Date: **October 26, 2021**

B+T Group
1717 S. Boulder, Suite 300
Tulsa, OK 74119
(918) 587-4630

Subject:	**Structural Analysis Report**	
Carrier Designation:	***AT&T Mobility* Co-Locate**	
	Site Number:	CTCN002104
	Site Name:	BRG 302 943052
	FA Number:	10035058
Crown Castle Designation:	**BU Number:**	806352
	Site Name:	BRG 302 943052
	JDE Job Number:	649379
	Work Order Number:	2030976
	Order Number:	556499 Rev. 2
Engineering Firm Designation:	**B+T Group Project Number:**	145684.003.01
Site Data:	**126 Ledge Road, DARIEN, Fairfield County, CT**	
	Latitude *41° 4' 20.75"*, Longitude *-73° 28' 41.4"*	
	117 Foot - Monopole Tower	

B+T Group is pleased to submit this **"Structural Analysis Report"** to determine the structural integrity of the above-mentioned tower.

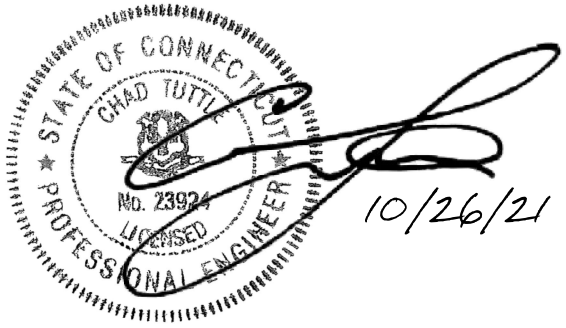
The purpose of the analysis is to determine acceptability of the tower stress level. Based on our analysis we have determined the tower stress level for the structure and foundation, under the following load case, to be:

LC7: Proposed Equipment Configuration **Sufficient Capacity- 90.3%**

This analysis utilizes an ultimate 3-second gust wind speed of 117 mph as required by the 2018 Connecticut State Building Code. Applicable Standard references and design criteria are listed in Section 2 - Analysis Criteria.

Structural analysis prepared by: Clint Coody

Respectfully submitted by: B+T Engineering, Inc.
COA: PEC.0001564; Expires: 02/10/2022



Chad E. Tuttle, P.E.

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1) INTRODUCTION

This tower is a 117 ft. Monopole tower designed by Valmont.

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:	117 mph
Exposure Category:	B
Topographic Factor:	1
Ice Thickness:	1 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)
89.0	90.0	3	Ericsson	AIR 6449 N77	4 4 3	7/8 13/16 3/8
	89.0	3	CCI Antennas	DMP65R-BU8D		
		3	Ericsson	RADIO 4478 B14		
		3	Ericsson	RRUS 32 B2		
		3	Ericsson	RRUS 32 B30		
		3	Ericsson	RRUS 4426 B66		
		3	Ericsson	RRUS 4449 B5/B12		
		3	Quintel Tech.	QD8616-7		
		1	Raycap	DC6-48-60-18-8C-EV		
		2	Raycap	DC9-48-60-24-8C-EV		
		1	--	Platform Mount [LP 301-1_KCKR]		
	88.0	3	CCI	C-Band Antenna E		

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)
117.0	121.0	3	Alcatel Lucent	TD-RRH8X20-25	3 1	1-1/4 5/8
	119.0	3	Rfs Celwave	APXVSPP18-C-A20		
		3	Rfs Celwave	APXVTM14-ALU-I20		
	117.0	1	--	T-Arm Mount [TA 601-3]		
		9	Rfs Celwave	ACU-A20-N		
115.0	115.0	3	Alcatel Lucent	800 EXTERNAL NOTCH FILTER	--	--
		3	Alcatel Lucent	800MHZ RRH		
		3	Alcatel Lucent	PCS 1900MHz 4x45W-65MHz		
		1	--	Side Arm Mount [SO 102-3]		
108.0	111.0	3	Ericsson	KRY 112 144/1	13	1-5/8
	110.0	3	Commscope	SDX1926Q-43		

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
		3	Ericsson	AIR 32 B2A B66AA		
		3	Ericsson	AIR6449 B41_T-MOBILE		
		3	Ericsson	RADIO 4449 B71 B85A_T-MOBILE		
		2	Ericsson	RRUS 4415 B25_CCIV2		
		3	Rfs Celwave	APXVAARR24_43-U-NA20		
	108.0	1	Ericsson	RRUS 4415 B25_CCIV2		
		1	--	Platform Mount [LP 303-1_HR-1]		
100.0	104.0	1	Gps	GPS_A	17	1-5/8 7/8
	102.0	6	Jma Wireless	MX06FRO660-02		
		6	Decibel	DB844G65ZAXY		
		1	Rfs Celwave	DB-C1-12C-24AB-0Z		
		3	Samsung Tele.	RFV01U-D1A		
		3	Samsung Tele.	RFV01U-D2A		
		3	Vzw	Sub6 Antenna - VZS01		
	100.0	1	--	Platform Mount [LP 713-1]		
84.0	84.0	3	Kathrein	800 10504	6	1-5/8
		1	--	Pipe Mount [PM 601-3]		
76.0	76.0	3	Fujitsu	TA08025-B604	1	1-3/8
		3	Fujitsu	TA08025-B605		
		3	Jma Wireless	MX08FRO665-21		
		1	Raycap	RDIDC-9181-PF-48		
		1	Commscope	MC-PK8-DSH (1)		

3) ANALYSIS PROCEDURE

Table 3 - Documents Provided

Document	Reference	Source
Tower Manufacturer Drawing	217772	CCI Sites
Mount Analysis	10019852	CCI Sites
Tower Modification Drawing	1094732	CCI Sites
Post Modification Inspection	2218625	CCI Sites
Tower Modification Drawing	2743848	CCI Sites
Post Modification Inspection	2785508	CCI Sites
Tower Modification Drawing	4062469	CCI Sites
Post Modification Inspection	4069331	CCI Sites
Tower Modification Drawing	4115809	CCI Sites
Post Modification Inspection	5077215	CCI Sites
Tower Modification Drawing	5632030	CCI Sites
Tower Modification Drawing	5969651	CCI Sites
Post Modification Inspection	6122311	CCI Sites
Tower Modification Drawing	6083070	CCI Sites

Document	Reference	Source
Post Modification Inspection	6232380	CCI Sites
Foundation Drawing	3907710	CCI Sites
Geotech Report	217769	CCI Sites
Crown CAD Package	Date: 10/11/2021	CCI Sites

3.1) Analysis Method

tnxTower (version 8.1.1.0), 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) The 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.

This analysis may be affected if any assumptions are not valid or have been made in error. B+T Group should be notified to determine the effect on the structural integrity of the tower.

4) ANALYSIS RESULTS

Table 4 - Section Capacity (Summary)

Section No.	Elevation (ft)	Component Type	Size	Critical Element	P (K)	SF*P_allow (K)	% Capacity	Pass / Fail
L1	117 - 112	Pole	TP15.489x14.36x0.1875	1	-2.398	-	7.0%	Pass
L2	112 - 110	Pole	TP15.94x15.489x0.1875	2	-2.475	-	9.1%	Pass
L3	110 - 105	Pole	TP17.07x15.94x0.1875	3	-6.673	-	18.9%	Pass
L4	105 - 100	Pole	TP18.2x17.07x0.1875	4	-7.007	-	27.3%	Pass
L5	100 - 95	Pole	TP19.335x18.2x0.25	5	-14.567	-	30.9%	Pass
L6	95 - 90	Pole	TP20.471x19.335x0.25	6	-15.074	-	38.0%	Pass
L7	90 - 85	Pole	TP21.606x20.471x0.25	7	-20.409	-	48.3%	Pass
L8	85 - 82.38	Pole	TP22.202x21.606x0.25	8	-21.139	-	53.4%	Pass
L9	82.38 - 82.13	Pole	TP22.259x22.202x0.25	9	-21.187	-	53.9%	Pass
L10	82.13 - 81.88	Pole	TP22.315x22.259x0.25	10	-21.223	-	54.3%	Pass
L11	81.88 - 81.63	Pole + Reinf.	TP22.372x22.315x0.35	11	-21.273	-	49.8%	Pass
L12	81.63 - 76.63	Pole + Reinf.	TP23.508x22.372x0.3563	12	-22.244	-	57.8%	Pass
L13	76.63 - 76	Pole + Reinf.	TP23.649x23.508x0.3563	13	-22.372	-	58.7%	Pass
L14	76 - 75.75	Pole + Reinf.	TP23.706x23.649x0.4625	14	-25.564	-	53.8%	Pass
L15	75.75 - 70.75	Pole + Reinf.	TP24.842x23.706x0.45	15	-26.748	-	61.6%	Pass
L16	70.75 - 70.5	Pole + Reinf.	TP24.898x24.842x0.675	16	-26.829	-	49.5%	Pass
L17	70.5 - 67.98	Pole + Reinf.	TP25.47x24.898x0.7125	17	-27.554	-	46.1%	Pass
L18	67.98 - 67.73	Pole + Reinf.	TP25.526x25.47x0.7125	18	-27.633	-	46.4%	Pass
L19	67.73 - 66.67	Pole + Reinf.	TP25.769x25.526x0.7	19	-27.941	-	47.4%	Pass

Section No.	Elevation (ft)	Component Type	Size	Critical Element	P (K)	SF*P_allow (K)	% Capacity	Pass / Fail
L20	66.67 - 66.42	Pole + Reinf.	TP25.825x25.769x0.7	20	-28.015	-	47.8%	Pass
L21	66.42 - 63.5	Pole + Reinf.	TP26.488x25.825x0.6875	21	-28.814	-	50.6%	Pass
L22	63.5 - 63.25	Pole + Reinf.	TP26.544x26.488x0.9	22	-28.906	-	40.2%	Pass
L23	63.25 - 58.25	Pole + Reinf.	TP27.68x26.544x0.85	23	-30.557	-	44.0%	Pass
L24	58.25 - 53.25	Pole + Reinf.	TP28.815x27.68x0.825	24	-32.236	-	47.4%	Pass
L25	53.25 - 52	Pole + Reinf.	TP30.09x28.815x0.825	25	-32.662	-	48.2%	Pass
L26	52 - 46.64	Pole + Reinf.	TP29.806x28.599x0.8438	26	-35.793	-	51.7%	Pass
L27	46.64 - 41.64	Pole + Reinf.	TP30.931x29.806x0.8188	27	-37.615	-	54.3%	Pass
L28	41.64 - 38.08	Pole + Reinf.	TP31.73x30.931x0.8063	28	-38.928	-	56.0%	Pass
L29	38.08 - 37.83	Pole + Reinf.	TP31.787x31.73x0.7438	29	-39.024	-	59.9%	Pass
L30	37.83 - 33.5	Pole + Reinf.	TP32.762x31.787x0.7438	30	-40.565	-	61.9%	Pass
L31	33.5 - 33.25	Pole + Reinf.	TP32.818x32.762x0.7938	31	-40.666	-	56.4%	Pass
L32	33.25 - 33	Pole + Reinf.	TP32.874x32.818x0.7938	32	-40.761	-	56.5%	Pass
L33	33 - 32.75	Pole + Reinf.	TP32.931x32.874x0.8438	33	-40.861	-	52.7%	Pass
L34	32.75 - 27.75	Pole + Reinf.	TP34.056x32.931x0.8188	34	-42.843	-	54.6%	Pass
L35	27.75 - 22.75	Pole + Reinf.	TP35.181x34.056x0.7938	35	-44.859	-	56.3%	Pass
L36	22.75 - 17.75	Pole + Reinf.	TP36.306x35.181x0.7813	36	-46.903	-	57.8%	Pass
L37	17.75 - 12.75	Pole + Reinf.	TP37.431x36.306x0.7688	37	-48.973	-	59.2%	Pass
L38	12.75 - 12.5	Pole + Reinf.	TP37.487x37.431x0.7688	38	-49.083	-	59.2%	Pass
L39	12.5 - 12.25	Pole + Reinf.	TP37.543x37.487x0.7688	39	-49.191	-	60.0%	Pass
L40	12.25 - 12	Pole + Reinf.	TP37.6x37.543x0.7688	40	-49.300	-	60.0%	Pass
L41	12 - 11.75	Pole + Reinf.	TP37.656x37.6x1.0438	41	-49.427	-	45.2%	Pass
L42	11.75 - 6.75	Pole + Reinf.	TP38.781x37.656x1.0188	42	-51.967	-	46.4%	Pass
L43	6.75 - 2.5	Pole + Reinf.	TP39.737x38.781x0.9938	43	-54.152	-	47.4%	Pass
L44	2.5 - 2.25	Pole + Reinf.	TP39.794x39.737x1.1188	44	-54.291	-	43.1%	Pass
L45	2.25 - 2	Pole + Reinf.	TP39.85x39.794x1.2438	45	-54.435	-	41.6%	Pass
L46	2 - 0	Pole + Reinf.	TP40.3x39.85x1.2188	46	-55.578	-	42.0%	Pass
							Summary	
						Pole (L10)	54.3	Pass
						Reinforcement	61.9	Pass
						Rating =	61.9	Pass

Table 5 - Tower Component Stresses vs. Capacity – LC7

Notes	Component	Elevation (ft)	% Capacity	Pass / Fail
1,2	Flange Connections	110	11.0	Pass
1,2	Flange Connections	100	26.1	Pass
1,2	Anchor Rods	Base	41.6	Pass
1,2	Base Plate	Base	29.5	Pass
1,2	Anchor Rod Bracket	Base	38.9	Pass
1,2	Base Foundation (Structure)	Base	90.3	Pass
1,2	Base Foundation (Soil Interaction)	Base	34.4	Pass

Structure Rating (max from all components) =	90.3%

Notes:
1) See additional documentation in "Appendix C – Additional Calculations" for calculations supporting the % capacity consumed.
2) Rating per TIA-222-H, Section 15.5.

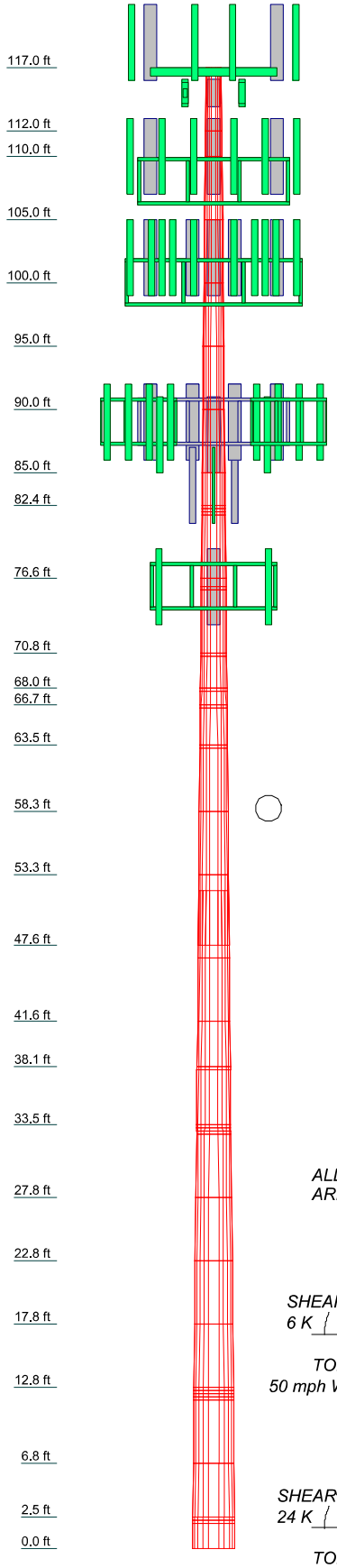
4.1) Recommendations

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

APPENDIX A

TNXTOWER OUTPUT

Section	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46
Length (ft)	5.000	2.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	4.365
Number of Sides	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Thickness (in)	0.188	0.188	0.188	0.188	0.250	0.250	0.250	0.250	0.250	0.250	0.356	0.356	0.356	0.450	0.450	0.500	0.500	0.500	0.500	0.500	0.500	0.500	0.500	0.825	0.825	0.844	0.819	0.806	0.744	0.744	0.744	0.819	0.819	0.794	0.781	0.769	0.769	1.019	1.019	0.994	0.994	0.994	0.994	0.994	0.994	1.219
Socket Length (ft)																																														
Top Dia (in)	14.360	15.489	15.940	17.070	18.200	19.335	20.471	21.606	22.737	23.868	23.868	24.999	24.999	26.130	26.130	27.261	27.261	28.392	28.392	29.523	29.523	30.654	30.654	27.680	28.815	28.599	29.806	30.931	31.730	31.730	31.730	32.933	32.933	34.056	35.181	36.306	36.306	37.656	37.656	38.781	38.781	38.781	38.781	38.781	38.781	39.906
Bot Dia (in)	15.489	15.940	17.070	18.200	19.335	20.471	21.606	22.737	23.868	24.999	24.999	26.130	26.130	27.261	27.261	28.392	28.392	29.523	29.523	30.654	30.654	31.785	31.785	28.815	30.090	29.806	30.931	31.730	32.783	32.783	32.783	34.056	34.056	35.181	36.306	37.431	37.431	38.781	38.781	39.906	39.906	39.906	39.906	39.906	39.906	40.737
Grade	A572-65																																													
Weight (K)	0.2	0.1	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.5	0.1	0.1	0.7	0.1	0.0	0.5	0.0	0.5	0.1	0.5	0.1	1.1	1.1	1.3	1.3	1.2	0.9	0.1	1.0	0.1	1.4	1.4	1.4	1.4	1.4	1.4	1.8	1.8	1.6	1.6	1.6	1.6	1.6	1.6	0.8

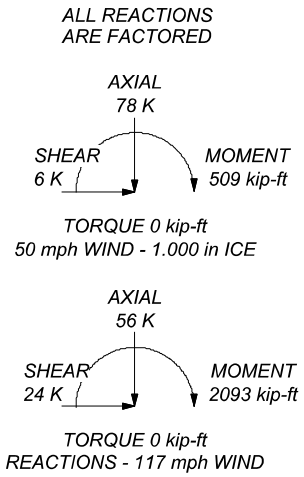


MATERIAL STRENGTH

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

TOWER DESIGN NOTES

1. Tower is located in Fairfield County, Connecticut.
2. Tower designed for Exposure B to the TIA-222-H Standard.
3. Tower designed for a 117 mph basic wind in accordance with the TIA-222-H Standard.
4. Tower is also designed for a 50 mph basic wind with 1.00 in ice. Ice is considered to increase in thickness with height.
5. Deflections are based upon a 60 mph wind.
6. Tower Risk Category II.
7. Topographic Category 1 with Crest Height of 0.000 ft
8. TIA-222-H Annex S
9. TOWER RATING: 61.9%



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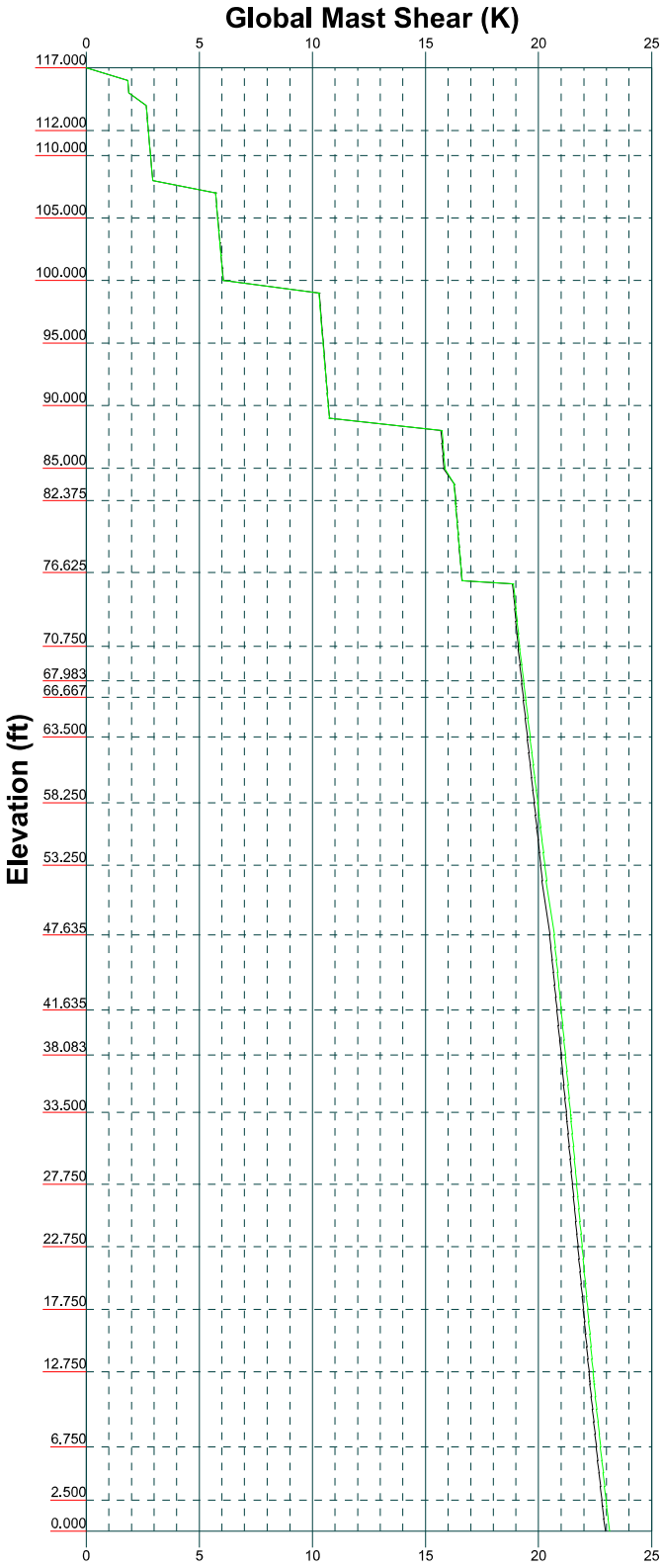
Job: 145684.003.01 - BRG 302 943052, CT (BU# 80635			
Project:			
Client: Crown Castle	Drawn by: Sinchana Upadhya	App'd:	
Code: TIA-222-H	Date: 10/24/21	Scale: NTS	
Path:		Dwg No. E-1	

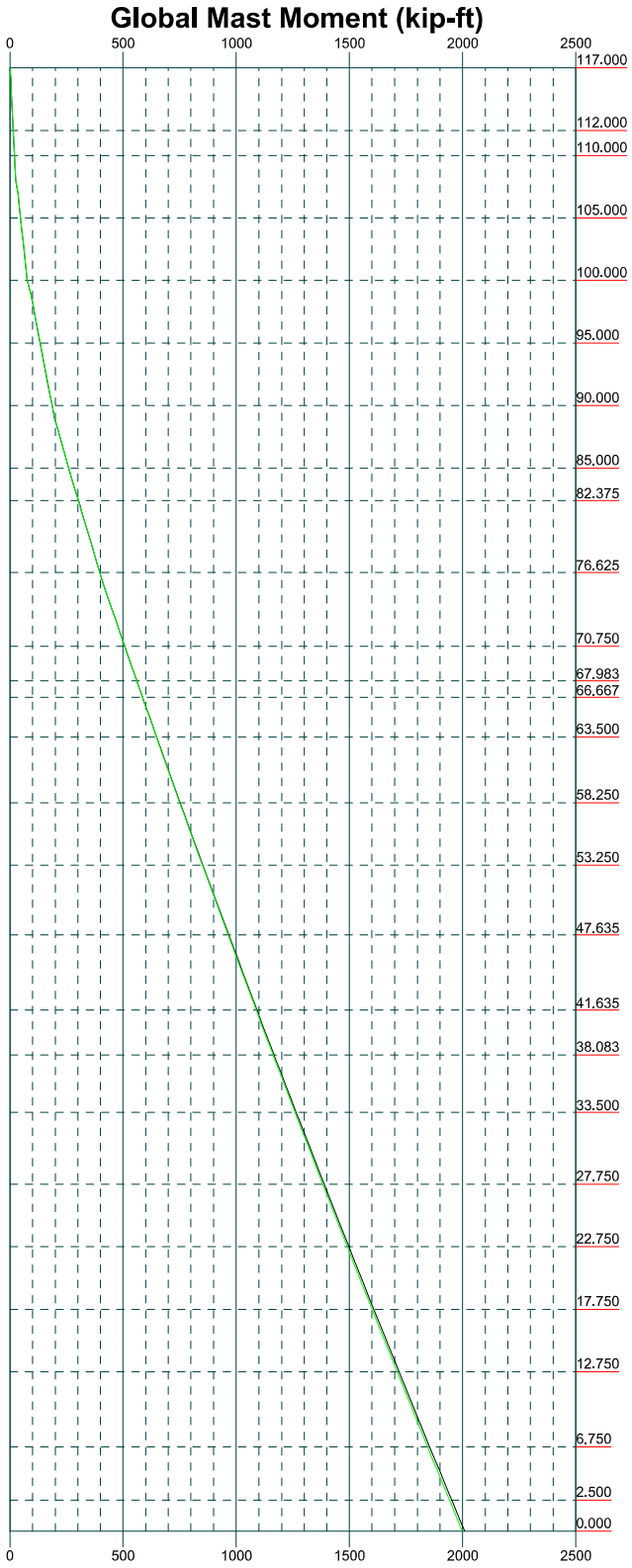
TIA-222-H - 117 mph/50 mph 1.000 in Ice Exposure B

Vx Vz

Maximum Values

Mx Mz





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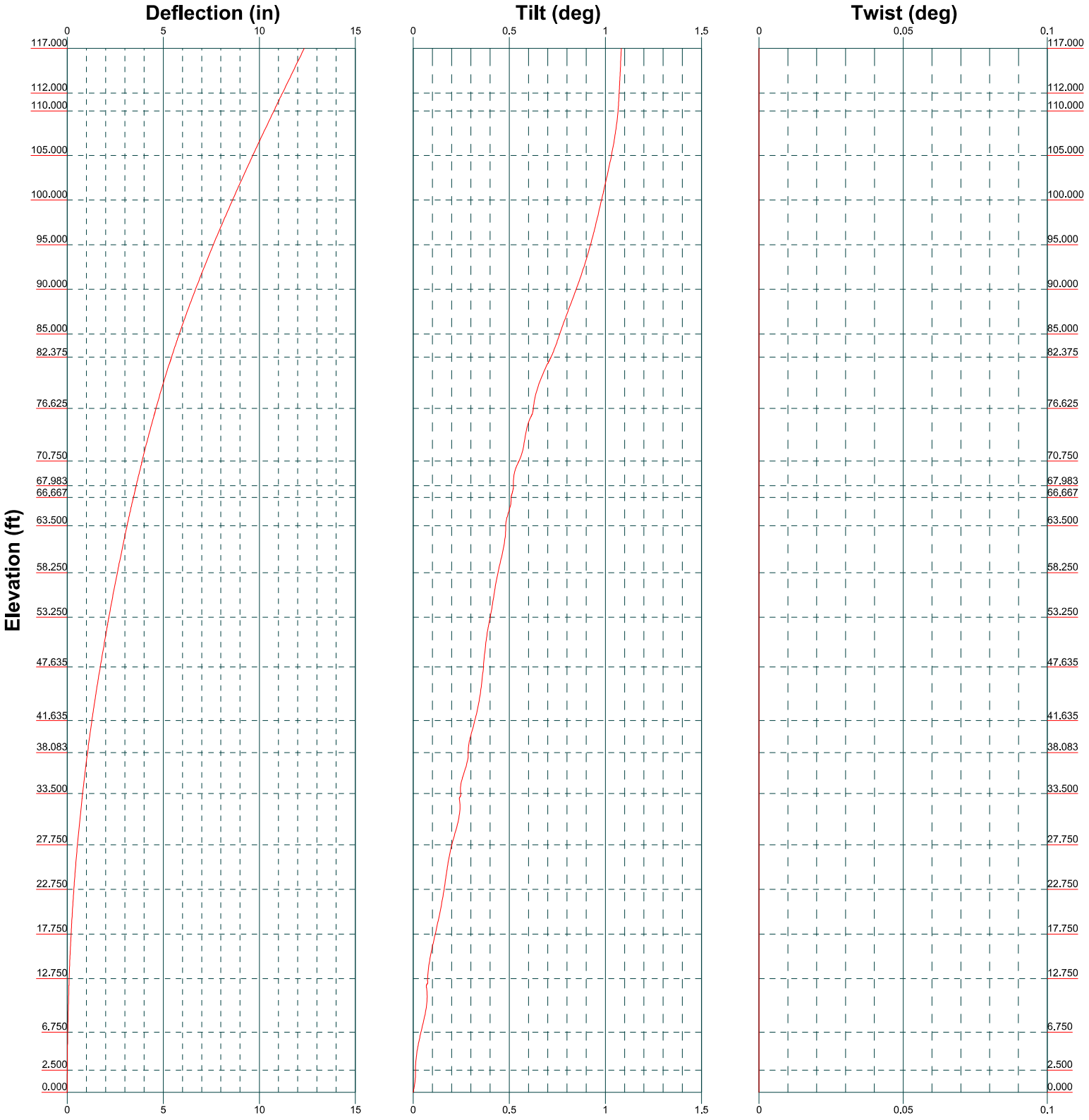
Job: 145684.003.01 - BRG 302 943052, CT (BU# 80635			
Project:			
Client: Crown Castle	Drawn by: Sinchana Upadhya	App'd:	
Code: TIA-222-H	Date: 10/24/21	Scale: NTS	
Path:		Dwg No. E-4	

TIA-222-H - Service - 60 mph

Maximum Values



B+T GRP

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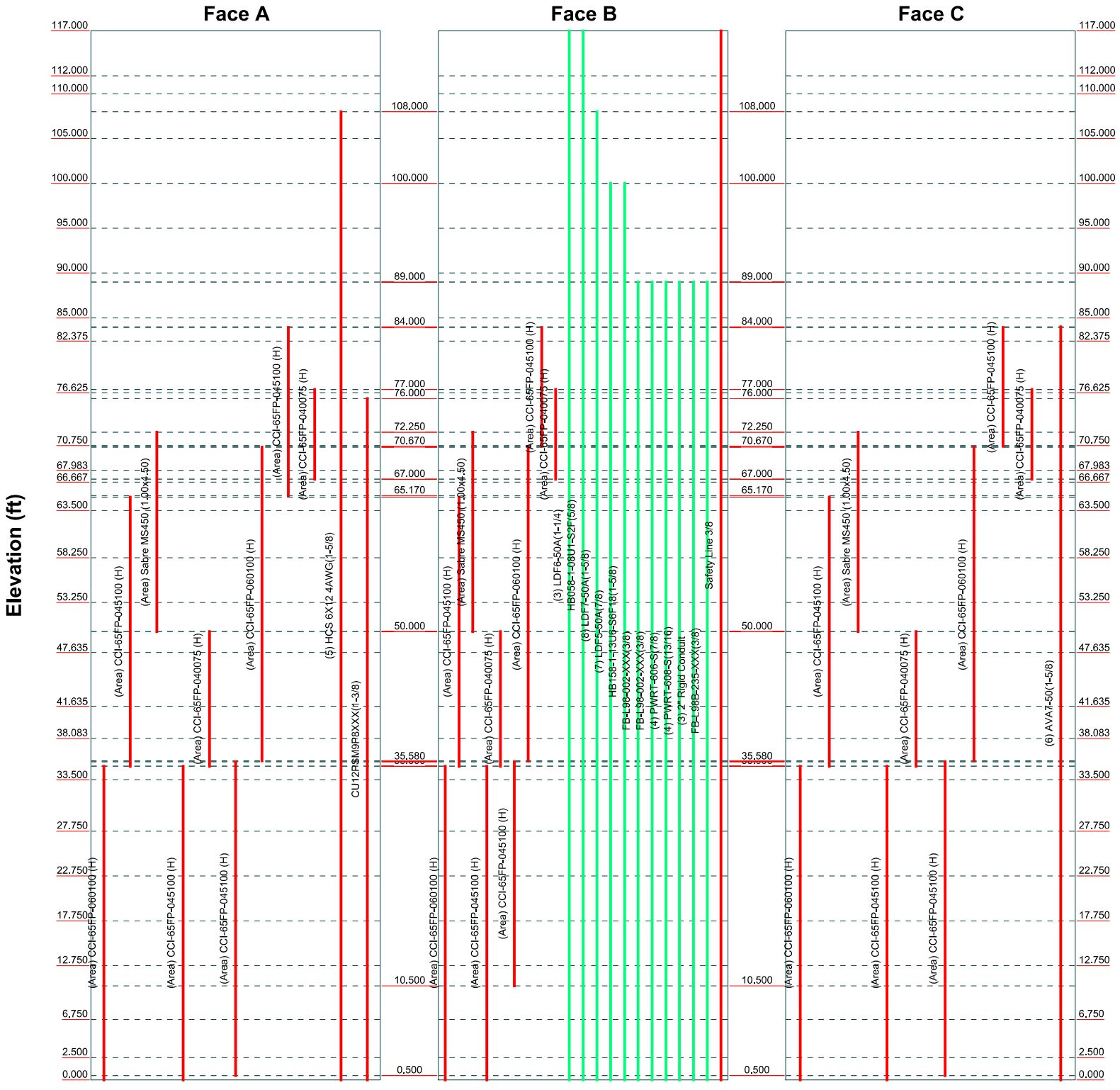
Job: *145684.003.01 - BRG 302 943052, CT (BU# 80635*			
Project:			
Client: Crown Castle	Drawn by: Sinchana Upadhya	App'd:	
Code: TIA-222-H	Date: 10/24/21	Scale: NTS	
Path:		Dwg No. E-5	

Feed Line Distribution Chart
0' - 117'

Round | Flat | App In Face | App Out Face | Truss Leg



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Job:	145684.003.01 - BRG 302 943052, CT (BU# 80635		
Project:			
Client: Crown Castle	Drawn by: Sinchana Upadhya	App'd:	
Code: TIA-222-H	Date: 10/24/21	Scale: NTS	
Path:		Dwg No. E-7	

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 Fairfield County, Connecticut.
Tower base elevation above sea level: 71.000 ft.
Basic wind speed of 117 mph.
Risk Category II.
Exposure Category B.
Simplified Topographic Factor Procedure for wind speed-up calculations is used.
Topographic Category: 1.
Crest Height: 0.000 ft.
Nominal ice thickness of 1.000 in.
Ice thickness is considered to increase with height.
Ice density of 56.000 pcf.
A wind speed of 50 mph is used in combination with ice.
Temperature drop of 50.000 °F.
Deflections calculated using a wind speed of 60 mph.
TIA-222-H Annex S.
TOWER RATING: 61.9%.
A non-linear (P-delta) analysis was used.
Pressures are calculated at each section.
Stress ratio used in pole design is 1.
Tower analysis based on target reliabilities in accordance with Annex S.
Load Modification Factors used: $K_{es}(F_w) = 0.95$, $K_{es}(t_i) = 0.85$.
Maximum demand-capacity ratio is: 1.05.
Local bending stresses due to climbing loads, feed line supports, and appurtenance mounts are not considered.

