September 22, 2023

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:	**130 Eastside Boulevard, Naugatuck, CT 06770**
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 twelve (12) wireless telecommunication antennas at an antenna center line height of 220-feet on an existing 276-foot Guyed Tower, owned by Tegna Broadcast Holdings LLC at 8350 Broad Street, Tyson, VA 22102. AT&T now intends to remove three (3) 4' Kathrein 7770 Panel Antennas, each currently installed in position [1], and remove one (1) 6' CCI HPA-65R-BUU-H6 Panel Antenna, and two (2) 8' CCI HPA-65R-BUU-H8 Panel Antennas, all currently installed in position [4]. AT&T then swap these for three (3) 3' Ericsson AIR64726472 Panel Antennas, each to be installed in position [3], as well as swapping the existing CCI and Kathrein Panel Antennas (6) total from positions [2+3 to 4 +2]. AT&T intends to remove (6) total Remote Radio Units, and install three (3) new RRUS-4449 B5/B12 in position [4].AT&T will swap the (3) existing DC6 Squids with (3) new DC9 Squids with the necessary cables. All of the changes will take place on a new antenna mount. This modification/proposal includes B2, B5, and B12 hardware that is both 4G(LTE) and 5GNR capable through remote software configuration and either or both services may be turned on or off at various times.

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. § 16-5I0j-72(b) (2). In accordance with R.C.S.A., a copy of this letter is being sent to Bill Herzman– Town Building Official, Town of Naugatuck, CT at 229 Church Street, Naugatuck, CT 06770 and N. Warren "Pete" Hess III – Mayor, Town of Naugatuck at 229 Church Street, Naugatuck, CT 06770. A copy of this letter is being sent to the property owner Tegna Broadcast Holdings LLC at 8350 Broad Street, Tyson, VA 22102, as well as the Tower Owner, Spectrum Towers, LLC at P.O Box 120308, Clermont, FL 34712.

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

- **EM-AT&T-088-170807** – AT&T notice of intent to modify an existing telecommunications facility located at 0 Clark Hill Road (a/k/a 130 East Side Boulevard), Naugatuck, Connecticut.
- **EM-AT&T-088-170831** – AT&T notice of intent to modify an existing telecommunications facility located at 130 East Side Boulevard (a/k/a Clark Hill Road), Naugatuck, Connecticut.
- **EM-AT&T-088-181029** - AT&T notice of intent to modify an existing telecommunications facility located at 130 East Side Boulevard, Naugatuck, 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 220-foot level of the 276'-foot Guyed Tower.
2. The proposed modifications will not involve any changes to ground-mounted equipment and, therefore, will not require and 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 Robinson

CC w/enclosures:
Bill Herzman– Town Building Official, Town of Naugatuck, CT
N. Warren "Pete" Hess III – Mayor, Town of Naugatuck
Tegna Broadcast Holdings LLC – Property Owner
Spectrum Towers, LLC - Tower Owner

Borough of Naugatuck, CT

Property Listing Report

Map Block Lot	AA19 20E138 A	Building #	1	Unique Identifier	011-3060

Property Information

Property Location	0 CLARK HILL RD
Mailing Address	8350 BROAD STREET TYSON VA 22102
Land Use	Radio/TV Trans
Zoning Code	R15
Neighborhood	08

Owner	TEGNA BROADCAST HOLDINGS LLC
Co-Owner	
Book / Page	1035/0001
Land Class	Public Utility
Census Tract	345100
Acreage	7.9

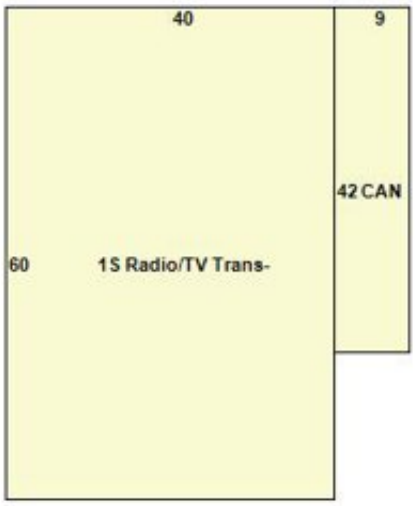
Valuation Summary

(Assessed value = 70% of Appraised Value)

Item	Appraised	Assessed
Buildings	278100	194670
Outbuildings	421500	295050
Land	233100	163170
Total	932700	652890

Utility Information

Electric	No
Gas	No
Sewer	No
Public Water	No
Well	No



Primary Construction Details

Year Built	1980
Building Desc.	Commercial
Building Style	
Stories	1
Exterior Walls	Pre-Finish Metal
Exterior Walls 2	Aluminum Siding
Interior Walls	Drywall
Interior Walls 2	
Interior Floors 1	Concrete
Interior Floors 2	

Heating Fuel	Electric
Heating Type	Electric Baseboard
AC Type	Central
Bedrooms	0
Full Bathrooms	1
Half Bathrooms	0
Extra Fixtures	0
Total Rooms	0
Bath Style	NA
Kitchen Style	
Occupancy	0

Building Use	Radio/TV Station
Building Condition	Good
Frame Type	B-
Fireplaces	0
Bsmt Gar	0
Fin Bsmt Area	0
Fin Bsmt Quality	
Building Grade	0
Roof Style	Gable
Roof Cover	Metal

Report Created On 6/6/2023

Borough of Naugatuck, CT

Property Listing Report | Map Block Lot **AA19 20E138 A** | Building # **1** | Unique Identifier **011-3060**

Detached Outbuildings

Type	Description	Area (sq ft)	Condition	Year Built
Fence	8 Ft Chain	500	Average	2005
Shed	Cell Shed	140	Fair	2000
Shed	Cell Shed	360	Average	2005
Shed	Cell Shed	170	Average	2004
Shed	Cell Shed	264	Fair	2000
Tower	Tower	280	Fair	1980
Tower	Tower	980	Fair	1980

Attached Extra Features

Type	Description	Area (sq ft)	Condition	Year Built
Canopy	Canopy	378	Fair	1980

Sales History

Owner of Record	Book/ Page	Sale Date	Sale Price
TEGNA BROADCAST HOLDINGS LLC	1035_0001	9/30/2019	611632
TRIBUNE BROADCASTING COMPANY LLC	1034_0883	9/30/2019	0
CT-WTIC LLC	1034_0896	9/30/2019	10
CHANNEL 20 INC C/O WTIC TV	0328_0466	3/3/1989	1800000

RADIO FREQUENCY EMISSIONS ANALYSIS REPORT
EVALUATION OF HUMAN EXPOSURE POTENTIAL TO NON-IONIZING EMISSIONS

Site Name:	NAUGATUCK EASTSIDE BOULEVARD
Crown Castle Site#:	NA
Site ID:	CTL02056
Project Name:	5G NR 1SR CBAND
Address:	130 EASTSIDE BOULEVARD, NAUGATUCK, CT 06770
County:	NEW HAVEN
Latitude:	41.5177700
Longitude:	-73.0186100
Structure Type:	GUYED
Property Owner:	WTIC TV FOX 61
Property Contact:	SHARON KEEFE

AT&T Existing Facility

Report Information

Report Writer: Monti Kumar **Report Generated Date:** 03-10-2023

Site Compliance Statement

Compliance Status	Compliant
Cumulative General Population % MPE (Ground Level)	0.1192%

March 10, 2023

Emissions Analysis for Site: **CTL02056 – NAUGATUCK EASTSIDE BOULEVARD**

MobileComm Professionals, Inc was directed to analyze the proposed AT&T facility located at **130 EASTSIDE BOULEVARD, NAUGATUCK, CT 06770**, for the purpose of determining whether the emissions from the Proposed AT&T Antenna Installation located on this property are within specified federal limits.

All information used in this report was analyzed as a percentage of current Maximum Permissible Exposure (% MPE) as listed in the FCC OET Bulletin 65 Edition 97-01 and ANSI/IEEE Std C95.1. The FCC regulates Maximum Permissible Exposure in units of milliwatts per square centimeter (mW/cm^2) or microwatts per square centimeter (µW/cm2). The number of mW/cm^2 or µW/cm2 calculated at each sample point is called the power density. The exposure limit for power density varies depending upon the frequencies being utilized. Wireless Carriers and Paging Services use different frequency bands each with different exposure limits, therefore it is necessary to report results and limits in terms of percent MPE rather than power density.

All results were compared to the FCC (Federal Communications Commission) radio frequency exposure rules, 47 CFR 1.1307(b)(1) – (b)(3), to determine compliance with the Maximum Permissible Exposure (MPE) limits for General Population/Uncontrolled environments as defined below.

General population/uncontrolled exposure limits apply to situations in which the general public may be exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Therefore, members of the general public would always be considered under this category when exposure is not employment related, for example, in the case of a telecommunications tower that exposes persons in a nearby residential area.

Public exposure to radio frequencies is regulated and enforced in units of milliwatts per square centimeter (mW/cm^2). The general population exposure limits for the 700 and 850 MHz Bands are approximately 0.467 mW/cm^2 and 0.567 mW/cm^2 respectively or 466.667 µW/cm2 and 566.667 µW/cm2 respectively. The general population exposure limit for the 1900 MHz (PCS), 2100 MHz (AWS), 2300 MHz (WCS), 3540 MHz (DoD Band) and 3840 MHz (C-Band) bands is 1 mW/cm^2 or 1000 µW/cm2. Because each carrier will be using different frequency bands, and each frequency band has different exposure limits, it is necessary to report percent of MPE rather than power density.

Occupational/controlled exposure limits apply to situations in which persons are exposed as a consequence of their employment and in which those persons who are exposed have been made fully aware of the potential for exposure and can exercise control over their exposure. Occupational/controlled exposure limits also apply where 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.

Additional details can be found in FCC OET 65.

1. Theoretical Calculations: Methods and Procedures

MobileComm Professionals, Inc has performed theoretical modeling of the site using a software tool, RoofMaster® Version 40.12.23.2022, which incorporates calculation methodologies detailed in FCC OET 65. RoofMaster® uses a cylindrical model for conservative power density predictions within the near field of the antenna where the antenna pattern has not truly formed yet. Within this area power density values tend to decrease based upon an inverse distance function. At the point where it is appropriate for modeling to change from near-field calculations to far-field calculations, the power decreases inversely with the square of the distance. The modeling is based on worst-case assumptions in terms of transmitter power and duty cycle. No losses were included in the power calculations unless they were specifically provided for the project.

In OET 65, a far field model is presented to calculate the spatial peak power density. The RoofMaster® implementation of this model incorporates antenna manufacturer's horizontal and vertical pattern data to determine the power density in all directions. This model yields the power density at a single point in space. In order to determine the spatial power density for comparison to the FCC limits, the average of several points calculated within the human profile (0-6') must be conducted. RoofMaster® calculates seven power density values between 0-6' above the specified study plane and performs a linear spatial average.

The following table details the antennas and operating parameters for the AT&T antenna system as well as any other antenna systems at the site. This is based on antenna information provided by the client and data compiled from other sources where necessary. The data below was input into Roofmaster® to perform the theoretical exposure calculations at the ground.

The theoretical calculations performed in Roofmaster® determine the cumulative exposure at all sample points at ground level (0-6' spatial average). The results from highest cumulative sample point at ground level surrounding the site are displayed in the table below. The contribution from directional antennas to the maximum cumulative totals varies greatly depending on location; therefore, the contribution from one antenna sector at the highest calculated exposure point may be greater or less than other sectors since sectorized directional antennas are pointed in different directions and there is not much overlapping exposure.

The contribution to the cumulative power density and % MPE for each antenna/frequency band is listed in the table. The cumulative power density and cumulative % MPE are displayed at the bottom of the table.

2. Antenna Inventory & Power Data

Sector	Ant ID	Operator	Antenna Mfg	Antenna Model	Antenna Type	FREQ. (MHz)	TECH.	AZ. (^{0})	HBW (^{0})	Antenna Gain (dBd)	Antenna Aperture (ft)	#of Channels	Transmitter Power Per Channel (Watts)	Total ERP (Watts)	Total EIRP (Watts)	Height (ft)	Calculated Power Density ($\mu W/cm^2$)	Allowable MPE ($\mu W/cm^2$)	Calculated MPE%
A	1	AT&T	Kathrein	80010966	Panel	700	LTE(FN)	30	66	13.55	8	4	40.00	3229.39	5298.10	220.00	0.000024	466.67	0.000005
A	1	AT&T	Kathrein	80010966	Panel	2300	LTE	30	57	15.95	8	4	25.00	3507.52	5754.40	220.00	0.000027	1000.00	0.000003
A	2-1	AT&T	Ericsson	AIR 6419 B77G	Panel	3450	5G	30	11	23.5	2.55	1	54.22	12138.53	19914.34	221.75	0.000304	1000.00	0.000030
A	2-2	AT&T	Ericsson	AIR 6449 B77D	Panel	3840	5G	30	11	23.5	2.55	1	86.75	19421.64	31862.94	218.25	0.000486	1000.00	0.000049
A	3	AT&T	CCI	DMP65R-BU8EA-K	Panel	700	LTE(B12)	30	74	12.85	8	4	40.00	2748.65	4509.41	220.00	0.000004	466.67	0.000001
A	3	AT&T	CCI	DMP65R-BU8EA-K	Panel	850	5G	30	62	13.75	8	4	40.00	3381.58	5547.79	220.00	0.000024	566.67	0.000004
A	3	AT&T	CCI	DMP65R-BU8EA-K	Panel	1900	LTE/5G	30	71	15.65	8	4	40.00	5237.45	8592.51	220.00	0.000002	1000.00	0.000000
A	3	AT&T	CCI	DMP65R-BU8EA-K	Panel	2100	LTE/5G	30	71	15.85	8	4	60.00	8226.43	13496.19	220.00	0.000011	1000.00	0.000001
B	4	AT&T	Kathrein	80010965	Panel	700	LTE(FN)	150	62	12.65	6.5	4	40.00	2624.94	4306.46	220.00	0.000009	466.67	0.000002
B	4	AT&T	Kathrein	80010965	Panel	2300	LTE	150	56	15.95	6.5	4	25.00	3507.52	5754.40	220.00	0.000000	1000.00	0.000000
B	5-1	AT&T	Ericsson	AIR 6419 B77G	Panel	3450	5G	150	11	23.5	2.55	1	54.22	12138.53	19914.34	221.75	0.166862	1000.00	0.016686
B	5-2	AT&T	Ericsson	AIR 6449 B77D	Panel	3840	5G	150	11	23.5	2.55	1	86.75	19421.64	31862.94	218.25	0.266978	1000.00	0.026698
B	6	AT&T	CCI	DMP65R-BU6EA-K	Panel	700	LTE(B12)	150	73	11.95	6	4	40.00	2234.19	3665.39	220.00	0.020669	466.67	0.004429
B	6	AT&T	CCI	DMP65R-BU6EA-K	Panel	850	5G	150	62	12.45	6	4	40.00	2506.80	4112.63	220.00	0.028830	566.67	0.005088
B	6	AT&T	CCI	DMP65R-BU6EA-K	Panel	1900	LTE/5G	150	71	15.75	6	4	40.00	5359.45	8792.65	220.00	0.024048	1000.00	0.002405
B	6	AT&T	CCI	DMP65R-BU6EA-K	Panel	2100	LTE/5G	150	71	15.95	6	4	60.00	8418.04	13810.56	220.00	0.037184	1000.00	0.003718
C	7	AT&T	Kathrein	80010965	Panel	700	LTE(FN)	260	62	12.65	6.5	4	40.00	2624.94	4306.46	220.00	0.008216	466.67	0.001760
C	7	AT&T	Kathrein	80010965	Panel	2300	LTE	260	56	15.95	6.5	4	25.00	3507.52	5754.40	220.00	0.002997	1000.00	0.000300
C	8-1	AT&T	Ericsson	AIR 6419 B77G	Panel	3450	5G	260	11	23.5	2.55	1	54.22	12138.53	19914.34	221.75	0.109359	1000.00	0.010936
C	8-2	AT&T	Ericsson	AIR 6449 B77D	Panel	3840	5G	260	11	23.5	2.55	1	86.75	19421.64	31862.94	218.25	0.174974	1000.00	0.017497
C	9	AT&T	CCI	DMP65R-BU6EA-K	Panel	700	LTE(B12)	260	73	11.95	6	4	40.00	2234.19	3665.39	220.00	0.000362	466.67	0.000078
C	9	AT&T	CCI	DMP65R-BU6EA-K	Panel	850	5G	260	62	12.45	6	4	40.00	2506.80	4112.63	220.00	0.000159	566.67	0.000028
C	9	AT&T	CCI	DMP65R-BU6EA-K	Panel	1900	LTE/5G	260	71	15.75	6	4	40.00	5359.45	8792.65	220.00	0.000216	1000.00	0.000022
C	9	AT&T	CCI	DMP65R-BU6EA-K	Panel	2100	LTE/5G	260	71	15.95	6	4	60.00	8418.04	13810.56	220.00	0.000388	1000.00	0.000039

Table 2.1: Antenna Inventory & Power Data

**NOTE: 75% Duty Cycle and adjusted power reduction factor of 0.32 was applied to the AIR6449 & AIR6449 antennas per guidance from AT&T. Specifications were not available for the Ericsson AIR 6449 antenna. Per AT&T, specifications for the AIR 6449 antenna were used to model the 6449 due to its similarity.*

