



STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051

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VIA ELECTRONIC MAIL

September 16, 2020

Anne Marie Zsamba
Real Estate Specialist
Crown Castle
3 Corporate Park Drive, Suite 101
Clifton Park, NY 12065

RE: **EM-T-MOBILE-043-200903** - T-Mobile notice of intent to modify an existing telecommunications facility located at 1455 Forbes Street, East Hartford, Connecticut

Dear Ms. Zsamba:

The Connecticut Siting Council (Council) is in receipt of your correspondence of September 14, 2020 submitted in response to the Council's September 14, 2020 notification of an incomplete request for exempt modification with regard to the above-referenced matter.

The submission renders the request for exempt modification complete and the Council will process the request in accordance with the Federal Communications Commission 60-day timeframe.

Thank you for your attention and cooperation.

Sincerely,

s/ Melanie A. Bachman

Melanie A. Bachman
Executive Director

MAB/IN/emr



Crown Castle
3 Corporate Park Drive, Suite 101
Clifton Park, NY 12065

September 14, 2020

Melanie A. Bachman
Executive Director
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

RE: **EM-T-MOBILE-043-200903** – T-Mobile notice of intent to modify an existing telecommunications facility located at 1455 Forbes Street, East Hartford, Connecticut

Dear Ms. Bachman:

I am in receipt of your notice of incomplete correspondence of today's date for the above noted telecommunication filing. Enclosed please find a copy of the Structural Analysis for this site bearing both the stamp and seal of the Connecticut Professional Engineer. My apologies, there must have been an error in merging the PDFs. Please confirm this now renders the filing complete. Thank you kindly.

Sincerely,

Anne Marie Zsamba

Anne Marie Zsamba
Site Acquisition Specialist
3 Corporate Park Drive, Suite 101,
Clifton Park, NY 12065
(201) 236-9224
annemarie.zsamba@crowncastle.com

Enclosure

Date: **June 12, 2020**

Amanda D Brown
Crown Castle
6325 Ardrey Kell Rd, Suite 600
Charlotte, NC 28277

Paul J. Ford and Company
250 East Broad St., Ste 600
Columbus, OH 43215
614-221-6679

Subject: **Structural Analysis Report**

Carrier Designation: **T-Mobile Co-Locate**
Carrier Site Number: CT11186A
Carrier Site Name: East Hartford/ Hills_1

Crown Castle Designation: **Crown Castle BU Number:** 806376
Crown Castle Site Name: HRT 100 943239
Crown Castle JDE Job Number: 613801
Crown Castle Work Order Number: 1859463
Crown Castle Order Number: 524003 Rev. 1

Engineering Firm Designation: **Paul J. Ford and Company Project Number:** 37520-1065.001.7805

Site Data: **1455 FORBES STREET, EAST HARTFORD, Hartford County, CT**
Latitude 41° 43' 53.3", Longitude -72° 36' 28"
131 Foot - Monopole Tower

Dear Amanda D Brown,

Paul J. Ford and Company is pleased to submit this “**Structural Analysis Report**” to determine the structural integrity of the above mentioned tower.

The purpose of the analysis is to determine acceptability of the tower stress level. Based on our analysis we have determined the tower stress level for the structure and foundation, under the following load case, to be:

LC7: Proposed Equipment Configuration

Sufficient Capacity (86.5%)

This analysis utilizes an ultimate 3-second gust wind speed of 125 mph as required by the 2018 Connecticut State Building Code and Appendix N. Applicable Standard references and design criteria are listed in Section 2 - Analysis Criteria.

Respectfully submitted by:


Jared Forbes, E.I.
Structural Designer
jforbes@pauljford.com *RMF*

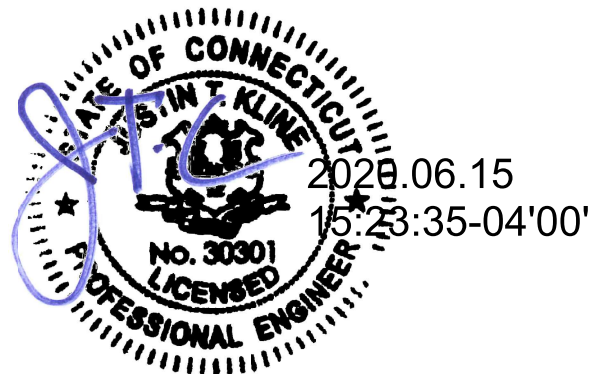


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1) INTRODUCTION

This tower is a 131 ft Monopole tower designed by VALMONT in January of 1991.

The tower has been modified multiple times to accommodate additional loading.

2) ANALYSIS CRITERIA

TIA-222 Revision:	TIA-222-H
Risk Category:	II
Wind Speed:	125 mph
Exposure Category:	C
Topographic Factor:	1
Ice Thickness:	2 in
Wind Speed with Ice:	50 mph
Service Wind Speed:	60 mph

Table 1 - Proposed Equipment Configuration

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
87.0	87.0	3	ericsson	AIR -32 B2A/B66AA w/ Mount Pipe	3 1 6	1-5/8 1-3/8 1-1/4
		3	ericsson	AIR6449 B41 w/ Mount Pipe		
		3	ericsson	ERICSSON AIR 21 B2A B4P w/ Mount Pipe		
		3	ericsson	KRY 112 144/1		
		3	ericsson	RADIO 4449 B71 B85A_T-MOBILE		
		3	ericsson	RRUS 4415 B25_CCIV2		
		3	rfs celwave	APXVAARR24_43-U-NA20 w/ Mount Pipe		
		3	commscope	VSR-MS-B Stabilizer Kit w/ P2.5STD Horizontal Pipe		
		1	tower mounts	T-Arm Mount [TA 602-3]		

Table 2 - Other Considered Equipment

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)	
121.0	121.0	1	tower mounts	Side Arm Mount [SO 102-3]	2 8 6 4	3/8 3/4 1-1/4 2" Conduit	
		1	tower mounts	T-Arm Mount [TA 601-3]			
	120.0	3	ericsson	RRUS 32 B30			
		3	ericsson	RRUS 4449 B5/B12			
		3	ericsson	RRUS 4478 B14			
		3	ericsson	RRUS 8843 B2/B66A			
		3	ericsson	RRUS E2 B29			
		3	kathrein	800 10121 w/ Mount Pipe			
		3	kathrein	80010798 w/ Mount Pipe			
		6	kathrein	80010965 w/ Mount Pipe			
		6	powerwave technologies	LGP21401			
		4	raycap	DC6-48-60-18-8F			
109.0	111.0	6	andrew	SBNHH-1D65B w/ Mount Pipe	6 1	1-5/8 1-7/8	
		3	antel	BXA-70063/6CFx4 w/ Mount Pipe			
		3	antel	BXA-80063/4CF w/ Mount Pipe			
		1	raycap	RUSDC-6267-PF-48			
		3	samsung telecommunications	B5/B13 RRH-BR04C			
	109.0	3	samsung telecommunications	PCS/AWS DULA-BAND RRH B2/B66			
		3	commscope	BSAMNT-SBS-1-2			
		1	tower mounts	Valmont F3P-12W			
99.0	99.0	1	tower mounts	Valmont F3P-HRK12			
		3	alcatel lucent	800MHz 2X50W RRH W/FILTER	-	-	
		3	alcatel lucent	PCS 1900MHz 4x45W-65MHz w/Mount Pipe			
97.0	103.0	1	andrew	VHLP2-18	4 3 3 2	1-1/4 5/16 1/2 2" Conduit	
		1	andrew	VHLP2.5-18			
		2	dragonwave	HORIZON COMPACT			
	98.0	3	alcatel lucent	TD-RRH8x20-25			
		3	argus technologies	LLPX310R-V1 w/ Mount Pipe			
		3	rfs celwave	APXVSP18-C-A20 w/ Mount Pipe			
		3	rfs celwave	APXVTM14-ALU-I20 w/ Mount Pipe			
		3	samsung telecommunications	RRH-2WB			
		97.0	1	motorola			TIMING 2000
			1	tower mounts			Platform Mount (LP 101-1)

3) ANALYSIS PROCEDURE

Table 3 - Documents Provided

Document	Remarks	Reference	Source
4-GEOTECHNICAL REPORTS	Dr. Welti, 11/11/91	262381	CCISITES
4-TOWER FOUNDATION DRAWINGS/DESIGN/SPECS	Valmont, 10613-91 & 10614-91, 11/30/91	262389	CCISITES
4-TOWER MANUFACTURER DRAWINGS	Valmont, 1/22/91	262386	CCISITES
4-TOWER REINFORCEMENT DESIGN/DRAWINGS/DATA	PJF, 37512-1659, 6/22/2012	3249954	CCISITES
4-TOWER REINFORCEMENT DESIGN/DRAWINGS/DATA	PJF, 37513-0342, 1/30/2013	3448150	CCISITES
4-POST-MODIFICATION INSPECTION	TEP, 127151, 2/26/2013	3675451	CCISITES
4-TOWER REINFORCEMENT DESIGN/DRAWINGS/DATA	PJF, 37513-0342, 5/20/2013	3842355	CCISITES
4-POST-MODIFICATION INSPECTION	TEP, 25676, 6/4/2014	5099148	CCISITES
4-TOWER REINFORCEMENT DESIGN/DRAWINGS/DATA	PJF, 37515-1502.004.7700, 5/12/2015	5681337	CCISITES
4-POST-MODIFICATION INSPECTION	ETS, 150936, 10/2/15	5921968	CCISITES
4-TOWER REINFORCEMENT DESIGN/DRAWINGS/DATA	GPD, 2016777.806376.03, 10/21/2016	6515906	CCISITES
4-POST-MODIFICATION INSPECTION	TEP, 25677.73390, 08/24/2017	7030743	CCISITES
4-TOWER REINFORCEMENT DESIGN/DRAWINGS/DATA	TEP, 25677.216769, 2/7/2019	8204667	CCISITES
4-POST-MODIFICATION INSPECTION	ETS, 185924, 05/22/2019	8418504	CCISITES

3.1) Analysis Method

tnxTower (version 8.0.5.0), a commercially available analysis software package, was used to create a three-dimensional model of the tower and calculate member stresses for various loading cases. Selected output from the analysis is included in Appendix A. When applicable, Crown Castle has calculated and provided the effective area for panel antennas using approved methods following the intent of the TIA-222 standard.

tnxTower was used to determine the loads on the modified structure. Additional calculations were performed to determine the stresses in the pole and in the reinforcing elements. These calculations are presented in Appendix C.

3.2) Assumptions

- 1) Tower and structures were maintained in accordance with the TIA-222 standard.
- 2) The configuration of antennas, transmission cables, mounts and other appurtenances are as specified in Tables 1 and 2 and the referenced drawings.
- 3) The structure was modified in conformance with the referenced modification drawings as shown in the referenced post modification inspection.

This analysis may be affected if any assumptions are not valid or have been made in error. Paul J. Ford and Company should be notified to determine the effect on the structural integrity of the tower.

4) ANALYSIS RESULTS

Table 4 - Section Capacity (Summary)

Elevation (ft)	Component Type	Size	Critical Element	% Capacity	Pass / Fail
131 - 126	Pole	TP11.715x10.525x0.1875	Pole	0.5%	Pass
126 - 121	Pole	TP12.906x11.715x0.1875	Pole	1.7%	Pass
121 - 116	Pole	TP14.096x12.906x0.1875	Pole	18.9%	Pass
116 - 111	Pole	TP15.287x14.096x0.1875	Pole	33.9%	Pass
111 - 110	Pole	TP15.525x15.287x0.1875	Pole	36.4%	Pass
110 - 105	Pole	TP16.776x15.525x0.25	Pole	43.6%	Pass
105 - 100	Pole	TP18.027x16.776x0.25	Pole	55.2%	Pass
100 - 95	Pole	TP19.277x18.027x0.25	Pole	67.7%	Pass
95 - 90	Pole	TP20.528x19.277x0.25	Pole	79.1%	Pass
90 - 89.75	Pole + Reinf.	TP20.591x20.528x0.5	Reinf. 11 Tension Rupture	71.1%	Pass
89.75 - 84.75	Pole + Reinf.	TP21.841x20.591x0.4813	Reinf. 11 Tension Rupture	84.0%	Pass
84.75 - 84.58	Pole + Reinf.	TP21.884x21.841x0.475	Reinf. 11 Tension Rupture	84.4%	Pass
84.58 - 84.33	Pole + Reinf.	TP21.946x21.884x0.6375	Reinf. 11 Tension Rupture	65.4%	Pass
84.33 - 83.42	Pole + Reinf.	TP22.174x21.946x0.625	Reinf. 11 Tension Rupture	67.4%	Pass
83.42 - 83.17	Pole + Reinf.	TP22.237x22.174x0.95	Reinf. 17 Tension Rupture	47.4%	Pass
83.17 - 83	Pole + Reinf.	TP22.279x22.237x0.95	Reinf. 17 Tension Rupture	47.7%	Pass
83 - 82.75	Pole + Reinf.	TP22.342x22.279x0.7	Reinf. 17 Tension Rupture	63.4%	Pass
82.75 - 77.75	Pole + Reinf.	TP23.592x22.342x0.6625	Reinf. 17 Tension Rupture	72.6%	Pass
77.75 - 74	Pole + Reinf.	TP25.531x23.592x0.65	Reinf. 17 Tension Rupture	78.9%	Pass
74 - 69	Pole + Reinf.	TP25.281x24.03x0.7	Reinf. 17 Tension Rupture	80.7%	Pass
69 - 67.08	Pole + Reinf.	TP25.761x25.281x0.6875	Reinf. 17 Tension Rupture	83.1%	Pass
67.08 - 66.83	Pole + Reinf.	TP25.824x25.761x0.6875	Reinf. 17 Tension Rupture	83.4%	Pass
66.83 - 64.08	Pole + Reinf.	TP26.512x25.824x0.675	Reinf. 17 Tension Rupture	86.5%	Pass
64.08 - 63.83	Pole + Reinf.	TP26.574x26.512x0.7375	Reinf. 17 Tension Rupture	83.1%	Pass
63.83 - 62.44	Pole + Reinf.	TP26.922x26.574x0.7375	Reinf. 17 Tension Rupture	84.5%	Pass
62.44 - 62.19	Pole + Reinf.	TP26.984x26.922x0.8625	Reinf. 17 Tension Rupture	70.0%	Pass
62.19 - 57.19	Pole + Reinf.	TP28.235x26.984x0.8375	Reinf. 17 Tension Rupture	74.4%	Pass
57.19 - 53.5	Pole + Reinf.	TP29.158x28.235x0.8125	Reinf. 17 Tension Rupture	77.4%	Pass
53.5 - 53.25	Pole + Reinf.	TP29.22x29.158x0.8375	Reinf. 9 Tension Rupture	76.7%	Pass
53.25 - 52.58	Pole + Reinf.	TP29.388x29.22x0.825	Reinf. 9 Tension Rupture	77.2%	Pass
52.58 - 52.33	Pole + Reinf.	TP29.45x29.388x0.8375	Reinf. 9 Tension Rupture	76.3%	Pass
52.33 - 47.33	Pole + Reinf.	TP30.701x29.45x0.8125	Reinf. 9 Tension Rupture	79.9%	Pass

Elevation (ft)	Component Type	Size	Critical Element	% Capacity	Pass / Fail
47.33 - 44.58	Pole + Reinf.	TP31.389x30.701x0.8	Reinf. 9 Tension Rupture	81.8%	Pass
44.58 - 44.33	Pole + Reinf.	TP31.451x31.389x0.8	Reinf. 9 Tension Rupture	82.0%	Pass
44.33 - 39.33	Pole + Reinf.	TP32.702x31.451x0.775	Reinf. 9 Tension Rupture	85.1%	Pass
39.33 - 39	Pole + Reinf.	TP34.015x32.702x0.775	Reinf. 9 Tension Rupture	85.3%	Pass
39 - 33.08	Pole + Reinf.	TP33.638x32.159x0.8188	Reinf. 16 Tension Rupture	75.3%	Pass
33.08 - 28.08	Pole + Reinf.	TP34.887x33.638x0.8063	Reinf. 16 Tension Rupture	77.6%	Pass
28.08 - 26.85	Pole + Reinf.	TP35.194x34.887x0.7938	Reinf. 16 Tension Rupture	78.1%	Pass
26.85 - 26.6	Pole + Reinf.	TP35.256x35.194x0.8688	Reinf. 6 Tension Rupture	75.2%	Pass
26.6 - 21.6	Pole + Reinf.	TP36.505x35.256x0.8563	Reinf. 6 Tension Rupture	77.2%	Pass
21.6 - 18	Pole + Reinf.	TP37.404x36.505x0.8438	Reinf. 6 Tension Rupture	78.5%	Pass
18 - 17.75	Pole + Reinf.	TP37.467x37.404x0.9938	Reinf. 16 Tension Rupture	64.8%	Pass
17.75 - 17.5	Pole + Reinf.	TP37.529x37.467x0.9938	Reinf. 16 Tension Rupture	64.9%	Pass
17.5 - 17.25	Pole + Reinf.	TP37.592x37.529x0.9938	Reinf. 15 Tension Rupture	64.9%	Pass
17.25 - 17.08	Pole + Reinf.	TP37.634x37.592x0.9938	Reinf. 15 Tension Rupture	65.0%	Pass
17.08 - 16.83	Pole + Reinf.	TP37.697x37.634x0.8938	Reinf. 15 Tension Rupture	71.0%	Pass
16.83 - 13	Pole + Reinf.	TP38.653x37.697x0.8813	Reinf. 15 Tension Rupture	72.3%	Pass
13 - 12.75	Pole + Reinf.	TP38.716x38.653x1.0438	Reinf. 15 Tension Rupture	61.2%	Pass
12.75 - 11.85	Pole + Reinf.	TP38.94x38.716x1.0438	Reinf. 15 Tension Rupture	61.4%	Pass
11.85 - 11.6	Pole + Reinf.	TP39.003x38.94x0.8188	Reinf. 15 Tension Rupture	79.1%	Pass
11.6 - 6.5	Pole + Reinf.	TP40.277x39.003x0.7938	Reinf. 15 Tension Rupture	80.7%	Pass
6.5 - 6.25	Pole + Reinf.	TP40.339x40.277x0.9188	Reinf. 15 Tension Rupture	75.0%	Pass
6.25 - 4	Pole + Reinf.	TP40.901x40.339x0.9188	Reinf. 15 Tension Rupture	75.6%	Pass
4 - 3.75	Pole + Reinf.	TP40.963x40.901x1.0938	Reinf. 12 Connection	67.4%	Pass
3.75 - 0	Pole + Reinf.	TP41.9x40.963x1.0688	Reinf. 12 Connection	68.4%	Pass
				Summary	
			Pole	79.1%	Pass
			Reinforcement	86.5%	Pass
			Overall	86.5%	Pass

Table 5 - Tower Component Stresses vs. Capacity - LC7

Notes	Component	Elevation (ft)	% Capacity	Pass / Fail
1	Flange Bolts	110	33.8	Pass
1	Flange Plate		21.8	Pass
1	Anchor Rods	0	77.5	Pass
1	Base Plate	0	55.3	Pass
1	Base Foundation Structural Steel	0	61.6	Pass
1	Base Foundation Soil Interaction	0	70.6	Pass

Structure Rating (max from all components) =	86.5%
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Notes:

- All structural ratings are per TIA-222-H Section 15.5
- 1) See additional documentation in "Appendix C – Additional Calculations" for calculations supporting the % capacity consumed.

4.1) Recommendations

The tower and its foundation have sufficient capacity to carry the proposed load configuration. No modifications are required at this time.

APPENDIX A
TNXTOWER OUTPUT

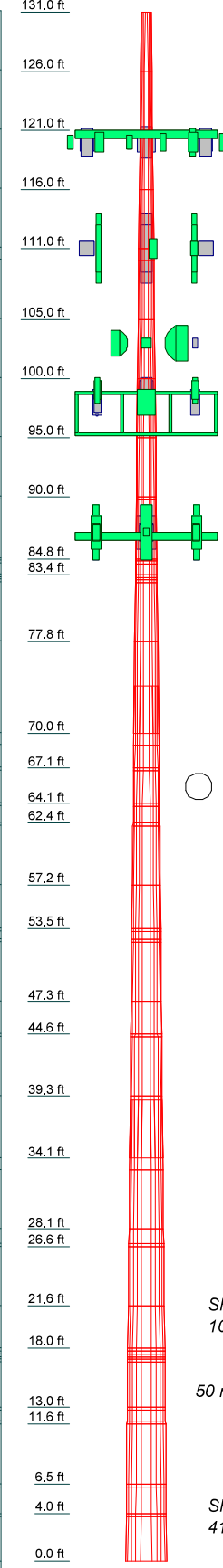
Section	Length (ft)	Number of Sides	Thickness (in)	Socket Length (ft)	Top Dia (in)	Bot Dia (in)	Grade	Weight (K)
1								0.1
2								0.1
3								0.1
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7								0.1
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9								0.1
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130								0.1
131								0.1

MATERIAL STRENGTH

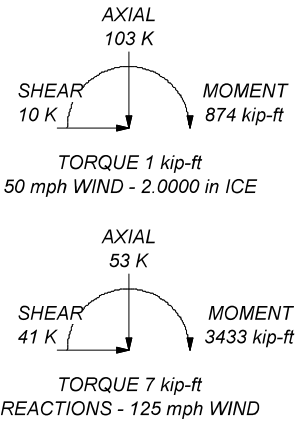
GRADE	Fy	Fu	GRADE	Fy	Fu
A572-65	65 ksi	80 ksi			


TOWER DESIGN NOTES

- Tower is located in Hartford County, Connecticut.
- Tower designed for Exposure C to the TIA-222-H Standard.
- Tower designed for a 125 mph basic wind in accordance with the TIA-222-H Standard.
- Tower is also designed for a 50 mph basic wind with 2.00 in ice. Ice is considered to increase in thickness with height.
- Deflections are based upon a 60 mph wind.
- Tower Risk Category II.
- Topographic Category 1 with Crest Height of 0.0000 ft
- TIA-222-H Annex S
- TOWER RATING: 86.5%



ALL REACTIONS ARE FACTORED



 Paul J. Ford and Company 250 East Broad St., Ste 600 Columbus, OH 43215 Phone: 614-221-6679 FAX:	Job: 131' Monopole / East Hartford, CT		
	Project: PJF 37520-1065 / BU 806376		
	Client: Crown Castle International	Drawn by: jforbes	App'd:
	Code: TIA-222-H	Date: 06/12/20	Scale: NTS
	Path:		Dwg No. E-1

Tower Input Data

The tower is a monopole.
 This tower is designed using the TIA-222-H standard.
 The following design criteria apply:

- Tower is located in Hartford County, Connecticut.
- Tower base elevation above sea level: 41.2300 ft.
- Basic wind speed of 125 mph.
- Risk Category II.
- Exposure Category C.
- Simplified Topographic Factor Procedure for wind speed-up calculations is used.
- Topographic Category: 1.
- Crest Height: 0.0000 ft.
- Nominal ice thickness of 2.0000 in.
- Ice thickness is considered to increase with height.
- Ice density of 56.00 pcf.
- A wind speed of 50 mph is used in combination with ice.
- Temperature drop of 50 °F.
- Deflections calculated using a wind speed of 60 mph.
- TIA-222-H Annex S.
- A non-linear (P-delta) analysis was used.
- Pressures are calculated at each section.
- Stress ratio used in pole design is 1.05.
- Tower analysis based on target reliabilities in accordance with Annex S.
- Load Modification Factors used: $K_{es}(F_w) = 0.95$, $K_{es}(t_i) = 0.85$.
- Local bending stresses due to climbing loads, feed line supports, and appurtenance mounts are not considered.

Options

- | | | |
|--|---|--|
| <ul style="list-style-type: none"> Consider Moments - Legs Consider Moments - Horizontals Consider Moments - Diagonals Use Moment Magnification Use Code Stress Ratios √ Use Code Safety Factors - Guys Escalate Ice Always Use Max Kz Use Special Wind Profile
 Include Bolts In Member Capacity
 Leg Bolts Are At Top Of Section Secondary Horizontal Braces Leg Use Diamond Inner Bracing (4 Sided) SR Members Have Cut Ends SR Members Are Concentric | <ul style="list-style-type: none"> Distribute Leg Loads As Uniform Assume Legs Pinned √ Assume Rigid Index Plate √ Use Clear Spans For Wind Area Use Clear Spans For KL/r Retension Guys To Initial Tension √ Bypass Mast Stability Checks √ Use Azimuth Dish Coefficients √ Project Wind Area of Appurt.
 Autocalc Torque Arm Areas
 Add IBC .6D+W Combination Sort Capacity Reports By Component Triangulate Diamond Inner Bracing Treat Feed Line Bundles As Cylinder Ignore KL/ry For 60 Deg. Angle Legs | <ul style="list-style-type: none"> Use ASCE 10 X-Brace Ly Rules Calculate Redundant Bracing Forces Ignore Redundant Members in FEA SR Leg Bolts Resist Compression All Leg Panels Have Same Allowable Offset Girt At Foundation √ Consider Feed Line Torque Include Angle Block Shear Check Use TIA-222-H Bracing Resist. Exemption Use TIA-222-H Tension Splice Exemption
 <li style="text-align: center;">Poles √ Include Shear-Torsion Interaction Always Use Sub-Critical Flow Use Top Mounted Sockets Pole Without Linear Attachments Pole With Shroud Or No Appurtenances Outside and Inside Corner Radii Are Known |
|--|---|--|

Tapered Pole Section Geometry

Section	Elevation ft	Section Length ft	Splice Length ft	Number of Sides	Top Diameter in	Bottom Diameter in	Wall Thickness in	Bend Radius in	Pole Grade
L1	131.0000- 126.0000	5.0000	0.00	12	10.5250	11.7155	0.1875	0.7500	A572-65 (65 ksi)
L2	126.0000- 121.0000	5.0000	0.00	12	11.7155	12.9060	0.1875	0.7500	A572-65 (65 ksi)
L3	121.0000- 116.0000	5.0000	0.00	12	12.9060	14.0964	0.1875	0.7500	A572-65 (65 ksi)

Section	Elevation ft	Section Length ft	Splice Length ft	Number of Sides	Top Diameter in	Bottom Diameter in	Wall Thickness in	Bend Radius in	Pole Grade
L4	116.0000- 111.0000	5.0000	0.00	12	14.0964	15.2869	0.1875	0.7500	A572-65 (65 ksi)
L5	111.0000- 110.0000	1.0000	0.00	12	15.2869	15.5250	0.1875	0.7500	A572-65 (65 ksi)
L6	110.0000- 105.0000	5.0000	0.00	12	15.5250	16.7757	0.2500	1.0000	A572-65 (65 ksi)
L7	105.0000- 100.0000	5.0000	0.00	12	16.7757	18.0265	0.2500	1.0000	A572-65 (65 ksi)
L8	100.0000- 95.0000	5.0000	0.00	12	18.0265	19.2772	0.2500	1.0000	A572-65 (65 ksi)
L9	95.0000- 90.0000	5.0000	0.00	12	19.2772	20.5280	0.2500	1.0000	A572-65 (65 ksi)
L10	90.0000- 89.7500	0.2500	0.00	12	20.5280	20.5905	0.5000	2.0000	A572-65 (65 ksi)
L11	89.7500- 84.7500	5.0000	0.00	12	20.5905	21.8413	0.4813	1.9250	A572-65 (65 ksi)
L12	84.7500- 84.5800	0.1700	0.00	12	21.8413	21.8838	0.4750	1.9000	A572-65 (65 ksi)
L13	84.5800- 84.3300	0.2500	0.00	12	21.8838	21.9464	0.6375	2.5500	A572-65 (65 ksi)
L14	84.3300- 83.4200	0.9100	0.00	12	21.9464	22.1740	0.6250	2.5000	A572-65 (65 ksi)
L15	83.4200- 83.1700	0.2500	0.00	12	22.1740	22.2365	0.9500	3.8000	A572-65 (65 ksi)
L16	83.1700- 83.0000	0.1700	0.00	12	22.2365	22.2791	0.9500	3.8000	A572-65 (65 ksi)
L17	83.0000- 82.7500	0.2500	0.00	12	22.2791	22.3416	0.7000	2.8000	A572-65 (65 ksi)
L18	82.7500- 77.7500	5.0000	0.00	12	22.3416	23.5923	0.6625	2.6500	A572-65 (65 ksi)
L19	77.7500- 70.0000	7.7500	4.00	12	23.5923	25.5310	0.6500	2.6000	A572-65 (65 ksi)
L20	70.0000- 69.0000	5.0000	0.00	12	24.0304	25.2810	0.7000	2.8000	A572-65 (65 ksi)
L21	69.0000- 67.0800	1.9200	0.00	12	25.2810	25.7612	0.6875	2.7500	A572-65 (65 ksi)
L22	67.0800- 66.8300	0.2500	0.00	12	25.7612	25.8237	0.6875	2.7500	A572-65 (65 ksi)
L23	66.8300- 64.0800	2.7500	0.00	12	25.8237	26.5115	0.6750	2.7000	A572-65 (65 ksi)
L24	64.0800- 63.8300	0.2500	0.00	12	26.5115	26.5741	0.7375	2.9500	A572-65 (65 ksi)
L25	63.8300- 62.4400	1.3900	0.00	12	26.5741	26.9217	0.7375	2.9500	A572-65 (65 ksi)
L26	62.4400- 62.1900	0.2500	0.00	12	26.9217	26.9843	0.8625	3.4500	A572-65 (65 ksi)
L27	62.1900- 57.1900	5.0000	0.00	12	26.9843	28.2348	0.8375	3.3500	A572-65 (65 ksi)
L28	57.1900- 53.5000	3.6900	0.00	12	28.2348	29.1578	0.8125	3.2500	A572-65 (65 ksi)
L29	53.5000- 53.2500	0.2500	0.00	12	29.1578	29.2203	0.8375	3.3500	A572-65 (65 ksi)
L30	53.2500- 52.5800	0.6700	0.00	12	29.2203	29.3879	0.8250	3.3000	A572-65 (65 ksi)
L31	52.5800- 52.3300	0.2500	0.00	12	29.3879	29.4504	0.8375	3.3500	A572-65 (65 ksi)
L32	52.3300- 47.3300	5.0000	0.00	12	29.4504	30.7010	0.8125	3.2500	A572-65 (65 ksi)
L33	47.3300- 44.5800	2.7500	0.00	12	30.7010	31.3888	0.8000	3.2000	A572-65 (65 ksi)
L34	44.5800- 44.3300	0.2500	0.00	12	31.3888	31.4513	0.8000	3.2000	A572-65 (65 ksi)
L35	44.3300- 39.3300	5.0000	0.00	12	31.4513	32.7019	0.7750	3.1000	A572-65 (65 ksi)

Section	Elevation ft	Section Length ft	Splice Length ft	Number of Sides	Top Diameter in	Bottom Diameter in	Wall Thickness in	Bend Radius in	Pole Grade
L36	39.3300- 34.0800	5.2500	4.92	12	32.7019	34.0150	0.7750	3.1000	A572-65 (65 ksi)
L37	34.0800- 33.0800	5.9200	0.00	12	32.1594	33.6380	0.8188	3.2752	A572-65 (65 ksi)
L38	33.0800- 28.0800	5.0000	0.00	12	33.6380	34.8868	0.8063	3.2252	A572-65 (65 ksi)
L39	28.0800- 26.8500	1.2300	0.00	12	34.8868	35.1940	0.7938	3.1752	A572-65 (65 ksi)
L40	26.8500- 26.6000	0.2500	0.00	12	35.1940	35.2564	0.8688	3.4752	A572-65 (65 ksi)
L41	26.6000- 21.6000	5.0000	0.00	12	35.2564	36.5052	0.8563	3.4252	A572-65 (65 ksi)
L42	21.6000- 18.0000	3.6000	0.00	12	36.5052	37.4044	0.8438	3.3752	A572-65 (65 ksi)
L43	18.0000- 17.7500	0.2500	0.00	12	37.4044	37.4668	0.9938	3.9752	A572-65 (65 ksi)
L44	17.7500- 17.5000	0.2500	0.00	12	37.4668	37.5292	0.9938	3.9752	A572-65 (65 ksi)
L45	17.5000- 17.2500	0.2500	0.00	12	37.5292	37.5917	0.9938	3.9752	A572-65 (65 ksi)
L46	17.2500- 17.0800	0.1700	0.00	12	37.5917	37.6341	0.9938	3.9752	A572-65 (65 ksi)
L47	17.0800- 16.8300	0.2500	0.00	12	37.6341	37.6966	0.8938	3.5752	A572-65 (65 ksi)
L48	16.8300- 13.0000	3.8300	0.00	12	37.6966	38.6531	0.8813	3.5252	A572-65 (65 ksi)
L49	13.0000- 12.7500	0.2500	0.00	12	38.6531	38.7156	1.0438	4.1752	A572-65 (65 ksi)
L50	12.7500- 11.8500	0.9000	0.00	12	38.7156	38.9404	1.0438	4.1752	A572-65 (65 ksi)
L51	11.8500- 11.6000	0.2500	0.00	12	38.9404	39.0028	0.8188	3.2752	A572-65 (65 ksi)
L52	11.6000- 6.5000	5.1000	0.00	12	39.0028	40.2766	0.7938	3.1752	A572-65 (65 ksi)
L53	6.5000-6.2500	0.2500	0.00	12	40.2766	40.3390	0.9188	3.6752	A572-65 (65 ksi)
L54	6.2500-4.0000	2.2500	0.00	12	40.3390	40.9010	0.9188	3.6752	A572-65 (65 ksi)
L55	4.0000-3.7500	0.2500	0.00	12	40.9010	40.9634	1.0938	4.3752	A572-65 (65 ksi)
L56	3.7500-0.0000	3.7500		12	40.9634	41.9000	1.0688	4.2752	A572-65 (65 ksi)

Tapered Pole Properties

Section	Tip Dia. in	Area in ²	I in ⁴	r in	C in	I/C in ³	J in ⁴	I/Q in ²	w in	w/t
L1	10.8301	6.2413	85.1314	3.7008	5.4520	15.6148	172.4993	3.0718	2.3182	12.364
	12.0626	6.9600	118.0599	4.1270	6.0686	19.4542	239.2213	3.4255	2.6372	14.065
L2	12.0626	6.9600	118.0599	4.1270	6.0686	19.4542	239.2213	3.4255	2.6372	14.065
	13.2951	7.6788	158.5426	4.5532	6.6853	23.7152	321.2502	3.7793	2.9563	15.767
L3	13.2951	7.6788	158.5426	4.5532	6.6853	23.7152	321.2502	3.7793	2.9563	15.767
	14.5276	8.3975	207.3596	4.9794	7.3020	28.3978	420.1668	4.1330	3.2753	17.468
L4	14.5276	8.3975	207.3596	4.9794	7.3020	28.3978	420.1668	4.1330	3.2753	17.468
	15.7600	9.1163	265.2910	5.4056	7.9186	33.5022	537.5516	4.4867	3.5944	19.17
L5	15.7600	9.1163	265.2910	5.4056	7.9186	33.5022	537.5516	4.4867	3.5944	19.17
	16.0065	9.2600	278.0397	5.4908	8.0419	34.5737	563.3838	4.5575	3.6582	19.51
L6	15.9845	12.2964	366.2060	5.4684	8.0419	45.5370	742.0327	6.0519	3.4907	13.963
	17.2793	13.3032	463.7302	5.9162	8.6898	53.3646	939.6431	6.5474	3.8259	15.304
L7	17.2793	13.3032	463.7302	5.9162	8.6898	53.3646	939.6431	6.5474	3.8259	15.304
	18.5742	14.3101	577.1924	6.3640	9.3377	61.8129	1169.5483	7.0430	4.1611	16.644
L8	18.5742	14.3101	577.1924	6.3640	9.3377	61.8129	1169.5483	7.0430	4.1611	16.644
	19.8691	15.3169	707.7989	6.8118	9.9856	70.8819	1434.1925	7.5385	4.4963	17.985

Section	Tip Dia. in	Area in ²	I in ⁴	r in	C in	I/C in ³	J in ⁴	I/Q in ²	w in	w/t
L9	19.8691	15.3169	707.7989	6.8118	9.9856	70.8819	1434.1925	7.5385	4.4963	17.985
	21.1640	16.3238	856.7561	7.2595	10.6335	80.5714	1736.0201	8.0341	4.8315	19.326
L10	21.0758	32.2451	1650.9145	7.1700	10.6335	155.2559	3345.2003	15.8700	4.1615	8.323
	21.1405	32.3458	1666.4279	7.1924	10.6659	156.2389	3376.6347	15.9196	4.1783	8.357
L11	21.1471	31.1619	1608.4318	7.1991	10.6659	150.8013	3259.1189	15.3369	4.2285	8.787
	22.4420	33.1000	1927.6076	7.6469	11.3138	170.3769	3905.8556	16.2908	4.5637	9.483
L12	22.4442	32.6797	1904.2443	7.6491	11.3138	168.3118	3858.5152	16.0840	4.5805	9.643
	22.4882	32.7448	1915.6369	7.6644	11.3358	168.9898	3881.5997	16.1160	4.5919	9.667
L13	22.4309	43.6134	2512.8857	7.6062	11.3358	221.6767	5091.7877	21.4652	4.1564	6.52
	22.4956	43.7417	2535.1409	7.6286	11.3682	223.0027	5136.8829	21.5284	4.1731	6.546
L14	22.5001	42.9092	2489.8088	7.6330	11.3682	219.0150	5045.0277	21.1186	4.2066	6.731
	22.7357	43.3673	2570.4101	7.7145	11.4861	223.7839	5208.3477	21.3441	4.2676	6.828
L15	22.6211	64.9242	3732.8999	7.5982	11.4861	324.9921	7563.8672	31.9537	3.3966	3.575
	22.6858	65.1155	3765.9950	7.6206	11.5185	326.9513	7630.9268	32.0479	3.4134	3.593
L16	22.6858	65.1155	3765.9950	7.6206	11.5185	326.9513	7630.9268	32.0479	3.4134	3.593
	22.7298	65.2456	3788.6105	7.6358	11.5405	328.2869	7676.7521	32.1119	3.4248	3.605
L17	22.8180	48.6392	2890.9250	7.7253	11.5405	250.5015	5857.7978	23.9387	4.0948	5.85
	22.8828	48.7801	2916.1320	7.7477	11.5729	251.9784	5908.8740	24.0081	4.1115	5.874
L18	22.8960	46.2469	2774.2824	7.7611	11.5729	239.7214	5621.4483	22.7613	4.2120	6.358
	24.1909	48.9151	3282.6956	8.2089	12.2208	268.6148	6651.6312	24.0745	4.5472	6.864
L19	24.1953	48.0183	3226.0281	8.2134	12.2208	263.9778	6536.8075	23.6332	4.5807	7.047
	26.2023	52.0759	4114.8942	8.9074	13.2251	311.1438	8337.8912	25.6302	5.1003	7.847
L20	25.6669	52.5867	3653.4773	8.3523	12.4477	293.5051	7402.9356	25.8816	4.5641	6.52
	25.9259	55.4055	4273.0427	8.8000	13.0955	326.2974	8658.3429	27.2689	4.8993	6.999
L21	25.9303	54.4438	4203.1440	8.8045	13.0955	320.9598	8516.7093	26.7956	4.9328	7.175
	26.4274	55.5069	4454.1993	8.9764	13.3443	333.7904	9025.4154	27.3188	5.0615	7.362
L22	26.4274	55.5069	4454.1993	8.9764	13.3443	333.7904	9025.4154	27.3188	5.0615	7.362
	26.4922	55.6453	4487.6062	8.9988	13.3767	335.4796	9093.1069	27.3869	5.0783	7.387
L23	26.4966	54.6608	4412.5899	9.0032	13.3767	329.8716	8941.1034	26.9024	5.1118	7.573
	27.2087	56.1557	4784.6349	9.2495	13.7330	348.4047	9694.9675	27.6381	5.2961	7.846
L24	27.1866	61.2069	5189.8104	9.2271	13.7330	377.9086	10515.962	30.1242	5.1286	6.954
	27.2513	61.3554	5227.6743	9.2495	13.7654	379.7700	10592.685	30.1973	5.1454	6.977
L25	27.2513	61.3554	5227.6743	9.2495	13.7654	379.7700	10592.685	30.1973	5.1454	6.977
	27.6113	62.1810	5441.5593	9.3740	13.9455	390.2030	11026.074	30.6036	5.2385	7.103
L26	27.5672	72.3730	6273.1513	9.3292	13.9455	449.8348	12711.105	35.6198	4.9035	5.685
	27.6319	72.5467	6318.4169	9.3516	13.9778	452.0308	12802.825	35.7053	4.9203	5.705
L27	27.6407	70.5113	6152.9067	9.3605	13.9778	440.1899	12467.457	34.7035	4.9873	5.955
	28.9354	73.8838	7078.6704	9.8082	14.6256	483.9903	14343.305	36.3633	5.3224	6.355
L28	28.9442	71.7437	6886.1834	9.8172	14.6256	470.8294	13953.274	35.3101	5.3894	6.633
	29.8997	74.1583	7605.1296	10.1476	15.1037	503.5269	15410.054	36.4985	5.6368	6.938
L29	29.8909	76.3727	7818.4099	10.1387	15.1037	517.6479	15842.218	37.5883	5.5698	6.65
	29.9556	76.5413	7870.3117	10.1610	15.1361	519.9692	15947.385	37.6713	5.5865	6.67
L30	29.9600	75.4321	7763.0922	10.1655	15.1361	512.8855	15730.129	37.1254	5.6200	6.812
	30.1335	75.8773	7901.3483	10.2255	15.2229	519.0430	16010.273	37.3445	5.6649	6.867
L31	30.1291	76.9932	8010.5395	10.2210	15.2229	526.2159	16231.524	37.8937	5.6314	6.724
	30.1939	77.1618	8063.2873	10.2434	15.2553	528.5563	16338.406	37.9767	5.6482	6.744
L32	30.2027	74.9239	7843.1146	10.2524	15.2553	514.1237	15892.276	36.8753	5.7152	7.034
	31.4974	78.1957	8916.1296	10.7001	15.9031	560.6534	18066.495	38.4856	6.0504	7.447

