



August 18, 2020

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

Re: Notice of Exempt Modification – Antenna and RRU Add
Property Address: 889R Colonel Ledyard Highway, Ledyard, CT 06339
Applicant: AT&T Mobility, LLC

Dear Ms. Bachman:

On behalf of AT&T, please accept this application as notification pursuant to R.C.S.A. §16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. §16- 50j-72(b) (2).

AT&T currently maintains a wireless telecommunications facility consisting of nine (9) wireless telecommunication antennas at an antenna center line height of 200-feet on an existing 345-foot guyed tower, owned by Red Wolf Broadcasting Corporation at P.O. Box 357, Ledyard, CT 06339. AT&T now intends to remove three (3) 4' Kathrein 7770 Panel Antennas, each currently installed in position [2], and remove one (1) 4' KMW AM-X-CD-14-65-00T-RET Panel Antenna, two (2) 8' Powerwave P65-17-XLH-RR Panel Antenna and currently installed in position [4]. AT&T intends to then swap these for two (2) 8' CCI OPA65R-BU8DA Panel Antennas, one (1) 4' CCI OPA65R-BU4DA Panel Antenna, two (2) 8' DMP65R-BU4DA CCI Panel Antenna, and one (1) 4' CCI DMP65R-BU8DA Panel Antenna each to be installed in position [4], all sectors. In addition, AT&T intends to remove six (6) existing RRUS add one (1) RRUS-4478 B14, one (1) RRUS-4449 B5/B12 and (1) RRUS-8843 B2/B66A in positions [3 +4], all sectors, for a total of nine (9) new RRUs. AT&T is also proposing to add (1) Raycap Squid, as well as one (1) fiber line and (3) DC Power Cables to their equipment configuration. All of the changes will take place on the existing antenna mount.

Attached is a summary of the planned modifications including power density calculations reflecting the change in AT&T's operations at the site. Also included is documentation of the structural sufficiency of the tower to accommodate the revised antenna configuration.

Please accept this letter pursuant to Regulation of Connecticut State Agencies §16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b) (2). In accordance with R.C.S.A., a copy of this letter is being sent to Randy Dalton – Town Building Official, Town of Ledyard, CT at 741 Colonel Ledyard Highway, Ledyard, CT 06339 and Fred Allyn, II – Mayor, Town of Ledyard, CT at 741 Colonel Ledyard Highway, Ledyard, CT 06339. A copy of this letter is being sent to the property and tower owner, Red Wolf Broadcasting Corporation at P.O. Box 357, Ledyard, CT 06339.

The following is a list of subsequent decisions by the Connecticut Siting Council:

- **EM-CING-072-080612** – New Cingular Wireless PCS, LLC notice of intent to modify an existing telecommunications facility located at 889R Colonel Ledyard Highway, Ledyard, Connecticut.
- **EM-CING-072-121031** - New Cingular Wireless PCS, LLC notice of intent to modify an existing telecommunications facility located at 889R Colonel Ledyard Highway, Ledyard, Connecticut.
- **EM-CING-072-121031** - New Cingular Wireless PCS, LLC notice of intent to modify an existing telecommunications facility located at 889R Colonel Ledyard Highway, Ledyard, Connecticut.
- **EM-AT&T-072-161207** - AT&T notice of intent to modify an existing telecommunications facility located at 889R Colonel Ledyard Highway, Ledyard, Connecticut.

The planned modifications to AT&T's facility fall squarely within those activities explicitly provided for in R.C.S.A. §16-50j-72(b) (2).



1. The proposed modifications will not result in an increase in the height of the existing tower. AT&T's replacement antennas will be installed at the 200-foot level of the 345-foot guyed tower.
2. The proposed modifications will not involve any changes to ground-mounted equipment and, therefore, will not require an extension of the site boundary.
3. The proposed modifications will not increase the noise levels at the facility by six decibels or more, or to levels that exceed state and local criteria.
4. The operation of the modified facility will not increase radio frequency (RF) emissions at the facility to a level at or above the Federal Communications Commission (FCC) safety standard. A cumulative worst-case RF emissions calculation for AT&T's modified facility is provided in the RF Emissions Compliance Report, included in Tab 2.
5. The proposed modifications will not cause a change or alteration in the physical or environmental characteristics of the site.
6. The tower and its foundation can support AT&T's proposed modifications. (See Structural Analysis Report included in Tab 3).

For the foregoing reasons, AT&T respectfully submits that the proposed modifications to the above referenced telecommunications facility constitutes an exempt modification under R.C.S.A. §16-50j-72(b) (2).

Sincerely,

Kristina Cottone

CC w/enclosures:

Randy Dalton – Town Building Official, Town of Ledyard, CT

Fred Allyn, II – Mayor, Town of Ledyard, CT

Red Wolf Broadcasting Corporation – Property and Tower Owner

Town of Ledyard Property Summary Report

889A COLONEL LEDYARD HWY

PARCEL ID:	40-530-889-A
LOCATION:	889A COLONEL LEDYARD HWY
OWNER NAME:	RED WOLF BROADCASTING



OWNER OF RECORD
RED WOLF BROADCASTING
P O BOX 357
LEDYARD, CT 06339

LIVING AREA:	null	ZONING:	R60	ACREAGE:	0.00
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SALES HISTORY

OWNER	BOOK / PAGE	SALE DATE	SALE PRICE
RED WOLF BROADCASTING			\$0.00

CURRENT ASSESSED VALUE

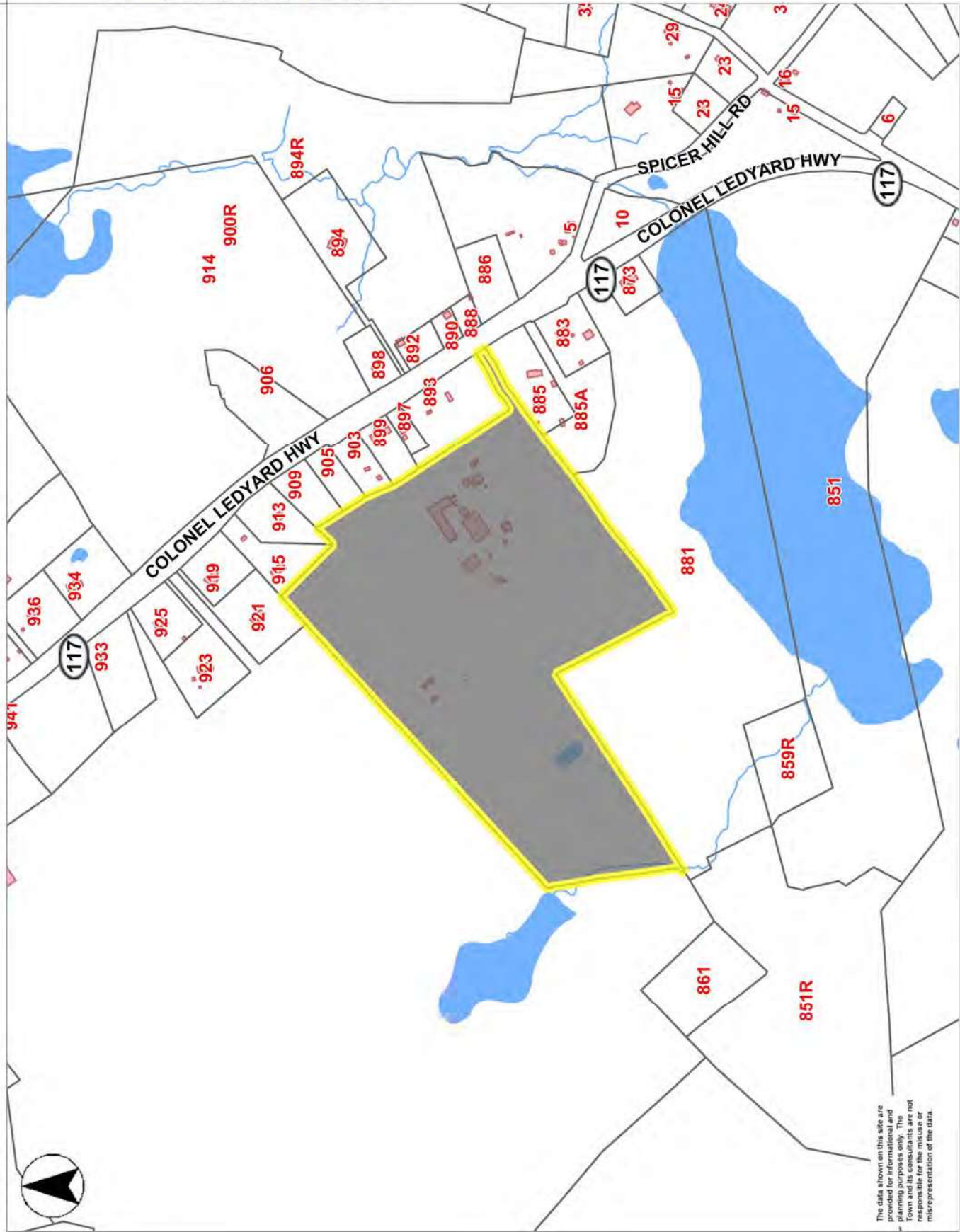
TOTAL:	\$113,820.00	IMPROVEMENTS:	\$113,820.00	LAND:	\$0.00
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ASSESSING HISTORY

FISCAL YEAR	TOTAL VALUE	IMPROVEMENT VALUE	LAND VALUE
2018	\$113,820.00	\$113,820.00	\$0.00
2017	\$113,820.00	\$113,820.00	\$0.00
2016	\$113,820.00	\$113,820.00	\$0.00
2015	\$113,820.00	\$113,820.00	\$0.00
2014	\$113,820.00	\$113,820.00	\$0.00



- Parcels
- CT Highways
- Interstate
- US Highway
- State Highway
- Town Boundary
- Sports Fields
- Railroad
- ROWs
- Streets
- Ponds
- Streams
- Easements
- Open Water
- Buildings
- CT Communities
- Thames River



The data shown on this site are provided for informational and reference purposes only. The Town and its consultants are not responsible for the misuse or misrepresentation of the data.



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PERMIT STRUCTURE

MINIMUM \$1,000 or more
\$475 and \$1,000 or part of
\$1000,000 and over State Fee

**TOWN OF LEDYARD
PERMIT**

1. **APP# 99-338**

CT23XL506

EST. COST: 30,000

FEE: 121.00

☒ Y/N

APPL. DATE: 9/15/99

TYPE: Building

ISSUE DATE: _____

USE GROUP: _____

TYPE CONST: _____

ZONING DIST: _____

LOCATION OF JOB: 399 Rte 101 Ledyard Rd

OWNER: Town of Ledyard TELE. # _____

ADDRESS (IF OTHER THAN ABOVE): 741 Colonial Ledyard Rd.

CONTRACTOR: Sprint PCS

ADDRESS: _____

TELEPHONE: _____

LICENSE NUMBER: _____

DESCRIPTION OF WORK TO BE PERFORMED: Installation of telecommunication equipment + antenna on existing tower owned in partnership by the Town of Ledyard + Rte 101 Broadcasting.

SIZE/LENGTH: _____

WIDTH: _____

HEIGHT: _____

BATH: _____

BEDROOMS: _____

ATTACHED GARAGE _____

YES _____

NO _____

GARAGE UNDER _____

YES _____

NO _____

SIGNATURE OF OWNER/AGENT: [Signature] I HAVE BEEN AUTHORIZED BY THE OWNER TO MAKE THIS APPLICATION AS HIS AUTHORIZED AGENT.

BUILDING OFFICIAL: [Signature]

REVIEWED: [Signature] APPROVED: 9-3-99

DENIED: _____ REASON OR REASONS FOR DENIAL: _____

ZONING OFFICIAL: _____ APPROVED: _____

DENIED: _____ REASON: _____

Recd-Fax Note	7071	7-28-99 pages 1
TO: Rob Stanford	Ledyard	
CO/Dept: Sprint	CO. Building	
Phone #	Phone # Dept.	
Fax # 203-439-1551	Fax #	

IF PROVIDED BY THE APPLICANT FOR THE FAMILY AND ALL COMMERCIAL USES.

APPROVED _____ DENIED _____

APPROVED _____ DENIED _____



Non-Ionizing Radiation Report

Compiled For: Smartlink on behalf of AT&T

Site Name: Ledyard Colonel Road

Site FA: 10035428

USID: 59408

889R Colonel Ledyard Highway, Ledyard, CT 06339

Latitude: 41.4619919 Longitude: -72.0236111

Structure Type: Lattice Tower

Report Date: June 1, 2020



Status: AT&T will be compliant with FCC rules on RF Exposure.

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1. Executive Summary:

Smartlink on behalf of AT&T has contracted Infinigy Solutions, LLC to determine whether the site Ledyard Colonel Road located at 889R Colonel Ledyard Highway in Ledyard, CT Will Be Compliant with all Federal Communications Commission (FCC) rules and regulations for radio frequency (RF) exposure as indicated in **47CFR§1.1310**.

The report incorporates a theoretical RF field analysis in accordance with the FCC Rules and Regulations for all individuals classified as “Occupational or Controlled” and “General Public or Uncontrolled” (see Appendix A and B).

This document and the conclusions herein are based on information provided by AT&T.

As a result of the analysis, **AT&T Will Be Compliant with FCC rules.**

Site Cumulative Exposure %		
Uncontrolled / General Population	Exposure values at the site (mW/cm ²)	0.0283
	% Exposure	2.13%
Controlled / Occupational	Exposure values at the site (mW/cm ²)	0.0283
	% Exposure	0.42%

2. Site Summary:

Site Information	
Site Name: Ledyard Colonel Road	
Site Address: 889R Colonel Ledyard Highway, Ledyard, CT 06339	
Site Type: Lattice Tower	
Compliance Status	Will Be Compliant
Mitigation Required	No
Signage Required	Yes
Barriers Required	No
Access Locked	No
Area Controlled or Uncontrolled	Uncontrolled

3. Site Compliance

This report also incorporates overview of the site information:

- Antenna Inventory Table
- Calculation Tables showing exposure for each carrier transmit frequency
- Total exposure for all carriers existing and proposed at ground level considering the centerline of all antennas and horizontal distance from the tower.
- Maximum Effective Radiated Power Assumed as Worst Case for Calculations used in this study
- Calculations based on flat ground around base of the structure

4. Site Compliance Recommendations

Infinigy recommends the following upon the installation of antennas at the site:

Base of tower

Install a Yellow Caution 2 sign at the base of the tower (if none currently exists)

5. Antenna Inventory Table

Ant ID	Sector	Operator	Antenna manufacturer	Antenna Model	Operating Frequency/Technology	Rad Ctr (Ft)	Azi (Deg))	Total ERP Power (Watts)
1	Alpha	AT&T	Powerwave	7770-850	850-UMTS	200	143	242
2a	Alpha	AT&T	CCI	OPA65R-BU4DA-700	700-LTE	200	143	2951
2b	Alpha	AT&T	CCI	OPA65R-BU4DA-2100	2100-LTE	200	143	3837
3a	Alpha	AT&T	CCI	DMP65R-BU4DA-700	700-LTE	200	143	1475
3b	Alpha	AT&T	CCI	DMP65R-BU4DA-850	850-LTE	200	143	1000
3c	Alpha	AT&T	CCI	DMP65R-BU4DA-1900	1900-LTE	200	143	3664
3d	Alpha	AT&T	CCI	DMP65R-BU4DA-850	850-5G	200	143	1000
4	Beta	AT&T	Powerwave	7770-850	850-UMTS	200	263	242
5a	Beta	AT&T	CCI	OPA65R-BU8DA-700	700-LTE	200	263	2951
5b	Beta	AT&T	CCI	OPA65R-BU8DA-2100	2100-LTE	200	263	3837
6a	Beta	AT&T	CCI	DMP65R-BU8D-700	700-LTE	200	263	1475
6b	Beta	AT&T	CCI	DMP65R-BU8D-850	850-LTE	200	263	1000
6c	Beta	AT&T	CCI	DMP65R-BU8D-1900	1900-LTE	200	263	3664
6d	Beta	AT&T	CCI	DMP65R-BU8D-850	850-5G	200	263	1000
7	Gamma	AT&T	Powerwave	7770-850	850-UMTS	200	23	242
8a	Gamma	AT&T	CCI	OPA65R-BU8DA-700	700 LTE	200	23	2951
8b	Gamma	AT&T	CCI	OPA65R-BU8DA-2100	2100-LTE	200	23	3837
9a	Gamma	AT&T	CCI	DMP65R-BU8D-700	700-LTE	200	23	1475
9b	Gamma	AT&T	CCI	DMP65R-BU8D-850	850-LTE	200	23	1000
9c	Gamma	AT&T	CCI	DMP65R-BU8D-1900	1900-LTE	200	23	3664
9d	Gamma	AT&T	CCI	DMP65R-BU8D-850	850-5G	200	23	1000
10	Alpha	Verizon Wireless	Antel	BXA-70063/6CF-700	700-LTE	169.5	0	1694
11a	Alpha	Verizon Wireless	Antel	BXA-171063-12CF-2100	1900-LTE	169.5	0	2976
11b	Alpha	Verizon Wireless	Antel	BXA-171063-12CF-2100	2100-LTE	169.5	0	2862
12	Alpha	Verizon Wireless	Antel	LPA-80063-4CF-800	850-CDMA	169.5	0	1178
13	Alpha	Verizon Wireless	Antel	LPA-80063-4CF-800	850-LTE	169.5	0	1178

Ant ID	Sector	Operator	Antenna manufacturer	Antenna Model	Operating Frequency/Technology	Rad Ctr (Ft)	Azi (Deg))	Total ERP Power (Watts)
14	Beta	Verizon Wireless	Antel	BXA-70063/6CF-700	700-LTE	169.5	120	1694
15a	Beta	Verizon Wireless	Antel	BXA-171063-12CF-2100	1900-LTE	169.5	120	2976
15b	Beta	Verizon Wireless	Antel	BXA-171063-12CF-2100	2100-LTE	169.5	120	2862
16	Beta	Verizon Wireless	Antel	LPA-80063-4CF-800	850-CDMA	169.5	120	1178
17	Beta	Verizon Wireless	Antel	LPA-80080/4CF-850	850-LTE	169.5	120	1050
18	Gamma	Verizon Wireless	Antel	BXA-70063/6CF-700	700-LTE	169.5	240	1694
19a	Gamma	Verizon Wireless	Antel	BXA-171063-12CF-2100	1900-LTE	169.5	240	2976
19b	Gamma	Verizon Wireless	Antel	BXA-171063-12CF-2100	2100-LTE	169.5	240	2862
20	Gamma	Verizon Wireless	Antel	LPA-80063-4CF-800	850-CDMA	169.5	240	1178
21	Gamma	Verizon Wireless	Antel	LPA-80080/4CF-850	850-LTE	169.5	240	1050
22	Alpha	T-Mobile	Generic	Panel-600	600-LTE	188.5	0	1210
23	Alpha	T-Mobile	Ericsson	AIR21 B2A/BP-1900	1900-LTE	188.5	0	1710
24	Alpha	T-Mobile	Ericsson	AIR21 B2A/BP-1900	2100-LTE	188.5	0	1639
25	Alpha	T-Mobile	Commscope	LNx-6515DS-VTM-700	700-LTE	188.5	0	1689
26	Beta	T-Mobile	Generic	Panel-600	600-LTE	188.5	120	1210
27	Beta	T-Mobile	Ericsson	AIR21 B2A/BP-1900	1900-LTE	188.5	120	1710
28	Beta	T-Mobile	Ericsson	AIR21 B2A/BP-1900	2100-LTE	188.5	120	1639
29	Beta	T-Mobile	Commscope	LNx-6515DS-VTM-700	700-LTE	188.5	120	1689
30	Gamma	T-Mobile	Generic	Panel-600	600-LTE	188.5	240	1210
31	Gamma	T-Mobile	Ericsson	AIR21 B2A/BP-1900	1900-LTE	188.5	240	1710
32	Gamma	T-Mobile	Ericsson	AIR21 B2A/BP-1900	2100-LTE	188.5	240	1639
33	Gamma	T-Mobile	Commscope	LNx-6515DS-VTM-700	700-LTE	188.5	240	1689
34a	Alpha	Sprint	Generic	Panel-850	850-LTE	226.5	0	1080
34b	Alpha	Sprint	Generic	Panel-1900	1900-LTE	226.5	0	1337
35	Alpha	Sprint	Generic	Panel-2500	2500-LTE	226.5	0	1935
36a	Beta	Sprint	Generic	Panel-850	850-LTE	226.5	120	1080
36b	Beta	Sprint	Generic	Panel-1900	1900-LTE	226.5	120	1337
37	Beta	Sprint	Generic	Panel-2500	2500-LTE	226.5	120	1935
38a	Gamma	Sprint	Generic	Panel-850	850-LTE	226.5	240	1080

Ant ID	Sector	Operator	Antenna manufacturer	Antenna Model	Operating Frequency/Technology	Rad Ctr (Ft)	Azi (Deg))	Total ERP Power (Watts)
38b	Gamma	Sprint	Generic	Panel-1900	1900-LTE	226.5	240	1337
39	Gamma	Sprint	Generic	Panel-2500	2500-LTE	226.5	240	1935
40		Unknown	Radiowaves	SPD3-2.4NS-2500	2500-WiMax	36	0	103
41		Unknown	Kathrein-Scala	PR-950-900	900-Microwave	90	0	22
42		Unknown	Radiowaves	HP2-18-18000	18000-Microwave	123.5	0	2375
43		Unknown	Mark	P-9A72GN-S-900	900-Microwave	130	0	385
44		Town of Ledyard	Generic	Omni-150 MHz-150	30-UHF	146	0	100
45		Unknown	Generic	Dipole-150	150-UHF	150.5	0	100
46		Town of Ledyard	Generic	Omni-150 MHz-150	450-VHF	208	0	100
47		Unknown	Generic	Omni-150 MHz-150	150- HF	213	0	100
48		Unknown	Mark	P-9A72GN-S-900	900-Microwave	251	0	282
49		Unknown	Generic	Omni-150 MHz-150	150-UHF	252	0	100
50		Unknown	Radiowaves	SPD6-52-5000	5000-Microwave	274	0	100
51		Town of Ledyard	Generic	Omni-450 MHz-450	150-UHF	274.25	0	100
52		Town of Ledyard	Generic	Omni-450 MHz-450	450-VHF	294	0	100
53		Town of Ledyard	Generic	Omni-450 MHz-450	450-VHF	294	0	100
54		Marcus Spectrum Holdings	Generic	Omni-450 MHz-450	450-VHF	305.5	0	100
55		Unknown	Generic	Omni-150 MHz-150	150-UHF	307.33	0	100
56		Unknown	Mark	P-9A72GN-S-900	900-Microwave	308	0	243
57		Unknown	Mark	P-9A120GN-900	900-Microwave	317.5	0	237

6. RF Guidelines

To ensure safety of company workers, the following points need to be taken into consideration and implemented at wireless sites in accordance with the Carriers policies:

- a) **Worksite:** Any employee at the site should avoid working directly in front of the antenna or in areas predicted to exceed general population exposure limits by 100%. Workers should insist that the transmitters be switched off during the work period.
- b) **RF Safety Training and Awareness:** All employees working in areas exceeding the general population limits should have a basic awareness of RF safety measures. Videos, classroom lectures and online courses are all appropriate training methods on these topics.
- c) **Site Access:** Restricting access to transmitting antenna locations is one of the most important elements of RF safety. This can be done with:
 - Locked doors/gates/ladder access
 - Alarmed doors
 - Restrictive barriers
- d) **Three-foot Buffer:** There is an inverse relationship between the strength of the field and the distance from the antenna. The RF field diminishes with distance from the antenna. Workers should maintain a three-foot distance from the antennas.
- e) **Antennas:** Workers should always assume that the antenna is transmitting and should never stop right in front of the antenna. If someone must pass by an antenna, he/she should move quickly, thus reducing RF exposure.

Attachment 1: Site Exposure Analysis Per Carrier

AT&T All Bands		
Uncontrolled / General Population	Exposure values at the site (mW/cm ²)	0.0060
	% Exposure	0.8441%
Controlled / Occupational	Exposure values at the site (mW/cm ²)	0.0060
	% Exposure	0.1775%

Verizon Wireless All Bands		
Uncontrolled / General Population	Exposure values at the site (mW/cm ²)	0.0050
	% Exposure	0.637%
Controlled / Occupational	Exposure values at the site (mW/cm ²)	0.0050
	% Exposure	0.132%

T-Mobile All Bands		
Uncontrolled / General Population	Exposure values at the site (mW/cm ²)	0.002943
	% Exposure	0.46%
Controlled / Occupational	Exposure values at the site (mW/cm ²)	0.002943
	% Exposure	0.09%

Sprint All Bands		
Uncontrolled / General Population	Exposure values at the site (mW/cm ²)	0.0014
	% Exposure	0.1673%
Controlled / Occupational	Exposure values at the site (mW/cm ²)	0.0014
	% Exposure	0.0343%

Unknown All Bands		
Uncontrolled / General Population	Exposure values at the site (mW/cm ²)	0.0012
	% Exposure	0.16%
Controlled / Occupational	Exposure values at the site (mW/cm ²)	0.0012
	% Exposure	0.03%

Town of Ledyard All Bands		
Uncontrolled / General Population	Exposure values at the site (mW/cm ²)	0.000059
	% Exposure	0.03%
Controlled / Occupational	Exposure values at the site (mW/cm ²)	0.000059
	% Exposure	0.0059%

Marcus Spectrum Holdings All Bands		
Uncontrolled / General Population	Exposure values at the site (mW/cm ²)	0.000006
	% Exposure	0.03%
Controlled / Occupational	Exposure values at the site (mW/cm ²)	0.000006
	% Exposure	0.0006%

Attachment 2: AT&T Exposure Analysis Per Band

AT&T 700 MHz LTE		
Uncontrolled / General Population	FCC's exposure limits (mW/cm ²)	0.5
	Exposure values at the site (mW/cm ²)	0.0019
	% Exposure	0.37%
Controlled / Occupational	FCC's Exposure limits(mW/cm ²)	2.3
	Exposure values at the site (mW/cm ²)	0.0019
	% Exposure	0.08%

AT&T 850 MHz UMTS		
Uncontrolled / General Population	FCC's exposure limits (mW/cm ²)	0.6
	Exposure values at the site (mW/cm ²)	0.0001
	% Exposure	0.02%
Controlled / Occupational	FCC's Exposure limits(mW/cm ²)	2.8
	Exposure values at the site (mW/cm ²)	0.0001
	% Exposure	0.00%

AT&T 850 MHz LTE		
Uncontrolled / General Population	FCC's exposure limits (mW/cm ²)	0.6
	Exposure values at the site (mW/cm ²)	0.0004
	% Exposure	0.07%
Controlled / Occupational	FCC's Exposure limits(mW/cm ²)	2.8
	Exposure values at the site (mW/cm ²)	0.0004
	% Exposure	0.02%

AT&T 850 MHz 5G		
Uncontrolled / General Population	FCC's exposure limits (mW/cm ²)	0.6
	Exposure values at the site (mW/cm ²)	0.0004
	% Exposure	0.07%
Controlled / Occupational	FCC's Exposure limits(mW/cm ²)	2.8
	Exposure values at the site (mW/cm ²)	0.0004
	% Exposure	0.02%

AT&T 1900 MHz LTE		
Uncontrolled / General Population	FCC's exposure limits (mW/cm ²)	1.0
	Exposure values at the site (mW/cm ²)	0.0015
	% Exposure	0.15%
Controlled / Occupational	FCC's Exposure limits(mW/cm ²)	5.0
	Exposure values at the site (mW/cm ²)	0.0015
	% Exposure	0.03%

AT&T 2100 MHz LTE		
Uncontrolled / General Population	FCC's exposure limits (mW/cm ²)	1.0
	Exposure values at the site (mW/cm ²)	0.0016
	% Exposure	0.16%
Controlled / Occupational	FCC's Exposure limits(mW/cm ²)	5.0
	Exposure values at the site (mW/cm ²)	0.0016
	% Exposure	0.03%

Attachment 3: Verizon Wireless Exposure Analysis Per Band

Verizon Wireless 700 MHz LTE		
Uncontrolled / General Population	FCC's exposure limits (mW/cm ²)	0.5
	Exposure values at the site (mW/cm ²)	0.0010
	% Exposure	0.20%
Controlled / Occupational	FCC's Exposure limits(mW/cm ²)	2.3
	Exposure values at the site (mW/cm ²)	0.0010
	% Exposure	0.04%

Verizon Wireless 850 MHz LTE		
Uncontrolled / General Population	FCC's exposure limits (mW/cm ²)	0.6
	Exposure values at the site (mW/cm ²)	0.0006
	% Exposure	0.11%
Controlled / Occupational	FCC's Exposure limits(mW/cm ²)	2.8
	Exposure values at the site (mW/cm ²)	0.0006
	% Exposure	0.02%

Verizon Wireless 850 MHz CDMA		
Uncontrolled / General Population	FCC's exposure limits (mW/cm ²)	0.6
	Exposure values at the site (mW/cm ²)	0.0007
	% Exposure	0.11%
Controlled / Occupational	FCC's Exposure limits(mW/cm ²)	2.8
	Exposure values at the site (mW/cm ²)	0.0007
	% Exposure	0.02%

Verizon Wireless 1900 MHz LTE		
Uncontrolled / General Population	FCC's exposure limits (mW/cm ²)	1.0
	Exposure values at the site (mW/cm ²)	0.0017
	% Exposure	0.17%
Controlled / Occupational	FCC's Exposure limits(mW/cm ²)	5.0
	Exposure values at the site (mW/cm ²)	0.0017
	% Exposure	0.03%

Verizon Wireless 2100 MHz LTE		
Uncontrolled / General Population	FCC's exposure limits (mW/cm ²)	1.0
	Exposure values at the site (mW/cm ²)	0.0017
	% Exposure	0.17%
Controlled / Occupational	FCC's Exposure limits(mW/cm ²)	5.0
	Exposure values at the site (mW/cm ²)	0.0017
	% Exposure	0.03%

Attachment 4: T-Mobile Exposure Analysis Per Band

T-Mobile 600 MHz LTE		
Uncontrolled / General Population	FCC's exposure limits (mW/cm ²)	0.4
	Exposure values at the site (mW/cm ²)	0.000570
	% Exposure	0.142%
Controlled / Occupational	FCC's Exposure limits(mW/cm ²)	2.0
	Exposure values at the site (mW/cm ²)	0.000570
	% Exposure	0.03%

T-Mobile 700 MHz LTE		
Uncontrolled / General Population	FCC's exposure limits (mW/cm ²)	0.5
	Exposure values at the site (mW/cm ²)	0.000795
	% Exposure	0.16%
Controlled / Occupational	FCC's Exposure limits(mW/cm ²)	2.3
	Exposure values at the site (mW/cm ²)	0.000795
	% Exposure	0.0346%

T-Mobile 1900 MHz LTE		
Uncontrolled / General Population	FCC's exposure limits (mW/cm ²)	1.0
	Exposure values at the site (mW/cm ²)	0.000805
	% Exposure	0.08%
Controlled / Occupational	FCC's Exposure limits(mW/cm ²)	5.0
	Exposure values at the site (mW/cm ²)	0.000805
	% Exposure	0.0161%

T-Mobile 2100 MHz LTE		
Uncontrolled / General Population	FCC's exposure limits (mW/cm ²)	1.0
	Exposure values at the site (mW/cm ²)	0.000772
	% Exposure	0.08%
Controlled / Occupational	FCC's Exposure limits(mW/cm ²)	5.0
	Exposure values at the site (mW/cm ²)	0.000772
	% Exposure	0.0154%

Attachment 5: Sprint Exposure Analysis Per Band

Sprint 862 MHz LTE		
Uncontrolled / General Population	FCC's exposure limits (mW/cm ²)	0.6
	Exposure values at the site (mW/cm ²)	0.0004
	% Exposure	0.06%
Controlled / Occupational	FCC's Exposure limits(mW/cm ²)	2.8
	Exposure values at the site (mW/cm ²)	0.0004
	% Exposure	0.0127%

Sprint 1900 MHz LTE		
Uncontrolled / General Population	FCC's exposure limits (mW/cm ²)	1.0
	Exposure values at the site (mW/cm ²)	0.0004
	% Exposure	0.04%
Controlled / Occupational	FCC's Exposure limits(mW/cm ²)	5.0
	Exposure values at the site (mW/cm ²)	0.0004
	% Exposure	0.0088%

Sprint 2500 MHz LTE		
Uncontrolled / General Population	FCC's exposure limits (mW/cm ²)	1.0
	Exposure values at the site (mW/cm ²)	0.0006
	% Exposure	0.06%
Controlled / Occupational	FCC's Exposure limits(mW/cm ²)	5.0
	Exposure values at the site (mW/cm ²)	0.0006
	% Exposure	0.0128%

Attachment 6: Unknown Exposure Analysis Per Band

Unknown 150 MHz UHF		
Uncontrolled / General Population	FCC's exposure limits (mW/cm ²)	0.2
	Exposure values at the site (mW/cm ²)	0.0001
	% Exposure	0.0257%
Controlled / Occupational	FCC's Exposure limits(mW/cm ²)	1.0
	Exposure values at the site (mW/cm ²)	0.0001
	% Exposure	0.0051%

Unknown 900 MHz Microwave		
Uncontrolled / General Population	FCC's exposure limits (mW/cm ²)	0.6
	Exposure values at the site (mW/cm ²)	0.0002
	% Exposure	0.03%
Controlled / Occupational	FCC's Exposure limits(mW/cm ²)	2.8
	Exposure values at the site (mW/cm ²)	0.0002
	% Exposure	0.01%

Unknown 2500 MHz WiMax		
Uncontrolled / General Population	FCC's exposure limits (mW/cm ²)	1.0
	Exposure values at the site (mW/cm ²)	0.0002
	% Exposure	0.02%
Controlled / Occupational	FCC's Exposure limits(mW/cm ²)	5.0
	Exposure values at the site (mW/cm ²)	0.00017
	% Exposure	0.0034%

Unknown 5 GHz Microwave		
Uncontrolled / General Population	FCC's exposure limits (mW/cm ²)	1.0
	Exposure values at the site (mW/cm ²)	0.0000
	% Exposure	0.00076%
Controlled / Occupational	FCC's Exposure limits(mW/cm ²)	5.0
	Exposure values at the site (mW/cm ²)	0.0000076
	% Exposure	0.0002%

Attachment 7: Town of Ledyard Exposure Analysis Per Band

Town of Ledyard 33 MHz Low Band		
Uncontrolled / General Population	FCC's exposure limits (mW/cm ²)	0.2
	Exposure values at the site (mW/cm ²)	0.000025
	% Exposure	0.01272%
Controlled / Occupational	FCC's Exposure limits(mW/cm ²)	1.0
	Exposure values at the site (mW/cm ²)	0.0000254
	% Exposure	0.00254%

Town of Ledyard 150 MHz UHF		
Uncontrolled / General Population	FCC's exposure limits (mW/cm ²)	0.2
	Exposure values at the site (mW/cm ²)	0.00001
	% Exposure	0.004%
Controlled / Occupational	FCC's Exposure limits(mW/cm ²)	1.0
	Exposure values at the site (mW/cm ²)	0.000008
	% Exposure	0.0008%

Town of Ledyard 450 MHz VHF		
Uncontrolled / General Population	FCC's exposure limits (mW/cm ²)	0.2
	Exposure values at the site (mW/cm ²)	0.000026
	% Exposure	0.01%
Controlled / Occupational	FCC's Exposure limits(mW/cm ²)	1.0
	Exposure values at the site (mW/cm ²)	0.000026
	% Exposure	0.0026%

Attachment 8: Marcus Spectrum Holdings Exposure Analysis Per Band

Town of Ledyard 33 MHz Low Band		
Uncontrolled / General Population	FCC's exposure limits (mW/cm ²)	0.2
	Exposure values at the site (mW/cm ²)	0.000006
	% Exposure	0.0030%
Controlled / Occupational	FCC's Exposure limits(mW/cm ²)	1.0
	Exposure values at the site (mW/cm ²)	0.000006
	% Exposure	0.0006%

7. Appendix A: FCC Guidelines

FCC Policies

The Federal Communications Commission (FCC) in 1996 implemented regulations and policies for analysis of RF propagation to evaluate RF emissions. All the analysis and results of this report are compared with FCC's (Federal Communications Commission) rules to determine whether a site is compliant for Occupational/Controlled or General Public/Uncontrolled exposure. All the analysis of RF propagation is done in terms of a percentage. The limits primarily indicate the power density and are generally expressed in terms of milliwatts per centimeter square, mW/cm².

FCC guidelines incorporate two separate tiers of exposure limits that are dependent on the scenario/ situation in which that exposure takes place or the status of the individuals who are subjected to that exposure. The decision as to which tier is applied to a scenario is based on the following definitions:

Occupational / Controlled

These limits apply in situations when someone is exposed to RF energy through his/her occupation, is fully aware of the harmful effects of the RF exposure and has an ability to exercise control over this exposure. Occupational / controlled exposure limits also apply when exposure is of a transient nature as a result of incidental passage through a location where exposure levels may be above general population/uncontrolled limits (see below), as long as the exposed person has been made fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means. limits for Occupational/Controlled exposure can be found on Table 1(A).

General Population / Uncontrolled

These limits apply to situations in which the general public may be exposed or in which persons who are exposed because of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure to RF. Therefore, members of the general public would always be considered under this category, for example, in the case of a telecommunications tower that exposes people in a nearby residential area. Exposure limits for General Population/Uncontrolled can be found on Table 1(B).

Table 1. LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)**(A) Limits for Occupational/Controlled Exposure**

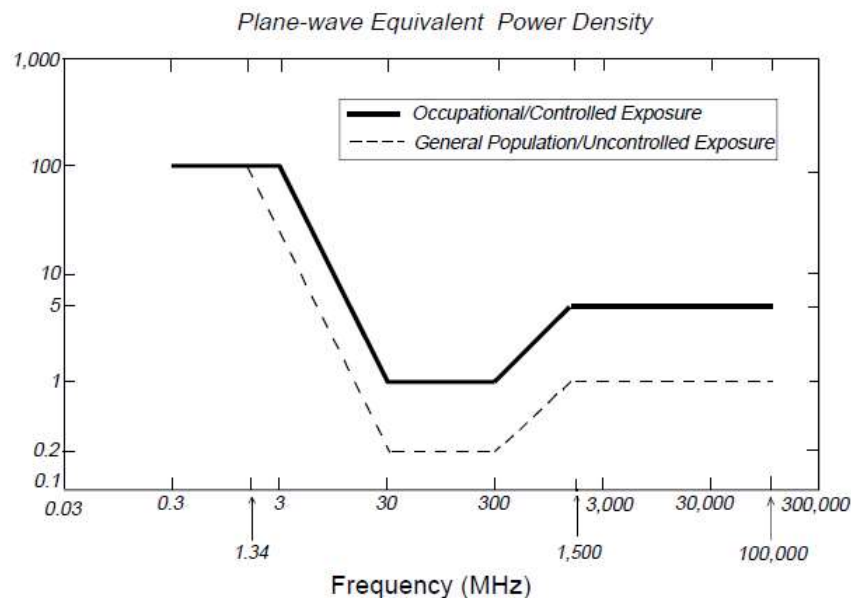
Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm ²)	Averaging Time E ² , H ² or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842/f	4.89/f	(900/f ²)*	6
30-300	61.4	0.163	1.0	6
300-1500	--	--	f/300	6
1500-100,000	--	--	5	6

(B) Limits for General Population/Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm ²)	Averaging Time E ² , H ² or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f ²)*	30
30-300	27.5	0.073	0.2	30
300-1500	--	--	f/1500	30
1500-100,000	--	--	1.0	30

f = frequency in MHz *Plane-wave equivalent power density

Figure 1. FCC Limits for Maximum Permissible Exposure (MPE)



OSHA Statement:

The objective of the OSHA Act is to ensure the safety and health of the working men and women by enforcing certain standards. The act also assists and encourages the states in their efforts to ensure safe and healthy working conditions through means of research, information, education and training in the field of occupational safety and health and for other purposes.

According to OSHA Act section 5, important duties to be considered are:

(a) Each employer

- 1) Shall furnish to each of his employees' employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious harm to his employees
- 2) Shall comply with occupational safety and health standards promulgated under this act.

(b) Each employee shall comply with occupational safety and health standards and all rules, regulations, and orders issued pursuant to this Act which are applicable to his own actions and conduct.

8. Appendix B: Preparer Certification

I, Tim Harris, preparer of this report, certify that I am fully trained and aware of the rules and regulations of both the Federal Communications Commission and the Occupational Safety and Health Administration regarding Human Exposure to Radio Frequency Radiation. In addition, I have been trained in 1) RF safety and 2) RF modeling using RoofView modeling software.

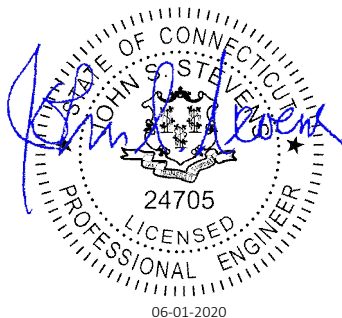
I certify that the information contained in this report is true and correct to the best of my knowledge.

Timothy A. Harris

6/1/2020

Signature

Date



Structural Modification Report

August 4, 2020

AT&T Site Name	Ledyard Colonel Road
AT&T Site Number	CTL02184
AT&T FA Number	10035428
AT&T PTN Number	2051A0VH4X / 2051A0VH98 / 2051A0VHNQ/ 2051A0VHRC / 2051A0VHN3 / 2051A0VG7N
AT&T PACE Job Number	MRCTB047350 / MRCTB047387 / MRCTB047400 / MRCTB047457 / MRCTB047373 / MRCTB047401
Infinigy Job Number	1106-A0001-B
Client	Smartlink
Carrier	AT&T Mobility
Site Location	889R Colonel Ledyard Highway Ledyard, CT 06339 New London County 41° 27' 43.17" N NAD83 72° 01' 25.00" W NAD83
Structural Type	345.0 ft Guyed Tower
Structural Usage Ratio	87.0%
Overall Result	Pass

Upon reviewing the results of this analysis, it is our opinion that the modified structure meets the specified TIA code requirements. The mounts and connections for the proposed carrier are therefore deemed adequate to support the final loading configuration as listed in this report.

- See attached drawings for modification design



Bryan P. Mawhinney
Project Engineer II

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Introduction

Infinigy Engineering has been requested to perform a structural analysis on the existing 345.0' guyed tower. All referenced supporting documents have been obtained from the client and are assumed to be accurate and applicable to this site. The tower was analyzed using tnxTower version 8.0.5 analysis software.

Supporting Documentation

Proposed Loading	AT&T RFDS ID: 3719899, Site Number: CTL02184, dated March 24, 2020
Mapping Report	Tower Engineering Professionals, Site Number: CTL02184, dated October 26, 2016
Structural Analysis Report	Maser Consulting, Site Number: CT2184, dated November 9, 2016

Analysis Code Requirements

Wind Speed	105 mph (3-Second Gust, V_{ASD}) / 135 mph (3-Second Gust, V_{ULT})
Wind Speed w/ ice	50 mph (3-Second Gust) w/ 0.75" ice
TIA Revision	ANSI/TIA-G
Adopted IBC	2015 IBC / 2018 Connecticut State Building Code
Risk Category	II
Exposure Category	C
Topographic Category	1
Calculated Crest Height	0 ft.
Spectral Response	$S_s = 0.165$ g / $S_1 = 0.059$ g
Site Class	D-Stiff Soil (Assumed)

Conclusion

Upon reviewing the results of this analysis, it is our opinion that the modified structure meets the specified TIA code requirements. The mounts and connections for the proposed carrier are therefore deemed adequate to support the final loading configuration as listed in this report.

If you have any questions, require additional information, or actual conditions differ from those as detailed in this report please contact me via the information below:

Bryan P. Mawhinney
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Existing & Reserved Loading

RAD Center (ft)	Mount Center (ft)	Qty.	Appurtenance	Mount Type	Coax& Lines	Carrier
342.0	342.0	1	FM Antenna	Direct	(1) 1/2"	--
338.0	338.0	1	FM Antenna	Direct	(1) 1-5/8"	
332.5	332.5	1	FM Antenna	Direct	(1) 1/2"	
317.5	317.5	1	Mark P-9A120GN	(1) 2' Standoff	(1) 1-5/8"	
312.0	312.0	1	FM Antenna	Direct	(1) 1/2"	
308.0	308.0	1	Gabflel P-9A120GN	Direct	(1) 1-5/8"	
307.3	295.5	1	20' Omni	(1) 8' Standoff	(1) 2-1/4"	
305.5	294.0	1	20' Omni	(2) 10' Standoffs	(3) 1-1/4"	
284.0		2	20' Omni			
288.0	288.0	1	FM Antenna	Direct	(1) 1/2"	
279.0	279.0	1	FM Antenna	Direct	(1) 1/2"	
274.0	274.0	1	Radiowaves SPD6-58	(1) Pipe Mount	(1) 1/2"	
274.3	264.3	1	20' Omni	(1) 6' Standoff	(1) 7/8"	
262.0	252.0	1	20' Omni	(1) 6' Standoff	(1) 7/8"	
251.0	251.0	1	Mark P-9A72GN	Direct	(1) 1-5/8"	
226.5	226.5	6	59.25"x6.5"x3" Panel	(3) 12' Sector Frames	(6) 1-5/8"	
219.5	219.5	1	FM Antenna	Direct	(1) 7/8"	
209.0	209.0	1	Kathrein MFF-950B	(1) Pipe Mount	(1) 1-1/4"	
213.0	205.5	1	15' Omni	(1) 6' Standoff	(1) 1-1/4"	
208.0	204.0	1	8' Omni	(2) 9' Horizontal Pipes	(1) 1-5/8"	
200.0	200.0	6	Powerwave 7770.00	(3) 10' Sector Frames	(12) 1- 5/8" (2) 3/4" (1) 3/8"	AT&T
		1	KMW AM-X-CD-14-65- 00T-RET			
		2	Powerwave P65-17-XLH- RR			
		6	CCI DTMA BP7819VG12A			
		6	Ericsson RRUS-11 B12			
		1	Raycap DC6-48-60-18-8F			
188.5	186.5	6	Ericsson AIR21 B2A B4P	(3) 10.5' Sector Frames	(6) 1-5/8"	--
		3	Andrew LNX-6515DS-A1M		(1) 1-1/4"	
		3	Ericsson KRY 112 144/1		(1) 1-3/8"	

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		3	Ericsson 16.5"x6.5"x17.0" RRU			
169.5	168.0	2	Amphenol LPA-80080-4CF-EDIN	(3) 12' Sector Frames	(12) 1-5/8"	
		4	Amphenol LPA-80063-4CF-EDIN			
		3	Amphenol BXA-70063-6CF-EDIN			
		3	Amphenol BXA-171063-12BF-EDIN-2			
		6	Andrew E15V95P08 04			
150.5	150.5	1	13' Single Element Dipole	(3) 5' Horizontal Pipes	(1) 5/8"	
146.0	138.5	1	20' Omni	(1) 4' Standoff	(1) 7/8"	
130.0	130.0	1	Mark P-9A72GN	(1) Pipe Mount	(1) 1-5/8"	
123.5	123.5	2	18" Dishes	Direct	(1) 3/16"	
--	112.0	--	--	(1) 3' Standoff	--	
112.0	112.0	1	Kathrein MTZ-940B	Direct	(1) 1-5/8"	
106.5	106.5	2	18" Dishes	Direct	(2) 1/4"	
90.0	90.0	1	Kathrein PR-950	(1) Pipe Mount	(1) 1/2"	
36.0	36.0	1	Radiowaves SPD3-2.4NS	Direct	(2) 1/2"	

To Be Removed Loading

RAD Center (ft)	Mount Center (ft)	Qty.	Appurtenance	Mount Type	Coax & Lines	Carrier
200.0	200.0	3	Powerwave 7770.00	--	(6) 1-5/8" Coax	AT&T
		1	KMW AM-X-CD-14-65-00T-RET			
		2	Powerwave P65-17-XLH-RR			
		3	CCI DTMABP7819VG12A			
		6	Ericsson RRUS-11 B12			

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Proposed Loading

RAD Center (ft)	Mount Center (ft)	Qty.	Appurtenance	Mount Type	Coax& Lines	Carrier
200.0	200.0	3	CCI OPA65R-BU8DA	--	(1) Fiber (3) DC	AT&T
		3	CCI DMP65R-BU8DA			
		3	Ericsson Radio 4478 B14			
		3	Ericsson Radio 4449 B5/B12			
		1	Raycap DC9			
		3	Ericsson Radio 8843 B2/B66A			

Final Configuration

RAD Center (ft)	Mount Center (ft)	Qty.	Appurtenance	Mount Type	Coax& Lines	Carrier
342.0	342.0	1	FM Antenna	Direct	(1) 1/2"	--
338.0	338.0	1	FM Antenna	Direct	(1) 1-5/8"	
332.5	332.5	1	FM Antenna	Direct	(1) 1/2"	
317.5	317.5	1	Mark P-9A120GN	(1) 2' Standoff	(1) 1-5/8"	
312.0	312.0	1	FM Antenna	Direct	(1) 1/2"	
308.0	308.0	1	Gabflel P-9A120GN	Direct	(1) 1-5/8"	
307.3	295.5	1	20' Omni	(1) 8' Standoff	(1) 2-1/4"	
305.5	294.0	1	20' Omni	(2) 10' Standoffs	(3) 1-1/4"	
284.0		2	20' Omni			
288.0	288.0	1	FM Antenna	Direct	(1) 1/2"	
279.0	279.0	1	FM Antenna	Direct	(1) 1/2"	
274.0	274.0	1	Radiowaves SPD6-58	(1) Pipe Mount	(1) 1/2"	
274.3	264.3	1	20' Omni	(1) 6' Standoff	(1) 7/8"	
262.0	252.0	1	20' Omni	(1) 6' Standoff	(1) 7/8"	
251.0	251.0	1	Mark P-9A72GN	Direct	(1) 1-5/8"	
226.5	226.5	6	59.25"x6.5"x3" Panel	(3) 12' Sector Frames	(6) 1-5/8"	
219.5	219.5	1	FM Antenna	Direct	(1) 7/8"	
209.0	209.0	1	Kathrein MFF-950B	(1) Pipe Mount	(1) 1-1/4"	
213.0	205.5	1	15' Omni	(1) 6' Standoff	(1) 1-1/4"	
208.0	204.0	1	8' Omni	(2) 9' Horizontal Pipes	(1) 1-5/8"	

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200.0	200.0	3	CCI OPA65R-BU8DA	(3) 10’ Sector Frames	(6) 1-5/8” (2) Fiber (5) DC	AT&T
		3	CCI DMP65R-BU8DA			
		3	Powerwave 7770.00			
		1	Raycap DC9			
		3	CCI DTMABP7819VG12A			
		3	Ericsson Radio 4478 B14			
		3	Ericsson Radio 4449 B5/B12			
		3	Ericsson Radio 8843 B2/B66A			
		1	Raycap DC6-48-60-18-8F			
188.5	186.5	6	Ericsson AIR21 B2A B4P	(3) 10.5’ Sector Frames	(6) 1-5/8” (1) 1-1/4” (1) 1-3/8”	--
		3	Andrew LNX-6515DS-A1M			
		3	Ericsson KRY 112 144/1			
		3	Ericsson 16.5”x6.5”x17.0” RRU			
169.5	168.0	2	Amphenol LPA-80080-4CF- EDIN	(3) 12’ Sector Frames	(12) 1- 5/8”	
		4	Amphenol LPA-80063-4CF- EDIN			
		3	Amphenol BXA-70063-6CF- EDIN			
		3	Amphenol BXA-171063- 12BF-EDIN-2			
		6	Andrew E15V95P08 04			
150.5	150.5	1	13’ Single Element Dipole	(3) 5’ Horizontal Pipes	(1) 5/8”	
146.0	138.5	1	20’ Omni	(1) 4’ Standoff	(1) 7/8”	
130.0	130.0	1	Mark P-9A72GN	(1) Pipe Mount	(1) 1-5/8”	
123.5	123.5	2	18” Dishes	Direct	(1) 3/16”	
--	112.0	--	--	(1) 3’ Standoff	--	
112.0	112.0	1	Kathrein MTZ-940B	Direct	(1) 1-5/8”	
106.5	106.5	2	18” Dishes	Direct	(2) 1/4”	
90.0	90.0	1	Kathrein PR-950	(1) Pipe Mount	(1) 1/2"	
36.0	36.0	1	Radiowaves SPD3-2.4NS	Direct	(2) 1/2"	

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Structure Usages

Latticed Pole Leg (L1)	19.1%	Pass
Latticed Pole Diagonal (L1)	60.3%	Pass
Latticed Pole Top Girt (L1)	0.2%	Pass
Latticed Pole Bottom Girt (L1)	12.8%	Pass
Latticed Pole Mid Girt (L1)	1.9%	Pass
Leg (T31)	87.0%	Pass
Diagonal (T38)	42.9%	Pass
Horizontal (T38)	41.4%	Pass
Secondary Horizontal (T39)	31.2%	Pass
Top Girt (T18)	67.1%	Pass
Bottom Girt (T39)	9.2%	Pass
Mid Girt (T8)	20.9%	Pass
Guy A (T8)	65.1%	Pass
Guy B (T8)	69.6%	Pass
Guy C (T8)	64.9%	Pass
Torque Arm Top (T18)	20.6%	Pass
Torque Arm Bottom (T18)	14.5%	Pass
Bolt Checks	87.0%	Pass
RATING =	87.0%	Pass

Foundation Reactions

Reaction Data	Wind Analysis Reactions
Guy Uplift (kip)	137.0
Guy Shear (kip)	128.0
Tower Axial (kip)	429.0
Tower Shear (kip)	9.0
Tower Moment (kip-ft)	9.0

The existing foundation was not evaluated because no information was made available at the time of this analysis.

Deflection, Twist, and Sway

Antenna Elevation (ft)	Deflection (in)	Twist (°)	Sway (°)
200.0	2.501	0.114	0.094

*Per ANSI/TIA-222-G Section 2.8.2 maximum serviceability structural deflection limit is 3% of structure height.

*Per ANSI/TIA-222-G Section 2.8.2 maximum serviceability structural twist and sway limit is 4 degrees.

*Per ANSI/TIA-222-G Section 2.8.3 deflection, Twist, and sway values were calculated using a basic 3-second gust wind speed of 60 mph.

*It is the responsibility of the client to ensure their proposed and/or existing equipment will meet ANSI/TIA-222-G Annex D or other appropriate microwave signal degradation limits based on the provided values above.

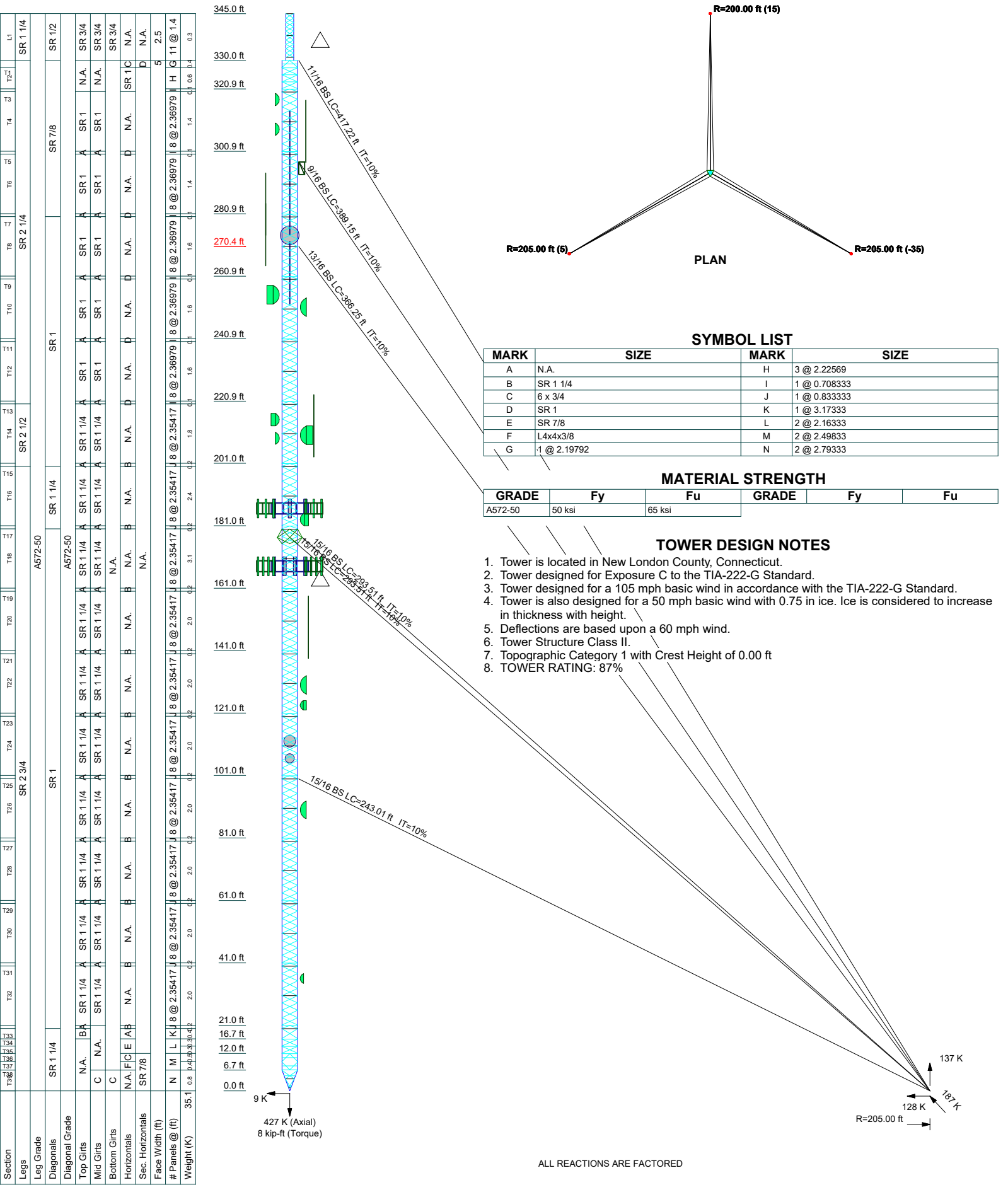
August 4, 2020

Assumptions and Limitations

Our structural calculations are completed assuming all information provided to Infinigy Engineering is accurate and applicable to this site. For the purposes of calculations, we assume an overall structure condition of “like new” and all members and connections to be free of corrosion and/or structural defects. The structure owner and/or contractor shall verify the structure’s condition prior to installation of any proposed equipment. If actual conditions differ from those described in this report Infinigy Engineering should be notified immediately to complete a revised evaluation.

Our evaluation is completed using standard TIA, AISC, ACI, and ASCE methods and procedures. Our structural results are proprietary and should not be used by others as their own. Infinigy Engineering is not responsible for decisions made by others that are or are not based on our supplied assumptions and conclusions.

This report is an evaluation of the tower structure only and does not reflect adequacy of any existing antenna mounts, mount connections, or cable mounting attachments. These elements are assumed to be adequate for the purposes of this analysis and are assumed to have been installed per their manufacturer requirements.



SYMBOL LIST			
MARK	SIZE	MARK	SIZE
A	N.A.	H	3 @ 2.22569
B	SR 1 1/4	I	1 @ 0.708333
C	6 x 3/4	J	1 @ 0.833333
D	SR 1	K	1 @ 3.17333
E	SR 7/8	L	2 @ 2.16333
F	L4x4x3/8	M	2 @ 2.49833
G	1 @ 2.19792	N	2 @ 2.79333

MATERIAL STRENGTH					
GRADE	Fy	Fu	GRADE	Fy	Fu
A572-50	50 ksi	65 ksi			

TOWER DESIGN NOTES

1. Tower is located in New London County, Connecticut.
2. Tower designed for Exposure C to the TIA-222-G Standard.
3. Tower designed for a 105 mph basic wind in accordance with the TIA-222-G Standard.
4. Tower is also designed for a 50 mph basic wind with 0.75 in ice. Ice is considered to increase in thickness with height.
5. Deflections are based upon a 60 mph wind.
6. Tower Structure Class II.
7. Topographic Category 1 with Crest Height of 0.00 ft
8. TOWER RATING: 87%

ALL REACTIONS ARE FACTORED

Infinigy Engineering, LLP
1517 Old Apex Rd.
Cary, North Carolina 27513
Phone:
FAX:

Job: CTL02184
Project: **1106-A0001-B**
Client: Smartlink
Code: TIA-222-G
Path:
Drawn by: Bryan Mawhinney
Date: 07/27/20
App'd:
Scale: NTS
Dwg No. E-1

Section	L1	T2	T3	T4	T5	T6	T7	T8	T9	T10	T11	T12	T13	T14	T15	T16	T17	T18	T19	T20	T21	T22	T23	T24	T25	T26	T27	T28	T29	T30	T31	T32	T33	T34	T35	T36	T37	T38	T39	T40	T41	T42	T43	T44	T45	T46	T47	T48	T49	T50	T51	T52	T53	T54	T55	T56	T57	T58	T59	T60	T61	T62	T63	T64	T65	T66	T67	T68	T69	T70	T71	T72	T73	T74	T75	T76	T77	T78	T79	T80	T81	T82	T83	T84	T85	T86	T87	T88	T89	T90	T91	T92	T93	T94	T95	T96	T97	T98	T99	T100	T101	T102	T103	T104	T105	T106	T107	T108	T109	T110	T111	T112	T113	T114	T115	T116	T117	T118	T119	T120	T121	T122	T123	T124	T125	T126	T127	T128	T129	T130	T131	T132	T133	T134	T135	T136	T137	T138	T139	T140	T141	T142	T143	T144	T145	T146	T147	T148	T149	T150	T151	T152	T153	T154	T155	T156	T157	T158	T159	T160	T161	T162	T163	T164	T165	T166	T167	T168	T169	T170	T171	T172	T173	T174	T175	T176	T177	T178	T179	T180	T181	T182	T183	T184	T185	T186	T187	T188	T189	T190	T191	T192	T193	T194	T195	T196	T197	T198	T199	T200	T201	T202	T203	T204	T205	T206	T207	T208	T209	T210	T211	T212	T213	T214	T215	T216	T217	T218	T219	T220	T221	T222	T223	T224	T225	T226	T227	T228	T229	T230	T231	T232	T233	T234	T235	T236	T237	T238	T239	T240	T241	T242	T243	T244	T245	T246	T247	T248	T249	T250	T251	T252	T253	T254	T255	T256	T257	T258	T259	T260	T261	T262	T263	T264	T265	T266	T267	T268	T269	T270	T271	T272	T273	T274	T275	T276	T277	T278	T279	T280	T281	T282	T283	T284	T285	T286	T287	T288	T289	T290	T291	T292	T293	T294	T295	T296	T297	T298	T299	T300	T301	T302	T303	T304	T305	T306	T307	T308	T309	T310	T311	T312	T313	T314	T315	T316	T317	T318	T319	T320	T321	T322	T323	T324	T325	T326	T327	T328	T329	T330	T331	T332	T333	T334	T335	T336	T337	T338	T339	T340	T341	T342	T343	T344	T345	T346	T347	T348	T349	T350	T351	T352	T353	T354	T355	T356	T357	T358	T359	T360	T361	T362	T363	T364	T365	T366	T367	T368	T369	T370	T371	T372	T373	T374	T375	T376	T377	T378	T379	T380	T381	T382	T383	T384	T385	T386	T387	T388	T389	T390	T391	T392	T393	T394	T395	T396	T397	T398	T399	T400	T401	T402	T403	T404	T405	T406	T407	T408	T409	T410	T411	T412	T413	T414	T415	T416	T417	T418	T419	T420	T421	T422	T423	T424	T425	T426	T427	T428	T429	T430	T431	T432	T433	T434	T435	T436	T437	T438	T439	T440	T441	T442	T443	T444	T445	T446	T447	T448	T449	T450	T451	T452	T453	T454	T455	T456	T457	T458	T459	T460	T461	T462	T463	T464	T465	T466	T467	T468	T469	T470	T471	T472	T473	T474	T475	T476	T477	T478	T479	T480	T481	T482	T483	T484	T485	T486	T487	T488	T489	T490	T491	T492	T493	T494	T495	T496	T497	T498	T499	T500	T501	T502	T503	T504	T505	T506	T507	T508	T509	T510	T511	T512	T513	T514	T515	T516	T517	T518	T519	T520	T521	T522	T523	T524	T525	T526	T527	T528	T529	T530	T531	T532	T533	T534	T535	T536	T537	T538	T539	T540	T541	T542	T543	T544	T545	T546	T547	T548	T549	T550	T551	T552	T553	T554	T555	T556	T557	T558	T559	T560	T561	T562	T563	T564	T565	T566	T567	T568	T569	T570	T571	T572	T573	T574	T575	T576	T577	T578	T579	T580	T581	T582	T583	T584	T585	T586	T587	T588	T589	T590	T591	T592	T593	T594	T595	T596	T597	T598	T599	T600	T601	T602	T603	T604	T605	T606	T607	T608	T609	T610	T611	T612	T613	T614	T615	T616	T617	T618	T619	T620	T621	T622	T623	T624	T625	T626	T627	T628	T629	T630	T631	T632	T633	T634	T635	T636	T637	T638	T639	T640	T641	T642	T643	T644	T645	T646	T647	T648	T649	T650	T651	T652	T653	T654	T655	T656	T657	T658	T659	T660	T661	T662	T663	T664	T665	T666	T667	T668	T669	T670	T671	T672	T673	T674	T675	T676	T677	T678	T679	T680	T681	T682	T683	T684	T685	T686	T687	T688	T689	T690	T691	T692	T693	T694	T695	T696	T697	T698	T699	T700	T701	T702	T703	T704	T705	T706	T707	T708	T709	T710	T711	T712	T713	T714	T715	T716	T717	T718	T719	T720	T721	T722	T723	T724	T725	T726	T727	T728	T729	T730	T731	T732	T733	T734	T735	T736	T737	T738	T739	T740	T741	T742	T743	T744	T745	T746	T747	T748	T749	T750	T751	T752	T753	T754	T755	T756	T757	T758	T759	T760	T761	T762	T763	T764	T765	T766	T767	T768	T769	T770	T771	T772	T773	T774	T775	T776	T777	T778	T779	T780	T781	T782	T783	T784	T785	T786	T787	T788	T789	T790	T791	T792	T793	T794	T795	T796	T797	T798	T799	T800	T801	T802	T803	T804	T805	T806	T807	T808	T809	T810	T811	T812	T813	T814	T815	T816	T817	T818	T819	T820	T821	T822	T823	T824	T825	T826	T827	T828	T829	T830	T831	T832	T833	T834	T835	T836	T837	T838	T839	T840	T841	T842	T843	T844	T845	T846	T847	T848	T849	T850	T851	T852	T853	T854	T855	T856	T857	T858	T859	T860	T861	T862	T863	T864	T865	T866	T867	T868	T869	T870	T871	T872	T873	T874	T875	T876	T877	T878	T879	T880	T881	T882	T883	T884	T885	T886	T887	T888	T889	T890	T891	T892	T893	T894	T895	T896	T897	T898	T899	T900	T901	T902	T903	T904	T905	T906	T907	T908	T909	T910	T911	T912	T913	T914	T915	T916	T917	T918	T919	T920	T921	T922	T923	T924	T925	T926	T927	T928	T929	T930	T931	T932	T933	T934	T935	T936	T937	T938	T939	T940	T941	T942	T943	T944	T945	T946	T947	T948	T949	T950	T951	T952	T953	T954	T955	T956	T957	T958	T959	T960	T961	T962	T963	T964	T965	T966	T967	T968	T969	T970	T971	T972	T973	T974	T975	T976	T977	T978	T979	T980	T981	T982	T983	T984	T985	T986	T987	T988	T989	T990	T991	T992	T993	T994	T995	T996	T997	T998	T999	T1000	T1001	T1002	T1003	T1004	T1005	T1006	T1007	T1008	T1009	T1010	T1011	T1012	T1013	T1014	T1015	T1016	T1017	T1018	T1019	T1020	T1021	T1022	T1023	T1024	T1025	T1026	T1027	T1028	T1029	T1030	T1031	T1032	T1033	T1034	T1035	T1036	T1037	T1038	T1039	T1040	T1041	T1042	T1043	T1044	T1045	T1046	T1047	T1048	T1049	T1050	T1051	T1052	T1053	T1054	T1055	T1056	T1057	T1058	T1059	T1060	T1061	T1062	T1063	T1064	T1065	T1066	T1067	T1068	T1069	T1070	T1071	T1072	T1073	T1074	T1075	T1076	T1077	T1078	T1079	T1080	T1081	T1082	T1083	T1084	T1085	T1086	T1087	T1088	T1089	T1090	T1091	T1092	T1093	T1094	T1095	T1096	T1097	T1098	T1099	T1100	T1101	T1102	T1103	T1104	T1105	T1106	T1107	T1108	T1109	T1110	T1111	T1112	T1113	T1114	T1115	T1116	T1117	T1118	T1119	T1120	T1121	T1122	T1123	T1124	T1125	T1126	T1127	T1128	T1129	T1130	T1131	T1132	T1133	T1134	T1135	T1136	T1137	T1138	T1139	T1140	T1141	T1142	T1143	T1144	T1145	T1146	T1147	T1148	T1149	T1150	T1151	T1152	T1153	T1154	T1155	T1156	T1157	T1158	T1159	T1160	T1161	T1162	T1163	T1164	T1165	T1166	T1167	T1168	T1169	T1170	T1171	T1172	T1173	T1174	T1175	T1176	T1177	T1178	T1179	T1180	T1181	T1182	T1183	T1184	T1185	T1186	T1187	T1188	T1189	T1190	T1191	T1192	T1193	T1194	T1195	T1196	T1197	T1198	T1199	T1200	T1201	T1202	T1203	T1204	T1205	T1206	T1207	T1208	T1209	T1210	T1211	T1212	T1213	T1214	T1215	T1216	T1217	T1218	T1219	T1220	T1221	T1222	T1223	T1224	T1225	T1226	T1227	T1228	T1229	T1230	T1231	T1232	T1233	T1234	T1235	T1236	T1237	T1238	T1239	T1240	T1241	T1242	T1243	T1244	T1245	T1246	T1247	T1248	T1249	T1250	T1251	T1252	T1253	T1254	T1255	T1256	T1257	T1258	T1259	T1260	T1261	T1262	T1263	T1264	T1265	T1266	T1267	T1268	T1269	T1270	T1271	T1272	T1273	T1274	T1275	T1276	T1277	T1278	T1279	T1280	T1281	T1282	T1283	T1284	T1285	T1286	T1287	T1288	T1289	T1290	T1291	T1292	T1293	T1294	T1295	T1296	T1297	T1298	T1299	T1300	T1301	T1302	T1303	T1304	T1305	T1306	T1307	T1308	T1309	T1310	T1311	T1312	T1313	T1314	T1315	T1316	T1317	T1318	T1319	T1320	T1321	T1322	T1323	T1324	T1325	T1326	T1327	T1328	T1329	T1330	T1331	T1332	T1333	T1334	T1335	T1336	T1337	T1338	T1339	T1340	T1341	T1342	T1343	T1344	T1345	T1346	T1347	T1348	T1349	T1350	T1351	T1352	T1353	T1354	T1355	T1356	T1357	T1358	T1359	T1360	T1361	T1362	T1363	T1364	T1365	T1366	T1367	T1368	T1369	T1370	T1371	T1372	T1373	T1374	T1375	T1376	T1377	T1378	T1379	T1380	T1381	T1382	T1383	T1384	T1385	T1386	T1387	T1388	T1389	T1390	T1391	T1392	T1393	T1394	T1395	T1396	T1397	T1398	T1399	T1400	T1401	T1402	T1403	T1404	T1405	T1406	T1407	T1408	T1409	T1410	T1411	T1412	T1413	T1414	T1415	T1416	T1417	T1418	T1419	T1420	T1421	T1422	T1423	T1424	T1425	T1426	T1427	T1428	T1429	T1430	T1431	T1432	T1433	T1434	T1435	T1436	T1437	T1438	T1439	T1440	T1441	T1442	T1443	T1444	T1445	T1446	T1447	T1448	T1449	T1450	T1451	T1452	T1453	T1454	T1455	T1456	T1457	T1458	T1459	T1460	T1461	T1462	T1463	T1464	T1465	T1466	T1467	T1468	T1469	T1470	T1471	T1472	T1473	T1474	T1475	T1476	T1477	T1478	T1479	T1480	T1481	T1482	T1483	T1484	T1485	T1486	T1487	T1488	T1489	T1490	T1491	T1492	T1493	T1494	T1495	T
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Tower Input Data

The main tower is a 3x guyed tower with an overall height of 345.00 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 5.00 ft at the top and tapered at the base.

An index plate is provided at the 3 sided -tower connection.

There is a 3 sided latticed pole with a face width of 2.50 ft.

This tower is designed using the TIA-222-G standard.

The following design criteria apply:

Tower is located in New London County, Connecticut.

Basic wind speed of 105 mph.

Structure Class II.

Exposure Category C.

Topographic Category 1.

Crest Height 0.00 ft.

Nominal ice thickness of 0.7500 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 latticed pole member design is 1.

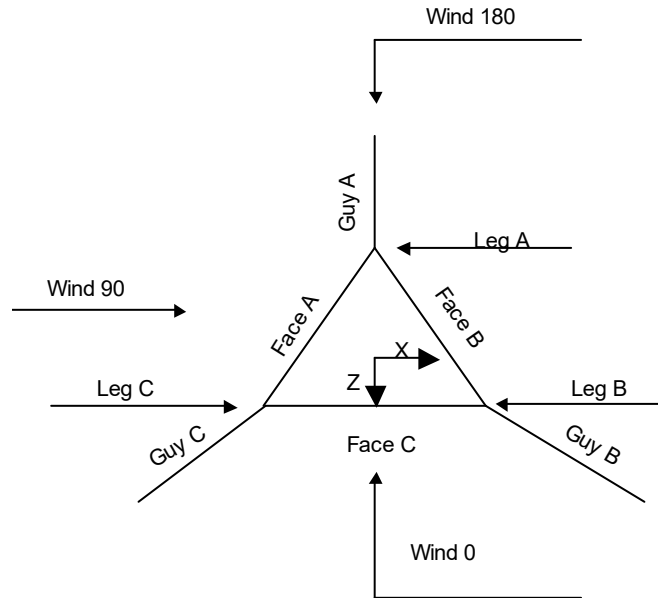
Safety factor used in guy design is 1.

Stress ratio used in tower member design is 1.

Local bending stresses due to climbing loads, feed line supports, and appurtenance mounts are not considered.

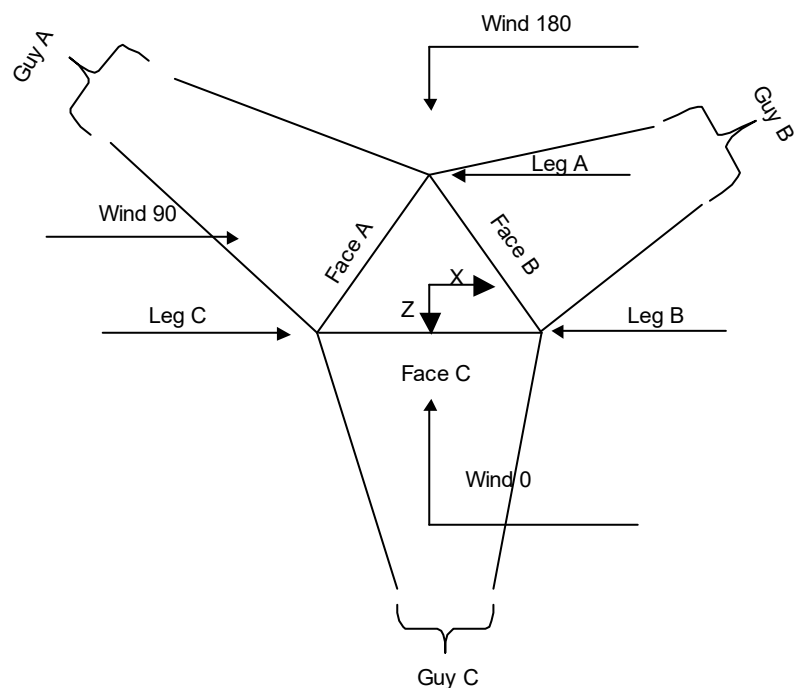
Options

Consider Moments - Legs	Distribute Leg Loads As Uniform	Use ASCE 10 X-Brace Ly Rules
Consider Moments - Horizontals	Assume Legs Pinned	√ Calculate Redundant Bracing Forces
Consider Moments - Diagonals	√ Assume Rigid Index Plate	Ignore Redundant Members in FEA
Use Moment Magnification	√ Use Clear Spans For Wind Area	√ SR Leg Bolts Resist Compression
√ Use Code Stress Ratios	√ Use Clear Spans For KL/r	All Leg Panels Have Same Allowable
√ Use Code Safety Factors - Guys	√ Retension Guys To Initial Tension	Offset Girt At Foundation
Escalate Ice	√ Bypass Mast Stability Checks	√ Consider Feed Line Torque
Always Use Max Kz	√ Use Azimuth Dish Coefficients	√ Include Angle Block Shear Check
Use Special Wind Profile	√ Project Wind Area of Appurt.	Use TIA-222-G Bracing Resist. Exemption
√ Include Bolts In Member Capacity	√ Autocalc Torque Arm Areas	Use TIA-222-G Tension Splice Exemption
Leg Bolts Are At Top Of Section	Add IBC .6D+W Combination	Poles
√ Secondary Horizontal Braces Leg	√ Sort Capacity Reports By Component	Include Shear-Torsion Interaction
Use Diamond Inner Bracing (4 Sided)	Triangulate Diamond Inner Bracing	Always Use Sub-Critical Flow
√ SR Members Have Cut Ends	Treat Feed Line Bundles As Cylinder	Use Top Mounted Sockets
SR Members Are Concentric	Ignore KL/ry For 60 Deg. Angle Legs	Pole Without Linear Attachments
		Pole With Shroud Or No Appurtenances
		Outside and Inside Corner Radii Are
		Known



Corner & Starmount Guyed Tower

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Face Guyed

3 Sided Latted Pole Section Geometry

Tower Section	Tower Elevation	Assembly Database	Description	Section Width	Number of Sections	Section Length
	ft			ft		ft
L1	345.00-330.00			2.50	1	15.00

3 Sided Latted Pole Section Geometry (cont'd)

Tower Section	Tower Elevation	Diagonal Spacing	Bracing Type	Has K Brace End Panels	Has Horizontals	Top Girt Offset	Bottom Girt Offset
	ft	ft				in	in
L1	345.00-330.00	1.40	CX Brace	No	No	0.0000	12.0000

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3 Sided Latticed Pole Section Geometry (cont'd)

Tower Elevation ft	Leg Type	Leg Size	Leg Grade	Diagonal Type	Diagonal Size	Diagonal Grade
L1 345.00-330.00	Solid Round	1 1/4	A572-50 (50 ksi)	Solid Round	1/2	A572-50 (50 ksi)

3 Sided Latticed Pole 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
L1 345.00-330.00	Solid Round	3/4	A572-50 (50 ksi)	Solid Round	3/4	A572-50 (50 ksi)

3 Sided Latticed Pole 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
L1 345.00-330.00	1	Solid Round	3/4	A572-50 (50 ksi)	Solid Round		A572-50 (50 ksi)

3 Sided Latticed Pole Section Geometry (cont'd)

Tower Elevation ft	Gusset Area (per face) ft ²	Gusset Thickness in	Gusset Grade	Adjust. Factor A _f	Adjust. Factor A _r	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals in	Double Angle Stitch Bolt Spacing Horizontals in	Double Angle Stitch Bolt Spacing Redundants in
L1 345.00-330.00	0.00	0.0000	A36 (36 ksi)	1	1	1	36.0000	36.0000	36.0000

3 Sided Latticed Pole Section Geometry (cont'd)

Tower Elevation ft	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	X Y	X Y	X Y	X Y	X Y	X Y
L1 345.00-330.00	No	No	1	0.325 0.325	0.65 0.65	0.65 0.65	0.65 0.65	0.65 0.65	0.65 0.65	1 1

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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.

3 Sided Latticed Pole 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
L1 345.00-330.00	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	0.75

Tower Section Geometry

Tower Section	Tower Elevation ft	Assembly Database	Description	Section Width ft	Number of Sections	Section Length ft
T1	330.00-327.72			5.00	1	2.28
T2	327.72-320.88			5.00	1	6.84
T3	320.88-320.00			5.00	1	0.88
T4	320.00-300.88			5.00	1	19.13
T5	300.88-300.00			5.00	1	0.88
T6	300.00-280.88			5.00	1	19.13
T7	280.88-280.00			5.00	1	0.88
T8	280.00-260.88			5.00	1	19.13
T9	260.88-260.00			5.00	1	0.88
T10	260.00-240.88			5.00	1	19.13
T11	240.88-240.00			5.00	1	0.88
T12	240.00-220.88			5.00	1	19.13
T13	220.88-220.00			5.00	1	0.88
T14	220.00-201.00			5.00	1	19.00
T15	201.00-200.00			5.00	1	1.00
T16	200.00-181.00			5.00	1	19.00
T17	181.00-180.00			5.00	1	1.00
T18	180.00-161.00			5.00	1	19.00
T19	161.00-160.00			5.00	1	1.00
T20	160.00-141.00			5.00	1	19.00
T21	141.00-140.00			5.00	1	1.00
T22	140.00-121.00			5.00	1	19.00
T23	121.00-120.00			5.00	1	1.00
T24	120.00-101.00			5.00	1	19.00
T25	101.00-100.00			5.00	1	1.00
T26	100.00-81.00			5.00	1	19.00
T27	81.00-80.00			5.00	1	1.00
T28	80.00-61.00			5.00	1	19.00
T29	61.00-60.00			5.00	1	1.00
T30	60.00-41.00			5.00	1	19.00
T31	41.00-40.00			5.00	1	1.00
T32	40.00-21.00			5.00	1	19.00
T33	21.00-20.00			5.00	1	1.00
T34	20.00-16.66			5.00	1	3.34
T35	16.66-14.33			5.00	1	2.33

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<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>
T36	14.33-12.00			5.00	1	2.33
T37	12.00-9.34			5.00	1	2.67
T38	9.34-6.67			5.00	1	2.67
T39	6.67-0.00			5.00	1	6.67

Tower Section Geometry (cont'd)

<i>Tower Section</i>	<i>Tower Elevation</i>	<i>Diagonal Spacing</i>	<i>Bracing Type</i>	<i>Has K Brace End Panels</i>	<i>Has Horizontal</i>	<i>Top Girt Offset</i>	<i>Bottom Girt Offset</i>
	<i>ft</i>	<i>ft</i>				<i>in</i>	<i>in</i>
T1	330.00-327.72	2.20	K Brace Down	No	Yes	0.0000	1.0000
T2	327.72-320.88	2.23	CX Brace	No	Yes	1.0000	1.0000
T3	320.88-320.00	0.71	K Brace Down	No	Yes	1.0000	1.0000
T4	320.00-300.88	2.37	CX Brace	No	No	1.0000	1.0000
T5	300.88-300.00	0.71	K Brace Down	No	Yes	1.0000	1.0000
T6	300.00-280.88	2.37	CX Brace	No	No	1.0000	1.0000
T7	280.88-280.00	0.71	K Brace Down	No	Yes	1.0000	1.0000
T8	280.00-260.88	2.37	CX Brace	No	No	1.0000	1.0000
T9	260.88-260.00	0.71	K Brace Down	No	Yes	1.0000	1.0000
T10	260.00-240.88	2.37	CX Brace	No	No	1.0000	1.0000
T11	240.88-240.00	0.71	K Brace Down	No	Yes	1.0000	1.0000
T12	240.00-220.88	2.37	CX Brace	No	No	1.0000	1.0000
T13	220.88-220.00	0.71	K Brace Down	No	Yes	1.0000	1.0000
T14	220.00-201.00	2.35	CX Brace	No	No	1.0000	1.0000
T15	201.00-200.00	0.83	K Brace Down	No	Yes	1.0000	1.0000
T16	200.00-181.00	2.35	CX Brace	No	No	1.0000	1.0000
T17	181.00-180.00	0.83	K Brace Down	No	Yes	1.0000	1.0000
T18	180.00-161.00	2.35	CX Brace	No	No	1.0000	1.0000
T19	161.00-160.00	0.83	K Brace Down	No	Yes	1.0000	1.0000
T20	160.00-141.00	2.35	CX Brace	No	No	1.0000	1.0000
T21	141.00-140.00	0.83	K Brace Down	No	Yes	1.0000	1.0000
T22	140.00-121.00	2.35	CX Brace	No	No	1.0000	1.0000
T23	121.00-120.00	0.83	K Brace Down	No	Yes	1.0000	1.0000
T24	120.00-101.00	2.35	CX Brace	No	No	1.0000	1.0000
T25	101.00-100.00	0.83	K Brace Down	No	Yes	1.0000	1.0000
T26	100.00-81.00	2.35	CX Brace	No	No	1.0000	1.0000
T27	81.00-80.00	0.83	K Brace Down	No	Yes	1.0000	1.0000
T28	80.00-61.00	2.35	CX Brace	No	No	1.0000	1.0000
T29	61.00-60.00	0.83	K Brace Down	No	Yes	1.0000	1.0000
T30	60.00-41.00	2.35	CX Brace	No	No	1.0000	1.0000
T31	41.00-40.00	0.83	K Brace Down	No	Yes	1.0000	1.0000
T32	40.00-21.00	2.35	CX Brace	No	No	1.0000	1.0000
T33	21.00-20.00	0.83	K Brace Down	No	Yes	1.0000	1.0000
T34	20.00-16.66	3.17	CX Brace	No	No	1.0000	1.0000
T35	16.66-14.33	2.16	CX Brace	No	Yes	1.0000	1.0000
T36	14.33-12.00	2.16	CX Brace	No	Yes	1.0000	1.0000
T37	12.00-9.34	2.50	K Brace Down	No	Yes	1.0000	1.0000
T38	9.34-6.67	2.50	K Brace Up	No	Yes	1.0000	1.0000
T39	6.67-0.00	2.79	CX Brace	No	Yes	1.0000	12.0000

Tower Section Geometry (cont'd)

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<i>Tower Elevation ft</i>	<i>Leg Type</i>	<i>Leg Size</i>	<i>Leg Grade</i>	<i>Diagonal Type</i>	<i>Diagonal Size</i>	<i>Diagonal Grade</i>
T1 330.00-327.72	Solid Round	2 1/4	A572-50 (50 ksi)	Solid Round	7/8	A572-50 (50 ksi)
T2 327.72-320.88	Solid Round	2 1/4	A572-50 (50 ksi)	Solid Round	7/8	A572-50 (50 ksi)
T3 320.88-320.00	Solid Round	2 1/4	A572-50 (50 ksi)	Solid Round	7/8	A572-50 (50 ksi)
T4 320.00-300.88	Solid Round	2 1/4	A572-50 (50 ksi)	Solid Round	7/8	A572-50 (50 ksi)
T5 300.88-300.00	Solid Round	2 1/4	A572-50 (50 ksi)	Solid Round	7/8	A572-50 (50 ksi)
T6 300.00-280.88	Solid Round	2 1/4	A572-50 (50 ksi)	Solid Round	7/8	A572-50 (50 ksi)
T7 280.88-280.00	Solid Round	2 1/4	A572-50 (50 ksi)	Solid Round	7/8	A572-50 (50 ksi)
T8 280.00-260.88	Solid Round	2 1/4	A572-50 (50 ksi)	Solid Round	1	A572-50 (50 ksi)
T9 260.88-260.00	Solid Round	2 1/4	A572-50 (50 ksi)	Solid Round	1	A572-50 (50 ksi)
T10 260.00-240.88	Solid Round	2 1/4	A572-50 (50 ksi)	Solid Round	1	A572-50 (50 ksi)
T11 240.88-240.00	Solid Round	2 1/4	A572-50 (50 ksi)	Solid Round	1	A572-50 (50 ksi)
T12 240.00-220.88	Solid Round	2 1/4	A572-50 (50 ksi)	Solid Round	1	A572-50 (50 ksi)
T13 220.88-220.00	Solid Round	2 1/4	A572-50 (50 ksi)	Solid Round	1	A572-50 (50 ksi)
T14 220.00-201.00	Solid Round	2 1/2	A572-50 (50 ksi)	Solid Round	1	A572-50 (50 ksi)
T15 201.00-200.00	Solid Round	2 1/2	A572-50 (50 ksi)	Solid Round	1	A572-50 (50 ksi)
T16 200.00-181.00	Solid Round	2 3/4	A572-50 (50 ksi)	Solid Round	1 1/4	A572-50 (50 ksi)
T17 181.00-180.00	Solid Round	2 3/4	A572-50 (50 ksi)	Solid Round	1 1/4	A572-50 (50 ksi)
T18 180.00-161.00	Solid Round	2 3/4	A572-50 (50 ksi)	Solid Round	1	A572-50 (50 ksi)
T19 161.00-160.00	Solid Round	2 3/4	A572-50 (50 ksi)	Solid Round	1	A572-50 (50 ksi)
T20 160.00-141.00	Solid Round	2 3/4	A572-50 (50 ksi)	Solid Round	1	A572-50 (50 ksi)
T21 141.00-140.00	Solid Round	2 3/4	A572-50 (50 ksi)	Solid Round	1	A572-50 (50 ksi)
T22 140.00-121.00	Solid Round	2 3/4	A572-50 (50 ksi)	Solid Round	1	A572-50 (50 ksi)
T23 121.00-120.00	Solid Round	2 3/4	A572-50 (50 ksi)	Solid Round	1	A572-50 (50 ksi)
T24 120.00-101.00	Solid Round	2 3/4	A572-50 (50 ksi)	Solid Round	1	A572-50 (50 ksi)
T25 101.00-100.00	Solid Round	2 3/4	A572-50 (50 ksi)	Solid Round	1	A572-50 (50 ksi)
T26 100.00-81.00	Solid Round	2 3/4	A572-50 (50 ksi)	Solid Round	1	A572-50 (50 ksi)
T27 81.00-80.00	Solid Round	2 3/4	A572-50 (50 ksi)	Solid Round	1	A572-50 (50 ksi)
T28 80.00-61.00	Solid Round	2 3/4	A572-50 (50 ksi)	Solid Round	1	A572-50 (50 ksi)
T29 61.00-60.00	Solid Round	2 3/4	A572-50 (50 ksi)	Solid Round	1	A572-50 (50 ksi)
T30 60.00-41.00	Solid Round	2 3/4	A572-50 (50 ksi)	Solid Round	1	A572-50 (50 ksi)

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<i>Tower Elevation ft</i>	<i>Leg Type</i>	<i>Leg Size</i>	<i>Leg Grade</i>	<i>Diagonal Type</i>	<i>Diagonal Size</i>	<i>Diagonal Grade</i>
T31 41.00-40.00	Solid Round	2 3/4	A572-50 (50 ksi)	Solid Round	1	A572-50 (50 ksi)
T32 40.00-21.00	Solid Round	2 3/4	A572-50 (50 ksi)	Solid Round	1	A572-50 (50 ksi)
T33 21.00-20.00	Solid Round	2 3/4	A572-50 (50 ksi)	Solid Round	1	A572-50 (50 ksi)
T34 20.00-16.66	Solid Round	2 3/4	A572-50 (50 ksi)	Solid Round	1 1/4	A572-50 (50 ksi)
T35 16.66-14.33	Solid Round	2 3/4	A572-50 (50 ksi)	Solid Round	1 1/4	A572-50 (50 ksi)
T36 14.33-12.00	Solid Round	2 3/4	A572-50 (50 ksi)	Solid Round	1 1/4	A572-50 (50 ksi)
T37 12.00-9.34	Solid Round	2 3/4	A572-50 (50 ksi)	Solid Round	1 1/4	A572-50 (50 ksi)
T38 9.34-6.67	Solid Round	2 3/4	A572-50 (50 ksi)	Solid Round	1 1/4	A572-50 (50 ksi)
T39 6.67-0.00	Solid Round	2 3/4	A572-50 (50 ksi)	Solid Round	1 1/4	A572-50 (50 ksi)

Tower Section Geometry (cont'd)

<i>Tower Elevation ft</i>	<i>Top Girt Type</i>	<i>Top Girt Size</i>	<i>Top Girt Grade</i>	<i>Bottom Girt Type</i>	<i>Bottom Girt Size</i>	<i>Bottom Girt Grade</i>
T4 320.00-300.88	Solid Round	1	A572-50 (50 ksi)	Flat Bar		A36 (36 ksi)
T6 300.00-280.88	Solid Round	1	A572-50 (50 ksi)	Flat Bar		A36 (36 ksi)
T8 280.00-260.88	Solid Round	1	A572-50 (50 ksi)	Flat Bar		A36 (36 ksi)
T10 260.00-240.88	Solid Round	1	A572-50 (50 ksi)	Flat Bar		A36 (36 ksi)
T12 240.00-220.88	Solid Round	1	A572-50 (50 ksi)	Flat Bar		A36 (36 ksi)
T14 220.00-201.00	Solid Round	1 1/4	A572-50 (50 ksi)	Flat Bar		A36 (36 ksi)
T16 200.00-181.00	Solid Round	1 1/4	A572-50 (50 ksi)	Flat Bar		A36 (36 ksi)
T18 180.00-161.00	Solid Round	1 1/4	A572-50 (50 ksi)	Flat Bar		A36 (36 ksi)
T20 160.00-141.00	Solid Round	1 1/4	A572-50 (50 ksi)	Flat Bar		A36 (36 ksi)
T22 140.00-121.00	Solid Round	1 1/4	A572-50 (50 ksi)	Flat Bar		A36 (36 ksi)
T24 120.00-101.00	Solid Round	1 1/4	A572-50 (50 ksi)	Flat Bar		A36 (36 ksi)
T26 100.00-81.00	Solid Round	1 1/4	A572-50 (50 ksi)	Flat Bar		A36 (36 ksi)
T28 80.00-61.00	Solid Round	1 1/4	A572-50 (50 ksi)	Flat Bar		A36 (36 ksi)
T30 60.00-41.00	Solid Round	1 1/4	A572-50 (50 ksi)	Flat Bar		A36 (36 ksi)
T32 40.00-21.00	Solid Round	1 1/4	A572-50 (50 ksi)	Flat Bar		A36 (36 ksi)
T34 20.00-16.66	Solid Round	1 1/4	A572-50 (50 ksi)	Flat Bar		A36 (36 ksi)

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<i>Tower Elevation ft</i>	<i>Top Girt Type</i>	<i>Top Girt Size</i>	<i>Top Girt Grade</i>	<i>Bottom Girt Type</i>	<i>Bottom Girt Size</i>	<i>Bottom Girt Grade</i>
T39 6.67-0.00	Flat Bar		A572-50 (50 ksi)	Flat Bar	6 x 3/4	A572-50 (50 ksi)

Tower Section Geometry (cont'd)

<i>Tower Elevation ft</i>	<i>No. of Mid Girts</i>	<i>Mid Girt Type</i>	<i>Mid Girt Size</i>	<i>Mid Girt Grade</i>	<i>Horizontal Type</i>	<i>Horizontal Size</i>	<i>Horizontal Grade</i>
T1 330.00-327.72	None	Flat Bar		A36 (36 ksi)	Flat Bar	6 x 3/4	A572-50 (50 ksi)
T2 327.72-320.88	None	Flat Bar		A36 (36 ksi)	Solid Round	1	A572-50 (50 ksi)
T3 320.88-320.00	None	Flat Bar		A36 (36 ksi)	Solid Round	1	A572-50 (50 ksi)
T4 320.00-300.88	1	Solid Round	1	A572-50 (50 ksi)	Solid Round		A572-50 (50 ksi)
T5 300.88-300.00	None	Flat Bar		A36 (36 ksi)	Solid Round	1	A572-50 (50 ksi)
T6 300.00-280.88	1	Solid Round	1	A572-50 (50 ksi)	Solid Round		A572-50 (50 ksi)
T7 280.88-280.00	None	Flat Bar		A36 (36 ksi)	Solid Round	1	A572-50 (50 ksi)
T8 280.00-260.88	1	Solid Round	1	A572-50 (50 ksi)	Solid Round		A572-50 (50 ksi)
T9 260.88-260.00	None	Flat Bar		A36 (36 ksi)	Solid Round	1	A572-50 (50 ksi)
T10 260.00-240.88	1	Solid Round	1	A572-50 (50 ksi)	Solid Round		A572-50 (50 ksi)
T11 240.88-240.00	None	Flat Bar		A36 (36 ksi)	Solid Round	1	A572-50 (50 ksi)
T12 240.00-220.88	1	Solid Round	1	A572-50 (50 ksi)	Solid Round		A572-50 (50 ksi)
T13 220.88-220.00	None	Flat Bar		A36 (36 ksi)	Solid Round	1	A572-50 (50 ksi)
T14 220.00-201.00	1	Solid Round	1 1/4	A572-50 (50 ksi)	Solid Round		A572-50 (50 ksi)
T15 201.00-200.00	None	Flat Bar		A36 (36 ksi)	Solid Round	1 1/4	A572-50 (50 ksi)
T16 200.00-181.00	1	Solid Round	1 1/4	A572-50 (50 ksi)	Solid Round		A572-50 (50 ksi)
T17 181.00-180.00	None	Flat Bar		A36 (36 ksi)	Solid Round	1 1/4	A572-50 (50 ksi)
T18 180.00-161.00	1	Solid Round	1 1/4	A572-50 (50 ksi)	Solid Round		A572-50 (50 ksi)
T19 161.00-160.00	None	Flat Bar		A36 (36 ksi)	Solid Round	1 1/4	A572-50 (50 ksi)
T20 160.00-141.00	1	Solid Round	1 1/4	A572-50 (50 ksi)	Solid Round		A572-50 (50 ksi)
T21 141.00-140.00	None	Flat Bar		A36 (36 ksi)	Solid Round	1 1/4	A572-50 (50 ksi)
T22 140.00-121.00	1	Solid Round	1 1/4	A572-50 (50 ksi)	Solid Round		A572-50 (50 ksi)
T23 121.00-120.00	None	Flat Bar		A36 (36 ksi)	Solid Round	1 1/4	A572-50 (50 ksi)
T24	1	Solid Round	1 1/4	A572-50	Solid Round		A572-50

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<i>Tower Elevation ft</i>	<i>No. of Mid Girts</i>	<i>Mid Girt Type</i>	<i>Mid Girt Size</i>	<i>Mid Girt Grade</i>	<i>Horizontal Type</i>	<i>Horizontal Size</i>	<i>Horizontal Grade</i>
120.00-101.00 T25	None	Flat Bar		(50 ksi) A36	Solid Round	1 1/4	(50 ksi) A572-50
101.00-100.00 T26 100.00-81.00	1	Solid Round	1 1/4	(36 ksi) A572-50	Solid Round		(50 ksi) A572-50
T27 81.00-80.00	None	Flat Bar		(50 ksi) A36	Solid Round	1 1/4	(50 ksi) A572-50
T28 80.00-61.00	1	Solid Round	1 1/4	(36 ksi) A572-50	Solid Round		(50 ksi) A572-50
T29 61.00-60.00	None	Flat Bar		(50 ksi) A36	Solid Round	1 1/4	(50 ksi) A572-50
T30 60.00-41.00	1	Solid Round	1 1/4	(36 ksi) A572-50	Solid Round		(50 ksi) A572-50
T31 41.00-40.00	None	Flat Bar		(50 ksi) A36	Solid Round	1 1/4	(50 ksi) A572-50
T32 40.00-21.00	1	Solid Round	1 1/4	(36 ksi) A572-50	Solid Round		(50 ksi) A572-50
T33 21.00-20.00	None	Flat Bar		(50 ksi) A36	Solid Round	1 1/4	(50 ksi) A572-50
T35 16.66-14.33	None	Flat Bar		(36 ksi) A36	Solid Round	7/8	(50 ksi) A572-50
T36 14.33-12.00	None	Flat Bar		(36 ksi) A36	Solid Round	7/8	(50 ksi) A572-50
T37 12.00-9.34	None	Flat Bar		(36 ksi) A36	Flat Bar	6 x 3/4	(50 ksi) A572-50
T38 9.34-6.67	None	Flat Bar		(36 ksi) A36	Single Angle	L4x4x3/8	(50 ksi) A36
T39 6.67-0.00	1	Flat Bar	6 x 3/4	(36 ksi) A572-50	Flat Bar		(50 ksi) A572-50

Tower Section Geometry (cont'd)

<i>Tower Elevation ft</i>	<i>Secondary Horizontal Type</i>	<i>Secondary Horizontal Size</i>	<i>Secondary Horizontal Grade</i>	<i>Inner Bracing Type</i>	<i>Inner Bracing Size</i>	<i>Inner Bracing Grade</i>
T1 330.00-327.72	Solid Round	1	A572-50 (50 ksi)	Solid Round		A572-50 (50 ksi)
T37 12.00-9.34	Solid Round	7/8	A572-50 (50 ksi)	Solid Round		A572-50 (50 ksi)
T38 9.34-6.67	Solid Round	7/8	A572-50 (50 ksi)	Solid Round		A572-50 (50 ksi)
T39 6.67-0.00	Solid Round	7/8	A572-50 (50 ksi)	Solid Round		A572-50 (50 ksi)

Tower Section Geometry (cont'd)

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<i>Tower Elevation</i>	<i>Gusset Area (per face)</i>	<i>Gusset Thickness</i>	<i>Gusset Grade</i>	<i>Adjust. Factor A_f</i>	<i>Adjust. Factor A_r</i>	<i>Weight Mult.</i>	<i>Double Angle Stitch Bolt Spacing Diagonals in</i>	<i>Double Angle Stitch Bolt Spacing Horizontal in</i>	<i>Double Angle Stitch Bolt Spacing Redundants in</i>
<i>ft</i>	<i>ft²</i>	<i>in</i>							
T1	0.00	0.0000	A36	1	1	1	36.0000	36.0000	36.0000
330.00-327.72			(36 ksi)						
T2	0.00	0.0000	A36	1	1	1	36.0000	36.0000	36.0000
327.72-320.88			(36 ksi)						
T3	0.00	0.0000	A36	1	1	1	36.0000	36.0000	36.0000
320.88-320.00			(36 ksi)						
T4	0.00	0.0000	A36	1	1	1	36.0000	36.0000	36.0000
320.00-300.88			(36 ksi)						
T5	0.00	0.0000	A36	1	1	1	36.0000	36.0000	36.0000
300.88-300.00			(36 ksi)						
T6	0.00	0.0000	A36	1	1	1	36.0000	36.0000	36.0000
300.00-280.88			(36 ksi)						
T7	0.00	0.0000	A36	1	1	1	36.0000	36.0000	36.0000
280.88-280.00			(36 ksi)						
T8	0.00	0.0000	A36	1	1	1	36.0000	36.0000	36.0000
280.00-260.88			(36 ksi)						
T9	0.00	0.0000	A36	1	1	1	36.0000	36.0000	36.0000
260.88-260.00			(36 ksi)						
T10	0.00	0.0000	A36	1	1	1	36.0000	36.0000	36.0000
260.00-240.88			(36 ksi)						
T11	0.00	0.0000	A36	1	1	1	36.0000	36.0000	36.0000
240.88-240.00			(36 ksi)						
T12	0.00	0.0000	A36	1	1	1	36.0000	36.0000	36.0000
240.00-220.88			(36 ksi)						
T13	0.00	0.0000	A36	1	1	1	36.0000	36.0000	36.0000
220.88-220.00			(36 ksi)						
T14	0.00	0.0000	A36	1	1	1	36.0000	36.0000	36.0000
220.00-201.00			(36 ksi)						
T15	0.00	0.0000	A36	1	1	1	36.0000	36.0000	36.0000
201.00-200.00			(36 ksi)						
T16	0.00	0.0000	A36	1	1	1	36.0000	36.0000	36.0000
200.00-181.00			(36 ksi)						
T17	0.00	0.0000	A36	1	1	1	36.0000	36.0000	36.0000
181.00-180.00			(36 ksi)						
T18	0.00	0.0000	A36	1	1	1	36.0000	36.0000	36.0000
180.00-161.00			(36 ksi)						
T19	0.00	0.0000	A36	1	1	1	36.0000	36.0000	36.0000
161.00-160.00			(36 ksi)						
T20	0.00	0.0000	A36	1	1	1	36.0000	36.0000	36.0000
160.00-141.00			(36 ksi)						
T21	0.00	0.0000	A36	1	1	1	36.0000	36.0000	36.0000
141.00-140.00			(36 ksi)						
T22	0.00	0.0000	A36	1	1	1	36.0000	36.0000	36.0000
140.00-121.00			(36 ksi)						
T23	0.00	0.0000	A36	1	1	1	36.0000	36.0000	36.0000
121.00-120.00			(36 ksi)						
T24	0.00	0.0000	A36	1	1	1	36.0000	36.0000	36.0000
120.00-101.00			(36 ksi)						
T25	0.00	0.0000	A36	1	1	1	36.0000	36.0000	36.0000
101.00-100.00			(36 ksi)						
T26	0.00	0.0000	A36	1	1	1	36.0000	36.0000	36.0000
100.00-81.00			(36 ksi)						
T27	0.00	0.0000	A36	1	1	1	36.0000	36.0000	36.0000
81.00-80.00			(36 ksi)						
T28	0.00	0.0000	A36	1	1	1	36.0000	36.0000	36.0000
80.00-61.00			(36 ksi)						
T29	0.00	0.0000	A36	1	1	1	36.0000	36.0000	36.0000
61.00-60.00			(36 ksi)						
T30	0.00	0.0000	A36	1	1	1	36.0000	36.0000	36.0000

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<i>Tower Elevation</i>	<i>Gusset Area (per face)</i>	<i>Gusset Thickness</i>	<i>Gusset Grade</i>	<i>Adjust. Factor A_f</i>	<i>Adjust. Factor A_r</i>	<i>Weight Mult.</i>	<i>Double Angle Stitch Bolt Spacing Diagonals in</i>	<i>Double Angle Stitch Bolt Spacing Horizontals in</i>	<i>Double Angle Stitch Bolt Spacing Redundants in</i>
<i>ft</i>	<i>ft²</i>	<i>in</i>							
60.00-41.00			(36 ksi)						
T31	0.00	0.0000	A36	1	1	1	36.0000	36.0000	36.0000
41.00-40.00			(36 ksi)						
T32	0.00	0.0000	A36	1	1	1	36.0000	36.0000	36.0000
40.00-21.00			(36 ksi)						
T33	0.00	0.0000	A36	1	1	1	36.0000	36.0000	36.0000
21.00-20.00			(36 ksi)						
T34	0.00	0.0000	A36	1	1	1	36.0000	36.0000	36.0000
20.00-16.66			(36 ksi)						
T35	0.00	0.0000	A36	1	1	1	36.0000	36.0000	36.0000
16.66-14.33			(36 ksi)						
T36	0.00	0.0000	A36	1	1	1	36.0000	36.0000	36.0000
14.33-12.00			(36 ksi)						
T37 12.00-9.34	0.00	0.0000	A36	1	1	1	36.0000	36.0000	36.0000
			(36 ksi)						
T38 9.34-6.67	0.00	0.0000	A36	1	1	1	36.0000	36.0000	36.0000
			(36 ksi)						
T39 6.67-0.00	0.00	0.0000	A36	1	1	1	36.0000	36.0000	36.0000
			(36 ksi)						

Tower Section Geometry (cont'd)

<i>Tower Elevation</i>	<i>Calc K Single Angles</i>	<i>Calc K Solid Rounds</i>	<i>Legs</i>	<i>K Factors¹</i>						
				<i>X Brace Diags</i>	<i>K Brace Diags</i>	<i>Single Diags</i>	<i>Girts</i>	<i>Horiz.</i>	<i>Sec. Horiz.</i>	<i>Inner Brace</i>
				<i>X Y</i>	<i>X Y</i>	<i>X Y</i>	<i>X Y</i>	<i>X Y</i>	<i>X Y</i>	<i>X Y</i>
<i>ft</i>										
T1	No	No	1	0.325	0.65	0.65	0.65	0.65	0.65	1
330.00-327.72				0.325	0.65	0.65	0.65	0.65	0.65	1
T2	No	No	1	0.325	0.65	0.65	0.65	0.65	0.65	1
327.72-320.88				0.325	0.65	0.65	0.65	0.65	0.65	1
T3	No	No	1	0.65	0.65	0.65	0.65	0.65	0.65	1
320.88-320.00				0.65	0.65	0.65	0.65	0.65	0.65	1
T4	No	No	1	0.325	0.65	0.65	0.65	0.65	0.65	1
320.00-300.88				0.325	0.65	0.65	0.65	0.65	0.65	1
T5	No	No	1	0.65	0.65	0.65	0.65	0.65	0.65	1
300.88-300.00				0.65	0.65	0.65	0.65	0.65	0.65	1
T6	No	No	1	0.325	0.65	0.65	0.65	0.65	0.65	1
300.00-280.88				0.325	0.65	0.65	0.65	0.65	0.65	1
T7	No	No	1	0.65	0.65	0.65	0.65	0.65	0.65	1
280.88-280.00				0.65	0.65	0.65	0.65	0.65	0.65	1
T8	No	No	1	0.325	0.65	0.65	0.65	0.65	0.65	1
280.00-260.88				0.325	0.65	0.65	0.65	0.65	0.65	1
T9	No	No	1	0.65	0.65	0.65	0.65	0.65	0.65	1
260.88-260.00				0.65	0.65	0.65	0.65	0.65	0.65	1
T10	No	No	1	0.325	0.65	0.65	0.65	0.65	0.65	1
260.00-240.88				0.325	0.65	0.65	0.65	0.65	0.65	1
T11	No	No	1	0.65	0.65	0.65	0.65	0.65	0.65	1
240.88-240.00				0.65	0.65	0.65	0.65	0.65	0.65	1
T12	No	No	1	0.325	0.65	0.65	0.65	0.65	0.65	1
240.00-220.88				0.325	0.65	0.65	0.65	0.65	0.65	1
T13	No	No	1	0.65	0.65	0.65	0.65	0.65	0.65	1
220.88-220.00				0.65	0.65	0.65	0.65	0.65	0.65	1
T14	No	No	1	0.325	0.65	0.65	0.65	0.65	0.65	1

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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
220.00-201.00				0.325	0.65	0.65	0.65	0.65	0.65	1
T15	No	No	1	0.65	0.65	0.65	0.65	0.65	0.65	1
201.00-200.00				0.65	0.65	0.65	0.65	0.65	0.65	1
T16	No	No	1	0.325	0.65	0.65	0.65	0.65	0.65	1
200.00-181.00				0.325	0.65	0.65	0.65	0.65	0.65	1
T17	No	No	1	0.65	0.65	0.65	0.65	0.65	0.65	1
181.00-180.00				0.65	0.65	0.65	0.65	0.65	0.65	1
T18	No	No	1	0.325	0.65	0.65	0.65	0.65	0.65	1
180.00-161.00				0.325	0.65	0.65	0.65	0.65	0.65	1
T19	No	No	1	0.65	0.65	0.65	0.65	0.65	0.65	1
161.00-160.00				0.65	0.65	0.65	0.65	0.65	0.65	1
T20	No	No	1	0.325	0.65	0.65	0.65	0.65	0.65	1
160.00-141.00				0.325	0.65	0.65	0.65	0.65	0.65	1
T21	No	No	1	0.65	0.65	0.65	0.65	0.65	0.65	1
141.00-140.00				0.65	0.65	0.65	0.65	0.65	0.65	1
T22	No	No	1	0.325	0.65	0.65	0.65	0.65	0.65	1
140.00-121.00				0.325	0.65	0.65	0.65	0.65	0.65	1
T23	No	No	1	0.65	0.65	0.65	0.65	0.65	0.65	1
121.00-120.00				0.65	0.65	0.65	0.65	0.65	0.65	1
T24	No	No	1	0.325	0.65	0.65	0.65	0.65	0.65	1
120.00-101.00				0.325	0.65	0.65	0.65	0.65	0.65	1
T25	No	No	1	0.65	0.65	0.65	0.65	0.65	0.65	1
101.00-100.00				0.65	0.65	0.65	0.65	0.65	0.65	1
T26	No	No	1	0.325	0.65	0.65	0.65	0.65	0.65	1
100.00-81.00				0.325	0.65	0.65	0.65	0.65	0.65	1
T27	No	No	1	0.65	0.65	0.65	0.65	0.65	0.65	1
81.00-80.00				0.65	0.65	0.65	0.65	0.65	0.65	1
T28	No	No	1	0.325	0.65	0.65	0.65	0.65	0.65	1
80.00-61.00				0.325	0.65	0.65	0.65	0.65	0.65	1
T29	No	No	1	0.65	0.65	0.65	0.65	0.65	0.65	1
61.00-60.00				0.65	0.65	0.65	0.65	0.65	0.65	1
T30	No	No	1	0.325	0.65	0.65	0.65	0.65	0.65	1
60.00-41.00				0.325	0.65	0.65	0.65	0.65	0.65	1
T31	No	No	1	0.65	0.65	0.65	0.65	0.65	0.65	1
41.00-40.00				0.65	0.65	0.65	0.65	0.65	0.65	1
T32	No	No	1	0.325	0.65	0.65	0.65	0.65	0.65	1
40.00-21.00				0.325	0.65	0.65	0.65	0.65	0.65	1
T33	No	No	1	0.65	0.65	0.65	0.65	0.65	0.65	1
21.00-20.00				0.65	0.65	0.65	0.65	0.65	0.65	1
T34	No	No	1	0.325	0.65	0.65	0.65	0.65	0.65	1
20.00-16.66				0.325	0.65	0.65	0.65	0.65	0.65	1
T35	No	No	1	0.325	0.65	0.65	0.65	0.65	0.65	1
16.66-14.33				0.325	0.65	0.65	0.65	0.65	0.65	1
T36	No	No	1	0.325	0.65	0.65	0.65	0.65	0.65	1
14.33-12.00				0.325	0.65	0.65	0.65	0.65	0.65	1
T37	No	No	1	0.65	0.325	0.325	0.65	0.325	0.2	1
12.00-9.34				0.65	0.65	0.65	0.65	0.65	0.2	1
T38 9.34-6.67	No	No	1	0.65	0.325	0.325	0.65	0.325	0.2	1
				0.65	0.65	0.65	0.65	0.65	0.2	1
T39 6.67-0.00	No	No	1	0.325	0.325	0.325	0.65	0.65	0.325	1
				0.325	0.65	0.65	0.65	0.65	0.65	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.

