AMERICAN TOWER®
CORPORATION

Structural Analysis Report

Structure	:	190 ft Self Support Tower
ATC Asset Name	:	Black Forest
ATC Asset Number	:	302460
Engineering Number	:	14885770_C3_01
Proposed Carrier	:	VERIZON WIRELESS
Carrier Site Name	:	BLACK FOREST
Carrier Site Number	:	5000265154
Site Location	:	4584 Hodgen Road COLORADO SPRINGS, CO 80908-3006 39.0712° N, 104.7432° W
County	:	El Paso
Date	:	October 10, 2024
Max Usage	:	70%
Analysis Result	:	Pass

Michael Deese Digitally signed by Michael Deese
Date: 2024.10.10 18:17:21 -04'00'

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Introduction

The purpose of this report is to summarize results of a structural analysis performed on the 190 ft Self Support tower to reflect the change in loading by VERIZON WIRELESS.

Supporting Documents

Tower:	Pirod Drawing #200180-B, dated March 23, 1995
Foundation:	Pirod Drawing #200180-B, dated March 23, 1995
Geotechnical:	GSI Job #2208252, dated April 4, 1995
Modification:	ATC Job #13317685_C6_04, dated December 8, 2020

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:	101 mph (3-second gust, Vasd) / 130 mph (3-second gust, Vult)
Basic Wind Speed w/ Ice:	No Ice Considered
Code(s):	ANSI/TIA-222-G / 2015 IBC
Structure Class:	II
Exposure Category:	C
Topographic Category:	1
Crest Height:	0 ft
Spectral Response:	Ss = 0.18, S_1 = 0.06
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	67.6%	User Input	Section 6	Pass
Diagonal	69.6%	Block Shear	Section 10	Pass
Horizontal	20.3%	Member Z	Section 12	Pass
Bolt	57.0%	-	Section 6	Pass
Serviceability Usage	10.1%	Rotation	Elevation 170 ft	Pass
Foundation	65.4%	Down	Base	Pass
Foundation	56.9%	Shear	Base	Pass
Foundation	60.5%	Uplift	Base	Pass

Maximum Reactions

Foundation	Moment (k-ft)	Axial (k)	Uplift (k)	Shear (k)
Self Support Base (Global)	5,553.8	66.8	-	50.7
Self Support Base (Local)	-	342.9	292.9	33.7

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-G, Section 15.5.1

VERIZON WIRELESS Final Loading

Elev (ft)	Qty	Equipment	Lines
158.0	2	Raycap RCMDC-6627-PF-48	(2) 1 5/8" Hybriflex
	3	Ericsson AIR 6419 B77D	
	3	Ericsson Radio 4449 - B13&B5	
	3	Ericsson Radio 4890HP 48B2 48B66 S	
	6	Commscope NHH-65B-R2B	

Install proposed lines in the place of the existing VERIZON WIRELESS lines.

Other Existing/Reserved Loading

Elev (ft)	Qty	Equipment	Lines	Carrier
190.2	3	Raycap DC9-48-60-24-8C-EV	(3) 0.39" (10mm) Fiber Trunk (6) 0.92" (23.4mm) Cable	AT&T MOBILITY
186.0	3	Nokia AHCA AirScale RRH 4T4R B5 160W	-	AT&T MOBILITY
	3	Nokia AHLBBA		
	3	Nokia AirScale Dual RRH 4T4R B25/66 320W AHFIB (66.1lbs)		
	6	Commscope NNH4-65C-R6-V3 (102.5 lbs)		
	3	Light Sector Frame	-	-
175.0	3	Light Sector Frame	-	-
	1	Commscope RDIDC-9181-PF-48	(1) 1.75" (44.5mm) Hybrid	DISH WIRELESS L.L.C.
	3	Fujitsu TA08025-B604		
	3	Fujitsu TA08025-B605		
	3	JMA Wireless MX08FRO665-21		
170.0	3	Light Sector Frame	-	-
169.9	-	-	(9) 1 5/8" Coax	SPRINT NEXTEL
165.0	3	T-Arm	-	WINDFIELD ENTERPRISES
	1	Cambium Networks PTP 58500	(8) 0.24" (6mm) Cat 5	WINDFIELD ENTERPRISES,LLC
	7	Cambium Networks PMP 450m		
163.8	-	-	(13) 0.24" (6.1mm) Cat 5e	WINDFIELD ENTERPRISES,LLC
161.7	1	Cambium Networks PMP 450m	-	WINDFIELD ENTERPRISES,LLC
158.0	1	Heavy Sector Frame	-	-
	3	Sector Frame		
148.0	1	Ceragon IP-20C	-	WINDFIELD ENTERPRISES,LLC
147.5	-	-	(1) 0.24" (6mm) Cat 5	WINDFIELD ENTERPRISES,LLC
147.4	1	Radio Waves HP3-6	-	WINDFIELD ENTERPRISES,LLC
147.0	1	Radio Waves SPD3-5.2NS-RD	(2) 0.24" (6mm) Cat 5	WINDFIELD ENTERPRISES,LLC
141.0	1	Andrew HP6-59/K	(1) EW63	XCEL ENERGY INC.
132.0	2	Commscope HELIAX FiberFeed 12 RRU Pendant Connect	(2) 1.46" (37.1mm) Hybrid	T-MOBILE
	3	Commscope FFVV-65C-R3-V1		
	3	Nokia AEHC		
	3	Nokia AHFIG		
	3	Nokia AirScale Dual RRH 4T4R B12/71 240W AHLOA		

Elev (ft)	Qty	Equipment	Lines	Carrier
129.5	3	Sector Frame	-	T-MOBILE
117.3	1	20' Omni	-	XCEL ENERGY INC.
117.1	-	-	(1) 7/8" Coax	XCEL ENERGY INC.
111.0	1	Andrew PL4-59-P7A/F	(1) EW63	XCEL ENERGY INC.
90.0	1	Scala 2XCA2-CP	(1) 7/8" Coax	HOPE MEDIA GROUP
57.3	2	Samsung RRH-C2A (w/ External Filter)	-	SPRINT NEXTEL
55.7	-	-	(2) 1 1/4" Hybriflex Cable	SPRINT NEXTEL
55.5	2	KMW ET-X-WM-18-65-8P	-	SPRINT NEXTEL
55.0	2	Light Sector Frame	-	SPRINT NEXTEL
	2	Samsung 8T8R RRH – RRH-B8		
54.9	2	KMW ET-X-TS-70-15-62-18-iR-RD	-	SPRINT NEXTEL
54.5	2	Samsung 1.9GHz RRH	-	SPRINT NEXTEL
50.0	1	Andrew Microwaves HP6-65/K	(1) EW63	XCEL ENERGY INC.
21.0	-	-	(2) 1/2" Coax	SPRINT NEXTEL
	1	Standoff	-	-
20.7	2	GPS	-	SPRINT NEXTEL
19.3	1	L-com HG5833D w/ Radome	-	WINDFIELD ENTERPRISES,LLC
18.0	1	Ceragon IP-20C	(2) 0.24" (6mm) Cat 5	WINDFIELD ENTERPRISES,LLC
	1	Radio Waves HP2-11		

(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.

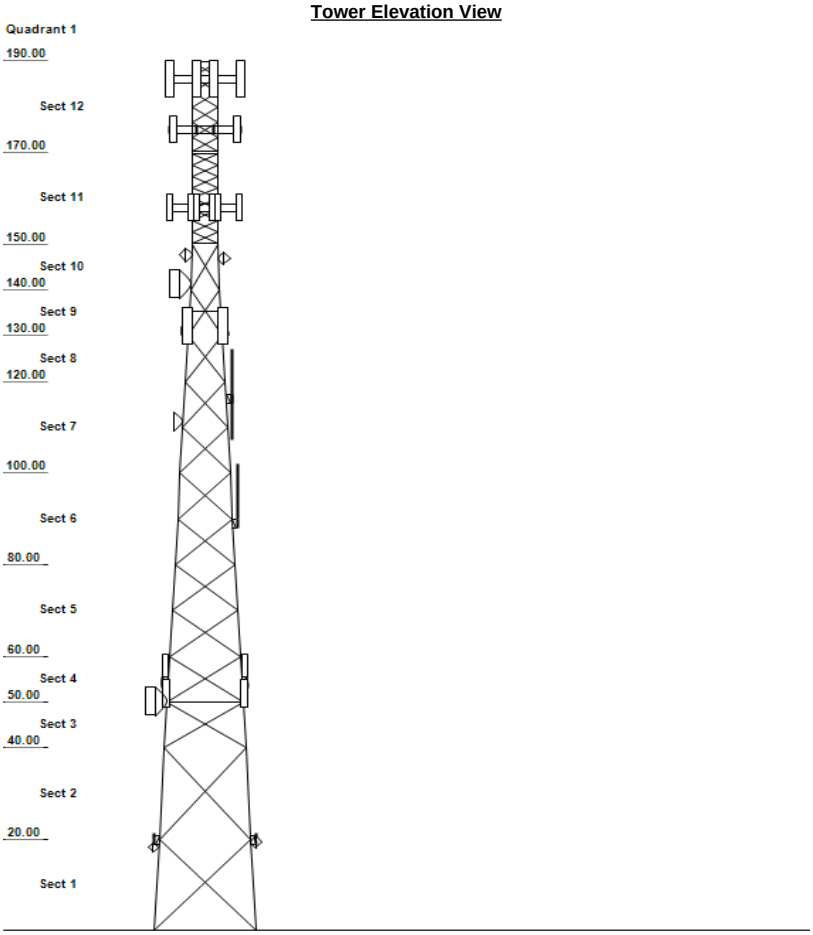
All services are performed, results obtained, and recommendations made in accordance with generally accepted engineering principles and practices. ATC Tower Services LLC is not responsible for the conclusions, opinions and recommendations made by others based on the information supplied herein.

ASSET: Black Forest, 302460 CODE: ANSI/TIA-222-G
CUSTOMER: VERIZON WIRELESS PROJECT: 14885770

ANALYSIS PARAMETERS

Design Wind:	90 mph	**Ice Wind:**	50 mph w/ 0.00" ice	**Service Wind:**	60 mph
Structure Class:	II	**Exposure:**	C	**S_s:** 0.179	**S_1:** 0.059
				Topo Category:	**1**
Structure Height:	190 ft	**Base Elevation:**	0 ft	**Shape:**	Triangle
Base Width:	20.00 ft	**Top Width:**	5.00 ft		

Tower Elevation View



GLOBAL BASE REACTIONS

	DL+WL	DL+WL+IL
Moment (k-ft):	5,553.84	1,171.91
Axial (k):	66.81	66.81
Shear (k):	50.67	10.97

INDIVIDUAL BASE REACTIONS

Comp (k):	342.92
Uplift (k):	292.90
Shear (k):	33.68

TOWER SECTION PROPERTIES

Section	Leg Members	Diagonal Members	Horizontal Members
1	18B 50 ksi 18"BD 2.5"	DAE 36 ksi 3.5X3.5X0.3125	
2	18B 50 ksi 18" BD 2.25"	DAE 36 ksi 3.5X3.5X0.3125	
3	12B 50 ksi 12"BD 2.25"	SAE 36 ksi 4X4X0.25	SAE 36 ksi 4X4X0.25
4	12B 50 ksi 12"BD 2.25"	SAE 36 ksi 4X4X0.25	
5	12B 50 ksi 12"BD 2"	SAE 36 ksi 3.5X3.5X0.3125	
6	12B 50 ksi 12"BD 1.75"	SAE 36 ksi 3X3X0.3125	
7	12B 50 ksi 12"BD 1.75"	SAE 36 ksi 3X3X0.1875	
8 - 9	12B 50 ksi 12"BD 1.5"	SAE 36 ksi 3X3X0.1875	
10	12B 50 ksi 12"BD 1.25"	SAE 36 ksi 3X3X0.1875	
11	SOL 50 ksi 2" SOLID	SOL 50 ksi 1" SOLID	SOL 50 ksi 1" SOLID
12	SOL 50 ksi 2" SOLID	SAE 36 ksi 1.75X1.75X0.1875	SAE 36 ksi 1.75X1.75X0.1875

SECONDARY BRACING MEMBERS

Section	Sub Diagonal 1	Sub Diagonal 2	Sub Diagonal 3
9	-	-	-

Section	Sub Horizontal 1	Sub Horizontal 2	Sub Horizontal 3
9	S3X3X0.1875	-	-

DISCRETE APPURTENANCE

Elev (ft)	Description
190.2	(3) Raycap DC9-48-60-24-8C-EV
186.0	(6) Commscope NNH4-65C-R6-V3 (102.5
186.0	(3) Generic Flat Light Sector Frame
186.0	(3) Nokia AHCA AirScale RRH 4T4R B5 1
186.0	(3) Nokia AHLBBA
186.0	(3) Nokia AirScale Dual RRH 4T4R B25/6
175.0	(3) Generic Flat Light Sector Frame
175.0	(3) Fujitsu TA08025-B605
175.0	(3) JMA Wireless MX08FRO665-21
175.0	(1) Commscope RDIDC-9181-PF-48
175.0	(3) Fujitsu TA08025-B604
170.0	(3) Flat Light Sector Frame
165.0	(1) Cambium Networks PTP 58500
165.0	(7) Cambium Networks PMP 450m
165.0	(3) Generic Flat T-Arm
161.7	(1) Cambium Networks PMP 450m
158.0	(3) Ericsson Radio 4890HP 48B2 48B66
158.0	(2) Raycap RCMDC-6627-PF-48
158.0	(3) Ericsson AIR 6419 B77D
158.0	(3) Ericsson Radio 4449 - B13&B5
158.0	(6) Commscope NHH-65B-R2B
158.0	(3) Generic Round Sector Frame
158.0	(1) Heavy Sector Frame
148.0	(1) Ceragon IP-20C
147.4	(1) Radio Waves HP3-6
147.0	(1) Radio Waves SPD3-5.2NS-RD
141.0	(1) Andrew HP6-59/K
132.0	(2) Commscope HELIAX FiberFeed 12 R
132.0	(3) Nokia AEHC
132.0	(3) Nokia AHFIG
132.0	(3) Commscope FFVV-65C-R3-V1
132.0	(3) Nokia AirScale Dual RRH 4T4R B12/7
129.5	(3) Round Sector Frame
117.3	(1) Generic 20' Omni
111.0	(1) Andrew PL4-59-P7A/F
90.0	(1) Scala 2XCA2-CP
57.3	(2) Samsung RRH-C2A (w/ External Filter
55.5	(2) KMW ET-X-WM-18-65-8P
55.0	(2) Samsung 8T8R RRH – RRH-B8
55.0	(2) Generic Flat Light Sector Frame
54.9	(2) KMW ET-X-TS-70-15-62-18-iR-RD
54.5	(2) Samsung 1.9GHz RRH
50.0	(1) Andrew Microwaves HP6-65/K
21.0	(1) Standoff
20.7	(2) Generic GPS
19.3	(1) L-com HG5833D w/ Radome

LINEAR APPURTENANCE

Elev (ft)	Description
190.2	(6) 0.92" (23.4mm) Cable
190.2	(3) 0.39" (10mm) Fiber Trunk
186.0	(1) Waveguide
175.0	(1) 1.75" (44.5mm) Hybrid
170.0	(1) Climbing Ladder
169.9	(9) 1 5/8" Coax
165.0	(8) 0.24" (6mm) Cat 5
163.8	(13) 0.24" (6.1mm) Cat 5e
158.0	(2) 1 5/8" Hybriflex
147.5	(1) 0.24" (6mm) Cat 5
147.0	(2) 0.24" (6mm) Cat 5
141.0	(1) EW63
132.0	(2) 1.46" (37.1mm) Hybrid
132.0	(1) Waveguide
117.1	(1) 7/8" Coax
111.0	(1) EW63
90.0	(1) 7/8" Coax
55.7	(2) 1 1/4" Hybriflex Cable
50.0	(1) EW63
21.0	(2) 1/2" Coax
18.0	(2) 0.24" (6mm) Cat 5

DISCRETE APPURTENANCE

Elev (ft)	Description
18.0	(1) Radio Waves HP2-11
18.0	(1) Ceragon IP-20C

ANALYSIS PARAMETERS

Location:	El Paso County, CO	**Height:**	190 ft
Type and Shape:	Self Support, Triangle	**Base Elevation:**	0.00 ft
Manufacturer:	Pirod	**Bottom Face Width:**	20.00 ft
		Top Face Width:	5.00 ft
		Anchor Bolt Detail Type:	d

ICE & WIND PARAMETERS

Structure Class:	II	**Design Wind Speed Without Ice:**	90 mph
Exposure Category:	C	**Design Wind Speed with Ice:**	50 mph
Topographic Category:	1	**Operational Windspeed:**	60 mph
Crest Height:	0 ft	**Design Ice Thickness:**	0.00 in

SEISMIC PARAMETERS

Analysis Method:	Equivalent Modal Analysis & Equivalent Lateral Force Methods				
Site Class:	D - Stiff Soil			**Period Based on Rayleigh Method (sec):**	1.10
T_L (sec):	4	**P:**	1.3	**C_s:**	0.030
S_{ds}:	0.191	**S_{d1}:**	0.094	**C_s Max:**	0.030
S_s:	0.179	**S_1:**	0.059	**C_s Min:**	0.030
F_a:	1.600	**F_v:**	2.400		

LOAD CASES

1.2D + 1.6W Normal	1.2D + 1.6W Normal - 90 mph Wind with No Ice
1.2D + 1.6W 60°	1.2D + 1.6W 60° - 90 mph Wind with No Ice
1.2D + 1.6W 90°	1.2D + 1.6W 90° - 90 mph Wind with No Ice
1.2D + 1.6W 120°	1.2D + 1.6W 120° - 90 mph Wind with No Ice
1.2D + 1.6W 180°	1.2D + 1.6W 180° - 90 mph Wind with No Ice
1.2D + 1.6W 210°	1.2D + 1.6W 210° - 90 mph Wind with No Ice
1.2D + 1.6W 240°	1.2D + 1.6W 240° - 90 mph Wind with No Ice
1.2D + 1.6W 300°	1.2D + 1.6W 300° - 90 mph Wind with No Ice
1.2D + 1.6W 330°	1.2D + 1.6W 330° - 90 mph Wind with No Ice
0.9D + 1.6W Normal	0.9D + 1.6W Normal - 90 mph Wind with No Ice (Reduced DL)
0.9D + 1.6W 60°	0.9D + 1.6W 60° - 90 mph Wind with No Ice (Reduced DL)
0.9D + 1.6W 90°	0.9D + 1.6W 90° - 90 mph Wind with No Ice (Reduced DL)
0.9D + 1.6W 120°	0.9D + 1.6W 120° - 90 mph Wind with No Ice (Reduced DL)
0.9D + 1.6W 180°	0.9D + 1.6W 180° - 90 mph Wind with No Ice (Reduced DL)
0.9D + 1.6W 210°	0.9D + 1.6W 210° - 90 mph Wind with No Ice (Reduced DL)
0.9D + 1.6W 240°	0.9D + 1.6W 240° - 90 mph Wind with No Ice (Reduced DL)
0.9D + 1.6W 300°	0.9D + 1.6W 300° - 90 mph Wind with No Ice (Reduced DL)
0.9D + 1.6W 330°	0.9D + 1.6W 330° - 90 mph Wind with No Ice (Reduced DL)
1.2D + 1.0Di + 1.0Wi Normal	1.2D + 1.0Di + 1.0Wi Normal - 50 mph Wind with 0" Radial Ice
1.2D + 1.0Di + 1.0Wi 60°	1.2D + 1.0Di + 1.0Wi 60° - 50 mph Wind with 0" Radial Ice
1.2D + 1.0Di + 1.0Wi 90°	1.2D + 1.0Di + 1.0Wi 90° - 50 mph Wind with 0" Radial Ice
1.2D + 1.0Di + 1.0Wi 120°	1.2D + 1.0Di + 1.0Wi 120° - 50 mph Wind with 0" Radial Ice
1.2D + 1.0Di + 1.0Wi 180°	1.2D + 1.0Di + 1.0Wi 180° - 50 mph Wind with 0" Radial Ice
1.2D + 1.0Di + 1.0Wi 210°	1.2D + 1.0Di + 1.0Wi 210° - 50 mph Wind with 0" Radial Ice
1.2D + 1.0Di + 1.0Wi 240°	1.2D + 1.0Di + 1.0Wi 240° - 50 mph Wind with 0" Radial Ice
1.2D + 1.0Di + 1.0Wi 300°	1.2D + 1.0Di + 1.0Wi 300° - 50 mph Wind with 0" Radial Ice
1.2D + 1.0Di + 1.0Wi 330°	1.2D + 1.0Di + 1.0Wi 330° - 50 mph Wind with 0" Radial Ice
(1.2 + 0.2Sds) * DL + E Normal	(1.2 + 0.2Sds) * DL + E Normal - Seismic
(1.2 + 0.2Sds) * DL + E 60°	(1.2 + 0.2Sds) * DL + E 60° - Seismic
(1.2 + 0.2Sds) * DL + E 90°	(1.2 + 0.2Sds) * DL + E 90° - Seismic

LOAD CASES	
(1.2 + 0.2Sds) * DL + E 120°	(1.2 + 0.2Sds) * DL + E 120° - Seismic
(1.2 + 0.2Sds) * DL + E 180°	(1.2 + 0.2Sds) * DL + E 180° - Seismic
(1.2 + 0.2Sds) * DL + E 210°	(1.2 + 0.2Sds) * DL + E 210° - Seismic
(1.2 + 0.2Sds) * DL + E 240°	(1.2 + 0.2Sds) * DL + E 240° - Seismic
(1.2 + 0.2Sds) * DL + E 300°	(1.2 + 0.2Sds) * DL + E 300° - Seismic
(1.2 + 0.2Sds) * DL + E 330°	(1.2 + 0.2Sds) * DL + E 330° - Seismic
(0.9 - 0.2Sds) * DL + E Normal	(0.9 - 0.2Sds) * DL + E Normal - Seismic (Reduced DL)
(0.9 - 0.2Sds) * DL + E 60°	(0.9 - 0.2Sds) * DL + E 60° - Seismic (Reduced DL)
(0.9 - 0.2Sds) * DL + E 90°	(0.9 - 0.2Sds) * DL + E 90° - Seismic (Reduced DL)
(0.9 - 0.2Sds) * DL + E 120°	(0.9 - 0.2Sds) * DL + E 120° - Seismic (Reduced DL)
(0.9 - 0.2Sds) * DL + E 180°	(0.9 - 0.2Sds) * DL + E 180° - Seismic (Reduced DL)
(0.9 - 0.2Sds) * DL + E 210°	(0.9 - 0.2Sds) * DL + E 210° - Seismic (Reduced DL)
(0.9 - 0.2Sds) * DL + E 240°	(0.9 - 0.2Sds) * DL + E 240° - Seismic (Reduced DL)
(0.9 - 0.2Sds) * DL + E 300°	(0.9 - 0.2Sds) * DL + E 300° - Seismic (Reduced DL)
(0.9 - 0.2Sds) * DL + E 330°	(0.9 - 0.2Sds) * DL + E 330° - Seismic (Reduced DL)
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 + 1.6W**

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)
190.2	Raycap DC9-48-60-24-8C-EV	3	16	4.8	2.6	18.3	10.2	0.80	0.50	0.0	0.00	25.54	200	58
186.0	Nokia AHCA AirScale RRH 4T4R B	3	35	1.3	1.1	11.6	6.5	0.80	0.50	0.0	0.00	25.42	53	127
186.0	Nokia AirScale Dual RRH 4T4R B	3	66	2.2	1.8	12.1	5.9	0.80	0.50	0.0	0.00	25.42	92	238
186.0	Nokia AHLBBA	3	95	2.8	2.0	14.1	7.8	0.80	0.50	0.0	0.00	25.42	117	341
186.0	Commscope NNH4-65C-R6-V3 (102.	6	103	17.1	8.0	19.6	7.8	0.80	0.64	0.0	0.00	25.42	1813	738
186.0	Generic Flat Light Sector Fram	3	400	17.9	0.0	0.0	0.0	0.75	0.75	0.0	0.00	25.42	1044	1440
175.0	Commscope RDIDC-9181-PF-48	1	22	1.9	1.3	14.0	8.0	0.80	0.50	0.0	0.00	25.10	25	26
175.0	Fujitsu TA08025-B605	3	75	2.0	1.3	15.0	9.1	0.80	0.50	0.0	0.00	25.10	80	270
175.0	Fujitsu TA08025-B604	3	64	2.0	1.3	15.0	7.9	0.80	0.50	0.0	0.00	25.10	80	230
175.0	JMA Wireless MX08FRO665-21	3	65	12.5	6.0	20.0	8.0	0.80	0.64	0.0	0.00	25.10	655	232
175.0	Generic Flat Light Sector Fram	3	400	17.9	0.0	0.0	0.0	0.75	0.75	0.0	0.00	25.10	1031	1440
170.0	Flat Light Sector Frame	3	400	17.9	0.0	0.0	0.0	0.75	0.75	0.0	0.00	24.94	1025	1440
165.0	Cambium Networks PTP 58500	1	12	1.8	1.2	14.5	3.8	0.80	0.50	-1.2	28.31	24.75	24	14
165.0	Cambium Networks PMP 450m	7	31	4.3	2.1	20.3	4.4	0.80	0.50	-1.9	777.88	24.73	409	260
165.0	Generic Flat T-Arm	3	313	12.9	0.0	0.0	0.0	0.75	0.67	0.0	0.00	24.79	656	1125
161.7	Cambium Networks PMP 450m	1	31	4.3	2.1	20.3	4.4	0.80	0.50	-1.9	110.65	24.62	58	37
158.0	Ericsson Radio 4449 - B13&B5	3	70	1.6	1.3	13.2	9.3	0.80	0.50	0.0	0.00	24.56	66	252
158.0	Ericsson Radio 4890HP 48B2 48B	3	70	2.2	1.5	15.2	7.0	0.80	0.67	0.0	0.00	24.56	119	250
158.0	Raycap RCMDC-6627-PF-48	2	32	4.1	2.5	16.5	12.6	0.80	0.79	0.0	0.00	24.56	171	77
158.0	Ericsson AIR 6419 B77D	3	63	4.2	2.6	16.1	9.1	0.80	0.67	0.0	0.00	24.56	225	227
158.0	Commscope NHH-65B-R2B	6	44	8.1	6.0	11.9	7.1	0.80	0.69	0.0	0.00	24.56	894	315
158.0	Generic Round Sector Frame	3	300	14.4	0.0	0.0	0.0	0.75	0.67	0.0	0.00	24.56	725	1080
158.0	Heavy Sector Frame	1	500	29.3	0.0	0.0	0.0	0.75	0.67	0.0	0.00	24.56	492	600
148.0	Ceragon IP-20C	1	13	0.7	0.9	8.6	3.9	1.00	0.50	-0.7	8.58	24.20	12	16
147.4	Radio Waves HP3-6	1	50	10.1	3.2	38.4	20.2	1.00	1.00	0.0	0.00	24.21	334	60
147.0	Radio Waves SPD3-5.2NS-RD	1	43	6.1	3.0	36.0	0.0	1.00	1.00	0.0	0.00	24.19	201	52
141.0	Andrew HP6-59/K	1	320	41.3	6.5	77.5	53.3	1.00	1.00	0.0	0.00	23.98	1348	384
132.0	Commscope HELIAX FiberFeed 12	2	20	0.9	1.4	6.7	4.7	0.80	0.50	0.0	0.00	23.65	24	48
132.0	Nokia AirScale Dual RRH 4T4R B	3	84	2.2	1.8	12.1	7.4	0.80	0.50	0.0	0.00	23.65	86	302
132.0	Nokia AHFIG	3	79	3.1	2.3	13.4	6.8	0.80	0.50	0.0	0.00	23.65	119	286
132.0	Nokia AEHC	3	104	6.8	3.2	21.5	8.1	0.80	0.62	0.0	0.00	23.65	328	373
132.0	Commscope FFVV-65C-R3-V1	3	125	21.1	8.0	25.2	9.3	0.80	0.63	0.0	0.00	23.65	1027	449
129.5	Round Sector Frame	3	300	14.4	0.0	0.0	0.0	0.75	0.67	0.0	0.00	23.56	695	1080
117.3	Generic 20' Omni	1	55	6.0	20.0	3.0	3.0	1.00	1.00	0.0	0.00	23.07	188	66
111.0	Andrew PL4-59-P7A/F	1	119	23.4	4.2	50.8	16.2	1.00	1.00	0.0	0.00	22.80	726	143
90.0	Scala 2XCA2-CP	1	6	1.2	12.2	0.7	0.7	1.00	1.00	4.0	142.54	22.02	36	7
57.3	Samsung RRH-C2A (w/ External F	2	57	3.1	2.0	15.7	6.7	0.90	0.50	2.3	174.64	20.00	76	138
55.5	KMW ET-X-WM-18-65-8P	2	36	6.7	5.1	12.0	4.3	0.90	0.72	0.5	116.30	19.74	233	87
55.0	Samsung 8T8R RRH – RRH-B8	2	60	2.4	1.7	13.8	6.8	0.90	0.50	0.0	0.00	19.67	58	143
55.0	Generic Flat Light Sector Fram	2	400	17.9	0.0	0.0	0.0	0.90	0.90	0.0	0.00	19.67	776	960
54.9	KMW ET-X-TS-70-15-62-18-iR-RD	2	42	8.3	6.2	11.8	5.9	0.90	0.75	-0.1	29.83	19.65	298	101
54.5	Samsung 1.9GHz RRH	2	60	2.7	2.0	13.8	9.0	0.90	0.50	-0.5	32.82	19.59	66	143
50.0	Andrew Microwaves HP6-65/K	1	320	41.3	6.5	77.5	53.3	1.00	1.00	0.9	978.93	19.35	1088	384
21.0	Standoff	1	150	5.2	0.0	0.0	0.0	1.00	1.00	0.0	0.00	16.06	114	180
20.7	Generic GPS	2	10	0.9	1.0	9.0	6.0	1.00	0.50	0.0	0.00	16.01	20	24
19.3	L-com HG5833D w/ Radome	1	20	5.9	3.0	35.4	0.0	1.00	1.00	0.0	0.00	15.78	127	24
18.0	Ceragon IP-20C	1	13	0.7	0.9	8.6	3.9	1.00	0.50	1.2	9.58	15.76	8	16
18.0	Radio Waves HP2-11	1	27	4.0	2.0	24.0	0.0	1.00	1.00	0.0	0.00	15.55	84	32
	Totals	**113**	**13,594**	**951.3**									18,124	16,313

Discrete Appurtenance Properties for LC: **0.9D + 1.6W**

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)
190.2	Raycap DC9-48-60-24-8C-EV	3	16	4.8	2.6	18.3	10.2	0.80	0.50	0.0	0.00	25.54	200	43
186.0	Nokia AHCA AirScale RRH 4T4R B	3	35	1.3	1.1	11.6	6.5	0.80	0.50	0.0	0.00	25.42	53	95
186.0	Nokia AirScale Dual RRH 4T4R B	3	66	2.2	1.8	12.1	5.9	0.80	0.50	0.0	0.00	25.42	92	178
186.0	Nokia AHLBBA	3	95	2.8	2.0	14.1	7.8	0.80	0.50	0.0	0.00	25.42	117	256
186.0	Commscope NNH4-65C-R6-V3 (102.	6	103	17.1	8.0	19.6	7.8	0.80	0.64	0.0	0.00	25.42	1813	554
186.0	Generic Flat Light Sector Fram	3	400	17.9	0.0	0.0	0.0	0.75	0.75	0.0	0.00	25.42	1044	1080
175.0	Commscope RDIDC-9181-PF-48	1	22	1.9	1.3	14.0	8.0	0.80	0.50	0.0	0.00	25.10	25	20
175.0	Fujitsu TA08025-B605	3	75	2.0	1.3	15.0	9.1	0.80	0.50	0.0	0.00	25.10	80	202
175.0	Fujitsu TA08025-B604	3	64	2.0	1.3	15.0	7.9	0.80	0.50	0.0	0.00	25.10	80	173
175.0	JMA Wireless MX08FRO665-21	3	65	12.5	6.0	20.0	8.0	0.80	0.64	0.0	0.00	25.10	655	174
175.0	Generic Flat Light Sector Fram	3	400	17.9	0.0	0.0	0.0	0.75	0.75	0.0	0.00	25.10	1031	1080
170.0	Flat Light Sector Frame	3	400	17.9	0.0	0.0	0.0	0.75	0.75	0.0	0.00	24.94	1025	1080
165.0	Cambium Networks PTP 58500	1	12	1.8	1.2	14.5	3.8	0.80	0.50	-1.2	28.31	24.75	24	11
165.0	Cambium Networks PMP 450m	7	31	4.3	2.1	20.3	4.4	0.80	0.50	-1.9	777.88	24.73	409	195
165.0	Generic Flat T-Arm	3	313	12.9	0.0	0.0	0.0	0.75	0.67	0.0	0.00	24.79	656	844
161.7	Cambium Networks PMP 450m	1	31	4.3	2.1	20.3	4.4	0.80	0.50	-1.9	110.65	24.62	58	28
158.0	Ericsson Radio 4449 - B13&B5	3	70	1.6	1.3	13.2	9.3	0.80	0.50	0.0	0.00	24.56	66	189
158.0	Ericsson Radio 4890HP 48B2 48B	3	70	2.2	1.5	15.2	7.0	0.80	0.67	0.0	0.00	24.56	119	188
158.0	Raycap RCMDC-6627-PF-48	2	32	4.1	2.5	16.5	12.6	0.80	0.79	0.0	0.00	24.56	171	58
158.0	Ericsson AIR 6419 B77D	3	63	4.2	2.6	16.1	9.1	0.80	0.67	0.0	0.00	24.56	225	170
158.0	Commscope NHH-65B-R2B	6	44	8.1	6.0	11.9	7.1	0.80	0.69	0.0	0.00	24.56	894	236
158.0	Generic Round Sector Frame	3	300	14.4	0.0	0.0	0.0	0.75	0.67	0.0	0.00	24.56	725	810

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)
158.0	Heavy Sector Frame	1	500	29.3	0.0	0.0	0.0	0.75	0.67	0.0	0.00	24.56	492	450
148.0	Ceragon IP-20C	1	13	0.7	0.9	8.6	3.9	1.00	0.50	-0.7	8.58	24.20	12	12
147.4	Radio Waves HP3-6	1	50	10.1	3.2	38.4	20.2	1.00	1.00	0.0	0.00	24.21	334	45
147.0	Radio Waves SPD3-5.2NS-RD	1	43	6.1	3.0	36.0	0.0	1.00	1.00	0.0	0.00	24.19	201	39
141.0	Andrew HP6-59/K	1	320	41.3	6.5	77.5	53.3	1.00	1.00	0.0	0.00	23.98	1348	288
132.0	Commscope HELIAX FiberFeed 12	2	20	0.9	1.4	6.7	4.7	0.80	0.50	0.0	0.00	23.65	24	36
132.0	Nokia AirScale Dual RRH 4T4R B	3	84	2.2	1.8	12.1	7.4	0.80	0.50	0.0	0.00	23.65	86	226
132.0	Nokia AHFIG	3	79	3.1	2.3	13.4	6.8	0.80	0.50	0.0	0.00	23.65	119	214
132.0	Nokia AEHC	3	104	6.8	3.2	21.5	8.1	0.80	0.62	0.0	0.00	23.65	328	280
132.0	Commscope FFVV-65C-R3-V1	3	125	21.1	8.0	25.2	9.3	0.80	0.63	0.0	0.00	23.65	1027	336
129.5	Round Sector Frame	3	300	14.4	0.0	0.0	0.0	0.75	0.67	0.0	0.00	23.56	695	810
117.3	Generic 20' Omni	1	55	6.0	20.0	3.0	3.0	1.00	1.00	0.0	0.00	23.07	188	50
111.0	Andrew PL4-59-P7A/F	1	119	23.4	4.2	50.8	16.2	1.00	1.00	0.0	0.00	22.80	726	107
90.0	Scala 2XCA2-CP	1	6	1.2	12.2	0.7	0.7	1.00	1.00	4.0	142.54	22.02	36	5
57.3	Samsung RRH-C2A (w/ External F	2	57	3.1	2.0	15.7	6.7	0.90	0.50	2.3	174.64	20.00	76	103
55.5	KMW ET-X-WM-18-65-8P	2	36	6.7	5.1	12.0	4.3	0.90	0.72	0.5	116.30	19.74	233	66
55.0	Samsung 8T8R RRH – RRH-B8	2	60	2.4	1.7	13.8	6.8	0.90	0.50	0.0	0.00	19.67	58	107
55.0	Generic Flat Light Sector Fram	2	400	17.9	0.0	0.0	0.0	0.90	0.90	0.0	0.00	19.67	776	720
54.9	KMW ET-X-TS-70-15-62-18-iR-RD	2	42	8.3	6.2	11.8	5.9	0.90	0.75	-0.1	29.83	19.65	298	75
54.5	Samsung 1.9GHz RRH	2	60	2.7	2.0	13.8	9.0	0.90	0.50	-0.5	32.82	19.59	66	107
50.0	Andrew Microwaves HP6-65/K	1	320	41.3	6.5	77.5	53.3	1.00	1.00	0.9	978.93	19.35	1088	288
21.0	Standoff	1	150	5.2	0.0	0.0	0.0	1.00	1.00	0.0	0.00	16.06	114	135
20.7	Generic GPS	2	10	0.9	1.0	9.0	6.0	1.00	0.50	0.0	0.00	16.01	20	18
19.3	L-com HG5833D w/ Radome	1	20	5.9	3.0	35.4	0.0	1.00	1.00	0.0	0.00	15.78	127	18
18.0	Ceragon IP-20C	1	13	0.7	0.9	8.6	3.9	1.00	0.50	1.2	9.58	15.76	8	12
18.0	Radio Waves HP2-11	1	27	4.0	2.0	24.0	0.0	1.00	1.00	0.0	0.00	15.55	84	24
	Totals	**113**	**13,594**	**951.3**									18,124	12,235

