



STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

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VIA ELECTRONIC MAIL

November 4, 2022

Denise Sabo
Northeast Site Solutions
54 Main Street, Unit 3
Sturbridge, MA 01566-1359
denise@northeastsitesolutions.com

RE: **EM-VER-144-220818** – Cellco Partnership d/b/a Verizon Wireless notice of intent to modify an existing telecommunications facility located at 800 Booth Hill Road, Trumbull, Connecticut.

Dear Denise Sabo:

The Connecticut Siting Council (Council) is in receipt of your correspondence of November 1, 2022 submitted in response to the Council's September 16, 2022 notification of an incomplete request for exempt modification with regard to the above-referenced matter.

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

Thank you for your attention and cooperation.

Sincerely,

Melanie A. Bachman
Executive Director

MAB/MP/emr

From: Deborah Chase <deborah@northeastsitesolutions.com>
Sent: Tuesday, November 1, 2022 2:44 PM
To: CSC-DL Siting Council <Siting.Council@ct.gov>; Bachman, Melanie <Melanie.Bachman@ct.gov>; Fontaine, Lisa <Lisa.Fontaine@ct.gov>; Robidoux, Evan <Evan.Robidoux@ct.gov>
Cc: Denise <denise@northeastsitesolutions.com>
Subject: RE: 873128 Crown VZW FW: Council Extension Letter for EM-VER-144-220818 (800 Booth Hill Road, Trumbull)
Importance: High

EXTERNAL EMAIL: This email originated from outside of the organization. Do not click any links or open any attachments unless you trust the sender and know the content is safe.

Hello

We are sending the revised Structural Analysis per the attached incomplete letter for the above referenced site.

I have also attached the mailing label.

Please let me know if there are any questions.

Thank you

Deborah Chase

Senior Project Coordinator & Analyst

Mobile: 860-490-8839

🌱 Save a tree. Refuse. Reduce. Reuse. Recycle.



Date: **October 28, 2022**



Crown Castle
2000 Corporate Drive
Canonsburg, PA 15317
(724) 416-2000

Subject: **Structural Analysis Report**

Carrier Designation: **Verizon Wireless Co-Locate**
Site Number: 469207
Site Name: Trumbull CT

Crown Castle Designation: **BU Number:** 873128
Site Name: Trumbull
JDE Job Number: 734603
Work Order Number: 2176475
Order Number: 637421 Rev. 0

Engineering Firm Designation: **Crown Castle Project Number:** 2176475

Site Data: **800 Booth Hill Rd., Trumbull, FAIRFIELD County, CT**
Latitude 41° 16' 44.26", Longitude -73° 11' 6.4"
457 Foot - Guyed Tower

Crown Castle 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

This analysis has been performed in accordance with the 2022 Connecticut State Building Code based upon an ultimate 3-second gust wind speed of 118 mph. Applicable Standard references and design criteria are listed in Section 2 - "Analysis Criteria".

Structural analysis prepared by: Michael Lopienski

Respectfully submitted by:

Maribel Dentinger
Maribel Dentinger, P.E.
Senior Project Engineer

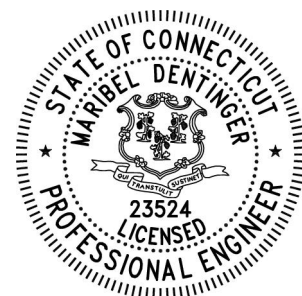


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1) INTRODUCTION

This tower is a 457-ft guyed tower designed by Blaw Knox and mapped by Pinnacle Towers in July of 2003. The tower has been modified multiple times in the past to accommodate additional loading.

2) ANALYSIS CRITERIA

TIA-222 Revision:	TIA-222-H
Risk Category:	II
Wind Speed:	118 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)
230.0	238.0	2	raycap	RRFDC-3315-PF-48	6 2	7/8 1-5/8
	232.0	1	andrew	LNx-6514DS-VTM w/ Mount Pipe		
		2	andrew	LNx-8513DS-VTM w/ Mount Pipe		
		3	commscope	CBC78T-DS-43-2X		
		6	commscope	JAHH-65B-R3B w/ Mount Pipe		
		3	samsung telecommunications	MT6407-77A w/ Mount Pipe		
		3	samsung telecommunications	RFV01U-D1A		
		3	samsung telecommunications	RFV01U-D2A		
	230.0	-	tower mounts	Mount Reinforcements		
	1	tower mounts	Sector Mount [SM 407-3]			

Table 2 - Other Considered Equipment

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
458.0	477.0	1	alive telecom	ATC-BCE618C3R-V1-21	1	4-1/16
450.0	450.0	2	commscope	USX6-6W-6GR	6 12	1/2 1/4
		4	saf	MXM REPEATER MK2		
		2	tower mounts	Pipe Mount [PM 601-1]		
441.0	451.0	1	sinclair	SRL-235-2	1	7/8
	441.0	1	tower mounts	Side Arm Mount [SO 308-1]		
439.0	445.0	1	antel	BCD-87077	1	2-1/4
	439.0	1	tower mounts	Side Arm Mount [SO 308-1]		
420.0	420.0	1	eri	ERI 1183-3CP	3	3
393.0	393.0	1	shively labs	6014-2	1	4

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)	
					1	1-5/8	
388.0	388.0	1	shively labs	6014-2	1	2-1/4	
367.0	367.0	1	shively labs	6828-2	1	4	
364.0	368.0	1	andrew	DB806E-XT	-	-	
	364.0	1	tower mounts	Side Arm Mount [SO 601-1]			
344.0	354.0	1	rfs celwave	455-6	1	1/2	
	344.0	1	tower mounts	Side Arm Mount [SO 601-1]			
342.0	352.0	1	rfs celwave	455-6	1	1-1/4	
	347.0	1	rfs celwave	AO9009-3			
	342.0	342.0	1	tower mounts	Side Arm Mount [SO 305-1]	1	1/2
			1	tower mounts	Side Arm Mount [SO 601-1]		
340.0	350.0	1	rfs celwave	455-6	1	7/8	
	340.0	1	tower mounts	Side Arm Mount [SO 308-1]			
330.0	335.0	1	andrew	PG1N0F-0090-310	1	1-5/8	
	330.0	1	tower mounts	Side Arm Mount [SO 601-1]	1	1-1/4	
328.0	328.0	1	dielectric	7P-C1-2-CP-L	1	3-1/2	
		3	tower mounts	Side Arm Mount [SO 701-1]			
326.0	329.0	1	decibel	DB201-A	-	-	
	326.0	1	tower mounts	Side Arm Mount [SO 602-1]			
325.0	325.0	1	decibel	DB408	1	1-1/4	
		1	tower mounts	Side Arm Mount [SO 303-1]			
322.0	327.0	1	sinclair	SRL310C-4HD	1	1-1/4	
	322.0	1	radiowaves	SPD3-5.8			
		1	tower mounts	Pipe Mount [PM 601-1]	1	1/2	
		1	tower mounts	Side Arm Mount [SO 308-1]			
310.0	316.0	1	shively labs	6014-2	1	1-5/8	
	306.0	1	shively labs	6014-2			
284.0	284.0	1	andrew	DB404-B w/ Mount Pipe	-	-	
277.0	283.0	1		BMR10-A-B1	1	1-5/8	
264.0	273.0	1	telewave	ANT150F6	1	1-5/8	
	264.0	1	tower mounts	Side Arm Mount [SO 303-1]			
255.0	261.0	1	decibel	DB809KT3E-Y	1	1-1/4	
	255.0	1	tower mounts	Side Arm Mount [SO 203-1]			
247.0	247.0	3	ericsson	AIR6449 B41_T-MOBILE w/ Mount Pipe	3 6	1-5/8 7/8	
		3	ericsson	AIR 32 B2A B66AA_T-MOBILE w/ Mount Pipe			
		3	ericsson	KRY 112 144/2			
		3	ericsson	RADIO 4449 B12/B71			
		3	ericsson	RRUS 4415 B25_CCIV2			
		3	rfs celwave	APXVAARR24_43-U-NA20 w/ Mount Pipe			
		1	tower mounts	Sector Mount [SM 301-3]			

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
	245.0	3	commscope	SDX1926Q-43		
206.0	206.0	1	mark	P-9A72GN-U	1	7/8
200.0	200.0	1	gabriel electronics	DFPD1-52 w/ Mount Pipe	1	1/4
188.0	188.0	1	PCTEL	BYD745K	-	-
		1	tower mounts	Pipe Mount [PM 601-1]		
186.0	186.0	3	fujitsu	TA08025-B604	1	1-3/4
		3	fujitsu	TA08025-B605		
		3	jma wireless	MX08FRO665-21 w/ Mount Pipe		
		6	mounts	2.4" Dia x 8-ft Mount Pipe		
		1	raycap	RDIDC-9181-PF-48		
		1	tower mounts	Commscope MTC3975083 (3)		
178.0	178.0	1	radiowaves	SPD4-5.2	1	1/2
		1	tower mounted amps	12"x12"x3" TMA		
150.0	150.0	1	andrew	HPX6-65-P3A	2	EW63
		1	mounts	1.9" x 5.5' Pipe (Horizontal)		
146.0	146.0	1	andrew	PL6-65-PXA	1	EW63
		1	tower mounts	Pipe Mount [PM 601-1]	1	EW52
140.0	140.0	1	channel master	CM 4228HD	1	3/8
		1	channel master	CM 4228HD		
136.0	138.0	1	rfs celwave	MGA2-16N	3	3/8
	136.0	1	CSI-cellular specialties	CSI-AY/809-960/11		
		1	mounts	2.4" Dia x 8-ft Mount Pipe		
	135.0	1	channel master	CM 4228HD		
	134.0	1	rfs celwave	MGAR3-23N		
133.0	143.0	1	rfs celwave	220-5	2	7/8
	142.0	1	decibel	DB264-A		
	133.0	1	tower mounts	Side Arm Mount [SO 202-1]	1	1/2
		1	tower mounts	Side Arm Mount [SO 601-1]		
117.0	117.0	1	mark	P-9A48GN-U	1	7/8
109.0	113.0	1	celwave	PD1132-D	1	7/8
	109.0	1	tower mounts	Side Arm Mount [SO 202-1]		
108.0	108.0	1	mark	SSH-9A72GN	1	7/8
		1	mounts	2.4" Dia x 4-ft Mount Pipe		
99.0	99.0	1	radiowaves	SPD2-5.8	1	7/8
		1	ligowave	PTP 900-13 w/ Mount Pipe	1	1/4
62.0	68.0	1	mark	P-9A48GN-U	3	7/8
	62.0	2	tower mounts	Side Arm Mount [SO 601-1]		
	61.0	1	mark	SSH-9A72GN		
	54.0	1	CSI-cellular specialties	CSI-AY/809-960/11		

3) ANALYSIS PROCEDURE

Table 3 - Documents Provided

Document	Reference	Source
GEOTECHNICAL REPORTS	1418454	CCISites
POST-MODIFICATION INSPECTION	1956007	CCISites
POST-MODIFICATION INSPECTION	2438393	CCISites
POST-MODIFICATION INSPECTION	3417531	CCISites
POST-MODIFICATION INSPECTION	3442609	CCISites
TOWER FOUNDATION DRAWINGS/DESIGN/SPECS	1520339	CCISites
TOWER MANUFACTURER DRAWINGS	1327906	CCISites
TOWER REINFORCEMENT DESIGN/DRAWINGS/DATA	2407618	CCISites
TOWER REINFORCEMENT DESIGN/DRAWINGS/DATA	2633757	CCISites
TOWER REINFORCEMENT DESIGN/DRAWINGS/DATA	2755396	CCISites
TOWER REINFORCEMENT DESIGN/DRAWINGS/DATA	3006419	CCISites
TOWER STRUCTURAL ANALYSIS REPORTS	3417285	CCISites

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.

3.2) Assumptions

- 1) Tower and structures were maintained in accordance with the TIA-222 Standard.
- 2) The configuration of antennas, transmission cables, mounts and other appurtenances are as specified in Tables 1 and 2 and the referenced drawings.

This analysis may be affected if any assumptions are not valid or have been made in error. Crown Castle 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
T1	457 - 436	Leg	3	3	-22.43	156.82	14.3	Pass
T2	436 - 421	Leg	2 3/4	45	-35.44	128.26	27.6	Pass
T3	421 - 401	Leg	2 3/4	73	-79.54	128.26	62.0	Pass
T7	401-381	Leg	3" S.R. w/ 3 SCH 40 Half Pipe and 3.75 x 5/16 Half Pipe	136	-151.14	Note 1	74.2	Pass
T8	381 - 361	Leg	3.5" S.R. w/ 3.5 SCH40 Half Pipe	148	-160.52	Note 1	53.4	Pass
T12	361 - 341	Leg	3	190	-129.78	204.05	63.6	Pass
T13	341 - 321	Leg	3	235	-107.77	161.86	66.6	Pass
T14	321 - 301	Leg	3	268	-96.67	161.86	59.7	Pass

Section No.	Elevation (ft)	Component Type	Size	Critical Element	P (K)	SF*P_allow (K)	% Capacity	Pass / Fail
T15	301 - 281	Leg	3	301	-108.90	161.86	67.3	Pass
T16	281 - 276	Leg	3	334	-113.61	161.86	70.2	Pass
T17	276 - 271	Leg	3	343	-118.43	161.86	73.2	Pass
T18	271 - 266	Leg	3	352	-124.60	161.86	77.0	Pass
T19	266 - 261	Leg	3	364	-129.84	161.86	80.2	Pass
T20	261 - 256	Leg	3	376	-140.77	161.86	87.0	Pass
T21	256 - 251	Leg	3	385	-144.89	204.05	71.0	Pass
T22	251 - 246	Leg	3	397	-116.34	161.86	71.9	Pass
T23	246 - 241	Leg	3	409	-95.78	204.05	46.9	Pass
T24	241 - 221	Leg	3	424	-110.61	161.86	68.3	Pass
T25	221 - 201	Leg	3 1/4	457	-144.88	198.84	72.9	Pass
T26	201 - 181	Leg	3 1/4	490	-161.14	198.84	81.0	Pass
T27	181 - 161	Leg	3 1/4	523	-161.89	198.84	81.4	Pass
T28	161 - 141	Leg	3 1/2	556	-154.56	239.13	64.6	Pass
T29	141 - 121	Leg	3 1/2	589	-129.26	239.13	54.1	Pass
T30	121 - 101	Leg	3 1/2	623	-176.90	239.13	74.0	Pass
T31	101 - 81	Leg	3 1/2	656	-191.50	239.13	80.1	Pass
T32	81 - 61	Leg	3 1/2	689	-192.96	239.13	80.7	Pass
T33	61 - 41	Leg	3 1/2	722	-187.89	239.13	78.6	Pass
T34	41 - 20	Leg	3 1/2	755	-168.41	233.63	72.1	Pass
T35	20 - 6.70833	Leg	3 1/4	786	-151.31	209.10	72.4	Pass
T36	6.70833 - 0	Leg	3 1/4	810	-154.67	245.06	63.1	Pass
T1	457 - 436	Diagonal	L2 1/2x2x1/4	13	-1.97	24.60	8.0	Pass
T2	436 - 421	Diagonal	L2 1/2x2x3/16	51	-3.87	19.15	20.2	Pass
T3	421 - 401	Diagonal	L2 1/2x2x3/16	84	-6.65	19.15	34.7	Pass
T4	401 - 396	Diagonal	L2 1/2x2x3/16	111	-7.10	19.15	37.1	Pass
T5	396 - 391	Diagonal	L2 1/2x2x3/16	120	-7.70	19.15	40.2	Pass
T6	391 - 386	Diagonal	L2 1/2x2x3/16	132	-9.86	19.15	51.5	Pass
T7	386 - 381	Diagonal	L2 1/2x2x3/16	144	-9.32	19.15	48.7	Pass
T8	381 - 376	Diagonal	L2 1/2x2x3/16	156	-6.58	19.15	34.3	Pass
T9	376 - 371	Diagonal	L2 1/2x2x3/16	165	-7.78	19.15	40.6	Pass
T10	371 - 366	Diagonal	L2 1/2x2x3/16	177	-6.78	19.15	35.4	Pass
T11	366 - 361	Diagonal	L2 1/2x2x3/16	186	-6.32	19.15	33.0	Pass
T12	361 - 341	Diagonal	L2 1/2x2x3/16	228	-5.84	19.15	30.5	Pass
T13	341 - 321	Diagonal	L2 1/2x2x3/16	262	-3.90	19.15	20.4	Pass
T14	321 - 301	Diagonal	L2 1/2x2x3/16	279	-3.23	19.15	16.9	Pass
T15	301 - 281	Diagonal	L2 1/2x2x3/16	312	-5.06	19.15	26.5	Pass
T16	281 - 276	Diagonal	L2 1/2x2x3/16	339	-5.47	19.15	28.6	Pass
T17	276 - 271	Diagonal	L2 1/2x2x3/16	348	-6.24	19.15	32.6	Pass
T18	271 - 266	Diagonal	L2 1/2x2x3/16	360	-6.09	19.15	31.8	Pass
T19	266 - 261	Diagonal	L2 1/2x2x3/16	372	-7.47	19.15	39.0	Pass
T20	261 - 256	Diagonal	L3x3x1/4	382	12.09	43.98	27.5	Pass
T21	256 - 251	Diagonal	L3x3x1/4	388	17.11	43.98	38.9	Pass
T22	251 - 246	Diagonal	L3x3x1/4	404	-12.40	42.35	29.3	Pass

Section No.	Elevation (ft)	Component Type	Size	Critical Element	P (K)	SF*P_allow (K)	% Capacity	Pass / Fail
T23	246 - 241	Diagonal	L3x3x1/4	415	11.18	43.98	25.4	Pass
T24	241 - 221	Diagonal	L3x3x1/4	452	-10.16	42.35	24.0	Pass
T25	221 - 201	Diagonal	L2 1/2x2x3/16	485	-6.88	19.15	35.9	Pass
T26	201 - 181	Diagonal	L2 1/2x2x3/16	517	-4.46	19.15	23.3	Pass
T27	181 - 161	Diagonal	L2 1/2x2x3/16	534	-3.78	19.15	19.8	Pass
T28	161 - 141	Diagonal	L3x3x1/4	567	-6.69	42.42	15.8	Pass
T29	141 - 121	Diagonal	L3x3x1/4	613	8.52	42.91	19.9	Pass
T30	121 - 101	Diagonal	L2 1/2x2x3/16	651	-5.29	19.15	27.6	Pass
T31	101 - 81	Diagonal	L2 1/2x2x3/16	687	-2.98	19.15	15.6	Pass
T32	81 - 61	Diagonal	L2 1/2x2x3/16	697	-2.09	19.15	10.9	Pass
T33	61 - 41	Diagonal	L2 1/2x2x3/16	730	-3.91	19.15	20.4	Pass
T34	41 - 20	Diagonal	L2 1/2x2x3/16	766	-5.85	18.87	31.0	Pass
T35	20 - 6.70833	Diagonal	L2x2x3/16	794	-1.82	18.53	9.8	Pass
T36	6.70833 - 0	Diagonal	L2x2x3/16	814	-4.35	22.58	19.3	Pass
T1	457 - 436	Horizontal	L2 1/2x2x1/4	34	-0.54	16.40	3.3	Pass
T2	436 - 421	Horizontal	L2 1/2x2x1/4	65	-0.61	16.31	3.8	Pass
T12	361 - 341	Secondary Horizontal	L2x2x1/4	207	-2.25	23.78	9.5	Pass
T21	256 - 251	Secondary Horizontal	2L3 1/2x3 1/2x3/8x3/8	395	24.10	154.20	15.6	Pass
T23	246 - 241	Secondary Horizontal	2L3 1/2x3 1/2x3/8x3/8	423	1.66	154.20	1.1	Pass
T1	457 - 436	Top Girt	C8x13.75	6	0.43	125.99	0.3	Pass
T2	436 - 421	Top Girt	L2 1/2x2x1/4	8	-0.61	16.31	3.8	Pass
T3	421 - 401	Top Girt	L2 1/2x2x1/4	48	-1.38	16.31	8.4	Pass
T4	401 - 396	Top Girt	L2 1/2x2x1/4	78	-1.64	16.65	9.8	Pass
T6	391 - 386	Top Girt	L2 1/2x2x1/4	129	-2.24	12.29	18.2	Pass
T10	371 - 366	Top Girt	L2 1/2x2x1/4	171	-2.50	12.39	20.2	Pass
T12	361 - 341	Top Girt	L2 1/2x2x1/4	183	-2.25	16.40	13.7	Pass
T13	341 - 321	Top Girt	L2 1/2x2x1/4	195	-1.87	16.40	11.4	Pass
T14	321 - 301	Top Girt	L2 1/2x2x1/4	240	-1.67	16.40	10.2	Pass
T15	301 - 281	Top Girt	L2 1/2x2x3/16	273	-1.89	12.63	14.9	Pass
T16	281 - 276	Top Girt	L2 1/2x2x1/4	306	-1.97	16.40	12.0	Pass
T18	271 - 266	Top Girt	L2 1/2x2x1/4	357	-2.16	16.40	13.2	Pass
T20	261 - 256	Top Girt	L2 1/2x2x3/16	368	-5.55	12.63	44.0	Pass
T22	251 - 246	Top Girt	L2 1/2x2x3/16	401	-5.94	12.63	47.0	Pass
T24	241 - 221	Top Girt	L2 1/2x2x3/16	414	-1.92	12.63	15.2	Pass
T25	221 - 201	Top Girt	L2 1/2x2x3/16	429	-2.51	12.70	19.8	Pass
T26	201 - 181	Top Girt	L2 1/2x2x3/16	462	-2.79	12.70	22.0	Pass
T27	181 - 161	Top Girt	2L3x2x1/4x3/8	495	-2.80	61.59	4.6	Pass
T28	161 - 141	Top Girt	L2 1/2x2x3/16	528	-2.68	12.76	21.0	Pass
T29	141 - 121	Top Girt	L2 1/2x2x3/16	561	-2.24	12.76	17.5	Pass
T30	121 - 101	Top Girt	L2 1/2x2x3/16	593	-6.79	12.76	53.2	Pass
T31	101 - 81	Top Girt	L2 1/2x2x3/16	625	-3.32	12.76	26.0	Pass
T32	81 - 61	Top Girt	L2 1/2x2x3/16	658	-3.34	12.76	26.2	Pass

Section No.	Elevation (ft)	Component Type	Size	Critical Element	P (K)	SF*P_allow (K)	% Capacity	Pass / Fail
T33	61 - 41	Top Girt	L2 1/2x2x3/16	691	-3.25	12.76	25.5	Pass
T34	41 - 20	Top Girt	L2 1/2x2x3/16	724	-2.92	12.76	22.9	Pass
T35	20 - 6.70833	Top Girt	2L2 1/2x2x3/16x1/4	788	13.98	49.00	28.5	Pass
T1	457 - 436	Mid Girt	L2 1/2x2x1/4	12	3.12	32.03	9.7	Pass
T3	421 - 401	Mid Girt	L2 1/2x2x1/4	80	0.23	32.03	0.7	Pass
T12	361 - 341	Mid Girt	L2 1/2x2x1/4	198	0.37	32.03	1.2	Pass
T13	341 - 321	Mid Girt	L2 1/2x2x1/4	242	0.34	32.03	1.1	Pass
T14	321 - 301	Mid Girt	L2 1/2x2x1/4	276	0.49	32.03	1.5	Pass
T15	301 - 281	Mid Girt	L2 1/2x2x3/16	309	0.35	24.52	1.4	Pass
T24	241 - 221	Mid Girt	L2 1/2x2x3/16	432	0.69	24.52	2.8	Pass
T25	221 - 201	Mid Girt	L2 1/2x2x3/16	465	0.65	24.52	2.7	Pass
T26	201 - 181	Mid Girt	L2 1/2x2x3/16	498	0.62	24.52	2.5	Pass
T27	181 - 161	Mid Girt	L2 1/2x2x3/16	530	0.72	24.52	2.9	Pass
T28	161 - 141	Mid Girt	L2 1/2x2x3/16	564	0.83	24.52	3.4	Pass
T29	141 - 121	Mid Girt	L2 1/2x2x3/16	596	-7.92	12.76	62.1	Pass
T30	121 - 101	Mid Girt	L2 1/2x2x3/16	630	0.53	24.52	2.2	Pass
T31	101 - 81	Mid Girt	L2 1/2x2x3/16	662	0.95	24.52	3.9	Pass
T32	81 - 61	Mid Girt	L2 1/2x2x3/16	695	0.96	24.52	3.9	Pass
T33	61 - 41	Mid Girt	L2 1/2x2x3/16	728	0.89	24.52	3.6	Pass
T34	41 - 20	Mid Girt	L2 1/2x2x3/16	758	1.18	24.52	4.8	Pass
T1	457 - 436	Guy A@446.5	9/16	825	11.43	22.05	51.8	Pass
T8	381 - 376	Guy A@381	1 3/8	828	65.93	146.16	45.1	Pass
T21	256 - 251	Guy A@254.5	1 1/4	831	61.90	120.96	51.2	Pass
T29	141 - 121	Guy A@131	11/16	844	20.82	31.50	66.1	Pass
T1	457 - 436	Guy B@446.5	9/16	824	11.91	22.05	54.0	Pass
T8	381 - 376	Guy B@381	1 3/8	827	66.90	146.16	45.8	Pass
T21	256 - 251	Guy B@254.5	1 1/4	830	63.92	120.96	52.8	Pass
T29	141 - 121	Guy B@131	11/16	839	21.41	31.50	68.0	Pass
T1	457 - 436	Guy C@446.5	9/16	823	11.91	22.05	54.0	Pass
T8	381 - 376	Guy C@381	1 3/8	826	66.10	146.16	45.2	Pass
T21	256 - 251	Guy C@254.5	1 1/4	829	63.11	120.96	52.2	Pass
T29	141 - 121	Guy C@131	11/16	832	21.16	31.50	67.2	Pass
T8	381 - 376	Top Guy Pull-Off@381	2L3x2x1/4x3/8	140	20.79	73.27	28.4	Pass
T29	141 - 121	Torque Arm Top@131	L3x3x3/8 (TA - BU#873128)	847	19.16	61.04	31.4	Pass
T29	141 - 121	Torque Arm Bottom@131	2L3x3x3/16x3/4	843	-22.75	33.03	68.9	Pass
							Summary	
						Leg (T20)	87.0	Pass
						Diagonal (T6)	51.5	Pass
						Horizontal (T2)	3.8	Pass
						Secondary Horizontal (T21)	15.6	Pass

Section No.	Elevation (ft)	Component Type	Size	Critical Element	P (K)	SF*P_allow (K)	% Capacity	Pass / Fail
						Top Girt (T30)	53.2	Pass
						Mid Girt (T29)	62.1	Pass
						Guy A (T29)	66.1	Pass
						Guy B (T29)	68.0	Pass
						Guy C (T29)	67.2	Pass
						Top Guy Pull-Off (T8)	28.4	Pass
						Torque Arm Top (T29)	31.4	Pass
						Torque Arm Bottom (T29)	68.9	Pass
						Bolt Checks	92.2	Pass
						Rating =	92.2	Pass

Table 5 - Tower Component Stresses vs. Capacity - LC7

Notes	Component	Elevation (ft)	% Capacity	Pass / Fail
1	Base Foundation (Structure)	0	28.8	Pass
1	Base Foundation (Soil Interaction)	0	42.4	Pass
1	Guy Anchor Foundation Soil Interaction	0	42.7	Pass

Structure Rating (max from all components) =	92.2%
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Notes:

- 1) See additional documentation in "Appendix C – Additional Calculations" for calculations supporting the % capacity consumed.

4.1) Recommendations

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

APPENDIX A
TNXTOWER OUTPUT

Tower Input Data

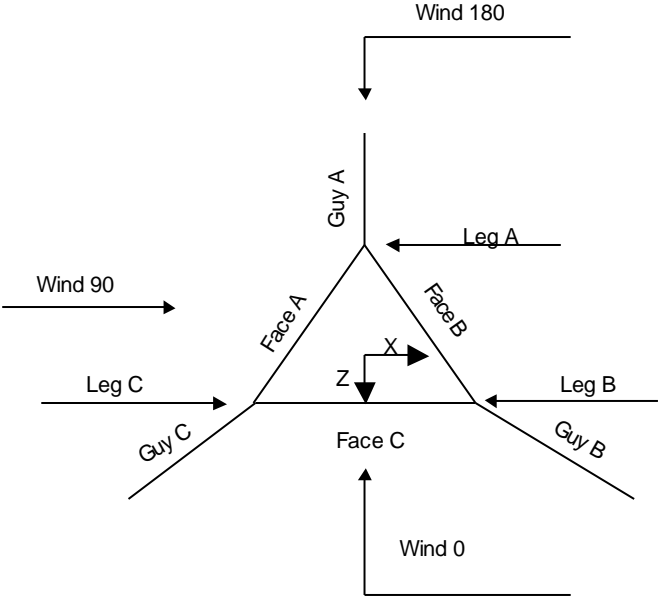
The main tower is a 3x guyed tower with an overall height of 457.00 ft above the ground line.
 The base of the tower is set at an elevation of 0.00 ft above the ground line.
 The face width of the tower is 6.00 ft at the top and tapered at the base.
 This tower is designed using the TIA-222-H standard.

The following design criteria apply:

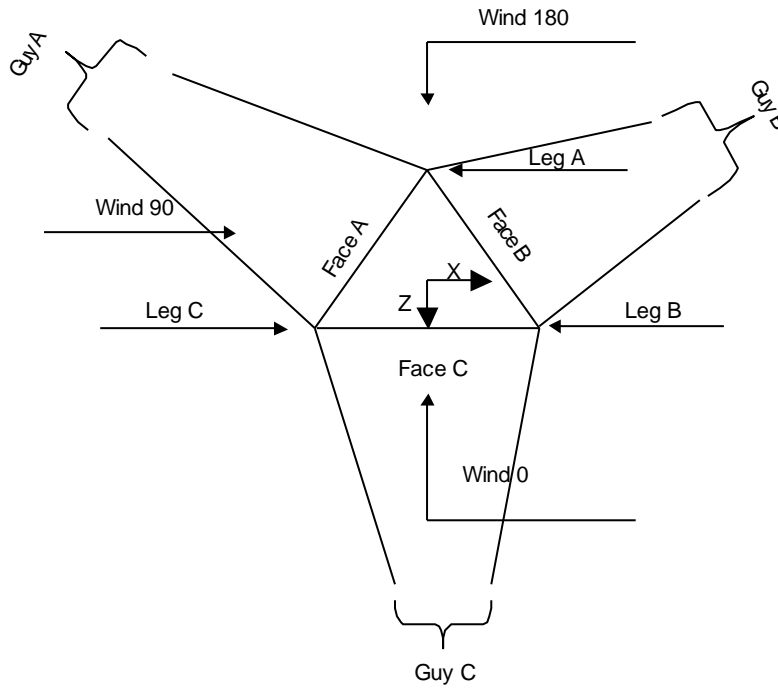
- Tower is located in Fairfield County, Connecticut.
- Tower base elevation above sea level: 520.00 ft.
- Basic wind speed of 118 mph.
- Risk Category II.
- Exposure Category B.
- Simplified Topographic Factor Procedure for wind speed-up calculations is used.
- Topographic Category: 1.
- Crest Height: 0.00 ft.
- Nominal ice thickness of 1.0000 in.
- Ice thickness is considered to increase with height.
- Ice density of 56 pcf.
- A wind speed of 50 mph is used in combination with ice.
- Temperature drop of 50 °F.
- Deflections calculated using a wind speed of 60 mph.
- Pressures are calculated at each section.
- Stress ratio used in tower member design is 1.
- Safety factor used in guy 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 Consider Moments - Horizontals Consider Moments - Diagonals Use Moment Magnification ✓ Use Code Stress Ratios ✓ Use Code Safety Factors - Guys Escalate Ice Always Use Max Kz Use Special Wind Profile Include Bolts In Member Capacity Leg Bolts Are At Top Of Section ✓ Secondary Horizontal Braces Leg Use Diamond Inner Bracing (4 Sided) SR Members Have Cut Ends SR Members Are Concentric	Distribute Leg Loads As Uniform Assume Legs Pinned ✓ Assume Rigid Index Plate ✓ Use Clear Spans For Wind Area ✓ Use Clear Spans For KL/r ✓ Retension Guys To Initial Tension ✓ Bypass Mast Stability Checks ✓ Use Azimuth Dish Coefficients ✓ Project Wind Area of Appurt. ✓ Autocalc Torque Arm Areas Add IBC .6D+W Combination ✓ Sort Capacity Reports By Component Triangulate Diamond Inner Bracing Treat Feed Line Bundles As Cylinder Ignore KL/ry For 60 Deg. Angle Legs	Use ASCE 10 X-Brace Ly Rules ✓ Calculate Redundant Bracing Forces Ignore Redundant Members in FEA ✓ SR Leg Bolts Resist Compression All Leg Panels Have Same Allowable Offset Girt At Foundation ✓ Consider Feed Line Torque ✓ Include Angle Block Shear Check Use TIA-222-H Bracing Resist. Exemption Use TIA-222-H Tension Splice Exemption <div style="text-align: center; background-color: #e0e0e0; padding: 2px;">Poles</div> Include Shear-Torsion Interaction Always Use Sub-Critical Flow Use Top Mounted Sockets Pole Without Linear Attachments Pole With Shroud Or No Appurtenances Outside and Inside Corner Radii Are Known
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Corner & Starmount Guyed Tower



Face Guyed

Tower Section Geometry

<i>Tower Section</i>	<i>Tower Elevation</i>	<i>Assembly Database</i>	<i>Description</i>	<i>Section Width</i>	<i>Number of Sections</i>	<i>Section Length</i>
	<i>ft</i>			<i>ft</i>		<i>ft</i>
T1	457.00-436.00			6.00	1	21.00
T2	436.00-421.00			6.00	1	15.00
T3	421.00-401.00			6.00	1	20.00
T4	401.00-396.00			6.00	1	5.00
T5	396.00-391.00			6.00	1	5.00
T6	391.00-386.00			6.00	1	5.00
T7	386.00-381.00			6.00	1	5.00
T8	381.00-376.00			6.00	1	5.00
T9	376.00-371.00			6.00	1	5.00
T10	371.00-366.00			6.00	1	5.00
T11	366.00-361.00			6.00	1	5.00
T12	361.00-341.00			6.00	1	20.00
T13	341.00-321.00			6.00	1	20.00
T14	321.00-301.00			6.00	1	20.00
T15	301.00-281.00			6.00	1	20.00
T16	281.00-276.00			6.00	1	5.00
T17	276.00-271.00			6.00	1	5.00
T18	271.00-266.00			6.00	1	5.00
T19	266.00-261.00			6.00	1	5.00
T20	261.00-256.00			6.00	1	5.00
T21	256.00-251.00			6.00	1	5.00
T22	251.00-246.00			6.00	1	5.00
T23	246.00-241.00			6.00	1	5.00
T24	241.00-221.00			6.00	1	20.00

Tower Section	Tower Elevation ft	Assembly Database	Description	Section Width ft	Number of Sections	Section Length ft
T25	221.00-201.00			6.00	1	20.00
T26	201.00-181.00			6.00	1	20.00
T27	181.00-161.00			6.00	1	20.00
T28	161.00-141.00			6.00	1	20.00
T29	141.00-121.00			6.00	1	20.00
T30	121.00-101.00			6.00	1	20.00
T31	101.00-81.00			6.00	1	20.00
T32	81.00-61.00			6.00	1	20.00
T33	61.00-41.00			6.00	1	20.00
T34	41.00-20.00			6.00	1	21.00
T35	20.00-6.71			6.00	1	13.29
T36	6.71-0.00			2.00	1	6.71

Tower Section Geometry (cont'd)

Tower Section	Tower Elevation ft	Diagonal Spacing ft	Bracing Type	Has K Brace End Panels	Has Horizontals	Top Girt Offset in	Bottom Girt Offset in
T1	457.00-436.00	5.25	X Brace	No	Yes	0.0000	0.0000
T2	436.00-421.00	5.00	X Brace	No	Yes	0.0000	0.0000
T3	421.00-401.00	5.00	X Brace	No	Yes	0.0000	0.0000
T4	401.00-396.00	5.00	X Brace	No	Yes	0.0000	0.0000
T5	396.00-391.00	5.00	X Brace	No	Yes	0.0000	0.0000
T6	391.00-386.00	5.00	X Brace	No	Yes	0.0000	0.0000
T7	386.00-381.00	5.00	X Brace	No	Yes	0.0000	0.0000
T8	381.00-376.00	5.00	X Brace	No	Yes	0.0000	0.0000
T9	376.00-371.00	5.00	X Brace	No	Yes	0.0000	0.0000
T10	371.00-366.00	5.00	X Brace	No	Yes	0.0000	0.0000
T11	366.00-361.00	5.00	X Brace	No	Yes	0.0000	0.0000
T12	361.00-341.00	5.00	X Brace	No	Yes	0.0000	0.0000
T13	341.00-321.00	5.00	X Brace	No	Yes	0.0000	0.0000
T14	321.00-301.00	5.00	X Brace	No	Yes	0.0000	0.0000
T15	301.00-281.00	5.00	X Brace	No	Yes	0.0000	0.0000
T16	281.00-276.00	5.00	X Brace	No	Yes	0.0000	0.0000
T17	276.00-271.00	5.00	X Brace	No	Yes	0.0000	0.0000
T18	271.00-266.00	5.00	X Brace	No	Yes	0.0000	0.0000
T19	266.00-261.00	5.00	X Brace	No	Yes	0.0000	0.0000
T20	261.00-256.00	5.00	X Brace	No	Yes	0.0000	0.0000
T21	256.00-251.00	5.00	X Brace	No	Yes	0.0000	0.0000
T22	251.00-246.00	5.00	X Brace	No	Yes	0.0000	0.0000
T23	246.00-241.00	5.00	X Brace	No	Yes	0.0000	0.0000
T24	241.00-221.00	5.00	X Brace	No	Yes	0.0000	0.0000
T25	221.00-201.00	5.00	X Brace	No	Yes	0.0000	0.0000
T26	201.00-181.00	5.00	X Brace	No	Yes	0.0000	0.0000
T27	181.00-161.00	5.00	X Brace	No	Yes	0.0000	0.0000
T28	161.00-141.00	5.00	X Brace	No	Yes	0.0000	0.0000
T29	141.00-121.00	5.00	X Brace	No	Yes	0.0000	0.0000
T30	121.00-101.00	5.00	X Brace	No	Yes	0.0000	0.0000
T31	101.00-81.00	5.00	X Brace	No	Yes	0.0000	0.0000
T32	81.00-61.00	5.00	X Brace	No	Yes	0.0000	0.0000
T33	61.00-41.00	5.00	X Brace	No	Yes	0.0000	0.0000
T34	41.00-20.00	5.25	X Brace	No	Yes	0.0000	0.0000
T35	20.00-6.71	4.43	X Brace	No	Yes	0.0000	0.0000
T36	6.71-0.00	2.24	X Brace	No	Yes	0.0000	0.0000

Tower Section Geometry (cont'd)

Tower Elevation ft	Leg Type	Leg Size	Leg Grade	Diagonal Type	Diagonal Size	Diagonal Grade
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Tower Elevation ft	Leg Type	Leg Size	Leg Grade	Diagonal Type	Diagonal Size	Diagonal Grade
T1 457.00-436.00	Solid Round	3	A7-33 (33 ksi)	Single Angle	L2 1/2x2x1/4	A7-33 (33 ksi)
T2 436.00-421.00	Solid Round	2 3/4	A7-33 (33 ksi)	Single Angle	L2 1/2x2x3/16	A7-33 (33 ksi)
T3 421.00-401.00	Solid Round	2 3/4	A7-33 (33 ksi)	Single Angle	L2 1/2x2x3/16	A7-33 (33 ksi)
T4 401.00-396.00	Arbitrary Shape	3" S.R. w/ 3 SCH 40 Half Pipe and 3.75 x 5/16 Half Pipe	A7-33 (33 ksi)	Single Angle	L2 1/2x2x3/16	A7-33 (33 ksi)
T5 396.00-391.00	Arbitrary Shape	3" S.R. w/ 3 SCH 40 Half Pipe and 3.75 x 5/16 Half Pipe	A7-33 (33 ksi)	Single Angle	L2 1/2x2x3/16	A7-33 (33 ksi)
T6 391.00-386.00	Arbitrary Shape	3" S.R. w/ 3 SCH 40 Half Pipe and 3.75 x 5/16 Half Pipe	A7-33 (33 ksi)	Single Angle	L2 1/2x2x3/16	A7-33 (33 ksi)
T7 386.00-381.00	Arbitrary Shape	3" S.R. w/ 3 SCH 40 Half Pipe and 3.75 x 5/16 Half Pipe	A7-33 (33 ksi)	Single Angle	L2 1/2x2x3/16	A7-33 (33 ksi)
T8 381.00-376.00	Arbitrary Shape	3.5" S.R. w/ 3.5 SCH40 Half Pipe	A7-33 (33 ksi)	Single Angle	L2 1/2x2x3/16	A7-33 (33 ksi)
T9 376.00-371.00	Arbitrary Shape	3.5" S.R. w/ 3.5 SCH40 Half Pipe	A7-33 (33 ksi)	Single Angle	L2 1/2x2x3/16	A7-33 (33 ksi)
T10 371.00-366.00	Arbitrary Shape	3.5" S.R. w/ 3.5 SCH40 Half Pipe	A7-33 (33 ksi)	Single Angle	L2 1/2x2x3/16	A7-33 (33 ksi)
T11 366.00-361.00	Arbitrary Shape	3.5" S.R. w/ 3.5 SCH40 Half Pipe	A7-33 (33 ksi)	Single Angle	L2 1/2x2x3/16	A7-33 (33 ksi)
T12 361.00-341.00	Solid Round	3	A7-33 (33 ksi)	Single Angle	L2 1/2x2x3/16	A7-33 (33 ksi)
T13 341.00-321.00	Solid Round	3	A7-33 (33 ksi)	Single Angle	L2 1/2x2x3/16	A7-33 (33 ksi)
T14 321.00-301.00	Solid Round	3	A7-33 (33 ksi)	Single Angle	L2 1/2x2x3/16	A7-33 (33 ksi)
T15 301.00-281.00	Solid Round	3	A7-33 (33 ksi)	Single Angle	L2 1/2x2x3/16	A7-33 (33 ksi)
T16 281.00-276.00	Solid Round	3	A7-33 (33 ksi)	Single Angle	L2 1/2x2x3/16	A7-33 (33 ksi)
T17 276.00-271.00	Solid Round	3	A7-33 (33 ksi)	Single Angle	L2 1/2x2x3/16	A7-33 (33 ksi)
T18 271.00-266.00	Solid Round	3	A7-33 (33 ksi)	Single Angle	L2 1/2x2x3/16	A7-33 (33 ksi)
T19 266.00-261.00	Solid Round	3	A7-33 (33 ksi)	Single Angle	L2 1/2x2x3/16	A7-33 (33 ksi)
T20 261.00-256.00	Solid Round	3	A7-33 (33 ksi)	Single Angle	L3x3x1/4	A36 (36 ksi)
T21 256.00-251.00	Solid Round	3	A7-33 (33 ksi)	Single Angle	L3x3x1/4	A36 (36 ksi)
T22 251.00-246.00	Solid Round	3	A7-33 (33 ksi)	Single Angle	L3x3x1/4	A36 (36 ksi)
T23 246.00-241.00	Solid Round	3	A7-33 (33 ksi)	Single Angle	L3x3x1/4	A36 (36 ksi)
T24 241.00-221.00	Solid Round	3	A7-33 (33 ksi)	Single Angle	L3x3x1/4	A36 (36 ksi)
T25 221.00-201.00	Solid Round	3 1/4	A7-33 (33 ksi)	Single Angle	L2 1/2x2x3/16	A7-33 (33 ksi)
T26 201.00-181.00	Solid Round	3 1/4	A7-33 (33 ksi)	Single Angle	L2 1/2x2x3/16	A7-33 (33 ksi)
T27 181.00-161.00	Solid Round	3 1/4	A7-33 (33 ksi)	Single Angle	L2 1/2x2x3/16	A7-33 (33 ksi)
T28 161.00-141.00	Solid Round	3 1/2	A7-33 (33 ksi)	Single Angle	L3x3x1/4	A36 (36 ksi)
T29 141.00-121.00	Solid Round	3 1/2	A7-33 (33 ksi)	Single Angle	L3x3x1/4	A36 (36 ksi)
T30 121.00-101.00	Solid Round	3 1/2	A7-33 (33 ksi)	Single Angle	L2 1/2x2x3/16	A7-33 (33 ksi)
T31 101.00-81.00	Solid Round	3 1/2	A7-33 (33 ksi)	Single Angle	L2 1/2x2x3/16	A7-33 (33 ksi)
T32 81.00-61.00	Solid Round	3 1/2	A7-33 (33 ksi)	Single Angle	L2 1/2x2x3/16	A7-33 (33 ksi)
T33 61.00-	Solid Round	3 1/2	A7-33	Single Angle	L2 1/2x2x3/16	A7-33

Tower Elevation ft	Leg Type	Leg Size	Leg Grade	Diagonal Type	Diagonal Size	Diagonal Grade
41.00			(33 ksi)			(33 ksi)
T34 41.00-20.00	Solid Round	3 1/2	A7-33	Single Angle	L2 1/2x2x3/16	A7-33
T35 20.00-6.71	Solid Round	3 1/4	(33 ksi) A7-33	Single Angle	L2x2x3/16	(33 ksi) A7-33
T36 6.71-0.00	Solid Round	3 1/4	(33 ksi) A7-33 (33 ksi)	Single Angle	L2x2x3/16	(33 ksi) A7-33 (33 ksi)

Tower Section Geometry (cont'd)

Tower Elevation ft	Top Girt Type	Top Girt Size	Top Girt Grade	Bottom Girt Type	Bottom Girt Size	Bottom Girt Grade
T1 457.00-436.00	Channel	C8x13.75	A7-33	Single Angle	L2 1/2x2x1/4	A7-33
T2 436.00-421.00	Single Angle	L2 1/2x2x1/4	(33 ksi) A7-33	Single Angle	L2 1/2x2x1/4	(33 ksi) A7-33
T3 421.00-401.00	Single Angle	L2 1/2x2x1/4	A7-33	Single Angle	L2 1/2x2x1/4	A7-33
T4 401.00-396.00	Single Angle	L2 1/2x2x1/4	(33 ksi) A7-33	Single Angle		(33 ksi) A7-33
T6 391.00-386.00	Single Angle	L2 1/2x2x1/4	A7-33	Single Angle		A7-33
T7 386.00-381.00	Single Angle		(33 ksi) A7-33	Single Angle	L2 1/2x2x1/4	(33 ksi) A7-33
T8 381.00-376.00	Single Angle	L2 1/2x2x1/4	A7-33	Single Angle		A7-33
T10 371.00-366.00	Single Angle	L2 1/2x2x1/4	(33 ksi) A7-33	Single Angle		(33 ksi) A7-33
T11 366.00-361.00	Single Angle		A7-33	Single Angle	L2 1/2x2x1/4	A7-33
T12 361.00-341.00	Single Angle	L2 1/2x2x1/4	(33 ksi) A7-33	Single Angle	L2 1/2x2x1/4	(33 ksi) A7-33
T13 341.00-321.00	Single Angle	L2 1/2x2x1/4	A7-33	Single Angle	L2 1/2x2x1/4	A7-33
T14 321.00-301.00	Single Angle	L2 1/2x2x1/4	(33 ksi) A7-33	Single Angle	L2 1/2x2x1/4	(33 ksi) A7-33
T15 301.00-281.00	Single Angle	L2 1/2x2x3/16	A7-33	Single Angle	L2 1/2x2x3/16	A7-33
T16 281.00-276.00	Single Angle	L2 1/2x2x1/4	(33 ksi) A7-33	Single Angle		(33 ksi) A7-33
T18 271.00-266.00	Single Angle	L2 1/2x2x1/4	A7-33	Single Angle		A7-33
T19 266.00-261.00	Single Angle		(33 ksi) A7-33	Single Angle	L2 1/2x2x1/4	(33 ksi) A7-33
T20 261.00-256.00	Single Angle	L2 1/2x2x3/16	A7-33	Single Angle		A7-33
T22 251.00-246.00	Single Angle	L2 1/2x2x3/16	(33 ksi) A7-33	Single Angle		(33 ksi) A7-33
T23 246.00-241.00	Single Angle		A7-33	Single Angle	L2 1/2x2x3/16	A7-33
T24 241.00-221.00	Single Angle	L2 1/2x2x3/16	(33 ksi) A7-33	Single Angle	L2 1/2x2x3/16	(33 ksi) A7-33
T25 221.00-201.00	Single Angle	L2 1/2x2x3/16	A7-33	Single Angle	L2 1/2x2x3/16	A7-33
T26 201.00-181.00	Single Angle	L2 1/2x2x3/16	(33 ksi) A7-33	Single Angle	L2 1/2x2x3/16	(33 ksi) A7-33
T27 181.00-161.00	Double Angle	2L3x2x1/4x3/8	A7-33	Single Angle	L2 1/2x2x3/16	A7-33
T28 161.00-141.00	Single Angle	L2 1/2x2x3/16	(33 ksi) A7-33	Single Angle	L2 1/2x2x3/16	(33 ksi) A7-33
T29 141.00-121.00	Single Angle	L2 1/2x2x3/16	A7-33	Single Angle	L2 1/2x2x3/16	A7-33
T30 121.00-	Single Angle	L2 1/2x2x3/16	(33 ksi) A7-33	Single Angle	L2 1/2x2x3/16	(33 ksi) A7-33

Tower Elevation ft	Top Girt Type	Top Girt Size	Top Girt Grade	Bottom Girt Type	Bottom Girt Size	Bottom Girt Grade
101.00			(33 ksi)			(33 ksi)
T31 101.00-81.00	Single Angle	L2 1/2x2x3/16	A7-33	Single Angle	L2 1/2x2x3/16	A7-33
T32 81.00-61.00	Single Angle	L2 1/2x2x3/16	(33 ksi)	Single Angle	L2 1/2x2x3/16	(33 ksi)
T33 61.00-41.00	Single Angle	L2 1/2x2x3/16	A7-33	Single Angle	L2 1/2x2x3/16	A7-33
T34 41.00-20.00	Single Angle	L2 1/2x2x3/16	(33 ksi)	Single Angle		(33 ksi)
T35 20.00-6.71	Double Angle	2L2 1/2x2x3/16x1/4	A7-33	Single Angle		A7-33
			(33 ksi)			(33 ksi)

Tower Section Geometry (cont'd)

Tower Elevation ft	No. of Mid Girts	Mid Girt Type	Mid Girt Size	Mid Girt Grade	Horizontal Type	Horizontal Size	Horizontal Grade
T1 457.00-436.00	1	Single Angle	L2 1/2x2x1/4	A7-33	Single Angle	L2 1/2x2x1/4	A7-33
T2 436.00-421.00	None	Single Angle		(33 ksi)	Single Angle	L2 1/2x2x1/4	(33 ksi)
T3 421.00-401.00	1	Single Angle	L2 1/2x2x1/4	A7-33	Solid Round		A36
T12 361.00-341.00	1	Single Angle	L2 1/2x2x1/4	(33 ksi)	Single Angle		(36 ksi)
T13 341.00-321.00	1	Single Angle	L2 1/2x2x1/4	A7-33	Solid Round		A36
T14 321.00-301.00	1	Single Angle	L2 1/2x2x1/4	(33 ksi)	Solid Round		(36 ksi)
T15 301.00-281.00	1	Single Angle	L2 1/2x2x3/16	A7-33	Solid Round		A36
T24 241.00-221.00	1	Single Angle	L2 1/2x2x3/16	(33 ksi)	Single Angle		(36 ksi)
T25 221.00-201.00	1	Single Angle	L2 1/2x2x3/16	A7-33	Single Angle		A36
T26 201.00-181.00	1	Single Angle	L2 1/2x2x3/16	(33 ksi)	Single Angle		(36 ksi)
T27 181.00-161.00	1	Single Angle	L2 1/2x2x3/16	A7-33	Single Angle		A36
T28 161.00-141.00	1	Single Angle	L2 1/2x2x3/16	(33 ksi)	Single Angle		(36 ksi)
T29 141.00-121.00	1	Single Angle	L2 1/2x2x3/16	A7-33	Single Angle		A36
T30 121.00-101.00	1	Single Angle	L2 1/2x2x3/16	(33 ksi)	Single Angle		(36 ksi)
T31 101.00-81.00	1	Single Angle	L2 1/2x2x3/16	A7-33	Single Angle		A36
T32 81.00-61.00	1	Single Angle	L2 1/2x2x3/16	(33 ksi)	Single Angle		(36 ksi)
T33 61.00-41.00	1	Single Angle	L2 1/2x2x3/16	A7-33	Single Angle		A36
T34 41.00-20.00	1	Single Angle	L2 1/2x2x3/16	(33 ksi)	Single Angle		(36 ksi)

