AMERICAN TOWER®
CORPORATION

This report was prepared for American Tower Corporation by

TEP

Structural Analysis Report

Structure	:	56 ft Self Support Tower
ATC Asset Name	:	Morley 1
ATC Asset Number	:	383495
Engineering Number	:	14758439_C3_03
Proposed Carrier	:	AT&T MOBILITY
Carrier Site Name	:	MOUNT PITTSBURG
Carrier Site Number	:	WSUTH0032710
Site Location	:	15743 Phantom Canyon View Colorado Springs, CO 80903 38.6126° N, 104.9348° W
County	:	El Paso
Date	:	November 1, 2024
Max Usage	:	86%
Analysis Result	:	Pass

Created By:

Trey Hardimon
TEP

TEP OPCO, LLC

COLORADO LICENSED
AARON THOMAS RUCKER
52796
PROFESSIONAL ENGINEER

11/01/2024

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Introduction

The purpose of this report is to summarize results of a structural analysis performed on the 56 ft Self Support tower to reflect the change in loading by AT&T MOBILITY.

Supporting Documents

Tower:	Mapping by TEP Project #129323, dated December 21, 2012
Foundation:	Mapping by TEP Project #193223, dated December 21, 2012
Geotechnical:	TEP Project #129323.10, dated January 2, 2013

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:	130 mph (3-second gust)
Basic Wind Speed w/ Ice:	50 mph (3-second gust) w/ 0.25" radial ice concurrent
Code(s):	ANSI/TIA-222-H / 2015 IBC
Exposure Category:	B
Risk Category:	II
Topographic Factor Procedure:	Method 2
Feature:	Ridge
Crest Height (H):	1307 ft
Crest Length (L):	5386 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	37.2%	Member X	Section 1	Pass
Diagonal	85.6%	Member X	Section 1	Pass
Horizontal	8.5%	Block Shear	Section 4	Pass
Bolt	26.6%	-	Section 1	Pass
Serviceability Usage	13.0%	Rotation	Elevation 56 ft	Pass
Mat & Pier	36.0%	Bearing [Soil]	Node 1	Pass

Maximum Reactions

Foundation	Moment (k-ft)	Axial (k)	Uplift (k)	Shear (k)
Self Support Base (Global)	702.1	13.8	-	23.3
Self Support Base (Local)	-	60.2	53.3	7.0

Reactions shown are maximum overall and not limited by Load Case

Structure base reactions were analyzed using available geotechnical and foundation information.

AT&T MOBILITY Final Loading

Elev (ft)	Qty	Equipment	Lines
58.8	2	Ericsson AIR 6419 B77D/ C-Band	(1) 0.39" (10mm) Fiber Trunk (2) 0.96" (24.3mm) Cable (4) 1 5/8" Coax (4) 7/8" Coax
56.0	1	Raycap DC9-48-60-24-8C-EV (Enclosure)	
	2	Ericsson 4478 Band 14 (15" Height)	
	2	Ericsson Radio 4490HP 44B5 44B12A C	
	2	Ericsson Radio 4890HP 48B2/B25 48B66 M01 (68.3lbs)	
	4	Commscope NNH4-65C-R6-V3 (102.5 lbs)	
55.0	1	Raycap DC6-48-60-18-8F (20.1" Height)	(1) 0.39" (10mm) Fiber Trunk (2) 0.78" (19.7mm) 8 AWG 6
	3	Sector Frame	
54.9	2	Ericsson AIR 6419 B77G	

Install proposed lines in the place of the existing AT&T MOBILITY lines.

Other Existing/Reserved Loading

Elev (ft)	Qty	Equipment	Lines	Carrier
66.0	1	RFI Antennas CC807-6	(4) 7/8" Coax (1) 1/2" Coax (4) EW65 (1) 3/8" Coax	PIKES PEAK REGIONAL COMMUNICATIONS
60.0	1	48" x 6" Panel		
56.0	3	TTA		
51.0	1	12" x 12" Junction Box		
40.0	1	10' Dipole		
37.6	1	Side Arm		
27.3	1	Side Arm		
27.0	1	RFS PAD8-59AC w/ Radome		
25.6	1	Side Arm		
23.0	1	RFI Antennas CC807-6		
16.0	1	RFS PAD6-59BC2S1R w/ Radome		
15.0	1	RFS UXA10-U57AC		
5.0	1	5' Dipole		

(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.

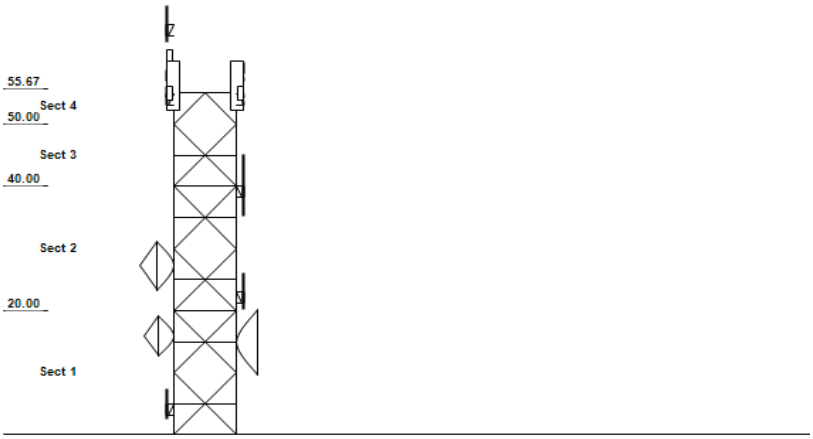
ASSET: Morley 1, 383495 CODE: ANSI/TIA-222-H
CUSTOMER: AT&T MOBILITY PROJECT: 14758439

ANALYSIS PARAMETERS

Design Wind:	130 mph	**Ice Wind:**	50 mph w/ 0.25" ice	**Service Wind:**	60 mph
Risk Category:	II	**Exposure:**	B	**S_s:** 0.185	**S_1:** 0.059
Topo Factor:	Method 2	**Topo Feature:**	Ridge		
Structure Height:	56 ft	**Base Elevation:**	0 ft	**Shape:**	Square
Base Width:	9.00 ft	**Top Width:**	9.00 ft		

Tower Elevation View

Quadrant 1



TOWER SECTION PROPERTIES

Section	Leg Members	Diagonal Members	Horizontal Members
1 - 2	PSP 50 ksi 4.5" OD x 0.25"	PST 36 ksi 1-1/2" DIA PIPE	DAE 36 ksi 1.75X1.75X0.125
3	PST 50 ksi 4.5" OD X 0.188"	PST 36 ksi 1-1/2" DIA PIPE	
4	PST 50 ksi 4.5" OD X 0.188"	PST 36 ksi 1-1/2" DIA PIPE	DAE 36 ksi 1.75X1.75X0.125

SECONDARY BRACING MEMBERS

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

Section	Sub Horizontal 1	Sub Horizontal 2	Sub Horizontal 3
1 - 3	D1.75X1.75X0.125	-	-

DISCRETE APPURTENANCE

Elev (ft)	Description
66.0	(1) RFI Antennas CC807-6
60.0	(1) Generic 48" x 6" Panel
58.8	(2) Ericsson AIR 6419 B77D/ C-Band
56.0	(2) Ericsson 4478 Band 14 (15" Height)
56.0	(1) Raycap DC9-48-60-24-8C-EV (Enclos
56.0	(3) Generic TTA
56.0	(2) Ericsson Radio 4890HP 48B2/B25 48
56.0	(4) Commscope NNH4-65C-R6-V3 (102.5
56.0	(2) Ericsson Radio 4490HP 44B5 44B12A
55.0	(1) Raycap DC6-48-60-18-8F (20.1" Heig
55.0	(3) Generic Round Sector Frame
54.9	(2) Ericsson AIR 6419 B77G
51.0	(1) Generic 12" x 12" Junction Box
40.0	(1) Generic 10' Dipole
37.6	(1) Round Side Arm
27.3	(1) Round Side Arm
27.0	(1) RFS PAD8-59AC w/ Radome
25.6	(1) Round Side Arm
23.0	(1) RFI Antennas CC807-6
16.0	(1) RFS PAD6-59BC2S1R w/ Radome
15.0	(1) RFS UXA10-U57AC
5.0	(1) Generic 5' Dipole

LINEAR APPURTENANCE

Elev (ft)	Description

GLOBAL BASE REACTIONS

	DL+WL	DL+WL+IL
Moment (k-ft):	702.07	136.03
Axial (k):	13.83	18.12
Shear (k):	23.31	4.16

INDIVIDUAL BASE REACTIONS

Comp (k):	60.20
Uplift (k):	53.26
Shear (k):	6.95

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ANALYSIS PARAMETERS

Location:	El Paso County, CO	**Height:**	55.67 ft
Type and Shape:	Self Support, Square	**Base Elevation:**	0.00 ft
Manufacturer:	Undetermined	**Bottom Face Width:**	9.00 ft
Kd	0.85	**Top Face Width:**	9.00 ft
Ke:	0.75	**Anchor Bolt Detail Type:**	c

ICE & WIND PARAMETERS

Exposure Category:	B	**Design Wind Speed Without Ice:**	130 mph
Risk Category:	II	**Design Wind Speed with Ice:**	50 mph
Topographic Factor Procedure:	Method 2	**Operational Windspeed:**	60 mph
		Design Ice Thickness:	0.25 in
		HMSL:	7924 ft
Crest Height(H):	ft		
Crest Length(L):	5386 ft	**Distance from Apex (x):**	0
Feature:	Ridge	**Upwind/Downwind:**	Upwind

SEISMIC PARAMETERS

Analysis Method:	Equivalent Lateral Force Method				
Site Class:	D - Stiff Soil			**Period Based on Rayleigh Method (sec):**	0.40
T_L (sec):	6	**P:**	1.3	**C_s:**	0.066
S_{ds}:	0.197	**S_{d1}:**	0.094	**C_s Max:**	0.079
S_s:	0.185	**S_1:**	0.059	**C_s Min:**	0.030
F_a:	1.600	**F_v:**	2.400		

LOAD CASES

1.2D + 1.0W Normal	1.2D + 1.0W Normal - 130 mph Wind with No Ice
1.2D + 1.0W 45°	1.2D + 1.0W 45° - 130 mph Wind with No Ice
1.2D + 1.0W 90°	1.2D + 1.0W 90° - 130 mph Wind with No Ice
1.2D + 1.0W 135°	1.2D + 1.0W 135° - 130 mph Wind with No Ice
1.2D + 1.0W 180°	1.2D + 1.0W 180° - 130 mph Wind with No Ice
1.2D + 1.0W 225°	1.2D + 1.0W 225° - 130 mph Wind with No Ice
1.2D + 1.0W 270°	1.2D + 1.0W 270° - 130 mph Wind with No Ice
1.2D + 1.0W 315°	1.2D + 1.0W 315° - 130 mph Wind with No Ice
0.9D + 1.0W Normal	0.9D + 1.0W Normal - 130 mph Wind with No Ice (Reduced DL)
0.9D + 1.0W 45°	0.9D + 1.0W 45° - 130 mph Wind with No Ice (Reduced DL)
0.9D + 1.0W 90°	0.9D + 1.0W 90° - 130 mph Wind with No Ice (Reduced DL)
0.9D + 1.0W 135°	0.9D + 1.0W 135° - 130 mph Wind with No Ice (Reduced DL)
0.9D + 1.0W 180°	0.9D + 1.0W 180° - 130 mph Wind with No Ice (Reduced DL)
0.9D + 1.0W 225°	0.9D + 1.0W 225° - 130 mph Wind with No Ice (Reduced DL)
0.9D + 1.0W 270°	0.9D + 1.0W 270° - 130 mph Wind with No Ice (Reduced DL)
0.9D + 1.0W 315°	0.9D + 1.0W 315° - 130 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 0.25" Radial Ice
1.2D + 1.0Di + 1.0Wi 45°	1.2D + 1.0Di + 1.0Wi 45° - 50 mph Wind with 0.25" Radial Ice
1.2D + 1.0Di + 1.0Wi 90°	1.2D + 1.0Di + 1.0Wi 90° - 50 mph Wind with 0.25" Radial Ice
1.2D + 1.0Di + 1.0Wi 135°	1.2D + 1.0Di + 1.0Wi 135° - 50 mph Wind with 0.25" Radial Ice
1.2D + 1.0Di + 1.0Wi 180°	1.2D + 1.0Di + 1.0Wi 180° - 50 mph Wind with 0.25" Radial Ice
1.2D + 1.0Di + 1.0Wi 225°	1.2D + 1.0Di + 1.0Wi 225° - 50 mph Wind with 0.25" Radial Ice
1.2D + 1.0Di + 1.0Wi 270°	1.2D + 1.0Di + 1.0Wi 270° - 50 mph Wind with 0.25" Radial Ice
1.2D + 1.0Di + 1.0Wi 315°	1.2D + 1.0Di + 1.0Wi 315° - 50 mph Wind with 0.25" Radial Ice
1.2D + 1.0Ev + 1.0Eh Normal	1.2D + 1.0Ev + 1.0Eh Normal - Seismic
1.2D + 1.0Ev + 1.0Eh 45°	1.2D + 1.0Ev + 1.0Eh 45° - Seismic

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LOAD CASES	
1.2D + 1.0Ev + 1.0Eh 90°	1.2D + 1.0Ev + 1.0Eh 90° - Seismic
1.2D + 1.0Ev + 1.0Eh 135°	1.2D + 1.0Ev + 1.0Eh 135° - Seismic
1.2D + 1.0Ev + 1.0Eh 180°	1.2D + 1.0Ev + 1.0Eh 180° - Seismic
1.2D + 1.0Ev + 1.0Eh 225°	1.2D + 1.0Ev + 1.0Eh 225° - Seismic
1.2D + 1.0Ev + 1.0Eh 270°	1.2D + 1.0Ev + 1.0Eh 270° - Seismic
1.2D + 1.0Ev + 1.0Eh 315°	1.2D + 1.0Ev + 1.0Eh 315° - Seismic
0.9D - 1.0Ev + 1.0Eh Normal	0.9D - 1.0Ev + 1.0Eh Normal - Seismic (Reduced DL)
0.9D - 1.0Ev + 1.0Eh 45°	0.9D - 1.0Ev + 1.0Eh 45° - Seismic (Reduced DL)
0.9D - 1.0Ev + 1.0Eh 90°	0.9D - 1.0Ev + 1.0Eh 90° - Seismic (Reduced DL)
0.9D - 1.0Ev + 1.0Eh 135°	0.9D - 1.0Ev + 1.0Eh 135° - Seismic (Reduced DL)
0.9D - 1.0Ev + 1.0Eh 180°	0.9D - 1.0Ev + 1.0Eh 180° - Seismic (Reduced DL)
0.9D - 1.0Ev + 1.0Eh 225°	0.9D - 1.0Ev + 1.0Eh 225° - Seismic (Reduced DL)
0.9D - 1.0Ev + 1.0Eh 270°	0.9D - 1.0Ev + 1.0Eh 270° - Seismic (Reduced DL)
0.9D - 1.0Ev + 1.0Eh 315°	0.9D - 1.0Ev + 1.0Eh 315° - 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 45°	1.0D + 1.0W Service 45° - 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 135°	1.0D + 1.0W Service 135° - 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 225°	1.0D + 1.0W Service 225° - 60 mph Wind with No Ice
1.0D + 1.0W Service 270°	1.0D + 1.0W Service 270° - 60 mph Wind with No Ice
1.0D + 1.0W Service 315°	1.0D + 1.0W Service 315° - 60 mph Wind with No Ice

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TOWER LOADING – DISCRETE APPURTENANCE