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Guy Data

Guy Elevation	Guy Grade	Guy Size	Initial Tension	%	Guy Modulus	Guy Weight	L_u	Anchor Radius	Anchor Azimuth Adj.	Anchor Elevation	End Fitting Efficiency
ft			K		ksi	plf	ft	ft	°	ft	%
330	BS	A 11/16	5.80	10%	24000	0.990	371.28	200.00	0.000	15.00	100%
		B 11/16	5.80	10%	24000	0.990	416.88	205.00	0.000	-35.00	100%
		C 11/16	5.80	10%	24000	0.990	382.40	205.00	0.000	5.00	100%
297.547	BS	A 9/16	3.80	10%	24000	0.660	344.23	200.00	0.000	15.00	100%
		B 9/16	3.80	10%	24000	0.660	388.83	205.00	0.000	-35.00	100%
		C 9/16	3.80	10%	24000	0.660	355.29	205.00	0.000	5.00	100%
270.438	BS	A 13/16	8.00	10%	24000	1.390	322.39	200.00	0.000	15.00	100%
		B 13/16	8.00	10%	24000	1.390	365.96	205.00	0.000	-35.00	100%
		C 13/16	8.00	10%	24000	1.390	333.36	205.00	0.000	5.00	100%
177.25	BS	A 15/16	10.80	10%	24000	1.850	255.57	200.00	0.000	15.00	100%
		B 15/16	10.80	10%	24000	1.850	293.27	205.00	0.000	-35.00	100%
		C 15/16	10.80	10%	24000	1.850	265.81	205.00	0.000	5.00	100%
99.9167	BS	A 15/16	10.80	10%	24000	1.850	214.45	200.00	0.000	15.00	100%
		B 15/16	10.80	10%	24000	1.850	242.81	205.00	0.000	-35.00	100%
		C 15/16	10.80	10%	24000	1.850	223.11	205.00	0.000	5.00	100%

Guy Data(cont'd)

Guy Elevation	Mount Type	Torque-Arm Spread	Torque-Arm Leg Angle	Torque-Arm Style	Torque-Arm Grade	Torque-Arm Type	Torque-Arm Size
ft		ft	°				
330	Corner						
297.547	Corner						
270.438	Corner						
177.25	Torque Arm	8.00	30.000	Wing	A36 (36 ksi)	Double Equal Angle	2L4x4x3/8
99.9167	Corner						

Guy Data (cont'd)

Guy Elevation	Diagonal Grade	Diagonal Type	Upper Diagonal Size	Lower Diagonal Size	Is Strap.	Pull-Off Grade	Pull-Off Type	Pull-Off Size
ft								
330.00	A572-50 (50 ksi)	Solid Round				A572-50 (50 ksi)	Pipe	
297.55	A572-50 (50 ksi)	Solid Round				A572-50 (50 ksi)	Pipe	
270.44	A572-50 (50 ksi)	Solid Round				A572-50 (50 ksi)	Pipe	
177.25	A572-50 (50 ksi)	Solid Round				A572-50 (50 ksi)	Pipe	
99.92	A572-50 (50 ksi)	Solid Round				A572-50 (50 ksi)	Pipe	

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Guy Data (cont'd)

Guy Elevation	Cable Weight A	Cable Weight B	Cable Weight C	Cable Weight D	Tower Intercept A	Tower Intercept B	Tower Intercept C	Tower Intercept D
ft	K	K	K	K	ft	ft	ft	ft
330	0.37	0.41	0.38		11.47	14.40	12.16	
297.547	0.23	0.26	0.23		5.8 sec/pulse 10.05	6.6 sec/pulse 12.77	6.0 sec/pulse 10.70	
270.438	0.45	0.51	0.46		5.5 sec/pulse 8.84	6.2 sec/pulse 11.35	5.6 sec/pulse 9.45	
177.25	0.47	0.54	0.49		5.1 sec/pulse 5.52	5.8 sec/pulse 7.24	5.3 sec/pulse 5.97	
99.9167	0.40	0.45	0.41		4.1 sec/pulse 3.91	4.6 sec/pulse 5.00	4.2 sec/pulse 4.23	
					3.4 sec/pulse	3.9 sec/pulse	3.6 sec/pulse	

Guy Data (cont'd)

Guy Elevation ft	Calc K Single Angles	Calc K Solid Rounds	Torque Arm		Pull Off		Diagonal	
			K _x	K _y	K _x	K _y	K _x	K _y
330	No	No			1	1	1	1
297.547	No	No			1	1	1	1
270.438	No	No			1	1	1	1
177.25	No	No	0.75	0.75	1	1	1	1
99.9167	No	No			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
330	0.6250	0	0.0000	0.75	0.6250	0	0.0000	0.75	0.6250	0	0.0000	0.75
	A325N				A325N				A325N			
297.547	0.6250	0	0.0000	0.75	0.8750	0	0.0000	0.75	0.6250	0	0.0000	0.75
	A325N				A325N				A325N			
270.438	0.6250	0	0.0000	0.75	0.8750	0	0.0000	0.75	0.6250	0	0.0000	0.75
	A325N				A325N				A325N			
177.25	1.0000	4	0.0000	1	0.8750	0	0.0000	0.75	0.6250	0	0.0000	0.75
	A325N				A325N				A325N			
99.9167	0.6250	0	0.0000	0.75	0.8750	0	0.0000	0.75	0.6250	0	0.0000	0.75
	A325N				A325N				A325N			

Guy Pressures

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Guy Elevation	Guy Location	z	q _z	q _z Ice	Ice Thickness
ft		ft	psf	psf	in
330	A	172.50	34	8	1.7698
	B	147.50	33	7	1.7423
	C	167.50	34	8	1.7646
297.547	A	156.27	33	8	1.7524
	B	131.27	32	7	1.7221
	C	151.27	33	8	1.7467
270.438	A	142.72	33	7	1.7366
	B	117.72	31	7	1.7034
	C	137.72	32	7	1.7304
177.25	A	96.13	30	7	1.6693
	B	71.13	28	6	1.6197
	C	91.13	30	7	1.6604
99.9167	A	57.46	27	6	1.5855
	B	32.46	24	5	1.4975
	C	52.46	27	6	1.5712

Guy-Mast Forces (Excluding Wind) - No Ice

Guy Elevation	Guy Location	Chord Angle	Guy Tension Top Bottom K	F _x	F _y	F _z	M _x	M _y	M _z
ft		°		K	K	K	kip-ft	kip-ft	kip-ft
330	A	57.963	6.11	0.00	5.23	-3.16	-15.10	0.00	0.00
	B	61.025	6.16	2.51	5.44	1.45	7.85	0.00	-13.60
	C	58.123	6.12	-2.73	5.25	1.57	7.58	-0.00	13.13
			5.80						
			Sum:	-0.22	15.92	-0.14	0.32	0.00	-0.47
297.547	A	55.099	3.99	0.00	3.31	-2.23	-9.54	0.00	0.00
	B	58.710	4.02	1.76	3.47	1.01	5.01	0.00	-8.67
	C	55.360	3.99	-1.92	3.32	1.11	4.80	-0.00	8.31
			3.80						
			Sum:	-0.16	10.10	-0.10	0.26	0.00	-0.37
270.438	A	52.344	8.35	0.00	6.70	-4.99	-19.33	0.00	0.00
	B	56.507	8.42	3.92	7.10	2.27	10.25	0.00	-17.76
	C	52.713	8.37	-4.29	6.74	2.48	9.73	-0.00	16.86
			8.00						
			Sum:	-0.37	20.54	-0.25	0.65	0.00	-0.90
177.25	A	39.371	11.10	-0.17	7.18	-8.46	-16.59	34.24	-28.73
			10.80						
	A	39.371	11.10	0.17	7.18	-8.46	-16.59	-34.24	28.73
			10.80						
	B	46.314	11.19	6.65	8.22	3.67	37.98	30.71	0.00
			10.80						
	B	46.314	11.19	6.50	8.22	3.93	-18.99	-30.71	-32.89
			10.80						
	C	40.353	11.12	-7.15	7.34	4.32	-16.95	33.77	29.37
			10.80						
	C	40.353	11.12	-7.31	7.34	4.03	33.91	-33.77	0.00
			10.80						
			Sum:	-1.31	45.49	-0.98	2.77	0.00	-3.52
99.9167	A	23.306	10.96	0.00	4.50	-9.99	-13.00	0.00	0.00

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Guy Elevation	Guy Location	Chord Angle	Guy Tension Top Bottom K	F _x	F _y	F _z	M _x	M _y	M _z
ft		°		K	K	K	kip-ft	kip-ft	kip-ft
			10.80						
	B	33.724	11.05	7.87	6.29	4.54	9.08	0.00	-15.72
			10.80						
	C	25.156	10.98	-8.53	4.83	4.93	6.98	-0.00	12.09
			10.80						
			Sum:	-0.67	15.63	-0.52	3.06	0.00	-3.64

Guy-Mast Forces (Excluding Wind) - Ice

Guy Elevation	Guy Location	Chord Angle	Guy Tension Top Bottom K	F _x	F _y	F _z	M _x	M _y	M _z
ft		°		K	K	K	kip-ft	kip-ft	kip-ft
330	A	57.963	12.30	0.00	10.75	-5.98	-31.04	0.00	0.00
			10.32						
	B	61.025	12.46	4.74	11.20	2.73	16.17	0.00	-28.00
			10.22						
	C	58.123	12.42	-5.19	10.87	3.00	15.69	-0.00	27.18
			10.38						
			Sum:	-0.46	32.83	-0.24	0.82	0.00	-0.82
297.547	A	55.099	9.25	0.00	7.90	-4.81	-22.80	0.00	0.00
			7.66						
	B	58.710	9.37	3.78	8.29	2.18	11.96	0.00	-20.72
			7.55						
	C	55.360	9.34	-4.18	8.00	2.41	11.55	-0.00	20.01
			7.71						
			Sum:	-0.39	24.19	-0.22	0.72	0.00	-0.71
270.438	A	52.344	15.18	0.00	12.43	-8.73	-35.87	0.00	0.00
			13.45						
	B	56.507	15.34	6.83	13.16	3.94	18.99	0.00	-32.89
			13.32						
	C	52.713	15.30	-7.54	12.58	4.35	18.16	-0.00	31.46
			13.51						
			Sum:	-0.71	38.17	-0.43	1.28	0.00	-1.43
177.25	A	39.371	18.40	-0.28	12.22	-13.76	-28.22	55.68	-48.87
			17.24						
	A	39.371	18.40	0.28	12.22	-13.76	-28.22	-55.68	48.87
			17.24						
	B	46.314	18.52	10.75	13.87	5.92	64.08	49.63	0.00
			17.06						
	B	46.314	18.52	10.50	13.87	6.34	-32.04	-49.63	-55.50
			17.06						
	C	40.353	18.51	-11.66	12.53	7.04	-28.94	55.10	50.13
			17.29						
	C	40.353	18.51	-11.93	12.53	6.58	57.88	-55.10	0.00
			17.29						
			Sum:	-2.34	77.25	-1.63	4.55	0.00	-5.37
99.9167	A	23.306	17.74	0.00	7.63	-16.02	-22.02	0.00	0.00
			17.17						
	B	33.724	17.72	12.44	10.36	7.19	14.96	0.00	-25.91
			16.87						
	C	25.156	17.82	-13.71	8.18	7.92	11.81	-0.00	20.46
			17.19						

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Guy Elevation	Guy Location	Chord Angle	Guy Tension Top Bottom K	F _x	F _y	F _z	M _x	M _y	M _z
ft		°		K	K	K	kip-ft	kip-ft	kip-ft
			Sum:	-1.27	26.18	-0.92	4.75	0.00	-5.45

Guy-Mast Forces (Excluding Wind) - Service

Guy Elevation	Guy Location	Chord Angle	Guy Tension Top Bottom K	F _x	F _y	F _z	M _x	M _y	M _z
ft		°		K	K	K	kip-ft	kip-ft	kip-ft
330	A	57.963	6.11 5.80	0.00	5.23	-3.16	-15.10	0.00	0.00
	B	61.025	6.16 5.80	2.51	5.44	1.45	7.85	0.00	-13.60
	C	58.123	6.12 5.80	-2.73	5.25	1.57	7.58	-0.00	13.13
			Sum:	-0.22	15.92	-0.14	0.32	0.00	-0.47
297.547	A	55.099	3.99 3.80	0.00	3.31	-2.23	-9.54	0.00	0.00
	B	58.710	4.02 3.80	1.76	3.47	1.01	5.01	0.00	-8.67
	C	55.360	3.99 3.80	-1.92	3.32	1.11	4.80	-0.00	8.31
			Sum:	-0.16	10.10	-0.10	0.26	0.00	-0.37
270.438	A	52.344	8.35 8.00	0.00	6.70	-4.99	-19.33	0.00	0.00
	B	56.507	8.42 8.00	3.92	7.10	2.27	10.25	0.00	-17.76
	C	52.713	8.37 8.00	-4.29	6.74	2.48	9.73	-0.00	16.86
			Sum:	-0.37	20.54	-0.25	0.65	0.00	-0.90
177.25	A	39.371	11.10 10.80	-0.17	7.18	-8.46	-16.59	34.24	-28.73
	A	39.371	11.10 10.80	0.17	7.18	-8.46	-16.59	-34.24	28.73
	B	46.314	11.19 10.80	6.65	8.22	3.67	37.98	30.71	0.00
	B	46.314	11.19 10.80	6.50	8.22	3.93	-18.99	-30.71	-32.89
	C	40.353	11.12 10.80	-7.15	7.34	4.32	-16.95	33.77	29.37
	C	40.353	11.12 10.80	-7.31	7.34	4.03	33.91	-33.77	0.00
			Sum:	-1.31	45.49	-0.98	2.77	0.00	-3.52
99.9167	A	23.306	10.96 10.80	0.00	4.50	-9.99	-13.00	0.00	0.00
	B	33.724	11.05 10.80	7.87	6.29	4.54	9.08	0.00	-15.72
	C	25.156	10.98 10.80	-8.53	4.83	4.93	6.98	-0.00	12.09
			Sum:	-0.67	15.63	-0.52	3.06	0.00	-3.64

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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	K	ft	K	ft	K	ft	K	ft	K	ft	K	ft	K
330	A	197.11	315.00	6.489	10.27	6.257	10.65	6.028	11.04	5.800	11.47	5.575	11.92	5.353	12.40	5.133	12.92
	B	202.11	365.00	6.372	13.14	6.180	13.53	5.989	13.96	5.800	14.40	5.613	14.87	5.427	15.36	5.244	15.88
	C	202.11	325.00	6.480	10.91	6.251	11.30	6.025	11.71	5.800	12.16	5.578	12.63	5.359	13.13	5.143	13.67
297.547	A	197.11	282.55	4.335	8.84	4.155	9.21	3.976	9.62	3.800	10.05	3.626	10.53	3.455	11.03	3.287	11.59
	B	202.11	332.55	4.238	11.48	4.091	11.89	3.945	12.32	3.800	12.77	3.657	13.26	3.516	13.78	3.377	14.33
	C	202.11	292.55	4.326	9.42	4.149	9.82	3.973	10.24	3.800	10.70	3.629	11.19	3.461	11.72	3.296	12.30
270.438	A	197.11	255.44	9.274	7.65	8.844	8.01	8.420	8.41	8.000	8.84	7.587	9.31	7.181	9.83	6.784	10.39
	B	202.11	305.44	9.033	10.07	8.685	10.47	8.341	10.89	8.000	11.35	7.664	11.83	7.333	12.35	7.007	12.91
	C	202.11	265.44	9.247	8.19	8.827	8.58	8.411	8.99	8.000	9.45	7.596	9.94	7.199	10.47	6.811	11.06
177.25	A	197.73	162.25	13.540	4.42	12.612	4.74	11.698	5.10	10.800	5.52	9.923	6.00	9.074	6.56	8.260	7.19
	B	202.73	212.25	12.975	6.04	12.240	6.40	11.514	6.80	10.800	7.24	10.099	7.74	9.415	8.29	8.752	8.90
	C	202.73	172.25	13.451	4.80	12.554	5.14	11.669	5.53	10.800	5.97	9.952	6.47	9.131	7.04	8.342	7.70
99.9167	A	197.11	84.92	14.695	2.88	13.372	3.16	12.071	3.50	10.800	3.91	9.572	4.41	8.405	5.02	7.323	5.76
	B	202.11	134.92	13.970	3.87	12.895	4.19	11.836	4.56	10.800	5.00	9.793	5.50	8.826	6.10	7.910	6.80
	C	202.11	94.92	14.568	3.14	13.288	3.44	12.029	3.80	10.800	4.23	9.613	4.75	8.484	5.38	7.436	6.13

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
1 5/8	B	No	No	Ar (CaAa)	200.00 - 6.67	-3.0000	-0.35	6	6	1.0000	1.9800		1.04
3/8	B	No	No	Ar (CaAa)	200.00 - 6.67	-1.0000	0.32	2	2	0.3750	0.3750		0.14
3/4	B	No	No	Ar (CaAa)	200.00 - 6.67	1.0000	0.32	5	5	0.7700	0.7700		0.49

7/8	B	No	No	Ar (CaAa)	136.00 - 6.67	1.0000	0.32	2	2	1.0000	1.1100		0.54
7/8	B	No	No	Ar (CaAa)	219.50 - 136.00	1.0000	0.32	1	1	1.0000	1.1100		0.54
1/2	B	No	No	Ar (CaAa)	90.00 - 6.67	1.0000	0.32	1	1	0.5800	0.5800		0.25
2-1/4	B	No	No	Ar (CaAa)	297.33 - 6.67	0.0000	0.35	1	1	1.0000	2.3800		1.16

1 5/8	B	No	No	Ar (CaAa)	169.50 - 6.67	-6.0000	0.25	12	4	1.0000	1.9800		1.04

1/2	C	No	No	Ar (CaAa)	36.00 - 6.67	1.0000	-0.4	2	2	0.5800	0.5800		0.25

1	C	No	No	Ar (CaAa)	345.00 - 6.67	1.0000	0	1	1	1.0000	1.2500		0.58

7/8	C	No	No	Ar (CaAa)	264.25 - 6.67	1.0000	0.4	1	1	1.0000	1.1100		0.54
1 1/4	C	No	No	Ar (CaAa)	205.50 - 6.67	1.0000	0.4	1	1	1.0000	1.5500		0.66

1 5/8	C	No	No	Ar (CaAa)	251.00 - 6.67	-2.0000	0.2	1	1	1.0000	1.9800		1.04
1 1/4	C	No	No	Ar (CaAa)	294.00 - 6.67	1.0000	0.26	3	3	1.0000	1.5500		0.66
1/2	C	No	No	Ar (CaAa)	274.00 -	1.0000	0.35	2	2	0.5800	0.5800		0.25

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<i>Description</i>	<i>Face or Leg</i>	<i>Allow Shield</i>	<i>Exclude From Torque Calculation</i>	<i>Component Type</i>	<i>Placement ft</i>	<i>Face Offset in</i>	<i>Lateral Offset (Frac FW)</i>	<i>#</i>	<i># Per Row</i>	<i>Clear Spacing in</i>	<i>Width or Diameter in</i>	<i>Perimeter in</i>	<i>Weight plf</i>
1/2	C	No	No	Ar (CaAa)	6.67 332.50 - 274.00	1.0000	0.35	1	1	0.5800	0.5800		0.25

1 5/8	A	No	No	Ar (CaAa)	274.00 - 6.67	1.0000	-0.3	4	4	1.0000	1.9800		1.04
1 5/8	A	No	No	Ar (CaAa)	308.00 - 274.00	1.0000	-0.3	3	3	1.0000	1.9800		1.04
1 5/8	A	No	No	Ar (CaAa)	317.50 - 308.00	1.0000	-0.3	2	2	1.0000	1.9800		1.04
1 5/8	A	No	No	Ar (CaAa)	342.25 - 317.50	1.0000	-0.3	1	1	1.0000	1.9800		1.04
1/2	A	No	No	Ar (CaAa)	279.00 - 6.67	1.0000	-0.3	2	2	0.5800	0.5800		0.25
1/2	A	No	No	Ar (CaAa)	312.00 - 279.00	1.0000	-0.3	1	1	0.5800	0.5800		0.25

1 5/8	A	No	No	Ar (CaAa)	112.00 - 6.67	-2.0000	-0.3	3	3	1.0000	1.9800		1.04
1 5/8	A	No	No	Ar (CaAa)	130.00 - 112.00	-2.0000	-0.3	2	2	1.0000	1.9800		1.04
1 5/8	A	No	No	Ar (CaAa)	204.00 - 130.00	-2.0000	-0.3	1	1	1.0000	1.9800		1.04

7/8	A	No	No	Ar (CaAa)	252.00 - 6.67	1.0000	0.2	1	1	1.0000	1.1100		0.54
5/8	A	No	No	Ar (CaAa)	150.50 - 6.67	1.0000	0.22	1	1	0.8800	0.8800		0.40
1 1/4	A	No	No	Ar (CaAa)	209.00 - 6.67	1.0000	0.25	1	1	1.0000	1.5500		0.66
1 5/8	A	No	No	Ar (CaAa)	226.50 - 6.67	1.0000	0.3	6	6	1.0000	1.9800		1.04

1 5/8	A	No	No	Ar (CaAa)	188.50 - 6.67	-2.0000	0.38	6	6	1.0000	1.9800		1.04
1 1/4	A	No	No	Ar (CaAa)	188.50 - 6.67	-2.0000	0.4	1	1	1.0000	1.5500		0.66
1 3/8	A	No	No	Ar (CaAa)	188.50 - 6.67	-2.0000	0.4	1	1	1.0000	1.9800		1.04

1/4	A	No	No	Ar (CaAa)	106.50 - 6.67	1.0000	0.45	2	2	0.3150	0.3150		0.07

1/4	C	No	No	Ar (CaAa)	123.50 - 6.67	1.0000	0.3	1	1	0.3150	0.3150		0.07

Safety Line 3/8	A	No	No	Ar (CaAa)	345.00 - 0.00	3.0000	0	1	1	0.3750	0.3750		0.22
Feedline Ladder (Af)	B	No	No	Af (CaAa)	330.00 - 6.67	0.0000	-0.35	1	1	1.0000	1.0000		8.40
Feedline Ladder (Af)	B	No	No	Af (CaAa)	330.00 - 6.67	0.0000	0.35	1	1	1.0000	1.0000		8.40
Feedline Ladder (Af)	A	No	No	Af (CaAa)	330.00 - 6.67	0.0000	-0.35	1	1	1.0000	1.0000		8.40
Feedline Ladder (Af)	A	No	No	Af (CaAa)	330.00 - 6.67	0.0000	0.35	1	1	1.0000	1.0000		8.40
Feedline Ladder (Af)	C	No	No	Af (CaAa)	330.00 - 6.67	0.0000	0.35	1	1	1.0000	1.0000		8.40
Feedline Ladder (Af)	C	No	No	Af (CaAa)	330.00 - 6.67	0.0000	-0.35	1	1	1.0000	1.0000		8.40

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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
Climbing Ladder (Flat)	A	No	No	Af (CaAa)	345.00 - 6.67	0.0000	0	1	1	1.0000	1.5000		4.81

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
L1	345.00-330.00	A	0.000	0.000	6.738	0.000	0.09
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	2.020	0.000	0.01
T1	330.00-327.72	A	0.000	0.000	1.868	0.000	0.05
		B	0.000	0.000	0.760	0.000	0.04
		C	0.000	0.000	1.178	0.000	0.04
T2	327.72-320.88	A	0.000	0.000	5.604	0.000	0.16
		B	0.000	0.000	2.281	0.000	0.11
		C	0.000	0.000	3.534	0.000	0.12
T3	320.88-320.00	A	0.000	0.000	0.716	0.000	0.02
		B	0.000	0.000	0.292	0.000	0.01
		C	0.000	0.000	0.452	0.000	0.02
T4	320.00-300.88	A	0.000	0.000	21.008	0.000	0.46
		B	0.000	0.000	6.375	0.000	0.32
		C	0.000	0.000	9.875	0.000	0.34
T5	300.88-300.00	A	0.000	0.000	1.114	0.000	0.02
		B	0.000	0.000	0.292	0.000	0.01
		C	0.000	0.000	0.452	0.000	0.02
T6	300.00-280.88	A	0.000	0.000	24.343	0.000	0.48
		B	0.000	0.000	10.291	0.000	0.34
		C	0.000	0.000	15.978	0.000	0.36
T7	280.88-280.00	A	0.000	0.000	1.114	0.000	0.02
		B	0.000	0.000	0.500	0.000	0.02
		C	0.000	0.000	0.859	0.000	0.02
T8	280.00-260.88	A	0.000	0.000	27.993	0.000	0.50
		B	0.000	0.000	10.927	0.000	0.34
		C	0.000	0.000	19.904	0.000	0.38
T9	260.88-260.00	A	0.000	0.000	1.338	0.000	0.02
		B	0.000	0.000	0.500	0.000	0.02
		C	0.000	0.000	1.007	0.000	0.02
T10	260.00-240.88	A	0.000	0.000	30.474	0.000	0.51
		B	0.000	0.000	10.927	0.000	0.34
		C	0.000	0.000	24.005	0.000	0.40
T11	240.88-240.00	A	0.000	0.000	1.435	0.000	0.02
		B	0.000	0.000	0.500	0.000	0.02
		C	0.000	0.000	1.180	0.000	0.02
T12	240.00-220.88	A	0.000	0.000	38.044	0.000	0.55
		B	0.000	0.000	10.927	0.000	0.34
		C	0.000	0.000	25.787	0.000	0.41
T13	220.88-220.00	A	0.000	0.000	2.474	0.000	0.03
		B	0.000	0.000	0.500	0.000	0.02
		C	0.000	0.000	1.180	0.000	0.02
T14	220.00-201.00	A	0.000	0.000	55.563	0.000	0.64
		B	0.000	0.000	12.909	0.000	0.35
		C	0.000	0.000	26.316	0.000	0.41
T15	201.00-200.00	A	0.000	0.000	3.181	0.000	0.03
		B	0.000	0.000	0.682	0.000	0.02
		C	0.000	0.000	1.503	0.000	0.02

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<i>Tower Section</i>	<i>Tower Elevation ft</i>	<i>Face</i>	<i>A_R</i> <i>ft²</i>	<i>A_F</i> <i>ft²</i>	<i>C_AA_A</i> <i>In Face</i> <i>ft²</i>	<i>C_AA_A</i> <i>Out Face</i> <i>ft²</i>	<i>Weight</i> <i>K</i>
T16	200.00-181.00	A	0.000	0.000	71.993	0.000	0.72
		B	0.000	0.000	44.276	0.000	0.52
		C	0.000	0.000	28.563	0.000	0.42
T17	181.00-180.00	A	0.000	0.000	4.722	0.000	0.04
		B	0.000	0.000	2.330	0.000	0.03
		C	0.000	0.000	1.503	0.000	0.02
T18	180.00-161.00	A	0.000	0.000	89.715	0.000	0.82
		B	0.000	0.000	64.472	0.000	0.63
		C	0.000	0.000	28.563	0.000	0.42
T19	161.00-160.00	A	0.000	0.000	4.722	0.000	0.04
		B	0.000	0.000	4.706	0.000	0.04
		C	0.000	0.000	1.503	0.000	0.02
T20	160.00-141.00	A	0.000	0.000	90.551	0.000	0.82
		B	0.000	0.000	89.420	0.000	0.76
		C	0.000	0.000	28.563	0.000	0.42
T21	141.00-140.00	A	0.000	0.000	4.810	0.000	0.04
		B	0.000	0.000	4.706	0.000	0.04
		C	0.000	0.000	1.503	0.000	0.02
T22	140.00-121.00	A	0.000	0.000	93.169	0.000	0.83
		B	0.000	0.000	91.085	0.000	0.77
		C	0.000	0.000	28.642	0.000	0.42
T23	121.00-120.00	A	0.000	0.000	5.008	0.000	0.04
		B	0.000	0.000	4.817	0.000	0.04
		C	0.000	0.000	1.535	0.000	0.02
T24	120.00-101.00	A	0.000	0.000	97.673	0.000	0.85
		B	0.000	0.000	91.529	0.000	0.77
		C	0.000	0.000	29.162	0.000	0.42
T25	101.00-100.00	A	0.000	0.000	5.269	0.000	0.05
		B	0.000	0.000	4.817	0.000	0.04
		C	0.000	0.000	1.535	0.000	0.02
T26	100.00-81.00	A	0.000	0.000	100.108	0.000	0.87
		B	0.000	0.000	92.051	0.000	0.77
		C	0.000	0.000	29.162	0.000	0.42
T27	81.00-80.00	A	0.000	0.000	5.269	0.000	0.05
		B	0.000	0.000	4.875	0.000	0.04
		C	0.000	0.000	1.535	0.000	0.02
T28	80.00-61.00	A	0.000	0.000	100.108	0.000	0.87
		B	0.000	0.000	92.631	0.000	0.77
		C	0.000	0.000	29.162	0.000	0.42
T29	61.00-60.00	A	0.000	0.000	5.269	0.000	0.05
		B	0.000	0.000	4.875	0.000	0.04
		C	0.000	0.000	1.535	0.000	0.02
T30	60.00-41.00	A	0.000	0.000	100.108	0.000	0.87
		B	0.000	0.000	92.631	0.000	0.77
		C	0.000	0.000	29.162	0.000	0.42
T31	41.00-40.00	A	0.000	0.000	5.269	0.000	0.05
		B	0.000	0.000	4.875	0.000	0.04
		C	0.000	0.000	1.535	0.000	0.02
T32	40.00-21.00	A	0.000	0.000	100.108	0.000	0.87
		B	0.000	0.000	92.631	0.000	0.77
		C	0.000	0.000	30.902	0.000	0.43
T33	21.00-20.00	A	0.000	0.000	5.269	0.000	0.05
		B	0.000	0.000	4.875	0.000	0.04
		C	0.000	0.000	1.651	0.000	0.02
T34	20.00-16.66	A	0.000	0.000	17.598	0.000	0.15
		B	0.000	0.000	16.284	0.000	0.14
		C	0.000	0.000	5.514	0.000	0.08
T35	16.66-14.33	A	0.000	0.000	12.276	0.000	0.11
		B	0.000	0.000	11.360	0.000	0.09
		C	0.000	0.000	3.846	0.000	0.05
T36	14.33-12.00	A	0.000	0.000	12.276	0.000	0.11

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<i>Tower Section</i>	<i>Tower Elevation ft</i>	<i>Face</i>	<i>A_R</i> <i>ft²</i>	<i>A_F</i> <i>ft²</i>	<i>C_AA_A</i> <i>In Face ft²</i>	<i>C_AA_A</i> <i>Out Face ft²</i>	<i>Weight K</i>
T37	12.00-9.34	B	0.000	0.000	11.360	0.000	0.09
		C	0.000	0.000	3.846	0.000	0.05
		A	0.000	0.000	14.041	0.000	0.12
T38	9.34-6.67	B	0.000	0.000	12.993	0.000	0.11
		C	0.000	0.000	4.399	0.000	0.06
		A	0.000	0.000	14.041	0.000	0.12
T39	6.67-0.00	B	0.000	0.000	12.993	0.000	0.11
		C	0.000	0.000	4.399	0.000	0.06
		A	0.000	0.000	0.250	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.000	0.00

Feed Line/Linear Appurtenances Section Areas - With Ice

<i>Tower Section</i>	<i>Tower Elevation ft</i>	<i>Face or Leg</i>	<i>Ice Thickness in</i>	<i>A_R</i> <i>ft²</i>	<i>A_F</i> <i>ft²</i>	<i>C_AA_A</i> <i>In Face ft²</i>	<i>C_AA_A</i> <i>Out Face ft²</i>	<i>Weight K</i>
L1	345.00-330.00	A	1.893	0.000	0.000	22.731	0.000	0.39
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	8.644	0.000	0.13
T1	330.00-327.72	A	1.888	0.000	0.000	6.174	0.000	0.13
		B		0.000	0.000	2.483	0.000	0.07
		C		0.000	0.000	4.623	0.000	0.10
T2	327.72-320.88	A	1.885	0.000	0.000	18.505	0.000	0.40
		B		0.000	0.000	7.442	0.000	0.21
		C		0.000	0.000	13.855	0.000	0.31
T3	320.88-320.00	A	1.883	0.000	0.000	2.364	0.000	0.05
		B		0.000	0.000	0.951	0.000	0.03
		C		0.000	0.000	1.770	0.000	0.04
T4	320.00-300.88	A	1.877	0.000	0.000	70.831	0.000	1.34
		B		0.000	0.000	20.733	0.000	0.59
		C		0.000	0.000	38.591	0.000	0.85
T5	300.88-300.00	A	1.871	0.000	0.000	3.654	0.000	0.07
		B		0.000	0.000	0.946	0.000	0.03
		C		0.000	0.000	1.761	0.000	0.04
T6	300.00-280.88	A	1.864	0.000	0.000	79.695	0.000	1.47
		B		0.000	0.000	30.690	0.000	0.76
		C		0.000	0.000	57.504	0.000	1.09
T7	280.88-280.00	A	1.858	0.000	0.000	3.639	0.000	0.07
		B		0.000	0.000	1.475	0.000	0.04
		C		0.000	0.000	3.024	0.000	0.05
T8	280.00-260.88	A	1.851	0.000	0.000	91.768	0.000	1.58
		B		0.000	0.000	32.169	0.000	0.79
		C		0.000	0.000	73.315	0.000	1.25
T9	260.88-260.00	A	1.844	0.000	0.000	4.303	0.000	0.07
		B		0.000	0.000	1.468	0.000	0.04
		C		0.000	0.000	3.812	0.000	0.06
T10	260.00-240.88	A	1.837	0.000	0.000	99.178	0.000	1.69
		B		0.000	0.000	32.006	0.000	0.78
		C		0.000	0.000	88.840	0.000	1.46
T11	240.88-240.00	A	1.830	0.000	0.000	4.702	0.000	0.08
		B		0.000	0.000	1.460	0.000	0.04
		C		0.000	0.000	4.286	0.000	0.07
T12	240.00-220.88	A	1.822	0.000	0.000	117.480	0.000	1.97
		B		0.000	0.000	31.832	0.000	0.78
		C		0.000	0.000	93.438	0.000	1.53
T13	220.88-220.00	A	1.814	0.000	0.000	7.004	0.000	0.12
		B		0.000	0.000	1.452	0.000	0.04

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	Client	Smartlink	Designed by	Bryan Mawhinney

<i>Tower Section</i>	<i>Tower Elevation ft</i>	<i>Face or Leg</i>	<i>Ice Thickness in</i>	<i>A_R</i> <i>ft²</i>	<i>A_F</i> <i>ft²</i>	<i>C_AA_A</i> <i>In Face ft²</i>	<i>C_AA_A</i> <i>Out Face ft²</i>	<i>Weight</i> <i>K</i>
T14	220.00-201.00	C		0.000	0.000	4.263	0.000	0.07
		A	1.805	0.000	0.000	157.575	0.000	2.58
		B		0.000	0.000	40.170	0.000	0.89
		C		0.000	0.000	94.623	0.000	1.54
T15	201.00-200.00	A	1.797	0.000	0.000	9.042	0.000	0.15
		B		0.000	0.000	2.120	0.000	0.05
		C		0.000	0.000	5.357	0.000	0.09
T16	200.00-181.00	A	1.787	0.000	0.000	199.267	0.000	3.22
		B		0.000	0.000	132.053	0.000	2.11
		C		0.000	0.000	101.464	0.000	1.64
T17	181.00-180.00	A	1.778	0.000	0.000	12.708	0.000	0.20
		B		0.000	0.000	6.933	0.000	0.11
		C		0.000	0.000	5.322	0.000	0.09
T18	180.00-161.00	A	1.768	0.000	0.000	240.861	0.000	3.85
		B		0.000	0.000	150.994	0.000	2.60
		C		0.000	0.000	100.757	0.000	1.62
T19	161.00-160.00	A	1.757	0.000	0.000	12.644	0.000	0.20
		B		0.000	0.000	9.199	0.000	0.17
		C		0.000	0.000	5.283	0.000	0.08
T20	160.00-141.00	A	1.746	0.000	0.000	243.729	0.000	3.86
		B		0.000	0.000	174.329	0.000	3.20
		C		0.000	0.000	99.971	0.000	1.60
T21	141.00-140.00	A	1.734	0.000	0.000	13.007	0.000	0.20
		B		0.000	0.000	9.150	0.000	0.17
		C		0.000	0.000	5.239	0.000	0.08
T22	140.00-121.00	A	1.721	0.000	0.000	252.709	0.000	3.92
		B		0.000	0.000	181.627	0.000	3.22
		C		0.000	0.000	100.025	0.000	1.59
T23	121.00-120.00	A	1.707	0.000	0.000	13.626	0.000	0.21
		B		0.000	0.000	9.645	0.000	0.17
		C		0.000	0.000	5.562	0.000	0.09
T24	120.00-101.00	A	1.693	0.000	0.000	265.441	0.000	4.01
		B		0.000	0.000	182.609	0.000	3.20
		C		0.000	0.000	105.099	0.000	1.63
T25	101.00-100.00	A	1.677	0.000	0.000	14.554	0.000	0.22
		B		0.000	0.000	9.575	0.000	0.17
		C		0.000	0.000	5.498	0.000	0.08
T26	100.00-81.00	A	1.659	0.000	0.000	275.268	0.000	4.05
		B		0.000	0.000	184.667	0.000	3.19
		C		0.000	0.000	103.773	0.000	1.59
T27	81.00-80.00	A	1.640	0.000	0.000	14.415	0.000	0.21
		B		0.000	0.000	9.877	0.000	0.17
		C		0.000	0.000	5.421	0.000	0.08
T28	80.00-61.00	A	1.618	0.000	0.000	272.339	0.000	3.96
		B		0.000	0.000	186.638	0.000	3.18
		C		0.000	0.000	102.153	0.000	1.55
T29	61.00-60.00	A	1.594	0.000	0.000	14.241	0.000	0.21
		B		0.000	0.000	9.762	0.000	0.17
		C		0.000	0.000	5.325	0.000	0.08
T30	60.00-41.00	A	1.565	0.000	0.000	268.541	0.000	3.83
		B		0.000	0.000	184.137	0.000	3.10
		C		0.000	0.000	100.050	0.000	1.50
T31	41.00-40.00	A	1.531	0.000	0.000	14.005	0.000	0.20
		B		0.000	0.000	9.607	0.000	0.16
		C		0.000	0.000	5.195	0.000	0.08
T32	40.00-21.00	A	1.488	0.000	0.000	263.041	0.000	3.66
		B		0.000	0.000	180.517	0.000	2.98
		C		0.000	0.000	108.079	0.000	1.51
T33	21.00-20.00	A	1.430	0.000	0.000	13.626	0.000	0.19
		B		0.000	0.000	9.357	0.000	0.15
		C		0.000	0.000	5.703	0.000	0.08

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<i>Tower Section</i>	<i>Tower Elevation ft</i>	<i>Face or Leg</i>	<i>Ice Thickness in</i>	<i>A_R ft²</i>	<i>A_F ft²</i>	<i>C_AA_A In Face ft²</i>	<i>C_AA_A Out Face ft²</i>	<i>Weight K</i>
T34	20.00-16.66	A	1.414	0.000	0.000	45.313	0.000	0.62
		B		0.000	0.000	31.123	0.000	0.51
		C		0.000	0.000	18.918	0.000	0.26
T35	16.66-14.33	A	1.391	0.000	0.000	31.404	0.000	0.42
		B		0.000	0.000	21.576	0.000	0.35
		C		0.000	0.000	13.064	0.000	0.17
T36	14.33-12.00	A	1.368	0.000	0.000	31.208	0.000	0.42
		B		0.000	0.000	21.446	0.000	0.34
		C		0.000	0.000	12.937	0.000	0.17
T37	12.00-9.34	A	1.340	0.000	0.000	35.410	0.000	0.47
		B		0.000	0.000	24.342	0.000	0.39
		C		0.000	0.000	14.612	0.000	0.19
T38	9.34-6.67	A	1.302	0.000	0.000	35.031	0.000	0.46
		B		0.000	0.000	24.093	0.000	0.38
		C		0.000	0.000	14.366	0.000	0.19
T39	6.67-0.00	A	1.193	0.000	0.000	1.841	0.000	0.02
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.000	0.00

Feed Line Center of Pressure

<i>Section</i>	<i>Elevation</i>	<i>CP_X</i>	<i>CP_Z</i>	<i>CP_X</i>	<i>CP_Z</i>
	<i>ft</i>	<i>in</i>	<i>in</i>	<i>Ice in</i>	<i>Ice in</i>
L1	345.00-330.00	-2.2680	0.6019	-0.7658	0.0913
T1	330.00-327.72	-1.2436	0.0820	-0.6804	0.1768
T2	327.72-320.88	-2.4888	0.1480	-1.9235	0.4822
T3	320.88-320.00	-2.0349	0.1216	-0.0662	0.0166
T4	320.00-300.88	-4.1692	0.6596	-3.6344	0.9789
T5	300.88-300.00	-3.6660	0.7146	-0.1223	0.0349
T6	300.00-280.88	-4.0436	1.9989	-3.6860	1.8950
T7	280.88-280.00	-3.3350	1.8372	-0.1570	0.0873
T8	280.00-260.88	-4.9333	2.5539	-4.3025	2.3707
T9	260.88-260.00	-4.4761	2.3909	-0.1686	0.0964
T10	260.00-240.88	-5.7751	2.9014	-5.0926	2.6471
T11	240.88-240.00	-4.8529	2.3730	-0.2385	0.1163
T12	240.00-220.88	-6.0228	0.9455	-5.3153	1.6610
T13	220.88-220.00	-5.1730	-2.3775	-0.3155	-0.0193
T14	220.00-201.00	-5.6812	-2.5975	-4.8690	-0.2372
T15	201.00-200.00	-5.5976	-1.9116	-1.3186	-0.0034
T16	200.00-181.00	-3.8116	-6.2542	-3.2238	-2.5436
T17	181.00-180.00	-3.2168	-7.4677	-0.7523	-1.0855
T18	180.00-161.00	-2.4158	-7.5504	-2.6196	-3.9650
T19	161.00-160.00	-0.9489	-6.1391	-0.6110	-1.2330
T20	160.00-141.00	-1.0871	-6.7301	-2.0235	-3.8036
T21	141.00-140.00	-1.0221	-6.2449	-0.6924	-1.4085
T22	140.00-121.00	-1.0684	-6.5438	-2.0483	-3.7583
T23	121.00-120.00	-1.1075	-5.8324	-0.8147	-1.3279
T24	120.00-101.00	-1.3309	-6.2187	-2.3199	-3.5417
T25	101.00-100.00	-1.2889	-5.7437	-0.9026	-1.5969
T26	100.00-81.00	-1.3403	-6.1840	-2.1700	-3.8105
T27	81.00-80.00	-1.1457	-5.6848	-0.8135	-1.6717
T28	80.00-61.00	-1.2574	-6.1494	-1.9752	-3.7927
T29	61.00-60.00	-1.1457	-5.6848	-0.8776	-1.8207
T30	60.00-41.00	-1.2574	-6.1494	-1.9835	-3.8628
T31	41.00-40.00	-1.1457	-5.6848	-0.9606	-2.0204
T32	40.00-21.00	-1.0274	-6.0307	-1.5386	-3.7051

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Section	Elevation	CP _x	CP _z	CP _x Ice	CP _z Ice
	ft	in	in	in	in
T33	21.00-20.00	-0.8817	-5.5486	-0.7798	-2.1579
T34	20.00-16.66	-0.9513	-5.9184	-1.4140	-3.7138
T35	16.66-14.33	-0.9307	-5.8095	-1.2716	-3.4102
T36	14.33-12.00	-0.9307	-5.8095	-1.2765	-3.4488
T37	12.00-9.34	-0.7479	-4.9777	-1.0341	-2.9404
T38	9.34-6.67	-0.8021	-5.2464	-1.1657	-3.2975
T39	6.67-0.00	-0.2222	-0.1348	-0.3692	-0.2174

Shielding Factor Ka

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L1	14	1	330.00 - 345.00	0.6000	0.2027
L1	22	1/2	330.00 - 332.50	0.6000	0.2027
L1	27	1 5/8	330.00 - 342.25	0.6000	0.2027
L1	48	Safety Line 3/8	330.00 - 345.00	0.6000	0.2027
L1	55	Climbing Ladder (Flat)	330.00 - 345.00	0.6000	0.2027
T1	14	1	327.72 - 330.00	0.6000	0.1547
T1	22	1/2	327.72 - 330.00	0.6000	0.1547
T1	27	1 5/8	327.72 - 330.00	0.6000	0.1547
T1	48	Safety Line 3/8	327.72 - 330.00	0.6000	0.1547
T1	49	Feedline Ladder (Af)	327.72 - 330.00	0.6000	0.1547
T1	50	Feedline Ladder (Af)	327.72 - 330.00	0.6000	0.1547
T1	51	Feedline Ladder (Af)	327.72 - 330.00	0.6000	0.1547
T1	52	Feedline Ladder (Af)	327.72 - 330.00	0.6000	0.1547
T1	53	Feedline Ladder (Af)	327.72 - 330.00	0.6000	0.1547
T1	54	Feedline Ladder (Af)	327.72 - 330.00	0.6000	0.1547
T1	55	Climbing Ladder (Flat)	327.72 - 330.00	0.6000	0.1547
T2	14	1	320.88 - 327.72	0.6000	0.3403
T2	22	1/2	320.88 - 327.72	0.6000	0.3403
T2	27	1 5/8	320.88 - 327.72	0.6000	0.3403
T2	48	Safety Line 3/8	320.88 - 327.72	0.6000	0.3403
T2	49	Feedline Ladder (Af)	320.88 - 327.72	0.6000	0.3403
T2	50	Feedline Ladder (Af)	320.88 -	0.6000	0.3403

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<i>Tower Section</i>	<i>Feed Line Record No.</i>	<i>Description</i>	<i>Feed Line Segment Elev.</i>	<i>K_a No Ice</i>	<i>K_a Ice</i>
T2	51	Feedline Ladder (Af)	327.72 320.88 -	0.6000	0.3403
T2	52	Feedline Ladder (Af)	327.72 320.88 -	0.6000	0.3403
T2	53	Feedline Ladder (Af)	327.72 320.88 -	0.6000	0.3403
T2	54	Feedline Ladder (Af)	327.72 320.88 -	0.6000	0.3403
T2	55	Climbing Ladder (Flat)	327.72 320.88 -	0.6000	0.3403
T3	14	1	327.72 320.00 -	0.6000	0.0189
T3	22	1/2	320.88 320.00 -	0.6000	0.0189
T3	27	1 5/8	320.88 320.00 -	0.6000	0.0189
T3	48	Safety Line 3/8	320.88 320.00 -	0.6000	0.0189
T3	49	Feedline Ladder (Af)	320.88 320.00 -	0.6000	0.0189
T3	50	Feedline Ladder (Af)	320.88 320.00 -	0.6000	0.0189
T3	51	Feedline Ladder (Af)	320.88 320.00 -	0.6000	0.0189
T3	52	Feedline Ladder (Af)	320.88 320.00 -	0.6000	0.0189
T3	53	Feedline Ladder (Af)	320.88 320.00 -	0.6000	0.0189
T3	54	Feedline Ladder (Af)	320.88 320.00 -	0.6000	0.0189
T3	55	Climbing Ladder (Flat)	320.88 320.00 -	0.6000	0.0189
T4	14	1	320.88 300.88 -	0.6000	0.4694
T4	22	1/2	320.00 300.88 -	0.6000	0.4694
T4	25	1 5/8	320.00 300.88 -	0.6000	0.4694
T4	26	1 5/8	308.00 308.00 -	0.6000	0.4694
T4	27	1 5/8	317.50 317.50 -	0.6000	0.4694
T4	29	1/2	320.00 300.88 -	0.6000	0.4694
T4	48	Safety Line 3/8	312.00 300.88 -	0.6000	0.4694
T4	49	Feedline Ladder (Af)	320.00 300.88 -	0.6000	0.4694
T4	50	Feedline Ladder (Af)	320.00 300.88 -	0.6000	0.4694
T4	51	Feedline Ladder (Af)	320.00 300.88 -	0.6000	0.4694
T4	52	Feedline Ladder (Af)	320.00 300.88 -	0.6000	0.4694
T4	53	Feedline Ladder (Af)	320.00 300.88 -	0.6000	0.4694
T4	54	Feedline Ladder (Af)	320.00 300.88 -	0.6000	0.4694
T4	55	Climbing Ladder (Flat)	320.00 300.88 -	0.6000	0.4694
T5	14	1	320.00 300.00 -	0.6000	0.0233

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T5	22	1/2	300.88 300.00 - 300.88	0.6000	0.0233
T5	25	1 5/8	300.00 - 300.88	0.6000	0.0233
T5	29	1/2	300.00 - 300.88	0.6000	0.0233
T5	48	Safety Line 3/8	300.00 - 300.88	0.6000	0.0233
T5	49	Feedline Ladder (Af)	300.00 - 300.88	0.6000	0.0233
T5	50	Feedline Ladder (Af)	300.00 - 300.88	0.6000	0.0233
T5	51	Feedline Ladder (Af)	300.00 - 300.88	0.6000	0.0233
T5	52	Feedline Ladder (Af)	300.00 - 300.88	0.6000	0.0233
T5	53	Feedline Ladder (Af)	300.00 - 300.88	0.6000	0.0233
T5	54	Feedline Ladder (Af)	300.00 - 300.88	0.6000	0.0233
T5	55	Climbing Ladder (Flat)	300.00 - 300.88	0.6000	0.0233
T6	8	2-1/4	280.88 - 297.33	0.6000	0.4718
T6	14	1	280.88 - 300.00	0.6000	0.4718
T6	20	1 1/4	280.88 - 294.00	0.6000	0.4718
T6	22	1/2	280.88 - 300.00	0.6000	0.4718
T6	25	1 5/8	280.88 - 300.00	0.6000	0.4718
T6	29	1/2	280.88 - 300.00	0.6000	0.4718
T6	48	Safety Line 3/8	280.88 - 300.00	0.6000	0.4718
T6	49	Feedline Ladder (Af)	280.88 - 300.00	0.6000	0.4718
T6	50	Feedline Ladder (Af)	280.88 - 300.00	0.6000	0.4718
T6	51	Feedline Ladder (Af)	280.88 - 300.00	0.6000	0.4718
T6	52	Feedline Ladder (Af)	280.88 - 300.00	0.6000	0.4718
T6	53	Feedline Ladder (Af)	280.88 - 300.00	0.6000	0.4718
T6	54	Feedline Ladder (Af)	280.88 - 300.00	0.6000	0.4718
T6	55	Climbing Ladder (Flat)	280.88 - 300.00	0.6000	0.4718
T7	8	2-1/4	280.00 - 280.88	0.6000	0.0281
T7	14	1	280.00 - 280.88	0.6000	0.0281
T7	20	1 1/4	280.00 - 280.88	0.6000	0.0281
T7	22	1/2	280.00 - 280.88	0.6000	0.0281
T7	25	1 5/8	280.00 - 280.88	0.6000	0.0281
T7	29	1/2	280.00 -	0.6000	0.0281

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T7	48	Safety Line 3/8	280.88 280.00 - 280.88	0.6000	0.0281
T7	49	Feedline Ladder (Af)	280.00 - 280.88	0.6000	0.0281
T7	50	Feedline Ladder (Af)	280.00 - 280.88	0.6000	0.0281
T7	51	Feedline Ladder (Af)	280.00 - 280.88	0.6000	0.0281
T7	52	Feedline Ladder (Af)	280.00 - 280.88	0.6000	0.0281
T7	53	Feedline Ladder (Af)	280.00 - 280.88	0.6000	0.0281
T7	54	Feedline Ladder (Af)	280.00 - 280.88	0.6000	0.0281
T7	55	Climbing Ladder (Flat)	280.00 - 280.88	0.6000	0.0281
T8	8	2-1/4	260.88 - 280.00	0.6000	0.4659
T8	14	1	260.88 - 280.00	0.6000	0.4659
T8	16	7/8	260.88 - 264.25	0.6000	0.4659
T8	20	1 1/4	260.88 - 280.00	0.6000	0.4659
T8	21	1/2	260.88 - 274.00	0.6000	0.4659
T8	22	1/2	274.00 - 280.00	0.6000	0.4659
T8	24	1 5/8	260.88 - 274.00	0.6000	0.4659
T8	25	1 5/8	274.00 - 280.00	0.6000	0.4659
T8	28	1/2	260.88 - 279.00	0.6000	0.4659
T8	29	1/2	279.00 - 280.00	0.6000	0.4659
T8	48	Safety Line 3/8	260.88 - 280.00	0.6000	0.4659
T8	49	Feedline Ladder (Af)	260.88 - 280.00	0.6000	0.4659
T8	50	Feedline Ladder (Af)	260.88 - 280.00	0.6000	0.4659
T8	51	Feedline Ladder (Af)	260.88 - 280.00	0.6000	0.4659
T8	52	Feedline Ladder (Af)	260.88 - 280.00	0.6000	0.4659
T8	53	Feedline Ladder (Af)	260.88 - 280.00	0.6000	0.4659
T8	54	Feedline Ladder (Af)	260.88 - 280.00	0.6000	0.4659
T8	55	Climbing Ladder (Flat)	260.88 - 280.00	0.6000	0.4659
T9	8	2-1/4	260.00 - 260.88	0.6000	0.0224
T9	14	1	260.00 - 260.88	0.6000	0.0224
T9	16	7/8	260.00 - 260.88	0.6000	0.0224
T9	20	1 1/4	260.00 - 260.88	0.6000	0.0224
T9	21	1/2	260.00 -	0.6000	0.0224

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<i>Tower Section</i>	<i>Feed Line Record No.</i>	<i>Description</i>	<i>Feed Line Segment Elev.</i>	<i>K_a No Ice</i>	<i>K_a Ice</i>
T9	24	1 5/8	260.88 260.00 - 260.88	0.6000	0.0224
T9	28	1/2	260.88 260.00 - 260.88	0.6000	0.0224
T9	48	Safety Line 3/8	260.88 260.00 - 260.88	0.6000	0.0224
T9	49	Feedline Ladder (Af)	260.88 260.00 - 260.88	0.6000	0.0224
T9	50	Feedline Ladder (Af)	260.88 260.00 - 260.88	0.6000	0.0224
T9	51	Feedline Ladder (Af)	260.88 260.00 - 260.88	0.6000	0.0224
T9	52	Feedline Ladder (Af)	260.88 260.00 - 260.88	0.6000	0.0224
T9	53	Feedline Ladder (Af)	260.88 260.00 - 260.88	0.6000	0.0224
T9	54	Feedline Ladder (Af)	260.88 260.00 - 260.88	0.6000	0.0224
T9	55	Climbing Ladder (Flat)	260.88 260.00 - 260.88	0.6000	0.0224
T10	8	2-1/4	240.88 - 260.00	0.6000	0.4687
T10	14	1	240.88 - 260.00	0.6000	0.4687
T10	16	7/8	240.88 - 260.00	0.6000	0.4687
T10	19	1 5/8	240.88 - 251.00	0.6000	0.4687
T10	20	1 1/4	240.88 - 260.00	0.6000	0.4687
T10	21	1/2	240.88 - 260.00	0.6000	0.4687
T10	24	1 5/8	240.88 - 260.00	0.6000	0.4687
T10	28	1/2	240.88 - 260.00	0.6000	0.4687
T10	35	7/8	240.88 - 252.00	0.6000	0.4687
T10	48	Safety Line 3/8	240.88 - 260.00	0.6000	0.4687
T10	49	Feedline Ladder (Af)	240.88 - 260.00	0.6000	0.4687
T10	50	Feedline Ladder (Af)	240.88 - 260.00	0.6000	0.4687
T10	51	Feedline Ladder (Af)	240.88 - 260.00	0.6000	0.4687
T10	52	Feedline Ladder (Af)	240.88 - 260.00	0.6000	0.4687
T10	53	Feedline Ladder (Af)	240.88 - 260.00	0.6000	0.4687
T10	54	Feedline Ladder (Af)	240.88 - 260.00	0.6000	0.4687
T10	55	Climbing Ladder (Flat)	240.88 - 260.00	0.6000	0.4687
T11	8	2-1/4	240.00 - 240.88	0.6000	0.0278
T11	14	1	240.00 - 240.88	0.6000	0.0278
T11	16	7/8	240.00 - 240.88	0.6000	0.0278
T11	19	1 5/8	240.00 -	0.6000	0.0278

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<i>Tower Section</i>	<i>Feed Line Record No.</i>	<i>Description</i>	<i>Feed Line Segment Elev.</i>	<i>K_a No Ice</i>	<i>K_a Ice</i>
T11	20	1 1/4	240.88 240.00 - 240.88	0.6000	0.0278
T11	21	1/2	240.00 - 240.88	0.6000	0.0278
T11	24	1 5/8	240.00 - 240.88	0.6000	0.0278
T11	28	1/2	240.00 - 240.88	0.6000	0.0278
T11	35	7/8	240.00 - 240.88	0.6000	0.0278
T11	48	Safety Line 3/8	240.00 - 240.88	0.6000	0.0278
T11	49	Feedline Ladder (Af)	240.00 - 240.88	0.6000	0.0278
T11	50	Feedline Ladder (Af)	240.00 - 240.88	0.6000	0.0278
T11	51	Feedline Ladder (Af)	240.00 - 240.88	0.6000	0.0278
T11	52	Feedline Ladder (Af)	240.00 - 240.88	0.6000	0.0278
T11	53	Feedline Ladder (Af)	240.00 - 240.88	0.6000	0.0278
T11	54	Feedline Ladder (Af)	240.00 - 240.88	0.6000	0.0278
T11	55	Climbing Ladder (Flat)	240.00 - 240.88	0.6000	0.0278
T12	8	2-1/4	220.88 - 240.00	0.6000	0.4717
T12	14	1	220.88 - 240.00	0.6000	0.4717
T12	16	7/8	220.88 - 240.00	0.6000	0.4717
T12	19	1 5/8	220.88 - 240.00	0.6000	0.4717
T12	20	1 1/4	220.88 - 240.00	0.6000	0.4717
T12	21	1/2	220.88 - 240.00	0.6000	0.4717
T12	24	1 5/8	220.88 - 240.00	0.6000	0.4717
T12	28	1/2	220.88 - 240.00	0.6000	0.4717
T12	35	7/8	220.88 - 240.00	0.6000	0.4717
T12	38	1 5/8	220.88 - 226.50	0.6000	0.4717
T12	48	Safety Line 3/8	220.88 - 240.00	0.6000	0.4717
T12	49	Feedline Ladder (Af)	220.88 - 240.00	0.6000	0.4717
T12	50	Feedline Ladder (Af)	220.88 - 240.00	0.6000	0.4717
T12	51	Feedline Ladder (Af)	220.88 - 240.00	0.6000	0.4717
T12	52	Feedline Ladder (Af)	220.88 - 240.00	0.6000	0.4717
T12	53	Feedline Ladder (Af)	220.88 - 240.00	0.6000	0.4717
T12	54	Feedline Ladder (Af)	220.88 - 240.00	0.6000	0.4717
T12	55	Climbing Ladder (Flat)	220.88 -	0.6000	0.4717

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T13	8	2-1/4	240.00 220.00 - 220.88	0.6000	0.0337
T13	14	1	220.00 - 220.88	0.6000	0.0337
T13	16	7/8	220.00 - 220.88	0.6000	0.0337
T13	19	1 5/8	220.00 - 220.88	0.6000	0.0337
T13	20	1 1/4	220.00 - 220.88	0.6000	0.0337
T13	21	1/2	220.00 - 220.88	0.6000	0.0337
T13	24	1 5/8	220.00 - 220.88	0.6000	0.0337
T13	28	1/2	220.00 - 220.88	0.6000	0.0337
T13	35	7/8	220.00 - 220.88	0.6000	0.0337
T13	38	1 5/8	220.00 - 220.88	0.6000	0.0337
T13	48	Safety Line 3/8	220.00 - 220.88	0.6000	0.0337
T13	49	Feedline Ladder (Af)	220.00 - 220.88	0.6000	0.0337
T13	50	Feedline Ladder (Af)	220.00 - 220.88	0.6000	0.0337
T13	51	Feedline Ladder (Af)	220.00 - 220.88	0.6000	0.0337
T13	52	Feedline Ladder (Af)	220.00 - 220.88	0.6000	0.0337
T13	53	Feedline Ladder (Af)	220.00 - 220.88	0.6000	0.0337
T13	54	Feedline Ladder (Af)	220.00 - 220.88	0.6000	0.0337
T13	55	Climbing Ladder (Flat)	220.00 - 220.88	0.6000	0.0337
T14	6	7/8	201.00 - 219.50	0.6000	0.4670
T14	8	2-1/4	201.00 - 220.00	0.6000	0.4670
T14	14	1	201.00 - 220.00	0.6000	0.4670
T14	16	7/8	201.00 - 220.00	0.6000	0.4670
T14	17	1 1/4	201.00 - 205.50	0.6000	0.4670
T14	19	1 5/8	201.00 - 220.00	0.6000	0.4670
T14	20	1 1/4	201.00 - 220.00	0.6000	0.4670
T14	21	1/2	201.00 - 220.00	0.6000	0.4670
T14	24	1 5/8	201.00 - 220.00	0.6000	0.4670
T14	28	1/2	201.00 - 220.00	0.6000	0.4670
T14	33	1 5/8	201.00 - 204.00	0.6000	0.4670
T14	35	7/8	201.00 - 220.00	0.6000	0.4670
T14	37	1 1/4	201.00 -	0.6000	0.4670

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T14	38	1 5/8	209.00 201.00 - 220.00	0.6000	0.4670
T14	48	Safety Line 3/8	201.00 - 220.00	0.6000	0.4670
T14	49	Feedline Ladder (Af)	201.00 - 220.00	0.6000	0.4670
T14	50	Feedline Ladder (Af)	201.00 - 220.00	0.6000	0.4670
T14	51	Feedline Ladder (Af)	201.00 - 220.00	0.6000	0.4670
T14	52	Feedline Ladder (Af)	201.00 - 220.00	0.6000	0.4670
T14	53	Feedline Ladder (Af)	201.00 - 220.00	0.6000	0.4670
T14	54	Feedline Ladder (Af)	201.00 - 220.00	0.6000	0.4670
T14	55	Climbing Ladder (Flat)	201.00 - 220.00	0.6000	0.4670
T15	6	7/8	200.00 - 201.00	0.6000	0.1135
T15	8	2-1/4	200.00 - 201.00	0.6000	0.1135
T15	14	1	200.00 - 201.00	0.6000	0.1135
T15	16	7/8	200.00 - 201.00	0.6000	0.1135
T15	17	1 1/4	200.00 - 201.00	0.6000	0.1135
T15	19	1 5/8	200.00 - 201.00	0.6000	0.1135
T15	20	1 1/4	200.00 - 201.00	0.6000	0.1135
T15	21	1/2	200.00 - 201.00	0.6000	0.1135
T15	24	1 5/8	200.00 - 201.00	0.6000	0.1135
T15	28	1/2	200.00 - 201.00	0.6000	0.1135
T15	33	1 5/8	200.00 - 201.00	0.6000	0.1135
T15	35	7/8	200.00 - 201.00	0.6000	0.1135
T15	37	1 1/4	200.00 - 201.00	0.6000	0.1135
T15	38	1 5/8	200.00 - 201.00	0.6000	0.1135
T15	48	Safety Line 3/8	200.00 - 201.00	0.6000	0.1135
T15	49	Feedline Ladder (Af)	200.00 - 201.00	0.6000	0.1135
T15	50	Feedline Ladder (Af)	200.00 - 201.00	0.6000	0.1135
T15	51	Feedline Ladder (Af)	200.00 - 201.00	0.6000	0.1135
T15	52	Feedline Ladder (Af)	200.00 - 201.00	0.6000	0.1135
T15	53	Feedline Ladder (Af)	200.00 - 201.00	0.6000	0.1135
T15	54	Feedline Ladder (Af)	200.00 - 201.00	0.6000	0.1135
T15	55	Climbing Ladder (Flat)	200.00 -	0.6000	0.1135

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<i>Tower Section</i>	<i>Feed Line Record No.</i>	<i>Description</i>	<i>Feed Line Segment Elev.</i>	<i>K_a No Ice</i>	<i>K_a Ice</i>
T16	1	1 5/8	201.00 181.00 - 200.00	0.6000	0.4497
T16	2	3/8	181.00 - 200.00	0.6000	0.4497
T16	3	3/4	181.00 - 200.00	0.6000	0.4497
T16	6	7/8	181.00 - 200.00	0.6000	0.4497
T16	8	2-1/4	181.00 - 200.00	0.6000	0.4497
T16	14	1	181.00 - 200.00	0.6000	0.4497
T16	16	7/8	181.00 - 200.00	0.6000	0.4497
T16	17	1 1/4	181.00 - 200.00	0.6000	0.4497
T16	19	1 5/8	181.00 - 200.00	0.6000	0.4497
T16	20	1 1/4	181.00 - 200.00	0.6000	0.4497
T16	21	1/2	181.00 - 200.00	0.6000	0.4497
T16	24	1 5/8	181.00 - 200.00	0.6000	0.4497
T16	28	1/2	181.00 - 200.00	0.6000	0.4497
T16	33	1 5/8	181.00 - 200.00	0.6000	0.4497
T16	35	7/8	181.00 - 200.00	0.6000	0.4497
T16	37	1 1/4	181.00 - 200.00	0.6000	0.4497
T16	38	1 5/8	181.00 - 200.00	0.6000	0.4497
T16	40	1 5/8	181.00 - 188.50	0.6000	0.4497
T16	41	1 1/4	181.00 - 188.50	0.6000	0.4497
T16	42	1 3/8	181.00 - 188.50	0.6000	0.4497
T16	48	Safety Line 3/8	181.00 - 200.00	0.6000	0.4497
T16	49	Feedline Ladder (Af)	181.00 - 200.00	0.6000	0.4497
T16	50	Feedline Ladder (Af)	181.00 - 200.00	0.6000	0.4497
T16	51	Feedline Ladder (Af)	181.00 - 200.00	0.6000	0.4497
T16	52	Feedline Ladder (Af)	181.00 - 200.00	0.6000	0.4497
T16	53	Feedline Ladder (Af)	181.00 - 200.00	0.6000	0.4497
T16	54	Feedline Ladder (Af)	181.00 - 200.00	0.6000	0.4497
T16	55	Climbing Ladder (Flat)	181.00 - 200.00	0.6000	0.4497
T17	1	1 5/8	180.00 - 181.00	0.6000	0.0995
T17	2	3/8	180.00 - 181.00	0.6000	0.0995
T17	3	3/4	180.00 -	0.6000	0.0995

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	Client	Smartlink	Designed by	Bryan Mawhinney

<i>Tower Section</i>	<i>Feed Line Record No.</i>	<i>Description</i>	<i>Feed Line Segment Elev.</i>	<i>K_a No Ice</i>	<i>K_a Ice</i>
T17	6	7/8	181.00 180.00 - 181.00	0.6000	0.0995
T17	8	2-1/4	180.00 - 181.00	0.6000	0.0995
T17	14	1	180.00 - 181.00	0.6000	0.0995
T17	16	7/8	180.00 - 181.00	0.6000	0.0995
T17	17	1 1/4	180.00 - 181.00	0.6000	0.0995
T17	19	1 5/8	180.00 - 181.00	0.6000	0.0995
T17	20	1 1/4	180.00 - 181.00	0.6000	0.0995
T17	21	1/2	180.00 - 181.00	0.6000	0.0995
T17	24	1 5/8	180.00 - 181.00	0.6000	0.0995
T17	28	1/2	180.00 - 181.00	0.6000	0.0995
T17	33	1 5/8	180.00 - 181.00	0.6000	0.0995
T17	35	7/8	180.00 - 181.00	0.6000	0.0995
T17	37	1 1/4	180.00 - 181.00	0.6000	0.0995
T17	38	1 5/8	180.00 - 181.00	0.6000	0.0995
T17	40	1 5/8	180.00 - 181.00	0.6000	0.0995
T17	41	1 1/4	180.00 - 181.00	0.6000	0.0995
T17	42	1 3/8	180.00 - 181.00	0.6000	0.0995
T17	48	Safety Line 3/8	180.00 - 181.00	0.6000	0.0995
T17	49	Feedline Ladder (Af)	180.00 - 181.00	0.6000	0.0995
T17	50	Feedline Ladder (Af)	180.00 - 181.00	0.6000	0.0995
T17	51	Feedline Ladder (Af)	180.00 - 181.00	0.6000	0.0995
T17	52	Feedline Ladder (Af)	180.00 - 181.00	0.6000	0.0995
T17	53	Feedline Ladder (Af)	180.00 - 181.00	0.6000	0.0995
T17	54	Feedline Ladder (Af)	180.00 - 181.00	0.6000	0.0995
T17	55	Climbing Ladder (Flat)	180.00 - 181.00	0.6000	0.0995
T18	1	1 5/8	161.00 - 180.00	0.6000	0.4703
T18	2	3/8	161.00 - 180.00	0.6000	0.4703
T18	3	3/4	161.00 - 180.00	0.6000	0.4703
T18	6	7/8	161.00 - 180.00	0.6000	0.4703
T18	8	2-1/4	161.00 - 180.00	0.6000	0.4703
T18	10	1 5/8	161.00 -	0.6000	0.4703

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<i>Tower Section</i>	<i>Feed Line Record No.</i>	<i>Description</i>	<i>Feed Line Segment Elev.</i>	<i>K_a No Ice</i>	<i>K_a Ice</i>
T18	14	1	169.50 161.00 - 180.00	0.6000	0.4703
T18	16	7/8	161.00 - 180.00	0.6000	0.4703
T18	17	1 1/4	161.00 - 180.00	0.6000	0.4703
T18	19	1 5/8	161.00 - 180.00	0.6000	0.4703
T18	20	1 1/4	161.00 - 180.00	0.6000	0.4703
T18	21	1/2	161.00 - 180.00	0.6000	0.4703
T18	24	1 5/8	161.00 - 180.00	0.6000	0.4703
T18	28	1/2	161.00 - 180.00	0.6000	0.4703
T18	33	1 5/8	161.00 - 180.00	0.6000	0.4703
T18	35	7/8	161.00 - 180.00	0.6000	0.4703
T18	37	1 1/4	161.00 - 180.00	0.6000	0.4703
T18	38	1 5/8	161.00 - 180.00	0.6000	0.4703
T18	40	1 5/8	161.00 - 180.00	0.6000	0.4703
T18	41	1 1/4	161.00 - 180.00	0.6000	0.4703
T18	42	1 3/8	161.00 - 180.00	0.6000	0.4703
T18	48	Safety Line 3/8	161.00 - 180.00	0.6000	0.4703
T18	49	Feedline Ladder (Af)	161.00 - 180.00	0.6000	0.4703
T18	50	Feedline Ladder (Af)	161.00 - 180.00	0.6000	0.4703
T18	51	Feedline Ladder (Af)	161.00 - 180.00	0.6000	0.4703
T18	52	Feedline Ladder (Af)	161.00 - 180.00	0.6000	0.4703
T18	53	Feedline Ladder (Af)	161.00 - 180.00	0.6000	0.4703
T18	54	Feedline Ladder (Af)	161.00 - 180.00	0.6000	0.4703
T18	55	Climbing Ladder (Flat)	161.00 - 180.00	0.6000	0.4703
T19	1	1 5/8	160.00 - 161.00	0.6000	0.1253
T19	2	3/8	160.00 - 161.00	0.6000	0.1253
T19	3	3/4	160.00 - 161.00	0.6000	0.1253
T19	6	7/8	160.00 - 161.00	0.6000	0.1253
T19	8	2-1/4	160.00 - 161.00	0.6000	0.1253
T19	10	1 5/8	160.00 - 161.00	0.6000	0.1253
T19	14	1	160.00 - 161.00	0.6000	0.1253
T19	16	7/8	160.00 -	0.6000	0.1253

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<i>Tower Section</i>	<i>Feed Line Record No.</i>	<i>Description</i>	<i>Feed Line Segment Elev.</i>	<i>K_a No Ice</i>	<i>K_a Ice</i>
T19	17	1 1/4	161.00 - 160.00	0.6000	0.1253
T19	19	1 5/8	161.00 - 160.00	0.6000	0.1253
T19	20	1 1/4	161.00 - 160.00	0.6000	0.1253
T19	21	1/2	161.00 - 160.00	0.6000	0.1253
T19	24	1 5/8	161.00 - 160.00	0.6000	0.1253
T19	28	1/2	161.00 - 160.00	0.6000	0.1253
T19	33	1 5/8	161.00 - 160.00	0.6000	0.1253
T19	35	7/8	161.00 - 160.00	0.6000	0.1253
T19	37	1 1/4	161.00 - 160.00	0.6000	0.1253
T19	38	1 5/8	161.00 - 160.00	0.6000	0.1253
T19	40	1 5/8	161.00 - 160.00	0.6000	0.1253
T19	41	1 1/4	161.00 - 160.00	0.6000	0.1253
T19	42	1 3/8	161.00 - 160.00	0.6000	0.1253
T19	48	Safety Line 3/8	161.00 - 160.00	0.6000	0.1253
T19	49	Feedline Ladder (Af)	161.00 - 160.00	0.6000	0.1253
T19	50	Feedline Ladder (Af)	161.00 - 160.00	0.6000	0.1253
T19	51	Feedline Ladder (Af)	161.00 - 160.00	0.6000	0.1253
T19	52	Feedline Ladder (Af)	161.00 - 160.00	0.6000	0.1253
T19	53	Feedline Ladder (Af)	161.00 - 160.00	0.6000	0.1253
T19	54	Feedline Ladder (Af)	161.00 - 160.00	0.6000	0.1253
T19	55	Climbing Ladder (Flat)	161.00 - 160.00	0.6000	0.1253
T20	1	1 5/8	141.00 - 160.00	0.6000	0.4745
T20	2	3/8	141.00 - 160.00	0.6000	0.4745
T20	3	3/4	141.00 - 160.00	0.6000	0.4745
T20	6	7/8	141.00 - 160.00	0.6000	0.4745
T20	8	2-1/4	141.00 - 160.00	0.6000	0.4745
T20	10	1 5/8	141.00 - 160.00	0.6000	0.4745
T20	14	1	141.00 - 160.00	0.6000	0.4745
T20	16	7/8	141.00 - 160.00	0.6000	0.4745
T20	17	1 1/4	141.00 - 160.00	0.6000	0.4745
T20	19	1 5/8	141.00 -	0.6000	0.4745

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<i>Tower Section</i>	<i>Feed Line Record No.</i>	<i>Description</i>	<i>Feed Line Segment Elev.</i>	<i>K_a No Ice</i>	<i>K_a Ice</i>
T20	20	1 1/4	160.00 141.00 - 160.00	0.6000	0.4745
T20	21	1/2	141.00 - 160.00	0.6000	0.4745
T20	24	1 5/8	141.00 - 160.00	0.6000	0.4745
T20	28	1/2	141.00 - 160.00	0.6000	0.4745
T20	33	1 5/8	141.00 - 160.00	0.6000	0.4745
T20	35	7/8	141.00 - 160.00	0.6000	0.4745
T20	36	5/8	141.00 - 150.50	0.6000	0.4745
T20	37	1 1/4	141.00 - 160.00	0.6000	0.4745
T20	38	1 5/8	141.00 - 160.00	0.6000	0.4745
T20	40	1 5/8	141.00 - 160.00	0.6000	0.4745
T20	41	1 1/4	141.00 - 160.00	0.6000	0.4745
T20	42	1 3/8	141.00 - 160.00	0.6000	0.4745
T20	48	Safety Line 3/8	141.00 - 160.00	0.6000	0.4745
T20	49	Feedline Ladder (Af)	141.00 - 160.00	0.6000	0.4745
T20	50	Feedline Ladder (Af)	141.00 - 160.00	0.6000	0.4745
T20	51	Feedline Ladder (Af)	141.00 - 160.00	0.6000	0.4745
T20	52	Feedline Ladder (Af)	141.00 - 160.00	0.6000	0.4745
T20	53	Feedline Ladder (Af)	141.00 - 160.00	0.6000	0.4745
T20	54	Feedline Ladder (Af)	141.00 - 160.00	0.6000	0.4745
T20	55	Climbing Ladder (Flat)	141.00 - 160.00	0.6000	0.4745
T21	1	1 5/8	140.00 - 141.00	0.6000	0.1330
T21	2	3/8	140.00 - 141.00	0.6000	0.1330
T21	3	3/4	140.00 - 141.00	0.6000	0.1330
T21	6	7/8	140.00 - 141.00	0.6000	0.1330
T21	8	2-1/4	140.00 - 141.00	0.6000	0.1330
T21	10	1 5/8	140.00 - 141.00	0.6000	0.1330
T21	14	1	140.00 - 141.00	0.6000	0.1330
T21	16	7/8	140.00 - 141.00	0.6000	0.1330
T21	17	1 1/4	140.00 - 141.00	0.6000	0.1330
T21	19	1 5/8	140.00 - 141.00	0.6000	0.1330
T21	20	1 1/4	140.00 -	0.6000	0.1330

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<i>Tower Section</i>	<i>Feed Line Record No.</i>	<i>Description</i>	<i>Feed Line Segment Elev.</i>	<i>K_a No Ice</i>	<i>K_a Ice</i>
T21	21	1/2	141.00 140.00 - 141.00	0.6000	0.1330
T21	24	1 5/8	140.00 - 141.00	0.6000	0.1330
T21	28	1/2	140.00 - 141.00	0.6000	0.1330
T21	33	1 5/8	140.00 - 141.00	0.6000	0.1330
T21	35	7/8	140.00 - 141.00	0.6000	0.1330
T21	36	5/8	140.00 - 141.00	0.6000	0.1330
T21	37	1 1/4	140.00 - 141.00	0.6000	0.1330
T21	38	1 5/8	140.00 - 141.00	0.6000	0.1330
T21	40	1 5/8	140.00 - 141.00	0.6000	0.1330
T21	41	1 1/4	140.00 - 141.00	0.6000	0.1330
T21	42	1 3/8	140.00 - 141.00	0.6000	0.1330
T21	48	Safety Line 3/8	140.00 - 141.00	0.6000	0.1330
T21	49	Feedline Ladder (Af)	140.00 - 141.00	0.6000	0.1330
T21	50	Feedline Ladder (Af)	140.00 - 141.00	0.6000	0.1330
T21	51	Feedline Ladder (Af)	140.00 - 141.00	0.6000	0.1330
T21	52	Feedline Ladder (Af)	140.00 - 141.00	0.6000	0.1330
T21	53	Feedline Ladder (Af)	140.00 - 141.00	0.6000	0.1330
T21	54	Feedline Ladder (Af)	140.00 - 141.00	0.6000	0.1330
T21	55	Climbing Ladder (Flat)	140.00 - 141.00	0.6000	0.1330
T22	1	1 5/8	121.00 - 140.00	0.6000	0.4793
T22	2	3/8	121.00 - 140.00	0.6000	0.4793
T22	3	3/4	121.00 - 140.00	0.6000	0.4793
T22	5	7/8	121.00 - 136.00	0.6000	0.4793
T22	6	7/8	136.00 - 140.00	0.6000	0.4793
T22	8	2-1/4	121.00 - 140.00	0.6000	0.4793
T22	10	1 5/8	121.00 - 140.00	0.6000	0.4793
T22	14	1	121.00 - 140.00	0.6000	0.4793
T22	16	7/8	121.00 - 140.00	0.6000	0.4793
T22	17	1 1/4	121.00 - 140.00	0.6000	0.4793
T22	19	1 5/8	121.00 - 140.00	0.6000	0.4793
T22	20	1 1/4	121.00 -	0.6000	0.4793

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<i>Tower Section</i>	<i>Feed Line Record No.</i>	<i>Description</i>	<i>Feed Line Segment Elev.</i>	<i>K_a No Ice</i>	<i>K_a Ice</i>
T22	21	1/2	140.00 121.00 - 140.00	0.6000	0.4793
T22	24	1 5/8	121.00 - 140.00	0.6000	0.4793
T22	28	1/2	121.00 - 140.00	0.6000	0.4793
T22	32	1 5/8	121.00 - 130.00	0.6000	0.4793
T22	33	1 5/8	130.00 - 140.00	0.6000	0.4793
T22	35	7/8	121.00 - 140.00	0.6000	0.4793
T22	36	5/8	121.00 - 140.00	0.6000	0.4793
T22	37	1 1/4	121.00 - 140.00	0.6000	0.4793
T22	38	1 5/8	121.00 - 140.00	0.6000	0.4793
T22	40	1 5/8	121.00 - 140.00	0.6000	0.4793
T22	41	1 1/4	121.00 - 140.00	0.6000	0.4793
T22	42	1 3/8	121.00 - 140.00	0.6000	0.4793
T22	46	1/4	121.00 - 123.50	0.6000	0.4793
T22	48	Safety Line 3/8	121.00 - 140.00	0.6000	0.4793
T22	49	Feedline Ladder (Af)	121.00 - 140.00	0.6000	0.4793
T22	50	Feedline Ladder (Af)	121.00 - 140.00	0.6000	0.4793
T22	51	Feedline Ladder (Af)	121.00 - 140.00	0.6000	0.4793
T22	52	Feedline Ladder (Af)	121.00 - 140.00	0.6000	0.4793
T22	53	Feedline Ladder (Af)	121.00 - 140.00	0.6000	0.4793
T22	54	Feedline Ladder (Af)	121.00 - 140.00	0.6000	0.4793
T22	55	Climbing Ladder (Flat)	121.00 - 140.00	0.6000	0.4793
T23	1	1 5/8	120.00 - 121.00	0.6000	0.1417
T23	2	3/8	120.00 - 121.00	0.6000	0.1417
T23	3	3/4	120.00 - 121.00	0.6000	0.1417
T23	5	7/8	120.00 - 121.00	0.6000	0.1417
T23	8	2-1/4	120.00 - 121.00	0.6000	0.1417
T23	10	1 5/8	120.00 - 121.00	0.6000	0.1417
T23	14	1	120.00 - 121.00	0.6000	0.1417
T23	16	7/8	120.00 - 121.00	0.6000	0.1417
T23	17	1 1/4	120.00 - 121.00	0.6000	0.1417
T23	19	1 5/8	120.00 -	0.6000	0.1417

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<i>Tower Section</i>	<i>Feed Line Record No.</i>	<i>Description</i>	<i>Feed Line Segment Elev.</i>	<i>K_a No Ice</i>	<i>K_a Ice</i>
T23	20	1 1/4	121.00 - 120.00 - 121.00	0.6000	0.1417
T23	21	1/2	120.00 - 121.00	0.6000	0.1417
T23	24	1 5/8	120.00 - 121.00	0.6000	0.1417
T23	28	1/2	120.00 - 121.00	0.6000	0.1417
T23	32	1 5/8	120.00 - 121.00	0.6000	0.1417
T23	35	7/8	120.00 - 121.00	0.6000	0.1417
T23	36	5/8	120.00 - 121.00	0.6000	0.1417
T23	37	1 1/4	120.00 - 121.00	0.6000	0.1417
T23	38	1 5/8	120.00 - 121.00	0.6000	0.1417
T23	40	1 5/8	120.00 - 121.00	0.6000	0.1417
T23	41	1 1/4	120.00 - 121.00	0.6000	0.1417
T23	42	1 3/8	120.00 - 121.00	0.6000	0.1417
T23	46	1/4	120.00 - 121.00	0.6000	0.1417
T23	48	Safety Line 3/8	120.00 - 121.00	0.6000	0.1417
T23	49	Feedline Ladder (Af)	120.00 - 121.00	0.6000	0.1417
T23	50	Feedline Ladder (Af)	120.00 - 121.00	0.6000	0.1417
T23	51	Feedline Ladder (Af)	120.00 - 121.00	0.6000	0.1417
T23	52	Feedline Ladder (Af)	120.00 - 121.00	0.6000	0.1417
T23	53	Feedline Ladder (Af)	120.00 - 121.00	0.6000	0.1417
T23	54	Feedline Ladder (Af)	120.00 - 121.00	0.6000	0.1417
T23	55	Climbing Ladder (Flat)	120.00 - 121.00	0.6000	0.1417
T24	1	1 5/8	101.00 - 120.00	0.6000	0.4848
T24	2	3/8	101.00 - 120.00	0.6000	0.4848
T24	3	3/4	101.00 - 120.00	0.6000	0.4848
T24	5	7/8	101.00 - 120.00	0.6000	0.4848
T24	8	2-1/4	101.00 - 120.00	0.6000	0.4848
T24	10	1 5/8	101.00 - 120.00	0.6000	0.4848
T24	14	1	101.00 - 120.00	0.6000	0.4848
T24	16	7/8	101.00 - 120.00	0.6000	0.4848
T24	17	1 1/4	101.00 - 120.00	0.6000	0.4848
T24	19	1 5/8	101.00 -	0.6000	0.4848

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<i>Tower Section</i>	<i>Feed Line Record No.</i>	<i>Description</i>	<i>Feed Line Segment Elev.</i>	<i>K_a No Ice</i>	<i>K_a Ice</i>
T24	20	1 1/4	120.00 101.00 -	0.6000	0.4848
T24	21	1/2	120.00 101.00 -	0.6000	0.4848
T24	24	1 5/8	120.00 101.00 -	0.6000	0.4848
T24	28	1/2	120.00 101.00 -	0.6000	0.4848
T24	31	1 5/8	120.00 101.00 -	0.6000	0.4848
T24	32	1 5/8	112.00 112.00 -	0.6000	0.4848
T24	35	7/8	120.00 101.00 -	0.6000	0.4848
T24	36	5/8	120.00 101.00 -	0.6000	0.4848
T24	37	1 1/4	120.00 101.00 -	0.6000	0.4848
T24	38	1 5/8	120.00 101.00 -	0.6000	0.4848
T24	40	1 5/8	120.00 101.00 -	0.6000	0.4848
T24	41	1 1/4	120.00 101.00 -	0.6000	0.4848
T24	42	1 3/8	120.00 101.00 -	0.6000	0.4848
T24	44	1/4	106.50 101.00 -	0.6000	0.4848
T24	46	1/4	120.00 101.00 -	0.6000	0.4848
T24	48	Safety Line 3/8	120.00 101.00 -	0.6000	0.4848
T24	49	Feedline Ladder (Af)	120.00 101.00 -	0.6000	0.4848
T24	50	Feedline Ladder (Af)	120.00 101.00 -	0.6000	0.4848
T24	51	Feedline Ladder (Af)	120.00 101.00 -	0.6000	0.4848
T24	52	Feedline Ladder (Af)	120.00 101.00 -	0.6000	0.4848
T24	53	Feedline Ladder (Af)	120.00 101.00 -	0.6000	0.4848
T24	54	Feedline Ladder (Af)	120.00 101.00 -	0.6000	0.4848
T24	55	Climbing Ladder (Flat)	120.00 101.00 -	0.6000	0.4848
T25	1	1 5/8	100.00 - 101.00	0.6000	0.1519
T25	2	3/8	100.00 - 101.00	0.6000	0.1519
T25	3	3/4	100.00 - 101.00	0.6000	0.1519
T25	5	7/8	100.00 - 101.00	0.6000	0.1519
T25	8	2-1/4	100.00 - 101.00	0.6000	0.1519
T25	10	1 5/8	100.00 - 101.00	0.6000	0.1519
T25	14	1	100.00 - 101.00	0.6000	0.1519
T25	16	7/8	100.00 -	0.6000	0.1519

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<i>Tower Section</i>	<i>Feed Line Record No.</i>	<i>Description</i>	<i>Feed Line Segment Elev.</i>	<i>K_a No Ice</i>	<i>K_a Ice</i>
T25	17	1 1/4	101.00 - 100.00	0.6000	0.1519
T25	19	1 5/8	101.00 - 100.00	0.6000	0.1519
T25	20	1 1/4	101.00 - 100.00	0.6000	0.1519
T25	21	1/2	101.00 - 100.00	0.6000	0.1519
T25	24	1 5/8	101.00 - 100.00	0.6000	0.1519
T25	28	1/2	101.00 - 100.00	0.6000	0.1519
T25	31	1 5/8	101.00 - 100.00	0.6000	0.1519
T25	35	7/8	101.00 - 100.00	0.6000	0.1519
T25	36	5/8	101.00 - 100.00	0.6000	0.1519
T25	37	1 1/4	101.00 - 100.00	0.6000	0.1519
T25	38	1 5/8	101.00 - 100.00	0.6000	0.1519
T25	40	1 5/8	101.00 - 100.00	0.6000	0.1519
T25	41	1 1/4	101.00 - 100.00	0.6000	0.1519
T25	42	1 3/8	101.00 - 100.00	0.6000	0.1519
T25	44	1/4	101.00 - 100.00	0.6000	0.1519
T25	46	1/4	101.00 - 100.00	0.6000	0.1519
T25	48	Safety Line 3/8	101.00 - 100.00	0.6000	0.1519
T25	49	Feedline Ladder (Af)	101.00 - 100.00	0.6000	0.1519
T25	50	Feedline Ladder (Af)	101.00 - 100.00	0.6000	0.1519
T25	51	Feedline Ladder (Af)	101.00 - 100.00	0.6000	0.1519
T25	52	Feedline Ladder (Af)	101.00 - 100.00	0.6000	0.1519
T25	53	Feedline Ladder (Af)	101.00 - 100.00	0.6000	0.1519
T25	54	Feedline Ladder (Af)	101.00 - 100.00	0.6000	0.1519
T25	55	Climbing Ladder (Flat)	101.00 - 100.00	0.6000	0.1519
T26	1	1 5/8	81.00 - 100.00	0.6000	0.4913
T26	2	3/8	81.00 - 100.00	0.6000	0.4913
T26	3	3/4	81.00 - 100.00	0.6000	0.4913
T26	5	7/8	81.00 - 100.00	0.6000	0.4913
T26	7	1/2	81.00 - 90.00	0.6000	0.4913
T26	8	2-1/4	81.00 - 100.00	0.6000	0.4913
T26	10	1 5/8	81.00 - 100.00	0.6000	0.4913
T26	14	1	81.00 - 100.00	0.6000	0.4913
T26	16	7/8	81.00 - 100.00	0.6000	0.4913
T26	17	1 1/4	81.00 - 100.00	0.6000	0.4913
T26	19	1 5/8	81.00 - 100.00	0.6000	0.4913
T26	20	1 1/4	81.00 - 100.00	0.6000	0.4913
T26	21	1/2	81.00 - 100.00	0.6000	0.4913

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<i>Tower Section</i>	<i>Feed Line Record No.</i>	<i>Description</i>	<i>Feed Line Segment Elev.</i>	<i>K_a No Ice</i>	<i>K_a Ice</i>
T26	24	1 5/8	81.00 - 100.00	0.6000	0.4913
T26	28	1/2	81.00 - 100.00	0.6000	0.4913
T26	31	1 5/8	81.00 - 100.00	0.6000	0.4913
T26	35	7/8	81.00 - 100.00	0.6000	0.4913
T26	36	5/8	81.00 - 100.00	0.6000	0.4913
T26	37	1 1/4	81.00 - 100.00	0.6000	0.4913
T26	38	1 5/8	81.00 - 100.00	0.6000	0.4913
T26	40	1 5/8	81.00 - 100.00	0.6000	0.4913
T26	41	1 1/4	81.00 - 100.00	0.6000	0.4913
T26	42	1 3/8	81.00 - 100.00	0.6000	0.4913
T26	44	1/4	81.00 - 100.00	0.6000	0.4913
T26	46	1/4	81.00 - 100.00	0.6000	0.4913
T26	48	Safety Line 3/8	81.00 - 100.00	0.6000	0.4913
T26	49	Feedline Ladder (Af)	81.00 - 100.00	0.6000	0.4913
T26	50	Feedline Ladder (Af)	81.00 - 100.00	0.6000	0.4913
T26	51	Feedline Ladder (Af)	81.00 - 100.00	0.6000	0.4913
T26	52	Feedline Ladder (Af)	81.00 - 100.00	0.6000	0.4913
T26	53	Feedline Ladder (Af)	81.00 - 100.00	0.6000	0.4913
T26	54	Feedline Ladder (Af)	81.00 - 100.00	0.6000	0.4913
T26	55	Climbing Ladder (Flat)	81.00 - 100.00	0.6000	0.4913
T27	1	1 5/8	80.00 - 81.00	0.6000	0.1641
T27	2	3/8	80.00 - 81.00	0.6000	0.1641
T27	3	3/4	80.00 - 81.00	0.6000	0.1641
T27	5	7/8	80.00 - 81.00	0.6000	0.1641
T27	7	1/2	80.00 - 81.00	0.6000	0.1641
T27	8	2-1/4	80.00 - 81.00	0.6000	0.1641
T27	10	1 5/8	80.00 - 81.00	0.6000	0.1641
T27	14	1	80.00 - 81.00	0.6000	0.1641
T27	16	7/8	80.00 - 81.00	0.6000	0.1641
T27	17	1 1/4	80.00 - 81.00	0.6000	0.1641
T27	19	1 5/8	80.00 - 81.00	0.6000	0.1641
T27	20	1 1/4	80.00 - 81.00	0.6000	0.1641
T27	21	1/2	80.00 - 81.00	0.6000	0.1641
T27	24	1 5/8	80.00 - 81.00	0.6000	0.1641
T27	28	1/2	80.00 - 81.00	0.6000	0.1641
T27	31	1 5/8	80.00 - 81.00	0.6000	0.1641
T27	35	7/8	80.00 - 81.00	0.6000	0.1641
T27	36	5/8	80.00 - 81.00	0.6000	0.1641
T27	37	1 1/4	80.00 - 81.00	0.6000	0.1641
T27	38	1 5/8	80.00 - 81.00	0.6000	0.1641
T27	40	1 5/8	80.00 - 81.00	0.6000	0.1641
T27	41	1 1/4	80.00 - 81.00	0.6000	0.1641
T27	42	1 3/8	80.00 - 81.00	0.6000	0.1641
T27	44	1/4	80.00 - 81.00	0.6000	0.1641
T27	46	1/4	80.00 - 81.00	0.6000	0.1641
T27	48	Safety Line 3/8	80.00 - 81.00	0.6000	0.1641
T27	49	Feedline Ladder (Af)	80.00 - 81.00	0.6000	0.1641
T27	50	Feedline Ladder (Af)	80.00 - 81.00	0.6000	0.1641
T27	51	Feedline Ladder (Af)	80.00 - 81.00	0.6000	0.1641
T27	52	Feedline Ladder (Af)	80.00 - 81.00	0.6000	0.1641
T27	53	Feedline Ladder (Af)	80.00 - 81.00	0.6000	0.1641
T27	54	Feedline Ladder (Af)	80.00 - 81.00	0.6000	0.1641
T27	55	Climbing Ladder (Flat)	80.00 - 81.00	0.6000	0.1641
T28	1	1 5/8	61.00 - 80.00	0.6000	0.4993
T28	2	3/8	61.00 - 80.00	0.6000	0.4993
T28	3	3/4	61.00 - 80.00	0.6000	0.4993
T28	5	7/8	61.00 - 80.00	0.6000	0.4993
T28	7	1/2	61.00 - 80.00	0.6000	0.4993
T28	8	2-1/4	61.00 - 80.00	0.6000	0.4993
T28	10	1 5/8	61.00 - 80.00	0.6000	0.4993
T28	14	1	61.00 - 80.00	0.6000	0.4993
T28	16	7/8	61.00 - 80.00	0.6000	0.4993

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<i>Tower Section</i>	<i>Feed Line Record No.</i>	<i>Description</i>	<i>Feed Line Segment Elev.</i>	<i>K_a No Ice</i>	<i>K_a Ice</i>
T28	17	1 1/4	61.00 - 80.00	0.6000	0.4993
T28	19	1 5/8	61.00 - 80.00	0.6000	0.4993
T28	20	1 1/4	61.00 - 80.00	0.6000	0.4993
T28	21	1/2	61.00 - 80.00	0.6000	0.4993
T28	24	1 5/8	61.00 - 80.00	0.6000	0.4993
T28	28	1/2	61.00 - 80.00	0.6000	0.4993
T28	31	1 5/8	61.00 - 80.00	0.6000	0.4993
T28	35	7/8	61.00 - 80.00	0.6000	0.4993
T28	36	5/8	61.00 - 80.00	0.6000	0.4993
T28	37	1 1/4	61.00 - 80.00	0.6000	0.4993
T28	38	1 5/8	61.00 - 80.00	0.6000	0.4993
T28	40	1 5/8	61.00 - 80.00	0.6000	0.4993
T28	41	1 1/4	61.00 - 80.00	0.6000	0.4993
T28	42	1 3/8	61.00 - 80.00	0.6000	0.4993
T28	44	1/4	61.00 - 80.00	0.6000	0.4993
T28	46	1/4	61.00 - 80.00	0.6000	0.4993
T28	48	Safety Line 3/8	61.00 - 80.00	0.6000	0.4993
T28	49	Feedline Ladder (Af)	61.00 - 80.00	0.6000	0.4993
T28	50	Feedline Ladder (Af)	61.00 - 80.00	0.6000	0.4993
T28	51	Feedline Ladder (Af)	61.00 - 80.00	0.6000	0.4993
T28	52	Feedline Ladder (Af)	61.00 - 80.00	0.6000	0.4993
T28	53	Feedline Ladder (Af)	61.00 - 80.00	0.6000	0.4993
T28	54	Feedline Ladder (Af)	61.00 - 80.00	0.6000	0.4993
T28	55	Climbing Ladder (Flat)	61.00 - 80.00	0.6000	0.4993
T29	1	1 5/8	60.00 - 61.00	0.6000	0.1795
T29	2	3/8	60.00 - 61.00	0.6000	0.1795
T29	3	3/4	60.00 - 61.00	0.6000	0.1795
T29	5	7/8	60.00 - 61.00	0.6000	0.1795
T29	7	1/2	60.00 - 61.00	0.6000	0.1795
T29	8	2-1/4	60.00 - 61.00	0.6000	0.1795
T29	10	1 5/8	60.00 - 61.00	0.6000	0.1795
T29	14	1	60.00 - 61.00	0.6000	0.1795
T29	16	7/8	60.00 - 61.00	0.6000	0.1795
T29	17	1 1/4	60.00 - 61.00	0.6000	0.1795
T29	19	1 5/8	60.00 - 61.00	0.6000	0.1795
T29	20	1 1/4	60.00 - 61.00	0.6000	0.1795
T29	21	1/2	60.00 - 61.00	0.6000	0.1795
T29	24	1 5/8	60.00 - 61.00	0.6000	0.1795
T29	28	1/2	60.00 - 61.00	0.6000	0.1795
T29	31	1 5/8	60.00 - 61.00	0.6000	0.1795
T29	35	7/8	60.00 - 61.00	0.6000	0.1795
T29	36	5/8	60.00 - 61.00	0.6000	0.1795
T29	37	1 1/4	60.00 - 61.00	0.6000	0.1795
T29	38	1 5/8	60.00 - 61.00	0.6000	0.1795
T29	40	1 5/8	60.00 - 61.00	0.6000	0.1795
T29	41	1 1/4	60.00 - 61.00	0.6000	0.1795
T29	42	1 3/8	60.00 - 61.00	0.6000	0.1795
T29	44	1/4	60.00 - 61.00	0.6000	0.1795
T29	46	1/4	60.00 - 61.00	0.6000	0.1795
T29	48	Safety Line 3/8	60.00 - 61.00	0.6000	0.1795
T29	49	Feedline Ladder (Af)	60.00 - 61.00	0.6000	0.1795
T29	50	Feedline Ladder (Af)	60.00 - 61.00	0.6000	0.1795
T29	51	Feedline Ladder (Af)	60.00 - 61.00	0.6000	0.1795
T29	52	Feedline Ladder (Af)	60.00 - 61.00	0.6000	0.1795
T29	53	Feedline Ladder (Af)	60.00 - 61.00	0.6000	0.1795
T29	54	Feedline Ladder (Af)	60.00 - 61.00	0.6000	0.1795
T29	55	Climbing Ladder (Flat)	60.00 - 61.00	0.6000	0.1795
T30	1	1 5/8	41.00 - 60.00	0.6000	0.5097
T30	2	3/8	41.00 - 60.00	0.6000	0.5097
T30	3	3/4	41.00 - 60.00	0.6000	0.5097
T30	5	7/8	41.00 - 60.00	0.6000	0.5097
T30	7	1/2	41.00 - 60.00	0.6000	0.5097

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<i>Tower Section</i>	<i>Feed Line Record No.</i>	<i>Description</i>	<i>Feed Line Segment Elev.</i>	<i>K_a No Ice</i>	<i>K_a Ice</i>
T30	8	2-1/4	41.00 - 60.00	0.6000	0.5097
T30	10	1 5/8	41.00 - 60.00	0.6000	0.5097
T30	14	1	41.00 - 60.00	0.6000	0.5097
T30	16	7/8	41.00 - 60.00	0.6000	0.5097
T30	17	1 1/4	41.00 - 60.00	0.6000	0.5097
T30	19	1 5/8	41.00 - 60.00	0.6000	0.5097
T30	20	1 1/4	41.00 - 60.00	0.6000	0.5097
T30	21	1/2	41.00 - 60.00	0.6000	0.5097
T30	24	1 5/8	41.00 - 60.00	0.6000	0.5097
T30	28	1/2	41.00 - 60.00	0.6000	0.5097
T30	31	1 5/8	41.00 - 60.00	0.6000	0.5097
T30	35	7/8	41.00 - 60.00	0.6000	0.5097
T30	36	5/8	41.00 - 60.00	0.6000	0.5097
T30	37	1 1/4	41.00 - 60.00	0.6000	0.5097
T30	38	1 5/8	41.00 - 60.00	0.6000	0.5097
T30	40	1 5/8	41.00 - 60.00	0.6000	0.5097
T30	41	1 1/4	41.00 - 60.00	0.6000	0.5097
T30	42	1 3/8	41.00 - 60.00	0.6000	0.5097
T30	44	1/4	41.00 - 60.00	0.6000	0.5097
T30	46	1/4	41.00 - 60.00	0.6000	0.5097
T30	48	Safety Line 3/8	41.00 - 60.00	0.6000	0.5097
T30	49	Feedline Ladder (Af)	41.00 - 60.00	0.6000	0.5097
T30	50	Feedline Ladder (Af)	41.00 - 60.00	0.6000	0.5097
T30	51	Feedline Ladder (Af)	41.00 - 60.00	0.6000	0.5097
T30	52	Feedline Ladder (Af)	41.00 - 60.00	0.6000	0.5097
T30	53	Feedline Ladder (Af)	41.00 - 60.00	0.6000	0.5097
T30	54	Feedline Ladder (Af)	41.00 - 60.00	0.6000	0.5097
T30	55	Climbing Ladder (Flat)	41.00 - 60.00	0.6000	0.5097
T31	1	1 5/8	40.00 - 41.00	0.6000	0.2004
T31	2	3/8	40.00 - 41.00	0.6000	0.2004
T31	3	3/4	40.00 - 41.00	0.6000	0.2004
T31	5	7/8	40.00 - 41.00	0.6000	0.2004
T31	7	1/2	40.00 - 41.00	0.6000	0.2004
T31	8	2-1/4	40.00 - 41.00	0.6000	0.2004
T31	10	1 5/8	40.00 - 41.00	0.6000	0.2004
T31	14	1	40.00 - 41.00	0.6000	0.2004
T31	16	7/8	40.00 - 41.00	0.6000	0.2004
T31	17	1 1/4	40.00 - 41.00	0.6000	0.2004
T31	19	1 5/8	40.00 - 41.00	0.6000	0.2004
T31	20	1 1/4	40.00 - 41.00	0.6000	0.2004
T31	21	1/2	40.00 - 41.00	0.6000	0.2004
T31	24	1 5/8	40.00 - 41.00	0.6000	0.2004
T31	28	1/2	40.00 - 41.00	0.6000	0.2004
T31	31	1 5/8	40.00 - 41.00	0.6000	0.2004
T31	35	7/8	40.00 - 41.00	0.6000	0.2004
T31	36	5/8	40.00 - 41.00	0.6000	0.2004
T31	37	1 1/4	40.00 - 41.00	0.6000	0.2004
T31	38	1 5/8	40.00 - 41.00	0.6000	0.2004
T31	40	1 5/8	40.00 - 41.00	0.6000	0.2004
T31	41	1 1/4	40.00 - 41.00	0.6000	0.2004
T31	42	1 3/8	40.00 - 41.00	0.6000	0.2004
T31	44	1/4	40.00 - 41.00	0.6000	0.2004
T31	46	1/4	40.00 - 41.00	0.6000	0.2004
T31	48	Safety Line 3/8	40.00 - 41.00	0.6000	0.2004
T31	49	Feedline Ladder (Af)	40.00 - 41.00	0.6000	0.2004
T31	50	Feedline Ladder (Af)	40.00 - 41.00	0.6000	0.2004
T31	51	Feedline Ladder (Af)	40.00 - 41.00	0.6000	0.2004
T31	52	Feedline Ladder (Af)	40.00 - 41.00	0.6000	0.2004
T31	53	Feedline Ladder (Af)	40.00 - 41.00	0.6000	0.2004
T31	54	Feedline Ladder (Af)	40.00 - 41.00	0.6000	0.2004
T31	55	Climbing Ladder (Flat)	40.00 - 41.00	0.6000	0.2004
T32	1	1 5/8	21.00 - 40.00	0.6000	0.5248

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<i>Tower Section</i>	<i>Feed Line Record No.</i>	<i>Description</i>	<i>Feed Line Segment Elev.</i>	<i>K_a No Ice</i>	<i>K_a Ice</i>
T32	2	3/8	21.00 - 40.00	0.6000	0.5248
T32	3	3/4	21.00 - 40.00	0.6000	0.5248
T32	5	7/8	21.00 - 40.00	0.6000	0.5248
T32	7	1/2	21.00 - 40.00	0.6000	0.5248
T32	8	2-1/4	21.00 - 40.00	0.6000	0.5248
T32	10	1 5/8	21.00 - 40.00	0.6000	0.5248
T32	12	1/2	21.00 - 36.00	0.6000	0.5248
T32	14	1	21.00 - 40.00	0.6000	0.5248
T32	16	7/8	21.00 - 40.00	0.6000	0.5248
T32	17	1 1/4	21.00 - 40.00	0.6000	0.5248
T32	19	1 5/8	21.00 - 40.00	0.6000	0.5248
T32	20	1 1/4	21.00 - 40.00	0.6000	0.5248
T32	21	1/2	21.00 - 40.00	0.6000	0.5248
T32	24	1 5/8	21.00 - 40.00	0.6000	0.5248
T32	28	1/2	21.00 - 40.00	0.6000	0.5248
T32	31	1 5/8	21.00 - 40.00	0.6000	0.5248
T32	35	7/8	21.00 - 40.00	0.6000	0.5248
T32	36	5/8	21.00 - 40.00	0.6000	0.5248
T32	37	1 1/4	21.00 - 40.00	0.6000	0.5248
T32	38	1 5/8	21.00 - 40.00	0.6000	0.5248
T32	40	1 5/8	21.00 - 40.00	0.6000	0.5248
T32	41	1 1/4	21.00 - 40.00	0.6000	0.5248
T32	42	1 3/8	21.00 - 40.00	0.6000	0.5248
T32	44	1/4	21.00 - 40.00	0.6000	0.5248
T32	46	1/4	21.00 - 40.00	0.6000	0.5248
T32	48	Safety Line 3/8	21.00 - 40.00	0.6000	0.5248
T32	49	Feedline Ladder (Af)	21.00 - 40.00	0.6000	0.5248
T32	50	Feedline Ladder (Af)	21.00 - 40.00	0.6000	0.5248
T32	51	Feedline Ladder (Af)	21.00 - 40.00	0.6000	0.5248
T32	52	Feedline Ladder (Af)	21.00 - 40.00	0.6000	0.5248
T32	53	Feedline Ladder (Af)	21.00 - 40.00	0.6000	0.5248
T32	54	Feedline Ladder (Af)	21.00 - 40.00	0.6000	0.5248
T32	55	Climbing Ladder (Flat)	21.00 - 40.00	0.6000	0.5248
T33	1	1 5/8	20.00 - 21.00	0.6000	0.2342
T33	2	3/8	20.00 - 21.00	0.6000	0.2342
T33	3	3/4	20.00 - 21.00	0.6000	0.2342
T33	5	7/8	20.00 - 21.00	0.6000	0.2342
T33	7	1/2	20.00 - 21.00	0.6000	0.2342
T33	8	2-1/4	20.00 - 21.00	0.6000	0.2342
T33	10	1 5/8	20.00 - 21.00	0.6000	0.2342
T33	12	1/2	20.00 - 21.00	0.6000	0.2342
T33	14	1	20.00 - 21.00	0.6000	0.2342
T33	16	7/8	20.00 - 21.00	0.6000	0.2342
T33	17	1 1/4	20.00 - 21.00	0.6000	0.2342
T33	19	1 5/8	20.00 - 21.00	0.6000	0.2342
T33	20	1 1/4	20.00 - 21.00	0.6000	0.2342
T33	21	1/2	20.00 - 21.00	0.6000	0.2342
T33	24	1 5/8	20.00 - 21.00	0.6000	0.2342
T33	28	1/2	20.00 - 21.00	0.6000	0.2342
T33	31	1 5/8	20.00 - 21.00	0.6000	0.2342
T33	35	7/8	20.00 - 21.00	0.6000	0.2342
T33	36	5/8	20.00 - 21.00	0.6000	0.2342
T33	37	1 1/4	20.00 - 21.00	0.6000	0.2342
T33	38	1 5/8	20.00 - 21.00	0.6000	0.2342
T33	40	1 5/8	20.00 - 21.00	0.6000	0.2342
T33	41	1 1/4	20.00 - 21.00	0.6000	0.2342
T33	42	1 3/8	20.00 - 21.00	0.6000	0.2342
T33	44	1/4	20.00 - 21.00	0.6000	0.2342
T33	46	1/4	20.00 - 21.00	0.6000	0.2342
T33	48	Safety Line 3/8	20.00 - 21.00	0.6000	0.2342
T33	49	Feedline Ladder (Af)	20.00 - 21.00	0.6000	0.2342
T33	50	Feedline Ladder (Af)	20.00 - 21.00	0.6000	0.2342

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<i>Tower Section</i>	<i>Feed Line Record No.</i>	<i>Description</i>	<i>Feed Line Segment Elev.</i>	<i>K_a No Ice</i>	<i>K_a Ice</i>
T33	51	Feedline Ladder (Af)	20.00 - 21.00	0.6000	0.2342
T33	52	Feedline Ladder (Af)	20.00 - 21.00	0.6000	0.2342
T33	53	Feedline Ladder (Af)	20.00 - 21.00	0.6000	0.2342
T33	54	Feedline Ladder (Af)	20.00 - 21.00	0.6000	0.2342
T33	55	Climbing Ladder (Flat)	20.00 - 21.00	0.6000	0.2342
T34	1	1 5/8	16.66 - 20.00	0.6000	0.5306
T34	2	3/8	16.66 - 20.00	0.6000	0.5306
T34	3	3/4	16.66 - 20.00	0.6000	0.5306
T34	5	7/8	16.66 - 20.00	0.6000	0.5306
T34	7	1/2	16.66 - 20.00	0.6000	0.5306
T34	8	2-1/4	16.66 - 20.00	0.6000	0.5306
T34	10	1 5/8	16.66 - 20.00	0.6000	0.5306
T34	12	1/2	16.66 - 20.00	0.6000	0.5306
T34	14	1	16.66 - 20.00	0.6000	0.5306
T34	16	7/8	16.66 - 20.00	0.6000	0.5306
T34	17	1 1/4	16.66 - 20.00	0.6000	0.5306
T34	19	1 5/8	16.66 - 20.00	0.6000	0.5306
T34	20	1 1/4	16.66 - 20.00	0.6000	0.5306
T34	21	1/2	16.66 - 20.00	0.6000	0.5306
T34	24	1 5/8	16.66 - 20.00	0.6000	0.5306
T34	28	1/2	16.66 - 20.00	0.6000	0.5306
T34	31	1 5/8	16.66 - 20.00	0.6000	0.5306
T34	35	7/8	16.66 - 20.00	0.6000	0.5306
T34	36	5/8	16.66 - 20.00	0.6000	0.5306
T34	37	1 1/4	16.66 - 20.00	0.6000	0.5306
T34	38	1 5/8	16.66 - 20.00	0.6000	0.5306
T34	40	1 5/8	16.66 - 20.00	0.6000	0.5306
T34	41	1 1/4	16.66 - 20.00	0.6000	0.5306
T34	42	1 3/8	16.66 - 20.00	0.6000	0.5306
T34	44	1/4	16.66 - 20.00	0.6000	0.5306
T34	46	1/4	16.66 - 20.00	0.6000	0.5306
T34	48	Safety Line 3/8	16.66 - 20.00	0.6000	0.5306
T34	49	Feedline Ladder (Af)	16.66 - 20.00	0.6000	0.5306
T34	50	Feedline Ladder (Af)	16.66 - 20.00	0.6000	0.5306
T34	51	Feedline Ladder (Af)	16.66 - 20.00	0.6000	0.5306
T34	52	Feedline Ladder (Af)	16.66 - 20.00	0.6000	0.5306
T34	53	Feedline Ladder (Af)	16.66 - 20.00	0.6000	0.5306
T34	54	Feedline Ladder (Af)	16.66 - 20.00	0.6000	0.5306
T34	55	Climbing Ladder (Flat)	16.66 - 20.00	0.6000	0.5306
T35	1	1 5/8	14.33 - 16.66	0.6000	0.4424
T35	2	3/8	14.33 - 16.66	0.6000	0.4424
T35	3	3/4	14.33 - 16.66	0.6000	0.4424
T35	5	7/8	14.33 - 16.66	0.6000	0.4424
T35	7	1/2	14.33 - 16.66	0.6000	0.4424
T35	8	2-1/4	14.33 - 16.66	0.6000	0.4424
T35	10	1 5/8	14.33 - 16.66	0.6000	0.4424
T35	12	1/2	14.33 - 16.66	0.6000	0.4424
T35	14	1	14.33 - 16.66	0.6000	0.4424
T35	16	7/8	14.33 - 16.66	0.6000	0.4424
T35	17	1 1/4	14.33 - 16.66	0.6000	0.4424
T35	19	1 5/8	14.33 - 16.66	0.6000	0.4424
T35	20	1 1/4	14.33 - 16.66	0.6000	0.4424
T35	21	1/2	14.33 - 16.66	0.6000	0.4424
T35	24	1 5/8	14.33 - 16.66	0.6000	0.4424
T35	28	1/2	14.33 - 16.66	0.6000	0.4424
T35	31	1 5/8	14.33 - 16.66	0.6000	0.4424
T35	35	7/8	14.33 - 16.66	0.6000	0.4424
T35	36	5/8	14.33 - 16.66	0.6000	0.4424
T35	37	1 1/4	14.33 - 16.66	0.6000	0.4424
T35	38	1 5/8	14.33 - 16.66	0.6000	0.4424
T35	40	1 5/8	14.33 - 16.66	0.6000	0.4424
T35	41	1 1/4	14.33 - 16.66	0.6000	0.4424

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<i>Tower Section</i>	<i>Feed Line Record No.</i>	<i>Description</i>	<i>Feed Line Segment Elev.</i>	<i>K_a No Ice</i>	<i>K_a Ice</i>
T35	42	1 3/8	14.33 - 16.66	0.6000	0.4424
T35	44	1/4	14.33 - 16.66	0.6000	0.4424
T35	46	1/4	14.33 - 16.66	0.6000	0.4424
T35	48	Safety Line 3/8	14.33 - 16.66	0.6000	0.4424
T35	49	Feedline Ladder (Af)	14.33 - 16.66	0.6000	0.4424
T35	50	Feedline Ladder (Af)	14.33 - 16.66	0.6000	0.4424
T35	51	Feedline Ladder (Af)	14.33 - 16.66	0.6000	0.4424
T35	52	Feedline Ladder (Af)	14.33 - 16.66	0.6000	0.4424
T35	53	Feedline Ladder (Af)	14.33 - 16.66	0.6000	0.4424
T35	54	Feedline Ladder (Af)	14.33 - 16.66	0.6000	0.4424
T35	55	Climbing Ladder (Flat)	14.33 - 16.66	0.6000	0.4424
T36	1	1 5/8	12.00 - 14.33	0.6000	0.4479
T36	2	3/8	12.00 - 14.33	0.6000	0.4479
T36	3	3/4	12.00 - 14.33	0.6000	0.4479
T36	5	7/8	12.00 - 14.33	0.6000	0.4479
T36	7	1/2	12.00 - 14.33	0.6000	0.4479
T36	8	2-1/4	12.00 - 14.33	0.6000	0.4479
T36	10	1 5/8	12.00 - 14.33	0.6000	0.4479
T36	12	1/2	12.00 - 14.33	0.6000	0.4479
T36	14	1	12.00 - 14.33	0.6000	0.4479
T36	16	7/8	12.00 - 14.33	0.6000	0.4479
T36	17	1 1/4	12.00 - 14.33	0.6000	0.4479
T36	19	1 5/8	12.00 - 14.33	0.6000	0.4479
T36	20	1 1/4	12.00 - 14.33	0.6000	0.4479
T36	21	1/2	12.00 - 14.33	0.6000	0.4479
T36	24	1 5/8	12.00 - 14.33	0.6000	0.4479
T36	28	1/2	12.00 - 14.33	0.6000	0.4479
T36	31	1 5/8	12.00 - 14.33	0.6000	0.4479
T36	35	7/8	12.00 - 14.33	0.6000	0.4479
T36	36	5/8	12.00 - 14.33	0.6000	0.4479
T36	37	1 1/4	12.00 - 14.33	0.6000	0.4479
T36	38	1 5/8	12.00 - 14.33	0.6000	0.4479
T36	40	1 5/8	12.00 - 14.33	0.6000	0.4479
T36	41	1 1/4	12.00 - 14.33	0.6000	0.4479
T36	42	1 3/8	12.00 - 14.33	0.6000	0.4479
T36	44	1/4	12.00 - 14.33	0.6000	0.4479
T36	46	1/4	12.00 - 14.33	0.6000	0.4479
T36	48	Safety Line 3/8	12.00 - 14.33	0.6000	0.4479
T36	49	Feedline Ladder (Af)	12.00 - 14.33	0.6000	0.4479
T36	50	Feedline Ladder (Af)	12.00 - 14.33	0.6000	0.4479
T36	51	Feedline Ladder (Af)	12.00 - 14.33	0.6000	0.4479
T36	52	Feedline Ladder (Af)	12.00 - 14.33	0.6000	0.4479
T36	53	Feedline Ladder (Af)	12.00 - 14.33	0.6000	0.4479
T36	54	Feedline Ladder (Af)	12.00 - 14.33	0.6000	0.4479
T36	55	Climbing Ladder (Flat)	12.00 - 14.33	0.6000	0.4479
T37	1	1 5/8	9.33 - 12.00	0.6000	0.3473
T37	2	3/8	9.33 - 12.00	0.6000	0.3473
T37	3	3/4	9.33 - 12.00	0.6000	0.3473
T37	5	7/8	9.33 - 12.00	0.6000	0.3473
T37	7	1/2	9.33 - 12.00	0.6000	0.3473
T37	8	2-1/4	9.33 - 12.00	0.6000	0.3473
T37	10	1 5/8	9.33 - 12.00	0.6000	0.3473
T37	12	1/2	9.33 - 12.00	0.6000	0.3473
T37	14	1	9.33 - 12.00	0.6000	0.3473
T37	16	7/8	9.33 - 12.00	0.6000	0.3473
T37	17	1 1/4	9.33 - 12.00	0.6000	0.3473
T37	19	1 5/8	9.33 - 12.00	0.6000	0.3473
T37	20	1 1/4	9.33 - 12.00	0.6000	0.3473
T37	21	1/2	9.33 - 12.00	0.6000	0.3473
T37	24	1 5/8	9.33 - 12.00	0.6000	0.3473
T37	28	1/2	9.33 - 12.00	0.6000	0.3473
T37	31	1 5/8	9.33 - 12.00	0.6000	0.3473

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<i>Tower Section</i>	<i>Feed Line Record No.</i>	<i>Description</i>	<i>Feed Line Segment Elev.</i>	<i>K_a No Ice</i>	<i>K_a Ice</i>
T37	35	7/8	9.33 - 12.00	0.6000	0.3473
T37	36	5/8	9.33 - 12.00	0.6000	0.3473
T37	37	1 1/4	9.33 - 12.00	0.6000	0.3473
T37	38	1 5/8	9.33 - 12.00	0.6000	0.3473
T37	40	1 5/8	9.33 - 12.00	0.6000	0.3473
T37	41	1 1/4	9.33 - 12.00	0.6000	0.3473
T37	42	1 3/8	9.33 - 12.00	0.6000	0.3473
T37	44	1/4	9.33 - 12.00	0.6000	0.3473
T37	46	1/4	9.33 - 12.00	0.6000	0.3473
T37	48	Safety Line 3/8	9.33 - 12.00	0.6000	0.3473
T37	49	Feedline Ladder (Af)	9.33 - 12.00	0.6000	0.3473
T37	50	Feedline Ladder (Af)	9.33 - 12.00	0.6000	0.3473
T37	51	Feedline Ladder (Af)	9.33 - 12.00	0.6000	0.3473
T37	52	Feedline Ladder (Af)	9.33 - 12.00	0.6000	0.3473
T37	53	Feedline Ladder (Af)	9.33 - 12.00	0.6000	0.3473
T37	54	Feedline Ladder (Af)	9.33 - 12.00	0.6000	0.3473
T37	55	Climbing Ladder (Flat)	9.33 - 12.00	0.6000	0.3473
T38	1	1 5/8	6.67 - 9.33	0.6000	0.4107
T38	2	3/8	6.67 - 9.33	0.6000	0.4107
T38	3	3/4	6.67 - 9.33	0.6000	0.4107
T38	5	7/8	6.67 - 9.33	0.6000	0.4107
T38	7	1/2	6.67 - 9.33	0.6000	0.4107
T38	8	2-1/4	6.67 - 9.33	0.6000	0.4107
T38	10	1 5/8	6.67 - 9.33	0.6000	0.4107
T38	12	1/2	6.67 - 9.33	0.6000	0.4107
T38	14	1	6.67 - 9.33	0.6000	0.4107
T38	16	7/8	6.67 - 9.33	0.6000	0.4107
T38	17	1 1/4	6.67 - 9.33	0.6000	0.4107
T38	19	1 5/8	6.67 - 9.33	0.6000	0.4107
T38	20	1 1/4	6.67 - 9.33	0.6000	0.4107
T38	21	1/2	6.67 - 9.33	0.6000	0.4107
T38	24	1 5/8	6.67 - 9.33	0.6000	0.4107
T38	28	1/2	6.67 - 9.33	0.6000	0.4107
T38	31	1 5/8	6.67 - 9.33	0.6000	0.4107
T38	35	7/8	6.67 - 9.33	0.6000	0.4107
T38	36	5/8	6.67 - 9.33	0.6000	0.4107
T38	37	1 1/4	6.67 - 9.33	0.6000	0.4107
T38	38	1 5/8	6.67 - 9.33	0.6000	0.4107
T38	40	1 5/8	6.67 - 9.33	0.6000	0.4107
T38	41	1 1/4	6.67 - 9.33	0.6000	0.4107
T38	42	1 3/8	6.67 - 9.33	0.6000	0.4107
T38	44	1/4	6.67 - 9.33	0.6000	0.4107
T38	46	1/4	6.67 - 9.33	0.6000	0.4107
T38	48	Safety Line 3/8	6.67 - 9.33	0.6000	0.4107
T38	49	Feedline Ladder (Af)	6.67 - 9.33	0.6000	0.4107
T38	50	Feedline Ladder (Af)	6.67 - 9.33	0.6000	0.4107
T38	51	Feedline Ladder (Af)	6.67 - 9.33	0.6000	0.4107
T38	52	Feedline Ladder (Af)	6.67 - 9.33	0.6000	0.4107
T38	53	Feedline Ladder (Af)	6.67 - 9.33	0.6000	0.4107
T38	54	Feedline Ladder (Af)	6.67 - 9.33	0.6000	0.4107
T38	55	Climbing Ladder (Flat)	6.67 - 9.33	0.6000	0.4107
T39	48	Safety Line 3/8	0.00 - 6.67	0.6000	0.2830

