1	NC	1	NC	1
511	M142	1	max	0	8	-0.008	22	0.495	7	0	22	NC	22	NC	22
512			min	0	22	-0.026	3	0.001	22	-0.001	7	NC	1	NC	1
513		2	max	0	8	-0.321	22	0.371	7	0	22	1200.629	22	NC	22
514			min	0	22	-1.116	3	0.001	22	-0.001	7	345.257	3	NC	1
515		3	max	0	8	-0.448	22	0.247	7	0	2	855.448	22	NC	22
516			min	0	22	-1.555	3	0.001	22	-0.001	7	245.996	3	NC	1
517		4	max	0	8	-0.321	22	0.124	7	0	3	1200.629	22	NC	22
518			min	0	2	-1.114	3	0	22	-0.001	7	345.257	3	NC	1
519		5	max	0	22	-0.007	22	0	22	0	3	NC	22	NC	22
520			min	0	1	-0.022	3	0	1	-0.001	7	NC	1	NC	1
521	M143	1	max	0	22	-0.003	22	0	22	0	22	NC	22	NC	22
522			min	0	1	-0.012	3	0	1	0	1	NC	1	NC	1
523		2	max	0.001	5	-0.052	22	0.001	6	0	6	4846.644	22	NC	22
524			min	-0.001	7	-0.19	3	0	22	0	17	1335.232	3	NC	1
525		3	max	0.003	5	-0.068	22	0.001	6	0	6	3734.716	22	NC	22
526			min	-0.003	7	-0.245	3	0	22	0	17	1028.778	3	NC	1
527		4	max	0.004	5	-0.043	22	0.001	6	0	6	6346.781	22	NC	22
528			min	-0.004	7	-0.156	3	0	22	0	17	1747.792	3	NC	1
529		5	max	0.006	5	-0.007	22	0	22	0	6	NC	22	NC	22
530			min	-0.005	7	-0.026	3	0	1	0	17	NC	1	NC	1
531	M144	1	max	0	22	-0.007	22	0.498	7	0	7	NC	22	NC	22
532			min	-0.001	6	-0.023	3	0.001	22	0	22	NC	1	NC	1
533		2	max	0	22	-0.011	2	0.836	7	0	7	NC	2	NC	22
534			min	-0.001	6	-0.127	3	0.001	22	0	22	3584.015	5	818.422	7
535		3	max	0	22	-0.01	2	0.9	7	0	3	NC	2	NC	22
536			min	-0.001	6	-0.169	3	0.001	22	0	7	2553.611	13	583.126	7
537		4	max	0	22	-0.01	2	0.593	7	0	3	NC	2	NC	22
538			min	-0.001	6	-0.125	3	0	22	0	7	3584.015	3	818.422	7
539		5	max	0	22	-0.006	22	0.01	7	0	3	NC	22	NC	22
540			min	-0.001	6	-0.019	3	0	3	0	7	NC	1	NC	1
541	M145	1	max	0	22	0	22	0	22	0	3	NC	22	NC	22
542			min	0	1	0	1	0	1	0	22	NC	1	NC	1
543		2	max	-0.001	22	0.038	3	0	22	0	3	NC	22	NC	22
544			min	-0.003	3	0.01	22	0	1	0	22	4102.601	3	NC	1
545		3	max	-0.001	22	0.06	3	0	22	0	3	9491.132	22	NC	22
546			min	-0.005	3	0.016	22	0	1	0	22	2564.126	3	NC	1
547		4	max	-0.002	22	0.053	3	0	22	0	3	NC	22	NC	22
548			min	-0.008	3	0.014	22	0	1	0	22	2930.43	3	NC	1
549		5	max	-0.003	22	0	22	0	22	0	3	NC	22	NC	22
550			min	-0.011	3	0	1	0	1	0	22	NC	1	NC	1
551	M146	1	max	0	22	0	22	0	22	0	22	NC	22	NC	22
552			min	0	1	0	1	0	1	0	1	NC	1	NC	1
553		2	max	-0.002	22	0	22	0	3	0	22	NC	22	NC	22
554			min	-0.005	3	-0.001	6	-0.013	7	0	1	NC	1	NC	1
555		3	max	-0.003	22	0	22	0	3	0	22	NC	22	NC	22
556			min	-0.011	3	-0.001	6	-0.02	7	0	1	NC	1	7569.638	7
557		4	max	-0.005	22	0	22	0	3	0	22	NC	22	NC	22
558			min	-0.016	3	-0.001	6	-0.018	7	0	1	NC	1	8571.674	7
559		5	max	-0.007	22	0	22	0	22	0	22	NC	22	NC	22

**Envelope Member Section Deflections - Strength (Continued)**

Member	Sec		x [in]	LC	y [in]	LC	z [in]	LC	x Rotate [rad]	LC	(n) L/y' Ratio	LC	(n) L/z' Ratio	LC
560		min	-0.022	3	0	1	0	1	0	1	NC	1	NC	1
561	M147	max	0	22	0	22	0	22	0	3	NC	22	NC	22
562		min	0	1	0	1	0	1	0	22	NC	1	NC	1
563	2	max	-0.003	22	-0.012	22	0	22	0	3	NC	22	NC	22
564		min	-0.01	3	-0.044	3	0	3	0	22	3498.511	3	NC	1
565	3	max	-0.005	22	-0.019	22	0	22	0	3	8023.332	22	NC	22
566		min	-0.019	3	-0.071	3	0	3	0	22	2186.57	3	NC	1
567	4	max	-0.008	22	-0.017	22	0	22	0	3	9169.522	22	NC	22
568		min	-0.029	3	-0.062	3	0	3	0	22	2498.937	3	NC	1
569	5	max	-0.011	22	0.005	8	0	22	0	3	NC	22	NC	22
570		min	-0.039	3	-0.006	6	0	1	0	22	NC	1	NC	1
571	M148	max	0	22	0	22	0	22	0	22	NC	22	NC	22
572		min	0	1	0	1	0	1	0	3	NC	1	NC	1
573	2	max	-0.003	22	0.036	3	0	22	0	22	NC	22	NC	22
574		min	-0.011	3	0.01	22	0	3	0	3	4350.735	3	NC	1
575	3	max	-0.006	22	0.057	3	0	22	0	22	9921.167	22	NC	22
576		min	-0.022	3	0.016	22	0	3	0	3	2719.209	3	NC	1
577	4	max	-0.009	22	0.05	3	0	22	0	22	NC	22	NC	22
578		min	-0.033	3	0.014	22	0	3	0	3	3107.668	3	NC	1
579	5	max	-0.012	22	0.002	8	0	22	0	22	NC	22	NC	22
580		min	-0.044	3	-0.003	6	0	1	0	3	NC	1	NC	1
581	M149	max	0	22	0	22	0	22	0	22	NC	22	NC	22
582		min	0	1	0	1	0	1	0	6	NC	1	NC	1
583	2	max	-0.001	22	0	22	0.002	5	0	22	NC	22	NC	22
584		min	-0.004	3	0	1	-0.002	7	0	6	NC	1	NC	1
585	3	max	-0.002	22	0	22	0.004	5	0	22	NC	22	NC	22
586		min	-0.008	3	0	1	-0.004	7	0	6	NC	1	NC	1
587	4	max	-0.004	22	0	22	0.006	5	0	22	NC	22	NC	22
588		min	-0.012	3	0	1	-0.006	7	0	6	NC	1	NC	1
589	5	max	-0.005	22	0	22	0.008	5	0	22	NC	22	NC	22
590		min	-0.016	3	0	1	-0.008	7	0	6	NC	1	NC	1
591	M150	max	0	22	-0.003	22	0	22	0	22	NC	22	NC	22
592		min	0	1	-0.011	3	0	1	0	1	NC	1	NC	1
593	2	max	0.001	6	-0.024	22	-0.001	22	0	22	9968.708	22	NC	22
594		min	-0.001	8	-0.087	3	-0.003	3	0	1	2687.527	3	NC	1
595	3	max	0.001	6	-0.026	22	-0.001	22	0	22	NC	22	NC	22
596		min	-0.001	8	-0.095	3	-0.005	3	0	1	2719.5	3	NC	1
597	4	max	0.002	6	-0.012	22	-0.001	22	0	22	NC	22	NC	22
598		min	-0.002	8	-0.044	3	-0.005	3	0	1	NC	1	NC	1
599	5	max	0.003	6	-0.012	22	0	22	0	22	NC	22	NC	22
600		min	-0.002	8	-0.044	3	0	1	0	1	NC	1	NC	1
601	M151	max	0	22	0	22	0	22	0	3	NC	22	NC	22
602		min	0	1	0	1	0	1	0	6	NC	1	NC	1
603	2	max	-0.002	22	0	22	0.02	3	0	3	NC	22	NC	22
604		min	-0.006	3	-0.177	6	-0.003	7	0	6	1760.857	6	NC	1
605	3	max	-0.004	22	0	22	0.013	3	0	3	NC	22	NC	22
606		min	-0.013	3	-0.257	6	-0.002	7	0	6	1210.154	6	NC	1
607	4	max	-0.005	22	0	22	0	7	0	3	NC	22	NC	22
608		min	-0.017	3	-0.177	6	-0.001	3	0	6	1761.139	6	NC	1
609	5	max	-0.006	22	0	22	0	22	0	3	NC	22	NC	22
610		min	-0.02	3	0	6	0	1	0	6	NC	1	NC	1
611	M152	max	0	22	0	22	0	22	0	6	NC	22	NC	22
612		min	0	1	0	1	0	1	0	3	NC	1	NC	1
613	2	max	-0.003	22	0	8	0.176	3	0	6	NC	22	NC	7
614		min	-0.012	3	-0.175	6	0.015	7	0	3	1779.164	6	1764.234	3