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

Elev (ft)	Description	Qty	Wt. (lb)	EPA (sf)	Length (ft)	Width (in)	Depth (in)	K_a	Orient. Factor	Vert. Ecc. (ft)	M_u (lb-ft)	Q_z (psf)	F_a (WL) (lb)	P_a (DL) (lb)
66.0	RFI Antennas CC807-6	1	15	1.7	5.9	3.0	3.0	1.00	1.00	0.0	0.00	60.95	89	18
60.0	Generic 48" x 6" Panel	1	20	2.9	4.0	6.0	3.0	1.00	1.00	0.0	0.00	59.61	145	24
58.8	Ericsson AIR 6419 B77D/ C-Band	2	64	3.8	2.4	16.1	7.3	0.80	0.73	0.0	0.00	59.32	224	154
56.0	Generic TTA	3	10	1.2	1.0	12.0	6.0	0.80	0.50	0.0	0.00	58.64	72	36
56.0	Ericsson 4478 Band 14 (15" Hei	2	60	1.8	1.4	13.4	7.7	0.80	0.50	0.0	0.00	58.64	73	144
56.0	Ericsson Radio 4490HP 44B5 44B	2	68	2.2	1.5	15.1	6.8	0.80	0.50	0.0	0.00	58.64	88	164
56.0	Ericsson Radio 4890HP 48B2/B25	2	68	2.2	1.5	15.1	6.9	0.80	0.50	0.0	0.00	58.64	88	164
56.0	Raycap DC9-48-60-24-8C-EV (Enc	1	19	2.7	2.2	12.4	9.7	0.80	0.50	0.0	0.00	58.64	53	22
56.0	Commscope NNH4-65C-R6-V3 (102.	4	103	17.1	8.0	19.6	7.8	0.80	0.64	0.0	0.00	58.64	1743	492
55.0	Raycap DC6-48-60-18-8F (20.1"	1	16	3.0	1.7	18.2	6.4	0.80	0.50	0.0	0.00	58.39	61	19
55.0	Generic Round Sector Frame	3	700	14.4	0.0	0.0	0.0	0.75	0.67	0.0	0.00	58.39	1077	2520
54.9	Ericsson AIR 6419 B77G	2	66	3.8	2.4	16.1	7.9	0.80	0.74	0.0	0.00	58.36	223	159
51.0	Generic 12" x 12" Junction Box	1	10	1.2	1.0	12.0	8.0	1.00	1.00	0.0	0.00	57.33	58	12
40.0	Generic 10' Dipole	1	30	3.8	10.0	3.0	3.0	1.00	1.00	0.0	0.00	53.98	173	36
37.6	Round Side Arm	1	150	5.2	0.0	0.0	0.0	1.00	0.67	0.0	0.00	53.14	157	180
27.3	Round Side Arm	1	150	5.2	0.0	0.0	0.0	1.00	0.67	0.0	0.00	50.21	149	180
27.0	RFS PAD8-59AC w/ Radome	1	380	43.4	8.0	96.0	0.0	1.00	1.00	0.0	0.00	50.23	1852	456
25.6	Round Side Arm	1	150	5.2	0.0	0.0	0.0	1.00	0.67	0.0	0.00	50.29	149	180
23.0	RFI Antennas CC807-6	1	15	1.7	5.9	3.0	3.0	1.00	1.00	0.0	0.00	50.40	74	18
16.0	RFS PAD6-59BC2S1R w/ Radome	1	189	29.4	6.6	79.0	43.0	1.00	1.00	0.0	0.00	50.70	1266	227
15.0	RFS UXA10-U57AC	1	638	110.6	10.6	126.8	21.7	1.00	1.00	0.0	0.00	50.74	4772	766
5.0	Generic 5' Dipole	1	15	1.7	5.0	3.0	3.0	1.00	1.00	0.0	0.00	51.18	76	18
	Totals	**34**	**4,991**	**360.5**									12,662	5,989

Discrete Appurtenance Properties for LC: **0.9D + 1.0W**

Elev (ft)	Description	Qty	Wt. (lb)	EPA (sf)	Length (ft)	Width (in)	Depth (in)	K_a	Orient. Factor	Vert. Ecc. (ft)	M_u (lb-ft)	Q_z (psf)	F_a (WL) (lb)	P_a (DL) (lb)
66.0	RFI Antennas CC807-6	1	15	1.7	5.9	3.0	3.0	1.00	1.00	0.0	0.00	60.95	89	14
60.0	Generic 48" x 6" Panel	1	20	2.9	4.0	6.0	3.0	1.00	1.00	0.0	0.00	59.61	145	18
58.8	Ericsson AIR 6419 B77D/ C-Band	2	64	3.8	2.4	16.1	7.3	0.80	0.73	0.0	0.00	59.32	224	115
56.0	Generic TTA	3	10	1.2	1.0	12.0	6.0	0.80	0.50	0.0	0.00	58.64	72	27
56.0	Ericsson 4478 Band 14 (15" Hei	2	60	1.8	1.4	13.4	7.7	0.80	0.50	0.0	0.00	58.64	73	108
56.0	Ericsson Radio 4490HP 44B5 44B	2	68	2.2	1.5	15.1	6.8	0.80	0.50	0.0	0.00	58.64	88	123
56.0	Ericsson Radio 4890HP 48B2/B25	2	68	2.2	1.5	15.1	6.9	0.80	0.50	0.0	0.00	58.64	88	123
56.0	Raycap DC9-48-60-24-8C-EV (Enc	1	19	2.7	2.2	12.4	9.7	0.80	0.50	0.0	0.00	58.64	53	17
56.0	Commscope NNH4-65C-R6-V3 (102.	4	103	17.1	8.0	19.6	7.8	0.80	0.64	0.0	0.00	58.64	1743	369
55.0	Raycap DC6-48-60-18-8F (20.1"	1	16	3.0	1.7	18.2	6.4	0.80	0.50	0.0	0.00	58.39	61	14
55.0	Generic Round Sector Frame	3	700	14.4	0.0	0.0	0.0	0.75	0.67	0.0	0.00	58.39	1077	1890
54.9	Ericsson AIR 6419 B77G	2	66	3.8	2.4	16.1	7.9	0.80	0.74	0.0	0.00	58.36	223	119
51.0	Generic 12" x 12" Junction Box	1	10	1.2	1.0	12.0	8.0	1.00	1.00	0.0	0.00	57.33	58	9
40.0	Generic 10' Dipole	1	30	3.8	10.0	3.0	3.0	1.00	1.00	0.0	0.00	53.98	173	27
37.6	Round Side Arm	1	150	5.2	0.0	0.0	0.0	1.00	0.67	0.0	0.00	53.14	157	135
27.3	Round Side Arm	1	150	5.2	0.0	0.0	0.0	1.00	0.67	0.0	0.00	50.21	149	135
27.0	RFS PAD8-59AC w/ Radome	1	380	43.4	8.0	96.0	0.0	1.00	1.00	0.0	0.00	50.23	1852	342
25.6	Round Side Arm	1	150	5.2	0.0	0.0	0.0	1.00	0.67	0.0	0.00	50.29	149	135
23.0	RFI Antennas CC807-6	1	15	1.7	5.9	3.0	3.0	1.00	1.00	0.0	0.00	50.40	74	14
16.0	RFS PAD6-59BC2S1R w/ Radome	1	189	29.4	6.6	79.0	43.0	1.00	1.00	0.0	0.00	50.70	1266	170
15.0	RFS UXA10-U57AC	1	638	110.6	10.6	126.8	21.7	1.00	1.00	0.0	0.00	50.74	4772	574
5.0	Generic 5' Dipole	1	15	1.7	5.0	3.0	3.0	1.00	1.00	0.0	0.00	51.18	76	14
	Totals	**34**	**4,991**	**360.5**									12,662	4,492

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)
66.0	RFI Antennas CC807-6	1	25	2.0	5.9	3.0	3.0	1.00	1.00	0.0	0.00	9.02	15	28
60.0	Generic 48" x 6" Panel	1	32	3.2	4.0	6.0	3.0	1.00	1.00	0.0	0.00	8.82	24	36
58.8	Ericsson AIR 6419 B77D/ C-Band	2	84	4.1	2.4	16.1	7.3	0.80	0.73	0.0	0.00	8.78	35	193
56.0	Generic TTA	3	18	1.4	1.0	12.0	6.0	0.80	0.50	0.0	0.00	8.67	12	59
56.0	Ericsson 4478 Band 14 (15" Hei	2	71	2.0	1.4	13.4	7.7	0.80	0.50	0.0	0.00	8.67	12	167
56.0	Ericsson Radio 4490HP 44B5 44B	2	81	2.3	1.5	15.1	6.8	0.80	0.50	0.0	0.00	8.67	14	189
56.0	Ericsson Radio 4890HP 48B2/B25	2	81	2.4	1.5	15.1	6.9	0.80	0.50	0.0	0.00	8.67	14	189
56.0	Raycap DC9-48-60-24-8C-EV (Enc	1	36	2.9	2.2	12.4	9.7	0.80	0.50	0.0	0.00	8.67	9	40
56.0	Commscope NNH4-65C-R6-V3 (102.	4	171	17.8	8.0	19.6	7.8	0.80	0.64	0.0	0.00	8.67	269	767
55.0	Raycap DC6-48-60-18-8F (20.1"	1	32	3.3	1.7	18.2	6.4	0.80	0.50	0.0	0.00	8.64	10	35
55.0	Generic Round Sector Frame	3	904	17.9	0.0	0.0	0.0	0.75	0.67	0.0	0.00	8.64	198	3132
54.9	Ericsson AIR 6419 B77G	2	86	4.1	2.4	16.1	7.9	0.80	0.74	0.0	0.00	8.63	35	199
51.0	Generic 12" x 12" Junction Box	1	19	1.4	1.0	12.0	8.0	1.00	1.00	0.0	0.00	8.48	10	21
40.0	Generic 10' Dipole	1	52	5.0	10.0	3.0	3.0	1.00	1.00	0.0	0.00	7.99	34	58
37.6	Round Side Arm	1	165	5.7	0.0	0.0	0.0	1.00	0.67	0.0	0.00	7.86	26	195
27.3	Round Side Arm	1	165	5.7	0.0	0.0	0.0	1.00	0.67	0.0	0.00	7.43	24	195
27.0	RFS PAD8-59AC w/ Radome	1	630	44.0	8.0	96.0	0.0	1.00	1.00	0.0	0.00	7.43	278	706
25.6	Round Side Arm	1	165	5.7	0.0	0.0	0.0	1.00	0.67	0.0	0.00	7.44	24	195
23.0	RFI Antennas CC807-6	1	24	1.9	5.9	3.0	3.0	1.00	1.00	0.0	0.00	7.46	12	27

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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)
16.0	RFS PAD6-59BC2S1R w/ Radome	1	338	29.9	6.6	79.0	43.0	1.00	1.00	0.0	0.00	7.50	190	376
15.0	RFS UXA10-U57AC	1	1027	111.7	10.6	126.8	21.7	1.00	1.00	0.0	0.00	7.51	713	1155
5.0	Generic 5' Dipole	1	25	2.1	5.0	3.0	3.0	1.00	1.00	0.0	0.00	7.57	14	28
	Totals	**34**	**6,987**	**383.4**									1972	7,986

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)
66.0	RFI Antennas CC807-6	1	15	1.7	5.9	3.0	3.0	1.00	1.00	0.0	0.00	12.98	19	15
60.0	Generic 48" x 6" Panel	1	20	2.9	4.0	6.0	3.0	1.00	1.00	0.0	0.00	12.70	31	20
58.8	Ericsson AIR 6419 B77D/ C-Band	2	64	3.8	2.4	16.1	7.3	0.80	0.73	0.0	0.00	12.64	48	128
56.0	Generic TTA	3	10	1.2	1.0	12.0	6.0	0.80	0.50	0.0	0.00	12.49	15	30
56.0	Ericsson 4478 Band 14 (15" Hei	2	60	1.8	1.4	13.4	7.7	0.80	0.50	0.0	0.00	12.49	16	120
56.0	Ericsson Radio 4490HP 44B5 44B	2	68	2.2	1.5	15.1	6.8	0.80	0.50	0.0	0.00	12.49	19	137
56.0	Ericsson Radio 4890HP 48B2/B25	2	68	2.2	1.5	15.1	6.9	0.80	0.50	0.0	0.00	12.49	19	137
56.0	Raycap DC9-48-60-24-8C-EV (Enc	1	19	2.7	2.2	12.4	9.7	0.80	0.50	0.0	0.00	12.49	11	18
56.0	Commscope NNH4-65C-R6-V3 (102.	4	103	17.1	8.0	19.6	7.8	0.80	0.64	0.0	0.00	12.49	371	410
55.0	Raycap DC6-48-60-18-8F (20.1"	1	16	3.0	1.7	18.2	6.4	0.80	0.50	0.0	0.00	12.44	13	16
55.0	Generic Round Sector Frame	3	700	14.4	0.0	0.0	0.0	0.75	0.67	0.0	0.00	12.44	229	2100
54.9	Ericsson AIR 6419 B77G	2	66	3.8	2.4	16.1	7.9	0.80	0.74	0.0	0.00	12.43	48	132
51.0	Generic 12" x 12" Junction Box	1	10	1.2	1.0	12.0	8.0	1.00	1.00	0.0	0.00	12.21	12	10
40.0	Generic 10' Dipole	1	30	3.8	10.0	3.0	3.0	1.00	1.00	0.0	0.00	11.50	37	30
37.6	Round Side Arm	1	150	5.2	0.0	0.0	0.0	1.00	0.67	0.0	0.00	11.32	34	150
27.3	Round Side Arm	1	150	5.2	0.0	0.0	0.0	1.00	0.67	0.0	0.00	10.70	32	150
27.0	RFS PAD8-59AC w/ Radome	1	380	43.4	8.0	96.0	0.0	1.00	1.00	0.0	0.00	10.70	395	380
25.6	Round Side Arm	1	150	5.2	0.0	0.0	0.0	1.00	0.67	0.0	0.00	10.71	32	150
23.0	RFI Antennas CC807-6	1	15	1.7	5.9	3.0	3.0	1.00	1.00	0.0	0.00	10.74	16	15
16.0	RFS PAD6-59BC2S1R w/ Radome	1	189	29.4	6.6	79.0	43.0	1.00	1.00	0.0	0.00	10.80	270	189
15.0	RFS UXA10-U57AC	1	638	110.6	10.6	126.8	21.7	1.00	1.00	0.0	0.00	10.81	1016	638
5.0	Generic 5' Dipole	1	15	1.7	5.0	3.0	3.0	1.00	1.00	0.0	0.00	10.90	16	15
	Totals	**34**	**4,991**	**360.5**									2,697	4,991

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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
5.0	66.0	7/8" Coax	1	1.09	0.33	100	3	Individual	0.00	N	1.00	1.00	0.00
5.0	60.0	7/8" Coax	1	1.09	0.33	100	3	Individual	0.00	N	1.00	1.00	0.00
5.0	56.0	7/8" Coax	2	1.09	0.33	50	2	Block	0.00	N	1.00	1.00	0.00
5.0	56.0	1 5/8" Coax	4	1.98	0.82	50	2	Block	0.00	N	1.00	1.00	0.00
5.0	56.0	0.96" (24.3mm) Cable	2	0.96	0.88	100	2	Individual	0.00	N	1.00	1.00	0.00
5.0	56.0	0.39" (10mm) Fiber Trunk	1	0.39	0.06	100	2	Individual	0.00	N	1.00	1.00	0.01
5.0	56.0	7/8" Coax	2	1.09	0.33	50	2	Block	0.00	N	1.00	1.00	0.00
5.0	55.0	0.78" (19.7mm) 8 AWG 6	2	0.78	0.59	100	2	Individual	0.00	N	1.00	1.00	0.01
5.0	55.0	0.39" (10mm) Fiber Trunk	1	0.39	0.06	100	2	Individual	0.00	N	1.00	1.00	0.01
5.0	51.0	1/2" Coax	1	0.63	0.15	100	3	Individual	0.00	N	1.00	1.00	0.00
5.0	40.0	7/8" Coax	1	1.09	0.33	100	3	Individual	0.00	N	1.00	1.00	0.00
5.0	27.0	EW65	1	2.01	0.57	100	3	Individual	0.00	N	1.00	1.00	0.00
5.0	23.0	7/8" Coax	1	1.09	0.33	100	3	Individual	0.00	N	1.00	1.00	0.00
5.0	16.0	EW65	1	2.01	0.57	100	2	Individual	0.00	N	1.00	1.00	0.00
5.0	15.0	EW65	2	2.01	0.57	100	1	Individual	0.00	N	1.00	1.00	0.00
5.0	5.0	3/8" Coax	1	0.44	0.08	100	3	Individual	0.00	N	1.00	1.00	0.00
0.0	56.0	Waveguide	1	2.00	6.00	100	2	Individual	0.00	N	1.00	1.00	0.00
0.0	55.0	Climbing Ladder	1	2.00	6.90	100	4	Individual	0.00	N	1.00	1.00	0.00
0.0	40.0	Waveguide	1	2.00	6.00	100	3	Individual	0.00	N	1.00	1.00	0.00
0.0	30.0	Waveguide	1	2.00	6.00	100	2	Individual	0.00	N	1.00	1.00	0.00

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SECTION FORCES

1.2D + 1.0W Normal — Gust Response Factor (Gh): 0.85
130 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	53	57.82	1.258	6.299	0.00	0.142	3.24	1.00	1.00	0.0	4.38	14.19	0.00	824	0	697	325	1022
3	45	55.59	1.312	11.642	0.00	0.138	3.26	1.00	1.00	0.0	7.18	23.43	0.00	1148	0	1107	577	1685
2	30	50.14	3.883	23.283	0.00	0.145	3.23	1.00	1.00	0.0	15.64	50.50	0.00	2909	0	2152	1397	3549
1	10	50.96	3.883	23.283	0.00	0.145	3.23	1.00	1.00	0.0	15.36	49.61	0.00	2960	0	2149	1552	3701
													Totals	**7,842**	**0**			**9,957**