Section	Tip Dia. in	Area in ²	I in ⁴	r in	C in	I/C in ³	J in ⁴	It/Q in ²	w in	w/t
L33	31.5018	77.0249	8789.9777	10.7045	15.9031	552.7209	17810.8778	37.9093	6.0839	7.605
	32.2139	78.7967	9410.6301	10.9508	16.2594	578.7811	19068.4879	38.7814	6.2682	7.835
L34	32.2139	78.7967	9410.6301	10.9508	16.2594	578.7811	19068.4879	38.7814	6.2682	7.835
	32.2786	78.9578	9468.4592	10.9732	16.2918	581.1800	19185.6654	38.8606	6.2850	7.856
L35	32.2874	76.5528	9195.0323	10.9821	16.2918	564.3969	18631.6284	37.6769	6.3520	8.196
	33.5821	79.6736	10366.0566	11.4298	16.9396	611.9429	21004.4411	39.2129	6.6871	8.629
L36	33.5821	79.6736	10366.0566	11.4298	16.9396	611.9429	21004.4411	39.2129	6.6871	8.629
	34.9415	82.9504	11698.4028	11.8999	17.6198	663.9362	23704.1356	40.8257	7.0390	9.083
L37	34.2772	82.6307	10359.5991	11.2199	16.6586	621.8774	20991.3563	40.6683	6.4243	7.846
	34.5358	86.5290	11896.0743	11.7493	17.4245	682.7217	24104.6717	42.5869	6.8206	8.33
L38	34.5402	85.2405	11727.8562	11.7537	17.4245	673.0676	23763.8163	41.9528	6.8541	8.501
	35.8330	88.4827	13117.6503	12.2008	18.0714	725.8807	26579.9159	43.5485	7.1888	8.916
L39	35.8374	87.1429	12928.5038	12.2053	18.0714	715.4141	26196.6537	42.8891	7.2223	9.098
	36.1555	87.9281	13281.1472	12.3153	18.2305	728.5130	26911.2050	43.2756	7.3046	9.202
L40	36.1290	96.0260	14441.1120	12.2884	18.2305	792.1407	29261.6080	47.2611	7.1036	8.176
	36.1937	96.2006	14520.0637	12.3108	18.2628	795.0609	29421.5856	47.3470	7.1203	8.196
L41	36.1981	94.8510	14326.7660	12.3152	18.2628	784.4767	29029.9122	46.6828	7.1538	8.354
	37.4909	98.2943	15944.3582	12.7623	18.9097	843.1838	32307.5925	48.3775	7.4885	8.745
L42	37.4953	96.8934	15728.1407	12.7668	18.9097	831.7496	31869.4772	47.6880	7.5220	8.914
	38.4262	99.3363	16948.0465	13.0887	19.3755	874.7173	34341.3370	48.8903	7.7630	9.2
L43	38.3733	116.5151	19716.1755	13.0350	19.3755	1017.5851	39950.3169	57.3452	7.3610	7.407
	38.4379	116.7149	19817.7810	13.0573	19.4078	1021.1246	40156.1971	57.4435	7.3777	7.424
L44	38.4379	116.7149	19817.7810	13.0573	19.4078	1021.1246	40156.1971	57.4435	7.3777	7.424
	38.5025	116.9147	19919.7366	13.0797	19.4401	1024.6703	40362.7868	57.5419	7.3945	7.441
L45	38.5025	116.9147	19919.7366	13.0797	19.4401	1024.6703	40362.7868	57.5419	7.3945	7.441
	38.5672	117.1145	20022.0396	13.1020	19.4725	1028.2221	40570.0805	57.6402	7.4112	7.457
L46	38.5672	117.1145	20022.0396	13.1020	19.4725	1028.2221	40570.0805	57.6402	7.4112	7.457
	38.6111	117.2504	20091.8061	13.1172	19.4945	1030.6408	40711.4464	57.7071	7.4226	7.469
L47	38.6464	105.7400	18218.4475	13.1530	19.4945	934.5439	36915.5140	52.0420	7.6906	8.604
	38.7111	105.9197	18311.4919	13.1754	19.5268	937.7609	37104.0472	52.1305	7.7073	8.623
L48	38.7155	104.4739	18073.8052	13.1799	19.5268	925.5886	36622.4294	51.4189	7.7408	8.783
	39.7058	107.1884	19519.5659	13.5223	20.0223	974.8899	39551.9324	52.7549	7.9972	9.074
L49	39.6485	126.4064	22821.6158	13.4641	20.0223	1139.8083	46242.7808	62.2134	7.5617	7.244

Section	Tip Dia. in	Area in ²	I in ⁴	r in	C in	I/C in ³	J in ⁴	I/Q in ²	w in	w/t
	39.7131	126.6162	22935.471 7	13.4865	20.0547	1143.6473	46473.483 8	62.3167	7.5784	7.26
L50	39.7131	126.6162	22935.471 7	13.4865	20.0547	1143.6473	46473.483 8	62.3167	7.5784	7.26
	39.9458	127.3717	23348.484 1	13.5670	20.1711	1157.5211	47310.358 8	62.6885	7.6386	7.318
L51	40.0252	100.5089	18643.689 2	13.6475	20.1711	924.2768	37777.168 9	49.4674	8.2416	10.066
	40.0898	100.6735	18735.449 8	13.6699	20.2035	927.3390	37963.100 8	49.5484	8.2584	10.086
L52	40.0987	97.6636	18199.109 4	13.6788	20.2035	900.7920	36876.329 7	48.0671	8.3254	10.488
	41.4174	100.9194	20080.560 2	14.1348	20.8633	962.4841	40688.659 1	49.6695	8.6667	10.918
L53	41.3733	116.4414	23022.597 7	14.0901	20.8633	1103.4993	46650.024 7	57.3089	8.3317	9.068
	41.4379	116.6261	23132.345 8	14.1124	20.8956	1107.0434	46872.404 0	57.3998	8.3485	9.086
L54	41.4379	116.6261	23132.345 8	14.1124	20.8956	1107.0434	46872.404 0	57.3998	8.3485	9.086
	42.0197	118.2887	24135.805 4	14.3136	21.1867	1139.1960	48905.685 2	58.2181	8.4991	9.25
L55	41.9579	140.2023	28357.213 5	14.2510	21.1867	1338.4440	57459.402 6	69.0033	8.0301	7.341
	42.0226	140.4222	28490.863 1	14.2733	21.2190	1342.7024	57730.212 8	69.1115	8.0468	7.357
L56	42.0314	137.2987	27892.076 0	14.2823	21.2190	1314.4831	56516.908 0	67.5743	8.1138	7.592
	43.0010	140.5220	29902.995 7	14.6176	21.7042	1377.7516	60591.576 4	69.1607	8.3648	7.826

Tower Elevation ft	Gusset Area (per face) ft ²	Gusset Thickness in	Gusset Grade	Adjust. Factor A _r	Adjust. Factor A _r	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals in	Double Angle Stitch Bolt Spacing Horizontals in	Double Angle Stitch Bolt Spacing Redundants in
L1 131.0000- 126.0000				1	1	1			
L2 126.0000- 121.0000				1	1	1			
L3 121.0000- 116.0000				1	1	1			
L4 116.0000- 111.0000				1	1	1			
L5 111.0000- 110.0000				1	1	1			
L6 110.0000- 105.0000				1	1	1			
L7 105.0000- 100.0000				1	1	1			
L8 100.0000- 95.0000				1	1	1			
L9 95.0000- 90.0000				1	1	1			
L10 90.0000- 89.7500				1	1	0.924185			
L11 89.7500- 84.7500				1	1	0.933544			
L12 84.7500- 84.5800				1	1	0.944718			
L13 84.5800- 84.3300				1	1	0.914408			
L14 84.3300- 83.4200				1	1	0.926528			

Tower Elevation ft	Gusset Area (per face) ft ²	Gusset Thickness in	Gusset Grade	Adjust. Factor A _r	Adjust. Factor A _r	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals in	Double Angle Stitch Bolt Spacing Horizontals in	Double Angle Stitch Bolt Spacing Redundants in
L15 83.4200-83.1700				1	1	0.877374			
L16 83.1700-83.0000				1	1	0.876149			
L17 83.0000-82.7500				1	1	0.895771			
L18 82.7500-77.7500				1	1	0.913883			
L19 77.7500-70.0000				1	1	0.90949			
L20 70.0000-69.0000				1	1	0.921147			
L21 69.0000-67.0800				1	1	0.92817			
L22 67.0800-66.8300				1	1	0.926992			
L23 66.8300-64.0800				1	1	0.930891			
L24 64.0800-63.8300				1	1	0.999923			
L25 63.8300-62.4400				1	1	0.992273			
L26 62.4400-62.1900				1	1	0.91348			
L27 62.1900-57.1900				1	1	0.91398			
L28 57.1900-53.5000				1	1	0.92312			
L29 53.5000-53.2500				1	1	0.934453			
L30 53.2500-52.5800				1	1	0.944853			
L31 52.5800-52.3300				1	1	0.944539			
L32 52.3300-47.3300				1	1	0.948144			
L33 47.3300-44.5800				1	1	0.949695			
L34 44.5800-44.3300				1	1	0.948555			
L35 44.3300-39.3300				1	1	0.955828			
L36 39.3300-34.0800				1	1	0.954403			
L37 34.0800-33.0800				1	1	0.946762			
L38 33.0800-28.0800				1	1	0.941482			
L39 28.0800-26.8500				1	1	0.951287			
L40 26.8500-26.6000				1	1	0.995121			
L41 26.6000-21.6000				1	1	0.987989			
L42 21.6000-18.0000				1	1	0.987645			
L43 18.0000-17.7500				1	1	0.947359			
L44 17.7500-17.5000				1	1	0.946332			
L45 17.5000-17.2500				1	1	0.945307			

Tower Elevation ft	Gusset Area (per face) ft ²	Gusset Thickness in	Gusset Grade	Adjust. Factor A _r	Adjust. Factor A _r	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals in	Double Angle Stitch Bolt Spacing Horizontals in	Double Angle Stitch Bolt Spacing Redundants in
L46 17.2500-17.0800				1	1	0.944613			
L47 17.0800-16.8300				1	1	0.961223			
L48 16.8300-13.0000				1	1	0.959725			
L49 13.0000-12.7500				1	1	0.955378			
L50 12.7500-11.8500				1	1	0.951665			
L51 11.8500-11.6000				1	1	1.02568			
L52 11.6000-6.5000				1	1	1.03715			
L53 6.5000-6.2500				1	1	0.967831			
L54 6.2500-4.0000				1	1	0.959487			
L55 4.0000-3.7500				1	1	0.867579			
L56 3.7500-0.0000				1	1	0.874341			

Feed Line/Linear Appurtenances - Entered As Round Or Flat

Description	Sector	Exclude From Torque Calculation	Component Type	Placement ft	Total Number	Number Per Row	Start/End Position	Width or Diameter in	Perimeter in	Weight plf
2" (Nominal) Conduit	B	No	Surface Ar (CaAa)	121.0000 - 0.0000	4	4	-0.006 0.182	2.3750		0.72
LDF6-50A(1-1/4")	B	No	Surface Ar (CaAa)	121.0000 - 0.0000	6	3	0.182 0.275	1.5500		0.66

2" (Nominal) Conduit	A	No	Surface Ar (CaAa)	97.0000 - 0.0000	2	2	-0.287 -0.182	2.3750		0.72

LCF114-50J(1-1/4)	B	No	Surface Ar (CaAa)	87.0000 - 0.0000	6	5	-0.340 -0.104	1.5800		0.70
HCS 6X12 4AWG(1-5/8)	B	No	Surface Ar (CaAa)	87.0000 - 0.0000	4	2	-0.382 -0.183	1.6600		2.40

CCI-040075 Reinforcement	B	No	Surface Af (CaAa)	44.0000 - 14.0000	1	1	-0.500 -0.500	0.1000	1.7000	0.00
CCI-040075 Reinforcement	A	No	Surface Af (CaAa)	44.0000 - 14.0000	1	1	-0.500 -0.500	0.1000	1.7000	0.00
CCI-040075 Reinforcement	C	No	Surface Af (CaAa)	44.0000 - 14.0000	1	1	-0.500 -0.500	0.1000	1.7000	0.00
CCI-040075 Reinforcement	A	No	Surface Af (CaAa)	70.0000 - 40.0000	1	1	-0.250 -0.250	0.1000	1.7000	0.00
CCI-040075 Reinforcement	C	No	Surface Af (CaAa)	70.0000 - 40.0000	1	1	-0.250 -0.250	0.1000	1.7000	0.00
CCI-040075 Reinforcement	B	No	Surface Af (CaAa)	70.0000 - 40.0000	1	1	-0.250 -0.250	0.1000	1.7000	0.00
CCI-040075 Reinforcement	B	No	Surface Af (CaAa)	86.5000 - 66.5000	1	1	-0.500 -0.500	0.1000	1.7000	0.00
CCI-040075 Reinforcement	A	No	Surface Af (CaAa)	86.5000 - 66.5000	1	1	-0.500 -0.500	0.1000	1.7000	0.00

Description	Sector	Exclude From Torque Calculation	Component Type	Placement ft	Total Number	Number Per Row	Start/End Position	Width or Diameter in	Perimeter in	Weight plf
CCI-040075 Reinforcement	C	No	Surface Af (CaAa)	86.5000 - 66.5000	1	1	-0.500 -0.500	0.1000	1.7000	0.00

CCI-060100 Reinforcement	B	No	Surface Af (CaAa)	15.5000 - 0.5000	1	1	-0.500 -0.500	0.1000	2.2000	0.00
CCI-060100 Reinforcement	A	No	Surface Af (CaAa)	15.5000 - 0.5000	1	1	-0.500 -0.500	0.1000	2.2000	0.00
CCI-060100 Reinforcement	C	No	Surface Af (CaAa)	15.5000 - 0.5000	1	1	-0.500 -0.500	0.1000	2.2000	0.00
CCI-060100 Reinforcement	A	No	Surface Af (CaAa)	43.0000 - 8.0000	1	1	0.000 0.000	0.1000	2.2000	0.00
CCI-060100 Reinforcement	C	No	Surface Af (CaAa)	56.0000 - 21.0000	1	1	0.000 0.000	0.1000	2.2000	0.00
CCI-060100 Reinforcement	C	No	Surface Af (CaAa)	56.0000 - 21.0000	1	1	-0.250 -0.250	0.1000	2.2000	0.00
CCI-060100 Reinforcement	B	No	Surface Af (CaAa)	56.0000 - 21.0000	1	1	0.000 0.000	0.1000	2.2000	0.00
CCI-060100 Reinforcement	B	No	Surface Af (CaAa)	56.0000 - 21.0000	1	1	-0.250 -0.250	0.1000	2.2000	0.00
CCI-045100 Reinforcement	A	No	Surface Af (CaAa)	63.0000 - 43.0000	1	1	0.000 0.000	0.1000	2.2000	0.00
CCI-045100 Reinforcement	C	No	Surface Af (CaAa)	66.0000 - 56.0000	1	1	0.000 0.000	0.1000	2.2000	0.00
CCI-045100 Reinforcement	B	No	Surface Af (CaAa)	66.0000 - 56.0000	1	1	0.000 0.000	0.1000	2.2000	0.00
CCI-045100 Reinforcement	A	No	Surface Af (CaAa)	91.5000 - 81.5000	1	1	0.000 0.000	0.1000	2.2000	0.00
CCI-045100 Reinforcement	C	No	Surface Af (CaAa)	91.5000 - 81.5000	1	1	0.000 0.000	0.1000	2.2000	0.00
CCI-045100 Reinforcement	B	No	Surface Af (CaAa)	91.5000 - 81.5000	1	1	0.000 0.000	0.1000	2.2000	0.00

CCI-065125 Reinforcement	A	No	Surface Af (CaAa)	20.7500 - 0.0000	1	1	-0.250 -0.250	0.1000	2.7000	0.00
CCI-065125 Reinforcement	C	No	Surface Af (CaAa)	20.7500 - 0.0000	1	1	0.000 0.000	0.1000	2.7000	0.00
CCI-065125 Reinforcement	B	No	Surface Af (CaAa)	20.7500 - 0.0000	1	1	0.000 0.000	0.1000	2.7000	0.00
CCI-065125 Reinforcement	C	No	Surface Af (CaAa)	9.2500 - 0.0000	1	1	-0.250 -0.250	0.1000	2.7000	0.00

CCI-060100 Reinforcement	A	No	Surface Af (CaAa)	20.0000 - 0.0000	1	1	0.250 0.250	0.1000	2.2000	0.00
CCI-060100 Reinforcement	C	No	Surface Af (CaAa)	20.0000 - 0.0000	1	1	0.250 0.250	0.1000	2.2000	0.00
CCI-060100 Reinforcement	B	No	Surface Af (CaAa)	20.0000 - 0.0000	1	1	0.250 0.250	0.1000	2.2000	0.00
CCI-060100 Reinforcement	A	No	Surface Af (CaAa)	55.0000 - 20.0000	1	1	0.250 0.250	0.1000	2.2000	0.00
CCI-060100 Reinforcement	C	No	Surface Af (CaAa)	55.0000 - 20.0000	1	1	0.250 0.250	0.1000	2.2000	0.00
CCI-060100 Reinforcement	B	No	Surface Af (CaAa)	55.0000 - 20.0000	1	1	0.250 0.250	0.1000	2.2000	0.00
FP 4.50 x 1.25 Reinforcement	A	No	Surface Af (CaAa)	85.0000 - 55.0000	1	1	0.250 0.250	0.1000	2.7000	0.00
FP 4.50 x 1.25 Reinforcement	C	No	Surface Af (CaAa)	85.0000 - 55.0000	1	1	0.250 0.250	0.1000	2.7000	0.00
FP 4.50 x 1.25 Reinforcement	B	No	Surface Af (CaAa)	85.0000 - 55.0000	1	1	0.250 0.250	0.1000	2.7000	0.00

Feed Line/Linear Appurtenances - Entered As Area

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Componen t Type	Placement ft	Total Number	C _{AA} ft ² /ft	Weight plf
FB-L98B-002-75000(3/8")	C	No	No	Inside Pole	121.0000 - 0.0000	2	No Ice	0.0000
							1/2" Ice	0.0000
							1" Ice	0.0000
							2" Ice	0.0000
WR-VG86ST-BRD(3/4)	C	No	No	Inside Pole	121.0000 - 0.0000	8	No Ice	0.0000
							1/2" Ice	0.0000
							1" Ice	0.0000
							2" Ice	0.0000

HJ7-50A(1-5/8")	C	No	No	Inside Pole	109.0000 - 0.0000	6	No Ice	0.0000
							1/2" Ice	0.0000
							1" Ice	0.0000
							2" Ice	0.0000
HB158-U12S24-160-LI(1-7/8)	C	No	No	Inside Pole	109.0000 - 0.0000	1	No Ice	0.0000
							1/2" Ice	0.0000
							1" Ice	0.0000
							2" Ice	0.0000
ATCB-B01-005(5/16)	C	No	No	Inside Pole	97.0000 - 0.0000	3	No Ice	0.0000
							1/2" Ice	0.0000
							1" Ice	0.0000
							2" Ice	0.0000
FSJ4-50B(1/2")	C	No	No	Inside Pole	97.0000 - 0.0000	3	No Ice	0.0000
							1/2" Ice	0.0000
							1" Ice	0.0000
							2" Ice	0.0000
HB114-1-08U4-M5J(1 1/4")	C	No	No	Inside Pole	97.0000 - 0.0000	4	No Ice	0.0000
							1/2" Ice	0.0000
							1" Ice	0.0000
							2" Ice	0.0000

Feed Line/Linear Appurtenances Section Areas

Tower Sectio n	Tower Elevation ft	Face	A _R ft ²	A _F ft ²	C _{AA} In Face ft ²	C _{AA} Out Face ft ²	Weight K
L1	131.0000- 126.0000	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.000	0.00
L2	126.0000- 121.0000	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.000	0.00
L3	121.0000- 116.0000	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	7.075	0.000	0.03
		C	0.000	0.000	0.000	0.000	0.02
L4	116.0000- 111.0000	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	7.075	0.000	0.03
		C	0.000	0.000	0.000	0.000	0.02
L5	111.0000- 110.0000	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	1.415	0.000	0.01
		C	0.000	0.000	0.000	0.000	0.00
L6	110.0000- 105.0000	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	7.075	0.000	0.03
		C	0.000	0.000	0.000	0.000	0.06
L7	105.0000- 100.0000	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	7.075	0.000	0.03
		C	0.000	0.000	0.000	0.000	0.07

Tower Sectio n	Tower Elevation ft	Face	A _R ft ²	A _F ft ²	C _A A _A In Face ft ²	C _A A _A Out Face ft ²	Weight K
L8	100.0000-95.0000	A	0.000	0.000	0.950	0.000	0.00
		B	0.000	0.000	7.075	0.000	0.03
		C	0.000	0.000	0.000	0.000	0.08
L9	95.0000-90.0000	A	0.000	0.000	2.400	0.000	0.01
		B	0.000	0.000	7.100	0.000	0.03
		C	0.000	0.000	0.025	0.000	0.10
L10	90.0000-89.7500	A	0.000	0.000	0.123	0.000	0.00
		B	0.000	0.000	0.358	0.000	0.00
		C	0.000	0.000	0.004	0.000	0.00
L11	89.7500-84.7500	A	0.000	0.000	2.492	0.000	0.01
		B	0.000	0.000	9.716	0.000	0.07
		C	0.000	0.000	0.117	0.000	0.10
L12	84.7500-84.5800	A	0.000	0.000	0.089	0.000	0.00
		B	0.000	0.000	0.440	0.000	0.00
		C	0.000	0.000	0.009	0.000	0.00
L13	84.5800-84.3300	A	0.000	0.000	0.131	0.000	0.00
		B	0.000	0.000	0.647	0.000	0.01
		C	0.000	0.000	0.013	0.000	0.00
L14	84.3300-83.4200	A	0.000	0.000	0.478	0.000	0.00
		B	0.000	0.000	2.354	0.000	0.02
		C	0.000	0.000	0.045	0.000	0.02
L15	83.4200-83.1700	A	0.000	0.000	0.131	0.000	0.00
		B	0.000	0.000	0.647	0.000	0.01
		C	0.000	0.000	0.013	0.000	0.00
L16	83.1700-83.0000	A	0.000	0.000	0.089	0.000	0.00
		B	0.000	0.000	0.440	0.000	0.00
		C	0.000	0.000	0.009	0.000	0.00
L17	83.0000-82.7500	A	0.000	0.000	0.131	0.000	0.00
		B	0.000	0.000	0.647	0.000	0.01
		C	0.000	0.000	0.013	0.000	0.00
L18	82.7500-77.7500	A	0.000	0.000	2.563	0.000	0.01
		B	0.000	0.000	12.873	0.000	0.10
		C	0.000	0.000	0.188	0.000	0.10
L19	77.7500-70.0000	A	0.000	0.000	3.940	0.000	0.01
		B	0.000	0.000	19.920	0.000	0.16
		C	0.000	0.000	0.258	0.000	0.15
L20	70.0000-69.0000	A	0.000	0.000	0.525	0.000	0.00
		B	0.000	0.000	2.587	0.000	0.02
		C	0.000	0.000	0.050	0.000	0.02
L21	69.0000-67.0800	A	0.000	0.000	1.008	0.000	0.00
		B	0.000	0.000	4.967	0.000	0.04
		C	0.000	0.000	0.096	0.000	0.04
L22	67.0800-66.8300	A	0.000	0.000	0.131	0.000	0.00
		B	0.000	0.000	0.647	0.000	0.01
		C	0.000	0.000	0.013	0.000	0.00
L23	66.8300-64.0800	A	0.000	0.000	1.403	0.000	0.00
		B	0.000	0.000	7.106	0.000	0.06
		C	0.000	0.000	0.129	0.000	0.05
L24	64.0800-63.8300	A	0.000	0.000	0.127	0.000	0.00
		B	0.000	0.000	0.647	0.000	0.01
		C	0.000	0.000	0.013	0.000	0.00
L25	63.8300-62.4400	A	0.000	0.000	0.716	0.000	0.00
		B	0.000	0.000	3.596	0.000	0.03
		C	0.000	0.000	0.070	0.000	0.03
L26	62.4400-62.1900	A	0.000	0.000	0.131	0.000	0.00
		B	0.000	0.000	0.647	0.000	0.01
		C	0.000	0.000	0.013	0.000	0.00
L27	62.1900-57.1900	A	0.000	0.000	2.625	0.000	0.01
		B	0.000	0.000	12.935	0.000	0.10
		C	0.000	0.000	0.250	0.000	0.10
L28	57.1900-53.5000	A	0.000	0.000	1.937	0.000	0.01
		B	0.000	0.000	9.588	0.000	0.08
		C	0.000	0.000	0.226	0.000	0.07
L29	53.5000-53.2500	A	0.000	0.000	0.131	0.000	0.00
		B	0.000	0.000	0.651	0.000	0.01

Tower Sectio n	Tower Elevation ft	Face	A_R ft ²	A_F ft ²	C_{AA} In Face ft ²	C_{AA} Out Face ft ²	Weight K
L30	53.2500-52.5800	C	0.000	0.000	0.017	0.000	0.00
		A	0.000	0.000	0.352	0.000	0.00
		B	0.000	0.000	1.744	0.000	0.01
		C	0.000	0.000	0.045	0.000	0.01
L31	52.5800-52.3300	A	0.000	0.000	0.131	0.000	0.00
		B	0.000	0.000	0.651	0.000	0.01
		C	0.000	0.000	0.017	0.000	0.00
L32	52.3300-47.3300	A	0.000	0.000	2.625	0.000	0.01
		B	0.000	0.000	13.018	0.000	0.10
		C	0.000	0.000	0.333	0.000	0.10
L33	47.3300-44.5800	A	0.000	0.000	1.444	0.000	0.00
		B	0.000	0.000	7.160	0.000	0.06
		C	0.000	0.000	0.183	0.000	0.05
L34	44.5800-44.3300	A	0.000	0.000	0.131	0.000	0.00
		B	0.000	0.000	0.651	0.000	0.01
		C	0.000	0.000	0.017	0.000	0.00
L35	44.3300-39.3300	A	0.000	0.000	2.692	0.000	0.01
		B	0.000	0.000	13.085	0.000	0.10
		C	0.000	0.000	0.400	0.000	0.10
L36	39.3300-34.0800	A	0.000	0.000	2.756	0.000	0.01
		B	0.000	0.000	13.669	0.000	0.11
		C	0.000	0.000	0.350	0.000	0.10
L37	34.0800-33.0800	A	0.000	0.000	0.525	0.000	0.00
		B	0.000	0.000	2.604	0.000	0.02
		C	0.000	0.000	0.067	0.000	0.02
L38	33.0800-28.0800	A	0.000	0.000	2.625	0.000	0.01
		B	0.000	0.000	13.018	0.000	0.10
		C	0.000	0.000	0.333	0.000	0.10
L39	28.0800-26.8500	A	0.000	0.000	0.646	0.000	0.00
		B	0.000	0.000	3.203	0.000	0.03
		C	0.000	0.000	0.082	0.000	0.02
L40	26.8500-26.6000	A	0.000	0.000	0.131	0.000	0.00
		B	0.000	0.000	0.651	0.000	0.01
		C	0.000	0.000	0.017	0.000	0.00
L41	26.6000-21.6000	A	0.000	0.000	2.625	0.000	0.01
		B	0.000	0.000	13.018	0.000	0.10
		C	0.000	0.000	0.333	0.000	0.10
L42	21.6000-18.0000	A	0.000	0.000	1.936	0.000	0.01
		B	0.000	0.000	9.319	0.000	0.07
		C	0.000	0.000	0.186	0.000	0.07
L43	18.0000-17.7500	A	0.000	0.000	0.135	0.000	0.00
		B	0.000	0.000	0.647	0.000	0.01
		C	0.000	0.000	0.013	0.000	0.00
L44	17.7500-17.5000	A	0.000	0.000	0.135	0.000	0.00
		B	0.000	0.000	0.647	0.000	0.01
		C	0.000	0.000	0.013	0.000	0.00
L45	17.5000-17.2500	A	0.000	0.000	0.135	0.000	0.00
		B	0.000	0.000	0.647	0.000	0.01
		C	0.000	0.000	0.013	0.000	0.00
L46	17.2500-17.0800	A	0.000	0.000	0.092	0.000	0.00
		B	0.000	0.000	0.440	0.000	0.00
		C	0.000	0.000	0.009	0.000	0.00
L47	17.0800-16.8300	A	0.000	0.000	0.135	0.000	0.00
		B	0.000	0.000	0.647	0.000	0.01
		C	0.000	0.000	0.013	0.000	0.00
L48	16.8300-13.0000	A	0.000	0.000	2.100	0.000	0.01
		B	0.000	0.000	9.933	0.000	0.08
		C	0.000	0.000	0.217	0.000	0.07
L49	13.0000-12.7500	A	0.000	0.000	0.135	0.000	0.00
		B	0.000	0.000	0.647	0.000	0.01
		C	0.000	0.000	0.013	0.000	0.00
L50	12.7500-11.8500	A	0.000	0.000	0.487	0.000	0.00
		B	0.000	0.000	2.328	0.000	0.02
		C	0.000	0.000	0.045	0.000	0.02
L51	11.8500-11.6000	A	0.000	0.000	0.135	0.000	0.00

Tower Section <i>n</i>	Tower Elevation ft	Face	A_R ft ²	A_F ft ²	C_{AA} In Face ft ²	C_{AA} Out Face ft ²	Weight K
L52	11.6000-6.5000	B	0.000	0.000	0.647	0.000	0.01
		C	0.000	0.000	0.013	0.000	0.00
		A	0.000	0.000	2.737	0.000	0.01
L53	6.5000-6.2500	B	0.000	0.000	13.194	0.000	0.11
		C	0.000	0.000	0.301	0.000	0.10
		A	0.000	0.000	0.131	0.000	0.00
L54	6.2500-4.0000	B	0.000	0.000	0.647	0.000	0.01
		C	0.000	0.000	0.017	0.000	0.00
		A	0.000	0.000	1.181	0.000	0.00
L55	4.0000-3.7500	B	0.000	0.000	5.821	0.000	0.05
		C	0.000	0.000	0.150	0.000	0.04
		A	0.000	0.000	0.131	0.000	0.00
L56	3.7500-0.0000	B	0.000	0.000	0.647	0.000	0.01
		C	0.000	0.000	0.017	0.000	0.00
		A	0.000	0.000	1.960	0.000	0.01
		B	0.000	0.000	9.693	0.000	0.08
		C	0.000	0.000	0.242	0.000	0.07
		A	0.000	0.000			

Feed Line/Linear Appurtenances Section Areas - With Ice

Tower Section <i>n</i>	Tower Elevation ft	Face or Leg	Ice Thickness in	A_R ft ²	A_F ft ²	C_{AA} In Face ft ²	C_{AA} Out Face ft ²	Weight K
L1	131.0000-126.0000	A	1.947	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.000	0.00
L2	126.0000-121.0000	A	1.940	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.000	0.00
L3	121.0000-116.0000	A	1.932	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	13.673	0.000	0.23
		C		0.000	0.000	0.000	0.000	0.02
L4	116.0000-111.0000	A	1.923	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	13.652	0.000	0.23
		C		0.000	0.000	0.000	0.000	0.02
L5	111.0000-110.0000	A	1.918	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	2.728	0.000	0.05
		C		0.000	0.000	0.000	0.000	0.00
L6	110.0000-105.0000	A	1.913	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	13.626	0.000	0.22
		C		0.000	0.000	0.000	0.000	0.06
L7	105.0000-100.0000	A	1.904	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	13.604	0.000	0.22
		C		0.000	0.000	0.000	0.000	0.07
L8	100.0000-95.0000	A	1.894	0.000	0.000	2.135	0.000	0.03
		B		0.000	0.000	13.580	0.000	0.22
		C		0.000	0.000	0.000	0.000	0.08
L9	95.0000-90.0000	A	1.885	0.000	0.000	5.915	0.000	0.09
		B		0.000	0.000	14.145	0.000	0.23
		C		0.000	0.000	0.590	0.000	0.11
L10	90.0000-89.7500	A	1.879	0.000	0.000	0.364	0.000	0.01
		B		0.000	0.000	0.775	0.000	0.01
		C		0.000	0.000	0.098	0.000	0.01
L11	89.7500-84.7500	A	1.874	0.000	0.000	8.050	0.000	0.12
		B		0.000	0.000	21.531	0.000	0.37
		C		0.000	0.000	2.740	0.000	0.14
L12	84.7500-84.5800	A	1.868	0.000	0.000	0.379	0.000	0.01
		B		0.000	0.000	1.056	0.000	0.02
		C		0.000	0.000	0.199	0.000	0.01
L13	84.5800-84.3300	A	1.867	0.000	0.000	0.558	0.000	0.01
		B		0.000	0.000	1.552	0.000	0.03
		C		0.000	0.000	0.293	0.000	0.01
L14	84.3300-83.4200	A	1.866	0.000	0.000	2.029	0.000	0.03

Tower Section	Tower Elevation	Face or Leg	Ice Thickness	A _R	A _F	C _{AA} _A In Face	C _{AA} _A Out Face	Weight K
n	ft		in	ft ²	ft ²	ft ²	ft ²	
		B		0.000	0.000	5.649	0.000	0.10
		C		0.000	0.000	1.064	0.000	0.04
L15	83.4200-83.1700	A	1.865	0.000	0.000	0.557	0.000	0.01
		B		0.000	0.000	1.551	0.000	0.03
		C		0.000	0.000	0.292	0.000	0.01
L16	83.1700-83.0000	A	1.864	0.000	0.000	0.379	0.000	0.01
		B		0.000	0.000	1.055	0.000	0.02
		C		0.000	0.000	0.199	0.000	0.01
L17	83.0000-82.7500	A	1.864	0.000	0.000	0.557	0.000	0.01
		B		0.000	0.000	1.551	0.000	0.03
		C		0.000	0.000	0.292	0.000	0.01
L18	82.7500-77.7500	A	1.858	0.000	0.000	9.659	0.000	0.15
		B		0.000	0.000	29.514	0.000	0.53
		C		0.000	0.000	4.368	0.000	0.17
L19	77.7500-70.0000	A	1.843	0.000	0.000	14.142	0.000	0.22
		B		0.000	0.000	44.827	0.000	0.80
		C		0.000	0.000	5.970	0.000	0.25
L20	70.0000-69.0000	A	1.831	0.000	0.000	2.210	0.000	0.03
		B		0.000	0.000	6.169	0.000	0.11
		C		0.000	0.000	1.156	0.000	0.04
L21	69.0000-67.0800	A	1.828	0.000	0.000	4.219	0.000	0.06
		B		0.000	0.000	11.799	0.000	0.21
		C		0.000	0.000	2.201	0.000	0.07
L22	67.0800-66.8300	A	1.825	0.000	0.000	0.549	0.000	0.01
		B		0.000	0.000	1.535	0.000	0.03
		C		0.000	0.000	0.286	0.000	0.01
L23	66.8300-64.0800	A	1.820	0.000	0.000	5.104	0.000	0.08
		B		0.000	0.000	16.678	0.000	0.29
		C		0.000	0.000	2.951	0.000	0.10
L24	64.0800-63.8300	A	1.816	0.000	0.000	0.452	0.000	0.01
		B		0.000	0.000	1.532	0.000	0.03
		C		0.000	0.000	0.285	0.000	0.01
L25	63.8300-62.4400	A	1.814	0.000	0.000	2.723	0.000	0.04
		B		0.000	0.000	8.512	0.000	0.15
		C		0.000	0.000	1.582	0.000	0.05
L26	62.4400-62.1900	A	1.812	0.000	0.000	0.546	0.000	0.01
		B		0.000	0.000	1.530	0.000	0.03
		C		0.000	0.000	0.284	0.000	0.01
L27	62.1900-57.1900	A	1.804	0.000	0.000	10.885	0.000	0.17
		B		0.000	0.000	30.536	0.000	0.54
		C		0.000	0.000	5.661	0.000	0.19
L28	57.1900-53.5000	A	1.790	0.000	0.000	7.990	0.000	0.12
		B		0.000	0.000	23.392	0.000	0.41
		C		0.000	0.000	5.085	0.000	0.16
L29	53.5000-53.2500	A	1.784	0.000	0.000	0.540	0.000	0.01
		B		0.000	0.000	1.612	0.000	0.03
		C		0.000	0.000	0.373	0.000	0.01
L30	53.2500-52.5800	A	1.782	0.000	0.000	1.446	0.000	0.02
		B		0.000	0.000	4.319	0.000	0.07
		C		0.000	0.000	1.000	0.000	0.03
L31	52.5800-52.3300	A	1.781	0.000	0.000	0.539	0.000	0.01
		B		0.000	0.000	1.611	0.000	0.03
		C		0.000	0.000	0.373	0.000	0.01
L32	52.3300-47.3300	A	1.771	0.000	0.000	10.747	0.000	0.16
		B		0.000	0.000	32.133	0.000	0.55
		C		0.000	0.000	7.419	0.000	0.22
L33	47.3300-44.5800	A	1.757	0.000	0.000	5.878	0.000	0.09
		B		0.000	0.000	17.603	0.000	0.30
		C		0.000	0.000	4.049	0.000	0.12
L34	44.5800-44.3300	A	1.751	0.000	0.000	0.533	0.000	0.01
		B		0.000	0.000	1.598	0.000	0.03
		C		0.000	0.000	0.367	0.000	0.01
L35	44.3300-39.3300	A	1.741	0.000	0.000	12.076	0.000	0.18
		B		0.000	0.000	33.315	0.000	0.57
		C		0.000	0.000	8.755	0.000	0.24

Tower Sectio n	Tower Elevation ft	Face or Leg	Ice Thickness in	A _R ft ²	A _F ft ²	C _A A _A In Face ft ²	C _A A _A Out Face ft ²	Weight K
L36	39.3300-34.0800	A	1.718	0.000	0.000	11.047	0.000	0.16
		B		0.000	0.000	33.235	0.000	0.56
		C		0.000	0.000	7.566	0.000	0.22
L37	34.0800-33.0800	A	1.703	0.000	0.000	2.104	0.000	0.03
		B		0.000	0.000	6.331	0.000	0.11
		C		0.000	0.000	1.441	0.000	0.04
L38	33.0800-28.0800	A	1.687	0.000	0.000	10.389	0.000	0.15
		B		0.000	0.000	31.373	0.000	0.53
		C		0.000	0.000	7.081	0.000	0.21
L39	28.0800-26.8500	A	1.669	0.000	0.000	2.537	0.000	0.04
		B		0.000	0.000	7.678	0.000	0.13
		C		0.000	0.000	1.724	0.000	0.05
L40	26.8500-26.6000	A	1.665	0.000	0.000	0.515	0.000	0.01
		B		0.000	0.000	1.559	0.000	0.03
		C		0.000	0.000	0.350	0.000	0.01
L41	26.6000-21.6000	A	1.647	0.000	0.000	10.220	0.000	0.14
		B		0.000	0.000	31.015	0.000	0.51
		C		0.000	0.000	6.923	0.000	0.20
L42	21.6000-18.0000	A	1.615	0.000	0.000	8.194	0.000	0.12
		B		0.000	0.000	21.019	0.000	0.35
		C		0.000	0.000	3.788	0.000	0.13
L43	18.0000-17.7500	A	1.599	0.000	0.000	0.585	0.000	0.01
		B		0.000	0.000	1.445	0.000	0.02
		C		0.000	0.000	0.252	0.000	0.01
L44	17.7500-17.5000	A	1.597	0.000	0.000	0.584	0.000	0.01
		B		0.000	0.000	1.444	0.000	0.02
		C		0.000	0.000	0.252	0.000	0.01
L45	17.5000-17.2500	A	1.594	0.000	0.000	0.584	0.000	0.01
		B		0.000	0.000	1.443	0.000	0.02
		C		0.000	0.000	0.252	0.000	0.01
L46	17.2500-17.0800	A	1.592	0.000	0.000	0.397	0.000	0.01
		B		0.000	0.000	0.981	0.000	0.02
		C		0.000	0.000	0.171	0.000	0.01
L47	17.0800-16.8300	A	1.590	0.000	0.000	0.583	0.000	0.01
		B		0.000	0.000	1.442	0.000	0.02
		C		0.000	0.000	0.251	0.000	0.01
L48	16.8300-13.0000	A	1.570	0.000	0.000	9.340	0.000	0.13
		B		0.000	0.000	22.455	0.000	0.36
		C		0.000	0.000	4.296	0.000	0.14
L49	13.0000-12.7500	A	1.547	0.000	0.000	0.571	0.000	0.01
		B		0.000	0.000	1.424	0.000	0.02
		C		0.000	0.000	0.245	0.000	0.01
L50	12.7500-11.8500	A	1.540	0.000	0.000	2.050	0.000	0.03
		B		0.000	0.000	5.117	0.000	0.08
		C		0.000	0.000	0.877	0.000	0.03
L51	11.8500-11.6000	A	1.533	0.000	0.000	0.567	0.000	0.01
		B		0.000	0.000	1.418	0.000	0.02
		C		0.000	0.000	0.242	0.000	0.01
L52	11.6000-6.5000	A	1.493	0.000	0.000	10.893	0.000	0.15
		B		0.000	0.000	28.615	0.000	0.45
		C		0.000	0.000	5.692	0.000	0.18
L53	6.5000-6.2500	A	1.442	0.000	0.000	0.467	0.000	0.01
		B		0.000	0.000	1.382	0.000	0.02
		C		0.000	0.000	0.305	0.000	0.01
L54	6.2500-4.0000	A	1.411	0.000	0.000	4.147	0.000	0.05
		B		0.000	0.000	12.328	0.000	0.19
		C		0.000	0.000	2.690	0.000	0.08
L55	4.0000-3.7500	A	1.372	0.000	0.000	0.453	0.000	0.01
		B		0.000	0.000	1.354	0.000	0.02
		C		0.000	0.000	0.291	0.000	0.01
L56	3.7500-0.0000	A	1.276	0.000	0.000	6.344	0.000	0.08
		B		0.000	0.000	19.598	0.000	0.29
		C		0.000	0.000	3.941	0.000	0.12

Feed Line Center of Pressure

Section	Elevation ft	CP _x in	CP _z in	CP _x Ice in	CP _z Ice in
L1	131.0000-126.0000	0.0000	0.0000	0.0000	0.0000
L2	126.0000-121.0000	0.0000	0.0000	0.0000	0.0000
L3	121.0000-116.0000	3.9082	-0.9562	3.5734	-0.8058
L4	116.0000-111.0000	4.0202	-0.9844	3.7593	-0.8487
L5	111.0000-110.0000	4.0830	-1.0003	3.8671	-0.8737
L6	110.0000-105.0000	4.1482	-1.0167	3.9782	-0.8994
L7	105.0000-100.0000	4.2459	-1.0414	4.1562	-0.9406
L8	100.0000-95.0000	3.5264	-1.0256	3.2493	-0.9007
L9	95.0000-90.0000	2.5357	-0.9945	2.0158	-0.8082
L10	90.0000-89.7500	2.5485	-0.9999	1.8844	-0.7559
L11	89.7500-84.7500	2.9824	-2.0462	2.1396	-1.5813
L12	84.7500-84.5800	3.3616	-3.0110	2.1595	-2.0840
L13	84.5800-84.3300	3.3689	-3.0176	2.1642	-2.0885
L14	84.3300-83.4200	3.3789	-3.0265	2.1750	-2.0989
L15	83.4200-83.1700	3.3963	-3.0420	2.1874	-2.1107
L16	83.1700-83.0000	3.4000	-3.0453	2.1913	-2.1145
L17	83.0000-82.7500	3.3981	-3.0436	2.1940	-2.1170
L18	82.7500-77.7500	3.4663	-3.1045	2.3735	-2.2899
L19	77.7500-70.0000	3.5797	-3.2056	2.5438	-2.4532
L20	70.0000-69.0000	3.5872	-3.2122	2.4010	-2.3154
L21	69.0000-67.0800	3.6098	-3.2323	2.4301	-2.3425
L22	67.0800-66.8300	3.6266	-3.2473	2.4496	-2.3611
L23	66.8300-64.0800	3.6858	-3.2655	2.7544	-2.3427
L24	64.0800-63.8300	3.7176	-3.2787	2.8545	-2.3038
L25	63.8300-62.4400	3.7120	-3.2937	2.7264	-2.3621
L26	62.4400-62.1900	3.7005	-3.3131	2.5336	-2.4411
L27	62.1900-57.1900	3.7383	-3.3469	2.5800	-2.4854
L28	57.1900-53.5000	3.8129	-3.4021	2.8032	-2.5900
L29	53.5000-53.2500	3.8472	-3.4273	2.9060	-2.6377
L30	53.2500-52.5800	3.8533	-3.4327	2.9146	-2.6455
L31	52.5800-52.3300	3.8600	-3.4385	2.9234	-2.6534
L32	52.3300-47.3300	3.8952	-3.4698	2.9727	-2.6979
L33	47.3300-44.5800	3.9463	-3.5151	3.0452	-2.7633
L34	44.5800-44.3300	3.9658	-3.5324	3.0731	-2.7885
L35	44.3300-39.3300	3.9742	-3.5398	2.9684	-2.6933
L36	39.3300-34.0800	4.0622	-3.6178	3.2160	-2.9173
L37	34.0800-33.0800	4.0706	-3.6253	3.2270	-2.9272
L38	33.0800-28.0800	4.1061	-3.6568	3.2850	-2.9792
L39	28.0800-26.8500	4.1420	-3.6887	3.3418	-3.0302
L40	26.8500-26.6000	4.1521	-3.6976	3.3558	-3.0428
L41	26.6000-21.6000	4.1816	-3.7237	3.4035	-3.0857
L42	21.6000-18.0000	4.1639	-3.7410	2.9073	-2.9315
L43	18.0000-17.7500	4.1715	-3.7512	2.8050	-2.8701
L44	17.7500-17.5000	4.1741	-3.7535	2.8091	-2.8740
L45	17.5000-17.2500	4.1767	-3.7559	2.8133	-2.8779
L46	17.2500-17.0800	4.1789	-3.7578	2.8169	-2.8812
L47	17.0800-16.8300	4.1789	-3.7579	2.8198	-2.8839
L48	16.8300-13.0000	4.1881	-3.7661	2.7888	-2.8487
L49	13.0000-12.7500	4.2237	-3.7980	2.8919	-2.9499
L50	12.7500-11.8500	4.2295	-3.8032	2.9024	-2.9593
L51	11.8500-11.6000	4.2305	-3.8041	2.9116	-2.9674
L52	11.6000-6.5000	4.2895	-3.8023	3.2482	-2.8061
L53	6.5000-6.2500	4.3692	-3.7999	3.7259	-2.6199
L54	6.2500-4.0000	4.3814	-3.8104	3.7526	-2.6477
L55	4.0000-3.7500	4.3972	-3.8241	3.7827	-2.6806

Section	Elevation ft	CP _x in	CP _z in	CP _x Ice in	CP _z Ice in
L56	3.7500-0.0000	4.4198	-3.8436	3.8643	-2.7692

Note: For pole sections, center of pressure calculations do not consider feed line shielding.

