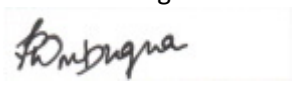
AMERICAN TOWER®
CORPORATION

Structural Analysis Report

Structure	:	300 ft Guyed Tower
ATC Asset Name	:	HIGHWAY 441 NORTH
ATC Asset Number	:	97139
Engineering Number	:	14859906_C3_01
Proposed Carrier	:	ALLTEL COMMUNICATIONS, LLC
Carrier Site Name	:	Hwy 441
Carrier Site Number	:	5000125492
Site Location	:	22535 N US HIGHWAY 441 WHITE SPRINGS, FL 32096-7100 30.5064° N, 82.6665° W
County	:	Columbia
Date	:	August 30, 2024
Max Usage	:	86%
Analysis Result	:	Pass

Created By:

Purity Mbugua
Structural Engineer I



This item has been electronically signed and sealed by Sarah F. Rucker, PE on the date shown using a digital signature.

Printed copies are not considered signed and sealed and the signature must be verified on any electronic copies.

Sarah Rucker

Digitally signed by Sarah Rucker
Date: 2024.09.03 20:33:47 -04'00'

COA: 9053

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Introduction

The purpose of this report is to summarize results of a structural analysis performed on the 300 ft Guyed tower to reflect the change in loading by ALLTEL COMMUNICATIONS, LLC.

Supporting Documents

Tower:	Andrew Drawing # GI-95232, dated January 26, 1995
Foundation:	Andrew Drawing # GTF-713, dated March 10, 1987 Andrew Drawing # AF95232-1, dated June 26, 1995 Andrew Drawing # AF95232-2, dated June 26, 1995
Geotechnical:	Universal Engineering Report # 11453, dated November 9, 1994
Modification:	ATC Project #50755532, dated February 11, 2012

Analysis

The tower was analyzed using American Tower Corporation's tower analysis software. This program considers an elastic three-dimensional model and second-order effects per ANSI/TIA-222.

Basic Wind Speed:	117 mph (3-second gust)
Basic Wind Speed w/ Ice:	No Ice Considered
Code(s):	ANSI/TIA-222-H / 2021 IBC / 8th ED (2023) Florida Building Code
Exposure Category:	B
Risk Category:	II
Topographic Factor Procedure:	Method 1
Topographic Category:	1
Spectral Response:	Ss = 0.09, S_1 = 0.05
Site Class:	D - Stiff Soil - Default

Conclusion

Based on the analysis results, the structure meets the requirements per the applicable codes listed above. The tower and foundation can support the equipment as described in this report.

If you have any questions or require additional information, please reach out to your American Tower contact. If you do not have an American Tower contact and have an Engineering question, please contact **Engineering@americantower.com** Please include the American Tower asset name, asset number, and engineering number in the subject line for any questions.

Structure Usages

Structural Component	Usage	Control	Location	Result
Leg	57.4%	Member Z	Section 19	Pass
Diagonal	74.6%	User Input	Section 30	Pass
Horizontal	85.7%	Block Shear	Section 23	Pass
Torque Arm	35.7%	Tension	Elevation 170 ft	Pass
Cable	52.0%	Tension	Elevation 288 ft	Pass
Serviceability Usage	3.5%	Rotation	Elevation 108 ft	Pass
Foundation	41.3%	Shear	Anchor 1	Pass
Foundation	41.3%	Uplift	Anchor 1	Pass
Foundation	47.2%	Shear	Anchor 2	Pass
Foundation	47.9%	Uplift	Anchor 2	Pass
Foundation	48.2%	Axial	Base	Pass
Foundation	23.3%	Shear	Base	Pass

Maximum Reactions

Foundation	Moment (k-ft)	Axial (k)	Uplift (k)	Shear (k)
Guyed – Pivot Base	-	116.3	-	0.9
Guyed Anchor - A2	-	-	31.0	30.2
Guyed Anchor - A1	-	-	18.1	27.2

Reactions shown are maximum overall and not limited by Load Case

Foundation usages were calculated by comparing the maximum reactions from this analysis to the reactions from the original design drawings, factored by 1.35 per ANSI/TIA-222-H, Section 15.6.2

ALLTEL COMMUNICATIONS, LLC Final Loading

Elev (ft)	Qty	Equipment	Lines
298.0	1	Raycap RVZDC-6627-PF-48	(10) 1 5/8" Coax (2) 1.43"(36.4mm) Hybrid
	3	Ericsson AIR 6419 B77D	
	3	Ericsson RRUS 4449	
	3	Ericsson RRUS 4890	
	3	Sector Frame	
	6	JMA Wireless MX06FHG865-HG	
286.0	2	15' Omni	(2) 1 5/8" Coax
278.0	3	Side Arm	-
175.0	1	Andrew Microwaves UHX6-59W	(1) EW52
150.0	1	Andrew Microwaves UHX6-59W	(1) EW52
140.0	1	Commscope VHLPX4-11W	(2) EW90

Install proposed lines in the place of the existing ALLTEL COMMUNICATIONS, LLC lines.

Other Existing/Reserved Loading

Elev (ft)	Qty	Equipment	Lines	Carrier
305.0	1	Lightning Rod	-	-
302.0	1	Beacon	-	-
297.4	3	CSS X7-865	-	ALLTEL COMMUNICATIONS, LLC
155.0	1	Small Side Lights	-	-
140.1	-	-	(1) E105	ALLTEL COMMUNICATIONS, LLC

(If table breaks across pages, please see previous page for data in merged cells)

Standard Conditions

All engineering services performed by ATC Tower Services, LLC are prepared on the basis that the information used is current and correct. This information may consist of, but is not limited to the following:

- Information supplied by the client regarding antenna, mounts, and feed line loading
- Information from drawings, design and analysis documents, and field notes in the possession of ATC Tower Services, LLC

It is the responsibility of the client to ensure that the information provided to ATC Tower Services, LLC and used in the performance of our engineering services is correct and complete.

All assets of American Tower Corporation, its affiliates, and subsidiaries (collectively "American Tower") are inspected at regular intervals. Based upon these inspections and in the absence of information to the contrary, American Tower assumes that all structures were constructed in accordance with the drawings and specifications.

Unless explicitly agreed by both the client and ATC Tower Services, LLC, all services will be performed in accordance with the current revision of ANSI/TIA-222.

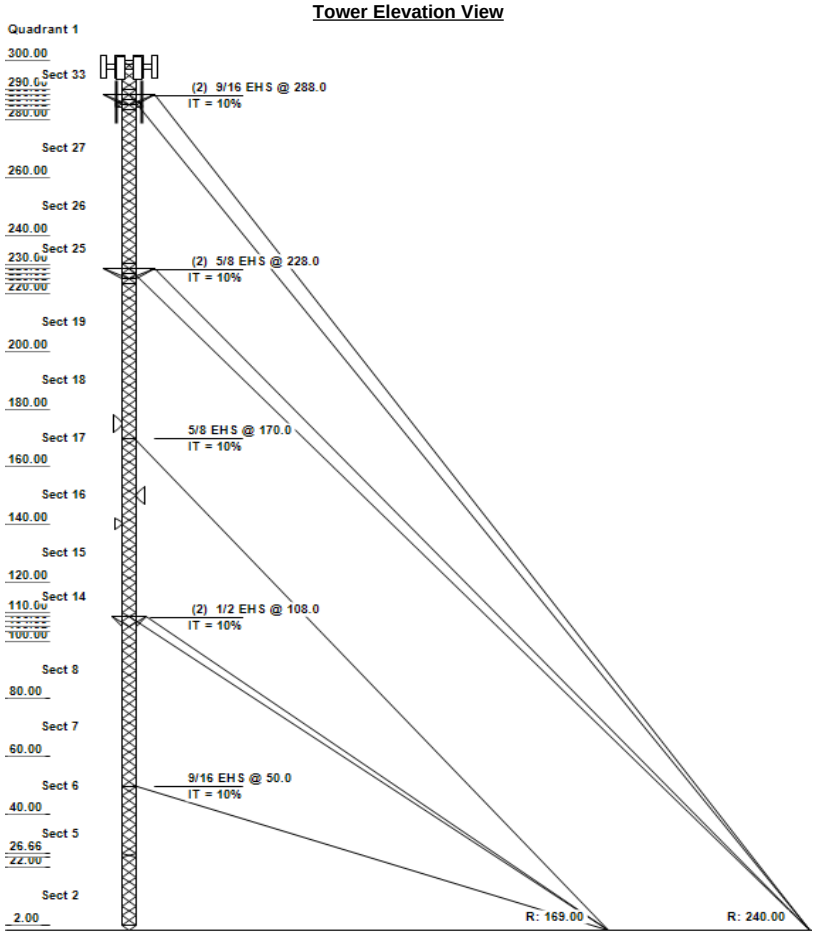
All services are performed, results obtained, and recommendations made in accordance with generally accepted engineering principles and practices. ATC Tower Services, LLC is not responsible for the conclusions, opinions and recommendations made by others based on the information supplied herein.

ASSET: HIGHWAY 441 NORTH, 97139 CODE: ANSI/TIA-222-H
CUSTOMER: ALLTEL COMMUNICATIONS, LLC PROJECT: 14859906

ANALYSIS PARAMETERS

Design Wind:	117 mph	**Ice Wind:**	30 mph w/ 0.00" ice	**Service Wind:**	60 mph
Risk Category:	II	**Exposure:**	B	**S_s:** 0.094	**S_1:** 0.054
Topo Factor:	Method 1	**Topo Feature:**		**Topo Category:**	1
Structure Height:	300 ft	**Base Elevation:**	0 ft	**Shape:**	Triangle
Base Width:	3.50 ft	**Top Width:**	3.50 ft	**Base Type:**	Pivot

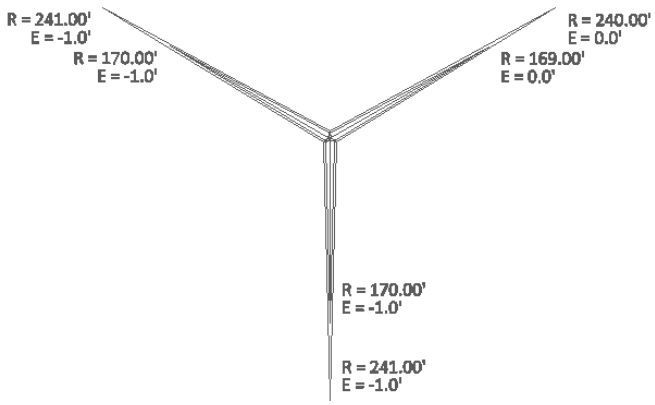
Tower Elevation View



BASE REACTIONS

Axial (k):	116.32
Shear (k):	0.88

Tower Plan View



TOWER SECTION PROPERTIES

Section	Leg Members	Diagonal Members	Horizontal Members
1	W 50 ksi S15x42.9		W 36 ksi S15x42.9
2 - 3	PLA 50 ksi M46-65 LEG	PLA 36 ksi M46-Y LACING	
4	PLA 50 ksi M46-65 LEG	PLA 36 ksi M46-LN LACING	
5	PLA 50 ksi M46-65 LEG	PLA 36 ksi M46-Y LACING	
6	PLA 50 ksi M46-66 LEG	PLA 36 ksi M46-Y LACING	
7 - 8	PLA 50 ksi M46-65 LEG	PLA 36 ksi M46-Y LACING	
9 - 14	PLA 50 ksi M46-76 LEG	PLA 36 ksi M46-T LACING	
15 - 16	PLA 50 ksi M46-65 LEG	PLA 36 ksi M46-Y LACING	
17	PLA 50 ksi M46-64 LEG	PLA 36 ksi M46-Y LACING	
18 - 19	PLA 50 ksi M46-54 LEG	PLA 36 ksi M46-Y LACING	
20 - 24	PLA 50 ksi M46-65 LEG	PLA 36 ksi M46-T LACING	SAE 36 ksi 2X2X0.375
25	PLA 50 ksi M46-65 LEG	PLA 36 ksi M46-T LACING	
26 - 27	PLA 50 ksi M46-64 LEG	PLA 36 ksi M46-Y LACING	
28 - 32	PLA 50 ksi M46-54 LEG	PLA 36 ksi M46-Y LACING	SAE 36 ksi 2X2X0.375
33	PLA 50 ksi M46-54 LEG	PLA 36 ksi M46-Y LACING	SAE 36 ksi 2X2X0.25

DISCRETE APPURTENANCE

Elev (ft)	Description
305.0	(1) Generic Lightning Rod
302.0	(1) Generic Beacon
298.0	(3) Generic Round Sector Frame
298.0	(3) Ericsson AIR 6419 B77D
298.0	(3) Ericsson RRUS 4449
298.0	(6) JMA Wireless MX06FHG865-HG
298.0	(1) Raycap RVZDC-6627-PF-48
298.0	(3) Ericsson RRUS 4890
297.4	(3) CSS X7-865
288.0	(1) Torque Arms
286.0	(2) Generic 15' Omni
278.0	(3) Generic Flat Side Arm
228.0	(1) Torque Arms
175.0	(1) Andrew Microwaves UHX6-59W
155.0	(1) Generic Small Side Lights
150.0	(1) Andrew Microwaves UHX6-59W
140.0	(1) Commscope VHLPX4-11W
108.0	(1) Torque Arms

LINEAR APPURTENANCE

Elev (ft)	Description
300.0	(1) Climbing Ladder
298.0	(10) 1 5/8" Coax
298.0	(2) 1.43"(36.4mm) Hybrid
286.0	(2) 1 5/8" Coax
175.0	(1) EW52
150.0	(1) EW52
140.1	(1) E105
140.0	(2) EW90

GUY ANCHOR REACTIONS

Radius (ft)	Drop (ft)	Azimuth (°)	Uplift (k)	Shear (k)
169.0	0.00	120	18.04	27.25
170.0	-1.00	0	18.06	27.21
170.0	-1.00	240	18.07	27.21
240.0	0.00	120	30.98	30.17
241.0	-1.00	0	30.93	30.13
241.0	-1.00	240	30.94	30.15

ANALYSIS PARAMETERS

Location:	Columbia County, FL	**Height:**	300 ft
Type and Shape:	Guyed, Triangle	**Base Elevation:**	0.00 ft
Manufacturer:	Andrew	**Bottom Face Width:**	3.50 ft
Kd	0.85	**Top Face Width:**	3.50 ft
Ke:	1.00		

ICE & WIND PARAMETERS

Exposure Category:	B	**Design Wind Speed Without Ice:**	117 mph
Risk Category:	II	**Design Wind Speed with Ice:**	30 mph
Topographic Factor Procedure:	Method 1	**Operational Windspeed:**	60 mph
Topographic Category:	1	**Design Ice Thickness:**	0.00 in
Crest Height:	0 ft	**HMSL:**	122 ft

SEISMIC PARAMETERS

Analysis Method:	Equivalent Lateral Force Method				
Site Class:	D - Stiff Soil			**Period Based on Rayleigh Method (sec):**	0.79
T_L (sec):	8	**P:**	1.3	**C_s:**	0.033
S_{ds}:	0.100	**S_{d1}:**	0.086	**C_s Max:**	0.036
S_s:	0.094	**S_1:**	0.054	**C_s Min:**	0.030
F_a:	1.600	**F_v:**	2.400		

LOAD CASES

1.2D + 1.0W Normal	1.2D + 1.0W Normal - 117 mph Wind with No Ice
1.2D + 1.0W 60°	1.2D + 1.0W 60° - 117 mph Wind with No Ice
1.2D + 1.0W 90°	1.2D + 1.0W 90° - 117 mph Wind with No Ice
1.2D + 1.0W 120°	1.2D + 1.0W 120° - 117 mph Wind with No Ice
1.2D + 1.0W 180°	1.2D + 1.0W 180° - 117 mph Wind with No Ice
1.2D + 1.0W 210°	1.2D + 1.0W 210° - 117 mph Wind with No Ice
1.2D + 1.0W 240°	1.2D + 1.0W 240° - 117 mph Wind with No Ice
1.2D + 1.0W 300°	1.2D + 1.0W 300° - 117 mph Wind with No Ice
1.2D + 1.0W 330°	1.2D + 1.0W 330° - 117 mph Wind with No Ice
1.2D + 1.0Di + 1.0Wi Normal	1.2D + 1.0Di + 1.0Wi Normal - 30 mph Wind with 0" Radial Ice
1.2D + 1.0Di + 1.0Wi 60°	1.2D + 1.0Di + 1.0Wi 60° - 30 mph Wind with 0" Radial Ice
1.2D + 1.0Di + 1.0Wi 90°	1.2D + 1.0Di + 1.0Wi 90° - 30 mph Wind with 0" Radial Ice
1.2D + 1.0Di + 1.0Wi 120°	1.2D + 1.0Di + 1.0Wi 120° - 30 mph Wind with 0" Radial Ice
1.2D + 1.0Di + 1.0Wi 180°	1.2D + 1.0Di + 1.0Wi 180° - 30 mph Wind with 0" Radial Ice
1.2D + 1.0Di + 1.0Wi 210°	1.2D + 1.0Di + 1.0Wi 210° - 30 mph Wind with 0" Radial Ice
1.2D + 1.0Di + 1.0Wi 240°	1.2D + 1.0Di + 1.0Wi 240° - 30 mph Wind with 0" Radial Ice
1.2D + 1.0Di + 1.0Wi 300°	1.2D + 1.0Di + 1.0Wi 300° - 30 mph Wind with 0" Radial Ice
1.2D + 1.0Di + 1.0Wi 330°	1.2D + 1.0Di + 1.0Wi 330° - 30 mph Wind with 0" Radial Ice
1.2D + 1.0Ev + 1.0Eh Normal	1.2D + 1.0Ev + 1.0Eh Normal - Seismic
1.2D + 1.0Ev + 1.0Eh 60°	1.2D + 1.0Ev + 1.0Eh 60° - Seismic
1.2D + 1.0Ev + 1.0Eh 90°	1.2D + 1.0Ev + 1.0Eh 90° - Seismic
1.2D + 1.0Ev + 1.0Eh 120°	1.2D + 1.0Ev + 1.0Eh 120° - Seismic
1.2D + 1.0Ev + 1.0Eh 180°	1.2D + 1.0Ev + 1.0Eh 180° - Seismic
1.2D + 1.0Ev + 1.0Eh 210°	1.2D + 1.0Ev + 1.0Eh 210° - Seismic
1.2D + 1.0Ev + 1.0Eh 240°	1.2D + 1.0Ev + 1.0Eh 240° - Seismic
1.2D + 1.0Ev + 1.0Eh 300°	1.2D + 1.0Ev + 1.0Eh 300° - Seismic
1.2D + 1.0Ev + 1.0Eh 330°	1.2D + 1.0Ev + 1.0Eh 330° - Seismic

LOAD CASES	
1.0D + 1.0W Service Normal	1.0D + 1.0W Service Normal - 60 mph Wind with No Ice
1.0D + 1.0W Service 60°	1.0D + 1.0W Service 60° - 60 mph Wind with No Ice
1.0D + 1.0W Service 90°	1.0D + 1.0W Service 90° - 60 mph Wind with No Ice
1.0D + 1.0W Service 120°	1.0D + 1.0W Service 120° - 60 mph Wind with No Ice
1.0D + 1.0W Service 180°	1.0D + 1.0W Service 180° - 60 mph Wind with No Ice
1.0D + 1.0W Service 210°	1.0D + 1.0W Service 210° - 60 mph Wind with No Ice
1.0D + 1.0W Service 240°	1.0D + 1.0W Service 240° - 60 mph Wind with No Ice
1.0D + 1.0W Service 300°	1.0D + 1.0W Service 300° - 60 mph Wind with No Ice
1.0D + 1.0W Service 330°	1.0D + 1.0W Service 330° - 60 mph Wind with No Ice

TOWER LOADING – DISCRETE APPURTENANCE

Discrete Appurtenance Properties for LC: **1.2D + 1.0W**

Elev (ft)	Description	Qty	Wt. (lb)	EPA (sf)	Length (ft)	Width (in)	Depth (in)	K_a	Orient. Factor	Vert. Ecc. (ft)	M_u (lb-ft)	Q_z (psf)	F_a (WL) (lb)	P_a (DL) (lb)
305.0	Generic Lightning Rod	1	10	0.8	0.3	2.0	2.0	1.00	1.00	0.0	0.00	40.30	27	12
302.0	Generic Beacon	1	70	4.5	0.3	18.0	18.0	1.00	1.00	0.0	0.00	40.19	154	84
298.0	Ericsson RRUS 4449	3	70	2.0	1.5	13.2	9.3	0.80	0.50	0.0	0.00	40.04	81	252
298.0	Ericsson RRUS 4890	3	70	2.7	1.7	15.7	7.2	0.80	0.67	0.0	0.00	40.04	147	250
298.0	Raycap RVZDC-6627-PF-48	1	32	3.8	2.4	15.7	10.3	0.80	0.77	0.0	0.00	40.04	79	38
298.0	Ericsson AIR 6419 B77D	3	63	4.2	2.6	16.1	9.1	0.80	0.67	0.0	0.00	40.04	229	227
298.0	JMA Wireless MX06FHG865-HG	6	51	11.6	8.0	12.2	7.5	0.80	0.70	0.0	0.00	40.04	1327	367
298.0	Generic Round Sector Frame	3	700	14.4	0.0	0.0	0.0	0.75	0.75	0.0	0.00	40.04	827	2520
297.4	CSS X7-865	3	37	11.8	8.0	12.5	7.1	0.80	0.69	0.0	0.00	40.01	667	134
288.0	Torque Arms	1	500	15.0	0.0	0.0	0.0	1.00	1.00	0.0	0.00	39.65	506	600
286.0	Generic 15' Omni	2	40	4.5	15.0	3.0	3.0	1.00	1.00	0.0	0.00	39.57	303	96
278.0	Generic Flat Side Arm	3	188	6.3	0.0	0.0	0.0	1.00	0.67	0.0	0.00	39.25	422	675
228.0	Torque Arms	1	500	15.0	0.0	0.0	0.0	1.00	1.00	0.0	0.00	37.09	473	600
175.0	Andrew Microwaves UHX6-59W	1	359	40.3	6.4	76.5	60.8	1.00	1.00	0.0	0.00	34.39	1177	431
155.0	Generic Small Side Lights	1	45	2.0	0.1	8.0	8.0	1.00	1.00	0.0	0.00	33.22	56	54
150.0	Andrew Microwaves UHX6-59W	1	359	40.3	6.4	76.5	60.8	1.00	1.00	0.0	0.00	32.91	1126	431
140.0	Commscope VHLPX4-11W	1	88	16.7	4.1	49.3	27.4	1.00	1.00	0.0	0.00	32.26	459	106
108.0	Torque Arms	1	500	15.0	0.0	0.0	0.0	1.00	1.00	0.0	0.00	29.96	382	600
	Totals	**36**	**6,231**	**356.2**									8,443	7,477

Discrete Appurtenance Properties for LC: **1.2D + 1.0Di + 1.0Wi**

Elev (ft)	Description	Qty	Ice Wt (lb)	Ice EPA (sf)	Length (ft)	Width (in)	Depth (in)	K_a	Orient. Factor	Vert. Ecc. (ft)	M_u (lb-ft)	Q_z (psf)	F_a (WL) (lb)	P_a (DL) (lb)
305.0	Generic Lightning Rod	1	10	0.8	0.3	2.0	2.0	1.00	1.00	0.0	0.00	2.65	2	12
302.0	Generic Beacon	1	70	4.5	0.3	18.0	18.0	1.00	1.00	0.0	0.00	2.64	10	84
298.0	Ericsson RRUS 4449	3	70	2.0	1.5	13.2	9.3	0.80	0.50	0.0	0.00	2.63	5	252
298.0	Ericsson RRUS 4890	3	70	2.7	1.7	15.7	7.2	0.80	0.67	0.0	0.00	2.63	10	250
298.0	Raycap RVZDC-6627-PF-48	1	32	3.8	2.4	15.7	10.3	0.80	0.77	0.0	0.00	2.63	5	38
298.0	Ericsson AIR 6419 B77D	3	63	4.2	2.6	16.1	9.1	0.80	0.67	0.0	0.00	2.63	15	227
298.0	JMA Wireless MX06FHG865-HG	6	51	11.6	8.0	12.2	7.5	0.80	0.70	0.0	0.00	2.63	87	367
298.0	Generic Round Sector Frame	3	700	14.4	0.0	0.0	0.0	0.75	0.75	0.0	0.00	2.63	54	2520
297.4	CSS X7-865	3	37	11.8	8.0	12.5	7.1	0.80	0.69	0.0	0.00	2.63	44	134
288.0	Torque Arms	1	500	15.0	0.0	0.0	0.0	1.00	1.00	0.0	0.00	2.61	33	600
286.0	Generic 15' Omni	2	40	4.5	15.0	3.0	3.0	1.00	1.00	0.0	0.00	2.60	20	96
278.0	Generic Flat Side Arm	3	188	6.3	0.0	0.0	0.0	1.00	0.67	0.0	0.00	2.58	28	675
228.0	Torque Arms	1	500	15.0	0.0	0.0	0.0	1.00	1.00	0.0	0.00	2.44	31	600
175.0	Andrew Microwaves UHX6-59W	1	359	40.3	6.4	76.5	60.8	1.00	1.00	0.0	0.00	2.26	77	431
155.0	Generic Small Side Lights	1	45	2.0	0.1	8.0	8.0	1.00	1.00	0.0	0.00	2.18	4	54
150.0	Andrew Microwaves UHX6-59W	1	359	40.3	6.4	76.5	60.8	1.00	1.00	0.0	0.00	2.16	74	431
140.0	Commscope VHLPX4-11W	1	88	16.7	4.1	49.3	27.4	1.00	1.00	0.0	0.00	2.12	30	106
108.0	Torque Arms	1	500	15.0	0.0	0.0	0.0	1.00	1.00	0.0	0.00	1.97	25	600
	Totals	**36**	**6,231**	**356.2**									555	7,477

Discrete Appurtenance Properties for LC: **1.0D + 1.0W Service**

Elev (ft)	Description	Qty	Wt. (lb)	EPA (sf)	Length (ft)	Width (in)	Depth (in)	K_a	Orient. Factor	Vert. Ecc. (ft)	M_u (lb-ft)	Q_z (psf)	F_a (WL) (lb)	P_a (DL) (lb)
305.0	Generic Lightning Rod	1	10	0.8	0.3	2.0	2.0	1.00	1.00	0.0	0.00	10.60	7	10
302.0	Generic Beacon	1	70	4.5	0.3	18.0	18.0	1.00	1.00	0.0	0.00	10.57	40	70
298.0	Ericsson RRUS 4449	3	70	2.0	1.5	13.2	9.3	0.80	0.50	0.0	0.00	10.53	21	210
298.0	Ericsson RRUS 4890	3	70	2.7	1.7	15.7	7.2	0.80	0.67	0.0	0.00	10.53	39	208
298.0	Raycap RVZDC-6627-PF-48	1	32	3.8	2.4	15.7	10.3	0.80	0.77	0.0	0.00	10.53	21	32
298.0	Ericsson AIR 6419 B77D	3	63	4.2	2.6	16.1	9.1	0.80	0.67	0.0	0.00	10.53	60	189
298.0	JMA Wireless MX06FHG865-HG	6	51	11.6	8.0	12.2	7.5	0.80	0.70	0.0	0.00	10.53	349	306
298.0	Generic Round Sector Frame	3	700	14.4	0.0	0.0	0.0	0.75	0.75	0.0	0.00	10.53	217	2100
297.4	CSS X7-865	3	37	11.8	8.0	12.5	7.1	0.80	0.69	0.0	0.00	10.52	176	112
288.0	Torque Arms	1	500	15.0	0.0	0.0	0.0	1.00	1.00	0.0	0.00	10.43	133	500
286.0	Generic 15' Omni	2	40	4.5	15.0	3.0	3.0	1.00	1.00	0.0	0.00	10.41	80	80
278.0	Generic Flat Side Arm	3	188	6.3	0.0	0.0	0.0	1.00	0.67	0.0	0.00	10.32	111	562
228.0	Torque Arms	1	500	15.0	0.0	0.0	0.0	1.00	1.00	0.0	0.00	9.75	124	500
175.0	Andrew Microwaves UHX6-59W	1	359	40.3	6.4	76.5	60.8	1.00	1.00	0.0	0.00	9.04	310	359
155.0	Generic Small Side Lights	1	45	2.0	0.1	8.0	8.0	1.00	1.00	0.0	0.00	8.74	15	45
150.0	Andrew Microwaves UHX6-59W	1	359	40.3	6.4	76.5	60.8	1.00	1.00	0.0	0.00	8.65	296	359
140.0	Commscope VHLPX4-11W	1	88	16.7	4.1	49.3	27.4	1.00	1.00	0.0	0.00	8.48	121	88
108.0	Torque Arms	1	500	15.0	0.0	0.0	0.0	1.00	1.00	0.0	0.00	7.88	100	500
	Totals	**36**	**6,231**	**356.2**									2,220	6,231

TOWER LOADING – LINEAR APPURTENANCE

Linear Appurtenance Properties

Elev From (ft)	Elev To (ft)	Description	Qty	Width (in)	Weight (lb/ft)	% In Wind	Spread On Faces	Bundling	Cluster Dia (in)	Out of Zone	Spacing (in)	Orient. Factor	K_a Override
0.0	300.0	Climbing Ladder	1	2.00	6.90	100	2	Individual	0.00	N	1.00	1.00	0.00
0.0	298.0	1 5/8" Coax	10	1.98	0.82	80	1	Block	0.00	N	1.00	1.00	0.00
0.0	298.0	1.43"(36.4mm) Hybrid	2	1.43	0.79	100	1	Individual	0.00	N	1.00	1.00	0.00
0.0	286.0	1 5/8" Coax	2	1.98	0.82	100	1	Individual	0.00	N	1.00	1.00	0.00
0.0	175.0	EW52	1	2.25	0.59	100	1	Individual	0.00	N	1.00	1.00	0.00
0.0	150.0	EW52	1	2.25	0.59	100	1	Individual	0.00	N	1.00	1.00	0.00
0.0	140.1	E105	1	1.30	0.40	100	1	Individual	0.00	N	1.00	1.00	0.00
0.0	140.0	EW90	2	1.32	0.32	100	1	Individual	0.00	N	1.00	1.00	0.00

SECTION FORCES

1.2D + 1.0W Normal — Gust Response Factor (Gh): 0.85
117 mph Wind with No Ice — Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q_z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
33	295	39.92	8.447	0.000	0.00	0.225	2.51	1.00	1.00	0.0	8.45	21.23	0.00	524	0	720	410	1130
32	289	39.69	1.850	0.000	0.00	0.296	2.31	1.00	1.00	0.0	1.85	4.27	0.00	144	0	144	83	227
31	288	39.63	1.832	0.000	0.00	0.293	2.32	1.00	1.00	0.0	1.83	4.24	0.00	144	0	143	83	226
30	286	39.56	1.850	0.000	0.00	0.296	2.31	1.00	1.00	0.0	1.85	4.27	0.00	146	0	144	91	235
29	284	39.50	1.832	0.000	0.00	0.293	2.32	1.00	1.00	0.0	1.83	4.24	0.00	147	0	142	96	239
28	282	39.40	3.165	0.000	0.00	0.254	2.42	1.00	1.00	0.0	3.17	7.67	0.00	234	0	257	191	448
27	270	38.92	16.945	0.000	0.00	0.224	2.52	1.00	1.00	0.0	16.94	42.65	0.00	1096	0	1411	1136	2547
26	250	38.08	16.945	0.000	0.00	0.224	2.52	1.00	1.00	0.0	16.94	42.65	0.00	1096	0	1380	1112	2492
25	235	37.41	9.680	0.000	0.00	0.256	2.42	1.00	1.00	0.0	9.68	23.41	0.00	664	0	744	546	1291
24	229	37.14	2.130	0.000	0.00	0.338	2.20	1.00	1.00	0.0	2.13	4.69	0.00	170	0	148	91	239
23	228	37.06	2.105	0.000	0.00	0.334	2.21	1.00	1.00	0.0	2.10	4.65	0.00	170	0	147	90	237
22	226	36.99	2.130	0.000	0.00	0.338	2.20	1.00	1.00	0.0	2.13	4.69	0.00	170	0	147	90	238
21	224	36.91	2.105	0.000	0.00	0.334	2.21	1.00	1.00	0.0	2.10	4.65	0.00	170	0	146	90	236
20	222	36.79	3.758	0.000	0.00	0.300	2.30	1.00	1.00	0.0	3.76	8.63	0.00	280	0	270	178	448
19	210	36.23	15.809	0.000	0.00	0.211	2.56	1.00	1.00	0.0	15.81	40.47	0.00	1054	0	1246	1058	2304
18	190	35.21	15.806	0.000	0.00	0.211	2.56	1.00	1.00	0.0	15.81	40.46	0.00	1054	0	1211	1028	2239
17	170	34.10	17.528	0.000	0.00	0.232	2.49	1.00	1.00	0.0	17.53	43.69	0.00	1168	0	1266	1054	2321
16	150	32.91	16.945	0.000	0.00	0.224	2.52	1.00	1.00	0.0	16.94	42.65	0.00	1218	0	1193	1074	2267
15	130	31.59	16.941	0.000	0.00	0.224	2.52	1.00	1.00	0.0	16.94	42.64	0.00	1250	0	1145	1194	2339
14	115	30.50	10.315	0.000	0.00	0.271	2.38	1.00	1.00	0.0	10.31	24.52	0.00	779	0	636	576	1212
13	109	30.05	1.699	0.000	0.00	0.267	2.39	1.00	1.00	0.0	1.70	4.06	0.00	130	0	104	95	198
12	108	29.92	1.699	0.000	0.00	0.267	2.39	1.00	1.00	0.0	1.70	4.06	0.00	130	0	103	94	198
11	106	29.78	1.699	0.000	0.00	0.267	2.39	1.00	1.00	0.0	1.70	4.06	0.00	130	0	103	94	197
10	104	29.65	1.699	0.000	0.00	0.267	2.39	1.00	1.00	0.0	1.70	4.06	0.00	130	0	102	94	196
9	102	29.45	3.432	0.000	0.00	0.271	2.38	1.00	1.00	0.0	3.43	8.15	0.00	259	0	204	185	389
8	90	28.44	16.945	0.000	0.00	0.224	2.52	1.00	1.00	0.0	16.94	42.65	0.00	1250	0	1031	1075	2106
7	70	26.47	16.945	0.000	0.00	0.224	2.52	1.00	1.00	0.0	16.94	42.65	0.00	1250	0	959	1001	1960
6	50	24.04	17.528	0.000	0.00	0.232	2.49	1.00	1.00	0.0	17.53	43.69	0.00	1413	0	893	909	1802
5	33	21.41	11.301	0.000	0.00	0.224	2.52	1.00	1.00	0.0	11.30	28.44	0.00	834	0	518	540	1057
4	26	20.76	0.736	0.746	0.00	0.295	2.31	1.00	1.00	0.0	1.22	2.81	0.00	99	0	50	52	102
3	24	20.76	2.822	0.000	0.00	0.224	2.52	1.00	1.00	0.0	2.82	7.10	0.00	208	0	125	131	256
2	12	20.76	16.925	0.000	0.00	0.224	2.52	1.00	1.00	0.0	16.93	42.61	0.00	1250	0	752	785	1537
1	1	20.76	4.000	0.000	0.00	0.906	1.93	1.00	1.00	0.0	4.00	7.73	0.00	1029	0	136	12	149
													Totals	**19,794**	**0**			**33,058**

1.2D + 1.0W 60° — Gust Response Factor (Gh): 0.85
117 mph Wind with No Ice — Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q_z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
33	295	39.92	8.447	0.000	0.00	0.225	2.51	0.80	1.00	0.0	6.76	16.98	0.00	524	0	576	410	986
32	289	39.69	1.850	0.000	0.00	0.296	2.31	0.80	1.00	0.0	1.48	3.42	0.00	144	0	115	83	199
31	288	39.63	1.832	0.000	0.00	0.293	2.32	0.80	1.00	0.0	1.47	3.39	0.00	144	0	114	83	198
30	286	39.56	1.850	0.000	0.00	0.296	2.31	0.80	1.00	0.0	1.48	3.42	0.00	146	0	115	91	206
29	284	39.50	1.832	0.000	0.00	0.293	2.32	0.80	1.00	0.0	1.47	3.39	0.00	147	0	114	96	210
28	282	39.40	3.165	0.000	0.00	0.254	2.42	0.80	1.00	0.0	2.53	6.14	0.00	234	0	206	191	396
27	270	38.92	16.945	0.000	0.00	0.224	2.52	0.80	1.00	0.0	13.56	34.12	0.00	1096	0	1129	1136	2265
26	250	38.08	16.945	0.000	0.00	0.224	2.52	0.80	1.00	0.0	13.56	34.12	0.00	1096	0	1104	1112	2216
25	235	37.41	9.680	0.000	0.00	0.256	2.42	0.80	1.00	0.0	7.74	18.73	0.00	664	0	596	546	1142
24	229	37.14	2.130	0.000	0.00	0.338	2.20	0.80	1.00	0.0	1.70	3.75	0.00	170	0	118	91	209
23	228	37.06	2.105	0.000	0.00	0.334	2.21	0.80	1.00	0.0	1.68	3.72	0.00	170	0	117	90	208
22	226	36.99	2.130	0.000	0.00	0.338	2.20	0.80	1.00	0.0	1.70	3.75	0.00	170	0	118	90	208
21	224	36.91	2.105	0.000	0.00	0.334	2.21	0.80	1.00	0.0	1.68	3.72	0.00	170	0	117	90	207
20	222	36.79	3.758	0.000	0.00	0.300	2.30	0.80	1.00	0.0	3.01	6.91	0.00	280	0	216	178	394
19	210	36.23	15.809	0.000	0.00	0.211	2.56	0.80	1.00	0.0	12.65	32.38	0.00	1054	0	997	1058	2055
18	190	35.21	15.806	0.000	0.00	0.211	2.56	0.80	1.00	0.0	12.64	32.37	0.00	1054	0	969	1028	1996
17	170	34.10	17.528	0.000	0.00	0.232	2.49	0.80	1.00	0.0	14.02	34.95	0.00	1168	0	1013	1054	2067
16	150	32.91	16.945	0.000	0.00	0.224	2.52	0.80	1.00	0.0	13.56	34.12	0.00	1218	0	954	1074	2028
15	130	31.59	16.941	0.000	0.00	0.224	2.52	0.80	1.00	0.0	13.55	34.11	0.00	1250	0	916	1194	2110
14	115	30.50	10.315	0.000	0.00	0.271	2.38	0.80	1.00	0.0	8.25	19.61	0.00	779	0	508	576	1085
13	109	30.05	1.699	0.000	0.00	0.267	2.39	0.80	1.00	0.0	1.36	3.24	0.00	130	0	83	95	178
12	108	29.92	1.699	0.000	0.00	0.267	2.39	0.80	1.00	0.0	1.36	3.24	0.00	130	0	83	94	177
11	106	29.78	1.699	0.000	0.00	0.267	2.39	0.80	1.00	0.0	1.36	3.24	0.00	130	0	82	94	176
10	104	29.65	1.699	0.000	0.00	0.267	2.39	0.80	1.00	0.0	1.36	3.24	0.00	130	0	82	94	175
9	102	29.45	3.432	0.000	0.00	0.271	2.38	0.80	1.00	0.0	2.75	6.52	0.00	259	0	163	185	348
8	90	28.44	16.945	0.000	0.00	0.224	2.52	0.80	1.00	0.0	13.56	34.12	0.00	1250	0	825	1075	1900
7	70	26.47	16.945	0.000	0.00	0.224	2.52	0.80	1.00	0.0	13.56	34.12	0.00	1250	0	768	1001	1768
6	50	24.04	17.528	0.000	0.00	0.232	2.49	0.80	1.00	0.0	14.02	34.95	0.00	1413	0	714	909	1623
5	33	21.41	11.301	0.000	0.00	0.224	2.52	0.80	1.00	0.0	9.04	22.75	0.00	834	0	414	540	954
4	26	20.76	0.736	0.746	0.00	0.295	2.31	0.80	1.00	0.0	1.07	2.47	0.00	99	0	44	52	96
3	24	20.76	2.822	0.000	0.00	0.224	2.52	0.80	1.00	0.0	2.26	5.68	0.00	208	0	100	131	231
2	12	20.76	16.925	0.000	0.00	0.224	2.52	0.80	1.00	0.0	13.54	34.09	0.00	1250	0	601	785	1386
1	1	20.76	4.000	0.000	0.00	0.906	1.93	0.80	1.00	0.0	3.20	6.18	0.00	1029	0	109	12	121
													Totals	**19,794**	**0**			**29,518**

SECTION FORCES

1.2D + 1.0W 90° Gust Response Factor (Gh): 0.85
117 mph Wind with No Ice Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q_z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
33	295	39.92	8.447	0.000	0.00	0.225	2.51	0.85	1.00	0.0	7.18	18.05	0.00	524	0	612	410	1022
32	289	39.69	1.850	0.000	0.00	0.296	2.31	0.85	1.00	0.0	1.57	3.63	0.00	144	0	122	83	206
31	288	39.63	1.832	0.000	0.00	0.293	2.32	0.85	1.00	0.0	1.56	3.61	0.00	144	0	121	83	205
30	286	39.56	1.850	0.000	0.00	0.296	2.31	0.85	1.00	0.0	1.57	3.63	0.00	146	0	122	91	213
29	284	39.50	1.832	0.000	0.00	0.293	2.32	0.85	1.00	0.0	1.56	3.61	0.00	147	0	121	96	217
28	282	39.40	3.165	0.000	0.00	0.254	2.42	0.85	1.00	0.0	2.69	6.52	0.00	234	0	218	191	409
27	270	38.92	16.945	0.000	0.00	0.224	2.52	0.85	1.00	0.0	14.40	36.25	0.00	1096	0	1199	1136	2336
26	250	38.08	16.945	0.000	0.00	0.224	2.52	0.85	1.00	0.0	14.40	36.25	0.00	1096	0	1173	1112	2285
25	235	37.41	9.680	0.000	0.00	0.256	2.42	0.85	1.00	0.0	8.23	19.90	0.00	664	0	633	546	1179
24	229	37.14	2.130	0.000	0.00	0.338	2.20	0.85	1.00	0.0	1.81	3.98	0.00	170	0	126	91	216
23	228	37.06	2.105	0.000	0.00	0.334	2.21	0.85	1.00	0.0	1.79	3.95	0.00	170	0	125	90	215
22	226	36.99	2.130	0.000	0.00	0.338	2.20	0.85	1.00	0.0	1.81	3.98	0.00	170	0	125	90	215
21	224	36.91	2.105	0.000	0.00	0.334	2.21	0.85	1.00	0.0	1.79	3.95	0.00	170	0	124	90	214
20	222	36.79	3.758	0.000	0.00	0.300	2.30	0.85	1.00	0.0	3.19	7.34	0.00	280	0	229	178	408
19	210	36.23	15.809	0.000	0.00	0.211	2.56	0.85	1.00	0.0	13.44	34.40	0.00	1054	0	1059	1058	2117
18	190	35.21	15.806	0.000	0.00	0.211	2.56	0.85	1.00	0.0	13.44	34.39	0.00	1054	0	1029	1028	2057
17	170	34.10	17.528	0.000	0.00	0.232	2.49	0.85	1.00	0.0	14.90	37.13	0.00	1168	0	1076	1054	2131
16	150	32.91	16.945	0.000	0.00	0.224	2.52	0.85	1.00	0.0	14.40	36.25	0.00	1218	0	1014	1074	2088
15	130	31.59	16.941	0.000	0.00	0.224	2.52	0.85	1.00	0.0	14.40	36.24	0.00	1250	0	973	1194	2167
14	115	30.50	10.315	0.000	0.00	0.271	2.38	0.85	1.00	0.0	8.77	20.84	0.00	779	0	540	576	1117
13	109	30.05	1.699	0.000	0.00	0.267	2.39	0.85	1.00	0.0	1.44	3.45	0.00	130	0	88	95	183
12	108	29.92	1.699	0.000	0.00	0.267	2.39	0.85	1.00	0.0	1.44	3.45	0.00	130	0	88	94	182
11	106	29.78	1.699	0.000	0.00	0.267	2.39	0.85	1.00	0.0	1.44	3.45	0.00	130	0	87	94	181
10	104	29.65	1.699	0.000	0.00	0.267	2.39	0.85	1.00	0.0	1.44	3.45	0.00	130	0	87	94	180
9	102	29.45	3.432	0.000	0.00	0.271	2.38	0.85	1.00	0.0	2.92	6.93	0.00	259	0	173	185	358
8	90	28.44	16.945	0.000	0.00	0.224	2.52	0.85	1.00	0.0	14.40	36.25	0.00	1250	0	876	1075	1951
7	70	26.47	16.945	0.000	0.00	0.224	2.52	0.85	1.00	0.0	14.40	36.25	0.00	1250	0	816	1001	1816
6	50	24.04	17.528	0.000	0.00	0.232	2.49	0.85	1.00	0.0	14.90	37.13	0.00	1413	0	759	909	1668
5	33	21.41	11.301	0.000	0.00	0.224	2.52	0.85	1.00	0.0	9.61	24.18	0.00	834	0	440	540	980
4	26	20.76	0.736	0.746	0.00	0.295	2.31	0.85	1.00	0.0	1.11	2.56	0.00	99	0	45	52	97
3	24	20.76	2.822	0.000	0.00	0.224	2.52	0.85	1.00	0.0	2.40	6.04	0.00	208	0	107	131	237
2	12	20.76	16.925	0.000	0.00	0.224	2.52	0.85	1.00	0.0	14.39	36.22	0.00	1250	0	639	785	1424
1	1	20.76	4.000	0.000	0.00	0.906	1.93	0.85	1.00	0.0	3.40	6.57	0.00	1029	0	116	12	128
													Totals	**19,794**	**0**			**30,403**