1.2D + 1.0W 45° — Gust Response Factor (Gh): 0.85
130 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	53	57.82	1.258	6.299	0.00	0.142	3.24	1.11	1.11	0.0	4.84	15.70	0.00	824	0	772	325	1097
3	45	55.59	1.312	11.642	0.00	0.138	3.26	1.10	1.10	0.0	7.93	25.86	0.00	1148	0	1222	577	1799
2	30	50.14	3.883	23.283	0.00	0.145	3.23	1.11	1.11	0.0	17.34	55.99	0.00	2909	0	2386	1397	3783
1	10	50.96	3.883	23.283	0.00	0.145	3.23	1.11	1.11	0.0	17.33	55.96	0.00	2960	0	2424	1552	3976
													Totals	**7,842**	**0**			**10,655**

1.2D + 1.0W 90° — Gust Response Factor (Gh): 0.85
130 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	53	57.82	1.258	6.299	0.00	0.142	3.24	1.00	1.00	0.0	4.38	14.19	0.00	824	0	697	325	1022
3	45	55.59	1.312	11.642	0.00	0.138	3.26	1.00	1.00	0.0	7.18	23.43	0.00	1148	0	1107	577	1685
2	30	50.14	3.883	23.283	0.00	0.145	3.23	1.00	1.00	0.0	15.64	50.50	0.00	2909	0	2152	1397	3549
1	10	50.96	3.883	23.283	0.00	0.145	3.23	1.00	1.00	0.0	15.63	50.47	0.00	2960	0	2186	1552	3738
													Totals	**7,842**	**0**			**9,995**

1.2D + 1.0W 135° — Gust Response Factor (Gh): 0.85
130 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	53	57.82	1.258	6.299	0.00	0.142	3.24	1.11	1.11	0.0	4.84	15.70	0.00	824	0	772	325	1097
3	45	55.59	1.312	11.642	0.00	0.138	3.26	1.10	1.10	0.0	7.93	25.86	0.00	1148	0	1222	577	1799
2	30	50.14	3.883	23.283	0.00	0.145	3.23	1.11	1.11	0.0	17.34	55.99	0.00	2909	0	2386	1397	3783
1	10	50.96	3.883	23.283	0.00	0.145	3.23	1.11	1.11	0.0	17.33	55.96	0.00	2960	0	2424	1552	3976
													Totals	**7,842**	**0**			**10,655**

1.2D + 1.0W 180° — Gust Response Factor (Gh): 0.85
130 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	53	57.82	1.258	6.299	0.00	0.142	3.24	1.00	1.00	0.0	4.38	14.19	0.00	824	0	697	325	1022
3	45	55.59	1.312	11.642	0.00	0.138	3.26	1.00	1.00	0.0	7.18	23.43	0.00	1148	0	1107	577	1685
2	30	50.14	3.883	23.283	0.00	0.145	3.23	1.00	1.00	0.0	15.64	50.50	0.00	2909	0	2152	1397	3549
1	10	50.96	3.883	23.283	0.00	0.145	3.23	1.00	1.00	0.0	15.63	50.47	0.00	2960	0	2186	1552	3738
													Totals	**7,842**	**0**			**9,995**

1.2D + 1.0W 225° — Gust Response Factor (Gh): 0.85
130 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	53	57.82	1.258	6.299	0.00	0.142	3.24	1.11	1.11	0.0	4.84	15.70	0.00	824	0	772	325	1097
3	45	55.59	1.312	11.642	0.00	0.138	3.26	1.10	1.10	0.0	7.93	25.86	0.00	1148	0	1222	577	1799
2	30	50.14	3.883	23.283	0.00	0.145	3.23	1.11	1.11	0.0	17.34	55.99	0.00	2909	0	2386	1397	3783
1	10	50.96	3.883	23.283	0.00	0.145	3.23	1.11	1.11	0.0	17.33	55.96	0.00	2960	0	2424	1552	3976
													Totals	**7,842**	**0**			**10,655**

1.2D + 1.0W 270° — Gust Response Factor (Gh): 0.85
130 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	53	57.82	1.258	6.299	0.00	0.142	3.24	1.00	1.00	0.0	4.38	14.19	0.00	824	0	697	325	1022
3	45	55.59	1.312	11.642	0.00	0.138	3.26	1.00	1.00	0.0	7.18	23.43	0.00	1148	0	1107	577	1685
2	30	50.14	3.883	23.283	0.00	0.145	3.23	1.00	1.00	0.0	15.64	50.50	0.00	2909	0	2152	1397	3549
1	10	50.96	3.883	23.283	0.00	0.145	3.23	1.00	1.00	0.0	15.63	50.47	0.00	2960	0	2186	1552	3738
													Totals	**7,842**	**0**			**9,995**

1.2D + 1.0W 315° — Gust Response Factor (Gh): 0.85
130 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)

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SECTION FORCES

1.2D + 1.0W 315° Gust Response Factor (Gh): 0.85
130 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	53	57.82	1.258	6.299	0.00	0.142	3.24	1.11	1.11	0.0	4.84	15.70	0.00	824	0	772	325	1097
3	45	55.59	1.312	11.642	0.00	0.138	3.26	1.10	1.10	0.0	7.93	25.86	0.00	1148	0	1222	577	1799
2	30	50.14	3.883	23.283	0.00	0.145	3.23	1.11	1.11	0.0	17.34	55.99	0.00	2909	0	2386	1397	3783
1	10	50.96	3.883	23.283	0.00	0.145	3.23	1.11	1.11	0.0	17.33	55.96	0.00	2960	0	2424	1552	3976
													Totals	**7,842**	**0**			**10,655**

0.9D + 1.0W Normal Gust Response Factor (Gh): 0.85
130 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)
4	53	57.82	1.258	6.299	0.00	0.142	3.24	1.00	1.00	0.0	4.38	14.19	0.00	618	0	697	325	1022
3	45	55.59	1.312	11.642	0.00	0.138	3.26	1.00	1.00	0.0	7.18	23.43	0.00	861	0	1107	577	1685
2	30	50.14	3.883	23.283	0.00	0.145	3.23	1.00	1.00	0.0	15.64	50.50	0.00	2182	0	2152	1397	3549
1	10	50.96	3.883	23.283	0.00	0.145	3.23	1.00	1.00	0.0	15.63	50.47	0.00	2220	0	2186	1552	3738
													Totals	**5,881**	**0**			**9,995**

0.9D + 1.0W 45° Gust Response Factor (Gh): 0.85
130 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)
4	53	57.82	1.258	6.299	0.00	0.142	3.24	1.11	1.11	0.0	4.84	15.70	0.00	618	0	772	325	1097
3	45	55.59	1.312	11.642	0.00	0.138	3.26	1.10	1.10	0.0	7.93	25.86	0.00	861	0	1222	577	1799
2	30	50.14	3.883	23.283	0.00	0.145	3.23	1.11	1.11	0.0	17.34	55.99	0.00	2182	0	2386	1397	3783
1	10	50.96	3.883	23.283	0.00	0.145	3.23	1.11	1.11	0.0	17.33	55.96	0.00	2220	0	2424	1552	3976
													Totals	**5,881**	**0**			**10,655**

0.9D + 1.0W 90° Gust Response Factor (Gh): 0.85
130 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)
4	53	57.82	1.258	6.299	0.00	0.142	3.24	1.00	1.00	0.0	4.38	14.19	0.00	618	0	697	325	1022
3	45	55.59	1.312	11.642	0.00	0.138	3.26	1.00	1.00	0.0	7.18	23.43	0.00	861	0	1107	577	1685
2	30	50.14	3.883	23.283	0.00	0.145	3.23	1.00	1.00	0.0	15.64	50.50	0.00	2182	0	2152	1397	3549
1	10	50.96	3.883	23.283	0.00	0.145	3.23	1.00	1.00	0.0	15.63	50.47	0.00	2220	0	2186	1552	3738
													Totals	**5,881**	**0**			**9,995**

0.9D + 1.0W 135° Gust Response Factor (Gh): 0.85
130 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)
4	53	57.82	1.258	6.299	0.00	0.142	3.24	1.11	1.11	0.0	4.84	15.70	0.00	618	0	772	325	1097
3	45	55.59	1.312	11.642	0.00	0.138	3.26	1.10	1.10	0.0	7.93	25.86	0.00	861	0	1222	577	1799
2	30	50.14	3.883	23.283	0.00	0.145	3.23	1.11	1.11	0.0	17.34	55.99	0.00	2182	0	2386	1397	3783
1	10	50.96	3.883	23.283	0.00	0.145	3.23	1.11	1.11	0.0	17.33	55.96	0.00	2220	0	2424	1552	3976
													Totals	**5,881**	**0**			**10,655**

0.9D + 1.0W 180° Gust Response Factor (Gh): 0.85
130 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)
4	53	57.82	1.258	6.299	0.00	0.142	3.24	1.00	1.00	0.0	4.38	14.19	0.00	618	0	697	325	1022
3	45	55.59	1.312	11.642	0.00	0.138	3.26	1.00	1.00	0.0	7.18	23.43	0.00	861	0	1107	577	1685
2	30	50.14	3.883	23.283	0.00	0.145	3.23	1.00	1.00	0.0	15.64	50.50	0.00	2182	0	2152	1397	3549
1	10	50.96	3.883	23.283	0.00	0.145	3.23	1.00	1.00	0.0	15.63	50.47	0.00	2220	0	2186	1552	3738
													Totals	**5,881**	**0**			**9,995**

0.9D + 1.0W 225° Gust Response Factor (Gh): 0.85
130 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)
4	53	57.82	1.258	6.299	0.00	0.142	3.24	1.11	1.11	0.0	4.84	15.70	0.00	618	0	772	325	1097
3	45	55.59	1.312	11.642	0.00	0.138	3.26	1.10	1.10	0.0	7.93	25.86	0.00	861	0	1222	577	1799
2	30	50.14	3.883	23.283	0.00	0.145	3.23	1.11	1.11	0.0	17.34	55.99	0.00	2182	0	2386	1397	3783
1	10	50.96	3.883	23.283	0.00	0.145	3.23	1.11	1.11	0.0	17.33	55.96	0.00	2220	0	2424	1552	3976
													Totals	**5,881**	**0**			**10,655**

0.9D + 1.0W 270° Gust Response Factor (Gh): 0.85
130 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)

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SECTION FORCES

0.9D + 1.0W 270° Gust Response Factor (Gh): 0.85
130 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)
4	53	57.82	1.258	6.299	0.00	0.142	3.24	1.00	1.00	0.0	4.38	14.19	0.00	618	0	697	325	1022
3	45	55.59	1.312	11.642	0.00	0.138	3.26	1.00	1.00	0.0	7.18	23.43	0.00	861	0	1107	577	1685
2	30	50.14	3.883	23.283	0.00	0.145	3.23	1.00	1.00	0.0	15.64	50.50	0.00	2182	0	2152	1397	3549
1	10	50.96	3.883	23.283	0.00	0.145	3.23	1.00	1.00	0.0	15.63	50.47	0.00	2220	0	2186	1552	3738
													Totals	**5,881**	**0**			**9,995**

0.9D + 1.0W 315° Gust Response Factor (Gh): 0.85
130 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)
4	53	57.82	1.258	6.299	0.00	0.142	3.24	1.11	1.11	0.0	4.84	15.70	0.00	618	0	772	325	1097
3	45	55.59	1.312	11.642	0.00	0.138	3.26	1.10	1.10	0.0	7.93	25.86	0.00	861	0	1222	577	1799
2	30	50.14	3.883	23.283	0.00	0.145	3.23	1.11	1.11	0.0	17.34	55.99	0.00	2182	0	2386	1397	3783
1	10	50.96	3.883	23.283	0.00	0.145	3.23	1.11	1.11	0.0	17.33	55.96	0.00	2220	0	2424	1552	3976
													Totals	**5,881**	**0**			**10,655**

1.2D + 1.0Di + 1.0Wi Normal Gust Response Factor (Gh): 0.85
50 mph Wind with 0.25" Radial Ice Wind Importance Factor (Iw): 1.00 Ice Dead Load Factor: 1.00

Section #	Elev (ft)	Q_Z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
4	53	8.55	1.258	8.350	2.05	0.180	3.07	1.00	1.00	0.4	6.08	18.65	2.05	1135	311	136	75	210
3	45	8.22	1.312	14.456	2.81	0.167	3.13	1.00	1.00	0.4	9.61	30.05	2.81	1534	385	210	136	346
2	30	7.42	3.883	29.241	5.96	0.176	3.09	1.00	1.00	0.3	20.70	63.92	5.96	3759	849	403	323	726
1	10	7.54	3.883	28.629	5.35	0.172	3.10	1.00	1.00	0.3	20.34	63.09	5.35	3710	750	404	354	758
													Totals	**10,137**	**2,296**			**2,040**

1.2D + 1.0Di + 1.0Wi 45° Gust Response Factor (Gh): 0.85
50 mph Wind with 0.25" Radial Ice Wind Importance Factor (Iw): 1.00 Ice Dead Load Factor: 1.00

Section #	Elev (ft)	Q_Z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
4	53	8.55	1.258	8.350	2.05	0.180	3.07	1.13	1.13	0.4	6.89	21.16	2.05	1135	311	154	75	229
3	45	8.22	1.312	14.456	2.81	0.167	3.13	1.13	1.13	0.4	10.82	33.81	2.81	1534	385	236	136	372
2	30	7.42	3.883	29.241	5.96	0.176	3.09	1.13	1.13	0.3	23.43	72.34	5.96	3759	849	456	323	779
1	10	7.54	3.883	28.629	5.35	0.172	3.10	1.13	1.13	0.3	22.97	71.25	5.35	3710	750	457	354	810
													Totals	**10,137**	**2,296**			**2,190**

1.2D + 1.0Di + 1.0Wi 90° Gust Response Factor (Gh): 0.85
50 mph Wind with 0.25" Radial Ice Wind Importance Factor (Iw): 1.00 Ice Dead Load Factor: 1.00

Section #	Elev (ft)	Q_Z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
4	53	8.55	1.258	8.350	2.05	0.180	3.07	1.00	1.00	0.4	6.08	18.65	2.05	1135	311	136	75	210
3	45	8.22	1.312	14.456	2.81	0.167	3.13	1.00	1.00	0.4	9.61	30.05	2.81	1534	385	210	136	346
2	30	7.42	3.883	29.241	5.96	0.176	3.09	1.00	1.00	0.3	20.70	63.92	5.96	3759	849	403	323	726
1	10	7.54	3.883	28.629	5.35	0.172	3.10	1.00	1.00	0.3	20.34	63.09	5.35	3710	750	404	354	758
													Totals	**10,137**	**2,296**			**2,040**

1.2D + 1.0Di + 1.0Wi 135° Gust Response Factor (Gh): 0.85
50 mph Wind with 0.25" Radial Ice Wind Importance Factor (Iw): 1.00 Ice Dead Load Factor: 1.00

Section #	Elev (ft)	Q_Z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
4	53	8.55	1.258	8.350	2.05	0.180	3.07	1.13	1.13	0.4	6.89	21.16	2.05	1135	311	154	75	229
3	45	8.22	1.312	14.456	2.81	0.167	3.13	1.13	1.13	0.4	10.82	33.81	2.81	1534	385	236	136	372
2	30	7.42	3.883	29.241	5.96	0.176	3.09	1.13	1.13	0.3	23.43	72.34	5.96	3759	849	456	323	779
1	10	7.54	3.883	28.629	5.35	0.172	3.10	1.13	1.13	0.3	22.97	71.25	5.35	3710	750	457	354	810
													Totals	**10,137**	**2,296**			**2,190**

1.2D + 1.0Di + 1.0Wi 180° Gust Response Factor (Gh): 0.85
50 mph Wind with 0.25" Radial Ice Wind Importance Factor (Iw): 1.00 Ice Dead Load Factor: 1.00

Section #	Elev (ft)	Q_Z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
4	53	8.55	1.258	8.350	2.05	0.180	3.07	1.00	1.00	0.4	6.08	18.65	2.05	1135	311	136	75	210
3	45	8.22	1.312	14.456	2.81	0.167	3.13	1.00	1.00	0.4	9.61	30.05	2.81	1534	385	210	136	346
2	30	7.42	3.883	29.241	5.96	0.176	3.09	1.00	1.00	0.3	20.70	63.92	5.96	3759	849	403	323	726
1	10	7.54	3.883	28.629	5.35	0.172	3.10	1.00	1.00	0.3	20.34	63.09	5.35	3710	750	404	354	758
													Totals	**10,137**	**2,296**			**2,040**

1.2D + 1.0Di + 1.0Wi 225° Gust Response Factor (Gh): 0.85
50 mph Wind with 0.25" Radial Ice Wind Importance Factor (Iw): 1.00 Ice Dead Load Factor: 1.00

Section #	Elev (ft)	Q_Z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)