Tower Section Geometry (cont'd)

Tower Elevation	Secondary Horizontal Type	Secondary Horizontal Size	Secondary Horizontal Grade	Inner Bracing Type	Inner Bracing Size	Inner Bracing Grade
ft						
T12 361.00-341.00	Equal Angle	L2x2x1/4	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T21 256.00-251.00	Double Equal Angle	2L3 1/2x3 1/2x3/8x3/8	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T23 246.00-241.00	Double Equal Angle	2L3 1/2x3 1/2x3/8x3/8	A36 (36 ksi)	Solid Round		A36 (36 ksi)

Tower Section Geometry (cont'd)

Tower Elevation	Gusset Area (per face)	Gusset Thickness	Gusset Grade	Adjust. Factor A_r	Adjust. Factor A_r	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals	Double Angle Stitch Bolt Spacing Horizontals	Double Angle Stitch Bolt Spacing Redundants
ft	ft ²	in					in	in	in
T1 457.00-436.00	0.00	0.3750	A7-33 (33 ksi)	1.03	1	1.05	Third-Pt	Third-Pt	36.0000
T2 436.00-421.00	0.00	0.3750	A7-33 (33 ksi)	1.03	1	1.05	Third-Pt	Third-Pt	36.0000
T3 421.00-401.00	0.00	0.3750	A7-33 (33 ksi)	1.03	1	1.05	Third-Pt	Third-Pt	36.0000
T4 401.00-396.00	0.00	0.3750	A7-33 (33 ksi)	1.03	1	1.05	Third-Pt	Third-Pt	36.0000
T5 396.00-391.00	0.00	0.3750	A7-33 (33 ksi)	1.03	1	1.05	Third-Pt	Third-Pt	36.0000
T6 391.00-386.00	0.00	0.3750	A7-33 (33 ksi)	1.03	1	1.05	Third-Pt	Third-Pt	36.0000
T7 386.00-381.00	0.00	0.3750	A7-33 (33 ksi)	1.03	1	1.05	Third-Pt	Third-Pt	36.0000
T8 381.00-376.00	0.00	0.3750	A7-33 (33 ksi)	1.03	1	1.05	Third-Pt	Third-Pt	36.0000
T9 376.00-371.00	0.00	0.3750	A7-33 (33 ksi)	1.03	1	1.05	Third-Pt	Third-Pt	36.0000
T10 371.00-366.00	0.00	0.3750	A7-33 (33 ksi)	1.03	1	1.05	Third-Pt	Third-Pt	36.0000
T11 366.00-361.00	0.00	0.3750	A7-33 (33 ksi)	1.03	1	1.05	Third-Pt	Third-Pt	36.0000
T12 361.00-341.00	0.00	0.3750	A7-33 (33 ksi)	1.03	1	1.05	Third-Pt	Third-Pt	36.0000
T13 341.00-321.00	0.00	0.3750	A7-33 (33 ksi)	1.03	1	1.05	Third-Pt	Third-Pt	36.0000
T14 321.00-301.00	0.00	0.3750	A7-33 (33 ksi)	1.03	1	1.05	Third-Pt	Third-Pt	36.0000
T15 301.00-281.00	0.00	0.3750	A7-33 (33 ksi)	1.03	1	1.05	Third-Pt	Third-Pt	36.0000
T16 281.00-276.00	0.00	0.3750	A7-33 (33 ksi)	1.03	1	1.05	Third-Pt	Third-Pt	36.0000
T17 276.00-271.00	0.00	0.3750	A7-33 (33 ksi)	1.03	1	1.05	Third-Pt	Third-Pt	36.0000
T18 271.00-266.00	0.00	0.3750	A7-33 (33 ksi)	1.03	1	1.05	Third-Pt	Third-Pt	36.0000
T19 266.00-261.00	0.00	0.3750	A7-33 (33 ksi)	1.03	1	1.05	Third-Pt	Third-Pt	36.0000
T20 261.00-256.00	0.00	0.3750	A7-33 (33 ksi)	1.03	1	1.05	Third-Pt	Third-Pt	36.0000
T21 256.00-251.00	0.00	0.3750	A7-33 (33 ksi)	1.03	1	1.05	Third-Pt	Third-Pt	36.0000
T22 251.00-246.00	0.00	0.3750	A7-33 (33 ksi)	1.03	1	1.05	Third-Pt	Third-Pt	36.0000
T23 246.00-241.00	0.00	0.3750	A7-33 (33 ksi)	1.03	1	1.05	Third-Pt	Third-Pt	36.0000
T24 241.00-221.00	0.00	0.3750	A7-33 (33 ksi)	1.03	1	1.05	Third-Pt	Third-Pt	36.0000
T25 221.00-201.00	0.00	0.3750	A7-33 (33 ksi)	1.03	1	1.05	Third-Pt	Third-Pt	36.0000

Tower Elevation	Gusset Area (per face)	Gusset Thickness	Gusset Grade	Adjust. Factor A_r	Adjust. Factor A_r	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals	Double Angle Stitch Bolt Spacing Horizontals	Double Angle Stitch Bolt Spacing Redundants
ft	ft ²	in					in	in	in
T26 201.00-181.00	0.00	0.3750	A7-33 (33 ksi)	1.03	1	1.05	Third-Pt	Third-Pt	36.0000
T27 181.00-161.00	0.00	0.3750	A7-33 (33 ksi)	1.03	1	1.05	Third-Pt	Third-Pt	36.0000
T28 161.00-141.00	0.00	0.3750	A7-33 (33 ksi)	1.03	1	1.05	Third-Pt	Third-Pt	36.0000
T29 141.00-121.00	0.00	0.3750	A7-33 (33 ksi)	1.03	1	1.05	38.0000	38.0000	36.0000
T30 121.00-101.00	0.00	0.3750	A7-33 (33 ksi)	1.03	1	1.05	Third-Pt	Third-Pt	36.0000
T31 101.00-81.00	0.00	0.3750	A7-33 (33 ksi)	1.03	1	1.05	Third-Pt	Third-Pt	36.0000
T32 81.00-61.00	0.00	0.3750	A7-33 (33 ksi)	1.03	1	1.05	Third-Pt	Third-Pt	36.0000
T33 61.00-41.00	0.00	0.3750	A7-33 (33 ksi)	1.03	1	1.05	Third-Pt	Third-Pt	36.0000
T34 41.00-20.00	0.00	0.3750	A7-33 (33 ksi)	1.03	1	1.05	Third-Pt	Third-Pt	36.0000
T35 20.00-6.71	0.00	0.2500	A7-33 (33 ksi)	1.03	1	1.05	Third-Pt	Third-Pt	36.0000
T36 6.71-0.00	0.00	0.2500	A7-33 (33 ksi)	1.03	1	1.05	Third-Pt	Third-Pt	36.0000

Tower Section Geometry (cont'd)

Tower Elevation	Calc K Single Angles	Calc K Solid Rounds	Legs	K Factors ¹							
				X Brace Diags	K Brace Diags	Single Diags	Girts	Horiz.	Sec. Horiz.	Inner Brace	
											X Y
ft											
T1 457.00-436.00	Yes	No	1	1	1	1	1	1	1	1	1
T2 436.00-421.00	Yes	No	1	1	1	1	1	1	1	1	1
T3 421.00-401.00	Yes	No	1	1	1	1	1	1	1	1	1
T4 401.00-396.00	Yes	No	1	1	1	1	1	1	1	1	1
T5 396.00-391.00	Yes	No	1	1	1	1	1	1	1	1	1
T6 391.00-386.00	Yes	No	1	1	1	1	1	1	1	1	1
T7 386.00-381.00	Yes	No	1	1	1	1	1	1	1	1	1
T8 381.00-376.00	Yes	No	1	1	1	1	1	1	1	1	1
T9 376.00-371.00	Yes	No	1	1	1	1	1	1	1	1	1
T10 371.00-366.00	Yes	No	1	1	1	1	1	1	1	1	1
T11 366.00-361.00	Yes	No	1	1	1	1	1	1	1	1	1
T12 361.00-341.00	Yes	No	1	1	1	1	1	1	0.5	1	1
T13 341.00-321.00	Yes	No	1	1	1	1	1	1	1	1	1
T14 321.00-301.00	Yes	No	1	1	1	1	1	1	1	1	1
T15 301.00-281.00	Yes	No	1	1	1	1	1	1	1	1	1
T16 281.00-276.00	Yes	No	1	1	1	1	1	1	1	1	1

Tower Elevation ft	Calc K Single Angles	Calc K Solid Rounds	Legs	K Factors ¹							
				X Brace Diags X Y	K Brace Diags X Y	Single Diags X Y	Girts X Y	Horiz. X Y	Sec. Horiz. X Y	Inner Brace X Y	
T17 276.00-271.00	Yes	No	1	1	1	1	1	1	1	1	1
T18 271.00-266.00	Yes	No	1	1	1	1	1	1	1	1	1
T19 266.00-261.00	Yes	No	1	1	1	1	1	1	1	1	1
T20 261.00-256.00	Yes	No	1	1	1	1	1	1	1	1	1
T21 256.00-251.00	Yes	No	1	1	1	1	1	1	1	1	1
T22 251.00-246.00	Yes	No	1	1	1	1	1	1	1	1	1
T23 246.00-241.00	Yes	No	1	1	1	1	1	1	1	1	1
T24 241.00-221.00	Yes	No	1	1	1	1	1	1	1	1	1
T25 221.00-201.00	Yes	No	1	1	1	1	1	1	1	1	1
T26 201.00-181.00	Yes	No	1	1	1	1	1	1	1	1	1
T27 181.00-161.00	Yes	No	1	1	1	1	1	1	1	1	1
T28 161.00-141.00	Yes	No	1	1	1	1	1	1	1	1	1
T29 141.00-121.00	Yes	No	1	1	1	1	1	1	1	1	1
T30 121.00-101.00	Yes	No	1	1	1	1	1	1	1	1	1
T31 101.00-81.00	Yes	No	1	1	1	1	1	1	1	1	1
T32 81.00-61.00	Yes	No	1	1	1	1	1	1	1	1	1
T33 61.00-41.00	Yes	No	1	1	1	1	1	1	1	1	1
T34 41.00-20.00	Yes	No	1	1	1	1	1	1	1	1	1
T35 20.00-6.71	Yes	No	1	1	1	1	1	1	1	1	1
T36 6.71-0.00	Yes	No	1	1	1	1	1	1	1	1	1

¹Note: K factors are applied to member segment lengths. K-braces without inner supporting members will have the K factor in the out-of-plane direction applied to the overall length.

Tower Section Geometry (cont'd)

Tower Elevation ft	Leg		Diagonal		Top Girt		Bottom Girt		Mid Girt		Long Horizontal		Short Horizontal	
	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U
T1 457.00-436.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	1
T2 436.00-421.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	1	0.0000	0.75	0.0000	1
T3 421.00-401.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	1	0.0000	1
T4 401.00-396.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	1	0.0000	1	0.0000	1
T5 396.00-391.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	1	0.0000	1	0.0000	1

Tower Elevation ft	Leg		Diagonal		Top Girt		Bottom Girt		Mid Girt		Long Horizontal		Short Horizontal	
	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U
T6 391.00-386.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	1	0.0000	1	0.0000	0.75
T7 386.00-381.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	1	0.0000	1	0.0000	0.75
T8 381.00-376.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	1	0.0000	1	0.0000	1
T9 376.00-371.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	1	0.0000	1	0.0000	1
T10 371.00-366.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	1	0.0000	1	0.0000	1
T11 366.00-361.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	1	0.0000	1	0.0000	1
T12 361.00-341.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	1	0.0000	0.75
T13 341.00-321.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	1	0.0000	1
T14 321.00-301.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	1	0.0000	1
T15 301.00-281.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	1	0.0000	1
T16 281.00-276.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	1	0.0000	1
T17 276.00-271.00	0.0000	1	0.0000	0.75	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	1	0.0000	1
T18 271.00-266.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	1	0.0000	1
T19 266.00-261.00	0.0000	1	0.0000	0.75	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	1	0.0000	1
T20 261.00-256.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	1	0.0000	0.75
T21 256.00-251.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	1	0.0000	0.75
T22 251.00-246.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	1	0.0000	0.75
T23 246.00-241.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	1	0.0000	0.75
T24 241.00-221.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	1	0.0000	1
T25 221.00-201.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	1	0.0000	1
T26 201.00-181.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	1	0.0000	1
T27 181.00-161.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	1	0.0000	1
T28 161.00-141.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	1	0.0000	1
T29 141.00-121.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	1	0.0000	1
T30 121.00-101.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	1	0.0000	1
T31 101.00-81.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	1	0.0000	1
T32 81.00-61.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	1	0.0000	1
T33 61.00-41.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	1	0.0000	1
T34 41.00-20.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	1	0.0000	0.75
T35 20.00-6.71	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	1	0.0000	1	0.0000	1	0.0000	0.75
T36 6.71-0.00	0.0000	1	0.0000	0.75	0.0000	1	0.0000	1	0.0000	1	0.0000	1	0.0000	1

Tower Elevation ft	Redundant Horizontal		Redundant Diagonal		Redundant Sub-Diagonal		Redundant Sub-Horizontal		Redundant Vertical		Redundant Hip		Redundant Hip Diagonal	
	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U
T1 457.00-436.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T2 436.00-421.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T3 421.00-401.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T4 401.00-396.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T5 396.00-391.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T6 391.00-386.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T7 386.00-381.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T8 381.00-376.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T9 376.00-371.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T10 371.00-366.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T11 366.00-361.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T12 361.00-341.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T13 341.00-321.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T14 321.00-301.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T15 301.00-281.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T16 281.00-276.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T17 276.00-271.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T18 271.00-266.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T19 266.00-261.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T20 261.00-256.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T21 256.00-251.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T22 251.00-246.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T23 246.00-241.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T24 241.00-221.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T25 221.00-201.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T26 201.00-181.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T27 181.00-161.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T28 161.00-141.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T29 141.00-121.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T30 121.00-101.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T31 101.00-81.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T32 81.00-61.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75

Tower Elevation ft	Redundant Horizontal		Redundant Diagonal		Redundant Sub-Diagonal		Redundant Sub-Horizontal		Redundant Vertical		Redundant Hip		Redundant Hip Diagonal	
	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U
T33 61.00-41.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T34 41.00-20.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T35 20.00-6.71	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T36 6.71-0.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75

Tower Section Geometry (cont'd)

Tower Elevation ft	Connection Offsets							
	Diagonal				K-Bracing			
	Vert. Top in	Horiz. Top in	Vert. Bot. in	Horiz. Bot. in	Vert. Top in	Horiz. Top in	Vert. Bot. in	Horiz. Bot. in
T1 457.00-436.00	3.0000	0.0000	3.0000	0.0000	0.0000	0.0000	0.0000	0.0000
T2 436.00-421.00	3.0000	0.0000	3.0000	0.0000	0.0000	0.0000	0.0000	0.0000
T3 421.00-401.00	3.0000	0.0000	3.0000	0.0000	0.0000	0.0000	0.0000	0.0000
T4 401.00-396.00	3.0000	0.0000	3.0000	0.0000	0.0000	0.0000	0.0000	0.0000
T5 396.00-391.00	3.0000	0.0000	3.0000	0.0000	0.0000	0.0000	0.0000	0.0000
T6 391.00-386.00	3.0000	0.0000	3.0000	0.0000	0.0000	0.0000	0.0000	0.0000
T7 386.00-381.00	3.0000	0.0000	3.0000	0.0000	0.0000	0.0000	0.0000	0.0000
T8 381.00-376.00	3.0000	0.0000	3.0000	0.0000	0.0000	0.0000	0.0000	0.0000
T9 376.00-371.00	3.0000	0.0000	3.0000	0.0000	0.0000	0.0000	0.0000	0.0000
T10 371.00-366.00	3.0000	0.0000	3.0000	0.0000	0.0000	0.0000	0.0000	0.0000
T11 366.00-361.00	3.0000	0.0000	3.0000	0.0000	0.0000	0.0000	0.0000	0.0000
T12 361.00-341.00	3.0000	0.0000	3.0000	0.0000	0.0000	0.0000	0.0000	0.0000
T13 341.00-321.00	3.0000	0.0000	3.0000	0.0000	0.0000	0.0000	0.0000	0.0000
T14 321.00-301.00	3.0000	0.0000	3.0000	0.0000	0.0000	0.0000	0.0000	0.0000
T15 301.00-281.00	3.0000	0.0000	3.0000	0.0000	0.0000	0.0000	0.0000	0.0000
T16 281.00-276.00	3.0000	0.0000	3.0000	0.0000	0.0000	0.0000	0.0000	0.0000
T17 276.00-271.00	3.0000	0.0000	3.0000	0.0000	0.0000	0.0000	0.0000	0.0000
T18 271.00-266.00	3.0000	0.0000	3.0000	0.0000	0.0000	0.0000	0.0000	0.0000
T19 266.00-261.00	3.0000	0.0000	3.0000	0.0000	0.0000	0.0000	0.0000	0.0000
T20 261.00-256.00	3.0000	0.0000	3.0000	0.0000	0.0000	0.0000	0.0000	0.0000
T21 256.00-251.00	3.0000	0.0000	3.0000	0.0000	0.0000	0.0000	0.0000	0.0000
T22 251.00-246.00	3.0000	0.0000	3.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Tower Elevation	Connection Offsets							
	Diagonal				K-Bracing			
	Vert. Top	Horiz. Top	Vert. Bot.	Horiz. Bot.	Vert. Top	Horiz. Top	Vert. Bot.	Horiz. Bot.
ft	in	in	in	in	in	in	in	in
T23 246.00-241.00	3.0000	0.0000	3.0000	0.0000	0.0000	0.0000	0.0000	0.0000
T24 241.00-221.00	3.0000	0.0000	3.0000	0.0000	0.0000	0.0000	0.0000	0.0000
T25 221.00-201.00	3.0000	0.0000	3.0000	0.0000	0.0000	0.0000	0.0000	0.0000
T26 201.00-181.00	3.0000	0.0000	3.0000	0.0000	0.0000	0.0000	0.0000	0.0000
T27 181.00-161.00	3.0000	0.0000	3.0000	0.0000	0.0000	0.0000	0.0000	0.0000
T28 161.00-141.00	3.0000	0.0000	3.0000	0.0000	0.0000	0.0000	0.0000	0.0000
T29 141.00-121.00	3.0000	0.0000	3.0000	0.0000	0.0000	0.0000	0.0000	0.0000
T30 121.00-101.00	3.0000	0.0000	3.0000	0.0000	0.0000	0.0000	0.0000	0.0000
T31 101.00-81.00	3.0000	0.0000	3.0000	0.0000	0.0000	0.0000	0.0000	0.0000
T32 81.00-61.00	3.0000	0.0000	3.0000	0.0000	0.0000	0.0000	0.0000	0.0000
T33 61.00-41.00	3.0000	0.0000	3.0000	0.0000	0.0000	0.0000	0.0000	0.0000
T34 41.00-20.00	3.0000	0.0000	3.0000	0.0000	0.0000	0.0000	0.0000	0.0000
T35 20.00-6.71	3.0000	0.0000	3.0000	0.0000	0.0000	0.0000	0.0000	0.0000
T36 6.71-0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Tower Section Geometry (cont'd)

Tower Elevation ft	Leg Connection Type	Leg		Diagonal		Top Girt		Bottom Girt		Mid Girt		Long Horizontal		Short Horizontal	
		Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.
T1 457.00-436.00	Flange	0.8750 A307	8	0.5000 A307	2	0.5000 A307	2	0.5000 A307	2	0.5000 A307	2	0.5000 A307	2	0.0000 A325X	0
T2 436.00-421.00	Flange	0.8750 A307	8	0.5000 A325X	2	0.5000 A307	2	0.5000 A307	2	0.5000 A307	0	0.5000 A307	2	0.0000 A325X	0
T3 421.00-401.00	Flange	0.8750 A307	8	0.5000 A325N	2	0.5000 A307	2	0.5000 A307	2	0.5000 A307	2	0.0000 A307	0	0.0000 A325X	0
T4 401.00-396.00	Flange	0.8750 A307	0	0.5000 A325N	2	0.5000 A307	2	0.0000 A307	0	0.5000 A307	0	0.0000 A307	0	0.0000 A325X	0
T5 396.00-391.00	Flange	0.8750 A307	0	0.5000 A325N	2	0.0000 A307	0	0.0000 A307	0	0.5000 A307	0	0.0000 A307	0	0.0000 A325X	0
T6 391.00-386.00	Flange	0.8750 A307	0	0.5000 A325X	2	0.0000 A307	2	0.0000 A307	0	0.5000 A307	0	0.0000 A307	0	0.5000 A325X	0
T7 386.00-381.00	Flange	0.8750 A307	8	0.5000 A325X	2	0.0000 A307	0	0.5000 A307	2	0.5000 A307	0	0.0000 A307	0	0.5000 A325X	0
T8 381.00-376.00	Flange	0.8750 A307	0	0.5000 A325N	2	0.5000 A307	2	0.0000 A307	0	0.5000 A307	0	0.0000 A307	0	0.0000 A325X	0
T9 376.00-371.00	Flange	0.8750 A307	0	0.5000 A325N	2	0.0000 A307	0	0.0000 A307	0	0.5000 A307	0	0.0000 A307	0	0.0000 A325X	0
T10 371.00-366.00	Flange	0.8750 A307	0	0.5000 A325N	2	0.0000 A307	2	0.0000 A307	0	0.5000 A307	0	0.0000 A307	0	0.0000 A325X	0
T11 366.00-361.00	Flange	0.8750 A307	8	0.5000 A325N	2	0.0000 A307	0	0.5000 A307	2	0.5000 A307	0	0.0000 A307	0	0.0000 A325X	0
T12 361.00-341.00	Flange	0.8750 A307	8	0.5000 A325N	2	0.5000 A307	2	0.5000 A307	2	0.5000 A307	2	0.0000 A307	0	0.5000 A325X	1
T13 341.00-321.00	Flange	0.8750 A307	8	0.5000 A325N	2	0.5000 A307	2	0.5000 A307	2	0.5000 A307	2	0.0000 A307	0	0.0000 A325X	0

Tower Elevation ft	Leg Connection Type	Leg		Diagonal		Top Girt		Bottom Girt		Mid Girt		Long Horizontal		Short Horizontal	
		Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.
T14 321.00-301.00	Flange	0.8750 A307	8	0.5000 A307	2	0.5000 A307	2	0.5000 A307	2	0.5000 A307	2	0.0000 A307	0	0.0000 A325X	0
T15 301.00-281.00	Flange	0.8750 A307	8	0.5000 A307	2	0.5000 A307	2	0.5000 A307	2	0.5000 A307	2	0.0000 A307	0	0.0000 A325X	0
T16 281.00-276.00	Flange	0.8750 A307	0	0.5000 A325N	2	0.5000 A307	2	0.0000 A307	0	0.5000 A307	2	0.0000 A307	0	0.0000 A325X	0
T17 276.00-271.00	Flange	0.8750 A307	0	0.5000 A325N	2	0.0000 A307	0	0.0000 A307	0	0.5000 A307	2	0.0000 A307	0	0.0000 A325X	0
T18 271.00-266.00	Flange	0.8750 A307	0	0.5000 A325N	2	0.5000 A307	2	0.0000 A307	0	0.5000 A307	2	0.0000 A307	0	0.0000 A325X	0
T19 266.00-261.00	Flange	0.8750 A307	8	0.5000 A325N	2	0.0000 A307	0	0.5000 A307	2	0.5000 A307	2	0.0000 A307	0	0.0000 A325X	0
T20 261.00-256.00	Flange	0.6250 A307	0	0.5000 A325N	2	0.5000 A307	2	0.0000 A307	0	0.5000 A307	0	0.0000 A307	0	0.5000 A325N	0
T21 256.00-251.00	Flange	0.6250 A307	0	0.5000 A325N	2	0.0000 A307	0	0.0000 A307	0	0.5000 A307	0	0.0000 A307	0	0.5000 A325N	2
T22 251.00-246.00	Flange	0.6250 A307	0	0.5000 A325N	2	0.5000 A307	2	0.0000 A307	0	0.5000 A307	0	0.0000 A307	0	0.5000 A325N	0
T23 246.00-241.00	Flange	0.6250 A307	8	0.5000 A325N	2	0.0000 A307	0	0.5000 A307	2	0.5000 A307	0	0.0000 A307	0	0.5000 A325N	2
T24 241.00-221.00	Flange	0.6250 A307	8	0.5000 A325N	2	0.5000 A307	2	0.5000 A307	2	0.5000 A307	2	0.0000 A307	0	0.0000 A325X	0
T25 221.00-201.00	Flange	0.8750 A307	8	0.5000 A307	2	0.5000 A307	2	0.5000 A307	2	0.5000 A307	2	0.0000 A307	0	0.0000 A325X	0
T26 201.00-181.00	Flange	0.8750 A307	8	0.5000 A307	2	0.5000 A307	2	0.5000 A307	2	0.5000 A307	2	0.0000 A307	0	0.0000 A325X	0
T27 181.00-161.00	Flange	0.8750 A307	8	0.5000 A307	2	0.5000 A307	2	0.5000 A307	2	0.5000 A307	2	0.0000 A307	0	0.0000 A325X	0
T28 161.00-141.00	Flange	0.6250 A307	8	0.6250 A325N	2	0.5000 A307	2	0.5000 A307	2	0.5000 A307	2	0.0000 A307	0	0.0000 A325X	0
T29 141.00-121.00	Flange	0.6250 A307	8	0.6250 A325N	2	0.5000 A307	2	0.5000 A307	2	0.5000 A325N	2	0.0000 A307	0	0.0000 A325X	0
T30 121.00-101.00	Flange	0.8750 A307	8	0.5000 A325N	2	0.5000 A307	2	0.5000 A307	2	0.5000 A307	2	0.0000 A307	0	0.0000 A325X	0
T31 101.00-81.00	Flange	0.8750 A307	8	0.5000 A307	2	0.5000 A307	2	0.5000 A307	2	0.5000 A307	2	0.0000 A307	0	0.0000 A325X	0
T32 81.00-61.00	Flange	0.8750 A307	8	0.5000 A307	2	0.5000 A307	2	0.5000 A307	2	0.5000 A307	2	0.0000 A307	0	0.0000 A325X	0
T33 61.00-41.00	Flange	0.8750 A307	8	0.5000 A307	2	0.5000 A307	2	0.5000 A307	2	0.5000 A307	2	0.0000 A307	0	0.0000 A325X	0
T34 41.00-20.00	Flange	0.8750 A307	8	0.5000 A307	2	0.5000 A307	2	0.5000 A307	2	0.5000 A307	2	0.0000 A307	0	0.6250 A325X	0
T35 20.00-6.71	Flange	0.8750 A307	8	0.5000 A325N	2	0.5000 A307	2	0.5000 A307	0	0.5000 A307	0	0.0000 A307	0	0.6250 A325X	0
T36 6.71-0.00	Flange	0.8750 A307	0	0.5000 A307	2	0.5000 A307	0	0.5000 A307	0	0.5000 A307	0	0.0000 A307	0	0.0000 A325X	0

Guy Data

Guy Elevation ft	Guy Grade	Guy Size	Initial Tension K	%	Guy Modulus ksi	Guy Weight plf	L_u ft	Anchor Radius ft	Anchor Azimuth Adj. °	Anchor Elevation ft	End Fitting Efficiency %
446.5	EHS	A 9/16	2.80	8%	21000	0.671	615.28	405.00	0.0000	-20.00	100%
		B 9/16	2.80	8%	21000	0.671	602.80	394.00	0.0000	-13.00	100%
		C 9/16	2.80	8%	21000	0.671	619.59	411.00	0.0000	-20.50	100%
381	BS	A 1 3/8	18.56	8%	24000	3.970	567.23	405.00	0.0000	-20.00	100%
		B 1 3/8	18.56	8%	24000	3.970	554.51	394.00	0.0000	-13.00	100%
		C 1 3/8	18.56	8%	24000	3.970	571.85	411.00	0.0000	-20.50	100%
254.5	BS	A 1 1/4	15.36	8%	24000	3.280	486.20	405.00	0.0000	-20.00	100%
		B 1 1/4	15.36	8%	24000	3.280	473.16	394.00	0.0000	-13.00	100%
		C 1 1/4	15.36	8%	24000	3.280	491.44	411.00	0.0000	-20.50	100%

131	EHS	A	11/16	6.00	12%	20000	0.976	425.99	403.00	0.0000	-20.00	100%
		B	11/16	6.00	12%	20000	0.976	426.47	407.50	0.0000	-9.00	100%
		C	11/16	6.00	12%	20000	0.976	444.98	424.50	0.0000	-16.50	100%

Guy Data(cont'd)

Guy Elevation ft	Mount Type	Torque-Arm Spread ft	Torque-Arm Leg Angle °	Torque-Arm Style	Torque-Arm Grade	Torque-Arm Type	Torque-Arm Size
446.5	Corner						
381	Corner						
254.5	Corner						
131	Torque Arm	15.00	53.0000	Bat Ear	A36 (36 ksi)	Double Equal Angle	L3x3x3/8 (TA - BU#873128) 2L3x3x3/16x3/4

Guy Data (cont'd)

Guy Elevation ft	Diagonal Grade	Diagonal Type	Upper Diagonal Size	Lower Diagonal Size	Is Strap.	Pull-Off Grade	Pull-Off Type	Pull-Off Size
446.50	A572-50 (50 ksi)	Solid Round				A7-33 (33 ksi)	Double Angle	
381.00	A572-50 (50 ksi)	Solid Round			No	A7-33 (33 ksi)	Double Angle	2L3x2x1/4x3/8
254.50	A572-50 (50 ksi)	Solid Round				A36 (36 ksi)	Double Angle	
131.00	A572-50 (50 ksi)	Solid Round				A7-33 (33 ksi)	Double Angle	

Guy Data (cont'd)

Guy Elevation ft	Cable Weight				Tower Intercept			
	A K	B K	C K	D K	A ft	B ft	C ft	D ft
446.5	0.41	0.40	0.42		43.02 11.3 sec/pulse	41.33 11.1 sec/pulse	43.63 11.4 sec/pulse	
381	2.25	2.20	2.27		33.04 9.9 sec/pulse	31.60 9.7 sec/pulse	33.58 10.0 sec/pulse	
254.5	1.59	1.55	1.61		24.55 8.6 sec/pulse	23.27 8.3 sec/pulse	25.08 8.6 sec/pulse	
131	0.42	0.42	0.43		14.59 6.6 sec/pulse	14.64 6.6 sec/pulse	15.93 6.9 sec/pulse	

Guy Data (cont'd)

Torque Arm	Pull Off	Diagonal
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Guy Elevation ft	Calc K Single Angles	Calc K Solid Rounds	K _x	K _y	K _x	K _y	K _x	K _y
446.5	No	No			1	1	1	1
381	No	No			1	1	1	1
254.5	No	No			1	1	1	1
131	Yes	Yes	0.98	0.98	1	1	1	1

Guy Data (cont'd)

Guy Elevation ft	Torque-Arm				Pull Off				Diagonal			
	Bolt Size in	Number	Net Width Deduct in	U	Bolt Size in	Number	Net Width Deduct in	U	Bolt Size in	Number	Net Width Deduct in	U
446.5	0.0000 A325N	0	0.0000	1	0.0000 A325N	0	0.0000	1	0.6250 A325N	0	0.0000	0.75
381	0.6250 A325N	0	0.0000	0.75	0.5000 A307	2	0.0000	0.75	0.6250 A325N	0	0.0000	0.75
254.5	0.6250 A325N	0	0.0000	0.75	0.0000 A325N	0	0.0000	1	0.6250 A325N	0	0.0000	0.75
131	0.7500 A325N	2	0.0000	0.75	0.0000 A325N	0	0.0000	1	0.6250 A325N	0	0.0000	0.75

Guy Pressures

Guy Elevation ft	Guy Location	z ft	q _z psf	q _z Ice psf	Ice Thickness in
446.5	A	213.25	35	6	1.0244
	B	216.75	35	6	1.0260
	C	213.00	35	6	1.0242
381	A	180.50	33	6	1.0074
	B	184.00	33	6	1.0094
	C	180.25	33	6	1.0073
254.5	A	117.25	29	5	0.9649
	B	120.75	29	5	0.9677
	C	117.00	29	5	0.9647
131	A	55.50	24	4	0.8954
	B	61.00	24	4	0.9039
	C	57.25	24	4	0.8981

Guy-Mast Forces (Excluding Wind) - No Ice

Guy Elevation ft	Guy Location	Chord Angle °	Guy Tension Top Bottom K	F _x K	F _y K	F _z K	M _x kip-ft	M _y kip-ft	M _z kip-ft
446.5	A	49.2801	3.11 2.80	0.00	2.45	-1.92	-8.47	0.00	0.00
	B	49.6383	3.11 2.80	1.65	2.45	0.95	4.25	0.00	-7.36
	C	48.8898	3.11 2.80	-1.68	2.43	0.97	4.22	-0.00	7.30
381			Sum:	-0.03	7.33	-0.00	-0.01	0.00	-0.05
	A	44.9617	20.15 18.56	0.00	14.80	-13.68	-51.27	0.00	0.00
	B	45.2530	20.12 18.56	11.78	14.83	6.80	25.69	0.00	-44.50
	C	44.5725	20.15	-11.92	14.72	6.88	25.49	-0.00	44.15

Guy Elevation	Guy Location	Chord Angle	Guy Tension Top Bottom	F _x	F _y	F _z	M _x	M _y	M _z	
ft		°	K	K	K	K	kip-ft	kip-ft	kip-ft	
254.5	A	34.3575	18.56	-0.15	44.35	0.01	-0.08	0.00	-0.35	
			Sum:							
			16.26							
	B	34.4094	15.36	11.28	9.70	6.51	16.80	0.00	-29.10	
			16.24							
			15.36							
	C	34.0110	16.26	-11.34	9.65	6.55	16.71	-0.00	28.94	
			15.36							
			Sum:							
131	A	20.7413	6.15	-0.11	2.36	-5.68	-10.21	43.03	-17.69	
			6.00							
			6.15							
	A	20.7413	6.00	6.15	0.11	2.36	-5.68	-10.21	-43.03	17.69
				6.14						
				6.00						
	B	19.1464	6.14	6.14	5.01	2.20	2.77	19.03	43.42	0.00
				6.00						
				6.14						
B	19.1464	6.00	6.14	4.91	2.20	2.96	-9.52	-43.42	-16.48	
			6.14							
			6.00							
C	19.3407	6.14	6.14	-4.91	2.23	2.95	-9.65	43.38	16.71	
			6.00							
			6.14							
C	19.3407	6.00	6.14	-5.01	2.23	2.77	19.29	-43.38	0.00	
			6.00							
			Sum:							
				0.01	13.57	0.10	-1.26	0.00	0.22	

Guy-Mast Forces (Excluding Wind) - Ice

Guy Elevation	Guy Location	Chord Angle	Guy Tension Top Bottom	F _x	F _y	F _z	M _x	M _y	M _z	
ft		°	K	K	K	K	kip-ft	kip-ft	kip-ft	
446.5	A	49.2801	7.55	0.00	6.07	-4.50	-21.02	0.00	0.00	
			6.31							
			7.48							
	B	49.6383	6.26	3.83	6.03	2.21	10.45	0.00	-18.10	
			7.59							
			6.35							
	C	48.8898	7.59	-3.95	6.07	2.28	10.51	-0.00	18.21	
			Sum:							
			31.49							
381	A	44.9617	28.73	0.00	23.23	-21.27	-80.46	0.00	0.00	
			31.40							
			28.68							
	B	45.2530	31.40	18.29	23.25	10.56	40.26	0.00	-69.74	
			31.53							
			28.76							
	C	44.5725	31.53	-18.56	23.12	10.72	40.05	-0.00	69.37	
			Sum:							
			25.84							
254.5	A	34.3575	25.84	0.00	15.55	-20.64	-53.88	0.00	0.00	
			24.23							
			25.77							
	B	34.4094	24.19	17.82	15.51	10.29	26.86	0.00	-46.52	
			25.88							
			24.26							
	C	34.0110	25.88	-17.97	15.46	10.37	26.78	-0.00	46.39	
			Sum:							
			10.05							
131	A	20.7413	9.64	-0.15	46.52	0.03	-0.24	0.00	-0.13	
			10.05							
			9.64							
	A	20.7413	9.64	10.05	0.17	4.06	-9.19	-17.59	-69.69	30.47
				10.10						
				9.71						
	B	19.1464	10.10	9.71	8.18	3.83	4.52	33.17	70.80	0.00
				10.10						
				9.71						
B	19.1464	9.71	10.10	8.00	3.83	4.82	-16.58	-70.80	-28.72	
			10.19							
			9.79							
C	19.3407	10.19	9.79	-8.06	3.91	4.85	-16.93	71.26	29.32	
			10.19							
			Sum:							
				-8.23	3.91	4.56	33.86	-71.26	0.00	

Guy Elevation	Guy Location	Chord Angle	Guy Tension Top Bottom	F _x	F _y	F _z	M _x	M _y	M _z
ft		°	K	K	K	K	kip-ft	kip-ft	kip-ft
			9.79						
			Sum:	-0.11	23.60	0.36	-1.67	0.00	0.60

Guy-Mast Forces (Excluding Wind) - Service

Guy Elevation	Guy Location	Chord Angle	Guy Tension Top Bottom	F _x	F _y	F _z	M _x	M _y	M _z
ft		°	K	K	K	K	kip-ft	kip-ft	kip-ft
446.5	A	49.2801	3.11	0.00	2.45	-1.92	-8.47	0.00	0.00
			2.80						
	B	49.6383	3.11	1.65	2.45	0.95	4.25	0.00	-7.36
			2.80						
	C	48.8898	3.11	-1.68	2.43	0.97	4.22	-0.00	7.30
			2.80						
	Sum:			-0.03	7.33	-0.00	-0.01	0.00	-0.05
381	A	44.9617	20.15	0.00	14.80	-13.68	-51.27	0.00	0.00
			18.56						
	B	45.2530	20.12	11.78	14.83	6.80	25.69	0.00	-44.50
			18.56						
	C	44.5725	20.15	-11.92	14.72	6.88	25.49	-0.00	44.15
			18.56						
	Sum:			-0.15	44.35	0.01	-0.08	0.00	-0.35
254.5	A	34.3575	16.26	0.00	9.72	-13.04	-33.66	0.00	0.00
			15.36						
	B	34.4094	16.24	11.28	9.70	6.51	16.80	0.00	-29.10
			15.36						
	C	34.0110	16.26	-11.34	9.65	6.55	16.71	-0.00	28.94
			15.36						
	Sum:			-0.06	29.07	0.02	-0.15	0.00	-0.16
131	A	20.7413	6.15	-0.11	2.36	-5.68	-10.21	43.03	-17.69
			6.00						
	A	20.7413	6.15	0.11	2.36	-5.68	-10.21	-43.03	17.69
			6.00						
	B	19.1464	6.14	5.01	2.20	2.77	19.03	43.42	0.00
			6.00						
	B	19.1464	6.14	4.91	2.20	2.96	-9.52	-43.42	-16.48
			6.00						
	C	19.3407	6.14	-4.91	2.23	2.95	-9.65	43.38	16.71
		6.00							
	C	19.3407	6.14	-5.01	2.23	2.77	19.29	-43.38	0.00
			6.00						
	Sum:			0.01	13.57	0.10	-1.26	0.00	0.22

Guy-Tensioning Information

Temperature At Time Of Tensioning																	
Guy Elevation	H	V	0 F		20 F		40 F		60 F		80 F		100 F		120 F		
			Initial Tension	Intercept	Initial Tension	Intercept	Initial Tension	Intercept	Initial Tension	Intercept	Initial Tension	Intercept	Initial Tension	Intercept	Initial Tension	Intercept	
ft	ft	ft	K	ft	K	ft	K	ft	K	ft	K	ft	K	ft	K	ft	
446.5	A	401.54	466.50	3.176	38.15	3.044	39.73	2.919	41.36	2.800	43.02	2.682	44.83	2.578	46.55	2.480	48.29
	B	390.54	459.50	3.179	36.60	3.046	38.13	2.920	39.71	2.800	41.33	2.680	43.09	2.574	44.77	2.475	46.46
	C	407.54	467.00	3.177	38.67	3.044	40.28	2.919	41.93	2.800	43.63	2.682	45.46	2.578	47.20	2.480	48.96
381	A	401.54	401.00	21.808	28.28	20.660	29.79	19.577	31.38	18.560	33.04	17.610	34.75	16.726	36.52	15.906	38.32
	B	390.54	394.00	21.845	26.99	20.686	28.46	19.590	29.99	18.560	31.60	17.597	33.26	16.700	34.97	15.868	36.73
	C	407.54	401.50	21.815	28.73	20.663	30.28	19.578	31.89	18.560	33.58	17.610	35.32	16.727	37.11	15.909	38.93
254.5	A	401.54	274.50	19.088	19.85	17.746	21.32	16.502	22.89	15.360	24.55	14.320	26.29	13.381	28.08	12.536	29.92
	B	390.54	267.50	19.167	18.74	17.798	20.15	16.528	21.66	15.360	23.27	14.296	24.96	13.335	26.70	12.472	28.50

Temperature At Time Of Tensioning																	
Guy Elevation ft	H ft	V ft	0 F		20 F		40 F		60 F		80 F		100 F		120 F		
			Initial Tension K	Intercept ft	Initial Tension K	Intercept ft	Initial Tension K	Intercept ft	Initial Tension K	Intercept ft	Initial Tension K	Intercept ft	Initial Tension K	Intercept ft	Initial Tension K	Intercept ft	
131	C	407.54	275.00	19.076	20.30	17.737	21.80	16.497	23.40	15.360	25.08	14.326	26.85	13.393	28.66	12.554	30.52
	A	398.74	151.00	7.593	11.56	7.039	12.46	6.507	13.47	6.000	14.59	5.523	15.84	5.080	17.21	4.675	18.68
	B	403.24	140.00	7.619	11.55	7.056	12.47	6.514	13.49	6.000	14.64	5.517	15.91	5.070	17.30	4.661	18.80
	C	420.24	147.50	7.587	12.62	7.033	13.61	6.503	14.71	6.000	15.93	5.529	17.27	5.093	18.74	4.695	20.31

Feed Line/Linear Appurtenances - Entered As Round Or Flat

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Face Offset in	Lateral Offset (Frac FW)	#	# Per Row	Clear Spacing in	Width or Diameter in	Perimeter in	Weight plf
HB158-1-08U8-S8J18(1-5/8)	C	No	No	Ar (CaAa)	230.00 - 10.00	- 5.0000	0.35	2	2	0.5000	1.9800		1.30
LCF78-50A(7/8")	A	No	No	Ar (CaAa)	230.00 - 10.00	- 4.0000	0.35	6	2	0.5000	1.0900		0.34
LDF5-50A(7/8")	A	No	No	Ar (CaAa)	247.00 - 10.00	- 0.0000	0.42	6	6	0.5000	1.0900		0.33
HB158-1-08U8-S8J18(1-5/8)	A	No	No	Ar (CaAa)	247.00 - 10.00	- 0.0000	0.29	3	3	0.5000	1.9800		1.30
LDF4-50A(1/2")	A	No	No	Ar (CaAa)	450.00 - 10.00	- 0.0000	0.21	6	4	0.5000	0.6300	0.2500	0.15
CAT6(1/4)	A	No	No	Ar (CaAa)	450.00 - 10.00	- 1.0000	0.223	6	2	0.2500	0.2400		0.05
760178129(1/4)	A	No	No	Ar (CaAa)	450.00 - 10.00	- 0.0000	0.25	6	2	0.3300	0.3300	0.2500	0.04
EW63(ELLIP TICAL)	A	No	No	Ar (CaAa)	150.00 - 10.00	- 0.0000	-0.28	2	1	0.5000	2.0100		0.51
LCF78-50A(7/8")	A	No	No	Ar (CaAa)	206.00 - 10.00	- 3.0000	-0.38	1	1	0.5000	1.0900		0.34
1" Rigid Conduit	A	No	No	Ar (CaAa)	457.00 - 10.00	- 0.0000	-0.33	1	1	1.0000	1.0000		0.60
3/8" Cable (Lights)	C	No	No	Ar (CaAa)	457.00 - 10.00	- 0.0000	0.49	1	1	0.3750	0.3750		0.22
1/4 Coax	B	No	No	Ar (CaAa)	99.00 - 10.00	- 0.0000	-0.18	1	1	0.2500	0.2500		0.10
1/4 Coax	C	No	No	Ar (CaAa)	200.00 - 10.00	- 0.0000	0.4	1	1	0.2500	0.2500		0.10
3/8" Coax	A	No	No	Ar (CaAa)	136.00 - 10.00	- 0.0000	-0.15	4	3	0.3750	0.3750		0.07
3/8" Coax	A	No	No	Ar (CaAa)	140.00 - 136.00	- 0.0000	-0.17	1	1	0.3750	0.3750		0.07
Banjo (6" dia, 36" step)	A	No	No	Af (CaAa)	230.00 - 10.00	- 2.0000	0.35	1	1	0.3330	0.3330		0.45
Banjo (6" dia, 36" step)	A	No	No	Af (CaAa)	230.00 - 10.00	- 2.0000	-0.38	1	1	0.3330	0.3330		0.45
LDF5-50A(7/8")	B	No	No	Ar (CaAa)	133.00 - 10.00	- 0.0000	-0.4	2	2	0.7500	1.0900		0.33
LDF5-50A(7/8")	B	No	No	Ar (CaAa)	441.00 - 133.00	- 0.0000	-0.4	1	1	1.0900	1.0900		0.33
LDF12-50A(2-1/4")	B	No	No	Ar (CaAa)	439.00 - 10.00	- 0.0000	-0.31	1	1	2.3500	2.3500		1.22
HJ8-50B(3")	B	No	No	Ar (CaAa)	420.00 - 10.00	- 0.0000	0.2	3	3	0.5000	3.0100		1.78
LDF6-50A(1 1/4")	B	No	No	Ar (CaAa)	330.00 - 10.00	- 0.0000	-0.05	1	1	1.5500	1.5500		0.66
HJ11-50(4")	B	No	No	Ar (CaAa)	393.00 - 10.00	- 2.0000	0.12	1	1	4.0000	4.0000		2.50
LDF7-50A(1-5/8")	B	No	No	Ar (CaAa)	264.00 - 10.00	- 2.0000	0.2	1	1	1.9800	1.9800		0.82
LDF7-50A(1-5/8")	B	No	No	Ar (CaAa)	310.00 - 10.00	- 0.0000	0	1	1	1.9800	1.9800		0.82
LDF7-50A(1-5/8")	B	No	No	Ar (CaAa)	277.00 - 0.0000	- 0.0000	0.35	1	1	1.9800	1.9800		0.82

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Face Offset in	Lateral Offset (Frac FW)	#	# Per Row	Clear Spacing in	Width or Diameter in	Perimeter in	Weight plf
5/8") LDF6-50A(1-1/4")	B	No	No	Ar (CaAa)	75.00 322.00 - 10.00	-	-0.42	1	1	0.5000	1.5500		0.66
LDF6-50A(1-1/4")	B	No	No	Ar (CaAa)	325.00 - 10.00	0.0000	-0.28	1	1	0.5000	1.5500		0.66
LDF7-50A(1-5/8")	B	No	No	Ar (CaAa)	330.00 - 10.00	0.0000	-0.35	1	1	1.9800	1.9800		0.82
LDF4P-50A(1/2")	B	No	No	Ar (CaAa)	133.00 - 10.00	0.0000	-0.14	3	2	0.3000	0.6300		0.15
LDF4P-50A(1/2")	B	No	No	Ar (CaAa)	178.00 - 133.00	0.0000	-0.14	2	2	0.3000	0.6300		0.15
LDF4P-50A(1/2")	B	No	No	Ar (CaAa)	322.00 - 178.00	0.0000	-0.14	1	1	0.3000	0.6300		0.15
LDF4-50A(1/2")	B	No	No	Ar (CaAa)	342.00 - 10.00	1.0000	0.4	1	1	0.5000	0.6300		0.15
EW63(ELLIPTICAL)	B	No	No	Ar (CaAa)	146.00 - 10.00	0.0000	-0.23	1	1	2.0100	2.0100		0.51
EW52(ELLIPTICAL)	B	No	No	Ar (CaAa)	146.00 - 10.00	2.0000	-0.23	1	1	0.5000	2.2500		0.59
**													
475-000(4-1/16)	C	No	No	Ar (CaAa)	457.00 - 10.00	-	-0.05	1	1	4.0620	4.0620		5.50
LDF12-50(2-1/4")	C	No	No	Ar (CaAa)	388.00 - 10.00	0.0000	-0.35	1	1	2.3500	2.3500		1.22
LDF5-50A(7/8")	C	No	No	Ar (CaAa)	109.00 - 10.00	0.0000	-0.4	1	1	1.0900	1.0900		0.33
HJ11-50(4)	C	No	No	Ar (CaAa)	367.00 - 10.00	0.0000	0.5	1	1	0.5000	4.0000		2.50
LDF6-50A(1-1/4")	C	No	No	Ar (CaAa)	255.00 - 10.00	0.0000	0.1	1	1	0.5000	1.5500		0.66
LDF5-50A(7/8")	C	No	No	Ar (CaAa)	133.00 - 117.00	0.0000	0.475	1	1	1.0900	1.0900		0.33
LDF5-50A(7/8")	C	No	No	Ar (CaAa)	117.00 - 99.00	0.0000	0.475	2	2	0.5000	1.0900		0.33
LDF5-50A(7/8")	C	No	No	Ar (CaAa)	99.00 - 62.00	0.0000	0.475	3	2	0.5000	1.0900		0.33
LDF5-50A(7/8")	C	No	No	Ar (CaAa)	62.00 - 10.00	0.0000	0.475	6	2	0.5000	1.0900		0.33
LDF5-50A(7/8")	C	No	No	Ar (CaAa)	108.00 - 10.00	0.0000	0.45	1	1	1.0900	1.0900		0.33
LDF7-50A(1-5/8")	C	No	No	Ar (CaAa)	393.00 - 10.00	0.0000	0.2	1	1	1.9800	1.9800		0.82
**													
Thin Flat Climbing Ladder	C	No	No	Af (CaAa)	457.00 - 10.00	-	0	1	1	2.0000	2.0000		4.00
Safety Line 3/8	C	No	No	Ar (CaAa)	457.00 - 10.00	-	0	1	1	0.3750	0.3750		0.22

Abandoned lines													
LDF4-50A(1/2)	B	No	No	Ar (CaAa)	344.00 - 10.00	1.0000	-0.135	1	1	0.6250	0.6300		0.15
LDF6-50A(1-1/4)	B	No	No	Ar (CaAa)	342.00 - 10.00	2.0000	-0.28	1	1	1.5500	1.5500		0.60
LDF5-50A(7/8")	B	No	No	Ar (CaAa)	340.00 - 10.00	0.0000	0.4	1	1	1.0900	1.0900		0.33
HCC312-50J(3-1/2")	B	No	No	Ar (CaAa)	328.00 - 10.00	-	0.05	1	1	3.5300	3.5300		1.99
LDF7-50A(1-5/8")	B	No	No	Ar (CaAa)	75.00 - 10.00	0.0000	0.35	2	1	0.5000	1.9800		0.82