Sector	Ant ID	Operator	Antenna Mfg	Antenna Model	Antenna Type	FREQ. (MHz)	TECH.	AZ. (^{0})	H B W (^{0})	Antenna Gain (dBd)	Antenna Aperture (ft)	#of Channels	Transmitter Power Per Channel (Watts)	Total ERP (Watts)	Total EIRP (Watts)	Height (ft)	Calculated Power Density ($\mu W/cm^2$)	Allowable MPE ($\mu W/cm^2$)	Calculated MPE%
A	10	T-Mobile	RFS	APXVAARR24_43-U-NA20	Panel	600	LTE	120	69	13.25	8	2	30.00	1130.19	1854.18	236.00	0.000598	400.00	0.000149
A	10	T-Mobile	RFS	APXVAARR24_43-U-NA20	Panel	600	5G	120	69	13.25	8	1	80.00	1506.92	2472.24	236.00	0.000797	400.00	0.000199
A	10	T-Mobile	RFS	APXVAARR24_43-U-NA20	Panel	700	LTE	120	64	13.65	8	2	30.00	1239.23	2033.06	236.00	0.000973	466.67	0.000209
A	10	T-Mobile	RFS	APXVAARR24_43-U-NA20	Panel	1900	UMTS	120	63	16.05	8	2	30.00	2153.53	3533.06	236.00	0.000666	1000.00	0.000067
A	10	T-Mobile	RFS	APXVAARR24_43-U-NA20	Panel	1900	LTE	120	63	16.05	8	2	60.00	8614.13	14132.25	236.00	0.002663	1000.00	0.000266
A	11	T-Mobile	Ericsson	AIR6449_LTE_B41	Panel	2500	LTE	120	12.5	22.65	2.75	1	40.67	7485.61	12280.81	236.00	0.001253	1000.00	0.000125
A	11	T-Mobile	Ericsson	AIR6449_NR_B41	Panel	2500	5G	120	12.5	22.65	2.75	1	67.78	12476.02	20468.02	236.00	0.002088	1000.00	0.000209
A	12	T-Mobile	Ericsson	KRD901146-1_A	Panel	1900	GSM	120	63.3	15.35	4.94	4	30.00	4113.21	6748.10	236.00	0.001419	1000.00	0.000142
A	12	T-Mobile	Ericsson	KRD901146-1_A	Panel	1900	LTE	120	63.3	15.35	4.94	4	60.00	8226.43	13496.19	236.00	0.002839	1000.00	0.000284
A	12	T-Mobile	Ericsson	KRD901146-1_A	Panel	2100	LTE	120	63.3	15.35	4.94	2	60.00	4113.21	6748.10	236.00	0.000701	1000.00	0.000070
B	13	T-Mobile	RFS	APXVAARR24_43-U-NA20	Panel	600	LTE	220	69	13.25	8	2	30.00	1130.19	1854.18	236.00	0.000348	400.00	0.000087
B	13	T-Mobile	RFS	APXVAARR24_43-U-NA20	Panel	600	5G	220	69	13.25	8	1	80.00	1506.92	2472.24	236.00	0.000464	400.00	0.000116
B	13	T-Mobile	RFS	APXVAARR24_43-U-NA20	Panel	700	LTE	220	64	13.65	8	2	30.00	1239.23	2033.06	236.00	0.000097	466.67	0.000021
B	13	T-Mobile	RFS	APXVAARR24_43-U-NA20	Panel	1900	UMTS	220	63	16.05	8	2	30.00	2153.53	3533.06	236.00	0.000287	1000.00	0.000029
B	13	T-Mobile	RFS	APXVAARR24_43-U-NA20	Panel	1900	LTE	220	63	16.05	8	2	60.00	8614.13	14132.25	236.00	0.001149	1000.00	0.000115
B	14	T-Mobile	Ericsson	AIR6449_LTE_B41	Panel	2500	LTE	220	12.5	22.65	2.75	1	40.67	7485.61*	12280.81	236.00	0.072612	1000.00	0.007261
B	14	T-Mobile	Ericsson	AIR6449_NR_B41	Panel	2500	5G	220	12.5	22.65	2.75	1	67.78	12476.02	20468.02	236.00	0.121020	1000.00	0.012102
B	15	T-Mobile	Ericsson	KRD901146-1_A	Panel	1900	GSM	220	63.3	15.35	4.94	4	30.00	4113.21	6748.10	236.00	0.013869	1000.00	0.001387
B	15	T-Mobile	Ericsson	KRD901146-1_A	Panel	1900	LTE	220	63.3	15.35	4.94	4	60.00	8226.43	13496.19	236.00	0.027739	1000.00	0.002774
B	15	T-Mobile	Ericsson	KRD901146-1_A	Panel	2100	LTE	220	63.3	15.35	4.94	2	60.00	4113.21	6748.10	236.00	0.015697	1000.00	0.001570
C	16	T-Mobile	RFS	APXVAARR24_43-U-NA20	Panel	600	LTE	340	69	13.25	8	2	30.00	1130.19	1854.18	236.00	0.000025	400.00	0.000006
C	16	T-Mobile	RFS	APXVAARR24_43-U-NA20	Panel	600	5G	340	69	13.25	8	1	80.00	1506.92	2472.24	236.00	0.000033	400.00	0.000008
C	16	T-Mobile	RFS	APXVAARR24_43-U-NA20	Panel	700	LTE	340	64	13.65	8	2	30.00	1239.23	2033.06	236.00	0.000004	466.67	0.000001
C	16	T-Mobile	RFS	APXVAARR24_43-U-NA20	Panel	1900	UMTS	340	63	16.05	8	2	30.00	2153.53	3533.06	236.00	0.000074	1000.00	0.000007
C	16	T-Mobile	RFS	APXVAARR24_43-U-NA20	Panel	1900	LTE	340	63	16.05	8	2	60.00	8614.13	14132.25	236.00	0.000297	1000.00	0.000030
C	17	T-Mobile	Ericsson	AIR6449_LTE_B41	Panel	2500	LTE	340	12.5	22.65	2.75	1	40.67	7485.61	12280.81	236.00	0.007492	1000.00	0.000749
C	17	T-Mobile	Ericsson	AIR6449_NR_B41	Panel	2500	5G	340	12.5	22.65	2.75	1	67.78	12476.02	20468.02	236.00	0.012487	1000.00	0.001249
C	18	T-Mobile	Ericsson	KRD901146-1_A	Panel	1900	GSM	340	63.3	15.35	4.94	4	30.00	4113.21	6748.10	236.00	0.000498	1000.00	0.000050
C	18	T-Mobile	Ericsson	KRD901146-1_A	Panel	1900	LTE	340	63.3	15.35	4.94	4	60.00	8226.43	13496.19	236.00	0.000995	1000.00	0.000100
C	18	T-Mobile	Ericsson	KRD901146-1_A	Panel	2100	LTE	340	63.3	15.35	4.94	2	60.00	4113.21	6748.10	236.00	0.000550	1000.00	0.000055
A	19	Other Carrier	Generic	Generic	Microwave	7800	Unknown	0	6	37.85	6	1	0.30	1706.56	2799.76	266.00	0.000000	1000.00	0.000000
B	20	Other Carrier	Generic	Generic	Microwave	7800	Unknown	90	6	37.85	6	1	0.30	1706.56	2799.76	266.00	0.000000	1000.00	0.000000
C	21	Other Carrier	Generic	Generic	Microwave	7800	Unknown	180	6	37.85	6	1	0.30	1706.56	2799.76	256.00	0.000000	1000.00	0.000000
D	22	Other Carrier	Generic	Generic	Microwave	7800	Unknown	180	6	37.85	6	1	0.30	1706.56	2799.76	170.00	0.000065	1000.00	0.000006
A	23	Other Carrier	Generic	Generic	Omni	850	LTE	0	360	2.71	4	1	60.00	104.51	171.46	162.00	0.000004	566.67	0.000001
																Calculated Power Density ($\mu W/cm^2$)	**1.131936**	**Calculated MPE%**	**0.1192**

Table 2.2: Antenna Inventory & Power Data

**NOTE: 75% Duty Cycle and adjusted power reduction factor of 0.32 was applied to the AIR6449 & AIR6449 antennas per guidance from AT&T. Specifications were not available for the Ericsson AIR 6449 antenna. Per AT&T, specifications for the AIR 6449 antenna were used to model the 6449 due to its similarity.*

3. Compliance Summary

The theoretical calculations performed for this analysis yielded results that were **within** the allowable limits for general public exposure to RF Emissions.

The anticipated composite MPE value for this site assuming all carriers present is 0.1192% of the allowable FCC established general public limit sampled at the ground level.

FCC guidelines state that if a site is found to be out of compliance (over allowable thresholds), that carriers over a 5% contribution to the composite value will require measures to bring the site into compliance. For this facility, the composite values calculated were within the allowable 100% threshold standard per the federal government.

FULLERTON
NETWORK INTEGRITY STARTS HERE

August 18, 2023

Scope:	**MOUNT ANALYSIS REPORT**
Prepared for:	SmartLink
Carrier:	AT&T
Site Number:	CTL02056
FA Number:	10050930
Site Name:	Naugatuck Eastside Blvd.
Site Address:	130 Eastside Blvd Naugatuck, CT 06770
Latitude/ Longitude:	41.51777° / -73.01861°

Structure Type:	GUYED TOWER
Mount Type:	Proposed Site Pro 1 VFA12-WLL-30120 Heavy Duty Sector Frames
Rad Center:	220'-0"

Fullerton Engineering, P.C. is pleased to submit this "Mount Analysis Report" to determine the adequacy of the antenna mounting system with the proposed appurtenance and equipment addition on the abovementioned structure.

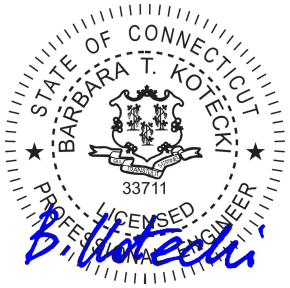
Analysis Criteria:

Reference Standard:	TIA-222-H Standard	
Wind Parameters:	Basic Wind Speed:	118 mph (3-Sec gust)
	Ice Wind Speed:	50 mph (3-Sec gust)
	Design Ice Thickness:	1.00 in.
	Risk Category	II
	Exposure Category:	B
	Topographic Feature:	Escarpment
	Topographic Method:	Method 2
	Ground Elevation Factor, K_e:	0.97
Seismic Parameters:	S_s:	0.196
	S_1:	0.054
Analysis Software:	RISA-3D (V17)	

Appurtenance Loads:
The antenna mounting system was analyzed with the final loading configuration shown in Page 2 of this report.

Summary of Analysis Result: PASS (MAX STRESS RATIO = 34.9%)

Barbara T. Kotecki, P.E.



Summary:

This structural assessment is in regards to the adequacy of the antenna mounting system for the final loading configuration described below. The purpose was to determine conformance of the antenna mounting system under the applicable codes and standards.

This PE certification completed by Fullerton Engineering, P.C. is inclusive of the antenna mounting system that will support the existing and proposed loading provided by the client.

This certification assumes that all structural members of the antenna mounting system are in good condition and have not been altered from the manufacturer's original design. Prior to installation of new equipment, contractor shall inspect the condition of all relevant members and connectors. The contractor shall be responsible for the means and methods of construction.

Sources:

Reference Document	Date
RFDS Ver. 8.0 provided by AT&T	08/09/2023
Site Visit Photos	02/10/2022
Construction Drawing by Fullerton Engineering	03/11/2022

Final Loading Configuration:

Mount Elevation (ft)	Antenna Rad Center (Ft)	QTY.	MANUFACTURER	MODEL	Status
220' – 0"	220' – 0"	1	CCI	TPA65R-BU8DV2	Proposed
		2	CCI	TPA65R-BU6DV2	Proposed
		1	Kathrein	800-10966	Existing
		2	Kathrein	800-10965	Existing
		3	Ericsson	Air 6472 B77G B77M	Proposed
		3	Ericsson	Radio 4449 B5/B12	Proposed
		3	Ericsson	Radio 4478 B14	Existing
		3	Ericsson	Radio 4426 B66	Existing
		3	Ericsson	RRUS 32 B30	Existing
		3	Ericsson	RRUS 32 B2	Existing
		2	Raycap	DC6-48-60-18-8F	Existing
		1	Raycap	DC9-48-60-24-PC16-EV	Proposed

Member Component Capacity Table:

Component	% Capacity	Pass / Fail
Face Horizontals	34.9%	Pass
Standoff Members	33.1%	Pass
Tie-Backs	6.6%	Pass
Mounting Pipes	20.5%	Pass
Mount-to-Tower Connection, Threaded Rods	33.77%	Pass
Structural Rating (max from all components) = 34.9%		**Pass**

FULLERTON
NETWORK INTEGRITY STARTS HERE

Site Number: CTL02056
Site Name: Naugatuck Eastside Blvd.
Created By: MK
Checked By: BK
Date: 3/29/2022
Code: ANSI/TIA-222-H

Base Structure Type	Type	Guyed Tower	
Structure Height Above Grade (ft)	Ht	276.00	
RAD Center (ft)	z	220.00	
Windspeed no ice (mph, 3-sec gust)	V	118.00	see wind maps
Windspeed with ice (mph, 3-sec gust)	Vi	50.00	see ice maps
Windspeed for maintenance (mph, 3-sec gust)	Vm	30.00	Section 16.6
Ice Thickness	ti	1.00	see ice maps
Exposure Category (B/C/D)	Exposure	B	Section 2.6.5.1.2
Risk Category (I,II,III, IV)	Cat	II	Table 2-1
Topographic Feature	K.1'	Escarpment	Figure 2-1
Crest Height	H	437.00	Section 2.6.6.2.1
Length of Feature	L	2108.00	
Distance from Crest to Tower	x	351.00	
Escarpment Downwind?		No	
Height above sea level	Zs	744.00	
Exposure Category Coefficient	zg	1200.00	Table 2-4
Mid-Point of Structure	Ht.mid	138.00	
Min Velocity Pressure Coefficient	Kzmin	0.70	Table 2-4
Exposure Category Coefficient	α'	7.00	Table 2-4
Velocity Pressure Coefficient	Kz	1.24	Section 2.6.5.2
Ground Elevation Factor	Ke	0.97	Section 2.6.8
Topographic Feature Factor Adjusted for Slope	K1	0.32	Figure 2-1
Horizontal Distance Factor	K2	0.78	Figure 2-1
Vertical Distance Factor	K3	0.17	Figure 2-1
Topographic Factor	Kzt	1.09	Section 2.6.6.2.1
Rooftop Wind Speed-Up Factor	Ks	1.00	Section 2.6.7
Ice Load Importance Factor	Iti	1.00	Table 2-3
Wind Direction Probability Factor	Kd	0.95	Table 2-2
Height Escalation Factor	Kiz	1.21	Section 2.6.10
Gust Effect Factor	Gh	1.00	Section 16.6
Design Ice Thickness	tiz	1.24	Section 2.6.10
Ice Density	ρ.ice	56.00	lbf/ft^3
Velocity Pressure for Maintenance	qzm	2.86	Section 2.6.11.6
Velocity Pressure With Ice	qzi	7.95	Section 2.6.11.6
Velocity Pressure No Ice	qz	44.30	Section 2.6.11.6

Ka=	0.9

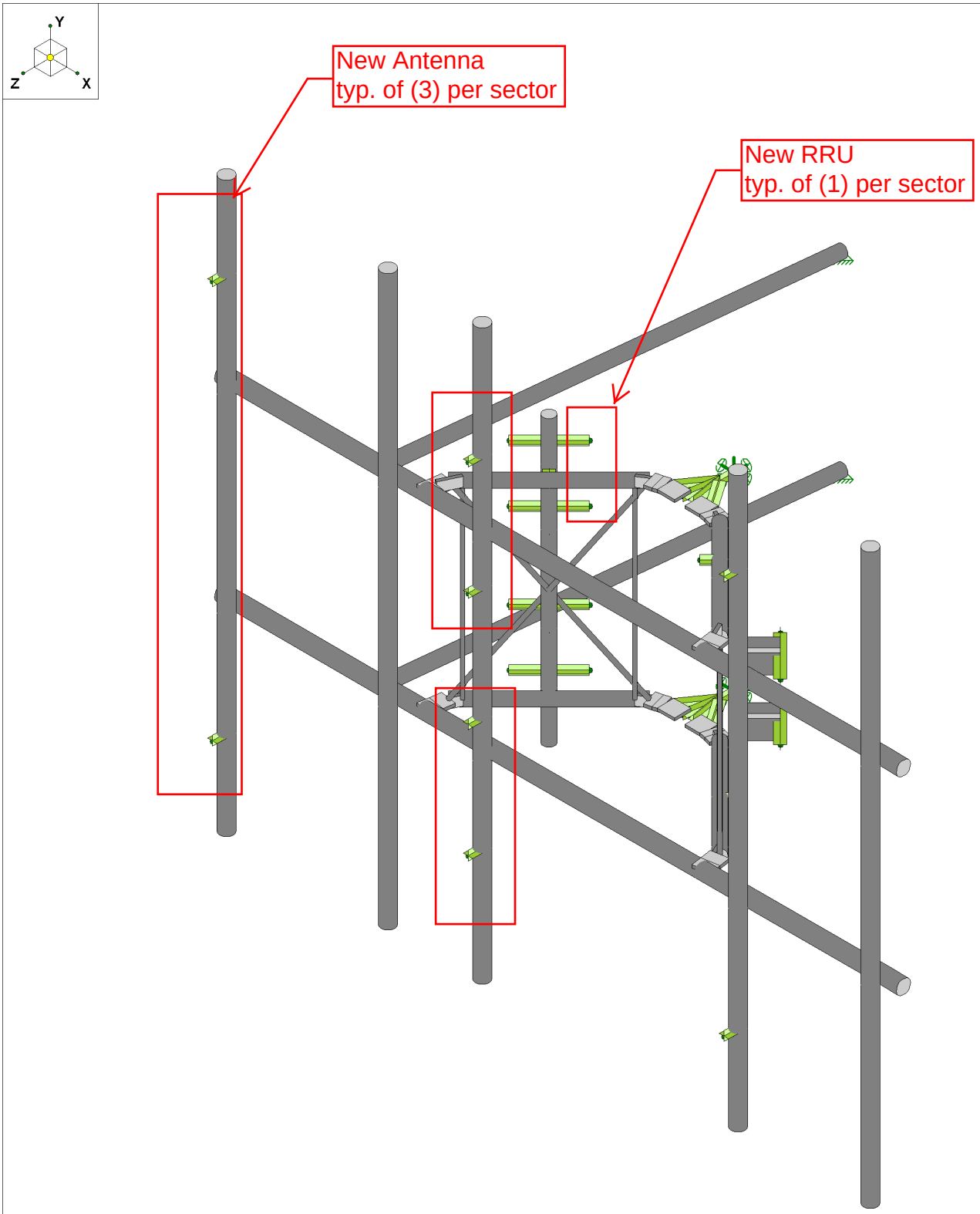
Importance Factor (Earthquake)	I_e	1.00	Table 2-3
Site Class	Class	D - Default	
Seismic Design Category	Cat	B	
MCE_R Ground Motion (period=0.2s)	S_S	0.196	
MCE_R Ground Motion (period=1.0s)	S_1	0.054	
Seismic Design Value at 0.2s	S_{DS}	0.209	
Long-Period Site Coefficient Fv	Fv	2.40	Table 2-12
Seismic Design Value at 1.0s	S_{D1}	0.086	Sec. 2.7.5
Long-period Transition Period (s)	T_L	6	