1.2D + 1.0W 120° Gust Response Factor (Gh): 0.85
117 mph Wind with No Ice Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q_z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
33	295	39.92	8.447	0.000	0.00	0.225	2.51	1.00	1.00	0.0	8.45	21.23	0.00	524	0	720	410	1130
32	289	39.69	1.850	0.000	0.00	0.296	2.31	1.00	1.00	0.0	1.85	4.27	0.00	144	0	144	83	227
31	288	39.63	1.832	0.000	0.00	0.293	2.32	1.00	1.00	0.0	1.83	4.24	0.00	144	0	143	83	226
30	286	39.56	1.850	0.000	0.00	0.296	2.31	1.00	1.00	0.0	1.85	4.27	0.00	146	0	144	91	235
29	284	39.50	1.832	0.000	0.00	0.293	2.32	1.00	1.00	0.0	1.83	4.24	0.00	147	0	142	96	239
28	282	39.40	3.165	0.000	0.00	0.254	2.42	1.00	1.00	0.0	3.17	7.67	0.00	234	0	257	191	448
27	270	38.92	16.945	0.000	0.00	0.224	2.52	1.00	1.00	0.0	16.94	42.65	0.00	1096	0	1411	1136	2547
26	250	38.08	16.945	0.000	0.00	0.224	2.52	1.00	1.00	0.0	16.94	42.65	0.00	1096	0	1380	1112	2492
25	235	37.41	9.680	0.000	0.00	0.256	2.42	1.00	1.00	0.0	9.68	23.41	0.00	664	0	744	546	1291
24	229	37.14	2.130	0.000	0.00	0.338	2.20	1.00	1.00	0.0	2.13	4.69	0.00	170	0	148	91	239
23	228	37.06	2.105	0.000	0.00	0.334	2.21	1.00	1.00	0.0	2.10	4.65	0.00	170	0	147	90	237
22	226	36.99	2.130	0.000	0.00	0.338	2.20	1.00	1.00	0.0	2.13	4.69	0.00	170	0	147	90	238
21	224	36.91	2.105	0.000	0.00	0.334	2.21	1.00	1.00	0.0	2.10	4.65	0.00	170	0	146	90	236
20	222	36.79	3.758	0.000	0.00	0.300	2.30	1.00	1.00	0.0	3.76	8.63	0.00	280	0	270	178	448
19	210	36.23	15.809	0.000	0.00	0.211	2.56	1.00	1.00	0.0	15.81	40.47	0.00	1054	0	1246	1058	2304
18	190	35.21	15.806	0.000	0.00	0.211	2.56	1.00	1.00	0.0	15.81	40.46	0.00	1054	0	1211	1028	2239
17	170	34.10	17.528	0.000	0.00	0.232	2.49	1.00	1.00	0.0	17.53	43.69	0.00	1168	0	1266	1054	2321
16	150	32.91	16.945	0.000	0.00	0.224	2.52	1.00	1.00	0.0	16.94	42.65	0.00	1218	0	1193	1074	2267
15	130	31.59	16.941	0.000	0.00	0.224	2.52	1.00	1.00	0.0	16.94	42.64	0.00	1250	0	1145	1194	2339
14	115	30.50	10.315	0.000	0.00	0.271	2.38	1.00	1.00	0.0	10.31	24.52	0.00	779	0	636	576	1212
13	109	30.05	1.699	0.000	0.00	0.267	2.39	1.00	1.00	0.0	1.70	4.06	0.00	130	0	104	95	198
12	108	29.92	1.699	0.000	0.00	0.267	2.39	1.00	1.00	0.0	1.70	4.06	0.00	130	0	103	94	198
11	106	29.78	1.699	0.000	0.00	0.267	2.39	1.00	1.00	0.0	1.70	4.06	0.00	130	0	103	94	197
10	104	29.65	1.699	0.000	0.00	0.267	2.39	1.00	1.00	0.0	1.70	4.06	0.00	130	0	102	94	196
9	102	29.45	3.432	0.000	0.00	0.271	2.38	1.00	1.00	0.0	3.43	8.15	0.00	259	0	204	185	389
8	90	28.44	16.945	0.000	0.00	0.224	2.52	1.00	1.00	0.0	16.94	42.65	0.00	1250	0	1031	1075	2106
7	70	26.47	16.945	0.000	0.00	0.224	2.52	1.00	1.00	0.0	16.94	42.65	0.00	1250	0	959	1001	1960
6	50	24.04	17.528	0.000	0.00	0.232	2.49	1.00	1.00	0.0	17.53	43.69	0.00	1413	0	893	909	1802
5	33	21.41	11.301	0.000	0.00	0.224	2.52	1.00	1.00	0.0	11.30	28.44	0.00	834	0	518	540	1057
4	26	20.76	0.736	0.746	0.00	0.295	2.31	1.00	1.00	0.0	1.22	2.81	0.00	99	0	50	52	102
3	24	20.76	2.822	0.000	0.00	0.224	2.52	1.00	1.00	0.0	2.82	7.10	0.00	208	0	125	131	256
2	12	20.76	16.925	0.000	0.00	0.224	2.52	1.00	1.00	0.0	16.93	42.61	0.00	1250	0	752	785	1537
1	1	20.76	4.000	0.000	0.00	0.906	1.93	1.00	1.00	0.0	4.00	7.73	0.00	1029	0	136	12	149
													Totals	**19,794**	**0**			**33,058**

SECTION FORCES

1.2D + 1.0W 180° Gust Response Factor (Gh): 0.85
117 mph Wind with No Ice Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q_z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
33	295	39.92	8.447	0.000	0.00	0.225	2.51	0.80	1.00	0.0	6.76	16.98	0.00	524	0	576	410	986
32	289	39.69	1.850	0.000	0.00	0.296	2.31	0.80	1.00	0.0	1.48	3.42	0.00	144	0	115	83	199
31	288	39.63	1.832	0.000	0.00	0.293	2.32	0.80	1.00	0.0	1.47	3.39	0.00	144	0	114	83	198
30	286	39.56	1.850	0.000	0.00	0.296	2.31	0.80	1.00	0.0	1.48	3.42	0.00	146	0	115	91	206
29	284	39.50	1.832	0.000	0.00	0.293	2.32	0.80	1.00	0.0	1.47	3.39	0.00	147	0	114	96	210
28	282	39.40	3.165	0.000	0.00	0.254	2.42	0.80	1.00	0.0	2.53	6.14	0.00	234	0	206	191	396
27	270	38.92	16.945	0.000	0.00	0.224	2.52	0.80	1.00	0.0	13.56	34.12	0.00	1096	0	1129	1136	2265
26	250	38.08	16.945	0.000	0.00	0.224	2.52	0.80	1.00	0.0	13.56	34.12	0.00	1096	0	1104	1112	2216
25	235	37.41	9.680	0.000	0.00	0.256	2.42	0.80	1.00	0.0	7.74	18.73	0.00	664	0	596	546	1142
24	229	37.14	2.130	0.000	0.00	0.338	2.20	0.80	1.00	0.0	1.70	3.75	0.00	170	0	118	91	209
23	228	37.06	2.105	0.000	0.00	0.334	2.21	0.80	1.00	0.0	1.68	3.72	0.00	170	0	117	90	208
22	226	36.99	2.130	0.000	0.00	0.338	2.20	0.80	1.00	0.0	1.70	3.75	0.00	170	0	118	90	208
21	224	36.91	2.105	0.000	0.00	0.334	2.21	0.80	1.00	0.0	1.68	3.72	0.00	170	0	117	90	207
20	222	36.79	3.758	0.000	0.00	0.300	2.30	0.80	1.00	0.0	3.01	6.91	0.00	280	0	216	178	394
19	210	36.23	15.809	0.000	0.00	0.211	2.56	0.80	1.00	0.0	12.65	32.38	0.00	1054	0	997	1058	2055
18	190	35.21	15.806	0.000	0.00	0.211	2.56	0.80	1.00	0.0	12.64	32.37	0.00	1054	0	969	1028	1996
17	170	34.10	17.528	0.000	0.00	0.232	2.49	0.80	1.00	0.0	14.02	34.95	0.00	1168	0	1013	1054	2067
16	150	32.91	16.945	0.000	0.00	0.224	2.52	0.80	1.00	0.0	13.56	34.12	0.00	1218	0	954	1074	2028
15	130	31.59	16.941	0.000	0.00	0.224	2.52	0.80	1.00	0.0	13.55	34.11	0.00	1250	0	916	1194	2110
14	115	30.50	10.315	0.000	0.00	0.271	2.38	0.80	1.00	0.0	8.25	19.61	0.00	779	0	508	576	1085
13	109	30.05	1.699	0.000	0.00	0.267	2.39	0.80	1.00	0.0	1.36	3.24	0.00	130	0	83	95	178
12	108	29.92	1.699	0.000	0.00	0.267	2.39	0.80	1.00	0.0	1.36	3.24	0.00	130	0	83	94	177
11	106	29.78	1.699	0.000	0.00	0.267	2.39	0.80	1.00	0.0	1.36	3.24	0.00	130	0	82	94	176
10	104	29.65	1.699	0.000	0.00	0.267	2.39	0.80	1.00	0.0	1.36	3.24	0.00	130	0	82	94	175
9	102	29.45	3.432	0.000	0.00	0.271	2.38	0.80	1.00	0.0	2.75	6.52	0.00	259	0	163	185	348
8	90	28.44	16.945	0.000	0.00	0.224	2.52	0.80	1.00	0.0	13.56	34.12	0.00	1250	0	825	1075	1900
7	70	26.47	16.945	0.000	0.00	0.224	2.52	0.80	1.00	0.0	13.56	34.12	0.00	1250	0	768	1001	1768
6	50	24.04	17.528	0.000	0.00	0.232	2.49	0.80	1.00	0.0	14.02	34.95	0.00	1413	0	714	909	1623
5	33	21.41	11.301	0.000	0.00	0.224	2.52	0.80	1.00	0.0	9.04	22.75	0.00	834	0	414	540	954
4	26	20.76	0.736	0.746	0.00	0.295	2.31	0.80	1.00	0.0	1.07	2.47	0.00	99	0	44	52	96
3	24	20.76	2.822	0.000	0.00	0.224	2.52	0.80	1.00	0.0	2.26	5.68	0.00	208	0	100	131	231
2	12	20.76	16.925	0.000	0.00	0.224	2.52	0.80	1.00	0.0	13.54	34.09	0.00	1250	0	601	785	1386
1	1	20.76	4.000	0.000	0.00	0.906	1.93	0.80	1.00	0.0	3.20	6.18	0.00	1029	0	109	12	121
													Totals	**19,794**	**0**			**29,518**

1.2D + 1.0W 210° Gust Response Factor (Gh): 0.85
117 mph Wind with No Ice Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q_z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
33	295	39.92	8.447	0.000	0.00	0.225	2.51	0.85	1.00	0.0	7.18	18.05	0.00	524	0	612	410	1022
32	289	39.69	1.850	0.000	0.00	0.296	2.31	0.85	1.00	0.0	1.57	3.63	0.00	144	0	122	83	206
31	288	39.63	1.832	0.000	0.00	0.293	2.32	0.85	1.00	0.0	1.56	3.61	0.00	144	0	121	83	205
30	286	39.56	1.850	0.000	0.00	0.296	2.31	0.85	1.00	0.0	1.57	3.63	0.00	146	0	122	91	213
29	284	39.50	1.832	0.000	0.00	0.293	2.32	0.85	1.00	0.0	1.56	3.61	0.00	147	0	121	96	217
28	282	39.40	3.165	0.000	0.00	0.254	2.42	0.85	1.00	0.0	2.69	6.52	0.00	234	0	218	191	409
27	270	38.92	16.945	0.000	0.00	0.224	2.52	0.85	1.00	0.0	14.40	36.25	0.00	1096	0	1199	1136	2336
26	250	38.08	16.945	0.000	0.00	0.224	2.52	0.85	1.00	0.0	14.40	36.25	0.00	1096	0	1173	1112	2285
25	235	37.41	9.680	0.000	0.00	0.256	2.42	0.85	1.00	0.0	8.23	19.90	0.00	664	0	633	546	1179
24	229	37.14	2.130	0.000	0.00	0.338	2.20	0.85	1.00	0.0	1.81	3.98	0.00	170	0	126	91	216
23	228	37.06	2.105	0.000	0.00	0.334	2.21	0.85	1.00	0.0	1.79	3.95	0.00	170	0	125	90	215
22	226	36.99	2.130	0.000	0.00	0.338	2.20	0.85	1.00	0.0	1.81	3.98	0.00	170	0	125	90	215
21	224	36.91	2.105	0.000	0.00	0.334	2.21	0.85	1.00	0.0	1.79	3.95	0.00	170	0	124	90	214
20	222	36.79	3.758	0.000	0.00	0.300	2.30	0.85	1.00	0.0	3.19	7.34	0.00	280	0	229	178	408
19	210	36.23	15.809	0.000	0.00	0.211	2.56	0.85	1.00	0.0	13.44	34.40	0.00	1054	0	1059	1058	2117
18	190	35.21	15.806	0.000	0.00	0.211	2.56	0.85	1.00	0.0	13.44	34.39	0.00	1054	0	1029	1028	2057
17	170	34.10	17.528	0.000	0.00	0.232	2.49	0.85	1.00	0.0	14.90	37.13	0.00	1168	0	1076	1054	2131
16	150	32.91	16.945	0.000	0.00	0.224	2.52	0.85	1.00	0.0	14.40	36.25	0.00	1218	0	1014	1074	2088
15	130	31.59	16.941	0.000	0.00	0.224	2.52	0.85	1.00	0.0	14.40	36.24	0.00	1250	0	973	1194	2167
14	115	30.50	10.315	0.000	0.00	0.271	2.38	0.85	1.00	0.0	8.77	20.84	0.00	779	0	540	576	1117
13	109	30.05	1.699	0.000	0.00	0.267	2.39	0.85	1.00	0.0	1.44	3.45	0.00	130	0	88	95	183
12	108	29.92	1.699	0.000	0.00	0.267	2.39	0.85	1.00	0.0	1.44	3.45	0.00	130	0	88	94	182
11	106	29.78	1.699	0.000	0.00	0.267	2.39	0.85	1.00	0.0	1.44	3.45	0.00	130	0	87	94	181
10	104	29.65	1.699	0.000	0.00	0.267	2.39	0.85	1.00	0.0	1.44	3.45	0.00	130	0	87	94	180
9	102	29.45	3.432	0.000	0.00	0.271	2.38	0.85	1.00	0.0	2.92	6.93	0.00	259	0	173	185	358
8	90	28.44	16.945	0.000	0.00	0.224	2.52	0.85	1.00	0.0	14.40	36.25	0.00	1250	0	876	1075	1951
7	70	26.47	16.945	0.000	0.00	0.224	2.52	0.85	1.00	0.0	14.40	36.25	0.00	1250	0	816	1001	1816
6	50	24.04	17.528	0.000	0.00	0.232	2.49	0.85	1.00	0.0	14.90	37.13	0.00	1413	0	759	909	1668
5	33	21.41	11.301	0.000	0.00	0.224	2.52	0.85	1.00	0.0	9.61	24.18	0.00	834	0	440	540	980
4	26	20.76	0.736	0.746	0.00	0.295	2.31	0.85	1.00	0.0	1.11	2.56	0.00	99	0	45	52	97
3	24	20.76	2.822	0.000	0.00	0.224	2.52	0.85	1.00	0.0	2.40	6.04	0.00	208	0	107	131	237
2	12	20.76	16.925	0.000	0.00	0.224	2.52	0.85	1.00	0.0	14.39	36.22	0.00	1250	0	639	785	1424
1	1	20.76	4.000	0.000	0.00	0.906	1.93	0.85	1.00	0.0	3.40	6.57	0.00	1029	0	116	12	128
													Totals	**19,794**	**0**			**30,403**

SECTION FORCES

1.2D + 1.0W 240° Gust Response Factor (Gh): 0.85
117 mph Wind with No Ice Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q_z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
33	295	39.92	8.447	0.000	0.00	0.225	2.51	1.00	1.00	0.0	8.45	21.23	0.00	524	0	720	410	1130
32	289	39.69	1.850	0.000	0.00	0.296	2.31	1.00	1.00	0.0	1.85	4.27	0.00	144	0	144	83	227
31	288	39.63	1.832	0.000	0.00	0.293	2.32	1.00	1.00	0.0	1.83	4.24	0.00	144	0	143	83	226
30	286	39.56	1.850	0.000	0.00	0.296	2.31	1.00	1.00	0.0	1.85	4.27	0.00	146	0	144	91	235
29	284	39.50	1.832	0.000	0.00	0.293	2.32	1.00	1.00	0.0	1.83	4.24	0.00	147	0	142	96	239
28	282	39.40	3.165	0.000	0.00	0.254	2.42	1.00	1.00	0.0	3.17	7.67	0.00	234	0	257	191	448
27	270	38.92	16.945	0.000	0.00	0.224	2.52	1.00	1.00	0.0	16.94	42.65	0.00	1096	0	1411	1136	2547
26	250	38.08	16.945	0.000	0.00	0.224	2.52	1.00	1.00	0.0	16.94	42.65	0.00	1096	0	1380	1112	2492
25	235	37.41	9.680	0.000	0.00	0.256	2.42	1.00	1.00	0.0	9.68	23.41	0.00	664	0	744	546	1291
24	229	37.14	2.130	0.000	0.00	0.338	2.20	1.00	1.00	0.0	2.13	4.69	0.00	170	0	148	91	239
23	228	37.06	2.105	0.000	0.00	0.334	2.21	1.00	1.00	0.0	2.10	4.65	0.00	170	0	147	90	237
22	226	36.99	2.130	0.000	0.00	0.338	2.20	1.00	1.00	0.0	2.13	4.69	0.00	170	0	147	90	238
21	224	36.91	2.105	0.000	0.00	0.334	2.21	1.00	1.00	0.0	2.10	4.65	0.00	170	0	146	90	236
20	222	36.79	3.758	0.000	0.00	0.300	2.30	1.00	1.00	0.0	3.76	8.63	0.00	280	0	270	178	448
19	210	36.23	15.809	0.000	0.00	0.211	2.56	1.00	1.00	0.0	15.81	40.47	0.00	1054	0	1246	1058	2304
18	190	35.21	15.806	0.000	0.00	0.211	2.56	1.00	1.00	0.0	15.81	40.46	0.00	1054	0	1211	1028	2239
17	170	34.10	17.528	0.000	0.00	0.232	2.49	1.00	1.00	0.0	17.53	43.69	0.00	1168	0	1266	1054	2321
16	150	32.91	16.945	0.000	0.00	0.224	2.52	1.00	1.00	0.0	16.94	42.65	0.00	1218	0	1193	1074	2267
15	130	31.59	16.941	0.000	0.00	0.224	2.52	1.00	1.00	0.0	16.94	42.64	0.00	1250	0	1145	1194	2339
14	115	30.50	10.315	0.000	0.00	0.271	2.38	1.00	1.00	0.0	10.31	24.52	0.00	779	0	636	576	1212
13	109	30.05	1.699	0.000	0.00	0.267	2.39	1.00	1.00	0.0	1.70	4.06	0.00	130	0	104	95	198
12	108	29.92	1.699	0.000	0.00	0.267	2.39	1.00	1.00	0.0	1.70	4.06	0.00	130	0	103	94	198
11	106	29.78	1.699	0.000	0.00	0.267	2.39	1.00	1.00	0.0	1.70	4.06	0.00	130	0	103	94	197
10	104	29.65	1.699	0.000	0.00	0.267	2.39	1.00	1.00	0.0	1.70	4.06	0.00	130	0	102	94	196
9	102	29.45	3.432	0.000	0.00	0.271	2.38	1.00	1.00	0.0	3.43	8.15	0.00	259	0	204	185	389
8	90	28.44	16.945	0.000	0.00	0.224	2.52	1.00	1.00	0.0	16.94	42.65	0.00	1250	0	1031	1075	2106
7	70	26.47	16.945	0.000	0.00	0.224	2.52	1.00	1.00	0.0	16.94	42.65	0.00	1250	0	959	1001	1960
6	50	24.04	17.528	0.000	0.00	0.232	2.49	1.00	1.00	0.0	17.53	43.69	0.00	1413	0	893	909	1802
5	33	21.41	11.301	0.000	0.00	0.224	2.52	1.00	1.00	0.0	11.30	28.44	0.00	834	0	518	540	1057
4	26	20.76	0.736	0.746	0.00	0.295	2.31	1.00	1.00	0.0	1.22	2.81	0.00	99	0	50	52	102
3	24	20.76	2.822	0.000	0.00	0.224	2.52	1.00	1.00	0.0	2.82	7.10	0.00	208	0	125	131	256
2	12	20.76	16.925	0.000	0.00	0.224	2.52	1.00	1.00	0.0	16.93	42.61	0.00	1250	0	752	785	1537
1	1	20.76	4.000	0.000	0.00	0.906	1.93	1.00	1.00	0.0	4.00	7.73	0.00	1029	0	136	12	149
													Totals	**19,794**	**0**			**33,058**

1.2D + 1.0W 300° Gust Response Factor (Gh): 0.85
117 mph Wind with No Ice Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q_z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
33	295	39.92	8.447	0.000	0.00	0.225	2.51	0.80	1.00	0.0	6.76	16.98	0.00	524	0	576	410	986
32	289	39.69	1.850	0.000	0.00	0.296	2.31	0.80	1.00	0.0	1.48	3.42	0.00	144	0	115	83	199
31	288	39.63	1.832	0.000	0.00	0.293	2.32	0.80	1.00	0.0	1.47	3.39	0.00	144	0	114	83	198
30	286	39.56	1.850	0.000	0.00	0.296	2.31	0.80	1.00	0.0	1.48	3.42	0.00	146	0	115	91	206
29	284	39.50	1.832	0.000	0.00	0.293	2.32	0.80	1.00	0.0	1.47	3.39	0.00	147	0	114	96	210
28	282	39.40	3.165	0.000	0.00	0.254	2.42	0.80	1.00	0.0	2.53	6.14	0.00	234	0	206	191	396
27	270	38.92	16.945	0.000	0.00	0.224	2.52	0.80	1.00	0.0	13.56	34.12	0.00	1096	0	1129	1136	2265
26	250	38.08	16.945	0.000	0.00	0.224	2.52	0.80	1.00	0.0	13.56	34.12	0.00	1096	0	1104	1112	2216
25	235	37.41	9.680	0.000	0.00	0.256	2.42	0.80	1.00	0.0	7.74	18.73	0.00	664	0	596	546	1142
24	229	37.14	2.130	0.000	0.00	0.338	2.20	0.80	1.00	0.0	1.70	3.75	0.00	170	0	118	91	209
23	228	37.06	2.105	0.000	0.00	0.334	2.21	0.80	1.00	0.0	1.68	3.72	0.00	170	0	117	90	208
22	226	36.99	2.130	0.000	0.00	0.338	2.20	0.80	1.00	0.0	1.70	3.75	0.00	170	0	118	90	208
21	224	36.91	2.105	0.000	0.00	0.334	2.21	0.80	1.00	0.0	1.68	3.72	0.00	170	0	117	90	207
20	222	36.79	3.758	0.000	0.00	0.300	2.30	0.80	1.00	0.0	3.01	6.91	0.00	280	0	216	178	394
19	210	36.23	15.809	0.000	0.00	0.211	2.56	0.80	1.00	0.0	12.65	32.38	0.00	1054	0	997	1058	2055
18	190	35.21	15.806	0.000	0.00	0.211	2.56	0.80	1.00	0.0	12.64	32.37	0.00	1054	0	969	1028	1996
17	170	34.10	17.528	0.000	0.00	0.232	2.49	0.80	1.00	0.0	14.02	34.95	0.00	1168	0	1013	1054	2067
16	150	32.91	16.945	0.000	0.00	0.224	2.52	0.80	1.00	0.0	13.56	34.12	0.00	1218	0	954	1074	2028
15	130	31.59	16.941	0.000	0.00	0.224	2.52	0.80	1.00	0.0	13.55	34.11	0.00	1250	0	916	1194	2110
14	115	30.50	10.315	0.000	0.00	0.271	2.38	0.80	1.00	0.0	8.25	19.61	0.00	779	0	508	576	1085
13	109	30.05	1.699	0.000	0.00	0.267	2.39	0.80	1.00	0.0	1.36	3.24	0.00	130	0	83	95	178
12	108	29.92	1.699	0.000	0.00	0.267	2.39	0.80	1.00	0.0	1.36	3.24	0.00	130	0	83	94	177
11	106	29.78	1.699	0.000	0.00	0.267	2.39	0.80	1.00	0.0	1.36	3.24	0.00	130	0	82	94	176
10	104	29.65	1.699	0.000	0.00	0.267	2.39	0.80	1.00	0.0	1.36	3.24	0.00	130	0	82	94	175
9	102	29.45	3.432	0.000	0.00	0.271	2.38	0.80	1.00	0.0	2.75	6.52	0.00	259	0	163	185	348
8	90	28.44	16.945	0.000	0.00	0.224	2.52	0.80	1.00	0.0	13.56	34.12	0.00	1250	0	825	1075	1900
7	70	26.47	16.945	0.000	0.00	0.224	2.52	0.80	1.00	0.0	13.56	34.12	0.00	1250	0	768	1001	1768
6	50	24.04	17.528	0.000	0.00	0.232	2.49	0.80	1.00	0.0	14.02	34.95	0.00	1413	0	714	909	1623
5	33	21.41	11.301	0.000	0.00	0.224	2.52	0.80	1.00	0.0	9.04	22.75	0.00	834	0	414	540	954
4	26	20.76	0.736	0.746	0.00	0.295	2.31	0.80	1.00	0.0	1.07	2.47	0.00	99	0	44	52	96
3	24	20.76	2.822	0.000	0.00	0.224	2.52	0.80	1.00	0.0	2.26	5.68	0.00	208	0	100	131	231
2	12	20.76	16.925	0.000	0.00	0.224	2.52	0.80	1.00	0.0	13.54	34.09	0.00	1250	0	601	785	1386
1	1	20.76	4.000	0.000	0.00	0.906	1.93	0.80	1.00	0.0	3.20	6.18	0.00	1029	0	109	12	121
													Totals	**19,794**	**0**			**29,518**

SECTION FORCES

1.2D + 1.0W 330° Gust Response Factor (Gh): 0.85
117 mph Wind with No Ice Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q_Z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
33	295	39.92	8.447	0.000	0.00	0.225	2.51	0.85	1.00	0.0	7.18	18.05	0.00	524	0	612	410	1022
32	289	39.69	1.850	0.000	0.00	0.296	2.31	0.85	1.00	0.0	1.57	3.63	0.00	144	0	122	83	206
31	288	39.63	1.832	0.000	0.00	0.293	2.32	0.85	1.00	0.0	1.56	3.61	0.00	144	0	121	83	205
30	286	39.56	1.850	0.000	0.00	0.296	2.31	0.85	1.00	0.0	1.57	3.63	0.00	146	0	122	91	213
29	284	39.50	1.832	0.000	0.00	0.293	2.32	0.85	1.00	0.0	1.56	3.61	0.00	147	0	121	96	217
28	282	39.40	3.165	0.000	0.00	0.254	2.42	0.85	1.00	0.0	2.69	6.52	0.00	234	0	218	191	409
27	270	38.92	16.945	0.000	0.00	0.224	2.52	0.85	1.00	0.0	14.40	36.25	0.00	1096	0	1199	1136	2336
26	250	38.08	16.945	0.000	0.00	0.224	2.52	0.85	1.00	0.0	14.40	36.25	0.00	1096	0	1173	1112	2285
25	235	37.41	9.680	0.000	0.00	0.256	2.42	0.85	1.00	0.0	8.23	19.90	0.00	664	0	633	546	1179
24	229	37.14	2.130	0.000	0.00	0.338	2.20	0.85	1.00	0.0	1.81	3.98	0.00	170	0	126	91	216
23	228	37.06	2.105	0.000	0.00	0.334	2.21	0.85	1.00	0.0	1.79	3.95	0.00	170	0	125	90	215
22	226	36.99	2.130	0.000	0.00	0.338	2.20	0.85	1.00	0.0	1.81	3.98	0.00	170	0	125	90	215
21	224	36.91	2.105	0.000	0.00	0.334	2.21	0.85	1.00	0.0	1.79	3.95	0.00	170	0	124	90	214
20	222	36.79	3.758	0.000	0.00	0.300	2.30	0.85	1.00	0.0	3.19	7.34	0.00	280	0	229	178	408
19	210	36.23	15.809	0.000	0.00	0.211	2.56	0.85	1.00	0.0	13.44	34.40	0.00	1054	0	1059	1058	2117
18	190	35.21	15.806	0.000	0.00	0.211	2.56	0.85	1.00	0.0	13.44	34.39	0.00	1054	0	1029	1028	2057
17	170	34.10	17.528	0.000	0.00	0.232	2.49	0.85	1.00	0.0	14.90	37.13	0.00	1168	0	1076	1054	2131
16	150	32.91	16.945	0.000	0.00	0.224	2.52	0.85	1.00	0.0	14.40	36.25	0.00	1218	0	1014	1074	2088
15	130	31.59	16.941	0.000	0.00	0.224	2.52	0.85	1.00	0.0	14.40	36.24	0.00	1250	0	973	1194	2167
14	115	30.50	10.315	0.000	0.00	0.271	2.38	0.85	1.00	0.0	8.77	20.84	0.00	779	0	540	576	1117
13	109	30.05	1.699	0.000	0.00	0.267	2.39	0.85	1.00	0.0	1.44	3.45	0.00	130	0	88	95	183
12	108	29.92	1.699	0.000	0.00	0.267	2.39	0.85	1.00	0.0	1.44	3.45	0.00	130	0	88	94	182
11	106	29.78	1.699	0.000	0.00	0.267	2.39	0.85	1.00	0.0	1.44	3.45	0.00	130	0	87	94	181
10	104	29.65	1.699	0.000	0.00	0.267	2.39	0.85	1.00	0.0	1.44	3.45	0.00	130	0	87	94	180
9	102	29.45	3.432	0.000	0.00	0.271	2.38	0.85	1.00	0.0	2.92	6.93	0.00	259	0	173	185	358
8	90	28.44	16.945	0.000	0.00	0.224	2.52	0.85	1.00	0.0	14.40	36.25	0.00	1250	0	876	1075	1951
7	70	26.47	16.945	0.000	0.00	0.224	2.52	0.85	1.00	0.0	14.40	36.25	0.00	1250	0	816	1001	1816
6	50	24.04	17.528	0.000	0.00	0.232	2.49	0.85	1.00	0.0	14.90	37.13	0.00	1413	0	759	909	1668
5	33	21.41	11.301	0.000	0.00	0.224	2.52	0.85	1.00	0.0	9.61	24.18	0.00	834	0	440	540	980
4	26	20.76	0.736	0.746	0.00	0.295	2.31	0.85	1.00	0.0	1.11	2.56	0.00	99	0	45	52	97
3	24	20.76	2.822	0.000	0.00	0.224	2.52	0.85	1.00	0.0	2.40	6.04	0.00	208	0	107	131	237
2	12	20.76	16.925	0.000	0.00	0.224	2.52	0.85	1.00	0.0	14.39	36.22	0.00	1250	0	639	785	1424
1	1	20.76	4.000	0.000	0.00	0.906	1.93	0.85	1.00	0.0	3.40	6.57	0.00	1029	0	116	12	128
													Totals	**19,794**	**0**			**30,403**

1.2D + 1.0Di + 1.0Wi Normal Gust Response Factor (Gh): 0.85
30 mph Wind with 0" Radial Ice Wind Importance Factor (Iw): 1.00 Ice Dead Load Factor: 1.00

Section #	Elev (ft)	Q_Z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
33	295	2.62	8.447	0.000	0.00	0.225	2.51	1.00	1.00	0.0	8.45	21.23	0.00	524	0	47	35	82
32	289	2.61	1.850	0.000	0.00	0.296	2.31	1.00	1.00	0.0	1.85	4.27	0.00	144	0	9	6	16
31	288	2.61	1.832	0.000	0.00	0.293	2.32	1.00	1.00	0.0	1.83	4.24	0.00	144	0	9	6	16
30	286	2.60	1.850	0.000	0.00	0.296	2.31	1.00	1.00	0.0	1.85	4.27	0.00	146	0	9	7	16
29	284	2.60	1.832	0.000	0.00	0.293	2.32	1.00	1.00	0.0	1.83	4.24	0.00	147	0	9	7	17
28	282	2.59	3.165	0.000	0.00	0.254	2.42	1.00	1.00	0.0	3.17	7.67	0.00	234	0	17	16	32
27	270	2.56	16.945	0.000	0.00	0.224	2.52	1.00	1.00	0.0	16.94	42.65	0.00	1096	0	93	97	189
26	250	2.50	16.945	0.000	0.00	0.224	2.52	1.00	1.00	0.0	16.94	42.65	0.00	1096	0	91	94	185
25	235	2.46	9.680	0.000	0.00	0.256	2.42	1.00	1.00	0.0	9.68	23.41	0.00	664	0	49	44	93
24	229	2.44	2.130	0.000	0.00	0.338	2.20	1.00	1.00	0.0	2.13	4.69	0.00	170	0	10	7	16
23	228	2.44	2.105	0.000	0.00	0.334	2.21	1.00	1.00	0.0	2.10	4.65	0.00	170	0	10	7	16
22	226	2.43	2.130	0.000	0.00	0.338	2.20	1.00	1.00	0.0	2.13	4.69	0.00	170	0	10	7	16
21	224	2.43	2.105	0.000	0.00	0.334	2.21	1.00	1.00	0.0	2.10	4.65	0.00	170	0	10	7	16
20	222	2.42	3.758	0.000	0.00	0.300	2.30	1.00	1.00	0.0	3.76	8.63	0.00	280	0	18	14	31
19	210	2.38	15.809	0.000	0.00	0.211	2.56	1.00	1.00	0.0	15.81	40.47	0.00	1054	0	82	91	173
18	190	2.31	15.806	0.000	0.00	0.211	2.56	1.00	1.00	0.0	15.81	40.46	0.00	1054	0	80	89	168
17	170	2.24	17.528	0.000	0.00	0.232	2.49	1.00	1.00	0.0	17.53	43.69	0.00	1168	0	83	89	172
16	150	2.16	16.945	0.000	0.00	0.224	2.52	1.00	1.00	0.0	16.94	42.65	0.00	1218	0	78	91	170
15	130	2.08	16.941	0.000	0.00	0.224	2.52	1.00	1.00	0.0	16.94	42.64	0.00	1250	0	75	101	177
14	115	2.01	10.315	0.000	0.00	0.271	2.38	1.00	1.00	0.0	10.31	24.52	0.00	779	0	42	46	88
13	109	1.98	1.699	0.000	0.00	0.267	2.39	1.00	1.00	0.0	1.70	4.06	0.00	130	0	7	8	14
12	108	1.97	1.699	0.000	0.00	0.267	2.39	1.00	1.00	0.0	1.70	4.06	0.00	130	0	7	8	14
11	106	1.96	1.699	0.000	0.00	0.267	2.39	1.00	1.00	0.0	1.70	4.06	0.00	130	0	7	8	14
10	104	1.95	1.699	0.000	0.00	0.267	2.39	1.00	1.00	0.0	1.70	4.06	0.00	130	0	7	8	14
9	102	1.94	3.432	0.000	0.00	0.271	2.38	1.00	1.00	0.0	3.43	8.15	0.00	259	0	13	15	28
8	90	1.87	16.945	0.000	0.00	0.224	2.52	1.00	1.00	0.0	16.94	42.65	0.00	1250	0	68	91	159
7	70	1.74	16.945	0.000	0.00	0.224	2.52	1.00	1.00	0.0	16.94	42.65	0.00	1250	0	63	85	148
6	50	1.58	17.528	0.000	0.00	0.232	2.49	1.00	1.00	0.0	17.53	43.69	0.00	1413	0	59	76	135
5	33	1.41	11.301	0.000	0.00	0.224	2.52	1.00	1.00	0.0	11.30	28.44	0.00	834	0	34	46	80
4	26	1.36	0.736	0.746	0.00	0.295	2.31	1.00	1.00	0.0	1.22	2.81	0.00	99	0	3	4	7
3	24	1.36	2.822	0.000	0.00	0.224	2.52	1.00	1.00	0.0	2.82	7.10	0.00	208	0	8	11	19
2	12	1.36	16.925	0.000	0.00	0.224	2.52	1.00	1.00	0.0	16.93	42.61	0.00	1250	0	49	67	116
1	1	1.36	4.000	0.000	0.00	0.906	1.93	1.00	1.00	0.0	4.00	7.73	0.00	1029	0	9	1	10
													Totals	**19,794**	**0**			**2,453**

SECTION FORCES

1.2D + 1.0Di + 1.0Wi 60° Gust Response Factor (Gh): 0.85
30 mph Wind with 0" Radial Ice Wind Importance Factor (Iw): 1.00 Ice Dead Load Factor: 1.00

Section #	Elev (ft)	Q_Z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
33	295	2.62	8.447	0.000	0.00	0.225	2.51	0.80	1.00	0.0	6.76	16.98	0.00	524	0	38	35	73
32	289	2.61	1.850	0.000	0.00	0.296	2.31	0.80	1.00	0.0	1.48	3.42	0.00	144	0	8	6	14
31	288	2.61	1.832	0.000	0.00	0.293	2.32	0.80	1.00	0.0	1.47	3.39	0.00	144	0	8	6	14
30	286	2.60	1.850	0.000	0.00	0.296	2.31	0.80	1.00	0.0	1.48	3.42	0.00	146	0	8	7	15
29	284	2.60	1.832	0.000	0.00	0.293	2.32	0.80	1.00	0.0	1.47	3.39	0.00	147	0	7	7	15
28	282	2.59	3.165	0.000	0.00	0.254	2.42	0.80	1.00	0.0	2.53	6.14	0.00	234	0	14	16	29
27	270	2.56	16.945	0.000	0.00	0.224	2.52	0.80	1.00	0.0	13.56	34.12	0.00	1096	0	74	97	171
26	250	2.50	16.945	0.000	0.00	0.224	2.52	0.80	1.00	0.0	13.56	34.12	0.00	1096	0	73	94	167
25	235	2.46	9.680	0.000	0.00	0.256	2.42	0.80	1.00	0.0	7.74	18.73	0.00	664	0	39	44	84
24	229	2.44	2.130	0.000	0.00	0.338	2.20	0.80	1.00	0.0	1.70	3.75	0.00	170	0	8	7	14
23	228	2.44	2.105	0.000	0.00	0.334	2.21	0.80	1.00	0.0	1.68	3.72	0.00	170	0	8	7	14
22	226	2.43	2.130	0.000	0.00	0.338	2.20	0.80	1.00	0.0	1.70	3.75	0.00	170	0	8	7	14
21	224	2.43	2.105	0.000	0.00	0.334	2.21	0.80	1.00	0.0	1.68	3.72	0.00	170	0	8	7	14
20	222	2.42	3.758	0.000	0.00	0.300	2.30	0.80	1.00	0.0	3.01	6.91	0.00	280	0	14	14	28
19	210	2.38	15.809	0.000	0.00	0.211	2.56	0.80	1.00	0.0	12.65	32.38	0.00	1054	0	66	91	157
18	190	2.31	15.806	0.000	0.00	0.211	2.56	0.80	1.00	0.0	12.64	32.37	0.00	1054	0	64	89	153
17	170	2.24	17.528	0.000	0.00	0.232	2.49	0.80	1.00	0.0	14.02	34.95	0.00	1168	0	67	89	155
16	150	2.16	16.945	0.000	0.00	0.224	2.52	0.80	1.00	0.0	13.56	34.12	0.00	1218	0	63	91	154
15	130	2.08	16.941	0.000	0.00	0.224	2.52	0.80	1.00	0.0	13.55	34.11	0.00	1250	0	60	101	162
14	115	2.01	10.315	0.000	0.00	0.271	2.38	0.80	1.00	0.0	8.25	19.61	0.00	779	0	33	46	79
13	109	1.98	1.699	0.000	0.00	0.267	2.39	0.80	1.00	0.0	1.36	3.24	0.00	130	0	5	8	13
12	108	1.97	1.699	0.000	0.00	0.267	2.39	0.80	1.00	0.0	1.36	3.24	0.00	130	0	5	8	13
11	106	1.96	1.699	0.000	0.00	0.267	2.39	0.80	1.00	0.0	1.36	3.24	0.00	130	0	5	8	13
10	104	1.95	1.699	0.000	0.00	0.267	2.39	0.80	1.00	0.0	1.36	3.24	0.00	130	0	5	8	13
9	102	1.94	3.432	0.000	0.00	0.271	2.38	0.80	1.00	0.0	2.75	6.52	0.00	259	0	11	15	25
8	90	1.87	16.945	0.000	0.00	0.224	2.52	0.80	1.00	0.0	13.56	34.12	0.00	1250	0	54	91	146
7	70	1.74	16.945	0.000	0.00	0.224	2.52	0.80	1.00	0.0	13.56	34.12	0.00	1250	0	50	85	136
6	50	1.58	17.528	0.000	0.00	0.232	2.49	0.80	1.00	0.0	14.02	34.95	0.00	1413	0	47	76	123
5	33	1.41	11.301	0.000	0.00	0.224	2.52	0.80	1.00	0.0	9.04	22.75	0.00	834	0	27	46	73
4	26	1.36	0.736	0.746	0.00	0.295	2.31	0.80	1.00	0.0	1.07	2.47	0.00	99	0	3	4	7
3	24	1.36	2.822	0.000	0.00	0.224	2.52	0.80	1.00	0.0	2.26	5.68	0.00	208	0	7	11	18
2	12	1.36	16.925	0.000	0.00	0.224	2.52	0.80	1.00	0.0	13.54	34.09	0.00	1250	0	40	67	106
1	1	1.36	4.000	0.000	0.00	0.906	1.93	0.80	1.00	0.0	3.20	6.18	0.00	1029	0	7	1	8
													Totals	**19,794**	**0**			**2,220**