Options

	Consider Moments - Legs		Distribute Leg Loads As Uniform		Use ASCE 10 X-Brace Ly Rules
	Consider Moments - Horizontals		Assume Legs Pinned		Calculate Redundant Bracing Forces
	Consider Moments - Diagonals	√	Assume Rigid Index Plate		Ignore Redundant Members in FEA
	Use Moment Magnification	√	Use Clear Spans For Wind Area		SR Leg Bolts Resist Compression
√	Use Code Stress Ratios		Use Clear Spans For KL/r		All Leg Panels Have Same Allowable
√	Use Code Safety Factors - Guys		Retension Guys To Initial Tension		Offset Girt At Foundation
	Escalate Ice	√	Bypass Mast Stability Checks	√	Consider Feed Line Torque
	Always Use Max Kz	√	Use Azimuth Dish Coefficients		Include Angle Block Shear Check
	Use Special Wind Profile	√	Project Wind Area of Appurt.		Use TIA-222-H Bracing Resist. Exemption
	Include Bolts In Member Capacity		Autocalc Torque Arm Areas		Use TIA-222-H Tension Splice Exemption
	Leg Bolts Are At Top Of Section		Add IBC .6D+W Combination		Poles
	Secondary Horizontal Braces Leg		Sort Capacity Reports By Component	√	Include Shear-Torsion Interaction
	Use Diamond Inner Bracing (4 Sided)		Triangulate Diamond Inner Bracing		Always Use Sub-Critical Flow
	SR Members Have Cut Ends		Treat Feed Line Bundles As Cylinder		Use Top Mounted Sockets
	SR Members Are Concentric		Ignore KL/ry For 60 Deg. Angle Legs		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	117.000-112.000	5.000	0.000	12	14.360	15.489	0.188	0.750	A572-65 (65 ksi)
L2	112.000-110.000	2.000	0.000	12	15.489	15.940	0.188	0.750	A572-65 (65 ksi)
L3	110.000-105.000	5.000	0.000	12	15.940	17.070	0.188	0.750	A572-65 (65 ksi)
L4	105.000-100.000	5.000	0.000	12	17.070	18.200	0.188	0.750	A572-65 (65 ksi)
L5	100.000-95.000	5.000	0.000	12	18.200	19.335	0.250	1.000	A572-65 (65 ksi)
L6	95.000-90.000	5.000	0.000	12	19.335	20.471	0.250	1.000	A572-65 (65 ksi)
L7	90.000-85.000	5.000	0.000	12	20.471	21.606	0.250	1.000	A572-65 (65 ksi)
L8	85.000-82.375	2.625	0.000	12	21.606	22.202	0.250	1.000	A572-65 (65 ksi)
L9	82.375-82.125	0.250	0.000	12	22.202	22.259	0.250	1.000	A572-65 (65 ksi)
L10	82.125-81.875	0.250	0.000	12	22.259	22.315	0.250	1.000	A572-65 (65 ksi)
L11	81.875-81.625	0.250	0.000	12	22.315	22.372	0.350	1.400	A572-65 (65 ksi)
L12	81.625-76.625	5.000	0.000	12	22.372	23.508	0.356	1.425	A572-65 (65 ksi)
L13	76.625-76.000	0.625	0.000	12	23.508	23.649	0.356	1.425	A572-65 (65 ksi)
L14	76.000-75.750	0.250	0.000	12	23.649	23.706	0.463	1.850	A572-65 (65 ksi)
L15	75.750-70.750	5.000	0.000	12	23.706	24.842	0.450	1.800	A572-65 (65 ksi)
L16	70.750-70.500	0.250	0.000	12	24.842	24.898	0.675	2.700	A572-65 (65 ksi)
L17	70.500-67.983	2.517	0.000	12	24.898	25.470	0.713	2.850	A572-65 (65 ksi)
L18	67.983-67.733	0.250	0.000	12	25.470	25.526	0.713	2.850	A572-65 (65 ksi)
L19	67.733-66.667	1.067	0.000	12	25.526	25.769	0.700	2.800	A572-65 (65 ksi)
L20	66.667-66.417	0.250	0.000	12	25.769	25.825	0.700	2.800	A572-65 (65 ksi)
L21	66.417-63.500	2.917	0.000	12	25.825	26.488	0.688	2.750	A572-65 (65 ksi)
L22	63.500-63.250	0.250	0.000	12	26.488	26.544	0.900	3.600	A572-65 (65 ksi)
L23	63.250-58.250	5.000	0.000	12	26.544	27.680	0.850	3.400	A572-65 (65 ksi)
L24	58.250-53.250	5.000	0.000	12	27.680	28.815	0.825	3.300	A572-65 (65 ksi)
L25	53.250-47.635	5.615	4.365	12	28.815	30.090	0.825	3.300	A572-65 (65 ksi)
L26	47.635-46.635	5.365	0.000	12	28.599	29.806	0.844	3.375	A572-65 (65 ksi)
L27	46.635-41.635	5.000	0.000	12	29.806	30.931	0.819	3.275	A572-65 (65 ksi)
L28	41.635-38.083	3.552	0.000	12	30.931	31.730	0.806	3.225	A572-65 (65 ksi)
L29	38.083-37.833	0.250	0.000	12	31.730	31.787	0.744	2.975	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
L30	37.833-33.500	4.333	0.000	12	31.787	32.762	0.744	2.975	A572-65 (65 ksi)
L31	33.500-33.250	0.250	0.000	12	32.762	32.818	0.794	3.175	A572-65 (65 ksi)
L32	33.250-33.000	0.250	0.000	12	32.818	32.874	0.794	3.175	A572-65 (65 ksi)
L33	33.000-32.750	0.250	0.000	12	32.874	32.931	0.844	3.375	A572-65 (65 ksi)
L34	32.750-27.750	5.000	0.000	12	32.931	34.056	0.819	3.275	A572-65 (65 ksi)
L35	27.750-22.750	5.000	0.000	12	34.056	35.181	0.794	3.175	A572-65 (65 ksi)
L36	22.750-17.750	5.000	0.000	12	35.181	36.306	0.781	3.125	A572-65 (65 ksi)
L37	17.750-12.750	5.000	0.000	12	36.306	37.431	0.769	3.075	A572-65 (65 ksi)
L38	12.750-12.500	0.250	0.000	12	37.431	37.487	0.769	3.075	A572-65 (65 ksi)
L39	12.500-12.250	0.250	0.000	12	37.487	37.543	0.769	3.075	A572-65 (65 ksi)
L40	12.250-12.000	0.250	0.000	12	37.543	37.600	0.769	3.075	A572-65 (65 ksi)
L41	12.000-11.750	0.250	0.000	12	37.600	37.656	1.044	4.175	A572-65 (65 ksi)
L42	11.750-6.750	5.000	0.000	12	37.656	38.781	1.019	4.075	A572-65 (65 ksi)
L43	6.750-2.500	4.250	0.000	12	38.781	39.737	0.994	3.975	A572-65 (65 ksi)
L44	2.500-2.250	0.250	0.000	12	39.737	39.794	1.119	4.475	A572-65 (65 ksi)
L45	2.250-2.000	0.250	0.000	12	39.794	39.850	1.244	4.975	A572-65 (65 ksi)
L46	2.000-0.000	2.000		12	39.850	40.300	1.219	4.875	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	It/Q in^2	w in	w/t
L1	14.800	8.557	219.373	5.074	7.438	29.492	444.508	4.211	3.346	17.845
	15.969	9.238	276.063	5.478	8.023	34.409	559.379	4.547	3.648	19.458
L2	15.969	9.238	276.063	5.478	8.023	34.409	559.379	4.547	3.648	19.458
	16.436	9.511	301.225	5.639	8.257	36.482	610.364	4.681	3.769	20.104
L3	16.436	9.511	301.225	5.639	8.257	36.482	610.364	4.681	3.769	20.104
	17.606	10.193	370.812	6.044	8.842	41.936	751.365	5.017	4.072	21.719
L4	17.606	10.193	370.812	6.044	8.842	41.936	751.365	5.017	4.072	21.719
	18.776	10.875	450.365	6.448	9.428	47.771	912.563	5.352	4.375	23.334
L5	18.754	14.450	594.258	6.426	9.428	63.034	1204.128	7.112	4.208	16.83
	19.929	15.364	714.297	6.833	10.016	71.318	1447.359	7.562	4.512	18.047
L6	19.929	15.364	714.297	6.833	10.016	71.318	1447.359	7.562	4.512	18.047
	21.105	16.278	849.501	7.239	10.604	80.113	1721.320	8.011	4.816	19.264
L7	21.105	16.278	849.501	7.239	10.604	80.113	1721.320	8.011	4.816	19.264
	22.280	17.192	1000.773	7.645	11.192	89.420	2027.837	8.461	5.120	20.482
L8	22.280	17.192	1000.773	7.645	11.192	89.420	2027.837	8.461	5.120	20.482
	22.897	17.671	1086.926	7.859	11.501	94.510	2202.408	8.697	5.280	21.12
L9	22.897	17.671	1086.926	7.859	11.501	94.510	2202.408	8.697	5.280	21.12
	22.956	17.717	1095.380	7.879	11.530	95.003	2219.537	8.720	5.295	21.181
L10	22.956	17.717	1095.380	7.879	11.530	95.003	2219.537	8.720	5.295	21.181

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
	23.014	17.763	1103.878	7.899	11.559	95.496	2236.756	8.742	5.311	21.242
L11	22.979	24.755	1524.512	7.864	11.559	131.885	3089.076	12.184	5.043	14.407
	23.038	24.819	1536.362	7.884	11.589	132.573	3113.087	12.215	5.058	14.451
L12	23.036	25.255	1562.466	7.882	11.589	134.825	3165.980	12.430	5.041	14.15
	24.211	26.557	1816.861	8.288	12.177	149.206	3681.453	13.071	5.345	15.004
L13	24.211	26.557	1816.861	8.288	12.177	149.206	3681.453	13.071	5.345	15.004
	24.358	26.720	1850.477	8.339	12.250	151.054	3749.568	13.151	5.383	15.111
L14	24.321	34.531	2369.649	8.301	12.250	193.434	4801.551	16.995	5.099	11.024
	24.379	34.616	2387.095	8.321	12.280	194.392	4836.902	17.037	5.114	11.057
L15	24.384	33.698	2326.328	8.326	12.280	189.443	4713.771	16.585	5.147	11.438
	25.559	35.343	2683.924	8.732	12.868	208.575	5438.358	17.395	5.452	12.114
L16	25.480	52.526	3915.500	8.652	12.868	304.284	7933.865	25.852	4.849	7.183
	25.538	52.649	3943.156	8.672	12.897	305.735	7989.904	25.912	4.864	7.206
L17	25.525	55.488	4142.920	8.659	12.897	321.224	8394.679	27.310	4.763	6.685
	26.117	56.799	4443.566	8.863	13.193	336.805	9003.869	27.955	4.916	6.9
L18	26.117	56.799	4443.566	8.863	13.193	336.805	9003.869	27.955	4.916	6.9
	26.176	56.929	4474.201	8.883	13.223	338.372	9065.945	28.019	4.932	6.922
L19	26.180	55.959	4402.353	8.888	13.223	332.939	8920.360	27.541	4.965	7.093
	26.431	56.505	4532.457	8.975	13.348	339.556	9183.986	27.810	5.030	7.186
L20	26.431	56.505	4532.457	8.975	13.348	339.556	9183.986	27.810	5.030	7.186
	26.490	56.633	4563.316	8.995	13.378	341.117	9246.516	27.873	5.045	7.207
L21	26.494	55.649	4488.521	8.999	13.378	335.526	9094.960	27.389	5.079	7.387
	27.180	57.115	4852.699	9.236	13.721	353.679	9832.884	28.110	5.256	7.645
L22	27.105	74.153	6196.946	9.160	13.721	451.652	12556.692	36.496	4.687	5.207
	27.163	74.318	6238.280	9.181	13.750	453.692	12640.447	36.577	4.702	5.224
L23	27.181	70.326	5926.238	9.199	13.750	430.998	12008.165	34.612	4.836	5.689
	28.356	73.433	6747.004	9.605	14.338	470.564	13671.260	36.142	5.140	6.047
L24	28.365	71.340	6566.886	9.614	14.338	458.002	13306.291	35.111	5.207	6.312
	29.541	74.356	7435.448	10.020	14.926	498.147	15066.234	36.596	5.511	6.681
L25	29.541	74.356	7435.448	10.020	14.926	498.147	15066.234	36.596	5.511	6.681
	30.860	77.742	8498.482	10.477	15.587	545.242	17220.228	38.262	5.853	7.095
L26	30.327	75.407	7414.563	9.936	14.814	500.503	15023.914	37.113	5.403	6.404
	30.560	78.687	8424.770	10.369	15.440	545.661	17070.868	38.727	5.727	6.787
L27	30.569	76.422	8196.335	10.377	15.440	530.865	16607.997	37.612	5.794	7.076
	31.734	79.388	9188.248	10.780	16.022	573.463	18617.882	39.072	6.095	7.445
L28	31.738	78.208	9059.242	10.785	16.022	565.412	18356.481	38.492	6.129	7.602
	32.565	80.283	9799.552	11.071	16.436	596.212	19856.548	39.513	6.343	7.867
L29	32.587	74.209	9094.818	11.093	16.436	553.335	18428.567	36.524	6.511	8.754
	32.646	74.344	9144.442	11.113	16.466	555.370	18529.119	36.590	6.526	8.774
L30	32.646	74.344	9144.442	11.113	16.466	555.370	18529.119	36.590	6.526	8.774
	33.655	76.679	10033.504	11.462	16.971	591.229	20330.600	37.739	6.787	9.125
L31	33.637	81.706	10657.938	11.445	16.971	628.024	21595.872	40.213	6.653	8.382
	33.696	81.850	10714.303	11.465	17.000	630.263	21710.082	40.284	6.668	8.401
L32	33.696	81.850	10714.303	11.465	17.000	630.263	21710.082	40.284	6.668	8.401
	33.754	81.994	10770.866	11.485	17.029	632.506	21824.694	40.355	6.683	8.42
L33	33.736	87.023	11395.895	11.467	17.029	669.210	23091.172	42.830	6.549	7.762
	33.795	87.176	11456.044	11.487	17.058	671.593	23213.052	42.905	6.564	7.78
L34	33.803	84.659	11142.610	11.496	17.058	653.218	22577.949	41.666	6.631	8.099
	34.968	87.625	12355.343	11.899	17.641	700.383	25035.275	43.126	6.933	8.467
L35	34.977	85.013	12005.130	11.908	17.641	680.531	24325.648	41.841	7.000	8.818
	36.142	87.889	13265.049	12.311	18.224	727.904	26878.585	43.256	7.301	9.198
L36	36.146	86.536	13070.394	12.315	18.224	717.222	26484.161	42.591	7.335	9.388
	37.311	89.367	14395.280	12.718	18.806	765.444	29168.741	43.984	7.636	9.774
L37	37.315	87.968	14179.914	12.722	18.806	753.992	28732.350	43.295	7.670	9.977
	38.480	90.753	15569.815	13.125	19.389	803.013	31548.666	44.666	7.971	10.369
L38	38.480	90.753	15569.815	13.125	19.389	803.013	31548.666	44.666	7.971	10.369
	38.538	90.892	15641.597	13.145	19.418	805.504	31694.116	44.734	7.986	10.389
L39	38.538	90.892	15641.597	13.145	19.418	805.504	31694.116	44.734	7.986	10.389
	38.597	91.031	15713.599	13.165	19.448	808.000	31840.012	44.803	8.001	10.408
L40	38.597	91.031	15713.599	13.165	19.448	808.000	31840.012	44.803	8.001	10.408
	38.655	91.171	15785.822	13.185	19.477	810.499	31986.355	44.871	8.016	10.428
L41	38.558	122.860	20956.273	13.087	19.477	1075.968	42463.090	60.468	7.279	6.974

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
	38.616	123.049	21053.169	13.107	19.506	1079.328	42659.429	60.561	7.295	6.989
L42	38.625	120.184	20591.025	13.116	19.506	1055.636	41722.999	59.151	7.362	7.226
	39.790	123.875	22546.890	13.519	20.089	1122.372	45686.113	60.967	7.663	7.522
L43	39.799	120.915	22037.303	13.528	20.089	1097.005	44653.551	59.511	7.730	7.779
	40.789	123.975	23753.200	13.870	20.584	1153.964	48130.422	61.017	7.986	8.037
L44	40.745	139.119	26483.031	13.825	20.584	1286.584	53661.802	68.470	7.651	6.839
	40.803	139.322	26598.933	13.846	20.613	1290.387	53896.649	68.570	7.666	6.853
L45	40.759	154.388	29285.081	13.801	20.613	1420.700	59339.514	75.985	7.331	5.895
	40.817	154.613	29413.474	13.821	20.642	1424.914	59599.673	76.096	7.347	5.907
L46	40.826	151.603	28878.277	13.830	20.642	1398.987	58515.219	74.615	7.414	6.083
	41.292	153.369	29899.353	13.991	20.875	1432.277	60584.195	75.484	7.534	6.182

Tower Elevation ft	Gusset Area (per face) ft^2	Gusset Thickness in	Gusset Grade	Adjust. Factor A_f	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 117.000-112.000				1	1	1			
L2 112.000-110.000				1	1	1			
L3 110.000-105.000				1	1	1			
L4 105.000-100.000				1	1	1			
L5 100.000-95.000				1	1	1			
L6 95.000-90.000				1	1	1			
L7 90.000-85.000				1	1	1			
L8 85.000-82.375				1	1	1			
L9 82.375-82.125				1	1	1			
L10 82.125-81.875				1	1	1			
L11 81.875-81.625				1	1	1.26225			
L12 81.625-76.625				1	1	1.21404			
L13 76.625-76.000				1	1	1.21092			
L14 76.000-75.750				1	1	1.19641			
L15 75.750-70.750				1	1	1.19764			
L16 70.750-70.500				1	1	1.06162			
L17 70.500-67.983				1	1	0.992152			
L18 67.983-67.733				1	1	0.990685			
L19 67.733-66.667				1	1	1.00158			
L20				1	1	0.920552			

Tower Elevation ft	Gusset Area (per face) ft^2	Gusset Thickness in	Gusset Grade	Adjust. Factor A_f	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
66.667-66.417									
L21				1	1	0.92211			
66.417-63.500									
L22				1	1	0.891196			
63.500-63.250									
L23				1	1	0.914377			
63.250-58.250									
L24				1	1	0.915323			
58.250-53.250									
L25				1	1	0.909177			
53.250-47.635									
L26				1	1	0.929875			
47.635-46.635									
L27				1	1	0.937355			
46.635-41.635									
L28				1	1	0.937922			
41.635-38.083									
L29				1	1	0.95307			
38.083-37.833									
L30				1	1	0.938121			
37.833-33.500									
L31				1	1	0.934673			
33.500-33.250									
L32				1	1	0.933793			
33.250-33.000									
L33				1	1	0.930694			
33.000-32.750									
L34				1	1	0.940136			
32.750-27.750									
L35				1	1	0.951482			
27.750-22.750									
L36				1	1	0.949684			
22.750-17.750									
L37				1	1	0.948902			
17.750-12.750									
L38				1	1	0.948133			
12.750-12.500									
L39				1	1	0.980369			
12.500-12.250									
L40				1	1	0.979555			
12.250-12.000									
L41				1	1	0.886512			
12.000-11.750									
L42				1	1	0.890657			
11.750-6.750									
L43				1	1	0.898475			
6.750-2.500									
L44				1	1	0.838587			
2.500-2.250									
L45				1	1	0.808679			
2.250-2.000									
L46				1	1	0.818484			
2.000-0.000									

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 klf
Mods										
(Area) CCI-65FP-060100 (H)	A	No	Surface Af (CaAa)	35.000 - 0.000	1	1	-0.450 -0.400	6.000	14.000	0.000
(Area) CCI-65FP-060100 (H)	B	No	Surface Af (CaAa)	35.000 - 0.000	1	1	-0.450 -0.400	6.000	14.000	0.000
(Area) CCI-65FP-060100 (H)	C	No	Surface Af (CaAa)	35.000 - 0.000	1	1	-0.450 -0.400	6.000	14.000	0.000
*										
(Area) CCI-65FP-045100 (H)	A	No	Surface Af (CaAa)	65.000 - 35.000	1	1	-0.425 -0.400	4.500	11.000	0.000
(Area) CCI-65FP-045100 (H)	B	No	Surface Af (CaAa)	65.000 - 35.000	1	1	-0.425 -0.400	4.500	11.000	0.000
(Area) CCI-65FP-045100 (H)	C	No	Surface Af (CaAa)	65.000 - 35.000	1	1	-0.425 -0.400	4.500	11.000	0.000
* * *										
(Area) Sabre MS450 (1.00x4.50)	A	No	Surface Af (CaAa)	72.250 - 50.000	1	1	-0.280 -0.250	4.500	11.000	0.000
(Area) Sabre MS450 (1.00x4.50)	B	No	Surface Af (CaAa)	72.250 - 50.000	1	1	-0.280 -0.250	4.500	11.000	0.000
(Area) Sabre MS450 (1.00x4.50)	C	No	Surface Af (CaAa)	72.250 - 50.000	1	1	-0.280 -0.250	4.500	11.000	0.000
*										
(Area) CCI-65FP-045100 (H)	A	No	Surface Af (CaAa)	35.000 - 0.000	1	1	0.400 0.425	4.500	11.000	0.000
(Area) CCI-65FP-045100 (H)	B	No	Surface Af (CaAa)	35.000 - 0.000	1	1	0.400 0.425	4.500	11.000	0.000
(Area) CCI-65FP-045100 (H)	C	No	Surface Af (CaAa)	35.000 - 0.000	1	1	0.400 0.425	4.500	11.000	0.000
*										
(Area) CCI-65FP-040075 (H)	A	No	Surface Af (CaAa)	50.000 - 35.000	1	1	0.400 0.425	4.000	9.500	0.000
(Area) CCI-65FP-040075 (H)	B	No	Surface Af (CaAa)	50.000 - 35.000	1	1	0.400 0.425	4.000	9.500	0.000
(Area) CCI-65FP-040075 (H)	C	No	Surface Af (CaAa)	50.000 - 35.000	1	1	0.400 0.425	4.000	9.500	0.000
*										
(Area) CCI-65FP-045100 (H)	A	No	Surface Af (CaAa)	35.500 - 0.500	1	1	0.250 0.275	4.500	11.000	0.000
(Area) CCI-65FP-045100 (H)	C	No	Surface Af (CaAa)	35.500 - 0.500	1	1	0.250 0.275	4.500	11.000	0.000
*										
(Area) CCI-65FP-045100 (H)	B	No	Surface Af (CaAa)	35.500 - 10.500	1	1	0.250 0.275	4.500	11.000	0.000
*										
(Area) CCI-65FP-060100 (H)	A	No	Surface Af (CaAa)	70.580 - 35.580	1	1	0.250 0.300	6.000	14.000	0.000
(Area) CCI-65FP-060100 (H)	B	No	Surface Af (CaAa)	70.580 - 35.580	1	1	0.250 0.300	6.000	14.000	0.000
(Area) CCI-65FP-060100 (H)	C	No	Surface Af (CaAa)	70.580 - 35.580	1	1	0.250 0.300	6.000	14.000	0.000
*										
(Area) CCI-65FP-045100 (H)	A	No	Surface Af (CaAa)	83.880 - 65.170	1	1	-0.425 -0.400	4.500	11.000	0.000
*										
(Area) CCI-65FP-045100	C	No	Surface Af	83.880 -	1	1	0.250	4.500	11.000	0.000

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 klf
(H)			(CaAa)	70.670			0.275			
(Area) CCI-65FP-045100	B	No	Surface Af	83.880 -	1	1	0.250	4.500	11.000	0.000
(H)			(CaAa)	70.670			0.275			
*										
(Area) CCI-65FP-040075	A	No	Surface Af	77.000 -	1	1	0.400	4.000	9.500	0.000
(H)			(CaAa)	67.000			0.440			
(Area) CCI-65FP-040075	B	No	Surface Af	77.000 -	1	1	0.400	4.000	9.500	0.000
(H)			(CaAa)	67.000			0.440			
(Area) CCI-65FP-040075	C	No	Surface Af	77.000 -	1	1	0.400	4.000	9.500	0.000
(H)			(CaAa)	67.000			0.440			
HCS 6X12 4AWG(1-5/8)	A	No	Surface Ar	108.000 -	5	4	0.100	1.660		0.002
			(CaAa)	0.000			0.250			
*										
AVA7-50(1-5/8)	C	No	Surface Ar	84.000 -	6	3	0.450	2.010		0.001
			(CaAa)	0.000			0.500			
*										
CU12PSM9P8XXX(1-3/8)	A	No	Surface Ar	76.000 -	1	1	0.050	1.411		0.002
			(CaAa)	0.000			0.090			
*										
Safety Line 3/8	B	No	Surface Ar	117.000 -	1	1	-0.460	0.375		0.000
			(CaAa)	0.000			-0.450			
*										

Feed Line/Linear Appurtenances - Entered As Area

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Total Number		C_AA_A ft^2/ft	Weight klf
*									
LDF6-50A(1-1/4)	B	No	No	Inside Pole	117.000 - 0.000	3	No Ice	0.000	0.001
							1/2" Ice	0.000	0.001
							1" Ice	0.000	0.001
HB058-1-08U1-S2F(5/8)	B	No	No	Inside Pole	117.000 - 0.000	1	No Ice	0.000	0.000
							1/2" Ice	0.000	0.000
							1" Ice	0.000	0.000
*									
LDF7-50A(1-5/8)	B	No	No	Inside Pole	108.000 - 0.000	8	No Ice	0.000	0.001
							1/2" Ice	0.000	0.001
							1" Ice	0.000	0.001
*									
LDF5-50A(7/8)	B	No	No	Inside Pole	100.000 - 0.000	7	No Ice	0.000	0.000
							1/2" Ice	0.000	0.000
							1" Ice	0.000	0.000
HB158-1-13U6-S6F18(1-5/8)	B	No	No	Inside Pole	100.000 - 0.000	1	No Ice	0.000	0.002
							1/2" Ice	0.000	0.002
							1" Ice	0.000	0.002
*									
FB-L98-002-XXX(3/8)	B	No	No	Inside Pole	89.000 - 0.000	1	No Ice	0.000	0.000
							1/2" Ice	0.000	0.000
							1" Ice	0.000	0.000
FB-L98-002-XXX(3/8)	B	No	No	Inside Pole	89.000 - 0.000	1	No Ice	0.000	0.000
							1/2" Ice	0.000	0.000
							1" Ice	0.000	0.000
PWRT-606-S(7/8)	B	No	No	Inside Pole	89.000 - 0.000	4	No Ice	0.000	0.001
							1/2" Ice	0.000	0.001
							1" Ice	0.000	0.001

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Total Number		C_AA_A ft^2/ft	Weight klf
PWRT-608-S(13/16)	B	No	No	Inside Pole	89.000 - 0.000	4	No Ice	0.000	0.001
							1/2" Ice	0.000	0.001
							1" Ice	0.000	0.001
2" Rigid Conduit	B	No	No	Inside Pole	89.000 - 0.000	3	No Ice	0.000	0.003
							1/2" Ice	0.000	0.003
							1" Ice	0.000	0.003
FB-L98B-235-XXX(3/8) *	B	No	No	Inside Pole	89.000 - 0.000	1	No Ice	0.000	0.000
							1/2" Ice	0.000	0.000
							1" Ice	0.000	0.000

Feed Line/Linear Appurtenances Section Areas

Tower Section	Tower Elevation ft	Face	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight K
L1	117.000-112.000	A	0.000	0.000	0.000	0.000	0.000
		B	0.000	0.000	0.188	0.000	0.012
		C	0.000	0.000	0.000	0.000	0.000
L2	112.000-110.000	A	0.000	0.000	0.000	0.000	0.000
		B	0.000	0.000	0.075	0.000	0.005
		C	0.000	0.000	0.000	0.000	0.000
L3	110.000-105.000	A	0.000	0.000	1.992	0.000	0.036
		B	0.000	0.000	0.188	0.000	0.032
		C	0.000	0.000	0.000	0.000	0.000
L4	105.000-100.000	A	0.000	0.000	3.320	0.000	0.060
		B	0.000	0.000	0.188	0.000	0.045
		C	0.000	0.000	0.000	0.000	0.000
L5	100.000-95.000	A	0.000	0.000	3.320	0.000	0.060
		B	0.000	0.000	0.188	0.000	0.066
		C	0.000	0.000	0.000	0.000	0.000
L6	95.000-90.000	A	0.000	0.000	3.320	0.000	0.060
		B	0.000	0.000	0.188	0.000	0.066
		C	0.000	0.000	0.000	0.000	0.000
L7	90.000-85.000	A	0.000	0.000	3.320	0.000	0.060
		B	0.000	0.000	0.188	0.000	0.124
		C	0.000	0.000	0.000	0.000	0.000
L8	85.000-82.375	A	0.000	0.000	2.872	0.000	0.032
		B	0.000	0.000	1.227	0.000	0.073
		C	0.000	0.000	2.109	0.000	0.007
L9	82.375-82.125	A	0.000	0.000	0.353	0.000	0.003
		B	0.000	0.000	0.197	0.000	0.007
		C	0.000	0.000	0.338	0.000	0.001
L10	82.125-81.875	A	0.000	0.000	0.353	0.000	0.003
		B	0.000	0.000	0.197	0.000	0.007
		C	0.000	0.000	0.338	0.000	0.001
L11	81.875-81.625	A	0.000	0.000	0.353	0.000	0.003
		B	0.000	0.000	0.197	0.000	0.007
		C	0.000	0.000	0.338	0.000	0.001
L12	81.625-76.625	A	0.000	0.000	7.320	0.000	0.060
		B	0.000	0.000	4.188	0.000	0.139
		C	0.000	0.000	7.015	0.000	0.021
L13	76.625-76.000	A	0.000	0.000	1.300	0.000	0.007
		B	0.000	0.000	0.909	0.000	0.017
		C	0.000	0.000	1.262	0.000	0.003
L14	76.000-75.750	A	0.000	0.000	0.555	0.000	0.003
		B	0.000	0.000	0.364	0.000	0.007

Tower Section	Tower Elevation ft	Face	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight K
		C	0.000	0.000	0.505	0.000	0.001
L15	75.750-70.750	A	0.000	0.000	12.234	0.000	0.068
		B	0.000	0.000	8.396	0.000	0.139
		C	0.000	0.000	11.223	0.000	0.021
L16	70.750-70.500	A	0.000	0.000	0.823	0.000	0.003
		B	0.000	0.000	0.504	0.000	0.007
		C	0.000	0.000	0.645	0.000	0.001
L17	70.500-67.983	A	0.000	0.000	9.996	0.000	0.034
		B	0.000	0.000	6.176	0.000	0.070
		C	0.000	0.000	7.599	0.000	0.011
L18	67.983-67.733	A	0.000	0.000	0.993	0.000	0.003
		B	0.000	0.000	0.614	0.000	0.007
		C	0.000	0.000	0.755	0.000	0.001
L19	67.733-66.667	A	0.000	0.000	4.014	0.000	0.015
		B	0.000	0.000	2.396	0.000	0.030
		C	0.000	0.000	2.999	0.000	0.004
L20	66.667-66.417	A	0.000	0.000	0.826	0.000	0.003
		B	0.000	0.000	0.447	0.000	0.007
		C	0.000	0.000	0.588	0.000	0.001
L21	66.417-63.500	A	0.000	0.000	9.512	0.000	0.040
		B	0.000	0.000	6.339	0.000	0.081
		C	0.000	0.000	7.988	0.000	0.012
L22	63.500-63.250	A	0.000	0.000	0.826	0.000	0.003
		B	0.000	0.000	0.634	0.000	0.007
		C	0.000	0.000	0.776	0.000	0.001
L23	63.250-58.250	A	0.000	0.000	16.526	0.000	0.068
		B	0.000	0.000	12.688	0.000	0.139
		C	0.000	0.000	15.515	0.000	0.021
L24	58.250-53.250	A	0.000	0.000	16.526	0.000	0.068
		B	0.000	0.000	12.688	0.000	0.139
		C	0.000	0.000	15.515	0.000	0.021
L25	53.250-47.635	A	0.000	0.000	18.361	0.000	0.077
		B	0.000	0.000	14.051	0.000	0.156
		C	0.000	0.000	17.226	0.000	0.024
L26	47.635-46.635	A	0.000	0.000	3.222	0.000	0.014
		B	0.000	0.000	2.454	0.000	0.028
		C	0.000	0.000	3.020	0.000	0.004
L27	46.635-41.635	A	0.000	0.000	16.109	0.000	0.068
		B	0.000	0.000	12.271	0.000	0.139
		C	0.000	0.000	15.098	0.000	0.021
L28	41.635-38.083	A	0.000	0.000	11.443	0.000	0.049
		B	0.000	0.000	8.716	0.000	0.099
		C	0.000	0.000	10.725	0.000	0.015
L29	38.083-37.833	A	0.000	0.000	0.805	0.000	0.003
		B	0.000	0.000	0.614	0.000	0.007
		C	0.000	0.000	0.755	0.000	0.001
L30	37.833-33.500	A	0.000	0.000	13.881	0.000	0.059
		B	0.000	0.000	10.555	0.000	0.121
		C	0.000	0.000	13.005	0.000	0.018
L31	33.500-33.250	A	0.000	0.000	0.826	0.000	0.003
		B	0.000	0.000	0.634	0.000	0.007
		C	0.000	0.000	0.776	0.000	0.001
L32	33.250-33.000	A	0.000	0.000	0.826	0.000	0.003
		B	0.000	0.000	0.634	0.000	0.007
		C	0.000	0.000	0.776	0.000	0.001
L33	33.000-32.750	A	0.000	0.000	0.826	0.000	0.003
		B	0.000	0.000	0.634	0.000	0.007
		C	0.000	0.000	0.776	0.000	0.001
L34	32.750-27.750	A	0.000	0.000	16.526	0.000	0.068
		B	0.000	0.000	12.688	0.000	0.139
		C	0.000	0.000	15.515	0.000	0.021

Tower Section	Tower Elevation ft	Face	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight K
L35	27.750-22.750	A	0.000	0.000	16.526	0.000	0.068
		B	0.000	0.000	12.688	0.000	0.139
		C	0.000	0.000	15.515	0.000	0.021
L36	22.750-17.750	A	0.000	0.000	16.526	0.000	0.068
		B	0.000	0.000	12.688	0.000	0.139
		C	0.000	0.000	15.515	0.000	0.021
L37	17.750-12.750	A	0.000	0.000	16.526	0.000	0.068
		B	0.000	0.000	12.688	0.000	0.139
		C	0.000	0.000	15.515	0.000	0.021
L38	12.750-12.500	A	0.000	0.000	0.826	0.000	0.003
		B	0.000	0.000	0.634	0.000	0.007
		C	0.000	0.000	0.776	0.000	0.001
L39	12.500-12.250	A	0.000	0.000	0.826	0.000	0.003
		B	0.000	0.000	0.634	0.000	0.007
		C	0.000	0.000	0.776	0.000	0.001
L40	12.250-12.000	A	0.000	0.000	0.826	0.000	0.003
		B	0.000	0.000	0.634	0.000	0.007
		C	0.000	0.000	0.776	0.000	0.001
L41	12.000-11.750	A	0.000	0.000	0.826	0.000	0.003
		B	0.000	0.000	0.634	0.000	0.007
		C	0.000	0.000	0.776	0.000	0.001
L42	11.750-6.750	A	0.000	0.000	16.526	0.000	0.068
		B	0.000	0.000	9.875	0.000	0.139
		C	0.000	0.000	15.515	0.000	0.021
L43	6.750-2.500	A	0.000	0.000	14.047	0.000	0.058
		B	0.000	0.000	7.597	0.000	0.118
		C	0.000	0.000	13.188	0.000	0.018
L44	2.500-2.250	A	0.000	0.000	0.826	0.000	0.003
		B	0.000	0.000	0.447	0.000	0.007
		C	0.000	0.000	0.776	0.000	0.001
L45	2.250-2.000	A	0.000	0.000	0.826	0.000	0.003
		B	0.000	0.000	0.447	0.000	0.007
		C	0.000	0.000	0.776	0.000	0.001
L46	2.000-0.000	A	0.000	0.000	6.235	0.000	0.027
		B	0.000	0.000	3.575	0.000	0.056
		C	0.000	0.000	5.831	0.000	0.008

Feed Line/Linear Appurtenances Section Areas - With Ice

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight K
L1	117.000-112.000	A	0.963	0.000	0.000	0.000	0.000	0.000
		B		0.000	0.000	1.150	0.000	0.020
		C		0.000	0.000	0.000	0.000	0.000
L2	112.000-110.000	A	0.960	0.000	0.000	0.000	0.000	0.000
		B		0.000	0.000	0.459	0.000	0.008
		C		0.000	0.000	0.000	0.000	0.000
L3	110.000-105.000	A	0.957	0.000	0.000	3.207	0.000	0.062
		B		0.000	0.000	1.144	0.000	0.040
		C		0.000	0.000	0.000	0.000	0.000
L4	105.000-100.000	A	0.952	0.000	0.000	5.340	0.000	0.103
		B		0.000	0.000	1.139	0.000	0.053
		C		0.000	0.000	0.000	0.000	0.000
L5	100.000-95.000	A	0.947	0.000	0.000	5.334	0.000	0.103
		B		0.000	0.000	1.135	0.000	0.074
		C		0.000	0.000	0.000	0.000	0.000
L6	95.000-90.000	A	0.942	0.000	0.000	5.328	0.000	0.103

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight K
		B		0.000	0.000	1.130	0.000	0.074
		C		0.000	0.000	0.000	0.000	0.000
L7	90.000-85.000	A	0.937	0.000	0.000	5.321	0.000	0.102
		B		0.000	0.000	1.125	0.000	0.132
		C		0.000	0.000	0.000	0.000	0.000
L8	85.000-82.375	A	0.933	0.000	0.000	4.201	0.000	0.062
		B		0.000	0.000	1.997	0.000	0.085
		C		0.000	0.000	3.012	0.000	0.030
L9	82.375-82.125	A	0.931	0.000	0.000	0.500	0.000	0.006
		B		0.000	0.000	0.290	0.000	0.009
		C		0.000	0.000	0.481	0.000	0.005
L10	82.125-81.875	A	0.931	0.000	0.000	0.500	0.000	0.006
		B		0.000	0.000	0.290	0.000	0.009
		C		0.000	0.000	0.480	0.000	0.005
L11	81.875-81.625	A	0.931	0.000	0.000	0.500	0.000	0.006
		B		0.000	0.000	0.290	0.000	0.009
		C		0.000	0.000	0.480	0.000	0.005
L12	81.625-76.625	A	0.928	0.000	0.000	10.292	0.000	0.130
		B		0.000	0.000	6.094	0.000	0.174
		C		0.000	0.000	9.908	0.000	0.096
L13	76.625-76.000	A	0.924	0.000	0.000	1.755	0.000	0.019
		B		0.000	0.000	1.231	0.000	0.024
		C		0.000	0.000	1.707	0.000	0.015
L14	76.000-75.750	A	0.924	0.000	0.000	0.784	0.000	0.009
		B		0.000	0.000	0.492	0.000	0.010
		C		0.000	0.000	0.683	0.000	0.006
L15	75.750-70.750	A	0.921	0.000	0.000	17.060	0.000	0.180
		B		0.000	0.000	11.239	0.000	0.203
		C		0.000	0.000	15.050	0.000	0.124
L16	70.750-70.500	A	0.917	0.000	0.000	1.110	0.000	0.010
		B		0.000	0.000	0.661	0.000	0.011
		C		0.000	0.000	0.851	0.000	0.007
L17	70.500-67.983	A	0.915	0.000	0.000	13.198	0.000	0.115
		B		0.000	0.000	7.924	0.000	0.114
		C		0.000	0.000	9.842	0.000	0.074
L18	67.983-67.733	A	0.914	0.000	0.000	1.310	0.000	0.011
		B		0.000	0.000	0.787	0.000	0.011
		C		0.000	0.000	0.977	0.000	0.007
L19	67.733-66.667	A	0.913	0.000	0.000	5.320	0.000	0.047
		B		0.000	0.000	3.086	0.000	0.047
		C		0.000	0.000	3.899	0.000	0.030
L20	66.667-66.417	A	0.912	0.000	0.000	1.107	0.000	0.010
		B		0.000	0.000	0.584	0.000	0.010
		C		0.000	0.000	0.774	0.000	0.006
L21	66.417-63.500	A	0.910	0.000	0.000	12.751	0.000	0.118
		B		0.000	0.000	8.203	0.000	0.126
		C		0.000	0.000	10.425	0.000	0.080
L22	63.500-63.250	A	0.907	0.000	0.000	1.106	0.000	0.010
		B		0.000	0.000	0.816	0.000	0.011
		C		0.000	0.000	1.006	0.000	0.007
L23	63.250-58.250	A	0.903	0.000	0.000	22.099	0.000	0.203
		B		0.000	0.000	16.301	0.000	0.227
		C		0.000	0.000	20.108	0.000	0.148
L24	58.250-53.250	A	0.896	0.000	0.000	22.058	0.000	0.202
		B		0.000	0.000	16.270	0.000	0.226
		C		0.000	0.000	20.076	0.000	0.147
L25	53.250-47.635	A	0.887	0.000	0.000	24.522	0.000	0.224
		B		0.000	0.000	18.035	0.000	0.252
		C		0.000	0.000	22.305	0.000	0.162
L26	47.635-46.635	A	0.881	0.000	0.000	4.319	0.000	0.040
		B		0.000	0.000	3.164	0.000	0.045

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight K
		C		0.000	0.000	3.924	0.000	0.029
L27	46.635-41.635	A	0.875	0.000	0.000	21.533	0.000	0.196
		B		0.000	0.000	15.771	0.000	0.221
		C		0.000	0.000	19.571	0.000	0.141
L28	41.635-38.083	A	0.866	0.000	0.000	15.262	0.000	0.138
		B		0.000	0.000	11.178	0.000	0.157
		C		0.000	0.000	13.875	0.000	0.099
L29	38.083-37.833	A	0.862	0.000	0.000	1.073	0.000	0.010
		B		0.000	0.000	0.786	0.000	0.011
		C		0.000	0.000	0.976	0.000	0.007
L30	37.833-33.500	A	0.857	0.000	0.000	18.484	0.000	0.167
		B		0.000	0.000	13.511	0.000	0.190
		C		0.000	0.000	16.800	0.000	0.120
L31	33.500-33.250	A	0.851	0.000	0.000	1.091	0.000	0.010
		B		0.000	0.000	0.805	0.000	0.011
		C		0.000	0.000	0.994	0.000	0.007
L32	33.250-33.000	A	0.850	0.000	0.000	1.091	0.000	0.010
		B		0.000	0.000	0.804	0.000	0.011
		C		0.000	0.000	0.994	0.000	0.007
L33	33.000-32.750	A	0.850	0.000	0.000	1.091	0.000	0.010
		B		0.000	0.000	0.804	0.000	0.011
		C		0.000	0.000	0.994	0.000	0.007
L34	32.750-27.750	A	0.843	0.000	0.000	21.779	0.000	0.193
		B		0.000	0.000	16.058	0.000	0.220
		C		0.000	0.000	19.850	0.000	0.139
L35	27.750-22.750	A	0.828	0.000	0.000	21.700	0.000	0.190
		B		0.000	0.000	15.998	0.000	0.218
		C		0.000	0.000	19.786	0.000	0.136
L36	22.750-17.750	A	0.809	0.000	0.000	21.605	0.000	0.187
		B		0.000	0.000	15.925	0.000	0.216
		C		0.000	0.000	19.709	0.000	0.133
L37	17.750-12.750	A	0.787	0.000	0.000	21.486	0.000	0.183
		B		0.000	0.000	15.835	0.000	0.213
		C		0.000	0.000	19.613	0.000	0.130
L38	12.750-12.500	A	0.772	0.000	0.000	1.070	0.000	0.009
		B		0.000	0.000	0.789	0.000	0.011
		C		0.000	0.000	0.978	0.000	0.006
L39	12.500-12.250	A	0.771	0.000	0.000	1.070	0.000	0.009
		B		0.000	0.000	0.788	0.000	0.011
		C		0.000	0.000	0.977	0.000	0.006
L40	12.250-12.000	A	0.769	0.000	0.000	1.070	0.000	0.009
		B		0.000	0.000	0.788	0.000	0.011
		C		0.000	0.000	0.977	0.000	0.006
L41	12.000-11.750	A	0.767	0.000	0.000	1.069	0.000	0.009
		B		0.000	0.000	0.788	0.000	0.011
		C		0.000	0.000	0.977	0.000	0.006
L42	11.750-6.750	A	0.748	0.000	0.000	21.285	0.000	0.177
		B		0.000	0.000	12.307	0.000	0.194
		C		0.000	0.000	19.449	0.000	0.124
L43	6.750-2.500	A	0.698	0.000	0.000	17.868	0.000	0.143
		B		0.000	0.000	9.377	0.000	0.157
		C		0.000	0.000	16.351	0.000	0.099
L44	2.500-2.250	A	0.653	0.000	0.000	1.039	0.000	0.008
		B		0.000	0.000	0.545	0.000	0.009
		C		0.000	0.000	0.952	0.000	0.006
L45	2.250-2.000	A	0.646	0.000	0.000	1.037	0.000	0.008
		B		0.000	0.000	0.544	0.000	0.009
		C		0.000	0.000	0.951	0.000	0.005
L46	2.000-0.000	A	0.599	0.000	0.000	7.765	0.000	0.060
		B		0.000	0.000	4.294	0.000	0.071
		C		0.000	0.000	7.091	0.000	0.040