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SECTION FORCES

1.2D + 1.0Di + 1.0Wi 225° Gust Response Factor (Gh): 0.85
50 mph Wind with 0.25" Radial Ice Wind Importance Factor (Iw): 1.00 Ice Dead Load Factor: 1.00

Section #	Elev (ft)	Q_Z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
4	53	8.55	1.258	8.350	2.05	0.180	3.07	1.13	1.13	0.4	6.89	21.16	2.05	1135	311	154	75	229
3	45	8.22	1.312	14.456	2.81	0.167	3.13	1.13	1.13	0.4	10.82	33.81	2.81	1534	385	236	136	372
2	30	7.42	3.883	29.241	5.96	0.176	3.09	1.13	1.13	0.3	23.43	72.34	5.96	3759	849	456	323	779
1	10	7.54	3.883	28.629	5.35	0.172	3.10	1.13	1.13	0.3	22.97	71.25	5.35	3710	750	457	354	810
													Totals	**10,137**	**2,296**			**2,190**

1.2D + 1.0Di + 1.0Wi 270° Gust Response Factor (Gh): 0.85
50 mph Wind with 0.25" Radial Ice Wind Importance Factor (Iw): 1.00 Ice Dead Load Factor: 1.00

Section #	Elev (ft)	Q_Z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
4	53	8.55	1.258	8.350	2.05	0.180	3.07	1.00	1.00	0.4	6.08	18.65	2.05	1135	311	136	75	210
3	45	8.22	1.312	14.456	2.81	0.167	3.13	1.00	1.00	0.4	9.61	30.05	2.81	1534	385	210	136	346
2	30	7.42	3.883	29.241	5.96	0.176	3.09	1.00	1.00	0.3	20.70	63.92	5.96	3759	849	403	323	726
1	10	7.54	3.883	28.629	5.35	0.172	3.10	1.00	1.00	0.3	20.34	63.09	5.35	3710	750	404	354	758
													Totals	**10,137**	**2,296**			**2,040**

1.2D + 1.0Di + 1.0Wi 315° Gust Response Factor (Gh): 0.85
50 mph Wind with 0.25" Radial Ice Wind Importance Factor (Iw): 1.00 Ice Dead Load Factor: 1.00

Section #	Elev (ft)	Q_Z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
4	53	8.55	1.258	8.350	2.05	0.180	3.07	1.13	1.13	0.4	6.89	21.16	2.05	1135	311	154	75	229
3	45	8.22	1.312	14.456	2.81	0.167	3.13	1.13	1.13	0.4	10.82	33.81	2.81	1534	385	236	136	372
2	30	7.42	3.883	29.241	5.96	0.176	3.09	1.13	1.13	0.3	23.43	72.34	5.96	3759	849	456	323	779
1	10	7.54	3.883	28.629	5.35	0.172	3.10	1.13	1.13	0.3	22.97	71.25	5.35	3710	750	457	354	810
													Totals	**10,137**	**2,296**			**2,190**

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)
4	53	12.32	1.258	6.299	0.00	0.142	3.24	1.00	1.00	0.0	4.88	15.81	0.00	687	0	166	69	235
3	45	11.84	1.312	11.642	0.00	0.138	3.26	1.00	1.00	0.0	7.97	26.00	0.00	957	0	262	123	385
2	30	10.68	3.883	23.283	0.00	0.145	3.23	1.00	1.00	0.0	17.22	55.61	0.00	2424	0	505	298	802
1	10	10.85	3.883	23.283	0.00	0.145	3.23	1.00	1.00	0.0	17.22	55.61	0.00	2467	0	513	331	844
													Totals	**6,535**	**0**			**2,266**

1.0D + 1.0W Service 45° 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	53	12.32	1.258	6.299	0.00	0.142	3.24	1.11	1.11	0.0	5.40	17.49	0.00	687	0	183	69	252
3	45	11.84	1.312	11.642	0.00	0.138	3.26	1.10	1.10	0.0	8.80	28.70	0.00	957	0	289	123	412
2	30	10.68	3.883	23.283	0.00	0.145	3.23	1.11	1.11	0.0	19.09	61.65	0.00	2424	0	560	298	857
1	10	10.85	3.883	23.283	0.00	0.145	3.23	1.11	1.11	0.0	19.09	61.65	0.00	2467	0	569	331	899
													Totals	**6,535**	**0**			**2,421**

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)
4	53	12.32	1.258	6.299	0.00	0.142	3.24	1.00	1.00	0.0	4.88	15.81	0.00	687	0	166	69	235
3	45	11.84	1.312	11.642	0.00	0.138	3.26	1.00	1.00	0.0	7.97	26.00	0.00	957	0	262	123	385
2	30	10.68	3.883	23.283	0.00	0.145	3.23	1.00	1.00	0.0	17.22	55.61	0.00	2424	0	505	298	802
1	10	10.85	3.883	23.283	0.00	0.145	3.23	1.00	1.00	0.0	17.22	55.61	0.00	2467	0	513	331	844
													Totals	**6,535**	**0**			**2,266**

1.0D + 1.0W Service 135° 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	53	12.32	1.258	6.299	0.00	0.142	3.24	1.11	1.11	0.0	5.40	17.49	0.00	687	0	183	69	252
3	45	11.84	1.312	11.642	0.00	0.138	3.26	1.10	1.10	0.0	8.80	28.70	0.00	957	0	289	123	412
2	30	10.68	3.883	23.283	0.00	0.145	3.23	1.11	1.11	0.0	19.09	61.65	0.00	2424	0	560	298	857
1	10	10.85	3.883	23.283	0.00	0.145	3.23	1.11	1.11	0.0	19.09	61.65	0.00	2467	0	569	331	899
													Totals	**6,535**	**0**			**2,421**

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)

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SECTION FORCES

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

Section #	Elev (ft)	Q_Z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
4	53	12.32	1.258	6.299	0.00	0.142	3.24	1.00	1.00	0.0	4.88	15.81	0.00	687	0	166	69	235
3	45	11.84	1.312	11.642	0.00	0.138	3.26	1.00	1.00	0.0	7.97	26.00	0.00	957	0	262	123	385
2	30	10.68	3.883	23.283	0.00	0.145	3.23	1.00	1.00	0.0	17.22	55.61	0.00	2424	0	505	298	802
1	10	10.85	3.883	23.283	0.00	0.145	3.23	1.00	1.00	0.0	17.22	55.61	0.00	2467	0	513	331	844
													Totals	**6,535**	**0**			**2,266**

1.0D + 1.0W Service 225° 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	53	12.32	1.258	6.299	0.00	0.142	3.24	1.11	1.11	0.0	5.40	17.49	0.00	687	0	183	69	252
3	45	11.84	1.312	11.642	0.00	0.138	3.26	1.10	1.10	0.0	8.80	28.70	0.00	957	0	289	123	412
2	30	10.68	3.883	23.283	0.00	0.145	3.23	1.11	1.11	0.0	19.09	61.65	0.00	2424	0	560	298	857
1	10	10.85	3.883	23.283	0.00	0.145	3.23	1.11	1.11	0.0	19.09	61.65	0.00	2467	0	569	331	899
													Totals	**6,535**	**0**			**2,421**

1.0D + 1.0W Service 270° 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	53	12.32	1.258	6.299	0.00	0.142	3.24	1.00	1.00	0.0	4.88	15.81	0.00	687	0	166	69	235
3	45	11.84	1.312	11.642	0.00	0.138	3.26	1.00	1.00	0.0	7.97	26.00	0.00	957	0	262	123	385
2	30	10.68	3.883	23.283	0.00	0.145	3.23	1.00	1.00	0.0	17.22	55.61	0.00	2424	0	505	298	802
1	10	10.85	3.883	23.283	0.00	0.145	3.23	1.00	1.00	0.0	17.22	55.61	0.00	2467	0	513	331	844
													Totals	**6,535**	**0**			**2,266**

1.0D + 1.0W Service 315° 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	53	12.32	1.258	6.299	0.00	0.142	3.24	1.11	1.11	0.0	5.40	17.49	0.00	687	0	183	69	252
3	45	11.84	1.312	11.642	0.00	0.138	3.26	1.10	1.10	0.0	8.80	28.70	0.00	957	0	289	123	412
2	30	10.68	3.883	23.283	0.00	0.145	3.23	1.11	1.11	0.0	19.09	61.65	0.00	2424	0	560	298	857
1	10	10.85	3.883	23.283	0.00	0.145	3.23	1.11	1.11	0.0	19.09	61.65	0.00	2467	0	569	331	899
													Totals	**6,535**	**0**			**2,421**

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EQUIVALENT LATERAL FORCE METHOD

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):	6
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}):	0.20
Design Spectral Response Acceleration at 1.0 Second Period (S_{d1}):	0.09
Seismic Response Coefficient (C_s):	0.07
Upper Limit C_S:	0.08
Lower Limit C_S:	0.03
Period based on Rayleigh Method (sec):	0.40
Redundancy Factor (p):	1.30
Seismic Force Distribution Exponent (k):	1.00
Total Unfactored Dead Load:	11.53 k
Seismic Base Shear (E):	0.99 k

SEISMIC FORCES

0.9D - 1.0Ev + 1.0Eh

Section/Appurtenance	Height Above Base (ft)	Weight (lb)	W_z (lb-ft)	Cvx	Horizontal Force (lb)	Vertical Force (lb)
4	52.84	687	36,293	0.092	90	591
3	45.00	957	43,062	0.109	107	823
2	30.00	2,424	72,729	0.184	181	2,086
1	10.00	2,467	24,665	0.062	61	2,123
RFI Antennas CC807-6	55.67	15	857	0.002	2	13
Generic 48" x 6" Panel	55.67	20	1,113	0.003	3	17
Ericsson AIR 6419 B77D/ C-Band	55.67	128	7,126	0.018	18	110
Generic TTA	55.67	30	1,670	0.004	4	26
Ericsson 4478 Band 14 (15" Height)	55.67	120	6,669	0.017	17	103
Ericsson Radio 4490HP 44B5 44B12A C	55.67	137	7,605	0.019	19	118
Ericsson Radio 4890HP 48B2/B25 48B66 M01 (68.3lbs)	55.67	137	7,605	0.019	19	118
Raycap DC9-48-60-24-8C-EV (Enclosure)	55.67	18	1,030	0.003	3	16
Commscope NNH4-65C-R6-V3 (102.5 lbs)	55.67	410	22,825	0.058	57	353
Raycap DC6-48-60-18-8F (20.1" Height)	55.00	16	880	0.002	2	14
Generic Round Sector Frame	55.00	2,100	115,500	0.292	288	1,807
Ericsson AIR 6419 B77G	54.90	132	7,258	0.018	18	114
Generic 12" x 12" Junction Box	51.00	10	510	0.001	1	9
Generic 10' Dipole	40.00	30	1,200	0.003	3	26
Round Side Arm	37.60	150	5,640	0.014	14	129
Round Side Arm	27.30	150	4,095	0.010	10	129
RFS PAD8-59AC w/ Radome	27.00	380	10,260	0.026	26	327
Round Side Arm	25.60	150	3,840	0.010	10	129
RFI Antennas CC807-6	23.00	15	354	0.001	1	13
RFS PAD6-59BC2S1R w/ Radome	16.00	189	3,030	0.008	8	163
RFS UXA10-U57AC	15.00	638	9,570	0.024	24	549
Generic 5' Dipole	5.00	15	75	0.000	0	13
Totals		**11,526**	**395,461**	**1.000**	**986**	**9,918**

1.2D + 1.0Ev + 1.0Eh

Section/Appurtenance	Height Above Base (ft)	Weight (lb)	W_z (lb-ft)	Cvx	Horizontal Force (lb)	Vertical Force (lb)
4	52.84	687	36,293	0.092	90	851
3	45.00	957	43,062	0.109	107	1,186
2	30.00	2,424	72,729	0.184	181	3,005
1	10.00	2,467	24,665	0.062	61	3,057
RFI Antennas CC807-6	55.67	15	857	0.002	2	19
Generic 48" x 6" Panel	55.67	20	1,113	0.003	3	25
Ericsson AIR 6419 B77D/ C-Band	55.67	128	7,126	0.018	18	159
Generic TTA	55.67	30	1,670	0.004	4	37
Ericsson 4478 Band 14 (15" Height)	55.67	120	6,669	0.017	17	148
Ericsson Radio 4490HP 44B5 44B12A C	55.67	137	7,605	0.019	19	169

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Ericsson Radio 4890HP 48B2/B25 48B66 M01 (68.3lbs)		55.67	137	7,605	0.019	19	169
Raycap DC9-48-60-24-8C-EV (Enclosure)		55.67	18	1,030	0.003	3	23
Commscope NNH4-65C-R6-V3 (102.5 lbs)		55.67	410	22,825	0.058	57	508
Raycap DC6-48-60-18-8F (20.1" Height)		55.00	16	880	0.002	2	20
Generic Round Sector Frame		55.00	2,100	115,500	0.292	288	2,603
Ericsson AIR 6419 B77G		54.90	132	7,258	0.018	18	164
Generic 12" x 12" Junction Box		51.00	10	510	0.001	1	12
Generic 10' Dipole		40.00	30	1,200	0.003	3	37
Round Side Arm		37.60	150	5,640	0.014	14	186
Round Side Arm		27.30	150	4,095	0.010	10	186
RFS PAD8-59AC w/ Radome		27.00	380	10,260	0.026	26	471
Round Side Arm		25.60	150	3,840	0.010	10	186
RFI Antennas CC807-6		23.00	15	354	0.001	1	19
RFS PAD6-59BC2S1R w/ Radome		16.00	189	3,030	0.008	8	235
RFS UXA10-U57AC		15.00	638	9,570	0.024	24	791
Generic 5' Dipole		5.00	15	75	0.000	0	19
	Totals		**11,526**	**395,461**	**1.000**	**986**	**14,286**

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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 PSP - 4.5" OD x 0.25"	-49.74	1.2D + 1.0W 135°	10	50	50	50	39.87	50.00	133.81	0.00	0.00	0	0	37	Member X
H DAE - 1.75X1.75X0.125	-0.25	0.9D + 1.0W 180°	9	50	50	25	100.11	36.00	20.81	27.61	17.40	2	2	1	Bolt Bear
D PST - 1-1/2" DIA PIPE	-9.16	1.2D + 1.0W 180°	13.454	50	50	50	129.57	36.00	10.70	0.00	0.00	0	0	86	Member X

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 PSP - 4.5" OD x 0.25"	43.42	0.9D + 1.0W 45°	50.0	65	150.30	0.00	0.00		0	0	29	Member
H DAE - 1.75X1.75X0.125	0.29	1.2D + 1.0W 270°	36.0	58	21.93	27.61	10.44	7.75	2	2	4	Blk Shear
D PST - 1-1/2" DIA PIPE	9.07	0.9D + 1.0W 180°	36.0	58	25.89	0.00	0.00	0.00	0	0	35	Member

Max Splice Forces	Pu (kip)	Load Case	ΦR_{nt} (kip)	Use %	Num Bolts	Bolt Type
Bot Tension	53.45	0.9D + 1.0W 315°	105.40	27	4	1" A36
Bot Compression	59.95	1.2D + 1.0W 135°	87.23	2	0	

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 PSP - 4.5" OD x 0.25"	-22.22	1.2D + 1.0W 45°	10	50	50	50	39.87	50.00	133.81	0.00	0.00	0	0	17	Member X
H DAE - 1.75X1.75X0.125	-0.19	1.2D + 1.0W 225°	9	50	50	25	100.11	36.00	20.81	27.61	17.40	2	2	1	Bolt Bear
D PST - 1-1/2" DIA PIPE	-5.37	1.2D + 1.0W 180°	13.454	50	50	50	129.57	36.00	10.70	0.00	0.00	0	0	50	Member X

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 PSP - 4.5" OD x 0.25"	18.42	0.9D + 1.0W 135°	50.0	65	150.30	0.00	0.00		0	0	12	Member
H DAE - 1.75X1.75X0.125	0.14	0.9D + 1.0W 45°	36.0	58	21.93	27.61	10.44	7.75	2	2	2	Blk Shear
D PST - 1-1/2" DIA PIPE	5.30	0.9D + 1.0W 180°	36.0	58	25.89	0.00	0.00	0.00	0	0	20	Member

Max Splice Forces	Pu (kip)	Load Case	ΦR_{nt} (kip)	Use %	Num Bolts	Bolt Type
Bot Tension	23.96	0.9D + 1.0W 135°	162.72	15	8	5/8 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 PST - 4.5" OD X 0.188"	-5.91	1.2D + 1.0W 315°	10	50	50	50	39.32	50.00	102.49	0.00	0.00	0	0	6	Member X
D PST - 1-1/2" DIA PIPE	-4.33	1.2D + 1.0W 180°	13.454	50	50	50	129.57	36.00	10.70	0.00	0.00	0	0	40	Member X