1.2D + 1.0Di + 1.0Wi 90° Gust Response Factor (Gh): 0.85
30 mph Wind with 0" Radial Ice Wind Importance Factor (Iw): 1.00 Ice Dead Load Factor: 1.00

Section #	Elev (ft)	Q_Z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
33	295	2.62	8.447	0.000	0.00	0.225	2.51	0.85	1.00	0.0	7.18	18.05	0.00	524	0	40	35	75
32	289	2.61	1.850	0.000	0.00	0.296	2.31	0.85	1.00	0.0	1.57	3.63	0.00	144	0	8	6	14
31	288	2.61	1.832	0.000	0.00	0.293	2.32	0.85	1.00	0.0	1.56	3.61	0.00	144	0	8	6	14
30	286	2.60	1.850	0.000	0.00	0.296	2.31	0.85	1.00	0.0	1.57	3.63	0.00	146	0	8	7	15
29	284	2.60	1.832	0.000	0.00	0.293	2.32	0.85	1.00	0.0	1.56	3.61	0.00	147	0	8	7	15
28	282	2.59	3.165	0.000	0.00	0.254	2.42	0.85	1.00	0.0	2.69	6.52	0.00	234	0	14	16	30
27	270	2.56	16.945	0.000	0.00	0.224	2.52	0.85	1.00	0.0	14.40	36.25	0.00	1096	0	79	97	175
26	250	2.50	16.945	0.000	0.00	0.224	2.52	0.85	1.00	0.0	14.40	36.25	0.00	1096	0	77	94	172
25	235	2.46	9.680	0.000	0.00	0.256	2.42	0.85	1.00	0.0	8.23	19.90	0.00	664	0	42	44	86
24	229	2.44	2.130	0.000	0.00	0.338	2.20	0.85	1.00	0.0	1.81	3.98	0.00	170	0	8	7	15
23	228	2.44	2.105	0.000	0.00	0.334	2.21	0.85	1.00	0.0	1.79	3.95	0.00	170	0	8	7	15
22	226	2.43	2.130	0.000	0.00	0.338	2.20	0.85	1.00	0.0	1.81	3.98	0.00	170	0	8	7	15
21	224	2.43	2.105	0.000	0.00	0.334	2.21	0.85	1.00	0.0	1.79	3.95	0.00	170	0	8	7	15
20	222	2.42	3.758	0.000	0.00	0.300	2.30	0.85	1.00	0.0	3.19	7.34	0.00	280	0	15	14	29
19	210	2.38	15.809	0.000	0.00	0.211	2.56	0.85	1.00	0.0	13.44	34.40	0.00	1054	0	70	91	161
18	190	2.31	15.806	0.000	0.00	0.211	2.56	0.85	1.00	0.0	13.44	34.39	0.00	1054	0	68	89	157
17	170	2.24	17.528	0.000	0.00	0.232	2.49	0.85	1.00	0.0	14.90	37.13	0.00	1168	0	71	89	159
16	150	2.16	16.945	0.000	0.00	0.224	2.52	0.85	1.00	0.0	14.40	36.25	0.00	1218	0	67	91	158
15	130	2.08	16.941	0.000	0.00	0.224	2.52	0.85	1.00	0.0	14.40	36.24	0.00	1250	0	64	101	165
14	115	2.01	10.315	0.000	0.00	0.271	2.38	0.85	1.00	0.0	8.77	20.84	0.00	779	0	36	46	82
13	109	1.98	1.699	0.000	0.00	0.267	2.39	0.85	1.00	0.0	1.44	3.45	0.00	130	0	6	8	13
12	108	1.97	1.699	0.000	0.00	0.267	2.39	0.85	1.00	0.0	1.44	3.45	0.00	130	0	6	8	13
11	106	1.96	1.699	0.000	0.00	0.267	2.39	0.85	1.00	0.0	1.44	3.45	0.00	130	0	6	8	13
10	104	1.95	1.699	0.000	0.00	0.267	2.39	0.85	1.00	0.0	1.44	3.45	0.00	130	0	6	8	13
9	102	1.94	3.432	0.000	0.00	0.271	2.38	0.85	1.00	0.0	2.92	6.93	0.00	259	0	11	15	26
8	90	1.87	16.945	0.000	0.00	0.224	2.52	0.85	1.00	0.0	14.40	36.25	0.00	1250	0	58	91	149
7	70	1.74	16.945	0.000	0.00	0.224	2.52	0.85	1.00	0.0	14.40	36.25	0.00	1250	0	54	85	139
6	50	1.58	17.528	0.000	0.00	0.232	2.49	0.85	1.00	0.0	14.90	37.13	0.00	1413	0	50	76	126
5	33	1.41	11.301	0.000	0.00	0.224	2.52	0.85	1.00	0.0	9.61	24.18	0.00	834	0	29	46	75
4	26	1.36	0.736	0.746	0.00	0.295	2.31	0.85	1.00	0.0	1.11	2.56	0.00	99	0	3	4	7
3	24	1.36	2.822	0.000	0.00	0.224	2.52	0.85	1.00	0.0	2.40	6.04	0.00	208	0	7	11	18
2	12	1.36	16.925	0.000	0.00	0.224	2.52	0.85	1.00	0.0	14.39	36.22	0.00	1250	0	42	67	109
1	1	1.36	4.000	0.000	0.00	0.906	1.93	0.85	1.00	0.0	3.40	6.57	0.00	1029	0	8	1	8
													Totals	**19,794**	**0**			**2,278**

SECTION FORCES

1.2D + 1.0Di + 1.0Wi 120° Gust Response Factor (Gh): 0.85
30 mph Wind with 0" Radial Ice Wind Importance Factor (Iw): 1.00 Ice Dead Load Factor: 1.00

Section #	Elev (ft)	Q_Z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
33	295	2.62	8.447	0.000	0.00	0.225	2.51	1.00	1.00	0.0	8.45	21.23	0.00	524	0	47	35	82
32	289	2.61	1.850	0.000	0.00	0.296	2.31	1.00	1.00	0.0	1.85	4.27	0.00	144	0	9	6	16
31	288	2.61	1.832	0.000	0.00	0.293	2.32	1.00	1.00	0.0	1.83	4.24	0.00	144	0	9	6	16
30	286	2.60	1.850	0.000	0.00	0.296	2.31	1.00	1.00	0.0	1.85	4.27	0.00	146	0	9	7	16
29	284	2.60	1.832	0.000	0.00	0.293	2.32	1.00	1.00	0.0	1.83	4.24	0.00	147	0	9	7	17
28	282	2.59	3.165	0.000	0.00	0.254	2.42	1.00	1.00	0.0	3.17	7.67	0.00	234	0	17	16	32
27	270	2.56	16.945	0.000	0.00	0.224	2.52	1.00	1.00	0.0	16.94	42.65	0.00	1096	0	93	97	189
26	250	2.50	16.945	0.000	0.00	0.224	2.52	1.00	1.00	0.0	16.94	42.65	0.00	1096	0	91	94	185
25	235	2.46	9.680	0.000	0.00	0.256	2.42	1.00	1.00	0.0	9.68	23.41	0.00	664	0	49	44	93
24	229	2.44	2.130	0.000	0.00	0.338	2.20	1.00	1.00	0.0	2.13	4.69	0.00	170	0	10	7	16
23	228	2.44	2.105	0.000	0.00	0.334	2.21	1.00	1.00	0.0	2.10	4.65	0.00	170	0	10	7	16
22	226	2.43	2.130	0.000	0.00	0.338	2.20	1.00	1.00	0.0	2.13	4.69	0.00	170	0	10	7	16
21	224	2.43	2.105	0.000	0.00	0.334	2.21	1.00	1.00	0.0	2.10	4.65	0.00	170	0	10	7	16
20	222	2.42	3.758	0.000	0.00	0.300	2.30	1.00	1.00	0.0	3.76	8.63	0.00	280	0	18	14	31
19	210	2.38	15.809	0.000	0.00	0.211	2.56	1.00	1.00	0.0	15.81	40.47	0.00	1054	0	82	91	173
18	190	2.31	15.806	0.000	0.00	0.211	2.56	1.00	1.00	0.0	15.81	40.46	0.00	1054	0	80	89	168
17	170	2.24	17.528	0.000	0.00	0.232	2.49	1.00	1.00	0.0	17.53	43.69	0.00	1168	0	83	89	172
16	150	2.16	16.945	0.000	0.00	0.224	2.52	1.00	1.00	0.0	16.94	42.65	0.00	1218	0	78	91	170
15	130	2.08	16.941	0.000	0.00	0.224	2.52	1.00	1.00	0.0	16.94	42.64	0.00	1250	0	75	101	177
14	115	2.01	10.315	0.000	0.00	0.271	2.38	1.00	1.00	0.0	10.31	24.52	0.00	779	0	42	46	88
13	109	1.98	1.699	0.000	0.00	0.267	2.39	1.00	1.00	0.0	1.70	4.06	0.00	130	0	7	8	14
12	108	1.97	1.699	0.000	0.00	0.267	2.39	1.00	1.00	0.0	1.70	4.06	0.00	130	0	7	8	14
11	106	1.96	1.699	0.000	0.00	0.267	2.39	1.00	1.00	0.0	1.70	4.06	0.00	130	0	7	8	14
10	104	1.95	1.699	0.000	0.00	0.267	2.39	1.00	1.00	0.0	1.70	4.06	0.00	130	0	7	8	14
9	102	1.94	3.432	0.000	0.00	0.271	2.38	1.00	1.00	0.0	3.43	8.15	0.00	259	0	13	15	28
8	90	1.87	16.945	0.000	0.00	0.224	2.52	1.00	1.00	0.0	16.94	42.65	0.00	1250	0	68	91	159
7	70	1.74	16.945	0.000	0.00	0.224	2.52	1.00	1.00	0.0	16.94	42.65	0.00	1250	0	63	85	148
6	50	1.58	17.528	0.000	0.00	0.232	2.49	1.00	1.00	0.0	17.53	43.69	0.00	1413	0	59	76	135
5	33	1.41	11.301	0.000	0.00	0.224	2.52	1.00	1.00	0.0	11.30	28.44	0.00	834	0	34	46	80
4	26	1.36	0.736	0.746	0.00	0.295	2.31	1.00	1.00	0.0	1.22	2.81	0.00	99	0	3	4	7
3	24	1.36	2.822	0.000	0.00	0.224	2.52	1.00	1.00	0.0	2.82	7.10	0.00	208	0	8	11	19
2	12	1.36	16.925	0.000	0.00	0.224	2.52	1.00	1.00	0.0	16.93	42.61	0.00	1250	0	49	67	116
1	1	1.36	4.000	0.000	0.00	0.906	1.93	1.00	1.00	0.0	4.00	7.73	0.00	1029	0	9	1	10
													Totals	**19,794**	**0**			**2,453**

1.2D + 1.0Di + 1.0Wi 180° Gust Response Factor (Gh): 0.85
30 mph Wind with 0" Radial Ice Wind Importance Factor (Iw): 1.00 Ice Dead Load Factor: 1.00

Section #	Elev (ft)	Q_Z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
33	295	2.62	8.447	0.000	0.00	0.225	2.51	0.80	1.00	0.0	6.76	16.98	0.00	524	0	38	35	73
32	289	2.61	1.850	0.000	0.00	0.296	2.31	0.80	1.00	0.0	1.48	3.42	0.00	144	0	8	6	14
31	288	2.61	1.832	0.000	0.00	0.293	2.32	0.80	1.00	0.0	1.47	3.39	0.00	144	0	8	6	14
30	286	2.60	1.850	0.000	0.00	0.296	2.31	0.80	1.00	0.0	1.48	3.42	0.00	146	0	8	7	15
29	284	2.60	1.832	0.000	0.00	0.293	2.32	0.80	1.00	0.0	1.47	3.39	0.00	147	0	7	7	15
28	282	2.59	3.165	0.000	0.00	0.254	2.42	0.80	1.00	0.0	2.53	6.14	0.00	234	0	14	16	29
27	270	2.56	16.945	0.000	0.00	0.224	2.52	0.80	1.00	0.0	13.56	34.12	0.00	1096	0	74	97	171
26	250	2.50	16.945	0.000	0.00	0.224	2.52	0.80	1.00	0.0	13.56	34.12	0.00	1096	0	73	94	167
25	235	2.46	9.680	0.000	0.00	0.256	2.42	0.80	1.00	0.0	7.74	18.73	0.00	664	0	39	44	84
24	229	2.44	2.130	0.000	0.00	0.338	2.20	0.80	1.00	0.0	1.70	3.75	0.00	170	0	8	7	14
23	228	2.44	2.105	0.000	0.00	0.334	2.21	0.80	1.00	0.0	1.68	3.72	0.00	170	0	8	7	14
22	226	2.43	2.130	0.000	0.00	0.338	2.20	0.80	1.00	0.0	1.70	3.75	0.00	170	0	8	7	14
21	224	2.43	2.105	0.000	0.00	0.334	2.21	0.80	1.00	0.0	1.68	3.72	0.00	170	0	8	7	14
20	222	2.42	3.758	0.000	0.00	0.300	2.30	0.80	1.00	0.0	3.01	6.91	0.00	280	0	14	14	28
19	210	2.38	15.809	0.000	0.00	0.211	2.56	0.80	1.00	0.0	12.65	32.38	0.00	1054	0	66	91	157
18	190	2.31	15.806	0.000	0.00	0.211	2.56	0.80	1.00	0.0	12.64	32.37	0.00	1054	0	64	89	153
17	170	2.24	17.528	0.000	0.00	0.232	2.49	0.80	1.00	0.0	14.02	34.95	0.00	1168	0	67	89	155
16	150	2.16	16.945	0.000	0.00	0.224	2.52	0.80	1.00	0.0	13.56	34.12	0.00	1218	0	63	91	154
15	130	2.08	16.941	0.000	0.00	0.224	2.52	0.80	1.00	0.0	13.55	34.11	0.00	1250	0	60	101	162
14	115	2.01	10.315	0.000	0.00	0.271	2.38	0.80	1.00	0.0	8.25	19.61	0.00	779	0	33	46	79
13	109	1.98	1.699	0.000	0.00	0.267	2.39	0.80	1.00	0.0	1.36	3.24	0.00	130	0	5	8	13
12	108	1.97	1.699	0.000	0.00	0.267	2.39	0.80	1.00	0.0	1.36	3.24	0.00	130	0	5	8	13
11	106	1.96	1.699	0.000	0.00	0.267	2.39	0.80	1.00	0.0	1.36	3.24	0.00	130	0	5	8	13
10	104	1.95	1.699	0.000	0.00	0.267	2.39	0.80	1.00	0.0	1.36	3.24	0.00	130	0	5	8	13
9	102	1.94	3.432	0.000	0.00	0.271	2.38	0.80	1.00	0.0	2.75	6.52	0.00	259	0	11	15	25
8	90	1.87	16.945	0.000	0.00	0.224	2.52	0.80	1.00	0.0	13.56	34.12	0.00	1250	0	54	91	146
7	70	1.74	16.945	0.000	0.00	0.224	2.52	0.80	1.00	0.0	13.56	34.12	0.00	1250	0	50	85	136
6	50	1.58	17.528	0.000	0.00	0.232	2.49	0.80	1.00	0.0	14.02	34.95	0.00	1413	0	47	76	123
5	33	1.41	11.301	0.000	0.00	0.224	2.52	0.80	1.00	0.0	9.04	22.75	0.00	834	0	27	46	73
4	26	1.36	0.736	0.746	0.00	0.295	2.31	0.80	1.00	0.0	1.07	2.47	0.00	99	0	3	4	7
3	24	1.36	2.822	0.000	0.00	0.224	2.52	0.80	1.00	0.0	2.26	5.68	0.00	208	0	7	11	18
2	12	1.36	16.925	0.000	0.00	0.224	2.52	0.80	1.00	0.0	13.54	34.09	0.00	1250	0	40	67	106
1	1	1.36	4.000	0.000	0.00	0.906	1.93	0.80	1.00	0.0	3.20	6.18	0.00	1029	0	7	1	8
													Totals	**19,794**	**0**			**2,220**

SECTION FORCES

1.2D + 1.0Di + 1.0Wi 210° Gust Response Factor (Gh): 0.85
30 mph Wind with 0" Radial Ice Wind Importance Factor (Iw): 1.00 Ice Dead Load Factor: 1.00

Section #	Elev (ft)	Q_Z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
33	295	2.62	8.447	0.000	0.00	0.225	2.51	0.85	1.00	0.0	7.18	18.05	0.00	524	0	40	35	75
32	289	2.61	1.850	0.000	0.00	0.296	2.31	0.85	1.00	0.0	1.57	3.63	0.00	144	0	8	6	14
31	288	2.61	1.832	0.000	0.00	0.293	2.32	0.85	1.00	0.0	1.56	3.61	0.00	144	0	8	6	14
30	286	2.60	1.850	0.000	0.00	0.296	2.31	0.85	1.00	0.0	1.57	3.63	0.00	146	0	8	7	15
29	284	2.60	1.832	0.000	0.00	0.293	2.32	0.85	1.00	0.0	1.56	3.61	0.00	147	0	8	7	15
28	282	2.59	3.165	0.000	0.00	0.254	2.42	0.85	1.00	0.0	2.69	6.52	0.00	234	0	14	16	30
27	270	2.56	16.945	0.000	0.00	0.224	2.52	0.85	1.00	0.0	14.40	36.25	0.00	1096	0	79	97	175
26	250	2.50	16.945	0.000	0.00	0.224	2.52	0.85	1.00	0.0	14.40	36.25	0.00	1096	0	77	94	172
25	235	2.46	9.680	0.000	0.00	0.256	2.42	0.85	1.00	0.0	8.23	19.90	0.00	664	0	42	44	86
24	229	2.44	2.130	0.000	0.00	0.338	2.20	0.85	1.00	0.0	1.81	3.98	0.00	170	0	8	7	15
23	228	2.44	2.105	0.000	0.00	0.334	2.21	0.85	1.00	0.0	1.79	3.95	0.00	170	0	8	7	15
22	226	2.43	2.130	0.000	0.00	0.338	2.20	0.85	1.00	0.0	1.81	3.98	0.00	170	0	8	7	15
21	224	2.43	2.105	0.000	0.00	0.334	2.21	0.85	1.00	0.0	1.79	3.95	0.00	170	0	8	7	15
20	222	2.42	3.758	0.000	0.00	0.300	2.30	0.85	1.00	0.0	3.19	7.34	0.00	280	0	15	14	29
19	210	2.38	15.809	0.000	0.00	0.211	2.56	0.85	1.00	0.0	13.44	34.40	0.00	1054	0	70	91	161
18	190	2.31	15.806	0.000	0.00	0.211	2.56	0.85	1.00	0.0	13.44	34.39	0.00	1054	0	68	89	157
17	170	2.24	17.528	0.000	0.00	0.232	2.49	0.85	1.00	0.0	14.90	37.13	0.00	1168	0	71	89	159
16	150	2.16	16.945	0.000	0.00	0.224	2.52	0.85	1.00	0.0	14.40	36.25	0.00	1218	0	67	91	158
15	130	2.08	16.941	0.000	0.00	0.224	2.52	0.85	1.00	0.0	14.40	36.24	0.00	1250	0	64	101	165
14	115	2.01	10.315	0.000	0.00	0.271	2.38	0.85	1.00	0.0	8.77	20.84	0.00	779	0	36	46	82
13	109	1.98	1.699	0.000	0.00	0.267	2.39	0.85	1.00	0.0	1.44	3.45	0.00	130	0	6	8	13
12	108	1.97	1.699	0.000	0.00	0.267	2.39	0.85	1.00	0.0	1.44	3.45	0.00	130	0	6	8	13
11	106	1.96	1.699	0.000	0.00	0.267	2.39	0.85	1.00	0.0	1.44	3.45	0.00	130	0	6	8	13
10	104	1.95	1.699	0.000	0.00	0.267	2.39	0.85	1.00	0.0	1.44	3.45	0.00	130	0	6	8	13
9	102	1.94	3.432	0.000	0.00	0.271	2.38	0.85	1.00	0.0	2.92	6.93	0.00	259	0	11	15	26
8	90	1.87	16.945	0.000	0.00	0.224	2.52	0.85	1.00	0.0	14.40	36.25	0.00	1250	0	58	91	149
7	70	1.74	16.945	0.000	0.00	0.224	2.52	0.85	1.00	0.0	14.40	36.25	0.00	1250	0	54	85	139
6	50	1.58	17.528	0.000	0.00	0.232	2.49	0.85	1.00	0.0	14.90	37.13	0.00	1413	0	50	76	126
5	33	1.41	11.301	0.000	0.00	0.224	2.52	0.85	1.00	0.0	9.61	24.18	0.00	834	0	29	46	75
4	26	1.36	0.736	0.746	0.00	0.295	2.31	0.85	1.00	0.0	1.11	2.56	0.00	99	0	3	4	7
3	24	1.36	2.822	0.000	0.00	0.224	2.52	0.85	1.00	0.0	2.40	6.04	0.00	208	0	7	11	18
2	12	1.36	16.925	0.000	0.00	0.224	2.52	0.85	1.00	0.0	14.39	36.22	0.00	1250	0	42	67	109
1	1	1.36	4.000	0.000	0.00	0.906	1.93	0.85	1.00	0.0	3.40	6.57	0.00	1029	0	8	1	8
													Totals	**19,794**	**0**			**2,278**

1.2D + 1.0Di + 1.0Wi 240° Gust Response Factor (Gh): 0.85
30 mph Wind with 0" Radial Ice Wind Importance Factor (Iw): 1.00 Ice Dead Load Factor: 1.00

Section #	Elev (ft)	Q_Z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
33	295	2.62	8.447	0.000	0.00	0.225	2.51	1.00	1.00	0.0	8.45	21.23	0.00	524	0	47	35	82
32	289	2.61	1.850	0.000	0.00	0.296	2.31	1.00	1.00	0.0	1.85	4.27	0.00	144	0	9	6	16
31	288	2.61	1.832	0.000	0.00	0.293	2.32	1.00	1.00	0.0	1.83	4.24	0.00	144	0	9	6	16
30	286	2.60	1.850	0.000	0.00	0.296	2.31	1.00	1.00	0.0	1.85	4.27	0.00	146	0	9	7	16
29	284	2.60	1.832	0.000	0.00	0.293	2.32	1.00	1.00	0.0	1.83	4.24	0.00	147	0	9	7	17
28	282	2.59	3.165	0.000	0.00	0.254	2.42	1.00	1.00	0.0	3.17	7.67	0.00	234	0	17	16	32
27	270	2.56	16.945	0.000	0.00	0.224	2.52	1.00	1.00	0.0	16.94	42.65	0.00	1096	0	93	97	189
26	250	2.50	16.945	0.000	0.00	0.224	2.52	1.00	1.00	0.0	16.94	42.65	0.00	1096	0	91	94	185
25	235	2.46	9.680	0.000	0.00	0.256	2.42	1.00	1.00	0.0	9.68	23.41	0.00	664	0	49	44	93
24	229	2.44	2.130	0.000	0.00	0.338	2.20	1.00	1.00	0.0	2.13	4.69	0.00	170	0	10	7	16
23	228	2.44	2.105	0.000	0.00	0.334	2.21	1.00	1.00	0.0	2.10	4.65	0.00	170	0	10	7	16
22	226	2.43	2.130	0.000	0.00	0.338	2.20	1.00	1.00	0.0	2.13	4.69	0.00	170	0	10	7	16
21	224	2.43	2.105	0.000	0.00	0.334	2.21	1.00	1.00	0.0	2.10	4.65	0.00	170	0	10	7	16
20	222	2.42	3.758	0.000	0.00	0.300	2.30	1.00	1.00	0.0	3.76	8.63	0.00	280	0	18	14	31
19	210	2.38	15.809	0.000	0.00	0.211	2.56	1.00	1.00	0.0	15.81	40.47	0.00	1054	0	82	91	173
18	190	2.31	15.806	0.000	0.00	0.211	2.56	1.00	1.00	0.0	15.81	40.46	0.00	1054	0	80	89	168
17	170	2.24	17.528	0.000	0.00	0.232	2.49	1.00	1.00	0.0	17.53	43.69	0.00	1168	0	83	89	172
16	150	2.16	16.945	0.000	0.00	0.224	2.52	1.00	1.00	0.0	16.94	42.65	0.00	1218	0	78	91	170
15	130	2.08	16.941	0.000	0.00	0.224	2.52	1.00	1.00	0.0	16.94	42.64	0.00	1250	0	75	101	177
14	115	2.01	10.315	0.000	0.00	0.271	2.38	1.00	1.00	0.0	10.31	24.52	0.00	779	0	42	46	88
13	109	1.98	1.699	0.000	0.00	0.267	2.39	1.00	1.00	0.0	1.70	4.06	0.00	130	0	7	8	14
12	108	1.97	1.699	0.000	0.00	0.267	2.39	1.00	1.00	0.0	1.70	4.06	0.00	130	0	7	8	14
11	106	1.96	1.699	0.000	0.00	0.267	2.39	1.00	1.00	0.0	1.70	4.06	0.00	130	0	7	8	14
10	104	1.95	1.699	0.000	0.00	0.267	2.39	1.00	1.00	0.0	1.70	4.06	0.00	130	0	7	8	14
9	102	1.94	3.432	0.000	0.00	0.271	2.38	1.00	1.00	0.0	3.43	8.15	0.00	259	0	13	15	28
8	90	1.87	16.945	0.000	0.00	0.224	2.52	1.00	1.00	0.0	16.94	42.65	0.00	1250	0	68	91	159
7	70	1.74	16.945	0.000	0.00	0.224	2.52	1.00	1.00	0.0	16.94	42.65	0.00	1250	0	63	85	148
6	50	1.58	17.528	0.000	0.00	0.232	2.49	1.00	1.00	0.0	17.53	43.69	0.00	1413	0	59	76	135
5	33	1.41	11.301	0.000	0.00	0.224	2.52	1.00	1.00	0.0	11.30	28.44	0.00	834	0	34	46	80
4	26	1.36	0.736	0.746	0.00	0.295	2.31	1.00	1.00	0.0	1.22	2.81	0.00	99	0	3	4	7
3	24	1.36	2.822	0.000	0.00	0.224	2.52	1.00	1.00	0.0	2.82	7.10	0.00	208	0	8	11	19
2	12	1.36	16.925	0.000	0.00	0.224	2.52	1.00	1.00	0.0	16.93	42.61	0.00	1250	0	49	67	116
1	1	1.36	4.000	0.000	0.00	0.906	1.93	1.00	1.00	0.0	4.00	7.73	0.00	1029	0	9	1	10
													Totals	**19,794**	**0**			**2,453**

SECTION FORCES

1.2D + 1.0Di + 1.0Wi 300° Gust Response Factor (Gh): 0.85
30 mph Wind with 0" Radial Ice Wind Importance Factor (Iw): 1.00 Ice Dead Load Factor: 1.00

Section #	Elev (ft)	Q_Z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
33	295	2.62	8.447	0.000	0.00	0.225	2.51	0.80	1.00	0.0	6.76	16.98	0.00	524	0	38	35	73
32	289	2.61	1.850	0.000	0.00	0.296	2.31	0.80	1.00	0.0	1.48	3.42	0.00	144	0	8	6	14
31	288	2.61	1.832	0.000	0.00	0.293	2.32	0.80	1.00	0.0	1.47	3.39	0.00	144	0	8	6	14
30	286	2.60	1.850	0.000	0.00	0.296	2.31	0.80	1.00	0.0	1.48	3.42	0.00	146	0	8	7	15
29	284	2.60	1.832	0.000	0.00	0.293	2.32	0.80	1.00	0.0	1.47	3.39	0.00	147	0	7	7	15
28	282	2.59	3.165	0.000	0.00	0.254	2.42	0.80	1.00	0.0	2.53	6.14	0.00	234	0	14	16	29
27	270	2.56	16.945	0.000	0.00	0.224	2.52	0.80	1.00	0.0	13.56	34.12	0.00	1096	0	74	97	171
26	250	2.50	16.945	0.000	0.00	0.224	2.52	0.80	1.00	0.0	13.56	34.12	0.00	1096	0	73	94	167
25	235	2.46	9.680	0.000	0.00	0.256	2.42	0.80	1.00	0.0	7.74	18.73	0.00	664	0	39	44	84
24	229	2.44	2.130	0.000	0.00	0.338	2.20	0.80	1.00	0.0	1.70	3.75	0.00	170	0	8	7	14
23	228	2.44	2.105	0.000	0.00	0.334	2.21	0.80	1.00	0.0	1.68	3.72	0.00	170	0	8	7	14
22	226	2.43	2.130	0.000	0.00	0.338	2.20	0.80	1.00	0.0	1.70	3.75	0.00	170	0	8	7	14
21	224	2.43	2.105	0.000	0.00	0.334	2.21	0.80	1.00	0.0	1.68	3.72	0.00	170	0	8	7	14
20	222	2.42	3.758	0.000	0.00	0.300	2.30	0.80	1.00	0.0	3.01	6.91	0.00	280	0	14	14	28
19	210	2.38	15.809	0.000	0.00	0.211	2.56	0.80	1.00	0.0	12.65	32.38	0.00	1054	0	66	91	157
18	190	2.31	15.806	0.000	0.00	0.211	2.56	0.80	1.00	0.0	12.64	32.37	0.00	1054	0	64	89	153
17	170	2.24	17.528	0.000	0.00	0.232	2.49	0.80	1.00	0.0	14.02	34.95	0.00	1168	0	67	89	155
16	150	2.16	16.945	0.000	0.00	0.224	2.52	0.80	1.00	0.0	13.56	34.12	0.00	1218	0	63	91	154
15	130	2.08	16.941	0.000	0.00	0.224	2.52	0.80	1.00	0.0	13.55	34.11	0.00	1250	0	60	101	162
14	115	2.01	10.315	0.000	0.00	0.271	2.38	0.80	1.00	0.0	8.25	19.61	0.00	779	0	33	46	79
13	109	1.98	1.699	0.000	0.00	0.267	2.39	0.80	1.00	0.0	1.36	3.24	0.00	130	0	5	8	13
12	108	1.97	1.699	0.000	0.00	0.267	2.39	0.80	1.00	0.0	1.36	3.24	0.00	130	0	5	8	13
11	106	1.96	1.699	0.000	0.00	0.267	2.39	0.80	1.00	0.0	1.36	3.24	0.00	130	0	5	8	13
10	104	1.95	1.699	0.000	0.00	0.267	2.39	0.80	1.00	0.0	1.36	3.24	0.00	130	0	5	8	13
9	102	1.94	3.432	0.000	0.00	0.271	2.38	0.80	1.00	0.0	2.75	6.52	0.00	259	0	11	15	25
8	90	1.87	16.945	0.000	0.00	0.224	2.52	0.80	1.00	0.0	13.56	34.12	0.00	1250	0	54	91	146
7	70	1.74	16.945	0.000	0.00	0.224	2.52	0.80	1.00	0.0	13.56	34.12	0.00	1250	0	50	85	136
6	50	1.58	17.528	0.000	0.00	0.232	2.49	0.80	1.00	0.0	14.02	34.95	0.00	1413	0	47	76	123
5	33	1.41	11.301	0.000	0.00	0.224	2.52	0.80	1.00	0.0	9.04	22.75	0.00	834	0	27	46	73
4	26	1.36	0.736	0.746	0.00	0.295	2.31	0.80	1.00	0.0	1.07	2.47	0.00	99	0	3	4	7
3	24	1.36	2.822	0.000	0.00	0.224	2.52	0.80	1.00	0.0	2.26	5.68	0.00	208	0	7	11	18
2	12	1.36	16.925	0.000	0.00	0.224	2.52	0.80	1.00	0.0	13.54	34.09	0.00	1250	0	40	67	106
1	1	1.36	4.000	0.000	0.00	0.906	1.93	0.80	1.00	0.0	3.20	6.18	0.00	1029	0	7	1	8
													Totals	**19,794**	**0**			**2,220**

1.2D + 1.0Di + 1.0Wi 330° Gust Response Factor (Gh): 0.85
30 mph Wind with 0" Radial Ice Wind Importance Factor (Iw): 1.00 Ice Dead Load Factor: 1.00

Section #	Elev (ft)	Q_Z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
33	295	2.62	8.447	0.000	0.00	0.225	2.51	0.85	1.00	0.0	7.18	18.05	0.00	524	0	40	35	75
32	289	2.61	1.850	0.000	0.00	0.296	2.31	0.85	1.00	0.0	1.57	3.63	0.00	144	0	8	6	14
31	288	2.61	1.832	0.000	0.00	0.293	2.32	0.85	1.00	0.0	1.56	3.61	0.00	144	0	8	6	14
30	286	2.60	1.850	0.000	0.00	0.296	2.31	0.85	1.00	0.0	1.57	3.63	0.00	146	0	8	7	15
29	284	2.60	1.832	0.000	0.00	0.293	2.32	0.85	1.00	0.0	1.56	3.61	0.00	147	0	8	7	15
28	282	2.59	3.165	0.000	0.00	0.254	2.42	0.85	1.00	0.0	2.69	6.52	0.00	234	0	14	16	30
27	270	2.56	16.945	0.000	0.00	0.224	2.52	0.85	1.00	0.0	14.40	36.25	0.00	1096	0	79	97	175
26	250	2.50	16.945	0.000	0.00	0.224	2.52	0.85	1.00	0.0	14.40	36.25	0.00	1096	0	77	94	172
25	235	2.46	9.680	0.000	0.00	0.256	2.42	0.85	1.00	0.0	8.23	19.90	0.00	664	0	42	44	86
24	229	2.44	2.130	0.000	0.00	0.338	2.20	0.85	1.00	0.0	1.81	3.98	0.00	170	0	8	7	15
23	228	2.44	2.105	0.000	0.00	0.334	2.21	0.85	1.00	0.0	1.79	3.95	0.00	170	0	8	7	15
22	226	2.43	2.130	0.000	0.00	0.338	2.20	0.85	1.00	0.0	1.81	3.98	0.00	170	0	8	7	15
21	224	2.43	2.105	0.000	0.00	0.334	2.21	0.85	1.00	0.0	1.79	3.95	0.00	170	0	8	7	15
20	222	2.42	3.758	0.000	0.00	0.300	2.30	0.85	1.00	0.0	3.19	7.34	0.00	280	0	15	14	29
19	210	2.38	15.809	0.000	0.00	0.211	2.56	0.85	1.00	0.0	13.44	34.40	0.00	1054	0	70	91	161
18	190	2.31	15.806	0.000	0.00	0.211	2.56	0.85	1.00	0.0	13.44	34.39	0.00	1054	0	68	89	157
17	170	2.24	17.528	0.000	0.00	0.232	2.49	0.85	1.00	0.0	14.90	37.13	0.00	1168	0	71	89	159
16	150	2.16	16.945	0.000	0.00	0.224	2.52	0.85	1.00	0.0	14.40	36.25	0.00	1218	0	67	91	158
15	130	2.08	16.941	0.000	0.00	0.224	2.52	0.85	1.00	0.0	14.40	36.24	0.00	1250	0	64	101	165
14	115	2.01	10.315	0.000	0.00	0.271	2.38	0.85	1.00	0.0	8.77	20.84	0.00	779	0	36	46	82
13	109	1.98	1.699	0.000	0.00	0.267	2.39	0.85	1.00	0.0	1.44	3.45	0.00	130	0	6	8	13
12	108	1.97	1.699	0.000	0.00	0.267	2.39	0.85	1.00	0.0	1.44	3.45	0.00	130	0	6	8	13
11	106	1.96	1.699	0.000	0.00	0.267	2.39	0.85	1.00	0.0	1.44	3.45	0.00	130	0	6	8	13
10	104	1.95	1.699	0.000	0.00	0.267	2.39	0.85	1.00	0.0	1.44	3.45	0.00	130	0	6	8	13
9	102	1.94	3.432	0.000	0.00	0.271	2.38	0.85	1.00	0.0	2.92	6.93	0.00	259	0	11	15	26
8	90	1.87	16.945	0.000	0.00	0.224	2.52	0.85	1.00	0.0	14.40	36.25	0.00	1250	0	58	91	149
7	70	1.74	16.945	0.000	0.00	0.224	2.52	0.85	1.00	0.0	14.40	36.25	0.00	1250	0	54	85	139
6	50	1.58	17.528	0.000	0.00	0.232	2.49	0.85	1.00	0.0	14.90	37.13	0.00	1413	0	50	76	126
5	33	1.41	11.301	0.000	0.00	0.224	2.52	0.85	1.00	0.0	9.61	24.18	0.00	834	0	29	46	75
4	26	1.36	0.736	0.746	0.00	0.295	2.31	0.85	1.00	0.0	1.11	2.56	0.00	99	0	3	4	7
3	24	1.36	2.822	0.000	0.00	0.224	2.52	0.85	1.00	0.0	2.40	6.04	0.00	208	0	7	11	18
2	12	1.36	16.925	0.000	0.00	0.224	2.52	0.85	1.00	0.0	14.39	36.22	0.00	1250	0	42	67	109
1	1	1.36	4.000	0.000	0.00	0.906	1.93	0.85	1.00	0.0	3.40	6.57	0.00	1029	0	8	1	8
													Totals	**19,794**	**0**			**2,278**

SECTION FORCES

1.0D + 1.0W Service Normal — Gust Response Factor (Gh): 0.85
60 mph Wind with No Ice — Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q_z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
33	295	10.50	8.447	0.000	0.00	0.225	2.51	1.00	1.00	0.0	8.45	21.23	0.00	437	0	189	108	297
32	289	10.44	1.850	0.000	0.00	0.296	2.31	1.00	1.00	0.0	1.85	4.27	0.00	120	0	38	22	60
31	288	10.42	1.832	0.000	0.00	0.293	2.32	1.00	1.00	0.0	1.83	4.24	0.00	120	0	38	22	59
30	286	10.40	1.850	0.000	0.00	0.296	2.31	1.00	1.00	0.0	1.85	4.27	0.00	122	0	38	24	62
29	284	10.39	1.832	0.000	0.00	0.293	2.32	1.00	1.00	0.0	1.83	4.24	0.00	123	0	37	25	63
28	282	10.36	3.165	0.000	0.00	0.254	2.42	1.00	1.00	0.0	3.17	7.67	0.00	195	0	68	50	118
27	270	10.24	16.945	0.000	0.00	0.224	2.52	1.00	1.00	0.0	16.94	42.65	0.00	914	0	371	299	670
26	250	10.01	16.945	0.000	0.00	0.224	2.52	1.00	1.00	0.0	16.94	42.65	0.00	914	0	363	292	655
25	235	9.84	9.680	0.000	0.00	0.256	2.42	1.00	1.00	0.0	9.68	23.41	0.00	554	0	196	144	339
24	229	9.77	2.130	0.000	0.00	0.338	2.20	1.00	1.00	0.0	2.13	4.69	0.00	142	0	39	24	63
23	228	9.75	2.105	0.000	0.00	0.334	2.21	1.00	1.00	0.0	2.10	4.65	0.00	142	0	39	24	62
22	226	9.73	2.130	0.000	0.00	0.338	2.20	1.00	1.00	0.0	2.13	4.69	0.00	142	0	39	24	62
21	224	9.71	2.105	0.000	0.00	0.334	2.21	1.00	1.00	0.0	2.10	4.65	0.00	142	0	38	24	62
20	222	9.68	3.758	0.000	0.00	0.300	2.30	1.00	1.00	0.0	3.76	8.63	0.00	233	0	71	47	118
19	210	9.53	15.809	0.000	0.00	0.211	2.56	1.00	1.00	0.0	15.81	40.47	0.00	878	0	328	278	606
18	190	9.26	15.806	0.000	0.00	0.211	2.56	1.00	1.00	0.0	15.81	40.46	0.00	878	0	318	270	589
17	170	8.97	17.528	0.000	0.00	0.232	2.49	1.00	1.00	0.0	17.53	43.69	0.00	974	0	333	277	610
16	150	8.65	16.945	0.000	0.00	0.224	2.52	1.00	1.00	0.0	16.94	42.65	0.00	1015	0	314	282	596
15	130	8.31	16.941	0.000	0.00	0.224	2.52	1.00	1.00	0.0	16.94	42.64	0.00	1042	0	301	314	615
14	115	8.02	10.315	0.000	0.00	0.271	2.38	1.00	1.00	0.0	10.31	24.52	0.00	649	0	167	152	319
13	109	7.90	1.699	0.000	0.00	0.267	2.39	1.00	1.00	0.0	1.70	4.06	0.00	108	0	27	25	52
12	108	7.87	1.699	0.000	0.00	0.267	2.39	1.00	1.00	0.0	1.70	4.06	0.00	108	0	27	25	52
11	106	7.83	1.699	0.000	0.00	0.267	2.39	1.00	1.00	0.0	1.70	4.06	0.00	108	0	27	25	52
10	104	7.80	1.699	0.000	0.00	0.267	2.39	1.00	1.00	0.0	1.70	4.06	0.00	108	0	27	25	51
9	102	7.74	3.432	0.000	0.00	0.271	2.38	1.00	1.00	0.0	3.43	8.15	0.00	216	0	54	49	102
8	90	7.48	16.945	0.000	0.00	0.224	2.52	1.00	1.00	0.0	16.94	42.65	0.00	1042	0	271	283	554
7	70	6.96	16.945	0.000	0.00	0.224	2.52	1.00	1.00	0.0	16.94	42.65	0.00	1042	0	252	263	515
6	50	6.32	17.528	0.000	0.00	0.232	2.49	1.00	1.00	0.0	17.53	43.69	0.00	1178	0	235	239	474
5	33	5.63	11.301	0.000	0.00	0.224	2.52	1.00	1.00	0.0	11.30	28.44	0.00	695	0	136	142	278
4	26	5.46	0.736	0.746	0.00	0.295	2.31	1.00	1.00	0.0	1.22	2.81	0.00	82	0	13	14	27
3	24	5.46	2.822	0.000	0.00	0.224	2.52	1.00	1.00	0.0	2.82	7.10	0.00	174	0	33	34	67
2	12	5.46	16.925	0.000	0.00	0.224	2.52	1.00	1.00	0.0	16.93	42.61	0.00	1042	0	198	206	404
1	1	5.46	4.000	0.000	0.00	0.906	1.93	1.00	1.00	0.0	4.00	7.73	0.00	857	0	36	3	39
													Totals	**16,495**	**0**			**8,694**