CU12PSM6P 4XXX(1-3/4)	B	No	No	Ar (CaAa)	186.00 - 0.00	0.0000	-0.2	1	1	0.5000	1.7500		2.72

Feed Line/Linear Appurtenances - Entered As Area

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Total Number	C _A A _A ft ² /ft	Weight plf
**								

Feed Line/Linear Appurtenances Section Areas

Tower Section	Tower Elevation ft	Face	A _R ft ²	A _F ft ²	C _A A _A In Face ft ²	C _A A _A Out Face ft ²	Weight K
T1	457.00-436.00	A	0.000	0.000	12.180	0.000	0.03
		B	0.000	0.000	1.250	0.000	0.01
		C	0.000	0.000	15.405	0.000	0.21
T2	436.00-421.00	A	0.000	0.000	12.300	0.000	0.03
		B	0.000	0.000	5.160	0.000	0.02
		C	0.000	0.000	11.032	0.000	0.15
T3	421.00-401.00	A	0.000	0.000	16.400	0.000	0.04
		B	0.000	0.000	24.037	0.000	0.13
		C	0.000	0.000	14.749	0.000	0.20
T4	401.00-396.00	A	0.000	0.000	4.100	0.000	0.01
		B	0.000	0.000	6.235	0.000	0.03
		C	0.000	0.000	3.694	0.000	0.05
T5	396.00-391.00	A	0.000	0.000	4.100	0.000	0.01
		B	0.000	0.000	6.898	0.000	0.04
		C	0.000	0.000	4.093	0.000	0.05
T6	391.00-386.00	A	0.000	0.000	4.100	0.000	0.01
		B	0.000	0.000	7.894	0.000	0.05
		C	0.000	0.000	5.160	0.000	0.06
T7	386.00-381.00	A	0.000	0.000	4.100	0.000	0.01
		B	0.000	0.000	7.897	0.000	0.05
		C	0.000	0.000	5.869	0.000	0.06
T8	381.00-376.00	A	0.000	0.000	4.100	0.000	0.01
		B	0.000	0.000	7.900	0.000	0.05
		C	0.000	0.000	5.872	0.000	0.06
T9	376.00-371.00	A	0.000	0.000	4.100	0.000	0.01
		B	0.000	0.000	7.903	0.000	0.05
		C	0.000	0.000	5.875	0.000	0.06
T10	371.00-366.00	A	0.000	0.000	4.100	0.000	0.01
		B	0.000	0.000	7.906	0.000	0.05
		C	0.000	0.000	6.213	0.000	0.06
T11	366.00-361.00	A	0.000	0.000	4.100	0.000	0.01
		B	0.000	0.000	7.910	0.000	0.05
		C	0.000	0.000	7.556	0.000	0.07
T12	361.00-341.00	A	0.000	0.000	16.400	0.000	0.04
		B	0.000	0.000	32.079	0.000	0.19
		C	0.000	0.000	30.291	0.000	0.29
T13	341.00-321.00	A	0.000	0.000	16.400	0.000	0.04
		B	0.000	0.000	45.818	0.000	0.24
		C	0.000	0.000	30.404	0.000	0.29
T14	321.00-301.00	A	0.000	0.000	16.400	0.000	0.04
		B	0.000	0.000	62.741	0.000	0.32
		C	0.000	0.000	30.526	0.000	0.29
T15	301.00-281.00	A	0.000	0.000	16.400	0.000	0.04
		B	0.000	0.000	65.050	0.000	0.33

Tower Section	Tower Elevation ft	Face	A_R	A_F	$C_A A_A$ In Face	$C_A A_A$ Out Face	Weight
			ft ²	ft ²	ft ²	ft ²	K
T16	281.00-276.00	C	0.000	0.000	30.656	0.000	0.29
		A	0.000	0.000	4.100	0.000	0.01
		B	0.000	0.000	16.482	0.000	0.08
T17	276.00-271.00	C	0.000	0.000	7.686	0.000	0.07
		A	0.000	0.000	4.100	0.000	0.01
		B	0.000	0.000	17.283	0.000	0.09
T18	271.00-266.00	C	0.000	0.000	7.695	0.000	0.07
		A	0.000	0.000	4.100	0.000	0.01
		B	0.000	0.000	17.292	0.000	0.09
T19	266.00-261.00	C	0.000	0.000	7.704	0.000	0.07
		A	0.000	0.000	4.100	0.000	0.01
		B	0.000	0.000	17.896	0.000	0.09
T20	261.00-256.00	C	0.000	0.000	7.713	0.000	0.07
		A	0.000	0.000	4.100	0.000	0.01
		B	0.000	0.000	18.301	0.000	0.09
T21	256.00-251.00	C	0.000	0.000	7.723	0.000	0.07
		A	0.000	0.000	4.100	0.000	0.01
		B	0.000	0.000	18.311	0.000	0.09
T22	251.00-246.00	C	0.000	0.000	8.353	0.000	0.08
		A	0.000	0.000	5.348	0.000	0.02
		B	0.000	0.000	18.318	0.000	0.09
T23	246.00-241.00	C	0.000	0.000	8.518	0.000	0.08
		A	0.000	0.000	10.340	0.000	0.04
		B	0.000	0.000	18.323	0.000	0.09
T24	241.00-221.00	C	0.000	0.000	8.528	0.000	0.08
		A	0.000	0.000	48.245	0.000	0.19
		B	0.000	0.000	73.347	0.000	0.36
T25	221.00-201.00	C	0.000	0.000	37.784	0.000	0.33
		A	0.000	0.000	57.205	0.000	0.22
		B	0.000	0.000	73.440	0.000	0.36
T26	201.00-181.00	C	0.000	0.000	42.326	0.000	0.35
		A	0.000	0.000	58.840	0.000	0.22
		B	0.000	0.000	74.419	0.000	0.37
T27	181.00-161.00	C	0.000	0.000	43.009	0.000	0.36
		A	0.000	0.000	58.840	0.000	0.22
		B	0.000	0.000	78.231	0.000	0.42
T28	161.00-141.00	C	0.000	0.000	43.268	0.000	0.36
		A	0.000	0.000	62.458	0.000	0.23
		B	0.000	0.000	80.684	0.000	0.42
T29	141.00-121.00	C	0.000	0.000	43.535	0.000	0.36
		A	0.000	0.000	69.280	0.000	0.25
		B	0.000	0.000	89.294	0.000	0.45
T30	121.00-101.00	C	0.000	0.000	45.155	0.000	0.36
		A	0.000	0.000	69.880	0.000	0.25
		B	0.000	0.000	90.856	0.000	0.45
T31	101.00-81.00	C	0.000	0.000	49.777	0.000	0.37
		A	0.000	0.000	69.880	0.000	0.25
		B	0.000	0.000	91.370	0.000	0.45
T32	81.00-61.00	C	0.000	0.000	55.153	0.000	0.39
		A	0.000	0.000	69.880	0.000	0.25
		B	0.000	0.000	94.192	0.000	0.46
T33	61.00-41.00	C	0.000	0.000	55.698	0.000	0.39
		A	0.000	0.000	69.880	0.000	0.25
		B	0.000	0.000	95.380	0.000	0.47
T34	41.00-20.00	C	0.000	0.000	61.911	0.000	0.41
		A	0.000	0.000	73.374	0.000	0.26
		B	0.000	0.000	100.149	0.000	0.49
T35	20.00-6.71	C	0.000	0.000	65.006	0.000	0.43
		A	0.000	0.000	34.940	0.000	0.13
		B	0.000	0.000	48.266	0.000	0.24
T36	6.71-0.00	C	0.000	0.000	30.955	0.000	0.20
		A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	1.174	0.000	0.02
		C	0.000	0.000	0.000	0.000	0.00

Feed Line/Linear Appurtenances Section Areas - With Ice

Tower Sectio n	Tower Elevation ft	Face or Leg	Ice Thickness in	A_R ft ²	A_F ft ²	C_{AA} In Face ft ²	C_{AA} Out Face ft ²	Weight K
T1	457.00-436.00	A	1.103	0.000	0.000	35.867	0.000	0.28
		B		0.000	0.000	3.015	0.000	0.03
		C		0.000	0.000	35.634	0.000	0.55
T2	436.00-421.00	A	1.098	0.000	0.000	35.939	0.000	0.28
		B		0.000	0.000	11.750	0.000	0.14
		C		0.000	0.000	25.399	0.000	0.39
T3	421.00-401.00	A	1.094	0.000	0.000	47.805	0.000	0.37
		B		0.000	0.000	47.164	0.000	0.55
		C		0.000	0.000	33.792	0.000	0.52
T4	401.00-396.00	A	1.090	0.000	0.000	11.930	0.000	0.09
		B		0.000	0.000	12.194	0.000	0.14
		C		0.000	0.000	8.435	0.000	0.13
T5	396.00-391.00	A	1.089	0.000	0.000	11.922	0.000	0.09
		B		0.000	0.000	13.424	0.000	0.16
		C		0.000	0.000	9.261	0.000	0.14
T6	391.00-386.00	A	1.088	0.000	0.000	11.913	0.000	0.09
		B		0.000	0.000	15.271	0.000	0.19
		C		0.000	0.000	11.406	0.000	0.17
T7	386.00-381.00	A	1.086	0.000	0.000	11.904	0.000	0.09
		B		0.000	0.000	15.265	0.000	0.19
		C		0.000	0.000	12.755	0.000	0.18
T8	381.00-376.00	A	1.085	0.000	0.000	11.895	0.000	0.09
		B		0.000	0.000	15.258	0.000	0.19
		C		0.000	0.000	12.747	0.000	0.18
T9	376.00-371.00	A	1.083	0.000	0.000	11.886	0.000	0.09
		B		0.000	0.000	15.252	0.000	0.19
		C		0.000	0.000	12.738	0.000	0.18
T10	371.00-366.00	A	1.082	0.000	0.000	11.877	0.000	0.09
		B		0.000	0.000	15.245	0.000	0.19
		C		0.000	0.000	13.346	0.000	0.19
T11	366.00-361.00	A	1.080	0.000	0.000	11.868	0.000	0.09
		B		0.000	0.000	15.238	0.000	0.19
		C		0.000	0.000	15.801	0.000	0.23
T12	361.00-341.00	A	1.077	0.000	0.000	47.378	0.000	0.36
		B		0.000	0.000	62.365	0.000	0.76
		C		0.000	0.000	63.099	0.000	0.91
T13	341.00-321.00	A	1.070	0.000	0.000	47.221	0.000	0.36
		B		0.000	0.000	98.491	0.000	1.14
		C		0.000	0.000	62.922	0.000	0.90
T14	321.00-301.00	A	1.064	0.000	0.000	47.055	0.000	0.36
		B		0.000	0.000	136.268	0.000	1.56
		C		0.000	0.000	62.736	0.000	0.90
T15	301.00-281.00	A	1.057	0.000	0.000	46.879	0.000	0.36
		B		0.000	0.000	140.346	0.000	1.61
		C		0.000	0.000	62.539	0.000	0.89
T16	281.00-276.00	A	1.052	0.000	0.000	11.691	0.000	0.09
		B		0.000	0.000	35.422	0.000	0.40
		C		0.000	0.000	15.602	0.000	0.22
T17	276.00-271.00	A	1.050	0.000	0.000	11.679	0.000	0.09
		B		0.000	0.000	37.024	0.000	0.42
		C		0.000	0.000	15.589	0.000	0.22
T18	271.00-266.00	A	1.048	0.000	0.000	11.667	0.000	0.09
		B		0.000	0.000	36.992	0.000	0.42
		C		0.000	0.000	15.575	0.000	0.22
T19	266.00-261.00	A	1.046	0.000	0.000	11.655	0.000	0.09
		B		0.000	0.000	38.181	0.000	0.44
		C		0.000	0.000	15.562	0.000	0.22
T20	261.00-256.00	A	1.044	0.000	0.000	11.642	0.000	0.09
		B		0.000	0.000	38.960	0.000	0.44
		C		0.000	0.000	15.548	0.000	0.22
T21	256.00-251.00	A	1.042	0.000	0.000	11.629	0.000	0.09
		B		0.000	0.000	38.925	0.000	0.44
		C		0.000	0.000	16.987	0.000	0.24
T22	251.00-246.00	A	1.040	0.000	0.000	14.298	0.000	0.11
		B		0.000	0.000	38.888	0.000	0.44
		C		0.000	0.000	17.334	0.000	0.24
T23	246.00-241.00	A	1.038	0.000	0.000	25.006	0.000	0.22
		B		0.000	0.000	38.851	0.000	0.44

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A_R ft ²	A_F ft ²	$C_A A_A$ In Face ft ²	$C_A A_A$ Out Face ft ²	Weight K
T24	241.00-221.00	C		0.000	0.000	17.317	0.000	0.24
		A	1.033	0.000	0.000	113.440	0.000	1.00
		B		0.000	0.000	155.018	0.000	1.75
		C		0.000	0.000	77.731	0.000	1.03
T25	221.00-201.00	A	1.023	0.000	0.000	131.165	0.000	1.18
		B		0.000	0.000	154.361	0.000	1.74
		C		0.000	0.000	87.925	0.000	1.12
T26	201.00-181.00	A	1.013	0.000	0.000	135.295	0.000	1.22
		B		0.000	0.000	155.534	0.000	1.75
		C		0.000	0.000	91.856	0.000	1.15
T27	181.00-161.00	A	1.002	0.000	0.000	134.663	0.000	1.20
		B		0.000	0.000	165.307	0.000	1.84
		C		0.000	0.000	91.605	0.000	1.14
T28	161.00-141.00	A	0.990	0.000	0.000	142.540	0.000	1.26
		B		0.000	0.000	169.328	0.000	1.86
		C		0.000	0.000	91.074	0.000	1.12
T29	141.00-121.00	A	0.976	0.000	0.000	162.214	0.000	1.40
		B		0.000	0.000	186.351	0.000	2.00
		C		0.000	0.000	94.125	0.000	1.14
T30	121.00-101.00	A	0.960	0.000	0.000	163.281	0.000	1.39
		B		0.000	0.000	188.858	0.000	1.99
		C		0.000	0.000	106.498	0.000	1.22
T31	101.00-81.00	A	0.941	0.000	0.000	161.949	0.000	1.36
		B		0.000	0.000	191.024	0.000	1.98
		C		0.000	0.000	116.741	0.000	1.30
T32	81.00-61.00	A	0.918	0.000	0.000	160.323	0.000	1.33
		B		0.000	0.000	196.859	0.000	1.99
		C		0.000	0.000	115.807	0.000	1.28
T33	61.00-41.00	A	0.888	0.000	0.000	158.218	0.000	1.29
		B		0.000	0.000	197.244	0.000	1.96
		C		0.000	0.000	116.948	0.000	1.32
T34	41.00-20.00	A	0.843	0.000	0.000	162.839	0.000	1.30
		B		0.000	0.000	202.654	0.000	1.96
		C		0.000	0.000	120.093	0.000	1.32
T35	20.00-6.71	A	0.776	0.000	0.000	75.190	0.000	0.58
		B		0.000	0.000	94.405	0.000	0.88
		C		0.000	0.000	55.254	0.000	0.59
T36	6.71-0.00	A	0.676	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	2.081	0.000	0.03
		C		0.000	0.000	0.000	0.000	0.00

Feed Line Center of Pressure

Section	Elevation ft	CP_x in	CP_z in	CP_x Ice in	CP_z Ice in
T1	457.00-436.00	-0.9188	-0.0595	-2.5726	-0.4536
T2	436.00-421.00	-0.9240	-2.3143	-2.4711	-3.6048
T3	421.00-401.00	1.2599	-1.9668	-0.4181	-3.2043
T4	401.00-396.00	1.2549	-1.7869	-0.2877	-2.9642
T5	396.00-391.00	1.7754	-1.6678	-0.1024	-2.8165
T6	391.00-386.00	2.3068	-0.8890	0.5200	-1.7470
T7	386.00-381.00	2.9693	-0.5490	1.1122	-1.3692
T8	381.00-376.00	2.6280	-0.4921	0.9958	-1.2381
T9	376.00-371.00	2.9571	-0.5422	1.1085	-1.3608
T10	371.00-366.00	2.1858	-0.1931	0.6802	-1.0398
T11	366.00-361.00	0.3656	1.0259	-0.6543	-0.2274
T12	361.00-341.00	0.3607	0.9153	-0.5005	-0.2876
T13	341.00-321.00	1.7348	-0.0832	1.7863	-1.5392
T14	321.00-301.00	2.7194	-1.7607	2.8328	-3.6918
T15	301.00-281.00	2.8820	-1.8373	3.0438	-3.7813
T16	281.00-276.00	2.8737	-1.7189	3.0875	-3.6124
T17	276.00-271.00	3.5475	-1.6379	3.8227	-3.5294
T18	271.00-266.00	3.2765	-1.5262	3.6029	-3.3464
T19	266.00-261.00	3.7609	-1.5676	4.0902	-3.4267

Section	Elevation	CP _x	CP _z	CP _x	CP _z
	ft	in	in	Ice in	Ice in
T20	261.00-256.00	3.4842	-1.3832	3.9394	-3.1335
T21	256.00-251.00	3.2886	-1.1101	3.6794	-2.6972
T22	251.00-246.00	3.2210	-1.7382	3.5972	-3.3253
T23	246.00-241.00	2.7018	-4.0714	3.0392	-5.6084
T24	241.00-221.00	2.0353	-4.4282	2.3626	-5.9913
T25	221.00-201.00	1.3838	-4.7011	1.3587	-6.1474
T26	201.00-181.00	1.1620	-4.5606	0.7870	-5.7397
T27	181.00-161.00	1.2810	-4.7550	0.9536	-6.0150
T28	161.00-141.00	0.9049	-4.6388	0.5977	-5.9816
T29	141.00-121.00	0.3586	-4.9567	-0.1911	-6.2321
T30	121.00-101.00	0.0370	-4.8720	-0.6761	-5.9803
T31	101.00-81.00	0.0572	-4.8664	-0.6871	-5.4893
T32	81.00-61.00	0.2880	-5.0551	-0.3616	-5.4077
T33	61.00-41.00	0.4063	-4.6262	-0.2230	-5.1623
T34	41.00-20.00	0.4086	-4.6479	-0.2144	-5.1895
T35	20.00-6.71	0.3336	-3.5974	-0.1039	-3.9931
T36	6.71-0.00	0.1954	-0.2906	0.0978	-0.1426

Shielding Factor Ka

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
T1	6	LDF4-50A(1/2")	436.00 - 450.00	0.6000	0.5967
T1	7	CAT6(1/4)	436.00 - 450.00	0.6000	0.5967
T1	8	760178129(1/4)	436.00 - 450.00	0.6000	0.5967
T1	13	1" Rigid Conduit	436.00 - 457.00	0.6000	0.5967
T1	14	3/8" Cable (Lights)	436.00 - 457.00	0.6000	0.5967
T1	24	LDF5-50A(7/8")	436.00 - 441.00	0.6000	0.5967
T1	25	LDF12-50A(2-1/4")	436.00 - 439.00	0.6000	0.5967
T1	51	475-000(4-1/16)	436.00 - 457.00	1.0000	0.5967
T1	75	Thin Flat Climbing Ladder	436.00 - 457.00	0.6000	0.5967
T1	76	Safety Line 3/8	436.00 - 457.00	0.6000	0.5967
T2	6	LDF4-50A(1/2")	421.00 - 436.00	0.6000	0.6000
T2	7	CAT6(1/4)	421.00 - 436.00	0.6000	0.6000
T2	8	760178129(1/4)	421.00 - 436.00	0.6000	0.6000
T2	13	1" Rigid Conduit	421.00 - 436.00	0.6000	0.6000
T2	14	3/8" Cable (Lights)	421.00 - 436.00	0.6000	0.6000
T2	24	LDF5-50A(7/8")	421.00 - 436.00	0.6000	0.6000
T2	25	LDF12-50A(2-1/4")	421.00 - 436.00	0.6000	0.6000
T2	51	475-000(4-1/16)	421.00 - 436.00	1.0000	0.6000
T2	75	Thin Flat Climbing Ladder	421.00 - 436.00	0.6000	0.6000
T2	76	Safety Line 3/8	421.00 - 436.00	0.6000	0.6000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
T3	6	LDF4-50A(1/2")	401.00 - 421.00	0.6000	0.6000
T3	7	CAT6(1/4)	401.00 - 421.00	0.6000	0.6000
T3	8	760178129(1/4)	401.00 - 421.00	0.6000	0.6000
T3	13	1" Rigid Conduit	401.00 - 421.00	0.6000	0.6000
T3	14	3/8" Cable (Lights)	401.00 - 421.00	0.6000	0.6000
T3	24	LDF5-50A(7/8")	401.00 - 421.00	0.6000	0.6000
T3	25	LDF12-50A(2-1/4")	401.00 - 421.00	0.6000	0.6000
T3	26	HJ8-50B(3")	401.00 - 420.00	0.6000	0.6000
T3	51	475-000(4-1/16)	401.00 - 421.00	1.0000	0.6000
T3	75	Thin Flat Climbing Ladder	401.00 - 421.00	0.6000	0.6000
T3	76	Safety Line 3/8	401.00 - 421.00	0.6000	0.6000
T4	6	LDF4-50A(1/2")	396.00 - 401.00	0.6000	0.5943
T4	7	CAT6(1/4)	396.00 - 401.00	0.6000	0.5943
T4	8	760178129(1/4)	396.00 - 401.00	0.6000	0.5943
T4	13	1" Rigid Conduit	396.00 - 401.00	0.6000	0.5943
T4	14	3/8" Cable (Lights)	396.00 - 401.00	0.6000	0.5943
T4	24	LDF5-50A(7/8")	396.00 - 401.00	0.6000	0.5943
T4	25	LDF12-50A(2-1/4")	396.00 - 401.00	0.6000	0.5943
T4	26	HJ8-50B(3")	396.00 - 401.00	0.6000	0.5943
T4	51	475-000(4-1/16)	396.00 - 401.00	1.0000	0.5943
T4	75	Thin Flat Climbing Ladder	396.00 - 401.00	0.6000	0.5943
T4	76	Safety Line 3/8	396.00 - 401.00	0.6000	0.5943
T5	6	LDF4-50A(1/2")	391.00 - 396.00	0.6000	0.6000
T5	7	CAT6(1/4)	391.00 - 396.00	0.6000	0.6000
T5	8	760178129(1/4)	391.00 - 396.00	0.6000	0.6000
T5	13	1" Rigid Conduit	391.00 - 396.00	0.6000	0.6000
T5	14	3/8" Cable (Lights)	391.00 - 396.00	0.6000	0.6000
T5	24	LDF5-50A(7/8")	391.00 - 396.00	0.6000	0.6000
T5	25	LDF12-50A(2-1/4")	391.00 - 396.00	0.6000	0.6000
T5	26	HJ8-50B(3")	391.00 - 396.00	0.6000	0.6000
T5	31	HJ11-50(4")	391.00 - 393.00	1.0000	0.6000
T5	51	475-000(4-1/16)	391.00 - 396.00	1.0000	0.6000
T5	73	LDF7-50A(1-5/8")	391.00 - 393.00	0.6000	0.6000
T5	75	Thin Flat Climbing Ladder	391.00 - 396.00	0.6000	0.6000
T5	76	Safety Line 3/8	391.00 -	0.6000	0.6000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
			396.00		
T6	6	LDF4-50A(1/2")	386.00 - 391.00	0.6000	0.5947
T6	7	CAT6(1/4)	386.00 - 391.00	0.6000	0.5947
T6	8	760178129(1/4)	386.00 - 391.00	0.6000	0.5947
T6	13	1" Rigid Conduit	386.00 - 391.00	0.6000	0.5947
T6	14	3/8" Cable (Lights)	386.00 - 391.00	0.6000	0.5947
T6	24	LDF5-50A(7/8")	386.00 - 391.00	0.6000	0.5947
T6	25	LDF12-50A(2-1/4")	386.00 - 391.00	0.6000	0.5947
T6	26	HJ8-50B(3")	386.00 - 391.00	0.6000	0.5947
T6	31	HJ11-50(4")	386.00 - 391.00	1.0000	0.5947
T6	51	475-000(4-1/16)	386.00 - 391.00	1.0000	0.5947
T6	53	LDF12-50(2-1/4")	386.00 - 388.00	0.6000	0.5947
T6	73	LDF7-50A(1-5/8")	386.00 - 391.00	0.6000	0.5947
T6	75	Thin Flat Climbing Ladder	386.00 - 391.00	0.6000	0.5947
T6	76	Safety Line 3/8	386.00 - 391.00	0.6000	0.5947
T7	6	LDF4-50A(1/2")	381.00 - 386.00	0.6000	0.6000
T7	7	CAT6(1/4)	381.00 - 386.00	0.6000	0.6000
T7	8	760178129(1/4)	381.00 - 386.00	0.6000	0.6000
T7	13	1" Rigid Conduit	381.00 - 386.00	0.6000	0.6000
T7	14	3/8" Cable (Lights)	381.00 - 386.00	0.6000	0.6000
T7	24	LDF5-50A(7/8")	381.00 - 386.00	0.6000	0.6000
T7	25	LDF12-50A(2-1/4")	381.00 - 386.00	0.6000	0.6000
T7	26	HJ8-50B(3")	381.00 - 386.00	0.6000	0.6000
T7	31	HJ11-50(4")	381.00 - 386.00	1.0000	0.6000
T7	51	475-000(4-1/16)	381.00 - 386.00	1.0000	0.6000
T7	53	LDF12-50(2-1/4")	381.00 - 386.00	0.6000	0.6000
T7	73	LDF7-50A(1-5/8")	381.00 - 386.00	0.6000	0.6000
T7	75	Thin Flat Climbing Ladder	381.00 - 386.00	0.6000	0.6000
T7	76	Safety Line 3/8	381.00 - 386.00	0.6000	0.6000
T8	6	LDF4-50A(1/2")	376.00 - 381.00	0.6000	0.5820
T8	7	CAT6(1/4)	376.00 - 381.00	0.6000	0.5820
T8	8	760178129(1/4)	376.00 - 381.00	0.6000	0.5820
T8	13	1" Rigid Conduit	376.00 - 381.00	0.6000	0.5820
T8	14	3/8" Cable (Lights)	376.00 - 381.00	0.6000	0.5820
T8	24	LDF5-50A(7/8")	376.00 - 381.00	0.6000	0.5820

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
T8	25	LDF12-50A(2-1/4")	376.00 - 381.00	0.6000	0.5820
T8	26	HJ8-50B(3")	376.00 - 381.00	0.6000	0.5820
T8	31	HJ11-50(4")	376.00 - 381.00	1.0000	0.5820
T8	51	475-000(4-1/16)	376.00 - 381.00	1.0000	0.5820
T8	53	LDF12-50(2-1/4")	376.00 - 381.00	0.6000	0.5820
T8	73	LDF7-50A(1-5/8")	376.00 - 381.00	0.6000	0.5820
T8	75	Thin Flat Climbing Ladder	376.00 - 381.00	0.6000	0.5820
T8	76	Safety Line 3/8	376.00 - 381.00	0.6000	0.5820
T9	6	LDF4-50A(1/2")	371.00 - 376.00	0.6000	0.6000
T9	7	CAT6(1/4)	371.00 - 376.00	0.6000	0.6000
T9	8	760178129(1/4)	371.00 - 376.00	0.6000	0.6000
T9	13	1" Rigid Conduit	371.00 - 376.00	0.6000	0.6000
T9	14	3/8" Cable (Lights)	371.00 - 376.00	0.6000	0.6000
T9	24	LDF5-50A(7/8")	371.00 - 376.00	0.6000	0.6000
T9	25	LDF12-50A(2-1/4")	371.00 - 376.00	0.6000	0.6000
T9	26	HJ8-50B(3")	371.00 - 376.00	0.6000	0.6000
T9	31	HJ11-50(4")	371.00 - 376.00	1.0000	0.6000
T9	51	475-000(4-1/16)	371.00 - 376.00	1.0000	0.6000
T9	53	LDF12-50(2-1/4")	371.00 - 376.00	0.6000	0.6000
T9	73	LDF7-50A(1-5/8")	371.00 - 376.00	0.6000	0.6000
T9	75	Thin Flat Climbing Ladder	371.00 - 376.00	0.6000	0.6000
T9	76	Safety Line 3/8	371.00 - 376.00	0.6000	0.6000
T10	6	LDF4-50A(1/2")	366.00 - 371.00	0.6000	0.5899
T10	7	CAT6(1/4)	366.00 - 371.00	0.6000	0.5899
T10	8	760178129(1/4)	366.00 - 371.00	0.6000	0.5899
T10	13	1" Rigid Conduit	366.00 - 371.00	0.6000	0.5899
T10	14	3/8" Cable (Lights)	366.00 - 371.00	0.6000	0.5899
T10	24	LDF5-50A(7/8")	366.00 - 371.00	0.6000	0.5899
T10	25	LDF12-50A(2-1/4")	366.00 - 371.00	0.6000	0.5899
T10	26	HJ8-50B(3")	366.00 - 371.00	0.6000	0.5899
T10	31	HJ11-50(4")	366.00 - 371.00	1.0000	0.5899
T10	51	475-000(4-1/16)	366.00 - 371.00	1.0000	0.5899
T10	53	LDF12-50(2-1/4")	366.00 - 371.00	0.6000	0.5899
T10	57	HJ11-50(4)	366.00 - 367.00	1.0000	0.5899
T10	73	LDF7-50A(1-5/8")	366.00 -	0.6000	0.5899

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
			371.00		
T10	75	Thin Flat Climbing Ladder	366.00 - 371.00	0.6000	0.5899
T10	76	Safety Line 3/8	366.00 - 371.00	0.6000	0.5899
T11	6	LDF4-50A(1/2")	361.00 - 366.00	0.6000	0.6000
T11	7	CAT6(1/4)	361.00 - 366.00	0.6000	0.6000
T11	8	760178129(1/4)	361.00 - 366.00	0.6000	0.6000
T11	13	1" Rigid Conduit	361.00 - 366.00	0.6000	0.6000
T11	14	3/8" Cable (Lights)	361.00 - 366.00	0.6000	0.6000
T11	24	LDF5-50A(7/8")	361.00 - 366.00	0.6000	0.6000
T11	25	LDF12-50A(2-1/4")	361.00 - 366.00	0.6000	0.6000
T11	26	HJ8-50B(3")	361.00 - 366.00	0.6000	0.6000
T11	31	HJ11-50(4")	361.00 - 366.00	1.0000	0.6000
T11	51	475-000(4-1/16)	361.00 - 366.00	1.0000	0.6000
T11	53	LDF12-50(2-1/4")	361.00 - 366.00	0.6000	0.6000
T11	57	HJ11-50(4)	361.00 - 366.00	1.0000	0.6000
T11	73	LDF7-50A(1-5/8")	361.00 - 366.00	0.6000	0.6000
T11	75	Thin Flat Climbing Ladder	361.00 - 366.00	0.6000	0.6000
T11	76	Safety Line 3/8	361.00 - 366.00	0.6000	0.6000
T12	6	LDF4-50A(1/2")	341.00 - 361.00	0.6000	0.5845
T12	7	CAT6(1/4)	341.00 - 361.00	0.6000	0.5845
T12	8	760178129(1/4)	341.00 - 361.00	0.6000	0.5845
T12	13	1" Rigid Conduit	341.00 - 361.00	0.6000	0.5845
T12	14	3/8" Cable (Lights)	341.00 - 361.00	0.6000	0.5845
T12	24	LDF5-50A(7/8")	341.00 - 361.00	0.6000	0.5845
T12	25	LDF12-50A(2-1/4")	341.00 - 361.00	0.6000	0.5845
T12	26	HJ8-50B(3")	341.00 - 361.00	0.6000	0.5845
T12	31	HJ11-50(4")	341.00 - 361.00	1.0000	0.5845
T12	43	LDF4-50A(1/2")	341.00 - 342.00	0.6000	0.5845
T12	51	475-000(4-1/16)	341.00 - 361.00	1.0000	0.5845
T12	53	LDF12-50(2-1/4")	341.00 - 361.00	0.6000	0.5845
T12	57	HJ11-50(4)	341.00 - 361.00	1.0000	0.5845
T12	73	LDF7-50A(1-5/8")	341.00 - 361.00	0.6000	0.5845
T12	75	Thin Flat Climbing Ladder	341.00 - 361.00	0.6000	0.5845
T12	76	Safety Line 3/8	341.00 - 361.00	0.6000	0.5845
T12	79	LDF4-50A(1/2)	341.00 - 344.00	0.6000	0.5845

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
T12	80	LDF6-50A(1-1/4)	341.00 - 342.00	0.6000	0.5845
T13	6	LDF4-50A(1/2")	321.00 - 341.00	0.6000	0.6000
T13	7	CAT6(1/4)	321.00 - 341.00	0.6000	0.6000
T13	8	760178129(1/4)	321.00 - 341.00	0.6000	0.6000
T13	13	1" Rigid Conduit	321.00 - 341.00	0.6000	0.6000
T13	14	3/8" Cable (Lights)	321.00 - 341.00	0.6000	0.6000
T13	24	LDF5-50A(7/8")	321.00 - 341.00	0.6000	0.6000
T13	25	LDF12-50A(2-1/4")	321.00 - 341.00	0.6000	0.6000
T13	26	HJ8-50B(3")	321.00 - 341.00	0.6000	0.6000
T13	28	LDF6-50A(1 1/4")	321.00 - 330.00	0.6000	0.6000
T13	31	HJ11-50(4")	321.00 - 341.00	1.0000	0.6000
T13	37	LDF6-50A(1-1/4")	321.00 - 322.00	0.6000	0.6000
T13	38	LDF6-50A(1-1/4")	321.00 - 325.00	0.6000	0.6000
T13	39	LDF7-50A(1-5/8")	321.00 - 330.00	0.6000	0.6000
T13	42	LDF4P-50A(1/2")	321.00 - 322.00	0.6000	0.6000
T13	43	LDF4-50A(1/2")	321.00 - 341.00	0.6000	0.6000
T13	51	475-000(4-1/16)	321.00 - 341.00	1.0000	0.6000
T13	53	LDF12-50(2-1/4")	321.00 - 341.00	0.6000	0.6000
T13	57	HJ11-50(4)	321.00 - 341.00	1.0000	0.6000
T13	73	LDF7-50A(1-5/8")	321.00 - 341.00	0.6000	0.6000
T13	75	Thin Flat Climbing Ladder	321.00 - 341.00	0.6000	0.6000
T13	76	Safety Line 3/8	321.00 - 341.00	0.6000	0.6000
T13	79	LDF4-50A(1/2)	321.00 - 341.00	0.6000	0.6000
T13	80	LDF6-50A(1-1/4)	321.00 - 341.00	0.6000	0.6000
T13	81	LDF5-50A(7/8")	321.00 - 340.00	0.6000	0.6000
T13	82	HCC312-50J(3-1/2")	321.00 - 328.00	1.0000	0.6000
T14	6	LDF4-50A(1/2")	301.00 - 321.00	0.6000	0.6000
T14	7	CAT6(1/4)	301.00 - 321.00	0.6000	0.6000
T14	8	760178129(1/4)	301.00 - 321.00	0.6000	0.6000
T14	13	1" Rigid Conduit	301.00 - 321.00	0.6000	0.6000
T14	14	3/8" Cable (Lights)	301.00 - 321.00	0.6000	0.6000
T14	24	LDF5-50A(7/8")	301.00 - 321.00	0.6000	0.6000
T14	25	LDF12-50A(2-1/4")	301.00 - 321.00	0.6000	0.6000
T14	26	HJ8-50B(3")	301.00 - 321.00	0.6000	0.6000
T14	28	LDF6-50A(1 1/4")	301.00 -	0.6000	0.6000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
T14	31	HJ11-50(4")	321.00 301.00 - 321.00	1.0000	0.6000
T14	33	LDF7-50A(1-5/8")	301.00 - 310.00	0.6000	0.6000
T14	37	LDF6-50A(1-1/4")	301.00 - 321.00	0.6000	0.6000
T14	38	LDF6-50A(1-1/4")	301.00 - 321.00	0.6000	0.6000
T14	39	LDF7-50A(1-5/8")	301.00 - 321.00	0.6000	0.6000
T14	42	LDF4P-50A(1/2")	301.00 - 321.00	0.6000	0.6000
T14	43	LDF4-50A(1/2")	301.00 - 321.00	0.6000	0.6000
T14	51	475-000(4-1/16)	301.00 - 321.00	1.0000	0.6000
T14	53	LDF12-50(2-1/4")	301.00 - 321.00	0.6000	0.6000
T14	57	HJ11-50(4)	301.00 - 321.00	1.0000	0.6000
T14	73	LDF7-50A(1-5/8")	301.00 - 321.00	0.6000	0.6000
T14	75	Thin Flat Climbing Ladder	301.00 - 321.00	0.6000	0.6000
T14	76	Safety Line 3/8	301.00 - 321.00	0.6000	0.6000
T14	79	LDF4-50A(1/2)	301.00 - 321.00	0.6000	0.6000
T14	80	LDF6-50A(1-1/4)	301.00 - 321.00	0.6000	0.6000
T14	81	LDF5-50A(7/8")	301.00 - 321.00	0.6000	0.6000
T14	82	HCC312-50J(3-1/2")	301.00 - 321.00	1.0000	0.6000
T15	6	LDF4-50A(1/2")	281.00 - 301.00	0.6000	0.6000
T15	7	CAT6(1/4)	281.00 - 301.00	0.6000	0.6000
T15	8	760178129(1/4)	281.00 - 301.00	0.6000	0.6000
T15	13	1" Rigid Conduit	281.00 - 301.00	0.6000	0.6000
T15	14	3/8" Cable (Lights)	281.00 - 301.00	0.6000	0.6000
T15	24	LDF5-50A(7/8")	281.00 - 301.00	0.6000	0.6000
T15	25	LDF12-50A(2-1/4")	281.00 - 301.00	0.6000	0.6000
T15	26	HJ8-50B(3")	281.00 - 301.00	0.6000	0.6000
T15	28	LDF6-50A(1 1/4")	281.00 - 301.00	0.6000	0.6000
T15	31	HJ11-50(4")	281.00 - 301.00	1.0000	0.6000
T15	33	LDF7-50A(1-5/8")	281.00 - 301.00	0.6000	0.6000
T15	37	LDF6-50A(1-1/4")	281.00 - 301.00	0.6000	0.6000
T15	38	LDF6-50A(1-1/4")	281.00 - 301.00	0.6000	0.6000
T15	39	LDF7-50A(1-5/8")	281.00 - 301.00	0.6000	0.6000
T15	42	LDF4P-50A(1/2")	281.00 - 301.00	0.6000	0.6000
T15	43	LDF4-50A(1/2")	281.00 - 301.00	0.6000	0.6000
T15	51	475-000(4-1/16)	281.00 - 301.00	1.0000	0.6000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
T15	53	LDF12-50(2-1/4")	281.00 - 301.00	0.6000	0.6000
T15	57	HJ11-50(4)	281.00 - 301.00	1.0000	0.6000
T15	73	LDF7-50A(1-5/8")	281.00 - 301.00	0.6000	0.6000
T15	75	Thin Flat Climbing Ladder	281.00 - 301.00	0.6000	0.6000
T15	76	Safety Line 3/8	281.00 - 301.00	0.6000	0.6000
T15	79	LDF4-50A(1/2)	281.00 - 301.00	0.6000	0.6000
T15	80	LDF6-50A(1-1/4)	281.00 - 301.00	0.6000	0.6000
T15	81	LDF5-50A(7/8")	281.00 - 301.00	0.6000	0.6000
T15	82	HCC312-50J(3-1/2")	281.00 - 301.00	1.0000	0.6000
T16	6	LDF4-50A(1/2")	276.00 - 281.00	0.6000	0.6000
T16	7	CAT6(1/4)	276.00 - 281.00	0.6000	0.6000
T16	8	760178129(1/4)	276.00 - 281.00	0.6000	0.6000
T16	13	1" Rigid Conduit	276.00 - 281.00	0.6000	0.6000
T16	14	3/8" Cable (Lights)	276.00 - 281.00	0.6000	0.6000
T16	24	LDF5-50A(7/8")	276.00 - 281.00	0.6000	0.6000
T16	25	LDF12-50A(2-1/4")	276.00 - 281.00	0.6000	0.6000
T16	26	HJ8-50B(3")	276.00 - 281.00	0.6000	0.6000
T16	28	LDF6-50A(1 1/4")	276.00 - 281.00	0.6000	0.6000
T16	31	HJ11-50(4")	276.00 - 281.00	1.0000	0.6000
T16	33	LDF7-50A(1-5/8")	276.00 - 281.00	0.6000	0.6000
T16	34	LDF7-50A(1-5/8")	276.00 - 277.00	0.6000	0.6000
T16	37	LDF6-50A(1-1/4")	276.00 - 281.00	0.6000	0.6000
T16	38	LDF6-50A(1-1/4")	276.00 - 281.00	0.6000	0.6000
T16	39	LDF7-50A(1-5/8")	276.00 - 281.00	0.6000	0.6000
T16	42	LDF4P-50A(1/2")	276.00 - 281.00	0.6000	0.6000
T16	43	LDF4-50A(1/2")	276.00 - 281.00	0.6000	0.6000
T16	51	475-000(4-1/16)	276.00 - 281.00	1.0000	0.6000
T16	53	LDF12-50(2-1/4")	276.00 - 281.00	0.6000	0.6000
T16	57	HJ11-50(4)	276.00 - 281.00	1.0000	0.6000
T16	73	LDF7-50A(1-5/8")	276.00 - 281.00	0.6000	0.6000
T16	75	Thin Flat Climbing Ladder	276.00 - 281.00	0.6000	0.6000
T16	76	Safety Line 3/8	276.00 - 281.00	0.6000	0.6000
T16	79	LDF4-50A(1/2)	276.00 - 281.00	0.6000	0.6000
T16	80	LDF6-50A(1-1/4)	276.00 - 281.00	0.6000	0.6000
T16	81	LDF5-50A(7/8")	276.00 -	0.6000	0.6000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
			281.00		
T16	82	HCC312-50J(3-1/2")	276.00 -	1.0000	0.6000
			281.00		
T17	6	LDF4-50A(1/2")	271.00 -	0.6000	0.6000
			276.00		
T17	7	CAT6(1/4)	271.00 -	0.6000	0.6000
			276.00		
T17	8	760178129(1/4)	271.00 -	0.6000	0.6000
			276.00		
T17	13	1" Rigid Conduit	271.00 -	0.6000	0.6000
			276.00		
T17	14	3/8" Cable (Lights)	271.00 -	0.6000	0.6000
			276.00		
T17	24	LDF5-50A(7/8")	271.00 -	0.6000	0.6000
			276.00		
T17	25	LDF12-50A(2-1/4")	271.00 -	0.6000	0.6000
			276.00		
T17	26	HJ8-50B(3")	271.00 -	0.6000	0.6000
			276.00		
T17	28	LDF6-50A(1 1/4")	271.00 -	0.6000	0.6000
			276.00		
T17	31	HJ11-50(4")	271.00 -	1.0000	0.6000
			276.00		
T17	33	LDF7-50A(1-5/8")	271.00 -	0.6000	0.6000
			276.00		
T17	34	LDF7-50A(1-5/8")	271.00 -	0.6000	0.6000
			276.00		
T17	37	LDF6-50A(1-1/4")	271.00 -	0.6000	0.6000
			276.00		
T17	38	LDF6-50A(1-1/4")	271.00 -	0.6000	0.6000
			276.00		
T17	39	LDF7-50A(1-5/8")	271.00 -	0.6000	0.6000
			276.00		
T17	42	LDF4P-50A(1/2")	271.00 -	0.6000	0.6000
			276.00		
T17	43	LDF4-50A(1/2")	271.00 -	0.6000	0.6000
			276.00		
T17	51	475-000(4-1/16)	271.00 -	1.0000	0.6000
			276.00		
T17	53	LDF12-50(2-1/4")	271.00 -	0.6000	0.6000
			276.00		
T17	57	HJ11-50(4)	271.00 -	1.0000	0.6000
			276.00		
T17	73	LDF7-50A(1-5/8")	271.00 -	0.6000	0.6000
			276.00		
T17	75	Thin Flat Climbing Ladder	271.00 -	0.6000	0.6000
			276.00		
T17	76	Safety Line 3/8	271.00 -	0.6000	0.6000
			276.00		
T17	79	LDF4-50A(1/2)	271.00 -	0.6000	0.6000
			276.00		
T17	80	LDF6-50A(1-1/4)	271.00 -	0.6000	0.6000
			276.00		
T17	81	LDF5-50A(7/8")	271.00 -	0.6000	0.6000
			276.00		
T17	82	HCC312-50J(3-1/2")	271.00 -	1.0000	0.6000
			276.00		
T18	6	LDF4-50A(1/2")	266.00 -	0.6000	0.6000
			271.00		
T18	7	CAT6(1/4)	266.00 -	0.6000	0.6000
			271.00		
T18	8	760178129(1/4)	266.00 -	0.6000	0.6000
			271.00		
T18	13	1" Rigid Conduit	266.00 -	0.6000	0.6000
			271.00		
T18	14	3/8" Cable (Lights)	266.00 -	0.6000	0.6000
			271.00		
T18	24	LDF5-50A(7/8")	266.00 -	0.6000	0.6000
			271.00		

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
T18	25	LDF12-50A(2-1/4")	266.00 - 271.00	0.6000	0.6000
T18	26	HJ8-50B(3")	266.00 - 271.00	0.6000	0.6000
T18	28	LDF6-50A(1 1/4")	266.00 - 271.00	0.6000	0.6000
T18	31	HJ11-50(4")	266.00 - 271.00	1.0000	0.6000
T18	33	LDF7-50A(1-5/8")	266.00 - 271.00	0.6000	0.6000
T18	34	LDF7-50A(1-5/8")	266.00 - 271.00	0.6000	0.6000
T18	37	LDF6-50A(1-1/4")	266.00 - 271.00	0.6000	0.6000
T18	38	LDF6-50A(1-1/4")	266.00 - 271.00	0.6000	0.6000
T18	39	LDF7-50A(1-5/8")	266.00 - 271.00	0.6000	0.6000
T18	42	LDF4P-50A(1/2")	266.00 - 271.00	0.6000	0.6000
T18	43	LDF4-50A(1/2")	266.00 - 271.00	0.6000	0.6000
T18	51	475-000(4-1/16)	266.00 - 271.00	1.0000	0.6000
T18	53	LDF12-50(2-1/4")	266.00 - 271.00	0.6000	0.6000
T18	57	HJ11-50(4)	266.00 - 271.00	1.0000	0.6000
T18	73	LDF7-50A(1-5/8")	266.00 - 271.00	0.6000	0.6000
T18	75	Thin Flat Climbing Ladder	266.00 - 271.00	0.6000	0.6000
T18	76	Safety Line 3/8	266.00 - 271.00	0.6000	0.6000
T18	79	LDF4-50A(1/2)	266.00 - 271.00	0.6000	0.6000
T18	80	LDF6-50A(1-1/4)	266.00 - 271.00	0.6000	0.6000
T18	81	LDF5-50A(7/8")	266.00 - 271.00	0.6000	0.6000
T18	82	HCC312-50J(3-1/2")	266.00 - 271.00	1.0000	0.6000
T19	6	LDF4-50A(1/2")	261.00 - 266.00	0.6000	0.6000
T19	7	CAT6(1/4)	261.00 - 266.00	0.6000	0.6000
T19	8	760178129(1/4)	261.00 - 266.00	0.6000	0.6000
T19	13	1" Rigid Conduit	261.00 - 266.00	0.6000	0.6000
T19	14	3/8" Cable (Lights)	261.00 - 266.00	0.6000	0.6000
T19	24	LDF5-50A(7/8")	261.00 - 266.00	0.6000	0.6000
T19	25	LDF12-50A(2-1/4")	261.00 - 266.00	0.6000	0.6000
T19	26	HJ8-50B(3")	261.00 - 266.00	0.6000	0.6000
T19	28	LDF6-50A(1 1/4")	261.00 - 266.00	0.6000	0.6000
T19	31	HJ11-50(4")	261.00 - 266.00	1.0000	0.6000
T19	32	LDF7-50A(1-5/8")	261.00 - 264.00	0.6000	0.6000
T19	33	LDF7-50A(1-5/8")	261.00 - 266.00	0.6000	0.6000
T19	34	LDF7-50A(1-5/8")	261.00 - 266.00	0.6000	0.6000
T19	37	LDF6-50A(1-1/4")	261.00 -	0.6000	0.6000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T19	38	LDF6-50A(1-1/4")	266.00 261.00 - 266.00	0.6000	0.6000
T19	39	LDF7-50A(1-5/8")	261.00 - 266.00	0.6000	0.6000
T19	42	LDF4P-50A(1/2")	261.00 - 266.00	0.6000	0.6000
T19	43	LDF4-50A(1/2")	261.00 - 266.00	0.6000	0.6000
T19	51	475-000(4-1/16)	261.00 - 266.00	1.0000	0.6000
T19	53	LDF12-50(2-1/4")	261.00 - 266.00	0.6000	0.6000
T19	57	HJ11-50(4)	261.00 - 266.00	1.0000	0.6000
T19	73	LDF7-50A(1-5/8")	261.00 - 266.00	0.6000	0.6000
T19	75	Thin Flat Climbing Ladder	261.00 - 266.00	0.6000	0.6000
T19	76	Safety Line 3/8	261.00 - 266.00	0.6000	0.6000
T19	79	LDF4-50A(1/2)	261.00 - 266.00	0.6000	0.6000
T19	80	LDF6-50A(1-1/4)	261.00 - 266.00	0.6000	0.6000
T19	81	LDF5-50A(7/8")	261.00 - 266.00	0.6000	0.6000
T19	82	HCC312-50J(3-1/2")	261.00 - 266.00	1.0000	0.6000
T20	6	LDF4-50A(1/2")	256.00 - 261.00	0.6000	0.5969
T20	7	CAT6(1/4)	256.00 - 261.00	0.6000	0.5969
T20	8	760178129(1/4)	256.00 - 261.00	0.6000	0.5969
T20	13	1" Rigid Conduit	256.00 - 261.00	0.6000	0.5969
T20	14	3/8" Cable (Lights)	256.00 - 261.00	0.6000	0.5969
T20	24	LDF5-50A(7/8")	256.00 - 261.00	0.6000	0.5969
T20	25	LDF12-50A(2-1/4")	256.00 - 261.00	0.6000	0.5969
T20	26	HJ8-50B(3")	256.00 - 261.00	0.6000	0.5969
T20	28	LDF6-50A(1 1/4")	256.00 - 261.00	0.6000	0.5969
T20	31	HJ11-50(4")	256.00 - 261.00	1.0000	0.5969
T20	32	LDF7-50A(1-5/8")	256.00 - 261.00	0.6000	0.5969
T20	33	LDF7-50A(1-5/8")	256.00 - 261.00	0.6000	0.5969
T20	34	LDF7-50A(1-5/8")	256.00 - 261.00	0.6000	0.5969
T20	37	LDF6-50A(1-1/4")	256.00 - 261.00	0.6000	0.5969
T20	38	LDF6-50A(1-1/4")	256.00 - 261.00	0.6000	0.5969
T20	39	LDF7-50A(1-5/8")	256.00 - 261.00	0.6000	0.5969
T20	42	LDF4P-50A(1/2")	256.00 - 261.00	0.6000	0.5969
T20	43	LDF4-50A(1/2")	256.00 - 261.00	0.6000	0.5969
T20	51	475-000(4-1/16)	256.00 - 261.00	1.0000	0.5969
T20	53	LDF12-50(2-1/4")	256.00 - 261.00	0.6000	0.5969