Discrete Tower Loads

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<i>Description</i>	<i>Face or Leg</i>	<i>Offset Type</i>	<i>Offsets: Horz Lateral Vert ft ft ft</i>	<i>Azimuth Adjustment °</i>	<i>Placement ft</i>		<i>C_{AA} Front ft²</i>	<i>C_{AA} Side ft²</i>	<i>Weight K</i>
Dish Pipe Mount	B	From Leg	0.50 0.00 0.00	0.000	90.00	No Ice 1/2" Ice 1" Ice	1.32 1.58 1.84	1.32 1.58 1.84	0.07 0.08 0.09

3' Standoff	C	From Leg	1.50 0.00 0.00	0.000	112.00	No Ice 1/2" Ice 1" Ice	2.96 4.10 5.24	3.36 4.68 6.00	0.13 0.15 0.18

Dish Pipe Mount	B	From Leg	0.50 0.00 0.00	0.000	130.00	No Ice 1/2" Ice 1" Ice	1.32 1.58 1.84	1.32 1.58 1.84	0.07 0.08 0.09

4' Standoff	B	From Leg	2.00 0.00 0.00	0.000	138.50	No Ice 1/2" Ice 1" Ice	2.97 4.39 5.81	4.03 6.12 8.21	0.07 0.11 0.14
20ft Omni Antenna	B	From Leg	4.00 0.00 10.00	0.000	138.50	No Ice 1/2" Ice 1" Ice	6.00 8.03 10.08	6.00 8.03 10.08	0.05 0.09 0.15
Horizontal Support Pipe	B	From Leg	2.00 0.00 0.00	0.000	153.50	No Ice 1/2" Ice 1" Ice	5.25 6.50 7.75	1.58 1.95 2.32	0.09 0.12 0.14

Horizontal Support Pipe	A	From Leg	2.00 0.00 -6.00	0.000	150.50	No Ice 1/2" Ice 1" Ice	1.32 1.58 1.84	1.32 1.58 1.84	0.07 0.08 0.09
Horizontal Support Pipe	A	From Leg	2.00 0.00 0.00	0.000	150.50	No Ice 1/2" Ice 1" Ice	1.32 1.58 1.84	1.32 1.58 1.84	0.07 0.08 0.09
Horizontal Support Pipe	A	From Leg	2.00 0.00 6.00	0.000	150.50	No Ice 1/2" Ice 1" Ice	1.32 1.58 1.84	1.32 1.58 1.84	0.07 0.08 0.09
13' Dipole	A	From Leg	4.00 0.00 0.00	0.000	150.50	No Ice 1/2" Ice 1" Ice	3.60 4.83 6.08	3.60 4.83 6.08	0.03 0.05 0.08

(3) 12' Sector Frames w/ (2) MP's	C	None		0.000	168.00	No Ice 1/2" Ice 1" Ice	18.91 26.78 34.65	18.91 26.78 34.65	0.85 1.23 1.62
(2) LPA-80080-4CF-EDIN w/ Mount Pipe	A	From Leg	4.00 0.00 1.50	0.000	168.00	No Ice 1/2" Ice 1" Ice	4.26 4.63 5.01	5.35 5.96 6.58	0.03 0.08 0.13
(2) LPA-80063-4CF-EDIN w/ Mount Pipe	B	From Leg	4.00 0.00 1.50	0.000	168.00	No Ice 1/2" Ice 1" Ice	9.97 10.54 11.08	10.25 11.42 12.31	0.05 0.15 0.25
(2) LPA-80063-4CF-EDIN w/ Mount Pipe	C	From Leg	4.00 0.00 1.50	0.000	168.00	No Ice 1/2" Ice 1" Ice	9.97 10.54 11.08	10.25 11.42 12.31	0.05 0.15 0.25
BXA-70063-6CF-EDIN	A	From Leg	4.00 0.00 1.50	0.000	168.00	No Ice 1/2" Ice 1" Ice	7.57 8.02 8.47	4.16 4.60 5.04	0.02 0.06 0.11
BXA-171063-12BF-EDIN-2	A	From Leg	4.00 0.00 1.50	0.000	168.00	No Ice 1/2" Ice 1" Ice	4.80 5.25 5.71	3.63 4.06 4.51	0.01 0.04 0.07
BXA-70063-6CF-EDIN	B	From Leg	4.00 0.00 1.50	0.000	168.00	No Ice 1/2" Ice 1" Ice	7.57 8.02 8.47	4.16 4.60 5.04	0.02 0.06 0.11
BXA-171063-12BF-EDIN-2	B	From Leg	4.00	0.000	168.00	No Ice	4.80	3.63	0.01

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	Client	Smartlink	Designed by	Bryan Mawhinney

<i>Description</i>	<i>Face or Leg</i>	<i>Offset Type</i>	<i>Offsets: Horz Lateral Vert ft ft ft</i>	<i>Azimuth Adjustment °</i>	<i>Placement ft</i>	<i>C_{AA} Front ft²</i>	<i>C_{AA} Side ft²</i>	<i>Weight K</i>	
			0.00			1/2" Ice	5.25	4.06	0.04
			1.50			1" Ice	5.71	4.51	0.07
BXA-70063-6CF-EDIN	C	From Leg	4.00	0.000	168.00	No Ice	7.57	4.16	0.02
			0.00			1/2" Ice	8.02	4.60	0.06
			1.50			1" Ice	8.47	5.04	0.11
BXA-171063-12BF-EDIN-2	C	From Leg	4.00	0.000	168.00	No Ice	4.80	3.63	0.01
			0.00			1/2" Ice	5.25	4.06	0.04
			1.50			1" Ice	5.71	4.51	0.07
(2) E15V95P0804	A	From Leg	4.00	0.000	168.00	No Ice	0.39	0.11	0.00
			0.00			1/2" Ice	0.46	0.17	0.01
			0.00			1" Ice	0.55	0.23	0.01
(2) E15V95P0804	B	From Leg	4.00	0.000	168.00	No Ice	0.39	0.11	0.00
			0.00			1/2" Ice	0.46	0.17	0.01
			0.00			1" Ice	0.55	0.23	0.01
(2) E15V95P0804	C	From Leg	4.00	0.000	168.00	No Ice	0.39	0.11	0.00
			0.00			1/2" Ice	0.46	0.17	0.01
			0.00			1" Ice	0.55	0.23	0.01

(3) 10.5' Sector Frames	C	None		0.000	186.50	No Ice	25.48	25.48	0.49
						1/2" Ice	36.14	36.14	1.00
						1" Ice	46.80	46.80	1.51
(2) AIR 21 B2A/B4P w/ Mount Pipe	A	From Leg	4.00	0.000	186.50	No Ice	6.16	5.55	0.10
			0.00			1/2" Ice	6.60	6.30	0.16
			2.00			1" Ice	7.03	7.00	0.22
(2) AIR 21 B2A/B4P w/ Mount Pipe	B	From Leg	4.00	0.000	186.50	No Ice	6.16	5.55	0.10
			0.00			1/2" Ice	6.60	6.30	0.16
			2.00			1" Ice	7.03	7.00	0.22
(2) AIR 21 B2A/B4P w/ Mount Pipe	C	From Leg	4.00	0.000	186.50	No Ice	6.16	5.55	0.10
			0.00			1/2" Ice	6.60	6.30	0.16
			2.00			1" Ice	7.03	7.00	0.22
LNx-6515DS-A1M w/ Mount Pipe	A	From Leg	4.00	0.000	186.50	No Ice	5.31	4.27	0.09
			0.00			1/2" Ice	5.80	4.75	0.17
			2.00			1" Ice	6.30	5.24	0.26
LNx-6515DS-A1M w/ Mount Pipe	B	From Leg	4.00	0.000	186.50	No Ice	5.31	4.27	0.09
			0.00			1/2" Ice	5.80	4.75	0.17
			2.00			1" Ice	6.30	5.24	0.26
LNx-6515DS-A1M w/ Mount Pipe	C	From Leg	4.00	0.000	186.50	No Ice	5.31	4.27	0.09
			0.00			1/2" Ice	5.80	4.75	0.17
			2.00			1" Ice	6.30	5.24	0.26
KRY 112 144/1	A	From Leg	2.00	0.000	186.50	No Ice	0.35	0.17	0.01
			0.00			1/2" Ice	0.43	0.23	0.01
			0.00			1" Ice	0.51	0.30	0.02
16.5x6.5x17 TMA	A	From Leg	4.00	0.000	186.50	No Ice	2.34	0.90	0.07
			0.00			1/2" Ice	2.53	1.03	0.09
			2.00			1" Ice	2.72	1.16	0.11
KRY 112 144/1	B	From Leg	2.00	0.000	186.50	No Ice	0.35	0.17	0.01
			0.00			1/2" Ice	0.43	0.23	0.01
			0.00			1" Ice	0.51	0.30	0.02
16.5x6.5x17 TMA	B	From Leg	4.00	0.000	186.50	No Ice	2.34	0.90	0.07
			0.00			1/2" Ice	2.53	1.03	0.09
			2.00			1" Ice	2.72	1.16	0.11
KRY 112 144/1	C	From Leg	2.00	0.000	186.50	No Ice	0.35	0.17	0.01
			0.00			1/2" Ice	0.43	0.23	0.01
			0.00			1" Ice	0.51	0.30	0.02
16.5x6.5x17 TMA	C	From Leg	4.00	0.000	186.50	No Ice	2.34	0.90	0.07
			0.00			1/2" Ice	2.53	1.03	0.09
			2.00			1" Ice	2.72	1.16	0.11

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<i>Description</i>	<i>Face or Leg</i>	<i>Offset Type</i>	<i>Offsets: Horz Lateral Vert ft ft ft</i>	<i>Azimuth Adjustment °</i>	<i>Placement ft</i>		<i>C_{AA} Front ft²</i>	<i>C_{AA} Side ft²</i>	<i>Weight K</i>

(3) 10' Sector Frames	C	None		0.000	200.00	No Ice	18.73	18.73	0.86
						1/2" Ice	27.19	27.19	1.26
						1" Ice	35.65	35.65	1.66
7770.00 w/ Mount Pipe	A	From Leg	4.00	0.000	200.00	No Ice	5.75	4.25	0.06
			0.00			1/2" Ice	6.18	5.01	0.10
			0.00			1" Ice	6.61	5.71	0.16
OPA65R-BU8DA w/ Mount Pipe	A	From Leg	4.00	0.000	200.00	No Ice	18.33	10.34	0.11
			0.00			1/2" Ice	19.06	11.86	0.23
			0.00			1" Ice	19.81	13.41	0.37
DMP65R-BU8D w/ Mount Pipe	A	From Leg	4.00	0.000	200.00	No Ice	18.11	10.26	0.13
			0.00			1/2" Ice	18.84	11.78	0.25
			0.00			1" Ice	19.59	13.33	0.38
7770.00 w/ Mount Pipe	B	From Leg	4.00	0.000	200.00	No Ice	5.75	4.25	0.06
			0.00			1/2" Ice	6.18	5.01	0.10
			0.00			1" Ice	6.61	5.71	0.16
OPA65R-BU8DA w/ Mount Pipe	B	From Leg	4.00	0.000	200.00	No Ice	18.33	10.34	0.11
			0.00			1/2" Ice	19.06	11.86	0.23
			0.00			1" Ice	19.81	13.41	0.37
DMP65R-BU8D w/ Mount Pipe	B	From Leg	4.00	0.000	200.00	No Ice	18.11	10.26	0.13
			0.00			1/2" Ice	18.84	11.78	0.25
			0.00			1" Ice	19.59	13.33	0.38
7770.00 w/ Mount Pipe	C	From Leg	4.00	0.000	200.00	No Ice	5.75	4.25	0.06
			0.00			1/2" Ice	6.18	5.01	0.10
			0.00			1" Ice	6.61	5.71	0.16
OPA65R-BU8DA w/ Mount Pipe	C	From Leg	4.00	0.000	200.00	No Ice	18.33	10.34	0.11
			0.00			1/2" Ice	19.06	11.86	0.23
			0.00			1" Ice	19.81	13.41	0.37
DMP65R-BU8D w/ Mount Pipe	C	From Leg	4.00	0.000	200.00	No Ice	18.11	10.26	0.13
			0.00			1/2" Ice	18.84	11.78	0.25
			0.00			1" Ice	19.59	13.33	0.38
(4) 860 10025	A	From Leg	4.00	0.000	200.00	No Ice	0.14	0.12	0.00
			0.00			1/2" Ice	0.20	0.17	0.00
			0.00			1" Ice	0.26	0.23	0.01
(4) 860 10025	B	From Leg	4.00	0.000	200.00	No Ice	0.14	0.12	0.00
			0.00			1/2" Ice	0.20	0.17	0.00
			0.00			1" Ice	0.26	0.23	0.01
(4) 860 10025	C	From Leg	4.00	0.000	200.00	No Ice	0.14	0.12	0.00
			0.00			1/2" Ice	0.20	0.17	0.00
			0.00			1" Ice	0.26	0.23	0.01
(2) CM1007-DBPXBC-003	A	From Leg	4.00	0.000	200.00	No Ice	0.37	0.13	0.01
			0.00			1/2" Ice	0.45	0.18	0.01
			0.00			1" Ice	0.54	0.24	0.01
(2) CM1007-DBPXBC-003	B	From Leg	4.00	0.000	200.00	No Ice	0.37	0.13	0.01
			0.00			1/2" Ice	0.45	0.18	0.01
			0.00			1" Ice	0.54	0.24	0.01
(2) CM1007-DBPXBC-003	C	From Leg	4.00	0.000	200.00	No Ice	0.37	0.13	0.01
			0.00			1/2" Ice	0.45	0.18	0.01
			0.00			1" Ice	0.54	0.24	0.01
DTMABP7819VG12A	A	From Leg	2.00	0.000	200.00	No Ice	0.98	0.34	0.02
			0.00			1/2" Ice	1.10	0.42	0.03
			0.00			1" Ice	1.23	0.51	0.04
DTMABP7819VG12A	B	From Leg	2.00	0.000	200.00	No Ice	0.98	0.34	0.02
			0.00			1/2" Ice	1.10	0.42	0.03
			0.00			1" Ice	1.23	0.51	0.04
DTMABP7819VG12A	C	From Leg	2.00	0.000	200.00	No Ice	0.98	0.34	0.02
			0.00			1/2" Ice	1.10	0.42	0.03

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<i>Description</i>	<i>Face or Leg</i>	<i>Offset Type</i>	<i>Offsets: Horz Lateral Vert ft ft ft</i>	<i>Azimuth Adjustment °</i>	<i>Placement ft</i>	<i>C_{AA} Front ft²</i>	<i>C_{AA} Side ft²</i>	<i>Weight K</i>
DC6-48-60-18-8F	A	From Leg	0.00 4.00 0.00 0.00	0.000	200.00	1" Ice 1.23 No Ice 0.79 1/2" Ice 1.27 1" Ice 1.45	0.51 0.79 1.27 1.45	0.04 0.02 0.04 0.05
Raycap DC9	A	From Leg	0.00 4.00 0.00 0.00	0.000	200.00	No Ice 0.79 1/2" Ice 1.27 1" Ice 1.45	0.79 1.27 1.45	0.02 0.04 0.05
RADIO 4478 B14	A	From Leg	0.00 4.00 0.00 0.00	0.000	200.00	No Ice 1.63 1/2" Ice 1.78 1" Ice 1.95	1.00 1.13 1.27	0.06 0.07 0.09
RADIO 4449 B5/B12	A	From Leg	0.00 4.00 0.00 0.00	0.000	200.00	No Ice 1.64 1/2" Ice 1.80 1" Ice 1.97	1.30 1.45 1.60	0.07 0.09 0.11
RADIO 8843 B2/B66A	A	From Leg	0.00 4.00 0.00 0.00	0.000	200.00	No Ice 1.64 1/2" Ice 1.80 1" Ice 1.97	1.38 1.53 1.69	0.08 0.09 0.11
RADIO 4478 B14	B	From Leg	0.00 4.00 0.00 0.00	0.000	200.00	No Ice 1.63 1/2" Ice 1.78 1" Ice 1.95	1.00 1.13 1.27	0.06 0.07 0.09
RADIO 4449 B5/B12	B	From Leg	0.00 4.00 0.00 0.00	0.000	200.00	No Ice 1.64 1/2" Ice 1.80 1" Ice 1.97	1.30 1.45 1.60	0.07 0.09 0.11
RADIO 8843 B2/B66A	B	From Leg	0.00 4.00 0.00 0.00	0.000	200.00	No Ice 1.64 1/2" Ice 1.80 1" Ice 1.97	1.38 1.53 1.69	0.08 0.09 0.11
RADIO 4478 B14	C	From Leg	0.00 4.00 0.00 0.00	0.000	200.00	No Ice 1.63 1/2" Ice 1.78 1" Ice 1.95	1.00 1.13 1.27	0.06 0.07 0.09
RADIO 4449 B5/B12	C	From Leg	0.00 4.00 0.00 0.00	0.000	200.00	No Ice 1.64 1/2" Ice 1.80 1" Ice 1.97	1.30 1.45 1.60	0.07 0.09 0.11
RADIO 8843 B2/B66A	C	From Leg	0.00 4.00 0.00 0.00	0.000	200.00	No Ice 1.64 1/2" Ice 1.80 1" Ice 1.97	1.38 1.53 1.69	0.08 0.09 0.11

6' Standoff	B	From Leg	3.00 0.00 0.00	0.000	205.50	No Ice 0.41 1/2" Ice 0.81 1" Ice 1.23	3.06 5.10 7.20	0.05 0.08 0.12
15ft Omni Antenna	B	From Leg	6.00 0.00 7.50	0.000	205.50	No Ice 6.00 1/2" Ice 8.03 1" Ice 10.08	6.00 8.03 10.08	0.05 0.09 0.15

Horizontal Support Pipe	A	From Leg	3.00 0.00 0.00	0.000	208.00	No Ice 1.32 1/2" Ice 1.58 1" Ice 1.84	1.32 1.58 1.84	0.07 0.08 0.09
Horizontal Support Pipe	A	From Leg	3.00 0.00 2.00	0.000	208.00	No Ice 1.32 1/2" Ice 1.58 1" Ice 1.84	1.32 1.58 1.84	0.07 0.08 0.09
8ft Omni Antenna	A	From Leg	5.00 0.00 4.00	0.000	208.00	No Ice 2.40 1/2" Ice 3.19 1" Ice 3.67	2.40 3.19 3.67	0.03 0.05 0.07

Dish Pipe Mount	C	From Leg	0.50 0.00 0.00	0.000	209.00	No Ice 1.32 1/2" Ice 1.58 1" Ice 1.84	1.32 1.58 1.84	0.07 0.08 0.09

FM Antenna	C	From Leg	2.00	0.000	219.50	No Ice 4.00	4.00	0.04

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<i>Description</i>	<i>Face or Leg</i>	<i>Offset Type</i>	<i>Offsets: Horz Lateral Vert ft ft ft</i>	<i>Azimuth Adjustment °</i>	<i>Placement ft</i>		<i>C_{AA} Front ft²</i>	<i>C_{AA} Side ft²</i>	<i>Weight K</i>
			0.00			1/2" Ice	5.00	5.00	0.07
***			0.00			1" Ice	6.00	6.00	0.10
(3) 12' Sector Frames	C	None		0.000	226.50	No Ice	20.49	20.49	0.96
						1/2" Ice	30.39	30.39	1.38
						1" Ice	40.29	40.29	1.80
(2) 59.25"x6.5"x3" Panel w/ Mount Pipe	C	From Leg	4.00	0.000	226.50	No Ice	4.19	3.68	0.07
			0.00			1/2" Ice	4.65	4.54	0.11
			0.00			1" Ice	5.10	5.27	0.15
(2) 59.25"x6.5"x3" Panel w/ Mount Pipe	B	From Leg	4.00	0.000	226.50	No Ice	4.19	3.68	0.07
			0.00			1/2" Ice	4.65	4.54	0.11
			0.00			1" Ice	5.10	5.27	0.15
(2) 59.25"x6.5"x3" Panel w/ Mount Pipe	A	From Leg	4.00	0.000	226.50	No Ice	4.19	3.68	0.07
			0.00			1/2" Ice	4.65	4.54	0.11
			0.00			1" Ice	5.10	5.27	0.15

6' Standoff	A	From Leg	3.00	0.000	252.00	No Ice	0.41	3.06	0.05
			0.00			1/2" Ice	0.81	5.10	0.08
			0.00			1" Ice	1.23	7.20	0.12
20ft Omni Antenna	A	From Leg	6.00	0.000	252.00	No Ice	6.00	6.00	0.05
			0.00			1/2" Ice	8.03	8.03	0.09
			10.00			1" Ice	10.08	10.08	0.15

6' Standoff	C	From Leg	3.00	0.000	264.25	No Ice	0.41	3.06	0.05
			0.00			1/2" Ice	0.81	5.10	0.08
			0.00			1" Ice	1.23	7.20	0.12
20ft Omni Antenna	C	From Leg	6.00	0.000	264.25	No Ice	6.00	6.00	0.05
			0.00			1/2" Ice	8.03	8.03	0.09
			10.00			1" Ice	10.08	10.08	0.15

Dish Pipe Mount	A	From Leg	0.50	0.000	274.00	No Ice	1.32	1.32	0.07
			0.00			1/2" Ice	1.58	1.58	0.08
			0.00			1" Ice	1.84	1.84	0.09

FM Antenna	C	From Leg	2.00	0.000	279.00	No Ice	4.00	4.00	0.04
			0.00			1/2" Ice	5.00	5.00	0.07
			0.00			1" Ice	6.00	6.00	0.10

FM Antenna	C	From Leg	2.00	0.000	288.00	No Ice	4.00	4.00	0.04
			0.00			1/2" Ice	5.00	5.00	0.07
			0.00			1" Ice	6.00	6.00	0.10

LeBlanc 10' Standoff (1)	A	From Face	5.00	0.000	294.00	No Ice	17.00	17.00	0.55
			0.00			1/2" Ice	22.00	22.00	0.75
			0.00			1" Ice	27.00	27.00	0.95
LeBlanc 10' Standoff (1)	C	From Face	5.00	0.000	294.00	No Ice	17.00	17.00	0.55
			0.00			1/2" Ice	22.00	22.00	0.75
			0.00			1" Ice	27.00	27.00	0.95
20ft Omni Antenna	A	From Leg	6.00	0.000	294.00	No Ice	6.00	6.00	0.05
			0.00			1/2" Ice	8.03	8.03	0.09
			10.00			1" Ice	10.08	10.08	0.15
20ft Omni Antenna	A	From Leg	6.00	0.000	294.00	No Ice	6.00	6.00	0.05
			0.00			1/2" Ice	8.03	8.03	0.09
			-10.00			1" Ice	10.08	10.08	0.15
20ft Omni Antenna	C	From Leg	6.00	0.000	294.00	No Ice	6.00	6.00	0.05
			0.00			1/2" Ice	8.03	8.03	0.09
			-10.00			1" Ice	10.08	10.08	0.15

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<i>Description</i>	<i>Face or Leg</i>	<i>Offset Type</i>	<i>Offsets: Horz Lateral Vert ft ft ft</i>	<i>Azimuth Adjustment °</i>	<i>Placement ft</i>		<i>C_AA_A Front ft²</i>	<i>C_AA_A Side ft²</i>	<i>Weight K</i>

3' Standoff	B	From Leg	1.50 0.00 0.00	0.000	295.50	No Ice 1/2" Ice 1" Ice	0.94 1.48 2.02	1.41 2.17 2.93	0.03 0.04 0.06
20ft Omni Antenna	B	From Leg	3.00 0.00 11.83	0.000	295.50	No Ice 1/2" Ice 1" Ice	6.00 8.03 10.08	6.00 8.03 10.08	0.05 0.09 0.15

FM Antenna	A	From Leg	2.00 0.00 0.00	0.000	312.00	No Ice 1/2" Ice 1" Ice	4.00 5.00 6.00	4.00 5.00 6.00	0.04 0.07 0.10

2' Standoff	C	From Leg	1.00 0.00 0.00	0.000	317.50	No Ice 1/2" Ice 1" Ice	2.96 4.10 5.24	2.11 2.93 3.75	0.10 0.12 0.14

FM Antenna	C	From Leg	2.00 0.00 0.00	0.000	332.50	No Ice 1/2" Ice 1" Ice	4.00 5.00 6.00	4.00 5.00 6.00	0.04 0.07 0.10

FM Antenna	C	From Leg	2.00 0.00 0.00	0.000	342.00	No Ice 1/2" Ice 1" Ice	4.00 5.00 6.00	4.00 5.00 6.00	0.04 0.07 0.10

(3) FM Antennas	B	From Leg	2.00 0.00 0.00	0.000	338.00	No Ice 1/2" Ice 1" Ice	14.00 19.00 24.00	14.00 19.00 24.00	0.24 0.40 0.55

Dishes

<i>Description</i>	<i>Face or Leg</i>	<i>Dish Type</i>	<i>Offset Type</i>	<i>Offsets: Horz Lateral Vert ft</i>	<i>Azimuth Adjustment °</i>	<i>3 dB Beam Width °</i>	<i>Elevation ft</i>	<i>Outside Diameter ft</i>	<i>Aperture Area ft²</i>	<i>Weight K</i>
6ft Dish	C	Paraboloid w/Shroud (HP)	From Leg	1.00 0.00 0.00	0.000		255.00	6.00	No Ice 1/2" Ice 1" Ice	28.30 28.30 28.30
4ft Dish	C	Paraboloid w/Shroud (HP)	From Leg	1.00 0.00 0.00	0.000		215.00	4.00	No Ice 1/2" Ice 1" Ice	12.57 12.57 12.57
6ft Dish	B	Paraboloid w/Shroud (HP)	From Leg	1.00 0.00 0.00	0.000		210.00	6.00	No Ice 1/2" Ice 1" Ice	28.30 28.30 28.30
4ft Dish	B	Paraboloid w/Shroud (HP)	From Leg	1.00 0.00 0.00	0.000		183.00	4.00	No Ice 1/2" Ice 1" Ice	12.57 12.57 12.57

SPD3-2.4NS	B	Paraboloid w/o Radome	From Leg	1.00 0.00 0.00	45.000		36.00	3.17	No Ice 1/2" Ice 1" Ice	7.88 8.30 8.72

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Description	Face or Leg	Dish Type	Offset Type	Offsets: Horz Lateral Vert ft	Azimuth Adjustment °	3 dB Beam Width °	Elevation ft	Outside Diameter ft	Aperture Area ft ²	Weight K
PR-950	B	Grid	From Leg	1.00 0.00 0.00	45.000		90.00	5.67	No Ice 25.22 1/2" Ice 25.97 1" Ice 26.71	0.04 0.17 0.30
(2) 18" Dishes	A	Paraboloid w/Shroud (HP)	From Leg	1.00 0.00 0.00	-60.000		106.50	3.00	No Ice 3.14 1/2" Ice 3.41 1" Ice 3.68	0.03 0.04 0.06
MTZ-940B	A	Grid	From Leg	1.00 0.00 0.00	-60.000		112.00	3.88	No Ice 11.79 1/2" Ice 12.31 1" Ice 12.82	0.01 0.08 0.14
(2) 18" Dishes	B	Paraboloid w/Shroud (HP)	From Leg	1.00 0.00 0.00	-35.000		123.50	3.00	No Ice 3.14 1/2" Ice 3.41 1" Ice 3.68	0.03 0.04 0.06
P-9A72GN-S	B	Grid	From Leg	1.00 0.00 0.00	-35.000		130.00	6.00	No Ice 22.60 1/2" Ice 29.05 1" Ice 35.50	0.11 0.26 0.41
MFF-950B	C	Grid	From Leg	1.00 0.00 0.00	-90.000		209.00	3.88	No Ice 11.79 1/2" Ice 12.31 1" Ice 12.82	0.01 0.08 0.14
P-9A72GN-S	B	Paraboloid w/o Radome	From Leg	1.00 0.00 0.00	45.000		251.00	6.00	No Ice 22.60 1/2" Ice 29.05 1" Ice 35.50	0.11 0.26 0.41
SPD6-58	A	Paraboloid w/Radome	From Leg	1.00 0.00 0.00	-45.000		274.00	6.00	No Ice 28.27 1/2" Ice 29.07 1" Ice 29.86	0.13 0.24 0.39
P-9A120GN	C	Paraboloid w/o Radome	From Leg	1.00 0.00 0.00	45.000		308.00	4.00	No Ice 10.10 1/2" Ice 13.09 1" Ice 16.08	0.11 0.18 0.25
P-9A120GN	C	Paraboloid w/o Radome	From Leg	1.00 0.00 0.00	-80.000		317.50	4.00	No Ice 10.10 1/2" Ice 13.09 1" Ice 16.08	0.11 0.18 0.25

Tower Pressures - No Ice

$G_H = 0.850$ (base tower), 1.100 (upper structure)

Section Elevation	z	K_Z	q_z	A_G	F_a	A_F	A_R	A_{leg}	Leg %	$C_A A_A$ In Face ft ²	$C_A A_A$ Out Face ft ²
ft	ft		psf	ft ²	c e	ft ²	ft ²	ft ²			
L1 345.00-330.00	337.50	1.635	39	39.063	A	0.000	5.862	3.125	53.31	6.738	0.000
					B	0.000	5.862		53.31	0.000	0.000
					C	0.000	5.862		53.31	2.020	0.000
T1 330.00-327.72	328.86	1.626	39	11.834	A	2.406	1.724	0.855	20.71	1.868	0.000
					B	2.406	1.724		20.71	0.760	0.000
					C	2.406	1.724		20.71	1.178	0.000
T2 327.72-320.88	324.30	1.621	39	35.502	A	0.000	6.074	2.566	42.25	5.604	0.000
					B	0.000	6.074		42.25	2.281	0.000
					C	0.000	6.074		42.25	3.534	0.000
T3 320.88-320.00	320.44	1.617	39	4.539	A	0.000	1.094	0.328	30.00	0.716	0.000
					B	0.000	1.094		30.00	0.292	0.000
					C	0.000	1.094		30.00	0.452	0.000
T4 320.00-300.88	310.44	1.606	39	99.211	A	0.000	14.187	7.172	50.55	21.008	0.000
					B	0.000	14.187		50.55	6.375	0.000
					C	0.000	14.187		50.55	9.875	0.000
T5	300.44	1.595	38	4.539	A	0.000	1.094	0.328	30.00	1.114	0.000

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Section Elevation	z	K_z	q_z	A_G	F_{ac}	A_F	A_R	A_{leg}	Leg %	C_{AA} In Face ft^2	C_{AA} Out Face ft^2
<i>ft</i>	<i>ft</i>		<i>psf</i>	<i>ft²</i>	<i>e</i>	<i>ft²</i>	<i>ft²</i>	<i>ft²</i>			
300.88-300.00					B	0.000	1.094		30.00	0.292	0.000
					C	0.000	1.094		30.00	0.452	0.000
T6	290.44	1.584	38	99.211	A	0.000	14.187	7.172	50.55	24.343	0.000
300.00-280.88					B	0.000	14.187		50.55	10.291	0.000
					C	0.000	14.187		50.55	15.978	0.000
T7	280.44	1.572	38	4.539	A	0.000	1.094	0.328	30.00	1.114	0.000
280.88-280.00					B	0.000	1.094		30.00	0.500	0.000
					C	0.000	1.094		30.00	0.859	0.000
T8	270.44	1.561	37	99.211	A	0.000	15.075	7.172	47.58	27.993	0.000
280.00-260.88					B	0.000	15.075		47.58	10.927	0.000
					C	0.000	15.075		47.58	19.904	0.000
T9	260.44	1.548	37	4.539	A	0.000	1.146	0.328	28.63	1.338	0.000
260.88-260.00					B	0.000	1.146		28.63	0.500	0.000
					C	0.000	1.146		28.63	1.007	0.000
T10	250.44	1.535	37	99.211	A	0.000	15.075	7.172	47.58	30.474	0.000
260.00-240.88					B	0.000	15.075		47.58	10.927	0.000
					C	0.000	15.075		47.58	24.005	0.000
T11	240.44	1.522	37	4.539	A	0.000	1.146	0.328	28.63	1.435	0.000
240.88-240.00					B	0.000	1.146		28.63	0.500	0.000
					C	0.000	1.146		28.63	1.180	0.000
T12	230.44	1.509	36	99.211	A	0.000	15.075	7.172	47.58	38.044	0.000
240.00-220.88					B	0.000	15.075		47.58	10.927	0.000
					C	0.000	15.075		47.58	25.787	0.000
T13	220.44	1.495	36	4.539	A	0.000	1.146	0.328	28.63	2.474	0.000
220.88-220.00					B	0.000	1.146		28.63	0.500	0.000
					C	0.000	1.146		28.63	1.180	0.000
T14	210.50	1.48	36	98.958	A	0.000	15.977	7.917	49.55	55.563	0.000
220.00-201.00					B	0.000	15.977		49.55	12.909	0.000
					C	0.000	15.977		49.55	26.316	0.000
T15	200.50	1.465	35	5.208	A	0.000	1.337	0.417	31.17	3.181	0.000
201.00-200.00					B	0.000	1.337		31.17	0.682	0.000
					C	0.000	1.337		31.17	1.503	0.000
T16	190.50	1.45	35	99.354	A	0.000	18.491	8.708	47.10	71.993	0.000
200.00-181.00					B	0.000	18.491		47.10	44.276	0.000
					C	0.000	18.491		47.10	28.563	0.000
T17	180.50	1.433	34	5.229	A	0.000	1.479	0.458	30.99	4.722	0.000
181.00-180.00					B	0.000	1.479		30.99	2.330	0.000
					C	0.000	1.479		30.99	1.503	0.000
T18	170.50	1.416	34	99.354	A	0.000	16.733	8.708	52.04	89.715	0.000
180.00-161.00					B	0.000	16.733		52.04	64.472	0.000
					C	0.000	16.733		52.04	28.563	0.000
T19	160.50	1.398	34	5.229	A	0.000	1.374	0.458	33.35	4.722	0.000
161.00-160.00					B	0.000	1.374		33.35	4.706	0.000
					C	0.000	1.374		33.35	1.503	0.000
T20	150.50	1.379	33	99.354	A	0.000	16.733	8.708	52.04	90.551	0.000
160.00-141.00					B	0.000	16.733		52.04	89.420	0.000
					C	0.000	16.733		52.04	28.563	0.000
T21	140.50	1.36	33	5.229	A	0.000	1.374	0.458	33.35	4.810	0.000
141.00-140.00					B	0.000	1.374		33.35	4.706	0.000
					C	0.000	1.374		33.35	1.503	0.000
T22	130.50	1.339	32	99.354	A	0.000	16.733	8.708	52.04	93.169	0.000
140.00-121.00					B	0.000	16.733		52.04	91.085	0.000
					C	0.000	16.733		52.04	28.642	0.000
T23	120.50	1.316	32	5.229	A	0.000	1.374	0.458	33.35	5.008	0.000
121.00-120.00					B	0.000	1.374		33.35	4.817	0.000
					C	0.000	1.374		33.35	1.535	0.000
T24	110.50	1.293	31	99.354	A	0.000	16.733	8.708	52.04	97.673	0.000
120.00-101.00					B	0.000	16.733		52.04	91.529	0.000
					C	0.000	16.733		52.04	29.162	0.000
T25	100.50	1.267	30	5.229	A	0.000	1.374	0.458	33.35	5.269	0.000

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Section Elevation	<i>z</i>	<i>K_Z</i>	<i>q_z</i>	<i>A_G</i>	<i>F_a</i> <i>c</i> <i>e</i>	<i>A_F</i>	<i>A_R</i>	<i>A_{leg}</i>	<i>Leg</i> %	<i>C_AA_A</i> <i>In</i> Face <i>ft</i> ²	<i>C_AA_A</i> <i>Out</i> Face <i>ft</i> ²
<i>ft</i>	<i>ft</i>		<i>psf</i>	<i>ft</i> ²		<i>ft</i> ²	<i>ft</i> ²	<i>ft</i> ²			<i>ft</i> ²
101.00-100.00					B	0.000	1.374		33.35	4.817	0.000
					C	0.000	1.374		33.35	1.535	0.000
T26	90.50	1.239	30	99.354	A	0.000	16.733	8.708	52.04	100.108	0.000
100.00-81.00					B	0.000	16.733		52.04	92.051	0.000
					C	0.000	16.733		52.04	29.162	0.000
T27	80.50	1.209	29	5.229	A	0.000	1.374	0.458	33.35	5.269	0.000
81.00-80.00					B	0.000	1.374		33.35	4.875	0.000
					C	0.000	1.374		33.35	1.535	0.000
T28	70.50	1.176	28	99.354	A	0.000	16.733	8.708	52.04	100.108	0.000
80.00-61.00					B	0.000	16.733		52.04	92.631	0.000
					C	0.000	16.733		52.04	29.162	0.000
T29	60.50	1.139	27	5.229	A	0.000	1.374	0.458	33.35	5.269	0.000
61.00-60.00					B	0.000	1.374		33.35	4.875	0.000
					C	0.000	1.374		33.35	1.535	0.000
T30	50.50	1.096	26	99.354	A	0.000	16.733	8.708	52.04	100.108	0.000
60.00-41.00					B	0.000	16.733		52.04	92.631	0.000
					C	0.000	16.733		52.04	29.162	0.000
T31	40.50	1.046	25	5.229	A	0.000	1.374	0.458	33.35	5.269	0.000
41.00-40.00					B	0.000	1.374		33.35	4.875	0.000
					C	0.000	1.374		33.35	1.535	0.000
T32	30.50	0.986	24	99.354	A	0.000	16.733	8.708	52.04	100.108	0.000
40.00-21.00					B	0.000	16.733		52.04	92.631	0.000
					C	0.000	16.733		52.04	30.902	0.000
T33	20.50	0.907	22	5.229	A	0.000	1.374	0.458	33.35	5.269	0.000
21.00-20.00					B	0.000	1.374		33.35	4.875	0.000
					C	0.000	1.374		33.35	1.651	0.000
T34	18.33	0.885	21	17.465	A	0.000	3.205	1.531	47.76	17.598	0.000
20.00-16.66					B	0.000	3.205		47.76	16.284	0.000
					C	0.000	3.205		47.76	5.514	0.000
T35	15.50	0.855	21	12.184	A	0.000	2.499	1.068	42.74	12.276	0.000
16.66-14.33					B	0.000	2.499		42.74	11.360	0.000
					C	0.000	2.499		42.74	3.846	0.000
T36	13.17	0.85	20	12.184	A	0.000	2.499	1.068	42.74	12.276	0.000
14.33-12.00					B	0.000	2.499		42.74	11.360	0.000
					C	0.000	2.499		42.74	3.846	0.000
T37 12.00-9.34	10.67	0.85	20	13.936	A	2.385	2.272	1.221	26.23	14.041	0.000
					B	2.385	2.272		26.23	12.993	0.000
					C	2.385	2.272		26.23	4.399	0.000
T38 9.34-6.67	8.00	0.85	20	13.936	A	1.590	2.272	1.221	31.63	14.041	0.000
					B	1.590	2.272		31.63	12.993	0.000
					C	1.590	2.272		31.63	4.399	0.000
T39 6.67-0.00	3.34	0.85	20	18.307	A	1.567	5.213	3.331	49.13	0.250	0.000
					B	1.567	5.213		49.13	0.000	0.000
					C	1.567	5.213		49.13	0.000	0.000

Tower Pressure - With Ice

$G_H = 0.850$ (base tower), 1.100 (upper structure)

Section Elevation	<i>z</i>	<i>K_Z</i>	<i>q_z</i>	<i>t_z</i>	<i>A_G</i>	<i>F_a</i> <i>c</i> <i>e</i>	<i>A_F</i>	<i>A_R</i>	<i>A_{leg}</i>	<i>Leg</i> %	<i>C_AA_A</i> <i>In</i> Face <i>ft</i> ²	<i>C_AA_A</i> <i>Out</i> Face <i>ft</i> ²
<i>ft</i>	<i>ft</i>		<i>psf</i>	<i>in</i>	<i>ft</i> ²		<i>ft</i> ²	<i>ft</i> ²	<i>ft</i> ²			<i>ft</i> ²
L1	337.50	1.635	9	1.8926	43.794	A	0.000	34.916	12.588	36.05	22.731	0.000
345.00-330.00						B	0.000	34.916		36.05	0.000	0.000
						C	0.000	34.916		36.05	8.644	0.000

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Section Elevation	z	K _Z	q _z	t _z	A _G	F a c e	A _F	A _R	A _{leg}	Leg %	C _A A _A In Face ft ²	C _A A _A Out Face ft ²
ft	ft		psf	in	ft ²		ft ²	ft ²	ft ²			ft ²
T1 330.00-327.72	328.86	1.626	9	1.8877	12.552	A	2.406	8.204	2.291	21.59	6.174	0.000
						B	2.406	8.204		21.59	2.483	0.000
						C	2.406	8.204		21.59	4.623	0.000
T2 327.72-320.88	324.30	1.621	9	1.8851	37.652	A	0.000	24.841	6.867	27.64	18.505	0.000
						B	0.000	24.841		27.64	7.442	0.000
						C	0.000	24.841		27.64	13.855	0.000
T3 320.88-320.00	320.44	1.617	9	1.8828	4.814	A	0.000	4.723	0.877	18.58	2.364	0.000
						B	0.000	4.723		18.58	0.951	0.000
						C	0.000	4.723		18.58	1.770	0.000
T4 320.00-300.88	310.44	1.606	9	1.8769	105.194	A	0.000	55.818	19.137	34.28	70.831	0.000
						B	0.000	55.818		34.28	20.733	0.000
						C	0.000	55.818		34.28	38.591	0.000
T5 300.88-300.00	300.44	1.595	9	1.8707	4.812	A	0.000	4.700	0.874	18.59	3.654	0.000
						B	0.000	4.700		18.59	0.946	0.000
						C	0.000	4.700		18.59	1.761	0.000
T6 300.00-280.88	290.44	1.584	9	1.8644	105.154	A	0.000	55.542	19.058	34.31	79.695	0.000
						B	0.000	55.542		34.31	30.690	0.000
						C	0.000	55.542		34.31	57.504	0.000
T7 280.88-280.00	280.44	1.572	9	1.8579	4.810	A	0.000	4.675	0.870	18.61	3.639	0.000
						B	0.000	4.675		18.61	1.475	0.000
						C	0.000	4.675		18.61	3.024	0.000
T8 280.00-260.88	270.44	1.561	8	1.8512	105.112	A	0.000	56.136	18.973	33.80	91.768	0.000
						B	0.000	56.136		33.80	32.169	0.000
						C	0.000	56.136		33.80	73.315	0.000
T9 260.88-260.00	260.44	1.548	8	1.8442	4.808	A	0.000	4.701	0.866	18.42	4.303	0.000
						B	0.000	4.701		18.42	1.468	0.000
						C	0.000	4.701		18.42	3.812	0.000
T10 260.00-240.88	250.44	1.535	8	1.8370	105.066	A	0.000	55.821	18.883	33.83	99.178	0.000
						B	0.000	55.821		33.83	32.006	0.000
						C	0.000	55.821		33.83	88.840	0.000
T11 240.88-240.00	240.44	1.522	8	1.8295	4.806	A	0.000	4.672	0.862	18.44	4.702	0.000
						B	0.000	4.672		18.44	1.460	0.000
						C	0.000	4.672		18.44	4.286	0.000
T12 240.00-220.88	230.44	1.509	8	1.8218	105.018	A	0.000	55.484	18.786	33.86	117.480	0.000
						B	0.000	55.484		33.86	31.832	0.000
						C	0.000	55.484		33.86	93.438	0.000
T13 220.88-220.00	220.44	1.495	8	1.8137	4.804	A	0.000	4.642	0.857	18.47	7.004	0.000
						B	0.000	4.642		18.47	1.452	0.000
						C	0.000	4.642		18.47	4.263	0.000
T14 220.00-201.00	210.50	1.48	8	1.8054	104.675	A	0.000	55.792	19.351	34.68	157.575	0.000
						B	0.000	55.792		34.68	40.170	0.000
						C	0.000	55.792		34.68	94.623	0.000
T15 201.00-200.00	200.50	1.465	8	1.7966	5.508	A	0.000	4.883	1.016	20.80	9.042	0.000
						B	0.000	4.883		20.80	2.120	0.000
						C	0.000	4.883		20.80	5.357	0.000
T16 200.00-181.00	190.50	1.45	8	1.7874	105.014	A	0.000	57.788	20.029	34.66	199.267	0.000
						B	0.000	57.788		34.66	132.053	0.000
						C	0.000	57.788		34.66	101.464	0.000
T17 181.00-180.00	180.50	1.433	8	1.7778	5.525	A	0.000	4.975	1.051	21.12	12.708	0.000
						B	0.000	4.975		21.12	6.933	0.000
						C	0.000	4.975		21.12	5.322	0.000
T18 180.00-161.00	170.50	1.416	8	1.7677	104.952	A	0.000	55.597	19.904	35.80	240.861	0.000
						B	0.000	55.597		35.80	150.994	0.000
						C	0.000	55.597		35.80	100.757	0.000
T19 161.00-160.00	160.50	1.398	8	1.7571	5.522	A	0.000	4.830	1.044	21.62	12.644	0.000
						B	0.000	4.830		21.62	9.199	0.000
						C	0.000	4.830		21.62	5.283	0.000
T20 160.00-141.00	150.50	1.379	8	1.7458	104.883	A	0.000	55.115	19.765	35.86	243.729	0.000
						B	0.000	55.115		35.86	174.329	0.000
						C	0.000	55.115		35.86	99.971	0.000

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Section Elevation	z	K _Z	q _z	t _z	A _G	F a c e	A _F	A _R	A _{leg}	Leg %	C _A A _A In Face ft ²	C _A A _A Out Face ft ²
ft	ft		psf	in	ft ²		ft ²	ft ²	ft ²			
T21 141.00-140.00	140.50	1.36	7	1.7338	5.518	A	0.000	4.784	1.036	21.66	13.007	0.000
						B	0.000	4.784		21.66	9.150	0.000
						C	0.000	4.784		21.66	5.239	0.000
T22 140.00-121.00	130.50	1.339	7	1.7211	104.804	A	0.000	54.572	19.609	35.93	252.709	0.000
						B	0.000	54.572		35.93	181.627	0.000
						C	0.000	54.572		35.93	100.025	0.000
T23 121.00-120.00	120.50	1.316	7	1.7074	5.514	A	0.000	4.732	1.027	21.71	13.626	0.000
						B	0.000	4.732		21.71	9.645	0.000
						C	0.000	4.732		21.71	5.562	0.000
T24 120.00-101.00	110.50	1.293	7	1.6927	104.714	A	0.000	53.948	19.429	36.01	265.441	0.000
						B	0.000	53.948		36.01	182.609	0.000
						C	0.000	53.948		36.01	105.099	0.000
T25 101.00-100.00	100.50	1.267	7	1.6767	5.509	A	0.000	4.672	1.017	21.77	14.554	0.000
						B	0.000	4.672		21.77	9.575	0.000
						C	0.000	4.672		21.77	5.498	0.000
T26 100.00-81.00	90.50	1.239	7	1.6592	104.608	A	0.000	53.212	19.217	36.11	275.268	0.000
						B	0.000	53.212		36.11	184.667	0.000
						C	0.000	53.212		36.11	103.773	0.000
T27 81.00-80.00	80.50	1.209	7	1.6399	5.502	A	0.000	4.599	1.005	21.85	14.415	0.000
						B	0.000	4.599		21.85	9.877	0.000
						C	0.000	4.599		21.85	5.421	0.000
T28 80.00-61.00	70.50	1.176	6	1.6183	104.479	A	0.000	52.312	18.958	36.24	272.339	0.000
						B	0.000	52.312		36.24	186.638	0.000
						C	0.000	52.312		36.24	102.153	0.000
T29 61.00-60.00	60.50	1.139	6	1.5937	5.495	A	0.000	4.509	0.990	21.95	14.241	0.000
						B	0.000	4.509		21.95	9.762	0.000
						C	0.000	4.509		21.95	5.325	0.000
T30 60.00-41.00	50.50	1.096	6	1.5652	104.311	A	0.000	51.145	18.621	36.41	268.541	0.000
						B	0.000	51.145		36.41	184.137	0.000
						C	0.000	51.145		36.41	100.050	0.000
T31 41.00-40.00	40.50	1.046	6	1.5310	5.484	A	0.000	4.385	0.969	22.09	14.005	0.000
						B	0.000	4.385		22.09	9.607	0.000
						C	0.000	4.385		22.09	5.195	0.000
T32 40.00-21.00	30.50	0.986	5	1.4882	104.067	A	0.000	49.453	18.134	36.67	263.041	0.000
						B	0.000	49.453		36.67	180.517	0.000
						C	0.000	49.453		36.67	108.079	0.000
T33 21.00-20.00	20.50	0.907	5	1.4303	5.468	A	0.000	4.187	0.935	22.33	13.626	0.000
						B	0.000	4.187		22.33	9.357	0.000
						C	0.000	4.187		22.33	5.703	0.000
T34 20.00-16.66	18.33	0.885	5	1.4143	18.253	A	0.000	8.568	3.105	36.24	45.313	0.000
						B	0.000	8.568		36.24	31.123	0.000
						C	0.000	8.568		36.24	18.918	0.000
T35 16.66-14.33	15.50	0.855	5	1.3908	12.724	A	0.000	7.095	2.148	30.28	31.404	0.000
						B	0.000	7.095		30.28	21.576	0.000
						C	0.000	7.095		30.28	13.064	0.000
T36 14.33-12.00	13.17	0.85	5	1.3683	12.715	A	0.000	7.020	2.131	30.35	31.208	0.000
						B	0.000	7.020		30.35	21.446	0.000
						C	0.000	7.020		30.35	12.937	0.000
T37 12.00-9.34	10.67	0.85	5	1.3398	14.531	A	2.385	7.099	2.412	25.43	35.410	0.000
						B	2.385	7.099		25.43	24.342	0.000
						C	2.385	7.099		25.43	14.612	0.000
T38 9.34-6.67	8.00	0.85	5	1.3019	14.514	A	1.590	6.962	2.378	27.80	35.031	0.000
						B	1.590	6.962		27.80	24.093	0.000
						C	1.590	6.962		27.80	14.366	0.000
T39 6.67-0.00	3.34	0.85	5	1.1928	19.723	A	1.567	12.575	6.221	43.99	1.841	0.000
						B	1.567	12.575		43.99	0.000	0.000
						C	1.567	12.575		43.99	0.000	0.000

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Tower Pressure - Service

$G_H = 0.850$ (base tower), 1.100 (upper structure)

Section Elevation ft	z ft	K_Z	q_z psf	A_G ft ²	F a c e	A_F ft ²	A_R ft ²	A_{leg} ft ²	Leg %	$C_A A_A$ In Face ft ²	$C_A A_A$ Out Face ft ²
L1	337.50	1.635	13	39.063	A	0.000	5.862	3.125	53.31	6.738	0.000
345.00-330.00					B	0.000	5.862		53.31	0.000	0.000
					C	0.000	5.862		53.31	2.020	0.000
T1	328.86	1.626	13	11.834	A	2.406	1.724	0.855	20.71	1.868	0.000
330.00-327.72					B	2.406	1.724		20.71	0.760	0.000
					C	2.406	1.724		20.71	1.178	0.000
T2	324.30	1.621	13	35.502	A	0.000	6.074	2.566	42.25	5.604	0.000
327.72-320.88					B	0.000	6.074		42.25	2.281	0.000
					C	0.000	6.074		42.25	3.534	0.000
T3	320.44	1.617	13	4.539	A	0.000	1.094	0.328	30.00	0.716	0.000
320.88-320.00					B	0.000	1.094		30.00	0.292	0.000
					C	0.000	1.094		30.00	0.452	0.000
T4	310.44	1.606	13	99.211	A	0.000	14.187	7.172	50.55	21.008	0.000
320.00-300.88					B	0.000	14.187		50.55	6.375	0.000
					C	0.000	14.187		50.55	9.875	0.000
T5	300.44	1.595	12	4.539	A	0.000	1.094	0.328	30.00	1.114	0.000
300.88-300.00					B	0.000	1.094		30.00	0.292	0.000
					C	0.000	1.094		30.00	0.452	0.000
T6	290.44	1.584	12	99.211	A	0.000	14.187	7.172	50.55	24.343	0.000
300.00-280.88					B	0.000	14.187		50.55	10.291	0.000
					C	0.000	14.187		50.55	15.978	0.000
T7	280.44	1.572	12	4.539	A	0.000	1.094	0.328	30.00	1.114	0.000
280.88-280.00					B	0.000	1.094		30.00	0.500	0.000
					C	0.000	1.094		30.00	0.859	0.000
T8	270.44	1.561	12	99.211	A	0.000	15.075	7.172	47.58	27.993	0.000
280.00-260.88					B	0.000	15.075		47.58	10.927	0.000
					C	0.000	15.075		47.58	19.904	0.000
T9	260.44	1.548	12	4.539	A	0.000	1.146	0.328	28.63	1.338	0.000
260.88-260.00					B	0.000	1.146		28.63	0.500	0.000
					C	0.000	1.146		28.63	1.007	0.000
T10	250.44	1.535	12	99.211	A	0.000	15.075	7.172	47.58	30.474	0.000
260.00-240.88					B	0.000	15.075		47.58	10.927	0.000
					C	0.000	15.075		47.58	24.005	0.000
T11	240.44	1.522	12	4.539	A	0.000	1.146	0.328	28.63	1.435	0.000
240.88-240.00					B	0.000	1.146		28.63	0.500	0.000
					C	0.000	1.146		28.63	1.180	0.000
T12	230.44	1.509	12	99.211	A	0.000	15.075	7.172	47.58	38.044	0.000
240.00-220.88					B	0.000	15.075		47.58	10.927	0.000
					C	0.000	15.075		47.58	25.787	0.000
T13	220.44	1.495	12	4.539	A	0.000	1.146	0.328	28.63	2.474	0.000
220.88-220.00					B	0.000	1.146		28.63	0.500	0.000
					C	0.000	1.146		28.63	1.180	0.000
T14	210.50	1.48	12	98.958	A	0.000	15.977	7.917	49.55	55.563	0.000
220.00-201.00					B	0.000	15.977		49.55	12.909	0.000
					C	0.000	15.977		49.55	26.316	0.000
T15	200.50	1.465	11	5.208	A	0.000	1.337	0.417	31.17	3.181	0.000
201.00-200.00					B	0.000	1.337		31.17	0.682	0.000
					C	0.000	1.337		31.17	1.503	0.000
T16	190.50	1.45	11	99.354	A	0.000	18.491	8.708	47.10	71.993	0.000
200.00-181.00					B	0.000	18.491		47.10	44.276	0.000
					C	0.000	18.491		47.10	28.563	0.000
T17	180.50	1.433	11	5.229	A	0.000	1.479	0.458	30.99	4.722	0.000
181.00-180.00					B	0.000	1.479		30.99	2.330	0.000

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	Client	Smartlink	Designed by	Bryan Mawhinney

Section Elevation	<i>z</i>	<i>K_Z</i>	<i>q_z</i>	<i>A_G</i>	<i>F_a</i> <i>c</i> <i>e</i>	<i>A_F</i>	<i>A_R</i>	<i>A_{leg}</i>	<i>Leg</i> %	<i>C_AA_A</i> <i>In</i> <i>Face</i> <i>ft</i> ²	<i>C_AA_A</i> <i>Out</i> <i>Face</i> <i>ft</i> ²
<i>ft</i>	<i>ft</i>		<i>psf</i>	<i>ft</i> ²		<i>ft</i> ²	<i>ft</i> ²	<i>ft</i> ²			
T18	170.50	1.416	11	99.354	C	0.000	1.479		30.99	1.503	0.000
180.00-161.00					A	0.000	16.733	8.708	52.04	89.715	0.000
					B	0.000	16.733		52.04	64.472	0.000
					C	0.000	16.733		52.04	28.563	0.000
T19	160.50	1.398	11	5.229	A	0.000	1.374	0.458	33.35	4.722	0.000
161.00-160.00					B	0.000	1.374		33.35	4.706	0.000
					C	0.000	1.374		33.35	1.503	0.000
T20	150.50	1.379	11	99.354	A	0.000	16.733	8.708	52.04	90.551	0.000
160.00-141.00					B	0.000	16.733		52.04	89.420	0.000
					C	0.000	16.733		52.04	28.563	0.000
T21	140.50	1.36	11	5.229	A	0.000	1.374	0.458	33.35	4.810	0.000
141.00-140.00					B	0.000	1.374		33.35	4.706	0.000
					C	0.000	1.374		33.35	1.503	0.000
T22	130.50	1.339	10	99.354	A	0.000	16.733	8.708	52.04	93.169	0.000
140.00-121.00					B	0.000	16.733		52.04	91.085	0.000
					C	0.000	16.733		52.04	28.642	0.000
T23	120.50	1.316	10	5.229	A	0.000	1.374	0.458	33.35	5.008	0.000
121.00-120.00					B	0.000	1.374		33.35	4.817	0.000
					C	0.000	1.374		33.35	1.535	0.000
T24	110.50	1.293	10	99.354	A	0.000	16.733	8.708	52.04	97.673	0.000
120.00-101.00					B	0.000	16.733		52.04	91.529	0.000
					C	0.000	16.733		52.04	29.162	0.000
T25	100.50	1.267	10	5.229	A	0.000	1.374	0.458	33.35	5.269	0.000
101.00-100.00					B	0.000	1.374		33.35	4.817	0.000
					C	0.000	1.374		33.35	1.535	0.000
T26	90.50	1.239	10	99.354	A	0.000	16.733	8.708	52.04	100.108	0.000
100.00-81.00					B	0.000	16.733		52.04	92.051	0.000
					C	0.000	16.733		52.04	29.162	0.000
T27	80.50	1.209	9	5.229	A	0.000	1.374	0.458	33.35	5.269	0.000
81.00-80.00					B	0.000	1.374		33.35	4.875	0.000
					C	0.000	1.374		33.35	1.535	0.000
T28	70.50	1.176	9	99.354	A	0.000	16.733	8.708	52.04	100.108	0.000
80.00-61.00					B	0.000	16.733		52.04	92.631	0.000
					C	0.000	16.733		52.04	29.162	0.000
T29	60.50	1.139	9	5.229	A	0.000	1.374	0.458	33.35	5.269	0.000
61.00-60.00					B	0.000	1.374		33.35	4.875	0.000
					C	0.000	1.374		33.35	1.535	0.000
T30	50.50	1.096	9	99.354	A	0.000	16.733	8.708	52.04	100.108	0.000
60.00-41.00					B	0.000	16.733		52.04	92.631	0.000
					C	0.000	16.733		52.04	29.162	0.000
T31	40.50	1.046	8	5.229	A	0.000	1.374	0.458	33.35	5.269	0.000
41.00-40.00					B	0.000	1.374		33.35	4.875	0.000
					C	0.000	1.374		33.35	1.535	0.000
T32	30.50	0.986	8	99.354	A	0.000	16.733	8.708	52.04	100.108	0.000
40.00-21.00					B	0.000	16.733		52.04	92.631	0.000
					C	0.000	16.733		52.04	30.902	0.000
T33	20.50	0.907	7	5.229	A	0.000	1.374	0.458	33.35	5.269	0.000
21.00-20.00					B	0.000	1.374		33.35	4.875	0.000
					C	0.000	1.374		33.35	1.651	0.000
T34	18.33	0.885	7	17.465	A	0.000	3.205	1.531	47.76	17.598	0.000
20.00-16.66					B	0.000	3.205		47.76	16.284	0.000
					C	0.000	3.205		47.76	5.514	0.000
T35	15.50	0.855	7	12.184	A	0.000	2.499	1.068	42.74	12.276	0.000
16.66-14.33					B	0.000	2.499		42.74	11.360	0.000
					C	0.000	2.499		42.74	3.846	0.000
T36	13.17	0.85	7	12.184	A	0.000	2.499	1.068	42.74	12.276	0.000
14.33-12.00					B	0.000	2.499		42.74	11.360	0.000
					C	0.000	2.499		42.74	3.846	0.000
T37 12.00-9.34	10.67	0.85	7	13.936	A	2.385	2.272	1.221	26.23	14.041	0.000
					B	2.385	2.272		26.23	12.993	0.000

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Section Elevation	z	K _Z	q _z	A _G	F a c e	A _F	A _R	A _{leg}	Leg %	C _A A _A In Face ft ²	C _A A _A Out Face ft ²
ft	ft		psf	ft ²		ft ²	ft ²	ft ²			
T38 9.34-6.67	8.00	0.85	7	13.936	C	2.385	2.272		26.23	4.399	0.000
					A	1.590	2.272	1.221	31.63	14.041	0.000
					B	1.590	2.272		31.63	12.993	0.000
					C	1.590	2.272		31.63	4.399	0.000
T39 6.67-0.00	3.34	0.85	7	18.307	A	1.567	5.213	3.331	49.13	0.250	0.000
					B	1.567	5.213		49.13	0.000	0.000
					C	1.567	5.213		49.13	0.000	0.000

Tower Forces - No Ice - Wind Normal To Face

Section Elevation	Add Weight	Self Weight	F a c e	e	C _F	q _z	D _F	D _R	A _E	F	w	Ctrl. Face
ft	K	K				psf			ft ²	K	plf	
L1 345.00-330.00	0.10	0.34	A	0.15	2.771	39	1	1	3.327	0.60	40.02	A
			B	0.15	2.771		1	1	3.327			
			C	0.15	2.771		1	1	3.327			
T1 330.00-327.72	0.13	0.40	A	0.349	2.174	39	1	1	3.468	0.30	130.95	A
			B	0.349	2.174		1	1	3.468			
			C	0.349	2.174		1	1	3.468			
T2 327.72-320.88	0.39	0.60	A	0.171	2.695	39	1	1	3.462	0.45	66.40	A
			B	0.171	2.695		1	1	3.462			
			C	0.171	2.695		1	1	3.462			
T3 320.88-320.00	0.05	0.11	A	0.241	2.465	39	1	1	0.638	0.07	80.50	A
			B	0.241	2.465		1	1	0.638			
			C	0.241	2.465		1	1	0.638			
T4 320.00-300.88	1.12	1.40	A	0.143	2.797	39	1	1	8.042	1.25	65.16	A
			B	0.143	2.797		1	1	8.042			
			C	0.143	2.797		1	1	8.042			
T5 300.88-300.00	0.05	0.11	A	0.241	2.465	38	1	1	0.638	0.08	88.27	A
			B	0.241	2.465		1	1	0.638			
			C	0.241	2.465		1	1	0.638			
T6 300.00-280.88	1.19	1.40	A	0.143	2.797	38	1	1	8.042	1.46	76.30	A
			B	0.143	2.797		1	1	8.042			
			C	0.143	2.797		1	1	8.042			
T7 280.88-280.00	0.05	0.11	A	0.241	2.465	38	1	1	0.638	0.09	98.37	A
			B	0.241	2.465		1	1	0.638			
			C	0.241	2.465		1	1	0.638			
T8 280.00-260.88	1.22	1.57	A	0.152	2.764	37	1	1	8.559	1.62	84.52	A
			B	0.152	2.764		1	1	8.559			
			C	0.152	2.764		1	1	8.559			
T9 260.88-260.00	0.06	0.12	A	0.252	2.43	37	1	1	0.671	0.09	106.91	A
			B	0.252	2.43		1	1	0.671			
			C	0.252	2.43		1	1	0.671			
T10 260.00-240.88	1.26	1.57	A	0.152	2.764	37	1	1	8.559	1.71	89.59	A
			B	0.152	2.764		1	1	8.559			
			C	0.152	2.764		1	1	8.559			
T11 240.88-240.00	0.06	0.12	A	0.252	2.43	37	1	1	0.671	0.10	110.88	A
			B	0.252	2.43		1	1	0.671			
			C	0.252	2.43		1	1	0.671			
T12 240.00-220.88	1.31	1.57	A	0.152	2.764	36	1	1	8.559	1.86	97.06	A
			B	0.152	2.764		1	1	8.559			
			C	0.152	2.764		1	1	8.559			
T13 220.88-220.00	0.06	0.12	A	0.252	2.43	36	1	1	0.671	0.11	130.60	A
			B	0.252	2.43		1	1	0.671			
			C	0.252	2.43		1	1	0.671			
T14	1.40	1.79	A	0.161	2.73	36	1	1	9.088	2.22	116.86	A

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Section Elevation	Add Weight	Self Weight	F a c e	e	C _F	q _z psf	D _F	D _R	A _E ft ²	F K	w plf	Ctrl. Face
220.00-201.00			B	0.161	2.73		1	1	9.088			
			C	0.161	2.73		1	1	9.088			
T15	0.08	0.16	A	0.257	2.418	35	1	1	0.784	0.14	140.07	A
201.00-200.00			B	0.257	2.418		1	1	0.784			
			C	0.257	2.418		1	1	0.784			
T16	1.67	2.39	A	0.186	2.643	35	1	1	10.580	2.96	155.92	A
200.00-181.00			B	0.186	2.643		1	1	10.580			
			C	0.186	2.643		1	1	10.580			
T17	0.09	0.19	A	0.283	2.343	34	1	1	0.878	0.19	187.63	A
181.00-180.00			B	0.283	2.343		1	1	0.878			
			C	0.283	2.343		1	1	0.878			
T18	1.86	1.99	A	0.168	2.705	34	1	1	9.532	3.30	173.59	A
180.00-161.00		TA 1.09	B	0.168	2.705		1	1	9.532			
			C	0.168	2.705		1	1	9.532			
T19	0.10	0.17	A	0.263	2.4	34	1	1	0.808	0.20	198.28	A
161.00-160.00			B	0.263	2.4		1	1	0.808			
			C	0.263	2.4		1	1	0.808			
T20	2.00	1.99	A	0.168	2.705	33	1	1	9.532	3.42	179.95	A
160.00-141.00			B	0.168	2.705		1	1	9.532			
			C	0.168	2.705		1	1	9.532			
T21	0.11	0.17	A	0.263	2.4	33	1	1	0.808	0.19	194.26	A
141.00-140.00			B	0.263	2.4		1	1	0.808			
			C	0.263	2.4		1	1	0.808			
T22	2.02	1.99	A	0.168	2.705	32	1	1	9.532	3.39	178.17	A
140.00-121.00			B	0.168	2.705		1	1	9.532			
			C	0.168	2.705		1	1	9.532			
T23	0.11	0.17	A	0.263	2.4	32	1	1	0.808	0.19	193.29	A
121.00-120.00			B	0.263	2.4		1	1	0.808			
			C	0.263	2.4		1	1	0.808			
T24	2.05	1.99	A	0.168	2.705	31	1	1	9.532	3.35	176.53	A
120.00-101.00			B	0.168	2.705		1	1	9.532			
			C	0.168	2.705		1	1	9.532			
T25	0.11	0.17	A	0.263	2.4	30	1	1	0.808	0.19	190.09	A
101.00-100.00			B	0.263	2.4		1	1	0.808			
			C	0.263	2.4		1	1	0.808			
T26	2.06	1.99	A	0.168	2.705	30	1	1	9.532	3.26	171.62	A
100.00-81.00			B	0.168	2.705		1	1	9.532			
			C	0.168	2.705		1	1	9.532			
T27	0.11	0.17	A	0.263	2.4	29	1	1	0.808	0.18	182.27	A
81.00-80.00			B	0.263	2.4		1	1	0.808			
			C	0.263	2.4		1	1	0.808			
T28	2.06	1.99	A	0.168	2.705	28	1	1	9.532	3.10	163.27	A
80.00-61.00			B	0.168	2.705		1	1	9.532			
			C	0.168	2.705		1	1	9.532			
T29	0.11	0.17	A	0.263	2.4	27	1	1	0.808	0.17	171.63	A
61.00-60.00			B	0.263	2.4		1	1	0.808			
			C	0.263	2.4		1	1	0.808			
T30	2.06	1.99	A	0.168	2.705	26	1	1	9.532	2.89	152.20	A
60.00-41.00			B	0.168	2.705		1	1	9.532			
			C	0.168	2.705		1	1	9.532			
T31	0.11	0.17	A	0.263	2.4	25	1	1	0.808	0.16	157.73	A
41.00-40.00			B	0.263	2.4		1	1	0.808			
			C	0.263	2.4		1	1	0.808			
T32	2.07	1.99	A	0.168	2.705	24	1	1	9.532	2.62	137.90	A
40.00-21.00			B	0.168	2.705		1	1	9.532			
			C	0.168	2.705		1	1	9.532			
T33	0.11	0.17	A	0.263	2.4	22	1	1	0.808	0.14	137.87	A
21.00-20.00			B	0.263	2.4		1	1	0.808			
			C	0.263	2.4		1	1	0.808			
T34	0.36	0.41	A	0.184	2.652	21	1	1	1.833	0.42	125.90	A

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Section Elevation	Add Weight	Self Weight	F a c e	e	C _F	q _z psf	D _F	D _R	A _E ft ²	F K	w plf	Ctrl. Face
ft	K	K										
20.00-16.66			B	0.184	2.652		1	1	1.833			
			C	0.184	2.652		1	1	1.833			
T35	0.25	0.31	A	0.205	2.579	21	1	1	1.438	0.29	123.90	A
16.66-14.33			B	0.205	2.579		1	1	1.438			
			C	0.205	2.579		1	1	1.438			
T36	0.25	0.31	A	0.205	2.579	20	1	1	1.438	0.29	123.22	A
14.33-12.00			B	0.205	2.579		1	1	1.438			
			C	0.205	2.579		1	1	1.438			
T37	0.29	0.51	A	0.334	2.209	20	1	1	3.772	0.40	149.83	A
12.00-9.34			B	0.334	2.209		1	1	3.772			
			C	0.334	2.209		1	1	3.772			
T38 9.34-6.67	0.29	0.43	A	0.277	2.359	20	1	1	2.936	0.37	140.67	A
			B	0.277	2.359		1	1	2.936			
			C	0.277	2.359		1	1	2.936			
T39 6.67-0.00	0.00	0.84	A	0.37	2.126	20	1	1	4.820	0.18	27.01	C
			B	0.37	2.126		1	1	4.820			
			C	0.37	2.126		1	1	4.820			
Sum Weight:	28.77	35.15								44.00		

Tower Forces - No Ice - Wind 60 To Face

Section Elevation	Add Weight	Self Weight	F a c e	e	C _F	q _z psf	D _F	D _R	A _E ft ²	F K	w plf	Ctrl. Face
ft	K	K										
L1	0.10	0.34	A	0.15	2.771	39	0.8	1	3.327	0.60	40.02	B
345.00-330.00			B	0.15	2.771		0.8	1	3.327			
			C	0.15	2.771		0.8	1	3.327			
T1	0.13	0.40	A	0.349	2.174	39	0.8	1	2.986	0.26	115.74	B
330.00-327.72			B	0.349	2.174		0.8	1	2.986			
			C	0.349	2.174		0.8	1	2.986			
T2	0.39	0.60	A	0.171	2.695	39	0.8	1	3.462	0.45	66.40	B
327.72-320.88			B	0.171	2.695		0.8	1	3.462			
			C	0.171	2.695		0.8	1	3.462			
T3	0.05	0.11	A	0.241	2.465	39	0.8	1	0.638	0.07	80.50	B
320.88-320.00			B	0.241	2.465		0.8	1	0.638			
			C	0.241	2.465		0.8	1	0.638			
T4	1.12	1.40	A	0.143	2.797	39	0.8	1	8.042	1.25	65.16	B
320.00-300.88			B	0.143	2.797		0.8	1	8.042			
			C	0.143	2.797		0.8	1	8.042			
T5	0.05	0.11	A	0.241	2.465	38	0.8	1	0.638	0.08	88.27	B
300.88-300.00			B	0.241	2.465		0.8	1	0.638			
			C	0.241	2.465		0.8	1	0.638			
T6	1.19	1.40	A	0.143	2.797	38	0.8	1	8.042	1.46	76.30	B
300.00-280.88			B	0.143	2.797		0.8	1	8.042			
			C	0.143	2.797		0.8	1	8.042			
T7	0.05	0.11	A	0.241	2.465	38	0.8	1	0.638	0.09	98.37	B
280.88-280.00			B	0.241	2.465		0.8	1	0.638			
			C	0.241	2.465		0.8	1	0.638			
T8	1.22	1.57	A	0.152	2.764	37	0.8	1	8.559	1.62	84.52	B
280.00-260.88			B	0.152	2.764		0.8	1	8.559			
			C	0.152	2.764		0.8	1	8.559			
T9	0.06	0.12	A	0.252	2.43	37	0.8	1	0.671	0.09	106.91	B
260.88-260.00			B	0.252	2.43		0.8	1	0.671			

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	Client	Smartlink	Designed by	Bryan Mawhinney

Section Elevation	Add Weight	Self Weight	F a c e	e	C _F	q _z psf	D _F	D _R	A _E ft ²	F K	w plf	Ctrl. Face
T10 260.00-240.88	1.26	1.57	C	0.252	2.43		0.8	1	0.671			
			A	0.152	2.764	37	0.8	1	8.559	1.71	89.59	B
			B	0.152	2.764		0.8	1	8.559			
			C	0.152	2.764		0.8	1	8.559			
T11 240.88-240.00	0.06	0.12	A	0.252	2.43	37	0.8	1	0.671	0.10	110.88	B
			B	0.252	2.43		0.8	1	0.671			
			C	0.252	2.43		0.8	1	0.671			
T12 240.00-220.88	1.31	1.57	A	0.152	2.764	36	0.8	1	8.559	1.86	97.06	B
			B	0.152	2.764		0.8	1	8.559			
			C	0.152	2.764		0.8	1	8.559			
T13 220.88-220.00	0.06	0.12	A	0.252	2.43	36	0.8	1	0.671	0.11	130.60	B
			B	0.252	2.43		0.8	1	0.671			
			C	0.252	2.43		0.8	1	0.671			
T14 220.00-201.00	1.40	1.79	A	0.161	2.73	36	0.8	1	9.088	2.22	116.86	B
			B	0.161	2.73		0.8	1	9.088			
			C	0.161	2.73		0.8	1	9.088			
T15 201.00-200.00	0.08	0.16	A	0.257	2.418	35	0.8	1	0.784	0.14	140.07	B
			B	0.257	2.418		0.8	1	0.784			
			C	0.257	2.418		0.8	1	0.784			
T16 200.00-181.00	1.67	2.39	A	0.186	2.643	35	0.8	1	10.580	2.96	155.92	B
			B	0.186	2.643		0.8	1	10.580			
			C	0.186	2.643		0.8	1	10.580			
T17 181.00-180.00	0.09	0.19	A	0.283	2.343	34	0.8	1	0.878	0.19	187.63	B
			B	0.283	2.343		0.8	1	0.878			
			C	0.283	2.343		0.8	1	0.878			
T18 180.00-161.00	1.86	1.99	A	0.168	2.705	34	0.8	1	9.532	3.30	173.59	B
		TA 1.09	B	0.168	2.705		0.8	1	9.532			
			C	0.168	2.705		0.8	1	9.532			
T19 161.00-160.00	0.10	0.17	A	0.263	2.4	34	0.8	1	0.808	0.20	198.28	B
			B	0.263	2.4		0.8	1	0.808			
			C	0.263	2.4		0.8	1	0.808			
T20 160.00-141.00	2.00	1.99	A	0.168	2.705	33	0.8	1	9.532	3.42	179.95	B
			B	0.168	2.705		0.8	1	9.532			
			C	0.168	2.705		0.8	1	9.532			
T21 141.00-140.00	0.11	0.17	A	0.263	2.4	33	0.8	1	0.808	0.19	194.26	B
			B	0.263	2.4		0.8	1	0.808			
			C	0.263	2.4		0.8	1	0.808			
T22 140.00-121.00	2.02	1.99	A	0.168	2.705	32	0.8	1	9.532	3.39	178.17	B
			B	0.168	2.705		0.8	1	9.532			
			C	0.168	2.705		0.8	1	9.532			
T23 121.00-120.00	0.11	0.17	A	0.263	2.4	32	0.8	1	0.808	0.19	193.29	B
			B	0.263	2.4		0.8	1	0.808			
			C	0.263	2.4		0.8	1	0.808			
T24 120.00-101.00	2.05	1.99	A	0.168	2.705	31	0.8	1	9.532	3.35	176.53	B
			B	0.168	2.705		0.8	1	9.532			
			C	0.168	2.705		0.8	1	9.532			
T25 101.00-100.00	0.11	0.17	A	0.263	2.4	30	0.8	1	0.808	0.19	190.09	B
			B	0.263	2.4		0.8	1	0.808			
			C	0.263	2.4		0.8	1	0.808			
T26 100.00-81.00	2.06	1.99	A	0.168	2.705	30	0.8	1	9.532	3.26	171.62	B
			B	0.168	2.705		0.8	1	9.532			
			C	0.168	2.705		0.8	1	9.532			
T27 81.00-80.00	0.11	0.17	A	0.263	2.4	29	0.8	1	0.808	0.18	182.27	B
			B	0.263	2.4		0.8	1	0.808			
			C	0.263	2.4		0.8	1	0.808			
T28 80.00-61.00	2.06	1.99	A	0.168	2.705	28	0.8	1	9.532	3.10	163.27	B
			B	0.168	2.705		0.8	1	9.532			
			C	0.168	2.705		0.8	1	9.532			
T29 61.00-60.00	0.11	0.17	A	0.263	2.4	27	0.8	1	0.808	0.17	171.63	B
			B	0.263	2.4		0.8	1	0.808			

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Section Elevation	Add Weight	Self Weight	F a c e	e	C _F	q _z psf	D _F	D _R	A _E ft ²	F K	w plf	Ctrl. Face
ft	K	K										
T30 60.00-41.00	2.06	1.99	C A B C	0.263 0.168 0.168 0.168	2.4 2.705 2.705 2.705	26	0.8 0.8 0.8 0.8	1 1 1 1	0.808 9.532 9.532 9.532	2.89	152.20	B
T31 41.00-40.00	0.11	0.17	A B C	0.263 0.263 0.263	2.4 2.4 2.4	25	0.8 0.8 0.8	1 1 1	0.808 0.808 0.808	0.16	157.73	B
T32 40.00-21.00	2.07	1.99	A B C	0.168 0.168 0.168	2.705 2.705 2.705	24	0.8 0.8 0.8	1 1 1	9.532 9.532 9.532	2.62	137.90	B
T33 21.00-20.00	0.11	0.17	A B C	0.263 0.263 0.263	2.4 2.4 2.4	22	0.8 0.8 0.8	1 1 1	0.808 0.808 0.808	0.14	137.87	B
T34 20.00-16.66	0.36	0.41	A B C	0.184 0.184 0.184	2.652 2.652 2.652	21	0.8 0.8 0.8	1 1 1	1.833 1.833 1.833	0.42	125.90	B
T35 16.66-14.33	0.25	0.31	A B C	0.205 0.205 0.205	2.579 2.579 2.579	21	0.8 0.8 0.8	1 1 1	1.438 1.438 1.438	0.29	123.90	B
T36 14.33-12.00	0.25	0.31	A B C	0.205 0.205 0.205	2.579 2.579 2.579	20	0.8 0.8 0.8	1 1 1	1.438 1.438 1.438	0.29	123.22	B
T37 12.00-9.34	0.29	0.51	A B C	0.334 0.334 0.334	2.209 2.209 2.209	20	0.8 0.8 0.8	1 1 1	3.295 3.295 3.295	0.38	142.98	B
T38 9.34-6.67	0.29	0.43	A B C	0.277 0.277 0.277	2.359 2.359 2.359	20	0.8 0.8 0.8	1 1 1	2.618 2.618 2.618	0.36	135.79	B
T39 6.67-0.00	0.00	0.84	A B C	0.37 0.37 0.37	2.126 2.126 2.126	20	0.8 0.8 0.8	1 1 1	4.506 4.506 4.506	0.17	25.28	C
Sum Weight:	28.77	35.15								43.92		

Tower Forces - No Ice - Wind 90 To Face

Section Elevation	Add Weight	Self Weight	F a c e	e	C _F	q _z psf	D _F	D _R	A _E ft ²	F K	w plf	Ctrl. Face
ft	K	K										
L1 345.00-330.00	0.10	0.34	A B C	0.15 0.15 0.15	2.771 2.771 2.771	39	0.85 0.85 0.85	1 1 1	3.327 3.327 3.327	0.59	39.01	C
T1 330.00-327.72	0.13	0.40	A B C	0.349 0.349 0.349	2.174 2.174 2.174	39	0.85 0.85 0.85	1 1 1	3.107 3.107 3.107	0.27	118.77	C
T2 327.72-320.88	0.39	0.60	A B C	0.171 0.171 0.171	2.695 2.695 2.695	39	0.85 0.85 0.85	1 1 1	3.462 3.462 3.462	0.45	65.63	C
T3 320.88-320.00	0.05	0.11	A B C	0.241 0.241 0.241	2.465 2.465 2.465	39	0.85 0.85 0.85	1 1 1	0.638 0.638 0.638	0.07	79.72	C
T4 320.00-300.88	1.12	1.40	A B C	0.143 0.143 0.143	2.797 2.797 2.797	39	0.85 0.85 0.85	1 1 1	8.042 8.042 8.042	1.23	64.39	C

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Section Elevation	Add Weight	Self Weight	F a c e	e	C _F	q _z psf	D _F	D _R	A _E ft ²	F K	w plf	Ctrl. Face
T5 300.88-300.00	0.05	0.11	A	0.241	2.465	38	0.85	1	0.638	0.08	87.51	C
			B	0.241	2.465		0.85	1	0.638			
			C	0.241	2.465		0.85	1	0.638			
T6 300.00-280.88	1.19	1.40	A	0.143	2.797	38	0.85	1	8.042	1.47	77.03	B
			B	0.143	2.797		0.85	1	8.042			
			C	0.143	2.797		0.85	1	8.042			
T7 280.88-280.00	0.05	0.11	A	0.241	2.465	38	0.85	1	0.638	0.09	99.78	B
			B	0.241	2.465		0.85	1	0.638			
			C	0.241	2.465		0.85	1	0.638			
T8 280.00-260.88	1.22	1.57	A	0.152	2.764	37	0.85	1	8.559	1.64	86.01	B
			B	0.152	2.764		0.85	1	8.559			
			C	0.152	2.764		0.85	1	8.559			
T9 260.88-260.00	0.06	0.12	A	0.252	2.43	37	0.85	1	0.671	0.09	108.43	B
			B	0.252	2.43		0.85	1	0.671			
			C	0.252	2.43		0.85	1	0.671			
T10 260.00-240.88	1.26	1.57	A	0.152	2.764	37	0.85	1	8.559	1.74	91.09	B
			B	0.152	2.764		0.85	1	8.559			
			C	0.152	2.764		0.85	1	8.559			
T11 240.88-240.00	0.06	0.12	A	0.252	2.43	37	0.85	1	0.671	0.10	112.37	B
			B	0.252	2.43		0.85	1	0.671			
			C	0.252	2.43		0.85	1	0.671			
T12 240.00-220.88	1.31	1.57	A	0.152	2.764	36	0.85	1	8.559	1.88	98.54	B
			B	0.152	2.764		0.85	1	8.559			
			C	0.152	2.764		0.85	1	8.559			
T13 220.88-220.00	0.06	0.12	A	0.252	2.43	36	0.85	1	0.671	0.12	132.06	B
			B	0.252	2.43		0.85	1	0.671			
			C	0.252	2.43		0.85	1	0.671			
T14 220.00-201.00	1.40	1.79	A	0.161	2.73	36	0.85	1	9.088	2.25	118.31	B
			B	0.161	2.73		0.85	1	9.088			
			C	0.161	2.73		0.85	1	9.088			
T15 201.00-200.00	0.08	0.16	A	0.257	2.418	35	0.85	1	0.784	0.14	141.51	B
			B	0.257	2.418		0.85	1	0.784			
			C	0.257	2.418		0.85	1	0.784			
T16 200.00-181.00	1.67	2.39	A	0.186	2.643	35	0.85	1	10.580	3.08	161.89	C
			B	0.186	2.643		0.85	1	10.580			
			C	0.186	2.643		0.85	1	10.580			
T17 181.00-180.00	0.09	0.19	A	0.283	2.343	34	0.85	1	0.878	0.19	193.53	C
			B	0.283	2.343		0.85	1	0.878			
			C	0.283	2.343		0.85	1	0.878			
T18 180.00-161.00	1.86	1.99	A	0.168	2.705	34	0.85	1	9.532	3.44	180.86	C
		TA 1.09	B	0.168	2.705		0.85	1	9.532			
			C	0.168	2.705		0.85	1	9.532			
T19 161.00-160.00	0.10	0.17	A	0.263	2.4	34	0.85	1	0.808	0.21	207.22	C
			B	0.263	2.4		0.85	1	0.808			
			C	0.263	2.4		0.85	1	0.808			
T20 160.00-141.00	2.00	1.99	A	0.168	2.705	33	0.85	1	9.532	3.59	188.77	C
			B	0.168	2.705		0.85	1	9.532			
			C	0.168	2.705		0.85	1	9.532			
T21 141.00-140.00	0.11	0.17	A	0.263	2.4	33	0.85	1	0.808	0.20	202.96	C
			B	0.263	2.4		0.85	1	0.808			
			C	0.263	2.4		0.85	1	0.808			
T22 140.00-121.00	2.02	1.99	A	0.168	2.705	32	0.85	1	9.532	3.55	186.95	C
			B	0.168	2.705		0.85	1	9.532			
			C	0.168	2.705		0.85	1	9.532			
T23 121.00-120.00	0.11	0.17	A	0.263	2.4	32	0.85	1	0.808	0.20	201.98	C
			B	0.263	2.4		0.85	1	0.808			
			C	0.263	2.4		0.85	1	0.808			
T24 120.00-101.00	2.05	1.99	A	0.168	2.705	31	0.85	1	9.532	3.52	185.07	C
			B	0.168	2.705		0.85	1	9.532			
			C	0.168	2.705		0.85	1	9.532			

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Section Elevation	Add Weight	Self Weight	F a c e	e	C _F	q _z psf	D _F	D _R	A _E ft ²	F K	w plf	Ctrl. Face
T25 101.00-100.00	0.11	0.17	A	0.263	2.4	30	0.85	1	0.808	0.20	198.46	C
			B	0.263	2.4		0.85	1	0.808			
			C	0.263	2.4		0.85	1	0.808			
T26 100.00-81.00	2.06	1.99	A	0.168	2.705	30	0.85	1	9.532	3.42	179.81	C
			B	0.168	2.705		0.85	1	9.532			
			C	0.168	2.705		0.85	1	9.532			
T27 81.00-80.00	0.11	0.17	A	0.263	2.4	29	0.85	1	0.808	0.19	190.26	C
			B	0.263	2.4		0.85	1	0.808			
			C	0.263	2.4		0.85	1	0.808			
T28 80.00-61.00	2.06	1.99	A	0.168	2.705	28	0.85	1	9.532	3.25	171.04	C
			B	0.168	2.705		0.85	1	9.532			
			C	0.168	2.705		0.85	1	9.532			
T29 61.00-60.00	0.11	0.17	A	0.263	2.4	27	0.85	1	0.808	0.18	179.15	C
			B	0.263	2.4		0.85	1	0.808			
			C	0.263	2.4		0.85	1	0.808			
T30 60.00-41.00	2.06	1.99	A	0.168	2.705	26	0.85	1	9.532	3.03	159.44	C
			B	0.168	2.705		0.85	1	9.532			
			C	0.168	2.705		0.85	1	9.532			
T31 41.00-40.00	0.11	0.17	A	0.263	2.4	25	0.85	1	0.808	0.16	164.64	C
			B	0.263	2.4		0.85	1	0.808			
			C	0.263	2.4		0.85	1	0.808			
T32 40.00-21.00	2.07	1.99	A	0.168	2.705	24	0.85	1	9.532	2.74	144.07	C
			B	0.168	2.705		0.85	1	9.532			
			C	0.168	2.705		0.85	1	9.532			
T33 21.00-20.00	0.11	0.17	A	0.263	2.4	22	0.85	1	0.808	0.14	143.46	C
			B	0.263	2.4		0.85	1	0.808			
			C	0.263	2.4		0.85	1	0.808			
T34 20.00-16.66	0.36	0.41	A	0.184	2.652	21	0.85	1	1.833	0.44	131.36	C
			B	0.184	2.652		0.85	1	1.833			
			C	0.184	2.652		0.85	1	1.833			
T35 16.66-14.33	0.25	0.31	A	0.205	2.579	21	0.85	1	1.438	0.30	129.17	C
			B	0.205	2.579		0.85	1	1.438			
			C	0.205	2.579		0.85	1	1.438			
T36 14.33-12.00	0.25	0.31	A	0.205	2.579	20	0.85	1	1.438	0.30	128.46	C
			B	0.205	2.579		0.85	1	1.438			
			C	0.205	2.579		0.85	1	1.438			
T37 12.00-9.34	0.29	0.51	A	0.334	2.209	20	0.85	1	3.414	0.40	149.93	C
			B	0.334	2.209		0.85	1	3.414			
			C	0.334	2.209		0.85	1	3.414			
T38 9.34-6.67	0.29	0.43	A	0.277	2.359	20	0.85	1	2.697	0.38	142.25	C
			B	0.277	2.359		0.85	1	2.697			
			C	0.277	2.359		0.85	1	2.697			
T39 6.67-0.00	0.00	0.84	A	0.37	2.126	20	0.85	1	4.585	0.17	25.72	C
			B	0.37	2.126		0.85	1	4.585			
			C	0.37	2.126		0.85	1	4.585			
Sum Weight:	28.77	35.15								45.48		

Tower Forces - With Ice - Wind Normal To Face

Section Elevation	Add Weight	Self Weight	F a c e	e	C _F	q _z psf	D _F	D _R	A _E ft ²	F K	w plf	Ctrl. Face
L1	0.53	1.75	A	0.797	1.814	9	1	1	30.846	0.61	40.65	A

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Section Elevation	Add Weight	Self Weight	F a c e	e	C _F	q _z psf	D _F	D _R	A _E ft ²	F K	w plf	Ctrl. Face
345.00-330.00			B	0.797	1.814		1	1	30.846			
			C	0.797	1.814		1	1	30.846			
T1	0.31	0.97	A	0.845	1.856	9	1	1	9.963	0.15	67.66	A
330.00-327.72			B	0.845	1.856		1	1	9.963			
			C	0.845	1.856		1	1	9.963			
T2	0.92	1.72	A	0.66	1.779	9	1	1	19.451	0.36	52.56	A
327.72-320.88			B	0.66	1.779		1	1	19.451			
			C	0.66	1.779		1	1	19.451			
T3	0.12	0.33	A	0.981	2.062	9	1	1	4.723	0.07	84.02	A
320.88-320.00			B	0.981	2.062		1	1	4.723			
			C	0.981	2.062		1	1	4.723			
T4	2.78	3.82	A	0.531	1.863	9	1	1	39.184	0.98	51.25	A
320.00-300.88			B	0.531	1.863		1	1	39.184			
			C	0.531	1.863		1	1	39.184			
T5	0.13	0.33	A	0.977	2.053	9	1	1	4.700	0.07	82.55	A
300.88-300.00			B	0.977	2.053		1	1	4.700			
			C	0.977	2.053		1	1	4.700			
T6	3.33	3.79	A	0.528	1.866	9	1	1	38.914	1.07	55.81	A
300.00-280.88			B	0.528	1.866		1	1	38.914			
			C	0.528	1.866		1	1	38.914			
T7	0.16	0.33	A	0.972	2.044	9	1	1	4.675	0.07	81.11	A
280.88-280.00			B	0.972	2.044		1	1	4.675			
			C	0.972	2.044		1	1	4.675			
T8	3.62	4.00	A	0.534	1.86	8	1	1	39.517	1.11	58.26	A
280.00-260.88			B	0.534	1.86		1	1	39.517			
			C	0.534	1.86		1	1	39.517			
T9	0.17	0.34	A	0.978	2.055	8	1	1	4.701	0.07	80.56	A
260.88-260.00			B	0.978	2.055		1	1	4.701			
			C	0.978	2.055		1	1	4.701			
T10	3.93	3.97	A	0.531	1.863	8	1	1	39.208	1.17	60.99	A
260.00-240.88			B	0.531	1.863		1	1	39.208			
			C	0.531	1.863		1	1	39.208			
T11	0.19	0.33	A	0.972	2.044	8	1	1	4.672	0.07	78.92	A
240.88-240.00			B	0.972	2.044		1	1	4.672			
			C	0.972	2.044		1	1	4.672			
T12	4.27	3.94	A	0.528	1.866	8	1	1	38.877	1.22	63.79	A
240.00-220.88			B	0.528	1.866		1	1	38.877			
			C	0.528	1.866		1	1	38.877			
T13	0.22	0.33	A	0.966	2.033	8	1	1	4.642	0.07	77.60	A
220.88-220.00			B	0.966	2.033		1	1	4.642			
			C	0.966	2.033		1	1	4.642			
T14	5.02	4.17	A	0.533	1.861	8	1	1	39.241	1.35	70.98	A
220.00-201.00			B	0.533	1.861		1	1	39.241			
			C	0.533	1.861		1	1	39.241			
T15	0.28	0.38	A	0.887	1.905	8	1	1	4.661	0.07	71.79	A
201.00-200.00			B	0.887	1.905		1	1	4.661			
			C	0.887	1.905		1	1	4.661			
T16	6.98	4.91	A	0.55	1.843	8	1	1	41.226	1.48*	77.80	B
200.00-181.00			B	0.55	1.843		1	1	41.226			
			C	0.55	1.843		1	1	41.226			
T17	0.40	0.42	A	0.9	1.925	8	1	1	4.806	0.08	75.35	A
181.00-180.00			B	0.9	1.925		1	1	4.806			
			C	0.9	1.925		1	1	4.806			
T18	8.07	4.32	A	0.53	1.864	8	1	1	39.001	1.44*	75.96	C
180.00-161.00		TA 2.28	B	0.53	1.864		1	1	39.001			
			C	0.53	1.864		1	1	39.001			
T19	0.46	0.38	A	0.875	1.89	8	1	1	4.564	0.07	74.15	A
161.00-160.00			B	0.875	1.89		1	1	4.564			
			C	0.875	1.89		1	1	4.564			
T20	8.66	4.28	A	0.525	1.869	8	1	1	38.530	1.40*	73.94	C

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	Client	Smartlink	Designed by	Bryan Mawhinney

Section Elevation	Add Weight	Self Weight	F a c e	e	C _F	q _z psf	D _F	D _R	A _E ft ²	F K	w plf	Ctrl. Face
160.00-141.00			B	0.525	1.869		1	1	38.530			
			C	0.525	1.869		1	1	38.530			
T21	0.46	0.38	A	0.867	1.881	7	1	1	4.491	0.07	72.30	A
141.00-140.00			B	0.867	1.881		1	1	4.491			
			C	0.867	1.881		1	1	4.491			
T22	8.73	4.23	A	0.521	1.875	7	1	1	38.003	1.36*	71.70	C
140.00-121.00			B	0.521	1.875		1	1	38.003			
			C	0.521	1.875		1	1	38.003			
T23	0.46	0.38	A	0.521	1.871	7	1	1	4.409	0.07*	70.48	A
121.00-120.00			B	0.521	1.871		1	1	4.409			
			C	0.521	1.871		1	1	4.409			
T24	8.84	4.17	A	0.515	1.881	7	1	1	37.403	1.31*	69.17	C
120.00-101.00			B	0.515	1.881		1	1	37.403			
			C	0.515	1.881		1	1	37.403			
T25	0.47	0.37	A	0.848	1.859	7	1	1	4.314	0.07*	67.77	A
101.00-100.00			B	0.848	1.859		1	1	4.314			
			C	0.848	1.859		1	1	4.314			
T26	8.83	4.10	A	0.509	1.889	7	1	1	36.702	1.26*	66.26	C
100.00-81.00			B	0.509	1.889		1	1	36.702			
			C	0.509	1.889		1	1	36.702			
T27	0.46	0.36	A	0.836	1.847	7	1	1	4.202	0.06*	64.61	A
81.00-80.00			B	0.836	1.847		1	1	4.202			
			C	0.836	1.847		1	1	4.202			
T28	8.68	4.02	A	0.501	1.899	6	1	1	35.854	1.19*	62.78	C
80.00-61.00			B	0.501	1.899		1	1	35.854			
			C	0.501	1.899		1	1	35.854			
T29	0.45	0.35	A	0.821	1.833	6	1	1	4.065	0.06*	60.75	A
61.00-60.00			B	0.821	1.833		1	1	4.065			
			C	0.821	1.833		1	1	4.065			
T30	8.43	3.92	A	0.49	1.913	6	1	1	34.769	1.11*	58.43	C
60.00-41.00			B	0.49	1.913		1	1	34.769			
			C	0.49	1.913		1	1	34.769			
T31	0.43	0.34	A	0.8	1.816	6	1	1	3.882	0.06*	55.72	A
41.00-40.00			B	0.8	1.816		1	1	3.882			
			C	0.8	1.816		1	1	3.882			
T32	8.15	3.77	A	0.475	1.934	5	1	1	33.228	1.00*	52.42	C
40.00-21.00			B	0.475	1.934		1	1	33.228			
			C	0.475	1.934		1	1	33.228			
T33	0.42	0.32	A	0.766	1.795	5	1	1	3.598	0.05*	48.13	B
21.00-20.00			B	0.766	1.795		1	1	3.598			
			C	0.766	1.795		1	1	3.598			
T34	1.38	0.72	A	0.469	1.943	5	1	1	5.732	0.16*	46.99	C
20.00-16.66			B	0.469	1.943		1	1	5.732			
			C	0.469	1.943		1	1	5.732			
T35	0.95	0.56	A	0.558	1.836	5	1	1	5.092	0.11*	45.32	C
16.66-14.33			B	0.558	1.836		1	1	5.092			
			C	0.558	1.836		1	1	5.092			
T36	0.93	0.56	A	0.552	1.841	5	1	1	5.016	0.10*	45.04	C
14.33-12.00			B	0.552	1.841		1	1	5.016			
			C	0.552	1.841		1	1	5.016			
T37	1.05	0.89	A	0.653	1.781	5	1	1	7.910	0.12*	45.00	C
12.00-9.34			B	0.653	1.781		1	1	7.910			
			C	0.653	1.781		1	1	7.910			
T38 9.34-6.67	1.03	0.78	A	0.589	1.811	5	1	1	6.721	0.12*	44.95	C
			B	0.589	1.811		1	1	6.721			
			C	0.589	1.811		1	1	6.721			
T39 6.67-0.00	0.02	1.30	A	0.717	1.778	5	1	1	11.921	0.09	12.80	C
			B	0.717	1.778		1	1	11.921			
			C	0.717	1.778		1	1	11.921			
Sum Weight:	110.70	78.64			*2.1A _g					21.36		

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Section Elevation	Add Weight	Self Weight	F a c e	e	C _F	q _z psf	D _F	D _R	A _E ft ²	F K	w plf	Ctrl. Face
ft	K	K			limit							

Tower Forces - With Ice - Wind 60 To Face

Section Elevation	Add Weight	Self Weight	F a c e	e	C _F	q _z psf	D _F	D _R	A _E ft ²	F K	w plf	Ctrl. Face
ft	K	K										
L1 345.00-330.00	0.53	1.75	A	0.797	1.814	9	0.8	1	30.846	0.61	40.65	B
			B	0.797	1.814		0.8	1	30.846			
			C	0.797	1.814		0.8	1	30.846			
T1 330.00-327.72	0.31	0.97	A	0.845	1.856	9	0.8	1	9.482	0.15	64.71	B
			B	0.845	1.856		0.8	1	9.482			
			C	0.845	1.856		0.8	1	9.482			
T2 327.72-320.88	0.92	1.72	A	0.66	1.779	9	0.8	1	19.451	0.36	52.56	B
			B	0.66	1.779		0.8	1	19.451			
			C	0.66	1.779		0.8	1	19.451			
T3 320.88-320.00	0.12	0.33	A	0.981	2.062	9	0.8	1	4.723	0.07	84.02	B
			B	0.981	2.062		0.8	1	4.723			
			C	0.981	2.062		0.8	1	4.723			
T4 320.00-300.88	2.78	3.82	A	0.531	1.863	9	0.8	1	39.184	0.98	51.25	B
			B	0.531	1.863		0.8	1	39.184			
			C	0.531	1.863		0.8	1	39.184			
T5 300.88-300.00	0.13	0.33	A	0.977	2.053	9	0.8	1	4.700	0.07	82.55	B
			B	0.977	2.053		0.8	1	4.700			
			C	0.977	2.053		0.8	1	4.700			
T6 300.00-280.88	3.33	3.79	A	0.528	1.866	9	0.8	1	38.914	1.07	55.81	B
			B	0.528	1.866		0.8	1	38.914			
			C	0.528	1.866		0.8	1	38.914			
T7 280.88-280.00	0.16	0.33	A	0.972	2.044	9	0.8	1	4.675	0.07	81.11	B
			B	0.972	2.044		0.8	1	4.675			
			C	0.972	2.044		0.8	1	4.675			
T8 280.00-260.88	3.62	4.00	A	0.534	1.86	8	0.8	1	39.517	1.11	58.26	B
			B	0.534	1.86		0.8	1	39.517			
			C	0.534	1.86		0.8	1	39.517			
T9 260.88-260.00	0.17	0.34	A	0.978	2.055	8	0.8	1	4.701	0.07	80.56	B
			B	0.978	2.055		0.8	1	4.701			
			C	0.978	2.055		0.8	1	4.701			
T10 260.00-240.88	3.93	3.97	A	0.531	1.863	8	0.8	1	39.208	1.17	60.99	B
			B	0.531	1.863		0.8	1	39.208			
			C	0.531	1.863		0.8	1	39.208			
T11 240.88-240.00	0.19	0.33	A	0.972	2.044	8	0.8	1	4.672	0.07	78.92	B
			B	0.972	2.044		0.8	1	4.672			
			C	0.972	2.044		0.8	1	4.672			
T12 240.00-220.88	4.27	3.94	A	0.528	1.866	8	0.8	1	38.877	1.22	63.79	B
			B	0.528	1.866		0.8	1	38.877			
			C	0.528	1.866		0.8	1	38.877			
T13 220.88-220.00	0.22	0.33	A	0.966	2.033	8	0.8	1	4.642	0.07	77.60	B
			B	0.966	2.033		0.8	1	4.642			
			C	0.966	2.033		0.8	1	4.642			
T14 220.00-201.00	5.02	4.17	A	0.533	1.861	8	0.8	1	39.241	1.35	70.98	B
			B	0.533	1.861		0.8	1	39.241			
			C	0.533	1.861		0.8	1	39.241			
T15	0.28	0.38	A	0.887	1.905	8	0.8	1	4.661	0.07	71.79	B

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	Client	Smartlink	Designed by	Bryan Mawhinney

Section Elevation	Add Weight	Self Weight	F a c e	e	C _F	q _z psf	D _F	D _R	A _E ft ²	F K	w plf	Ctrl. Face
201.00-200.00			B	0.887	1.905		0.8	1	4.661			
			C	0.887	1.905		0.8	1	4.661			
T16	6.98	4.91	A	0.55	1.843	8	0.8	1	41.226	1.48*	77.80	C
200.00-181.00			B	0.55	1.843		0.8	1	41.226			
			C	0.55	1.843		0.8	1	41.226			
T17	0.40	0.42	A	0.9	1.925	8	0.8	1	4.806	0.08	75.35	B
181.00-180.00			B	0.9	1.925		0.8	1	4.806			
			C	0.9	1.925		0.8	1	4.806			
T18	8.07	4.32	A	0.53	1.864	8	0.8	1	39.001	1.44*	75.96	C
180.00-161.00		TA 2.28	B	0.53	1.864		0.8	1	39.001			
			C	0.53	1.864		0.8	1	39.001			
T19	0.46	0.38	A	0.875	1.89	8	0.8	1	4.564	0.07	74.15	B
161.00-160.00			B	0.875	1.89		0.8	1	4.564			
			C	0.875	1.89		0.8	1	4.564			
T20	8.66	4.28	A	0.525	1.869	8	0.8	1	38.530	1.40*	73.94	C
160.00-141.00			B	0.525	1.869		0.8	1	38.530			
			C	0.525	1.869		0.8	1	38.530			
T21	0.46	0.38	A	0.867	1.881	7	0.8	1	4.491	0.07	72.30	B
141.00-140.00			B	0.867	1.881		0.8	1	4.491			
			C	0.867	1.881		0.8	1	4.491			
T22	8.73	4.23	A	0.521	1.875	7	0.8	1	38.003	1.36*	71.70	C
140.00-121.00			B	0.521	1.875		0.8	1	38.003			
			C	0.521	1.875		0.8	1	38.003			
T23	0.46	0.38	A	0.858	1.871	7	0.8	1	4.409	0.07*	70.48	B
121.00-120.00			B	0.858	1.871		0.8	1	4.409			
			C	0.858	1.871		0.8	1	4.409			
T24	8.84	4.17	A	0.515	1.881	7	0.8	1	37.403	1.31*	69.17	C
120.00-101.00			B	0.515	1.881		0.8	1	37.403			
			C	0.515	1.881		0.8	1	37.403			
T25	0.47	0.37	A	0.848	1.859	7	0.8	1	4.314	0.07*	67.77	B
101.00-100.00			B	0.848	1.859		0.8	1	4.314			
			C	0.848	1.859		0.8	1	4.314			
T26	8.83	4.10	A	0.509	1.889	7	0.8	1	36.702	1.26*	66.26	C
100.00-81.00			B	0.509	1.889		0.8	1	36.702			
			C	0.509	1.889		0.8	1	36.702			
T27	0.46	0.36	A	0.836	1.847	7	0.8	1	4.202	0.06*	64.61	B
81.00-80.00			B	0.836	1.847		0.8	1	4.202			
			C	0.836	1.847		0.8	1	4.202			
T28	8.68	4.02	A	0.501	1.899	6	0.8	1	35.854	1.19*	62.78	C
80.00-61.00			B	0.501	1.899		0.8	1	35.854			
			C	0.501	1.899		0.8	1	35.854			
T29	0.45	0.35	A	0.821	1.833	6	0.8	1	4.065	0.06*	60.75	B
61.00-60.00			B	0.821	1.833		0.8	1	4.065			
			C	0.821	1.833		0.8	1	4.065			
T30	8.43	3.92	A	0.49	1.913	6	0.8	1	34.769	1.11*	58.43	C
60.00-41.00			B	0.49	1.913		0.8	1	34.769			
			C	0.49	1.913		0.8	1	34.769			
T31	0.43	0.34	A	0.8	1.816	6	0.8	1	3.882	0.06*	55.72	B
41.00-40.00			B	0.8	1.816		0.8	1	3.882			
			C	0.8	1.816		0.8	1	3.882			
T32	8.15	3.77	A	0.475	1.934	5	0.8	1	33.228	1.00*	52.42	C
40.00-21.00			B	0.475	1.934		0.8	1	33.228			
			C	0.475	1.934		0.8	1	33.228			
T33	0.42	0.32	A	0.766	1.795	5	0.8	1	3.598	0.05*	48.13	C
21.00-20.00			B	0.766	1.795		0.8	1	3.598			
			C	0.766	1.795		0.8	1	3.598			
T34	1.38	0.72	A	0.469	1.943	5	0.8	1	5.732	0.16*	46.99	C
20.00-16.66			B	0.469	1.943		0.8	1	5.732			
			C	0.469	1.943		0.8	1	5.732			
T35	0.95	0.56	A	0.558	1.836	5	0.8	1	5.092	0.11*	45.32	C

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	Client	Smartlink	Designed by	Bryan Mawhinney

Section Elevation	Add Weight	Self Weight	F a c e	e	C _F	q _z psf	D _F	D _R	A _E ft ²	F K	w plf	Ctrl. Face
ft	K	K										
16.66-14.33			B	0.558	1.836		0.8	1	5.092			
			C	0.558	1.836		0.8	1	5.092			
T36	0.93	0.56	A	0.552	1.841	5	0.8	1	5.016	0.10*	45.04	C
14.33-12.00			B	0.552	1.841		0.8	1	5.016			
			C	0.552	1.841		0.8	1	5.016			
T37	1.05	0.89	A	0.653	1.781	5	0.8	1	7.433	0.12*	45.00	C
12.00-9.34			B	0.653	1.781		0.8	1	7.433			
			C	0.653	1.781		0.8	1	7.433			
T38 9.34-6.67	1.03	0.78	A	0.589	1.811	5	0.8	1	6.403	0.12*	44.95	C
			B	0.589	1.811		0.8	1	6.403			
			C	0.589	1.811		0.8	1	6.403			
T39 6.67-0.00	0.02	1.30	A	0.717	1.778	5	0.8	1	11.607	0.08	12.47	C
			B	0.717	1.778		0.8	1	11.607			
			C	0.717	1.778		0.8	1	11.607			
Sum Weight:	110.70	78.64			*2.1A _g limit					21.35		

Tower Forces - With Ice - Wind 90 To Face

Section Elevation	Add Weight	Self Weight	F a c e	e	C _F	q _z psf	D _F	D _R	A _E ft ²	F K	w plf	Ctrl. Face
ft	K	K										
L1	0.53	1.75	A	0.797	1.814	9	0.85	1	30.846	0.61	40.63	C
345.00-330.00			B	0.797	1.814		0.85	1	30.846			
			C	0.797	1.814		0.85	1	30.846			
T1	0.31	0.97	A	0.845	1.856	9	0.85	1	9.602	0.15	65.43	C
330.00-327.72			B	0.845	1.856		0.85	1	9.602			
			C	0.845	1.856		0.85	1	9.602			
T2	0.92	1.72	A	0.66	1.779	9	0.85	1	19.451	0.36	52.52	C
327.72-320.88			B	0.66	1.779		0.85	1	19.451			
			C	0.66	1.779		0.85	1	19.451			
T3	0.12	0.33	A	0.981	2.062	9	0.85	1	4.723	0.07	84.02	C
320.88-320.00			B	0.981	2.062		0.85	1	4.723			
			C	0.981	2.062		0.85	1	4.723			
T4	2.78	3.82	A	0.531	1.863	9	0.85	1	39.184	0.97	50.78	C
320.00-300.88			B	0.531	1.863		0.85	1	39.184			
			C	0.531	1.863		0.85	1	39.184			
T5	0.13	0.33	A	0.977	2.053	9	0.85	1	4.700	0.07	82.52	C
300.88-300.00			B	0.977	2.053		0.85	1	4.700			
			C	0.977	2.053		0.85	1	4.700			
T6	3.33	3.79	A	0.528	1.866	9	0.85	1	38.914	1.07	55.86	B
300.00-280.88			B	0.528	1.866		0.85	1	38.914			
			C	0.528	1.866		0.85	1	38.914			
T7	0.16	0.33	A	0.972	2.044	9	0.85	1	4.675	0.07	81.14	B
280.88-280.00			B	0.972	2.044		0.85	1	4.675			
			C	0.972	2.044		0.85	1	4.675			
T8	3.62	4.00	A	0.534	1.86	8	0.85	1	39.517	1.12	58.48	B
280.00-260.88			B	0.534	1.86		0.85	1	39.517			
			C	0.534	1.86		0.85	1	39.517			
T9	0.17	0.34	A	0.978	2.055	8	0.85	1	4.701	0.07	80.57	B
260.88-260.00			B	0.978	2.055		0.85	1	4.701			
			C	0.978	2.055		0.85	1	4.701			
T10	3.93	3.97	A	0.531	1.863	8	0.85	1	39.208	1.17	61.19	B

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	Client	Smartlink	Designed by	Bryan Mawhinney

Section Elevation	Add Weight	Self Weight	F a c e	e	C _F	q _z psf	D _F	D _R	A _E ft ²	F K	w plf	Ctrl. Face
260.00-240.88			B	0.531	1.863		0.85	1	39.208			
			C	0.531	1.863		0.85	1	39.208			
T11	0.19	0.33	A	0.972	2.044	8	0.85	1	4.672	0.07	78.93	B
240.88-240.00			B	0.972	2.044		0.85	1	4.672			
			C	0.972	2.044		0.85	1	4.672			
T12	4.27	3.94	A	0.528	1.866	8	0.85	1	38.877	1.22	63.54	B
240.00-220.88			B	0.528	1.866		0.85	1	38.877			
			C	0.528	1.866		0.85	1	38.877			
T13	0.22	0.33	A	0.966	2.033	8	0.85	1	4.642	0.07	77.51	B
220.88-220.00			B	0.966	2.033		0.85	1	4.642			
			C	0.966	2.033		0.85	1	4.642			
T14	5.02	4.17	A	0.533	1.861	8	0.85	1	39.241	1.32	69.69	B
220.00-201.00			B	0.533	1.861		0.85	1	39.241			
			C	0.533	1.861		0.85	1	39.241			
T15	0.28	0.38	A	0.887	1.905	8	0.85	1	4.661	0.07	71.48	B
201.00-200.00			B	0.887	1.905		0.85	1	4.661			
			C	0.887	1.905		0.85	1	4.661			
T16	6.98	4.91	A	0.55	1.843	8	0.85	1	41.226	1.48*	77.80	C
200.00-181.00			B	0.55	1.843		0.85	1	41.226			
			C	0.55	1.843		0.85	1	41.226			
T17	0.40	0.42	A	0.9	1.925	8	0.85	1	4.806	0.08	75.26	C
181.00-180.00			B	0.9	1.925		0.85	1	4.806			
			C	0.9	1.925		0.85	1	4.806			
T18	8.07	4.32	A	0.53	1.864	8	0.85	1	39.001	1.44*	75.96	C
180.00-161.00		TA 2.28	B	0.53	1.864		0.85	1	39.001			
			C	0.53	1.864		0.85	1	39.001			
T19	0.46	0.38	A	0.875	1.89	8	0.85	1	4.564	0.07	74.19	C
161.00-160.00			B	0.875	1.89		0.85	1	4.564			
			C	0.875	1.89		0.85	1	4.564			
T20	8.66	4.28	A	0.525	1.869	8	0.85	1	38.530	1.40*	73.94	C
160.00-141.00			B	0.525	1.869		0.85	1	38.530			
			C	0.525	1.869		0.85	1	38.530			
T21	0.46	0.38	A	0.867	1.881	7	0.85	1	4.491	0.07	72.34	C
141.00-140.00			B	0.867	1.881		0.85	1	4.491			
			C	0.867	1.881		0.85	1	4.491			
T22	8.73	4.23	A	0.521	1.875	7	0.85	1	38.003	1.36*	71.70	C
140.00-121.00			B	0.521	1.875		0.85	1	38.003			
			C	0.521	1.875		0.85	1	38.003			
T23	0.46	0.38	A	0.858	1.871	7	0.85	1	4.409	0.07*	70.48	C
121.00-120.00			B	0.858	1.871		0.85	1	4.409			
			C	0.858	1.871		0.85	1	4.409			
T24	8.84	4.17	A	0.515	1.881	7	0.85	1	37.403	1.31*	69.17	C
120.00-101.00			B	0.515	1.881		0.85	1	37.403			
			C	0.515	1.881		0.85	1	37.403			
T25	0.47	0.37	A	0.848	1.859	7	0.85	1	4.314	0.07*	67.77	C
101.00-100.00			B	0.848	1.859		0.85	1	4.314			
			C	0.848	1.859		0.85	1	4.314			
T26	8.83	4.10	A	0.509	1.889	7	0.85	1	36.702	1.26*	66.26	C
100.00-81.00			B	0.509	1.889		0.85	1	36.702			
			C	0.509	1.889		0.85	1	36.702			
T27	0.46	0.36	A	0.836	1.847	7	0.85	1	4.202	0.06*	64.61	C
81.00-80.00			B	0.836	1.847		0.85	1	4.202			
			C	0.836	1.847		0.85	1	4.202			
T28	8.68	4.02	A	0.501	1.899	6	0.85	1	35.854	1.19*	62.78	C
80.00-61.00			B	0.501	1.899		0.85	1	35.854			
			C	0.501	1.899		0.85	1	35.854			
T29	0.45	0.35	A	0.821	1.833	6	0.85	1	4.065	0.06*	60.75	C
61.00-60.00			B	0.821	1.833		0.85	1	4.065			
			C	0.821	1.833		0.85	1	4.065			
T30	8.43	3.92	A	0.49	1.913	6	0.85	1	34.769	1.11*	58.43	C

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	Client	Smartlink	Designed by	Bryan Mawhinney

Section Elevation	Add Weight	Self Weight	F a c e	e	C _F	q _z psf	D _F	D _R	A _E ft ²	F K	w plf	Ctrl. Face
ft	K	K										
60.00-41.00			B	0.49	1.913		0.85	1	34.769			
			C	0.49	1.913		0.85	1	34.769			
T31	0.43	0.34	A	0.8	1.816	6	0.85	1	3.882	0.06*	55.72	C
41.00-40.00			B	0.8	1.816		0.85	1	3.882			
			C	0.8	1.816		0.85	1	3.882			
T32	8.15	3.77	A	0.475	1.934	5	0.85	1	33.228	1.00*	52.42	C
40.00-21.00			B	0.475	1.934		0.85	1	33.228			
			C	0.475	1.934		0.85	1	33.228			
T33	0.42	0.32	A	0.766	1.795	5	0.85	1	3.598	0.05*	48.13	C
21.00-20.00			B	0.766	1.795		0.85	1	3.598			
			C	0.766	1.795		0.85	1	3.598			
T34	1.38	0.72	A	0.469	1.943	5	0.85	1	5.732	0.16*	46.99	C
20.00-16.66			B	0.469	1.943		0.85	1	5.732			
			C	0.469	1.943		0.85	1	5.732			
T35	0.95	0.56	A	0.558	1.836	5	0.85	1	5.092	0.11*	45.32	C
16.66-14.33			B	0.558	1.836		0.85	1	5.092			
			C	0.558	1.836		0.85	1	5.092			
T36	0.93	0.56	A	0.552	1.841	5	0.85	1	5.016	0.10*	45.04	C
14.33-12.00			B	0.552	1.841		0.85	1	5.016			
			C	0.552	1.841		0.85	1	5.016			
T37	1.05	0.89	A	0.653	1.781	5	0.85	1	7.552	0.12*	45.00	C
12.00-9.34			B	0.653	1.781		0.85	1	7.552			
			C	0.653	1.781		0.85	1	7.552			
T38 9.34-6.67	1.03	0.78	A	0.589	1.811	5	0.85	1	6.483	0.12*	44.95	C
			B	0.589	1.811		0.85	1	6.483			
			C	0.589	1.811		0.85	1	6.483			
T39 6.67-0.00	0.02	1.30	A	0.717	1.778	5	0.85	1	11.686	0.08	12.55	C
			B	0.717	1.778		0.85	1	11.686			
			C	0.717	1.778		0.85	1	11.686			
Sum Weight:	110.70	78.64			*2.1A _g limit					21.32		