1.0D + 1.0W Service 60° — Gust Response Factor (Gh): 0.85
60 mph Wind with No Ice — Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q_z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
33	295	10.50	8.447	0.000	0.00	0.225	2.51	0.80	1.00	0.0	6.76	16.98	0.00	437	0	152	108	259
32	289	10.44	1.850	0.000	0.00	0.296	2.31	0.80	1.00	0.0	1.48	3.42	0.00	120	0	30	22	52
31	288	10.42	1.832	0.000	0.00	0.293	2.32	0.80	1.00	0.0	1.47	3.39	0.00	120	0	30	22	52
30	286	10.40	1.850	0.000	0.00	0.296	2.31	0.80	1.00	0.0	1.48	3.42	0.00	122	0	30	24	54
29	284	10.39	1.832	0.000	0.00	0.293	2.32	0.80	1.00	0.0	1.47	3.39	0.00	123	0	30	25	55
28	282	10.36	3.165	0.000	0.00	0.254	2.42	0.80	1.00	0.0	2.53	6.14	0.00	195	0	54	50	104
27	270	10.24	16.945	0.000	0.00	0.224	2.52	0.80	1.00	0.0	13.56	34.12	0.00	914	0	297	299	596
26	250	10.01	16.945	0.000	0.00	0.224	2.52	0.80	1.00	0.0	13.56	34.12	0.00	914	0	290	292	583
25	235	9.84	9.680	0.000	0.00	0.256	2.42	0.80	1.00	0.0	7.74	18.73	0.00	554	0	157	144	300
24	229	9.77	2.130	0.000	0.00	0.338	2.20	0.80	1.00	0.0	1.70	3.75	0.00	142	0	31	24	55
23	228	9.75	2.105	0.000	0.00	0.334	2.21	0.80	1.00	0.0	1.68	3.72	0.00	142	0	31	24	55
22	226	9.73	2.130	0.000	0.00	0.338	2.20	0.80	1.00	0.0	1.70	3.75	0.00	142	0	31	24	55
21	224	9.71	2.105	0.000	0.00	0.334	2.21	0.80	1.00	0.0	1.68	3.72	0.00	142	0	31	24	54
20	222	9.68	3.758	0.000	0.00	0.300	2.30	0.80	1.00	0.0	3.01	6.91	0.00	233	0	57	47	104
19	210	9.53	15.809	0.000	0.00	0.211	2.56	0.80	1.00	0.0	12.65	32.38	0.00	878	0	262	278	540
18	190	9.26	15.806	0.000	0.00	0.211	2.56	0.80	1.00	0.0	12.64	32.37	0.00	878	0	255	270	525
17	170	8.97	17.528	0.000	0.00	0.232	2.49	0.80	1.00	0.0	14.02	34.95	0.00	974	0	266	277	544
16	150	8.65	16.945	0.000	0.00	0.224	2.52	0.80	1.00	0.0	13.56	34.12	0.00	1015	0	251	282	533
15	130	8.31	16.941	0.000	0.00	0.224	2.52	0.80	1.00	0.0	13.55	34.11	0.00	1042	0	241	314	555
14	115	8.02	10.315	0.000	0.00	0.271	2.38	0.80	1.00	0.0	8.25	19.61	0.00	649	0	134	152	285
13	109	7.90	1.699	0.000	0.00	0.267	2.39	0.80	1.00	0.0	1.36	3.24	0.00	108	0	22	25	47
12	108	7.87	1.699	0.000	0.00	0.267	2.39	0.80	1.00	0.0	1.36	3.24	0.00	108	0	22	25	47
11	106	7.83	1.699	0.000	0.00	0.267	2.39	0.80	1.00	0.0	1.36	3.24	0.00	108	0	22	25	46
10	104	7.80	1.699	0.000	0.00	0.267	2.39	0.80	1.00	0.0	1.36	3.24	0.00	108	0	22	25	46
9	102	7.74	3.432	0.000	0.00	0.271	2.38	0.80	1.00	0.0	2.75	6.52	0.00	216	0	43	49	92
8	90	7.48	16.945	0.000	0.00	0.224	2.52	0.80	1.00	0.0	13.56	34.12	0.00	1042	0	217	283	500
7	70	6.96	16.945	0.000	0.00	0.224	2.52	0.80	1.00	0.0	13.56	34.12	0.00	1042	0	202	263	465
6	50	6.32	17.528	0.000	0.00	0.232	2.49	0.80	1.00	0.0	14.02	34.95	0.00	1178	0	188	239	427
5	33	5.63	11.301	0.000	0.00	0.224	2.52	0.80	1.00	0.0	9.04	22.75	0.00	695	0	109	142	251
4	26	5.46	0.736	0.746	0.00	0.295	2.31	0.80	1.00	0.0	1.07	2.47	0.00	82	0	11	14	25
3	24	5.46	2.822	0.000	0.00	0.224	2.52	0.80	1.00	0.0	2.26	5.68	0.00	174	0	26	34	61
2	12	5.46	16.925	0.000	0.00	0.224	2.52	0.80	1.00	0.0	13.54	34.09	0.00	1042	0	158	206	365
1	1	5.46	4.000	0.000	0.00	0.906	1.93	0.80	1.00	0.0	3.20	6.18	0.00	857	0	29	3	32
													Totals	**16,495**	**0**			**7,763**

SECTION FORCES

1.0D + 1.0W Service 90° Gust Response Factor (Gh): 0.85
60 mph Wind with No Ice Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q_z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
33	295	10.50	8.447	0.000	0.00	0.225	2.51	0.85	1.00	0.0	7.18	18.05	0.00	437	0	161	108	269
32	289	10.44	1.850	0.000	0.00	0.296	2.31	0.85	1.00	0.0	1.57	3.63	0.00	120	0	32	22	54
31	288	10.42	1.832	0.000	0.00	0.293	2.32	0.85	1.00	0.0	1.56	3.61	0.00	120	0	32	22	54
30	286	10.40	1.850	0.000	0.00	0.296	2.31	0.85	1.00	0.0	1.57	3.63	0.00	122	0	32	24	56
29	284	10.39	1.832	0.000	0.00	0.293	2.32	0.85	1.00	0.0	1.56	3.61	0.00	123	0	32	25	57
28	282	10.36	3.165	0.000	0.00	0.254	2.42	0.85	1.00	0.0	2.69	6.52	0.00	195	0	57	50	108
27	270	10.24	16.945	0.000	0.00	0.224	2.52	0.85	1.00	0.0	14.40	36.25	0.00	914	0	315	299	614
26	250	10.01	16.945	0.000	0.00	0.224	2.52	0.85	1.00	0.0	14.40	36.25	0.00	914	0	309	292	601
25	235	9.84	9.680	0.000	0.00	0.256	2.42	0.85	1.00	0.0	8.23	19.90	0.00	554	0	166	144	310
24	229	9.77	2.130	0.000	0.00	0.338	2.20	0.85	1.00	0.0	1.81	3.98	0.00	142	0	33	24	57
23	228	9.75	2.105	0.000	0.00	0.334	2.21	0.85	1.00	0.0	1.79	3.95	0.00	142	0	33	24	57
22	226	9.73	2.130	0.000	0.00	0.338	2.20	0.85	1.00	0.0	1.81	3.98	0.00	142	0	33	24	57
21	224	9.71	2.105	0.000	0.00	0.334	2.21	0.85	1.00	0.0	1.79	3.95	0.00	142	0	33	24	56
20	222	9.68	3.758	0.000	0.00	0.300	2.30	0.85	1.00	0.0	3.19	7.34	0.00	233	0	60	47	107
19	210	9.53	15.809	0.000	0.00	0.211	2.56	0.85	1.00	0.0	13.44	34.40	0.00	878	0	279	278	557
18	190	9.26	15.806	0.000	0.00	0.211	2.56	0.85	1.00	0.0	13.44	34.39	0.00	878	0	271	270	541
17	170	8.97	17.528	0.000	0.00	0.232	2.49	0.85	1.00	0.0	14.90	37.13	0.00	974	0	283	277	560
16	150	8.65	16.945	0.000	0.00	0.224	2.52	0.85	1.00	0.0	14.40	36.25	0.00	1015	0	267	282	549
15	130	8.31	16.941	0.000	0.00	0.224	2.52	0.85	1.00	0.0	14.40	36.24	0.00	1042	0	256	314	570
14	115	8.02	10.315	0.000	0.00	0.271	2.38	0.85	1.00	0.0	8.77	20.84	0.00	649	0	142	152	294
13	109	7.90	1.699	0.000	0.00	0.267	2.39	0.85	1.00	0.0	1.44	3.45	0.00	108	0	23	25	48
12	108	7.87	1.699	0.000	0.00	0.267	2.39	0.85	1.00	0.0	1.44	3.45	0.00	108	0	23	25	48
11	106	7.83	1.699	0.000	0.00	0.267	2.39	0.85	1.00	0.0	1.44	3.45	0.00	108	0	23	25	48
10	104	7.80	1.699	0.000	0.00	0.267	2.39	0.85	1.00	0.0	1.44	3.45	0.00	108	0	23	25	47
9	102	7.74	3.432	0.000	0.00	0.271	2.38	0.85	1.00	0.0	2.92	6.93	0.00	216	0	46	49	94
8	90	7.48	16.945	0.000	0.00	0.224	2.52	0.85	1.00	0.0	14.40	36.25	0.00	1042	0	230	283	513
7	70	6.96	16.945	0.000	0.00	0.224	2.52	0.85	1.00	0.0	14.40	36.25	0.00	1042	0	214	263	478
6	50	6.32	17.528	0.000	0.00	0.232	2.49	0.85	1.00	0.0	14.90	37.13	0.00	1178	0	200	239	439
5	33	5.63	11.301	0.000	0.00	0.224	2.52	0.85	1.00	0.0	9.61	24.18	0.00	695	0	116	142	258
4	26	5.46	0.736	0.746	0.00	0.295	2.31	0.85	1.00	0.0	1.11	2.56	0.00	82	0	12	14	26
3	24	5.46	2.822	0.000	0.00	0.224	2.52	0.85	1.00	0.0	2.40	6.04	0.00	174	0	28	34	62
2	12	5.46	16.925	0.000	0.00	0.224	2.52	0.85	1.00	0.0	14.39	36.22	0.00	1042	0	168	206	374
1	1	5.46	4.000	0.000	0.00	0.906	1.93	0.85	1.00	0.0	3.40	6.57	0.00	857	0	30	3	34
													Totals	**16,495**	**0**			**7,996**

1.0D + 1.0W Service 120° Gust Response Factor (Gh): 0.85
60 mph Wind with No Ice Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q_z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
33	295	10.50	8.447	0.000	0.00	0.225	2.51	1.00	1.00	0.0	8.45	21.23	0.00	437	0	189	108	297
32	289	10.44	1.850	0.000	0.00	0.296	2.31	1.00	1.00	0.0	1.85	4.27	0.00	120	0	38	22	60
31	288	10.42	1.832	0.000	0.00	0.293	2.32	1.00	1.00	0.0	1.83	4.24	0.00	120	0	38	22	59
30	286	10.40	1.850	0.000	0.00	0.296	2.31	1.00	1.00	0.0	1.85	4.27	0.00	122	0	38	24	62
29	284	10.39	1.832	0.000	0.00	0.293	2.32	1.00	1.00	0.0	1.83	4.24	0.00	123	0	37	25	63
28	282	10.36	3.165	0.000	0.00	0.254	2.42	1.00	1.00	0.0	3.17	7.67	0.00	195	0	68	50	118
27	270	10.24	16.945	0.000	0.00	0.224	2.52	1.00	1.00	0.0	16.94	42.65	0.00	914	0	371	299	670
26	250	10.01	16.945	0.000	0.00	0.224	2.52	1.00	1.00	0.0	16.94	42.65	0.00	914	0	363	292	655
25	235	9.84	9.680	0.000	0.00	0.256	2.42	1.00	1.00	0.0	9.68	23.41	0.00	554	0	196	144	339
24	229	9.77	2.130	0.000	0.00	0.338	2.20	1.00	1.00	0.0	2.13	4.69	0.00	142	0	39	24	63
23	228	9.75	2.105	0.000	0.00	0.334	2.21	1.00	1.00	0.0	2.10	4.65	0.00	142	0	39	24	62
22	226	9.73	2.130	0.000	0.00	0.338	2.20	1.00	1.00	0.0	2.13	4.69	0.00	142	0	39	24	62
21	224	9.71	2.105	0.000	0.00	0.334	2.21	1.00	1.00	0.0	2.10	4.65	0.00	142	0	38	24	62
20	222	9.68	3.758	0.000	0.00	0.300	2.30	1.00	1.00	0.0	3.76	8.63	0.00	233	0	71	47	118
19	210	9.53	15.809	0.000	0.00	0.211	2.56	1.00	1.00	0.0	15.81	40.47	0.00	878	0	328	278	606
18	190	9.26	15.806	0.000	0.00	0.211	2.56	1.00	1.00	0.0	15.81	40.46	0.00	878	0	318	270	589
17	170	8.97	17.528	0.000	0.00	0.232	2.49	1.00	1.00	0.0	17.53	43.69	0.00	974	0	333	277	610
16	150	8.65	16.945	0.000	0.00	0.224	2.52	1.00	1.00	0.0	16.94	42.65	0.00	1015	0	314	282	596
15	130	8.31	16.941	0.000	0.00	0.224	2.52	1.00	1.00	0.0	16.94	42.64	0.00	1042	0	301	314	615
14	115	8.02	10.315	0.000	0.00	0.271	2.38	1.00	1.00	0.0	10.31	24.52	0.00	649	0	167	152	319
13	109	7.90	1.699	0.000	0.00	0.267	2.39	1.00	1.00	0.0	1.70	4.06	0.00	108	0	27	25	52
12	108	7.87	1.699	0.000	0.00	0.267	2.39	1.00	1.00	0.0	1.70	4.06	0.00	108	0	27	25	52
11	106	7.83	1.699	0.000	0.00	0.267	2.39	1.00	1.00	0.0	1.70	4.06	0.00	108	0	27	25	52
10	104	7.80	1.699	0.000	0.00	0.267	2.39	1.00	1.00	0.0	1.70	4.06	0.00	108	0	27	25	51
9	102	7.74	3.432	0.000	0.00	0.271	2.38	1.00	1.00	0.0	3.43	8.15	0.00	216	0	54	49	102
8	90	7.48	16.945	0.000	0.00	0.224	2.52	1.00	1.00	0.0	16.94	42.65	0.00	1042	0	271	283	554
7	70	6.96	16.945	0.000	0.00	0.224	2.52	1.00	1.00	0.0	16.94	42.65	0.00	1042	0	252	263	515
6	50	6.32	17.528	0.000	0.00	0.232	2.49	1.00	1.00	0.0	17.53	43.69	0.00	1178	0	235	239	474
5	33	5.63	11.301	0.000	0.00	0.224	2.52	1.00	1.00	0.0	11.30	28.44	0.00	695	0	136	142	278
4	26	5.46	0.736	0.746	0.00	0.295	2.31	1.00	1.00	0.0	1.22	2.81	0.00	82	0	13	14	27
3	24	5.46	2.822	0.000	0.00	0.224	2.52	1.00	1.00	0.0	2.82	7.10	0.00	174	0	33	34	67
2	12	5.46	16.925	0.000	0.00	0.224	2.52	1.00	1.00	0.0	16.93	42.61	0.00	1042	0	198	206	404
1	1	5.46	4.000	0.000	0.00	0.906	1.93	1.00	1.00	0.0	4.00	7.73	0.00	857	0	36	3	39
													Totals	**16,495**	**0**			**8,694**

SECTION FORCES

1.0D + 1.0W Service 180° Gust Response Factor (Gh): 0.85
60 mph Wind with No Ice Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q_z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
33	295	10.50	8.447	0.000	0.00	0.225	2.51	0.80	1.00	0.0	6.76	16.98	0.00	437	0	152	108	259
32	289	10.44	1.850	0.000	0.00	0.296	2.31	0.80	1.00	0.0	1.48	3.42	0.00	120	0	30	22	52
31	288	10.42	1.832	0.000	0.00	0.293	2.32	0.80	1.00	0.0	1.47	3.39	0.00	120	0	30	22	52
30	286	10.40	1.850	0.000	0.00	0.296	2.31	0.80	1.00	0.0	1.48	3.42	0.00	122	0	30	24	54
29	284	10.39	1.832	0.000	0.00	0.293	2.32	0.80	1.00	0.0	1.47	3.39	0.00	123	0	30	25	55
28	282	10.36	3.165	0.000	0.00	0.254	2.42	0.80	1.00	0.0	2.53	6.14	0.00	195	0	54	50	104
27	270	10.24	16.945	0.000	0.00	0.224	2.52	0.80	1.00	0.0	13.56	34.12	0.00	914	0	297	299	596
26	250	10.01	16.945	0.000	0.00	0.224	2.52	0.80	1.00	0.0	13.56	34.12	0.00	914	0	290	292	583
25	235	9.84	9.680	0.000	0.00	0.256	2.42	0.80	1.00	0.0	7.74	18.73	0.00	554	0	157	144	300
24	229	9.77	2.130	0.000	0.00	0.338	2.20	0.80	1.00	0.0	1.70	3.75	0.00	142	0	31	24	55
23	228	9.75	2.105	0.000	0.00	0.334	2.21	0.80	1.00	0.0	1.68	3.72	0.00	142	0	31	24	55
22	226	9.73	2.130	0.000	0.00	0.338	2.20	0.80	1.00	0.0	1.70	3.75	0.00	142	0	31	24	55
21	224	9.71	2.105	0.000	0.00	0.334	2.21	0.80	1.00	0.0	1.68	3.72	0.00	142	0	31	24	54
20	222	9.68	3.758	0.000	0.00	0.300	2.30	0.80	1.00	0.0	3.01	6.91	0.00	233	0	57	47	104
19	210	9.53	15.809	0.000	0.00	0.211	2.56	0.80	1.00	0.0	12.65	32.38	0.00	878	0	262	278	540
18	190	9.26	15.806	0.000	0.00	0.211	2.56	0.80	1.00	0.0	12.64	32.37	0.00	878	0	255	270	525
17	170	8.97	17.528	0.000	0.00	0.232	2.49	0.80	1.00	0.0	14.02	34.95	0.00	974	0	266	277	544
16	150	8.65	16.945	0.000	0.00	0.224	2.52	0.80	1.00	0.0	13.56	34.12	0.00	1015	0	251	282	533
15	130	8.31	16.941	0.000	0.00	0.224	2.52	0.80	1.00	0.0	13.55	34.11	0.00	1042	0	241	314	555
14	115	8.02	10.315	0.000	0.00	0.271	2.38	0.80	1.00	0.0	8.25	19.61	0.00	649	0	134	152	285
13	109	7.90	1.699	0.000	0.00	0.267	2.39	0.80	1.00	0.0	1.36	3.24	0.00	108	0	22	25	47
12	108	7.87	1.699	0.000	0.00	0.267	2.39	0.80	1.00	0.0	1.36	3.24	0.00	108	0	22	25	47
11	106	7.83	1.699	0.000	0.00	0.267	2.39	0.80	1.00	0.0	1.36	3.24	0.00	108	0	22	25	46
10	104	7.80	1.699	0.000	0.00	0.267	2.39	0.80	1.00	0.0	1.36	3.24	0.00	108	0	22	25	46
9	102	7.74	3.432	0.000	0.00	0.271	2.38	0.80	1.00	0.0	2.75	6.52	0.00	216	0	43	49	92
8	90	7.48	16.945	0.000	0.00	0.224	2.52	0.80	1.00	0.0	13.56	34.12	0.00	1042	0	217	283	500
7	70	6.96	16.945	0.000	0.00	0.224	2.52	0.80	1.00	0.0	13.56	34.12	0.00	1042	0	202	263	465
6	50	6.32	17.528	0.000	0.00	0.232	2.49	0.80	1.00	0.0	14.02	34.95	0.00	1178	0	188	239	427
5	33	5.63	11.301	0.000	0.00	0.224	2.52	0.80	1.00	0.0	9.04	22.75	0.00	695	0	109	142	251
4	26	5.46	0.736	0.746	0.00	0.295	2.31	0.80	1.00	0.0	1.07	2.47	0.00	82	0	11	14	25
3	24	5.46	2.822	0.000	0.00	0.224	2.52	0.80	1.00	0.0	2.26	5.68	0.00	174	0	26	34	61
2	12	5.46	16.925	0.000	0.00	0.224	2.52	0.80	1.00	0.0	13.54	34.09	0.00	1042	0	158	206	365
1	1	5.46	4.000	0.000	0.00	0.906	1.93	0.80	1.00	0.0	3.20	6.18	0.00	857	0	29	3	32
													Totals	**16,495**	**0**			**7,763**

1.0D + 1.0W Service 210° Gust Response Factor (Gh): 0.85
60 mph Wind with No Ice Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q_z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
33	295	10.50	8.447	0.000	0.00	0.225	2.51	0.85	1.00	0.0	7.18	18.05	0.00	437	0	161	108	269
32	289	10.44	1.850	0.000	0.00	0.296	2.31	0.85	1.00	0.0	1.57	3.63	0.00	120	0	32	22	54
31	288	10.42	1.832	0.000	0.00	0.293	2.32	0.85	1.00	0.0	1.56	3.61	0.00	120	0	32	22	54
30	286	10.40	1.850	0.000	0.00	0.296	2.31	0.85	1.00	0.0	1.57	3.63	0.00	122	0	32	24	56
29	284	10.39	1.832	0.000	0.00	0.293	2.32	0.85	1.00	0.0	1.56	3.61	0.00	123	0	32	25	57
28	282	10.36	3.165	0.000	0.00	0.254	2.42	0.85	1.00	0.0	2.69	6.52	0.00	195	0	57	50	108
27	270	10.24	16.945	0.000	0.00	0.224	2.52	0.85	1.00	0.0	14.40	36.25	0.00	914	0	315	299	614
26	250	10.01	16.945	0.000	0.00	0.224	2.52	0.85	1.00	0.0	14.40	36.25	0.00	914	0	309	292	601
25	235	9.84	9.680	0.000	0.00	0.256	2.42	0.85	1.00	0.0	8.23	19.90	0.00	554	0	166	144	310
24	229	9.77	2.130	0.000	0.00	0.338	2.20	0.85	1.00	0.0	1.81	3.98	0.00	142	0	33	24	57
23	228	9.75	2.105	0.000	0.00	0.334	2.21	0.85	1.00	0.0	1.79	3.95	0.00	142	0	33	24	57
22	226	9.73	2.130	0.000	0.00	0.338	2.20	0.85	1.00	0.0	1.81	3.98	0.00	142	0	33	24	57
21	224	9.71	2.105	0.000	0.00	0.334	2.21	0.85	1.00	0.0	1.79	3.95	0.00	142	0	33	24	56
20	222	9.68	3.758	0.000	0.00	0.300	2.30	0.85	1.00	0.0	3.19	7.34	0.00	233	0	60	47	107
19	210	9.53	15.809	0.000	0.00	0.211	2.56	0.85	1.00	0.0	13.44	34.40	0.00	878	0	279	278	557
18	190	9.26	15.806	0.000	0.00	0.211	2.56	0.85	1.00	0.0	13.44	34.39	0.00	878	0	271	270	541
17	170	8.97	17.528	0.000	0.00	0.232	2.49	0.85	1.00	0.0	14.90	37.13	0.00	974	0	283	277	560
16	150	8.65	16.945	0.000	0.00	0.224	2.52	0.85	1.00	0.0	14.40	36.25	0.00	1015	0	267	282	549
15	130	8.31	16.941	0.000	0.00	0.224	2.52	0.85	1.00	0.0	14.40	36.24	0.00	1042	0	256	314	570
14	115	8.02	10.315	0.000	0.00	0.271	2.38	0.85	1.00	0.0	8.77	20.84	0.00	649	0	142	152	294
13	109	7.90	1.699	0.000	0.00	0.267	2.39	0.85	1.00	0.0	1.44	3.45	0.00	108	0	23	25	48
12	108	7.87	1.699	0.000	0.00	0.267	2.39	0.85	1.00	0.0	1.44	3.45	0.00	108	0	23	25	48
11	106	7.83	1.699	0.000	0.00	0.267	2.39	0.85	1.00	0.0	1.44	3.45	0.00	108	0	23	25	48
10	104	7.80	1.699	0.000	0.00	0.267	2.39	0.85	1.00	0.0	1.44	3.45	0.00	108	0	23	25	47
9	102	7.74	3.432	0.000	0.00	0.271	2.38	0.85	1.00	0.0	2.92	6.93	0.00	216	0	46	49	94
8	90	7.48	16.945	0.000	0.00	0.224	2.52	0.85	1.00	0.0	14.40	36.25	0.00	1042	0	230	283	513
7	70	6.96	16.945	0.000	0.00	0.224	2.52	0.85	1.00	0.0	14.40	36.25	0.00	1042	0	214	263	478
6	50	6.32	17.528	0.000	0.00	0.232	2.49	0.85	1.00	0.0	14.90	37.13	0.00	1178	0	200	239	439
5	33	5.63	11.301	0.000	0.00	0.224	2.52	0.85	1.00	0.0	9.61	24.18	0.00	695	0	116	142	258
4	26	5.46	0.736	0.746	0.00	0.295	2.31	0.85	1.00	0.0	1.11	2.56	0.00	82	0	12	14	26
3	24	5.46	2.822	0.000	0.00	0.224	2.52	0.85	1.00	0.0	2.40	6.04	0.00	174	0	28	34	62
2	12	5.46	16.925	0.000	0.00	0.224	2.52	0.85	1.00	0.0	14.39	36.22	0.00	1042	0	168	206	374
1	1	5.46	4.000	0.000	0.00	0.906	1.93	0.85	1.00	0.0	3.40	6.57	0.00	857	0	30	3	34
													Totals	**16,495**	**0**			**7,996**

SECTION FORCES

1.0D + 1.0W Service 240° Gust Response Factor (Gh): 0.85
60 mph Wind with No Ice Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q_z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
33	295	10.50	8.447	0.000	0.00	0.225	2.51	1.00	1.00	0.0	8.45	21.23	0.00	437	0	189	108	297
32	289	10.44	1.850	0.000	0.00	0.296	2.31	1.00	1.00	0.0	1.85	4.27	0.00	120	0	38	22	60
31	288	10.42	1.832	0.000	0.00	0.293	2.32	1.00	1.00	0.0	1.83	4.24	0.00	120	0	38	22	59
30	286	10.40	1.850	0.000	0.00	0.296	2.31	1.00	1.00	0.0	1.85	4.27	0.00	122	0	38	24	62
29	284	10.39	1.832	0.000	0.00	0.293	2.32	1.00	1.00	0.0	1.83	4.24	0.00	123	0	37	25	63
28	282	10.36	3.165	0.000	0.00	0.254	2.42	1.00	1.00	0.0	3.17	7.67	0.00	195	0	68	50	118
27	270	10.24	16.945	0.000	0.00	0.224	2.52	1.00	1.00	0.0	16.94	42.65	0.00	914	0	371	299	670
26	250	10.01	16.945	0.000	0.00	0.224	2.52	1.00	1.00	0.0	16.94	42.65	0.00	914	0	363	292	655
25	235	9.84	9.680	0.000	0.00	0.256	2.42	1.00	1.00	0.0	9.68	23.41	0.00	554	0	196	144	339
24	229	9.77	2.130	0.000	0.00	0.338	2.20	1.00	1.00	0.0	2.13	4.69	0.00	142	0	39	24	63
23	228	9.75	2.105	0.000	0.00	0.334	2.21	1.00	1.00	0.0	2.10	4.65	0.00	142	0	39	24	62
22	226	9.73	2.130	0.000	0.00	0.338	2.20	1.00	1.00	0.0	2.13	4.69	0.00	142	0	39	24	62
21	224	9.71	2.105	0.000	0.00	0.334	2.21	1.00	1.00	0.0	2.10	4.65	0.00	142	0	38	24	62
20	222	9.68	3.758	0.000	0.00	0.300	2.30	1.00	1.00	0.0	3.76	8.63	0.00	233	0	71	47	118
19	210	9.53	15.809	0.000	0.00	0.211	2.56	1.00	1.00	0.0	15.81	40.47	0.00	878	0	328	278	606
18	190	9.26	15.806	0.000	0.00	0.211	2.56	1.00	1.00	0.0	15.81	40.46	0.00	878	0	318	270	589
17	170	8.97	17.528	0.000	0.00	0.232	2.49	1.00	1.00	0.0	17.53	43.69	0.00	974	0	333	277	610
16	150	8.65	16.945	0.000	0.00	0.224	2.52	1.00	1.00	0.0	16.94	42.65	0.00	1015	0	314	282	596
15	130	8.31	16.941	0.000	0.00	0.224	2.52	1.00	1.00	0.0	16.94	42.64	0.00	1042	0	301	314	615
14	115	8.02	10.315	0.000	0.00	0.271	2.38	1.00	1.00	0.0	10.31	24.52	0.00	649	0	167	152	319
13	109	7.90	1.699	0.000	0.00	0.267	2.39	1.00	1.00	0.0	1.70	4.06	0.00	108	0	27	25	52
12	108	7.87	1.699	0.000	0.00	0.267	2.39	1.00	1.00	0.0	1.70	4.06	0.00	108	0	27	25	52
11	106	7.83	1.699	0.000	0.00	0.267	2.39	1.00	1.00	0.0	1.70	4.06	0.00	108	0	27	25	52
10	104	7.80	1.699	0.000	0.00	0.267	2.39	1.00	1.00	0.0	1.70	4.06	0.00	108	0	27	25	51
9	102	7.74	3.432	0.000	0.00	0.271	2.38	1.00	1.00	0.0	3.43	8.15	0.00	216	0	54	49	102
8	90	7.48	16.945	0.000	0.00	0.224	2.52	1.00	1.00	0.0	16.94	42.65	0.00	1042	0	271	283	554
7	70	6.96	16.945	0.000	0.00	0.224	2.52	1.00	1.00	0.0	16.94	42.65	0.00	1042	0	252	263	515
6	50	6.32	17.528	0.000	0.00	0.232	2.49	1.00	1.00	0.0	17.53	43.69	0.00	1178	0	235	239	474
5	33	5.63	11.301	0.000	0.00	0.224	2.52	1.00	1.00	0.0	11.30	28.44	0.00	695	0	136	142	278
4	26	5.46	0.736	0.746	0.00	0.295	2.31	1.00	1.00	0.0	1.22	2.81	0.00	82	0	13	14	27
3	24	5.46	2.822	0.000	0.00	0.224	2.52	1.00	1.00	0.0	2.82	7.10	0.00	174	0	33	34	67
2	12	5.46	16.925	0.000	0.00	0.224	2.52	1.00	1.00	0.0	16.93	42.61	0.00	1042	0	198	206	404
1	1	5.46	4.000	0.000	0.00	0.906	1.93	1.00	1.00	0.0	4.00	7.73	0.00	857	0	36	3	39
													Totals	**16,495**	**0**			**8,694**

1.0D + 1.0W Service 300° Gust Response Factor (Gh): 0.85
60 mph Wind with No Ice Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q_z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
33	295	10.50	8.447	0.000	0.00	0.225	2.51	0.80	1.00	0.0	6.76	16.98	0.00	437	0	152	108	259
32	289	10.44	1.850	0.000	0.00	0.296	2.31	0.80	1.00	0.0	1.48	3.42	0.00	120	0	30	22	52
31	288	10.42	1.832	0.000	0.00	0.293	2.32	0.80	1.00	0.0	1.47	3.39	0.00	120	0	30	22	52
30	286	10.40	1.850	0.000	0.00	0.296	2.31	0.80	1.00	0.0	1.48	3.42	0.00	122	0	30	24	54
29	284	10.39	1.832	0.000	0.00	0.293	2.32	0.80	1.00	0.0	1.47	3.39	0.00	123	0	30	25	55
28	282	10.36	3.165	0.000	0.00	0.254	2.42	0.80	1.00	0.0	2.53	6.14	0.00	195	0	54	50	104
27	270	10.24	16.945	0.000	0.00	0.224	2.52	0.80	1.00	0.0	13.56	34.12	0.00	914	0	297	299	596
26	250	10.01	16.945	0.000	0.00	0.224	2.52	0.80	1.00	0.0	13.56	34.12	0.00	914	0	290	292	583
25	235	9.84	9.680	0.000	0.00	0.256	2.42	0.80	1.00	0.0	7.74	18.73	0.00	554	0	157	144	300
24	229	9.77	2.130	0.000	0.00	0.338	2.20	0.80	1.00	0.0	1.70	3.75	0.00	142	0	31	24	55
23	228	9.75	2.105	0.000	0.00	0.334	2.21	0.80	1.00	0.0	1.68	3.72	0.00	142	0	31	24	55
22	226	9.73	2.130	0.000	0.00	0.338	2.20	0.80	1.00	0.0	1.70	3.75	0.00	142	0	31	24	55
21	224	9.71	2.105	0.000	0.00	0.334	2.21	0.80	1.00	0.0	1.68	3.72	0.00	142	0	31	24	54
20	222	9.68	3.758	0.000	0.00	0.300	2.30	0.80	1.00	0.0	3.01	6.91	0.00	233	0	57	47	104
19	210	9.53	15.809	0.000	0.00	0.211	2.56	0.80	1.00	0.0	12.65	32.38	0.00	878	0	262	278	540
18	190	9.26	15.806	0.000	0.00	0.211	2.56	0.80	1.00	0.0	12.64	32.37	0.00	878	0	255	270	525
17	170	8.97	17.528	0.000	0.00	0.232	2.49	0.80	1.00	0.0	14.02	34.95	0.00	974	0	266	277	544
16	150	8.65	16.945	0.000	0.00	0.224	2.52	0.80	1.00	0.0	13.56	34.12	0.00	1015	0	251	282	533
15	130	8.31	16.941	0.000	0.00	0.224	2.52	0.80	1.00	0.0	13.55	34.11	0.00	1042	0	241	314	555
14	115	8.02	10.315	0.000	0.00	0.271	2.38	0.80	1.00	0.0	8.25	19.61	0.00	649	0	134	152	285
13	109	7.90	1.699	0.000	0.00	0.267	2.39	0.80	1.00	0.0	1.36	3.24	0.00	108	0	22	25	47
12	108	7.87	1.699	0.000	0.00	0.267	2.39	0.80	1.00	0.0	1.36	3.24	0.00	108	0	22	25	47
11	106	7.83	1.699	0.000	0.00	0.267	2.39	0.80	1.00	0.0	1.36	3.24	0.00	108	0	22	25	46
10	104	7.80	1.699	0.000	0.00	0.267	2.39	0.80	1.00	0.0	1.36	3.24	0.00	108	0	22	25	46
9	102	7.74	3.432	0.000	0.00	0.271	2.38	0.80	1.00	0.0	2.75	6.52	0.00	216	0	43	49	92
8	90	7.48	16.945	0.000	0.00	0.224	2.52	0.80	1.00	0.0	13.56	34.12	0.00	1042	0	217	283	500
7	70	6.96	16.945	0.000	0.00	0.224	2.52	0.80	1.00	0.0	13.56	34.12	0.00	1042	0	202	263	465
6	50	6.32	17.528	0.000	0.00	0.232	2.49	0.80	1.00	0.0	14.02	34.95	0.00	1178	0	188	239	427
5	33	5.63	11.301	0.000	0.00	0.224	2.52	0.80	1.00	0.0	9.04	22.75	0.00	695	0	109	142	251
4	26	5.46	0.736	0.746	0.00	0.295	2.31	0.80	1.00	0.0	1.07	2.47	0.00	82	0	11	14	25
3	24	5.46	2.822	0.000	0.00	0.224	2.52	0.80	1.00	0.0	2.26	5.68	0.00	174	0	26	34	61
2	12	5.46	16.925	0.000	0.00	0.224	2.52	0.80	1.00	0.0	13.54	34.09	0.00	1042	0	158	206	365
1	1	5.46	4.000	0.000	0.00	0.906	1.93	0.80	1.00	0.0	3.20	6.18	0.00	857	0	29	3	32
													Totals	**16,495**	**0**			**7,763**

SECTION FORCES

1.0D + 1.0W Service 330° Gust Response Factor (Gh): 0.85
60 mph Wind with No Ice Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q_z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
33	295	10.50	8.447	0.000	0.00	0.225	2.51	0.85	1.00	0.0	7.18	18.05	0.00	437	0	161	108	269
32	289	10.44	1.850	0.000	0.00	0.296	2.31	0.85	1.00	0.0	1.57	3.63	0.00	120	0	32	22	54
31	288	10.42	1.832	0.000	0.00	0.293	2.32	0.85	1.00	0.0	1.56	3.61	0.00	120	0	32	22	54
30	286	10.40	1.850	0.000	0.00	0.296	2.31	0.85	1.00	0.0	1.57	3.63	0.00	122	0	32	24	56
29	284	10.39	1.832	0.000	0.00	0.293	2.32	0.85	1.00	0.0	1.56	3.61	0.00	123	0	32	25	57
28	282	10.36	3.165	0.000	0.00	0.254	2.42	0.85	1.00	0.0	2.69	6.52	0.00	195	0	57	50	108
27	270	10.24	16.945	0.000	0.00	0.224	2.52	0.85	1.00	0.0	14.40	36.25	0.00	914	0	315	299	614
26	250	10.01	16.945	0.000	0.00	0.224	2.52	0.85	1.00	0.0	14.40	36.25	0.00	914	0	309	292	601
25	235	9.84	9.680	0.000	0.00	0.256	2.42	0.85	1.00	0.0	8.23	19.90	0.00	554	0	166	144	310
24	229	9.77	2.130	0.000	0.00	0.338	2.20	0.85	1.00	0.0	1.81	3.98	0.00	142	0	33	24	57
23	228	9.75	2.105	0.000	0.00	0.334	2.21	0.85	1.00	0.0	1.79	3.95	0.00	142	0	33	24	57
22	226	9.73	2.130	0.000	0.00	0.338	2.20	0.85	1.00	0.0	1.81	3.98	0.00	142	0	33	24	57
21	224	9.71	2.105	0.000	0.00	0.334	2.21	0.85	1.00	0.0	1.79	3.95	0.00	142	0	33	24	56
20	222	9.68	3.758	0.000	0.00	0.300	2.30	0.85	1.00	0.0	3.19	7.34	0.00	233	0	60	47	107
19	210	9.53	15.809	0.000	0.00	0.211	2.56	0.85	1.00	0.0	13.44	34.40	0.00	878	0	279	278	557
18	190	9.26	15.806	0.000	0.00	0.211	2.56	0.85	1.00	0.0	13.44	34.39	0.00	878	0	271	270	541
17	170	8.97	17.528	0.000	0.00	0.232	2.49	0.85	1.00	0.0	14.90	37.13	0.00	974	0	283	277	560
16	150	8.65	16.945	0.000	0.00	0.224	2.52	0.85	1.00	0.0	14.40	36.25	0.00	1015	0	267	282	549
15	130	8.31	16.941	0.000	0.00	0.224	2.52	0.85	1.00	0.0	14.40	36.24	0.00	1042	0	256	314	570
14	115	8.02	10.315	0.000	0.00	0.271	2.38	0.85	1.00	0.0	8.77	20.84	0.00	649	0	142	152	294
13	109	7.90	1.699	0.000	0.00	0.267	2.39	0.85	1.00	0.0	1.44	3.45	0.00	108	0	23	25	48
12	108	7.87	1.699	0.000	0.00	0.267	2.39	0.85	1.00	0.0	1.44	3.45	0.00	108	0	23	25	48
11	106	7.83	1.699	0.000	0.00	0.267	2.39	0.85	1.00	0.0	1.44	3.45	0.00	108	0	23	25	48
10	104	7.80	1.699	0.000	0.00	0.267	2.39	0.85	1.00	0.0	1.44	3.45	0.00	108	0	23	25	47
9	102	7.74	3.432	0.000	0.00	0.271	2.38	0.85	1.00	0.0	2.92	6.93	0.00	216	0	46	49	94
8	90	7.48	16.945	0.000	0.00	0.224	2.52	0.85	1.00	0.0	14.40	36.25	0.00	1042	0	230	283	513
7	70	6.96	16.945	0.000	0.00	0.224	2.52	0.85	1.00	0.0	14.40	36.25	0.00	1042	0	214	263	478
6	50	6.32	17.528	0.000	0.00	0.232	2.49	0.85	1.00	0.0	14.90	37.13	0.00	1178	0	200	239	439
5	33	5.63	11.301	0.000	0.00	0.224	2.52	0.85	1.00	0.0	9.61	24.18	0.00	695	0	116	142	258
4	26	5.46	0.736	0.746	0.00	0.295	2.31	0.85	1.00	0.0	1.11	2.56	0.00	82	0	12	14	26
3	24	5.46	2.822	0.000	0.00	0.224	2.52	0.85	1.00	0.0	2.40	6.04	0.00	174	0	28	34	62
2	12	5.46	16.925	0.000	0.00	0.224	2.52	0.85	1.00	0.0	14.39	36.22	0.00	1042	0	168	206	374
1	1	5.46	4.000	0.000	0.00	0.906	1.93	0.85	1.00	0.0	3.40	6.57	0.00	857	0	30	3	34
													Totals	**16,495**	**0**			**7,996**

EQUIVALENT LATERAL FORCE METHOD

Spectral Response Acceleration for Short Period (S_S):	0.09
Spectral Response Acceleration at 1.0 Second Period (S_1):	0.05
Long-Period Transition Period (T_L – Seconds):	8
Importance Factor (I_e):	1.00
Site Coefficient F_a:	1.60
Site Coefficient F_v:	2.40
Response Modification Coefficient (R):	3.00
Design Spectral Response Acceleration at Short Period (S_{ds}):	0.10
Design Spectral Response Acceleration at 1.0 Second Period (S_{d1}):	0.09
Seismic Response Coefficient (C_s):	0.03
Upper Limit C_S:	0.04
Lower Limit C_S:	0.03
Period based on Rayleigh Method (sec):	0.79
Redundancy Factor (p):	1.30
Seismic Force Distribution Exponent (k):	1.15
Total Unfactored Dead Load:	22.73 k
Seismic Base Shear (E):	0.99 k

SEISMIC FORCES

1.2D + 1.0Ev + 1.0Eh

Section/Appurtenance	Height Above Base (ft)	Weight (lb)	W_Z (lb-ft)	Cvx	Horizontal Force (lb)	Vertical Force (lb)
33	295.00	437	296,999	0.034	34	533
32	289.16	120	79,724	0.009	9	146
31	287.50	120	79,196	0.009	9	146
30	285.82	122	79,755	0.009	9	148
29	284.16	123	79,926	0.009	9	150
28	281.66	195	125,915	0.015	14	238
27	270.00	914	561,417	0.065	64	1,115
26	250.00	914	513,987	0.060	59	1,115
25	235.00	554	290,122	0.034	33	675
24	229.16	142	72,186	0.008	8	173
23	227.50	142	71,583	0.008	8	173
22	225.82	142	70,981	0.008	8	173
21	224.16	142	70,379	0.008	8	173
20	221.66	233	114,316	0.013	13	285
19	210.00	878	404,525	0.047	46	1,071
18	190.00	878	360,657	0.042	41	1,071
17	170.00	974	351,982	0.041	40	1,188
16	150.00	1,015	317,957	0.037	36	1,239
15	130.00	1,042	276,916	0.032	32	1,271
14	115.00	649	149,922	0.017	17	792
13	109.16	108	23,579	0.003	3	132
12	107.50	108	23,166	0.003	3	132
11	105.82	108	22,754	0.003	3	132
10	104.16	108	22,343	0.003	3	132
9	101.66	216	43,233	0.005	5	263
8	90.00	1,042	181,630	0.021	21	1,271
7	70.00	1,042	136,147	0.016	16	1,271
6	50.00	1,178	104,624	0.012	12	1,437
5	33.33	695	38,771	0.004	4	848
4	26.00	82	3,455	0.000	0	100
3	23.66	174	6,536	0.001	1	212
2	12.00	1,042	18,013	0.002	2	1,271
1	1.00	857	857	0.000	0	1,046
Generic Lightning Rod	300.00	10	6,934	0.001	1	12
Generic Beacon	300.00	70	48,541	0.006	6	85
Ericsson RRUS 4449	298.00	210	144,509	0.017	17	256
Ericsson RRUS 4890	298.00	208	143,477	0.017	16	254
Raycap RVZDC-6627-PF-48	298.00	32	22,020	0.003	3	39
Ericsson AIR 6419 B77D	298.00	189	130,265	0.015	15	231
JMA Wireless MX06FHG865-HG	298.00	306	210,571	0.024	24	373
Generic Round Sector Frame	298.00	2,100	1,445,094	0.168	166	2,562
CSS X7-865	297.40	112	76,619	0.009	9	136