**Envelope Member Section Deflections - Strength (Continued)**

Member	Sec		x [in]	LC	y [in]	LC	z [in]	LC	x Rotate [rad]	LC	(n) L/y' Ratio	LC	(n) L/z' Ratio	LC	
615	3	max	-0.007	22	0	22	0.213	3	0	6	NC	22	NC	7	
616		min	-0.023	3	-0.257	6	0.028	7	0	3	1208.696	6	1457.281	3	
617	4	max	-0.01	22	0	22	-0.018	5	0	6	NC	22	NC	22	
618		min	-0.032	3	-0.178	6	-0.069	3	0	3	1747.076	6	4532.984	3	
619	5	max	-0.01	22	0	22	0	22	0	6	NC	22	NC	22	
620		min	-0.034	3	0	1	0	1	0	3	NC	1	NC	1	
621	M153	1	max	0.003	6	-0.012	22	0	22	22	NC	22	NC	22	
622		min	-0.002	8	-0.044	3	0	1	0	1	NC	1	NC	1	
623	2	max	0.003	6	-0.077	22	0.012	3	0	3	4199.345	22	NC	22	
624		min	-0.003	8	-0.281	3	0.003	22	0	22	1146.401	3	NC	1	
625	3	max	0.004	6	-0.116	22	0.021	3	0	3	2614.062	22	NC	22	
626		min	-0.004	8	-0.426	3	0.006	22	0	22	713.092	3	NC	1	
627	4	max	0.005	6	-0.079	22	0.02	3	0	3	4020.085	22	NC	22	
628		min	-0.005	8	-0.29	3	0.005	22	0	22	1096.248	3	NC	1	
629	5	max	0.006	6	-0.011	22	0	22	0	3	NC	22	NC	22	
630		min	-0.005	8	-0.039	3	0	1	0	22	NC	1	NC	1	
631	M154	1	max	0.006	6	-0.011	22	0	22	3	NC	22	NC	22	
632		min	-0.005	8	-0.039	3	0	1	0	22	NC	1	NC	1	
633	2	max	0.006	6	-0.002	22	-0.008	22	0	3	NC	22	NC	22	
634		min	-0.006	8	-0.009	3	-0.029	3	0	22	5290.314	3	NC	1	
635	3	max	0.007	6	-0.011	22	-0.019	22	0.001	3	NC	22	NC	22	
636		min	-0.006	8	-0.038	3	-0.07	3	0	22	NC	1	NC	1	
637	4	max	0.007	6	-0.015	22	-0.03	22	0.001	3	NC	22	NC	22	
638		min	-0.007	8	-0.056	3	-0.112	3	0	22	NC	1	NC	1	
639	5	max	0.008	6	-0.013	22	-0.038	22	0.001	3	NC	22	NC	22	
640		min	-0.008	8	-0.045	3	-0.142	3	0	22	NC	1	NC	1	
641	M155	1	max	0	5	-0.012	22	0	22	0.002	6	NC	22	NC	22
642		min	0	7	-0.04	3	0	1	0	1	NC	1	NC	1	
643	2	max	0	5	-0.045	22	0	22	0.002	6	8676.869	22	NC	22	
644		min	0	7	-0.139	3	0	1	0	1	2861.435	3	NC	1	
645	3	max	0	5	-0.02	22	0	22	0.001	6	NC	22	NC	22	
646		min	0	7	-0.065	3	0	1	0	1	7336.218	3	NC	1	
647	4	max	0	5	-0.01	22	0	22	0.001	6	NC	22	NC	22	
648		min	0	7	-0.032	3	0	1	0	1	NC	1	NC	1	
649	5	max	0	22	-0.002	2	0	22	0	6	NC	22	NC	22	
650		min	0	1	-0.007	3	0	1	0	1	NC	1	NC	1	
651	M156	1	max	0.013	5	-0.017	22	0	22	0	6	NC	22	NC	22
652		min	-0.012	7	-0.06	3	0	1	0	17	NC	1	NC	1	
653	2	max	0.014	5	-0.146	22	-0.003	22	0	6	3014.862	22	NC	22	
654		min	-0.014	7	-0.519	3	-0.046	6	0	17	847.84	3	NC	1	
655	3	max	0.015	5	-0.222	22	-0.003	22	0.001	6	1889.658	22	NC	22	
656		min	-0.015	7	-0.79	3	-0.102	6	0	17	531.269	3	NC	1	
657	4	max	0.016	5	-0.166	22	-0.002	22	0.001	6	2551.913	22	NC	22	
658		min	-0.016	7	-0.59	3	-0.159	6	0	17	717.114	3	NC	1	
659	5	max	0.018	5	-0.009	22	0	22	0.002	6	NC	22	NC	22	
660		min	-0.017	7	-0.032	3	-0.206	6	0	8	NC	1	NC	1	
661	M157	1	max	0	22	0	22	0	22	6	NC	22	NC	22	
662		min	0	1	0	1	0	1	0	22	NC	1	NC	1	
663	2	max	-0.002	22	0	17	0.036	3	0	6	NC	22	NC	22	
664		min	-0.006	3	0	6	0.01	22	0	22	NC	1	6130.229	3	
665	3	max	-0.004	22	0	17	0.057	3	0	6	NC	22	NC	22	
666		min	-0.013	3	0	6	0.016	22	0	22	NC	1	3831.393	3	
667	4	max	-0.005	22	0	17	0.051	3	0	6	NC	22	NC	22	
668		min	-0.019	3	0	6	0.014	22	0	22	NC	1	4378.735	3	
669	5	max	-0.007	22	0	22	0.006	5	0	6	NC	22	NC	22	

**Envelope Member Section Deflections - Strength (Continued)**

Member	Sec		x [in]	LC	y [in]	LC	z [in]	LC	x Rotate [rad]	LC	(n) L/y' Ratio	LC	(n) L/z' Ratio	LC
670		min	-0.026	3	0	1	-0.005	7	0	22	NC	1	NC	1
671	M158	max	0	22	0	22	0	22	0	7	NC	22	NC	22
672		min	0	1	0	1	0	1	-0.001	3	NC	1	NC	1
673	2	max	-0.002	22	0.042	8	0.024	3	0	7	NC	22	NC	22
674		min	-0.005	3	-0.243	6	-0.392	7	-0.001	3	1279.484	6	794.091	7
675	3	max	-0.003	22	0.049	8	0.036	3	0	7	NC	22	NC	22
676		min	-0.01	3	-0.315	6	-0.53	7	-0.001	3	986.222	6	586.778	7
677	4	max	-0.005	22	0.029	8	0.025	3	0	7	NC	22	NC	22
678		min	-0.015	3	-0.201	6	-0.347	7	0	3	1543.778	6	895.788	7
679	5	max	-0.006	22	0	8	0	22	0	7	NC	22	NC	22
680		min	-0.02	3	0	6	0	1	0	3	NC	1	NC	1
681	M159	max	0	22	0	22	0	22	0	3	NC	22	NC	22
682		min	0	1	0	1	0	1	0	7	NC	1	NC	1
683	2	max	0	3	0.035	8	-0.002	22	0	3	NC	22	NC	22
684		min	0	8	-0.23	6	-0.362	7	0	7	1351.265	6	859.236	7
685	3	max	0.001	3	0.054	8	-0.001	22	0	3	NC	22	NC	22
686		min	0	8	-0.325	6	-0.494	7	0	7	957.685	6	629.11	7
687	4	max	0.001	3	0.038	8	0	22	0	3	NC	22	NC	22
688		min	0	22	-0.219	6	-0.325	7	0	7	1419.284	6	957.678	7
689	5	max	0.002	3	0	22	0	22	0	3	NC	22	NC	22
690		min	0	22	0	1	0	1	0	7	NC	1	NC	1
691	M160	max	0	22	0	22	0	22	0	6	NC	22	NC	22
692		min	0	1	0	1	0	1	0	1	NC	1	NC	1
693	2	max	-0.004	22	0	22	-0.001	22	0	6	NC	22	NC	22
694		min	-0.013	3	-0.002	6	-0.367	7	0	1	NC	1	848.291	7
695	3	max	-0.008	22	0	8	-0.001	22	0	6	NC	22	NC	22
696		min	-0.026	3	0	22	-0.494	7	0	1	NC	1	629.242	7
697	4	max	-0.009	22	0.002	6	-0.001	22	0	6	NC	22	NC	22
698		min	-0.027	3	0	22	-0.321	7	0	1	NC	1	969.082	7
699	5	max	-0.009	22	0	6	0	22	0	6	NC	22	NC	22
700		min	-0.029	3	0	22	0	7	0	1	NC	1	NC	1
701	M161	max	0	22	-0.01	22	0	22	0	22	NC	22	NC	22
702		min	0	1	-0.034	3	0	1	0	1	NC	1	NC	1
703	2	max	0	22	-0.009	22	0	3	0	22	NC	22	NC	22
704		min	0	6	-0.032	3	0	6	0	1	NC	1	NC	1
705	3	max	0	22	-0.008	22	0	3	0	22	NC	22	NC	22
706		min	0	6	-0.028	3	0	6	0	1	NC	1	NC	1
707	4	max	0	22	-0.007	22	0	3	0	22	NC	22	NC	22
708		min	0	6	-0.024	3	0	6	0	1	NC	1	NC	1
709	5	max	0	22	-0.006	22	0	22	0	22	NC	22	NC	22
710		min	0	6	-0.02	3	0	1	0	1	NC	1	NC	1
711	M162	max	0	22	-0.006	22	0	22	0	22	NC	22	NC	22
712		min	0	6	-0.02	3	0	1	0	1	NC	1	NC	1
713	2	max	0	22	-0.006	22	0	6	0	22	NC	22	NC	22
714		min	0	6	-0.018	3	0	3	0	1	NC	1	NC	1
715	3	max	0	22	-0.005	22	0	6	0	22	NC	22	NC	22
716		min	0	6	-0.018	3	0	3	0	1	NC	1	NC	1
717	4	max	0	22	-0.005	22	0	6	0	22	NC	22	NC	22
718		min	0	6	-0.017	3	0	3	0	1	NC	1	NC	1
719	5	max	0	22	-0.005	22	0	22	0	22	NC	22	NC	22
720		min	0	6	-0.016	3	0	1	0	1	NC	1	NC	1
721	M163	max	0	22	-0.005	22	0	22	0	22	NC	22	NC	22
722		min	0	6	-0.016	3	0	1	0	1	NC	1	NC	1
723	2	max	0	22	-0.005	22	0	3	0	22	NC	22	NC	22
724		min	0	6	-0.017	3	0	6	0	1	NC	1	NC	1

**Envelope Member Section Deflections - Strength (Continued)**

Member	Sec		x [in]	LC	y [in]	LC	z [in]	LC	x Rotate [rad]	LC	(n) L/y' Ratio	LC	(n) L/z' Ratio	LC	
725		3	max	0	22	-0.005	22	0	3	0	22	NC	22	NC	22
726			min	0	6	-0.017	3	0	6	0	1	NC	1	NC	1
727		4	max	0	22	-0.005	22	0	3	0	22	NC	22	NC	22
728			min	0	6	-0.016	3	0	6	0	1	NC	1	NC	1
729		5	max	0	22	-0.004	22	0	22	0	22	NC	22	NC	22
730			min	0	1	-0.012	3	0	1	0	1	NC	1	NC	1
731	M164	1	max	0	22	-0.004	22	0	22	0	22	NC	22	NC	22
732			min	0	1	-0.012	3	0	1	0	3	NC	1	NC	1
733		2	max	0	22	-0.018	22	0	6	0	22	NC	22	NC	22
734			min	0	7	-0.056	3	0	22	0	3	4688.158	3	NC	1
735		3	max	0	22	-0.024	22	0	6	0	22	NC	22	NC	22
736			min	0	7	-0.076	3	0	22	0	3	3361.581	3	NC	1
737		4	max	0	22	-0.02	22	0	6	0	22	NC	22	NC	22
738			min	0	7	-0.064	3	0	22	0	3	4774.467	3	NC	1
739		5	max	0	22	-0.009	22	0	6	0	22	NC	22	NC	22
740			min	0	7	-0.029	3	0	22	0	3	NC	1	NC	1
741	M165	1	max	0	22	-0.009	22	0	6	0	22	NC	22	NC	22
742			min	0	7	-0.029	3	0	22	0	3	NC	1	NC	1
743		2	max	0	22	-0.007	22	0	6	0	22	NC	22	NC	22
744			min	0	7	-0.021	3	0	22	0	3	NC	1	NC	1
745		3	max	0	22	-0.004	22	0	6	0	22	NC	22	NC	22
746			min	0	7	-0.014	3	0	22	0	3	NC	1	NC	1
747		4	max	0	22	-0.002	22	0	6	0	22	NC	22	NC	22
748			min	0	7	-0.006	3	0	22	0	3	NC	1	NC	1
749		5	max	0	22	0.002	3	0	22	0	22	NC	22	NC	22
750			min	0	1	0	22	0	1	0	3	NC	1	NC	1
751	M166	1	max	0	6	-0.006	22	0	22	0	22	NC	22	NC	22
752			min	0	8	-0.02	3	0	1	0	1	NC	1	NC	1
753		2	max	0	6	-0.022	22	0.001	3	0	22	NC	22	NC	22
754			min	0	8	-0.073	3	0	7	0	1	3663.997	3	NC	1
755		3	max	0	6	-0.031	22	0.001	3	0	22	7736.139	22	NC	22
756			min	0	8	-0.105	3	0	7	0	1	2255.453	3	NC	1
757		4	max	0	6	-0.024	22	0.001	3	0	22	NC	22	NC	22
758			min	0	8	-0.082	3	0	7	0	1	2979.75	3	NC	1
759		5	max	0	22	-0.005	22	0	22	0	22	NC	22	NC	22
760			min	0	1	-0.015	3	0	1	0	1	NC	1	NC	1
761	M167	1	max	0	22	-0.005	22	0	22	0	22	NC	22	NC	22
762			min	0	1	-0.015	3	0	1	-0.002	3	NC	1	NC	1
763		2	max	0	22	-0.033	22	0	22	0	22	8248.459	22	NC	22
764			min	0	1	-0.106	3	0	1	-0.001	3	2602.623	3	NC	1
765		3	max	0	22	-0.045	22	0	22	0	22	5877.027	22	NC	22
766			min	0	1	-0.145	3	0	1	-0.001	3	1854.369	3	NC	1
767		4	max	0	22	-0.036	22	0	22	0	22	8248.459	22	NC	22
768			min	0	1	-0.115	3	0	1	0	3	2602.623	3	NC	1
769		5	max	0	22	-0.01	22	0	22	0	3	NC	22	NC	22
770			min	0	1	-0.034	3	0	1	0	22	NC	1	NC	1
771	M168	1	max	0	22	-0.007	22	-0.028	7	0.001	3	NC	22	NC	22
772			min	-0.257	6	-0.023	3	-0.214	3	0	7	NC	1	NC	1
773		2	max	0	22	-0.006	22	-0.021	7	0.001	3	NC	22	NC	22
774			min	-0.257	6	-0.021	3	-0.164	3	0	7	NC	1	NC	1
775		3	max	0	22	-0.006	22	-0.013	7	0.001	3	NC	22	NC	22
776			min	-0.257	6	-0.019	3	-0.114	3	0	7	NC	1	NC	1
777		4	max	0	22	-0.005	22	-0.006	7	0.001	3	NC	22	NC	22
778			min	-0.257	6	-0.016	3	-0.064	3	0	7	NC	1	NC	1
779		5	max	0	22	-0.004	22	0.002	7	0	3	NC	22	NC	22