Tower Forces - Service - Wind Normal To Face

Section Elevation	Add Weight	Self Weight	F a c e	e	C _F	q _z psf	D _F	D _R	A _E ft ²	F K	w plf	Ctrl. Face
ft	K	K										
L1	0.10	0.34	A	0.15	2.771	13	1	1	3.327	0.20	13.07	A
345.00-330.00			B	0.15	2.771		1	1	3.327			
			C	0.15	2.771		1	1	3.327			
T1	0.13	0.40	A	0.349	2.174	13	1	1	3.468	0.10	42.76	A
330.00-327.72			B	0.349	2.174		1	1	3.468			
			C	0.349	2.174		1	1	3.468			
T2	0.39	0.60	A	0.171	2.695	13	1	1	3.462	0.15	21.68	A
327.72-320.88			B	0.171	2.695		1	1	3.462			
			C	0.171	2.695		1	1	3.462			
T3	0.05	0.11	A	0.241	2.465	13	1	1	0.638	0.02	26.28	A
320.88-320.00			B	0.241	2.465		1	1	0.638			
			C	0.241	2.465		1	1	0.638			
T4	1.12	1.40	A	0.143	2.797	13	1	1	8.042	0.41	21.28	A
320.00-300.88			B	0.143	2.797		1	1	8.042			
			C	0.143	2.797		1	1	8.042			
T5	0.05	0.11	A	0.241	2.465	12	1	1	0.638	0.03	28.82	A

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Section Elevation	Add Weight	Self Weight	F a c e	e	C _F	q _z psf	D _F	D _R	A _E ft ²	F K	w plf	Ctrl. Face
300.88-300.00			B	0.241	2.465		1	1	0.638			
			C	0.241	2.465		1	1	0.638			
T6	1.19	1.40	A	0.143	2.797	12	1	1	8.042	0.48	24.91	A
300.00-280.88			B	0.143	2.797		1	1	8.042			
			C	0.143	2.797		1	1	8.042			
T7	0.05	0.11	A	0.241	2.465	12	1	1	0.638	0.03	32.12	A
280.88-280.00			B	0.241	2.465		1	1	0.638			
			C	0.241	2.465		1	1	0.638			
T8	1.22	1.57	A	0.152	2.764	12	1	1	8.559	0.53	27.60	A
280.00-260.88			B	0.152	2.764		1	1	8.559			
			C	0.152	2.764		1	1	8.559			
T9	0.06	0.12	A	0.252	2.43	12	1	1	0.671	0.03	34.91	A
260.88-260.00			B	0.252	2.43		1	1	0.671			
			C	0.252	2.43		1	1	0.671			
T10	1.26	1.57	A	0.152	2.764	12	1	1	8.559	0.56	29.25	A
260.00-240.88			B	0.152	2.764		1	1	8.559			
			C	0.152	2.764		1	1	8.559			
T11	0.06	0.12	A	0.252	2.43	12	1	1	0.671	0.03	36.21	A
240.88-240.00			B	0.252	2.43		1	1	0.671			
			C	0.252	2.43		1	1	0.671			
T12	1.31	1.57	A	0.152	2.764	12	1	1	8.559	0.61	31.69	A
240.00-220.88			B	0.152	2.764		1	1	8.559			
			C	0.152	2.764		1	1	8.559			
T13	0.06	0.12	A	0.252	2.43	12	1	1	0.671	0.04	42.64	A
220.88-220.00			B	0.252	2.43		1	1	0.671			
			C	0.252	2.43		1	1	0.671			
T14	1.40	1.79	A	0.161	2.73	12	1	1	9.088	0.72	38.16	A
220.00-201.00			B	0.161	2.73		1	1	9.088			
			C	0.161	2.73		1	1	9.088			
T15	0.08	0.16	A	0.257	2.418	11	1	1	0.784	0.05	45.74	A
201.00-200.00			B	0.257	2.418		1	1	0.784			
			C	0.257	2.418		1	1	0.784			
T16	1.67	2.39	A	0.186	2.643	11	1	1	10.580	0.97	50.91	A
200.00-181.00			B	0.186	2.643		1	1	10.580			
			C	0.186	2.643		1	1	10.580			
T17	0.09	0.19	A	0.283	2.343	11	1	1	0.878	0.06	61.27	A
181.00-180.00			B	0.283	2.343		1	1	0.878			
			C	0.283	2.343		1	1	0.878			
T18	1.86	1.99	A	0.168	2.705	11	1	1	9.532	1.08	56.68	A
180.00-161.00		TA 1.09	B	0.168	2.705		1	1	9.532			
			C	0.168	2.705		1	1	9.532			
T19	0.10	0.17	A	0.263	2.4	11	1	1	0.808	0.06	64.74	A
161.00-160.00			B	0.263	2.4		1	1	0.808			
			C	0.263	2.4		1	1	0.808			
T20	2.00	1.99	A	0.168	2.705	11	1	1	9.532	1.12	58.76	A
160.00-141.00			B	0.168	2.705		1	1	9.532			
			C	0.168	2.705		1	1	9.532			
T21	0.11	0.17	A	0.263	2.4	11	1	1	0.808	0.06	63.43	A
141.00-140.00			B	0.263	2.4		1	1	0.808			
			C	0.263	2.4		1	1	0.808			
T22	2.02	1.99	A	0.168	2.705	10	1	1	9.532	1.11	58.18	A
140.00-121.00			B	0.168	2.705		1	1	9.532			
			C	0.168	2.705		1	1	9.532			
T23	0.11	0.17	A	0.263	2.4	10	1	1	0.808	0.06	63.11	A
121.00-120.00			B	0.263	2.4		1	1	0.808			
			C	0.263	2.4		1	1	0.808			
T24	2.05	1.99	A	0.168	2.705	10	1	1	9.532	1.10	57.64	A
120.00-101.00			B	0.168	2.705		1	1	9.532			
			C	0.168	2.705		1	1	9.532			
T25	0.11	0.17	A	0.263	2.4	10	1	1	0.808	0.06	62.07	A

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Section Elevation	Add Weight	Self Weight	F a c e	e	C _F	q _z psf	D _F	D _R	A _E ft ²	F K	w plf	Ctrl. Face
101.00-100.00			B	0.263	2.4		1	1	0.808			
			C	0.263	2.4		1	1	0.808			
T26	2.06	1.99	A	0.168	2.705	10	1	1	9.532	1.06	56.04	A
100.00-81.00			B	0.168	2.705		1	1	9.532			
			C	0.168	2.705		1	1	9.532			
T27	0.11	0.17	A	0.263	2.4	9	1	1	0.808	0.06	59.52	A
81.00-80.00			B	0.263	2.4		1	1	0.808			
			C	0.263	2.4		1	1	0.808			
T28	2.06	1.99	A	0.168	2.705	9	1	1	9.532	1.01	53.31	A
80.00-61.00			B	0.168	2.705		1	1	9.532			
			C	0.168	2.705		1	1	9.532			
T29	0.11	0.17	A	0.263	2.4	9	1	1	0.808	0.06	56.04	A
61.00-60.00			B	0.263	2.4		1	1	0.808			
			C	0.263	2.4		1	1	0.808			
T30	2.06	1.99	A	0.168	2.705	9	1	1	9.532	0.94	49.70	A
60.00-41.00			B	0.168	2.705		1	1	9.532			
			C	0.168	2.705		1	1	9.532			
T31	0.11	0.17	A	0.263	2.4	8	1	1	0.808	0.05	51.50	A
41.00-40.00			B	0.263	2.4		1	1	0.808			
			C	0.263	2.4		1	1	0.808			
T32	2.07	1.99	A	0.168	2.705	8	1	1	9.532	0.86	45.03	A
40.00-21.00			B	0.168	2.705		1	1	9.532			
			C	0.168	2.705		1	1	9.532			
T33	0.11	0.17	A	0.263	2.4	7	1	1	0.808	0.05	45.02	A
21.00-20.00			B	0.263	2.4		1	1	0.808			
			C	0.263	2.4		1	1	0.808			
T34	0.36	0.41	A	0.184	2.652	7	1	1	1.833	0.14	41.11	A
20.00-16.66			B	0.184	2.652		1	1	1.833			
			C	0.184	2.652		1	1	1.833			
T35	0.25	0.31	A	0.205	2.579	7	1	1	1.438	0.09	40.46	A
16.66-14.33			B	0.205	2.579		1	1	1.438			
			C	0.205	2.579		1	1	1.438			
T36	0.25	0.31	A	0.205	2.579	7	1	1	1.438	0.09	40.24	A
14.33-12.00			B	0.205	2.579		1	1	1.438			
			C	0.205	2.579		1	1	1.438			
T37	0.29	0.51	A	0.334	2.209	7	1	1	3.772	0.13	48.92	A
12.00-9.34			B	0.334	2.209		1	1	3.772			
			C	0.334	2.209		1	1	3.772			
T38	0.29	0.43	A	0.277	2.359	7	1	1	2.936	0.12	45.93	A
9.34-6.67			B	0.277	2.359		1	1	2.936			
			C	0.277	2.359		1	1	2.936			
T39	0.00	0.84	A	0.37	2.126	7	1	1	4.820	0.06	8.82	C
6.67-0.00			B	0.37	2.126		1	1	4.820			
			C	0.37	2.126		1	1	4.820			
Sum Weight:	28.77	35.15								14.37		

Tower Forces - Service - Wind 60 To Face

Section Elevation	Add Weight	Self Weight	F a c e	e	C _F	q _z psf	D _F	D _R	A _E ft ²	F K	w plf	Ctrl. Face
L1	0.10	0.34	A	0.15	2.771	13	0.8	1	3.327	0.20	13.07	B
345.00-330.00			B	0.15	2.771		0.8	1	3.327			

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	Client	Smartlink	Designed by	Bryan Mawhinney

Section Elevation	Add Weight	Self Weight	F a c e	e	C _F	q _z psf	D _F	D _R	A _E ft ²	F K	w plf	Ctrl. Face
ft	K	K										
T1 330.00-327.72	0.13	0.40	C A B C	0.15 0.349 0.349 0.349	2.771 2.174 2.174 2.174	13	0.8 0.8 0.8 0.8	1 1 1 1	3.327 2.986 2.986 2.986	0.09	37.79	B
T2 327.72-320.88	0.39	0.60	A B C	0.171 0.171 0.171	2.695 2.695 2.695	13	0.8 0.8 0.8	1 1 1	3.462 3.462 3.462	0.15	21.68	B
T3 320.88-320.00	0.05	0.11	A B C	0.241 0.241 0.241	2.465 2.465 2.465	13	0.8 0.8 0.8	1 1 1	0.638 0.638 0.638	0.02	26.28	B
T4 320.00-300.88	1.12	1.40	A B C	0.143 0.143 0.143	2.797 2.797 2.797	13	0.8 0.8 0.8	1 1 1	8.042 8.042 8.042	0.41	21.28	B
T5 300.88-300.00	0.05	0.11	A B C	0.241 0.241 0.241	2.465 2.465 2.465	12	0.8 0.8 0.8	1 1 1	0.638 0.638 0.638	0.03	28.82	B
T6 300.00-280.88	1.19	1.40	A B C	0.143 0.143 0.143	2.797 2.797 2.797	12	0.8 0.8 0.8	1 1 1	8.042 8.042 8.042	0.48	24.91	B
T7 280.88-280.00	0.05	0.11	A B C	0.241 0.241 0.241	2.465 2.465 2.465	12	0.8 0.8 0.8	1 1 1	0.638 0.638 0.638	0.03	32.12	B
T8 280.00-260.88	1.22	1.57	A B C	0.152 0.152 0.152	2.764 2.764 2.764	12	0.8 0.8 0.8	1 1 1	8.559 8.559 8.559	0.53	27.60	B
T9 260.88-260.00	0.06	0.12	A B C	0.252 0.252 0.252	2.43 2.43 2.43	12	0.8 0.8 0.8	1 1 1	0.671 0.671 0.671	0.03	34.91	B
T10 260.00-240.88	1.26	1.57	A B C	0.152 0.152 0.152	2.764 2.764 2.764	12	0.8 0.8 0.8	1 1 1	8.559 8.559 8.559	0.56	29.25	B
T11 240.88-240.00	0.06	0.12	A B C	0.252 0.252 0.252	2.43 2.43 2.43	12	0.8 0.8 0.8	1 1 1	0.671 0.671 0.671	0.03	36.21	B
T12 240.00-220.88	1.31	1.57	A B C	0.152 0.152 0.152	2.764 2.764 2.764	12	0.8 0.8 0.8	1 1 1	8.559 8.559 8.559	0.61	31.69	B
T13 220.88-220.00	0.06	0.12	A B C	0.252 0.252 0.252	2.43 2.43 2.43	12	0.8 0.8 0.8	1 1 1	0.671 0.671 0.671	0.04	42.64	B
T14 220.00-201.00	1.40	1.79	A B C	0.161 0.161 0.161	2.73 2.73 2.73	12	0.8 0.8 0.8	1 1 1	9.088 9.088 9.088	0.72	38.16	B
T15 201.00-200.00	0.08	0.16	A B C	0.257 0.257 0.257	2.418 2.418 2.418	11	0.8 0.8 0.8	1 1 1	0.784 0.784 0.784	0.05	45.74	B
T16 200.00-181.00	1.67	2.39	A B C	0.186 0.186 0.186	2.643 2.643 2.643	11	0.8 0.8 0.8	1 1 1	10.580 10.580 10.580	0.97	50.91	B
T17 181.00-180.00	0.09	0.19	A B C	0.283 0.283 0.283	2.343 2.343 2.343	11	0.8 0.8 0.8	1 1 1	0.878 0.878 0.878	0.06	61.27	B
T18 180.00-161.00	1.86	1.99 TA 1.09	A B C	0.168 0.168 0.168	2.705 2.705 2.705	11	0.8 0.8 0.8	1 1 1	9.532 9.532 9.532	1.08	56.68	B
T19 161.00-160.00	0.10	0.17	A B C	0.263 0.263 0.263	2.4 2.4 2.4	11	0.8 0.8 0.8	1 1 1	0.808 0.808 0.808	0.06	64.74	B
T20 160.00-141.00	2.00	1.99	A B	0.168 0.168	2.705 2.705	11	0.8 0.8	1 1	9.532 9.532	1.12	58.76	B

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Tower Forces - Service - Wind 90 To Face

Section Elevation	Add Weight	Self Weight	F a c e	e	C _F	q _z	D _F	D _R	A _E	F	w	Ctrl. Face
ft	K	K				psf			ft ²	K	plf	
L1 345.00-330.00	0.10	0.34	A	0.15	2.771	13	0.85	1	3.327	0.19	12.74	C
			B	0.15	2.771		0.85	1	3.327			
			C	0.15	2.771		0.85	1	3.327			
T1 330.00-327.72	0.13	0.40	A	0.349	2.174	13	0.85	1	3.107	0.09	38.78	C
			B	0.349	2.174		0.85	1	3.107			
			C	0.349	2.174		0.85	1	3.107			
T2 327.72-320.88	0.39	0.60	A	0.171	2.695	13	0.85	1	3.462	0.15	21.43	C
			B	0.171	2.695		0.85	1	3.462			
			C	0.171	2.695		0.85	1	3.462			
T3 320.88-320.00	0.05	0.11	A	0.241	2.465	13	0.85	1	0.638	0.02	26.03	C
			B	0.241	2.465		0.85	1	0.638			
			C	0.241	2.465		0.85	1	0.638			
T4 320.00-300.88	1.12	1.40	A	0.143	2.797	13	0.85	1	8.042	0.40	21.02	C
			B	0.143	2.797		0.85	1	8.042			
			C	0.143	2.797		0.85	1	8.042			
T5 300.88-300.00	0.05	0.11	A	0.241	2.465	12	0.85	1	0.638	0.03	28.57	C
			B	0.241	2.465		0.85	1	0.638			
			C	0.241	2.465		0.85	1	0.638			
T6 300.00-280.88	1.19	1.40	A	0.143	2.797	12	0.85	1	8.042	0.48	25.15	B
			B	0.143	2.797		0.85	1	8.042			
			C	0.143	2.797		0.85	1	8.042			
T7 280.88-280.00	0.05	0.11	A	0.241	2.465	12	0.85	1	0.638	0.03	32.58	B
			B	0.241	2.465		0.85	1	0.638			
			C	0.241	2.465		0.85	1	0.638			
T8 280.00-260.88	1.22	1.57	A	0.152	2.764	12	0.85	1	8.559	0.54	28.08	B
			B	0.152	2.764		0.85	1	8.559			
			C	0.152	2.764		0.85	1	8.559			
T9 260.88-260.00	0.06	0.12	A	0.252	2.43	12	0.85	1	0.671	0.03	35.40	B
			B	0.252	2.43		0.85	1	0.671			
			C	0.252	2.43		0.85	1	0.671			
T10 260.00-240.88	1.26	1.57	A	0.152	2.764	12	0.85	1	8.559	0.57	29.74	B
			B	0.152	2.764		0.85	1	8.559			
			C	0.152	2.764		0.85	1	8.559			
T11 240.88-240.00	0.06	0.12	A	0.252	2.43	12	0.85	1	0.671	0.03	36.69	B
			B	0.252	2.43		0.85	1	0.671			
			C	0.252	2.43		0.85	1	0.671			
T12 240.00-220.88	1.31	1.57	A	0.152	2.764	12	0.85	1	8.559	0.62	32.18	B
			B	0.152	2.764		0.85	1	8.559			
			C	0.152	2.764		0.85	1	8.559			
T13 220.88-220.00	0.06	0.12	A	0.252	2.43	12	0.85	1	0.671	0.04	43.12	B
			B	0.252	2.43		0.85	1	0.671			
			C	0.252	2.43		0.85	1	0.671			
T14 220.00-201.00	1.40	1.79	A	0.161	2.73	12	0.85	1	9.088	0.73	38.63	B
			B	0.161	2.73		0.85	1	9.088			
			C	0.161	2.73		0.85	1	9.088			
T15 201.00-200.00	0.08	0.16	A	0.257	2.418	11	0.85	1	0.784	0.05	46.21	B
			B	0.257	2.418		0.85	1	0.784			
			C	0.257	2.418		0.85	1	0.784			
T16 200.00-181.00	1.67	2.39	A	0.186	2.643	11	0.85	1	10.580	1.00	52.86	C
			B	0.186	2.643		0.85	1	10.580			
			C	0.186	2.643		0.85	1	10.580			
T17	0.09	0.19	A	0.283	2.343	11	0.85	1	0.878	0.06	63.19	C

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	Client	Smartlink	Designed by	Bryan Mawhinney

Section Elevation	Add Weight	Self Weight	F a c e	e	C _F	q _z psf	D _F	D _R	A _E ft ²	F K	w plf	Ctrl. Face
181.00-180.00			B	0.283	2.343		0.85	1	0.878			
			C	0.283	2.343		0.85	1	0.878			
T18	1.86	1.99	A	0.168	2.705	11	0.85	1	9.532	1.12	59.06	C
180.00-161.00		TA 1.09	B	0.168	2.705		0.85	1	9.532			
			C	0.168	2.705		0.85	1	9.532			
T19	0.10	0.17	A	0.263	2.4	11	0.85	1	0.808	0.07	67.66	C
161.00-160.00			B	0.263	2.4		0.85	1	0.808			
			C	0.263	2.4		0.85	1	0.808			
T20	2.00	1.99	A	0.168	2.705	11	0.85	1	9.532	1.17	61.64	C
160.00-141.00			B	0.168	2.705		0.85	1	9.532			
			C	0.168	2.705		0.85	1	9.532			
T21	0.11	0.17	A	0.263	2.4	11	0.85	1	0.808	0.07	66.27	C
141.00-140.00			B	0.263	2.4		0.85	1	0.808			
			C	0.263	2.4		0.85	1	0.808			
T22	2.02	1.99	A	0.168	2.705	10	0.85	1	9.532	1.16	61.05	C
140.00-121.00			B	0.168	2.705		0.85	1	9.532			
			C	0.168	2.705		0.85	1	9.532			
T23	0.11	0.17	A	0.263	2.4	10	0.85	1	0.808	0.07	65.95	C
121.00-120.00			B	0.263	2.4		0.85	1	0.808			
			C	0.263	2.4		0.85	1	0.808			
T24	2.05	1.99	A	0.168	2.705	10	0.85	1	9.532	1.15	60.43	C
120.00-101.00			B	0.168	2.705		0.85	1	9.532			
			C	0.168	2.705		0.85	1	9.532			
T25	0.11	0.17	A	0.263	2.4	10	0.85	1	0.808	0.06	64.80	C
101.00-100.00			B	0.263	2.4		0.85	1	0.808			
			C	0.263	2.4		0.85	1	0.808			
T26	2.06	1.99	A	0.168	2.705	10	0.85	1	9.532	1.12	58.71	C
100.00-81.00			B	0.168	2.705		0.85	1	9.532			
			C	0.168	2.705		0.85	1	9.532			
T27	0.11	0.17	A	0.263	2.4	9	0.85	1	0.808	0.06	62.12	C
81.00-80.00			B	0.263	2.4		0.85	1	0.808			
			C	0.263	2.4		0.85	1	0.808			
T28	2.06	1.99	A	0.168	2.705	9	0.85	1	9.532	1.06	55.85	C
80.00-61.00			B	0.168	2.705		0.85	1	9.532			
			C	0.168	2.705		0.85	1	9.532			
T29	0.11	0.17	A	0.263	2.4	9	0.85	1	0.808	0.06	58.50	C
61.00-60.00			B	0.263	2.4		0.85	1	0.808			
			C	0.263	2.4		0.85	1	0.808			
T30	2.06	1.99	A	0.168	2.705	9	0.85	1	9.532	0.99	52.06	C
60.00-41.00			B	0.168	2.705		0.85	1	9.532			
			C	0.168	2.705		0.85	1	9.532			
T31	0.11	0.17	A	0.263	2.4	8	0.85	1	0.808	0.05	53.76	C
41.00-40.00			B	0.263	2.4		0.85	1	0.808			
			C	0.263	2.4		0.85	1	0.808			
T32	2.07	1.99	A	0.168	2.705	8	0.85	1	9.532	0.89	47.04	C
40.00-21.00			B	0.168	2.705		0.85	1	9.532			
			C	0.168	2.705		0.85	1	9.532			
T33	0.11	0.17	A	0.263	2.4	7	0.85	1	0.808	0.05	46.84	C
21.00-20.00			B	0.263	2.4		0.85	1	0.808			
			C	0.263	2.4		0.85	1	0.808			
T34	0.36	0.41	A	0.184	2.652	7	0.85	1	1.833	0.14	42.89	C
20.00-16.66			B	0.184	2.652		0.85	1	1.833			
			C	0.184	2.652		0.85	1	1.833			
T35	0.25	0.31	A	0.205	2.579	7	0.85	1	1.438	0.10	42.18	C
16.66-14.33			B	0.205	2.579		0.85	1	1.438			
			C	0.205	2.579		0.85	1	1.438			
T36	0.25	0.31	A	0.205	2.579	7	0.85	1	1.438	0.10	41.95	C
14.33-12.00			B	0.205	2.579		0.85	1	1.438			
			C	0.205	2.579		0.85	1	1.438			
T37	0.29	0.51	A	0.334	2.209	7	0.85	1	3.414	0.13	48.96	C

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Section Elevation	Add Weight	Self Weight	F a c e	e	C _F	q _z psf	D _F	D _R	A _E ft ²	F K	w plf	Ctrl. Face
12.00-9.34			B	0.334	2.209		0.85	1	3.414			
			C	0.334	2.209		0.85	1	3.414			
T38 9.34-6.67	0.29	0.43	A	0.277	2.359	7	0.85	1	2.697	0.12	46.45	C
			B	0.277	2.359		0.85	1	2.697			
			C	0.277	2.359		0.85	1	2.697			
T39 6.67-0.00	0.00	0.84	A	0.37	2.126	7	0.85	1	4.585	0.06	8.40	C
			B	0.37	2.126		0.85	1	4.585			
			C	0.37	2.126		0.85	1	4.585			
Sum Weight:	28.77	35.15								14.85		

Discrete Appurtenance Pressures - No Ice

$G_H = 0.850$ (base tower), 1.100 (upper structure)

Description	Aiming Azimuth °	Weight K	Offset _x ft	Offset _z ft	z ft	K _z	q _z psf	C _A A _C Front ft ²	C _A A _C Side ft ²
Torque Arm Face C	180.000	0.00	0.00	3.03	177.48	1.428	34	6.94	8.26
Torque Arm Face B	60.000	0.00	2.63	-1.52	177.48	1.428	34	6.94	8.26
Torque Arm Face A	300.000	0.00	-2.63	-1.52	177.48	1.428	34	6.94	8.26
Dish Pipe Mount	120.000	0.07	2.93	1.69	90.00	1.238	30	1.32	1.32
3' Standoff	240.000	0.13	-3.80	2.19	112.00	1.296	31	2.96	3.36
Dish Pipe Mount	120.000	0.07	2.93	1.69	130.00	1.337	32	1.32	1.32
4' Standoff	120.000	0.07	4.23	2.44	138.50	1.355	33	2.97	4.03
20ft Omni Antenna	120.000	0.05	5.96	3.44	148.50	1.375	33	6.00	6.00
Horizontal Support Pipe	120.000	0.09	4.23	2.44	153.50	1.385	33	5.25	1.58
Horizontal Support Pipe	0.000	0.07	0.00	-4.89	144.50	1.368	33	1.32	1.32
Horizontal Support Pipe	0.000	0.07	0.00	-4.89	150.50	1.379	33	1.32	1.32
Horizontal Support Pipe	0.000	0.07	0.00	-4.89	156.50	1.391	33	1.32	1.32
13' Dipole	0.000	0.03	0.00	-6.89	150.50	1.379	33	3.60	3.60
(3) 12' Sector Frames	0.000	0.85	0.00	0.00	168.00	1.412	34	18.91	18.91
w/ (2) MPs									
LPA-80080-4CF-EDIN	0.000	0.06	0.00	-6.89	169.50	1.414	34	8.53	10.69
w/ Mount Pipe									
LPA-80063-4CF-EDIN	120.000	0.10	5.96	3.44	169.50	1.414	34	19.94	20.50
w/ Mount Pipe									
LPA-80063-4CF-EDIN	240.000	0.10	-5.96	3.44	169.50	1.414	34	19.94	20.50
w/ Mount Pipe									
BXA-70063-6CF-EDIN	0.000	0.02	0.00	-6.89	169.50	1.414	34	7.57	4.16
BXA-171063-12BF-EDI	0.000	0.01	0.00	-6.89	169.50	1.414	34	4.80	3.63
N-2									
BXA-70063-6CF-EDIN	120.000	0.02	5.96	3.44	169.50	1.414	34	7.57	4.16
BXA-171063-12BF-EDI	120.000	0.01	5.96	3.44	169.50	1.414	34	4.80	3.63
N-2									
BXA-70063-6CF-EDIN	240.000	0.02	-5.96	3.44	169.50	1.414	34	7.57	4.16
BXA-171063-12BF-EDI	240.000	0.01	-5.96	3.44	169.50	1.414	34	4.80	3.63
N-2									
E15V95P0804	0.000	0.01	0.00	-6.89	168.00	1.412	34	0.77	0.22
E15V95P0804	120.000	0.01	5.96	3.44	168.00	1.412	34	0.77	0.22
E15V95P0804	240.000	0.01	-5.96	3.44	168.00	1.412	34	0.77	0.22
(3) 10.5' Sector Frames	0.000	0.49	0.00	0.00	186.50	1.443	35	25.48	25.48
AIR 21 B2A/B4P w/	0.000	0.20	0.00	-6.89	188.50	1.446	35	12.32	11.09
Mount Pipe									
AIR 21 B2A/B4P w/	120.000	0.20	5.96	3.44	188.50	1.446	35	12.32	11.09
Mount Pipe									
AIR 21 B2A/B4P w/	240.000	0.20	-5.96	3.44	188.50	1.446	35	12.32	11.09

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Description	Aiming Azimuth °	Weight K	Offset _x ft	Offset _z ft	z ft	K _z	q _z psf	C _{AAc} Front ft ²	C _{AAc} Side ft ²
59.25"x6.5"x3" Panel w/ Mount Pipe	0.000	0.14	0.00	-6.89	226.50	1.503	36	8.37	7.36
6' Standoff	0.000	0.05	0.00	-5.89	252.00	1.537	37	0.41	3.06
20ft Omni Antenna	0.000	0.05	0.00	-8.89	262.00	1.550	37	6.00	6.00
6' Standoff	240.000	0.05	-5.10	2.94	264.25	1.553	37	0.41	3.06
20ft Omni Antenna	240.000	0.05	-7.70	4.44	274.25	1.565	38	6.00	6.00
Dish Pipe Mount	0.000	0.07	0.00	-3.39	274.00	1.565	38	1.32	1.32
FM Antenna	240.000	0.04	-4.23	2.44	279.00	1.571	38	4.00	4.00
FM Antenna	240.000	0.04	-4.23	2.44	288.00	1.581	38	4.00	4.00
LeBlanc 10' Standoff (1)	300.000	0.55	-5.58	-3.22	294.00	1.588	38	17.00	17.00
LeBlanc 10' Standoff (1)	180.000	0.55	0.00	6.44	294.00	1.588	38	17.00	17.00
20ft Omni Antenna	0.000	0.05	0.00	-8.89	304.00	1.599	38	6.00	6.00
20ft Omni Antenna	0.000	0.05	0.00	-8.89	284.00	1.577	38	6.00	6.00
20ft Omni Antenna	240.000	0.05	-7.70	4.44	284.00	1.577	38	6.00	6.00
3' Standoff	120.000	0.03	3.80	2.19	295.50	1.590	38	0.94	1.41
20ft Omni Antenna	120.000	0.05	5.10	2.94	307.33	1.603	38	6.00	6.00
FM Antenna	0.000	0.04	0.00	-4.89	312.00	1.608	39	4.00	4.00
2' Standoff	240.000	0.10	-3.37	1.94	317.50	1.614	39	2.96	2.11
FM Antenna	240.000	0.04	-2.98	1.72	332.50	1.630	39	4.00	4.00
FM Antenna	240.000	0.04	-2.98	1.72	342.00	1.640	39	4.00	4.00
(3) FM Antennas	120.000	0.24	2.98	1.72	338.00	1.636	39	14.00	14.00
Sum		9.94							
Weight:									

Discrete Appurtenance Pressures - With Ice

$G_H = 0.850$ (base tower), 1.100 (upper structure)

Description	Aiming Azimuth °	Weight K	Offset _x ft	Offset _z ft	z ft	K _z	q _z psf	C _{AAc} Front ft ²	C _{AAc} Side ft ²	t _z in
Torque Arm Face C	180.000	0.00	0.00	3.03	177.48	1.428	8	10.16	11.99	1.7677
Torque Arm Face B	60.000	0.00	2.63	-1.52	177.48	1.428	8	10.16	11.99	1.7677
Torque Arm Face A	300.000	0.00	-2.63	-1.52	177.48	1.428	8	10.16	11.99	1.7677
Dish Pipe Mount	120.000	0.12	2.93	1.69	90.00	1.238	7	2.21	2.21	1.6583
3' Standoff	240.000	0.22	-3.80	2.19	112.00	1.296	7	6.82	7.83	1.6950
Dish Pipe Mount	120.000	0.12	2.93	1.69	130.00	1.337	7	2.24	2.24	1.7204
4' Standoff	120.000	0.20	4.23	2.44	138.50	1.355	7	7.89	11.27	1.7313
20ft Omni Antenna	120.000	0.26	5.96	3.44	148.50	1.375	7	13.17	13.17	1.7435
Horizontal Support Pipe	120.000	0.18	4.23	2.44	153.50	1.385	8	9.62	2.87	1.7492
Horizontal Support Pipe	0.000	0.12	0.00	-4.89	144.50	1.368	7	2.25	2.25	1.7387
Horizontal Support Pipe	0.000	0.12	0.00	-4.89	150.50	1.379	8	2.26	2.26	1.7458
Horizontal Support Pipe	0.000	0.12	0.00	-4.89	156.50	1.391	8	2.26	2.26	1.7526
13' Dipole	0.000	0.15	0.00	-6.89	150.50	1.379	8	7.53	7.53	1.7458
(3) 12' Sector Frames	0.000	2.20	0.00	0.00	168.00	1.412	8	46.69	46.69	1.7651
w/ (2) MPs										
LPA-80080-4CF-EDIN	0.000	0.46	0.00	-6.89	169.50	1.414	8	11.22	15.16	1.7667
w/ Mount Pipe										
LPA-80063-4CF-EDIN	120.000	0.85	5.96	3.44	169.50	1.414	8	23.84	27.41	1.7667
w/ Mount Pipe										
LPA-80063-4CF-EDIN	240.000	0.85	-5.96	3.44	169.50	1.414	8	23.84	27.41	1.7667
w/ Mount Pipe										
BXA-70063-6CF-EDIN	0.000	0.20	0.00	-6.89	169.50	1.414	8	9.18	5.74	1.7667
BXA-171063-12BF-EDI	0.000	0.14	0.00	-6.89	169.50	1.414	8	6.43	5.21	1.7667
N-2										
BXA-70063-6CF-EDIN	120.000	0.20	5.96	3.44	169.50	1.414	8	9.18	5.74	1.7667
BXA-171063-12BF-EDI	120.000	0.14	5.96	3.44	169.50	1.414	8	6.43	5.21	1.7667
N-2										
BXA-70063-6CF-EDIN	240.000	0.20	-5.96	3.44	169.50	1.414	8	9.18	5.74	1.7667
BXA-171063-12BF-EDI	240.000	0.14	-5.96	3.44	169.50	1.414	8	6.43	5.21	1.7667

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	Client	Smartlink	Designed by	Bryan Mawhinney

<i>Description</i>	<i>Aiming Azimuth °</i>	<i>Weight K</i>	<i>Offset_x ft</i>	<i>Offset_z ft</i>	<i>z ft</i>	<i>K_z</i>	<i>q_z psf</i>	<i>C_{AAc} Front ft²</i>	<i>C_{AAc} Side ft²</i>	<i>t_z in</i>
N-2										
E15V95P0804	0.000	0.04	0.00	-6.89	168.00	1.412	8	1.41	0.67	1.7651
E15V95P0804	120.000	0.04	5.96	3.44	168.00	1.412	8	1.41	0.67	1.7651
E15V95P0804	240.000	0.04	-5.96	3.44	168.00	1.412	8	1.41	0.67	1.7651
(3) 10.5' Sector Frames	0.000	2.31	0.00	0.00	186.50	1.443	8	63.51	63.51	1.7836
AIR 21 B2A/B4P w/ Mount Pipe	0.000	0.68	0.00	-6.89	188.50	1.446	8	15.47	16.26	1.7855
AIR 21 B2A/B4P w/ Mount Pipe	120.000	0.68	5.96	3.44	188.50	1.446	8	15.47	16.26	1.7855
AIR 21 B2A/B4P w/ Mount Pipe	240.000	0.68	-5.96	3.44	188.50	1.446	8	15.47	16.26	1.7855
LNx-6515DS-A1M w/ Mount Pipe	0.000	0.45	0.00	-6.89	188.50	1.446	8	7.11	6.03	1.7855
LNx-6515DS-A1M w/ Mount Pipe	120.000	0.45	5.96	3.44	188.50	1.446	8	7.11	6.03	1.7855
LNx-6515DS-A1M w/ Mount Pipe	240.000	0.45	-5.96	3.44	188.50	1.446	8	7.11	6.03	1.7855
KRY 112 144/1	0.000	0.03	0.00	-4.89	186.50	1.443	8	0.66	0.42	1.7836
16.5x6.5x17 TMA	0.000	0.15	0.00	-6.89	188.50	1.446	8	3.05	1.40	1.7855
KRY 112 144/1	120.000	0.03	4.23	2.44	186.50	1.443	8	0.66	0.42	1.7836
16.5x6.5x17 TMA	120.000	0.15	5.96	3.44	188.50	1.446	8	3.05	1.40	1.7855
KRY 112 144/1	240.000	0.03	-4.23	2.44	186.50	1.443	8	0.66	0.42	1.7836
16.5x6.5x17 TMA	240.000	0.15	-5.96	3.44	188.50	1.446	8	3.05	1.40	1.7855
(3) 10' Sector Frames	0.000	2.30	0.00	0.00	200.00	1.464	8	49.12	49.12	1.7962
7770.00 w/ Mount Pipe	0.000	0.26	0.00	-6.89	200.00	1.464	8	7.31	6.86	1.7962
OPA65R-BU8DA w/ Mount Pipe	0.000	0.61	0.00	-6.89	200.00	1.464	8	20.94	15.27	1.7962
DMP65R-BU8D w/ Mount Pipe	0.000	0.62	0.00	-6.89	200.00	1.464	8	20.72	15.19	1.7962
7770.00 w/ Mount Pipe	120.000	0.26	5.96	3.44	200.00	1.464	8	7.31	6.86	1.7962
OPA65R-BU8DA w/ Mount Pipe	120.000	0.61	5.96	3.44	200.00	1.464	8	20.94	15.27	1.7962
DMP65R-BU8D w/ Mount Pipe	120.000	0.62	5.96	3.44	200.00	1.464	8	20.72	15.19	1.7962
7770.00 w/ Mount Pipe	240.000	0.26	-5.96	3.44	200.00	1.464	8	7.31	6.86	1.7962
OPA65R-BU8DA w/ Mount Pipe	240.000	0.61	-5.96	3.44	200.00	1.464	8	20.94	15.27	1.7962
DMP65R-BU8D w/ Mount Pipe	240.000	0.62	-5.96	3.44	200.00	1.464	8	20.72	15.19	1.7962
860 10025	0.000	0.05	0.00	-6.89	200.00	1.464	8	1.51	1.39	1.7962
860 10025	120.000	0.05	5.96	3.44	200.00	1.464	8	1.51	1.39	1.7962
860 10025	240.000	0.05	-5.96	3.44	200.00	1.464	8	1.51	1.39	1.7962
CM1007-DBPXBC-003	0.000	0.05	0.00	-6.89	200.00	1.464	8	1.39	0.70	1.7962
CM1007-DBPXBC-003	120.000	0.05	5.96	3.44	200.00	1.464	8	1.39	0.70	1.7962
CM1007-DBPXBC-003	240.000	0.05	-5.96	3.44	200.00	1.464	8	1.39	0.70	1.7962
DTMABP7819VG12A	0.000	0.06	0.00	-4.89	200.00	1.464	8	1.46	0.67	1.7962
DTMABP7819VG12A	120.000	0.06	4.23	2.44	200.00	1.464	8	1.46	0.67	1.7962
DTMABP7819VG12A	240.000	0.06	-4.23	2.44	200.00	1.464	8	1.46	0.67	1.7962
DC6-48-60-18-8F	0.000	0.09	0.00	-6.89	200.00	1.464	8	1.75	1.75	1.7962
Raycap DC9	0.000	0.09	0.00	-6.89	200.00	1.464	8	1.75	1.75	1.7962
RADIO 4478 B14	0.000	0.13	0.00	-6.89	200.00	1.464	8	2.23	1.51	1.7962
RADIO 4449 B5/B12	0.000	0.15	0.00	-6.89	200.00	1.464	8	2.26	1.86	1.7962
RADIO 8843 B2/B66A	0.000	0.15	0.00	-6.89	200.00	1.464	8	2.26	1.95	1.7962
RADIO 4478 B14	120.000	0.13	5.96	3.44	200.00	1.464	8	2.23	1.51	1.7962
RADIO 4449 B5/B12	120.000	0.15	5.96	3.44	200.00	1.464	8	2.26	1.86	1.7962
RADIO 8843 B2/B66A	120.000	0.15	5.96	3.44	200.00	1.464	8	2.26	1.95	1.7962
RADIO 4478 B14	240.000	0.13	-5.96	3.44	200.00	1.464	8	2.23	1.51	1.7962
RADIO 4449 B5/B12	240.000	0.15	-5.96	3.44	200.00	1.464	8	2.26	1.86	1.7962
RADIO 8843 B2/B66A	240.000	0.15	-5.96	3.44	200.00	1.464	8	2.26	1.95	1.7962
6' Standoff	120.000	0.22	5.10	2.94	205.50	1.473	8	1.92	11.01	1.8010
15ft Omni Antenna	120.000	0.27	7.70	4.44	213.00	1.484	8	13.43	13.43	1.8075

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	Client	Smartlink	Designed by	Bryan Mawhinney

Description	Aiming Azimuth °	Weight K	Offset _x ft	Offset _z ft	z ft	K _z	q _z psf	C _{AAc} Front ft ²	C _{AAc} Side ft ²	t _z in
Horizontal Support Pipe	0.000	0.13	0.00	-5.89	208.00	1.477	8	2.29	2.29	1.8032
Horizontal Support Pipe	0.000	0.13	0.00	-5.89	210.00	1.480	8	2.29	2.29	1.8049
8ft Omni Antenna	0.000	0.12	0.00	-7.89	212.00	1.483	8	4.48	4.48	1.8066
Dish Pipe Mount	240.000	0.13	-2.93	1.69	209.00	1.478	8	2.29	2.29	1.8041
FM Antenna	240.000	0.15	-4.23	2.44	219.50	1.493	8	7.63	7.63	1.8129
(3) 12' Sector Frames	0.000	2.49	0.00	0.00	226.50	1.503	8	56.50	56.50	1.8186
59.25"x6.5"x3" Panel w/ Mount Pipe	240.000	0.48	-5.96	3.44	226.50	1.503	8	11.70	13.03	1.8186
59.25"x6.5"x3" Panel w/ Mount Pipe	120.000	0.48	5.96	3.44	226.50	1.503	8	11.70	13.03	1.8186
59.25"x6.5"x3" Panel w/ Mount Pipe	0.000	0.48	0.00	-6.89	226.50	1.503	8	11.70	13.03	1.8186
6' Standoff	0.000	0.23	0.00	-5.89	252.00	1.537	8	1.95	11.19	1.8381
20ft Omni Antenna	0.000	0.28	0.00	-8.89	262.00	1.550	8	13.59	13.59	1.8453
6' Standoff	240.000	0.23	-5.10	2.94	264.25	1.553	8	1.96	11.23	1.8469
20ft Omni Antenna	240.000	0.28	-7.70	4.44	274.25	1.565	9	13.63	13.63	1.8538
Dish Pipe Mount	0.000	0.13	0.00	-3.39	274.00	1.565	9	2.32	2.32	1.8536
FM Antenna	240.000	0.15	-4.23	2.44	279.00	1.571	9	7.71	7.71	1.8570
FM Antenna	240.000	0.15	-4.23	2.44	288.00	1.581	9	7.73	7.73	1.8629
LeBlanc 10' Standoff (1)	300.000	1.30	-5.58	-3.22	294.00	1.588	9	35.67	35.67	1.8667
LeBlanc 10' Standoff (1)	180.000	1.30	0.00	6.44	294.00	1.588	9	35.67	35.67	1.8667
20ft Omni Antenna	0.000	0.28	0.00	-8.89	304.00	1.599	9	13.71	13.71	1.8730
20ft Omni Antenna	0.000	0.28	0.00	-8.89	284.00	1.577	9	13.65	13.65	1.8603
20ft Omni Antenna	240.000	0.28	-7.70	4.44	284.00	1.577	9	13.65	13.65	1.8603
3' Standoff	120.000	0.08	3.80	2.19	295.50	1.590	9	2.96	4.25	1.8677
20ft Omni Antenna	120.000	0.28	5.10	2.94	307.33	1.603	9	13.71	13.71	1.8750
FM Antenna	0.000	0.15	0.00	-4.89	312.00	1.608	9	7.76	7.76	1.8778
2' Standoff	240.000	0.18	-3.37	1.94	317.50	1.614	9	7.25	5.20	1.8811
FM Antenna	240.000	0.15	-2.98	1.72	332.50	1.630	9	7.78	7.78	1.8898
FM Antenna	240.000	0.15	-2.98	1.72	342.00	1.640	9	7.79	7.79	1.8951
(3) FM Antennas	120.000	0.83	2.98	1.72	338.00	1.636	9	32.93	32.93	1.8929
Sum Weight:		33.77								

Discrete Appurtenance Pressures - Service

$G_H = 0.850$ (base tower), 1.100 (upper structure)

Description	Aiming Azimuth °	Weight K	Offset _x ft	Offset _z ft	z ft	K _z	q _z psf	C _{AAc} Front ft ²	C _{AAc} Side ft ²
Torque Arm Face C	180.000	0.00	0.00	3.03	177.48	1.428	11	6.94	8.26
Torque Arm Face B	60.000	0.00	2.63	-1.52	177.48	1.428	11	6.94	8.26
Torque Arm Face A	300.000	0.00	-2.63	-1.52	177.48	1.428	11	6.94	8.26
Dish Pipe Mount	120.000	0.07	2.93	1.69	90.00	1.238	10	1.32	1.32
3' Standoff	240.000	0.13	-3.80	2.19	112.00	1.296	10	2.96	3.36
Dish Pipe Mount	120.000	0.07	2.93	1.69	130.00	1.337	10	1.32	1.32
4' Standoff	120.000	0.07	4.23	2.44	138.50	1.355	11	2.97	4.03
20ft Omni Antenna	120.000	0.05	5.96	3.44	148.50	1.375	11	6.00	6.00
Horizontal Support Pipe	120.000	0.09	4.23	2.44	153.50	1.385	11	5.25	1.58
Horizontal Support Pipe	0.000	0.07	0.00	-4.89	144.50	1.368	11	1.32	1.32
Horizontal Support Pipe	0.000	0.07	0.00	-4.89	150.50	1.379	11	1.32	1.32
Horizontal Support Pipe	0.000	0.07	0.00	-4.89	156.50	1.391	11	1.32	1.32
13' Dipole	0.000	0.03	0.00	-6.89	150.50	1.379	11	3.60	3.60
(3) 12' Sector Frames w/ (2) MPs	0.000	0.85	0.00	0.00	168.00	1.412	11	18.91	18.91
LPA-80080-4CF-EDIN w/ Mount Pipe	0.000	0.06	0.00	-6.89	169.50	1.414	11	8.53	10.69
LPA-80063-4CF-EDIN w/ Mount Pipe	120.000	0.10	5.96	3.44	169.50	1.414	11	19.94	20.50

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<i>Description</i>	<i>Aiming Azimuth °</i>	<i>Weight K</i>	<i>Offset_x ft</i>	<i>Offset_z ft</i>	<i>z ft</i>	<i>K_z</i>	<i>q_z psf</i>	<i>C_{AAc} Front ft²</i>	<i>C_{AAc} Side ft²</i>
LPA-80063-4CF-EDIN w/ Mount Pipe	240.000	0.10	-5.96	3.44	169.50	1.414	11	19.94	20.50
BXA-70063-6CF-EDIN	0.000	0.02	0.00	-6.89	169.50	1.414	11	7.57	4.16
BXA-171063-12BF-EDI N-2	0.000	0.01	0.00	-6.89	169.50	1.414	11	4.80	3.63
BXA-70063-6CF-EDIN	120.000	0.02	5.96	3.44	169.50	1.414	11	7.57	4.16
BXA-171063-12BF-EDI N-2	120.000	0.01	5.96	3.44	169.50	1.414	11	4.80	3.63
BXA-70063-6CF-EDIN	240.000	0.02	-5.96	3.44	169.50	1.414	11	7.57	4.16
BXA-171063-12BF-EDI N-2	240.000	0.01	-5.96	3.44	169.50	1.414	11	4.80	3.63
E15V95P0804	0.000	0.01	0.00	-6.89	168.00	1.412	11	0.77	0.22
E15V95P0804	120.000	0.01	5.96	3.44	168.00	1.412	11	0.77	0.22
E15V95P0804	240.000	0.01	-5.96	3.44	168.00	1.412	11	0.77	0.22
(3) 10.5' Sector Frames	0.000	0.49	0.00	0.00	186.50	1.443	11	25.48	25.48
AIR 21 B2A/B4P w/ Mount Pipe	0.000	0.20	0.00	-6.89	188.50	1.446	11	12.32	11.09
AIR 21 B2A/B4P w/ Mount Pipe	120.000	0.20	5.96	3.44	188.50	1.446	11	12.32	11.09
AIR 21 B2A/B4P w/ Mount Pipe	240.000	0.20	-5.96	3.44	188.50	1.446	11	12.32	11.09
LNx-6515DS-A1M w/ Mount Pipe	0.000	0.09	0.00	-6.89	188.50	1.446	11	5.31	4.27
LNx-6515DS-A1M w/ Mount Pipe	120.000	0.09	5.96	3.44	188.50	1.446	11	5.31	4.27
LNx-6515DS-A1M w/ Mount Pipe	240.000	0.09	-5.96	3.44	188.50	1.446	11	5.31	4.27
KRY 112 144/1	0.000	0.01	0.00	-4.89	186.50	1.443	11	0.35	0.17
16.5x6.5x17 TMA	0.000	0.07	0.00	-6.89	188.50	1.446	11	2.34	0.90
KRY 112 144/1	120.000	0.01	4.23	2.44	186.50	1.443	11	0.35	0.17
16.5x6.5x17 TMA	120.000	0.07	5.96	3.44	188.50	1.446	11	2.34	0.90
KRY 112 144/1	240.000	0.01	-4.23	2.44	186.50	1.443	11	0.35	0.17
16.5x6.5x17 TMA	240.000	0.07	-5.96	3.44	188.50	1.446	11	2.34	0.90
(3) 10' Sector Frames	0.000	0.86	0.00	0.00	200.00	1.464	11	18.73	18.73
7770.00 w/ Mount Pipe	0.000	0.06	0.00	-6.89	200.00	1.464	11	5.75	4.25
OPA65R-BU8DA w/ Mount Pipe	0.000	0.11	0.00	-6.89	200.00	1.464	11	18.33	10.34
DMP65R-BU8D w/ Mount Pipe	0.000	0.13	0.00	-6.89	200.00	1.464	11	18.11	10.26
7770.00 w/ Mount Pipe	120.000	0.06	5.96	3.44	200.00	1.464	11	5.75	4.25
OPA65R-BU8DA w/ Mount Pipe	120.000	0.11	5.96	3.44	200.00	1.464	11	18.33	10.34
DMP65R-BU8D w/ Mount Pipe	120.000	0.13	5.96	3.44	200.00	1.464	11	18.11	10.26
7770.00 w/ Mount Pipe	240.000	0.06	-5.96	3.44	200.00	1.464	11	5.75	4.25
OPA65R-BU8DA w/ Mount Pipe	240.000	0.11	-5.96	3.44	200.00	1.464	11	18.33	10.34
DMP65R-BU8D w/ Mount Pipe	240.000	0.13	-5.96	3.44	200.00	1.464	11	18.11	10.26
860 10025	0.000	0.00	0.00	-6.89	200.00	1.464	11	0.57	0.48
860 10025	120.000	0.00	5.96	3.44	200.00	1.464	11	0.57	0.48
860 10025	240.000	0.00	-5.96	3.44	200.00	1.464	11	0.57	0.48
CM1007-DBPXBC-003	0.000	0.01	0.00	-6.89	200.00	1.464	11	0.73	0.27
CM1007-DBPXBC-003	120.000	0.01	5.96	3.44	200.00	1.464	11	0.73	0.27
CM1007-DBPXBC-003	240.000	0.01	-5.96	3.44	200.00	1.464	11	0.73	0.27
DTMABP7819VG12A	0.000	0.02	0.00	-4.89	200.00	1.464	11	0.98	0.34
DTMABP7819VG12A	120.000	0.02	4.23	2.44	200.00	1.464	11	0.98	0.34
DTMABP7819VG12A	240.000	0.02	-4.23	2.44	200.00	1.464	11	0.98	0.34
DC6-48-60-18-8F	0.000	0.02	0.00	-6.89	200.00	1.464	11	0.79	0.79
Raycap DC9	0.000	0.02	0.00	-6.89	200.00	1.464	11	0.79	0.79
RADIO 4478 B14	0.000	0.06	0.00	-6.89	200.00	1.464	11	1.63	1.00

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Description	Aiming Azimuth °	Weight K	Offset _x ft	Offset _z ft	z ft	K _z	q _z psf	C _{AAc} Front ft ²	C _{AAc} Side ft ²
RADIO 4449 B5/B12	0.000	0.07	0.00	-6.89	200.00	1.464	11	1.64	1.30
RADIO 8843 B2/B66A	0.000	0.08	0.00	-6.89	200.00	1.464	11	1.64	1.38
RADIO 4478 B14	120.000	0.06	5.96	3.44	200.00	1.464	11	1.63	1.00
RADIO 4449 B5/B12	120.000	0.07	5.96	3.44	200.00	1.464	11	1.64	1.30
RADIO 8843 B2/B66A	120.000	0.08	5.96	3.44	200.00	1.464	11	1.64	1.38
RADIO 4478 B14	240.000	0.06	-5.96	3.44	200.00	1.464	11	1.63	1.00
RADIO 4449 B5/B12	240.000	0.07	-5.96	3.44	200.00	1.464	11	1.64	1.30
RADIO 8843 B2/B66A	240.000	0.08	-5.96	3.44	200.00	1.464	11	1.64	1.38
6' Standoff	120.000	0.05	5.10	2.94	205.50	1.473	12	0.41	3.06
15ft Omni Antenna	120.000	0.05	7.70	4.44	213.00	1.484	12	6.00	6.00
Horizontal Support Pipe	0.000	0.07	0.00	-5.89	208.00	1.477	12	1.32	1.32
Horizontal Support Pipe	0.000	0.07	0.00	-5.89	210.00	1.480	12	1.32	1.32
8ft Omni Antenna	0.000	0.03	0.00	-7.89	212.00	1.483	12	2.40	2.40
Dish Pipe Mount	240.000	0.07	-2.93	1.69	209.00	1.478	12	1.32	1.32
FM Antenna	240.000	0.04	-4.23	2.44	219.50	1.493	12	4.00	4.00
(3) 12' Sector Frames	0.000	0.96	0.00	0.00	226.50	1.503	12	20.49	20.49
59.25"x6.5"x3" Panel w/ Mount Pipe	240.000	0.14	-5.96	3.44	226.50	1.503	12	8.37	7.36
59.25"x6.5"x3" Panel w/ Mount Pipe	120.000	0.14	5.96	3.44	226.50	1.503	12	8.37	7.36
59.25"x6.5"x3" Panel w/ Mount Pipe	0.000	0.14	0.00	-6.89	226.50	1.503	12	8.37	7.36
6' Standoff	0.000	0.05	0.00	-5.89	252.00	1.537	12	0.41	3.06
20ft Omni Antenna	0.000	0.05	0.00	-8.89	262.00	1.550	12	6.00	6.00
6' Standoff	240.000	0.05	-5.10	2.94	264.25	1.553	12	0.41	3.06
20ft Omni Antenna	240.000	0.05	-7.70	4.44	274.25	1.565	12	6.00	6.00
Dish Pipe Mount	0.000	0.07	0.00	-3.39	274.00	1.565	12	1.32	1.32
FM Antenna	240.000	0.04	-4.23	2.44	279.00	1.571	12	4.00	4.00
FM Antenna	240.000	0.04	-4.23	2.44	288.00	1.581	12	4.00	4.00
LeBlanc 10' Standoff (1)	300.000	0.55	-5.58	-3.22	294.00	1.588	12	17.00	17.00
LeBlanc 10' Standoff (1)	180.000	0.55	0.00	6.44	294.00	1.588	12	17.00	17.00
20ft Omni Antenna	0.000	0.05	0.00	-8.89	304.00	1.599	13	6.00	6.00
20ft Omni Antenna	0.000	0.05	0.00	-8.89	284.00	1.577	12	6.00	6.00
20ft Omni Antenna	240.000	0.05	-7.70	4.44	284.00	1.577	12	6.00	6.00
3' Standoff	120.000	0.03	3.80	2.19	295.50	1.590	12	0.94	1.41
20ft Omni Antenna	120.000	0.05	5.10	2.94	307.33	1.603	13	6.00	6.00
FM Antenna	0.000	0.04	0.00	-4.89	312.00	1.608	13	4.00	4.00
2' Standoff	240.000	0.10	-3.37	1.94	317.50	1.614	13	2.96	2.11
FM Antenna	240.000	0.04	-2.98	1.72	332.50	1.630	13	4.00	4.00
FM Antenna	240.000	0.04	-2.98	1.72	342.00	1.640	13	4.00	4.00
(3) FM Antennas	120.000	0.24	2.98	1.72	338.00	1.636	13	14.00	14.00
Sum		9.94							
Weight:									

Dish Pressures - No Ice

Elevation ft	Dish Description	Aiming Azimuth °	Weight K	Offset _x ft	Offset _z ft	K _z	A _A ft ²	q _z psf
255.00	6ft Dish	240.000	0.34	-3.37	1.94	1.541	28.30	37
215.00	4ft Dish	240.000	0.17	-3.37	1.94	1.487	12.57	36
210.00	6ft Dish	120.000	0.34	3.37	1.94	1.480	28.30	35
183.00	4ft Dish	120.000	0.17	3.37	1.94	1.437	12.57	34
36.00	SPD3-2.4NS	165.000	0.04	3.37	1.94	1.021	7.88	24
90.00	PR-950	165.000	0.04	3.37	1.94	1.238	25.22	30
106.50	(2) 18" Dishes	-60.000	0.03	0.00	-3.89	1.283	3.14	31
112.00	MTZ-940B	-60.000	0.01	0.00	-3.89	1.296	11.79	31
123.50	(2) 18" Dishes	85.000	0.03	3.37	1.94	1.323	3.14	32

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Elevation ft	Dish Description	Aiming Azimuth °	Weight K	Offset _x ft	Offset _z ft	K _z	A _A ft ²	q _z psf
130.00	P-9A72GN-S	85.000	0.11	3.37	1.94	1.337	22.60	32
209.00	MFF-950B	150.000	0.01	-3.37	1.94	1.478	11.79	35
251.00	P-9A72GN-S	165.000	0.11	3.37	1.94	1.536	22.60	37
274.00	SPD6-58	-45.000	0.13	0.00	-3.89	1.565	28.27	38
308.00	P-9A120GN	285.000	0.11	-3.37	1.94	1.604	10.10	38
317.50	P-9A120GN	160.000	0.11	-3.37	1.94	1.614	10.10	39
	Sum		1.75					
	Weight:							

Dish Pressures - With Ice

Elevation ft	Dish Description	Aiming Azimuth °	Weight K	Offset _x ft	Offset _z ft	K _z	A _A ft ²	q _z psf	t _z in
255.00	6ft Dish	240.000	1.19	-3.37	1.94	1.541	28.30	8	1.8403
215.00	4ft Dish	240.000	0.57	-3.37	1.94	1.487	12.57	8	1.8092
210.00	6ft Dish	120.000	1.17	3.37	1.94	1.480	28.30	8	1.8049
183.00	4ft Dish	120.000	0.56	3.37	1.94	1.437	12.57	8	1.7803
36.00	SPD3-2.4NS	165.000	0.17	3.37	1.94	1.021	9.15	6	1.5131
90.00	PR-950	165.000	0.48	3.37	1.94	1.238	27.70	7	1.6583
106.50	(2) 18" Dishes	-60.000	0.07	0.00	-3.89	1.283	4.05	7	1.6865
112.00	MTZ-940B	-60.000	0.23	0.00	-3.89	1.296	13.53	7	1.6950
123.50	(2) 18" Dishes	85.000	0.07	3.37	1.94	1.323	4.06	7	1.7116
130.00	P-9A72GN-S	85.000	0.63	3.37	1.94	1.337	44.79	7	1.7204
209.00	MFF-950B	150.000	0.24	-3.37	1.94	1.478	13.64	8	1.8041
251.00	P-9A72GN-S	165.000	0.66	3.37	1.94	1.536	46.30	8	1.8374
274.00	SPD6-58	-45.000	0.65	0.00	-3.89	1.565	31.21	9	1.8536
308.00	P-9A120GN	285.000	0.36	-3.37	1.94	1.604	21.31	9	1.8754
317.50	P-9A120GN	160.000	0.36	-3.37	1.94	1.614	21.35	9	1.8811
	Sum		7.42						
	Weight:								

Dish Pressures - Service

Elevation ft	Dish Description	Aiming Azimuth °	Weight K	Offset _x ft	Offset _z ft	K _z	A _A ft ²	q _z psf
255.00	6ft Dish	240.000	0.34	-3.37	1.94	1.541	28.30	12
215.00	4ft Dish	240.000	0.17	-3.37	1.94	1.487	12.57	12
210.00	6ft Dish	120.000	0.34	3.37	1.94	1.480	28.30	12
183.00	4ft Dish	120.000	0.17	3.37	1.94	1.437	12.57	11
36.00	SPD3-2.4NS	165.000	0.04	3.37	1.94	1.021	7.88	8
90.00	PR-950	165.000	0.04	3.37	1.94	1.238	25.22	10
106.50	(2) 18" Dishes	-60.000	0.03	0.00	-3.89	1.283	3.14	10
112.00	MTZ-940B	-60.000	0.01	0.00	-3.89	1.296	11.79	10
123.50	(2) 18" Dishes	85.000	0.03	3.37	1.94	1.323	3.14	10
130.00	P-9A72GN-S	85.000	0.11	3.37	1.94	1.337	22.60	10
209.00	MFF-950B	150.000	0.01	-3.37	1.94	1.478	11.79	12
251.00	P-9A72GN-S	165.000	0.11	3.37	1.94	1.536	22.60	12
274.00	SPD6-58	-45.000	0.13	0.00	-3.89	1.565	28.27	12
308.00	P-9A120GN	285.000	0.11	-3.37	1.94	1.604	10.10	13
317.50	P-9A120GN	160.000	0.11	-3.37	1.94	1.614	10.10	13
	Sum		1.75					
	Weight:							

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Force Totals (Does not include forces on guys)

Load Case	Vertical Forces K	Sum of Forces X K	Sum of Forces Z K	Sum of Torques kip-ft
Leg Weight	17.82			
Bracing Weight	17.33			
Total Member Self-Weight	35.15			
Guy Weight	7.57			
Total Weight	83.17			
Wind 0 deg - No Ice		-0.72	-59.57	-9.60
Wind 30 deg - No Ice		28.01	-49.18	2.31
Wind 60 deg - No Ice		52.94	-30.41	-3.15
Wind 90 deg - No Ice		65.36	0.60	-11.55
Wind 120 deg - No Ice		56.26	31.41	1.64
Wind 150 deg - No Ice		31.79	53.55	14.44
Wind 180 deg - No Ice		0.52	59.06	8.42
Wind 210 deg - No Ice		-28.10	48.15	-3.01
Wind 240 deg - No Ice		-52.57	29.87	6.16
Wind 270 deg - No Ice		-65.10	-1.38	13.17
Wind 300 deg - No Ice		-55.78	-33.07	1.07
Wind 330 deg - No Ice		-31.66	-54.23	-13.67
Member Ice	43.50			
Guy Ice	28.62			
Total Weight Ice	266.71			
Wind 0 deg - Ice		-0.43	-29.29	-5.33
Wind 30 deg - Ice		14.00	-25.36	-1.42
Wind 60 deg - Ice		24.96	-14.56	0.58
Wind 90 deg - Ice		29.29	0.36	-0.11
Wind 120 deg - Ice		25.71	14.56	3.34
Wind 150 deg - Ice		15.07	25.34	6.49
Wind 180 deg - Ice		0.21	28.97	4.14
Wind 210 deg - Ice		-14.67	24.60	0.53
Wind 240 deg - Ice		-24.98	14.22	0.70
Wind 270 deg - Ice		-29.44	-0.79	0.24
Wind 300 deg - Ice		-25.71	-15.35	-2.75
Wind 330 deg - Ice		-15.15	-25.78	-6.95
Total Weight	83.17			
Wind 0 deg - Service		-0.23	-19.45	-3.14
Wind 30 deg - Service		9.14	-16.06	0.76
Wind 60 deg - Service		17.29	-9.93	-1.03
Wind 90 deg - Service		21.34	0.20	-3.77
Wind 120 deg - Service		18.37	10.26	0.54
Wind 150 deg - Service		10.38	17.48	4.72
Wind 180 deg - Service		0.17	19.29	2.75
Wind 210 deg - Service		-9.17	15.72	-0.98
Wind 240 deg - Service		-17.17	9.75	2.01
Wind 270 deg - Service		-21.26	-0.45	4.30
Wind 300 deg - Service		-18.21	-10.80	0.35
Wind 330 deg - Service		-10.34	-17.71	-4.46

Load Combinations

Comb. No.	Description
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<i>Comb. No.</i>	<i>Description</i>
1	Dead Only
2	1.2 Dead+1.6 Wind 0 deg - No Ice+1.0 Guy
3	1.2D+1.6W (pattern 1) 0 deg - No Ice+1.0 Guy
4	1.2D+1.6W (pattern 2) 0 deg - No Ice+1.0 Guy
5	1.2D+1.6W (pattern 3) 0 deg - No Ice+1.0 Guy
6	1.2D+1.6W (pattern 4) 0 deg - No Ice+1.0 Guy
7	1.2D+1.6W (pattern 5) 0 deg - No Ice+1.0 Guy
8	1.2D+1.6W (pattern 6) 0 deg - No Ice+1.0 Guy
9	1.2 Dead+1.6 Wind 30 deg - No Ice+1.0 Guy
10	1.2D+1.6W (pattern 1) 30 deg - No Ice+1.0 Guy
11	1.2D+1.6W (pattern 2) 30 deg - No Ice+1.0 Guy
12	1.2D+1.6W (pattern 3) 30 deg - No Ice+1.0 Guy
13	1.2D+1.6W (pattern 4) 30 deg - No Ice+1.0 Guy
14	1.2D+1.6W (pattern 5) 30 deg - No Ice+1.0 Guy
15	1.2D+1.6W (pattern 6) 30 deg - No Ice+1.0 Guy
16	1.2 Dead+1.6 Wind 60 deg - No Ice+1.0 Guy
17	1.2D+1.6W (pattern 1) 60 deg - No Ice+1.0 Guy
18	1.2D+1.6W (pattern 2) 60 deg - No Ice+1.0 Guy
19	1.2D+1.6W (pattern 3) 60 deg - No Ice+1.0 Guy
20	1.2D+1.6W (pattern 4) 60 deg - No Ice+1.0 Guy
21	1.2D+1.6W (pattern 5) 60 deg - No Ice+1.0 Guy
22	1.2D+1.6W (pattern 6) 60 deg - No Ice+1.0 Guy
23	1.2 Dead+1.6 Wind 90 deg - No Ice+1.0 Guy
24	1.2D+1.6W (pattern 1) 90 deg - No Ice+1.0 Guy
25	1.2D+1.6W (pattern 2) 90 deg - No Ice+1.0 Guy
26	1.2D+1.6W (pattern 3) 90 deg - No Ice+1.0 Guy
27	1.2D+1.6W (pattern 4) 90 deg - No Ice+1.0 Guy
28	1.2D+1.6W (pattern 5) 90 deg - No Ice+1.0 Guy
29	1.2D+1.6W (pattern 6) 90 deg - No Ice+1.0 Guy
30	1.2 Dead+1.6 Wind 120 deg - No Ice+1.0 Guy
31	1.2D+1.6W (pattern 1) 120 deg - No Ice+1.0 Guy
32	1.2D+1.6W (pattern 2) 120 deg - No Ice+1.0 Guy
33	1.2D+1.6W (pattern 3) 120 deg - No Ice+1.0 Guy
34	1.2D+1.6W (pattern 4) 120 deg - No Ice+1.0 Guy
35	1.2D+1.6W (pattern 5) 120 deg - No Ice+1.0 Guy
36	1.2D+1.6W (pattern 6) 120 deg - No Ice+1.0 Guy
37	1.2 Dead+1.6 Wind 150 deg - No Ice+1.0 Guy
38	1.2D+1.6W (pattern 1) 150 deg - No Ice+1.0 Guy
39	1.2D+1.6W (pattern 2) 150 deg - No Ice+1.0 Guy
40	1.2D+1.6W (pattern 3) 150 deg - No Ice+1.0 Guy
41	1.2D+1.6W (pattern 4) 150 deg - No Ice+1.0 Guy
42	1.2D+1.6W (pattern 5) 150 deg - No Ice+1.0 Guy
43	1.2D+1.6W (pattern 6) 150 deg - No Ice+1.0 Guy
44	1.2 Dead+1.6 Wind 180 deg - No Ice+1.0 Guy
45	1.2D+1.6W (pattern 1) 180 deg - No Ice+1.0 Guy
46	1.2D+1.6W (pattern 2) 180 deg - No Ice+1.0 Guy
47	1.2D+1.6W (pattern 3) 180 deg - No Ice+1.0 Guy
48	1.2D+1.6W (pattern 4) 180 deg - No Ice+1.0 Guy
49	1.2D+1.6W (pattern 5) 180 deg - No Ice+1.0 Guy
50	1.2D+1.6W (pattern 6) 180 deg - No Ice+1.0 Guy
51	1.2 Dead+1.6 Wind 210 deg - No Ice+1.0 Guy
52	1.2D+1.6W (pattern 1) 210 deg - No Ice+1.0 Guy
53	1.2D+1.6W (pattern 2) 210 deg - No Ice+1.0 Guy
54	1.2D+1.6W (pattern 3) 210 deg - No Ice+1.0 Guy
55	1.2D+1.6W (pattern 4) 210 deg - No Ice+1.0 Guy
56	1.2D+1.6W (pattern 5) 210 deg - No Ice+1.0 Guy
57	1.2D+1.6W (pattern 6) 210 deg - No Ice+1.0 Guy
58	1.2 Dead+1.6 Wind 240 deg - No Ice+1.0 Guy
59	1.2D+1.6W (pattern 1) 240 deg - No Ice+1.0 Guy
60	1.2D+1.6W (pattern 2) 240 deg - No Ice+1.0 Guy
61	1.2D+1.6W (pattern 3) 240 deg - No Ice+1.0 Guy
62	1.2D+1.6W (pattern 4) 240 deg - No Ice+1.0 Guy

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Comb. No.	Description
63	1.2D+1.6W (pattern 5) 240 deg - No Ice+1.0 Guy
64	1.2D+1.6W (pattern 6) 240 deg - No Ice+1.0 Guy
65	1.2 Dead+1.6 Wind 270 deg - No Ice+1.0 Guy
66	1.2D+1.6W (pattern 1) 270 deg - No Ice+1.0 Guy
67	1.2D+1.6W (pattern 2) 270 deg - No Ice+1.0 Guy
68	1.2D+1.6W (pattern 3) 270 deg - No Ice+1.0 Guy
69	1.2D+1.6W (pattern 4) 270 deg - No Ice+1.0 Guy
70	1.2D+1.6W (pattern 5) 270 deg - No Ice+1.0 Guy
71	1.2D+1.6W (pattern 6) 270 deg - No Ice+1.0 Guy
72	1.2 Dead+1.6 Wind 300 deg - No Ice+1.0 Guy
73	1.2D+1.6W (pattern 1) 300 deg - No Ice+1.0 Guy
74	1.2D+1.6W (pattern 2) 300 deg - No Ice+1.0 Guy
75	1.2D+1.6W (pattern 3) 300 deg - No Ice+1.0 Guy
76	1.2D+1.6W (pattern 4) 300 deg - No Ice+1.0 Guy
77	1.2D+1.6W (pattern 5) 300 deg - No Ice+1.0 Guy
78	1.2D+1.6W (pattern 6) 300 deg - No Ice+1.0 Guy
79	1.2 Dead+1.6 Wind 330 deg - No Ice+1.0 Guy
80	1.2D+1.6W (pattern 1) 330 deg - No Ice+1.0 Guy
81	1.2D+1.6W (pattern 2) 330 deg - No Ice+1.0 Guy
82	1.2D+1.6W (pattern 3) 330 deg - No Ice+1.0 Guy
83	1.2D+1.6W (pattern 4) 330 deg - No Ice+1.0 Guy
84	1.2D+1.6W (pattern 5) 330 deg - No Ice+1.0 Guy
85	1.2D+1.6W (pattern 6) 330 deg - No Ice+1.0 Guy
86	1.2 Dead+1.0 Ice+1.0 Temp+Guy
87	1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp+1.0 Guy
88	1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp+1.0 Guy
89	1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp+1.0 Guy
90	1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp+1.0 Guy
91	1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp+1.0 Guy
92	1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp+1.0 Guy
93	1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp+1.0 Guy
94	1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp+1.0 Guy
95	1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp+1.0 Guy
96	1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp+1.0 Guy
97	1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp+1.0 Guy
98	1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp+1.0 Guy
99	Dead+Wind 0 deg - Service+Guy
100	Dead+Wind 30 deg - Service+Guy
101	Dead+Wind 60 deg - Service+Guy
102	Dead+Wind 90 deg - Service+Guy
103	Dead+Wind 120 deg - Service+Guy
104	Dead+Wind 150 deg - Service+Guy
105	Dead+Wind 180 deg - Service+Guy
106	Dead+Wind 210 deg - Service+Guy
107	Dead+Wind 240 deg - Service+Guy
108	Dead+Wind 270 deg - Service+Guy
109	Dead+Wind 300 deg - Service+Guy
110	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
L1	345 - 330	Latticed Pole Leg	Max Tension	47	8.73	0.20	0.84
			Max. Compression	33	-9.46	0.00	0.00
			Max. Mx	26	5.88	1.15	0.43
			Max. My	12	-0.68	0.59	-1.19
			Max. Vy	26	1.16	0.00	0.00

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Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
T1	330 - 327.719	Latticed Pole	Max. Vx	12	-1.19	0.00	0.00
			Max Tension	19	3.16	0.00	0.00
		Diagonal	Max. Compression	61	-3.12	0.00	0.00
			Max. Mx	91	-1.00	0.01	0.00
			Max. My	91	0.00	0.00	-0.00
			Max. Vy	91	-0.01	0.00	0.00
			Max. Vx	91	-0.00	0.00	0.00
			Max Tension	33	0.02	0.00	0.00
		Latticed Pole Top Girt	Max. Compression	19	-0.02	0.00	0.00
			Max. Mx	86	0.00	0.01	0.00
			Max. My	82	0.00	0.00	-0.00
			Max. Vy	86	0.01	0.00	0.00
			Max. Vx	82	0.00	0.00	0.00
			Max Tension	76	1.11	0.00	0.00
		Latticed Pole Bottom Girt	Max. Compression	33	-1.24	0.00	0.00
			Max. Mx	95	-0.49	0.01	0.00
			Max. My	82	0.11	0.00	-0.00
			Max. Vy	95	0.01	0.00	0.00
			Max. Vx	82	0.00	0.00	0.00
			Max Tension	62	0.19	0.00	0.00
		Latticed Pole Mid Girt	Max. Compression	47	-0.18	0.00	0.00
			Max. Mx	86	0.01	0.01	0.00
			Max. My	82	0.00	0.00	-0.00
			Max. Vy	86	0.01	0.00	0.00
			Max. Vx	82	0.00	0.00	0.00
			Max Tension	1	0.00	0.00	0.00
		Leg	Max. Compression	85	-17.92	0.04	0.00
			Max. Mx	91	-6.23	-0.69	0.39
			Max. My	93	-7.10	0.01	-0.80
			Max. Vy	97	3.80	0.52	0.30
			Max. Vx	93	-4.35	0.00	-0.60
			Max Tension	15	1.53	0.00	0.00
		Diagonal	Max. Compression	94	-4.47	0.00	0.00
			Max. Mx	91	-3.24	0.01	0.00
			Max. My	98	-3.25	0.00	0.00
			Max. Vy	91	-0.01	0.00	0.00
			Max. Vx	98	-0.00	0.00	0.00
			Max Tension	85	0.27	0.00	0.00
		Horizontal	Max. Compression	85	-0.27	0.04	-0.00
			Max. Mx	82	-0.24	-0.52	0.00
			Max. My	33	0.13	0.13	-0.00
			Max. Vy	82	0.23	-0.52	0.00
			Max. Vx	61	0.00	-0.06	-0.00
			Max Tension	87	1.40	0.00	0.00
		Secondary Horizontal	Max. Compression	85	-0.27	0.00	0.00
			Max. Mx	89	1.33	0.03	0.00
			Max. My	82	0.24	0.00	-0.00
			Max. Vy	89	0.02	0.00	0.00
			Max. Vx	82	-0.00	0.00	0.00
			Bottom Tension	39	19.69		
		Guy A	Top Tension	39	20.00		
			Top Cable Vert	39	17.17		
			Top Cable Norm	39	10.25		
			Top Cable Tan	39	0.19		
			Bot Cable Vert	39	-16.39		
			Bot Cable Norm	39	10.91		

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Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
T2	327.719 - 320.875	Guy B	Bot Cable Tan	39	0.33		
			Bottom Tension	74	21.14		
			Top Tension	74	21.50		
			Top Cable Vert	74	19.05		
			Top Cable Norm	74	9.97		
			Top Cable Tan	74	0.00		
			Bot Cable Vert	74	-18.16		
			Bot Cable Norm	74	10.83		
		Guy C	Bot Cable Tan	74	0.00		
			Bottom Tension	25	19.45		
			Top Tension	25	19.76		
			Top Cable Vert	25	17.00		
			Top Cable Norm	25	10.07		
			Top Cable Tan	25	0.20		
			Bot Cable Vert	25	-16.21		
			Bot Cable Norm	25	10.74		
		Leg	Bot Cable Tan	25	0.34		
			Max Tension	8	1.88	-0.03	0.11
			Max. Compression	78	-23.05	-0.01	0.00
			Max. Mx	87	-11.64	-0.21	0.11
			Max. My	93	-12.91	-0.00	-0.23
			Max. Vy	97	3.80	0.20	0.12
			Max. Vx	93	-4.36	-0.00	-0.23
		Diagonal	Max Tension	15	1.39	0.00	0.00
			Max. Compression	15	-1.54	0.00	0.00
			Max. Mx	91	0.68	0.03	0.00
			Max. My	98	0.16	0.00	0.00
			Max. Vy	91	-0.02	0.00	0.00
			Max. Vx	98	-0.00	0.00	0.00
		Horizontal	Max Tension	98	2.02	0.00	0.00
			Max. Compression	97	-0.16	0.00	0.00
			Max. Mx	98	0.32	0.03	0.00
			Max. My	82	0.25	0.00	-0.00
			Max. Vy	98	-0.02	0.00	0.00
			Max. Vx	82	-0.00	0.00	0.00
T3	320.875 - 320	Leg	Max Tension	8	2.38	-0.00	0.11
			Max. Compression	78	-23.62	-0.03	-0.02
			Max. Mx	78	-23.05	-0.12	-0.07
			Max. My	50	-20.17	-0.00	0.12
			Max. Vy	78	1.30	-0.01	0.00
			Max. Vx	50	-1.42	0.01	0.00
		Diagonal	Max Tension	15	1.26	0.00	0.00
			Max. Compression	15	-1.32	0.00	0.00
			Max. Mx	91	0.19	0.01	0.00
			Max. My	98	0.19	0.00	0.00
			Max. Vy	91	0.01	0.00	0.00
			Max. Vx	98	0.00	0.00	0.00
		Horizontal	Max Tension	15	1.36	0.00	0.00
			Max. Compression	15	-1.13	-0.00	-0.00
			Max. Mx	87	-0.27	-0.01	0.00
			Max. My	79	-0.37	-0.00	0.00
			Max. Vy	87	0.02	-0.01	0.00
			Max. Vx	79	-0.00	-0.00	0.00
T4	320 - 300.875	Leg	Max Tension	8	5.73	-0.01	-0.03
			Max. Compression	78	-27.52	-0.03	-0.02
			Max. Mx	27	-6.78	0.17	-0.05
			Max. My	41	-14.32	0.04	0.15
			Max. Vy	76	-1.35	0.02	0.06
			Max. Vx	8	1.35	0.01	-0.01
		Diagonal	Max Tension	76	1.56	0.00	0.00

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T5	300.875 - 300	Top Girt	Max. Compression	27	-1.58	0.00	0.00
			Max. Mx	91	0.19	0.03	0.00
			Max. My	98	0.19	0.00	0.00
			Max. Vy	91	-0.02	0.00	0.00
			Max. Vx	98	-0.00	0.00	0.00
			Max Tension	88	0.12	0.00	0.00
			Max. Compression	15	-0.01	0.00	0.00
			Max. Mx	89	0.11	0.03	0.00
			Max. My	82	0.07	0.00	-0.00
			Max. Vy	89	-0.02	0.00	0.00
		Mid Girt	Max. Vx	82	-0.00	0.00	0.00
			Max Tension	8	0.17	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	89	0.08	0.03	0.00
			Max. My	82	0.08	0.00	-0.00
			Max. Vy	89	-0.02	0.00	0.00
			Max. Vx	82	-0.00	0.00	0.00
			Max Tension	8	5.22	0.03	-0.06
			Max. Compression	85	-26.98	-0.26	-0.08
		Diagonal	Max. Mx	3	-18.74	0.31	-0.02
			Max. My	48	-13.64	-0.00	0.31
			Max. Vy	27	1.55	-0.22	-0.01
			Max. Vx	41	1.18	0.13	-0.26
			Max Tension	27	1.54	0.00	0.00
			Max. Compression	27	-1.61	0.00	0.00
			Max. Mx	91	-0.48	0.01	0.00
			Max. My	98	-0.18	0.00	0.00
			Max. Vy	91	0.01	0.00	0.00
			Max. Vx	98	-0.00	0.00	0.00
		Horizontal	Max Tension	27	1.31	0.00	0.00
			Max. Compression	76	-1.77	-0.01	-0.00
			Max. Mx	91	-0.31	-0.01	0.00
			Max. My	69	1.27	-0.00	-0.00
			Max. Vy	91	0.02	-0.01	0.00
			Max. Vx	69	0.00	0.00	0.00
T6	300 - 280.875	Leg	Max Tension	8	5.66	-0.14	-0.01
			Max. Compression	85	-41.80	-0.17	-0.06
			Max. Mx	64	-28.43	-0.58	0.22
			Max. My	4	-30.65	-0.14	-0.73
			Max. Vy	33	2.21	0.01	-0.07
			Max. Vx	5	-1.90	0.07	0.02
		Diagonal	Max Tension	76	3.59	0.00	0.00
			Max. Compression	75	-2.68	0.00	0.00
			Max. Mx	91	0.93	0.03	0.00
			Max. My	98	1.51	0.00	0.00
			Max. Vy	91	-0.02	0.00	0.00
			Max. Vx	98	0.00	0.00	0.00
		Top Girt	Max Tension	1	0.00	0.00	0.00
			Max. Compression	31	-1.65	0.00	0.00
			Max. Mx	89	-0.93	0.03	0.00
			Max. My	82	-1.06	0.00	-0.00
			Max. Vy	89	0.02	0.00	0.00
			Max. Vx	82	-0.00	0.00	0.00
		Mid Girt	Max Tension	1	0.00	0.00	0.00
			Max. Compression	33	-0.25	0.00	0.00
			Max. Mx	89	-0.09	0.03	0.00
			Max. My	82	-0.14	0.00	-0.00
			Max. Vy	89	0.02	0.00	0.00
			Max. Vx	82	-0.00	0.00	0.00
		Guy A	Bottom Tension	38	14.16		
			Top Tension	38	14.34		

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Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
T7	280.875 - 280	Guy B	Top Cable Vert	38	11.92		
			Top Cable Norm	38	7.97		
			Top Cable Tan	38	0.14		
			Bot Cable Vert	38	-11.38		
			Bot Cable Norm	38	8.41		
			Bot Cable Tan	38	0.24		
			Bottom Tension	73	15.14		
			Top Tension	73	15.36		
			Top Cable Vert	73	13.31		
			Top Cable Norm	73	7.67		
			Top Cable Tan	73	0.00		
			Bot Cable Vert	73	-12.69		
			Bot Cable Norm	73	8.27		
			Bot Cable Tan	73	0.00		
		Guy C	Bottom Tension	24	14.05		
			Top Tension	24	14.24		
			Top Cable Vert	24	11.88		
			Top Cable Norm	24	7.85		
			Top Cable Tan	24	0.14		
			Bot Cable Vert	24	-11.33		
			Bot Cable Norm	24	8.31		
			Bot Cable Tan	24	0.25		
			Max Tension	8	2.26	0.07	0.00
			Max. Compression	85	-39.08	-0.04	-0.05
			Max. Mx	33	-17.55	-0.17	-0.07
			Max. My	5	-16.84	-0.02	0.18
			Max. Vy	75	-2.30	0.10	-0.07
			Max. Vx	5	-1.93	0.06	0.15
		Diagonal	Max Tension	75	2.57	0.00	0.00
			Max. Compression	75	-2.63	0.00	0.00
			Max. Mx	97	0.76	0.01	0.00
			Max. My	98	-0.08	0.00	0.00
			Max. Vy	97	-0.01	0.00	0.00
			Max. Vx	98	-0.00	0.00	0.00
		Horizontal	Max Tension	75	2.56	-0.00	-0.00
			Max. Compression	75	-2.43	-0.00	-0.00
			Max. Mx	97	0.54	-0.01	-0.00
			Max. My	5	-2.17	-0.00	-0.00
			Max. Vy	97	-0.02	-0.01	-0.00
			Max. Vx	5	0.00	-0.00	-0.00
T8	280 - 260.875	Leg	Max Tension	7	9.20	0.23	0.20
			Max. Compression	85	-74.15	-0.13	0.09
			Max. Mx	28	-24.36	0.37	0.13
			Max. My	80	-70.73	0.05	0.39
			Max. Vy	20	-3.68	-0.27	0.15
			Max. Vx	48	-4.07	-0.15	-0.29
		Diagonal	Max Tension	80	4.87	0.00	0.00
			Max. Compression	80	-4.97	0.00	0.00
			Max. Mx	97	-0.43	0.03	0.00
			Max. My	82	2.17	0.00	0.00
			Max. Vy	97	0.02	0.00	0.00
			Max. Vx	82	-0.00	0.00	0.00
		Top Girt	Max Tension	36	0.51	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	89	0.20	0.03	0.00
			Max. My	82	0.25	0.00	-0.00
			Max. Vy	89	0.02	0.00	0.00
			Max. Vx	82	-0.00	0.00	0.00
		Mid Girt	Max Tension	31	7.39	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	88	3.54	0.03	0.00

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Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
T9	260.875 - 260	Guy A	Max. My	82	3.80	0.00	-0.00
			Max. Vy	88	0.02	0.00	0.00
			Max. Vx	82	-0.00	0.00	0.00
			Bottom Tension	38	30.89		
			Top Tension	38	31.24		
			Top Cable Vert	38	24.96		
			Top Cable Norm	38	18.79		
			Top Cable Tan	38	0.13		
			Bot Cable Vert	38	-24.10		
			Bot Cable Norm	38	19.33		
			Bot Cable Tan	38	0.36		
		Guy B	Bottom Tension	73	32.98		
			Top Tension	73	33.40		
			Top Cable Vert	73	28.10		
			Top Cable Norm	73	18.06		
			Top Cable Tan	73	0.00		
			Bot Cable Vert	73	-27.10		
			Bot Cable Norm	73	18.80		
			Bot Cable Tan	73	0.00		
		Guy C	Bottom Tension	24	30.81		
			Top Tension	24	31.17		
			Top Cable Vert	24	25.03		
			Top Cable Norm	24	18.58		
			Top Cable Tan	24	0.14		
			Bot Cable Vert	24	-24.14		
			Bot Cable Norm	24	19.13		
			Bot Cable Tan	24	0.37		
		Leg	Max Tension	7	10.41	0.04	0.27
			Max. Compression	85	-75.34	-0.01	-0.16
			Max. Mx	76	-60.28	-0.35	-0.22
			Max. My	48	-53.02	0.01	0.38
			Max. Vy	20	-3.68	0.04	-0.03
			Max. Vx	48	-4.07	-0.07	0.04
		Diagonal	Max Tension	80	4.64	0.00	0.00
			Max. Compression	80	-4.71	0.00	0.00
			Max. Mx	97	-0.32	0.01	0.00
			Max. My	82	1.10	0.00	0.00
			Max. Vy	97	0.01	0.00	0.00
			Max. Vx	82	-0.00	0.00	0.00
		Horizontal	Max Tension	80	4.81	-0.00	-0.00
			Max. Compression	80	-4.17	0.00	0.00
			Max. Mx	87	-0.85	-0.01	0.00
			Max. My	80	-4.17	-0.00	-0.00
			Max. Vy	87	0.02	-0.01	0.00
			Max. Vx	80	0.00	-0.00	-0.00
T10	260 - 240.875	Leg	Max Tension	7	21.24	-0.05	-0.09
			Max. Compression	80	-88.21	-0.15	0.03
			Max. Mx	73	-12.10	-0.34	-0.11
			Max. My	80	-75.72	-0.13	-0.44
			Max. Vy	20	-3.07	0.06	-0.03
			Max. Vx	6	3.42	-0.07	0.03
		Diagonal	Max Tension	80	4.33	0.00	0.00
			Max. Compression	80	-4.61	0.00	0.00
			Max. Mx	97	0.13	0.03	0.00
			Max. My	82	1.26	0.00	0.00
			Max. Vy	97	0.02	0.00	0.00
			Max. Vx	82	-0.00	0.00	0.00
		Top Girt	Max Tension	87	0.25	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	94	0.23	0.03	0.00
			Max. My	82	0.15	0.00	-0.00

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Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
T11	240.875 - 240	Mid Girt	Max. Vy	94	0.02	0.00	0.00
			Max. Vx	82	-0.00	0.00	0.00
			Max Tension	7	0.80	0.00	0.00
			Max. Compression	77	-0.25	0.00	0.00
			Max. Mx	88	0.20	0.03	0.00
			Max. My	81	0.21	0.00	-0.00
		Leg	Max. Vy	88	-0.02	0.00	0.00
			Max. Vx	81	-0.00	0.00	0.00
			Max Tension	7	21.23	0.08	-0.03
			Max. Compression	80	-88.43	-0.04	-0.13
			Max. Mx	69	-75.99	-0.16	-0.10
			Max. My	48	-72.41	0.02	0.19
		Diagonal	Max. Vy	38	-1.79	0.11	0.09
			Max. Vx	82	-1.75	0.11	0.08
			Max Tension	38	2.29	0.00	0.00
			Max. Compression	38	-2.36	0.00	0.00
			Max. Mx	97	0.17	0.01	0.00
			Max. My	81	1.48	0.00	0.00
		Horizontal	Max. Vy	97	-0.01	0.00	0.00
			Max. Vx	81	-0.00	0.00	0.00
			Max Tension	38	2.37	0.00	0.00
			Max. Compression	38	-2.10	0.00	0.00
			Max. Mx	87	-0.94	-0.01	-0.00
			Max. My	38	-1.40	-0.00	-0.00
T12	240 - 220.875	Leg	Max. Vy	87	0.02	-0.01	-0.00
			Max. Vx	38	0.00	-0.00	-0.00
			Max Tension	7	21.21	-0.09	0.00
			Max. Compression	80	-88.94	0.09	-0.02
			Max. Mx	85	-81.61	-0.31	0.03
			Max. My	8	-62.20	-0.05	-0.41
		Diagonal	Max. Vy	32	3.05	0.03	-0.08
			Max. Vx	8	-2.85	-0.01	-0.17
			Max Tension	8	3.71	0.00	0.00
			Max. Compression	8	-3.75	0.00	0.00
			Max. Mx	97	0.20	0.03	0.00
			Max. My	81	1.54	0.00	0.00
		Top Girt	Max. Vy	97	0.02	0.00	0.00
			Max. Vx	81	-0.00	0.00	0.00
			Max Tension	8	0.37	0.00	0.00
			Max. Compression	78	-0.06	0.00	0.00
			Max. Mx	90	0.16	0.03	0.00
			Max. My	81	0.13	0.00	-0.00
		Mid Girt	Max. Vy	90	0.02	0.00	0.00
			Max. Vx	81	-0.00	0.00	0.00
			Max Tension	7	0.58	0.00	0.00
			Max. Compression	77	-0.06	0.00	0.00
			Max. Mx	97	0.28	0.03	0.00
			Max. My	81	0.28	0.00	-0.00
T13	220.875 - 220	Leg	Max. Vy	97	0.02	0.00	0.00
			Max. Vx	81	-0.00	0.00	0.00
			Max Tension	7	10.19	0.09	-0.00
			Max. Compression	80	-83.71	-0.17	-0.13
			Max. Mx	33	-39.72	-0.23	-0.09
			Max. My	43	-40.66	-0.10	-0.29
		Diagonal	Max. Vy	32	3.05	-0.22	-0.08
			Max. Vx	8	-2.94	0.17	0.21
			Max Tension	8	3.63	0.00	0.00
			Max. Compression	8	-3.70	0.00	0.00
			Max. Mx	97	0.34	0.01	0.00
			Max. My	81	2.81	0.00	0.00

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Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
T14	220 - 201	Horizontal	Max. Vx	81	-0.00	0.00	0.00
			Max Tension	4	3.61	-0.00	-0.00
			Max. Compression	8	-3.47	-0.00	-0.00
		Leg	Max. Mx	91	-1.07	-0.01	-0.00
			Max. My	8	-3.47	-0.00	-0.00
			Max. Vy	91	-0.02	-0.01	-0.00
			Max. Vx	8	0.00	-0.00	-0.00
			Max Tension	7	9.16	-0.16	0.08
			Max. Compression	80	-82.98	0.23	-0.14
			Max. Mx	78	-41.12	-0.57	-0.13
			Max. My	43	-40.66	-0.22	-0.51
			Max. Vy	32	6.43	-0.02	-0.11
		Diagonal	Max. Vx	4	-6.19	0.07	0.07
			Max Tension	32	5.94	0.00	0.00
			Max. Compression	32	-6.23	0.00	0.00
			Max. Mx	97	0.85	0.03	0.00
			Max. My	81	3.09	0.00	0.00
		Top Girt	Max. Vy	97	-0.02	0.00	0.00
			Max. Vx	81	-0.00	0.00	0.00
			Max Tension	8	0.60	0.00	0.00
			Max. Compression	77	-0.23	0.00	0.00
			Max. Mx	97	0.16	0.04	0.00
			Max. My	81	0.18	0.00	-0.00
			Max. Vy	97	-0.03	0.00	0.00
		Mid Girt	Max. Vx	81	0.00	0.00	0.00
			Max Tension	31	0.76	0.00	0.00
			Max. Compression	77	-0.13	0.00	0.00
T15	201 - 200	Leg	Max. Mx	86	0.44	0.04	0.00
			Max. My	81	0.43	0.00	-0.00
			Max. Vy	86	-0.03	0.00	0.00
			Max. Vx	81	0.00	0.00	0.00
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	33	-72.42	-0.21	0.09
		Diagonal	Max. Mx	32	-45.02	-0.55	-0.24
			Max. My	4	-44.43	-0.06	0.58
			Max. Vy	32	6.43	-0.55	-0.24
			Max. Vx	4	-6.19	-0.06	0.58
			Max Tension	32	6.29	0.00	0.00
			Max. Compression	32	-6.38	0.00	0.00
		Horizontal	Max. Mx	97	1.03	0.01	0.00
			Max. My	81	4.88	0.00	0.00
			Max. Vy	97	-0.01	0.00	0.00
			Max. Vx	81	-0.00	0.00	0.00
			Max Tension	32	6.19	0.00	0.00
			Max. Compression	32	-5.83	0.00	0.00
			Max. Mx	97	-1.03	-0.01	0.00
			Max. My	39	-0.73	-0.01	-0.00
			Max. Vy	97	0.02	-0.01	0.00
T16	200 - 181	Leg	Max. Vx	39	0.00	-0.01	-0.00
			Max Tension	72	55.07	-0.69	-0.19
			Max. Compression	32	-145.56	-0.28	-0.31
			Max. Mx	71	-50.29	-1.16	-0.05
			Max. My	85	-46.39	-0.80	-1.28
			Max. Vy	32	13.05	-0.28	-0.31
			Max. Vx	4	-13.59	0.10	0.39
		Diagonal	Max Tension	32	10.54	0.00	0.00
			Max. Compression	32	-11.06	0.00	0.00
			Max. Mx	97	1.26	0.04	0.00
			Max. My	81	6.17	0.00	0.00
			Max. Vy	97	-0.03	0.00	0.00
			Max. Vx	81	-0.00	0.00	0.00

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Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
T17	181 - 180	Top Girt	Max Tension	31	1.31	0.00	0.00
			Max. Compression	77	-0.86	0.00	0.00
			Max. Mx	86	0.34	0.04	0.00
			Max. My	81	0.26	0.00	-0.00
			Max. Vy	86	-0.03	0.00	0.00
			Max. Vx	81	0.00	0.00	0.00
		Mid Girt	Max Tension	75	0.84	0.00	0.00
			Max. Compression	33	-0.10	0.00	0.00
			Max. Mx	86	0.57	0.04	0.00
			Max. My	81	0.43	0.00	-0.00
			Max. Vy	86	-0.03	0.00	0.00
			Max. Vx	81	0.00	0.00	0.00
		Leg	Max Tension	72	60.31	-0.90	-0.57
			Max. Compression	32	-151.05	-0.31	0.09
			Max. Mx	71	-50.63	2.04	0.19
			Max. My	43	-42.31	-0.94	-2.06
			Max. Vy	32	13.05	-1.37	-0.78
			Max. Vx	4	-13.58	-0.03	1.52
		Diagonal	Max Tension	32	10.20	0.00	0.00
			Max. Compression	32	-10.28	0.00	0.00
			Max. Mx	98	2.15	0.01	0.00
			Max. My	81	7.25	0.00	0.00
			Max. Vy	98	-0.01	0.00	0.00
			Max. Vx	81	-0.00	0.00	0.00
		Horizontal	Max Tension	32	11.28	0.00	0.00
			Max. Compression	78	-10.90	-0.02	-0.01
			Max. Mx	36	-2.20	-0.03	-0.00
			Max. My	72	7.49	-0.02	-0.01
			Max. Vy	87	0.02	-0.02	-0.00
			Max. Vx	72	-0.00	-0.02	-0.01
T18	180 - 161	Leg	Max Tension	72	60.31	-0.08	-0.21
			Max. Compression	32	-174.68	-0.08	-0.17
			Max. Mx	71	-50.63	2.61	0.24
			Max. My	43	-42.31	-1.32	-2.71
			Max. Vy	32	10.69	-1.20	-0.26
			Max. Vx	4	-10.93	-0.30	1.12
		Diagonal	Max Tension	33	8.02	0.00	0.00
			Max. Compression	33	-7.93	0.00	0.00
			Max. Mx	97	-1.00	0.03	0.00
			Max. My	81	0.31	0.00	0.00
			Max. Vy	97	-0.02	0.00	0.00
			Max. Vx	81	-0.00	0.00	0.00
		Top Girt	Max Tension	78	10.98	0.00	0.00
			Max. Compression	36	-13.12	0.00	0.00
			Max. Mx	86	-0.85	0.04	0.00
			Max. My	81	-1.72	0.00	-0.00
			Max. Vy	86	0.03	0.00	0.00
			Max. Vx	81	0.00	0.00	0.00
		Mid Girt	Max Tension	37	1.48	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	86	0.91	0.04	0.00
			Max. My	81	0.83	0.00	-0.00
			Max. Vy	86	0.03	0.00	0.00
			Max. Vx	81	0.00	0.00	0.00
		Guy A	Bottom Tension	43	38.06		
			Top Tension	43	38.35		
			Top Cable Vert	43	24.57		
			Top Cable Norm	43	29.45		
			Top Cable Tan	43	0.09		
			Bot Cable Vert	43	-23.79		
			Bot Cable Norm	43	29.71		

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Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
T19	161 - 160	Guy B	Bot Cable Tan	43	0.29		
			Bottom Tension	71	42.55		
			Top Tension	71	42.94		
			Top Cable Vert	71	31.28		
			Top Cable Norm	71	29.42		
			Top Cable Tan	71	0.10		
			Bot Cable Vert	71	-30.37		
			Bot Cable Norm	71	29.80		
		Guy C	Bot Cable Tan	71	0.34		
			Bottom Tension	29	39.34		
			Top Tension	29	39.66		
			Top Cable Vert	29	25.92		
			Top Cable Norm	29	30.02		
			Top Cable Tan	29	0.09		
			Bot Cable Vert	29	-25.11		
			Bot Cable Norm	29	30.29		
		Torque Arm Top	Bot Cable Tan	29	0.31		
			Max Tension	85	32.51	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	97	18.46	0.11	0.00
			Max. My	81	21.65	0.00	-0.00
			Max. Vy	97	-0.09	0.00	0.00
			Max. Vx	81	0.00	0.00	0.00
		Torque Arm Bottom	Max Tension	30	8.14	0.00	0.00
			Max. Compression	79	-25.47	0.00	0.00
			Max. Mx	97	-4.51	0.10	0.00
			Max. My	81	2.75	0.00	0.00
			Max. Vy	97	-0.09	0.00	0.00
			Max. Vx	81	-0.00	0.00	0.00
		Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	32	-142.17	-0.36	-0.22
			Max. Mx	33	-100.96	-0.44	-0.26
			Max. My	5	-100.52	0.01	0.47
			Max. Vy	19	-4.10	0.02	0.03
			Max. Vx	47	-4.66	-0.04	0.00
		Diagonal	Max Tension	33	4.98	0.00	0.00
			Max. Compression	33	-5.06	0.00	0.00
			Max. Mx	97	-1.31	0.01	0.00
			Max. My	67	-2.92	0.00	-0.00
			Max. Vy	97	-0.01	0.00	0.00
			Max. Vx	67	0.00	0.00	0.00
		Horizontal	Max Tension	33	4.94	0.00	0.00
			Max. Compression	33	-4.58	0.00	0.00
			Max. Mx	97	-1.81	-0.01	0.00
			Max. My	24	1.24	-0.01	-0.00
			Max. Vy	97	0.02	-0.01	0.00
			Max. Vx	24	0.00	0.00	0.00
T20	160 - 141	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	32	-140.79	0.01	0.21
			Max. Mx	26	-64.85	0.54	0.14
			Max. My	47	-36.03	0.09	0.47
			Max. Vy	61	4.04	0.08	-0.01
			Max. Vx	5	4.61	-0.05	0.09
		Diagonal	Max Tension	33	4.51	0.00	0.00
			Max. Compression	33	-5.21	0.00	0.00
			Max. Mx	97	-1.49	0.03	0.00
			Max. My	66	-1.84	0.00	-0.00
			Max. Vy	97	-0.02	0.00	0.00
			Max. Vx	66	0.00	0.00	0.00
		Top Girt	Max Tension	74	0.65	0.00	0.00
			Max. Compression	32	-0.04	0.00	0.00

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Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
T21	141 - 140	Mid Girt	Max. Mx	86	0.45	0.04	0.00
			Max. My	80	0.35	0.00	-0.00
			Max. Vy	86	0.03	0.00	0.00
			Max. Vx	80	0.00	0.00	0.00
			Max Tension	97	0.92	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	86	0.83	0.04	0.00
			Max. My	66	0.65	0.00	-0.00
			Max. Vy	86	0.03	0.00	0.00
			Max. Vx	66	0.00	0.00	0.00
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	4	-122.95	0.02	0.29
		Leg	Max. Mx	32	-119.93	-0.25	-0.16
			Max. My	4	-122.40	0.02	0.29
			Max. Vy	12	-1.80	0.06	-0.07
			Max. Vx	44	-1.99	-0.05	0.06
			Max Tension	33	2.36	0.00	0.00
			Max. Compression	33	-2.44	0.00	0.00
			Max. Mx	98	-0.69	0.01	0.00
			Max. My	67	-1.61	0.00	-0.00
		Diagonal	Max. Vy	98	-0.01	0.00	0.00
			Max. Vx	67	0.00	0.00	0.00
			Max Tension	33	2.50	0.00	0.00
			Max. Compression	4	-2.13	-0.01	-0.00
		Horizontal	Max. Mx	97	-1.80	-0.01	0.00
			Max. My	24	1.25	-0.01	-0.00
			Max. Vy	97	0.02	-0.01	0.00
			Max. Vx	24	0.00	0.00	0.00
T22	140 - 121	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	4	-122.40	-0.06	0.06
			Max. Mx	66	-67.03	-0.35	0.04
			Max. My	98	-107.28	0.01	0.30
			Max. Vy	66	-3.20	0.06	-0.14
			Max. Vx	3	-2.64	0.01	0.15
		Diagonal	Max Tension	66	2.72	0.00	0.00
			Max. Compression	66	-3.23	0.00	0.00
			Max. Mx	98	-0.85	0.03	0.00
			Max. My	66	-0.32	0.00	-0.00
			Max. Vy	98	-0.02	0.00	0.00
			Max. Vx	66	0.00	0.00	0.00
		Top Girt	Max Tension	97	0.53	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	86	0.47	0.04	0.00
			Max. My	66	0.34	0.00	-0.00
			Max. Vy	86	0.03	0.00	0.00
			Max. Vx	66	0.00	0.00	0.00
		Mid Girt	Max Tension	94	0.94	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	86	0.87	0.04	0.00
			Max. My	66	0.68	0.00	-0.00
			Max. Vy	86	0.03	0.00	0.00
			Max. Vx	66	0.00	0.00	0.00
T23	121 - 120	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	4	-119.42	-0.02	0.18
			Max. Mx	59	-96.48	0.33	-0.18
			Max. My	3	-106.86	0.00	0.37
			Max. Vy	66	-3.20	0.32	-0.17
			Max. Vx	3	-2.64	0.00	0.37
		Diagonal	Max Tension	66	3.05	0.00	0.00
			Max. Compression	66	-3.14	0.00	0.00
			Max. Mx	98	0.02	0.01	0.00

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Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
T24	120 - 101	Horizontal	Max. My	66	0.04	0.00	-0.00
			Max. Vy	98	0.01	0.00	0.00
			Max. Vx	66	0.00	0.00	0.00
			Max Tension	66	3.26	-0.01	-0.00
			Max. Compression	66	-2.61	-0.01	-0.00
			Max. Mx	97	-1.87	-0.01	0.00
		Leg	Max. My	66	-2.61	-0.01	-0.00
			Max. Vy	97	0.02	-0.01	0.00
			Max. Vx	66	0.00	-0.01	-0.00
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	3	-139.36	0.02	0.41
			Max. Mx	69	-44.05	-0.83	-0.41
		Diagonal	Max. My	41	-40.63	-0.05	0.80
			Max. Vy	66	-5.79	0.35	-0.19
			Max. Vx	3	-5.50	0.02	0.41
			Max Tension	66	4.41	0.00	0.00
			Max. Compression	66	-5.17	0.00	0.00
			Max. Mx	98	-0.25	0.03	0.00
		Top Girt	Max. My	66	1.59	0.00	-0.00
			Max. Vy	98	0.02	0.00	0.00
			Max. Vx	66	0.00	0.00	0.00
			Max Tension	95	0.54	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	86	0.49	0.03	0.00
		Mid Girt	Max. My	66	0.35	0.00	-0.00
			Max. Vy	86	-0.03	0.00	0.00
			Max. Vx	66	0.00	0.00	0.00
			Max Tension	97	1.01	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	86	0.93	0.03	0.00
T25	101 - 100	Leg	Max. My	66	0.73	0.00	-0.00
			Max. Vy	86	-0.03	0.00	0.00
			Max. Vx	66	0.00	0.00	0.00
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	3	-141.39	-0.01	0.21
			Max. Mx	27	-40.44	-1.02	0.50
		Diagonal	Max. My	41	-39.16	-0.04	-1.03
			Max. Vy	66	-5.98	0.86	0.41
			Max. Vx	3	-5.49	0.00	0.87
			Max Tension	66	4.77	0.00	0.00
			Max. Compression	66	-4.81	0.00	0.00
			Max. Mx	98	0.52	0.01	0.00
		Horizontal	Max. My	66	1.77	0.00	-0.00
			Max. Vy	98	-0.01	0.00	0.00
			Max. Vx	66	0.00	0.00	0.00
			Max Tension	66	5.55	0.01	0.00
			Max. Compression	66	-3.53	0.01	0.00
			Max. Mx	34	1.21	0.02	-0.00
T26	100 - 81	Leg	Max. My	84	-2.06	0.01	0.00
			Max. Vy	91	0.02	0.00	0.00
			Max. Vx	84	-0.00	0.00	0.00
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	3	-141.40	-0.02	0.54
			Max. Mx	69	-42.21	1.52	0.68
		Diagonal	Max. My	41	-39.17	-0.08	-1.47
			Max. Vy	66	-5.97	0.86	0.41
			Max. Vx	48	5.38	0.04	-1.44
			Max Tension	81	6.20	0.00	0.00
			Max. Compression	79	-6.05	0.00	0.00
			Max. Mx	98	-1.22	0.03	0.00
			Max. My	66	-1.61	0.00	-0.00

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Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
T27	81 - 80	Top Girt	Max. Vy	98	-0.02	0.00	0.00
			Max. Vx	66	0.00	0.00	0.00
			Max Tension	34	13.13	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
		Mid Girt	Max. Mx	86	7.18	0.03	0.00
			Max. My	66	6.99	0.00	-0.00
			Max. Vy	86	-0.03	0.00	0.00
			Max. Vx	66	0.00	0.00	0.00
		Guy A	Max Tension	88	1.14	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	86	1.07	0.03	0.00
			Max. My	66	0.88	0.00	-0.00
		Guy B	Max. Vy	86	-0.03	0.00	0.00
			Max. Vx	66	0.00	0.00	0.00
			Bottom Tension	41	32.63		
			Top Tension	41	32.78		
		Guy C	Top Cable Vert	41	13.18		
			Top Cable Norm	41	30.02		
			Top Cable Tan	41	0.06		
			Bot Cable Vert	41	-12.64		
		Guy B	Bot Cable Norm	41	30.08		
			Bot Cable Tan	41	0.17		
			Bottom Tension	69	39.84		
			Top Tension	69	40.08		
		Guy C	Top Cable Vert	69	22.45		
			Top Cable Norm	69	33.20		
			Top Cable Tan	69	0.04		
			Bot Cable Vert	69	-21.80		
		Guy C	Bot Cable Norm	69	33.34		
			Bot Cable Tan	69	0.21		
			Bottom Tension	27	36.24		
			Top Tension	27	36.41		
		Guy C	Top Cable Vert	27	15.69		
			Top Cable Norm	27	32.86		
			Top Cable Tan	27	0.05		
			Bot Cable Vert	27	-15.12		
		Guy C	Bot Cable Norm	27	32.93		
			Bot Cable Tan	27	0.19		
		Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	97	-130.07	-0.20	-0.12
			Max. Mx	72	-103.50	-0.52	-0.30
			Max. My	47	-100.18	-0.00	0.53
		Diagonal	Max. Vy	67	4.97	-0.09	-0.10
			Max. Vx	44	-5.10	-0.00	0.11
			Max Tension	81	4.28	0.00	0.00
			Max. Compression	81	-4.37	0.00	0.00
		Horizontal	Max. Mx	98	-1.29	0.01	0.00
			Max. My	66	-1.73	0.00	-0.00
			Max. Vy	98	-0.01	0.00	0.00
			Max. Vx	66	0.00	0.00	0.00
		Horizontal	Max Tension	81	4.46	-0.01	-0.00
			Max. Compression	81	-3.74	-0.01	-0.00
			Max. Mx	87	-2.23	-0.01	-0.00
			Max. My	65	1.19	-0.01	0.00
		Leg	Max. Vy	87	0.02	-0.01	-0.00
			Max. Vx	65	-0.00	0.00	0.00
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	68	-152.22	-0.22	-0.13
T28	80 - 61	Leg	Max. Mx	65	-118.62	-0.59	-0.22
			Max. My	44	-94.85	0.01	0.57
			Max. Vy	67	4.22	-0.23	-0.07
			Max. Vx	67	4.22	-0.23	-0.07

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Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
T29	61 - 60	Diagonal	Max. Vx	4	4.49	-0.01	0.08
			Max Tension	81	3.66	0.00	0.00
			Max. Compression	81	-4.36	0.00	0.00
			Max. Mx	96	-0.86	0.03	0.00
			Max. My	71	-1.31	0.00	-0.00
			Max. Vy	96	0.02	0.00	0.00
		Top Girt	Max. Vx	71	0.00	0.00	0.00
			Max Tension	89	0.61	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	86	0.55	0.03	0.00
			Max. My	66	0.42	0.00	-0.00
			Max. Vy	86	-0.03	0.00	0.00
		Mid Girt	Max. Vx	66	0.00	0.00	0.00
			Max Tension	61	1.17	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	86	1.05	0.03	0.00
			Max. My	71	0.81	0.00	-0.00
			Max. Vy	86	-0.03	0.00	0.00
		Leg	Max. Vx	71	0.00	0.00	0.00
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	68	-153.04	-0.23	-0.11
			Max. Mx	65	-148.46	-0.41	-0.22
			Max. My	37	-130.49	0.01	0.42
			Max. Vy	67	2.62	-0.18	-0.13
		Diagonal	Max. Vx	50	-2.68	-0.01	0.19
			Max Tension	81	2.22	0.00	0.00
			Max. Compression	81	-2.31	0.00	0.00
			Max. Mx	98	-0.73	0.01	0.00
			Max. My	71	-0.92	0.00	-0.00
			Max. Vy	98	0.01	0.00	0.00
		Horizontal	Max. Vx	71	0.00	0.00	0.00
			Max Tension	68	2.64	0.00	0.00
			Max. Compression	68	-2.64	-0.01	0.00
			Max. Mx	87	-2.38	-0.01	-0.00
			Max. My	63	2.11	-0.01	-0.00
			Max. Vy	87	0.02	-0.01	-0.00
T30	60 - 41	Leg	Max. Vx	63	0.00	0.00	0.00
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	68	-157.58	-0.28	-0.16
			Max. Mx	67	-140.95	-0.39	-0.13
			Max. My	93	-143.59	0.00	0.39
			Max. Vy	67	1.87	-0.23	-0.09
		Diagonal	Max. Vx	4	2.05	-0.01	0.08
			Max Tension	81	1.80	0.00	0.00
			Max. Compression	81	-2.34	0.00	0.00
			Max. Mx	96	-0.35	0.03	0.00
			Max. My	71	0.24	0.00	-0.00
			Max. Vy	96	-0.02	0.00	0.00
		Top Girt	Max. Vx	71	0.00	0.00	0.00
			Max Tension	95	0.63	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	86	0.57	0.03	0.00
			Max. My	71	0.40	0.00	-0.00
			Max. Vy	86	-0.03	0.00	0.00
		Mid Girt	Max. Vx	71	0.00	0.00	0.00
			Max Tension	33	1.27	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	86	1.09	0.03	0.00
			Max. My	71	0.83	0.00	-0.00
			Max. Vy	86	-0.03	0.00	0.00
			Max. Vx	71	0.00	0.00	0.00

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Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
T31	41 - 40	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	68	-156.05	-0.28	-0.16
			Max. Mx	68	-156.05	-0.28	-0.16
			Max. My	93	-146.93	-0.00	0.31
			Max. Vy	68	-1.37	0.11	-0.08
		Diagonal	Max. Vx	5	-1.38	-0.00	0.12
			Max Tension	68	1.05	0.00	0.00
			Max. Compression	68	-1.14	0.00	0.00
			Max. Mx	96	0.01	0.01	0.00
			Max. My	71	0.67	0.00	-0.00
		Horizontal	Max. Vy	96	0.01	0.00	0.00
			Max. Vx	71	0.00	0.00	0.00
			Max Tension	68	2.70	0.00	0.00
			Max. Compression	68	-2.70	-0.01	0.00
			Max. Mx	87	-2.46	-0.01	-0.00
			Max. My	71	2.69	-0.01	-0.00
			Max. Vy	87	0.02	-0.01	-0.00
			Max. Vx	69	0.00	0.00	0.00
		T32	Max Tension	1	0.00	0.00	0.00
			Max. Compression	68	-155.67	-0.11	-0.05
			Max. Mx	68	-137.16	-0.53	-0.29
			Max. My	47	-120.43	-0.02	0.52
			Max. Vy	33	3.68	-0.07	-0.02
		Diagonal	Max. Vx	5	-4.05	0.01	0.08
			Max Tension	75	2.60	0.00	0.00
			Max. Compression	75	-3.15	0.00	0.00
			Max. Mx	96	0.07	0.03	0.00
			Max. My	71	1.24	0.00	-0.00
		Top Girt	Max. Vy	96	-0.02	0.00	0.00
			Max. Vx	71	0.00	0.00	0.00
			Max Tension	61	0.75	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	86	0.59	0.03	0.00
		Mid Girt	Max. My	69	0.41	0.00	-0.00
			Max. Vy	86	-0.02	0.00	0.00
			Max. Vx	69	0.00	0.00	0.00
			Max Tension	95	1.26	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	86	1.13	0.03	0.00
			Max. My	69	0.84	0.00	-0.00
			Max. Vy	86	-0.02	0.00	0.00
			Max. Vx	69	0.00	0.00	0.00
		T33	Max Tension	1	0.00	0.00	0.00
			Max. Compression	97	-148.97	-0.17	-0.10
			Max. Mx	95	-126.49	0.40	-0.23
			Max. My	87	-126.99	-0.00	0.46
			Max. Vy	33	3.68	-0.37	-0.22
		Diagonal	Max. Vx	5	-4.05	-0.00	0.42
			Max Tension	75	2.85	0.00	0.00
			Max. Compression	75	-2.93	0.00	0.00
			Max. Mx	96	0.52	0.01	0.00
			Max. My	71	2.22	0.00	-0.00
		Horizontal	Max. Vy	96	-0.01	0.00	0.00
			Max. Vx	71	0.00	0.00	0.00
			Max Tension	75	3.23	0.00	0.00
			Max. Compression	97	-2.58	-0.01	-0.00
			Max. Mx	97	-2.31	-0.01	0.00
			Max. My	68	2.35	-0.00	-0.00
			Max. Vy	97	0.02	-0.01	0.00
			Max. Vx	68	0.00	0.00	0.00
		T34	Max Tension	1	0.00	0.00	0.00
			Max Tension	1	0.00	0.00	0.00