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)
190.2	Raycap DC9-48-60-24-8C-EV	3	16	4.8	2.6	18.3	10.2	0.80	0.50	0.0	0.00	7.88	38	58
186.0	Nokia AHCA AirScale RRH 4T4R B	3	35	1.3	1.1	11.6	6.5	0.80	0.50	0.0	0.00	7.85	10	127
186.0	Nokia AirScale Dual RRH 4T4R B	3	66	2.2	1.8	12.1	5.9	0.80	0.50	0.0	0.00	7.85	18	238
186.0	Nokia AHLBBA	3	95	2.8	2.0	14.1	7.8	0.80	0.50	0.0	0.00	7.85	23	341
186.0	Commscope NNH4-65C-R6-V3 (102.	6	102	17.1	8.0	19.6	7.8	0.80	0.64	0.0	0.00	7.85	350	738
186.0	Generic Flat Light Sector Fram	3	400	17.9	0.0	0.0	0.0	0.75	0.75	0.0	0.00	7.85	201	1440
175.0	Commscope RDIDC-9181-PF-48	1	22	1.9	1.3	14.0	8.0	0.80	0.50	0.0	0.00	7.75	5	26
175.0	Fujitsu TA08025-B605	3	75	2.0	1.3	15.0	9.1	0.80	0.50	0.0	0.00	7.75	16	270
175.0	Fujitsu TA08025-B604	3	64	2.0	1.3	15.0	7.9	0.80	0.50	0.0	0.00	7.75	16	230
175.0	JMA Wireless MX08FRO665-21	3	64	12.5	6.0	20.0	8.0	0.80	0.64	0.0	0.00	7.75	126	232
175.0	Generic Flat Light Sector Fram	3	400	17.9	0.0	0.0	0.0	0.75	0.75	0.0	0.00	7.75	199	1440
170.0	Flat Light Sector Frame	3	400	17.9	0.0	0.0	0.0	0.75	0.75	0.0	0.00	7.70	198	1440
165.0	Cambium Networks PTP 58500	1	12	1.8	1.2	14.5	3.8	0.80	0.50	-1.2	5.46	7.64	5	14
165.0	Cambium Networks PMP 450m	7	31	4.3	2.1	20.3	4.4	0.80	0.50	-1.9	150.05	7.63	79	260
165.0	Generic Flat T-Arm	3	312	12.9	0.0	0.0	0.0	0.75	0.67	0.0	0.00	7.65	126	1125
161.7	Cambium Networks PMP 450m	1	31	4.3	2.1	20.3	4.4	0.80	0.50	-1.9	21.34	7.60	11	37
158.0	Ericsson Radio 4449 - B13&B5	3	70	1.6	1.3	13.2	9.3	0.80	0.50	0.0	0.00	7.58	13	252
158.0	Ericsson Radio 4890HP 48B2 48B	3	70	2.2	1.5	15.2	7.0	0.80	0.67	0.0	0.00	7.58	23	250
158.0	Raycap RCMDC-6627-PF-48	2	32	4.1	2.5	16.5	12.6	0.80	0.79	0.0	0.00	7.58	33	77
158.0	Ericsson AIR 6419 B77D	3	63	4.2	2.6	16.1	9.1	0.80	0.67	0.0	0.00	7.58	43	227
158.0	Commscope NHH-65B-R2B	6	44	8.1	6.0	11.9	7.1	0.80	0.69	0.0	0.00	7.58	172	315
158.0	Generic Round Sector Frame	3	300	14.4	0.0	0.0	0.0	0.75	0.67	0.0	0.00	7.58	140	1080
158.0	Heavy Sector Frame	1	500	29.3	0.0	0.0	0.0	0.75	0.67	0.0	0.00	7.58	95	600
148.0	Ceragon IP-20C	1	13	0.7	0.9	8.6	3.9	1.00	0.50	-0.7	1.66	7.47	2	16
147.4	Radio Waves HP3-6	1	50	10.1	3.2	38.4	20.2	1.00	1.00	0.0	0.00	7.47	64	60
147.0	Radio Waves SPD3-5.2NS-RD	1	43	6.1	3.0	36.0	0.0	1.00	1.00	0.0	0.00	7.47	39	52
141.0	Andrew HP6-59/K	1	320	41.3	6.5	77.5	53.3	1.00	1.00	0.0	0.00	7.40	260	384
132.0	Commscope HELIAX FiberFeed 12	2	20	0.9	1.4	6.7	4.7	0.80	0.50	0.0	0.00	7.30	5	48
132.0	Nokia AirScale Dual RRH 4T4R B	3	84	2.2	1.8	12.1	7.4	0.80	0.50	0.0	0.00	7.30	17	302
132.0	Nokia AHFIG	3	79	3.1	2.3	13.4	6.8	0.80	0.50	0.0	0.00	7.30	23	286
132.0	Nokia AEHC	3	104	6.8	3.2	21.5	8.1	0.80	0.62	0.0	0.00	7.30	63	373
132.0	Commscope FFVV-65C-R3-V1	3	125	21.1	8.0	25.2	9.3	0.80	0.63	0.0	0.00	7.30	198	449
129.5	Round Sector Frame	3	300	14.4	0.0	0.0	0.0	0.75	0.67	0.0	0.00	7.27	134	1080
117.3	Generic 20' Omni	1	55	6.0	20.0	3.0	3.0	1.00	1.00	0.0	0.00	7.12	36	66
111.0	Andrew PL4-59-P7A/F	1	119	23.4	4.2	50.8	16.2	1.00	1.00	0.0	0.00	7.04	140	143
90.0	Scala 2XCA2-CP	1	6	1.2	12.2	0.7	0.7	1.00	1.00	4.0	27.50	6.80	7	7
57.3	Samsung RRH-C2A (w/ External F	2	57	3.1	2.0	15.7	6.7	0.90	0.50	2.3	33.69	6.17	15	138
55.5	KMW ET-X-WM-18-65-8P	2	36	6.7	5.1	12.0	4.3	0.90	0.72	0.5	22.43	6.09	45	87
55.0	Samsung 8T8R RRH – RRH-B8	2	60	2.4	1.7	13.8	6.8	0.90	0.50	0.0	0.00	6.07	11	143
55.0	Generic Flat Light Sector Fram	2	400	17.9	0.0	0.0	0.0	0.90	0.90	0.0	0.00	6.07	150	960
54.9	KMW ET-X-TS-70-15-62-18-iR-RD	2	42	8.3	6.2	11.8	5.9	0.90	0.75	-0.1	5.75	6.07	58	101
54.5	Samsung 1.9GHz RRH	2	60	2.7	2.0	13.8	9.0	0.90	0.50	-0.5	6.33	6.05	13	143
50.0	Andrew Microwaves HP6-65/K	1	320	41.3	6.5	77.5	53.3	1.00	1.00	0.9	188.84	5.97	210	384
21.0	Standoff	1	150	5.2	0.0	0.0	0.0	1.00	1.00	0.0	0.00	4.96	22	180
20.7	Generic GPS	2	10	0.9	1.0	9.0	6.0	1.00	0.50	0.0	0.00	4.94	4	24
19.3	L-com HG5833D w/ Radome	1	20	5.9	3.0	35.4	0.0	1.00	1.00	0.0	0.00	4.87	24	24
18.0	Ceragon IP-20C	1	13	0.7	0.9	8.6	3.9	1.00	0.50	1.2	1.85	4.86	2	16

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)
18.0	Radio Waves HP2-11	1	27	4.0	2.0	24.0	0.0	1.00	1.00	0.0	0.00	4.80	16	32
	Totals	**113**	**13,594**	**951.3**									3496	16,313

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)
190.2	Raycap DC9-48-60-24-8C-EV	3	16	4.8	2.6	18.3	10.2	0.80	0.50	0.0	0.00	11.35	55	48
186.0	Nokia AHCA AirScale RRH 4T4R B	3	35	1.3	1.1	11.6	6.5	0.80	0.50	0.0	0.00	11.30	15	106
186.0	Nokia AirScale Dual RRH 4T4R B	3	66	2.2	1.8	12.1	5.9	0.80	0.50	0.0	0.00	11.30	26	198
186.0	Nokia AHLBBA	3	95	2.8	2.0	14.1	7.8	0.80	0.50	0.0	0.00	11.30	32	284
186.0	Commscope NNH4-65C-R6-V3 (102.	6	103	17.1	8.0	19.6	7.8	0.80	0.64	0.0	0.00	11.30	504	615
186.0	Generic Flat Light Sector Fram	3	400	17.9	0.0	0.0	0.0	0.75	0.75	0.0	0.00	11.30	290	1200
175.0	Commscope RDIDC-9181-PF-48	1	22	1.9	1.3	14.0	8.0	0.80	0.50	0.0	0.00	11.15	7	22
175.0	Fujitsu TA08025-B605	3	75	2.0	1.3	15.0	9.1	0.80	0.50	0.0	0.00	11.15	22	225
175.0	Fujitsu TA08025-B604	3	64	2.0	1.3	15.0	7.9	0.80	0.50	0.0	0.00	11.15	22	192
175.0	JMA Wireless MX08FRO665-21	3	65	12.5	6.0	20.0	8.0	0.80	0.64	0.0	0.00	11.15	182	194
175.0	Generic Flat Light Sector Fram	3	400	17.9	0.0	0.0	0.0	0.75	0.75	0.0	0.00	11.15	286	1200
170.0	Flat Light Sector Frame	3	400	17.9	0.0	0.0	0.0	0.75	0.75	0.0	0.00	11.09	285	1200
165.0	Cambium Networks PTP 58500	1	12	1.8	1.2	14.5	3.8	0.80	0.50	-1.2	7.86	11.00	7	12
165.0	Cambium Networks PMP 450m	7	31	4.3	2.1	20.3	4.4	0.80	0.50	-1.9	216.08	10.99	114	217
165.0	Generic Flat T-Arm	3	313	12.9	0.0	0.0	0.0	0.75	0.67	0.0	0.00	11.02	182	938
161.7	Cambium Networks PMP 450m	1	31	4.3	2.1	20.3	4.4	0.80	0.50	-1.9	30.74	10.94	16	31
158.0	Ericsson Radio 4449 - B13&B5	3	70	1.6	1.3	13.2	9.3	0.80	0.50	0.0	0.00	10.92	18	210
158.0	Ericsson Radio 4890HP 48B2 48B	3	70	2.2	1.5	15.2	7.0	0.80	0.67	0.0	0.00	10.92	33	208
158.0	Raycap RCMDC-6627-PF-48	2	32	4.1	2.5	16.5	12.6	0.80	0.79	0.0	0.00	10.92	48	64
158.0	Ericsson AIR 6419 B77D	3	63	4.2	2.6	16.1	9.1	0.80	0.67	0.0	0.00	10.92	62	189
158.0	Commscope NHH-65B-R2B	6	44	8.1	6.0	11.9	7.1	0.80	0.69	0.0	0.00	10.92	248	262
158.0	Generic Round Sector Frame	3	300	14.4	0.0	0.0	0.0	0.75	0.67	0.0	0.00	10.92	201	900
158.0	Heavy Sector Frame	1	500	29.3	0.0	0.0	0.0	0.75	0.67	0.0	0.00	10.92	137	500
148.0	Ceragon IP-20C	1	13	0.7	0.9	8.6	3.9	1.00	0.50	-0.7	2.38	10.76	3	13
147.4	Radio Waves HP3-6	1	50	10.1	3.2	38.4	20.2	1.00	1.00	0.0	0.00	10.76	93	50
147.0	Radio Waves SPD3-5.2NS-RD	1	43	6.1	3.0	36.0	0.0	1.00	1.00	0.0	0.00	10.75	56	43
141.0	Andrew HP6-59/K	1	320	41.3	6.5	77.5	53.3	1.00	1.00	0.0	0.00	10.66	374	320
132.0	Commscope HELIAX FiberFeed 12	2	20	0.9	1.4	6.7	4.7	0.80	0.50	0.0	0.00	10.51	7	40
132.0	Nokia AirScale Dual RRH 4T4R B	3	84	2.2	1.8	12.1	7.4	0.80	0.50	0.0	0.00	10.51	24	251
132.0	Nokia AHFIG	3	79	3.1	2.3	13.4	6.8	0.80	0.50	0.0	0.00	10.51	33	238
132.0	Nokia AEHC	3	104	6.8	3.2	21.5	8.1	0.80	0.62	0.0	0.00	10.51	91	311
132.0	Commscope FFVV-65C-R3-V1	3	125	21.1	8.0	25.2	9.3	0.80	0.63	0.0	0.00	10.51	285	374
129.5	Round Sector Frame	3	300	14.4	0.0	0.0	0.0	0.75	0.67	0.0	0.00	10.47	193	900
117.3	Generic 20' Omni	1	55	6.0	20.0	3.0	3.0	1.00	1.00	0.0	0.00	10.25	52	55
111.0	Andrew PL4-59-P7A/F	1	119	23.4	4.2	50.8	16.2	1.00	1.00	0.0	0.00	10.13	202	119
90.0	Scala 2XCA2-CP	1	6	1.2	12.2	0.7	0.7	1.00	1.00	4.0	39.59	9.79	10	6
57.3	Samsung RRH-C2A (w/ External F	2	57	3.1	2.0	15.7	6.7	0.90	0.50	2.3	48.51	8.89	21	115
55.5	KMW ET-X-WM-18-65-8P	2	36	6.7	5.1	12.0	4.3	0.90	0.72	0.5	32.31	8.78	65	73
55.0	Samsung 8T8R RRH – RRH-B8	2	60	2.4	1.7	13.8	6.8	0.90	0.50	0.0	0.00	8.74	16	119
55.0	Generic Flat Light Sector Fram	2	400	17.9	0.0	0.0	0.0	0.90	0.90	0.0	0.00	8.74	215	800
54.9	KMW ET-X-TS-70-15-62-18-iR-RD	2	42	8.3	6.2	11.8	5.9	0.90	0.75	-0.1	8.29	8.74	83	84
54.5	Samsung 1.9GHz RRH	2	60	2.7	2.0	13.8	9.0	0.90	0.50	-0.5	9.12	8.71	18	119
50.0	Andrew Microwaves HP6-65/K	1	320	41.3	6.5	77.5	53.3	1.00	1.00	0.9	271.92	8.60	302	320
21.0	Standoff	1	150	5.2	0.0	0.0	0.0	1.00	1.00	0.0	0.00	7.14	32	150
20.7	Generic GPS	2	10	0.9	1.0	9.0	6.0	1.00	0.50	0.0	0.00	7.12	5	20
19.3	L-com HG5833D w/ Radome	1	20	5.9	3.0	35.4	0.0	1.00	1.00	0.0	0.00	7.01	35	20
18.0	Ceragon IP-20C	1	13	0.7	0.9	8.6	3.9	1.00	0.50	1.2	2.66	7.00	2	13
18.0	Radio Waves HP2-11	1	27	4.0	2.0	24.0	0.0	1.00	1.00	0.0	0.00	6.91	23	27
	Totals	**113**	**13,594**	**951.3**									5,034	13,594

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
8.0	55.7	1 1/4" Hybriflex Cable	2	1.54	1.00	100	3	Individual	0.00	N	1.00	1.00	0.00
8.0	21.0	1/2" Coax	2	0.63	0.15	100	3	Individual	0.00	N	1.00	1.00	0.00
0.0	190.2	0.92" (23.4mm) Cable	6	0.92	0.89	100	2	Individual	0.00	N	1.00	1.00	0.00
0.0	190.2	0.39" (10mm) Fiber Trunk	3	0.39	0.06	100	2	Individual	0.00	N	1.00	1.00	0.00
0.0	186.0	Waveguide	1	2.00	6.00	100	2	Individual	0.00	N	1.00	1.00	0.00
0.0	175.0	1.75" (44.5mm) Hybrid	1	1.75	2.72	100	1	Individual	0.00	N	1.00	1.00	0.00
0.0	170.0	Climbing Ladder	1	2.00	6.90	100	1	Individual	0.00	N	1.00	1.00	0.00
0.0	169.9	1 5/8" Coax	9	1.98	0.82	100	3	Individual	0.00	N	1.00	1.00	0.00
0.0	165.0	0.24" (6mm) Cat 5	8	0.24	0.04	100	1	Individual	0.00	N	1.00	1.00	0.00
0.0	163.8	0.24" (6.1mm) Cat 5e	13	0.24	0.03	100	1	Individual	0.00	N	1.00	1.00	0.00
0.0	158.0	1 5/8" Hybriflex	2	1.98	1.30	100	2	Individual	0.00	N	1.00	1.00	0.00
0.0	147.5	0.24" (6mm) Cat 5	1	0.24	0.04	100	1	Individual	0.00	N	1.00	1.00	0.00
0.0	147.0	0.24" (6mm) Cat 5	2	0.24	0.04	100	1	Individual	0.00	N	1.00	1.00	0.00
0.0	141.0	EW63	1	2.01	0.51	100	2	Individual	0.00	N	1.00	1.00	0.00
0.0	132.0	Waveguide	1	2.00	6.00	100	2	Individual	0.00	N	1.00	1.00	0.00
0.0	132.0	1.46" (37.1mm) Hybrid	2	1.46	1.70	100	2	Individual	0.00	N	1.00	1.00	0.00
0.0	117.1	7/8" Coax	1	1.09	0.33	100	2	Individual	0.00	N	1.00	1.00	0.00
0.0	111.0	EW63	1	2.01	0.51	100	2	Individual	0.00	N	1.00	1.00	0.00
0.0	90.0	7/8" Coax	1	1.09	0.33	100	1	Individual	0.00	N	1.00	1.00	0.00
0.0	50.0	EW63	1	2.01	0.51	100	2	Individual	0.00	N	1.00	1.00	0.00
0.0	18.0	0.24" (6mm) Cat 5	2	0.24	0.04	100	1	Individual	0.00	N	1.00	1.00	0.00

SECTION FORCES

1.2D + 1.6W Normal — Gust Response Factor (Gh): 0.85
90 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)
12	180	25.25	11.567	6.667	0.00	0.176	2.68	1.00	1.00	0.0	15.37	41.14	0.00	1657	0	1413	404	1816
11	160	24.63	0.000	14.673	0.00	0.142	2.80	1.00	1.00	0.0	8.46	23.69	0.00	2444	0	794	1528	2321
10	145	24.12	5.503	7.813	0.00	0.226	2.51	1.00	1.00	0.0	9.77	24.53	0.00	1518	0	805	839	1644
9	135	23.76	7.366	8.614	0.00	0.231	2.50	1.00	1.00	0.0	11.96	29.86	0.00	1863	0	965	890	1855
8	125	23.38	6.027	8.614	0.00	0.185	2.65	1.00	1.00	0.0	10.50	27.80	0.00	1882	0	884	971	1855
7	110	22.76	12.992	18.831	0.00	0.168	2.71	1.00	1.00	0.0	22.38	60.57	0.00	4283	0	1875	1967	3841
6	90	21.82	14.383	18.831	0.00	0.145	2.79	1.00	1.00	0.0	23.72	66.20	0.00	4881	0	1964	1943	3907
5	70	20.69	18.488	22.037	0.00	0.150	2.77	1.00	1.00	0.0	28.77	79.79	0.00	6051	0	2246	1861	4106
4	55	19.67	11.351	11.820	0.00	0.154	2.76	1.00	1.00	0.0	16.75	46.21	0.00	3350	0	1236	913	2149
3	45	18.86	16.700	11.820	0.00	0.177	2.67	1.00	1.00	0.0	22.28	59.57	0.00	3763	0	1528	926	2454
2	30	17.31	14.945	24.708	0.00	0.112	2.91	1.00	1.00	0.0	25.98	75.72	0.00	9008	0	1783	1702	3485
1	10	14.98	15.714	26.210	0.00	0.107	2.94	1.00	1.00	0.0	27.47	80.70	0.00	9797	0	1644	1471	3115
													Totals	**50,497**	**0**			**32,549**

1.2D + 1.6W 60° — Gust Response Factor (Gh): 0.85
90 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)
12	180	25.25	11.567	6.667	0.00	0.176	2.68	0.80	1.00	0.0	13.06	34.95	0.00	1657	0	1200	404	1604
11	160	24.63	0.000	14.673	0.00	0.142	2.80	0.80	1.00	0.0	8.46	23.69	0.00	2444	0	794	1528	2321
10	145	24.12	5.503	7.813	0.00	0.226	2.51	0.80	1.00	0.0	8.67	21.77	0.00	1518	0	714	839	1554
9	135	23.76	7.366	8.614	0.00	0.231	2.50	0.80	1.00	0.0	10.49	26.19	0.00	1863	0	846	890	1736
8	125	23.38	6.027	8.614	0.00	0.185	2.65	0.80	1.00	0.0	9.29	24.61	0.00	1882	0	782	971	1754
7	110	22.76	12.992	18.831	0.00	0.168	2.71	0.80	1.00	0.0	19.78	53.54	0.00	4283	0	1657	1967	3624
6	90	21.82	14.383	18.831	0.00	0.145	2.79	0.80	1.00	0.0	20.85	58.18	0.00	4881	0	1726	1943	3669
5	70	20.69	18.488	22.037	0.00	0.150	2.77	0.80	1.00	0.0	25.08	69.54	0.00	6051	0	1957	1861	3818
4	55	19.67	11.351	11.820	0.00	0.154	2.76	0.80	1.00	0.0	14.48	39.95	0.00	3350	0	1069	913	1981
3	45	18.86	16.700	11.820	0.00	0.177	2.67	0.80	1.00	0.0	18.94	50.64	0.00	3763	0	1299	926	2225
2	30	17.31	14.945	24.708	0.00	0.112	2.91	0.80	1.00	0.0	23.00	67.01	0.00	9008	0	1578	1702	3280
1	10	14.98	15.714	26.210	0.00	0.107	2.94	0.80	1.00	0.0	24.33	71.46	0.00	9797	0	1456	1471	2927
													Totals	**50,497**	**0**			**30,492**

1.2D + 1.6W 90° — Gust Response Factor (Gh): 0.85
90 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)
12	180	25.25	11.567	6.667	0.00	0.176	2.68	0.85	1.00	0.0	13.64	36.50	0.00	1657	0	1253	404	1657
11	160	24.63	0.000	14.673	0.00	0.142	2.80	0.85	1.00	0.0	8.46	23.69	0.00	2444	0	794	1528	2321
10	145	24.12	5.503	7.813	0.00	0.226	2.51	0.85	1.00	0.0	8.94	22.46	0.00	1518	0	737	839	1576
9	135	23.76	7.366	8.614	0.00	0.231	2.50	0.85	1.00	0.0	10.86	27.11	0.00	1863	0	876	890	1766
8	125	23.38	6.027	8.614	0.00	0.185	2.65	0.85	1.00	0.0	9.59	25.40	0.00	1882	0	808	971	1779
7	110	22.76	12.992	18.831	0.00	0.168	2.71	0.85	1.00	0.0	20.43	55.29	0.00	4283	0	1711	1967	3678
6	90	21.82	14.383	18.831	0.00	0.145	2.79	0.85	1.00	0.0	21.57	60.18	0.00	4881	0	1786	1943	3728
5	70	20.69	18.488	22.037	0.00	0.150	2.77	0.85	1.00	0.0	26.00	72.10	0.00	6051	0	2029	1861	3890
4	55	19.67	11.351	11.820	0.00	0.154	2.76	0.85	1.00	0.0	15.05	41.51	0.00	3350	0	1110	913	2023
3	45	18.86	16.700	11.820	0.00	0.177	2.67	0.85	1.00	0.0	19.78	52.87	0.00	3763	0	1356	926	2282
2	30	17.31	14.945	24.708	0.00	0.112	2.91	0.85	1.00	0.0	23.74	69.19	0.00	9008	0	1629	1702	3331
1	10	14.98	15.714	26.210	0.00	0.107	2.94	0.85	1.00	0.0	25.11	73.77	0.00	9797	0	1503	1471	2974
													Totals	**50,497**	**0**			**31,006**

1.2D + 1.6W 120° — Gust Response Factor (Gh): 0.85
90 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)
12	180	25.25	11.567	6.667	0.00	0.176	2.68	1.00	1.00	0.0	15.37	41.14	0.00	1657	0	1413	404	1816
11	160	24.63	0.000	14.673	0.00	0.142	2.80	1.00	1.00	0.0	8.46	23.69	0.00	2444	0	794	1528	2321
10	145	24.12	5.503	7.813	0.00	0.226	2.51	1.00	1.00	0.0	9.77	24.53	0.00	1518	0	805	839	1644
9	135	23.76	7.366	8.614	0.00	0.231	2.50	1.00	1.00	0.0	11.96	29.86	0.00	1863	0	965	890	1855
8	125	23.38	6.027	8.614	0.00	0.185	2.65	1.00	1.00	0.0	10.50	27.80	0.00	1882	0	884	971	1855
7	110	22.76	12.992	18.831	0.00	0.168	2.71	1.00	1.00	0.0	22.38	60.57	0.00	4283	0	1875	1967	3841
6	90	21.82	14.383	18.831	0.00	0.145	2.79	1.00	1.00	0.0	23.72	66.20	0.00	4881	0	1964	1943	3907
5	70	20.69	18.488	22.037	0.00	0.150	2.77	1.00	1.00	0.0	28.77	79.79	0.00	6051	0	2246	1861	4106
4	55	19.67	11.351	11.820	0.00	0.154	2.76	1.00	1.00	0.0	16.75	46.21	0.00	3350	0	1236	913	2149
3	45	18.86	16.700	11.820	0.00	0.177	2.67	1.00	1.00	0.0	22.28	59.57	0.00	3763	0	1528	926	2454
2	30	17.31	14.945	24.708	0.00	0.112	2.91	1.00	1.00	0.0	25.98	75.72	0.00	9008	0	1783	1702	3485
1	10	14.98	15.714	26.210	0.00	0.107	2.94	1.00	1.00	0.0	27.47	80.70	0.00	9797	0	1644	1471	3115
													Totals	**50,497**	**0**			**32,549**

1.2D + 1.6W 180° — Gust Response Factor (Gh): 0.85
90 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)
12	180	25.25	11.567	6.667	0.00	0.176	2.68	0.80	1.00	0.0	13.06	34.95	0.00	1657	0	1200	404	1604

SECTION FORCES

1.2D + 1.6W 180° Gust Response Factor (Gh): 0.85
90 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)
11	160	24.63	0.000	14.673	0.00	0.142	2.80	0.80	1.00	0.0	8.46	23.69	0.00	2444	0	794	1528	2321
10	145	24.12	5.503	7.813	0.00	0.226	2.51	0.80	1.00	0.0	8.67	21.77	0.00	1518	0	714	839	1554
9	135	23.76	7.366	8.614	0.00	0.231	2.50	0.80	1.00	0.0	10.49	26.19	0.00	1863	0	846	890	1736
8	125	23.38	6.027	8.614	0.00	0.185	2.65	0.80	1.00	0.0	9.29	24.61	0.00	1882	0	782	971	1754
7	110	22.76	12.992	18.831	0.00	0.168	2.71	0.80	1.00	0.0	19.78	53.54	0.00	4283	0	1657	1967	3624
6	90	21.82	14.383	18.831	0.00	0.145	2.79	0.80	1.00	0.0	20.85	58.18	0.00	4881	0	1726	1943	3669
5	70	20.69	18.488	22.037	0.00	0.150	2.77	0.80	1.00	0.0	25.08	69.54	0.00	6051	0	1957	1861	3818
4	55	19.67	11.351	11.820	0.00	0.154	2.76	0.80	1.00	0.0	14.48	39.95	0.00	3350	0	1069	913	1981
3	45	18.86	16.700	11.820	0.00	0.177	2.67	0.80	1.00	0.0	18.94	50.64	0.00	3763	0	1299	926	2225
2	30	17.31	14.945	24.708	0.00	0.112	2.91	0.80	1.00	0.0	23.00	67.01	0.00	9008	0	1578	1702	3280
1	10	14.98	15.714	26.210	0.00	0.107	2.94	0.80	1.00	0.0	24.33	71.46	0.00	9797	0	1456	1471	2927
													Totals	**50,497**	**0**			**30,492**

1.2D + 1.6W 210° Gust Response Factor (Gh): 0.85
90 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)
12	180	25.25	11.567	6.667	0.00	0.176	2.68	0.85	1.00	0.0	13.64	36.50	0.00	1657	0	1253	404	1657
11	160	24.63	0.000	14.673	0.00	0.142	2.80	0.85	1.00	0.0	8.46	23.69	0.00	2444	0	794	1528	2321
10	145	24.12	5.503	7.813	0.00	0.226	2.51	0.85	1.00	0.0	8.94	22.46	0.00	1518	0	737	839	1576
9	135	23.76	7.366	8.614	0.00	0.231	2.50	0.85	1.00	0.0	10.86	27.11	0.00	1863	0	876	890	1766
8	125	23.38	6.027	8.614	0.00	0.185	2.65	0.85	1.00	0.0	9.59	25.40	0.00	1882	0	808	971	1779
7	110	22.76	12.992	18.831	0.00	0.168	2.71	0.85	1.00	0.0	20.43	55.29	0.00	4283	0	1711	1967	3678
6	90	21.82	14.383	18.831	0.00	0.145	2.79	0.85	1.00	0.0	21.57	60.18	0.00	4881	0	1786	1943	3728
5	70	20.69	18.488	22.037	0.00	0.150	2.77	0.85	1.00	0.0	26.00	72.10	0.00	6051	0	2029	1861	3890
4	55	19.67	11.351	11.820	0.00	0.154	2.76	0.85	1.00	0.0	15.05	41.51	0.00	3350	0	1110	913	2023
3	45	18.86	16.700	11.820	0.00	0.177	2.67	0.85	1.00	0.0	19.78	52.87	0.00	3763	0	1356	926	2282
2	30	17.31	14.945	24.708	0.00	0.112	2.91	0.85	1.00	0.0	23.74	69.19	0.00	9008	0	1629	1702	3331
1	10	14.98	15.714	26.210	0.00	0.107	2.94	0.85	1.00	0.0	25.11	73.77	0.00	9797	0	1503	1471	2974
													Totals	**50,497**	**0**			**31,006**

1.2D + 1.6W 240° Gust Response Factor (Gh): 0.85
90 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)
12	180	25.25	11.567	6.667	0.00	0.176	2.68	1.00	1.00	0.0	15.37	41.14	0.00	1657	0	1413	404	1816
11	160	24.63	0.000	14.673	0.00	0.142	2.80	1.00	1.00	0.0	8.46	23.69	0.00	2444	0	794	1528	2321
10	145	24.12	5.503	7.813	0.00	0.226	2.51	1.00	1.00	0.0	9.77	24.53	0.00	1518	0	805	839	1644
9	135	23.76	7.366	8.614	0.00	0.231	2.50	1.00	1.00	0.0	11.96	29.86	0.00	1863	0	965	890	1855
8	125	23.38	6.027	8.614	0.00	0.185	2.65	1.00	1.00	0.0	10.50	27.80	0.00	1882	0	884	971	1855
7	110	22.76	12.992	18.831	0.00	0.168	2.71	1.00	1.00	0.0	22.38	60.57	0.00	4283	0	1875	1967	3841
6	90	21.82	14.383	18.831	0.00	0.145	2.79	1.00	1.00	0.0	23.72	66.20	0.00	4881	0	1964	1943	3907
5	70	20.69	18.488	22.037	0.00	0.150	2.77	1.00	1.00	0.0	28.77	79.79	0.00	6051	0	2246	1861	4106
4	55	19.67	11.351	11.820	0.00	0.154	2.76	1.00	1.00	0.0	16.75	46.21	0.00	3350	0	1236	913	2149
3	45	18.86	16.700	11.820	0.00	0.177	2.67	1.00	1.00	0.0	22.28	59.57	0.00	3763	0	1528	926	2454
2	30	17.31	14.945	24.708	0.00	0.112	2.91	1.00	1.00	0.0	25.98	75.72	0.00	9008	0	1783	1702	3485
1	10	14.98	15.714	26.210	0.00	0.107	2.94	1.00	1.00	0.0	27.47	80.70	0.00	9797	0	1644	1471	3115
													Totals	**50,497**	**0**			**32,549**

1.2D + 1.6W 300° Gust Response Factor (Gh): 0.85
90 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)
12	180	25.25	11.567	6.667	0.00	0.176	2.68	0.80	1.00	0.0	13.06	34.95	0.00	1657	0	1200	404	1604
11	160	24.63	0.000	14.673	0.00	0.142	2.80	0.80	1.00	0.0	8.46	23.69	0.00	2444	0	794	1528	2321
10	145	24.12	5.503	7.813	0.00	0.226	2.51	0.80	1.00	0.0	8.67	21.77	0.00	1518	0	714	839	1554
9	135	23.76	7.366	8.614	0.00	0.231	2.50	0.80	1.00	0.0	10.49	26.19	0.00	1863	0	846	890	1736
8	125	23.38	6.027	8.614	0.00	0.185	2.65	0.80	1.00	0.0	9.29	24.61	0.00	1882	0	782	971	1754
7	110	22.76	12.992	18.831	0.00	0.168	2.71	0.80	1.00	0.0	19.78	53.54	0.00	4283	0	1657	1967	3624
6	90	21.82	14.383	18.831	0.00	0.145	2.79	0.80	1.00	0.0	20.85	58.18	0.00	4881	0	1726	1943	3669
5	70	20.69	18.488	22.037	0.00	0.150	2.77	0.80	1.00	0.0	25.08	69.54	0.00	6051	0	1957	1861	3818
4	55	19.67	11.351	11.820	0.00	0.154	2.76	0.80	1.00	0.0	14.48	39.95	0.00	3350	0	1069	913	1981
3	45	18.86	16.700	11.820	0.00	0.177	2.67	0.80	1.00	0.0	18.94	50.64	0.00	3763	0	1299	926	2225
2	30	17.31	14.945	24.708	0.00	0.112	2.91	0.80	1.00	0.0	23.00	67.01	0.00	9008	0	1578	1702	3280
1	10	14.98	15.714	26.210	0.00	0.107	2.94	0.80	1.00	0.0	24.33	71.46	0.00	9797	0	1456	1471	2927
													Totals	**50,497**	**0**			**30,492**

1.2D + 1.6W 330° Gust Response Factor (Gh): 0.85
90 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)
12	180	25.25	11.567	6.667	0.00	0.176	2.68	0.85	1.00	0.0	13.64	36.50	0.00	1657	0	1253	404	1657
11	160	24.63	0.000	14.673	0.00	0.142	2.80	0.85	1.00	0.0	8.46	23.69	0.00	2444	0	794	1528	2321

SECTION FORCES

1.2D + 1.6W 330° — Gust Response Factor (Gh): 0.85
90 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)
10	145	24.12	5.503	7.813	0.00	0.226	2.51	0.85	1.00	0.0	8.94	22.46	0.00	1518	0	737	839	1576
9	135	23.76	7.366	8.614	0.00	0.231	2.50	0.85	1.00	0.0	10.86	27.11	0.00	1863	0	876	890	1766
8	125	23.38	6.027	8.614	0.00	0.185	2.65	0.85	1.00	0.0	9.59	25.40	0.00	1882	0	808	971	1779
7	110	22.76	12.992	18.831	0.00	0.168	2.71	0.85	1.00	0.0	20.43	55.29	0.00	4283	0	1711	1967	3678
6	90	21.82	14.383	18.831	0.00	0.145	2.79	0.85	1.00	0.0	21.57	60.18	0.00	4881	0	1786	1943	3728
5	70	20.69	18.488	22.037	0.00	0.150	2.77	0.85	1.00	0.0	26.00	72.10	0.00	6051	0	2029	1861	3890
4	55	19.67	11.351	11.820	0.00	0.154	2.76	0.85	1.00	0.0	15.05	41.51	0.00	3350	0	1110	913	2023
3	45	18.86	16.700	11.820	0.00	0.177	2.67	0.85	1.00	0.0	19.78	52.87	0.00	3763	0	1356	926	2282
2	30	17.31	14.945	24.708	0.00	0.112	2.91	0.85	1.00	0.0	23.74	69.19	0.00	9008	0	1629	1702	3331
1	10	14.98	15.714	26.210	0.00	0.107	2.94	0.85	1.00	0.0	25.11	73.77	0.00	9797	0	1503	1471	2974
													Totals	**50,497**	**0**			**31,006**

0.9D + 1.6W Normal — Gust Response Factor (Gh): 0.85
90 mph Wind with No Ice (Reduced DL) — 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)
12	180	25.25	11.567	6.667	0.00	0.176	2.68	1.00	1.00	0.0	15.37	41.14	0.00	1243	0	1413	404	1816
11	160	24.63	0.000	14.673	0.00	0.142	2.80	1.00	1.00	0.0	8.46	23.69	0.00	1833	0	794	1528	2321
10	145	24.12	5.503	7.813	0.00	0.226	2.51	1.00	1.00	0.0	9.77	24.53	0.00	1138	0	805	839	1644
9	135	23.76	7.366	8.614	0.00	0.231	2.50	1.00	1.00	0.0	11.96	29.86	0.00	1397	0	965	890	1855
8	125	23.38	6.027	8.614	0.00	0.185	2.65	1.00	1.00	0.0	10.50	27.80	0.00	1412	0	884	971	1855
7	110	22.76	12.992	18.831	0.00	0.168	2.71	1.00	1.00	0.0	22.38	60.57	0.00	3212	0	1875	1967	3841
6	90	21.82	14.383	18.831	0.00	0.145	2.79	1.00	1.00	0.0	23.72	66.20	0.00	3661	0	1964	1943	3907
5	70	20.69	18.488	22.037	0.00	0.150	2.77	1.00	1.00	0.0	28.77	79.79	0.00	4538	0	2246	1861	4106
4	55	19.67	11.351	11.820	0.00	0.154	2.76	1.00	1.00	0.0	16.75	46.21	0.00	2513	0	1236	913	2149
3	45	18.86	16.700	11.820	0.00	0.177	2.67	1.00	1.00	0.0	22.28	59.57	0.00	2822	0	1528	926	2454
2	30	17.31	14.945	24.708	0.00	0.112	2.91	1.00	1.00	0.0	25.98	75.72	0.00	6756	0	1783	1702	3485
1	10	14.98	15.714	26.210	0.00	0.107	2.94	1.00	1.00	0.0	27.47	80.70	0.00	7348	0	1644	1471	3115
													Totals	**37,873**	**0**			**32,549**

0.9D + 1.6W 60° — Gust Response Factor (Gh): 0.85
90 mph Wind with No Ice (Reduced DL) — 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)
12	180	25.25	11.567	6.667	0.00	0.176	2.68	0.80	1.00	0.0	13.06	34.95	0.00	1243	0	1200	404	1604
11	160	24.63	0.000	14.673	0.00	0.142	2.80	0.80	1.00	0.0	8.46	23.69	0.00	1833	0	794	1528	2321
10	145	24.12	5.503	7.813	0.00	0.226	2.51	0.80	1.00	0.0	8.67	21.77	0.00	1138	0	714	839	1554
9	135	23.76	7.366	8.614	0.00	0.231	2.50	0.80	1.00	0.0	10.49	26.19	0.00	1397	0	846	890	1736
8	125	23.38	6.027	8.614	0.00	0.185	2.65	0.80	1.00	0.0	9.29	24.61	0.00	1412	0	782	971	1754
7	110	22.76	12.992	18.831	0.00	0.168	2.71	0.80	1.00	0.0	19.78	53.54	0.00	3212	0	1657	1967	3624
6	90	21.82	14.383	18.831	0.00	0.145	2.79	0.80	1.00	0.0	20.85	58.18	0.00	3661	0	1726	1943	3669
5	70	20.69	18.488	22.037	0.00	0.150	2.77	0.80	1.00	0.0	25.08	69.54	0.00	4538	0	1957	1861	3818
4	55	19.67	11.351	11.820	0.00	0.154	2.76	0.80	1.00	0.0	14.48	39.95	0.00	2513	0	1069	913	1981
3	45	18.86	16.700	11.820	0.00	0.177	2.67	0.80	1.00	0.0	18.94	50.64	0.00	2822	0	1299	926	2225
2	30	17.31	14.945	24.708	0.00	0.112	2.91	0.80	1.00	0.0	23.00	67.01	0.00	6756	0	1578	1702	3280
1	10	14.98	15.714	26.210	0.00	0.107	2.94	0.80	1.00	0.0	24.33	71.46	0.00	7348	0	1456	1471	2927
													Totals	**37,873**	**0**			**30,492**

0.9D + 1.6W 90° — Gust Response Factor (Gh): 0.85
90 mph Wind with No Ice (Reduced DL) — 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)
12	180	25.25	11.567	6.667	0.00	0.176	2.68	0.85	1.00	0.0	13.64	36.50	0.00	1243	0	1253	404	1657
11	160	24.63	0.000	14.673	0.00	0.142	2.80	0.85	1.00	0.0	8.46	23.69	0.00	1833	0	794	1528	2321
10	145	24.12	5.503	7.813	0.00	0.226	2.51	0.85	1.00	0.0	8.94	22.46	0.00	1138	0	737	839	1576
9	135	23.76	7.366	8.614	0.00	0.231	2.50	0.85	1.00	0.0	10.86	27.11	0.00	1397	0	876	890	1766
8	125	23.38	6.027	8.614	0.00	0.185	2.65	0.85	1.00	0.0	9.59	25.40	0.00	1412	0	808	971	1779
7	110	22.76	12.992	18.831	0.00	0.168	2.71	0.85	1.00	0.0	20.43	55.29	0.00	3212	0	1711	1967	3678
6	90	21.82	14.383	18.831	0.00	0.145	2.79	0.85	1.00	0.0	21.57	60.18	0.00	3661	0	1786	1943	3728
5	70	20.69	18.488	22.037	0.00	0.150	2.77	0.85	1.00	0.0	26.00	72.10	0.00	4538	0	2029	1861	3890
4	55	19.67	11.351	11.820	0.00	0.154	2.76	0.85	1.00	0.0	15.05	41.51	0.00	2513	0	1110	913	2023
3	45	18.86	16.700	11.820	0.00	0.177	2.67	0.85	1.00	0.0	19.78	52.87	0.00	2822	0	1356	926	2282
2	30	17.31	14.945	24.708	0.00	0.112	2.91	0.85	1.00	0.0	23.74	69.19	0.00	6756	0	1629	1702	3331
1	10	14.98	15.714	26.210	0.00	0.107	2.94	0.85	1.00	0.0	25.11	73.77	0.00	7348	0	1503	1471	2974
													Totals	**37,873**	**0**			**31,006**

0.9D + 1.6W 120° — Gust Response Factor (Gh): 0.85
90 mph Wind with No Ice (Reduced DL) — 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)
12	180	25.25	11.567	6.667	0.00	0.176	2.68	1.00	1.00	0.0	15.37	41.14	0.00	1243	0	1413	404	1816
11	160	24.63	0.000	14.673	0.00	0.142	2.80	1.00	1.00	0.0	8.46	23.69	0.00	1833	0	794	1528	2321
10	145	24.12	5.503	7.813	0.00	0.226	2.51	1.00	1.00	0.0	9.77	24.53	0.00	1138	0	805	839	1644