Feed Line Center of Pressure

Section	Elevation	CP_X	CP_Z	CP_X Ice	CP_Z Ice
	ft	in	in	in	in
L1	117.000-112.000	0.022	-0.227	0.084	-0.893
L2	112.000-110.000	0.022	-0.227	0.085	-0.900
L3	110.000-105.000	-1.393	-1.917	-1.275	-2.283
L4	105.000-100.000	-2.030	-2.682	-1.826	-2.863
L5	100.000-95.000	-2.052	-2.713	-1.867	-2.931
L6	95.000-90.000	-2.071	-2.739	-1.905	-2.993
L7	90.000-85.000	-2.088	-2.764	-1.940	-3.051
L8	85.000-82.375	-3.008	1.589	-2.816	0.747
L9	82.375-82.125	-3.198	2.996	-3.084	2.105
L10	82.125-81.875	-3.203	3.001	-3.089	2.109
L11	81.875-81.625	-3.210	3.008	-3.095	2.114
L12	81.625-76.625	-3.179	2.986	-3.079	2.110
L13	76.625-76.000	-2.437	2.295	-2.492	1.713
L14	76.000-75.750	-2.580	2.119	-2.710	1.446
L15	75.750-70.750	-2.397	1.973	-2.567	1.374
L16	70.750-70.500	-2.079	0.968	-2.294	0.572
L17	70.500-67.983	-1.815	0.544	-2.060	0.239
L18	67.983-67.733	-1.833	0.550	-2.078	0.242
L19	67.733-66.667	-1.945	0.584	-2.191	0.256
L20	66.667-66.417	-2.231	0.671	-2.471	0.289
L21	66.417-63.500	-1.727	0.031	-2.000	-0.268
L22	63.500-63.250	-1.366	-0.390	-1.658	-0.633
L23	63.250-58.250	-1.388	-0.397	-1.684	-0.643
L24	58.250-53.250	-1.432	-0.410	-1.732	-0.662
L25	53.250-47.635	-1.504	-0.432	-1.795	-0.686
L26	47.635-46.635	-1.539	-0.442	-1.822	-0.697
L27	46.635-41.635	-1.562	-0.449	-1.849	-0.706
L28	41.635-38.083	-1.595	-0.459	-1.888	-0.721
L29	38.083-37.833	-1.610	-0.464	-1.905	-0.727
L30	37.833-33.500	-1.635	-0.471	-1.934	-0.738
L31	33.500-33.250	-1.609	-0.464	-1.916	-0.731
L32	33.250-33.000	-1.611	-0.465	-1.918	-0.732
L33	33.000-32.750	-1.613	-0.465	-1.920	-0.732
L34	32.750-27.750	-1.632	-0.471	-1.943	-0.740
L35	27.750-22.750	-1.669	-0.483	-1.985	-0.755
L36	22.750-17.750	-1.705	-0.494	-2.026	-0.768
L37	17.750-12.750	-1.740	-0.505	-2.064	-0.779
L38	12.750-12.500	-1.758	-0.510	-2.084	-0.784
L39	12.500-12.250	-1.760	-0.511	-2.086	-0.784
L40	12.250-12.000	-1.762	-0.511	-2.088	-0.785
L41	12.000-11.750	-1.765	-0.512	-2.091	-0.786
L42	11.750-6.750	-2.821	-1.061	-3.045	-1.283
L43	6.750-2.500	-3.242	-1.276	-3.421	-1.467
L44	2.500-2.250	-3.270	-1.287	-3.440	-1.466
L45	2.250-2.000	-3.274	-1.289	-3.442	-1.465
L46	2.000-0.000	-3.055	-1.151	-3.244	-1.333

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
L1	72	Safety Line 3/8	112.00 - 117.00	1.0000	1.0000
L2	72	Safety Line 3/8	110.00 -	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
			112.00		
L3	50	HCS 6X12 4AWG(1-5/8)	105.00 - 108.00	1.0000	1.0000
L3	72	Safety Line 3/8	105.00 - 110.00	1.0000	1.0000
L4	50	HCS 6X12 4AWG(1-5/8)	100.00 - 105.00	1.0000	1.0000
L4	72	Safety Line 3/8	100.00 - 105.00	1.0000	1.0000
L5	50	HCS 6X12 4AWG(1-5/8)	95.00 - 100.00	1.0000	1.0000
L5	72	Safety Line 3/8	95.00 - 100.00	1.0000	1.0000
L6	50	HCS 6X12 4AWG(1-5/8)	90.00 - 95.00	1.0000	1.0000
L6	72	Safety Line 3/8	90.00 - 95.00	1.0000	1.0000
L7	50	HCS 6X12 4AWG(1-5/8)	85.00 - 90.00	1.0000	1.0000
L7	72	Safety Line 3/8	85.00 - 90.00	1.0000	1.0000
L8	37	(Area) CCI-65FP-045100 (H)	82.37 - 83.88	1.0000	1.0000
L8	39	(Area) CCI-65FP-045100 (H)	82.37 - 83.88	1.0000	1.0000
L8	40	(Area) CCI-65FP-045100 (H)	82.37 - 83.88	1.0000	1.0000
L8	50	HCS 6X12 4AWG(1-5/8)	82.37 - 85.00	1.0000	1.0000
L8	68	AVA7-50(1-5/8)	82.37 - 84.00	1.0000	1.0000
L8	72	Safety Line 3/8	82.37 - 85.00	1.0000	1.0000
L9	37	(Area) CCI-65FP-045100 (H)	82.13 - 82.37	1.0000	1.0000
L9	39	(Area) CCI-65FP-045100 (H)	82.13 - 82.37	1.0000	1.0000
L9	40	(Area) CCI-65FP-045100 (H)	82.13 - 82.37	1.0000	1.0000
L9	50	HCS 6X12 4AWG(1-5/8)	82.13 - 82.37	1.0000	1.0000
L9	68	AVA7-50(1-5/8)	82.13 - 82.37	1.0000	1.0000
L9	72	Safety Line 3/8	82.13 - 82.37	1.0000	1.0000
L10	37	(Area) CCI-65FP-045100 (H)	81.88 - 82.13	1.0000	1.0000
L10	39	(Area) CCI-65FP-045100 (H)	81.88 - 82.13	1.0000	1.0000
L10	40	(Area) CCI-65FP-045100 (H)	81.88 - 82.13	1.0000	1.0000
L10	50	HCS 6X12 4AWG(1-5/8)	81.88 - 82.13	1.0000	1.0000
L10	68	AVA7-50(1-5/8)	81.88 - 82.13	1.0000	1.0000
L10	72	Safety Line 3/8	81.88 - 82.13	1.0000	1.0000
L11	37	(Area) CCI-65FP-045100 (H)	81.63 - 81.88	1.0000	1.0000
L11	39	(Area) CCI-65FP-045100 (H)	81.63 - 81.88	1.0000	1.0000
L11	40	(Area) CCI-65FP-045100 (H)	81.63 - 81.88	1.0000	1.0000
L11	50	HCS 6X12 4AWG(1-5/8)	81.63 - 81.88	1.0000	1.0000
L11	68	AVA7-50(1-5/8)	81.63 - 81.88	1.0000	1.0000
L11	72	Safety Line 3/8	81.63 - 81.88	1.0000	1.0000
L12	37	(Area) CCI-65FP-045100 (H)	76.63 - 81.63	1.0000	1.0000
L12	39	(Area) CCI-65FP-045100 (H)	76.63 - 81.63	1.0000	1.0000
L12	40	(Area) CCI-65FP-045100 (H)	76.63 - 81.63	1.0000	1.0000
L12	42	(Area) CCI-65FP-040075 (H)	76.63 - 77.00	1.0000	1.0000
L12	43	(Area) CCI-65FP-040075 (H)	76.63 - 77.00	1.0000	1.0000
L12	44	(Area) CCI-65FP-040075 (H)	76.63 - 77.00	1.0000	1.0000
L12	50	HCS 6X12 4AWG(1-5/8)	76.63 - 81.63	1.0000	1.0000
L12	68	AVA7-50(1-5/8)	76.63 - 81.63	1.0000	1.0000
L12	72	Safety Line 3/8	76.63 - 81.63	1.0000	1.0000
L13	37	(Area) CCI-65FP-045100 (H)	76.00 - 76.63	1.0000	1.0000
L13	39	(Area) CCI-65FP-045100 (H)	76.00 - 76.63	1.0000	1.0000
L13	40	(Area) CCI-65FP-045100 (H)	76.00 - 76.63	1.0000	1.0000
L13	42	(Area) CCI-65FP-040075 (H)	76.00 - 76.63	1.0000	1.0000
L13	43	(Area) CCI-65FP-040075 (H)	76.00 - 76.63	1.0000	1.0000
L13	44	(Area) CCI-65FP-040075 (H)	76.00 - 76.63	1.0000	1.0000
L13	50	HCS 6X12 4AWG(1-5/8)	76.00 - 76.63	1.0000	1.0000
L13	68	AVA7-50(1-5/8)	76.00 - 76.63	1.0000	1.0000
L13	72	Safety Line 3/8	76.00 - 76.63	1.0000	1.0000
L14	37	(Area) CCI-65FP-045100 (H)	75.75 - 76.00	1.0000	1.0000
L14	39	(Area) CCI-65FP-045100 (H)	75.75 - 76.00	1.0000	1.0000
L14	40	(Area) CCI-65FP-045100 (H)	75.75 - 76.00	1.0000	1.0000
L14	42	(Area) CCI-65FP-040075 (H)	75.75 - 76.00	1.0000	1.0000
L14	43	(Area) CCI-65FP-040075 (H)	75.75 - 76.00	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
L14	44	(Area) CCI-65FP-040075 (H)	75.75 - 76.00	1.0000	1.0000
L14	50	HCS 6X12 4AWG(1-5/8)	75.75 - 76.00	1.0000	1.0000
L14	68	AVA7-50(1-5/8)	75.75 - 76.00	1.0000	1.0000
L14	70	CU12PSM9P8XXX(1-3/8)	75.75 - 76.00	1.0000	1.0000
L14	72	Safety Line 3/8	75.75 - 76.00	1.0000	1.0000
L15	16	(Area) Sabre MS450 (1.00x4.50)	70.75 - 72.25	1.0000	1.0000
L15	17	(Area) Sabre MS450 (1.00x4.50)	70.75 - 72.25	1.0000	1.0000
L15	18	(Area) Sabre MS450 (1.00x4.50)	70.75 - 72.25	1.0000	1.0000
L15	37	(Area) CCI-65FP-045100 (H)	70.75 - 75.75	1.0000	1.0000
L15	39	(Area) CCI-65FP-045100 (H)	70.75 - 75.75	1.0000	1.0000
L15	40	(Area) CCI-65FP-045100 (H)	70.75 - 75.75	1.0000	1.0000
L15	42	(Area) CCI-65FP-040075 (H)	70.75 - 75.75	1.0000	1.0000
L15	43	(Area) CCI-65FP-040075 (H)	70.75 - 75.75	1.0000	1.0000
L15	44	(Area) CCI-65FP-040075 (H)	70.75 - 75.75	1.0000	1.0000
L15	50	HCS 6X12 4AWG(1-5/8)	70.75 - 75.75	1.0000	1.0000
L15	68	AVA7-50(1-5/8)	70.75 - 75.75	1.0000	1.0000
L15	70	CU12PSM9P8XXX(1-3/8)	70.75 - 75.75	1.0000	1.0000
L15	72	Safety Line 3/8	70.75 - 75.75	1.0000	1.0000
L16	16	(Area) Sabre MS450 (1.00x4.50)	70.50 - 70.75	1.0000	1.0000
L16	17	(Area) Sabre MS450 (1.00x4.50)	70.50 - 70.75	1.0000	1.0000
L16	18	(Area) Sabre MS450 (1.00x4.50)	70.50 - 70.75	1.0000	1.0000
L16	33	(Area) CCI-65FP-060100 (H)	70.50 - 70.58	1.0000	1.0000
L16	34	(Area) CCI-65FP-060100 (H)	70.50 - 70.58	1.0000	1.0000
L16	35	(Area) CCI-65FP-060100 (H)	70.50 - 70.58	1.0000	1.0000
L16	37	(Area) CCI-65FP-045100 (H)	70.50 - 70.75	1.0000	1.0000
L16	39	(Area) CCI-65FP-045100 (H)	70.67 - 70.75	1.0000	1.0000
L16	40	(Area) CCI-65FP-045100 (H)	70.67 - 70.75	1.0000	1.0000
L16	42	(Area) CCI-65FP-040075 (H)	70.50 - 70.75	1.0000	1.0000
L16	43	(Area) CCI-65FP-040075 (H)	70.50 - 70.75	1.0000	1.0000
L16	44	(Area) CCI-65FP-040075 (H)	70.50 - 70.75	1.0000	1.0000
L16	50	HCS 6X12 4AWG(1-5/8)	70.50 - 70.75	1.0000	1.0000
L16	68	AVA7-50(1-5/8)	70.50 - 70.75	1.0000	1.0000
L16	70	CU12PSM9P8XXX(1-3/8)	70.50 - 70.75	1.0000	1.0000
L16	72	Safety Line 3/8	70.50 - 70.75	1.0000	1.0000
L17	16	(Area) Sabre MS450 (1.00x4.50)	67.98 - 70.50	1.0000	1.0000
L17	17	(Area) Sabre MS450 (1.00x4.50)	67.98 - 70.50	1.0000	1.0000
L17	18	(Area) Sabre MS450 (1.00x4.50)	67.98 - 70.50	1.0000	1.0000
L17	33	(Area) CCI-65FP-060100 (H)	67.98 - 70.50	1.0000	1.0000
L17	34	(Area) CCI-65FP-060100 (H)	67.98 - 70.50	1.0000	1.0000
L17	35	(Area) CCI-65FP-060100 (H)	67.98 - 70.50	1.0000	1.0000
L17	37	(Area) CCI-65FP-045100 (H)	67.98 - 70.50	1.0000	1.0000
L17	42	(Area) CCI-65FP-040075 (H)	67.98 - 70.50	1.0000	1.0000
L17	43	(Area) CCI-65FP-040075 (H)	67.98 - 70.50	1.0000	1.0000
L17	44	(Area) CCI-65FP-040075 (H)	67.98 - 70.50	1.0000	1.0000
L17	50	HCS 6X12 4AWG(1-5/8)	67.98 - 70.50	1.0000	1.0000
L17	68	AVA7-50(1-5/8)	67.98 - 70.50	1.0000	1.0000
L17	70	CU12PSM9P8XXX(1-3/8)	67.98 - 70.50	1.0000	1.0000
L17	72	Safety Line 3/8	67.98 - 70.50	1.0000	1.0000
L18	16	(Area) Sabre MS450 (1.00x4.50)	67.73 - 67.98	1.0000	1.0000
L18	17	(Area) Sabre MS450 (1.00x4.50)	67.73 - 67.98	1.0000	1.0000
L18	18	(Area) Sabre MS450	67.73 - 67.98	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
		(1.00x4.50)			
L18	33	(Area) CCI-65FP-060100 (H)	67.73 - 67.98	1.0000	1.0000
L18	34	(Area) CCI-65FP-060100 (H)	67.73 - 67.98	1.0000	1.0000
L18	35	(Area) CCI-65FP-060100 (H)	67.73 - 67.98	1.0000	1.0000
L18	37	(Area) CCI-65FP-045100 (H)	67.73 - 67.98	1.0000	1.0000
L18	42	(Area) CCI-65FP-040075 (H)	67.73 - 67.98	1.0000	1.0000
L18	43	(Area) CCI-65FP-040075 (H)	67.73 - 67.98	1.0000	1.0000
L18	44	(Area) CCI-65FP-040075 (H)	67.73 - 67.98	1.0000	1.0000
L18	50	HCS 6X12 4AWG(1-5/8)	67.73 - 67.98	1.0000	1.0000
L18	68	AVA7-50(1-5/8)	67.73 - 67.98	1.0000	1.0000
L18	70	CU12PSM9P8XXX(1-3/8)	67.73 - 67.98	1.0000	1.0000
L18	72	Safety Line 3/8	67.73 - 67.98	1.0000	1.0000
L19	16	(Area) Sabre MS450 (1.00x4.50)	66.67 - 67.73	1.0000	1.0000
L19	17	(Area) Sabre MS450 (1.00x4.50)	66.67 - 67.73	1.0000	1.0000
L19	18	(Area) Sabre MS450 (1.00x4.50)	66.67 - 67.73	1.0000	1.0000
L19	33	(Area) CCI-65FP-060100 (H)	66.67 - 67.73	1.0000	1.0000
L19	34	(Area) CCI-65FP-060100 (H)	66.67 - 67.73	1.0000	1.0000
L19	35	(Area) CCI-65FP-060100 (H)	66.67 - 67.73	1.0000	1.0000
L19	37	(Area) CCI-65FP-045100 (H)	66.67 - 67.73	1.0000	1.0000
L19	42	(Area) CCI-65FP-040075 (H)	67.00 - 67.73	1.0000	1.0000
L19	43	(Area) CCI-65FP-040075 (H)	67.00 - 67.73	1.0000	1.0000
L19	44	(Area) CCI-65FP-040075 (H)	67.00 - 67.73	1.0000	1.0000
L19	50	HCS 6X12 4AWG(1-5/8)	66.67 - 67.73	1.0000	1.0000
L19	68	AVA7-50(1-5/8)	66.67 - 67.73	1.0000	1.0000
L19	70	CU12PSM9P8XXX(1-3/8)	66.67 - 67.73	1.0000	1.0000
L19	72	Safety Line 3/8	66.67 - 67.73	1.0000	1.0000
L20	16	(Area) Sabre MS450 (1.00x4.50)	66.42 - 66.67	1.0000	1.0000
L20	17	(Area) Sabre MS450 (1.00x4.50)	66.42 - 66.67	1.0000	1.0000
L20	18	(Area) Sabre MS450 (1.00x4.50)	66.42 - 66.67	1.0000	1.0000
L20	33	(Area) CCI-65FP-060100 (H)	66.42 - 66.67	1.0000	1.0000
L20	34	(Area) CCI-65FP-060100 (H)	66.42 - 66.67	1.0000	1.0000
L20	35	(Area) CCI-65FP-060100 (H)	66.42 - 66.67	1.0000	1.0000
L20	37	(Area) CCI-65FP-045100 (H)	66.42 - 66.67	1.0000	1.0000
L20	50	HCS 6X12 4AWG(1-5/8)	66.42 - 66.67	1.0000	1.0000
L20	68	AVA7-50(1-5/8)	66.42 - 66.67	1.0000	1.0000
L20	70	CU12PSM9P8XXX(1-3/8)	66.42 - 66.67	1.0000	1.0000
L20	72	Safety Line 3/8	66.42 - 66.67	1.0000	1.0000
L21	6	(Area) CCI-65FP-045100 (H)	63.50 - 65.00	1.0000	1.0000
L21	7	(Area) CCI-65FP-045100 (H)	63.50 - 65.00	1.0000	1.0000
L21	8	(Area) CCI-65FP-045100 (H)	63.50 - 65.00	1.0000	1.0000
L21	16	(Area) Sabre MS450 (1.00x4.50)	63.50 - 66.42	1.0000	1.0000
L21	17	(Area) Sabre MS450 (1.00x4.50)	63.50 - 66.42	1.0000	1.0000
L21	18	(Area) Sabre MS450 (1.00x4.50)	63.50 - 66.42	1.0000	1.0000
L21	33	(Area) CCI-65FP-060100 (H)	63.50 - 66.42	1.0000	1.0000
L21	34	(Area) CCI-65FP-060100 (H)	63.50 - 66.42	1.0000	1.0000
L21	35	(Area) CCI-65FP-060100 (H)	63.50 - 66.42	1.0000	1.0000
L21	37	(Area) CCI-65FP-045100 (H)	65.17 - 66.42	1.0000	1.0000
L21	50	HCS 6X12 4AWG(1-5/8)	63.50 - 66.42	1.0000	1.0000
L21	68	AVA7-50(1-5/8)	63.50 - 66.42	1.0000	1.0000
L21	70	CU12PSM9P8XXX(1-3/8)	63.50 - 66.42	1.0000	1.0000
L21	72	Safety Line 3/8	63.50 - 66.42	1.0000	1.0000
L22	6	(Area) CCI-65FP-045100 (H)	63.25 - 63.50	1.0000	1.0000
L22	7	(Area) CCI-65FP-045100 (H)	63.25 - 63.50	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
L22	8	(Area) CCI-65FP-045100 (H)	63.25 - 63.50	1.0000	1.0000
L22	16	(Area) Sabre MS450 (1.00x4.50)	63.25 - 63.50	1.0000	1.0000
L22	17	(Area) Sabre MS450 (1.00x4.50)	63.25 - 63.50	1.0000	1.0000
L22	18	(Area) Sabre MS450 (1.00x4.50)	63.25 - 63.50	1.0000	1.0000
L22	33	(Area) CCI-65FP-060100 (H)	63.25 - 63.50	1.0000	1.0000
L22	34	(Area) CCI-65FP-060100 (H)	63.25 - 63.50	1.0000	1.0000
L22	35	(Area) CCI-65FP-060100 (H)	63.25 - 63.50	1.0000	1.0000
L22	50	HCS 6X12 4AWG(1-5/8)	63.25 - 63.50	1.0000	1.0000
L22	68	AVA7-50(1-5/8)	63.25 - 63.50	1.0000	1.0000
L22	70	CU12PSM9P8XXX(1-3/8)	63.25 - 63.50	1.0000	1.0000
L22	72	Safety Line 3/8	63.25 - 63.50	1.0000	1.0000
L23	6	(Area) CCI-65FP-045100 (H)	58.25 - 63.25	1.0000	1.0000
L23	7	(Area) CCI-65FP-045100 (H)	58.25 - 63.25	1.0000	1.0000
L23	8	(Area) CCI-65FP-045100 (H)	58.25 - 63.25	1.0000	1.0000
L23	16	(Area) Sabre MS450 (1.00x4.50)	58.25 - 63.25	1.0000	1.0000
L23	17	(Area) Sabre MS450 (1.00x4.50)	58.25 - 63.25	1.0000	1.0000
L23	18	(Area) Sabre MS450 (1.00x4.50)	58.25 - 63.25	1.0000	1.0000
L23	33	(Area) CCI-65FP-060100 (H)	58.25 - 63.25	1.0000	1.0000
L23	34	(Area) CCI-65FP-060100 (H)	58.25 - 63.25	1.0000	1.0000
L23	35	(Area) CCI-65FP-060100 (H)	58.25 - 63.25	1.0000	1.0000
L23	50	HCS 6X12 4AWG(1-5/8)	58.25 - 63.25	1.0000	1.0000
L23	68	AVA7-50(1-5/8)	58.25 - 63.25	1.0000	1.0000
L23	70	CU12PSM9P8XXX(1-3/8)	58.25 - 63.25	1.0000	1.0000
L23	72	Safety Line 3/8	58.25 - 63.25	1.0000	1.0000
L24	6	(Area) CCI-65FP-045100 (H)	53.25 - 58.25	1.0000	1.0000
L24	7	(Area) CCI-65FP-045100 (H)	53.25 - 58.25	1.0000	1.0000
L24	8	(Area) CCI-65FP-045100 (H)	53.25 - 58.25	1.0000	1.0000
L24	16	(Area) Sabre MS450 (1.00x4.50)	53.25 - 58.25	1.0000	1.0000
L24	17	(Area) Sabre MS450 (1.00x4.50)	53.25 - 58.25	1.0000	1.0000
L24	18	(Area) Sabre MS450 (1.00x4.50)	53.25 - 58.25	1.0000	1.0000
L24	33	(Area) CCI-65FP-060100 (H)	53.25 - 58.25	1.0000	1.0000
L24	34	(Area) CCI-65FP-060100 (H)	53.25 - 58.25	1.0000	1.0000
L24	35	(Area) CCI-65FP-060100 (H)	53.25 - 58.25	1.0000	1.0000
L24	50	HCS 6X12 4AWG(1-5/8)	53.25 - 58.25	1.0000	1.0000
L24	68	AVA7-50(1-5/8)	53.25 - 58.25	1.0000	1.0000
L24	70	CU12PSM9P8XXX(1-3/8)	53.25 - 58.25	1.0000	1.0000
L24	72	Safety Line 3/8	53.25 - 58.25	1.0000	1.0000
L25	6	(Area) CCI-65FP-045100 (H)	47.63 - 53.25	1.0000	1.0000
L25	7	(Area) CCI-65FP-045100 (H)	47.63 - 53.25	1.0000	1.0000
L25	8	(Area) CCI-65FP-045100 (H)	47.63 - 53.25	1.0000	1.0000
L25	16	(Area) Sabre MS450 (1.00x4.50)	50.00 - 53.25	1.0000	1.0000
L25	17	(Area) Sabre MS450 (1.00x4.50)	50.00 - 53.25	1.0000	1.0000
L25	18	(Area) Sabre MS450 (1.00x4.50)	50.00 - 53.25	1.0000	1.0000
L25	24	(Area) CCI-65FP-040075 (H)	47.63 - 50.00	1.0000	1.0000
L25	25	(Area) CCI-65FP-040075 (H)	47.63 - 50.00	1.0000	1.0000
L25	26	(Area) CCI-65FP-040075 (H)	47.63 - 50.00	1.0000	1.0000
L25	33	(Area) CCI-65FP-060100 (H)	47.63 - 53.25	1.0000	1.0000
L25	34	(Area) CCI-65FP-060100 (H)	47.63 - 53.25	1.0000	1.0000
L25	35	(Area) CCI-65FP-060100 (H)	47.63 - 53.25	1.0000	1.0000
L25	50	HCS 6X12 4AWG(1-5/8)	47.63 - 53.25	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
L25	68	AVA7-50(1-5/8)	47.63 - 53.25	1.0000	1.0000
L25	70	CU12PSM9P8XXX(1-3/8)	47.63 - 53.25	1.0000	1.0000
L25	72	Safety Line 3/8	47.63 - 53.25	1.0000	1.0000
L26	6	(Area) CCI-65FP-045100 (H)	46.63 - 47.63	1.0000	1.0000
L26	7	(Area) CCI-65FP-045100 (H)	46.63 - 47.63	1.0000	1.0000
L26	8	(Area) CCI-65FP-045100 (H)	46.63 - 47.63	1.0000	1.0000
L26	24	(Area) CCI-65FP-040075 (H)	46.63 - 47.63	1.0000	1.0000
L26	25	(Area) CCI-65FP-040075 (H)	46.63 - 47.63	1.0000	1.0000
L26	26	(Area) CCI-65FP-040075 (H)	46.63 - 47.63	1.0000	1.0000
L26	33	(Area) CCI-65FP-060100 (H)	46.63 - 47.63	1.0000	1.0000
L26	34	(Area) CCI-65FP-060100 (H)	46.63 - 47.63	1.0000	1.0000
L26	35	(Area) CCI-65FP-060100 (H)	46.63 - 47.63	1.0000	1.0000
L26	50	HCS 6X12 4AWG(1-5/8)	46.63 - 47.63	1.0000	1.0000
L26	68	AVA7-50(1-5/8)	46.63 - 47.63	1.0000	1.0000
L26	70	CU12PSM9P8XXX(1-3/8)	46.63 - 47.63	1.0000	1.0000
L26	72	Safety Line 3/8	46.63 - 47.63	1.0000	1.0000
L27	6	(Area) CCI-65FP-045100 (H)	41.63 - 46.63	1.0000	1.0000
L27	7	(Area) CCI-65FP-045100 (H)	41.63 - 46.63	1.0000	1.0000
L27	8	(Area) CCI-65FP-045100 (H)	41.63 - 46.63	1.0000	1.0000
L27	24	(Area) CCI-65FP-040075 (H)	41.63 - 46.63	1.0000	1.0000
L27	25	(Area) CCI-65FP-040075 (H)	41.63 - 46.63	1.0000	1.0000
L27	26	(Area) CCI-65FP-040075 (H)	41.63 - 46.63	1.0000	1.0000
L27	33	(Area) CCI-65FP-060100 (H)	41.63 - 46.63	1.0000	1.0000
L27	34	(Area) CCI-65FP-060100 (H)	41.63 - 46.63	1.0000	1.0000
L27	35	(Area) CCI-65FP-060100 (H)	41.63 - 46.63	1.0000	1.0000
L27	50	HCS 6X12 4AWG(1-5/8)	41.63 - 46.63	1.0000	1.0000
L27	68	AVA7-50(1-5/8)	41.63 - 46.63	1.0000	1.0000
L27	70	CU12PSM9P8XXX(1-3/8)	41.63 - 46.63	1.0000	1.0000
L27	72	Safety Line 3/8	41.63 - 46.63	1.0000	1.0000
L28	6	(Area) CCI-65FP-045100 (H)	38.08 - 41.63	1.0000	1.0000
L28	7	(Area) CCI-65FP-045100 (H)	38.08 - 41.63	1.0000	1.0000
L28	8	(Area) CCI-65FP-045100 (H)	38.08 - 41.63	1.0000	1.0000
L28	24	(Area) CCI-65FP-040075 (H)	38.08 - 41.63	1.0000	1.0000
L28	25	(Area) CCI-65FP-040075 (H)	38.08 - 41.63	1.0000	1.0000
L28	26	(Area) CCI-65FP-040075 (H)	38.08 - 41.63	1.0000	1.0000
L28	33	(Area) CCI-65FP-060100 (H)	38.08 - 41.63	1.0000	1.0000
L28	34	(Area) CCI-65FP-060100 (H)	38.08 - 41.63	1.0000	1.0000
L28	35	(Area) CCI-65FP-060100 (H)	38.08 - 41.63	1.0000	1.0000
L28	50	HCS 6X12 4AWG(1-5/8)	38.08 - 41.63	1.0000	1.0000
L28	68	AVA7-50(1-5/8)	38.08 - 41.63	1.0000	1.0000
L28	70	CU12PSM9P8XXX(1-3/8)	38.08 - 41.63	1.0000	1.0000
L28	72	Safety Line 3/8	38.08 - 41.63	1.0000	1.0000
L29	6	(Area) CCI-65FP-045100 (H)	37.83 - 38.08	1.0000	1.0000
L29	7	(Area) CCI-65FP-045100 (H)	37.83 - 38.08	1.0000	1.0000
L29	8	(Area) CCI-65FP-045100 (H)	37.83 - 38.08	1.0000	1.0000
L29	24	(Area) CCI-65FP-040075 (H)	37.83 - 38.08	1.0000	1.0000
L29	25	(Area) CCI-65FP-040075 (H)	37.83 - 38.08	1.0000	1.0000
L29	26	(Area) CCI-65FP-040075 (H)	37.83 - 38.08	1.0000	1.0000
L29	33	(Area) CCI-65FP-060100 (H)	37.83 - 38.08	1.0000	1.0000
L29	34	(Area) CCI-65FP-060100 (H)	37.83 - 38.08	1.0000	1.0000
L29	35	(Area) CCI-65FP-060100 (H)	37.83 - 38.08	1.0000	1.0000
L29	50	HCS 6X12 4AWG(1-5/8)	37.83 - 38.08	1.0000	1.0000
L29	68	AVA7-50(1-5/8)	37.83 - 38.08	1.0000	1.0000
L29	70	CU12PSM9P8XXX(1-3/8)	37.83 - 38.08	1.0000	1.0000
L29	72	Safety Line 3/8	37.83 - 38.08	1.0000	1.0000
L30	2	(Area) CCI-65FP-060100 (H)	33.50 - 35.00	1.0000	1.0000
L30	3	(Area) CCI-65FP-060100 (H)	33.50 - 35.00	1.0000	1.0000
L30	4	(Area) CCI-65FP-060100 (H)	33.50 - 35.00	1.0000	1.0000
L30	6	(Area) CCI-65FP-045100 (H)	35.00 - 37.83	1.0000	1.0000
L30	7	(Area) CCI-65FP-045100 (H)	35.00 - 37.83	1.0000	1.0000
L30	8	(Area) CCI-65FP-045100 (H)	35.00 - 37.83	1.0000	1.0000
L30	20	(Area) CCI-65FP-045100 (H)	33.50 - 35.00	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
L30	21	(Area) CCI-65FP-045100 (H)	33.50 - 35.00	1.0000	1.0000
L30	22	(Area) CCI-65FP-045100 (H)	33.50 - 35.00	1.0000	1.0000
L30	24	(Area) CCI-65FP-040075 (H)	35.00 - 37.83	1.0000	1.0000
L30	25	(Area) CCI-65FP-040075 (H)	35.00 - 37.83	1.0000	1.0000
L30	26	(Area) CCI-65FP-040075 (H)	35.00 - 37.83	1.0000	1.0000
L30	28	(Area) CCI-65FP-045100 (H)	33.50 - 35.50	1.0000	1.0000
L30	29	(Area) CCI-65FP-045100 (H)	33.50 - 35.50	1.0000	1.0000
L30	31	(Area) CCI-65FP-045100 (H)	33.50 - 35.50	1.0000	1.0000
L30	33	(Area) CCI-65FP-060100 (H)	35.58 - 37.83	1.0000	1.0000
L30	34	(Area) CCI-65FP-060100 (H)	35.58 - 37.83	1.0000	1.0000
L30	35	(Area) CCI-65FP-060100 (H)	35.58 - 37.83	1.0000	1.0000
L30	50	HCS 6X12 4AWG(1-5/8)	33.50 - 37.83	1.0000	1.0000
L30	68	AVA7-50(1-5/8)	33.50 - 37.83	1.0000	1.0000
L30	70	CU12PSM9P8XXX(1-3/8)	33.50 - 37.83	1.0000	1.0000
L30	72	Safety Line 3/8	33.50 - 37.83	1.0000	1.0000
L31	2	(Area) CCI-65FP-060100 (H)	33.25 - 33.50	1.0000	1.0000
L31	3	(Area) CCI-65FP-060100 (H)	33.25 - 33.50	1.0000	1.0000
L31	4	(Area) CCI-65FP-060100 (H)	33.25 - 33.50	1.0000	1.0000
L31	20	(Area) CCI-65FP-045100 (H)	33.25 - 33.50	1.0000	1.0000
L31	21	(Area) CCI-65FP-045100 (H)	33.25 - 33.50	1.0000	1.0000
L31	22	(Area) CCI-65FP-045100 (H)	33.25 - 33.50	1.0000	1.0000
L31	28	(Area) CCI-65FP-045100 (H)	33.25 - 33.50	1.0000	1.0000
L31	29	(Area) CCI-65FP-045100 (H)	33.25 - 33.50	1.0000	1.0000
L31	31	(Area) CCI-65FP-045100 (H)	33.25 - 33.50	1.0000	1.0000
L31	50	HCS 6X12 4AWG(1-5/8)	33.25 - 33.50	1.0000	1.0000
L31	68	AVA7-50(1-5/8)	33.25 - 33.50	1.0000	1.0000
L31	70	CU12PSM9P8XXX(1-3/8)	33.25 - 33.50	1.0000	1.0000
L31	72	Safety Line 3/8	33.25 - 33.50	1.0000	1.0000
L32	2	(Area) CCI-65FP-060100 (H)	33.00 - 33.25	1.0000	1.0000
L32	3	(Area) CCI-65FP-060100 (H)	33.00 - 33.25	1.0000	1.0000
L32	4	(Area) CCI-65FP-060100 (H)	33.00 - 33.25	1.0000	1.0000
L32	20	(Area) CCI-65FP-045100 (H)	33.00 - 33.25	1.0000	1.0000
L32	21	(Area) CCI-65FP-045100 (H)	33.00 - 33.25	1.0000	1.0000
L32	22	(Area) CCI-65FP-045100 (H)	33.00 - 33.25	1.0000	1.0000
L32	28	(Area) CCI-65FP-045100 (H)	33.00 - 33.25	1.0000	1.0000
L32	29	(Area) CCI-65FP-045100 (H)	33.00 - 33.25	1.0000	1.0000
L32	31	(Area) CCI-65FP-045100 (H)	33.00 - 33.25	1.0000	1.0000
L32	50	HCS 6X12 4AWG(1-5/8)	33.00 - 33.25	1.0000	1.0000
L32	68	AVA7-50(1-5/8)	33.00 - 33.25	1.0000	1.0000
L32	70	CU12PSM9P8XXX(1-3/8)	33.00 - 33.25	1.0000	1.0000
L32	72	Safety Line 3/8	33.00 - 33.25	1.0000	1.0000
L33	2	(Area) CCI-65FP-060100 (H)	32.75 - 33.00	1.0000	1.0000
L33	3	(Area) CCI-65FP-060100 (H)	32.75 - 33.00	1.0000	1.0000
L33	4	(Area) CCI-65FP-060100 (H)	32.75 - 33.00	1.0000	1.0000
L33	20	(Area) CCI-65FP-045100 (H)	32.75 - 33.00	1.0000	1.0000
L33	21	(Area) CCI-65FP-045100 (H)	32.75 - 33.00	1.0000	1.0000
L33	22	(Area) CCI-65FP-045100 (H)	32.75 - 33.00	1.0000	1.0000
L33	28	(Area) CCI-65FP-045100 (H)	32.75 - 33.00	1.0000	1.0000
L33	29	(Area) CCI-65FP-045100 (H)	32.75 - 33.00	1.0000	1.0000
L33	31	(Area) CCI-65FP-045100 (H)	32.75 - 33.00	1.0000	1.0000
L33	50	HCS 6X12 4AWG(1-5/8)	32.75 - 33.00	1.0000	1.0000
L33	68	AVA7-50(1-5/8)	32.75 - 33.00	1.0000	1.0000
L33	70	CU12PSM9P8XXX(1-3/8)	32.75 - 33.00	1.0000	1.0000
L33	72	Safety Line 3/8	32.75 - 33.00	1.0000	1.0000
L34	2	(Area) CCI-65FP-060100 (H)	27.75 - 32.75	1.0000	1.0000
L34	3	(Area) CCI-65FP-060100 (H)	27.75 - 32.75	1.0000	1.0000
L34	4	(Area) CCI-65FP-060100 (H)	27.75 - 32.75	1.0000	1.0000
L34	20	(Area) CCI-65FP-045100 (H)	27.75 - 32.75	1.0000	1.0000
L34	21	(Area) CCI-65FP-045100 (H)	27.75 - 32.75	1.0000	1.0000
L34	22	(Area) CCI-65FP-045100 (H)	27.75 - 32.75	1.0000	1.0000
L34	28	(Area) CCI-65FP-045100 (H)	27.75 - 32.75	1.0000	1.0000
L34	29	(Area) CCI-65FP-045100 (H)	27.75 - 32.75	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
L34	31	(Area) CCI-65FP-045100 (H)	27.75 - 32.75	1.0000	1.0000
L34	50	HCS 6X12 4AWG(1-5/8)	27.75 - 32.75	1.0000	1.0000
L34	68	AVA7-50(1-5/8)	27.75 - 32.75	1.0000	1.0000
L34	70	CU12PSM9P8XXX(1-3/8)	27.75 - 32.75	1.0000	1.0000
L34	72	Safety Line 3/8	27.75 - 32.75	1.0000	1.0000
L35	2	(Area) CCI-65FP-060100 (H)	22.75 - 27.75	1.0000	1.0000
L35	3	(Area) CCI-65FP-060100 (H)	22.75 - 27.75	1.0000	1.0000
L35	4	(Area) CCI-65FP-060100 (H)	22.75 - 27.75	1.0000	1.0000
L35	20	(Area) CCI-65FP-045100 (H)	22.75 - 27.75	1.0000	1.0000
L35	21	(Area) CCI-65FP-045100 (H)	22.75 - 27.75	1.0000	1.0000
L35	22	(Area) CCI-65FP-045100 (H)	22.75 - 27.75	1.0000	1.0000
L35	28	(Area) CCI-65FP-045100 (H)	22.75 - 27.75	1.0000	1.0000
L35	29	(Area) CCI-65FP-045100 (H)	22.75 - 27.75	1.0000	1.0000
L35	31	(Area) CCI-65FP-045100 (H)	22.75 - 27.75	1.0000	1.0000
L35	50	HCS 6X12 4AWG(1-5/8)	22.75 - 27.75	1.0000	1.0000
L35	68	AVA7-50(1-5/8)	22.75 - 27.75	1.0000	1.0000
L35	70	CU12PSM9P8XXX(1-3/8)	22.75 - 27.75	1.0000	1.0000
L35	72	Safety Line 3/8	22.75 - 27.75	1.0000	1.0000
L36	2	(Area) CCI-65FP-060100 (H)	17.75 - 22.75	1.0000	1.0000
L36	3	(Area) CCI-65FP-060100 (H)	17.75 - 22.75	1.0000	1.0000
L36	4	(Area) CCI-65FP-060100 (H)	17.75 - 22.75	1.0000	1.0000
L36	20	(Area) CCI-65FP-045100 (H)	17.75 - 22.75	1.0000	1.0000
L36	21	(Area) CCI-65FP-045100 (H)	17.75 - 22.75	1.0000	1.0000
L36	22	(Area) CCI-65FP-045100 (H)	17.75 - 22.75	1.0000	1.0000
L36	28	(Area) CCI-65FP-045100 (H)	17.75 - 22.75	1.0000	1.0000
L36	29	(Area) CCI-65FP-045100 (H)	17.75 - 22.75	1.0000	1.0000
L36	31	(Area) CCI-65FP-045100 (H)	17.75 - 22.75	1.0000	1.0000
L36	50	HCS 6X12 4AWG(1-5/8)	17.75 - 22.75	1.0000	1.0000
L36	68	AVA7-50(1-5/8)	17.75 - 22.75	1.0000	1.0000
L36	70	CU12PSM9P8XXX(1-3/8)	17.75 - 22.75	1.0000	1.0000
L36	72	Safety Line 3/8	17.75 - 22.75	1.0000	1.0000
L37	2	(Area) CCI-65FP-060100 (H)	12.75 - 17.75	1.0000	1.0000
L37	3	(Area) CCI-65FP-060100 (H)	12.75 - 17.75	1.0000	1.0000
L37	4	(Area) CCI-65FP-060100 (H)	12.75 - 17.75	1.0000	1.0000
L37	20	(Area) CCI-65FP-045100 (H)	12.75 - 17.75	1.0000	1.0000
L37	21	(Area) CCI-65FP-045100 (H)	12.75 - 17.75	1.0000	1.0000
L37	22	(Area) CCI-65FP-045100 (H)	12.75 - 17.75	1.0000	1.0000
L37	28	(Area) CCI-65FP-045100 (H)	12.75 - 17.75	1.0000	1.0000
L37	29	(Area) CCI-65FP-045100 (H)	12.75 - 17.75	1.0000	1.0000
L37	31	(Area) CCI-65FP-045100 (H)	12.75 - 17.75	1.0000	1.0000
L37	50	HCS 6X12 4AWG(1-5/8)	12.75 - 17.75	1.0000	1.0000
L37	68	AVA7-50(1-5/8)	12.75 - 17.75	1.0000	1.0000
L37	70	CU12PSM9P8XXX(1-3/8)	12.75 - 17.75	1.0000	1.0000
L37	72	Safety Line 3/8	12.75 - 17.75	1.0000	1.0000
L38	2	(Area) CCI-65FP-060100 (H)	12.50 - 12.75	1.0000	1.0000
L38	3	(Area) CCI-65FP-060100 (H)	12.50 - 12.75	1.0000	1.0000
L38	4	(Area) CCI-65FP-060100 (H)	12.50 - 12.75	1.0000	1.0000
L38	20	(Area) CCI-65FP-045100 (H)	12.50 - 12.75	1.0000	1.0000
L38	21	(Area) CCI-65FP-045100 (H)	12.50 - 12.75	1.0000	1.0000
L38	22	(Area) CCI-65FP-045100 (H)	12.50 - 12.75	1.0000	1.0000
L38	28	(Area) CCI-65FP-045100 (H)	12.50 - 12.75	1.0000	1.0000
L38	29	(Area) CCI-65FP-045100 (H)	12.50 - 12.75	1.0000	1.0000
L38	31	(Area) CCI-65FP-045100 (H)	12.50 - 12.75	1.0000	1.0000
L38	50	HCS 6X12 4AWG(1-5/8)	12.50 - 12.75	1.0000	1.0000
L38	68	AVA7-50(1-5/8)	12.50 - 12.75	1.0000	1.0000
L38	70	CU12PSM9P8XXX(1-3/8)	12.50 - 12.75	1.0000	1.0000
L38	72	Safety Line 3/8	12.50 - 12.75	1.0000	1.0000
L39	2	(Area) CCI-65FP-060100 (H)	12.25 - 12.50	1.0000	1.0000
L39	3	(Area) CCI-65FP-060100 (H)	12.25 - 12.50	1.0000	1.0000
L39	4	(Area) CCI-65FP-060100 (H)	12.25 - 12.50	1.0000	1.0000
L39	20	(Area) CCI-65FP-045100 (H)	12.25 - 12.50	1.0000	1.0000
L39	21	(Area) CCI-65FP-045100 (H)	12.25 - 12.50	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
L39	22	(Area) CCI-65FP-045100 (H)	12.25 - 12.50	1.0000	1.0000
L39	28	(Area) CCI-65FP-045100 (H)	12.25 - 12.50	1.0000	1.0000
L39	29	(Area) CCI-65FP-045100 (H)	12.25 - 12.50	1.0000	1.0000
L39	31	(Area) CCI-65FP-045100 (H)	12.25 - 12.50	1.0000	1.0000
L39	50	HCS 6X12 4AWG(1-5/8)	12.25 - 12.50	1.0000	1.0000
L39	68	AVA7-50(1-5/8)	12.25 - 12.50	1.0000	1.0000
L39	70	CU12PSM9P8XXX(1-3/8)	12.25 - 12.50	1.0000	1.0000
L39	72	Safety Line 3/8	12.25 - 12.50	1.0000	1.0000
L40	2	(Area) CCI-65FP-060100 (H)	12.00 - 12.25	1.0000	1.0000
L40	3	(Area) CCI-65FP-060100 (H)	12.00 - 12.25	1.0000	1.0000
L40	4	(Area) CCI-65FP-060100 (H)	12.00 - 12.25	1.0000	1.0000
L40	20	(Area) CCI-65FP-045100 (H)	12.00 - 12.25	1.0000	1.0000
L40	21	(Area) CCI-65FP-045100 (H)	12.00 - 12.25	1.0000	1.0000
L40	22	(Area) CCI-65FP-045100 (H)	12.00 - 12.25	1.0000	1.0000
L40	28	(Area) CCI-65FP-045100 (H)	12.00 - 12.25	1.0000	1.0000
L40	29	(Area) CCI-65FP-045100 (H)	12.00 - 12.25	1.0000	1.0000
L40	31	(Area) CCI-65FP-045100 (H)	12.00 - 12.25	1.0000	1.0000
L40	50	HCS 6X12 4AWG(1-5/8)	12.00 - 12.25	1.0000	1.0000
L40	68	AVA7-50(1-5/8)	12.00 - 12.25	1.0000	1.0000
L40	70	CU12PSM9P8XXX(1-3/8)	12.00 - 12.25	1.0000	1.0000
L40	72	Safety Line 3/8	12.00 - 12.25	1.0000	1.0000
L41	2	(Area) CCI-65FP-060100 (H)	11.75 - 12.00	1.0000	1.0000
L41	3	(Area) CCI-65FP-060100 (H)	11.75 - 12.00	1.0000	1.0000
L41	4	(Area) CCI-65FP-060100 (H)	11.75 - 12.00	1.0000	1.0000
L41	20	(Area) CCI-65FP-045100 (H)	11.75 - 12.00	1.0000	1.0000
L41	21	(Area) CCI-65FP-045100 (H)	11.75 - 12.00	1.0000	1.0000
L41	22	(Area) CCI-65FP-045100 (H)	11.75 - 12.00	1.0000	1.0000
L41	28	(Area) CCI-65FP-045100 (H)	11.75 - 12.00	1.0000	1.0000
L41	29	(Area) CCI-65FP-045100 (H)	11.75 - 12.00	1.0000	1.0000
L41	31	(Area) CCI-65FP-045100 (H)	11.75 - 12.00	1.0000	1.0000
L41	50	HCS 6X12 4AWG(1-5/8)	11.75 - 12.00	1.0000	1.0000
L41	68	AVA7-50(1-5/8)	11.75 - 12.00	1.0000	1.0000
L41	70	CU12PSM9P8XXX(1-3/8)	11.75 - 12.00	1.0000	1.0000
L41	72	Safety Line 3/8	11.75 - 12.00	1.0000	1.0000
L42	2	(Area) CCI-65FP-060100 (H)	6.75 - 11.75	1.0000	1.0000
L42	3	(Area) CCI-65FP-060100 (H)	6.75 - 11.75	1.0000	1.0000
L42	4	(Area) CCI-65FP-060100 (H)	6.75 - 11.75	1.0000	1.0000
L42	20	(Area) CCI-65FP-045100 (H)	6.75 - 11.75	1.0000	1.0000
L42	21	(Area) CCI-65FP-045100 (H)	6.75 - 11.75	1.0000	1.0000
L42	22	(Area) CCI-65FP-045100 (H)	6.75 - 11.75	1.0000	1.0000
L42	28	(Area) CCI-65FP-045100 (H)	6.75 - 11.75	1.0000	1.0000
L42	29	(Area) CCI-65FP-045100 (H)	6.75 - 11.75	1.0000	1.0000
L42	31	(Area) CCI-65FP-045100 (H)	10.50 - 11.75	1.0000	1.0000
L42	50	HCS 6X12 4AWG(1-5/8)	6.75 - 11.75	1.0000	1.0000
L42	68	AVA7-50(1-5/8)	6.75 - 11.75	1.0000	1.0000
L42	70	CU12PSM9P8XXX(1-3/8)	6.75 - 11.75	1.0000	1.0000
L42	72	Safety Line 3/8	6.75 - 11.75	1.0000	1.0000
L43	2	(Area) CCI-65FP-060100 (H)	2.50 - 6.75	1.0000	1.0000
L43	3	(Area) CCI-65FP-060100 (H)	2.50 - 6.75	1.0000	1.0000
L43	4	(Area) CCI-65FP-060100 (H)	2.50 - 6.75	1.0000	1.0000
L43	20	(Area) CCI-65FP-045100 (H)	2.50 - 6.75	1.0000	1.0000
L43	21	(Area) CCI-65FP-045100 (H)	2.50 - 6.75	1.0000	1.0000
L43	22	(Area) CCI-65FP-045100 (H)	2.50 - 6.75	1.0000	1.0000
L43	28	(Area) CCI-65FP-045100 (H)	2.50 - 6.75	1.0000	1.0000
L43	29	(Area) CCI-65FP-045100 (H)	2.50 - 6.75	1.0000	1.0000
L43	50	HCS 6X12 4AWG(1-5/8)	2.50 - 6.75	1.0000	1.0000
L43	68	AVA7-50(1-5/8)	2.50 - 6.75	1.0000	1.0000
L43	70	CU12PSM9P8XXX(1-3/8)	2.50 - 6.75	1.0000	1.0000
L43	72	Safety Line 3/8	2.50 - 6.75	1.0000	1.0000
L44	2	(Area) CCI-65FP-060100 (H)	2.25 - 2.50	1.0000	1.0000
L44	3	(Area) CCI-65FP-060100 (H)	2.25 - 2.50	1.0000	1.0000
L44	4	(Area) CCI-65FP-060100 (H)	2.25 - 2.50	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
L44	20	(Area) CCI-65FP-045100 (H)	2.25 - 2.50	1.0000	1.0000
L44	21	(Area) CCI-65FP-045100 (H)	2.25 - 2.50	1.0000	1.0000
L44	22	(Area) CCI-65FP-045100 (H)	2.25 - 2.50	1.0000	1.0000
L44	28	(Area) CCI-65FP-045100 (H)	2.25 - 2.50	1.0000	1.0000
L44	29	(Area) CCI-65FP-045100 (H)	2.25 - 2.50	1.0000	1.0000
L44	50	HCS 6X12 4AWG(1-5/8)	2.25 - 2.50	1.0000	1.0000
L44	68	AVA7-50(1-5/8)	2.25 - 2.50	1.0000	1.0000
L44	70	CU12PSM9P8XXX(1-3/8)	2.25 - 2.50	1.0000	1.0000
L44	72	Safety Line 3/8	2.25 - 2.50	1.0000	1.0000
L45	2	(Area) CCI-65FP-060100 (H)	2.00 - 2.25	1.0000	1.0000
L45	3	(Area) CCI-65FP-060100 (H)	2.00 - 2.25	1.0000	1.0000
L45	4	(Area) CCI-65FP-060100 (H)	2.00 - 2.25	1.0000	1.0000
L45	20	(Area) CCI-65FP-045100 (H)	2.00 - 2.25	1.0000	1.0000
L45	21	(Area) CCI-65FP-045100 (H)	2.00 - 2.25	1.0000	1.0000
L45	22	(Area) CCI-65FP-045100 (H)	2.00 - 2.25	1.0000	1.0000
L45	28	(Area) CCI-65FP-045100 (H)	2.00 - 2.25	1.0000	1.0000
L45	29	(Area) CCI-65FP-045100 (H)	2.00 - 2.25	1.0000	1.0000
L45	50	HCS 6X12 4AWG(1-5/8)	2.00 - 2.25	1.0000	1.0000
L45	68	AVA7-50(1-5/8)	2.00 - 2.25	1.0000	1.0000
L45	70	CU12PSM9P8XXX(1-3/8)	2.00 - 2.25	1.0000	1.0000
L45	72	Safety Line 3/8	2.00 - 2.25	1.0000	1.0000
L46	2	(Area) CCI-65FP-060100 (H)	0.00 - 2.00	1.0000	1.0000
L46	3	(Area) CCI-65FP-060100 (H)	0.00 - 2.00	1.0000	1.0000
L46	4	(Area) CCI-65FP-060100 (H)	0.00 - 2.00	1.0000	1.0000
L46	20	(Area) CCI-65FP-045100 (H)	0.00 - 2.00	1.0000	1.0000
L46	21	(Area) CCI-65FP-045100 (H)	0.00 - 2.00	1.0000	1.0000
L46	22	(Area) CCI-65FP-045100 (H)	0.00 - 2.00	1.0000	1.0000
L46	28	(Area) CCI-65FP-045100 (H)	0.50 - 2.00	1.0000	1.0000
L46	29	(Area) CCI-65FP-045100 (H)	0.50 - 2.00	1.0000	1.0000
L46	50	HCS 6X12 4AWG(1-5/8)	0.00 - 2.00	1.0000	1.0000
L46	68	AVA7-50(1-5/8)	0.00 - 2.00	1.0000	1.0000
L46	70	CU12PSM9P8XXX(1-3/8)	0.00 - 2.00	1.0000	1.0000
L46	72	Safety Line 3/8	0.00 - 2.00	1.0000	1.0000