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 PST - 4.5" OD X 0.188"	3.78	0.9D + 1.0W 135°	50.0	65	114.75	0.00	0.00		0	0	3	Member
D PST - 1-1/2" DIA PIPE	4.40	1.2D + 1.0W 180°	36.0	58	25.89	0.00	0.00	0.00	0	0	17	Member

Max Splice Forces	Pu (kip)	Load Case	ΦR_{nt} (kip)	Use %	Num Bolts	Bolt Type
Bot Tension	7.33	0.9D + 1.0W 135°	162.72	5	8	5/8 A325

Section 4 – 50.0' to 55.67'

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 PST - 4.5" OD X 0.188"	-1.81	1.2D + 1.0Di + 1.0Wi 90°	5.003	100	100	100	39.34	50.00	102.47	0.00	0.00	0	0	2	Member X
H DAE - 1.75X1.75X0.125	-0.65	1.2D + 1.0W 270°	9	50	50	25	100.11	36.00	20.81	27.61	17.40	2	2	4	Bolt Bear
D PST - 1-1/2" DIA PIPE	-0.56	1.2D + 1.0W 315°	6.729	100	100	100	129.61	36.00	10.69	0.00	0.00	0	0	5	Member X

Member Tension	Pu (kip)	Load Case	F_y (ksi)	F_u (ksi)	$\Phi_c Pn$ (kip)	Shear ΦR_{nv} (kip)	Bear ΦR_n (kip)	Blk Shear $\Phi_t P_n$ (kip)	# Bolt	# Hole	Use %	Controls
H DAE - 1.75X1.75X0.125	0.66	1.2D + 1.0W 90°	36.0	58	21.93	27.61	10.44	7.75	2	2	9	Blk Shear

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FORCE/STRESS SUMMARY

D PST - 1-1/2" DIA PIPE	0.47	0.9D + 1.0W 315°	36.0	58	25.89	0.00	0.00	0.00	0	0	2	Member

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

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DEFLECTIONS AND ROTATIONS

Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
1.0D + 1.0W Service 315° 60 mph Wind with No Ice	10.00	0.0027	0.0000	0.0210	0.021
1.0D + 1.0W Service 315° 60 mph Wind with No Ice	20.00	0.0058	0.0000	0.0188	0.0188
1.0D + 1.0W Service 315° 60 mph Wind with No Ice	30.00	0.0096	0.0000	0.0381	0.0381
1.0D + 1.0W Service 315° 60 mph Wind with No Ice	40.00	0.0136	0.0001	0.0330	0.033
1.0D + 1.0W Service 315° 60 mph Wind with No Ice	50.00	0.0179	0.0001	0.2599	0.2599
1.0D + 1.0W Service 315° 60 mph Wind with No Ice	55.00	0.053	0.0001	0.4849	0.4849
1.0D + 1.0W Service 315° 60 mph Wind with No Ice	55.67	0.0587	0.0001	0.4872	0.4872
1.0D + 1.0W Service 270° 60 mph Wind with No Ice	10.00	0.0029	0.0000	0.0203	0.0203
1.0D + 1.0W Service 270° 60 mph Wind with No Ice	20.00	0.0057	0.0000	0.0167	0.0167
1.0D + 1.0W Service 270° 60 mph Wind with No Ice	30.00	0.0097	0.0000	0.0358	0.0358
1.0D + 1.0W Service 270° 60 mph Wind with No Ice	40.00	0.0133	0.0000	0.0271	0.0271
1.0D + 1.0W Service 270° 60 mph Wind with No Ice	50.00	0.0178	0.0000	0.2368	0.2368
1.0D + 1.0W Service 270° 60 mph Wind with No Ice	55.00	0.0495	0.0000	0.4423	0.4423
1.0D + 1.0W Service 270° 60 mph Wind with No Ice	55.67	0.0547	0.0000	0.4446	0.4446
1.0D + 1.0W Service 225° 60 mph Wind with No Ice	10.00	0.0035	0.0000	0.0211	0.0211
1.0D + 1.0W Service 225° 60 mph Wind with No Ice	20.00	0.006	0.0000	0.0195	0.0195
1.0D + 1.0W Service 225° 60 mph Wind with No Ice	30.00	0.0102	0.0000	0.0382	0.0382
1.0D + 1.0W Service 225° 60 mph Wind with No Ice	40.00	0.0144	-0.0001	0.0287	0.0287
1.0D + 1.0W Service 225° 60 mph Wind with No Ice	50.00	0.0191	0.0000	0.2609	0.2609
1.0D + 1.0W Service 225° 60 mph Wind with No Ice	55.00	0.0544	0.0000	0.4843	0.4843
1.0D + 1.0W Service 225° 60 mph Wind with No Ice	55.67	0.06	0.0001	0.4866	0.4866
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	10.00	0.003	0.0000	0.0213	0.0213
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	20.00	0.0059	0.0000	0.0174	0.0174
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	30.00	0.0102	0.0000	0.0398	0.0398
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	40.00	0.0142	0.0000	0.0341	0.0341
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	50.00	0.0191	0.0000	0.2778	0.2778
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	55.00	0.0564	0.0001	0.5182	0.5182
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	55.67	0.0624	0.0001	0.5206	0.5206
1.0D + 1.0W Service 135° 60 mph Wind with No Ice	10.00	0.0037	0.0000	0.0222	0.0222
1.0D + 1.0W Service 135° 60 mph Wind with No Ice	20.00	0.0061	0.0000	0.0204	0.0204
1.0D + 1.0W Service 135° 60 mph Wind with No Ice	30.00	0.0108	0.0001	0.0403	0.0403
1.0D + 1.0W Service 135° 60 mph Wind with No Ice	40.00	0.0146	0.0001	0.0307	0.0307
1.0D + 1.0W Service 135° 60 mph Wind with No Ice	50.00	0.0198	0.0000	0.2603	0.2603
1.0D + 1.0W Service 135° 60 mph Wind with No Ice	55.00	0.0547	0.0000	0.4771	0.4771
1.0D + 1.0W Service 135° 60 mph Wind with No Ice	55.67	0.0603	0.0000	0.4794	0.4794
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	10.00	0.003	0.0000	0.0212	0.0212
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	20.00	0.0059	0.0000	0.0182	0.0182
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	30.00	0.0103	0.0000	0.0379	0.0379
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	40.00	0.0144	0.0000	0.0244	0.0244
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	50.00	0.0194	0.0000	0.2407	0.2407
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	55.00	0.0514	0.0000	0.4425	0.4425
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	55.67	0.0565	0.0000	0.4442	0.4442
1.0D + 1.0W Service 45° 60 mph Wind with No Ice	10.00	0.0035	0.0000	0.0214	0.0214
1.0D + 1.0W Service 45° 60 mph Wind with No Ice	20.00	0.0062	0.0000	0.0201	0.0201
1.0D + 1.0W Service 45° 60 mph Wind with No Ice	30.00	0.0105	0.0000	0.0392	0.0392
1.0D + 1.0W Service 45° 60 mph Wind with No Ice	40.00	0.0149	0.0001	0.0278	0.0278
1.0D + 1.0W Service 45° 60 mph Wind with No Ice	50.00	0.0198	0.0000	0.2625	0.2625
1.0D + 1.0W Service 45° 60 mph Wind with No Ice	55.00	0.0552	0.0000	0.4868	0.4868
1.0D + 1.0W Service 45° 60 mph Wind with No Ice	55.67	0.0608	0.0001	0.4891	0.4891
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	10.00	0.0029	0.0000	0.0209	0.0209
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	20.00	0.0058	0.0000	0.0172	0.0172
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	30.00	0.01	0.0000	0.0390	0.039
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	40.00	0.0138	0.0000	0.0350	0.035
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	50.00	0.0186	0.0000	0.2771	0.2771
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	55.00	0.0558	0.0000	0.5166	0.5166
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	55.67	0.0618	0.0000	0.5189	0.5189
0.9D - 1.0Ev + 1.0Eh 315° Seismic (Reduced DL)	10.00	0.0005	0.0000	0.0053	0.0053
0.9D - 1.0Ev + 1.0Eh 315° Seismic (Reduced DL)	20.00	0.0015	0.0000	0.0061	0.0061
0.9D - 1.0Ev + 1.0Eh 315° Seismic (Reduced DL)	30.00	0.0032	0.0000	0.0127	0.0127

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DEFLECTIONS AND ROTATIONS

Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
0.9D - 1.0Ev + 1.0Eh 315° Seismic (Reduced DL)	40.00	0.0043	0.0000	0.0080	0.008
0.9D - 1.0Ev + 1.0Eh 315° Seismic (Reduced DL)	50.00	0.0059	0.0000	0.0761	0.0761
0.9D - 1.0Ev + 1.0Eh 315° Seismic (Reduced DL)	55.00	0.0159	0.0000	0.1414	0.1414
0.9D - 1.0Ev + 1.0Eh 315° Seismic (Reduced DL)	55.67	0.0175	0.0000	0.1419	0.1419
0.9D - 1.0Ev + 1.0Eh 270° Seismic (Reduced DL)	10.00	0.0009	0.0000	0.0053	0.0053
0.9D - 1.0Ev + 1.0Eh 270° Seismic (Reduced DL)	20.00	0.0016	0.0000	0.0058	0.0058
0.9D - 1.0Ev + 1.0Eh 270° Seismic (Reduced DL)	30.00	0.0031	0.0000	0.0125	0.0125
0.9D - 1.0Ev + 1.0Eh 270° Seismic (Reduced DL)	40.00	0.0044	0.0000	0.0075	0.0075
0.9D - 1.0Ev + 1.0Eh 270° Seismic (Reduced DL)	50.00	0.0064	0.0000	0.0769	0.0769
0.9D - 1.0Ev + 1.0Eh 270° Seismic (Reduced DL)	55.00	0.0161	0.0000	0.1424	0.1424
0.9D - 1.0Ev + 1.0Eh 270° Seismic (Reduced DL)	55.67	0.0177	0.0000	0.1428	0.1428
0.9D - 1.0Ev + 1.0Eh 225° Seismic (Reduced DL)	10.00	0.0011	0.0000	0.0054	0.0054
0.9D - 1.0Ev + 1.0Eh 225° Seismic (Reduced DL)	20.00	0.0015	0.0000	0.0061	0.0061
0.9D - 1.0Ev + 1.0Eh 225° Seismic (Reduced DL)	30.00	0.0032	0.0000	0.0127	0.0127
0.9D - 1.0Ev + 1.0Eh 225° Seismic (Reduced DL)	40.00	0.0043	0.0000	0.0080	0.008
0.9D - 1.0Ev + 1.0Eh 225° Seismic (Reduced DL)	50.00	0.0065	0.0000	0.0761	0.0761
0.9D - 1.0Ev + 1.0Eh 225° Seismic (Reduced DL)	55.00	0.0159	0.0000	0.1414	0.1414
0.9D - 1.0Ev + 1.0Eh 225° Seismic (Reduced DL)	55.67	0.0175	0.0000	0.1419	0.1419
0.9D - 1.0Ev + 1.0Eh 180° Seismic (Reduced DL)	10.00	0.0009	0.0000	0.0053	0.0053
0.9D - 1.0Ev + 1.0Eh 180° Seismic (Reduced DL)	20.00	0.0016	0.0000	0.0058	0.0058
0.9D - 1.0Ev + 1.0Eh 180° Seismic (Reduced DL)	30.00	0.0031	0.0000	0.0125	0.0125
0.9D - 1.0Ev + 1.0Eh 180° Seismic (Reduced DL)	40.00	0.0044	0.0000	0.0075	0.0075
0.9D - 1.0Ev + 1.0Eh 180° Seismic (Reduced DL)	50.00	0.0064	0.0000	0.0769	0.0769
0.9D - 1.0Ev + 1.0Eh 180° Seismic (Reduced DL)	55.00	0.0161	0.0000	0.1424	0.1424
0.9D - 1.0Ev + 1.0Eh 180° Seismic (Reduced DL)	55.67	0.0177	0.0000	0.1428	0.1428
0.9D - 1.0Ev + 1.0Eh 135° Seismic (Reduced DL)	10.00	0.0011	0.0000	0.0054	0.0054
0.9D - 1.0Ev + 1.0Eh 135° Seismic (Reduced DL)	20.00	0.0015	0.0000	0.0061	0.0061
0.9D - 1.0Ev + 1.0Eh 135° Seismic (Reduced DL)	30.00	0.0032	0.0000	0.0127	0.0127
0.9D - 1.0Ev + 1.0Eh 135° Seismic (Reduced DL)	40.00	0.0043	0.0000	0.0080	0.008
0.9D - 1.0Ev + 1.0Eh 135° Seismic (Reduced DL)	50.00	0.0065	0.0000	0.0744	0.0744
0.9D - 1.0Ev + 1.0Eh 135° Seismic (Reduced DL)	55.00	0.0159	0.0000	0.1414	0.1414
0.9D - 1.0Ev + 1.0Eh 135° Seismic (Reduced DL)	55.67	0.0174	0.0000	0.1356	0.1356
0.9D - 1.0Ev + 1.0Eh 90° Seismic (Reduced DL)	10.00	0.0009	0.0000	0.0053	0.0053
0.9D - 1.0Ev + 1.0Eh 90° Seismic (Reduced DL)	20.00	0.0016	0.0000	0.0058	0.0058
0.9D - 1.0Ev + 1.0Eh 90° Seismic (Reduced DL)	30.00	0.0031	0.0000	0.0125	0.0125
0.9D - 1.0Ev + 1.0Eh 90° Seismic (Reduced DL)	40.00	0.0044	0.0000	0.0075	0.0075
0.9D - 1.0Ev + 1.0Eh 90° Seismic (Reduced DL)	50.00	0.0064	0.0000	0.0769	0.0769
0.9D - 1.0Ev + 1.0Eh 90° Seismic (Reduced DL)	55.00	0.0161	0.0000	0.1424	0.1424
0.9D - 1.0Ev + 1.0Eh 90° Seismic (Reduced DL)	55.67	0.0177	0.0000	0.1428	0.1428
0.9D - 1.0Ev + 1.0Eh 45° Seismic (Reduced DL)	10.00	0.0011	0.0000	0.0054	0.0054
0.9D - 1.0Ev + 1.0Eh 45° Seismic (Reduced DL)	20.00	0.0015	0.0000	0.0061	0.0061
0.9D - 1.0Ev + 1.0Eh 45° Seismic (Reduced DL)	30.00	0.0032	0.0000	0.0127	0.0127
0.9D - 1.0Ev + 1.0Eh 45° Seismic (Reduced DL)	40.00	0.0043	0.0000	0.0080	0.008
0.9D - 1.0Ev + 1.0Eh 45° Seismic (Reduced DL)	50.00	0.0065	0.0000	0.0761	0.0761
0.9D - 1.0Ev + 1.0Eh 45° Seismic (Reduced DL)	55.00	0.0159	0.0000	0.1414	0.1414
0.9D - 1.0Ev + 1.0Eh 45° Seismic (Reduced DL)	55.67	0.0175	0.0000	0.1419	0.1419
0.9D - 1.0Ev + 1.0Eh Normal Seismic (Reduced DL)	10.00	0.0009	0.0000	0.0053	0.0053
0.9D - 1.0Ev + 1.0Eh Normal Seismic (Reduced DL)	20.00	0.0016	0.0000	0.0058	0.0058
0.9D - 1.0Ev + 1.0Eh Normal Seismic (Reduced DL)	30.00	0.0031	0.0000	0.0125	0.0125
0.9D - 1.0Ev + 1.0Eh Normal Seismic (Reduced DL)	40.00	0.0044	0.0000	0.0075	0.0075
0.9D - 1.0Ev + 1.0Eh Normal Seismic (Reduced DL)	50.00	0.0064	0.0000	0.0769	0.0769
0.9D - 1.0Ev + 1.0Eh Normal Seismic (Reduced DL)	55.00	0.0161	0.0000	0.1424	0.1424
0.9D - 1.0Ev + 1.0Eh Normal Seismic (Reduced DL)	55.67	0.0177	0.0000	0.1428	0.1428
1.2D + 1.0Ev + 1.0Eh 315° Seismic	10.00	0.0006	0.0000	0.0053	0.0053
1.2D + 1.0Ev + 1.0Eh 315° Seismic	20.00	0.0015	0.0000	0.0061	0.0061
1.2D + 1.0Ev + 1.0Eh 315° Seismic	30.00	0.0033	0.0000	0.0129	0.0129
1.2D + 1.0Ev + 1.0Eh 315° Seismic	40.00	0.0044	0.0000	0.0086	0.0086
1.2D + 1.0Ev + 1.0Eh 315° Seismic	50.00	0.006	0.0000	0.0773	0.0773
1.2D + 1.0Ev + 1.0Eh 315° Seismic	55.00	0.0159	0.0000	0.1456	0.1456