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
T20	57	HJ11-50(4)	256.00 - 261.00	1.0000	0.5969
T20	73	LDF7-50A(1-5/8")	256.00 - 261.00	0.6000	0.5969
T20	75	Thin Flat Climbing Ladder	256.00 - 261.00	0.6000	0.5969
T20	76	Safety Line 3/8	256.00 - 261.00	0.6000	0.5969
T20	79	LDF4-50A(1/2)	256.00 - 261.00	0.6000	0.5969
T20	80	LDF6-50A(1-1/4)	256.00 - 261.00	0.6000	0.5969
T20	81	LDF5-50A(7/8")	256.00 - 261.00	0.6000	0.5969
T20	82	HCC312-50J(3-1/2")	256.00 - 261.00	1.0000	0.5969
T21	6	LDF4-50A(1/2")	251.00 - 256.00	0.6000	0.5818
T21	7	CAT6(1/4)	251.00 - 256.00	0.6000	0.5818
T21	8	760178129(1/4)	251.00 - 256.00	0.6000	0.5818
T21	13	1" Rigid Conduit	251.00 - 256.00	0.6000	0.5818
T21	14	3/8" Cable (Lights)	251.00 - 256.00	0.6000	0.5818
T21	24	LDF5-50A(7/8")	251.00 - 256.00	0.6000	0.5818
T21	25	LDF12-50A(2-1/4")	251.00 - 256.00	0.6000	0.5818
T21	26	HJ8-50B(3")	251.00 - 256.00	0.6000	0.5818
T21	28	LDF6-50A(1 1/4")	251.00 - 256.00	0.6000	0.5818
T21	31	HJ11-50(4")	251.00 - 256.00	1.0000	0.5818
T21	32	LDF7-50A(1-5/8")	251.00 - 256.00	0.6000	0.5818
T21	33	LDF7-50A(1-5/8")	251.00 - 256.00	0.6000	0.5818
T21	34	LDF7-50A(1-5/8")	251.00 - 256.00	0.6000	0.5818
T21	37	LDF6-50A(1-1/4")	251.00 - 256.00	0.6000	0.5818
T21	38	LDF6-50A(1-1/4")	251.00 - 256.00	0.6000	0.5818
T21	39	LDF7-50A(1-5/8")	251.00 - 256.00	0.6000	0.5818
T21	42	LDF4P-50A(1/2")	251.00 - 256.00	0.6000	0.5818
T21	43	LDF4-50A(1/2")	251.00 - 256.00	0.6000	0.5818
T21	51	475-000(4-1/16)	251.00 - 256.00	1.0000	0.5818
T21	53	LDF12-50(2-1/4")	251.00 - 256.00	0.6000	0.5818
T21	57	HJ11-50(4)	251.00 - 256.00	1.0000	0.5818
T21	63	LDF6-50A(1-1/4")	251.00 - 255.00	0.6000	0.5818
T21	73	LDF7-50A(1-5/8")	251.00 - 256.00	0.6000	0.5818
T21	75	Thin Flat Climbing Ladder	251.00 - 256.00	0.6000	0.5818
T21	76	Safety Line 3/8	251.00 - 256.00	0.6000	0.5818
T21	79	LDF4-50A(1/2)	251.00 - 256.00	0.6000	0.5818
T21	80	LDF6-50A(1-1/4)	251.00 -	0.6000	0.5818

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
			256.00		
T21	81	LDF5-50A(7/8")	251.00 - 256.00	0.6000	0.5818
T21	82	HCC312-50J(3-1/2")	251.00 - 256.00	1.0000	0.5818
T22	3	LDF5-50A(7/8")	246.00 - 247.00	0.6000	0.5975
T22	5	HB158-1-08U8-S8J18(1-5/8)	246.00 - 247.00	0.6000	0.5975
T22	6	LDF4-50A(1/2")	246.00 - 251.00	0.6000	0.5975
T22	7	CAT6(1/4)	246.00 - 251.00	0.6000	0.5975
T22	8	760178129(1/4)	246.00 - 251.00	0.6000	0.5975
T22	13	1" Rigid Conduit	246.00 - 251.00	0.6000	0.5975
T22	14	3/8" Cable (Lights)	246.00 - 251.00	0.6000	0.5975
T22	24	LDF5-50A(7/8")	246.00 - 251.00	0.6000	0.5975
T22	25	LDF12-50A(2-1/4")	246.00 - 251.00	0.6000	0.5975
T22	26	HJ8-50B(3")	246.00 - 251.00	0.6000	0.5975
T22	28	LDF6-50A(1 1/4")	246.00 - 251.00	0.6000	0.5975
T22	31	HJ11-50(4")	246.00 - 251.00	1.0000	0.5975
T22	32	LDF7-50A(1-5/8")	246.00 - 251.00	0.6000	0.5975
T22	33	LDF7-50A(1-5/8")	246.00 - 251.00	0.6000	0.5975
T22	34	LDF7-50A(1-5/8")	246.00 - 251.00	0.6000	0.5975
T22	37	LDF6-50A(1-1/4")	246.00 - 251.00	0.6000	0.5975
T22	38	LDF6-50A(1-1/4")	246.00 - 251.00	0.6000	0.5975
T22	39	LDF7-50A(1-5/8")	246.00 - 251.00	0.6000	0.5975
T22	42	LDF4P-50A(1/2")	246.00 - 251.00	0.6000	0.5975
T22	43	LDF4-50A(1/2")	246.00 - 251.00	0.6000	0.5975
T22	51	475-000(4-1/16)	246.00 - 251.00	1.0000	0.5975
T22	53	LDF12-50(2-1/4")	246.00 - 251.00	0.6000	0.5975
T22	57	HJ11-50(4)	246.00 - 251.00	1.0000	0.5975
T22	63	LDF6-50A(1-1/4")	246.00 - 251.00	0.6000	0.5975
T22	73	LDF7-50A(1-5/8")	246.00 - 251.00	0.6000	0.5975
T22	75	Thin Flat Climbing Ladder	246.00 - 251.00	0.6000	0.5975
T22	76	Safety Line 3/8	246.00 - 251.00	0.6000	0.5975
T22	79	LDF4-50A(1/2)	246.00 - 251.00	0.6000	0.5975
T22	80	LDF6-50A(1-1/4)	246.00 - 251.00	0.6000	0.5975
T22	81	LDF5-50A(7/8")	246.00 - 251.00	0.6000	0.5975
T22	82	HCC312-50J(3-1/2")	246.00 - 251.00	1.0000	0.5975
T23	3	LDF5-50A(7/8")	241.00 - 246.00	0.6000	0.5824

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
T23	5	HB158-1-08U8-S8J18(1-5/8)	241.00 - 246.00	0.6000	0.5824
T23	6	LDF4-50A(1/2")	241.00 - 246.00	0.6000	0.5824
T23	7	CAT6(1/4)	241.00 - 246.00	0.6000	0.5824
T23	8	760178129(1/4)	241.00 - 246.00	0.6000	0.5824
T23	13	1" Rigid Conduit	241.00 - 246.00	0.6000	0.5824
T23	14	3/8" Cable (Lights)	241.00 - 246.00	0.6000	0.5824
T23	24	LDF5-50A(7/8")	241.00 - 246.00	0.6000	0.5824
T23	25	LDF12-50A(2-1/4")	241.00 - 246.00	0.6000	0.5824
T23	26	HJ8-50B(3")	241.00 - 246.00	0.6000	0.5824
T23	28	LDF6-50A(1 1/4")	241.00 - 246.00	0.6000	0.5824
T23	31	HJ11-50(4")	241.00 - 246.00	1.0000	0.5824
T23	32	LDF7-50A(1-5/8")	241.00 - 246.00	0.6000	0.5824
T23	33	LDF7-50A(1-5/8")	241.00 - 246.00	0.6000	0.5824
T23	34	LDF7-50A(1-5/8")	241.00 - 246.00	0.6000	0.5824
T23	37	LDF6-50A(1-1/4")	241.00 - 246.00	0.6000	0.5824
T23	38	LDF6-50A(1-1/4")	241.00 - 246.00	0.6000	0.5824
T23	39	LDF7-50A(1-5/8")	241.00 - 246.00	0.6000	0.5824
T23	42	LDF4P-50A(1/2")	241.00 - 246.00	0.6000	0.5824
T23	43	LDF4-50A(1/2")	241.00 - 246.00	0.6000	0.5824
T23	51	475-000(4-1/16)	241.00 - 246.00	1.0000	0.5824
T23	53	LDF12-50(2-1/4")	241.00 - 246.00	0.6000	0.5824
T23	57	HJ11-50(4)	241.00 - 246.00	1.0000	0.5824
T23	63	LDF6-50A(1-1/4")	241.00 - 246.00	0.6000	0.5824
T23	73	LDF7-50A(1-5/8")	241.00 - 246.00	0.6000	0.5824
T23	75	Thin Flat Climbing Ladder	241.00 - 246.00	0.6000	0.5824
T23	76	Safety Line 3/8	241.00 - 246.00	0.6000	0.5824
T23	79	LDF4-50A(1/2)	241.00 - 246.00	0.6000	0.5824
T23	80	LDF6-50A(1-1/4)	241.00 - 246.00	0.6000	0.5824
T23	81	LDF5-50A(7/8")	241.00 - 246.00	0.6000	0.5824
T23	82	HCC312-50J(3-1/2")	241.00 - 246.00	1.0000	0.5824
T24	1	HB158-1-08U8-S8J18(1-5/8)	221.00 - 230.00	0.6000	0.6000
T24	2	LCF78-50A(7/8")	221.00 - 230.00	0.6000	0.6000
T24	3	LDF5-50A(7/8")	221.00 - 241.00	0.6000	0.6000
T24	5	HB158-1-08U8-S8J18(1-5/8)	221.00 - 241.00	0.6000	0.6000
T24	6	LDF4-50A(1/2")	221.00 -	0.6000	0.6000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
T24	7	CAT6(1/4)	241.00 221.00 - 241.00	0.6000	0.6000
T24	8	760178129(1/4)	221.00 - 241.00	0.6000	0.6000
T24	13	1" Rigid Conduit	221.00 - 241.00	0.6000	0.6000
T24	14	3/8" Cable (Lights)	221.00 - 241.00	0.6000	0.6000
T24	19	Banjo (6" dia, 36" step)	221.00 - 230.00	0.6000	0.6000
T24	20	Banjo (6" dia, 36" step)	221.00 - 230.00	0.6000	0.6000
T24	24	LDF5-50A(7/8")	221.00 - 241.00	0.6000	0.6000
T24	25	LDF12-50A(2-1/4")	221.00 - 241.00	0.6000	0.6000
T24	26	HJ8-50B(3")	221.00 - 241.00	0.6000	0.6000
T24	28	LDF6-50A(1 1/4")	221.00 - 241.00	0.6000	0.6000
T24	31	HJ11-50(4")	221.00 - 241.00	1.0000	0.6000
T24	32	LDF7-50A(1-5/8")	221.00 - 241.00	0.6000	0.6000
T24	33	LDF7-50A(1-5/8")	221.00 - 241.00	0.6000	0.6000
T24	34	LDF7-50A(1-5/8")	221.00 - 241.00	0.6000	0.6000
T24	37	LDF6-50A(1-1/4")	221.00 - 241.00	0.6000	0.6000
T24	38	LDF6-50A(1-1/4")	221.00 - 241.00	0.6000	0.6000
T24	39	LDF7-50A(1-5/8")	221.00 - 241.00	0.6000	0.6000
T24	42	LDF4P-50A(1/2")	221.00 - 241.00	0.6000	0.6000
T24	43	LDF4-50A(1/2")	221.00 - 241.00	0.6000	0.6000
T24	51	475-000(4-1/16)	221.00 - 241.00	1.0000	0.6000
T24	53	LDF12-50(2-1/4")	221.00 - 241.00	0.6000	0.6000
T24	57	HJ11-50(4)	221.00 - 241.00	1.0000	0.6000
T24	63	LDF6-50A(1-1/4")	221.00 - 241.00	0.6000	0.6000
T24	73	LDF7-50A(1-5/8")	221.00 - 241.00	0.6000	0.6000
T24	75	Thin Flat Climbing Ladder	221.00 - 241.00	0.6000	0.6000
T24	76	Safety Line 3/8	221.00 - 241.00	0.6000	0.6000
T24	79	LDF4-50A(1/2)	221.00 - 241.00	0.6000	0.6000
T24	80	LDF6-50A(1-1/4)	221.00 - 241.00	0.6000	0.6000
T24	81	LDF5-50A(7/8")	221.00 - 241.00	0.6000	0.6000
T24	82	HCC312-50J(3-1/2")	221.00 - 241.00	0.6000	0.6000
T25	1	HB158-1-08U8-S8J18(1-5/8)	201.00 - 221.00	0.6000	0.6000
T25	2	LCF78-50A(7/8")	201.00 - 221.00	0.6000	0.6000
T25	3	LDF5-50A(7/8")	201.00 - 221.00	0.6000	0.6000
T25	5	HB158-1-08U8-S8J18(1-5/8)	201.00 - 221.00	0.6000	0.6000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
T25	6	LDF4-50A(1/2")	201.00 - 221.00	0.6000	0.6000
T25	7	CAT6(1/4)	201.00 - 221.00	0.6000	0.6000
T25	8	760178129(1/4)	201.00 - 221.00	0.6000	0.6000
T25	12	LCF78-50A(7/8")	201.00 - 206.00	0.6000	0.6000
T25	13	1" Rigid Conduit	201.00 - 221.00	0.6000	0.6000
T25	14	3/8" Cable (Lights)	201.00 - 221.00	0.6000	0.6000
T25	19	Banjo (6" dia, 36" step)	201.00 - 221.00	0.6000	0.6000
T25	20	Banjo (6" dia, 36" step)	201.00 - 221.00	0.6000	0.6000
T25	24	LDF5-50A(7/8")	201.00 - 221.00	0.6000	0.6000
T25	25	LDF12-50A(2-1/4")	201.00 - 221.00	0.6000	0.6000
T25	26	HJ8-50B(3")	201.00 - 221.00	0.6000	0.6000
T25	28	LDF6-50A(1 1/4")	201.00 - 221.00	0.6000	0.6000
T25	31	HJ11-50(4")	201.00 - 221.00	1.0000	0.6000
T25	32	LDF7-50A(1-5/8")	201.00 - 221.00	0.6000	0.6000
T25	33	LDF7-50A(1-5/8")	201.00 - 221.00	0.6000	0.6000
T25	34	LDF7-50A(1-5/8")	201.00 - 221.00	0.6000	0.6000
T25	37	LDF6-50A(1-1/4")	201.00 - 221.00	0.6000	0.6000
T25	38	LDF6-50A(1-1/4")	201.00 - 221.00	0.6000	0.6000
T25	39	LDF7-50A(1-5/8")	201.00 - 221.00	0.6000	0.6000
T25	42	LDF4P-50A(1/2")	201.00 - 221.00	0.6000	0.6000
T25	43	LDF4-50A(1/2")	201.00 - 221.00	0.6000	0.6000
T25	51	475-000(4-1/16)	201.00 - 221.00	1.0000	0.6000
T25	53	LDF12-50(2-1/4")	201.00 - 221.00	0.6000	0.6000
T25	57	HJ11-50(4)	201.00 - 221.00	1.0000	0.6000
T25	63	LDF6-50A(1-1/4")	201.00 - 221.00	0.6000	0.6000
T25	73	LDF7-50A(1-5/8")	201.00 - 221.00	0.6000	0.6000
T25	75	Thin Flat Climbing Ladder	201.00 - 221.00	0.6000	0.6000
T25	76	Safety Line 3/8	201.00 - 221.00	0.6000	0.6000
T25	79	LDF4-50A(1/2)	201.00 - 221.00	0.6000	0.6000
T25	80	LDF6-50A(1-1/4)	201.00 - 221.00	0.6000	0.6000
T25	81	LDF5-50A(7/8")	201.00 - 221.00	0.6000	0.6000
T25	82	HCC312-50J(3-1/2")	201.00 - 221.00	0.6000	0.6000
T26	1	HB158-1-08U8-S8J18(1-5/8)	181.00 - 201.00	0.6000	0.6000
T26	2	LCF78-50A(7/8")	181.00 - 201.00	0.6000	0.6000
T26	3	LDF5-50A(7/8")	181.00 -	0.6000	0.6000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
			201.00		
T26	5	HB158-1-08U8-S8J18(1-5/8)	181.00 - 201.00	0.6000	0.6000
T26	6	LDF4-50A(1/2")	181.00 - 201.00	0.6000	0.6000
T26	7	CAT6(1/4)	181.00 - 201.00	0.6000	0.6000
T26	8	760178129(1/4)	181.00 - 201.00	0.6000	0.6000
T26	12	LCF78-50A(7/8")	181.00 - 201.00	0.6000	0.6000
T26	13	1" Rigid Conduit	181.00 - 201.00	0.6000	0.6000
T26	14	3/8" Cable (Lights)	181.00 - 201.00	0.6000	0.6000
T26	16	1/4 Coax	181.00 - 200.00	0.6000	0.6000
T26	19	Banjo (6" dia, 36" step)	181.00 - 201.00	0.6000	0.6000
T26	20	Banjo (6" dia, 36" step)	181.00 - 201.00	0.6000	0.6000
T26	24	LDF5-50A(7/8")	181.00 - 201.00	0.6000	0.6000
T26	25	LDF12-50A(2-1/4")	181.00 - 201.00	0.6000	0.6000
T26	26	HJ8-50B(3")	181.00 - 201.00	0.6000	0.6000
T26	28	LDF6-50A(1 1/4")	181.00 - 201.00	0.6000	0.6000
T26	31	HJ11-50(4")	181.00 - 201.00	1.0000	0.6000
T26	32	LDF7-50A(1-5/8")	181.00 - 201.00	0.6000	0.6000
T26	33	LDF7-50A(1-5/8")	181.00 - 201.00	0.6000	0.6000
T26	34	LDF7-50A(1-5/8")	181.00 - 201.00	0.6000	0.6000
T26	37	LDF6-50A(1-1/4")	181.00 - 201.00	0.6000	0.6000
T26	38	LDF6-50A(1-1/4")	181.00 - 201.00	0.6000	0.6000
T26	39	LDF7-50A(1-5/8")	181.00 - 201.00	0.6000	0.6000
T26	42	LDF4P-50A(1/2")	181.00 - 201.00	0.6000	0.6000
T26	43	LDF4-50A(1/2")	181.00 - 201.00	0.6000	0.6000
T26	51	475-000(4-1/16)	181.00 - 201.00	1.0000	0.6000
T26	53	LDF12-50(2-1/4")	181.00 - 201.00	0.6000	0.6000
T26	57	HJ11-50(4)	181.00 - 201.00	1.0000	0.6000
T26	63	LDF6-50A(1-1/4")	181.00 - 201.00	0.6000	0.6000
T26	73	LDF7-50A(1-5/8")	181.00 - 201.00	0.6000	0.6000
T26	75	Thin Flat Climbing Ladder	181.00 - 201.00	0.6000	0.6000
T26	76	Safety Line 3/8	181.00 - 201.00	0.6000	0.6000
T26	79	LDF4-50A(1/2)	181.00 - 201.00	0.6000	0.6000
T26	80	LDF6-50A(1-1/4)	181.00 - 201.00	0.6000	0.6000
T26	81	LDF5-50A(7/8")	181.00 - 201.00	0.6000	0.6000
T26	82	HCC312-50J(3-1/2")	181.00 - 201.00	0.6000	0.6000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
T26	85	CU12PSM6P4XXX(1-3/4)	181.00 - 186.00	0.6000	0.6000
T27	1	HB158-1-08U8-S8J18(1- 5/8)	161.00 - 181.00	0.6000	0.6000
T27	2	LCF78-50A(7/8")	161.00 - 181.00	0.6000	0.6000
T27	3	LDF5-50A(7/8")	161.00 - 181.00	0.6000	0.6000
T27	5	HB158-1-08U8-S8J18(1- 5/8)	161.00 - 181.00	0.6000	0.6000
T27	6	LDF4-50A(1/2")	161.00 - 181.00	0.6000	0.6000
T27	7	CAT6(1/4)	161.00 - 181.00	0.6000	0.6000
T27	8	760178129(1/4)	161.00 - 181.00	0.6000	0.6000
T27	12	LCF78-50A(7/8")	161.00 - 181.00	0.6000	0.6000
T27	13	1" Rigid Conduit	161.00 - 181.00	0.6000	0.6000
T27	14	3/8" Cable (Lights)	161.00 - 181.00	0.6000	0.6000
T27	16	1/4 Coax	161.00 - 181.00	0.6000	0.6000
T27	19	Banjo (6" dia, 36" step)	161.00 - 181.00	0.6000	0.6000
T27	20	Banjo (6" dia, 36" step)	161.00 - 181.00	0.6000	0.6000
T27	24	LDF5-50A(7/8")	161.00 - 181.00	0.6000	0.6000
T27	25	LDF12-50A(2-1/4")	161.00 - 181.00	0.6000	0.6000
T27	26	HJ8-50B(3")	161.00 - 181.00	0.6000	0.6000
T27	28	LDF6-50A(1 1/4")	161.00 - 181.00	0.6000	0.6000
T27	31	HJ11-50(4")	161.00 - 181.00	1.0000	0.6000
T27	32	LDF7-50A(1-5/8")	161.00 - 181.00	0.6000	0.6000
T27	33	LDF7-50A(1-5/8")	161.00 - 181.00	0.6000	0.6000
T27	34	LDF7-50A(1-5/8")	161.00 - 181.00	0.6000	0.6000
T27	37	LDF6-50A(1-1/4")	161.00 - 181.00	0.6000	0.6000
T27	38	LDF6-50A(1-1/4")	161.00 - 181.00	0.6000	0.6000
T27	39	LDF7-50A(1-5/8")	161.00 - 181.00	0.6000	0.6000
T27	41	LDF4P-50A(1/2")	161.00 - 178.00	0.6000	0.6000
T27	42	LDF4P-50A(1/2")	178.00 - 181.00	0.6000	0.6000
T27	43	LDF4-50A(1/2")	161.00 - 181.00	0.6000	0.6000
T27	51	475-000(4-1/16)	161.00 - 181.00	1.0000	0.6000
T27	53	LDF12-50(2-1/4")	161.00 - 181.00	0.6000	0.6000
T27	57	HJ11-50(4)	161.00 - 181.00	1.0000	0.6000
T27	63	LDF6-50A(1-1/4")	161.00 - 181.00	0.6000	0.6000
T27	73	LDF7-50A(1-5/8")	161.00 - 181.00	0.6000	0.6000
T27	75	Thin Flat Climbing Ladder	161.00 - 181.00	0.6000	0.6000
T27	76	Safety Line 3/8	161.00 -	0.6000	0.6000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
			181.00		
T27	79	LDF4-50A(1/2)	161.00 -	0.6000	0.6000
			181.00		
T27	80	LDF6-50A(1-1/4)	161.00 -	0.6000	0.6000
			181.00		
T27	81	LDF5-50A(7/8")	161.00 -	0.6000	0.6000
			181.00		
T27	82	HCC312-50J(3-1/2")	161.00 -	0.6000	0.6000
			181.00		
T27	85	CU12PSM6P4XXX(1-3/4)	161.00 -	0.6000	0.6000
			181.00		
T28	1	HB158-1-08U8-S8J18(1-5/8)	141.00 -	0.6000	0.6000
			161.00		
T28	2	LCF78-50A(7/8")	141.00 -	0.6000	0.6000
			161.00		
T28	3	LDF5-50A(7/8")	141.00 -	0.6000	0.6000
			161.00		
T28	5	HB158-1-08U8-S8J18(1-5/8)	141.00 -	0.6000	0.6000
			161.00		
T28	6	LDF4-50A(1/2")	141.00 -	0.6000	0.6000
			161.00		
T28	7	CAT6(1/4)	141.00 -	0.6000	0.6000
			161.00		
T28	8	760178129(1/4)	141.00 -	0.6000	0.6000
			161.00		
T28	9	EW63(ELLIPTICAL)	141.00 -	0.6000	0.6000
			150.00		
T28	12	LCF78-50A(7/8")	141.00 -	0.6000	0.6000
			161.00		
T28	13	1" Rigid Conduit	141.00 -	0.6000	0.6000
			161.00		
T28	14	3/8" Cable (Lights)	141.00 -	0.6000	0.6000
			161.00		
T28	16	1/4 Coax	141.00 -	0.6000	0.6000
			161.00		
T28	19	Banjo (6" dia, 36" step)	141.00 -	0.6000	0.6000
			161.00		
T28	20	Banjo (6" dia, 36" step)	141.00 -	0.6000	0.6000
			161.00		
T28	24	LDF5-50A(7/8")	141.00 -	0.6000	0.6000
			161.00		
T28	25	LDF12-50A(2-1/4")	141.00 -	0.6000	0.6000
			161.00		
T28	26	HJ8-50B(3")	141.00 -	0.6000	0.6000
			161.00		
T28	28	LDF6-50A(1 1/4")	141.00 -	0.6000	0.6000
			161.00		
T28	31	HJ11-50(4")	141.00 -	1.0000	0.6000
			161.00		
T28	32	LDF7-50A(1-5/8")	141.00 -	0.6000	0.6000
			161.00		
T28	33	LDF7-50A(1-5/8")	141.00 -	0.6000	0.6000
			161.00		
T28	34	LDF7-50A(1-5/8")	141.00 -	0.6000	0.6000
			161.00		
T28	37	LDF6-50A(1-1/4")	141.00 -	0.6000	0.6000
			161.00		
T28	38	LDF6-50A(1-1/4")	141.00 -	0.6000	0.6000
			161.00		
T28	39	LDF7-50A(1-5/8")	141.00 -	0.6000	0.6000
			161.00		
T28	41	LDF4P-50A(1/2")	141.00 -	0.6000	0.6000
			161.00		
T28	43	LDF4-50A(1/2")	141.00 -	0.6000	0.6000
			161.00		
T28	44	EW63(ELLIPTICAL)	141.00 -	0.6000	0.6000
			146.00		
T28	45	EW52(ELLIPTICAL)	141.00 -	0.6000	0.6000
			146.00		

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
T28	51	475-000(4-1/16)	141.00 - 161.00	1.0000	0.6000
T28	53	LDF12-50(2-1/4")	141.00 - 161.00	0.6000	0.6000
T28	57	HJ11-50(4)	141.00 - 161.00	1.0000	0.6000
T28	63	LDF6-50A(1-1/4")	141.00 - 161.00	0.6000	0.6000
T28	73	LDF7-50A(1-5/8")	141.00 - 161.00	0.6000	0.6000
T28	75	Thin Flat Climbing Ladder	141.00 - 161.00	0.6000	0.6000
T28	76	Safety Line 3/8	141.00 - 161.00	0.6000	0.6000
T28	79	LDF4-50A(1/2)	141.00 - 161.00	0.6000	0.6000
T28	80	LDF6-50A(1-1/4)	141.00 - 161.00	0.6000	0.6000
T28	81	LDF5-50A(7/8")	141.00 - 161.00	0.6000	0.6000
T28	82	HCC312-50J(3-1/2")	141.00 - 161.00	0.6000	0.6000
T28	85	CU12PSM6P4XXX(1-3/4)	141.00 - 161.00	0.6000	0.6000
T29	1	HB158-1-08U8-S8J18(1-5/8)	121.00 - 141.00	0.6000	0.6000
T29	2	LCF78-50A(7/8")	121.00 - 141.00	0.6000	0.6000
T29	3	LDF5-50A(7/8")	121.00 - 141.00	0.6000	0.6000
T29	5	HB158-1-08U8-S8J18(1-5/8)	121.00 - 141.00	0.6000	0.6000
T29	6	LDF4-50A(1/2")	121.00 - 141.00	0.6000	0.6000
T29	7	CAT6(1/4)	121.00 - 141.00	0.6000	0.6000
T29	8	760178129(1/4)	121.00 - 141.00	0.6000	0.6000
T29	9	EW63(ELLIPTICAL)	121.00 - 141.00	0.6000	0.6000
T29	12	LCF78-50A(7/8")	121.00 - 141.00	0.6000	0.6000
T29	13	1" Rigid Conduit	121.00 - 141.00	0.6000	0.6000
T29	14	3/8" Cable (Lights)	121.00 - 141.00	0.6000	0.6000
T29	16	1/4 Coax	121.00 - 141.00	0.6000	0.6000
T29	17	3/8" Coax	121.00 - 136.00	0.6000	0.6000
T29	18	3/8" Coax	136.00 - 140.00	0.6000	0.6000
T29	19	Banjo (6" dia, 36" step)	121.00 - 141.00	0.6000	0.6000
T29	20	Banjo (6" dia, 36" step)	121.00 - 141.00	0.6000	0.6000
T29	23	LDF5-50A(7/8")	121.00 - 133.00	0.6000	0.6000
T29	24	LDF5-50A(7/8")	133.00 - 141.00	0.6000	0.6000
T29	25	LDF12-50A(2-1/4")	121.00 - 141.00	0.6000	0.6000
T29	26	HJ8-50B(3")	121.00 - 141.00	0.6000	0.6000
T29	28	LDF6-50A(1 1/4")	121.00 - 141.00	0.6000	0.6000
T29	31	HJ11-50(4")	121.00 - 141.00	1.0000	0.6000
T29	32	LDF7-50A(1-5/8")	121.00 -	0.6000	0.6000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
T29	33	LDF7-50A(1-5/8")	141.00 121.00 - 141.00	0.6000	0.6000
T29	34	LDF7-50A(1-5/8")	141.00 121.00 - 141.00	0.6000	0.6000
T29	37	LDF6-50A(1-1/4")	141.00 121.00 - 141.00	0.6000	0.6000
T29	38	LDF6-50A(1-1/4")	141.00 121.00 - 141.00	0.6000	0.6000
T29	39	LDF7-50A(1-5/8")	141.00 121.00 - 141.00	0.6000	0.6000
T29	40	LDF4P-50A(1/2")	141.00 121.00 - 133.00	0.6000	0.6000
T29	41	LDF4P-50A(1/2")	133.00 121.00 - 141.00	0.6000	0.6000
T29	43	LDF4-50A(1/2")	141.00 121.00 - 141.00	0.6000	0.6000
T29	44	EW63(ELLIPTICAL)	141.00 121.00 - 141.00	0.6000	0.6000
T29	45	EW52(ELLIPTICAL)	141.00 121.00 - 141.00	0.6000	0.6000
T29	51	475-000(4-1/16)	141.00 121.00 - 141.00	1.0000	0.6000
T29	53	LDF12-50(2-1/4")	141.00 121.00 - 141.00	0.6000	0.6000
T29	57	HJ11-50(4)	141.00 121.00 - 141.00	1.0000	0.6000
T29	63	LDF6-50A(1-1/4")	141.00 121.00 - 141.00	0.6000	0.6000
T29	68	LDF5-50A(7/8")	141.00 121.00 - 133.00	0.6000	0.6000
T29	73	LDF7-50A(1-5/8")	141.00 121.00 - 141.00	0.6000	0.6000
T29	75	Thin Flat Climbing Ladder	141.00 121.00 - 141.00	0.6000	0.6000
T29	76	Safety Line 3/8	141.00 121.00 - 141.00	0.6000	0.6000
T29	79	LDF4-50A(1/2)	141.00 121.00 - 141.00	0.6000	0.6000
T29	80	LDF6-50A(1-1/4)	141.00 121.00 - 141.00	0.6000	0.6000
T29	81	LDF5-50A(7/8")	141.00 121.00 - 141.00	0.6000	0.6000
T29	82	HCC312-50J(3-1/2")	141.00 121.00 - 141.00	0.6000	0.6000
T29	85	CU12PSM6P4XXX(1-3/4)	141.00 121.00 - 141.00	0.6000	0.6000
T30	1	HB158-1-08U8-S8J18(1-5/8)	121.00 101.00 - 121.00	0.6000	0.6000
T30	2	LCF78-50A(7/8")	121.00 101.00 - 121.00	0.6000	0.6000
T30	3	LDF5-50A(7/8")	121.00 101.00 - 121.00	0.6000	0.6000
T30	5	HB158-1-08U8-S8J18(1-5/8)	121.00 101.00 - 121.00	0.6000	0.6000
T30	6	LDF4-50A(1/2")	121.00 101.00 - 121.00	0.6000	0.6000
T30	7	CAT6(1/4)	121.00 101.00 - 121.00	0.6000	0.6000
T30	8	760178129(1/4)	121.00 101.00 - 121.00	0.6000	0.6000
T30	9	EW63(ELLIPTICAL)	121.00 101.00 - 121.00	0.6000	0.6000
T30	12	LCF78-50A(7/8")	121.00 101.00 - 121.00	0.6000	0.6000
T30	13	1" Rigid Conduit	121.00 101.00 - 121.00	0.6000	0.6000
T30	14	3/8" Cable (Lights)	121.00 101.00 - 121.00	0.6000	0.6000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
T30	16	1/4 Coax	101.00 - 121.00	0.6000	0.6000
T30	17	3/8" Coax	101.00 - 121.00	0.6000	0.6000
T30	19	Banjo (6" dia, 36" step)	101.00 - 121.00	0.6000	0.6000
T30	20	Banjo (6" dia, 36" step)	101.00 - 121.00	0.6000	0.6000
T30	23	LDF5-50A(7/8")	101.00 - 121.00	0.6000	0.6000
T30	25	LDF12-50A(2-1/4")	101.00 - 121.00	0.6000	0.6000
T30	26	HJ8-50B(3")	101.00 - 121.00	0.6000	0.6000
T30	28	LDF6-50A(1 1/4")	101.00 - 121.00	0.6000	0.6000
T30	31	HJ11-50(4")	101.00 - 121.00	1.0000	0.6000
T30	32	LDF7-50A(1-5/8")	101.00 - 121.00	0.6000	0.6000
T30	33	LDF7-50A(1-5/8")	101.00 - 121.00	0.6000	0.6000
T30	34	LDF7-50A(1-5/8")	101.00 - 121.00	0.6000	0.6000
T30	37	LDF6-50A(1-1/4")	101.00 - 121.00	0.6000	0.6000
T30	38	LDF6-50A(1-1/4")	101.00 - 121.00	0.6000	0.6000
T30	39	LDF7-50A(1-5/8")	101.00 - 121.00	0.6000	0.6000
T30	40	LDF4P-50A(1/2")	101.00 - 121.00	0.6000	0.6000
T30	43	LDF4-50A(1/2")	101.00 - 121.00	0.6000	0.6000
T30	44	EW63(ELLIPTICAL)	101.00 - 121.00	0.6000	0.6000
T30	45	EW52(ELLIPTICAL)	101.00 - 121.00	0.6000	0.6000
T30	51	475-000(4-1/16)	101.00 - 121.00	1.0000	0.6000
T30	53	LDF12-50(2-1/4")	101.00 - 121.00	0.6000	0.6000
T30	55	LDF5-50A(7/8")	101.00 - 109.00	0.6000	0.6000
T30	57	HJ11-50(4)	101.00 - 121.00	1.0000	0.6000
T30	63	LDF6-50A(1-1/4")	101.00 - 121.00	0.6000	0.6000
T30	68	LDF5-50A(7/8")	117.00 - 121.00	0.6000	0.6000
T30	69	LDF5-50A(7/8")	101.00 - 117.00	0.6000	0.6000
T30	72	LDF5-50A(7/8")	101.00 - 108.00	0.6000	0.6000
T30	73	LDF7-50A(1-5/8")	101.00 - 121.00	0.6000	0.6000
T30	75	Thin Flat Climbing Ladder	101.00 - 121.00	0.6000	0.6000
T30	76	Safety Line 3/8	101.00 - 121.00	0.6000	0.6000
T30	79	LDF4-50A(1/2)	101.00 - 121.00	0.6000	0.6000
T30	80	LDF6-50A(1-1/4)	101.00 - 121.00	0.6000	0.6000
T30	81	LDF5-50A(7/8")	101.00 - 121.00	0.6000	0.6000
T30	82	HCC312-50J(3-1/2")	101.00 - 121.00	0.6000	0.6000
T30	85	CU12PSM6P4XXX(1-3/4)	101.00 -	0.6000	0.6000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
T31	1	HB158-1-08U8-S8J18(1-5/8)	121.00 81.00 - 101.00	0.6000	0.6000
T31	2	LCF78-50A(7/8")	81.00 - 101.00	0.6000	0.6000
T31	3	LDF5-50A(7/8")	81.00 - 101.00	0.6000	0.6000
T31	5	HB158-1-08U8-S8J18(1-5/8)	81.00 - 101.00	0.6000	0.6000
T31	6	LDF4-50A(1/2")	81.00 - 101.00	0.6000	0.6000
T31	7	CAT6(1/4)	81.00 - 101.00	0.6000	0.6000
T31	8	760178129(1/4)	81.00 - 101.00	0.6000	0.6000
T31	9	EW63(ELLIPTICAL)	81.00 - 101.00	0.6000	0.6000
T31	12	LCF78-50A(7/8")	81.00 - 101.00	0.6000	0.6000
T31	13	1" Rigid Conduit	81.00 - 101.00	0.6000	0.6000
T31	14	3/8" Cable (Lights)	81.00 - 101.00	0.6000	0.6000
T31	15	1/4 Coax	81.00 - 99.00	0.6000	0.6000
T31	16	1/4 Coax	81.00 - 101.00	0.6000	0.6000
T31	17	3/8" Coax	81.00 - 101.00	0.6000	0.6000
T31	19	Banjo (6" dia, 36" step)	81.00 - 101.00	0.6000	0.6000
T31	20	Banjo (6" dia, 36" step)	81.00 - 101.00	0.6000	0.6000
T31	23	LDF5-50A(7/8")	81.00 - 101.00	0.6000	0.6000
T31	25	LDF12-50A(2-1/4")	81.00 - 101.00	0.6000	0.6000
T31	26	HJ8-50B(3")	81.00 - 101.00	0.6000	0.6000
T31	28	LDF6-50A(1 1/4")	81.00 - 101.00	0.6000	0.6000
T31	31	HJ11-50(4")	81.00 - 101.00	0.6000	0.6000
T31	32	LDF7-50A(1-5/8")	81.00 - 101.00	0.6000	0.6000
T31	33	LDF7-50A(1-5/8")	81.00 - 101.00	0.6000	0.6000
T31	34	LDF7-50A(1-5/8")	81.00 - 101.00	0.6000	0.6000
T31	37	LDF6-50A(1-1/4")	81.00 - 101.00	0.6000	0.6000
T31	38	LDF6-50A(1-1/4")	81.00 - 101.00	0.6000	0.6000
T31	39	LDF7-50A(1-5/8")	81.00 - 101.00	0.6000	0.6000
T31	40	LDF4P-50A(1/2")	81.00 - 101.00	0.6000	0.6000
T31	43	LDF4-50A(1/2")	81.00 - 101.00	0.6000	0.6000
T31	44	EW63(ELLIPTICAL)	81.00 - 101.00	0.6000	0.6000
T31	45	EW52(ELLIPTICAL)	81.00 - 101.00	0.6000	0.6000
T31	51	475-000(4-1/16)	81.00 - 101.00	1.0000	0.6000
T31	53	LDF12-50(2-1/4")	81.00 - 101.00	0.6000	0.6000
T31	55	LDF5-50A(7/8")	81.00 - 101.00	0.6000	0.6000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
T31	57	HJ11-50(4)	81.00 - 101.00	0.6000	0.6000
T31	63	LDF6-50A(1-1/4")	81.00 - 101.00	0.6000	0.6000
T31	69	LDF5-50A(7/8")	99.00 - 101.00	0.6000	0.6000
T31	70	LDF5-50A(7/8")	81.00 - 99.00	0.6000	0.6000
T31	72	LDF5-50A(7/8")	81.00 - 101.00	0.6000	0.6000
T31	73	LDF7-50A(1-5/8")	81.00 - 101.00	0.6000	0.6000
T31	75	Thin Flat Climbing Ladder	81.00 - 101.00	0.6000	0.6000
T31	76	Safety Line 3/8	81.00 - 101.00	0.6000	0.6000
T31	79	LDF4-50A(1/2)	81.00 - 101.00	0.6000	0.6000
T31	80	LDF6-50A(1-1/4)	81.00 - 101.00	0.6000	0.6000
T31	81	LDF5-50A(7/8")	81.00 - 101.00	0.6000	0.6000
T31	82	HCC312-50J(3-1/2")	81.00 - 101.00	0.6000	0.6000
T31	85	CU12PSM6P4XXX(1-3/4)	81.00 - 101.00	0.6000	0.6000
T32	1	HB158-1-08U8-S8J18(1-5/8)	61.00 - 81.00	0.6000	0.6000
T32	2	LCF78-50A(7/8")	61.00 - 81.00	0.6000	0.6000
T32	3	LDF5-50A(7/8")	61.00 - 81.00	0.6000	0.6000
T32	5	HB158-1-08U8-S8J18(1-5/8)	61.00 - 81.00	0.6000	0.6000
T32	6	LDF4-50A(1/2")	61.00 - 81.00	0.6000	0.6000
T32	7	CAT6(1/4)	61.00 - 81.00	0.6000	0.6000
T32	8	760178129(1/4)	61.00 - 81.00	0.6000	0.6000
T32	9	EW63(ELLIPTICAL)	61.00 - 81.00	0.6000	0.6000
T32	12	LCF78-50A(7/8")	61.00 - 81.00	0.6000	0.6000
T32	13	1" Rigid Conduit	61.00 - 81.00	0.6000	0.6000
T32	14	3/8" Cable (Lights)	61.00 - 81.00	0.6000	0.6000
T32	15	1/4 Coax	61.00 - 81.00	0.6000	0.6000
T32	16	1/4 Coax	61.00 - 81.00	0.6000	0.6000
T32	17	3/8" Coax	61.00 - 81.00	0.6000	0.6000
T32	19	Banjo (6" dia, 36" step)	61.00 - 81.00	0.6000	0.6000
T32	20	Banjo (6" dia, 36" step)	61.00 - 81.00	0.6000	0.6000
T32	23	LDF5-50A(7/8")	61.00 - 81.00	0.6000	0.6000
T32	25	LDF12-50A(2-1/4")	61.00 - 81.00	0.6000	0.6000
T32	26	HJ8-50B(3")	61.00 - 81.00	0.6000	0.6000
T32	28	LDF6-50A(1 1/4")	61.00 - 81.00	0.6000	0.6000
T32	31	HJ11-50(4")	61.00 - 81.00	0.6000	0.6000
T32	32	LDF7-50A(1-5/8")	61.00 -	0.6000	0.6000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
			81.00		
T32	33	LDF7-50A(1-5/8")	61.00 - 81.00	0.6000	0.6000
T32	34	LDF7-50A(1-5/8")	75.00 - 81.00	0.6000	0.6000
T32	37	LDF6-50A(1-1/4")	61.00 - 81.00	0.6000	0.6000
T32	38	LDF6-50A(1-1/4")	61.00 - 81.00	0.6000	0.6000
T32	39	LDF7-50A(1-5/8")	61.00 - 81.00	0.6000	0.6000
T32	40	LDF4P-50A(1/2")	61.00 - 81.00	0.6000	0.6000
T32	43	LDF4-50A(1/2")	61.00 - 81.00	0.6000	0.6000
T32	44	EW63(ELLIPTICAL)	61.00 - 81.00	0.6000	0.6000
T32	45	EW52(ELLIPTICAL)	61.00 - 81.00	0.6000	0.6000
T32	51	475-000(4-1/16)	61.00 - 81.00	0.6000	0.6000
T32	53	LDF12-50(2-1/4")	61.00 - 81.00	0.6000	0.6000
T32	55	LDF5-50A(7/8")	61.00 - 81.00	0.6000	0.6000
T32	57	HJ11-50(4)	61.00 - 81.00	0.6000	0.6000
T32	63	LDF6-50A(1-1/4")	61.00 - 81.00	0.6000	0.6000
T32	70	LDF5-50A(7/8")	62.00 - 81.00	0.6000	0.6000
T32	71	LDF5-50A(7/8")	61.00 - 62.00	0.6000	0.6000
T32	72	LDF5-50A(7/8")	61.00 - 81.00	0.6000	0.6000
T32	73	LDF7-50A(1-5/8")	61.00 - 81.00	0.6000	0.6000
T32	75	Thin Flat Climbing Ladder	61.00 - 81.00	0.6000	0.6000
T32	76	Safety Line 3/8	61.00 - 81.00	0.6000	0.6000
T32	79	LDF4-50A(1/2)	61.00 - 81.00	0.6000	0.6000
T32	80	LDF6-50A(1-1/4)	61.00 - 81.00	0.6000	0.6000
T32	81	LDF5-50A(7/8")	61.00 - 81.00	0.6000	0.6000
T32	82	HCC312-50J(3-1/2")	61.00 - 81.00	0.6000	0.6000
T32	83	LDF7-50A(1-5/8")	61.00 - 75.00	0.6000	0.6000
T32	85	CU12PSM6P4XXX(1-3/4)	61.00 - 81.00	0.6000	0.6000
T33	1	HB158-1-08U8-S8J18(1-5/8)	41.00 - 61.00	0.6000	0.6000
T33	2	LCF78-50A(7/8")	41.00 - 61.00	0.6000	0.6000
T33	3	LDF5-50A(7/8")	41.00 - 61.00	0.6000	0.6000
T33	5	HB158-1-08U8-S8J18(1-5/8)	41.00 - 61.00	0.6000	0.6000
T33	6	LDF4-50A(1/2")	41.00 - 61.00	0.6000	0.6000
T33	7	CAT6(1/4)	41.00 - 61.00	0.6000	0.6000
T33	8	760178129(1/4)	41.00 - 61.00	0.6000	0.6000
T33	9	EW63(ELLIPTICAL)	41.00 - 61.00	0.6000	0.6000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
T33	12	LCF78-50A(7/8")	41.00 - 61.00	0.6000	0.6000
T33	13	1" Rigid Conduit	41.00 - 61.00	0.6000	0.6000
T33	14	3/8" Cable (Lights)	41.00 - 61.00	0.6000	0.6000
T33	15	1/4 Coax	41.00 - 61.00	0.6000	0.6000
T33	16	1/4 Coax	41.00 - 61.00	0.6000	0.6000
T33	17	3/8" Coax	41.00 - 61.00	0.6000	0.6000
T33	19	Banjo (6" dia, 36" step)	41.00 - 61.00	0.6000	0.6000
T33	20	Banjo (6" dia, 36" step)	41.00 - 61.00	0.6000	0.6000
T33	23	LDF5-50A(7/8")	41.00 - 61.00	0.6000	0.6000
T33	25	LDF12-50A(2-1/4")	41.00 - 61.00	0.6000	0.6000
T33	26	HJ8-50B(3")	41.00 - 61.00	0.6000	0.6000
T33	28	LDF6-50A(1 1/4")	41.00 - 61.00	0.6000	0.6000
T33	31	HJ11-50(4")	41.00 - 61.00	0.6000	0.6000
T33	32	LDF7-50A(1-5/8")	41.00 - 61.00	0.6000	0.6000
T33	33	LDF7-50A(1-5/8")	41.00 - 61.00	0.6000	0.6000
T33	37	LDF6-50A(1-1/4")	41.00 - 61.00	0.6000	0.6000
T33	38	LDF6-50A(1-1/4")	41.00 - 61.00	0.6000	0.6000
T33	39	LDF7-50A(1-5/8")	41.00 - 61.00	0.6000	0.6000
T33	40	LDF4P-50A(1/2")	41.00 - 61.00	0.6000	0.6000
T33	43	LDF4-50A(1/2")	41.00 - 61.00	0.6000	0.6000
T33	44	EW63(ELLIPTICAL)	41.00 - 61.00	0.6000	0.6000
T33	45	EW52(ELLIPTICAL)	41.00 - 61.00	0.6000	0.6000
T33	51	475-000(4-1/16)	41.00 - 61.00	0.6000	0.6000
T33	53	LDF12-50(2-1/4")	41.00 - 61.00	0.6000	0.6000
T33	55	LDF5-50A(7/8")	41.00 - 61.00	0.6000	0.6000
T33	57	HJ11-50(4)	41.00 - 61.00	0.6000	0.6000
T33	63	LDF6-50A(1-1/4")	41.00 - 61.00	0.6000	0.6000
T33	71	LDF5-50A(7/8")	41.00 - 61.00	0.6000	0.6000
T33	72	LDF5-50A(7/8")	41.00 - 61.00	0.6000	0.6000
T33	73	LDF7-50A(1-5/8")	41.00 - 61.00	0.6000	0.6000
T33	75	Thin Flat Climbing Ladder	41.00 - 61.00	0.6000	0.6000
T33	76	Safety Line 3/8	41.00 - 61.00	0.6000	0.6000
T33	79	LDF4-50A(1/2)	41.00 - 61.00	0.6000	0.6000
T33	80	LDF6-50A(1-1/4)	41.00 - 61.00	0.6000	0.6000
T33	81	LDF5-50A(7/8")	41.00 - 61.00	0.6000	0.6000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
			61.00		
T33	82	HCC312-50J(3-1/2")	41.00 -	0.6000	0.6000
			61.00		
T33	83	LDF7-50A(1-5/8")	41.00 -	0.6000	0.6000
			61.00		
T33	85	CU12PSM6P4XXX(1-3/4)	41.00 -	0.6000	0.6000
			61.00		
T34	1	HB158-1-08U8-S8J18(1-5/8)	20.00 -	0.6000	0.6000
			41.00		
T34	2	LCF78-50A(7/8")	20.00 -	0.6000	0.6000
			41.00		
T34	3	LDF5-50A(7/8")	20.00 -	0.6000	0.6000
			41.00		
T34	5	HB158-1-08U8-S8J18(1-5/8)	20.00 -	0.6000	0.6000
			41.00		
T34	6	LDF4-50A(1/2")	20.00 -	0.6000	0.6000
			41.00		
T34	7	CAT6(1/4)	20.00 -	0.6000	0.6000
			41.00		
T34	8	760178129(1/4)	20.00 -	0.6000	0.6000
			41.00		
T34	9	EW63(ELLIPTICAL)	20.00 -	0.6000	0.6000
			41.00		
T34	12	LCF78-50A(7/8")	20.00 -	0.6000	0.6000
			41.00		
T34	13	1" Rigid Conduit	20.00 -	0.6000	0.6000
			41.00		
T34	14	3/8" Cable (Lights)	20.00 -	0.6000	0.6000
			41.00		
T34	15	1/4 Coax	20.00 -	0.6000	0.6000
			41.00		
T34	16	1/4 Coax	20.00 -	0.6000	0.6000
			41.00		
T34	17	3/8" Coax	20.00 -	0.6000	0.6000
			41.00		
T34	19	Banjo (6" dia, 36" step)	20.00 -	0.6000	0.6000
			41.00		
T34	20	Banjo (6" dia, 36" step)	20.00 -	0.6000	0.6000
			41.00		
T34	23	LDF5-50A(7/8")	20.00 -	0.6000	0.6000
			41.00		
T34	25	LDF12-50A(2-1/4")	20.00 -	0.6000	0.6000
			41.00		
T34	26	HJ8-50B(3")	20.00 -	0.6000	0.6000
			41.00		
T34	28	LDF6-50A(1 1/4")	20.00 -	0.6000	0.6000
			41.00		
T34	31	HJ11-50(4")	20.00 -	0.6000	0.6000
			41.00		
T34	32	LDF7-50A(1-5/8")	20.00 -	0.6000	0.6000
			41.00		
T34	33	LDF7-50A(1-5/8")	20.00 -	0.6000	0.6000
			41.00		
T34	37	LDF6-50A(1-1/4")	20.00 -	0.6000	0.6000
			41.00		
T34	38	LDF6-50A(1-1/4")	20.00 -	0.6000	0.6000
			41.00		
T34	39	LDF7-50A(1-5/8")	20.00 -	0.6000	0.6000
			41.00		
T34	40	LDF4P-50A(1/2")	20.00 -	0.6000	0.6000
			41.00		
T34	43	LDF4-50A(1/2")	20.00 -	0.6000	0.6000
			41.00		
T34	44	EW63(ELLIPTICAL)	20.00 -	0.6000	0.6000
			41.00		
T34	45	EW52(ELLIPTICAL)	20.00 -	0.6000	0.6000
			41.00		
T34	51	475-000(4-1/16)	20.00 -	0.6000	0.6000
			41.00		