Effective Width of Flat Linear Attachments / Feed Lines

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L8	37	(Area) CCI-65FP-045100 (H)	82.37 - 83.88	Auto	0.0000
L8	39	(Area) CCI-65FP-045100 (H)	82.37 - 83.88	Auto	0.0000
L8	40	(Area) CCI-65FP-045100 (H)	82.37 - 83.88	Auto	0.0000
L9	37	(Area) CCI-65FP-045100 (H)	82.13 - 82.37	Auto	0.0000
L9	39	(Area) CCI-65FP-045100 (H)	82.13 - 82.37	Auto	0.0000
L9	40	(Area) CCI-65FP-045100 (H)	82.13 - 82.37	Auto	0.0000
L10	37	(Area) CCI-65FP-045100 (H)	81.88 - 82.13	Auto	0.0000
L10	39	(Area) CCI-65FP-045100 (H)	81.88 - 82.13	Auto	0.0000
L10	40	(Area) CCI-65FP-045100 (H)	81.88 - 82.13	Auto	0.0000
L11	37	(Area) CCI-65FP-045100 (H)	81.63 - 81.88	Auto	0.0000
L11	39	(Area) CCI-65FP-045100 (H)	81.63 - 81.88	Auto	0.0000
L11	40	(Area) CCI-65FP-045100 (H)	81.63 - 81.88	Auto	0.0000
L12	37	(Area) CCI-65FP-045100 (H)	76.63 - 81.63	Auto	0.0000
L12	39	(Area) CCI-65FP-045100 (H)	76.63 - 81.63	Auto	0.0000
L12	40	(Area) CCI-65FP-045100 (H)	76.63 - 81.63	Auto	0.0000
L12	42	(Area) CCI-65FP-040075 (H)	76.63 - 77.00	Auto	0.0000
L12	43	(Area) CCI-65FP-040075 (H)	76.63 - 77.00	Auto	0.0000
L12	44	(Area) CCI-65FP-040075 (H)	76.63 - 77.00	Auto	0.0000
L13	37	(Area) CCI-65FP-045100 (H)	76.00 - 76.63	Auto	0.0000
L13	39	(Area) CCI-65FP-045100 (H)	76.00 - 76.63	Auto	0.0000

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L13	40	(Area) CCI-65FP-045100 (H)	76.00 - 76.63	Auto	0.0000
L13	42	(Area) CCI-65FP-040075 (H)	76.00 - 76.63	Auto	0.0000
L13	43	(Area) CCI-65FP-040075 (H)	76.00 - 76.63	Auto	0.0000
L13	44	(Area) CCI-65FP-040075 (H)	76.00 - 76.63	Auto	0.0000
L14	37	(Area) CCI-65FP-045100 (H)	75.75 - 76.00	Auto	0.0000
L14	39	(Area) CCI-65FP-045100 (H)	75.75 - 76.00	Auto	0.0000
L14	40	(Area) CCI-65FP-045100 (H)	75.75 - 76.00	Auto	0.0000
L14	42	(Area) CCI-65FP-040075 (H)	75.75 - 76.00	Auto	0.0000
L14	43	(Area) CCI-65FP-040075 (H)	75.75 - 76.00	Auto	0.0000
L14	44	(Area) CCI-65FP-040075 (H)	75.75 - 76.00	Auto	0.0000
L15	16	(Area) Sabre MS450 (1.00x4.50)	70.75 - 72.25	Auto	0.0000
L15	17	(Area) Sabre MS450 (1.00x4.50)	70.75 - 72.25	Auto	0.0000
L15	18	(Area) Sabre MS450 (1.00x4.50)	70.75 - 72.25	Auto	0.0000
L15	37	(Area) CCI-65FP-045100 (H)	70.75 - 75.75	Auto	0.0000
L15	39	(Area) CCI-65FP-045100 (H)	70.75 - 75.75	Auto	0.0000
L15	40	(Area) CCI-65FP-045100 (H)	70.75 - 75.75	Auto	0.0000
L15	42	(Area) CCI-65FP-040075 (H)	70.75 - 75.75	Auto	0.0000
L15	43	(Area) CCI-65FP-040075 (H)	70.75 - 75.75	Auto	0.0000
L15	44	(Area) CCI-65FP-040075 (H)	70.75 - 75.75	Auto	0.0000
L16	16	(Area) Sabre MS450 (1.00x4.50)	70.50 - 70.75	Auto	0.0000
L16	17	(Area) Sabre MS450 (1.00x4.50)	70.50 - 70.75	Auto	0.0000
L16	18	(Area) Sabre MS450 (1.00x4.50)	70.50 - 70.75	Auto	0.0000
L16	33	(Area) CCI-65FP-060100 (H)	70.50 - 70.58	Auto	0.1898
L16	34	(Area) CCI-65FP-060100 (H)	70.50 - 70.58	Auto	0.1898
L16	35	(Area) CCI-65FP-060100 (H)	70.50 - 70.58	Auto	0.1898
L16	37	(Area) CCI-65FP-045100 (H)	70.50 - 70.75	Auto	0.0000
L16	39	(Area) CCI-65FP-045100 (H)	70.67 - 70.75	Auto	0.0000
L16	40	(Area) CCI-65FP-045100 (H)	70.67 - 70.75	Auto	0.0000
L16	42	(Area) CCI-65FP-040075 (H)	70.50 - 70.75	Auto	0.0000
L16	43	(Area) CCI-65FP-040075 (H)	70.50 - 70.75	Auto	0.0000
L16	44	(Area) CCI-65FP-040075 (H)	70.50 - 70.75	Auto	0.0000
L17	16	(Area) Sabre MS450 (1.00x4.50)	67.98 - 70.50	Auto	0.0000
L17	17	(Area) Sabre MS450 (1.00x4.50)	67.98 - 70.50	Auto	0.0000
L17	18	(Area) Sabre MS450 (1.00x4.50)	67.98 - 70.50	Auto	0.0000
L17	33	(Area) CCI-65FP-060100 (H)	67.98 - 70.50	Auto	0.1934
L17	34	(Area) CCI-65FP-060100 (H)	67.98 - 70.50	Auto	0.1934
L17	35	(Area) CCI-65FP-060100 (H)	67.98 - 70.50	Auto	0.1934
L17	37	(Area) CCI-65FP-045100 (H)	67.98 - 70.50	Auto	0.0000
L17	42	(Area) CCI-65FP-040075 (H)	67.98 - 70.50	Auto	0.0000
L17	43	(Area) CCI-65FP-040075 (H)	67.98 - 70.50	Auto	0.0000
L17	44	(Area) CCI-65FP-040075 (H)	67.98 - 70.50	Auto	0.0000
L18	16	(Area) Sabre MS450 (1.00x4.50)	67.73 - 67.98	Auto	0.0000
L18	17	(Area) Sabre MS450 (1.00x4.50)	67.73 - 67.98	Auto	0.0000
L18	18	(Area) Sabre MS450 (1.00x4.50)	67.73 - 67.98	Auto	0.0000
L18	33	(Area) CCI-65FP-060100 (H)	67.73 - 67.98	Auto	0.1793
L18	34	(Area) CCI-65FP-060100 (H)	67.73 - 67.98	Auto	0.1793
L18	35	(Area) CCI-65FP-060100 (H)	67.73 - 67.98	Auto	0.1793
L18	37	(Area) CCI-65FP-045100 (H)	67.73 - 67.98	Auto	0.0000
L18	42	(Area) CCI-65FP-040075 (H)	67.73 - 67.98	Auto	0.0000

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L18	43	(Area) CCI-65FP-040075 (H)	67.73 - 67.98	Auto	0.0000
L18	44	(Area) CCI-65FP-040075 (H)	67.73 - 67.98	Auto	0.0000
L19	16	(Area) Sabre MS450 (1.00x4.50)	66.67 - 67.73	Auto	0.0000
L19	17	(Area) Sabre MS450 (1.00x4.50)	66.67 - 67.73	Auto	0.0000
L19	18	(Area) Sabre MS450 (1.00x4.50)	66.67 - 67.73	Auto	0.0000
L19	33	(Area) CCI-65FP-060100 (H)	66.67 - 67.73	Auto	0.1671
L19	34	(Area) CCI-65FP-060100 (H)	66.67 - 67.73	Auto	0.1671
L19	35	(Area) CCI-65FP-060100 (H)	66.67 - 67.73	Auto	0.1671
L19	37	(Area) CCI-65FP-045100 (H)	66.67 - 67.73	Auto	0.0000
L19	42	(Area) CCI-65FP-040075 (H)	67.00 - 67.73	Auto	0.0000
L19	43	(Area) CCI-65FP-040075 (H)	67.00 - 67.73	Auto	0.0000
L19	44	(Area) CCI-65FP-040075 (H)	67.00 - 67.73	Auto	0.0000
L20	16	(Area) Sabre MS450 (1.00x4.50)	66.42 - 66.67	Auto	0.0000
L20	17	(Area) Sabre MS450 (1.00x4.50)	66.42 - 66.67	Auto	0.0000
L20	18	(Area) Sabre MS450 (1.00x4.50)	66.42 - 66.67	Auto	0.0000
L20	33	(Area) CCI-65FP-060100 (H)	66.42 - 66.67	Auto	0.1604
L20	34	(Area) CCI-65FP-060100 (H)	66.42 - 66.67	Auto	0.1604
L20	35	(Area) CCI-65FP-060100 (H)	66.42 - 66.67	Auto	0.1604
L20	37	(Area) CCI-65FP-045100 (H)	66.42 - 66.67	Auto	0.0000
L21	6	(Area) CCI-65FP-045100 (H)	63.50 - 65.00	Auto	0.0000
L21	7	(Area) CCI-65FP-045100 (H)	63.50 - 65.00	Auto	0.0000
L21	8	(Area) CCI-65FP-045100 (H)	63.50 - 65.00	Auto	0.0000
L21	16	(Area) Sabre MS450 (1.00x4.50)	63.50 - 66.42	Auto	0.0000
L21	17	(Area) Sabre MS450 (1.00x4.50)	63.50 - 66.42	Auto	0.0000
L21	18	(Area) Sabre MS450 (1.00x4.50)	63.50 - 66.42	Auto	0.0000
L21	33	(Area) CCI-65FP-060100 (H)	63.50 - 66.42	Auto	0.1388
L21	34	(Area) CCI-65FP-060100 (H)	63.50 - 66.42	Auto	0.1388
L21	35	(Area) CCI-65FP-060100 (H)	63.50 - 66.42	Auto	0.1388
L21	37	(Area) CCI-65FP-045100 (H)	65.17 - 66.42	Auto	0.0000
L22	6	(Area) CCI-65FP-045100 (H)	63.25 - 63.50	Auto	0.0000
L22	7	(Area) CCI-65FP-045100 (H)	63.25 - 63.50	Auto	0.0000
L22	8	(Area) CCI-65FP-045100 (H)	63.25 - 63.50	Auto	0.0000
L22	16	(Area) Sabre MS450 (1.00x4.50)	63.25 - 63.50	Auto	0.0000
L22	17	(Area) Sabre MS450 (1.00x4.50)	63.25 - 63.50	Auto	0.0000
L22	18	(Area) Sabre MS450 (1.00x4.50)	63.25 - 63.50	Auto	0.0000
L22	33	(Area) CCI-65FP-060100 (H)	63.25 - 63.50	Auto	0.2176
L22	34	(Area) CCI-65FP-060100 (H)	63.25 - 63.50	Auto	0.2176
L22	35	(Area) CCI-65FP-060100 (H)	63.25 - 63.50	Auto	0.2176
L23	6	(Area) CCI-65FP-045100 (H)	58.25 - 63.25	Auto	0.0000
L23	7	(Area) CCI-65FP-045100 (H)	58.25 - 63.25	Auto	0.0000
L23	8	(Area) CCI-65FP-045100 (H)	58.25 - 63.25	Auto	0.0000
L23	16	(Area) Sabre MS450 (1.00x4.50)	58.25 - 63.25	Auto	0.0000
L23	17	(Area) Sabre MS450 (1.00x4.50)	58.25 - 63.25	Auto	0.0000
L23	18	(Area) Sabre MS450 (1.00x4.50)	58.25 - 63.25	Auto	0.0000
L23	33	(Area) CCI-65FP-060100 (H)	58.25 - 63.25	Auto	0.1687
L23	34	(Area) CCI-65FP-060100 (H)	58.25 - 63.25	Auto	0.1687

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L23	35	(Area) CCI-65FP-060100 (H)	58.25 - 63.25	Auto	0.1687
L24	6	(Area) CCI-65FP-045100 (H)	53.25 - 58.25	Auto	0.0000
L24	7	(Area) CCI-65FP-045100 (H)	53.25 - 58.25	Auto	0.0000
L24	8	(Area) CCI-65FP-045100 (H)	53.25 - 58.25	Auto	0.0000
L24	16	(Area) Sabre MS450 (1.00x4.50)	53.25 - 58.25	Auto	0.0000
L24	17	(Area) Sabre MS450 (1.00x4.50)	53.25 - 58.25	Auto	0.0000
L24	18	(Area) Sabre MS450 (1.00x4.50)	53.25 - 58.25	Auto	0.0000
L24	33	(Area) CCI-65FP-060100 (H)	53.25 - 58.25	Auto	0.1068
L24	34	(Area) CCI-65FP-060100 (H)	53.25 - 58.25	Auto	0.1068
L24	35	(Area) CCI-65FP-060100 (H)	53.25 - 58.25	Auto	0.1068
L25	6	(Area) CCI-65FP-045100 (H)	47.63 - 53.25	Auto	0.0000
L25	7	(Area) CCI-65FP-045100 (H)	47.63 - 53.25	Auto	0.0000
L25	8	(Area) CCI-65FP-045100 (H)	47.63 - 53.25	Auto	0.0000
L25	16	(Area) Sabre MS450 (1.00x4.50)	50.00 - 53.25	Auto	0.0000
L25	17	(Area) Sabre MS450 (1.00x4.50)	50.00 - 53.25	Auto	0.0000
L25	18	(Area) Sabre MS450 (1.00x4.50)	50.00 - 53.25	Auto	0.0000
L25	24	(Area) CCI-65FP-040075 (H)	47.63 - 50.00	Auto	0.0000
L25	25	(Area) CCI-65FP-040075 (H)	47.63 - 50.00	Auto	0.0000
L25	26	(Area) CCI-65FP-040075 (H)	47.63 - 50.00	Auto	0.0000
L25	33	(Area) CCI-65FP-060100 (H)	47.63 - 53.25	Auto	0.0530
L25	34	(Area) CCI-65FP-060100 (H)	47.63 - 53.25	Auto	0.0530
L25	35	(Area) CCI-65FP-060100 (H)	47.63 - 53.25	Auto	0.0530
L26	6	(Area) CCI-65FP-045100 (H)	46.63 - 47.63	Auto	0.0000
L26	7	(Area) CCI-65FP-045100 (H)	46.63 - 47.63	Auto	0.0000
L26	8	(Area) CCI-65FP-045100 (H)	46.63 - 47.63	Auto	0.0000
L26	24	(Area) CCI-65FP-040075 (H)	46.63 - 47.63	Auto	0.0000
L26	25	(Area) CCI-65FP-040075 (H)	46.63 - 47.63	Auto	0.0000
L26	26	(Area) CCI-65FP-040075 (H)	46.63 - 47.63	Auto	0.0000
L26	33	(Area) CCI-65FP-060100 (H)	46.63 - 47.63	Auto	0.0506
L26	34	(Area) CCI-65FP-060100 (H)	46.63 - 47.63	Auto	0.0506
L26	35	(Area) CCI-65FP-060100 (H)	46.63 - 47.63	Auto	0.0506
L27	6	(Area) CCI-65FP-045100 (H)	41.63 - 46.63	Auto	0.0000
L27	7	(Area) CCI-65FP-045100 (H)	41.63 - 46.63	Auto	0.0000
L27	8	(Area) CCI-65FP-045100 (H)	41.63 - 46.63	Auto	0.0000
L27	24	(Area) CCI-65FP-040075 (H)	41.63 - 46.63	Auto	0.0000
L27	25	(Area) CCI-65FP-040075 (H)	41.63 - 46.63	Auto	0.0000
L27	26	(Area) CCI-65FP-040075 (H)	41.63 - 46.63	Auto	0.0000
L27	33	(Area) CCI-65FP-060100 (H)	41.63 - 46.63	Auto	0.0118
L27	34	(Area) CCI-65FP-060100 (H)	41.63 - 46.63	Auto	0.0118
L27	35	(Area) CCI-65FP-060100 (H)	41.63 - 46.63	Auto	0.0118
L28	6	(Area) CCI-65FP-045100 (H)	38.08 - 41.63	Auto	0.0000
L28	7	(Area) CCI-65FP-045100 (H)	38.08 - 41.63	Auto	0.0000
L28	8	(Area) CCI-65FP-045100 (H)	38.08 - 41.63	Auto	0.0000
L28	24	(Area) CCI-65FP-040075 (H)	38.08 - 41.63	Auto	0.0000
L28	25	(Area) CCI-65FP-040075 (H)	38.08 - 41.63	Auto	0.0000
L28	26	(Area) CCI-65FP-040075 (H)	38.08 - 41.63	Auto	0.0000
L28	33	(Area) CCI-65FP-060100 (H)	38.08 - 41.63	Auto	0.0000
L28	34	(Area) CCI-65FP-060100 (H)	38.08 - 41.63	Auto	0.0000
L28	35	(Area) CCI-65FP-060100 (H)	38.08 - 41.63	Auto	0.0000
L29	6	(Area) CCI-65FP-045100 (H)	37.83 - 38.08	Auto	0.0000
L29	7	(Area) CCI-65FP-045100 (H)	37.83 - 38.08	Auto	0.0000
L29	8	(Area) CCI-65FP-045100 (H)	37.83 - 38.08	Auto	0.0000
L29	24	(Area) CCI-65FP-040075 (H)	37.83 - 38.08	Auto	0.0000
L29	25	(Area) CCI-65FP-040075 (H)	37.83 - 38.08	Auto	0.0000
L29	26	(Area) CCI-65FP-040075 (H)	37.83 - 38.08	Auto	0.0000

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L29	33	(Area) CCI-65FP-060100 (H)	37.83 - 38.08	Auto	0.0000
L29	34	(Area) CCI-65FP-060100 (H)	37.83 - 38.08	Auto	0.0000
L29	35	(Area) CCI-65FP-060100 (H)	37.83 - 38.08	Auto	0.0000
L30	2	(Area) CCI-65FP-060100 (H)	33.50 - 35.00	Auto	0.0000
L30	3	(Area) CCI-65FP-060100 (H)	33.50 - 35.00	Auto	0.0000
L30	4	(Area) CCI-65FP-060100 (H)	33.50 - 35.00	Auto	0.0000
L30	6	(Area) CCI-65FP-045100 (H)	35.00 - 37.83	Auto	0.0000
L30	7	(Area) CCI-65FP-045100 (H)	35.00 - 37.83	Auto	0.0000
L30	8	(Area) CCI-65FP-045100 (H)	35.00 - 37.83	Auto	0.0000
L30	20	(Area) CCI-65FP-045100 (H)	33.50 - 35.00	Auto	0.0000
L30	21	(Area) CCI-65FP-045100 (H)	33.50 - 35.00	Auto	0.0000
L30	22	(Area) CCI-65FP-045100 (H)	33.50 - 35.00	Auto	0.0000
L30	24	(Area) CCI-65FP-040075 (H)	35.00 - 37.83	Auto	0.0000
L30	25	(Area) CCI-65FP-040075 (H)	35.00 - 37.83	Auto	0.0000
L30	26	(Area) CCI-65FP-040075 (H)	35.00 - 37.83	Auto	0.0000
L30	28	(Area) CCI-65FP-045100 (H)	33.50 - 35.50	Auto	0.0000
L30	29	(Area) CCI-65FP-045100 (H)	33.50 - 35.50	Auto	0.0000
L30	31	(Area) CCI-65FP-045100 (H)	33.50 - 35.50	Auto	0.0000
L30	33	(Area) CCI-65FP-060100 (H)	35.58 - 37.83	Auto	0.0000
L30	34	(Area) CCI-65FP-060100 (H)	35.58 - 37.83	Auto	0.0000
L30	35	(Area) CCI-65FP-060100 (H)	35.58 - 37.83	Auto	0.0000
L31	2	(Area) CCI-65FP-060100 (H)	33.25 - 33.50	Auto	0.0000
L31	3	(Area) CCI-65FP-060100 (H)	33.25 - 33.50	Auto	0.0000
L31	4	(Area) CCI-65FP-060100 (H)	33.25 - 33.50	Auto	0.0000
L31	20	(Area) CCI-65FP-045100 (H)	33.25 - 33.50	Auto	0.0000
L31	21	(Area) CCI-65FP-045100 (H)	33.25 - 33.50	Auto	0.0000
L31	22	(Area) CCI-65FP-045100 (H)	33.25 - 33.50	Auto	0.0000
L31	28	(Area) CCI-65FP-045100 (H)	33.25 - 33.50	Auto	0.0000
L31	29	(Area) CCI-65FP-045100 (H)	33.25 - 33.50	Auto	0.0000
L31	31	(Area) CCI-65FP-045100 (H)	33.25 - 33.50	Auto	0.0000
L32	2	(Area) CCI-65FP-060100 (H)	33.00 - 33.25	Auto	0.0000
L32	3	(Area) CCI-65FP-060100 (H)	33.00 - 33.25	Auto	0.0000
L32	4	(Area) CCI-65FP-060100 (H)	33.00 - 33.25	Auto	0.0000
L32	20	(Area) CCI-65FP-045100 (H)	33.00 - 33.25	Auto	0.0000
L32	21	(Area) CCI-65FP-045100 (H)	33.00 - 33.25	Auto	0.0000
L32	22	(Area) CCI-65FP-045100 (H)	33.00 - 33.25	Auto	0.0000
L32	28	(Area) CCI-65FP-045100 (H)	33.00 - 33.25	Auto	0.0000
L32	29	(Area) CCI-65FP-045100 (H)	33.00 - 33.25	Auto	0.0000
L32	31	(Area) CCI-65FP-045100 (H)	33.00 - 33.25	Auto	0.0000
L33	2	(Area) CCI-65FP-060100 (H)	32.75 - 33.00	Auto	0.0000
L33	3	(Area) CCI-65FP-060100 (H)	32.75 - 33.00	Auto	0.0000
L33	4	(Area) CCI-65FP-060100 (H)	32.75 - 33.00	Auto	0.0000
L33	20	(Area) CCI-65FP-045100 (H)	32.75 - 33.00	Auto	0.0000
L33	21	(Area) CCI-65FP-045100 (H)	32.75 - 33.00	Auto	0.0000
L33	22	(Area) CCI-65FP-045100 (H)	32.75 - 33.00	Auto	0.0000
L33	28	(Area) CCI-65FP-045100 (H)	32.75 - 33.00	Auto	0.0000
L33	29	(Area) CCI-65FP-045100 (H)	32.75 - 33.00	Auto	0.0000
L33	31	(Area) CCI-65FP-045100 (H)	32.75 - 33.00	Auto	0.0000
L34	2	(Area) CCI-65FP-060100 (H)	27.75 - 32.75	Auto	0.0000
L34	3	(Area) CCI-65FP-060100 (H)	27.75 - 32.75	Auto	0.0000
L34	4	(Area) CCI-65FP-060100 (H)	27.75 - 32.75	Auto	0.0000
L34	20	(Area) CCI-65FP-045100 (H)	27.75 - 32.75	Auto	0.0000
L34	21	(Area) CCI-65FP-045100 (H)	27.75 - 32.75	Auto	0.0000
L34	22	(Area) CCI-65FP-045100 (H)	27.75 - 32.75	Auto	0.0000
L34	28	(Area) CCI-65FP-045100 (H)	27.75 - 32.75	Auto	0.0000
L34	29	(Area) CCI-65FP-045100 (H)	27.75 - 32.75	Auto	0.0000
L34	31	(Area) CCI-65FP-045100 (H)	27.75 - 32.75	Auto	0.0000
L35	2	(Area) CCI-65FP-060100 (H)	22.75 - 27.75	Auto	0.0000
L35	3	(Area) CCI-65FP-060100 (H)	22.75 - 27.75	Auto	0.0000
L35	4	(Area) CCI-65FP-060100 (H)	22.75 - 27.75	Auto	0.0000
L35	20	(Area) CCI-65FP-045100 (H)	22.75 - 27.75	Auto	0.0000