Sesimic Shear		
R	2.000	See 16.7
$C_{s\text{-calc}}$	0.105	See 2.7.7.1.1
$C_{s\text{-min}}$	0.009	See 2.7.7.1.1
C_S	0.105	See 2.7.7.1.1
A_S	1.000	See 16.7

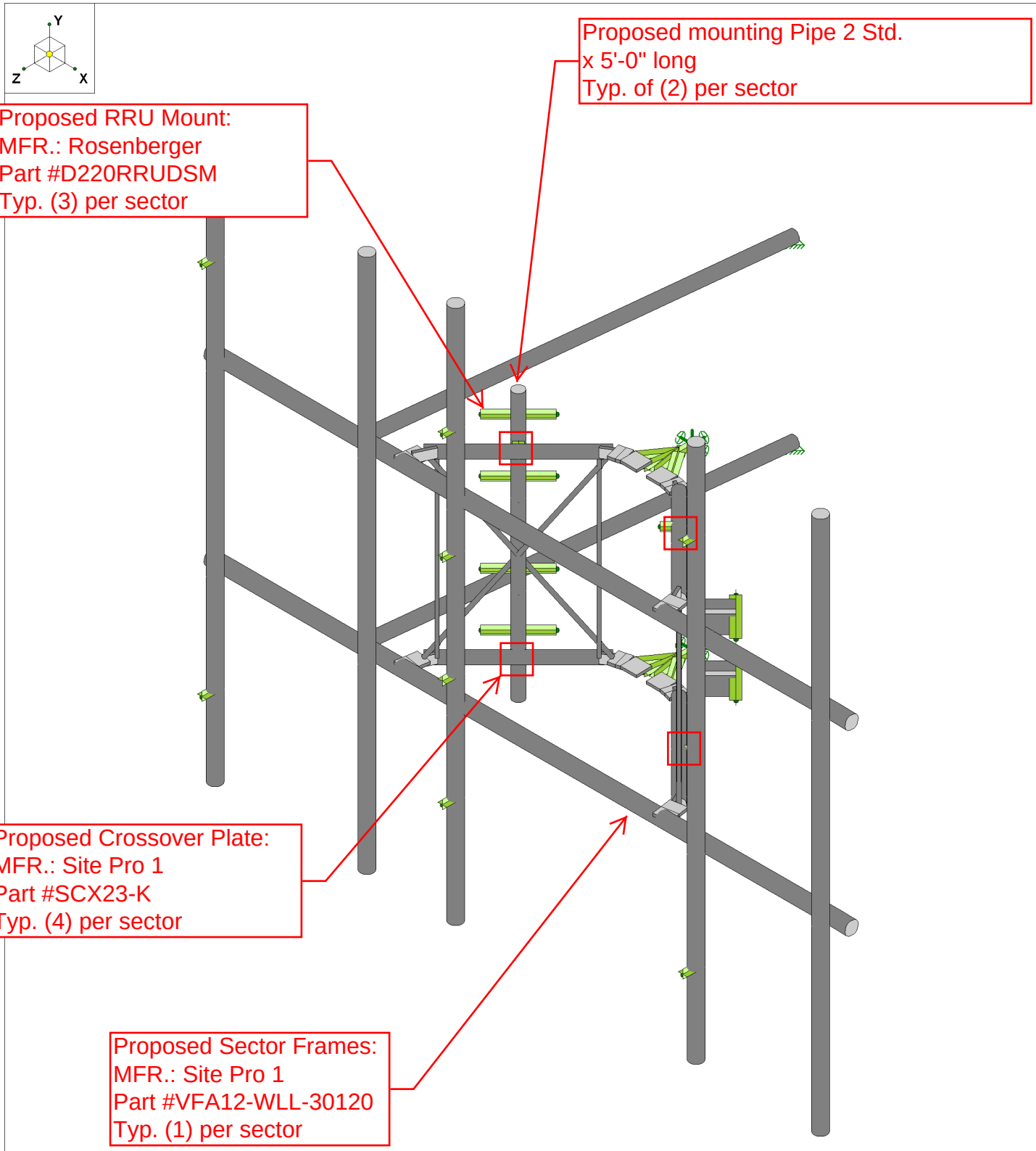
Rooftop Wind Speed-Up Factor	Ks	No	
Horizontal distance from windward face to center of structure	Xb (ft)	1	Section 2.6.7
Width of windward face of the building	Ws (ft)	100	Section 2.6.7
Height of the parapet wall	Hp (ft)	5	Section 2.6.7
Height of windward face of the building	Hs (ft)	276.00	Section 2.6.7
Height of structure above roof	Zr (ft)	10.00	Section 2.6.7
	H1 (ft)	5.2	Section 2.6.7
	H2 (ft)	105.00	Section 2.6.7

Appurtenance Properties								Loads (force per connection)										
Manufacturer	Model	R/F	L	W	D	Weight	# Conn	Wt	Ice Wt	F no ice	S no ice	F ice	S ice	Fm	Sm	Eh	Ev	EPA.F
CCIAntennas	TPA65R-BU8DV2	Flat	86	20.7	7.7	126.8	2	63.4	57.9	314	141	64	33	20	9	7	3	16
Ericsson	AIR 6472 B77D	Flat	36.41	16.1	7.5	92.6	2	40.8	23.8	80	43	18	11	5	3	4	2	4
Ericsson	AIR 6419 B77G	Flat	28.3	16.1	7.9	77	2	38.5	22.2	76	39	17	10	5	2	4	2	4
Kathrein	800-10966	Flat	96	20	6.9	114.6	2	57.3	59.1	346	150	71	35	22	10	6	2	17
Ericsson	Radio 4449 B5/B12	Flat	15	13.2	9.3	70	2	35.0	15.8	33	23	8	6	2	1	4	1	2
Ericsson	4426 B66	Flat	15	13.2	5.8	48.4	2	24.2	11.1	33	15	8	4	2	1	3	1	2
Ericsson	Radio 4478 B14	Flat	16.5	13.4	7.7	44	2	22.0	14.5	37	21	9	6	2	1	2	1	2
Ericsson	RRUS 32	Flat	27.2	12.1	7	53	2	26.5	18.6	55	33	13	9	4	2	3	1	3
Raycap	DC9-48-60-24-PC16-EV	Flat	18.93	15.9	9.6	35	1	35.0	39.8	100	60	23	15	6	4	4	1	3
Raycap	DC6-48-60-18-8F	Round	24	9.7	9.7	32.8	1	32.8	16.9	32	32	8	8	2	2	3	1	1
CCIAntennas	TPA65R-BU6DV2	Flat	71.2	20.7	9.7	103.8	2	51.9	58.2	253	135	52	30	16	9	5	2	13
Kathrein	800-10965	Flat	78.7	20	6.9	108.6	2	54.3	49.0	275	116	57	28	18	8	6	2	14

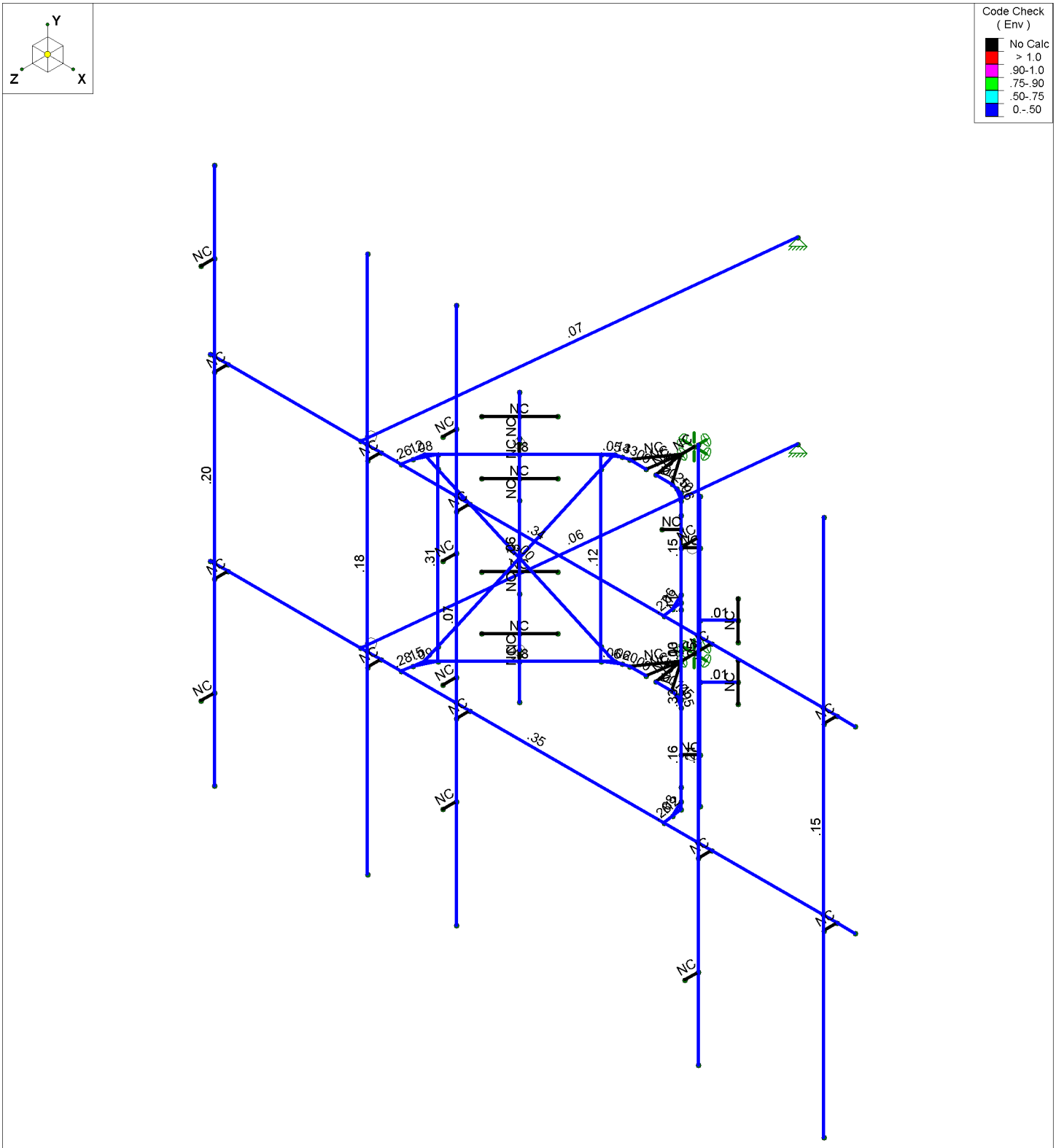
Shape Properties								Loads (force per connection)										
Shape Type	Shape	R/F	L	W	D	Wt (plf)	# Conn	Wt	Ice Wt	F no ice	S no ice	F ice	S ice	Fm	Sm	Eh	Ev	EPA.F
Solid_Rod	SR ¾" Dia.	Round	50	0.75	0.75	1.50	4.16667	6.26	3.0	3	3	2	2	0.2	0.2	0.2	0.1	0
Solid_Rod	SR 5/8" Dia.	Round	40	0.625	0.625	1.04	3.33333	3.48	2.8	2	2	2	2	0.2	0.2	0.1	0.04	0
Plate	PL5/8"x2"	Flat	4.2	2	0.625	4.25	0.35	1.49	5.1	8	3	5	4	1	0.2	0.4	0.2	0
Plate	PL5/8"x3½"	Flat	3.6	3.5	0.625	7.44	0.3	2.23	7.3	14	3	7	4	1	0.2	1	0.3	0
Pipe	Pipe 2 Std.	Round	89	2.38	2.38	3.66	7.41667	27.15	5.5	9	9	3	3	1	1	0.4	0.2	2
Pipe	Pipe 2½ Std.	Round	144	2.88	2.88	5.80	12	69.60	6.3	11	11	4	4	1	1	1	0.2	3



Fullerton Engineering Cons...		SK - 1
MK	Mount Analysis	Mar 29, 2022 at 9:52 AM
CTL02056	3D Render	CTL02056.Rev1.r3d

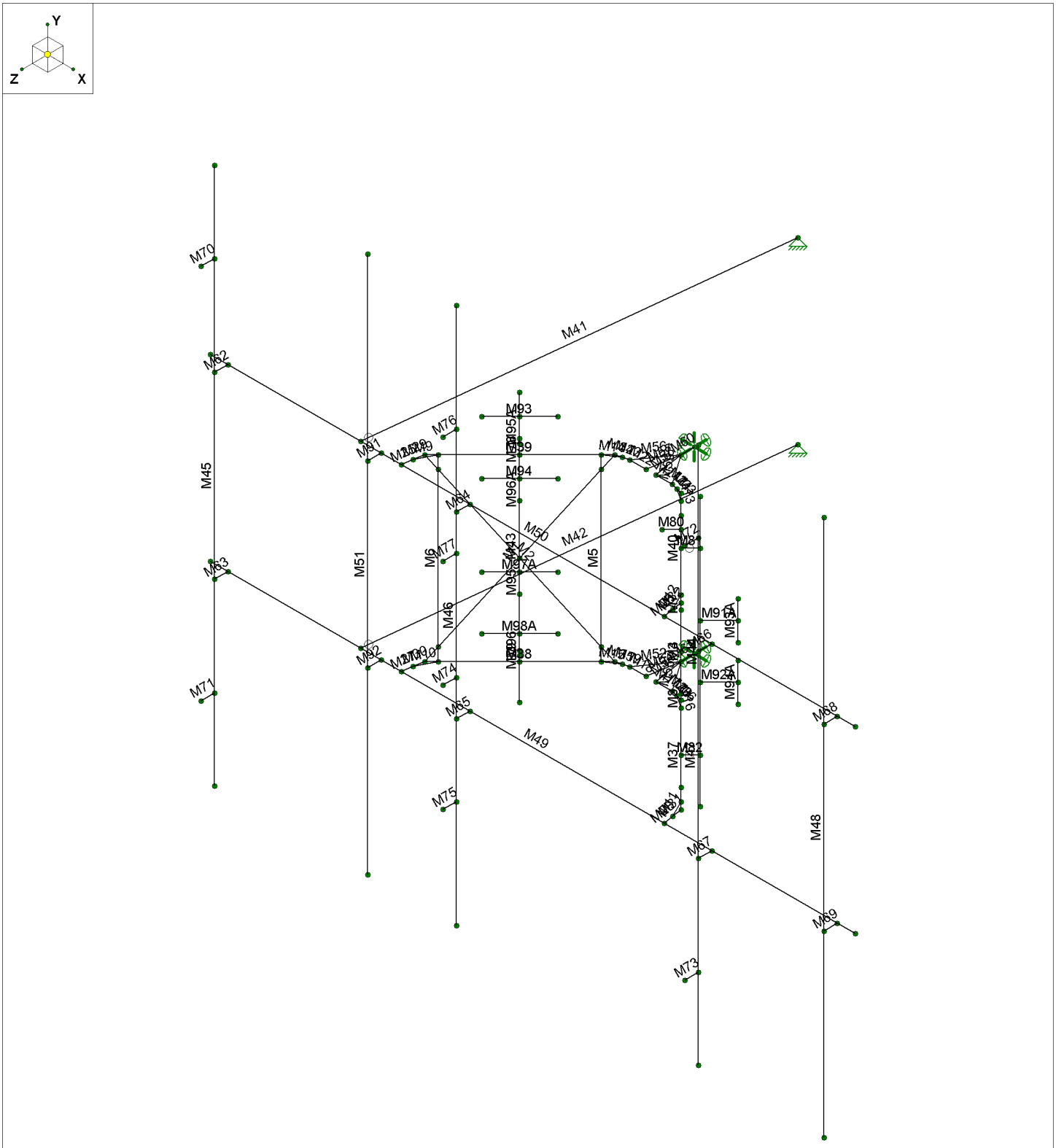


Fullerton Engineering Cons...		SK - 1
MK	Mount Analysis	Mar 29, 2022 at 9:52 AM
CTL02056	3D Render	CTL02056.Rev1.r3d