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
T34	53	LDF12-50(2-1/4")	20.00 - 41.00	0.6000	0.6000
T34	55	LDF5-50A(7/8")	20.00 - 41.00	0.6000	0.6000
T34	57	HJ11-50(4)	20.00 - 41.00	0.6000	0.6000
T34	63	LDF6-50A(1-1/4")	20.00 - 41.00	0.6000	0.6000
T34	71	LDF5-50A(7/8")	20.00 - 41.00	0.6000	0.6000
T34	72	LDF5-50A(7/8")	20.00 - 41.00	0.6000	0.6000
T34	73	LDF7-50A(1-5/8")	20.00 - 41.00	0.6000	0.6000
T34	75	Thin Flat Climbing Ladder	20.00 - 41.00	0.6000	0.6000
T34	76	Safety Line 3/8	20.00 - 41.00	0.6000	0.6000
T34	79	LDF4-50A(1/2)	20.00 - 41.00	0.6000	0.6000
T34	80	LDF6-50A(1-1/4)	20.00 - 41.00	0.6000	0.6000
T34	81	LDF5-50A(7/8")	20.00 - 41.00	0.6000	0.6000
T34	82	HCC312-50J(3-1/2")	20.00 - 41.00	0.6000	0.6000
T34	83	LDF7-50A(1-5/8")	20.00 - 41.00	0.6000	0.6000
T34	85	CU12PSM6P4XXX(1-3/4)	20.00 - 41.00	0.6000	0.6000
T35	1	HB158-1-08U8-S8J18(1-5/8)	10.00 - 20.00	0.6000	0.6000
T35	2	LCF78-50A(7/8")	10.00 - 20.00	0.6000	0.6000
T35	3	LDF5-50A(7/8")	10.00 - 20.00	0.6000	0.6000
T35	5	HB158-1-08U8-S8J18(1-5/8)	10.00 - 20.00	0.6000	0.6000
T35	6	LDF4-50A(1/2")	10.00 - 20.00	0.6000	0.6000
T35	7	CAT6(1/4)	10.00 - 20.00	0.6000	0.6000
T35	8	760178129(1/4)	10.00 - 20.00	0.6000	0.6000
T35	9	EW63(ELLIPTICAL)	10.00 - 20.00	0.6000	0.6000
T35	12	LCF78-50A(7/8")	10.00 - 20.00	0.6000	0.6000
T35	13	1" Rigid Conduit	10.00 - 20.00	0.6000	0.6000
T35	14	3/8" Cable (Lights)	10.00 - 20.00	0.6000	0.6000
T35	15	1/4 Coax	10.00 - 20.00	0.6000	0.6000
T35	16	1/4 Coax	10.00 - 20.00	0.6000	0.6000
T35	17	3/8" Coax	10.00 - 20.00	0.6000	0.6000
T35	19	Banjo (6" dia, 36" step)	10.00 - 20.00	0.6000	0.6000
T35	20	Banjo (6" dia, 36" step)	10.00 - 20.00	0.6000	0.6000
T35	23	LDF5-50A(7/8")	10.00 - 20.00	0.6000	0.6000
T35	25	LDF12-50A(2-1/4")	10.00 - 20.00	0.6000	0.6000
T35	26	HJ8-50B(3")	10.00 - 20.00	0.6000	0.6000
T35	28	LDF6-50A(1 1/4")	10.00 -	0.6000	0.6000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
T35	31	HJ11-50(4")	20.00 10.00 - 20.00	0.6000	0.6000
T35	32	LDF7-50A(1-5/8")	20.00 10.00 - 20.00	0.6000	0.6000
T35	33	LDF7-50A(1-5/8")	20.00 10.00 - 20.00	0.6000	0.6000
T35	37	LDF6-50A(1-1/4")	20.00 10.00 - 20.00	0.6000	0.6000
T35	38	LDF6-50A(1-1/4")	20.00 10.00 - 20.00	0.6000	0.6000
T35	39	LDF7-50A(1-5/8")	20.00 10.00 - 20.00	0.6000	0.6000
T35	40	LDF4P-50A(1/2")	20.00 10.00 - 20.00	0.6000	0.6000
T35	43	LDF4-50A(1/2")	20.00 10.00 - 20.00	0.6000	0.6000
T35	44	EW63(ELLIPTICAL)	20.00 10.00 - 20.00	0.6000	0.6000
T35	45	EW52(ELLIPTICAL)	20.00 10.00 - 20.00	0.6000	0.6000
T35	51	475-000(4-1/16)	20.00 10.00 - 20.00	0.6000	0.6000
T35	53	LDF12-50(2-1/4")	20.00 10.00 - 20.00	0.6000	0.6000
T35	55	LDF5-50A(7/8")	20.00 10.00 - 20.00	0.6000	0.6000
T35	57	HJ11-50(4)	20.00 10.00 - 20.00	0.6000	0.6000
T35	63	LDF6-50A(1-1/4")	20.00 10.00 - 20.00	0.6000	0.6000
T35	71	LDF5-50A(7/8")	20.00 10.00 - 20.00	0.6000	0.6000
T35	72	LDF5-50A(7/8")	20.00 10.00 - 20.00	0.6000	0.6000
T35	73	LDF7-50A(1-5/8")	20.00 10.00 - 20.00	0.6000	0.6000
T35	75	Thin Flat Climbing Ladder	20.00 10.00 - 20.00	0.6000	0.6000
T35	76	Safety Line 3/8	20.00 10.00 - 20.00	0.6000	0.6000
T35	79	LDF4-50A(1/2)	20.00 10.00 - 20.00	0.6000	0.6000
T35	80	LDF6-50A(1-1/4)	20.00 10.00 - 20.00	0.6000	0.6000
T35	81	LDF5-50A(7/8")	20.00 10.00 - 20.00	0.6000	0.6000
T35	82	HCC312-50J(3-1/2")	20.00 10.00 - 20.00	0.6000	0.6000
T35	83	LDF7-50A(1-5/8")	20.00 10.00 - 20.00	0.6000	0.6000
T35	85	CU12PSM6P4XXX(1-3/4)	6.71 - 20.00	0.6000	0.6000
T36	85	CU12PSM6P4XXX(1-3/4)	0.00 - 6.71	0.4019	0.1857

Discrete Tower Loads

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft
12" x 3' Beacon	A	From Centroid-Leg	0.00 0.00 40.00	0.0000	457.00
3" x 6" SideLight	A	From Leg	1.00 0.00 0.00	0.0000	333.00
3" x 6" SideLight	B	From Leg	1.00 0.00 0.00	0.0000	333.00
3" x 6" SideLight	C	From Leg	1.00 0.00 0.00	0.0000	333.00
3" x 6" SideLight	A	From Leg	1.00 0.00 0.00	0.0000	215.00
3" x 6" SideLight	B	From Leg	1.00 0.00 0.00	0.0000	215.00
3" x 6" SideLight	C	From Leg	1.00 0.00 0.00	0.0000	215.00
3" x 6" SideLight	A	From Leg	1.00 0.00 0.00	0.0000	112.00
3" x 6" SideLight	B	From Leg	1.00 0.00 0.00	0.0000	112.00
3" x 6" SideLight	C	From Leg	1.00 0.00 0.00	0.0000	112.00
458 ATC-BCE618C3R-V1-21	A	From Leg	0.50 0.00 19.00	0.0000	458.00
450 (2) MXM REPEATER MK2	B	From Leg	1.00 0.00 0.00	-44.0000	450.00
(2) MXM REPEATER MK2	C	From Leg	1.00 0.00 0.00	15.0000	450.00
(2) 1.9" x 8' Pipe (Horizontal)	A	From Face	1.00 0.00 0.00	0.0000	450.00
1.9" x 8' Pipe (Horizontal)	B	From Face	1.00 0.00 0.00	0.0000	450.00
1.9" x 8' Pipe (Horizontal)	C	From Face	1.00 0.00 0.00	0.0000	450.00
Pipe Mount [PM 601-1]	B	From Leg	0.50 0.00 0.00	0.0000	450.00
Pipe Mount [PM 601-1]	C	From Leg	0.50 0.00 0.00	0.0000	450.00
*** **441** SRL-235-2	A	From Leg	6.00 0.00 10.00	65.0000	441.00
Side Arm Mount [SO 308-1]	A	From Leg	3.00 0.00 0.00	65.0000	441.00
439					

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft
BCD-87077	B	From Leg	6.00 0.00 6.00	-65.0000	439.00
Side Arm Mount [SO 308-1]	B	From Leg	3.00 0.00 0.00	-65.0000	439.00
*** ERI 1183-3CP ***	C	None		0.0000	435.00 - 405.00
6014-2	A	None		0.0000	393.00
6014-2	C	None		0.0000	388.00
***367**					
6828-2	C	From Leg	1.00 0.00 0.00	-20.0000	367.00
364 DB806E-XT	A	From Leg	4.00 0.00 4.00	-75.0000	364.00
Side Arm Mount [SO 601-1]	A	From Leg	2.00 0.00 0.00	-75.0000	364.00
*** 455-6	B	From Leg	4.00 0.00 10.00	-35.0000	344.00
Side Arm Mount [SO 601-1]	B	From Leg	2.00 0.00 0.00	-35.0000	344.00
*** AO9009-3	B	From Leg	4.00 0.00 5.00	90.0000	342.00
Side Arm Mount [SO 305-1]	B	From Leg	2.00 0.00 0.00	90.0000	342.00
455-6	A	From Leg	4.00 0.00 10.00	-60.0000	342.00
Side Arm Mount [SO 601-1]	A	From Leg	2.00 0.00 0.00	-60.0000	342.00
*** 455-6	A	From Leg	6.00 0.00 10.00	-50.0000	340.00
Side Arm Mount [SO 308-1]	A	From Leg	3.00 0.00 0.00	-50.0000	340.00
330 PG1N0F-0090-310	B	From Leg	6.00 0.00 5.00	-60.0000	330.00
Side Arm Mount [SO 601-1]	B	From Leg	3.00 0.00 0.00	-60.0000	330.00
328 7P-C1-2-CP-L	C	From Leg	4.00 0.00 0.00	-75.0000	328.00
(3) Side Arm Mount [SO 701-1]	C	From Leg	2.00 0.00 0.00	-75.0000	328.00
326 DB201-A	A	From Leg	6.00	0.0000	326.00

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft
			0.00		
Side Arm Mount [SO 602-1]	A	From Leg	3.00	0.0000	326.00
			3.00		
			0.00		
			0.00		
**325 DB408	A	From Leg	6.00	0.0000	325.00
			0.00		
			0.00		
Side Arm Mount [SO 303-1]	A	From Leg	3.00	0.0000	325.00
			0.00		
			0.00		
322 SRL310C-4HD	B	From Leg	6.00	0.0000	322.00
			0.00		
			5.00		
Side Arm Mount [SO 308-1]	B	From Leg	3.00	0.0000	322.00
			0.00		
			0.00		
Pipe Mount [PM 601-1]	A	From Leg	0.50	0.0000	322.00
			0.00		
			0.00		
*** 6014-2	A	None		0.0000	316.00
6014-2	A	None		0.0000	306.00

284 DB404-B w/ Mount Pipe	A	From Leg	0.50	-15.0000	284.00
			0.00		
			0.00		
277 BMR10-A-B1	B	From Leg	1.00	-45.0000	277.00
			0.00		
			6.00		
264 ANT150F6	A	From Leg	6.00	-15.0000	264.00
			0.00		
			9.00		
Side Arm Mount [SO 303-1]	A	From Leg	3.00	-15.0000	264.00
			0.00		
			0.00		
255 DB809KT3E-Y	B	From Leg	3.00	-75.0000	255.00
			0.00		
			6.00		
Side Arm Mount [SO 203-1]	B	From Leg	1.50	-75.0000	255.00
			0.00		
			0.00		
247 AIR 32 B2A B66AA_T-MOBILE w/ Mount Pipe	A	From Leg	4.00	0.0000	247.00
			0.00		
			0.00		
AIR 32 B2A B66AA_T-MOBILE w/ Mount Pipe	B	From Leg	4.00	0.0000	247.00
			0.00		
			0.00		
AIR 32 B2A B66AA_T-MOBILE w/ Mount Pipe	C	From Leg	4.00	0.0000	247.00
			0.00		
			0.00		
AIR6449 B41_T-MOBILE w/ Mount Pipe	A	From Leg	4.00	0.0000	247.00
			0.00		
			1.00		
AIR6449 B41_T-MOBILE w/ Mount Pipe	B	From Leg	4.00	0.0000	247.00
			0.00		
			1.00		
AIR6449 B41_T-MOBILE w/ Mount Pipe	C	From Leg	4.00	0.0000	247.00

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft
			0.00		
APXVAARR24_43-U-NA20 w/ Mount Pipe	A	From Leg	1.00 4.00	0.0000	247.00
			0.00		
APXVAARR24_43-U-NA20 w/ Mount Pipe	B	From Leg	0.00 4.00	0.0000	247.00
			0.00		
APXVAARR24_43-U-NA20 w/ Mount Pipe	C	From Leg	0.00 4.00	0.0000	247.00
			0.00		
SDX1926Q-43	A	From Leg	0.00 4.00	0.0000	247.00
			0.00		
SDX1926Q-43	B	From Leg	-2.00 4.00	0.0000	247.00
			0.00		
SDX1926Q-43	C	From Leg	-2.00 4.00	0.0000	247.00
			0.00		
KRY 112 144/2	A	From Leg	-2.00 4.00	0.0000	247.00
			0.00		
KRY 112 144/2	B	From Leg	0.00 4.00	0.0000	247.00
			0.00		
KRY 112 144/2	C	From Leg	0.00 4.00	0.0000	247.00
			0.00		
RADIO 4449 B12/B71	A	From Leg	0.00 4.00	0.0000	247.00
			0.00		
RADIO 4449 B12/B71	B	From Leg	0.00 4.00	0.0000	247.00
			0.00		
RADIO 4449 B12/B71	C	From Leg	0.00 4.00	0.0000	247.00
			0.00		
RRUS 4415 B25_CCIV2	A	From Leg	0.00 4.00	0.0000	247.00
			0.00		
RRUS 4415 B25_CCIV2	B	From Leg	0.00 4.00	0.0000	247.00
			0.00		
RRUS 4415 B25_CCIV2	C	From Leg	0.00 4.00	0.0000	247.00
			0.00		
Sector Mount [SM 301-3] **230**	C	None	0.00	0.0000	247.00
(2) JAHH-65B-R3B w/ Mount Pipe	A	From Leg	4.00	0.0000	230.00
			0.00		
(2) JAHH-65B-R3B w/ Mount Pipe	B	From Leg	2.00 4.00	0.0000	230.00
			0.00		
(2) JAHH-65B-R3B w/ Mount Pipe	C	From Leg	2.00 4.00	0.0000	230.00
			0.00		
MT6407-77A w/ Mount Pipe	A	From Leg	2.00 4.00	0.0000	230.00
			0.00		
MT6407-77A w/ Mount Pipe	B	From Leg	2.00 4.00	0.0000	230.00
			0.00		
MT6407-77A w/ Mount Pipe	C	From Leg	2.00 4.00	0.0000	230.00

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft
			0.00		
			2.00		
CBC78T-DS-43-2X	A	From Leg	4.00	0.0000	230.00
			0.00		
			2.00		
CBC78T-DS-43-2X	B	From Leg	4.00	0.0000	230.00
			0.00		
			2.00		
CBC78T-DS-43-2X	C	From Leg	4.00	0.0000	230.00
			0.00		
			2.00		
RFV01U-D1A	A	From Leg	4.00	0.0000	230.00
			0.00		
			2.00		
RFV01U-D1A	B	From Leg	4.00	0.0000	230.00
			0.00		
			2.00		
RFV01U-D1A	C	From Leg	4.00	0.0000	230.00
			0.00		
			2.00		
RFV01U-D2A	A	From Leg	4.00	0.0000	230.00
			0.00		
			2.00		
RFV01U-D2A	B	From Leg	4.00	0.0000	230.00
			0.00		
			2.00		
RFV01U-D2A	C	From Leg	4.00	0.0000	230.00
			0.00		
			2.00		
LNX-6514DS-VTM w/ Mount Pipe	C	From Leg	4.00	0.0000	230.00
			0.00		
			2.00		
LNX-8513DS-VTM w/ Mount Pipe	A	From Leg	4.00	0.0000	230.00
			0.00		
			2.00		
LNX-8513DS-VTM w/ Mount Pipe	B	From Leg	4.00	0.0000	230.00
			0.00		
			2.00		
(2) RRFDC-3315-PF-48	B	From Leg	4.00	0.0000	230.00
			0.00		
			8.00		
(4) 7' Hor x 2.5" x 2.5" Angle Mount	A	From Leg	4.00	0.0000	230.00
			6.00		
			0.00		
(4) 7' Hor x 2.5" x 2.5" Angle Mount	B	From Leg	4.00	0.0000	230.00
			6.00		
			0.00		
(4) 7' Hor x 2.5" x 2.5" Angle Mount	C	From Leg	4.00	0.0000	230.00
			6.00		
			0.00		
Sector Mount [SM 407-3]	C	None		0.0000	230.00

200					
DFPD1-52 w/ Mount Pipe	C	From Leg	1.00	45.0000	200.00
			0.00		
			0.00		
188					
BMYD745K	A	From Leg	1.00	-90.0000	188.00
			0.00		
			0.00		
Pipe Mount [PM 601-1]	A	From Leg	0.50	-80.0000	188.00
			0.00		
			0.00		
186					

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft
MX08FRO665-21 w/ Mount Pipe	A	From Leg	4.00 -6.00 0.00	25.0000	186.00
MX08FRO665-21 w/ Mount Pipe	B	From Leg	4.00 -6.00 0.00	25.0000	186.00
MX08FRO665-21 w/ Mount Pipe	C	From Leg	4.00 -6.00 0.00	25.0000	186.00
TA08025-B604	A	From Leg	4.00 -6.00 0.00	25.0000	186.00
TA08025-B604	B	From Leg	4.00 -6.00 0.00	25.0000	186.00
TA08025-B604	C	From Leg	4.00 -6.00 0.00	25.0000	186.00
TA08025-B605	A	From Leg	4.00 -6.00 0.00	25.0000	186.00
TA08025-B605	B	From Leg	4.00 -6.00 0.00	25.0000	186.00
TA08025-B605	C	From Leg	4.00 -6.00 0.00	25.0000	186.00
RDIDC-9181-PF-48	A	From Leg	4.00 -6.00 0.00	25.0000	186.00
Commscope MTC3975083 (3)	C	None		0.0000	186.00
(2) 2.4" Dia x 8-ft Mount Pipe	A	From Leg	4.00 0.00 0.00	0.0000	186.00
(2) 2.4" Dia x 8-ft Mount Pipe	B	From Leg	4.00 0.00 0.00	0.0000	186.00
(2) 2.4" Dia x 8-ft Mount Pipe	C	From Leg	4.00 0.00 0.00	0.0000	186.00
178 12"x12"x3" TMA	C	From Leg	0.50 0.00 0.00	0.0000	178.00
1.9" x 5.5' Pipe (Horizontal)	B	From Leg	0.00 -2.00 0.00	0.0000	150.00
146 Pipe Mount [PM 601-1]	B	From Leg	0.50 0.00 0.00	0.0000	146.00
140 CM 4228HD	B	From Leg	0.50 0.00 0.00	-35.0000	140.00
136 CSI-AY/809-960/11	B	From Leg	1.50 0.00 0.00	5.0000	136.00
2.4" Dia x 8-ft Mount Pipe	B	From Leg	0.67 0.00 0.00	0.0000	136.00
133 220-5	A	From Leg	6.00 0.00	-75.0000	133.00

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft
Side Arm Mount [SO 601-1]	A	From Leg	10.00 3.00 0.00 0.00	-75.0000	133.00
DB264-A	C	From Leg	2.00 0.00 9.00	-35.0000	133.00
Side Arm Mount [SO 202-1]	C	From Leg	1.00 0.00 0.00	-35.0000	133.00
*** ***109** PD1132-D	B	From Leg	2.00 0.00 4.00	65.0000	109.00
Side Arm Mount [SO 202-1]	B	From Leg	1.00 0.00 0.00	65.0000	109.00
108 2.4" Dia x 4-ft Mount Pipe	C	From Leg	0.50 0.00 0.00	0.0000	108.00
*** *** PTP 900-13 w/ Mount Pipe	C	From Leg	2.00 0.00 0.00	35.0000	99.00
*** CSI-AY/809-960/11	C	From Leg	2.00 0.00 -8.00	-35.0000	62.00
(2) Side Arm Mount [SO 601-1]	C	From Leg	1.00 0.00 0.00	0.0000	62.00
*** (2) PL6" x 0.5"	A	From Face	0.00 0.00 0.00	0.0000	258.50
(2) PL6" x 0.5"	B	From Face	0.00 0.00 0.00	0.0000	258.50
(2) PL6" x 0.5"	C	From Face	0.00 0.00 0.00	0.0000	258.50

Dishes

Description	Face or Leg	Dish Type	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	3 dB Beam Width °	Elevation ft	Outside Diameter ft
USX6-6W-6GR	B	Paraboloid w/Shroud (HP)	From Leg	1.00 0.00 0.00	-44.0000		450.00	6.00
USX6-6W-6GR	C	Paraboloid w/Shroud (HP)	From Leg	1.00 0.00 0.00	15.0000		450.00	6.00

Description	Face or Leg	Dish Type	Offset Type	Offsets:		Azimuth Adjustment	3 dB Beam Width	Elevation	Outside Diameter
				Horz Lateral	Vert				
				ft	ft	°	°	ft	ft
SPD3-5.8	A	Paraboloid w/Radome	From Leg	1.00	0.00	-15.0000		322.00	3.00
P-9A72GN-U	C	Grid	From Leg	0.50	0.00	45.0000		206.00	6.00
SPD4-5.2	C	Paraboloid w/Radome	From Leg	1.00	0.00	35.0000		178.00	4.00
HPX6-65-P3A	B	Paraboloid w/Shroud (HP)	From Leg	1.00	0.00	-15.0000		150.00	6.46
PL6-65-PXA	B	Paraboloid w/o Radome	From Leg	1.00	0.00	-65.0000		146.00	6.36
CM 4228HD	B	Grid	From Leg	1.00	0.00	-35.0000		140.00	3.55
CM 4228HD	B	Grid	From Leg	1.00	0.00	-5.0000		136.00	3.55
MGA2-16N	B	Grid	From Leg	0.67	0.00	-15.0000		136.00	2.00
MGAR3-23N	B	Grid	From Leg	0.67	0.00	5.0000		136.00	3.38
P-9A48GN-U	C	Grid	From Leg	1.00	0.00	-75.0000		117.00	4.00
SSH-9A72GN	C	Grid	From Leg	1.00	0.00	0.0000		108.00	2.84
SPD2-5.8	B	Paraboloid w/Shroud (HP)	From Leg	1.00	0.00	-15.0000		99.00	2.00
P-9A48GN-U	C	Grid	From Leg	2.00	0.00	-35.0000		62.00	4.00
SSH-9A72GN	C	Grid	From Leg	2.00	0.00	-75.0000		62.00	6.00
					-1.00				

Load Combinations

Comb. No.	Description
1	Dead Only
2	1.2D+1.0W (pattern 1) 0 deg - No Ice+1.0 Guy
3	1.2D+1.0W (pattern 2) 0 deg - No Ice+1.0 Guy
4	1.2D+1.0W (pattern 3) 0 deg - No Ice+1.0 Guy
5	1.2D+1.0W (pattern 1) 30 deg - No Ice+1.0 Guy
6	1.2D+1.0W (pattern 2) 30 deg - No Ice+1.0 Guy
7	1.2D+1.0W (pattern 3) 30 deg - No Ice+1.0 Guy
8	1.2D+1.0W (pattern 1) 60 deg - No Ice+1.0 Guy
9	1.2D+1.0W (pattern 2) 60 deg - No Ice+1.0 Guy
10	1.2D+1.0W (pattern 3) 60 deg - No Ice+1.0 Guy
11	1.2D+1.0W (pattern 1) 90 deg - No Ice+1.0 Guy
12	1.2D+1.0W (pattern 2) 90 deg - No Ice+1.0 Guy
13	1.2D+1.0W (pattern 3) 90 deg - No Ice+1.0 Guy
14	1.2D+1.0W (pattern 1) 120 deg - No Ice+1.0 Guy

Comb. No.	Description
15	1.2D+1.0W (pattern 2) 120 deg - No Ice+1.0 Guy
16	1.2D+1.0W (pattern 3) 120 deg - No Ice+1.0 Guy
17	1.2D+1.0W (pattern 1) 150 deg - No Ice+1.0 Guy
18	1.2D+1.0W (pattern 2) 150 deg - No Ice+1.0 Guy
19	1.2D+1.0W (pattern 3) 150 deg - No Ice+1.0 Guy
20	1.2D+1.0W (pattern 1) 180 deg - No Ice+1.0 Guy
21	1.2D+1.0W (pattern 2) 180 deg - No Ice+1.0 Guy
22	1.2D+1.0W (pattern 3) 180 deg - No Ice+1.0 Guy
23	1.2D+1.0W (pattern 1) 210 deg - No Ice+1.0 Guy
24	1.2D+1.0W (pattern 2) 210 deg - No Ice+1.0 Guy
25	1.2D+1.0W (pattern 3) 210 deg - No Ice+1.0 Guy
26	1.2D+1.0W (pattern 1) 240 deg - No Ice+1.0 Guy
27	1.2D+1.0W (pattern 2) 240 deg - No Ice+1.0 Guy
28	1.2D+1.0W (pattern 3) 240 deg - No Ice+1.0 Guy
29	1.2D+1.0W (pattern 1) 270 deg - No Ice+1.0 Guy
30	1.2D+1.0W (pattern 2) 270 deg - No Ice+1.0 Guy
31	1.2D+1.0W (pattern 3) 270 deg - No Ice+1.0 Guy
32	1.2D+1.0W (pattern 1) 300 deg - No Ice+1.0 Guy
33	1.2D+1.0W (pattern 2) 300 deg - No Ice+1.0 Guy
34	1.2D+1.0W (pattern 3) 300 deg - No Ice+1.0 Guy
35	1.2D+1.0W (pattern 1) 330 deg - No Ice+1.0 Guy
36	1.2D+1.0W (pattern 2) 330 deg - No Ice+1.0 Guy
37	1.2D+1.0W (pattern 3) 330 deg - No Ice+1.0 Guy
38	1.2 Dead+1.0 Ice+1.0 Temp+Guy
39	1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp+1.0 Guy
40	1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp+1.0 Guy
41	1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp+1.0 Guy
42	1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp+1.0 Guy
43	1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp+1.0 Guy
44	1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp+1.0 Guy
45	1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp+1.0 Guy
46	1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp+1.0 Guy
47	1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp+1.0 Guy
48	1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp+1.0 Guy
49	1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp+1.0 Guy
50	1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp+1.0 Guy
51	Dead+Wind 0 deg - Service+Guy
52	Dead+Wind 30 deg - Service+Guy
53	Dead+Wind 60 deg - Service+Guy
54	Dead+Wind 90 deg - Service+Guy
55	Dead+Wind 120 deg - Service+Guy
56	Dead+Wind 150 deg - Service+Guy
57	Dead+Wind 180 deg - Service+Guy
58	Dead+Wind 210 deg - Service+Guy
59	Dead+Wind 240 deg - Service+Guy
60	Dead+Wind 270 deg - Service+Guy
61	Dead+Wind 300 deg - Service+Guy
62	Dead+Wind 330 deg - Service+Guy

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
T1	457 - 436	Leg	Max Tension	9	8.94	0.45	-0.27
			Max. Compression	3	-22.43	-0.02	-0.32
			Max. Mx	30	-8.75	0.98	-0.11
			Max. My	3	-15.58	0.01	0.78
			Max. Vy	29	1.16	0.27	-0.04
			Max. Vx	14	-0.78	-0.09	-0.20
		Diagonal	Max Tension	8	2.55	0.00	0.00
			Max. Compression	33	-1.97	0.00	0.00
			Max. Mx	42	0.30	0.03	0.00
			Max. My	29	-1.18	0.01	-0.00
			Max. Vy	42	-0.02	0.03	0.00
			Max. Vx	29	-0.00	0.01	-0.00
		Horizontal	Max Tension	41	0.76	0.00	0.00

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft	
T2	436 - 421	Top Girt	Max. Compression	4	-0.54	0.00	0.00	
			Max. Mx	44	0.30	-0.05	0.00	
			Max. My	11	-0.34	0.00	0.00	
			Max. Vy	44	0.03	0.00	0.00	
			Max. Vx	11	-0.00	0.00	0.00	
			Max Tension	43	0.43	0.00	0.00	
			Max. Compression	20	-0.20	0.00	0.00	
			Max. Mx	44	0.35	0.14	0.00	
			Max. My	11	0.05	0.00	-0.00	
			Max. Vy	44	-0.09	0.00	0.00	
		Mid Girt	Max. Vx	11	0.00	0.00	0.00	
			Max Tension	43	3.12	0.00	0.00	
			Max. Compression	1	0.00	0.00	0.00	
			Max. Mx	44	2.45	-0.05	0.00	
			Max. My	11	1.85	0.00	0.00	
			Max. Vy	44	0.03	0.00	0.00	
			Max. Vx	11	-0.00	0.00	0.00	
			Guy A	Bottom Tension	20	11.12		
				Top Tension	20	11.43		
				Top Cable Vert	20	8.92		
		Top Cable Norm		20	7.15			
		Top Cable Tan		20	0.00			
		Bot Cable Vert		20	-8.12			
		Bot Cable Norm		20	7.59			
		Bot Cable Tan		20	0.00			
		Guy B		Bottom Tension	32	11.60		
				Top Tension	32	11.91		
			Top Cable Vert	32	9.32			
			Top Cable Norm	32	7.41			
			Top Cable Tan	32	0.00			
			Bot Cable Vert	32	-8.54			
			Bot Cable Norm	32	7.85			
			Bot Cable Tan	32	0.00			
			Guy C	Bottom Tension	8	11.60		
				Top Tension	8	11.91		
		Top Cable Vert		8	9.23			
		Top Cable Norm		8	7.53			
		Top Cable Tan		8	0.00			
		Bot Cable Vert		8	-8.43			
		Bot Cable Norm		8	7.96			
		Bot Cable Tan		8	0.00			
		Leg		Max Tension	9	23.45	-0.89	0.53
				Max. Compression	3	-35.44	-0.05	-0.74
			Max. Mx	26	-33.23	1.03	-0.63	
			Max. My	20	10.81	-0.02	-1.11	
			Max. Vy	26	0.55	1.03	-0.63	
			Max. Vx	2	0.61	0.07	1.11	
			Diagonal	Max Tension	29	3.16	0.00	0.00
				Max. Compression	17	-3.87	0.00	0.00
				Max. Mx	42	0.07	0.02	0.00
Max. My	13			-1.53	0.01	0.00		
Max. Vy	42			-0.02	0.02	0.00		
Max. Vx	13			-0.00	0.01	0.00		
Horizontal	Max Tension		9	1.12	0.00	0.00		
	Max. Compression		3	-0.06	0.00	0.00		
	Max. Mx		40	0.88	-0.05	0.00		
	Max. My		11	0.22	0.00	0.00		
Top Girt	Max. Vy		40	-0.03	0.00	0.00		
	Max. Vx		11	-0.00	0.00	0.00		
	Max Tension		41	0.96	0.00	0.00		
	Max. Compression		1	0.00	0.00	0.00		
	Max. Mx	40	0.95	-0.05	0.00			
	Max. My	11	0.27	0.00	0.00			
	Max. Vy	40	-0.03	0.00	0.00			
	Max. Vx	11	-0.00	0.00	0.00			
	T3	421 - 401	Leg	Max Tension	8	60.09	-1.67	0.98
				Max. Compression	26	-79.54	-1.16	0.70
Max. Mx				26	-65.61	1.85	-1.14	
Max. My				2	-64.78	0.11	2.05	

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
T4	401 - 396	Diagonal	Max. Vy	26	0.88	1.85	-1.14
			Max. Vx	2	0.98	0.11	2.05
			Max Tension	17	6.54	0.00	0.00
			Max. Compression	17	-6.65	0.00	0.00
			Max. Mx	14	5.69	0.05	0.00
			Max. My	11	-6.27	-0.01	0.01
			Max. Vy	49	-0.02	0.04	-0.00
			Max. Vx	11	-0.00	-0.01	0.01
		Top Girt	Max Tension	9	0.60	0.00	0.00
			Max. Compression	3	-0.05	0.00	0.00
			Max. Mx	40	0.56	-0.05	0.00
			Max. My	11	0.13	0.00	0.00
			Max. Vy	40	0.03	0.00	0.00
			Max. Vx	11	-0.00	0.00	0.00
			Max Tension	9	0.23	0.00	0.00
			Max. Compression	3	-0.08	0.00	0.00
		Mid Girt	Max. Mx	47	0.11	-0.05	0.00
			Max. My	11	0.03	0.00	0.00
			Max. Vy	47	-0.03	0.00	0.00
			Max. Vx	11	-0.00	0.00	0.00
			Max Tension	9	0.23	0.00	0.00
			Max. Compression	3	-0.08	0.00	0.00
			Max. Mx	47	0.11	-0.05	0.00
			Max. My	11	0.03	0.00	0.00
		Leg	Max. Vy	47	-0.03	0.00	0.00
			Max. Vx	11	-0.00	0.00	0.00
			Max Tension	8	74.15	-2.74	0.02
			Max. Compression	26	-94.54	-2.15	0.08
Max. Mx	26		-94.34	2.89	-0.08		
Max. My	11		-20.38	0.15	0.84		
Max. Vy	26		1.05	2.89	-0.08		
Max. Vx	11		0.26	0.15	0.84		
Diagonal	Max Tension		17	6.94	0.00	0.00	
	Max. Compression		17	-7.10	0.00	0.00	
	Max. Mx		11	6.60	0.03	-0.00	
	Max. My		17	-7.06	-0.01	0.01	
Top Girt	Max. Vy	49	-0.02	0.02	-0.00		
	Max. Vx	17	-0.00	-0.01	0.01		
	Max Tension	8	0.54	0.00	0.00		
	Max. Compression	26	-0.39	0.00	0.00		
T5	396 - 391	Leg	Max. Mx	44	0.13	-0.05	0.00
			Max. My	11	0.04	0.00	0.00
			Max. Vy	44	-0.03	0.00	0.00
			Max. Vx	11	-0.00	0.00	0.00
		Diagonal	Max Tension	8	88.89	-2.37	0.01
			Max. Compression	26	-110.89	-1.44	0.03
			Max. Mx	8	88.89	-2.37	0.01
			Max. My	11	-21.30	0.02	1.44
			Max. Vy	8	-1.13	-2.37	0.01
			Max. Vx	11	0.72	0.02	1.44
			Max Tension	17	7.66	0.00	0.00
			Max. Compression	17	-7.70	0.00	0.00
T6	391 - 386	Leg	Max. Mx	14	6.67	0.04	0.00
			Max. My	11	-7.31	-0.01	0.01
			Max. Vy	49	-0.02	0.03	-0.00
			Max. Vx	11	-0.00	-0.01	0.01
		Diagonal	Max Tension	8	106.73	-3.79	0.02
			Max. Compression	26	-129.44	-3.11	0.10
			Max. Mx	8	106.73	-3.79	0.02
			Max. My	11	-22.05	0.03	1.34
			Max. Vy	26	1.71	3.71	-0.09
			Max. Vx	13	0.69	0.04	1.30
			Max Tension	17	8.75	0.00	0.00
			Max. Compression	17	-9.86	0.00	0.00
Top Girt	Max. Mx	29	4.57	0.04	-0.00		
	Max. My	17	-9.82	-0.01	0.01		
	Max. Vy	49	-0.02	0.02	-0.00		
	Max. Vx	17	-0.00	-0.01	0.01		
	Max Tension	47	0.63	0.00	0.00		
	Max. Compression	1	0.00	0.00	0.00		
	Max. Mx	39	0.36	-0.05	0.00		
	Max. My	11	0.38	0.00	0.00		
T7	386 - 381	Leg	Max. Vy	39	0.03	0.00	0.00
			Max. Vx	11	-0.00	0.00	0.00
			Max Tension	8	124.16	-2.27	0.00

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft	
T8	381 - 376	Diagonal	Max. Compression	26	-151.14	-1.03	0.01	
			Max. Mx	26	-150.95	3.08	-0.03	
			Max. My	11	-24.76	0.42	1.88	
			Max. Vy	26	0.86	3.08	-0.03	
			Max. Vx	11	0.51	0.42	1.88	
			Max Tension	17	10.39	0.00	0.00	
			Max. Compression	17	-9.32	0.00	0.00	
			Max. Mx	29	-3.87	-0.04	0.00	
			Max. My	11	-8.92	-0.03	0.01	
			Max. Vy	49	-0.02	0.03	-0.00	
			Max. Vx	11	-0.00	-0.03	0.01	
			Leg	Max Tension	8	85.75	-1.44	0.02
		Max. Compression		26	-160.52	0.93	0.04	
		Max. Mx		27	-118.40	1.94	0.04	
		Max. My		30	-46.61	0.21	-1.11	
		Max. Vy		3	-0.49	1.91	0.03	
		Max. Vx		6	0.28	0.22	-1.08	
		Diagonal		Max Tension	6	7.78	0.00	0.00
				Max. Compression	6	-6.58	0.00	0.00
				Max. Mx	11	-3.46	0.05	-0.01
				Max. My	2	-2.88	0.04	-0.01
				Max. Vy	48	-0.02	0.03	-0.00
				Max. Vx	2	0.00	0.04	-0.01
		Guy A	Bottom Tension	25	64.34			
			Top Tension	25	65.93			
			Top Cable Vert	25	47.42			
			Top Cable Norm	25	45.79			
			Top Cable Tan	25	0.26			
			Bot Cable Vert	25	-44.42			
			Bot Cable Norm	25	46.54			
			Bot Cable Tan	25	0.60			
			Guy B	Bottom Tension	31	65.35		
				Top Tension	31	66.90		
				Top Cable Vert	31	48.33		
				Top Cable Norm	31	46.26		
		Top Cable Tan		31	0.26			
		Bot Cable Vert		31	-45.39			
		Guy C	Bot Cable Norm	31	47.01			
			Bot Cable Tan	31	0.60			
			Bottom Tension	13	64.52			
			Top Tension	13	66.10			
			Top Cable Vert	13	47.24			
Top Cable Norm	13		46.23					
Top Guy Pull-Off	Top Cable Tan	13	0.27					
	Bot Cable Vert	13	-44.22					
	Bot Cable Norm	13	46.97					
	Bot Cable Tan	13	0.60					
	Max Tension	28	20.79	0.00	0.00			
	Max. Compression	1	0.00	0.00	0.00			
	Max. Mx	42	10.42	0.09	0.00			
	Max. My	11	11.71	0.00	-0.00			
	Max. Vy	42	-0.06	0.00	0.00			
	Max. Vx	11	0.00	0.00	0.00			
	T9	376 - 371	Leg	Max Tension	8	79.03	1.53	-0.01
				Max. Compression	26	-151.48	1.74	-0.02
Max. Mx				27	-102.38	-2.71	0.04	
Max. My				24	-33.36	-0.08	0.56	
Max. Vy				27	-1.10	2.58	-0.01	
Max. Vx				24	-0.24	-0.08	0.56	
Diagonal			Max Tension	6	6.75	0.00	0.00	
			Max. Compression	6	-7.78	0.00	0.00	
			Max. Mx	11	-2.17	0.05	-0.00	
			Max. My	11	-4.79	0.04	0.01	
			Max. Vy	49	-0.02	0.04	-0.00	
			Max. Vx	11	-0.00	0.04	0.01	
T10	371 - 366	Leg	Max Tension	8	69.66	0.95	-0.00	
			Max. Compression	26	-144.27	1.01	0.02	
		Max. Mx	9	27.77	-1.96	0.03		
		Max. My	30	-47.15	-0.21	-0.90		

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft	
T11	366 - 361	Diagonal	Max. Vy	9	0.90	-1.96	0.03	
			Max. Vx	37	-0.57	-0.22	0.86	
			Max Tension	6	6.82	0.00	0.00	
			Max. Compression	6	-6.78	0.00	0.00	
			Max. Mx	14	3.00	-0.04	0.00	
			Max. My	2	-3.29	0.02	-0.00	
		Top Girt	Max. Vy	49	-0.02	0.02	-0.00	
			Max. Vx	2	0.00	0.02	-0.00	
			Max Tension	11	0.79	0.00	0.00	
			Max. Compression	1	0.00	0.00	0.00	
			Max. Mx	39	0.53	-0.05	0.00	
			Max. My	11	0.44	0.00	0.00	
		Leg	Max. Vy	39	-0.03	0.00	0.00	
			Max. Vx	11	-0.00	0.00	0.00	
			Max Tension	8	61.58	0.86	0.01	
			Max. Compression	26	-136.81	1.45	-0.01	
			Max. Mx	27	-75.64	2.49	-0.01	
			Max. My	30	-47.99	-0.04	-0.74	
			Diagonal	Max. Vy	27	-0.98	2.49	-0.01
				Max. Vx	30	0.30	-0.04	-0.74
				Max Tension	36	6.17	0.00	0.00
Max. Compression	36			-6.32	0.00	0.00		
Max. Mx	14			-3.11	0.05	-0.00		
Max. My	35			-3.68	0.02	0.00		
T12	361 - 341	Leg	Max. Vy	48	-0.02	0.04	-0.00	
			Max. Vx	36	0.00	0.00	0.00	
			Max Tension	8	54.26	0.59	-0.32	
			Max. Compression	26	-129.78	0.22	-0.06	
			Max. Mx	27	-52.07	-1.80	1.06	
			Max. My	3	-47.44	-0.05	-2.04	
		Diagonal	Max. Vy	27	-0.86	0.31	-0.19	
			Max. Vx	4	-0.98	0.01	0.40	
			Max Tension	36	5.58	-0.03	-0.00	
			Max. Compression	36	-5.84	0.00	0.00	
			Max. Mx	14	-2.97	0.06	-0.01	
			Max. My	26	-3.16	0.06	-0.01	
		Secondary Horizontal	Max. Vy	43	-0.03	0.05	-0.00	
			Max. Vx	11	-0.00	0.05	0.01	
			Max Tension	29	0.64	0.03	-0.01	
Max. Compression	3		-0.17	0.00	0.00			
Max. Mx	42		0.32	0.03	-0.00			
Max. My	14		0.34	-0.01	-0.01			
Max. Vy	42		0.02	0.03	-0.00			
Max. Vx	14		-0.00	0.00	0.00			
Top Girt	Max Tension		8	0.56	0.00	0.00		
	Max. Compression	26	-0.21	0.00	0.00			
	Max. Mx	48	0.20	-0.05	0.00			
	Max. My	11	0.14	0.00	0.00			
	Max. Vy	48	-0.03	0.00	0.00			
	Max. Vx	11	-0.00	0.00	0.00			
Mid Girt	Max Tension	32	0.37	0.00	0.00			
	Max. Compression	26	-0.11	0.00	0.00			
	Max. Mx	40	0.17	-0.05	0.00			
	Max. My	11	0.11	0.00	0.00			
	Max. Vy	48	-0.03	0.00	0.00			
	Max. Vx	11	-0.00	0.00	0.00			
T13	341 - 321	Leg	Max Tension	8	29.99	0.64	-0.34	
			Max. Compression	26	-107.77	0.50	-0.26	
			Max. Mx	15	-16.26	-1.02	-0.51	
			Max. My	3	-14.95	-0.04	1.09	
			Max. Vy	31	0.59	-0.06	-0.15	
			Max. Vx	3	-0.46	-0.04	1.09	
		Diagonal	Max Tension	12	3.88	0.00	0.00	
			Max. Compression	12	-3.90	0.00	0.00	
			Max. Mx	14	-1.59	0.06	-0.00	
			Max. My	11	-2.38	0.05	0.01	
			Max. Vy	43	-0.03	0.06	0.00	
			Max. Vx	11	-0.00	0.05	0.01	

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft	
T14	321 - 301	Top Girt	Max Tension	32	0.38	0.00	0.00	
			Max. Compression	14	-0.04	0.00	0.00	
			Max. Mx	48	0.19	-0.05	0.00	
			Max. My	11	0.13	0.00	0.00	
			Max. Vy	48	0.03	0.00	0.00	
			Max. Vx	11	-0.00	0.00	0.00	
		Mid Girt	Max Tension	8	0.34	0.00	0.00	
			Max. Compression	26	-0.05	0.00	0.00	
			Max. Mx	46	0.18	-0.05	0.00	
			Max. My	15	0.11	0.00	0.00	
			Max. Vy	46	-0.03	0.00	0.00	
			Max. Vx	15	-0.00	0.00	0.00	
		Leg	Max Tension	32	14.29	-0.36	-0.09	
			Max. Compression	26	-96.67	0.02	0.03	
			Max. Mx	10	-46.09	0.78	-0.56	
			Max. My	22	-48.51	0.03	0.99	
			Max. Vy	31	0.99	0.59	0.51	
			Max. Vx	22	-1.10	-0.04	-0.86	
			Diagonal	Max Tension	34	3.07	0.00	0.00
				Max. Compression	16	-3.23	0.00	0.00
				Max. Mx	43	0.34	0.06	0.00
Max. My	15			-2.85	0.04	0.01		
Max. Vy	43			-0.03	0.06	0.00		
Max. Vx	15			-0.00	0.04	0.01		
Top Girt	Max Tension	32	0.43	0.00	0.00			
	Max. Compression	26	-0.10	0.00	0.00			
	Max. Mx	39	0.21	-0.05	0.00			
	Max. My	15	0.18	0.00	0.00			
	Max. Vy	39	-0.03	0.00	0.00			
	Max. Vx	15	-0.00	0.00	0.00			
Mid Girt	Max Tension	32	0.49	0.00	0.00			
	Max. Compression	26	-0.14	0.00	0.00			
	Max. Mx	38	0.23	-0.05	0.00			
	Max. My	15	0.23	0.00	0.00			
	Max. Vy	38	-0.03	0.00	0.00			
	Max. Vx	15	-0.00	0.00	0.00			
T15	301 - 281	Leg	Max Tension	32	20.57	0.52	0.43	
			Max. Compression	26	-108.90	-0.21	0.17	
			Max. Mx	10	-17.67	-1.23	0.85	
			Max. My	22	-19.56	-0.07	-1.51	
			Max. Vy	10	-0.51	-1.23	0.85	
			Max. Vx	22	-0.64	-0.07	-1.51	
		Diagonal	Max Tension	19	4.88	0.00	0.00	
			Max. Compression	16	-5.06	0.00	0.00	
			Max. Mx	14	2.16	0.06	0.00	
			Max. My	15	-4.68	0.04	0.01	
			Max. Vy	43	-0.03	0.06	0.00	
			Max. Vx	15	-0.00	0.04	0.01	
		Top Girt	Max Tension	32	0.41	0.00	0.00	
			Max. Compression	26	-0.07	0.00	0.00	
			Max. Mx	38	0.24	-0.04	0.00	
			Max. My	34	0.09	0.00	-0.00	
			Max. Vy	38	0.03	0.00	0.00	
			Max. Vx	34	0.00	0.00	0.00	
		Mid Girt	Max Tension	32	0.35	0.00	0.00	
			Max. Compression	26	-0.03	0.00	0.00	
			Max. Mx	38	0.22	-0.04	0.00	
Max. My	34		0.12	0.00	-0.00			
Max. Vy	38		0.03	0.00	0.00			
Max. Vx	34		0.00	0.00	0.00			
T16	281 - 276	Leg	Max Tension	32	23.94	0.40	0.40	
			Max. Compression	26	-113.61	-0.62	0.45	
			Max. Mx	28	-68.97	1.53	-1.02	
			Max. My	4	-66.75	0.15	1.75	
			Max. Vy	28	0.63	1.53	-1.02	
			Max. Vx	4	0.72	0.15	1.75	
		Diagonal	Max Tension	19	5.52	0.00	0.00	
			Max. Compression	19	-5.47	0.00	0.00	
			Max. Mx	29	-1.74	-0.05	-0.00	

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft		
T17	276 - 271	Top Girt	Max. My	34	-5.13	-0.00	-0.01		
			Max. Vy	49	-0.02	0.00	0.00		
			Max. Vx	34	0.00	-0.00	-0.01		
			Max Tension	32	0.36	0.00	0.00		
			Max. Compression	26	-0.12	0.00	0.00		
			Max. Mx	38	0.20	-0.05	0.00		
		Leg	Max. My	34	0.05	0.00	-0.00		
			Max. Vy	38	0.03	0.00	0.00		
			Max. Vx	34	0.00	0.00	0.00		
			Max Tension	32	28.09	0.64	0.50		
			Max. Compression	26	-118.43	-0.45	0.30		
			Max. Mx	10	2.84	-1.53	0.94		
			Max. My	22	0.97	-0.14	-1.80		
			Max. Vy	10	-0.59	-1.53	0.94		
Diagonal	Max. Vx	22	-0.69	-0.14	-1.80				
	Max Tension	19	6.07	0.00	0.00				
	Max. Compression	19	-6.24	0.00	0.00				
	Max. Mx	14	2.71	0.07	0.00				
	Max. My	34	-3.64	0.02	-0.01				
	Max. Vy	49	-0.03	0.06	-0.00				
T18	271 - 266	Leg	Max. Vx	34	0.00	0.02	-0.01		
			Max Tension	32	31.96	0.53	0.47		
			Max. Compression	26	-124.60	-0.65	0.39		
			Max. Mx	28	-94.47	1.87	-1.18		
			Max. My	4	-91.20	0.18	2.12		
			Max. Vy	28	0.71	1.87	-1.18		
		Diagonal	Max. Vx	4	0.80	0.18	2.12		
			Max Tension	19	7.09	0.00	0.00		
			Max. Compression	19	-6.09	0.00	0.00		
			Max. Mx	14	-2.79	-0.06	0.01		
			Max. My	34	-5.50	-0.01	-0.01		
			Max. Vy	48	-0.02	0.00	0.00		
		Top Girt	Max. Vx	34	0.00	-0.01	-0.01		
			Max Tension	8	0.29	0.00	0.00		
Max. Compression	26		-0.76	0.00	0.00				
Max. Mx	38		-0.09	-0.04	0.00				
Max. My	15		-0.25	0.00	-0.00				
Max. Vy	38		-0.03	0.00	0.00				
T19	266 - 261	Leg	Max. Vx	15	0.00	0.00	0.00		
			Max Tension	32	37.82	0.66	0.28		
			Max. Compression	26	-129.84	-0.86	0.51		
			Max. Mx	28	-107.48	-1.92	1.16		
			Max. My	4	-104.04	-0.16	-2.14		
			Max. Vy	28	0.69	1.47	-1.05		
		Diagonal	Max. Vx	4	0.83	0.16	1.69		
			Max Tension	19	6.71	0.00	0.00		
			Max. Compression	19	-7.47	0.00	0.00		
			Max. Mx	26	2.35	0.08	0.00		
			Max. My	15	-7.00	0.04	0.01		
			Max. Vy	48	-0.03	0.07	-0.00		
		T20	261 - 256	Leg	Max. Vx	15	-0.00	0.04	0.01
					Max Tension	8	38.98	-0.92	0.62
Max. Compression	26				-140.77	-0.58	0.45		
Max. Mx	31				18.00	-5.19	-3.16		
Max. My	25				13.71	-0.11	5.95		
Max. Vy	31				1.56	1.90	0.86		
Diagonal	Max. Vx			22	-1.80	-0.14	-2.43		
	Max Tension			19	12.09	-0.11	0.00		
	Max. Compression			16	-4.76	-0.08	0.01		
	Max. Mx			16	-4.71	-0.23	0.00		
	Max. My			12	-2.15	-0.08	0.03		
	Max. Vy			16	-0.07	0.00	0.00		
Top Girt	Max. Vx			12	-0.01	-0.08	0.03		
	Max Tension			1	0.00	0.00	0.00		
	Max. Compression	28	-5.55	0.00	0.00				
	Max. Mx	38	-1.98	-0.04	0.00				
	Max. My	11	-2.60	0.00	-0.00				
	Max. Vy	38	-0.03	0.00	0.00				
	Max. Vx	11	0.00	0.00	0.00				