SECTION FORCES

0.9D + 1.6W 120° Gust Response Factor (Gh): 0.85
90 mph Wind with No Ice (Reduced DL) 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)
9	135	23.76	7.366	8.614	0.00	0.231	2.50	1.00	1.00	0.0	11.96	29.86	0.00	1397	0	965	890	1855
8	125	23.38	6.027	8.614	0.00	0.185	2.65	1.00	1.00	0.0	10.50	27.80	0.00	1412	0	884	971	1855
7	110	22.76	12.992	18.831	0.00	0.168	2.71	1.00	1.00	0.0	22.38	60.57	0.00	3212	0	1875	1967	3841
6	90	21.82	14.383	18.831	0.00	0.145	2.79	1.00	1.00	0.0	23.72	66.20	0.00	3661	0	1964	1943	3907
5	70	20.69	18.488	22.037	0.00	0.150	2.77	1.00	1.00	0.0	28.77	79.79	0.00	4538	0	2246	1861	4106
4	55	19.67	11.351	11.820	0.00	0.154	2.76	1.00	1.00	0.0	16.75	46.21	0.00	2513	0	1236	913	2149
3	45	18.86	16.700	11.820	0.00	0.177	2.67	1.00	1.00	0.0	22.28	59.57	0.00	2822	0	1528	926	2454
2	30	17.31	14.945	24.708	0.00	0.112	2.91	1.00	1.00	0.0	25.98	75.72	0.00	6756	0	1783	1702	3485
1	10	14.98	15.714	26.210	0.00	0.107	2.94	1.00	1.00	0.0	27.47	80.70	0.00	7348	0	1644	1471	3115
													Totals	**37,873**	**0**			**32,549**

0.9D + 1.6W 180° Gust Response Factor (Gh): 0.85
90 mph Wind with No Ice (Reduced DL) 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)
12	180	25.25	11.567	6.667	0.00	0.176	2.68	0.80	1.00	0.0	13.06	34.95	0.00	1243	0	1200	404	1604
11	160	24.63	0.000	14.673	0.00	0.142	2.80	0.80	1.00	0.0	8.46	23.69	0.00	1833	0	794	1528	2321
10	145	24.12	5.503	7.813	0.00	0.226	2.51	0.80	1.00	0.0	8.67	21.77	0.00	1138	0	714	839	1554
9	135	23.76	7.366	8.614	0.00	0.231	2.50	0.80	1.00	0.0	10.49	26.19	0.00	1397	0	846	890	1736
8	125	23.38	6.027	8.614	0.00	0.185	2.65	0.80	1.00	0.0	9.29	24.61	0.00	1412	0	782	971	1754
7	110	22.76	12.992	18.831	0.00	0.168	2.71	0.80	1.00	0.0	19.78	53.54	0.00	3212	0	1657	1967	3624
6	90	21.82	14.383	18.831	0.00	0.145	2.79	0.80	1.00	0.0	20.85	58.18	0.00	3661	0	1726	1943	3669
5	70	20.69	18.488	22.037	0.00	0.150	2.77	0.80	1.00	0.0	25.08	69.54	0.00	4538	0	1957	1861	3818
4	55	19.67	11.351	11.820	0.00	0.154	2.76	0.80	1.00	0.0	14.48	39.95	0.00	2513	0	1069	913	1981
3	45	18.86	16.700	11.820	0.00	0.177	2.67	0.80	1.00	0.0	18.94	50.64	0.00	2822	0	1299	926	2225
2	30	17.31	14.945	24.708	0.00	0.112	2.91	0.80	1.00	0.0	23.00	67.01	0.00	6756	0	1578	1702	3280
1	10	14.98	15.714	26.210	0.00	0.107	2.94	0.80	1.00	0.0	24.33	71.46	0.00	7348	0	1456	1471	2927
													Totals	**37,873**	**0**			**30,492**

0.9D + 1.6W 210° Gust Response Factor (Gh): 0.85
90 mph Wind with No Ice (Reduced DL) 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)
12	180	25.25	11.567	6.667	0.00	0.176	2.68	0.85	1.00	0.0	13.64	36.50	0.00	1243	0	1253	404	1657
11	160	24.63	0.000	14.673	0.00	0.142	2.80	0.85	1.00	0.0	8.46	23.69	0.00	1833	0	794	1528	2321
10	145	24.12	5.503	7.813	0.00	0.226	2.51	0.85	1.00	0.0	8.94	22.46	0.00	1138	0	737	839	1576
9	135	23.76	7.366	8.614	0.00	0.231	2.50	0.85	1.00	0.0	10.86	27.11	0.00	1397	0	876	890	1766
8	125	23.38	6.027	8.614	0.00	0.185	2.65	0.85	1.00	0.0	9.59	25.40	0.00	1412	0	808	971	1779
7	110	22.76	12.992	18.831	0.00	0.168	2.71	0.85	1.00	0.0	20.43	55.29	0.00	3212	0	1711	1967	3678
6	90	21.82	14.383	18.831	0.00	0.145	2.79	0.85	1.00	0.0	21.57	60.18	0.00	3661	0	1786	1943	3728
5	70	20.69	18.488	22.037	0.00	0.150	2.77	0.85	1.00	0.0	26.00	72.10	0.00	4538	0	2029	1861	3890
4	55	19.67	11.351	11.820	0.00	0.154	2.76	0.85	1.00	0.0	15.05	41.51	0.00	2513	0	1110	913	2023
3	45	18.86	16.700	11.820	0.00	0.177	2.67	0.85	1.00	0.0	19.78	52.87	0.00	2822	0	1356	926	2282
2	30	17.31	14.945	24.708	0.00	0.112	2.91	0.85	1.00	0.0	23.74	69.19	0.00	6756	0	1629	1702	3331
1	10	14.98	15.714	26.210	0.00	0.107	2.94	0.85	1.00	0.0	25.11	73.77	0.00	7348	0	1503	1471	2974
													Totals	**37,873**	**0**			**31,006**

0.9D + 1.6W 240° Gust Response Factor (Gh): 0.85
90 mph Wind with No Ice (Reduced DL) 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)
12	180	25.25	11.567	6.667	0.00	0.176	2.68	1.00	1.00	0.0	15.37	41.14	0.00	1243	0	1413	404	1816
11	160	24.63	0.000	14.673	0.00	0.142	2.80	1.00	1.00	0.0	8.46	23.69	0.00	1833	0	794	1528	2321
10	145	24.12	5.503	7.813	0.00	0.226	2.51	1.00	1.00	0.0	9.77	24.53	0.00	1138	0	805	839	1644
9	135	23.76	7.366	8.614	0.00	0.231	2.50	1.00	1.00	0.0	11.96	29.86	0.00	1397	0	965	890	1855
8	125	23.38	6.027	8.614	0.00	0.185	2.65	1.00	1.00	0.0	10.50	27.80	0.00	1412	0	884	971	1855
7	110	22.76	12.992	18.831	0.00	0.168	2.71	1.00	1.00	0.0	22.38	60.57	0.00	3212	0	1875	1967	3841
6	90	21.82	14.383	18.831	0.00	0.145	2.79	1.00	1.00	0.0	23.72	66.20	0.00	3661	0	1964	1943	3907
5	70	20.69	18.488	22.037	0.00	0.150	2.77	1.00	1.00	0.0	28.77	79.79	0.00	4538	0	2246	1861	4106
4	55	19.67	11.351	11.820	0.00	0.154	2.76	1.00	1.00	0.0	16.75	46.21	0.00	2513	0	1236	913	2149
3	45	18.86	16.700	11.820	0.00	0.177	2.67	1.00	1.00	0.0	22.28	59.57	0.00	2822	0	1528	926	2454
2	30	17.31	14.945	24.708	0.00	0.112	2.91	1.00	1.00	0.0	25.98	75.72	0.00	6756	0	1783	1702	3485
1	10	14.98	15.714	26.210	0.00	0.107	2.94	1.00	1.00	0.0	27.47	80.70	0.00	7348	0	1644	1471	3115
													Totals	**37,873**	**0**			**32,549**

0.9D + 1.6W 300° Gust Response Factor (Gh): 0.85
90 mph Wind with No Ice (Reduced DL) 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)
12	180	25.25	11.567	6.667	0.00	0.176	2.68	0.80	1.00	0.0	13.06	34.95	0.00	1243	0	1200	404	1604
11	160	24.63	0.000	14.673	0.00	0.142	2.80	0.80	1.00	0.0	8.46	23.69	0.00	1833	0	794	1528	2321
10	145	24.12	5.503	7.813	0.00	0.226	2.51	0.80	1.00	0.0	8.67	21.77	0.00	1138	0	714	839	1554
9	135	23.76	7.366	8.614	0.00	0.231	2.50	0.80	1.00	0.0	10.49	26.19	0.00	1397	0	846	890	1736

SECTION FORCES

0.9D + 1.6W 300° — Gust Response Factor (Gh): 0.85
90 mph Wind with No Ice (Reduced DL) — 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)
8	125	23.38	6.027	8.614	0.00	0.185	2.65	0.80	1.00	0.0	9.29	24.61	0.00	1412	0	782	971	1754
7	110	22.76	12.992	18.831	0.00	0.168	2.71	0.80	1.00	0.0	19.78	53.54	0.00	3212	0	1657	1967	3624
6	90	21.82	14.383	18.831	0.00	0.145	2.79	0.80	1.00	0.0	20.85	58.18	0.00	3661	0	1726	1943	3669
5	70	20.69	18.488	22.037	0.00	0.150	2.77	0.80	1.00	0.0	25.08	69.54	0.00	4538	0	1957	1861	3818
4	55	19.67	11.351	11.820	0.00	0.154	2.76	0.80	1.00	0.0	14.48	39.95	0.00	2513	0	1069	913	1981
3	45	18.86	16.700	11.820	0.00	0.177	2.67	0.80	1.00	0.0	18.94	50.64	0.00	2822	0	1299	926	2225
2	30	17.31	14.945	24.708	0.00	0.112	2.91	0.80	1.00	0.0	23.00	67.01	0.00	6756	0	1578	1702	3280
1	10	14.98	15.714	26.210	0.00	0.107	2.94	0.80	1.00	0.0	24.33	71.46	0.00	7348	0	1456	1471	2927
													Totals	**37,873**	**0**			**30,492**

0.9D + 1.6W 330° — Gust Response Factor (Gh): 0.85
90 mph Wind with No Ice (Reduced DL) — 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)
12	180	25.25	11.567	6.667	0.00	0.176	2.68	0.85	1.00	0.0	13.64	36.50	0.00	1243	0	1253	404	1657
11	160	24.63	0.000	14.673	0.00	0.142	2.80	0.85	1.00	0.0	8.46	23.69	0.00	1833	0	794	1528	2321
10	145	24.12	5.503	7.813	0.00	0.226	2.51	0.85	1.00	0.0	8.94	22.46	0.00	1138	0	737	839	1576
9	135	23.76	7.366	8.614	0.00	0.231	2.50	0.85	1.00	0.0	10.86	27.11	0.00	1397	0	876	890	1766
8	125	23.38	6.027	8.614	0.00	0.185	2.65	0.85	1.00	0.0	9.59	25.40	0.00	1412	0	808	971	1779
7	110	22.76	12.992	18.831	0.00	0.168	2.71	0.85	1.00	0.0	20.43	55.29	0.00	3212	0	1711	1967	3678
6	90	21.82	14.383	18.831	0.00	0.145	2.79	0.85	1.00	0.0	21.57	60.18	0.00	3661	0	1786	1943	3728
5	70	20.69	18.488	22.037	0.00	0.150	2.77	0.85	1.00	0.0	26.00	72.10	0.00	4538	0	2029	1861	3890
4	55	19.67	11.351	11.820	0.00	0.154	2.76	0.85	1.00	0.0	15.05	41.51	0.00	2513	0	1110	913	2023
3	45	18.86	16.700	11.820	0.00	0.177	2.67	0.85	1.00	0.0	19.78	52.87	0.00	2822	0	1356	926	2282
2	30	17.31	14.945	24.708	0.00	0.112	2.91	0.85	1.00	0.0	23.74	69.19	0.00	6756	0	1629	1702	3331
1	10	14.98	15.714	26.210	0.00	0.107	2.94	0.85	1.00	0.0	25.11	73.77	0.00	7348	0	1503	1471	2974
													Totals	**37,873**	**0**			**31,006**

1.2D + 1.0Di + 1.0Wi Normal — Gust Response Factor (Gh): 0.85
50 mph Wind with 0" Radial 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)
12	180	7.79	11.567	6.667	0.00	0.176	2.68	1.00	1.00	0.0	15.37	41.14	0.00	1657	0	273	99	371
11	160	7.60	0.000	14.673	0.00	0.142	2.80	1.00	1.00	0.0	8.46	23.69	0.00	2444	0	153	399	552
10	145	7.45	5.503	7.813	0.00	0.226	2.51	1.00	1.00	0.0	10.03	25.19	0.00	1518	0	159	202	361
9	135	7.33	7.366	8.614	0.00	0.231	2.50	1.00	1.00	0.0	12.37	30.88	0.00	1863	0	192	212	405
8	125	7.22	6.027	8.614	0.00	0.185	2.65	1.00	1.00	0.0	10.95	29.01	0.00	1882	0	178	241	419
7	110	7.02	12.992	18.831	0.00	0.168	2.71	1.00	1.00	0.0	23.72	64.19	0.00	4283	0	383	498	882
6	90	6.73	14.383	18.831	0.00	0.145	2.79	1.00	1.00	0.0	25.06	69.94	0.00	4881	0	400	505	905
5	70	6.39	18.488	22.037	0.00	0.150	2.77	1.00	1.00	0.0	30.99	85.95	0.00	6051	0	467	482	948
4	55	6.07	11.351	11.820	0.00	0.154	2.76	1.00	1.00	0.0	18.06	49.83	0.00	3350	0	257	236	493
3	45	5.82	16.700	11.820	0.00	0.177	2.67	1.00	1.00	0.0	23.45	62.69	0.00	3763	0	310	234	544
2	30	5.34	14.945	24.708	0.00	0.112	2.91	1.00	1.00	0.0	28.90	84.22	0.00	9008	0	383	460	842
1	10	4.62	15.714	26.210	0.00	0.107	2.94	1.00	1.00	0.0	30.51	89.62	0.00	9797	0	352	399	752
													Totals	**50,497**	**0**			**7,474**

1.2D + 1.0Di + 1.0Wi 60° — Gust Response Factor (Gh): 0.85
50 mph Wind with 0" Radial 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)
12	180	7.79	11.567	6.667	0.00	0.176	2.68	0.80	1.00	0.0	13.06	34.95	0.00	1657	0	231	99	330
11	160	7.60	0.000	14.673	0.00	0.142	2.80	0.80	1.00	0.0	8.46	23.69	0.00	2444	0	153	399	552
10	145	7.45	5.503	7.813	0.00	0.226	2.51	0.80	1.00	0.0	8.93	22.43	0.00	1518	0	142	202	343
9	135	7.33	7.366	8.614	0.00	0.231	2.50	0.80	1.00	0.0	10.89	27.20	0.00	1863	0	170	212	382
8	125	7.22	6.027	8.614	0.00	0.185	2.65	0.80	1.00	0.0	9.75	25.82	0.00	1882	0	158	241	400
7	110	7.02	12.992	18.831	0.00	0.168	2.71	0.80	1.00	0.0	21.12	57.16	0.00	4283	0	341	498	840
6	90	6.73	14.383	18.831	0.00	0.145	2.79	0.80	1.00	0.0	22.18	61.91	0.00	4881	0	354	505	859
5	70	6.39	18.488	22.037	0.00	0.150	2.77	0.80	1.00	0.0	27.30	75.70	0.00	6051	0	411	482	893
4	55	6.07	11.351	11.820	0.00	0.154	2.76	0.80	1.00	0.0	15.79	43.57	0.00	3350	0	225	236	460
3	45	5.82	16.700	11.820	0.00	0.177	2.67	0.80	1.00	0.0	20.11	53.76	0.00	3763	0	266	234	500
2	30	5.34	14.945	24.708	0.00	0.112	2.91	0.80	1.00	0.0	25.91	75.51	0.00	9008	0	343	460	803
1	10	4.62	15.714	26.210	0.00	0.107	2.94	0.80	1.00	0.0	27.37	80.39	0.00	9797	0	316	399	715
													Totals	**50,497**	**0**			**7,078**

1.2D + 1.0Di + 1.0Wi 90° — Gust Response Factor (Gh): 0.85
50 mph Wind with 0" Radial 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)
12	180	7.79	11.567	6.667	0.00	0.176	2.68	0.85	1.00	0.0	13.64	36.50	0.00	1657	0	242	99	341
11	160	7.60	0.000	14.673	0.00	0.142	2.80	0.85	1.00	0.0	8.46	23.69	0.00	2444	0	153	399	552
10	145	7.45	5.503	7.813	0.00	0.226	2.51	0.85	1.00	0.0	9.21	23.12	0.00	1518	0	146	202	348
9	135	7.33	7.366	8.614	0.00	0.231	2.50	0.85	1.00	0.0	11.26	28.12	0.00	1863	0	175	212	388
8	125	7.22	6.027	8.614	0.00	0.185	2.65	0.85	1.00	0.0	10.05	26.61	0.00	1882	0	163	241	405

SECTION FORCES

1.2D + 1.0Di + 1.0Wi 90° Gust Response Factor (Gh): 0.85
50 mph Wind with 0" Radial 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)
7	110	7.02	12.992	18.831	0.00	0.168	2.71	0.85	1.00	0.0	21.77	58.92	0.00	4283	0	352	498	850
6	90	6.73	14.383	18.831	0.00	0.145	2.79	0.85	1.00	0.0	22.90	63.92	0.00	4881	0	366	505	871
5	70	6.39	18.488	22.037	0.00	0.150	2.77	0.85	1.00	0.0	28.22	78.26	0.00	6051	0	425	482	906
4	55	6.07	11.351	11.820	0.00	0.154	2.76	0.85	1.00	0.0	16.36	45.13	0.00	3350	0	233	236	468
3	45	5.82	16.700	11.820	0.00	0.177	2.67	0.85	1.00	0.0	20.94	55.99	0.00	3763	0	277	234	511
2	30	5.34	14.945	24.708	0.00	0.112	2.91	0.85	1.00	0.0	26.66	77.68	0.00	9008	0	353	460	812
1	10	4.62	15.714	26.210	0.00	0.107	2.94	0.85	1.00	0.0	28.15	82.70	0.00	9797	0	325	399	724
													Totals	**50,497**	**0**			**7,177**

1.2D + 1.0Di + 1.0Wi 120° Gust Response Factor (Gh): 0.85
50 mph Wind with 0" Radial 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)
12	180	7.79	11.567	6.667	0.00	0.176	2.68	1.00	1.00	0.0	15.37	41.14	0.00	1657	0	273	99	371
11	160	7.60	0.000	14.673	0.00	0.142	2.80	1.00	1.00	0.0	8.46	23.69	0.00	2444	0	153	399	552
10	145	7.45	5.503	7.813	0.00	0.226	2.51	1.00	1.00	0.0	10.03	25.19	0.00	1518	0	159	202	361
9	135	7.33	7.366	8.614	0.00	0.231	2.50	1.00	1.00	0.0	12.37	30.88	0.00	1863	0	192	212	405
8	125	7.22	6.027	8.614	0.00	0.185	2.65	1.00	1.00	0.0	10.95	29.01	0.00	1882	0	178	241	419
7	110	7.02	12.992	18.831	0.00	0.168	2.71	1.00	1.00	0.0	23.72	64.19	0.00	4283	0	383	498	882
6	90	6.73	14.383	18.831	0.00	0.145	2.79	1.00	1.00	0.0	25.06	69.94	0.00	4881	0	400	505	905
5	70	6.39	18.488	22.037	0.00	0.150	2.77	1.00	1.00	0.0	30.99	85.95	0.00	6051	0	467	482	948
4	55	6.07	11.351	11.820	0.00	0.154	2.76	1.00	1.00	0.0	18.06	49.83	0.00	3350	0	257	236	493
3	45	5.82	16.700	11.820	0.00	0.177	2.67	1.00	1.00	0.0	23.45	62.69	0.00	3763	0	310	234	544
2	30	5.34	14.945	24.708	0.00	0.112	2.91	1.00	1.00	0.0	28.90	84.22	0.00	9008	0	383	460	842
1	10	4.62	15.714	26.210	0.00	0.107	2.94	1.00	1.00	0.0	30.51	89.62	0.00	9797	0	352	399	752
													Totals	**50,497**	**0**			**7,474**

1.2D + 1.0Di + 1.0Wi 180° Gust Response Factor (Gh): 0.85
50 mph Wind with 0" Radial 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)
12	180	7.79	11.567	6.667	0.00	0.176	2.68	0.80	1.00	0.0	13.06	34.95	0.00	1657	0	231	99	330
11	160	7.60	0.000	14.673	0.00	0.142	2.80	0.80	1.00	0.0	8.46	23.69	0.00	2444	0	153	399	552
10	145	7.45	5.503	7.813	0.00	0.226	2.51	0.80	1.00	0.0	8.93	22.43	0.00	1518	0	142	202	343
9	135	7.33	7.366	8.614	0.00	0.231	2.50	0.80	1.00	0.0	10.89	27.20	0.00	1863	0	170	212	382
8	125	7.22	6.027	8.614	0.00	0.185	2.65	0.80	1.00	0.0	9.75	25.82	0.00	1882	0	158	241	400
7	110	7.02	12.992	18.831	0.00	0.168	2.71	0.80	1.00	0.0	21.12	57.16	0.00	4283	0	341	498	840
6	90	6.73	14.383	18.831	0.00	0.145	2.79	0.80	1.00	0.0	22.18	61.91	0.00	4881	0	354	505	859
5	70	6.39	18.488	22.037	0.00	0.150	2.77	0.80	1.00	0.0	27.30	75.70	0.00	6051	0	411	482	893
4	55	6.07	11.351	11.820	0.00	0.154	2.76	0.80	1.00	0.0	15.79	43.57	0.00	3350	0	225	236	460
3	45	5.82	16.700	11.820	0.00	0.177	2.67	0.80	1.00	0.0	20.11	53.76	0.00	3763	0	266	234	500
2	30	5.34	14.945	24.708	0.00	0.112	2.91	0.80	1.00	0.0	25.91	75.51	0.00	9008	0	343	460	803
1	10	4.62	15.714	26.210	0.00	0.107	2.94	0.80	1.00	0.0	27.37	80.39	0.00	9797	0	316	399	715
													Totals	**50,497**	**0**			**7,078**

1.2D + 1.0Di + 1.0Wi 210° Gust Response Factor (Gh): 0.85
50 mph Wind with 0" Radial 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)
12	180	7.79	11.567	6.667	0.00	0.176	2.68	0.85	1.00	0.0	13.64	36.50	0.00	1657	0	242	99	341
11	160	7.60	0.000	14.673	0.00	0.142	2.80	0.85	1.00	0.0	8.46	23.69	0.00	2444	0	153	399	552
10	145	7.45	5.503	7.813	0.00	0.226	2.51	0.85	1.00	0.0	9.21	23.12	0.00	1518	0	146	202	348
9	135	7.33	7.366	8.614	0.00	0.231	2.50	0.85	1.00	0.0	11.26	28.12	0.00	1863	0	175	212	388
8	125	7.22	6.027	8.614	0.00	0.185	2.65	0.85	1.00	0.0	10.05	26.61	0.00	1882	0	163	241	405
7	110	7.02	12.992	18.831	0.00	0.168	2.71	0.85	1.00	0.0	21.77	58.92	0.00	4283	0	352	498	850
6	90	6.73	14.383	18.831	0.00	0.145	2.79	0.85	1.00	0.0	22.90	63.92	0.00	4881	0	366	505	871
5	70	6.39	18.488	22.037	0.00	0.150	2.77	0.85	1.00	0.0	28.22	78.26	0.00	6051	0	425	482	906
4	55	6.07	11.351	11.820	0.00	0.154	2.76	0.85	1.00	0.0	16.36	45.13	0.00	3350	0	233	236	468
3	45	5.82	16.700	11.820	0.00	0.177	2.67	0.85	1.00	0.0	20.94	55.99	0.00	3763	0	277	234	511
2	30	5.34	14.945	24.708	0.00	0.112	2.91	0.85	1.00	0.0	26.66	77.68	0.00	9008	0	353	460	812
1	10	4.62	15.714	26.210	0.00	0.107	2.94	0.85	1.00	0.0	28.15	82.70	0.00	9797	0	325	399	724
													Totals	**50,497**	**0**			**7,177**

1.2D + 1.0Di + 1.0Wi 240° Gust Response Factor (Gh): 0.85
50 mph Wind with 0" Radial 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)
12	180	7.79	11.567	6.667	0.00	0.176	2.68	1.00	1.00	0.0	15.37	41.14	0.00	1657	0	273	99	371
11	160	7.60	0.000	14.673	0.00	0.142	2.80	1.00	1.00	0.0	8.46	23.69	0.00	2444	0	153	399	552
10	145	7.45	5.503	7.813	0.00	0.226	2.51	1.00	1.00	0.0	10.03	25.19	0.00	1518	0	159	202	361
9	135	7.33	7.366	8.614	0.00	0.231	2.50	1.00	1.00	0.0	12.37	30.88	0.00	1863	0	192	212	405
8	125	7.22	6.027	8.614	0.00	0.185	2.65	1.00	1.00	0.0	10.95	29.01	0.00	1882	0	178	241	419
7	110	7.02	12.992	18.831	0.00	0.168	2.71	1.00	1.00	0.0	23.72	64.19	0.00	4283	0	383	498	882

SECTION FORCES

1.2D + 1.0Di + 1.0Wi 240° Gust Response Factor (Gh): 0.85
50 mph Wind with 0" Radial 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)
6	90	6.73	14.383	18.831	0.00	0.145	2.79	1.00	1.00	0.0	25.06	69.94	0.00	4881	0	400	505	905
5	70	6.39	18.488	22.037	0.00	0.150	2.77	1.00	1.00	0.0	30.99	85.95	0.00	6051	0	467	482	948
4	55	6.07	11.351	11.820	0.00	0.154	2.76	1.00	1.00	0.0	18.06	49.83	0.00	3350	0	257	236	493
3	45	5.82	16.700	11.820	0.00	0.177	2.67	1.00	1.00	0.0	23.45	62.69	0.00	3763	0	310	234	544
2	30	5.34	14.945	24.708	0.00	0.112	2.91	1.00	1.00	0.0	28.90	84.22	0.00	9008	0	383	460	842
1	10	4.62	15.714	26.210	0.00	0.107	2.94	1.00	1.00	0.0	30.51	89.62	0.00	9797	0	352	399	752
													Totals	**50,497**	**0**			**7,474**

1.2D + 1.0Di + 1.0Wi 300° Gust Response Factor (Gh): 0.85
50 mph Wind with 0" Radial 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)
12	180	7.79	11.567	6.667	0.00	0.176	2.68	0.80	1.00	0.0	13.06	34.95	0.00	1657	0	231	99	330
11	160	7.60	0.000	14.673	0.00	0.142	2.80	0.80	1.00	0.0	8.46	23.69	0.00	2444	0	153	399	552
10	145	7.45	5.503	7.813	0.00	0.226	2.51	0.80	1.00	0.0	8.93	22.43	0.00	1518	0	142	202	343
9	135	7.33	7.366	8.614	0.00	0.231	2.50	0.80	1.00	0.0	10.89	27.20	0.00	1863	0	170	212	382
8	125	7.22	6.027	8.614	0.00	0.185	2.65	0.80	1.00	0.0	9.75	25.82	0.00	1882	0	158	241	400
7	110	7.02	12.992	18.831	0.00	0.168	2.71	0.80	1.00	0.0	21.12	57.16	0.00	4283	0	341	498	840
6	90	6.73	14.383	18.831	0.00	0.145	2.79	0.80	1.00	0.0	22.18	61.91	0.00	4881	0	354	505	859
5	70	6.39	18.488	22.037	0.00	0.150	2.77	0.80	1.00	0.0	27.30	75.70	0.00	6051	0	411	482	893
4	55	6.07	11.351	11.820	0.00	0.154	2.76	0.80	1.00	0.0	15.79	43.57	0.00	3350	0	225	236	460
3	45	5.82	16.700	11.820	0.00	0.177	2.67	0.80	1.00	0.0	20.11	53.76	0.00	3763	0	266	234	500
2	30	5.34	14.945	24.708	0.00	0.112	2.91	0.80	1.00	0.0	25.91	75.51	0.00	9008	0	343	460	803
1	10	4.62	15.714	26.210	0.00	0.107	2.94	0.80	1.00	0.0	27.37	80.39	0.00	9797	0	316	399	715
													Totals	**50,497**	**0**			**7,078**

1.2D + 1.0Di + 1.0Wi 330° Gust Response Factor (Gh): 0.85
50 mph Wind with 0" Radial 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)
12	180	7.79	11.567	6.667	0.00	0.176	2.68	0.85	1.00	0.0	13.64	36.50	0.00	1657	0	242	99	341
11	160	7.60	0.000	14.673	0.00	0.142	2.80	0.85	1.00	0.0	8.46	23.69	0.00	2444	0	153	399	552
10	145	7.45	5.503	7.813	0.00	0.226	2.51	0.85	1.00	0.0	9.21	23.12	0.00	1518	0	146	202	348
9	135	7.33	7.366	8.614	0.00	0.231	2.50	0.85	1.00	0.0	11.26	28.12	0.00	1863	0	175	212	388
8	125	7.22	6.027	8.614	0.00	0.185	2.65	0.85	1.00	0.0	10.05	26.61	0.00	1882	0	163	241	405
7	110	7.02	12.992	18.831	0.00	0.168	2.71	0.85	1.00	0.0	21.77	58.92	0.00	4283	0	352	498	850
6	90	6.73	14.383	18.831	0.00	0.145	2.79	0.85	1.00	0.0	22.90	63.92	0.00	4881	0	366	505	871
5	70	6.39	18.488	22.037	0.00	0.150	2.77	0.85	1.00	0.0	28.22	78.26	0.00	6051	0	425	482	906
4	55	6.07	11.351	11.820	0.00	0.154	2.76	0.85	1.00	0.0	16.36	45.13	0.00	3350	0	233	236	468
3	45	5.82	16.700	11.820	0.00	0.177	2.67	0.85	1.00	0.0	20.94	55.99	0.00	3763	0	277	234	511
2	30	5.34	14.945	24.708	0.00	0.112	2.91	0.85	1.00	0.0	26.66	77.68	0.00	9008	0	353	460	812
1	10	4.62	15.714	26.210	0.00	0.107	2.94	0.85	1.00	0.0	28.15	82.70	0.00	9797	0	325	399	724
													Totals	**50,497**	**0**			**7,177**

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)
12	180	11.22	11.567	6.667	0.00	0.176	2.68	1.00	1.00	0.0	15.37	41.14	0.00	1381	0	392	112	504
11	160	10.95	0.000	14.673	0.00	0.142	2.80	1.00	1.00	0.0	8.46	23.69	0.00	2037	0	220	424	645
10	145	10.72	5.503	7.813	0.00	0.226	2.51	1.00	1.00	0.0	10.03	25.19	0.00	1265	0	230	233	463
9	135	10.56	7.366	8.614	0.00	0.231	2.50	1.00	1.00	0.0	12.37	30.88	0.00	1552	0	277	247	524
8	125	10.39	6.027	8.614	0.00	0.185	2.65	1.00	1.00	0.0	10.95	29.01	0.00	1568	0	256	270	526
7	110	10.12	12.992	18.831	0.00	0.168	2.71	1.00	1.00	0.0	23.71	64.18	0.00	3569	0	552	546	1098
6	90	9.70	14.383	18.831	0.00	0.145	2.79	1.00	1.00	0.0	25.06	69.94	0.00	4068	0	576	540	1116
5	70	9.20	18.488	22.037	0.00	0.150	2.77	1.00	1.00	0.0	30.61	84.88	0.00	5043	0	664	517	1180
4	55	8.74	11.351	11.820	0.00	0.154	2.76	1.00	1.00	0.0	17.77	49.02	0.00	2792	0	364	253	618
3	45	8.38	16.700	11.820	0.00	0.177	2.67	1.00	1.00	0.0	23.21	62.06	0.00	3136	0	442	257	699
2	30	7.69	14.945	24.708	0.00	0.112	2.91	1.00	1.00	0.0	28.31	82.49	0.00	7507	0	540	473	1012
1	10	6.66	15.714	26.210	0.00	0.107	2.94	1.00	1.00	0.0	29.94	87.95	0.00	8164	0	498	408	906
													Totals	**42,081**	**0**			**9,293**

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)
12	180	11.22	11.567	6.667	0.00	0.176	2.68	0.80	1.00	0.0	13.06	34.95	0.00	1381	0	333	112	445
11	160	10.95	0.000	14.673	0.00	0.142	2.80	0.80	1.00	0.0	8.46	23.69	0.00	2037	0	220	424	645
10	145	10.72	5.503	7.813	0.00	0.226	2.51	0.80	1.00	0.0	8.93	22.43	0.00	1265	0	204	233	438
9	135	10.56	7.366	8.614	0.00	0.231	2.50	0.80	1.00	0.0	10.89	27.20	0.00	1552	0	244	247	491
8	125	10.39	6.027	8.614	0.00	0.185	2.65	0.80	1.00	0.0	9.75	25.82	0.00	1568	0	228	270	498
7	110	10.12	12.992	18.831	0.00	0.168	2.71	0.80	1.00	0.0	21.12	57.15	0.00	3569	0	491	546	1038
6	90	9.70	14.383	18.831	0.00	0.145	2.79	0.80	1.00	0.0	22.18	61.91	0.00	4068	0	510	540	1050

SECTION FORCES

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)
5	70	9.20	18.488	22.037	0.00	0.150	2.77	0.80	1.00	0.0	26.91	74.63	0.00	5043	0	583	517	1100
4	55	8.74	11.351	11.820	0.00	0.154	2.76	0.80	1.00	0.0	15.50	42.76	0.00	2792	0	318	253	571
3	45	8.38	16.700	11.820	0.00	0.177	2.67	0.80	1.00	0.0	19.87	53.13	0.00	3136	0	378	257	636
2	30	7.69	14.945	24.708	0.00	0.112	2.91	0.80	1.00	0.0	25.32	73.78	0.00	7507	0	483	473	955
1	10	6.66	15.714	26.210	0.00	0.107	2.94	0.80	1.00	0.0	26.80	78.71	0.00	8164	0	446	408	854
													Totals	**42,081**	**0**			**8,721**

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)
12	180	11.22	11.567	6.667	0.00	0.176	2.68	0.85	1.00	0.0	13.64	36.50	0.00	1381	0	348	112	460
11	160	10.95	0.000	14.673	0.00	0.142	2.80	0.85	1.00	0.0	8.46	23.69	0.00	2037	0	220	424	645
10	145	10.72	5.503	7.813	0.00	0.226	2.51	0.85	1.00	0.0	9.21	23.12	0.00	1265	0	211	233	444
9	135	10.56	7.366	8.614	0.00	0.231	2.50	0.85	1.00	0.0	11.26	28.12	0.00	1552	0	252	247	500
8	125	10.39	6.027	8.614	0.00	0.185	2.65	0.85	1.00	0.0	10.05	26.61	0.00	1568	0	235	270	505
7	110	10.12	12.992	18.831	0.00	0.168	2.71	0.85	1.00	0.0	21.77	58.91	0.00	3569	0	506	546	1053
6	90	9.70	14.383	18.831	0.00	0.145	2.79	0.85	1.00	0.0	22.90	63.92	0.00	4068	0	527	540	1066
5	70	9.20	18.488	22.037	0.00	0.150	2.77	0.85	1.00	0.0	27.83	77.19	0.00	5043	0	603	517	1120
4	55	8.74	11.351	11.820	0.00	0.154	2.76	0.85	1.00	0.0	16.07	44.32	0.00	2792	0	329	253	583
3	45	8.38	16.700	11.820	0.00	0.177	2.67	0.85	1.00	0.0	20.71	55.37	0.00	3136	0	394	257	652
2	30	7.69	14.945	24.708	0.00	0.112	2.91	0.85	1.00	0.0	26.07	75.96	0.00	7507	0	497	473	970
1	10	6.66	15.714	26.210	0.00	0.107	2.94	0.85	1.00	0.0	27.58	81.02	0.00	8164	0	459	408	867
													Totals	**42,081**	**0**			**8,864**

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)
12	180	11.22	11.567	6.667	0.00	0.176	2.68	1.00	1.00	0.0	15.37	41.14	0.00	1381	0	392	112	504
11	160	10.95	0.000	14.673	0.00	0.142	2.80	1.00	1.00	0.0	8.46	23.69	0.00	2037	0	220	424	645
10	145	10.72	5.503	7.813	0.00	0.226	2.51	1.00	1.00	0.0	10.03	25.19	0.00	1265	0	230	233	463
9	135	10.56	7.366	8.614	0.00	0.231	2.50	1.00	1.00	0.0	12.37	30.88	0.00	1552	0	277	247	524
8	125	10.39	6.027	8.614	0.00	0.185	2.65	1.00	1.00	0.0	10.95	29.01	0.00	1568	0	256	270	526
7	110	10.12	12.992	18.831	0.00	0.168	2.71	1.00	1.00	0.0	23.71	64.18	0.00	3569	0	552	546	1098
6	90	9.70	14.383	18.831	0.00	0.145	2.79	1.00	1.00	0.0	25.06	69.94	0.00	4068	0	576	540	1116
5	70	9.20	18.488	22.037	0.00	0.150	2.77	1.00	1.00	0.0	30.61	84.88	0.00	5043	0	664	517	1180
4	55	8.74	11.351	11.820	0.00	0.154	2.76	1.00	1.00	0.0	17.77	49.02	0.00	2792	0	364	253	618
3	45	8.38	16.700	11.820	0.00	0.177	2.67	1.00	1.00	0.0	23.21	62.06	0.00	3136	0	442	257	699
2	30	7.69	14.945	24.708	0.00	0.112	2.91	1.00	1.00	0.0	28.31	82.49	0.00	7507	0	540	473	1012
1	10	6.66	15.714	26.210	0.00	0.107	2.94	1.00	1.00	0.0	29.94	87.95	0.00	8164	0	498	408	906
													Totals	**42,081**	**0**			**9,293**

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)
12	180	11.22	11.567	6.667	0.00	0.176	2.68	0.80	1.00	0.0	13.06	34.95	0.00	1381	0	333	112	445
11	160	10.95	0.000	14.673	0.00	0.142	2.80	0.80	1.00	0.0	8.46	23.69	0.00	2037	0	220	424	645
10	145	10.72	5.503	7.813	0.00	0.226	2.51	0.80	1.00	0.0	8.93	22.43	0.00	1265	0	204	233	438
9	135	10.56	7.366	8.614	0.00	0.231	2.50	0.80	1.00	0.0	10.89	27.20	0.00	1552	0	244	247	491
8	125	10.39	6.027	8.614	0.00	0.185	2.65	0.80	1.00	0.0	9.75	25.82	0.00	1568	0	228	270	498
7	110	10.12	12.992	18.831	0.00	0.168	2.71	0.80	1.00	0.0	21.12	57.15	0.00	3569	0	491	546	1038
6	90	9.70	14.383	18.831	0.00	0.145	2.79	0.80	1.00	0.0	22.18	61.91	0.00	4068	0	510	540	1050
5	70	9.20	18.488	22.037	0.00	0.150	2.77	0.80	1.00	0.0	26.91	74.63	0.00	5043	0	583	517	1100
4	55	8.74	11.351	11.820	0.00	0.154	2.76	0.80	1.00	0.0	15.50	42.76	0.00	2792	0	318	253	571
3	45	8.38	16.700	11.820	0.00	0.177	2.67	0.80	1.00	0.0	19.87	53.13	0.00	3136	0	378	257	636
2	30	7.69	14.945	24.708	0.00	0.112	2.91	0.80	1.00	0.0	25.32	73.78	0.00	7507	0	483	473	955
1	10	6.66	15.714	26.210	0.00	0.107	2.94	0.80	1.00	0.0	26.80	78.71	0.00	8164	0	446	408	854
													Totals	**42,081**	**0**			**8,721**

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)
12	180	11.22	11.567	6.667	0.00	0.176	2.68	0.85	1.00	0.0	13.64	36.50	0.00	1381	0	348	112	460
11	160	10.95	0.000	14.673	0.00	0.142	2.80	0.85	1.00	0.0	8.46	23.69	0.00	2037	0	220	424	645
10	145	10.72	5.503	7.813	0.00	0.226	2.51	0.85	1.00	0.0	9.21	23.12	0.00	1265	0	211	233	444
9	135	10.56	7.366	8.614	0.00	0.231	2.50	0.85	1.00	0.0	11.26	28.12	0.00	1552	0	252	247	500
8	125	10.39	6.027	8.614	0.00	0.185	2.65	0.85	1.00	0.0	10.05	26.61	0.00	1568	0	235	270	505
7	110	10.12	12.992	18.831	0.00	0.168	2.71	0.85	1.00	0.0	21.77	58.91	0.00	3569	0	506	546	1053
6	90	9.70	14.383	18.831	0.00	0.145	2.79	0.85	1.00	0.0	22.90	63.92	0.00	4068	0	527	540	1066
5	70	9.20	18.488	22.037	0.00	0.150	2.77	0.85	1.00	0.0	27.83	77.19	0.00	5043	0	603	517	1120