**Envelope Member Section Deflections - Strength (Continued)**

Member	Sec		x [in]	LC	y [in]	LC	z [in]	LC	x Rotate [rad]	LC	(n) L/y' Ratio	LC	(n) L/z' Ratio	LC
780		min	-0.257	6	-0.013	3	-0.013	3	0	7	NC	1	NC	1
781	M169	max	0	22	-0.004	22	0.002	7	0	3	NC	22	NC	22
782		min	-0.257	6	-0.013	3	-0.013	3	0	7	NC	1	NC	1
783	2	max	0	22	-0.006	22	0.001	7	0	3	NC	22	NC	22
784		min	-0.257	6	-0.019	3	-0.01	3	0	7	NC	1	NC	1
785	3	max	0	22	-0.006	22	0.001	7	0	3	NC	22	NC	22
786		min	-0.257	6	-0.022	3	-0.007	3	0	7	9258.312	3	NC	1
787	4	max	0	22	-0.006	22	0.001	11	0	3	NC	22	NC	22
788		min	-0.257	6	-0.019	3	-0.003	3	0	7	NC	1	NC	1
789	5	max	0	22	-0.003	22	0.001	11	0	3	NC	22	NC	22
790		min	-0.257	6	-0.011	3	0	7	0	7	NC	1	NC	1
791	M170	max	-0.001	22	-0.003	22	0	22	0	6	NC	22	NC	22
792		min	-0.494	7	-0.008	3	-0.257	6	0	2	NC	1	NC	1
793	2	max	-0.001	22	-0.01	22	0	22	0	6	NC	22	NC	22
794		min	-0.494	7	-0.026	3	-0.193	6	0	2	NC	1	NC	1
795	3	max	-0.001	22	-0.013	22	0	22	0	6	NC	22	NC	22
796		min	-0.494	7	-0.035	3	-0.128	6	0	22	NC	1	NC	1
797	4	max	-0.001	22	-0.012	22	0	8	0	6	NC	22	NC	22
798		min	-0.494	7	-0.035	3	-0.064	6	0	22	NC	1	NC	1
799	5	max	-0.001	22	-0.008	22	0	8	0	6	NC	22	NC	22
800		min	-0.495	7	-0.026	3	0	22	0	22	NC	1	NC	1
801	M171	max	0.214	3	-0.007	22	0	22	0	22	NC	22	NC	22
802		min	0.028	7	-0.023	3	-0.257	6	0	6	NC	1	NC	1
803	2	max	0.214	3	-0.013	22	0.013	8	0	22	NC	22	NC	22
804		min	0.028	7	-0.04	3	-0.425	6	0	6	NC	1	1517.012	6
805	3	max	0.214	3	-0.015	22	0.026	8	0	22	NC	22	NC	22
806		min	0.028	7	-0.045	3	-0.504	6	0	6	7681.441	3	1080.871	6
807	4	max	0.214	3	-0.011	22	0.039	8	0	5	NC	22	NC	22
808		min	0.027	7	-0.033	3	-0.465	6	0	6	NC	1	1517.012	6
809	5	max	0.214	3	-0.003	22	0.052	8	0	5	NC	22	NC	22
810		min	0.027	7	-0.008	3	-0.338	6	0	6	NC	1	NC	1
811	M172	max	0.051	8	-0.002	22	-0.017	7	0	22	NC	22	NC	22
812		min	-0.32	6	-0.007	3	-0.21	3	0	16	NC	1	NC	1
813	2	max	0.051	8	-0.005	2	0.291	7	0	7	NC	22	NC	22
814		min	-0.32	6	-0.017	3	-0.15	3	0	3	NC	1	1380.128	7
815	3	max	0.051	8	-0.006	2	0.483	7	0	7	NC	22	NC	22
816		min	-0.32	6	-0.018	3	-0.093	3	0	3	NC	1	1016.159	7
817	4	max	0.052	8	-0.004	22	0.532	7	0.001	7	NC	22	NC	22
818		min	-0.32	6	-0.011	3	-0.042	3	0	3	NC	1	1498.323	7
819	5	max	0.052	8	0	3	0.493	7	0.001	7	NC	22	NC	22
820		min	-0.32	6	0	8	0.001	22	0	3	NC	1	NC	1
821	M173	max	0	22	0	22	0	22	0	22	NC	22	NC	22
822		min	0	1	0	1	0	1	0	1	NC	1	NC	1
823	2	max	0	22	0	22	0	22	0	22	NC	22	NC	22
824		min	-0.001	3	0	6	0	1	0	1	NC	1	NC	1
825	3	max	-0.001	22	0	22	0	22	0	22	NC	22	NC	22
826		min	-0.003	3	0	6	0	1	0	1	NC	1	NC	1
827	4	max	-0.001	22	0	22	0	22	0	22	NC	22	NC	22
828		min	-0.004	3	0	6	0	1	0	1	NC	1	NC	1
829	5	max	-0.002	22	0	22	0	22	0	22	NC	22	NC	22
830		min	-0.005	3	0	1	0	1	0	1	NC	1	NC	1
831	M174	max	0	22	-0.002	22	0	22	0	6	NC	22	NC	22
832		min	0	1	-0.005	3	0	1	0	1	NC	1	NC	1
833	2	max	0	7	-0.148	22	0	22	0	6	2601.958	22	NC	22
834		min	0	3	-0.482	3	-0.051	6	0	22	799.053	3	NC	1

**Envelope Member Section Deflections - Strength (Continued)**

Member	Sec		x [in]	LC	y [in]	LC	z [in]	LC	x Rotate [rad]	LC	(n) L/y' Ratio	LC	(n) L/z' Ratio	LC
835	3	max	0	7	-0.208	22	0	22	0.001	6	1848.042	22	NC	22
836		min	0	3	-0.678	3	-0.102	6	0	22	567.527	3	NC	1
837	4	max	0	7	-0.15	22	0	22	0.001	6	2597.105	22	NC	22
838		min	0	3	-0.489	3	-0.153	6	0	22	797.562	3	NC	1
839	5	max	0	7	-0.005	22	0	22	0.002	6	NC	22	NC	22
840		min	0	3	-0.017	3	-0.205	6	0	22	NC	1	NC	1

**Envelope Beam Deflections**

	Member Label	Span		Location [in]	y' [in]	(n) L/y' Ratio	LC
1	M96	1	max	7.625	0.001	NC	22
2		1	min	121.994	-0.47	519	3
3	M98	1	max	231.28	-0.001	NC	22
4		1	min	121.994	-0.312	781	3
5	M101	1	max	237.517	-0.002	NC	22
6		1	min	120.008	-0.396	606	3
7	M102	1	max	226.197	-0.001	NC	22
8		1	min	121.994	-0.338	721	3
9	M104	1	max	3.154	-0.002	NC	22
10		1	min	151.375	-0.199	1519	3
11	M112	1	max	2.542	-0.001	NC	2
12		1	min	83.871	-0.042	4530	3
13		2	max	221.114	0.001	NC	2
14		2	min	190.616	0	NC	1
15	M114	1	max	172.825	-0.001	NC	11
16		1	min	83.871	-0.044	4288	3
17		2	max	226.197	0.001	NC	1
18		2	min	190.616	0	NC	1
19	M115	1	max	39.499	-0.001	NC	22
20		1	min	0	0	NC	1
21	M117	1	max	161.322	-0.001	NC	22
22		1	min	93.494	-0.09	1950	3
23	M118	1	max	2.5	-0.007	NC	22
24		1	min	120.008	-0.626	383	3
25	M119	1	max	235.017	-0.001	NC	22
26		1	min	120.008	-0.351	684	3
27	M120	1	max	8.281	0.001	NC	15
28		1	min	0	0	NC	1
29	M121	1	max	1.738	-0.001	NC	8
30		1	min	78.213	-0.083	1998	3
31	M122	1	max	151.212	-0.001	NC	22
32		1	min	78.213	-0.073	2297	3
33	M123	1	max	30.6	-0.001	NC	22
34		1	min	0	0	NC	1
35	M124	1	max	12.708	-0.001	NC	22
36		1	min	121.994	-0.316	772	3
37	M125	1	max	10.896	-0.001	NC	22
38		1	min	0	0	NC	1
39	M126	1	max	109.162	0.001	NC	9
40		1	min	48.516	0.027	4118	3
41		2	max	117.248	-0.001	NC	10
42		2	min	343.657	0.067	4106	3
43	M127	1	max	115.028	-0.001	NC	2
44		1	min	54.319	-0.023	6033	3
45		2	max	143.785	-0.001	NC	6
46		2	min	233.251	-0.076	2209	3

**Envelope Beam Deflections (Continued)**

	Member Label	Span		Location [in]	y' [in]	(n) L'/y' Ratio	LC
47	M128	1	max	1.833	-0.001	NC	2
48		1	min	91.66	-0.104	1687	3
49	M130	1	max	80.582	-0.001	NC	18
50		1	min	0	0	NC	1
51	M131	1	max	236.363	0.001	NC	22
52		1	min	121.994	-0.452	539	3
53	M132	1	max	131.143	-0.001	NC	22
54		1	min	0	0	NC	1
55	M133	1	max	37.004	0	NC	22
56		1	min	0	0	NC	1
57	M134	1	max	299.595	-0.001	NC	22
58		1	min	151.375	-0.06	5056	3
59	M135	1	max	17.791	-0.001	NC	22
60		1	min	121.994	-0.344	709	3
61	M136	1	max	147.854	-0.001	NC	17
62		1	min	75.5	-0.027	5664	3
63	M137	1	max	141.562	-0.001	NC	9
64		1	min	75.5	-0.021	7135	3
65	M138	1	max	9.116	-0.001	NC	12
66		1	min	72.93	-0.023	6284	3
67	M139	1	max	135.224	-0.001	NC	11
68		1	min	72.93	-0.018	7918	3
69	M142	1	max	3.924	-0.015	NC	22
70		1	min	188.37	-1.531	246	3
71	M143	1	max	230.667	-0.001	NC	22
72		1	min	106.835	-0.229	1018	3
73	M144	1	max	3.924	-0.003	NC	22
74		1	min	188.37	-0.148	2553	13
75	M150	1	max	143.555	-0.001	NC	17
76		1	min	68.906	-0.078	2349	3
77	M153	1	max	2.854	-0.002	NC	22
78		1	min	139.854	-0.384	713	3
79	M154	1	max	91.004	-0.001	NC	18
80		1	min	33.251	0.033	5017	3
81	M155	1	max	172.542	-0.001	NC	2
82		1	min	79.881	-0.099	1773	3
83		2	max	182.128	0.001	NC	2
84		2	min	178.933	0.001	NC	1
85	M156	1	max	4.115	-0.005	NC	22
86		1	min	209.843	-0.746	529	3
87	M161	1	max	16.191	-0.001	NC	3
88		1	min	0	0	NC	1
89	M162	1	max	89.99	0	NC	22
90		1	min	0	0	NC	1
91	M163	1	max	66.414	-0.001	NC	8
92		1	min	0	0	NC	1
93	M164	1	max	182.129	-0.001	NC	22
94		1	min	93.002	-0.055	3361	3
95	M165	1	max	37.004	0	NC	22
96		1	min	0	0	NC	1
97	M166	1	max	4.084	-0.001	NC	22
98		1	min	104.134	-0.087	2240	3
99	M167	1	max	220.685	-0.001	NC	22
100		1	min	111.504	-0.12	1854	3
101	M168	1	max	74.017	0	NC	22

**Envelope Beam Deflections (Continued)**

	Member Label	Span		Location [in]	y' [in]	(n) L/y' Ratio	LC
102		1	min	0	0	NC	1
103	M169	1	max	3.75	-0.001	NC	21
104		1	min	44.995	-0.01	9258	3
105	M170	1	max	7.75	-0.001	NC	22
106		1	min	0	0	NC	1
107	M171	1	max	6.969	-0.001	NC	22
108		1	min	111.504	-0.029	7681	3
109	M172	1	max	7.782	-0.001	NC	8
110		1	min	0	0	NC	1
111		2	max	249.016	0	NC	22
112		2	min	197.138	0	NC	1
113	M174	1	max	3.947	-0.007	NC	22
114		1	min	189.434	-0.668	567	3