Shielding Factor Ka

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L3	1	2" (Nominal) Conduit	116.00 - 121.00	1.0000	1.0000
L3	2	LDF6-50A(1-1/4")	116.00 - 121.00	1.0000	1.0000
L4	1	2" (Nominal) Conduit	111.00 - 116.00	1.0000	1.0000
L4	2	LDF6-50A(1-1/4")	111.00 - 116.00	1.0000	1.0000
L5	1	2" (Nominal) Conduit	110.00 - 111.00	1.0000	1.0000
L5	2	LDF6-50A(1-1/4")	110.00 - 111.00	1.0000	1.0000
L6	1	2" (Nominal) Conduit	105.00 - 110.00	1.0000	1.0000
L6	2	LDF6-50A(1-1/4")	105.00 - 110.00	1.0000	1.0000
L7	1	2" (Nominal) Conduit	100.00 - 105.00	1.0000	1.0000
L7	2	LDF6-50A(1-1/4")	100.00 - 105.00	1.0000	1.0000
L8	1	2" (Nominal) Conduit	95.00 - 100.00	1.0000	1.0000
L8	2	LDF6-50A(1-1/4")	95.00 - 100.00	1.0000	1.0000
L8	10	2" (Nominal) Conduit	95.00 - 97.00	1.0000	1.0000
L9	1	2" (Nominal) Conduit	90.00 - 95.00	1.0000	1.0000
L9	2	LDF6-50A(1-1/4")	90.00 - 95.00	1.0000	1.0000
L9	10	2" (Nominal) Conduit	90.00 - 95.00	1.0000	1.0000
L9	41	CCI-045100 Reinforcement	90.00 - 91.50	1.0000	1.0000
L9	42	CCI-045100 Reinforcement	90.00 - 91.50	1.0000	1.0000
L9	43	CCI-045100 Reinforcement	90.00 - 91.50	1.0000	1.0000
L10	1	2" (Nominal) Conduit	89.75 - 90.00	1.0000	1.0000
L10	2	LDF6-50A(1-1/4")	89.75 - 90.00	1.0000	1.0000
L10	10	2" (Nominal) Conduit	89.75 - 90.00	1.0000	1.0000
L10	41	CCI-045100 Reinforcement	89.75 - 90.00	1.0000	1.0000
L10	42	CCI-045100 Reinforcement	89.75 - 90.00	1.0000	1.0000
L10	43	CCI-045100 Reinforcement	89.75 - 90.00	1.0000	1.0000
L11	1	2" (Nominal) Conduit	84.75 - 89.75	1.0000	1.0000
L11	2	LDF6-50A(1-1/4")	84.75 - 89.75	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L11	10	2" (Nominal) Conduit	84.75 - 89.75	1.0000	1.0000
L11	15	LCF114-50J(1-1/4)	84.75 - 87.00	1.0000	1.0000
L11	16	HCS 6X12 4AWG(1-5/8)	84.75 - 87.00	1.0000	1.0000
L11	26	CCI-040075 Reinforcement	84.75 - 86.50	1.0000	1.0000
L11	27	CCI-040075 Reinforcement	84.75 - 86.50	1.0000	1.0000
L11	28	CCI-040075 Reinforcement	84.75 - 86.50	1.0000	1.0000
L11	41	CCI-045100 Reinforcement	84.75 - 89.75	1.0000	1.0000
L11	42	CCI-045100 Reinforcement	84.75 - 89.75	1.0000	1.0000
L11	43	CCI-045100 Reinforcement	84.75 - 89.75	1.0000	1.0000
L11	56	FP 4.50 x 1.25 Reinforcement	84.75 - 85.00	1.0000	1.0000
L11	57	FP 4.50 x 1.25 Reinforcement	84.75 - 85.00	1.0000	1.0000
L11	58	FP 4.50 x 1.25 Reinforcement	84.75 - 85.00	1.0000	1.0000
L12	1	2" (Nominal) Conduit	84.58 - 84.75	1.0000	1.0000
L12	2	LDF6-50A(1-1/4")	84.58 - 84.75	1.0000	1.0000
L12	10	2" (Nominal) Conduit	84.58 - 84.75	1.0000	1.0000
L12	15	LCF114-50J(1-1/4)	84.58 - 84.75	1.0000	1.0000
L12	16	HCS 6X12 4AWG(1-5/8)	84.58 - 84.75	1.0000	1.0000
L12	26	CCI-040075 Reinforcement	84.58 - 84.75	1.0000	1.0000
L12	27	CCI-040075 Reinforcement	84.58 - 84.75	1.0000	1.0000
L12	28	CCI-040075 Reinforcement	84.58 - 84.75	1.0000	1.0000
L12	41	CCI-045100 Reinforcement	84.58 - 84.75	1.0000	1.0000
L12	42	CCI-045100 Reinforcement	84.58 - 84.75	1.0000	1.0000
L12	43	CCI-045100 Reinforcement	84.58 - 84.75	1.0000	1.0000
L12	56	FP 4.50 x 1.25 Reinforcement	84.58 - 84.75	1.0000	1.0000
L12	57	FP 4.50 x 1.25 Reinforcement	84.58 - 84.75	1.0000	1.0000
L12	58	FP 4.50 x 1.25 Reinforcement	84.58 - 84.75	1.0000	1.0000
L13	1	2" (Nominal) Conduit	84.33 - 84.58	1.0000	1.0000
L13	2	LDF6-50A(1-1/4")	84.33 - 84.58	1.0000	1.0000
L13	10	2" (Nominal) Conduit	84.33 - 84.58	1.0000	1.0000
L13	15	LCF114-50J(1-1/4)	84.33 - 84.58	1.0000	1.0000
L13	16	HCS 6X12 4AWG(1-5/8)	84.33 - 84.58	1.0000	1.0000
L13	26	CCI-040075 Reinforcement	84.33 - 84.58	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L13	27	CCI-040075 Reinforcement	84.33 - 84.58	1.0000	1.0000
L13	28	CCI-040075 Reinforcement	84.33 - 84.58	1.0000	1.0000
L13	41	CCI-045100 Reinforcement	84.33 - 84.58	1.0000	1.0000
L13	42	CCI-045100 Reinforcement	84.33 - 84.58	1.0000	1.0000
L13	43	CCI-045100 Reinforcement	84.33 - 84.58	1.0000	1.0000
L13	56	FP 4.50 x 1.25 Reinforcement	84.33 - 84.58	1.0000	1.0000
L13	57	FP 4.50 x 1.25 Reinforcement	84.33 - 84.58	1.0000	1.0000
L13	58	FP 4.50 x 1.25 Reinforcement	84.33 - 84.58	1.0000	1.0000
L14	1	2" (Nominal) Conduit	83.42 - 84.33	1.0000	1.0000
L14	2	LDF6-50A(1-1/4")	83.42 - 84.33	1.0000	1.0000
L14	10	2" (Nominal) Conduit	83.42 - 84.33	1.0000	1.0000
L14	15	LCF114-50J(1-1/4)	83.42 - 84.33	1.0000	1.0000
L14	16	HCS 6X12 4AWG(1-5/8)	83.42 - 84.33	1.0000	1.0000
L14	26	CCI-040075 Reinforcement	83.42 - 84.33	1.0000	1.0000
L14	27	CCI-040075 Reinforcement	83.42 - 84.33	1.0000	1.0000
L14	28	CCI-040075 Reinforcement	83.42 - 84.33	1.0000	1.0000
L14	41	CCI-045100 Reinforcement	83.42 - 84.33	1.0000	1.0000
L14	42	CCI-045100 Reinforcement	83.42 - 84.33	1.0000	1.0000
L14	43	CCI-045100 Reinforcement	83.42 - 84.33	1.0000	1.0000
L14	56	FP 4.50 x 1.25 Reinforcement	83.42 - 84.33	1.0000	1.0000
L14	57	FP 4.50 x 1.25 Reinforcement	83.42 - 84.33	1.0000	1.0000
L14	58	FP 4.50 x 1.25 Reinforcement	83.42 - 84.33	1.0000	1.0000
L15	1	2" (Nominal) Conduit	83.17 - 83.42	1.0000	1.0000
L15	2	LDF6-50A(1-1/4")	83.17 - 83.42	1.0000	1.0000
L15	10	2" (Nominal) Conduit	83.17 - 83.42	1.0000	1.0000
L15	15	LCF114-50J(1-1/4)	83.17 - 83.42	1.0000	1.0000
L15	16	HCS 6X12 4AWG(1-5/8)	83.17 - 83.42	1.0000	1.0000
L15	26	CCI-040075 Reinforcement	83.17 - 83.42	1.0000	1.0000
L15	27	CCI-040075 Reinforcement	83.17 - 83.42	1.0000	1.0000
L15	28	CCI-040075 Reinforcement	83.17 - 83.42	1.0000	1.0000
L15	41	CCI-045100 Reinforcement	83.17 - 83.42	1.0000	1.0000
L15	42	CCI-045100 Reinforcement	83.17 - 83.42	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L15	43	CCI-045100 Reinforcement	83.17 - 83.42	1.0000	1.0000
L15	56	FP 4.50 x 1.25 Reinforcement	83.17 - 83.42	1.0000	1.0000
L15	57	FP 4.50 x 1.25 Reinforcement	83.17 - 83.42	1.0000	1.0000
L15	58	FP 4.50 x 1.25 Reinforcement	83.17 - 83.42	1.0000	1.0000
L16	1	2" (Nominal) Conduit	83.00 - 83.17	1.0000	1.0000
L16	2	LDF6-50A(1-1/4")	83.00 - 83.17	1.0000	1.0000
L16	10	2" (Nominal) Conduit	83.00 - 83.17	1.0000	1.0000
L16	15	LCF114-50J(1-1/4)	83.00 - 83.17	1.0000	1.0000
L16	16	HCS 6X12 4AWG(1-5/8)	83.00 - 83.17	1.0000	1.0000
L16	26	CCI-040075 Reinforcement	83.00 - 83.17	1.0000	1.0000
L16	27	CCI-040075 Reinforcement	83.00 - 83.17	1.0000	1.0000
L16	28	CCI-040075 Reinforcement	83.00 - 83.17	1.0000	1.0000
L16	41	CCI-045100 Reinforcement	83.00 - 83.17	1.0000	1.0000
L16	42	CCI-045100 Reinforcement	83.00 - 83.17	1.0000	1.0000
L16	43	CCI-045100 Reinforcement	83.00 - 83.17	1.0000	1.0000
L16	56	FP 4.50 x 1.25 Reinforcement	83.00 - 83.17	1.0000	1.0000
L16	57	FP 4.50 x 1.25 Reinforcement	83.00 - 83.17	1.0000	1.0000
L16	58	FP 4.50 x 1.25 Reinforcement	83.00 - 83.17	1.0000	1.0000
L17	1	2" (Nominal) Conduit	82.75 - 83.00	1.0000	1.0000
L17	2	LDF6-50A(1-1/4")	82.75 - 83.00	1.0000	1.0000
L17	10	2" (Nominal) Conduit	82.75 - 83.00	1.0000	1.0000
L17	15	LCF114-50J(1-1/4)	82.75 - 83.00	1.0000	1.0000
L17	16	HCS 6X12 4AWG(1-5/8)	82.75 - 83.00	1.0000	1.0000
L17	26	CCI-040075 Reinforcement	82.75 - 83.00	1.0000	1.0000
L17	27	CCI-040075 Reinforcement	82.75 - 83.00	1.0000	1.0000
L17	28	CCI-040075 Reinforcement	82.75 - 83.00	1.0000	1.0000
L17	41	CCI-045100 Reinforcement	82.75 - 83.00	1.0000	1.0000
L17	42	CCI-045100 Reinforcement	82.75 - 83.00	1.0000	1.0000
L17	43	CCI-045100 Reinforcement	82.75 - 83.00	1.0000	1.0000
L17	56	FP 4.50 x 1.25 Reinforcement	82.75 - 83.00	1.0000	1.0000
L17	57	FP 4.50 x 1.25 Reinforcement	82.75 - 83.00	1.0000	1.0000
L17	58	FP 4.50 x 1.25 Reinforcement	82.75 - 83.00	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L18	1	2" (Nominal) Conduit	77.75 - 82.75	1.0000	1.0000
L18	2	LDF6-50A(1-1/4")	77.75 - 82.75	1.0000	1.0000
L18	10	2" (Nominal) Conduit	77.75 - 82.75	1.0000	1.0000
L18	15	LCF114-50J(1-1/4)	77.75 - 82.75	1.0000	1.0000
L18	16	HCS 6X12 4AWG(1-5/8)	77.75 - 82.75	1.0000	1.0000
L18	26	CCI-040075 Reinforcement	77.75 - 82.75	1.0000	1.0000
L18	27	CCI-040075 Reinforcement	77.75 - 82.75	1.0000	1.0000
L18	28	CCI-040075 Reinforcement	77.75 - 82.75	1.0000	1.0000
L18	41	CCI-045100 Reinforcement	81.50 - 82.75	1.0000	1.0000
L18	42	CCI-045100 Reinforcement	81.50 - 82.75	1.0000	1.0000
L18	43	CCI-045100 Reinforcement	81.50 - 82.75	1.0000	1.0000
L18	56	FP 4.50 x 1.25 Reinforcement	77.75 - 82.75	1.0000	1.0000
L18	57	FP 4.50 x 1.25 Reinforcement	77.75 - 82.75	1.0000	1.0000
L18	58	FP 4.50 x 1.25 Reinforcement	77.75 - 82.75	1.0000	1.0000
L19	1	2" (Nominal) Conduit	70.00 - 77.75	1.0000	1.0000
L19	2	LDF6-50A(1-1/4")	70.00 - 77.75	1.0000	1.0000
L19	10	2" (Nominal) Conduit	70.00 - 77.75	1.0000	1.0000
L19	15	LCF114-50J(1-1/4)	70.00 - 77.75	1.0000	1.0000
L19	16	HCS 6X12 4AWG(1-5/8)	70.00 - 77.75	1.0000	1.0000
L19	26	CCI-040075 Reinforcement	70.00 - 77.75	1.0000	1.0000
L19	27	CCI-040075 Reinforcement	70.00 - 77.75	1.0000	1.0000
L19	28	CCI-040075 Reinforcement	70.00 - 77.75	1.0000	1.0000
L19	56	FP 4.50 x 1.25 Reinforcement	70.00 - 77.75	1.0000	1.0000
L19	57	FP 4.50 x 1.25 Reinforcement	70.00 - 77.75	1.0000	1.0000
L19	58	FP 4.50 x 1.25 Reinforcement	70.00 - 77.75	1.0000	1.0000
L19	23	CCI-040075 Reinforcement	70.00 - 70.00	1.0000	1.0000
L19	24	CCI-040075 Reinforcement	70.00 - 70.00	1.0000	1.0000
L19	25	CCI-040075 Reinforcement	70.00 - 70.00	1.0000	1.0000
L21	1	2" (Nominal) Conduit	67.08 - 69.00	1.0000	1.0000
L21	2	LDF6-50A(1-1/4")	67.08 - 69.00	1.0000	1.0000
L21	10	2" (Nominal) Conduit	67.08 - 69.00	1.0000	1.0000
L21	15	LCF114-50J(1-1/4)	67.08 - 69.00	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L21	16	HCS 6X12 4AWG(1-5/8)	67.08 - 69.00	1.0000	1.0000
L21	23	CCI-040075 Reinforcement	67.08 - 69.00	1.0000	1.0000
L21	24	CCI-040075 Reinforcement	67.08 - 69.00	1.0000	1.0000
L21	25	CCI-040075 Reinforcement	67.08 - 69.00	1.0000	1.0000
L21	26	CCI-040075 Reinforcement	67.08 - 69.00	1.0000	1.0000
L21	27	CCI-040075 Reinforcement	67.08 - 69.00	1.0000	1.0000
L21	28	CCI-040075 Reinforcement	67.08 - 69.00	1.0000	1.0000
L21	56	FP 4.50 x 1.25 Reinforcement	67.08 - 69.00	1.0000	1.0000
L21	57	FP 4.50 x 1.25 Reinforcement	67.08 - 69.00	1.0000	1.0000
L21	58	FP 4.50 x 1.25 Reinforcement	67.08 - 69.00	1.0000	1.0000
L22	1	2" (Nominal) Conduit	66.83 - 67.08	1.0000	1.0000
L22	2	LDF6-50A(1-1/4")	66.83 - 67.08	1.0000	1.0000
L22	10	2" (Nominal) Conduit	66.83 - 67.08	1.0000	1.0000
L22	15	LCF114-50J(1-1/4)	66.83 - 67.08	1.0000	1.0000
L22	16	HCS 6X12 4AWG(1-5/8)	66.83 - 67.08	1.0000	1.0000
L22	23	CCI-040075 Reinforcement	66.83 - 67.08	1.0000	1.0000
L22	24	CCI-040075 Reinforcement	66.83 - 67.08	1.0000	1.0000
L22	25	CCI-040075 Reinforcement	66.83 - 67.08	1.0000	1.0000
L22	26	CCI-040075 Reinforcement	66.83 - 67.08	1.0000	1.0000
L22	27	CCI-040075 Reinforcement	66.83 - 67.08	1.0000	1.0000
L22	28	CCI-040075 Reinforcement	66.83 - 67.08	1.0000	1.0000
L22	56	FP 4.50 x 1.25 Reinforcement	66.83 - 67.08	1.0000	1.0000
L22	57	FP 4.50 x 1.25 Reinforcement	66.83 - 67.08	1.0000	1.0000
L22	58	FP 4.50 x 1.25 Reinforcement	66.83 - 67.08	1.0000	1.0000
L23	1	2" (Nominal) Conduit	64.08 - 66.83	1.0000	1.0000
L23	2	LDF6-50A(1-1/4")	64.08 - 66.83	1.0000	1.0000
L23	10	2" (Nominal) Conduit	64.08 - 66.83	1.0000	1.0000
L23	15	LCF114-50J(1-1/4)	64.08 - 66.83	1.0000	1.0000
L23	16	HCS 6X12 4AWG(1-5/8)	64.08 - 66.83	1.0000	1.0000
L23	23	CCI-040075 Reinforcement	64.08 - 66.83	1.0000	1.0000
L23	24	CCI-040075 Reinforcement	64.08 - 66.83	1.0000	1.0000
L23	25	CCI-040075 Reinforcement	64.08 - 66.83	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L23	26	CCI-040075 Reinforcement	66.50 - 66.83	1.0000	1.0000
L23	27	CCI-040075 Reinforcement	66.50 - 66.83	1.0000	1.0000
L23	28	CCI-040075 Reinforcement	66.50 - 66.83	1.0000	1.0000
L23	39	CCI-045100 Reinforcement	64.08 - 66.00	1.0000	1.0000
L23	40	CCI-045100 Reinforcement	64.08 - 66.00	1.0000	1.0000
L23	56	FP 4.50 x 1.25 Reinforcement	64.08 - 66.83	1.0000	1.0000
L23	57	FP 4.50 x 1.25 Reinforcement	64.08 - 66.83	1.0000	1.0000
L23	58	FP 4.50 x 1.25 Reinforcement	64.08 - 66.83	1.0000	1.0000
L24	1	2" (Nominal) Conduit	63.83 - 64.08	1.0000	1.0000
L24	2	LDF6-50A(1-1/4")	63.83 - 64.08	1.0000	1.0000
L24	10	2" (Nominal) Conduit	63.83 - 64.08	1.0000	1.0000
L24	15	LCF114-50J(1-1/4)	63.83 - 64.08	1.0000	1.0000
L24	16	HCS 6X12 4AWG(1-5/8)	63.83 - 64.08	1.0000	1.0000
L24	23	CCI-040075 Reinforcement	63.83 - 64.08	1.0000	1.0000
L24	24	CCI-040075 Reinforcement	63.83 - 64.08	1.0000	1.0000
L24	25	CCI-040075 Reinforcement	63.83 - 64.08	1.0000	1.0000
L24	39	CCI-045100 Reinforcement	63.83 - 64.08	1.0000	1.0000
L24	40	CCI-045100 Reinforcement	63.83 - 64.08	1.0000	1.0000
L24	56	FP 4.50 x 1.25 Reinforcement	63.83 - 64.08	1.0000	1.0000
L24	57	FP 4.50 x 1.25 Reinforcement	63.83 - 64.08	1.0000	1.0000
L24	58	FP 4.50 x 1.25 Reinforcement	63.83 - 64.08	1.0000	1.0000
L25	1	2" (Nominal) Conduit	62.44 - 63.83	1.0000	1.0000
L25	2	LDF6-50A(1-1/4")	62.44 - 63.83	1.0000	1.0000
L25	10	2" (Nominal) Conduit	62.44 - 63.83	1.0000	1.0000
L25	15	LCF114-50J(1-1/4)	62.44 - 63.83	1.0000	1.0000
L25	16	HCS 6X12 4AWG(1-5/8)	62.44 - 63.83	1.0000	1.0000
L25	23	CCI-040075 Reinforcement	62.44 - 63.83	1.0000	1.0000
L25	24	CCI-040075 Reinforcement	62.44 - 63.83	1.0000	1.0000
L25	25	CCI-040075 Reinforcement	62.44 - 63.83	1.0000	1.0000
L25	38	CCI-045100 Reinforcement	62.44 - 63.00	1.0000	1.0000
L25	39	CCI-045100 Reinforcement	62.44 - 63.83	1.0000	1.0000
L25	40	CCI-045100 Reinforcement	62.44 - 63.83	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L25	56	FP 4.50 x 1.25 Reinforcement	62.44 - 63.83	1.0000	1.0000
L25	57	FP 4.50 x 1.25 Reinforcement	62.44 - 63.83	1.0000	1.0000
L25	58	FP 4.50 x 1.25 Reinforcement	62.44 - 63.83	1.0000	1.0000
L26	1	2" (Nominal) Conduit	62.19 - 62.44	1.0000	1.0000
L26	2	LDF6-50A(1-1/4")	62.19 - 62.44	1.0000	1.0000
L26	10	2" (Nominal) Conduit	62.19 - 62.44	1.0000	1.0000
L26	15	LCF114-50J(1-1/4)	62.19 - 62.44	1.0000	1.0000
L26	16	HCS 6X12 4AWG(1-5/8)	62.19 - 62.44	1.0000	1.0000
L26	23	CCI-040075 Reinforcement	62.19 - 62.44	1.0000	1.0000
L26	24	CCI-040075 Reinforcement	62.19 - 62.44	1.0000	1.0000
L26	25	CCI-040075 Reinforcement	62.19 - 62.44	1.0000	1.0000
L26	38	CCI-045100 Reinforcement	62.19 - 62.44	1.0000	1.0000
L26	39	CCI-045100 Reinforcement	62.19 - 62.44	1.0000	1.0000
L26	40	CCI-045100 Reinforcement	62.19 - 62.44	1.0000	1.0000
L26	56	FP 4.50 x 1.25 Reinforcement	62.19 - 62.44	1.0000	1.0000
L26	57	FP 4.50 x 1.25 Reinforcement	62.19 - 62.44	1.0000	1.0000
L26	58	FP 4.50 x 1.25 Reinforcement	62.19 - 62.44	1.0000	1.0000
L27	1	2" (Nominal) Conduit	57.19 - 62.19	1.0000	1.0000
L27	2	LDF6-50A(1-1/4")	57.19 - 62.19	1.0000	1.0000
L27	10	2" (Nominal) Conduit	57.19 - 62.19	1.0000	1.0000
L27	15	LCF114-50J(1-1/4)	57.19 - 62.19	1.0000	1.0000
L27	16	HCS 6X12 4AWG(1-5/8)	57.19 - 62.19	1.0000	1.0000
L27	23	CCI-040075 Reinforcement	57.19 - 62.19	1.0000	1.0000
L27	24	CCI-040075 Reinforcement	57.19 - 62.19	1.0000	1.0000
L27	25	CCI-040075 Reinforcement	57.19 - 62.19	1.0000	1.0000
L27	38	CCI-045100 Reinforcement	57.19 - 62.19	1.0000	1.0000
L27	39	CCI-045100 Reinforcement	57.19 - 62.19	1.0000	1.0000
L27	40	CCI-045100 Reinforcement	57.19 - 62.19	1.0000	1.0000
L27	56	FP 4.50 x 1.25 Reinforcement	57.19 - 62.19	1.0000	1.0000
L27	57	FP 4.50 x 1.25 Reinforcement	57.19 - 62.19	1.0000	1.0000
L27	58	FP 4.50 x 1.25 Reinforcement	57.19 - 62.19	1.0000	1.0000
L28	1	2" (Nominal) Conduit	53.50 - 57.19	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L28	2	LDF6-50A(1-1/4")	53.50 - 57.19	1.0000	1.0000
L28	10	2" (Nominal) Conduit	53.50 - 57.19	1.0000	1.0000
L28	15	LCF114-50J(1-1/4)	53.50 - 57.19	1.0000	1.0000
L28	16	HCS 6X12 4AWG(1-5/8)	53.50 - 57.19	1.0000	1.0000
L28	23	CCI-040075 Reinforcement	53.50 - 57.19	1.0000	1.0000
L28	24	CCI-040075 Reinforcement	53.50 - 57.19	1.0000	1.0000
L28	25	CCI-040075 Reinforcement	53.50 - 57.19	1.0000	1.0000
L28	34	CCI-060100 Reinforcement	53.50 - 56.00	1.0000	1.0000
L28	35	CCI-060100 Reinforcement	53.50 - 56.00	1.0000	1.0000
L28	36	CCI-060100 Reinforcement	53.50 - 56.00	1.0000	1.0000
L28	37	CCI-060100 Reinforcement	53.50 - 56.00	1.0000	1.0000
L28	38	CCI-045100 Reinforcement	53.50 - 57.19	1.0000	1.0000
L28	39	CCI-045100 Reinforcement	56.00 - 57.19	1.0000	1.0000
L28	40	CCI-045100 Reinforcement	56.00 - 57.19	1.0000	1.0000
L28	53	CCI-060100 Reinforcement	53.50 - 55.00	1.0000	1.0000
L28	54	CCI-060100 Reinforcement	53.50 - 55.00	1.0000	1.0000
L28	55	CCI-060100 Reinforcement	53.50 - 55.00	1.0000	1.0000
L28	56	FP 4.50 x 1.25 Reinforcement	55.00 - 57.19	1.0000	1.0000
L28	57	FP 4.50 x 1.25 Reinforcement	55.00 - 57.19	1.0000	1.0000
L28	58	FP 4.50 x 1.25 Reinforcement	55.00 - 57.19	1.0000	1.0000
L29	1	2" (Nominal) Conduit	53.25 - 53.50	1.0000	1.0000
L29	2	LDF6-50A(1-1/4")	53.25 - 53.50	1.0000	1.0000
L29	10	2" (Nominal) Conduit	53.25 - 53.50	1.0000	1.0000
L29	15	LCF114-50J(1-1/4)	53.25 - 53.50	1.0000	1.0000
L29	16	HCS 6X12 4AWG(1-5/8)	53.25 - 53.50	1.0000	1.0000
L29	23	CCI-040075 Reinforcement	53.25 - 53.50	1.0000	1.0000
L29	24	CCI-040075 Reinforcement	53.25 - 53.50	1.0000	1.0000
L29	25	CCI-040075 Reinforcement	53.25 - 53.50	1.0000	1.0000
L29	34	CCI-060100 Reinforcement	53.25 - 53.50	1.0000	1.0000
L29	35	CCI-060100 Reinforcement	53.25 - 53.50	1.0000	1.0000
L29	36	CCI-060100 Reinforcement	53.25 - 53.50	1.0000	1.0000
L29	37	CCI-060100 Reinforcement	53.25 - 53.50	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L29	38	CCI-045100 Reinforcement	53.25 - 53.50	1.0000	1.0000
L29	53	CCI-060100 Reinforcement	53.25 - 53.50	1.0000	1.0000
L29	54	CCI-060100 Reinforcement	53.25 - 53.50	1.0000	1.0000
L29	55	CCI-060100 Reinforcement	53.25 - 53.50	1.0000	1.0000
L30	1	2" (Nominal) Conduit	52.58 - 53.25	1.0000	1.0000
L30	2	LDF6-50A(1-1/4")	52.58 - 53.25	1.0000	1.0000
L30	10	2" (Nominal) Conduit	52.58 - 53.25	1.0000	1.0000
L30	15	LCF114-50J(1-1/4)	52.58 - 53.25	1.0000	1.0000
L30	16	HCS 6X12 4AWG(1-5/8)	52.58 - 53.25	1.0000	1.0000
L30	23	CCI-040075 Reinforcement	52.58 - 53.25	1.0000	1.0000
L30	24	CCI-040075 Reinforcement	52.58 - 53.25	1.0000	1.0000
L30	25	CCI-040075 Reinforcement	52.58 - 53.25	1.0000	1.0000
L30	34	CCI-060100 Reinforcement	52.58 - 53.25	1.0000	1.0000
L30	35	CCI-060100 Reinforcement	52.58 - 53.25	1.0000	1.0000
L30	36	CCI-060100 Reinforcement	52.58 - 53.25	1.0000	1.0000
L30	37	CCI-060100 Reinforcement	52.58 - 53.25	1.0000	1.0000
L30	38	CCI-045100 Reinforcement	52.58 - 53.25	1.0000	1.0000
L30	53	CCI-060100 Reinforcement	52.58 - 53.25	1.0000	1.0000
L30	54	CCI-060100 Reinforcement	52.58 - 53.25	1.0000	1.0000
L30	55	CCI-060100 Reinforcement	52.58 - 53.25	1.0000	1.0000
L31	1	2" (Nominal) Conduit	52.33 - 52.58	1.0000	1.0000
L31	2	LDF6-50A(1-1/4")	52.33 - 52.58	1.0000	1.0000
L31	10	2" (Nominal) Conduit	52.33 - 52.58	1.0000	1.0000
L31	15	LCF114-50J(1-1/4)	52.33 - 52.58	1.0000	1.0000
L31	16	HCS 6X12 4AWG(1-5/8)	52.33 - 52.58	1.0000	1.0000
L31	23	CCI-040075 Reinforcement	52.33 - 52.58	1.0000	1.0000
L31	24	CCI-040075 Reinforcement	52.33 - 52.58	1.0000	1.0000
L31	25	CCI-040075 Reinforcement	52.33 - 52.58	1.0000	1.0000
L31	34	CCI-060100 Reinforcement	52.33 - 52.58	1.0000	1.0000
L31	35	CCI-060100 Reinforcement	52.33 - 52.58	1.0000	1.0000
L31	36	CCI-060100 Reinforcement	52.33 - 52.58	1.0000	1.0000
L31	37	CCI-060100 Reinforcement	52.33 - 52.58	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L31	38	CCI-045100 Reinforcement	52.33 - 52.58	1.0000	1.0000
L31	53	CCI-060100 Reinforcement	52.33 - 52.58	1.0000	1.0000
L31	54	CCI-060100 Reinforcement	52.33 - 52.58	1.0000	1.0000
L31	55	CCI-060100 Reinforcement	52.33 - 52.58	1.0000	1.0000
L32	1	2" (Nominal) Conduit	47.33 - 52.33	1.0000	1.0000
L32	2	LDF6-50A(1-1/4")	47.33 - 52.33	1.0000	1.0000
L32	10	2" (Nominal) Conduit	47.33 - 52.33	1.0000	1.0000
L32	15	LCF114-50J(1-1/4)	47.33 - 52.33	1.0000	1.0000
L32	16	HCS 6X12 4AWG(1-5/8)	47.33 - 52.33	1.0000	1.0000
L32	23	CCI-040075 Reinforcement	47.33 - 52.33	1.0000	1.0000
L32	24	CCI-040075 Reinforcement	47.33 - 52.33	1.0000	1.0000
L32	25	CCI-040075 Reinforcement	47.33 - 52.33	1.0000	1.0000
L32	34	CCI-060100 Reinforcement	47.33 - 52.33	1.0000	1.0000
L32	35	CCI-060100 Reinforcement	47.33 - 52.33	1.0000	1.0000
L32	36	CCI-060100 Reinforcement	47.33 - 52.33	1.0000	1.0000
L32	37	CCI-060100 Reinforcement	47.33 - 52.33	1.0000	1.0000
L32	38	CCI-045100 Reinforcement	47.33 - 52.33	1.0000	1.0000
L32	53	CCI-060100 Reinforcement	47.33 - 52.33	1.0000	1.0000
L32	54	CCI-060100 Reinforcement	47.33 - 52.33	1.0000	1.0000
L32	55	CCI-060100 Reinforcement	47.33 - 52.33	1.0000	1.0000
L33	1	2" (Nominal) Conduit	44.58 - 47.33	1.0000	1.0000
L33	2	LDF6-50A(1-1/4")	44.58 - 47.33	1.0000	1.0000
L33	10	2" (Nominal) Conduit	44.58 - 47.33	1.0000	1.0000
L33	15	LCF114-50J(1-1/4)	44.58 - 47.33	1.0000	1.0000
L33	16	HCS 6X12 4AWG(1-5/8)	44.58 - 47.33	1.0000	1.0000
L33	23	CCI-040075 Reinforcement	44.58 - 47.33	1.0000	1.0000
L33	24	CCI-040075 Reinforcement	44.58 - 47.33	1.0000	1.0000
L33	25	CCI-040075 Reinforcement	44.58 - 47.33	1.0000	1.0000
L33	34	CCI-060100 Reinforcement	44.58 - 47.33	1.0000	1.0000
L33	35	CCI-060100 Reinforcement	44.58 - 47.33	1.0000	1.0000
L33	36	CCI-060100 Reinforcement	44.58 - 47.33	1.0000	1.0000
L33	37	CCI-060100 Reinforcement	44.58 - 47.33	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L33	38	CCI-045100 Reinforcement	44.58 - 47.33	1.0000	1.0000
L33	53	CCI-060100 Reinforcement	44.58 - 47.33	1.0000	1.0000
L33	54	CCI-060100 Reinforcement	44.58 - 47.33	1.0000	1.0000
L33	55	CCI-060100 Reinforcement	44.58 - 47.33	1.0000	1.0000
L34	1	2" (Nominal) Conduit	44.33 - 44.58	1.0000	1.0000
L34	2	LDF6-50A(1-1/4")	44.33 - 44.58	1.0000	1.0000
L34	10	2" (Nominal) Conduit	44.33 - 44.58	1.0000	1.0000
L34	15	LCF114-50J(1-1/4)	44.33 - 44.58	1.0000	1.0000
L34	16	HCS 6X12 4AWG(1-5/8)	44.33 - 44.58	1.0000	1.0000
L34	23	CCI-040075 Reinforcement	44.33 - 44.58	1.0000	1.0000
L34	24	CCI-040075 Reinforcement	44.33 - 44.58	1.0000	1.0000
L34	25	CCI-040075 Reinforcement	44.33 - 44.58	1.0000	1.0000
L34	34	CCI-060100 Reinforcement	44.33 - 44.58	1.0000	1.0000
L34	35	CCI-060100 Reinforcement	44.33 - 44.58	1.0000	1.0000
L34	36	CCI-060100 Reinforcement	44.33 - 44.58	1.0000	1.0000
L34	37	CCI-060100 Reinforcement	44.33 - 44.58	1.0000	1.0000
L34	38	CCI-045100 Reinforcement	44.33 - 44.58	1.0000	1.0000
L34	53	CCI-060100 Reinforcement	44.33 - 44.58	1.0000	1.0000
L34	54	CCI-060100 Reinforcement	44.33 - 44.58	1.0000	1.0000
L34	55	CCI-060100 Reinforcement	44.33 - 44.58	1.0000	1.0000
L35	1	2" (Nominal) Conduit	39.33 - 44.33	1.0000	1.0000
L35	2	LDF6-50A(1-1/4")	39.33 - 44.33	1.0000	1.0000
L35	10	2" (Nominal) Conduit	39.33 - 44.33	1.0000	1.0000
L35	15	LCF114-50J(1-1/4)	39.33 - 44.33	1.0000	1.0000
L35	16	HCS 6X12 4AWG(1-5/8)	39.33 - 44.33	1.0000	1.0000
L35	20	CCI-040075 Reinforcement	39.33 - 44.00	1.0000	1.0000
L35	21	CCI-040075 Reinforcement	39.33 - 44.00	1.0000	1.0000
L35	22	CCI-040075 Reinforcement	39.33 - 44.00	1.0000	1.0000
L35	23	CCI-040075 Reinforcement	40.00 - 44.33	1.0000	1.0000
L35	24	CCI-040075 Reinforcement	40.00 - 44.33	1.0000	1.0000
L35	25	CCI-040075 Reinforcement	40.00 - 44.33	1.0000	1.0000
L35	33	CCI-060100 Reinforcement	39.33 - 43.00	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L35	34	CCI-060100 Reinforcement	39.33 - 44.33	1.0000	1.0000
L35	35	CCI-060100 Reinforcement	39.33 - 44.33	1.0000	1.0000
L35	36	CCI-060100 Reinforcement	39.33 - 44.33	1.0000	1.0000
L35	37	CCI-060100 Reinforcement	39.33 - 44.33	1.0000	1.0000
L35	38	CCI-045100 Reinforcement	43.00 - 44.33	1.0000	1.0000
L35	53	CCI-060100 Reinforcement	39.33 - 44.33	1.0000	1.0000
L35	54	CCI-060100 Reinforcement	39.33 - 44.33	1.0000	1.0000
L35	55	CCI-060100 Reinforcement	39.33 - 44.33	1.0000	1.0000
L36	1	2" (Nominal) Conduit	34.08 - 39.33	1.0000	1.0000
L36	2	LDF6-50A(1-1/4")	34.08 - 39.33	1.0000	1.0000
L36	10	2" (Nominal) Conduit	34.08 - 39.33	1.0000	1.0000
L36	15	LCF114-50J(1-1/4)	34.08 - 39.33	1.0000	1.0000
L36	16	HCS 6X12 4AWG(1-5/8)	34.08 - 39.33	1.0000	1.0000
L36	20	CCI-040075 Reinforcement	34.08 - 39.33	1.0000	1.0000
L36	21	CCI-040075 Reinforcement	34.08 - 39.33	1.0000	1.0000
L36	22	CCI-040075 Reinforcement	34.08 - 39.33	1.0000	1.0000
L36	33	CCI-060100 Reinforcement	34.08 - 39.33	1.0000	1.0000
L36	34	CCI-060100 Reinforcement	34.08 - 39.33	1.0000	1.0000
L36	35	CCI-060100 Reinforcement	34.08 - 39.33	1.0000	1.0000
L36	36	CCI-060100 Reinforcement	34.08 - 39.33	1.0000	1.0000
L36	37	CCI-060100 Reinforcement	34.08 - 39.33	1.0000	1.0000
L36	53	CCI-060100 Reinforcement	34.08 - 39.33	1.0000	1.0000
L36	54	CCI-060100 Reinforcement	34.08 - 39.33	1.0000	1.0000
L36	55	CCI-060100 Reinforcement	34.08 - 39.33	1.0000	1.0000
L38	1	2" (Nominal) Conduit	28.08 - 33.08	1.0000	1.0000
L38	2	LDF6-50A(1-1/4")	28.08 - 33.08	1.0000	1.0000
L38	10	2" (Nominal) Conduit	28.08 - 33.08	1.0000	1.0000
L38	15	LCF114-50J(1-1/4)	28.08 - 33.08	1.0000	1.0000
L38	16	HCS 6X12 4AWG(1-5/8)	28.08 - 33.08	1.0000	1.0000
L38	20	CCI-040075 Reinforcement	28.08 - 33.08	1.0000	1.0000
L38	21	CCI-040075 Reinforcement	28.08 - 33.08	1.0000	1.0000
L38	22	CCI-040075 Reinforcement	28.08 - 33.08	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L38	33	CCI-060100 Reinforcement	28.08 - 33.08	1.0000	1.0000
L38	34	CCI-060100 Reinforcement	28.08 - 33.08	1.0000	1.0000
L38	35	CCI-060100 Reinforcement	28.08 - 33.08	1.0000	1.0000
L38	36	CCI-060100 Reinforcement	28.08 - 33.08	1.0000	1.0000
L38	37	CCI-060100 Reinforcement	28.08 - 33.08	1.0000	1.0000
L38	53	CCI-060100 Reinforcement	28.08 - 33.08	1.0000	1.0000
L38	54	CCI-060100 Reinforcement	28.08 - 33.08	1.0000	1.0000
L38	55	CCI-060100 Reinforcement	28.08 - 33.08	1.0000	1.0000
L39	1	2" (Nominal) Conduit	26.85 - 28.08	1.0000	1.0000
L39	2	LDF6-50A(1-1/4")	26.85 - 28.08	1.0000	1.0000
L39	10	2" (Nominal) Conduit	26.85 - 28.08	1.0000	1.0000
L39	15	LCF114-50J(1-1/4)	26.85 - 28.08	1.0000	1.0000
L39	16	HCS 6X12 4AWG(1-5/8)	26.85 - 28.08	1.0000	1.0000
L39	20	CCI-040075 Reinforcement	26.85 - 28.08	1.0000	1.0000
L39	21	CCI-040075 Reinforcement	26.85 - 28.08	1.0000	1.0000
L39	22	CCI-040075 Reinforcement	26.85 - 28.08	1.0000	1.0000
L39	33	CCI-060100 Reinforcement	26.85 - 28.08	1.0000	1.0000
L39	34	CCI-060100 Reinforcement	26.85 - 28.08	1.0000	1.0000
L39	35	CCI-060100 Reinforcement	26.85 - 28.08	1.0000	1.0000
L39	36	CCI-060100 Reinforcement	26.85 - 28.08	1.0000	1.0000
L39	37	CCI-060100 Reinforcement	26.85 - 28.08	1.0000	1.0000
L39	53	CCI-060100 Reinforcement	26.85 - 28.08	1.0000	1.0000
L39	54	CCI-060100 Reinforcement	26.85 - 28.08	1.0000	1.0000
L39	55	CCI-060100 Reinforcement	26.85 - 28.08	1.0000	1.0000
L40	1	2" (Nominal) Conduit	26.60 - 26.85	1.0000	1.0000
L40	2	LDF6-50A(1-1/4")	26.60 - 26.85	1.0000	1.0000
L40	10	2" (Nominal) Conduit	26.60 - 26.85	1.0000	1.0000
L40	15	LCF114-50J(1-1/4)	26.60 - 26.85	1.0000	1.0000
L40	16	HCS 6X12 4AWG(1-5/8)	26.60 - 26.85	1.0000	1.0000
L40	20	CCI-040075 Reinforcement	26.60 - 26.85	1.0000	1.0000
L40	21	CCI-040075 Reinforcement	26.60 - 26.85	1.0000	1.0000
L40	22	CCI-040075 Reinforcement	26.60 - 26.85	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L40	33	CCI-060100 Reinforcement	26.60 - 26.85	1.0000	1.0000
L40	34	CCI-060100 Reinforcement	26.60 - 26.85	1.0000	1.0000
L40	35	CCI-060100 Reinforcement	26.60 - 26.85	1.0000	1.0000
L40	36	CCI-060100 Reinforcement	26.60 - 26.85	1.0000	1.0000
L40	37	CCI-060100 Reinforcement	26.60 - 26.85	1.0000	1.0000
L40	53	CCI-060100 Reinforcement	26.60 - 26.85	1.0000	1.0000
L40	54	CCI-060100 Reinforcement	26.60 - 26.85	1.0000	1.0000
L40	55	CCI-060100 Reinforcement	26.60 - 26.85	1.0000	1.0000
L41	1	2" (Nominal) Conduit	21.60 - 26.60	1.0000	1.0000
L41	2	LDF6-50A(1-1/4")	21.60 - 26.60	1.0000	1.0000
L41	10	2" (Nominal) Conduit	21.60 - 26.60	1.0000	1.0000
L41	15	LCF114-50J(1-1/4)	21.60 - 26.60	1.0000	1.0000
L41	16	HCS 6X12 4AWG(1-5/8)	21.60 - 26.60	1.0000	1.0000
L41	20	CCI-040075 Reinforcement	21.60 - 26.60	1.0000	1.0000
L41	21	CCI-040075 Reinforcement	21.60 - 26.60	1.0000	1.0000
L41	22	CCI-040075 Reinforcement	21.60 - 26.60	1.0000	1.0000
L41	33	CCI-060100 Reinforcement	21.60 - 26.60	1.0000	1.0000
L41	34	CCI-060100 Reinforcement	21.60 - 26.60	1.0000	1.0000
L41	35	CCI-060100 Reinforcement	21.60 - 26.60	1.0000	1.0000
L41	36	CCI-060100 Reinforcement	21.60 - 26.60	1.0000	1.0000
L41	37	CCI-060100 Reinforcement	21.60 - 26.60	1.0000	1.0000
L41	53	CCI-060100 Reinforcement	21.60 - 26.60	1.0000	1.0000
L41	54	CCI-060100 Reinforcement	21.60 - 26.60	1.0000	1.0000
L41	55	CCI-060100 Reinforcement	21.60 - 26.60	1.0000	1.0000
L42	1	2" (Nominal) Conduit	18.00 - 21.60	1.0000	1.0000
L42	2	LDF6-50A(1-1/4")	18.00 - 21.60	1.0000	1.0000
L42	10	2" (Nominal) Conduit	18.00 - 21.60	1.0000	1.0000
L42	15	LCF114-50J(1-1/4)	18.00 - 21.60	1.0000	1.0000
L42	16	HCS 6X12 4AWG(1-5/8)	18.00 - 21.60	1.0000	1.0000
L42	20	CCI-040075 Reinforcement	18.00 - 21.60	1.0000	1.0000
L42	21	CCI-040075 Reinforcement	18.00 - 21.60	1.0000	1.0000
L42	22	CCI-040075 Reinforcement	18.00 - 21.60	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L42	33	CCI-060100 Reinforcement	18.00 - 21.60	1.0000	1.0000
L42	34	CCI-060100 Reinforcement	21.00 - 21.60	1.0000	1.0000
L42	35	CCI-060100 Reinforcement	21.00 - 21.60	1.0000	1.0000
L42	36	CCI-060100 Reinforcement	21.00 - 21.60	1.0000	1.0000
L42	37	CCI-060100 Reinforcement	21.00 - 21.60	1.0000	1.0000
L42	45	CCI-065125 Reinforcement	18.00 - 20.75	1.0000	1.0000
L42	46	CCI-065125 Reinforcement	18.00 - 20.75	1.0000	1.0000
L42	47	CCI-065125 Reinforcement	18.00 - 20.75	1.0000	1.0000
L42	50	CCI-060100 Reinforcement	18.00 - 20.00	1.0000	1.0000
L42	51	CCI-060100 Reinforcement	18.00 - 20.00	1.0000	1.0000
L42	52	CCI-060100 Reinforcement	18.00 - 20.00	1.0000	1.0000
L42	53	CCI-060100 Reinforcement	20.00 - 21.60	1.0000	1.0000
L42	54	CCI-060100 Reinforcement	20.00 - 21.60	1.0000	1.0000
L42	55	CCI-060100 Reinforcement	20.00 - 21.60	1.0000	1.0000
L43	1	2" (Nominal) Conduit	17.75 - 18.00	1.0000	1.0000
L43	2	LDF6-50A(1-1/4")	17.75 - 18.00	1.0000	1.0000
L43	10	2" (Nominal) Conduit	17.75 - 18.00	1.0000	1.0000
L43	15	LCF114-50J(1-1/4)	17.75 - 18.00	1.0000	1.0000
L43	16	HCS 6X12 4AWG(1-5/8)	17.75 - 18.00	1.0000	1.0000
L43	20	CCI-040075 Reinforcement	17.75 - 18.00	1.0000	1.0000
L43	21	CCI-040075 Reinforcement	17.75 - 18.00	1.0000	1.0000
L43	22	CCI-040075 Reinforcement	17.75 - 18.00	1.0000	1.0000
L43	33	CCI-060100 Reinforcement	17.75 - 18.00	1.0000	1.0000
L43	45	CCI-065125 Reinforcement	17.75 - 18.00	1.0000	1.0000
L43	46	CCI-065125 Reinforcement	17.75 - 18.00	1.0000	1.0000
L43	47	CCI-065125 Reinforcement	17.75 - 18.00	1.0000	1.0000
L43	50	CCI-060100 Reinforcement	17.75 - 18.00	1.0000	1.0000
L43	51	CCI-060100 Reinforcement	17.75 - 18.00	1.0000	1.0000
L43	52	CCI-060100 Reinforcement	17.75 - 18.00	1.0000	1.0000
L44	1	2" (Nominal) Conduit	17.50 - 17.75	1.0000	1.0000
L44	2	LDF6-50A(1-1/4")	17.50 - 17.75	1.0000	1.0000
L44	10	2" (Nominal) Conduit	17.50 - 17.75	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L44	15	LCF114-50J(1-1/4)	17.50 - 17.75	1.0000	1.0000
L44	16	HCS 6X12 4AWG(1-5/8)	17.50 - 17.75	1.0000	1.0000
L44	20	CCI-040075 Reinforcement	17.50 - 17.75	1.0000	1.0000
L44	21	CCI-040075 Reinforcement	17.50 - 17.75	1.0000	1.0000
L44	22	CCI-040075 Reinforcement	17.50 - 17.75	1.0000	1.0000
L44	33	CCI-060100 Reinforcement	17.50 - 17.75	1.0000	1.0000
L44	45	CCI-065125 Reinforcement	17.50 - 17.75	1.0000	1.0000
L44	46	CCI-065125 Reinforcement	17.50 - 17.75	1.0000	1.0000
L44	47	CCI-065125 Reinforcement	17.50 - 17.75	1.0000	1.0000
L44	50	CCI-060100 Reinforcement	17.50 - 17.75	1.0000	1.0000
L44	51	CCI-060100 Reinforcement	17.50 - 17.75	1.0000	1.0000
L44	52	CCI-060100 Reinforcement	17.50 - 17.75	1.0000	1.0000
L45	1	2" (Nominal) Conduit	17.25 - 17.50	1.0000	1.0000
L45	2	LDF6-50A(1-1/4")	17.25 - 17.50	1.0000	1.0000
L45	10	2" (Nominal) Conduit	17.25 - 17.50	1.0000	1.0000
L45	15	LCF114-50J(1-1/4)	17.25 - 17.50	1.0000	1.0000
L45	16	HCS 6X12 4AWG(1-5/8)	17.25 - 17.50	1.0000	1.0000
L45	20	CCI-040075 Reinforcement	17.25 - 17.50	1.0000	1.0000
L45	21	CCI-040075 Reinforcement	17.25 - 17.50	1.0000	1.0000
L45	22	CCI-040075 Reinforcement	17.25 - 17.50	1.0000	1.0000
L45	33	CCI-060100 Reinforcement	17.25 - 17.50	1.0000	1.0000
L45	45	CCI-065125 Reinforcement	17.25 - 17.50	1.0000	1.0000
L45	46	CCI-065125 Reinforcement	17.25 - 17.50	1.0000	1.0000
L45	47	CCI-065125 Reinforcement	17.25 - 17.50	1.0000	1.0000
L45	50	CCI-060100 Reinforcement	17.25 - 17.50	1.0000	1.0000
L45	51	CCI-060100 Reinforcement	17.25 - 17.50	1.0000	1.0000
L45	52	CCI-060100 Reinforcement	17.25 - 17.50	1.0000	1.0000
L46	1	2" (Nominal) Conduit	17.08 - 17.25	1.0000	1.0000
L46	2	LDF6-50A(1-1/4")	17.08 - 17.25	1.0000	1.0000
L46	10	2" (Nominal) Conduit	17.08 - 17.25	1.0000	1.0000
L46	15	LCF114-50J(1-1/4)	17.08 - 17.25	1.0000	1.0000
L46	16	HCS 6X12 4AWG(1-5/8)	17.08 - 17.25	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L46	20	CCI-040075 Reinforcement	17.08 - 17.25	1.0000	1.0000
L46	21	CCI-040075 Reinforcement	17.08 - 17.25	1.0000	1.0000
L46	22	CCI-040075 Reinforcement	17.08 - 17.25	1.0000	1.0000
L46	33	CCI-060100 Reinforcement	17.08 - 17.25	1.0000	1.0000
L46	45	CCI-065125 Reinforcement	17.08 - 17.25	1.0000	1.0000
L46	46	CCI-065125 Reinforcement	17.08 - 17.25	1.0000	1.0000
L46	47	CCI-065125 Reinforcement	17.08 - 17.25	1.0000	1.0000
L46	50	CCI-060100 Reinforcement	17.08 - 17.25	1.0000	1.0000
L46	51	CCI-060100 Reinforcement	17.08 - 17.25	1.0000	1.0000
L46	52	CCI-060100 Reinforcement	17.08 - 17.25	1.0000	1.0000
L47	1	2" (Nominal) Conduit	16.83 - 17.08	1.0000	1.0000
L47	2	LDF6-50A(1-1/4")	16.83 - 17.08	1.0000	1.0000
L47	10	2" (Nominal) Conduit	16.83 - 17.08	1.0000	1.0000
L47	15	LCF114-50J(1-1/4)	16.83 - 17.08	1.0000	1.0000
L47	16	HCS 6X12 4AWG(1-5/8)	16.83 - 17.08	1.0000	1.0000
L47	20	CCI-040075 Reinforcement	16.83 - 17.08	1.0000	1.0000
L47	21	CCI-040075 Reinforcement	16.83 - 17.08	1.0000	1.0000
L47	22	CCI-040075 Reinforcement	16.83 - 17.08	1.0000	1.0000
L47	33	CCI-060100 Reinforcement	16.83 - 17.08	1.0000	1.0000
L47	45	CCI-065125 Reinforcement	16.83 - 17.08	1.0000	1.0000
L47	46	CCI-065125 Reinforcement	16.83 - 17.08	1.0000	1.0000
L47	47	CCI-065125 Reinforcement	16.83 - 17.08	1.0000	1.0000
L47	50	CCI-060100 Reinforcement	16.83 - 17.08	1.0000	1.0000
L47	51	CCI-060100 Reinforcement	16.83 - 17.08	1.0000	1.0000
L47	52	CCI-060100 Reinforcement	16.83 - 17.08	1.0000	1.0000
L48	1	2" (Nominal) Conduit	13.00 - 16.83	1.0000	1.0000
L48	2	LDF6-50A(1-1/4")	13.00 - 16.83	1.0000	1.0000
L48	10	2" (Nominal) Conduit	13.00 - 16.83	1.0000	1.0000
L48	15	LCF114-50J(1-1/4)	13.00 - 16.83	1.0000	1.0000
L48	16	HCS 6X12 4AWG(1-5/8)	13.00 - 16.83	1.0000	1.0000
L48	20	CCI-040075 Reinforcement	14.00 - 16.83	1.0000	1.0000
L48	21	CCI-040075 Reinforcement	14.00 - 16.83	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L48	22	CCI-040075 Reinforcement	14.00 - 16.83	1.0000	1.0000
L48	30	CCI-060100 Reinforcement	13.00 - 15.50	1.0000	1.0000
L48	31	CCI-060100 Reinforcement	13.00 - 15.50	1.0000	1.0000
L48	32	CCI-060100 Reinforcement	13.00 - 15.50	1.0000	1.0000
L48	33	CCI-060100 Reinforcement	13.00 - 16.83	1.0000	1.0000
L48	45	CCI-065125 Reinforcement	13.00 - 16.83	1.0000	1.0000
L48	46	CCI-065125 Reinforcement	13.00 - 16.83	1.0000	1.0000
L48	47	CCI-065125 Reinforcement	13.00 - 16.83	1.0000	1.0000
L48	50	CCI-060100 Reinforcement	13.00 - 16.83	1.0000	1.0000
L48	51	CCI-060100 Reinforcement	13.00 - 16.83	1.0000	1.0000
L48	52	CCI-060100 Reinforcement	13.00 - 16.83	1.0000	1.0000
L49	1	2" (Nominal) Conduit	12.75 - 13.00	1.0000	1.0000
L49	2	LDF6-50A(1-1/4")	12.75 - 13.00	1.0000	1.0000
L49	10	2" (Nominal) Conduit	12.75 - 13.00	1.0000	1.0000
L49	15	LCF114-50J(1-1/4)	12.75 - 13.00	1.0000	1.0000
L49	16	HCS 6X12 4AWG(1-5/8)	12.75 - 13.00	1.0000	1.0000
L49	30	CCI-060100 Reinforcement	12.75 - 13.00	1.0000	1.0000
L49	31	CCI-060100 Reinforcement	12.75 - 13.00	1.0000	1.0000
L49	32	CCI-060100 Reinforcement	12.75 - 13.00	1.0000	1.0000
L49	33	CCI-060100 Reinforcement	12.75 - 13.00	1.0000	1.0000
L49	45	CCI-065125 Reinforcement	12.75 - 13.00	1.0000	1.0000
L49	46	CCI-065125 Reinforcement	12.75 - 13.00	1.0000	1.0000
L49	47	CCI-065125 Reinforcement	12.75 - 13.00	1.0000	1.0000
L49	50	CCI-060100 Reinforcement	12.75 - 13.00	1.0000	1.0000
L49	51	CCI-060100 Reinforcement	12.75 - 13.00	1.0000	1.0000
L49	52	CCI-060100 Reinforcement	12.75 - 13.00	1.0000	1.0000
L50	1	2" (Nominal) Conduit	11.85 - 12.75	1.0000	1.0000
L50	2	LDF6-50A(1-1/4")	11.85 - 12.75	1.0000	1.0000
L50	10	2" (Nominal) Conduit	11.85 - 12.75	1.0000	1.0000
L50	15	LCF114-50J(1-1/4)	11.85 - 12.75	1.0000	1.0000
L50	16	HCS 6X12 4AWG(1-5/8)	11.85 - 12.75	1.0000	1.0000
L50	30	CCI-060100 Reinforcement	11.85 - 12.75	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L50	31	CCI-060100 Reinforcement	11.85 - 12.75	1.0000	1.0000
L50	32	CCI-060100 Reinforcement	11.85 - 12.75	1.0000	1.0000
L50	33	CCI-060100 Reinforcement	11.85 - 12.75	1.0000	1.0000
L50	45	CCI-065125 Reinforcement	11.85 - 12.75	1.0000	1.0000
L50	46	CCI-065125 Reinforcement	11.85 - 12.75	1.0000	1.0000
L50	47	CCI-065125 Reinforcement	11.85 - 12.75	1.0000	1.0000
L50	50	CCI-060100 Reinforcement	11.85 - 12.75	1.0000	1.0000
L50	51	CCI-060100 Reinforcement	11.85 - 12.75	1.0000	1.0000
L50	52	CCI-060100 Reinforcement	11.85 - 12.75	1.0000	1.0000
L51	1	2" (Nominal) Conduit	11.60 - 11.85	1.0000	1.0000
L51	2	LDF6-50A(1-1/4")	11.60 - 11.85	1.0000	1.0000
L51	10	2" (Nominal) Conduit	11.60 - 11.85	1.0000	1.0000
L51	15	LCF114-50J(1-1/4)	11.60 - 11.85	1.0000	1.0000
L51	16	HCS 6X12 4AWG(1-5/8)	11.60 - 11.85	1.0000	1.0000
L51	30	CCI-060100 Reinforcement	11.60 - 11.85	1.0000	1.0000
L51	31	CCI-060100 Reinforcement	11.60 - 11.85	1.0000	1.0000
L51	32	CCI-060100 Reinforcement	11.60 - 11.85	1.0000	1.0000
L51	33	CCI-060100 Reinforcement	11.60 - 11.85	1.0000	1.0000
L51	45	CCI-065125 Reinforcement	11.60 - 11.85	1.0000	1.0000
L51	46	CCI-065125 Reinforcement	11.60 - 11.85	1.0000	1.0000
L51	47	CCI-065125 Reinforcement	11.60 - 11.85	1.0000	1.0000
L51	50	CCI-060100 Reinforcement	11.60 - 11.85	1.0000	1.0000
L51	51	CCI-060100 Reinforcement	11.60 - 11.85	1.0000	1.0000
L51	52	CCI-060100 Reinforcement	11.60 - 11.85	1.0000	1.0000
L52	1	2" (Nominal) Conduit	6.50 - 11.60	1.0000	1.0000
L52	2	LDF6-50A(1-1/4")	6.50 - 11.60	1.0000	1.0000
L52	10	2" (Nominal) Conduit	6.50 - 11.60	1.0000	1.0000
L52	15	LCF114-50J(1-1/4)	6.50 - 11.60	1.0000	1.0000
L52	16	HCS 6X12 4AWG(1-5/8)	6.50 - 11.60	1.0000	1.0000
L52	30	CCI-060100 Reinforcement	6.50 - 11.60	1.0000	1.0000
L52	31	CCI-060100 Reinforcement	6.50 - 11.60	1.0000	1.0000
L52	32	CCI-060100 Reinforcement	6.50 - 11.60	1.0000	1.0000
L52	33	CCI-060100 Reinforcement	8.00 - 11.60	1.0000	1.0000
L52	45	CCI-065125 Reinforcement	6.50 - 11.60	1.0000	1.0000
L52	46	CCI-065125 Reinforcement	6.50 - 11.60	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L52	47	CCI-065125 Reinforcement	6.50 - 11.60	1.0000	1.0000
L52	48	CCI-065125 Reinforcement	6.50 - 9.25	1.0000	1.0000
L52	50	CCI-060100 Reinforcement	6.50 - 11.60	1.0000	1.0000
L52	51	CCI-060100 Reinforcement	6.50 - 11.60	1.0000	1.0000
L52	52	CCI-060100 Reinforcement	6.50 - 11.60	1.0000	1.0000
L53	1	2" (Nominal) Conduit	6.25 - 6.50	1.0000	1.0000
L53	2	LDF6-50A(1-1/4")	6.25 - 6.50	1.0000	1.0000
L53	10	2" (Nominal) Conduit	6.25 - 6.50	1.0000	1.0000
L53	15	LCF114-50J(1-1/4)	6.25 - 6.50	1.0000	1.0000
L53	16	HCS 6X12 4AWG(1-5/8)	6.25 - 6.50	1.0000	1.0000
L53	30	CCI-060100 Reinforcement	6.25 - 6.50	1.0000	1.0000
L53	31	CCI-060100 Reinforcement	6.25 - 6.50	1.0000	1.0000
L53	32	CCI-060100 Reinforcement	6.25 - 6.50	1.0000	1.0000
L53	45	CCI-065125 Reinforcement	6.25 - 6.50	1.0000	1.0000
L53	46	CCI-065125 Reinforcement	6.25 - 6.50	1.0000	1.0000
L53	47	CCI-065125 Reinforcement	6.25 - 6.50	1.0000	1.0000
L53	48	CCI-065125 Reinforcement	6.25 - 6.50	1.0000	1.0000
L53	50	CCI-060100 Reinforcement	6.25 - 6.50	1.0000	1.0000
L53	51	CCI-060100 Reinforcement	6.25 - 6.50	1.0000	1.0000
L53	52	CCI-060100 Reinforcement	6.25 - 6.50	1.0000	1.0000
L54	1	2" (Nominal) Conduit	4.00 - 6.25	1.0000	1.0000
L54	2	LDF6-50A(1-1/4")	4.00 - 6.25	1.0000	1.0000
L54	10	2" (Nominal) Conduit	4.00 - 6.25	1.0000	1.0000
L54	15	LCF114-50J(1-1/4)	4.00 - 6.25	1.0000	1.0000
L54	16	HCS 6X12 4AWG(1-5/8)	4.00 - 6.25	1.0000	1.0000
L54	30	CCI-060100 Reinforcement	4.00 - 6.25	1.0000	1.0000
L54	31	CCI-060100 Reinforcement	4.00 - 6.25	1.0000	1.0000
L54	32	CCI-060100 Reinforcement	4.00 - 6.25	1.0000	1.0000
L54	45	CCI-065125 Reinforcement	4.00 - 6.25	1.0000	1.0000
L54	46	CCI-065125 Reinforcement	4.00 - 6.25	1.0000	1.0000
L54	47	CCI-065125 Reinforcement	4.00 - 6.25	1.0000	1.0000
L54	48	CCI-065125 Reinforcement	4.00 - 6.25	1.0000	1.0000
L54	50	CCI-060100 Reinforcement	4.00 - 6.25	1.0000	1.0000
L54	51	CCI-060100 Reinforcement	4.00 - 6.25	1.0000	1.0000
L54	52	CCI-060100 Reinforcement	4.00 - 6.25	1.0000	1.0000
L55	1	2" (Nominal) Conduit	3.75 - 4.00	1.0000	1.0000
L55	2	LDF6-50A(1-1/4")	3.75 - 4.00	1.0000	1.0000
L55	10	2" (Nominal) Conduit	3.75 - 4.00	1.0000	1.0000
L55	15	LCF114-50J(1-1/4)	3.75 - 4.00	1.0000	1.0000
L55	16	HCS 6X12 4AWG(1-5/8)	3.75 - 4.00	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
L55	30	CCI-060100 Reinforcement	3.75 - 4.00	1.0000	1.0000
L55	31	CCI-060100 Reinforcement	3.75 - 4.00	1.0000	1.0000
L55	32	CCI-060100 Reinforcement	3.75 - 4.00	1.0000	1.0000
L55	45	CCI-065125 Reinforcement	3.75 - 4.00	1.0000	1.0000
L55	46	CCI-065125 Reinforcement	3.75 - 4.00	1.0000	1.0000
L55	47	CCI-065125 Reinforcement	3.75 - 4.00	1.0000	1.0000
L55	48	CCI-065125 Reinforcement	3.75 - 4.00	1.0000	1.0000
L55	50	CCI-060100 Reinforcement	3.75 - 4.00	1.0000	1.0000
L55	51	CCI-060100 Reinforcement	3.75 - 4.00	1.0000	1.0000
L55	52	CCI-060100 Reinforcement	3.75 - 4.00	1.0000	1.0000
L56	1	2" (Nominal) Conduit	0.00 - 3.75	1.0000	1.0000
L56	2	LDF6-50A(1-1/4")	0.00 - 3.75	1.0000	1.0000
L56	10	2" (Nominal) Conduit	0.00 - 3.75	1.0000	1.0000
L56	15	LCF114-50J(1-1/4)	0.00 - 3.75	1.0000	1.0000
L56	16	HCS 6X12 4AWG(1-5/8)	0.00 - 3.75	1.0000	1.0000
L56	30	CCI-060100 Reinforcement	0.50 - 3.75	1.0000	1.0000
L56	31	CCI-060100 Reinforcement	0.50 - 3.75	1.0000	1.0000
L56	32	CCI-060100 Reinforcement	0.50 - 3.75	1.0000	1.0000
L56	45	CCI-065125 Reinforcement	0.00 - 3.75	1.0000	1.0000
L56	46	CCI-065125 Reinforcement	0.00 - 3.75	1.0000	1.0000
L56	47	CCI-065125 Reinforcement	0.00 - 3.75	1.0000	1.0000
L56	48	CCI-065125 Reinforcement	0.00 - 3.75	1.0000	1.0000
L56	50	CCI-060100 Reinforcement	0.00 - 3.75	1.0000	1.0000
L56	51	CCI-060100 Reinforcement	0.00 - 3.75	1.0000	1.0000
L56	52	CCI-060100 Reinforcement	0.00 - 3.75	1.0000	1.0000