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Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
T35	16.66 - 14.33	Diagonal	Max. Compression	97	-148.84	-0.01	-0.01
			Max. Mx	68	-48.30	-0.60	0.29
			Max. My	5	-49.16	0.01	-0.65
			Max. Vy	68	-6.43	-0.07	-0.00
			Max. Vx	5	-7.13	0.00	-0.05
			Max Tension	33	1.15	0.00	0.00
			Max. Compression	75	-6.08	0.00	0.00
			Max. Mx	96	-3.17	0.04	0.00
			Max. My	71	-0.53	0.00	-0.00
			Max. Vy	96	-0.02	0.00	0.00
			Max. Vx	71	0.00	0.00	0.00
			Max Tension	95	3.43	0.00	0.00
		Top Girt	Max. Compression	1	0.00	0.00	0.00
			Max. Mx	86	3.18	0.03	0.00
			Max. My	69	2.26	0.00	-0.00
			Max. Vy	86	0.02	0.00	0.00
			Max. Vx	69	0.00	0.00	0.00
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	97	-148.14	-0.34	-0.20
			Max. Mx	33	-52.68	-0.48	-0.30
			Max. My	5	-56.83	-0.01	0.54
			Max. Vy	68	-6.43	0.47	-0.29
			Max. Vx	5	-7.13	-0.01	0.54
			Max Tension	75	3.35	0.00	0.00
		Horizontal	Max. Compression	33	-3.37	0.00	0.00
			Max. Mx	96	0.65	0.03	0.00
			Max. My	71	2.66	0.00	-0.00
			Max. Vy	96	-0.02	0.00	0.00
			Max. Vx	71	0.00	0.00	0.00
			Max Tension	87	3.48	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	86	3.28	0.02	0.00
			Max. My	69	2.32	0.00	-0.00
			Max. Vy	86	0.02	0.00	0.00
			Max. Vx	69	0.00	0.00	0.00
			Max Tension	1	0.00	0.00	0.00
T36	14.33 - 12	Leg	Max. Compression	97	-147.61	0.13	0.07
			Max. Mx	33	-56.90	0.49	0.33
			Max. My	5	-60.61	0.01	-0.54
			Max. Vy	68	-5.80	0.00	0.02
			Max. Vx	5	-6.43	0.00	-0.01
			Max Tension	33	2.25	0.00	0.00
		Diagonal	Max. Compression	75	-5.08	0.00	0.00
			Max. Mx	96	-1.46	0.03	0.00
			Max. My	71	1.05	0.00	-0.00
			Max. Vy	96	-0.02	0.00	0.00
			Max. Vx	71	0.00	0.00	0.00
			Max Tension	95	2.05	0.00	0.00
		Horizontal	Max. Compression	1	0.00	0.00	0.00
			Max. Mx	86	1.94	0.02	0.00
			Max. My	69	1.37	0.00	-0.00
			Max. Vy	86	0.02	0.00	0.00
			Max. Vx	69	0.00	0.00	0.00
			Max Tension	1	0.00	0.00	0.00
T37	12 - 9.335	Leg	Max. Compression	97	-147.00	-0.27	-0.16
			Max. Mx	68	-62.85	-0.82	0.19
			Max. My	87	-132.03	-0.01	-0.80
			Max. Vy	68	-5.80	0.48	-0.24
			Max. Vx	5	-6.43	-0.00	0.53
		Diagonal	Max Tension	33	3.98	0.00	0.00
			Max. Compression	75	-5.42	0.00	0.00

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Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
T38	9.335 - 6.67	Horizontal	Max. Mx	96	-0.10	0.01	0.00
			Max. My	69	2.78	0.00	-0.00
			Max. Vy	96	-0.01	0.00	0.00
			Max. Vx	69	0.00	0.00	0.00
			Max Tension	75	4.69	0.00	0.00
			Max. Compression	97	-2.52	-1.85	-0.00
			Max. Mx	95	-2.46	-1.87	-0.00
			Max. My	69	2.11	-1.40	-0.02
			Max. Vy	95	0.78	-1.87	-0.00
			Max. Vx	69	-0.01	-1.40	-0.02
			Max Tension	97	2.52	0.00	0.00
		Secondary Horizontal	Max. Compression	97	-2.52	0.00	0.00
			Max. Mx	86	2.36	0.02	0.00
			Max. My	69	2.11	0.00	-0.00
			Max. Vy	86	0.02	0.00	0.00
			Max. Vx	69	0.00	0.00	0.00
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	97	-146.34	0.63	0.37
			Max. Mx	96	-144.61	3.03	1.66
			Max. My	93	-144.48	-0.02	-3.45
			Max. Vy	97	-56.85	3.01	1.72
			Max. Vx	93	65.27	-0.02	-3.45
		Diagonal	Max Tension	75	5.24	0.00	0.00
			Max. Compression	75	-5.64	0.00	0.00
			Max. Mx	96	0.70	0.01	0.00
			Max. My	69	4.36	0.00	-0.00
			Max. Vy	96	-0.01	0.00	0.00
			Max. Vx	69	0.00	0.00	0.00
			Max Tension	97	38.38	-0.64	-0.00
			Max. Compression	97	-2.51	-0.64	0.00
			Max. Mx	98	37.17	-0.64	-0.00
			Max. My	71	27.34	-0.44	0.01
			Max. Vy	98	-0.28	0.00	0.00
			Max. Vx	71	0.00	-0.44	0.01
		Secondary Horizontal	Max Tension	97	2.51	0.00	0.00
			Max. Compression	97	-2.51	0.00	0.00
			Max. Mx	86	2.39	0.02	0.00
			Max. My	69	1.94	0.00	-0.00
			Max. Vy	86	-0.01	0.00	0.00
			Max. Vx	69	0.00	0.00	0.00
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	97	-159.45	3.69	-0.02
			Max. Mx	97	-151.37	3.69	-0.02
			Max. My	67	-102.24	-0.51	5.89
			Max. Vy	97	2.71	-1.53	-0.01
			Max. Vx	67	-5.66	-0.51	5.89
T39	6.67 - 0	Diagonal	Max Tension	1	0.00	0.00	0.00
			Max. Compression	65	-21.30	0.00	0.00
			Max. Mx	95	-4.82	0.02	0.00
			Max. My	71	-2.60	0.00	-0.00
			Max. Vy	95	-0.02	0.00	0.00
			Max. Vx	69	0.00	0.00	0.00
			Max Tension	97	2.92	0.00	0.00
		Secondary Horizontal	Max. Compression	97	-2.92	0.00	0.00
			Max. Mx	86	2.79	0.01	0.00
			Max. My	69	2.25	0.00	-0.00
			Max. Vy	86	0.01	0.00	0.00
			Max. Vx	69	0.00	0.00	0.00

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Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
		Bottom Girt	Max Tension	98	15.18	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	97	14.80	0.00	0.00
			Max. My	98	15.18	0.00	0.00
			Max. Vy	97	0.01	0.00	0.00
			Max. Vx	98	-0.00	0.00	0.00
		Mid Girt	Max Tension	95	8.39	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	97	8.15	0.03	0.00
			Max. My	98	8.39	0.00	0.01
			Max. Vy	97	-0.04	0.00	0.00
			Max. Vx	98	-0.01	0.00	0.00

Maximum Reactions

Location	Condition	Gov. Load Comb.	Vertical K	Horizontal, X K	Horizontal, Z K
Mast	Max. Vert	97	426.79	1.12	0.56
	Max. H _x	68	277.78	8.39	0.14
	Max. H _z	5	276.53	-0.01	7.15
	Max. M _x	1	0.00	0.01	-0.02
	Max. M _z	1	0.00	0.01	-0.02
	Max. Torsion	25	7.19	-7.92	0.31
	Min. Vert	1	183.02	0.01	-0.02
	Min. H _x	26	268.17	-8.52	-0.01
	Min. H _z	47	249.80	0.07	-7.37
	Min. M _x	1	0.00	0.01	-0.02
	Min. M _z	1	0.00	0.01	-0.02
	Min. Torsion	67	-7.84	7.59	0.40
	Max. Vert	58	-5.43	-2.90	1.68
Guy C @ 205 ft Elev 5 ft Azimuth 240 deg	Max. H _x	58	-5.43	-2.90	1.68
	Max. H _z	23	-114.76	-112.70	63.11
	Min. Vert	23	-114.76	-112.70	63.11
	Min. H _x	23	-114.76	-112.70	63.11
	Min. H _z	58	-5.43	-2.90	1.68
Guy B @ 205 ft Elev -35 ft Azimuth 120 deg	Max. Vert	30	-8.08	3.61	2.09
	Max. H _x	65	-136.63	111.40	62.17
	Max. H _z	79	-134.57	106.52	63.62
	Min. Vert	65	-136.63	111.40	62.17
	Min. H _x	30	-8.08	3.61	2.09
Guy A @ 200 ft Elev 15 ft Azimuth 0 deg	Min. H _z	30	-8.08	3.61	2.09
	Max. Vert	2	-4.91	0.00	-3.12
	Max. H _x	65	-56.27	3.47	-64.49
	Max. H _z	2	-4.91	0.00	-3.12
	Min. Vert	37	-109.23	-1.60	-124.71
	Min. H _x	23	-61.73	-3.40	-69.47
	Min. H _z	37	-109.23	-1.60	-124.71

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Tower Mast Reaction Summary

<i>Load Combination</i>	<i>Vertical</i>	<i>Shear_x</i>	<i>Shear_z</i>	<i>Overturning Moment, M_x</i>	<i>Overturning Moment, M_z</i>	<i>Torque</i>
	<i>K</i>	<i>K</i>	<i>K</i>	<i>kip-ft</i>	<i>kip-ft</i>	<i>kip-ft</i>
Dead Only	183.02	-0.01	0.02	0.00	0.00	-0.00
1.2 Dead+1.6 Wind 0 deg - No Ice+1.0 Guy	303.37	0.13	-5.69	0.00	0.00	-0.90
1.2D+1.6W (pattern 1) 0 deg - No Ice+1.0 Guy	298.16	0.19	-1.84	0.00	0.00	-1.44
1.2D+1.6W (pattern 2) 0 deg - No Ice+1.0 Guy	287.73	0.12	-6.18	0.00	0.00	-1.39
1.2D+1.6W (pattern 3) 0 deg - No Ice+1.0 Guy	276.53	0.01	-7.15	0.00	0.00	-1.27
1.2D+1.6W (pattern 4) 0 deg - No Ice+1.0 Guy	294.52	0.10	-5.98	0.00	0.00	-0.43
1.2D+1.6W (pattern 5) 0 deg - No Ice+1.0 Guy	297.67	0.12	-5.80	0.00	0.00	-0.77
1.2D+1.6W (pattern 6) 0 deg - No Ice+1.0 Guy	300.64	0.13	-5.72	0.00	0.00	-0.96
1.2 Dead+1.6 Wind 30 deg - No Ice+1.0 Guy	278.69	3.13	-4.81	0.00	0.00	2.59
1.2D+1.6W (pattern 1) 30 deg - No Ice+1.0 Guy	275.17	1.57	-1.68	0.00	0.00	2.07
1.2D+1.6W (pattern 2) 30 deg - No Ice+1.0 Guy	267.89	3.29	-5.14	0.00	0.00	2.18
1.2D+1.6W (pattern 3) 30 deg - No Ice+1.0 Guy	259.87	3.28	-5.85	0.00	0.00	2.12
1.2D+1.6W (pattern 4) 30 deg - No Ice+1.0 Guy	272.58	3.13	-5.00	0.00	0.00	3.06
1.2D+1.6W (pattern 5) 30 deg - No Ice+1.0 Guy	274.64	3.12	-4.88	0.00	0.00	2.73
1.2D+1.6W (pattern 6) 30 deg - No Ice+1.0 Guy	276.72	3.12	-4.83	0.00	0.00	2.50
1.2 Dead+1.6 Wind 60 deg - No Ice+1.0 Guy	257.95	6.15	-3.83	0.00	0.00	-2.10
1.2D+1.6W (pattern 1) 60 deg - No Ice+1.0 Guy	256.76	2.87	-1.88	0.00	0.00	-2.53
1.2D+1.6W (pattern 2) 60 deg - No Ice+1.0 Guy	253.59	6.44	-3.99	0.00	0.00	-2.42
1.2D+1.6W (pattern 3) 60 deg - No Ice+1.0 Guy	250.23	6.66	-4.09	0.00	0.00	-2.46
1.2D+1.6W (pattern 4) 60 deg - No Ice+1.0 Guy	255.06	6.20	-3.84	0.00	0.00	-1.83
1.2D+1.6W (pattern 5) 60 deg - No Ice+1.0 Guy	256.08	6.16	-3.82	0.00	0.00	-2.09
1.2D+1.6W (pattern 6) 60 deg - No Ice+1.0 Guy	257.02	6.14	-3.82	0.00	0.00	-2.24
1.2 Dead+1.6 Wind 90 deg - No Ice+1.0 Guy	286.81	7.49	-0.32	0.00	0.00	-6.93
1.2D+1.6W (pattern 1) 90 deg - No Ice+1.0 Guy	282.88	3.18	-0.49	0.00	0.00	-7.13
1.2D+1.6W (pattern 2) 90 deg - No Ice+1.0 Guy	274.71	7.92	-0.31	0.00	0.00	-7.19
1.2D+1.6W (pattern 3) 90 deg - No Ice+1.0 Guy	268.17	8.52	0.01	0.00	0.00	-7.03
1.2D+1.6W (pattern 4) 90 deg - No Ice+1.0 Guy	280.28	7.67	-0.24	0.00	0.00	-6.92
1.2D+1.6W (pattern 5) 90 deg - No Ice+1.0 Guy	282.58	7.56	-0.29	0.00	0.00	-6.97
1.2D+1.6W (pattern 6) 90 deg - No Ice+1.0 Guy	284.85	7.50	-0.31	0.00	0.00	-7.03

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<i>Load Combination</i>	<i>Vertical K</i>	<i>Shear_x K</i>	<i>Shear_z K</i>	<i>Overturning Moment, M_x kip-ft</i>	<i>Overturning Moment, M_z kip-ft</i>	<i>Torque kip-ft</i>
No Ice+1.0 Guy						
1.2 Dead+1.6 Wind 120 deg -	298.03	5.91	3.52	0.00	0.00	-2.54
No Ice+1.0 Guy						
1.2D+1.6W (pattern 1) 120 deg	293.40	2.23	1.41	0.00	0.00	-2.59
- No Ice+1.0 Guy						
1.2D+1.6W (pattern 2) 120 deg	283.51	6.31	3.75	0.00	0.00	-2.50
- No Ice+1.0 Guy						
1.2D+1.6W (pattern 3) 120 deg	274.52	7.03	4.13	0.00	0.00	-2.57
- No Ice+1.0 Guy						
1.2D+1.6W (pattern 4) 120 deg	289.50	6.13	3.64	0.00	0.00	-2.71
- No Ice+1.0 Guy						
1.2D+1.6W (pattern 5) 120 deg	292.69	5.99	3.56	0.00	0.00	-2.55
- No Ice+1.0 Guy						
1.2D+1.6W (pattern 6) 120 deg	295.51	5.93	3.53	0.00	0.00	-2.59
- No Ice+1.0 Guy						
1.2 Dead+1.6 Wind 150 deg -	282.63	2.93	6.06	0.00	0.00	2.45
No Ice+1.0 Guy						
1.2D+1.6W (pattern 1) 150 deg	279.36	0.84	2.74	0.00	0.00	2.72
- No Ice+1.0 Guy						
1.2D+1.6W (pattern 2) 150 deg	272.21	3.13	6.38	0.00	0.00	2.77
- No Ice+1.0 Guy						
1.2D+1.6W (pattern 3) 150 deg	264.67	3.70	6.72	0.00	0.00	2.46
- No Ice+1.0 Guy						
1.2D+1.6W (pattern 4) 150 deg	275.88	3.09	6.16	0.00	0.00	2.17
- No Ice+1.0 Guy						
1.2D+1.6W (pattern 5) 150 deg	278.29	2.98	6.09	0.00	0.00	2.41
- No Ice+1.0 Guy						
1.2D+1.6W (pattern 6) 150 deg	280.65	2.94	6.06	0.00	0.00	2.45
- No Ice+1.0 Guy						
1.2 Dead+1.6 Wind 180 deg -	257.04	-0.10	6.85	0.00	0.00	0.98
No Ice+1.0 Guy						
1.2D+1.6W (pattern 1) 180 deg	256.15	-0.12	3.28	0.00	0.00	1.46
- No Ice+1.0 Guy						
1.2D+1.6W (pattern 2) 180 deg	253.39	-0.10	7.17	0.00	0.00	1.31
- No Ice+1.0 Guy						
1.2D+1.6W (pattern 3) 180 deg	249.80	-0.07	7.37	0.00	0.00	1.13
- No Ice+1.0 Guy						
1.2D+1.6W (pattern 4) 180 deg	253.98	-0.09	6.90	0.00	0.00	0.53
- No Ice+1.0 Guy						
1.2D+1.6W (pattern 5) 180 deg	255.15	-0.09	6.85	0.00	0.00	0.89
- No Ice+1.0 Guy						
1.2D+1.6W (pattern 6) 180 deg	256.09	-0.10	6.84	0.00	0.00	1.04
- No Ice+1.0 Guy						
1.2 Dead+1.6 Wind 210 deg -	275.29	-2.48	5.29	0.00	0.00	-2.51
No Ice+1.0 Guy						
1.2D+1.6W (pattern 1) 210 deg	272.11	-0.65	2.38	0.00	0.00	-2.05
- No Ice+1.0 Guy						
1.2D+1.6W (pattern 2) 210 deg	265.02	-2.69	5.59	0.00	0.00	-2.12
- No Ice+1.0 Guy						
1.2D+1.6W (pattern 3) 210 deg	257.96	-3.25	5.88	0.00	0.00	-2.13
- No Ice+1.0 Guy						
1.2D+1.6W (pattern 4) 210 deg	269.31	-2.64	5.38	0.00	0.00	-2.89
- No Ice+1.0 Guy						
1.2D+1.6W (pattern 5) 210 deg	271.63	-2.55	5.32	0.00	0.00	-2.56
- No Ice+1.0 Guy						
1.2D+1.6W (pattern 6) 210 deg	273.38	-2.50	5.29	0.00	0.00	-2.42
- No Ice+1.0 Guy						
1.2 Dead+1.6 Wind 240 deg -	301.24	-5.30	3.41	0.00	0.00	2.48
No Ice+1.0 Guy						
1.2D+1.6W (pattern 1) 240 deg	295.92	-1.80	1.43	0.00	0.00	2.90
- No Ice+1.0 Guy						

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<i>Load Combination</i>	<i>Vertical K</i>	<i>Shear_x K</i>	<i>Shear_z K</i>	<i>Overturning Moment, M_x kip-ft</i>	<i>Overturning Moment, M_z kip-ft</i>	<i>Torque kip-ft</i>
1.2D+1.6W (pattern 2) 240 deg	284.88	-5.75	3.66	0.00	0.00	2.93
- No Ice+1.0 Guy						
1.2D+1.6W (pattern 3) 240 deg	275.74	-6.58	3.99	0.00	0.00	2.76
- No Ice+1.0 Guy						
1.2D+1.6W (pattern 4) 240 deg	292.88	-5.55	3.52	0.00	0.00	2.26
- No Ice+1.0 Guy						
1.2D+1.6W (pattern 5) 240 deg	296.12	-5.39	3.45	0.00	0.00	2.38
- No Ice+1.0 Guy						
1.2D+1.6W (pattern 6) 240 deg	298.58	-5.33	3.42	0.00	0.00	2.59
- No Ice+1.0 Guy						
1.2 Dead+1.6 Wind 270 deg -	299.83	-7.08	-0.44	0.00	0.00	7.46
No Ice+1.0 Guy						
1.2D+1.6W (pattern 1) 270 deg	294.51	-2.70	-0.50	0.00	0.00	7.62
- No Ice+1.0 Guy						
1.2D+1.6W (pattern 2) 270 deg	284.50	-7.59	-0.40	0.00	0.00	7.84
- No Ice+1.0 Guy						
1.2D+1.6W (pattern 3) 270 deg	277.78	-8.39	-0.14	0.00	0.00	7.52
- No Ice+1.0 Guy						
1.2D+1.6W (pattern 4) 270 deg	292.74	-7.32	-0.36	0.00	0.00	7.46
- No Ice+1.0 Guy						
1.2D+1.6W (pattern 5) 270 deg	295.53	-7.17	-0.41	0.00	0.00	7.50
- No Ice+1.0 Guy						
1.2D+1.6W (pattern 6) 270 deg	297.62	-7.11	-0.43	0.00	0.00	7.57
- No Ice+1.0 Guy						
1.2 Dead+1.6 Wind 300 deg -	271.39	-6.31	-3.78	0.00	0.00	3.45
No Ice+1.0 Guy						
1.2D+1.6W (pattern 1) 300 deg	268.87	-2.76	-1.65	0.00	0.00	3.22
- No Ice+1.0 Guy						
1.2D+1.6W (pattern 2) 300 deg	264.12	-6.63	-3.98	0.00	0.00	3.37
- No Ice+1.0 Guy						
1.2D+1.6W (pattern 3) 300 deg	260.08	-7.02	-4.22	0.00	0.00	3.26
- No Ice+1.0 Guy						
1.2D+1.6W (pattern 4) 300 deg	267.63	-6.40	-3.84	0.00	0.00	3.77
- No Ice+1.0 Guy						
1.2D+1.6W (pattern 5) 300 deg	268.97	-6.32	-3.81	0.00	0.00	3.54
- No Ice+1.0 Guy						
1.2D+1.6W (pattern 6) 300 deg	270.27	-6.30	-3.78	0.00	0.00	3.55
- No Ice+1.0 Guy						
1.2 Dead+1.6 Wind 330 deg -	299.88	-3.36	-5.11	0.00	0.00	-2.36
No Ice+1.0 Guy						
1.2D+1.6W (pattern 1) 330 deg	294.97	-1.48	-1.56	0.00	0.00	-2.79
- No Ice+1.0 Guy						
1.2D+1.6W (pattern 2) 330 deg	285.87	-3.57	-5.53	0.00	0.00	-2.79
- No Ice+1.0 Guy						
1.2D+1.6W (pattern 3) 330 deg	276.72	-3.74	-6.42	0.00	0.00	-2.60
- No Ice+1.0 Guy						
1.2D+1.6W (pattern 4) 330 deg	292.06	-3.41	-5.38	0.00	0.00	-1.97
- No Ice+1.0 Guy						
1.2D+1.6W (pattern 5) 330 deg	294.93	-3.38	-5.21	0.00	0.00	-2.29
- No Ice+1.0 Guy						
1.2D+1.6W (pattern 6) 330 deg	297.58	-3.37	-5.14	0.00	0.00	-2.37
- No Ice+1.0 Guy						
1.2 Dead+1.0 Ice+1.0	416.97	0.06	0.18	0.00	0.00	0.00
Temp+Guy						
1.2 Dead+1.0 Wind 0 deg+1.0	425.22	0.09	-1.30	0.00	0.00	-0.53
Ice+1.0 Temp+1.0 Guy						
1.2 Dead+1.0 Wind 30 deg+1.0	424.53	0.79	-1.16	0.00	0.00	0.32
Ice+1.0 Temp+1.0 Guy						
1.2 Dead+1.0 Wind 60 deg+1.0	423.77	1.33	-0.62	0.00	0.00	0.04
Ice+1.0 Temp+1.0 Guy						
1.2 Dead+1.0 Wind 90 deg+1.0	421.99	1.54	0.18	0.00	0.00	-0.71

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<i>Load Combination</i>	<i>Vertical K</i>	<i>Shear_x K</i>	<i>Shear_z K</i>	<i>Overturning Moment, M_x kip-ft</i>	<i>Overturning Moment, M_z kip-ft</i>	<i>Torque kip-ft</i>
Ice+1.0 Temp+1.0 Guy						
1.2 Dead+1.0 Wind 120	420.49	1.33	0.93	0.00	0.00	0.01
deg+1.0 Ice+1.0 Temp+1.0 Guy						
1.2 Dead+1.0 Wind 150	422.30	0.79	1.49	0.00	0.00	0.84
deg+1.0 Ice+1.0 Temp+1.0 Guy						
1.2 Dead+1.0 Wind 180	424.07	0.05	1.71	0.00	0.00	0.29
deg+1.0 Ice+1.0 Temp+1.0 Guy						
1.2 Dead+1.0 Wind 210	424.43	-0.68	1.51	0.00	0.00	-0.37
deg+1.0 Ice+1.0 Temp+1.0 Guy						
1.2 Dead+1.0 Wind 240	424.73	-1.16	0.97	0.00	0.00	0.15
deg+1.0 Ice+1.0 Temp+1.0 Guy						
1.2 Dead+1.0 Wind 270	425.90	-1.34	0.19	0.00	0.00	0.76
deg+1.0 Ice+1.0 Temp+1.0 Guy						
1.2 Dead+1.0 Wind 300	426.79	-1.12	-0.56	0.00	0.00	0.10
deg+1.0 Ice+1.0 Temp+1.0 Guy						
1.2 Dead+1.0 Wind 330	426.32	-0.59	-1.09	0.00	0.00	-1.02
deg+1.0 Ice+1.0 Temp+1.0 Guy						
Dead+Wind 0 deg - Service+Guy	184.43	-0.01	-1.52	0.00	0.00	-0.18
Dead+Wind 30 deg - Service+Guy	184.64	0.65	-1.22	0.00	0.00	0.47
Dead+Wind 60 deg - Service+Guy	184.97	1.36	-0.81	0.00	0.00	-0.42
Dead+Wind 90 deg - Service+Guy	185.08	1.77	0.03	0.00	0.00	-1.40
Dead+Wind 120 deg - Service+Guy	185.11	1.47	0.88	0.00	0.00	-0.52
Dead+Wind 150 deg - Service+Guy	185.26	0.78	1.40	0.00	0.00	0.46
Dead+Wind 180 deg - Service+Guy	185.25	-0.02	1.52	0.00	0.00	0.15
Dead+Wind 210 deg - Service+Guy	184.88	-0.71	1.22	0.00	0.00	-0.45
Dead+Wind 240 deg - Service+Guy	184.66	-1.41	0.85	0.00	0.00	0.53
Dead+Wind 270 deg - Service+Guy	184.47	-1.79	0.01	0.00	0.00	1.49
Dead+Wind 300 deg - Service+Guy	184.40	-1.46	-0.86	0.00	0.00	0.70
Dead+Wind 330 deg - Service+Guy	184.32	-0.78	-1.39	0.00	0.00	-0.42

Solution Summary

<i>Load Comb.</i>	<i>Sum of Applied Forces</i>			<i>Sum of Reactions</i>			<i>% Error</i>
	<i>PX K</i>	<i>PY K</i>	<i>PZ K</i>	<i>PX K</i>	<i>PY K</i>	<i>PZ K</i>	
1	0.00	-83.17	0.00	-0.02	83.17	-0.01	0.027%
2	-1.29	-99.07	-108.15	1.27	99.06	107.98	0.116%
3	-1.24	-99.07	-99.59	1.23	99.06	99.42	0.119%
4	-1.26	-99.07	-97.88	1.25	99.06	97.72	0.116%
5	-1.10	-99.07	-95.40	1.09	99.07	95.27	0.099%
6	-1.28	-99.07	-104.67	1.26	99.07	104.52	0.104%
7	-1.11	-99.07	-106.05	1.09	99.07	105.89	0.108%
8	-1.29	-99.07	-107.19	1.27	99.07	107.03	0.110%
9	51.13	-98.36	-89.66	-51.16	98.36	89.53	0.092%
10	47.31	-98.36	-82.74	-47.33	98.36	82.61	0.094%
11	46.20	-98.36	-81.21	-46.22	98.36	81.10	0.090%

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Load Comb.	Sum of Applied Forces			Sum of Reactions			% Error
	PX K	PY K	PZ K	PX K	PY K	PZ K	
12	45.10	-98.36	-79.00	-45.13	98.36	78.90	0.077%
13	49.44	-98.36	-86.83	-49.47	98.36	86.72	0.083%
14	50.17	-98.36	-87.88	-50.20	98.36	87.77	0.084%
15	50.66	-98.36	-88.84	-50.68	98.36	88.72	0.087%
16	95.87	-97.64	-54.95	-95.96	97.64	54.88	0.072%
17	88.18	-97.64	-50.39	-88.26	97.64	50.32	0.073%
18	86.29	-97.64	-49.54	-86.36	97.64	49.48	0.070%
19	84.94	-97.64	-48.53	-85.02	97.64	48.49	0.065%
20	92.84	-97.64	-53.29	-92.91	97.64	53.22	0.066%
21	94.06	-97.64	-54.00	-94.13	97.64	53.94	0.068%
22	95.04	-97.64	-54.46	-95.12	97.64	54.40	0.069%
23	117.56	-98.12	1.04	-117.45	98.11	-0.96	0.089%
24	107.70	-98.12	0.98	-107.59	98.11	-0.90	0.094%
25	105.55	-98.12	1.00	-105.44	98.11	-0.92	0.091%
26	104.43	-98.12	0.95	-104.34	98.12	-0.88	0.078%
27	113.89	-98.12	1.01	-113.79	98.12	-0.93	0.082%
28	115.40	-98.12	0.89	-115.30	98.12	-0.82	0.083%
29	116.58	-98.12	1.04	-116.47	98.11	-0.96	0.087%
30	101.33	-98.63	56.80	-101.19	98.62	-56.72	0.101%
31	93.09	-98.63	51.99	-92.96	98.62	-51.92	0.103%
32	91.29	-98.63	51.07	-91.17	98.62	-51.00	0.100%
33	89.73	-98.63	50.65	-89.62	98.62	-50.59	0.086%
34	98.03	-98.63	54.89	-97.91	98.62	-54.82	0.092%
35	99.35	-98.63	55.77	-99.23	98.62	-55.70	0.093%
36	100.47	-98.63	56.30	-100.34	98.62	-56.23	0.097%
37	57.42	-98.05	96.90	-57.30	98.04	-96.85	0.088%
38	52.92	-98.05	89.09	-52.80	98.04	-89.03	0.093%
39	51.88	-98.05	87.54	-51.77	98.04	-87.49	0.090%
40	50.80	-98.05	85.75	-50.70	98.04	-85.72	0.078%
41	55.50	-98.05	93.57	-55.39	98.04	-93.53	0.081%
42	56.13	-98.05	95.13	-56.02	98.04	-95.09	0.083%
43	56.93	-98.05	96.05	-56.81	98.04	-96.00	0.087%
44	0.98	-97.52	107.34	-1.04	97.52	-107.41	0.068%
45	0.96	-97.52	98.85	-1.03	97.52	-98.92	0.070%
46	0.90	-97.52	97.08	-0.96	97.52	-97.15	0.068%
47	0.96	-97.52	94.94	-1.01	97.52	-95.00	0.061%
48	0.94	-97.52	103.68	-1.01	97.52	-103.74	0.064%
49	0.78	-97.52	105.34	-0.87	97.52	-105.38	0.064%
50	0.98	-97.52	106.38	-1.04	97.52	-106.44	0.064%
51	-51.28	-98.22	88.01	51.16	98.22	-87.98	0.087%
52	-47.39	-98.22	81.19	47.27	98.22	-81.16	0.089%
53	-46.31	-98.22	79.58	46.20	98.22	-79.55	0.085%
54	-45.24	-98.22	77.84	45.15	98.22	-77.82	0.074%
55	-49.66	-98.22	85.05	49.56	98.22	-85.02	0.077%
56	-50.28	-98.22	86.41	50.17	98.22	-86.38	0.080%
57	-50.80	-98.22	87.19	50.69	98.22	-87.16	0.082%
58	-95.28	-98.95	54.09	95.13	98.94	-54.02	0.108%
59	-87.55	-98.95	49.55	87.40	98.94	-49.49	0.115%
60	-85.69	-98.95	48.66	85.55	98.94	-48.60	0.108%
61	-84.33	-98.95	48.16	84.21	98.94	-48.12	0.094%
62	-92.38	-98.95	52.35	92.24	98.94	-52.30	0.099%
63	-93.62	-98.95	53.06	93.48	98.94	-53.00	0.104%
64	-94.44	-98.95	53.60	94.30	98.94	-53.54	0.105%
65	-117.14	-98.47	-2.29	117.00	98.46	2.37	0.106%
66	-107.27	-98.47	-2.19	107.13	98.46	2.27	0.110%
67	-105.15	-98.47	-2.24	105.02	98.46	2.32	0.106%
68	-103.93	-98.47	-1.81	103.82	98.47	1.88	0.094%
69	-113.64	-98.47	-2.28	113.52	98.46	2.36	0.101%
70	-115.01	-98.47	-2.05	114.88	98.46	2.14	0.103%
71	-116.15	-98.47	-2.29	116.02	98.46	2.37	0.105%
72	-100.55	-97.96	-59.45	100.60	97.96	59.31	0.093%

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Load Comb.	Sum of Applied Forces			Sum of Reactions			% Error
	PX K	PY K	PZ K	PX K	PY K	PZ K	
73	-92.34	-97.96	-54.54	92.38	97.96	54.40	0.097%
74	-90.51	-97.96	-53.71	90.55	97.96	53.58	0.093%
75	-88.97	-97.96	-52.54	88.98	97.96	52.42	0.082%
76	-97.36	-97.96	-57.62	97.39	97.96	57.49	0.089%
77	-98.76	-97.96	-58.18	98.77	97.96	58.03	0.095%
78	-99.70	-97.96	-58.95	99.74	97.96	58.82	0.092%
79	-57.21	-98.54	-97.99	57.22	98.53	97.82	0.114%
80	-52.73	-98.54	-90.13	52.73	98.53	89.96	0.118%
81	-51.69	-98.54	-88.65	51.70	98.53	88.49	0.114%
82	-50.34	-98.54	-86.50	50.35	98.54	86.36	0.097%
83	-55.37	-98.54	-94.77	55.37	98.54	94.61	0.103%
84	-56.17	-98.54	-96.07	56.17	98.54	95.91	0.108%
85	-56.72	-98.54	-97.14	56.73	98.54	96.98	0.111%
86	0.00	-281.83	0.00	-0.07	281.83	-0.02	0.024%
87	-0.54	-282.36	-39.22	0.53	282.36	39.19	0.012%
88	18.90	-281.87	-33.86	-18.91	281.87	33.83	0.012%
89	33.61	-281.38	-19.42	-33.60	281.38	19.39	0.012%
90	39.36	-281.73	0.43	-39.33	281.73	-0.43	0.011%
91	34.49	-282.10	19.63	-34.41	282.10	-19.58	0.032%
92	20.16	-281.69	34.03	-20.14	281.69	-34.01	0.011%
93	0.32	-281.30	38.90	-0.35	281.30	-38.88	0.013%
94	-19.57	-281.78	33.10	19.54	281.78	-33.09	0.012%
95	-33.63	-282.27	19.08	33.60	282.27	-19.07	0.012%
96	-39.50	-281.92	-0.86	39.46	281.92	0.87	0.016%
97	-34.48	-281.56	-20.42	34.44	281.56	20.39	0.018%
98	-20.24	-281.97	-34.48	20.23	281.97	34.43	0.016%
99	-0.26	-83.33	-22.07	0.25	83.33	22.05	0.026%
100	10.44	-83.19	-18.30	-10.43	83.19	18.28	0.023%
101	19.57	-83.04	-11.21	-19.56	83.04	11.20	0.019%
102	23.99	-83.14	0.21	-23.97	83.14	-0.21	0.022%
103	20.68	-83.24	11.59	-20.65	83.24	-11.58	0.032%
104	11.72	-83.12	19.78	-11.71	83.12	-19.76	0.023%
105	0.20	-83.01	21.91	-0.21	83.01	-21.89	0.019%
106	-10.46	-83.16	17.96	10.45	83.16	-17.95	0.022%
107	-19.44	-83.31	11.04	19.42	83.31	-11.03	0.028%
108	-23.91	-83.21	-0.47	23.88	83.21	0.46	0.025%
109	-20.52	-83.10	-12.13	20.50	83.10	12.12	0.026%
110	-11.68	-83.22	-20.00	11.66	83.22	19.98	0.024%

Non-Linear Convergence Results

Load Combination	Converged?	Number of Cycles	Displacement Tolerance	Force Tolerance
1	Yes	36	0.00020000	0.00003041
2	Yes	153	0.00019769	0.00009774
3	Yes	155	0.00019624	0.00009874
4	Yes	155	0.00019841	0.00009493
5	Yes	150	0.00019899	0.00008338
6	Yes	150	0.00019477	0.00008740
7	Yes	150	0.00019762	0.00009003
8	Yes	152	0.00019441	0.00009190
9	Yes	152	0.00019939	0.00007854
10	Yes	154	0.00019677	0.00007862
11	Yes	154	0.00019611	0.00007440
12	Yes	146	0.00019914	0.00006601
13	Yes	147	0.00019725	0.00007015

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14	Yes	148	0.00019564	0.00007053
15	Yes	150	0.00019644	0.00007364
16	Yes	55	0.00019985	0.00005472
17	Yes	56	0.00019665	0.00005527
18	Yes	56	0.00019643	0.00005427
19	Yes	48	0.00019761	0.00005345
20	Yes	56	0.00019421	0.00004898
21	Yes	57	0.00019805	0.00005029
22	Yes	55	0.00019491	0.00005116
23	Yes	119	0.00019541	0.00008360
24	Yes	120	0.00019929	0.00008729
25	Yes	120	0.00019886	0.00008208
26	Yes	115	0.00019672	0.00007268
27	Yes	115	0.00019700	0.00007681
28	Yes	116	0.00019512	0.00007723
29	Yes	117	0.00019808	0.00008124
30	Yes	122	0.00019700	0.00009389
31	Yes	124	0.00019394	0.00009445
32	Yes	124	0.00019487	0.00009007
33	Yes	120	0.00019362	0.00007998
34	Yes	119	0.00019696	0.00008540
35	Yes	120	0.00019416	0.00008568
36	Yes	121	0.00019534	0.00008922
37	Yes	121	0.00019676	0.00008267
38	Yes	122	0.00019895	0.00008515
39	Yes	122	0.00019830	0.00008067
40	Yes	117	0.00019969	0.00007299
41	Yes	117	0.00019860	0.00007557
42	Yes	118	0.00019719	0.00007620
43	Yes	119	0.00019988	0.00008036
44	Yes	47	0.00019890	0.00006316
45	Yes	47	0.00019830	0.00006432
46	Yes	47	0.00019825	0.00006216
47	Yes	45	0.00019283	0.00005820
48	Yes	46	0.00019666	0.00005664
49	Yes	52	0.00019663	0.00005275
50	Yes	47	0.00019195	0.00005810
51	Yes	147	0.00019956	0.00007524
52	Yes	149	0.00019656	0.00007517
53	Yes	149	0.00019543	0.00007102
54	Yes	141	0.00019977	0.00006387
55	Yes	142	0.00019543	0.00006624
56	Yes	143	0.00019695	0.00006827
57	Yes	145	0.00019604	0.00007026
58	Yes	148	0.00019437	0.00009249
59	Yes	149	0.00019921	0.00009679
60	Yes	150	0.00019572	0.00008991
61	Yes	144	0.00019915	0.00007993
62	Yes	144	0.00019499	0.00008414
63	Yes	144	0.00019948	0.00008799
64	Yes	146	0.00019557	0.00008889
65	Yes	145	0.00019481	0.00009233
66	Yes	147	0.00019479	0.00009470
67	Yes	147	0.00019543	0.00008924
68	Yes	139	0.00019870	0.00008041
69	Yes	139	0.00019952	0.00008637
70	Yes	140	0.00019859	0.00008773
71	Yes	142	0.00019861	0.00009023
72	Yes	72	0.00019559	0.00006249
73	Yes	73	0.00019670	0.00006532
74	Yes	72	0.00019828	0.00006530
75	Yes	60	0.00019743	0.00006486
76	Yes	68	0.00019803	0.00005998
77	Yes	57	0.00019811	0.00006057

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78	Yes	70	0.00019635	0.00006055
79	Yes	151	0.00019915	0.00009765
80	Yes	153	0.00019773	0.00009879
81	Yes	153	0.00019871	0.00009419
82	Yes	147	0.00019685	0.00008285
83	Yes	147	0.00019556	0.00008731
84	Yes	147	0.00020000	0.00009071
85	Yes	149	0.00019921	0.00009362
86	Yes	48	0.00020000	0.00003340
87	Yes	105	0.00019756	0.00001592
88	Yes	102	0.00019560	0.00001546
89	Yes	81	0.00019457	0.00001769
90	Yes	84	0.00019168	0.00001476
91	Yes	54	0.00020000	0.00003962
92	Yes	79	0.00019408	0.00001576
93	Yes	82	0.00019405	0.00001810
94	Yes	104	0.00019658	0.00001592
95	Yes	108	0.00019362	0.00001543
96	Yes	101	0.00019563	0.00002140
97	Yes	90	0.00019342	0.00002500
98	Yes	99	0.00019655	0.00002148
99	Yes	27	0.00000001	0.00003057
100	Yes	29	0.00000001	0.00002027
101	Yes	30	0.00000001	0.00001691
102	Yes	25	0.00000001	0.00002169
103	Yes	21	0.00000001	0.00004901
104	Yes	25	0.00000001	0.00002272
105	Yes	30	0.00000001	0.00001669
106	Yes	29	0.00000001	0.00001912
107	Yes	26	0.00000001	0.00003291
108	Yes	32	0.00019105	0.00002068
109	Yes	36	0.00019965	0.00002219
110	Yes	33	0.00018966	0.00002043

Maximum Tower Deflections - Service Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	345 - 330	3.202	109	0.041	0.378
T1	330 - 327.719	3.179	109	0.049	0.349
T2	327.719 - 320.875	3.190	109	0.049	0.349
T3	320.875 - 320	3.220	109	0.048	0.349
T4	320 - 300.875	3.224	109	0.047	0.349
T5	300.875 - 300	3.277	109	0.041	0.338
T6	300 - 280.875	3.278	109	0.041	0.336
T7	280.875 - 280	3.290	109	0.031	0.308
T8	280 - 260.875	3.289	109	0.031	0.304
T9	260.875 - 260	3.270	109	0.018	0.277
T10	260 - 240.875	3.269	109	0.017	0.273
T11	240.875 - 240	3.159	109	0.045	0.235
T12	240 - 220.875	3.150	109	0.047	0.230
T13	220.875 - 220	2.894	109	0.079	0.188
T14	220 - 201	2.878	109	0.080	0.183
T15	201 - 200	2.507	109	0.095	0.134
T16	200 - 181	2.484	109	0.095	0.129
T17	181 - 180	2.103	109	0.077	0.099
T18	180 - 161	2.082	109	0.075	0.095
T19	161 - 160	1.868	109	0.048	0.092
T20	160 - 141	1.860	109	0.048	0.095

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Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
T21	141 - 140	1.697	109	0.041	0.120
T22	140 - 121	1.689	109	0.041	0.122
T23	121 - 120	1.530	108	0.040	0.142
T24	120 - 101	1.522	108	0.039	0.144
T25	101 - 100	1.379	108	0.028	0.157
T26	100 - 81	1.372	108	0.027	0.158
T27	81 - 80	1.303	108	0.028	0.165
T28	80 - 61	1.299	108	0.028	0.166
T29	61 - 60	1.169	108	0.048	0.168
T30	60 - 41	1.159	108	0.049	0.168
T31	41 - 40	0.908	108	0.078	0.163
T32	40 - 21	0.891	108	0.080	0.162
T33	21 - 20	0.511	108	0.105	0.152
T34	20 - 16.66	0.487	108	0.106	0.150
T35	16.66 - 14.33	0.410	108	0.109	0.149
T36	14.33 - 12	0.355	108	0.111	0.147
T37	12 - 9.335	0.298	108	0.113	0.146
T38	9.335 - 6.67	0.232	108	0.115	0.144
T39	6.67 - 0	0.166	108	0.116	0.142

Critical Deflections and Radius of Curvature - Service Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
342.00	FM Antenna	109	3.190	0.043	0.370	28074
338.00	(3) FM Antennas	109	3.177	0.046	0.360	20053
332.50	FM Antenna	109	3.173	0.048	0.350	12154
330.00	Guy	109	3.179	0.049	0.349	16322
317.50	P-9A120GN	109	3.235	0.047	0.349	79194
312.00	FM Antenna	109	3.254	0.045	0.349	71546
308.00	P-9A120GN	109	3.264	0.044	0.347	75535
297.55	Guy	109	3.281	0.040	0.332	436874
295.50	3' Standoff	109	3.284	0.039	0.330	468203
294.00	LeBlanc 10' Standoff (1)	109	3.286	0.039	0.329	219687
288.00	FM Antenna	109	3.292	0.035	0.325	69994
279.00	FM Antenna	109	3.288	0.030	0.300	133012
274.00	SPD6-58	109	3.282	0.028	0.292	253053
270.44	Guy	109	3.279	0.026	0.291	198567
264.25	6' Standoff	109	3.273	0.022	0.287	186985
255.00	6ft Dish	109	3.257	0.022	0.260	22591
252.00	6' Standoff	109	3.243	0.026	0.257	25101
251.00	P-9A72GN-S	109	3.237	0.028	0.257	26066
226.50	(3) 12' Sector Frames	109	2.987	0.070	0.207	23077
219.50	FM Antenna	109	2.869	0.081	0.180	51002
215.00	4ft Dish	109	2.786	0.087	0.163	79741
210.00	6ft Dish	109	2.693	0.091	0.155	43584
209.00	MFF-950B	109	2.673	0.092	0.154	39960
208.00	Horizontal Support Pipe	109	2.654	0.092	0.152	36893
205.50	6' Standoff	109	2.603	0.093	0.148	31019
200.00	(3) 10' Sector Frames	109	2.484	0.095	0.129	110093
186.50	(3) 10.5' Sector Frames	109	2.213	0.086	0.109	77652
183.00	4ft Dish	109	2.144	0.081	0.104	159277
177.25	Guy	109	2.032	0.069	0.088	10362
168.00	(3) 12' Sector Frames w/ (2) MPs	109	1.923	0.055	0.087	27387
153.50	Horizontal Support Pipe	109	1.805	0.044	0.108	171256
150.50	Horizontal Support Pipe	109	1.778	0.043	0.110	348334

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<i>Elevation</i>	<i>Appurtenance</i>	<i>Gov. Load Comb.</i>	<i>Deflection in</i>	<i>Tilt °</i>	<i>Twist °</i>	<i>Radius of Curvature ft</i>
<i>ft</i>						
138.50	4' Standoff	109	1.677	0.041	0.125	244296
130.00	P-9A72GN-S	109	1.606	0.041	0.132	129585
123.50	(2) 18" Dishes	108	1.551	0.040	0.138	140406
112.00	MTZ-940B	108	1.459	0.037	0.152	127049
106.50	(2) 18" Dishes	108	1.419	0.033	0.154	210228
99.92	Guy	108	1.371	0.027	0.158	34402
90.00	PR-950	108	1.327	0.024	0.162	60855
36.00	SPD3-2.4NS	108	0.820	0.086	0.160	45188

Maximum Tower Deflections - Design Wind

<i>Section No.</i>	<i>Elevation ft</i>	<i>Horz. Deflection in</i>	<i>Gov. Load Comb.</i>	<i>Tilt °</i>	<i>Twist °</i>
L1	345 - 330	31.429	4	0.415	1.852
T1	330 - 327.719	30.179	4	0.374	1.700
T2	327.719 - 320.875	30.102	3	0.375	1.702
T3	320.875 - 320	29.889	3	0.383	1.706
T4	320 - 300.875	29.863	3	0.385	1.708
T5	300.875 - 300	29.116	3	0.414	1.661
T6	300 - 280.875	29.075	3	0.415	1.653
T7	280.875 - 280	28.202	80	0.443	1.530
T8	280 - 260.875	28.155	80	0.444	1.512
T9	260.875 - 260	27.059	80	0.459	1.381
T10	260 - 240.875	27.007	80	0.465	1.361
T11	240.875 - 240	25.342	80	0.618	1.196
T12	240 - 220.875	25.246	80	0.625	1.176
T13	220.875 - 220	22.736	80	0.774	1.000
T14	220 - 201	22.597	80	0.780	0.978
T15	201 - 200	19.645	79	0.840	0.770
T16	200 - 181	19.478	79	0.840	0.750
T17	181 - 180	16.875	65	0.739	0.616
T18	180 - 161	16.740	65	0.728	0.601
T19	161 - 160	15.105	71	0.588	0.576
T20	160 - 141	15.035	71	0.583	0.590
T21	141 - 140	13.652	71	0.527	0.704
T22	140 - 121	13.581	70	0.524	0.713
T23	121 - 120	12.198	70	0.480	0.794
T24	120 - 101	12.120	70	0.477	0.802
T25	101 - 100	10.743	69	0.390	0.850
T26	100 - 81	10.673	69	0.384	0.853
T27	81 - 80	9.662	69	0.328	0.884
T28	80 - 61	9.609	69	0.327	0.886
T29	61 - 60	8.262	69	0.419	0.890
T30	60 - 41	8.178	69	0.426	0.888
T31	41 - 40	6.194	69	0.578	0.861
T32	40 - 21	6.069	69	0.586	0.856
T33	21 - 20	3.411	69	0.719	0.797
T34	20 - 16.66	3.251	69	0.724	0.790
T35	16.66 - 14.33	2.730	69	0.740	0.781
T36	14.33 - 12	2.359	69	0.750	0.774
T37	12 - 9.335	1.982	69	0.759	0.766
T38	9.335 - 6.67	1.544	69	0.768	0.759
T39	6.67 - 0	1.104	69	0.774	0.744

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Critical Deflections and Radius of Curvature - Design Wind

<i>Elevation</i>	<i>Appurtenance</i>	<i>Gov. Load Comb.</i>	<i>Deflection</i>	<i>Tilt</i>	<i>Twist</i>	<i>Radius of Curvature</i>
<i>ft</i>			<i>in</i>	<i>°</i>	<i>°</i>	<i>ft</i>
342.00	FM Antenna	4	31.139	0.402	1.808	5967
338.00	(3) FM Antennas	4	30.769	0.387	1.755	4262
332.50	FM Antenna	4	30.334	0.375	1.707	2588
330.00	Guy	4	30.179	0.374	1.700	3526
317.50	P-9A120GN	3	29.783	0.389	1.711	11500
312.00	FM Antenna	3	29.588	0.398	1.712	11534
308.00	P-9A120GN	3	29.428	0.404	1.704	13540
297.55	Guy	3	28.961	0.419	1.636	24091
295.50	3' Standoff	3	28.865	0.422	1.628	19586
294.00	LeBlanc 10' Standoff (1)	80	28.800	0.424	1.624	16544
288.00	FM Antenna	80	28.549	0.435	1.608	10191
279.00	FM Antenna	80	28.100	0.444	1.495	14511
274.00	SPD6-58	80	27.821	0.445	1.456	16537
270.44	Guy	80	27.618	0.445	1.453	21164
264.25	6' Standoff	80	27.258	0.448	1.432	19449
255.00	6ft Dish	80	26.664	0.501	1.296	4059
252.00	6' Standoff	80	26.423	0.524	1.285	4413
251.00	P-9A72GN-S	80	26.337	0.532	1.283	4545
226.50	(3) 12' Sector Frames	80	23.573	0.735	1.080	4135
219.50	FM Antenna	80	22.518	0.783	0.966	10251
215.00	4ft Dish	79	21.815	0.806	0.894	16248
210.00	6ft Dish	79	21.070	0.826	0.860	8813
209.00	MFF-950B	79	20.918	0.829	0.855	7942
208.00	Horizontal Support Pipe	79	20.765	0.831	0.850	7228
205.50	6' Standoff	79	20.376	0.836	0.832	5915
200.00	(3) 10' Sector Frames	79	19.478	0.840	0.750	9875
186.50	(3) 10.5' Sector Frames	65	17.600	0.790	0.662	15192
183.00	4ft Dish	65	17.143	0.760	0.640	15292
177.25	Guy	71	16.401	0.699	0.571	2011
168.00	(3) 12' Sector Frames w/ (2) MPs	71	15.586	0.627	0.565	4352
153.50	Horizontal Support Pipe	71	14.568	0.559	0.647	12023
150.50	Horizontal Support Pipe	71	14.347	0.550	0.659	10107
138.50	4' Standoff	70	13.478	0.521	0.724	14141
130.00	P-9A72GN-S	70	12.874	0.503	0.759	13771
123.50	(2) 18" Dishes	70	12.390	0.487	0.780	11502
112.00	MTZ-940B	70	11.519	0.447	0.833	11471
106.50	(2) 18" Dishes	69	11.125	0.420	0.840	10482
99.92	Guy	69	10.667	0.383	0.853	5877
90.00	PR-950	69	10.103	0.343	0.871	7753
36.00	SPD3-2.4NS	69	5.559	0.618	0.844	8266

Bolt Design Data

<i>Section No.</i>	<i>Elevation</i>	<i>Component Type</i>	<i>Bolt Grade</i>	<i>Bolt Size</i>	<i>Number Of Bolts</i>	<i>Maximum Load per Bolt K</i>	<i>Allowable Load per Bolt K</i>	<i>Ratio Load Allowable</i>	<i>Allowable Ratio</i>	<i>Criteria</i>
	<i>ft</i>			<i>in</i>						
T3	320.875	Leg	A325N	0.7500	5	4.72	35.78	0.132	1	Bolt DS
T5	300.875	Leg	A325N	0.7500	5	5.38	35.78	0.150	1	Bolt DS
T7	280.875	Leg	A325N	0.7500	5	7.76	35.78	0.217	1	Bolt DS
T9	260.875	Leg	A325N	0.7500	5	15.07	35.78	0.421	1	Bolt DS
T11	240.875	Leg	A325N	0.7500	5	17.69	35.78	0.494	1	Bolt DS

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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
T13	220.875	Leg	A325N	0.7500	5	16.59	35.78	0.464	1	Bolt DS
T15	201	Leg	A325N	0.8750	5	14.48	48.71	0.297	1	Bolt DS
T17	181	Leg	A325N	0.8750	5	30.21	48.71	0.620	1	Bolt DS
T18	180	Torque Arm Top@177.25	A325N	1.0000	4	8.13	39.54	0.206	1	Member Block Shear
		Torque Arm Bottom@177.25	A325N	1.0000	4	6.37	63.62	0.100	1	Bolt Shear
T19	161	Leg	A325N	0.8750	5	28.16	48.71	0.578	1	Bolt DS
T21	141	Leg	A325N	0.8750	5	24.48	48.71	0.503	1	Bolt DS
T23	121	Leg	A325N	0.8750	5	23.88	48.71	0.490	1	Bolt DS
T25	101	Leg	A325N	0.8750	5	28.28	48.71	0.581	1	Bolt DS
T27	81	Leg	A325N	0.8750	5	26.01	48.71	0.534	1	Bolt DS
T29	61	Leg	A325N	0.7500	5	30.61	35.78	0.855	1	Bolt DS
T31	41	Leg	A325N	0.7500	5	31.13	35.78	0.870	1	Bolt DS
T33	21	Leg	A325N	0.7500	5	29.77	35.78	0.832	1	Bolt DS

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	330.00 (A) (1260)	11/16 BS	5.80	58.00	20.00	34.80	1.000	1.740
	330.00 (B) (1259)	11/16 BS	5.80	58.00	21.50	34.80	1.000	1.619
	330.00 (C) (1258)	11/16 BS	5.80	58.00	19.76	34.80	1.000	1.761
T6	297.55 (A) (1263)	9/16 BS	3.80	38.00	14.34	22.80	1.000	1.590
	297.55 (B) (1262)	9/16 BS	3.80	38.00	15.36	22.80	1.000	1.484
	297.55 (C) (1261)	9/16 BS	3.80	38.00	14.24	22.80	1.000	1.601
T8	270.44 (A) (1266)	13/16 BS	8.00	80.00	31.24	48.00	1.000	1.536
	270.44 (B) (1265)	13/16 BS	8.00	80.00	33.40	48.00	1.000	1.437
	270.44 (C) (1264)	13/16 BS	8.00	80.00	31.17	48.00	1.000	1.540
T18	177.25 (A) (1279)	15/16 BS	10.80	108.00	35.24	64.80	1.000	1.839
	177.25 (A) (1280)	15/16 BS	10.80	108.00	38.35	64.80	1.000	1.689
	177.25 (B) (1273)	15/16 BS	10.80	108.00	42.36	64.80	1.000	1.530
	177.25 (B) (1274)	15/16 BS	10.80	108.00	42.94	64.80	1.000	1.509
	177.25 (C) (1267)	15/16 BS	10.80	108.00	39.66	64.80	1.000	1.634
	177.25 (C) (1268)	15/16 BS	10.80	108.00	37.69	64.80	1.000	1.719
T26	99.92 (A) (1287)	15/16 BS	10.80	108.00	32.78	64.80	1.000	1.977
	99.92 (B)	15/16 BS	10.80	108.00	40.08	64.80	1.000	1.617

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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.
	(1286) 99.92 (C) (1285)	15/16 BS	10.80	108.00	36.41	64.80	1.000	1.780

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 $\frac{P_u}{\phi P_n}$
L1	345 - 330	1 1/4	15.00	1.00	38.4 K=1.00	1.2272	-9.46	49.58	0.191 ¹
T1	330 - 327.719	2 1/4	2.28	0.08	1.8 K=1.00	3.9761	-17.92	178.88	0.100 ¹
T2	327.719 - 320.875	2 1/4	6.84	2.23	47.5 K=1.00	3.9761	-22.14	151.73	0.146 ¹
T3	320.875 - 320	2 1/4	0.88	0.08	1.8 K=1.00	3.9761	-23.62	178.88	0.132 ¹
T4	320 - 300.875	2 1/4	19.13	2.37	50.6 K=1.00	3.9761	-27.52	148.43	0.185 ¹
T5	300.875 - 300	2 1/4	0.88	0.71	15.1 K=1.00	3.9761	-26.98	175.96	0.153 ¹
T6	300 - 280.875	2 1/4	19.13	2.37	50.6 K=1.00	3.9761	-41.80	148.43	0.282 ¹
T7	280.875 - 280	2 1/4	0.88	0.71	15.1 K=1.00	3.9761	-39.08	175.96	0.222 ¹
T8	280 - 260.875	2 1/4	19.13	2.37	50.6 K=1.00	3.9761	-72.11	148.43	0.486 ¹
T9	260.875 - 260	2 1/4	0.88	0.71	15.1 K=1.00	3.9761	-74.17	175.96	0.422 ¹
T10	260 - 240.875	2 1/4	19.13	2.37	50.6 K=1.00	3.9761	-87.77	148.43	0.591 ¹
T11	240.875 - 240	2 1/4	0.88	0.71	15.1 K=1.00	3.9761	-88.23	175.96	0.501 ¹
T12	240 - 220.875	2 1/4	19.13	2.37	50.6 K=1.00	3.9761	-88.94	148.43	0.599 ¹
T13	220.875 - 220	2 1/4	0.88	0.71	15.1 K=1.00	3.9761	-83.71	175.96	0.476 ¹
T14	220 - 201	2 1/2	19.00	2.35	45.2 K=1.00	4.9087	-81.53	190.24	0.429 ¹
T15	201 - 200	2 1/2	1.00	0.08	1.6 K=1.00	4.9087	-72.42	220.85	0.328 ¹
T16	200 - 181	2 3/4	19.00	2.35	41.1 K=1.00	5.9396	-137.77	236.24	0.583 ¹
T17	181 - 180	2 3/4	1.00	0.08	1.5 K=1.00	5.9396	-151.05	267.24	0.565 ¹
T18	180 - 161	2 3/4	19.00	2.35	41.1 K=1.00	5.9396	-174.68	236.24	0.739 ¹
T19	161 - 160	2 3/4	1.00	0.83	14.5 K=1.00	5.9396	-142.16	263.18	0.540 ¹
T20	160 - 141	2 3/4	19.00	2.35	41.1 K=1.00	5.9396	-138.72	236.24	0.587 ¹

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Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _n K	Ratio $\frac{P_u}{\phi P_n}$
T21	141 - 140	2 3/4	1.00	0.83	14.5 K=1.00	5.9396	-122.95	263.18	0.467 ¹
T22	140 - 121	2 3/4	19.00	2.35	41.1 K=1.00	5.9396	-121.81	236.24	0.516 ¹
T23	121 - 120	2 3/4	1.00	0.83	14.5 K=1.00	5.9396	-119.25	263.18	0.453 ¹
T24	120 - 101	2 3/4	19.00	2.35	41.1 K=1.00	5.9396	-136.38	236.24	0.577 ¹
T25	101 - 100	2 3/4	1.00	0.83	14.5 K=1.00	5.9396	-139.41	263.18	0.530 ¹
T26	100 - 81	2 3/4	19.00	2.35	41.1 K=1.00	5.9396	-140.05	236.24	0.593 ¹
T27	81 - 80	2 3/4	1.00	0.83	14.5 K=1.00	5.9396	-129.24	263.18	0.491 ¹
T28	80 - 61	2 3/4	19.00	2.35	41.1 K=1.00	5.9396	-150.86	236.24	0.639 ¹
T29	61 - 60	2 3/4	1.00	0.83	14.5 K=1.00	5.9396	-152.25	263.18	0.578 ¹
T30	60 - 41	2 3/4	19.00	2.35	41.1 K=1.00	5.9396	-157.58	236.24	0.667 ¹
T31	41 - 40	2 3/4	1.00	0.83	14.5 K=1.00	5.9396	-156.05	263.18	0.593 ¹
T32	40 - 21	2 3/4	19.00	2.35	41.1 K=1.00	5.9396	-154.85	236.24	0.655 ¹
T33	21 - 20	2 3/4	1.00	0.83	14.5 K=1.00	5.9396	-148.97	263.18	0.566 ¹
T34	20 - 16.66	2 3/4	3.34	3.17	55.4 K=1.00	5.9396	-144.31	213.57	0.676 ¹
T35	16.66 - 14.33	2 3/4	2.33	2.16	37.8 K=1.00	5.9396	-147.87	240.82	0.614 ¹
T36	14.33 - 12	2 3/4	2.33	2.16	37.8 K=1.00	5.9396	-145.55	240.82	0.604 ¹
T37	12 - 9.335	2 3/4	2.66	1.25	21.8 K=1.00	5.9396	-145.65	258.15	0.564 ¹
T38	9.335 - 6.67	2 3/4	2.66	1.25	21.8 K=1.00	5.9396	-144.90	258.15	0.561 ¹
T39	6.67 - 0	2 3/4	7.27	1.93	33.7 K=1.00	5.9396	-151.42	245.97	0.616 ¹

¹ P_u / φP_n controls

Diagonal 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 $\frac{P_u}{\phi P_n}$
L1	345 - 330	1/2	2.87	2.75	85.7 K=0.32	0.1963	-3.12	5.17	0.603 ¹
T1	330 - 327.719	7/8	3.33	3.20	114.2 K=0.65	0.6013	-4.47	10.41	0.429 ¹
T2	327.719 - 320.875	7/8	5.47	5.27	93.9 K=0.32	0.6013	-1.54	14.20	0.108 ¹
T3	320.875 - 320	7/8	2.60	2.50	89.2 K=0.65	0.6013	-1.32	15.13	0.087 ¹
T4	320 - 300.875	7/8	5.53	5.33	94.9 K=0.32	0.6013	-1.58	14.00	0.113 ¹

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Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _n K	Ratio $\frac{P_u}{\phi P_n}$
T5	300.875 - 300	7/8	2.60	2.50	89.2 K=0.65	0.6013	-1.61	15.13	0.106 ¹
T6	300 - 280.875	7/8	5.53	5.33	94.9 K=0.32	0.6013	-2.68	14.00	0.191 ¹
T7	280.875 - 280	7/8	2.60	2.50	89.2 K=0.65	0.6013	-2.63	15.13	0.174 ¹
T8	280 - 260.875	1	5.53	5.33	83.1 K=0.32	0.7854	-4.97	21.34	0.233 ¹
T9	260.875 - 260	1	2.60	2.50	78.0 K=0.65	0.7854	-4.71	22.64	0.208 ¹
T10	260 - 240.875	1	5.53	5.33	83.1 K=0.32	0.7854	-4.61	21.34	0.216 ¹
T11	240.875 - 240	1	2.60	2.50	78.0 K=0.65	0.7854	-2.36	22.64	0.104 ¹
T12	240 - 220.875	1	5.53	5.33	83.1 K=0.32	0.7854	-3.75	21.34	0.176 ¹
T13	220.875 - 220	1	2.60	2.50	78.0 K=0.65	0.7854	-3.70	22.64	0.163 ¹
T14	220 - 201	1	5.53	5.30	82.6 K=0.32	0.7854	-6.23	21.46	0.291 ¹
T15	201 - 200	1	2.64	2.53	78.8 K=0.65	0.7854	-6.38	22.45	0.284 ¹
T16	200 - 181	1 1/4	5.53	5.27	65.8 K=0.32	1.2272	-11.06	40.23	0.275 ¹
T17	181 - 180	1 1/4	2.64	2.51	62.8 K=0.65	1.2272	-10.28	41.40	0.248 ¹
T18	180 - 161	1	5.53	5.27	82.3 K=0.32	0.7854	-7.93	21.55	0.368 ¹
T19	161 - 160	1	2.64	2.51	78.5 K=0.65	0.7854	-5.06	22.54	0.225 ¹
T20	160 - 141	1	5.53	5.27	82.3 K=0.32	0.7854	-5.21	21.55	0.242 ¹
T21	141 - 140	1	2.64	2.51	78.5 K=0.65	0.7854	-2.44	22.54	0.108 ¹
T22	140 - 121	1	5.53	5.27	82.3 K=0.32	0.7854	-3.23	21.55	0.150 ¹
T23	121 - 120	1	2.64	2.51	78.5 K=0.65	0.7854	-3.14	22.54	0.139 ¹
T24	120 - 101	1	5.53	5.27	82.3 K=0.32	0.7854	-5.17	21.55	0.240 ¹
T25	101 - 100	1	2.64	2.51	78.5 K=0.65	0.7854	-4.81	22.54	0.214 ¹
T26	100 - 81	1	5.53	5.27	82.3 K=0.32	0.7854	-6.05	21.55	0.281 ¹
T27	81 - 80	1	2.64	2.51	78.5 K=0.65	0.7854	-4.37	22.54	0.194 ¹
T28	80 - 61	1	5.53	5.27	82.3 K=0.32	0.7854	-4.36	21.55	0.202 ¹
T29	61 - 60	1	2.64	2.51	78.5 K=0.65	0.7854	-2.31	22.54	0.103 ¹
T30	60 - 41	1	5.53	5.27	82.3 K=0.32	0.7854	-2.34	21.55	0.109 ¹
T31	41 - 40	1	2.64	2.51	78.5 K=0.65	0.7854	-1.14	22.54	0.050 ¹
T32	40 - 21	1	5.53	5.27	82.3 K=0.32	0.7854	-3.15	21.55	0.146 ¹
T33	21 - 20	1	2.64	2.51	78.5 K=0.65	0.7854	-2.93	22.54	0.130 ¹
T34	20 - 16.66	1 1/4	5.92	5.65	70.5 K=0.32	1.2272	-6.08	38.39	0.158 ¹

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Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _n K	Ratio $\frac{P_u}{\phi P_n}$
T35	16.66 - 14.33	1 1/4	5.45	5.20	64.9 K=0.32	1.2272	-3.37	40.60	0.083 ¹
T36	14.33 - 12	1 1/4	5.45	5.20	64.9 K=0.32	1.2272	-5.08	40.60	0.125 ¹
T37	12 - 9.335	1 1/4	3.53	3.37	84.2 K=0.65	1.2272	-5.42	32.90	0.165 ¹
T38	9.335 - 6.67	1 1/4	3.53	3.37	84.2 K=0.65	1.2272	-5.64	32.90	0.172 ¹
T39	6.67 - 0	1 1/4	3.38	2.97	37.0 K=0.32	1.2272	-21.30	49.95	0.426 ¹

¹ P_u / φP_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	330 - 327.719	6 x 3/4	5.00	3.61	130.0 K=0.65	4.5000	-0.27	60.12	0.004 ¹
T2	327.719 - 320.875	1	5.00	4.81	150.1 K=0.65	0.7854	-0.16	7.87	0.020 ¹
T3	320.875 - 320	1	5.00	3.61	112.6 K=0.65	0.7854	-1.13	13.98	0.080 ¹
T5	300.875 - 300	1	5.00	3.61	112.6 K=0.65	0.7854	-1.77	13.98	0.127 ¹
T7	280.875 - 280	1	5.00	3.61	112.6 K=0.65	0.7854	-2.43	13.98	0.174 ¹
T9	260.875 - 260	1	5.00	3.61	112.6 K=0.65	0.7854	-4.17	13.98	0.299 ¹
T11	240.875 - 240	1	5.00	3.61	112.6 K=0.65	0.7854	-2.10	13.98	0.150 ¹
T13	220.875 - 220	1	5.00	3.61	112.6 K=0.65	0.7854	-3.47	13.98	0.248 ¹
T15	201 - 200	1 1/4	5.00	3.59	89.7 K=0.65	1.2272	-5.83	30.66	0.190 ¹
T17	181 - 180	1 1/4	5.00	3.58	89.3 K=0.65	1.2272	-10.90	30.82	0.354 ¹
T19	161 - 160	1 1/4	5.00	3.58	89.3 K=0.65	1.2272	-4.58	30.82	0.149 ¹
T21	141 - 140	1 1/4	5.00	3.58	89.3 K=0.65	1.2272	-2.13	30.82	0.069 ¹
T23	121 - 120	1 1/4	5.00	3.58	89.3 K=0.65	1.2272	-2.61	30.82	0.085 ¹
T25	101 - 100	1 1/4	5.00	3.58	89.3 K=0.65	1.2272	-3.53	30.82	0.115 ¹
T27	81 - 80	1 1/4	5.00	3.58	89.3 K=0.65	1.2272	-3.74	30.82	0.121 ¹
T29	61 - 60	1 1/4	5.00	3.58	89.3 K=0.65	1.2272	-2.64	30.82	0.086 ¹
T31	41 - 40	1 1/4	5.00	3.58	89.3 K=0.65	1.2272	-2.70	30.82	0.088 ¹
T33	21 - 20	1 1/4	5.00	3.58	89.3 K=0.65	1.2272	-2.58	30.82	0.084 ¹
T37	12 - 9.335	6 x 3/4	5.00	3.58	128.9 K=0.65	4.5000	-2.52	61.18	0.041 ¹

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Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _n K	Ratio $\frac{P_u}{\phi P_n}$
T38	9.335 - 6.67	L4x4x3/8	5.00	3.58	22.7 K=0.65	2.8600	-2.51	90.19	0.028 ¹

¹ P_u / φP_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 $\frac{P_u}{\phi P_n}$
T1	330 - 327.719	1	5.00	4.81	150.1 K=0.65	0.7854	-0.27	7.87	0.034 ¹
T37	12 - 9.335	7/8	5.00	4.77	52.3 K=0.20	0.6013	-2.52	22.15	0.114 ¹
T38	9.335 - 6.67	7/8	5.00	4.77	52.3 K=0.20	0.6013	-2.51	22.15	0.113 ¹
T39	6.67 - 0	7/8	3.61	3.38	120.5 K=0.65	0.6013	-2.92	9.35	0.312 ¹

¹ P_u / φP_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 $\frac{P_u}{\phi P_n}$
L1	345 - 330	3/4	2.50	2.40	99.7 K=0.65	0.4418	-0.02	9.62	0.002 ¹
T4	320 - 300.875	1	5.00	4.81	150.1 K=0.65	0.7854	-0.01	7.87	0.001 ¹
T6	300 - 280.875	1	5.00	4.81	150.1 K=0.65	0.7854	-1.65	7.87	0.209 ¹
T12	240 - 220.875	1	5.00	4.81	150.1 K=0.65	0.7854	-0.06	7.87	0.007 ¹
T14	220 - 201	1 1/4	5.00	4.79	119.6 K=0.65	1.2272	-0.23	19.38	0.012 ¹
T16	200 - 181	1 1/4	5.00	4.77	119.1 K=0.65	1.2272	-0.86	19.55	0.044 ¹
T18	180 - 161	1 1/4	5.00	4.77	119.1 K=0.65	1.2272	-13.12	19.55	0.671 ¹
T20	160 - 141	1 1/4	5.00	4.77	119.1 K=0.65	1.2272	-0.04	19.55	0.002 ¹

¹ P_u / φP_n controls

Bottom Girt Design Data (Compression)

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Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _n K	Ratio $\frac{P_u}{\phi P_n}$
L1	345 - 330	3/4	2.50	2.40	99.7 K=0.65	0.4418	-1.24	9.62	0.128 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 $\frac{P_u}{\phi P_n}$
L1	345 - 330	3/4	2.50	2.40	99.7 K=0.65	0.4418	-0.18	9.62	0.019 ¹
T6	300 - 280.875	1	5.00	4.81	150.1 K=0.65	0.7854	-0.25	7.87	0.031 ¹
T10	260 - 240.875	1	5.00	4.81	150.1 K=0.65	0.7854	-0.25	7.87	0.032 ¹
T12	240 - 220.875	1	5.00	4.81	150.1 K=0.65	0.7854	-0.06	7.87	0.008 ¹
T14	220 - 201	1 1/4	5.00	4.79	119.6 K=0.65	1.2272	-0.13	19.38	0.007 ¹
T16	200 - 181	1 1/4	5.00	4.77	119.1 K=0.65	1.2272	-0.10	19.55	0.005 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 $\frac{P_u}{\phi P_n}$
T18	180 - 161 (1271)	2L4x4x3/8	4.53	4.40	32.2 K=0.75	5.7200	-19.97	175.49	0.114 ¹
T18	180 - 161 (1272)	2L4x4x3/8	4.53	4.40	32.2 K=0.75	5.7200	-18.37	175.49	0.105 ¹
T18	180 - 161 (1277)	2L4x4x3/8	4.53	4.40	32.2 K=0.75	5.7200	-25.33	175.49	0.144 ¹
T18	180 - 161 (1278)	2L4x4x3/8	4.53	4.40	32.2 K=0.75	5.7200	-20.99	175.49	0.120 ¹
T18	180 - 161 (1283)	2L4x4x3/8	4.53	4.40	32.2 K=0.75	5.7200	-25.47	175.49	0.145 ¹
T18	180 - 161 (1284)	2L4x4x3/8	4.53	4.40	32.2 K=0.75	5.7200	-20.34	175.49	0.116 ¹

¹ P_u / φP_n controls

Tension Checks

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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 $\frac{P_u}{\phi P_n}$
L1	345 - 330	1 1/4	15.00	1.00	38.4	1.2272	8.73	55.22	0.158 ¹
T2	327.719 - 320.875	2 1/4	6.84	0.08	1.8	3.9761	1.88	178.92	0.011 ¹
T3	320.875 - 320	2 1/4	0.88	0.08	1.8	2.1885	2.38	106.69	0.022 ^{1 #}
T4	320 - 300.875	2 1/4	19.13	2.37	50.6	3.9761	5.73	178.92	0.032 ¹
T5	300.875 - 300	2 1/4	0.88	0.08	1.8	2.1885	5.09	106.69	0.048 ^{1 #}
T6	300 - 280.875	2 1/4	19.13	2.37	50.6	3.9761	5.66	178.92	0.032 ¹
T7	280.875 - 280	2 1/4	0.88	0.08	1.8	2.1885	1.89	106.69	0.018 ^{1 #}
T8	280 - 260.875	2 1/4	19.13	0.08	1.8	3.9761	9.20	178.92	0.051 ¹
T9	260.875 - 260	2 1/4	0.88	0.08	1.8	2.1885	10.41	106.69	0.098 ^{1 #}
T10	260 - 240.875	2 1/4	19.13	2.37	50.6	3.9761	21.24	178.92	0.119 ¹
T11	240.875 - 240	2 1/4	0.88	0.08	1.8	2.1885	21.21	106.69	0.199 ^{1 #}
T12	240 - 220.875	2 1/4	19.13	0.08	1.8	3.9761	21.21	178.92	0.119 ¹
T13	220.875 - 220	2 1/4	0.88	0.08	1.8	2.9138	9.16	142.05	0.064 ^{1 #}
T14	220 - 201	2 1/2	19.00	0.08	1.6	4.9087	9.16	220.89	0.041 ¹
T16	200 - 181	2 3/4	19.00	0.08	1.5	5.9396	55.07	267.28	0.206 ¹
T17	181 - 180	2 3/4	1.00	0.08	1.5	3.4123	60.31	166.35	0.363 ^{1 #}
T18	180 - 161	2 3/4	19.00	0.08	1.5	5.9396	60.31	267.28	0.226 ¹

¹ P_u / φP_n controls

Diagonal 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 $\frac{P_u}{\phi P_n}$
L1	345 - 330	1/2	2.87	2.75	263.6	0.1963	3.16	8.84	0.358 ¹
T1	330 - 327.719	7/8	3.33	3.20	175.8	0.6013	1.53	27.06	0.057 ¹
T2	327.719 - 320.875	7/8	5.47	5.27	289.0	0.6013	1.39	27.06	0.051 ¹
T3	320.875 - 320	7/8	2.60	2.50	137.2	0.6013	1.26	27.06	0.047 ¹
T4	320 - 300.875	7/8	5.53	5.33	292.2	0.6013	1.56	27.06	0.058 ¹
T5	300.875 - 300	7/8	2.60	2.50	137.2	0.6013	1.54	27.06	0.057 ¹
T6	300 - 280.875	7/8	5.53	5.33	292.2	0.6013	3.59	27.06	0.133 ¹
T7	280.875 - 280	7/8	2.60	2.50	137.2	0.6013	2.57	27.06	0.095 ¹
T8	280 - 260.875	1	5.53	5.33	255.6	0.7854	4.87	35.34	0.138 ¹
T9	260.875 - 260	1	2.60	2.50	120.0	0.7854	4.64	35.34	0.131 ¹
T10	260 - 240.875	1	5.53	5.33	255.6	0.7854	4.33	35.34	0.122 ¹
T11	240.875 - 240	1	2.60	2.50	120.0	0.7854	2.29	35.34	0.065 ¹
T12	240 - 220.875	1	5.53	5.33	255.6	0.7854	3.71	35.34	0.105 ¹
T13	220.875 - 220	1	2.60	2.50	120.0	0.7854	3.63	35.34	0.103 ¹
T14	220 - 201	1	5.53	5.30	254.2	0.7854	5.94	35.34	0.168 ¹
T15	201 - 200	1	2.64	2.53	121.2	0.7854	6.29	35.34	0.178 ¹
T16	200 - 181	1 1/4	5.53	5.27	202.5	1.2272	10.54	55.22	0.191 ¹
T17	181 - 180	1 1/4	2.64	2.51	96.6	1.2272	10.20	55.22	0.185 ¹
T18	180 - 161	1	5.53	5.27	253.1	0.7854	8.02	35.34	0.227 ¹
T19	161 - 160	1	2.64	2.51	120.7	0.7854	4.98	35.34	0.141 ¹
T20	160 - 141	1	5.53	5.27	253.1	0.7854	4.51	35.34	0.128 ¹
T21	141 - 140	1	2.64	2.51	120.7	0.7854	2.36	35.34	0.067 ¹
T22	140 - 121	1	5.53	5.27	253.1	0.7854	2.72	35.34	0.077 ¹
T23	121 - 120	1	2.64	2.51	120.7	0.7854	3.05	35.34	0.086 ¹
T24	120 - 101	1	5.53	5.27	253.1	0.7854	4.41	35.34	0.125 ¹

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Section No.	Elevation	Size	L	L _u	Kl/r	A	P _u	φP _n	Ratio $\frac{P_u}{\phi P_n}$
	ft		ft	ft		in ²	K	K	
T25	101 - 100	1	2.64	2.51	120.7	0.7854	4.77	35.34	0.135 ¹
T26	100 - 81	1	5.53	5.27	253.1	0.7854	6.20	35.34	0.176 ¹
T27	81 - 80	1	2.64	2.51	120.7	0.7854	4.28	35.34	0.121 ¹
T28	80 - 61	1	5.53	5.27	253.1	0.7854	3.66	35.34	0.104 ¹
T29	61 - 60	1	2.64	2.51	120.7	0.7854	2.22	35.34	0.063 ¹
T30	60 - 41	1	5.53	5.27	253.1	0.7854	1.80	35.34	0.051 ¹
T31	41 - 40	1	2.64	2.51	120.7	0.7854	1.05	35.34	0.030 ¹
T32	40 - 21	1	5.53	5.27	253.1	0.7854	2.60	35.34	0.074 ¹
T33	21 - 20	1	2.64	2.51	120.7	0.7854	2.85	35.34	0.081 ¹
T34	20 - 16.66	1 1/4	5.92	5.65	217.0	1.2272	1.15	55.22	0.021 ¹
T35	16.66 - 14.33	1 1/4	5.45	5.20	199.6	1.2272	3.35	55.22	0.061 ¹
T36	14.33 - 12	1 1/4	5.45	5.20	199.6	1.2272	2.25	55.22	0.041 ¹
T37	12 - 9.335	1 1/4	3.53	3.37	129.5	1.2272	3.98	55.22	0.072 ¹
T38	9.335 - 6.67	1 1/4	3.53	3.37	129.5	1.2272	5.24	55.22	0.095 ¹

¹ P_u / φP_n controls

Horizontal Design Data (Tension)

Section No.	Elevation	Size	L	L _u	Kl/r	A	P _u	φP _n	Ratio $\frac{P_u}{\phi P_n}$
	ft		ft	ft		in ²	K	K	
T1	330 - 327.719	6 x 3/4	5.00	3.61	200.1	3.3750	0.27	164.53	0.002 ¹
T2	327.719 - 320.875	1	5.00	4.81	231.0	0.7854	2.02	35.34	0.057 ¹
T3	320.875 - 320	1	5.00	3.61	173.3	0.7854	1.36	35.34	0.038 ¹
T5	300.875 - 300	1	5.00	3.61	173.3	0.7854	1.31	35.34	0.037 ¹
T7	280.875 - 280	1	5.00	3.61	173.3	0.7854	2.56	35.34	0.073 ¹
T9	260.875 - 260	1	5.00	3.61	173.3	0.7854	4.81	35.34	0.136 ¹
T11	240.875 - 240	1	5.00	3.61	173.3	0.7854	2.37	35.34	0.067 ¹
T13	220.875 - 220	1	5.00	3.61	173.3	0.7854	3.61	35.34	0.102 ¹
T15	201 - 200	1 1/4	5.00	3.59	138.0	1.2272	6.19	55.22	0.112 ¹
T17	181 - 180	1 1/4	5.00	3.58	137.4	1.2272	11.28	55.22	0.204 ¹
T19	161 - 160	1 1/4	5.00	3.58	137.4	1.2272	4.94	55.22	0.090 ¹
T21	141 - 140	1 1/4	5.00	3.58	137.4	1.2272	2.50	55.22	0.045 ¹
T23	121 - 120	1 1/4	5.00	3.58	137.4	1.2272	3.26	55.22	0.059 ¹
T25	101 - 100	1 1/4	5.00	3.58	137.4	1.2272	5.55	55.22	0.101 ¹
T27	81 - 80	1 1/4	5.00	3.58	137.4	1.2272	4.46	55.22	0.081 ¹
T29	61 - 60	1 1/4	5.00	3.58	137.4	1.2272	2.64	55.22	0.048 ¹
T31	41 - 40	1 1/4	5.00	3.58	137.4	1.2272	2.70	55.22	0.049 ¹
T33	21 - 20	1 1/4	5.00	3.58	137.4	1.2272	3.23	55.22	0.058 ¹
T35	16.66 - 14.33	7/8	5.00	4.77	261.7	0.6013	3.48	27.06	0.128 ¹
T36	14.33 - 12	7/8	5.00	4.77	261.7	0.6013	2.05	27.06	0.076 ¹
T37	12 - 9.335	6 x 3/4	5.00	3.58	198.3	3.3750	4.69	164.53	0.029 ¹
T38	9.335 - 6.67	L4x4x3/8	5.00	3.58	34.9	2.8600	38.38	92.66	0.414 ¹

¹ P_u / φP_n controls

Secondary Horizontal Design Data (Tension)

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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	330 - 327.719	1	5.00	4.81	231.0	0.7854	1.40	35.34	0.040 ¹
T37	12 - 9.335	7/8	5.00	4.77	261.7	0.6013	2.52	27.06	0.093 ¹
T38	9.335 - 6.67	7/8	5.00	4.77	261.7	0.6013	2.51	27.06	0.093 ¹
T39	6.67 - 0	7/8	1.19	0.96	52.5	0.6013	2.92	27.06	0.108 ¹

¹ P_u / φP_n controls

Top Girt 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 $\frac{P_u}{\phi P_n}$
L1	345 - 330	3/4	2.50	2.40	153.3	0.4418	0.02	19.88	0.001 ¹
T4	320 - 300.875	1	5.00	4.81	231.0	0.7854	0.12	35.34	0.003 ¹
T8	280 - 260.875	1	5.00	4.81	231.0	0.7854	0.51	35.34	0.014 ¹
T10	260 - 240.875	1	5.00	4.81	231.0	0.7854	0.25	35.34	0.007 ¹
T12	240 - 220.875	1	5.00	4.81	231.0	0.7854	0.37	35.34	0.011 ¹
T14	220 - 201	1 1/4	5.00	4.79	184.0	1.2272	0.60	55.22	0.011 ¹
T16	200 - 181	1 1/4	5.00	4.77	183.2	1.2272	1.31	55.22	0.024 ¹
T18	180 - 161	1 1/4	5.00	4.77	183.2	1.2272	10.98	55.22	0.199 ¹
T20	160 - 141	1 1/4	5.00	4.77	183.2	1.2272	0.65	55.22	0.012 ¹
T22	140 - 121	1 1/4	5.00	4.77	183.2	1.2272	0.53	55.22	0.010 ¹
T24	120 - 101	1 1/4	5.00	4.77	183.2	1.2272	0.54	55.22	0.010 ¹
T26	100 - 81	1 1/4	5.00	4.77	183.2	1.2272	13.13	55.22	0.238 ¹
T28	80 - 61	1 1/4	5.00	4.77	183.2	1.2272	0.61	55.22	0.011 ¹
T30	60 - 41	1 1/4	5.00	4.77	183.2	1.2272	0.63	55.22	0.011 ¹
T32	40 - 21	1 1/4	5.00	4.77	183.2	1.2272	0.75	55.22	0.014 ¹
T34	20 - 16.66	1 1/4	5.00	4.77	183.2	1.2272	3.43	55.22	0.062 ¹

¹ P_u / φP_n controls

Bottom Girt 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 $\frac{P_u}{\phi P_n}$
L1	345 - 330	3/4	2.50	2.40	153.3	0.4418	1.11	19.88	0.056 ¹
T39	6.67 - 0	6 x 3/4	0.75	0.52	28.8	3.3750	15.18	164.53	0.092 ¹

¹ P_u / φP_n controls

Mid Girt 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 $\frac{P_u}{\phi P_n}$
L1	345 - 330	3/4	2.50	2.40	153.3	0.4418	0.19	19.88	0.009 ¹

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Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _n K	Ratio $\frac{P_u}{\phi P_n}$
T4	320 - 300.875	1	5.00	4.81	231.0	0.7854	0.17	35.34	0.005 ¹
T8	280 - 260.875	1	5.00	4.81	231.0	0.7854	7.39	35.34	0.209 ¹
T10	260 - 240.875	1	5.00	4.81	231.0	0.7854	0.80	35.34	0.023 ¹
T12	240 - 220.875	1	5.00	4.81	231.0	0.7854	0.58	35.34	0.016 ¹
T14	220 - 201	1 1/4	5.00	4.79	184.0	1.2272	0.76	55.22	0.014 ¹
T16	200 - 181	1 1/4	5.00	4.77	183.2	1.2272	0.84	55.22	0.015 ¹
T18	180 - 161	1 1/4	5.00	4.77	183.2	1.2272	1.48	55.22	0.027 ¹
T20	160 - 141	1 1/4	5.00	4.77	183.2	1.2272	0.92	55.22	0.017 ¹
T22	140 - 121	1 1/4	5.00	4.77	183.2	1.2272	0.94	55.22	0.017 ¹
T24	120 - 101	1 1/4	5.00	4.77	183.2	1.2272	1.01	55.22	0.018 ¹
T26	100 - 81	1 1/4	5.00	4.77	183.2	1.2272	1.14	55.22	0.021 ¹
T28	80 - 61	1 1/4	5.00	4.77	183.2	1.2272	1.17	55.22	0.021 ¹
T30	60 - 41	1 1/4	5.00	4.77	183.2	1.2272	1.27	55.22	0.023 ¹
T32	40 - 21	1 1/4	5.00	4.77	183.2	1.2272	1.26	55.22	0.023 ¹
T39	6.67 - 0	6 x 3/4	2.84	2.61	144.9	3.3750	8.39	164.53	0.051 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 $\frac{P_u}{\phi P_n}$
T18	180 - 161 (1269)	2L4x4x3/8	4.84	4.70	45.9	5.7200	31.99	185.33	0.173 ¹
T18	180 - 161 (1270)	2L4x4x3/8	4.84	4.70	45.9	5.7200	30.62	185.33	0.165 ¹
T18	180 - 161 (1275)	2L4x4x3/8	4.84	4.70	45.9	5.7200	32.51	185.33	0.175 ¹
T18	180 - 161 (1276)	2L4x4x3/8	4.84	4.70	45.9	5.7200	29.75	185.33	0.161 ¹
T18	180 - 161 (1281)	2L4x4x3/8	4.84	4.70	45.9	5.7200	30.95	185.33	0.167 ¹
T18	180 - 161 (1282)	2L4x4x3/8	4.84	4.70	45.9	5.7200	30.94	185.33	0.167 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 $\frac{P_u}{\phi P_n}$
T18	180 - 161 (1271)	2L4x4x3/8	4.53	4.40	42.9	5.7200	7.55	185.33	0.041 ¹
T18	180 - 161 (1272)	2L4x4x3/8	4.53	4.40	42.9	5.7200	6.84	185.33	0.037 ¹
T18	180 - 161 (1277)	2L4x4x3/8	4.53	4.40	42.9	5.7200	7.21	185.33	0.039 ¹
T18	180 - 161 (1278)	2L4x4x3/8	4.53	4.40	42.9	5.7200	6.76	185.33	0.036 ¹

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Section No.	Elevation <i>ft</i>	Size	<i>L</i> <i>ft</i>	<i>L_u</i> <i>ft</i>	<i>Kl/r</i>	<i>A</i> <i>in²</i>	<i>P_u</i> <i>K</i>	ϕP_n <i>K</i>	Ratio $\frac{P_u}{\phi P_n}$
T18	180 - 161 (1283)	2L4x4x3/8	4.53	4.40	42.9	5.7200	8.14	185.33	0.044 ¹
T18	180 - 161 (1284)	2L4x4x3/8	4.53	4.40	42.9	5.7200	7.62	185.33	0.041 ¹

¹ $P_u / \phi P_n$ controls

Section Capacity Table

Section No.	Elevation <i>ft</i>	Component Type	Size	Critical Element	<i>P</i> <i>K</i>	ϕP_{allow} <i>K</i>	% Capacity	Pass Fail
L1	345 - 330	Latticed Pole Leg	1 1/4	2	-9.46	49.58	19.1	Pass
L1	345 - 330	Latticed Pole Diagonal	1/2	13	-3.12	5.17	60.3	Pass
L1	345 - 330	Latticed Pole Top Girt	3/4	5	-0.02	9.62	0.2	Pass
L1	345 - 330	Latticed Pole Bottom Girt	3/4	9	-1.24	9.62	12.8	Pass
L1	345 - 330	Latticed Pole Mid Girt	3/4	10	-0.18	9.62	1.9	Pass
T1	330 - 327.719	Leg	2 1/4	74	-17.92	178.88	10.0	Pass
T2	327.719 - 320.875	Leg	2 1/4	89	-22.14	151.73	14.6	Pass
T3	320.875 - 320	Leg	2 1/4	119	-23.62	178.88	13.2	Pass
T4	320 - 300.875	Leg	2 1/4	131	-27.52	148.43	18.5	Pass
T5	300.875 - 300	Leg	2 1/4	188	-26.98	175.96	15.3	Pass
T6	300 - 280.875	Leg	2 1/4	200	-41.80	148.43	28.2	Pass
T7	280.875 - 280	Leg	2 1/4	257	-39.08	175.96	22.2	Pass
T8	280 - 260.875	Leg	2 1/4	269	-72.11	148.43	48.6	Pass
T9	260.875 - 260	Leg	2 1/4	326	-74.17	175.96	42.2	Pass
T10	260 - 240.875	Leg	2 1/4	338	-87.77	148.43	59.1	Pass
T11	240.875 - 240	Leg	2 1/4	395	-88.23	175.96	50.1	Pass
T12	240 - 220.875	Leg	2 1/4	407	-88.94	148.43	59.9	Pass
T13	220.875 - 220	Leg	2 1/4	464	-83.71	175.96	47.6	Pass
T14	220 - 201	Leg	2 1/2	476	-81.53	190.24	42.9	Pass
T15	201 - 200	Leg	2 1/2	533	-72.42	220.85	32.8	Pass
T16	200 - 181	Leg	2 3/4	545	-137.77	236.24	58.3	Pass
T17	181 - 180	Leg	2 3/4	602	-151.05	267.24	56.5	Pass
							62.0 (b)	
T18	180 - 161	Leg	2 3/4	614	-174.68	236.24	73.9	Pass
T19	161 - 160	Leg	2 3/4	671	-142.16	263.18	54.0	Pass
							57.8 (b)	
T20	160 - 141	Leg	2 3/4	683	-138.72	236.24	58.7	Pass
T21	141 - 140	Leg	2 3/4	741	-122.95	263.18	46.7	Pass
							50.3 (b)	
T22	140 - 121	Leg	2 3/4	753	-121.81	236.24	51.6	Pass
T23	121 - 120	Leg	2 3/4	810	-119.25	263.18	45.3	Pass
							49.0 (b)	
T24	120 - 101	Leg	2 3/4	822	-136.38	236.24	57.7	Pass
T25	101 - 100	Leg	2 3/4	879	-139.41	263.18	53.0	Pass
							58.1 (b)	
T26	100 - 81	Leg	2 3/4	891	-140.05	236.24	59.3	Pass
T27	81 - 80	Leg	2 3/4	947	-129.24	263.18	49.1	Pass
							53.4 (b)	
T28	80 - 61	Leg	2 3/4	959	-150.86	236.24	63.9	Pass
T29	61 - 60	Leg	2 3/4	1016	-152.25	263.18	57.8	Pass

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Section No.	Elevation ft	Component Type	Size	Critical Element	P K	ϕP_{allow} K	% Capacity	Pass Fail
							85.5 (b)	
T30	60 - 41	Leg	2 3/4	1028	-157.58	236.24	66.7	Pass
T31	41 - 40	Leg	2 3/4	1085	-156.05	263.18	59.3	Pass
							87.0 (b)	
T32	40 - 21	Leg	2 3/4	1097	-154.85	236.24	65.5	Pass
T33	21 - 20	Leg	2 3/4	1154	-148.97	263.18	56.6	Pass
							83.2 (b)	
T34	20 - 16.66	Leg	2 3/4	1166	-144.31	213.57	67.6	Pass
T35	16.66 - 14.33	Leg	2 3/4	1178	-147.87	240.82	61.4	Pass
T36	14.33 - 12	Leg	2 3/4	1190	-145.55	240.82	60.4	Pass
T37	12 - 9.335	Leg	2 3/4	1202	-145.65	258.15	56.4	Pass
T38	9.335 - 6.67	Leg	2 3/4	1217	-144.90	258.15	56.1	Pass
T39	6.67 - 0	Leg	2 3/4	1232	-151.42	245.97	61.6	Pass
T1	330 - 327.719	Diagonal	7/8	83	-4.47	10.41	42.9	Pass
T2	327.719 - 320.875	Diagonal	7/8	117	-1.54	14.20	10.8	Pass
T3	320.875 - 320	Diagonal	7/8	129	-1.32	15.13	8.7	Pass
T4	320 - 300.875	Diagonal	7/8	140	-1.58	14.00	11.3	Pass
T5	300.875 - 300	Diagonal	7/8	192	-1.61	15.13	10.6	Pass
T6	300 - 280.875	Diagonal	7/8	208	-2.68	14.00	19.1	Pass
T7	280.875 - 280	Diagonal	7/8	260	-2.63	15.13	17.4	Pass
T8	280 - 260.875	Diagonal	1	279	-4.97	21.34	23.3	Pass
T9	260.875 - 260	Diagonal	1	332	-4.71	22.64	20.8	Pass
T10	260 - 240.875	Diagonal	1	390	-4.61	21.34	21.6	Pass
T11	240.875 - 240	Diagonal	1	402	-2.36	22.64	10.4	Pass
T12	240 - 220.875	Diagonal	1	419	-3.75	21.34	17.6	Pass
T13	220.875 - 220	Diagonal	1	473	-3.70	22.64	16.3	Pass
T14	220 - 201	Diagonal	1	485	-6.23	21.46	29.1	Pass
T15	201 - 200	Diagonal	1	537	-6.38	22.45	28.4	Pass
T16	200 - 181	Diagonal	1 1/4	554	-11.06	40.23	27.5	Pass
T17	181 - 180	Diagonal	1 1/4	606	-10.28	41.40	24.8	Pass
T18	180 - 161	Diagonal	1	649	-7.93	21.55	36.8	Pass
T19	161 - 160	Diagonal	1	678	-5.06	22.54	22.5	Pass
T20	160 - 141	Diagonal	1	736	-5.21	21.55	24.2	Pass
T21	141 - 140	Diagonal	1	747	-2.44	22.54	10.8	Pass
T22	140 - 121	Diagonal	1	760	-3.23	21.55	15.0	Pass
T23	121 - 120	Diagonal	1	812	-3.14	22.54	13.9	Pass
T24	120 - 101	Diagonal	1	829	-5.17	21.55	24.0	Pass
T25	101 - 100	Diagonal	1	881	-4.81	22.54	21.4	Pass
T26	100 - 81	Diagonal	1	936	-6.05	21.55	28.1	Pass
T27	81 - 80	Diagonal	1	953	-4.37	22.54	19.4	Pass
T28	80 - 61	Diagonal	1	1011	-4.36	21.55	20.2	Pass
T29	61 - 60	Diagonal	1	1022	-2.31	22.54	10.3	Pass
T30	60 - 41	Diagonal	1	1080	-2.34	21.55	10.9	Pass
T31	41 - 40	Diagonal	1	1095	-1.14	22.54	5.0	Pass
T32	40 - 21	Diagonal	1	1108	-3.15	21.55	14.6	Pass
T33	21 - 20	Diagonal	1	1161	-2.93	22.54	13.0	Pass
T34	20 - 16.66	Diagonal	1 1/4	1174	-6.08	38.39	15.8	Pass
T35	16.66 - 14.33	Diagonal	1 1/4	1185	-3.37	40.60	8.3	Pass
T36	14.33 - 12	Diagonal	1 1/4	1198	-5.08	40.60	12.5	Pass
T37	12 - 9.335	Diagonal	1 1/4	1209	-5.42	32.90	16.5	Pass
T38	9.335 - 6.67	Diagonal	1 1/4	1223	-5.64	32.90	17.2	Pass
T39	6.67 - 0	Diagonal	1 1/4	1243	-21.30	49.95	42.6	Pass
T1	330 - 327.719	Horizontal	6 x 3/4	76	-0.27	60.12	0.4	Pass
T2	327.719 - 320.875	Horizontal	1	91	2.02	35.34	5.7	Pass
T3	320.875 - 320	Horizontal	1	127	-1.13	13.98	8.0	Pass
T5	300.875 - 300	Horizontal	1	190	-1.77	13.98	12.7	Pass
T7	280.875 - 280	Horizontal	1	259	-2.43	13.98	17.4	Pass
T9	260.875 - 260	Horizontal	1	331	-4.17	13.98	29.9	Pass
T11	240.875 - 240	Horizontal	1	400	-2.10	13.98	15.0	Pass

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Section No.	Elevation ft	Component Type	Size	Critical Element	P K	σP_{allow} K	% Capacity	Pass Fail
T13	220.875 - 220	Horizontal	1	472	-3.47	13.98	24.8	Pass
T15	201 - 200	Horizontal	1 1/4	535	-5.83	30.66	19.0	Pass
T17	181 - 180	Horizontal	1 1/4	604	-10.90	30.82	35.4	Pass
T19	161 - 160	Horizontal	1 1/4	676	-4.58	30.82	14.9	Pass
T21	141 - 140	Horizontal	1 1/4	748	-2.13	30.82	6.9	Pass
T23	121 - 120	Horizontal	1 1/4	811	-2.61	30.82	8.5	Pass
T25	101 - 100	Horizontal	1 1/4	880	-3.53	30.82	11.5	Pass
T27	81 - 80	Horizontal	1 1/4	952	-3.74	30.82	12.1	Pass
T29	61 - 60	Horizontal	1 1/4	1018	-2.64	30.82	8.6	Pass
T31	41 - 40	Horizontal	1 1/4	1087	-2.70	30.82	8.8	Pass
T33	21 - 20	Horizontal	1 1/4	1156	-2.58	30.82	8.4	Pass
T35	16.66 - 14.33	Horizontal	7/8	1180	3.48	27.06	12.8	Pass
T36	14.33 - 12	Horizontal	7/8	1193	2.05	27.06	7.6	Pass
T37	12 - 9.335	Horizontal	6 x 3/4	1204	-2.52	61.18	4.1	Pass
T38	9.335 - 6.67	Horizontal	L4x4x3/8	1222	38.38	92.66	41.4	Pass
T1	330 - 327.719	Secondary Horizontal	1	85	1.40	35.34	4.0	Pass
T37	12 - 9.335	Secondary Horizontal	7/8	1214	-2.52	22.15	11.4	Pass
T38	9.335 - 6.67	Secondary Horizontal	7/8	1229	-2.51	22.15	11.3	Pass
T39	6.67 - 0	Secondary Horizontal	7/8	1256	-2.92	9.35	31.2	Pass
T4	320 - 300.875	Top Girt	1	135	0.12	35.34	0.3	Pass
T6	300 - 280.875	Top Girt	1	204	-1.65	7.87	20.9	Pass
T8	280 - 260.875	Top Girt	1	273	0.51	35.34	1.4	Pass
T10	260 - 240.875	Top Girt	1	340	0.25	35.34	0.7	Pass
T12	240 - 220.875	Top Girt	1	409	0.37	35.34	1.1	Pass
T14	220 - 201	Top Girt	1 1/4	480	-0.23	19.38	1.2	Pass
T16	200 - 181	Top Girt	1 1/4	549	-0.86	19.55	4.4	Pass
T18	180 - 161	Top Girt	1 1/4	618	-13.12	19.55	67.1	Pass
T20	160 - 141	Top Girt	1 1/4	687	0.65	55.22	1.2	Pass
T22	140 - 121	Top Girt	1 1/4	756	0.53	55.22	1.0	Pass
T24	120 - 101	Top Girt	1 1/4	824	0.54	55.22	1.0	Pass
T26	100 - 81	Top Girt	1 1/4	894	13.13	55.22	23.8	Pass
T28	80 - 61	Top Girt	1 1/4	962	0.61	55.22	1.1	Pass
T30	60 - 41	Top Girt	1 1/4	1031	0.63	55.22	1.1	Pass
T32	40 - 21	Top Girt	1 1/4	1100	0.75	55.22	1.4	Pass
T34	20 - 16.66	Top Girt	1 1/4	1169	3.43	55.22	6.2	Pass
T39	6.67 - 0	Bottom Girt	6 x 3/4	1234	15.18	164.53	9.2	Pass
T4	320 - 300.875	Mid Girt	1	136	0.17	35.34	0.5	Pass
T6	300 - 280.875	Mid Girt	1	207	-0.25	7.87	3.1	Pass
T8	280 - 260.875	Mid Girt	1	276	7.39	35.34	20.9	Pass
T10	260 - 240.875	Mid Girt	1	345	-0.25	7.87	3.2	Pass
T12	240 - 220.875	Mid Girt	1	412	0.58	35.34	1.6	Pass
T14	220 - 201	Mid Girt	1 1/4	483	0.76	55.22	1.4	Pass
T16	200 - 181	Mid Girt	1 1/4	552	0.84	55.22	1.5	Pass
T18	180 - 161	Mid Girt	1 1/4	619	1.48	55.22	2.7	Pass
T20	160 - 141	Mid Girt	1 1/4	690	0.92	55.22	1.7	Pass
T22	140 - 121	Mid Girt	1 1/4	758	0.94	55.22	1.7	Pass
T24	120 - 101	Mid Girt	1 1/4	828	1.01	55.22	1.8	Pass
T26	100 - 81	Mid Girt	1 1/4	895	1.14	55.22	2.1	Pass
T28	80 - 61	Mid Girt	1 1/4	965	1.17	55.22	2.1	Pass
T30	60 - 41	Mid Girt	1 1/4	1035	1.27	55.22	2.3	Pass
T32	40 - 21	Mid Girt	1 1/4	1103	1.26	55.22	2.3	Pass
T39	6.67 - 0	Mid Girt	6 x 3/4	1238	8.39	164.53	5.1	Pass
T1	330 - 327.719	Guy A@330	11/16	1260	20.00	34.80	57.5	Pass
T6	300 - 280.875	Guy A@297.547	9/16	1263	14.34	22.80	62.9	Pass
T8	280 - 260.875	Guy A@270.438	13/16	1266	31.24	48.00	65.1	Pass
T18	180 - 161	Guy A@177.25	15/16	1280	38.35	64.80	59.2	Pass
T26	100 - 81	Guy A@99.9167	15/16	1287	32.78	64.80	50.6	Pass
T1	330 - 327.719	Guy B@330	11/16	1259	21.50	34.80	61.8	Pass
T6	300 - 280.875	Guy B@297.547	9/16	1262	15.36	22.80	67.4	Pass
T8	280 - 260.875	Guy B@270.438	13/16	1265	33.40	48.00	69.6	Pass
T18	180 - 161	Guy B@177.25	15/16	1274	42.94	64.80	66.3	Pass

<i>tnxTower</i> <i>Infinigy Engineering, LLP</i> 1517 Old Apex Rd. Cary, North Carolina 27513 Phone: FAX:	Job	CTL02184	Page	140 of 140
	Project	1106-A0001-B	Date	10:48:41 07/27/20
	Client	Smartlink	Designed by	Bryan Mawhinney

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	ϕP_{allow} K	% Capacity	Pass Fail
T26	100 - 81	Guy B@99.9167	15/16	1286	40.08	64.80	61.9	Pass
T1	330 - 327.719	Guy C@330	11/16	1258	19.76	34.80	56.8	Pass
T6	300 - 280.875	Guy C@297.547	9/16	1261	14.24	22.80	62.5	Pass
T8	280 - 260.875	Guy C@270.438	13/16	1264	31.17	48.00	64.9	Pass
T18	180 - 161	Guy C@177.25	15/16	1267	39.66	64.80	61.2	Pass
T26	100 - 81	Guy C@99.9167	15/16	1285	36.41	64.80	56.2	Pass
T18	180 - 161	Torque Arm Top@177.25	2L4x4x3/8	1275	32.51	185.33	17.5	Pass
T18	180 - 161	Torque Arm Bottom@177.25	2L4x4x3/8	1283	-25.47	175.49	14.5	Pass
							Summary	
							Latticed Pole Leg (L1)	19.1 Pass
							Latticed Pole Diagonal (L1)	60.3 Pass
							Latticed Pole Top Girt (L1)	0.2 Pass
							Latticed Pole Bottom Girt (L1)	12.8 Pass
							Latticed Pole Mid Girt (L1)	1.9 Pass
							Leg (T31)	87.0 Pass
							Diagonal (T1)	42.9 Pass
							Horizontal (T38)	41.4 Pass
							Secondary Horizontal (T39)	31.2 Pass
							Top Girt (T18)	67.1 Pass
							Bottom Girt (T39)	9.2 Pass
							Mid Girt (T8)	20.9 Pass
							Guy A (T8)	65.1 Pass
							Guy B (T8)	69.6 Pass
							Guy C (T8)	64.9 Pass
							Torque Arm Top (T18)	20.6 Pass
							Torque Arm Bottom (T18)	14.5 Pass
							Bolt Checks	87.0 Pass
							RATING =	87.0 Pass

Site Number: CTL02184
 Client: Smartlink
 Job Number: 1106-A0001-B

Structure: A
 Rev: G

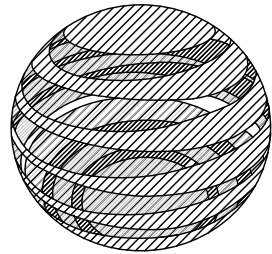
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	Decimal Degrees	Deg	Min	Sec
Lat:	41.461992	+	41	27
Long:	-72.023611	-	72	1
				43.17
				25.00
Code and Site Parameters				
Seismic Design Code:		TIA-222-G		
Site Soil:		D		
Risk Category:		II		
Stiff Soil (Default)				
USGS Seismic Reference				
S _s :		0.1650 g		
S ₁ :		0.0590 g		
Seismic Design Category Determination				
Importance Factor, I _e :		1		
Acceleration-based site coefficient, F _a :		1.6000		
Velocity-based site coefficient, F _v :		2.4000		
Design spectral response acceleration short period, S _{DS} :		0.1760 g		
Design spectral response acceleration 1 s period, S _{D1} :		0.0944 g		
Seismic Design Category Based on S _{DS} :		B		
Seismic Design Category Based on S _{D1} :		B		
Seismic Design Category Based on S ₁ :		N/A		
Controlling Seismic Design Category:		B		

TOWER MODIFICATION DRAWINGS

PREPARED BY:

INFINIGY 

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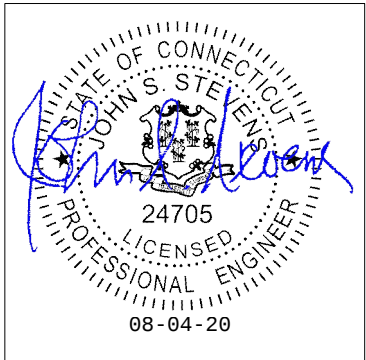
smartlink

CTL02184
LEDYARD COLONEL RD.
889R COLONEL LEDYARD HIGHWAY
LEDYARD, CT 06339

07/22/20

INFINIGY JOB # 1106-A0001-B

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GENERAL NOTES:

1. THESE DOCUMENTS WERE DESIGNED IN ACCORDANCE WITH THE LATEST VERSION OF APPLICABLE LOCAL/STATE/COUNTY/CITY BUILDING CODES, AS WELL AS ANSI/TIA-222 STANDARD, AWWA-D100 STANDARD, NDS, NEC, MSJC, AND/OR THE LATEST VERSION OF THE INTERNATIONAL BUILDING CODE, UNLESS NOTED OTHERWISE IN THE CORRESPONDING STRUCTURAL REPORT.
2. ALL CONSTRUCTION METHODS SHOULD FOLLOW STANDARDS OF GOOD CONSTRUCTION PRACTICE.
3. ALL WORK INDICATED ON THESE DRAWINGS SHALL BE PERFORMED BY QUALIFIED CONTRACTORS EXPERIENCED IN SIMILAR CONSTRUCTION.
4. ALL NEW WORK SHALL ACCOMMODATE EXISTING CONDITIONS. IF OBSTRUCTIONS ARE FOUND, CONTRACTOR SHALL NOTIFY ENGINEER OF RECORD PRIOR TO CONTINUING WORK.
5. ANY CHANGES OR ADDITIONS MUST CONFORM TO THE REQUIREMENTS OF THESE NOTES AND SPECIFICATIONS, AND SHOULD BE SIMILAR TO THOSE SHOWN. ALL CHANGES OR ADDITIONS SHALL BE SUBMITTED TO THE ENGINEER OF RECORD FOR REVIEW AND APPROVAL PRIOR TO FABRICATION AND/OR CONSTRUCTION.
6. THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN AND EXECUTION OF ALL MISCELLANEOUS SHORING, BRACING, TEMPORARY SUPPORTS, ETC. NECESSARY TO PROVIDE A COMPLETE AND STABLE STRUCTURE DURING CONSTRUCTION. TIA-1019-A-2011 IS AN APPROPRIATE REFERENCE FOR THOSE DESIGNS MEETING TIA STANDARDS. THE ENGINEER OF RECORD MAY PROVIDE FORMAL RIGGING PLANS AT THE REQUEST AND EXPENSE OF THE CONTRACTOR.
7. INSTALLATION SHALL NOT INTERFERE NOR DENY ADEQUATE ACCESS TO OR FROM ANY EXISTING OR PROPOSED OPERATIONAL AND SAFETY EQUIPMENT.
8. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS PRIOR TO ANY FABRICATION. CONTACT INFINIGY ENGINEERING IF ANY DISCREPANCIES EXIST.

STEEL CONSTRUCTION NOTES:

1. STRUCTURAL STEEL SHALL CONFORM TO THE AISC MANUAL OF STEEL CONSTRUCTION 14TH EDITION, FOR THE DESIGN AND FABRICATION OF STEEL COMPONENTS.
2. ALL FIELD CUT SURFACES, FIELD DRILLED HOLES, AND GROUND SURFACES WHERE EXISTING PAINT OR GALVANIZATION REMOVAL WAS REQUIRED SHALL BE REPAIRED WITH (2) BRUSHED COATS OF ZRC GALVILITE COLD GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURERS' RECOMMENDATIONS.
3. ALL FIELD DRILLED HOLES TO BE USED FOR FIELD BOLTING INSTALLATION SHALL BE STANDARD HOLES, AS DEFINED BY AISC, UNLESS NOTED OTHERWISE.
4. ALL EXTERIOR STEEL WORK SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A123.
5. ALL STEEL MEMBERS AND CONNECTIONS SHALL MEET THE FOLLOWING GRADES:
 - ANGLES, CHANNELS, PLATES AND BARS TO BE A36. Fy=36 KSI, U.N.O.
 - W SHAPES TO BE A992. Fy=50 KSI, U.N.O.
 - RECTANGULAR HSS TO BE A500, GRADE B. Fy=46 KSI, U.N.O.
 - ROUND HSS TO BE A500, GRADE B. Fy=42 KSI, U.N.O.
 - STEEL PIPE TO BE A53, GRADE B. Fy=35 KSI, U.N.O.
 - BOLTS TO BE A325-X. Fu=120 KSI, U.N.O.
 - U-BOLTS AND LAG SCREWS TO BE A307 GR A. Fu=60 KSI, U.N.O.
6. ALL WELDING SHALL BE DONE USING E70XX ELECTRODES, U.N.O.
7. ALL WELDING SHALL CONFORM TO AISC AND AWS D1.1 LATEST EDITION.
8. ALL HILTI ANCHORS TO BE CARBON STEEL, U.N.O.
 - MECHANICAL ANCHORS: KWIK BOLT-TZ, U.N.O.
 - CMU BLOCK ANCHORS: ADHESIVE - HY120, U.N.O.
 - CONCRETE ANCHORS: ADHESIVE - HY150, U.N.O.
 - CONCRETE REBAR: ADHESIVE - RE500, U.N.O.
9. ALL STUDS TO BE NELSON CAPACITOR DISCHARGE 1/4"-20 LOW CARBON STEEL COPPER-FLASH AT 55 KSI ULT/50 KSI YIELD, U.N.O.
10. BOLTS SHALL BE TIGHTENED TO A "SNUG TIGHT" CONDITION AS DEFINED BY AISC.
11. MINIMUM EDGE DISTANCES SHALL CONFORM TO AISC TABLE J3.4.
12. REMOVAL/REPLACEMENT OF STRUCTURAL MEMBERS SHALL BE DONE ONE MEMBER AT A TIME. CONTRACTOR IS RESPONSIBLE FOR ENSURING THE STRUCTURAL INTEGRITY OF THE STRUCTURE DURING ALL PHASES OF CONSTRUCTION.

CONCRETE CONSTRUCTION NOTES:

1. CONCRETE TO BE 4000 PSI @ 28 DAYS. REINFORCING BAR TO CONFORM TO ASTM A615 GRADE 60 SPECIFICATIONS. CONCRETE INSTALLATION TO CONFORM TO ACI-318 BUILDING REQUIREMENTS FOR REINFORCED CONCRETE. ALL CONCRETE TO BE PLACED AGAINST UNDISTURBED EARTH FREE OF WATER AND ALL FOREIGN OBJECTS AND MATERIALS. A MINIMUM OF THREE INCHES OF CONCRETE SHALL COVER ALL REINFORCEMENT. WELDING OF REBAR IS NOT PERMITTED.
2. EXISTING CONCRETE SURFACES THAT ARE TO BE IN CONTACT WITH NEW PROPOSED CONCRETE SHOULD BE WIRE BRUSHED CLEAN AND TREATED WITH APPROPRIATE MECHANICAL SCRATCH COAT AND REPAIR MATERIALS OR APPROPRIATE CHEMICAL METHODS SUCH AS THE APPLICATION OF A BONDING AGENT, EX. SAKRETE OR EQUIVALENT, TO ENSURE A QUALITY BOND BETWEEN EXISTING AND PROPOSED CONCRETE SURFACES.

FIBER REINFORCED POLYMER (FRP) NOTES:

1. FRP PLATES, SHAPES, BOLTS AND NUTS (STUD/NUT ASSEMBLIES) SHALL CONFORM TO ASTM D638, 695, 790. PLATES AND SHAPES TO BE FY = 5.35 KSI LW (SAFETY FACTOR OF 8), .945 KSI CW (SAFETY FACTOR OF 8) MIN.
2. IF FIELD FABRICATION IS REQUIRED, ALL CUT EDGES AND DRILLED HOLES TO BE SEALED USING VINYL ESTER SEALING KIT SUPPLIED BY THE MANUFACTURER.
3. ALL FASTENERS TO BE 1/2" DIA FRP THREADED ROD WITH FIBER REINFORCED THERMOPLASTIC NUT, SPACED AT 12 INCHES ON CENTER MAXIMUM, U.N.O., FOR PANELS AND AS DESIGNED FOR STRUCTURAL MEMBERS.
4. THE COLOR AND SURFACE PATTERN OF EXPOSED FRP PANELS SHALL MATCH THE EXTERIOR OF THE EXISTING BUILDING, U.N.O.
5. STUD/NUT ASSEMBLIES SHOULD BE LUBRICATED FOR INSTALLATION
6. ENSURE BEARING SURFACES OF THE NUTS ARE PARALLEL TO THE SURFACES BEING FASTENED.
7. TORQUE BOLTS ACCORDING TO THE FOLLOWING TABLE:

INSTALLATION TORQUE TABLE		
SIZE	ULTIMATE TORQUE STRENGTH	RECOMMENDED MAXIMUM INSTALLATION TORQUE
3/8-16 UNC	8 FT-LBS	4 FT-LBS
1/2-13 UNC	18 FT-LBS	8 FT-LBS
5/8-11 UNC	35 FT-LBS	16 FT-LBS
3/4-10 UNC	50 FT-LBS	24 FT-LBS
1-8 UNC	110 FT-LBS	50 FT-LBS

8. WHEN TIGHTENING FRP STUD/NUT ASSEMBLIES, WRENCHES MUST MAKE FULL CONTACT WITH ALL NUT EDGES. A STANDARD SIX POINT SOCKET IS RECOMMENDED.
9. STUD/NUT ASSEMBLIES SHOULD BE BONDED BY APPLYING BONDING AGENT TO ENTIRE NUT AND EXPOSED STUD.
10. ALL FRP MATERIALS TO BE PROVIDED BY FIBERGRATE COMPOSITE STRUCTURES, DALLAS TX, OR APPROVED EQUAL.
11. ALL FRP SHAPES TO BE DYNAFORM PULTRUDED STRUCTURAL SHAPES.
12. ALL FRP PLATES TO BE FIBERPLATE MOLDED FRP PLATE.
13. ALL FRP PANELS TO BE FIBERPLATE CLADDING PANEL.
14. EACH FRP PANEL TO BE IDENTIFIED WITH LARR#25536 AND FIBERGRATE COMPOSITE STRUCTURAL LABEL.
15. FRP MATERIAL TO BE CLASSIFIED AS CC1 OR BETTER, AND HAVE MAXIMUM FLAME SPREAD OF 50.
16. ALL DESIGN AND CONSTRUCTION TO BE COMPLETED IN ACCORDANCE WITH LOS ANGELES RESEARCH REPORT RR25536, DATED FEBRUARY 1, 2016.
17. SPECIAL INSPECTIONS MUST BE PROVIDED FOR ALL FRP INSTALLMENTS. SEE SPECIAL INSPECTION SECTION, THIS SHEET.