**Envelope Beam Deflection Checks**

	Beam	Design Rule	Span	Defl [in]	Ratio	LC	Defl [in]	Ratio	LC	Defl [in]	Ratio	LC
1	M96	Typical	1	-0.219	1112	1(DL)	-0.25	975	2(RLL)	-0.47	519	3(DL+RLL)
2	M98	Typical	1	-0.158	1544	1(DL)	-0.154	1582	2(RLL)	-0.312	781	3(DL+RLL)
3	M101	Typical	1	-0.235	1021	1(DL)	-0.161	1491	2(RLL)	-0.396	606	3(DL+RLL)
4	M102	Typical	1	-0.169	1439	1(DL)	-0.169	1446	2(RLL)	-0.338	721	3(DL+RLL)
5	M104	Typical	1	-0.122	2484	1(DL)	-0.077	3908	2(RLL)	-0.199	1519	3(DL+RLL)
6	M112	Typical	1	-0.021	9022	1(DL)	-0.021	9098	2(RLL)	-0.042	4530	3(DL+RLL)
7			2	0	NC	1(DL)	2.168e-19	NC	2(RLL)	0	NC	3(DL+RLL)
8	M114	Typical	1	-0.022	8614	1(DL)	-0.022	8538	2(RLL)	-0.044	4288	3(DL+RLL)
9			2	0	NC	1(DL)	0	NC	2(RLL)	0	NC	3(DL+RLL)
10	M115	Typical	1	-8.674e-19	NC	1(DL)	0	NC	2(RLL)	0	NC	3(DL+RLL)
11	M117	Typical	1	-0.048	3686	1(DL)	-0.042	4141	2(RLL)	-0.09	1950	3(DL+RLL)
12	M118	Typical	1	-0.354	677	1(DL)	-0.272	883	2(RLL)	-0.626	383	3(DL+RLL)
13	M119	Typical	1	-0.186	1292	1(DL)	-0.165	1455	2(RLL)	-0.351	684	3(DL+RLL)
14	M120	Typical	1	0	NC	1(DL)	0	NC	2(RLL)	0	NC	3(DL+RLL)
15	M121	Typical	1	-0.05	3309	1(DL)	-0.033	5042	2(RLL)	-0.083	1998	3(DL+RLL)
16	M122	Typical	1	-0.038	4334	1(DL)	-0.034	4886	2(RLL)	-0.073	2297	3(DL+RLL)
17	M123	Typical	1	0	NC	1(DL)	2.168e-19	NC	2(RLL)	0	NC	3(DL+RLL)
18	M124	Typical	1	-0.16	1526	1(DL)	-0.156	1565	2(RLL)	-0.316	772	3(DL+RLL)
19	M125	Typical	1	0	NC	1(DL)	0	NC	2(RLL)	0	NC	3(DL+RLL)
20	M126	Typical	1	0.013	9006	1(DL)	0.015	7566	2(RLL)	0.027	4118	3(DL+RLL)
21			2	0.032	8651	1(DL)	0.035	7914	2(RLL)	0.067	4106	3(DL+RLL)
22	M127	Typical	1	0.0006306	NC	1(DL)	0.0004854	NC	2(RLL)	-0.023	6033	3(DL+RLL)
23			2	-0.043	3910	1(DL)	-0.033	5081	2(RLL)	-0.076	2209	3(DL+RLL)
24	M128	Typical	1	-0.063	2803	1(DL)	-0.042	4236	2(RLL)	-0.104	1687	3(DL+RLL)
25	M130	Typical	1	0	NC	1(DL)	0	NC	2(RLL)	0	NC	3(DL+RLL)
26	M131	Typical	1	-0.212	1152	1(DL)	-0.241	1013	2(RLL)	-0.452	539	3(DL+RLL)
27	M132	Typical	1	-8.674e-19	NC	1(DL)	-4.337e-19	NC	2(RLL)	8.674e-19	NC	3(DL+RLL)
28	M133	Typical	1	1.016e-18	NC	1(DL)	6.505e-19	NC	2(RLL)	-1.518e-18	NC	3(DL+RLL)
29	M134	Typical	1	-0.06	5056	1(DL)	0	NC	2(RLL)	-0.06	5056	3(DL+RLL)
30	M135	Typical	1	-0.172	1416	1(DL)	-0.171	1423	2(RLL)	-0.344	709	3(DL+RLL)
31	M136	Typical	1	0	NC	1(DL)	0	NC	2(RLL)	-0.027	5664	3(DL+RLL)
32	M137	Typical	1	0	NC	1(DL)	0	NC	2(RLL)	-0.021	7135	3(DL+RLL)
33	M138	Typical	1	0	NC	1(DL)	0	NC	2(RLL)	-0.023	6284	3(DL+RLL)
34	M139	Typical	1	0	NC	1(DL)	0	NC	2(RLL)	-0.018	7918	3(DL+RLL)
35	M142	Typical	1	-0.734	513	1(DL)	-0.797	472	2(RLL)	-1.531	246	3(DL+RLL)
36	M143	Typical	1	-0.105	2217	1(DL)	-0.124	1881	2(RLL)	-0.229	1018	3(DL+RLL)
37	M144	Typical	1	-0.148	2553	1(DL)	0	NC	2(RLL)	-0.148	2553	3(DL+RLL)
38	M150	Typical	1	-0.035	5235	1(DL)	-0.043	4262	2(RLL)	-0.078	2349	3(DL+RLL)
39	M153	Typical	1	-0.175	1568	1(DL)	-0.21	1307	2(RLL)	-0.384	713	3(DL+RLL)

**Envelope Beam Deflection Checks (Continued)**

	Beam	Design Rule	Span	Defl [in]	Ratio	LC	Defl [in]	Ratio	LC	Defl [in]	Ratio	LC
40	M154	Typical	1	0	NC	1(DL)	0.018	9234	2(RLL)	0.033	5017	3(DL+RLL)
41	M155	Typical	1	-0.056	3137	1(DL)	-0.043	4080	2(RLL)	-0.099	1773	3(DL+RLL)
42			2	0	NC	1(DL)	4.337e-19	NC	2(RLL)	1.735e-18	NC	3(DL+RLL)
43	M156	Typical	1	-0.35	1128	1(DL)	-0.395	999	2(RLL)	-0.746	529	3(DL+RLL)
44	M161	Typical	1	0	NC	1(DL)	0	NC	2(RLL)	0	NC	3(DL+RLL)
45	M162	Typical	1	0	NC	1(DL)	0	NC	2(RLL)	0	NC	3(DL+RLL)
46	M163	Typical	1	0	NC	1(DL)	0	NC	2(RLL)	0	NC	3(DL+RLL)
47	M164	Typical	1	-0.029	6470	1(DL)	-0.027	6996	2(RLL)	-0.055	3361	3(DL+RLL)
48	M165	Typical	1	-3.253e-19	NC	1(DL)	4.337e-19	NC	2(RLL)	-8.674e-19	NC	3(DL+RLL)
49	M166	Typical	1	-0.042	4612	1(DL)	-0.045	4358	2(RLL)	-0.087	2240	3(DL+RLL)
50	M167	Typical	1	-0.063	3526	1(DL)	-0.057	3911	2(RLL)	-0.12	1854	3(DL+RLL)
51	M168	Typical	1	0	NC	1(DL)	8.674e-19	NC	2(RLL)	0	NC	3(DL+RLL)
52	M169	Typical	1	0	NC	1(DL)	0	NC	2(RLL)	-0.01	9258	3(DL+RLL)
53	M170	Typical	1	0	NC	1(DL)	0	NC	2(RLL)	0	NC	3(DL+RLL)
54	M171	Typical	1	8.674e-19	NC	1(DL)	8.674e-19	NC	2(RLL)	-0.029	7681	3(DL+RLL)
55	M172	Typical	1	-0.0001484	NC	1(DL)	-8.841e-5	NC	2(RLL)	-0.0002369	NC	3(DL+RLL)
56			2	-8.809e-20	NC	1(DL)	5.421e-20	NC	2(RLL)	3.253e-19	NC	3(DL+RLL)
57	M174	Typical	1	-0.342	1108	1(DL)	-0.326	1162	2(RLL)	-0.668	567	3(DL+RLL)

**Envelope AISC 15TH (360-16): ASD Member Steel Code Checks**

	Member	Shape	Code Check	Loc[in]	LC	Shear Check	Loc[in]	Dir	LC	Pnc/om [k]	Pnt/om [k]	Mnny/om [k-ft]	Mnzz/om [k-ft]	Cb	Eqn
1	M91	HSS6X6X6	0.059	0	3	0	168	y	22	152.734	226.946	39.421	39.421	1	H1-1b*
2	M92	HSS6X6X6	0.041	0	3	0	168	y	22	152.734	226.946	39.421	39.421	1	H1-1b*
3	M93	HSS6X6X6	0.215	0	3	0.003	152.26	y	6	61.384	226.946	39.421	39.421	1.314	H1-1a*
4	M94	HSS6X6X6	0.018	0	3	0	168	z	7	152.734	226.946	39.421	39.421	1	H1-1b*
5	M95	HSS6X6X6	0.056	0	3	0	168	z	7	152.734	226.946	39.421	39.421	1	H1-1b*
6	M97	HSS6X6X6	0.06	0	3	0	168	y	22	152.734	226.946	39.421	39.421	1	H1-1b*
7	M99	HSS6X6X6	0.056	0	3	0	168	z	5	152.734	226.946	39.421	39.421	1	H1-1b*
8	M100	HSS6X6X6	0.019	0	3	0	168	z	5	152.734	226.946	39.421	39.421	1	H1-1b*
9	M101	HSS14X6X5	0.272	127.509	3	0.043	0	y	3	174.071	332.335	52.063	121.257	1.114	H1-1b
10	M103	HSS6X6X6	0.043	0	3	0	168	y	22	152.734	226.946	39.421	39.421	1	H1-1b*
11	M104	HSS14X6X6	0.089	151.375	3	0.012	302.749	y	3	137.915	395.21	66.751	142.964	1.136	H1-1b
12	M105	HSS6X6X6	0.048	0	3	0.003	217	z	7	117.214	226.946	39.421	39.421	1	H1-1b*
13	M106	HSS6X6X6	0.291	0	3	0.002	217	z	7	117.214	226.946	39.421	39.421	1	H1-1a*
14	M107	HSS6X6X6	0.295	0	3	0.013	217	y	6	117.214	226.946	39.421	39.421	1	H1-1a*
15	M108	HSS6X6X6	0.288	0	3	0.012	217	y	6	117.214	226.946	39.421	39.421	1	H1-1a*
16	M109	HSS6X6X6	0.055	0	3	0.003	217	z	5	117.214	226.946	39.421	39.421	1	H1-1b*
17	M110	HSS6X6X6	0.133	217	3	0.003	217	z	3	117.214	226.946	39.421	39.421	1	H1-1b
18	M111	HSS6X6X6	0.289	0	3	0.002	217	z	5	117.214	226.946	39.421	39.421	1	H1-1a*
19	M112	HSS14X6X5	0.114	111.828	7	0.024	188.074	y	3	253.989	332.335	52.063	121.257	1	H1-1b
20	M113	HSS6X6X6	0.164	152.26	11	0.006	152.26	z	7	61.384	226.946	39.421	39.421	1.318	H1-1b
21	M114	HSS14X6X5	0.115	109.286	5	0.025	188.074	y	3	253.989	332.335	52.063	121.257	1	H1-1b
22	M115	HSS14X6X5	0.014	65.377	6	0.003	130.754	z	6	251.347	332.335	52.063	121.257	1.136	H1-1b
23	M116	HSS6X6X6	0.519	153.708	3	0.015	217	y	3	117.214	226.946	39.421	39.421	1.842	H1-1a
24	M117	HSS14X6X5	0.142	100.826	3	0.026	175.988	y	3	222.932	332.335	52.063	121.257	1.331	H1-1b
25	M118	W16X31	0.561	120.008	3	0.173	240.017	y	3	108.951	273.353	17.54	134.731	1	H1-1b
26	M119	HSS14X6X5	0.24	145.01	3	0.038	0	y	3	174.071	332.335	52.063	121.257	1.112	H1-1b
27	M120	HSS14X6X6	0.101	52.999	3	0.029	52.999	y	3	376.515	395.21	66.751	142.964	1.913	H1-1b
28	M121	HSS14X6X5	0.143	66.047	3	0.03	0	y	15	229.071	332.335	52.063	121.257	1.317	H1-1b
29	M122	HSS14X6X5	0.128	66.047	3	0.026	0	y	3	229.071	332.335	52.063	121.257	1.347	H1-1b
30	M123	HSS14X6X5	0.016	69.943	6	0.003	139.886	z	6	246.051	332.335	52.063	121.257	1.136	H1-1b
31	M125	HSS14X6X5	0.045	65.377	6	0.013	130.754	z	6	251.347	332.335	52.063	121.257	1.136	H1-1b
32	M126	W16X40	0.862	388.13	3	0.175	388.13	y	3	137.591	353.293	31.687	122.213	3	H1-1b
33	M127	W16X31	0.713	140.59	3	0.144	140.59	y	3	91.462	273.353	17.54	41.085	1.56	H1-1b
34	M128	HSS14X6X5	0.16	100.826	3	0.03	175.988	y	15	222.932	332.335	52.063	121.257	1.306	H1-1b