Discrete Tower Loads

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft	Azimuth Adjustment t °	Placement ft	C_{AA} Front ft ²	C_{AA} Side ft ²	Weight K	
80010798 w/ Mount Pipe	A	From Leg	4.0000	0.00	121.0000	No Ice	7.7900	4.9000	0.11
			0.00			1/2" Ice	8.4000	5.4700	0.19
			-1.00			Ice	9.0200	6.0600	0.27
						1" Ice	10.3000	7.2600	0.48
						2" Ice			
80010798 w/ Mount Pipe	B	From Leg	4.0000	0.00	121.0000	No Ice	7.7900	4.9000	0.11
			0.00				8.4000	5.4700	0.19

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft	C _{AA} Front ft ²	C _{AA} Side ft ²	Weight K	
			-1.00			1/2" Ice	9.0200	6.0600	0.27
						2" Ice	10.3000	7.2600	0.48
80010798 w/ Mount Pipe	C	From Leg	4.0000	0.00	121.0000	No Ice	7.7900	4.9000	0.11
			0.00			1/2" Ice	8.4000	5.4700	0.19
			-1.00			1" Ice	9.0200	6.0600	0.27
						2" Ice	10.3000	7.2600	0.48
(2) 80010965 w/ Mount Pipe	A	From Leg	4.0000	0.00	121.0000	No Ice	12.2600	5.7900	0.14
			0.00			1/2" Ice	13.0300	6.4700	0.23
			-1.00			1" Ice	13.8000	7.1700	0.33
						2" Ice	15.4100	8.6000	0.57
(2) 80010965 w/ Mount Pipe	B	From Leg	4.0000	0.00	121.0000	No Ice	12.2600	5.7900	0.14
			0.00			1/2" Ice	13.0300	6.4700	0.23
			-1.00			1" Ice	13.8000	7.1700	0.33
						2" Ice	15.4100	8.6000	0.57
(2) 80010965 w/ Mount Pipe	C	From Leg	4.0000	0.00	121.0000	No Ice	12.2600	5.7900	0.14
			0.00			1/2" Ice	13.0300	6.4700	0.23
			-1.00			1" Ice	13.8000	7.1700	0.33
						2" Ice	15.4100	8.6000	0.57
800 10121 w/ Mount Pipe	A	From Leg	4.0000	0.00	121.0000	No Ice	3.6000	2.9500	0.07
			0.00			1/2" Ice	4.0000	3.3400	0.11
			-1.00			1" Ice	4.4200	3.7400	0.17
						2" Ice	5.2900	4.5900	0.30
800 10121 w/ Mount Pipe	B	From Leg	4.0000	0.00	121.0000	No Ice	3.6000	2.9500	0.07
			0.00			1/2" Ice	4.0000	3.3400	0.11
			-1.00			1" Ice	4.4200	3.7400	0.17
						2" Ice	5.2900	4.5900	0.30
800 10121 w/ Mount Pipe	C	From Leg	4.0000	0.00	121.0000	No Ice	3.6000	2.9500	0.07
			0.00			1/2" Ice	4.0000	3.3400	0.11
			-1.00			1" Ice	4.4200	3.7400	0.17
						2" Ice	5.2900	4.5900	0.30
(4) DC6-48-60-18-8F	A	From Leg	4.0000	0.00	121.0000	No Ice	1.2117	1.2117	0.03
			0.00			1/2" Ice	1.8924	1.8924	0.05
			-1.00			1" Ice	2.1051	2.1051	0.08
						2" Ice	2.5703	2.5703	0.14
(2) RRUS 32 B30	A	From Leg	4.0000	0.00	121.0000	No Ice	2.7427	1.6681	0.05
			0.00			1/2" Ice	2.9647	1.8552	0.07
			-1.00			1" Ice	3.1941	2.0493	0.10
						2" Ice	3.6753	2.4585	0.16
RRUS 32 B30	B	From Leg	4.0000	0.00	121.0000	No Ice	2.7427	1.6681	0.05
			0.00			1/2" Ice	2.9647	1.8552	0.07
			-1.00			1" Ice	3.1941	2.0493	0.10
						2" Ice	3.6753	2.4585	0.16
(2) RRUS 4478 B14	A	From Leg	4.0000	0.00	121.0000	No Ice	2.0212	1.2459	0.06
			0.00			1/2" Ice	2.1999	1.3960	0.08
			-1.00			1" Ice	2.3860	1.5536	0.10
						2" Ice	2.7804	1.8909	0.15
RRUS 4478 B14	B	From Leg	4.0000	0.00	121.0000	No Ice	2.0212	1.2459	0.06
			0.00			1/2" Ice	2.1999	1.3960	0.08

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustmen t °	Placement ft	C _{AA} Front ft ²	C _{AA} Side ft ²	Weight K	
			-1.00			1/2" Ice	2.3860	1.5536	0.10
						2" Ice	2.7804	1.8909	0.15
RRUS E2 B29	A	From Leg	4.0000	0.00	121.0000	No Ice	3.1450	1.2854	0.06
			0.00			1/2" Ice	3.3648	1.4379	0.08
			-1.00			1" Ice	3.5920	1.5998	0.11
						2" Ice	4.0687	1.9543	0.17
RRUS E2 B29	B	From Leg	4.0000	0.00	121.0000	No Ice	3.1450	1.2854	0.06
			0.00			1/2" Ice	3.3648	1.4379	0.08
			-1.00			1" Ice	3.5920	1.5998	0.11
						2" Ice	4.0687	1.9543	0.17
RRUS E2 B29	C	From Leg	4.0000	0.00	121.0000	No Ice	3.1450	1.2854	0.06
			0.00			1/2" Ice	3.3648	1.4379	0.08
			-1.00			1" Ice	3.5920	1.5998	0.11
						2" Ice	4.0687	1.9543	0.17
(2) LGP21401	A	From Leg	4.0000	0.00	121.0000	No Ice	1.1040	0.3471	0.01
			0.00			1/2" Ice	1.2388	0.4422	0.02
			-1.00			1" Ice	1.3810	0.5444	0.03
						2" Ice	1.6877	0.7696	0.05
(2) LGP21401	B	From Leg	4.0000	0.00	121.0000	No Ice	1.1040	0.3471	0.01
			0.00			1/2" Ice	1.2388	0.4422	0.02
			-1.00			1" Ice	1.3810	0.5444	0.03
						2" Ice	1.6877	0.7696	0.05
(2) LGP21401	C	From Leg	4.0000	0.00	121.0000	No Ice	1.1040	0.3471	0.01
			0.00			1/2" Ice	1.2388	0.4422	0.02
			-1.00			1" Ice	1.3810	0.5444	0.03
						2" Ice	1.6877	0.7696	0.05
(2) RRUS 4449 B5/B12	B	From Leg	4.0000	0.00	121.0000	No Ice	1.9675	1.4081	0.07
			0.00			1/2" Ice	2.1439	1.5637	0.09
			-1.00			1" Ice	2.3278	1.7267	0.11
						2" Ice	2.7177	2.0749	0.16
RRUS 4449 B5/B12	C	From Leg	4.0000	0.00	121.0000	No Ice	1.9675	1.4081	0.07
			0.00			1/2" Ice	2.1439	1.5637	0.09
			-1.00			1" Ice	2.3278	1.7267	0.11
						2" Ice	2.7177	2.0749	0.16
RRUS 8843 B2/B66A	B	From Leg	4.0000	0.00	121.0000	No Ice	1.6390	1.3534	0.07
			0.00			1/2" Ice	1.7988	1.5005	0.09
			-1.00			1" Ice	1.9660	1.6549	0.11
						2" Ice	2.3227	1.9860	0.16
(2) RRUS 8843 B2/B66A	C	From Leg	4.0000	0.00	121.0000	No Ice	1.6390	1.3534	0.07
			0.00			1/2" Ice	1.7988	1.5005	0.09
			-1.00			1" Ice	1.9660	1.6549	0.11
						2" Ice	2.3227	1.9860	0.16
T-Arm Mount [TA 601-3]	C	None		0.00	121.0000	No Ice	12.5600	12.5600	0.73
						1/2" Ice	15.3600	15.3600	0.94
						1" Ice	18.0400	18.0400	1.21
						2" Ice	23.6900	23.6900	1.92
Side Arm Mount [SO 102-3]	C	None		0.00	121.0000	No Ice	3.6000	3.6000	0.07
						1" Ice	4.1800	4.1800	0.11

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustmen t °	Placement ft	C _{AA} Front ft ²	C _{AA} Side ft ²	Weight K	
						1/2" Ice	4.7500	4.7500	0.14
						1" Ice	5.9000	5.9000	0.20
						2" Ice			

(2) SBNHH-1D65B w/ Mount Pipe	A	From Leg	4.0000 0.00 2.00	0.00	109.0000	No Ice	4.0900	3.3000	0.07
						1/2" Ice	4.4900	3.6800	0.13
						1" Ice	4.8900	4.0700	0.20
						2" Ice	5.7200	4.8700	0.39
(2) SBNHH-1D65B w/ Mount Pipe	B	From Leg	4.0000 0.00 2.00	0.00	109.0000	No Ice	4.0900	3.3000	0.07
						1/2" Ice	4.4900	3.6800	0.13
						1" Ice	4.8900	4.0700	0.20
						2" Ice	5.7200	4.8700	0.39
(2) SBNHH-1D65B w/ Mount Pipe	C	From Leg	4.0000 0.00 2.00	0.00	109.0000	No Ice	4.0900	3.3000	0.07
						1/2" Ice	4.4900	3.6800	0.13
						1" Ice	4.8900	4.0700	0.20
						2" Ice	5.7200	4.8700	0.39
BXA-70063/6CFx4 w/ Mount Pipe	A	From Leg	4.0000 0.00 2.00	0.00	109.0000	No Ice	7.8065	5.3981	0.04
						1/2" Ice	8.3569	6.5465	0.10
						1" Ice	8.8720	7.4089	0.17
						2" Ice	9.9271	9.1837	0.33
BXA-70063/6CFx4 w/ Mount Pipe	B	From Leg	4.0000 0.00 2.00	0.00	109.0000	No Ice	7.8065	5.3981	0.04
						1/2" Ice	8.3569	6.5465	0.10
						1" Ice	8.8720	7.4089	0.17
						2" Ice	9.9271	9.1837	0.33
BXA-70063/6CFx4 w/ Mount Pipe	C	From Leg	4.0000 0.00 2.00	0.00	109.0000	No Ice	7.8065	5.3981	0.04
						1/2" Ice	8.3569	6.5465	0.10
						1" Ice	8.8720	7.4089	0.17
						2" Ice	9.9271	9.1837	0.33
BXA-80063/4CF w/ Mount Pipe	A	From Leg	4.0000 0.00 2.00	0.00	109.0000	No Ice	4.9453	3.4238	0.03
						1/2" Ice	5.3243	4.0221	0.07
						1" Ice	5.7120	4.6369	0.12
						2" Ice	6.5142	5.9160	0.23
BXA-80063/4CF w/ Mount Pipe	B	From Leg	4.0000 0.00 2.00	0.00	109.0000	No Ice	4.9453	3.4238	0.03
						1/2" Ice	5.3243	4.0221	0.07
						1" Ice	5.7120	4.6369	0.12
						2" Ice	6.5142	5.9160	0.23
BXA-80063/4CF w/ Mount Pipe	C	From Leg	4.0000 0.00 2.00	0.00	109.0000	No Ice	4.9453	3.4238	0.03
						1/2" Ice	5.3243	4.0221	0.07
						1" Ice	5.7120	4.6369	0.12
						2" Ice	6.5142	5.9160	0.23
(2) B5/B13 RRH-BR04C	A	From Leg	4.0000 0.00 2.00	0.00	109.0000	No Ice	1.8750	1.0125	0.07
						1/2" Ice	2.0454	1.1445	0.09
						1" Ice	2.2231	1.2840	0.11
						2" Ice	2.6009	1.5851	0.15
(2) PCS/AWS DULA-BAND RRH B2/B66	A	From Leg	4.0000 0.00 2.00	0.00	109.0000	No Ice	1.8750	1.2500	0.08
						1/2" Ice	2.0454	1.3926	0.10
						1" Ice	2.2231	1.5426	0.12
						2" Ice	2.6009	1.8648	0.18
B5/B13 RRH-BR04C	B	From Leg	4.0000	0.00	109.0000	No Ice	1.8750	1.0125	0.07