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DEFLECTIONS AND ROTATIONS

Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
1.2D + 1.0Ev + 1.0Eh 315° Seismic	55.67	0.0176	0.0000	0.1460	0.146
1.2D + 1.0Ev + 1.0Eh 270° Seismic	10.00	0.0011	0.0000	0.0054	0.0054
1.2D + 1.0Ev + 1.0Eh 270° Seismic	20.00	0.0016	0.0000	0.0058	0.0058
1.2D + 1.0Ev + 1.0Eh 270° Seismic	30.00	0.0032	0.0000	0.0127	0.0127
1.2D + 1.0Ev + 1.0Eh 270° Seismic	40.00	0.0044	0.0000	0.0080	0.008
1.2D + 1.0Ev + 1.0Eh 270° Seismic	50.00	0.0066	0.0000	0.0778	0.0778
1.2D + 1.0Ev + 1.0Eh 270° Seismic	55.00	0.0161	0.0000	0.1456	0.1456
1.2D + 1.0Ev + 1.0Eh 270° Seismic	55.67	0.0178	0.0000	0.1461	0.1461
1.2D + 1.0Ev + 1.0Eh 225° Seismic	10.00	0.0013	0.0000	0.0055	0.0055
1.2D + 1.0Ev + 1.0Eh 225° Seismic	20.00	0.0015	0.0000	0.0061	0.0061
1.2D + 1.0Ev + 1.0Eh 225° Seismic	30.00	0.0033	0.0000	0.0129	0.0129
1.2D + 1.0Ev + 1.0Eh 225° Seismic	40.00	0.0044	0.0000	0.0086	0.0086
1.2D + 1.0Ev + 1.0Eh 225° Seismic	50.00	0.0068	0.0000	0.0773	0.0773
1.2D + 1.0Ev + 1.0Eh 225° Seismic	55.00	0.0159	0.0000	0.1456	0.1456
1.2D + 1.0Ev + 1.0Eh 225° Seismic	55.67	0.0176	0.0000	0.1460	0.146
1.2D + 1.0Ev + 1.0Eh 180° Seismic	10.00	0.0011	0.0000	0.0054	0.0054
1.2D + 1.0Ev + 1.0Eh 180° Seismic	20.00	0.0016	0.0000	0.0058	0.0058
1.2D + 1.0Ev + 1.0Eh 180° Seismic	30.00	0.0032	0.0000	0.0127	0.0127
1.2D + 1.0Ev + 1.0Eh 180° Seismic	40.00	0.0044	0.0000	0.0080	0.008
1.2D + 1.0Ev + 1.0Eh 180° Seismic	50.00	0.0066	0.0000	0.0778	0.0778
1.2D + 1.0Ev + 1.0Eh 180° Seismic	55.00	0.0161	0.0000	0.1456	0.1456
1.2D + 1.0Ev + 1.0Eh 180° Seismic	55.67	0.0178	0.0000	0.1461	0.1461
1.2D + 1.0Ev + 1.0Eh 135° Seismic	10.00	0.0013	0.0000	0.0055	0.0055
1.2D + 1.0Ev + 1.0Eh 135° Seismic	20.00	0.0015	0.0000	0.0061	0.0061
1.2D + 1.0Ev + 1.0Eh 135° Seismic	30.00	0.0033	0.0000	0.0129	0.0129
1.2D + 1.0Ev + 1.0Eh 135° Seismic	40.00	0.0044	0.0000	0.0086	0.0086
1.2D + 1.0Ev + 1.0Eh 135° Seismic	50.00	0.0068	0.0000	0.0747	0.0747
1.2D + 1.0Ev + 1.0Eh 135° Seismic	55.00	0.0159	0.0000	0.1456	0.1456
1.2D + 1.0Ev + 1.0Eh 135° Seismic	55.67	0.0175	0.0000	0.1365	0.1365
1.2D + 1.0Ev + 1.0Eh 90° Seismic	10.00	0.0011	0.0000	0.0054	0.0054
1.2D + 1.0Ev + 1.0Eh 90° Seismic	20.00	0.0016	0.0000	0.0058	0.0058
1.2D + 1.0Ev + 1.0Eh 90° Seismic	30.00	0.0032	0.0000	0.0127	0.0127
1.2D + 1.0Ev + 1.0Eh 90° Seismic	40.00	0.0044	0.0000	0.0080	0.008
1.2D + 1.0Ev + 1.0Eh 90° Seismic	50.00	0.0066	0.0000	0.0778	0.0778
1.2D + 1.0Ev + 1.0Eh 90° Seismic	55.00	0.0161	0.0000	0.1456	0.1456
1.2D + 1.0Ev + 1.0Eh 90° Seismic	55.67	0.0178	0.0000	0.1461	0.1461
1.2D + 1.0Ev + 1.0Eh 45° Seismic	10.00	0.0013	0.0000	0.0055	0.0055
1.2D + 1.0Ev + 1.0Eh 45° Seismic	20.00	0.0015	0.0000	0.0061	0.0061
1.2D + 1.0Ev + 1.0Eh 45° Seismic	30.00	0.0033	0.0000	0.0129	0.0129
1.2D + 1.0Ev + 1.0Eh 45° Seismic	40.00	0.0044	0.0000	0.0086	0.0086
1.2D + 1.0Ev + 1.0Eh 45° Seismic	50.00	0.0068	0.0000	0.0773	0.0773
1.2D + 1.0Ev + 1.0Eh 45° Seismic	55.00	0.0159	0.0000	0.1456	0.1456
1.2D + 1.0Ev + 1.0Eh 45° Seismic	55.67	0.0176	0.0000	0.1460	0.146
1.2D + 1.0Ev + 1.0Eh Normal Seismic	10.00	0.0011	0.0000	0.0054	0.0054
1.2D + 1.0Ev + 1.0Eh Normal Seismic	20.00	0.0016	0.0000	0.0058	0.0058
1.2D + 1.0Ev + 1.0Eh Normal Seismic	30.00	0.0032	0.0000	0.0127	0.0127
1.2D + 1.0Ev + 1.0Eh Normal Seismic	40.00	0.0044	0.0000	0.0080	0.008
1.2D + 1.0Ev + 1.0Eh Normal Seismic	50.00	0.0066	0.0000	0.0778	0.0778
1.2D + 1.0Ev + 1.0Eh Normal Seismic	55.00	0.0161	0.0000	0.1456	0.1456
1.2D + 1.0Ev + 1.0Eh Normal Seismic	55.67	0.0178	0.0000	0.1461	0.1461
1.2D + 1.0Di + 1.0Wi 315° 50 mph Wind with 0.25" Radial Ice	10.00	0.0036	0.0000	0.0224	0.0224
1.2D + 1.0Di + 1.0Wi 315° 50 mph Wind with 0.25" Radial Ice	20.00	0.0057	0.0000	0.0153	0.0153
1.2D + 1.0Di + 1.0Wi 315° 50 mph Wind with 0.25" Radial Ice	30.00	0.0086	0.0000	0.0317	0.0317
1.2D + 1.0Di + 1.0Wi 315° 50 mph Wind with 0.25" Radial Ice	40.00	0.012	0.0000	0.0267	0.0267
1.2D + 1.0Di + 1.0Wi 315° 50 mph Wind with 0.25" Radial Ice	50.00	0.015	0.0000	0.2067	0.2067
1.2D + 1.0Di + 1.0Wi 315° 50 mph Wind with 0.25" Radial Ice	55.00	0.0432	0.0000	0.3873	0.3873
1.2D + 1.0Di + 1.0Wi 315° 50 mph Wind with 0.25" Radial Ice	55.67	0.0477	-0.0001	0.3891	0.3891
1.2D + 1.0Di + 1.0Wi 270° 50 mph Wind with 0.25" Radial Ice	10.00	0.003	0.0000	0.0203	0.0203
1.2D + 1.0Di + 1.0Wi 270° 50 mph Wind with 0.25" Radial Ice	20.00	0.0053	0.0000	0.0153	0.0153

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DEFLECTIONS AND ROTATIONS

Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
1.2D + 1.0Di + 1.0Wi 270° 50 mph Wind with 0.25" Radial Ice	30.00	0.008	0.0000	0.0291	0.0291
1.2D + 1.0Di + 1.0Wi 270° 50 mph Wind with 0.25" Radial Ice	40.00	0.0114	0.0000	0.0220	0.022
1.2D + 1.0Di + 1.0Wi 270° 50 mph Wind with 0.25" Radial Ice	50.00	0.0143	0.0000	0.1877	0.1877
1.2D + 1.0Di + 1.0Wi 270° 50 mph Wind with 0.25" Radial Ice	55.00	0.0399	0.0000	0.3519	0.3519
1.2D + 1.0Di + 1.0Wi 270° 50 mph Wind with 0.25" Radial Ice	55.67	0.044	0.0000	0.3536	0.3536
1.2D + 1.0Di + 1.0Wi 225° 50 mph Wind with 0.25" Radial Ice	10.00	0.0036	0.0000	0.0223	0.0223
1.2D + 1.0Di + 1.0Wi 225° 50 mph Wind with 0.25" Radial Ice	20.00	0.0057	0.0000	0.0166	0.0166
1.2D + 1.0Di + 1.0Wi 225° 50 mph Wind with 0.25" Radial Ice	30.00	0.0089	0.0000	0.0322	0.0322
1.2D + 1.0Di + 1.0Wi 225° 50 mph Wind with 0.25" Radial Ice	40.00	0.0125	0.0000	0.0220	0.022
1.2D + 1.0Di + 1.0Wi 225° 50 mph Wind with 0.25" Radial Ice	50.00	0.0158	0.0000	0.2070	0.207
1.2D + 1.0Di + 1.0Wi 225° 50 mph Wind with 0.25" Radial Ice	55.00	0.0435	0.0000	0.3832	0.3832
1.2D + 1.0Di + 1.0Wi 225° 50 mph Wind with 0.25" Radial Ice	55.67	0.0479	0.0000	0.3849	0.3849
1.2D + 1.0Di + 1.0Wi 180° 50 mph Wind with 0.25" Radial Ice	10.00	0.0031	0.0000	0.0215	0.0215
1.2D + 1.0Di + 1.0Wi 180° 50 mph Wind with 0.25" Radial Ice	20.00	0.0057	0.0000	0.0173	0.0173
1.2D + 1.0Di + 1.0Wi 180° 50 mph Wind with 0.25" Radial Ice	30.00	0.0088	0.0000	0.0335	0.0335
1.2D + 1.0Di + 1.0Wi 180° 50 mph Wind with 0.25" Radial Ice	40.00	0.0127	-0.0001	0.0260	0.026
1.2D + 1.0Di + 1.0Wi 180° 50 mph Wind with 0.25" Radial Ice	50.00	0.0162	0.0000	0.2211	0.2211
1.2D + 1.0Di + 1.0Wi 180° 50 mph Wind with 0.25" Radial Ice	55.00	0.0463	0.0000	0.4123	0.4123
1.2D + 1.0Di + 1.0Wi 180° 50 mph Wind with 0.25" Radial Ice	55.67	0.0511	0.0000	0.4142	0.4142
1.2D + 1.0Di + 1.0Wi 135° 50 mph Wind with 0.25" Radial Ice	10.00	0.0019	0.0000	0.0179	0.0179
1.2D + 1.0Di + 1.0Wi 135° 50 mph Wind with 0.25" Radial Ice	20.00	0.0051	0.0000	0.0181	0.0181
1.2D + 1.0Di + 1.0Wi 135° 50 mph Wind with 0.25" Radial Ice	30.00	0.0093	-0.0001	0.0326	0.0326
1.2D + 1.0Di + 1.0Wi 135° 50 mph Wind with 0.25" Radial Ice	40.00	0.0134	0.0001	0.0217	0.0217
1.2D + 1.0Di + 1.0Wi 135° 50 mph Wind with 0.25" Radial Ice	50.00	0.0167	0.0000	0.2074	0.2074
1.2D + 1.0Di + 1.0Wi 135° 50 mph Wind with 0.25" Radial Ice	55.00	0.0437	0.0000	0.3756	0.3756
1.2D + 1.0Di + 1.0Wi 135° 50 mph Wind with 0.25" Radial Ice	55.67	0.0481	0.0000	0.3774	0.3774
1.2D + 1.0Di + 1.0Wi 90° 50 mph Wind with 0.25" Radial Ice	10.00	0.0031	0.0000	0.0217	0.0217
1.2D + 1.0Di + 1.0Wi 90° 50 mph Wind with 0.25" Radial Ice	20.00	0.0058	0.0000	0.0178	0.0178
1.2D + 1.0Di + 1.0Wi 90° 50 mph Wind with 0.25" Radial Ice	30.00	0.009	0.0000	0.0326	0.0326
1.2D + 1.0Di + 1.0Wi 90° 50 mph Wind with 0.25" Radial Ice	40.00	0.0131	0.0000	0.0177	0.0177
1.2D + 1.0Di + 1.0Wi 90° 50 mph Wind with 0.25" Radial Ice	50.00	0.0169	0.0000	0.1933	0.1933
1.2D + 1.0Di + 1.0Wi 90° 50 mph Wind with 0.25" Radial Ice	55.00	0.0429	0.0000	0.3547	0.3547
1.2D + 1.0Di + 1.0Wi 90° 50 mph Wind with 0.25" Radial Ice	55.67	0.047	0.0000	0.3560	0.356
1.2D + 1.0Di + 1.0Wi 45° 50 mph Wind with 0.25" Radial Ice	10.00	0.0037	0.0000	0.0227	0.0227
1.2D + 1.0Di + 1.0Wi 45° 50 mph Wind with 0.25" Radial Ice	20.00	0.0059	0.0000	0.0177	0.0177
1.2D + 1.0Di + 1.0Wi 45° 50 mph Wind with 0.25" Radial Ice	30.00	0.0093	0.0001	0.0323	0.0323
1.2D + 1.0Di + 1.0Wi 45° 50 mph Wind with 0.25" Radial Ice	40.00	0.0132	0.0001	0.0209	0.0209
1.2D + 1.0Di + 1.0Wi 45° 50 mph Wind with 0.25" Radial Ice	50.00	0.017	0.0000	0.2095	0.2095
1.2D + 1.0Di + 1.0Wi 45° 50 mph Wind with 0.25" Radial Ice	55.00	0.0447	0.0000	0.3871	0.3871
1.2D + 1.0Di + 1.0Wi 45° 50 mph Wind with 0.25" Radial Ice	55.67	0.0493	0.0000	0.3889	0.3889
1.2D + 1.0Di + 1.0Wi Normal 50 mph Wind with 0.25" Radial Ice	10.00	0.003	0.0000	0.0208	0.0208
1.2D + 1.0Di + 1.0Wi Normal 50 mph Wind with 0.25" Radial Ice	20.00	0.0054	0.0000	0.0157	0.0157
1.2D + 1.0Di + 1.0Wi Normal 50 mph Wind with 0.25" Radial Ice	30.00	0.0083	0.0000	0.0321	0.0321
1.2D + 1.0Di + 1.0Wi Normal 50 mph Wind with 0.25" Radial Ice	40.00	0.012	0.0001	0.0275	0.0275
1.2D + 1.0Di + 1.0Wi Normal 50 mph Wind with 0.25" Radial Ice	50.00	0.0153	0.0000	0.2196	0.2196
1.2D + 1.0Di + 1.0Wi Normal 50 mph Wind with 0.25" Radial Ice	55.00	0.0452	0.0000	0.4102	0.4102
1.2D + 1.0Di + 1.0Wi Normal 50 mph Wind with 0.25" Radial Ice	55.67	0.05	0.0000	0.4119	0.4119
0.9D + 1.0W 315° 130 mph Wind with No Ice (Reduced DL)	10.00	0.0142	0.0002	0.0982	0.0982
0.9D + 1.0W 315° 130 mph Wind with No Ice (Reduced DL)	20.00	0.0268	0.0005	0.0880	0.088
0.9D + 1.0W 315° 130 mph Wind with No Ice (Reduced DL)	30.00	0.0461	0.0006	0.1789	0.1789
0.9D + 1.0W 315° 130 mph Wind with No Ice (Reduced DL)	40.00	0.0637	0.0010	0.1518	0.1518
0.9D + 1.0W 315° 130 mph Wind with No Ice (Reduced DL)	50.00	0.0845	0.0007	1.2074	1.2074
0.9D + 1.0W 315° 130 mph Wind with No Ice (Reduced DL)	55.00	0.2477	-0.0010	2.2396	2.2396
0.9D + 1.0W 315° 130 mph Wind with No Ice (Reduced DL)	55.67	0.2739	-0.0011	2.2504	2.2504
0.9D + 1.0W 270° 130 mph Wind with No Ice (Reduced DL)	10.00	0.012	0.0001	0.0941	0.0941
0.9D + 1.0W 270° 130 mph Wind with No Ice (Reduced DL)	20.00	0.0263	-0.0001	0.0774	0.0774
0.9D + 1.0W 270° 130 mph Wind with No Ice (Reduced DL)	30.00	0.0445	-0.0002	0.1678	0.1678
0.9D + 1.0W 270° 130 mph Wind with No Ice (Reduced DL)	40.00	0.0627	-0.0003	0.1231	0.1231
0.9D + 1.0W 270° 130 mph Wind with No Ice (Reduced DL)	50.00	0.0834	0.0006	1.1035	1.1035