Torque Arms		288.00	500	330,861	0.038	38	610
Generic 15' Omni		286.00	80	52,516	0.006	6	98
Generic Flat Side Arm		278.00	562	357,434	0.042	41	686
Torque Arms		228.00	500	253,095	0.029	29	610
Andrew Microwaves UHX6-59W		175.00	359	134,163	0.016	15	438
Generic Small Side Lights		155.00	45	14,632	0.002	2	55
Andrew Microwaves UHX6-59W		150.00	359	112,422	0.013	13	438
Commscope VHLPX4-11W		140.00	88	25,461	0.003	3	107
Torque Arms		108.00	500	107,424	0.012	12	610
	Totals		**22,726**	**8,609,592**	**1.000**	**987**	**27,727**

FORCE/STRESS SUMMARY

Section 1 – 0.0' to 2.00'

Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'_y (ksi)	$\Phi_c P_n$ (kip)	Shear ΦR_{nv} (kip)	Bear ΦR_n (kip)	# Bolt	# Hole	Use %	Controls
L W - S15x42.9	-55.36	1.2D + 1.0W 120°	2.843	100	100	100	32.19	50.00	601.50	0.00	0.00	0	0	9.2	Member Y

Member Tension	Pu (kip)	Load Case	F_y (ksi)	F_u (ksi)	$\Phi_c Pn$ (kip)	Shear ΦR_{nv} (kip)	Bear ΦR_n (kip)	Blk Shear $\Phi_t P_n$ (kip)	# Bolt	# Hole	Use %	Controls
H W - S15x42.9	23.20	1.2D + 1.0W 120°	36.0	58	408.24	0.00	0.00	0.00	0	0	5.7	Member

Max Splice Forces	Pu (kip)	Load Case	ΦR_{nt} (kip)	Use %	Num Bolts	Bolt Type

Section 2 – 2.0' to 22.00'

Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'_y (ksi)	$\Phi_c P_n$ (kip)	Shear ΦR_{nv} (kip)	Bear ΦR_n (kip)	# Bolt	# Hole	Use %	Controls
L PLA - M46-65 LEG	-40.76	1.2D + 1.0W 90°	3.333	100	100	100	49.57	50.00	92.40	149.10	292.50	12	2	44.1	Member Z
D PLA - M46-Y LACING	-1.00	1.2D + 1.0W 210°	4.833	50	50	50	0.00	0.00	5.67	0.00	8.70	1	1	17.6	User Input

Member Tension	Pu (kip)	Load Case	F_y (ksi)	F_u (ksi)	$\Phi_c Pn$ (kip)	Shear ΦR_{nv} (kip)	Bear ΦR_n (kip)	Blk Shear $\Phi_t P_n$ (kip)	# Bolt	# Hole	Use %	Controls
D PLA - M46-Y LACING	0.74	1.2D + 1.0W 60°	36.0	58	6.53	0.00	0.00	0.00	1	1	11.3	User Input

Max Splice Forces	Pu (kip)	Load Case	ΦR_{nt} (kip)	Use %	Num Bolts	Bolt Type

Section 3 – 22.0' to 25.33'

Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'_y (ksi)	$\Phi_c P_n$ (kip)	Shear ΦR_{nv} (kip)	Bear ΦR_n (kip)	# Bolt	# Hole	Use %	Controls
L PLA - M46-65 LEG	-39.50	1.2D + 1.0W 90°	3.33	100	100	100	49.52	50.00	92.42	149.10	292.50	12	2	42.7	Member Z
D PLA - M46-Y LACING	-0.64	1.2D + 1.0W 120°	4.831	50	50	50	0.00	0.00	5.67	0.00	8.70	1	1	11.4	User Input

Member Tension	Pu (kip)	Load Case	F_y (ksi)	F_u (ksi)	$\Phi_c Pn$ (kip)	Shear ΦR_{nv} (kip)	Bear ΦR_n (kip)	Blk Shear $\Phi_t P_n$ (kip)	# Bolt	# Hole	Use %	Controls

Max Splice Forces	Pu (kip)	Load Case	ΦR_{nt} (kip)	Use %	Num Bolts	Bolt Type

Section 4 – 25.3' to 26.66'

Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'_y (ksi)	$\Phi_c P_n$ (kip)	Shear ΦR_{nv} (kip)	Bear ΦR_n (kip)	# Bolt	# Hole	Use %	Controls
L PLA - M46-65 LEG	-39.99	1.2D + 1.0W 210°	1.33	100	100	100	19.78	50.00	101.73	0.00	0.00	0	0	39.3	Member Z

Member Tension	Pu (kip)	Load Case	F_y (ksi)	F_u (ksi)	$\Phi_c Pn$ (kip)	Shear ΦR_{nv} (kip)	Bear ΦR_n (kip)	Blk Shear $\Phi_t P_n$ (kip)	# Bolt	# Hole	Use %	Controls
D PLA - M46-LN LACING	0.63	1.2D + 1.0W 210°	36.0	58	6.53	0.00	0.00	0.00	1	1	9.6	User Input

Max Splice Forces	Pu (kip)	Load Case	ΦR_{nt} (kip)	Use %	Num Bolts	Bolt Type

FORCE/STRESS SUMMARY

Section 5 – 26.7' to 40.00'

Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'_y (ksi)	$\Phi_c P_n$ (kip)	Shear ΦR_{nv} (kip)	Bear ΦR_n (kip)	# Bolt	# Hole	Use %	Controls
L PLA - M46-65 LEG	-39.49	1.2D + 1.0W 120°	3.335	100	100	100	49.59	50.00	92.38	0.00	0.00	0	0	42.7	Member Z
D PLA - M46-Y LACING	-0.80	1.2D + 1.0W 90°	4.835	50	50	50	0.00	0.00	5.67	0.00	8.70	1	1	14.2	User Input

Member Tension	Pu (kip)	Load Case	F_y (ksi)	F_u (ksi)	$\Phi_c Pn$ (kip)	Shear ΦR_{nv} (kip)	Bear ΦR_n (kip)	Blk Shear $\Phi_t P_n$ (kip)	# Bolt	# Hole	Use %	Controls
D PLA - M46-Y LACING	0.88	1.2D + 1.0W 90°	36.0	58	6.53	0.00	0.00	0.00	1	1	13.5	User Input

Max Splice Forces	Pu (kip)	Load Case	ΦR_{nt} (kip)	Use %	Num Bolts	Bolt Type

Section 6 – 40.0' to 60.00'

Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'_y (ksi)	$\Phi_c P_n$ (kip)	Shear ΦR_{nv} (kip)	Bear ΦR_n (kip)	# Bolt	# Hole	Use %	Controls
L PLA - M46-66 LEG	-45.26	1.2D + 1.0W 120°	3.333	100	100	100	49.57	50.00	110.70	149.10	351.00	12	2	40.9	Member Z
D PLA - M46-Y LACING	-1.47	1.2D + 1.0W 210°	4.833	50	50	50	0.00	0.00	5.67	0.00	8.70	1	1	25.9	User Input

Member Tension	Pu (kip)	Load Case	F_y (ksi)	F_u (ksi)	$\Phi_c Pn$ (kip)	Shear ΦR_{nv} (kip)	Bear ΦR_n (kip)	Blk Shear $\Phi_t P_n$ (kip)	# Bolt	# Hole	Use %	Controls
D PLA - M46-Y LACING	1.20	1.2D + 1.0W 90°	36.0	58	6.53	0.00	0.00	0.00	1	1	18.4	User Input

Max Splice Forces	Pu (kip)	Load Case	ΦR_{nt} (kip)	Use %	Num Bolts	Bolt Type

Section 7 – 60.0' to 80.00'

Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'_y (ksi)	$\Phi_c P_n$ (kip)	Shear ΦR_{nv} (kip)	Bear ΦR_n (kip)	# Bolt	# Hole	Use %	Controls
L PLA - M46-65 LEG	-39.53	1.2D + 1.0W N	3.333	100	100	100	49.57	50.00	92.40	149.10	292.50	12	2	42.8	Member Z
D PLA - M46-Y LACING	-0.62	1.2D + 1.0W 330°	4.833	50	50	50	0.00	0.00	5.67	0.00	8.70	1	1	10.9	User Input

Member Tension	Pu (kip)	Load Case	F_y (ksi)	F_u (ksi)	$\Phi_c Pn$ (kip)	Shear ΦR_{nv} (kip)	Bear ΦR_n (kip)	Blk Shear $\Phi_t P_n$ (kip)	# Bolt	# Hole	Use %	Controls
D PLA - M46-Y LACING	0.63	1.2D + 1.0W 330°	36.0	58	6.53	0.00	0.00	0.00	1	1	9.7	User Input

Max Splice Forces	Pu (kip)	Load Case	ΦR_{nt} (kip)	Use %	Num Bolts	Bolt Type

Section 8 – 80.0' to 100.00'

Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'_y (ksi)	$\Phi_c P_n$ (kip)	Shear ΦR_{nv} (kip)	Bear ΦR_n (kip)	# Bolt	# Hole	Use %	Controls
L PLA - M46-65 LEG	-43.48	1.2D + 1.0W 120°	3.333	100	100	100	49.57	50.00	92.40	149.10	292.50	12	2	47.1	Member Z
D PLA - M46-Y LACING	-1.94	1.2D + 1.0W 330°	4.833	50	50	50	0.00	0.00	5.67	0.00	8.70	1	1	34.2	User Input

Member Tension	Pu (kip)	Load Case	F_y (ksi)	F_u (ksi)	$\Phi_c Pn$ (kip)	Shear ΦR_{nv} (kip)	Bear ΦR_n (kip)	Blk Shear $\Phi_t P_n$ (kip)	# Bolt	# Hole	Use %	Controls
D PLA - M46-Y LACING	3.36	1.2D + 1.0W 120°	36.0	58	6.53	0.00	0.00	0.00	1	1	51.5	User Input

Max Splice Forces	Pu (kip)	Load Case	ΦR_{nt} (kip)	Use %	Num Bolts	Bolt Type

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Section 9 – 100.0' to 103.32'

Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'y (ksi)	ΦcPn (kip)	Shear ΦRnv (kip)	Bear ΦRn (kip)	# Bolt	# Hole	Use %	Controls
L PLA - M46-76 LEG	-48.11	1.2D + 1.0W N	3.32	100	100	100	43.78	50.00	127.82	149.10	351.00	12	2	37.6	Member Z
D PLA - M46-T LACING	-3.65	1.2D + 1.0W 240°	4.824	50	50	50	0.00	0.00	10.61	0.00	12.46	1	1	34.5	User Input

Member Tension	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	ΦcPn (kip)	Shear ΦRnv (kip)	Bear ΦRn (kip)	Blk Shear ΦtPn (kip)	# Bolt	# Hole	Use %	Controls
D PLA - M46-T LACING	1.79	1.2D + 1.0W N	36.0	58	9.34	0.00	0.00	0.00	1	1	19.2	User Input

Max Splice Forces	Pu (kip)	Load Case	ΦRnt (kip)	Use %	Num Bolts	Bolt Type

Section 10 – 103.3' to 104.99'

Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'y (ksi)	ΦcPn (kip)	Shear ΦRnv (kip)	Bear ΦRn (kip)	# Bolt	# Hole	Use %	Controls
L PLA - M46-76 LEG	-49.60	1.2D + 1.0W 120°	1.67	200	200	200	44.04	50.00	127.68	0.00	0.00	0	0	38.9	Member Z
D PLA - M46-T LACING	-0.88	1.2D + 1.0W 210°	2.419	100	100	100	0.00	0.00	10.61	0.00	12.46	1	1	8.3	User Input

Member Tension	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	ΦcPn (kip)	Shear ΦRnv (kip)	Bear ΦRn (kip)	Blk Shear ΦtPn (kip)	# Bolt	# Hole	Use %	Controls
D PLA - M46-T LACING	1.25	1.2D + 1.0W 90°	36.0	58	9.34	0.00	0.00	0.00	1	1	13.4	User Input

Max Splice Forces	Pu (kip)	Load Case	ΦRnt (kip)	Use %	Num Bolts	Bolt Type

Section 11 – 105.0' to 106.66'

Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'y (ksi)	ΦcPn (kip)	Shear ΦRnv (kip)	Bear ΦRn (kip)	# Bolt	# Hole	Use %	Controls
L PLA - M46-76 LEG	-52.99	1.2D + 1.0W 120°	1.67	200	200	200	44.04	50.00	127.68	0.00	0.00	0	0	41.5	Member Z
D PLA - M46-T LACING	-0.88	1.2D + 1.0W 210°	2.419	100	100	100	0.00	0.00	10.61	0.00	12.46	1	1	8.3	User Input

Member Tension	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	ΦcPn (kip)	Shear ΦRnv (kip)	Bear ΦRn (kip)	Blk Shear ΦtPn (kip)	# Bolt	# Hole	Use %	Controls
D PLA - M46-T LACING	1.28	1.2D + 1.0W 90°	36.0	58	9.34	0.00	0.00	0.00	1	1	13.7	User Input

Max Splice Forces	Pu (kip)	Load Case	ΦRnt (kip)	Use %	Num Bolts	Bolt Type

Section 12 – 106.7' to 108.33'

Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'y (ksi)	ΦcPn (kip)	Shear ΦRnv (kip)	Bear ΦRn (kip)	# Bolt	# Hole	Use %	Controls
L PLA - M46-76 LEG	-54.12	1.2D + 1.0W 120°	1.67	200	200	200	44.04	50.00	127.68	0.00	0.00	0	0	42.4	Member Z
D PLA - M46-T LACING	-1.29	1.2D + 1.0W 90°	2.419	100	100	100	0.00	0.00	10.61	0.00	12.46	1	1	12.2	User Input

Member Tension	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	ΦcPn (kip)	Shear ΦRnv (kip)	Bear ΦRn (kip)	Blk Shear ΦtPn (kip)	# Bolt	# Hole	Use %	Controls
D PLA - M46-T LACING	3.33	1.2D + 1.0W 90°	36.0	58	9.34	0.00	0.00	0.00	1	1	35.7	User Input

Max Splice Forces	Pu (kip)	Load Case	ΦRnt (kip)	Use %	Num Bolts	Bolt Type

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Section 13 – 108.3' to 110.00'

Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'_y (ksi)	$\Phi_c P_n$ (kip)	Shear ΦR_{nv} (kip)	Bear ΦR_n (kip)	# Bolt	# Hole	Use %	Controls
L PLA - M46-76 LEG	-53.90	1.2D + 1.0W 120°	1.67	200	200	200	44.04	50.00	127.68	0.00	0.00	0	0	42.2	Member Z
D PLA - M46-T LACING	-1.26	1.2D + 1.0W 90°	2.419	100	100	100	0.00	0.00	10.61	0.00	12.46	1	1	11.9	User Input

Member Tension	Pu (kip)	Load Case	F_y (ksi)	F_u (ksi)	$\Phi_c Pn$ (kip)	Shear ΦR_{nv} (kip)	Bear ΦR_n (kip)	Blk Shear $\Phi_t P_n$ (kip)	# Bolt	# Hole	Use %	Controls
D PLA - M46-T LACING	3.34	1.2D + 1.0W 90°	36.0	58	9.34	0.00	0.00	0.00	1	1	35.7	User Input

Max Splice Forces	Pu (kip)	Load Case	ΦR_{nt} (kip)	Use %	Num Bolts	Bolt Type

Section 14 – 110.0' to 120.00'

Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'_y (ksi)	$\Phi_c P_n$ (kip)	Shear ΦR_{nv} (kip)	Bear ΦR_n (kip)	# Bolt	# Hole	Use %	Controls
L PLA - M46-76 LEG	-50.27	1.2D + 1.0W N	3.333	100	100	100	43.96	50.00	127.73	0.00	0.00	0	0	39.4	Member Z
D PLA - M46-T LACING	-5.52	1.2D + 1.0W 90°	4.833	50	50	50	0.00	0.00	10.61	0.00	12.46	1	1	52	User Input

Member Tension	Pu (kip)	Load Case	F_y (ksi)	F_u (ksi)	$\Phi_c Pn$ (kip)	Shear ΦR_{nv} (kip)	Bear ΦR_n (kip)	Blk Shear $\Phi_t P_n$ (kip)	# Bolt	# Hole	Use %	Controls
D PLA - M46-T LACING	4.59	1.2D + 1.0W 90°	36.0	58	9.34	0.00	0.00	0.00	1	1	49.1	User Input

Max Splice Forces	Pu (kip)	Load Case	ΦR_{nt} (kip)	Use %	Num Bolts	Bolt Type

Section 15 – 120.0' to 140.00'

Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'_y (ksi)	$\Phi_c P_n$ (kip)	Shear ΦR_{nv} (kip)	Bear ΦR_n (kip)	# Bolt	# Hole	Use %	Controls
L PLA - M46-65 LEG	-40.42	1.2D + 1.0W 180°	3.333	100	100	100	49.57	50.00	92.40	149.10	292.50	12	2	43.7	Member Z
D PLA - M46-Y LACING	-2.42	1.2D + 1.0W 120°	4.833	50	50	50	0.00	0.00	5.67	0.00	8.70	1	1	42.8	User Input

Member Tension	Pu (kip)	Load Case	F_y (ksi)	F_u (ksi)	$\Phi_c Pn$ (kip)	Shear ΦR_{nv} (kip)	Bear ΦR_n (kip)	Blk Shear $\Phi_t P_n$ (kip)	# Bolt	# Hole	Use %	Controls
D PLA - M46-Y LACING	2.45	1.2D + 1.0W 300°	36.0	58	6.53	0.00	0.00	0.00	1	1	37.6	User Input

Max Splice Forces	Pu (kip)	Load Case	ΦR_{nt} (kip)	Use %	Num Bolts	Bolt Type

Section 16 – 140.0' to 160.00'

Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'_y (ksi)	$\Phi_c P_n$ (kip)	Shear ΦR_{nv} (kip)	Bear ΦR_n (kip)	# Bolt	# Hole	Use %	Controls
L PLA - M46-65 LEG	-42.85	1.2D + 1.0W 300°	3.333	100	100	100	49.57	50.00	92.40	149.10	292.50	12	2	46.4	Member Z
D PLA - M46-Y LACING	-1.15	1.2D + 1.0W 120°	4.833	50	50	50	0.00	0.00	5.67	0.00	8.70	1	1	20.3	User Input

Member Tension	Pu (kip)	Load Case	F_y (ksi)	F_u (ksi)	$\Phi_c Pn$ (kip)	Shear ΦR_{nv} (kip)	Bear ΦR_n (kip)	Blk Shear $\Phi_t P_n$ (kip)	# Bolt	# Hole	Use %	Controls
D PLA - M46-Y LACING	1.21	1.2D + 1.0W 330°	36.0	58	6.53	0.00	0.00	0.00	1	1	18.6	User Input

Max Splice Forces	Pu (kip)	Load Case	ΦR_{nt} (kip)	Use %	Num Bolts	Bolt Type

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Section 17 – 160.0' to 180.00'

Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'_y (ksi)	$\Phi_c P_n$ (kip)	Shear ΦR_{nv} (kip)	Bear ΦR_n (kip)	# Bolt	# Hole	Use %	Controls
L PLA - M46-64 LEG	-35.75	1.2D + 1.0W 90°	3.333	100	100	100	49.50	50.00	74.12	149.10	234.00	12	2	48.2	Member Z
D PLA - M46-Y LACING	-2.01	1.2D + 1.0W 210°	4.833	50	50	50	0.00	0.00	5.67	0.00	8.70	1	1	35.4	User Input

Member Tension	Pu (kip)	Load Case	F_y (ksi)	F_u (ksi)	$\Phi_c Pn$ (kip)	Shear ΦR_{nv} (kip)	Bear ΦR_n (kip)	Blk Shear $\Phi_t P_n$ (kip)	# Bolt	# Hole	Use %	Controls
D PLA - M46-Y LACING	1.68	1.2D + 1.0W 330°	36.0	58	6.53	0.00	0.00	0.00	1	1	25.8	User Input

Max Splice Forces	Pu (kip)	Load Case	ΦR_{nt} (kip)	Use %	Num Bolts	Bolt Type

Section 18 – 180.0' to 200.00'

Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'_y (ksi)	$\Phi_c P_n$ (kip)	Shear ΦR_{nv} (kip)	Bear ΦR_n (kip)	# Bolt	# Hole	Use %	Controls
L PLA - M46-54 LEG	-26.61	1.2D + 1.0W N	3.333	100	100	100	55.56	50.00	64.21	149.10	234.00	12	2	41.4	Member Z
D PLA - M46-Y LACING	-1.11	1.2D + 1.0W 240°	4.833	50	50	50	0.00	0.00	5.67	0.00	8.70	1	1	19.6	User Input

Member Tension	Pu (kip)	Load Case	F_y (ksi)	F_u (ksi)	$\Phi_c Pn$ (kip)	Shear ΦR_{nv} (kip)	Bear ΦR_n (kip)	Blk Shear $\Phi_t P_n$ (kip)	# Bolt	# Hole	Use %	Controls
D PLA - M46-Y LACING	1.07	1.2D + 1.0W 240°	36.0	58	6.53	0.00	0.00	0.00	1	1	16.5	User Input

Max Splice Forces	Pu (kip)	Load Case	ΦR_{nt} (kip)	Use %	Num Bolts	Bolt Type

Section 19 – 200.0' to 220.00'

Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'_y (ksi)	$\Phi_c P_n$ (kip)	Shear ΦR_{nv} (kip)	Bear ΦR_n (kip)	# Bolt	# Hole	Use %	Controls
L PLA - M46-54 LEG	-36.86	1.2D + 1.0W 120°	3.333	100	100	100	55.56	50.00	64.21	149.10	234.00	12	2	57.4	Member Z
D PLA - M46-Y LACING	-1.98	1.2D + 1.0W 240°	4.833	50	50	50	0.00	0.00	5.67	0.00	8.70	1	1	35	User Input

Member Tension	Pu (kip)	Load Case	F_y (ksi)	F_u (ksi)	$\Phi_c Pn$ (kip)	Shear ΦR_{nv} (kip)	Bear ΦR_n (kip)	Blk Shear $\Phi_t P_n$ (kip)	# Bolt	# Hole	Use %	Controls
D PLA - M46-Y LACING	2.12	1.2D + 1.0W 240°	36.0	58	6.53	0.00	0.00	0.00	1	1	32.4	User Input

Max Splice Forces	Pu (kip)	Load Case	ΦR_{nt} (kip)	Use %	Num Bolts	Bolt Type

Section 20 – 220.0' to 223.32'

Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'_y (ksi)	$\Phi_c P_n$ (kip)	Shear ΦR_{nv} (kip)	Bear ΦR_n (kip)	# Bolt	# Hole	Use %	Controls
L PLA - M46-65 LEG	-40.54	1.2D + 1.0W 120°	3.32	100	100	100	49.37	50.00	92.48	149.10	292.50	12	2	43.8	Member Z
H SAE - 2X2X0.375	-1.41	1.2D + 1.0W N	3.5	100	100	100	113.98	36.00	28.96	13.81	26.10	1	1	10.2	Bolt Shear
D PLA - M46-T LACING	-2.41	1.2D + 1.0W 120°	4.824	50	50	50	0.00	0.00	10.61	0.00	12.46	1	1	22.7	User Input

Member Tension	Pu (kip)	Load Case	F_y (ksi)	F_u (ksi)	$\Phi_c Pn$ (kip)	Shear ΦR_{nv} (kip)	Bear ΦR_n (kip)	Blk Shear $\Phi_t P_n$ (kip)	# Bolt	# Hole	Use %	Controls
D PLA - M46-T LACING	1.88	1.2D + 1.0W 240°	36.0	58	9.34	0.00	0.00	0.00	1	1	20.2	User Input

Max Splice Forces	Pu (kip)	Load Case	ΦR_{nt} (kip)	Use %	Num Bolts	Bolt Type

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Section 21 – 223.3' to 224.99'

Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'y (ksi)	Φc Pn (kip)	Shear ΦRnv (kip)	Bear ΦRn (kip)	# Bolt	# Hole	Use %	Controls
L PLA - M46-65 LEG	-46.25	1.2D + 1.0W 120°	1.67	100	100	100	24.83	50.00	100.71	0.00	0.00	0	0	45.9	Member Z
H SAE - 2X2X0.375	-4.11	1.2D + 1.0W 300°	1.75	50	50	50	73.50	36.00	40.64	13.81	26.10	1	1	29.8	Bolt Shear
D PLA - M46-T LACING	-1.65	1.2D + 1.0W 120°	2.419	100	100	100	0.00	0.00	10.61	0.00	12.46	1	1	15.5	User Input

Member Tension	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	ΦcPn (kip)	Shear ΦRnv (kip)	Bear ΦRn (kip)	Blk Shear Φt Pn (kip)	# Bolt	# Hole	Use %	Controls
H SAE - 2X2X0.375	0.54	1.2D + 1.0W N	36.0	58	35.96	13.81	15.66	13.66	1	1	4	Blk Shear
D PLA - M46-T LACING	3.05	1.2D + 1.0W 60°	36.0	58	9.34	0.00	0.00	0.00	1	1	32.6	User Input

Max Splice Forces	Pu (kip)	Load Case	ΦRnt (kip)	Use %	Num Bolts	Bolt Type

Section 22 – 225.0' to 226.66'

Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'y (ksi)	Φc Pn (kip)	Shear ΦRnv (kip)	Bear ΦRn (kip)	# Bolt	# Hole	Use %	Controls
L PLA - M46-65 LEG	-45.80	1.2D + 1.0W 120°	1.67	100	100	100	24.83	50.00	100.71	0.00	0.00	0	0	45.5	Member Z
H SAE - 2X2X0.375	-4.67	1.2D + 1.0W 120°	3.5	100	100	100	113.98	36.00	28.96	13.81	26.10	1	1	33.8	Bolt Shear
D PLA - M46-T LACING	-3.53	1.2D + 1.0W 120°	2.419	100	100	100	0.00	0.00	10.61	0.00	12.46	1	1	33.3	User Input

Member Tension	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	ΦcPn (kip)	Shear ΦRnv (kip)	Bear ΦRn (kip)	Blk Shear Φt Pn (kip)	# Bolt	# Hole	Use %	Controls
L PLA - M46-65 LEG	10.50	1.2D + 1.0W 180°	50.0	65	93.15	0.00	0.00		0	0	11.3	Member
H SAE - 2X2X0.375	2.19	1.2D + 1.0W 180°	36.0	58	35.96	13.81	15.66	13.66	1	1	16	Blk Shear
D PLA - M46-T LACING	5.34	1.2D + 1.0W 330°	36.0	58	9.34	0.00	0.00	0.00	1	1	57.2	User Input

Max Splice Forces	Pu (kip)	Load Case	ΦRnt (kip)	Use %	Num Bolts	Bolt Type

Section 23 – 226.7' to 228.33'

Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'y (ksi)	Φc Pn (kip)	Shear ΦRnv (kip)	Bear ΦRn (kip)	# Bolt	# Hole	Use %	Controls
L PLA - M46-65 LEG	-51.32	1.2D + 1.0W 120°	1.67	100	100	100	24.83	50.00	100.71	0.00	0.00	0	0	51	Member Z
H SAE - 2X2X0.375	-5.59	1.2D + 1.0W 90°	1.75	50	50	50	73.50	36.00	40.64	13.81	26.10	1	1	40.5	Bolt Shear
D PLA - M46-T LACING	-5.46	1.2D + 1.0W 120°	2.419	100	100	100	0.00	0.00	10.61	0.00	12.46	1	1	51.4	User Input

Member Tension	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	ΦcPn (kip)	Shear ΦRnv (kip)	Bear ΦRn (kip)	Blk Shear Φt Pn (kip)	# Bolt	# Hole	Use %	Controls
L PLA - M46-65 LEG	20.67	1.2D + 1.0W 60°	50.0	65	93.15	0.00	0.00		0	0	22.2	Member
H SAE - 2X2X0.375	11.71	1.2D + 1.0W 90°	36.0	58	35.96	13.81	15.66	13.66	1	1	85.7	Blk Shear
D PLA - M46-T LACING	3.65	1.2D + 1.0W 90°	36.0	58	9.34	0.00	0.00	0.00	1	1	39	User Input

Max Splice Forces	Pu (kip)	Load Case	ΦRnt (kip)	Use %	Num Bolts	Bolt Type

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Section 24 – 228.3' to 230.00'

Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'y (ksi)	Φc Pn (kip)	Shear ΦRnv (kip)	Bear ΦRn (kip)	# Bolt	# Hole	Use %	Controls
L PLA - M46-65 LEG	-51.09	1.2D + 1.0W 120°	1.67	100	100	100	24.83	50.00	100.71	0.00	0.00	0	0	50.7	Member Z
H SAE - 2X2X0.375	-3.21	1.2D + 1.0W N	3.5	100	100	100	113.98	36.00	28.96	13.81	26.10	1	1	23.2	Bolt Shear
D PLA - M46-T LACING	-4.02	1.2D + 1.0W 240°	2.419	100	100	100	0.00	0.00	10.61	0.00	12.46	1	1	37.9	User Input

Member Tension	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	ΦcPn (kip)	Shear ΦRnv (kip)	Bear ΦRn (kip)	Blk Shear Φt Pn (kip)	# Bolt	# Hole	Use %	Controls
L PLA - M46-65 LEG	20.93	1.2D + 1.0W 60°	50.0	65	93.15	0.00	0.00		0	0	22.5	Member
H SAE - 2X2X0.375	3.17	1.2D + 1.0W 300°	36.0	58	35.96	13.81	15.66	13.66	1	1	23.2	Blk Shear
D PLA - M46-T LACING	2.94	1.2D + 1.0W 120°	36.0	58	9.34	0.00	0.00	0.00	1	1	31.5	User Input

Max Splice Forces	Pu (kip)	Load Case	ΦRnt (kip)	Use %	Num Bolts	Bolt Type

Section 25 – 230.0' to 240.00'

Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'y (ksi)	Φc Pn (kip)	Shear ΦRnv (kip)	Bear ΦRn (kip)	# Bolt	# Hole	Use %	Controls
L PLA - M46-65 LEG	-48.18	1.2D + 1.0W 120°	3.333	100	100	100	49.57	50.00	92.40	0.00	0.00	0	0	52.2	Member Z
D PLA - M46-T LACING	-2.88	1.2D + 1.0W N	4.833	50	50	50	0.00	0.00	10.61	0.00	12.46	1	1	27.2	User Input

Member Tension	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	ΦcPn (kip)	Shear ΦRnv (kip)	Bear ΦRn (kip)	Blk Shear Φt Pn (kip)	# Bolt	# Hole	Use %	Controls
L PLA - M46-65 LEG	16.51	1.2D + 1.0W 60°	50.0	65	93.15	0.00	0.00		0	0	17.7	Member
D PLA - M46-T LACING	2.37	1.2D + 1.0W 90°	36.0	58	9.34	0.00	0.00	0.00	1	1	25.4	User Input

Max Splice Forces	Pu (kip)	Load Case	ΦRnt (kip)	Use %	Num Bolts	Bolt Type

Section 26 – 240.0' to 260.00'

Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'y (ksi)	Φc Pn (kip)	Shear ΦRnv (kip)	Bear ΦRn (kip)	# Bolt	# Hole	Use %	Controls
L PLA - M46-64 LEG	-32.17	1.2D + 1.0W 120°	3.333	100	100	100	49.50	50.00	74.12	149.10	234.00	12	2	43.4	Member Z
D PLA - M46-Y LACING	-1.88	1.2D + 1.0W 90°	4.833	50	50	50	0.00	0.00	5.67	0.00	8.70	1	1	33.2	User Input

Member Tension	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	ΦcPn (kip)	Shear ΦRnv (kip)	Bear ΦRn (kip)	Blk Shear Φt Pn (kip)	# Bolt	# Hole	Use %	Controls
L PLA - M46-64 LEG	2.61	1.2D + 1.0W 60°	50.0	65	64.17	149.10	226.20		12	2	4.1	Member
D PLA - M46-Y LACING	1.94	1.2D + 1.0W 90°	36.0	58	6.53	0.00	0.00	0.00	1	1	29.7	User Input

Max Splice Forces	Pu (kip)	Load Case	ΦRnt (kip)	Use %	Num Bolts	Bolt Type

Section 27 – 260.0' to 280.00'

Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'y (ksi)	Φc Pn (kip)	Shear ΦRnv (kip)	Bear ΦRn (kip)	# Bolt	# Hole	Use %	Controls
L PLA - M46-64 LEG	-17.54	1.2D + 1.0W 300°	3.333	100	100	100	49.50	50.00	74.12	149.10	234.00	12	2	23.7	Member Z
D PLA - M46-Y LACING	-0.91	1.2D + 1.0W 90°	4.833	50	50	50	0.00	0.00	5.67	0.00	8.70	1	1	16.1	User Input

Member Tension	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	ΦcPn (kip)	Shear ΦRnv (kip)	Bear ΦRn (kip)	Blk Shear Φt Pn (kip)	# Bolt	# Hole	Use %	Controls
D PLA - M46-Y LACING	0.87	1.2D + 1.0W 90°	36.0	58	6.53	0.00	0.00	0.00	1	1	13.4	User Input

Max Splice Forces	Pu (kip)	Load Case	ΦRnt (kip)	Use %	Num Bolts	Bolt Type

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Section 28 – 280.0' to 283.32'

Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'y (ksi)	Φc Pn (kip)	Shear ΦRnv (kip)	Bear ΦRn (kip)	# Bolt	# Hole	Use %	Controls
L PLA - M46-54 LEG	-15.42	1.2D + 1.0W 300°	3.32	100	100	100	55.33	50.00	64.29	149.10	234.00	12	2	24	Member Z
H SAE - 2X2X0.375	-1.01	1.2D + 1.0W 330°	3.5	100	100	100	113.98	36.00	28.96	13.81	26.10	1	1	7.3	Bolt Shear
D PLA - M46-Y LACING	-0.78	1.2D + 1.0W 60°	4.824	50	50	50	0.00	0.00	5.67	0.00	8.70	1	1	13.8	User Input

Member Tension	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	ΦcPn (kip)	Shear ΦRnv (kip)	Bear ΦRn (kip)	Blk Shear Φt Pn (kip)	# Bolt	# Hole	Use %	Controls
D PLA - M46-Y LACING	0.35	1.2D + 1.0W 60°	36.0	58	6.53	0.00	0.00	0.00	1	1	5.4	User Input

Max Splice Forces	Pu (kip)	Load Case	ΦRnt (kip)	Use %	Num Bolts	Bolt Type

Section 29 – 283.3' to 284.99'

Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'y (ksi)	Φc Pn (kip)	Shear ΦRnv (kip)	Bear ΦRn (kip)	# Bolt	# Hole	Use %	Controls
L PLA - M46-54 LEG	-16.01	1.2D + 1.0W 300°	1.67	100	100	100	27.83	50.00	71.70	0.00	0.00	0	0	22.3	Member Z
H SAE - 2X2X0.375	-4.12	1.2D + 1.0W 300°	1.75	50	50	50	73.50	36.00	40.64	13.81	26.10	1	1	29.9	Bolt Shear

Member Tension	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	ΦcPn (kip)	Shear ΦRnv (kip)	Bear ΦRn (kip)	Blk Shear Φt Pn (kip)	# Bolt	# Hole	Use %	Controls
D PLA - M46-Y LACING	2.11	1.2D + 1.0W 60°	36.0	58	6.53	0.00	0.00	0.00	1	1	32.3	User Input

Max Splice Forces	Pu (kip)	Load Case	ΦRnt (kip)	Use %	Num Bolts	Bolt Type

Section 30 – 285.0' to 286.66'

Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'y (ksi)	Φc Pn (kip)	Shear ΦRnv (kip)	Bear ΦRn (kip)	# Bolt	# Hole	Use %	Controls
L PLA - M46-54 LEG	-8.25	1.2D + 1.0W 120°	1.67	100	100	100	27.83	50.00	71.70	0.00	0.00	0	0	11.5	Member Z
H SAE - 2X2X0.375	-3.01	1.2D + 1.0W 120°	3.5	100	100	100	113.98	36.00	28.96	13.81	26.10	1	1	21.8	Bolt Shear
D PLA - M46-Y LACING	-2.06	1.2D + 1.0W 210°	2.419	100	100	100	0.00	0.00	5.67	0.00	8.70	1	1	36.3	User Input

Member Tension	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	ΦcPn (kip)	Shear ΦRnv (kip)	Bear ΦRn (kip)	Blk Shear Φt Pn (kip)	# Bolt	# Hole	Use %	Controls
L PLA - M46-54 LEG	0.88	1.2D + 1.0W 180°	50.0	65	66.79	0.00	0.00		0	0	1.3	Member
H SAE - 2X2X0.375	0.23	1.2D + 1.0W 180°	36.0	58	35.96	13.81	15.66	13.66	1	1	1.7	Blk Shear
D PLA - M46-Y LACING	4.87	1.2D + 1.0W 90°	36.0	58	6.53	0.00	0.00	0.00	1	1	74.6	User Input

Max Splice Forces	Pu (kip)	Load Case	ΦRnt (kip)	Use %	Num Bolts	Bolt Type

Section 31 – 286.7' to 288.33'

Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'y (ksi)	Φc Pn (kip)	Shear ΦRnv (kip)	Bear ΦRn (kip)	# Bolt	# Hole	Use %	Controls
L PLA - M46-54 LEG	-13.87	1.2D + 1.0W 120°	1.67	100	100	100	27.83	50.00	71.70	0.00	0.00	0	0	19.4	Member Z
H SAE - 2X2X0.375	-4.46	1.2D + 1.0W 90°	1.75	50	50	50	73.50	36.00	40.64	13.81	26.10	1	1	32.3	Bolt Shear
D PLA - M46-Y LACING	-3.45	1.2D + 1.0W 90°	2.419	100	100	100	0.00	0.00	5.67	0.00	8.70	1	1	60.9	User Input

Member Tension	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	ΦcPn (kip)	Shear ΦRnv (kip)	Bear ΦRn (kip)	Blk Shear Φt Pn (kip)	# Bolt	# Hole	Use %	Controls
L PLA - M46-54 LEG	9.78	1.2D + 1.0W 300°	50.0	65	66.79	0.00	0.00		0	0	14.6	Member
H SAE - 2X2X0.375	10.63	1.2D + 1.0W 90°	36.0	58	35.96	13.81	15.66	13.66	1	1	77.8	Blk Shear
D PLA - M46-Y LACING	3.45	1.2D + 1.0W 60°	36.0	58	6.53	0.00	0.00	0.00	1	1	52.8	User Input

Max Splice Forces	Pu (kip)	Load Case	ΦRnt (kip)	Use %	Num Bolts	Bolt Type

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Section 32 – 288.3' to 290.00'

Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'_y (ksi)	$\Phi_c P_n$ (kip)	Shear ΦR_{nv} (kip)	Bear ΦR_n (kip)	# Bolt	# Hole	Use %	Controls
L PLA - M46-54 LEG	-13.65	1.2D + 1.0W 120°	1.67	100	100	100	27.83	50.00	71.70	0.00	0.00	0	0	19	Member Z
H SAE - 2X2X0.375	-1.63	1.2D + 1.0W N	3.5	100	100	100	113.98	36.00	28.96	13.81	26.10	1	1	11.8	Bolt Shear
D PLA - M46-Y LACING	-2.13	1.2D + 1.0W 240°	2.419	100	100	100	0.00	0.00	5.67	0.00	8.70	1	1	37.6	User Input

Member Tension	Pu (kip)	Load Case	F_y (ksi)	F_u (ksi)	$\Phi_c Pn$ (kip)	Shear ΦR_{nv} (kip)	Bear ΦR_n (kip)	Blk Shear $\Phi_t P_n$ (kip)	# Bolt	# Hole	Use %	Controls
L PLA - M46-54 LEG	10.04	1.2D + 1.0W 300°	50.0	65	66.79	0.00	0.00		0	0	15	Member
H SAE - 2X2X0.375	0.90	1.2D + 1.0W 180°	36.0	58	35.96	13.81	15.66	13.66	1	1	6.6	Blk Shear
D PLA - M46-Y LACING	2.27	1.2D + 1.0W 300°	36.0	58	6.53	0.00	0.00	0.00	1	1	34.8	User Input

Max Splice Forces	Pu (kip)	Load Case	ΦR_{nt} (kip)	Use %	Num Bolts	Bolt Type

Section 33 – 290.0' to 300.00'

Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'_y (ksi)	$\Phi_c P_n$ (kip)	Shear ΦR_{nv} (kip)	Bear ΦR_n (kip)	# Bolt	# Hole	Use %	Controls
L PLA - M46-54 LEG	-9.44	1.2D + 1.0W 120°	3.333	100	100	100	55.56	50.00	64.21	0.00	0.00	0	0	14.7	Member Z
H SAE - 2X2X0.25	-0.25	1.2D + 1.0W 240°	3.5	100	100	100	113.71	36.00	20.08	13.81	17.40	1	1	1.8	Bolt Shear
D PLA - M46-Y LACING	-2.22	1.2D + 1.0W 330°	4.833	50	50	50	0.00	0.00	5.67	0.00	8.70	1	1	39.1	User Input

Member Tension	Pu (kip)	Load Case	F_y (ksi)	F_u (ksi)	$\Phi_c Pn$ (kip)	Shear ΦR_{nv} (kip)	Bear ΦR_n (kip)	Blk Shear $\Phi_t P_n$ (kip)	# Bolt	# Hole	Use %	Controls
L PLA - M46-54 LEG	6.32	1.2D + 1.0W 60°	50.0	65	66.79	0.00	0.00		0	0	9.5	Member
H SAE - 2X2X0.25	0.27	1.2D + 1.0W 180°	36.0	58	25.06	13.81	10.44	9.11	1	1	3	Blk Shear
D PLA - M46-Y LACING	2.19	1.2D + 1.0W 210°	36.0	58	6.53	0.00	0.00	0.00	1	1	33.5	User Input