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft	C _{AA} Front ft ²	C _{AA} Side ft ²	Weight K	
			0.00			1/2"	2.0454	1.1445	0.09
			2.00			Ice	2.2231	1.2840	0.11
						1" Ice	2.6009	1.5851	0.15
						2" Ice			
PCS/AWS DULA-BAND RRH B2/B66	B	From Leg	4.0000	0.00	109.0000	No Ice	1.8750	1.2500	0.08
			0.00			1/2"	2.0454	1.3926	0.10
			2.00			Ice	2.2231	1.5426	0.12
						1" Ice	2.6009	1.8648	0.18
						2" Ice			
RUSDC-6267-PF-48	B	From Leg	0.0000	0.00	109.0000	No Ice	2.7585	1.0058	0.02
			0.00			1/2"	2.9658	1.1497	0.04
			2.00			Ice	3.1806	1.3007	0.06
						1" Ice	3.6324	1.6237	0.11
						2" Ice			
Valmont F3P-12W	C	None		0.00	109.0000	No Ice	25.5200	25.5200	2.00
						1/2"	31.7400	31.7400	2.60
						Ice	40.1000	40.1000	3.41
						1" Ice	50.4000	50.4000	4.40
						2" Ice			
Valmont F3P-HRK12	C	None		0.00	109.0000	No Ice	5.3800	5.3800	0.41
						1/2"	7.2200	7.2200	0.50
						Ice	8.8800	8.8800	0.63
						1" Ice	12.7400	12.7400	0.77
						2" Ice			

800MHz 2X50W RRH W/FILTER	A	From Leg	4.0000	0.00	99.0000	No Ice	2.0583	1.9317	0.06
			0.00			1/2"	2.2398	2.1087	0.09
			0.00			Ice	2.4287	2.2931	0.11
						1" Ice	2.8287	2.6843	0.17
						2" Ice			
800MHz 2X50W RRH W/FILTER	B	From Leg	4.0000	0.00	99.0000	No Ice	2.0583	1.9317	0.06
			0.00			1/2"	2.2398	2.1087	0.09
			0.00			Ice	2.4287	2.2931	0.11
						1" Ice	2.8287	2.6843	0.17
						2" Ice			
800MHz 2X50W RRH W/FILTER	C	From Leg	4.0000	0.00	99.0000	No Ice	2.0583	1.9317	0.06
			0.00			1/2"	2.2398	2.1087	0.09
			0.00			Ice	2.4287	2.2931	0.11
						1" Ice	2.8287	2.6843	0.17
						2" Ice			
PCS 1900MHz 4x45W-65MHz w/Mount Pipe	A	From Leg	4.0000	0.00	99.0000	No Ice	2.7348	3.1038	0.07
			0.00			1/2"	3.0564	3.5513	0.11
			0.00			Ice	3.3899	4.0155	0.15
						1" Ice	4.0923	4.9937	0.24
						2" Ice			
PCS 1900MHz 4x45W-65MHz w/Mount Pipe	B	From Leg	4.0000	0.00	99.0000	No Ice	2.7348	3.1038	0.07
			0.00			1/2"	3.0564	3.5513	0.11
			0.00			Ice	3.3899	4.0155	0.15
						1" Ice	4.0923	4.9937	0.24
						2" Ice			
PCS 1900MHz 4x45W-65MHz w/Mount Pipe	C	From Leg	4.0000	0.00	99.0000	No Ice	2.7348	3.1038	0.07
			0.00			1/2"	3.0564	3.5513	0.11
			0.00			Ice	3.3899	4.0155	0.15
						1" Ice	4.0923	4.9937	0.24
						2" Ice			
Side Arm Mount [SO 101-3]	C	None		0.00	99.0000	No Ice	5.8100	5.8100	0.25
						1/2"	6.9500	6.9500	0.34
						Ice	8.2800	8.2800	0.46
						1" Ice	11.5400	11.5400	0.78
						2" Ice			

Clearwire

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustmen t °	Placement ft		C _{AA} Front ft ²	C _{AA} Side ft ²	Weight K
TIMING 2000	A	From Face	4.0000 0.00 0.00	0.00	97.0000	No Ice	0.1079	0.1079	0.00
						1/2" Ice	0.1518	0.1518	0.00
						Ice	0.2031	0.2031	0.01
						1" Ice	0.3280	0.3280	0.01
						2" Ice			
LLPX310R-V1 w/ Mount Pipe	A	From Face	4.0000 0.00 1.00	0.00	97.0000	No Ice	3.8800	2.3600	0.06
						1/2" Ice	4.2900	2.7300	0.09
						Ice	4.7200	3.1200	0.13
						1" Ice	5.6100	3.9400	0.24
						2" Ice			
LLPX310R-V1 w/ Mount Pipe	B	From Face	4.0000 0.00 1.00	0.00	97.0000	No Ice	3.8800	2.3600	0.06
						1/2" Ice	4.2900	2.7300	0.09
						Ice	4.7200	3.1200	0.13
						1" Ice	5.6100	3.9400	0.24
						2" Ice			
LLPX310R-V1 w/ Mount Pipe	C	From Face	4.0000 0.00 1.00	0.00	97.0000	No Ice	3.8800	2.3600	0.06
						1/2" Ice	4.2900	2.7300	0.09
						Ice	4.7200	3.1200	0.13
						1" Ice	5.6100	3.9400	0.24
						2" Ice			
RRH-2WB	A	From Face	4.0000 0.00 1.00	0.00	97.0000	No Ice	2.3047	0.7831	0.04
						1/2" Ice	2.4961	0.9170	0.06
						Ice	2.6949	1.0579	0.08
						1" Ice	3.1147	1.3607	0.12
						2" Ice			
RRH-2WB	B	From Face	4.0000 0.00 1.00	0.00	97.0000	No Ice	2.3047	0.7831	0.04
						1/2" Ice	2.4961	0.9170	0.06
						Ice	2.6949	1.0579	0.08
						1" Ice	3.1147	1.3607	0.12
						2" Ice			
RRH-2WB	C	From Face	4.0000 0.00 1.00	0.00	97.0000	No Ice	2.3047	0.7831	0.04
						1/2" Ice	2.4961	0.9170	0.06
						Ice	2.6949	1.0579	0.08
						1" Ice	3.1147	1.3607	0.12
						2" Ice			
HORIZON COMPACT	B	From Face	4.0000 0.00 6.00	0.00	97.0000	No Ice	0.7208	0.3681	0.01
						1/2" Ice	0.8278	0.4499	0.02
						Ice	0.9422	0.5391	0.03
						1" Ice	1.1933	0.7396	0.05
						2" Ice			
HORIZON COMPACT	C	From Face	4.0000 0.00 6.00	0.00	97.0000	No Ice	0.7208	0.3681	0.01
						1/2" Ice	0.8278	0.4499	0.02
						Ice	0.9422	0.5391	0.03
						1" Ice	1.1933	0.7396	0.05
						2" Ice			
Sprint APXVSPP18-C-A20 w/ Mount Pipe	A	From Face	4.0000 0.00 1.00	0.00	97.0000	No Ice	4.6000	4.0100	0.10
						1/2" Ice	5.0500	4.4500	0.16
						Ice	5.5000	4.8900	0.23
						1" Ice	6.4400	5.8200	0.42
						2" Ice			
APXVSPP18-C-A20 w/ Mount Pipe	B	From Face	4.0000 0.00 1.00	0.00	97.0000	No Ice	4.6000	4.0100	0.10
						1/2" Ice	5.0500	4.4500	0.16
						Ice	5.5000	4.8900	0.23
						1" Ice	6.4400	5.8200	0.42
						2" Ice			
APXVSPP18-C-A20 w/ Mount Pipe	C	From Face	4.0000 0.00 1.00	0.00	97.0000	No Ice	4.6000	4.0100	0.10
						1/2" Ice	5.0500	4.4500	0.16
						Ice	5.5000	4.8900	0.23
						1" Ice	6.4400	5.8200	0.42
						2" Ice			

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C _A A _A Front ft ²	C _A A _A Side ft ²	Weight K
APXVTM14-ALU-I20 w/ Mount Pipe	A	From Face	4.0000 0.00 1.00	0.00	97.0000	No Ice	4.0900	2.8600	0.08
						1/2" Ice	4.4800	3.2300	0.13
						Ice	4.8800	3.6100	0.19
						1" Ice	5.7100	4.4000	0.33
						2" Ice			
APXVTM14-ALU-I20 w/ Mount Pipe	B	From Face	4.0000 0.00 1.00	0.00	97.0000	No Ice	4.0900	2.8600	0.08
						1/2" Ice	4.4800	3.2300	0.13
						Ice	4.8800	3.6100	0.19
						1" Ice	5.7100	4.4000	0.33
						2" Ice			
APXVTM14-ALU-I20 w/ Mount Pipe	C	From Face	4.0000 0.00 1.00	0.00	97.0000	No Ice	4.0900	2.8600	0.08
						1/2" Ice	4.4800	3.2300	0.13
						Ice	4.8800	3.6100	0.19
						1" Ice	5.7100	4.4000	0.33
						2" Ice			
TD-RRH8x20-25	A	From Face	4.0000 0.00 1.00	0.00	97.0000	No Ice	4.0455	1.5345	0.07
						1/2" Ice	4.2975	1.7142	0.10
						Ice	4.5570	1.9008	0.13
						1" Ice	5.0981	2.2951	0.20
						2" Ice			
TD-RRH8x20-25	B	From Face	4.0000 0.00 1.00	0.00	97.0000	No Ice	4.0455	1.5345	0.07
						1/2" Ice	4.2975	1.7142	0.10
						Ice	4.5570	1.9008	0.13
						1" Ice	5.0981	2.2951	0.20
						2" Ice			
TD-RRH8x20-25	C	From Face	4.0000 0.00 1.00	0.00	97.0000	No Ice	4.0455	1.5345	0.07
						1/2" Ice	4.2975	1.7142	0.10
						Ice	4.5570	1.9008	0.13
						1" Ice	5.0981	2.2951	0.20
						2" Ice			
Platform Mount (LP 101-1)	C	None		0.00	97.0000	No Ice	35.8300	35.8300	1.50
						1/2" Ice	40.9800	40.9800	2.32
						Ice	46.5700	46.5700	3.26
						1" Ice	60.4600	60.4600	5.51
						2" Ice			

ERICSSON AIR 21 B2A B4P w/ Mount Pipe	A	From Face	4.0000 0.00 0.00	0.00	87.0000	No Ice	6.3292	5.6424	0.11
						1/2" Ice	6.7751	6.4259	0.17
						Ice	7.2137	7.1313	0.23
						1" Ice	8.1168	8.5907	0.38
						2" Ice			
ERICSSON AIR 21 B2A B4P w/ Mount Pipe	B	From Face	4.0000 0.00 0.00	0.00	87.0000	No Ice	6.3292	5.6424	0.11
						1/2" Ice	6.7751	6.4259	0.17
						Ice	7.2137	7.1313	0.23
						1" Ice	8.1168	8.5907	0.38
						2" Ice			
ERICSSON AIR 21 B2A B4P w/ Mount Pipe	C	From Face	4.0000 0.00 0.00	0.00	87.0000	No Ice	6.3292	5.6424	0.11
						1/2" Ice	6.7751	6.4259	0.17
						Ice	7.2137	7.1313	0.23
						1" Ice	8.1168	8.5907	0.38
						2" Ice			
APXVAARR24_43-U-NA20 w/ Mount Pipe	A	From Leg	4.0000 0.00 0.00	0.00	87.0000	No Ice	14.6900	6.8700	0.19
						1/2" Ice	15.4600	7.5500	0.31
						Ice	16.2300	8.2500	0.46
						1" Ice	17.8200	9.6700	0.79
						2" Ice			
APXVAARR24_43-U-NA20 w/ Mount Pipe	B	From Leg	4.0000 0.00 0.00	0.00	87.0000	No Ice	14.6900	6.8700	0.19
						1/2" Ice	15.4600	7.5500	0.31
						Ice	16.2300	8.2500	0.46
						1" Ice	17.8200	9.6700	0.79
						2" Ice			

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustmen t °	Placement ft		C _{AA} Front ft ²	C _{AA} Side ft ²	Weight K
APXVAARR24_43-U-NA20 w/ Mount Pipe	C	From Leg	4.0000 0.00 0.00	0.00	87.0000	No Ice	14.6900	6.8700	0.19
						1/2" Ice	15.4600	7.5500	0.31
						Ice	16.2300	8.2500	0.46
						1" Ice	17.8200	9.6700	0.79
						2" Ice			
AIR -32 B2A/B66AA w/ Mount Pipe	A	From Leg	4.0000 0.00 0.00	0.00	87.0000	No Ice	6.7474	6.0700	0.15
						1/2" Ice	7.2017	6.8671	0.21
						Ice	7.6475	7.5828	0.28
						1" Ice	8.5651	9.0629	0.44
						2" Ice			
AIR -32 B2A/B66AA w/ Mount Pipe	B	From Leg	4.0000 0.00 0.00	0.00	87.0000	No Ice	6.7474	6.0700	0.15
						1/2" Ice	7.2017	6.8671	0.21
						Ice	7.6475	7.5828	0.28
						1" Ice	8.5651	9.0629	0.44
						2" Ice			
AIR -32 B2A/B66AA w/ Mount Pipe	C	From Leg	4.0000 0.00 0.00	0.00	87.0000	No Ice	6.7474	6.0700	0.15
						1/2" Ice	7.2017	6.8671	0.21
						Ice	7.6475	7.5828	0.28
						1" Ice	8.5651	9.0629	0.44
						2" Ice			
KRY 112 144/1	A	From Face	4.0000 0.00 0.00	0.00	87.0000	No Ice	0.3500	0.1750	0.01
						1/2" Ice	0.4259	0.2343	0.01
						Ice	0.5093	0.3009	0.02
						1" Ice	0.6981	0.4565	0.03
						2" Ice			
KRY 112 144/1	B	From Face	4.0000 0.00 0.00	0.00	87.0000	No Ice	0.3500	0.1750	0.01
						1/2" Ice	0.4259	0.2343	0.01
						Ice	0.5093	0.3009	0.02
						1" Ice	0.6981	0.4565	0.03
						2" Ice			
KRY 112 144/1	C	From Face	4.0000 0.00 0.00	0.00	87.0000	No Ice	0.3500	0.1750	0.01
						1/2" Ice	0.4259	0.2343	0.01
						Ice	0.5093	0.3009	0.02
						1" Ice	0.6981	0.4565	0.03
						2" Ice			
AIR6449 B41 w/ Mount Pipe	A	From Leg	4.0000 0.00 0.00	0.00	87.0000	No Ice	5.8932	3.2839	0.12
						1/2" Ice	6.2567	3.7423	0.17
						Ice	6.6301	4.2169	0.22
						1" Ice	7.4065	5.2149	0.35
						2" Ice			
AIR6449 B41 w/ Mount Pipe	B	From Leg	4.0000 0.00 0.00	0.00	87.0000	No Ice	5.8932	3.2839	0.12
						1/2" Ice	6.2567	3.7423	0.17
						Ice	6.6301	4.2169	0.22
						1" Ice	7.4065	5.2149	0.35
						2" Ice			
AIR6449 B41 w/ Mount Pipe	C	From Leg	4.0000 0.00 0.00	0.00	87.0000	No Ice	5.8932	3.2839	0.12
						1/2" Ice	6.2567	3.7423	0.17
						Ice	6.6301	4.2169	0.22
						1" Ice	7.4065	5.2149	0.35
						2" Ice			
RADIO 4449 B71 B85A_T-MOBILE	A	From Leg	4.0000 0.00 0.00	0.00	87.0000	No Ice	1.9701	1.5865	0.07
						1/2" Ice	2.1466	1.7488	0.09
						Ice	2.3306	1.9185	0.12
						1" Ice	2.7207	2.2800	0.17
						2" Ice			
RADIO 4449 B71 B85A_T-MOBILE	B	From Leg	4.0000 0.00 0.00	0.00	87.0000	No Ice	1.9701	1.5865	0.07
						1/2" Ice	2.1466	1.7488	0.09
						Ice	2.3306	1.9185	0.12
						1" Ice	2.7207	2.2800	0.17
						2" Ice			

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustmen t °	Placement ft		C _{AA} Front ft ²	C _{AA} Side ft ²	Weight K
RADIO 4449 B71 B85A_T-MOBILE	C	From Leg	4.0000 0.00 0.00	0.00	87.0000	No Ice	1.9701	1.5865	0.07
						1/2" Ice	2.1466	1.7488	0.09
						Ice	2.3306	1.9185	0.12
						1" Ice	2.7207	2.2800	0.17
						2" Ice			
RRUS 4415 B25_CCIV2	A	From Leg	4.0000 0.00 0.00	0.00	87.0000	No Ice	1.8425	0.8202	0.05
						1/2" Ice	2.0123	0.9434	0.06
						Ice	2.1895	1.0750	0.08
						1" Ice	2.5662	1.3683	0.12
						2" Ice			
RRUS 4415 B25_CCIV2	B	From Leg	4.0000 0.00 0.00	0.00	87.0000	No Ice	1.8425	0.8202	0.05
						1/2" Ice	2.0123	0.9434	0.06
						Ice	2.1895	1.0750	0.08
						1" Ice	2.5662	1.3683	0.12
						2" Ice			
RRUS 4415 B25_CCIV2	C	From Leg	4.0000 0.00 0.00	0.00	87.0000	No Ice	1.8425	0.8202	0.05
						1/2" Ice	2.0123	0.9434	0.06
						Ice	2.1895	1.0750	0.08
						1" Ice	2.5662	1.3683	0.12
						2" Ice			
T-Arm Mount [TA 602-3]	C	None		0.00	87.0000	No Ice	13.4000	13.4000	0.77
						1/2" Ice	16.4400	16.4400	1.00
						Ice	19.7000	19.7000	1.29
						1" Ice	25.8600	25.8600	2.05
						2" Ice			
2.875" x 12.5' Mount Pipe	A	From Leg	4.0000 0.00 2.00	0.00	87.0000	No Ice	3.5938	3.5938	0.08
						1/2" Ice	4.8760	4.8760	0.10
						Ice	6.1750	6.1750	0.14
						1" Ice	8.3981	8.3981	0.23
						2" Ice			
2.875" x 12.5' Mount Pipe	B	From Leg	4.0000 0.00 2.00	0.00	87.0000	No Ice	3.5938	3.5938	0.08
						1/2" Ice	4.8760	4.8760	0.10
						Ice	6.1750	6.1750	0.14
						1" Ice	8.3981	8.3981	0.23
						2" Ice			
2.875" x 12.5' Mount Pipe	C	From Leg	4.0000 0.00 2.00	0.00	87.0000	No Ice	3.5938	3.5938	0.08
						1/2" Ice	4.8760	4.8760	0.10
						Ice	6.1750	6.1750	0.14
						1" Ice	8.3981	8.3981	0.23
						2" Ice			
Commscope VSR-MS-B Stabilizer Kit	A	From Leg	4.0000 0.00 2.00	0.00	87.0000	No Ice	4.7000	2.1600	0.10
						1/2" Ice	5.1472	2.8528	0.12
						Ice	5.6019	3.3204	0.15
						1" Ice	6.5333	4.2104	0.22
						2" Ice			
Commscope VSR-MS-B Stabilizer Kit	B	From Leg	4.0000 0.00 2.00	0.00	87.0000	No Ice	4.7000	2.1600	0.10
						1/2" Ice	5.1472	2.8528	0.12
						Ice	5.6019	3.3204	0.15
						1" Ice	6.5333	4.2104	0.22
						2" Ice			
Commscope VSR-MS-B Stabilizer Kit	C	From Leg	4.0000 0.00 2.00	0.00	87.0000	No Ice	4.7000	2.1600	0.10
						1/2" Ice	5.1472	2.8528	0.12
						Ice	5.6019	3.3204	0.15
						1" Ice	6.5333	4.2104	0.22
						2" Ice			

Dishes

Description	Face or Leg	Dish Type	Offset Type	Offsets: Horz Lateral Vert ft	Azimuth Adjustment °	3 dB Beam Width °	Elevation ft	Outside Diameter ft	Aperture Area ft²	Weight K
VHLP2.5-18	B	Paraboloid w/Shroud (HP)	From Leg	1.0000	0.00		97.0000	2.9167	No Ice	0.05
				0.00					1/2" Ice	0.08
				6.00					1" Ice	0.12
									2" Ice	0.19
VHLP2-18	C	Paraboloid w/Shroud (HP)	From Leg	1.0000	0.00		97.0000	2.1750	No Ice	0.03
				0.00					1/2" Ice	0.05
				6.00					1" Ice	0.07
									2" Ice	0.11

Tower Pressures - No Ice

$G_H = 1.100$

Section Elevation ft	z ft	K _Z	q _Z psf	A _G ft²	F a c e	A _F ft²	A _R ft²	A _{leg} ft²	Leg %	C _A A _A In Face ft²	C _A A _A Out Face ft²
L1 131.0000-126.0000	128.4554	1.334	48.090	4.769	A	0.000	4.769	4.769	100.00	0.000	0.000
					B	0.000	4.769	100.00	0.000	0.000	
					C	0.000	4.769	100.00	0.000	0.000	
L2 126.0000-121.0000	123.4597	1.323	47.690	5.283	A	0.000	5.283	5.283	100.00	0.000	0.000
					B	0.000	5.283	100.00	0.000	0.000	
					C	0.000	5.283	100.00	0.000	0.000	
L3 121.0000-116.0000	118.4633	1.312	47.277	5.796	A	0.000	5.796	5.796	100.00	0.000	0.000
					B	0.000	5.796	100.00	7.075	0.000	
					C	0.000	5.796	100.00	0.000	0.000	
L4 116.0000-111.0000	113.4662	1.3	46.850	6.310	A	0.000	6.310	6.310	100.00	0.000	0.000
					B	0.000	6.310	100.00	7.075	0.000	
					C	0.000	6.310	100.00	0.000	0.000	
L5 111.0000-110.0000	110.4987	1.293	46.590	1.324	A	0.000	1.324	1.324	100.00	0.000	0.000
					B	0.000	1.324	100.00	1.415	0.000	
					C	0.000	1.324	100.00	0.000	0.000	
L6 110.0000-105.0000	107.4677	1.285	46.318	6.930	A	0.000	6.930	6.930	100.00	0.000	0.000
					B	0.000	6.930	100.00	7.075	0.000	
					C	0.000	6.930	100.00	0.000	0.000	
L7 105.0000-100.0000	102.4701	1.272	45.856	7.469	A	0.000	7.469	7.469	100.00	0.000	0.000
					B	0.000	7.469	100.00	7.075	0.000	
					C	0.000	7.469	100.00	0.000	0.000	
L8 100.0000-95.0000	97.4721	1.259	45.375	8.009	A	0.000	8.009	8.009	100.00	0.950	0.000
					B	0.000	8.009	100.00	7.075	0.000	
					C	0.000	8.009	100.00	0.000	0.000	
L9 95.0000-90.0000	92.4738	1.245	44.875	8.549	A	0.000	8.549	8.549	100.00	2.400	0.000
					B	0.000	8.549	100.00	7.100	0.000	
					C	0.000	8.549	100.00	0.025	0.000	
L10 90.0000-89.7500	89.8749	1.237	44.607	0.440	A	0.000	0.440	0.440	100.00	0.123	0.000
					B	0.000	0.440	100.00	0.358	0.000	
					C	0.000	0.440	100.00	0.004	0.000	
L11 89.7500-84.7500	87.2254	1.23	44.327	9.081	A	0.000	9.081	9.081	100.00	2.492	0.000
					B	0.000	9.081	100.00	9.716	0.000	
					C	0.000	9.081	100.00	0.117	0.000	
L12 84.7500-84.5800	84.6650	1.222	44.050	0.318	A	0.000	0.318	0.318	100.00	0.089	0.000
					B	0.000	0.318	100.00	0.440	0.000	
					C	0.000	0.318	100.00	0.009	0.000	
L13 84.5800-84.3300	84.4549	1.221	44.027	0.468	A	0.000	0.468	0.468	100.00	0.131	0.000
					B	0.000	0.468	100.00	0.647	0.000	
					C	0.000	0.468	100.00	0.013	0.000	
L14 84.3300-83.4200	83.8742	1.22	43.963	1.715	A	0.000	1.715	1.715	100.00	0.478	0.000
					B	0.000	1.715	100.00	2.354	0.000	
					C	0.000	1.715	100.00	0.045	0.000	
L15 83.4200-83.1700	83.2949	1.218	43.899	0.472	A	0.000	0.472	0.472	100.00	0.131	0.000
					B	0.000	0.472	100.00	0.647	0.000	
					C	0.000	0.472	100.00	0.013	0.000	

Section Elevation ft	z ft	K _Z	q _z psf	A _G ft ²	F a c e	A _F ft ²	A _R ft ²	A _{leg} ft ²	Leg %	C _A A _A In Face ft ²	C _A A _A Out Face ft ²
L16 83.1700- 83.0000	83.0850	1.217	43.87 5	0.322	A	0.000	0.322	0.322	100.00	0.089	0.000
					B	0.000	0.322	100.00	0.440	0.000	
					C	0.000	0.322	100.00	0.009	0.000	
L17 83.0000- 82.7500	82.8749	1.217	43.85 2	0.476	A	0.000	0.476	0.476	100.00	0.131	0.000
					B	0.000	0.476	100.00	0.647	0.000	
					C	0.000	0.476	100.00	0.013	0.000	
L18 82.7500- 77.7500	80.2273	1.208	43.55 3	9.810	A	0.000	9.810	9.810	100.00	2.563	0.000
					B	0.000	9.810	100.00	12.873	0.000	
					C	0.000	9.810	100.00	0.188	0.000	
L19 77.7500- 70.0000	73.8240	1.187	42.79 7	16.274	A	0.000	16.274	16.274	100.00	3.940	0.000
					B	0.000	16.274	100.00	19.920	0.000	
					C	0.000	16.274	100.00	0.258	0.000	
L20 70.0000- 69.0000	69.4992	1.172	42.25 7	2.150	A	0.000	2.150	2.150	100.00	0.525	0.000
					B	0.000	2.150	100.00	2.587	0.000	
					C	0.000	2.150	100.00	0.050	0.000	
L21 69.0000- 67.0800	68.0370	1.167	42.06 8	4.189	A	0.000	4.189	4.189	100.00	1.008	0.000
					B	0.000	4.189	100.00	4.967	0.000	
					C	0.000	4.189	100.00	0.096	0.000	
L22 67.0800- 66.8300	66.9549	1.163	41.92 6	0.551	A	0.000	0.551	0.551	100.00	0.131	0.000
					B	0.000	0.551	100.00	0.647	0.000	
					C	0.000	0.551	100.00	0.013	0.000	
L23 66.8300- 64.0800	65.4490	1.158	41.72 6	6.154	A	0.000	6.154	6.154	100.00	1.403	0.000
					B	0.000	6.154	100.00	7.106	0.000	
					C	0.000	6.154	100.00	0.129	0.000	
L24 64.0800- 63.8300	63.9550	1.152	41.52 3	0.567	A	0.000	0.567	0.567	100.00	0.127	0.000
					B	0.000	0.567	100.00	0.647	0.000	
					C	0.000	0.567	100.00	0.013	0.000	
L25 63.8300- 62.4400	63.1335	1.149	41.41 1	3.177	A	0.000	3.177	3.177	100.00	0.716	0.000
					B	0.000	3.177	100.00	3.596	0.000	
					C	0.000	3.177	100.00	0.070	0.000	
L26 62.4400- 62.1900	62.3150	1.146	41.29 7	0.575	A	0.000	0.575	0.575	100.00	0.131	0.000
					B	0.000	0.575	100.00	0.647	0.000	
					C	0.000	0.575	100.00	0.013	0.000	
L27 62.1900- 57.1900	59.6711	1.135	40.92 2	11.787	A	0.000	11.787	11.787	100.00	2.625	0.000
					B	0.000	11.787	100.00	12.935	0.000	
					C	0.000	11.787	100.00	0.250	0.000	
L28 57.1900- 53.5000	55.3351	1.117	40.27 7	9.047	A	0.000	9.047	9.047	100.00	1.937	0.000
					B	0.000	9.047	100.00	9.588	0.000	
					C	0.000	9.047	100.00	0.226	0.000	
L29 53.5000- 53.2500	53.3750	1.109	39.97 2	0.623	A	0.000	0.623	0.623	100.00	0.131	0.000
					B	0.000	0.623	100.00	0.651	0.000	
					C	0.000	0.623	100.00	0.017	0.000	
L30 53.2500- 52.5800	52.9147	1.107	39.89 9	1.678	A	0.000	1.678	1.678	100.00	0.352	0.000
					B	0.000	1.678	100.00	1.744	0.000	
					C	0.000	1.678	100.00	0.045	0.000	
L31 52.5800- 52.3300	52.4550	1.105	39.82 6	0.628	A	0.000	0.628	0.628	100.00	0.131	0.000
					B	0.000	0.628	100.00	0.651	0.000	
					C	0.000	0.628	100.00	0.017	0.000	
L32 52.3300- 47.3300	49.8127	1.093	39.39 5	12.854	A	0.000	12.854	12.854	100.00	2.625	0.000
					B	0.000	12.854	100.00	13.018	0.000	
					C	0.000	12.854	100.00	0.333	0.000	
L33 47.3300- 44.5800	45.9499	1.074	38.73 1	7.301	A	0.000	7.301	7.301	100.00	1.444	0.000
					B	0.000	7.301	100.00	7.160	0.000	
					C	0.000	7.301	100.00	0.183	0.000	
L34 44.5800- 44.3300	44.4550	1.067	38.46 3	0.672	A	0.000	0.672	0.672	100.00	0.131	0.000
					B	0.000	0.672	100.00	0.651	0.000	
					C	0.000	0.672	100.00	0.017	0.000	
L35 44.3300- 39.3300	41.8138	1.053	37.97 0	13.723	A	0.000	13.723	13.723	100.00	2.692	0.000
					B	0.000	13.723	100.00	13.085	0.000	
					C	0.000	13.723	100.00	0.400	0.000	
L36 39.3300- 34.0800	36.6878	1.025	36.93 9	14.990	A	0.000	14.990	14.990	100.00	2.756	0.000
					B	0.000	14.990	100.00	13.669	0.000	
					C	0.000	14.990	100.00	0.350	0.000	

Section Elevation ft	z ft	K _Z	q _z psf	A _G ft ²	F a c e	A _F ft ²	A _R ft ²	A _{leg} ft ²	Leg %	C _A A _A In Face ft ²	C _A A _A Out Face ft ²
L37 34.0800- 33.0800	33.5794	1.006	36.25 7	2.867	A	0.000	2.867	2.867	100.00	0.525	0.000
					B	0.000	2.867	100.00	2.604	0.000	
					C	0.000	2.867	100.00	0.067	0.000	
L38 33.0800- 28.0800	30.5648	0.986	35.54 6	14.661	A	0.000	14.661	14.661	100.00	2.625	0.000
					B	0.000	14.661	100.00	13.018	0.000	
					C	0.000	14.661	100.00	0.333	0.000	
L39 28.0800- 26.8500	27.4641	0.964	34.75 4	3.690	A	0.000	3.690	3.690	100.00	0.646	0.000
					B	0.000	3.690	100.00	3.203	0.000	
					C	0.000	3.690	100.00	0.082	0.000	
L40 26.8500- 26.6000	26.7250	0.959	34.55 5	0.753	A	0.000	0.753	0.753	100.00	0.131	0.000
					B	0.000	0.753	100.00	0.651	0.000	
					C	0.000	0.753	100.00	0.017	0.000	
L41 26.6000- 21.6000	24.0855	0.938	33.80 7	15.352	A	0.000	15.352	15.352	100.00	2.625	0.000
					B	0.000	15.352	100.00	13.018	0.000	
					C	0.000	15.352	100.00	0.333	0.000	
L42 21.6000- 18.0000	19.7927	0.9	32.43 8	11.388	A	0.000	11.388	11.388	100.00	1.936	0.000
					B	0.000	11.388	100.00	9.319	0.000	
					C	0.000	11.388	100.00	0.186	0.000	
L43 18.0000- 17.7500	17.8750	0.881	31.75 0	0.800	A	0.000	0.800	0.800	100.00	0.135	0.000
					B	0.000	0.800	100.00	0.647	0.000	
					C	0.000	0.800	100.00	0.013	0.000	
L44 17.7500- 17.5000	17.6250	0.878	31.65 6	0.801	A	0.000	0.801	0.801	100.00	0.135	0.000
					B	0.000	0.801	100.00	0.647	0.000	
					C	0.000	0.801	100.00	0.013	0.000	
L45 17.5000- 17.2500	17.3750	0.876	31.56 1	0.803	A	0.000	0.803	0.803	100.00	0.135	0.000
					B	0.000	0.803	100.00	0.647	0.000	
					C	0.000	0.803	100.00	0.013	0.000	
L46 17.2500- 17.0800	17.1650	0.873	31.48 0	0.547	A	0.000	0.547	0.547	100.00	0.092	0.000
					B	0.000	0.547	100.00	0.440	0.000	
					C	0.000	0.547	100.00	0.009	0.000	
L47 17.0800- 16.8300	16.9550	0.871	31.39 8	0.806	A	0.000	0.806	0.806	100.00	0.135	0.000
					B	0.000	0.806	100.00	0.647	0.000	
					C	0.000	0.806	100.00	0.013	0.000	
L48 16.8300- 13.0000	14.9070	0.85	30.63 9	12.515	A	0.000	12.515	12.515	100.00	2.100	0.000
					B	0.000	12.515	100.00	9.933	0.000	
					C	0.000	12.515	100.00	0.217	0.000	
L49 13.0000- 12.7500	12.8750	0.85	30.63 9	0.827	A	0.000	0.827	0.827	100.00	0.135	0.000
					B	0.000	0.827	100.00	0.647	0.000	
					C	0.000	0.827	100.00	0.013	0.000	
L50 12.7500- 11.8500	12.2996	0.85	30.63 9	2.987	A	0.000	2.987	2.987	100.00	0.487	0.000
					B	0.000	2.987	100.00	2.328	0.000	
					C	0.000	2.987	100.00	0.045	0.000	
L51 11.8500- 11.6000	11.7250	0.85	30.63 9	0.835	A	0.000	0.835	0.835	100.00	0.135	0.000
					B	0.000	0.835	100.00	0.647	0.000	
					C	0.000	0.835	100.00	0.013	0.000	
L52 11.6000- 6.5000	9.0363	0.85	30.63 9	17.322	A	0.000	17.322	17.322	100.00	2.737	0.000
					B	0.000	17.322	100.00	13.194	0.000	
					C	0.000	17.322	100.00	0.301	0.000	
L53 6.5000- 6.2500	6.3750	0.85	30.63 9	0.863	A	0.000	0.863	0.863	100.00	0.131	0.000
					B	0.000	0.863	100.00	0.647	0.000	
					C	0.000	0.863	100.00	0.017	0.000	
L54 6.2500- 4.0000	5.1224	0.85	30.63 9	7.824	A	0.000	7.824	7.824	100.00	1.181	0.000
					B	0.000	7.824	100.00	5.821	0.000	
					C	0.000	7.824	100.00	0.150	0.000	
L55 4.0000- 3.7500	3.8750	0.85	30.63 9	0.875	A	0.000	0.875	0.875	100.00	0.131	0.000
					B	0.000	0.875	100.00	0.647	0.000	
					C	0.000	0.875	100.00	0.017	0.000	
L56 3.7500- 0.0000	1.8679	0.85	30.63 9	13.286	A	0.000	13.286	13.286	100.00	1.960	0.000
					B	0.000	13.286	100.00	9.693	0.000	
					C	0.000	13.286	100.00	0.242	0.000	

Tower Pressure - With Ice

$G_H = 1.100$

Section Elevation ft	z ft	K_z	q_z psf	t_z in	A_G ft ²	F a c e	A_F ft ²	A_R ft ²	A_{leg} ft ²	Leg %	$C_A A_A$ In Face ft ²	$C_A A_A$ Out Face ft ²
L1 131.0000- 126.0000	128.4554	1.334	7.694	1.9475	6.392	A	0.000	6.392	6.392	100.00	0.000	0.000
						B	0.000	6.392	6.392	100.00	0.000	0.000
						C	0.000	6.392	6.392	100.00	0.000	0.000
L2 126.0000- 121.0000	123.4597	1.323	7.630	1.9398	6.899	A	0.000	6.899	6.899	100.00	0.000	0.000
						B	0.000	6.899	6.899	100.00	0.000	0.000
						C	0.000	6.899	6.899	100.00	0.000	0.000
L3 121.0000- 116.0000	118.4633	1.312	7.564	1.9318	7.406	A	0.000	7.406	7.406	100.00	0.000	0.000
						B	0.000	7.406	7.406	100.00	13.673	0.000
						C	0.000	7.406	7.406	100.00	0.000	0.000
L4 116.0000- 111.0000	113.4662	1.3	7.496	1.9235	7.913	A	0.000	7.913	7.913	100.00	0.000	0.000
						B	0.000	7.913	7.913	100.00	13.652	0.000
						C	0.000	7.913	7.913	100.00	0.000	0.000
L5 111.0000- 110.0000	110.4987	1.293	7.454	1.9184	1.643	A	0.000	1.643	1.643	100.00	0.000	0.000
						B	0.000	1.643	1.643	100.00	2.728	0.000
						C	0.000	1.643	1.643	100.00	0.000	0.000
L6 110.0000- 105.0000	107.4677	1.285	7.411	1.9130	8.524	A	0.000	8.524	8.524	100.00	0.000	0.000
						B	0.000	8.524	8.524	100.00	13.626	0.000
						C	0.000	8.524	8.524	100.00	0.000	0.000
L7 105.0000- 100.0000	102.4701	1.272	7.337	1.9040	9.056	A	0.000	9.056	9.056	100.00	0.000	0.000
						B	0.000	9.056	9.056	100.00	13.604	0.000
						C	0.000	9.056	9.056	100.00	0.000	0.000
L8 100.0000- 95.0000	97.4721	1.259	7.260	1.8945	9.588	A	0.000	9.588	9.588	100.00	2.135	0.000
						B	0.000	9.588	9.588	100.00	13.580	0.000
						C	0.000	9.588	9.588	100.00	0.000	0.000
L9 95.0000- 90.0000	92.4738	1.245	7.180	1.8845	10.119	A	0.000	10.119	10.119	100.00	5.915	0.000
						B	0.000	10.119	10.119	100.00	14.145	0.000
						C	0.000	10.119	10.119	100.00	0.590	0.000
L10 90.0000- 89.7500	89.8749	1.237	7.137	1.8791	0.518	A	0.000	0.518	0.518	100.00	0.364	0.000
						B	0.000	0.518	0.518	100.00	0.775	0.000
						C	0.000	0.518	0.518	100.00	0.098	0.000
L11 89.7500- 84.7500	87.2254	1.23	7.092	1.8735	10.642	A	0.000	10.642	10.642	100.00	8.050	0.000
						B	0.000	10.642	10.642	100.00	21.531	0.000
						C	0.000	10.642	10.642	100.00	2.740	0.000
L12 84.7500- 84.5800	84.6650	1.222	7.048	1.8680	0.371	A	0.000	0.371	0.371	100.00	0.379	0.000
						B	0.000	0.371	0.371	100.00	1.056	0.000
						C	0.000	0.371	0.371	100.00	0.199	0.000
L13 84.5800- 84.3300	84.4549	1.221	7.044	1.8675	0.546	A	0.000	0.546	0.546	100.00	0.558	0.000
						B	0.000	0.546	0.546	100.00	1.552	0.000
						C	0.000	0.546	0.546	100.00	0.293	0.000
L14 84.3300- 83.4200	83.8742	1.22	7.034	1.8662	1.998	A	0.000	1.998	1.998	100.00	2.029	0.000
						B	0.000	1.998	1.998	100.00	5.649	0.000
						C	0.000	1.998	1.998	100.00	1.064	0.000
L15 83.4200- 83.1700	83.2949	1.218	7.024	1.8649	0.550	A	0.000	0.550	0.550	100.00	0.557	0.000
						B	0.000	0.550	0.550	100.00	1.551	0.000
						C	0.000	0.550	0.550	100.00	0.292	0.000
L16 83.1700- 83.0000	83.0850	1.217	7.020	1.8644	0.375	A	0.000	0.375	0.375	100.00	0.379	0.000
						B	0.000	0.375	0.375	100.00	1.055	0.000
						C	0.000	0.375	0.375	100.00	0.199	0.000
L17 83.0000- 82.7500	82.8749	1.217	7.016	1.8640	0.554	A	0.000	0.554	0.554	100.00	0.557	0.000
						B	0.000	0.554	0.554	100.00	1.551	0.000
						C	0.000	0.554	0.554	100.00	0.292	0.000
L18 82.7500- 77.7500	80.2273	1.208	6.968	1.8579	11.358	A	0.000	11.358	11.358	100.00	9.659	0.000
						B	0.000	11.358	11.358	100.00	29.514	0.000
						C	0.000	11.358	11.358	100.00	4.368	0.000
L19 77.7500- 70.0000	73.8240	1.187	6.848	1.8425	18.654	A	0.000	18.654	18.654	100.00	14.142	0.000
						B	0.000	18.654	18.654	100.00	44.827	0.000
						C	0.000	18.654	18.654	100.00	5.970	0.000
L20 70.0000- 69.0000	69.4992	1.172	6.761	1.8315	2.457	A	0.000	2.457	2.457	100.00	2.210	0.000
						B	0.000	2.457	2.457	100.00	6.169	0.000
						C	0.000	2.457	2.457	100.00	1.156	0.000