RATIO OF EDGE DISTANCE TO FRP FASTENER DIAMETER		
	RANGE	RECOMMENDED
EDGE DISTANCE - CL* BOLT TO END	2.0-4.0	3.0
EDGE DISTANCE - CL* BOLT TO SIDE	1.5-3.5	2.5
BOLT PITCH - CL* TO CL*	4.0-5.0	5.0

WOOD CONSTRUCTION NOTES:

1. ALL EXISTING WOOD SHAPES ARE ASSUMED TO BE DOUGLAS FIR-LARCH WITH A REFERENCE DESIGN BENDING VALUE OF 1000 PSI MIN.
2. ALL PROPOSED WOOD SHAPES ARE TO BE DOUGLAS FIR-LARCH WITH A REFERENCE DESIGN BENDING VALUE OF 1000 PSI MIN. U.N.O.
3. ALL EXISTING AND PROPOSED GLUED LAMINATED TIMBERS ARE TO BE 24F-1.8C DOUGLAS FIR BALANCED WITH A REFERENCE DESIGN BENDING VALUE OF 2400 PSI MIN. U.N.O.

MASONRY CONSTRUCTION NOTES:

1. ALL BRICK TO BE 1500 PSI MIN. REINFORCING BAR (IF APPLICABLE) TO CONFORM TO ASTM A615 GRADE 60 SPECIFICATIONS. ALL MORTAR TO BE 2000 PSI MIN.
 - FOR INTERIOR/ABOVE GRADE APPLICATIONS TYPE N MORTAR HAVING MINIMUM MODULUS OF RUPTURE OF 100 PSI SHALL BE USED. FOR EXTERIOR/BELOW GRADE APPLICATIONS TYPE M OR S MORTAR HAVING A MINIMUM MODULUS OF RUPTURE OF 133 PSI.
 - BRICK AND MORTAR INSTALLATION TO CONFORM TO MSJC BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES.
2. ALL CMU TO BE 1500 PSI MIN. REINFORCING BAR (IF APPLICABLE) TO CONFORM TO ASTM A615 GRADE 60 SPECIFICATIONS. ALL MORTAR TO BE 2000 PSI MIN.
 - FOR INTERIOR/ABOVE GRADE APPLICATIONS, TYPE N MORTAR HAVING MINIMUM MODULUS OF RUPTURE OF 64 PSI SHALL BE USED FOR UNGROUTED BLOCKS, AND 158 PSI FOR FULLY GROUTED BLOCKS.
 - FOR EXTERIOR/BELOW GRADE APPLICATIONS TYPE M OR S MORTAR HAVING A MINIMUM MODULUS OF RUPTURE OF 84 PSI SHALL BE USED FOR UNGROUTED BLOCKS, AND 163 PSI FOR FULLY GROUTED BLOCKS.
 - BRICK AND MORTAR INSTALLATION TO CONFORM TO MSJC BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES.

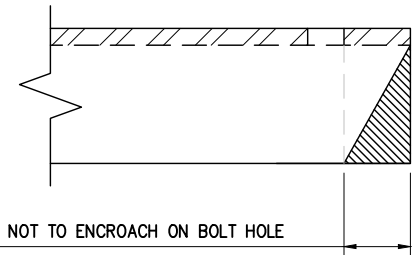
TOWER PLUMB & TENSION NOTES:

1. PLUMB AND TENSION TOWER UPON COMPLETION OF STRUCTURAL MODIFICATIONS DETAILED IN THESE DRAWINGS.
2. RETENSIONING OF EXISTING GUY WIRES SHALL BE PERFORMED AT A TIME WHEN THE WIND VELOCITY IS LESS THAN 10 MPH AT GROUND LEVEL AND WITH NO ICE ON THE STRUCTURE AND GUY WIRES.
3. PLUMB THE TOWER WHILE RETENSIONING THE EXISTING GUY WIRES. THE HORIZONTAL DISTANCE BETWEEN THE VERTICAL CENTERLINES AT ANY TWO ELEVATIONS SHALL NOT EXCEED 0.25% OF THE VERTICAL DISTANCE BETWEEN TWO ELEVATIONS FOR LATTICED STRUCTURES.
4. THE TWIST BETWEEN ANY TWO ELEVATIONS THROUGHOUT THE HEIGHT OF A LATTICE STRUCTURE SHALL NOT EXCEED 0.5 DEGREES IN 10 FEET. THE MAXIMUM TWIST OVER THE LATTICE STRUCTURE HEIGHT SHALL NOT EXCEED 5 DEGREES.

SPECIAL INSPECTIONS NOTES:

1. A QUALIFIED INDEPENDENT TESTING LABORATORY, EMPLOYED BY THE OWNER AND APPROVED BY THE JURISDICTION, SHALL PERFORM INSPECTION AND TESTING IN ACCORDANCE WITH THE THE GOVERNING BUILDING CODE, APPLICABLE SECTION(S) AS REQUIRED BY PROJECT SPECIFICATIONS FOR THE FOLLOWING CONSTRUCTION WORK:
 - a. STRUCTURAL WELDING (CONTINUOUS INSPECTION OF FIELD WELDS ONLY).
 - b. HIGH STRENGTH BOLTS (PERIODIC INSPECTION OF A325 AND/OR A490 BOLTS) TO BE TIGHTENED PER "TURN-OF-THE-NUT" METHOD.
 - c. MECHANICAL AND EPOXIED ANCHORAGES.
 - d. FIBER REINFORCED POLYMER.
 - THE SPECIAL INSPECTOR MUST VERIFY THAT THE FRP MATERIAL SPECIFIED ON THE APPROVED DESIGN DOCUMENTS IS BEING INSTALLED.
 - THE SPECIAL INSPECTOR MUST VERIFY THAT ALL CUT EDGES AND DRILLED HOLES ARE PROPERLY SEALED USING A VINYL ESTER SEALING KIT SUPPLIED BY THE MANUFACTURER.
 - THE SPECIAL INSPECTOR MUST VERIFY THAT THE STRUCTURE IS BUILT IN ACCORDANCE WITH THE APPROVED DESIGN DOCUMENTS.
2. THE INSPECTION AGENCY SHALL SUBMIT INSPECTION AND TEST REPORTS TO THE BUILDING DEPARTMENT, THE ENGINEER OF RECORD, AND THE OWNER UNLESS THE FABRICATOR IS APPROVED BY THE BUILDING OFFICIAL TO PERFORM WORK WITHOUT THE SPECIAL INSPECTIONS.

MAXIMUM ALLOWABLE ANGLE CLIP

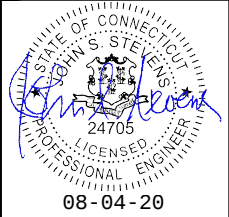


INFINIGY

INFINIGY ENGINEERING, PLLC
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Albany, NY 12205
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Fax # (518) 690-0793



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No.	Submittal / Revision	App'd	Date

Drawn: WJD Date: 07/22/20
Designed: BPM Date: 07/20/20
Checked: ADY Date: 07/22/20

Project Number:
1106-A0001-B

Project Title:
LEDYARD COLONEL RD.
CTL02184
FA# 10035428
889R COLONEL LEDYARD HIGHWAY
LEDYARD, CT 06339

Prepared For:



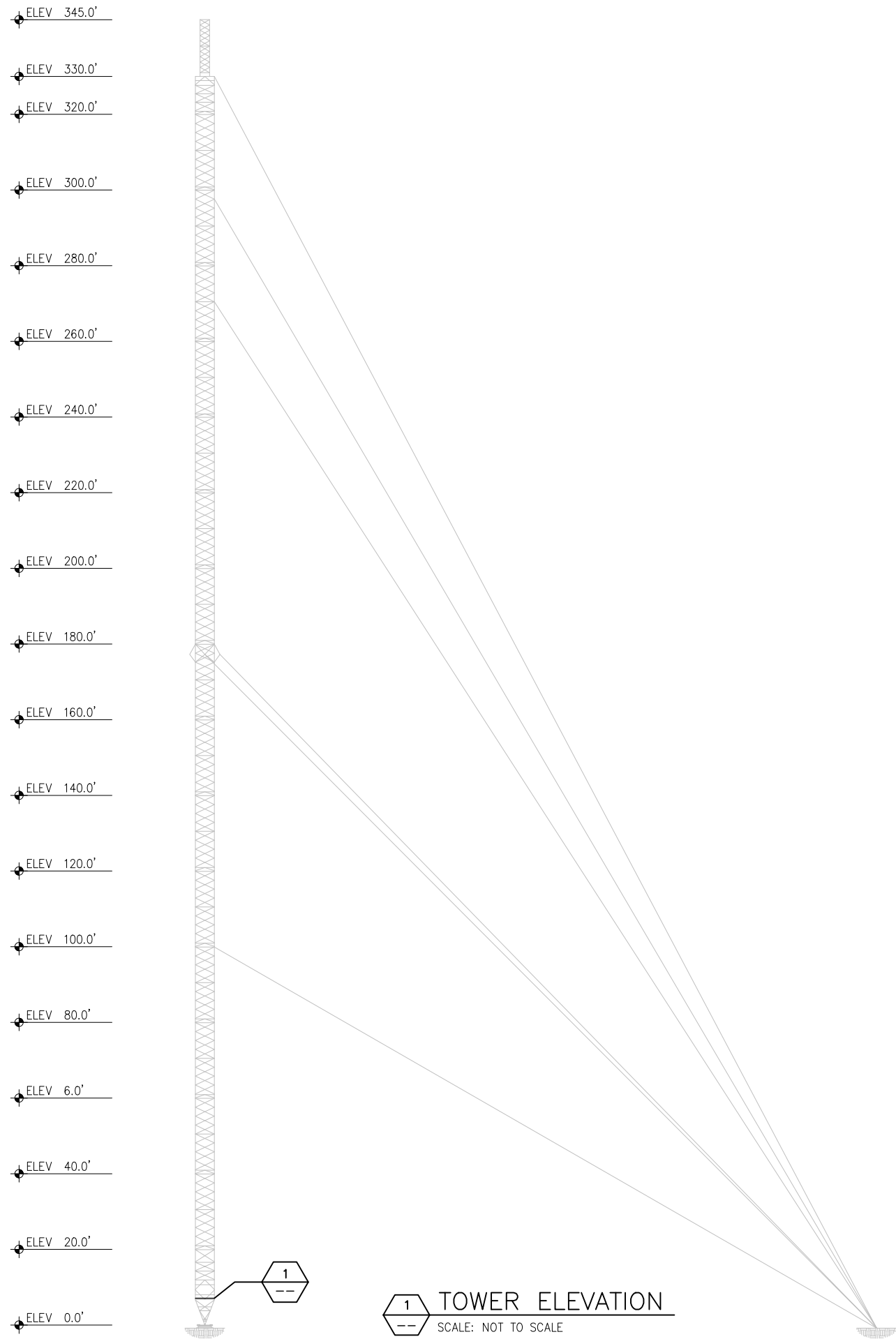
Drawing Scale: AS NOTED	0
Date: 07/22/20	

Drawing Title

GENERAL NOTES

Drawing Number

S2



MODIFICATION SCOPE			
NO.	ELEV.	DESCRIPTION	SHEET NO.
1	6.7'±	HORIZONTAL BRACE ASSEMBLY	S4



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COLONEL RD.**

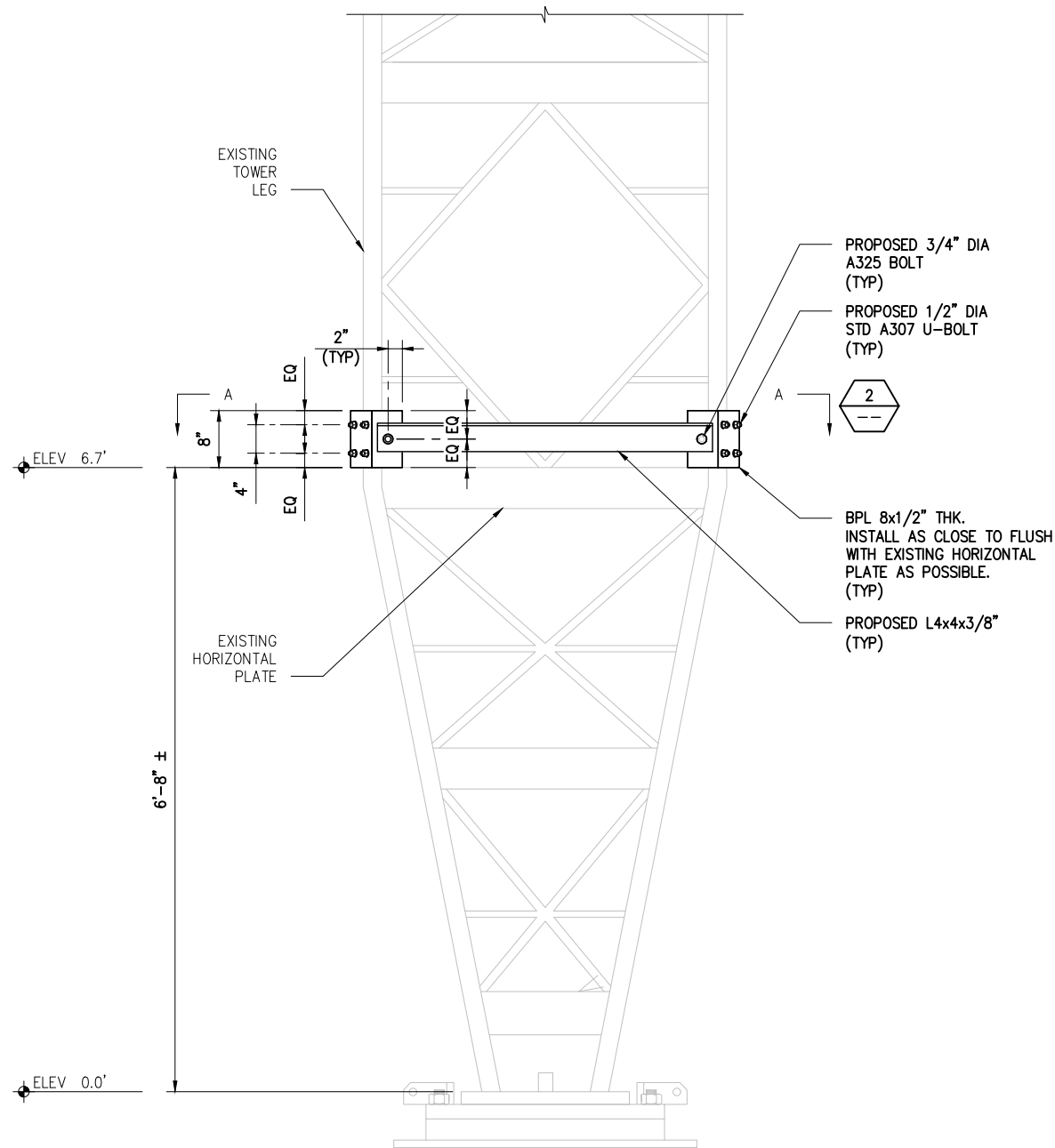
**CTL02184
FA# 10035428**
889R COLONEL LEDYARD HIGHWAY
LEDYARD, CT 06339

Prepared For:

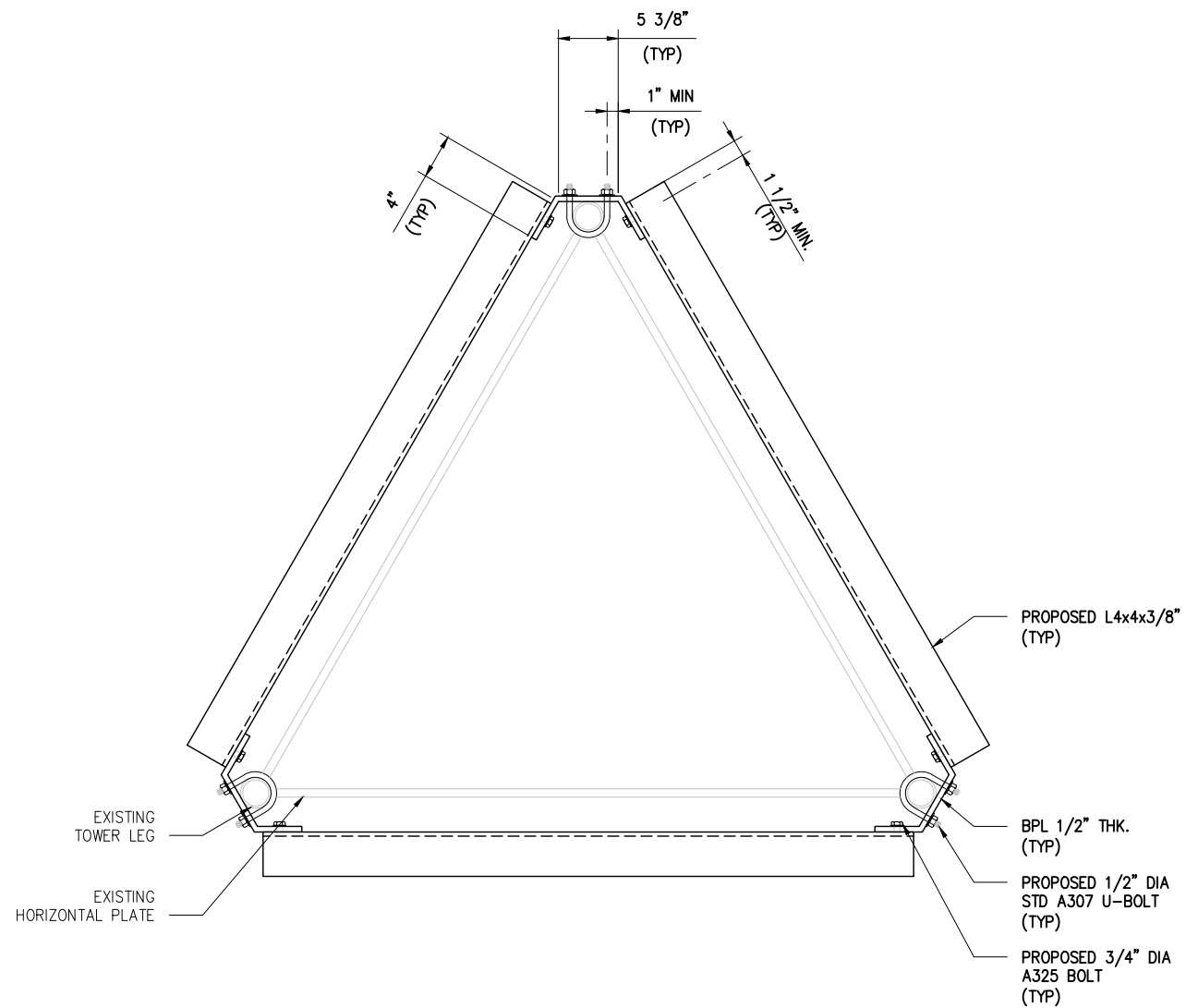

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Date: <u>07/22/20</u>	

Drawing Title
**TOWER
ELEVATION**

Drawing Number
S3



1 BASE SECTION ELEVATION
SCALE: NOT TO SCALE



2 SECTION A-A
SCALE: NOT TO SCALE

NOTES:

1. VARIOUS EXISTING CONDITIONS AND PROPOSED MODIFICATIONS NOT SHOWN FOR CLARITY.
2. ALL DESIGNATED PARTS ARE TO BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS, UNLESS OTHERWISE NOTED.
3. CONTRACTOR TO FIELD VERIFY REQUIRED LENGTHS OF PROPOSED PLATES AND CUT & DRILL ON SITE AS NECESSARY.

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Designed:	BPM	Date:	07/20/20
Checked:	ADV	Date:	07/22/20
Project Number:			
1106-A0001-B			

Project Title:
LEDYARD
COLONEL RD.
CTL02184
FA# 10035428
889R COLONEL LEDYARD HIGHWAY
LEDYARD, CT 06339

Prepared For:
smartlink

Drawing Scale:
AS NOTED
Date:
07/22/20
0

Drawing Title
**HORIZONTAL
BRACING
ASSEMBLY**

Drawing Number
S4



FROM ZERO TO INFINIGY
the solutions are endless

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Post Modification Mount Analysis Report

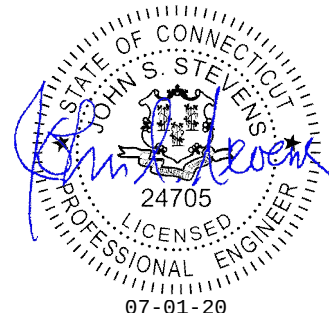
July 1, 2020

AT&T Site Name	Ledyard Colonel Rd.
AT&T Site Number	CTL02184
AT&T FA Number	10035428
AT&T PTN Number	2051A0VH4X, 2051A0VH98, 2051A0VHNQ, 2051A0VHRC, 2051A0VHN3, 2051A0VG7N
AT&T PACE Number	MRCTB047350, MRCTB047387, MRCTB047400, MRCTB047457, MRCTB047373, MRCTB047401
Infinigy Job Number	1106-A0001-B
Client	Smartlink
Carrier	AT&T Mobility
Site Location	889R Colonel Ledyard Highway Ledyard, CT 06339 New London County 41.4619919 N NAD83 72.0236111 W NAD83
Mount Centerline EL.	200.0 ft
Mount Type	Sector Frame
CSR	78.2%
Overall Result	Pass – See Recommendations Below
Notes	Please see appended drawings for the mount modifications.

Upon reviewing the results of this analysis, it is our opinion that the modified antenna mount meets the specified TIA code requirements. The mounts for the proposed carrier are therefore deemed adequate to support the final load configuration as listed in this report.

- Install (1) SitePro1 SFR-K-L kit, from the existing horizontal pipe to the tower leg, per sector, prior the installation of the proposed equipment.

Pradin Suinyal Magar, M.S.
Project Engineer I



AZ CA CO FL GA MD NC NH NJ NY TX WA



July 1, 2020

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Introduction.....	3
Supporting Documentation.....	3
Analysis Code Requirements.....	3
Conclusion.....	3
Final Configuration Loading.....	4
Structure Usages.....	4
Mount Connections.....	4
Assumptions and Limitations.....	5
Calculations.....	Appended

July 1, 2020

Introduction

Infinigy Engineering has been requested to perform a post modification mount analysis on the existing AT&T Mobility mounts. All referenced supporting documents have been obtained from the client and are assumed to be accurate and applicable to this site. The mount was analyzed using RISA-3D Version 17.0.4 analysis software.

Supporting Documentation

RFDS	RFDS ID #3719899, dated March 24, 2020
Structural Report	Maser Consulting Project #16963002A, dated November 9, 2016
Previous MA Report	Maser Consulting Project #16963002A, dated November 1, 2016
Site Photos	Smartlink Provided, dated April 21, 2020
Tower Mapping Report	TEP #72502.94719, dated October 26, 2016

Analysis Code Requirements

Wind Speed	126 mph (3-Second Gust)
Wind Speed w/ Ice	50 mph (3 Second Gust) w/ 1" Ice
TIA Revision	ANSI/TIA-222-H
Adopted IBC	2018 IBC
Risk Category	II
Exposure Category	C
Topographic Factor Procedure	Method 1
Topographic Category	1
Crest Height (H)	0 ft
Spectral Response	$S_s = 0.191$ g, $S_1 = 0.053$ g
Site Class	D - Stiff Soil (Assumed)
HMSL	309 ft.

Conclusion

Upon reviewing the results of this analysis, it is our opinion that the modified antenna mount meets the specified TIA code requirements. The mounts for the proposed carrier are therefore deemed adequate to support the final load configuration as listed in this report.

If you have any questions, require additional information, or actual conditions differ from those as detailed in this report please contact me via the information below:

Pradin Suinyal Magar, M.S.
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July 1, 2020

Final Configuration Loading

Mount CL (ft)	Vert. O/S (ft)	Rad. HT (ft)	Horiz. O/S (ft)*	Qty	Appurtenance	Carrier
200.0	0.0	200.0	9.6	3	POWERWAVE TECHNOLOGIES 7770.00	AT&T Mobility
			5.0	1	CCI ANTENNAS OPA65R-BU4DA	
			0.9	1	CCI ANTENNAS DMP65R-BU4DA	
			5.0, 8.9	6	POWERWAVE TECHNOLOGIES CM1007-DBPXC-003	
			-	1	RAYCAP DC9-48-60-24-8C-EV**	
			-	1	RAYCAP DC9-48-60-24-8C-EV**	
			5.0	3	ERICSSON RRUS 4478 B14	
			0.9	3	ERICSSON 4449 B5/B12	
			0.9	3	ERICSSON 8843 B2/B66A	
			5.0	2	CCI ANTENNAS OPA65R-BU8DA	
			0.9	2	CCI ANTENNAS DMP65R-BU8DA	
			9.6	6	KATHREIN 860-10025	
			9.6	1	KATHREIN 860-10006	
			9.6	3	CCI ANTENNAS DTMAP7819VG12A TWIN PCS W/ 700-850BP	

*Horizontal Offset is defined as the distance from the left most edge of the mount face horizontal when viewed facing the tower

** Raycap assumed to be installed directly on tower

Structure Usages

Horizontals	78.2%	Pass
Standoffs	60.2%	Pass
Mount Pipes	75.2%	Pass
Tieback	13.3%	Pass
Bracings	58.3%	Pass
Max Usage	78.2%	Pass

Mount Connection Usages

Reaction Data	Design Capacity*	Analysis Reactions	Results
Max Tension (lbs.)	20,340.2	3,470.8	17.1%
Max Shear (lbs.)	13,805.8	607.9	4.4%
Unity Check	-	-	0.03
*Assumed (2) 5/8" A325 Threaded Rods per connection. Contractor to field verify before installing proposed equipment.			

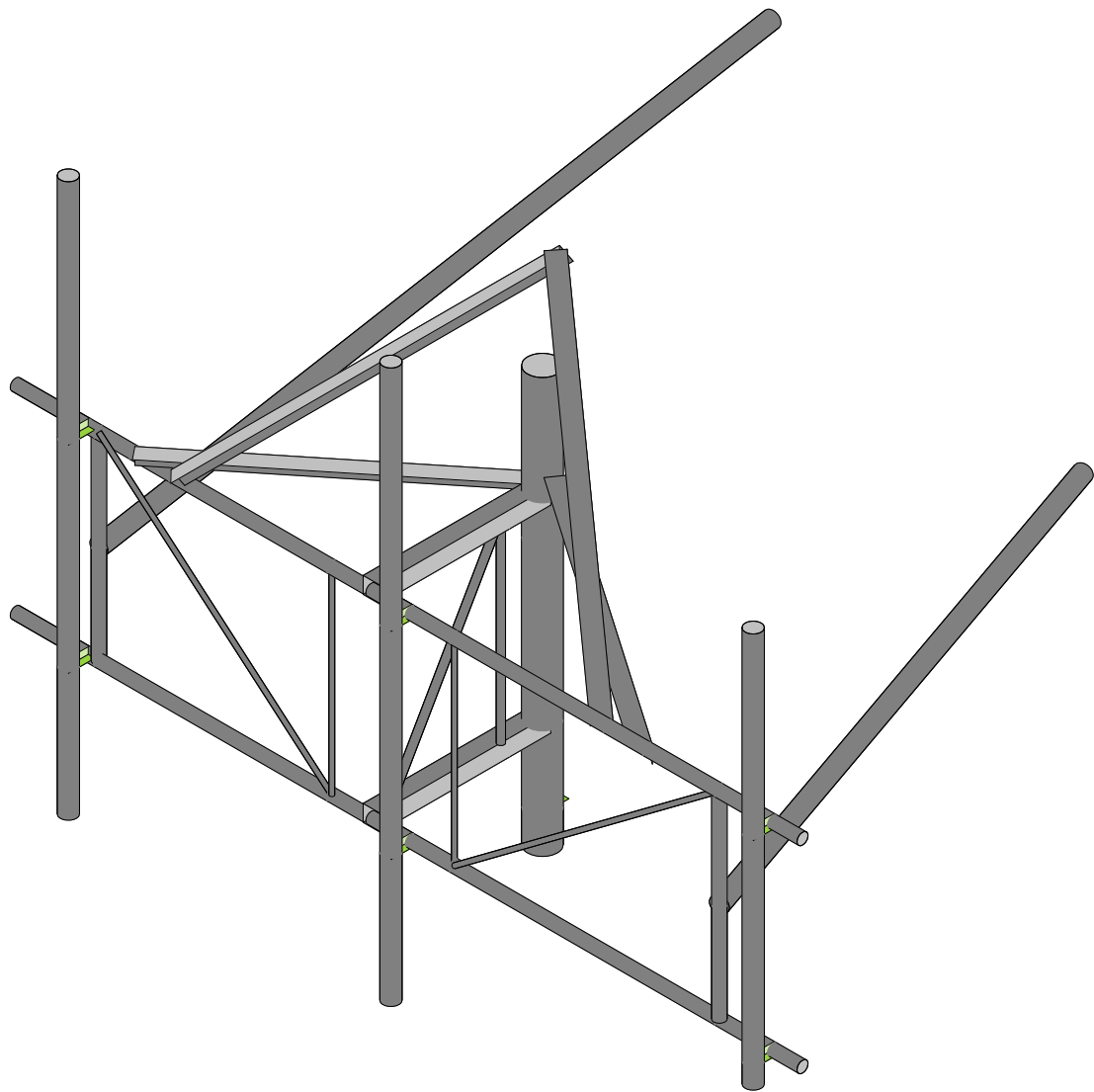
July 1, 2020

Assumptions and Limitations

Our structural calculations are completed assuming all information provided to Infinigy Engineering is accurate and applicable to this site. For the purposes of calculations, we assume an overall structure condition of “like new” and all members and connections to be free of corrosion and/or structural defects. The structure owner and/or contractor shall verify the structure’s condition prior to installation of any proposed equipment. If actual conditions differ from those described in this report Infinigy Engineering should be notified immediately to complete a revised evaluation.

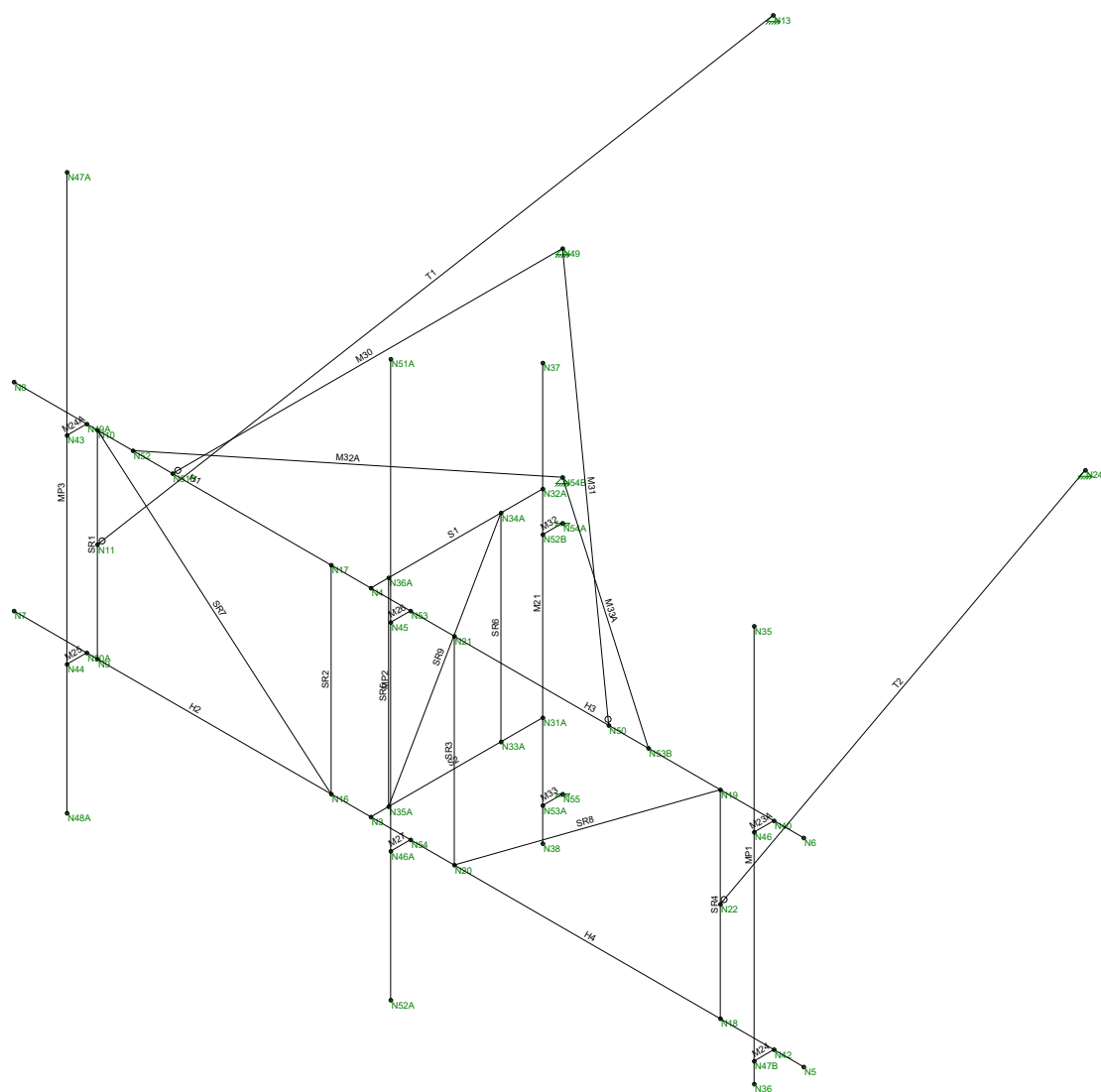
Our evaluation is completed using standard TIA, AISC, ACI, and ASCE methods and procedures. Our structural results are proprietary and should not be used by others as their own. Infinigy Engineering is not responsible for decisions made by others that are or are not based on our supplied assumptions and conclusions.

This report is an evaluation of the proposed carriers mount structure only and does not reflect adequacy of the existing tower, other mounts, or coax mounting attachments. These elements are assumed to be adequate for the purposes of this analysis and are assumed to have been installed per their manufacturer requirements.

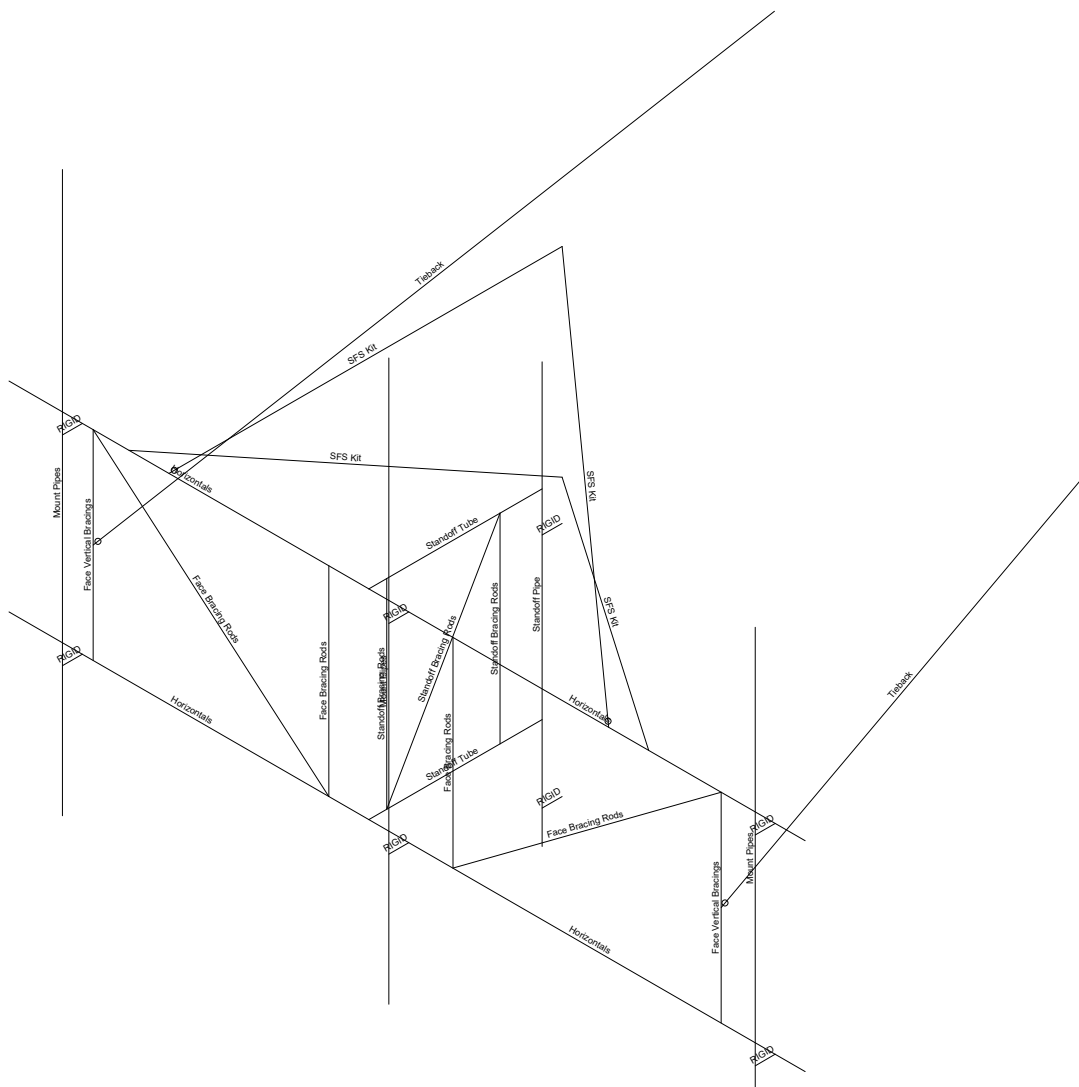


Envelope Only Solution

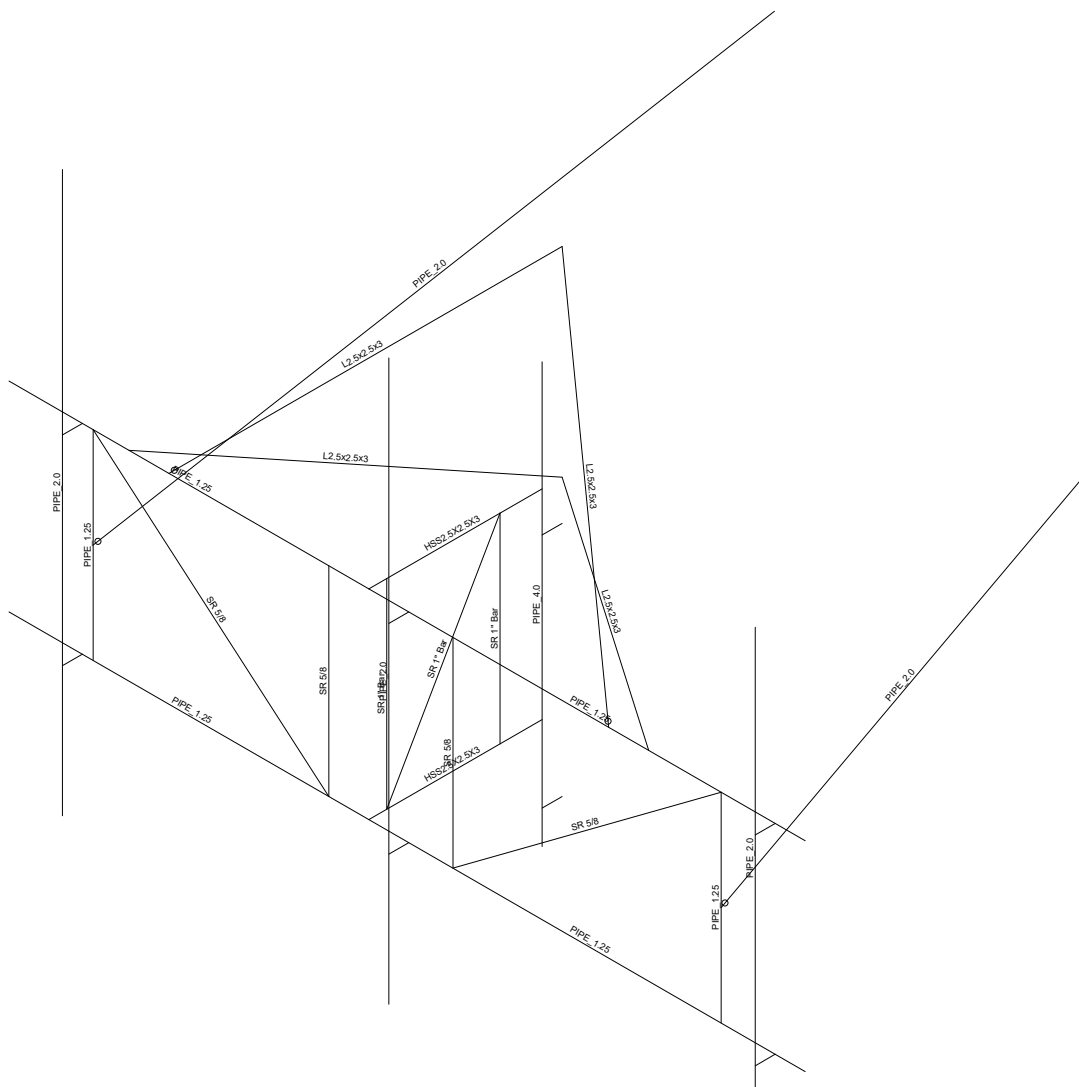
Infingiy Engineering, PLLC	Ledyard Colonel Rd.	Existing Configuration
PSM		July 1, 2020 at 2:23 PM
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CTL02184_MOD_loaded.r3d

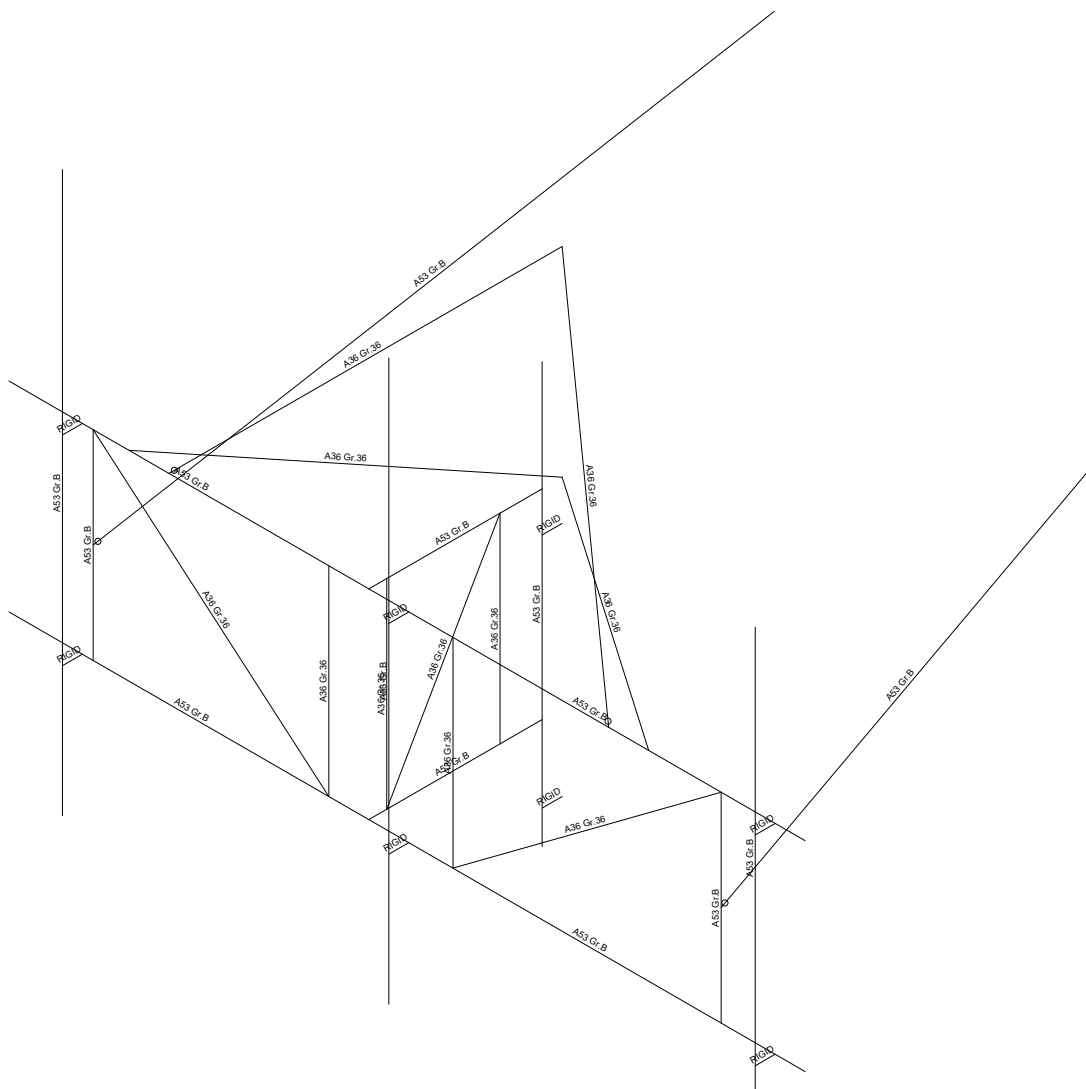


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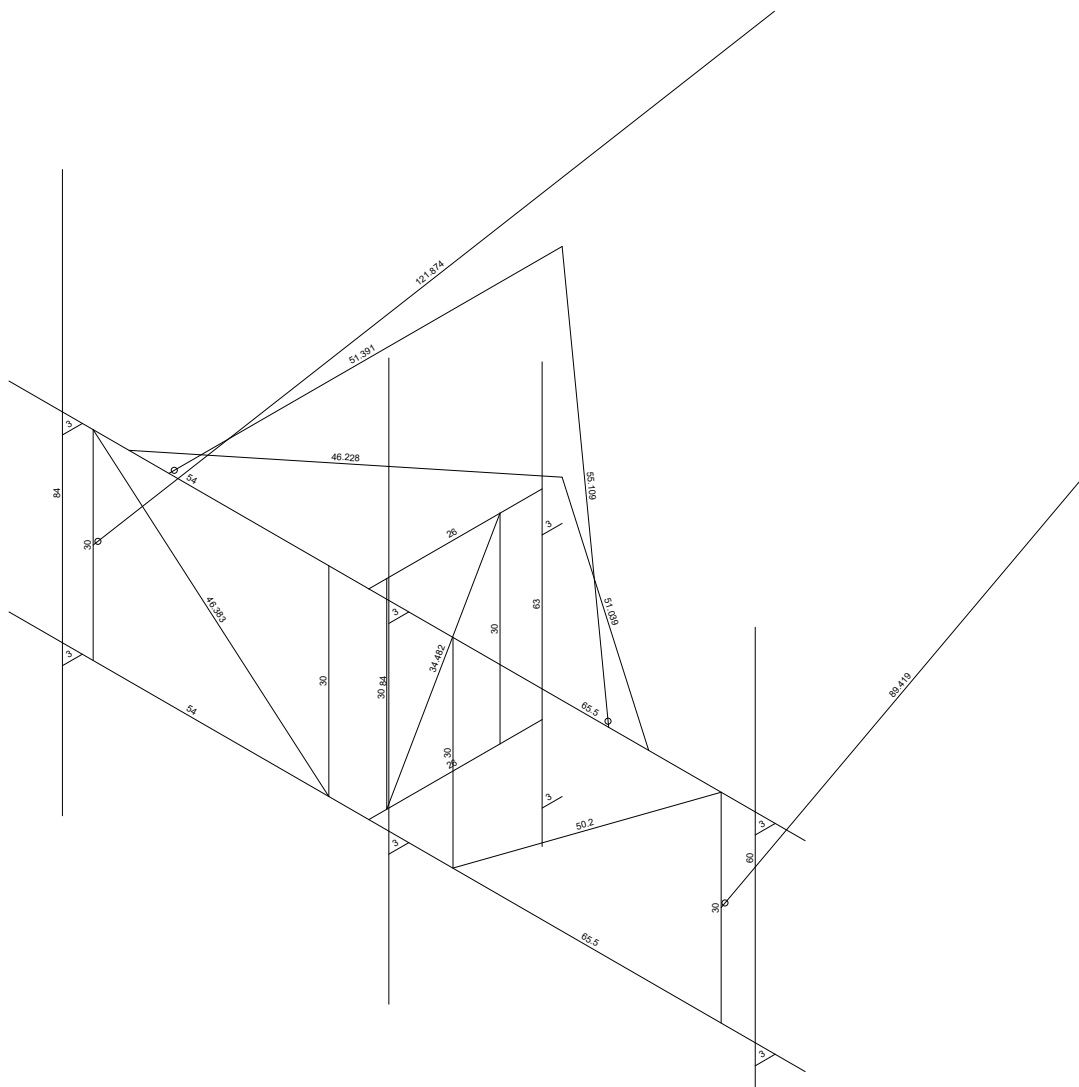
Envelope Only Solution

Infingyi Engineering, PLLC	Ledyard Colonel Rd.	Member Shapes
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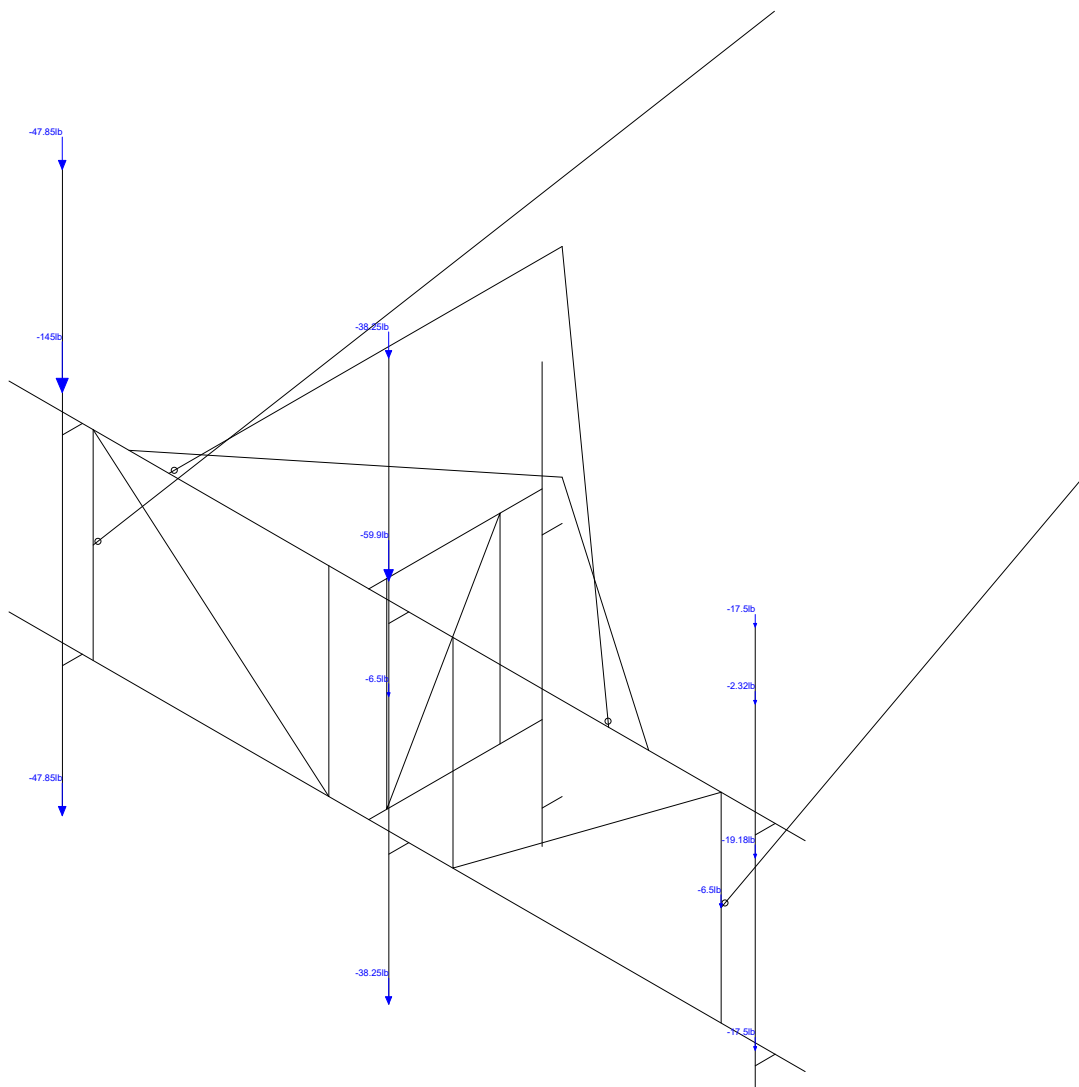
Envelope Only Solution

Infingyi Engineering, PLLC	Ledyard Colonel Rd.	Material Sets
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1106-A0001-B		CTL02184_MOD_loaded.r3d



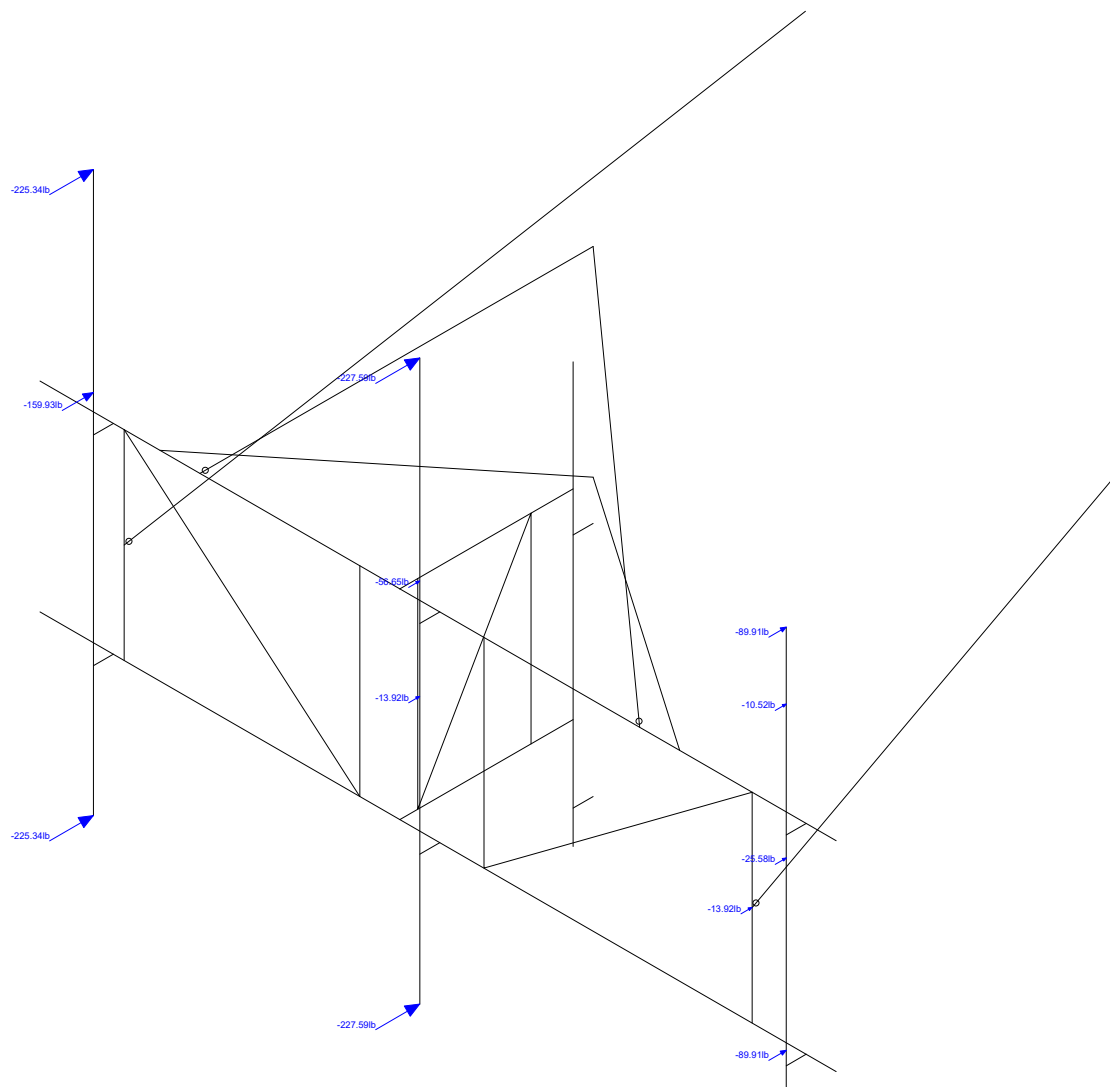
Member Length (ft) Displayed
Envelope Only Solution

Infingiy Engineering, PLLC	Ledyard Colonel Rd.	Member Lengths
PSM		July 1, 2020 at 2:24 PM
1106-A0001-B		CTL02184_MOD_loaded.r3d



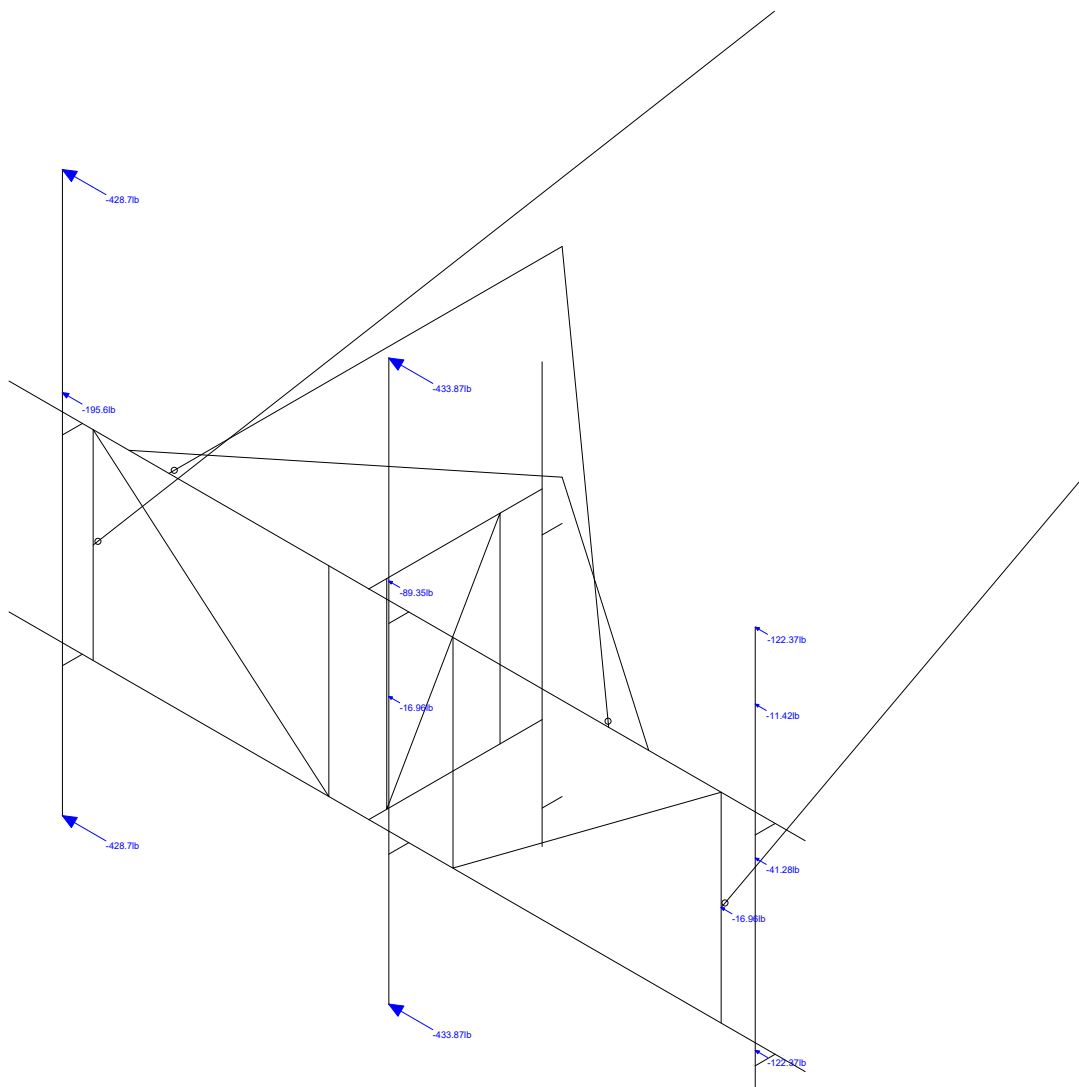
Loads: BLC 1, Self Weight
Envelope Only Solution

Infingiy Engineering, PLLC	Ledyard Colonel Rd.	Self Weight
PSM		July 1, 2020 at 2:24 PM
1106-A0001-B		CTL02184_MOD_loaded.r3d



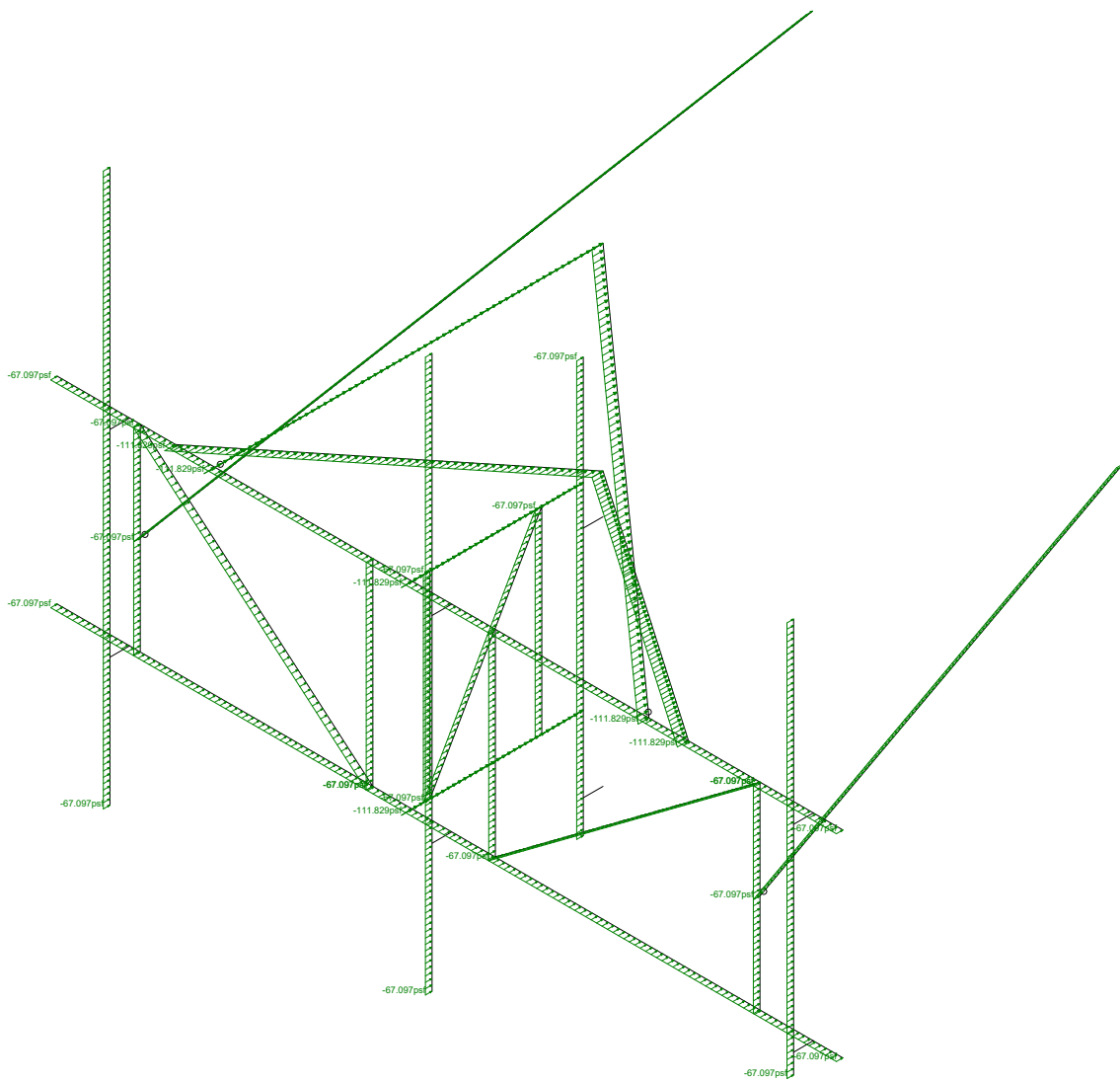
Loads: BLC 2, Wind Load AZI 0
Envelope Only Solution

Infingiy Engineering, PLLC	Ledyard Colonel Rd.	Wind Load AZI 000
PSM		July 1, 2020 at 2:24 PM
1106-A0001-B		CTL02184_MOD_loaded.r3d



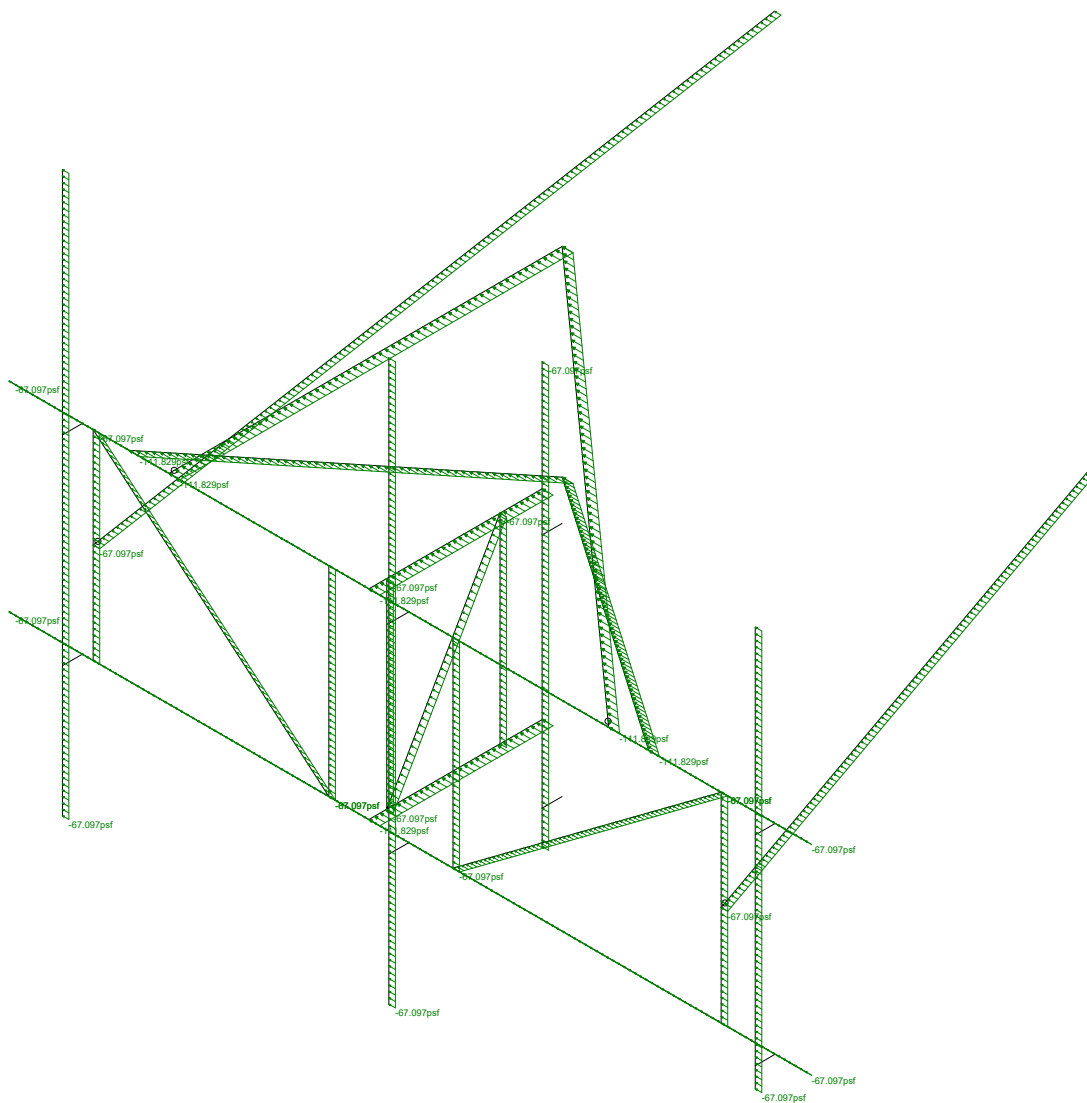
Loads: BLC 5, Wind Load AZI 090
Envelope Only Solution

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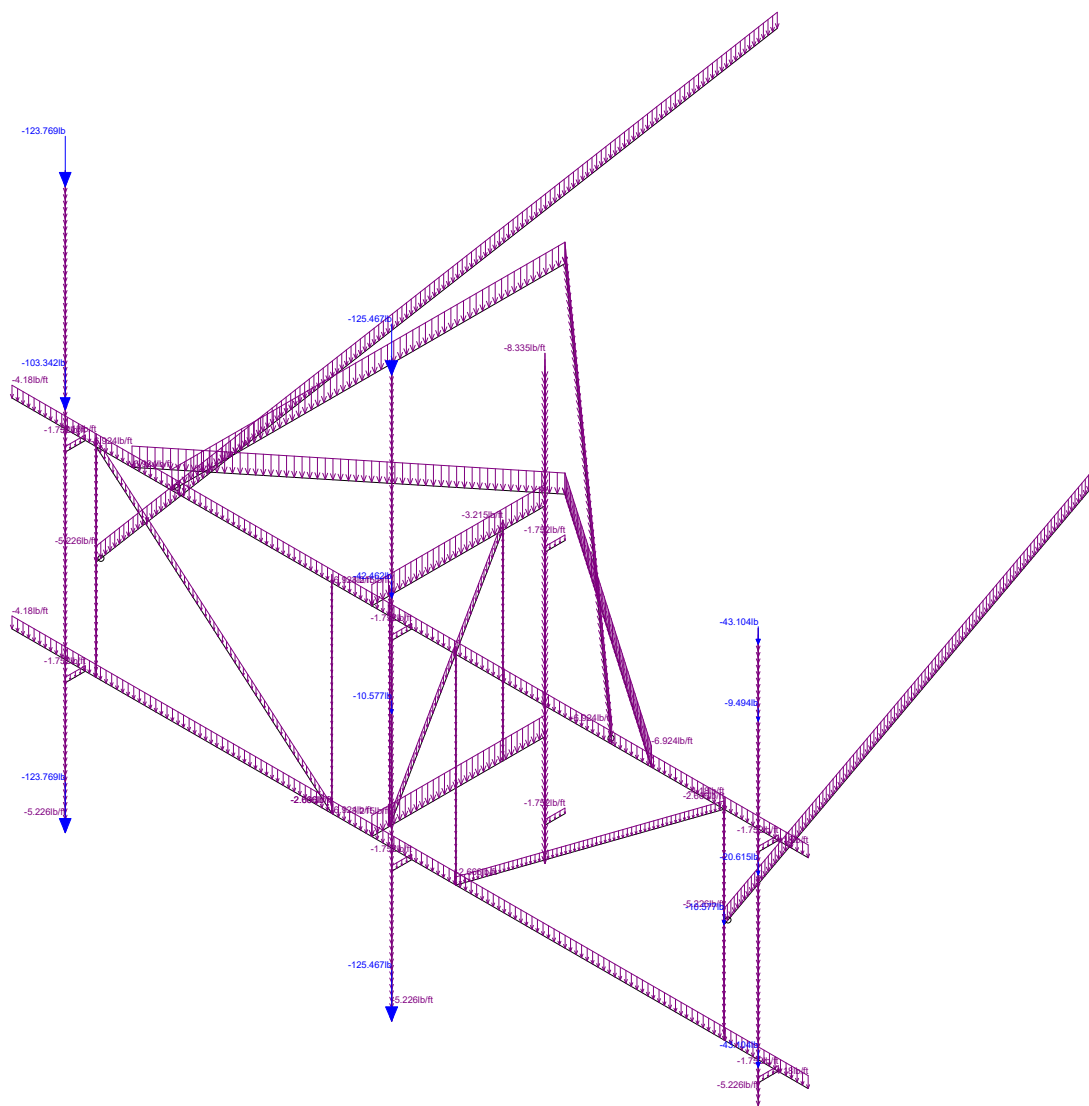


Loads: BLC 14, Distr. Wind Load Z
Envelope Only Solution

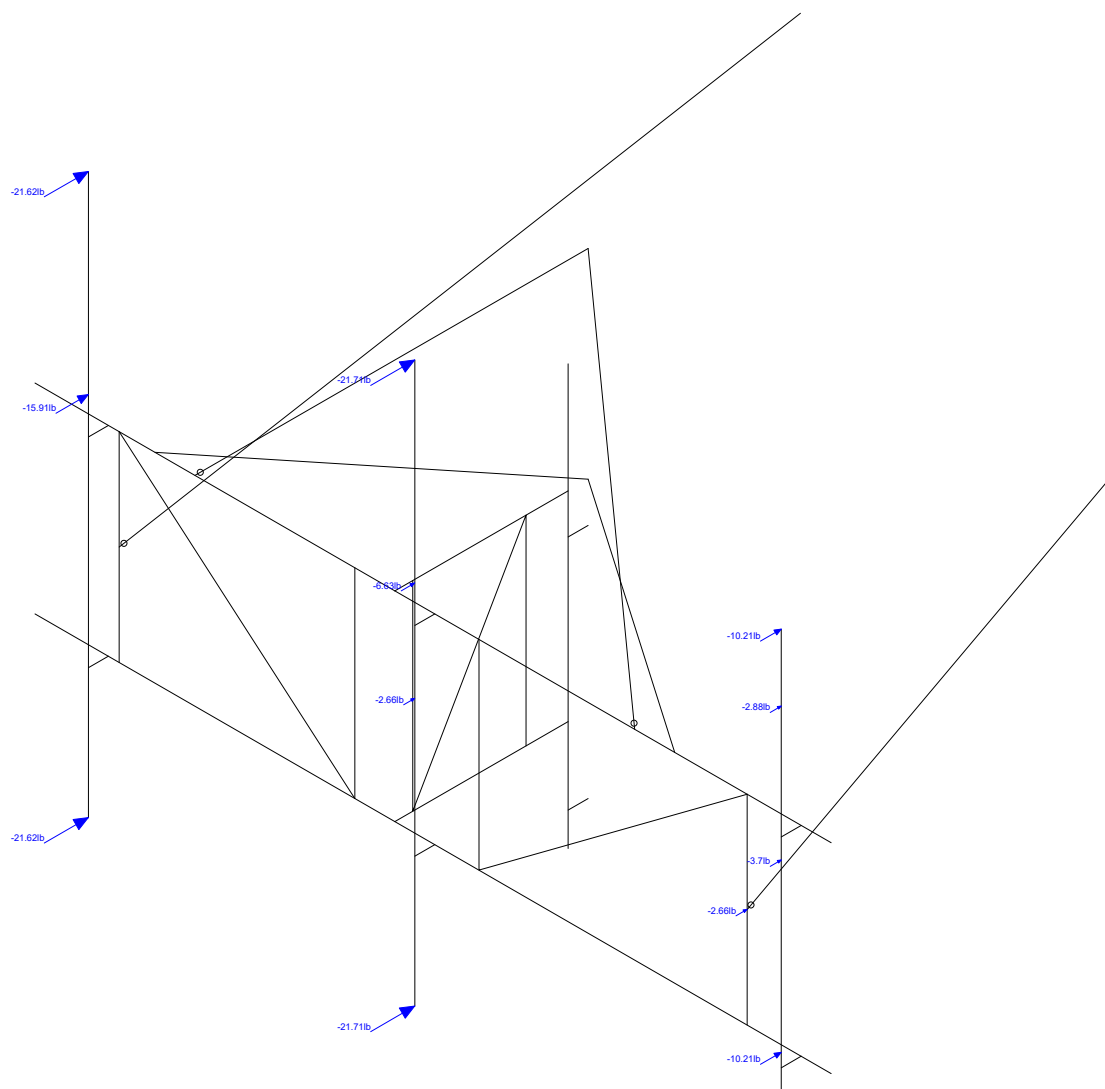
Infingiy Engineering, PLLC	Ledyard Colonel Rd.	Distr Wind Load AZI 000
PSM		July 1, 2020 at 2:25 PM
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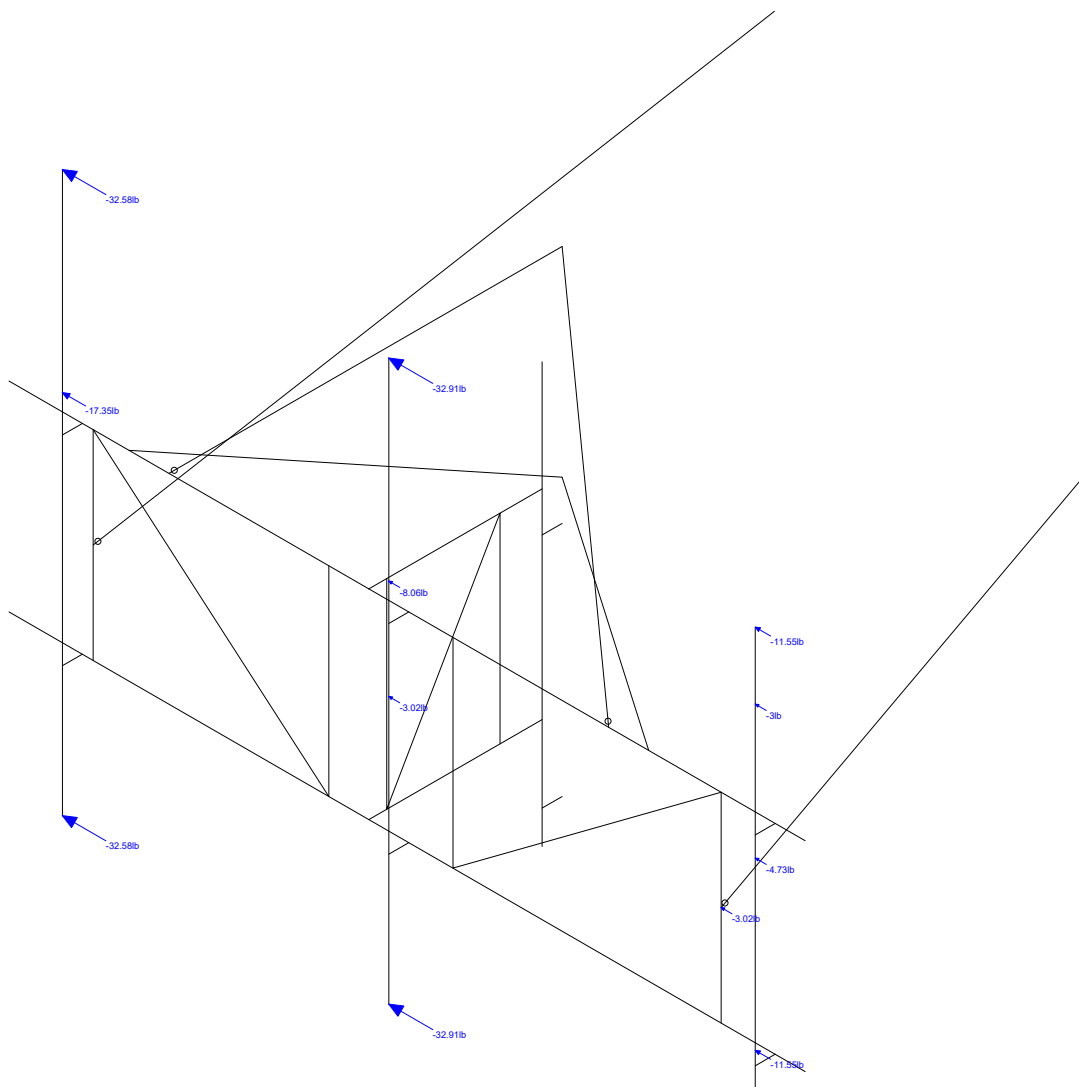
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CTL02184_MOD_loaded.r3d

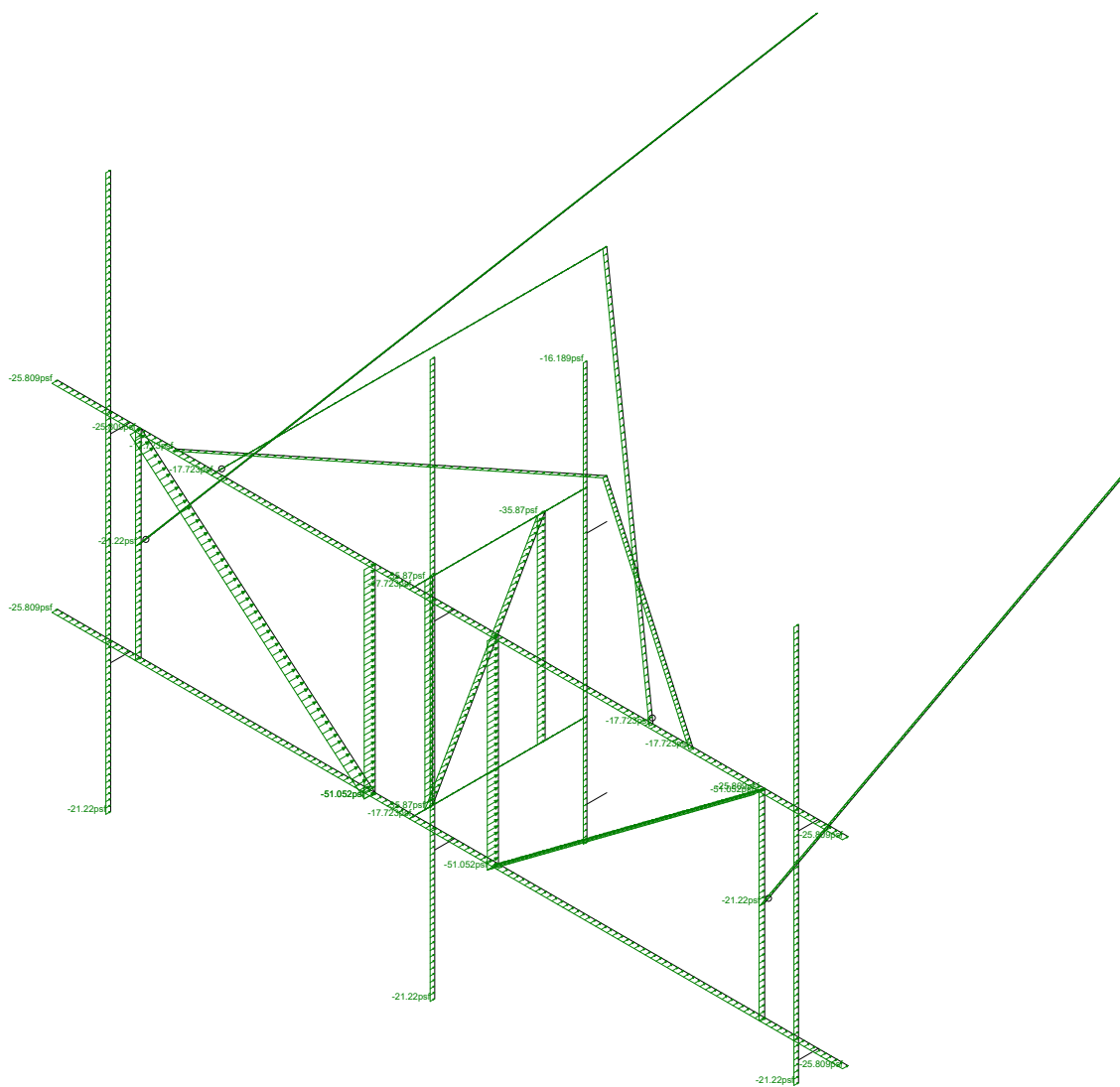


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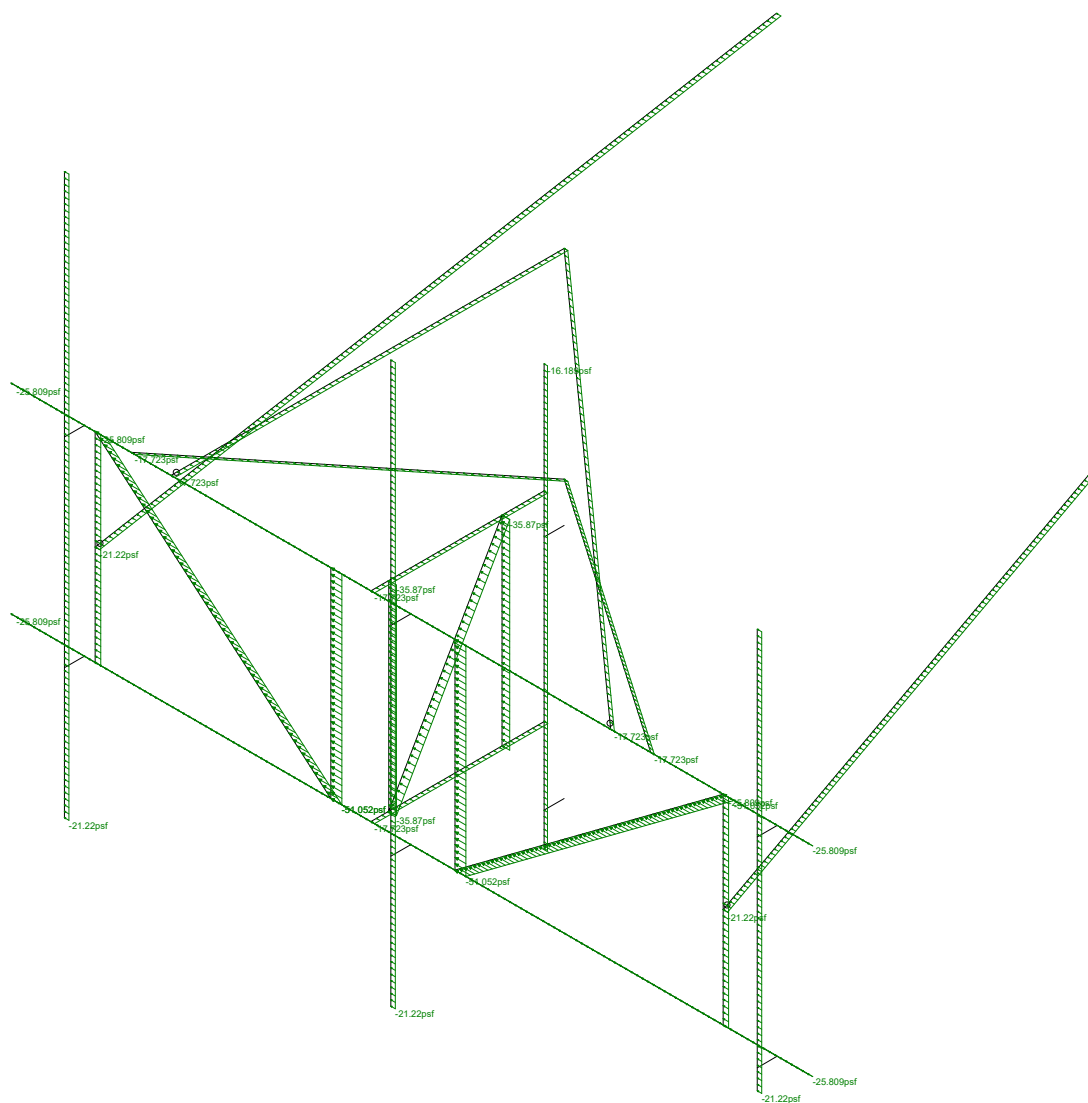


Loads: BLC 20, Ice Wind Load AZI 90
Envelope Only Solution

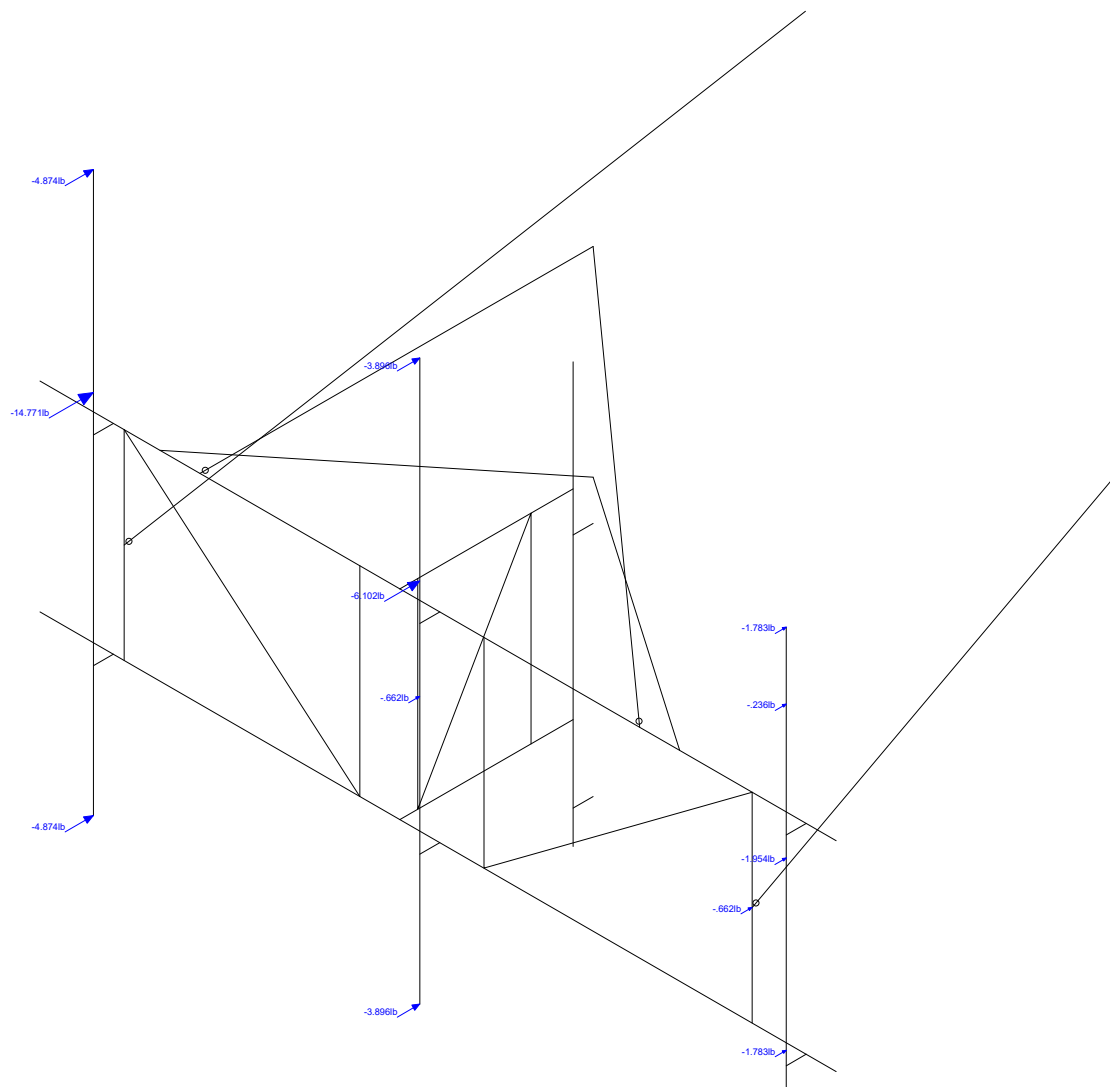
Infingiy Engineering, PLLC	Ledyard Colonel Rd.	Ice + Wind Load AZI 090
PSM		July 1, 2020 at 2:26 PM
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CTL02184_MOD_loaded.r3d

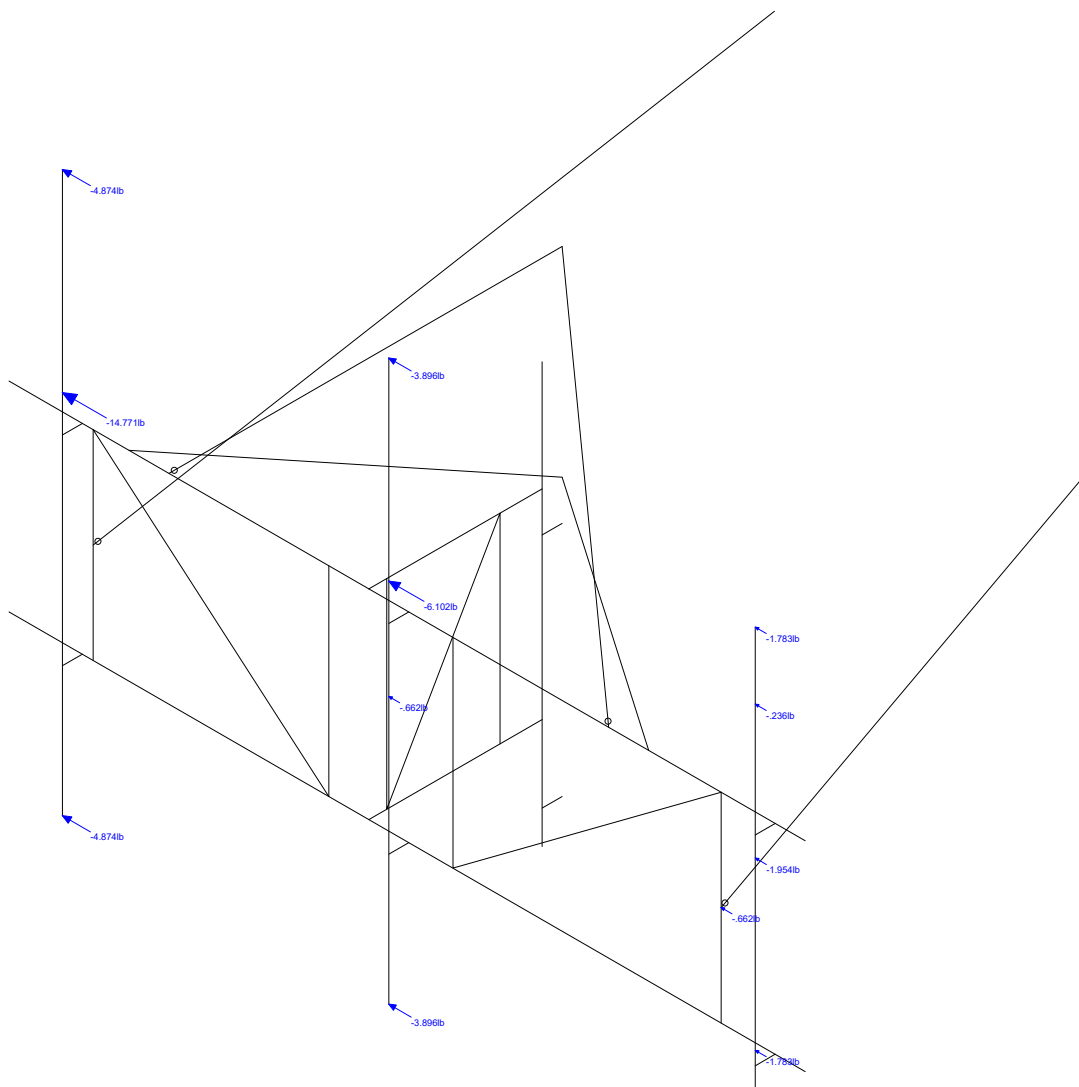


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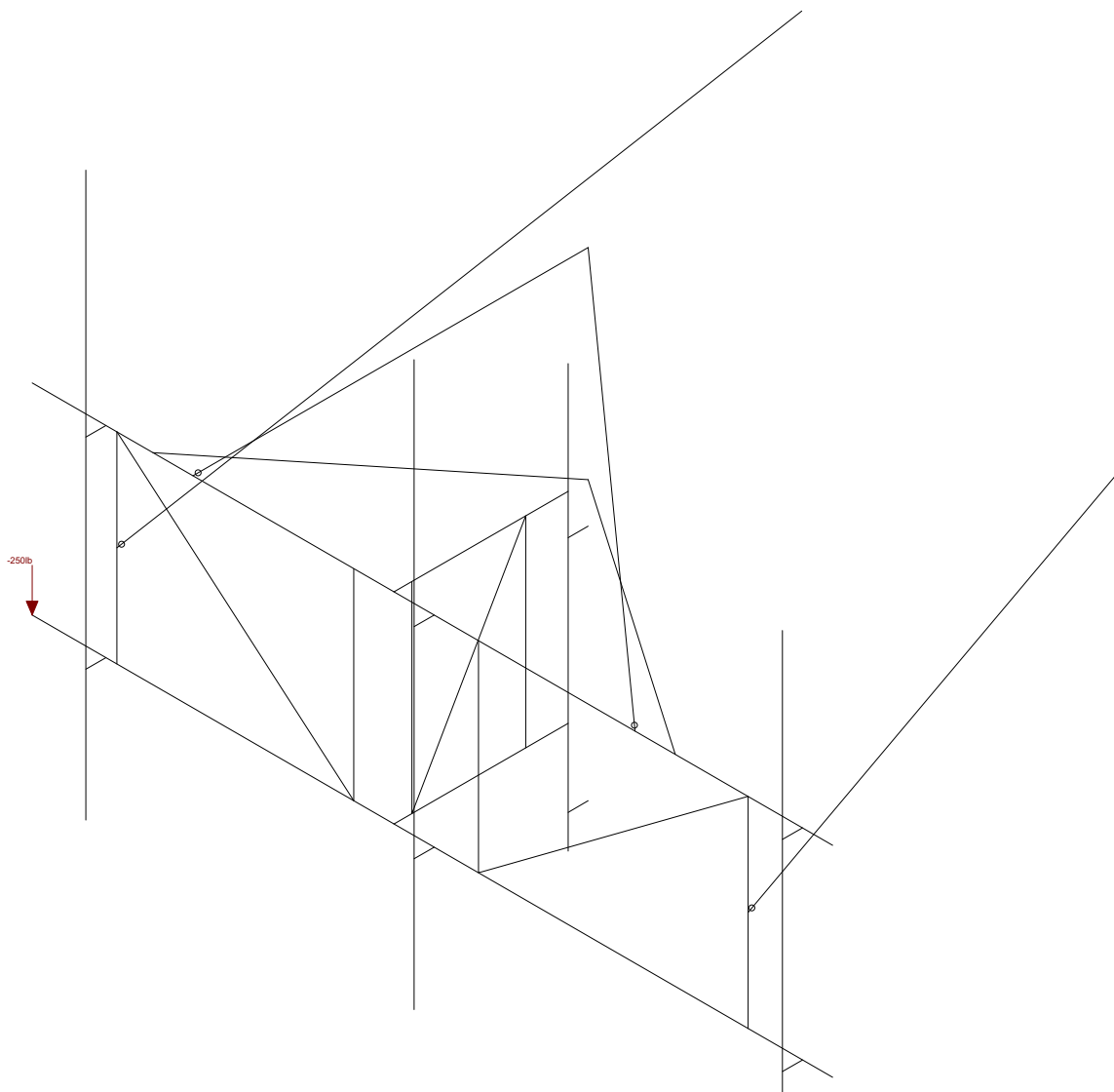
Loads: BLC 31, Seismic Load Z
Envelope Only Solution

Infingiy Engineering, PLLC	Ledyard Colonel Rd.	Seismic Load AZI 000
PSM		July 1, 2020 at 2:27 PM
1106-A0001-B		CTL02184_MOD_loaded.r3d



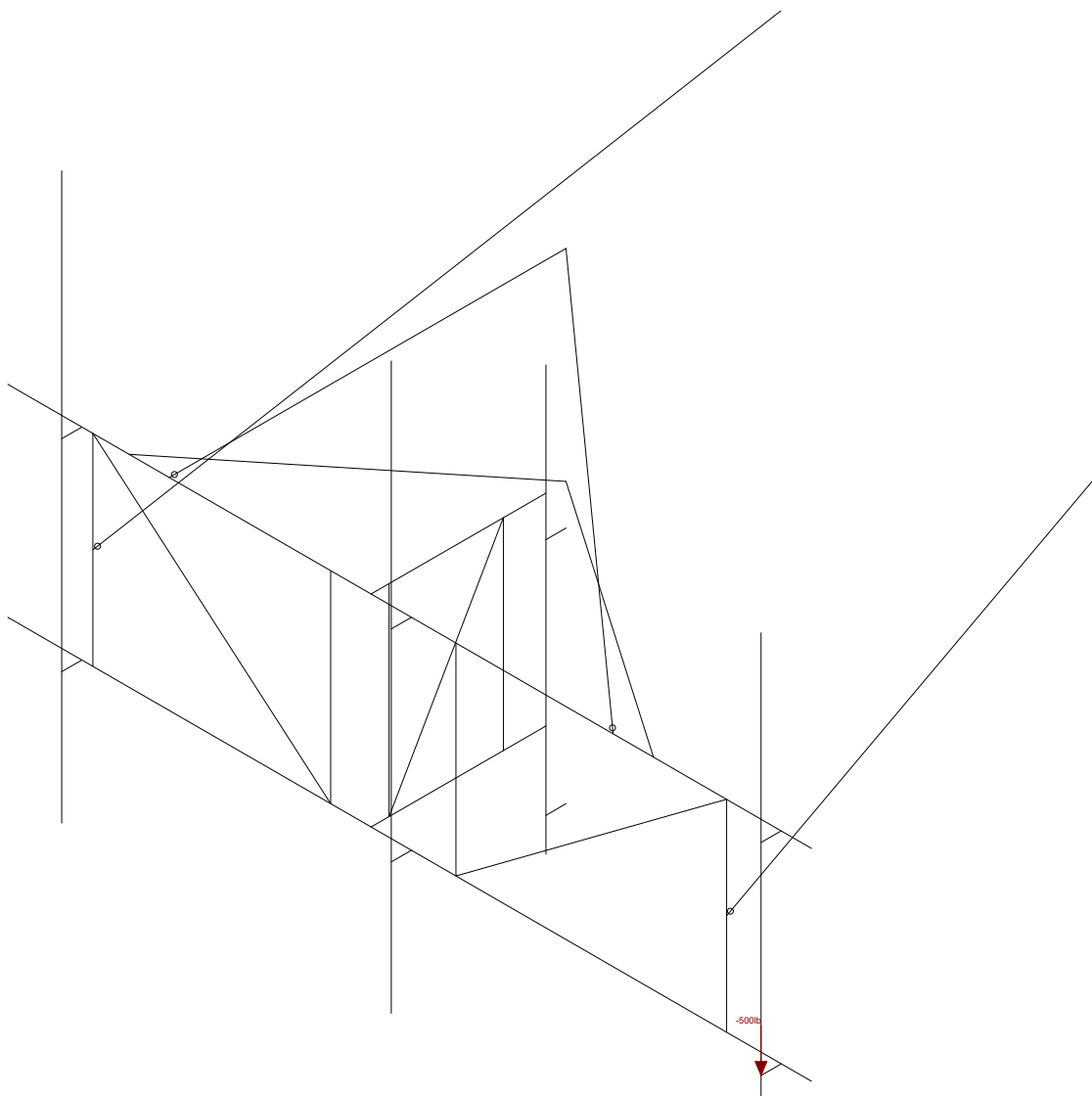
Loads: BLC 32, Seismic Load X
Envelope Only Solution

Infingiy Engineering, PLLC	Ledyard Colonel Rd.	Seismic Load AZI 090
PSM		July 1, 2020 at 2:27 PM
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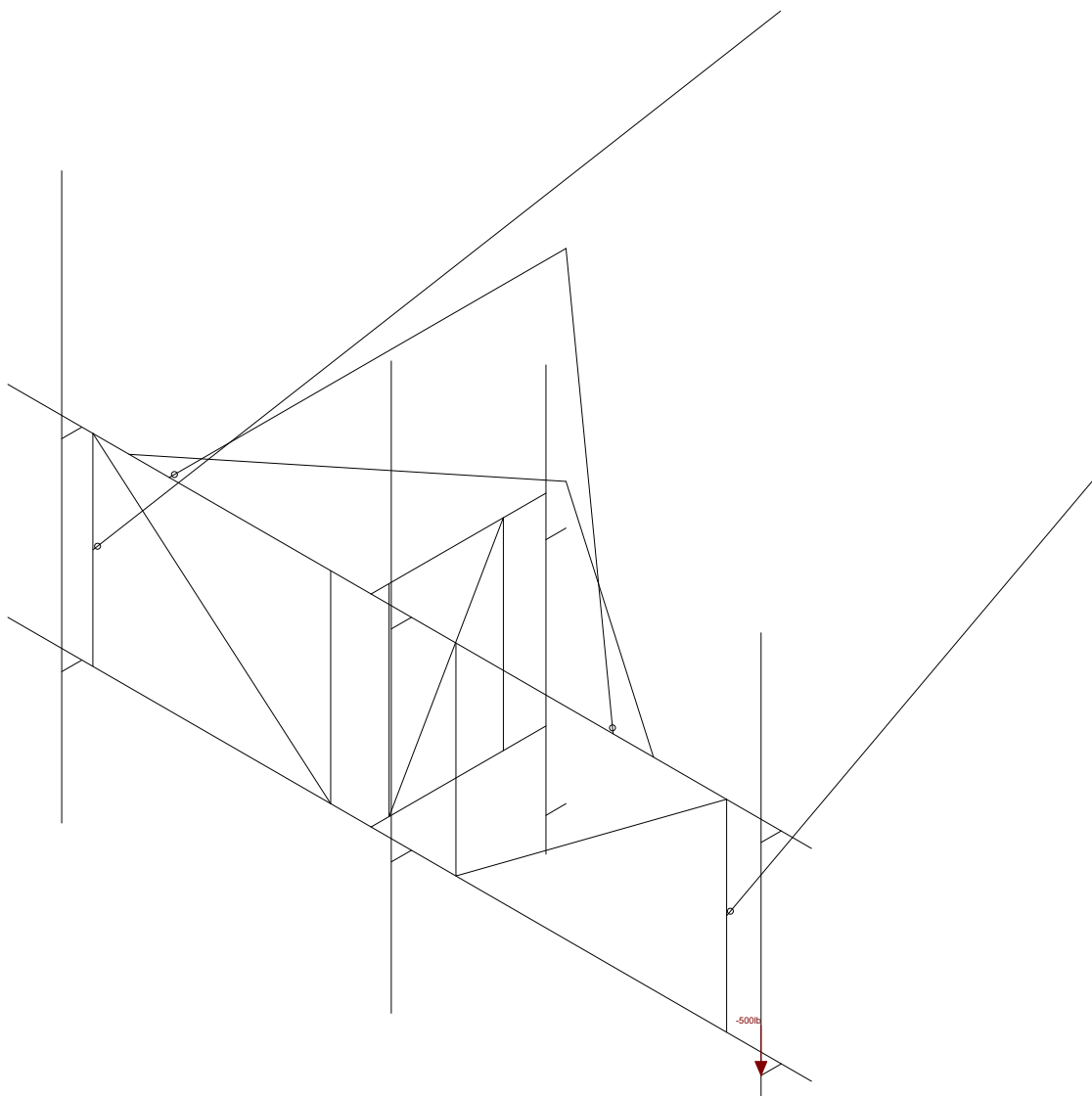
Loads: BLC 33, Service Live Loads

Infingiy Engineering, PLLC	Ledyard Colonel Rd.	Service Live Load
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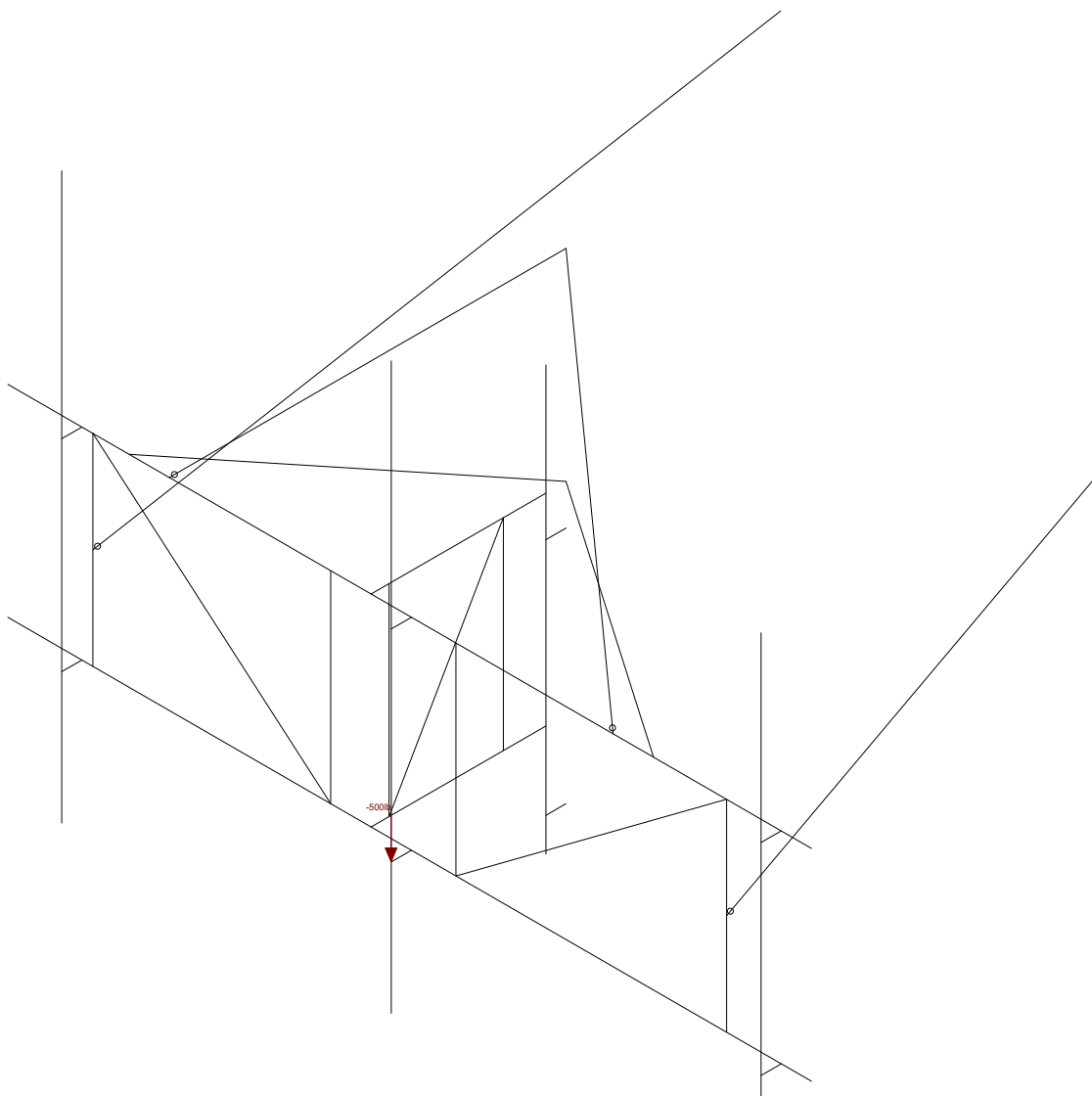
Loads: BLC 34, Maintenance Load 1

Infingiy Engineering, PLLC	Ledyard Colonel Rd.	Maintenance Load 1
PSM		July 1, 2020 at 2:28 PM
1106-A0001-B		CTL02184_MOD_loaded.r3d



Loads: BLC 34, Maintenance Load 1

Infingiy Engineering, PLLC	Ledyard Colonel Rd.	Maintenance Load 2
PSM		July 1, 2020 at 2:28 PM
1106-A0001-B		CTL02184_MOD_loaded.r3d



Loads: BLC 36, Maintenance Load 3

Infingiy Engineering, PLLC	Ledyard Colonel Rd.	Maintenance Load 3
PSM		July 1, 2020 at 2:28 PM
1106-A0001-B		CTL02184_MOD_loaded.r3d

Program Inputs

PROJECT INFORMATION		
Client:	Smartlink	
Carrier:	AT&T Mobility	
Engineer:	Pradin Suinyal Magar, M.S	

SITE INFORMATION		
Risk Category:	II	
Exposure Category:	C	
Topo Factor Procedure:	Method 1, Category 1	
Site Class:	D - Stiff Soil	
Ground Elevation:	309	ft *Rev H

MOUNT INFORMATION		
Mount Type:	Sector Frame	
Num Sectors:	3	
Centerline AGL:	200.0	ft
Tower Height AGL:	345.0	ft

TOPOGRAPHIC DATA		
Topo Feature:	N/A	
Slope Distance:	N/A	ft
Crest Distance:	N/A	ft
Crest Height:	N/A	ft

FACTORS		
Directionality Fact. (K_d):	0.95	
Ground Ele. Factor (K_e):	0.99	*Rev H Only
Rooftop Speed-Up (K_s):	1.00	*Rev H Only
Topographic Factor (K_{zt}):	1.00	
Gust Effect Factor (G_h):	1.0	

CODE STANDARDS		
Building Code:	2018 IBC	
TIA Standard:	TIA-222-H	
ASCE Standard:	ASCE 7-16	

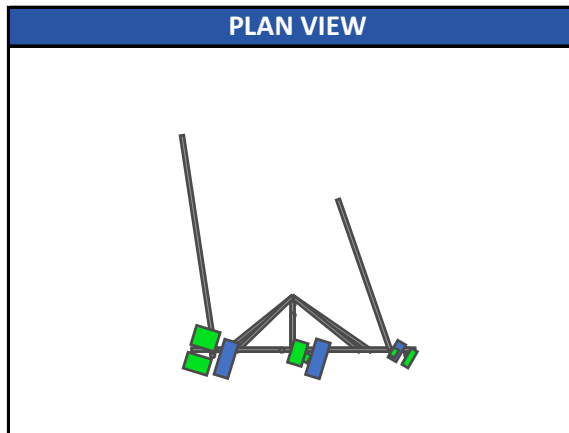
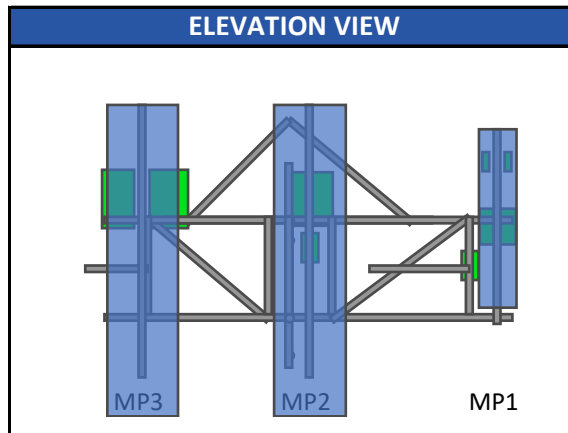
WIND AND ICE DATA		
Ultimate Wind (V_{ult}):	126	mph
Design Wind (V):	N/A	mph
Ice Wind (V_{ice}):	50	mph
Base Ice Thickness (t_i):	1	in
Flat Pressure:	111.83	psf
Round Pressure:	67.10	psf
Ice Wind Pressure:	10.57	psf

SEISMIC DATA		
Short-Period Accel. (S_s):	0.19	g
1-Second Accel. (S_1):	0.05	g
Short-Period Design (S_{DS}):	0.20	
1-Second Design (S_{D1}):	0.08	
Short-Period Coeff. (F_a):	1.60	
1-Second Coeff. (F_v):	2.40	
Amplification Factor (a_p):	1.00	
Response Mod. (R_p):	2.50	
Overstrength (Ω_o):	1.00	



Infinigy Load Calculator V2.1.4

Program Inputs



Infinigy Load Calculator V2.1.4

APPURTENANCE INFORMATION												
Appurtenance Name	Elevation	Qty.	K _a	q _z (psf)	EPA _N (ft ²)	EPA _T (ft ²)	Wind F _z (lbs)	Wind F _x (lbs)	Weight (lbs)	Seismic F (lbs)	Member (Beta sector)	
POWERWAVE TECHNOLOGIES 7770.00	200.0	3	0.90	55.91	5.51	2.93	179.82	244.74	35.00	3.57	MP1	
CCI ANTENNAS OPA65R-BU4DA	200.0	1	0.90	55.91	8.40	3.54	199.15	401.82	52.50	5.35	Leg/Flush	
CCI ANTENNAS DMP65R-BU4DA	200.0	1	0.90	55.91	8.28	3.51	196.97	396.14	67.90	6.92	Leg/Flush	
POWERWAVE TECHNOLOGIES CM1007-DBPXE	200.0	3	0.90	55.91	0.37	0.25	13.92	16.96	6.50	0.66	SR4	
POWERWAVE TECHNOLOGIES CM1007-DBPXE	200.0	3	0.90	55.91	0.37	0.25	13.92	16.96	6.50	0.66	MP2	
RAYCAP TME-DC9-48-60-24-8C-EV	200.0	1	0.90	55.91	2.74	4.78	231.90	146.48	26.20	2.67	Leg/Flush	
RAYCAP TME-DC9-48-60-24-8C-EV	200.0	1	0.90	55.91	2.74	4.78	231.90	146.48	26.20	2.67	Leg/Flush	
ERICSSON TME-RRUS 4478 B14	200.0	3	0.90	55.91	1.84	1.06	56.65	89.35	59.90	6.10	MP2	
ERICSSON 4449 B5/B12	200.0	3	0.90	55.91	1.98	1.41	73.41	97.19	70.00	7.13	MP3	
ERICSSON 8843 B2/B66A	200.0	3	0.90	55.91	1.98	1.70	86.52	98.41	75.00	7.64	MP3	
CCI ANTENNAS OPA65R-BU8DA	200.0	2	0.90	55.91	18.09	8.20	455.19	867.75	76.50	7.79	MP2	
CCI ANTENNAS DMP65R-BU8DA	200.0	2	0.90	55.91	17.87	8.12	450.67	857.39	95.70	9.75	MP3	
KATHREIN 860-10025	200.0	3	0.90	55.91	0.12	0.10	5.26	5.71	1.16	0.12	MP1	
KATHREIN 860-10025	200.0	3	0.90	55.91	0.12	0.10	5.26	5.71	1.16	0.12	MP1	
KATHREIN 860-10006	200.0	1	0.90	55.91	1.55	0.35	32.55	62.91	20.00	2.04	Leg/Flush	
CCI ANTENNAS DTMABP7819VG12A TWIN PCS W/	200.0	3	0.90	55.91	0.98	0.35	25.58	41.28	19.18	1.95	MP1	

Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotate(...	Section/Shape	Type	Design List	Material	Design Rules
1	T1	N11	N13			Tieback	Beam	None	A53 Gr.B	Typical
2	T2	N22	N24			Tieback	Beam	None	A53 Gr.B	Typical
3	SR1	N10	N9			Face Vertical Bracings	Beam	None	A53 Gr.B	Typical
4	SR2	N16	N17			Face Bracing Rods	Beam	None	A36 Gr.36	Typical
5	SR4	N19	N18			Face Vertical Bracings	Beam	None	A53 Gr.B	Typical
6	SR8	N19	N20			Face Bracing Rods	Beam	None	A36 Gr.36	Typical
7	SR3	N20	N21			Face Bracing Rods	Beam	None	A36 Gr.36	Typical
8	MP1	N36	N35			Mount Pipes	Beam	None	A53 Gr.B	Typical
9	SR5	N36A	N35A			Standoff Bracing Rods	Beam	None	A36 Gr.36	Typical
10	SR9	N35A	N34A			Standoff Bracing Rods	Beam	None	A36 Gr.36	Typical
11	SR6	N34A	N33A			Standoff Bracing Rods	Beam	None	A36 Gr.36	Typical
12	S1	N4	N32A			Standoff Tube	Beam	None	A53 Gr.B	Typical
13	S2	N3	N31A			Standoff Tube	Beam	None	A53 Gr.B	Typical
14	M21	N37	N38			Standoff Pipe	Beam	None	A53 Gr.B	Typical
15	H1	N8	N4			Horizontals	Beam	None	A53 Gr.B	Typical
16	H2	N7	N3			Horizontals	Beam	None	A53 Gr.B	Typical
17	H3	N6	N4			Horizontals	Beam	None	A53 Gr.B	Typical
18	H4	N5	N3			Horizontals	Beam	None	A53 Gr.B	Typical
19	MP3	N48A	N47A			Mount Pipes	Beam	None	A53 Gr.B	Typical
20	MP2	N52A	N51A			Mount Pipes	Beam	None	A53 Gr.B	Typical
21	SR7	N16	N10			Face Bracing Rods	Beam	None	A36 Gr.36	Typical
22	M23A	N40	N46			RIGID	None	None	RIGID	Typical
23	M24	N42	N47B			RIGID	None	None	RIGID	Typical
24	M24A	N49A	N43			RIGID	None	None	RIGID	Typical
25	M25	N50A	N44			RIGID	None	None	RIGID	Typical
26	M26	N53	N45			RIGID	None	None	RIGID	Typical
27	M27	N54	N46A			RIGID	None	None	RIGID	Typical
28	M30	N51B	N49		90	SFS Kit	Beam	None	A36 Gr.36	Typical
29	M31	N50	N49		180	SFS Kit	Beam	None	A36 Gr.36	Typical
30	M32	N54A	N52B			RIGID	None	None	RIGID	Typical
31	M33	N55	N53A			RIGID	None	None	RIGID	Typical
32	M32A	N52	N54B		90	SFS Kit	Beam	None	A36 Gr.36	Typical
33	M33A	N53B	N54B		180	SFS Kit	Beam	None	A36 Gr.36	Typical

Material Takeoff

	Material	Size	Pieces	Length[in]	Weight[LB]
1	General				
2	RIGID		8	24	0
3	Total General		8	24	0
4					

Material Takeoff (Continued)

	Material	Size	Pieces	Length[in]	Weight[LB]
5	Hot Rolled Steel				
6	A36 Gr.36	L2.5x2.5x3	4	208.6	53.305
7	A36 Gr.36	SR 5/8	4	156.6	13.631
8	A36 Gr.36	SR 1" Bar	3	94.5	21.042
9	A53 Gr.B	HSS2.5X2.5X3	2	52	22.708
10	A53 Gr.B	PIPE 1.25	6	299	52.991
11	A53 Gr.B	PIPE 2.0	5	439.3	127.06
12	A53 Gr.B	PIPE 4.0	1	63	52.879
13	Total HR Steel		25	1313	343.616

Basic Load Cases

	BLC Description	Category	X Gr...	Y Gr...	Z Gr...	Joint	Point	Distributed	Area(Memb...	Surface(Plate/Wall)
1	Self Weight	DL		-1			14			
2	Wind Load AZI 0	WLZ					28			
3	Wind Load AZI 30	None					28			
4	Wind Load AZI 60	None					28			
5	Wind Load AZI 90	WLX					28			
6	Wind Load AZI 1...	None					28			
7	Wind Load AZI 1...	None					28			
8	Wind Load AZI 1...	None					28			
9	Wind Load AZI 2...	None					28			
10	Wind Load AZI 2...	None					28			
11	Wind Load AZI 2...	None					28			
12	Wind Load AZI 3...	None					28			
13	Wind Load AZI 3...	None					28			
14	Distr. Wind Load Z	WLZ						33		
15	Distr. Wind Load X	WLX						33		
16	Ice Weight	OL1					14	33		
17	Ice Wind Load A...	OL2					28			
18	Ice Wind Load A...	None					28			
19	Ice Wind Load A...	None					28			
20	Ice Wind Load A...	OL3					28			
21	Ice Wind Load A...	None					28			
22	Ice Wind Load A...	None					28			
23	Ice Wind Load A...	None					28			
24	Ice Wind Load A...	None					28			
25	Ice Wind Load A...	None					28			
26	Ice Wind Load A...	None					28			
27	Ice Wind Load A...	None					28			
28	Ice Wind Load A...	None					28			
29	Distr. Ice Wind L...	OL2						33		

Basic Load Cases (Continued)

	BLC Description	Category	X Gr...	Y Gr...	Z Gr...	Joint	Point	Distributed	Area(Memb...	Surface(Plate/Wall)
30	Distr. Ice Wind L...	OL3						33		
31	Seismic Load Z	ELZ			-.102		14			
32	Seismic Load X	ELX	-.102				14			
33	Service Live Loa...	LL				1				
34	Maintenance Loa...	LL				1				
35	Maintenance Loa...	LL				1				
36	Maintenance Loa...	LL				1				

Load Combinations

	Description	S...	P...	S...	BLC	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...
1	1.4DL	Y...	Y		1	1.4															
2	1.2DL + 1WL AZI 0	Y...	Y		1	1.2	2	1	14	1	15										
3	1.2DL + 1WL AZI 30	Y...	Y		1	1.2	3	1	14	.866	15	.5									
4	1.2DL + 1WL AZI 60	Y...	Y		1	1.2	4	1	14	.5	15	.866									
5	1.2DL + 1WL AZI 90	Y...	Y		1	1.2	5	1	14		15	1									
6	1.2DL + 1WL AZI 120	Y...	Y		1	1.2	6	1	14	-.5	15	.866									
7	1.2DL + 1WL AZI 150	Y...	Y		1	1.2	7	1	14	-.8...	15	.5									
8	1.2DL + 1WL AZI 180	Y...	Y		1	1.2	8	1	14	-.1	15										
9	1.2DL + 1WL AZI 210	Y...	Y		1	1.2	9	1	14	-.8...	15	-.5									
10	1.2DL + 1WL AZI 240	Y...	Y		1	1.2	10	1	14	-.5	15	-.8...									
11	1.2DL + 1WL AZI 270	Y...	Y		1	1.2	11	1	14		15	-.1									
12	1.2DL + 1WL AZI 300	Y...	Y		1	1.2	12	1	14	.5	15	-.8...									
13	1.2DL + 1WL AZI 330	Y...	Y		1	1.2	13	1	14	.866	15	-.5									
14	0.9DL + 1WL AZI 0	Y...	Y		1	.9	2	1	14	1	15										
15	0.9DL + 1WL AZI 30	Y...	Y		1	.9	3	1	14	.866	15	.5									
16	0.9DL + 1WL AZI 60	Y...	Y		1	.9	4	1	14	.5	15	.866									
17	0.9DL + 1WL AZI 90	Y...	Y		1	.9	5	1	14		15	1									
18	0.9DL + 1WL AZI 120	Y...	Y		1	.9	6	1	14	-.5	15	.866									
19	0.9DL + 1WL AZI 150	Y...	Y		1	.9	7	1	14	-.8...	15	.5									
20	0.9DL + 1WL AZI 180	Y...	Y		1	.9	8	1	14	-.1	15										
21	0.9DL + 1WL AZI 210	Y...	Y		1	.9	9	1	14	-.8...	15	-.5									
22	0.9DL + 1WL AZI 240	Y...	Y		1	.9	10	1	14	-.5	15	-.8...									
23	0.9DL + 1WL AZI 270	Y...	Y		1	.9	11	1	14		15	-.1									
24	0.9DL + 1WL AZI 300	Y...	Y		1	.9	12	1	14	.5	15	-.8...									
25	0.9DL + 1WL AZI 330	Y...	Y		1	.9	13	1	14	.866	15	-.5									
26	1.2D + 1.0Di	Y...	Y		1	1.2	16	1													
27	1.2D + 1.0Di + 1.0Wi AZI 0	Y...	Y		1	1.2	16	1	17	1	29	1	30								
28	1.2D + 1.0Di + 1.0Wi AZI 30	Y...	Y		1	1.2	16	1	18	1	29	.866	30	.5							
29	1.2D + 1.0Di + 1.0Wi AZI 60	Y...	Y		1	1.2	16	1	19	1	29	.5	30	.866							
30	1.2D + 1.0Di + 1.0Wi AZI 90	Y...	Y		1	1.2	16	1	20	1	29		30	1							
31	1.2D + 1.0Di + 1.0Wi AZI ...	Y...	Y		1	1.2	16	1	21	1	29	-.5	30	.866							

Load Combinations (Continued)

	Description	S...	P...	S...	BLC	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...
32	1.2D + 1.0Di + 1.0Wi AZI ...	Y...	Y		1	1.2	16	1	22	1	29	-8...	30	.5					
33	1.2D + 1.0Di + 1.0Wi AZI ...	Y...	Y		1	1.2	16	1	23	1	29	-1	30						
34	1.2D + 1.0Di + 1.0Wi AZI ...	Y...	Y		1	1.2	16	1	24	1	29	-8...	30	-.5					
35	1.2D + 1.0Di + 1.0Wi AZI ...	Y...	Y		1	1.2	16	1	25	1	29	-.5	30	-8...					
36	1.2D + 1.0Di + 1.0Wi AZI ...	Y...	Y		1	1.2	16	1	26	1	29		30	-1					
37	1.2D + 1.0Di + 1.0Wi AZI ...	Y...	Y		1	1.2	16	1	27	1	29	.5	30	-8...					
38	1.2D + 1.0Di + 1.0Wi AZI ...	Y...	Y		1	1.2	16	1	28	1	29	.866	30	-.5					
39	(1.2 + 0.2Sds)DL + 1.0E ...	Y...	Y		1	1.2...	.31	1	32										
40	(1.2 + 0.2Sds)DL + 1.0E ...	Y...	Y		1	1.2...	.31	.866	32	.5									
41	(1.2 + 0.2Sds)DL + 1.0E ...	Y...	Y		1	1.2...	.31	.5	32	.866									
42	(1.2 + 0.2Sds)DL + 1.0E ...	Y...	Y		1	1.2...	.31		32	1									
43	(1.2 + 0.2Sds)DL + 1.0E ...	Y...	Y		1	1.2...	.31	-.5	32	.866									
44	(1.2 + 0.2Sds)DL + 1.0E ...	Y...	Y		1	1.2...	.31	-.8...	32	.5									
45	(1.2 + 0.2Sds)DL + 1.0E ...	Y...	Y		1	1.2...	.31	-.1	32										
46	(1.2 + 0.2Sds)DL + 1.0E ...	Y...	Y		1	1.2...	.31	-.8...	32	-.5									
47	(1.2 + 0.2Sds)DL + 1.0E ...	Y...	Y		1	1.2...	.31	-.5	32	-.8...									
48	(1.2 + 0.2Sds)DL + 1.0E ...	Y...	Y		1	1.2...	.31		32	-.1									
49	(1.2 + 0.2Sds)DL + 1.0E ...	Y...	Y		1	1.2...	.31	.5	32	-.8...									
50	(1.2 + 0.2Sds)DL + 1.0E ...	Y...	Y		1	1.2...	.31	.866	32	-.5									
51	(0.9 - 0.2Sds)DL + 1.0E A...	Y...	Y		1	.859	31	1	32										
52	(0.9 - 0.2Sds)DL + 1.0E A...	Y...	Y		1	.859	31	.866	32	.5									
53	(0.9 - 0.2Sds)DL + 1.0E A...	Y...	Y		1	.859	31	.5	32	.866									
54	(0.9 - 0.2Sds)DL + 1.0E A...	Y...	Y		1	.859	31		32	1									
55	(0.9 - 0.2Sds)DL + 1.0E A...	Y...	Y		1	.859	31	-.5	32	.866									
56	(0.9 - 0.2Sds)DL + 1.0E A...	Y...	Y		1	.859	31	-.8...	32	.5									
57	(0.9 - 0.2Sds)DL + 1.0E A...	Y...	Y		1	.859	31	-.1	32										
58	(0.9 - 0.2Sds)DL + 1.0E A...	Y...	Y		1	.859	31	-.8...	32	-.5									
59	(0.9 - 0.2Sds)DL + 1.0E A...	Y...	Y		1	.859	31	-.5	32	-.8...									
60	(0.9 - 0.2Sds)DL + 1.0E A...	Y...	Y		1	.859	31		32	-.1									
61	(0.9 - 0.2Sds)DL + 1.0E A...	Y...	Y		1	.859	31	.5	32	-.8...									
62	(0.9 - 0.2Sds)DL + 1.0E A...	Y...	Y		1	.859	31	.866	32	-.5									
63	1.0DL + 1.5LL + 1.0SWL ...	Y...	Y		1	1	2	.227	14	.227	15		33	1.5					
64	1.0DL + 1.5LL + 1.0SWL ...	Y...	Y		1	1	3	.227	14	.196	15	.113	33	1.5					
65	1.0DL + 1.5LL + 1.0SWL ...	Y...	Y		1	1	4	.227	14	.113	15	.196	33	1.5					
66	1.0DL + 1.5LL + 1.0SWL ...	Y...	Y		1	1	5	.227	14		15	.227	33	1.5					
67	1.0DL + 1.5LL + 1.0SWL ...	Y...	Y		1	1	6	.227	14	-.1...	15	.196	33	1.5					
68	1.0DL + 1.5LL + 1.0SWL ...	Y...	Y		1	1	7	.227	14	-.1...	15	.113	33	1.5					
69	1.0DL + 1.5LL + 1.0SWL ...	Y...	Y		1	1	8	.227	14	-.2...	15		33	1.5					
70	1.0DL + 1.5LL + 1.0SWL ...	Y...	Y		1	1	9	.227	14	-.1...	15	-.1...	33	1.5					
71	1.0DL + 1.5LL + 1.0SWL ...	Y...	Y		1	1	10	.227	14	-.1...	15	-.1...	33	1.5					
72	1.0DL + 1.5LL + 1.0SWL ...	Y...	Y		1	1	11	.227	14		15	-.2...	33	1.5					
73	1.0DL + 1.5LL + 1.0SWL ...	Y...	Y		1	1	12	.227	14	.113	15	-.1...	33	1.5					

Load Combinations (Continued)

	Description	S...	P...	S...	BLC	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...
74	1.0DL + 1.5LL + 1.0SWL ...	Y...	Y		1	1	13	.227	14	.196	15	-.1...	33	1.5					
75	1.2DL + 1.5LL	Y...	Y		1	1.2	33	1.5											
76	1.2DL + 1.5LM-MP1 + 1S...	Y...	Y		1	1.2	34	1.5	2	.057	14	.057	15						
77	1.2DL + 1.5LM-MP1 + 1S...	Y...	Y		1	1.2	34	1.5	3	.057	14	.049	15	.028					
78	1.2DL + 1.5LM-MP1 + 1S...	Y...	Y		1	1.2	34	1.5	4	.057	14	.028	15	.049					
79	1.2DL + 1.5LM-MP1 + 1S...	Y...	Y		1	1.2	34	1.5	5	.057	14		15	.057					
80	1.2DL + 1.5LM-MP1 + 1S...	Y...	Y		1	1.2	34	1.5	6	.057	14	-.0...	15	.049					
81	1.2DL + 1.5LM-MP1 + 1S...	Y...	Y		1	1.2	34	1.5	7	.057	14	-.0...	15	.028					
82	1.2DL + 1.5LM-MP1 + 1S...	Y...	Y		1	1.2	34	1.5	8	.057	14	-.0...	15						
83	1.2DL + 1.5LM-MP1 + 1S...	Y...	Y		1	1.2	34	1.5	9	.057	14	-.0...	15	-.0...					
84	1.2DL + 1.5LM-MP1 + 1S...	Y...	Y		1	1.2	34	1.5	10	.057	14	-.0...	15	-.0...					
85	1.2DL + 1.5LM-MP1 + 1S...	Y...	Y		1	1.2	34	1.5	11	.057	14		15	-.0...					
86	1.2DL + 1.5LM-MP1 + 1S...	Y...	Y		1	1.2	34	1.5	12	.057	14	.028	15	-.0...					
87	1.2DL + 1.5LM-MP1 + 1S...	Y...	Y		1	1.2	34	1.5	13	.057	14	.049	15	-.0...					
88	1.2DL + 1.5LM-MP2 + 1S...	Y...	Y		1	1.2	35	1.5	2	.057	14	.057	15						
89	1.2DL + 1.5LM-MP2 + 1S...	Y...	Y		1	1.2	35	1.5	3	.057	14	.049	15	.028					
90	1.2DL + 1.5LM-MP2 + 1S...	Y...	Y		1	1.2	35	1.5	4	.057	14	.028	15	.049					
91	1.2DL + 1.5LM-MP2 + 1S...	Y...	Y		1	1.2	35	1.5	5	.057	14		15	.057					
92	1.2DL + 1.5LM-MP2 + 1S...	Y...	Y		1	1.2	35	1.5	6	.057	14	-.0...	15	.049					
93	1.2DL + 1.5LM-MP2 + 1S...	Y...	Y		1	1.2	35	1.5	7	.057	14	-.0...	15	.028					
94	1.2DL + 1.5LM-MP2 + 1S...	Y...	Y		1	1.2	35	1.5	8	.057	14	-.0...	15						
95	1.2DL + 1.5LM-MP2 + 1S...	Y...	Y		1	1.2	35	1.5	9	.057	14	-.0...	15	-.0...					
96	1.2DL + 1.5LM-MP2 + 1S...	Y...	Y		1	1.2	35	1.5	10	.057	14	-.0...	15	-.0...					
97	1.2DL + 1.5LM-MP2 + 1S...	Y...	Y		1	1.2	35	1.5	11	.057	14		15	-.0...					
98	1.2DL + 1.5LM-MP2 + 1S...	Y...	Y		1	1.2	35	1.5	12	.057	14	.028	15	-.0...					
99	1.2DL + 1.5LM-MP2 + 1S...	Y...	Y		1	1.2	35	1.5	13	.057	14	.049	15	-.0...					
100	1.2DL + 1.5LM-MP3 + 1S...	Y...	Y		1	1.2	36	1.5	2	.057	14	.057	15						
101	1.2DL + 1.5LM-MP3 + 1S...	Y...	Y		1	1.2	36	1.5	3	.057	14	.049	15	.028					
102	1.2DL + 1.5LM-MP3 + 1S...	Y...	Y		1	1.2	36	1.5	4	.057	14	.028	15	.049					
103	1.2DL + 1.5LM-MP3 + 1S...	Y...	Y		1	1.2	36	1.5	5	.057	14		15	.057					
104	1.2DL + 1.5LM-MP3 + 1S...	Y...	Y		1	1.2	36	1.5	6	.057	14	-.0...	15	.049					
105	1.2DL + 1.5LM-MP3 + 1S...	Y...	Y		1	1.2	36	1.5	7	.057	14	-.0...	15	.028					
106	1.2DL + 1.5LM-MP3 + 1S...	Y...	Y		1	1.2	36	1.5	8	.057	14	-.0...	15						
107	1.2DL + 1.5LM-MP3 + 1S...	Y...	Y		1	1.2	36	1.5	9	.057	14	-.0...	15	-.0...					
108	1.2DL + 1.5LM-MP3 + 1S...	Y...	Y		1	1.2	36	1.5	10	.057	14	-.0...	15	-.0...					
109	1.2DL + 1.5LM-MP3 + 1S...	Y...	Y		1	1.2	36	1.5	11	.057	14		15	-.0...					
110	1.2DL + 1.5LM-MP3 + 1S...	Y...	Y		1	1.2	36	1.5	12	.057	14	.028	15	-.0...					

Envelope Joint Reactions

	Joint	X [lb]	LC	Y [lb]	LC	Z [lb]	L...MX [lb-ft]	LC	MY [lb-ft]	LC	MZ [lb-ft]	LC	
1	N13	m...193...	4	47.763	35	908.1...	4	0	110	0	110	0	110
2		m...185...	22	15.118	16	-842.6...	22	0	1	0	1	0	1
3	N24	m...102...	11	35.088	32	428.58	11	0	110	0	110	0	110
4		m...92.2...	17	11.112	55	-404.0...	17	0	1	0	1	0	1
5	N49	m...1058...	90	1503.513	85	85.877	16	0	110	0	110	0	110
6		m...102...	84	-13.83	16	-1432...	83	0	1	0	1	0	1
7	N54A	m...1298...	17	930.147	102	352.2...	15	12.383	77	2643.301	17	339.624	23
8		m...133...	11	133.67	84	-945.0...	9	-1103.794	106	-2691.374	11	-362.928	5
9	N55	m...606....	17	443.639	102	866.0...	1...	295.883	100	1017.438	17	409.256	11
10		m...686....	11	57.469	84	105.2...	82	3.189	19	-1149.356	11	-367.203	17
11	N54B	m...1051...	17	24.681	6	1138...	27	0	110	0	110	0	110
12		m...120...	11	-33.728	77	-968.7...	20	0	1	0	1	0	1
13	Totals:	m...3452...	5	2283.243	27	2660....	3						
14		m...-345...	23	678.996	59	-2660...	21						

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design ...	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	Standoff Pipe	PIPE 4.0	Beam	None	A53 Gr.B	Typical	2.96	6.82	6.82	13.6
2	Standoff Tube	HSS2.5X2.5X3	Beam	None	A53 Gr.B	Typical	1.54	1.35	1.35	2.25
3	Mount Pipes	PIPE 2.0	Beam	None	A53 Gr.B	Typical	1.02	.627	.627	1.25
4	Standoff Bracing Rods	SR 1" Bar	Beam	None	A36 Gr....	Typical	.785	.049	.049	.098
5	Face Bracing Rods	SR 5/8	Beam	None	A36 Gr....	Typical	.307	.007	.007	.015
6	Tieback	PIPE 2.0	Beam	None	A53 Gr.B	Typical	1.02	.627	.627	1.25
7	Face Vertical Bracings	PIPE 1.25	Beam	None	A53 Gr.B	Typical	.625	.184	.184	.368
8	Horizontals	PIPE 1.25	Beam	None	A53 Gr.B	Typical	.625	.184	.184	.368
9	SFS Kit	L2.5x2.5x3	Beam	None	A36 Gr....	Typical	.901	.535	.535	.011

Cold Formed Steel Section Sets

	Label	Shape	Type	Design List	Material	Design Rul...	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	CF1A	8CU1.25X...	Beam	None	A653 SS Gr33	Typical	.581	.057	4.41	.00063

Joint Boundary Conditions

	Joint Label	X [k/in]	Y [k/in]	Z [k/in]	X Rot.[k-ft/rad]	Y Rot.[k-ft/rad]	Z Rot.[k-ft/rad]
1	N13	Reaction	Reaction	Reaction			
2	N24	Reaction	Reaction	Reaction			
3	N49	Reaction	Reaction	Reaction			
4	N52B						

Joint Boundary Conditions (Continued)

	Joint Label	X [k/in]	Y [k/in]	Z [k/in]	X Rot.[k-ft/rad]	Y Rot.[k-ft/rad]	Z Rot.[k-ft/rad]
5	N53A						
6	N54A	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
7	N55	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
8	N54B	Reaction	Reaction	Reaction			

Member Advanced Data

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Ra..	Analysis ...	Inactive	Seismi...
1	T1	BenPIN					Yes				None
2	T2	BenPIN					Yes				None
3	SR1						Yes				None
4	SR2						Yes				None
5	SR4						Yes				None
6	SR8					Euler Bu...	Yes				None
7	SR3						Yes				None
8	MP1						Yes				None
9	SR5						Yes				None
10	SR9					Euler Bu...	Yes				None
11	SR6						Yes				None
12	S1						Yes				None
13	S2						Yes				None
14	M21						Yes				None
15	H1						Yes				None
16	H2						Yes				None
17	H3						Yes				None
18	H4						Yes				None
19	MP3						Yes				None
20	MP2						Yes				None
21	SR7					Euler Bu...	Yes				None
22	M23A						Yes	** NA **			None
23	M24						Yes	** NA **			None
24	M24A						Yes	** NA **			None
25	M25						Yes	** NA **			None
26	M26						Yes	** NA **			None
27	M27						Yes	** NA **			None
28	M30	BenPIN					Yes	Default			None
29	M31	BenPIN					Yes	Default			None
30	M32						Yes	** NA **			None
31	M33						Yes	** NA **			None
32	M32A						Yes				None
33	M33A						Yes				None

Hot Rolled Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm (/1E5 F)	Density[lb/ft^3]	Yield[ksi]	Ry	Fu[ksi]	Rt
1	A992	29000	11154	.3	.65	490	50	1.1	65	1.1
2	A36 Gr.36	29000	11154	.3	.65	490	36	1.5	58	1.2
3	A572 Gr.50	29000	11154	.3	.65	490	50	1.1	65	1.1
4	A500 Gr.B RND	29000	11154	.3	.65	527	42	1.4	58	1.3
5	A500 Gr.B Rect	29000	11154	.3	.65	527	46	1.4	58	1.3
6	A53 Gr.B	29000	11154	.3	.65	490	35	1.6	60	1.2
7	A1085	29000	11154	.3	.65	490	50	1.4	65	1.3

Cold Formed Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm (/1E5...Density[lb/ft^...	Yield[ksi]	Fu[ksi]
1	A653 SS Gr33	29500	11346	.3	.65	490	33
2	A653 SS Gr50/1	29500	11346	.3	.65	490	50

Joint Loads and Enforced Displacements (BLC 33 : Service Live Loads)

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*...
1	N7	L	Y	-250

Joint Loads and Enforced Displacements (BLC 34 : Maintenance Load 1)

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*...
1	N47B	L	Y	-500

Joint Loads and Enforced Displacements (BLC 35 : Maintenance Load 2)

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*...
1	N44	L	Y	-500

Joint Loads and Enforced Displacements (BLC 36 : Maintenance Load 3)

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*...
1	N46A	L	Y	-500

Member Point Loads (BLC 1 : Self Weight)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	Y	-17.5	60
2	MP1	Y	-17.5	5
3	SR4	Y	-6.5	15
4	MP2	Y	-6.5	40
5	MP2	Y	-59.9	55

Member Point Loads (BLC 1 : Self Weight) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
6	MP3	Y	-70	55
7	MP3	Y	-75	55
8	MP2	Y	-38.25	84
9	MP2	Y	-38.25	0
10	MP3	Y	-47.85	84
11	MP3	Y	-47.85	0
12	MP1	Y	-1.16	50
13	MP1	Y	-1.16	50
14	MP1	Y	-19.18	30

Member Point Loads (BLC 2 : Wind Load AZI 0)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	0	60
2	MP1	Z	-89.91	60
3	MP1	X	0	5
4	MP1	Z	-89.91	5
5	SR4	X	0	15
6	SR4	Z	-13.92	15
7	MP2	X	0	40
8	MP2	Z	-13.92	40
9	MP2	X	0	55
10	MP2	Z	-56.65	55
11	MP3	X	0	55
12	MP3	Z	-73.41	55
13	MP3	X	0	55
14	MP3	Z	-86.52	55
15	MP2	X	0	84
16	MP2	Z	-227.59	84
17	MP2	X	0	0
18	MP2	Z	-227.59	0
19	MP3	X	0	84
20	MP3	Z	-225.34	84
21	MP3	X	0	0
22	MP3	Z	-225.34	0
23	MP1	X	0	50
24	MP1	Z	-5.26	50
25	MP1	X	0	50
26	MP1	Z	-5.26	50
27	MP1	X	0	30
28	MP1	Z	-25.58	30

Member Point Loads (BLC 3 : Wind Load AZI 30)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-61.19	60
2	MP1	Z	-105.98	60
3	MP1	X	-61.19	5
4	MP1	Z	-105.98	5
5	SR4	X	-8.48	15
6	SR4	Z	-14.69	15
7	MP2	X	-8.48	40
8	MP2	Z	-14.69	40
9	MP2	X	-37.19	55
10	MP2	Z	-64.41	55
11	MP3	X	-43.15	55
12	MP3	Z	-74.74	55
13	MP3	X	-46.48	55
14	MP3	Z	-80.51	55
15	MP2	X	-169.71	84
16	MP2	Z	-293.94	84
17	MP2	X	-169.71	0
18	MP2	Z	-293.94	0
19	MP3	X	-167.79	84
20	MP3	Z	-290.61	84
21	MP3	X	-167.79	0
22	MP3	Z	-290.61	0
23	MP1	X	-2.86	50
24	MP1	Z	-4.95	50
25	MP1	X	-2.86	50
26	MP1	Z	-4.95	50
27	MP1	X	-20.64	30
28	MP1	Z	-35.75	30

Member Point Loads (BLC 4 : Wind Load AZI 60)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-120.03	60
2	MP1	Z	-69.3	60
3	MP1	X	-120.03	5
4	MP1	Z	-69.3	5
5	SR4	X	-16.01	15
6	SR4	Z	-9.24	15
7	MP2	X	-16.01	40
8	MP2	Z	-9.24	40
9	MP2	X	-78.57	55
10	MP2	Z	-45.36	55
11	MP3	X	-85.03	55

Member Point Loads (BLC 4 : Wind Load AZI 60) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
12	MP3	Z	-49.09	55
13	MP3	X	-85.66	55
14	MP3	Z	-49.46	55
15	MP2	X	-383.26	84
16	MP2	Z	-221.28	84
17	MP2	X	-383.26	0
18	MP2	Z	-221.28	0
19	MP3	X	-378.67	84
20	MP3	Z	-218.63	84
21	MP3	X	-378.67	0
22	MP3	Z	-218.63	0
23	MP1	X	-5.14	50
24	MP1	Z	-2.97	50
25	MP1	X	-5.14	50
26	MP1	Z	-2.97	50
27	MP1	X	-42.54	30
28	MP1	Z	-24.56	30

Member Point Loads (BLC 5 : Wind Load AZI 90)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-122.37	60
2	MP1	Z	0	60
3	MP1	X	-122.37	5
4	MP1	Z	0	5
5	SR4	X	-16.96	15
6	SR4	Z	0	15
7	MP2	X	-16.96	40
8	MP2	Z	0	40
9	MP2	X	-89.35	55
10	MP2	Z	0	55
11	MP3	X	-97.19	55
12	MP3	Z	0	55
13	MP3	X	-98.41	55
14	MP3	Z	0	55
15	MP2	X	-433.87	84
16	MP2	Z	0	84
17	MP2	X	-433.87	0
18	MP2	Z	0	0
19	MP3	X	-428.7	84
20	MP3	Z	0	84
21	MP3	X	-428.7	0
22	MP3	Z	0	0

Member Point Loads (BLC 5 : Wind Load AZI 90) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
23	MP1	X	-5.71	50
24	MP1	Z	0	50
25	MP1	X	-5.71	50
26	MP1	Z	0	50
27	MP1	X	-41.28	30
28	MP1	Z	0	30

Member Point Loads (BLC 6 : Wind Load AZI 120)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-77.86	60
2	MP1	Z	44.95	60
3	MP1	X	-77.86	5
4	MP1	Z	44.95	5
5	SR4	X	-12.05	15
6	SR4	Z	6.96	15
7	MP2	X	-12.05	40
8	MP2	Z	6.96	40
9	MP2	X	-62.03	55
10	MP2	Z	35.81	55
11	MP3	X	-73	55
12	MP3	Z	42.15	55
13	MP3	X	-79.65	55
14	MP3	Z	45.98	55
15	MP2	X	-278.91	84
16	MP2	Z	161.03	84
17	MP2	X	-278.91	0
18	MP2	Z	161.03	0
19	MP3	X	-275.79	84
20	MP3	Z	159.23	84
21	MP3	X	-275.79	0
22	MP3	Z	159.23	0
23	MP1	X	-4.55	50
24	MP1	Z	2.63	50
25	MP1	X	-4.55	50
26	MP1	Z	2.63	50
27	MP1	X	-22.16	30
28	MP1	Z	12.79	30

Member Point Loads (BLC 7 : Wind Load AZI 150)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-36.84	60

Member Point Loads (BLC 7 : Wind Load AZI 150) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
2	MP1	Z	63.81	60
3	MP1	X	-36.84	5
4	MP1	Z	63.81	5
5	SR4	X	-6.2	15
6	SR4	Z	10.74	15
7	MP2	X	-6.2	40
8	MP2	Z	10.74	40
9	MP2	X	-27.64	55
10	MP2	Z	47.87	55
11	MP3	X	-36.2	55
12	MP3	Z	62.71	55
13	MP3	X	-43.01	55
14	MP3	Z	74.5	55
15	MP2	X	-109.46	84
16	MP2	Z	189.59	84
17	MP2	X	-109.46	0
18	MP2	Z	189.59	0
19	MP3	X	-108.39	84
20	MP3	Z	187.74	84
21	MP3	X	-108.39	0
22	MP3	Z	187.74	0
23	MP1	X	-2.52	50
24	MP1	Z	4.36	50
25	MP1	X	-2.52	50
26	MP1	Z	4.36	50
27	MP1	X	-8.87	30
28	MP1	Z	15.36	30

Member Point Loads (BLC 8 : Wind Load AZI 180)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	0	60
2	MP1	Z	89.91	60
3	MP1	X	0	5
4	MP1	Z	89.91	5
5	SR4	X	0	15
6	SR4	Z	13.92	15
7	MP2	X	0	40
8	MP2	Z	13.92	40
9	MP2	X	0	55
10	MP2	Z	56.65	55
11	MP3	X	0	55
12	MP3	Z	73.41	55

Member Point Loads (BLC 8 : Wind Load AZI 180) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
13	MP3	X	0	55
14	MP3	Z	86.52	55
15	MP2	X	0	84
16	MP2	Z	227.59	84
17	MP2	X	0	0
18	MP2	Z	227.59	0
19	MP3	X	0	84
20	MP3	Z	225.34	84
21	MP3	X	0	0
22	MP3	Z	225.34	0
23	MP1	X	0	50
24	MP1	Z	5.26	50
25	MP1	X	0	50
26	MP1	Z	5.26	50
27	MP1	X	0	30
28	MP1	Z	25.58	30

Member Point Loads (BLC 9 : Wind Load AZI 210)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	61.19	60
2	MP1	Z	105.98	60
3	MP1	X	61.19	5
4	MP1	Z	105.98	5
5	SR4	X	8.48	15
6	SR4	Z	14.69	15
7	MP2	X	8.48	40
8	MP2	Z	14.69	40
9	MP2	X	37.19	55
10	MP2	Z	64.41	55
11	MP3	X	43.15	55
12	MP3	Z	74.74	55
13	MP3	X	46.48	55
14	MP3	Z	80.51	55
15	MP2	X	169.71	84
16	MP2	Z	293.94	84
17	MP2	X	169.71	0
18	MP2	Z	293.94	0
19	MP3	X	167.79	84
20	MP3	Z	290.61	84
21	MP3	X	167.79	0
22	MP3	Z	290.61	0
23	MP1	X	2.86	50

Member Point Loads (BLC 9 : Wind Load AZI 210) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
24	MP1	Z	4.95	50
25	MP1	X	2.86	50
26	MP1	Z	4.95	50
27	MP1	X	20.64	30
28	MP1	Z	35.75	30

Member Point Loads (BLC 10 : Wind Load AZI 240)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	120.03	60
2	MP1	Z	69.3	60
3	MP1	X	120.03	5
4	MP1	Z	69.3	5
5	SR4	X	16.01	15
6	SR4	Z	9.24	15
7	MP2	X	16.01	40
8	MP2	Z	9.24	40
9	MP2	X	78.57	55
10	MP2	Z	45.36	55
11	MP3	X	85.03	55
12	MP3	Z	49.09	55
13	MP3	X	85.66	55
14	MP3	Z	49.46	55
15	MP2	X	383.26	84
16	MP2	Z	221.28	84
17	MP2	X	383.26	0
18	MP2	Z	221.28	0
19	MP3	X	378.67	84
20	MP3	Z	218.63	84
21	MP3	X	378.67	0
22	MP3	Z	218.63	0
23	MP1	X	5.14	50
24	MP1	Z	2.97	50
25	MP1	X	5.14	50
26	MP1	Z	2.97	50
27	MP1	X	42.54	30
28	MP1	Z	24.56	30

Member Point Loads (BLC 11 : Wind Load AZI 270)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	122.37	60
2	MP1	Z	0	60

Member Point Loads (BLC 11 : Wind Load AZI 270) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
3	MP1	X	122.37	5
4	MP1	Z	0	5
5	SR4	X	16.96	15
6	SR4	Z	0	15
7	MP2	X	16.96	40
8	MP2	Z	0	40
9	MP2	X	89.35	55
10	MP2	Z	0	55
11	MP3	X	97.19	55
12	MP3	Z	0	55
13	MP3	X	98.41	55
14	MP3	Z	0	55
15	MP2	X	433.87	84
16	MP2	Z	0	84
17	MP2	X	433.87	0
18	MP2	Z	0	0
19	MP3	X	428.7	84
20	MP3	Z	0	84
21	MP3	X	428.7	0
22	MP3	Z	0	0
23	MP1	X	5.71	50
24	MP1	Z	0	50
25	MP1	X	5.71	50
26	MP1	Z	0	50
27	MP1	X	41.28	30
28	MP1	Z	0	30

Member Point Loads (BLC 12 : Wind Load AZI 300)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	77.86	60
2	MP1	Z	-44.95	60
3	MP1	X	77.86	5
4	MP1	Z	-44.95	5
5	SR4	X	12.05	15
6	SR4	Z	-6.96	15
7	MP2	X	12.05	40
8	MP2	Z	-6.96	40
9	MP2	X	62.03	55
10	MP2	Z	-35.81	55
11	MP3	X	73	55
12	MP3	Z	-42.15	55
13	MP3	X	79.65	55

Member Point Loads (BLC 12 : Wind Load AZI 300) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
14	MP3	Z	-45.98	55
15	MP2	X	278.91	84
16	MP2	Z	-161.03	84
17	MP2	X	278.91	0
18	MP2	Z	-161.03	0
19	MP3	X	275.79	84
20	MP3	Z	-159.23	84
21	MP3	X	275.79	0
22	MP3	Z	-159.23	0
23	MP1	X	4.55	50
24	MP1	Z	-2.63	50
25	MP1	X	4.55	50
26	MP1	Z	-2.63	50
27	MP1	X	22.16	30
28	MP1	Z	-12.79	30

Member Point Loads (BLC 13 : Wind Load AZI 330)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	36.84	60
2	MP1	Z	-63.81	60
3	MP1	X	36.84	5
4	MP1	Z	-63.81	5
5	SR4	X	6.2	15
6	SR4	Z	-10.74	15
7	MP2	X	6.2	40
8	MP2	Z	-10.74	40
9	MP2	X	27.64	55
10	MP2	Z	-47.87	55
11	MP3	X	36.2	55
12	MP3	Z	-62.71	55
13	MP3	X	43.01	55
14	MP3	Z	-74.5	55
15	MP2	X	109.46	84
16	MP2	Z	-189.59	84
17	MP2	X	109.46	0
18	MP2	Z	-189.59	0
19	MP3	X	108.39	84
20	MP3	Z	-187.74	84
21	MP3	X	108.39	0
22	MP3	Z	-187.74	0
23	MP1	X	2.52	50
24	MP1	Z	-4.36	50

Member Point Loads (BLC 13 : Wind Load AZI 330) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
25	MP1	X	2.52	50
26	MP1	Z	-4.36	50
27	MP1	X	8.87	30
28	MP1	Z	-15.36	30

Member Point Loads (BLC 16 : Ice Weight)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	Y	-43.104	60
2	MP1	Y	-43.104	5
3	SR4	Y	-10.577	15
4	MP2	Y	-10.577	40
5	MP2	Y	-42.462	55
6	MP3	Y	-49.194	55
7	MP3	Y	-54.148	55
8	MP2	Y	-125.467	84
9	MP2	Y	-125.467	0
10	MP3	Y	-123.769	84
11	MP3	Y	-123.769	0
12	MP1	Y	-4.747	50
13	MP1	Y	-4.747	50
14	MP1	Y	-20.615	30

Member Point Loads (BLC 17 : Ice Wind Load AZI 0)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	0	60
2	MP1	Z	-10.21	60
3	MP1	X	0	5
4	MP1	Z	-10.21	5
5	SR4	X	0	15
6	SR4	Z	-2.66	15
7	MP2	X	0	40
8	MP2	Z	-2.66	40
9	MP2	X	0	55
10	MP2	Z	-6.63	55
11	MP3	X	0	55
12	MP3	Z	-7.68	55
13	MP3	X	0	55
14	MP3	Z	-8.23	55
15	MP2	X	0	84
16	MP2	Z	-21.71	84
17	MP2	X	0	0

Member Point Loads (BLC 17 : Ice Wind Load AZI 0) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
18	MP2	Z	-21.71	0
19	MP3	X	0	84
20	MP3	Z	-21.62	84
21	MP3	X	0	0
22	MP3	Z	-21.62	0
23	MP1	X	0	50
24	MP1	Z	-1.44	50
25	MP1	X	0	50
26	MP1	Z	-1.44	50
27	MP1	X	0	30
28	MP1	Z	-3.7	30

Member Point Loads (BLC 18 : Ice Wind Load AZI 30)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-5.78	60
2	MP1	Z	-10.01	60
3	MP1	X	-5.78	5
4	MP1	Z	-10.01	5
5	SR4	X	-1.51	15
6	SR4	Z	-2.61	15
7	MP2	X	-1.51	40
8	MP2	Z	-2.61	40
9	MP2	X	-3.7	55
10	MP2	Z	-6.41	55
11	MP3	X	-4.1	55
12	MP3	Z	-7.11	55
13	MP3	X	-4.24	55
14	MP3	Z	-7.35	55
15	MP2	X	-13.89	84
16	MP2	Z	-24.06	84
17	MP2	X	-13.89	0
18	MP2	Z	-24.06	0
19	MP3	X	-13.78	84
20	MP3	Z	-23.87	84
21	MP3	X	-13.78	0
22	MP3	Z	-23.87	0
23	MP1	X	-.75	50
24	MP1	Z	-1.3	50
25	MP1	X	-.75	50
26	MP1	Z	-1.3	50
27	MP1	X	-2.37	30
28	MP1	Z	-4.1	30

Member Point Loads (BLC 19 : Ice Wind Load AZI 60)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-10.59	60
2	MP1	Z	-6.11	60
3	MP1	X	-10.59	5
4	MP1	Z	-6.11	5
5	SR4	X	-2.77	15
6	SR4	Z	-1.6	15
7	MP2	X	-2.77	40
8	MP2	Z	-1.6	40
9	MP2	X	-7.04	55
10	MP2	Z	-4.06	55
11	MP3	X	-7.53	55
12	MP3	Z	-4.35	55
13	MP3	X	-7.55	55
14	MP3	Z	-4.36	55
15	MP2	X	-28.91	84
16	MP2	Z	-16.69	84
17	MP2	X	-28.91	0
18	MP2	Z	-16.69	0
19	MP3	X	-28.61	84
20	MP3	Z	-16.52	84
21	MP3	X	-28.61	0
22	MP3	Z	-16.52	0
23	MP1	X	-1.33	50
24	MP1	Z	-.77	50
25	MP1	X	-1.33	50
26	MP1	Z	-.77	50
27	MP1	X	-4.54	30
28	MP1	Z	-2.62	30

Member Point Loads (BLC 20 : Ice Wind Load AZI 90)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-11.55	60
2	MP1	Z	0	60
3	MP1	X	-11.55	5
4	MP1	Z	0	5
5	SR4	X	-3.02	15
6	SR4	Z	0	15
7	MP2	X	-3.02	40
8	MP2	Z	0	40
9	MP2	X	-8.06	55
10	MP2	Z	0	55
11	MP3	X	-8.65	55

Member Point Loads (BLC 20 : Ice Wind Load AZI 90) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in, %]
12	MP3	Z	0	55
13	MP3	X	-8.7	55
14	MP3	Z	0	55
15	MP2	X	-32.91	84
16	MP2	Z	0	84
17	MP2	X	-32.91	0
18	MP2	Z	0	0
19	MP3	X	-32.58	84
20	MP3	Z	0	84
21	MP3	X	-32.58	0
22	MP3	Z	0	0
23	MP1	X	-1.5	50
24	MP1	Z	0	50
25	MP1	X	-1.5	50
26	MP1	Z	0	50
27	MP1	X	-4.73	30
28	MP1	Z	0	30

Member Point Loads (BLC 21 : Ice Wind Load AZI 120)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in, %]
1	MP1	X	-8.84	60
2	MP1	Z	5.11	60
3	MP1	X	-8.84	5
4	MP1	Z	5.11	5
5	SR4	X	-2.3	15
6	SR4	Z	1.33	15
7	MP2	X	-2.3	40
8	MP2	Z	1.33	40
9	MP2	X	-6.31	55
10	MP2	Z	3.64	55
11	MP3	X	-7.03	55
12	MP3	Z	4.06	55
13	MP3	X	-7.32	55
14	MP3	Z	4.22	55
15	MP2	X	-23.24	84
16	MP2	Z	13.42	84
17	MP2	X	-23.24	0
18	MP2	Z	13.42	0
19	MP3	X	-23.07	84
20	MP3	Z	13.32	84
21	MP3	X	-23.07	0
22	MP3	Z	13.32	0

Member Point Loads (BLC 21 : Ice Wind Load AZI 120) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
23	MP1	X	-1.24	50
24	MP1	Z	.72	50
25	MP1	X	-1.24	50
26	MP1	Z	.72	50
27	MP1	X	-3.21	30
28	MP1	Z	1.85	30

Member Point Loads (BLC 22 : Ice Wind Load AZI 150)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-4.77	60
2	MP1	Z	8.26	60
3	MP1	X	-4.77	5
4	MP1	Z	8.26	5
5	SR4	X	-1.24	15
6	SR4	Z	2.15	15
7	MP2	X	-1.24	40
8	MP2	Z	2.15	40
9	MP2	X	-3.28	55
10	MP2	Z	5.69	55
11	MP3	X	-3.82	55
12	MP3	Z	6.61	55
13	MP3	X	-4.11	55
14	MP3	Z	7.11	55
15	MP2	X	-10.62	84
16	MP2	Z	18.39	84
17	MP2	X	-10.62	0
18	MP2	Z	18.39	0
19	MP3	X	-10.58	84
20	MP3	Z	18.32	84
21	MP3	X	-10.58	0
22	MP3	Z	18.32	0
23	MP1	X	-.7	50
24	MP1	Z	1.22	50
25	MP1	X	-.7	50
26	MP1	Z	1.22	50
27	MP1	X	-1.6	30
28	MP1	Z	2.76	30

Member Point Loads (BLC 23 : Ice Wind Load AZI 180)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	0	60

Member Point Loads (BLC 23 : Ice Wind Load AZI 180) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
2	MP1	Z	10.21	60
3	MP1	X	0	5
4	MP1	Z	10.21	5
5	SR4	X	0	15
6	SR4	Z	2.66	15
7	MP2	X	0	40
8	MP2	Z	2.66	40
9	MP2	X	0	55
10	MP2	Z	6.63	55
11	MP3	X	0	55
12	MP3	Z	7.68	55
13	MP3	X	0	55
14	MP3	Z	8.23	55
15	MP2	X	0	84
16	MP2	Z	21.71	84
17	MP2	X	0	0
18	MP2	Z	21.71	0
19	MP3	X	0	84
20	MP3	Z	21.62	84
21	MP3	X	0	0
22	MP3	Z	21.62	0
23	MP1	X	0	50
24	MP1	Z	1.44	50
25	MP1	X	0	50
26	MP1	Z	1.44	50
27	MP1	X	0	30
28	MP1	Z	3.7	30

Member Point Loads (BLC 24 : Ice Wind Load AZI 210)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	5.78	60
2	MP1	Z	10.01	60
3	MP1	X	5.78	5
4	MP1	Z	10.01	5
5	SR4	X	1.51	15
6	SR4	Z	2.61	15
7	MP2	X	1.51	40
8	MP2	Z	2.61	40
9	MP2	X	3.7	55
10	MP2	Z	6.41	55
11	MP3	X	4.1	55
12	MP3	Z	7.11	55

Member Point Loads (BLC 24 : Ice Wind Load AZI 210) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
13	MP3	X	4.24	55
14	MP3	Z	7.35	55
15	MP2	X	13.89	84
16	MP2	Z	24.06	84
17	MP2	X	13.89	0
18	MP2	Z	24.06	0
19	MP3	X	13.78	84
20	MP3	Z	23.87	84
21	MP3	X	13.78	0
22	MP3	Z	23.87	0
23	MP1	X	.75	50
24	MP1	Z	1.3	50
25	MP1	X	.75	50
26	MP1	Z	1.3	50
27	MP1	X	2.37	30
28	MP1	Z	4.1	30

Member Point Loads (BLC 25 : Ice Wind Load AZI 240)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	10.59	60
2	MP1	Z	6.11	60
3	MP1	X	10.59	5
4	MP1	Z	6.11	5
5	SR4	X	2.77	15
6	SR4	Z	1.6	15
7	MP2	X	2.77	40
8	MP2	Z	1.6	40
9	MP2	X	7.04	55
10	MP2	Z	4.06	55
11	MP3	X	7.53	55
12	MP3	Z	4.35	55
13	MP3	X	7.55	55
14	MP3	Z	4.36	55
15	MP2	X	28.91	84
16	MP2	Z	16.69	84
17	MP2	X	28.91	0
18	MP2	Z	16.69	0
19	MP3	X	28.61	84
20	MP3	Z	16.52	84
21	MP3	X	28.61	0
22	MP3	Z	16.52	0
23	MP1	X	1.33	50

Member Point Loads (BLC 25 : Ice Wind Load AZI 240) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
24	MP1	Z	.77	50
25	MP1	X	1.33	50
26	MP1	Z	.77	50
27	MP1	X	4.54	30
28	MP1	Z	2.62	30

Member Point Loads (BLC 26 : Ice Wind Load AZI 270)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	11.55	60
2	MP1	Z	0	60
3	MP1	X	11.55	5
4	MP1	Z	0	5
5	SR4	X	3.02	15
6	SR4	Z	0	15
7	MP2	X	3.02	40
8	MP2	Z	0	40
9	MP2	X	8.06	55
10	MP2	Z	0	55
11	MP3	X	8.65	55
12	MP3	Z	0	55
13	MP3	X	8.7	55
14	MP3	Z	0	55
15	MP2	X	32.91	84
16	MP2	Z	0	84
17	MP2	X	32.91	0
18	MP2	Z	0	0
19	MP3	X	32.58	84
20	MP3	Z	0	84
21	MP3	X	32.58	0
22	MP3	Z	0	0
23	MP1	X	1.5	50
24	MP1	Z	0	50
25	MP1	X	1.5	50
26	MP1	Z	0	50
27	MP1	X	4.73	30
28	MP1	Z	0	30

Member Point Loads (BLC 27 : Ice Wind Load AZI 300)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	8.84	60
2	MP1	Z	-5.11	60

Member Point Loads (BLC 27 : Ice Wind Load AZI 300) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in, %]
3	MP1	X	8.84	5
4	MP1	Z	-5.11	5
5	SR4	X	2.3	15
6	SR4	Z	-1.33	15
7	MP2	X	2.3	40
8	MP2	Z	-1.33	40
9	MP2	X	6.31	55
10	MP2	Z	-3.64	55
11	MP3	X	7.03	55
12	MP3	Z	-4.06	55
13	MP3	X	7.32	55
14	MP3	Z	-4.22	55
15	MP2	X	23.24	84
16	MP2	Z	-13.42	84
17	MP2	X	23.24	0
18	MP2	Z	-13.42	0
19	MP3	X	23.07	84
20	MP3	Z	-13.32	84
21	MP3	X	23.07	0
22	MP3	Z	-13.32	0
23	MP1	X	1.24	50
24	MP1	Z	-.72	50
25	MP1	X	1.24	50
26	MP1	Z	-.72	50
27	MP1	X	3.21	30
28	MP1	Z	-1.85	30

Member Point Loads (BLC 28 : Ice Wind Load AZI 330)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in, %]
1	MP1	X	4.77	60
2	MP1	Z	-8.26	60
3	MP1	X	4.77	5
4	MP1	Z	-8.26	5
5	SR4	X	1.24	15
6	SR4	Z	-2.15	15
7	MP2	X	1.24	40
8	MP2	Z	-2.15	40
9	MP2	X	3.28	55
10	MP2	Z	-5.69	55
11	MP3	X	3.82	55
12	MP3	Z	-6.61	55
13	MP3	X	4.11	55

Member Point Loads (BLC 28 : Ice Wind Load AZI 330) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
14	MP3	Z	-7.11	55
15	MP2	X	10.62	84
16	MP2	Z	-18.39	84
17	MP2	X	10.62	0
18	MP2	Z	-18.39	0
19	MP3	X	10.58	84
20	MP3	Z	-18.32	84
21	MP3	X	10.58	0
22	MP3	Z	-18.32	0
23	MP1	X	.7	50
24	MP1	Z	-1.22	50
25	MP1	X	.7	50
26	MP1	Z	-1.22	50
27	MP1	X	1.6	30
28	MP1	Z	-2.76	30

Member Point Loads (BLC 31 : Seismic Load Z)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	Z	-1.783	60
2	MP1	Z	-1.783	5
3	SR4	Z	-.662	15
4	MP2	Z	-.662	40
5	MP2	Z	-6.102	55
6	MP3	Z	-7.131	55
7	MP3	Z	-7.64	55
8	MP2	Z	-3.896	84
9	MP2	Z	-3.896	0
10	MP3	Z	-4.874	84
11	MP3	Z	-4.874	0
12	MP1	Z	-.118	50
13	MP1	Z	-.118	50
14	MP1	Z	-1.954	30

Member Point Loads (BLC 32 : Seismic Load X)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-1.783	60
2	MP1	X	-1.783	5
3	SR4	X	-.662	15
4	MP2	X	-.662	40
5	MP2	X	-6.102	55
6	MP3	X	-7.131	55

Member Point Loads (BLC 32 : Seismic Load X) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
7	MP3	X	-7.64	55
8	MP2	X	-3.896	84
9	MP2	X	-3.896	0
10	MP3	X	-4.874	84
11	MP3	X	-4.874	0
12	MP1	X	-.118	50
13	MP1	X	-.118	50
14	MP1	X	-1.954	30

Member Distributed Loads (BLC 14 : Distr. Wind Load Z)

	Member Label	Direction	Start Magnitude[lb/ft,F,psf]	End Magn...	Start Loca..	End Locat...
1	T1	SZ	-67.097	-67.097	0	%100
2	T2	SZ	-67.097	-67.097	0	%100
3	SR1	SZ	-67.097	-67.097	0	%100
4	SR2	SZ	-67.097	-67.097	0	%100
5	SR4	SZ	-67.097	-67.097	0	%100
6	SR8	SZ	-67.097	-67.097	0	%100
7	SR3	SZ	-67.097	-67.097	0	%100
8	MP1	SZ	-67.097	-67.097	0	%100
9	SR5	SZ	-67.097	-67.097	0	%100
10	SR9	SZ	-67.097	-67.097	0	%100
11	SR6	SZ	-67.097	-67.097	0	%100
12	S1	SZ	-111.829	-111.829	0	%100
13	S2	SZ	-111.829	-111.829	0	%100
14	M21	SZ	-67.097	-67.097	0	%100
15	H1	SZ	-67.097	-67.097	0	%100
16	H2	SZ	-67.097	-67.097	0	%100
17	H3	SZ	-67.097	-67.097	0	%100
18	H4	SZ	-67.097	-67.097	0	%100
19	MP3	SZ	-67.097	-67.097	0	%100
20	MP2	SZ	-67.097	-67.097	0	%100
21	SR7	SZ	-67.097	-67.097	0	%100
22	M23A	SZ	0	0	0	%100
23	M24	SZ	0	0	0	%100
24	M24A	SZ	0	0	0	%100
25	M25	SZ	0	0	0	%100
26	M26	SZ	0	0	0	%100
27	M27	SZ	0	0	0	%100
28	M30	SZ	-111.829	-111.829	0	%100
29	M31	SZ	-111.829	-111.829	0	%100
30	M32	SZ	0	0	0	%100

Member Distributed Loads (BLC 14 : Distr. Wind Load Z) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,F,psf]	End Magn..	Start Loca..	End Locat...
31	M33	SZ	0	0	0	%100
32	M32A	SZ	-111.829	-111.829	0	%100
33	M33A	SZ	-111.829	-111.829	0	%100

Member Distributed Loads (BLC 15 : Distr. Wind Load X)

	Member Label	Direction	Start Magnitude[lb/ft,F,psf]	End Magn..	Start Loca..	End Locat...
1	T1	SX	-67.097	-67.097	0	%100
2	T2	SX	-67.097	-67.097	0	%100
3	SR1	SX	-67.097	-67.097	0	%100
4	SR2	SX	-67.097	-67.097	0	%100
5	SR4	SX	-67.097	-67.097	0	%100
6	SR8	SX	-67.097	-67.097	0	%100
7	SR3	SX	-67.097	-67.097	0	%100
8	MP1	SX	-67.097	-67.097	0	%100
9	SR5	SX	-67.097	-67.097	0	%100
10	SR9	SX	-67.097	-67.097	0	%100
11	SR6	SX	-67.097	-67.097	0	%100
12	S1	SX	-111.829	-111.829	0	%100
13	S2	SX	-111.829	-111.829	0	%100
14	M21	SX	-67.097	-67.097	0	%100
15	H1	SX	-67.097	-67.097	0	%100
16	H2	SX	-67.097	-67.097	0	%100
17	H3	SX	-67.097	-67.097	0	%100
18	H4	SX	-67.097	-67.097	0	%100
19	MP3	SX	-67.097	-67.097	0	%100
20	MP2	SX	-67.097	-67.097	0	%100
21	SR7	SX	-67.097	-67.097	0	%100
22	M23A	SX	0	0	0	%100
23	M24	SX	0	0	0	%100
24	M24A	SX	0	0	0	%100
25	M25	SX	0	0	0	%100
26	M26	SX	0	0	0	%100
27	M27	SX	0	0	0	%100
28	M30	SX	-111.829	-111.829	0	%100
29	M31	SX	-111.829	-111.829	0	%100
30	M32	SX	0	0	0	%100
31	M33	SX	0	0	0	%100
32	M32A	SX	-111.829	-111.829	0	%100
33	M33A	SX	-111.829	-111.829	0	%100

Member Distributed Loads (BLC 16 : Ice Weight)

	Member Label	Direction	Start Magnitude[lb/ft,F,psf]	End Magn..	Start Loca..	End Locat...
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Member Distributed Loads (BLC 16 : Ice Weight) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,F,psf]	End Magn..	Start Loca..	End Locat..
1	T1	Y	-5.226	-5.226	0	%100
2	T2	Y	-5.226	-5.226	0	%100
3	SR1	Y	-4.18	-4.18	0	%100
4	SR2	Y	-2.666	-2.666	0	%100
5	SR4	Y	-4.18	-4.18	0	%100
6	SR8	Y	-2.666	-2.666	0	%100
7	SR3	Y	-2.666	-2.666	0	%100
8	MP1	Y	-5.226	-5.226	0	%100
9	SR5	Y	-3.215	-3.215	0	%100
10	SR9	Y	-3.215	-3.215	0	%100
11	SR6	Y	-3.215	-3.215	0	%100
12	S1	Y	-6.924	-6.924	0	%100
13	S2	Y	-6.924	-6.924	0	%100
14	M21	Y	-8.335	-8.335	0	%100
15	H1	Y	-4.18	-4.18	0	%100
16	H2	Y	-4.18	-4.18	0	%100
17	H3	Y	-4.18	-4.18	0	%100
18	H4	Y	-4.18	-4.18	0	%100
19	MP3	Y	-5.226	-5.226	0	%100
20	MP2	Y	-5.226	-5.226	0	%100
21	SR7	Y	-2.666	-2.666	0	%100
22	M23A	Y	-1.752	-1.752	0	%100
23	M24	Y	-1.752	-1.752	0	%100
24	M24A	Y	-1.752	-1.752	0	%100
25	M25	Y	-1.752	-1.752	0	%100
26	M26	Y	-1.752	-1.752	0	%100
27	M27	Y	-1.752	-1.752	0	%100
28	M30	Y	-6.924	-6.924	0	%100
29	M31	Y	-6.924	-6.924	0	%100
30	M32	Y	-1.752	-1.752	0	%100
31	M33	Y	-1.752	-1.752	0	%100
32	M32A	Y	-6.924	-6.924	0	%100
33	M33A	Y	-6.924	-6.924	0	%100

Member Distributed Loads (BLC 29 : Distr. Ice Wind Load Z)

	Member Label	Direction	Start Magnitude[lb/ft,F,psf]	End Magn..	Start Loca..	End Locat..
1	T1	SZ	-21.22	-21.22	0	%100
2	T2	SZ	-21.22	-21.22	0	%100
3	SR1	SZ	-25.809	-25.809	0	%100
4	SR2	SZ	-51.052	-51.052	0	%100
5	SR4	SZ	-25.809	-25.809	0	%100
6	SR8	SZ	-51.052	-51.052	0	%100

Member Distributed Loads (BLC 29 : Distr. Ice Wind Load Z) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,F,psf]	End Magn..	Start Loca..	End Locat...
7	SR3	SZ	-51.052	-51.052	0	%100
8	MP1	SZ	-21.22	-21.22	0	%100
9	SR5	SZ	-35.87	-35.87	0	%100
10	SR9	SZ	-35.87	-35.87	0	%100
11	SR6	SZ	-35.87	-35.87	0	%100
12	S1	SZ	-17.723	-17.723	0	%100
13	S2	SZ	-17.723	-17.723	0	%100
14	M21	SZ	-16.189	-16.189	0	%100
15	H1	SZ	-25.809	-25.809	0	%100
16	H2	SZ	-25.809	-25.809	0	%100
17	H3	SZ	-25.809	-25.809	0	%100
18	H4	SZ	-25.809	-25.809	0	%100
19	MP3	SZ	-21.22	-21.22	0	%100
20	MP2	SZ	-21.22	-21.22	0	%100
21	SR7	SZ	-51.052	-51.052	0	%100
22	M23A	SZ	0	0	0	%100
23	M24	SZ	0	0	0	%100
24	M24A	SZ	0	0	0	%100
25	M25	SZ	0	0	0	%100
26	M26	SZ	0	0	0	%100
27	M27	SZ	0	0	0	%100
28	M30	SZ	-17.723	-17.723	0	%100
29	M31	SZ	-17.723	-17.723	0	%100
30	M32	SZ	0	0	0	%100
31	M33	SZ	0	0	0	%100
32	M32A	SZ	-17.723	-17.723	0	%100
33	M33A	SZ	-17.723	-17.723	0	%100

Member Distributed Loads (BLC 30 : Distr. Ice Wind Load X)

	Member Label	Direction	Start Magnitude[lb/ft,F,psf]	End Magn..	Start Loca..	End Locat...
1	T1	SX	-21.22	-21.22	0	%100
2	T2	SX	-21.22	-21.22	0	%100
3	SR1	SX	-25.809	-25.809	0	%100
4	SR2	SX	-51.052	-51.052	0	%100
5	SR4	SX	-25.809	-25.809	0	%100
6	SR8	SX	-51.052	-51.052	0	%100
7	SR3	SX	-51.052	-51.052	0	%100
8	MP1	SX	-21.22	-21.22	0	%100
9	SR5	SX	-35.87	-35.87	0	%100
10	SR9	SX	-35.87	-35.87	0	%100
11	SR6	SX	-35.87	-35.87	0	%100
12	S1	SX	-17.723	-17.723	0	%100

Member Distributed Loads (BLC 30 : Distr. Ice Wind Load X) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,F,psf]	End Magn...	Start Loca..	End Locat...
13	S2	SX	-17.723	-17.723	0	%100
14	M21	SX	-16.189	-16.189	0	%100
15	H1	SX	-25.809	-25.809	0	%100
16	H2	SX	-25.809	-25.809	0	%100
17	H3	SX	-25.809	-25.809	0	%100
18	H4	SX	-25.809	-25.809	0	%100
19	MP3	SX	-21.22	-21.22	0	%100
20	MP2	SX	-21.22	-21.22	0	%100
21	SR7	SX	-51.052	-51.052	0	%100
22	M23A	SX	0	0	0	%100
23	M24	SX	0	0	0	%100
24	M24A	SX	0	0	0	%100
25	M25	SX	0	0	0	%100
26	M26	SX	0	0	0	%100
27	M27	SX	0	0	0	%100
28	M30	SX	-17.723	-17.723	0	%100
29	M31	SX	-17.723	-17.723	0	%100
30	M32	SX	0	0	0	%100
31	M33	SX	0	0	0	%100
32	M32A	SX	-17.723	-17.723	0	%100
33	M33A	SX	-17.723	-17.723	0	%100

Envelope AISC 15th(360-16): LRFD Steel Code Checks

Member	Shape	Code Check	Loc[in]	LC	She...	Loc[in]	Dir	LC	phi*Pn...	phi*Pn...	phi*M...	phi*Mn ...	Cb	Eqn	
1	H3	PIPE_1....	.782	60.042	3	.502	65.5		3	9338....	19687...	800.625	800.625	3.3...	H3-6
2	MP3	PIPE_2.0	.752	49.875	4	.131	49		11	17855...	32130	1871....	1871.625	1.5...	H1-1b
3	MP2	PIPE_2.0	.728	49.875	10	.107	49		11	17855...	32130	1871....	1871.625	2.3...	H1-1b
4	H1	PIPE_1....	.722	12.938	96	.490	14.625		5	11858...	19687...	800.625	800.625	1.6...	H1-1b
5	H2	PIPE_1....	.675	11.25	5	.495	12.375		9	11858...	19687...	800.625	800.625	2.3...	H3-6
6	H4	PIPE_1....	.637	60.042	10	.439	65.5		10	9338....	19687...	800.625	800.625	4.4...	H3-6
7	S1	HSS2.5...	.602	26	5	.146	2.438	y	4	46632...	48510	3465	3465	1.9...	H1-1b
8	SR1	PIPE_1....	.583	15	4	.156	0		11	16835...	19687...	800.625	800.625	1.2...	H1-1b
9	SR4	PIPE_1....	.496	0	85	.103	0		5	16835...	19687...	800.625	800.625	2.31	H1-1b
10	M33A	L2.5x2....	.448	0	84	.031	53.535	z	85	15248...	29192...	872.574	1901.264	2.1...	H2-1
11	S2	HSS2.5...	.446	26	11	.174	2.438	y	10	46632...	48510	3465	3465	1.98	H1-1b
12	SR3	SR 5/8	.404	30	24	.045	0		5	1757....	9946.8	96.768	96.768	1.0...	H1-1a
13	M32A	L2.5x2....	.367	0	94	.039	48.601	y	4	17093...	29192...	872.574	1918.74	2.0...	H2-1
14	MP1	PIPE_2.0	.193	33.125	10	.056	32.5		11	23808...	32130	1871....	1871.625	1.8...	H1-1b
15	SR5	SR 1" Bar	.169	30	4	.044	0		5	11923...	25446...	424.112	424.112	2.2...	H1-1b*
16	SR2	SR 5/8	.162	0	22	.056	0		5	1757....	9946.8	96.768	96.768	2.1...	H1-1b*
17	T1	PIPE_2.0	.133	60.937	5	.007	0		11	9536....	32130	1871....	1871.625	1.1...	H1-1b

Envelope AISC 15th(360-16): LRFD Steel Code Checks (Continued)

	Member	Shape	Code Check	Loc[in]	LC	She...	Loc[in]	Dir	LC	phi*Pn...	phi*Pn...	phi*M...	phi*Mn ...	Cb	Eqn
18	M31	L2.5x2....	.080	24.684	78	.013	55.109	z	6	14668...	29192..	872.574	1652.512	1.13	H2-1
19	M30	L2.5x2....	.080	51.391	93	.020	0	y	4	16045...	29192..	872.574	1678.06	1.1...	H2-1
20	M21	PIPE_4.0	.073	22.313	107	.241	22.313		5	85371...	93240	10631...	10631.25	4.4...	H1-1b
21	SR9	SR 1" Bar	.069	34.482	103	.015	34.482		79	9326....	25446..	424.112	424.112	2.5...	H1-1b*
22	SR6	SR 1" Bar	.061	30	108	.017	30		4	11923...	25446..	424.112	424.112	2.2...	H1-1b*
23	T2	PIPE_2.0	.060	44.71	11	.005	89.419		11	16511...	32130	1871....	1871.625	1.1...	H1-1b
24	SR8	SR 5/8	.000	0	110	.038	0		11	627.519	9946.8	96.768	96.768	2.5...	H1-1a
25	SR7	SR 5/8	.000	0	110	.034	46.383		5	735.053	9946.8	96.768	96.768	3.0...	H1-1a

Envelope AISI S100-16: LRFD Cold Formed Steel Code Checks

Member	Shape	Code Check	Loc[in]	LC	Shea...	Loc[...Dir	LC	phi*Pn...	phi*Tn...	phi*Mn...	phi*Mn...	phi*...phi*...	Cb	Eqn
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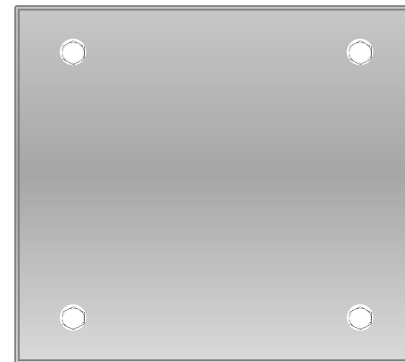
Bolt Calculation Tool, V1.4

PROJECT DATA	
Site Name:	Ledyard Colonel Rd.
Site Number:	CTL02184
Job Code:	1106-A0001-B
Connection Description:	Standoff Pipe to Tower Leg

APPLIED LOADS		
Bolt Tension:	3470.78	lbs
Bolt Shear:	607.98	lbs

BOLT PROPERTIES		
Bolt Type:	Threaded Rod	-
Bolt Diameter:	0.625	in
Bolt Grade:	A325	-
# of Threaded Rods:	4	-
Threads Excluded?	No	-

BOLT CHECK		
Tensile Strength	20340.15	
Shear Strength	13805.83	
Tensile Usage	17.1%	
Shear Usage	4.4%	
Interaction Check	0.03	≤1.05
Result	Pass	



Mount Analysis and Mapping Checklist

Mount Detail		Both		Inspector (Mapping)	
Mount Type			Heavy Duty Sector Frame		(Vendor name)
Mount Model Number			-		(Inspector name)
If RT, then how is it attached					(Contact phone)
If WT, then how is it attached					(Contact email)
Result of previous mount analysis or PE opinion letter			N/A		
Mount Mapping Detail		Both			
Material condition (discoloration, cracks, pitting)			Good		
Mfg. drawing, cutsheet, spec. available?			No		
Date of previous mount mapping			10/26/2016		
Searched prior OEM for material?			No		
Photos of installation available?			No		
Original tower drawings show mounts?			No		
Searched for previous mapping?			Yes		
Is latest mod design (dwgs) available?			No		
Is the latest structural analysis available?			No		
Project Detail		Both		Site Information	
Market			Connecticut		Original Lease Date
PACE Project ID			MRCTB047350, MRCTB047387, MRCTB047400, MRCTB047457, MRCTB047373, MRCTB047401		FA Code
Site Name			Ledyard Colonerl Rd.		Tower Type
City, State			Ledyard, CT		Tower Height (Ft)
RFDS Version Number			1		AT&T Rad Center # 1
Initiative (list mult., if applicable)			LTE 3C[700 UPPER D], LTE 4C[AWS F & J], 4TX4RX Software Retrofit[700 B-C], 4TX4RX Software Retrofit[1900 A3-A4 & E], 5G NR 1DR-1[850 B(U)], BWE Software Carrier[1900 A3-A4 & E]		AT&T Rad Center # 2
Tower Owner			Town of Ledyard		
SA Vendor			Infinigy		
A&E firm (for structural analysis)					
A&E firm (for mapping, if different)					
Last amendment date or last site visit			4/21/2020		
Measurements and Deliverables on sketches		Mapping			
Pipe / Angle dimenions and lengths					
bolt diameters and lengths					
U-Bolt diameters and lengths					
Steel Grade if indicated					
welds :length and sizes					
appurtenance relative locations					
Grounding Condition					
		Model Number for Ant, MW, RRU, TMA, Squid / Size of Coax, DC-Fiber		Height / COAX-DC-Fiber	
Equipment Detail Alpha Sector		Trunks & Jumpers		Trunk & Jumper	
		Lengths in feet		Approx Az	
				mount position location	
Antennas	0	0	0	0	0
MW	0	0	0	0	0
RRU	0	0	0	0	0
TMA	0	0	0	0	0
Coax	0	0	0	0	0
RET (not imbedded in antenna)	0	0	0	0	0
DC Cable	0	0	0	0	0
Fiber Cable	0	0	0	0	0
Squid	0	0	0	0	0
Equipment Detail Beta Sector					
Antennas	0	0	0	0	0
MW	0	0	0	0	0
RRU	0	0	0	0	0
TMA	0	0	0	0	0
Coax	0	0	0	0	0
RET (not imbedded in antenna)	0	0	0	0	0
DC Cable	0	0	0	0	0
Fiber Cable	0	0	0	0	0
Squid	0	0	0	0	0
Equipment Detail Gamma Sector					
Antennas	0	0	0	0	0
MW	0	0	0	0	0
RRU	0	0	0	0	0
TMA	0	0	0	0	0
Coax	0	0	0	0	0
RET (not imbedded in antenna)	0	0	0	0	0
DC Cable	0	0	0	0	0
Fiber Cable	0	0	0	0	0
Squid	0	0	0	0	0
Comments					

Note: For each table in this form, note whether the information applies to "Mapping" only, or "Both" mount analysis and mapping. Equipment detail is for "Mapping" but is not labeled. Sketches are only required for mapping.

2017 TARP Mount Program Spec Sheet Sample								
INPUT FIELDS							OUTPUT FIELDS	
BASIC WINDSPEED (mph)	Radial Ice (in)	Height (ft)	Exposure Category	Class	TOPO Category	Number of Mount Pipes / Sector	Allowable EPA / pipe (ft sq)	Allowable Weight / Pipe (lbf)
							NOTE : Specify how many pipes are being considered per face for each EPA/WT pair	
126	1"	200	C	II	1	3	19	340

ANTENNA MOUNT MODIFICATION DRAWINGS

PREPARED BY:

INFINIGY®

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the solutions are endless

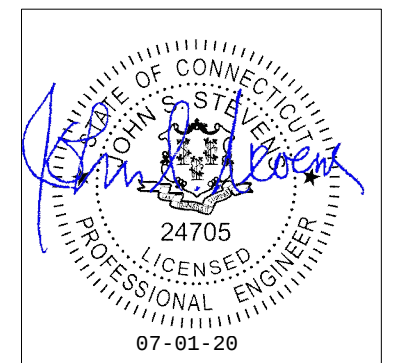


CTL02184
LEDYARD COLONEL RD.
889R COLONEL LEDYARD HIGHWAY
LEDYARD, CT 06339

07/01/20

INFINIGY JOB # 1106-A0001-B

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ENGINEER, TO ALTER THESE DOCUMENTS.

S1

GENERAL NOTES:

- THESE DOCUMENTS WERE DESIGNED IN ACCORDANCE WITH THE LATEST VERSION OF APPLICABLE LOCAL/STATE/COUNTY/CITY BUILDING CODES, AS WELL AS ANSI/TIA-222 STANDARD, AWWA-D100 STANDARD, NDS, NEC, MSJC, AND/OR THE LATEST VERSION OF THE INTERNATIONAL BUILDING CODE, UNLESS NOTED OTHERWISE IN THE CORRESPONDING STRUCTURAL REPORT.
- ALL CONSTRUCTION METHODS SHOULD FOLLOW STANDARDS OF GOOD CONSTRUCTION PRACTICE.
- ALL WORK INDICATED ON THESE DRAWINGS SHALL BE PERFORMED BY QUALIFIED CONTRACTORS EXPERIENCED IN SIMILAR CONSTRUCTION.
- ALL NEW WORK SHALL ACCOMMODATE EXISTING CONDITIONS. IF OBSTRUCTIONS ARE FOUND, CONTRACTOR SHALL NOTIFY ENGINEER OF RECORD PRIOR TO CONTINUING WORK.
- ANY CHANGES OR ADDITIONS MUST CONFORM TO THE REQUIREMENTS OF THESE NOTES AND SPECIFICATIONS, AND SHOULD BE SIMILAR TO THOSE SHOWN. ALL CHANGES OR ADDITIONS SHALL BE SUBMITTED TO THE ENGINEER OF RECORD FOR REVIEW AND APPROVAL PRIOR TO FABRICATION AND/OR CONSTRUCTION.
- THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN AND EXECUTION OF ALL MISCELLANEOUS SHORING, BRACING, TEMPORARY SUPPORTS, ETC. NECESSARY TO PROVIDE A COMPLETE AND STABLE STRUCTURE DURING CONSTRUCTION. TIA-1019-A-2011 IS AN APPROPRIATE REFERENCE FOR THOSE DESIGNS MEETING TIA STANDARDS. THE ENGINEER OF RECORD MAY PROVIDE FORMAL RIGGING PLANS AT THE REQUEST AND EXPENSE OF THE CONTRACTOR.
- INSTALLATION SHALL NOT INTERFERE NOR DENY ADEQUATE ACCESS TO OR FROM ANY EXISTING OR PROPOSED OPERATIONAL AND SAFETY EQUIPMENT.
- CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS PRIOR TO ANY FABRICATION. CONTACT INFINIGY ENGINEERING IF ANY DISCREPANCIES EXIST.

STEEL CONSTRUCTION NOTES:

- STRUCTURAL STEEL SHALL CONFORM TO THE AISC MANUAL OF STEEL CONSTRUCTION 14TH EDITION, FOR THE DESIGN AND FABRICATION OF STEEL COMPONENTS.
- ALL FIELD CUT SURFACES, FIELD DRILLED HOLES, AND GROUND SURFACES WHERE EXISTING PAINT OR GALVANIZATION REMOVAL WAS REQUIRED SHALL BE REPAIRED WITH (2) BRUSHED COATS OF ZRC GALVILITE COLD GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURERS' RECOMMENDATIONS.
- ALL FIELD DRILLED HOLES TO BE USED FOR FIELD BOLTING INSTALLATION SHALL BE STANDARD HOLES, AS DEFINED BY AISC, UNLESS NOTED OTHERWISE.
- ALL EXTERIOR STEEL WORK SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A123.
- ALL STEEL MEMBERS AND CONNECTIONS SHALL MEET THE FOLLOWING GRADES:
 - ANGLES, CHANNELS, PLATES AND BARS TO BE A36. Fy=36 KSI, U.N.O.
 - W SHAPES TO BE A992. Fy=50 KSI, U.N.O.
 - RECTANGULAR HSS TO BE A500, GRADE B. Fy=46 KSI, U.N.O.
 - ROUND HSS TO BE A500, GRADE B. Fy=42 KSI, U.N.O.
 - STEEL PIPE TO BE A53, GRADE B. Fy=35 KSI, U.N.O.
 - BOLTS TO BE A325-X. Fu=120 KSI, U.N.O.
 - U-BOLTS AND LAG SCREWS TO BE A307 GR A. Fu=60 KSI, U.N.O.
- ALL WELDING SHALL BE DONE USING E70XX ELECTRODES, U.N.O.
- ALL WELDING SHALL CONFORM TO AISC AND AWS D1.1 LATEST EDITION.
- ALL HILTI ANCHORS TO BE CARBON STEEL, U.N.O.
 - MECHANICAL ANCHORS: KWIK BOLT-TZ, U.N.O.
 - CMU BLOCK ANCHORS: ADHESIVE - HY120, U.N.O.
 - CONCRETE ANCHORS: ADHESIVE - HY150, U.N.O.
 - CONCRETE REBAR: ADHESIVE - RE500, U.N.O.
- ALL STUDS TO BE NELSON CAPACITOR DISCHARGE 1/4"-20 LOW CARBON STEEL COPPER-FLASH AT 55 KSI ULT/50 KSI YIELD, U.N.O.
- BOLTS SHALL BE TIGHTENED TO A "SNUG TIGHT" CONDITION AS DEFINED BY AISC.
- MINIMUM EDGE DISTANCES SHALL CONFORM TO AISC TABLE J3.4.

CONCRETE CONSTRUCTION NOTES:

- CONCRETE TO BE 4000 PSI @ 28 DAYS. REINFORCING BAR TO CONFORM TO ASTM A615 GRADE 60 SPECIFICATIONS. CONCRETE INSTALLATION TO CONFORM TO ACI-318 BUILDING REQUIREMENTS FOR REINFORCED CONCRETE. ALL CONCRETE TO BE PLACED AGAINST UNDISTURBED EARTH FREE OF WATER AND ALL FOREIGN OBJECTS AND MATERIALS. A MINIMUM OF THREE INCHES OF CONCRETE SHALL COVER ALL REINFORCEMENT. WELDING OF REBAR IS NOT PERMITTED.
- EXISTING CONCRETE SURFACES THAT ARE TO BE IN CONTACT WITH NEW PROPOSED CONCRETE SHOULD BE WIRE BRUSHED CLEAN AND TREATED WITH APPROPRIATE MECHANICAL SCRATCH COAT AND REPAIR MATERIALS OR APPROPRIATE CHEMICAL METHODS SUCH AS THE APPLICATION OF A BONDING AGENT, EX. SAKRETE OR EQUIVALENT, TO ENSURE A QUALITY BOND BETWEEN EXISTING AND PROPOSED CONCRETE SURFACES.

FIBER REINFORCED POLYMER (FRP) NOTES:

- FRP PLATES, SHAPES, BOLTS AND NUTS (STUD/NUT ASSEMBLIES) SHALL CONFORM TO ASTM D638, 695, 790. PLATES AND SHAPES TO BE Fy = 5.35 KSI LW (SAFETY FACTOR OF 8), .945 KSI CW (SAFETY FACTOR OF 8) MIN.
- IF FIELD FABRICATION IS REQUIRED, ALL CUT EDGES AND DRILLED HOLES TO BE SEALED USING VINYL ESTER SEALING KIT SUPPLIED BY THE MANUFACTURER.
- ALL FASTENERS TO BE 1/2" DIA FRP THREADED ROD WITH FIBER REINFORCED THERMOPLASTIC NUT, SPACED AT 12 INCHES ON CENTER MAXIMUM, U.N.O., FOR PANELS AND AS DESIGNED FOR STRUCTURAL MEMBERS.
- THE COLOR AND SURFACE PATTERN OF EXPOSED FRP PANELS SHALL MATCH THE EXTERIOR OF THE EXISTING BUILDING, U.N.O.
- STUD/NUT ASSEMBLIES SHOULD BE LUBRICATED FOR INSTALLATION
- ENSURE BEARING SURFACES OF THE NUTS ARE PARALLEL TO THE SURFACES BEING FASTENED.
- TORQUE BOLTS ACCORDING TO THE FOLLOWING TABLE:

INSTALLATION TORQUE TABLE		
SIZE	ULTIMATE TORQUE STRENGTH	RECOMMENDED MAXIMUM INSTALLATION TORQUE
3/8-16 UNC	8 FT-LBS	4 FT-LBS
1/2-13 UNC	18 FT-LBS	8 FT-LBS
5/8-11 UNC	35 FT-LBS	16 FT-LBS
3/4-10 UNC	50 FT-LBS	24 FT-LBS
1-8 UNC	110 FT-LBS	50 FT-LBS

- WHEN TIGHTENING FRP STUD/NUT ASSEMBLIES, WRENCHES MUST MAKE FULL CONTACT WITH ALL NUT EDGES. A STANDARD SIX POINT SOCKET IS RECOMMENDED.
- STUD/NUT ASSEMBLIES SHOULD BE BONDED BY APPLYING BONDING AGENT TO ENTIRE NUT AND EXPOSED STUD.
- ALL FRP MATERIALS TO BE PROVIDED BY FIBERGRATE COMPOSITE STRUCTURES, DALLAS TX, OR APPROVED EQUAL.
- ALL FRP SHAPES TO BE DYNAFORM PULTRUDED STRUCTURAL SHAPES.
- ALL FRP PLATES TO BE FIBERPLATE MOLDED FRP PLATE.
- ALL FRP PANELS TO BE FIBERPLATE CLADDING PANEL.
- EACH FRP PANEL TO BE IDENTIFIED WITH LARR#25536 AND FIBERGRATE COMPOSITE STRUCTURAL LABEL.
- FRP MATERIAL TO BE CLASSIFIED AS CC1 OR BETTER, AND HAVE MAXIMUM FLAME SPREAD OF 50.
- ALL DESIGN AND CONSTRUCTION TO BE COMPLETED IN ACCORDANCE WITH LOS ANGELES RESEARCH REPORT RR25536, DATED FEBRUARY 1, 2016.
- SPECIAL INSPECTIONS MUST BE PROVIDED FOR ALL FRP INSTALLMENTS. SEE SPECIAL INSPECTION SECTION, THIS SHEET.

RATIO OF EDGE DISTANCE TO FRP FASTENER DIAMETER		
	RANGE	RECOMMENDED
EDGE DISTANCE - CL* BOLT TO END	2.0-4.0	3.0
EDGE DISTANCE - CL* BOLT TO SIDE	1.5-3.5	2.5
BOLT PITCH - CL* TO CL*	4.0-5.0	5.0

WOOD CONSTRUCTION NOTES:

- ALL EXISTING WOOD SHAPES ARE ASSUMED TO BE DOUGLAS FIR-LARCH WITH A REFERENCE DESIGN BENDING VALUE OF 1000 PSI MIN.
- ALL PROPOSED WOOD SHAPES ARE TO BE DOUGLAS FIR-LARCH WITH A REFERENCE DESIGN BENDING VALUE OF 1000 PSI MIN. U.N.O.
- ALL EXISTING AND PROPOSED GLUED LAMINATED TIMBERS ARE TO BE 24F-1.8C DOUGLAS FIR BALANCED WITH A REFERENCE DESIGN BENDING VALUE OF 2400 PSI MIN. U.N.O.

MASONRY CONSTRUCTION NOTES:

- ALL BRICK TO BE 1500 PSI MIN. REINFORCING BAR (IF APPLICABLE) TO CONFORM TO ASTM A615 GRADE 60 SPECIFICATIONS. ALL MORTAR TO BE 2000 PSI MIN.
 - FOR INTERIOR/ABOVE GRADE APPLICATIONS TYPE N MORTAR HAVING MINIMUM MODULUS OF RUPTURE OF 100 PSI SHALL BE USED. FOR EXTERIOR/BELOW GRADE APPLICATIONS TYPE M OR S MORTAR HAVING A MINIMUM MODULUS OF RUPTURE OF 133 PSI.
 - BRICK AND MORTAR INSTALLATION TO CONFORM TO MSJC BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES.
- ALL CMU TO BE 1500 PSI MIN. REINFORCING BAR (IF APPLICABLE) TO CONFORM TO ASTM A615 GRADE 60 SPECIFICATIONS. ALL MORTAR TO BE 2000 PSI MIN.
 - FOR INTERIOR/ABOVE GRADE APPLICATIONS, TYPE N MORTAR HAVING MINIMUM MODULUS OF RUPTURE OF 64 PSI SHALL BE USED FOR UNGROUTED BLOCKS, AND 158 PSI FOR FULLY GROUTED BLOCKS.
 - FOR EXTERIOR/BELOW GRADE APPLICATIONS TYPE M OR S MORTAR HAVING A MINIMUM MODULUS OF RUPTURE OF 84 PSI SHALL BE USED FOR UNGROUTED BLOCKS, AND 163 PSI FOR FULLY GROUTED BLOCKS.
 - BRICK AND MORTAR INSTALLATION TO CONFORM TO MSJC BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES.

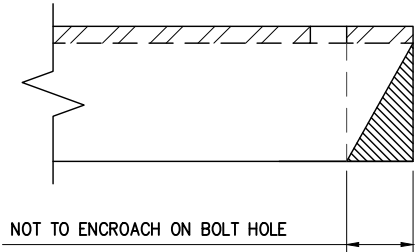
TOWER PLUMB & TENSION NOTES:

- PLUMB AND TENSION TOWER UPON COMPLETION OF STRUCTURAL MODIFICATIONS DETAILED IN THESE DRAWINGS.
- RETENSIONING OF EXISTING GUY WIRES SHALL BE PERFORMED AT A TIME WHEN THE WIND VELOCITY IS LESS THAN 10 MPH AT GROUND LEVEL AND WITH NO ICE ON THE STRUCTURE AND GUY WIRES.
- PLUMB THE TOWER WHILE RETENSIONING THE EXISTING GUY WIRES. THE HORIZONTAL DISTANCE BETWEEN THE VERTICAL CENTERLINES AT ANY TWO ELEVATIONS SHALL NOT EXCEED 0.25% OF THE VERTICAL DISTANCE BETWEEN TWO ELEVATIONS FOR LATTICED STRUCTURES.
- THE TWIST BETWEEN ANY TWO ELEVATIONS THROUGHOUT THE HEIGHT OF A LATTICE STRUCTURE SHALL NOT EXCEED 0.5 DEGREES IN 10 FEET. THE MAXIMUM TWIST OVER THE LATTICE STRUCTURE HEIGHT SHALL NOT EXCEED 5 DEGREES.

SPECIAL INSPECTIONS NOTES:

- A QUALIFIED INDEPENDENT TESTING LABORATORY, EMPLOYED BY THE OWNER AND APPROVED BY THE JURISDICTION, SHALL PERFORM INSPECTION AND TESTING IN ACCORDANCE WITH THE THE GOVERNING BUILDING CODE, APPLICABLE SECTION(S) AS REQUIRED BY PROJECT SPECIFICATIONS FOR THE FOLLOWING CONSTRUCTION WORK:
 - STRUCTURAL WELDING (CONTINUOUS INSPECTION OF FIELD WELDS ONLY).
 - HIGH STRENGTH BOLTS (PERIODIC INSPECTION OF A325 AND/OR A490 BOLTS) TO BE TIGHTENED PER "TURN-OF-THE-NUT" METHOD.
 - MECHANICAL AND EPOXIED ANCHORAGES.
 - FIBER REINFORCED POLYMER.
 - THE SPECIAL INSPECTOR MUST VERIFY THAT THE FRP MATERIAL SPECIFIED ON THE APPROVED DESIGN DOCUMENTS IS BEING INSTALLED.
 - THE SPECIAL INSPECTOR MUST VERIFY THAT ALL CUT EDGES AND DRILLED HOLES ARE PROPERLY SEALED USING A VINYL ESTER SEALING KIT SUPPLIED BY THE MANUFACTURER.
 - THE SPECIAL INSPECTOR MUST VERIFY THAT THE STRUCTURE IS BUILT IN ACCORDANCE WITH THE APPROVED DESIGN DOCUMENTS.
- THE INSPECTION AGENCY SHALL SUBMIT INSPECTION AND TEST REPORTS TO THE BUILDING DEPARTMENT, THE ENGINEER OF RECORD, AND THE OWNER UNLESS THE FABRICATOR IS APPROVED BY THE BUILDING OFFICIAL TO PERFORM WORK WITHOUT THE SPECIAL INSPECTIONS.

MAXIMUM ALLOWABLE ANGLE CLIP

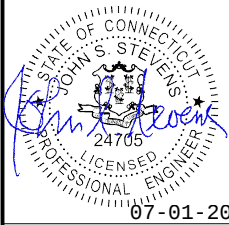


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at&t



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0	ISSUED FOR REVIEW	DMB	07/01/20
No.	Submittal / Revision	App'd	Date

Drawn: DMB Date: 07/01/20
Designed: PM Date: 07/01/20
Checked: AY Date: 07/01/20

Project Number:
1106-A0001-B

Project Title:
LEDYARD COLONEL RD.
CTL02184
FA# 10035428
889R COLONEL LEDYARD HIGHWAY
LEDYARD, CT 06339

Prepared For:

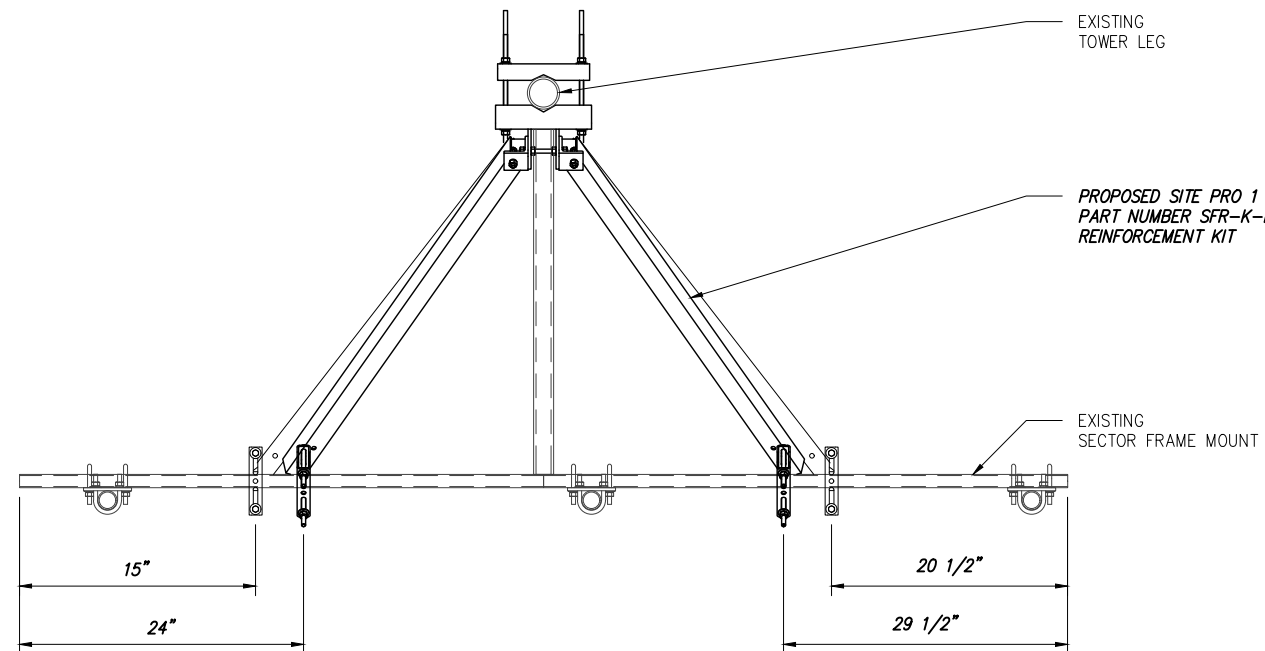


Drawing Scale:
AS NOTED
Date:
07/01/20

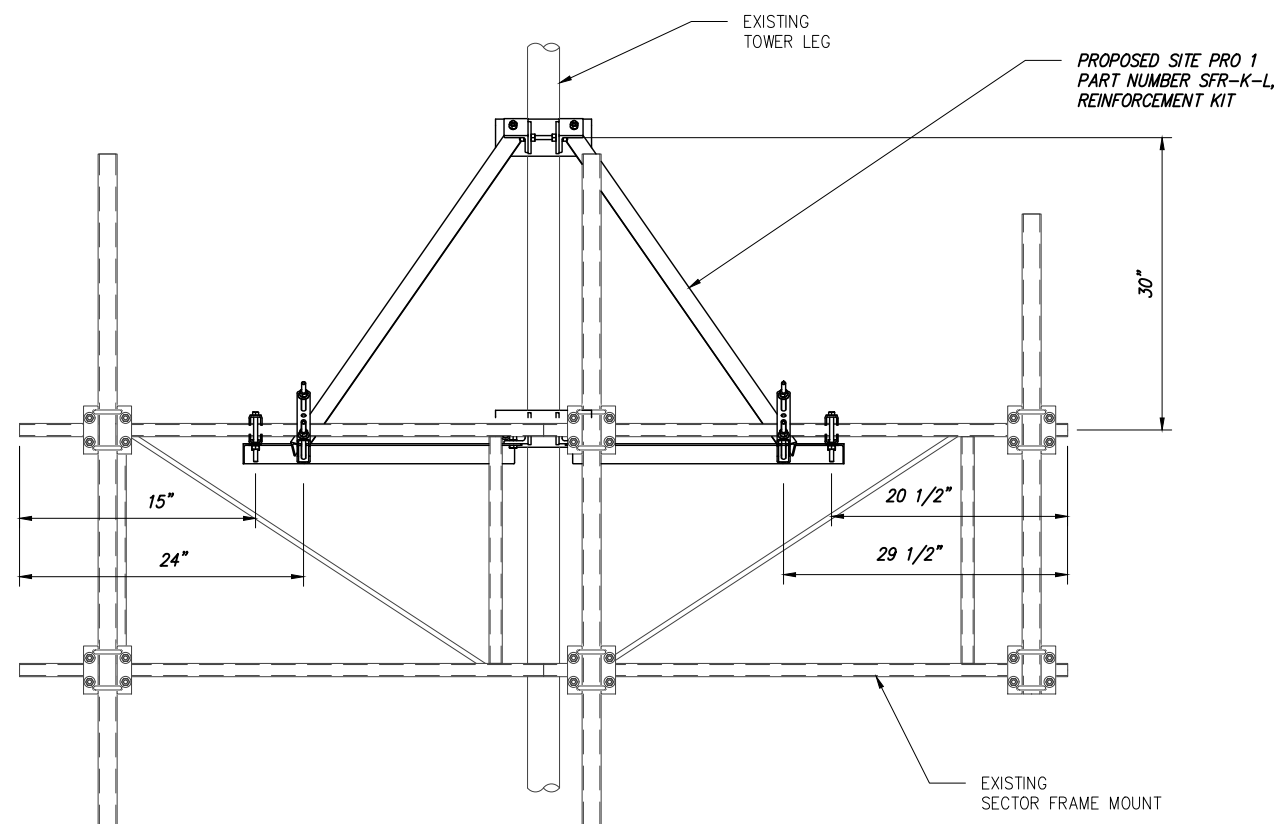
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Drawing Title
GENERAL NOTES

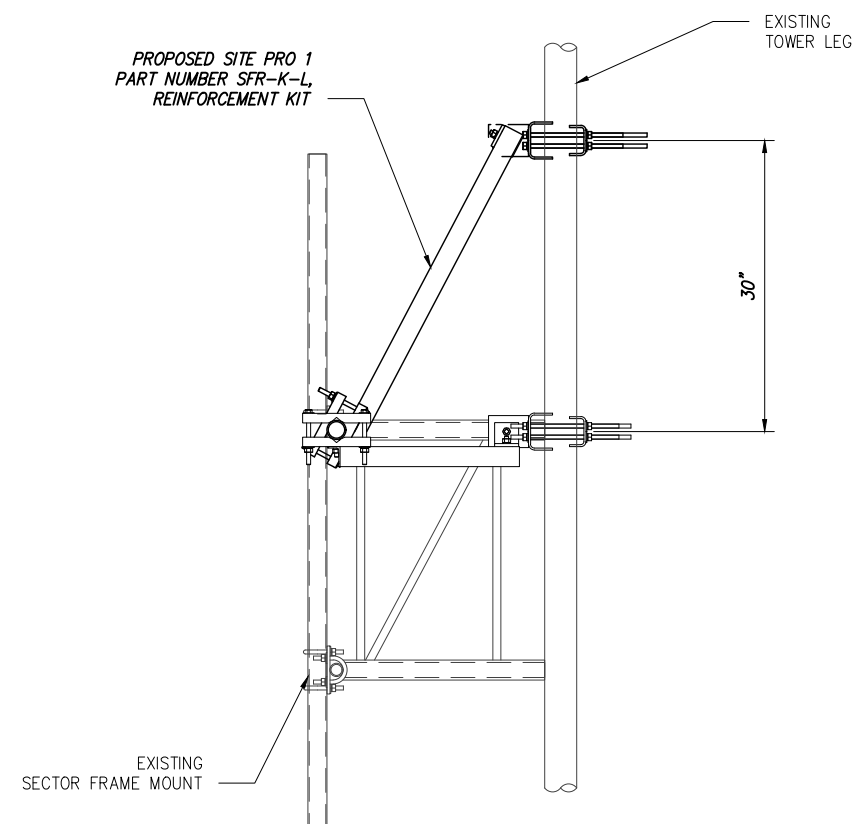
Drawing Number
S2



1 PLAN VIEW
SCALE: NOT TO SCALE



2 ELEVATION VIEW
SCALE: NOT TO SCALE



3 SIDE VIEW
SCALE: NOT TO SCALE

- NOTES:
1. VARIOUS EXISTING CONDITIONS AND PROPOSED MODIFICATIONS NOT SHOWN FOR CLARITY.
 2. ALL SITE PRO 1 PARTS ARE TO BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS.
 3. CONTRACTOR TO FIELD VERIFY REQUIRED LENGTHS OF ALL PROPOSED PIPES & REINFORCEMENT KIT ANGLES AND TRIM & DRILL ON SITE AS NECESSARY.

No.	ISSUED FOR REVIEW	DMB	07/01/20
	Submittal / Revision	App'd	Date

Drawn: DMB Date: 07/01/20
Designed: PM Date: 07/01/20
Checked: AY Date: 07/01/20

Project Number:
1106-A0001-B

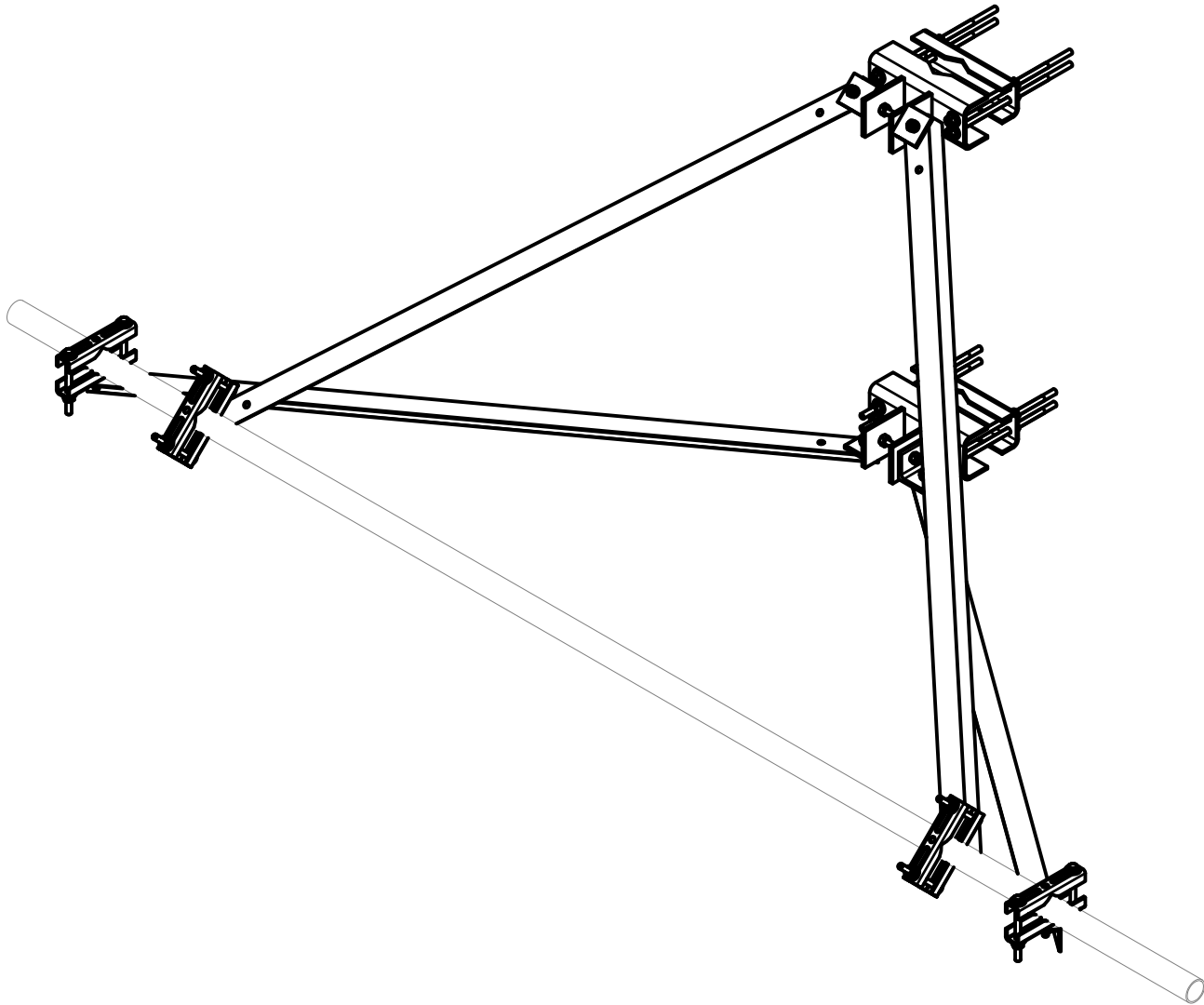
Project Title:
LEDYARD COLONEL RD.
CTL02184
FA# 10035428
889R COLONEL LEDYARD HIGHWAY
LEDYARD, CT 06339

Prepared For:
smartlink

Drawing Scale:
AS NOTED
Date:
07/01/20
0

Drawing Title
MOUNT MOD DETAILS

Drawing Number
S3

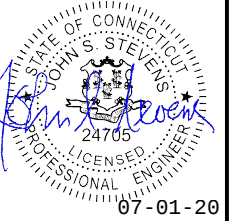


1 SITE PRO 1 P/N SFR-K-L
-- SCALE: NOT TO SCALE



INFINIGY ENGINEERING, PLLC
1033 Watervliet Shaker Rd
Albany, NY 12205
Office # (518) 690-0790
Fax # (518) 690-0793





07-01-20

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No.	Submittal / Revision	App'd	Date
0	ISSUED FOR REVIEW	DMB	07/01/20

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Project Title:
LEDYARD COLONEL RD.

CTL02184
FA# 10035428
889R COLONEL LEDYARD HIGHWAY
LEDYARD, CT 06339

Prepared For:


Drawing Scale:	0
<u>AS NOTED</u>	
Date: <u>07/01/20</u>	

Drawing Title
REQUIRED PARTS

Drawing Number
S4

ANTENNA MOUNT MODIFICATION DRAWINGS

PREPARED BY:

INFINIGY®

FROM ZERO TO INFINIGY
the solutions are endless

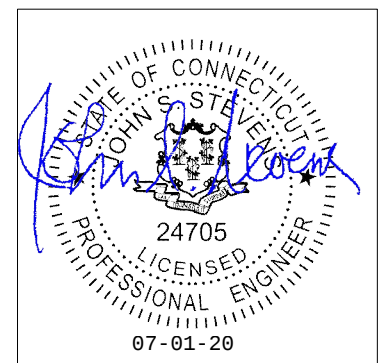


CTL02184
LEDYARD COLONEL RD.
889R COLONEL LEDYARD HIGHWAY
LEDYARD, CT 06339

07/01/20

INFINIGY JOB # 1106-A0001-B

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UNLESS THEY ARE ACTING UNDER THE
DIRECTION OF A LICENSED PROFESSIONAL
ENGINEER, TO ALTER THESE DOCUMENTS.

S1

GENERAL NOTES:

- THESE DOCUMENTS WERE DESIGNED IN ACCORDANCE WITH THE LATEST VERSION OF APPLICABLE LOCAL/STATE/COUNTY/CITY BUILDING CODES, AS WELL AS ANSI/TIA-222 STANDARD, AWWA-D100 STANDARD, NDS, NEC, MSJC, AND/OR THE LATEST VERSION OF THE INTERNATIONAL BUILDING CODE, UNLESS NOTED OTHERWISE IN THE CORRESPONDING STRUCTURAL REPORT.
- ALL CONSTRUCTION METHODS SHOULD FOLLOW STANDARDS OF GOOD CONSTRUCTION PRACTICE.
- ALL WORK INDICATED ON THESE DRAWINGS SHALL BE PERFORMED BY QUALIFIED CONTRACTORS EXPERIENCED IN SIMILAR CONSTRUCTION.
- ALL NEW WORK SHALL ACCOMMODATE EXISTING CONDITIONS. IF OBSTRUCTIONS ARE FOUND, CONTRACTOR SHALL NOTIFY ENGINEER OF RECORD PRIOR TO CONTINUING WORK.
- ANY CHANGES OR ADDITIONS MUST CONFORM TO THE REQUIREMENTS OF THESE NOTES AND SPECIFICATIONS, AND SHOULD BE SIMILAR TO THOSE SHOWN. ALL CHANGES OR ADDITIONS SHALL BE SUBMITTED TO THE ENGINEER OF RECORD FOR REVIEW AND APPROVAL PRIOR TO FABRICATION AND/OR CONSTRUCTION.
- THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN AND EXECUTION OF ALL MISCELLANEOUS SHORING, BRACING, TEMPORARY SUPPORTS, ETC. NECESSARY TO PROVIDE A COMPLETE AND STABLE STRUCTURE DURING CONSTRUCTION. TIA-1019-A-2011 IS AN APPROPRIATE REFERENCE FOR THOSE DESIGNS MEETING TIA STANDARDS. THE ENGINEER OF RECORD MAY PROVIDE FORMAL RIGGING PLANS AT THE REQUEST AND EXPENSE OF THE CONTRACTOR.
- INSTALLATION SHALL NOT INTERFERE NOR DENY ADEQUATE ACCESS TO OR FROM ANY EXISTING OR PROPOSED OPERATIONAL AND SAFETY EQUIPMENT.
- CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS PRIOR TO ANY FABRICATION. CONTACT INFINIGY ENGINEERING IF ANY DISCREPANCIES EXIST.

STEEL CONSTRUCTION NOTES:

- STRUCTURAL STEEL SHALL CONFORM TO THE AISC MANUAL OF STEEL CONSTRUCTION 14TH EDITION, FOR THE DESIGN AND FABRICATION OF STEEL COMPONENTS.
- ALL FIELD CUT SURFACES, FIELD DRILLED HOLES, AND GROUND SURFACES WHERE EXISTING PAINT OR GALVANIZATION REMOVAL WAS REQUIRED SHALL BE REPAIRED WITH (2) BRUSHED COATS OF ZRC GALVALITE COLD GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURERS' RECOMMENDATIONS.
- ALL FIELD DRILLED HOLES TO BE USED FOR FIELD BOLTING INSTALLATION SHALL BE STANDARD HOLES, AS DEFINED BY AISC, UNLESS NOTED OTHERWISE.
- ALL EXTERIOR STEEL WORK SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A123.
- ALL STEEL MEMBERS AND CONNECTIONS SHALL MEET THE FOLLOWING GRADES:
 - ANGLES, CHANNELS, PLATES AND BARS TO BE A36. Fy=36 KSI, U.N.O.
 - W SHAPES TO BE A992. Fy=50 KSI, U.N.O.
 - RECTANGULAR HSS TO BE A500, GRADE B. Fy=46 KSI, U.N.O.
 - ROUND HSS TO BE A500, GRADE B. Fy=42 KSI, U.N.O.
 - STEEL PIPE TO BE A53, GRADE B. Fy=35 KSI, U.N.O.
 - BOLTS TO BE A325-X. Fu=120 KSI, U.N.O.
 - U-BOLTS AND LAG SCREWS TO BE A307 GR A. Fu=60 KSI, U.N.O.
- ALL WELDING SHALL BE DONE USING E70XX ELECTRODES, U.N.O.
- ALL WELDING SHALL CONFORM TO AISC AND AWS D1.1 LATEST EDITION.
- ALL HILTI ANCHORS TO BE CARBON STEEL, U.N.O.
 - MECHANICAL ANCHORS: KWIK BOLT-TZ, U.N.O.
 - CMU BLOCK ANCHORS: ADHESIVE - HY120, U.N.O.
 - CONCRETE ANCHORS: ADHESIVE - HY150, U.N.O.
 - CONCRETE REBAR: ADHESIVE - RE500, U.N.O.
- ALL STUDS TO BE NELSON CAPACITOR DISCHARGE 1/4"-20 LOW CARBON STEEL COPPER-FLASH AT 55 KSI ULT/50 KSI YIELD, U.N.O.
- BOLTS SHALL BE TIGHTENED TO A "SNUG TIGHT" CONDITION AS DEFINED BY AISC.
- MINIMUM EDGE DISTANCES SHALL CONFORM TO AISC TABLE J3.4.

CONCRETE CONSTRUCTION NOTES:

- CONCRETE TO BE 4000 PSI @ 28 DAYS. REINFORCING BAR TO CONFORM TO ASTM A615 GRADE 60 SPECIFICATIONS. CONCRETE INSTALLATION TO CONFORM TO ACI-318 BUILDING REQUIREMENTS FOR REINFORCED CONCRETE. ALL CONCRETE TO BE PLACED AGAINST UNDISTURBED EARTH FREE OF WATER AND ALL FOREIGN OBJECTS AND MATERIALS. A MINIMUM OF THREE INCHES OF CONCRETE SHALL COVER ALL REINFORCEMENT. WELDING OF REBAR IS NOT PERMITTED.
- EXISTING CONCRETE SURFACES THAT ARE TO BE IN CONTACT WITH NEW PROPOSED CONCRETE SHOULD BE WIRE BRUSHED CLEAN AND TREATED WITH APPROPRIATE MECHANICAL SCRATCH COAT AND REPAIR MATERIALS OR APPROPRIATE CHEMICAL METHODS SUCH AS THE APPLICATION OF A BONDING AGENT, EX. SAKRETE OR EQUIVALENT, TO ENSURE A QUALITY BOND BETWEEN EXISTING AND PROPOSED CONCRETE SURFACES.

FIBER REINFORCED POLYMER (FRP) NOTES:

- FRP PLATES, SHAPES, BOLTS AND NUTS (STUD/NUT ASSEMBLIES) SHALL CONFORM TO ASTM D638, 695, 790. PLATES AND SHAPES TO BE Fy = 5.35 KSI LW (SAFETY FACTOR OF 8), .945 KSI CW (SAFETY FACTOR OF 8) MIN.
- IF FIELD FABRICATION IS REQUIRED, ALL CUT EDGES AND DRILLED HOLES TO BE SEALED USING VINYL ESTER SEALING KIT SUPPLIED BY THE MANUFACTURER.
- ALL FASTENERS TO BE 1/2" DIA FRP THREADED ROD WITH FIBER REINFORCED THERMOPLASTIC NUT, SPACED AT 12 INCHES ON CENTER MAXIMUM, U.N.O., FOR PANELS AND AS DESIGNED FOR STRUCTURAL MEMBERS.
- THE COLOR AND SURFACE PATTERN OF EXPOSED FRP PANELS SHALL MATCH THE EXTERIOR OF THE EXISTING BUILDING, U.N.O.
- STUD/NUT ASSEMBLIES SHOULD BE LUBRICATED FOR INSTALLATION
- ENSURE BEARING SURFACES OF THE NUTS ARE PARALLEL TO THE SURFACES BEING FASTENED.
- TORQUE BOLTS ACCORDING TO THE FOLLOWING TABLE:

INSTALLATION TORQUE TABLE		
SIZE	ULTIMATE TORQUE STRENGTH	RECOMMENDED MAXIMUM INSTALLATION TORQUE
3/8-16 UNC	8 FT-LBS	4 FT-LBS
1/2-13 UNC	18 FT-LBS	8 FT-LBS
5/8-11 UNC	35 FT-LBS	16 FT-LBS
3/4-10 UNC	50 FT-LBS	24 FT-LBS
1-8 UNC	110 FT-LBS	50 FT-LBS

- WHEN TIGHTENING FRP STUD/NUT ASSEMBLIES, WRENCHES MUST MAKE FULL CONTACT WITH ALL NUT EDGES. A STANDARD SIX POINT SOCKET IS RECOMMENDED.
- STUD/NUT ASSEMBLIES SHOULD BE BONDED BY APPLYING BONDING AGENT TO ENTIRE NUT AND EXPOSED STUD.
- ALL FRP MATERIALS TO BE PROVIDED BY FIBERGRATE COMPOSITE STRUCTURES, DALLAS TX, OR APPROVED EQUAL.
- ALL FRP SHAPES TO BE DYNAFORM PULTRUDED STRUCTURAL SHAPES.
- ALL FRP PLATES TO BE FIBERPLATE MOLDED FRP PLATE.
- ALL FRP PANELS TO BE FIBERPLATE CLADDING PANEL.
- EACH FRP PANEL TO BE IDENTIFIED WITH LARR#25536 AND FIBERGRATE COMPOSITE STRUCTURAL LABEL.
- FRP MATERIAL TO BE CLASSIFIED AS CC1 OR BETTER, AND HAVE MAXIMUM FLAME SPREAD OF 50.
- ALL DESIGN AND CONSTRUCTION TO BE COMPLETED IN ACCORDANCE WITH LOS ANGELES RESEARCH REPORT RR25536, DATED FEBRUARY 1, 2016.
- SPECIAL INSPECTIONS MUST BE PROVIDED FOR ALL FRP INSTALLMENTS. SEE SPECIAL INSPECTION SECTION, THIS SHEET.

RATIO OF EDGE DISTANCE TO FRP FASTENER DIAMETER		
	RANGE	RECOMMENDED
EDGE DISTANCE - CL* BOLT TO END	2.0-4.0	3.0
EDGE DISTANCE - CL* BOLT TO SIDE	1.5-3.5	2.5
BOLT PITCH - CL* TO CL*	4.0-5.0	5.0

WOOD CONSTRUCTION NOTES:

- ALL EXISTING WOOD SHAPES ARE ASSUMED TO BE DOUGLAS FIR-LARCH WITH A REFERENCE DESIGN BENDING VALUE OF 1000 PSI MIN.
- ALL PROPOSED WOOD SHAPES ARE TO BE DOUGLAS FIR-LARCH WITH A REFERENCE DESIGN BENDING VALUE OF 1000 PSI MIN. U.N.O.
- ALL EXISTING AND PROPOSED GLUED LAMINATED TIMBERS ARE TO BE 24F-1.8C DOUGLAS FIR BALANCED WITH A REFERENCE DESIGN BENDING VALUE OF 2400 PSI MIN. U.N.O.

MASONRY CONSTRUCTION NOTES:

- ALL BRICK TO BE 1500 PSI MIN. REINFORCING BAR (IF APPLICABLE) TO CONFORM TO ASTM A615 GRADE 60 SPECIFICATIONS. ALL MORTAR TO BE 2000 PSI MIN.
 - FOR INTERIOR/ABOVE GRADE APPLICATIONS TYPE N MORTAR HAVING MINIMUM MODULUS OF RUPTURE OF 100 PSI SHALL BE USED. FOR EXTERIOR/BELOW GRADE APPLICATIONS TYPE M OR S MORTAR HAVING A MINIMUM MODULUS OF RUPTURE OF 133 PSI.
 - BRICK AND MORTAR INSTALLATION TO CONFORM TO MSJC BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES.
- ALL CMU TO BE 1500 PSI MIN. REINFORCING BAR (IF APPLICABLE) TO CONFORM TO ASTM A615 GRADE 60 SPECIFICATIONS. ALL MORTAR TO BE 2000 PSI MIN.
 - FOR INTERIOR/ABOVE GRADE APPLICATIONS, TYPE N MORTAR HAVING MINIMUM MODULUS OF RUPTURE OF 64 PSI SHALL BE USED FOR UNGROUTED BLOCKS, AND 158 PSI FOR FULLY GROUTED BLOCKS.
 - FOR EXTERIOR/BELOW GRADE APPLICATIONS TYPE M OR S MORTAR HAVING A MINIMUM MODULUS OF RUPTURE OF 84 PSI SHALL BE USED FOR UNGROUTED BLOCKS, AND 163 PSI FOR FULLY GROUTED BLOCKS.
 - BRICK AND MORTAR INSTALLATION TO CONFORM TO MSJC BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES.