SECTION FORCES

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)
4	55	8.74	11.351	11.820	0.00	0.154	2.76	0.85	1.00	0.0	16.07	44.32	0.00	2792	0	329	253	583
3	45	8.38	16.700	11.820	0.00	0.177	2.67	0.85	1.00	0.0	20.71	55.37	0.00	3136	0	394	257	652
2	30	7.69	14.945	24.708	0.00	0.112	2.91	0.85	1.00	0.0	26.07	75.96	0.00	7507	0	497	473	970
1	10	6.66	15.714	26.210	0.00	0.107	2.94	0.85	1.00	0.0	27.58	81.02	0.00	8164	0	459	408	867
													Totals	**42,081**	**0**			**8,864**

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)
12	180	11.22	11.567	6.667	0.00	0.176	2.68	1.00	1.00	0.0	15.37	41.14	0.00	1381	0	392	112	504
11	160	10.95	0.000	14.673	0.00	0.142	2.80	1.00	1.00	0.0	8.46	23.69	0.00	2037	0	220	424	645
10	145	10.72	5.503	7.813	0.00	0.226	2.51	1.00	1.00	0.0	10.03	25.19	0.00	1265	0	230	233	463
9	135	10.56	7.366	8.614	0.00	0.231	2.50	1.00	1.00	0.0	12.37	30.88	0.00	1552	0	277	247	524
8	125	10.39	6.027	8.614	0.00	0.185	2.65	1.00	1.00	0.0	10.95	29.01	0.00	1568	0	256	270	526
7	110	10.12	12.992	18.831	0.00	0.168	2.71	1.00	1.00	0.0	23.71	64.18	0.00	3569	0	552	546	1098
6	90	9.70	14.383	18.831	0.00	0.145	2.79	1.00	1.00	0.0	25.06	69.94	0.00	4068	0	576	540	1116
5	70	9.20	18.488	22.037	0.00	0.150	2.77	1.00	1.00	0.0	30.61	84.88	0.00	5043	0	664	517	1180
4	55	8.74	11.351	11.820	0.00	0.154	2.76	1.00	1.00	0.0	17.77	49.02	0.00	2792	0	364	253	618
3	45	8.38	16.700	11.820	0.00	0.177	2.67	1.00	1.00	0.0	23.21	62.06	0.00	3136	0	442	257	699
2	30	7.69	14.945	24.708	0.00	0.112	2.91	1.00	1.00	0.0	28.31	82.49	0.00	7507	0	540	473	1012
1	10	6.66	15.714	26.210	0.00	0.107	2.94	1.00	1.00	0.0	29.94	87.95	0.00	8164	0	498	408	906
													Totals	**42,081**	**0**			**9,293**

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)
12	180	11.22	11.567	6.667	0.00	0.176	2.68	0.80	1.00	0.0	13.06	34.95	0.00	1381	0	333	112	445
11	160	10.95	0.000	14.673	0.00	0.142	2.80	0.80	1.00	0.0	8.46	23.69	0.00	2037	0	220	424	645
10	145	10.72	5.503	7.813	0.00	0.226	2.51	0.80	1.00	0.0	8.93	22.43	0.00	1265	0	204	233	438
9	135	10.56	7.366	8.614	0.00	0.231	2.50	0.80	1.00	0.0	10.89	27.20	0.00	1552	0	244	247	491
8	125	10.39	6.027	8.614	0.00	0.185	2.65	0.80	1.00	0.0	9.75	25.82	0.00	1568	0	228	270	498
7	110	10.12	12.992	18.831	0.00	0.168	2.71	0.80	1.00	0.0	21.12	57.15	0.00	3569	0	491	546	1038
6	90	9.70	14.383	18.831	0.00	0.145	2.79	0.80	1.00	0.0	22.18	61.91	0.00	4068	0	510	540	1050
5	70	9.20	18.488	22.037	0.00	0.150	2.77	0.80	1.00	0.0	26.91	74.63	0.00	5043	0	583	517	1100
4	55	8.74	11.351	11.820	0.00	0.154	2.76	0.80	1.00	0.0	15.50	42.76	0.00	2792	0	318	253	571
3	45	8.38	16.700	11.820	0.00	0.177	2.67	0.80	1.00	0.0	19.87	53.13	0.00	3136	0	378	257	636
2	30	7.69	14.945	24.708	0.00	0.112	2.91	0.80	1.00	0.0	25.32	73.78	0.00	7507	0	483	473	955
1	10	6.66	15.714	26.210	0.00	0.107	2.94	0.80	1.00	0.0	26.80	78.71	0.00	8164	0	446	408	854
													Totals	**42,081**	**0**			**8,721**

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)
12	180	11.22	11.567	6.667	0.00	0.176	2.68	0.85	1.00	0.0	13.64	36.50	0.00	1381	0	348	112	460
11	160	10.95	0.000	14.673	0.00	0.142	2.80	0.85	1.00	0.0	8.46	23.69	0.00	2037	0	220	424	645
10	145	10.72	5.503	7.813	0.00	0.226	2.51	0.85	1.00	0.0	9.21	23.12	0.00	1265	0	211	233	444
9	135	10.56	7.366	8.614	0.00	0.231	2.50	0.85	1.00	0.0	11.26	28.12	0.00	1552	0	252	247	500
8	125	10.39	6.027	8.614	0.00	0.185	2.65	0.85	1.00	0.0	10.05	26.61	0.00	1568	0	235	270	505
7	110	10.12	12.992	18.831	0.00	0.168	2.71	0.85	1.00	0.0	21.77	58.91	0.00	3569	0	506	546	1053
6	90	9.70	14.383	18.831	0.00	0.145	2.79	0.85	1.00	0.0	22.90	63.92	0.00	4068	0	527	540	1066
5	70	9.20	18.488	22.037	0.00	0.150	2.77	0.85	1.00	0.0	27.83	77.19	0.00	5043	0	603	517	1120
4	55	8.74	11.351	11.820	0.00	0.154	2.76	0.85	1.00	0.0	16.07	44.32	0.00	2792	0	329	253	583
3	45	8.38	16.700	11.820	0.00	0.177	2.67	0.85	1.00	0.0	20.71	55.37	0.00	3136	0	394	257	652
2	30	7.69	14.945	24.708	0.00	0.112	2.91	0.85	1.00	0.0	26.07	75.96	0.00	7507	0	497	473	970
1	10	6.66	15.714	26.210	0.00	0.107	2.94	0.85	1.00	0.0	27.58	81.02	0.00	8164	0	459	408	867
													Totals	**42,081**	**0**			**8,864**

EQUIVALENT LATERAL FORCE METHOD

(Based on ASCE7-10 Chapters 11,12 & 15)

Spectral Response Acceleration for Short Period (S_S):	0.18
Spectral Response Acceleration at 1.0 Second Period (S_1):	0.06
Long-Period Transition Period (T_L – Seconds):	4
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}):	0.19
Design Spectral Response Acceleration at 1.0 Second Period (S_{d1}):	0.09
Seismic Response Coefficient (C_s):	0.03
Upper Limit C_S:	0.03
Lower Limit C_S:	0.03
Period based on Rayleigh Method (sec):	1.10
Redundancy Factor (ρ):	1.30
Seismic Force Distribution Exponent (k):	1.30
Total Unfactored Dead Load:	55.67 k
Seismic Base Shear (E):	2.17 k

SEISMIC FORCES

(0.9 - 0.2Sds) * DL + E

Section/Appurtenance	Height Above Base (ft)	Weight (lb)	W_Z (lb-ft)	Cvx	Horizontal Force (lb)	Vertical Force (lb)
12	180.00	1,381	1,187,582	0.058	126	1,190
11	160.00	2,037	1,502,758	0.073	159	1,755
10	145.00	1,265	821,190	0.040	87	1,090
9	135.00	1,552	918,280	0.045	97	1,338
8	125.00	1,568	839,359	0.041	89	1,352
7	110.00	3,569	1,617,494	0.079	172	3,076
6	90.00	4,068	1,419,671	0.069	151	3,505
5	70.00	5,043	1,269,130	0.062	135	4,346
4	55.00	2,792	513,432	0.025	54	2,406
3	45.00	3,136	444,112	0.022	47	2,702
2	30.00	7,507	627,308	0.031	67	6,469
1	10.00	8,164	163,342	0.008	17	7,036
Raycap DC9-48-60-24-8C-EV	190.00	48	44,295	0.002	5	41
Nokia AHCA AirScale RRH 4T4R B5 160W	186.00	106	95,057	0.005	10	91
Nokia AirScale Dual RRH 4T4R B25/66 320W AHFIB (66.1lbs)	186.00	198	177,997	0.009	19	171
Nokia AHLBBA	186.00	284	255,281	0.012	27	245
Commscope NNH4-65C-R6-V3 (102.5 lbs)	186.00	615	552,032	0.027	59	530
Generic Flat Light Sector Frame	186.00	1,200	1,077,136	0.053	114	1,034
Commscope RDIDC-9181-PF-48	175.00	22	18,159	0.001	2	19
Fujitsu TA08025-B605	175.00	225	186,562	0.009	20	194
Fujitsu TA08025-B604	175.00	192	158,951	0.008	17	165
JMA Wireless MX08FRO665-21	175.00	194	160,443	0.008	17	167
Generic Flat Light Sector Frame	175.00	1,200	994,996	0.049	106	1,034
Flat Light Sector Frame	170.00	1,200	958,165	0.047	102	1,034
Cambium Networks PTP 58500	165.00	12	9,063	0.000	1	10
Cambium Networks PMP 450m	165.00	217	166,667	0.008	18	187
Generic Flat T-Arm	165.00	938	720,046	0.035	76	808
Cambium Networks PMP 450m	161.70	31	23,192	0.001	2	27
Ericsson Radio 4449 - B13&B5	158.00	210	152,444	0.007	16	181
Ericsson Radio 4890HP 48B2 48B66 S	158.00	208	151,355	0.007	16	180
Raycap RCMDC-6627-PF-48	158.00	64	46,459	0.002	5	55
Ericsson AIR 6419 B77D	158.00	189	137,418	0.007	15	163
Commscope NHH-65B-R2B	158.00	262	190,337	0.009	20	226
Generic Round Sector Frame	158.00	900	653,332	0.032	69	776
Heavy Sector Frame	158.00	500	362,962	0.018	38	431
Ceragon IP-20C	148.00	13	8,667	0.000	1	11
Radio Waves HP3-6	147.40	50	33,160	0.002	4	43
Radio Waves SPD3-5.2NS-RD	147.00	43	28,417	0.001	3	37
Andrew HP6-59/K	141.00	320	200,315	0.010	21	276
Commscope HELIAX FiberFeed 12 RRU Pendant Connect	132.00	40	22,980	0.001	2	34
Nokia AirScale Dual RRH 4T4R B12/71 240W AHLOA	132.00	251	144,429	0.007	15	217

Nokia AHFIG	132.00	238	136,846	0.007	15	205
Nokia AEHC	132.00	311	178,554	0.009	19	268
Commscope FFVV-65C-R3-V1	132.00	374	214,748	0.010	23	322
Round Sector Frame	129.50	900	504,344	0.025	53	776
Generic 20' Omni	117.30	55	27,098	0.001	3	47
Andrew PL4-59-P7A/F	111.00	119	54,566	0.003	6	103
Scala 2XCA2-CP	90.00	6	1,989	0.000	0	5
Samsung RRH-C2A (w/ External Filter)	57.30	115	22,228	0.001	2	99
KMW ET-X-WM-18-65-8P	55.50	73	13,546	0.001	1	63
Samsung 8T8R RRH – RRH-B8	55.00	119	21,883	0.001	2	103
Generic Flat Light Sector Frame	55.00	800	147,112	0.007	16	689
KMW ET-X-TS-70-15-62-18-iR-RD	54.90	84	15,374	0.001	2	72
Samsung 1.9GHz RRH	54.50	119	21,624	0.001	2	103
Andrew Microwaves HP6-65/K	50.00	320	51,982	0.002	6	276
Standoff	21.00	150	7,881	0.000	1	129
Generic GPS	20.70	20	1,031	0.000	0	17
L-com HG5833D w/ Radome	19.30	20	941	0.000	0	17
Ceragon IP-20C	18.00	13	559	0.000	0	11
Radio Waves HP2-11	18.00	27	1,161	0.000	0	23
Totals		**55,675**	**20,477,442**	**1.000**	**2,171**	**47,981**

(1.2 + 0.2Sds) * DL + E

Section/Appurtenance	Height Above Base (ft)	Weight (lb)	W_z (lb-ft)	Cvx	Horizontal Force (lb)	Vertical Force (lb)
12	180.00	1,381	1,187,582	0.058	126	1,710
11	160.00	2,037	1,502,758	0.073	159	2,522
10	145.00	1,265	821,190	0.040	87	1,566
9	135.00	1,552	918,280	0.045	97	1,922
8	125.00	1,568	839,359	0.041	89	1,942
7	110.00	3,569	1,617,494	0.079	172	4,419
6	90.00	4,068	1,419,671	0.069	151	5,036
5	70.00	5,043	1,269,130	0.062	135	6,244
4	55.00	2,792	513,432	0.025	54	3,457
3	45.00	3,136	444,112	0.022	47	3,883
2	30.00	7,507	627,308	0.031	67	9,295
1	10.00	8,164	163,342	0.008	17	10,108
Raycap DC9-48-60-24-8C-EV	190.00	48	44,295	0.002	5	59
Nokia AHCA AirScale RRH 4T4R B5 160W	186.00	106	95,057	0.005	10	131
Nokia AirScale Dual RRH 4T4R B25/66 320W AHFIB (66.1lbs)	186.00	198	177,997	0.009	19	246
Nokia AHLBBA	186.00	284	255,281	0.012	27	352
Commscope NNH4-65C-R6-V3 (102.5 lbs)	186.00	615	552,032	0.027	59	761
Generic Flat Light Sector Frame	186.00	1,200	1,077,136	0.053	114	1,486
Commscope RDIDC-9181-PF-48	175.00	22	18,159	0.001	2	27
Fujitsu TA08025-B605	175.00	225	186,562	0.009	20	279
Fujitsu TA08025-B604	175.00	192	158,951	0.008	17	237
JMA Wireless MX08FRO665-21	175.00	194	160,443	0.008	17	240
Generic Flat Light Sector Frame	175.00	1,200	994,996	0.049	106	1,486
Flat Light Sector Frame	170.00	1,200	958,165	0.047	102	1,486
Cambium Networks PTP 58500	165.00	12	9,063	0.000	1	15
Cambium Networks PMP 450m	165.00	217	166,667	0.008	18	269
Generic Flat T-Arm	165.00	938	720,046	0.035	76	1,161
Cambium Networks PMP 450m	161.70	31	23,192	0.001	2	38
Ericsson Radio 4449 - B13&B5	158.00	210	152,444	0.007	16	260
Ericsson Radio 4890HP 48B2 48B66 S	158.00	208	151,355	0.007	16	258
Raycap RCMDC-6627-PF-48	158.00	64	46,459	0.002	5	79
Ericsson AIR 6419 B77D	158.00	189	137,418	0.007	15	234
Commscope NHH-65B-R2B	158.00	262	190,337	0.009	20	325
Generic Round Sector Frame	158.00	900	653,332	0.032	69	1,114
Heavy Sector Frame	158.00	500	362,962	0.018	38	619
Ceragon IP-20C	148.00	13	8,667	0.000	1	16
Radio Waves HP3-6	147.40	50	33,160	0.002	4	62
Radio Waves SPD3-5.2NS-RD	147.00	43	28,417	0.001	3	53
Andrew HP6-59/K	141.00	320	200,315	0.010	21	396
Commscope HELIAX FiberFeed 12 RRU Pendant Connect	132.00	40	22,980	0.001	2	50
Nokia AirScale Dual RRH 4T4R B12/71 240W AHLOA	132.00	251	144,429	0.007	15	311
Nokia AHFIG	132.00	238	136,846	0.007	15	295
Nokia AEHC	132.00	311	178,554	0.009	19	385
Commscope FFVV-65C-R3-V1	132.00	374	214,748	0.010	23	463
Round Sector Frame	129.50	900	504,344	0.025	53	1,114
Generic 20' Omni	117.30	55	27,098	0.001	3	68
Andrew PL4-59-P7A/F	111.00	119	54,566	0.003	6	147
Scala 2XCA2-CP	90.00	6	1,989	0.000	0	7
Samsung RRH-C2A (w/ External Filter)	57.30	115	22,228	0.001	2	142
KMW ET-X-WM-18-65-8P	55.50	73	13,546	0.001	1	90
Samsung 8T8R RRH – RRH-B8	55.00	119	21,883	0.001	2	147
Generic Flat Light Sector Frame	55.00	800	147,112	0.007	16	991
KMW ET-X-TS-70-15-62-18-iR-RD	54.90	84	15,374	0.001	2	104
Samsung 1.9GHz RRH	54.50	119	21,624	0.001	2	147
Andrew Microwaves HP6-65/K	50.00	320	51,982	0.002	6	396
Standoff	21.00	150	7,881	0.000	1	186
Generic GPS	20.70	20	1,031	0.000	0	25
L-com HG5833D w/ Radome	19.30	20	941	0.000	0	25

Ceragon IP-20C		18.00	13	559	0.000	0	16
Radio Waves HP2-11		18.00	27	1,161	0.000	0	33
	Totals		**55,675**	**20,477,442**	**1.000**	**2,171**	**68,936**

FORCE/STRESS SUMMARY

Section 1 – 0.0' to 20.00'

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 18B - 18"BD 2.5"	-325.34	1.2D + 1.6W N	20.033	100	100	100	0.00	0.00	613.30	0.00	0.00	0	0	53.1	User Input
D DAE - 3.5X3.5X0.3125	-11.51	1.2D + 1.6W 330°	27.592	50	50	25	158.42	36.00	37.62	127.23	139.20	4	2	30.6	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
L 18B - 18"BD 2.5"	279.77	0.9D + 1.6W 180°	50.0	65	662.70	0.00	0.00		0	0	42.2	User Input
D DAE - 3.5X3.5X0.3125	10.78	0.9D + 1.6W 330°	36.0	58	113.43	127.23	112.01	71.05	4	2	15.2	Blk Shear

Max Splice Forces	Pu (kip)	Load Case	ΦR_{nt} (kip)	Use %	Num Bolts	Bolt Type
Bot Tension	295.33	0.9D + 1.6W 180°	899.36	39.2	6	2" F1554 GD 55
Bot Compression	342.63	1.2D + 1.6W N	899.36	45.6	6	2" F1554 GD 55

Section 2 – 20.0' 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 18B - 18" BD 2.25"	-293.72	1.2D + 1.6W N	20.033	100	100	100	0.00	0.00	512.40	0.00	0.00	0	0	57.3	User Input
D DAE - 3.5X3.5X0.3125	-11.66	1.2D + 1.6W 330°	26.255	50	50	25	150.75	36.00	41.55	127.23	139.20	4	2	28.1	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
L 18B - 18" BD 2.25"	253.03	0.9D + 1.6W 180°	50.0	65	536.80	0.00	0.00		0	0	47.1	User Input
D DAE - 3.5X3.5X0.3125	10.72	0.9D + 1.6W 330°	36.0	58	113.43	127.23	112.01	71.05	4	2	15.1	Blk Shear

Max Splice Forces	Pu (kip)	Load Case	ΦR_{nt} (kip)	Use %	Num Bolts	Bolt Type
Bot Tension	266.62	0.9D + 1.6W 180°	523.32	51	6	1.25" A325

Section 3 – 40.0' to 50.00'

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 12B - 12"BD 2.25"	-270.46	1.2D + 1.6W N	10.017	100	100	100	0.00	0.00	512.40	0.00	0.00	0	0	52.8	User Input
H SAE - 4X4X0.25	-1.47	0.9D + 1.6W N	15	100	100	100	226.42	35.71	8.55	99.40	69.60	2	1	17.2	Member Z
D SAE - 4X4X0.25	-7.64	0.9D + 1.6W 330°	18.448	50	50	50	139.23	35.71	22.61	49.70	34.80	1	1	33.8	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
L 12B - 12"BD 2.25"	234.88	0.9D + 1.6W 180°	50.0	65	536.80	0.00	0.00		0	0	43.8	User Input
H SAE - 4X4X0.25	1.53	1.2D + 1.6W 180°	36.0	58	52.08	99.40	56.12	31.62	2	1	4.9	Blk Shear
D SAE - 4X4X0.25	7.57	1.2D + 1.6W 330°	36.0	58	52.08	49.70	21.32	16.43	1	1	46.1	Blk Shear

Max Splice Forces	Pu (kip)	Load Case	ΦR_{nt} (kip)	Use %	Num Bolts	Bolt Type
Bot Tension	238.71	0.9D + 1.6W 180°	523.32	45.6	6	1.25" A325

FORCE/STRESS SUMMARY

Section 4 – 50.0' to 60.00'

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 12B - 12"BD 2.25"	-251.79	1.2D + 1.6W 120°	10.017	100	100	100	0.00	0.00	512.40	0.00	0.00	0	0	49.1	User Input
D SAE - 4X4X0.25	-8.02	1.2D + 1.6W N	17.616	50	50	50	132.95	35.71	24.77	49.70	34.80	1	1	32.4	Member Z

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 12B - 12"BD 2.25"	220.53	0.9D + 1.6W 60°	50.0	65	536.80	0.00	0.00		0	0	41.1	User Input
D SAE - 4X4X0.25	7.51	0.9D + 1.6W 330°	36.0	58	52.08	49.70	21.32	16.43	1	1	45.7	Blk Shear

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

Section 5 – 60.0' to 80.00'

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 12B - 12"BD 2"	-236.44	1.2D + 1.6W 120°	10.017	100	100	100	0.00	0.00	399.90	0.00	0.00	0	0	59.1	User Input
D SAE - 3.5X3.5X0.3125	-7.02	0.9D + 1.6W 330°	16.803	50	50	50	146.11	36.00	22.12	49.70	43.50	1	1	31.7	Member Z

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 12B - 12"BD 2"	207.72	0.9D + 1.6W 60°	50.0	65	424.10	0.00	0.00		0	0	49	User Input
D SAE - 3.5X3.5X0.3125	6.79	1.2D + 1.6W 330°	36.0	58	54.17	49.70	26.64	20.54	1	1	33.1	Blk Shear

Max Splice Forces	Pu (kip)	Load Case	ΦRnt (kip)	Use %	Num Bolts	Bolt Type
Bot Tension	213.42	0.9D + 1.6W 60°	523.32	40.8	6	1.25" A325

Section 6 – 80.0' to 100.00'

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 12B - 12"BD 1.75"	-203.35	1.2D + 1.6W 120°	10.017	100	100	100	0.00	0.00	300.70	0.00	0.00	0	0	67.6	User Input
D SAE - 3X3X0.3125	-7.03	1.2D + 1.6W 330°	15.243	50	50	50	155.27	36.00	16.68	31.81	34.80	1	1	42.1	Member Z

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 12B - 12"BD 1.75"	179.65	0.9D + 1.6W 60°	50.0	65	324.70	0.00	0.00		0	0	55.3	User Input
D SAE - 3X3X0.3125	6.89	1.2D + 1.6W 330°	36.0	58	46.60	31.81	21.21	16.94	1	1	40.7	Blk Shear

Max Splice Forces	Pu (kip)	Load Case	ΦRnt (kip)	Use %	Num Bolts	Bolt Type
Bot Tension	186.34	0.9D + 1.6W 60°	327.10	57	6	1 A325

Section 7 – 100.0' to 120.00'

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 12B - 12"BD 1.75"	-167.50	1.2D + 1.6W 120°	10.017	100	100	100	0.00	0.00	300.70	0.00	0.00	0	0	55.7	User Input
D SAE - 3X3X0.1875	-7.17	1.2D + 1.6W 330°	13.796	50	50	50	138.89	36.00	12.77	31.81	20.88	1	1	56.2	Member Z

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 12B - 12"BD 1.75"	147.89	0.9D + 1.6W 60°	50.0	65	324.70	0.00	0.00		0	0	45.6	User Input
D SAE - 3X3X0.1875	6.95	1.2D + 1.6W 330°	36.0	58	28.68	31.81	12.72	10.16	1	1	68.4	Blk Shear

Max Splice Forces	Pu (kip)	Load Case	ΦRnt (kip)	Use %	Num Bolts	Bolt Type
Bot Tension	155.72	0.9D + 1.6W 60°	327.10	47.6	6	1 A325

FORCE/STRESS SUMMARY

Section 8 – 120.0' to 130.00'

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 12B - 12"BD 1.5"	-127.06	1.2D + 1.6W 120°	10.017	100	100	100	0.00	0.00	214.90	0.00	0.00	0	0	59.1	User Input
D SAE - 3X3X0.1875	-7.54	1.2D + 1.6W 330°	12.503	50	50	50	125.87	36.00	15.34	31.81	20.88	1	1	49.2	Member Z

Member Tension	Pu (kip)	Load Case	F_y (ksi)	F_u (ksi)	Φ_cPn (kip)	Shear ΦR_{nv} (kip)	Bear ΦR_n (kip)	Blk Shear $\Phi_t P_n$ (kip)	# Bolt	# Hole	Use %	Controls
L 12B - 12"BD 1.5"	111.56	0.9D + 1.6W 60°	50.0	65	238.60	0.00	0.00		0	0	46.8	User Input
D SAE - 3X3X0.1875	7.00	0.9D + 1.6W 330°	36.0	58	28.68	31.81	12.72	10.16	1	1	68.8	Blk Shear

Max Splice Forces	Pu (kip)	Load Case	ΦR_{nt} (kip)	Use %	Num Bolts	Bolt Type
Bot Tension	121.30	0.9D + 1.6W 60°	327.10	37.1	6	1 A325

Section 9 – 130.0' 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 12B - 12"BD 1.5"	-107.94	1.2D + 1.6W 120°	10.017	50	50	50	0.00	0.00	214.90	0.00	0.00	0	0	50.2	User Input
D SAE - 3X3X0.1875	-6.85	0.9D + 1.6W 330°	11.93	50	50	50	120.10	36.00	16.53	31.81	20.88	1	1	41.4	Member Z

Member Tension	Pu (kip)	Load Case	F_y (ksi)	F_u (ksi)	Φ_cPn (kip)	Shear ΦR_{nv} (kip)	Bear ΦR_n (kip)	Blk Shear $\Phi_t P_n$ (kip)	# Bolt	# Hole	Use %	Controls
L 12B - 12"BD 1.5"	94.56	0.9D + 1.6W 60°	50.0	65	238.60	0.00	0.00		0	0	39.6	User Input
D SAE - 3X3X0.1875	6.85	1.2D + 1.6W 330°	36.0	58	28.68	31.81	12.72	10.16	1	1	67.4	Blk Shear

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

Section 10 – 140.0' to 150.00'

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 12B - 12"BD 1.25"	-82.10	1.2D + 1.6W 120°	10.017	100	100	100	0.00	0.00	142.50	0.00	0.00	0	0	57.6	User Input
D SAE - 3X3X0.1875	-8.02	1.2D + 1.6W 120°	11.416	50	50	50	116.20	36.00	17.35	31.81	20.88	1	1	46.2	Member Z

Member Tension	Pu (kip)	Load Case	F_y (ksi)	F_u (ksi)	Φ_cPn (kip)	Shear ΦR_{nv} (kip)	Bear ΦR_n (kip)	Blk Shear $\Phi_t P_n$ (kip)	# Bolt	# Hole	Use %	Controls
L 12B - 12"BD 1.25"	72.17	0.9D + 1.6W 60°	50.0	65	165.70	0.00	0.00		0	0	43.6	User Input
D SAE - 3X3X0.1875	7.08	0.9D + 1.6W 300°	36.0	58	28.68	31.81	12.72	10.16	1	1	69.6	Blk Shear

Max Splice Forces	Pu (kip)	Load Case	ΦR_{nt} (kip)	Use %	Num Bolts	Bolt Type
Bot Tension	83.61	0.9D + 1.6W 60°	327.10	25.6	6	1 A325

Section 11 – 150.0' to 170.00'

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 SOL - 2" SOLID	-72.11	1.2D + 1.6W 120°	2.448	100	100	100	58.75	50.00	109.84	0.00	0.00	0	0	65.7	Member X
H SOL - 1" SOLID	-1.13	0.9D + 1.6W 120°	5	100	100	100	156.00	50.00	7.29	0.00	0.00	0	0	15.5	Member X
D SOL - 1" SOLID	-5.35	1.2D + 1.6W 330°	5.567	50	50	50	120.25	50.00	12.27	0.00	0.00	0	0	43.6	Member X

Member Tension	Pu (kip)	Load Case	F_y (ksi)	F_u (ksi)	Φ_cPn (kip)	Shear ΦR_{nv} (kip)	Bear ΦR_n (kip)	Blk Shear $\Phi_t P_n$ (kip)	# Bolt	# Hole	Use %	Controls
L SOL - 2" SOLID	66.00	0.9D + 1.6W 60°	50.0	65	141.37	0.00	0.00		0	0	46.7	Member
H SOL - 1" SOLID	1.21	1.2D + 1.6W 60°	50.0	65	35.34	0.00	0.00	0.00	0	0	3.4	Member
D SOL - 1" SOLID	5.25	1.2D + 1.6W 330°	50.0	65	35.34	0.00	0.00	0.00	0	0	14.9	Member

Max Splice Forces	Pu (kip)	Load Case	ΦR_{nt} (kip)	Use %	Num Bolts	Bolt Type
Bot Tension	65.55	0.9D + 1.6W 60°	327.10	20	6	1 A325

FORCE/STRESS SUMMARY

Section 12 – 170.0' to 190.00'

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 SOL - 2" SOLID	-18.48	1.2D + 1.6W 240°	3.264	100	100	100	78.34	50.00	90.26	0.00	0.00	0	0	20.5	Member X
H SAE - 1.75X1.75X0.1875	-0.93	1.2D + 1.6W 240°	5	100	100	100	174.93	36.00	4.58	7.95	10.44	1	1	20.4	Member Z
D SAE - 1.75X1.75X0.1875	-2.92	1.2D + 1.6W 90°	5.971	50	50	50	108.34	36.00	10.85	7.95	10.44	1	1	36.8	Bolt Shear

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 SOL - 2" SOLID	17.11	0.9D + 1.6W 300°	50.0	65	141.37	0.00	0.00		0	0	12.1	Member
H SAE - 1.75X1.75X0.1875	0.94	1.2D + 1.6W 60°	36.0	58	16.44	7.95	6.20	5.71	1	1	16.4	Blk Shear
D SAE - 1.75X1.75X0.1875	2.90	1.2D + 1.6W 90°	36.0	58	16.44	7.95	6.20	5.71	1	1	50.7	Blk Shear

Max Splice Forces	Pu (kip)	Load Case	ΦR_{nt} (kip)	Use %	Num Bolts	Bolt Type
Bot Tension	16.70	0.9D + 1.6W 300°	120.41	13.9	4	0.75" A325

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	20.00	0.0056	-0.0009	0.0245	0.0245
1.0D + 1.0W Service 330° 60 mph Wind with No Ice	50.00	0.0265	-0.0033	0.0642	0.0642
1.0D + 1.0W Service 330° 60 mph Wind with No Ice	60.00	0.0387	-0.0036	0.0747	0.0747
1.0D + 1.0W Service 330° 60 mph Wind with No Ice	90.00	0.091	0.0035	0.1280	0.128
1.0D + 1.0W Service 330° 60 mph Wind with No Ice	110.00	0.1438	-0.0085	0.1743	0.1744
1.0D + 1.0W Service 330° 60 mph Wind with No Ice	120.00	0.1761	-0.0094	0.1930	0.1931
1.0D + 1.0W Service 330° 60 mph Wind with No Ice	130.00	0.2124	-0.0105	0.2227	0.2228
1.0D + 1.0W Service 330° 60 mph Wind with No Ice	140.00	0.2538	-0.0116	0.2469	0.247
1.0D + 1.0W Service 330° 60 mph Wind with No Ice	150.00	0.2997	-0.0133	0.2905	0.2909
1.0D + 1.0W Service 330° 60 mph Wind with No Ice	157.55	0.3392	-0.0116	0.3116	0.3118
1.0D + 1.0W Service 330° 60 mph Wind with No Ice	162.45	0.3663	-0.0105	0.3246	0.3248
1.0D + 1.0W Service 330° 60 mph Wind with No Ice	164.90	0.3802	-0.0100	0.3250	0.3252
1.0D + 1.0W Service 330° 60 mph Wind with No Ice	170.00	0.4098	-0.0099	0.3891	0.3892
1.0D + 1.0W Service 330° 60 mph Wind with No Ice	173.47	0.4302	-0.0098	0.3250	0.3251
1.0D + 1.0W Service 330° 60 mph Wind with No Ice	186.53	0.5072	-0.0096	0.3396	0.3398
1.0D + 1.0W Service 330° 60 mph Wind with No Ice	190.00	0.5276	-0.0096	0.3396	0.3397
1.0D + 1.0W Service 300° 60 mph Wind with No Ice	20.00	0.0045	0.0009	0.0231	0.0231
1.0D + 1.0W Service 300° 60 mph Wind with No Ice	50.00	0.0263	0.0032	0.0632	0.0633
1.0D + 1.0W Service 300° 60 mph Wind with No Ice	60.00	0.0383	0.0035	0.0738	0.0738
1.0D + 1.0W Service 300° 60 mph Wind with No Ice	90.00	0.0895	0.0060	0.1269	0.127
1.0D + 1.0W Service 300° 60 mph Wind with No Ice	110.00	0.1427	0.0079	0.1730	0.173
1.0D + 1.0W Service 300° 60 mph Wind with No Ice	120.00	0.1747	0.0087	0.1919	0.1919
1.0D + 1.0W Service 300° 60 mph Wind with No Ice	130.00	0.2109	0.0097	0.2212	0.2212
1.0D + 1.0W Service 300° 60 mph Wind with No Ice	140.00	0.2517	0.0106	0.2450	0.2452
1.0D + 1.0W Service 300° 60 mph Wind with No Ice	150.00	0.2978	0.0122	0.2835	0.2838
1.0D + 1.0W Service 300° 60 mph Wind with No Ice	157.55	0.3371	0.0135	0.3101	0.3104
1.0D + 1.0W Service 300° 60 mph Wind with No Ice	162.45	0.364	0.0144	0.3210	0.3213
1.0D + 1.0W Service 300° 60 mph Wind with No Ice	164.90	0.3779	0.0147	0.3336	0.3336
1.0D + 1.0W Service 300° 60 mph Wind with No Ice	170.00	0.4073	0.0147	0.3923	0.3923
1.0D + 1.0W Service 300° 60 mph Wind with No Ice	173.47	0.4277	0.0146	0.3223	0.3226
1.0D + 1.0W Service 300° 60 mph Wind with No Ice	186.53	0.5044	0.0145	0.3373	0.3376
1.0D + 1.0W Service 300° 60 mph Wind with No Ice	190.00	0.5246	0.0145	0.3396	0.3396
1.0D + 1.0W Service 240° 60 mph Wind with No Ice	20.00	0.0064	0.0009	0.0268	0.0268
1.0D + 1.0W Service 240° 60 mph Wind with No Ice	50.00	0.0272	0.0033	0.0653	0.0654
1.0D + 1.0W Service 240° 60 mph Wind with No Ice	60.00	0.0399	0.0036	0.0774	0.0774
1.0D + 1.0W Service 240° 60 mph Wind with No Ice	90.00	0.0921	0.0061	0.1305	0.1306
1.0D + 1.0W Service 240° 60 mph Wind with No Ice	110.00	0.1473	0.0080	0.1781	0.1781
1.0D + 1.0W Service 240° 60 mph Wind with No Ice	120.00	0.1802	0.0088	0.1967	0.1968
1.0D + 1.0W Service 240° 60 mph Wind with No Ice	130.00	0.2173	0.0098	0.2280	0.228
1.0D + 1.0W Service 240° 60 mph Wind with No Ice	140.00	0.2596	0.0107	0.2517	0.2517
1.0D + 1.0W Service 240° 60 mph Wind with No Ice	150.00	0.3057	0.0123	0.2944	0.2946
1.0D + 1.0W Service 240° 60 mph Wind with No Ice	157.55	0.346	-0.0134	0.3173	0.3175
1.0D + 1.0W Service 240° 60 mph Wind with No Ice	162.45	0.3736	-0.0143	0.3288	0.3291
1.0D + 1.0W Service 240° 60 mph Wind with No Ice	164.90	0.3877	-0.0146	0.3414	0.3415
1.0D + 1.0W Service 240° 60 mph Wind with No Ice	170.00	0.4179	-0.0145	0.4023	0.4023
1.0D + 1.0W Service 240° 60 mph Wind with No Ice	173.47	0.4388	-0.0146	0.3301	0.3304
1.0D + 1.0W Service 240° 60 mph Wind with No Ice	186.53	0.5173	-0.0144	0.3454	0.3456
1.0D + 1.0W Service 240° 60 mph Wind with No Ice	190.00	0.538	-0.0144	0.3473	0.3473
1.0D + 1.0W Service 210° 60 mph Wind with No Ice	20.00	0.0056	-0.0009	0.0245	0.0245
1.0D + 1.0W Service 210° 60 mph Wind with No Ice	50.00	0.0265	-0.0033	0.0642	0.0643
1.0D + 1.0W Service 210° 60 mph Wind with No Ice	60.00	0.0387	-0.0036	0.0747	0.0747
1.0D + 1.0W Service 210° 60 mph Wind with No Ice	90.00	0.0906	0.0034	0.1280	0.1281
1.0D + 1.0W Service 210° 60 mph Wind with No Ice	110.00	0.1438	-0.0086	0.1743	0.1743
1.0D + 1.0W Service 210° 60 mph Wind with No Ice	120.00	0.176	-0.0095	0.1929	0.193
1.0D + 1.0W Service 210° 60 mph Wind with No Ice	130.00	0.2124	-0.0107	0.2227	0.2227
1.0D + 1.0W Service 210° 60 mph Wind with No Ice	140.00	0.2537	-0.0118	0.2468	0.2469
1.0D + 1.0W Service 210° 60 mph Wind with No Ice	150.00	0.2996	-0.0136	0.2906	0.2909
1.0D + 1.0W Service 210° 60 mph Wind with No Ice	157.55	0.3391	-0.0149	0.3115	0.3119
1.0D + 1.0W Service 210° 60 mph Wind with No Ice	162.45	0.3661	-0.0157	0.3246	0.325

DEFLECTIONS AND ROTATIONS

Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
1.0D + 1.0W Service 210° 60 mph Wind with No Ice	164.90	0.3801	-0.0160	0.3249	0.3249
1.0D + 1.0W Service 210° 60 mph Wind with No Ice	170.00	0.4096	-0.0160	0.3889	0.3889
1.0D + 1.0W Service 210° 60 mph Wind with No Ice	173.47	0.4302	-0.0159	0.3248	0.3252
1.0D + 1.0W Service 210° 60 mph Wind with No Ice	186.53	0.5072	-0.0158	0.3395	0.3399
1.0D + 1.0W Service 210° 60 mph Wind with No Ice	190.00	0.5274	-0.0158	0.3394	0.3394
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	20.00	0.0045	0.0007	0.0231	0.0231
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	50.00	0.0263	0.0027	0.0634	0.0635
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	60.00	0.0383	0.0030	0.0738	0.0738
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	90.00	0.0902	0.0000	0.1272	0.1272
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	110.00	0.1427	0.0073	0.1729	0.1729
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	120.00	0.1747	0.0080	0.1918	0.1918
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	130.00	0.2109	0.0090	0.2210	0.221
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	140.00	0.2516	0.0100	0.2448	0.245
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	150.00	0.2976	0.0115	0.2831	0.2834
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	157.55	0.3369	0.0113	0.3095	0.3097
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	162.45	0.3638	0.0112	0.3223	0.3225
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	164.90	0.3776	0.0111	0.3188	0.3188
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	170.00	0.407	0.0111	0.3907	0.3907
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	173.47	0.4274	0.0110	0.3219	0.3221
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	186.53	0.5038	0.0108	0.3366	0.3368
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	190.00	0.524	0.0108	0.3389	0.3389
1.0D + 1.0W Service 120° 60 mph Wind with No Ice	20.00	0.0065	-0.0009	0.0268	0.0268
1.0D + 1.0W Service 120° 60 mph Wind with No Ice	50.00	0.0272	-0.0033	0.0653	0.0654
1.0D + 1.0W Service 120° 60 mph Wind with No Ice	60.00	0.0399	-0.0036	0.0774	0.0774
1.0D + 1.0W Service 120° 60 mph Wind with No Ice	90.00	0.0921	-0.0061	0.1305	0.1307
1.0D + 1.0W Service 120° 60 mph Wind with No Ice	110.00	0.1473	-0.0080	0.1781	0.1781
1.0D + 1.0W Service 120° 60 mph Wind with No Ice	120.00	0.1803	-0.0088	0.1967	0.1969
1.0D + 1.0W Service 120° 60 mph Wind with No Ice	130.00	0.2173	-0.0098	0.2280	0.228
1.0D + 1.0W Service 120° 60 mph Wind with No Ice	140.00	0.2597	-0.0107	0.2518	0.2518
1.0D + 1.0W Service 120° 60 mph Wind with No Ice	150.00	0.3058	0.0122	0.2946	0.2949
1.0D + 1.0W Service 120° 60 mph Wind with No Ice	157.55	0.3462	0.0135	0.3176	0.3177
1.0D + 1.0W Service 120° 60 mph Wind with No Ice	162.45	0.3737	0.0144	0.3288	0.3292
1.0D + 1.0W Service 120° 60 mph Wind with No Ice	164.90	0.3879	0.0147	0.3416	0.3416
1.0D + 1.0W Service 120° 60 mph Wind with No Ice	170.00	0.4181	0.0146	0.4025	0.4025
1.0D + 1.0W Service 120° 60 mph Wind with No Ice	173.47	0.439	0.0146	0.3303	0.3306
1.0D + 1.0W Service 120° 60 mph Wind with No Ice	186.53	0.5175	0.0145	0.3456	0.3458
1.0D + 1.0W Service 120° 60 mph Wind with No Ice	190.00	0.5383	0.0144	0.3475	0.3475
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	20.00	0.0056	-0.0010	0.0245	0.0245
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	50.00	0.0265	-0.0037	0.0639	0.0641
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	60.00	0.0387	-0.0040	0.0746	0.0747
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	90.00	0.0898	-0.0069	0.1277	0.1279
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	110.00	0.1438	-0.0091	0.1744	0.1745
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	120.00	0.1761	-0.0100	0.1931	0.1932
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	130.00	0.2125	-0.0112	0.2229	0.223
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	140.00	0.2538	-0.0123	0.2471	0.2472
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	150.00	0.2998	-0.0140	0.2911	0.2915
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	157.55	0.3394	-0.0139	0.3123	0.3126
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	162.45	0.3665	-0.0138	0.3236	0.3238
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	164.90	0.3805	-0.0137	0.3399	0.3399
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	170.00	0.4101	-0.0136	0.3908	0.3909
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	173.47	0.4307	-0.0136	0.3255	0.3258
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	186.53	0.5079	-0.0134	0.3404	0.3407
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	190.00	0.5282	-0.0134	0.3403	0.3404
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	20.00	0.0045	-0.0009	0.0231	0.0231
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	50.00	0.0263	-0.0032	0.0632	0.0633
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	60.00	0.0383	-0.0035	0.0738	0.0738
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	90.00	0.0895	-0.0060	0.1269	0.127
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	110.00	0.1428	-0.0079	0.1730	0.173
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	120.00	0.1747	-0.0087	0.1919	0.1919