Section Elevation ft	z ft	K _z	q _z psf	t _z in	A _G ft ²	F a c e	A _F ft ²	A _R ft ²	A _{leg} ft ²	Leg %	C _A A _A In Face ft ²	C _A A _A Out Face ft ²
L21 69.0000- 67.0800	68.0370	1.167	6.731	1.8276	4.773	A	0.000	4.773	4.773	100.00	4.219	0.000
						B	0.000	4.773	100.00	11.799	0.000	
						C	0.000	4.773	100.00	2.201	0.000	
L22 67.0800- 66.8300	66.9549	1.163	6.708	1.8246	0.627	A	0.000	0.627	0.627	100.00	0.549	0.000
						B	0.000	0.627	100.00	1.535	0.000	
						C	0.000	0.627	100.00	0.286	0.000	
L23 66.8300- 64.0800	65.4490	1.158	6.676	1.8205	6.988	A	0.000	6.988	6.988	100.00	5.104	0.000
						B	0.000	6.988	100.00	16.678	0.000	
						C	0.000	6.988	100.00	2.951	0.000	
L24 64.0800- 63.8300	63.9550	1.152	6.644	1.8163	0.643	A	0.000	0.643	0.643	100.00	0.452	0.000
						B	0.000	0.643	100.00	1.532	0.000	
						C	0.000	0.643	100.00	0.285	0.000	
L25 63.8300- 62.4400	63.1335	1.149	6.626	1.8139	3.598	A	0.000	3.598	3.598	100.00	2.723	0.000
						B	0.000	3.598	100.00	8.512	0.000	
						C	0.000	3.598	100.00	1.582	0.000	
L26 62.4400- 62.1900	62.3150	1.146	6.608	1.8116	0.650	A	0.000	0.650	0.650	100.00	0.546	0.000
						B	0.000	0.650	100.00	1.530	0.000	
						C	0.000	0.650	100.00	0.284	0.000	
L27 62.1900- 57.1900	59.6711	1.135	6.547	1.8037	13.290	A	0.000	13.290	13.290	100.00	10.885	0.000
						B	0.000	13.290	100.00	30.536	0.000	
						C	0.000	13.290	100.00	5.661	0.000	
L28 57.1900- 53.5000	55.3351	1.117	6.444	1.7902	10.148	A	0.000	10.148	10.148	100.00	7.990	0.000
						B	0.000	10.148	100.00	23.392	0.000	
						C	0.000	10.148	100.00	5.085	0.000	
L29 53.5000- 53.2500	53.3750	1.109	6.396	1.7837	0.698	A	0.000	0.698	0.698	100.00	0.540	0.000
						B	0.000	0.698	100.00	1.612	0.000	
						C	0.000	0.698	100.00	0.373	0.000	
L30 53.2500- 52.5800	52.9147	1.107	6.384	1.7822	1.877	A	0.000	1.877	1.877	100.00	1.446	0.000
						B	0.000	1.877	100.00	4.319	0.000	
						C	0.000	1.877	100.00	1.000	0.000	
L31 52.5800- 52.3300	52.4550	1.105	6.372	1.7806	0.703	A	0.000	0.703	0.703	100.00	0.539	0.000
						B	0.000	0.703	100.00	1.611	0.000	
						C	0.000	0.703	100.00	0.373	0.000	
L32 52.3300- 47.3300	49.8127	1.093	6.303	1.7715	14.330	A	0.000	14.330	14.330	100.00	10.747	0.000
						B	0.000	14.330	100.00	32.133	0.000	
						C	0.000	14.330	100.00	7.419	0.000	
L33 47.3300- 44.5800	45.9499	1.074	6.197	1.7572	8.106	A	0.000	8.106	8.106	100.00	5.878	0.000
						B	0.000	8.106	100.00	17.603	0.000	
						C	0.000	8.106	100.00	4.049	0.000	
L34 44.5800- 44.3300	44.4550	1.067	6.154	1.7514	0.745	A	0.000	0.745	0.745	100.00	0.533	0.000
						B	0.000	0.745	100.00	1.598	0.000	
						C	0.000	0.745	100.00	0.367	0.000	
L35 44.3300- 39.3300	41.8138	1.053	6.075	1.7407	15.173	A	0.000	15.173	15.173	100.00	12.076	0.000
						B	0.000	15.173	100.00	33.315	0.000	
						C	0.000	15.173	100.00	8.755	0.000	
L36 39.3300- 34.0800	36.6878	1.025	5.910	1.7181	16.493	A	0.000	16.493	16.493	100.00	11.047	0.000
						B	0.000	16.493	100.00	33.235	0.000	
						C	0.000	16.493	100.00	7.566	0.000	
L37 34.0800- 33.0800	33.5794	1.006	5.801	1.7030	3.154	A	0.000	3.154	3.154	100.00	2.104	0.000
						B	0.000	3.154	100.00	6.331	0.000	
						C	0.000	3.154	100.00	1.441	0.000	
L38 33.0800- 28.0800	30.5648	0.986	5.687	1.6870	16.067	A	0.000	16.067	16.067	100.00	10.389	0.000
						B	0.000	16.067	100.00	31.373	0.000	
						C	0.000	16.067	100.00	7.081	0.000	
L39 28.0800- 26.8500	27.4641	0.964	5.561	1.6691	4.032	A	0.000	4.032	4.032	100.00	2.537	0.000
						B	0.000	4.032	100.00	7.678	0.000	
						C	0.000	4.032	100.00	1.724	0.000	
L40 26.8500- 26.6000	26.7250	0.959	5.529	1.6645	0.823	A	0.000	0.823	0.823	100.00	0.515	0.000
						B	0.000	0.823	100.00	1.559	0.000	
						C	0.000	0.823	100.00	0.350	0.000	
L41 26.6000- 21.6000	24.0855	0.938	5.409	1.6473	16.725	A	0.000	16.725	16.725	100.00	10.220	0.000
						B	0.000	16.725	100.00	31.015	0.000	
						C	0.000	16.725	100.00	6.923	0.000	

Section Elevation ft	z ft	K _Z	q _z psf	t _z in	A _G ft ²	F a c e	A _F ft ²	A _R ft ²	A _{leg} ft ²	Leg %	C _A A _A In Face ft ²	C _A A _A Out Face ft ²
L42 21.6000-18.0000	19.7927	0.9	5.190	1.6153	12.357	A	0.000	12.357	12.357	100.00	8.194	0.000
						B	0.000	12.357	100.00	21.019	0.000	
						C	0.000	12.357	100.00	3.788	0.000	
L43 18.0000-17.7500	17.8750	0.881	5.080	1.5989	0.867	A	0.000	0.867	0.867	100.00	0.585	0.000
						B	0.000	0.867	100.00	1.445	0.000	
						C	0.000	0.867	100.00	0.252	0.000	
L44 17.7500-17.5000	17.6250	0.878	5.065	1.5967	0.868	A	0.000	0.868	0.868	100.00	0.584	0.000
						B	0.000	0.868	100.00	1.444	0.000	
						C	0.000	0.868	100.00	0.252	0.000	
L45 17.5000-17.2500	17.3750	0.876	5.050	1.5944	0.869	A	0.000	0.869	0.869	100.00	0.584	0.000
						B	0.000	0.869	100.00	1.443	0.000	
						C	0.000	0.869	100.00	0.252	0.000	
L46 17.2500-17.0800	17.1650	0.873	5.037	1.5924	0.592	A	0.000	0.592	0.592	100.00	0.397	0.000
						B	0.000	0.592	100.00	0.981	0.000	
						C	0.000	0.592	100.00	0.171	0.000	
L47 17.0800-16.8300	16.9550	0.871	5.024	1.5905	0.872	A	0.000	0.872	0.872	100.00	0.583	0.000
						B	0.000	0.872	100.00	1.442	0.000	
						C	0.000	0.872	100.00	0.251	0.000	
L48 16.8300-13.0000	14.9070	0.85	4.902	1.5701	13.517	A	0.000	13.517	13.517	100.00	9.340	0.000
						B	0.000	13.517	100.00	22.455	0.000	
						C	0.000	13.517	100.00	4.296	0.000	
L49 13.0000-12.7500	12.8750	0.85	4.902	1.5473	0.891	A	0.000	0.891	0.891	100.00	0.571	0.000
						B	0.000	0.891	100.00	1.424	0.000	
						C	0.000	0.891	100.00	0.245	0.000	
L50 12.7500-11.8500	12.2996	0.85	4.902	1.5402	3.218	A	0.000	3.218	3.218	100.00	2.050	0.000
						B	0.000	3.218	100.00	5.117	0.000	
						C	0.000	3.218	100.00	0.877	0.000	
L51 11.8500-11.6000	11.7250	0.85	4.902	1.5329	0.898	A	0.000	0.898	0.898	100.00	0.567	0.000
						B	0.000	0.898	100.00	1.418	0.000	
						C	0.000	0.898	100.00	0.242	0.000	
L52 11.6000-6.5000	9.0363	0.85	4.902	1.4935	18.592	A	0.000	18.592	18.592	100.00	10.893	0.000
						B	0.000	18.592	100.00	28.615	0.000	
						C	0.000	18.592	100.00	5.692	0.000	
L53 6.5000-6.2500	6.3750	0.85	4.902	1.4423	0.923	A	0.000	0.923	0.923	100.00	0.467	0.000
						B	0.000	0.923	100.00	1.382	0.000	
						C	0.000	0.923	100.00	0.305	0.000	
L54 6.2500-4.0000	5.1224	0.85	4.902	1.4111	8.353	A	0.000	8.353	8.353	100.00	4.147	0.000
						B	0.000	8.353	100.00	12.328	0.000	
						C	0.000	8.353	100.00	2.690	0.000	
L55 4.0000-3.7500	3.8750	0.85	4.902	1.3722	0.932	A	0.000	0.932	0.932	100.00	0.453	0.000
						B	0.000	0.932	100.00	1.354	0.000	
						C	0.000	0.932	100.00	0.291	0.000	
L56 3.7500-0.0000	1.8679	0.85	4.902	1.2757	14.084	A	0.000	14.084	14.084	100.00	6.344	0.000
						B	0.000	14.084	100.00	19.598	0.000	
						C	0.000	14.084	100.00	3.941	0.000	

Tower Pressure - Service

$G_H = 1.100$

Section Elevation ft	z ft	K _Z	q _z psf	A _G ft ²	F a c e	A _F ft ²	A _R ft ²	A _{leg} ft ²	Leg %	C _A A _A In Face ft ²	C _A A _A Out Face ft ²
L1 131.0000-126.0000	128.4554	1.334	10.435	4.769	A	0.000	4.769	4.769	100.00	0.000	0.000
					B	0.000	4.769	100.00	0.000	0.000	
					C	0.000	4.769	100.00	0.000	0.000	
L2 126.0000-121.0000	123.4597	1.323	10.349	5.283	A	0.000	5.283	5.283	100.00	0.000	0.000
					B	0.000	5.283	100.00	0.000	0.000	
					C	0.000	5.283	100.00	0.000	0.000	
L3 121.0000-116.0000	118.4633	1.312	10.259	5.796	A	0.000	5.796	5.796	100.00	0.000	0.000
					B	0.000	5.796	100.00	7.075	0.000	
					C	0.000	5.796	100.00	0.000	0.000	

Section Elevation ft	z ft	K _Z	q _z psf	A _G ft ²	F a c e	A _F ft ²	A _R ft ²	A _{leg} ft ²	Leg %	C _A A _A In Face ft ²	C _A A _A Out Face ft ²
L4 116.0000- 111.0000	113.4662	1.3	10.16 6	6.310	A	0.000	6.310	6.310	100.00	0.000	0.000
					B	0.000	6.310	100.00	7.075	0.000	
					C	0.000	6.310	100.00	0.000	0.000	
L5 111.0000- 110.0000	110.4987	1.293	10.11 0	1.324	A	0.000	1.324	1.324	100.00	0.000	0.000
					B	0.000	1.324	100.00	1.415	0.000	
					C	0.000	1.324	100.00	0.000	0.000	
L6 110.0000- 105.0000	107.4677	1.285	10.05 1	6.930	A	0.000	6.930	6.930	100.00	0.000	0.000
					B	0.000	6.930	100.00	7.075	0.000	
					C	0.000	6.930	100.00	0.000	0.000	
L7 105.0000- 100.0000	102.4701	1.272	9.951	7.469	A	0.000	7.469	7.469	100.00	0.000	0.000
					B	0.000	7.469	100.00	7.075	0.000	
					C	0.000	7.469	100.00	0.000	0.000	
L8 100.0000- 95.0000	97.4721	1.259	9.846	8.009	A	0.000	8.009	8.009	100.00	0.950	0.000
					B	0.000	8.009	100.00	7.075	0.000	
					C	0.000	8.009	100.00	0.000	0.000	
L9 95.0000- 90.0000	92.4738	1.245	9.738	8.549	A	0.000	8.549	8.549	100.00	2.400	0.000
					B	0.000	8.549	100.00	7.100	0.000	
					C	0.000	8.549	100.00	0.025	0.000	
L10 90.0000- 89.7500	89.8749	1.237	9.680	0.440	A	0.000	0.440	0.440	100.00	0.123	0.000
					B	0.000	0.440	100.00	0.358	0.000	
					C	0.000	0.440	100.00	0.004	0.000	
L11 89.7500- 84.7500	87.2254	1.23	9.619	9.081	A	0.000	9.081	9.081	100.00	2.492	0.000
					B	0.000	9.081	100.00	9.716	0.000	
					C	0.000	9.081	100.00	0.117	0.000	
L12 84.7500- 84.5800	84.6650	1.222	9.559	0.318	A	0.000	0.318	0.318	100.00	0.089	0.000
					B	0.000	0.318	100.00	0.440	0.000	
					C	0.000	0.318	100.00	0.009	0.000	
L13 84.5800- 84.3300	84.4549	1.221	9.554	0.468	A	0.000	0.468	0.468	100.00	0.131	0.000
					B	0.000	0.468	100.00	0.647	0.000	
					C	0.000	0.468	100.00	0.013	0.000	
L14 84.3300- 83.4200	83.8742	1.22	9.540	1.715	A	0.000	1.715	1.715	100.00	0.478	0.000
					B	0.000	1.715	100.00	2.354	0.000	
					C	0.000	1.715	100.00	0.045	0.000	
L15 83.4200- 83.1700	83.2949	1.218	9.526	0.472	A	0.000	0.472	0.472	100.00	0.131	0.000
					B	0.000	0.472	100.00	0.647	0.000	
					C	0.000	0.472	100.00	0.013	0.000	
L16 83.1700- 83.0000	83.0850	1.217	9.521	0.322	A	0.000	0.322	0.322	100.00	0.089	0.000
					B	0.000	0.322	100.00	0.440	0.000	
					C	0.000	0.322	100.00	0.009	0.000	
L17 83.0000- 82.7500	82.8749	1.217	9.516	0.476	A	0.000	0.476	0.476	100.00	0.131	0.000
					B	0.000	0.476	100.00	0.647	0.000	
					C	0.000	0.476	100.00	0.013	0.000	
L18 82.7500- 77.7500	80.2273	1.208	9.451	9.810	A	0.000	9.810	9.810	100.00	2.563	0.000
					B	0.000	9.810	100.00	12.873	0.000	
					C	0.000	9.810	100.00	0.188	0.000	
L19 77.7500- 70.0000	73.8240	1.187	9.287	16.274	A	0.000	16.274	16.274	100.00	3.940	0.000
					B	0.000	16.274	100.00	19.920	0.000	
					C	0.000	16.274	100.00	0.258	0.000	
L20 70.0000- 69.0000	69.4992	1.172	9.170	2.150	A	0.000	2.150	2.150	100.00	0.525	0.000
					B	0.000	2.150	100.00	2.587	0.000	
					C	0.000	2.150	100.00	0.050	0.000	
L21 69.0000- 67.0800	68.0370	1.167	9.129	4.189	A	0.000	4.189	4.189	100.00	1.008	0.000
					B	0.000	4.189	100.00	4.967	0.000	
					C	0.000	4.189	100.00	0.096	0.000	
L22 67.0800- 66.8300	66.9549	1.163	9.098	0.551	A	0.000	0.551	0.551	100.00	0.131	0.000
					B	0.000	0.551	100.00	0.647	0.000	
					C	0.000	0.551	100.00	0.013	0.000	
L23 66.8300- 64.0800	65.4490	1.158	9.054	6.154	A	0.000	6.154	6.154	100.00	1.403	0.000
					B	0.000	6.154	100.00	7.106	0.000	
					C	0.000	6.154	100.00	0.129	0.000	
L24 64.0800- 63.8300	63.9550	1.152	9.010	0.567	A	0.000	0.567	0.567	100.00	0.127	0.000
					B	0.000	0.567	100.00	0.647	0.000	
					C	0.000	0.567	100.00	0.013	0.000	

Section Elevation ft	z ft	K _Z	q _z psf	A _G ft ²	F a c e	A _F ft ²	A _R ft ²	A _{leg} ft ²	Leg %	C _A A _A In Face ft ²	C _A A _A Out Face ft ²
L25 63.8300- 62.4400	63.1335	1.149	8.986	3.177	A	0.000	3.177	3.177	100.00	0.716	0.000
					B	0.000	3.177	100.00	3.596	0.000	
					C	0.000	3.177	100.00	0.070	0.000	
L26 62.4400- 62.1900	62.3150	1.146	8.961	0.575	A	0.000	0.575	0.575	100.00	0.131	0.000
					B	0.000	0.575	100.00	0.647	0.000	
					C	0.000	0.575	100.00	0.013	0.000	
L27 62.1900- 57.1900	59.6711	1.135	8.880	11.787	A	0.000	11.787	11.787	100.00	2.625	0.000
					B	0.000	11.787	100.00	12.935	0.000	
					C	0.000	11.787	100.00	0.250	0.000	
L28 57.1900- 53.5000	55.3351	1.117	8.740	9.047	A	0.000	9.047	9.047	100.00	1.937	0.000
					B	0.000	9.047	100.00	9.588	0.000	
					C	0.000	9.047	100.00	0.226	0.000	
L29 53.5000- 53.2500	53.3750	1.109	8.674	0.623	A	0.000	0.623	0.623	100.00	0.131	0.000
					B	0.000	0.623	100.00	0.651	0.000	
					C	0.000	0.623	100.00	0.017	0.000	
L30 53.2500- 52.5800	52.9147	1.107	8.658	1.678	A	0.000	1.678	1.678	100.00	0.352	0.000
					B	0.000	1.678	100.00	1.744	0.000	
					C	0.000	1.678	100.00	0.045	0.000	
L31 52.5800- 52.3300	52.4550	1.105	8.642	0.628	A	0.000	0.628	0.628	100.00	0.131	0.000
					B	0.000	0.628	100.00	0.651	0.000	
					C	0.000	0.628	100.00	0.017	0.000	
L32 52.3300- 47.3300	49.8127	1.093	8.549	12.854	A	0.000	12.854	12.854	100.00	2.625	0.000
					B	0.000	12.854	100.00	13.018	0.000	
					C	0.000	12.854	100.00	0.333	0.000	
L33 47.3300- 44.5800	45.9499	1.074	8.405	7.301	A	0.000	7.301	7.301	100.00	1.444	0.000
					B	0.000	7.301	100.00	7.160	0.000	
					C	0.000	7.301	100.00	0.183	0.000	
L34 44.5800- 44.3300	44.4550	1.067	8.346	0.672	A	0.000	0.672	0.672	100.00	0.131	0.000
					B	0.000	0.672	100.00	0.651	0.000	
					C	0.000	0.672	100.00	0.017	0.000	
L35 44.3300- 39.3300	41.8138	1.053	8.239	13.723	A	0.000	13.723	13.723	100.00	2.692	0.000
					B	0.000	13.723	100.00	13.085	0.000	
					C	0.000	13.723	100.00	0.400	0.000	
L36 39.3300- 34.0800	36.6878	1.025	8.016	14.990	A	0.000	14.990	14.990	100.00	2.756	0.000
					B	0.000	14.990	100.00	13.669	0.000	
					C	0.000	14.990	100.00	0.350	0.000	
L37 34.0800- 33.0800	33.5794	1.006	7.868	2.867	A	0.000	2.867	2.867	100.00	0.525	0.000
					B	0.000	2.867	100.00	2.604	0.000	
					C	0.000	2.867	100.00	0.067	0.000	
L38 33.0800- 28.0800	30.5648	0.986	7.713	14.661	A	0.000	14.661	14.661	100.00	2.625	0.000
					B	0.000	14.661	100.00	13.018	0.000	
					C	0.000	14.661	100.00	0.333	0.000	
L39 28.0800- 26.8500	27.4641	0.964	7.542	3.690	A	0.000	3.690	3.690	100.00	0.646	0.000
					B	0.000	3.690	100.00	3.203	0.000	
					C	0.000	3.690	100.00	0.082	0.000	
L40 26.8500- 26.6000	26.7250	0.959	7.498	0.753	A	0.000	0.753	0.753	100.00	0.131	0.000
					B	0.000	0.753	100.00	0.651	0.000	
					C	0.000	0.753	100.00	0.017	0.000	
L41 26.6000- 21.6000	24.0855	0.938	7.336	15.352	A	0.000	15.352	15.352	100.00	2.625	0.000
					B	0.000	15.352	100.00	13.018	0.000	
					C	0.000	15.352	100.00	0.333	0.000	
L42 21.6000- 18.0000	19.7927	0.9	7.039	11.388	A	0.000	11.388	11.388	100.00	1.936	0.000
					B	0.000	11.388	100.00	9.319	0.000	
					C	0.000	11.388	100.00	0.186	0.000	
L43 18.0000- 17.7500	17.8750	0.881	6.890	0.800	A	0.000	0.800	0.800	100.00	0.135	0.000
					B	0.000	0.800	100.00	0.647	0.000	
					C	0.000	0.800	100.00	0.013	0.000	
L44 17.7500- 17.5000	17.6250	0.878	6.869	0.801	A	0.000	0.801	0.801	100.00	0.135	0.000
					B	0.000	0.801	100.00	0.647	0.000	
					C	0.000	0.801	100.00	0.013	0.000	
L45 17.5000- 17.2500	17.3750	0.876	6.849	0.803	A	0.000	0.803	0.803	100.00	0.135	0.000
					B	0.000	0.803	100.00	0.647	0.000	
					C	0.000	0.803	100.00	0.013	0.000	

Section Elevation ft	z ft	K_z	q_z psf	A_G ft ²	F a c e	A_F ft ²	A_R ft ²	A_{leg} ft ²	Leg %	$C_A A_A$ In Face ft ²	$C_A A_A$ Out Face ft ²
L46 17.2500- 17.0800	17.1650	0.873	6.831	0.547	A	0.000	0.547	0.547	100.00	0.092	0.000
					B	0.000	0.547	100.00	0.440	0.000	
					C	0.000	0.547	100.00	0.009	0.000	
L47 17.0800- 16.8300	16.9550	0.871	6.813	0.806	A	0.000	0.806	0.806	100.00	0.135	0.000
					B	0.000	0.806	100.00	0.647	0.000	
					C	0.000	0.806	100.00	0.013	0.000	
L48 16.8300- 13.0000	14.9070	0.85	6.649	12.515	A	0.000	12.515	12.515	100.00	2.100	0.000
					B	0.000	12.515	100.00	9.933	0.000	
					C	0.000	12.515	100.00	0.217	0.000	
L49 13.0000- 12.7500	12.8750	0.85	6.649	0.827	A	0.000	0.827	0.827	100.00	0.135	0.000
					B	0.000	0.827	100.00	0.647	0.000	
					C	0.000	0.827	100.00	0.013	0.000	
L50 12.7500- 11.8500	12.2996	0.85	6.649	2.987	A	0.000	2.987	2.987	100.00	0.487	0.000
					B	0.000	2.987	100.00	2.328	0.000	
					C	0.000	2.987	100.00	0.045	0.000	
L51 11.8500- 11.6000	11.7250	0.85	6.649	0.835	A	0.000	0.835	0.835	100.00	0.135	0.000
					B	0.000	0.835	100.00	0.647	0.000	
					C	0.000	0.835	100.00	0.013	0.000	
L52 11.6000- 6.5000	9.0363	0.85	6.649	17.322	A	0.000	17.322	17.322	100.00	2.737	0.000
					B	0.000	17.322	100.00	13.194	0.000	
					C	0.000	17.322	100.00	0.301	0.000	
L53 6.5000- 6.2500	6.3750	0.85	6.649	0.863	A	0.000	0.863	0.863	100.00	0.131	0.000
					B	0.000	0.863	100.00	0.647	0.000	
					C	0.000	0.863	100.00	0.017	0.000	
L54 6.2500- 4.0000	5.1224	0.85	6.649	7.824	A	0.000	7.824	7.824	100.00	1.181	0.000
					B	0.000	7.824	100.00	5.821	0.000	
					C	0.000	7.824	100.00	0.150	0.000	
L55 4.0000- 3.7500	3.8750	0.85	6.649	0.875	A	0.000	0.875	0.875	100.00	0.131	0.000
					B	0.000	0.875	100.00	0.647	0.000	
					C	0.000	0.875	100.00	0.017	0.000	
L56 3.7500- 0.0000	1.8679	0.85	6.649	13.286	A	0.000	13.286	13.286	100.00	1.960	0.000
					B	0.000	13.286	100.00	9.693	0.000	
					C	0.000	13.286	100.00	0.242	0.000	

Load Combinations

Comb. No.	Description
1	Dead Only
2	1.2 Dead+1.0 Wind 0 deg - No Ice
3	0.9 Dead+1.0 Wind 0 deg - No Ice
4	1.2 Dead+1.0 Wind 30 deg - No Ice
5	0.9 Dead+1.0 Wind 30 deg - No Ice
6	1.2 Dead+1.0 Wind 60 deg - No Ice
7	0.9 Dead+1.0 Wind 60 deg - No Ice
8	1.2 Dead+1.0 Wind 90 deg - No Ice
9	0.9 Dead+1.0 Wind 90 deg - No Ice
10	1.2 Dead+1.0 Wind 120 deg - No Ice
11	0.9 Dead+1.0 Wind 120 deg - No Ice
12	1.2 Dead+1.0 Wind 150 deg - No Ice
13	0.9 Dead+1.0 Wind 150 deg - No Ice
14	1.2 Dead+1.0 Wind 180 deg - No Ice
15	0.9 Dead+1.0 Wind 180 deg - No Ice
16	1.2 Dead+1.0 Wind 210 deg - No Ice
17	0.9 Dead+1.0 Wind 210 deg - No Ice
18	1.2 Dead+1.0 Wind 240 deg - No Ice
19	0.9 Dead+1.0 Wind 240 deg - No Ice
20	1.2 Dead+1.0 Wind 270 deg - No Ice
21	0.9 Dead+1.0 Wind 270 deg - No Ice
22	1.2 Dead+1.0 Wind 300 deg - No Ice
23	0.9 Dead+1.0 Wind 300 deg - No Ice
24	1.2 Dead+1.0 Wind 330 deg - No Ice

Comb. No.	Description
25	0.9 Dead+1.0 Wind 330 deg - No Ice
26	1.2 Dead+1.0 Ice+1.0 Temp
27	1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp
28	1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp
29	1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp
30	1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp
31	1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp
32	1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp
33	1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp
34	1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp
35	1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp
36	1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp
37	1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp
38	1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp
39	Dead+Wind 0 deg - Service
40	Dead+Wind 30 deg - Service
41	Dead+Wind 60 deg - Service
42	Dead+Wind 90 deg - Service
43	Dead+Wind 120 deg - Service
44	Dead+Wind 150 deg - Service
45	Dead+Wind 180 deg - Service
46	Dead+Wind 210 deg - Service
47	Dead+Wind 240 deg - Service
48	Dead+Wind 270 deg - Service
49	Dead+Wind 300 deg - Service
50	Dead+Wind 330 deg - Service

Maximum Member Forces

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L1	131 - 126	Pole	Max Tension	42	0.00	-0.00	-0.00
			Max. Compression	26	-0.29	-0.00	0.00
			Max. Mx	8	-0.11	-0.62	0.00
			Max. My	2	-0.10	-0.00	0.63
			Max. Vy	8	0.25	-0.62	0.00
			Max. Vx	2	-0.25	-0.00	0.63
			Max. Torque	20			0.00
L2	126 - 121	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-0.62	-0.00	0.01
			Max. Mx	8	-0.22	-2.58	0.00
			Max. My	2	-0.22	-0.00	2.59
			Max. Vy	8	0.53	-2.58	0.00
			Max. Vx	2	-0.53	-0.00	2.59
			Max. Torque	12			-0.00
L3	121 - 116	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-12.76	-1.50	2.60
			Max. Mx	8	-3.67	-32.73	0.17
			Max. My	2	-3.57	-0.32	33.64
			Max. Vy	8	7.07	-32.73	0.17
			Max. Vx	2	-7.41	-0.32	33.64
			Max. Torque	10			1.15
L4	116 - 111	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-13.40	-1.73	2.79
			Max. Mx	8	-3.92	-68.89	0.01
			Max. My	2	-3.79	-0.15	72.12
			Max. Vy	8	7.39	-68.89	0.01
			Max. Vx	2	-7.98	-0.15	72.12
			Max. Torque	12			1.16
L5	111 - 110	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-13.53	-1.77	2.83
			Max. Mx	8	-3.98	-76.32	-0.03
			Max. My	2	-3.84	-0.12	80.16

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L6	110 - 105	Pole	Max. Vy	8	7.45	-76.32	-0.03
			Max. Vx	2	-8.10	-0.12	80.16
			Max. Torque	12			1.18
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-24.99	-3.52	5.48
			Max. Mx	8	-8.09	-139.09	0.64
			Max. My	2	-7.88	-0.30	147.76
			Max. Vy	8	12.44	-139.09	0.64
L7	105 - 100	Pole	Max. Vx	2	-13.43	-0.30	147.76
			Max. Torque	12			2.08
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-26.12	-3.92	5.45
			Max. Mx	8	-8.61	-203.75	0.02
			Max. My	2	-8.39	0.42	217.54
			Max. Vy	20	-13.34	200.97	3.33
			Max. Vx	2	-14.44	0.42	217.54
L8	100 - 95	Pole	Max. Torque	12			2.12
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-38.72	-4.33	5.61
			Max. Mx	8	-12.56	-284.80	-0.59
			Max. My	2	-12.30	1.28	305.04
			Max. Vy	20	-18.52	282.04	4.19
			Max. Vx	2	-19.95	1.28	305.04
			Max. Torque	12			2.22
L9	95 - 90	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-39.75	-4.56	5.88
			Max. Mx	8	-13.21	-377.95	-1.20
			Max. My	2	-12.95	2.19	406.35
			Max. Vy	20	-18.83	375.31	5.10
			Max. Vx	2	-20.59	2.19	406.35
			Max. Torque	12			2.29
			Max Tension	1	0.00	0.00	0.00
L10	90 - 89.75	Pole	Max. Compression	26	-39.82	-4.57	5.89
			Max. Mx	8	-13.27	-382.65	-1.23
			Max. My	2	-13.01	2.24	411.50
			Max. Vy	20	-18.83	380.02	5.15
			Max. Vx	2	-20.62	2.24	411.50
			Max. Torque	12			2.29
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-51.81	-4.90	6.21
L11	89.75 - 84.75	Pole	Max. Mx	8	-17.87	-492.49	-1.82
			Max. My	2	-17.57	3.12	531.14
			Max. Vy	20	-24.89	489.91	6.07
			Max. Vx	2	-26.98	3.12	531.14
			Max. Torque	12			2.43
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-51.87	-4.92	6.22
			Max. Mx	8	-17.92	-496.72	-1.84
L12	84.75 - 84.58	Pole	Max. My	2	-17.62	3.15	535.73
			Max. Vy	20	-24.91	494.14	6.11
			Max. Vx	2	-26.99	3.15	535.73
			Max. Torque	12			2.44
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-51.97	-4.94	6.24
			Max. Mx	8	-17.98	-502.95	-1.86
			Max. My	2	-17.68	3.20	542.48
L13	84.58 - 84.33	Pole	Max. Vy	20	-24.95	500.36	6.16
			Max. Vx	2	-27.03	3.20	542.48
			Max. Torque	12			2.45
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-52.35	-5.03	6.31
			Max. Mx	8	-17.98	-502.95	-1.86
			Max. My	2	-17.68	3.20	542.48
			Max. Vy	20	-24.95	500.36	6.16
L14	84.33 - 83.42	Pole	Max. Vx	2	-27.03	3.20	542.48
			Max. Torque	12			2.45
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-52.35	-5.03	6.31

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L15	83.42 - 83.17	Pole	Max. Mx	8	-18.17	-525.69	-1.97
			Max. My	2	-17.88	3.35	567.16
			Max. Vy	20	-25.08	523.10	6.33
			Max. Vx	2	-27.18	3.35	567.16
			Max. Torque	12			2.49
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-52.47	-5.05	6.34
			Max. Mx	8	-18.26	-531.96	-2.00
			Max. My	2	-17.96	3.39	573.96
			Max. Vy	20	-25.12	529.37	6.38
L16	83.17 - 83	Pole	Max. Vx	2	-27.22	3.39	573.96
			Max. Torque	12			2.50
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-52.55	-5.07	6.35
			Max. Mx	8	-18.31	-536.23	-2.01
			Max. My	2	-18.01	3.42	578.59
			Max. Vy	20	-25.14	533.64	6.41
			Max. Vx	2	-27.25	3.42	578.59
			Max. Torque	12			2.51
			Max Tension	1	0.00	0.00	0.00
L17	83 - 82.75	Pole	Max. Compression	26	-52.66	-5.09	6.37
			Max. Mx	8	-18.37	-542.52	-2.04
			Max. My	2	-18.07	3.46	585.41
			Max. Vy	20	-25.18	539.92	6.46
			Max. Vx	2	-27.29	3.46	585.41
			Max. Torque	12			2.52
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-54.73	-5.56	6.77
			Max. Mx	8	-19.57	-670.11	-2.61
			Max. My	2	-19.29	4.30	723.91
L18	82.75 - 77.75	Pole	Max. Vy	20	-25.90	667.47	7.41
			Max. Vx	2	-28.10	4.30	723.91
			Max. Torque	12			2.73
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-56.28	-5.93	7.08
			Max. Mx	8	-20.50	-768.15	-3.03
			Max. My	2	-20.23	4.93	830.43
			Max. Vy	20	-26.43	765.47	8.13
			Max. Vx	2	-28.71	4.93	830.43
			Max. Torque	12			2.88
L19	77.75 - 70	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-59.48	-6.41	7.49
			Max. Mx	8	-22.57	-902.26	-3.60
			Max. My	2	-22.30	5.77	976.31
			Max. Vy	20	-27.24	899.52	9.08
			Max. Vx	2	-29.62	5.77	976.31
			Max. Torque	12			3.10
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-60.37	-6.60	7.64
			Max. Mx	8	-23.09	-954.78	-3.81
L20	70 - 69	Pole	Max. My	2	-22.82	6.09	1033.50
			Max. Vy	20	-27.53	952.02	9.45
			Max. Vx	2	-29.96	6.09	1033.50
			Max. Torque	12			3.18
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-60.48	-6.62	7.67
			Max. Mx	8	-23.18	-961.66	-3.84
			Max. My	2	-22.92	6.13	1040.99
			Max. Vy	20	-27.54	958.90	9.49
			Max. Vx	2	-29.98	6.13	1040.99
L21	69 - 67.08	Pole	Max. Torque	12			3.19
			Max. Compression	26	-60.48	-6.62	7.67
			Max. Mx	8	-23.18	-961.66	-3.84
			Max. My	2	-22.92	6.13	1040.99
			Max. Vy	20	-27.54	958.90	9.49
			Max. Vx	2	-29.98	6.13	1040.99
L22	67.08 - 66.83	Pole	Max. Torque	12			3.19
			Max. Compression	26	-60.48	-6.62	7.67
			Max. Mx	8	-23.18	-961.66	-3.84
			Max. My	2	-22.92	6.13	1040.99
			Max. Vy	20	-27.54	958.90	9.49
			Max. Vx	2	-29.98	6.13	1040.99

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L23	66.83 - 64.08	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-61.73	-6.91	7.88
			Max. Mx	8	-23.94	-1037.91	-4.15
			Max. My	2	-23.68	6.59	1124.08
			Max. Vy	20	-27.95	1035.11	10.02
			Max. Vx	2	-30.45	6.59	1124.08
			Max. Torque	12			3.31
L24	64.08 - 63.83	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-61.86	-6.93	7.90
			Max. Mx	8	-24.04	-1044.89	-4.18
			Max. My	2	-23.78	6.63	1131.70
			Max. Vy	20	-27.97	1042.09	10.07
			Max. Vx	2	-30.47	6.63	1131.70
			Max. Torque	12			3.32
L25	63.83 - 62.44	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-62.55	-7.08	8.01
			Max. Mx	8	-24.46	-1083.90	-4.33
			Max. My	2	-24.21	6.86	1174.24
			Max. Vy	20	-28.19	1081.08	10.33
			Max. Vx	2	-30.72	6.86	1174.24
			Max. Torque	12			3.39
L26	62.44 - 62.19	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-62.68	-7.10	8.04
			Max. Mx	8	-24.56	-1090.95	-4.36
			Max. My	2	-24.32	6.90	1181.93
			Max. Vy	20	-28.22	1088.12	10.38
			Max. Vx	2	-30.75	6.90	1181.93
			Max. Torque	12			3.40
L27	62.19 - 57.19	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-65.30	-7.60	8.45
			Max. Mx	8	-26.24	-1233.86	-4.92
			Max. My	2	-26.00	7.73	1337.91
			Max. Vy	20	-28.99	1230.95	11.33
			Max. Vx	2	-31.63	7.73	1337.91
			Max. Torque	12			3.63
L28	57.19 - 53.5	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-67.28	-8.00	8.76
			Max. Mx	8	-27.51	-1341.56	-5.32
			Max. My	2	-27.28	8.33	1455.80
			Max. Vy	20	-29.43	1338.58	12.04
			Max. Vx	2	-32.27	8.33	1455.80
			Max. Torque	12			3.80
L29	53.5 - 53.25	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-67.42	-8.03	8.78
			Max. Mx	8	-27.61	-1348.91	-5.35
			Max. My	2	-27.39	8.37	1463.87
			Max. Vy	20	-29.45	1345.93	12.09
			Max. Vx	2	-32.30	8.37	1463.87
			Max. Torque	12			3.81
L30	53.25 - 52.58	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-67.79	-8.11	8.84
			Max. Mx	8	-27.85	-1368.66	-5.42
			Max. My	2	-27.62	8.48	1485.56
			Max. Vy	20	-29.53	1365.67	12.22
			Max. Vx	2	-32.42	8.48	1485.56
			Max. Torque	12			3.84
L31	52.58 - 52.33	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-67.93	-8.14	8.86

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L32	52.33 - 47.33	Pole	Max. Mx	8	-27.94	-1376.04	-5.45
			Max. My	2	-27.72	8.52	1493.67
			Max. Vy	20	-29.56	1373.05	12.27
			Max. Vx	2	-32.46	8.52	1493.67
			Max. Torque	12			3.85
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-70.74	-8.70	9.28
			Max. Mx	8	-29.77	-1525.29	-6.00
			Max. My	2	-29.56	9.33	1658.14
			Max. Vy	20	-30.17	1522.20	13.22
L33	47.33 - 44.58	Pole	Max. Vx	2	-33.32	9.33	1658.14
			Max. Torque	12			4.09
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-72.31	-9.01	9.51
			Max. Mx	8	-30.79	-1608.67	-6.30
			Max. My	2	-30.58	9.78	1750.43
			Max. Vy	20	-30.51	1605.52	13.75
			Max. Vx	2	-33.79	9.78	1750.43
			Max. Torque	12			4.22
			Max Tension	1	0.00	0.00	0.00
L34	44.58 - 44.33	Pole	Max. Compression	26	-72.45	-9.04	9.53
			Max. Mx	8	-30.90	-1616.30	-6.32
			Max. My	2	-30.70	9.82	1758.88
			Max. Vy	20	-30.52	1613.14	13.80
			Max. Vx	2	-33.82	9.82	1758.88
			Max. Torque	12			4.24
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-75.36	-9.61	9.96
			Max. Mx	8	-32.77	-1770.36	-6.86
			Max. My	2	-32.59	10.62	1930.15
L35	44.33 - 39.33	Pole	Max. Vy	20	-31.14	1767.09	14.75
			Max. Vx	2	-34.67	10.62	1930.15
			Max. Torque	12			4.49
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-75.55	-9.65	9.99
			Max. Mx	8	-32.91	-1780.64	-6.90
			Max. My	2	-32.73	10.67	1941.61
			Max. Vy	20	-31.17	1777.36	14.82
			Max. Vx	2	-34.71	10.67	1941.61
			Max. Torque	12			4.51
L36	39.33 - 34.08	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-80.98	-10.34	10.49
			Max. Mx	8	-36.76	-1967.55	-7.53
			Max. My	2	-36.59	11.61	2150.45
			Max. Vy	20	-31.99	1964.13	15.95
			Max. Vx	2	-35.80	11.61	2150.45
			Max. Torque	12			4.82
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-83.96	-10.93	10.92
			Max. Mx	8	-38.79	-2128.83	-8.06
L37	34.08 - 33.08	Pole	Max. My	2	-38.65	12.41	2331.41
			Max. Vy	20	-32.56	2125.28	16.91
			Max. Vx	2	-36.58	12.41	2331.41
			Max. Torque	12			5.08
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-84.70	-11.07	11.03
			Max. Mx	8	-39.30	-2168.94	-8.19
			Max. My	2	-38.65	12.41	2331.41
			Max. Vy	20	-32.56	2125.28	16.91
			Max. Vx	2	-36.58	12.41	2331.41
L38	33.08 - 28.08	Pole	Max. Torque	12			4.82
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-83.96	-10.93	10.92
			Max. Mx	8	-38.79	-2128.83	-8.06
			Max. My	2	-38.65	12.41	2331.41
			Max. Vy	20	-32.56	2125.28	16.91
			Max. Vx	2	-36.58	12.41	2331.41
			Max. Torque	12			5.08
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-84.70	-11.07	11.03
L39	28.08 - 26.85	Pole	Max. Mx	8	-39.30	-2168.94	-8.19