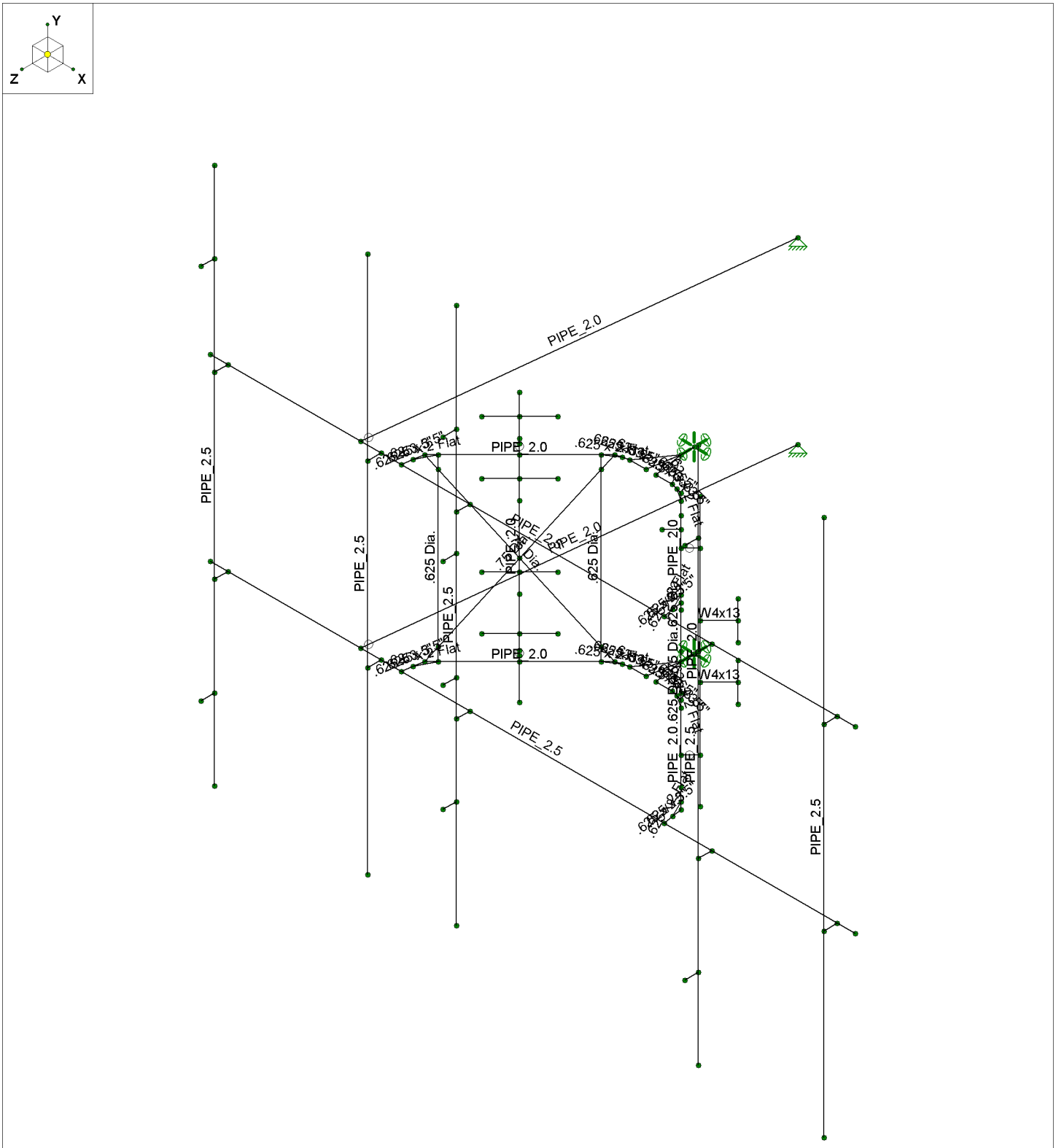


Member Code Checks Displayed (Enveloped)
Results for LC 1, 1.4*DL

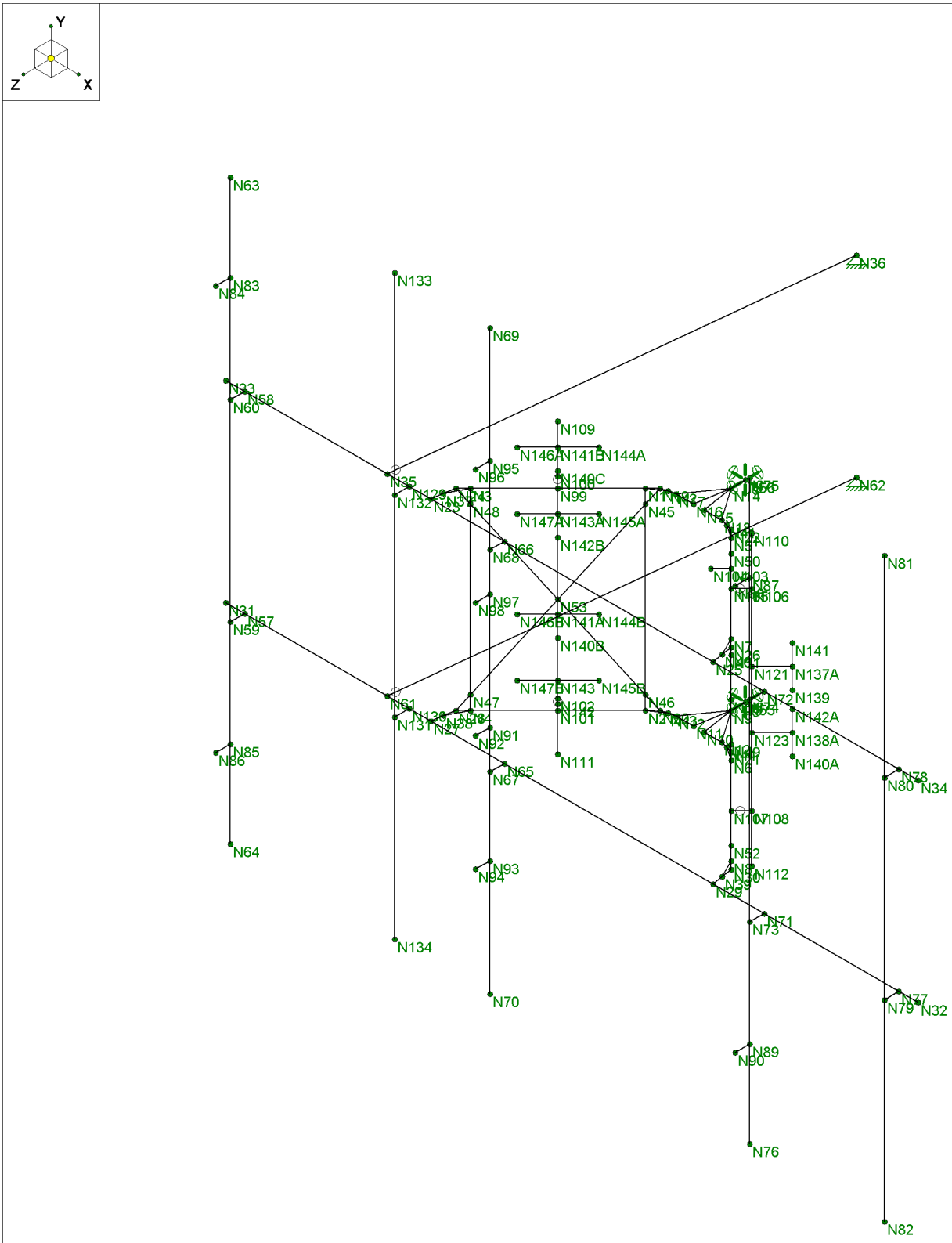
Fullerton Engineering Cons...		SK - 2
MK	Mount Analysis	Mar 29, 2022 at 9:52 AM
CTL02056	Unity Graphic	CTL02056.Rev1.r3d



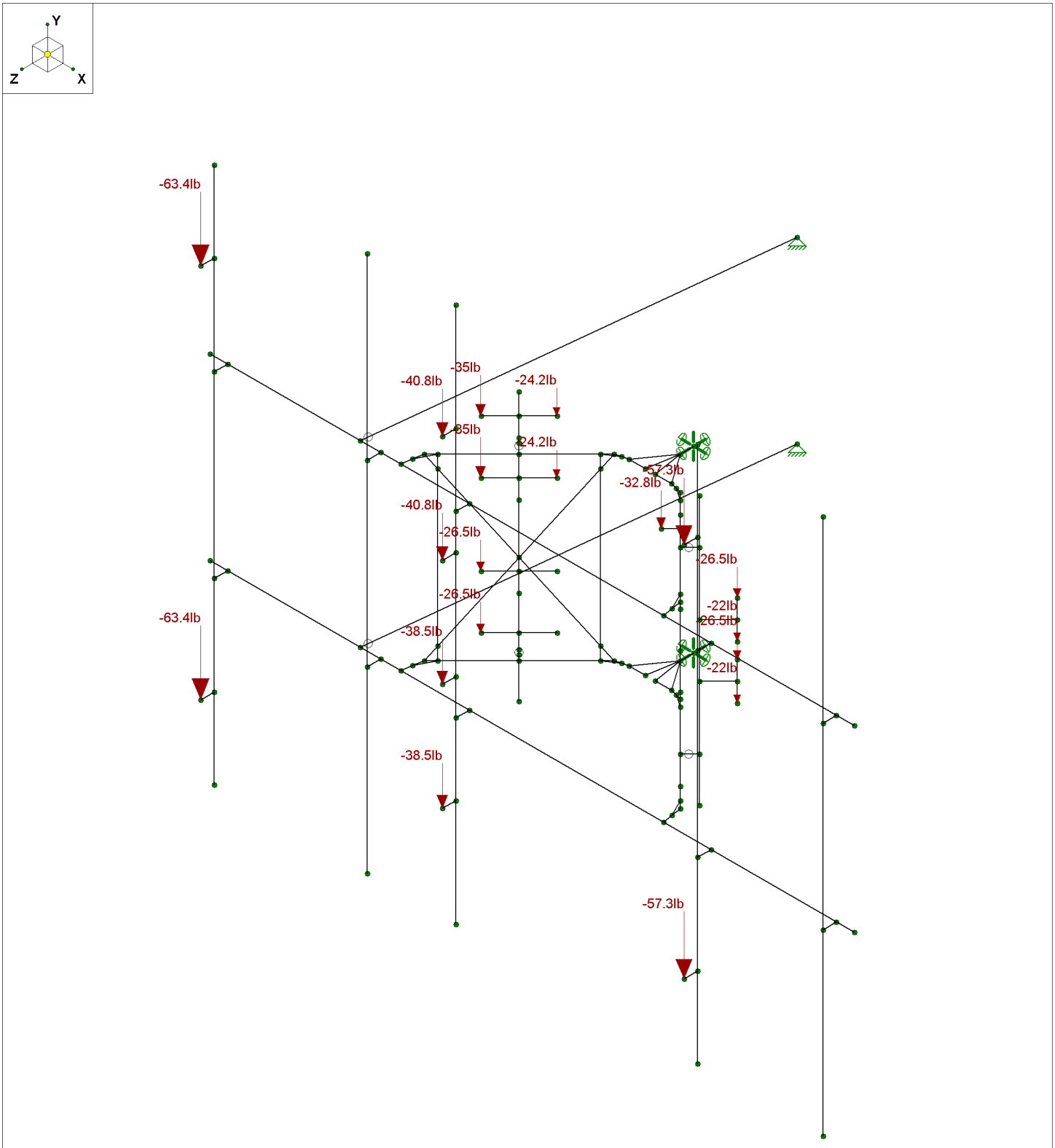
Fullerton Engineering Cons...		SK - 3
MK	Mount Analysis	Mar 29, 2022 at 9:52 AM
CTL02056	Label	CTL02056.Rev1.r3d



Fullerton Engineering Cons...		SK - 4
MK	Mount Analysis	Mar 29, 2022 at 9:52 AM
CTL02056	Shape	CTL02056.Rev1.r3d

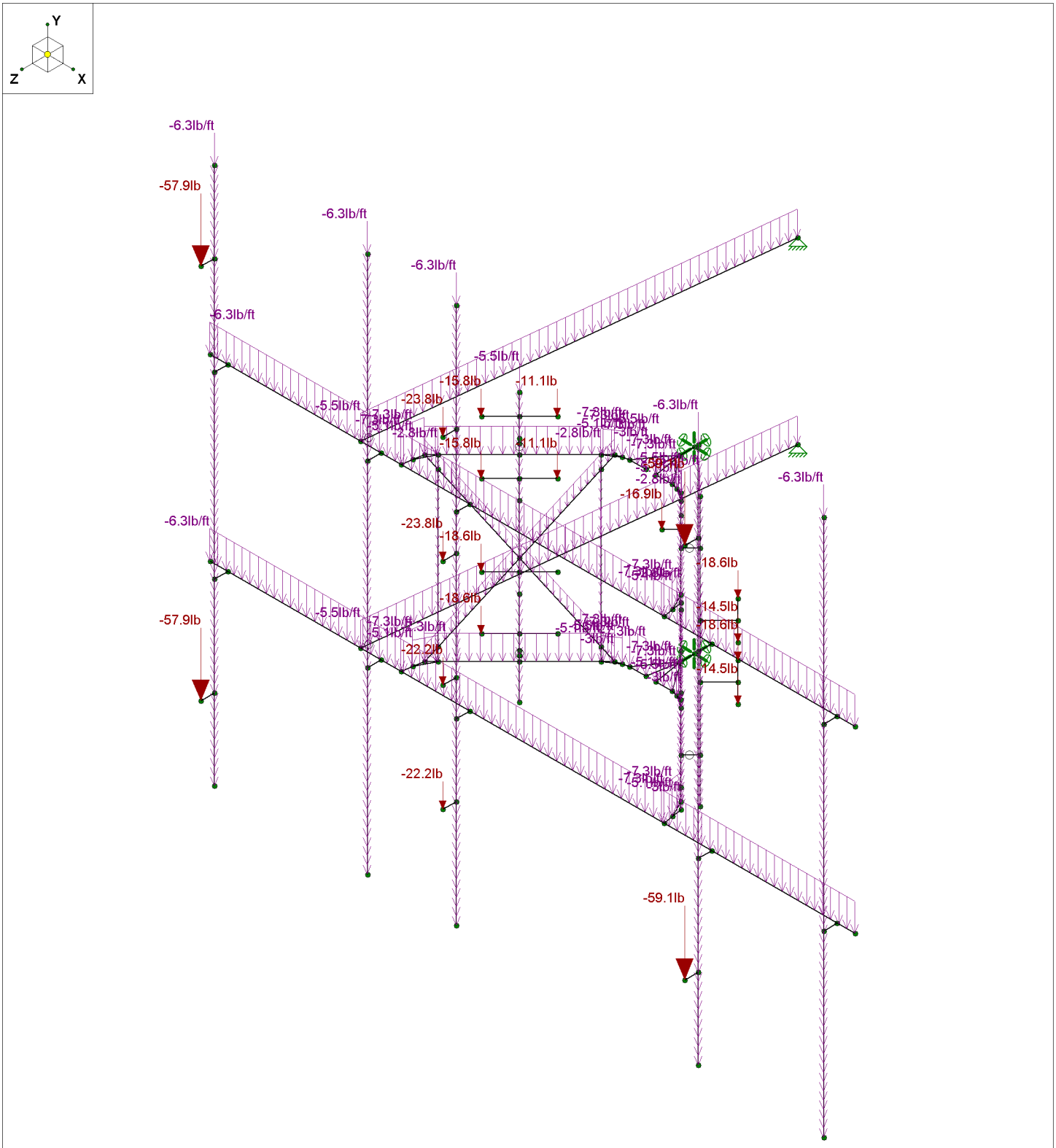


Fullerton Engineering Cons...		SK - 5
MK	Mount Analysis	Mar 29, 2022 at 9:52 AM
CTL02056	Nodes	CTL02056.Rev1.r3d



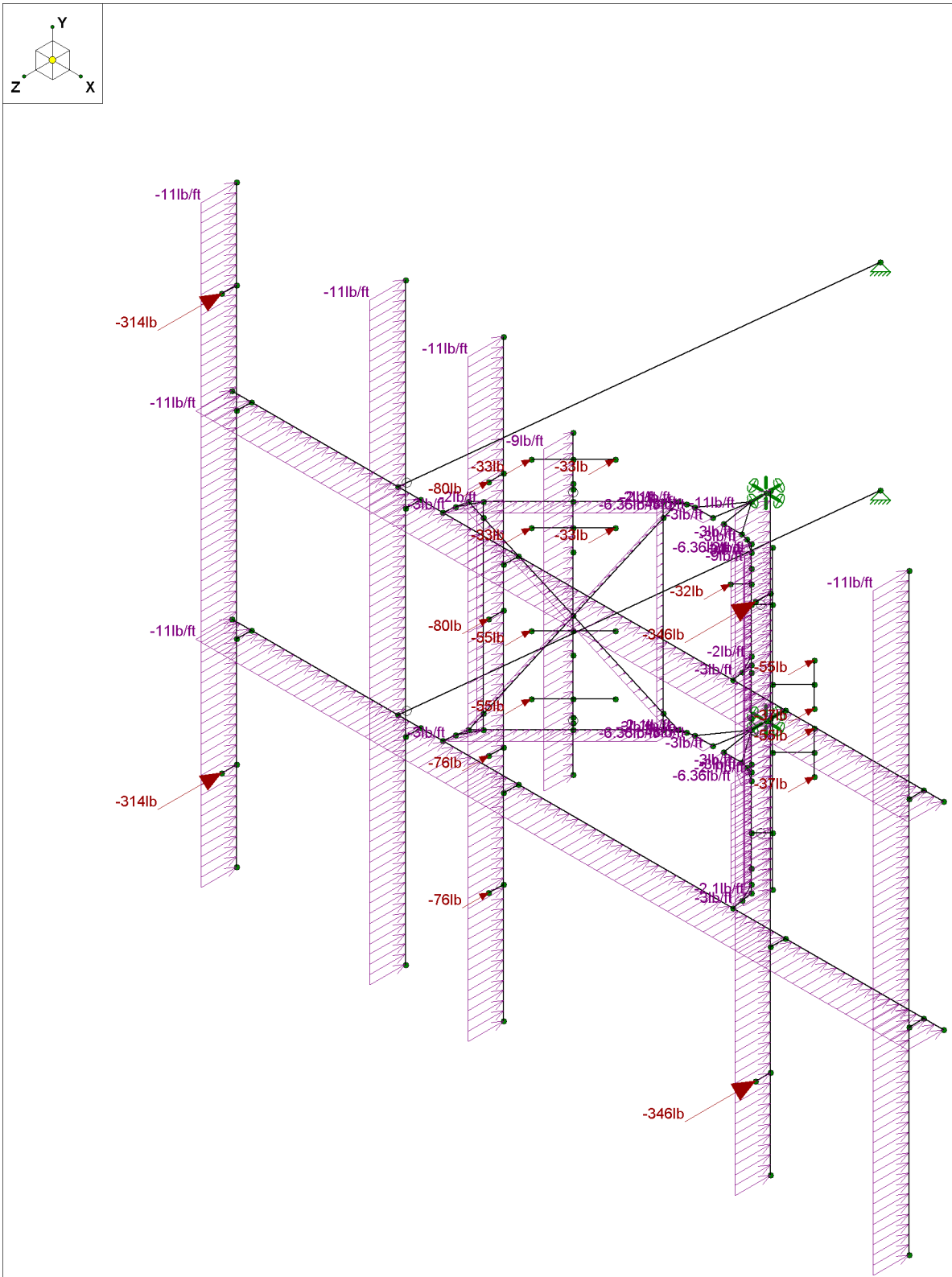
Loads: BLC 1, DL

Fullerton Engineering Cons...		SK - 6
MK	Mount Analysis	Mar 29, 2022 at 9:53 AM
CTL02056	Dead Loads	CTL02056.Rev1.r3d