DEFLECTIONS AND ROTATIONS

Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	130.00	0.211	-0.0097	0.2212	0.2212
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	140.00	0.2518	-0.0107	0.2450	0.2452
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	150.00	0.2978	-0.0122	0.2836	0.2838
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	157.55	0.3372	-0.0135	0.3102	0.3105
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	162.45	0.3641	-0.0144	0.3214	0.3216
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	164.90	0.378	-0.0147	0.3339	0.3339
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	170.00	0.4074	-0.0147	0.3925	0.3925
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	173.47	0.4278	-0.0146	0.3225	0.3228
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	186.53	0.5045	-0.0145	0.3375	0.3378
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	190.00	0.5248	-0.0145	0.3397	0.3398
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	20.00	0.0065	0.0008	0.0268	0.0268
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	50.00	0.0272	0.0028	0.0655	0.0656
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	60.00	0.0399	0.0031	0.0774	0.0774
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	90.00	0.0934	0.0000	0.1307	0.1307
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	110.00	0.1473	-0.0075	0.1781	0.1781
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	120.00	0.1803	-0.0083	0.1967	0.1968
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	130.00	0.2173	-0.0093	0.2279	0.2279
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	140.00	0.2596	-0.0103	0.2516	0.2516
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	150.00	0.3057	0.0118	0.2942	0.2945
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	157.55	0.346	-0.0117	0.3170	0.3173
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	162.45	0.3735	-0.0116	0.3301	0.3303
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	164.90	0.3876	0.0115	0.3268	0.3268
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	170.00	0.4178	0.0114	0.4009	0.4009
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	173.47	0.4386	0.0114	0.3299	0.3301
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	186.53	0.517	0.0113	0.3449	0.3451
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	190.00	0.5377	-0.0113	0.3468	0.3468
(0.9 - 0.2Sds) * DL + E 330° Seismic (Reduced DL) M1	20.00	0.0016	-0.0002	0.0055	0.0055
(0.9 - 0.2Sds) * DL + E 330° Seismic (Reduced DL) M1	50.00	0.0051	-0.0007	0.0128	0.0128
(0.9 - 0.2Sds) * DL + E 330° Seismic (Reduced DL) M1	60.00	0.0076	-0.0007	0.0155	0.0155
(0.9 - 0.2Sds) * DL + E 330° Seismic (Reduced DL) M1	90.00	0.0185	0.0007	0.0271	0.0271
(0.9 - 0.2Sds) * DL + E 330° Seismic (Reduced DL) M1	110.00	0.0299	-0.0018	0.0380	0.038
(0.9 - 0.2Sds) * DL + E 330° Seismic (Reduced DL) M1	120.00	0.037	-0.0020	0.0425	0.0425
(0.9 - 0.2Sds) * DL + E 330° Seismic (Reduced DL) M1	130.00	0.0451	-0.0023	0.0505	0.0505
(0.9 - 0.2Sds) * DL + E 330° Seismic (Reduced DL) M1	140.00	0.0546	-0.0026	0.0567	0.0567
(0.9 - 0.2Sds) * DL + E 330° Seismic (Reduced DL) M1	150.00	0.0649	-0.0030	0.0684	0.0684
(0.9 - 0.2Sds) * DL + E 330° Seismic (Reduced DL) M1	157.55	0.0741	-0.0023	0.0732	0.0732
(0.9 - 0.2Sds) * DL + E 330° Seismic (Reduced DL) M1	162.45	0.0805	-0.0019	0.0761	0.0761
(0.9 - 0.2Sds) * DL + E 330° Seismic (Reduced DL) M1	164.90	0.0838	-0.0017	0.0779	0.0779
(0.9 - 0.2Sds) * DL + E 330° Seismic (Reduced DL) M1	170.00	0.0908	-0.0013	0.0927	0.0927
(0.9 - 0.2Sds) * DL + E 330° Seismic (Reduced DL) M1	173.47	0.0956	-0.0012	0.0769	0.0769
(0.9 - 0.2Sds) * DL + E 330° Seismic (Reduced DL) M1	186.53	0.1138	-0.0008	0.0796	0.0796
(0.9 - 0.2Sds) * DL + E 330° Seismic (Reduced DL) M1	190.00	0.1186	-0.0008	0.0818	0.0818
(0.9 - 0.2Sds) * DL + E 330° Seismic (Reduced DL) M2	20.00	0.0014	0.0001	0.0045	0.0045
(0.9 - 0.2Sds) * DL + E 330° Seismic (Reduced DL) M2	50.00	0.0039	-0.0005	0.0098	0.0099
(0.9 - 0.2Sds) * DL + E 330° Seismic (Reduced DL) M2	60.00	0.0059	-0.0005	0.0122	0.0122
(0.9 - 0.2Sds) * DL + E 330° Seismic (Reduced DL) M2	90.00	0.0146	0.0005	0.0217	0.0217
(0.9 - 0.2Sds) * DL + E 330° Seismic (Reduced DL) M2	110.00	0.0238	-0.0014	0.0314	0.0314
(0.9 - 0.2Sds) * DL + E 330° Seismic (Reduced DL) M2	120.00	0.0297	-0.0016	0.0357	0.0357
(0.9 - 0.2Sds) * DL + E 330° Seismic (Reduced DL) M2	130.00	0.0366	-0.0018	0.0438	0.0438
(0.9 - 0.2Sds) * DL + E 330° Seismic (Reduced DL) M2	140.00	0.045	-0.0022	0.0507	0.0507
(0.9 - 0.2Sds) * DL + E 330° Seismic (Reduced DL) M2	150.00	0.0544	-0.0027	0.0638	0.0639
(0.9 - 0.2Sds) * DL + E 330° Seismic (Reduced DL) M2	157.55	0.0632	-0.0021	0.0708	0.0708
(0.9 - 0.2Sds) * DL + E 330° Seismic (Reduced DL) M2	162.45	0.0694	-0.0017	0.0746	0.0746
(0.9 - 0.2Sds) * DL + E 330° Seismic (Reduced DL) M2	164.90	0.0726	-0.0015	0.0771	0.0771
(0.9 - 0.2Sds) * DL + E 330° Seismic (Reduced DL) M2	170.00	0.0796	-0.0012	0.0971	0.0971
(0.9 - 0.2Sds) * DL + E 330° Seismic (Reduced DL) M2	173.47	0.0845	-0.0011	0.0761	0.0761
(0.9 - 0.2Sds) * DL + E 330° Seismic (Reduced DL) M2	186.53	0.1027	-0.0007	0.0797	0.0797
(0.9 - 0.2Sds) * DL + E 330° Seismic (Reduced DL) M2	190.00	0.1075	-0.0007	0.0827	0.0827
(0.9 - 0.2Sds) * DL + E 300° Seismic (Reduced DL) M1	20.00	0.0013	0.0001	0.0045	0.0045

DEFLECTIONS AND ROTATIONS

Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
(0.9 - 0.2Sds) * DL + E 300° Seismic (Reduced DL) M1	50.00	0.0051	0.0006	0.0126	0.0127
(0.9 - 0.2Sds) * DL + E 300° Seismic (Reduced DL) M1	60.00	0.0075	0.0006	0.0149	0.0149
(0.9 - 0.2Sds) * DL + E 300° Seismic (Reduced DL) M1	90.00	0.0183	0.0011	0.0271	0.0271
(0.9 - 0.2Sds) * DL + E 300° Seismic (Reduced DL) M1	110.00	0.0297	0.0016	0.0378	0.0379
(0.9 - 0.2Sds) * DL + E 300° Seismic (Reduced DL) M1	120.00	0.0367	0.0017	0.0426	0.0426
(0.9 - 0.2Sds) * DL + E 300° Seismic (Reduced DL) M1	130.00	0.0448	0.0020	0.0498	0.0498
(0.9 - 0.2Sds) * DL + E 300° Seismic (Reduced DL) M1	140.00	0.0541	0.0022	0.0565	0.0566
(0.9 - 0.2Sds) * DL + E 300° Seismic (Reduced DL) M1	150.00	0.0649	0.0026	0.0680	0.068
(0.9 - 0.2Sds) * DL + E 300° Seismic (Reduced DL) M1	157.55	0.0741	0.0020	0.0732	0.0732
(0.9 - 0.2Sds) * DL + E 300° Seismic (Reduced DL) M1	162.45	0.0805	0.0016	0.0759	0.076
(0.9 - 0.2Sds) * DL + E 300° Seismic (Reduced DL) M1	164.90	0.0838	0.0015	0.0780	0.078
(0.9 - 0.2Sds) * DL + E 300° Seismic (Reduced DL) M1	170.00	0.0908	0.0012	0.0938	0.0938
(0.9 - 0.2Sds) * DL + E 300° Seismic (Reduced DL) M1	173.47	0.0956	0.0010	0.0766	0.0766
(0.9 - 0.2Sds) * DL + E 300° Seismic (Reduced DL) M1	186.53	0.1138	0.0007	0.0796	0.0796
(0.9 - 0.2Sds) * DL + E 300° Seismic (Reduced DL) M1	190.00	0.1186	0.0007	0.0819	0.0819
(0.9 - 0.2Sds) * DL + E 300° Seismic (Reduced DL) M2	20.00	0.0012	0.0001	0.0037	0.0037
(0.9 - 0.2Sds) * DL + E 300° Seismic (Reduced DL) M2	50.00	0.0039	0.0004	0.0098	0.0098
(0.9 - 0.2Sds) * DL + E 300° Seismic (Reduced DL) M2	60.00	0.0058	0.0005	0.0117	0.0117
(0.9 - 0.2Sds) * DL + E 300° Seismic (Reduced DL) M2	90.00	0.0144	0.0008	0.0217	0.0217
(0.9 - 0.2Sds) * DL + E 300° Seismic (Reduced DL) M2	110.00	0.0236	0.0012	0.0311	0.0312
(0.9 - 0.2Sds) * DL + E 300° Seismic (Reduced DL) M2	120.00	0.0294	0.0014	0.0357	0.0357
(0.9 - 0.2Sds) * DL + E 300° Seismic (Reduced DL) M2	130.00	0.0363	0.0016	0.0429	0.0429
(0.9 - 0.2Sds) * DL + E 300° Seismic (Reduced DL) M2	140.00	0.0445	0.0019	0.0504	0.0504
(0.9 - 0.2Sds) * DL + E 300° Seismic (Reduced DL) M2	150.00	0.0544	0.0023	0.0628	0.0628
(0.9 - 0.2Sds) * DL + E 300° Seismic (Reduced DL) M2	157.55	0.0632	0.0018	0.0708	0.0708
(0.9 - 0.2Sds) * DL + E 300° Seismic (Reduced DL) M2	162.45	0.0694	0.0015	0.0745	0.0745
(0.9 - 0.2Sds) * DL + E 300° Seismic (Reduced DL) M2	164.90	0.0726	0.0013	0.0772	0.0772
(0.9 - 0.2Sds) * DL + E 300° Seismic (Reduced DL) M2	170.00	0.0796	0.0010	0.0986	0.0986
(0.9 - 0.2Sds) * DL + E 300° Seismic (Reduced DL) M2	173.47	0.0845	0.0009	0.0757	0.0757
(0.9 - 0.2Sds) * DL + E 300° Seismic (Reduced DL) M2	186.53	0.1027	0.0006	0.0797	0.0797
(0.9 - 0.2Sds) * DL + E 300° Seismic (Reduced DL) M2	190.00	0.1075	0.0006	0.0827	0.0827
(0.9 - 0.2Sds) * DL + E 240° Seismic (Reduced DL) M1	20.00	0.0018	0.0001	0.0059	0.0059
(0.9 - 0.2Sds) * DL + E 240° Seismic (Reduced DL) M1	50.00	0.0051	0.0006	0.0127	0.0127
(0.9 - 0.2Sds) * DL + E 240° Seismic (Reduced DL) M1	60.00	0.0077	0.0006	0.0158	0.0158
(0.9 - 0.2Sds) * DL + E 240° Seismic (Reduced DL) M1	90.00	0.0181	0.0011	0.0271	0.0271
(0.9 - 0.2Sds) * DL + E 240° Seismic (Reduced DL) M1	110.00	0.03	0.0016	0.0381	0.0381
(0.9 - 0.2Sds) * DL + E 240° Seismic (Reduced DL) M1	120.00	0.0371	0.0017	0.0425	0.0425
(0.9 - 0.2Sds) * DL + E 240° Seismic (Reduced DL) M1	130.00	0.0452	0.0020	0.0509	0.0509
(0.9 - 0.2Sds) * DL + E 240° Seismic (Reduced DL) M1	140.00	0.0548	0.0022	0.0567	0.0567
(0.9 - 0.2Sds) * DL + E 240° Seismic (Reduced DL) M1	150.00	0.0649	0.0026	0.0688	0.0689
(0.9 - 0.2Sds) * DL + E 240° Seismic (Reduced DL) M1	157.55	0.0741	0.0020	0.0732	0.0732
(0.9 - 0.2Sds) * DL + E 240° Seismic (Reduced DL) M1	162.45	0.0805	0.0016	0.0760	0.076
(0.9 - 0.2Sds) * DL + E 240° Seismic (Reduced DL) M1	164.90	0.0838	0.0015	0.0780	0.078
(0.9 - 0.2Sds) * DL + E 240° Seismic (Reduced DL) M1	170.00	0.0907	0.0012	0.0938	0.0938
(0.9 - 0.2Sds) * DL + E 240° Seismic (Reduced DL) M1	173.47	0.0956	0.0010	0.0766	0.0766
(0.9 - 0.2Sds) * DL + E 240° Seismic (Reduced DL) M1	186.53	0.1138	0.0007	0.0796	0.0796
(0.9 - 0.2Sds) * DL + E 240° Seismic (Reduced DL) M1	190.00	0.1186	0.0007	0.0817	0.0817
(0.9 - 0.2Sds) * DL + E 240° Seismic (Reduced DL) M2	20.00	0.0015	0.0001	0.0048	0.0048
(0.9 - 0.2Sds) * DL + E 240° Seismic (Reduced DL) M2	50.00	0.0039	0.0004	0.0098	0.0098
(0.9 - 0.2Sds) * DL + E 240° Seismic (Reduced DL) M2	60.00	0.006	0.0005	0.0124	0.0124
(0.9 - 0.2Sds) * DL + E 240° Seismic (Reduced DL) M2	90.00	0.0141	0.0008	0.0218	0.0218
(0.9 - 0.2Sds) * DL + E 240° Seismic (Reduced DL) M2	110.00	0.0239	0.0012	0.0315	0.0315
(0.9 - 0.2Sds) * DL + E 240° Seismic (Reduced DL) M2	120.00	0.0298	0.0014	0.0357	0.0357
(0.9 - 0.2Sds) * DL + E 240° Seismic (Reduced DL) M2	130.00	0.0367	0.0016	0.0443	0.0443
(0.9 - 0.2Sds) * DL + E 240° Seismic (Reduced DL) M2	140.00	0.0452	0.0019	0.0508	0.0508
(0.9 - 0.2Sds) * DL + E 240° Seismic (Reduced DL) M2	150.00	0.0544	0.0023	0.0645	0.0645
(0.9 - 0.2Sds) * DL + E 240° Seismic (Reduced DL) M2	157.55	0.0632	0.0018	0.0708	0.0708
(0.9 - 0.2Sds) * DL + E 240° Seismic (Reduced DL) M2	162.45	0.0694	0.0015	0.0745	0.0745
(0.9 - 0.2Sds) * DL + E 240° Seismic (Reduced DL) M2	164.90	0.0726	0.0013	0.0773	0.0773

DEFLECTIONS AND ROTATIONS

Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
(0.9 - 0.2Sds) * DL + E 240° Seismic (Reduced DL) M2	170.00	0.0796	0.0010	0.0986	0.0986
(0.9 - 0.2Sds) * DL + E 240° Seismic (Reduced DL) M2	173.47	0.0845	0.0009	0.0757	0.0757
(0.9 - 0.2Sds) * DL + E 240° Seismic (Reduced DL) M2	186.53	0.1027	0.0006	0.0797	0.0797
(0.9 - 0.2Sds) * DL + E 240° Seismic (Reduced DL) M2	190.00	0.1075	0.0006	0.0826	0.0826
(0.9 - 0.2Sds) * DL + E 210° Seismic (Reduced DL) M2	20.00	0.0014	0.0001	0.0045	0.0045
(0.9 - 0.2Sds) * DL + E 210° Seismic (Reduced DL) M2	50.00	0.0039	-0.0005	0.0098	0.0099
(0.9 - 0.2Sds) * DL + E 210° Seismic (Reduced DL) M2	60.00	0.0059	-0.0005	0.0122	0.0122
(0.9 - 0.2Sds) * DL + E 210° Seismic (Reduced DL) M2	90.00	0.0142	0.0005	0.0218	0.0218
(0.9 - 0.2Sds) * DL + E 210° Seismic (Reduced DL) M2	110.00	0.0238	-0.0014	0.0314	0.0314
(0.9 - 0.2Sds) * DL + E 210° Seismic (Reduced DL) M2	120.00	0.0297	-0.0016	0.0357	0.0357
(0.9 - 0.2Sds) * DL + E 210° Seismic (Reduced DL) M2	130.00	0.0366	-0.0018	0.0438	0.0438
(0.9 - 0.2Sds) * DL + E 210° Seismic (Reduced DL) M2	140.00	0.045	-0.0022	0.0507	0.0507
(0.9 - 0.2Sds) * DL + E 210° Seismic (Reduced DL) M2	150.00	0.0544	-0.0027	0.0638	0.0639
(0.9 - 0.2Sds) * DL + E 210° Seismic (Reduced DL) M2	157.55	0.0632	-0.0021	0.0708	0.0708
(0.9 - 0.2Sds) * DL + E 210° Seismic (Reduced DL) M2	162.45	0.0694	-0.0017	0.0746	0.0746
(0.9 - 0.2Sds) * DL + E 210° Seismic (Reduced DL) M2	164.90	0.0726	-0.0015	0.0771	0.0771
(0.9 - 0.2Sds) * DL + E 210° Seismic (Reduced DL) M2	170.00	0.0796	-0.0012	0.0971	0.0971
(0.9 - 0.2Sds) * DL + E 210° Seismic (Reduced DL) M2	173.47	0.0845	-0.0011	0.0761	0.0761
(0.9 - 0.2Sds) * DL + E 210° Seismic (Reduced DL) M2	186.53	0.1027	-0.0007	0.0797	0.0797
(0.9 - 0.2Sds) * DL + E 210° Seismic (Reduced DL) M2	190.00	0.1075	-0.0007	0.0827	0.0827
(0.9 - 0.2Sds) * DL + E 210° Seismic (Reduced DL) M1	20.00	0.0016	-0.0002	0.0055	0.0055
(0.9 - 0.2Sds) * DL + E 210° Seismic (Reduced DL) M1	50.00	0.0051	-0.0007	0.0128	0.0128
(0.9 - 0.2Sds) * DL + E 210° Seismic (Reduced DL) M1	60.00	0.0076	-0.0007	0.0155	0.0155
(0.9 - 0.2Sds) * DL + E 210° Seismic (Reduced DL) M1	90.00	0.0182	0.0007	0.0272	0.0272
(0.9 - 0.2Sds) * DL + E 210° Seismic (Reduced DL) M1	110.00	0.0299	-0.0018	0.0380	0.038
(0.9 - 0.2Sds) * DL + E 210° Seismic (Reduced DL) M1	120.00	0.037	-0.0020	0.0425	0.0425
(0.9 - 0.2Sds) * DL + E 210° Seismic (Reduced DL) M1	130.00	0.0451	-0.0023	0.0505	0.0505
(0.9 - 0.2Sds) * DL + E 210° Seismic (Reduced DL) M1	140.00	0.0546	-0.0026	0.0567	0.0567
(0.9 - 0.2Sds) * DL + E 210° Seismic (Reduced DL) M1	150.00	0.0649	-0.0030	0.0684	0.0684
(0.9 - 0.2Sds) * DL + E 210° Seismic (Reduced DL) M1	157.55	0.0741	-0.0023	0.0732	0.0732
(0.9 - 0.2Sds) * DL + E 210° Seismic (Reduced DL) M1	162.45	0.0805	-0.0019	0.0761	0.0761
(0.9 - 0.2Sds) * DL + E 210° Seismic (Reduced DL) M1	164.90	0.0838	-0.0017	0.0779	0.0779
(0.9 - 0.2Sds) * DL + E 210° Seismic (Reduced DL) M1	170.00	0.0908	-0.0013	0.0927	0.0927
(0.9 - 0.2Sds) * DL + E 210° Seismic (Reduced DL) M1	173.47	0.0956	-0.0012	0.0769	0.0769
(0.9 - 0.2Sds) * DL + E 210° Seismic (Reduced DL) M1	186.53	0.1138	-0.0008	0.0796	0.0796
(0.9 - 0.2Sds) * DL + E 210° Seismic (Reduced DL) M1	190.00	0.1186	-0.0008	0.0818	0.0818
(0.9 - 0.2Sds) * DL + E 180° Seismic (Reduced DL) M2	20.00	0.0012	0.0001	0.0037	0.0037
(0.9 - 0.2Sds) * DL + E 180° Seismic (Reduced DL) M2	50.00	0.0039	0.0004	0.0098	0.0098
(0.9 - 0.2Sds) * DL + E 180° Seismic (Reduced DL) M2	60.00	0.0058	0.0005	0.0117	0.0117
(0.9 - 0.2Sds) * DL + E 180° Seismic (Reduced DL) M2	90.00	0.0142	0.0000	0.0218	0.0218
(0.9 - 0.2Sds) * DL + E 180° Seismic (Reduced DL) M2	110.00	0.0236	0.0012	0.0311	0.0312
(0.9 - 0.2Sds) * DL + E 180° Seismic (Reduced DL) M2	120.00	0.0294	0.0014	0.0357	0.0357
(0.9 - 0.2Sds) * DL + E 180° Seismic (Reduced DL) M2	130.00	0.0363	0.0016	0.0429	0.0429
(0.9 - 0.2Sds) * DL + E 180° Seismic (Reduced DL) M2	140.00	0.0445	0.0019	0.0504	0.0504
(0.9 - 0.2Sds) * DL + E 180° Seismic (Reduced DL) M2	150.00	0.0544	0.0023	0.0628	0.0628
(0.9 - 0.2Sds) * DL + E 180° Seismic (Reduced DL) M2	157.55	0.0632	0.0018	0.0708	0.0708
(0.9 - 0.2Sds) * DL + E 180° Seismic (Reduced DL) M2	162.45	0.0694	0.0015	0.0745	0.0745
(0.9 - 0.2Sds) * DL + E 180° Seismic (Reduced DL) M2	164.90	0.0726	0.0013	0.0772	0.0772
(0.9 - 0.2Sds) * DL + E 180° Seismic (Reduced DL) M2	170.00	0.0796	0.0010	0.0986	0.0986
(0.9 - 0.2Sds) * DL + E 180° Seismic (Reduced DL) M2	173.47	0.0844	0.0009	0.0757	0.0757
(0.9 - 0.2Sds) * DL + E 180° Seismic (Reduced DL) M2	186.53	0.1027	0.0006	0.0797	0.0797
(0.9 - 0.2Sds) * DL + E 180° Seismic (Reduced DL) M2	190.00	0.1075	0.0006	0.0827	0.0827
(0.9 - 0.2Sds) * DL + E 180° Seismic (Reduced DL) M1	20.00	0.0013	0.0001	0.0045	0.0045
(0.9 - 0.2Sds) * DL + E 180° Seismic (Reduced DL) M1	50.00	0.0051	0.0006	0.0126	0.0127
(0.9 - 0.2Sds) * DL + E 180° Seismic (Reduced DL) M1	60.00	0.0075	0.0006	0.0149	0.0149
(0.9 - 0.2Sds) * DL + E 180° Seismic (Reduced DL) M1	90.00	0.0182	0.0000	0.0272	0.0272
(0.9 - 0.2Sds) * DL + E 180° Seismic (Reduced DL) M1	110.00	0.0297	0.0016	0.0378	0.0379
(0.9 - 0.2Sds) * DL + E 180° Seismic (Reduced DL) M1	120.00	0.0367	0.0017	0.0426	0.0426
(0.9 - 0.2Sds) * DL + E 180° Seismic (Reduced DL) M1	130.00	0.0448	0.0020	0.0498	0.0498

DEFLECTIONS AND ROTATIONS

Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
(0.9 - 0.2Sds) * DL + E 180° Seismic (Reduced DL) M1	140.00	0.0541	0.0022	0.0565	0.0566
(0.9 - 0.2Sds) * DL + E 180° Seismic (Reduced DL) M1	150.00	0.0649	0.0026	0.0680	0.068
(0.9 - 0.2Sds) * DL + E 180° Seismic (Reduced DL) M1	157.55	0.0741	0.0020	0.0732	0.0732
(0.9 - 0.2Sds) * DL + E 180° Seismic (Reduced DL) M1	162.45	0.0805	0.0016	0.0759	0.076
(0.9 - 0.2Sds) * DL + E 180° Seismic (Reduced DL) M1	164.90	0.0838	0.0015	0.0780	0.078
(0.9 - 0.2Sds) * DL + E 180° Seismic (Reduced DL) M1	170.00	0.0908	0.0012	0.0938	0.0938
(0.9 - 0.2Sds) * DL + E 180° Seismic (Reduced DL) M1	173.47	0.0956	0.0010	0.0766	0.0766
(0.9 - 0.2Sds) * DL + E 180° Seismic (Reduced DL) M1	186.53	0.1138	0.0007	0.0796	0.0796
(0.9 - 0.2Sds) * DL + E 180° Seismic (Reduced DL) M1	190.00	0.1186	0.0007	0.0819	0.0819
(0.9 - 0.2Sds) * DL + E 120° Seismic (Reduced DL) M1	20.00	0.0018	0.0001	0.0059	0.0059
(0.9 - 0.2Sds) * DL + E 120° Seismic (Reduced DL) M1	50.00	0.0051	0.0006	0.0127	0.0127
(0.9 - 0.2Sds) * DL + E 120° Seismic (Reduced DL) M1	60.00	0.0077	0.0006	0.0158	0.0158
(0.9 - 0.2Sds) * DL + E 120° Seismic (Reduced DL) M1	90.00	0.0181	-0.0011	0.0271	0.0271
(0.9 - 0.2Sds) * DL + E 120° Seismic (Reduced DL) M1	110.00	0.03	0.0016	0.0381	0.0381
(0.9 - 0.2Sds) * DL + E 120° Seismic (Reduced DL) M1	120.00	0.0371	0.0017	0.0425	0.0425
(0.9 - 0.2Sds) * DL + E 120° Seismic (Reduced DL) M1	130.00	0.0452	0.0020	0.0509	0.0509
(0.9 - 0.2Sds) * DL + E 120° Seismic (Reduced DL) M1	140.00	0.0548	0.0022	0.0567	0.0567
(0.9 - 0.2Sds) * DL + E 120° Seismic (Reduced DL) M1	150.00	0.0649	0.0026	0.0688	0.0689
(0.9 - 0.2Sds) * DL + E 120° Seismic (Reduced DL) M1	157.55	0.0741	0.0020	0.0732	0.0732
(0.9 - 0.2Sds) * DL + E 120° Seismic (Reduced DL) M1	162.45	0.0805	0.0016	0.0760	0.076
(0.9 - 0.2Sds) * DL + E 120° Seismic (Reduced DL) M1	164.90	0.0838	0.0015	0.0780	0.078
(0.9 - 0.2Sds) * DL + E 120° Seismic (Reduced DL) M1	170.00	0.0907	0.0012	0.0938	0.0938
(0.9 - 0.2Sds) * DL + E 120° Seismic (Reduced DL) M1	173.47	0.0956	0.0010	0.0766	0.0766
(0.9 - 0.2Sds) * DL + E 120° Seismic (Reduced DL) M1	186.53	0.1138	0.0007	0.0796	0.0796
(0.9 - 0.2Sds) * DL + E 120° Seismic (Reduced DL) M1	190.00	0.1186	0.0007	0.0817	0.0817
(0.9 - 0.2Sds) * DL + E 120° Seismic (Reduced DL) M2	20.00	0.0015	0.0001	0.0048	0.0048
(0.9 - 0.2Sds) * DL + E 120° Seismic (Reduced DL) M2	50.00	0.0039	0.0004	0.0098	0.0098
(0.9 - 0.2Sds) * DL + E 120° Seismic (Reduced DL) M2	60.00	0.006	0.0005	0.0124	0.0124
(0.9 - 0.2Sds) * DL + E 120° Seismic (Reduced DL) M2	90.00	0.0141	-0.0008	0.0218	0.0218
(0.9 - 0.2Sds) * DL + E 120° Seismic (Reduced DL) M2	110.00	0.0239	0.0012	0.0315	0.0315
(0.9 - 0.2Sds) * DL + E 120° Seismic (Reduced DL) M2	120.00	0.0298	0.0014	0.0357	0.0357
(0.9 - 0.2Sds) * DL + E 120° Seismic (Reduced DL) M2	130.00	0.0367	0.0016	0.0443	0.0443
(0.9 - 0.2Sds) * DL + E 120° Seismic (Reduced DL) M2	140.00	0.0452	0.0019	0.0508	0.0508
(0.9 - 0.2Sds) * DL + E 120° Seismic (Reduced DL) M2	150.00	0.0544	0.0023	0.0645	0.0645
(0.9 - 0.2Sds) * DL + E 120° Seismic (Reduced DL) M2	157.55	0.0632	0.0018	0.0708	0.0708
(0.9 - 0.2Sds) * DL + E 120° Seismic (Reduced DL) M2	162.45	0.0694	0.0015	0.0745	0.0745
(0.9 - 0.2Sds) * DL + E 120° Seismic (Reduced DL) M2	164.90	0.0726	0.0013	0.0773	0.0773
(0.9 - 0.2Sds) * DL + E 120° Seismic (Reduced DL) M2	170.00	0.0796	0.0010	0.0986	0.0986
(0.9 - 0.2Sds) * DL + E 120° Seismic (Reduced DL) M2	173.47	0.0845	0.0009	0.0757	0.0757
(0.9 - 0.2Sds) * DL + E 120° Seismic (Reduced DL) M2	186.53	0.1027	0.0006	0.0797	0.0797
(0.9 - 0.2Sds) * DL + E 120° Seismic (Reduced DL) M2	190.00	0.1075	0.0006	0.0826	0.0826
(0.9 - 0.2Sds) * DL + E 90° Seismic (Reduced DL) M2	20.00	0.0014	0.0001	0.0045	0.0045
(0.9 - 0.2Sds) * DL + E 90° Seismic (Reduced DL) M2	50.00	0.0039	-0.0005	0.0098	0.0099
(0.9 - 0.2Sds) * DL + E 90° Seismic (Reduced DL) M2	60.00	0.0059	-0.0005	0.0122	0.0122
(0.9 - 0.2Sds) * DL + E 90° Seismic (Reduced DL) M2	90.00	0.0142	-0.0010	0.0217	0.0217
(0.9 - 0.2Sds) * DL + E 90° Seismic (Reduced DL) M2	110.00	0.0238	-0.0014	0.0314	0.0314
(0.9 - 0.2Sds) * DL + E 90° Seismic (Reduced DL) M2	120.00	0.0297	-0.0016	0.0357	0.0357
(0.9 - 0.2Sds) * DL + E 90° Seismic (Reduced DL) M2	130.00	0.0366	-0.0018	0.0438	0.0438
(0.9 - 0.2Sds) * DL + E 90° Seismic (Reduced DL) M2	140.00	0.045	-0.0022	0.0507	0.0507
(0.9 - 0.2Sds) * DL + E 90° Seismic (Reduced DL) M2	150.00	0.0544	-0.0027	0.0638	0.0639
(0.9 - 0.2Sds) * DL + E 90° Seismic (Reduced DL) M2	157.55	0.0632	-0.0021	0.0708	0.0708
(0.9 - 0.2Sds) * DL + E 90° Seismic (Reduced DL) M2	162.45	0.0694	-0.0017	0.0746	0.0746
(0.9 - 0.2Sds) * DL + E 90° Seismic (Reduced DL) M2	164.90	0.0726	-0.0015	0.0771	0.0771
(0.9 - 0.2Sds) * DL + E 90° Seismic (Reduced DL) M2	170.00	0.0796	-0.0012	0.0971	0.0971
(0.9 - 0.2Sds) * DL + E 90° Seismic (Reduced DL) M2	173.47	0.0845	-0.0011	0.0761	0.0761
(0.9 - 0.2Sds) * DL + E 90° Seismic (Reduced DL) M2	186.53	0.1027	-0.0007	0.0797	0.0797
(0.9 - 0.2Sds) * DL + E 90° Seismic (Reduced DL) M2	190.00	0.1075	-0.0007	0.0827	0.0827
(0.9 - 0.2Sds) * DL + E 90° Seismic (Reduced DL) M1	20.00	0.0016	-0.0002	0.0055	0.0055
(0.9 - 0.2Sds) * DL + E 90° Seismic (Reduced DL) M1	50.00	0.0051	-0.0007	0.0128	0.0128

DEFLECTIONS AND ROTATIONS

Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
(0.9 - 0.2Sds) * DL + E 90° Seismic (Reduced DL) M1	60.00	0.0076	-0.0007	0.0155	0.0155
(0.9 - 0.2Sds) * DL + E 90° Seismic (Reduced DL) M1	90.00	0.0181	-0.0013	0.0271	0.0271
(0.9 - 0.2Sds) * DL + E 90° Seismic (Reduced DL) M1	110.00	0.0299	-0.0018	0.0380	0.038
(0.9 - 0.2Sds) * DL + E 90° Seismic (Reduced DL) M1	120.00	0.037	-0.0020	0.0425	0.0425
(0.9 - 0.2Sds) * DL + E 90° Seismic (Reduced DL) M1	130.00	0.0451	-0.0023	0.0505	0.0505
(0.9 - 0.2Sds) * DL + E 90° Seismic (Reduced DL) M1	140.00	0.0546	-0.0026	0.0567	0.0567
(0.9 - 0.2Sds) * DL + E 90° Seismic (Reduced DL) M1	150.00	0.0649	-0.0030	0.0684	0.0684
(0.9 - 0.2Sds) * DL + E 90° Seismic (Reduced DL) M1	157.55	0.0741	-0.0023	0.0732	0.0732
(0.9 - 0.2Sds) * DL + E 90° Seismic (Reduced DL) M1	162.45	0.0805	-0.0019	0.0761	0.0761
(0.9 - 0.2Sds) * DL + E 90° Seismic (Reduced DL) M1	164.90	0.0838	-0.0017	0.0779	0.0779
(0.9 - 0.2Sds) * DL + E 90° Seismic (Reduced DL) M1	170.00	0.0908	-0.0013	0.0927	0.0927
(0.9 - 0.2Sds) * DL + E 90° Seismic (Reduced DL) M1	173.47	0.0956	-0.0012	0.0769	0.0769
(0.9 - 0.2Sds) * DL + E 90° Seismic (Reduced DL) M1	186.53	0.1138	-0.0008	0.0796	0.0796
(0.9 - 0.2Sds) * DL + E 90° Seismic (Reduced DL) M1	190.00	0.1186	-0.0008	0.0818	0.0818
(0.9 - 0.2Sds) * DL + E 60° Seismic (Reduced DL) M2	20.00	0.0012	0.0001	0.0037	0.0037
(0.9 - 0.2Sds) * DL + E 60° Seismic (Reduced DL) M2	50.00	0.0039	0.0004	0.0098	0.0098
(0.9 - 0.2Sds) * DL + E 60° Seismic (Reduced DL) M2	60.00	0.0058	0.0005	0.0117	0.0117
(0.9 - 0.2Sds) * DL + E 60° Seismic (Reduced DL) M2	90.00	0.0144	-0.0008	0.0217	0.0217
(0.9 - 0.2Sds) * DL + E 60° Seismic (Reduced DL) M2	110.00	0.0236	0.0012	0.0311	0.0312
(0.9 - 0.2Sds) * DL + E 60° Seismic (Reduced DL) M2	120.00	0.0294	0.0014	0.0357	0.0357
(0.9 - 0.2Sds) * DL + E 60° Seismic (Reduced DL) M2	130.00	0.0363	0.0016	0.0429	0.0429
(0.9 - 0.2Sds) * DL + E 60° Seismic (Reduced DL) M2	140.00	0.0445	0.0019	0.0504	0.0504
(0.9 - 0.2Sds) * DL + E 60° Seismic (Reduced DL) M2	150.00	0.0544	0.0023	0.0628	0.0628
(0.9 - 0.2Sds) * DL + E 60° Seismic (Reduced DL) M2	157.55	0.0632	0.0018	0.0708	0.0708
(0.9 - 0.2Sds) * DL + E 60° Seismic (Reduced DL) M2	162.45	0.0694	0.0015	0.0745	0.0745
(0.9 - 0.2Sds) * DL + E 60° Seismic (Reduced DL) M2	164.90	0.0726	0.0013	0.0772	0.0772
(0.9 - 0.2Sds) * DL + E 60° Seismic (Reduced DL) M2	170.00	0.0796	0.0010	0.0986	0.0986
(0.9 - 0.2Sds) * DL + E 60° Seismic (Reduced DL) M2	173.47	0.0845	0.0009	0.0757	0.0757
(0.9 - 0.2Sds) * DL + E 60° Seismic (Reduced DL) M2	186.53	0.1027	0.0006	0.0797	0.0797
(0.9 - 0.2Sds) * DL + E 60° Seismic (Reduced DL) M2	190.00	0.1075	0.0006	0.0827	0.0827
(0.9 - 0.2Sds) * DL + E 60° Seismic (Reduced DL) M1	20.00	0.0013	0.0001	0.0045	0.0045
(0.9 - 0.2Sds) * DL + E 60° Seismic (Reduced DL) M1	50.00	0.0051	0.0006	0.0126	0.0127
(0.9 - 0.2Sds) * DL + E 60° Seismic (Reduced DL) M1	60.00	0.0075	0.0006	0.0149	0.0149
(0.9 - 0.2Sds) * DL + E 60° Seismic (Reduced DL) M1	90.00	0.0183	-0.0011	0.0271	0.0271
(0.9 - 0.2Sds) * DL + E 60° Seismic (Reduced DL) M1	110.00	0.0297	0.0016	0.0378	0.0379
(0.9 - 0.2Sds) * DL + E 60° Seismic (Reduced DL) M1	120.00	0.0367	0.0017	0.0426	0.0426
(0.9 - 0.2Sds) * DL + E 60° Seismic (Reduced DL) M1	130.00	0.0448	0.0020	0.0498	0.0498
(0.9 - 0.2Sds) * DL + E 60° Seismic (Reduced DL) M1	140.00	0.0541	0.0022	0.0565	0.0566
(0.9 - 0.2Sds) * DL + E 60° Seismic (Reduced DL) M1	150.00	0.0649	0.0026	0.0680	0.068
(0.9 - 0.2Sds) * DL + E 60° Seismic (Reduced DL) M1	157.55	0.0741	0.0020	0.0732	0.0732
(0.9 - 0.2Sds) * DL + E 60° Seismic (Reduced DL) M1	162.45	0.0805	0.0016	0.0759	0.076
(0.9 - 0.2Sds) * DL + E 60° Seismic (Reduced DL) M1	164.90	0.0838	0.0015	0.0780	0.078
(0.9 - 0.2Sds) * DL + E 60° Seismic (Reduced DL) M1	170.00	0.0908	0.0012	0.0938	0.0938
(0.9 - 0.2Sds) * DL + E 60° Seismic (Reduced DL) M1	173.47	0.0956	0.0010	0.0766	0.0766
(0.9 - 0.2Sds) * DL + E 60° Seismic (Reduced DL) M1	186.53	0.1138	0.0007	0.0796	0.0796
(0.9 - 0.2Sds) * DL + E 60° Seismic (Reduced DL) M1	190.00	0.1186	0.0007	0.0819	0.0819
(0.9 - 0.2Sds) * DL + E Normal Seismic (Reduced DL) M1	20.00	0.0018	0.0001	0.0059	0.0059
(0.9 - 0.2Sds) * DL + E Normal Seismic (Reduced DL) M1	50.00	0.0051	0.0006	0.0127	0.0127
(0.9 - 0.2Sds) * DL + E Normal Seismic (Reduced DL) M1	60.00	0.0077	0.0006	0.0158	0.0158
(0.9 - 0.2Sds) * DL + E Normal Seismic (Reduced DL) M1	90.00	0.0186	0.0000	0.0271	0.0271
(0.9 - 0.2Sds) * DL + E Normal Seismic (Reduced DL) M1	110.00	0.03	0.0016	0.0381	0.0381
(0.9 - 0.2Sds) * DL + E Normal Seismic (Reduced DL) M1	120.00	0.0371	0.0017	0.0425	0.0425
(0.9 - 0.2Sds) * DL + E Normal Seismic (Reduced DL) M1	130.00	0.0452	0.0020	0.0509	0.0509
(0.9 - 0.2Sds) * DL + E Normal Seismic (Reduced DL) M1	140.00	0.0548	0.0022	0.0567	0.0567
(0.9 - 0.2Sds) * DL + E Normal Seismic (Reduced DL) M1	150.00	0.0649	0.0026	0.0688	0.0689
(0.9 - 0.2Sds) * DL + E Normal Seismic (Reduced DL) M1	157.55	0.0741	0.0020	0.0732	0.0732
(0.9 - 0.2Sds) * DL + E Normal Seismic (Reduced DL) M1	162.45	0.0805	0.0016	0.0760	0.076
(0.9 - 0.2Sds) * DL + E Normal Seismic (Reduced DL) M1	164.90	0.0838	0.0015	0.0780	0.078
(0.9 - 0.2Sds) * DL + E Normal Seismic (Reduced DL) M1	170.00	0.0907	0.0012	0.0938	0.0938