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L40	26.85 - 26.6	Pole	Max. My	2	-39.16	12.60	2376.52
			Max. Vy	20	-32.71	2165.36	17.14
			Max. Vx	2	-36.77	12.60	2376.52
			Max. Torque	12			5.14
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-84.86	-11.10	11.05
			Max. Mx	8	-39.43	-2177.12	-8.22
			Max. My	2	-39.29	12.64	2385.72
L41	26.6 - 21.6	Pole	Max. Vy	20	-32.72	2173.52	17.19
			Max. Vx	2	-36.79	12.64	2385.72
			Max. Torque	12			5.16
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-88.10	-11.68	11.47
			Max. Mx	8	-41.73	-2342.05	-8.74
			Max. My	2	-41.61	13.42	2571.65
			Max. Vy	20	-33.29	2338.32	18.14
L42	21.6 - 18	Pole	Max. Vx	2	-37.56	13.42	2571.65
			Max. Torque	12			5.41
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-90.42	-12.03	11.76
			Max. Mx	8	-43.41	-2462.50	-9.12
			Max. My	2	-43.31	13.98	2707.88
			Max. Vy	20	-33.67	2458.66	18.83
			Max. Vx	2	-38.11	13.98	2707.88
L43	18 - 17.75	Pole	Max. Torque	12			5.60
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-90.60	-12.05	11.78
			Max. Mx	8	-43.55	-2470.92	-9.14
			Max. My	2	-43.45	14.01	2717.41
			Max. Vy	20	-33.68	2467.07	18.87
			Max. Vx	2	-38.13	14.01	2717.41
			Max. Torque	12			5.61
L44	17.75 - 17.5	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-90.77	-12.08	11.80
			Max. Mx	8	-43.68	-2479.34	-9.17
			Max. My	2	-43.59	14.05	2726.95
			Max. Vy	20	-33.71	2475.48	18.92
			Max. Vx	2	-38.17	14.05	2726.95
			Max. Torque	12			5.62
			Max Tension	1	0.00	0.00	0.00
L45	17.5 - 17.25	Pole	Max. Compression	26	-90.95	-12.10	11.83
			Max. Mx	8	-43.81	-2487.77	-9.20
			Max. My	2	-43.72	14.09	2736.50
			Max. Vy	20	-33.74	2483.90	18.97
			Max. Vx	2	-38.21	14.09	2736.50
			Max. Torque	12			5.64
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-91.07	-12.12	11.84
L46	17.25 - 17.08	Pole	Max. Mx	8	-43.90	-2493.51	-9.21
			Max. My	2	-43.81	14.12	2743.00
			Max. Vy	20	-33.76	2489.63	19.00
			Max. Vx	2	-38.24	14.12	2743.00
			Max. Torque	12			5.64
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-91.23	-12.14	11.86
			Max. Mx	8	-44.02	-2501.95	-9.24
L47	17.08 - 16.83	Pole	Max. My	2	-43.93	14.16	2752.57
			Max. Vy	20	-33.78	2498.07	19.05
			Max. Vx	2	-38.27	14.16	2752.57
			Max. Torque	12			5.66
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-93.78	-12.50	12.17
			Max. Mx	8	-45.87	-2632.09	-9.63
			L48	16.83 - 13	Pole	Max. Mx	8
Max. Mx	8	-45.87				-2632.09	-9.63

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L49	13 - 12.75	Pole	Max. My	2	-45.80	14.74	2900.29
			Max. Vy	20	-34.20	2628.09	19.78
			Max. Vx	2	-38.85	14.74	2900.29
			Max. Torque	12			5.86
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-93.97	-12.53	12.19
			Max. Mx	8	-46.02	-2640.64	-9.66
			Max. My	2	-45.95	14.78	2910.01
L50	12.75 - 11.85	Pole	Max. Vy	20	-34.22	2636.63	19.82
			Max. Vx	2	-38.87	14.78	2910.01
			Max. Torque	12			5.87
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-94.63	-12.61	12.26
			Max. Mx	8	-46.52	-2671.47	-9.75
			Max. My	2	-46.45	14.92	2945.07
			Max. Vy	20	-34.32	2667.43	20.00
L51	11.85 - 11.6	Pole	Max. Vx	2	-39.01	14.92	2945.07
			Max. Torque	12			5.92
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-94.80	-12.63	12.28
			Max. Mx	8	-46.65	-2680.05	-9.78
			Max. My	2	-46.59	14.96	2954.83
			Max. Vy	20	-34.34	2676.00	20.04
			Max. Vx	2	-39.04	14.96	2954.83
L52	11.6 - 6.5	Pole	Max. Torque	12			5.93
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-98.16	-13.14	12.67
			Max. Mx	8	-49.16	-2856.46	-10.30
			Max. My	2	-49.12	15.73	3155.90
			Max. Vy	20	-34.87	2852.24	21.01
			Max. Vx	2	-39.79	15.73	3155.90
			Max. Torque	12			6.20
L53	6.5 - 6.25	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-98.33	-13.16	12.69
			Max. Mx	8	-49.30	-2865.18	-10.32
			Max. My	2	-49.27	15.76	3165.85
			Max. Vy	20	-34.88	2860.95	21.06
			Max. Vx	2	-39.81	15.76	3165.85
			Max. Torque	12			6.21
			Max Tension	1	0.00	0.00	0.00
L54	6.25 - 4	Pole	Max. Compression	26	-99.88	-13.40	12.84
			Max. Mx	8	-50.49	-2943.92	-10.55
			Max. My	2	-50.47	16.10	3255.85
			Max. Vy	20	-35.13	2939.61	21.48
			Max. Vx	2	-40.17	16.10	3255.85
			Max. Torque	12			6.34
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-100.06	-13.42	12.86
L55	4 - 3.75	Pole	Max. Mx	8	-50.64	-2952.70	-10.57
			Max. My	2	-50.62	16.14	3265.90
			Max. Vy	20	-35.15	2948.38	21.53
			Max. Vx	2	-40.19	16.14	3265.90
			Max. Torque	12			6.35
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-102.69	-13.79	13.10
			Max. Mx	8	-52.74	-3085.25	-10.95
L56	3.75 - 0	Pole	Max. My	2	-52.74	16.70	3417.78
			Max. Vy	20	-35.57	3080.79	22.24
			Max. Vx	2	-40.79	16.70	3417.78
			Max. Torque	12			6.56

Maximum Reactions

Location	Condition	Gov. Load Comb.	Vertical K	Horizontal, X K	Horizontal, Z K
Pole	Max. Vert	26	102.69	0.00	-0.00
	Max. H _x	21	39.57	35.55	0.16
	Max. H _z	3	39.57	0.18	40.77
	Max. M _x	2	3417.78	0.18	40.77
	Max. M _z	8	3085.25	-35.51	-0.12
	Max. Torsion	12	6.56	-20.72	-35.72
	Min. Vert	9	39.57	-35.51	-0.12
	Min. H _x	9	39.57	-35.51	-0.12
	Min. H _z	15	39.57	-0.15	-40.74
	Min. M _x	14	-3407.62	-0.15	-40.74
	Min. M _z	20	-3080.79	35.55	0.16
	Min. Torsion	24	-6.48	20.82	35.76

Tower Mast Reaction Summary

Load Combination	Vertical K	Shear _x K	Shear _z K	Overturning Moment, M _x kip-ft	Overturning Moment, M _z kip-ft	Torque kip-ft
Dead Only	43.96	-0.00	0.00	-2.75	-3.34	-0.00
1.2 Dead+1.0 Wind 0 deg - No Ice	52.76	-0.18	-40.77	-3417.78	16.70	4.67
0.9 Dead+1.0 Wind 0 deg - No Ice	39.57	-0.18	-40.77	-3387.42	17.58	4.63
1.2 Dead+1.0 Wind 30 deg - No Ice	52.76	16.40	-28.39	-2548.31	-1473.58	0.45
0.9 Dead+1.0 Wind 30 deg - No Ice	39.57	16.40	-28.39	-2524.70	-1459.39	0.44
1.2 Dead+1.0 Wind 60 deg - No Ice	52.76	27.97	-16.00	-1443.01	-2523.83	-0.61
0.9 Dead+1.0 Wind 60 deg - No Ice	39.57	27.97	-16.00	-1429.22	-2500.19	-0.59
1.2 Dead+1.0 Wind 90 deg - No Ice	52.76	35.51	0.12	10.95	-3085.25	-1.95
0.9 Dead+1.0 Wind 90 deg - No Ice	39.57	35.51	0.12	11.72	-3057.19	-1.90
1.2 Dead+1.0 Wind 120 deg - No Ice	52.76	32.87	18.96	1592.01	-2769.38	-4.43
0.9 Dead+1.0 Wind 120 deg - No Ice	39.57	32.87	18.96	1579.17	-2744.47	-4.38
1.2 Dead+1.0 Wind 150 deg - No Ice	52.76	20.72	35.72	2956.99	-1723.18	-6.56
0.9 Dead+1.0 Wind 150 deg - No Ice	39.57	20.72	35.72	2932.47	-1707.32	-6.50
1.2 Dead+1.0 Wind 180 deg - No Ice	52.76	0.15	40.74	3407.62	-21.32	-4.76
0.9 Dead+1.0 Wind 180 deg - No Ice	39.57	0.15	40.74	3379.12	-20.05	-4.72
1.2 Dead+1.0 Wind 210 deg - No Ice	52.76	-16.30	28.39	2541.67	1454.50	-0.44
0.9 Dead+1.0 Wind 210 deg - No Ice	39.57	-16.30	28.39	2519.89	1442.60	-0.43
1.2 Dead+1.0 Wind 240 deg - No Ice	52.76	-27.99	15.92	1427.11	2517.15	0.75
0.9 Dead+1.0 Wind 240 deg - No Ice	39.57	-27.99	15.92	1415.24	2495.69	0.73
1.2 Dead+1.0 Wind 270 deg - No Ice	52.76	-35.55	-0.16	-22.24	3080.79	2.00
0.9 Dead+1.0 Wind 270 deg - No Ice	39.57	-35.55	-0.16	-21.14	3054.88	1.96

Load Combination	Vertical K	Shear _x K	Shear _z K	Overturing Moment, M _x kip-ft	Overturing Moment, M _z kip-ft	Torque kip-ft
1.2 Dead+1.0 Wind 300 deg - No Ice	52.76	-32.91	-19.03	-1607.01	2765.23	4.38
0.9 Dead+1.0 Wind 300 deg - No Ice	39.57	-32.91	-19.03	-1592.26	2742.47	4.32
1.2 Dead+1.0 Wind 330 deg - No Ice	52.76	-20.82	-35.76	-2968.17	1725.40	6.48
0.9 Dead+1.0 Wind 330 deg - No Ice	39.57	-20.82	-35.76	-2941.79	1711.63	6.43
1.2 Dead+1.0 Ice+1.0 Temp	102.69	-0.00	0.00	-13.10	-13.79	-0.00
1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp	102.69	-0.03	-9.37	-867.64	-9.83	0.87
1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp	102.69	3.86	-6.68	-660.14	-387.68	0.05
1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp	102.69	6.69	-3.83	-384.29	-662.10	-0.30
1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp	102.69	8.08	0.02	-10.42	-789.28	-0.64
1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp	102.69	7.62	4.39	391.01	-714.86	-1.06
1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp	102.69	4.86	8.38	736.93	-448.92	-1.35
1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp	102.69	0.03	9.36	840.61	-17.18	-0.88
1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp	102.69	-3.84	6.68	633.81	357.68	-0.04
1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp	102.69	-6.69	3.82	356.06	634.67	0.32
1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp	102.69	-8.08	-0.03	-16.84	762.30	0.65
1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp	102.69	-7.63	-4.41	-419.07	687.97	1.05
1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp	102.69	-4.88	-8.39	-764.12	423.44	1.33
Dead+Wind 0 deg - Service	43.96	-0.04	-8.85	-740.98	1.01	1.02
Dead+Wind 30 deg - Service	43.96	3.56	-6.16	-552.89	-321.06	0.10
Dead+Wind 60 deg - Service	43.96	6.07	-3.47	-314.01	-548.02	-0.13
Dead+Wind 90 deg - Service	43.96	7.71	0.03	0.21	-669.38	-0.42
Dead+Wind 120 deg - Service	43.96	7.14	4.12	341.95	-601.18	-0.96
Dead+Wind 150 deg - Service	43.96	4.50	7.76	637.08	-375.10	-1.43
Dead+Wind 180 deg - Service	43.96	0.03	8.84	734.47	-7.20	-1.03
Dead+Wind 210 deg - Service	43.96	-3.54	6.16	547.13	311.75	-0.09
Dead+Wind 240 deg - Service	43.96	-6.08	3.46	306.26	541.38	0.16
Dead+Wind 270 deg - Service	43.96	-7.72	-0.04	-6.95	663.23	0.43
Dead+Wind 300 deg - Service	43.96	-7.15	-4.13	-349.51	595.12	0.95
Dead+Wind 330 deg - Service	43.96	-4.52	-7.76	-643.81	370.40	1.41

Solution Summary

Load Comb.	Sum of Applied Forces			Sum of Reactions			% Error
	PX K	PY K	PZ K	PX K	PY K	PZ K	
1	0.00	-43.96	0.00	0.00	43.96	-0.00	0.003%
2	-0.18	-52.76	-40.77	0.18	52.76	40.77	0.000%
3	-0.18	-39.57	-40.77	0.18	39.57	40.77	0.000%
4	16.40	-52.76	-28.39	-16.40	52.76	28.39	0.000%

Load Comb.	Sum of Applied Forces			Sum of Reactions			% Error
	PX K	PY K	PZ K	PX K	PY K	PZ K	
5	16.40	-39.57	-28.39	-16.40	39.57	28.39	0.000%
6	27.97	-52.76	-16.00	-27.97	52.76	16.00	0.000%
7	27.97	-39.57	-16.00	-27.97	39.57	16.00	0.000%
8	35.51	-52.76	0.12	-35.51	52.76	-0.12	0.001%
9	35.51	-39.57	0.12	-35.51	39.57	-0.12	0.000%
10	32.87	-52.76	18.96	-32.87	52.76	-18.96	0.000%
11	32.87	-39.57	18.96	-32.87	39.57	-18.96	0.000%
12	20.72	-52.76	35.72	-20.72	52.76	-35.72	0.000%
13	20.72	-39.57	35.72	-20.72	39.57	-35.72	0.000%
14	0.15	-52.76	40.74	-0.15	52.76	-40.74	0.000%
15	0.15	-39.57	40.74	-0.15	39.57	-40.74	0.000%
16	-16.30	-52.76	28.39	16.30	52.76	-28.39	0.000%
17	-16.30	-39.57	28.39	16.30	39.57	-28.39	0.000%
18	-27.99	-52.76	15.92	27.99	52.76	-15.92	0.000%
19	-27.99	-39.57	15.92	27.99	39.57	-15.92	0.000%
20	-35.55	-52.76	-0.16	35.55	52.76	0.16	0.000%
21	-35.55	-39.57	-0.16	35.55	39.57	0.16	0.000%
22	-32.91	-52.76	-19.03	32.91	52.76	19.03	0.000%
23	-32.91	-39.57	-19.03	32.91	39.57	19.03	0.000%
24	-20.82	-52.76	-35.76	20.82	52.76	35.76	0.000%
25	-20.82	-39.57	-35.76	20.82	39.57	35.76	0.000%
26	0.00	-102.69	0.00	0.00	102.69	-0.00	0.000%
27	-0.03	-102.69	-9.37	0.03	102.69	9.37	0.000%
28	3.86	-102.69	-6.68	-3.86	102.69	6.68	0.000%
29	6.69	-102.69	-3.83	-6.69	102.69	3.83	0.000%
30	8.08	-102.69	0.02	-8.08	102.69	-0.02	0.000%
31	7.62	-102.69	4.39	-7.62	102.69	-4.39	0.000%
32	4.86	-102.69	8.38	-4.86	102.69	-8.38	0.000%
33	0.03	-102.69	9.36	-0.03	102.69	-9.36	0.000%
34	-3.84	-102.69	6.68	3.84	102.69	-6.68	0.000%
35	-6.69	-102.69	3.82	6.69	102.69	-3.82	0.000%
36	-8.08	-102.69	-0.03	8.08	102.69	0.03	0.000%
37	-7.63	-102.69	-4.41	7.63	102.69	4.41	0.000%
38	-4.88	-102.69	-8.39	4.88	102.69	8.39	0.000%
39	-0.04	-43.96	-8.85	0.04	43.96	8.85	0.001%
40	3.56	-43.96	-6.16	-3.56	43.96	6.16	0.000%
41	6.07	-43.96	-3.48	-6.07	43.96	3.47	0.000%
42	7.71	-43.96	0.03	-7.71	43.96	-0.03	0.001%
43	7.14	-43.96	4.12	-7.14	43.96	-4.12	0.001%
44	4.50	-43.96	7.76	-4.50	43.96	-7.76	0.000%
45	0.03	-43.96	8.84	-0.03	43.96	-8.84	0.001%
46	-3.54	-43.96	6.16	3.54	43.96	-6.16	0.001%
47	-6.08	-43.96	3.46	6.08	43.96	-3.46	0.001%
48	-7.72	-43.96	-0.04	7.72	43.96	0.04	0.001%
49	-7.15	-43.96	-4.13	7.15	43.96	4.13	0.000%
50	-4.52	-43.96	-7.76	4.52	43.96	7.76	0.000%

Non-Linear Convergence Results

Load Combination	Converged?	Number of Cycles	Displacement Tolerance	Force Tolerance
1	Yes	6	0.00000001	0.00002003
2	Yes	19	0.00000001	0.00010570
3	Yes	19	0.00000001	0.00007742
4	Yes	22	0.00000001	0.00009808
5	Yes	22	0.00000001	0.00006949
6	Yes	22	0.00000001	0.00009611
7	Yes	22	0.00000001	0.00006824
8	Yes	18	0.00000001	0.00013984
9	Yes	18	0.00000001	0.00010370
10	Yes	22	0.00000001	0.00009893
11	Yes	22	0.00000001	0.00006923
12	Yes	22	0.00000001	0.00012961
13	Yes	22	0.00000001	0.00008993
14	Yes	19	0.00000001	0.00014830
15	Yes	19	0.00000001	0.00010882
16	Yes	22	0.00000001	0.00009399
17	Yes	22	0.00000001	0.00006688
18	Yes	22	0.00000001	0.00009137
19	Yes	21	0.00000001	0.00014887
20	Yes	19	0.00000001	0.00009791
21	Yes	19	0.00000001	0.00007211
22	Yes	22	0.00000001	0.00011086
23	Yes	22	0.00000001	0.00007770
24	Yes	22	0.00000001	0.00011601
25	Yes	22	0.00000001	0.00008023
26	Yes	15	0.00000001	0.00013122
27	Yes	21	0.00000001	0.00007869
28	Yes	21	0.00000001	0.00008547
29	Yes	21	0.00000001	0.00008549
30	Yes	20	0.00000001	0.00014592
31	Yes	21	0.00000001	0.00008453
32	Yes	21	0.00000001	0.00009316
33	Yes	20	0.00000001	0.00014772
34	Yes	21	0.00000001	0.00007609
35	Yes	21	0.00000001	0.00007590
36	Yes	20	0.00000001	0.00013826
37	Yes	21	0.00000001	0.00008661
38	Yes	21	0.00000001	0.00009250
39	Yes	16	0.00000001	0.00007852
40	Yes	17	0.00000001	0.00007485
41	Yes	17	0.00000001	0.00007363
42	Yes	15	0.00000001	0.00009830
43	Yes	16	0.00000001	0.00014372
44	Yes	17	0.00000001	0.00012203
45	Yes	16	0.00000001	0.00008393
46	Yes	16	0.00000001	0.00013529
47	Yes	16	0.00000001	0.00012907
48	Yes	15	0.00000001	0.00010553
49	Yes	17	0.00000001	0.00009784
50	Yes	17	0.00000001	0.00008450

Maximum Tower Deflections - Service Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	131 - 126	20.53	39	1.58	0.01
L2	126 - 121	18.88	39	1.58	0.01
L3	121 - 116	17.23	39	1.57	0.01
L4	116 - 111	15.59	39	1.54	0.01
L5	111 - 110	14.01	39	1.47	0.01
L6	110 - 105	13.70	39	1.46	0.01
L7	105 - 100	12.22	39	1.37	0.01
L8	100 - 95	10.84	39	1.26	0.01

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L9	95 - 90	9.59	39	1.13	0.00
L10	90 - 89.75	8.47	39	0.99	0.00
L11	89.75 - 84.75	8.42	39	0.99	0.00
L12	84.75 - 84.58	7.43	39	0.91	0.00
L13	84.58 - 84.33	7.39	39	0.90	0.00
L14	84.33 - 83.42	7.35	39	0.90	0.00
L15	83.42 - 83.17	7.18	39	0.89	0.00
L16	83.17 - 83	7.13	39	0.89	0.00
L17	83 - 82.75	7.10	39	0.88	0.00
L18	82.75 - 77.75	7.05	39	0.88	0.00
L19	77.75 - 70	6.17	39	0.81	0.00
L20	74 - 69	5.55	39	0.76	0.00
L21	69 - 67.08	4.77	39	0.72	0.00
L22	67.08 - 66.83	4.48	39	0.69	0.00
L23	66.83 - 64.08	4.45	39	0.69	0.00
L24	64.08 - 63.83	4.06	39	0.65	0.00
L25	63.83 - 62.44	4.03	39	0.65	0.00
L26	62.44 - 62.19	3.84	39	0.63	0.00
L27	62.19 - 57.19	3.81	39	0.62	0.00
L28	57.19 - 53.5	3.19	39	0.57	0.00
L29	53.5 - 53.25	2.77	39	0.52	0.00
L30	53.25 - 52.58	2.74	39	0.52	0.00
L31	52.58 - 52.33	2.67	39	0.51	0.00
L32	52.33 - 47.33	2.64	39	0.51	0.00
L33	47.33 - 44.58	2.14	50	0.45	0.00
L34	44.58 - 44.33	1.89	50	0.42	0.00
L35	44.33 - 39.33	1.87	50	0.42	0.00
L36	39.33 - 34.08	1.46	50	0.36	0.00
L37	39 - 33.08	1.44	50	0.35	0.00
L38	33.08 - 28.08	1.02	50	0.31	0.00
L39	28.08 - 26.85	0.72	50	0.26	0.00
L40	26.85 - 26.6	0.66	50	0.25	0.00
L41	26.6 - 21.6	0.64	50	0.24	0.00
L42	21.6 - 18	0.42	50	0.19	0.00
L43	18 - 17.75	0.28	50	0.16	0.00
L44	17.75 - 17.5	0.28	50	0.15	0.00
L45	17.5 - 17.25	0.27	50	0.15	0.00
L46	17.25 - 17.08	0.26	50	0.15	0.00
L47	17.08 - 16.83	0.25	50	0.15	0.00
L48	16.83 - 13	0.25	50	0.15	0.00
L49	13 - 12.75	0.14	50	0.11	0.00
L50	12.75 - 11.85	0.14	50	0.11	0.00
L51	11.85 - 11.6	0.12	50	0.10	0.00
L52	11.6 - 6.5	0.11	50	0.10	0.00
L53	6.5 - 6.25	0.03	50	0.05	0.00
L54	6.25 - 4	0.03	50	0.05	0.00
L55	4 - 3.75	0.01	50	0.03	0.00
L56	3.75 - 0	0.01	50	0.03	0.00

Critical Deflections and Radius of Curvature - Service Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
121.0000	80010798 w/ Mount Pipe	39	17.23	1.57	0.01	24122
109.0000	(2) SBNHH-1D65B w/ Mount Pipe	39	13.40	1.44	0.01	3416
103.0000	VHLP2.5-18	39	11.65	1.33	0.01	2652
99.0000	800MHZ 2X50W RRH W/FILTER	39	10.58	1.24	0.01	2361
97.0000	TIMING 2000	39	10.07	1.19	0.01	2240
87.0000	ERICSSON AIR 21 B2A B4P w/ Mount Pipe	39	7.86	0.95	0.00	3378

Maximum Tower Deflections - Design Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	131 - 126	94.19	2	7.20	0.06
L2	126 - 121	86.67	2	7.20	0.06
L3	121 - 116	79.16	2	7.19	0.06
L4	116 - 111	71.69	2	7.07	0.05
L5	111 - 110	64.46	2	6.75	0.04
L6	110 - 105	63.05	2	6.68	0.04
L7	105 - 100	56.27	2	6.29	0.03
L8	100 - 95	49.95	2	5.79	0.03
L9	95 - 90	44.18	2	5.22	0.02
L10	90 - 89.75	39.06	24	4.57	0.02
L11	89.75 - 84.75	38.82	24	4.55	0.02
L12	84.75 - 84.58	34.26	24	4.18	0.01
L13	84.58 - 84.33	34.11	24	4.17	0.01
L14	84.33 - 83.42	33.90	24	4.15	0.01
L15	83.42 - 83.17	33.11	24	4.09	0.01
L16	83.17 - 83	32.90	24	4.08	0.01
L17	83 - 82.75	32.75	24	4.08	0.01
L18	82.75 - 77.75	32.54	24	4.06	0.01
L19	77.75 - 70	28.46	24	3.75	0.01
L20	74 - 69	25.61	24	3.51	0.01
L21	69 - 67.08	22.02	24	3.32	0.01
L22	67.08 - 66.83	20.71	24	3.19	0.01
L23	66.83 - 64.08	20.55	24	3.18	0.01
L24	64.08 - 63.83	18.77	24	2.99	0.01
L25	63.83 - 62.44	18.61	24	2.98	0.01
L26	62.44 - 62.19	17.76	24	2.90	0.01
L27	62.19 - 57.19	17.61	24	2.88	0.01
L28	57.19 - 53.5	14.73	24	2.61	0.01
L29	53.5 - 53.25	12.79	24	2.41	0.01
L30	53.25 - 52.58	12.67	24	2.40	0.01
L31	52.58 - 52.33	12.33	24	2.36	0.01
L32	52.33 - 47.33	12.21	24	2.35	0.01
L33	47.33 - 44.58	9.89	24	2.08	0.01
L34	44.58 - 44.33	8.74	24	1.93	0.01
L35	44.33 - 39.33	8.64	24	1.92	0.01
L36	39.33 - 34.08	6.77	24	1.65	0.00
L37	39 - 33.08	6.65	24	1.64	0.00
L38	33.08 - 28.08	4.72	24	1.46	0.00
L39	28.08 - 26.85	3.34	24	1.20	0.00
L40	26.85 - 26.6	3.03	24	1.14	0.00
L41	26.6 - 21.6	2.98	24	1.12	0.00
L42	21.6 - 18	1.92	24	0.89	0.00
L43	18 - 17.75	1.31	24	0.73	0.00
L44	17.75 - 17.5	1.27	24	0.72	0.00
L45	17.5 - 17.25	1.24	24	0.71	0.00
L46	17.25 - 17.08	1.20	24	0.70	0.00
L47	17.08 - 16.83	1.18	24	0.69	0.00
L48	16.83 - 13	1.14	24	0.68	0.00
L49	13 - 12.75	0.66	24	0.51	0.00
L50	12.75 - 11.85	0.63	24	0.51	0.00
L51	11.85 - 11.6	0.54	24	0.47	0.00
L52	11.6 - 6.5	0.52	24	0.46	0.00
L53	6.5 - 6.25	0.15	24	0.23	0.00
L54	6.25 - 4	0.14	24	0.22	0.00
L55	4 - 3.75	0.06	24	0.13	0.00
L56	3.75 - 0	0.05	24	0.12	0.00

Critical Deflections and Radius of Curvature - Design Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
121.0000	80010798 w/ Mount Pipe	2	79.16	7.19	0.06	6366
109.0000	(2) SBNHH-1D65B w/ Mount Pipe	2	61.66	6.60	0.04	781
103.0000	VHLP2.5-18	2	53.68	6.10	0.03	603
99.0000	800MHz 2X50W RRH W/FILTER	2	48.75	5.69	0.03	530
97.0000	TIMING 2000	2	46.42	5.47	0.02	501
87.0000	ERICSSON AIR 21 B2A B4P w/ Mount Pipe	24	36.27	4.36	0.02	745

Compression Checks Pole Design Data

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K
L1	131 - 126 (1)	TP11.7155x10.525x0.1875	5.0000	0.0000	0.0	6.9600	-0.10
L2	126 - 121 (2)	TP12.906x11.7155x0.1875	5.0000	0.0000	0.0	7.6788	-0.22
L3	121 - 116 (3)	TP14.0964x12.906x0.1875	5.0000	0.0000	0.0	8.3975	-3.57
L4	116 - 111 (4)	TP15.2869x14.0964x0.1875	5.0000	0.0000	0.0	9.1163	-3.79
L5	111 - 110 (5)	TP15.525x15.2869x0.1875	1.0000	0.0000	0.0	9.2600	-3.84
L6	110 - 105 (6)	TP16.7758x15.525x0.25	5.0000	0.0000	0.0	13.3032	-7.88
L7	105 - 100 (7)	TP18.0265x16.7758x0.25	5.0000	0.0000	0.0	14.3101	-8.39
L8	100 - 95 (8)	TP19.2773x18.0265x0.25	5.0000	0.0000	0.0	15.3169	-12.30
L9	95 - 90 (9)	TP20.528x19.2773x0.25	5.0000	0.0000	0.0	16.3238	-12.95
L10	90 - 89.75 (10)	TP20.5905x20.528x0.5	0.2500	0.0000	0.0	32.3458	-13.01
L11	89.75 - 84.75 (11)	TP21.8413x20.5905x0.4813	5.0000	0.0000	0.0	33.1000	-17.57
L12	84.75 - 84.58 (12)	TP21.8838x21.8413x0.475	0.1700	0.0000	0.0	32.7448	-17.62
L13	84.58 - 84.33 (13)	TP21.9464x21.8838x0.6375	0.2500	0.0000	0.0	43.7417	-17.68
L14	84.33 - 83.42 (14)	TP22.174x21.9464x0.625	0.9100	0.0000	0.0	43.3673	-17.88
L15	83.42 - 83.17 (15)	TP22.2365x22.174x0.95	0.2500	0.0000	0.0	65.1155	-17.96
L16	83.17 - 83 (16)	TP22.2791x22.2365x0.95	0.1700	0.0000	0.0	65.2456	-18.01
L17	83 - 82.75 (17)	TP22.3416x22.2791x0.7	0.2500	0.0000	0.0	48.7801	-18.07
L18	82.75 - 77.75 (18)	TP23.5923x22.3416x0.6625	5.0000	0.0000	0.0	48.9151	-19.29
L19	77.75 - 70 (19)	TP25.531x23.5923x0.65	7.7500	0.0000	0.0	49.9817	-20.23
L20	70 - 69 (20)	TP25.281x24.0304x0.7	5.0000	0.0000	0.0	55.4055	-22.30
L21	69 - 67.08 (21)	TP25.7612x25.281x0.6875	1.9200	0.0000	0.0	55.5069	-22.82
L22	67.08 - 66.83 (22)	TP25.8237x25.7612x0.6875	0.2500	0.0000	0.0	55.6453	-22.92
L23	66.83 - 64.08 (23)	TP26.5115x25.8237x0.675	2.7500	0.0000	0.0	56.1557	-23.68
L24	64.08 - 63.83 (24)	TP26.5741x26.5115x0.7375	0.2500	0.0000	0.0	61.3554	-23.78
L25	63.83 - 62.44 (25)	TP26.9217x26.5741x0.7375	1.3900	0.0000	0.0	62.1810	-24.21
L26	62.44 - 62.19 (26)	TP26.9843x26.9217x0.8625	0.2500	0.0000	0.0	72.5467	-24.32
L27	62.19 - 57.19 (27)	TP28.2348x26.9843x0.8375	5.0000	0.0000	0.0	73.8838	-26.00
L28	57.19 - 53.5 (28)	TP29.1578x28.2348x0.8125	3.6900	0.0000	0.0	74.1583	-27.28
L29	53.5 - 53.25 (29)	TP29.2203x29.1578x0.8375	0.2500	0.0000	0.0	76.5413	-27.39
L30	53.25 - 52.58 (30)	TP29.3879x29.2203x0.825	0.6700	0.0000	0.0	75.8773	-27.62
L31	52.58 - 52.33 (31)	TP29.4504x29.3879x0.8375	0.2500	0.0000	0.0	77.1618	-27.72
L32	52.33 - 47.33 (32)	TP30.701x29.4504x0.8125	5.0000	0.0000	0.0	78.1957	-29.56
L33	47.33 - 44.58 (33)	TP31.3888x30.701x0.8	2.7500	0.0000	0.0	78.7967	-30.59
L34	44.58 - 44.33 (34)	TP31.4513x31.3888x0.8	0.2500	0.0000	0.0	78.9578	-30.70
L35	44.33 - 39.33 (35)	TP32.7019x31.4513x0.775	5.0000	0.0000	0.0	79.6736	-32.59
L36	39.33 - 34.08 (36)	TP34.015x32.7019x0.775	5.2500	0.0000	0.0	79.8795	-32.73
L37	34.08 - 33.08 (37)	TP33.638x32.1594x0.8188	5.9200	0.0000	0.0	86.5290	-36.58
L38	33.08 - 28.08 (38)	TP34.8868x33.638x0.8063	5.0000	0.0000	0.0	88.4827	-38.64
L39	28.08 - 26.85 (39)	TP35.194x34.8868x0.7938	1.2300	0.0000	0.0	87.9281	-39.15
L40	26.85 - 26.6 (40)	TP35.2564x35.194x0.8688	0.2500	0.0000	0.0	96.2006	-39.28
L41	26.6 - 21.6 (41)	TP36.5052x35.2564x0.8563	5.0000	0.0000	0.0	98.2943	-41.60
L42	21.6 - 18 (42)	TP37.4044x36.5052x0.8438	3.6000	0.0000	0.0	99.3363	-43.30
L43	18 - 17.75 (43)	TP37.4668x37.4044x0.9938	0.2500	0.0000	0.0	116.7150	-43.45
L44	17.75 - 17.5 (44)	TP37.5292x37.4668x0.9938	0.2500	0.0000	0.0	116.9150	-43.58
L45	17.5 - 17.25 (45)	TP37.5917x37.5292x0.9938	0.2500	0.0000	0.0	117.1150	-43.71
L46	17.25 - 17.08 (46)	TP37.6341x37.5917x0.9938	0.1700	0.0000	0.0	117.2500	-43.80
L47	17.08 - 16.83 (47)	TP37.6966x37.6341x0.8938	0.2500	0.0000	0.0	105.9200	-43.92
L48	16.83 - 13 (48)	TP38.6531x37.6966x0.8813	3.8300	0.0000	0.0	107.1880	-45.79

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K
L49	13 - 12.75 (49)	TP38.7156x38.6531x1.0438	0.2500	0.0000	0.0	126.6160	-45.95
L50	12.75 - 11.85 (50)	TP38.9404x38.7156x1.0438	0.9000	0.0000	0.0	127.3720	-46.45
L51	11.85 - 11.6 (51)	TP39.0028x38.9404x0.8188	0.2500	0.0000	0.0	100.6740	-46.58
L52	11.6 - 6.5 (52)	TP40.2766x39.0028x0.7938	5.1000	0.0000	0.0	100.9190	-49.12
L53	6.5 - 6.25 (53)	TP40.339x40.2766x0.9188	0.2500	0.0000	0.0	116.4410	-49.14
L54	6.25 - 4 (54)	TP40.901x40.339x0.9188	2.2500	0.0000	0.0	116.6260	-49.29
L55	4 - 3.75 (55)	TP40.9634x40.901x1.0938	0.2500	0.0000	0.0	140.2020	-50.48
L56	3.75 - 0 (56)	TP41.9x40.9634x1.0688	3.7500	0.0000	0.0	137.2990	-50.64

Pole Bending Design Data

Section No.	Elevation ft	Size	M _{ux} kip-ft
L1	131 - 126 (1)	TP11.7155x10.525x0.1875	0.63
L2	126 - 121 (2)	TP12.906x11.7155x0.1875	2.59
L3	121 - 116 (3)	TP14.0964x12.906x0.1875	33.64
L4	116 - 111 (4)	TP15.2869x14.0964x0.1875	72.12
L5	111 - 110 (5)	TP15.525x15.2869x0.1875	80.16
L6	110 - 105 (6)	TP16.7758x15.525x0.25	147.76
L7	105 - 100 (7)	TP18.0265x16.7758x0.25	217.54
L8	100 - 95 (8)	TP19.2773x18.0265x0.25	305.05
L9	95 - 90 (9)	TP20.528x19.2773x0.25	406.35
L10	90 - 89.75 (10)	TP20.5905x20.528x0.5	411.50
L11	89.75 - 84.75 (11)	TP21.8413x20.5905x0.4813	531.15
L12	84.75 - 84.58 (12)	TP21.8838x21.8413x0.475	535.74
L13	84.58 - 84.33 (13)	TP21.9464x21.8838x0.6375	542.49
L14	84.33 - 83.42 (14)	TP22.174x21.9464x0.625	567.17
L15	83.42 - 83.17 (15)	TP22.2365x22.174x0.95	573.97
L16	83.17 - 83 (16)	TP22.2791x22.2365x0.95	578.60
L17	83 - 82.75 (17)	TP22.3416x22.2791x0.7	585.42
L18	82.75 - 77.75 (18)	TP23.5923x22.3416x0.6625	723.93
L19	77.75 - 70 (19)	TP25.531x23.5923x0.65	830.45
L20	70 - 69 (20)	TP25.281x24.0304x0.7	976.33
L21	69 - 67.08 (21)	TP25.7612x25.281x0.6875	1033.52
L22	67.08 - 66.83 (22)	TP25.8237x25.7612x0.6875	1041.01
L23	66.83 - 64.08 (23)	TP26.5115x25.8237x0.675	1124.11
L24	64.08 - 63.83 (24)	TP26.5741x26.5115x0.7375	1131.72
L25	63.83 - 62.44 (25)	TP26.9217x26.5741x0.7375	1174.26
L26	62.44 - 62.19 (26)	TP26.9843x26.9217x0.8625	1181.95
L27	62.19 - 57.19 (27)	TP28.2348x26.9843x0.8375	1337.93
L28	57.19 - 53.5 (28)	TP29.1578x28.2348x0.8125	1455.83
L29	53.5 - 53.25 (29)	TP29.2203x29.1578x0.8375	1463.89
L30	53.25 - 52.58 (30)	TP29.3879x29.2203x0.825	1485.58
L31	52.58 - 52.33 (31)	TP29.4504x29.3879x0.8375	1493.69
L32	52.33 - 47.33 (32)	TP30.701x29.4504x0.8125	1658.17
L33	47.33 - 44.58 (33)	TP31.3888x30.701x0.8	1750.46
L34	44.58 - 44.33 (34)	TP31.4513x31.3888x0.8	1758.91
L35	44.33 - 39.33 (35)	TP32.7019x31.4513x0.775	1930.18
L36	39.33 - 34.08 (36)	TP34.015x32.7019x0.775	1941.63
L37	34.08 - 33.08 (37)	TP33.638x32.1594x0.8188	2151.03
L38	33.08 - 28.08 (38)	TP34.8868x33.638x0.8063	2333.52
L39	28.08 - 26.85 (39)	TP35.194x34.8868x0.7938	2379.06
L40	26.85 - 26.6 (40)	TP35.2564x35.194x0.8688	2388.34
L41	26.6 - 21.6 (41)	TP36.5052x35.2564x0.8563	2576.22
L42	21.6 - 18 (42)	TP37.4044x36.5052x0.8438	2714.00
L43	18 - 17.75 (43)	TP37.4668x37.4044x0.9938	2723.64
L44	17.75 - 17.5 (44)	TP37.5292x37.4668x0.9938	2733.30
L45	17.5 - 17.25 (45)	TP37.5917x37.5292x0.9938	2742.97
L46	17.25 - 17.08 (46)	TP37.6341x37.5917x0.9938	2749.54
L47	17.08 - 16.83 (47)	TP37.6966x37.6341x0.8938	2759.22
L48	16.83 - 13 (48)	TP38.6531x37.6966x0.8813	2908.75
L49	13 - 12.75 (49)	TP38.7156x38.6531x1.0438	2918.58
L50	12.75 - 11.85 (50)	TP38.9404x38.7156x1.0438	2954.09