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft		
T21	256 - 251	Leg	Max Tension	34	46.90	-2.65	-1.27		
			Max. Compression	26	-144.89	0.44	-0.26		
			Max. Mx	31	-9.05	19.26	-6.41		
			Max. My	25	-11.70	0.13	-21.83		
			Max. Vy	31	29.96	-10.71	-6.41		
			Max. Vx	25	-33.94	0.13	12.11		
		Diagonal	Max Tension	31	17.11	-0.04	0.04		
			Max. Compression	29	-12.31	0.00	0.00		
			Max. Mx	16	5.08	0.26	-0.03		
			Max. My	13	6.81	-0.02	0.11		
			Max. Vy	16	-0.08	0.26	-0.03		
			Max. Vx	13	0.03	-0.02	0.11		
			Secondary Horizontal	Max Tension	31	24.10	-0.80	-0.07	
				Max. Compression	16	-0.56	0.00	0.00	
				Max. Mx	27	20.14	-0.91	-0.07	
				Max. My	10	3.19	-0.49	0.13	
		Max. Vy		27	-0.33	-0.91	-0.07		
		Max. Vx		10	-0.04	0.00	0.00		
		Guy A	Bottom Tension	25	61.01				
			Top Tension	25	61.90				
			Top Cable Vert	25	35.60				
			Top Cable Norm	25	50.64				
			Top Cable Tan	25	0.09				
			Bot Cable Vert	25	-33.58				
			Bot Cable Norm	25	50.93				
			Bot Cable Tan	25	0.44				
			Guy B	Bottom Tension	31	63.05			
				Top Tension	31	63.92			
				Top Cable Vert	31	36.76			
				Top Cable Norm	31	52.29			
		Top Cable Tan		31	0.07				
		Bot Cable Vert		31	-34.79				
		Guy C	Bot Cable Norm	31	52.58				
			Bot Cable Tan	31	0.45				
			Bottom Tension	13	62.22				
			Top Tension	13	63.11				
			Top Cable Vert	13	35.98				
			Top Cable Norm	13	51.86				
		T22	251 - 246	Leg	Top Cable Tan	13	0.08		
					Bot Cable Vert	13	-33.94		
Bot Cable Norm	13				52.14				
Bot Cable Tan	13				0.45				
Max Tension	1				0.00	0.00	0.00		
Max. Compression	26				-116.34	2.82	-1.60		
Diagonal	Max. Mx			14	-109.67	3.12	1.71		
	Max. My			2	-109.05	0.09	-3.43		
	Max. Vy			29	-1.81	2.76	-0.77		
	Max. Vx			2	-2.00	-0.09	3.12		
	Max Tension			11	11.23	0.00	0.00		
	Max. Compression			29	-12.40	0.02	-0.01		
	Max. Mx			12	4.03	-0.16	0.01		
	Max. My			12	-11.98	0.00	0.03		
	Max. Vy	48	-0.06	0.00	0.00				
	Max. Vx	12	-0.01	0.00	0.03				
Top Girt	Max Tension	10	0.13	0.00	0.00				
	Max. Compression	28	-5.94	0.00	0.00				
	Max. Mx	38	-1.90	-0.04	0.00				
	Max. My	11	-2.51	0.00	-0.00				
T23	246 - 241	Leg	Max. Vy	38	0.03	0.00	0.00		
			Max. Vx	11	0.00	0.00	0.00		
			Max Tension	1	0.00	0.00	0.00		
			Max. Compression	26	-95.78	0.24	-0.15		
			Max. Mx	14	-90.56	-2.88	-1.57		
			Max. My	2	-90.79	-0.09	3.15		
		Diagonal	Max. Vy	31	-1.09	-0.03	0.01		
			Max. Vx	2	-1.17	-0.09	3.15		
			Max Tension	31	11.18	0.00	0.00		
			Max. Compression	29	-10.07	0.00	0.00		

Sectio n No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft	
T24	241 - 221	Secondary Horizontal	Max. Mx	49	0.80	0.17	0.02	
			Max. My	12	3.85	0.15	0.04	
			Max. Vy	49	-0.07	0.17	0.02	
			Max. Vx	12	-0.01	0.15	0.04	
			Max Tension	34	0.26	0.00	0.00	
			Max. Compression	16	-0.36	0.00	0.00	
			Max. Mx	27	-0.32	-0.49	0.03	
			Max. My	12	0.08	-0.34	0.05	
			Max. Vy	47	-0.21	-0.47	0.04	
			Max. Vx	12	-0.02	-0.34	0.05	
			Max Tension	1	0.00	0.00	0.00	
			Max. Compression	12	-110.61	-1.14	0.02	
		Leg	Max. Mx	14	-51.10	-2.82	-1.50	
			Max. My	2	-53.04	-0.08	3.07	
			Max. Vy	14	1.10	-2.82	-1.50	
			Max. Vx	2	-1.21	-0.08	3.07	
			Diagonal	Max Tension	29	9.84	0.00	0.00
				Max. Compression	29	-10.16	0.00	0.00
				Max. Mx	15	-1.17	0.18	0.01
				Max. My	15	-7.27	-0.02	0.03
				Max. Vy	43	-0.07	0.18	0.01
				Max. Vx	15	-0.01	-0.02	0.03
			Top Girt	Max Tension	10	0.36	0.00	0.00
				Max. Compression	28	-0.65	0.00	0.00
Max. Mx	38	0.06		-0.04	0.00			
Max. My	11	-0.16		0.00	-0.00			
Max. Vy	38	0.03		0.00	0.00			
Max. Vx	11	0.00		0.00	0.00			
Mid Girt	Max Tension	15	0.69	0.00	0.00			
	Max. Compression	33	-0.18	0.00	0.00			
	Max. Mx	38	0.29	-0.04	0.00			
	Max. My	11	0.16	0.00	-0.00			
	Max. Vy	38	0.03	0.00	0.00			
	Max. Vx	11	0.00	0.00	0.00			
T25	221 - 201	Leg	Max Tension	15	35.69	1.30	0.42	
			Max. Compression	12	-144.88	-0.58	-0.29	
			Max. Mx	11	-113.44	1.95	-0.67	
			Max. My	20	-104.77	-0.18	2.00	
			Max. Vy	32	-0.74	1.72	0.72	
			Max. Vx	20	0.78	0.18	-1.76	
			Diagonal	Max Tension	29	6.71	0.00	0.00
				Max. Compression	29	-6.88	0.00	0.00
				Max. Mx	12	0.33	0.08	0.01
				Max. My	15	-5.11	-0.01	0.01
				Max. Vy	42	-0.03	0.07	0.00
				Max. Vx	15	-0.00	-0.01	0.01
		Top Girt	Max Tension	15	0.67	0.00	0.00	
			Max. Compression	1	0.00	0.00	0.00	
			Max. Mx	38	0.38	-0.04	0.00	
			Max. My	11	0.24	0.00	-0.00	
			Max. Vy	38	0.03	0.00	0.00	
			Max. Vx	11	0.00	0.00	0.00	
		Mid Girt	Max Tension	15	0.65	0.00	0.00	
			Max. Compression	9	-0.00	0.00	0.00	
			Max. Mx	38	0.36	-0.04	0.00	
			Max. My	11	0.23	0.00	-0.00	
			Max. Vy	38	0.03	0.00	0.00	
			Max. Vx	11	0.00	0.00	0.00	
T26	201 - 181	Leg	Max Tension	15	50.88	0.57	-0.07	
			Max. Compression	12	-161.14	0.16	-0.70	
			Max. Mx	11	-147.07	1.27	-0.44	
			Max. My	20	-138.33	-0.16	1.29	
			Max. Vy	13	-0.57	0.21	-0.35	
			Max. Vx	21	-0.71	-0.18	-0.26	
		Diagonal	Max Tension	11	4.24	0.00	0.00	
			Max. Compression	11	-4.46	0.00	0.00	
			Max. Mx	12	-1.45	0.09	0.01	
			Max. My	31	-3.15	-0.02	-0.01	

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft	
T27	181 - 161	Top Girt	Max. Vy	48	-0.03	0.08	-0.00	
			Max. Vx	31	0.00	-0.02	-0.01	
			Max Tension	15	0.69	0.00	0.00	
			Max. Compression	8	-0.06	0.00	0.00	
			Max. Mx	38	0.36	-0.04	0.00	
			Max. My	13	0.01	0.00	-0.00	
		Mid Girt	Max. Vy	38	0.03	0.00	0.00	
			Max. Vx	13	0.00	0.00	0.00	
			Max Tension	15	0.62	0.00	0.00	
			Max. Compression	8	-0.04	0.00	0.00	
			Max. Mx	38	0.33	-0.04	0.00	
			Max. My	16	0.10	0.00	-0.00	
		Leg	Max. Vy	38	0.03	0.00	0.00	
			Max. Vx	16	0.00	0.00	0.00	
			Max Tension	15	49.04	-0.08	-0.37	
			Max. Compression	11	-161.89	-0.31	0.16	
			Max. Mx	12	-92.13	0.99	-0.29	
			Max. My	21	-138.97	0.11	1.07	
			Diagonal	Max. Vy	12	-0.39	-0.74	0.33
				Max. Vx	21	-0.42	-0.16	-0.92
				Max Tension	33	3.57	0.00	0.00
				Max. Compression	15	-3.78	0.00	0.00
				Max. Mx	12	-2.10	0.08	0.01
				Max. My	15	-3.76	0.05	0.01
		Top Girt	Max. Vy	48	-0.03	0.08	-0.00	
			Max. Vx	15	-0.00	0.05	0.01	
			Max Tension	15	0.81	0.00	0.00	
			Max. Compression	8	-0.05	0.00	0.00	
			Max. Mx	38	0.47	0.09	0.00	
			Max. My	16	0.14	0.00	0.00	
Mid Girt	Max. Vy	38	-0.06	0.00	0.00			
	Max. Vx	16	-0.00	0.00	0.00			
	Max Tension	27	0.72	0.00	0.00			
	Max. Compression	8	-0.10	0.00	0.00			
	Max. Mx	38	0.38	-0.04	0.00			
	Max. My	16	0.08	0.00	-0.00			
T28	161 - 141	Leg	Max. Vy	38	0.03	0.00	0.00	
			Max. Vx	16	0.00	0.00	0.00	
			Max Tension	14	36.86	-0.48	-0.71	
			Max. Compression	11	-154.56	0.33	-0.07	
			Max. Mx	9	-116.59	-1.57	0.93	
			Max. My	21	-111.52	-0.38	-1.82	
		Diagonal	Max. Vy	33	1.25	1.50	1.24	
			Max. Vx	21	-1.06	-0.38	-1.82	
			Max Tension	18	6.51	0.00	0.00	
			Max. Compression	18	-6.69	0.00	0.00	
			Max. Mx	11	-3.15	0.16	0.02	
			Max. My	15	-6.41	0.03	0.04	
		Top Girt	Max. Vy	48	-0.06	0.16	-0.01	
			Max. Vx	15	-0.01	0.10	0.04	
			Max Tension	14	0.84	0.00	0.00	
			Max. Compression	8	-0.11	0.00	0.00	
			Max. Mx	38	0.44	-0.04	0.00	
			Max. My	16	0.10	0.00	-0.00	
Mid Girt	Max. Vy	38	0.03	0.00	0.00			
	Max. Vx	16	0.00	0.00	0.00			
	Max Tension	14	0.83	0.00	0.00			
	Max. Compression	1	0.00	0.00	0.00			
	Max. Mx	38	0.51	-0.04	0.00			
	Max. My	16	0.19	0.00	-0.00			
T29	141 - 121	Leg	Max. Vy	38	0.03	0.00	0.00	
			Max. Vx	16	0.00	0.00	0.00	
			Max Tension	26	6.27	1.54	-0.70	
			Max. Compression	11	-129.26	1.34	-0.35	
			Max. Mx	27	-7.28	-2.34	1.25	
			Max. My	21	-87.63	-0.34	-2.53	
		Diagonal	Max. Vy	27	1.03	1.79	-0.88	
			Max. Vx	3	0.91	0.36	1.80	
			Max Tension	15	8.52	0.00	0.00	

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft	
T30	121 - 101	Top Girt	Max. Compression	15	-8.33	0.00	0.00	
			Max. Mx	26	-0.25	0.21	-0.00	
			Max. My	18	-7.72	0.10	0.08	
			Max. Vy	26	-0.07	0.21	-0.00	
			Max. Vx	18	-0.02	0.10	0.08	
			Max Tension	22	1.48	0.00	0.00	
			Max. Compression	28	-0.27	0.00	0.00	
			Max. Mx	38	0.62	-0.04	0.00	
			Max. My	16	0.90	0.00	0.00	
			Max. Vy	38	0.03	0.00	0.00	
		Mid Girt	Max. Vx	16	-0.00	0.00	0.00	
			Max Tension	33	11.35	0.00	0.00	
			Max. Compression	27	-7.92	0.00	0.00	
			Max. Mx	38	1.22	-0.04	0.00	
			Max. My	16	5.67	0.00	0.00	
			Max. Vy	38	0.03	0.00	0.00	
			Max. Vx	16	-0.00	0.00	0.00	
			Guy A	Bottom Tension	18	20.67		
				Top Tension	18	20.82		
				Top Cable Vert	18	7.58		
		Top Cable Norm		18	19.39			
		Top Cable Tan		18	0.03			
		Bot Cable Vert		18	-7.07			
		Bot Cable Norm		18	19.43			
		Bot Cable Tan		18	0.14			
		Guy B		Bottom Tension	30	21.27		
				Top Tension	30	21.41		
			Top Cable Vert	30	7.23			
			Top Cable Norm	30	20.15			
			Top Cable Tan	30	0.03			
			Bot Cable Vert	30	-6.72			
			Bot Cable Norm	30	20.18			
			Bot Cable Tan	30	0.15			
			Guy C	Bottom Tension	12	21.02		
				Top Tension	12	21.16		
		Top Cable Vert		12	7.23			
		Top Cable Norm		12	19.89			
		Top Cable Tan		12	0.04			
		Bot Cable Vert		12	-6.70			
		Bot Cable Norm		12	19.92			
		Bot Cable Tan		12	0.15			
		Torque Arm Top		Max Tension	33	19.16	0.00	0.00
				Max. Compression	37	-1.41	0.00	0.00
			Max. Mx	43	10.54	0.13	0.00	
			Max. My	16	14.38	0.00	0.00	
			Max. Vy	43	-0.07	0.00	0.00	
			Max. Vx	16	-0.00	0.00	0.00	
			Torque Arm Bottom	Max Tension	15	12.94	0.00	0.00
				Max. Compression	30	-22.75	0.00	0.00
				Max. Mx	48	-7.42	0.22	0.00
Max. My	16			12.49	0.00	0.00		
Max. Vy	48	-0.07		0.00	0.00			
Max. Vx	16	-0.00		0.00	0.00			
Leg	Max Tension	26		34.99	-0.94	0.75		
	Max. Compression	29		-176.90	0.15	-0.07		
	Max. Mx	37		-138.56	1.82	0.60		
	Max. My	22		-131.16	0.01	-2.03		
	Max. Vy	37	-0.74	1.82	0.60			
	Max. Vx	22	0.81	0.01	-2.03			
	Diagonal	Max Tension	16	4.96	0.00	0.00		
		Max. Compression	34	-5.29	0.00	0.00		
		Max. Mx	26	0.80	0.08	-0.00		
		Max. My	15	-3.86	-0.03	-0.01		
Max. Vy		48	-0.03	0.08	-0.00			
Max. Vx		15	-0.00	0.00	0.00			
Top Girt		Max Tension	33	5.47	0.00	0.00		
		Max. Compression	27	-6.79	0.00	0.00		
		Max. Mx	38	0.34	-0.04	0.00		

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
T31	101 - 81	Mid Girt	Max. My	16	3.40	0.00	0.00
			Max. Vy	38	-0.03	0.00	0.00
			Max. Vx	16	-0.00	0.00	0.00
			Max Tension	39	0.53	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	38	0.51	-0.04	0.00
		Leg	Max. My	16	0.36	0.00	0.00
			Max. Vy	38	-0.03	0.00	0.00
			Max. Vx	16	-0.00	0.00	0.00
			Max Tension	14	45.19	0.48	0.30
			Max. Compression	29	-191.50	-0.41	-0.32
			Max. Mx	34	-167.24	-1.22	-0.79
		Diagonal	Max. My	22	-164.98	-0.06	1.45
			Max. Vy	34	-0.47	0.98	0.68
			Max. Vx	22	0.56	0.05	-1.18
			Max Tension	7	2.70	0.00	0.00
			Max. Compression	7	-2.98	0.00	0.00
			Max. Mx	48	0.10	0.08	-0.00
		Top Girt	Max. My	26	-2.32	-0.05	0.01
			Max. Vy	48	-0.03	0.08	-0.00
			Max. Vx	26	0.00	-0.05	0.01
			Max Tension	26	0.89	0.00	0.00
			Max. Compression	8	-0.06	0.00	0.00
			Max. Mx	38	0.53	-0.04	0.00
Mid Girt	Max. My	16	0.18	0.00	0.00		
	Max. Vy	38	-0.02	0.00	0.00		
	Max. Vx	16	-0.00	0.00	0.00		
	Max Tension	26	0.95	0.00	0.00		
	Max. Compression	8	-0.13	0.00	0.00		
	Max. Mx	38	0.53	-0.04	0.00		
Leg	Max. My	13	0.35	0.00	0.00		
	Max. Vy	38	-0.02	0.00	0.00		
	Max. Vx	13	-0.00	0.00	0.00		
	Max Tension	14	44.87	-0.12	-0.06		
	Max. Compression	29	-192.96	-0.65	-0.43		
	Max. Mx	5	-183.68	0.95	-0.42		
Diagonal	Max. My	20	-187.40	0.04	1.02		
	Max. Vy	2	-0.38	0.84	-0.33		
	Max. Vx	20	-0.38	-0.04	-0.71		
	Max Tension	26	1.79	0.00	0.00		
	Max. Compression	26	-2.09	0.00	0.00		
	Max. Mx	48	-0.25	0.08	-0.00		
Top Girt	Max. My	2	-0.87	0.03	-0.01		
	Max. Vy	48	-0.03	0.08	-0.00		
	Max. Vx	2	0.00	0.00	0.00		
	Max Tension	26	0.97	0.00	0.00		
	Max. Compression	8	-0.16	0.00	0.00		
	Max. Mx	38	0.54	-0.04	0.00		
Mid Girt	Max. My	13	0.35	0.00	0.00		
	Max. Vy	38	-0.02	0.00	0.00		
	Max. Vx	13	-0.00	0.00	0.00		
	Max Tension	26	0.96	0.00	0.00		
	Max. Compression	8	-0.16	0.00	0.00		
	Max. Mx	38	0.54	-0.04	0.00		
Leg	Max. My	13	0.36	0.00	0.00		
	Max. Vy	38	-0.02	0.00	0.00		
	Max. Vx	13	-0.00	0.00	0.00		
	Max Tension	14	32.28	-0.76	-0.42		
	Max. Compression	29	-187.89	-0.37	0.39		
	Max. Mx	11	-173.69	1.46	-0.67		
Diagonal	Max. My	20	-170.70	0.01	1.62		
	Max. Vy	8	-0.53	-1.14	0.63		
	Max. Vx	20	-0.60	-0.01	-1.30		
	Max Tension	29	3.61	0.00	0.00		
	Max. Compression	29	-3.91	0.00	0.00		
	Max. Mx	48	-0.38	0.08	-0.00		
Leg	Max. My	29	-3.03	0.03	0.01		
	Max. Vy	48	-0.03	0.08	-0.00		
	Max. Vx	29	0.00	0.00	0.00		

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft	
T34	41 - 20	Top Girt	Max Tension	14	0.98	0.00	0.00	
			Max. Compression	20	-0.19	0.00	0.00	
			Max. Mx	38	0.55	-0.04	0.00	
			Max. My	13	0.34	0.00	0.00	
			Max. Vy	38	0.02	0.00	0.00	
			Max. Vx	13	-0.00	0.00	0.00	
		Mid Girt	Max Tension	26	0.89	0.00	0.00	
			Max. Compression	8	-0.09	0.00	0.00	
			Max. Mx	38	0.56	-0.04	0.00	
			Max. My	13	0.37	0.00	0.00	
			Max. Vy	38	0.02	0.00	0.00	
			Max. Vx	13	-0.00	0.00	0.00	
		Leg	Max Tension	14	1.12	-1.26	-0.73	
			Max. Compression	31	-168.41	-0.62	0.18	
			Max. Mx	14	-20.90	2.03	1.07	
			Max. My	2	-22.09	0.04	-2.23	
			Max. Vy	14	-0.69	-1.53	-0.88	
			Max. Vx	2	0.77	0.00	1.73	
			Diagonal	Max Tension	29	5.58	0.00	0.00
				Max. Compression	29	-5.85	0.00	0.00
				Max. Mx	48	-0.64	0.08	-0.00
Max. My	26			-4.04	0.02	0.01		
Max. Vy	48			-0.03	0.08	-0.00		
Max. Vx	26			-0.00	0.00	0.00		
Top Girt	Max Tension	26	0.85	0.00	0.00			
	Max. Compression	8	-0.00	0.00	0.00			
	Max. Mx	38	0.60	-0.03	0.00			
	Max. My	13	0.41	0.00	0.00			
	Max. Vy	38	-0.02	0.00	0.00			
	Max. Vx	13	-0.00	0.00	0.00			
Mid Girt	Max Tension	28	1.18	0.00	0.00			
	Max. Compression	1	0.00	0.00	0.00			
	Max. Mx	38	1.05	-0.03	0.00			
	Max. My	13	0.78	0.00	0.00			
	Max. Vy	38	-0.02	0.00	0.00			
	Max. Vx	13	-0.00	0.00	0.00			
T35	20 - 6.70833	Leg	Max Tension	1	0.00	0.00	0.00	
			Max. Compression	45	-151.31	-0.08	0.00	
			Max. Mx	27	-41.51	2.34	-0.01	
			Max. My	15	-130.12	-1.07	1.62	
			Max. Vy	15	-0.52	0.12	-0.03	
			Max. Vx	15	-0.32	0.40	0.27	
		Diagonal	Max Tension	13	1.63	-0.02	0.00	
			Max. Compression	16	-1.82	0.04	-0.00	
			Max. Mx	31	-1.40	-0.13	0.01	
			Max. My	13	-1.44	-0.13	-0.02	
			Max. Vy	31	-0.08	0.00	0.00	
			Max. Vx	13	-0.01	0.00	0.00	
		Top Girt	Max Tension	47	13.98	0.00	0.00	
			Max. Compression	1	0.00	0.00	0.00	
			Max. Mx	43	13.90	0.06	0.00	
Max. My	43		12.80	0.00	0.00			
Max. Vy	43		-0.04	0.00	0.00			
Max. Vx	43		0.00	0.00	0.00			
T36	6.70833 - 0	Leg	Max Tension	1	0.00	0.00	0.00	
			Max. Compression	45	-154.67	-0.61	0.00	
			Max. Mx	28	-48.62	2.20	-0.01	
			Max. My	13	-104.09	-1.05	-1.59	
			Max. Vy	28	1.44	-1.05	0.32	
			Max. Vx	13	1.22	-1.05	-1.59	
		Diagonal	Max Tension	13	2.75	-0.06	0.02	
			Max. Compression	34	-4.35	0.09	-0.04	
			Max. Mx	49	-2.65	-0.33	-0.01	
			Max. My	13	-4.31	0.08	0.04	
			Max. Vy	49	-0.41	0.00	0.00	
			Max. Vx	13	0.05	0.00	0.00	

Maximum Reactions

Location	Condition	Gov. Load Comb.	Vertical K	Horizontal, X K	Horizontal, Z K
Mast	Max. Vert	47	404.20	1.45	-0.93
	Max. H _x	29	287.65	9.03	-0.01
	Max. H _z	2	294.81	0.00	8.98
	Max. M _x	1	0.00	-0.01	-0.01
	Max. M _z	1	0.00	-0.01	-0.01
	Max. Torsion	13	0.87	-7.91	0.26
	Min. Vert	1	198.61	-0.01	-0.01
	Min. H _x	11	284.07	-9.09	-0.04
	Min. H _z	20	264.93	0.03	-8.84
	Min. M _x	1	0.00	-0.01	-0.01
	Min. M _z	1	0.00	-0.01	-0.01
	Min. Torsion	34	-0.79	7.13	4.00
	Guy C @ 411 ft Elev -20.5 ft Azimuth 240 deg	Max. Vert	28	-2.61	-3.31
	Max. H _x	28	-2.61	-3.31	1.91
	Max. H _z	7	-84.43	-89.79	53.29
	Min. Vert	13	-85.85	-92.79	52.09
	Min. H _x	13	-85.85	-92.79	52.09
	Min. H _z	28	-2.61	-3.31	1.91
Guy B @ 394 ft Elev -13 ft Azimuth 120 deg	Max. Vert	16	-2.48	3.02	1.75
	Max. H _x	31	-88.05	93.17	52.31
	Max. H _z	37	-84.89	88.51	52.55
	Min. Vert	31	-88.05	93.17	52.31
	Min. H _x	16	-2.48	3.02	1.75
	Min. H _z	16	-2.48	3.02	1.75
Guy A @ 405 ft Elev -20 ft Azimuth 0 deg	Max. Vert	4	-2.63	0.00	-3.76
	Max. H _x	31	-46.75	2.64	-57.11
	Max. H _z	4	-2.63	0.00	-3.76
	Min. Vert	25	-85.61	1.28	-104.59
	Min. H _x	13	-45.93	-2.64	-56.13
	Min. H _z	25	-85.61	1.28	-104.59
Guy C @ 424.5 ft Elev -16.5 ft Azimuth 240 deg	Max. Vert	27	-0.39	-1.84	1.06
	Max. H _x	27	-0.39	-1.84	1.06
	Max. H _z	12	-13.10	-33.90	19.26
	Min. Vert	12	-13.10	-33.90	19.26
	Min. H _x	12	-13.10	-33.90	19.26
	Min. H _z	27	-0.39	-1.84	1.06
Guy B @ 407.5 ft Elev -9 ft Azimuth 120 deg	Max. Vert	15	-0.36	1.73	1.00
	Max. H _x	30	-13.24	34.58	19.64
	Max. H _z	30	-13.24	34.58	19.64
	Min. Vert	30	-13.24	34.58	19.64
	Min. H _x	15	-0.36	1.73	1.00
	Min. H _z	15	-0.36	1.73	1.00
Guy A @ 403 ft Elev -20 ft Azimuth 0 deg	Max. Vert	3	-0.42	0.00	-1.96
	Max. H _x	30	-7.64	0.69	-21.30
	Max. H _z	3	-0.42	0.00	-1.96
	Min. Vert	18	-13.82	-0.30	-38.00
	Min. H _x	12	-7.45	-0.70	-20.79
	Min. H _z	18	-13.82	-0.30	-38.00

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	198.61	0.01	0.01	0.00	0.00	-0.00
1.2D+1.0W (pattern 1) 0 deg - No Ice+1.0 Guy	294.81	-0.00	-8.98	0.00	0.00	0.39
1.2D+1.0W (pattern 2) 0 deg - No Ice+1.0 Guy	300.22	-0.01	-7.93	0.00	0.00	0.39
1.2D+1.0W (pattern 3) 0 deg - No Ice+1.0 Guy	312.99	-0.02	-7.54	0.00	0.00	0.38
1.2D+1.0W (pattern 1) 30 deg - No Ice+1.0 Guy	280.13	4.39	-7.48	0.00	0.00	0.52
1.2D+1.0W (pattern 2) 30 deg - No Ice+1.0 Guy	284.93	4.09	-6.64	0.00	0.00	0.45
1.2D+1.0W (pattern 3) 30 deg - No Ice+1.0 Guy	294.79	4.05	-6.34	0.00	0.00	0.42
1.2D+1.0W (pattern 1) 60 deg - No Ice+1.0 Guy	264.29	7.76	-4.37	0.00	0.00	-0.12
1.2D+1.0W (pattern 2) 60 deg - No Ice+1.0 Guy	266.59	7.16	-4.02	0.00	0.00	-0.21
1.2D+1.0W (pattern 3) 60 deg - No Ice+1.0 Guy	270.86	7.09	-3.98	0.00	0.00	-0.24
1.2D+1.0W (pattern 1) 90 deg - No Ice+1.0 Guy	284.07	9.09	0.04	0.00	0.00	-0.78
1.2D+1.0W (pattern 2) 90 deg - No Ice+1.0 Guy	289.07	8.19	-0.14	0.00	0.00	-0.85
1.2D+1.0W (pattern 3) 90 deg - No Ice+1.0 Guy	298.34	7.91	-0.26	0.00	0.00	-0.87
1.2D+1.0W (pattern 1) 120 deg - No Ice+1.0 Guy	297.64	7.86	4.53	0.00	0.00	-0.74
1.2D+1.0W (pattern 2) 120 deg - No Ice+1.0 Guy	303.21	6.94	4.00	0.00	0.00	-0.82
1.2D+1.0W (pattern 3) 120 deg - No Ice+1.0 Guy	315.35	6.59	3.81	0.00	0.00	-0.83
1.2D+1.0W (pattern 1) 150 deg - No Ice+1.0 Guy	281.40	4.43	7.68	0.00	0.00	-0.52
1.2D+1.0W (pattern 2) 150 deg - No Ice+1.0 Guy	285.83	3.86	7.02	0.00	0.00	-0.58
1.2D+1.0W (pattern 3) 150 deg - No Ice+1.0 Guy	295.19	3.62	6.86	0.00	0.00	-0.59
1.2D+1.0W (pattern 1) 180 deg - No Ice+1.0 Guy	264.93	-0.03	8.84	0.00	0.00	-0.64
1.2D+1.0W (pattern 2) 180 deg - No Ice+1.0 Guy	267.13	-0.02	8.16	0.00	0.00	-0.65
1.2D+1.0W (pattern 3) 180 deg - No Ice+1.0 Guy	271.68	-0.01	8.09	0.00	0.00	-0.65
1.2D+1.0W (pattern 1) 210 deg - No Ice+1.0 Guy	285.24	-4.29	7.47	0.00	0.00	-0.50
1.2D+1.0W (pattern 2) 210 deg - No Ice+1.0 Guy	290.21	-3.67	6.78	0.00	0.00	-0.43
1.2D+1.0W (pattern 3) 210 deg - No Ice+1.0 Guy	299.31	-3.43	6.62	0.00	0.00	-0.41
1.2D+1.0W (pattern 1) 240 deg - No Ice+1.0 Guy	302.02	-7.78	4.48	0.00	0.00	0.09
1.2D+1.0W (pattern 2) 240 deg - No Ice+1.0 Guy	308.07	-6.82	3.93	0.00	0.00	0.17
1.2D+1.0W (pattern 3) 240 deg - No Ice+1.0 Guy	320.02	-6.48	3.73	0.00	0.00	0.19
1.2D+1.0W (pattern 1) 270 deg - No Ice+1.0 Guy	287.65	-9.03	0.01	0.00	0.00	0.60
1.2D+1.0W (pattern 2) 270 deg - No Ice+1.0 Guy	292.70	-8.13	-0.18	0.00	0.00	0.67
1.2D+1.0W (pattern 3) 270 deg - No Ice+1.0 Guy	301.82	-7.86	-0.31	0.00	0.00	0.70
1.2D+1.0W (pattern 1) 300 deg - No Ice+1.0 Guy	266.53	-7.78	-4.36	0.00	0.00	0.64
1.2D+1.0W (pattern 2) 300 deg - No Ice+1.0 Guy	268.64	-7.19	-4.03	0.00	0.00	0.75

Load Combination	Vertical K	Shear _x K	Shear _z K	Overturing Moment, M _x kip-ft	Overturing Moment, M _z kip-ft	Torque kip-ft
1.2D+1.0W (pattern 3) 300 deg - No Ice+1.0 Guy	273.05	-7.13	-4.00	0.00	0.00	0.79
1.2D+1.0W (pattern 1) 330 deg - No Ice+1.0 Guy	279.99	-4.48	-7.65	0.00	0.00	0.46
1.2D+1.0W (pattern 2) 330 deg - No Ice+1.0 Guy	284.32	-4.20	-6.84	0.00	0.00	0.51
1.2D+1.0W (pattern 3) 330 deg - No Ice+1.0 Guy	294.18	-4.18	-6.54	0.00	0.00	0.53
1.2 Dead+1.0 Ice+1.0 Temp+Guy	394.58	0.02	0.10	0.00	0.00	-0.00
1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp+1.0 Guy	402.49	-0.01	-1.72	0.00	0.00	-0.01
1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp+1.0 Guy	400.40	0.98	-1.54	0.00	0.00	-0.06
1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp+1.0 Guy	398.87	1.66	-0.96	0.00	0.00	-0.26
1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp+1.0 Guy	400.29	1.83	-0.02	0.00	0.00	-0.44
1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp+1.0 Guy	402.13	1.50	0.95	0.00	0.00	-0.38
1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp+1.0 Guy	400.52	0.86	1.76	0.00	0.00	-0.16
1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp+1.0 Guy	399.62	0.01	2.07	0.00	0.00	-0.06
1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp+1.0 Guy	401.76	-0.82	1.73	0.00	0.00	-0.02
1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp+1.0 Guy	404.20	-1.45	0.93	0.00	0.00	0.22
1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp+1.0 Guy	402.25	-1.81	-0.08	0.00	0.00	0.36
1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp+1.0 Guy	400.32	-1.67	-0.96	0.00	0.00	0.27
1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp+1.0 Guy	401.12	-1.00	-1.55	0.00	0.00	0.09
Dead+Wind 0 deg - Service+Guy	206.08	0.00	-2.27	0.00	0.00	0.13
Dead+Wind 30 deg - Service+Guy	204.01	1.16	-1.88	0.00	0.00	0.15
Dead+Wind 60 deg - Service+Guy	202.57	2.00	-1.12	0.00	0.00	-0.06
Dead+Wind 90 deg - Service+Guy	204.04	2.35	-0.02	0.00	0.00	-0.26
Dead+Wind 120 deg - Service+Guy	205.82	2.02	1.17	0.00	0.00	-0.25
Dead+Wind 150 deg - Service+Guy	203.99	1.12	2.00	0.00	0.00	-0.15
Dead+Wind 180 deg - Service+Guy	203.14	0.00	2.29	0.00	0.00	-0.15
Dead+Wind 210 deg - Service+Guy	205.24	-1.07	1.95	0.00	0.00	-0.14
Dead+Wind 240 deg - Service+Guy	207.77	-2.00	1.16	0.00	0.00	0.05
Dead+Wind 270 deg - Service+Guy	205.74	-2.34	-0.03	0.00	0.00	0.21
Dead+Wind 300 deg - Service+Guy	203.69	-2.01	-1.13	0.00	0.00	0.18
Dead+Wind 330 deg -	204.44	-1.19	-1.93	0.00	0.00	0.13

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
Service+Guy						

Solution Summary

Load Comb.	Sum of Applied Forces			Sum of Reactions			% Error
	PX K	PY K	PZ K	PX K	PY K	PZ K	
1	0.00	-119.69	-0.00	0.00	119.69	-0.00	0.001%
2	0.26	-141.35	-117.31	-0.26	141.35	117.31	0.003%
3	0.35	-141.35	-123.11	-0.35	141.35	123.11	0.003%
4	0.04	-141.35	-129.77	-0.04	141.35	129.76	0.003%
5	58.67	-140.58	-98.55	-58.67	140.58	98.54	0.003%
6	61.63	-140.58	-103.51	-61.63	140.58	103.50	0.003%
7	64.31	-140.58	-109.23	-64.32	140.58	109.23	0.003%
8	101.03	-139.80	-57.04	-101.03	139.80	57.04	0.003%
9	106.02	-139.80	-59.90	-106.02	139.80	59.91	0.004%
10	111.15	-139.80	-63.08	-111.15	139.80	63.08	0.004%
11	118.80	-140.61	-0.03	-118.80	140.61	0.03	0.004%
12	124.65	-140.61	-0.10	-124.64	140.61	0.11	0.004%
13	130.75	-140.61	0.08	-130.75	140.61	-0.08	0.004%
14	104.49	-141.41	58.68	-104.49	141.41	-58.68	0.004%
15	109.59	-141.41	61.52	-109.58	141.41	-61.52	0.004%
16	114.83	-141.41	65.17	-114.82	141.41	-65.17	0.004%
17	58.18	-140.61	98.57	-58.18	140.61	-98.57	0.003%
18	60.85	-140.61	103.19	-60.85	140.61	-103.19	0.003%
19	63.81	-140.61	108.93	-63.81	140.61	-108.93	0.004%
20	-1.14	-139.80	113.11	1.13	139.80	-113.11	0.003%
21	-1.23	-139.80	118.52	1.22	139.80	-118.52	0.002%
22	-0.92	-139.80	124.99	0.92	139.80	-124.99	0.003%
23	-59.31	-140.58	98.61	59.30	140.58	-98.61	0.003%
24	-62.28	-140.58	103.60	62.28	140.58	-103.60	0.006%
25	-64.97	-140.58	109.34	64.96	140.58	-109.33	0.003%
26	-105.49	-141.36	59.71	105.49	141.36	-59.71	0.003%
27	-110.84	-141.36	62.81	110.83	141.36	-62.80	0.003%
28	-116.13	-141.36	66.08	116.13	141.36	-66.08	0.003%
29	-119.37	-140.54	0.79	119.37	140.54	-0.78	0.003%
30	-125.21	-140.54	0.89	125.20	140.54	-0.88	0.003%
31	-131.31	-140.54	0.70	131.31	140.54	-0.70	0.003%
32	-101.31	-139.74	-55.77	101.31	139.74	55.78	0.002%
33	-106.03	-139.74	-58.39	106.02	139.74	58.40	0.003%
34	-111.11	-139.74	-61.94	111.10	139.74	61.95	0.003%
35	-58.42	-140.54	-98.40	58.42	140.54	98.39	0.003%
36	-61.08	-140.54	-103.00	61.09	140.54	102.99	0.003%
37	-64.03	-140.54	-108.74	64.04	140.54	108.74	0.003%
38	0.00	-281.51	-0.00	-0.00	281.51	0.00	0.001%
39	-0.13	-281.94	-42.60	0.13	281.94	42.60	0.001%
40	21.46	-281.51	-36.61	-21.46	281.51	36.60	0.001%
41	37.19	-281.08	-21.24	-37.19	281.08	21.23	0.001%
42	43.09	-281.53	0.03	-43.08	281.53	-0.03	0.001%
43	37.62	-281.97	21.28	-37.61	281.97	-21.28	0.001%
44	21.48	-281.53	36.37	-21.48	281.53	-36.37	0.001%
45	-0.04	-281.09	41.92	0.04	281.09	-41.92	0.001%
46	-21.64	-281.51	36.42	21.64	281.51	-36.42	0.001%
47	-37.77	-281.94	21.44	37.76	281.94	-21.44	0.001%
48	-43.17	-281.49	-0.08	43.17	281.49	0.08	0.001%
49	-37.20	-281.06	-21.15	37.20	281.06	21.15	0.001%
50	-21.40	-281.49	-36.54	21.40	281.49	36.54	0.001%
51	0.08	-119.90	-35.94	-0.08	119.90	35.94	0.001%
52	17.95	-119.69	-30.23	-17.95	119.69	30.23	0.001%
53	30.89	-119.48	-17.48	-30.89	119.48	17.48	0.002%
54	36.31	-119.70	-0.02	-36.31	119.70	0.02	0.002%
55	31.93	-119.92	17.97	-31.93	119.92	-17.97	0.001%
56	17.74	-119.70	30.12	-17.74	119.70	-30.12	0.001%
57	-0.32	-119.48	34.60	0.32	119.48	-34.60	0.001%
58	-18.13	-119.69	30.26	18.13	119.69	-30.26	0.002%
59	-32.29	-119.90	18.32	32.28	119.90	-18.32	0.001%

Load Comb.	Sum of Applied Forces			Sum of Reactions			% Error
	PX K	PY K	PZ K	PX K	PY K	PZ K	
60	-36.47	-119.68	0.23	36.46	119.68	-0.23	0.002%
61	-30.88	-119.46	-17.07	30.88	119.46	17.07	0.001%
62	-17.80	-119.68	-30.07	17.80	119.68	30.07	0.001%

Non-Linear Convergence Results

Load Combination	Converged?	Number of Cycles	Displacement Tolerance	Force Tolerance
1	Yes	11	0.0000001	0.00002317
2	Yes	20	0.00005675	0.00006156
3	Yes	20	0.00005095	0.00005511
4	Yes	20	0.00005079	0.00006507
5	Yes	20	0.00006714	0.00005834
6	Yes	20	0.00005733	0.00004977
7	Yes	20	0.00005745	0.00006139
8	Yes	17	0.00006394	0.00002178
9	Yes	17	0.00009243	0.00005951
10	Yes	17	0.00008528	0.00007509
11	Yes	20	0.00007217	0.00006183
12	Yes	20	0.00006258	0.00005419
13	Yes	20	0.00006319	0.00006576
14	Yes	20	0.00006098	0.00006503
15	Yes	20	0.00005538	0.00005920
16	Yes	20	0.00005450	0.00006798
17	Yes	20	0.00007044	0.00005718
18	Yes	20	0.00005996	0.00004834
19	Yes	20	0.00006441	0.00006406
20	Yes	17	0.00009996	0.00003358
21	Yes	18	0.00006182	0.00001388
22	Yes	18	0.00006672	0.00001438
23	Yes	20	0.00005659	0.00005258
24	Yes	19	0.00009644	0.00008521
25	Yes	20	0.00005255	0.00005841
26	Yes	20	0.00005430	0.00006170
27	Yes	20	0.00004910	0.00005601
28	Yes	20	0.00004893	0.00006444
29	Yes	20	0.00006254	0.00005643
30	Yes	20	0.00005381	0.00004893
31	Yes	20	0.00005622	0.00006091
32	Yes	19	0.00005896	0.00001755
33	Yes	19	0.00006498	0.00001959
34	Yes	19	0.00006531	0.00002331
35	Yes	20	0.00007229	0.00005810
36	Yes	20	0.00006039	0.00004796
37	Yes	20	0.00006281	0.00006268
38	Yes	11	0.00010000	0.00005214
39	Yes	17	0.00000001	0.00001849
40	Yes	16	0.00009253	0.00002643
41	Yes	14	0.00000001	0.00003871
42	Yes	16	0.00007816	0.00001887
43	Yes	17	0.00000001	0.00001374
44	Yes	16	0.00007513	0.00001808
45	Yes	14	0.00000001	0.00003379
46	Yes	16	0.00009379	0.00002538
47	Yes	17	0.00000001	0.00001829
48	Yes	16	0.00009221	0.00002368
49	Yes	14	0.00000001	0.00002969
50	Yes	16	0.00008748	0.00002327
51	Yes	17	0.00000001	0.00002478
52	Yes	16	0.00000001	0.00002941
53	Yes	12	0.00000001	0.00004151
54	Yes	16	0.00000001	0.00002669
55	Yes	17	0.00000001	0.00002190
56	Yes	16	0.00000001	0.00002333
57	Yes	13	0.00000001	0.00002215

58	Yes	16	0.00000001	0.00003287
59	Yes	17	0.00000001	0.00002794
60	Yes	16	0.00000001	0.00003209
61	Yes	13	0.00000001	0.00001927
62	Yes	16	0.00000001	0.00002592

Maximum Tower Deflections - Service Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
T1	457 - 436	6.787	59	0.1438	0.2894
T2	436 - 421	6.568	59	0.1370	0.2861
T3	421 - 401	6.412	59	0.1283	0.2827
T4	401 - 396	6.213	59	0.1033	0.2773
T5	396 - 391	6.171	59	0.0973	0.2757
T6	391 - 386	6.133	59	0.0903	0.2742
T7	386 - 381	6.097	59	0.0820	0.2725
T8	381 - 376	6.071	59	0.0723	0.2708
T9	376 - 371	6.067	59	0.0653	0.2702
T10	371 - 366	6.071	59	0.0593	0.2697
T11	366 - 361	6.077	59	0.0542	0.2692
T12	361 - 341	6.085	59	0.0499	0.2692
T13	341 - 321	6.125	59	0.0346	0.2686
T14	321 - 301	6.136	59	0.0324	0.2639
T15	301 - 281	6.080	59	0.0344	0.2527
T16	281 - 276	5.969	59	0.0315	0.2395
T17	276 - 271	5.939	59	0.0295	0.2356
T18	271 - 266	5.910	59	0.0263	0.2316
T19	266 - 261	5.884	59	0.0218	0.2276
T20	261 - 256	5.861	59	0.0158	0.2229
T21	256 - 251	5.848	59	0.0085	0.2198
T22	251 - 246	5.849	59	0.0105	0.2172
T23	246 - 241	5.859	59	0.0156	0.2147
T24	241 - 221	5.870	59	0.0186	0.2120
T25	221 - 201	5.896	59	0.0145	0.2002
T26	201 - 181	5.850	59	0.0313	0.1764
T27	181 - 161	5.681	59	0.0625	0.1517
T28	161 - 141	5.376	59	0.0928	0.1253
T29	141 - 121	4.976	59	0.1108	0.1090
T30	121 - 101	4.538	59	0.1161	0.1007
T31	101 - 81	4.090	59	0.1363	0.1043
T32	81 - 61	3.535	59	0.1648	0.1079
T33	61 - 41	2.855	59	0.1958	0.1104
T34	41 - 20	2.053	59	0.2235	0.1130
T35	20 - 6.70833	1.099	59	0.2442	0.1128
T36	6.70833 - 0	0.446	59	0.2988	0.1239

Critical Deflections and Radius of Curvature - Service Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
458.00	ATC-BCE618C3R-V1-21	59	6.787	0.1438	0.2894	526808
457.00	12" x 3' Beacon	59	6.787	0.1438	0.2894	526808
450.00	USX6-6W-6GR	59	6.714	0.1417	0.2883	376291
446.50	Guy	59	6.678	0.1406	0.2879	250861
441.00	SRL-235-2	59	6.620	0.1387	0.2870	164628
439.00	BCD-87077	59	6.599	0.1380	0.2867	146830
435.00	ERI 1183-3CP	59	6.558	0.1366	0.2859	129253
430.00	ERI 1183-3CP	59	6.506	0.1344	0.2848	130511
425.00	ERI 1183-3CP	59	6.454	0.1315	0.2836	130057
420.00	ERI 1183-3CP	59	6.402	0.1273	0.2824	110501
415.00	ERI 1183-3CP	59	6.350	0.1217	0.2811	82913

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
410.00	ERI 1183-3CP	59	6.299	0.1151	0.2798	65380
405.00	ERI 1183-3CP	59	6.250	0.1083	0.2784	53950
393.00	6014-2	59	6.148	0.0933	0.2748	72394
388.00	6014-2	59	6.112	0.0856	0.2732	49558
381.00	Guy	59	6.071	0.0723	0.2708	11851
367.00	6828-2	59	6.075	0.0551	0.2692	66662
364.00	DB806E-XT	59	6.080	0.0524	0.2691	62877
344.00	455-6	59	6.119	0.0362	0.2689	168815
342.00	AO9009-3	59	6.123	0.0351	0.2687	178347
340.00	455-6	59	6.126	0.0342	0.2685	149296
333.00	3" x 6" SideLight	59	6.136	0.0322	0.2675	96274
330.00	PG1N0F-0090-310	59	6.138	0.0320	0.2668	83348
328.00	7P-C1-2-CP-L	59	6.138	0.0319	0.2663	76501
326.00	DB201-A	59	6.139	0.0320	0.2657	70693
325.00	DB408	59	6.138	0.0320	0.2654	68129
322.00	SPD3-5.8	59	6.137	0.0323	0.2643	62528
316.00	6014-2	59	6.129	0.0330	0.2615	62531
306.00	6014-2	59	6.100	0.0341	0.2558	69857
284.00	DB404-B w/ Mount Pipe	59	5.987	0.0322	0.2416	196972
277.00	BMR10-A-B1	59	5.945	0.0300	0.2364	75740
264.00	ANT150F6	59	5.874	0.0196	0.2257	38546
258.50	(2) PL6" x 0.5"	59	5.853	0.0123	0.2211	21652
255.00	DB809KT3E-Y	59	5.847	0.0068	0.2193	19133
254.50	Guy	59	5.846	0.0061	0.2190	19540
247.00	AIR 32 B2A B66AA_T-MOBILE w/ Mount Pipe	59	5.857	0.0149	0.2152	84981
230.00	(2) JAHH-65B-R3B w/ Mount Pipe	59	5.889	0.0192	0.2065	100681
215.00	3" x 6" SideLight	59	5.892	0.0132	0.1940	51045
206.00	P-9A72GN-U	59	5.871	0.0242	0.1828	40736
200.00	DFPD1-52 w/ Mount Pipe	59	5.845	0.0328	0.1751	36616
188.00	BMYD745K	59	5.756	0.0512	0.1606	33884
186.00	MX08FRO665-21 w/ Mount Pipe	59	5.736	0.0544	0.1581	33498
178.00	SPD4-5.2	59	5.643	0.0673	0.1477	34364
150.00	HPX6-65-P3A	59	5.164	0.1049	0.1151	74280
146.00	PL6-65-PXA	59	5.082	0.1081	0.1122	91807
140.00	CM 4228HD	59	4.954	0.1112	0.1084	142793
138.00	MGA2-16N	59	4.911	0.1119	0.1072	176079
136.00	CSI-AY/809-960/11	59	4.867	0.1124	0.1060	230001
135.00	CM 4228HD	59	4.845	0.1126	0.1055	271633
134.00	MGAR3-23N	59	4.824	0.1127	0.1049	331667
133.00	220-5	59	4.802	0.1129	0.1044	425765
131.00	Guy	59	4.758	0.1132	0.1035	856338
117.00	P-9A48GN-U	59	4.452	0.1187	0.1007	839030
112.00	3" x 6" SideLight	59	4.343	0.1231	0.1014	103032
109.00	PD1132-D	59	4.277	0.1263	0.1021	67460
108.00	SSH-9A72GN	59	4.254	0.1275	0.1024	60498
99.00	SPD2-5.8	59	4.041	0.1389	0.1048	35860
68.00	P-9A48GN-U	59	3.107	0.1843	0.1085	41098
62.00	CSI-AY/809-960/11	59	2.892	0.1941	0.1100	41903
61.00	SSH-9A72GN	59	2.855	0.1958	0.1104	41673

Maximum Tower Deflections - Design Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
T1	457 - 436	36.615	26	0.8063	0.9899
T2	436 - 421	33.607	26	0.7876	0.9696
T3	421 - 401	32.216	28	0.7550	0.9519
T4	401 - 396	31.283	28	0.6523	0.9251
T5	396 - 391	31.081	28	0.6272	0.9177
T6	391 - 386	30.896	28	0.5978	0.9102
T7	386 - 381	30.718	28	0.5631	0.9024
T8	381 - 376	30.574	28	0.5228	0.8949

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
T9	376 - 371	30.517	28	0.4912	0.8920
T10	371 - 366	30.487	28	0.4616	0.8893
T11	366 - 361	30.464	28	0.4346	0.8869
T12	361 - 341	30.451	28	0.4094	0.8850
T13	341 - 321	30.444	28	0.2782	0.8769
T14	321 - 301	30.361	28	0.1902	0.8569
T15	301 - 281	30.064	28	0.1321	0.8151
T16	281 - 276	29.606	28	0.1300	0.7684
T17	276 - 271	29.489	28	0.1210	0.7552
T18	271 - 266	29.379	28	0.1076	0.7427
T19	266 - 261	29.280	28	0.1050	0.7302
T20	261 - 256	29.198	28	0.1361	0.7148
T21	256 - 251	29.155	28	0.1695	0.7047
T22	251 - 246	29.169	28	0.1993	0.6971
T23	246 - 241	29.221	28	0.2178	0.6901
T24	241 - 221	29.275	28	0.2277	0.6828
T25	221 - 201	29.426	28	0.2071	0.6499
T26	201 - 181	29.273	28	0.1296	0.5811
T27	181 - 161	28.730	27	0.2719	0.5030
T28	161 - 141	27.495	27	0.4243	0.4141
T29	141 - 121	25.697	27	0.5307	0.3711
T30	121 - 101	23.552	27	0.5947	0.3418
T31	101 - 81	21.175	27	0.7177	0.3604
T32	81 - 61	18.218	27	0.8676	0.3799
T33	61 - 41	14.643	27	1.0199	0.3885
T34	41 - 20	10.483	27	1.1524	0.3975
T35	20 - 6.70833	5.592	27	1.2493	0.3962
T36	6.70833 - 0	2.262	27	1.5215	0.4349