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L35	21	(Area) CCI-65FP-045100 (H)	22.75 - 27.75	Auto	0.0000
L35	22	(Area) CCI-65FP-045100 (H)	22.75 - 27.75	Auto	0.0000
L35	28	(Area) CCI-65FP-045100 (H)	22.75 - 27.75	Auto	0.0000
L35	29	(Area) CCI-65FP-045100 (H)	22.75 - 27.75	Auto	0.0000
L35	31	(Area) CCI-65FP-045100 (H)	22.75 - 27.75	Auto	0.0000
L36	2	(Area) CCI-65FP-060100 (H)	17.75 - 22.75	Auto	0.0000
L36	3	(Area) CCI-65FP-060100 (H)	17.75 - 22.75	Auto	0.0000
L36	4	(Area) CCI-65FP-060100 (H)	17.75 - 22.75	Auto	0.0000
L36	20	(Area) CCI-65FP-045100 (H)	17.75 - 22.75	Auto	0.0000
L36	21	(Area) CCI-65FP-045100 (H)	17.75 - 22.75	Auto	0.0000
L36	22	(Area) CCI-65FP-045100 (H)	17.75 - 22.75	Auto	0.0000
L36	28	(Area) CCI-65FP-045100 (H)	17.75 - 22.75	Auto	0.0000
L36	29	(Area) CCI-65FP-045100 (H)	17.75 - 22.75	Auto	0.0000
L36	31	(Area) CCI-65FP-045100 (H)	17.75 - 22.75	Auto	0.0000
L37	2	(Area) CCI-65FP-060100 (H)	12.75 - 17.75	Auto	0.0000
L37	3	(Area) CCI-65FP-060100 (H)	12.75 - 17.75	Auto	0.0000
L37	4	(Area) CCI-65FP-060100 (H)	12.75 - 17.75	Auto	0.0000
L37	20	(Area) CCI-65FP-045100 (H)	12.75 - 17.75	Auto	0.0000
L37	21	(Area) CCI-65FP-045100 (H)	12.75 - 17.75	Auto	0.0000
L37	22	(Area) CCI-65FP-045100 (H)	12.75 - 17.75	Auto	0.0000
L37	28	(Area) CCI-65FP-045100 (H)	12.75 - 17.75	Auto	0.0000
L37	29	(Area) CCI-65FP-045100 (H)	12.75 - 17.75	Auto	0.0000
L37	31	(Area) CCI-65FP-045100 (H)	12.75 - 17.75	Auto	0.0000
L38	2	(Area) CCI-65FP-060100 (H)	12.50 - 12.75	Auto	0.0000
L38	3	(Area) CCI-65FP-060100 (H)	12.50 - 12.75	Auto	0.0000
L38	4	(Area) CCI-65FP-060100 (H)	12.50 - 12.75	Auto	0.0000
L38	20	(Area) CCI-65FP-045100 (H)	12.50 - 12.75	Auto	0.0000
L38	21	(Area) CCI-65FP-045100 (H)	12.50 - 12.75	Auto	0.0000
L38	22	(Area) CCI-65FP-045100 (H)	12.50 - 12.75	Auto	0.0000
L38	28	(Area) CCI-65FP-045100 (H)	12.50 - 12.75	Auto	0.0000
L38	29	(Area) CCI-65FP-045100 (H)	12.50 - 12.75	Auto	0.0000
L38	31	(Area) CCI-65FP-045100 (H)	12.50 - 12.75	Auto	0.0000
L39	2	(Area) CCI-65FP-060100 (H)	12.25 - 12.50	Auto	0.0000
L39	3	(Area) CCI-65FP-060100 (H)	12.25 - 12.50	Auto	0.0000
L39	4	(Area) CCI-65FP-060100 (H)	12.25 - 12.50	Auto	0.0000
L39	20	(Area) CCI-65FP-045100 (H)	12.25 - 12.50	Auto	0.0000
L39	21	(Area) CCI-65FP-045100 (H)	12.25 - 12.50	Auto	0.0000
L39	22	(Area) CCI-65FP-045100 (H)	12.25 - 12.50	Auto	0.0000
L39	28	(Area) CCI-65FP-045100 (H)	12.25 - 12.50	Auto	0.0000
L39	29	(Area) CCI-65FP-045100 (H)	12.25 - 12.50	Auto	0.0000
L39	31	(Area) CCI-65FP-045100 (H)	12.25 - 12.50	Auto	0.0000
L40	2	(Area) CCI-65FP-060100 (H)	12.00 - 12.25	Auto	0.0000
L40	3	(Area) CCI-65FP-060100 (H)	12.00 - 12.25	Auto	0.0000
L40	4	(Area) CCI-65FP-060100 (H)	12.00 - 12.25	Auto	0.0000
L40	20	(Area) CCI-65FP-045100 (H)	12.00 - 12.25	Auto	0.0000
L40	21	(Area) CCI-65FP-045100 (H)	12.00 - 12.25	Auto	0.0000
L40	22	(Area) CCI-65FP-045100 (H)	12.00 - 12.25	Auto	0.0000
L40	28	(Area) CCI-65FP-045100 (H)	12.00 - 12.25	Auto	0.0000
L40	29	(Area) CCI-65FP-045100 (H)	12.00 - 12.25	Auto	0.0000
L40	31	(Area) CCI-65FP-045100 (H)	12.00 - 12.25	Auto	0.0000
L41	2	(Area) CCI-65FP-060100 (H)	11.75 - 12.00	Auto	0.0000
L41	3	(Area) CCI-65FP-060100 (H)	11.75 - 12.00	Auto	0.0000
L41	4	(Area) CCI-65FP-060100 (H)	11.75 - 12.00	Auto	0.0000
L41	20	(Area) CCI-65FP-045100 (H)	11.75 - 12.00	Auto	0.0000
L41	21	(Area) CCI-65FP-045100 (H)	11.75 - 12.00	Auto	0.0000
L41	22	(Area) CCI-65FP-045100 (H)	11.75 - 12.00	Auto	0.0000
L41	28	(Area) CCI-65FP-045100 (H)	11.75 - 12.00	Auto	0.0000
L41	29	(Area) CCI-65FP-045100 (H)	11.75 - 12.00	Auto	0.0000
L41	31	(Area) CCI-65FP-045100 (H)	11.75 - 12.00	Auto	0.0000
L42	2	(Area) CCI-65FP-060100 (H)	6.75 - 11.75	Auto	0.0000
L42	3	(Area) CCI-65FP-060100 (H)	6.75 - 11.75	Auto	0.0000

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L42	4	(Area) CCI-65FP-060100 (H)	6.75 - 11.75	Auto	0.0000
L42	20	(Area) CCI-65FP-045100 (H)	6.75 - 11.75	Auto	0.0000
L42	21	(Area) CCI-65FP-045100 (H)	6.75 - 11.75	Auto	0.0000
L42	22	(Area) CCI-65FP-045100 (H)	6.75 - 11.75	Auto	0.0000
L42	28	(Area) CCI-65FP-045100 (H)	6.75 - 11.75	Auto	0.0000
L42	29	(Area) CCI-65FP-045100 (H)	6.75 - 11.75	Auto	0.0000
L42	31	(Area) CCI-65FP-045100 (H)	10.50 - 11.75	Auto	0.0000
L43	2	(Area) CCI-65FP-060100 (H)	2.50 - 6.75	Auto	0.0000
L43	3	(Area) CCI-65FP-060100 (H)	2.50 - 6.75	Auto	0.0000
L43	4	(Area) CCI-65FP-060100 (H)	2.50 - 6.75	Auto	0.0000
L43	20	(Area) CCI-65FP-045100 (H)	2.50 - 6.75	Auto	0.0000
L43	21	(Area) CCI-65FP-045100 (H)	2.50 - 6.75	Auto	0.0000
L43	22	(Area) CCI-65FP-045100 (H)	2.50 - 6.75	Auto	0.0000
L43	28	(Area) CCI-65FP-045100 (H)	2.50 - 6.75	Auto	0.0000
L43	29	(Area) CCI-65FP-045100 (H)	2.50 - 6.75	Auto	0.0000
L44	2	(Area) CCI-65FP-060100 (H)	2.25 - 2.50	Auto	0.0000
L44	3	(Area) CCI-65FP-060100 (H)	2.25 - 2.50	Auto	0.0000
L44	4	(Area) CCI-65FP-060100 (H)	2.25 - 2.50	Auto	0.0000
L44	20	(Area) CCI-65FP-045100 (H)	2.25 - 2.50	Auto	0.0000
L44	21	(Area) CCI-65FP-045100 (H)	2.25 - 2.50	Auto	0.0000
L44	22	(Area) CCI-65FP-045100 (H)	2.25 - 2.50	Auto	0.0000
L44	28	(Area) CCI-65FP-045100 (H)	2.25 - 2.50	Auto	0.0000
L44	29	(Area) CCI-65FP-045100 (H)	2.25 - 2.50	Auto	0.0000
L45	2	(Area) CCI-65FP-060100 (H)	2.00 - 2.25	Auto	0.0000
L45	3	(Area) CCI-65FP-060100 (H)	2.00 - 2.25	Auto	0.0000
L45	4	(Area) CCI-65FP-060100 (H)	2.00 - 2.25	Auto	0.0000
L45	20	(Area) CCI-65FP-045100 (H)	2.00 - 2.25	Auto	0.0000
L45	21	(Area) CCI-65FP-045100 (H)	2.00 - 2.25	Auto	0.0000
L45	22	(Area) CCI-65FP-045100 (H)	2.00 - 2.25	Auto	0.0000
L45	28	(Area) CCI-65FP-045100 (H)	2.00 - 2.25	Auto	0.0000
L45	29	(Area) CCI-65FP-045100 (H)	2.00 - 2.25	Auto	0.0000
L46	2	(Area) CCI-65FP-060100 (H)	0.00 - 2.00	Auto	0.0000
L46	3	(Area) CCI-65FP-060100 (H)	0.00 - 2.00	Auto	0.0000
L46	4	(Area) CCI-65FP-060100 (H)	0.00 - 2.00	Auto	0.0000
L46	20	(Area) CCI-65FP-045100 (H)	0.00 - 2.00	Auto	0.0000
L46	21	(Area) CCI-65FP-045100 (H)	0.00 - 2.00	Auto	0.0000
L46	22	(Area) CCI-65FP-045100 (H)	0.00 - 2.00	Auto	0.0000
L46	28	(Area) CCI-65FP-045100 (H)	0.50 - 2.00	Auto	0.0000
L46	29	(Area) CCI-65FP-045100 (H)	0.50 - 2.00	Auto	0.0000

Discrete Tower Loads

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert	Azimuth Adjustment	Placement		C_AA_A Front	C_AA_A Side	Weight
			ft ft ft	°	ft		ft^2	ft^2	K
APXVSPP18-C-A20 w/ Mount Pipe	A	From Leg	4.000 0.000 2.000	0.000	117.000	No Ice 1/2" Ice 1" Ice	4.600 5.050 5.500	4.010 4.450 4.890	0.095 0.160 0.235
APXVSPP18-C-A20 w/ Mount Pipe	B	From Leg	4.000 0.000 2.000	0.000	117.000	No Ice 1/2" Ice 1" Ice	4.600 5.050 5.500	4.010 4.450 4.890	0.095 0.160 0.235
APXVSPP18-C-A20 w/ Mount Pipe	C	From Leg	4.000 0.000 2.000	0.000	117.000	No Ice 1/2" Ice 1" Ice	4.600 5.050 5.500	4.010 4.450 4.890	0.095 0.160 0.235

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft / Vert ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
APXVTM14-ALU-I20 w/ Mount Pipe	A	From Leg	4.000	0.000	117.000	No Ice	4.090	2.860	0.077
			0.000			1/2" Ice	4.480	3.230	0.127
			2.000			1" Ice	4.880	3.610	0.185
APXVTM14-ALU-I20 w/ Mount Pipe	B	From Leg	4.000	0.000	117.000	No Ice	4.090	2.860	0.077
			0.000			1/2" Ice	4.480	3.230	0.127
			2.000			1" Ice	4.880	3.610	0.185
APXVTM14-ALU-I20 w/ Mount Pipe	C	From Leg	4.000	0.000	117.000	No Ice	4.090	2.860	0.077
			0.000			1/2" Ice	4.480	3.230	0.127
			2.000			1" Ice	4.880	3.610	0.185
(3) ACU-A20-N	A	From Leg	4.000	0.000	117.000	No Ice	0.067	0.117	0.001
			0.000			1/2" Ice	0.104	0.162	0.002
			0.000			1" Ice	0.148	0.215	0.004
(3) ACU-A20-N	B	From Leg	4.000	0.000	117.000	No Ice	0.067	0.117	0.001
			0.000			1/2" Ice	0.104	0.162	0.002
			0.000			1" Ice	0.148	0.215	0.004
(3) ACU-A20-N	C	From Leg	4.000	0.000	117.000	No Ice	0.067	0.117	0.001
			0.000			1/2" Ice	0.104	0.162	0.002
			0.000			1" Ice	0.148	0.215	0.004
TD-RRH8X20-25	A	From Leg	4.000	0.000	117.000	No Ice	4.045	1.535	0.070
			0.000			1/2" Ice	4.298	1.714	0.097
			4.000			1" Ice	4.557	1.901	0.128
TD-RRH8X20-25	B	From Leg	4.000	0.000	117.000	No Ice	4.045	1.535	0.070
			0.000			1/2" Ice	4.298	1.714	0.097
			4.000			1" Ice	4.557	1.901	0.128
TD-RRH8X20-25	C	From Leg	4.000	0.000	117.000	No Ice	4.045	1.535	0.070
			0.000			1/2" Ice	4.298	1.714	0.097
			4.000			1" Ice	4.557	1.901	0.128
6' x 2" Mount Pipe	A	From Leg	2.000	0.000	117.000	No Ice	1.425	1.425	0.022
			0.000			1/2" Ice	1.925	1.925	0.033
			0.000			1" Ice	2.294	2.294	0.048
6' x 2" Mount Pipe	B	From Leg	2.000	0.000	117.000	No Ice	1.425	1.425	0.022
			0.000			1/2" Ice	1.925	1.925	0.033
			0.000			1" Ice	2.294	2.294	0.048
6' x 2" Mount Pipe	C	From Leg	2.000	0.000	117.000	No Ice	1.425	1.425	0.022
			0.000			1/2" Ice	1.925	1.925	0.033
			0.000			1" Ice	2.294	2.294	0.048
T-Arm Mount [TA 601-3]	C	None		0.000	117.000	No Ice	10.048	10.048	0.581
						1/2" Ice	12.288	12.288	0.753
						1" Ice	14.528	14.528	0.925
*									
PCS 1900MHz 4x45W-65MHz	A	From Leg	2.000	0.000	115.000	No Ice	2.322	2.238	0.060
			0.000			1/2" Ice	2.527	2.441	0.083
			0.000			1" Ice	2.739	2.651	0.110
PCS 1900MHz 4x45W-65MHz	B	From Leg	2.000	0.000	115.000	No Ice	2.322	2.238	0.060
			0.000			1/2" Ice	2.527	2.441	0.083
			0.000			1" Ice	2.739	2.651	0.110
PCS 1900MHz 4x45W-65MHz	C	From Leg	2.000	0.000	115.000	No Ice	2.322	2.238	0.060
			0.000			1/2" Ice	2.527	2.441	0.083
			0.000			1" Ice	2.739	2.651	0.110
800MHZ RRH	A	From Leg	2.000	0.000	115.000	No Ice	2.134	1.773	0.053
			0.000			1/2" Ice	2.320	1.946	0.074
			0.000			1" Ice	2.512	2.127	0.098
800MHZ RRH	B	From Leg	2.000	0.000	115.000	No Ice	2.134	1.773	0.053
			0.000			1/2" Ice	2.320	1.946	0.074
			0.000			1" Ice	2.512	2.127	0.098
800MHZ RRH	C	From Leg	2.000	0.000	115.000	No Ice	2.134	1.773	0.053
			0.000			1/2" Ice	2.320	1.946	0.074

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft / Vert ft / ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
			0.000			1" Ice	2.512	2.127	0.098
800 EXTERNAL NOTCH FILTER	A	From Leg	2.000 0.000	0.000	115.000	No Ice 1/2" Ice	0.660 0.763	0.321 0.398	0.011 0.017
			0.000			1" Ice	0.873	0.483	0.024
800 EXTERNAL NOTCH FILTER	B	From Leg	2.000 0.000	0.000	115.000	No Ice 1/2" Ice	0.660 0.763	0.321 0.398	0.011 0.017
			0.000			1" Ice	0.873	0.483	0.024
800 EXTERNAL NOTCH FILTER	C	From Leg	2.000 0.000	0.000	115.000	No Ice 1/2" Ice	0.660 0.763	0.321 0.398	0.011 0.017
			0.000			1" Ice	0.873	0.483	0.024
(2) 4' x 2" Pipe Mount	A	From Leg	2.000 0.000	0.000	115.000	No Ice 1/2" Ice	0.785 1.028	0.785 1.028	0.029 0.035
			0.000			1" Ice	1.281	1.281	0.044
(2) 4' x 2" Pipe Mount	B	From Leg	2.000 0.000	0.000	115.000	No Ice 1/2" Ice	0.785 1.028	0.785 1.028	0.029 0.035
			0.000			1" Ice	1.281	1.281	0.044
(2) 4' x 2" Pipe Mount	C	From Leg	2.000 0.000	0.000	115.000	No Ice 1/2" Ice	0.785 1.028	0.785 1.028	0.029 0.035
			0.000			1" Ice	1.281	1.281	0.044
Side Arm Mount [SO 102-3]	C	None		0.000	115.000	No Ice 1/2" Ice 1" Ice	3.600 4.180 4.750	3.600 4.180 4.750	0.075 0.105 0.135
*									
AIR6449 B41_T-MOBILE w/ Mount Pipe	A	From Leg	4.000 0.000	0.000	108.000	No Ice 1/2" Ice	5.190 5.590	2.710 3.040	0.128 0.174
			2.000			1" Ice	6.020	3.380	0.227
AIR6449 B41_T-MOBILE w/ Mount Pipe	B	From Leg	4.000 0.000	0.000	108.000	No Ice 1/2" Ice	5.190 5.590	2.710 3.040	0.128 0.174
			2.000			1" Ice	6.020	3.380	0.227
AIR6449 B41_T-MOBILE w/ Mount Pipe	C	From Leg	4.000 0.000	0.000	108.000	No Ice 1/2" Ice	5.190 5.590	2.710 3.040	0.128 0.174
			2.000			1" Ice	6.020	3.380	0.227
APXVAARR24_43-U-NA20 w/ Mount Pipe	A	From Leg	4.000 0.000	0.000	108.000	No Ice 1/2" Ice	14.690 15.460	6.870 7.550	0.186 0.315
			2.000			1" Ice	16.230	8.250	0.458
APXVAARR24_43-U-NA20 w/ Mount Pipe	B	From Leg	4.000 0.000	0.000	108.000	No Ice 1/2" Ice	14.690 15.460	6.870 7.550	0.186 0.315
			2.000			1" Ice	16.230	8.250	0.458
APXVAARR24_43-U-NA20 w/ Mount Pipe	C	From Leg	4.000 0.000	0.000	108.000	No Ice 1/2" Ice	14.690 15.460	6.870 7.550	0.186 0.315
			2.000			1" Ice	16.230	8.250	0.458
AIR 32 B2A B66AA w/ Mount Pipe	A	From Leg	4.000 0.000	0.000	108.000	No Ice 1/2" Ice	3.760 4.120	3.150 3.490	0.194 0.252
			2.000			1" Ice	4.480	3.840	0.320
AIR 32 B2A B66AA w/ Mount Pipe	B	From Leg	4.000 0.000	0.000	108.000	No Ice 1/2" Ice	3.760 4.120	3.150 3.490	0.194 0.252
			2.000			1" Ice	4.480	3.840	0.320
AIR 32 B2A B66AA w/ Mount Pipe	C	From Leg	4.000 0.000	0.000	108.000	No Ice 1/2" Ice	3.760 4.120	3.150 3.490	0.194 0.252
			2.000			1" Ice	4.480	3.840	0.320
KRY 112 144/1	A	From Leg	4.000 0.000	0.000	108.000	No Ice 1/2" Ice	0.350 0.426	0.175 0.234	0.011 0.014
			3.000			1" Ice	0.509	0.301	0.019
KRY 112 144/1	B	From Leg	4.000 0.000	0.000	108.000	No Ice 1/2" Ice	0.350 0.426	0.175 0.234	0.011 0.014
			3.000			1" Ice	0.509	0.301	0.019
KRY 112 144/1	C	From Leg	4.000	0.000	108.000	No Ice	0.350	0.175	0.011

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft / Vert ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
			0.000			1/2" Ice	0.426	0.234	0.014
			3.000			1" Ice	0.509	0.301	0.019
SDX1926Q-43	A	From Leg	4.000	0.000	108.000	No Ice	0.241	0.101	0.006
			0.000			1/2" Ice	0.306	0.144	0.009
			2.000			1" Ice	0.379	0.195	0.012
SDX1926Q-43	B	From Leg	4.000	0.000	108.000	No Ice	0.241	0.101	0.006
			0.000			1/2" Ice	0.306	0.144	0.009
			2.000			1" Ice	0.379	0.195	0.012
SDX1926Q-43	C	From Leg	4.000	0.000	108.000	No Ice	0.241	0.101	0.006
			0.000			1/2" Ice	0.306	0.144	0.009
			2.000			1" Ice	0.379	0.195	0.012
RADIO 4449 B71 B85A_T-MOBILE	A	From Leg	4.000	0.000	108.000	No Ice	1.970	1.587	0.073
			0.000			1/2" Ice	2.147	1.749	0.093
			2.000			1" Ice	2.331	1.918	0.116
RADIO 4449 B71 B85A_T-MOBILE	B	From Leg	4.000	0.000	108.000	No Ice	1.970	1.587	0.073
			0.000			1/2" Ice	2.147	1.749	0.093
			2.000			1" Ice	2.331	1.918	0.116
RADIO 4449 B71 B85A_T-MOBILE	C	From Leg	4.000	0.000	108.000	No Ice	1.970	1.587	0.073
			0.000			1/2" Ice	2.147	1.749	0.093
			2.000			1" Ice	2.331	1.918	0.116
RRUS 4415 B25_CCIV2	A	From Leg	4.000	0.000	108.000	No Ice	1.843	0.820	0.046
			0.000			1/2" Ice	2.012	0.943	0.060
			2.000			1" Ice	2.190	1.075	0.077
RRUS 4415 B25_CCIV2	B	From Leg	4.000	0.000	108.000	No Ice	1.843	0.820	0.046
			0.000			1/2" Ice	2.012	0.943	0.060
			2.000			1" Ice	2.190	1.075	0.077
RRUS 4415 B25_CCIV2	C	From Leg	4.000	0.000	108.000	No Ice	1.843	0.820	0.046
			0.000			1/2" Ice	2.012	0.943	0.060
			0.000			1" Ice	2.190	1.075	0.077
Platform Mount [LP 303-1_HR-1]	C	None		0.000	108.000	No Ice	17.090	17.090	1.495
						1/2" Ice	21.470	21.470	1.881
						1" Ice	25.720	25.720	2.346
*									
(2) DB844G65ZAXY w/ Mount Pipe	A	From Leg	4.000	0.000	100.000	No Ice	4.230	4.510	0.034
			0.000			1/2" Ice	4.710	5.000	0.076
			2.000			1" Ice	5.210	5.500	0.126
(2) DB844G65ZAXY w/ Mount Pipe	B	From Leg	4.000	0.000	100.000	No Ice	4.230	4.510	0.034
			0.000			1/2" Ice	4.710	5.000	0.076
			2.000			1" Ice	5.210	5.500	0.126
(2) DB844G65ZAXY w/ Mount Pipe	C	From Leg	4.000	0.000	100.000	No Ice	4.230	4.510	0.034
			0.000			1/2" Ice	4.710	5.000	0.076
			2.000			1" Ice	5.210	5.500	0.126
GPS_A	C	From Leg	4.000	0.000	100.000	No Ice	0.255	0.255	0.001
			0.000			1/2" Ice	0.320	0.320	0.005
			4.000			1" Ice	0.393	0.393	0.010
(2) MX06FRO660-02 w/ Mount Pipe	A	From Leg	4.000	0.000	100.000	No Ice	6.540	5.540	0.082
			0.000			1/2" Ice	7.060	6.050	0.164
			2.000			1" Ice	7.600	6.570	0.256
(2) MX06FRO660-02 w/ Mount Pipe	B	From Leg	4.000	0.000	100.000	No Ice	6.540	5.540	0.082
			0.000			1/2" Ice	7.060	6.050	0.164
			2.000			1" Ice	7.600	6.570	0.256
(2) MX06FRO660-02 w/ Mount Pipe	C	From Leg	4.000	0.000	100.000	No Ice	6.540	5.540	0.082
			0.000			1/2" Ice	7.060	6.050	0.164
			2.000			1" Ice	7.600	6.570	0.256
Sub6 Antenna - VZS01 w/ Mount Pipe	A	From Leg	4.000	0.000	100.000	No Ice	4.915	2.687	0.101
			0.000			1/2" Ice	5.264	3.151	0.141
			2.000			1" Ice	5.623	3.631	0.186

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft / Vert ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
Sub6 Antenna - VZS01 w/ Mount Pipe	B	From Leg	4.000 0.000 2.000	0.000	100.000	No Ice 1/2" Ice 1" Ice	4.915 5.264 5.623	2.687 3.151 3.631	0.101 0.141 0.186
Sub6 Antenna - VZS01 w/ Mount Pipe	C	From Leg	4.000 0.000 2.000	0.000	100.000	No Ice 1/2" Ice 1" Ice	4.915 5.264 5.623	2.687 3.151 3.631	0.101 0.141 0.186
DB-C1-12C-24AB-0Z	A	From Leg	4.000 0.000 2.000	0.000	100.000	No Ice 1/2" Ice 1" Ice	4.056 4.316 4.582	3.098 3.335 3.580	0.032 0.068 0.109
RFV01U-D1A	A	From Leg	4.000 0.000 2.000	0.000	100.000	No Ice 1/2" Ice 1" Ice	1.875 2.045 2.223	1.250 1.393 1.543	0.084 0.103 0.124
RFV01U-D1A	B	From Leg	4.000 0.000 2.000	0.000	100.000	No Ice 1/2" Ice 1" Ice	1.875 2.045 2.223	1.250 1.393 1.543	0.084 0.103 0.124
RFV01U-D1A	C	From Leg	4.000 0.000 2.000	0.000	100.000	No Ice 1/2" Ice 1" Ice	1.875 2.045 2.223	1.250 1.393 1.543	0.084 0.103 0.124
RFV01U-D2A	B	From Leg	4.000 0.000 2.000	0.000	100.000	No Ice 1/2" Ice 1" Ice	1.875 2.045 2.223	1.013 1.145 1.284	0.070 0.087 0.106
(2) RFV01U-D2A	C	From Leg	4.000 0.000 2.000	0.000	100.000	No Ice 1/2" Ice 1" Ice	1.875 2.045 2.223	1.013 1.145 1.284	0.070 0.087 0.106
L1.625x1.625x3/8-12'	A	From Leg	4.000 0.000 0.000	0.000	100.000	No Ice 1/2" Ice 1" Ice	1.950 2.763 3.583	0.022 0.044 0.073	1.000 1.020 1.050
L1.625x1.625x3/8-12'	B	From Leg	4.000 0.000 0.000	0.000	100.000	No Ice 1/2" Ice 1" Ice	1.950 2.763 3.583	0.022 0.044 0.073	1.000 1.020 1.050
L1.625x1.625x3/8-12'	C	From Leg	4.000 0.000 0.000	0.000	100.000	No Ice 1/2" Ice 1" Ice	1.950 2.763 3.583	0.022 0.044 0.073	1.000 1.020 1.050
Platform Mount [LP 713-1]	C	None		0.000	100.000	No Ice 1/2" Ice 1" Ice	35.631 38.740 41.849	35.631 38.740 41.849	1.636 2.414 3.192
*									
*									
DC6-48-60-18-8C-EV	B	From Leg	4.000 0.000 0.000	0.000	89.000	No Ice 1/2" Ice 1" Ice	2.736 2.962 3.195	2.736 2.962 3.195	0.026 0.052 0.082
RRUS 4426 B66	A	From Leg	4.000 0.000 0.000	0.000	89.000	No Ice 1/2" Ice 1" Ice	1.644 1.804 1.972	0.725 0.842 0.969	0.048 0.061 0.076
RRUS 4426 B66	B	From Leg	4.000 0.000 0.000	0.000	89.000	No Ice 1/2" Ice 1" Ice	1.644 1.804 1.972	0.725 0.842 0.969	0.048 0.061 0.076
RRUS 4426 B66	C	From Leg	4.000 0.000 0.000	0.000	89.000	No Ice 1/2" Ice 1" Ice	1.644 1.804 1.972	0.725 0.842 0.969	0.048 0.061 0.076
RRUS 32 B2	A	From Leg	4.000 0.000 0.000	0.000	89.000	No Ice 1/2" Ice 1" Ice	2.731 2.953 3.182	1.668 1.855 2.049	0.053 0.074 0.098
RRUS 32 B2	B	From Leg	4.000 0.000 0.000	0.000	89.000	No Ice 1/2" Ice 1" Ice	2.731 2.953 3.182	1.668 1.855 2.049	0.053 0.074 0.098
RRUS 32 B2	C	From Leg	4.000	0.000	89.000	No Ice	2.731	1.668	0.053

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft / Vert ft / ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
			0.000			1/2" Ice	2.953	1.855	0.074
			0.000			1" Ice	3.182	2.049	0.098
RRUS 32 B30	A	From Leg	4.000	0.000	89.000	No Ice	2.692	1.573	0.060
			0.000			1/2" Ice	2.912	1.756	0.080
			0.000			1" Ice	3.138	1.945	0.104
RRUS 32 B30	B	From Leg	4.000	0.000	89.000	No Ice	2.692	1.573	0.060
			0.000			1/2" Ice	2.912	1.756	0.080
			0.000			1" Ice	3.138	1.945	0.104
RRUS 32 B30	C	From Leg	4.000	0.000	89.000	No Ice	2.692	1.573	0.060
			0.000			1/2" Ice	2.912	1.756	0.080
			0.000			1" Ice	3.138	1.945	0.104
QD8616-7	A	From Leg	4.000	0.000	89.000	No Ice	18.350	7.990	0.150
			0.000			1/2" Ice	19.380	8.910	0.259
			0.000			1" Ice	20.440	9.860	0.377
QD8616-7	B	From Leg	4.000	0.000	89.000	No Ice	18.350	7.990	0.150
			0.000			1/2" Ice	19.380	8.910	0.259
			0.000			1" Ice	20.440	9.860	0.377
QD8616-7	C	From Leg	4.000	0.000	89.000	No Ice	18.350	7.990	0.150
			0.000			1/2" Ice	19.380	8.910	0.259
			0.000			1" Ice	20.440	9.860	0.377
AIR 6449 N77	A	From Leg	4.000	0.000	89.000	No Ice	3.700	2.140	0.097
			0.000			1/2" Ice	4.060	2.450	0.130
			1.000			1" Ice	4.440	2.780	0.168
AIR 6449 N77	B	From Leg	4.000	0.000	89.000	No Ice	3.700	2.140	0.097
			0.000			1/2" Ice	4.060	2.450	0.130
			1.000			1" Ice	4.440	2.780	0.168
AIR 6449 N77	C	From Leg	4.000	0.000	89.000	No Ice	3.700	2.140	0.097
			0.000			1/2" Ice	4.060	2.450	0.130
			1.000			1" Ice	4.440	2.780	0.168
DMP65R-BU8D	A	From Leg	4.000	0.000	89.000	No Ice	15.860	5.950	0.106
			0.000			1/2" Ice	16.800	6.780	0.203
			0.000			1" Ice	17.750	7.640	0.309
DMP65R-BU8D	B	From Leg	4.000	0.000	89.000	No Ice	15.860	5.950	0.106
			0.000			1/2" Ice	16.800	6.780	0.203
			0.000			1" Ice	17.750	7.640	0.309
DMP65R-BU8D	C	From Leg	4.000	0.000	89.000	No Ice	15.860	5.950	0.106
			0.000			1/2" Ice	16.800	6.780	0.203
			0.000			1" Ice	17.750	7.640	0.309
C-Band Antenna E	A	From Leg	4.000	0.000	89.000	No Ice	3.668	1.653	0.066
			0.000			1/2" Ice	3.915	1.843	0.092
			-1.000			1" Ice	4.169	2.039	0.120
C-Band Antenna E	B	From Leg	4.000	0.000	89.000	No Ice	3.668	1.653	0.066
			0.000			1/2" Ice	3.915	1.843	0.092
			-1.000			1" Ice	4.169	2.039	0.120
C-Band Antenna E	C	From Leg	4.000	0.000	89.000	No Ice	3.668	1.653	0.066
			0.000			1/2" Ice	3.915	1.843	0.092
			-1.000			1" Ice	4.169	2.039	0.120
RRUS 4449 B5/B12	A	From Leg	4.000	0.000	89.000	No Ice	1.968	1.408	0.071
			0.000			1/2" Ice	2.144	1.564	0.090
			0.000			1" Ice	2.328	1.727	0.111
RRUS 4449 B5/B12	B	From Leg	4.000	0.000	89.000	No Ice	1.968	1.408	0.071
			0.000			1/2" Ice	2.144	1.564	0.090
			0.000			1" Ice	2.328	1.727	0.111
RRUS 4449 B5/B12	C	From Leg	4.000	0.000	89.000	No Ice	1.968	1.408	0.071
			0.000			1/2" Ice	2.144	1.564	0.090
			0.000			1" Ice	2.328	1.727	0.111
RADIO 4478 B14	A	From Leg	4.000	0.000	89.000	No Ice	2.021	1.246	0.059

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft	Offsets: Vert ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
			0.000				1/2" Ice	2.200	1.396	0.077
			0.000				1" Ice	2.386	1.554	0.097
RADIO 4478 B14	B	From Leg	4.000		0.000	89.000	No Ice	2.021	1.246	0.059
			0.000				1/2" Ice	2.200	1.396	0.077
			0.000				1" Ice	2.386	1.554	0.097
RADIO 4478 B14	C	From Leg	4.000		0.000	89.000	No Ice	2.021	1.246	0.059
			0.000				1/2" Ice	2.200	1.396	0.077
			0.000				1" Ice	2.386	1.554	0.097
DC9-48-60-24-8C-EV	B	From Leg	4.000		0.000	89.000	No Ice	2.737	4.785	0.026
			0.000				1/2" Ice	2.963	5.065	0.063
			0.000				1" Ice	3.196	5.352	0.104
DC9-48-60-24-8C-EV	C	From Leg	4.000		0.000	89.000	No Ice	2.737	4.785	0.026
			0.000				1/2" Ice	2.963	5.065	0.063
			0.000				1" Ice	3.196	5.352	0.104
8' x 2" Mount Pipe	A	From Leg	4.000		0.000	89.000	No Ice	1.900	1.900	0.029
			0.000				1/2" Ice	2.728	2.728	0.044
			0.000				1" Ice	3.401	3.401	0.063
8' x 2" Mount Pipe	B	From Leg	4.000		0.000	89.000	No Ice	1.900	1.900	0.029
			0.000				1/2" Ice	2.728	2.728	0.044
			0.000				1" Ice	3.401	3.401	0.063
8' x 2" Mount Pipe	C	From Leg	4.000		0.000	89.000	No Ice	1.900	1.900	0.029
			0.000				1/2" Ice	2.728	2.728	0.044
			0.000				1" Ice	3.401	3.401	0.063
Platform Mount [LP 301-1_KCKR]	C	None			0.000	89.000	No Ice	35.030	35.030	1.863
							1/2" Ice	44.460	44.460	2.516
							1" Ice	53.720	53.720	3.326
*										
800 10504	A	From Face	1.000		0.000	84.000	No Ice	2.690	1.270	0.018
			0.000				1/2" Ice	3.150	1.700	0.037
			0.000				1" Ice	3.630	2.150	0.061
800 10504	B	From Face	1.000		0.000	84.000	No Ice	2.690	1.270	0.018
			0.000				1/2" Ice	3.150	1.700	0.037
			0.000				1" Ice	3.630	2.150	0.061
800 10504	B	From Face	1.000		0.000	84.000	No Ice	2.690	1.270	0.018
			0.000				1/2" Ice	3.150	1.700	0.037
			0.000				1" Ice	3.630	2.150	0.061
Side Arm Mount [SO 102-3]	C	None			0.000	84.000	No Ice	3.600	3.600	0.075
							1/2" Ice	4.180	4.180	0.105
							1" Ice	4.750	4.750	0.135
Pipe Mount [PM 601-3]	C	None			0.000	84.000	No Ice	3.170	3.170	0.195
							1/2" Ice	3.790	3.790	0.232
							1" Ice	4.420	4.420	0.279
*										
MX08FRO665-21 w/ Mount Pipe	A	From Leg	4.000		0.000	76.000	No Ice	8.010	4.230	0.108
			0.000				1/2" Ice	8.520	4.690	0.194
			0.000				1" Ice	9.040	5.160	0.292
MX08FRO665-21 w/ Mount Pipe	B	From Leg	4.000		0.000	76.000	No Ice	8.010	4.230	0.108
			0.000				1/2" Ice	8.520	4.690	0.194
			0.000				1" Ice	9.040	5.160	0.292
MX08FRO665-21 w/ Mount Pipe	C	From Leg	4.000		0.000	76.000	No Ice	8.010	4.230	0.108
			0.000				1/2" Ice	8.520	4.690	0.194
			0.000				1" Ice	9.040	5.160	0.292
TA08025-B604	A	From Leg	4.000		0.000	76.000	No Ice	1.964	0.981	0.064
			0.000				1/2" Ice	2.138	1.112	0.081
			0.000				1" Ice	2.320	1.250	0.100
TA08025-B604	B	From Leg	4.000		0.000	76.000	No Ice	1.964	0.981	0.064
			0.000				1/2" Ice	2.138	1.112	0.081

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft / Vert ft / ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
			0.000			1" Ice	2.320	1.250	0.100
TA08025-B604	C	From Leg	4.000	0.000	76.000	No Ice	1.964	0.981	0.064
			0.000			1/2" Ice	2.138	1.112	0.081
			0.000			1" Ice	2.320	1.250	0.100
TA08025-B605	A	From Leg	4.000	0.000	76.000	No Ice	1.964	1.129	0.075
			0.000			1/2" Ice	2.138	1.267	0.093
			0.000			1" Ice	2.320	1.411	0.114
TA08025-B605	B	From Leg	4.000	0.000	76.000	No Ice	1.964	1.129	0.075
			0.000			1/2" Ice	2.138	1.267	0.093
			0.000			1" Ice	2.320	1.411	0.114
TA08025-B605	C	From Leg	4.000	0.000	76.000	No Ice	1.964	1.129	0.075
			0.000			1/2" Ice	2.138	1.267	0.093
			0.000			1" Ice	2.320	1.411	0.114
RDIDC-9181-PF-48	A	From Leg	4.000	0.000	76.000	No Ice	2.012	1.168	0.022
			0.000			1/2" Ice	2.189	1.311	0.040
			0.000			1" Ice	2.373	1.461	0.060
(2) 8' x 2" Mount Pipe	A	From Leg	4.000	0.000	76.000	No Ice	1.900	1.900	0.029
			0.000			1/2" Ice	2.728	2.728	0.044
			0.000			1" Ice	3.401	3.401	0.063
(2) 8' x 2" Mount Pipe	B	From Leg	4.000	0.000	76.000	No Ice	1.900	1.900	0.029
			0.000			1/2" Ice	2.728	2.728	0.044
			0.000			1" Ice	3.401	3.401	0.063
(2) 8' x 2" Mount Pipe	C	From Leg	4.000	0.000	76.000	No Ice	1.900	1.900	0.029
			0.000			1/2" Ice	2.728	2.728	0.044
			0.000			1" Ice	3.401	3.401	0.063
Commscope MC-PK8-DSH	C	None		0.000	76.000	No Ice	34.240	34.240	1.749
						1/2" Ice	62.950	62.950	2.099
						1" Ice	91.660	91.660	2.450
*									

Dishes

Description	Face or Leg	Dish Type	Offset Type	Offsets: Horz Lateral ft / Vert ft	Azimuth Adjustment °	3 dB Beam Width °	Elevation ft	Outside Diameter ft	Aperture Area ft^2	Weight K
*										

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

Comb. No.	Description
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
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	117 - 112	Pole	Max Tension	26	0.000	-0.000	0.000
			Max. Compression	26	-4.482	-0.002	0.002
			Max. Mx	20	-2.402	14.573	-0.002
			Max. My	14	-2.402	0.001	-14.574
			Max. Vy	20	-2.741	14.573	-0.002
			Max. Vx	14	2.741	0.001	-14.574
			Max. Torque	14			0.001
L2	112 - 110	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-4.607	-0.002	0.002
			Max. Mx	20	-2.479	20.148	-0.002

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. My	14	-2.479	0.002	-20.150
			Max. Vy	20	-2.836	20.148	-0.002
			Max. Vx	14	2.836	0.002	-20.150
			Max. Torque	14			0.001
L3	110 - 105	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-11.623	0.049	0.031
			Max. Mx	20	-6.678	46.765	0.037
			Max. My	2	-6.678	0.056	46.784
			Max. Vy	20	-5.811	46.765	0.037
			Max. Vx	14	5.812	0.012	-46.750
			Max. Torque	14			0.004
L4	105 - 100	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-12.125	0.140	0.081
			Max. Mx	20	-7.022	76.478	0.064
			Max. My	2	-7.022	0.112	76.475
			Max. Vy	20	-6.059	76.478	0.064
			Max. Vx	14	6.059	0.071	-76.382
			Max. Torque	14			0.004
L5	100 - 95	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-23.772	0.768	-0.205
			Max. Mx	20	-14.592	133.504	-0.417
			Max. My	14	-14.592	0.551	-133.331
			Max. Vy	20	-10.484	133.504	-0.417
			Max. Vx	14	10.477	0.551	-133.331
			Max. Torque	19			-0.227
L6	95 - 90	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-24.419	0.872	-0.154
			Max. Mx	20	-15.102	186.515	-0.444
			Max. My	14	-15.101	0.673	-186.211
			Max. Vy	20	-10.711	186.515	-0.444
			Max. Vx	14	10.704	0.673	-186.211
			Max. Torque	19			-0.227
L7	90 - 85	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-33.917	0.630	-0.811
			Max. Mx	20	-20.445	260.107	-0.651
			Max. My	14	-20.441	0.684	-260.246
			Max. Vy	20	-15.818	260.107	-0.651
			Max. Vx	14	15.866	0.684	-260.246
			Max. Torque	8			-0.644
L8	85 - 82.375	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-35.016	0.584	-0.634
			Max. Mx	20	-21.176	302.409	-0.643
			Max. My	14	-21.174	0.745	-302.513
			Max. Vy	20	-16.343	302.409	-0.643
			Max. Vx	14	16.336	0.745	-302.513
			Max. Torque	8			-0.644
L9	82.375 - 82.125	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-35.062	0.590	-0.636
			Max. Mx	20	-21.224	306.494	-0.649
			Max. My	14	-21.222	0.756	-306.593
			Max. Vy	20	-16.338	306.494	-0.649
			Max. Vx	14	16.331	0.756	-306.593
			Max. Torque	6			-0.576
L10	82.125 - 81.875	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-35.109	0.596	-0.639
			Max. Mx	20	-21.260	310.582	-0.655
			Max. My	14	-21.258	0.766	-310.675
			Max. Vy	20	-16.346	310.582	-0.655
			Max. Vx	14	16.341	0.766	-310.675