**Envelope AISC 15TH (360-16): ASD Member Steel Code Checks (Continued)**

Member	Shape	Code Check	Loc[in]	LC	Shear Check	Loc[in]	Dir	LC	Pnc/om [k]	Pnt/om [k]	Mnyy/om [k-ft]	Mnzz/om [k-ft]	Cb	Eqn	
35	M129	HSS6X6X6	0.169	152.26	15	0.022	152.26	z	7	61.384	226.946	39.421	39.421	1.401	H1-1b
36	M130	HSS14X6X6	0.044	42.505	3	0.024	85.01	y	3	355.311	395.21	66.751	142.964	1.136	H1-1b
37	M132	HSS14X6X5	0.052	69.943	6	0.013	139.886	z	6	246.051	332.335	52.063	121.257	1.136	H1-1b
38	M133	HSS14X6X6	0.003	18.502	8	0.005	37.004	z	8	374.424	395.21	66.751	142.964	1.136	H1-1b
39	M134	HSS14X6X6	0.113	151.375	8	0.015	302.749	z	8	137.915	395.21	66.751	142.964	1.136	H1-1b
40	M140	HSS6X6X6	0.038	134.01	8	0.013	155	y	8	162.003	226.946	39.421	39.421	1.514	H1-1b
41	M141	HSS6X6X6	0.038	134.01	8	0.013	155	y	8	162.003	226.946	39.421	39.421	1.514	H1-1b
42	M142	HSS18X6X10	0.549	188.37	3	0.069	376.74	y	3	167.323	769.461	149.122	336.826	1.136	H1-1b
43	M143	W16X31	0.729	233.095	3	0.149	233.095	y	3	111.434	273.353	17.54	53.471	1.395	H1-1b
44	M144	HSS14X6X8	0.13	188.37	7	0.02	376.74	z	7	111.195	514.97	100.552	183.633	1.136	H1-1b
45	M145	HSS6X6X6	0.115	155	3	0.004	155	y	3	162.003	226.946	39.421	39.421	1.667	H1-1b
46	M146	HSS6X6X6	0.154	0	3	0.017	155	z	7	162.003	226.946	39.421	39.421	1.534	H1-1b*
47	M147	HSS6X6X6	0.353	155	3	0.004	155	y	3	162.003	226.946	39.421	39.421	1.667	H1-1a
48	M148	HSS6X6X6	0.37	155	3	0.004	155	y	3	162.003	226.946	39.421	39.421	1.667	H1-1a
49	M149	HSS6X6X6	0.116	0	3	0	217	y	22	117.214	226.946	39.421	39.421	1	H1-1b*
50	M150	W16X31	0.636	183.75	3	0.261	183.75	y	3	133.905	273.353	17.54	134.731	2.493	H1-1b
51	M151	HSS6X6X6	0.251	152.26	3	0.003	311	y	6	61.384	226.946	39.421	39.421	1.311	H1-1a
52	M152	HSS6X6X6	0.566	213.813	3	0.031	311	z	3	61.384	226.946	39.421	39.421	2.34	H1-1a
53	M153	W16X40	0.807	0	3	0.272	0	y	3	168.441	353.293	31.687	109.369	1.68	H1-1b
54	M154	W16X31	0.579	0	3	0.209	0	y	3	142.021	273.353	17.54	134.731	2.897	H1-1b
55	M155	W16X31	0.615	175.738	3	0.151	175.738	y	3	91.461	273.353	17.54	50.136	1.903	H1-1b
56	M156	W21X62	0.963	0	3	0.154	0	y	3	216.966	547.904	54.142	112.397	1.239	H1-1b
57	M157	HSS6X6X6	0.179	0	3	0.001	217	z	3	117.214	226.946	39.421	39.421	1.667	H1-1b*
58	M158	HSS6X6X6	0.216	132.823	11	0.008	311	z	7	61.384	226.946	39.421	39.421	1.644	H1-1b
59	M159	HSS6X6X6	0.142	132.823	11	0.008	152.26	z	7	61.384	226.946	39.421	39.421	1.299	H1-1b
60	M160	HSS6X6X6	0.481	0	3	0.012	152.26	z	7	61.384	226.946	39.421	39.421	1.807	H1-1a*
61	M161	HSS14X6X6	0.036	74.017	3	0.019	74.017	y	3	374.143	395.21	66.751	142.964	2.26	H1-1b
62	M162	HSS14X6X6	0.036	0	3	0.017	0	y	3	371.829	395.21	66.751	142.964	3	H1-1b
63	M163	HSS14X6X6	0.022	0	3	0.018	0	y	3	372.597	395.21	66.751	142.964	1.368	H1-1b
64	M164	HSS14X6X6	0.066	91.064	3	0.017	186.004	y	3	349.141	395.21	66.751	142.964	1	H1-1b
65	M165	HSS14X6X6	0.006	0	3	0.006	0	y	3	377.084	395.21	66.751	142.964	3	H1-1b
66	M166	HSS14X6X6	0.107	112.301	3	0.039	0	y	3	254.289	395.21	66.751	142.964	1.25	H1-1b
67	M167	HSS14X6X6	0.1	111.504	3	0.037	223.008	y	3	336.751	395.21	66.751	142.964	1	H1-1b
68	M168	HSS14X6X6	0.004	37.008	15	0.023	74.017	y	3	360.921	395.21	66.751	142.964	1.136	H1-1b
69	M169	HSS14X6X6	0.049	44.995	3	0.03	89.99	y	3	352.544	395.21	66.751	142.964	1.136	H1-1b
70	M170	HSS14X6X6	0.022	93.002	3	0.005	186.004	y	3	265.7	395.21	66.751	142.964	1.136	H1-1b
71	M171	HSS14X6X6	0.112	111.504	6	0.026	223.008	z	6	223.336	395.21	66.751	142.964	1.136	H1-1b
72	M172	HSS14X6X6	0.105	108.944	7	0.036	0	z	7	193.987	395.21	66.751	142.964	1.346	H1-1b
73	M173	HSS6X6X6	0.039	0	3	0	217	y	6	117.214	226.946	39.421	39.421	1	H1-1b*
74	M174	W16X31	0.237	189.434	3	0.046	378.868	y	3	81.877	273.353	17.54	134.731	1	H1-1b

**Envelope AISI S100-20: ASD Member Cold Formed Steel Code Checks**

No Data to Print...														
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**Envelope AWC NDS-18 / SDPWS-21 ASD Member Wood Code Checks**

Member	Shape	Code Check	Loc[in]	LC	Shear Check	Loc[in]	Dir	LC	Fc' [ksi]	Ft' [ksi]	Fb1' [ksi]	Fb2' [ksi]	Fv' [ksi]	RB	CL	CP	Eqn
1	M96	5.5X18FS	0.534	121.994	3	0.341	243.988	y	3	1.516	1.1	2.296	1.45	0.265	3.7790	9980.9483	9-3
2	M98	5.5X18FS	0.348	111.828	3	0.221	243.988	y	3	1.516	1.1	2.296	1.45	0.265	3.7790	9980.9483	9-3
3	M102	5.5X18FS	0.377	111.828	3	0.228	243.988	y	3	1.516	1.1	2.296	1.45	0.265	3.7790	9980.9483	9-3
4	M124	5.5X18FS	0.352	111.828	3	0.224	243.988	y	3	1.516	1.1	2.296	1.45	0.265	3.7790	9980.9483	9-3
5	M131	5.5X18FS	0.515	121.994	3	0.329	243.988	y	3	1.516	1.1	2.296	1.45	0.265	3.7790	9980.9483	9-3
6	M135	5.5X18FS	0.383	111.828	3	0.231	243.988	y	3	1.516	1.1	2.296	1.45	0.265	3.7790	9980.9483	9-3
7	M136	5.5X18FS	0.076	75.5	3	0.087	0	y	3	1.574	1.1	2.396	1.45	0.265	3.7790	9980.9843	9-3
8	M137	5.5X18FS	0.06	75.5	3	0.095	0	y	3	1.574	1.1	2.396	1.45	0.265	3.7790	9980.9843	9-3



**Envelope AWC NDS-18 / SDPWS-21 ASD Member Wood Code Checks (Continued)**

Member	Shape	Code Check	Loc[in]	LCShear	Check	Loc[in]	Dir	LCFc'	[ksi]Ft'	[ksi]Fb1'	[ksi]Fb2'	[ksi]Fv'	[ksi]	RB	CL	CP	Eqn	
9	M138	5.5X18FS	0.071	72.93	3	0.082	0	y	3	1.576	1.1	2.396	1.45	0.265	3.7790	0.9980	0.9853	9-3
10	M139	5.5X18FS	0.056	72.93	3	0.095	0	y	3	1.576	1.1	2.396	1.45	0.265	3.7790	0.9980	0.9853	9-3

**Envelope Concrete Beam Design Results**

No Data to Print...

**Envelope Concrete Column Design Results**

No Data to Print...

**Envelope AA ADM1-20: ASD - BUILDING Member Aluminum Code Checks**

No Data to Print...

**Envelope AISC 14TH (360-10): ASD Member Stainless Steel Code Checks**

No Data to Print...

**Envelope X-Direction Story Drift - Service**

No Data to Print...

**Envelope Z-Direction Story Drift - Service**

No Data to Print...

**Envelope X-Direction Story Drift - Strength**

No Data to Print...

**Envelope Z-Direction Story Drift - Strength**

No Data to Print...

**Warning Log**

No Data to Print...