Max Splice Forces	Pu (kip)	Load Case	ΦR_{nt} (kip)	Use %	Num Bolts	Bolt Type

DETAILED CABLE FORCES

Load Case	Elevation (ft)	Cable	Anchor Node	Tower Node	Available Tension (kip)	Applied Tension (kip)	Use (%)
1.2D + 1.0W Normal	50.00	9/16 EHS	A1	17	21	0.72	3
		9/16 EHS	A1b	17a	21	6.09	29
		9/16 EHS	A1a	17b	21	6.1	29
	108.33	1/2 EHS	A1	T2	16.14	0.09	1
		1/2 EHS	A1b	T2	16.14	5.89	37
		1/2 EHS	A1b	T2a	16.14	6.04	37
		1/2 EHS	A1a	T2a	16.14	6.05	37
		1/2 EHS	A1a	T2b	16.14	5.9	37
		1/2 EHS	A1	T2b	16.14	0.09	1
	170.00	5/8 EHS	A1	55	25.44	0.43	2
		5/8 EHS	A1b	55a	25.44	10.32	41
		5/8 EHS	A1a	55b	25.44	10.32	41
	228.33	5/8 EHS	A2	T4	25.44	0.67	3
		5/8 EHS	A2b	T4	25.44	9.51	37
		5/8 EHS	A2a	T4a	25.44	9.32	37
		5/8 EHS	A2b	T4a	25.44	9.31	37
		5/8 EHS	A2	T4b	25.44	0.67	3
		5/8 EHS	A2a	T4b	25.44	9.5	37
	288.33	9/16 EHS	A2b	T5	21	8.74	42
		9/16 EHS	A2	T5	21	1.24	6
		9/16 EHS	A2b	T5a	21	8.86	42
		9/16 EHS	A2a	T5a	21	8.88	42
		9/16 EHS	A2a	T5b	21	8.72	42
		9/16 EHS	A2	T5b	21	1.24	6
1.2D + 1.0W 60°	50.00	9/16 EHS	A1	17	21	2.34	11
		9/16 EHS	A1b	17a	21	2.33	11
		9/16 EHS	A1a	17b	21	7.03	33
	108.33	1/2 EHS	A1	T2	16.14	1.77	11
		1/2 EHS	A1b	T2	16.14	1.64	10
		1/2 EHS	A1b	T2a	16.14	1.72	11
		1/2 EHS	A1a	T2a	16.14	6.77	42
		1/2 EHS	A1	T2b	16.14	1.62	10
		1/2 EHS	A1a	T2b	16.14	7.17	44
	170.00	5/8 EHS	A1	55	25.44	2.52	10
		5/8 EHS	A1b	55a	25.44	2.51	10
		5/8 EHS	A1a	55b	25.44	12.51	49
	228.33	5/8 EHS	A2b	T4	25.44	3.61	14
		5/8 EHS	A2	T4	25.44	3.67	14
		5/8 EHS	A2a	T4a	25.44	11.01	43
		5/8 EHS	A2b	T4a	25.44	3.55	14
		5/8 EHS	A2a	T4b	25.44	11.25	44
		5/8 EHS	A2	T4b	25.44	3.47	14
	288.33	9/16 EHS	A2b	T5	21	3.52	17
		9/16 EHS	A2	T5	21	3.53	17
		9/16 EHS	A2b	T5a	21	3.48	17
		9/16 EHS	A2a	T5a	21	10.84	52
		9/16 EHS	A2	T5b	21	3.46	16
		9/16 EHS	A2a	T5b	21	10.91	52
1.2D + 1.0W 90°	50.00	9/16 EHS	A1	17	21	4.1	20
		9/16 EHS	A1b	17a	21	1.02	5
		9/16 EHS	A1a	17b	21	6.78	32
	108.33	1/2 EHS	A1	T2	16.14	3.87	24
		1/2 EHS	A1b	T2	16.14	0.55	3
		1/2 EHS	A1b	T2a	16.14	0.52	3
		1/2 EHS	A1a	T2a	16.14	6.53	40
		1/2 EHS	A1	T2b	16.14	3.6	22
		1/2 EHS	A1a	T2b	16.14	7.13	44
	170.00	5/8 EHS	A1	55	25.44	5.99	24
		5/8 EHS	A1b	55a	25.44	0.98	4

DETAILED CABLE FORCES

Load Case	Elevation (ft)	Cable	Anchor Node	Tower Node	Available Tension (kip)	Applied Tension (kip)	Use (%)
		5/8 EHS	A1a	55b	25.44	12.15	48
	228.33	5/8 EHS	A2b	T4	25.44	1.59	6
		5/8 EHS	A2	T4	25.44	6.62	26
		5/8 EHS	A2a	T4a	25.44	10.66	42
		5/8 EHS	A2b	T4a	25.44	1.51	6
		5/8 EHS	A2a	T4b	25.44	10.9	43
		5/8 EHS	A2	T4b	25.44	6.24	25
	288.33	9/16 EHS	A2b	T5	21	1.89	9
		9/16 EHS	A2	T5	21	5.99	29
		9/16 EHS	A2b	T5a	21	1.84	9
		9/16 EHS	A2a	T5a	21	10.24	49
		9/16 EHS	A2	T5b	21	5.97	28
		9/16 EHS	A2a	T5b	21	10.51	50
1.2D + 1.0W 120°	50.00	9/16 EHS	A1	17	21	6.1	29
		9/16 EHS	A1b	17a	21	0.72	3
		9/16 EHS	A1a	17b	21	6.08	29
	108.33	1/2 EHS	A1b	T2	16.14	0.08	1
		1/2 EHS	A1	T2	16.14	6.1	38
		1/2 EHS	A1b	T2a	16.14	0.09	1
		1/2 EHS	A1a	T2a	16.14	5.75	36
		1/2 EHS	A1a	T2b	16.14	6.21	38
		1/2 EHS	A1	T2b	16.14	5.9	37
	170.00	5/8 EHS	A1	55	25.44	10.29	40
		5/8 EHS	A1b	55a	25.44	0.43	2
		5/8 EHS	A1a	55b	25.44	10.31	41
	228.33	5/8 EHS	A2b	T4	25.44	0.66	3
		5/8 EHS	A2	T4	25.44	9.58	38
		5/8 EHS	A2b	T4a	25.44	0.67	3
		5/8 EHS	A2a	T4a	25.44	9.39	37
		5/8 EHS	A2a	T4b	25.44	9.4	37
		5/8 EHS	A2	T4b	25.44	9.2	36
	288.33	9/16 EHS	A2	T5	21	8.75	42
		9/16 EHS	A2b	T5	21	1.24	6
		9/16 EHS	A2a	T5a	21	8.69	41
		9/16 EHS	A2b	T5a	21	1.24	6
		9/16 EHS	A2a	T5b	21	8.9	42
		9/16 EHS	A2	T5b	21	8.83	42
1.2D + 1.0W 180°	50.00	9/16 EHS	A1	17	21	7.01	33
		9/16 EHS	A1b	17a	21	2.34	11
		9/16 EHS	A1a	17b	21	2.34	11
	108.33	1/2 EHS	A1	T2	16.14	7	43
		1/2 EHS	A1b	T2	16.14	1.66	10
		1/2 EHS	A1a	T2a	16.14	1.7	11
		1/2 EHS	A1b	T2a	16.14	1.7	11
		1/2 EHS	A1a	T2b	16.14	1.66	10
		1/2 EHS	A1	T2b	16.14	7	43
	170.00	5/8 EHS	A1	55	25.44	12.47	49
		5/8 EHS	A1b	55a	25.44	2.52	10
		5/8 EHS	A1a	55b	25.44	2.52	10
	228.33	5/8 EHS	A2b	T4	25.44	3.51	14
		5/8 EHS	A2	T4	25.44	11.13	44
		5/8 EHS	A2a	T4a	25.44	3.64	14
		5/8 EHS	A2b	T4a	25.44	3.64	14
		5/8 EHS	A2	T4b	25.44	11.12	44
		5/8 EHS	A2a	T4b	25.44	3.51	14
	288.33	9/16 EHS	A2b	T5	21	3.47	17
		9/16 EHS	A2	T5	21	10.89	52
		9/16 EHS	A2b	T5a	21	3.53	17
		9/16 EHS	A2a	T5a	21	3.52	17

DETAILED CABLE FORCES

Load Case	Elevation (ft)	Cable	Anchor Node	Tower Node	Available Tension (kip)	Applied Tension (kip)	Use (%)
		9/16 EHS	A2	T5b	21	10.86	52
		9/16 EHS	A2a	T5b	21	3.48	17
1.2D + 1.0W 210°	50.00	9/16 EHS	A1	17	21	6.78	32
		9/16 EHS	A1b	17a	21	4.09	19
		9/16 EHS	A1a	17b	21	1.02	5
	108.33	1/2 EHS	A1	T2	16.14	6.84	42
		1/2 EHS	A1b	T2	16.14	3.81	24
		1/2 EHS	A1b	T2a	16.14	3.61	22
		1/2 EHS	A1a	T2a	16.14	0.57	4
		1/2 EHS	A1	T2b	16.14	6.87	43
		1/2 EHS	A1a	T2b	16.14	0.51	3
	170.00	5/8 EHS	A1	55	25.44	12.12	48
		5/8 EHS	A1b	55a	25.44	6	24
		5/8 EHS	A1a	55b	25.44	0.99	4
	228.33	5/8 EHS	A2b	T4	25.44	6.36	25
		5/8 EHS	A2	T4	25.44	10.7	42
		5/8 EHS	A2b	T4a	25.44	6.5	26
		5/8 EHS	A2a	T4a	25.44	1.62	6
		5/8 EHS	A2	T4b	25.44	10.85	43
		5/8 EHS	A2a	T4b	25.44	1.5	6
	288.33	9/16 EHS	A2	T5	21	10.45	50
		9/16 EHS	A2b	T5	21	6	29
		9/16 EHS	A2b	T5a	21	5.96	28
		9/16 EHS	A2a	T5a	21	1.9	9
		9/16 EHS	A2	T5b	21	10.28	49
		9/16 EHS	A2a	T5b	21	1.84	9
1.2D + 1.0W 240°	50.00	9/16 EHS	A1	17	21	6.1	29
		9/16 EHS	A1b	17a	21	6.08	29
		9/16 EHS	A1a	17b	21	0.72	3
	108.33	1/2 EHS	A1b	T2	16.14	6.2	38
		1/2 EHS	A1	T2	16.14	5.9	37
		1/2 EHS	A1a	T2a	16.14	0.09	1
		1/2 EHS	A1b	T2a	16.14	5.74	36
		1/2 EHS	A1a	T2b	16.14	0.08	1
		1/2 EHS	A1	T2b	16.14	6.09	38
	170.00	5/8 EHS	A1	55	25.44	10.28	40
		5/8 EHS	A1b	55a	25.44	10.3	40
		5/8 EHS	A1a	55b	25.44	0.43	2
	228.33	5/8 EHS	A2	T4	25.44	9.19	36
		5/8 EHS	A2b	T4	25.44	9.39	37
		5/8 EHS	A2b	T4a	25.44	9.38	37
		5/8 EHS	A2a	T4a	25.44	0.67	3
		5/8 EHS	A2	T4b	25.44	9.57	38
		5/8 EHS	A2a	T4b	25.44	0.67	3
	288.33	9/16 EHS	A2b	T5	21	8.88	42
		9/16 EHS	A2	T5	21	8.83	42
		9/16 EHS	A2b	T5a	21	8.69	41
		9/16 EHS	A2a	T5a	21	1.25	6
		9/16 EHS	A2	T5b	21	8.73	42
		9/16 EHS	A2a	T5b	21	1.24	6
1.2D + 1.0W 300°	50.00	9/16 EHS	A1	17	21	2.35	11
		9/16 EHS	A1b	17a	21	7.04	34
		9/16 EHS	A1a	17b	21	2.34	11
	108.33	1/2 EHS	A1b	T2	16.14	7.18	44
		1/2 EHS	A1	T2	16.14	1.63	10
		1/2 EHS	A1b	T2a	16.14	6.78	42
		1/2 EHS	A1a	T2a	16.14	1.73	11
		1/2 EHS	A1a	T2b	16.14	1.65	10
		1/2 EHS	A1	T2b	16.14	1.78	11

DETAILED CABLE FORCES

Load Case	Elevation (ft)	Cable	Anchor Node	Tower Node	Available Tension (kip)	Applied Tension (kip)	Use (%)
	170.00	5/8 EHS	A1	55	25.44	2.53	10
		5/8 EHS	A1b	55a	25.44	12.52	49
		5/8 EHS	A1a	55b	25.44	2.53	10
	228.33	5/8 EHS	A2	T4	25.44	3.48	14
		5/8 EHS	A2b	T4	25.44	11.27	44
		5/8 EHS	A2b	T4a	25.44	11.01	43
		5/8 EHS	A2a	T4a	25.44	3.56	14
		5/8 EHS	A2a	T4b	25.44	3.62	14
		5/8 EHS	A2	T4b	25.44	3.68	14
	288.33	9/16 EHS	A2	T5	21	3.46	16
		9/16 EHS	A2b	T5	21	10.93	52
		9/16 EHS	A2b	T5a	21	10.84	52
		9/16 EHS	A2a	T5a	21	3.49	17
		9/16 EHS	A2a	T5b	21	3.52	17
		9/16 EHS	A2	T5b	21	3.54	17
1.2D + 1.0W 330°	50.00	9/16 EHS	A1	17	21	1.03	5
		9/16 EHS	A1b	17a	21	6.79	32
		9/16 EHS	A1a	17b	21	4.09	19
	108.33	1/2 EHS	A1	T2	16.14	0.51	3
		1/2 EHS	A1b	T2	16.14	6.84	42
		1/2 EHS	A1b	T2a	16.14	6.81	42
		1/2 EHS	A1a	T2a	16.14	3.82	24
		1/2 EHS	A1	T2b	16.14	0.58	4
		1/2 EHS	A1a	T2b	16.14	3.61	22
	170.00	5/8 EHS	A1	55	25.44	0.99	4
		5/8 EHS	A1b	55a	25.44	12.16	48
		5/8 EHS	A1a	55b	25.44	6	24
	228.33	5/8 EHS	A2	T4	25.44	1.5	6
		5/8 EHS	A2b	T4	25.44	10.88	43
		5/8 EHS	A2b	T4a	25.44	10.71	42
		5/8 EHS	A2a	T4a	25.44	6.38	25
		5/8 EHS	A2a	T4b	25.44	6.51	26
		5/8 EHS	A2	T4b	25.44	1.61	6
	288.33	9/16 EHS	A2	T5	21	1.83	9
		9/16 EHS	A2b	T5	21	10.31	49
		9/16 EHS	A2a	T5a	21	6.03	29
		9/16 EHS	A2b	T5a	21	10.44	50
		9/16 EHS	A2	T5b	21	1.91	9
		9/16 EHS	A2a	T5b	21	5.96	28
1.2D + 1.0Di + 1.0Wi Normal	50.00	9/16 EHS	A1	17	21	3.9	19
		9/16 EHS	A1b	17a	21	4.28	20
		9/16 EHS	A1a	17b	21	4.28	20
	108.33	1/2 EHS	A1b	T2	16.14	2.94	18
		1/2 EHS	A1	T2	16.14	2.53	16
		1/2 EHS	A1b	T2a	16.14	2.94	18
		1/2 EHS	A1a	T2a	16.14	2.94	18
		1/2 EHS	A1a	T2b	16.14	2.94	18
		1/2 EHS	A1	T2b	16.14	2.53	16
	170.00	5/8 EHS	A1	55	25.44	3.36	13
		5/8 EHS	A1b	55a	25.44	4.18	16
		5/8 EHS	A1a	55b	25.44	4.18	16
	228.33	5/8 EHS	A2	T4	25.44	3.65	14
		5/8 EHS	A2b	T4	25.44	4.24	17
		5/8 EHS	A2b	T4a	25.44	4.21	17
		5/8 EHS	A2a	T4a	25.44	4.21	17
		5/8 EHS	A2a	T4b	25.44	4.24	17
		5/8 EHS	A2	T4b	25.44	3.65	14
	288.33	9/16 EHS	A2	T5	21	2.85	14
		9/16 EHS	A2b	T5	21	3.41	16

DETAILED CABLE FORCES

Load Case	Elevation (ft)	Cable	Anchor Node	Tower Node	Available Tension (kip)	Applied Tension (kip)	Use (%)
		9/16 EHS	A2a	T5a	21	3.39	16
		9/16 EHS	A2b	T5a	21	3.39	16
		9/16 EHS	A2	T5b	21	2.85	14
		9/16 EHS	A2a	T5b	21	3.4	16
1.2D + 1.0Di + 1.0Wi 60°	50.00	9/16 EHS	A1	17	21	4.04	19
		9/16 EHS	A1b	17a	21	4.03	19
		9/16 EHS	A1a	17b	21	4.38	21
	108.33	1/2 EHS	A1	T2	16.14	2.68	17
		1/2 EHS	A1b	T2	16.14	2.65	16
		1/2 EHS	A1b	T2a	16.14	2.67	17
		1/2 EHS	A1a	T2a	16.14	3.05	19
		1/2 EHS	A1	T2b	16.14	2.67	17
		1/2 EHS	A1a	T2b	16.14	3.07	19
	170.00	5/8 EHS	A1	55	25.44	3.64	14
		5/8 EHS	A1b	55a	25.44	3.65	14
		5/8 EHS	A1a	55b	25.44	4.39	17
	228.33	5/8 EHS	A2b	T4	25.44	3.85	15
		5/8 EHS	A2	T4	25.44	3.85	15
		5/8 EHS	A2a	T4a	25.44	4.37	17
		5/8 EHS	A2b	T4a	25.44	3.83	15
		5/8 EHS	A2a	T4b	25.44	4.38	17
		5/8 EHS	A2	T4b	25.44	3.82	15
	288.33	9/16 EHS	A2b	T5	21	3.04	14
		9/16 EHS	A2	T5	21	3.04	14
		9/16 EHS	A2b	T5a	21	3.02	14
		9/16 EHS	A2a	T5a	21	3.54	17
		9/16 EHS	A2	T5b	21	3.02	14
		9/16 EHS	A2a	T5b	21	3.55	17
1.2D + 1.0Di + 1.0Wi 90°	50.00	9/16 EHS	A1	17	21	4.16	20
		9/16 EHS	A1b	17a	21	3.94	19
		9/16 EHS	A1a	17b	21	4.36	21
	108.33	1/2 EHS	A1b	T2	16.14	2.55	16
		1/2 EHS	A1	T2	16.14	2.82	17
		1/2 EHS	A1a	T2a	16.14	3.02	19
		1/2 EHS	A1b	T2a	16.14	2.57	16
		1/2 EHS	A1a	T2b	16.14	3.04	19
		1/2 EHS	A1	T2b	16.14	2.8	17
	170.00	5/8 EHS	A1	55	25.44	3.89	15
		5/8 EHS	A1b	55a	25.44	3.46	14
		5/8 EHS	A1a	55b	25.44	4.34	17
	228.33	5/8 EHS	A2b	T4	25.44	3.72	15
		5/8 EHS	A2	T4	25.44	4.04	16
		5/8 EHS	A2b	T4a	25.44	3.72	15
		5/8 EHS	A2a	T4a	25.44	4.34	17
		5/8 EHS	A2	T4b	25.44	4	16
		5/8 EHS	A2a	T4b	25.44	4.34	17
	288.33	9/16 EHS	A2b	T5	21	2.91	14
		9/16 EHS	A2	T5	21	3.22	15
		9/16 EHS	A2a	T5a	21	3.51	17
		9/16 EHS	A2b	T5a	21	2.9	14
		9/16 EHS	A2	T5b	21	3.2	15
		9/16 EHS	A2a	T5b	21	3.51	17
1.2D + 1.0Di + 1.0Wi 120°	50.00	9/16 EHS	A1	17	21	4.29	20
		9/16 EHS	A1b	17a	21	3.9	19
		9/16 EHS	A1a	17b	21	4.28	20
	108.33	1/2 EHS	A1b	T2	16.14	2.51	16
		1/2 EHS	A1	T2	16.14	2.96	18
		1/2 EHS	A1b	T2a	16.14	2.52	16
		1/2 EHS	A1a	T2a	16.14	2.93	18

DETAILED CABLE FORCES

Load Case	Elevation (ft)	Cable	Anchor Node	Tower Node	Available Tension (kip)	Applied Tension (kip)	Use (%)
		1/2 EHS	A1a	T2b	16.14	2.95	18
		1/2 EHS	A1	T2b	16.14	2.95	18
	170.00	5/8 EHS	A1	55	25.44	4.16	16
		5/8 EHS	A1b	55a	25.44	3.37	13
		5/8 EHS	A1a	55b	25.44	4.18	16
	228.33	5/8 EHS	A2	T4	25.44	4.24	17
		5/8 EHS	A2b	T4	25.44	3.65	14
		5/8 EHS	A2b	T4a	25.44	3.66	14
		5/8 EHS	A2a	T4a	25.44	4.23	17
		5/8 EHS	A2a	T4b	25.44	4.22	17
		5/8 EHS	A2	T4b	25.44	4.2	17
	288.33	9/16 EHS	A2	T5	21	3.41	16
		9/16 EHS	A2b	T5	21	2.85	14
		9/16 EHS	A2b	T5a	21	2.85	14
		9/16 EHS	A2a	T5a	21	3.4	16
		9/16 EHS	A2a	T5b	21	3.39	16
		9/16 EHS	A2	T5b	21	3.39	16
1.2D + 1.0Di + 1.0Wi 180°	50.00	9/16 EHS	A1	17	21	4.39	21
		9/16 EHS	A1b	17a	21	4.03	19
		9/16 EHS	A1a	17b	21	4.04	19
	108.33	1/2 EHS	A1b	T2	16.14	2.66	16
		1/2 EHS	A1	T2	16.14	3.07	19
		1/2 EHS	A1b	T2a	16.14	2.66	16
		1/2 EHS	A1a	T2a	16.14	2.66	17
		1/2 EHS	A1a	T2b	16.14	2.66	16
		1/2 EHS	A1	T2b	16.14	3.07	19
	170.00	5/8 EHS	A1	55	25.44	4.38	17
		5/8 EHS	A1b	55a	25.44	3.65	14
		5/8 EHS	A1a	55b	25.44	3.65	14
	228.33	5/8 EHS	A2	T4	25.44	4.36	17
		5/8 EHS	A2b	T4	25.44	3.83	15
		5/8 EHS	A2a	T4a	25.44	3.85	15
		5/8 EHS	A2b	T4a	25.44	3.85	15
		5/8 EHS	A2	T4b	25.44	4.36	17
		5/8 EHS	A2a	T4b	25.44	3.83	15
	288.33	9/16 EHS	A2	T5	21	3.55	17
		9/16 EHS	A2b	T5	21	3.02	14
		9/16 EHS	A2b	T5a	21	3.04	14
		9/16 EHS	A2a	T5a	21	3.04	14
		9/16 EHS	A2a	T5b	21	3.02	14
		9/16 EHS	A2	T5b	21	3.55	17
1.2D + 1.0Di + 1.0Wi 210°	50.00	9/16 EHS	A1	17	21	4.36	21
		9/16 EHS	A1b	17a	21	4.15	20
		9/16 EHS	A1a	17b	21	3.95	19
	108.33	1/2 EHS	A1b	T2	16.14	2.8	17
		1/2 EHS	A1	T2	16.14	3.04	19
		1/2 EHS	A1a	T2a	16.14	2.57	16
		1/2 EHS	A1b	T2a	16.14	2.79	17
		1/2 EHS	A1a	T2b	16.14	2.56	16
		1/2 EHS	A1	T2b	16.14	3.04	19
	170.00	5/8 EHS	A1	55	25.44	4.33	17
		5/8 EHS	A1b	55a	25.44	3.9	15
		5/8 EHS	A1a	55b	25.44	3.47	14
	228.33	5/8 EHS	A2b	T4	25.44	4.02	16
		5/8 EHS	A2	T4	25.44	4.32	17
		5/8 EHS	A2a	T4a	25.44	3.72	15
		5/8 EHS	A2b	T4a	25.44	4.04	16
		5/8 EHS	A2	T4b	25.44	4.34	17
		5/8 EHS	A2a	T4b	25.44	3.71	15

DETAILED CABLE FORCES

Load Case	Elevation (ft)	Cable	Anchor Node	Tower Node	Available Tension (kip)	Applied Tension (kip)	Use (%)
	288.33	9/16 EHS	A2b	T5	21	3.2	15
		9/16 EHS	A2	T5	21	3.51	17
		9/16 EHS	A2a	T5a	21	2.91	14
		9/16 EHS	A2b	T5a	21	3.22	15
		9/16 EHS	A2a	T5b	21	2.9	14
		9/16 EHS	A2	T5b	21	3.51	17
1.2D + 1.0Di + 1.0Wi 240°	50.00	9/16 EHS	A1	17	21	4.29	20
		9/16 EHS	A1b	17a	21	4.28	20
		9/16 EHS	A1a	17b	21	3.9	19
	108.33	1/2 EHS	A1	T2	16.14	2.95	18
		1/2 EHS	A1b	T2	16.14	2.95	18
		1/2 EHS	A1b	T2a	16.14	2.93	18
		1/2 EHS	A1a	T2a	16.14	2.53	16
		1/2 EHS	A1a	T2b	16.14	2.51	16
		1/2 EHS	A1	T2b	16.14	2.96	18
	170.00	5/8 EHS	A1	55	25.44	4.16	16
		5/8 EHS	A1b	55a	25.44	4.18	16
		5/8 EHS	A1a	55b	25.44	3.37	13
	228.33	5/8 EHS	A2b	T4	25.44	4.22	17
		5/8 EHS	A2	T4	25.44	4.2	17
		5/8 EHS	A2a	T4a	25.44	3.66	14
		5/8 EHS	A2b	T4a	25.44	4.24	17
		5/8 EHS	A2a	T4b	25.44	3.65	14
		5/8 EHS	A2	T4b	25.44	4.24	17
	288.33	9/16 EHS	A2	T5	21	3.39	16
		9/16 EHS	A2b	T5	21	3.39	16
		9/16 EHS	A2b	T5a	21	3.4	16
		9/16 EHS	A2a	T5a	21	2.85	14
		9/16 EHS	A2	T5b	21	3.41	16
		9/16 EHS	A2a	T5b	21	2.85	14
1.2D + 1.0Di + 1.0Wi 300°	50.00	9/16 EHS	A1	17	21	4.04	19
		9/16 EHS	A1b	17a	21	4.38	21
		9/16 EHS	A1a	17b	21	4.04	19
	108.33	1/2 EHS	A1b	T2	16.14	3.06	19
		1/2 EHS	A1	T2	16.14	2.67	17
		1/2 EHS	A1b	T2a	16.14	3.05	19
		1/2 EHS	A1a	T2a	16.14	2.67	17
		1/2 EHS	A1a	T2b	16.14	2.66	16
		1/2 EHS	A1	T2b	16.14	2.68	17
	170.00	5/8 EHS	A1	55	25.44	3.64	14
		5/8 EHS	A1b	55a	25.44	4.39	17
		5/8 EHS	A1a	55b	25.44	3.65	14
	228.33	5/8 EHS	A2	T4	25.44	3.82	15
		5/8 EHS	A2b	T4	25.44	4.38	17
		5/8 EHS	A2a	T4a	25.44	3.83	15
		5/8 EHS	A2b	T4a	25.44	4.37	17
		5/8 EHS	A2	T4b	25.44	3.85	15
		5/8 EHS	A2a	T4b	25.44	3.85	15
	288.33	9/16 EHS	A2b	T5	21	3.55	17
		9/16 EHS	A2	T5	21	3.02	14
		9/16 EHS	A2a	T5a	21	3.02	14
		9/16 EHS	A2b	T5a	21	3.54	17
		9/16 EHS	A2a	T5b	21	3.04	14
		9/16 EHS	A2	T5b	21	3.04	14
1.2D + 1.0Di + 1.0Wi 330°	50.00	9/16 EHS	A1	17	21	3.95	19
		9/16 EHS	A1b	17a	21	4.35	21
		9/16 EHS	A1a	17b	21	4.16	20
	108.33	1/2 EHS	A1	T2	16.14	2.58	16
		1/2 EHS	A1b	T2	16.14	3.03	19

DETAILED CABLE FORCES

Load Case	Elevation (ft)	Cable	Anchor Node	Tower Node	Available Tension (kip)	Applied Tension (kip)	Use (%)
		1/2 EHS	A1b	T2a	16.14	3.03	19
		1/2 EHS	A1a	T2a	16.14	2.8	17
		1/2 EHS	A1	T2b	16.14	2.58	16
		1/2 EHS	A1a	T2b	16.14	2.79	17
	170.00	5/8 EHS	A1	55	25.44	3.46	14
		5/8 EHS	A1b	55a	25.44	4.34	17
		5/8 EHS	A1a	55b	25.44	3.91	15
	228.33	5/8 EHS	A2b	T4	25.44	4.35	17
		5/8 EHS	A2	T4	25.44	3.7	15
		5/8 EHS	A2a	T4a	25.44	4.01	16
		5/8 EHS	A2b	T4a	25.44	4.33	17
		5/8 EHS	A2a	T4b	25.44	4.04	16
		5/8 EHS	A2	T4b	25.44	3.72	15
	288.33	9/16 EHS	A2b	T5	21	3.51	17
		9/16 EHS	A2	T5	21	2.9	14
		9/16 EHS	A2b	T5a	21	3.5	17
		9/16 EHS	A2a	T5a	21	3.2	15
		9/16 EHS	A2	T5b	21	2.91	14
		9/16 EHS	A2a	T5b	21	3.22	15
1.2D + 1.0Ev + 1.0Eh Normal	50.00	9/16 EHS	A1	17	21	3.36	16
		9/16 EHS	A1b	17a	21	3.39	16
		9/16 EHS	A1a	17b	21	3.39	16
	108.33	1/2 EHS	A1	T2	16.14	2.33	14
		1/2 EHS	A1b	T2	16.14	2.4	15
		1/2 EHS	A1b	T2a	16.14	2.4	15
		1/2 EHS	A1a	T2a	16.14	2.4	15
		1/2 EHS	A1	T2b	16.14	2.33	14
		1/2 EHS	A1a	T2b	16.14	2.4	15
	170.00	5/8 EHS	A1	55	25.44	3.36	13
		5/8 EHS	A1b	55a	25.44	3.51	14
		5/8 EHS	A1a	55b	25.44	3.51	14
	228.33	5/8 EHS	A2b	T4	25.44	3.68	14
		5/8 EHS	A2	T4	25.44	3.47	14
		5/8 EHS	A2a	T4a	25.44	3.69	15
		5/8 EHS	A2b	T4a	25.44	3.69	15
		5/8 EHS	A2a	T4b	25.44	3.68	14
		5/8 EHS	A2	T4b	25.44	3.47	14
	288.33	9/16 EHS	A2b	T5	21	3.05	15
		9/16 EHS	A2	T5	21	2.71	13
		9/16 EHS	A2b	T5a	21	3.07	15
		9/16 EHS	A2a	T5a	21	3.07	15
		9/16 EHS	A2	T5b	21	2.71	13
		9/16 EHS	A2a	T5b	21	3.05	15
1.2D + 1.0Ev + 1.0Eh 60°	50.00	9/16 EHS	A1	17	21	3.37	16
		9/16 EHS	A1b	17a	21	3.37	16
		9/16 EHS	A1a	17b	21	3.4	16
	108.33	1/2 EHS	A1	T2	16.14	2.35	15
		1/2 EHS	A1b	T2	16.14	2.35	15
		1/2 EHS	A1b	T2a	16.14	2.35	15
		1/2 EHS	A1a	T2a	16.14	2.42	15
		1/2 EHS	A1	T2b	16.14	2.36	15
		1/2 EHS	A1a	T2b	16.14	2.42	15
	170.00	5/8 EHS	A1	55	25.44	3.41	13
		5/8 EHS	A1b	55a	25.44	3.41	13
		5/8 EHS	A1a	55b	25.44	3.56	14
	228.33	5/8 EHS	A2b	T4	25.44	3.54	14
		5/8 EHS	A2	T4	25.44	3.54	14
		5/8 EHS	A2a	T4a	25.44	3.75	15
		5/8 EHS	A2b	T4a	25.44	3.55	14

DETAILED CABLE FORCES

Load Case	Elevation (ft)	Cable	Anchor Node	Tower Node	Available Tension (kip)	Applied Tension (kip)	Use (%)
		5/8 EHS	A2a	T4b	25.44	3.75	15
		5/8 EHS	A2	T4b	25.44	3.55	14
	288.33	9/16 EHS	A2b	T5	21	2.82	13
		9/16 EHS	A2	T5	21	2.82	13
		9/16 EHS	A2b	T5a	21	2.83	13
		9/16 EHS	A2a	T5a	21	3.17	15
		9/16 EHS	A2	T5b	21	2.83	13
		9/16 EHS	A2a	T5b	21	3.17	15
1.2D + 1.0Ev + 1.0Eh 90°	50.00	9/16 EHS	A1	17	21	3.38	16
		9/16 EHS	A1b	17a	21	3.36	16
		9/16 EHS	A1a	17b	21	3.4	16
	108.33	1/2 EHS	A1	T2	16.14	2.38	15
		1/2 EHS	A1b	T2	16.14	2.34	14
		1/2 EHS	A1a	T2a	16.14	2.41	15
		1/2 EHS	A1b	T2a	16.14	2.34	14
		1/2 EHS	A1a	T2b	16.14	2.41	15
		1/2 EHS	A1	T2b	16.14	2.38	15
	170.00	5/8 EHS	A1	55	25.44	3.46	14
		5/8 EHS	A1b	55a	25.44	3.37	13
		5/8 EHS	A1a	55b	25.44	3.55	14
	228.33	5/8 EHS	A2b	T4	25.44	3.49	14
		5/8 EHS	A2	T4	25.44	3.6	14
		5/8 EHS	A2a	T4a	25.44	3.73	15
		5/8 EHS	A2b	T4a	25.44	3.5	14
		5/8 EHS	A2	T4b	25.44	3.62	14
		5/8 EHS	A2a	T4b	25.44	3.74	15
	288.33	9/16 EHS	A2b	T5	21	2.74	13
		9/16 EHS	A2	T5	21	2.93	14
		9/16 EHS	A2b	T5a	21	2.75	13
		9/16 EHS	A2a	T5a	21	3.14	15
		9/16 EHS	A2a	T5b	21	3.15	15
		9/16 EHS	A2	T5b	21	2.95	14
1.2D + 1.0Ev + 1.0Eh 120°	50.00	9/16 EHS	A1	17	21	3.39	16
		9/16 EHS	A1b	17a	21	3.36	16
		9/16 EHS	A1a	17b	21	3.39	16
	108.33	1/2 EHS	A1b	T2	16.14	2.33	14
		1/2 EHS	A1	T2	16.14	2.4	15
		1/2 EHS	A1b	T2a	16.14	2.33	14
		1/2 EHS	A1a	T2a	16.14	2.4	15
		1/2 EHS	A1a	T2b	16.14	2.4	15
		1/2 EHS	A1	T2b	16.14	2.4	15
	170.00	5/8 EHS	A1	55	25.44	3.51	14
		5/8 EHS	A1b	55a	25.44	3.36	13
		5/8 EHS	A1a	55b	25.44	3.51	14
	228.33	5/8 EHS	A2	T4	25.44	3.67	14
		5/8 EHS	A2b	T4	25.44	3.47	14
		5/8 EHS	A2a	T4a	25.44	3.68	14
		5/8 EHS	A2b	T4a	25.44	3.47	14
		5/8 EHS	A2	T4b	25.44	3.69	15
		5/8 EHS	A2a	T4b	25.44	3.69	15
	288.33	9/16 EHS	A2b	T5	21	2.71	13
		9/16 EHS	A2	T5	21	3.05	15
		9/16 EHS	A2a	T5a	21	3.05	15
		9/16 EHS	A2b	T5a	21	2.71	13
		9/16 EHS	A2a	T5b	21	3.07	15
		9/16 EHS	A2	T5b	21	3.07	15
1.2D + 1.0Ev + 1.0Eh 180°	50.00	9/16 EHS	A1	17	21	3.4	16
		9/16 EHS	A1b	17a	21	3.37	16
		9/16 EHS	A1a	17b	21	3.37	16

DETAILED CABLE FORCES

Load Case	Elevation (ft)	Cable	Anchor Node	Tower Node	Available Tension (kip)	Applied Tension (kip)	Use (%)
	108.33	1/2 EHS	A1	T2	16.14	2.42	15
		1/2 EHS	A1b	T2	16.14	2.35	15
		1/2 EHS	A1b	T2a	16.14	2.35	15
		1/2 EHS	A1a	T2a	16.14	2.35	15
		1/2 EHS	A1	T2b	16.14	2.42	15
		1/2 EHS	A1a	T2b	16.14	2.36	15
	170.00	5/8 EHS	A1	55	25.44	3.56	14
		5/8 EHS	A1b	55a	25.44	3.41	13
		5/8 EHS	A1a	55b	25.44	3.41	13
	228.33	5/8 EHS	A2b	T4	25.44	3.55	14
		5/8 EHS	A2	T4	25.44	3.75	15
		5/8 EHS	A2a	T4a	25.44	3.54	14
		5/8 EHS	A2b	T4a	25.44	3.54	14
		5/8 EHS	A2a	T4b	25.44	3.55	14
		5/8 EHS	A2	T4b	25.44	3.75	15
	288.33	9/16 EHS	A2b	T5	21	2.83	13
		9/16 EHS	A2	T5	21	3.17	15
		9/16 EHS	A2b	T5a	21	2.82	13
		9/16 EHS	A2a	T5a	21	2.82	13
		9/16 EHS	A2	T5b	21	3.17	15
		9/16 EHS	A2a	T5b	21	2.83	13
1.2D + 1.0Ev + 1.0Eh 210°	50.00	9/16 EHS	A1	17	21	3.4	16
		9/16 EHS	A1b	17a	21	3.38	16
		9/16 EHS	A1a	17b	21	3.36	16
	108.33	1/2 EHS	A1	T2	16.14	2.42	15
		1/2 EHS	A1b	T2	16.14	2.37	15
		1/2 EHS	A1a	T2a	16.14	2.34	14
		1/2 EHS	A1b	T2a	16.14	2.37	15
		1/2 EHS	A1a	T2b	16.14	2.34	14
		1/2 EHS	A1	T2b	16.14	2.41	15
	170.00	5/8 EHS	A1	55	25.44	3.55	14
		5/8 EHS	A1b	55a	25.44	3.46	14
		5/8 EHS	A1a	55b	25.44	3.37	13
	228.33	5/8 EHS	A2b	T4	25.44	3.62	14
		5/8 EHS	A2	T4	25.44	3.74	15
		5/8 EHS	A2a	T4a	25.44	3.49	14
		5/8 EHS	A2b	T4a	25.44	3.61	14
		5/8 EHS	A2a	T4b	25.44	3.5	14
		5/8 EHS	A2	T4b	25.44	3.73	15
	288.33	9/16 EHS	A2	T5	21	3.15	15
		9/16 EHS	A2b	T5	21	2.95	14
		9/16 EHS	A2b	T5a	21	2.93	14
		9/16 EHS	A2a	T5a	21	2.74	13
		9/16 EHS	A2a	T5b	21	2.75	13
		9/16 EHS	A2	T5b	21	3.14	15
1.2D + 1.0Ev + 1.0Eh 240°	50.00	9/16 EHS	A1	17	21	3.39	16
		9/16 EHS	A1b	17a	21	3.39	16
		9/16 EHS	A1a	17b	21	3.36	16
	108.33	1/2 EHS	A1	T2	16.14	2.4	15
		1/2 EHS	A1b	T2	16.14	2.4	15
		1/2 EHS	A1b	T2a	16.14	2.4	15
		1/2 EHS	A1a	T2a	16.14	2.33	14
		1/2 EHS	A1a	T2b	16.14	2.33	14
		1/2 EHS	A1	T2b	16.14	2.4	15
	170.00	5/8 EHS	A1	55	25.44	3.51	14
		5/8 EHS	A1b	55a	25.44	3.51	14
		5/8 EHS	A1a	55b	25.44	3.36	13
	228.33	5/8 EHS	A2	T4	25.44	3.69	15
		5/8 EHS	A2b	T4	25.44	3.69	15

DETAILED CABLE FORCES

Load Case	Elevation (ft)	Cable	Anchor Node	Tower Node	Available Tension (kip)	Applied Tension (kip)	Use (%)
		5/8 EHS	A2a	T4a	25.44	3.47	14
		5/8 EHS	A2b	T4a	25.44	3.68	14
		5/8 EHS	A2a	T4b	25.44	3.47	14
		5/8 EHS	A2	T4b	25.44	3.68	14
	288.33	9/16 EHS	A2	T5	21	3.07	15
		9/16 EHS	A2b	T5	21	3.07	15
		9/16 EHS	A2a	T5a	21	2.71	13
		9/16 EHS	A2b	T5a	21	3.05	15
		9/16 EHS	A2a	T5b	21	2.71	13
		9/16 EHS	A2	T5b	21	3.05	15
1.2D + 1.0Ev + 1.0Eh 300°	50.00	9/16 EHS	A1	17	21	3.37	16
		9/16 EHS	A1b	17a	21	3.4	16
		9/16 EHS	A1a	17b	21	3.37	16
	108.33	1/2 EHS	A1	T2	16.14	2.36	15
		1/2 EHS	A1b	T2	16.14	2.42	15
		1/2 EHS	A1b	T2a	16.14	2.42	15
		1/2 EHS	A1a	T2a	16.14	2.36	15
		1/2 EHS	A1	T2b	16.14	2.35	15
		1/2 EHS	A1a	T2b	16.14	2.35	15
	170.00	5/8 EHS	A1	55	25.44	3.41	13
		5/8 EHS	A1b	55a	25.44	3.56	14
		5/8 EHS	A1a	55b	25.44	3.41	13
	228.33	5/8 EHS	A2b	T4	25.44	3.75	15
		5/8 EHS	A2	T4	25.44	3.55	14
		5/8 EHS	A2a	T4a	25.44	3.55	14
		5/8 EHS	A2b	T4a	25.44	3.75	15
		5/8 EHS	A2a	T4b	25.44	3.54	14
		5/8 EHS	A2	T4b	25.44	3.54	14
	288.33	9/16 EHS	A2b	T5	21	3.17	15
		9/16 EHS	A2	T5	21	2.83	13
		9/16 EHS	A2b	T5a	21	3.17	15
		9/16 EHS	A2a	T5a	21	2.83	13
		9/16 EHS	A2	T5b	21	2.82	13
		9/16 EHS	A2a	T5b	21	2.82	13
1.2D + 1.0Ev + 1.0Eh 330°	50.00	9/16 EHS	A1	17	21	3.36	16
		9/16 EHS	A1b	17a	21	3.4	16
		9/16 EHS	A1a	17b	21	3.38	16
	108.33	1/2 EHS	A1	T2	16.14	2.34	14
		1/2 EHS	A1b	T2	16.14	2.41	15
		1/2 EHS	A1b	T2a	16.14	2.41	15
		1/2 EHS	A1a	T2a	16.14	2.38	15
		1/2 EHS	A1	T2b	16.14	2.34	14
		1/2 EHS	A1a	T2b	16.14	2.38	15
	170.00	5/8 EHS	A1	55	25.44	3.38	13
		5/8 EHS	A1b	55a	25.44	3.55	14
		5/8 EHS	A1a	55b	25.44	3.46	14
	228.33	5/8 EHS	A2b	T4	25.44	3.73	15
		5/8 EHS	A2	T4	25.44	3.5	14
		5/8 EHS	A2b	T4a	25.44	3.74	15
		5/8 EHS	A2a	T4a	25.44	3.62	14
		5/8 EHS	A2a	T4b	25.44	3.6	14
		5/8 EHS	A2	T4b	25.44	3.49	14
	288.33	9/16 EHS	A2	T5	21	2.75	13
		9/16 EHS	A2b	T5	21	3.14	15
		9/16 EHS	A2a	T5a	21	2.95	14
		9/16 EHS	A2b	T5a	21	3.15	15
		9/16 EHS	A2	T5b	21	2.74	13
		9/16 EHS	A2a	T5b	21	2.93	14
1.0D + 1.0W Service Normal	50.00	9/16 EHS	A1	17	21	2.53	12