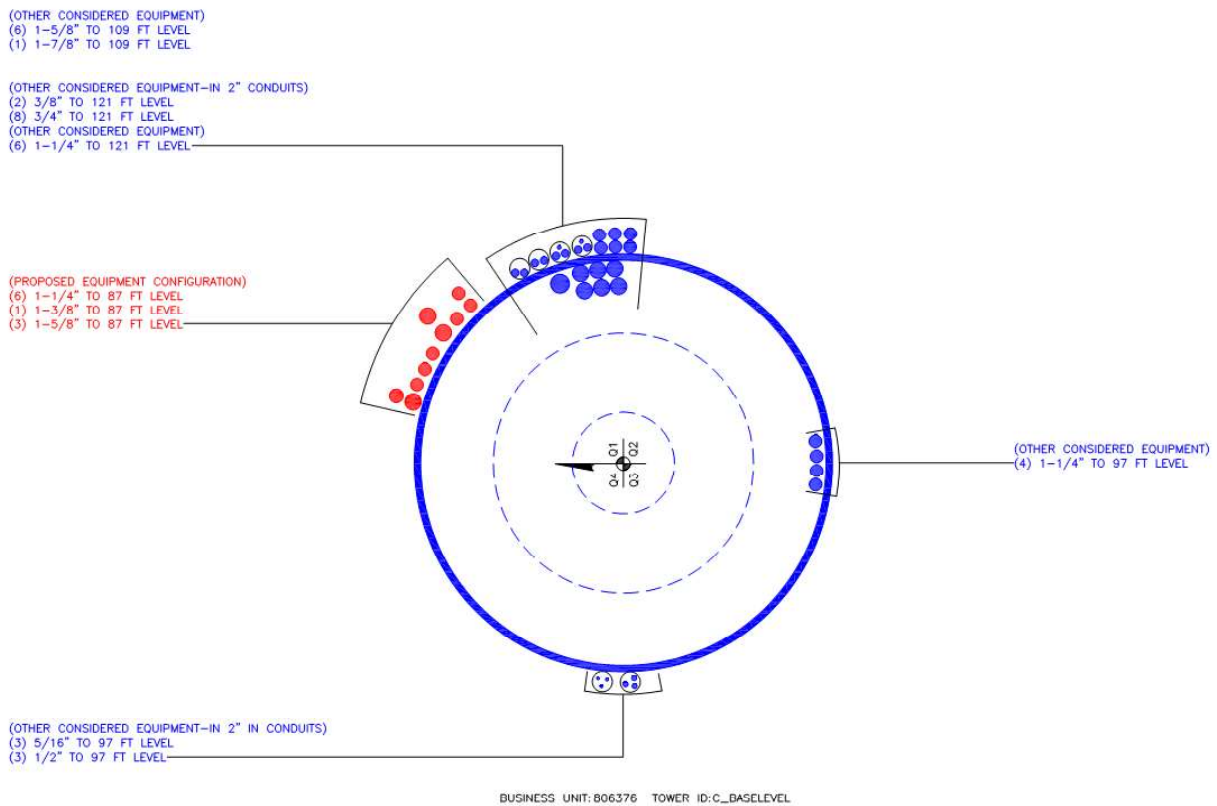
Section No.	Elevation ft	Size	M_{ux} kip-ft
L51	11.85 - 11.6 (51)	TP39.0028x38.9404x0.8188	2963.97
L52	11.6 - 6.5 (52)	TP40.2766x39.0028x0.7938	3167.68
L53	6.5 - 6.25 (53)	TP40.339x40.2766x0.9188	3167.68
L54	6.25 - 4 (54)	TP40.901x40.339x0.9188	3177.78
L55	4 - 3.75 (55)	TP40.9634x40.901x1.0938	3269.01
L56	3.75 - 0 (56)	TP41.9x40.9634x1.0688	3279.20

Pole Shear Design Data

Section No.	Elevation ft	Size	Actual V_u K
L1	131 - 126 (1)	TP11.7155x10.525x0.1875	0.25
L2	126 - 121 (2)	TP12.906x11.7155x0.1875	0.53
L3	121 - 116 (3)	TP14.0964x12.906x0.1875	7.41
L4	116 - 111 (4)	TP15.2869x14.0964x0.1875	7.98
L5	111 - 110 (5)	TP15.525x15.2869x0.1875	8.10
L6	110 - 105 (6)	TP16.7758x15.525x0.25	13.43
L7	105 - 100 (7)	TP18.0265x16.7758x0.25	14.44
L8	100 - 95 (8)	TP19.2773x18.0265x0.25	19.95
L9	95 - 90 (9)	TP20.528x19.2773x0.25	20.59
L10	90 - 89.75 (10)	TP20.5905x20.528x0.5	20.62
L11	89.75 - 84.75 (11)	TP21.8413x20.5905x0.4813	26.98
L12	84.75 - 84.58 (12)	TP21.8838x21.8413x0.475	26.99
L13	84.58 - 84.33 (13)	TP21.9464x21.8838x0.6375	27.03
L14	84.33 - 83.42 (14)	TP22.174x21.9464x0.625	27.18
L15	83.42 - 83.17 (15)	TP22.2365x22.174x0.95	27.22
L16	83.17 - 83 (16)	TP22.2791x22.2365x0.95	27.25
L17	83 - 82.75 (17)	TP22.3416x22.2791x0.7	27.29
L18	82.75 - 77.75 (18)	TP23.5923x22.3416x0.6625	28.10
L19	77.75 - 70 (19)	TP25.531x23.5923x0.65	28.71
L20	70 - 69 (20)	TP25.281x24.0304x0.7	29.63
L21	69 - 67.08 (21)	TP25.7612x25.281x0.6875	29.96
L22	67.08 - 66.83 (22)	TP25.8237x25.7612x0.6875	29.98
L23	66.83 - 64.08 (23)	TP26.5115x25.8237x0.675	30.45
L24	64.08 - 63.83 (24)	TP26.5741x26.5115x0.7375	30.47
L25	63.83 - 62.44 (25)	TP26.9217x26.5741x0.7375	30.72
L26	62.44 - 62.19 (26)	TP26.9843x26.9217x0.8625	30.75
L27	62.19 - 57.19 (27)	TP28.2348x26.9843x0.8375	31.63
L28	57.19 - 53.5 (28)	TP29.1578x28.2348x0.8125	32.27
L29	53.5 - 53.25 (29)	TP29.2203x29.1578x0.8375	32.30
L30	53.25 - 52.58 (30)	TP29.3879x29.2203x0.825	32.42
L31	52.58 - 52.33 (31)	TP29.4504x29.3879x0.8375	32.46
L32	52.33 - 47.33 (32)	TP30.701x29.4504x0.8125	33.32
L33	47.33 - 44.58 (33)	TP31.3888x30.701x0.8	33.80
L34	44.58 - 44.33 (34)	TP31.4513x31.3888x0.8	33.82
L35	44.33 - 39.33 (35)	TP32.7019x31.4513x0.775	34.67
L36	39.33 - 34.08 (36)	TP34.015x32.7019x0.775	34.71
L37	34.08 - 33.08 (37)	TP33.638x32.1594x0.8188	36.09
L38	33.08 - 28.08 (38)	TP34.8868x33.638x0.8063	36.94
L39	28.08 - 26.85 (39)	TP35.194x34.8868x0.7938	37.14
L40	26.85 - 26.6 (40)	TP35.2564x35.194x0.8688	37.17
L41	26.6 - 21.6 (41)	TP36.5052x35.2564x0.8563	38.00
L42	21.6 - 18 (42)	TP37.4044x36.5052x0.8438	38.58
L43	18 - 17.75 (43)	TP37.4668x37.4044x0.9938	38.60
L44	17.75 - 17.5 (44)	TP37.5292x37.4668x0.9938	38.64
L45	17.5 - 17.25 (45)	TP37.5917x37.5292x0.9938	38.68
L46	17.25 - 17.08 (46)	TP37.6341x37.5917x0.9938	38.71
L47	17.08 - 16.83 (47)	TP37.6966x37.6341x0.8938	38.75
L48	16.83 - 13 (48)	TP38.6531x37.6966x0.8813	39.36
L49	13 - 12.75 (49)	TP38.7156x38.6531x1.0438	39.38
L50	12.75 - 11.85 (50)	TP38.9404x38.7156x1.0438	39.53
L51	11.85 - 11.6 (51)	TP39.0028x38.9404x0.8188	39.56

Section No.	Elevation ft	Size	Actual V_u K
L52	11.6 - 6.5 (52)	TP40.2766x39.0028x0.7938	40.35
L53	6.5 - 6.25 (53)	TP40.339x40.2766x0.9188	40.37
L54	6.25 - 4 (54)	TP40.901x40.339x0.9188	40.57
L55	4 - 3.75 (55)	TP40.9634x40.901x1.0938	40.77
L56	3.75 - 0 (56)	TP41.9x40.9634x1.0688	40.99

APPENDIX B
BASE LEVEL DRAWING



APPENDIX C
ADDITIONAL CALCULATIONS

Pole Geometry

Pole Height Above Base (ft)	Section Length (ft)	Lap Splice Length (ft)	Number of Sides	Top Diameter (in)	Bottom Diameter (in)	Wall Thickness (in)	Bend Radius (in)	Pole Material
1 131	21	0	12	10.525	15.525	0.1875	Auto	A572-65
2 110	40	4	12	15.53	25.531	0.25	Auto	A572-65
3 74	39.92	4.92	12	24.03	34.015	0.3125	Auto	A572-65
4 39	39	0	12	32.16	41.9	0.3438	Auto	A572-65

Reinforcement Configuration

Bottom Effective Elevation (ft)	Top Effective Elevation (ft)	Type	Model	Number	1	2	3	4	5	6	7	8	9	10	11	12
0	0	plate	100FP-040100	3												
17.08	44.58	plate	100FP-040075	3												
44.58	67.08	plate	100FP-040075	3												
67.08	84.58	plate	100FP-040075	3												
84.58	13	plate	CCI-AFP-060100	3												
11.85	39	plate	CCI-AFP-060100	1												
18	53.5	plate	CCI-AFP-060100	2												
11.85	26.85	plate	CCI-AFP-060100	2												
39	62.44	plate	CCI-AFP-045100	1												
53.5	64.08	plate	CCI-AFP-045100	2												
83	90	plate	CCI-SFP-045100	3												
0	4	plate	FP 1.25 x 7.1	3												
0	18	plate	CCI-WSFP-065125	3												
0	6.5	plate	CCI-WSFP-065125	1												
0	17.5	plate	H-060100; (1) (1.1875)	3												
17.5	52.58	plate	H-060100; (1) (1.1875)	3												
52.58	83.42	plate	4.5 x 1.25; (1) (1.1875)	3												

Reinforcement Details

B (in)	H (in)	Gross Area (in ²)	Pole Face to Centroid (in)	Bottom Termination Length (in)	Top Termination Length (in)	L _y (in)	Net Area (in ²)	Bolt Hole Size (in)	Reinforcement Material
4	1	4	0.5	20.000	20.000	20.000	2.750	1.1875	A514-GR100
4	0.75	3	0.375	17.000	17.000	15.000	2.063	1.1875	A514-GR100
4	0.75	3	0.375	17.000	17.000	15.000	2.063	1.1875	A514-GR100
6	1	6	0.5	30.000	30.000	16.000	4.750	1.1875	A572-65
6	1	6	0.5	30.000	30.000	16.000	4.750	1.1875	A572-65
6	1	6	0.5	30.000	30.000	16.000	4.750	1.1875	A572-65
4.5	1	4.5	0.5	24.000	24.000	20.000	3.250	1.1875	A572-65
4.5	1	4.5	0.5	24.000	24.000	20.000	3.250	1.1875	A572-65
1.25	7	8.75	3.5	n/a	n/a	0.000	8.750	0.0000	A572-65
6.5	1.25	8.125	0.625	n/a	33.000	19.000	6.563	1.1875	A572-65
6.5	1.25	8.125	0.625	n/a	33.000	19.000	6.563	1.1875	A572-65
6	1	6	0.5	n/a	30.000	16.000	4.750	1.1875	A572-65
4.5	1.25	5.625	0.625	21.000	21.000	24.000	4.063	1.1875	A572-65

TNX Geometry Input

Increment (ft): [Export to TNX](#)

	Section Height (ft)	Section Length (ft)	Lap Splice Length (ft)	Number of Sides	Top Diameter (in)	Bottom Diameter (in)	Wall Thickness (in)	Tapered Pole Grade	Weight Multiplier
1	131 - 126	5		12	10.525	11.715	0.1875	A572-65	1.000
2	126 - 121	5		12	11.715	12.906	0.1875	A572-65	1.000
3	121 - 116	5		12	12.906	14.096	0.1875	A572-65	1.000
4	116 - 111	5		12	14.096	15.287	0.1875	A572-65	1.000
5	111 - 110	1	0	12	15.287	15.525	0.1875	A572-65	1.000
6	110 - 105	5		12	15.525	16.776	0.25	A572-65	1.000
7	105 - 100	5		12	16.776	18.027	0.25	A572-65	1.000
8	100 - 95	5		12	18.027	19.277	0.25	A572-65	1.000
9	95 - 90	5		12	19.277	20.528	0.25	A572-65	1.000
10	90 - 89.75	0.25		12	20.528	20.591	0.5	A572-65	0.924
11	89.75 - 84.75	5		12	20.591	21.841	0.48125	A572-65	0.934
12	84.75 - 84.58	0.17		12	21.841	21.884	0.475	A572-65	0.945
13	84.58 - 84.33	0.25		12	21.884	21.946	0.6375	A572-65	0.914
14	84.33 - 83.42	0.91		12	21.946	22.174	0.625	A572-65	0.927
15	83.42 - 83.17	0.25		12	22.174	22.237	0.95	A572-65	0.877
16	83.17 - 83	0.17		12	22.237	22.279	0.95	A572-65	0.876
17	83 - 82.75	0.25		12	22.279	22.342	0.7	A572-65	0.896
18	82.75 - 77.75	5		12	22.342	23.592	0.6625	A572-65	0.914
19	77.75 - 74	7.75	4	12	23.592	25.531	0.65	A572-65	0.909
20	74 - 69	5		12	24.030	25.281	0.7	A572-65	0.921
21	69 - 67.08	1.92		12	25.281	25.761	0.6875	A572-65	0.928
22	67.08 - 66.83	0.25		12	25.761	25.824	0.6875	A572-65	0.927
23	66.83 - 64.08	2.75		12	25.824	26.512	0.675	A572-65	0.931
24	64.08 - 63.83	0.25		12	26.512	26.574	0.7375	A572-65	1.000
25	63.83 - 62.44	1.39		12	26.574	26.922	0.7375	A572-65	0.992
26	62.44 - 62.19	0.25		12	26.922	26.984	0.8625	A572-65	0.913
27	62.19 - 57.19	5		12	26.984	28.235	0.8375	A572-65	0.914
28	57.19 - 53.5	3.69		12	28.235	29.158	0.8125	A572-65	0.923
29	53.5 - 53.25	0.25		12	29.158	29.220	0.8375	A572-65	0.934
30	53.25 - 52.58	0.67		12	29.220	29.388	0.825	A572-65	0.945
31	52.58 - 52.33	0.25		12	29.388	29.450	0.8375	A572-65	0.945
32	52.33 - 47.33	5		12	29.450	30.701	0.8125	A572-65	0.948
33	47.33 - 44.58	2.75		12	30.701	31.389	0.8	A572-65	0.950
34	44.58 - 44.33	0.25		12	31.389	31.451	0.8	A572-65	0.949
35	44.33 - 39.33	5		12	31.451	32.702	0.775	A572-65	0.956
36	39.33 - 39	5.25	4.92	12	32.702	34.015	0.775	A572-65	0.954
37	39 - 33.08	5.92		12	32.159	33.638	0.8188	A572-65	0.947
38	33.08 - 28.08	5		12	33.638	34.887	0.8063	A572-65	0.941
39	28.08 - 26.85	1.23		12	34.887	35.194	0.7938	A572-65	0.951
40	26.85 - 26.6	0.25		12	35.194	35.256	0.8688	A572-65	0.995
41	26.6 - 21.6	5		12	35.256	36.505	0.8563	A572-65	0.988
42	21.6 - 18	3.6		12	36.505	37.404	0.8438	A572-65	0.988
43	18 - 17.75	0.25		12	37.404	37.467	0.9938	A572-65	0.947
44	17.75 - 17.5	0.25		12	37.467	37.529	0.9938	A572-65	0.946
45	17.5 - 17.25	0.25		12	37.529	37.592	0.9938	A572-65	0.945
46	17.25 - 17.08	0.17		12	37.592	37.634	0.9938	A572-65	0.945
47	17.08 - 16.83	0.25		12	37.634	37.697	0.8938	A572-65	0.961
48	16.83 - 13	3.83		12	37.697	38.653	0.8813	A572-65	0.960
49	13 - 12.75	0.25		12	38.653	38.716	1.0438	A572-65	0.955
50	12.75 - 11.85	0.9		12	38.716	38.940	1.0438	A572-65	0.952
51	11.85 - 11.6	0.25		12	38.940	39.003	0.8188	A572-65	1.026
52	11.6 - 6.5	5.1		12	39.003	40.277	0.7938	A572-65	1.037
53	6.5 - 6.25	0.25		12	40.277	40.339	0.9188	A572-65	0.968
54	6.25 - 4	2.25		12	40.339	40.901	0.9188	A572-65	0.959
55	4 - 3.75	0.25		12	40.901	40.963	1.0938	A572-65	0.868
56	3.75 - 0	3.75		12	40.963	41.900	1.0688	A572-65	0.874

TNX Section Forces

Increment (ft):		TNX Output			
	5	Section Height (ft)	P _u (K)	M _{ux} (kip-ft)	V _u (K)
1		131 - 126	0.10	0.63	0.25
2		126 - 121	0.22	2.59	0.53
3		121 - 116	3.57	33.64	7.41
4		116 - 111	3.79	72.12	7.98
5		111 - 110	3.84	80.16	8.10
6		110 - 105	7.88	147.76	13.43
7		105 - 100	8.39	217.54	14.44
8		100 - 95	12.30	305.05	19.95
9		95 - 90	12.95	406.35	20.59
10		90 - 89.75	13.01	411.50	20.62
11		89.75 - 84.75	17.57	531.15	26.98
12		84.75 - 84.58	17.62	535.74	26.99
13		84.58 - 84.33	17.68	542.49	27.03
14		84.33 - 83.42	17.88	567.17	27.18
15		83.42 - 83.17	17.96	573.97	27.22
16		83.17 - 83	18.01	578.60	27.25
17		83 - 82.75	18.07	585.42	27.29
18		82.75 - 77.75	19.29	723.93	28.10
19		77.75 - 74	20.23	830.45	28.71
20		74 - 69	22.30	976.33	29.63
21		69 - 67.08	22.82	1033.52	29.96
22		67.08 - 66.83	22.92	1041.01	29.98
23		66.83 - 64.08	23.68	1124.10	30.45
24		64.08 - 63.83	23.78	1131.72	30.47
25		63.83 - 62.44	24.21	1174.26	30.72
26		62.44 - 62.19	24.32	1181.95	30.75
27		62.19 - 57.19	26.00	1337.93	31.63
28		57.19 - 53.5	27.28	1455.82	32.27
29		53.5 - 53.25	27.39	1463.89	32.30
30		53.25 - 52.58	27.62	1485.58	32.42
31		52.58 - 52.33	27.72	1493.69	32.46
32		52.33 - 47.33	29.56	1658.17	33.32
33		47.33 - 44.58	30.58	1750.46	33.80
34		44.58 - 44.33	30.70	1758.91	33.82
35		44.33 - 39.33	32.59	1930.18	34.67
36		39.33 - 39	32.73	1941.63	34.71
37		39 - 33.08	36.58	2151.03	36.10
38		33.08 - 28.08	38.64	2333.52	36.94
39		28.08 - 26.85	39.15	2379.06	37.14
40		26.85 - 26.6	39.28	2388.34	37.17
41		26.6 - 21.6	41.60	2576.22	38.00
42		21.6 - 18	43.30	2714.00	38.58
43		18 - 17.75	43.45	2723.65	38.60
44		17.75 - 17.5	43.58	2733.30	38.64
45		17.5 - 17.25	43.71	2742.96	38.68
46		17.25 - 17.08	43.80	2749.54	38.71
47		17.08 - 16.83	43.92	2759.22	38.75
48		16.83 - 13	45.79	2908.75	39.36
49		13 - 12.75	45.95	2918.59	39.38
50		12.75 - 11.85	46.45	2954.09	39.53
51		11.85 - 11.6	46.58	2963.97	39.56
52		11.6 - 6.5	49.12	3167.69	40.35
53		6.5 - 6.25	49.27	3177.77	40.37
54		6.25 - 4	50.46	3269.01	40.74
55		4 - 3.75	50.62	3279.20	40.77
56		3.75 - 0	52.74	3433.23	41.40

Analysis Results

Elevation (ft)	Component Type	Size	Critical Element	% Capacity	Pass / Fail
131 - 126	Pole	TP11.715x10.525x0.1875	Pole	0.5%	Pass
126 - 121	Pole	TP12.906x11.715x0.1875	Pole	1.7%	Pass
121 - 116	Pole	TP14.096x12.906x0.1875	Pole	18.9%	Pass
116 - 111	Pole	TP15.287x14.096x0.1875	Pole	33.9%	Pass
111 - 110	Pole	TP15.525x15.287x0.1875	Pole	36.4%	Pass
110 - 105	Pole	TP16.776x15.525x0.25	Pole	43.6%	Pass
105 - 100	Pole	TP18.027x16.776x0.25	Pole	55.2%	Pass
100 - 95	Pole	TP19.277x18.027x0.25	Pole	67.7%	Pass
95 - 90	Pole	TP20.528x19.277x0.25	Pole	79.1%	Pass
90 - 89.75	Pole + Reinf.	TP20.591x20.528x0.5	Reinf. 11 Tension Rupture	71.1%	Pass
89.75 - 84.75	Pole + Reinf.	TP21.841x20.591x0.4813	Reinf. 11 Tension Rupture	84.0%	Pass
84.75 - 84.58	Pole + Reinf.	TP21.884x21.841x0.475	Reinf. 11 Tension Rupture	84.4%	Pass
84.58 - 84.33	Pole + Reinf.	TP21.946x21.884x0.6375	Reinf. 11 Tension Rupture	65.4%	Pass
84.33 - 83.42	Pole + Reinf.	TP22.174x21.946x0.625	Reinf. 11 Tension Rupture	67.4%	Pass
83.42 - 83.17	Pole + Reinf.	TP22.237x22.174x0.95	Reinf. 17 Tension Rupture	47.4%	Pass
83.17 - 83	Pole + Reinf.	TP22.279x22.237x0.95	Reinf. 17 Tension Rupture	47.7%	Pass
83 - 82.75	Pole + Reinf.	TP22.342x22.279x0.7	Reinf. 17 Tension Rupture	63.4%	Pass
82.75 - 77.75	Pole + Reinf.	TP23.592x22.342x0.6625	Reinf. 17 Tension Rupture	72.6%	Pass
77.75 - 74	Pole + Reinf.	TP25.531x23.592x0.65	Reinf. 17 Tension Rupture	78.9%	Pass
74 - 69	Pole + Reinf.	TP25.281x24.03x0.7	Reinf. 17 Tension Rupture	80.7%	Pass
69 - 67.08	Pole + Reinf.	TP25.761x25.281x0.6875	Reinf. 17 Tension Rupture	83.1%	Pass
67.08 - 66.83	Pole + Reinf.	TP25.824x25.761x0.6875	Reinf. 17 Tension Rupture	83.4%	Pass
66.83 - 64.08	Pole + Reinf.	TP26.512x25.824x0.675	Reinf. 17 Tension Rupture	86.5%	Pass
64.08 - 63.83	Pole + Reinf.	TP26.574x26.512x0.7375	Reinf. 17 Tension Rupture	83.1%	Pass
63.83 - 62.44	Pole + Reinf.	TP26.922x26.574x0.7375	Reinf. 17 Tension Rupture	84.5%	Pass
62.44 - 62.19	Pole + Reinf.	TP26.984x26.922x0.8625	Reinf. 17 Tension Rupture	70.0%	Pass
62.19 - 57.19	Pole + Reinf.	TP28.235x26.984x0.8375	Reinf. 17 Tension Rupture	74.4%	Pass
57.19 - 53.5	Pole + Reinf.	TP29.158x28.235x0.8125	Reinf. 17 Tension Rupture	77.4%	Pass
53.5 - 53.25	Pole + Reinf.	TP29.22x29.158x0.8375	Reinf. 9 Tension Rupture	76.7%	Pass
53.25 - 52.58	Pole + Reinf.	TP29.388x29.22x0.825	Reinf. 9 Tension Rupture	77.2%	Pass
52.58 - 52.33	Pole + Reinf.	TP29.45x29.388x0.8375	Reinf. 9 Tension Rupture	76.3%	Pass
52.33 - 47.33	Pole + Reinf.	TP30.701x29.45x0.8125	Reinf. 9 Tension Rupture	79.9%	Pass
47.33 - 44.58	Pole + Reinf.	TP31.389x30.701x0.8	Reinf. 9 Tension Rupture	81.8%	Pass
44.58 - 44.33	Pole + Reinf.	TP31.451x31.389x0.8	Reinf. 9 Tension Rupture	82.0%	Pass
44.33 - 39.33	Pole + Reinf.	TP32.702x31.451x0.775	Reinf. 9 Tension Rupture	85.1%	Pass
39.33 - 39	Pole + Reinf.	TP34.015x32.702x0.775	Reinf. 9 Tension Rupture	85.3%	Pass
39 - 33.08	Pole + Reinf.	TP33.638x32.159x0.8188	Reinf. 16 Tension Rupture	75.3%	Pass
33.08 - 28.08	Pole + Reinf.	TP34.887x33.638x0.8063	Reinf. 16 Tension Rupture	77.6%	Pass
28.08 - 26.85	Pole + Reinf.	TP35.194x34.887x0.7938	Reinf. 16 Tension Rupture	78.1%	Pass
26.85 - 26.6	Pole + Reinf.	TP35.256x35.194x0.8688	Reinf. 6 Tension Rupture	75.2%	Pass
26.6 - 21.6	Pole + Reinf.	TP36.505x35.256x0.8563	Reinf. 6 Tension Rupture	77.2%	Pass
21.6 - 18	Pole + Reinf.	TP37.404x36.505x0.8438	Reinf. 6 Tension Rupture	78.5%	Pass
18 - 17.75	Pole + Reinf.	TP37.467x37.404x0.9938	Reinf. 16 Tension Rupture	64.8%	Pass
17.75 - 17.5	Pole + Reinf.	TP37.529x37.467x0.9938	Reinf. 16 Tension Rupture	64.9%	Pass
17.5 - 17.25	Pole + Reinf.	TP37.592x37.529x0.9938	Reinf. 15 Tension Rupture	64.9%	Pass
17.25 - 17.08	Pole + Reinf.	TP37.634x37.592x0.9938	Reinf. 15 Tension Rupture	65.0%	Pass
17.08 - 16.83	Pole + Reinf.	TP37.697x37.634x0.8938	Reinf. 15 Tension Rupture	71.0%	Pass
16.83 - 13	Pole + Reinf.	TP38.653x37.697x0.8813	Reinf. 15 Tension Rupture	72.3%	Pass
13 - 12.75	Pole + Reinf.	TP38.716x38.653x1.0438	Reinf. 15 Tension Rupture	61.2%	Pass
12.75 - 11.85	Pole + Reinf.	TP38.94x38.716x1.0438	Reinf. 15 Tension Rupture	61.4%	Pass
11.85 - 11.6	Pole + Reinf.	TP39.003x38.94x0.8188	Reinf. 15 Tension Rupture	79.1%	Pass
11.6 - 6.5	Pole + Reinf.	TP40.277x39.003x0.7938	Reinf. 15 Tension Rupture	80.7%	Pass
6.5 - 6.25	Pole + Reinf.	TP40.339x40.277x0.9188	Reinf. 15 Tension Rupture	75.0%	Pass
6.25 - 4	Pole + Reinf.	TP40.901x40.339x0.9188	Reinf. 15 Tension Rupture	75.6%	Pass
4 - 3.75	Pole + Reinf.	TP40.963x40.901x1.0938	Reinf. 12 Connection	67.4%	Pass
3.75 - 0	Pole + Reinf.	TP41.9x40.963x1.0688	Reinf. 12 Connection	68.4%	Pass
				Summary	
			Pole	79.1%	Pass
			Reinforcement	86.5%	Pass
			Overall	86.5%	Pass

Monopole Flange Plate Connection

Elevation = 110 ft.

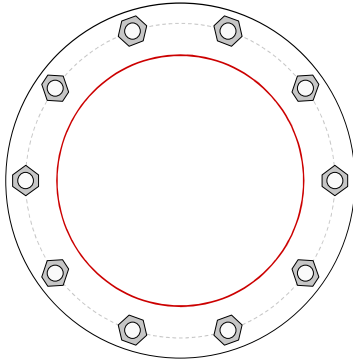


BU #	806376
Site Name	HRT 100 943239
Order #	524003 Rev. 1
TIA-222 Revision	H

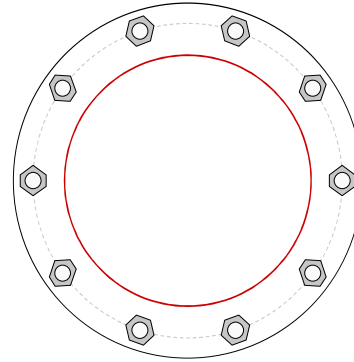
Applied Loads	
Moment (kip-ft)	80.16
Axial Force (kips)	3.84
Shear Force (kips)	8.10

*TIA-222-H Section 15.5 Applied

Top Plate - External



Bottom Plate - External



Connection Properties

Bolt Data

(10) 1" ϕ bolts (A325 N; Fy=92 ksi, Fu=120 ksi) on 19.45" BC

Top Plate Data

21.95" OD x 1.375" Plate (A572-50; Fy=50 ksi, Fu=65 ksi)

Bottom Plate Data

21.95" OD x 1.375" Plate (A572-50; Fy=50 ksi, Fu=65 ksi)

Top Stiffener Data

N/A

Bottom Stiffener Data

N/A

Top Pole Data

15.525" x 0.1875" 12-sided pole (A572-65; Fy=65 ksi, Fu=80 ksi)

Bottom Pole Data

15.525" x 0.25" 12-sided pole (A572-65; Fy=65 ksi, Fu=80 ksi)

Analysis Results

Bolt Capacity

Max Load (kips)	19.38
Allowable (kips)	54.53
Stress Rating:	33.8% Pass

Top Plate Capacity

Max Stress (ksi):	10.30	(Flexural)
Allowable Stress (ksi):	45.00	
Stress Rating:	21.8%	Pass
Tension Side Stress Rating:	11.2%	Pass

Bottom Plate Capacity

Max Stress (ksi):	10.30	(Flexural)
Allowable Stress (ksi):	45.00	
Stress Rating:	21.8%	Pass
Tension Side Stress Rating:	11.2%	Pass

Monopole Base Plate Connection

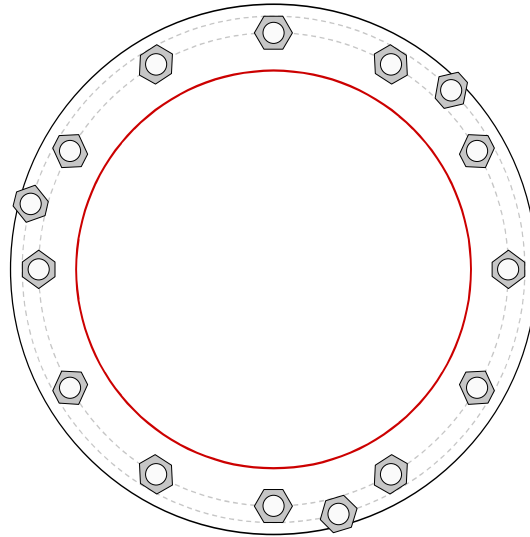


Site Info	
BU #	806376
Site Name	HRT 100 943239
Order #	524003 Rev. 1

Analysis Considerations	
TIA-222 Revision	H
Grout Considered:	No
I_{ar} (in)	1.25

Applied Loads	
Moment (kip-ft)	3433.23
Axial Force (kips)	52.74
Shear Force (kips)	41.40

*TIA-222-H Section 15.5 Applied



Connection Properties	Analysis Results
-----------------------	------------------

Anchor Rod Data
GROUP 1: (12) 2-1/4" ϕ bolts (A615-75 N; $F_y=75$ ksi, $F_u=100$ ksi) on 49.88" BC
GROUP 2: (3) 2-1/4" ϕ bolts (A193 Gr. B7 N; $F_y=105$ ksi, $F_u=125$ ksi) on 53.38" BC
Base Plate Data
55.88" OD x 2.5" Plate (S-128; $F_y=60$ ksi, $F_u=80$ ksi)
Stiffener Data
N/A
Pole Data
41.9" x 0.3438" 12-sided pole (A572-65; $F_y=65$ ksi, $F_u=80$ ksi)

Anchor Rod Summary (units of kips, kip-in)		
GROUP 1:		
$Pu_c = 218.26$	$\phi Pn_c = 268.39$	Stress Rating
$Vu = 3.45$	$\phi Vn = 120.77$	77.5%
$Mu = n/a$	$\phi Mn = n/a$	Pass
GROUP 2:		
$Pu_c = 228.87$	$\phi Pn_c = 375.74$	Stress Rating
$Vu = 0$	$\phi Vn = 169.08$	58.0%
$Mu = n/a$	$\phi Mn = n/a$	Pass
Base Plate Summary		
Max Stress (ksi):	31.33	(Flexural)
Allowable Stress (ksi):	54	
Stress Rating:	55.3%	Pass

Pier and Pad Foundation



BU #: 806376
Site Name: HRT 100 943239
App. Number: 524003 Rev. 1

TIA-222 Revision: H
Tower Type: Monopole

Top & Bot. Pad Rein. Different?:
Block Foundation?:

Superstructure Analysis Reactions		
Compression, P_{comp} :	53	kips
Base Shear, V_u_{comp} :	41	kips
Moment, M_u :	3433	ft-kips
Tower Height, H :	131	ft
BP Dist. Above Fdn, bp_{dist} :	3	in

Foundation Analysis Checks				
	Capacity	Demand	Rating*	Check
<i>Lateral (Sliding) (kips)</i>	286.99	41.00	13.6%	Pass
<i>Bearing Pressure (ksf)</i>	7.50	3.26	43.4%	Pass
<i>Overturning (kip*ft)</i>	5372.98	3791.75	70.6%	Pass
<i>Pier Flexure (Comp.) (kip*ft)</i>	5770.72	3658.50	60.4%	Pass
<i>Pier Compression (kip)</i>	13497.04	80.99	0.6%	Pass
<i>Pad Flexure (kip*ft)</i>	2592.84	1676.12	61.6%	Pass
<i>Pad Shear - 1-way (kips)</i>	674.44	281.26	39.7%	Pass
<i>Pad Shear - 2-way (Comp) (ksi)</i>	0.164	0.046	26.4%	Pass
<i>Flexural 2-way (Comp) (kip*ft)</i>	3397.26	2195.10	61.5%	Pass

Pier Properties		
Pier Shape:	Circular	
Pier Diameter, $dpier$:	6	ft
Ext. Above Grade, E :	0.5	ft
Pier Rebar Size, Sc :	10	
Pier Rebar Quantity, mc :	36	
Pier Tie/Spiral Size, St :	4	
Pier Tie/Spiral Quantity, mt :	6	
Pier Reinforcement Type:	Tie	
Pier Clear Cover, cc_{pier} :	3	in

*Rating per TIA-222-H Section 15.5

Soil Rating*:	70.6%
Structural Rating*:	61.6%

Pad Properties		
Depth, D :	8	ft
Pad Width, W :	22	ft
Pad Thickness, T :	3	ft
Pad Rebar Size (Bottom), Sp :	10	
Pad Rebar Quantity (Bottom), mp :	15	
Pad Clear Cover, cc_{pad} :	3	in

Material Properties		
Rebar Grade, Fy :	60	ksi
Concrete Compressive Strength, $F'c$:	3	ksi
Dry Concrete Density, δc :	150	pcf

Soil Properties		
Total Soil Unit Weight, γ :	115	pcf
Ultimate Gross Bearing, Q_{ult} :	10.000	ksf
Cohesion, Cu :		ksf
Friction Angle, ϕ :	33	degrees
SPT Blow Count, N_{blows} :	33	
Base Friction, μ :		
Neglected Depth, N :	3.33	ft
Foundation Bearing on Rock?	No	
Groundwater Depth, gw :	16	ft

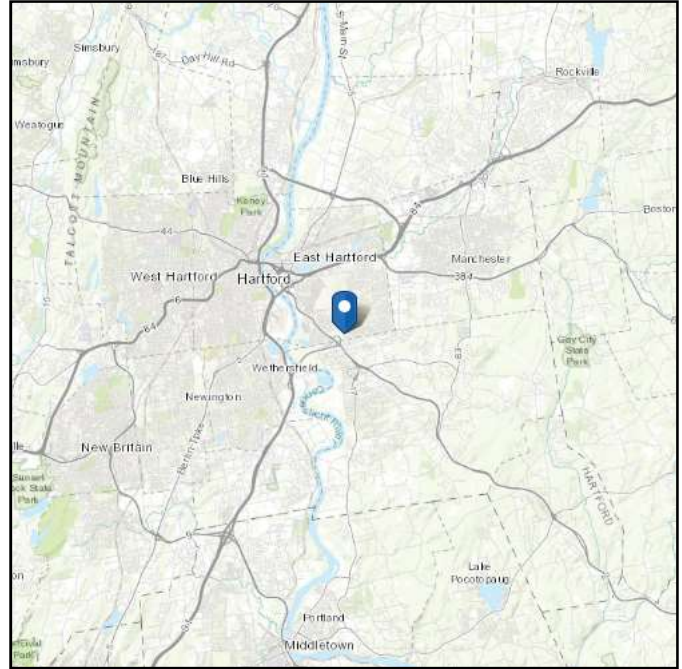
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ASCE 7 Hazards Report

Address:
No Address at This
Location

Standard: ASCE/SEI 7-10
Risk Category: II
Soil Class: D - Stiff Soil

Elevation: 41.23 ft (NAVD 88)
Latitude: 41.731472
Longitude: -72.607778



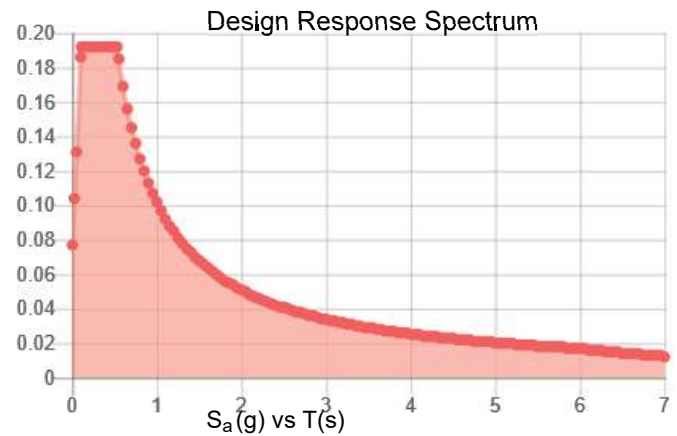
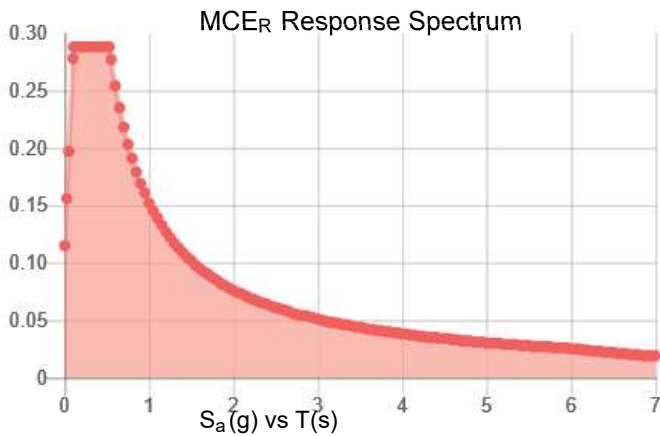
Wind

Site Soil Class: D - Stiff Soil

Results:

S_s :	0.18	S_{DS} :	0.192
S_1 :	0.064	S_{D1} :	0.102
F_a :	1.6	T_L :	6
F_v :	2.4	PGA :	0.091
S_{MS} :	0.288	PGA _M :	0.145
S_{M1} :	0.152	F _{PGA} :	1.6
		I_e :	1

Seismic Design Category B



Data Accessed:

Thu Jun 27 2019

Date Source:

USGS Seismic Design Maps based on ASCE/SEI 7-10, incorporating Supplement 1 and errata of March 31, 2013, and ASCE/SEI 7-10 Table 1.5-2. Additional data for site-specific ground motion procedures in accordance with ASCE/SEI 7-10 Ch. 21 are available from USGS.

Ice

Results:

Ice Thickness: 1.00 in.

Concurrent Temperature: 5 F

Gust Speed: 50 mph

Data Source: Standard ASCE/SEI 7-10, Figs. 10-2 through 10-8

Date Accessed: Thu Jun 27 2019

Ice thicknesses on structures in exposed locations at elevations higher than the surrounding terrain and in valleys and gorges may exceed the mapped values.

Values provided are equivalent radial ice thicknesses due to freezing rain with concurrent 3-second gust speeds, for a 50-year mean recurrence interval, and temperatures concurrent with ice thicknesses due to freezing rain. Thicknesses for ice accretions caused by other sources shall be obtained from local meteorological studies. Ice thicknesses in exposed locations at elevations higher than the surrounding terrain and in valleys and gorges may exceed the mapped values.

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