DEFLECTIONS AND ROTATIONS

Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
(0.9 - 0.2Sds) * DL + E Normal Seismic (Reduced DL) M1	173.47	0.0956	0.0010	0.0766	0.0766
(0.9 - 0.2Sds) * DL + E Normal Seismic (Reduced DL) M1	186.53	0.1138	0.0007	0.0796	0.0796
(0.9 - 0.2Sds) * DL + E Normal Seismic (Reduced DL) M1	190.00	0.1186	0.0007	0.0817	0.0817
(0.9 - 0.2Sds) * DL + E Normal Seismic (Reduced DL) M2	20.00	0.0015	0.0001	0.0048	0.0048
(0.9 - 0.2Sds) * DL + E Normal Seismic (Reduced DL) M2	50.00	0.0039	0.0004	0.0098	0.0098
(0.9 - 0.2Sds) * DL + E Normal Seismic (Reduced DL) M2	60.00	0.006	0.0005	0.0124	0.0124
(0.9 - 0.2Sds) * DL + E Normal Seismic (Reduced DL) M2	90.00	0.0146	0.0000	0.0217	0.0217
(0.9 - 0.2Sds) * DL + E Normal Seismic (Reduced DL) M2	110.00	0.0239	0.0012	0.0315	0.0315
(0.9 - 0.2Sds) * DL + E Normal Seismic (Reduced DL) M2	120.00	0.0298	0.0014	0.0357	0.0357
(0.9 - 0.2Sds) * DL + E Normal Seismic (Reduced DL) M2	130.00	0.0367	0.0016	0.0443	0.0443
(0.9 - 0.2Sds) * DL + E Normal Seismic (Reduced DL) M2	140.00	0.0452	0.0019	0.0508	0.0508
(0.9 - 0.2Sds) * DL + E Normal Seismic (Reduced DL) M2	150.00	0.0544	0.0023	0.0645	0.0645
(0.9 - 0.2Sds) * DL + E Normal Seismic (Reduced DL) M2	157.55	0.0632	0.0018	0.0708	0.0708
(0.9 - 0.2Sds) * DL + E Normal Seismic (Reduced DL) M2	162.45	0.0694	0.0015	0.0745	0.0745
(0.9 - 0.2Sds) * DL + E Normal Seismic (Reduced DL) M2	164.90	0.0726	0.0013	0.0773	0.0773
(0.9 - 0.2Sds) * DL + E Normal Seismic (Reduced DL) M2	170.00	0.0796	0.0010	0.0986	0.0986
(0.9 - 0.2Sds) * DL + E Normal Seismic (Reduced DL) M2	173.47	0.0845	0.0009	0.0757	0.0757
(0.9 - 0.2Sds) * DL + E Normal Seismic (Reduced DL) M2	186.53	0.1027	0.0006	0.0797	0.0797
(0.9 - 0.2Sds) * DL + E Normal Seismic (Reduced DL) M2	190.00	0.1075	0.0006	0.0826	0.0826
(1.2 + 0.2Sds) * DL + E 330° Seismic M2	20.00	0.0018	0.0001	0.0050	0.005
(1.2 + 0.2Sds) * DL + E 330° Seismic M2	50.00	0.0039	-0.0005	0.0099	0.0099
(1.2 + 0.2Sds) * DL + E 330° Seismic M2	60.00	0.006	-0.0005	0.0124	0.0124
(1.2 + 0.2Sds) * DL + E 330° Seismic M2	90.00	0.0147	0.0005	0.0218	0.0218
(1.2 + 0.2Sds) * DL + E 330° Seismic M2	110.00	0.0239	-0.0014	0.0316	0.0316
(1.2 + 0.2Sds) * DL + E 330° Seismic M2	120.00	0.0299	-0.0016	0.0359	0.0359
(1.2 + 0.2Sds) * DL + E 330° Seismic M2	130.00	0.0368	-0.0018	0.0443	0.0443
(1.2 + 0.2Sds) * DL + E 330° Seismic M2	140.00	0.0453	-0.0022	0.0510	0.051
(1.2 + 0.2Sds) * DL + E 330° Seismic M2	150.00	0.0546	-0.0027	0.0653	0.0653
(1.2 + 0.2Sds) * DL + E 330° Seismic M2	157.55	0.0635	-0.0021	0.0711	0.0711
(1.2 + 0.2Sds) * DL + E 330° Seismic M2	162.45	0.0697	-0.0017	0.0749	0.075
(1.2 + 0.2Sds) * DL + E 330° Seismic M2	164.90	0.0729	-0.0015	0.0775	0.0775
(1.2 + 0.2Sds) * DL + E 330° Seismic M2	170.00	0.0799	-0.0012	0.0975	0.0975
(1.2 + 0.2Sds) * DL + E 330° Seismic M2	173.47	0.0848	-0.0011	0.0764	0.0764
(1.2 + 0.2Sds) * DL + E 330° Seismic M2	186.53	0.1031	-0.0007	0.0801	0.0801
(1.2 + 0.2Sds) * DL + E 330° Seismic M2	190.00	0.1079	-0.0007	0.0832	0.0832
(1.2 + 0.2Sds) * DL + E 330° Seismic M1	20.00	0.002	-0.0002	0.0060	0.006
(1.2 + 0.2Sds) * DL + E 330° Seismic M1	50.00	0.0051	-0.0007	0.0128	0.0128
(1.2 + 0.2Sds) * DL + E 330° Seismic M1	60.00	0.0077	-0.0007	0.0158	0.0158
(1.2 + 0.2Sds) * DL + E 330° Seismic M1	90.00	0.0187	0.0007	0.0271	0.0271
(1.2 + 0.2Sds) * DL + E 330° Seismic M1	110.00	0.03	-0.0018	0.0382	0.0382
(1.2 + 0.2Sds) * DL + E 330° Seismic M1	120.00	0.0372	-0.0020	0.0427	0.0427
(1.2 + 0.2Sds) * DL + E 330° Seismic M1	130.00	0.0453	-0.0023	0.0510	0.051
(1.2 + 0.2Sds) * DL + E 330° Seismic M1	140.00	0.0549	-0.0026	0.0570	0.0571
(1.2 + 0.2Sds) * DL + E 330° Seismic M1	150.00	0.0651	-0.0030	0.0702	0.0702
(1.2 + 0.2Sds) * DL + E 330° Seismic M1	157.55	0.0744	-0.0023	0.0735	0.0735
(1.2 + 0.2Sds) * DL + E 330° Seismic M1	162.45	0.0808	-0.0019	0.0764	0.0764
(1.2 + 0.2Sds) * DL + E 330° Seismic M1	164.90	0.0841	-0.0017	0.0783	0.0783
(1.2 + 0.2Sds) * DL + E 330° Seismic M1	170.00	0.0911	-0.0013	0.0931	0.0931
(1.2 + 0.2Sds) * DL + E 330° Seismic M1	173.47	0.096	-0.0012	0.0772	0.0772
(1.2 + 0.2Sds) * DL + E 330° Seismic M1	186.53	0.1142	-0.0008	0.0800	0.08
(1.2 + 0.2Sds) * DL + E 330° Seismic M1	190.00	0.1191	-0.0008	0.0823	0.0823
(1.2 + 0.2Sds) * DL + E 300° Seismic M1	20.00	0.0016	0.0001	0.0049	0.0049
(1.2 + 0.2Sds) * DL + E 300° Seismic M1	50.00	0.0051	0.0006	0.0127	0.0127
(1.2 + 0.2Sds) * DL + E 300° Seismic M1	60.00	0.0075	0.0006	0.0151	0.0151
(1.2 + 0.2Sds) * DL + E 300° Seismic M1	90.00	0.0184	0.0011	0.0271	0.0272
(1.2 + 0.2Sds) * DL + E 300° Seismic M1	110.00	0.0298	0.0016	0.0380	0.038
(1.2 + 0.2Sds) * DL + E 300° Seismic M1	120.00	0.0369	0.0017	0.0427	0.0427
(1.2 + 0.2Sds) * DL + E 300° Seismic M1	130.00	0.045	0.0020	0.0501	0.0502
(1.2 + 0.2Sds) * DL + E 300° Seismic M1	140.00	0.0544	0.0022	0.0568	0.0569

DEFLECTIONS AND ROTATIONS

Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
(1.2 + 0.2Sds) * DL + E 300° Seismic M1	150.00	0.0651	0.0026	0.0700	0.07
(1.2 + 0.2Sds) * DL + E 300° Seismic M1	157.55	0.0744	0.0020	0.0735	0.0735
(1.2 + 0.2Sds) * DL + E 300° Seismic M1	162.45	0.0808	0.0016	0.0763	0.0763
(1.2 + 0.2Sds) * DL + E 300° Seismic M1	164.90	0.0841	0.0015	0.0783	0.0783
(1.2 + 0.2Sds) * DL + E 300° Seismic M1	170.00	0.0911	0.0012	0.0943	0.0943
(1.2 + 0.2Sds) * DL + E 300° Seismic M1	173.47	0.096	0.0010	0.0769	0.077
(1.2 + 0.2Sds) * DL + E 300° Seismic M1	186.53	0.1142	0.0007	0.0800	0.08
(1.2 + 0.2Sds) * DL + E 300° Seismic M1	190.00	0.1191	0.0007	0.0824	0.0824
(1.2 + 0.2Sds) * DL + E 300° Seismic M2	20.00	0.0015	0.0001	0.0042	0.0042
(1.2 + 0.2Sds) * DL + E 300° Seismic M2	50.00	0.0039	0.0004	0.0098	0.0098
(1.2 + 0.2Sds) * DL + E 300° Seismic M2	60.00	0.0059	0.0005	0.0118	0.0119
(1.2 + 0.2Sds) * DL + E 300° Seismic M2	90.00	0.0144	0.0008	0.0218	0.0218
(1.2 + 0.2Sds) * DL + E 300° Seismic M2	110.00	0.0237	0.0012	0.0313	0.0313
(1.2 + 0.2Sds) * DL + E 300° Seismic M2	120.00	0.0296	0.0014	0.0359	0.0359
(1.2 + 0.2Sds) * DL + E 300° Seismic M2	130.00	0.0365	0.0016	0.0432	0.0433
(1.2 + 0.2Sds) * DL + E 300° Seismic M2	140.00	0.0448	0.0019	0.0507	0.0507
(1.2 + 0.2Sds) * DL + E 300° Seismic M2	150.00	0.0546	0.0023	0.0648	0.0648
(1.2 + 0.2Sds) * DL + E 300° Seismic M2	157.55	0.0634	0.0018	0.0711	0.0711
(1.2 + 0.2Sds) * DL + E 300° Seismic M2	162.45	0.0697	0.0015	0.0748	0.0748
(1.2 + 0.2Sds) * DL + E 300° Seismic M2	164.90	0.0729	0.0013	0.0775	0.0775
(1.2 + 0.2Sds) * DL + E 300° Seismic M2	170.00	0.0799	0.0010	0.0991	0.0991
(1.2 + 0.2Sds) * DL + E 300° Seismic M2	173.47	0.0848	0.0009	0.0760	0.076
(1.2 + 0.2Sds) * DL + E 300° Seismic M2	186.53	0.1031	0.0006	0.0801	0.0801
(1.2 + 0.2Sds) * DL + E 300° Seismic M2	190.00	0.108	0.0006	0.0832	0.0832
(1.2 + 0.2Sds) * DL + E 240° Seismic M2	20.00	0.0019	0.0001	0.0054	0.0054
(1.2 + 0.2Sds) * DL + E 240° Seismic M2	50.00	0.004	0.0004	0.0099	0.0099
(1.2 + 0.2Sds) * DL + E 240° Seismic M2	60.00	0.0061	0.0005	0.0127	0.0127
(1.2 + 0.2Sds) * DL + E 240° Seismic M2	90.00	0.0141	0.0008	0.0218	0.0219
(1.2 + 0.2Sds) * DL + E 240° Seismic M2	110.00	0.024	0.0012	0.0317	0.0317
(1.2 + 0.2Sds) * DL + E 240° Seismic M2	120.00	0.03	0.0014	0.0358	0.0358
(1.2 + 0.2Sds) * DL + E 240° Seismic M2	130.00	0.0369	0.0016	0.0447	0.0447
(1.2 + 0.2Sds) * DL + E 240° Seismic M2	140.00	0.0456	0.0019	0.0512	0.0512
(1.2 + 0.2Sds) * DL + E 240° Seismic M2	150.00	0.0546	0.0023	0.0657	0.0657
(1.2 + 0.2Sds) * DL + E 240° Seismic M2	157.55	0.0635	0.0018	0.0711	0.0711
(1.2 + 0.2Sds) * DL + E 240° Seismic M2	162.45	0.0697	0.0015	0.0748	0.0749
(1.2 + 0.2Sds) * DL + E 240° Seismic M2	164.90	0.0729	0.0013	0.0776	0.0776
(1.2 + 0.2Sds) * DL + E 240° Seismic M2	170.00	0.0799	0.0010	0.0990	0.099
(1.2 + 0.2Sds) * DL + E 240° Seismic M2	173.47	0.0848	0.0009	0.0760	0.076
(1.2 + 0.2Sds) * DL + E 240° Seismic M2	186.53	0.1031	0.0006	0.0801	0.0801
(1.2 + 0.2Sds) * DL + E 240° Seismic M2	190.00	0.1079	0.0006	0.0831	0.0831
(1.2 + 0.2Sds) * DL + E 240° Seismic M1	20.00	0.0021	0.0001	0.0064	0.0064
(1.2 + 0.2Sds) * DL + E 240° Seismic M1	50.00	0.0051	0.0006	0.0128	0.0128
(1.2 + 0.2Sds) * DL + E 240° Seismic M1	60.00	0.0078	0.0006	0.0161	0.0161
(1.2 + 0.2Sds) * DL + E 240° Seismic M1	90.00	0.0181	0.0011	0.0272	0.0272
(1.2 + 0.2Sds) * DL + E 240° Seismic M1	110.00	0.0301	0.0016	0.0383	0.0383
(1.2 + 0.2Sds) * DL + E 240° Seismic M1	120.00	0.0373	0.0017	0.0426	0.0427
(1.2 + 0.2Sds) * DL + E 240° Seismic M1	130.00	0.0454	0.0020	0.0513	0.0513
(1.2 + 0.2Sds) * DL + E 240° Seismic M1	140.00	0.0552	0.0022	0.0571	0.0571
(1.2 + 0.2Sds) * DL + E 240° Seismic M1	150.00	0.0651	0.0026	0.0700	0.0701
(1.2 + 0.2Sds) * DL + E 240° Seismic M1	157.55	0.0744	0.0020	0.0735	0.0735
(1.2 + 0.2Sds) * DL + E 240° Seismic M1	162.45	0.0808	0.0016	0.0763	0.0763
(1.2 + 0.2Sds) * DL + E 240° Seismic M1	164.90	0.0841	0.0015	0.0784	0.0784
(1.2 + 0.2Sds) * DL + E 240° Seismic M1	170.00	0.0911	0.0012	0.0942	0.0942
(1.2 + 0.2Sds) * DL + E 240° Seismic M1	173.47	0.096	0.0010	0.0769	0.0769
(1.2 + 0.2Sds) * DL + E 240° Seismic M1	186.53	0.1142	0.0007	0.0800	0.08
(1.2 + 0.2Sds) * DL + E 240° Seismic M1	190.00	0.1191	0.0007	0.0822	0.0822
(1.2 + 0.2Sds) * DL + E 210° Seismic M2	20.00	0.0018	0.0001	0.0050	0.005
(1.2 + 0.2Sds) * DL + E 210° Seismic M2	50.00	0.0039	-0.0005	0.0099	0.0099
(1.2 + 0.2Sds) * DL + E 210° Seismic M2	60.00	0.006	-0.0005	0.0124	0.0124

DEFLECTIONS AND ROTATIONS

Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
(1.2 + 0.2Sds) * DL + E 210° Seismic M2	90.00	0.0142	0.0005	0.0219	0.0219
(1.2 + 0.2Sds) * DL + E 210° Seismic M2	110.00	0.0239	-0.0014	0.0316	0.0316
(1.2 + 0.2Sds) * DL + E 210° Seismic M2	120.00	0.0299	-0.0016	0.0359	0.0359
(1.2 + 0.2Sds) * DL + E 210° Seismic M2	130.00	0.0368	-0.0018	0.0443	0.0443
(1.2 + 0.2Sds) * DL + E 210° Seismic M2	140.00	0.0453	-0.0022	0.0510	0.0511
(1.2 + 0.2Sds) * DL + E 210° Seismic M2	150.00	0.0546	-0.0027	0.0653	0.0653
(1.2 + 0.2Sds) * DL + E 210° Seismic M2	157.55	0.0635	-0.0021	0.0711	0.0711
(1.2 + 0.2Sds) * DL + E 210° Seismic M2	162.45	0.0697	-0.0017	0.0749	0.075
(1.2 + 0.2Sds) * DL + E 210° Seismic M2	164.90	0.0729	-0.0015	0.0775	0.0775
(1.2 + 0.2Sds) * DL + E 210° Seismic M2	170.00	0.0799	-0.0012	0.0975	0.0975
(1.2 + 0.2Sds) * DL + E 210° Seismic M2	173.47	0.0848	-0.0011	0.0764	0.0764
(1.2 + 0.2Sds) * DL + E 210° Seismic M2	186.53	0.1031	-0.0007	0.0801	0.0801
(1.2 + 0.2Sds) * DL + E 210° Seismic M2	190.00	0.1079	-0.0007	0.0832	0.0832
(1.2 + 0.2Sds) * DL + E 210° Seismic M1	20.00	0.002	-0.0002	0.0060	0.006
(1.2 + 0.2Sds) * DL + E 210° Seismic M1	50.00	0.0051	-0.0007	0.0128	0.0128
(1.2 + 0.2Sds) * DL + E 210° Seismic M1	60.00	0.0077	-0.0007	0.0158	0.0158
(1.2 + 0.2Sds) * DL + E 210° Seismic M1	90.00	0.0182	0.0007	0.0273	0.0273
(1.2 + 0.2Sds) * DL + E 210° Seismic M1	110.00	0.03	-0.0018	0.0382	0.0382
(1.2 + 0.2Sds) * DL + E 210° Seismic M1	120.00	0.0372	-0.0020	0.0427	0.0427
(1.2 + 0.2Sds) * DL + E 210° Seismic M1	130.00	0.0453	-0.0023	0.0510	0.051
(1.2 + 0.2Sds) * DL + E 210° Seismic M1	140.00	0.0549	-0.0026	0.0570	0.0571
(1.2 + 0.2Sds) * DL + E 210° Seismic M1	150.00	0.0651	-0.0030	0.0702	0.0702
(1.2 + 0.2Sds) * DL + E 210° Seismic M1	157.55	0.0744	-0.0023	0.0735	0.0735
(1.2 + 0.2Sds) * DL + E 210° Seismic M1	162.45	0.0808	-0.0019	0.0764	0.0764
(1.2 + 0.2Sds) * DL + E 210° Seismic M1	164.90	0.0841	-0.0017	0.0783	0.0783
(1.2 + 0.2Sds) * DL + E 210° Seismic M1	170.00	0.0911	-0.0013	0.0931	0.0931
(1.2 + 0.2Sds) * DL + E 210° Seismic M1	173.47	0.096	-0.0012	0.0772	0.0772
(1.2 + 0.2Sds) * DL + E 210° Seismic M1	186.53	0.1142	-0.0008	0.0800	0.08
(1.2 + 0.2Sds) * DL + E 210° Seismic M1	190.00	0.1191	-0.0008	0.0823	0.0823
(1.2 + 0.2Sds) * DL + E 180° Seismic M2	20.00	0.0015	0.0001	0.0042	0.0042
(1.2 + 0.2Sds) * DL + E 180° Seismic M2	50.00	0.0039	0.0004	0.0098	0.0098
(1.2 + 0.2Sds) * DL + E 180° Seismic M2	60.00	0.0059	0.0005	0.0118	0.0119
(1.2 + 0.2Sds) * DL + E 180° Seismic M2	90.00	0.0142	0.0000	0.0219	0.0219
(1.2 + 0.2Sds) * DL + E 180° Seismic M2	110.00	0.0237	0.0012	0.0313	0.0313
(1.2 + 0.2Sds) * DL + E 180° Seismic M2	120.00	0.0296	0.0014	0.0359	0.0359
(1.2 + 0.2Sds) * DL + E 180° Seismic M2	130.00	0.0365	0.0016	0.0432	0.0433
(1.2 + 0.2Sds) * DL + E 180° Seismic M2	140.00	0.0448	0.0019	0.0507	0.0507
(1.2 + 0.2Sds) * DL + E 180° Seismic M2	150.00	0.0546	0.0023	0.0648	0.0648
(1.2 + 0.2Sds) * DL + E 180° Seismic M2	157.55	0.0634	0.0018	0.0711	0.0711
(1.2 + 0.2Sds) * DL + E 180° Seismic M2	162.45	0.0697	0.0015	0.0748	0.0748
(1.2 + 0.2Sds) * DL + E 180° Seismic M2	164.90	0.0729	0.0013	0.0775	0.0775
(1.2 + 0.2Sds) * DL + E 180° Seismic M2	170.00	0.0799	0.0011	0.0990	0.099
(1.2 + 0.2Sds) * DL + E 180° Seismic M2	173.47	0.0848	0.0009	0.0760	0.076
(1.2 + 0.2Sds) * DL + E 180° Seismic M2	186.53	0.1031	0.0006	0.0801	0.0801
(1.2 + 0.2Sds) * DL + E 180° Seismic M2	190.00	0.1079	0.0006	0.0832	0.0832
(1.2 + 0.2Sds) * DL + E 180° Seismic M1	20.00	0.0016	0.0001	0.0049	0.0049
(1.2 + 0.2Sds) * DL + E 180° Seismic M1	50.00	0.0051	0.0006	0.0127	0.0127
(1.2 + 0.2Sds) * DL + E 180° Seismic M1	60.00	0.0075	0.0006	0.0151	0.0151
(1.2 + 0.2Sds) * DL + E 180° Seismic M1	90.00	0.0182	0.0000	0.0273	0.0273
(1.2 + 0.2Sds) * DL + E 180° Seismic M1	110.00	0.0298	0.0016	0.0380	0.038
(1.2 + 0.2Sds) * DL + E 180° Seismic M1	120.00	0.0369	0.0017	0.0427	0.0427
(1.2 + 0.2Sds) * DL + E 180° Seismic M1	130.00	0.045	0.0020	0.0501	0.0502
(1.2 + 0.2Sds) * DL + E 180° Seismic M1	140.00	0.0544	0.0022	0.0568	0.0569
(1.2 + 0.2Sds) * DL + E 180° Seismic M1	150.00	0.0651	0.0026	0.0700	0.07
(1.2 + 0.2Sds) * DL + E 180° Seismic M1	157.55	0.0744	0.0020	0.0735	0.0735
(1.2 + 0.2Sds) * DL + E 180° Seismic M1	162.45	0.0808	0.0016	0.0763	0.0763
(1.2 + 0.2Sds) * DL + E 180° Seismic M1	164.90	0.0841	0.0015	0.0783	0.0783
(1.2 + 0.2Sds) * DL + E 180° Seismic M1	170.00	0.0911	0.0012	0.0943	0.0943
(1.2 + 0.2Sds) * DL + E 180° Seismic M1	173.47	0.096	0.0010	0.0769	0.0769

DEFLECTIONS AND ROTATIONS

Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
(1.2 + 0.2Sds) * DL + E 180° Seismic M1	186.53	0.1142	0.0007	0.0800	0.08
(1.2 + 0.2Sds) * DL + E 180° Seismic M1	190.00	0.1191	0.0007	0.0824	0.0824
(1.2 + 0.2Sds) * DL + E 120° Seismic M1	20.00	0.0021	0.0001	0.0064	0.0064
(1.2 + 0.2Sds) * DL + E 120° Seismic M1	50.00	0.0051	0.0006	0.0128	0.0128
(1.2 + 0.2Sds) * DL + E 120° Seismic M1	60.00	0.0078	0.0006	0.0161	0.0161
(1.2 + 0.2Sds) * DL + E 120° Seismic M1	90.00	0.0181	-0.0011	0.0272	0.0272
(1.2 + 0.2Sds) * DL + E 120° Seismic M1	110.00	0.0301	0.0016	0.0383	0.0383
(1.2 + 0.2Sds) * DL + E 120° Seismic M1	120.00	0.0373	0.0017	0.0426	0.0427
(1.2 + 0.2Sds) * DL + E 120° Seismic M1	130.00	0.0454	0.0020	0.0513	0.0513
(1.2 + 0.2Sds) * DL + E 120° Seismic M1	140.00	0.0552	0.0022	0.0571	0.0571
(1.2 + 0.2Sds) * DL + E 120° Seismic M1	150.00	0.0651	0.0026	0.0700	0.0701
(1.2 + 0.2Sds) * DL + E 120° Seismic M1	157.55	0.0744	0.0020	0.0735	0.0735
(1.2 + 0.2Sds) * DL + E 120° Seismic M1	162.45	0.0808	0.0016	0.0763	0.0763
(1.2 + 0.2Sds) * DL + E 120° Seismic M1	164.90	0.0841	0.0015	0.0784	0.0784
(1.2 + 0.2Sds) * DL + E 120° Seismic M1	170.00	0.0911	0.0012	0.0942	0.0942
(1.2 + 0.2Sds) * DL + E 120° Seismic M1	173.47	0.096	0.0010	0.0769	0.0769
(1.2 + 0.2Sds) * DL + E 120° Seismic M1	186.53	0.1142	0.0007	0.0800	0.08
(1.2 + 0.2Sds) * DL + E 120° Seismic M1	190.00	0.1191	0.0007	0.0822	0.0822
(1.2 + 0.2Sds) * DL + E 120° Seismic M2	20.00	0.0019	0.0001	0.0054	0.0054
(1.2 + 0.2Sds) * DL + E 120° Seismic M2	50.00	0.004	0.0004	0.0099	0.0099
(1.2 + 0.2Sds) * DL + E 120° Seismic M2	60.00	0.0061	0.0005	0.0127	0.0127
(1.2 + 0.2Sds) * DL + E 120° Seismic M2	90.00	0.0141	-0.0008	0.0218	0.0219
(1.2 + 0.2Sds) * DL + E 120° Seismic M2	110.00	0.024	0.0012	0.0317	0.0317
(1.2 + 0.2Sds) * DL + E 120° Seismic M2	120.00	0.03	0.0014	0.0358	0.0358
(1.2 + 0.2Sds) * DL + E 120° Seismic M2	130.00	0.0369	0.0016	0.0447	0.0447
(1.2 + 0.2Sds) * DL + E 120° Seismic M2	140.00	0.0456	0.0019	0.0512	0.0512
(1.2 + 0.2Sds) * DL + E 120° Seismic M2	150.00	0.0546	0.0023	0.0657	0.0657
(1.2 + 0.2Sds) * DL + E 120° Seismic M2	157.55	0.0635	0.0018	0.0711	0.0711
(1.2 + 0.2Sds) * DL + E 120° Seismic M2	162.45	0.0697	0.0015	0.0748	0.0749
(1.2 + 0.2Sds) * DL + E 120° Seismic M2	164.90	0.0729	0.0013	0.0776	0.0776
(1.2 + 0.2Sds) * DL + E 120° Seismic M2	170.00	0.0799	0.0010	0.0990	0.099
(1.2 + 0.2Sds) * DL + E 120° Seismic M2	173.47	0.0848	0.0009	0.0760	0.076
(1.2 + 0.2Sds) * DL + E 120° Seismic M2	186.53	0.1031	0.0006	0.0801	0.0801
(1.2 + 0.2Sds) * DL + E 120° Seismic M2	190.00	0.1079	0.0006	0.0831	0.0831
(1.2 + 0.2Sds) * DL + E 90° Seismic M2	20.00	0.0018	0.0001	0.0050	0.005
(1.2 + 0.2Sds) * DL + E 90° Seismic M2	50.00	0.0039	-0.0005	0.0099	0.0099
(1.2 + 0.2Sds) * DL + E 90° Seismic M2	60.00	0.006	-0.0005	0.0124	0.0124
(1.2 + 0.2Sds) * DL + E 90° Seismic M2	90.00	0.0142	-0.0010	0.0218	0.0218
(1.2 + 0.2Sds) * DL + E 90° Seismic M2	110.00	0.0239	-0.0014	0.0316	0.0316
(1.2 + 0.2Sds) * DL + E 90° Seismic M2	120.00	0.0299	-0.0016	0.0358	0.0359
(1.2 + 0.2Sds) * DL + E 90° Seismic M2	130.00	0.0368	-0.0018	0.0443	0.0443
(1.2 + 0.2Sds) * DL + E 90° Seismic M2	140.00	0.0453	-0.0022	0.0510	0.051
(1.2 + 0.2Sds) * DL + E 90° Seismic M2	150.00	0.0546	-0.0027	0.0653	0.0653
(1.2 + 0.2Sds) * DL + E 90° Seismic M2	157.55	0.0635	-0.0021	0.0711	0.0711
(1.2 + 0.2Sds) * DL + E 90° Seismic M2	162.45	0.0697	-0.0017	0.0749	0.075
(1.2 + 0.2Sds) * DL + E 90° Seismic M2	164.90	0.0729	-0.0015	0.0775	0.0775
(1.2 + 0.2Sds) * DL + E 90° Seismic M2	170.00	0.0799	-0.0012	0.0975	0.0975
(1.2 + 0.2Sds) * DL + E 90° Seismic M2	173.47	0.0848	-0.0011	0.0764	0.0764
(1.2 + 0.2Sds) * DL + E 90° Seismic M2	186.53	0.1031	-0.0007	0.0801	0.0801
(1.2 + 0.2Sds) * DL + E 90° Seismic M2	190.00	0.1079	-0.0007	0.0832	0.0832
(1.2 + 0.2Sds) * DL + E 90° Seismic M1	20.00	0.002	-0.0002	0.0060	0.006
(1.2 + 0.2Sds) * DL + E 90° Seismic M1	50.00	0.0051	-0.0007	0.0128	0.0128
(1.2 + 0.2Sds) * DL + E 90° Seismic M1	60.00	0.0077	-0.0007	0.0158	0.0158
(1.2 + 0.2Sds) * DL + E 90° Seismic M1	90.00	0.0182	-0.0013	0.0272	0.0272
(1.2 + 0.2Sds) * DL + E 90° Seismic M1	110.00	0.03	-0.0018	0.0382	0.0382
(1.2 + 0.2Sds) * DL + E 90° Seismic M1	120.00	0.0372	-0.0020	0.0427	0.0427
(1.2 + 0.2Sds) * DL + E 90° Seismic M1	130.00	0.0453	-0.0023	0.0510	0.051
(1.2 + 0.2Sds) * DL + E 90° Seismic M1	140.00	0.0549	-0.0026	0.0570	0.0571
(1.2 + 0.2Sds) * DL + E 90° Seismic M1	150.00	0.0651	-0.0030	0.0702	0.0702

DEFLECTIONS AND ROTATIONS

Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
(1.2 + 0.2Sds) * DL + E 90° Seismic M1	157.55	0.0744	-0.0023	0.0735	0.0735
(1.2 + 0.2Sds) * DL + E 90° Seismic M1	162.45	0.0808	-0.0019	0.0764	0.0764
(1.2 + 0.2Sds) * DL + E 90° Seismic M1	164.90	0.0841	-0.0017	0.0783	0.0783
(1.2 + 0.2Sds) * DL + E 90° Seismic M1	170.00	0.0911	-0.0013	0.0931	0.0931
(1.2 + 0.2Sds) * DL + E 90° Seismic M1	173.47	0.096	-0.0012	0.0772	0.0772
(1.2 + 0.2Sds) * DL + E 90° Seismic M1	186.53	0.1142	-0.0008	0.0800	0.08
(1.2 + 0.2Sds) * DL + E 90° Seismic M1	190.00	0.1191	-0.0008	0.0823	0.0823
(1.2 + 0.2Sds) * DL + E 60° Seismic M1	20.00	0.0016	0.0001	0.0049	0.0049
(1.2 + 0.2Sds) * DL + E 60° Seismic M1	50.00	0.0051	0.0006	0.0127	0.0127
(1.2 + 0.2Sds) * DL + E 60° Seismic M1	60.00	0.0075	0.0006	0.0151	0.0151
(1.2 + 0.2Sds) * DL + E 60° Seismic M1	90.00	0.0184	-0.0011	0.0271	0.0272
(1.2 + 0.2Sds) * DL + E 60° Seismic M1	110.00	0.0298	0.0016	0.0380	0.038
(1.2 + 0.2Sds) * DL + E 60° Seismic M1	120.00	0.0369	0.0017	0.0427	0.0427
(1.2 + 0.2Sds) * DL + E 60° Seismic M1	130.00	0.045	0.0020	0.0501	0.0502
(1.2 + 0.2Sds) * DL + E 60° Seismic M1	140.00	0.0544	0.0022	0.0568	0.0569
(1.2 + 0.2Sds) * DL + E 60° Seismic M1	150.00	0.0651	0.0026	0.0700	0.07
(1.2 + 0.2Sds) * DL + E 60° Seismic M1	157.55	0.0744	0.0020	0.0735	0.0735
(1.2 + 0.2Sds) * DL + E 60° Seismic M1	162.45	0.0808	0.0016	0.0763	0.0763
(1.2 + 0.2Sds) * DL + E 60° Seismic M1	164.90	0.0841	0.0015	0.0783	0.0783
(1.2 + 0.2Sds) * DL + E 60° Seismic M1	170.00	0.0911	0.0012	0.0943	0.0943
(1.2 + 0.2Sds) * DL + E 60° Seismic M1	173.47	0.096	0.0010	0.0769	0.077
(1.2 + 0.2Sds) * DL + E 60° Seismic M1	186.53	0.1142	0.0007	0.0800	0.08
(1.2 + 0.2Sds) * DL + E 60° Seismic M1	190.00	0.1191	0.0007	0.0824	0.0824
(1.2 + 0.2Sds) * DL + E 60° Seismic M2	20.00	0.0015	0.0001	0.0042	0.0042
(1.2 + 0.2Sds) * DL + E 60° Seismic M2	50.00	0.0039	0.0004	0.0098	0.0098
(1.2 + 0.2Sds) * DL + E 60° Seismic M2	60.00	0.0059	0.0005	0.0118	0.0119
(1.2 + 0.2Sds) * DL + E 60° Seismic M2	90.00	0.0144	-0.0008	0.0218	0.0218
(1.2 + 0.2Sds) * DL + E 60° Seismic M2	110.00	0.0237	0.0012	0.0313	0.0313
(1.2 + 0.2Sds) * DL + E 60° Seismic M2	120.00	0.0296	0.0014	0.0359	0.0359
(1.2 + 0.2Sds) * DL + E 60° Seismic M2	130.00	0.0365	0.0016	0.0432	0.0433
(1.2 + 0.2Sds) * DL + E 60° Seismic M2	140.00	0.0448	0.0019	0.0507	0.0507
(1.2 + 0.2Sds) * DL + E 60° Seismic M2	150.00	0.0546	0.0023	0.0648	0.0648
(1.2 + 0.2Sds) * DL + E 60° Seismic M2	157.55	0.0634	0.0018	0.0711	0.0711
(1.2 + 0.2Sds) * DL + E 60° Seismic M2	162.45	0.0697	0.0015	0.0748	0.0748
(1.2 + 0.2Sds) * DL + E 60° Seismic M2	164.90	0.0729	0.0013	0.0775	0.0775
(1.2 + 0.2Sds) * DL + E 60° Seismic M2	170.00	0.0799	0.0010	0.0991	0.0991
(1.2 + 0.2Sds) * DL + E 60° Seismic M2	173.47	0.0848	0.0009	0.0760	0.076
(1.2 + 0.2Sds) * DL + E 60° Seismic M2	186.53	0.1031	0.0006	0.0801	0.0801
(1.2 + 0.2Sds) * DL + E 60° Seismic M2	190.00	0.108	0.0006	0.0832	0.0832
(1.2 + 0.2Sds) * DL + E Normal Seismic M2	20.00	0.0019	0.0001	0.0054	0.0054
(1.2 + 0.2Sds) * DL + E Normal Seismic M2	50.00	0.004	0.0004	0.0099	0.0099
(1.2 + 0.2Sds) * DL + E Normal Seismic M2	60.00	0.0061	0.0005	0.0127	0.0127
(1.2 + 0.2Sds) * DL + E Normal Seismic M2	90.00	0.0148	0.0000	0.0218	0.0218
(1.2 + 0.2Sds) * DL + E Normal Seismic M2	110.00	0.024	0.0012	0.0317	0.0317
(1.2 + 0.2Sds) * DL + E Normal Seismic M2	120.00	0.03	0.0014	0.0358	0.0358
(1.2 + 0.2Sds) * DL + E Normal Seismic M2	130.00	0.0369	0.0016	0.0447	0.0447
(1.2 + 0.2Sds) * DL + E Normal Seismic M2	140.00	0.0456	0.0019	0.0512	0.0512
(1.2 + 0.2Sds) * DL + E Normal Seismic M2	150.00	0.0546	0.0023	0.0657	0.0657
(1.2 + 0.2Sds) * DL + E Normal Seismic M2	157.55	0.0635	0.0018	0.0711	0.0711
(1.2 + 0.2Sds) * DL + E Normal Seismic M2	162.45	0.0697	0.0015	0.0748	0.0749
(1.2 + 0.2Sds) * DL + E Normal Seismic M2	164.90	0.0729	0.0013	0.0776	0.0776
(1.2 + 0.2Sds) * DL + E Normal Seismic M2	170.00	0.0799	0.0010	0.0990	0.099
(1.2 + 0.2Sds) * DL + E Normal Seismic M2	173.47	0.0848	0.0009	0.0760	0.076
(1.2 + 0.2Sds) * DL + E Normal Seismic M2	186.53	0.1031	0.0006	0.0801	0.0801
(1.2 + 0.2Sds) * DL + E Normal Seismic M2	190.00	0.1079	0.0006	0.0831	0.0831
(1.2 + 0.2Sds) * DL + E Normal Seismic M1	20.00	0.0021	0.0001	0.0064	0.0064
(1.2 + 0.2Sds) * DL + E Normal Seismic M1	50.00	0.0051	0.0006	0.0128	0.0128
(1.2 + 0.2Sds) * DL + E Normal Seismic M1	60.00	0.0078	0.0006	0.0161	0.0161
(1.2 + 0.2Sds) * DL + E Normal Seismic M1	90.00	0.0188	0.0000	0.0271	0.0271