DETAILED CABLE FORCES

Load Case	Elevation (ft)	Cable	Anchor Node	Tower Node	Available Tension (kip)	Applied Tension (kip)	Use (%)
		9/16 EHS	A1b	17a	21	3.87	18
		9/16 EHS	A1a	17b	21	3.88	18
	108.33	1/2 EHS	A1	T2	16.14	1.44	9
		1/2 EHS	A1b	T2	16.14	2.95	18
		1/2 EHS	A1b	T2a	16.14	2.96	18
		1/2 EHS	A1a	T2a	16.14	2.97	18
		1/2 EHS	A1	T2b	16.14	1.44	9
		1/2 EHS	A1a	T2b	16.14	2.95	18
	170.00	5/8 EHS	A1	55	25.44	1.67	7
		5/8 EHS	A1b	55a	25.44	4.57	18
		5/8 EHS	A1a	55b	25.44	4.57	18
	228.33	5/8 EHS	A2b	T4	25.44	4.52	18
		5/8 EHS	A2	T4	25.44	2.36	9
		5/8 EHS	A2a	T4a	25.44	4.43	17
		5/8 EHS	A2b	T4a	25.44	4.43	17
		5/8 EHS	A2a	T4b	25.44	4.52	18
		5/8 EHS	A2	T4b	25.44	2.36	9
	288.33	9/16 EHS	A2b	T5	21	3.84	18
		9/16 EHS	A2	T5	21	1.72	8
		9/16 EHS	A2b	T5a	21	3.78	18
		9/16 EHS	A2a	T5a	21	3.78	18
		9/16 EHS	A2	T5b	21	1.73	8
		9/16 EHS	A2a	T5b	21	3.83	18
1.0D + 1.0W Service 60°	50.00	9/16 EHS	A1	17	21	3	14
		9/16 EHS	A1b	17a	21	3	14
		9/16 EHS	A1a	17b	21	4.21	20
	108.33	1/2 EHS	A1	T2	16.14	2.01	12
		1/2 EHS	A1b	T2	16.14	1.93	12
		1/2 EHS	A1b	T2a	16.14	1.99	12
		1/2 EHS	A1a	T2a	16.14	3.33	21
		1/2 EHS	A1	T2b	16.14	1.94	12
		1/2 EHS	A1a	T2b	16.14	3.4	21
	170.00	5/8 EHS	A1	55	25.44	2.72	11
		5/8 EHS	A1b	55a	25.44	2.73	11
		5/8 EHS	A1a	55b	25.44	5.38	21
	228.33	5/8 EHS	A2b	T4	25.44	3.16	12
		5/8 EHS	A2	T4	25.44	3.19	13
		5/8 EHS	A2a	T4a	25.44	5.07	20
		5/8 EHS	A2b	T4a	25.44	3.12	12
		5/8 EHS	A2a	T4b	25.44	5.11	20
		5/8 EHS	A2	T4b	25.44	3.08	12
	288.33	9/16 EHS	A2b	T5	21	2.61	12
		9/16 EHS	A2	T5	21	2.62	12
		9/16 EHS	A2b	T5a	21	2.57	12
		9/16 EHS	A2a	T5a	21	4.54	22
		9/16 EHS	A2	T5b	21	2.56	12
		9/16 EHS	A2a	T5b	21	4.55	22
1.0D + 1.0W Service 90°	50.00	9/16 EHS	A1	17	21	3.42	16
		9/16 EHS	A1b	17a	21	2.69	13
		9/16 EHS	A1a	17b	21	4.13	20
	108.33	1/2 EHS	A1	T2	16.14	2.48	15
		1/2 EHS	A1b	T2	16.14	1.57	10
		1/2 EHS	A1b	T2a	16.14	1.64	10
		1/2 EHS	A1a	T2a	16.14	3.21	20
		1/2 EHS	A1	T2b	16.14	2.41	15
		1/2 EHS	A1a	T2b	16.14	3.31	20
	170.00	5/8 EHS	A1	55	25.44	3.57	14
		5/8 EHS	A1b	55a	25.44	2.04	8
		5/8 EHS	A1a	55b	25.44	5.17	20

DETAILED CABLE FORCES

Load Case	Elevation (ft)	Cable	Anchor Node	Tower Node	Available Tension (kip)	Applied Tension (kip)	Use (%)
	228.33	5/8 EHS	A2b	T4	25.44	2.62	10
		5/8 EHS	A2	T4	25.44	3.84	15
		5/8 EHS	A2a	T4a	25.44	4.92	19
		5/8 EHS	A2b	T4a	25.44	2.64	10
		5/8 EHS	A2a	T4b	25.44	4.93	19
		5/8 EHS	A2	T4b	25.44	3.7	15
	288.33	9/16 EHS	A2b	T5	21	2.04	10
		9/16 EHS	A2	T5	21	3.22	15
		9/16 EHS	A2b	T5a	21	2.03	10
		9/16 EHS	A2a	T5a	21	4.33	21
		9/16 EHS	A2	T5b	21	3.15	15
		9/16 EHS	A2a	T5b	21	4.33	21
1.0D + 1.0W Service 120°	50.00	9/16 EHS	A1	17	21	3.87	18
		9/16 EHS	A1b	17a	21	2.52	12
		9/16 EHS	A1a	17b	21	3.87	18
	108.33	1/2 EHS	A1b	T2	16.14	1.39	9
		1/2 EHS	A1	T2	16.14	3	19
		1/2 EHS	A1b	T2a	16.14	1.45	9
		1/2 EHS	A1a	T2a	16.14	2.92	18
		1/2 EHS	A1a	T2b	16.14	3	19
		1/2 EHS	A1	T2b	16.14	2.94	18
	170.00	5/8 EHS	A1	55	25.44	4.55	18
		5/8 EHS	A1b	55a	25.44	1.68	7
		5/8 EHS	A1a	55b	25.44	4.57	18
	228.33	5/8 EHS	A2	T4	25.44	4.53	18
		5/8 EHS	A2b	T4	25.44	2.35	9
		5/8 EHS	A2a	T4a	25.44	4.5	18
		5/8 EHS	A2b	T4a	25.44	2.39	9
		5/8 EHS	A2	T4b	25.44	4.4	17
		5/8 EHS	A2a	T4b	25.44	4.45	17
	288.33	9/16 EHS	A2b	T5	21	1.72	8
		9/16 EHS	A2	T5	21	3.84	18
		9/16 EHS	A2a	T5a	21	3.83	18
		9/16 EHS	A2b	T5a	21	1.73	8
		9/16 EHS	A2a	T5b	21	3.79	18
		9/16 EHS	A2	T5b	21	3.78	18
1.0D + 1.0W Service 180°	50.00	9/16 EHS	A1	17	21	4.21	20
		9/16 EHS	A1b	17a	21	3	14
		9/16 EHS	A1a	17b	21	3	14
	108.33	1/2 EHS	A1	T2	16.14	3.37	21
		1/2 EHS	A1b	T2	16.14	1.96	12
		1/2 EHS	A1b	T2a	16.14	1.96	12
		1/2 EHS	A1a	T2a	16.14	1.97	12
		1/2 EHS	A1	T2b	16.14	3.37	21
		1/2 EHS	A1a	T2b	16.14	1.96	12
	170.00	5/8 EHS	A1	55	25.44	5.36	21
		5/8 EHS	A1b	55a	25.44	2.73	11
		5/8 EHS	A1a	55b	25.44	2.73	11
	228.33	5/8 EHS	A2b	T4	25.44	3.11	12
		5/8 EHS	A2	T4	25.44	5.09	20
		5/8 EHS	A2a	T4a	25.44	3.18	12
		5/8 EHS	A2b	T4a	25.44	3.18	12
		5/8 EHS	A2a	T4b	25.44	3.11	12
		5/8 EHS	A2	T4b	25.44	5.08	20
	288.33	9/16 EHS	A2b	T5	21	2.57	12
		9/16 EHS	A2	T5	21	4.54	22
		9/16 EHS	A2b	T5a	21	2.61	12
		9/16 EHS	A2a	T5a	21	2.61	12
		9/16 EHS	A2	T5b	21	4.54	22

DETAILED CABLE FORCES

Load Case	Elevation (ft)	Cable	Anchor Node	Tower Node	Available Tension (kip)	Applied Tension (kip)	Use (%)
		9/16 EHS	A2a	T5b	21	2.57	12
1.0D + 1.0W Service 210°	50.00	9/16 EHS	A1	17	21	4.13	20
		9/16 EHS	A1b	17a	21	3.42	16
		9/16 EHS	A1a	17b	21	2.69	13
	108.33	1/2 EHS	A1b	T2	16.14	2.45	15
		1/2 EHS	A1	T2	16.14	3.26	20
		1/2 EHS	A1a	T2a	16.14	1.62	10
		1/2 EHS	A1b	T2a	16.14	2.42	15
		1/2 EHS	A1a	T2b	16.14	1.59	10
		1/2 EHS	A1	T2b	16.14	3.28	20
	170.00	5/8 EHS	A1	55	25.44	5.15	20
		5/8 EHS	A1b	55a	25.44	3.59	14
		5/8 EHS	A1a	55b	25.44	2.05	8
	228.33	5/8 EHS	A2	T4	25.44	4.88	19
		5/8 EHS	A2b	T4	25.44	3.74	15
		5/8 EHS	A2b	T4a	25.44	3.82	15
		5/8 EHS	A2a	T4a	25.44	2.66	10
		5/8 EHS	A2	T4b	25.44	4.94	19
		5/8 EHS	A2a	T4b	25.44	2.61	10
	288.33	9/16 EHS	A2	T5	21	4.32	21
		9/16 EHS	A2b	T5	21	3.16	15
		9/16 EHS	A2b	T5a	21	3.21	15
		9/16 EHS	A2a	T5a	21	2.05	10
		9/16 EHS	A2	T5b	21	4.33	21
		9/16 EHS	A2a	T5b	21	2.02	10
1.0D + 1.0W Service 240°	50.00	9/16 EHS	A1	17	21	3.88	18
		9/16 EHS	A1b	17a	21	3.87	18
		9/16 EHS	A1a	17b	21	2.53	12
	108.33	1/2 EHS	A1	T2	16.14	2.94	18
		1/2 EHS	A1b	T2	16.14	3	19
		1/2 EHS	A1b	T2a	16.14	2.92	18
		1/2 EHS	A1a	T2a	16.14	1.45	9
		1/2 EHS	A1a	T2b	16.14	1.4	9
		1/2 EHS	A1	T2b	16.14	3	19
	170.00	5/8 EHS	A1	55	25.44	4.56	18
		5/8 EHS	A1b	55a	25.44	4.57	18
		5/8 EHS	A1a	55b	25.44	1.68	7
	228.33	5/8 EHS	A2	T4	25.44	4.4	17
		5/8 EHS	A2b	T4	25.44	4.45	17
		5/8 EHS	A2b	T4a	25.44	4.5	18
		5/8 EHS	A2a	T4a	25.44	2.39	9
		5/8 EHS	A2	T4b	25.44	4.53	18
		5/8 EHS	A2a	T4b	25.44	2.35	9
	288.33	9/16 EHS	A2	T5	21	3.78	18
		9/16 EHS	A2b	T5	21	3.78	18
		9/16 EHS	A2b	T5a	21	3.83	18
		9/16 EHS	A2a	T5a	21	1.73	8
		9/16 EHS	A2a	T5b	21	1.72	8
		9/16 EHS	A2	T5b	21	3.84	18
1.0D + 1.0W Service 300°	50.00	9/16 EHS	A1	17	21	3.01	14
		9/16 EHS	A1b	17a	21	4.21	20
		9/16 EHS	A1a	17b	21	3	14
	108.33	1/2 EHS	A1b	T2	16.14	3.4	21
		1/2 EHS	A1	T2	16.14	1.95	12
		1/2 EHS	A1b	T2a	16.14	3.33	21
		1/2 EHS	A1a	T2a	16.14	2	12
		1/2 EHS	A1a	T2b	16.14	1.94	12
		1/2 EHS	A1	T2b	16.14	2.01	12
	170.00	5/8 EHS	A1	55	25.44	2.72	11

DETAILED CABLE FORCES

Load Case	Elevation (ft)	Cable	Anchor Node	Tower Node	Available Tension (kip)	Applied Tension (kip)	Use (%)
		5/8 EHS	A1b	55a	25.44	5.38	21
		5/8 EHS	A1a	55b	25.44	2.73	11
	228.33	5/8 EHS	A2	T4	25.44	3.08	12
		5/8 EHS	A2b	T4	25.44	5.12	20
		5/8 EHS	A2b	T4a	25.44	5.07	20
		5/8 EHS	A2a	T4a	25.44	3.12	12
		5/8 EHS	A2a	T4b	25.44	3.16	12
		5/8 EHS	A2	T4b	25.44	3.19	13
	288.33	9/16 EHS	A2	T5	21	2.56	12
		9/16 EHS	A2b	T5	21	4.55	22
		9/16 EHS	A2b	T5a	21	4.54	22
		9/16 EHS	A2a	T5a	21	2.57	12
		9/16 EHS	A2a	T5b	21	2.61	12
		9/16 EHS	A2	T5b	21	2.62	12
1.0D + 1.0W Service 330°	50.00	9/16 EHS	A1	17	21	2.7	13
		9/16 EHS	A1b	17a	21	4.13	20
		9/16 EHS	A1a	17b	21	3.42	16
	108.33	1/2 EHS	A1	T2	16.14	1.6	10
		1/2 EHS	A1b	T2	16.14	3.27	20
		1/2 EHS	A1b	T2a	16.14	3.25	20
		1/2 EHS	A1a	T2a	16.14	2.46	15
		1/2 EHS	A1	T2b	16.14	1.63	10
		1/2 EHS	A1a	T2b	16.14	2.42	15
	170.00	5/8 EHS	A1	55	25.44	2.04	8
		5/8 EHS	A1b	55a	25.44	5.17	20
		5/8 EHS	A1a	55b	25.44	3.59	14
	228.33	5/8 EHS	A2	T4	25.44	2.6	10
		5/8 EHS	A2b	T4	25.44	4.96	20
		5/8 EHS	A2b	T4a	25.44	4.9	19
		5/8 EHS	A2a	T4a	25.44	3.74	15
		5/8 EHS	A2a	T4b	25.44	3.82	15
		5/8 EHS	A2	T4b	25.44	2.65	10
	288.33	9/16 EHS	A2	T5	21	2.02	10
		9/16 EHS	A2b	T5	21	4.34	21
		9/16 EHS	A2a	T5a	21	3.16	15
		9/16 EHS	A2b	T5a	21	4.32	21
		9/16 EHS	A2	T5b	21	2.05	10
		9/16 EHS	A2a	T5b	21	3.21	15

MAXIMUM CABLE FORCES SUMMARY

Load Case	Elevation (ft)	Cable	Anchor Node	Tower Node	Available Tension (kip)	Applied Tension (kip)	Use (%)
1.2D + 1.0W 300°	50.00	9/16 EHS	A1b	17a	21.00	7.04	34
1.2D + 1.0W 60°	108.33	1/2 EHS	A1a	T2b	16.14	7.17	44
1.2D + 1.0W 60°	170.00	5/8 EHS	A1a	55b	25.44	12.51	49
1.2D + 1.0W 60°	228.33	5/8 EHS	A2a	T4b	25.44	11.25	44
1.2D + 1.0W 60°	288.33	9/16 EHS	A2a	T5a	21.00	10.84	52

MAXIMUM TORQUE ARM STRESS SUMMARY

Load Case	Elevation (ft)	Member	Type	Compression (%)	Tension (%)
1.2D + 1.0W 240°	50.00	2X2X0.1875	Horiz	0	29.7
1.2D + 1.0W 210°	108.00	3X3X0.25	Lower Kicker	18.6	0
1.2D + 1.0W 120°	108.00	3X3X0.25	Torque Arm	0	14.8
1.2D + 1.0W 120°	170.00	2X2X0.1875	Horiz	0	35.7
1.2D + 1.0W 300°	228.00	3.5x3.5x0.25	Lower Kicker	31.2	0
1.2D + 1.0W 90°	228.00	3.5x3.5x0.25	Torque Arm	0	29.3
1.2D + 1.0W 90°	288.00	3.5x3.5x0.25	Torque Arm	0	28.3
1.2D + 1.0W 300°	288.00	3.5x3.5x0.25	Lower Kicker	32.8	0

DEFLECTIONS AND ROTATIONS

Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
1.0D + 1.0W Service 330° 60 mph Wind with No Ice	108.33	0.0713	-0.0179	0.1364	0.1366
1.0D + 1.0W Service 330° 60 mph Wind with No Ice	140.00	0.1058	-0.0111	0.0487	0.05
1.0D + 1.0W Service 330° 60 mph Wind with No Ice	150.00	0.1124	-0.0109	0.0268	0.0289
1.0D + 1.0W Service 330° 60 mph Wind with No Ice	153.33	0.1135	-0.0168	0.0211	0.0269
1.0D + 1.0W Service 330° 60 mph Wind with No Ice	173.33	0.1155	-0.0106	0.0097	0.0144
1.0D + 1.0W Service 330° 60 mph Wind with No Ice	228.33	0.1033	-0.0137	0.0231	0.0269
1.0D + 1.0W Service 330° 60 mph Wind with No Ice	276.67	0.1422	-0.0130	0.0401	0.0407
1.0D + 1.0W Service 330° 60 mph Wind with No Ice	286.66	0.1474	-0.0129	0.0292	0.0307
1.0D + 1.0W Service 330° 60 mph Wind with No Ice	288.33	0.1479	-0.0129	0.0396	0.0417
1.0D + 1.0W Service 330° 60 mph Wind with No Ice	296.67	0.1553	-0.0129	0.0507	0.0511
1.0D + 1.0W Service 330° 60 mph Wind with No Ice	300.00	0.1577	-0.0129	0.0468	0.0486
1.0D + 1.0W Service 300° 60 mph Wind with No Ice	108.33	0.0725	-0.0029	0.1108	0.1108
1.0D + 1.0W Service 300° 60 mph Wind with No Ice	140.00	0.108	-0.0013	0.0532	0.0532
1.0D + 1.0W Service 300° 60 mph Wind with No Ice	150.00	0.1155	-0.0009	0.0304	0.0304
1.0D + 1.0W Service 300° 60 mph Wind with No Ice	153.33	0.1167	-0.0008	0.0246	0.0246
1.0D + 1.0W Service 300° 60 mph Wind with No Ice	173.33	0.1204	-0.0003	0.0142	0.0142
1.0D + 1.0W Service 300° 60 mph Wind with No Ice	228.33	0.1181	0.0006	0.0263	0.0263
1.0D + 1.0W Service 300° 60 mph Wind with No Ice	276.67	0.1722	0.0006	0.0578	0.0578
1.0D + 1.0W Service 300° 60 mph Wind with No Ice	286.66	0.1809	0.0006	0.0462	0.0462
1.0D + 1.0W Service 300° 60 mph Wind with No Ice	288.33	0.1821	0.0006	0.0569	0.0569
1.0D + 1.0W Service 300° 60 mph Wind with No Ice	296.67	0.1923	0.0006	0.0704	0.0704
1.0D + 1.0W Service 300° 60 mph Wind with No Ice	300.00	0.196	0.0006	0.0664	0.0664
1.0D + 1.0W Service 240° 60 mph Wind with No Ice	108.33	0.0786	-0.0358	0.1257	0.127
1.0D + 1.0W Service 240° 60 mph Wind with No Ice	140.00	0.1151	-0.0174	0.0505	0.0534
1.0D + 1.0W Service 240° 60 mph Wind with No Ice	150.00	0.1217	-0.0172	0.0226	0.0284
1.0D + 1.0W Service 240° 60 mph Wind with No Ice	153.33	0.1225	-0.0354	0.0151	0.0376
1.0D + 1.0W Service 240° 60 mph Wind with No Ice	173.33	0.1218	-0.0167	0.0091	0.019
1.0D + 1.0W Service 240° 60 mph Wind with No Ice	228.33	0.0929	-0.0345	0.0218	0.0409
1.0D + 1.0W Service 240° 60 mph Wind with No Ice	276.67	0.1057	-0.0341	0.0029	0.0341
1.0D + 1.0W Service 240° 60 mph Wind with No Ice	286.66	0.104	-0.0250	0.0362	0.0439
1.0D + 1.0W Service 240° 60 mph Wind with No Ice	288.33	0.1034	-0.0340	0.0096	0.0353
1.0D + 1.0W Service 240° 60 mph Wind with No Ice	296.67	0.1048	-0.0340	0.0113	0.0345
1.0D + 1.0W Service 240° 60 mph Wind with No Ice	300.00	0.105	-0.0340	0.0069	0.0347
1.0D + 1.0W Service 210° 60 mph Wind with No Ice	108.33	0.0723	-0.0016	0.1151	0.1151
1.0D + 1.0W Service 210° 60 mph Wind with No Ice	140.00	0.1049	0.0004	0.0468	0.0469
1.0D + 1.0W Service 210° 60 mph Wind with No Ice	150.00	0.1111	0.0003	0.0222	0.0222
1.0D + 1.0W Service 210° 60 mph Wind with No Ice	153.33	0.1131	-0.0005	0.0161	0.0161
1.0D + 1.0W Service 210° 60 mph Wind with No Ice	173.33	0.1123	0.0002	0.0084	0.0084
1.0D + 1.0W Service 210° 60 mph Wind with No Ice	228.33	0.1011	-0.0005	0.0223	0.0223
1.0D + 1.0W Service 210° 60 mph Wind with No Ice	276.67	0.1405	-0.0003	0.0408	0.0408
1.0D + 1.0W Service 210° 60 mph Wind with No Ice	286.66	0.1458	0.0001	0.0394	0.0394
1.0D + 1.0W Service 210° 60 mph Wind with No Ice	288.33	0.1464	-0.0003	0.0397	0.0397
1.0D + 1.0W Service 210° 60 mph Wind with No Ice	296.67	0.1537	-0.0003	0.0511	0.0511
1.0D + 1.0W Service 210° 60 mph Wind with No Ice	300.00	0.1562	-0.0003	0.0471	0.0471
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	108.33	0.0723	0.0005	0.0910	0.091
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	140.00	0.1046	0.0000	0.0489	0.0489
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	150.00	0.1113	0.0000	0.0259	0.0259
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	153.33	0.1135	0.0000	0.0201	0.0201
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	173.33	0.1151	0.0000	0.0040	0.004
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	228.33	0.1165	0.0004	0.0270	0.027
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	276.67	0.1714	0.0003	0.0585	0.0585
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	286.66	0.1802	0.0002	0.0475	0.0475
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	288.33	0.1814	0.0002	0.0573	0.0573
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	296.67	0.1916	0.0002	0.0705	0.0706
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	300.00	0.1954	0.0002	0.0668	0.0668
1.0D + 1.0W Service 120° 60 mph Wind with No Ice	108.33	0.0783	0.0094	0.1253	0.1253
1.0D + 1.0W Service 120° 60 mph Wind with No Ice	140.00	0.1146	0.0019	0.0501	0.0501
1.0D + 1.0W Service 120° 60 mph Wind with No Ice	150.00	0.1211	0.0015	0.0222	0.0222
1.0D + 1.0W Service 120° 60 mph Wind with No Ice	153.33	0.1218	0.0050	0.0147	0.0152

DEFLECTIONS AND ROTATIONS

Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
1.0D + 1.0W Service 120° 60 mph Wind with No Ice	173.33	0.121	0.0008	0.0092	0.0093
1.0D + 1.0W Service 120° 60 mph Wind with No Ice	228.33	0.0921	0.0014	0.0219	0.0219
1.0D + 1.0W Service 120° 60 mph Wind with No Ice	276.67	0.105	0.0009	0.0025	0.0025
1.0D + 1.0W Service 120° 60 mph Wind with No Ice	286.66	0.1034	0.0008	0.0346	0.0346
1.0D + 1.0W Service 120° 60 mph Wind with No Ice	288.33	0.1027	0.0008	0.0090	0.0091
1.0D + 1.0W Service 120° 60 mph Wind with No Ice	296.67	0.1042	0.0008	0.0119	0.0119
1.0D + 1.0W Service 120° 60 mph Wind with No Ice	300.00	0.1045	0.0008	0.0075	0.0076
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	108.33	0.0702	0.0152	0.1234	0.1239
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	140.00	0.1083	0.0072	0.0512	0.0517
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	150.00	0.1152	0.0061	0.0264	0.0271
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	153.33	0.1161	0.0089	0.0205	0.0216
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	173.33	0.1173	0.0039	0.0169	0.0173
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	228.33	0.1032	0.0022	0.0209	0.0209
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	276.67	0.1423	0.0012	0.0399	0.0399
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	286.66	0.1476	0.0011	0.0379	0.0379
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	288.33	0.148	0.0011	0.0396	0.0396
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	296.67	0.1554	0.0010	0.0514	0.0514
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	300.00	0.1579	0.0010	0.0470	0.047
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	108.33	0.0728	0.0029	0.1105	0.1106
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	140.00	0.1082	0.0013	0.0529	0.0529
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	150.00	0.1156	0.0009	0.0301	0.0301
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	153.33	0.1168	0.0008	0.0243	0.0243
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	173.33	0.1204	0.0003	0.0140	0.014
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	228.33	0.1178	-0.0006	0.0259	0.0259
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	276.67	0.1716	-0.0006	0.0580	0.058
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	286.66	0.1803	0.0002	0.0472	0.0472
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	288.33	0.1815	-0.0006	0.0573	0.0573
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	296.67	0.1917	-0.0006	0.0707	0.0707
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	300.00	0.1955	-0.0006	0.0667	0.0667
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	108.33	0.0782	0.0135	0.1396	0.1402
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	140.00	0.1128	0.0000	0.0483	0.0483
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	150.00	0.1193	0.0000	0.0252	0.0252
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	153.33	0.1204	0.0103	0.0173	0.0201
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	173.33	0.121	0.0000	0.0043	0.0043
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	228.33	0.0937	0.0039	0.0229	0.0229
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	276.67	0.1056	0.0025	0.0032	0.0041
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	286.66	0.1039	-0.0024	0.0353	0.0354
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	288.33	0.1034	-0.0024	0.0098	0.0098
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	296.67	0.1046	0.0023	0.0104	0.0107
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	300.00	0.1048	0.0023	0.0062	0.0062
1.2D + 1.0Ev + 1.0Eh 330° Seismic	108.33	0.0041	-0.0007	0.0061	0.0061
1.2D + 1.0Ev + 1.0Eh 330° Seismic	140.00	0.0063	0.0008	0.0037	0.0038
1.2D + 1.0Ev + 1.0Eh 330° Seismic	150.00	0.0069	0.0011	0.0041	0.0042
1.2D + 1.0Ev + 1.0Eh 330° Seismic	153.33	0.0071	0.0011	0.0046	0.0047
1.2D + 1.0Ev + 1.0Eh 330° Seismic	173.33	0.0084	0.0018	0.0090	0.0091
1.2D + 1.0Ev + 1.0Eh 330° Seismic	228.33	0.0153	0.0056	0.0184	0.0184
1.2D + 1.0Ev + 1.0Eh 330° Seismic	276.67	0.0345	0.0084	0.0250	0.0263
1.2D + 1.0Ev + 1.0Eh 330° Seismic	286.66	0.0385	0.0088	0.0364	0.0375
1.2D + 1.0Ev + 1.0Eh 330° Seismic	288.33	0.0391	0.0089	0.0275	0.0275
1.2D + 1.0Ev + 1.0Eh 330° Seismic	296.67	0.0432	0.0090	0.0293	0.0293
1.2D + 1.0Ev + 1.0Eh 330° Seismic	300.00	0.0448	0.0090	0.0280	0.0294
1.2D + 1.0Ev + 1.0Eh 300° Seismic	108.33	0.0038	0.0007	0.0062	0.0062
1.2D + 1.0Ev + 1.0Eh 300° Seismic	140.00	0.0061	0.0000	0.0039	0.0039
1.2D + 1.0Ev + 1.0Eh 300° Seismic	150.00	0.0067	0.0000	0.0038	0.0038
1.2D + 1.0Ev + 1.0Eh 300° Seismic	153.33	0.0069	0.0006	0.0049	0.005
1.2D + 1.0Ev + 1.0Eh 300° Seismic	173.33	0.0081	0.0000	0.0080	0.008
1.2D + 1.0Ev + 1.0Eh 300° Seismic	228.33	0.0151	0.0008	0.0188	0.0188
1.2D + 1.0Ev + 1.0Eh 300° Seismic	276.67	0.0339	0.0007	0.0241	0.0241
1.2D + 1.0Ev + 1.0Eh 300° Seismic	286.66	0.0379	0.0007	0.0317	0.0317

DEFLECTIONS AND ROTATIONS

Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
1.2D + 1.0Ev + 1.0Eh 300° Seismic	288.33	0.0385	0.0007	0.0276	0.0277
1.2D + 1.0Ev + 1.0Eh 300° Seismic	296.67	0.0425	0.0007	0.0290	0.029
1.2D + 1.0Ev + 1.0Eh 300° Seismic	300.00	0.0441	0.0007	0.0275	0.0275
1.2D + 1.0Ev + 1.0Eh 240° Seismic	108.33	0.0043	-0.0007	0.0065	0.0066
1.2D + 1.0Ev + 1.0Eh 240° Seismic	140.00	0.0056	0.0000	0.0040	0.004
1.2D + 1.0Ev + 1.0Eh 240° Seismic	150.00	0.0062	0.0000	0.0029	0.0029
1.2D + 1.0Ev + 1.0Eh 240° Seismic	153.33	0.0072	0.0006	0.0045	0.0045
1.2D + 1.0Ev + 1.0Eh 240° Seismic	173.33	0.0073	0.0000	0.0048	0.0048
1.2D + 1.0Ev + 1.0Eh 240° Seismic	228.33	0.0154	0.0008	0.0182	0.0182
1.2D + 1.0Ev + 1.0Eh 240° Seismic	276.67	0.0349	0.0007	0.0253	0.0253
1.2D + 1.0Ev + 1.0Eh 240° Seismic	286.66	0.0389	0.0007	0.0187	0.0187
1.2D + 1.0Ev + 1.0Eh 240° Seismic	288.33	0.0397	0.0007	0.0274	0.0274
1.2D + 1.0Ev + 1.0Eh 240° Seismic	296.67	0.0438	0.0006	0.0296	0.0296
1.2D + 1.0Ev + 1.0Eh 240° Seismic	300.00	0.0454	0.0006	0.0287	0.0287
1.2D + 1.0Ev + 1.0Eh 210° Seismic	108.33	0.0042	-0.0007	0.0066	0.0067
1.2D + 1.0Ev + 1.0Eh 210° Seismic	140.00	0.0053	0.0000	0.0040	0.004
1.2D + 1.0Ev + 1.0Eh 210° Seismic	150.00	0.0059	0.0000	0.0024	0.0024
1.2D + 1.0Ev + 1.0Eh 210° Seismic	153.33	0.0071	0.0006	0.0042	0.0042
1.2D + 1.0Ev + 1.0Eh 210° Seismic	173.33	0.0068	0.0000	0.0028	0.0028
1.2D + 1.0Ev + 1.0Eh 210° Seismic	228.33	0.0151	0.0008	0.0183	0.0183
1.2D + 1.0Ev + 1.0Eh 210° Seismic	276.67	0.0341	0.0006	0.0248	0.0248
1.2D + 1.0Ev + 1.0Eh 210° Seismic	286.66	0.0381	0.0007	0.0258	0.0258
1.2D + 1.0Ev + 1.0Eh 210° Seismic	288.33	0.0388	0.0007	0.0275	0.0275
1.2D + 1.0Ev + 1.0Eh 210° Seismic	296.67	0.0429	0.0006	0.0294	0.0294
1.2D + 1.0Ev + 1.0Eh 210° Seismic	300.00	0.0445	0.0006	0.0281	0.0281
1.2D + 1.0Ev + 1.0Eh 180° Seismic	108.33	0.0038	0.0007	0.0061	0.0062
1.2D + 1.0Ev + 1.0Eh 180° Seismic	140.00	0.0051	0.0000	0.0039	0.0039
1.2D + 1.0Ev + 1.0Eh 180° Seismic	150.00	0.0057	0.0000	0.0021	0.0021
1.2D + 1.0Ev + 1.0Eh 180° Seismic	153.33	0.0067	0.0006	0.0043	0.0043
1.2D + 1.0Ev + 1.0Eh 180° Seismic	173.33	0.0065	0.0000	0.0013	0.0013
1.2D + 1.0Ev + 1.0Eh 180° Seismic	228.33	0.0146	0.0008	0.0183	0.0183
1.2D + 1.0Ev + 1.0Eh 180° Seismic	276.67	0.0333	0.0007	0.0239	0.024
1.2D + 1.0Ev + 1.0Eh 180° Seismic	286.66	0.0372	0.0007	0.0320	0.032
1.2D + 1.0Ev + 1.0Eh 180° Seismic	288.33	0.0379	0.0007	0.0274	0.0274
1.2D + 1.0Ev + 1.0Eh 180° Seismic	296.67	0.0419	0.0006	0.0289	0.0289
1.2D + 1.0Ev + 1.0Eh 180° Seismic	300.00	0.0434	0.0006	0.0273	0.0273
1.2D + 1.0Ev + 1.0Eh 120° Seismic	108.33	0.0043	0.0007	0.0064	0.0064
1.2D + 1.0Ev + 1.0Eh 120° Seismic	140.00	0.0054	0.0000	0.0036	0.0036
1.2D + 1.0Ev + 1.0Eh 120° Seismic	150.00	0.006	0.0000	0.0025	0.0025
1.2D + 1.0Ev + 1.0Eh 120° Seismic	153.33	0.0069	0.0006	0.0041	0.0042
1.2D + 1.0Ev + 1.0Eh 120° Seismic	173.33	0.0069	0.0000	0.0046	0.0046
1.2D + 1.0Ev + 1.0Eh 120° Seismic	228.33	0.0149	0.0008	0.0179	0.0179
1.2D + 1.0Ev + 1.0Eh 120° Seismic	276.67	0.034	0.0007	0.0250	0.025
1.2D + 1.0Ev + 1.0Eh 120° Seismic	286.66	0.038	0.0007	0.0382	0.0382
1.2D + 1.0Ev + 1.0Eh 120° Seismic	288.33	0.0388	0.0007	0.0271	0.0271
1.2D + 1.0Ev + 1.0Eh 120° Seismic	296.67	0.0428	0.0006	0.0293	0.0293
1.2D + 1.0Ev + 1.0Eh 120° Seismic	300.00	0.0444	0.0006	0.0284	0.0284
1.2D + 1.0Ev + 1.0Eh 90° Seismic	108.33	0.0042	0.0007	0.0061	0.0061
1.2D + 1.0Ev + 1.0Eh 90° Seismic	140.00	0.0056	0.0000	0.0036	0.0036
1.2D + 1.0Ev + 1.0Eh 90° Seismic	150.00	0.0062	0.0000	0.0031	0.0031
1.2D + 1.0Ev + 1.0Eh 90° Seismic	153.33	0.0069	0.0007	0.0045	0.0046
1.2D + 1.0Ev + 1.0Eh 90° Seismic	173.33	0.0073	0.0000	0.0065	0.0065
1.2D + 1.0Ev + 1.0Eh 90° Seismic	228.33	0.0147	0.0009	0.0186	0.0186
1.2D + 1.0Ev + 1.0Eh 90° Seismic	276.67	0.0336	0.0009	0.0243	0.0243
1.2D + 1.0Ev + 1.0Eh 90° Seismic	286.66	0.0375	0.0009	0.0366	0.0366
1.2D + 1.0Ev + 1.0Eh 90° Seismic	288.33	0.0383	0.0009	0.0276	0.0276
1.2D + 1.0Ev + 1.0Eh 90° Seismic	296.67	0.0422	0.0009	0.0292	0.0292
1.2D + 1.0Ev + 1.0Eh 90° Seismic	300.00	0.0439	0.0009	0.0279	0.0279
1.2D + 1.0Ev + 1.0Eh 60° Seismic	108.33	0.0038	0.0007	0.0059	0.0059

DEFLECTIONS AND ROTATIONS

Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
1.2D + 1.0Ev + 1.0Eh 60° Seismic	140.00	0.0059	0.0000	0.0035	0.0035
1.2D + 1.0Ev + 1.0Eh 60° Seismic	150.00	0.0065	0.0000	0.0036	0.0036
1.2D + 1.0Ev + 1.0Eh 60° Seismic	153.33	0.0067	0.0006	0.0046	0.0047
1.2D + 1.0Ev + 1.0Eh 60° Seismic	173.33	0.0078	0.0000	0.0079	0.0079
1.2D + 1.0Ev + 1.0Eh 60° Seismic	228.33	0.0147	0.0008	0.0186	0.0186
1.2D + 1.0Ev + 1.0Eh 60° Seismic	276.67	0.0333	0.0007	0.0238	0.0238
1.2D + 1.0Ev + 1.0Eh 60° Seismic	286.66	0.0372	0.0007	0.0322	0.0322
1.2D + 1.0Ev + 1.0Eh 60° Seismic	288.33	0.0379	0.0007	0.0274	0.0274
1.2D + 1.0Ev + 1.0Eh 60° Seismic	296.67	0.0418	0.0007	0.0288	0.0288
1.2D + 1.0Ev + 1.0Eh 60° Seismic	300.00	0.0434	0.0007	0.0273	0.0273
1.2D + 1.0Ev + 1.0Eh Normal Seismic	108.33	0.0042	0.0007	0.0058	0.0059
1.2D + 1.0Ev + 1.0Eh Normal Seismic	140.00	0.0064	0.0000	0.0036	0.0036
1.2D + 1.0Ev + 1.0Eh Normal Seismic	150.00	0.0069	0.0000	0.0041	0.0041
1.2D + 1.0Ev + 1.0Eh Normal Seismic	153.33	0.0072	0.0006	0.0041	0.0041
1.2D + 1.0Ev + 1.0Eh Normal Seismic	173.33	0.0085	0.0000	0.0093	0.0093
1.2D + 1.0Ev + 1.0Eh Normal Seismic	228.33	0.0155	0.0008	0.0175	0.0175
1.2D + 1.0Ev + 1.0Eh Normal Seismic	276.67	0.0349	0.0007	0.0255	0.0255
1.2D + 1.0Ev + 1.0Eh Normal Seismic	286.66	0.0389	0.0007	0.0379	0.0379
1.2D + 1.0Ev + 1.0Eh Normal Seismic	288.33	0.0397	0.0007	0.0268	0.0268
1.2D + 1.0Ev + 1.0Eh Normal Seismic	296.67	0.0437	0.0007	0.0293	0.0293
1.2D + 1.0Ev + 1.0Eh Normal Seismic	300.00	0.0453	0.0007	0.0285	0.0285
1.2D + 1.0Di + 1.0Wi 330° 30 mph Wind with 0" Radial Ice	108.33	0.019	-0.0010	0.0334	0.0334
1.2D + 1.0Di + 1.0Wi 330° 30 mph Wind with 0" Radial Ice	140.00	0.0282	-0.0003	0.0141	0.0141
1.2D + 1.0Di + 1.0Wi 330° 30 mph Wind with 0" Radial Ice	150.00	0.0302	-0.0002	0.0095	0.0095
1.2D + 1.0Di + 1.0Wi 330° 30 mph Wind with 0" Radial Ice	153.33	0.0307	-0.0007	0.0084	0.0084
1.2D + 1.0Di + 1.0Wi 330° 30 mph Wind with 0" Radial Ice	173.33	0.032	-0.0001	0.0086	0.0086
1.2D + 1.0Di + 1.0Wi 330° 30 mph Wind with 0" Radial Ice	228.33	0.028	0.0008	0.0061	0.0061
1.2D + 1.0Di + 1.0Wi 330° 30 mph Wind with 0" Radial Ice	276.67	0.0347	0.0007	0.0053	0.0053
1.2D + 1.0Di + 1.0Wi 330° 30 mph Wind with 0" Radial Ice	286.66	0.0353	0.0007	0.0189	0.0189
1.2D + 1.0Di + 1.0Wi 330° 30 mph Wind with 0" Radial Ice	288.33	0.0352	0.0007	0.0066	0.0067
1.2D + 1.0Di + 1.0Wi 330° 30 mph Wind with 0" Radial Ice	296.67	0.0362	0.0007	0.0084	0.0084
1.2D + 1.0Di + 1.0Wi 330° 30 mph Wind with 0" Radial Ice	300.00	0.0366	0.0007	0.0061	0.0061
1.2D + 1.0Di + 1.0Wi 300° 30 mph Wind with 0" Radial Ice	108.33	0.0182	-0.0028	0.0271	0.0272
1.2D + 1.0Di + 1.0Wi 300° 30 mph Wind with 0" Radial Ice	140.00	0.0282	-0.0013	0.0143	0.0144
1.2D + 1.0Di + 1.0Wi 300° 30 mph Wind with 0" Radial Ice	150.00	0.0302	-0.0011	0.0091	0.0092
1.2D + 1.0Di + 1.0Wi 300° 30 mph Wind with 0" Radial Ice	153.33	0.0306	-0.0018	0.0085	0.0085
1.2D + 1.0Di + 1.0Wi 300° 30 mph Wind with 0" Radial Ice	173.33	0.0317	-0.0007	0.0087	0.0087
1.2D + 1.0Di + 1.0Wi 300° 30 mph Wind with 0" Radial Ice	228.33	0.0281	-0.0011	0.0045	0.0045
1.2D + 1.0Di + 1.0Wi 300° 30 mph Wind with 0" Radial Ice	276.67	0.0363	0.0009	0.0066	0.0066
1.2D + 1.0Di + 1.0Wi 300° 30 mph Wind with 0" Radial Ice	286.66	0.0371	0.0010	0.0178	0.0179
1.2D + 1.0Di + 1.0Wi 300° 30 mph Wind with 0" Radial Ice	288.33	0.0371	0.0010	0.0081	0.0081
1.2D + 1.0Di + 1.0Wi 300° 30 mph Wind with 0" Radial Ice	296.67	0.0384	0.0009	0.0101	0.0101
1.2D + 1.0Di + 1.0Wi 300° 30 mph Wind with 0" Radial Ice	300.00	0.0389	0.0009	0.0076	0.0076
1.2D + 1.0Di + 1.0Wi 240° 30 mph Wind with 0" Radial Ice	108.33	0.0216	-0.0022	0.0348	0.0348
1.2D + 1.0Di + 1.0Wi 240° 30 mph Wind with 0" Radial Ice	140.00	0.0311	-0.0008	0.0139	0.0139
1.2D + 1.0Di + 1.0Wi 240° 30 mph Wind with 0" Radial Ice	150.00	0.0329	-0.0007	0.0065	0.0065
1.2D + 1.0Di + 1.0Wi 240° 30 mph Wind with 0" Radial Ice	153.33	0.0331	-0.0013	0.0063	0.0063
1.2D + 1.0Di + 1.0Wi 240° 30 mph Wind with 0" Radial Ice	173.33	0.033	-0.0004	0.0071	0.0072
1.2D + 1.0Di + 1.0Wi 240° 30 mph Wind with 0" Radial Ice	228.33	0.0283	-0.0008	0.0054	0.0054
1.2D + 1.0Di + 1.0Wi 240° 30 mph Wind with 0" Radial Ice	276.67	0.0347	0.0006	0.0033	0.0033
1.2D + 1.0Di + 1.0Wi 240° 30 mph Wind with 0" Radial Ice	286.66	0.0348	0.0007	0.0205	0.0205
1.2D + 1.0Di + 1.0Wi 240° 30 mph Wind with 0" Radial Ice	288.33	0.0346	0.0006	0.0037	0.0037
1.2D + 1.0Di + 1.0Wi 240° 30 mph Wind with 0" Radial Ice	296.67	0.0354	0.0006	0.0063	0.0063
1.2D + 1.0Di + 1.0Wi 240° 30 mph Wind with 0" Radial Ice	300.00	0.0356	0.0006	0.0048	0.0048
1.2D + 1.0Di + 1.0Wi 210° 30 mph Wind with 0" Radial Ice	108.33	0.0202	-0.0011	0.0318	0.0318
1.2D + 1.0Di + 1.0Wi 210° 30 mph Wind with 0" Radial Ice	140.00	0.0287	-0.0003	0.0123	0.0123
1.2D + 1.0Di + 1.0Wi 210° 30 mph Wind with 0" Radial Ice	150.00	0.0302	-0.0002	0.0044	0.0044
1.2D + 1.0Di + 1.0Wi 210° 30 mph Wind with 0" Radial Ice	153.33	0.0308	-0.0007	0.0042	0.0042
1.2D + 1.0Di + 1.0Wi 210° 30 mph Wind with 0" Radial Ice	173.33	0.0299	-0.0001	0.0063	0.0063