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DEFLECTIONS AND ROTATIONS

Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
0.9D + 1.0W 270° 130 mph Wind with No Ice (Reduced DL)	55.00	0.232	0.0008	2.0474	2.0474
0.9D + 1.0W 270° 130 mph Wind with No Ice (Reduced DL)	55.67	0.2559	0.0008	2.0582	2.0582
0.9D + 1.0W 225° 130 mph Wind with No Ice (Reduced DL)	10.00	0.0145	0.0002	0.0969	0.0969
0.9D + 1.0W 225° 130 mph Wind with No Ice (Reduced DL)	20.00	0.0278	-0.0004	0.0894	0.0894
0.9D + 1.0W 225° 130 mph Wind with No Ice (Reduced DL)	30.00	0.0459	-0.0006	0.1771	0.1771
0.9D + 1.0W 225° 130 mph Wind with No Ice (Reduced DL)	40.00	0.0665	-0.0008	0.1345	0.1345
0.9D + 1.0W 225° 130 mph Wind with No Ice (Reduced DL)	50.00	0.0879	0.0004	1.2141	1.2141
0.9D + 1.0W 225° 130 mph Wind with No Ice (Reduced DL)	55.00	0.2523	0.0006	2.2556	2.2556
0.9D + 1.0W 225° 130 mph Wind with No Ice (Reduced DL)	55.67	0.2787	0.0007	2.2664	2.2664
0.9D + 1.0W 180° 130 mph Wind with No Ice (Reduced DL)	10.00	0.0122	0.0001	0.0965	0.0965
0.9D + 1.0W 180° 130 mph Wind with No Ice (Reduced DL)	20.00	0.0268	0.0001	0.0785	0.0785
0.9D + 1.0W 180° 130 mph Wind with No Ice (Reduced DL)	30.00	0.0454	-0.0002	0.1809	0.1809
0.9D + 1.0W 180° 130 mph Wind with No Ice (Reduced DL)	40.00	0.0639	-0.0004	0.1622	0.1622
0.9D + 1.0W 180° 130 mph Wind with No Ice (Reduced DL)	50.00	0.0852	0.0009	1.2851	1.2851
0.9D + 1.0W 180° 130 mph Wind with No Ice (Reduced DL)	55.00	0.2592	0.0010	2.3927	2.3927
0.9D + 1.0W 180° 130 mph Wind with No Ice (Reduced DL)	55.67	0.2872	0.0010	2.4042	2.4042
0.9D + 1.0W 135° 130 mph Wind with No Ice (Reduced DL)	10.00	0.0151	0.0002	0.0991	0.0991
0.9D + 1.0W 135° 130 mph Wind with No Ice (Reduced DL)	20.00	0.027	0.0005	0.0894	0.0894
0.9D + 1.0W 135° 130 mph Wind with No Ice (Reduced DL)	30.00	0.0471	0.0007	0.1807	0.1807
0.9D + 1.0W 135° 130 mph Wind with No Ice (Reduced DL)	40.00	0.0645	0.0010	0.1490	0.149
0.9D + 1.0W 135° 130 mph Wind with No Ice (Reduced DL)	50.00	0.0863	0.0006	1.2046	1.2046
0.9D + 1.0W 135° 130 mph Wind with No Ice (Reduced DL)	55.00	0.2487	-0.0008	2.2265	2.2265
0.9D + 1.0W 135° 130 mph Wind with No Ice (Reduced DL)	55.67	0.2747	0.0008	2.2374	2.2374
0.9D + 1.0W 90° 130 mph Wind with No Ice (Reduced DL)	10.00	0.0121	0.0001	0.0949	0.0949
0.9D + 1.0W 90° 130 mph Wind with No Ice (Reduced DL)	20.00	0.0266	0.0001	0.0786	0.0786
0.9D + 1.0W 90° 130 mph Wind with No Ice (Reduced DL)	30.00	0.0451	0.0001	0.1696	0.1696
0.9D + 1.0W 90° 130 mph Wind with No Ice (Reduced DL)	40.00	0.0636	0.0003	0.1206	0.1206
0.9D + 1.0W 90° 130 mph Wind with No Ice (Reduced DL)	50.00	0.0847	-0.0007	1.1077	1.1077
0.9D + 1.0W 90° 130 mph Wind with No Ice (Reduced DL)	55.00	0.2336	-0.0008	2.0441	2.0441
0.9D + 1.0W 90° 130 mph Wind with No Ice (Reduced DL)	55.67	0.2575	-0.0008	2.0550	2.055
0.9D + 1.0W 45° 130 mph Wind with No Ice (Reduced DL)	10.00	0.0145	0.0002	0.0972	0.0972
0.9D + 1.0W 45° 130 mph Wind with No Ice (Reduced DL)	20.00	0.0279	0.0004	0.0900	0.09
0.9D + 1.0W 45° 130 mph Wind with No Ice (Reduced DL)	30.00	0.0462	0.0005	0.1777	0.1777
0.9D + 1.0W 45° 130 mph Wind with No Ice (Reduced DL)	40.00	0.0669	0.0008	0.1330	0.133
0.9D + 1.0W 45° 130 mph Wind with No Ice (Reduced DL)	50.00	0.0885	-0.0004	1.2129	1.2129
0.9D + 1.0W 45° 130 mph Wind with No Ice (Reduced DL)	55.00	0.2526	0.0006	2.2529	2.2529
0.9D + 1.0W 45° 130 mph Wind with No Ice (Reduced DL)	55.67	0.2789	0.0007	2.2638	2.2638
0.9D + 1.0W Normal 130 mph Wind with No Ice (Reduced DL)	10.00	0.0122	0.0001	0.0961	0.0961
0.9D + 1.0W Normal 130 mph Wind with No Ice (Reduced DL)	20.00	0.0267	0.0002	0.0783	0.0783
0.9D + 1.0W Normal 130 mph Wind with No Ice (Reduced DL)	30.00	0.0452	0.0002	0.1802	0.1802
0.9D + 1.0W Normal 130 mph Wind with No Ice (Reduced DL)	40.00	0.0636	0.0005	0.1631	0.1631
0.9D + 1.0W Normal 130 mph Wind with No Ice (Reduced DL)	50.00	0.0848	-0.0008	1.2850	1.285
0.9D + 1.0W Normal 130 mph Wind with No Ice (Reduced DL)	55.00	0.2587	-0.0009	2.3888	2.3888
0.9D + 1.0W Normal 130 mph Wind with No Ice (Reduced DL)	55.67	0.2866	-0.0009	2.3996	2.3996
1.2D + 1.0W 315° 130 mph Wind with No Ice	10.00	0.0141	0.0002	0.0981	0.0981
1.2D + 1.0W 315° 130 mph Wind with No Ice	20.00	0.0268	0.0005	0.0878	0.0878
1.2D + 1.0W 315° 130 mph Wind with No Ice	30.00	0.0459	0.0006	0.1791	0.1791
1.2D + 1.0W 315° 130 mph Wind with No Ice	40.00	0.0635	0.0010	0.1539	0.1539
1.2D + 1.0W 315° 130 mph Wind with No Ice	50.00	0.0842	0.0008	1.2153	1.2153
1.2D + 1.0W 315° 130 mph Wind with No Ice	55.00	0.2486	-0.0011	2.2559	2.2559
1.2D + 1.0W 315° 130 mph Wind with No Ice	55.67	0.275	-0.0012	2.2668	2.2668
1.2D + 1.0W 270° 130 mph Wind with No Ice	10.00	0.0121	0.0001	0.0941	0.0941
1.2D + 1.0W 270° 130 mph Wind with No Ice	20.00	0.0263	-0.0001	0.0772	0.0772
1.2D + 1.0W 270° 130 mph Wind with No Ice	30.00	0.0445	-0.0002	0.1680	0.168
1.2D + 1.0W 270° 130 mph Wind with No Ice	40.00	0.0626	-0.0003	0.1249	0.1249
1.2D + 1.0W 270° 130 mph Wind with No Ice	50.00	0.0833	0.0007	1.1093	1.1093
1.2D + 1.0W 270° 130 mph Wind with No Ice	55.00	0.2327	0.0008	2.0603	2.0603
1.2D + 1.0W 270° 130 mph Wind with No Ice	55.67	0.2567	0.0008	2.0712	2.0712
1.2D + 1.0W 225° 130 mph Wind with No Ice	10.00	0.0146	0.0002	0.0969	0.0969

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DEFLECTIONS AND ROTATIONS

Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
1.2D + 1.0W 225° 130 mph Wind with No Ice	20.00	0.0278	-0.0004	0.0892	0.0892
1.2D + 1.0W 225° 130 mph Wind with No Ice	30.00	0.046	-0.0006	0.1775	0.1775
1.2D + 1.0W 225° 130 mph Wind with No Ice	40.00	0.0664	-0.0008	0.1364	0.1364
1.2D + 1.0W 225° 130 mph Wind with No Ice	50.00	0.0879	0.0004	1.2218	1.2218
1.2D + 1.0W 225° 130 mph Wind with No Ice	55.00	0.2533	0.0006	2.2704	2.2704
1.2D + 1.0W 225° 130 mph Wind with No Ice	55.67	0.2799	0.0007	2.2813	2.2813
1.2D + 1.0W 180° 130 mph Wind with No Ice	10.00	0.0123	0.0001	0.0966	0.0966
1.2D + 1.0W 180° 130 mph Wind with No Ice	20.00	0.0268	-0.0002	0.0785	0.0785
1.2D + 1.0W 180° 130 mph Wind with No Ice	30.00	0.0455	-0.0002	0.1816	0.1816
1.2D + 1.0W 180° 130 mph Wind with No Ice	40.00	0.064	-0.0004	0.1641	0.1641
1.2D + 1.0W 180° 130 mph Wind with No Ice	50.00	0.0855	0.0009	1.2946	1.2946
1.2D + 1.0W 180° 130 mph Wind with No Ice	55.00	0.2606	0.0010	2.4114	2.4114
1.2D + 1.0W 180° 130 mph Wind with No Ice	55.67	0.2888	0.0010	2.4229	2.4229
1.2D + 1.0W 135° 130 mph Wind with No Ice	10.00	0.0152	0.0002	0.0993	0.0993
1.2D + 1.0W 135° 130 mph Wind with No Ice	20.00	0.0271	0.0005	0.0896	0.0896
1.2D + 1.0W 135° 130 mph Wind with No Ice	30.00	0.0473	0.0007	0.1816	0.1816
1.2D + 1.0W 135° 130 mph Wind with No Ice	40.00	0.0647	-0.0011	0.1504	0.1504
1.2D + 1.0W 135° 130 mph Wind with No Ice	50.00	0.0867	0.0006	1.2125	1.2125
1.2D + 1.0W 135° 130 mph Wind with No Ice	55.00	0.2501	0.0007	2.2405	2.2405
1.2D + 1.0W 135° 130 mph Wind with No Ice	55.67	0.2763	-0.0008	2.2514	2.2514
1.2D + 1.0W 90° 130 mph Wind with No Ice	10.00	0.0122	0.0001	0.0951	0.0951
1.2D + 1.0W 90° 130 mph Wind with No Ice	20.00	0.0266	0.0001	0.0789	0.0789
1.2D + 1.0W 90° 130 mph Wind with No Ice	30.00	0.0452	0.0001	0.1704	0.1704
1.2D + 1.0W 90° 130 mph Wind with No Ice	40.00	0.0638	0.0003	0.1216	0.1216
1.2D + 1.0W 90° 130 mph Wind with No Ice	50.00	0.0851	-0.0007	1.1149	1.1149
1.2D + 1.0W 90° 130 mph Wind with No Ice	55.00	0.2348	-0.0008	2.0560	2.056
1.2D + 1.0W 90° 130 mph Wind with No Ice	55.67	0.2589	-0.0008	2.0669	2.0669
1.2D + 1.0W 45° 130 mph Wind with No Ice	10.00	0.0146	0.0002	0.0973	0.0973
1.2D + 1.0W 45° 130 mph Wind with No Ice	20.00	0.0279	0.0004	0.0901	0.0901
1.2D + 1.0W 45° 130 mph Wind with No Ice	30.00	0.0464	0.0006	0.1784	0.1784
1.2D + 1.0W 45° 130 mph Wind with No Ice	40.00	0.067	0.0008	0.1346	0.1346
1.2D + 1.0W 45° 130 mph Wind with No Ice	50.00	0.0887	-0.0004	1.2210	1.221
1.2D + 1.0W 45° 130 mph Wind with No Ice	55.00	0.2539	0.0006	2.2685	2.2685
1.2D + 1.0W 45° 130 mph Wind with No Ice	55.67	0.2804	0.0007	2.2794	2.2794
1.2D + 1.0W Normal 130 mph Wind with No Ice	10.00	0.0123	0.0001	0.0961	0.0961
1.2D + 1.0W Normal 130 mph Wind with No Ice	20.00	0.0267	0.0002	0.0783	0.0783
1.2D + 1.0W Normal 130 mph Wind with No Ice	30.00	0.0452	0.0003	0.1807	0.1807
1.2D + 1.0W Normal 130 mph Wind with No Ice	40.00	0.0636	0.0005	0.1652	0.1652
1.2D + 1.0W Normal 130 mph Wind with No Ice	50.00	0.0848	-0.0008	1.2942	1.2942
1.2D + 1.0W Normal 130 mph Wind with No Ice	55.00	0.2599	-0.0010	2.4071	2.4071
1.2D + 1.0W Normal 130 mph Wind with No Ice	55.67	0.288	-0.0010	2.4180	2.418

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DETAILED REACTIONS

Load Case	Radius (ft)	Elevation (ft)	Azimuth (deg)	Node	FX* (kip)	FY* (kip)	FZ* (kip)
					*(-) Uplift and (+) Down		
1.2D + 1.0W Normal	6.36	0.00	45	1	-0.25	42.31	-6.46
	6.36	0.00	135	1a	0.23	-34.64	-6.47
	6.36	0.00	225	1b	-0.74	-33.06	-4.47
	6.36	0.00	315	1c	0.76	39.21	-5.23
1.2D + 1.0W 45°	6.36	0.00	45	1	-3.51	58.29	-5.12
	6.36	0.00	135	1a	-4.46	4.01	-4.38
	6.36	0.00	225	1b	-5.19	-51.38	-3.58
	6.36	0.00	315	1c	-3.32	2.92	-3.40
1.2D + 1.0W 90°	6.36	0.00	45	1	-4.57	40.03	-0.64
	6.36	0.00	135	1a	-6.36	42.62	0.39
	6.36	0.00	225	1b	-6.38	-35.37	-0.37
	6.36	0.00	315	1c	-5.34	-33.44	0.61
1.2D + 1.0W 135°	6.36	0.00	45	1	-3.19	2.09	4.21
	6.36	0.00	135	1a	-4.79	60.20	4.95
	6.36	0.00	225	1b	-4.05	1.66	3.03
	6.36	0.00	315	1c	-4.45	-50.12	4.29
1.2D + 1.0W 180°	6.36	0.00	45	1	0.25	-34.95	6.49
	6.36	0.00	135	1a	-0.28	42.63	6.48
	6.36	0.00	225	1b	0.76	39.59	4.46
	6.36	0.00	315	1c	-0.73	-33.44	5.23
1.2D + 1.0W 225°	6.36	0.00	45	1	3.58	-50.95	5.19
	6.36	0.00	135	1a	4.39	4.01	4.47
	6.36	0.00	225	1b	5.13	57.85	3.51
	6.36	0.00	315	1c	3.39	2.92	3.32
1.2D + 1.0W 270°	6.36	0.00	45	1	4.59	-32.65	0.62
	6.36	0.00	135	1a	6.36	-34.65	-0.35
	6.36	0.00	225	1b	6.35	41.90	0.37
	6.36	0.00	315	1c	5.35	39.23	-0.65
1.2D + 1.0W 315°	6.36	0.00	45	1	3.14	5.35	-4.27
	6.36	0.00	135	1a	4.82	-52.28	-4.99
	6.36	0.00	225	1b	4.10	4.91	-2.98
	6.36	0.00	315	1c	4.42	55.86	-4.25
0.9D + 1.0W Normal	6.36	0.00	45	1	-0.25	41.39	-6.46
	6.36	0.00	135	1a	0.24	-35.64	-6.49
	6.36	0.00	225	1b	-0.75	-33.87	-4.48
	6.36	0.00	315	1c	0.76	38.48	-5.23
0.9D + 1.0W 45°	6.36	0.00	45	1	-3.50	57.34	-5.12
	6.36	0.00	135	1a	-4.45	3.01	-4.39
	6.36	0.00	225	1b	-5.19	-52.16	-3.59
	6.36	0.00	315	1c	-3.33	2.19	-3.39
0.9D + 1.0W 90°	6.36	0.00	45	1	-4.57	39.09	-0.64
	6.36	0.00	135	1a	-6.35	41.60	0.38
	6.36	0.00	225	1b	-6.38	-36.17	-0.37
	6.36	0.00	315	1c	-5.35	-34.15	0.62
0.9D + 1.0W 135°	6.36	0.00	45	1	-3.19	1.16	4.22
	6.36	0.00	135	1a	-4.78	59.18	4.94
	6.36	0.00	225	1b	-4.06	0.84	3.02
	6.36	0.00	315	1c	-4.46	-50.81	4.30
0.9D + 1.0W 180°	6.36	0.00	45	1	0.25	-35.85	6.50
	6.36	0.00	135	1a	-0.27	41.61	6.47
	6.36	0.00	225	1b	0.75	38.76	4.45
	6.36	0.00	315	1c	-0.74	-34.14	5.23
0.9D + 1.0W 225°	6.36	0.00	45	1	3.58	-51.85	5.19
	6.36	0.00	135	1a	4.40	3.02	4.45
	6.36	0.00	225	1b	5.12	57.01	3.50
	6.36	0.00	315	1c	3.38	2.20	3.33
0.9D + 1.0W 270°	6.36	0.00	45	1	4.59	-33.55	0.63
	6.36	0.00	135	1a	6.37	-35.63	-0.36
	6.36	0.00	225	1b	6.34	41.06	0.37