DEFLECTIONS AND ROTATIONS

Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
(1.2 + 0.2Sds) * DL + E Normal Seismic M1	110.00	0.0301	0.0016	0.0383	0.0383
(1.2 + 0.2Sds) * DL + E Normal Seismic M1	120.00	0.0373	0.0017	0.0426	0.0427
(1.2 + 0.2Sds) * DL + E Normal Seismic M1	130.00	0.0454	0.0020	0.0513	0.0513
(1.2 + 0.2Sds) * DL + E Normal Seismic M1	140.00	0.0552	0.0022	0.0571	0.0571
(1.2 + 0.2Sds) * DL + E Normal Seismic M1	150.00	0.0651	0.0026	0.0700	0.0701
(1.2 + 0.2Sds) * DL + E Normal Seismic M1	157.55	0.0744	0.0020	0.0735	0.0735
(1.2 + 0.2Sds) * DL + E Normal Seismic M1	162.45	0.0808	0.0016	0.0763	0.0763
(1.2 + 0.2Sds) * DL + E Normal Seismic M1	164.90	0.0841	0.0015	0.0784	0.0784
(1.2 + 0.2Sds) * DL + E Normal Seismic M1	170.00	0.0911	0.0012	0.0942	0.0942
(1.2 + 0.2Sds) * DL + E Normal Seismic M1	173.47	0.096	0.0010	0.0769	0.0769
(1.2 + 0.2Sds) * DL + E Normal Seismic M1	186.53	0.1142	0.0007	0.0800	0.08
(1.2 + 0.2Sds) * DL + E Normal Seismic M1	190.00	0.1191	0.0007	0.0822	0.0822
1.2D + 1.0Di + 1.0Wi 330° 50 mph Wind with 0" Radial Ice	20.00	0.0055	-0.0007	0.0211	0.0212
1.2D + 1.0Di + 1.0Wi 330° 50 mph Wind with 0" Radial Ice	50.00	0.0214	-0.0025	0.0500	0.05
1.2D + 1.0Di + 1.0Wi 330° 50 mph Wind with 0" Radial Ice	60.00	0.0301	-0.0027	0.0571	0.0572
1.2D + 1.0Di + 1.0Wi 330° 50 mph Wind with 0" Radial Ice	90.00	0.0673	0.0026	0.0954	0.0954
1.2D + 1.0Di + 1.0Wi 330° 50 mph Wind with 0" Radial Ice	110.00	0.108	-0.0063	0.1296	0.1296
1.2D + 1.0Di + 1.0Wi 330° 50 mph Wind with 0" Radial Ice	120.00	0.1317	-0.0070	0.1431	0.1431
1.2D + 1.0Di + 1.0Wi 330° 50 mph Wind with 0" Radial Ice	130.00	0.1586	-0.0078	0.1649	0.1649
1.2D + 1.0Di + 1.0Wi 330° 50 mph Wind with 0" Radial Ice	140.00	0.1885	-0.0086	0.1824	0.1825
1.2D + 1.0Di + 1.0Wi 330° 50 mph Wind with 0" Radial Ice	150.00	0.2231	-0.0099	0.2137	0.2139
1.2D + 1.0Di + 1.0Wi 330° 50 mph Wind with 0" Radial Ice	157.55	0.2521	-0.0087	0.2285	0.2287
1.2D + 1.0Di + 1.0Wi 330° 50 mph Wind with 0" Radial Ice	162.45	0.2719	-0.0079	0.2378	0.2379
1.2D + 1.0Di + 1.0Wi 330° 50 mph Wind with 0" Radial Ice	164.90	0.2821	-0.0076	0.2382	0.2383
1.2D + 1.0Di + 1.0Wi 330° 50 mph Wind with 0" Radial Ice	170.00	0.3038	-0.0074	0.2836	0.2837
1.2D + 1.0Di + 1.0Wi 330° 50 mph Wind with 0" Radial Ice	173.47	0.3187	-0.0072	0.2380	0.2381
1.2D + 1.0Di + 1.0Wi 330° 50 mph Wind with 0" Radial Ice	186.53	0.375	-0.0069	0.2484	0.2485
1.2D + 1.0Di + 1.0Wi 330° 50 mph Wind with 0" Radial Ice	190.00	0.39	-0.0069	0.2485	0.2486
1.2D + 1.0Di + 1.0Wi 300° 50 mph Wind with 0" Radial Ice	20.00	0.006	0.0007	0.0224	0.0224
1.2D + 1.0Di + 1.0Wi 300° 50 mph Wind with 0" Radial Ice	50.00	0.0215	0.0024	0.0497	0.0497
1.2D + 1.0Di + 1.0Wi 300° 50 mph Wind with 0" Radial Ice	60.00	0.0302	0.0026	0.0547	0.0548
1.2D + 1.0Di + 1.0Wi 300° 50 mph Wind with 0" Radial Ice	90.00	0.0666	0.0044	0.0946	0.0947
1.2D + 1.0Di + 1.0Wi 300° 50 mph Wind with 0" Radial Ice	110.00	0.1076	0.0058	0.1283	0.1284
1.2D + 1.0Di + 1.0Wi 300° 50 mph Wind with 0" Radial Ice	120.00	0.1311	0.0064	0.1423	0.1423
1.2D + 1.0Di + 1.0Wi 300° 50 mph Wind with 0" Radial Ice	130.00	0.1579	0.0071	0.1632	0.1632
1.2D + 1.0Di + 1.0Wi 300° 50 mph Wind with 0" Radial Ice	140.00	0.1877	0.0078	0.1809	0.1811
1.2D + 1.0Di + 1.0Wi 300° 50 mph Wind with 0" Radial Ice	150.00	0.2218	0.0089	0.2076	0.2077
1.2D + 1.0Di + 1.0Wi 300° 50 mph Wind with 0" Radial Ice	157.55	0.2506	0.0094	0.2274	0.2276
1.2D + 1.0Di + 1.0Wi 300° 50 mph Wind with 0" Radial Ice	162.45	0.2704	0.0097	0.2353	0.2355
1.2D + 1.0Di + 1.0Wi 300° 50 mph Wind with 0" Radial Ice	164.90	0.2805	0.0098	0.2441	0.2441
1.2D + 1.0Di + 1.0Wi 300° 50 mph Wind with 0" Radial Ice	170.00	0.3021	0.0097	0.2858	0.2858
1.2D + 1.0Di + 1.0Wi 300° 50 mph Wind with 0" Radial Ice	173.47	0.317	0.0095	0.2361	0.2363
1.2D + 1.0Di + 1.0Wi 300° 50 mph Wind with 0" Radial Ice	186.53	0.373	0.0093	0.2467	0.2468
1.2D + 1.0Di + 1.0Wi 300° 50 mph Wind with 0" Radial Ice	190.00	0.3879	0.0093	0.2485	0.2485
1.2D + 1.0Di + 1.0Wi 240° 50 mph Wind with 0" Radial Ice	20.00	0.0041	0.0007	0.0180	0.018
1.2D + 1.0Di + 1.0Wi 240° 50 mph Wind with 0" Radial Ice	50.00	0.0212	0.0024	0.0504	0.0504
1.2D + 1.0Di + 1.0Wi 240° 50 mph Wind with 0" Radial Ice	60.00	0.03	0.0027	0.0592	0.0592
1.2D + 1.0Di + 1.0Wi 240° 50 mph Wind with 0" Radial Ice	90.00	0.0694	0.0045	0.0971	0.0972
1.2D + 1.0Di + 1.0Wi 240° 50 mph Wind with 0" Radial Ice	110.00	0.1095	0.0059	0.1322	0.1322
1.2D + 1.0Di + 1.0Wi 240° 50 mph Wind with 0" Radial Ice	120.00	0.1336	0.0065	0.1456	0.1457
1.2D + 1.0Di + 1.0Wi 240° 50 mph Wind with 0" Radial Ice	130.00	0.161	0.0072	0.1686	0.1686
1.2D + 1.0Di + 1.0Wi 240° 50 mph Wind with 0" Radial Ice	140.00	0.1925	0.0079	0.1858	0.1858
1.2D + 1.0Di + 1.0Wi 240° 50 mph Wind with 0" Radial Ice	150.00	0.227	0.0090	0.2174	0.2176
1.2D + 1.0Di + 1.0Wi 240° 50 mph Wind with 0" Radial Ice	157.55	0.2566	-0.0093	0.2325	0.2327
1.2D + 1.0Di + 1.0Wi 240° 50 mph Wind with 0" Radial Ice	162.45	0.2768	-0.0097	0.2407	0.2409
1.2D + 1.0Di + 1.0Wi 240° 50 mph Wind with 0" Radial Ice	164.90	0.2872	-0.0097	0.2496	0.2496
1.2D + 1.0Di + 1.0Wi 240° 50 mph Wind with 0" Radial Ice	170.00	0.3092	-0.0096	0.2928	0.2928
1.2D + 1.0Di + 1.0Wi 240° 50 mph Wind with 0" Radial Ice	173.47	0.3245	-0.0095	0.2415	0.2417
1.2D + 1.0Di + 1.0Wi 240° 50 mph Wind with 0" Radial Ice	186.53	0.3818	-0.0093	0.2523	0.2525

DEFLECTIONS AND ROTATIONS

Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
1.2D + 1.0Di + 1.0Wi 240° 50 mph Wind with 0" Radial Ice	190.00	0.397	-0.0093	0.2536	0.2536
1.2D + 1.0Di + 1.0Wi 210° 50 mph Wind with 0" Radial Ice	20.00	0.0055	-0.0007	0.0211	0.0212
1.2D + 1.0Di + 1.0Wi 210° 50 mph Wind with 0" Radial Ice	50.00	0.0214	-0.0025	0.0500	0.05
1.2D + 1.0Di + 1.0Wi 210° 50 mph Wind with 0" Radial Ice	60.00	0.0301	-0.0027	0.0571	0.0571
1.2D + 1.0Di + 1.0Wi 210° 50 mph Wind with 0" Radial Ice	90.00	0.0688	0.0026	0.0954	0.0954
1.2D + 1.0Di + 1.0Wi 210° 50 mph Wind with 0" Radial Ice	110.00	0.108	-0.0064	0.1295	0.1295
1.2D + 1.0Di + 1.0Wi 210° 50 mph Wind with 0" Radial Ice	120.00	0.1316	-0.0071	0.1430	0.143
1.2D + 1.0Di + 1.0Wi 210° 50 mph Wind with 0" Radial Ice	130.00	0.1585	-0.0079	0.1648	0.1649
1.2D + 1.0Di + 1.0Wi 210° 50 mph Wind with 0" Radial Ice	140.00	0.1884	-0.0087	0.1823	0.1824
1.2D + 1.0Di + 1.0Wi 210° 50 mph Wind with 0" Radial Ice	150.00	0.223	-0.0100	0.2137	0.2139
1.2D + 1.0Di + 1.0Wi 210° 50 mph Wind with 0" Radial Ice	157.55	0.252	-0.0104	0.2285	0.2287
1.2D + 1.0Di + 1.0Wi 210° 50 mph Wind with 0" Radial Ice	162.45	0.2718	-0.0107	0.2377	0.238
1.2D + 1.0Di + 1.0Wi 210° 50 mph Wind with 0" Radial Ice	164.90	0.282	-0.0108	0.2381	0.2381
1.2D + 1.0Di + 1.0Wi 210° 50 mph Wind with 0" Radial Ice	170.00	0.3036	-0.0106	0.2834	0.2834
1.2D + 1.0Di + 1.0Wi 210° 50 mph Wind with 0" Radial Ice	173.47	0.3186	-0.0105	0.2379	0.2381
1.2D + 1.0Di + 1.0Wi 210° 50 mph Wind with 0" Radial Ice	186.53	0.3748	-0.0103	0.2482	0.2484
1.2D + 1.0Di + 1.0Wi 210° 50 mph Wind with 0" Radial Ice	190.00	0.3898	-0.0102	0.2484	0.2484
1.2D + 1.0Di + 1.0Wi 180° 50 mph Wind with 0" Radial Ice	20.00	0.006	0.0006	0.0224	0.0224
1.2D + 1.0Di + 1.0Wi 180° 50 mph Wind with 0" Radial Ice	50.00	0.0215	0.0021	0.0499	0.0499
1.2D + 1.0Di + 1.0Wi 180° 50 mph Wind with 0" Radial Ice	60.00	0.0302	0.0023	0.0547	0.0548
1.2D + 1.0Di + 1.0Wi 180° 50 mph Wind with 0" Radial Ice	90.00	0.0687	0.0000	0.0948	0.0948
1.2D + 1.0Di + 1.0Wi 180° 50 mph Wind with 0" Radial Ice	110.00	0.1076	0.0054	0.1282	0.1284
1.2D + 1.0Di + 1.0Wi 180° 50 mph Wind with 0" Radial Ice	120.00	0.1311	0.0060	0.1422	0.1422
1.2D + 1.0Di + 1.0Wi 180° 50 mph Wind with 0" Radial Ice	130.00	0.1578	0.0067	0.1631	0.1631
1.2D + 1.0Di + 1.0Wi 180° 50 mph Wind with 0" Radial Ice	140.00	0.1877	0.0074	0.1808	0.1809
1.2D + 1.0Di + 1.0Wi 180° 50 mph Wind with 0" Radial Ice	150.00	0.2217	0.0085	0.2073	0.2074
1.2D + 1.0Di + 1.0Wi 180° 50 mph Wind with 0" Radial Ice	157.55	0.2505	0.0082	0.2271	0.2272
1.2D + 1.0Di + 1.0Wi 180° 50 mph Wind with 0" Radial Ice	162.45	0.2702	0.0079	0.2361	0.2363
1.2D + 1.0Di + 1.0Wi 180° 50 mph Wind with 0" Radial Ice	164.90	0.2803	0.0078	0.2338	0.2338
1.2D + 1.0Di + 1.0Wi 180° 50 mph Wind with 0" Radial Ice	170.00	0.3018	0.0077	0.2847	0.2847
1.2D + 1.0Di + 1.0Wi 180° 50 mph Wind with 0" Radial Ice	173.47	0.3167	0.0076	0.2358	0.2359
1.2D + 1.0Di + 1.0Wi 180° 50 mph Wind with 0" Radial Ice	186.53	0.3726	0.0073	0.2462	0.2463
1.2D + 1.0Di + 1.0Wi 180° 50 mph Wind with 0" Radial Ice	190.00	0.3875	0.0073	0.2480	0.248
1.2D + 1.0Di + 1.0Wi 120° 50 mph Wind with 0" Radial Ice	20.00	0.0041	-0.0007	0.0180	0.018
1.2D + 1.0Di + 1.0Wi 120° 50 mph Wind with 0" Radial Ice	50.00	0.0212	-0.0024	0.0504	0.0504
1.2D + 1.0Di + 1.0Wi 120° 50 mph Wind with 0" Radial Ice	60.00	0.03	-0.0027	0.0592	0.0592
1.2D + 1.0Di + 1.0Wi 120° 50 mph Wind with 0" Radial Ice	90.00	0.0694	-0.0045	0.0972	0.0973
1.2D + 1.0Di + 1.0Wi 120° 50 mph Wind with 0" Radial Ice	110.00	0.1095	-0.0059	0.1322	0.1322
1.2D + 1.0Di + 1.0Wi 120° 50 mph Wind with 0" Radial Ice	120.00	0.1337	-0.0065	0.1456	0.1458
1.2D + 1.0Di + 1.0Wi 120° 50 mph Wind with 0" Radial Ice	130.00	0.1611	-0.0072	0.1687	0.1687
1.2D + 1.0Di + 1.0Wi 120° 50 mph Wind with 0" Radial Ice	140.00	0.1926	-0.0079	0.1859	0.1859
1.2D + 1.0Di + 1.0Wi 120° 50 mph Wind with 0" Radial Ice	150.00	0.2272	-0.0090	0.2176	0.2178
1.2D + 1.0Di + 1.0Wi 120° 50 mph Wind with 0" Radial Ice	157.55	0.2568	0.0094	0.2328	0.2329
1.2D + 1.0Di + 1.0Wi 120° 50 mph Wind with 0" Radial Ice	162.45	0.2769	0.0097	0.2408	0.241
1.2D + 1.0Di + 1.0Wi 120° 50 mph Wind with 0" Radial Ice	164.90	0.2873	0.0098	0.2497	0.2498
1.2D + 1.0Di + 1.0Wi 120° 50 mph Wind with 0" Radial Ice	170.00	0.3094	0.0096	0.2930	0.293
1.2D + 1.0Di + 1.0Wi 120° 50 mph Wind with 0" Radial Ice	173.47	0.3247	0.0095	0.2417	0.2419
1.2D + 1.0Di + 1.0Wi 120° 50 mph Wind with 0" Radial Ice	186.53	0.3821	0.0093	0.2526	0.2527
1.2D + 1.0Di + 1.0Wi 120° 50 mph Wind with 0" Radial Ice	190.00	0.3972	0.0093	0.2538	0.2538
1.2D + 1.0Di + 1.0Wi 90° 50 mph Wind with 0" Radial Ice	20.00	0.0055	-0.0008	0.0211	0.0211
1.2D + 1.0Di + 1.0Wi 90° 50 mph Wind with 0" Radial Ice	50.00	0.0214	-0.0028	0.0499	0.0499
1.2D + 1.0Di + 1.0Wi 90° 50 mph Wind with 0" Radial Ice	60.00	0.0301	-0.0030	0.0571	0.0571
1.2D + 1.0Di + 1.0Wi 90° 50 mph Wind with 0" Radial Ice	90.00	0.0673	-0.0051	0.0952	0.0954
1.2D + 1.0Di + 1.0Wi 90° 50 mph Wind with 0" Radial Ice	110.00	0.108	-0.0068	0.1296	0.1297
1.2D + 1.0Di + 1.0Wi 90° 50 mph Wind with 0" Radial Ice	120.00	0.1317	-0.0074	0.1431	0.1432
1.2D + 1.0Di + 1.0Wi 90° 50 mph Wind with 0" Radial Ice	130.00	0.1586	-0.0083	0.1650	0.1651
1.2D + 1.0Di + 1.0Wi 90° 50 mph Wind with 0" Radial Ice	140.00	0.1886	-0.0091	0.1826	0.1826
1.2D + 1.0Di + 1.0Wi 90° 50 mph Wind with 0" Radial Ice	150.00	0.2231	-0.0103	0.2141	0.2144
1.2D + 1.0Di + 1.0Wi 90° 50 mph Wind with 0" Radial Ice	157.55	0.2522	-0.0100	0.2291	0.2293

DEFLECTIONS AND ROTATIONS

Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
1.2D + 1.0Di + 1.0Wi 90° 50 mph Wind with 0" Radial Ice	162.45	0.2721	-0.0098	0.2371	0.2373
1.2D + 1.0Di + 1.0Wi 90° 50 mph Wind with 0" Radial Ice	164.90	0.2823	-0.0097	0.2486	0.2486
1.2D + 1.0Di + 1.0Wi 90° 50 mph Wind with 0" Radial Ice	170.00	0.304	-0.0096	0.2849	0.2849
1.2D + 1.0Di + 1.0Wi 90° 50 mph Wind with 0" Radial Ice	173.47	0.319	-0.0095	0.2384	0.2386
1.2D + 1.0Di + 1.0Wi 90° 50 mph Wind with 0" Radial Ice	186.53	0.3755	-0.0093	0.2490	0.2491
1.2D + 1.0Di + 1.0Wi 90° 50 mph Wind with 0" Radial Ice	190.00	0.3905	-0.0092	0.2491	0.2492
1.2D + 1.0Di + 1.0Wi 60° 50 mph Wind with 0" Radial Ice	20.00	0.006	-0.0007	0.0224	0.0224
1.2D + 1.0Di + 1.0Wi 60° 50 mph Wind with 0" Radial Ice	50.00	0.0215	-0.0024	0.0497	0.0497
1.2D + 1.0Di + 1.0Wi 60° 50 mph Wind with 0" Radial Ice	60.00	0.0302	-0.0026	0.0547	0.0548
1.2D + 1.0Di + 1.0Wi 60° 50 mph Wind with 0" Radial Ice	90.00	0.0666	-0.0044	0.0947	0.0948
1.2D + 1.0Di + 1.0Wi 60° 50 mph Wind with 0" Radial Ice	110.00	0.1076	-0.0058	0.1283	0.1284
1.2D + 1.0Di + 1.0Wi 60° 50 mph Wind with 0" Radial Ice	120.00	0.1312	-0.0064	0.1423	0.1423
1.2D + 1.0Di + 1.0Wi 60° 50 mph Wind with 0" Radial Ice	130.00	0.1579	-0.0072	0.1633	0.1633
1.2D + 1.0Di + 1.0Wi 60° 50 mph Wind with 0" Radial Ice	140.00	0.1878	-0.0079	0.1810	0.1812
1.2D + 1.0Di + 1.0Wi 60° 50 mph Wind with 0" Radial Ice	150.00	0.2219	-0.0089	0.2077	0.2078
1.2D + 1.0Di + 1.0Wi 60° 50 mph Wind with 0" Radial Ice	157.55	0.2508	-0.0094	0.2276	0.2278
1.2D + 1.0Di + 1.0Wi 60° 50 mph Wind with 0" Radial Ice	162.45	0.2705	-0.0097	0.2356	0.2357
1.2D + 1.0Di + 1.0Wi 60° 50 mph Wind with 0" Radial Ice	164.90	0.2807	-0.0098	0.2444	0.2444
1.2D + 1.0Di + 1.0Wi 60° 50 mph Wind with 0" Radial Ice	170.00	0.3023	-0.0097	0.2860	0.286
1.2D + 1.0Di + 1.0Wi 60° 50 mph Wind with 0" Radial Ice	173.47	0.3171	-0.0096	0.2363	0.2365
1.2D + 1.0Di + 1.0Wi 60° 50 mph Wind with 0" Radial Ice	186.53	0.3732	-0.0093	0.2469	0.2471
1.2D + 1.0Di + 1.0Wi 60° 50 mph Wind with 0" Radial Ice	190.00	0.3882	-0.0093	0.2487	0.2487
1.2D + 1.0Di + 1.0Wi Normal 50 mph Wind with 0" Radial Ice	20.00	0.0041	0.0006	0.0180	0.018
1.2D + 1.0Di + 1.0Wi Normal 50 mph Wind with 0" Radial Ice	50.00	0.0212	0.0021	0.0505	0.0506
1.2D + 1.0Di + 1.0Wi Normal 50 mph Wind with 0" Radial Ice	60.00	0.03	0.0023	0.0593	0.0593
1.2D + 1.0Di + 1.0Wi Normal 50 mph Wind with 0" Radial Ice	90.00	0.0689	0.0000	0.0973	0.0973
1.2D + 1.0Di + 1.0Wi Normal 50 mph Wind with 0" Radial Ice	110.00	0.1095	-0.0056	0.1322	0.1322
1.2D + 1.0Di + 1.0Wi Normal 50 mph Wind with 0" Radial Ice	120.00	0.1336	0.0061	0.1456	0.1457
1.2D + 1.0Di + 1.0Wi Normal 50 mph Wind with 0" Radial Ice	130.00	0.1611	0.0069	0.1686	0.1686
1.2D + 1.0Di + 1.0Wi Normal 50 mph Wind with 0" Radial Ice	140.00	0.1925	0.0076	0.1858	0.1858
1.2D + 1.0Di + 1.0Wi Normal 50 mph Wind with 0" Radial Ice	150.00	0.2271	0.0087	0.2174	0.2176
1.2D + 1.0Di + 1.0Wi Normal 50 mph Wind with 0" Radial Ice	157.55	0.2567	0.0084	0.2324	0.2326
1.2D + 1.0Di + 1.0Wi Normal 50 mph Wind with 0" Radial Ice	162.45	0.2768	0.0083	0.2417	0.2418
1.2D + 1.0Di + 1.0Wi Normal 50 mph Wind with 0" Radial Ice	164.90	0.2872	0.0082	0.2395	0.2395
1.2D + 1.0Di + 1.0Wi Normal 50 mph Wind with 0" Radial Ice	170.00	0.3092	0.0080	0.2919	0.2919
1.2D + 1.0Di + 1.0Wi Normal 50 mph Wind with 0" Radial Ice	173.47	0.3244	0.0080	0.2415	0.2416
1.2D + 1.0Di + 1.0Wi Normal 50 mph Wind with 0" Radial Ice	186.53	0.3818	0.0078	0.2521	0.2522
1.2D + 1.0Di + 1.0Wi Normal 50 mph Wind with 0" Radial Ice	190.00	0.3969	-0.0078	0.2534	0.2534
0.9D + 1.6W 330° 90 mph Wind with No Ice (Reduced DL)	20.00	0.0176	-0.0032	0.0834	0.0834
0.9D + 1.6W 330° 90 mph Wind with No Ice (Reduced DL)	50.00	0.0944	-0.0116	0.2285	0.2288
0.9D + 1.6W 330° 90 mph Wind with No Ice (Reduced DL)	60.00	0.1373	-0.0126	0.2645	0.2646
0.9D + 1.6W 330° 90 mph Wind with No Ice (Reduced DL)	90.00	0.3235	0.0127	0.4567	0.4569
0.9D + 1.6W 330° 90 mph Wind with No Ice (Reduced DL)	110.00	0.5125	-0.0298	0.6221	0.6224
0.9D + 1.6W 330° 90 mph Wind with No Ice (Reduced DL)	120.00	0.6274	-0.0329	0.6897	0.6899
0.9D + 1.6W 330° 90 mph Wind with No Ice (Reduced DL)	130.00	0.7577	-0.0368	0.7950	0.7953
0.9D + 1.6W 330° 90 mph Wind with No Ice (Reduced DL)	140.00	0.9045	-0.0406	0.8817	0.882
0.9D + 1.6W 330° 90 mph Wind with No Ice (Reduced DL)	150.00	1.0706	-0.0464	1.0403	1.0413
0.9D + 1.6W 330° 90 mph Wind with No Ice (Reduced DL)	157.55	1.2123	0.0462	1.1158	1.1161
0.9D + 1.6W 330° 90 mph Wind with No Ice (Reduced DL)	162.45	1.3092	0.0587	1.1627	1.1628
0.9D + 1.6W 330° 90 mph Wind with No Ice (Reduced DL)	164.90	1.3589	0.0637	1.1644	1.1662
0.9D + 1.6W 330° 90 mph Wind with No Ice (Reduced DL)	170.00	1.4649	0.0651	1.3949	1.3964
0.9D + 1.6W 330° 90 mph Wind with No Ice (Reduced DL)	173.47	1.5383	0.0642	1.1639	1.164
0.9D + 1.6W 330° 90 mph Wind with No Ice (Reduced DL)	186.53	1.814	0.0642	1.2166	1.2167
0.9D + 1.6W 330° 90 mph Wind with No Ice (Reduced DL)	190.00	1.8871	0.0645	1.2157	1.2173
0.9D + 1.6W 300° 90 mph Wind with No Ice (Reduced DL)	20.00	0.0183	0.0031	0.0859	0.0859
0.9D + 1.6W 300° 90 mph Wind with No Ice (Reduced DL)	50.00	0.0938	0.0114	0.2254	0.2256
0.9D + 1.6W 300° 90 mph Wind with No Ice (Reduced DL)	60.00	0.137	0.0125	0.2649	0.2649
0.9D + 1.6W 300° 90 mph Wind with No Ice (Reduced DL)	90.00	0.3189	0.0216	0.4532	0.4537
0.9D + 1.6W 300° 90 mph Wind with No Ice (Reduced DL)	110.00	0.5101	0.0287	0.6191	0.6191

DEFLECTIONS AND ROTATIONS

Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
0.9D + 1.6W 300° 90 mph Wind with No Ice (Reduced DL)	120.00	0.6247	0.0316	0.6862	0.6865
0.9D + 1.6W 300° 90 mph Wind with No Ice (Reduced DL)	130.00	0.7543	0.0354	0.7935	0.7935
0.9D + 1.6W 300° 90 mph Wind with No Ice (Reduced DL)	140.00	0.9012	0.0390	0.8775	0.8775
0.9D + 1.6W 300° 90 mph Wind with No Ice (Reduced DL)	150.00	1.0647	0.0447	1.0229	1.0239
0.9D + 1.6W 300° 90 mph Wind with No Ice (Reduced DL)	157.55	1.2058	0.0643	1.1117	1.1135
0.9D + 1.6W 300° 90 mph Wind with No Ice (Reduced DL)	162.45	1.3024	0.0767	1.1512	1.1537
0.9D + 1.6W 300° 90 mph Wind with No Ice (Reduced DL)	164.90	1.3519	0.0817	1.1962	1.1968
0.9D + 1.6W 300° 90 mph Wind with No Ice (Reduced DL)	170.00	1.4575	0.0830	1.4060	1.4066
0.9D + 1.6W 300° 90 mph Wind with No Ice (Reduced DL)	173.47	1.5306	0.0822	1.1556	1.1585
0.9D + 1.6W 300° 90 mph Wind with No Ice (Reduced DL)	186.53	1.8052	0.0822	1.2094	1.2122
0.9D + 1.6W 300° 90 mph Wind with No Ice (Reduced DL)	190.00	1.8782	0.0825	1.2168	1.2174
0.9D + 1.6W 240° 90 mph Wind with No Ice (Reduced DL)	20.00	0.0205	0.0032	0.0912	0.0912
0.9D + 1.6W 240° 90 mph Wind with No Ice (Reduced DL)	50.00	0.0967	0.0115	0.2322	0.2325
0.9D + 1.6W 240° 90 mph Wind with No Ice (Reduced DL)	60.00	0.1414	0.0125	0.2738	0.2738
0.9D + 1.6W 240° 90 mph Wind with No Ice (Reduced DL)	90.00	0.3282	0.0214	0.4654	0.4659
0.9D + 1.6W 240° 90 mph Wind with No Ice (Reduced DL)	110.00	0.5241	-0.0281	0.6352	0.6352
0.9D + 1.6W 240° 90 mph Wind with No Ice (Reduced DL)	120.00	0.6416	-0.0311	0.7028	0.703
0.9D + 1.6W 240° 90 mph Wind with No Ice (Reduced DL)	130.00	0.774	-0.0349	0.8130	0.813
0.9D + 1.6W 240° 90 mph Wind with No Ice (Reduced DL)	140.00	0.9247	-0.0388	0.8983	0.8983
0.9D + 1.6W 240° 90 mph Wind with No Ice (Reduced DL)	150.00	1.0913	-0.0451	1.0463	1.0472
0.9D + 1.6W 240° 90 mph Wind with No Ice (Reduced DL)	157.55	1.2356	-0.0642	1.1357	1.1372
0.9D + 1.6W 240° 90 mph Wind with No Ice (Reduced DL)	162.45	1.3341	-0.0770	1.1768	1.1793
0.9D + 1.6W 240° 90 mph Wind with No Ice (Reduced DL)	164.90	1.3849	-0.0817	1.2227	1.2233
0.9D + 1.6W 240° 90 mph Wind with No Ice (Reduced DL)	170.00	1.4929	-0.0817	1.4419	1.4425
0.9D + 1.6W 240° 90 mph Wind with No Ice (Reduced DL)	173.47	1.5678	-0.0826	1.1816	1.1845
0.9D + 1.6W 240° 90 mph Wind with No Ice (Reduced DL)	186.53	1.8488	-0.0826	1.2364	1.2391
0.9D + 1.6W 240° 90 mph Wind with No Ice (Reduced DL)	190.00	1.9229	-0.0822	1.2441	1.2448
0.9D + 1.6W 210° 90 mph Wind with No Ice (Reduced DL)	20.00	0.0176	-0.0032	0.0833	0.0834
0.9D + 1.6W 210° 90 mph Wind with No Ice (Reduced DL)	50.00	0.0944	-0.0119	0.2285	0.2288
0.9D + 1.6W 210° 90 mph Wind with No Ice (Reduced DL)	60.00	0.1373	-0.0129	0.2645	0.2645
0.9D + 1.6W 210° 90 mph Wind with No Ice (Reduced DL)	90.00	0.3234	0.0119	0.4568	0.457
0.9D + 1.6W 210° 90 mph Wind with No Ice (Reduced DL)	110.00	0.5124	-0.0312	0.6220	0.6222
0.9D + 1.6W 210° 90 mph Wind with No Ice (Reduced DL)	120.00	0.6273	-0.0346	0.6896	0.6901
0.9D + 1.6W 210° 90 mph Wind with No Ice (Reduced DL)	130.00	0.7576	-0.0390	0.7950	0.7951
0.9D + 1.6W 210° 90 mph Wind with No Ice (Reduced DL)	140.00	0.9043	-0.0432	0.8816	0.8818
0.9D + 1.6W 210° 90 mph Wind with No Ice (Reduced DL)	150.00	1.0703	-0.0500	1.0406	1.0418
0.9D + 1.6W 210° 90 mph Wind with No Ice (Reduced DL)	157.55	1.212	-0.0692	1.1160	1.1181
0.9D + 1.6W 210° 90 mph Wind with No Ice (Reduced DL)	162.45	1.3089	-0.0817	1.1630	1.1658
0.9D + 1.6W 210° 90 mph Wind with No Ice (Reduced DL)	164.90	1.3586	-0.0865	1.1640	1.1641
0.9D + 1.6W 210° 90 mph Wind with No Ice (Reduced DL)	170.00	1.4646	-0.0871	1.3946	1.3947
0.9D + 1.6W 210° 90 mph Wind with No Ice (Reduced DL)	173.47	1.538	-0.0872	1.1638	1.1671
0.9D + 1.6W 210° 90 mph Wind with No Ice (Reduced DL)	186.53	1.8138	-0.0871	1.2165	1.2196
0.9D + 1.6W 210° 90 mph Wind with No Ice (Reduced DL)	190.00	1.8868	-0.0871	1.2155	1.2156
0.9D + 1.6W 180° 90 mph Wind with No Ice (Reduced DL)	20.00	0.0183	0.0026	0.0860	0.086
0.9D + 1.6W 180° 90 mph Wind with No Ice (Reduced DL)	50.00	0.0938	0.0098	0.2262	0.2264
0.9D + 1.6W 180° 90 mph Wind with No Ice (Reduced DL)	60.00	0.137	0.0106	0.2651	0.2651
0.9D + 1.6W 180° 90 mph Wind with No Ice (Reduced DL)	90.00	0.3225	0.0000	0.4544	0.4544
0.9D + 1.6W 180° 90 mph Wind with No Ice (Reduced DL)	110.00	0.5101	0.0259	0.6189	0.6189
0.9D + 1.6W 180° 90 mph Wind with No Ice (Reduced DL)	120.00	0.6246	0.0288	0.6859	0.6862
0.9D + 1.6W 180° 90 mph Wind with No Ice (Reduced DL)	130.00	0.7541	0.0324	0.7930	0.793
0.9D + 1.6W 180° 90 mph Wind with No Ice (Reduced DL)	140.00	0.9009	0.0358	0.8767	0.8767
0.9D + 1.6W 180° 90 mph Wind with No Ice (Reduced DL)	150.00	1.0643	0.0410	1.0217	1.0225
0.9D + 1.6W 180° 90 mph Wind with No Ice (Reduced DL)	157.55	1.2052	0.0413	1.1098	1.1106
0.9D + 1.6W 180° 90 mph Wind with No Ice (Reduced DL)	162.45	1.3016	0.0411	1.1557	1.1565
0.9D + 1.6W 180° 90 mph Wind with No Ice (Reduced DL)	164.90	1.3509	0.0413	1.1428	1.1428
0.9D + 1.6W 180° 90 mph Wind with No Ice (Reduced DL)	170.00	1.4563	0.0419	1.4003	1.4003
0.9D + 1.6W 180° 90 mph Wind with No Ice (Reduced DL)	173.47	1.5292	0.0411	1.1541	1.1548
0.9D + 1.6W 180° 90 mph Wind with No Ice (Reduced DL)	186.53	1.8033	0.0410	1.2071	1.2078
0.9D + 1.6W 180° 90 mph Wind with No Ice (Reduced DL)	190.00	1.8762	0.0413	1.2145	1.2145