Critical Deflections and Radius of Curvature - Design Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
458.00	ATC-BCE618C3R-V1-21	26	36.615	0.8063	0.9899	146954
457.00	12" x 3' Beacon	26	36.615	0.8063	0.9899	146954
450.00	USX6-6W-6GR	26	35.609	0.8011	0.9835	104967
446.50	Guy	26	35.107	0.7983	0.9802	69978
441.00	SRL-235-2	26	34.320	0.7932	0.9748	45923
439.00	BCD-87077	26	34.035	0.7911	0.9728	40814
435.00	ERI 1183-3CP	26	33.465	0.7864	0.9685	33283
430.00	ERI 1183-3CP	26	32.757	0.7789	0.9629	26892
425.00	ERI 1183-3CP	28	32.413	0.7678	0.9569	22545
420.00	ERI 1183-3CP	28	32.167	0.7511	0.9507	19226
415.00	ERI 1183-3CP	28	31.924	0.7281	0.9443	16675
410.00	ERI 1183-3CP	28	31.686	0.7013	0.9377	14769
405.00	ERI 1183-3CP	28	31.457	0.6735	0.9309	13037
393.00	6014-2	28	30.968	0.6102	0.9132	17139
388.00	6014-2	28	30.788	0.5779	0.9056	11227
381.00	Guy	28	30.574	0.5228	0.8949	3429
367.00	6828-2	28	30.468	0.4397	0.8874	11103
364.00	DB806E-XT	28	30.458	0.4247	0.8861	9718
344.00	455-6	28	30.445	0.2980	0.8785	10939
342.00	AO9009-3	28	30.444	0.2847	0.8775	11053
340.00	455-6	28	30.443	0.2727	0.8763	11274
333.00	3" x 6" SideLight	28	30.430	0.2383	0.8714	12782
330.00	PG1N0F-0090-310	28	30.420	0.2253	0.8686	13605
328.00	7P-C1-2-CP-L	28	30.410	0.2171	0.8664	14216
326.00	DB201-A	28	30.399	0.2092	0.8640	14884
325.00	DB408	28	30.393	0.2053	0.8628	15239
322.00	SPD3-5.8	28	30.370	0.1939	0.8585	15772
316.00	6014-2	28	30.308	0.1716	0.8480	15506
306.00	6014-2	28	30.159	0.1344	0.8265	15540
284.00	DB404-B w/ Mount Pipe	28	29.678	0.1335	0.7760	14963
277.00	BMR10-A-B1	28	29.512	0.1231	0.7578	9358

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
264.00	ANT150F6	28	29.244	0.1171	0.7240	8803
258.50	(2) PL6" x 0.5"	28	29.170	0.1526	0.7090	5495
255.00	DB809KT3E-Y	28	29.153	0.1761	0.7031	4874
254.50	Guy	28	29.153	0.1793	0.7023	4981
247.00	AIR 32 B2A B66AA_T-MOBILE w/ Mount Pipe	28	29.210	0.2150	0.6915	19089
230.00	(2) JAHH-65B-R3B w/ Mount Pipe	28	29.379	0.2249	0.6676	16060
215.00	3" x 6" SideLight	28	29.424	0.1910	0.6325	9696
206.00	P-9A72GN-U	28	29.354	0.1562	0.6002	8023
200.00	DFPD1-52 w/ Mount Pipe	27	29.259	0.1362	0.5773	7300
188.00	BYMD745K	27	28.998	0.2186	0.5319	6686
186.00	MX08FRO665-21 w/ Mount Pipe	27	28.931	0.2336	0.5240	6597
178.00	SPD4-5.2	27	28.588	0.2953	0.4895	6635
150.00	HPX6-65-P3A	27	26.563	0.4909	0.3849	9764
146.00	PL6-65-PXA	27	26.188	0.5103	0.3788	10612
140.00	CM 4228HD	27	25.595	0.5343	0.3695	12271
138.00	MGA2-16N	27	25.391	0.5409	0.3662	13009
136.00	CSI-AY/809-960/11	27	25.183	0.5471	0.3629	13862
135.00	CM 4228HD	27	25.078	0.5501	0.3613	14333
134.00	MGAR3-23N	27	24.973	0.5530	0.3596	14838
133.00	220-5	27	24.866	0.5559	0.3580	15379
131.00	Guy	27	24.652	0.5616	0.3549	16590
117.00	P-9A48GN-U	27	23.103	0.6129	0.3410	16707
112.00	3" x 6" SideLight	27	22.529	0.6417	0.3454	11253
109.00	PD1132-D	27	22.175	0.6609	0.3491	9407
108.00	SSH-9A72GN	27	22.054	0.6676	0.3504	8919
99.00	SPD2-5.8	27	20.909	0.7329	0.3632	6658
68.00	P-9A48GN-U	27	15.959	0.9551	0.3820	8040
62.00	CSI-AY/809-960/11	27	14.835	1.0092	0.3871	8372
61.00	SSH-9A72GN	27	14.643	1.0199	0.3885	8348

Bolt Design Data

Section No.	Elevation ft	Component Type	Bolt Grade	Bolt Size in	Number Of Bolts	Maximum Load per Bolt K	Allowable Load per Bolt K	Ratio Load Allowable	Allowable Ratio	Criteria
T1	457	Leg	A307	0.8750	8	1.12	20.78	0.054	1.05	Bolt Tension
		Diagonal	A307	0.5000	2	1.28	5.52	0.231	1.05	Bolt Shear
		Horizontal	A307	0.5000	2	0.38	5.52	0.069	1.05	Bolt Shear
		Top Girt	A307	0.5000	2	0.22	5.52	0.039	1.05	Bolt Shear
		Mid Girt	A307	0.5000	2	1.56	5.52	0.282	1.05	Bolt Shear
T2	436	Leg	A307	0.8750	8	2.93	20.78	0.141	1.05	Bolt Tension
		Diagonal	A325X	0.5000	2	1.58	7.08	0.223	1.05	Member Block Shear
		Horizontal	A307	0.5000	2	0.56	5.52	0.102	1.05	Bolt Shear
T3	421	Top Girt	A307	0.5000	2	0.48	5.52	0.087	1.05	Bolt Shear
		Leg	A307	0.8750	8	7.51	20.78	0.361	1.05	Bolt Tension
		Diagonal	A325N	0.5000	2	3.27	7.08	0.462	1.05	Member Block Shear
		Top Girt	A307	0.5000	2	0.69	5.52	0.125	1.05	Bolt Shear
T4	401	Mid Girt	A307	0.5000	2	0.12	5.52	0.021	1.05	Bolt Shear
		Diagonal	A325N	0.5000	2	3.47	7.08	0.490	1.05	Member Block Shear
T5	396	Top Girt	A307	0.5000	2	0.82	5.52	0.148	1.05	Bolt Shear
		Diagonal	A325N	0.5000	2	3.83	7.08	0.541	1.05	Member Block Shear
T6	391	Diagonal	A325X	0.5000	2	4.37	7.08	0.618	1.05	Member Block Shear
T7	386	Leg	A307	0.8750	8	15.52	20.78	0.747	1.05	Bolt Tension
		Diagonal	A325X	0.5000	2	5.20	7.08	0.734	1.05	Member Block Shear
T8	381	Diagonal	A325N	0.5000	2	3.89	7.08	0.550	1.05	Member Block Shear

Section No.	Elevation ft	Component Type	Bolt Grade	Bolt Size in	Number Of Bolts	Maximum Load per Bolt K	Allowable Load per Bolt K	Ratio Load Allowable	Allowable Ratio	Criteria
		Top Guy Pull-Off@381	A307	0.5000	2	10.39	11.04	0.941	1.05	Bolt Shear
T9	376	Diagonal	A325N	0.5000	2	3.38	7.08	0.477	1.05	Member Block Shear
T10	371	Diagonal	A325N	0.5000	2	3.41	7.08	0.482	1.05	Member Block Shear
T11	366	Leg	A307	0.8750	8	7.70	20.78	0.370	1.05	Bolt Tension
		Diagonal	A325N	0.5000	2	3.09	7.08	0.436	1.05	Member Block Shear
T12	361	Leg	A307	0.8750	8	4.67	20.78	0.225	1.05	Bolt Tension
		Diagonal	A325N	0.5000	2	2.79	7.08	0.394	1.05	Member Block Shear
		Secondary Horizontal	A325X	0.5000	1	2.25	9.66	0.233	1.05	Member Block Shear
		Top Girt	A307	0.5000	2	1.12	5.52	0.204	1.05	Bolt Shear
		Mid Girt	A307	0.5000	2	0.19	5.52	0.034	1.05	Bolt Shear
T13	341	Leg	A307	0.8750	8	4.07	20.78	0.196	1.05	Bolt Tension
		Diagonal	A325N	0.5000	2	1.94	7.08	0.274	1.05	Member Block Shear
		Top Girt	A307	0.5000	2	0.93	5.52	0.169	1.05	Bolt Shear
		Mid Girt	A307	0.5000	2	0.17	5.52	0.031	1.05	Bolt Shear
T14	321	Leg	A307	0.8750	8	4.03	20.78	0.194	1.05	Bolt Tension
		Diagonal	A307	0.5000	2	1.62	5.52	0.292	1.05	Bolt Shear
		Top Girt	A307	0.5000	2	0.84	5.52	0.152	1.05	Bolt Shear
		Mid Girt	A307	0.5000	2	0.25	5.52	0.045	1.05	Bolt Shear
T15	301	Leg	A307	0.8750	8	4.54	20.78	0.218	1.05	Bolt Tension
		Diagonal	A307	0.5000	2	2.53	5.52	0.459	1.05	Bolt Shear
		Top Girt	A307	0.5000	2	0.94	5.52	0.171	1.05	Bolt Shear
		Mid Girt	A307	0.5000	2	0.17	5.52	0.031	1.05	Bolt Shear
T16	281	Diagonal	A325N	0.5000	2	2.76	7.08	0.389	1.05	Member Block Shear
		Top Girt	A307	0.5000	2	0.98	5.52	0.178	1.05	Bolt Shear
T17	276	Diagonal	A325N	0.5000	2	3.04	7.08	0.429	1.05	Member Block Shear
T18	271	Diagonal	A325N	0.5000	2	3.55	7.08	0.501	1.05	Member Block Shear
		Top Girt	A307	0.5000	2	1.08	5.52	0.195	1.05	Bolt Shear
T19	266	Leg	A307	0.8750	8	5.41	20.78	0.260	1.05	Bolt Tension
		Diagonal	A325N	0.5000	2	3.35	7.08	0.474	1.05	Member Block Shear
T20	261	Diagonal	A325N	0.5000	2	6.04	8.84	0.684	1.05	Bolt Shear
		Top Girt	A307	0.5000	2	2.78	5.52	0.503	1.05	Bolt Shear
T21	256	Diagonal	A325N	0.5000	2	8.56	8.84	0.968	1.05	Bolt Shear
		Secondary Horizontal	A325N	0.5000	2	12.05	17.67	0.682	1.05	Bolt Shear
T22	251	Diagonal	A325N	0.5000	2	6.20	8.84	0.702	1.05	Bolt Shear
		Top Girt	A307	0.5000	2	2.97	5.52	0.538	1.05	Bolt Shear
T23	246	Leg	A307	0.6250	8	3.98	10.17	0.392	1.05	Bolt Tension
		Diagonal	A325N	0.5000	2	5.59	8.84	0.633	1.05	Bolt Shear
		Secondary Horizontal	A325N	0.5000	2	0.83	17.67	0.047	1.05	Bolt Shear
T24	241	Leg	A307	0.6250	8	4.61	10.17	0.453	1.05	Bolt Tension
		Diagonal	A325N	0.5000	2	5.08	8.84	0.575	1.05	Bolt Shear
		Top Girt	A307	0.5000	2	0.96	5.52	0.173	1.05	Bolt Shear
		Mid Girt	A307	0.5000	2	0.35	5.52	0.063	1.05	Bolt Shear
T25	221	Leg	A307	0.8750	8	6.04	20.78	0.291	1.05	Bolt Tension
		Diagonal	A307	0.5000	2	3.44	5.52	0.623	1.05	Bolt Shear
		Top Girt	A307	0.5000	2	1.25	5.52	0.227	1.05	Bolt Shear
		Mid Girt	A307	0.5000	2	0.33	5.52	0.059	1.05	Bolt Shear
T26	201	Leg	A307	0.8750	8	6.71	20.78	0.323	1.05	Bolt Tension
		Diagonal	A307	0.5000	2	2.23	5.52	0.404	1.05	Bolt Shear
		Top Girt	A307	0.5000	2	1.40	5.52	0.253	1.05	Bolt Shear
		Mid Girt	A307	0.5000	2	0.31	5.52	0.056	1.05	Bolt Shear
T27	181	Leg	A307	0.8750	8	6.58	20.78	0.317	1.05	Bolt Tension
		Diagonal	A307	0.5000	2	1.89	5.52	0.342	1.05	Bolt Shear
		Top Girt	A307	0.5000	2	1.40	11.04	0.127	1.05	Bolt Shear
		Mid Girt	A307	0.5000	2	0.36	5.52	0.065	1.05	Bolt Shear
T28	161	Leg	A307	0.6250	8	5.72	10.17	0.563	1.05	Bolt Tension

Section No.	Elevation ft	Component Type	Bolt Grade	Bolt Size in	Number Of Bolts	Maximum Load per Bolt K	Allowable Load per Bolt K	Ratio Load Allowable	Allowable Ratio	Criteria
T29	141	Diagonal	A325N	0.6250	2	3.25	10.83	0.300	1.05	Member Block Shear
		Top Girt	A307	0.5000	2	1.34	5.52	0.242	1.05	Bolt Shear
		Mid Girt	A307	0.5000	2	0.42	5.52	0.075	1.05	Bolt Shear
		Leg	A307	0.6250	8	5.00	10.17	0.492	1.05	Bolt Tension
		Diagonal	A325N	0.6250	2	4.26	10.83	0.393	1.05	Member Block Shear
		Top Girt	A307	0.5000	2	1.12	5.52	0.203	1.05	Bolt Shear
		Mid Girt	A325N	0.5000	2	5.68	7.08	0.802	1.05	Member Block Shear
T30	121	Torque Arm Top@131	A325N	0.7500	2	9.58	16.92	0.566	1.05	Member Block Shear
		Torque Arm Bottom@131	A325N	0.7500	2	6.47	16.92	0.382	1.05	Member Block Shear
		Leg	A307	0.8750	8	7.37	20.78	0.355	1.05	Bolt Tension
T31	101	Diagonal	A325N	0.5000	2	2.48	7.08	0.350	1.05	Member Block Shear
		Top Girt	A307	0.5000	2	3.39	5.52	0.615	1.05	Bolt Shear
		Mid Girt	A307	0.5000	2	0.26	5.52	0.048	1.05	Bolt Shear
		Leg	A307	0.8750	8	7.98	20.78	0.384	1.05	Bolt Tension
T32	81	Diagonal	A307	0.5000	2	1.49	5.52	0.270	1.05	Bolt Shear
		Top Girt	A307	0.5000	2	1.66	5.52	0.300	1.05	Bolt Shear
		Mid Girt	A307	0.5000	2	0.48	5.52	0.086	1.05	Bolt Shear
T33	61	Leg	A307	0.8750	8	7.94	20.78	0.382	1.05	Bolt Tension
		Diagonal	A307	0.5000	2	1.05	5.52	0.190	1.05	Bolt Shear
		Top Girt	A307	0.5000	2	1.67	5.52	0.303	1.05	Bolt Shear
T34	41	Mid Girt	A307	0.5000	2	0.48	5.52	0.087	1.05	Bolt Shear
		Leg	A307	0.8750	8	7.27	20.78	0.350	1.05	Bolt Tension
		Diagonal	A307	0.5000	2	1.96	5.52	0.354	1.05	Bolt Shear
T35	20	Top Girt	A307	0.5000	2	1.63	5.52	0.295	1.05	Bolt Shear
		Mid Girt	A307	0.5000	2	0.44	5.52	0.080	1.05	Bolt Shear
		Leg	A307	0.8750	8	6.17	20.78	0.297	1.05	Bolt Tension
T36	6.70833	Diagonal	A307	0.5000	2	2.92	5.52	0.529	1.05	Bolt Shear
		Top Girt	A307	0.5000	2	1.46	5.52	0.264	1.05	Bolt Shear
		Mid Girt	A307	0.5000	2	0.59	5.52	0.106	1.05	Bolt Shear
T35	20	Leg	A307	0.8750	8	6.19	20.78	0.298	1.05	Bolt Tension
		Diagonal	A307	0.5000	2	0.91	5.52	0.165	1.05	Bolt Shear
		Top Girt	A325N	0.5000	2	6.99	14.16	0.494	1.05	Member Block Shear
T36	6.70833	Diagonal	A307	0.5000	2	2.18	5.52	0.394	1.05	Bolt Shear

Guy Design Data

Section No.	Elevation ft	Size	Initial Tension K	Breaking Load K	Actual T_u K	Allowable ϕT_n K	Required S.F.	Actual S.F.
T1	446.50 (A) (825)	9/16 EHS	2.80	35.00	11.43	22.05	0.952	1.837
	446.50 (B) (824)	9/16 EHS	2.80	35.00	11.91	22.05	0.952	1.763
	446.50 (C) (823)	9/16 EHS	2.80	35.00	11.91	22.05	0.952	1.763
T8	381.00 (A) (828)	1 3/8 BS	18.56	232.00	65.93	146.16	0.952	2.111
	381.00 (B) (827)	1 3/8 BS	18.56	232.00	66.90	146.16	0.952	2.081
	381.00 (C) (826)	1 3/8 BS	18.56	232.00	66.10	146.16	0.952	2.106
T21	254.50 (A) (831)	1 1/4 BS	15.36	192.00	61.90	120.96	0.952	1.861
	254.50 (B) (830)	1 1/4 BS	15.36	192.00	63.92	120.96	0.952	1.802
	254.50 (C)	1 1/4 BS	15.36	192.00	63.11	120.96	0.952	1.825

Section No.	Elevation ft	Size	Initial Tension K	Breaking Load K	Actual T_u K	Allowable ϕT_n K	Required S.F.	Actual S.F.
T29	(829) 131.00 (A)	11/16 EHS	6.00	50.00	20.82	31.50	0.952	1.441
	(844) 131.00 (A)	11/16 EHS	6.00	50.00	19.95	31.50	0.952	1.504
	(845) 131.00 (B)	11/16 EHS	6.00	50.00	20.78	31.50	0.952	1.444
	(838) 131.00 (B)	11/16 EHS	6.00	50.00	21.41	31.50	0.952	1.401
	(839) 131.00 (C)	11/16 EHS	6.00	50.00	21.16	31.50	0.952	1.417
	(832) 131.00 (C)	11/16 EHS	6.00	50.00	20.26	31.50	0.952	1.481
	(833)							

Compression Checks

Leg Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in ²	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T1	457 - 436	3	21.00	5.25	84.0	7.0686	-22.43	149.35	0.150 ¹
T2	436 - 421	2 3/4	15.00	5.00	K=1.00 87.3	5.9396	-35.44	122.15	0.290 ¹
T3	421 - 401	2 3/4	20.00	5.00	K=1.00 87.3	5.9396	-79.54	122.15	0.651 ¹
T4	401 - 396	3" S.R. w/ 3 SCH 40 Half Pipe and 3.75 x 5/16 Half Pipe	5.00	5.00	K=1.00 68.2	9.7900	-94.54	232.33	0.407 ¹
T5	396 - 391	3" S.R. w/ 3 SCH 40 Half Pipe and 3.75 x 5/16 Half Pipe	5.00	5.00	K=1.00 68.2	9.7900	-110.89	232.33	0.477 ¹
T6	391 - 386	3" S.R. w/ 3 SCH 40 Half Pipe and 3.75 x 5/16 Half Pipe	5.00	5.00	K=1.00 68.2	9.7900	-129.44	232.33	0.557 ¹
T7	386 - 381	3" S.R. w/ 3 SCH 40 Half Pipe and 3.75 x 5/16 Half Pipe	5.00	5.00	K=1.00 68.2	9.7900	-151.14	232.33	0.651 ¹
T8	381 - 376	3.5" S.R. w/ 3.5 SCH40 Half Pipe	5.00	5.00	K=1.00 64.5	11.000	-160.52	267.25	0.601 ¹
T9	376 - 371	3.5" S.R. w/ 3.5 SCH40 Half Pipe	5.00	5.00	K=1.00 64.5	11.000	-151.48	267.25	0.567 ¹
T10	371 - 366	3.5" S.R. w/ 3.5 SCH40 Half Pipe	5.00	5.00	K=1.00 64.5	11.000	-144.27	267.25	0.540 ¹
T11	366 - 361	3.5" S.R. w/ 3.5 SCH40 Half Pipe	5.00	5.00	K=1.00 64.5	11.000	-136.81	267.25	0.512 ¹
T12	361 - 341	3	20.00	2.50	K=1.00 40.0	7.0686	-129.78	194.34	0.668 ¹
T13	341 - 321	3	20.00	5.00	K=1.00 80.0	7.0686	-107.77	154.16	0.699 ¹
T14	321 - 301	3	20.00	5.00	K=1.00 80.0	7.0686	-96.67	154.16	0.627 ¹
T15	301 - 281	3	20.00	5.00	K=1.00 80.0	7.0686	-108.90	154.16	0.706 ¹
T16	281 - 276	3	5.00	5.00	K=1.00 80.0	7.0686	-113.61	154.16	0.737 ¹
T17	276 - 271	3	5.00	5.00	K=1.00 80.0	7.0686	-118.43	154.16	0.768 ¹
T18	271 - 266	3	5.00	5.00	K=1.00 80.0	7.0686	-124.60	154.16	0.808 ¹

Section No.	Elevation ft	Size	L ft	L _u ft	KI/r	A in ²	P _u K	φP _n K	Ratio P _u / φP _n
T19	266 - 261	3	5.00	5.00	80.0	7.0686	-129.84	154.16	0.842 ¹
T20	261 - 256	3	5.00	5.00	80.0	7.0686	-140.77	154.16	0.913 ¹
T21	256 - 251	3	5.00	2.50	40.0	7.0686	-144.89	194.34	0.746 ¹
T22	251 - 246	3	5.00	5.00	80.0	7.0686	-116.34	154.16	0.755 ¹
T23	246 - 241	3	5.00	2.50	40.0	7.0686	-95.78	194.34	0.493 ¹
T24	241 - 221	3	20.00	5.00	80.0	7.0686	-110.61	154.16	0.718 ¹
T25	221 - 201	3 1/4	20.00	5.00	73.8	8.2958	-144.88	189.38	0.765 ¹
T26	201 - 181	3 1/4	20.00	5.00	73.8	8.2958	-161.14	189.38	0.851 ¹
T27	181 - 161	3 1/4	20.00	5.00	73.8	8.2958	-161.89	189.38	0.855 ¹
T28	161 - 141	3 1/2	20.00	5.00	68.6	9.6211	-154.56	227.74	0.679 ¹
T29	141 - 121	3 1/2	20.00	5.00	68.6	9.6211	-129.26	227.74	0.568 ¹
T30	121 - 101	3 1/2	20.00	5.00	68.6	9.6211	-176.90	227.74	0.777 ¹
T31	101 - 81	3 1/2	20.00	5.00	68.6	9.6211	-191.50	227.74	0.841 ¹
T32	81 - 61	3 1/2	20.00	5.00	68.6	9.6211	-192.96	227.74	0.847 ¹
T33	61 - 41	3 1/2	20.00	5.00	68.6	9.6211	-187.89	227.74	0.825 ¹
T34	41 - 20	3 1/2	21.00	5.25	72.0	9.6211	-168.41	222.50	0.757 ¹
T35	20 - 6.70833	3 1/4	13.49	4.50	66.4	8.2958	-151.31	199.14	0.760 ¹
T36	6.70833 - 0	3 1/4	6.81	2.27	33.5	8.2958	-154.67	233.39	0.663 ¹

¹ P_u / φP_n controls

Diagonal Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L _u ft	KI/r	A in ²	P _u K	φP _n K	Ratio P _u / φP _n
T1	457 - 436	L2 1/2x2x1/4	7.65	3.63	107.0	1.0600	-1.97	23.43	0.084 ¹
T2	436 - 421	L2 1/2x2x3/16	7.50	3.55	104.9	0.8090	-3.87	18.23	0.212 ¹
T3	421 - 401	L2 1/2x2x3/16	7.50	3.55	104.9	0.8090	-6.65	18.23	0.365 ¹
T4	401 - 396	L2 1/2x2x3/16	7.50	3.55	104.9	0.8090	-7.10	18.23	0.389 ¹
T5	396 - 391	L2 1/2x2x3/16	7.50	3.55	104.9	0.8090	-7.70	18.23	0.423 ¹
T6	391 - 386	L2 1/2x2x3/16	7.50	3.55	104.9	0.8090	-9.86	18.23	0.541 ¹
T7	386 - 381	L2 1/2x2x3/16	7.50	3.55	104.9	0.8090	-9.32	18.23	0.511 ¹
T8	381 - 376	L2 1/2x2x3/16	7.50	3.55	104.9	0.8090	-6.58	18.23	0.361 ¹
T9	376 - 371	L2 1/2x2x3/16	7.50	3.55	104.9	0.8090	-7.78	18.23	0.427 ¹
T10	371 - 366	L2 1/2x2x3/16	7.50	3.55	104.9	0.8090	-6.78	18.23	0.372 ¹

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T11	366 - 361	L2 1/2x2x3/16	7.50	3.55	104.9	0.8090	-6.32	18.23	0.346 ¹
T12	361 - 341	L2 1/2x2x3/16	7.50	3.55	K=1.05 104.9	0.8090	-5.84	18.23	0.320 ¹
T13	341 - 321	L2 1/2x2x3/16	7.50	3.55	K=1.05 104.9	0.8090	-3.90	18.23	0.214 ¹
T14	321 - 301	L2 1/2x2x3/16	7.50	3.55	K=1.05 104.9	0.8090	-3.23	18.23	0.177 ¹
T15	301 - 281	L2 1/2x2x3/16	7.50	3.55	K=1.05 104.9	0.8090	-5.06	18.23	0.278 ¹
T16	281 - 276	L2 1/2x2x3/16	7.50	3.55	K=1.05 104.9	0.8090	-5.47	18.23	0.300 ¹
T17	276 - 271	L2 1/2x2x3/16	7.50	3.55	K=1.05 104.9	0.8090	-6.24	18.23	0.342 ¹
T18	271 - 266	L2 1/2x2x3/16	7.50	3.55	K=1.05 104.9	0.8090	-6.09	18.23	0.334 ¹
T19	266 - 261	L2 1/2x2x3/16	7.50	3.55	K=1.05 104.9	0.8090	-7.47	18.23	0.410 ¹
T20	261 - 256	L3x3x1/4	7.50	3.55	K=1.17 84.0	1.4400	-4.76	40.34	0.118 ¹
T21	256 - 251	L3x3x1/4	7.50	3.55	K=1.17 84.0	1.4400	-12.31	40.34	0.305 ¹
T22	251 - 246	L3x3x1/4	7.50	3.55	K=1.17 84.0	1.4400	-12.40	40.34	0.307 ¹
T23	246 - 241	L3x3x1/4	7.50	3.55	K=1.17 84.0	1.4400	-10.07	40.34	0.250 ¹
T24	241 - 221	L3x3x1/4	7.50	3.55	K=1.17 84.0	1.4400	-10.16	40.34	0.252 ¹
T25	221 - 201	L2 1/2x2x3/16	7.50	3.55	K=1.05 104.9	0.8090	-6.88	18.23	0.377 ¹
T26	201 - 181	L2 1/2x2x3/16	7.50	3.55	K=1.05 104.9	0.8090	-4.46	18.23	0.244 ¹
T27	181 - 161	L2 1/2x2x3/16	7.50	3.55	K=1.05 104.9	0.8090	-3.78	18.23	0.207 ¹
T28	161 - 141	L3x3x1/4	7.50	3.54	K=1.17 83.8	1.4400	-6.69	40.40	0.166 ¹
T29	141 - 121	L3x3x1/4	7.50	3.54	K=1.17 83.8	1.4400	-8.33	40.40	0.206 ¹
T30	121 - 101	L2 1/2x2x3/16	7.50	3.55	K=1.05 104.9	0.8090	-5.29	18.23	0.290 ¹
T31	101 - 81	L2 1/2x2x3/16	7.50	3.55	K=1.05 104.9	0.8090	-2.98	18.23	0.163 ¹
T32	81 - 61	L2 1/2x2x3/16	7.50	3.55	K=1.05 104.9	0.8090	-2.09	18.23	0.115 ¹
T33	61 - 41	L2 1/2x2x3/16	7.50	3.55	K=1.05 104.9	0.8090	-3.91	18.23	0.214 ¹
T34	41 - 20	L2 1/2x2x3/16	7.65	3.63	K=1.04 106.5	0.8090	-5.85	17.97	0.325 ¹
T35	20 - 6.70833	L2x2x3/16	4.76	2.78	K=1.10 93.5	0.7150	-1.82	17.65	0.103 ¹
T36	6.70833 - 0	L2x2x3/16	2.46	1.11	K=1.63 55.4	0.7150	-4.35	21.51	0.202 ¹

¹ $P_u / \phi P_n$ controls

Horizontal Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T1	457 - 436	L2 1/2x2x1/4	6.00	5.35	139.4	1.0600	-0.54	15.61	0.035 ¹
T2	436 - 421	L2 1/2x2x1/4	6.00	5.38	K=0.92 139.8 K=0.92	1.0600	-0.61	15.53	0.040 ¹

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
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¹ $P_u / \phi P_n$ controls

Secondary Horizontal Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T12	361 - 341	L2x2x1/4	6.00	2.76	102.4	0.9380	-2.25	22.64	0.099 ¹
T21	256 - 251	2L3 1/2x3 1/2x3/8x3/8	6.00	2.71	K=1.21 30.4	4.9700	-2.51	164.58	0.015 ¹
T23	246 - 241	2L3 1/2x3 1/2x3/8x3/8	6.00	2.71	K=1.00 30.4	4.9700	-1.66	164.58	0.010 ¹
					K=1.00				

¹ $P_u / \phi P_n$ controls

Top Girt Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T1	457 - 436	C8x13.75	6.00	5.75	112.2	4.0400	-0.20	65.36	0.003 ¹
T2	436 - 421	L2 1/2x2x1/4	6.00	5.38	K=1.00 139.8	1.0600	-0.61	15.53	0.040 ¹
T3	421 - 401	L2 1/2x2x1/4	6.00	5.38	K=0.92 139.8	1.0600	-1.38	15.53	0.089 ¹
T4	401 - 396	L2 1/2x2x1/4	6.00	5.29	K=0.92 138.3	1.0600	-1.64	15.86	0.103 ¹
T6	391 - 386	L2 1/2x2x1/4	6.00	5.69	K=0.92 161.0	1.0600	-2.24	11.71	0.191 ¹
T10	371 - 366	L2 1/2x2x1/4	6.00	5.67	K=1.00 160.4	1.0600	-2.50	11.80	0.212 ¹
T12	361 - 341	L2 1/2x2x1/4	6.00	5.35	K=1.00 139.4	1.0600	-2.25	15.61	0.144 ¹
T13	341 - 321	L2 1/2x2x1/4	6.00	5.35	K=0.92 139.4	1.0600	-1.87	15.61	0.120 ¹
T14	321 - 301	L2 1/2x2x1/4	6.00	5.35	K=0.92 139.4	1.0600	-1.67	15.61	0.107 ¹
T15	301 - 281	L2 1/2x2x3/16	6.00	5.35	K=0.92 138.7	0.8090	-1.89	12.03	0.157 ¹
T16	281 - 276	L2 1/2x2x1/4	6.00	5.35	K=0.92 139.4	1.0600	-1.97	15.61	0.126 ¹
T18	271 - 266	L2 1/2x2x1/4	6.00	5.35	K=0.92 139.4	1.0600	-2.16	15.61	0.138 ¹
T20	261 - 256	L2 1/2x2x3/16	6.00	5.35	K=0.92 138.7	0.8090	-5.55	12.03	0.462 ¹
T22	251 - 246	L2 1/2x2x3/16	6.00	5.35	K=0.92 138.7	0.8090	-5.94	12.03	0.494 ¹
T24	241 - 221	L2 1/2x2x3/16	6.00	5.35	K=0.92 138.7	0.8090	-1.92	12.03	0.159 ¹
T25	221 - 201	L2 1/2x2x3/16	6.00	5.33	K=0.92 138.4	0.8090	-2.51	12.09	0.208 ¹
T26	201 - 181	L2 1/2x2x3/16	6.00	5.33	K=0.92 138.4	0.8090	-2.79	12.09	0.231 ¹
T27	181 - 161	2L3x2x1/4x3/8	6.00	5.33	K=0.92 87.0	2.3800	-2.80	58.65	0.048 ¹
T28	161 - 141	L2 1/2x2x3/16	6.00	5.31	K=1.00 138.0	0.8090	-2.68	12.16	0.220 ¹
					K=0.92				

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _n K	Ratio P _u / φP _n
T29	141 - 121	L2 1/2x2x3/16	6.00	5.31	138.0	0.8090	-2.24	12.16	0.184 ¹
T30	121 - 101	L2 1/2x2x3/16	6.00	5.31	K=0.92 138.0	0.8090	-6.79	12.16	0.559 ¹
T31	101 - 81	L2 1/2x2x3/16	6.00	5.31	K=0.92 138.0	0.8090	-3.32	12.16	0.273 ¹
T32	81 - 61	L2 1/2x2x3/16	6.00	5.31	K=0.92 138.0	0.8090	-3.34	12.16	0.275 ¹
T33	61 - 41	L2 1/2x2x3/16	6.00	5.31	K=0.92 138.0	0.8090	-3.25	12.16	0.268 ¹
T34	41 - 20	L2 1/2x2x3/16	6.00	5.31	K=0.92 138.0	0.8090	-2.92	12.16	0.240 ¹
T35	20 - 6.70833	2L2 1/2x2x3/16x1/4	6.00	5.33	K=0.92 88.4 K=1.00	1.6172	-2.65	39.09	0.068 ¹

¹ P_u / φP_n controls

Mid Girt Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _n K	Ratio P _u / φP _n
T3	421 - 401	L2 1/2x2x1/4	6.00	5.38	139.8	1.0600	-0.08	15.53	0.005 ¹
T12	361 - 341	L2 1/2x2x1/4	6.00	5.35	K=0.92 139.4	1.0600	-0.11	15.61	0.007 ¹
T13	341 - 321	L2 1/2x2x1/4	6.00	5.35	K=0.92 139.4	1.0600	-0.05	15.61	0.003 ¹
T14	321 - 301	L2 1/2x2x1/4	6.00	5.35	K=0.92 139.4	1.0600	-0.14	15.61	0.009 ¹
T15	301 - 281	L2 1/2x2x3/16	6.00	5.35	K=0.92 138.7	0.8090	-0.03	12.03	0.002 ¹
T24	241 - 221	L2 1/2x2x3/16	6.00	5.35	K=0.92 138.7	0.8090	-0.18	12.03	0.015 ¹
T25	221 - 201	L2 1/2x2x3/16	6.00	5.33	K=0.92 138.4	0.8090	-0.00	12.09	0.000 ¹
T26	201 - 181	L2 1/2x2x3/16	6.00	5.33	K=0.92 138.4	0.8090	-0.04	12.09	0.004 ¹
T27	181 - 161	L2 1/2x2x3/16	6.00	5.33	K=0.92 138.4	0.8090	-0.10	12.09	0.008 ¹
T29	141 - 121	L2 1/2x2x3/16	6.00	5.31	K=0.92 138.0	0.8090	-7.92	12.16	0.652 ¹
T31	101 - 81	L2 1/2x2x3/16	6.00	5.31	K=0.92 138.0	0.8090	-0.13	12.16	0.011 ¹
T32	81 - 61	L2 1/2x2x3/16	6.00	5.31	K=0.92 138.0	0.8090	-0.16	12.16	0.013 ¹
T33	61 - 41	L2 1/2x2x3/16	6.00	5.31	K=0.92 138.0	0.8090	-0.09	12.16	0.007 ¹

¹ P_u / φP_n controls

Torque-Arm Top Design Data

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _n K	Ratio P _u / φP _n
T29	141 - 121 (834)	L3x3x3/8 (TA - BU#873128)	7.55	7.40	138.4	2.1100	-0.41	31.54	0.013 ¹
T29	141 - 121 (835)	L3x3x3/8 (TA - BU#873128)	7.55	7.40	K=0.90 138.4 K=0.90	2.1100	-0.12	31.54	0.004 ¹

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _n K	Ratio P _u / φP _n
T29	141 - 121 (840)	L3x3x3/8 (TA - BU#873128)	7.55	7.40	138.4 K=0.90	2.1100	-0.48	31.54	0.015 ¹
T29	141 - 121 (841)	L3x3x3/8 (TA - BU#873128)	7.55	7.40	138.4 K=0.90	2.1100	-0.81	31.54	0.026 ¹
T29	141 - 121 (846)	L3x3x3/8 (TA - BU#873128)	7.55	7.40	138.4 K=0.90	2.1100	-1.41	31.54	0.045 ¹
T29	141 - 121 (847)	L3x3x3/8 (TA - BU#873128)	7.55	7.40	138.4 K=0.90	2.1100	-0.99	31.54	0.032 ¹

¹ P_u / φP_n controls

Torque-Arm Bottom Design Data

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _n K	Ratio P _u / φP _n
T29	141 - 121 (836)	2L3x3x3/16x3/4	12.53	12.29	140.8 K=0.90	2.1800	-21.67	31.45	0.689 ¹
T29	141 - 121 (837)	2L3x3x3/16x3/4	12.53	12.29	140.8 K=0.90	2.1800	-22.34	31.45	0.710 ¹
T29	141 - 121 (842)	2L3x3x3/16x3/4	12.53	12.29	140.8 K=0.90	2.1800	-22.68	31.45	0.721 ¹
T29	141 - 121 (843)	2L3x3x3/16x3/4	12.53	12.29	140.8 K=0.90	2.1800	-22.75	31.45	0.723 ¹
T29	141 - 121 (848)	2L3x3x3/16x3/4	12.53	12.29	140.8 K=0.90	2.1800	-21.89	31.45	0.696 ¹
T29	141 - 121 (849)	2L3x3x3/16x3/4	12.53	12.29	140.8 K=0.90	2.1800	-22.55	31.45	0.717 ¹

¹ P_u / φP_n controls

Tension Checks

Leg Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _n K	Ratio P _u / φP _n
T1	457 - 436	3	21.00	5.25	84.0	7.0686	8.94	209.94	0.043 ¹
T2	436 - 421	2 3/4	15.00	5.00	87.3	5.9396	23.45	176.41	0.133 ¹
T3	421 - 401	2 3/4	20.00	5.00	87.3	5.9396	60.09	176.41	0.341 ¹
T4	401 - 396	3" S.R. w/ 3 SCH 40 Half Pipe and 3.75 x 5/16 Half Pipe	5.00	5.00	68.2	9.7900	74.15	290.76	0.255 ¹
T5	396 - 391	3" S.R. w/ 3 SCH 40 Half Pipe and 3.75 x 5/16 Half Pipe	5.00	5.00	68.2	9.7900	88.89	290.76	0.306 ¹
T6	391 - 386	3" S.R. w/ 3 SCH 40 Half Pipe and 3.75 x 5/16 Half Pipe	5.00	5.00	68.2	9.7900	106.73	290.76	0.367 ¹
T7	386 - 381	3" S.R. w/ 3 SCH 40 Half Pipe and 3.75 x 5/16 Half Pipe	5.00	5.00	68.2	9.7900	124.16	290.76	0.427 ¹
T8	381 - 376	3.5" S.R. w/ 3.5 SCH40 Half Pipe	5.00	5.00	64.5	11.000 0	85.75	326.70	0.262 ¹
T9	376 - 371	3.5" S.R. w/ 3.5 SCH40 Half Pipe	5.00	5.00	64.5	11.000 0	79.03	326.70	0.242 ¹

Section No.	Elevation ft	Size	L ft	L_u ft	KI/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T10	371 - 366	3.5" S.R. w/ 3.5 SCH40 Half Pipe	5.00	5.00	64.5	11.000	69.66	326.70	0.213 ¹
T11	366 - 361	3.5" S.R. w/ 3.5 SCH40 Half Pipe	5.00	5.00	64.5	11.000	61.58	326.70	0.189 ¹
T12	361 - 341	3	20.00	2.50	40.0	7.0686	54.26	209.94	0.258 ¹
T13	341 - 321	3	20.00	5.00	80.0	7.0686	29.99	209.94	0.143 ¹
T14	321 - 301	3	20.00	5.00	80.0	7.0686	14.29	209.94	0.068 ¹
T15	301 - 281	3	20.00	5.00	80.0	7.0686	20.57	209.94	0.098 ¹
T16	281 - 276	3	5.00	5.00	80.0	7.0686	23.94	209.94	0.114 ¹
T17	276 - 271	3	5.00	5.00	80.0	7.0686	28.09	209.94	0.134 ¹
T18	271 - 266	3	5.00	5.00	80.0	7.0686	31.96	209.94	0.152 ¹
T19	266 - 261	3	5.00	5.00	80.0	7.0686	37.82	209.94	0.180 ¹
T20	261 - 256	3	5.00	5.00	80.0	7.0686	38.98	209.94	0.186 ¹
T21	256 - 251	3	5.00	2.50	40.0	7.0686	46.90	209.94	0.223 ¹
T25	221 - 201	3 1/4	20.00	5.00	73.8	8.2958	35.70	246.38	0.145 ¹
T26	201 - 181	3 1/4	20.00	5.00	73.8	8.2958	50.04	246.38	0.203 ¹
T27	181 - 161	3 1/4	20.00	5.00	73.8	8.2958	49.04	246.38	0.199 ¹
T28	161 - 141	3 1/2	20.00	5.00	68.6	9.6211	36.86	285.75	0.129 ¹
T29	141 - 121	3 1/2	20.00	5.00	68.6	9.6211	6.27	285.75	0.022 ¹
T30	121 - 101	3 1/2	20.00	5.00	68.6	9.6211	34.99	285.75	0.122 ¹
T31	101 - 81	3 1/2	20.00	5.00	68.6	9.6211	45.19	285.75	0.158 ¹
T32	81 - 61	3 1/2	20.00	5.00	68.6	9.6211	44.87	285.75	0.157 ¹
T33	61 - 41	3 1/2	20.00	5.00	68.6	9.6211	32.28	285.75	0.113 ¹
T34	41 - 20	3 1/2	21.00	5.25	72.0	9.6211	1.12	285.75	0.004 ¹

¹ $P_u / \phi P_n$ controls

Diagonal Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L_u ft	KI/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T1	457 - 436	L2 1/2x2x1/4	7.65	3.63	77.5	0.6778	2.55	30.50	0.084 ¹
T2	436 - 421	L2 1/2x2x3/16	7.50	3.55	75.0	0.5189	3.16	23.35	0.136 ¹
T3	421 - 401	L2 1/2x2x3/16	7.50	3.55	75.0	0.5189	6.54	23.35	0.280 ¹
T4	401 - 396	L2 1/2x2x3/16	7.50	3.55	75.0	0.5189	6.94	23.35	0.297 ¹
T5	396 - 391	L2 1/2x2x3/16	7.50	3.55	75.0	0.5189	7.66	23.35	0.328 ¹
T6	391 - 386	L2 1/2x2x3/16	7.50	3.55	75.0	0.5189	8.75	23.35	0.375 ¹
T7	386 - 381	L2 1/2x2x3/16	7.50	3.55	75.0	0.5189	10.39	23.35	0.445 ¹
T8	381 - 376	L2 1/2x2x3/16	7.50	3.55	75.0	0.5189	7.78	23.35	0.333 ¹
T9	376 - 371	L2 1/2x2x3/16	7.50	3.55	75.0	0.5189	6.75	23.35	0.289 ¹
T10	371 - 366	L2 1/2x2x3/16	7.50	3.55	75.0	0.5189	6.82	23.35	0.292 ¹
T11	366 - 361	L2 1/2x2x3/16	7.50	3.55	75.0	0.5189	6.17	23.35	0.264 ¹
T12	361 - 341	L2 1/2x2x3/16	7.50	3.55	75.0	0.5189	5.58	23.35	0.239 ¹
T13	341 - 321	L2 1/2x2x3/16	7.50	3.55	75.0	0.5189	3.88	23.35	0.166 ¹
T14	321 - 301	L2 1/2x2x3/16	7.50	3.55	75.0	0.5189	3.07	23.35	0.131 ¹
T15	301 - 281	L2 1/2x2x3/16	7.50	3.55	75.0	0.5189	4.88	23.35	0.209 ¹
T16	281 - 276	L2 1/2x2x3/16	7.50	3.55	75.0	0.5189	5.52	23.35	0.236 ¹
T17	276 - 271	L2 1/2x2x3/16	7.50	3.55	75.0	0.5189	6.07	23.35	0.260 ¹
T18	271 - 266	L2 1/2x2x3/16	7.50	3.55	75.0	0.5189	7.09	23.35	0.304 ¹
T19	266 - 261	L2 1/2x2x3/16	7.50	3.55	75.0	0.5189	6.71	23.35	0.287 ¹
T20	261 - 256	L3x3x1/4	7.50	3.55	48.4	0.9628	12.09	41.88	0.289 ¹
T21	256 - 251	L3x3x1/4	7.50	3.55	48.4	0.9628	17.11	41.88	0.409 ¹
T22	251 - 246	L3x3x1/4	7.50	3.55	48.4	0.9628	11.23	41.88	0.268 ¹
T23	246 - 241	L3x3x1/4	7.50	3.55	48.4	0.9628	11.18	41.88	0.267 ¹
T24	241 - 221	L3x3x1/4	7.50	3.55	48.4	0.9628	9.84	41.88	0.235 ¹
T25	221 - 201	L2 1/2x2x3/16	7.50	3.55	75.0	0.5189	6.71	23.35	0.287 ¹
T26	201 - 181	L2 1/2x2x3/16	7.50	3.55	75.0	0.5189	4.24	23.35	0.182 ¹
T27	181 - 161	L2 1/2x2x3/16	7.50	3.55	75.0	0.5189	3.57	23.35	0.153 ¹
T28	161 - 141	L3x3x1/4	7.50	3.54	48.4	0.9394	6.51	40.86	0.159 ¹
T29	141 - 121	L3x3x1/4	7.50	3.54	48.4	0.9394	8.52	40.86	0.209 ¹
T30	121 - 101	L2 1/2x2x3/16	7.50	3.55	75.0	0.5189	4.96	23.35	0.212 ¹
T31	101 - 81	L2 1/2x2x3/16	7.50	3.55	75.0	0.5189	2.71	23.35	0.116 ¹
T32	81 - 61	L2 1/2x2x3/16	7.50	3.55	75.0	0.5189	1.79	23.35	0.077 ¹

Section No.	Elevation ft	Size	L ft	L _u ft	KI/r	A in ²	P _u K	φP _n K	Ratio P _u / φP _n
T33	61 - 41	L2 1/2x2x3/16	7.50	3.55	75.0	0.5189	3.61	23.35	0.155 ¹
T34	41 - 20	L2 1/2x2x3/16	7.65	3.63	76.6	0.5189	5.58	23.35	0.239 ¹
T35	20 - 6.70833	L2x2x3/16	5.62	3.08	63.8	0.4484	1.63	20.18	0.081 ¹
T36	6.70833 - 0	L2x2x3/16	2.80	1.15	26.3	0.4484	2.75	20.18	0.136 ¹

¹ P_u / φP_n controls

Horizontal Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L _u ft	KI/r	A in ²	P _u K	φP _n K	Ratio P _u / φP _n
T1	457 - 436	L2 1/2x2x1/4	6.00	5.35	116.5	0.6778	0.76	30.50	0.025 ¹
T2	436 - 421	L2 1/2x2x1/4	6.00	5.38	116.9	0.6778	1.12	30.50	0.037 ¹

¹ P_u / φP_n controls

Secondary Horizontal Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L _u ft	KI/r	A in ²	P _u K	φP _n K	Ratio P _u / φP _n
T12	361 - 341	L2x2x1/4	6.00	2.76	113.3	0.5863	2.25	25.50	0.088 ¹
T21	256 - 251	2L3 1/2x3 1/2x3/8x3/8	6.00	2.71	42.9	3.3759	24.10	146.85	0.164 ¹
T23	246 - 241	2L3 1/2x3 1/2x3/8x3/8	6.00	2.71	42.9	3.3759	1.66	146.85	0.011 ¹

¹ P_u / φP_n controls

Top Girt Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L _u ft	KI/r	A in ²	P _u K	φP _n K	Ratio P _u / φP _n
T1	457 - 436	C8x13.75	6.00	5.75	112.2	4.0400	0.43	119.99	0.004 ¹
T2	436 - 421	L2 1/2x2x1/4	6.00	5.38	116.9	0.6778	0.96	30.50	0.032 ¹
T3	421 - 401	L2 1/2x2x1/4	6.00	5.38	116.9	0.6778	1.38	30.50	0.045 ¹
T4	401 - 396	L2 1/2x2x1/4	6.00	5.29	115.2	0.6778	1.64	30.50	0.054 ¹
T6	391 - 386	L2 1/2x2x1/4	6.00	5.69	115.2	1.0600	2.24	31.48	0.071 ¹
T10	371 - 366	L2 1/2x2x1/4	6.00	5.67	114.8	1.0600	2.50	31.48	0.079 ¹
T12	361 - 341	L2 1/2x2x1/4	6.00	5.35	116.5	0.6778	2.25	30.50	0.074 ¹
T13	341 - 321	L2 1/2x2x1/4	6.00	5.35	116.5	0.6778	1.87	30.50	0.061 ¹
T14	321 - 301	L2 1/2x2x1/4	6.00	5.35	116.5	0.6778	1.67	30.50	0.055 ¹
T15	301 - 281	L2 1/2x2x3/16	6.00	5.35	115.0	0.5189	1.89	23.35	0.081 ¹
T16	281 - 276	L2 1/2x2x1/4	6.00	5.35	116.5	0.6778	1.97	30.50	0.065 ¹
T18	271 - 266	L2 1/2x2x1/4	6.00	5.35	116.5	0.6778	2.16	30.50	0.071 ¹
T20	261 - 256	L2 1/2x2x3/16	6.00	5.35	115.0	0.5189	2.44	23.35	0.104 ¹
T22	251 - 246	L2 1/2x2x3/16	6.00	5.35	115.0	0.5189	2.02	23.35	0.086 ¹
T24	241 - 221	L2 1/2x2x3/16	6.00	5.35	115.0	0.5189	1.92	23.35	0.082 ¹
T25	221 - 201	L2 1/2x2x3/16	6.00	5.33	114.6	0.5189	2.51	23.35	0.107 ¹
T26	201 - 181	L2 1/2x2x3/16	6.00	5.33	114.6	0.5189	2.79	23.35	0.120 ¹
T27	181 - 161	2L3x2x1/4x3/8	6.00	5.33	77.2	1.5506	2.80	69.78	0.040 ¹
T28	161 - 141	L2 1/2x2x3/16	6.00	5.31	114.2	0.5189	2.68	23.35	0.115 ¹
T29	141 - 121	L2 1/2x2x3/16	6.00	5.31	114.2	0.5189	2.24	23.35	0.096 ¹
T30	121 - 101	L2 1/2x2x3/16	6.00	5.31	114.2	0.5189	5.47	23.35	0.234 ¹
T31	101 - 81	L2 1/2x2x3/16	6.00	5.31	114.2	0.5189	3.32	23.35	0.142 ¹