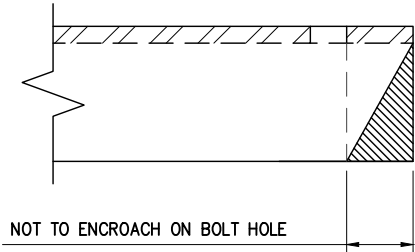
TOWER PLUMB & TENSION NOTES:

- PLUMB AND TENSION TOWER UPON COMPLETION OF STRUCTURAL MODIFICATIONS DETAILED IN THESE DRAWINGS.
- RETENSIONING OF EXISTING GUY WIRES SHALL BE PERFORMED AT A TIME WHEN THE WIND VELOCITY IS LESS THAN 10 MPH AT GROUND LEVEL AND WITH NO ICE ON THE STRUCTURE AND GUY WIRES.
- PLUMB THE TOWER WHILE RETENSIONING THE EXISTING GUY WIRES. THE HORIZONTAL DISTANCE BETWEEN THE VERTICAL CENTERLINES AT ANY TWO ELEVATIONS SHALL NOT EXCEED 0.25% OF THE VERTICAL DISTANCE BETWEEN TWO ELEVATIONS FOR LATTICED STRUCTURES.
- THE TWIST BETWEEN ANY TWO ELEVATIONS THROUGHOUT THE HEIGHT OF A LATTICE STRUCTURE SHALL NOT EXCEED 0.5 DEGREES IN 10 FEET. THE MAXIMUM TWIST OVER THE LATTICE STRUCTURE HEIGHT SHALL NOT EXCEED 5 DEGREES.

SPECIAL INSPECTIONS NOTES:

- A QUALIFIED INDEPENDENT TESTING LABORATORY, EMPLOYED BY THE OWNER AND APPROVED BY THE JURISDICTION, SHALL PERFORM INSPECTION AND TESTING IN ACCORDANCE WITH THE THE GOVERNING BUILDING CODE, APPLICABLE SECTION(S) AS REQUIRED BY PROJECT SPECIFICATIONS FOR THE FOLLOWING CONSTRUCTION WORK:
 - STRUCTURAL WELDING (CONTINUOUS INSPECTION OF FIELD WELDS ONLY).
 - HIGH STRENGTH BOLTS (PERIODIC INSPECTION OF A325 AND/OR A490 BOLTS) TO BE TIGHTENED PER "TURN-OF-THE-NUT" METHOD.
 - MECHANICAL AND EPOXIED ANCHORAGES.
 - FIBER REINFORCED POLYMER.
 - THE SPECIAL INSPECTOR MUST VERIFY THAT THE FRP MATERIAL SPECIFIED ON THE APPROVED DESIGN DOCUMENTS IS BEING INSTALLED.
 - THE SPECIAL INSPECTOR MUST VERIFY THAT ALL CUT EDGES AND DRILLED HOLES ARE PROPERLY SEALED USING A VINYL ESTER SEALING KIT SUPPLIED BY THE MANUFACTURER.
 - THE SPECIAL INSPECTOR MUST VERIFY THAT THE STRUCTURE IS BUILT IN ACCORDANCE WITH THE APPROVED DESIGN DOCUMENTS.
- THE INSPECTION AGENCY SHALL SUBMIT INSPECTION AND TEST REPORTS TO THE BUILDING DEPARTMENT, THE ENGINEER OF RECORD, AND THE OWNER UNLESS THE FABRICATOR IS APPROVED BY THE BUILDING OFFICIAL TO PERFORM WORK WITHOUT THE SPECIAL INSPECTIONS.

MAXIMUM ALLOWABLE ANGLE CLIP

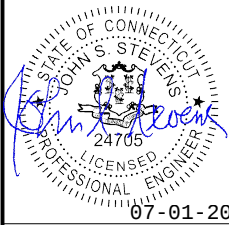


INFINIGY

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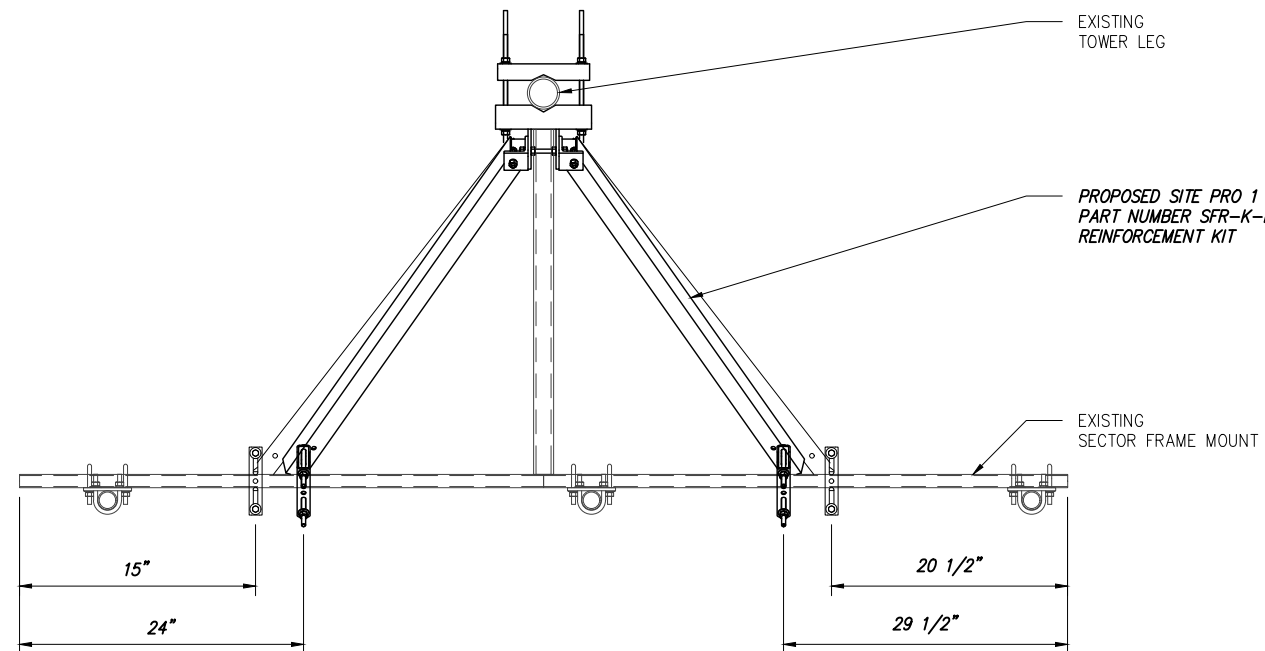
Project Title:
LEDYARD COLONEL RD.
CTL02184
FA# 10035428
889R COLONEL LEDYARD HIGHWAY
LEDYARD, CT 06339

Prepared For:
smartlink

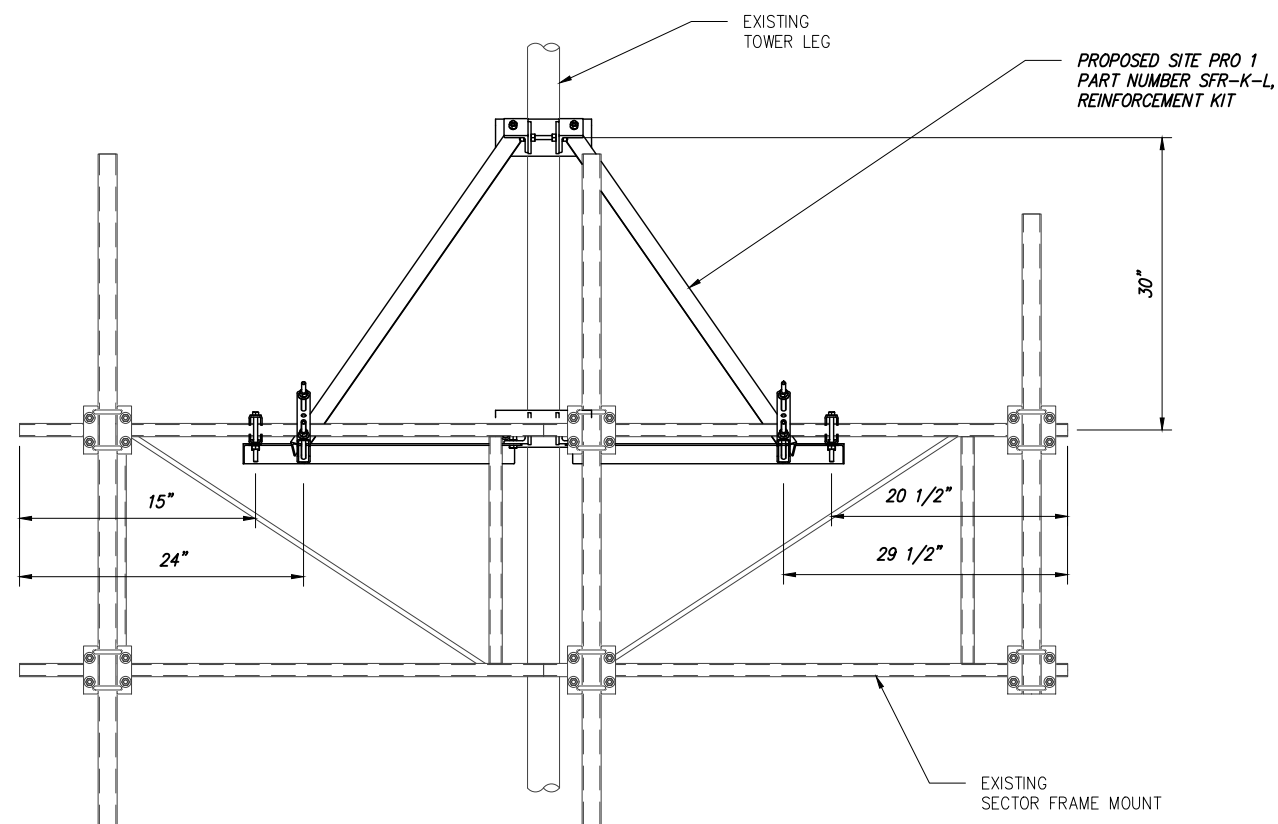
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Date:
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Drawing Title
GENERAL NOTES

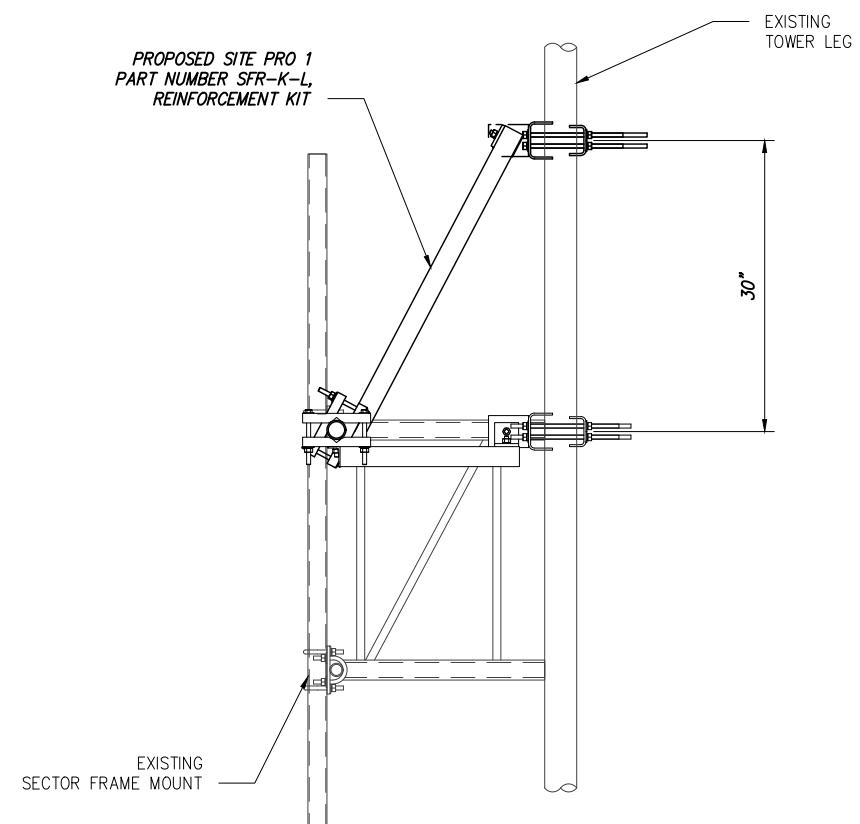
Drawing Number
S2



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SCALE: NOT TO SCALE



2 ELEVATION VIEW
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3 SIDE VIEW
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LEDYARD, CT 06339

Prepared For:
smartlink

Drawing Scale:
AS NOTED
Date:
07/01/20
0

Drawing Title
MOUNT MOD DETAILS

Drawing Number
S3

Kristina Cottone

From: TrackingUpdates@fedex.com
Sent: Wednesday, September 2, 2020 3:01 PM
To: Kristina Cottone
Subject: FedEx Shipment 771293422607: Your package has been delivered



Hi. Your package was
delivered Wed, 09/02/2020 at
2:57pm.



Delivered to 741 COLONEL LEDYARD HIGHWAY, LEDYARD, CT 06339
Received by A.CHRISTINA

OBTAIN PROOF OF DELIVERY

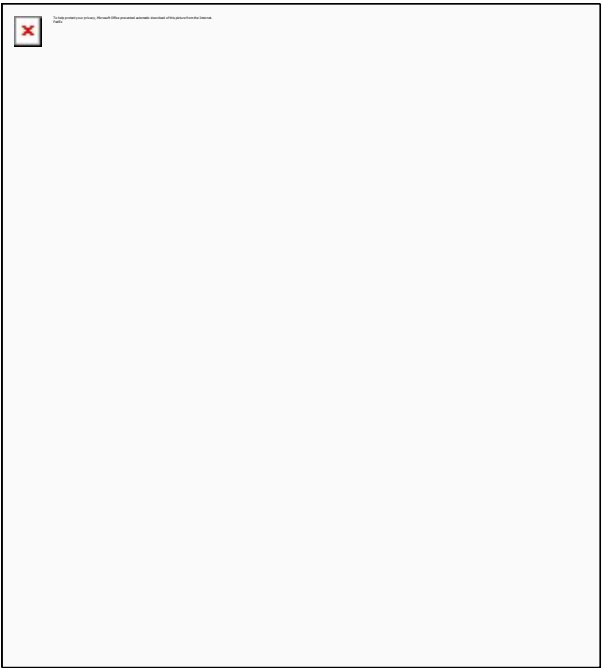
TRACKING NUMBER [771293422607](#)

FROM Smartlink LLC
85 Rangeway Road
Building 3 Suite 102
NORTH BILLERICA, MA, US, 01862

TO Town of Milford
ATTN: Fred Allyn, II , Mayor

741 Colonel Ledyard Highway
LEDYARD, CT, US, 06339

REFERENCE	CTL02184 - Ledyard
SHIPPER REFERENCE	CTL02184 - Ledyard
SHIP DATE	Mon 8/31/2020 07:32 PM
DELIVERED TO	Receptionist/Front Desk
PACKAGING TYPE	FedEx Envelope
ORIGIN	NORTH BILLERICA, MA, US, 01862
DESTINATION	LEDYARD, CT, US, 06339
NUMBER OF PIECES	1
TOTAL SHIPMENT WEIGHT	4.00 LB
SERVICE TYPE	FedEx Express Saver

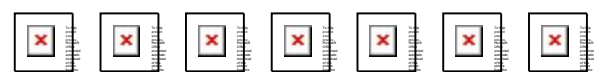


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Kristina Cottone

From: TrackingUpdates@fedex.com
Sent: Wednesday, September 2, 2020 3:02 PM
To: Kristina Cottone
Subject: FedEx Shipment 771293275811: Your package has been delivered



Hi. Your package was
delivered Wed, 09/02/2020 at
2:57pm.



Delivered to 741 COLONEL LEDYARD HIGHWAY, LEDYARD, CT 06339
Received by A.DEB

OBTAIN PROOF OF DELIVERY

TRACKING NUMBER [771293275811](#)

FROM Smartlink LLC
85 Rangeway Road
Building 3 Suite 102
NORTH BILLERICA, MA, US, 01862

TO Town of Milford
ATTN: Building Department Randy D.

741 Colonel Ledyard Highway
LEDYARD, CT, US, 06339

REFERENCE	CTL02184 - Ledyard
SHIPPER REFERENCE	CTL02184 - Ledyard
SHIP DATE	Mon 8/31/2020 07:32 PM
DELIVERED TO	Receptionist/Front Desk
PACKAGING TYPE	FedEx Envelope
ORIGIN	NORTH BILLERICA, MA, US, 01862
DESTINATION	LEDYARD, CT, US, 06339
NUMBER OF PIECES	1
TOTAL SHIPMENT WEIGHT	3.00 LB
SERVICE TYPE	FedEx Express Saver



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Kristina Cottone

From: auto-reply@usps.com
Sent: Thursday, September 3, 2020 2:00 PM
To: Kristina Cottone
Subject: USPS® Item Delivered, PO Box 9505510019670244311177



Hello **Kristina Cottone**,

Your item has been delivered and is available at a PO Box at 9:26 am on September 2, 2020 in LEDYARD, CT 06339.

Tracking Number: [9505510019670244311177](#)

Delivered, PO Box



Tracking & Delivery Options

My Account

Visit [USPS Tracking®](#) to check the most up-to-date status of your package. Sign up for [Informed Delivery®](#) to digitally preview the address side of your incoming letter-sized mail and manage your packages scheduled to arrive soon! To update how frequently you receive emails from USPS, log in to your [USPS.com](#) account.

Want regular updates on your package? [Set up text alerts.](#)

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SHEET INDEX	
NO.	DESCRIPTION
T1	TITLE SHEET
C1	GENERAL NOTES
C2	OVERALL SITE PLAN
C2A	ENLARGED SITE PLAN
C3	ELEVATION VIEW
C4	ANTENNA ORIENTATION PLAN
C5	EQUIPMENT DETAILS
C6	PLUMBING DIAGRAM
C7	GROUNDING DETAILS
S1-S4	TOWER MODIFICATION DETAILS
S1-S4	MOUNT MODIFICATION DETAILS

DRIVING DIRECTIONS

FROM 550 COCHITUATE RD.:

GET ON I-90 WEST/MASSACHUSETTS TURNPIKE. HEAD NORTHWEST TOWARD LEGGATT MCCALL CONN. TURN LEFT ONTO LEGGATT MCCALL CONN. CONTINUE ONTO BURR STREET. TURN LEFT ONTO COCHITUATE ROAD. USE THE RIGHT LANE TO TAKE THE RAMP TO I-90 EAST/MASSPIKE WEST/SPRINGFIELD/BOSTON. KEEP LEFT AT THE FORK, FOLLOW SIGNS FOR I-90 WEST/MASSACHUSETTS TURNPIKE/WORCESTER/SPRINGFIELD AND MERGE ONTO I-90 WEST/MASSACHUSETTS TURNPIKE. FOLLOW I-90 WEST/MASSACHUSETTS TURNPIKE AND I-395 SOUTH TO GRISWOLD EXPY IN GRISWOLD. TAKE EXIT 22 FROM I-395 SOUTH. MERGE ONTO I-90 WEST/MASSACHUSETTS TURNPIKE. TAKE EXIT 10 TOWARD MA-12 NORTH/AUBURN/WORCESTER. KEEP RIGHT AT THE FORK, FOLLOW SIGNS FOR I-395 SOUTH/US-20 EAST/NORWICH CT AND MERGE ONTO I-395 SOUTH. TAKE EXIT 22 FOR CT-138 TOWARD CT-164/JEWETT CITY/GRISWOLD. TAKE CT-164 AND MATHEWSON MILL ROAD TO YOUR DESTINATION IN LEDYARD. CONTINUE STRAIGHT ONTO GRISWOLD EXPY. TURN LEFT ONTO CT-164 SOUTH. TURN RIGHT ONTO CT-2 WEST. TURN LEFT ONTO MATHEWSON MILL ROAD. CONTINUE ONTO CHURCH HILL ROAD. TURN RIGHT ONTO SPICER HILL ROAD. CONTINUE STRAIGHT ONTO J. ALFRED CLARK LN. TURN LEFT.

LOCATION MAP





PROJECT

LTE 3C/4C/5G NR/RETROFIT

SITE NAME

LEDYARD COLONEL RD.

CELL SITE ID

CTL02184

FA SITE NUMBER

10035428

PAGE ID

MRCTB047350/MRCTB047387/MRCTB047400
MRCTB047457/MRCTB047373/MRCTB047401

SITE ADDRESS

889R COLONEL LEDYARD HIGHWAY
LEDYARD, CT 06339

STRUCTURE TYPE

GUYED

PROJECT TEAM	
 PROJECT MANAGER	 1033 Watervliet Shaker Rd Albany, NY 12205 Office # (518) 690-0790 Fax # (518) 690-0793 ENGINEER

SCOPE OF WORK (PER LTE RFDS, DATED 08/10/2020 V2.00):		
- HANDICAP ACCESS REQUIREMENTS ARE NOT REQUIRED. - FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. - FACILITY HAS NO PLUMBING OR REFRIGERANTS. - THIS FACILITY SHALL MEET OR EXCEED ALL FAA AND FCC REGULATORY REQUIREMENTS. - ALL NEW MATERIAL SHALL BE FURNISHED AND INSTALLED BY CONTRACTOR UNLESS NOTED OTHERWISE. EQUIPMENT, ANTENNAS/RRU AND CABLES FURNISHED BY OWNER AND INSTALLED BY CONTRACTOR.	TOWER - REMOVE (3) 7770 PANEL ANTENNAS - REMOVE (2) P65-17-XLH-RR PANEL ANTENNAS - REMOVE (1) AM-X-CD-14-65-00T-RET PANEL ANTENNA - INSTALL (1) OP65R-BU4DA PANEL ANTENNAS - INSTALL (1) DMP65R-BU4DA PANEL ANTENNAS - INSTALL (2) OP65R-BU8DA PANEL ANTENNAS - INSTALL (2) DMP65R-BU8DA PANEL ANTENNAS - REMOVE (6) RRUS-11 - INSTALL (3) 4449 B5/B12 - INSTALL (3) 8843 B2/B66A - INSTALL (3) B14 4478 - REMOVE (6) DOPLEXERS - REMOVE (3) TMA UNITS - REMOVE (6) COAX CABLES - INSTALL (1) DC9 'SQUID' W/(1) FIBER CABLE AND (3) DC CABLES - INSTALL MOUNT AND TOWER MODIFICATIONS	GROUND - ADD 6630 - ADD IDLe CABLE - INSTALL FIBER MANAGEMENT BOX - INSTALL DC12 - INSTALL NETSURE 7100 POWER PLANT

PROJECT SUMMARY	
SITE NAME:	LEDYARD COLONEL RD.
CELL SITE ID:	CTL02184
FA SITE #:	10035428
SITE ADDRESS:	889R COLONEL LEDYARD HIGHWAY LEDYARD, CT 06339
COUNTY:	NEW LONDON
SITE COORDINATES:	
LATITUDE:	41.4619919° N (NAD 83)
LONGITUDE:	72.0236111° W (NAD 83)
RAD CENTER	±200' (AGL)
LANDLORD:	TOWN OF LEDYARD 741 COLONEL LEDYARD HIGHWAY LEDYARD, CT 06339
APPLICANT:	AT&T MOBILITY 550 COCHITUATE RD. FRAMINGHAM, MA 01701
CLIENT REPRESENTATIVE:	SMARTLINK, LLC 85 RANGEWAY RD., BUILDING 3, SUITE 102 NORTH BILLERICA, MA 01862
CONTACT:	SHARON KEEFE (978) 930-3918
ENGINEER:	INFINIGY 1033 WATERVLIET SHAKER ROAD ALBANY, NY 12205
CONTACT:	ALEX WELLER (518) 690-0790
BUILDING CODE:	2018 CT STATE BUILDING CODE 2015 INTERNATIONAL BUILDING CODE ANSI/TIA-222 G 2015 INTERNATIONAL PLUMBING CODE 2015 INTERNATIONAL MECHANICAL CODE 2015 INTERNATIONAL ENERGY CONSERVATION CODE 2017 NFPA 70
ELECTRICAL CODE:	NATIONAL ELECTRICAL CODE (LATEST EDITION)



Know what's below.
Call before you dig.

TO OBTAIN LOCATION OF PARTICIPANTS UNDERGROUND FACILITIES BEFORE YOU DIG IN CONNECTICUT, CONTACT CALL BEFORE YOU DIG TOLL FREE: 1-800-922-4455 OR www.cbyd.com

CONNECTICUT STATUTE REQUIRES MIN OF 2 WORKING DAYS NOTICE BEFORE YOU EXCAVATE



INFINIGY ENGINEERING, PLLC
1033 Watervliet Shaker Rd
Albany, NY 12205
Office # (518) 690-0790
Fax # (518) 690-0793



at&t



8/28/20

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2	ISSUED FOR PERMIT	BMM 08/28/20
1	ISSUED FOR PERMIT	BMM 06/24/20
0	ISSUED FOR REVIEW	MJB 06/23/20
No.	Submission / Revision	App'd Date
	BMM	Date: 06/23/20
	ASW	Date: 06/23/20
	ASW	Date: 06/23/20

Project Number: 499-006

Project Title: LEDYARD COLONEL RD.

CTL02184
FA# 10035428

889R COLONEL LEDYARD HIGHWAY
LEDYARD, CT 06339

Prepared For: smartlink

Drawing Scale: AS NOTED

Date: 08/28/20

Drawing Title: CD

Drawing Number: T1

EXISTING CARRIER EQUIPMENT
CONCRETE PAD (TYP.)

EXISTING CONCRETE
PIER (TYP.)

EXISTING CARRIER EQUIPMENT
STEEL PLATFORM (TYP.)

EXISTING AT&T
EQUIPMENT SHELTER

PROPOSED AT&T FIBER
MANAGEMENT BOX

PROPOSED AT&T (1) FIBER AND (3)
DC CABLES TO BE ROUTED WITH
EXISTING CABLES (REMOVE (6)
EXISTING 1-5/8" COAX CABLES)

EXISTING CARRIER
EQUIPMENT SHELTER (TYP.)

EXISTING DOUBLE SWING
ACCESS GATE (TYP.)

EXISTING
METER BANK

EXISTING
GENERATOR

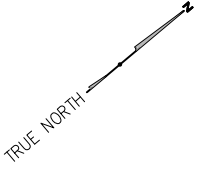
EXISTING FENCED EQUIPMENT
COMPOUND (TYP.)

EXISTING
GUYED TOWER

EXISTING AT&T
ICE BRIDGE (TYP.)

EXISTING CARRIER
ICE BRIDGE (TYP.)

BASEMAPPING PREPARED FROM A SITE WALK
PERFORMED BY INFINIGY ENGINEERING AND
PROVIDED INFORMATION, AND DOES NOT
REPRESENT AN ACTUAL FIELD SURVEY.



1 SITE PLAN
SCALE: AS NOTED

GRAPHIC SCALE:
10' 5' 0 5' 10'
SCALE (11x17): 1" = 10'-0"
SCALE (22x34): 1" = 5'-0"

INFINIGY

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889R COLONEL LEDYARD HIGHWAY
LEDYARD, CT 06339

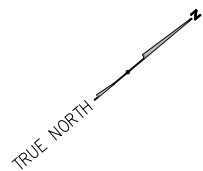
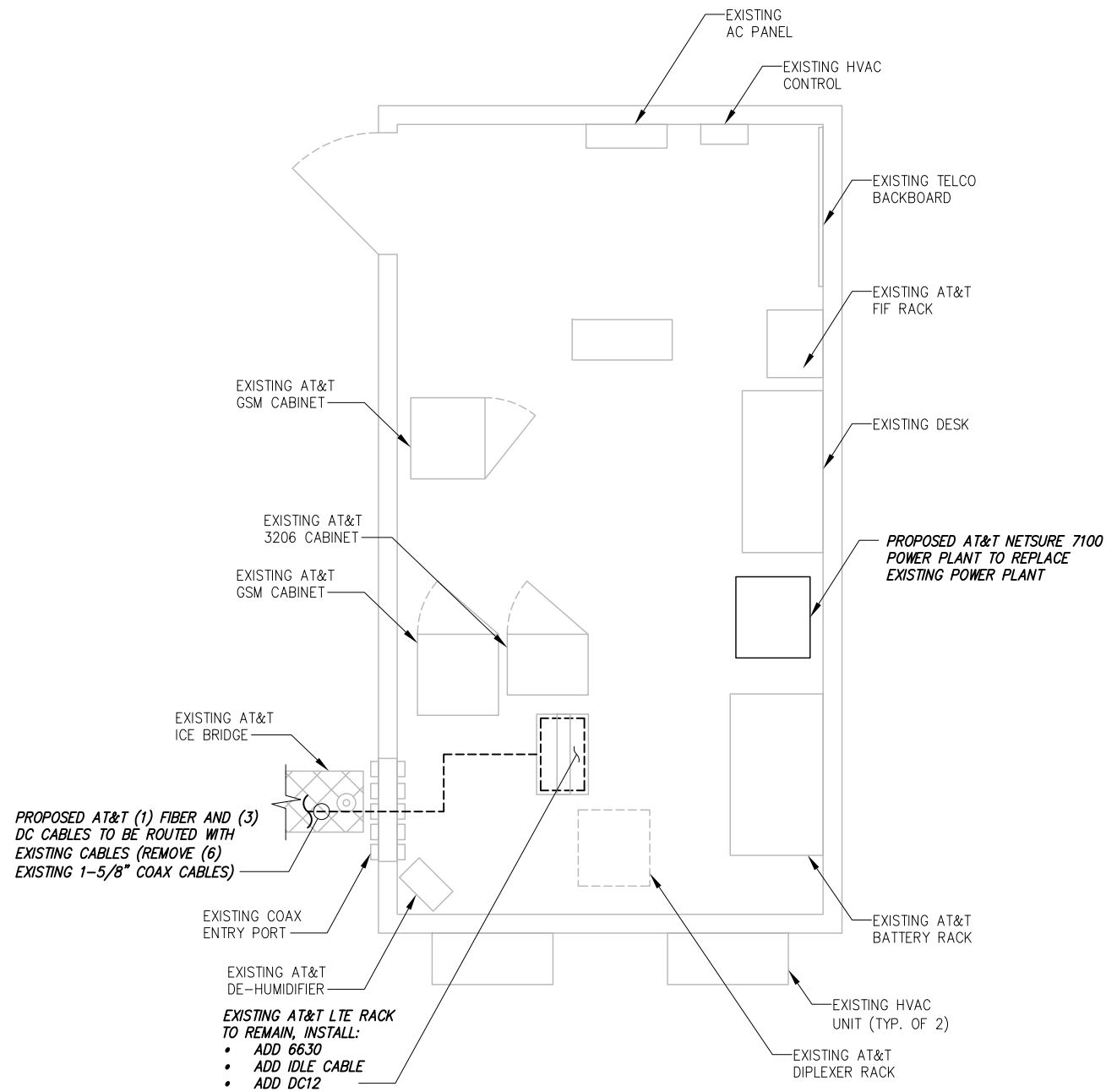


Drawing Scale:
AS NOTED
Date:
08/28/20

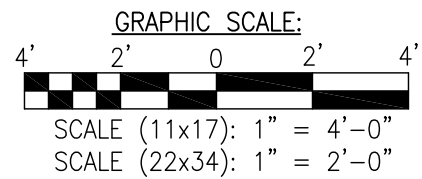
CD

Drawing Title
OVERALL
SITE PLAN

Drawing Number
C2

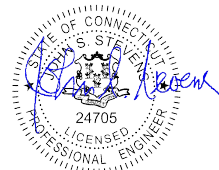


1 ENLARGED SITE PLAN
SCALE: AS NOTED



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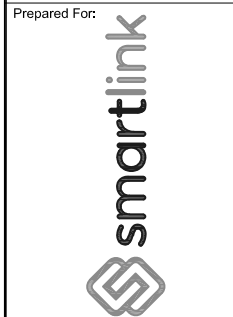
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LEDYARD, CT 06339



Drawing Scale:
AS NOTED
Date:
08/28/20

CD

Drawing Title
**ENLARGED
SITE PLAN**

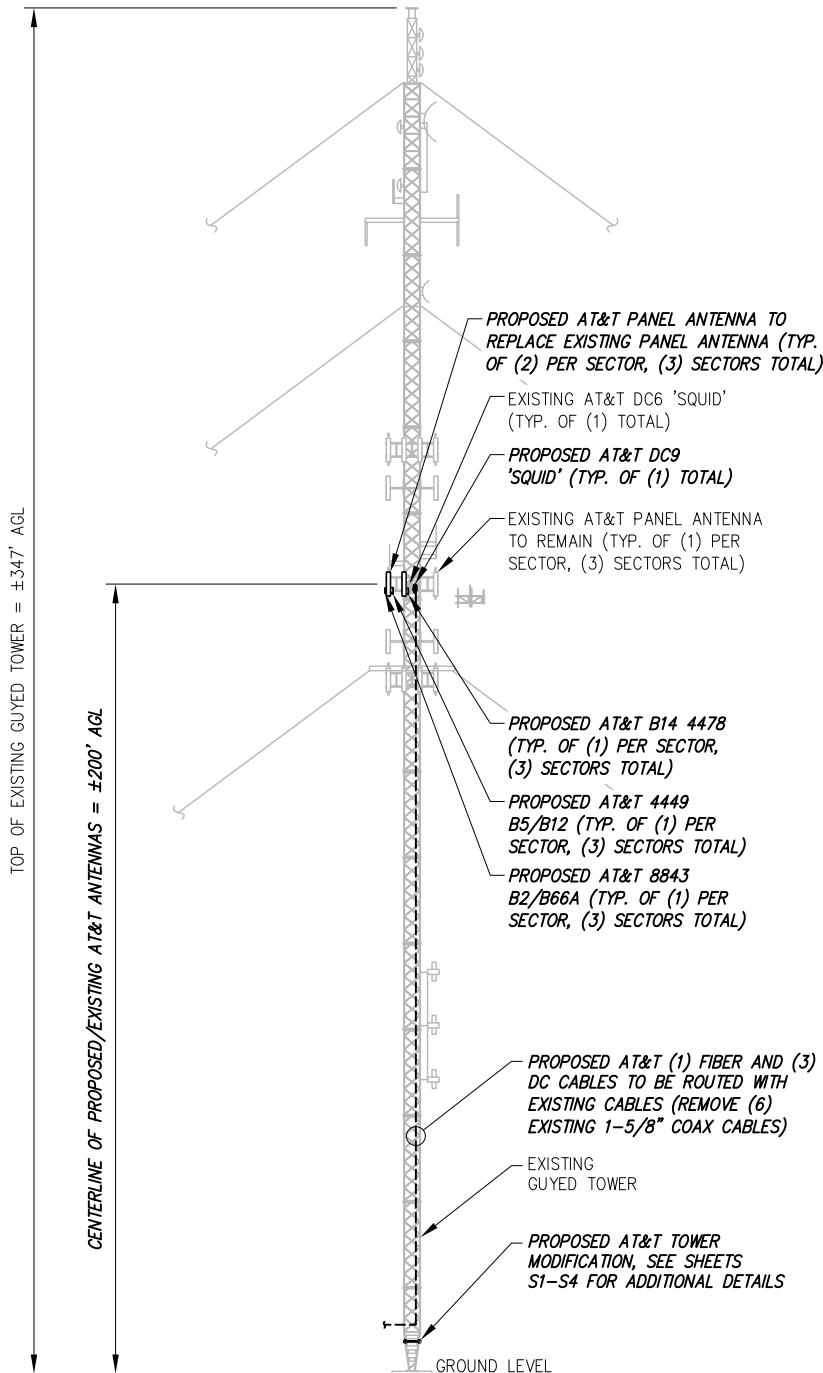
Drawing Number
C2A

NOTE:

- FOR STRUCTURAL INFORMATION PERTAINING TO THE TOWER, SEE 'STRUCTURAL MODIFICATION REPORT' COMPLETED BY INFINGY, DATED 08/04/20. SEE SHEETS S1-S4 FOR ADDITIONAL MODIFICATION DETAILS.
- FOR STRUCTURAL INFORMATION PERTAINING TO THE ANTENNA MOUNT, SEE 'POST MODIFICATION MOUNT ANALYSIS REPORT' COMPLETED BY INFINGY, DATED 07/01/20. SEE SHEETS S1-S4 FOR ADDITIONAL MODIFICATION DETAILS.

NOTE:

- 3' MINIMUM SEPARATION BETWEEN ALL LTE ANTENNAS
- 6' MINIMUM SEPARATION BETWEEN 700 BC/700 DE ANTENNAS



1 ELEVATION VIEW
NOT TO SCALE

FINAL ANTENNA CONFIGURATION & CABLE SCHEDULE BASED ON LTE RFDS DATED 08/10/20, V 2.00										
SECTOR	ANTENNA POSITION	ANTENNA STATUS & TECHNOLOGY	ANTENNA MANF/MODEL	TMA/DIPLEXER	RRUS	AZIMUTH	ANTENNA CL HEIGHT	CABLE FEEDER		RAYCAP UNIT
								TYPE	LENGTH	
ALPHA	A-1	(E) UMTS 850	POWERWAVE 7770	(1) (E) CCI DTMABP7819VG12A	--	143°	±200'	(2) (E) 1-5/8 COAX CABLES	±217'	(1) (E) DC6 'SQUID' (1) (P) DC9 'SQUID'
	A-2	--	--	--	--	--	--	--	--	
	A-3	(P) LTE 700/AWS	CCI OPA65R-BU4DA	--	(1) (P) B14 4478	70°	±200'	(2) (E) DC CALES (1) (E) FIBER CABLE	--	
	A-4	(P) LTE 700/850/1900/5G 850	CCI DMP65R-BU4DA	--	(1) (P) 4449 B5/B12 (1) (P) 8843 B2/B66A	70°	±200'	SEE A-2 FOR CABLE INFORMATION	--	
BETA	B-1	(E) UMTS 850	POWERWAVE 7770	(1) (E) CCI DTMABP7819VG12A	--	263°	±200'	(2) (E) 1-5/8 COAX CABLES	±217'	
	B-2	--	--	--	--	--	--	--	--	
	B-3	(P) LTE 700/AWS	CCI OPA65R-BU8DA	--	(1) (P) B14 4478	180°	±200'	(1) (P) FIBER CABLE (3) (P) DC CABLES	--	
	B-4	(P) LTE 700/850/1900/5G 850	CCI DMP65R-BU8DA	--	(1) (P) 4449 B5/B12 (1) (P) 8843 B2/B66A	180°	±200'	SEE A-2 FOR CABLE INFORMATION	--	
GAMMA	G-1	(E) UMTS 850	POWERWAVE 7770	(1) (E) CCI DTMABP7819VG12A	--	23°	±200'	(2) (E) 1-5/8 COAX CABLES	±217'	
	G-2	--	--	--	--	--	--	--	--	
	G-3	(P) LTE 700/AWS	CCI OPA65R-BU8DA	--	(1) (P) B14 4478	310°	±200'	SEE A-2 FOR CABLE INFORMATION	--	
	G-4	(P) LTE 700/850/1900/5G 850	CCI DMP65R-BU8DA	--	(1) (P) 4449 B5/B12 (1) (P) 8843 B2/B66A	310°	±200'	SEE A-2 FOR CABLE INFORMATION	--	

2 AT&T ANTENNA SCHEDULE
NOT TO SCALE

INFINGY

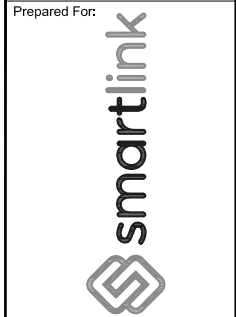
INFINGY ENGINEERING, PLLC
1033 Watervliet Shaker Rd
Albany, NY 12205
Office # (518) 690-0790
Fax # (518) 690-0793



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499-006			

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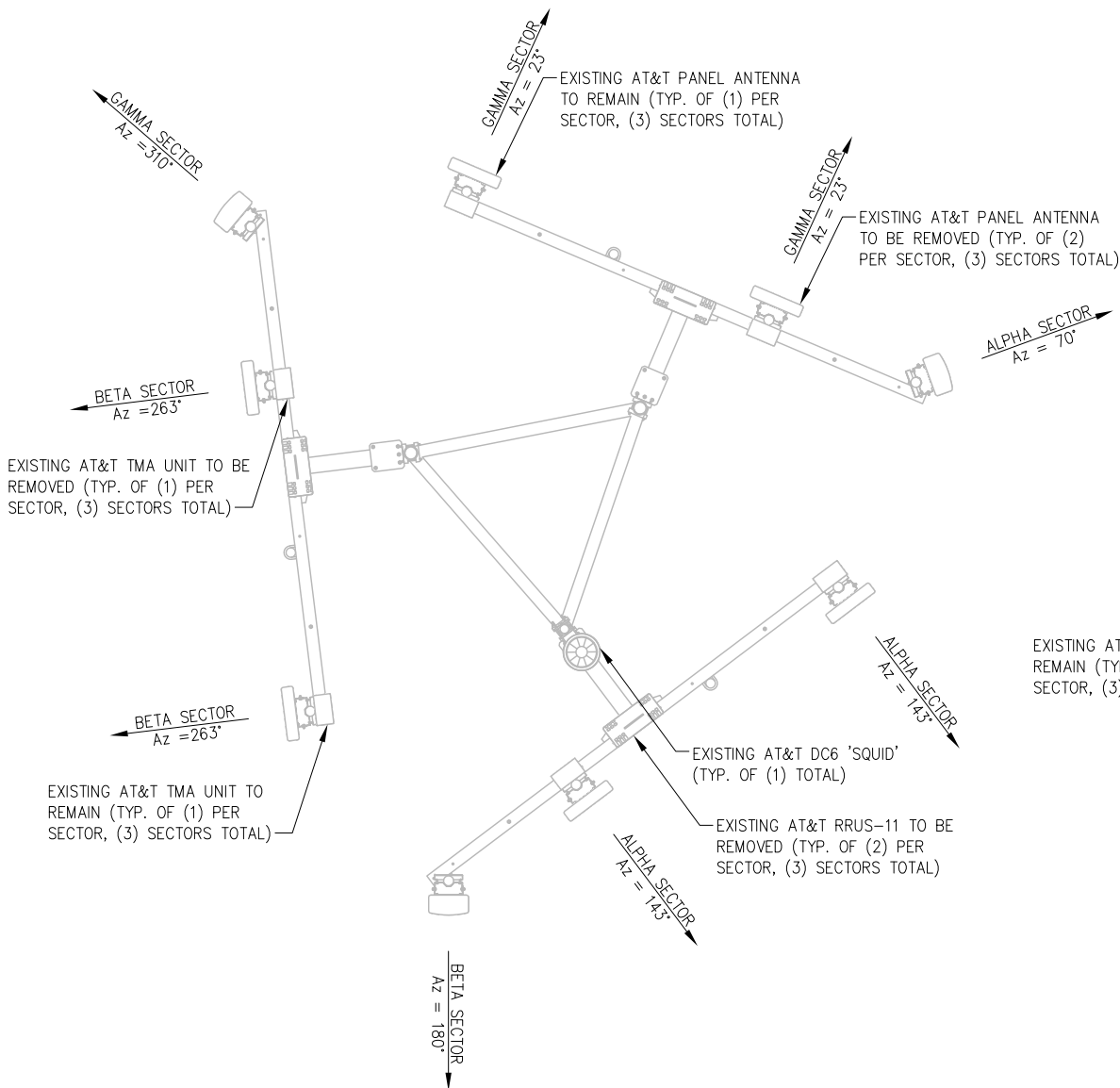


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Date:
08/28/20

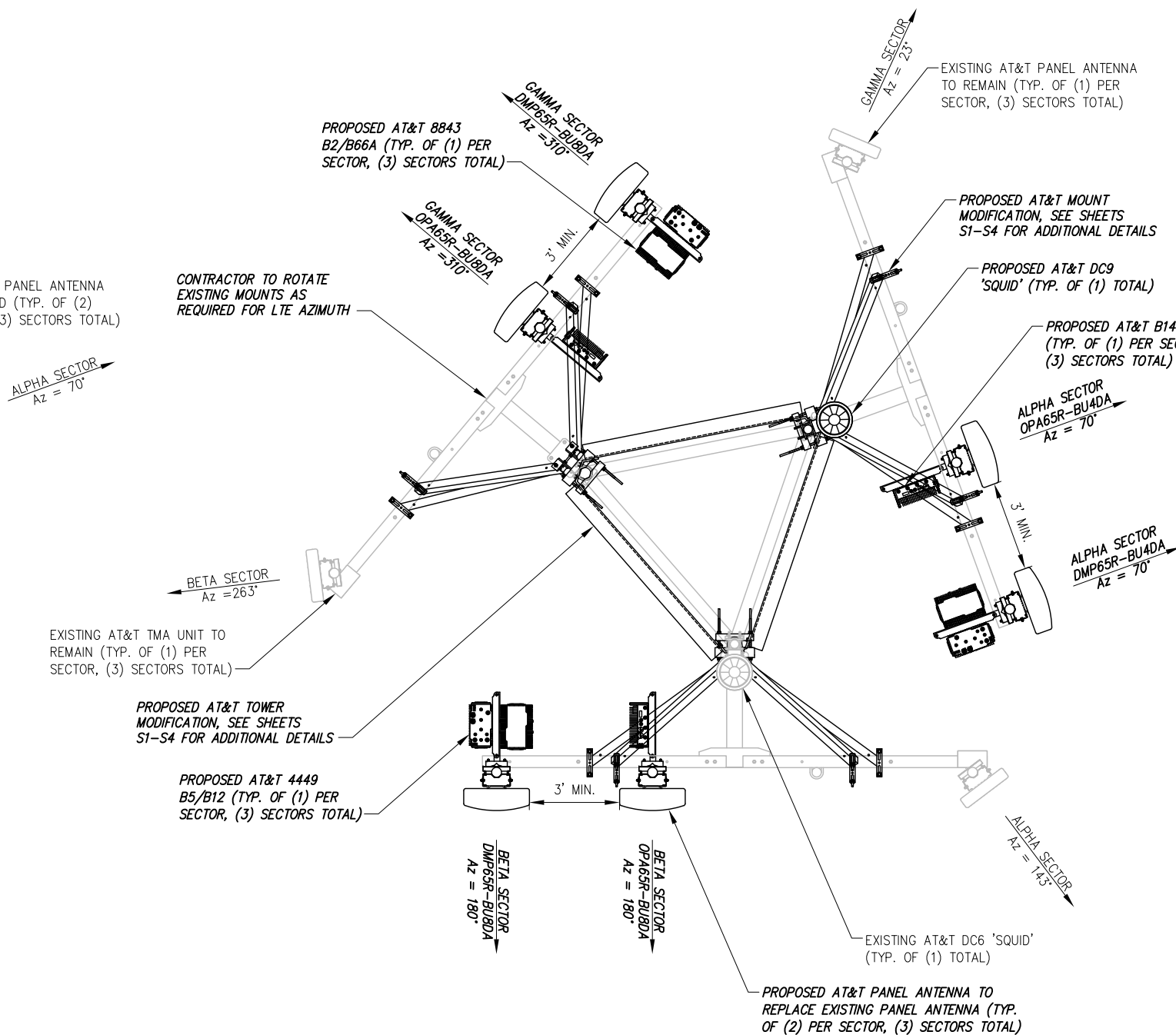
CD

Drawing Title
ELEVATION VIEW

Drawing Number
C3



1 EXISTING ANTENNA ORIENTATION PLAN
-- NOT TO SCALE



2 PROPOSED ANTENNA ORIENTATION PLAN
-- NOT TO SCALE

NOTE:
• 3' MINIMUM SEPARATION BETWEEN ALL LTE ANTENNAS
• 6' MINIMUM SEPARATION BETWEEN 700 BC/700 DE ANTENNAS

NOTE:
• FOR STRUCTURAL INFORMATION PERTAINING TO THE TOWER, SEE 'STRUCTURAL MODIFICATION REPORT' COMPLETED BY INFINIGY, DATED 08/04/20. SEE SHEETS S1-S4 FOR ADDITIONAL MODIFICATION DETAILS.
• FOR STRUCTURAL INFORMATION PERTAINING TO THE ANTENNA MOUNT, SEE 'POST MODIFICATION MOUNT ANALYSIS REPORT' COMPLETED BY INFINIGY, DATED 07/01/20. SEE SHEETS S1-S4 FOR ADDITIONAL MODIFICATION DETAILS.

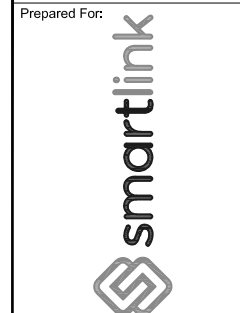
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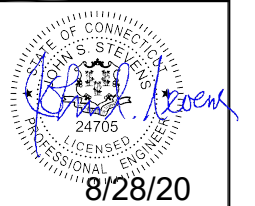
Project Title:
LEDYARD COLONEL RD.
CTL02184
FA# 10035428
889R COLONEL LEDYARD HIGHWAY
LEDYARD, CT 06339



Drawing Scale:
AS NOTED
Date:
08/28/20

Drawing Title
ANTENNA ORIENTATION PLAN

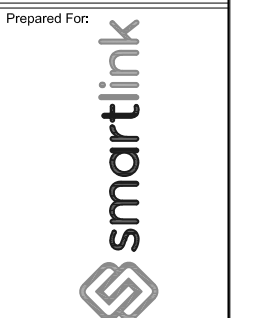
Drawing Number
C4



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	Designed: ASW	Date: 06/23/20	
	Checked: ASW	Date: 06/23/20	
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499-006			

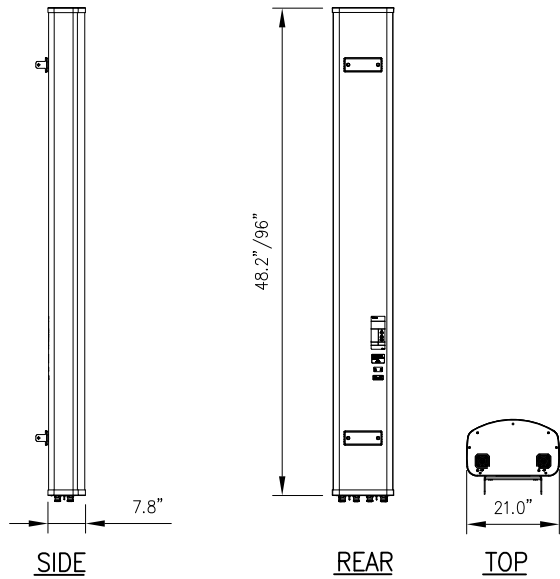
Project Title:
LEDYARD COLONEL RD.
CTL02184
FA# 10035428
889R COLONEL LEDYARD HIGHWAY
LEDYARD, CT 06339



Drawing Scale:
AS NOTED
Date:
08/28/20

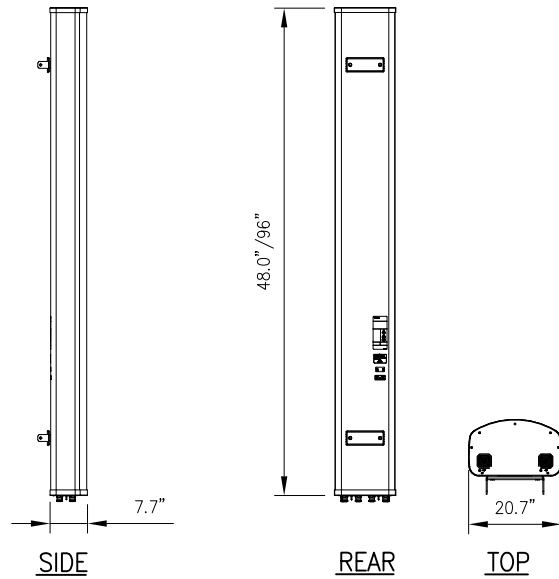
Drawing Title
EQUIPMENT DETAILS

Drawing Number
C5



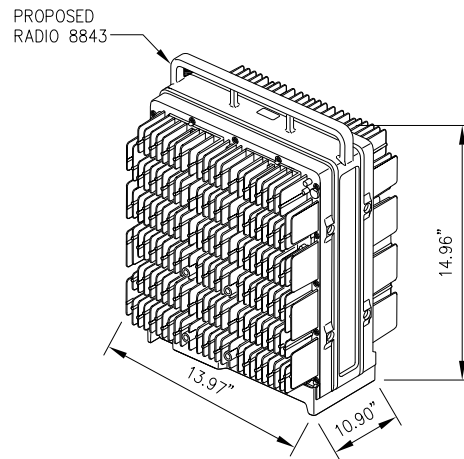
CCI MODEL NO.:	OPA65R-BU4DA/BU8DA
RADOME MATERIAL:	FIBERGLASS
RADOME COLOR:	LIGHT GRAY
DIMENSIONS, HxWxD:	48.2"/96"x21.0"x7.8"
WEIGHT, W/ PRE-MOUNTED BRACKETS:	52.5/76.5 LBS
CONNECTOR:	7-16 DIN FEMALE

1 ANTENNA DETAIL
NOT TO SCALE



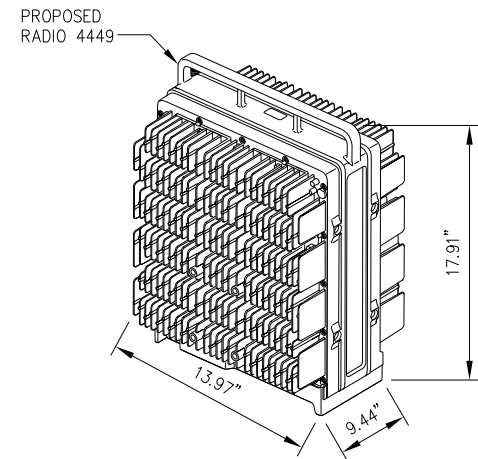
CCI MODEL NO.:	DMP65R-BU4DA/BU8DA
RADOME MATERIAL:	FIBERGLASS
RADOME COLOR:	LIGHT GRAY
DIMENSIONS, HxWxD:	48.0"/96"x20.7"x7.7"
WEIGHT, W/ PRE-MOUNTED BRACKETS:	67.9/95.7 LBS
CONNECTOR:	7-16 DIN FEMALE

1 ANTENNA DETAIL
NOT TO SCALE



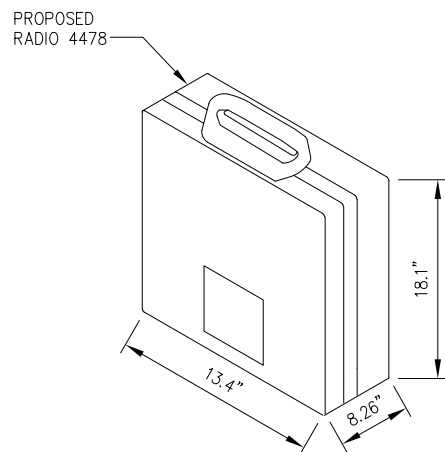
RADIO 8843 SPECIFICATIONS
• HxWxD, (INCHES) : 14.96"x13.97"x10.90"
• WEIGHT (LBS) : 71.87
• COLOR : GRAY

3 ERICSSON RADIO 8843 DETAIL
NOT TO SCALE



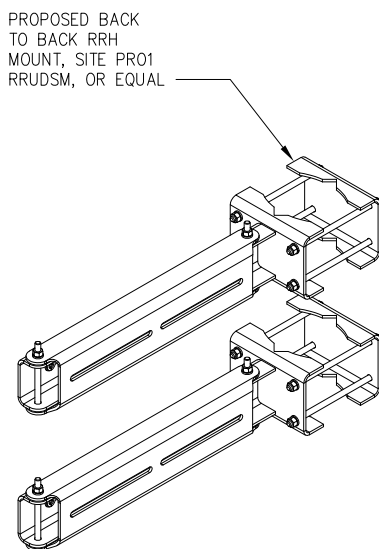
RADIO 4449 SPECIFICATIONS
• HxWxD, (INCHES) : 17.91"x13.97"x9.44"
• WEIGHT (LBS) : 70.54
• COLOR : GRAY

4 ERICSSON RADIO 4449 DETAIL
NOT TO SCALE

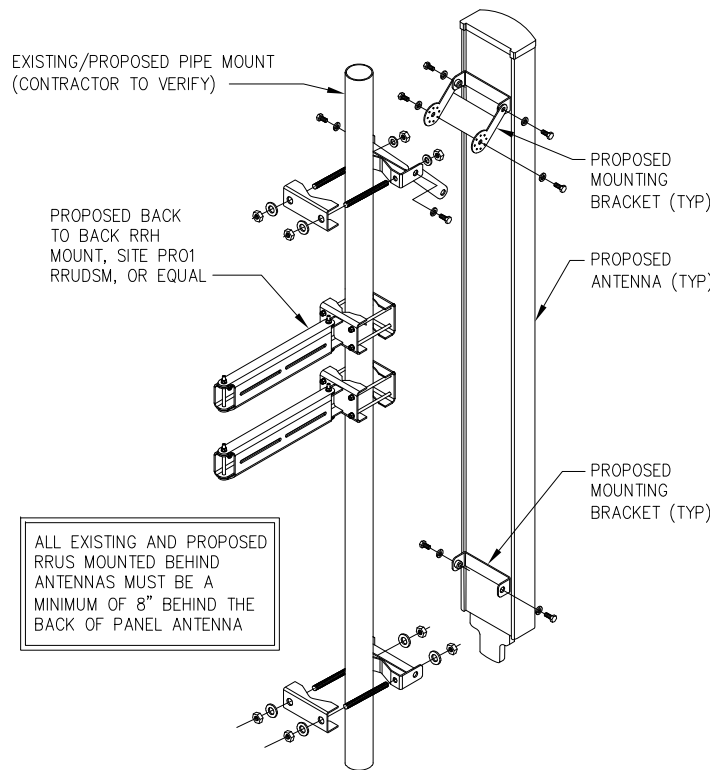


RADIO 4478-B14 SPECIFICATIONS
• HxWxD, (INCHES) : 18.1"x13.4"x8.26"
• WEIGHT (LBS) : 59.5
• COLOR : GRAY
• MOUNTING BRACKET: SXK1250244/1

5 ERICSSON RADIO 4478-B14 DETAIL
NOT TO SCALE

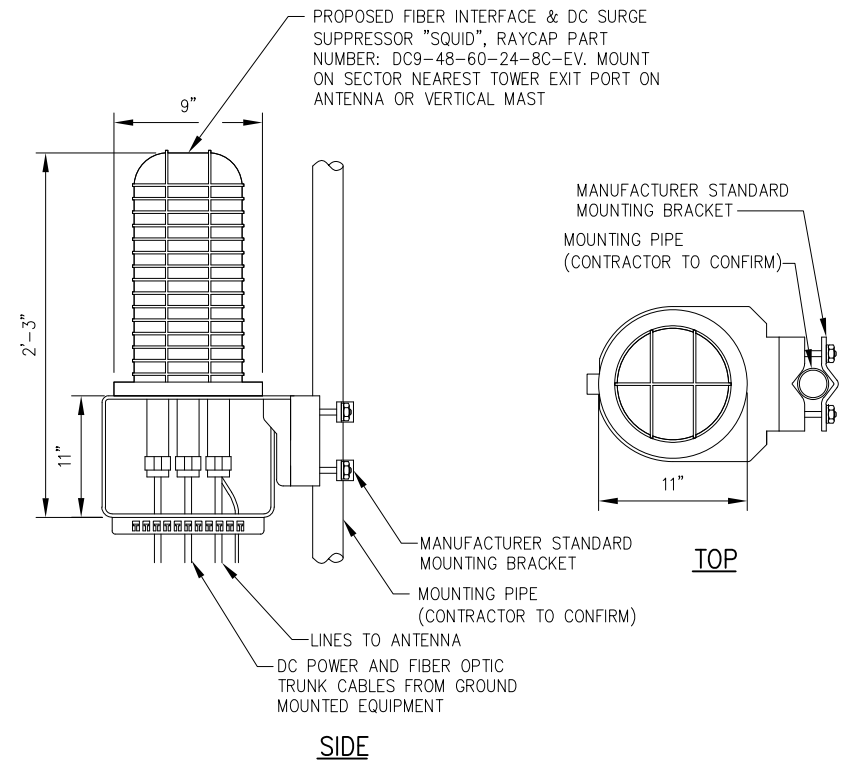


6 BACK TO BACK PIPE MOUNT DETAIL
NOT TO SCALE

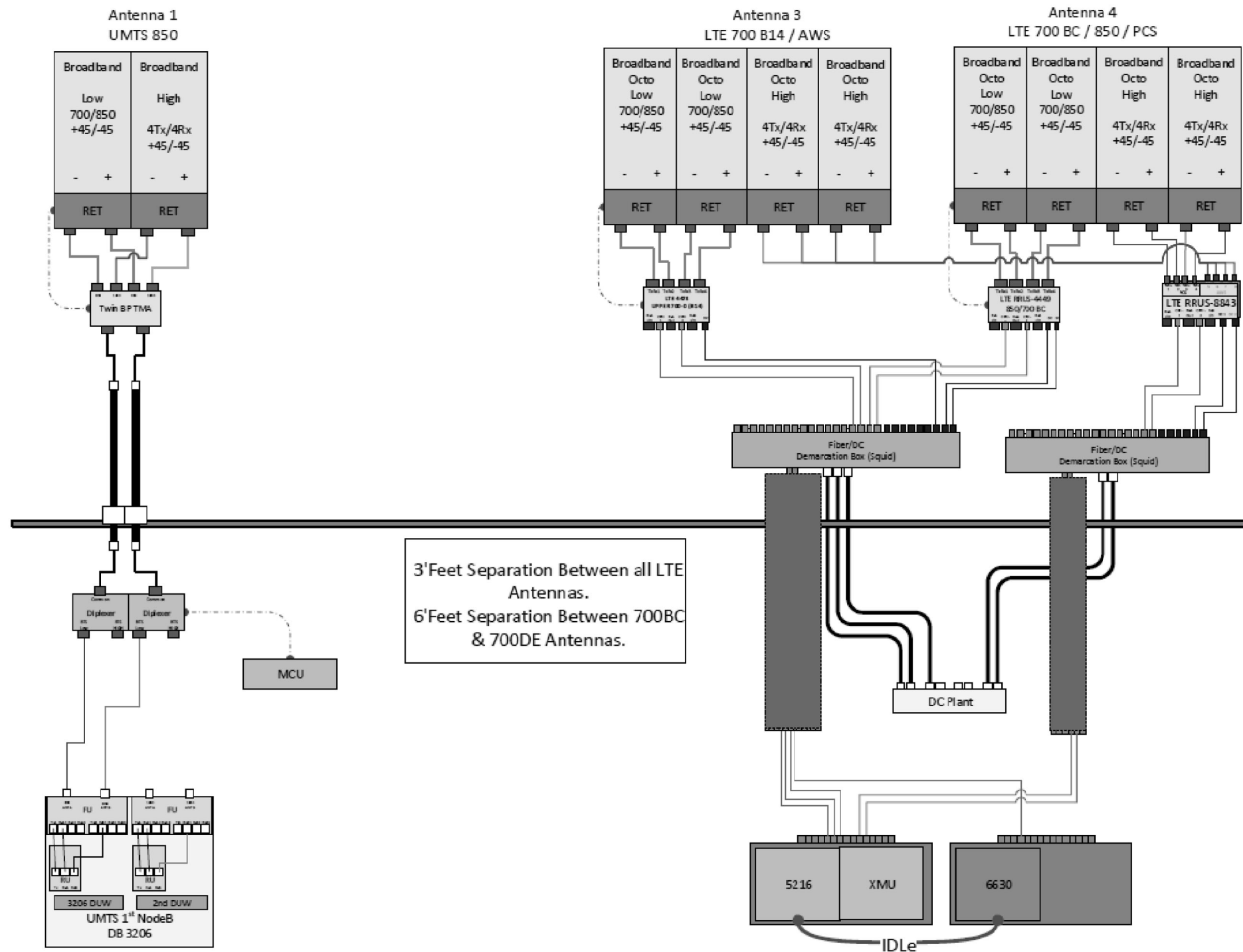


ALL EXISTING AND PROPOSED
RRUS MOUNTED BEHIND
ANTENNAS MUST BE A
MINIMUM OF 8" BEHIND THE
BACK OF PANEL ANTENNA

7 ANTENNA MOUNTING DETAIL
NOT TO SCALE



8 SQUID DETAIL
NOT TO SCALE



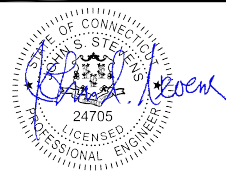
3' Feet Separation Between all LTE Antennas.
6' Feet Separation Between 700BC & 700DE Antennas.

ALPHA/BETA/GAMMA

1 PLUMBING DIAGRAM (FINAL CONFIGURATION)
NOT TO SCALE

*BASED ON LTE RFDS,
DATED 08/10/2020, V2.00

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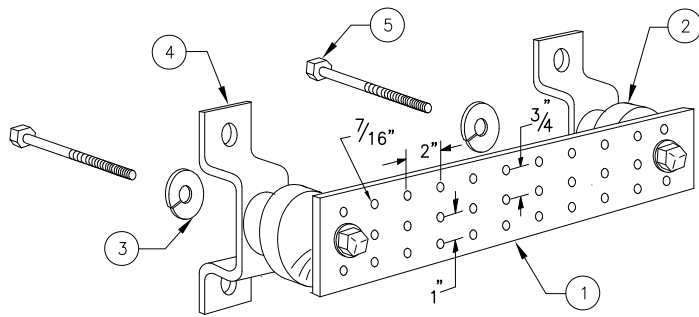
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LEDYARD, CT 06339

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smartlink

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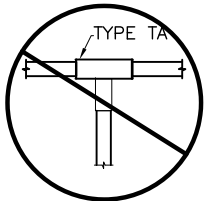
Drawing Title
PLUMBING
DIAGRAM

Drawing Number
C6

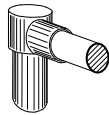


LEGEND

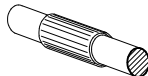
- 1 - SOLID TINNED COPPER GROUND BAR, 1/4"x 4"x 20" MIN., NEWTON INSTRUMENT CO. HOLE CENTERS TO MATCH NEMA DOUBLE LUG CONFIGURATION
2 - INSULATORS, NEWTON INSTRUMENT CAT. NO. 3061-4
3 - 5/8" LOCKWASHERS, NEWTON INSTRUMENT CO. CAT. NO. 3015-8
4 - WALL MOUNTING BRACKET, NEWTON INSTRUMENT CO. CAT NO. A-6056
5 - 5/8-11 X 1" H.H.C.S. BOLTS, NEWTON INSTRUMENT CO. CAT NO. 3012-1
6 - GROUND BAR SHALL BE SIZED TO ACCOMODATE ALL GROUNDING CONNECTIONS REQUIRED PLUS PROVIDE 50% SPARE CAPACITY
7 - GROUND BARS SHALL NEITHER BE FIELD FABRICATED NOR NEW HOLES DRILLED
8 - GROUND LUGS SHALL MATCH THE HOLE SPACING ON THE BAR
9 - HARDWARE DIAMETER SHALL BE MINIMUM 3/8"



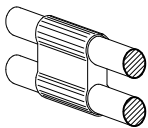
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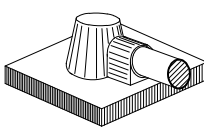
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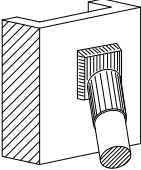
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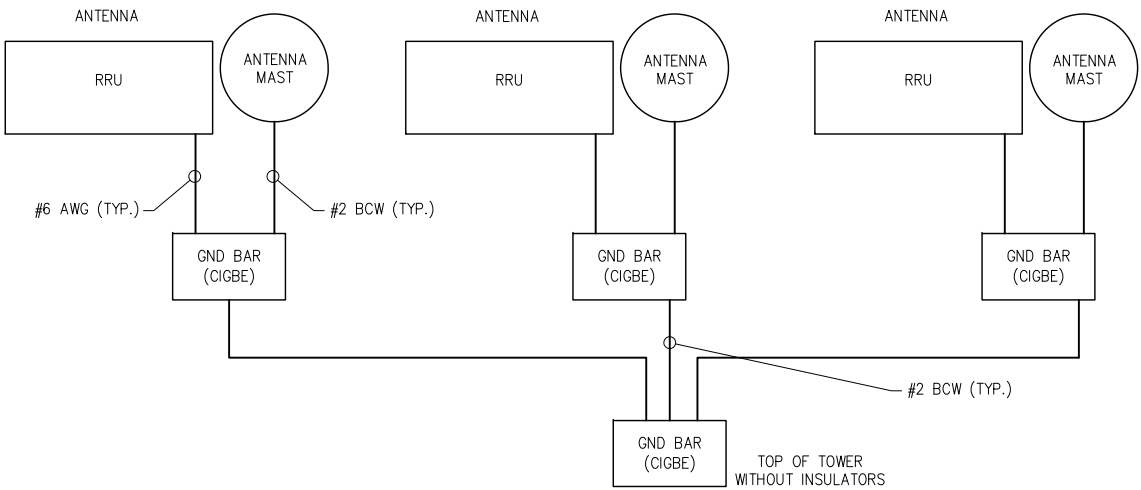
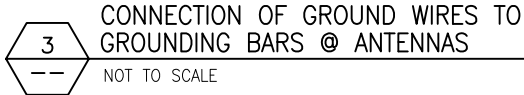
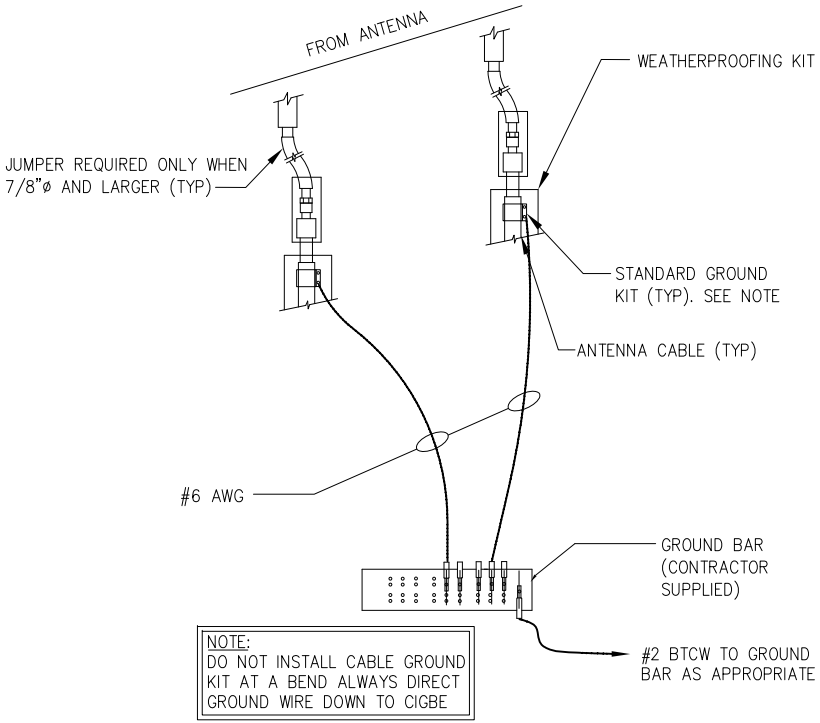
TYPE PH



TYPE KA



TYPE VS



INFINIGY

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2	ISSUED FOR PERMIT	BMM	08/28/20
1	ISSUED FOR PERMIT	BMM	06/24/20
0	ISSUED FOR REVIEW	MJB	06/23/20
No.	Submittal / Revision	App'd	Date
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	Designed: ASW	Date: 06/23/20	
	Checked: ASW	Date: 06/23/20	
Project Number:			
499-006			

Project Title:
LEDYARD COLONEL RD.
CTL02184
FA# 10035428
889R COLONEL LEDYARD HIGHWAY
LEDYARD, CT 06339



Drawing Scale:	AS NOTED
Date:	08/28/20

CD

Drawing Title
GROUNDING DETAILS

Drawing Number
C7

ANTENNA MOUNT MODIFICATION DRAWINGS

PREPARED BY:

INFINIGY

FROM ZERO TO INFINIGY
the solutions are endless

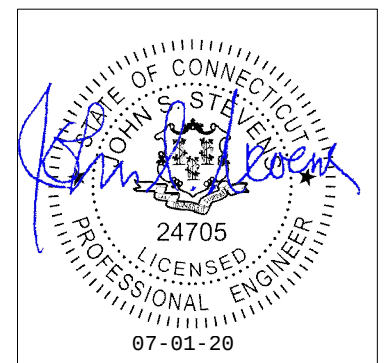


CTL02184
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STEEL CONSTRUCTION NOTES:

- STRUCTURAL STEEL SHALL CONFORM TO THE AISC MANUAL OF STEEL CONSTRUCTION 14TH EDITION, FOR THE DESIGN AND FABRICATION OF STEEL COMPONENTS.
- ALL FIELD CUT SURFACES, FIELD DRILLED HOLES, AND GROUND SURFACES WHERE EXISTING PAINT OR GALVANIZATION REMOVAL WAS REQUIRED SHALL BE REPAIRED WITH (2) BRUSHED COATS OF ZRC GALVILITE COLD GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURERS' RECOMMENDATIONS.
- ALL FIELD DRILLED HOLES TO BE USED FOR FIELD BOLTING INSTALLATION SHALL BE STANDARD HOLES, AS DEFINED BY AISC, UNLESS NOTED OTHERWISE.
- ALL EXTERIOR STEEL WORK SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A123.
- ALL STEEL MEMBERS AND CONNECTIONS SHALL MEET THE FOLLOWING GRADES:
 - ANGLES, CHANNELS, PLATES AND BARS TO BE A36. Fy=36 KSI, U.N.O.
 - W SHAPES TO BE A992. Fy=50 KSI, U.N.O.
 - RECTANGULAR HSS TO BE A500, GRADE B. Fy=46 KSI, U.N.O.
 - ROUND HSS TO BE A500, GRADE B. Fy=42 KSI, U.N.O.
 - STEEL PIPE TO BE A53, GRADE B. Fy=35 KSI, U.N.O.
 - BOLTS TO BE A325-X. Fu=120 KSI, U.N.O.
 - U-BOLTS AND LAG SCREWS TO BE A307 GR A. Fu=60 KSI, U.N.O.
- ALL WELDING SHALL BE DONE USING E70XX ELECTRODES, U.N.O.
- ALL WELDING SHALL CONFORM TO AISC AND AWS D1.1 LATEST EDITION.
- ALL HILTI ANCHORS TO BE CARBON STEEL, U.N.O.
 - MECHANICAL ANCHORS: KWIK BOLT-TZ, U.N.O.
 - CMU BLOCK ANCHORS: ADHESIVE - HY120, U.N.O.
 - CONCRETE ANCHORS: ADHESIVE - HY150, U.N.O.
 - CONCRETE REBAR: ADHESIVE - RE500, U.N.O.
- ALL STUDS TO BE NELSON CAPACITOR DISCHARGE 1/4"-20 LOW CARBON STEEL COPPER-FLASH AT 55 KSI ULT/50 KSI YIELD, U.N.O.
- BOLTS SHALL BE TIGHTENED TO A "SNUG TIGHT" CONDITION AS DEFINED BY AISC.
- MINIMUM EDGE DISTANCES SHALL CONFORM TO AISC TABLE J3.4.

CONCRETE CONSTRUCTION NOTES:

- CONCRETE TO BE 4000 PSI @ 28 DAYS. REINFORCING BAR TO CONFORM TO ASTM A615 GRADE 60 SPECIFICATIONS. CONCRETE INSTALLATION TO CONFORM TO ACI-318 BUILDING REQUIREMENTS FOR REINFORCED CONCRETE. ALL CONCRETE TO BE PLACED AGAINST UNDISTURBED EARTH FREE OF WATER AND ALL FOREIGN OBJECTS AND MATERIALS. A MINIMUM OF THREE INCHES OF CONCRETE SHALL COVER ALL REINFORCEMENT. WELDING OF REBAR IS NOT PERMITTED.
- EXISTING CONCRETE SURFACES THAT ARE TO BE IN CONTACT WITH NEW PROPOSED CONCRETE SHOULD BE WIRE BRUSHED CLEAN AND TREATED WITH APPROPRIATE MECHANICAL SCRATCH COAT AND REPAIR MATERIALS OR APPROPRIATE CHEMICAL METHODS SUCH AS THE APPLICATION OF A BONDING AGENT, EX. SAKRETE OR EQUIVALENT, TO ENSURE A QUALITY BOND BETWEEN EXISTING AND PROPOSED CONCRETE SURFACES.

FIBER REINFORCED POLYMER (FRP) NOTES:

- FRP PLATES, SHAPES, BOLTS AND NUTS (STUD/NUT ASSEMBLIES) SHALL CONFORM TO ASTM D638, 695, 790. PLATES AND SHAPES TO BE Fy = 5.35 KSI LW (SAFETY FACTOR OF 8), .945 KSI CW (SAFETY FACTOR OF 8) MIN.
- IF FIELD FABRICATION IS REQUIRED, ALL CUT EDGES AND DRILLED HOLES TO BE SEALED USING VINYL ESTER SEALING KIT SUPPLIED BY THE MANUFACTURER.
- ALL FASTENERS TO BE 1/2" DIA FRP THREADED ROD WITH FIBER REINFORCED THERMOPLASTIC NUT, SPACED AT 12 INCHES ON CENTER MAXIMUM, U.N.O., FOR PANELS AND AS DESIGNED FOR STRUCTURAL MEMBERS.
- THE COLOR AND SURFACE PATTERN OF EXPOSED FRP PANELS SHALL MATCH THE EXTERIOR OF THE EXISTING BUILDING, U.N.O.
- STUD/NUT ASSEMBLIES SHOULD BE LUBRICATED FOR INSTALLATION
- ENSURE BEARING SURFACES OF THE NUTS ARE PARALLEL TO THE SURFACES BEING FASTENED.
- TORQUE BOLTS ACCORDING TO THE FOLLOWING TABLE:

INSTALLATION TORQUE TABLE		
SIZE	ULTIMATE TORQUE STRENGTH	RECOMMENDED MAXIMUM INSTALLATION TORQUE
3/8-16 UNC	8 FT-LBS	4 FT-LBS
1/2-13 UNC	18 FT-LBS	8 FT-LBS
5/8-11 UNC	35 FT-LBS	16 FT-LBS
3/4-10 UNC	50 FT-LBS	24 FT-LBS
1-8 UNC	110 FT-LBS	50 FT-LBS

- WHEN TIGHTENING FRP STUD/NUT ASSEMBLIES, WRENCHES MUST MAKE FULL CONTACT WITH ALL NUT EDGES. A STANDARD SIX POINT SOCKET IS RECOMMENDED.
- STUD/NUT ASSEMBLIES SHOULD BE BONDED BY APPLYING BONDING AGENT TO ENTIRE NUT AND EXPOSED STUD.
- ALL FRP MATERIALS TO BE PROVIDED BY FIBERGRATE COMPOSITE STRUCTURES, DALLAS TX, OR APPROVED EQUAL.
- ALL FRP SHAPES TO BE DYNAFORM PULTRUDED STRUCTURAL SHAPES.
- ALL FRP PLATES TO BE FIBERPLATE MOLDED FRP PLATE.
- ALL FRP PANELS TO BE FIBERPLATE CLADDING PANEL.
- EACH FRP PANEL TO BE IDENTIFIED WITH LARR#25536 AND FIBERGRATE COMPOSITE STRUCTURAL LABEL.
- FRP MATERIAL TO BE CLASSIFIED AS CC1 OR BETTER, AND HAVE MAXIMUM FLAME SPREAD OF 50.
- ALL DESIGN AND CONSTRUCTION TO BE COMPLETED IN ACCORDANCE WITH LOS ANGELES RESEARCH REPORT RR25536, DATED FEBRUARY 1, 2016.
- SPECIAL INSPECTIONS MUST BE PROVIDED FOR ALL FRP INSTALLMENTS. SEE SPECIAL INSPECTION SECTION, THIS SHEET.

RATIO OF EDGE DISTANCE TO FRP FASTENER DIAMETER		
	RANGE	RECOMMENDED
EDGE DISTANCE - CL* BOLT TO END	2.0-4.0	3.0
EDGE DISTANCE - CL* BOLT TO SIDE	1.5-3.5	2.5
BOLT PITCH - CL* TO CL*	4.0-5.0	5.0

WOOD CONSTRUCTION NOTES:

- ALL EXISTING WOOD SHAPES ARE ASSUMED TO BE DOUGLAS FIR-LARCH WITH A REFERENCE DESIGN BENDING VALUE OF 1000 PSI MIN.
- ALL PROPOSED WOOD SHAPES ARE TO BE DOUGLAS FIR-LARCH WITH A REFERENCE DESIGN BENDING VALUE OF 1000 PSI MIN. U.N.O.
- ALL EXISTING AND PROPOSED GLUED LAMINATED TIMBERS ARE TO BE 24F-1.8C DOUGLAS FIR BALANCED WITH A REFERENCE DESIGN BENDING VALUE OF 2400 PSI MIN. U.N.O.

MASONRY CONSTRUCTION NOTES:

- ALL BRICK TO BE 1500 PSI MIN. REINFORCING BAR (IF APPLICABLE) TO CONFORM TO ASTM A615 GRADE 60 SPECIFICATIONS. ALL MORTAR TO BE 2000 PSI MIN.
 - FOR INTERIOR/ABOVE GRADE APPLICATIONS TYPE N MORTAR HAVING MINIMUM MODULUS OF RUPTURE OF 100 PSI SHALL BE USED. FOR EXTERIOR/BELOW GRADE APPLICATIONS TYPE M OR S MORTAR HAVING A MINIMUM MODULUS OF RUPTURE OF 133 PSI.
 - BRICK AND MORTAR INSTALLATION TO CONFORM TO MSJC BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES.
- ALL CMU TO BE 1500 PSI MIN. REINFORCING BAR (IF APPLICABLE) TO CONFORM TO ASTM A615 GRADE 60 SPECIFICATIONS. ALL MORTAR TO BE 2000 PSI MIN.
 - FOR INTERIOR/ABOVE GRADE APPLICATIONS, TYPE N MORTAR HAVING MINIMUM MODULUS OF RUPTURE OF 64 PSI SHALL BE USED FOR UNGROUTED BLOCKS, AND 158 PSI FOR FULLY GROUTED BLOCKS.
 - FOR EXTERIOR/BELOW GRADE APPLICATIONS TYPE M OR S MORTAR HAVING A MINIMUM MODULUS OF RUPTURE OF 84 PSI SHALL BE USED FOR UNGROUTED BLOCKS, AND 163 PSI FOR FULLY GROUTED BLOCKS.
 - BRICK AND MORTAR INSTALLATION TO CONFORM TO MSJC BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES.

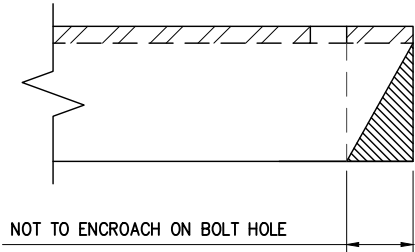
TOWER PLUMB & TENSION NOTES:

- PLUMB AND TENSION TOWER UPON COMPLETION OF STRUCTURAL MODIFICATIONS DETAILED IN THESE DRAWINGS.
- RETENSIONING OF EXISTING GUY WIRES SHALL BE PERFORMED AT A TIME WHEN THE WIND VELOCITY IS LESS THAN 10 MPH AT GROUND LEVEL AND WITH NO ICE ON THE STRUCTURE AND GUY WIRES.
- PLUMB THE TOWER WHILE RETENSIONING THE EXISTING GUY WIRES. THE HORIZONTAL DISTANCE BETWEEN THE VERTICAL CENTERLINES AT ANY TWO ELEVATIONS SHALL NOT EXCEED 0.25% OF THE VERTICAL DISTANCE BETWEEN TWO ELEVATIONS FOR LATTICED STRUCTURES.
- THE TWIST BETWEEN ANY TWO ELEVATIONS THROUGHOUT THE HEIGHT OF A LATTICE STRUCTURE SHALL NOT EXCEED 0.5 DEGREES IN 10 FEET. THE MAXIMUM TWIST OVER THE LATTICE STRUCTURE HEIGHT SHALL NOT EXCEED 5 DEGREES.

SPECIAL INSPECTIONS NOTES:

- A QUALIFIED INDEPENDENT TESTING LABORATORY, EMPLOYED BY THE OWNER AND APPROVED BY THE JURISDICTION, SHALL PERFORM INSPECTION AND TESTING IN ACCORDANCE WITH THE THE GOVERNING BUILDING CODE, APPLICABLE SECTION(S) AS REQUIRED BY PROJECT SPECIFICATIONS FOR THE FOLLOWING CONSTRUCTION WORK:
 - STRUCTURAL WELDING (CONTINUOUS INSPECTION OF FIELD WELDS ONLY).
 - HIGH STRENGTH BOLTS (PERIODIC INSPECTION OF A325 AND/OR A490 BOLTS) TO BE TIGHTENED PER "TURN-OF-THE-NUT" METHOD.
 - MECHANICAL AND EPOXIED ANCHORAGES.
 - FIBER REINFORCED POLYMER.
 - THE SPECIAL INSPECTOR MUST VERIFY THAT THE FRP MATERIAL SPECIFIED ON THE APPROVED DESIGN DOCUMENTS IS BEING INSTALLED.
 - THE SPECIAL INSPECTOR MUST VERIFY THAT ALL CUT EDGES AND DRILLED HOLES ARE PROPERLY SEALED USING A VINYL ESTER SEALING KIT SUPPLIED BY THE MANUFACTURER.
 - THE SPECIAL INSPECTOR MUST VERIFY THAT THE STRUCTURE IS BUILT IN ACCORDANCE WITH THE APPROVED DESIGN DOCUMENTS.
- THE INSPECTION AGENCY SHALL SUBMIT INSPECTION AND TEST REPORTS TO THE BUILDING DEPARTMENT, THE ENGINEER OF RECORD, AND THE OWNER UNLESS THE FABRICATOR IS APPROVED BY THE BUILDING OFFICIAL TO PERFORM WORK WITHOUT THE SPECIAL INSPECTIONS.

MAXIMUM ALLOWABLE ANGLE CLIP

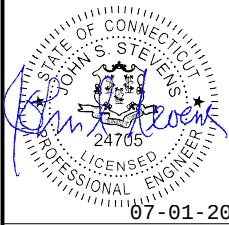


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Designed: PM Date: 07/01/20
Checked: AY Date: 07/01/20

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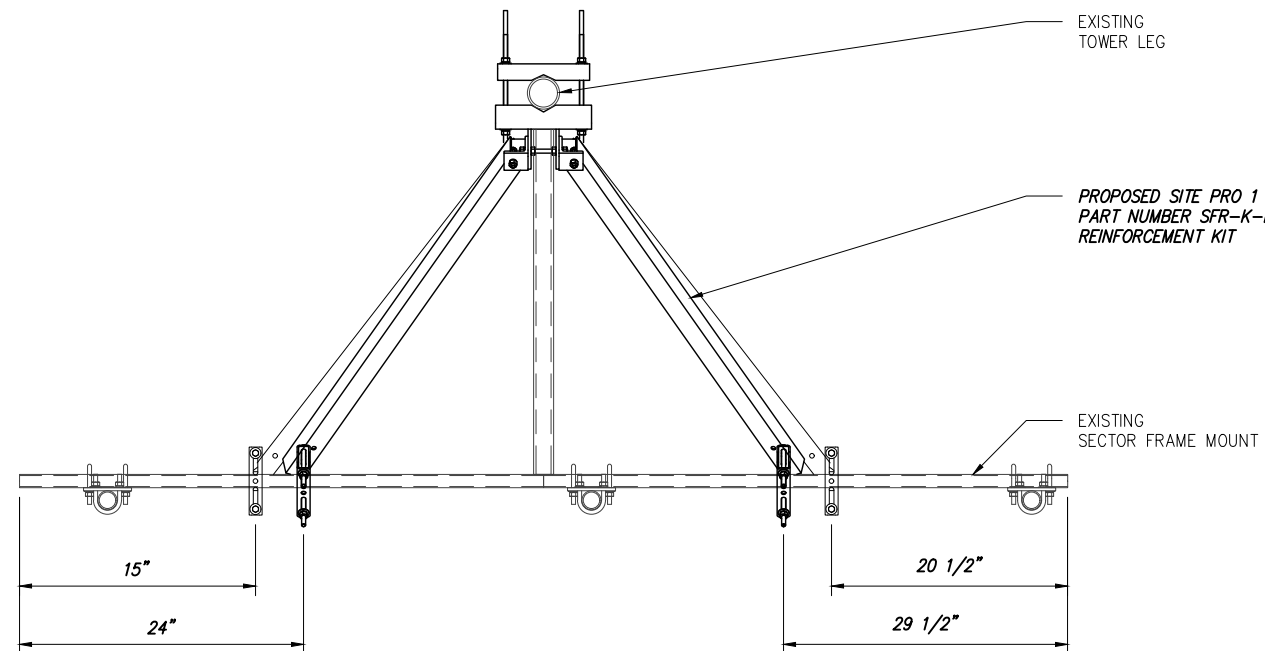
Project Title:
LEDYARD COLONEL RD.
CTL02184
FA# 10035428
889R COLONEL LEDYARD HIGHWAY
LEDYARD, CT 06339

Prepared For:
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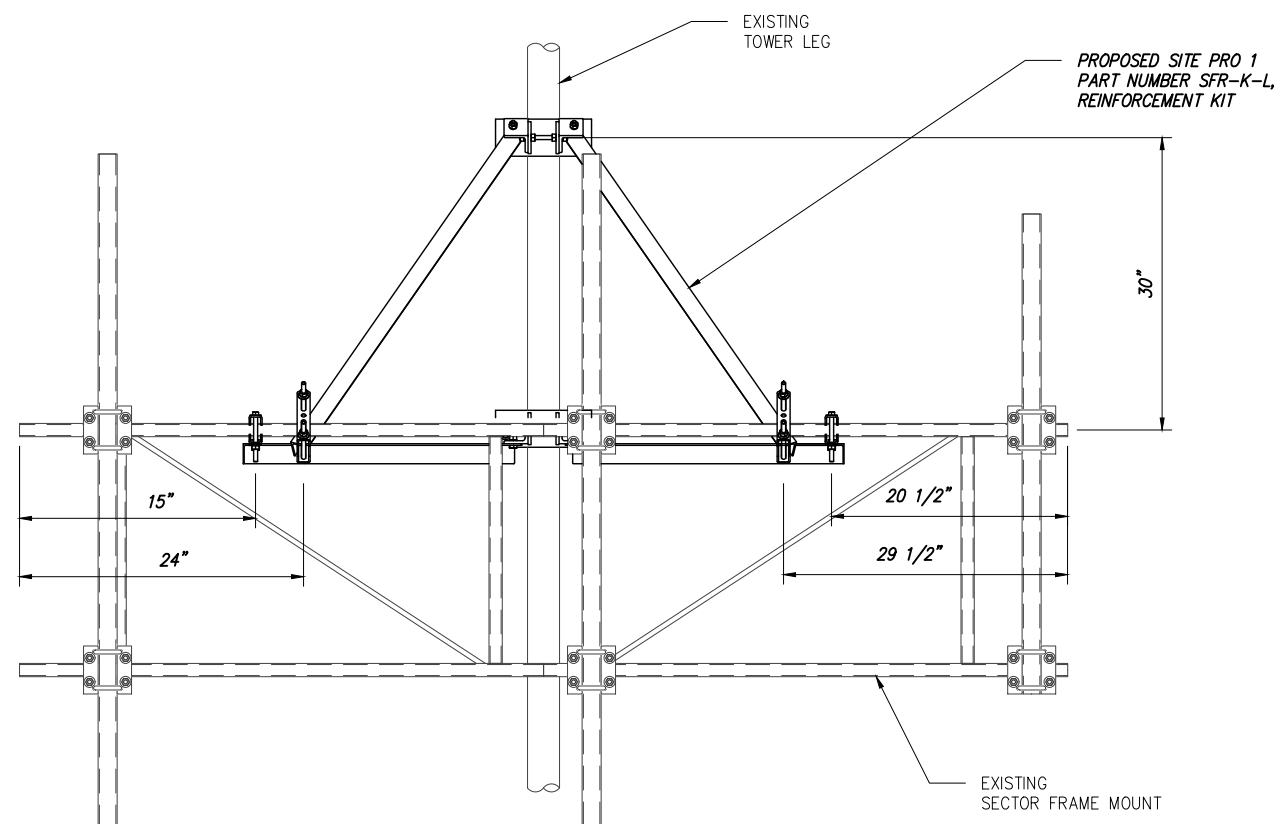
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GENERAL NOTES

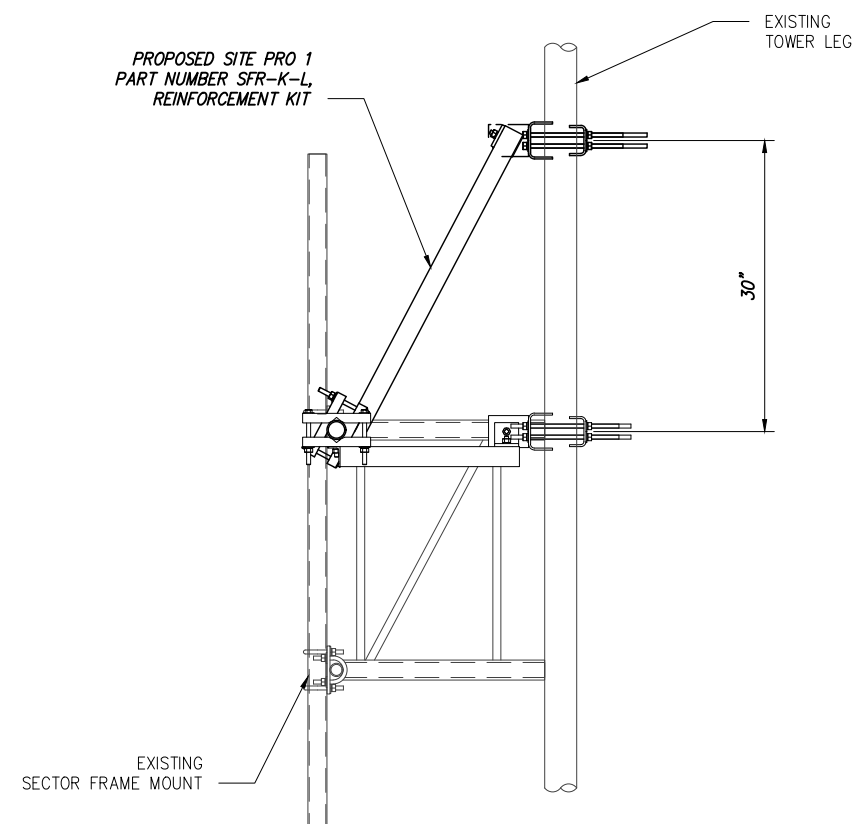
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1 PLAN VIEW
SCALE: NOT TO SCALE



2 ELEVATION VIEW
SCALE: NOT TO SCALE



3 SIDE VIEW
SCALE: NOT TO SCALE

- NOTES:
1. VARIOUS EXISTING CONDITIONS AND PROPOSED MODIFICATIONS NOT SHOWN FOR CLARITY.
 2. ALL SITE PRO 1 PARTS ARE TO BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS.
 3. CONTRACTOR TO FIELD VERIFY REQUIRED LENGTHS OF ALL PROPOSED PIPES & REINFORCEMENT KIT ANGLES AND TRIM & DRILL ON SITE AS NECESSARY.

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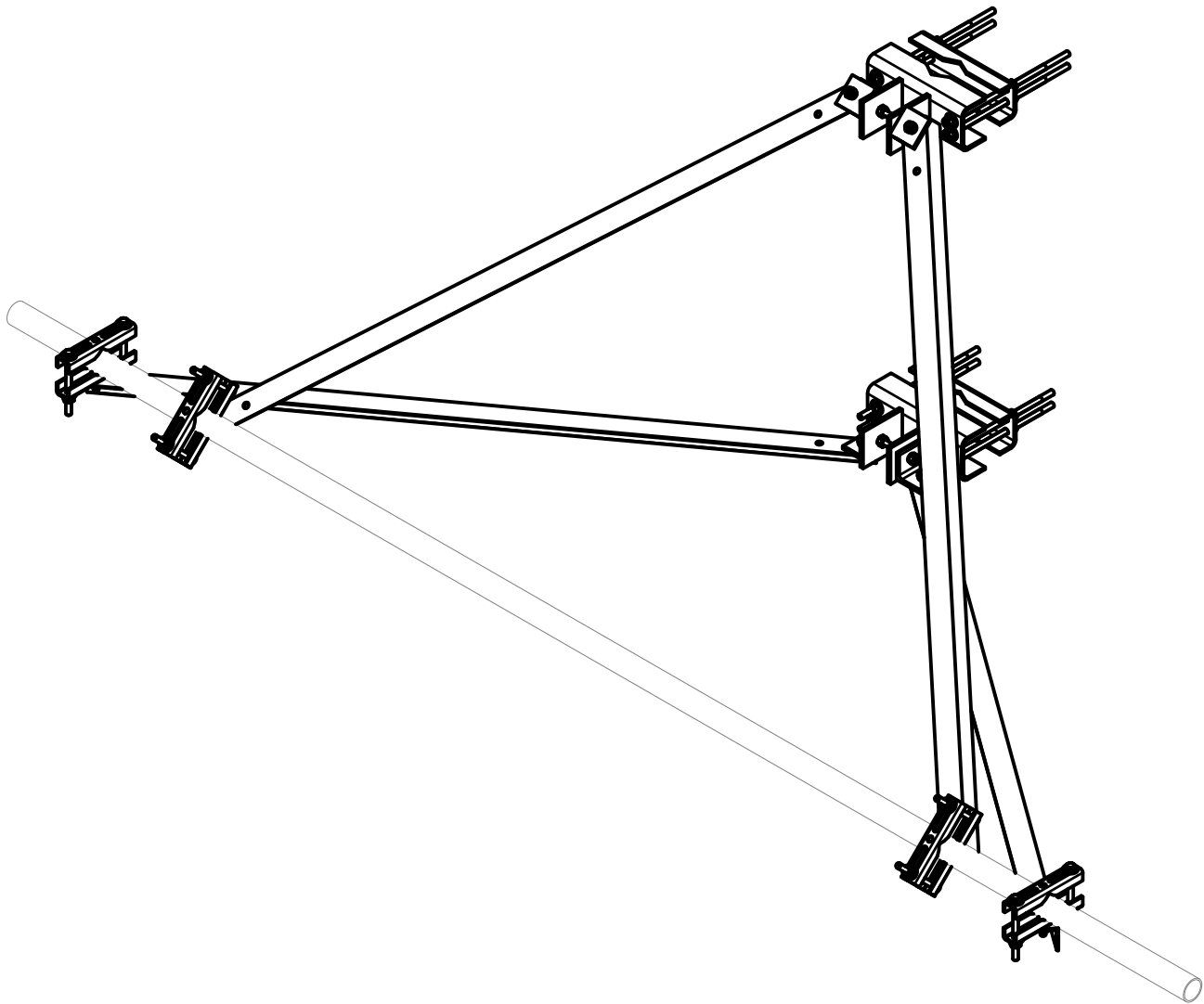
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Drawing Title
MOUNT MOD DETAILS

Drawing Number
S3

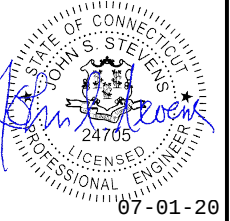


1 SITE PRO 1 P/N SFR-K-L
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Prepared For:


Drawing Scale: <u>AS NOTED</u>	0
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Drawing Title
REQUIRED PARTS

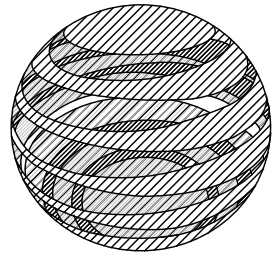
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TOWER MODIFICATION DRAWINGS

PREPARED BY:

INFINIGY 

FROM ZERO TO INFINIGY
the solutions are endless



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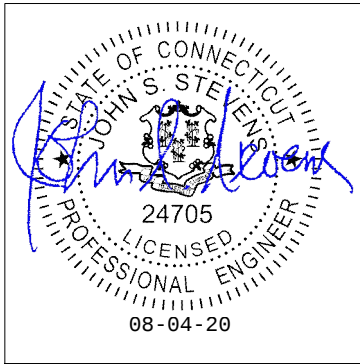
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5. ALL STEEL MEMBERS AND CONNECTIONS SHALL MEET THE FOLLOWING GRADES:
 - ANGLES, CHANNELS, PLATES AND BARS TO BE A36. Fy=36 KSI, U.N.O.
 - W SHAPES TO BE A992. Fy=50 KSI, U.N.O.
 - RECTANGULAR HSS TO BE A500, GRADE B. Fy=46 KSI, U.N.O.
 - ROUND HSS TO BE A500, GRADE B. Fy=42 KSI, U.N.O.
 - STEEL PIPE TO BE A53, GRADE B. Fy=35 KSI, U.N.O.
 - BOLTS TO BE A325-X. Fu=120 KSI, U.N.O.
 - U-BOLTS AND LAG SCREWS TO BE A307 GR A. Fu=60 KSI, U.N.O.
6. ALL WELDING SHALL BE DONE USING E70XX ELECTRODES, U.N.O.
7. ALL WELDING SHALL CONFORM TO AISC AND AWS D1.1 LATEST EDITION.
8. ALL HILTI ANCHORS TO BE CARBON STEEL, U.N.O.
 - MECHANICAL ANCHORS: KWIK BOLT-TZ, U.N.O.
 - CMU BLOCK ANCHORS: ADHESIVE - HY120, U.N.O.
 - CONCRETE ANCHORS: ADHESIVE - HY150, U.N.O.
 - CONCRETE REBAR: ADHESIVE - RE500, U.N.O.
9. ALL STUDS TO BE NELSON CAPACITOR DISCHARGE 1/4"-20 LOW CARBON STEEL COPPER-FLASH AT 55 KSI ULT/50 KSI YIELD, U.N.O.
10. BOLTS SHALL BE TIGHTENED TO A "SNUG TIGHT" CONDITION AS DEFINED BY AISC.
11. MINIMUM EDGE DISTANCES SHALL CONFORM TO AISC TABLE J3.4.
12. REMOVAL/REPLACEMENT OF STRUCTURAL MEMBERS SHALL BE DONE ONE MEMBER AT A TIME. CONTRACTOR IS RESPONSIBLE FOR ENSURING THE STRUCTURAL INTEGRITY OF THE STRUCTURE DURING ALL PHASES OF CONSTRUCTION.

CONCRETE CONSTRUCTION NOTES:

1. CONCRETE TO BE 4000 PSI @ 28 DAYS. REINFORCING BAR TO CONFORM TO ASTM A615 GRADE 60 SPECIFICATIONS. CONCRETE INSTALLATION TO CONFORM TO ACI-318 BUILDING REQUIREMENTS FOR REINFORCED CONCRETE. ALL CONCRETE TO BE PLACED AGAINST UNDISTURBED EARTH FREE OF WATER AND ALL FOREIGN OBJECTS AND MATERIALS. A MINIMUM OF THREE INCHES OF CONCRETE SHALL COVER ALL REINFORCEMENT. WELDING OF REBAR IS NOT PERMITTED.
2. EXISTING CONCRETE SURFACES THAT ARE TO BE IN CONTACT WITH NEW PROPOSED CONCRETE SHOULD BE WIRE BRUSHED CLEAN AND TREATED WITH APPROPRIATE MECHANICAL SCRATCH COAT AND REPAIR MATERIALS OR APPROPRIATE CHEMICAL METHODS SUCH AS THE APPLICATION OF A BONDING AGENT, EX. SAKRETE OR EQUIVALENT, TO ENSURE A QUALITY BOND BETWEEN EXISTING AND PROPOSED CONCRETE SURFACES.

FIBER REINFORCED POLYMER (FRP) NOTES:

1. FRP PLATES, SHAPES, BOLTS AND NUTS (STUD/NUT ASSEMBLIES) SHALL CONFORM TO ASTM D638, 695, 790. PLATES AND SHAPES TO BE FY = 5.35 KSI LW (SAFETY FACTOR OF 8), .945 KSI CW (SAFETY FACTOR OF 8) MIN.
2. IF FIELD FABRICATION IS REQUIRED, ALL CUT EDGES AND DRILLED HOLES TO BE SEALED USING VINYL ESTER SEALING KIT SUPPLIED BY THE MANUFACTURER.
3. ALL FASTENERS TO BE 1/2" DIA FRP THREADED ROD WITH FIBER REINFORCED THERMOPLASTIC NUT, SPACED AT 12 INCHES ON CENTER MAXIMUM, U.N.O., FOR PANELS AND AS DESIGNED FOR STRUCTURAL MEMBERS.
4. THE COLOR AND SURFACE PATTERN OF EXPOSED FRP PANELS SHALL MATCH THE EXTERIOR OF THE EXISTING BUILDING, U.N.O.
5. STUD/NUT ASSEMBLIES SHOULD BE LUBRICATED FOR INSTALLATION
6. ENSURE BEARING SURFACES OF THE NUTS ARE PARALLEL TO THE SURFACES BEING FASTENED.
7. TORQUE BOLTS ACCORDING TO THE FOLLOWING TABLE:

INSTALLATION TORQUE TABLE		
SIZE	ULTIMATE TORQUE STRENGTH	RECOMMENDED MAXIMUM INSTALLATION TORQUE
3/8-16 UNC	8 FT-LBS	4 FT-LBS
1/2-13 UNC	18 FT-LBS	8 FT-LBS
5/8-11 UNC	35 FT-LBS	16 FT-LBS
3/4-10 UNC	50 FT-LBS	24 FT-LBS
1-8 UNC	110 FT-LBS	50 FT-LBS

8. WHEN TIGHTENING FRP STUD/NUT ASSEMBLIES, WRENCHES MUST MAKE FULL CONTACT WITH ALL NUT EDGES. A STANDARD SIX POINT SOCKET IS RECOMMENDED.
9. STUD/NUT ASSEMBLIES SHOULD BE BONDED BY APPLYING BONDING AGENT TO ENTIRE NUT AND EXPOSED STUD.
10. ALL FRP MATERIALS TO BE PROVIDED BY FIBERGRATE COMPOSITE STRUCTURES, DALLAS TX, OR APPROVED EQUAL.
11. ALL FRP SHAPES TO BE DYNAFORM PULTRUDED STRUCTURAL SHAPES.
12. ALL FRP PLATES TO BE FIBERPLATE MOLDED FRP PLATE.
13. ALL FRP PANELS TO BE FIBERPLATE CLADDING PANEL.
14. EACH FRP PANEL TO BE IDENTIFIED WITH LARR#25536 AND FIBERGRATE COMPOSITE STRUCTURAL LABEL.
15. FRP MATERIAL TO BE CLASSIFIED AS CC1 OR BETTER, AND HAVE MAXIMUM FLAME SPREAD OF 50.
16. ALL DESIGN AND CONSTRUCTION TO BE COMPLETED IN ACCORDANCE WITH LOS ANGELES RESEARCH REPORT RR25536, DATED FEBRUARY 1, 2016.
17. SPECIAL INSPECTIONS MUST BE PROVIDED FOR ALL FRP INSTALLMENTS. SEE SPECIAL INSPECTION SECTION, THIS SHEET.

RATIO OF EDGE DISTANCE TO FRP FASTENER DIAMETER		
	RANGE	RECOMMENDED
EDGE DISTANCE - CL* BOLT TO END	2.0-4.0	3.0
EDGE DISTANCE - CL* BOLT TO SIDE	1.5-3.5	2.5
BOLT PITCH - CL* TO CL*	4.0-5.0	5.0

WOOD CONSTRUCTION NOTES:

1. ALL EXISTING WOOD SHAPES ARE ASSUMED TO BE DOUGLAS FIR-LARCH WITH A REFERENCE DESIGN BENDING VALUE OF 1000 PSI MIN.
2. ALL PROPOSED WOOD SHAPES ARE TO BE DOUGLAS FIR-LARCH WITH A REFERENCE DESIGN BENDING VALUE OF 1000 PSI MIN. U.N.O.
3. ALL EXISTING AND PROPOSED GLUED LAMINATED TIMBERS ARE TO BE 24F-1.8C DOUGLAS FIR BALANCED WITH A REFERENCE DESIGN BENDING VALUE OF 2400 PSI MIN. U.N.O.

MASONRY CONSTRUCTION NOTES:

1. ALL BRICK TO BE 1500 PSI MIN. REINFORCING BAR (IF APPLICABLE) TO CONFORM TO ASTM A615 GRADE 60 SPECIFICATIONS. ALL MORTAR TO BE 2000 PSI MIN.
 - FOR INTERIOR/ABOVE GRADE APPLICATIONS TYPE N MORTAR HAVING MINIMUM MODULUS OF RUPTURE OF 100 PSI SHALL BE USED. FOR EXTERIOR/BELOW GRADE APPLICATIONS TYPE M OR S MORTAR HAVING A MINIMUM MODULUS OF RUPTURE OF 133 PSI.
 - BRICK AND MORTAR INSTALLATION TO CONFORM TO MSJC BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES.
2. ALL CMU TO BE 1500 PSI MIN. REINFORCING BAR (IF APPLICABLE) TO CONFORM TO ASTM A615 GRADE 60 SPECIFICATIONS. ALL MORTAR TO BE 2000 PSI MIN.
 - FOR INTERIOR/ABOVE GRADE APPLICATIONS, TYPE N MORTAR HAVING MINIMUM MODULUS OF RUPTURE OF 64 PSI SHALL BE USED FOR UNGROUTED BLOCKS, AND 158 PSI FOR FULLY GROUTED BLOCKS.
 - FOR EXTERIOR/BELOW GRADE APPLICATIONS TYPE M OR S MORTAR HAVING A MINIMUM MODULUS OF RUPTURE OF 84 PSI SHALL BE USED FOR UNGROUTED BLOCKS, AND 163 PSI FOR FULLY GROUTED BLOCKS.
 - BRICK AND MORTAR INSTALLATION TO CONFORM TO MSJC BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES.

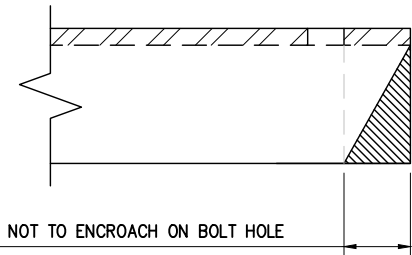
TOWER PLUMB & TENSION NOTES:

1. PLUMB AND TENSION TOWER UPON COMPLETION OF STRUCTURAL MODIFICATIONS DETAILED IN THESE DRAWINGS.
2. RETENSIONING OF EXISTING GUY WIRES SHALL BE PERFORMED AT A TIME WHEN THE WIND VELOCITY IS LESS THAN 10 MPH AT GROUND LEVEL AND WITH NO ICE ON THE STRUCTURE AND GUY WIRES.
3. PLUMB THE TOWER WHILE RETENSIONING THE EXISTING GUY WIRES. THE HORIZONTAL DISTANCE BETWEEN THE VERTICAL CENTERLINES AT ANY TWO ELEVATIONS SHALL NOT EXCEED 0.25% OF THE VERTICAL DISTANCE BETWEEN TWO ELEVATIONS FOR LATTICED STRUCTURES.
4. THE TWIST BETWEEN ANY TWO ELEVATIONS THROUGHOUT THE HEIGHT OF A LATTICE STRUCTURE SHALL NOT EXCEED 0.5 DEGREES IN 10 FEET. THE MAXIMUM TWIST OVER THE LATTICE STRUCTURE HEIGHT SHALL NOT EXCEED 5 DEGREES.

SPECIAL INSPECTIONS NOTES:

1. A QUALIFIED INDEPENDENT TESTING LABORATORY, EMPLOYED BY THE OWNER AND APPROVED BY THE JURISDICTION, SHALL PERFORM INSPECTION AND TESTING IN ACCORDANCE WITH THE THE GOVERNING BUILDING CODE, APPLICABLE SECTION(S) AS REQUIRED BY PROJECT SPECIFICATIONS FOR THE FOLLOWING CONSTRUCTION WORK:
 - a. STRUCTURAL WELDING (CONTINUOUS INSPECTION OF FIELD WELDS ONLY).
 - b. HIGH STRENGTH BOLTS (PERIODIC INSPECTION OF A325 AND/OR A490 BOLTS) TO BE TIGHTENED PER "TURN-OF-THE-NUT" METHOD.
 - c. MECHANICAL AND EPOXIED ANCHORAGES.
 - d. FIBER REINFORCED POLYMER.
 - THE SPECIAL INSPECTOR MUST VERIFY THAT THE FRP MATERIAL SPECIFIED ON THE APPROVED DESIGN DOCUMENTS IS BEING INSTALLED.
 - THE SPECIAL INSPECTOR MUST VERIFY THAT ALL CUT EDGES AND DRILLED HOLES ARE PROPERLY SEALED USING A VINYL ESTER SEALING KIT SUPPLIED BY THE MANUFACTURER.
 - THE SPECIAL INSPECTOR MUST VERIFY THAT THE STRUCTURE IS BUILT IN ACCORDANCE WITH THE APPROVED DESIGN DOCUMENTS.
2. THE INSPECTION AGENCY SHALL SUBMIT INSPECTION AND TEST REPORTS TO THE BUILDING DEPARTMENT, THE ENGINEER OF RECORD, AND THE OWNER UNLESS THE FABRICATOR IS APPROVED BY THE BUILDING OFFICIAL TO PERFORM WORK WITHOUT THE SPECIAL INSPECTIONS.

MAXIMUM ALLOWABLE ANGLE CLIP

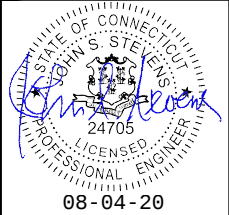


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0	ISSUED FOR REVIEW	WJD	07/22/20
No.	Submittal / Revision	App'd	Date

Drawn: WJD Date: 07/22/20
Designed: BPM Date: 07/20/20
Checked: ADY Date: 07/22/20

Project Number:
1106-A0001-B

Project Title:
**LEDYARD
COLONEL RD.**

**CTL02184
FA# 10035428**
889R COLONEL LEDYARD HIGHWAY
LEDYARD, CT 06339

Prepared For:



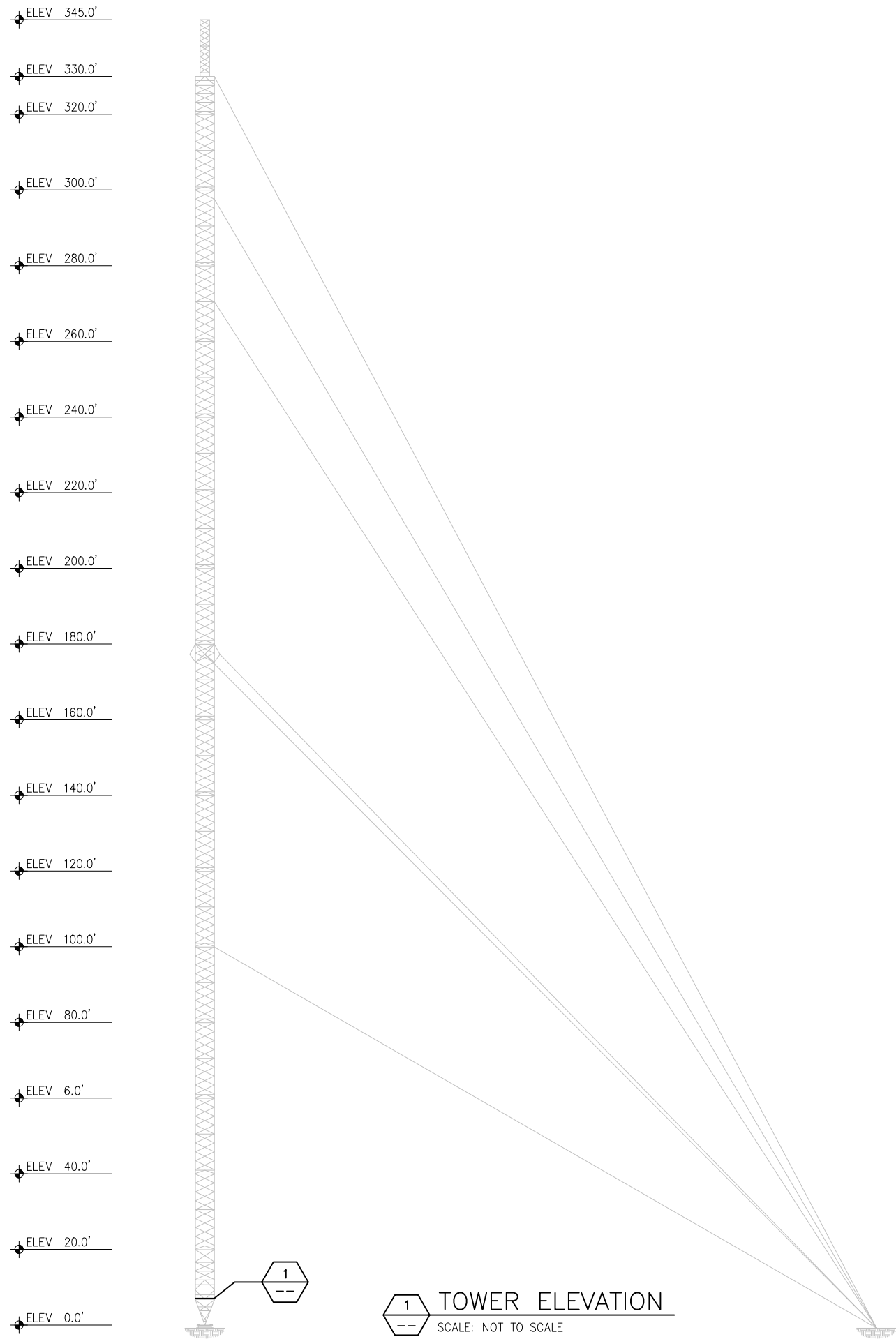
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Date: 07/22/20	

Drawing Title

**GENERAL
NOTES**

Drawing Number

S2

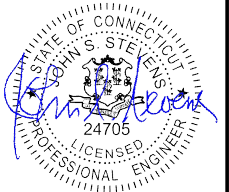


MODIFICATION SCOPE			
NO.	ELEV.	DESCRIPTION	SHEET NO.
1	6.7'±	HORIZONTAL BRACE ASSEMBLY	S4



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08-04-20

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Prepared For:


Drawing Scale: <u>AS NOTED</u>	0
Date: <u>07/22/20</u>	

Drawing Title
TOWER ELEVATION

Drawing Number
S3