DEFLECTIONS AND ROTATIONS

Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
0.9D + 1.6W 120° 90 mph Wind with No Ice (Reduced DL)	20.00	0.0205	-0.0032	0.0913	0.0913
0.9D + 1.6W 120° 90 mph Wind with No Ice (Reduced DL)	50.00	0.0967	-0.0115	0.2322	0.2325
0.9D + 1.6W 120° 90 mph Wind with No Ice (Reduced DL)	60.00	0.1414	-0.0125	0.2738	0.2738
0.9D + 1.6W 120° 90 mph Wind with No Ice (Reduced DL)	90.00	0.3282	-0.0214	0.4655	0.466
0.9D + 1.6W 120° 90 mph Wind with No Ice (Reduced DL)	110.00	0.5241	0.0281	0.6352	0.6352
0.9D + 1.6W 120° 90 mph Wind with No Ice (Reduced DL)	120.00	0.6416	0.0312	0.7029	0.7032
0.9D + 1.6W 120° 90 mph Wind with No Ice (Reduced DL)	130.00	0.774	0.0350	0.8131	0.8131
0.9D + 1.6W 120° 90 mph Wind with No Ice (Reduced DL)	140.00	0.9247	0.0389	0.8984	0.8984
0.9D + 1.6W 120° 90 mph Wind with No Ice (Reduced DL)	150.00	1.0915	0.0452	1.0467	1.0476
0.9D + 1.6W 120° 90 mph Wind with No Ice (Reduced DL)	157.55	1.2359	0.0643	1.1360	1.1373
0.9D + 1.6W 120° 90 mph Wind with No Ice (Reduced DL)	162.45	1.3344	0.0771	1.1765	1.179
0.9D + 1.6W 120° 90 mph Wind with No Ice (Reduced DL)	164.90	1.3852	0.0818	1.2227	1.2233
0.9D + 1.6W 120° 90 mph Wind with No Ice (Reduced DL)	170.00	1.4932	0.0818	1.4422	1.4428
0.9D + 1.6W 120° 90 mph Wind with No Ice (Reduced DL)	173.47	1.5681	0.0827	1.1818	1.1847
0.9D + 1.6W 120° 90 mph Wind with No Ice (Reduced DL)	186.53	1.8492	0.0827	1.2366	1.2393
0.9D + 1.6W 120° 90 mph Wind with No Ice (Reduced DL)	190.00	1.9233	0.0824	1.2443	1.245
0.9D + 1.6W 90° 90 mph Wind with No Ice (Reduced DL)	20.00	0.0176	-0.0036	0.0833	0.0833
0.9D + 1.6W 90° 90 mph Wind with No Ice (Reduced DL)	50.00	0.0944	-0.0131	0.2277	0.2281
0.9D + 1.6W 90° 90 mph Wind with No Ice (Reduced DL)	60.00	0.1372	-0.0144	0.2643	0.2644
0.9D + 1.6W 90° 90 mph Wind with No Ice (Reduced DL)	90.00	0.3198	-0.0247	0.4557	0.4564
0.9D + 1.6W 90° 90 mph Wind with No Ice (Reduced DL)	110.00	0.5124	-0.0326	0.6223	0.6225
0.9D + 1.6W 90° 90 mph Wind with No Ice (Reduced DL)	120.00	0.6274	-0.0358	0.6900	0.6904
0.9D + 1.6W 90° 90 mph Wind with No Ice (Reduced DL)	130.00	0.7577	-0.0399	0.7955	0.7957
0.9D + 1.6W 90° 90 mph Wind with No Ice (Reduced DL)	140.00	0.9046	-0.0439	0.8824	0.8826
0.9D + 1.6W 90° 90 mph Wind with No Ice (Reduced DL)	150.00	1.0708	-0.0502	1.0421	1.0433
0.9D + 1.6W 90° 90 mph Wind with No Ice (Reduced DL)	157.55	1.2127	-0.0503	1.1181	1.1192
0.9D + 1.6W 90° 90 mph Wind with No Ice (Reduced DL)	162.45	1.3099	-0.0503	1.1586	1.1597
0.9D + 1.6W 90° 90 mph Wind with No Ice (Reduced DL)	164.90	1.3597	-0.0503	1.2172	1.2174
0.9D + 1.6W 90° 90 mph Wind with No Ice (Reduced DL)	170.00	1.4659	-0.0503	1.4008	1.4011
0.9D + 1.6W 90° 90 mph Wind with No Ice (Reduced DL)	173.47	1.5395	-0.0503	1.1655	1.1666
0.9D + 1.6W 90° 90 mph Wind with No Ice (Reduced DL)	186.53	1.8159	-0.0503	1.2191	1.2202
0.9D + 1.6W 90° 90 mph Wind with No Ice (Reduced DL)	190.00	1.889	-0.0503	1.2181	1.2184
0.9D + 1.6W 60° 90 mph Wind with No Ice (Reduced DL)	20.00	0.0183	-0.0031	0.0859	0.0859
0.9D + 1.6W 60° 90 mph Wind with No Ice (Reduced DL)	50.00	0.0938	-0.0114	0.2254	0.2256
0.9D + 1.6W 60° 90 mph Wind with No Ice (Reduced DL)	60.00	0.137	-0.0125	0.2650	0.265
0.9D + 1.6W 60° 90 mph Wind with No Ice (Reduced DL)	90.00	0.3188	-0.0216	0.4532	0.4537
0.9D + 1.6W 60° 90 mph Wind with No Ice (Reduced DL)	110.00	0.5102	-0.0287	0.6192	0.6192
0.9D + 1.6W 60° 90 mph Wind with No Ice (Reduced DL)	120.00	0.6247	-0.0316	0.6863	0.6865
0.9D + 1.6W 60° 90 mph Wind with No Ice (Reduced DL)	130.00	0.7543	-0.0355	0.7936	0.7936
0.9D + 1.6W 60° 90 mph Wind with No Ice (Reduced DL)	140.00	0.9012	-0.0391	0.8776	0.8776
0.9D + 1.6W 60° 90 mph Wind with No Ice (Reduced DL)	150.00	1.0648	-0.0447	1.0228	1.0237
0.9D + 1.6W 60° 90 mph Wind with No Ice (Reduced DL)	157.55	1.2059	-0.0643	1.1117	1.1135
0.9D + 1.6W 60° 90 mph Wind with No Ice (Reduced DL)	162.45	1.3025	-0.0767	1.1518	1.154
0.9D + 1.6W 60° 90 mph Wind with No Ice (Reduced DL)	164.90	1.352	-0.0818	1.1966	1.1972
0.9D + 1.6W 60° 90 mph Wind with No Ice (Reduced DL)	170.00	1.4576	-0.0831	1.4061	1.4067
0.9D + 1.6W 60° 90 mph Wind with No Ice (Reduced DL)	173.47	1.5307	-0.0823	1.1558	1.1586
0.9D + 1.6W 60° 90 mph Wind with No Ice (Reduced DL)	186.53	1.8053	-0.0823	1.2096	1.2124
0.9D + 1.6W 60° 90 mph Wind with No Ice (Reduced DL)	190.00	1.8784	-0.0826	1.2170	1.2176
0.9D + 1.6W Normal 90 mph Wind with No Ice (Reduced DL)	20.00	0.0205	0.0028	0.0913	0.0913
0.9D + 1.6W Normal 90 mph Wind with No Ice (Reduced DL)	50.00	0.0967	0.0101	0.2331	0.2333
0.9D + 1.6W Normal 90 mph Wind with No Ice (Reduced DL)	60.00	0.1414	0.0109	0.2740	0.274
0.9D + 1.6W Normal 90 mph Wind with No Ice (Reduced DL)	90.00	0.3319	0.0000	0.4664	0.4664
0.9D + 1.6W Normal 90 mph Wind with No Ice (Reduced DL)	110.00	0.5241	-0.0266	0.6350	0.635
0.9D + 1.6W Normal 90 mph Wind with No Ice (Reduced DL)	120.00	0.6415	-0.0295	0.7025	0.7029
0.9D + 1.6W Normal 90 mph Wind with No Ice (Reduced DL)	130.00	0.7739	-0.0331	0.8126	0.8126
0.9D + 1.6W Normal 90 mph Wind with No Ice (Reduced DL)	140.00	0.9244	-0.0367	0.8976	0.8976
0.9D + 1.6W Normal 90 mph Wind with No Ice (Reduced DL)	150.00	1.091	-0.0425	1.0454	1.0462
0.9D + 1.6W Normal 90 mph Wind with No Ice (Reduced DL)	157.55	1.2353	-0.0422	1.1342	1.135
0.9D + 1.6W Normal 90 mph Wind with No Ice (Reduced DL)	162.45	1.3337	-0.0423	1.1811	1.1818

DEFLECTIONS AND ROTATIONS

Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
0.9D + 1.6W Normal 90 mph Wind with No Ice (Reduced DL)	164.90	1.3843	-0.0421	1.1693	1.1693
0.9D + 1.6W Normal 90 mph Wind with No Ice (Reduced DL)	170.00	1.492	-0.0414	1.4364	1.4364
0.9D + 1.6W Normal 90 mph Wind with No Ice (Reduced DL)	173.47	1.5668	-0.0423	1.1803	1.1811
0.9D + 1.6W Normal 90 mph Wind with No Ice (Reduced DL)	186.53	1.8473	-0.0423	1.2343	1.235
0.9D + 1.6W Normal 90 mph Wind with No Ice (Reduced DL)	190.00	1.9213	-0.0420	1.2420	1.242
1.2D + 1.6W 330° 90 mph Wind with No Ice	20.00	0.0179	-0.0032	0.0839	0.0839
1.2D + 1.6W 330° 90 mph Wind with No Ice	50.00	0.0946	-0.0116	0.2289	0.2292
1.2D + 1.6W 330° 90 mph Wind with No Ice	60.00	0.1376	-0.0126	0.2652	0.2653
1.2D + 1.6W 330° 90 mph Wind with No Ice	90.00	0.3242	0.0127	0.4579	0.458
1.2D + 1.6W 330° 90 mph Wind with No Ice	110.00	0.5136	-0.0299	0.6240	0.6242
1.2D + 1.6W 330° 90 mph Wind with No Ice	120.00	0.6289	-0.0330	0.6918	0.692
1.2D + 1.6W 330° 90 mph Wind with No Ice	130.00	0.7595	-0.0369	0.7977	0.7979
1.2D + 1.6W 330° 90 mph Wind with No Ice	140.00	0.9069	-0.0408	0.8848	0.8851
1.2D + 1.6W 330° 90 mph Wind with No Ice	150.00	1.0735	-0.0466	1.0440	1.0451
1.2D + 1.6W 330° 90 mph Wind with No Ice	157.55	1.2158	0.0463	1.1200	1.1203
1.2D + 1.6W 330° 90 mph Wind with No Ice	162.45	1.3131	0.0589	1.1671	1.1672
1.2D + 1.6W 330° 90 mph Wind with No Ice	164.90	1.3629	0.0640	1.1689	1.1707
1.2D + 1.6W 330° 90 mph Wind with No Ice	170.00	1.4693	0.0653	1.4007	1.4022
1.2D + 1.6W 330° 90 mph Wind with No Ice	173.47	1.543	0.0645	1.1683	1.1683
1.2D + 1.6W 330° 90 mph Wind with No Ice	186.53	1.8198	0.0644	1.2213	1.2214
1.2D + 1.6W 330° 90 mph Wind with No Ice	190.00	1.8932	0.0648	1.2204	1.222
1.2D + 1.6W 300° 90 mph Wind with No Ice	20.00	0.0181	0.0031	0.0856	0.0856
1.2D + 1.6W 300° 90 mph Wind with No Ice	50.00	0.094	0.0114	0.2258	0.2261
1.2D + 1.6W 300° 90 mph Wind with No Ice	60.00	0.1372	0.0125	0.2653	0.2653
1.2D + 1.6W 300° 90 mph Wind with No Ice	90.00	0.3196	0.0216	0.4543	0.4549
1.2D + 1.6W 300° 90 mph Wind with No Ice	110.00	0.5113	0.0287	0.6208	0.6208
1.2D + 1.6W 300° 90 mph Wind with No Ice	120.00	0.6261	0.0317	0.6883	0.6885
1.2D + 1.6W 300° 90 mph Wind with No Ice	130.00	0.7561	0.0355	0.7958	0.7958
1.2D + 1.6W 300° 90 mph Wind with No Ice	140.00	0.9034	0.0391	0.8803	0.8803
1.2D + 1.6W 300° 90 mph Wind with No Ice	150.00	1.0676	0.0448	1.0260	1.0269
1.2D + 1.6W 300° 90 mph Wind with No Ice	157.55	1.2093	0.0645	1.1158	1.1177
1.2D + 1.6W 300° 90 mph Wind with No Ice	162.45	1.3063	0.0769	1.1555	1.158
1.2D + 1.6W 300° 90 mph Wind with No Ice	164.90	1.3559	0.0820	1.2007	1.2013
1.2D + 1.6W 300° 90 mph Wind with No Ice	170.00	1.4619	0.0833	1.4119	1.4124
1.2D + 1.6W 300° 90 mph Wind with No Ice	173.47	1.5353	0.0825	1.1599	1.1628
1.2D + 1.6W 300° 90 mph Wind with No Ice	186.53	1.8109	0.0825	1.2141	1.2169
1.2D + 1.6W 300° 90 mph Wind with No Ice	190.00	1.8842	0.0828	1.2216	1.2222
1.2D + 1.6W 240° 90 mph Wind with No Ice	20.00	0.0208	0.0032	0.0918	0.0918
1.2D + 1.6W 240° 90 mph Wind with No Ice	50.00	0.0968	0.0115	0.2327	0.2329
1.2D + 1.6W 240° 90 mph Wind with No Ice	60.00	0.1417	0.0126	0.2746	0.2746
1.2D + 1.6W 240° 90 mph Wind with No Ice	90.00	0.3288	0.0214	0.4666	0.4671
1.2D + 1.6W 240° 90 mph Wind with No Ice	110.00	0.5254	-0.0282	0.6370	0.637
1.2D + 1.6W 240° 90 mph Wind with No Ice	120.00	0.6432	-0.0312	0.7049	0.7051
1.2D + 1.6W 240° 90 mph Wind with No Ice	130.00	0.776	-0.0350	0.8158	0.8158
1.2D + 1.6W 240° 90 mph Wind with No Ice	140.00	0.9272	-0.0389	0.9015	0.9015
1.2D + 1.6W 240° 90 mph Wind with No Ice	150.00	1.0942	-0.0452	1.0507	1.0516
1.2D + 1.6W 240° 90 mph Wind with No Ice	157.55	1.2391	-0.0644	1.1399	1.1414
1.2D + 1.6W 240° 90 mph Wind with No Ice	162.45	1.338	-0.0773	1.1812	1.1837
1.2D + 1.6W 240° 90 mph Wind with No Ice	164.90	1.389	-0.0820	1.2272	1.2279
1.2D + 1.6W 240° 90 mph Wind with No Ice	170.00	1.4974	-0.0819	1.4479	1.4485
1.2D + 1.6W 240° 90 mph Wind with No Ice	173.47	1.5726	-0.0829	1.1860	1.1889
1.2D + 1.6W 240° 90 mph Wind with No Ice	186.53	1.8546	-0.0829	1.2411	1.2438
1.2D + 1.6W 240° 90 mph Wind with No Ice	190.00	1.929	-0.0825	1.2487	1.2494
1.2D + 1.6W 210° 90 mph Wind with No Ice	20.00	0.0179	-0.0032	0.0839	0.0839
1.2D + 1.6W 210° 90 mph Wind with No Ice	50.00	0.0945	-0.0119	0.2290	0.2293
1.2D + 1.6W 210° 90 mph Wind with No Ice	60.00	0.1376	-0.0130	0.2652	0.2652
1.2D + 1.6W 210° 90 mph Wind with No Ice	90.00	0.3241	0.0119	0.4580	0.4582
1.2D + 1.6W 210° 90 mph Wind with No Ice	110.00	0.5135	-0.0313	0.6239	0.624
1.2D + 1.6W 210° 90 mph Wind with No Ice	120.00	0.6288	-0.0347	0.6916	0.6921

DEFLECTIONS AND ROTATIONS

Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
1.2D + 1.6W 210° 90 mph Wind with No Ice	130.00	0.7594	-0.0391	0.7976	0.7978
1.2D + 1.6W 210° 90 mph Wind with No Ice	140.00	0.9068	-0.0434	0.8847	0.8849
1.2D + 1.6W 210° 90 mph Wind with No Ice	150.00	1.0733	-0.0501	1.0444	1.0456
1.2D + 1.6W 210° 90 mph Wind with No Ice	157.55	1.2155	-0.0694	1.1201	1.1222
1.2D + 1.6W 210° 90 mph Wind with No Ice	162.45	1.3128	-0.0820	1.1673	1.1702
1.2D + 1.6W 210° 90 mph Wind with No Ice	164.90	1.3626	-0.0868	1.1685	1.1686
1.2D + 1.6W 210° 90 mph Wind with No Ice	170.00	1.469	-0.0874	1.4004	1.4005
1.2D + 1.6W 210° 90 mph Wind with No Ice	173.47	1.5427	-0.0875	1.1681	1.1714
1.2D + 1.6W 210° 90 mph Wind with No Ice	186.53	1.8195	-0.0875	1.2212	1.2243
1.2D + 1.6W 210° 90 mph Wind with No Ice	190.00	1.8928	-0.0875	1.2202	1.2203
1.2D + 1.6W 180° 90 mph Wind with No Ice	20.00	0.0181	0.0026	0.0857	0.0857
1.2D + 1.6W 180° 90 mph Wind with No Ice	50.00	0.094	0.0098	0.2266	0.2269
1.2D + 1.6W 180° 90 mph Wind with No Ice	60.00	0.1372	0.0106	0.2654	0.2654
1.2D + 1.6W 180° 90 mph Wind with No Ice	90.00	0.3231	0.0000	0.4555	0.4555
1.2D + 1.6W 180° 90 mph Wind with No Ice	110.00	0.5112	0.0260	0.6206	0.6206
1.2D + 1.6W 180° 90 mph Wind with No Ice	120.00	0.6261	0.0288	0.6879	0.6882
1.2D + 1.6W 180° 90 mph Wind with No Ice	130.00	0.7559	0.0325	0.7953	0.7953
1.2D + 1.6W 180° 90 mph Wind with No Ice	140.00	0.9031	0.0359	0.8795	0.8795
1.2D + 1.6W 180° 90 mph Wind with No Ice	150.00	1.0672	0.0411	1.0247	1.0255
1.2D + 1.6W 180° 90 mph Wind with No Ice	157.55	1.2086	0.0415	1.1139	1.1147
1.2D + 1.6W 180° 90 mph Wind with No Ice	162.45	1.3054	0.0413	1.1601	1.1608
1.2D + 1.6W 180° 90 mph Wind with No Ice	164.90	1.3549	0.0415	1.1473	1.1473
1.2D + 1.6W 180° 90 mph Wind with No Ice	170.00	1.4607	0.0421	1.4061	1.4061
1.2D + 1.6W 180° 90 mph Wind with No Ice	173.47	1.5339	0.0412	1.1584	1.1591
1.2D + 1.6W 180° 90 mph Wind with No Ice	186.53	1.809	0.0412	1.2117	1.2124
1.2D + 1.6W 180° 90 mph Wind with No Ice	190.00	1.8822	0.0415	1.2192	1.2192
1.2D + 1.6W 120° 90 mph Wind with No Ice	20.00	0.0208	-0.0032	0.0918	0.0918
1.2D + 1.6W 120° 90 mph Wind with No Ice	50.00	0.0968	-0.0115	0.2327	0.233
1.2D + 1.6W 120° 90 mph Wind with No Ice	60.00	0.1417	-0.0125	0.2746	0.2746
1.2D + 1.6W 120° 90 mph Wind with No Ice	90.00	0.3289	-0.0214	0.4667	0.4672
1.2D + 1.6W 120° 90 mph Wind with No Ice	110.00	0.5254	0.0282	0.6371	0.6371
1.2D + 1.6W 120° 90 mph Wind with No Ice	120.00	0.6432	0.0313	0.7049	0.7052
1.2D + 1.6W 120° 90 mph Wind with No Ice	130.00	0.776	0.0351	0.8159	0.8159
1.2D + 1.6W 120° 90 mph Wind with No Ice	140.00	0.9273	0.0390	0.9016	0.9016
1.2D + 1.6W 120° 90 mph Wind with No Ice	150.00	1.0945	0.0453	1.0512	1.052
1.2D + 1.6W 120° 90 mph Wind with No Ice	157.55	1.2394	0.0645	1.1403	1.1416
1.2D + 1.6W 120° 90 mph Wind with No Ice	162.45	1.3383	0.0774	1.1810	1.1835
1.2D + 1.6W 120° 90 mph Wind with No Ice	164.90	1.3893	0.0821	1.2273	1.2279
1.2D + 1.6W 120° 90 mph Wind with No Ice	170.00	1.4977	0.0821	1.4482	1.4488
1.2D + 1.6W 120° 90 mph Wind with No Ice	173.47	1.5729	0.0830	1.1862	1.1891
1.2D + 1.6W 120° 90 mph Wind with No Ice	186.53	1.855	0.0830	1.2413	1.2441
1.2D + 1.6W 120° 90 mph Wind with No Ice	190.00	1.9295	0.0827	1.2490	1.2496
1.2D + 1.6W 90° 90 mph Wind with No Ice	20.00	0.0179	-0.0036	0.0838	0.0838
1.2D + 1.6W 90° 90 mph Wind with No Ice	50.00	0.0945	-0.0131	0.2282	0.2285
1.2D + 1.6W 90° 90 mph Wind with No Ice	60.00	0.1375	-0.0144	0.2650	0.2651
1.2D + 1.6W 90° 90 mph Wind with No Ice	90.00	0.3205	-0.0247	0.4569	0.4576
1.2D + 1.6W 90° 90 mph Wind with No Ice	110.00	0.5135	-0.0326	0.6241	0.6243
1.2D + 1.6W 90° 90 mph Wind with No Ice	120.00	0.6289	-0.0359	0.6920	0.6925
1.2D + 1.6W 90° 90 mph Wind with No Ice	130.00	0.7596	-0.0400	0.7982	0.7984
1.2D + 1.6W 90° 90 mph Wind with No Ice	140.00	0.9071	-0.0441	0.8855	0.8858
1.2D + 1.6W 90° 90 mph Wind with No Ice	150.00	1.0738	-0.0504	1.0459	1.0471
1.2D + 1.6W 90° 90 mph Wind with No Ice	157.55	1.2162	-0.0505	1.1223	1.1234
1.2D + 1.6W 90° 90 mph Wind with No Ice	162.45	1.3137	-0.0505	1.1630	1.1641
1.2D + 1.6W 90° 90 mph Wind with No Ice	164.90	1.3637	-0.0505	1.2217	1.222
1.2D + 1.6W 90° 90 mph Wind with No Ice	170.00	1.4704	-0.0504	1.4067	1.4069
1.2D + 1.6W 90° 90 mph Wind with No Ice	173.47	1.5442	-0.0505	1.1699	1.171
1.2D + 1.6W 90° 90 mph Wind with No Ice	186.53	1.8217	-0.0504	1.2238	1.2249
1.2D + 1.6W 90° 90 mph Wind with No Ice	190.00	1.8951	-0.0504	1.2229	1.2231
1.2D + 1.6W 60° 90 mph Wind with No Ice	20.00	0.0181	-0.0031	0.0856	0.0856

DEFLECTIONS AND ROTATIONS

Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
1.2D + 1.6W 60° 90 mph Wind with No Ice	50.00	0.094	-0.0114	0.2258	0.226
1.2D + 1.6W 60° 90 mph Wind with No Ice	60.00	0.1372	-0.0125	0.2653	0.2653
1.2D + 1.6W 60° 90 mph Wind with No Ice	90.00	0.3195	-0.0217	0.4543	0.4548
1.2D + 1.6W 60° 90 mph Wind with No Ice	110.00	0.5113	-0.0288	0.6208	0.6208
1.2D + 1.6W 60° 90 mph Wind with No Ice	120.00	0.6262	-0.0317	0.6883	0.6885
1.2D + 1.6W 60° 90 mph Wind with No Ice	130.00	0.7562	-0.0356	0.7959	0.7959
1.2D + 1.6W 60° 90 mph Wind with No Ice	140.00	0.9035	-0.0392	0.8804	0.8804
1.2D + 1.6W 60° 90 mph Wind with No Ice	150.00	1.0677	-0.0449	1.0259	1.0268
1.2D + 1.6W 60° 90 mph Wind with No Ice	157.55	1.2094	-0.0645	1.1159	1.1177
1.2D + 1.6W 60° 90 mph Wind with No Ice	162.45	1.3064	-0.0770	1.1562	1.1584
1.2D + 1.6W 60° 90 mph Wind with No Ice	164.90	1.356	-0.0821	1.2011	1.2017
1.2D + 1.6W 60° 90 mph Wind with No Ice	170.00	1.4621	-0.0834	1.4120	1.4126
1.2D + 1.6W 60° 90 mph Wind with No Ice	173.47	1.5354	-0.0826	1.1601	1.163
1.2D + 1.6W 60° 90 mph Wind with No Ice	186.53	1.8111	-0.0826	1.2143	1.2171
1.2D + 1.6W 60° 90 mph Wind with No Ice	190.00	1.8845	-0.0829	1.2218	1.2224
1.2D + 1.6W Normal 90 mph Wind with No Ice	20.00	0.0208	0.0028	0.0919	0.0919
1.2D + 1.6W Normal 90 mph Wind with No Ice	50.00	0.0969	0.0101	0.2335	0.2338
1.2D + 1.6W Normal 90 mph Wind with No Ice	60.00	0.1417	-0.0110	0.2748	0.2748
1.2D + 1.6W Normal 90 mph Wind with No Ice	90.00	0.3326	0.0000	0.4675	0.4675
1.2D + 1.6W Normal 90 mph Wind with No Ice	110.00	0.5254	-0.0267	0.6369	0.6369
1.2D + 1.6W Normal 90 mph Wind with No Ice	120.00	0.6432	-0.0296	0.7046	0.705
1.2D + 1.6W Normal 90 mph Wind with No Ice	130.00	0.7759	-0.0332	0.8153	0.8153
1.2D + 1.6W Normal 90 mph Wind with No Ice	140.00	0.927	-0.0368	0.9008	0.9008
1.2D + 1.6W Normal 90 mph Wind with No Ice	150.00	1.0941	-0.0426	1.0498	1.0507
1.2D + 1.6W Normal 90 mph Wind with No Ice	157.55	1.2388	-0.0423	1.1384	1.1392
1.2D + 1.6W Normal 90 mph Wind with No Ice	162.45	1.3376	-0.0424	1.1855	1.1863
1.2D + 1.6W Normal 90 mph Wind with No Ice	164.90	1.3884	-0.0422	1.1739	1.1739
1.2D + 1.6W Normal 90 mph Wind with No Ice	170.00	1.4965	-0.0416	1.4425	1.4425
1.2D + 1.6W Normal 90 mph Wind with No Ice	173.47	1.5716	-0.0425	1.1847	1.1855
1.2D + 1.6W Normal 90 mph Wind with No Ice	186.53	1.8532	-0.0424	1.2390	1.2397
1.2D + 1.6W Normal 90 mph Wind with No Ice	190.00	1.9274	-0.0421	1.2467	1.2467

DETAILED REACTIONS

Load Case	Radius (ft)	Elevation (ft)	Azimuth (deg)	Node	FX* (kip)	FY* (kip)	FZ* (kip)
					*(-) Uplift and (+) Down		
	11.55	0.00	0	1	0.01	342.92	-33.68
1.2D + 1.6W Normal	11.55	0.00	120	1a	12.10	-138.05	-8.50
	11.55	0.00	240	1b	-12.11	-138.06	-8.49
	11.55	0.00	0	1	-1.27	177.34	-16.89
1.2D + 1.6W 60°	11.55	0.00	120	1a	-15.25	177.30	7.36
	11.55	0.00	240	1b	-25.58	-287.83	-14.77
	11.55	0.00	0	1	-1.47	22.30	-1.38
1.2D + 1.6W 90°	11.55	0.00	120	1a	-25.08	293.06	13.62
	11.55	0.00	240	1b	-22.58	-248.55	-12.24
	11.55	0.00	0	1	-1.32	-138.05	14.73
1.2D + 1.6W 120°	11.55	0.00	120	1a	-29.16	342.88	16.85
	11.55	0.00	240	1b	-13.40	-138.02	-6.24
	11.55	0.00	0	1	-0.01	-287.85	29.55
1.2D + 1.6W 180°	11.55	0.00	120	1a	-14.00	177.34	9.54
	11.55	0.00	240	1b	14.00	177.33	9.53
	11.55	0.00	0	1	0.70	-248.58	25.68
1.2D + 1.6W 210°	11.55	0.00	120	1a	-0.47	22.32	1.95
	11.55	0.00	240	1b	24.34	293.08	14.92
	11.55	0.00	0	1	1.32	-138.05	14.73
1.2D + 1.6W 240°	11.55	0.00	120	1a	13.40	-138.01	-6.24
	11.55	0.00	240	1b	29.16	342.87	16.84
	11.55	0.00	0	1	1.27	177.34	-16.89
1.2D + 1.6W 300°	11.55	0.00	120	1a	25.58	-287.82	-14.78
	11.55	0.00	240	1b	15.25	177.29	7.36
	11.55	0.00	0	1	0.77	293.11	-28.54
1.2D + 1.6W 330°	11.55	0.00	120	1a	21.89	-248.56	-13.45
	11.55	0.00	240	1b	1.91	22.26	-0.56
	11.55	0.00	0	1	0.01	336.81	-33.30
0.9D + 1.6W Normal	11.55	0.00	120	1a	12.42	-143.35	-8.69
	11.55	0.00	240	1b	-12.42	-143.36	-8.68
	11.55	0.00	0	1	-1.27	171.51	-16.51
0.9D + 1.6W 60°	11.55	0.00	120	1a	-14.93	171.47	7.16
	11.55	0.00	240	1b	-25.90	-292.87	-14.96
	11.55	0.00	0	1	-1.47	16.73	-1.01
0.9D + 1.6W 90°	11.55	0.00	120	1a	-24.76	287.04	13.43
	11.55	0.00	240	1b	-22.90	-253.66	-12.42
	11.55	0.00	0	1	-1.33	-143.35	15.10
0.9D + 1.6W 120°	11.55	0.00	120	1a	-28.83	336.77	16.66
	11.55	0.00	240	1b	-13.72	-143.32	-6.42
	11.55	0.00	0	1	-0.01	-292.90	29.91
0.9D + 1.6W 180°	11.55	0.00	120	1a	-13.67	171.50	9.36
	11.55	0.00	240	1b	13.67	171.50	9.35
	11.55	0.00	0	1	0.70	-253.69	26.05
0.9D + 1.6W 210°	11.55	0.00	120	1a	-0.14	16.75	1.77
	11.55	0.00	240	1b	24.01	287.05	14.73
	11.55	0.00	0	1	1.32	-143.35	15.10
0.9D + 1.6W 240°	11.55	0.00	120	1a	13.73	-143.31	-6.42
	11.55	0.00	240	1b	28.83	336.76	16.65
	11.55	0.00	0	1	1.28	171.51	-16.51
0.9D + 1.6W 300°	11.55	0.00	120	1a	25.90	-292.86	-14.96
	11.55	0.00	240	1b	14.93	171.46	7.17
	11.55	0.00	0	1	0.77	287.08	-28.16
0.9D + 1.6W 330°	11.55	0.00	120	1a	22.20	-253.67	-13.64
	11.55	0.00	240	1b	1.59	16.70	-0.75
	11.55	0.00	0	1	0.00	89.93	-5.89
1.2D + 1.0Di + 1.0Wi Normal	11.55	0.00	120	1a	3.76	-11.56	-2.54
	11.55	0.00	240	1b	-3.76	-11.56	-2.54
	11.55	0.00	0	1	-0.31	55.09	-2.30
1.2D + 1.0Di + 1.0Wi 60°	11.55	0.00	120	1a	-2.14	55.07	0.89

DETAILED REACTIONS

Load Case	Radius (ft)	Elevation (ft)	Azimuth (deg)	Node	FX* (kip)	FY* (kip)	FZ* (kip)
					*(-) Uplift and (+) Down		
	11.55	0.00	240	1b	-6.71	-43.35	-3.87
	11.55	0.00	0	1	-0.36	22.28	1.05
1.2D + 1.0Di + 1.0Wi 90°	11.55	0.00	120	1a	-4.25	79.53	2.25
	11.55	0.00	240	1b	-6.07	-35.00	-3.30
	11.55	0.00	0	1	-0.33	-11.55	4.52
1.2D + 1.0Di + 1.0Wi 120°	11.55	0.00	120	1a	-5.10	89.92	2.95
	11.55	0.00	240	1b	-4.08	-11.56	-1.98
	11.55	0.00	0	1	0.00	-43.34	7.75
1.2D + 1.0Di + 1.0Wi 180°	11.55	0.00	120	1a	-1.84	55.08	1.41
	11.55	0.00	240	1b	1.84	55.07	1.41
	11.55	0.00	0	1	0.18	-34.99	6.91
1.2D + 1.0Di + 1.0Wi 210°	11.55	0.00	120	1a	1.09	22.28	-0.22
	11.55	0.00	240	1b	4.07	79.53	2.56
	11.55	0.00	0	1	0.32	-11.55	4.52
1.2D + 1.0Di + 1.0Wi 240°	11.55	0.00	120	1a	4.08	-11.55	-1.98
	11.55	0.00	240	1b	5.10	89.91	2.94
	11.55	0.00	0	1	0.31	55.09	-2.30
1.2D + 1.0Di + 1.0Wi 300°	11.55	0.00	120	1a	6.71	-43.34	-3.88
	11.55	0.00	240	1b	2.14	55.06	0.89
	11.55	0.00	0	1	0.18	79.54	-4.80
1.2D + 1.0Di + 1.0Wi 330°	11.55	0.00	120	1a	5.89	-34.99	-3.61
	11.55	0.00	240	1b	-0.74	22.26	-0.83
	11.55	0.00	0	1	0.00	38.14	-2.97
	11.55	0.00	120	1a	-0.70	12.85	0.42
(1.2 + 0.2Sds) * DL + E Normal M1	11.55	0.00	240	1b	0.70	12.85	0.42
	11.55	0.00	0	1	0.00	34.37	-2.62
	11.55	0.00	120	1a	-0.84	14.74	0.51
	11.55	0.00	240	1b	0.84	14.74	0.51
	11.55	0.00	0	1	0.02	29.71	-2.25
	11.55	0.00	120	1a	-1.94	29.71	1.14
(1.2 + 0.2Sds) * DL + E 60° M1	11.55	0.00	240	1b	0.08	4.42	0.05
	11.55	0.00	0	1	0.02	27.83	-2.08
	11.55	0.00	120	1a	-1.79	27.83	1.05
	11.55	0.00	240	1b	0.38	8.19	0.22
	11.55	0.00	0	1	0.02	21.28	-1.53
	11.55	0.00	120	1a	-2.40	35.88	1.39
(1.2 + 0.2Sds) * DL + E 90° M1	11.55	0.00	240	1b	0.25	6.68	0.14
	11.55	0.00	0	1	0.02	21.28	-1.53
	11.55	0.00	120	1a	-2.14	32.62	1.25
	11.55	0.00	240	1b	0.51	9.95	0.28
	11.55	0.00	0	1	0.02	12.85	-0.81
	11.55	0.00	120	1a	-2.57	38.14	1.48
(1.2 + 0.2Sds) * DL + E 120° M1	11.55	0.00	240	1b	0.71	12.85	0.39
	11.55	0.00	0	1	0.02	14.74	-0.99
	11.55	0.00	120	1a	-2.27	34.37	1.31
	11.55	0.00	240	1b	0.86	14.74	0.48
	11.55	0.00	0	1	0.00	4.42	-0.09
	11.55	0.00	120	1a	-1.95	29.71	1.11
(1.2 + 0.2Sds) * DL + E 180° M1	11.55	0.00	240	1b	1.95	29.71	1.11
	11.55	0.00	0	1	0.00	8.19	-0.44
	11.55	0.00	120	1a	-1.81	27.83	1.02
	11.55	0.00	240	1b	1.81	27.83	1.02
	11.55	0.00	0	1	-0.01	6.68	-0.29
	11.55	0.00	120	1a	-1.33	21.28	0.75
(1.2 + 0.2Sds) * DL + E 210° M1	11.55	0.00	240	1b	2.41	35.88	1.38
	11.55	0.00	0	1	-0.01	9.95	-0.59
	11.55	0.00	120	1a	-1.34	21.28	0.75
	11.55	0.00	240	1b	2.15	32.62	1.23
(1.2 + 0.2Sds) * DL + E 240° M1	11.55	0.00	0	1	-0.02	12.85	-0.81

DETAILED REACTIONS

Load Case	Radius (ft)	Elevation (ft)	Azimuth (deg)	Node	FX* (kip)	FY* (kip)	FZ* (kip)
					*(-) Uplift and (+) Down		
(1.2 + 0.2Sds) * DL + E 300° M1	11.55	0.00	120	1a	-0.71	12.85	0.39
	11.55	0.00	240	1b	2.57	38.14	1.48
	11.55	0.00	0	1	-0.02	14.74	-0.99
	11.55	0.00	120	1a	-0.86	14.74	0.48
	11.55	0.00	240	1b	2.27	34.37	1.31
	11.55	0.00	0	1	-0.02	29.71	-2.25
	11.55	0.00	120	1a	-0.08	4.42	0.05
	11.55	0.00	240	1b	1.94	29.71	1.14
	11.55	0.00	0	1	-0.02	27.83	-2.08
	11.55	0.00	120	1a	-0.38	8.19	0.22
	11.55	0.00	240	1b	1.79	27.83	1.05
(1.2 + 0.2Sds) * DL + E 330° M1	11.55	0.00	0	1	-0.01	35.88	-2.77
	11.55	0.00	120	1a	-0.24	6.68	0.15
	11.55	0.00	240	1b	1.32	21.28	0.78
	11.55	0.00	0	1	-0.01	32.62	-2.47
	11.55	0.00	120	1a	-0.50	9.95	0.30
	11.55	0.00	240	1b	1.31	21.28	0.79
(0.9 - 0.2Sds) * DL + E Normal M1	11.55	0.00	0	1	0.00	31.64	-2.50
	11.55	0.00	120	1a	-0.29	6.40	0.19
	11.55	0.00	240	1b	0.29	6.40	0.19
	11.55	0.00	0	1	0.00	27.87	-2.16
	11.55	0.00	120	1a	-0.44	8.28	0.28
	11.55	0.00	240	1b	0.44	8.28	0.28
(0.9 - 0.2Sds) * DL + E 60° M1	11.55	0.00	0	1	0.01	23.23	-1.78
	11.55	0.00	120	1a	-1.54	23.23	0.90
	11.55	0.00	240	1b	-0.32	-2.01	-0.19
	11.55	0.00	0	1	0.02	21.34	-1.61
	11.55	0.00	120	1a	-1.39	21.34	0.82
	11.55	0.00	240	1b	-0.02	1.75	-0.01
(0.9 - 0.2Sds) * DL + E 90° M1	11.55	0.00	0	1	0.02	14.81	-1.07
	11.55	0.00	120	1a	-2.00	29.38	1.16
	11.55	0.00	240	1b	-0.15	0.24	-0.10
	11.55	0.00	0	1	0.02	14.81	-1.07
	11.55	0.00	120	1a	-1.73	26.12	1.01
	11.55	0.00	240	1b	0.11	3.50	0.05
(0.9 - 0.2Sds) * DL + E 120° M1	11.55	0.00	0	1	0.01	6.40	-0.35
	11.55	0.00	120	1a	-2.17	31.64	1.25
	11.55	0.00	240	1b	0.31	6.40	0.16
	11.55	0.00	0	1	0.02	8.28	-0.52
	11.55	0.00	120	1a	-1.87	27.87	1.08
	11.55	0.00	240	1b	0.46	8.28	0.24
(0.9 - 0.2Sds) * DL + E 180° M1	11.55	0.00	0	1	0.00	-2.01	0.37
	11.55	0.00	120	1a	-1.55	23.23	0.88
	11.55	0.00	240	1b	1.55	23.23	0.88
	11.55	0.00	0	1	0.00	1.76	0.02
	11.55	0.00	120	1a	-1.40	21.34	0.79
	11.55	0.00	240	1b	1.40	21.34	0.79
(0.9 - 0.2Sds) * DL + E 210° M1	11.55	0.00	0	1	-0.01	0.24	0.18
	11.55	0.00	120	1a	-0.93	14.81	0.52
	11.55	0.00	240	1b	2.00	29.38	1.15
	11.55	0.00	0	1	-0.01	3.50	-0.12
	11.55	0.00	120	1a	-0.93	14.81	0.51
	11.55	0.00	240	1b	1.75	26.12	1.00
(0.9 - 0.2Sds) * DL + E 240° M1	11.55	0.00	0	1	-0.01	6.40	-0.35
	11.55	0.00	120	1a	-0.31	6.40	0.16
	11.55	0.00	240	1b	2.17	31.64	1.25
	11.55	0.00	0	1	-0.02	8.28	-0.52
	11.55	0.00	120	1a	-0.46	8.28	0.24
	11.55	0.00	240	1b	1.87	27.87	1.08

DETAILED REACTIONS

Load Case	Radius (ft)	Elevation (ft)	Azimuth (deg)	Node	FX* (kip)	FY* (kip)	FZ* (kip)
					(-) Uplift and (+) Down		
(0.9 - 0.2Sds) * DL + E 300° M1	11.55	0.00	0	1	-0.01	23.23	-1.78
	11.55	0.00	120	1a	0.32	-2.01	-0.19
	11.55	0.00	240	1b	1.54	23.23	0.90
(0.9 - 0.2Sds) * DL + E 330° M1	11.55	0.00	0	1	-0.02	21.34	-1.61
	11.55	0.00	120	1a	0.02	1.75	-0.01
	11.55	0.00	240	1b	1.39	21.34	0.82
	11.55	0.00	0	1	-0.01	29.38	-2.31
	11.55	0.00	120	1a	0.16	0.24	-0.08
	11.55	0.00	240	1b	0.91	14.81	0.55
1.0D + 1.0W Service Normal	11.55	0.00	0	1	-0.01	26.12	-2.01
	11.55	0.00	120	1a	-0.10	3.50	0.07
	11.55	0.00	240	1b	0.91	14.81	0.55
1.0D + 1.0W Service 60°	11.55	0.00	0	1	0.00	108.54	-10.34
	11.55	0.00	120	1a	2.68	-26.43	-1.99
	11.55	0.00	240	1b	-2.68	-26.44	-1.99
1.0D + 1.0W Service 90°	11.55	0.00	0	1	-0.37	62.09	-5.61
	11.55	0.00	120	1a	-5.04	62.07	2.49
	11.55	0.00	240	1b	-6.50	-68.48	-3.76
1.0D + 1.0W Service 120°	11.55	0.00	0	1	-0.43	18.56	-1.24
	11.55	0.00	120	1a	-7.81	94.57	4.26
	11.55	0.00	240	1b	-5.66	-57.45	-3.03
1.0D + 1.0W Service 180°	11.55	0.00	0	1	-0.39	-26.42	3.31
	11.55	0.00	120	1a	-8.95	108.52	5.17
	11.55	0.00	240	1b	-3.06	-26.43	-1.32
1.0D + 1.0W Service 210°	11.55	0.00	0	1	0.00	-68.48	7.51
	11.55	0.00	120	1a	-4.68	62.08	3.12
	11.55	0.00	240	1b	4.68	62.08	3.12
1.0D + 1.0W Service 240°	11.55	0.00	0	1	0.21	-57.46	6.42
	11.55	0.00	120	1a	-0.86	18.57	0.99
	11.55	0.00	240	1b	7.59	94.56	4.63
1.0D + 1.0W Service 300°	11.55	0.00	0	1	0.39	-26.42	3.31
	11.55	0.00	120	1a	3.06	-26.42	-1.32
	11.55	0.00	240	1b	8.95	108.52	5.17
1.0D + 1.0W Service 330°	11.55	0.00	0	1	0.37	62.09	-5.61
	11.55	0.00	120	1a	6.50	-68.48	-3.76
	11.55	0.00	240	1b	5.04	62.07	2.49
	11.55	0.00	0	1	0.22	94.58	-8.89
	11.55	0.00	120	1a	5.45	-57.45	-3.39
	11.55	0.00	240	1b	1.28	18.55	0.25

MAXIMUM REACTIONS SUMMARY

Individual		Global (DL+WL+IL)		Global (DL+WL)	
Max Uplift:	292.9 (kip)	Moment Ice:	1171.91 (kip-ft)	Moment:	5553.84 (kip-ft)
Max Down:	342.92 (kip)	Total Down Ice:	66.81 (kip)	Total Down:	66.81 (kip)
Max Shear:	33.68 (kip)	Total Shear Ice:	10.97 (kip)	Total Shear:	50.67 (kip)

1.2D + 1.6W Normal