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Torque	6			-0.576
L11	81.875 - 81.625	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-35.170	0.601	-0.641
			Max. Mx	20	-21.309	314.672	-0.662
			Max. My	14	-21.307	0.777	-314.760
			Max. Vy	20	-16.357	314.672	-0.662
			Max. Vx	14	16.352	0.777	-314.760
			Max. Torque	6			-0.576
L12	81.625 - 76.625	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-36.395	0.719	-0.684
			Max. Mx	20	-22.280	397.075	-0.790
			Max. My	14	-22.278	0.987	-397.100
			Max. Vy	20	-16.592	397.075	-0.790
			Max. Vx	14	16.604	0.987	-397.100
			Max. Torque	6			-0.576
L13	76.625 - 76	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-36.558	0.734	-0.690
			Max. Mx	20	-22.408	407.455	-0.806
			Max. My	14	-22.406	1.013	-407.477
			Max. Vy	20	-16.616	407.455	-0.806
			Max. Vx	14	16.630	1.013	-407.477
			Max. Torque	6			-0.576
L14	76 - 75.75	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-41.441	0.741	-0.386
			Max. Mx	20	-25.603	412.171	-0.687
			Max. My	14	-25.599	1.024	-412.066
			Max. Vy	20	-18.859	412.171	-0.687
			Max. Vx	14	18.895	1.024	-412.066
			Max. Torque	6			-0.576
L15	75.75 - 70.75	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-42.983	0.885	-0.419
			Max. Mx	20	-26.787	507.114	-0.810
			Max. My	14	-26.782	1.247	-507.158
			Max. Vy	20	-19.103	507.114	-0.810
			Max. Vx	14	19.165	1.247	-507.158
			Max. Torque	6			-0.443
L16	70.75 - 70.5	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-43.078	0.894	-0.420
			Max. Mx	20	-26.868	511.893	-0.816
			Max. My	14	-26.863	1.258	-511.947
			Max. Vy	20	-19.107	511.893	-0.816
			Max. Vx	14	19.171	1.258	-511.947
			Max. Torque	6			-0.443
L17	70.5 - 67.9833	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-44.051	0.977	-0.424
			Max. Mx	20	-27.596	560.192	-0.877
			Max. My	14	-27.590	1.372	-560.387
			Max. Vy	20	-19.257	560.192	-0.877
			Max. Vx	14	19.346	1.372	-560.387
			Max. Torque	6			-0.443
L18	67.9833 - 67.7333	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-44.149	0.986	-0.424
			Max. Mx	20	-27.675	565.009	-0.883
			Max. My	14	-27.670	1.383	-565.222
			Max. Vy	20	-19.264	565.009	-0.883
			Max. Vx	14	19.354	1.383	-565.222
			Max. Torque	6			-0.441
L19	67.7333 -	Pole	Max Tension	1	0.000	0.000	0.000

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
	66.6667						
			Max. Compression	26	-44.560	1.021	-0.426
			Max. Mx	20	-27.984	585.604	-0.909
			Max. My	14	-27.978	1.431	-585.896
			Max. Vy	20	-19.330	585.604	-0.909
			Max. Vx	14	19.430	1.431	-585.896
			Max. Torque	6			-0.440
L20	66.6667 - 66.4167	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-44.649	1.030	-0.426
			Max. Mx	20	-28.059	590.440	-0.915
			Max. My	14	-28.053	1.443	-590.752
			Max. Vy	20	-19.338	590.440	-0.915
			Max. Vx	14	19.440	1.443	-590.752
			Max. Torque	6			-0.439
L21	66.4167 - 63.5	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-45.709	1.118	-0.429
			Max. Mx	20	-28.860	647.114	-0.985
			Max. My	14	-28.854	1.576	-647.694
			Max. Vy	20	-19.508	647.114	-0.985
			Max. Vx	14	19.631	1.576	-647.694
			Max. Torque	6			-0.439
L22	63.5 - 63.25	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-45.815	1.125	-0.429
			Max. Mx	20	-28.952	651.993	-0.991
			Max. My	14	-28.945	1.587	-652.600
			Max. Vy	20	-19.512	651.993	-0.991
			Max. Vx	14	19.637	1.587	-652.600
			Max. Torque	6			-0.433
L23	63.25 - 58.25	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-47.940	1.264	-0.431
			Max. Mx	20	-30.606	750.363	-1.110
			Max. My	14	-30.599	1.817	-751.563
			Max. Vy	20	-19.813	750.363	-1.110
			Max. Vx	14	19.969	1.817	-751.563
			Max. Torque	6			-0.432
L24	58.25 - 53.25	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-50.086	1.407	-0.433
			Max. Mx	20	-32.288	850.201	-1.227
			Max. My	14	-32.281	2.051	-852.131
			Max. Vy	20	-20.104	850.201	-1.227
			Max. Vx	14	20.285	2.051	-852.131
			Max. Torque	6			-0.420
L25	53.25 - 47.635	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-50.628	1.444	-0.434
			Max. Mx	20	-32.714	875.387	-1.257
			Max. My	14	-32.707	2.110	-877.517
			Max. Vy	20	-20.177	875.387	-1.257
			Max. Vx	14	20.360	2.110	-877.517
			Max. Torque	6			-0.408
L26	47.635 - 46.635	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-54.421	1.604	-0.435
			Max. Mx	20	-35.844	984.737	-1.382
			Max. My	14	-35.837	2.363	-987.744
			Max. Vy	20	-20.555	984.737	-1.382
			Max. Vx	14	20.744	2.363	-987.744
			Max. Torque	6			-0.407
L27	46.635 - 41.635	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-56.687	1.756	-0.437

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Mx	20	-37.662	1088.223	-1.497
			Max. My	14	-37.656	2.602	-1092.056
			Max. Vy	20	-20.822	1088.223	-1.497
			Max. Vx	14	21.012	2.602	-1092.056
			Max. Torque	6			-0.407
L28	41.635 - 38.0833	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-58.315	1.867	-0.438
			Max. Mx	20	-38.972	1162.535	-1.579
			Max. My	14	-38.966	2.773	-1166.952
			Max. Vy	20	-21.009	1162.535	-1.579
			Max. Vx	14	21.198	2.773	-1166.952
			Max. Torque	6			-0.407
L29	38.0833 - 37.8333	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-58.426	1.875	-0.438
			Max. Mx	20	-39.067	1167.791	-1.584
			Max. My	14	-39.061	2.786	-1172.248
			Max. Vy	20	-21.012	1167.791	-1.584
			Max. Vx	14	21.201	2.786	-1172.248
			Max. Torque	6			-0.407
L30	37.8333 - 33.5	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-60.349	2.013	-0.439
			Max. Mx	20	-40.604	1259.364	-1.682
			Max. My	14	-40.599	2.996	-1264.530
			Max. Vy	20	-21.230	1259.364	-1.682
			Max. Vx	14	21.419	2.996	-1264.530
			Max. Torque	6			-0.407
L31	33.5 - 33.25	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-60.466	2.021	-0.439
			Max. Mx	20	-40.704	1264.675	-1.688
			Max. My	14	-40.700	3.008	-1269.882
			Max. Vy	20	-21.233	1264.675	-1.688
			Max. Vx	14	21.421	3.008	-1269.882
			Max. Torque	6			-0.407
L32	33.25 - 33	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-60.583	2.030	-0.439
			Max. Mx	20	-40.799	1269.989	-1.694
			Max. My	14	-40.794	3.020	-1275.237
			Max. Vy	20	-21.245	1269.989	-1.694
			Max. Vx	14	21.434	3.020	-1275.237
			Max. Torque	6			-0.407
L33	33 - 32.75	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-60.705	2.038	-0.439
			Max. Mx	20	-40.898	1275.306	-1.699
			Max. My	14	-40.893	3.033	-1280.595
			Max. Vy	20	-21.257	1275.306	-1.699
			Max. Vx	14	21.446	3.033	-1280.595
			Max. Torque	6			-0.407
L34	32.75 - 27.75	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-63.136	2.202	-0.440
			Max. Mx	20	-42.876	1382.286	-1.811
			Max. My	14	-42.872	3.278	-1388.386
			Max. Vy	20	-21.508	1382.286	-1.811
			Max. Vx	14	21.697	3.278	-1388.386
			Max. Torque	6			-0.407
L35	27.75 - 22.75	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-65.589	2.370	-0.441
			Max. Mx	20	-44.886	1490.480	-1.921
			Max. My	14	-44.883	3.526	-1497.385
			Max. Vy	20	-21.751	1490.480	-1.921

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Vx	14	21.938	3.526	-1497.385
			Max. Torque	6			-0.407
L36	22.75 - 17.75	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-68.062	2.541	-0.441
			Max. Mx	20	-46.923	1599.890	-2.029
			Max. My	14	-46.921	3.775	-1607.594
			Max. Vy	20	-21.994	1599.890	-2.029
			Max. Vx	14	22.182	3.775	-1607.594
			Max. Torque	6			-0.407
L37	17.75 - 12.75	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-70.551	2.717	-0.441
			Max. Mx	20	-48.987	1710.523	-2.136
			Max. My	14	-48.986	4.027	-1719.019
			Max. Vy	20	-22.240	1710.523	-2.136
			Max. Vx	2	-22.426	-0.220	1718.990
			Max. Torque	6			-0.407
L38	12.75 - 12.5	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-70.677	2.725	-0.441
			Max. Mx	20	-49.096	1716.087	-2.142
			Max. My	14	-49.095	4.039	-1724.622
			Max. Vy	20	-22.242	1716.087	-2.142
			Max. Vx	2	-22.429	-0.221	1724.596
			Max. Torque	6			-0.407
L39	12.5 - 12.25	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-70.805	2.734	-0.441
			Max. Mx	20	-49.204	1721.654	-2.147
			Max. My	14	-49.203	4.052	-1730.229
			Max. Vy	20	-22.255	1721.654	-2.147
			Max. Vx	2	-22.441	-0.222	1730.205
			Max. Torque	6			-0.407
L40	12.25 - 12	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-70.934	2.743	-0.441
			Max. Mx	20	-49.312	1727.224	-2.152
			Max. My	14	-49.310	4.065	-1735.838
			Max. Vy	20	-22.267	1727.224	-2.152
			Max. Vx	2	-22.454	-0.222	1735.818
			Max. Torque	6			-0.407
L41	12 - 11.75	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-71.083	2.752	-0.441
			Max. Mx	20	-49.439	1732.798	-2.158
			Max. My	14	-49.438	4.077	-1741.451
			Max. Vy	20	-22.280	1732.798	-2.158
			Max. Vx	2	-22.467	-0.223	1741.433
			Max. Torque	6			-0.407
L42	11.75 - 6.75	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-74.025	2.958	-0.441
			Max. Mx	20	-51.974	1845.007	-2.263
			Max. My	2	-51.973	-0.234	1854.481
			Max. Vy	20	-22.569	1845.007	-2.263
			Max. Vx	2	-22.756	-0.234	1854.481
			Max. Torque	6			-0.407
L43	6.75 - 2.5	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-76.521	3.139	-0.441
			Max. Mx	20	-54.155	1941.497	-2.351
			Max. My	2	-54.154	-0.241	1951.680
			Max. Vy	20	-22.811	1941.497	-2.351
			Max. Vx	2	-22.997	-0.241	1951.680
			Max. Torque	6			-0.407
L44	2.5 - 2.25	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-76.674	3.150	-0.441
			Max. Mx	20	-54.294	1947.205	-2.356

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. My	2	-54.293	-0.241	1957.429
			Max. Vy	20	-22.816	1947.205	-2.356
			Max. Vx	2	-23.002	-0.241	1957.429
			Max. Torque	6			-0.407
L45	2.25 - 2	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-76.834	3.160	-0.441
			Max. Mx	20	-54.437	1952.916	-2.361
			Max. My	2	-54.437	-0.242	1963.182
			Max. Vy	20	-22.831	1952.916	-2.361
			Max. Vx	2	-23.017	-0.242	1963.182
			Max. Torque	6			-0.407
L46	2 - 0	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	30	-78.103	-493.762	0.031
			Max. Mx	20	-55.578	1998.747	-2.402
			Max. My	2	-55.578	-0.244	2009.344
			Max. Vy	20	-22.960	1998.747	-2.402
			Max. Vx	2	-23.145	-0.244	2009.344
			Max. Torque	6			-0.407

Maximum Reactions

Location	Condition	Gov. Load Comb.	Vertical K	Horizontal, X K	Horizontal, Z K
Pole	Max. Vert	30	78.103	-5.639	0.048
	Max. H_x	20	55.582	22.951	-0.026
	Max. H_z	2	55.582	-0.026	23.136
	Max. M_x	2	2009.344	-0.026	23.136
	Max. M_z	8	1994.321	-22.951	0.026
	Max. Torsion	18	0.406	21.205	-12.264
	Min. Vert	11	41.686	-20.201	-11.653
	Min. H_x	8	55.582	-22.951	0.026
	Min. H_z	14	55.582	0.026	-23.136
	Min. M_x	14	-2009.232	0.026	-23.136
	Min. M_z	20	-1998.747	22.951	-0.026
	Min. Torsion	6	-0.407	-21.205	12.264

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	46.318	0.000	0.000	-0.061	1.770	-0.000
1.2 Dead+1.0 Wind 0 deg - No Ice	55.582	0.026	-23.136	-2009.344	-0.244	0.200
0.9 Dead+1.0 Wind 0 deg - No Ice	41.686	0.026	-23.136	-1988.153	-0.793	0.204
1.2 Dead+1.0 Wind 30 deg - No Ice	55.582	12.138	-21.008	-1786.661	-1030.240	0.370
0.9 Dead+1.0 Wind 30 deg - No Ice	41.686	12.138	-21.008	-1767.981	-1020.025	0.369
1.2 Dead+1.0 Wind 60 deg - No Ice	55.582	21.205	-12.264	-1047.250	-1808.317	0.407

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
0.9 Dead+1.0 Wind 60 deg - No Ice	41.686	21.205	-12.264	-1036.326	-1790.019	0.401
1.2 Dead+1.0 Wind 90 deg - No Ice	55.582	22.951	-0.026	-2.519	-1994.321	0.395
0.9 Dead+1.0 Wind 90 deg - No Ice	41.686	22.951	-0.026	-2.484	-1973.806	0.386
1.2 Dead+1.0 Wind 120 deg - No Ice	55.582	20.201	11.653	1009.121	-1747.397	0.242
0.9 Dead+1.0 Wind 120 deg - No Ice	41.686	20.201	11.653	998.516	-1729.568	0.232
1.2 Dead+1.0 Wind 150 deg - No Ice	55.582	12.169	21.112	1794.662	-1032.086	0.145
0.9 Dead+1.0 Wind 150 deg - No Ice	41.686	12.169	21.112	1775.968	-1021.879	0.137
1.2 Dead+1.0 Wind 180 deg - No Ice	55.582	-0.026	23.136	2009.232	4.677	-0.202
0.9 Dead+1.0 Wind 180 deg - No Ice	41.686	-0.026	23.136	1988.060	4.079	-0.206
1.2 Dead+1.0 Wind 210 deg - No Ice	55.582	-12.138	21.008	1786.543	1034.673	-0.371
0.9 Dead+1.0 Wind 210 deg - No Ice	41.686	-12.138	21.008	1767.885	1023.310	-0.370
1.2 Dead+1.0 Wind 240 deg - No Ice	55.582	-21.205	12.264	1047.132	1812.746	-0.406
0.9 Dead+1.0 Wind 240 deg - No Ice	41.686	-21.205	12.264	1036.228	1793.301	-0.400
1.2 Dead+1.0 Wind 270 deg - No Ice	55.582	-22.951	0.026	2.402	1998.747	-0.393
0.9 Dead+1.0 Wind 270 deg - No Ice	41.686	-22.951	0.026	2.388	1977.085	-0.384
1.2 Dead+1.0 Wind 300 deg - No Ice	55.582	-20.201	-11.653	-1009.233	1751.823	-0.240
0.9 Dead+1.0 Wind 300 deg - No Ice	41.686	-20.201	-11.653	-998.609	1732.848	-0.230
1.2 Dead+1.0 Wind 330 deg - No Ice	55.582	-12.169	-21.112	-1794.772	1036.515	-0.146
0.9 Dead+1.0 Wind 330 deg - No Ice	41.686	-12.169	-21.112	-1776.059	1025.161	-0.138
1.2 Dead+1.0 Ice+1.0 Temp	78.103	-0.000	0.000	0.440	3.239	-0.000
1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp	78.103	0.005	-5.641	-496.850	2.912	0.043
1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp	78.103	2.824	-4.889	-430.565	-245.661	0.076
1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp	78.103	4.992	-2.886	-252.566	-434.253	0.074
1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp	78.103	5.639	-0.048	-0.031	-493.762	0.078
1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp	78.103	4.881	2.816	248.720	-426.911	0.046
1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp	78.103	2.862	4.964	437.277	-248.422	0.032
1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp	78.103	-0.005	5.641	497.806	3.886	-0.043
1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp	78.103	-2.824	4.889	431.521	252.458	-0.077
1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp	78.103	-4.992	2.886	253.521	441.050	-0.074
1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp	78.103	-5.639	0.005	0.965	500.558	-0.078
1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp	78.103	-4.881	-2.816	-247.764	433.708	-0.046

Load Combination	Vertical	$Shear_x$	$Shear_z$	Overturning Moment, M_x	Overturning Moment, M_z	Torque
	K	K	K	kip-ft	kip-ft	kip-ft
1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp	78.103	-2.862	-4.964	-436.321	255.219	-0.032
Dead+Wind 0 deg - Service	46.318	0.007	-5.730	-494.450	1.227	0.051
Dead+Wind 30 deg - Service	46.318	3.007	-5.203	-439.689	-252.230	0.092
Dead+Wind 60 deg - Service	46.318	5.252	-3.038	-257.745	-443.707	0.100
Dead+Wind 90 deg - Service	46.318	5.685	-0.007	-0.656	-489.422	0.097
Dead+Wind 120 deg - Service	46.318	5.004	2.886	248.271	-428.681	0.058
Dead+Wind 150 deg - Service	46.318	3.014	5.229	441.594	-252.688	0.035
Dead+Wind 180 deg - Service	46.318	-0.007	5.730	494.350	2.438	-0.051
Dead+Wind 210 deg - Service	46.318	-3.007	5.203	439.590	255.895	-0.092
Dead+Wind 240 deg - Service	46.318	-5.252	3.038	257.645	447.371	-0.100
Dead+Wind 270 deg - Service	46.318	-5.685	0.007	0.556	493.086	-0.096
Dead+Wind 300 deg - Service	46.318	-5.004	-2.886	-248.370	432.345	-0.058
Dead+Wind 330 deg - Service	46.318	-3.014	-5.229	-441.693	256.352	-0.035

Solution Summary

	Sum of Applied Forces			Sum of Reactions			
Load Comb.	PX	PY	PZ	PX	PY	PZ	% Error
	K	K	K	K	K	K	
1	0.000	-46.318	0.000	0.000	46.318	0.000	0.000%
2	0.026	-55.582	-23.136	-0.026	55.582	23.136	0.000%
3	0.026	-41.686	-23.136	-0.026	41.686	23.136	0.000%
4	12.138	-55.582	-21.008	-12.138	55.582	21.008	0.000%
5	12.138	-41.686	-21.008	-12.138	41.686	21.008	0.000%
6	21.205	-55.582	-12.264	-21.205	55.582	12.264	0.000%
7	21.205	-41.686	-12.264	-21.205	41.686	12.264	0.000%
8	22.951	-55.582	-0.026	-22.951	55.582	0.026	0.000%
9	22.951	-41.686	-0.026	-22.951	41.686	0.026	0.000%
10	20.201	-55.582	11.653	-20.201	55.582	-11.653	0.000%
11	20.201	-41.686	11.653	-20.201	41.686	-11.653	0.000%
12	12.169	-55.582	21.112	-12.169	55.582	-21.112	0.000%
13	12.169	-41.686	21.112	-12.169	41.686	-21.112	0.000%
14	-0.026	-55.582	23.136	0.026	55.582	-23.136	0.000%
15	-0.026	-41.686	23.136	0.026	41.686	-23.136	0.000%
16	-12.138	-55.582	21.008	12.138	55.582	-21.008	0.000%
17	-12.138	-41.686	21.008	12.138	41.686	-21.008	0.000%
18	-21.205	-55.582	12.264	21.205	55.582	-12.264	0.000%
19	-21.205	-41.686	12.264	21.205	41.686	-12.264	0.000%
20	-22.951	-55.582	0.026	22.951	55.582	-0.026	0.000%
21	-22.951	-41.686	0.026	22.951	41.686	-0.026	0.000%
22	-20.201	-55.582	-11.653	20.201	55.582	11.653	0.000%
23	-20.201	-41.686	-11.653	20.201	41.686	11.653	0.000%
24	-12.169	-55.582	-21.112	12.169	55.582	21.112	0.000%
25	-12.169	-41.686	-21.112	12.169	41.686	21.112	0.000%
26	0.000	-78.103	0.000	0.000	78.103	-0.000	0.000%
27	0.005	-78.103	-5.641	-0.005	78.103	5.641	0.000%
28	2.824	-78.103	-4.889	-2.824	78.103	4.889	0.000%
29	4.992	-78.103	-2.886	-4.992	78.103	2.886	0.000%
30	5.639	-78.103	-0.005	-5.639	78.103	0.048	0.055%
31	4.881	-78.103	2.816	-4.881	78.103	-2.816	0.000%
32	2.862	-78.103	4.964	-2.862	78.103	-4.964	0.000%
33	-0.005	-78.103	5.641	0.005	78.103	-5.641	0.000%
34	-2.824	-78.103	4.889	2.824	78.103	-4.889	0.000%
35	-4.992	-78.103	2.886	4.992	78.103	-2.886	0.000%
36	-5.639	-78.103	0.005	5.639	78.103	-0.005	0.000%
37	-4.881	-78.103	-2.816	4.881	78.103	2.816	0.000%
38	-2.862	-78.103	-4.964	2.862	78.103	4.964	0.000%

	Sum of Applied Forces			Sum of Reactions			
Load Comb.	PX K	PY K	PZ K	PX K	PY K	PZ K	% Error
39	0.007	-46.318	-5.730	-0.007	46.318	5.730	0.000%
40	3.007	-46.318	-5.203	-3.007	46.318	5.203	0.000%
41	5.252	-46.318	-3.038	-5.252	46.318	3.038	0.000%
42	5.685	-46.318	-0.007	-5.685	46.318	0.007	0.000%
43	5.004	-46.318	2.886	-5.004	46.318	-2.886	0.000%
44	3.014	-46.318	5.229	-3.014	46.318	-5.229	0.000%
45	-0.007	-46.318	5.730	0.007	46.318	-5.730	0.000%
46	-3.007	-46.318	5.203	3.007	46.318	-5.203	0.000%
47	-5.252	-46.318	3.038	5.252	46.318	-3.038	0.000%
48	-5.685	-46.318	0.007	5.685	46.318	-0.007	0.000%
49	-5.004	-46.318	-2.886	5.004	46.318	2.886	0.000%
50	-3.014	-46.318	-5.229	3.014	46.318	5.229	0.000%

Non-Linear Convergence Results

Load Combination	Converged?	Number of Cycles	Displacement Tolerance	Force Tolerance
1	Yes	4	0.00000001	0.00000001
2	Yes	5	0.00000001	0.00014488
3	Yes	5	0.00000001	0.00005988
4	Yes	6	0.00000001	0.00020759
5	Yes	6	0.00000001	0.00007552
6	Yes	6	0.00000001	0.00020657
7	Yes	6	0.00000001	0.00007481
8	Yes	5	0.00000001	0.00016764
9	Yes	5	0.00000001	0.00007270
10	Yes	6	0.00000001	0.00020004
11	Yes	6	0.00000001	0.00007296
12	Yes	6	0.00000001	0.00020376
13	Yes	6	0.00000001	0.00007400
14	Yes	5	0.00000001	0.00013911
15	Yes	5	0.00000001	0.00005582
16	Yes	6	0.00000001	0.00020295
17	Yes	6	0.00000001	0.00007354
18	Yes	6	0.00000001	0.00021451
19	Yes	6	0.00000001	0.00007773
20	Yes	5	0.00000001	0.00017999
21	Yes	5	0.00000001	0.00007975
22	Yes	6	0.00000001	0.00019677
23	Yes	6	0.00000001	0.00007165
24	Yes	6	0.00000001	0.00020683
25	Yes	6	0.00000001	0.00007504
26	Yes	4	0.00000001	0.00011000
27	Yes	6	0.00000001	0.00017182
28	Yes	6	0.00000001	0.00018151
29	Yes	6	0.00000001	0.00018284
30	Yes	14	0.00000001	0.00000000
31	Yes	6	0.00000001	0.00018158
32	Yes	6	0.00000001	0.00018402
33	Yes	6	0.00000001	0.00017286
34	Yes	6	0.00000001	0.00018425
35	Yes	6	0.00000001	0.00018621
36	Yes	6	0.00000001	0.00017365
37	Yes	6	0.00000001	0.00018339
38	Yes	6	0.00000001	0.00018497
39	Yes	4	0.00000001	0.00047793
40	Yes	5	0.00000001	0.00006655
41	Yes	5	0.00000001	0.00006440

42	Yes	4	0.00000001	0.00048441
43	Yes	5	0.00000001	0.00006397
44	Yes	5	0.00000001	0.00006411
45	Yes	4	0.00000001	0.00047883
46	Yes	5	0.00000001	0.00006421
47	Yes	5	0.00000001	0.00006965
48	Yes	4	0.00000001	0.00048989
49	Yes	5	0.00000001	0.00006224
50	Yes	5	0.00000001	0.00006630

Maximum Tower Deflections - Service Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	117 - 112	12.332	47	1.085	0.001
L2	112 - 110	11.201	47	1.073	0.001
L3	110 - 105	10.753	47	1.065	0.001
L4	105 - 100	9.653	47	1.032	0.001
L5	100 - 95	8.599	47	0.980	0.001
L6	95 - 90	7.602	47	0.921	0.001
L7	90 - 85	6.674	47	0.849	0.001
L8	85 - 82.375	5.828	47	0.764	0.001
L9	82.375 - 82.125	5.422	47	0.714	0.001
L10	82.125 - 81.875	5.385	47	0.709	0.001
L11	81.875 - 81.625	5.348	47	0.704	0.001
L12	81.625 - 76.625	5.311	47	0.700	0.001
L13	76.625 - 76	4.616	47	0.626	0.000
L14	76 - 75.75	4.535	47	0.616	0.000
L15	75.75 - 70.75	4.503	47	0.613	0.000
L16	70.75 - 70.5	3.894	47	0.548	0.000
L17	70.5 - 67.9833	3.866	47	0.546	0.000
L18	67.9833 - 67.7333	3.584	47	0.523	0.000
L19	67.7333 - 66.6667	3.557	47	0.521	0.000
L20	66.6667 - 66.4167	3.441	47	0.511	0.000
L21	66.4167 - 63.5	3.414	47	0.509	0.000
L22	63.5 - 63.25	3.112	47	0.482	0.000
L23	63.25 - 58.25	3.087	47	0.480	0.000
L24	58.25 - 53.25	2.605	47	0.440	0.000
L25	53.25 - 47.635	2.165	47	0.399	0.000
L26	52 - 46.635	2.062	47	0.389	0.000
L27	46.635 - 41.635	1.637	47	0.363	0.000
L28	41.635 - 38.0833	1.280	47	0.320	0.000
L29	38.0833 - 37.8333	1.054	47	0.289	0.000
L30	37.8333 - 33.5	1.039	47	0.287	0.000
L31	33.5 - 33.25	0.797	47	0.247	0.000
L32	33.25 - 33	0.784	47	0.245	0.000
L33	33 - 32.75	0.771	47	0.243	0.000
L34	32.75 - 27.75	0.759	47	0.240	0.000
L35	27.75 - 22.75	0.529	47	0.199	0.000
L36	22.75 - 17.75	0.342	47	0.158	0.000
L37	17.75 - 12.75	0.198	47	0.117	0.000
L38	12.75 - 12.5	0.097	47	0.076	0.000
L39	12.5 - 12.25	0.093	47	0.074	0.000
L40	12.25 - 12	0.089	47	0.072	0.000
L41	12 - 11.75	0.085	47	0.070	0.000
L42	11.75 - 6.75	0.082	47	0.069	0.000
L43	6.75 - 2.5	0.026	47	0.038	0.000
L44	2.5 - 2.25	0.003	47	0.012	0.000
L45	2.25 - 2	0.003	47	0.011	0.000
L46	2 - 0	0.002	47	0.010	0.000

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °

Critical Deflections and Radius of Curvature - Service Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
117.000	APXVSPP18-C-A20 w/ Mount Pipe	47	12.332	1.085	0.001	15804
115.000	PCS 1900MHz 4x45W-65MHz	47	11.878	1.081	0.001	15804
108.000	AIR6449 B41_T-MOBILE w/ Mount Pipe	47	10.309	1.054	0.001	9000
100.000	(2) DB844G65ZAXY w/ Mount Pipe	47	8.599	0.980	0.001	5201
89.000	DC6-48-60-18-8C-EV	47	6.498	0.833	0.001	3541
84.000	800 10504	47	5.670	0.745	0.001	3201
76.000	MX08FRO665-21 w/ Mount Pipe	47	4.535	0.616	0.000	4084

Maximum Tower Deflections - Design Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	117 - 112	50.055	18	4.406	0.003
L2	112 - 110	45.468	18	4.360	0.003
L3	110 - 105	43.651	18	4.326	0.003
L4	105 - 100	39.191	18	4.191	0.003
L5	100 - 95	34.914	18	3.978	0.003
L6	95 - 90	30.870	18	3.743	0.003
L7	90 - 85	27.104	18	3.450	0.004
L8	85 - 82.375	23.669	18	3.106	0.003
L9	82.375 - 82.125	22.018	18	2.902	0.002
L10	82.125 - 81.875	21.867	18	2.882	0.002
L11	81.875 - 81.625	21.717	18	2.862	0.002
L12	81.625 - 76.625	21.567	18	2.847	0.002
L13	76.625 - 76	18.745	18	2.543	0.002
L14	76 - 75.75	18.414	18	2.504	0.001
L15	75.75 - 70.75	18.284	18	2.492	0.001
L16	70.75 - 70.5	15.813	18	2.227	0.001
L17	70.5 - 67.9833	15.696	18	2.217	0.001
L18	67.9833 - 67.7333	14.552	18	2.126	0.001
L19	67.7333 - 66.6667	14.441	18	2.117	0.001
L20	66.6667 - 66.4167	13.972	18	2.078	0.001
L21	66.4167 - 63.5	13.864	18	2.069	0.001
L22	63.5 - 63.25	12.635	18	1.957	0.001
L23	63.25 - 58.25	12.532	18	1.949	0.001
L24	58.25 - 53.25	10.575	18	1.789	0.001
L25	53.25 - 47.635	8.790	18	1.622	0.001
L26	52 - 46.635	8.371	18	1.581	0.001
L27	46.635 - 41.635	6.647	18	1.473	0.001
L28	41.635 - 38.0833	5.197	18	1.298	0.000
L29	38.0833 - 37.8333	4.278	18	1.173	0.000
L30	37.8333 - 33.5	4.217	18	1.164	0.000
L31	33.5 - 33.25	3.235	18	1.002	0.000
L32	33.25 - 33	3.183	18	0.993	0.000
L33	33 - 32.75	3.131	18	0.985	0.000

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L34	32.75 - 27.75	3.080	18	0.976	0.000
L35	27.75 - 22.75	2.145	18	0.809	0.000
L36	22.75 - 17.75	1.386	18	0.641	0.000
L37	17.75 - 12.75	0.802	18	0.474	0.000
L38	12.75 - 12.5	0.393	18	0.309	0.000
L39	12.5 - 12.25	0.377	18	0.301	0.000
L40	12.25 - 12	0.361	18	0.293	0.000
L41	12 - 11.75	0.346	18	0.285	0.000
L42	11.75 - 6.75	0.331	18	0.278	0.000
L43	6.75 - 2.5	0.104	18	0.155	0.000
L44	2.5 - 2.25	0.013	18	0.050	0.000
L45	2.25 - 2	0.011	18	0.045	0.000
L46	2 - 0	0.008	18	0.040	0.000

Critical Deflections and Radius of Curvature - Design Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
117.000	APXVSPP18-C-A20 w/ Mount Pipe	18	50.055	4.406	0.003	3929
115.000	PCS 1900MHz 4x45W-65MHz	18	48.215	4.392	0.003	3929
108.000	AIR6449 B41_T-MOBILE w/ Mount Pipe	18	41.850	4.282	0.003	2236
100.000	(2) DB844G65ZAXY w/ Mount Pipe	18	34.914	3.978	0.003	1298
89.000	DC6-48-60-18-8C-EV	18	26.389	3.385	0.004	879
84.000	800 10504	18	23.027	3.029	0.003	793
76.000	MX08FRO665-21 w/ Mount Pipe	18	18.414	2.504	0.001	1008

Compression Checks

Pole Design Data

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
L1	117 - 112 (1)	TP15.489x14.36x0.188	5.000	0.000	0.0	9.238	-2.398	540.424	0.004
L2	112 - 110 (2)	TP15.94x15.489x0.188	2.000	0.000	0.0	9.511	-2.475	556.368	0.004
L3	110 - 105 (3)	TP17.07x15.94x0.188	5.000	0.000	0.0	10.193	-6.673	596.279	0.011
L4	105 - 100 (4)	TP18.2x17.07x0.188	5.000	0.000	0.0	10.875	-7.007	636.190	0.011
L5	100 - 95 (5)	TP19.335x18.2x0.25	5.000	0.000	0.0	15.364	-14.567	898.775	0.016
L6	95 - 90 (6)	TP20.471x19.335x0.25	5.000	0.000	0.0	16.278	-15.074	952.239	0.016
L7	90 - 85 (7)	TP21.606x20.471x0.25	5.000	0.000	0.0	17.191	-20.409	1005.700	0.020
L8	85 - 82.375 (8)	TP22.202x21.606x0.25	2.625	0.000	0.0	17.671	-21.139	1033.770	0.020
L9	82.375 - 82.125 (9)	TP22.259x22.202x0.25	0.250	0.000	0.0	17.717	-21.187	1036.440	0.020
L10	82.125 - 81.875 (10)	TP22.315x22.259x0.25	0.250	0.000	0.0	17.763	-21.223	1039.120	0.020
L11	81.875 - 81.625 (11)	TP22.372x22.315x0.35	0.250	0.000	0.0	24.819	-21.273	1451.910	0.015
L12	81.625 -	TP23.508x22.372x0.356	5.000	0.000	0.0	26.557	-22.244	1553.610	0.014

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
	76.625 (12)								
L13	76.625 - 76 (13)	TP23.649x23.508x0.356	0.625	0.000	0.0	26.720	-22.372	1563.130	0.014
L14	76 - 75.75 (14)	TP23.706x23.649x0.463	0.250	0.000	0.0	34.616	-25.564	2025.020	0.013
L15	75.75 - 70.75 (15)	TP24.842x23.706x0.45	5.000	0.000	0.0	35.343	-26.748	2067.580	0.013
L16	70.75 - 70.5 (16)	TP24.898x24.842x0.675	0.250	0.000	0.0	52.649	-26.829	3079.980	0.009
L17	70.5 - 67.9833 (17)	TP25.47x24.898x0.713	2.517	0.000	0.0	56.799	-27.554	3322.750	0.008
L18	67.9833 - 67.7333 (18)	TP25.526x25.47x0.713	0.250	0.000	0.0	56.930	-27.633	3330.370	0.008
L19	67.7333 - 66.6667 (19)	TP25.769x25.526x0.7	1.067	0.000	0.0	56.505	-27.941	3305.530	0.008
L20	66.6667 - 66.4167 (20)	TP25.825x25.769x0.7	0.250	0.000	0.0	56.633	-28.015	3313.010	0.008
L21	66.4167 - 63.5 (21)	TP26.488x25.825x0.688	2.917	0.000	0.0	57.115	-28.814	3341.240	0.009
L22	63.5 - 63.25 (22)	TP26.544x26.488x0.9	0.250	0.000	0.0	74.318	-28.906	4347.580	0.007
L23	63.25 - 58.25 (23)	TP27.68x26.544x0.85	5.000	0.000	0.0	73.433	-30.557	4295.830	0.007
L24	58.25 - 53.25 (24)	TP28.815x27.68x0.825	5.000	0.000	0.0	74.356	-32.236	4349.800	0.007
L25	53.25 - 47.635 (25)	TP30.09x28.815x0.825	5.615	0.000	0.0	75.110	-32.662	4393.910	0.007
L26	47.635 - 46.635 (26)	TP29.806x28.599x0.844	5.365	0.000	0.0	78.687	-35.793	4603.200	0.008
L27	46.635 - 41.635 (27)	TP30.931x29.806x0.819	5.000	0.000	0.0	79.388	-37.615	4644.190	0.008
L28	41.635 - 38.0833 (28)	TP31.73x30.931x0.806	3.552	0.000	0.0	80.283	-38.928	4696.560	0.008
L29	38.0833 - 37.8333 (29)	TP31.787x31.73x0.744	0.250	0.000	0.0	74.344	-39.024	4349.120	0.009
L30	37.8333 - 33.5 (30)	TP32.762x31.787x0.744	4.333	0.000	0.0	76.679	-40.565	4485.730	0.009
L31	33.5 - 33.25 (31)	TP32.818x32.762x0.794	0.250	0.000	0.0	81.850	-40.666	4788.230	0.008
L32	33.25 - 33 (32)	TP32.874x32.818x0.794	0.250	0.000	0.0	81.994	-40.761	4796.640	0.008
L33	33 - 32.75 (33)	TP32.931x32.874x0.844	0.250	0.000	0.0	87.176	-40.861	5099.790	0.008
L34	32.75 - 27.75 (34)	TP34.056x32.931x0.819	5.000	0.000	0.0	87.625	-42.843	5126.060	0.008
L35	27.75 - 22.75 (35)	TP35.181x34.056x0.794	5.000	0.000	0.0	87.889	-44.859	5141.500	0.009
L36	22.75 - 17.75 (36)	TP36.306x35.181x0.781	5.000	0.000	0.0	89.367	-46.903	5227.950	0.009
L37	17.75 - 12.75 (37)	TP37.431x36.306x0.769	5.000	0.000	0.0	90.753	-48.973	5309.040	0.009
L38	12.75 - 12.5 (38)	TP37.487x37.431x0.769	0.250	0.000	0.0	90.892	-49.083	5317.180	0.009
L39	12.5 - 12.25 (39)	TP37.543x37.487x0.769	0.250	0.000	0.0	91.031	-49.191	5325.330	0.009
L40	12.25 - 12 (40)	TP37.6x37.543x0.769	0.250	0.000	0.0	91.171	-49.300	5333.480	0.009
L41	12 - 11.75 (41)	TP37.656x37.6x1.044	0.250	0.000	0.0	123.049	-49.427	7198.380	0.007
L42	11.75 - 6.75 (42)	TP38.781x37.656x1.019	5.000	0.000	0.0	123.875	-51.967	7246.670	0.007
L43	6.75 - 2.5 (43)	TP39.737x38.781x0.994	4.250	0.000	0.0	123.975	-54.152	7252.540	0.007
L44	2.5 - 2.25 (44)	TP39.794x39.737x1.119	0.250	0.000	0.0	139.322	-54.291	8150.320	0.007
L45	2.25 - 2 (45)	TP39.85x39.794x1.244	0.250	0.000	0.0	154.613	-54.435	9044.860	0.006
L46	2 - 0 (46)	TP40.3x39.85x1.219	2.000	0.000	0.0	153.369	-55.578	8972.120	0.006

Section No.	Elevation	Size	L	L_u	Kl/r	A	P_u	ϕP_n	Ratio $\frac{P_u}{\phi P_n}$
	ft		ft	ft		in^2	K	K	