DEFLECTIONS AND ROTATIONS

Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
1.2D + 1.0Di + 1.0Wi 210° 30 mph Wind with 0" Radial Ice	228.33	0.0264	0.0007	0.0052	0.0053
1.2D + 1.0Di + 1.0Wi 210° 30 mph Wind with 0" Radial Ice	276.67	0.0341	0.0006	0.0059	0.0059
1.2D + 1.0Di + 1.0Wi 210° 30 mph Wind with 0" Radial Ice	286.66	0.0347	0.0006	0.0200	0.02
1.2D + 1.0Di + 1.0Wi 210° 30 mph Wind with 0" Radial Ice	288.33	0.0346	0.0006	0.0070	0.007
1.2D + 1.0Di + 1.0Wi 210° 30 mph Wind with 0" Radial Ice	296.67	0.0357	0.0005	0.0090	0.009
1.2D + 1.0Di + 1.0Wi 210° 30 mph Wind with 0" Radial Ice	300.00	0.0361	0.0005	0.0067	0.0067
1.2D + 1.0Di + 1.0Wi 180° 30 mph Wind with 0" Radial Ice	108.33	0.0191	0.0007	0.0248	0.0249
1.2D + 1.0Di + 1.0Wi 180° 30 mph Wind with 0" Radial Ice	140.00	0.0278	0.0000	0.0118	0.0118
1.2D + 1.0Di + 1.0Wi 180° 30 mph Wind with 0" Radial Ice	150.00	0.0292	0.0000	0.0038	0.0038
1.2D + 1.0Di + 1.0Wi 180° 30 mph Wind with 0" Radial Ice	153.33	0.0297	0.0007	0.0041	0.0041
1.2D + 1.0Di + 1.0Wi 180° 30 mph Wind with 0" Radial Ice	173.33	0.0288	0.0000	0.0061	0.0061
1.2D + 1.0Di + 1.0Wi 180° 30 mph Wind with 0" Radial Ice	228.33	0.0265	0.0009	0.0052	0.0052
1.2D + 1.0Di + 1.0Wi 180° 30 mph Wind with 0" Radial Ice	276.67	0.0353	0.0007	0.0074	0.0074
1.2D + 1.0Di + 1.0Wi 180° 30 mph Wind with 0" Radial Ice	286.66	0.0363	0.0007	0.0186	0.0186
1.2D + 1.0Di + 1.0Wi 180° 30 mph Wind with 0" Radial Ice	288.33	0.0363	0.0007	0.0084	0.0084
1.2D + 1.0Di + 1.0Wi 180° 30 mph Wind with 0" Radial Ice	296.67	0.0376	0.0007	0.0107	0.0107
1.2D + 1.0Di + 1.0Wi 180° 30 mph Wind with 0" Radial Ice	300.00	0.0382	0.0007	0.0082	0.0082
1.2D + 1.0Di + 1.0Wi 120° 30 mph Wind with 0" Radial Ice	108.33	0.0215	0.0022	0.0342	0.0343
1.2D + 1.0Di + 1.0Wi 120° 30 mph Wind with 0" Radial Ice	140.00	0.0307	0.0008	0.0134	0.0134
1.2D + 1.0Di + 1.0Wi 120° 30 mph Wind with 0" Radial Ice	150.00	0.0324	0.0007	0.0060	0.006
1.2D + 1.0Di + 1.0Wi 120° 30 mph Wind with 0" Radial Ice	153.33	0.0326	0.0013	0.0058	0.0058
1.2D + 1.0Di + 1.0Wi 120° 30 mph Wind with 0" Radial Ice	173.33	0.0324	0.0004	0.0071	0.0071
1.2D + 1.0Di + 1.0Wi 120° 30 mph Wind with 0" Radial Ice	228.33	0.0275	0.0008	0.0056	0.0057
1.2D + 1.0Di + 1.0Wi 120° 30 mph Wind with 0" Radial Ice	276.67	0.0338	0.0006	0.0034	0.0035
1.2D + 1.0Di + 1.0Wi 120° 30 mph Wind with 0" Radial Ice	286.66	0.0339	0.0006	0.0190	0.019
1.2D + 1.0Di + 1.0Wi 120° 30 mph Wind with 0" Radial Ice	288.33	0.0338	0.0006	0.0039	0.004
1.2D + 1.0Di + 1.0Wi 120° 30 mph Wind with 0" Radial Ice	296.67	0.0346	0.0006	0.0066	0.0066
1.2D + 1.0Di + 1.0Wi 120° 30 mph Wind with 0" Radial Ice	300.00	0.0349	0.0006	0.0052	0.0052
1.2D + 1.0Di + 1.0Wi 90° 30 mph Wind with 0" Radial Ice	108.33	0.0194	0.0024	0.0324	0.0325
1.2D + 1.0Di + 1.0Wi 90° 30 mph Wind with 0" Radial Ice	140.00	0.0289	0.0009	0.0136	0.0137
1.2D + 1.0Di + 1.0Wi 90° 30 mph Wind with 0" Radial Ice	150.00	0.0307	0.0007	0.0076	0.0077
1.2D + 1.0Di + 1.0Wi 90° 30 mph Wind with 0" Radial Ice	153.33	0.031	0.0012	0.0073	0.0073
1.2D + 1.0Di + 1.0Wi 90° 30 mph Wind with 0" Radial Ice	173.33	0.0313	0.0004	0.0086	0.0086
1.2D + 1.0Di + 1.0Wi 90° 30 mph Wind with 0" Radial Ice	228.33	0.0265	0.0008	0.0051	0.0051
1.2D + 1.0Di + 1.0Wi 90° 30 mph Wind with 0" Radial Ice	276.67	0.0337	0.0006	0.0052	0.0053
1.2D + 1.0Di + 1.0Wi 90° 30 mph Wind with 0" Radial Ice	286.66	0.034	0.0006	0.0186	0.0186
1.2D + 1.0Di + 1.0Wi 90° 30 mph Wind with 0" Radial Ice	288.33	0.0342	0.0006	0.0070	0.007
1.2D + 1.0Di + 1.0Wi 90° 30 mph Wind with 0" Radial Ice	296.67	0.0353	-0.0006	0.0090	0.0091
1.2D + 1.0Di + 1.0Wi 90° 30 mph Wind with 0" Radial Ice	300.00	0.0357	-0.0006	0.0068	0.0069
1.2D + 1.0Di + 1.0Wi 60° 30 mph Wind with 0" Radial Ice	108.33	0.0183	0.0028	0.0267	0.0267
1.2D + 1.0Di + 1.0Wi 60° 30 mph Wind with 0" Radial Ice	140.00	0.028	0.0013	0.0139	0.0139
1.2D + 1.0Di + 1.0Wi 60° 30 mph Wind with 0" Radial Ice	150.00	0.03	0.0011	0.0088	0.0089
1.2D + 1.0Di + 1.0Wi 60° 30 mph Wind with 0" Radial Ice	153.33	0.0303	0.0018	0.0081	0.0081
1.2D + 1.0Di + 1.0Wi 60° 30 mph Wind with 0" Radial Ice	173.33	0.0313	0.0007	0.0087	0.0087
1.2D + 1.0Di + 1.0Wi 60° 30 mph Wind with 0" Radial Ice	228.33	0.0275	0.0011	0.0045	0.0045
1.2D + 1.0Di + 1.0Wi 60° 30 mph Wind with 0" Radial Ice	276.67	0.0354	0.0009	0.0067	0.0067
1.2D + 1.0Di + 1.0Wi 60° 30 mph Wind with 0" Radial Ice	286.66	0.0358	0.0009	0.0185	0.0185
1.2D + 1.0Di + 1.0Wi 60° 30 mph Wind with 0" Radial Ice	288.33	0.0363	-0.0010	0.0084	0.0085
1.2D + 1.0Di + 1.0Wi 60° 30 mph Wind with 0" Radial Ice	296.67	0.0376	0.0009	0.0105	0.0105
1.2D + 1.0Di + 1.0Wi 60° 30 mph Wind with 0" Radial Ice	300.00	0.0381	-0.0009	0.0079	0.008
1.2D + 1.0Di + 1.0Wi Normal 30 mph Wind with 0" Radial Ice	108.33	0.0206	0.0005	0.0355	0.0355
1.2D + 1.0Di + 1.0Wi Normal 30 mph Wind with 0" Radial Ice	140.00	0.0299	0.0000	0.0144	0.0144
1.2D + 1.0Di + 1.0Wi Normal 30 mph Wind with 0" Radial Ice	150.00	0.032	0.0000	0.0100	0.01
1.2D + 1.0Di + 1.0Wi Normal 30 mph Wind with 0" Radial Ice	153.33	0.0325	0.0005	0.0081	0.0081
1.2D + 1.0Di + 1.0Wi Normal 30 mph Wind with 0" Radial Ice	173.33	0.034	0.0000	0.0092	0.0092
1.2D + 1.0Di + 1.0Wi Normal 30 mph Wind with 0" Radial Ice	228.33	0.0292	0.0007	0.0065	0.0065
1.2D + 1.0Di + 1.0Wi Normal 30 mph Wind with 0" Radial Ice	276.67	0.0347	0.0006	0.0030	0.003
1.2D + 1.0Di + 1.0Wi Normal 30 mph Wind with 0" Radial Ice	286.66	0.0348	0.0006	0.0203	0.0203
1.2D + 1.0Di + 1.0Wi Normal 30 mph Wind with 0" Radial Ice	288.33	0.0346	0.0006	0.0036	0.0037

DEFLECTIONS AND ROTATIONS

Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
1.2D + 1.0Di + 1.0Wi Normal 30 mph Wind with 0" Radial Ice	296.67	0.0353	0.0006	0.0058	0.0058
1.2D + 1.0Di + 1.0Wi Normal 30 mph Wind with 0" Radial Ice	300.00	0.0355	0.0006	0.0044	0.0044
1.2D + 1.0W 330° 117 mph Wind with No Ice	108.33	0.4185	0.1203	0.6648	0.6756
1.2D + 1.0W 330° 117 mph Wind with No Ice	140.00	0.624	-0.0071	0.3180	0.3181
1.2D + 1.0W 330° 117 mph Wind with No Ice	150.00	0.6718	-0.0055	0.2256	0.2257
1.2D + 1.0W 330° 117 mph Wind with No Ice	153.33	0.6843	0.0789	0.1973	0.2091
1.2D + 1.0W 330° 117 mph Wind with No Ice	173.33	0.7294	-0.0022	0.1203	0.1203
1.2D + 1.0W 330° 117 mph Wind with No Ice	228.33	0.787	0.0232	0.1878	0.1878
1.2D + 1.0W 330° 117 mph Wind with No Ice	276.67	1.1202	0.0141	0.4024	0.4024
1.2D + 1.0W 330° 117 mph Wind with No Ice	286.66	1.1858	0.0051	0.3557	0.3557
1.2D + 1.0W 330° 117 mph Wind with No Ice	288.33	1.1958	0.0137	0.3919	0.3919
1.2D + 1.0W 330° 117 mph Wind with No Ice	296.67	1.2612	0.0132	0.4556	0.4558
1.2D + 1.0W 330° 117 mph Wind with No Ice	300.00	1.2858	0.0132	0.4313	0.4313
1.2D + 1.0W 300° 117 mph Wind with No Ice	108.33	0.3466	0.0205	0.5224	0.5228
1.2D + 1.0W 300° 117 mph Wind with No Ice	140.00	0.5117	0.0030	0.2622	0.2622
1.2D + 1.0W 300° 117 mph Wind with No Ice	150.00	0.5502	0.0035	0.1719	0.1719
1.2D + 1.0W 300° 117 mph Wind with No Ice	153.33	0.5583	0.0133	0.1470	0.1472
1.2D + 1.0W 300° 117 mph Wind with No Ice	173.33	0.5917	0.0040	0.0978	0.0979
1.2D + 1.0W 300° 117 mph Wind with No Ice	228.33	0.6537	0.0039	0.1901	0.1902
1.2D + 1.0W 300° 117 mph Wind with No Ice	276.67	0.9648	0.0035	0.3601	0.3601
1.2D + 1.0W 300° 117 mph Wind with No Ice	286.66	1.0225	0.0039	0.2858	0.2858
1.2D + 1.0W 300° 117 mph Wind with No Ice	288.33	1.0306	0.0039	0.3506	0.3506
1.2D + 1.0W 300° 117 mph Wind with No Ice	296.67	1.09	0.0037	0.4092	0.4092
1.2D + 1.0W 300° 117 mph Wind with No Ice	300.00	1.1123	0.0037	0.3935	0.3935
1.2D + 1.0W 240° 117 mph Wind with No Ice	108.33	0.5174	0.0598	0.6576	0.6603
1.2D + 1.0W 240° 117 mph Wind with No Ice	140.00	0.7631	0.0430	0.3780	0.3804
1.2D + 1.0W 240° 117 mph Wind with No Ice	150.00	0.82	0.0379	0.2646	0.2673
1.2D + 1.0W 240° 117 mph Wind with No Ice	153.33	0.8332	0.0363	0.2292	0.2308
1.2D + 1.0W 240° 117 mph Wind with No Ice	173.33	0.8867	0.0271	0.1181	0.1212
1.2D + 1.0W 240° 117 mph Wind with No Ice	228.33	0.9376	-0.0108	0.2001	0.2004
1.2D + 1.0W 240° 117 mph Wind with No Ice	276.67	1.304	-0.0073	0.4477	0.4477
1.2D + 1.0W 240° 117 mph Wind with No Ice	286.66	1.377	-0.0076	0.3421	0.3421
1.2D + 1.0W 240° 117 mph Wind with No Ice	288.33	1.3876	-0.0077	0.4340	0.4341
1.2D + 1.0W 240° 117 mph Wind with No Ice	296.67	1.4598	-0.0076	0.4986	0.4986
1.2D + 1.0W 240° 117 mph Wind with No Ice	300.00	1.4872	-0.0074	0.4825	0.4825
1.2D + 1.0W 210° 117 mph Wind with No Ice	108.33	0.4199	0.0519	0.5703	0.5713
1.2D + 1.0W 210° 117 mph Wind with No Ice	140.00	0.6261	0.0360	0.3182	0.3203
1.2D + 1.0W 210° 117 mph Wind with No Ice	150.00	0.6737	0.0314	0.2200	0.2222
1.2D + 1.0W 210° 117 mph Wind with No Ice	153.33	0.6847	0.0300	0.1909	0.1917
1.2D + 1.0W 210° 117 mph Wind with No Ice	173.33	0.7287	0.0217	0.1017	0.104
1.2D + 1.0W 210° 117 mph Wind with No Ice	228.33	0.7851	-0.0083	0.1885	0.1885
1.2D + 1.0W 210° 117 mph Wind with No Ice	276.67	1.1199	-0.0060	0.4041	0.4042
1.2D + 1.0W 210° 117 mph Wind with No Ice	286.66	1.1858	-0.0064	0.3108	0.3108
1.2D + 1.0W 210° 117 mph Wind with No Ice	288.33	1.1952	-0.0065	0.3932	0.3932
1.2D + 1.0W 210° 117 mph Wind with No Ice	296.67	1.2613	-0.0065	0.4569	0.4569
1.2D + 1.0W 210° 117 mph Wind with No Ice	300.00	1.286	-0.0064	0.4336	0.4336
1.2D + 1.0W 180° 117 mph Wind with No Ice	108.33	0.343	0.0110	0.4216	0.4218
1.2D + 1.0W 180° 117 mph Wind with No Ice	140.00	0.4985	0.0000	0.2508	0.2508
1.2D + 1.0W 180° 117 mph Wind with No Ice	150.00	0.5354	0.0000	0.1664	0.1664
1.2D + 1.0W 180° 117 mph Wind with No Ice	153.33	0.5457	0.0047	0.1415	0.1416
1.2D + 1.0W 180° 117 mph Wind with No Ice	173.33	0.5768	0.0000	0.0914	0.0914
1.2D + 1.0W 180° 117 mph Wind with No Ice	228.33	0.6516	0.0004	0.1913	0.1913
1.2D + 1.0W 180° 117 mph Wind with No Ice	276.67	0.9641	-0.0006	0.3602	0.3602
1.2D + 1.0W 180° 117 mph Wind with No Ice	286.66	1.0221	-0.0010	0.2888	0.2888
1.2D + 1.0W 180° 117 mph Wind with No Ice	288.33	1.0307	0.0009	0.3507	0.3507
1.2D + 1.0W 180° 117 mph Wind with No Ice	296.67	1.0897	-0.0010	0.4084	0.4084
1.2D + 1.0W 180° 117 mph Wind with No Ice	300.00	1.1121	0.0011	0.3935	0.3935
1.2D + 1.0W 120° 117 mph Wind with No Ice	108.33	0.5198	-0.0622	0.6590	0.6619
1.2D + 1.0W 120° 117 mph Wind with No Ice	140.00	0.7664	-0.0456	0.3791	0.3819

DEFLECTIONS AND ROTATIONS

Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
1.2D + 1.0W 120° 117 mph Wind with No Ice	150.00	0.8234	-0.0406	0.2656	0.2687
1.2D + 1.0W 120° 117 mph Wind with No Ice	153.33	0.8366	-0.0390	0.2301	0.2323
1.2D + 1.0W 120° 117 mph Wind with No Ice	173.33	0.8905	-0.0297	0.1190	0.1227
1.2D + 1.0W 120° 117 mph Wind with No Ice	228.33	0.9419	0.0129	0.2003	0.2007
1.2D + 1.0W 120° 117 mph Wind with No Ice	276.67	1.309	0.0088	0.4477	0.4478
1.2D + 1.0W 120° 117 mph Wind with No Ice	286.66	1.3822	0.0068	0.3997	0.3998
1.2D + 1.0W 120° 117 mph Wind with No Ice	288.33	1.3927	0.0091	0.4351	0.4352
1.2D + 1.0W 120° 117 mph Wind with No Ice	296.67	1.4651	0.0089	0.4992	0.4992
1.2D + 1.0W 120° 117 mph Wind with No Ice	300.00	1.4925	0.0088	0.4831	0.4831
1.2D + 1.0W 90° 117 mph Wind with No Ice	108.33	0.4137	0.0659	0.6083	0.6084
1.2D + 1.0W 90° 117 mph Wind with No Ice	140.00	0.6397	-0.0082	0.3301	0.3302
1.2D + 1.0W 90° 117 mph Wind with No Ice	150.00	0.689	-0.0083	0.2249	0.2251
1.2D + 1.0W 90° 117 mph Wind with No Ice	153.33	0.6998	0.0376	0.1925	0.1929
1.2D + 1.0W 90° 117 mph Wind with No Ice	173.33	0.744	-0.0083	0.1022	0.1025
1.2D + 1.0W 90° 117 mph Wind with No Ice	228.33	0.7899	0.0072	0.1887	0.1887
1.2D + 1.0W 90° 117 mph Wind with No Ice	276.67	1.1226	0.0029	0.4030	0.4031
1.2D + 1.0W 90° 117 mph Wind with No Ice	286.66	1.1879	0.0025	0.3548	0.3548
1.2D + 1.0W 90° 117 mph Wind with No Ice	288.33	1.1971	-0.0024	0.3936	0.3936
1.2D + 1.0W 90° 117 mph Wind with No Ice	296.67	1.2633	-0.0024	0.4578	0.4578
1.2D + 1.0W 90° 117 mph Wind with No Ice	300.00	1.288	-0.0023	0.4325	0.4325
1.2D + 1.0W 60° 117 mph Wind with No Ice	108.33	0.3487	-0.0204	0.5227	0.5231
1.2D + 1.0W 60° 117 mph Wind with No Ice	140.00	0.5139	-0.0029	0.2621	0.2621
1.2D + 1.0W 60° 117 mph Wind with No Ice	150.00	0.5524	-0.0035	0.1717	0.1717
1.2D + 1.0W 60° 117 mph Wind with No Ice	153.33	0.5604	-0.0133	0.1469	0.1471
1.2D + 1.0W 60° 117 mph Wind with No Ice	173.33	0.5937	-0.0039	0.0975	0.0976
1.2D + 1.0W 60° 117 mph Wind with No Ice	228.33	0.6551	-0.0040	0.1894	0.1895
1.2D + 1.0W 60° 117 mph Wind with No Ice	276.67	0.9655	-0.0035	0.3605	0.3606
1.2D + 1.0W 60° 117 mph Wind with No Ice	286.66	1.0231	-0.0034	0.2868	0.2868
1.2D + 1.0W 60° 117 mph Wind with No Ice	288.33	1.0313	-0.0039	0.3511	0.3511
1.2D + 1.0W 60° 117 mph Wind with No Ice	296.67	1.0907	-0.0037	0.4096	0.4096
1.2D + 1.0W 60° 117 mph Wind with No Ice	300.00	1.1131	-0.0037	0.3939	0.3939
1.2D + 1.0W Normal 117 mph Wind with No Ice	108.33	0.5186	0.1709	0.7171	0.7371
1.2D + 1.0W Normal 117 mph Wind with No Ice	140.00	0.7548	0.0001	0.3689	0.3689
1.2D + 1.0W Normal 117 mph Wind with No Ice	150.00	0.8106	0.0001	0.2684	0.2684
1.2D + 1.0W Normal 117 mph Wind with No Ice	153.33	0.8247	0.1095	0.2348	0.2591
1.2D + 1.0W Normal 117 mph Wind with No Ice	173.33	0.881	0.0000	0.1418	0.1418
1.2D + 1.0W Normal 117 mph Wind with No Ice	228.33	0.9423	-0.0254	0.1977	0.1993
1.2D + 1.0W Normal 117 mph Wind with No Ice	276.67	1.3084	-0.0120	0.4462	0.4462
1.2D + 1.0W Normal 117 mph Wind with No Ice	286.66	1.3815	-0.0108	0.3992	0.3992
1.2D + 1.0W Normal 117 mph Wind with No Ice	288.33	1.3926	-0.0107	0.4323	0.4324
1.2D + 1.0W Normal 117 mph Wind with No Ice	296.67	1.464	-0.0102	0.4957	0.4958
1.2D + 1.0W Normal 117 mph Wind with No Ice	300.00	1.4914	-0.0103	0.4803	0.4803

DETAILED REACTIONS

Load Case	Radius (ft)	Elevation (ft)	Azimuth (deg)	Node	FX* (kip)	FY* (kip)	FZ* (kip)
					*(-) Uplift and (+) Down		
	0.00	0.00		1	0.00	116.32	-0.70
	170.00	-1.00	0	A1	0.00	-0.42	0.90
	170.00	-1.00	240	A1a	-19.71	-15.17	-11.97
1.2D + 1.0W Normal	169.00	0.00	120	A1b	19.71	-15.13	-11.97
	241.00	-1.00	0	A2	0.00	-2.53	1.73
	241.00	-1.00	240	A2a	-20.89	-25.52	-13.43
	240.00	0.00	120	A2b	20.89	-25.53	-13.43
	0.00	0.00		1	-0.75	108.06	-0.43
	170.00	-1.00	0	A1	-0.46	-4.10	6.63
	170.00	-1.00	240	A1a	-23.56	-18.07	-13.61
1.2D + 1.0W 60°	169.00	0.00	120	A1b	5.49	-4.06	-3.69
	241.00	-1.00	0	A2	-1.11	-9.86	8.94
	241.00	-1.00	240	A2a	-26.10	-30.94	-15.08
	240.00	0.00	120	A2b	7.21	-9.89	-5.44
	0.00	0.00		1	-0.73	111.49	-0.17
	170.00	-1.00	0	A1	-0.61	-9.19	14.26
	170.00	-1.00	240	A1a	-23.04	-17.57	-13.04
1.2D + 1.0W 90°	169.00	0.00	120	A1b	1.91	-1.39	-1.33
	241.00	-1.00	0	A2	-1.40	-17.36	16.57
	241.00	-1.00	240	A2a	-25.39	-29.70	-13.97
	240.00	0.00	120	A2b	3.03	-4.70	-2.37
	0.00	0.00		1	-0.61	116.31	0.35
	170.00	-1.00	0	A1	-0.52	-15.19	23.09
	170.00	-1.00	240	A1a	-20.21	-15.17	-11.09
1.2D + 1.0W 120°	169.00	0.00	120	A1b	0.78	-0.41	-0.45
	241.00	-1.00	0	A2	-1.19	-25.49	24.77
	241.00	-1.00	240	A2a	-22.06	-25.51	-11.37
	240.00	0.00	120	A2b	1.50	-2.53	-0.86
	0.00	0.00		1	0.00	108.04	0.88
	170.00	-1.00	0	A1	0.00	-18.06	27.21
	170.00	-1.00	240	A1a	-5.96	-4.08	-2.91
1.2D + 1.0W 180°	169.00	0.00	120	A1b	5.95	-4.07	-2.91
	241.00	-1.00	0	A2	0.00	-30.93	30.13
	241.00	-1.00	240	A2a	-8.31	-9.88	-3.52
	240.00	0.00	120	A2b	8.31	-9.88	-3.52
	0.00	0.00		1	0.22	111.46	0.72
	170.00	-1.00	0	A1	0.24	-17.57	26.49
	170.00	-1.00	240	A1a	-2.12	-1.40	-0.99
1.2D + 1.0W 210°	169.00	0.00	120	A1b	12.62	-9.15	-6.60
	241.00	-1.00	0	A2	0.61	-29.68	28.95
	241.00	-1.00	240	A2a	-3.59	-4.72	-1.44
	240.00	0.00	120	A2b	15.04	-17.36	-7.08
	0.00	0.00		1	0.61	116.19	0.35
	170.00	-1.00	0	A1	0.52	-15.18	23.07
	170.00	-1.00	240	A1a	-0.78	-0.42	-0.45
1.2D + 1.0W 240°	169.00	0.00	120	A1b	20.20	-15.12	-11.09
	241.00	-1.00	0	A2	1.19	-25.45	24.74
	241.00	-1.00	240	A2a	-1.51	-2.54	-0.87
	240.00	0.00	120	A2b	22.03	-25.48	-11.36
	0.00	0.00		1	0.75	108.16	-0.44
	170.00	-1.00	0	A1	0.46	-4.12	6.67
	170.00	-1.00	240	A1a	-5.52	-4.10	-3.71
1.2D + 1.0W 300°	169.00	0.00	120	A1b	23.59	-18.04	-13.63
	241.00	-1.00	0	A2	1.11	-9.88	8.96
	241.00	-1.00	240	A2a	-7.22	-9.91	-5.45
	240.00	0.00	120	A2b	26.12	-30.98	-15.09
	0.00	0.00		1	0.51	111.55	-0.55
1.2D + 1.0W 330°	170.00	-1.00	0	A1	0.20	-1.41	2.34
	170.00	-1.00	240	A1a	-12.03	-9.18	-7.63

DETAILED REACTIONS

Load Case	Radius (ft)	Elevation (ft)	Azimuth (deg)	Node	FX* (kip)	FY* (kip)	FZ* (kip)
					*(-) Uplift and (+) Down		
	169.00	0.00	120	A1b	22.83	-17.54	-13.46
	241.00	-1.00	0	A2	0.54	-4.71	3.82
	241.00	-1.00	240	A2a	-13.69	-17.40	-9.51
	240.00	0.00	120	A2b	24.81	-29.74	-15.02
	0.00	0.00		1	0.00	81.07	-0.09
	170.00	-1.00	0	A1	0.00	-5.96	10.21
	170.00	-1.00	240	A1a	-10.25	-7.09	-5.95
1.2D + 1.0Di + 1.0Wi Normal	169.00	0.00	120	A1b	10.25	-7.06	-5.95
	241.00	-1.00	0	A2	0.00	-8.72	8.58
	241.00	-1.00	240	A2a	-8.76	-10.32	-5.14
	240.00	0.00	120	A2b	8.76	-10.32	-5.14
	0.00	0.00		1	-0.07	80.87	-0.04
	170.00	-1.00	0	A1	-0.03	-6.36	10.78
	170.00	-1.00	240	A1a	-10.65	-7.40	-6.15
1.2D + 1.0Di + 1.0Wi 60°	169.00	0.00	120	A1b	9.31	-6.33	-5.41
	241.00	-1.00	0	A2	-0.07	-9.24	9.08
	241.00	-1.00	240	A2a	-9.15	-10.74	-5.29
	240.00	0.00	120	A2b	7.84	-9.26	-4.61
	0.00	0.00		1	-0.09	80.97	0.00
	170.00	-1.00	0	A1	-0.04	-6.71	11.30
	170.00	-1.00	240	A1a	-10.56	-7.32	-6.08
1.2D + 1.0Di + 1.0Wi 90°	169.00	0.00	120	A1b	8.99	-6.07	-5.20
	241.00	-1.00	0	A2	-0.09	-9.76	9.60
	241.00	-1.00	240	A2a	-9.09	-10.64	-5.21
	240.00	0.00	120	A2b	7.56	-8.91	-4.40
	0.00	0.00		1	-0.08	81.07	0.04
	170.00	-1.00	0	A1	-0.03	-7.09	11.86
	170.00	-1.00	240	A1a	-10.28	-7.09	-5.90
1.2D + 1.0Di + 1.0Wi 120°	169.00	0.00	120	A1b	8.83	-5.93	-5.10
	241.00	-1.00	0	A2	-0.07	-10.30	10.15
	241.00	-1.00	240	A2a	-8.83	-10.32	-5.02
	240.00	0.00	120	A2b	7.44	-8.74	-4.29
	0.00	0.00		1	0.00	80.87	0.08
	170.00	-1.00	0	A1	0.00	-7.40	12.31
	170.00	-1.00	240	A1a	-9.34	-6.35	-5.36
1.2D + 1.0Di + 1.0Wi 180°	169.00	0.00	120	A1b	9.34	-6.33	-5.36
	241.00	-1.00	0	A2	0.00	-10.72	10.56
	241.00	-1.00	240	A2a	-7.91	-9.26	-4.48
	240.00	0.00	120	A2b	7.91	-9.26	-4.48
	0.00	0.00		1	0.04	80.97	0.07
	170.00	-1.00	0	A1	0.01	-7.32	12.20
	170.00	-1.00	240	A1a	-9.00	-6.09	-5.18
1.2D + 1.0Di + 1.0Wi 210°	169.00	0.00	120	A1b	9.79	-6.68	-5.61
	241.00	-1.00	0	A2	0.04	-10.63	10.46
	241.00	-1.00	240	A2a	-7.59	-8.90	-4.34
	240.00	0.00	120	A2b	8.37	-9.77	-4.73
	0.00	0.00		1	0.08	81.07	0.04
	170.00	-1.00	0	A1	0.03	-7.09	11.86
	170.00	-1.00	240	A1a	-8.83	-5.96	-5.10
1.2D + 1.0Di + 1.0Wi 240°	169.00	0.00	120	A1b	10.28	-7.06	-5.90
	241.00	-1.00	0	A2	0.07	-10.30	10.15
	241.00	-1.00	240	A2a	-7.44	-8.74	-4.29
	240.00	0.00	120	A2b	8.83	-10.32	-5.02
	0.00	0.00		1	0.07	80.87	-0.04
	170.00	-1.00	0	A1	0.03	-6.36	10.78
	170.00	-1.00	240	A1a	-9.31	-6.36	-5.41
1.2D + 1.0Di + 1.0Wi 300°	169.00	0.00	120	A1b	10.65	-7.37	-6.15
	241.00	-1.00	0	A2	0.07	-9.24	9.08
	241.00	-1.00	240	A2a	-7.84	-9.26	-4.61

DETAILED REACTIONS

Load Case	Radius (ft)	Elevation (ft)	Azimuth (deg)	Node	FX* (kip)	FY* (kip)	FZ* (kip)
					*(-) Uplift and (+) Down		
	240.00	0.00	120	A2b	9.16	-10.74	-5.29
	0.00	0.00		1	0.04	80.97	-0.07
	170.00	-1.00	0	A1	0.01	-6.10	10.40
	170.00	-1.00	240	A1a	-9.76	-6.71	-5.68
1.2D + 1.0Di + 1.0Wi 330°	169.00	0.00	120	A1b	10.55	-7.29	-6.11
	241.00	-1.00	0	A2	0.04	-8.89	8.73
	241.00	-1.00	240	A2a	-8.28	-9.77	-4.88
	240.00	0.00	120	A2b	9.06	-10.64	-5.27
	0.00	0.00		1	0.00	75.48	0.00
	170.00	-1.00	0	A1	0.00	-5.58	9.37
	170.00	-1.00	240	A1a	-8.33	-5.77	-4.81
1.2D + 1.0Ev + 1.0Eh Normal	169.00	0.00	120	A1b	8.33	-5.75	-4.81
	241.00	-1.00	0	A2	0.00	-8.23	8.18
	241.00	-1.00	240	A2a	-7.73	-9.06	-4.46
	240.00	0.00	120	A2b	7.73	-9.06	-4.46
	0.00	0.00		1	0.00	75.48	0.00
	170.00	-1.00	0	A1	0.00	-5.64	9.45
	170.00	-1.00	240	A1a	-8.40	-5.83	-4.85
1.2D + 1.0Ev + 1.0Eh 60°	169.00	0.00	120	A1b	8.18	-5.62	-4.72
	241.00	-1.00	0	A2	0.00	-8.51	8.43
	241.00	-1.00	240	A2a	-7.94	-9.33	-4.58
	240.00	0.00	120	A2b	7.30	-8.51	-4.21
	0.00	0.00		1	0.00	75.48	0.00
	170.00	-1.00	0	A1	0.00	-5.71	9.53
	170.00	-1.00	240	A1a	-8.38	-5.82	-4.84
1.2D + 1.0Ev + 1.0Eh 90°	169.00	0.00	120	A1b	8.13	-5.58	-4.69
	241.00	-1.00	0	A2	0.00	-8.78	8.67
	241.00	-1.00	240	A2a	-7.88	-9.26	-4.55
	240.00	0.00	120	A2b	7.14	-8.31	-4.12
	0.00	0.00		1	0.00	75.48	0.00
	170.00	-1.00	0	A1	0.00	-5.77	9.61
	170.00	-1.00	240	A1a	-8.33	-5.77	-4.81
1.2D + 1.0Ev + 1.0Eh 120°	169.00	0.00	120	A1b	8.11	-5.56	-4.68
	241.00	-1.00	0	A2	0.00	-9.06	8.92
	241.00	-1.00	240	A2a	-7.73	-9.06	-4.46
	240.00	0.00	120	A2b	7.08	-8.24	-4.09
	0.00	0.00		1	0.00	75.48	0.00
	170.00	-1.00	0	A1	0.00	-5.83	9.70
	170.00	-1.00	240	A1a	-8.18	-5.64	-4.72
1.2D + 1.0Ev + 1.0Eh 180°	169.00	0.00	120	A1b	8.18	-5.62	-4.72
	241.00	-1.00	0	A2	0.00	-9.33	9.17
	241.00	-1.00	240	A2a	-7.30	-8.51	-4.21
	240.00	0.00	120	A2b	7.30	-8.51	-4.21
	0.00	0.00		1	0.00	75.48	0.00
	170.00	-1.00	0	A1	0.00	-5.82	9.68
	170.00	-1.00	240	A1a	-8.13	-5.60	-4.69
1.2D + 1.0Ev + 1.0Eh 210°	169.00	0.00	120	A1b	8.26	-5.69	-4.77
	241.00	-1.00	0	A2	0.00	-9.26	9.10
	241.00	-1.00	240	A2a	-7.14	-8.31	-4.12
	240.00	0.00	120	A2b	7.51	-8.79	-4.34
	0.00	0.00		1	0.00	75.48	0.00
	170.00	-1.00	0	A1	0.00	-5.77	9.61
	170.00	-1.00	240	A1a	-8.11	-5.58	-4.68
1.2D + 1.0Ev + 1.0Eh 240°	169.00	0.00	120	A1b	8.33	-5.75	-4.81
	241.00	-1.00	0	A2	0.00	-9.06	8.92
	241.00	-1.00	240	A2a	-7.08	-8.23	-4.09
	240.00	0.00	120	A2b	7.73	-9.06	-4.46
1.2D + 1.0Ev + 1.0Eh 300°	0.00	0.00		1	0.00	75.48	0.00
	170.00	-1.00	0	A1	0.00	-5.65	9.45

DETAILED REACTIONS

Load Case	Radius (ft)	Elevation (ft)	Azimuth (deg)	Node	FX* (kip)	FY* (kip)	FZ* (kip)
					*(-) Uplift and (+) Down		
	170.00	-1.00	240	A1a	-8.18	-5.65	-4.72
	169.00	0.00	120	A1b	8.40	-5.81	-4.85
	241.00	-1.00	0	A2	0.00	-8.51	8.43
	241.00	-1.00	240	A2a	-7.30	-8.51	-4.21
	240.00	0.00	120	A2b	7.94	-9.34	-4.59
	0.00	0.00		1	0.00	75.48	0.00
	170.00	-1.00	0	A1	0.00	-5.60	9.39
	170.00	-1.00	240	A1a	-8.26	-5.71	-4.77
1.2D + 1.0Ev + 1.0Eh 330°	169.00	0.00	120	A1b	8.38	-5.80	-4.84
	241.00	-1.00	0	A2	0.00	-8.31	8.25
	241.00	-1.00	240	A2a	-7.51	-8.78	-4.34
	240.00	0.00	120	A2b	7.88	-9.27	-4.55
	0.00	0.00		1	0.00	72.61	-0.32
	170.00	-1.00	0	A1	0.00	-3.20	5.85
	170.00	-1.00	240	A1a	-10.14	-7.25	-6.00
1.0D + 1.0W Service Normal	169.00	0.00	120	A1b	10.14	-7.22	-6.00
	241.00	-1.00	0	A2	0.00	-5.30	5.19
	241.00	-1.00	240	A2a	-9.47	-11.23	-5.80
	240.00	0.00	120	A2b	9.47	-11.24	-5.80
	0.00	0.00		1	-0.25	73.11	-0.14
	170.00	-1.00	0	A1	-0.12	-4.66	7.95
	170.00	-1.00	240	A1a	-11.56	-8.35	-6.68
1.0D + 1.0W Service 60°	169.00	0.00	120	A1b	6.82	-4.64	-4.07
	241.00	-1.00	0	A2	-0.29	-7.66	7.45
	241.00	-1.00	240	A2a	-11.24	-13.18	-6.49
	240.00	0.00	120	A2b	6.32	-7.67	-3.98
	0.00	0.00		1	-0.30	72.83	0.00
	170.00	-1.00	0	A1	-0.15	-5.87	9.76
	170.00	-1.00	240	A1a	-11.24	-8.06	-6.43
1.0D + 1.0W Service 90°	169.00	0.00	120	A1b	5.64	-3.68	-3.32
	241.00	-1.00	0	A2	-0.36	-9.38	9.21
	241.00	-1.00	240	A2a	-10.87	-12.63	-6.11
	240.00	0.00	120	A2b	5.10	-6.14	-3.11
	0.00	0.00		1	-0.28	72.60	0.16
	170.00	-1.00	0	A1	-0.12	-7.24	11.78
	170.00	-1.00	240	A1a	-10.25	-7.24	-5.78
1.0D + 1.0W Service 120°	169.00	0.00	120	A1b	5.05	-3.17	-2.91
	241.00	-1.00	0	A2	-0.29	-11.22	11.09
	241.00	-1.00	240	A2a	-9.76	-11.23	-5.30
	240.00	0.00	120	A2b	4.51	-5.31	-2.60
	0.00	0.00		1	0.00	73.10	0.29
	170.00	-1.00	0	A1	0.00	-8.35	13.36
	170.00	-1.00	240	A1a	-6.94	-4.66	-3.87
1.0D + 1.0W Service 180°	169.00	0.00	120	A1b	6.94	-4.64	-3.87
	241.00	-1.00	0	A2	0.00	-13.17	12.97
	241.00	-1.00	240	A2a	-6.61	-7.67	-3.48
	240.00	0.00	120	A2b	6.61	-7.67	-3.48
	0.00	0.00		1	0.15	72.82	0.26
	170.00	-1.00	0	A1	0.06	-8.06	12.96
	170.00	-1.00	240	A1a	-5.71	-3.70	-3.23
1.0D + 1.0W Service 210°	169.00	0.00	120	A1b	8.52	-5.85	-4.75
	241.00	-1.00	0	A2	0.14	-12.60	12.44
	241.00	-1.00	240	A2a	-5.26	-6.15	-2.87
	240.00	0.00	120	A2b	8.16	-9.39	-4.30
	0.00	0.00		1	0.28	72.62	0.16
	170.00	-1.00	0	A1	0.12	-7.25	11.79
1.0D + 1.0W Service 240°	170.00	-1.00	240	A1a	-5.06	-3.19	-2.92
	169.00	0.00	120	A1b	10.26	-7.22	-5.79
	241.00	-1.00	0	A2	0.29	-11.22	11.09

DETAILED REACTIONS

Load Case	Radius (ft)	Elevation (ft)	Azimuth (deg)	Node	FX* (kip)	FY* (kip)	FZ* (kip)
					(-) Uplift and (+) Down		
	241.00	-1.00	240	A2a	-4.51	-5.31	-2.60
	240.00	0.00	120	A2b	9.76	-11.24	-5.30
	0.00	0.00		1	0.25	73.14	-0.14
	170.00	-1.00	0	A1	0.12	-4.67	7.96
	170.00	-1.00	240	A1a	-6.83	-4.66	-4.08
1.0D + 1.0W Service 300°	169.00	0.00	120	A1b	11.57	-8.33	-6.68
	241.00	-1.00	0	A2	0.29	-7.66	7.46
	241.00	-1.00	240	A2a	-6.32	-7.67	-3.98
	240.00	0.00	120	A2b	11.24	-13.19	-6.49
	0.00	0.00		1	0.15	72.85	-0.26
	170.00	-1.00	0	A1	0.05	-3.70	6.57
	170.00	-1.00	240	A1a	-8.38	-5.88	-5.01
1.0D + 1.0W Service 330°	169.00	0.00	120	A1b	11.20	-8.04	-6.53
	241.00	-1.00	0	A2	0.14	-6.13	5.97
	241.00	-1.00	240	A2a	-7.81	-9.39	-4.92
	240.00	0.00	120	A2b	10.73	-12.64	-6.36

MAXIMUM GUY ANCHOR REACTIONS

Radius (ft)	Drop (ft)	Azimuth (deg)	Uplift (kip)	Shear (kip)
169.00	0.00	120	18.04	27.25
170.00	-1.00	0	18.06	27.21
170.00	-1.00	240	18.07	27.21
240.00	0.00	120	30.98	30.17
241.00	-1.00	0	30.93	30.13
241.00	-1.00	240	30.94	30.15

MAXIMUM REACTIONS SUMMARY

Base / Anchor Group	Vertical Load *(Compression for Base; Uplift for Anchor)*	Horizontal Shear
Guyed – Pivot Base	116.32 (kip)	0.88 (kip)
Guyed Anchor - A1	18.07 (kip)	27.25 (kip)
Guyed Anchor - A2	30.98 (kip)	30.17 (kip)