# Compression-Bending Member Analysis

## General Member Specifications

Member Type	Visually Graded	▼
Nominal Size	2 x 8	▼
Species	Douglas Fir - Larch	▼
Grade	No. 2	▼
Grade -- For $C_F$	Select, No.1, No.2 or No.3	▼
Custom Breadth	b =	
Depth	d =	
Load Duration?	Ten Minutes (Wind/Seismic)	▼
Operating Temperature	T < 100 F	▼
Cross Section Shape	Rectangle	▼
Wet Service?	No	▼
Incising?	No	▼
Flat Use?	No	▼
Repetitive Member?	Yes	▼
Truss Chord?	No	▼

## Member Characteristics

Axial Compression Load	$P =$	2,205 lb
Applied Bending Moment	$M =$	7,020 in-lb
Maximum Shear Force	$V =$	183 lb
Column Unbraced Length (1-1 axis):	$l_1 =$	6.0 in.
Column Unbraced Length (2-2 axis):	$l_2 =$	153.5 in.
End Conditions: for 1-1 axis:	pinned-pinned	▼
for 2-2 axis:	pinned-pinned	▼
Bending Unbraced Length:	$l_u =$	153.5 in.
Bending Supports:	Simple span - Uniformly distributed load	▼

## Cross-Section Properties

Breadth	b =	1.50 in.
Depth	d =	7.25 in.
Area	A =	10.88 in <sup>2</sup>
Section Modulus	S =	13.1 in <sup>3</sup>
Size Classification	Dimension Lumber	

## Computed Data

Bending Effective Length:	$l_e =$	272.0 in.
Bending Slenderness Ratio:	$R_B =$	29.60
Effective Length Factors:	$K_{e1} =$	1.00
	$K_{e2} =$	1.00
Slenderness Ratios:	$l_{e1}/d_1 =$	4.0
	$l_{e2}/d_2 =$	21.2
max slenderness ratio:	$l_e/d =$	21.2
Applied Compressive Stress:	$f_c =$	203 psi
Applied Bending Stress:	$f_b =$	534 psi
Applied Shear Stress:	$f_v =$	25 psi

<b>Compressive Capacity:</b>	$P_{allowable} =$	10,357 lb
<b>Compression Unity Check:</b>	$f_c / F_c' =$	0.213
<b>Bending Capacity:</b>	$M_{allowable} =$	10,296 in-lb
<b>Bending Unity Check:</b>	$f_b / F_b' =$	0.682
<b>Shear Capacity:</b>	$V_{allowable} =$	2,088 lb
<b>Shear Unity Check:</b>	$f_v / F_v' =$	0.088

Units: inches, pounds

## Tabulated Design Values

Flexural Strength	$F_b =$	900 psi
Compressive Strength	$F_c =$	1,350 psi
Shear Strength	$F_v =$	180 psi
Modulus of Elasticity	$E =$	1.60E+06 psi

## Adjustment Factors on $F_c$

Load Duration Factor	$C_D =$	1.60
Wet Service Factor	$C_M =$	1.00
Temperature Factor	$C_t =$	1.00
Size Factor	$C_F =$	1.15
Incising Factor	$C_i =$	1.00

## Adjustment Factors on $F_b$

Load Duration Factor	$C_D =$	1.60
Size Factor	$C_F =$	1.50
Wet Service Factor	$C_M =$	1.00
Temperature Factor	$C_t =$	1.00
Flat Use Factor	$C_{fu} =$	1.00
Incising Factor	$C_i =$	1.00
Repetitive Member Factor	$C_r =$	1.15
Form Factor	$C_f =$	1.00

## Adjustments for Shear

Load Duration Factor	$C_D =$	1.60
Wet Service Factor	$C_M =$	1.00
Temperature Factor	$C_t =$	1.00
Incising Factor	$C_i =$	1.00
Shear Stress Factor	$C_H =$	1.00

## Adjustment Factors on E

Wet Service Factor	$C_M =$	1.00
Temperature Factor	$C_t =$	1.00
Incising Factor	$C_i =$	1.00

## Member Strength

Adjusted Shear Strength	$F_v' =$	288 psi
Adjusted Compressive Strength	$F_c^* =$	2,484 psi
Adjusted MOE	$E' =$	1.60E+06 psi
	$K_{cE} =$	.30
Euler Stress	$F_{cE} =$	1,071 psi
Column Stress Ratio	$F_{cE} / F_c^* =$	0.431
Stress-strain Curve Factor	$c =$	0.80
Column Stability Factor	$C_P =$	0.383
Allowable Compressive Stress	$F_c' =$	952 psi
Adjusted Bending Strength	$F_b^* =$	2,484 psi
Lateral Buckling Coefficient	$K_{bE} =$	0.439
Lateral Buckling Stress	$F_{bE} =$	802 psi
Bending Stress Ratio	$F_{bE} / F_b^* =$	0.323
Beam Stability Factor	$C_L =$	0.315
Allowable Bending Stress	$F_b' =$	784 psi

<b>Interaction:</b>		
Strong Axis Euler Stress	$F_{cE1} =$	1,071 psi
Moment Magnifier	$B =$	1.234
Eq. (3.9-3)	$I =$	0.886
<b>Member Status</b>	<b>OK</b>	

**Wood Beam** TYPE 'A' HEADER

1. Simple Beam - Uniformly Distributed Load  
(Beam is laterally supported,

Spreadsheet password = bdc

Span	4.00 ft.	
Dead Load	25.00 psf	
Live Load	25.00 psf	
Tributary Width	4.50 ft.	
Superimposed uniform dead load	0 k/ft.	
Superimposed uniform live load	0 k/ft.	
Total Uniform Load, w	0.23 k/ft.	
Maximum Moment (at center), M	0.45 k*ft.	
End Reaction	0.45 k	
x	0 ft	
Shear at distance=x from support, V:	0.45 k	
Moment at distance x from support, M:	0.00 k*ft	
Fb Allowable Bending Stress:	0.90 ksi	
E Modulus of Elasticity	1500.00 ksi	
Sx Required = M/Ft:	6.00 in. <sup>3</sup>	
Beam Width	4.5 in.	(3) 2X10
Beam Depth	9.25 in.	
Sx Section Modulus	64.17 in. <sup>3</sup>	
Ix Moment of Inertia	296.79 in. <sup>4</sup>	
Stress= M/S	0.08 ksi	
Total Load Deflection (at center)	0.00 in.	
Total Load Deflection = L	16489	
Live Load Deflection (at center)	0.00 in.	
Live Load Deflection = L	32977	
Horizontal Shear = 3V/2bc	0.02 ksi	

**Wood Beam** TYPE 'B' HEADER

1. Simple Beam - Uniformly Distributed Load  
(Beam is laterally supported,

Spreadsheet password = bdc

Span	5.10 ft.	
Dead Load	25.00 psf	
Live Load	25.00 psf	
Tributary Width	16.00 ft.	
Superimposed uniform dead load	0 k/ft.	
Superimposed uniform live load	0 k/ft.	
Total Uniform Load, w	0.80 k/ft.	
Maximum Moment (at center), M	2.60 k*ft.	
End Reaction	2.04 k	
x	0 ft	
Shear at distance=x from support, V:	2.04 k	
Moment at distance x from support, M:	0.00 k*ft	
Fb Allowable Bending Stress:	0.90 ksi	
E Modulus of Elasticity	1500.00 ksi	
Sx Required = M/Ft:	34.68 in. <sup>3</sup>	
Beam Width	6 in.	(4) 2X12
Beam Depth	11.25 in.	
Sx Section Modulus	126.56 in. <sup>3</sup>	
Ix Moment of Inertia	711.91 in. <sup>4</sup>	
Stress= M/S	0.25 ksi	
Total Load Deflection (at center)	0.01 in.	
Total Load Deflection = L	5367	
Live Load Deflection (at center)	0.01 in.	
Live Load Deflection = L	10734	
Horizontal Shear = 3V/2bc	0.05 ksi	

**Wood Beam** TYPE 'C' HEADER

1. Simple Beam - Uniformly Distributed Load  
(Beam is laterally supported,

Spreadsheet password = bdc

Span	4.00 ft.	
Dead Load	25.00 psf	
Live Load	25.00 psf	
Tributary Width	10.00 ft.	
Superimposed uniform dead load	0 k/ft.	
Superimposed uniform live load	0 k/ft.	
Total Uniform Load, w	0.50 k/ft.	
Maximum Moment (at center), M	1.00 k*ft.	
End Reaction	1.00 k	
x	0 ft	
Shear at distance=x from support, V:	1.00 k	
Moment at distance x from support, M:	0.00 k*ft	
Fb Allowable Bending Stress:	0.90 ksi	
E Modulus of Elasticity	1500.00 ksi	
Sx Required = M/Ft:	13.33 in. <sup>3</sup>	
Beam Width	6 in.	(4) 2X12
Beam Depth	11.25 in.	
Sx Section Modulus	126.56 in. <sup>3</sup>	
Ix Moment of Inertia	711.91 in. <sup>4</sup>	
Stress= M/S	0.09 ksi	
Total Load Deflection (at center)	0.00 in.	
Total Load Deflection = L	17798	
Live Load Deflection (at center)	0.00 in.	
Live Load Deflection = L	35596	
Horizontal Shear = 3V/2bc	0.02 ksi	

## **Glulam Beam**

1. Simple Beam - Uniformly Distributed Load  
(Beam is laterally supported)

Spreadsheet password = bdc

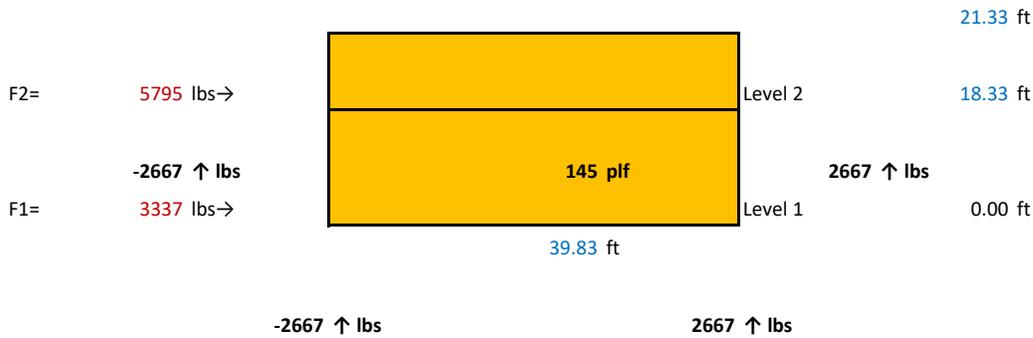
Span	20.33 ft.
Dead Load	20.00 psf
Live Load	20.00 psf
Tributary Width	10.50 ft.
Superimposed uniform dead load	0 k/ft.
Superimposed uniform live load	0 k/ft.
Total Uniform Load, w	0.42 k/ft.
Maximum Moment (at center), M	21.70 k*ft.
End Reaction	4.27 k
x	0 ft
Shear at distance=x from support, Vx	4.27 k
Moment at distance x from support, Mx	0.00 k*ft
Fb Allowable Bending Stress	2.40 ksi
E Modulus of Elasticity	1800.00 ksi
Sx Required = M/Fb	108.49 in.3
Beam Width	5.5 in.
Beam Depth	18 in.
Sx Section Modulus	297.00 in.3
Ix Moment of Inertia	2673.00 in.4
Stress= M/S	0.88 ksi
Total Load Deflection (at center)	0.34 in.
Total Load Deflection = L/ <sup>3</sup>	727
Live Load Deflection (at center)	0.17 in.
Live Load Deflection = L/ <sup>3</sup>	1454
Horizontal Shear = 3V/2bd	0.06 ksi

# Wood Shear Wall

## SHEAR WALL A

Spreadsheet password = bdc

Uniform Wind Load Pressure on Wall	23.34 psf
Uniform Wind Load Pressure on Parapet	52.52 psf
Load Factor	0.6
Factored Wind Load Pressure on Wall	14.00 psf
Factored Wind Load Pressure on Parapet	31.51 psf
H1, Top of Parapet Elevation	21.33 ft
H2, Top of Shear Wall Elevation	18.33 ft
Length of Shear Wall	39.83 ft
Tributary Width	26 ft



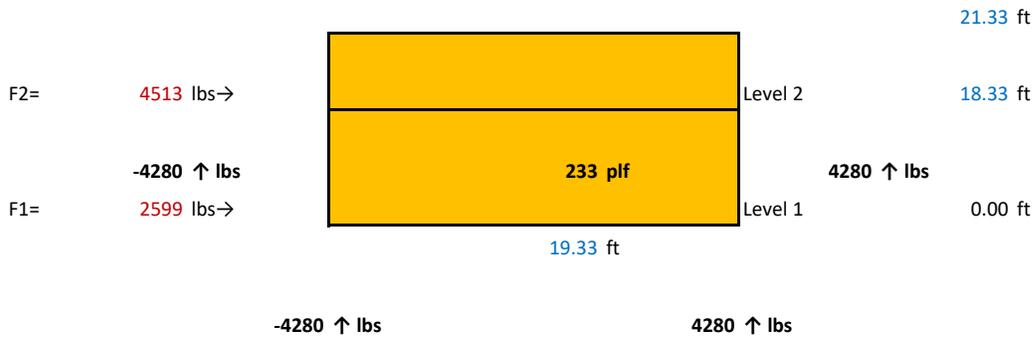
Chord Force	2667 lbs
Sheathing	15/32" APA-rated OSB or plywood sheathing (one side)
	10d nails @6"o.c./@12"o.c. (one side)
	310 plf (allowable diaphragm shear)

# Wood Shear Wall

## SHEAR WALL B

Spreadsheet password = bdc

Uniform Wind Load Pressure on Wall	23.34 psf
Uniform Wind Load Pressure on Parapet	52.52 psf
Load Factor	0.6
Factored Wind Load Pressure on Wall	14.00 psf
Factored Wind Load Pressure on Parapet	31.51 psf
H1, Top of Parapet Elevation	21.33 ft
H2, Top of Shear Wall Elevation	18.33 ft
Length of Shear Wall	19.33 ft
Tributary Width	20.25 ft