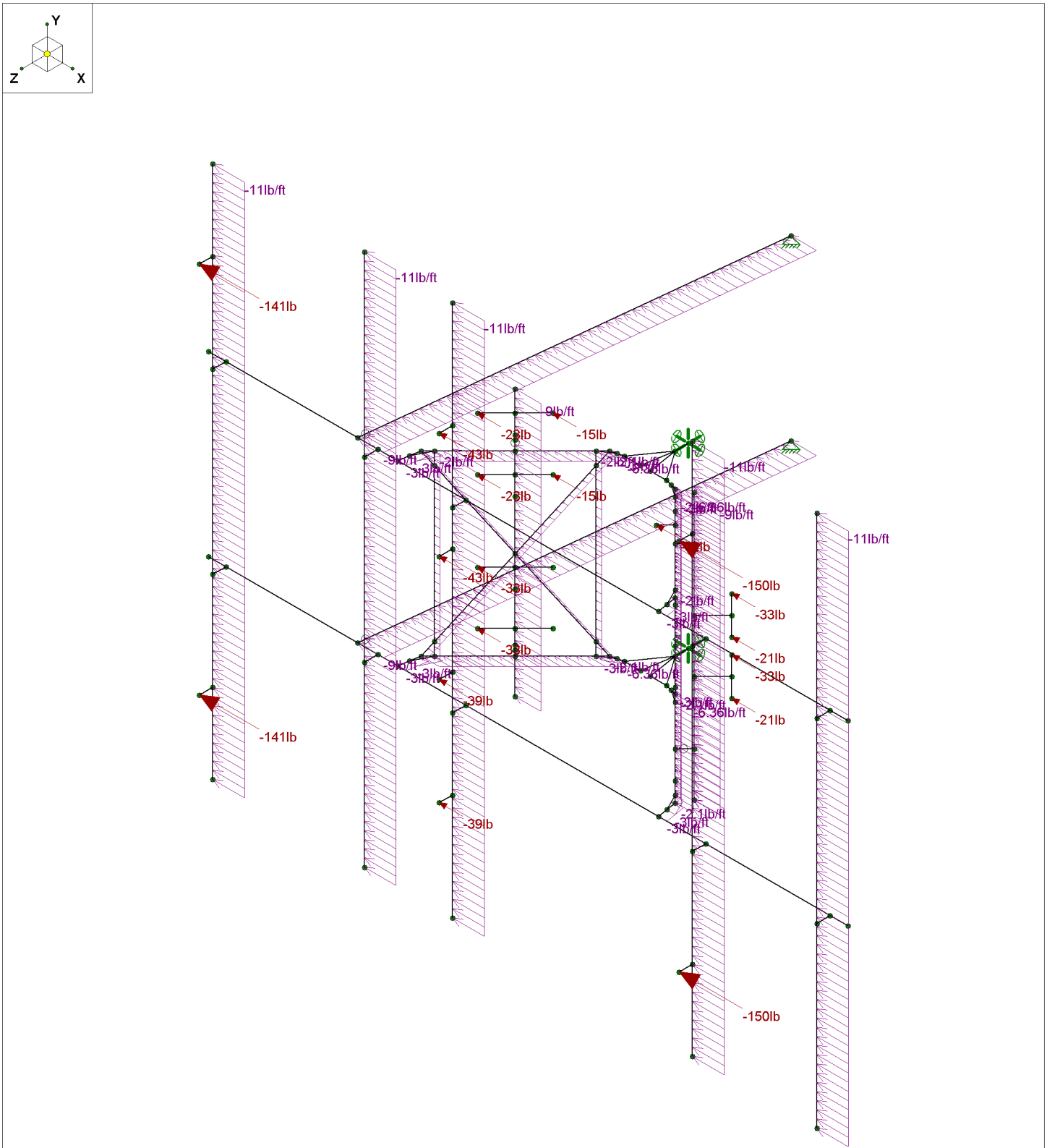
Loads: BLC 2, DLi

Fullerton Engineering Cons...		SK - 7
MK	Mount Analysis	Mar 29, 2022 at 9:53 AM
CTL02056	Ice Loads	CTL02056.Rev1.r3d



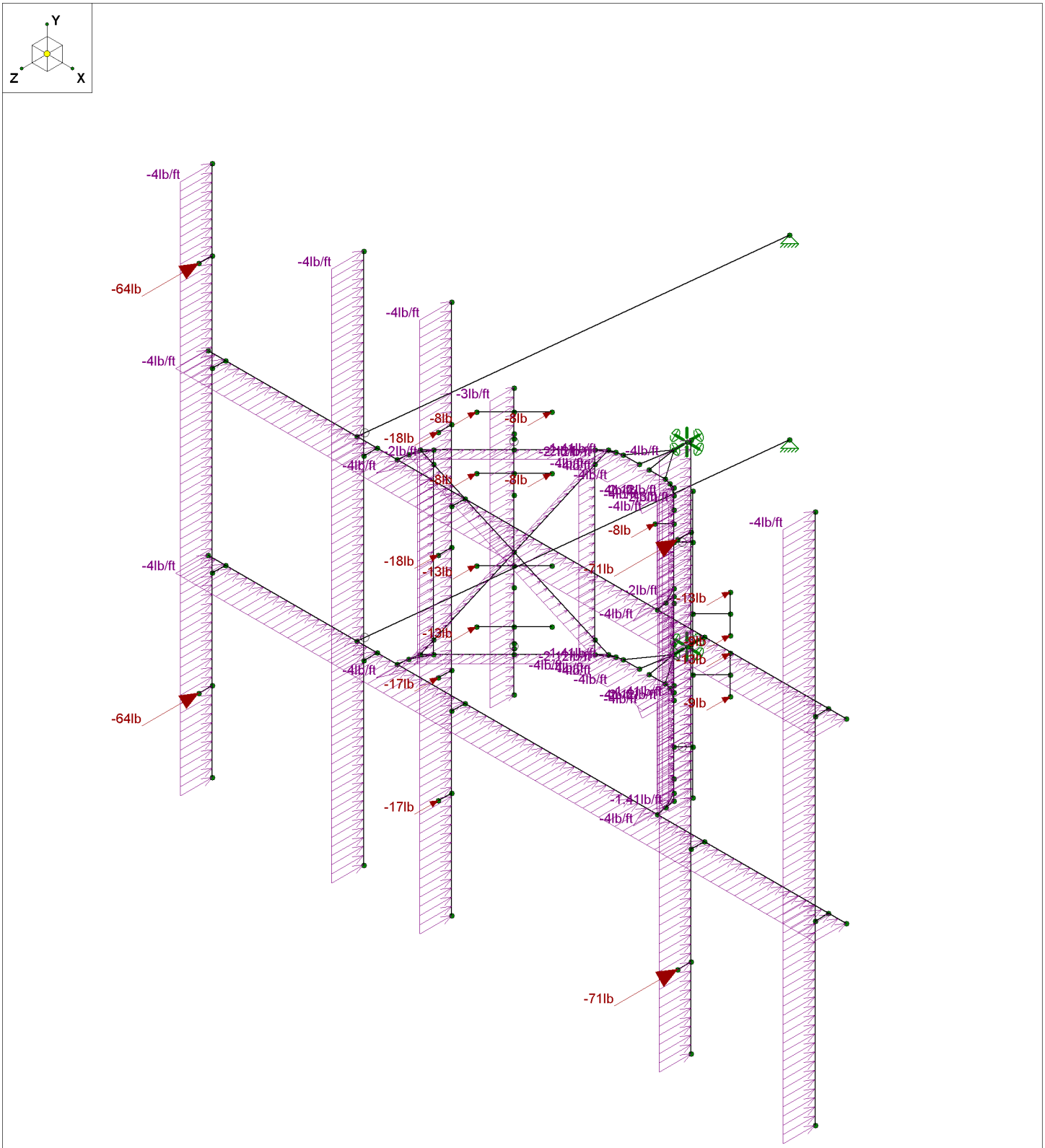
Loads: BLC 3, WL(0)

Fullerton Engineering Cons...		SK - 8
MK	Mount Analysis	Mar 29, 2022 at 9:53 AM
CTL02056	Wind Load (Z-Direction)	CTL02056.Rev1.r3d



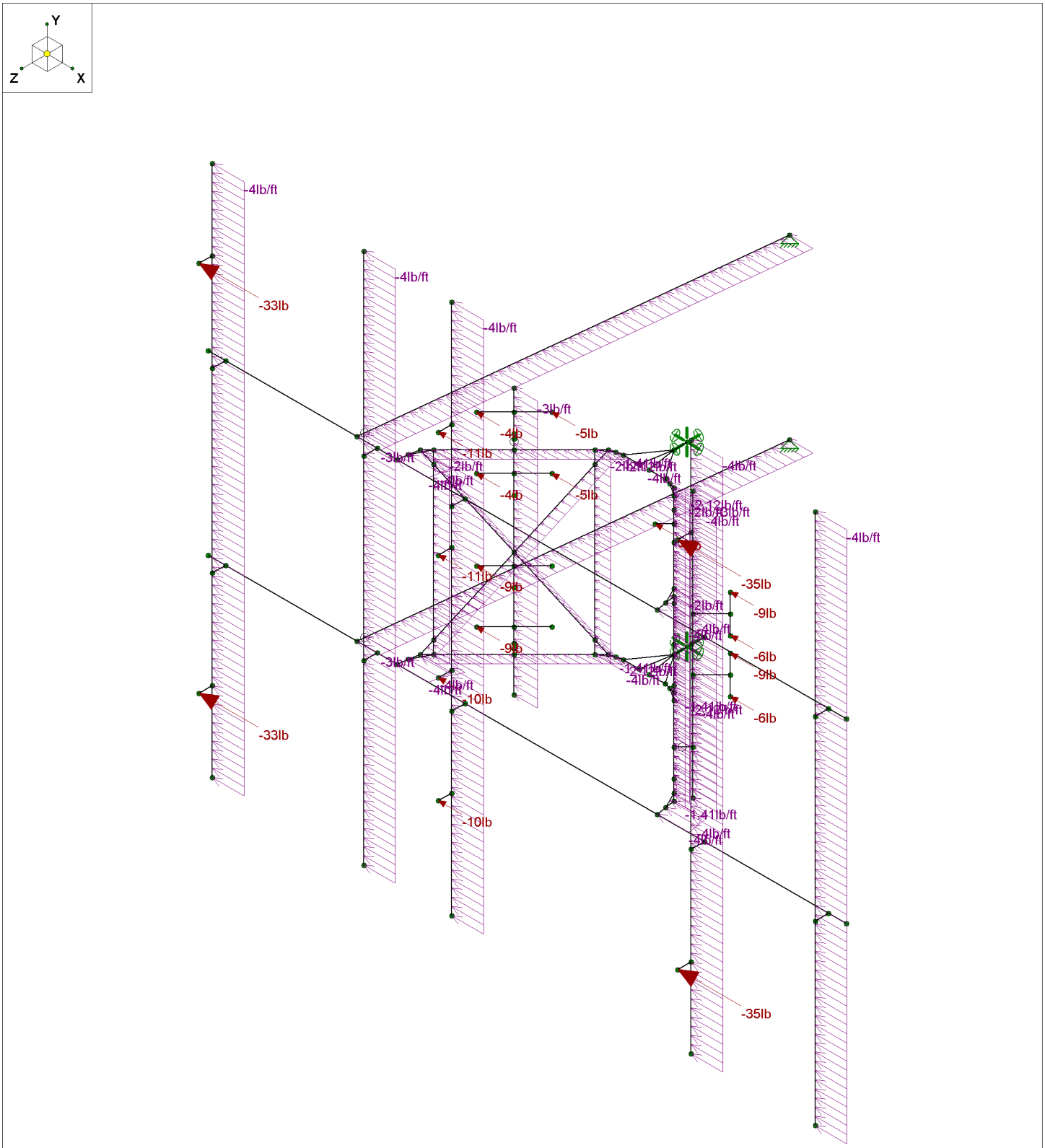
Loads: BLC 4, WL(90)

Fullerton Engineering Cons...		SK - 9
MK	Mount Analysis	Mar 29, 2022 at 9:53 AM
CTL02056	Wind Load (X-Direction)	CTL02056.Rev1.r3d



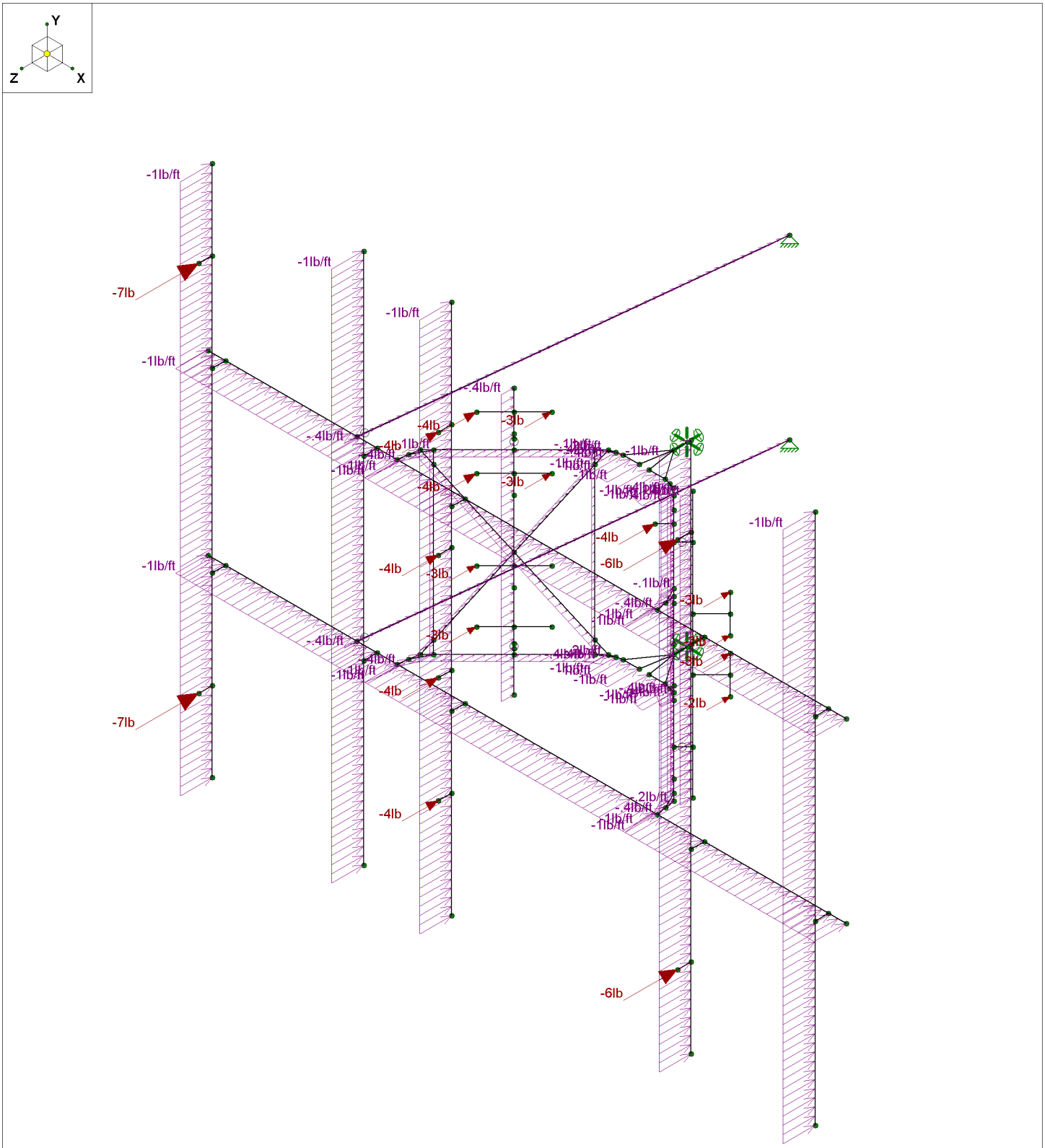
Loads: BLC 5, WL.i(0)

Fullerton Engineering Cons...		SK - 10
MK	Mount Analysis	Mar 29, 2022 at 9:53 AM
CTL02056	Wind Load w/ Ice (Z-Direction)	CTL02056.Rev1.r3d



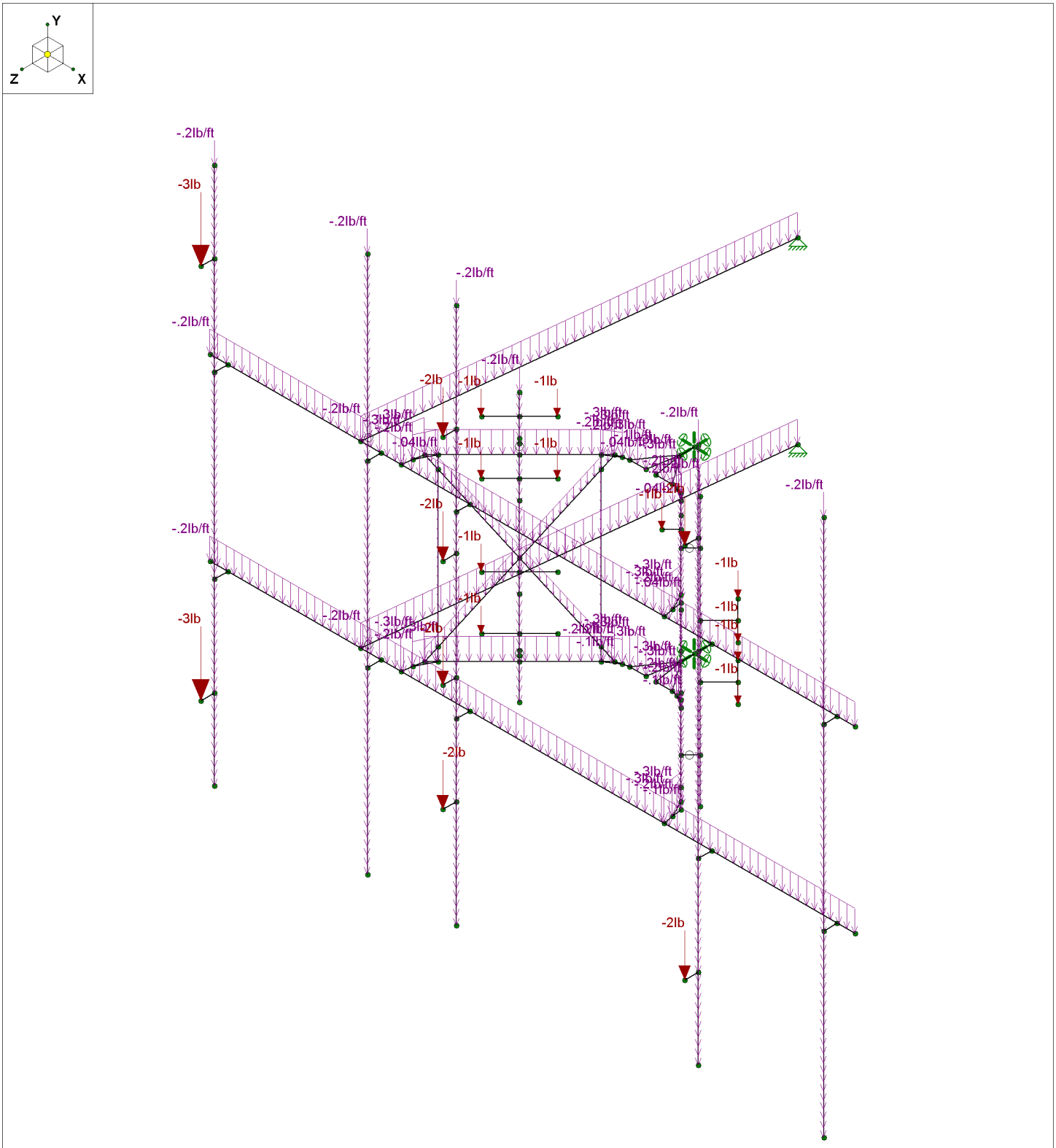
Loads: BLC 6, WL.i(90)