Pole Bending Design Data

Section No.	Elevation	Size	M_{ux}	ϕM_{nx}	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	M_{uy}	ϕM_{ny}	Ratio $\frac{M_{uy}}{\phi M_{ny}}$
	ft		kip-ft	kip-ft		kip-ft	kip-ft	
L1	117 - 112 (1)	TP15.489x14.36x0.188	14.589	211.355	0.069	0.000	211.355	0.000
L2	112 - 110 (2)	TP15.94x15.489x0.188	20.172	222.521	0.091	0.000	222.521	0.000
L3	110 - 105 (3)	TP17.07x15.94x0.188	46.843	250.253	0.187	0.000	250.253	0.000
L4	105 - 100 (4)	TP18.2x17.07x0.188	76.788	278.758	0.275	0.000	278.758	0.000
L5	100 - 95 (5)	TP19.335x18.2x0.25	134.618	438.070	0.307	0.000	438.070	0.000
L6	95 - 90 (6)	TP20.471x19.335x0.25	188.524	492.095	0.383	0.000	492.095	0.000
L7	90 - 85 (7)	TP21.606x20.471x0.25	263.462	542.656	0.486	0.000	542.656	0.000
L8	85 - 82.375 (8)	TP22.202x21.606x0.25	306.478	568.609	0.539	0.000	568.609	0.000
L9	82.375 - 82.125 (9)	TP22.259x22.202x0.25	310.637	571.097	0.544	0.000	571.097	0.000
L10	82.125 - 81.875 (10)	TP22.315x22.259x0.25	314.798	573.589	0.549	0.000	573.589	0.000
L11	81.875 - 81.625 (11)	TP22.372x22.315x0.35	318.963	814.329	0.392	0.000	814.329	0.000
L12	81.625 - 76.625 (12)	TP23.508x22.372x0.356	402.953	916.492	0.440	0.000	916.492	0.000
L13	76.625 - 76 (13)	TP23.649x23.508x0.356	413.545	927.850	0.446	0.000	927.850	0.000
L14	76 - 75.75 (14)	TP23.706x23.649x0.463	418.283	1194.050	0.350	0.000	1194.050	0.000
L15	75.75 - 70.75 (15)	TP24.842x23.706x0.45	515.141	1281.175	0.402	0.000	1281.175	0.000
L16	70.75 - 70.5 (16)	TP24.898x24.842x0.675	520.024	1877.975	0.277	0.000	1877.975	0.000
L17	70.5 - 67.9833 (17)	TP25.47x24.898x0.713	569.513	2068.825	0.275	0.000	2068.825	0.000
L18	67.9833 - 67.7333 (18)	TP25.526x25.47x0.713	574.462	2078.450	0.276	0.000	2078.450	0.000
L19	67.7333 - 66.6667 (19)	TP25.769x25.526x0.7	595.646	2085.725	0.286	0.000	2085.725	0.000
L20	66.6667 - 66.4167 (20)	TP25.825x25.769x0.7	600.627	2095.308	0.287	0.000	2095.308	0.000
L21	66.4167 - 63.5 (21)	TP26.488x25.825x0.688	659.169	2172.475	0.303	0.000	2172.475	0.000
L22	63.5 - 63.25 (22)	TP26.544x26.488x0.9	664.225	2786.800	0.238	0.000	2786.800	0.000
L23	63.25 - 58.25 (23)	TP27.68x26.544x0.85	766.625	2890.442	0.265	0.000	2890.442	0.000
L24	58.25 - 53.25 (24)	TP28.815x27.68x0.825	871.475	3059.867	0.285	0.000	3059.867	0.000
L25	53.25 - 47.635 (25)	TP30.09x28.815x0.825	898.050	3123.142	0.288	0.000	3123.142	0.000
L26	47.635 - 46.635 (26)	TP29.806x28.599x0.844	1013.675	3351.725	0.302	0.000	3351.725	0.000
L27	46.635 - 41.635 (27)	TP30.931x29.806x0.819	1123.358	3522.500	0.319	0.000	3522.500	0.000
L28	41.635 - 38.0833 (28)	TP31.73x30.931x0.806	1202.250	3662.233	0.328	0.000	3662.233	0.000
L29	38.0833 - 37.8333 (29)	TP31.787x31.73x0.744	1207.833	3411.358	0.354	0.000	3411.358	0.000
L30	37.8333 - 33.5	TP32.762x31.787x0.744	1305.175	3631.625	0.359	0.000	3631.625	0.000

Section No.	Elevation ft	Size	M_{ux} kip-ft	ϕM_{nx} kip-ft	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	M_{uy} kip-ft	ϕM_{ny} kip-ft	Ratio $\frac{M_{uy}}{\phi M_{ny}}$
L31	33.5 - 33.25 (31)	TP32.818x32.762x0.794	1310.825	3871.392	0.339	0.000	3871.392	0.000
L32	33.25 - 33 (32)	TP32.874x32.818x0.794	1316.475	3885.167	0.339	0.000	3885.167	0.000
L33	33 - 32.75 (33)	TP32.931x32.874x0.844	1322.133	4125.258	0.320	0.000	4125.258	0.000
L34	32.75 - 27.75 (34)	TP34.056x32.931x0.819	1435.992	4302.108	0.334	0.000	4302.108	0.000
L35	27.75 - 22.75 (35)	TP35.181x34.056x0.794	1551.250	4471.150	0.347	0.000	4471.150	0.000
L36	22.75 - 17.75 (36)	TP36.306x35.181x0.781	1667.892	4701.742	0.355	0.000	4701.742	0.000
L37	17.75 - 12.75 (37)	TP37.431x36.306x0.769	1785.900	4932.508	0.362	0.000	4932.508	0.000
L38	12.75 - 12.5 (38)	TP37.487x37.431x0.769	1791.833	4947.808	0.362	0.000	4947.808	0.000
L39	12.5 - 12.25 (39)	TP37.543x37.487x0.769	1797.775	4963.142	0.362	0.000	4963.142	0.000
L40	12.25 - 12 (40)	TP37.6x37.543x0.769	1803.717	4978.492	0.362	0.000	4978.492	0.000
L41	12 - 11.75 (41)	TP37.656x37.6x1.044	1809.658	6629.775	0.273	0.000	6629.775	0.000
L42	11.75 - 6.75 (42)	TP38.781x37.656x1.019	1929.392	6894.167	0.280	0.000	6894.167	0.000
L43	6.75 - 2.5 (43)	TP39.737x38.781x0.994	2032.358	7088.225	0.287	0.000	7088.225	0.000
L44	2.5 - 2.25 (44)	TP39.794x39.737x1.119	2038.450	7926.208	0.257	0.000	7926.208	0.000
L45	2.25 - 2 (45)	TP39.85x39.794x1.244	2044.542	8752.500	0.234	0.000	8752.500	0.000
L46	2 - 0 (46)	TP40.3x39.85x1.219	2093.450	8797.750	0.238	0.000	8797.750	0.000

Pole Shear Design Data

Section No.	Elevation ft	Size	Actual V_u K	ϕV_n K	Ratio $\frac{V_u}{\phi V_n}$	Actual T_u kip-ft	ϕT_n kip-ft	Ratio $\frac{T_u}{\phi T_n}$
L1	117 - 112 (1)	TP15.489x14.36x0.188	2.745	162.127	0.017	0.000	218.212	0.000
L2	112 - 110 (2)	TP15.94x15.489x0.188	2.840	166.911	0.017	0.000	231.278	0.000
L3	110 - 105 (3)	TP17.07x15.94x0.188	5.817	178.884	0.033	0.001	265.648	0.000
L4	105 - 100 (4)	TP18.2x17.07x0.188	6.143	190.857	0.032	0.000	302.400	0.000
L5	100 - 95 (5)	TP19.335x18.2x0.25	10.643	269.632	0.039	0.224	452.658	0.000
L6	95 - 90 (6)	TP20.471x19.335x0.25	10.921	285.672	0.038	0.224	508.114	0.000
L7	90 - 85 (7)	TP21.606x20.471x0.25	16.093	301.711	0.053	0.631	566.773	0.001
L8	85 - 82.375 (8)	TP22.202x21.606x0.25	16.640	310.131	0.054	0.576	598.851	0.001
L9	82.375 - 82.125 (9)	TP22.259x22.202x0.25	16.636	310.933	0.054	0.576	601.952	0.001
L10	82.125 - 81.875 (10)	TP22.315x22.259x0.25	16.647	311.735	0.053	0.576	605.061	0.001
L11	81.875 - 81.625 (11)	TP22.372x22.315x0.35	16.660	435.574	0.038	0.576	843.767	0.001
L12	81.625 - 76.625 (12)	TP23.508x22.372x0.356	16.932	466.083	0.036	0.576	949.158	0.001
L13	76.625 - 76 (13)	TP23.649x23.508x0.356	16.960	468.940	0.036	0.575	960.825	0.001
L14	76 - 75.75 (14)	TP23.706x23.649x0.463	19.215	607.505	0.032	0.575	1242.100	0.000
L15	75.75 - 70.75 (15)	TP24.842x23.706x0.45	19.521	620.275	0.031	0.443	1330.833	0.000
L16	70.75 - 70.5 (16)	TP24.898x24.842x0.675	19.535	923.995	0.021	0.443	1968.800	0.000
L17	70.5 - 67.9833 (17)	TP25.47x24.898x0.713	19.784	996.826	0.020	0.441	2170.808	0.000

Section No.	Elevation ft	Size	Actual V_u K	ϕV_n K	Ratio $\frac{V_u}{\phi V_n}$	Actual T_u kip-ft	ϕT_n kip-ft	Ratio $\frac{T_u}{\phi T_n}$
L18	67.9833 - 67.7333 (18)	TP25.526x25.47x0.713	19.801	999.112	0.020	0.440	2180.775	0.000
L19	67.7333 - 66.6667 (19)	TP25.769x25.526x0.7	19.908	991.659	0.020	0.440	2186.725	0.000
L20	66.6667 - 66.4167 (20)	TP25.825x25.769x0.7	19.926	993.904	0.020	0.438	2196.633	0.000
L21	66.4167 - 63.5 (21)	TP26.488x25.825x0.688	20.210	1002.370	0.020	0.435	2274.842	0.000
L22	63.5 - 63.25 (22)	TP26.544x26.488x0.9	20.225	1304.270	0.016	0.432	2942.133	0.000
L23	63.25 - 58.25 (23)	TP27.68x26.544x0.85	20.723	1288.750	0.016	0.422	3041.483	0.000
L24	58.25 - 53.25 (24)	TP28.815x27.68x0.825	21.210	1304.940	0.016	0.409	3212.875	0.000
L25	53.25 - 47.635 (25)	TP30.09x28.815x0.825	21.304	1318.170	0.016	0.407	3278.367	0.000
L26	47.635 - 46.635 (26)	TP29.806x28.599x0.844	21.771	1380.960	0.016	0.407	3518.158	0.000
L27	46.635 - 41.635 (27)	TP30.931x29.806x0.819	22.098	1393.260	0.016	0.407	3690.433	0.000
L28	41.635 - 38.0833 (28)	TP31.73x30.931x0.806	22.323	1408.970	0.016	0.407	3832.650	0.000
L29	38.0833 - 37.8333 (29)	TP31.787x31.73x0.744	22.327	1304.740	0.017	0.407	3562.750	0.000
L30	37.8333 - 33.5 (30)	TP32.762x31.787x0.744	22.587	1345.720	0.017	0.407	3790.083	0.000
L31	33.5 - 33.25 (31)	TP32.818x32.762x0.794	22.590	1436.470	0.016	0.407	4046.458	0.000
L32	33.25 - 33 (32)	TP32.874x32.818x0.794	22.605	1438.990	0.016	0.407	4060.692	0.000
L33	33 - 32.75 (33)	TP32.931x32.874x0.844	22.619	1529.940	0.015	0.407	4318.167	0.000
L34	32.75 - 27.75 (34)	TP34.056x32.931x0.819	22.910	1537.820	0.015	0.407	4495.992	0.000
L35	27.75 - 22.75 (35)	TP35.181x34.056x0.794	23.187	1542.450	0.015	0.407	4665.575	0.000
L36	22.75 - 17.75 (36)	TP36.306x35.181x0.781	23.461	1568.380	0.015	0.406	4900.967	0.000
L37	17.75 - 12.75 (37)	TP37.431x36.306x0.769	23.733	1592.710	0.015	0.406	5136.358	0.000
L38	12.75 - 12.5 (38)	TP37.487x37.431x0.769	23.736	1595.150	0.015	0.406	5152.133	0.000
L39	12.5 - 12.25 (39)	TP37.543x37.487x0.769	23.750	1597.600	0.015	0.406	5167.933	0.000
L40	12.25 - 12 (40)	TP37.6x37.543x0.769	23.764	1600.040	0.015	0.406	5183.758	0.000
L41	12 - 11.75 (41)	TP37.656x37.6x1.044	23.778	2159.510	0.011	0.406	6954.758	0.000
L42	11.75 - 6.75 (42)	TP38.781x37.656x1.019	24.092	2174.000	0.011	0.406	7221.350	0.000
L43	6.75 - 2.5 (43)	TP39.737x38.781x0.994	24.351	2175.760	0.011	0.406	7415.017	0.000
L44	2.5 - 2.25 (44)	TP39.794x39.737x1.119	24.357	2445.100	0.010	0.406	8318.125	0.000
L45	2.25 - 2 (45)	TP39.85x39.794x1.244	24.372	2713.460	0.009	0.406	9214.667	0.000
L46	2 - 0 (46)	TP40.3x39.85x1.219	24.506	2691.630	0.009	0.406	9253.000	0.000

Pole Interaction Design Data

Section No.	Elevation ft	Ratio P_u / ϕP_n	Ratio M_{ux} / ϕM_{nx}	Ratio M_{uy} / ϕM_{ny}	Ratio V_u / ϕV_n	Ratio T_u / ϕT_n	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
L1	117 - 112 (1)	0.004	0.069	0.000	0.017	0.000	0.074 ✔	1.050	4.8.2 ✔
L2	112 - 110 (2)	0.004	0.091	0.000	0.017	0.000	0.095 ✔	1.050	4.8.2 ✔
L3	110 - 105 (3)	0.011	0.187	0.000	0.033	0.000	0.199 ✔	1.050	4.8.2 ✔
L4	105 - 100 (4)	0.011	0.275	0.000	0.032	0.000	0.288 ✔	1.050	4.8.2 ✔
L5	100 - 95 (5)	0.016	0.307	0.000	0.039	0.000	0.325 ✔	1.050	4.8.2 ✔
L6	95 - 90 (6)	0.016	0.383	0.000	0.038	0.000	0.400 ✔	1.050	4.8.2 ✔
L7	90 - 85 (7)	0.020	0.486	0.000	0.053	0.001	0.509 ✔	1.050	4.8.2 ✔
L8	85 - 82.375 (8)	0.020	0.539	0.000	0.054	0.001	0.562 ✔	1.050	4.8.2 ✔
L9	82.375 - 82.125 (9)	0.020	0.544	0.000	0.054	0.001	0.567 ✔	1.050	4.8.2 ✔
L10	82.125 - 81.875 (10)	0.020	0.549	0.000	0.053	0.001	0.572 ✔	1.050	4.8.2 ✔
L11	81.875 - 81.625 (11)	0.015	0.392	0.000	0.038	0.001	0.408 ✔	1.050	4.8.2 ✔
L12	81.625 - 76.625 (12)	0.014	0.440	0.000	0.036	0.001	0.455 ✔	1.050	4.8.2 ✔
L13	76.625 - 76 (13)	0.014	0.446	0.000	0.036	0.001	0.461 ✔	1.050	4.8.2 ✔
L14	76 - 75.75 (14)	0.013	0.350	0.000	0.032	0.000	0.364 ✔	1.050	4.8.2 ✔
L15	75.75 - 70.75 (15)	0.013	0.402	0.000	0.031	0.000	0.416 ✔	1.050	4.8.2 ✔
L16	70.75 - 70.5 (16)	0.009	0.277	0.000	0.021	0.000	0.286 ✔	1.050	4.8.2 ✔
L17	70.5 - 67.9833 (17)	0.008	0.275	0.000	0.020	0.000	0.284 ✔	1.050	4.8.2 ✔
L18	67.9833 - 67.7333 (18)	0.008	0.276	0.000	0.020	0.000	0.285 ✔	1.050	4.8.2 ✔
L19	67.7333 - 66.6667 (19)	0.008	0.286	0.000	0.020	0.000	0.294 ✔	1.050	4.8.2 ✔
L20	66.6667 - 66.4167 (20)	0.008	0.287	0.000	0.020	0.000	0.296 ✔	1.050	4.8.2 ✔
L21	66.4167 - 63.5 (21)	0.009	0.303	0.000	0.020	0.000	0.312 ✔	1.050	4.8.2 ✔
L22	63.5 - 63.25 (22)	0.007	0.238	0.000	0.016	0.000	0.245 ✔	1.050	4.8.2 ✔
L23	63.25 - 58.25 (23)	0.007	0.265	0.000	0.016	0.000	0.273 ✔	1.050	4.8.2 ✔
L24	58.25 - 53.25 (24)	0.007	0.285	0.000	0.016	0.000	0.292 ✔	1.050	4.8.2 ✔
L25	53.25 - 47.635 (25)	0.007	0.288	0.000	0.016	0.000	0.295 ✔	1.050	4.8.2 ✔

Section No.	Elevation ft	Ratio $P_u/\phi P_n$	Ratio $M_{ux}/\phi M_{nx}$	Ratio $M_{uy}/\phi M_{ny}$	Ratio $V_u/\phi V_n$	Ratio $T_u/\phi T_n$	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
L26	47.635 - 46.635 (26)	0.008	0.302	0.000	0.016	0.000	0.310 ✔	1.050	4.8.2 ✔
L27	46.635 - 41.635 (27)	0.008	0.319	0.000	0.016	0.000	0.327 ✔	1.050	4.8.2 ✔
L28	41.635 - 38.0833 (28)	0.008	0.328	0.000	0.016	0.000	0.337 ✔	1.050	4.8.2 ✔
L29	38.0833 - 37.8333 (29)	0.009	0.354	0.000	0.017	0.000	0.363 ✔	1.050	4.8.2 ✔
L30	37.8333 - 33.5 (30)	0.009	0.359	0.000	0.017	0.000	0.369 ✔	1.050	4.8.2 ✔
L31	33.5 - 33.25 (31)	0.008	0.339	0.000	0.016	0.000	0.347 ✔	1.050	4.8.2 ✔
L32	33.25 - 33 (32)	0.008	0.339	0.000	0.016	0.000	0.348 ✔	1.050	4.8.2 ✔
L33	33 - 32.75 (33)	0.008	0.320	0.000	0.015	0.000	0.329 ✔	1.050	4.8.2 ✔
L34	32.75 - 27.75 (34)	0.008	0.334	0.000	0.015	0.000	0.342 ✔	1.050	4.8.2 ✔
L35	27.75 - 22.75 (35)	0.009	0.347	0.000	0.015	0.000	0.356 ✔	1.050	4.8.2 ✔
L36	22.75 - 17.75 (36)	0.009	0.355	0.000	0.015	0.000	0.364 ✔	1.050	4.8.2 ✔
L37	17.75 - 12.75 (37)	0.009	0.362	0.000	0.015	0.000	0.372 ✔	1.050	4.8.2 ✔
L38	12.75 - 12.5 (38)	0.009	0.362	0.000	0.015	0.000	0.372 ✔	1.050	4.8.2 ✔
L39	12.5 - 12.25 (39)	0.009	0.362	0.000	0.015	0.000	0.372 ✔	1.050	4.8.2 ✔
L40	12.25 - 12 (40)	0.009	0.362	0.000	0.015	0.000	0.372 ✔	1.050	4.8.2 ✔
L41	12 - 11.75 (41)	0.007	0.273	0.000	0.011	0.000	0.280 ✔	1.050	4.8.2 ✔
L42	11.75 - 6.75 (42)	0.007	0.280	0.000	0.011	0.000	0.287 ✔	1.050	4.8.2 ✔
L43	6.75 - 2.5 (43)	0.007	0.287	0.000	0.011	0.000	0.294 ✔	1.050	4.8.2 ✔
L44	2.5 - 2.25 (44)	0.007	0.257	0.000	0.010	0.000	0.264 ✔	1.050	4.8.2 ✔
L45	2.25 - 2 (45)	0.006	0.234	0.000	0.009	0.000	0.240 ✔	1.050	4.8.2 ✔
L46	2 - 0 (46)	0.006	0.238	0.000	0.009	0.000	0.244 ✔	1.050	4.8.2 ✔

Section Capacity Table

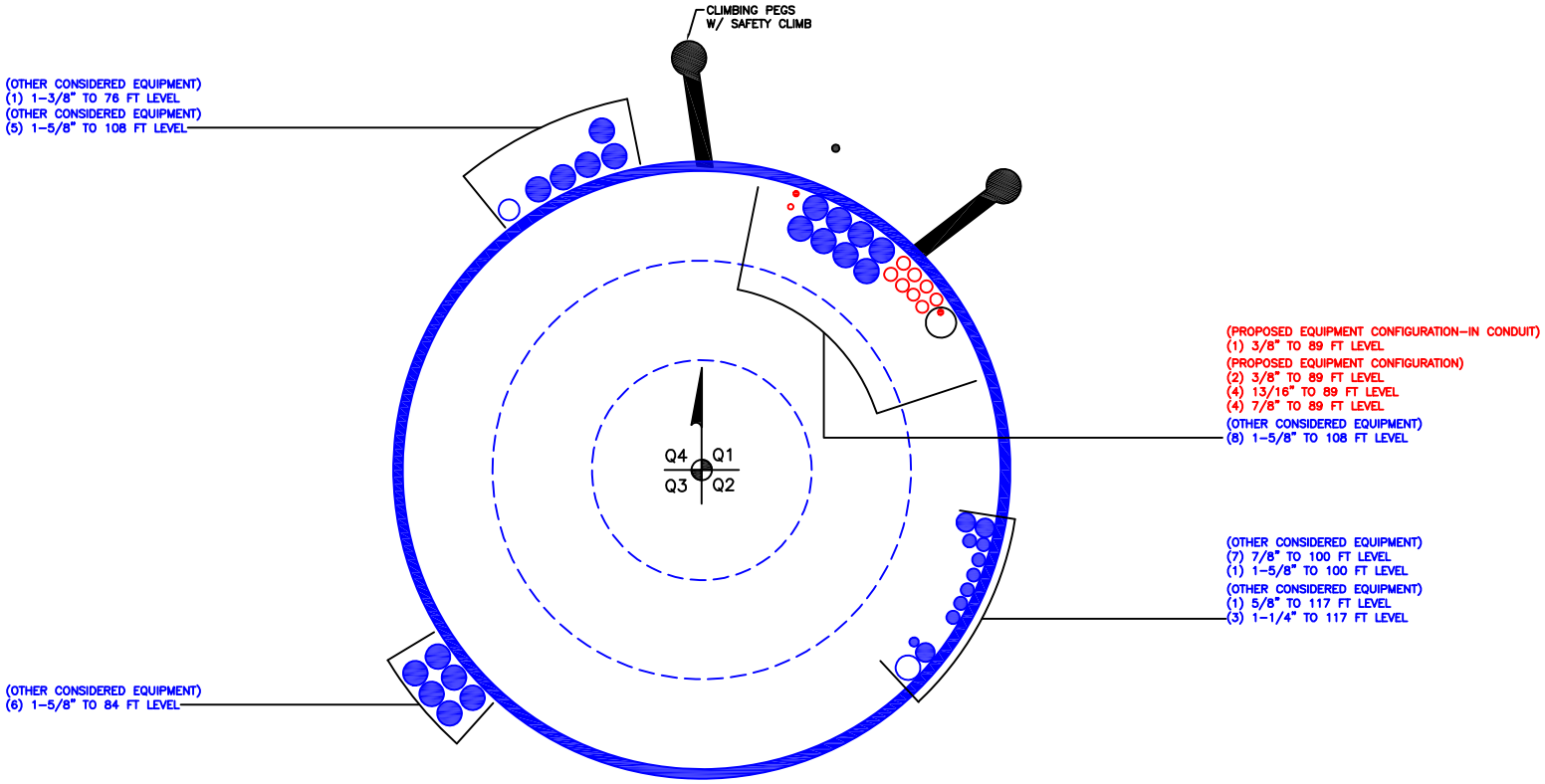
Section No.	Elevation ft	Component Type	Size	Critical Element	P K	ϕP_{allow} K	% Capacity	Pass Fail
L1	117 - 112	Pole	TP15.489x14.36x0.188	1	-2.398	567.445	**	**
L2	112 - 110	Pole	TP15.94x15.489x0.188	2	-2.475	584.186	**	**
L3	110 - 105	Pole	TP17.07x15.94x0.188	3	-6.673	626.093	**	**

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	ϕP_{allow} K	% Capacity	Pass Fail
L4	105 - 100	Pole	TP18.2x17.07x0.188	4	-7.007	667.999	**	**
L5	100 - 95	Pole	TP19.335x18.2x0.25	5	-14.567	943.714	**	**
L6	95 - 90	Pole	TP20.471x19.335x0.25	6	-15.074	999.851	**	**
L7	90 - 85	Pole	TP21.606x20.471x0.25	7	-20.409	1055.985	**	**
L8	85 - 82.375	Pole	TP22.202x21.606x0.25	8	-21.139	1085.458	**	**
L9	82.375 - 82.125	Pole	TP22.259x22.202x0.25	9	-21.187	1088.262	**	**
L10	82.125 - 81.875	Pole	TP22.315x22.259x0.25	10	-21.223	1091.076	**	**
L11	81.875 - 81.625	Pole	TP22.372x22.315x0.35	11	-21.273	1524.505	**	**
L12	81.625 - 76.625	Pole	TP23.508x22.372x0.356	12	-22.244	1631.290	**	**
L13	76.625 - 76	Pole	TP23.649x23.508x0.356	13	-22.372	1641.286	**	**
L14	76 - 75.75	Pole	TP23.706x23.649x0.463	14	-25.564	2126.271	**	**
L15	75.75 - 70.75	Pole	TP24.842x23.706x0.45	15	-26.748	2170.959	**	**
L16	70.75 - 70.5	Pole	TP24.898x24.842x0.675	16	-26.829	3233.979	**	**
L17	70.5 - 67.9833	Pole	TP25.47x24.898x0.713	17	-27.554	3488.887	**	**
L18	67.9833 - 67.7333	Pole	TP25.526x25.47x0.713	18	-27.633	3496.888	**	**
L19	67.7333 - 66.6667	Pole	TP25.769x25.526x0.7	19	-27.941	3470.806	**	**
L20	66.6667 - 66.4167	Pole	TP25.825x25.769x0.7	20	-28.015	3478.660	**	**
L21	66.4167 - 63.5	Pole	TP26.488x25.825x0.688	21	-28.814	3508.302	**	**
L22	63.5 - 63.25	Pole	TP26.544x26.488x0.9	22	-28.906	4564.959	**	**
L23	63.25 - 58.25	Pole	TP27.68x26.544x0.85	23	-30.557	4510.621	**	**
L24	58.25 - 53.25	Pole	TP28.815x27.68x0.825	24	-32.236	4567.290	**	**
L25	53.25 - 47.635	Pole	TP30.09x28.815x0.825	25	-32.662	4613.605	**	**
L26	47.635 - 46.635	Pole	TP29.806x28.599x0.844	26	-35.793	4833.360	**	**
L27	46.635 - 41.635	Pole	TP30.931x29.806x0.819	27	-37.615	4876.399	**	**
L28	41.635 - 38.0833	Pole	TP31.73x30.931x0.806	28	-38.928	4931.388	**	**
L29	38.0833 - 37.8333	Pole	TP31.787x31.73x0.744	29	-39.024	4566.576	**	**
L30	37.8333 - 33.5	Pole	TP32.762x31.787x0.744	30	-40.565	4710.016	**	**
L31	33.5 - 33.25	Pole	TP32.818x32.762x0.794	31	-40.666	5027.641	**	**
L32	33.25 - 33	Pole	TP32.874x32.818x0.794	32	-40.761	5036.472	**	**
L33	33 - 32.75	Pole	TP32.931x32.874x0.844	33	-40.861	5354.779	**	**
L34	32.75 - 27.75	Pole	TP34.056x32.931x0.819	34	-42.843	5382.363	**	**
L35	27.75 - 22.75	Pole	TP35.181x34.056x0.794	35	-44.859	5398.575	**	**
L36	22.75 - 17.75	Pole	TP36.306x35.181x0.781	36	-46.903	5489.347	**	**
L37	17.75 - 12.75	Pole	TP37.431x36.306x0.769	37	-48.973	5574.492	**	**
L38	12.75 - 12.5	Pole	TP37.487x37.431x0.769	38	-49.083	5583.039	**	**
L39	12.5 - 12.25	Pole	TP37.543x37.487x0.769	39	-49.191	5591.596	**	**
L40	12.25 - 12	Pole	TP37.6x37.543x0.769	40	-49.300	5600.154	**	**
L41	12 - 11.75	Pole	TP37.656x37.6x1.044	41	-49.427	7558.299	**	**
L42	11.75 - 6.75	Pole	TP38.781x37.656x1.019	42	-51.967	7609.003	**	**
L43	6.75 - 2.5	Pole	TP39.737x38.781x0.994	43	-54.152	7615.167	**	**
L44	2.5 - 2.25	Pole	TP39.794x39.737x1.119	44	-54.291	8557.836	**	**
L45	2.25 - 2	Pole	TP39.85x39.794x1.244	45	-54.435	9497.103	**	**
L46	2 - 0	Pole	TP40.3x39.85x1.219	46	-55.578	9420.726	**	**
							Summary	
						Pole (L10)	**	**
						RATING =	**	**

**NOTE: Above stress ratios for reinforced sections are approximate. More exact calculations are presented in Appendix C.

APPENDIX B

BASE LEVEL DRAWING



BUSINESS UNIT: 806352

APPENDIX C

ADDITIONAL CALCULATIONS

CCIpole

per TIA-222- H

Site BU: 806352

Work Order: 2030976

CROWN CASTLE

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	117	7	0	12	14.36	15.94	0.1875	Auto	A572-65
2	110	10	0	12	15.94	18.2	0.1875	Auto	A572-65
3	100	52.365	4.365	12	18.20	30.09	0.25	Auto	A572-65
4	52	52	0	12	28.60	40.3	0.34375	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
1	0	33	plate	PL-6x1	3		E2				E2				E2		
2	33	63.5	plate	PL-4.5x1	3		E2				E2				E2		
3	2.5	38.08333333	plate	CCI-AFP-045100	2								E5				E5
4	12.5	38.08333333	plate	CCI-AFP-045100	1				E5								
5	51.5	70.75	plate	MS-450 (1.1875")	3	E3				E3				E3			
6	0	33.5	plate	CCI-SFP-045100	3			E4				E4				E4	
7	33.5	49	plate	CCI-SFP-040075	3			E4				E4				E4	
8	38.08333333	68.08333333	plate	CCI-AFP-060100	3				E5				E5				E5
9	68.08333333	81.875	plate	CCI-AFP-045100	2								E5				E5
10	66.66666667	82.375	plate	CCI-AFP-045100	1		E5										
11	68	76	plate	CCI-SFP-040075	3			E5				E5				E5	
12	0	12	plate	TS-5.25x1.25	3		c				c				c		
13	0	12.5	plate	TS-6x1.25	1			c									
14	0	2.25	plate	TS-6.5x1.25	1											c	
15	0	2.5	plate	ARB-5.75x1.25	2								c				c
16																	

Reinforcement Details

	B (in)	H (in)	Gross Area (in^2)	Pole Face to Centroid (in)	Bottom Termination Type	Bottom Termination Length (in)	Top Termination Type	Top Termination Length (in)	Lu (in)	Net Area (in2)	Bolt Hole Size (in)	Reinforcement Material
1	6	1	6	0.5	Welded	n/a	PC 8.8 - M20 (100)	24.000	16.375	4.750	1.1875	A572-65
2	4.5	1	4.5	0.5	Welded	n/a	PC 8.8 - M20 (100)	18.000	20.625	3.250	1.1875	A572-65
3	4.5	1	4.5	0.5	PC 8.8 - M20 (100)	24	PC 8.8 - M20 (100)	24.000	20.000	3.250	1.1875	A572-65
4	4.5	1	4.5	0.5	PC 8.8 - M20 (100)	24	PC 8.8 - M20 (100)	24.000	20.000	3.250	1.1875	A572-65
5	4.5	1	4.5	0.5	PC 8.8 - M20 (100)	18	PC 8.8 - M20 (100)	18.000	20.625	3.250	1.1875	A572-65
6	4.5	1	4.5	0.5	PC 8.8 - M20 (100)	18	PC 8.8 - M20 (100)	18.000	20.000	3.250	1.1875	A572-65
7	4	0.75	3	0.375	PC 8.8 - M20 (100)	12	PC 8.8 - M20 (100)	12.000	16.000	2.063	1.1875	A572-65
8	6	1	6	0.5	PC 8.8 - M20 (100)	30	PC 8.8 - M20 (100)	30.000	16.000	4.750	1.1875	A572-65
9	4.5	1	4.5	0.5	PC 8.8 - M20 (100)	24	PC 8.8 - M20 (100)	24.000	20.000	3.250	1.1875	A572-65
10	4.5	1	4.5	0.5	PC 8.8 - M20 (100)	24	PC 8.8 - M20 (100)	24.000	20.000	3.250	1.1875	A572-65
11	4	0.75	3	0.375	PC 8.8 - M20 (100)	12	PC 8.8 - M20 (100)	12.000	16.000	2.063	1.1875	A572-65
12	1.25	5.25	6.5625	3.375	Welded	n/a	Welded	n/a	0.750	6.563	0.0000	A572-65
13	1.25	6	7.5	3.75	Welded	n/a	Welded	n/a	0.750	7.500	0.0000	A572-65
14	1.25	6.5	8.125	4	Welded	n/a	Welded	n/a	0.750	8.125	0.0000	A572-65
15	1.25	5.75	7.1875	3.625	Welded	n/a	Welded	n/a	0.750	7.188	0.0000	A572-65

Connection Details for Custom Reinforcements

Reinforcement	End	# Bolts	N or X	Bolt Spacing (in)	Edge Dist (in)	Weld Grade (ksi)	Transverse (Horiz.) Weld Type	Horiz. Weld Length (in)	Horiz. Groove Depth (in)	Horiz. Groove Angle (deg)	Horiz. Fillet Size (in)	Vertical Weld Length (in)	Vertical Fillet Size (in)	Rev H Connection Capacity (kip)
PL-6x1	Top	8	N	3	3	-	-	-	-	-	-	-	-	-
	Bottom	-	-	-	-	70	CJP Groove	6	1	45	0.375	-	-	-
PL-4.5x1	Top	6	N	3	3	-	-	-	-	-	-	-	-	-
	Bottom	-	-	-	-	70	None	-	-	-	-	-	-	-
TS-5.25x1.25	Top	-	-	-	-	70	None	-	-	-	-	155.25	0.375	-
	Bottom	-	-	-	-	70	CJP Groove	9	0.625	45	0.625	-	-	-
TS-6x1.25	Top	-	-	-	-	70	None	-	-	-	-	179.25	0.375	-
	Bottom	-	-	-	-	70	CJP Groove	10.5	0.625	45	0.625	-	-	-
TS-6.5x1.25	Top	-	-	-	-	70	None	-	-	-	-	65.25	0.313	-
	Bottom	-	-	-	-	70	CJP Groove	11.5	0.625	45	0.1875	-	-	-
ARB-5.75x1.25	Top	-	-	-	-	70	None	-	-	-	-	179.25	0.375	-
	Bottom	-	-	-	-	70	CJP Groove	10	0.625	45	0.625	-	-	-

TNX Geometry Input

Increment (ft): 5 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	117 - 112	5		12	14.360	15.489	0.1875	A572-65	1.000
2	112 - 110	2	0	12	15.489	15.940	0.1875	A572-65	1.000
3	110 - 105	5		12	15.940	17.070	0.1875	A572-65	1.000
4	105 - 100	5	0	12	17.070	18.200	0.1875	A572-65	1.000
5	100 - 95	5		12	18.200	19.335	0.25	A572-65	1.000
6	95 - 90	5		12	19.335	20.471	0.25	A572-65	1.000
7	90 - 85	5		12	20.471	21.606	0.25	A572-65	1.000
8	85 - 82.375	2.625		12	21.606	22.202	0.25	A572-65	1.000
9	82.375 - 82.125	0.25		12	22.202	22.259	0.25	A572-65	1.000
10	82.125 - 81.875	0.25		12	22.259	22.315	0.25	A572-65	1.000
11	81.875 - 81.625	0.25		12	22.315	22.372	0.35	A572-65	1.262
12	81.625 - 76.625	5		12	22.372	23.508	0.35625	A572-65	1.214
13	76.625 - 76	0.625		12	23.508	23.649	0.35625	A572-65	1.211
14	76 - 75.75	0.25		12	23.649	23.706	0.4625	A572-65	1.196
15	75.75 - 70.75	5		12	23.706	24.842	0.45	A572-65	1.198
16	70.75 - 70.5	0.25		12	24.842	24.898	0.675	A572-65	1.062
17	70.5 - 67.98333	2.516666667		12	24.898	25.470	0.7125	A572-65	0.992
18	67.98333 - 67.73333	0.25		12	25.470	25.526	0.7125	A572-65	0.991
19	67.73333 - 66.66667	1.066666667		12	25.526	25.769	0.7	A572-65	1.002
20	66.66667 - 66.41667	0.25		12	25.769	25.825	0.7	A572-65	0.921
21	66.41667 - 63.5	2.916666667		12	25.825	26.488	0.6875	A572-65	0.922
22	63.5 - 63.25	0.25		12	26.488	26.544	0.9	A572-65	0.891
23	63.25 - 58.25	5		12	26.544	27.680	0.85	A572-65	0.914
24	58.25 - 53.25	5		12	27.680	28.815	0.825	A572-65	0.915
25	53.25 - 52	5.615	4.365	12	28.815	30.090	0.825	A572-65	0.909
26	52 - 46.635	5.365		12	28.599	29.806	0.84375	A572-65	0.930
27	46.635 - 41.635	5		12	29.806	30.931	0.81875	A572-65	0.937
28	41.635 - 38.08333	3.551666667		12	30.931	31.730	0.80625	A572-65	0.938
29	38.08333 - 37.83333	0.25		12	31.730	31.787	0.74375	A572-65	0.953
30	37.83333 - 33.5	4.333333333		12	31.787	32.762	0.74375	A572-65	0.938
31	33.5 - 33.25	0.25		12	32.762	32.818	0.79375	A572-65	0.935
32	33.25 - 33	0.25		12	32.818	32.874	0.79375	A572-65	0.934
33	33 - 32.75	0.25		12	32.874	32.931	0.84375	A572-65	0.931
34	32.75 - 27.75	5		12	32.931	34.056	0.81875	A572-65	0.940
35	27.75 - 22.75	5		12	34.056	35.181	0.79375	A572-65	0.951
36	22.75 - 17.75	5		12	35.181	36.306	0.78125	A572-65	0.950
37	17.75 - 12.75	5		12	36.306	37.431	0.76875	A572-65	0.949
38	12.75 - 12.5	0.25		12	37.431	37.487	0.76875	A572-65	0.948
39	12.5 - 12.25	0.25		12	37.487	37.543	0.76875	A572-65	0.980
40	12.25 - 12	0.25		12	37.543	37.600	0.76875	A572-65	0.980
41	12 - 11.75	0.25		12	37.600	37.656	1.04375	A572-65	0.887
42	11.75 - 6.75	5		12	37.656	38.781	1.01875	A572-65	0.891
43	6.75 - 2.5	4.25		12	38.781	39.737	0.99375	A572-65	0.898
44	2.5 - 2.25	0.25		12	39.737	39.794	1.11875	A572-65	0.839
45	2.25 - 2	0.25		12	39.794	39.850	1.24375	A572-65	0.809
46	2 - 0	2		12	39.850	40.300	1.21875	A572-65	0.818