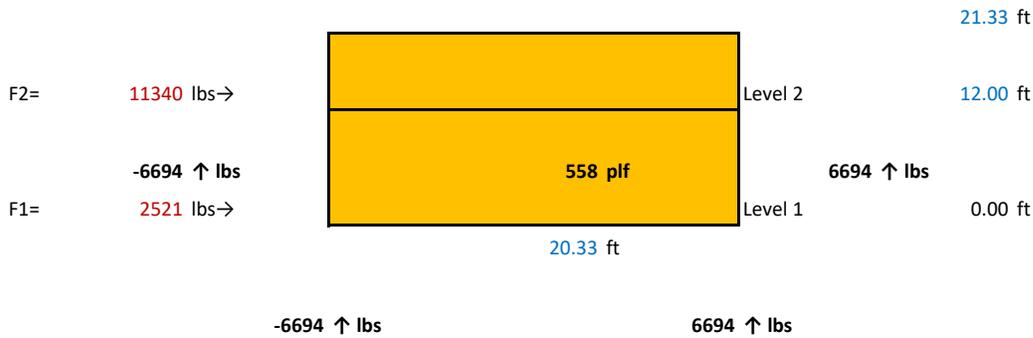
Chord Force	4280 lbs
Sheathing	15/32" APA-rated OSB or plywood sheathing (one side)
	10d nails @6"o.c./@12"o.c. (one side)
	310 plf (allowable diaphragm shear)

# Wood Shear Wall

## SHEAR WALL C

*Spreadsheet password = bdc*

Uniform Wind Load Pressure on Wall	23.34 psf
Uniform Wind Load Pressure on Parapet	52.52 psf
Load Factor	0.6
Factored Wind Load Pressure on Wall	14.00 psf
Factored Wind Load Pressure on Parapet	31.51 psf
H1, Top of Parapet Elevation	21.33 ft
H2, Top of Shear Wall Elevation	12 ft
Length of Shear Wall	20.33 ft
Tributary Width	30 ft



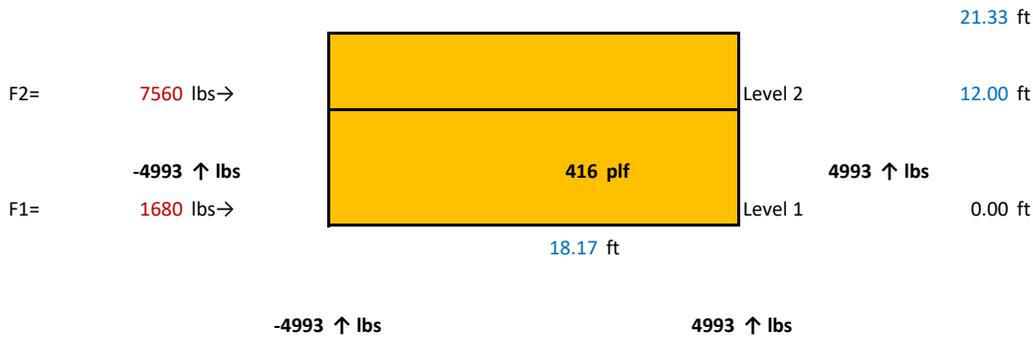
Chord Force	6694 lbs
Sheathing	15/32" APA-rated OSB or plywood sheathing (one side)
	10d nails @3"o.c./@12"o.c. (one side)
	600 plf (allowable diaphragm shear)

**Wood Shear Wall**

**SHEAR WALL D**

*Spreadsheet password = bdc*

Uniform Wind Load Pressure on Wall	23.34 psf
Uniform Wind Load Pressure on Parapet	52.52 psf
Load Factor	0.6
Factored Wind Load Pressure on Wall	14.00 psf
Factored Wind Load Pressure on Parapet	31.51 psf
H1, Top of Parapet Elevation	21.33 ft
H2, Top of Shear Wall Elevation	12 ft
Length of Shear Wall	18.17 ft
Tributary Width	20 ft



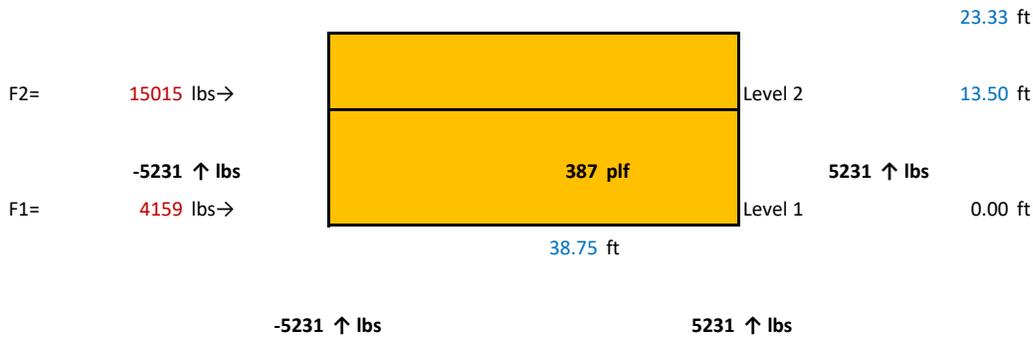
Chord Force	4993 lbs
Sheathing	15/32" Structural 1 sheathing (one side)
	10d nails @4"o.c./@12"o.c. (one side)
	460 plf (allowable diaphragm shear)

**Wood Shear Wall**

**SHEAR WALL E**

*Spreadsheet password = bdc*

Uniform Wind Load Pressure on Wall	23.34 psf
Uniform Wind Load Pressure on Parapet	52.52 psf
Load Factor	0.6
Factored Wind Load Pressure on Wall	14.00 psf
Factored Wind Load Pressure on Parapet	31.51 psf
H1, Top of Parapet Elevation	21.33 ft
H2, Top of Shear Wall Elevation	13.5 ft
Length of Shear Wall	38.75 ft
Tributary Width	44 ft



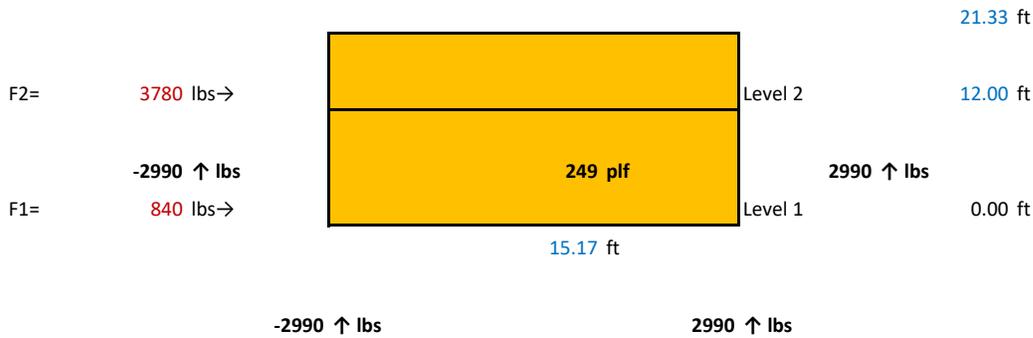
Chord Force	5231 lbs
Sheathing	15/32" Structural 1 sheathing (one side)
	10d nails @4"o.c./@12"o.c. (one side)
	460 plf (allowable diaphragm shear)

**Wood Shear Wall**

**SHEAR WALL F**

Spreadsheet password = bdc

Uniform Wind Load Pressure on Wall	23.34 psf
Uniform Wind Load Pressure on Parapet	52.52 psf
Load Factor	0.6
Factored Wind Load Pressure on Wall	14.00 psf
Factored Wind Load Pressure on Parapet	31.51 psf
H1, Top of Parapet Elevation	21.33 ft
H2, Top of Shear Wall Elevation	12 ft
Length of Shear Wall	15.17 ft
Tributary Width	10 ft



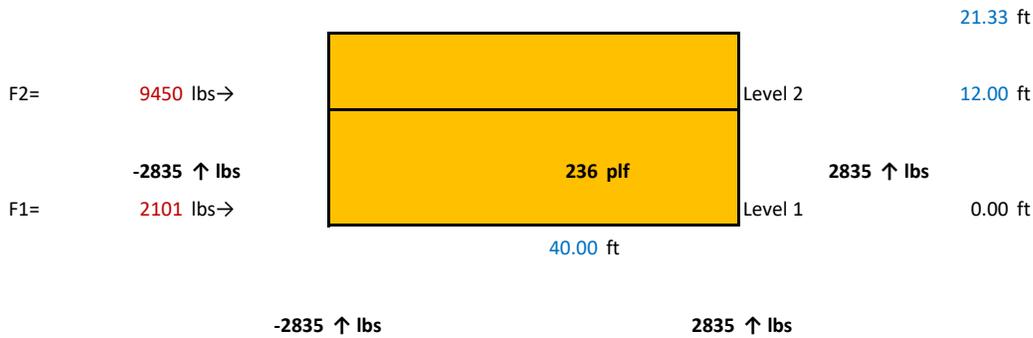
Chord Force	2990 lbs
Sheathing	15/32" Structural 1 sheathing (one side)
	10d nails @6"o.c./@12"o.c. (one side)
	310 plf (allowable diaphragm shear)

# Wood Shear Wall

## SHEAR WALL G

Spreadsheet password = bdc

Uniform Wind Load Pressure on Wall	23.34 psf
Uniform Wind Load Pressure on Parapet	52.52 psf
Load Factor	0.6
Factored Wind Load Pressure on Wall	14.00 psf
Factored Wind Load Pressure on Parapet	31.51 psf
H1, Top of Parapet Elevation	21.33 ft
H2, Top of Shear Wall Elevation	12 ft
Length of Shear Wall	40 ft
Tributary Width	25 ft



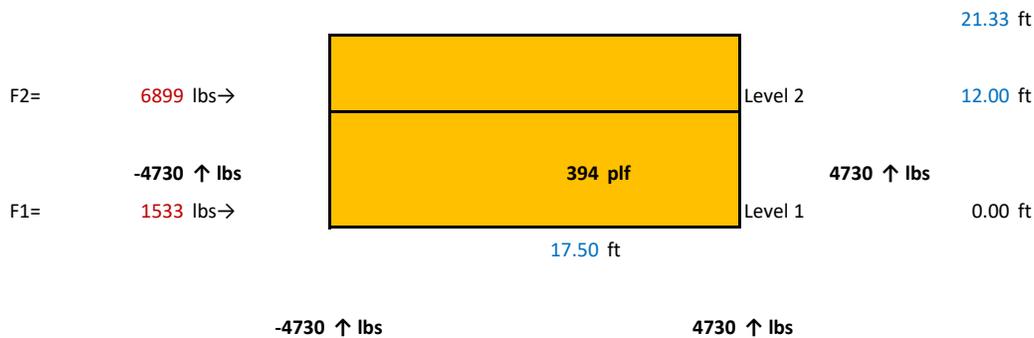
Chord Force	2835 lbs
Sheathing	15/32" Structural 1 sheathing (one side)
	10d nails @6"o.c./@12"o.c. (one side)
	310 plf (allowable diaphragm shear)

# Wood Shear Wall

## SHEAR WALL H

Spreadsheet password = bdc

Uniform Wind Load Pressure on Wall	23.34 psf
Uniform Wind Load Pressure on Parapet	52.52 psf
Load Factor	0.6
Factored Wind Load Pressure on Wall	14.00 psf
Factored Wind Load Pressure on Parapet	31.51 psf
H1, Top of Parapet Elevation	21.33 ft
H2, Top of Shear Wall Elevation	12 ft
Length of Shear Wall	17.5 ft
Tributary Width	18.25 ft



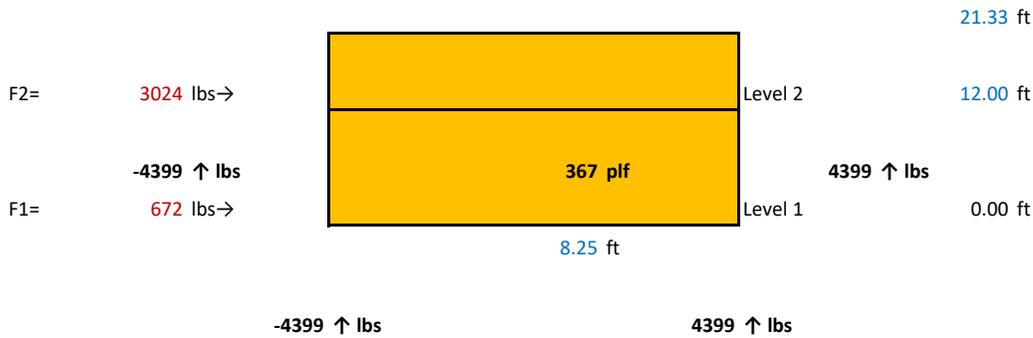
Chord Force	4730 lbs
Sheathing	15/32" Structural 1 sheathing (one side)
	10d nails @4"o.c./@12"o.c. (one side)
	460 plf (allowable diaphragm shear)