Fullerton Engineering Cons...		SK - 11
MK	Mount Analysis	Mar 29, 2022 at 9:54 AM
CTL02056	Wind Load w/ Ice (X-Direction)	CTL02056.Rev1.r3d



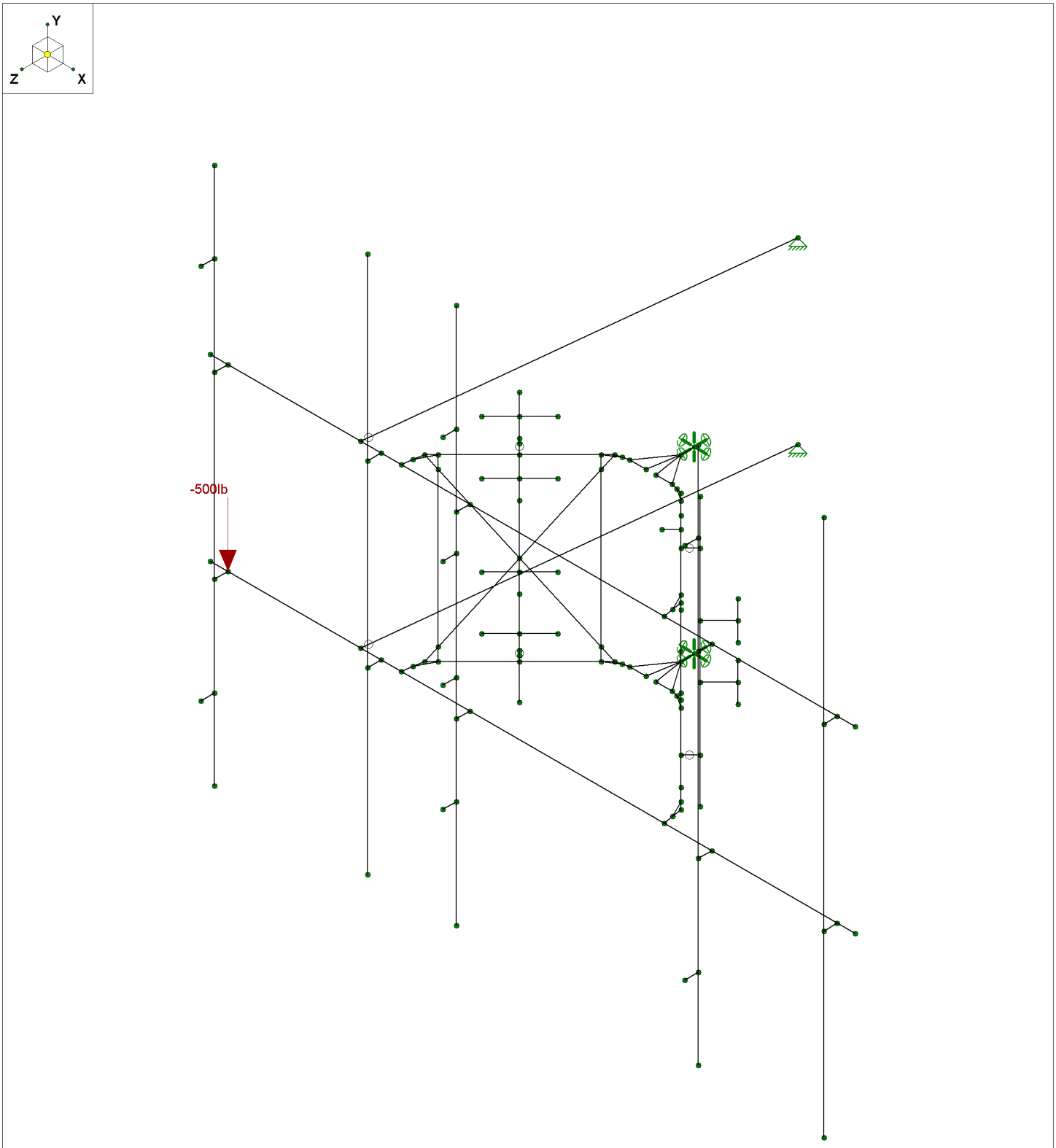
Loads: BLC 8, EH(0)

Fullerton Engineering Cons...		SK - 12
MK	Mount Analysis	Mar 29, 2022 at 9:54 AM
CTL02056	Earthquake Load (Horizontal)	CTL02056.Rev1.r3d



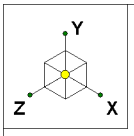
Loads: BLC 10, EV

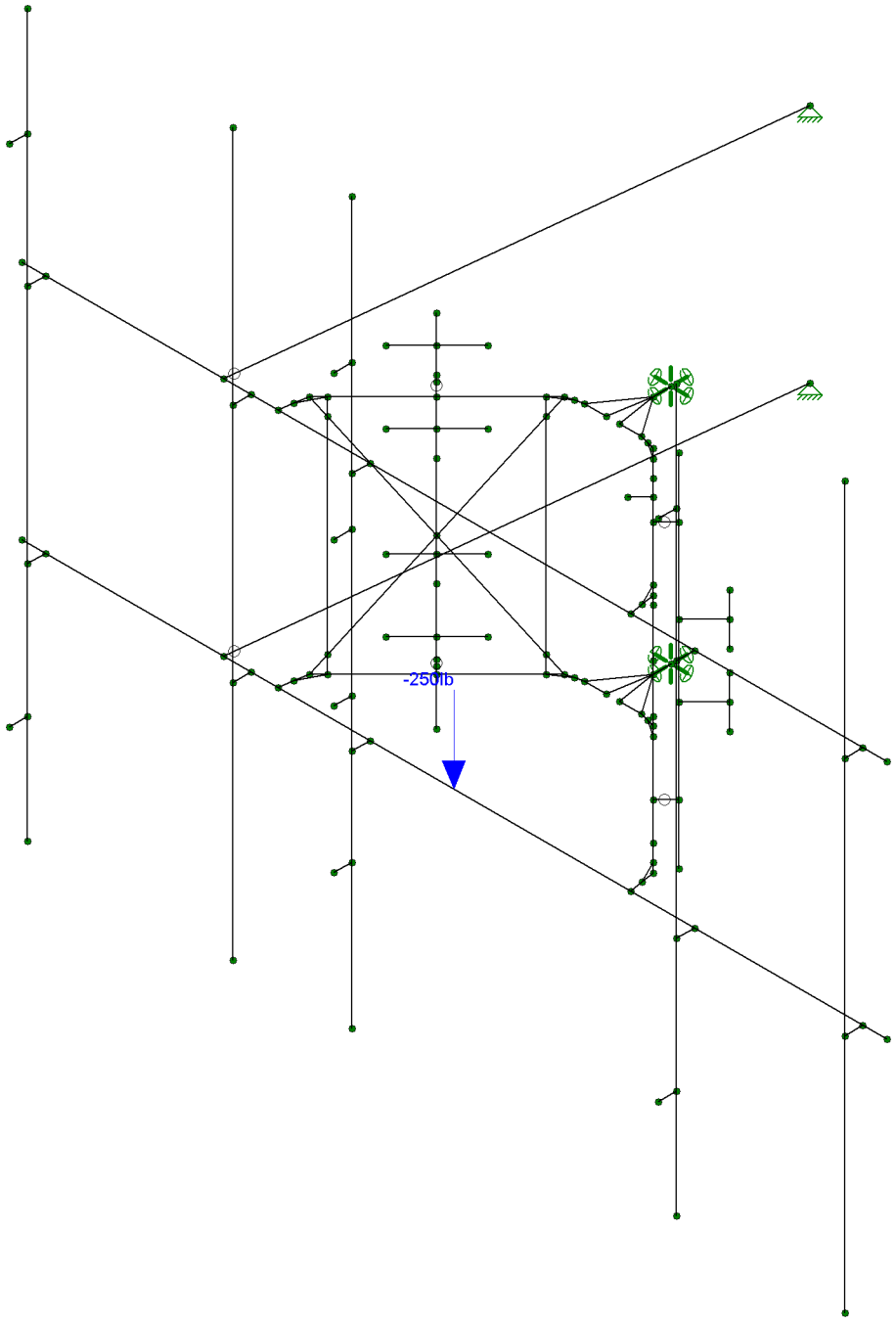
Fullerton Engineering Cons...		SK - 13
MK	Mount Analysis	Mar 29, 2022 at 9:54 AM
CTL02056	Earthquake Load (Vertical)	CTL02056.Rev1.r3d



500lb Live Loads are applied at mounting pipe positions.
Only one is shown for clarification purposes, but all are considered in the calculations.

Fullerton Engineering Cons...		SK - 14
MK	Mount Analysis	Mar 29, 2022 at 9:54 AM
CTL02056	500lb Live Load	CTL02056.Rev1.r3d





250lb Live Loads are applied on each face horizontal and standoff members.
Only one is shown for clarification purposes, but all are considered in the calculations.

Fullerton Engineering Cons...		SK - 15
MK	Mount Analysis	Mar 29, 2022 at 9:54 AM
CTL02056	250lb Live Load	CTL02056.Rev1.r3d

(Global) Model Settings

Display Sections for Member Calcs	5
Max Internal Sections for Member Calcs	97
Include Shear Deformation?	Yes
Increase Nailing Capacity for Wind?	Yes
Include Warping?	Yes
Trans Load Btwn Intersecting Wood Wall?	Yes
Area Load Mesh (in^2)	144
Merge Tolerance (in)	.12
P-Delta Analysis Tolerance	0.50%
Include P-Delta for Walls?	Yes
Automatically Iterate Stiffness for Walls?	Yes
Max Iterations for Wall Stiffness	3
Gravity Acceleration (in/sec^2)	386.4
Wall Mesh Size (in)	12
Eigensolution Convergence Tol. (1.E-)	4
Vertical Axis	Y
Global Member Orientation Plane	XZ
Static Solver	Sparse Accelerated
Dynamic Solver	Accelerated Solver

Hot Rolled Steel Code	AISC 15th(360-16): LRFD
Adjust Stiffness?	Yes(Iterative)
RISAConnection Code	AISC 15th(360-16): LRFD
Cold Formed Steel Code	None
Wood Code	None
Wood Temperature	< 100F
Concrete Code	None
Masonry Code	None
Aluminum Code	None - Building
Stainless Steel Code	AISC 14th(360-10): ASD
Adjust Stiffness?	Yes(Iterative)

Number of Shear Regions	4
Region Spacing Increment (in)	4
Biaxial Column Method	Exact Integration
Parme Beta Factor (PCA)	.65
Concrete Stress Block	Rectangular
Use Cracked Sections?	Yes
Use Cracked Sections Slab?	Yes
Bad Framing Warnings?	No
Unused Force Warnings?	Yes
Min 1 Bar Diam. Spacing?	No
Concrete Rebar Set	REBAR_SET_ASTMA615
Min % Steel for Column	1
Max % Steel for Column	8

(Global) Model Settings, Continued

Seismic Code	ASCE 7-16
Seismic Base Elevation (in)	Not Entered
Add Base Weight?	Yes
Ct X	.02
Ct Z	.02
T X (sec)	Not Entered
T Z (sec)	Not Entered
R X	3
R Z	3
Ct Exp. X	.75
Ct Exp. Z	.75
SD1	1
SDS	1
S1	1
TL (sec)	5
Risk Cat	I or II
Drift Cat	Other
Om Z	1
Om X	1
Cd Z	4
Cd X	4
Rho Z	1
Rho X	1

Hot Rolled Steel Design Parameters

	Label	Shape	Length[in]	Lbyy[in]	Lbzz[in]	Lcomp top[in]	Lcomp bot[in]	L-to...	Kyy	Kzz	Cb	Function
1	M1	.75 Dia.	50			Lbyy			.65	.65		Lateral
2	M2	.75 Dia.	50			Lbyy			.65	.65		Lateral
3	M3	.75 Dia.	50			Lbyy			.65	.65		Lateral
4	M4	.75 Dia.	50			Lbyy			.65	.65		Lateral
5	M5	.625 Dia.	40			Lbyy			.65	.65		Lateral
6	M6	.625 Dia.	40			Lbyy			.65	.65		Lateral
7	M7	.625 Dia.	40			Lbyy			.65	.65		Lateral
8	M8	.625 Dia.	40			Lbyy			.65	.65		Lateral
9	M9	.625 x 2 Flat	4.193			Lbyy			.65	.65		Lateral
10	M10	.625 x 2 Flat	4.193			Lbyy			.65	.65		Lateral
11	M11	.625 x 2 Flat	4.193			Lbyy			.65	.65		Lateral
12	M12	.625 x 2 Flat	4.193			Lbyy			.65	.65		Lateral
13	M13	.625 x 2 Flat	3.4			Lbyy			.65	.65		Lateral
14	M14	.625 x 2 Flat	3.403			Lbyy			.65	.65		Lateral
15	M15	.625 x 2 Flat	3.403			Lbyy			.65	.65		Lateral
16	M16	.625 x 2 Flat	3.4			Lbyy			.65	.65		Lateral
17	M17	.625 x 3.5"	3.625			Lbyy			.65	.65		Lateral
18	M18	.625 x 3.5"	3.625			Lbyy			.65	.65		Lateral
19	M19	.625 x 3.5"	1.396			Lbyy			.65	.65		Lateral
20	M20	.625 x 3.5"	1.393			Lbyy			.65	.65		Lateral
21	M21	.625 x 3.5"	3.625			Lbyy			.65	.65		Lateral
22	M22	.625 x 3.5"	3.625			Lbyy			.65	.65		Lateral
23	M23	.625 x 3.5"	1.396			Lbyy			.65	.65		Lateral
24	M24	.625 x 3.5"	1.393			Lbyy			.65	.65		Lateral
25	M25	.625 x 3.5"	2.284			Lbyy			.65	.65		Lateral

Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length[in]	Lbyy[in]	Lbzz[in]	Lcomp top[in]	Lcomp bot[in]	L-to...	Kyy	Kzz	Cb	Function
26	M26	.625 x 3.5"	2.284			Lbyy			.65	.65		Lateral
27	M27	.625 x 3.5"	2.284			Lbyy			.65	.65		Lateral
28	M28	.625 x 3.5"	2.284			Lbyy			.65	.65		Lateral
29	M29	.625 x 3.5"	2.284			Lbyy			.65	.65		Lateral
30	M30	.625 x 3.5"	2.284			Lbyy			.65	.65		Lateral
31	M31	.625 x 3.5"	2.284			Lbyy			.65	.65		Lateral
32	M32	.625 x 3.5"	2.284			Lbyy			.65	.65		Lateral
33	M33	.625 x 3.5"	1.393			Lbyy			.65	.65		Lateral
34	M34	.625 x 3.5"	1.396			Lbyy			.65	.65		Lateral
35	M35	.625 x 3.5"	1.396			Lbyy			.65	.65		Lateral
36	M36	.625 x 3.5"	1.393			Lbyy			.65	.65		Lateral
37	M37	PIPE 2.0	30			Lbyy			.65	.65		Lateral
38	M38	PIPE 2.0	30			Lbyy			.65	.65		Lateral
39	M39	PIPE 2.0	30			Lbyy			.65	.65		Lateral
40	M40	PIPE 2.0	30			Lbyy			.65	.65		Lateral
41	M41	PIPE 2.0	88.645			Lbyy			1	1		Lateral
42	M42	PIPE 2.0	88.645			Lbyy			1	1		Lateral
43	M43	PIPE 2.0	60	40	40	40	40	40	2.1	2.1		Lateral
44	M44	PIPE 2.0	60	40	40	40	40	40	2.1	2.1		Lateral
45	M45	PIPE 2.5	120	40	40	40	40	40	2.1	2.1		Lateral
46	M46	PIPE 2.5	120	40	40	40	40	40	2.1	2.1		Lateral
47	M47	PIPE 2.5	120	40	40	40	40	40	2.1	2.1		Lateral
48	M48	PIPE 2.5	120	40	40	40	40	40	2.1	2.1		Lateral
49	M49	PIPE 2.5	144	58.7	58.7	58.7	58.7	58.7	2.1	2.1		Lateral
50	M50	PIPE 2.5	144	58.7	58.7	58.7	58.7	58.7	2.1	2.1		Lateral
51	M51	PIPE 2.5	120	40	40	40	40	40	2.1	2.1		Lateral
52	M91A	W4x13	6			Lbyy						Lateral
53	M92A	W4x13	6.001			Lbyy						Lateral

Material Takeoff

	Material	Size	Pieces	Length[in]	Weight[K]
1	General				
2	RIGID		43	231.1	0
3	Total General		43	231.1	0
4					
5	Hot Rolled Steel				
6	A36 Gr.36	.625 Dia.	4	160	.014
7	A36 Gr.36	.625 x 2 Flat	8	30.4	.011
8	A36 Gr.36	.625 x 3.5"	20	43.9	.027
9	A36 Gr.36	.75 Dia.	4	200	.025
10	A53 Gr. B	PIPE 2.0	8	417.3	.121
11	A53 Gr. B	PIPE 2.5	7	888	.405
12	A53 Gr. B	W4x13	2	12	.013
13	Total HR Steel		53	1751.6	.616

Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed	Area(Me...	Surface(...
1	DL	None		-1		19				
2	DLi	None				19		51		
3	WL(0)	None				19		41		
4	WL(90)	None				19		37		
5	WL.i(0)	None				19		41		
6	WL.i(90)	None				19		37		
7	T	None								
8	EH(0)	None				19		51		
9	EH(90)	None				19		51		
10	EV	None				19		51		
11	WM(0)	None				19		41		
12	WM(90)	None				19		37		
13	LM1	None				1				
14	LM2	None				1				
15	LM3	None				1				
16	LM4	None				1				
17	LV1	None					1			
18	LV2	None					1			
19	LV3	None					1			
20	LV4	None					1			
21	LV5	None					1			
22	LV6	None					1			
23	LM5	None				1				

Load Combinations

	Description	Solve	P...	S...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...
1	1.4*DL	Yes	Y		1	1.4																		
2	1.2*DL + 1.0* WL(0)	Yes	Y		1	1.2	3	1																
3	1.2*DL + 1.0* WL(30)	Yes	Y		1	1.2	3	.869	4	.5														
4	1.2*DL + 1.0* WL(60)	Yes	Y		1	1.2	3	.5	4	.869														
5	1.2*DL + 1.0*WL(90)	Yes	Y		1	1.2	4	1																
6	1.2*DL + 1.0*WL(120)	Yes	Y		1	1.2	3	-.5	4	.869														
7	1.2*DL +1.0*WL(150)	Yes	Y		1	1.2	3	-.8...	4	.5														
8	1.2*DL + 1.0 * WL(180)	Yes	Y		1	1.2	3	-1																
9	1.2*DL + 1.0* WL(210)	Yes	Y		1	1.2	3	-.8...	4	-.5														
10	1.2*DL + 1.0* WL(240)	Yes	Y		1	1.2	3	-.5	4	-.8...														
11	1.2*DL + 1.0*WL(270)	Yes	Y		1	1.2	4	-1																
12	1.2*DL + 1.0*WL(300)	Yes	Y		1	1.2	3	.5	4	-.8...														
13	1.2*DL +1.0*WL(330)	Yes	Y		1	1.2	3	.869	4	-.5														
14	1.2*DL+1.0*DLi+1.0*WL.i(...	Yes	Y		1	1.2	2	1	5	1	7	1												
15	1.2*DL+1.0*DLi+1.0*WL.i(...	Yes	Y		1	1.2	2	1	5	.866	6	.5	7	1										
16	1.2*DL+1.0*DLi+1.0*WL.i(...	Yes	Y		1	1.2	2	1	5	.5	6	.866	7	1										
17	1.2*DL+1.0*DLi+1.0*WL.i(...	Yes	Y		1	1.2	2	1	6	1	7	1												
18	1.2*DL+1.0*DLi+1.0*WL.i(...	Yes	Y		1	1.2	2	1	5	-.5	6	.866	7	1										
19	1.2*DL+1.0*DLi+1.0*WL.i(...	Yes	Y		1	1.2	2	1	5	-.8...	6	.5	7	1										
20	1.2*DL+1.0*DLi+1.0*WL.i(...	Yes	Y		1	1.2	2	1	5	-1	7	1												
21	1.2*DL+1.0*DLi+1.0*WL.i(...	Yes	Y		1	1.2	2	1	5	-.8...	6	-.5	7	1										
22	1.2*DL+1.0*DLi+1.0*WL.i(...	Yes	Y		1	1.2	2	1	5	-.5	6	-.8...	7	1										
23	1.2*DL+1.0*DLi+1.0*WL.i(...	Yes	Y		1	1.2	2	1	6	-1	7	1												
24	1.2*DL+1.0*DLi+1.0*WL.i(...	Yes	Y		1	1.2	2	1	5	.5	6	-.8...	7	1										

Load Combinations (Continued)

	Description	Solve	P...	S...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...
25	1.2*DL+1.0*DLi+1.0*WL.i(...	Yes	Y		1	1.2	2	1	5	.866	6	-.5	7	1										
26	1.2*DL+1.0*EH(0)+1.0*EV...	Yes	Y		1	1.2	8	1	10	1														
27	1.2*DL+1.0*EH(0)+1.0*EV...	Yes	Y		1	1.2	8	1	10	-1														
28	1.2*DL+1.0*EH(90)+1.0*E...	Yes	Y		1	1.2	9	1	10	1														
29	1.2*DL+1.0*EH(90)+1.0*E...	Yes	Y		1	1.2	9	1	10	-1														
30	1.2*DL+1.0*EH(180)+1.0*...	Yes	Y		1	1.2	8	-1	10	1														
31	1.2*DL+1.0*EH(180)+1.0*...	Yes	Y		1	1.2	8	-1	10	-1														
32	1.2*DL+1.0*EH(270)+1.0*...	Yes	Y		1	1.2	9	-1	10	1														
33	1.2*DL+1.0*EH(270)+1.0*...	Yes	Y		1	1.2	9	-1	10	-1														
34	0.9*DL+1.0*EH(0)-1.0*EV(...	Yes	Y		1	.9	8	1	10	-1														
35	0.9*DL+1.0*EH(0)-1.0*EV(-)	Yes	Y		1	.9	8	1	10	1														
36	0.9*DL+1.0*EH(90)-1.0*E...	Yes	Y		1	.9	9	1	10	-1														
37	0.9*DL+1.0*EH(90)-1.0*E...	Yes	Y		1	.9	9	1	10	1														
38	0.9*DL+1.0*EH(180)-1.0*...	Yes	Y		1	.9	8	-1	10	-1														
39	0.9*DL+1.0*EH(180)-1.0*...	Yes	Y		1	.9	8	-1	10	1														
40	0.9*DL+1.0*EH(270)-1.0*...	Yes	Y		1	.9	9	-1	10	-1														
41	0.9*DL+1.0*EH(270)-1.0*...	Yes	Y		1	.9	9	-1	10	1														
42	1.2*DL+1.5*LM1+1.0*WM...	Yes	Y		1	1.2	13	1.5	11	1														
43	1.2*DL+1.5*LM1+1.0*WM...	Yes	Y		1	1.2	13	1.5	11	.866	12	.5												
44	1.2*DL+1.5*LM1+1.0*WM...	Yes	Y		1	1.2	13	1.5	11	.5	12	.866												
45	1.2*DL+1.5*LM1+1.0*WM...	Yes	Y		1	1.2	13	1.5	12	1														
46	1.2*DL+1.5*LM1+1.0*WM...	Yes	Y		1	1.2	13	1.5	11	-.5	12	.866												
47	1.2*DL+1.5*LM1+1.0*WM...	Yes	Y		1	1.2	13	1.5	11	-.8...	12	.5												
48	1.2*DL+1.5*LM1+1.0*WM...	Yes	Y		1	1.2	13	1.5	11	-1														
49	1.2*DL+1.5*LM1+1.0*WM...	Yes	Y		1	1.2	13	1.5	11	-.8...	12	-.5												
50	1.2*DL+1.5*LM1+1.0*WM...	Yes	Y		1	1.2	13	1.5	11	-.5	12	-.8...												
51	1.2*DL+1.5*LM1+1.0*WM...	Yes	Y		1	1.2	13	1.5	12	-1														
52	1.2*DL+1.5*LM1+1.0*WM...	Yes	Y		1	1.2	13	1.5	11	.5	12	-.8...												
53	1.2*DL+1.5*LM1+1.0*WM...	Yes	Y		1	1.2	13	1.5	11	.866	12	-.5												
54	1.2*DL+1.5*LM2+1.0*WM...	Yes	Y		1	1.2	14	1.5	11	1														
55	1.2*DL+1.5*LM2+1.0*WM...	Yes	Y		1	1.2	14	1.5	11	.866	12	.5												
56	1.2*DL+1.5*LM2+1.0*WM...	Yes	Y		1	1.2	14	1.5	11	.5	12	.866												
57	1.2*DL+1.5*LM2+1.0*WM...	Yes	Y		1	1.2	14	1.5	12	1														
58	1.2*DL+1.5*LM2+1.0*WM...	Yes	Y		1	1.2	14	1.5	11	-.5	12	.866												
59	1.2*DL+1.5*LM2+1.0*WM...	Yes	Y		1	1.2	14	1.5	11	-.8...	12	.5												
60	1.2*DL+1.5*LM2+1.0*WM...	Yes	Y		1	1.2	14	1.5	11	-1														
61	1.2*DL+1.5*LM2+1.0*WM...	Yes	Y		1	1.2	14	1.5	11	-.8...	12	-.5												
62	1.2*DL+1.5*LM2+1.0*WM...	Yes	Y		1	1.2	14	1.5	11	-.5	12	-.8...												
63	1.2*DL+1.5*LM2+1.0*WM...	Yes	Y		1	1.2	14	1.5	12	-1														
64	1.2*DL+1.5*LM2+1.0*WM...	Yes	Y		1	1.2	14	1.5	11	.5	12	-.8...												
65	1.2*DL+1.5*LM2+1.0*WM...	Yes	Y		1	1.2	14	1.5	11	.866	12	-.5												
66	1.2*DL+1.5*LM3+1.0*WM...	Yes	Y		1	1.2	15	1.5	11	1														
67	1.2*DL+1.5*LM3+1.0*WM...	Yes	Y		1	1.2	15	1.5	11	.866	12	.5												
68	1.2*DL+1.5*LM3+1.0*WM...	Yes	Y		1	1.2	15	1.5	11	.5	12	.866												
69	1.2*DL+1.5*LM3+1.0*WM...	Yes	Y		1	1.2	15	1.5	12	1														
70	1.2*DL+1.5*LM3+1.0*WM...	Yes	Y		1	1.2	15	1.5	11	-.5	12	.866												
71	1.2*DL+1.5*LM3+1.0*WM...	Yes	Y		1	1.2	15	1.5	11	-.8...	12	.5												
72	1.2*DL+1.5*LM3+1.0*WM...	Yes	Y		1	1.2	15	1.5	11	-1														
73	1.2*DL+1.5*LM3+1.0*WM...	Yes	Y		1	1.2	15	1.5	11	-.8...	12	-.5												
74	1.2*DL+1.5*LM3+1.0*WM...	Yes	Y		1	1.2	15	1.5	11	-.5	12	-.8...												
75	1.2*DL+1.5*LM3+1.0*WM...	Yes	Y		1	1.2	15	1.5	12	-1														
76	1.2*DL+1.5*LM3+1.0*WM...	Yes	Y		1	1.2	15	1.5	11	.5	12	-.8...												

Load Combinations (Continued)

	Description	Solve	P...	S...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...
77	1.2*DL+1.5*LM3+1.0*WM...	Yes	Y		1	1.2	15	1.5	11	.866	12	-.5														
78	1.2*DL+1.5*LM4+1.0*WM...	Yes	Y		1	1.2	16	1.5	11	1																
79	1.2*DL+1.5*LM4+1.0*WM...	Yes	Y		1	1.2	16	1.5	11	.866	12	.5														
80	1.2*DL+1.5*LM4+1.0*WM...	Yes	Y		1	1.2	16	1.5	11	.5	12	.866														
81	1.2*DL+1.5*LM4+1.0*WM...	Yes	Y		1	1.2	16	1.5	12	1																
82	1.2*DL+1.5*LM4+1.0*WM...	Yes	Y		1	1.2	16	1.5	11	-.5	12	.866														
83	1.2*DL+1.5*LM4+1.0*WM...	Yes	Y		1	1.2	16	1.5	11	-.8...	12	.5														
84	1.2*DL+1.5*LM4+1.0*WM...	Yes	Y		1	1.2	16	1.5	11	-1																
85	1.2*DL+1.5*LM4+1.0*WM...	Yes	Y		1	1.2	16	1.5	11	-.8...	12	-.5														
86	1.2*DL+1.5*LM4+1.0*WM...	Yes	Y		1	1.2	16	1.5	11	-.5	12	-.8...														
87	1.2*DL+1.5*LM4+1.0*WM...	Yes	Y		1	1.2	16	1.5	12	-1																
88	1.2*DL+1.5*LM4+1.0*WM...	Yes	Y		1	1.2	16	1.5	11	.5	12	-.8...														
89	1.2*DL+1.5*LM4+1.0*WM...	Yes	Y		1	1.2	16	1.5	11	.866	12	-.5														
90	1.2*DL+1.5*LM5+1.0*WM...	Yes	Y		1	1.2	23	1.5	11	1																
91	1.2*DL+1.5*LM5+1.0*WM...	Yes	Y		1	1.2	23	1.5	11	.866	12	.5														
92	1.2*DL+1.5*LM5+1.0*WM...	Yes	Y		1	1.2	23	1.5	11	.5	12	.866														
93	1.2*DL+1.5*LM5+1.0*WM...	Yes	Y		1	1.2	23	1.5	12	1																
94	1.2*DL+1.5*LM5+1.0*WM...	Yes	Y		1	1.2	23	1.5	11	-.5	12	.866														
95	1.2*DL+1.5*LM5+1.0*WM...	Yes	Y		1	1.2	23	1.5	11	-.8...	12	.5														
96	1.2*DL+1.5*LM5+1.0*WM...	Yes	Y		1	1.2	23	1.5	11	-1																
97	1.2*DL+1.5*LM5+1.0*WM...	Yes	Y		1	1.2	23	1.5	11	-.8...	12	-.5														
98	1.2*DL+1.5*LM5+1.0*WM...	Yes	Y		1	1.2	23	1.5	11	-.5	12	-.8...														
99	1.2*DL+1.5*LM5+1.0*WM...	Yes	Y		1	1.2	23	1.5	12	-1																
100	1.2*DL+1.5*LM5+1.0*WM...	Yes	Y		1	1.2	23	1.5	11	.5	12	-.8...														
101	1.2*DL+1.5*LM5+1.0*WM...	Yes	Y		1	1.2	23	1.5	11	.866	12	-.5														
102	1.2*DL+1.5*LV1	Yes	Y		1	1.2	17	1.5																		
103	1.2*DL+1.5*LV2	Yes	Y		1	1.2	18	1.5																		
104	1.2*DL+1.5*LV3	Yes	Y		1	1.2	19	1.5																		
105	1.2*DL+1.5*LV4	Yes	Y		1	1.2	20	1.5																		
106	1.2*DL+1.5*LV5	Yes	Y		1	1.2	21	1.5																		
107	1.2*DL+1.5*LV6	Yes	Y		1	1.2	22	1.5																		

Envelope Joint Reactions

	Joint		X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
1	N36	max	69.462	10	35.774	23	1016.081	4	0	107	0	107	0	107
2		min	-78.999	4	10.783	36	-927.74	10	0	1	0	1	0	1
3	N55	max	990.746	93	634.18	25	2388.684	13	-.257	38	0	107	.08	101
4		min	-1479.602	51	244.53	38	-650.419	7	-.654	25	0	1	-.144	104
5	N56	max	1484.17	45	2187.313	19	719.621	13	-.733	40	0	107	.369	96
6		min	-994.93	99	859.263	34	-2455.745	7	-1.849	17	0	1	-.574	42
7	N62	max	78.769	10	35.829	23	926.337	4	0	107	0	107	0	107
8		min	-69.409	4	10.792	36	-1016.117	10	0	1	0	1	0	1
9	Totals:	max	1938.394	5	2865.318	19	3133.228	2						
10		min	-1938.395	11	1131.035	34	-3133.228	8						