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DETAILED REACTIONS

Load Case	Radius (ft)	Elevation (ft)	Azimuth (deg)	Node	FX* (kip)	FY* (kip)	FZ* (kip)
					*(-) Uplift and (+) Down		
0.9D + 1.0W 315°	6.36	0.00	315	1c	5.34	38.49	-0.64
	6.36	0.00	45	1	3.15	4.43	-4.26
	6.36	0.00	135	1a	4.83	-53.26	-5.00
	6.36	0.00	225	1b	4.09	4.10	-2.98
	6.36	0.00	315	1c	4.41	55.11	-4.25
1.2D + 1.0Di + 1.0Wi Normal	6.36	0.00	45	1	0.21	11.75	-0.88
	6.36	0.00	135	1a	0.28	-1.64	-1.35
	6.36	0.00	225	1b	-0.38	-2.29	-1.08
	6.36	0.00	315	1c	-0.11	10.30	-0.70
1.2D + 1.0Di + 1.0Wi 45°	6.36	0.00	45	1	-0.40	14.73	-0.66
	6.36	0.00	135	1a	-0.55	5.28	-1.00
	6.36	0.00	225	1b	-1.15	-5.62	-0.92
	6.36	0.00	315	1c	-0.84	3.73	-0.37
1.2D + 1.0Di + 1.0Wi 90°	6.36	0.00	45	1	-0.58	11.40	0.14
	6.36	0.00	135	1a	-0.88	12.20	-0.15
	6.36	0.00	225	1b	-1.36	-2.63	-0.33
	6.36	0.00	315	1c	-1.19	-2.84	0.35
1.2D + 1.0Di + 1.0Wi 135°	6.36	0.00	45	1	-0.33	4.58	0.99
	6.36	0.00	135	1a	-0.62	15.43	0.65
	6.36	0.00	225	1b	-0.96	4.04	0.30
	6.36	0.00	315	1c	-1.03	-5.94	1.01
1.2D + 1.0Di + 1.0Wi 180°	6.36	0.00	45	1	0.31	-2.09	1.37
	6.36	0.00	135	1a	0.17	12.20	0.90
	6.36	0.00	225	1b	-0.12	10.86	0.56
	6.36	0.00	315	1c	-0.36	-2.84	1.17
1.2D + 1.0Di + 1.0Wi 225°	6.36	0.00	45	1	0.92	-5.08	1.15
	6.36	0.00	135	1a	1.00	5.28	0.55
	6.36	0.00	225	1b	0.66	14.19	0.40
	6.36	0.00	315	1c	0.37	3.73	0.84
1.2D + 1.0Di + 1.0Wi 270°	6.36	0.00	45	1	1.10	-1.74	0.36
	6.36	0.00	135	1a	1.33	-1.64	-0.29
	6.36	0.00	225	1b	0.86	11.20	-0.19
	6.36	0.00	315	1c	0.72	10.30	0.13
1.2D + 1.0Di + 1.0Wi 315°	6.36	0.00	45	1	0.84	5.07	-0.50
	6.36	0.00	135	1a	1.08	-4.87	-1.10
	6.36	0.00	225	1b	0.47	4.53	-0.81
	6.36	0.00	315	1c	0.56	13.39	-0.53
1.2D + 1.0Ev + 1.0Eh Normal	6.36	0.00	45	1	-0.05	5.70	-0.26
	6.36	0.00	135	1a	0.00	0.76	-0.21
	6.36	0.00	225	1b	0.00	0.76	-0.21
	6.36	0.00	315	1c	0.05	5.70	-0.26
1.2D + 1.0Ev + 1.0Eh 45°	6.36	0.00	45	1	-0.21	6.70	-0.21
	6.36	0.00	135	1a	-0.17	3.23	-0.12
	6.36	0.00	225	1b	-0.16	-0.24	-0.16
	6.36	0.00	315	1c	-0.12	3.23	-0.17
1.2D + 1.0Ev + 1.0Eh 90°	6.36	0.00	45	1	-0.26	5.70	-0.05
	6.36	0.00	135	1a	-0.26	5.70	0.05
	6.36	0.00	225	1b	-0.21	0.76	0.00
	6.36	0.00	315	1c	-0.21	0.76	0.00
1.2D + 1.0Ev + 1.0Eh 135°	6.36	0.00	45	1	-0.17	3.23	0.12
	6.36	0.00	135	1a	-0.21	6.70	0.21
	6.36	0.00	225	1b	-0.12	3.23	0.17
	6.36	0.00	315	1c	-0.16	-0.24	0.16
1.2D + 1.0Ev + 1.0Eh 180°	6.36	0.00	45	1	0.00	0.76	0.21
	6.36	0.00	135	1a	-0.05	5.70	0.26
	6.36	0.00	225	1b	0.05	5.70	0.26
	6.36	0.00	315	1c	0.00	0.76	0.21
1.2D + 1.0Ev + 1.0Eh 225°	6.36	0.00	45	1	0.16	-0.24	0.16
	6.36	0.00	135	1a	0.12	3.23	0.17

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DETAILED REACTIONS

Load Case	Radius (ft)	Elevation (ft)	Azimuth (deg)	Node	FX* (kip)	FY* (kip)	FZ* (kip)
					*(-) Uplift and (+) Down		
	6.36	0.00	225	1b	0.21	6.70	0.21
	6.36	0.00	315	1c	0.17	3.23	0.12
1.2D + 1.0Ev + 1.0Eh 270°	6.36	0.00	45	1	0.21	0.76	0.00
	6.36	0.00	135	1a	0.21	0.76	0.00
	6.36	0.00	225	1b	0.26	5.70	0.05
	6.36	0.00	315	1c	0.26	5.70	-0.05
1.2D + 1.0Ev + 1.0Eh 315°	6.36	0.00	45	1	0.12	3.23	-0.17
	6.36	0.00	135	1a	0.16	-0.24	-0.16
	6.36	0.00	225	1b	0.17	3.23	-0.12
	6.36	0.00	315	1c	0.21	6.70	-0.21
0.9D - 1.0Ev + 1.0Eh Normal	6.36	0.00	45	1	-0.05	4.71	-0.26
	6.36	0.00	135	1a	0.01	-0.23	-0.22
	6.36	0.00	225	1b	-0.01	-0.23	-0.22
	6.36	0.00	315	1c	0.05	4.71	-0.26
0.9D - 1.0Ev + 1.0Eh 45°	6.36	0.00	45	1	-0.20	5.71	-0.20
	6.36	0.00	135	1a	-0.17	2.24	-0.13
	6.36	0.00	225	1b	-0.17	-1.23	-0.17
	6.36	0.00	315	1c	-0.13	2.24	-0.17
0.9D - 1.0Ev + 1.0Eh 90°	6.36	0.00	45	1	-0.26	4.71	-0.05
	6.36	0.00	135	1a	-0.26	4.71	0.05
	6.36	0.00	225	1b	-0.22	-0.23	-0.01
	6.36	0.00	315	1c	-0.22	-0.23	0.01
0.9D - 1.0Ev + 1.0Eh 135°	6.36	0.00	45	1	-0.17	2.24	0.13
	6.36	0.00	135	1a	-0.20	5.71	0.20
	6.36	0.00	225	1b	-0.13	2.24	0.17
	6.36	0.00	315	1c	-0.17	-1.23	0.17
0.9D - 1.0Ev + 1.0Eh 180°	6.36	0.00	45	1	0.01	-0.23	0.22
	6.36	0.00	135	1a	-0.05	4.71	0.26
	6.36	0.00	225	1b	0.05	4.71	0.26
	6.36	0.00	315	1c	-0.01	-0.23	0.22
0.9D - 1.0Ev + 1.0Eh 225°	6.36	0.00	45	1	0.17	-1.23	0.17
	6.36	0.00	135	1a	0.13	2.24	0.17
	6.36	0.00	225	1b	0.20	5.71	0.20
	6.36	0.00	315	1c	0.17	2.24	0.13
0.9D - 1.0Ev + 1.0Eh 270°	6.36	0.00	45	1	0.22	-0.23	0.01
	6.36	0.00	135	1a	0.22	-0.23	-0.01
	6.36	0.00	225	1b	0.26	4.71	0.05
	6.36	0.00	315	1c	0.26	4.71	-0.05
0.9D - 1.0Ev + 1.0Eh 315°	6.36	0.00	45	1	0.13	2.24	-0.17
	6.36	0.00	135	1a	0.17	-1.23	-0.17
	6.36	0.00	225	1b	0.17	2.24	-0.13
	6.36	0.00	315	1c	0.20	5.71	-0.20
1.0D + 1.0W Service Normal	6.36	0.00	45	1	-0.07	11.54	-1.43
	6.36	0.00	135	1a	0.03	-5.14	-1.38
	6.36	0.00	225	1b	-0.14	-5.25	-0.97
	6.36	0.00	315	1c	0.19	10.38	-1.17
1.0D + 1.0W Service 45°	6.36	0.00	45	1	-0.80	15.07	-1.15
	6.36	0.00	135	1a	-1.00	3.32	-0.93
	6.36	0.00	225	1b	-1.11	-9.28	-0.77
	6.36	0.00	315	1c	-0.71	2.41	-0.77
1.0D + 1.0W Service 90°	6.36	0.00	45	1	-1.02	11.05	-0.16
	6.36	0.00	135	1a	-1.42	11.78	0.11
	6.36	0.00	225	1b	-1.37	-5.74	-0.07
	6.36	0.00	315	1c	-1.15	-5.56	0.11
1.0D + 1.0W Service 135°	6.36	0.00	45	1	-0.71	2.73	0.91
	6.36	0.00	135	1a	-1.08	15.66	1.12
	6.36	0.00	225	1b	-0.87	2.37	0.68
	6.36	0.00	315	1c	-0.95	-9.24	0.91
1.0D + 1.0W Service 180°	6.36	0.00	45	1	0.04	-5.38	1.39

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DETAILED REACTIONS

Load Case	Radius (ft)	Elevation (ft)	Azimuth (deg)	Node	FX* (kip)	FY* (kip)	FZ* (kip)
					(-) Uplift and (+) Down		
1.0D + 1.0W Service 225°	6.36	0.00	135	1a	-0.09	11.78	1.44
	6.36	0.00	225	1b	0.18	10.69	1.00
	6.36	0.00	315	1c	-0.14	-5.56	1.12
	6.36	0.00	45	1	0.77	-8.92	1.11
	6.36	0.00	135	1a	0.93	3.32	1.00
	6.36	0.00	225	1b	1.15	14.71	0.80
	6.36	0.00	315	1c	0.77	2.41	0.71
1.0D + 1.0W Service 270°	6.36	0.00	45	1	0.99	-4.89	0.12
	6.36	0.00	135	1a	1.36	-5.14	-0.05
	6.36	0.00	225	1b	1.41	11.18	0.10
	6.36	0.00	315	1c	1.20	10.38	-0.16
1.0D + 1.0W Service 315°	6.36	0.00	45	1	0.68	3.43	-0.95
	6.36	0.00	135	1a	1.02	-9.02	-1.06
	6.36	0.00	225	1b	0.91	3.06	-0.65
	6.36	0.00	315	1c	1.00	14.06	-0.96

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MAXIMUM REACTIONS SUMMARY

Individual		Global (DL+WL+IL)		Global (DL+WL)	
Max Uplift:	53.26 (kip)	Moment Ice:	136.03 (kip-ft)	Moment:	702.07 (kip-ft)
Max Down:	60.2 (kip)	Total Down Ice:	18.12 (kip)	Total Down:	13.83 (kip)
Max Shear:	6.95 (kip)	Total Shear Ice:	4.16 (kip)	Total Shear:	23.31 (kip)

1.2D + 1.0W 135°

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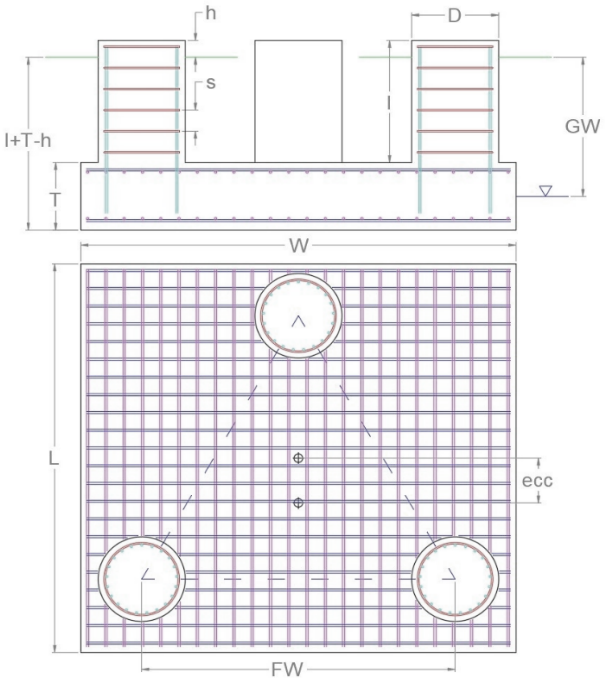
MONOLITHIC MAT & PIER FOUNDATION ANALYSIS

APPLIED REACTIONS

GLOBAL (PER FOUNDATION)			LOCAL (PER LEG)	
Moment (k-ft)	Axial (k)	Shear (k)	Compression (k)	Uplift (k)
702.07	13.83	23.31	60.20	53.26

FOUNDATION PARAMETERS

Mat Length:	L	20.17	ft
Mat Width:	W	20.17	ft
Mat Thickness:	T	3.17	ft
Base Depth:	L+T-h	4.92	ft
Pier Shape:		Square	
Pier Width:	D	2.5	ft
Pier Height above Grade:	h	0.5	ft
Tower Eccentricity:	ecc	0	ft
Tower Face Width	FW	9	ft
Tower Leg Count		4	



SOIL PARAMETERS

Water Table Depth [BGL]:	GW		ft
Soil Unit Weight:		116	pcf
Ultimate Skin Friction:		0	psf
Ultimate Bearing Pressure:		1,955	psf
Bearing Pressure Type:		Net	
Coefficient of Shear Friction:		0.3	
Capacity Increase (Transient Loads):		1.33	

SOIL STRENGTH ANALYSIS

Soil Strength Reduction Factor, Φ_s	Uplift Strength Reduction Factor, Φ_s	Asset Dead Load Factor	Dead Load Factor
0.75	0.75	0.9	1.2

SOIL OVERTURNING ANALYSIS

Design Moment, $M_{u,Design}$ (k-ft)	Nominal Overturning Capacity, $\Phi_m M_n$ (k-ft)	Soil Overturning Usage, $M_{u,Design} / \Phi_m M_n$	
828.41	2,787.23	**29.7%**	✓

SOIL BEARING ANALYSIS

Net Bearing Pressure, $P_{u,Net}$ (psf)	Nominal Bearing Capacity, $\Phi_b P_n$ (psf)	Bearing Pressure Controlling Load Direction	Soil Bearing Usage, $P_{u,net} / \Phi_b P_n$	
906.00	2,520.00	Diagonal to Pad Edge	**36.0%**	✓

SOIL SLIDING SHEAR ANALYSIS

Applied Shear Force, V_u (k)	Friction Resistance (k)	Passive Pressure (psf)	Passive Pressure Resistance (k)	Nominal Shear Capacity, $\Phi_s V_n$ (k)	Soil Sliding Shear Usage, $V_u / \Phi_s V_n$	
23.31	87.28	386.9	24.74	111.73	**21.0%**	✓