Section No.	Elevation ft	Size	L ft	L_u ft	KI/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T32	81 - 61	L2 1/2x2x3/16	6.00	5.31	114.2	0.5189	3.34	23.35	0.143 ¹
T33	61 - 41	L2 1/2x2x3/16	6.00	5.31	114.2	0.5189	3.25	23.35	0.139 ¹
T34	41 - 20	L2 1/2x2x3/16	6.00	5.31	114.2	0.5189	2.92	23.35	0.125 ¹
T35	20 - 6.70833	2L2 1/2x2x3/16x1/4	6.00	5.33	86.7	1.0371	13.98	46.67	0.300 ¹

¹ $P_u / \phi P_n$ controls

Mid Girt Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L_u ft	KI/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T1	457 - 436	L2 1/2x2x1/4	6.00	5.35	116.5	0.6778	3.12	30.50	0.102 ¹
T3	421 - 401	L2 1/2x2x1/4	6.00	5.38	116.9	0.6778	0.23	30.50	0.008 ¹
T12	361 - 341	L2 1/2x2x1/4	6.00	5.35	116.5	0.6778	0.37	30.50	0.012 ¹
T13	341 - 321	L2 1/2x2x1/4	6.00	5.35	116.5	0.6778	0.34	30.50	0.011 ¹
T14	321 - 301	L2 1/2x2x1/4	6.00	5.35	116.5	0.6778	0.49	30.50	0.016 ¹
T15	301 - 281	L2 1/2x2x3/16	6.00	5.35	115.0	0.5189	0.35	23.35	0.015 ¹
T24	241 - 221	L2 1/2x2x3/16	6.00	5.35	115.0	0.5189	0.69	23.35	0.030 ¹
T25	221 - 201	L2 1/2x2x3/16	6.00	5.33	114.6	0.5189	0.65	23.35	0.028 ¹
T26	201 - 181	L2 1/2x2x3/16	6.00	5.33	114.6	0.5189	0.62	23.35	0.026 ¹
T27	181 - 161	L2 1/2x2x3/16	6.00	5.33	114.6	0.5189	0.72	23.35	0.031 ¹
T28	161 - 141	L2 1/2x2x3/16	6.00	5.31	114.2	0.5189	0.83	23.35	0.036 ¹
T29	141 - 121	L2 1/2x2x3/16	6.00	5.31	114.2	0.5189	11.35	23.35	0.486 ¹
T30	121 - 101	L2 1/2x2x3/16	6.00	5.31	114.2	0.5189	0.53	23.35	0.023 ¹
T31	101 - 81	L2 1/2x2x3/16	6.00	5.31	114.2	0.5189	0.95	23.35	0.041 ¹
T32	81 - 61	L2 1/2x2x3/16	6.00	5.31	114.2	0.5189	0.96	23.35	0.041 ¹
T33	61 - 41	L2 1/2x2x3/16	6.00	5.31	114.2	0.5189	0.89	23.35	0.038 ¹
T34	41 - 20	L2 1/2x2x3/16	6.00	5.31	114.2	0.5189	1.18	23.35	0.050 ¹

¹ $P_u / \phi P_n$ controls

Top Guy Pull-Off Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L_u ft	KI/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T8	381 - 376	2L3x2x1/4x3/8	6.00	5.67	76.3	1.5506	20.79	69.78	0.298 ¹

¹ $P_u / \phi P_n$ controls

Torque-Arm Top Design Data

Section No.	Elevation ft	Size	L ft	L_u ft	KI/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T29	141 - 121 (834)	L3x3x3/8 (TA - BU#873128)	7.55	7.40	152.9	1.3364	17.07	58.13	0.294 ¹
T29	141 - 121 (835)	L3x3x3/8 (TA - BU#873128)	7.55	7.40	152.9	1.3364	18.62	58.13	0.320 ¹
T29	141 - 121 (840)	L3x3x3/8 (TA - BU#873128)	7.55	7.40	152.9	1.3364	17.76	58.13	0.305 ¹
T29	141 - 121 (841)	L3x3x3/8 (TA - BU#873128)	7.55	7.40	152.9	1.3364	17.83	58.13	0.307 ¹
T29	141 - 121	L3x3x3/8 (TA - BU#873128)	7.55	7.40	152.9	1.3364	19.00	58.13	0.327 ¹

Section No.	Elevation ft	Size	L ft	L _u ft	KI/r	A in ²	P _u K	φP _n K	Ratio $\frac{P_u}{\phi P_n}$
T29	(846) 141 - 121 (847)	BU#873128) L3x3x3/8 (TA - BU#873128)	7.55	7.40	152.9	1.3364	19.16	58.13	0.330 ¹

¹ P_u / φP_n controls

Torque-Arm Bottom Design Data

Section No.	Elevation ft	Size	L ft	L _u ft	KI/r	A in ²	P _u K	φP _n K	Ratio $\frac{P_u}{\phi P_n}$
T29	141 - 121 (836)	2L3x3x3/16x3/4	12.53	12.29	157.0	1.3889	12.85	60.42	0.213 ¹
T29	141 - 121 (837)	2L3x3x3/16x3/4	12.53	12.29	157.0	1.3889	12.48	60.42	0.207 ¹
T29	141 - 121 (842)	2L3x3x3/16x3/4	12.53	12.29	157.0	1.3889	12.92	60.42	0.214 ¹
T29	141 - 121 (843)	2L3x3x3/16x3/4	12.53	12.29	157.0	1.3889	12.94	60.42	0.214 ¹
T29	141 - 121 (848)	2L3x3x3/16x3/4	12.53	12.29	157.0	1.3889	12.69	60.42	0.210 ¹
T29	141 - 121 (849)	2L3x3x3/16x3/4	12.53	12.29	157.0	1.3889	12.22	60.42	0.202 ¹

¹ P_u / φP_n controls

Section Capacity Table

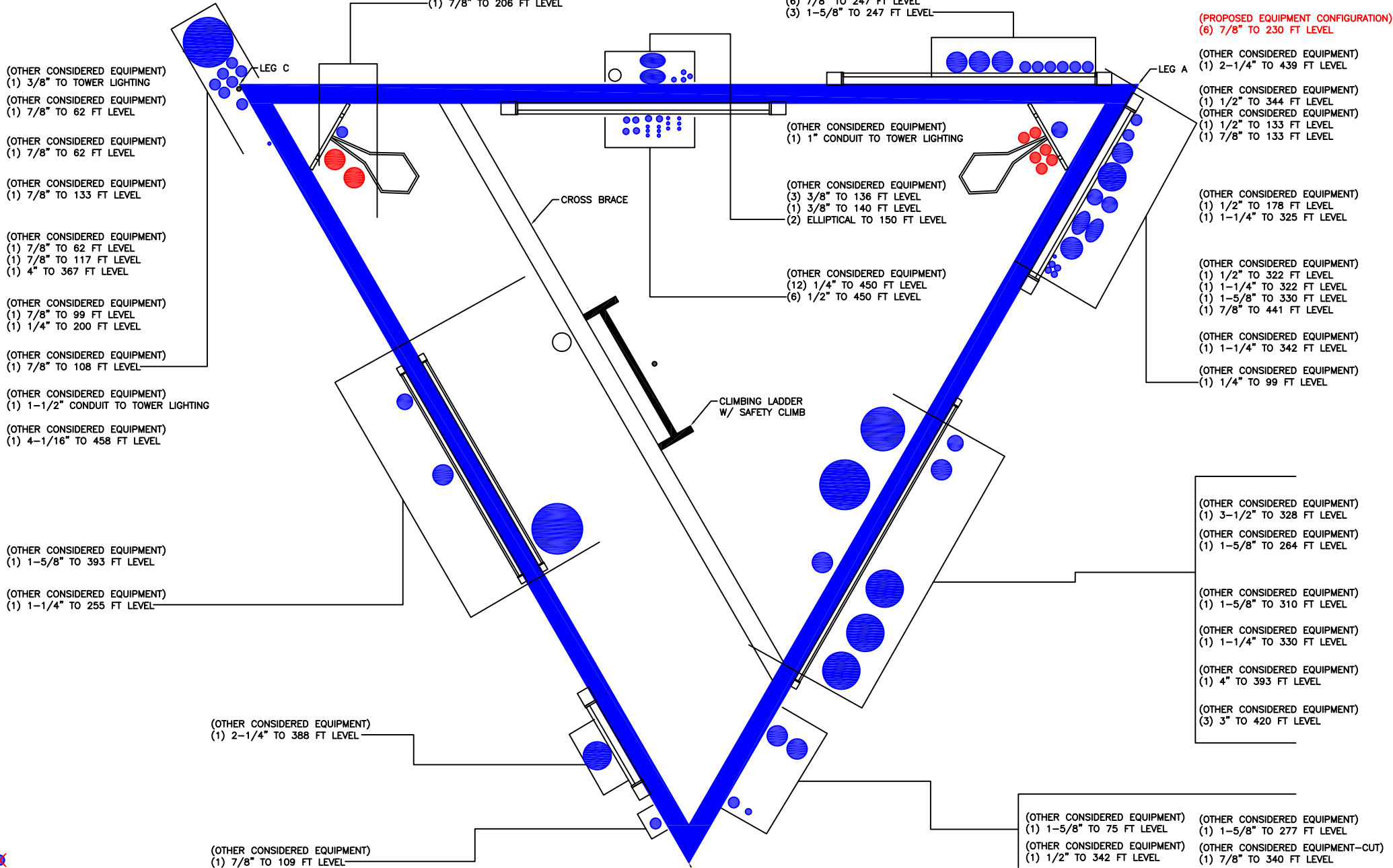
Section No.	Elevation ft	Component Type	Size	Critical Element	P K	φP _{allow} K	% Capacity	Pass Fail
T1	457 - 436	Leg	3	3	-22.43	156.82	14.3	Pass
T2	436 - 421	Leg	2 3/4	45	-35.44	128.26	27.6	Pass
T3	421 - 401	Leg	2 3/4	73	-79.54	128.26	62.0	Pass
T4	401 - 396	Leg	3" S.R. w/ 3 SCH 40 Half Pipe and 3.75 x 5/16 Half Pipe	106	-94.54	243.95	38.8	Pass
T5	396 - 391	Leg	3" S.R. w/ 3 SCH 40 Half Pipe and 3.75 x 5/16 Half Pipe	115	-110.89	243.95	45.5	Pass
T6	391 - 386	Leg	3" S.R. w/ 3 SCH 40 Half Pipe and 3.75 x 5/16 Half Pipe	124	-129.44	243.95	53.1	Pass
T7	386 - 381	Leg	3" S.R. w/ 3 SCH 40 Half Pipe and 3.75 x 5/16 Half Pipe	136	-151.14	243.95	62.0	Pass
T8	381 - 376	Leg	3.5" S.R. w/ 3.5 SCH40 Half Pipe	148	-160.52	280.61	57.2	Pass
T9	376 - 371	Leg	3.5" S.R. w/ 3.5 SCH40 Half Pipe	157	-151.48	280.61	54.0	Pass
T10	371 - 366	Leg	3.5" S.R. w/ 3.5 SCH40 Half Pipe	166	-144.27	280.61	51.4	Pass
T11	366 - 361	Leg	3.5" S.R. w/ 3.5 SCH40 Half Pipe	178	-136.81	280.61	48.8	Pass
T12	361 - 341	Leg	3	190	-129.78	204.05	63.6	Pass
T13	341 - 321	Leg	3	235	-107.77	161.86	66.6	Pass
T14	321 - 301	Leg	3	268	-96.67	161.86	59.7	Pass
T15	301 - 281	Leg	3	301	-108.90	161.86	67.3	Pass
T16	281 - 276	Leg	3	334	-113.61	161.86	70.2	Pass
T17	276 - 271	Leg	3	343	-118.43	161.86	73.2	Pass
T18	271 - 266	Leg	3	352	-124.60	161.86	77.0	Pass

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	ϕP_{allow} K	% Capacity	Pass Fail
T19	266 - 261	Leg	3	364	-129.84	161.86	80.2	Pass
T20	261 - 256	Leg	3	376	-140.77	161.86	87.0	Pass
T21	256 - 251	Leg	3	385	-144.89	204.05	71.0	Pass
T22	251 - 246	Leg	3	397	-116.34	161.86	71.9	Pass
T23	246 - 241	Leg	3	409	-95.78	204.05	46.9	Pass
T24	241 - 221	Leg	3	424	-110.61	161.86	68.3	Pass
T25	221 - 201	Leg	3 1/4	457	-144.88	198.84	72.9	Pass
T26	201 - 181	Leg	3 1/4	490	-161.14	198.84	81.0	Pass
T27	181 - 161	Leg	3 1/4	523	-161.89	198.84	81.4	Pass
T28	161 - 141	Leg	3 1/2	556	-154.56	239.13	64.6	Pass
T29	141 - 121	Leg	3 1/2	589	-129.26	239.13	54.1	Pass
T30	121 - 101	Leg	3 1/2	623	-176.90	239.13	74.0	Pass
T31	101 - 81	Leg	3 1/2	656	-191.50	239.13	80.1	Pass
T32	81 - 61	Leg	3 1/2	689	-192.96	239.13	80.7	Pass
T33	61 - 41	Leg	3 1/2	722	-187.89	239.13	78.6	Pass
T34	41 - 20	Leg	3 1/2	755	-168.41	233.63	72.1	Pass
T35	20 - 6.70833	Leg	3 1/4	786	-151.31	209.10	72.4	Pass
T36	6.70833 - 0	Leg	3 1/4	810	-154.67	245.06	63.1	Pass
T1	457 - 436	Diagonal	L2 1/2x2x1/4	13	-1.97	24.60	8.0	Pass
T2	436 - 421	Diagonal	L2 1/2x2x3/16	51	-3.87	19.15	20.2	Pass
T3	421 - 401	Diagonal	L2 1/2x2x3/16	84	-6.65	19.15	34.7	Pass
T4	401 - 396	Diagonal	L2 1/2x2x3/16	111	-7.10	19.15	37.1	Pass
T5	396 - 391	Diagonal	L2 1/2x2x3/16	120	-7.70	19.15	40.2	Pass
T6	391 - 386	Diagonal	L2 1/2x2x3/16	132	-9.86	19.15	51.5	Pass
T7	386 - 381	Diagonal	L2 1/2x2x3/16	144	-9.32	19.15	48.7	Pass
T8	381 - 376	Diagonal	L2 1/2x2x3/16	156	-6.58	19.15	34.3	Pass
T9	376 - 371	Diagonal	L2 1/2x2x3/16	165	-7.78	19.15	40.6	Pass
T10	371 - 366	Diagonal	L2 1/2x2x3/16	177	-6.78	19.15	35.4	Pass
T11	366 - 361	Diagonal	L2 1/2x2x3/16	186	-6.32	19.15	33.0	Pass
T12	361 - 341	Diagonal	L2 1/2x2x3/16	228	-5.84	19.15	30.5	Pass
T13	341 - 321	Diagonal	L2 1/2x2x3/16	262	-3.90	19.15	20.4	Pass
T14	321 - 301	Diagonal	L2 1/2x2x3/16	279	-3.23	19.15	16.9	Pass
T15	301 - 281	Diagonal	L2 1/2x2x3/16	312	-5.06	19.15	26.5	Pass
T16	281 - 276	Diagonal	L2 1/2x2x3/16	339	-5.47	19.15	28.6	Pass
T17	276 - 271	Diagonal	L2 1/2x2x3/16	348	-6.24	19.15	32.6	Pass
T18	271 - 266	Diagonal	L2 1/2x2x3/16	360	-6.09	19.15	31.8	Pass
T19	266 - 261	Diagonal	L2 1/2x2x3/16	372	-7.47	19.15	39.0	Pass
T20	261 - 256	Diagonal	L3x3x1/4	382	12.09	43.98	27.5	Pass
T21	256 - 251	Diagonal	L3x3x1/4	388	17.11	43.98	38.9	Pass
T22	251 - 246	Diagonal	L3x3x1/4	404	-12.40	42.35	29.3	Pass
T23	246 - 241	Diagonal	L3x3x1/4	415	11.18	43.98	25.4	Pass
T24	241 - 221	Diagonal	L3x3x1/4	452	-10.16	42.35	24.0	Pass
T25	221 - 201	Diagonal	L2 1/2x2x3/16	485	-6.88	19.15	35.9	Pass
T26	201 - 181	Diagonal	L2 1/2x2x3/16	517	-4.46	19.15	23.3	Pass
T27	181 - 161	Diagonal	L2 1/2x2x3/16	534	-3.78	19.15	19.8	Pass
T28	161 - 141	Diagonal	L3x3x1/4	567	-6.69	42.42	15.8	Pass
T29	141 - 121	Diagonal	L3x3x1/4	613	8.52	42.91	19.9	Pass
T30	121 - 101	Diagonal	L2 1/2x2x3/16	651	-5.29	19.15	27.6	Pass
T31	101 - 81	Diagonal	L2 1/2x2x3/16	687	-2.98	19.15	15.6	Pass
T32	81 - 61	Diagonal	L2 1/2x2x3/16	697	-2.09	19.15	10.9	Pass
T33	61 - 41	Diagonal	L2 1/2x2x3/16	730	-3.91	19.15	20.4	Pass
T34	41 - 20	Diagonal	L2 1/2x2x3/16	766	-5.85	18.87	31.0	Pass
T35	20 - 6.70833	Diagonal	L2x2x3/16	794	-1.82	18.53	9.8	Pass
T36	6.70833 - 0	Diagonal	L2x2x3/16	814	-4.35	22.58	19.3	Pass
T1	457 - 436	Horizontal	L2 1/2x2x1/4	34	-0.54	16.40	3.3	Pass
T2	436 - 421	Horizontal	L2 1/2x2x1/4	65	-0.61	16.31	3.8	Pass
T12	361 - 341	Secondary Horizontal	L2x2x1/4	207	-2.25	23.78	9.5	Pass
T21	256 - 251	Secondary Horizontal	2L3 1/2x3 1/2x3/8x3/8	395	24.10	154.20	15.6	Pass
T23	246 - 241	Secondary Horizontal	2L3 1/2x3 1/2x3/8x3/8	423	1.66	154.20	1.1	Pass
T1	457 - 436	Top Girt	C8x13.75	6	0.43	125.99	0.3	Pass
T2	436 - 421	Top Girt	L2 1/2x2x1/4	8	-0.61	16.31	3.8	Pass
T3	421 - 401	Top Girt	L2 1/2x2x1/4	48	-1.38	16.31	8.4	Pass
T4	401 - 396	Top Girt	L2 1/2x2x1/4	78	-1.64	16.65	9.8	Pass
T6	391 - 386	Top Girt	L2 1/2x2x1/4	129	-2.24	12.29	18.2	Pass
T10	371 - 366	Top Girt	L2 1/2x2x1/4	171	-2.50	12.39	20.2	Pass
T12	361 - 341	Top Girt	L2 1/2x2x1/4	183	-2.25	16.40	13.7	Pass
T13	341 - 321	Top Girt	L2 1/2x2x1/4	195	-1.87	16.40	11.4	Pass

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	ϕP_{allow} K	% Capacity	Pass Fail	
T14	321 - 301	Top Girt	L2 1/2x2x1/4	240	-1.67	16.40	10.2	Pass	
T15	301 - 281	Top Girt	L2 1/2x2x3/16	273	-1.89	12.63	14.9	Pass	
T16	281 - 276	Top Girt	L2 1/2x2x1/4	306	-1.97	16.40	12.0	Pass	
T18	271 - 266	Top Girt	L2 1/2x2x1/4	357	-2.16	16.40	13.2	Pass	
T20	261 - 256	Top Girt	L2 1/2x2x3/16	368	-5.55	12.63	44.0	Pass	
T22	251 - 246	Top Girt	L2 1/2x2x3/16	401	-5.94	12.63	47.0	Pass	
T24	241 - 221	Top Girt	L2 1/2x2x3/16	414	-1.92	12.63	15.2	Pass	
T25	221 - 201	Top Girt	L2 1/2x2x3/16	429	-2.51	12.70	19.8	Pass	
T26	201 - 181	Top Girt	L2 1/2x2x3/16	462	-2.79	12.70	22.0	Pass	
T27	181 - 161	Top Girt	2L3x2x1/4x3/8	495	-2.80	61.59	4.6	Pass	
T28	161 - 141	Top Girt	L2 1/2x2x3/16	528	-2.68	12.76	21.0	Pass	
T29	141 - 121	Top Girt	L2 1/2x2x3/16	561	-2.24	12.76	17.5	Pass	
T30	121 - 101	Top Girt	L2 1/2x2x3/16	593	-6.79	12.76	53.2	Pass	
T31	101 - 81	Top Girt	L2 1/2x2x3/16	625	-3.32	12.76	26.0	Pass	
T32	81 - 61	Top Girt	L2 1/2x2x3/16	658	-3.34	12.76	26.2	Pass	
T33	61 - 41	Top Girt	L2 1/2x2x3/16	691	-3.25	12.76	25.5	Pass	
T34	41 - 20	Top Girt	L2 1/2x2x3/16	724	-2.92	12.76	22.9	Pass	
T35	20 - 6.70833	Top Girt	2L2 1/2x2x3/16x1/4	788	13.98	49.00	28.5	Pass	
T1	457 - 436	Mid Girt	L2 1/2x2x1/4	12	3.12	32.03	9.7	Pass	
T3	421 - 401	Mid Girt	L2 1/2x2x1/4	80	0.23	32.03	0.7	Pass	
T12	361 - 341	Mid Girt	L2 1/2x2x1/4	198	0.37	32.03	1.2	Pass	
T13	341 - 321	Mid Girt	L2 1/2x2x1/4	242	0.34	32.03	1.1	Pass	
T14	321 - 301	Mid Girt	L2 1/2x2x1/4	276	0.49	32.03	1.5	Pass	
T15	301 - 281	Mid Girt	L2 1/2x2x3/16	309	0.35	24.52	1.4	Pass	
T24	241 - 221	Mid Girt	L2 1/2x2x3/16	432	0.69	24.52	2.8	Pass	
T25	221 - 201	Mid Girt	L2 1/2x2x3/16	465	0.65	24.52	2.7	Pass	
T26	201 - 181	Mid Girt	L2 1/2x2x3/16	498	0.62	24.52	2.5	Pass	
T27	181 - 161	Mid Girt	L2 1/2x2x3/16	530	0.72	24.52	2.9	Pass	
T28	161 - 141	Mid Girt	L2 1/2x2x3/16	564	0.83	24.52	3.4	Pass	
T29	141 - 121	Mid Girt	L2 1/2x2x3/16	596	-7.92	12.76	62.1	Pass	
T30	121 - 101	Mid Girt	L2 1/2x2x3/16	630	0.53	24.52	2.2	Pass	
T31	101 - 81	Mid Girt	L2 1/2x2x3/16	662	0.95	24.52	3.9	Pass	
T32	81 - 61	Mid Girt	L2 1/2x2x3/16	695	0.96	24.52	3.9	Pass	
T33	61 - 41	Mid Girt	L2 1/2x2x3/16	728	0.89	24.52	3.6	Pass	
T34	41 - 20	Mid Girt	L2 1/2x2x3/16	758	1.18	24.52	4.8	Pass	
T1	457 - 436	Guy A@446.5	9/16	825	11.43	22.05	51.8	Pass	
T8	381 - 376	Guy A@381	1 3/8	828	65.93	146.16	45.1	Pass	
T21	256 - 251	Guy A@254.5	1 1/4	831	61.90	120.96	51.2	Pass	
T29	141 - 121	Guy A@131	11/16	844	20.82	31.50	66.1	Pass	
T1	457 - 436	Guy B@446.5	9/16	824	11.91	22.05	54.0	Pass	
T8	381 - 376	Guy B@381	1 3/8	827	66.90	146.16	45.8	Pass	
T21	256 - 251	Guy B@254.5	1 1/4	830	63.92	120.96	52.8	Pass	
T29	141 - 121	Guy B@131	11/16	839	21.41	31.50	68.0	Pass	
T1	457 - 436	Guy C@446.5	9/16	823	11.91	22.05	54.0	Pass	
T8	381 - 376	Guy C@381	1 3/8	826	66.10	146.16	45.2	Pass	
T21	256 - 251	Guy C@254.5	1 1/4	829	63.11	120.96	52.2	Pass	
T29	141 - 121	Guy C@131	11/16	832	21.16	31.50	67.2	Pass	
T8	381 - 376	Top Guy Pull-Off@381	2L3x2x1/4x3/8	140	20.79	73.27	28.4	Pass	
T29	141 - 121	Torque Arm Top@131	L3x3x3/8 (TA - BU#873128)	847	19.16	61.04	31.4	Pass	
T29	141 - 121	Torque Arm Bottom@131	2L3x3x3/16x3/4	843	-22.75	33.03	68.9	Pass	
							Summary		
							Leg (T20)	87.0	Pass
							Diagonal (T6)	51.5	Pass
							Horizontal (T2)	3.8	Pass
							Secondary Horizontal (T21)	15.6	Pass
							Top Girt (T30)	53.2	Pass
							Mid Girt (T29)	62.1	Pass
							Guy A (T29)	66.1	Pass
							Guy B (T29)	68.0	Pass

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	ϕP_{allow} K	% Capacity	Pass Fail
						Guy C (T29)	67.2	Pass
						Top Guy Pull-Off (T8)	28.4	Pass
						Torque Arm Top (T29)	31.4	Pass
						Torque Arm Bottom (T29)	68.9	Pass
						Bolt Checks	92.2	Pass
RATING =							92.2	Pass

APPENDIX B
BASE LEVEL DRAWING



(PROPOSED EQUIPMENT CONFIGURATION)
 (2) 1-5/8" TO 230 FT LEVEL
 (OTHER CONSIDERED EQUIPMENT)
 (1) 7/8" TO 206 FT LEVEL

(OTHER CONSIDERED EQUIPMENT)
 (6) 7/8" TO 247 FT LEVEL
 (3) 1-5/8" TO 247 FT LEVEL

(OTHER CONSIDERED EQUIPMENT)
 (2) ELLIPTICAL TO 146 FT LEVEL

(OTHER CONSIDERED EQUIPMENT)
 (1) 1-3/4" TO 186 FT LEVEL

(PROPOSED EQUIPMENT CONFIGURATION)
 (6) 7/8" TO 230 FT LEVEL

(OTHER CONSIDERED EQUIPMENT)
 (1) 2-1/4" TO 439 FT LEVEL

(OTHER CONSIDERED EQUIPMENT)
 (1) 1/2" TO 344 FT LEVEL

(OTHER CONSIDERED EQUIPMENT)
 (1) 1/2" TO 133 FT LEVEL
 (1) 7/8" TO 133 FT LEVEL

(OTHER CONSIDERED EQUIPMENT)
 (1) 1/2" TO 178 FT LEVEL
 (1) 1-1/4" TO 325 FT LEVEL

(OTHER CONSIDERED EQUIPMENT)
 (1) 1/2" TO 322 FT LEVEL
 (1) 1-1/4" TO 322 FT LEVEL
 (1) 1-5/8" TO 330 FT LEVEL
 (1) 7/8" TO 441 FT LEVEL

(OTHER CONSIDERED EQUIPMENT)
 (1) 1-1/4" TO 342 FT LEVEL

(OTHER CONSIDERED EQUIPMENT)
 (1) 1/4" TO 99 FT LEVEL

(OTHER CONSIDERED EQUIPMENT)
 (1) 3-1/2" TO 328 FT LEVEL

(OTHER CONSIDERED EQUIPMENT)
 (1) 1-5/8" TO 264 FT LEVEL

(OTHER CONSIDERED EQUIPMENT)
 (1) 1-5/8" TO 310 FT LEVEL

(OTHER CONSIDERED EQUIPMENT)
 (1) 1-1/4" TO 330 FT LEVEL

(OTHER CONSIDERED EQUIPMENT)
 (1) 4" TO 393 FT LEVEL

(OTHER CONSIDERED EQUIPMENT)
 (3) 3" TO 420 FT LEVEL

(OTHER CONSIDERED EQUIPMENT)
 (1) 1-5/8" TO 75 FT LEVEL
 (OTHER CONSIDERED EQUIPMENT)
 (1) 1/2" TO 342 FT LEVEL

(OTHER CONSIDERED EQUIPMENT)
 (1) 1-5/8" TO 277 FT LEVEL
 (OTHER CONSIDERED EQUIPMENT-CUT)
 (1) 7/8" TO 340 FT LEVEL

(OTHER CONSIDERED EQUIPMENT)
 (1) 2-1/4" TO 388 FT LEVEL

(OTHER CONSIDERED EQUIPMENT)
 (1) 7/8" TO 109 FT LEVEL

(OTHER CONSIDERED EQUIPMENT)
 (1) 3/8" TO TOWER LIGHTING
 (OTHER CONSIDERED EQUIPMENT)
 (1) 7/8" TO 62 FT LEVEL

(OTHER CONSIDERED EQUIPMENT)
 (1) 7/8" TO 62 FT LEVEL

(OTHER CONSIDERED EQUIPMENT)
 (1) 7/8" TO 133 FT LEVEL

(OTHER CONSIDERED EQUIPMENT)
 (1) 7/8" TO 62 FT LEVEL
 (1) 7/8" TO 117 FT LEVEL
 (1) 4" TO 367 FT LEVEL

(OTHER CONSIDERED EQUIPMENT)
 (1) 7/8" TO 99 FT LEVEL
 (1) 1/4" TO 200 FT LEVEL

(OTHER CONSIDERED EQUIPMENT)
 (1) 7/8" TO 108 FT LEVEL

(OTHER CONSIDERED EQUIPMENT)
 (1) 1-1/2" CONDUIT TO TOWER LIGHTING

(OTHER CONSIDERED EQUIPMENT)
 (1) 4-1/16" TO 458 FT LEVEL

(OTHER CONSIDERED EQUIPMENT)
 (1) 1-5/8" TO 393 FT LEVEL

(OTHER CONSIDERED EQUIPMENT)
 (1) 1-1/4" TO 255 FT LEVEL

CROSS BRACE

CLIMBING LADDER
 W/ SAFETY CLIMB

LEG C

LEG A

APPENDIX C
ADDITIONAL CALCULATIONS

Built-Up Leg Reinforcement Tool



Site Data	
BU#:	873128
Site Name:	Trumbull
Order #:	637421 Rev. 0
Section:	401ft - 381ft

Reinforcement Type
Split Pipe

Connection and Analysis Options	
TIA-222 Revision:	H
Tower Type:	Guyed
Consider Leg Load at Time of Modification:	No
End Connections:	Fixed
Leg Crushing Check:	Yes
Applied Load:	Axial
Slenderness Ratio:	KL/r Modified
Intermediate Connection:	Welded
Intermediate Spacing:	6 in
Split Pipe K_i Factor Override:	

Leg Data	
Diameter:	3 in
Thickness:	1.5 in
Yield (Fy):	35 ksi
Unbraced Length:	60 in

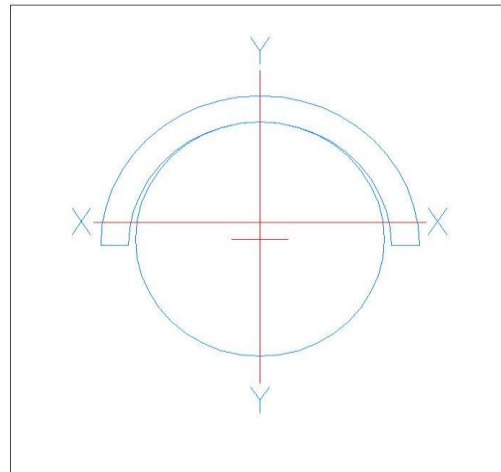
Split Pipe Data	
Outside Diameter:	3.5 in
Thickness:	0.22 in
Yield (Fy):	35 ksi

Built-Up Section Properties		
Area:	8.2021	in ²
Moment of Intertia, I_{xx} :	5.2756	in ⁴
Eccentricity, e:	0.1404	in

Leg Axial Load		
Compression, P _u :	151.14	kips
Dead Load, P _{dead} :		kips

Ratings (per TIA-222-H Section 15.5)		
Spacing Req.:	O.K.	
Reinforced Leg:	74.2%	Pass
Leg Crushing:	64.6%	Pass

Check Limitation		
Apply TIA-222-H Section 15.5:	<input checked="" type="checkbox"/>	
	N/A	<input type="checkbox"/>



TNX K Factor Adjustment	1.000
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Polar Moment of Inertia, J:	7.9522	in ⁴
Moment of Intertia, I_{yy} :	5.5072	in ⁴
Plastic Neutral Axis:	0.1404	in

Built-Up Leg Reinforcement Tool



Site Data	
BU#:	873128
Site Name:	Trumbull
Order #:	637421 Rev. 0
Section:	381ft - 361ft

Reinforcement Type
Split Pipe

Connection and Analysis Options	
TIA-222 Revision:	H
Tower Type:	Guyed
Consider Leg Load at Time of Modification:	No
End Connections:	Fixed
Leg Crushing Check:	Yes
Applied Load:	Axial
Slenderness Ratio:	KL/r Modified
Intermediate Connection:	Welded
Intermediate Spacing:	6 in
Split Pipe K_i Factor Override:	

Leg Data	
Diameter:	3.5 in
Thickness:	1.75 in
Yield (F_y):	35 ksi
Unbraced Length:	60 in

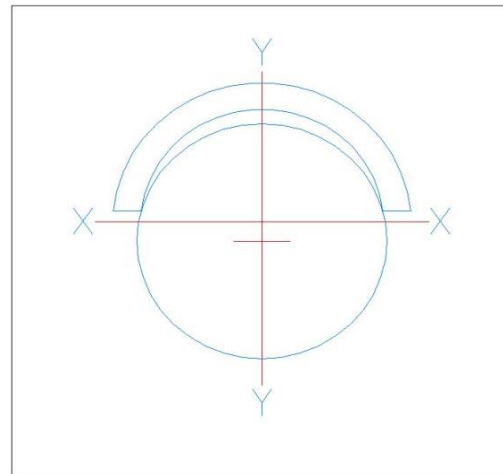
Split Pipe Data	
Outside Diameter:	3.5 in
Thickness:	0.23 in
Yield (F_y):	35 ksi

Built-Up Section Properties			
Area:	10.8025	in^2	
Moment of Intertia, I_{xx} :	11.5067	in^4	
Eccentricity, e:	0.2089	in	
Polar Moment of Intertia, J:	14.7324	in^4	
Moment of Intertia, I_{yy} :	8.9531	in^4	
Plastic Neutral Axis:	0.2089	in	

Leg Axial Load		
Compression, P_u :	160.52	kips
Dead Load, P_{dead} :		kips

Ratings (per TIA-222-H Section 15.5)		
Spacing Req.:	O.K.	
Reinforced Leg:	53.4%	Pass
Leg Crushing:	50.4%	Pass

Check Limitation		
Apply TIA-222-H Section 15.5:	<input checked="" type="checkbox"/>	
	N/A	<input type="checkbox"/>



TNX K Factor Adjustment	1.000
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Pier and Pad Foundation



BU #: 873128
Site Name: Trumbull
App. Number: 548870 Rev. 3

TIA-222 Revision: H
Tower Type: Guyed

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

Superstructure Analysis Reactions		
Compression, P_{comp} :	404.2	kips
Base Shear, V_{u_comp} :	1.72	kips
Moment, M_u :	0	ft-kips
Tower Height, H :	457	ft
BP Dist. Above Fdn, bp_{dist} :	3	in
Bolt Circle / Bearing Plate Width, BC :		in

Foundation Analysis Checks				
	Capacity	Demand	Rating*	Check
<i>Lateral (Sliding) (kips)</i>	106.52	1.72	1.5%	Pass
<i>Bearing Pressure (ksf)</i>	10.80	4.80	42.4%	Pass
<i>Overturning (kip*ft)</i>	1092.94	9.03	0.8%	Pass
<i>Pier Flexure (Comp.) (kip*ft)</i>	1069.39	5.16	0.5%	Pass
<i>Pier Compression (kip)</i>	7592.08	412.79	5.2%	Pass
<i>Pad Flexure (kip*ft)</i>	515.68	155.68	28.8%	Pass
<i>Pad Shear - 1-way (kips)</i>	194.10	45.72	22.4%	Pass
<i>Pad Shear - 2-way (Comp) (ksi)</i>	0.164	0.047	27.3%	Pass
<i>Flexural 2-way (Comp) (kip*ft)</i>	1031.36	3.10	0.3%	Pass

*Rating per TIA-222-H Section 15.5

Structural Rating*:	28.8%
Soil Rating*:	42.4%

Pier Properties		
Pier Shape:	Circular	
Pier Diameter, $dpier$:	4.5	ft
Ext. Above Grade, E :	0.5	ft
Pier Rebar Size, Sc :	7	
Pier Rebar Quantity, mc :	7	
Pier Tie/Spiral Size, St :	3	
Pier Tie/Spiral Quantity, mt :	7	
Pier Reinforcement Type:	Tie	
Pier Clear Cover, cc_{pier} :	3	in

Pad Properties		
Depth, D :	4.5	ft
Pad Width, W_1 :	10	ft
Pad Thickness, T :	2	ft
Pad Rebar Size (Bottom dir. 2), Sp_2 :	7	
Pad Rebar Quantity (Bottom dir. 2), mp_2 :	10	
Pad Clear Cover, cc_{pad} :	3	in

Material Properties		
Rebar Grade, F_y :	60	ksi
Concrete Compressive Strength, F'_c :	3	ksi
Dry Concrete Density, δ_c :	150	pcf

Soil Properties		
Total Soil Unit Weight, γ :	115	pcf
Ultimate Gross Bearing, Q_{ult} :	18.000	ksf
Cohesion, C_u :		ksf
Friction Angle, ϕ :	34	degrees
SPT Blow Count, N_{blows} :		
Base Friction, μ :	0.4	
Neglected Depth, N :	0.00	ft
Foundation Bearing on Rock?	No	
Groundwater Depth, gw :	N/A	ft

<--Toggle between Gross and Net

Guyed Anchor Block Foundation

Checks capacity of anchor blocks for a guyed tower.



BU#:	873128
Site Name:	Trumbull
Order Number:	637421 Rev. 0
Location:	A

TIA-222 Revision:	H
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Design Reactions		
Shear, S:	142.60	kips
Uplift, Ua:	99.43	kips
Resultant Force, Rf:	173.84	kips
Tower Height, H:	457.00	ft
Guy Anchor Radius, R:	405.00	ft
Resultant Angle to Horizontal, θ:	34.9	deg

Guy Anchor Properties		
Depth to Bottom of Deadman, Da:	6.8	ft
Anchor Width, Wa:	18.5	ft
Anchor Thickness, Ta:	3.3	ft
Anchor Length, La:	23	ft
Concrete Volume, Vc:	52.0	yd ³
Toe Width, toe:		ft

Design Checks				
	Capacity	Demand	Rating*	Check
<i>Lateral Capacity (kips):</i>	443.58	142.60	30.6%	Pass
<i>Uplift Capacity (kips):</i>	479.19	99.43	19.8%	Pass

*Rating per TIA-222-H Section 15.5

Anchor Shaft Rating:	N/A
Structural Rating:	N/A
Soil Rating:	30.6%

Neglect Depth, Neg:	0	ft
Groundwater Level, gw:	8.5	ft

Soil Properties:				No. of Soil Layers:		
Layer	φ, deg	cu, ksf	δ, pcf	4	Ultimate fs (ksf)	N (blows/ft)
1	0		110	1.50		
2	0		115	4.83		
3	34		115	5.00		
4	0	5.000	135	6.80		

Material Properties

Wt. Avg. Concrete Density, δx:	0.150	kcf
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*key: φ = Internal Angle of Friction
 cu = Cohesion / Undrained Shear Strength
 δ = Buoyant Soil Unit Weight
 d = Depth to Bottom of Layer
 Ultimate fs = Geotechnical Report-provided skin friction / adhesion
 N = SPT Blow Count

Guyed Anchor Block Foundation

Checks capacity of anchor blocks for a guyed tower.



BU#:	873128
Site Name:	Trumbull
Order Number:	637421 Rev. 0
Location:	B

TIA-222 Revision:	H
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Design Reactions		
Shear, S:	146.62	kips
Uplift, Ua:	101.29	kips
Resultant Force, Rf:	178.21	kips
Tower Height, H:	457.00	ft
Guy Anchor Radius, R:	394.00	ft
Resultant Angle to Horizontal, θ:	34.6	deg

Guy Anchor Properties		
Depth to Bottom of Deadman, Da:	9.8	ft
Anchor Width, Wa:	7	ft
Anchor Thickness, Ta:	5.5	ft
Anchor Length, La:	6	ft
Concrete Volume, Vc:	8.6	yd ³
Toe Width, toe:		ft

Design Checks				
	Capacity	Demand	Rating*	Check
Lateral Capacity (kips):	424.70	146.62	32.9%	Pass
Uplift Capacity (kips):	225.86	101.29	42.7%	Pass

*Rating per TIA-222-H Section 15.5

Anchor Shaft Rating:	N/A
Structural Rating:	N/A
Soil Rating:	42.7%

Neglect Depth, Neg:	0	ft
Groundwater Level, gw:	8.5	ft

Soil Properties:		No. of Soil Layers:			5	
Layer	φ, deg	cu, ksf	δ, pcf		Ultimate fs (ksf)	N (blows/ft)
1	0	0.000	115	2.30		
2	34	0.000	115	3.50		
3	0	5.000	135	4.30	2.320	
4	0	5.000	135	8.50	2.320	
5	0	5.000	72.6	9.80	2.320	

Material Properties

Wt. Avg. Concrete Density, δx:	0.135	kcf
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*key: φ = Internal Angle of Friction
 cu = Cohesion / Undrained Shear Strength
 δ = Buoyant Soil Unit Weight
 d = Depth to Bottom of Layer
 Ultimate fs = Geotechnical Report-provided skin friction / adhesion
 N = SPT Blow Count

Guyed Anchor Block Foundation

Checks capacity of anchor blocks for a guyed tower.



BU#:	873128
Site Name:	Trumbull
Order Number:	637421 Rev. 0
Location:	C

TIA-222 Revision:	H
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Design Reactions		
Shear, S:	145.40	kips
Uplift, Ua:	98.95	kips
Resultant Force, Rf:	175.88	kips
Tower Height, H:	457.00	ft
Guy Anchor Radius, R:	411.00	ft
Resultant Angle to Horizontal, θ:	34.2	deg

Guy Anchor Properties		
Depth to Bottom of Deadman, Da:	9.8	ft
Anchor Width, Wa:	7	ft
Anchor Thickness, Ta:	5.5	ft
Anchor Length, La:	6	ft
Concrete Volume, Vc:	8.6	yd ³
Toe Width, toe:		ft

Design Checks				
	Capacity	Demand	Rating*	Check
<i>Lateral Capacity (kips):</i>	425.23	145.40	32.6%	Pass
<i>Uplift Capacity (kips):</i>	225.09	98.95	41.9%	Pass

*Rating per TIA-222-H Section 15.5

Anchor Shaft Rating:	N/A
Structural Rating:	N/A
Soil Rating:	41.9%

Neglect Depth, Neg:	0	ft
Groundwater Level, gw:	8.5	ft

Soil Properties:				No. of Soil Layers:		
Layer	φ, deg	cu, ksf	δ, pcf	5	Ultimate fs (ksf)	N (blows/ft)
1	0	0.000	115	2.30		
2	34	0.000	115	3.50		
3	0	5.000	135	4.30	2.320	
4	0	5.000	135	8.50	2.320	
5	0	5.000	72.6	9.80	2.320	

Material Properties

Wt. Avg. Concrete Density, δx:	0.135	kcf
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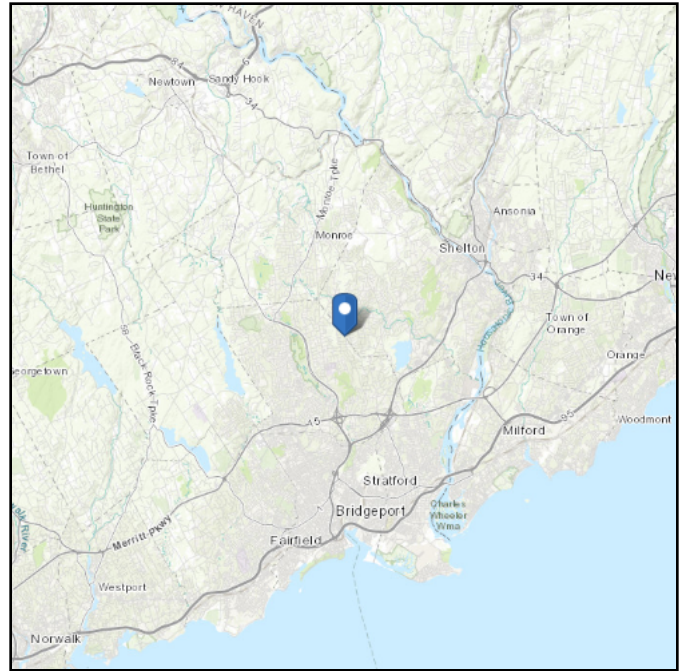
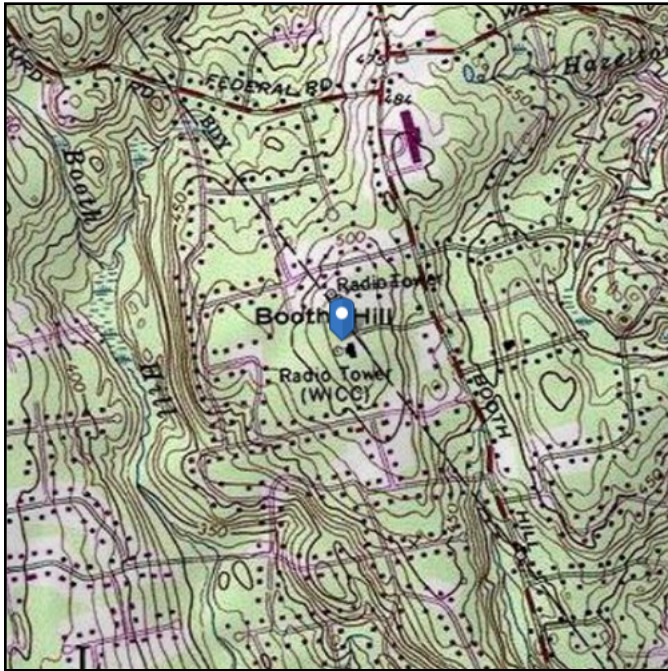
*key: φ = Internal Angle of Friction
 cu = Cohesion / Undrained Shear Strength
 δ = Buoyant Soil Unit Weight
 d = Depth to Bottom of Layer
 Ultimate fs = Geotechnical Report-provided skin friction / adhesion
 N = SPT Blow Count

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: 519.67 ft (NAVD 88)
Latitude: 41.278961
Longitude: -73.185111



Wind

Results:

Wind Speed:	118 Vmph
10-year MRI	75 Vmph
25-year MRI	85 Vmph
50-year MRI	90 Vmph
100-year MRI	98 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: Fri Nov 05 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).

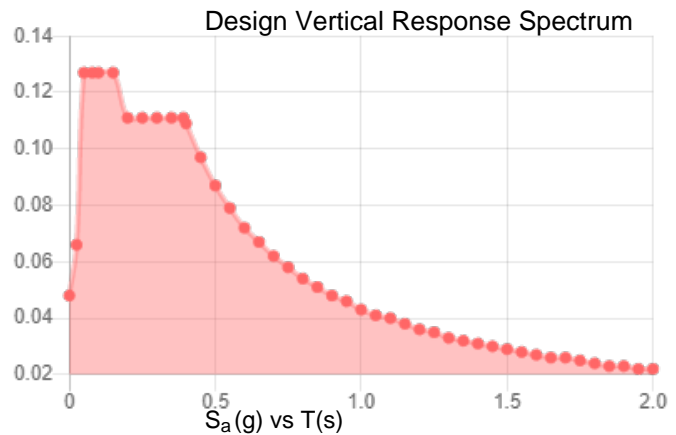
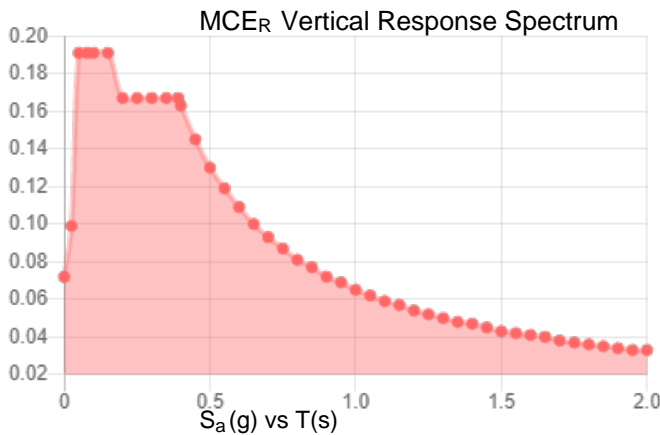
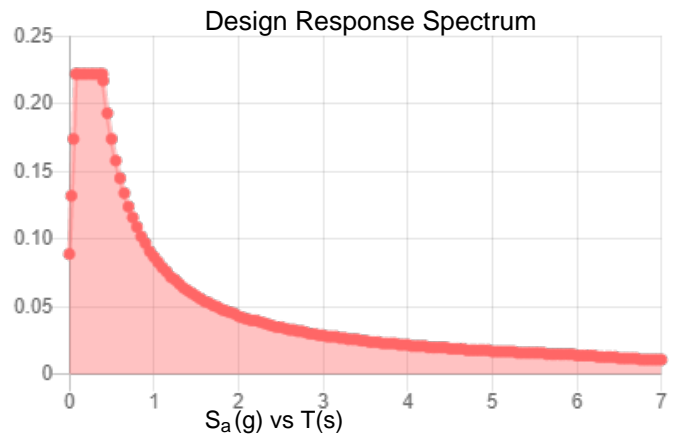
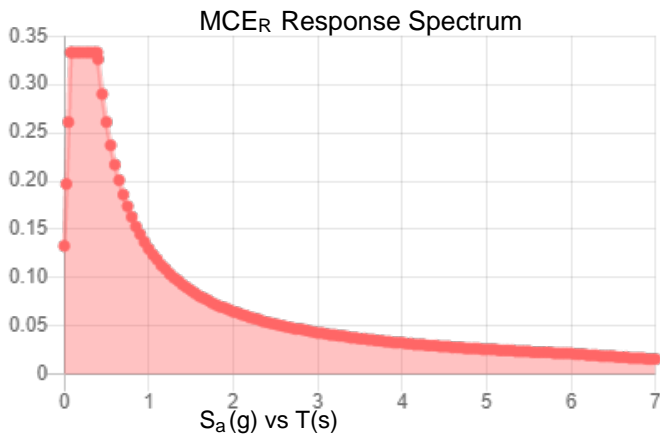
Site is in a hurricane-prone region as defined in ASCE/SEI 7-16 Section 26.2. Glazed openings need not be protected against wind-borne debris.

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

Results:

S_s :	0.208	S_{D1} :	0.087
S_1 :	0.054	T_L :	6
F_a :	1.6	PGA :	0.118
F_v :	2.4	PGA _M :	0.185
S_{MS} :	0.333	F_{PGA} :	1.564
S_{M1} :	0.13	I_e :	1
S_{DS} :	0.222	C_v :	0.717

Seismic Design Category B



Data Accessed:

Fri Nov 05 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: Fri Nov 05 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.

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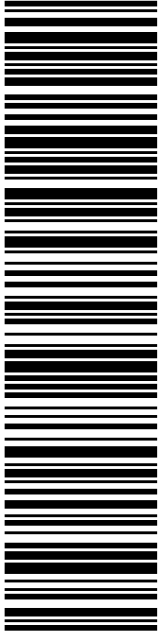
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Expected Delivery Date: 11/03/2022	

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 420 MAIN ST
 STURBRIDGE MA 01566-1359

To: EVAN ROBIDOUX
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