**Wood Shear Wall**

**SHEAR WALL J**

*Spreadsheet password = bdc*

Uniform Wind Load Pressure on Wall	23.34 psf
Uniform Wind Load Pressure on Parapet	52.52 psf
Load Factor	0.6
Factored Wind Load Pressure on Wall	14.00 psf
Factored Wind Load Pressure on Parapet	31.51 psf
H1, Top of Parapet Elevation	21.33 ft
H2, Top of Shear Wall Elevation	12 ft
Length of Shear Wall	8.25 ft
Tributary Width	8 ft



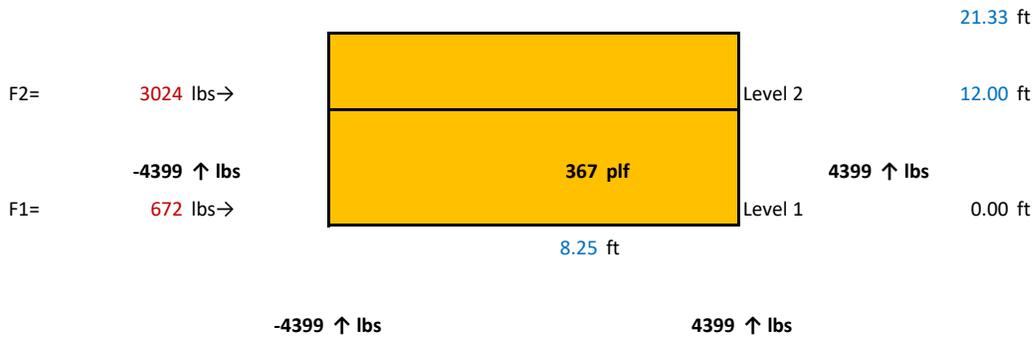
Chord Force	4399 lbs
Sheathing	15/32" Structural 1 sheathing (one side)
	10d nails @4"o.c./@12"o.c. (one side)
	460 plf (allowable diaphragm shear)

**Wood Shear Wall**

**SHEAR WALL K**

*Spreadsheet password = bdc*

Uniform Wind Load Pressure on Wall	23.34 psf
Uniform Wind Load Pressure on Parapet	52.52 psf
Load Factor	0.6
Factored Wind Load Pressure on Wall	14.00 psf
Factored Wind Load Pressure on Parapet	31.51 psf
H1, Top of Parapet Elevation	21.33 ft
H2, Top of Shear Wall Elevation	12 ft
Length of Shear Wall	8.25 ft
Tributary Width	8 ft



Chord Force	4399 lbs
Sheathing	15/32" Structural 1 sheathing (one side)
	10d nails @4"o.c./@12"o.c. (one side)
	410 plf (allowable diaphragm shear)

## Spread Footing 3.5

This spreadsheet calculates the allowable load capacity of a square spread footing.

password=bdc

### Given:

Width of Square Footing	3.5 ft
Thickness of Footing	36 in.
Rebar Size	#4
Area of Rebar	0.2 sq. in.
Quantity of bottom steel in each direction	7
f'c Compressive Strength of Concrete (psi)	3500 psi
fy Yield Stress of Reinforcing Steel (ksi)	60 ksi
Allowable Soil Bearing Pressure	2 ksf

### 1. Calculate Maximum Allowable Total Load

Maximum Allowable Load = (area of footing x allowable soil bearing pressure) - (weight of footing + weight of displaced soil)

Area of Footing	12.25 sf
Density of concrete	150 pcf
Density of soil	110 pcf
Weight of footing	5.51 kips
Weight of displaced soil	4.04 kips
Maximum Allowable Load	23.0 kips

### 2. Check Thickness For Two-Way Shear

The critical perimeter is at d/2 from the face of the column.

davg (t - 3"cover - 1")	32 in.
Dimension of square column or loaded area	8 in.
bo Length of Critical Shear Perimeter	160 in.
$\phi Vc = 0.75 \cdot 4 \cdot ((f'c)^{1/2}) \cdot bo \cdot d$	908.7 kips
Load Factor	1.8
Max. Allowable Load = $\phi Vc$ / Load Factor	504.8

### 4. Check Reinforcement

The critical section for moment is at the face of the column.

Mu = q x (tributary area) x (moment arm)	7.0 k*ft
b	42 in.
d	32 in.
As	1.40 sq. in.
C=0.85f'cba	125 a
T=Asfy	84 kips
a	0.67 in.
$\phi Mn = 0.9 \cdot Asfy(d-a/2)$	199.48 k*ft

## Spread Footing 4.0

This spreadsheet calculates the allowable load capacity of a square spread footing.

password=bdc

### Given:

Width of Square Footing	4 ft
Thickness of Footing	36 in.
Rebar Size	#4
Area of Rebar	0.2 sq. in.
Quantity of bottom steel in each direction	8
f'c Compressive Strength of Concrete (psi)	3500 psi
fy Yield Stress of Reinforcing Steel (ksi)	60 ksi
Allowable Soil Bearing Pressure	2 ksf

### 1. Calculate Maximum Allowable Total Load

Maximum Allowable Load = (area of footing x allowable soil bearing pressure) - (weight of footing + weight of displaced soil)

Area of Footing	16 sf
Density of concrete	150 pcf
Density of soil	110 pcf
Weight of footing	7.20 kips
Weight of displaced soil	5.28 kips
Maximum Allowable Load	30.1 kips

### 2. Check Thickness For Two-Way Shear

The critical perimeter is at d/2 from the face of the column.

davg (t - 3"cover - 1")	32 in.
Dimension of square column or loaded area	8 in.
bo Length of Critical Shear Perimeter	160 in.
$\phi Vc = 0.75 \cdot 4 \cdot ((f'c)^{1/2}) \cdot bo \cdot d$	908.7 kips
Load Factor	1.8
Max. Allowable Load = $\phi Vc / \text{Load Factor}$	504.8

### 4. Check Reinforcement

The critical section for moment is at the face of the column.

Mu = q x (tributary area) x (moment arm)	11.1 k*ft
b	48 in.
d	32 in.
As	1.60 sq. in.
C=0.85f'cba	143 a
T=Asfy	96 kips
a	0.67 in.
$\phi Mn = 0.9 \cdot Asfy(d-a/2)$	227.98 k*ft

## Spread Footing 5.0

This spreadsheet calculates the allowable load capacity of a square spread footing.

password=bdc

### Given:

Width of Square Footing	5 ft
Thickness of Footing	36 in.
Rebar Size	#4
Area of Rebar	0.2 sq. in.
Quantity of bottom steel in each direction	10
f'c Compressive Strength of Concrete (psi)	3500 psi
fy Yield Stress of Reinforcing Steel (ksi)	60 ksi
Allowable Soil Bearing Pressure	2 ksf

### 1. Calculate Maximum Allowable Total Load

Maximum Allowable Load = (area of footing x allowable soil bearing pressure) - (weight of footing + weight of displaced soil)

Area of Footing	25 sf
Density of concrete	150 pcf
Density of soil	110 pcf
Weight of footing	11.25 kips
Weight of displaced soil	8.25 kips
Maximum Allowable Load	47.0 kips

### 2. Check Thickness For Two-Way Shear

The critical perimeter is at d/2 from the face of the column.

davg (t - 3"cover - 1")	32 in.
Dimension of square column or loaded area	8 in.
bo Length of Critical Shear Perimeter	160 in.
$\phi Vc = 0.75 \cdot 4 \cdot ((f'c)^{1/2}) \cdot bo \cdot d$	908.7 kips
Load Factor	1.8
Max. Allowable Load = $\phi Vc / \text{Load Factor}$	504.8

### 4. Check Reinforcement

The critical section for moment is at the face of the column.

$Mu = q \times (\text{tributary area}) \times (\text{moment arm})$	23.5 k*ft
b	60 in.
d	32 in.
As	2.00 sq. in.
$C = 0.85 \cdot f'c \cdot b \cdot a$	179 a
$T = As \cdot fy$	120 kips
a	0.67 in.
$\phi Mn = 0.9 \cdot As \cdot fy \cdot (d - a/2)$	284.97 k*ft

## Spread Footing

## 6.5

This spreadsheet calculates the allowable load capacity of a square spread footing.

password=bdc

### Given:

Width of Square Footing	6.5 ft
Thickness of Footing	36 in.
Rebar Size	#4
Area of Rebar	0.2 sq. in.
Quantity of bottom steel in each direction	13
f'c Compressive Strength of Concrete (psi)	3500 psi
fy Yield Stress of Reinforcing Steel (ksi)	60 ksi
Allowable Soil Bearing Pressure	2 ksf

### 1. Calculate Maximum Allowable Total Load

Maximum Allowable Load = (area of footing x allowable soil bearing pressure) - (weight of footing + weight of displaced soil)

Area of Footing	42.25 sf
Density of concrete	150 pcf
Density of soil	110 pcf
Weight of footing	19.01 kips
Weight of displaced soil	13.94 kips
Maximum Allowable Load	79.4 kips

### 2. Check Thickness For Two-Way Shear

The critical perimeter is at d/2 from the face of the column.

davg (t - 3"cover - 1")	32 in.
Dimension of square column or loaded area	8 in.
bo Length of Critical Shear Perimeter	160 in.
$\phi Vc = 0.75 \cdot 4 \cdot ((f'c)^{1/2}) \cdot bo \cdot d$	908.7 kips
Load Factor	1.8
Max. Allowable Load = $\phi Vc$ / Load Factor	504.8

### 4. Check Reinforcement

The critical section for moment is at the face of the column.

$Mu = q \times (\text{tributary area}) \times (\text{moment arm})$	55.3 k*ft
b	78 in.
d	32 in.
As	2.60 sq. in.
$C = 0.85 \cdot f'c \cdot b \cdot a$	232 a
$T = A_s \cdot f_y$	156 kips
a	0.67 in.
$\phi Mn = 0.9 \cdot A_s \cdot f_y \cdot (d - a/2)$	370.47 k*ft

## Grade Beam

This spreadsheet calculates the required width of a grade beam

Spreadsheet password = bdc

### Given:

Allowable soil bearing capacity (psf)	<b>2000</b>
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### Calculate Roof Load

	Load (psf)	Trib. Width (ft.)	Load (plf)
Roof Dead Load	25	25	625
Roof Live load	30	25	750
Roof Total Load			<b>1375</b>

### Calculate Floor Load

	Load (psf)	Trib. Width (ft.)	Load (plf)
Floor Dead Load	0	0	0
Floor Live load	0	0	0
Floor Total Load			<b>0</b>

### Calculate Wall Load

Material	Load (psf)	Height (ft.)	Load (plf)
4" face brick	40	23.5	940
8" masonry	59	0	0
12" masonry	86	0	0
stud wall w/ sheathing	15	23.5	352.5
6" concrete	75	0	0
8" concrete	100	0	0
10" concrete	125	0	0
12" concrete	150	0	0
Wall Total Load			<b>1292.5</b>

### Calculate Self Load of Grade Beam

Width of grade beam (ft)	2
Depth of grade beam (ft)	3
Density (pcf)	150
G.B. Total Load (plf)	<b>900</b>

### Calculate Load of Soil Displaced by Grade Beam

Width of grade beam (ft)	2
Depth of grade beam (ft)	3
Density (pcf)	115
Displaced Soil Total Load (plf)	<b>690</b>

### Load Summary

Roof Total Load	1375
Floor Total Load	0
Wall Total Load	1292.5
G.B. Total Load (plf)	900
Displaced Soil Total Load (plf)	-690
Total Load	<b>2878</b>

### Design Summary

Total Load (plf)	2878
Required width (ft)	1.44
Width of grade beam (ft)	<b>2</b>
Depth of grade beam (ft)	<b>3</b>
Bearing Pressure (psf)	1439