TNX Section Forces

Increment (ft):	5	TNX Output		
	Section Height (ft)	P_u (K)	M_{ux} (kip-ft)	V_u (K)
1	117 - 112	2.40	14.59	2.74
2	112 - 110	2.47	20.17	2.84
3	110 - 105	6.67	46.84	5.82
4	105 - 100	7.01	76.79	6.14
5	100 - 95	14.57	134.62	10.64
6	95 - 90	15.07	188.52	10.92
7	90 - 85	20.41	263.46	16.09
8	85 - 82.375	21.14	306.48	16.64
9	82.375 - 82.125	21.19	310.64	16.64
10	82.125 - 81.875	21.22	314.80	16.65
11	81.875 - 81.625	21.27	318.96	16.66
12	81.625 - 76.625	22.24	402.95	16.93
13	76.625 - 76	22.37	413.55	16.96
14	76 - 75.75	25.56	418.28	19.22
15	75.75 - 70.75	26.75	515.14	19.52
16	70.75 - 70.5	26.83	520.02	19.54
17	70.5 - 67.9833	27.55	569.51	19.78
18	67.9833 - 67.7333	27.63	574.46	19.80
19	67.7333 - 66.6667	27.94	595.65	19.91
20	66.6667 - 66.4167	28.02	600.63	19.93
21	66.4167 - 63.5	28.81	659.17	20.21
22	63.5 - 63.25	28.91	664.22	20.22
23	63.25 - 58.25	30.56	766.62	20.72
24	58.25 - 53.25	32.24	871.48	21.21
25	53.25 - 52	32.66	898.05	21.30
26	52 - 46.635	35.79	1013.67	21.77
27	46.635 - 41.635	37.61	1123.36	22.10
28	41.635 - 38.0833	38.93	1202.25	22.32
29	38.0833 - 37.8333	39.02	1207.83	22.33
30	37.8333 - 33.5	40.57	1305.17	22.59
31	33.5 - 33.25	40.67	1310.82	22.59
32	33.25 - 33	40.76	1316.48	22.60
33	33 - 32.75	40.86	1322.13	22.62
34	32.75 - 27.75	42.84	1435.99	22.91
35	27.75 - 22.75	44.86	1551.25	23.19
36	22.75 - 17.75	46.90	1667.89	23.46
37	17.75 - 12.75	48.97	1785.90	23.73
38	12.75 - 12.5	49.08	1791.83	23.74
39	12.5 - 12.25	49.19	1797.77	23.75
40	12.25 - 12	49.30	1803.71	23.76
41	12 - 11.75	49.43	1809.66	23.78
42	11.75 - 6.75	51.97	1929.39	24.09
43	6.75 - 2.5	54.15	2032.36	24.35
44	2.5 - 2.25	54.29	2038.45	24.36
45	2.25 - 2	54.43	2044.55	24.37
46	2 - 0	55.58	2093.45	24.51

Analysis Results

Elevation (ft)	Component Type	Size	Critical Element	% Capacity	Pass / Fail
117 - 112	Pole	TP15.489x14.36x0.1875	Pole	7.0%	Pass
112 - 110	Pole	TP15.94x15.489x0.1875	Pole	9.1%	Pass
110 - 105	Pole	TP17.07x15.94x0.1875	Pole	18.9%	Pass
105 - 100	Pole	TP18.2x17.07x0.1875	Pole	27.3%	Pass
100 - 95	Pole	TP19.335x18.2x0.25	Pole	30.9%	Pass
95 - 90	Pole	TP20.471x19.335x0.25	Pole	38.0%	Pass
90 - 85	Pole	TP21.606x20.471x0.25	Pole	48.3%	Pass
85 - 82.38	Pole	TP22.202x21.606x0.25	Pole	53.4%	Pass
82.38 - 82.13	Pole	TP22.259x22.202x0.25	Pole	53.9%	Pass
82.13 - 81.88	Pole	TP22.315x22.259x0.25	Pole	54.3%	Pass
81.88 - 81.63	Pole + Reinf.	TP22.372x22.315x0.35	Reinf. 9 Tension Rupture	49.8%	Pass
81.63 - 76.63	Pole + Reinf.	TP23.508x22.372x0.3563	Reinf. 9 Tension Rupture	57.8%	Pass
76.63 - 76	Pole + Reinf.	TP23.649x23.508x0.3563	Reinf. 9 Tension Rupture	58.7%	Pass
76 - 75.75	Pole + Reinf.	TP23.706x23.649x0.4625	Reinf. 11 Tension Rupture	53.8%	Pass
75.75 - 70.75	Pole + Reinf.	TP24.842x23.706x0.45	Reinf. 11 Tension Rupture	61.6%	Pass
70.75 - 70.5	Pole + Reinf.	TP24.898x24.842x0.675	Reinf. 5 Compression	49.5%	Pass
70.5 - 67.98	Pole + Reinf.	TP25.47x24.898x0.7125	Reinf. 5 Compression	46.1%	Pass
67.98 - 67.73	Pole + Reinf.	TP25.526x25.47x0.7125	Reinf. 5 Compression	46.4%	Pass
67.73 - 66.67	Pole + Reinf.	TP25.769x25.526x0.7	Reinf. 5 Compression	47.4%	Pass
66.67 - 66.42	Pole + Reinf.	TP25.825x25.769x0.7	Reinf. 5 Compression	47.8%	Pass
66.42 - 63.5	Pole + Reinf.	TP26.488x25.825x0.6875	Reinf. 5 Compression	50.6%	Pass
63.5 - 63.25	Pole + Reinf.	TP26.544x26.488x0.9	Reinf. 2 Compression	40.2%	Pass
63.25 - 58.25	Pole + Reinf.	TP27.68x26.544x0.85	Reinf. 2 Compression	44.0%	Pass
58.25 - 53.25	Pole + Reinf.	TP28.815x27.68x0.825	Reinf. 2 Compression	47.4%	Pass
53.25 - 52	Pole + Reinf.	TP30.09x28.815x0.825	Reinf. 2 Compression	48.2%	Pass
52 - 46.64	Pole + Reinf.	TP29.806x28.599x0.8438	Reinf. 7 Tension Rupture	51.7%	Pass
46.64 - 41.64	Pole + Reinf.	TP30.931x29.806x0.8188	Reinf. 7 Tension Rupture	54.3%	Pass
41.64 - 38.08	Pole + Reinf.	TP31.73x30.931x0.8063	Reinf. 7 Tension Rupture	56.0%	Pass
38.08 - 37.83	Pole + Reinf.	TP31.787x31.73x0.7438	Reinf. 7 Tension Rupture	59.9%	Pass
37.83 - 33.5	Pole + Reinf.	TP32.762x31.787x0.7438	Reinf. 7 Tension Rupture	61.9%	Pass
33.5 - 33.25	Pole + Reinf.	TP32.818x32.762x0.7938	Reinf. 2 Compression	56.4%	Pass
33.25 - 33	Pole + Reinf.	TP32.874x32.818x0.7938	Reinf. 2 Compression	56.5%	Pass
33 - 32.75	Pole + Reinf.	TP32.931x32.874x0.8438	Reinf. 4 Tension Rupture	52.7%	Pass
32.75 - 27.75	Pole + Reinf.	TP34.056x32.931x0.8188	Reinf. 4 Tension Rupture	54.6%	Pass
27.75 - 22.75	Pole + Reinf.	TP35.181x34.056x0.7938	Reinf. 4 Tension Rupture	56.3%	Pass
22.75 - 17.75	Pole + Reinf.	TP36.306x35.181x0.7813	Reinf. 4 Tension Rupture	57.8%	Pass
17.75 - 12.75	Pole + Reinf.	TP37.431x36.306x0.7688	Reinf. 4 Tension Rupture	59.2%	Pass
12.75 - 12.5	Pole + Reinf.	TP37.487x37.431x0.7688	Reinf. 4 Tension Rupture	59.2%	Pass
12.5 - 12.25	Pole + Reinf.	TP37.543x37.487x0.7688	Reinf. 6 Tension Rupture	60.0%	Pass
12.25 - 12	Pole + Reinf.	TP37.6x37.543x0.7688	Reinf. 6 Tension Rupture	60.0%	Pass
12 - 11.75	Pole + Reinf.	TP37.656x37.6x1.0438	Reinf. 6 Tension Rupture	45.2%	Pass
11.75 - 6.75	Pole + Reinf.	TP38.781x37.656x1.0188	Reinf. 6 Tension Rupture	46.4%	Pass
6.75 - 2.5	Pole + Reinf.	TP39.737x38.781x0.9938	Reinf. 6 Tension Rupture	47.4%	Pass
2.5 - 2.25	Pole + Reinf.	TP39.794x39.737x1.1188	Reinf. 6 Tension Rupture	43.1%	Pass
2.25 - 2	Pole + Reinf.	TP39.85x39.794x1.2438	Reinf. 6 Tension Rupture	41.6%	Pass
2 - 0	Pole + Reinf.	TP40.3x39.85x1.2188	Reinf. 6 Tension Rupture	42.0%	Pass
				Summary	
			Pole	54.3%	Pass
			Reinforcement	61.9%	Pass
			Overall	61.9%	Pass

Additional Calculations

Section Elevation (ft)	Moment of Inertia (in^4)			Area (in^2)			% Capacity*															
	Pole	Reinf.	Total	Pole	Reinf.	Total	Pole	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
117 - 112	276	n/a	276	9.22	n/a	9.22	7.0%															
112 - 110	302	n/a	302	9.50	n/a	9.50	9.1%															
110 - 105	371	n/a	371	10.18	n/a	10.18	18.9%															
105 - 100	451	n/a	451	10.86	n/a	10.86	27.3%															
100 - 95	715	n/a	715	15.34	n/a	15.34	30.9%															
95 - 90	851	n/a	851	16.25	n/a	16.25	38.0%															
90 - 85	1002	n/a	1002	17.17	n/a	17.17	48.3%															
85 - 82.38	1088	n/a	1088	17.65	n/a	17.65	53.4%															
82.38 - 82.13	1097	n/a	1097	17.69	n/a	17.69	53.9%															
82.13 - 81.88	1105	n/a	1105	17.74	n/a	17.74	54.3%															
81.88 - 81.63	1155	417	1572	17.78	13.50	31.28	42.9%									49.8%	43.1%					
81.63 - 76.63	1343	522	1864	18.70	13.50	32.20	49.2%									57.8%	50.1%					
76.63 - 76	1367	528	1895	18.81	13.50	32.31	50.0%									58.7%	50.9%					
76 - 75.75	1348	1078	2426	18.86	22.50	41.36	38.2%									45.0%	40.0%	53.8%				
75.75 - 70.75	1552	1178	2730	19.77	22.50	42.27	44.3%									51.6%	45.9%	61.6%				
70.75 - 70.5	1555	2370	3926	19.81	36.00	55.81	30.5%					49.5%				38.6%	35.3%	44.7%				
70.5 - 67.98	1651	2811	4462	20.27	36.00	56.27	28.7%					46.1%			39.2%		36.3%					
67.98 - 67.73	1662	2823	4485	20.32	36.00	56.32	28.9%					46.4%			39.4%		36.5%					
67.73 - 66.67	1710	2874	4584	20.51	36.00	56.51	29.6%					47.4%			40.3%		37.4%					
66.67 - 66.42	1721	2873	4594	20.56	31.50	52.06	29.2%					47.8%			43.2%							
66.42 - 63.5	1858	3015	4873	21.09	31.50	52.59	31.3%					50.6%			45.8%							
63.5 - 63.25	1871	4319	6190	21.14	45.00	66.14	24.9%		40.2%			40.2%			36.4%							
63.25 - 58.25	2123	4678	6802	22.05	45.00	67.05	27.7%		44.0%			44.0%			39.8%							
58.25 - 53.25	2398	5052	7450	22.96	45.00	67.96	30.4%		47.4%			47.4%			42.9%							
53.25 - 52	2470	5148	7618	23.19	45.00	68.19	31.1%		48.2%			48.2%			43.6%							
52 - 46.64	3618	4833	8451	32.56	40.50	73.06	29.0%		50.2%					51.7%	45.4%							
46.64 - 41.64	4049	5190	9238	33.81	40.50	74.31	30.9%		52.7%					54.3%	47.7%							
41.64 - 38.08	4374	5451	9825	34.69	40.50	75.19	32.1%		54.3%					56.0%	49.2%							
38.08 - 37.83	4398	4849	9247	34.75	36.00	70.75	34.4%		58.1%	57.5%	57.5%			59.9%								
37.83 - 33.5	4820	5141	9960	35.83	36.00	71.83	35.9%		60.0%	59.4%	59.4%			61.9%								
33.5 - 33.25	4845	5826	10671	35.89	40.50	76.39	33.7%		56.4%	55.8%	55.8%		55.8%									
33.25 - 33	4870	5845	10715	35.96	40.50	76.46	33.8%		56.5%	55.9%	55.9%		55.9%									
33 - 32.75	4896	6528	11423	36.02	45.00	81.02	31.9%	48.2%		52.7%	52.7%		52.7%									
32.75 - 27.75	5420	6964	12384	37.26	45.00	82.26	33.4%	49.9%		54.6%	54.6%		54.6%									
27.75 - 22.75	5981	7415	13396	38.51	45.00	83.51	34.9%	51.4%		56.3%	56.3%		56.3%									
22.75 - 17.75	6580	7880	14460	39.75	45.00	84.75	36.3%	52.8%		57.8%	57.8%		57.8%									
17.75 - 12.75	7217	8359	15576	40.99	45.00	85.99	37.7%	54.1%		59.2%	59.2%		59.2%									
12.75 - 12.5	7250	8384	15633	41.05	45.00	86.05	37.8%	54.1%		59.2%	59.2%		59.2%									
12.5 - 12.25	7290	8488	15778	41.12	48.00	89.12	39.1%	54.8%		59.9%			60.0%							44.2%		
12.25 - 12	7323	8512	15835	41.18	48.00	89.18	39.2%	54.8%		59.9%			60.0%							44.2%		
12 - 11.75	7354	13714	21068	41.24	67.69	108.93	29.6%	41.3%		45.1%			45.2%						39.9%	34.7%		
11.75 - 6.75	8039	14480	22519	42.48	67.69	110.17	30.7%	42.4%		46.3%			46.4%						40.9%	35.6%		
6.75 - 2.5	8654	15148	23802	43.54	67.69	111.23	31.7%	43.2%		47.3%			47.4%						41.6%	36.3%		
2.5 - 2.25	8711	17814	26526	43.60	73.06	116.67	29.5%	41.4%					43.1%						38.7%	34.8%		36.8%
2.25 - 2	8876	20581	29457	43.67	81.19	124.85	27.3%	38.3%					41.6%						36.1%	34.2%	31.0%	34.4%
2 - 0	9181	20997	30178	44.16	81.19	125.35	27.8%	38.6%					42.0%						36.4%	34.5%	31.3%	34.7%

Note: Section capacity checked using 5 degree increments.
Rating per TIA-222-H Section 15.5.

Monopole Flange Plate Connection

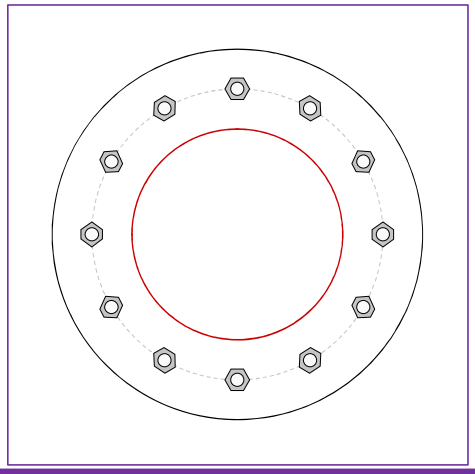
Elevation = 110 ft.

BU #	806352
Site Name	BRG 302 943052, CT
Order #	556499 Rev. 2
TIA-222 Revision	H

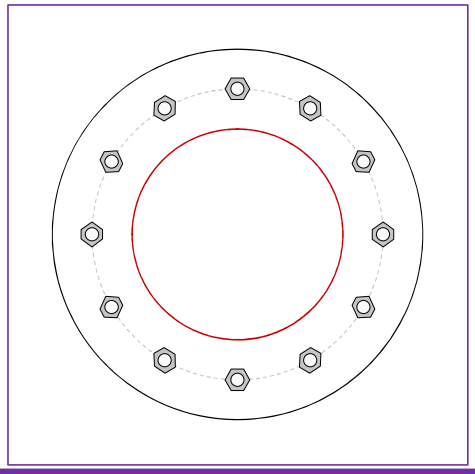
Applied Loads	
Moment (kip-ft)	20.17
Axial Force (kips)	2.47
Shear Force (kips)	2.84

**TIA-222-H Section 15.5 Applied*

Top Plate - External



Bottom Plate - External



Connection Properties

Bolt Data

(12) 1" ø bolts (A325 N; Fy=92 ksi, Fu=120 ksi) on 22" BC

Top Plate Data

28" OD x 1.25" Plate (A36; Fy=36 ksi, Fu=58 ksi)

Bottom Plate Data

28" OD x 1.25" Plate (A36; Fy=36 ksi, Fu=58 ksi)

Top Stiffener Data

N/A

Bottom Stiffener Data

N/A

Top Pole Data

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

Bottom Pole Data

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

Analysis Results

Bolt Capacity

Max Load (kips)	3.46	
Allowable (kips)	54.54	
Stress Rating:	**6.0%**	Pass

Top Plate Capacity

Max Stress (ksi):	3.76	(Flexural)
Allowable Stress (ksi):	32.40	
Stress Rating:	**11.0%**	Pass
Tension Side Stress Rating:	**5.6%**	Pass

Bottom Plate Capacity

Max Stress (ksi):	3.76	(Flexural)
Allowable Stress (ksi):	32.40	
Stress Rating:	**11.0%**	Pass
Tension Side Stress Rating:	**5.6%**	Pass

Monopole Flange Plate Connection

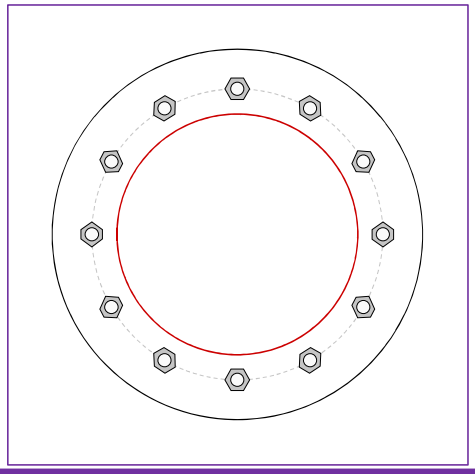
Elevation = 100 ft.

BU #	806352
Site Name	BRG 302 943052, CT
Order #	556499 Rev. 2
TIA-222 Revision	H

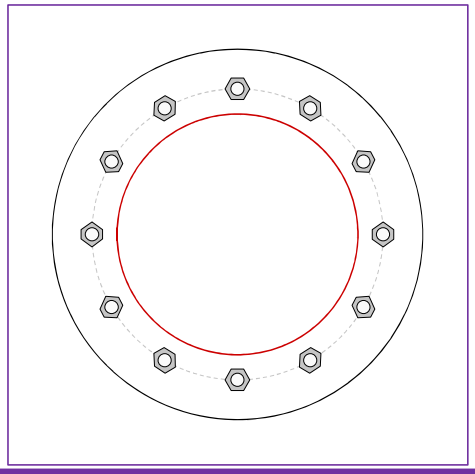
Applied Loads	
Moment (kip-ft)	76.79
Axial Force (kips)	7.01
Shear Force (kips)	6.14

**TIA-222-H Section 15.5 Applied*

Top Plate - External



Bottom Plate - External



Connection Properties

Bolt Data

(12) 1" ø bolts (A325 N; Fy=92 ksi, Fu=120 ksi) on 22" BC

Top Plate Data

28" OD x 1.25" Plate (A36; Fy=36 ksi, Fu=58 ksi)

Bottom Plate Data

28" OD x 1.25" Plate (A36; Fy=36 ksi, Fu=58 ksi)

Top Stiffener Data

N/A

Bottom Stiffener Data

N/A

Top Pole Data

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

Bottom Pole Data

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

Analysis Results

Bolt Capacity

Max Load (kips)	13.37	
Allowable (kips)	54.53	
Stress Rating:	**23.3%**	Pass

Top Plate Capacity

Max Stress (ksi):	8.88	(Flexural)
Allowable Stress (ksi):	32.40	
Stress Rating:	**26.1%**	Pass
Tension Side Stress Rating:	**10.3%**	Pass

Bottom Plate Capacity

Max Stress (ksi):	8.88	(Flexural)
Allowable Stress (ksi):	32.40	
Stress Rating:	**26.1%**	Pass
Tension Side Stress Rating:	**10.3%**	Pass

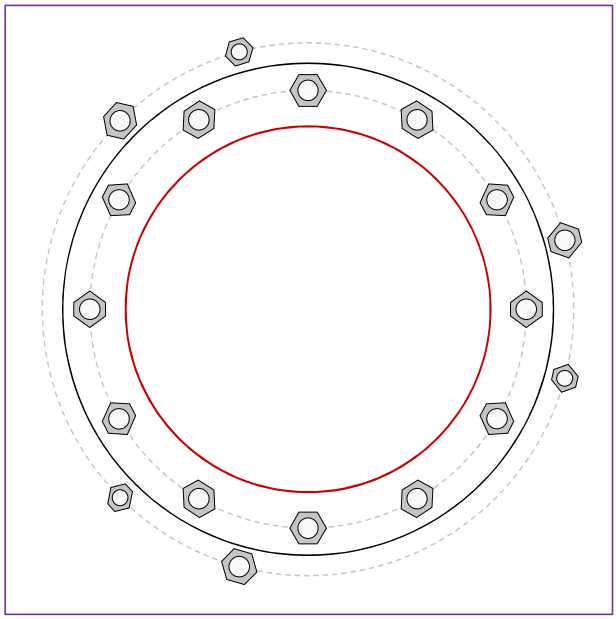
Monopole Base Plate Connection

Site Info	
BU #	806352
Site Name	BRG 302 943052, CT
Order #	556499 Rev. 2

Analysis Considerations	
TIA-222 Revision	H
Grout Considered:	See Custom Sheet
l_{ar} (in)	See Custom Sheet

Applied Loads	
Moment (kip-ft)	2093.45
Axial Force (kips)	55.58
Shear Force (kips)	24.51

**TIA-222-H Section 15.5 Applied*



Connection Properties

Anchor Rod Data

GROUP 1: (12) 2-1/4" ø bolts (A615-75 N; Fy=75 ksi, Fu=100 ksi) on 48.22" BC
GROUP 2: (3) 1-3/4" ø bolts (A193 Gr. B7 N; Fy=105 ksi, Fu=125 ksi) on 58.72" BC
GROUP 3: (3) 2-1/4" ø bolts (A193 Gr. B7 N; Fy=105 ksi, Fu=125 ksi) on 58.72" BC

Base Plate Data

54.22" OD x 2.5" Plate (S-128; Fy=60 ksi, Fu=80 ksi)

Stiffener Data

N/A

Pole Data

40.3" x 0.34375" 12-sided pole (A572-65; Fy=65 ksi, Fu=80 ksi)

Analysis Results

Anchor Rod Summary *(units of kips, kip-in)*

GROUP 1:		
Pu_t = 104.68	ϕPn_t = 243.75	**Stress Rating**
Vu = 2.04	ϕVn = 149.1	**40.9%**
Mu = n/a	ϕMn = n/a	**Pass**
GROUP 2:		
Pu_t = 77.82	ϕPn_t = 178.13	**Stress Rating**
Vu = 0	ϕVn = 112.75	**41.6%**
Mu = 0	ϕMn = 84.41	**Pass**
GROUP 3:		
Pu_t = 133.11	ϕPn_t = 304.69	**Stress Rating**
Vu = 0	ϕVn = 186.38	**41.6%**
Mu = 0	ϕMn = 179.4	**Pass**

Base Plate Summary

Max Stress (ksi):	16.72	(Flexural)
Allowable Stress (ksi):	54	
Stress Rating:	**29.5%**	**Pass**

CCIplate

Elevation (ft)	0	*(Base)*

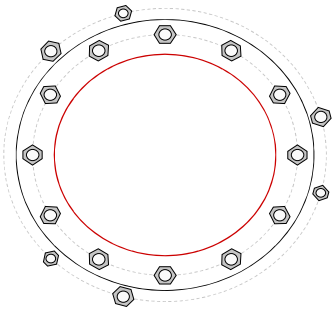
note: Bending interaction not considered when Grout Considered = "Yes"

Bolt Group	Resist Axial	Resist Shear	Induce Plate Bending	Grout Considered	Apply at BARB Elevation	BARB CL Elevation (ft)
1	Yes	Yes	Yes	No	No	
2	No	No	No	No	No	
3	No	No	No	No	No	

Custom Bolt Connection

Bolt	Bolt Group ID	Location (deg.)	Diameter (in)	Material	Bolt Circle (in)	Eta Factor, η:	l_{ar} (in):	Thread Type	Area Override, in^2	Tension Only
1	1	0	2.25	A615-75	48.22	0.5	1.125	N-Included		No
2	1	30	2.25	A615-75	48.22	0.5	1.125	N-Included		No
3	1	60	2.25	A615-75	48.22	0.5	1.125	N-Included		No
4	1	90	2.25	A615-75	48.22	0.5	1.125	N-Included		No
5	1	120	2.25	A615-75	48.22	0.5	1.125	N-Included		No
6	1	150	2.25	A615-75	48.22	0.5	1.125	N-Included		No
7	1	180	2.25	A615-75	48.22	0.5	1.125	N-Included		No
8	1	210	2.25	A615-75	48.22	0.5	1.125	N-Included		No
9	1	240	2.25	A615-75	48.22	0.5	1.125	N-Included		No
10	1	270	2.25	A615-75	48.22	0.5	1.125	N-Included		No
11	1	300	2.25	A615-75	48.22	0.5	1.125	N-Included		No
12	1	330	2.25	A615-75	48.22	0.5	1.125	N-Included		No
13	2	105	1.75	A193 Gr. B7	58.72	0.5	8.875	N-Included		No
14	2	225	1.75	A193 Gr. B7	58.72	0.5	8.875	N-Included		No
15	2	345	1.75	A193 Gr. B7	58.72	0.5	8.875	N-Included		No
16	3	15	2.25	A193 Gr. B7	58.72	0.5	11.875	N-Included		No
17	3	135	2.25	A193 Gr. B7	58.72	0.5	11.875	N-Included		No
18	3	255	2.25	A193 Gr. B7	58.72	0.5	11.875	N-Included		No

Plot Graphic



PROJECT	**145684.003.01 - BRG 302 943052, CT**
SUBJECT	**Anchor Rod Bracket Analysis**
DATE	**10/24/21**

v4.6.1

TIA-222 Rev. H
Apply TIA-222-H Section 15.5? Yes

B+T GRP
1717 S. Boulder, Suite 300
Tulsa, OK 74119
(918) 587-4630

Analysis Criteria		
Design/Analysis	Analysis	
Load Type	Current Load	
Current load	77.82	kips
AR Capacity	227.3	kips

Tower Type	Monopole	

Manufacturers Tower Prop.		
Pole Thickness	0.34375	in
Pole Grade	A572-65	
Fy	65	ksi
Fu	80	ksi
Base Plate Gr.	A572-60	
Fy	60	ksi
Fu	75	ksi

Post-Installed Adhesive AR Mod.		
ARB Type	Welded	
Size	1.75	in
Grade	A193 Gr B7	
Fy	105	ksi
Fu	125	ksi

Anchor Rod Bracket Analysis Checks		
Tube Bearing	19.8%	-
Tube Compression	29.7%	-
Gusset Shear	3.4%	-
Gusset Flexure	N/A	-
Welds: Gusset to Tower and BP	7.5%	-
Welds: Gusset to Tube	6.9%	-
Welds: Geometry	N/A	
Tower Punching	3.9%	-
Tube Punching	1.5%	-
Utilization	**29.7%**	

Bracket Properties

Gusset			Pipe/Tube			Weld - Gusset to Pipe/Tube		
Thickness	1.25	in	Size	HSS4x4x1/2		FEXX	70	ksi
Width at Tube	5.75	in	Total Length	24	in	Weld Type	Double Fillet	
Height at Pole	60	in	Length above Gusset	-33	in	Fillet Size	1/2	in
Height at Tube	48	in	Length below Gusset	9	in			
Grade	A572-65		Grade	A500 Grade B (Square)				
Fy	65	ksi	Fy	46	ksi			
Fu	80	ksi	Fu	58	ksi			

Weld - Gusset to Tower			Weld - Gusset to Base Plate		
FEXX	70	ksi	FEXX	70	ksi
Weld Type	Double Fillet		Weld Type	CJP - Double Bevel	
Fillet Size	3/8	in	Fillet Size	5/8	in
			Bevel Depth	5/8	in
			Gap	0	in
			Notch (horiz)	0.75	in
			Notch (vert)	0.75	in
			Pipe/Tube Welded to Base/Footpad?	No	

PROJECT	**145684.003.01 - BRG 302 943052, CT**
SUBJECT	**Anchor Rod Bracket Analysis**
DATE	**10/24/21**

v4.6.1

TIA-222 Rev. H

Apply TIA-222-H Section 15.5? Yes

B+T GRP
1717 S. Boulder, Suite 300
Tulsa, OK 74119
(918) 587-4630

Analysis Criteria		
Design/Analysis	Analysis	
Load Type	Current Load	
Current load	133.11	kips
AR Capacity	375.7	kips

Tower Type	Monopole	

Manufacturers Tower Prop.		
Pole Thickness	0.34375	in
Pole Grade	A572-65	
Fy	65	ksi
Fu	80	ksi
Base Plate Gr.	A572-60	
Fy	60	ksi
Fu	75	ksi

Post-Installed Adhesive AR Mod.		
ARB Type	Welded	
Size	2.25	in
Grade	A193 Gr B7	
Fy	105	ksi
Fu	125	ksi

Anchor Rod Bracket Analysis Checks		
Tube Bearing	25.9%	-
Tube Compression	38.9%	-
Gusset Shear	7.8%	-
Gusset Flexure	N/A	-
Welds: Gusset to Tower and BP	25.7%	-
Welds: Gusset to Tube	15.8%	-
Welds: Geometry	N/A	
Tower Punching	20.2%	-
Tube Punching	5.6%	-
Utilization	**38.9%**	

Bracket Properties

Gusset		
Thickness	1.25	in
Width at Tube	6	in
Height at Pole	36	in
Height at Tube	36	in
Grade	A572-65	
Fy	65	ksi
Fu	80	ksi

Pipe/Tube		
Size	HSS5x5x1/2	
Total Length	24	in
Length above Gusset	0	in
Length below Gusset	-12	in
Grade	A500 Grade B (Square)	
Fy	46	ksi
Fu	58	ksi

Weld - Gusset to Pipe/Tube		
FEXX	70	ksi
Weld Type	Double Fillet	
Fillet Size	1/2	in

Weld - Gusset to Tower		
FEXX	70	ksi
Weld Type	Double Fillet	
Fillet Size	3/8	in

Weld - Gusset to Base Plate		
FEXX	70	ksi
Weld Type	CJP - Double Bevel	
Fillet Size	5/8	in
Bevel Depth	5/8	in
Gap	0	in
Notch (horiz)	0.75	in
Notch (vert)	0.75	in
Pipe/Tube Welded to Base/Footpad?	No	

Drilled Pier Foundation

BU # :	806352
Site Name:	BRG 302 943052, CT
Order Number:	556499 Rev. 2
TIA-222 Revison:	H
Tower Type:	Monopole

Check Limitation	
Apply TIA-222-H Section 15.5:	☑
N/A	☐
Additional Longitudinal Rebar	
Input Effective Depths (else Actual):	☐
Shear Design Options	
Check Shear along Depth of Pier:	☑
Utilize Shear-Friction Methodology:	☐
Override Critical Depth:	☐

Go to Soil Calculations

Applied Loads	Comp.	Uplift
Moment (kip-ft)	2093	
Axial Force (kips)	56	
Shear Force (kips)	24	

Material Properties		
Concrete Strength, f'c:	3	ksi
Rebar Strength, Fy:	60	ksi
Tie Yield Strength, Fyt:	40	ksi

Pier Design Data		
Depth	16.4	ft
Ext. Above Grade	0.2	ft
Pier Section 1		
From 0.2' above grade to 16.4' below grade		
Pier Diameter	6.5	ft
Rebar Quantity	24	
Rebar Size	10	
Clear Cover to Ties	5	in
Tie Size	6	
Tie Spacing		in

Rebar & Pier Options
Embedded Pole Inputs
Belled Pier Inputs

Analysis Results		
Soil Lateral Check	*Compression*	*Uplift*
$D_{v=0}$ (ft from TOC)	6.04	-
Soil Safety Factor	3.68	-
Max Moment (kip-ft)	2220.08	-
Rating*	*34.4%*	-
Soil Vertical Check	*Compression*	*Uplift*
Skin Friction (kips)	570.34	-
End Bearing (kips)	973.39	-
Weight of Concrete (kips)	99.15	-
Total Capacity (kips)	1543.73	-
Axial (kips)	155.15	-
Rating*	*9.6%*	-
Reinforced Concrete Flexure	*Compression*	*Uplift*
Critical Depth (ft from TOC)	5.80	-
Critical Moment (kip-ft)	2219.62	-
Critical Moment Capacity	4406.98	-
Rating*	*48.0%*	-
Reinforced Concrete Shear	*Compression*	*Uplift*
Critical Depth (ft from TOC)	13.32	-
Critical Shear (kip)	570.76	-
Critical Shear Capacity	601.86	-
Rating*	*90.3%*	-

Structural Foundation Rating*	**90.3%**
Soil Interaction Rating*	**34.4%**

*Rating per TIA-222-H Section 15.5

Soil Profile

Groundwater Depth	N/A	# of Layers	4

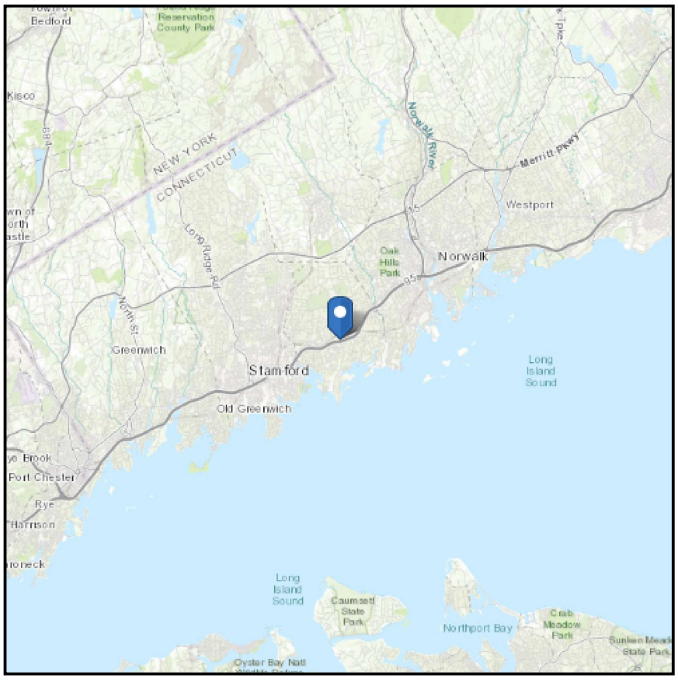
Layer	Top (ft)	Bottom (ft)	Thickness (ft)	γ_{soil} (pcf)	$\gamma_{concrete}$ (pcf)	Cohesion (ksf)	Angle of Friction (degrees)	Calculated Ultimate Skin Friction Comp (ksf)	Calculated Ultimate Skin Friction Uplift (ksf)	Ultimate Skin Friction Comp Override (ksf)	Ultimate Skin Friction Uplift Override (ksf)	Ult. Net Bearing Capacity (ksf)	SPT Blow Count	Soil Type
1	0	4	4	115	150	0	0	0.000	0.000	0.00	0.00			Cohesionless
2	4	6	2	120	150	0	39	0.000	0.000	0.42	0.42			Cohesionless
3	6	11	5	135	150	0	45	0.000	0.000	2.15	2.15			Cohesionless
4	11	16.4	5.4	155	150	14	0	6.300	6.300	4.75	4.74	36.9		Cohesive

ASCE 7 Hazards Report

Address:
No Address at This Location

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

Elevation: 71.42 ft (NAVD 88)
Latitude: 41.072431
Longitude: -73.478167



Wind

Results:

Wind Speed:	117 Vmph
10-year MRI	75 Vmph
25-year MRI	85 Vmph
50-year MRI	90 Vmph
100-year MRI	97 Vmph

Data Source:	ASCE/SEI 7-16, Fig. 26.5-1B and Figs. CC.2-1–CC.2-4, and Section 26.5.2
Date Accessed:	Thu Oct 21 2021

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

Site is in a hurricane-prone region as defined in ASCE/SEI 7-16 Section 26.2. Glazed openings need not be protected against wind-borne debris.

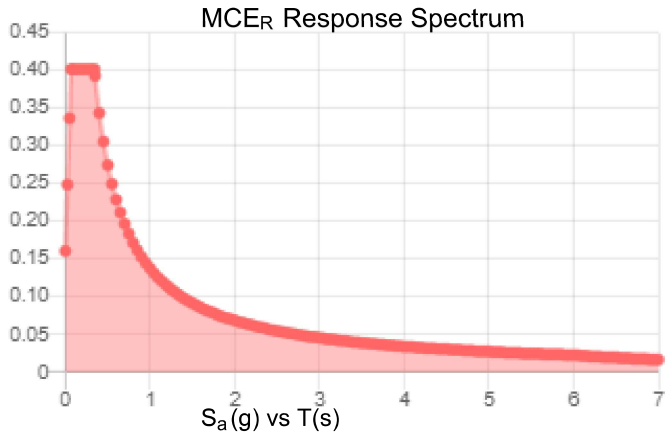
Seismic

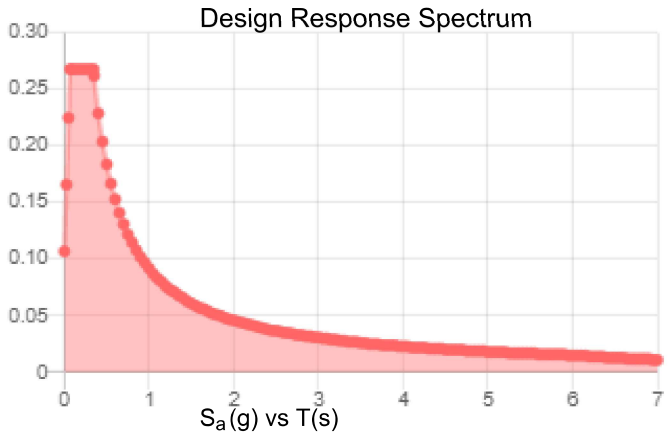
Site Soil Class: D - Default (see Section 11.4.3)

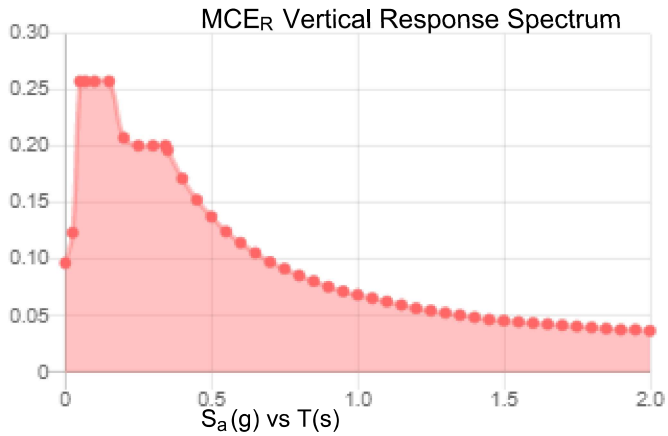
Results:

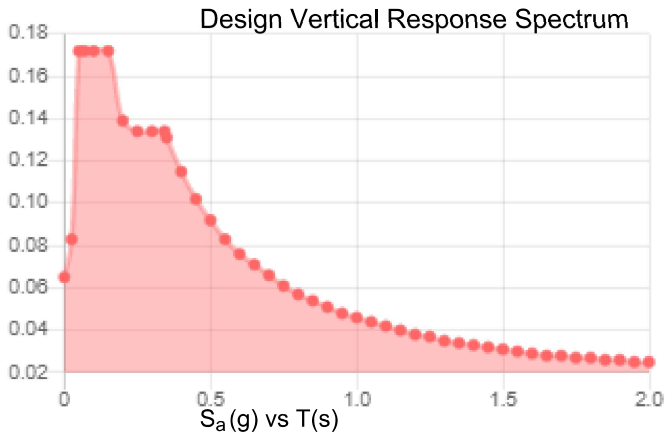
S_S :	0.251	S_{D1} :	0.092
S_1 :	0.057	T_L :	6
F_a :	1.599	PGA :	0.15
F_v :	2.4	PGA_M :	0.225
S_{MS} :	0.402	F_{PGA} :	1.5
S_{M1} :	0.138	I_e :	1
S_{DS} :	0.268	C_v :	0.803

Seismic Design Category B









Data Accessed: Thu Oct 21 2021

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

Ice

Results:

Ice Thickness:	1.00 in.
Concurrent Temperature:	15 F
Gust Speed:	50 mph
Data Source:	Standard ASCE/SEI 7-16, Figs. 10-2 through 10-8
Date Accessed:	Thu Oct 21 2021

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 500-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.