Stress Ratio < 1.0, members are adequate

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

	Member	Shape	Code Check	Loc[in]	LC	Shear Che...	Lo...	...	LC	phi*P...	phi*P...	phi*...	phi*...	...	Eqn
1	M49	PIPE_2.5	.349	42	13	.112	42		50	2138...	50715	3.596	3.596	1	H1-...
2	M50	PIPE_2.5	.343	42	7	.101	102		2	2138...	50715	3.596	3.596	1	H1-...
3	M23	.625 x 3.5"	.331	0	45	.109	0	y	47	7078...	70875	.923	5.168	...	H1-...
4	M8	.625 Dia.	.328	40	2	.015	40		101	2503...	9940...	.104	.104	...	H1-...
5	M6	.625 Dia.	.306	40	42	.020	37.5		44	2503...	9940...	.104	.104	...	H1-...
6	M27	.625 x 3.5"	.277	0	7	.195	2....	y	52	7062...	70875	.923	5.168	...	H1-...
7	M26	.625 x 3.5"	.267	0	2	.056	0	y	2	7062...	70875	.923	5.168	...	H1-...
8	M25	.625 x 3.5"	.263	0	13	.062	2....	y	46	7062...	70875	.923	5.168	...	H1-...
9	M28	.625 x 3.5"	.260	0	8	.161	0	y	96	7062...	70875	.923	5.168	...	H1-...
10	M24	.625 x 3.5"	.254	0	99	.061	0	y	96	7078...	70875	.923	5.168	...	H1-...
11	M47	PIPE_2.5	.205	40	8	.030	80		93	3396...	50715	3.596	3.596	1	H1-...
12	M19	.625 x 3.5"	.198	0	51	.128	0	y	23	7078...	70875	.923	5.168	...	H1-...
13	M45	PIPE_2.5	.196	80	50	.032	40		46	3396...	50715	3.596	3.596	1	H1-...
14	M38	PIPE_2.0	.181	30	13	.077	30		66	3112...	32130	1.872	1.872	...	H1-...
15	M39	PIPE_2.0	.181	30	13	.049	1....		68	3112...	32130	1.872	1.872	...	H1-...
16	M51	PIPE_2.5	.178	80	52	.042	40		46	3396...	50715	3.596	3.596	1	H1-...
17	M37	PIPE_2.0	.159	30	13	.067	30		90	3112...	32130	1.872	1.872	...	H1-...
18	M40	PIPE_2.0	.154	30	7	.046	1....		86	3112...	32130	1.872	1.872	...	H1-...
19	M1	.75 Dia.	.153	3.646	46	.025	46...		7	3322...	1431...	.179	.179	...	H1-...
20	M30	.625 x 3.5"	.153	0	7	.107	2....	y	52	7062...	70875	.923	5.168	...	H1-...
21	M48	PIPE_2.5	.148	40	96	.031	80		93	3396...	50715	3.596	3.596	1	H1-...
22	M34	.625 x 3.5"	.139	0	45	.082	0	y	47	7078...	70875	.923	5.168	...	H1-...
23	M20	.625 x 3.5"	.138	0	93	.087	0	y	79	7078...	70875	.923	5.168	...	H1-...
24	M4	.75 Dia.	.135	46.354	97	.016	46...		6	3322...	1431...	.179	.179	...	H1-...
25	M31	.625 x 3.5"	.124	0	7	.094	0	y	96	7062...	70875	.923	5.168	...	H1-...
26	M29	.625 x 3.5"	.121	0	13	.049	2....	y	7	7062...	70875	.923	5.168	...	H1-...
27	M5	.625 Dia.	.115	40	45	.018	0		9	2503...	9940...	.104	.104	...	H1-...
28	M32	.625 x 3.5"	.107	0	13	.061	0	y	2	7062...	70875	.923	5.168	...	H1-...
29	M7	.625 Dia.	.107	40	100	.017	0		13	2503...	9940...	.104	.104	...	H1-...
30	M33	.625 x 3.5"	.103	0	99	.045	0	y	97	7078...	70875	.923	5.168	...	H1-...
31	M10	.625 x 2 Flat	.095	0	53	.044	0	y	48	4001...	40500	.527	1.688	...	H1-...
32	M11	.625 x 2 Flat	.079	0	90	.044	0	y	95	4001...	40500	.527	1.688	...	H1-...
33	M9	.625 x 2 Flat	.078	4.193	2	.028	4....	y	42	4001...	40500	.527	1.688	...	H1-...
34	M46	PIPE_2.5	.068	80	2	.019	80		43	3396...	50715	3.596	3.596	1	H1-...
35	M41	PIPE_2.0	.066	44.322	5	.004	0		23	1670...	32130	1.872	1.872	...	H1-...
36	M35	.625 x 3.5"	.065	0	51	.081	0	y	75	7078...	70875	.923	5.168	...	H1-...
37	M12	.625 x 2 Flat	.064	4.193	101	.039	4....	y	2	4001...	40500	.527	1.688	...	H1-...
38	M15	.625 x 2 Flat	.063	3.403	52	.049	3....	y	74	4018...	40500	.527	1.688	...	H1-...
39	M42	PIPE_2.0	.063	44.322	5	.004	0		23	1670...	32130	1.872	1.872	...	H1-...
40	M13	.625 x 2 Flat	.060	0	6	.021	3.4	y	14	4018...	40500	.527	1.688	...	H1-...
41	M43	PIPE_2.0	.058	10	17	.034	50		8	1785...	32130	1.872	1.872	1	H1-...
42	M16	.625 x 2 Flat	.053	3.4	12	.032	0	y	18	4018...	40500	.527	1.688	...	H1-...
43	M44	PIPE_2.0	.048	23.75	13	.032	50		9	1785...	32130	1.872	1.872	1	H1-...
44	M36	.625 x 3.5"	.047	1.393	12	.053	0	y	80	7078...	70875	.923	5.168	...	H1-...
45	M14	.625 x 2 Flat	.046	3.403	44	.021	0	y	49	4018...	40500	.527	1.688	...	H1-...
46	M92A	W4x13	.008	0	21	.003	3	y	9	1204...	1206...	7.665	16.485	...	H1-...
47	M91A	W4x13	.008	0	21	.003	3	y	9	1204...	1206...	7.665	16.485	...	H1-...
48	M22	.625 x 3.5"	.000	0	20	.000	0	z	25	7024...	70875	.923	5.168	...	H1-...
49	M21	.625 x 3.5"	.000	3.625	20	.000	3....	z	25	7024...	70875	.923	5.168	...	H1-...
50	M17	.625 x 3.5"	.000	3.625	20	.000	3....	z	25	7024...	70875	.923	5.168	...	H1-...
51	M18	.625 x 3.5"	.000	0	20	.000	0	z	25	7024...	70875	.923	5.168	...	H1-...
52	M2	.75 Dia.	.000	0	107	.000	0		107	3322...	1431...	.179	.179	1	H1-...

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

	Member	Shape	Code Check	Loc[in]	LC	Shear Che...	Lo...	...	LC	phi*P...	phi*P...	phi*...	phi*...	...	Eqn
53	M3	.75 Dia.	.000	0	107	.000	0		107	3322...	1431...	.179	.179	1	H1-...

Mount-to-Tower Connection Calculations

Proposed Site Pro 1 sector frame will be connected to tower leg via Threaded Rods 5/8" Ø (tensile strength Fu=74 ksi according to manufacturer specification)

Maximum Reactions from Risa Mount Analysis per mount connection:

N55	max	990.746	93	634.18	25	2388.684	13	-.257	38	0	107	.08	101
	min	-1479.602	51	244.53	38	-650.419	7	-.654	25	0	1	-.144	104
N56	max	1484.17	45	2187.313	19	719.621	13	-.733	40	0	107	.369	96
	min	-994.93	99	859.263	34	-2455.745	7	-1.849	17	0	1	-.574	42

$X := 1484.17 lbf$ *Maximum Factored Reaction - X direction*

$Y := 2187.313 lbf$ *Maximum Factored Reaction - Y direction*

$Z := 2455.745 lbf$ *Maximum Factored Reaction - Z direction*

$M_x := 1.849\ kip \cdot ft$ *Maximum Factored Moment - X direction*

$M_z := .574\ kip \cdot ft$ *Maximum Factored Moment - Z direction*

$d := 3 in$ *Vertical spacing between the Threaded Rods*

$P_t := \frac{Z}{4} + \frac{M_x}{2.d}$ $P_t = 4311.94 \cdot lbf$ *Factored Tensile Force*

$P_v := \frac{\sqrt{X^2 + Y^2}}{4} + \frac{M_z}{2 \cdot d}$ $P_v = 1808.83 \cdot lbf$ *Factored Shear Force*

$d_b := 0.625 in$ *Diameter of Threaded Rod*

$A_b := 0.25 \pi \cdot d_b^2$ $A_b = 0.31 \cdot in^2$ *Area of Threaded Rod*

$P_{t\_rod} := P_t$ $P_{t\_rod} = 4311.94 \cdot lbf$ *Tension at Threaded Rod*

$P_{v\_rod} := P_v$ $P_{v\_rod} = 1808.83 \cdot lbf$ *Shear at Threaded Rod*

Tensile and Shear Strength of Rods and Threaded Parts

$F_u := 74ksi$ — *Ultimate Tensile Strength*

$F_{nt} := 0.75 \cdot F_u$ $\quad F_{nt} = 55.5 \cdot ksi$ — *Nominal tensile strength per AISC 360, Table J3.2*

$F_{nv} := 0.45 \cdot F_u$ $\quad F_{nv} = 33.3 \cdot ksi$ — *Nominal shear strength per AISC 360, Table J3.2*

$\phi_{rod} := 0.75$ — *Resistance Factor (LRFD - AISC 360, Section J3-6)*

$R_{nt} := \phi_{rod} \cdot F_{nt} \cdot A_b$ $\quad R_{nt} = 12.77 \cdot kip$ — *Design Nominal Tensile Strength (AISC 360, Section J3-1)*

$R_{nv} := \phi_{rod} \cdot F_{nv} \cdot A_b$ $\quad R_{nv} = 7.66 \cdot kip$ — *Design Nominal Shear Strength (AISC 360, Section J3-1)*

$\frac{P_{t\_rod}}{R_{nt}} = 33.77 \cdot \%$ $\quad \frac{P_{v\_rod}}{R_{nv}} = 23.61 \cdot \%$

$Check =$ "Threaded Rods need to be investigated for effects of combined tension and shear stress"

Combined Tension and Shear in Bearing-Type Connections

$f_v := \frac{P_v}{A_b}$ $\quad f_v = 5.9 \cdot ksi$ — *Shear stress*

$f_t := \frac{P_t}{A_b}$ $\quad f_t = 14.05 \cdot ksi$ — *Tensile/Compressive stress*

$F_v := \phi_{rod} \cdot F_{nv}$ $\quad F_v = 24.98 \cdot ksi$ — *Design shear stress*

$F_t := \phi_{rod} \cdot F_{nt}$ $\quad F_t = 41.63 \cdot ksi$ — *Design tensile/compressive stress*

$F'_{nt} := 1.3 \cdot F_{nt} - \frac{F_{nt}}{\phi_{rod} \cdot F_{nv}} \cdot f_v$ $\quad F'_{nt} = 59.05 \cdot ksi$ — *AISC 360 - J3 - 3a*

$F'_{nt} := if\left(F'_{nt} > F_{nt}, F_{nt}, F'_{nt}\right)$

$\frac{P_t}{\phi_{rod} \cdot F'_{nt} \cdot A_b} = 33.77 \cdot \%$ $\quad \frac{P_v}{\phi_{rod} \cdot F_{nv} \cdot A_b} = 23.61 \cdot \%$ — *AISC 360 - J3.7 Available Combined Tension and Shear strength in Bearing-Type Connection*

$Check =$ "Threaded Rods are sufficient"

ANTENNA MOUNT MAPPING CHECKLIST

Mount Detail	
Mount Type	Heavy Duty Sector Frame
Mount Model Number	Site Pro 1 VFA12-WLL-30120
If RT, then how is it attached	
If WT, then how is it attached	

Mount Mapping Detail	
Material condition (discoloration, cracks, pitting)	
Mfg. drawing, cutsheet, spec. available?	
Date of mount mapping (if one exists)	
Searched prior OOM for material?	
Photos of installation available?	
Original tower drawings show mounts?	
Searched for previous mapping?	
Is latest mod design (dwgs) available?	
Is the latest structural analysis available?	

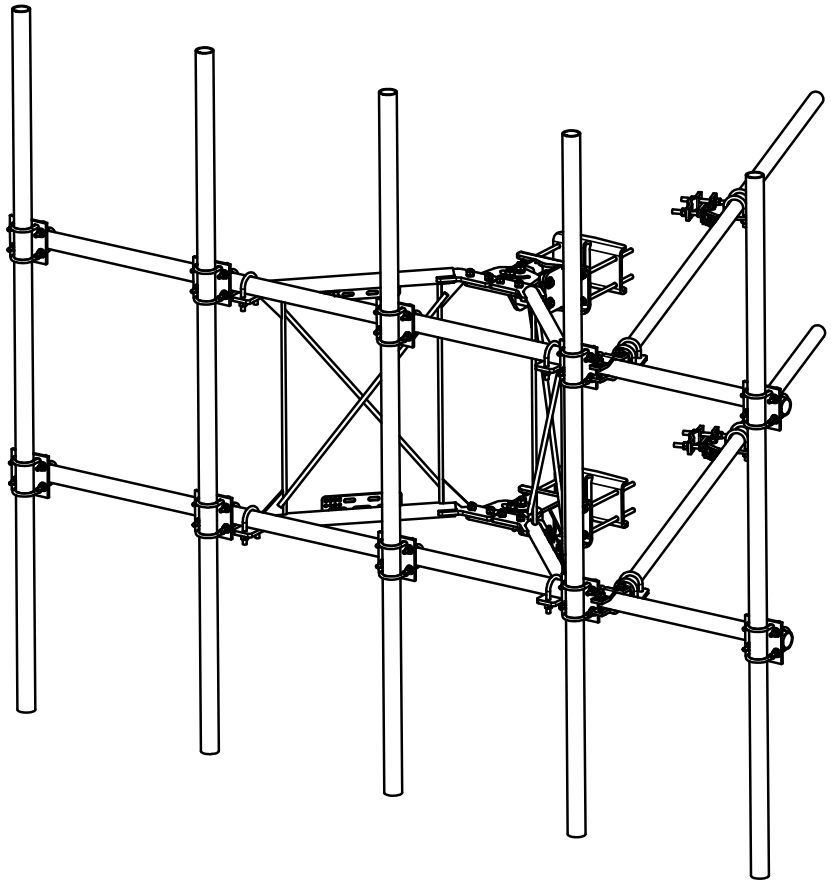
Project Detail	
Market	Conneticut
PACE Project ID	MRCTB056452 MRCTB055105 MRCTB053907 MRCTB053912 MRCTB056683 MRCTB055221
Site Name	Naugatuck Eastside Blvd.
City, State	Naugatuck, CT
RFDS Version Number	3
Initiative (list mult., if applicable)	
Tower Owner	
SA Vendor	
A&E firm (for structural analysis)	
A&E firm (for mapping, if different)	
Last amendment date or last site visit	
Is a site audit required on this project	

Site Information	
Original Lease Date	
FA Code	10050930
Tower Type	Guyed Tower
Tower Height (Ft)	276
AT&T Rad Center # 1	220
AT&T Rad Center # 2	

Measurements and Deliverables on sketches	
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	

Equipment Detail	Model	Height	Approz Az	mount location
Antenna	DMP-65R-BU6EA-K	220'	135°, 255°	B4, C4
Antenna	DMP-65R-BU8EA-K	220'	15°	A4
Antenna	Air6472B77D	220'	15°, 135°, 255°	A3, B3, C3
Antenna				
Antenna	800-10966	220'	15°	A2
Antenna	800-10965	220'	135°, 255°	B2, C2
RRU	4478 B14	220'	N/A	A2, B2, C2
RRU	4426 B66	220'	N/A	A4, B4, C4
RRU	4449 B5/B12	220'	N/A	A4, B4, C4
RRU	RRUS-32 B30	220'	N/A	A2, B2, C2
RRU	RRUS-32 B2	220'	N/A	A4, B4, C4
TMA				
Coax				
RET (not imbedded in antenna)				
DC Cable				
Fiber Cable				
Squid	DC9-48-60-PC16-EV	220'	N/A	Tower Leg
Squid	DC6-48-60-18-8F	220'	N/A	Tower Leg

Comments



PARTS LIST						
ITEM	QTY	PART NO.	PART DESCRIPTION	LENGTH	UNIT WT.	NET WT.
1	2	X-VFAW	SUPPORT ARM		71.41	142.81
2	1	X-HDCAMTBW	CLAMP WELDMENT FOR BCAM-HD		33.86	33.86
3	1	X-MHTPHD	MULTI-HOLE TAPER PLATE WELDMENT		36.24	36.24
4	1	X-HDCAMSS	ANGLE ADJUSTMENT WELDMENT FOR BCAM-HD		16.39	16.39
5	2	X-VFAPL4	VFA-HD PIVOT PLATE	12 in	15.88	31.77
6	2	X-LCBP4	BENT BACKING PLATE	13 in	19.00	38.01
7	4	X-SPTB	SLIDING PIPE TIE BACK PLATE	5 1/2 in	5.87	23.49
8	1	X-HDCAMSP	POSITIONING PLATE WELDMENT FOR BCAM-HD		2.58	2.58
9	4	X-TBCA	TIE BACK CLIP ANGLE		2.01	8.02
10	10	SCX2	CROSSOVER PLATE	7 in	4.80	47.96
11	4	MCP	CLAMP HALF 1/2" THICK, 11-5/8" LONG	12 1/16 in	3.59	14.37
12	8	DCP	1/2" THICK, 5-3/4" CNTER TO CENTER CLAMP HALF	8 1/8 in	2.36	18.90
13	2	P2126	2-3/8" X 126" (2" SCH. 40) GALVANIZED PIPE	126 in	40.75	81.50
14	2	P30150	2-7/8" X 150" (2-1/2" SCH. 40) GALVANIZED PIPE	150 in	76.94	153.87
15	4	A34212	3/4" x 2-1/2" UNC HEX BOLT (A325)	2 1/2 in	0.48	1.92
16	4	G34FW	3/4" HDG USS FLATWASHER		0.06	0.24
17	4	G34LW	3/4" HDG LOCKWASHER		0.04	0.17
18	4	G34NUT	3/4" HDG HEAVY 2H HEX NUT		0.21	0.85
19	8	G58R-18	5/8" x 18" THREADED ROD (HDG.)		1.57	12.54
20	4	G58R-12	5/8" x 12" THREADED ROD (HDG.)		1.05	4.18
21	4	G58R-8	5/8" x 8" THREADED ROD (HDG.)		0.70	2.79
22	4	X-UB5300	5/8" X 3" X 5-1/4" X 2-1/2" U-BOLT (HDG.)		1.15	4.60
23	8	X-UB5258	5/8" X 2-5/8" X 4-1/2" X 2" U-BOLT (HDG.)		1.00	8.00
24	2	G5807	5/8" x 7" HDG HEX BOLT GR5 FULL THREAD	7 in	0.70	1.41
25	1	G5806	5/8" x 6" HDG HEX BOLT GR5 FULL THREAD	6 in	0.62	0.62
26	8	G5804	5/8" x 4" HDG HEX BOLT GR5		0.44	3.55
27	4	G5802	5/8" x 2" HDG HEX BOLT GR5		0.27	1.08
28	8	A582114	5/8" x 2-1/4" HDG A325 HEX BOLT	2 1/4 in	0.31	2.50
29	25	G58FW	5/8" HDG USS FLATWASHER	1/8 in	0.07	1.76
30	66	G58LW	5/8" HDG LOCKWASHER		0.03	1.72
31	71	G58NUT	5/8" HDG HEAVY 2H HEX NUT		0.13	9.22
32	48	X-UB1300	1/2" X 3" X 5" X 2" GALV U-BOLT		0.74	35.45
33	20	X-UB1212	1/2" X 2-1/2" X 4-1/2" X 2" GALV. U-BOLT		0.66	13.13
34	80	G12FW	1/2" HDG USS FLATWASHER	3/32 in	0.03	2.73
35	80	G12LW	1/2" HDG LOCKWASHER	1/8 in	0.01	1.11
36	80	G12NUT	1/2" HDG HEAVY 2H HEX NUT		0.07	5.73
37	5	P30120	2-7/8" x 120" (2-1/2" SCH. 40) GALVANIZED PIPE	120 in	58.07	290.33
					TOTAL WT. #	1055.41

TOLERANCE NOTES

TOLERANCES ON DIMENSIONS, UNLESS OTHERWISE NOTED ARE:
SAWED, SHEARED AND GAS CUT EDGES *(± 0.030")*
DRILLED AND GAS CUT HOLES *(± 0.030")* - NO CONING OF HOLES
LASER CUT EDGES AND HOLES *(± 0.010")* - NO CONING OF HOLES
BENDS ARE ± 1/2 DEGREE
ALL OTHER MACHINING *(± 0.030")*
ALL OTHER ASSEMBLY *(± 0.060")*

REVISION HISTORY				
REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
A	UPDATED BCAM VERSION 1 TO BCAM VERSION 2	SP1	CSL	7/2/2018

DESCRIPTION: 12' 6" HEAVY DUTY V-FRAME ASSEMBLY W/ 2 STIFF ARMS & MOUNT PIPES

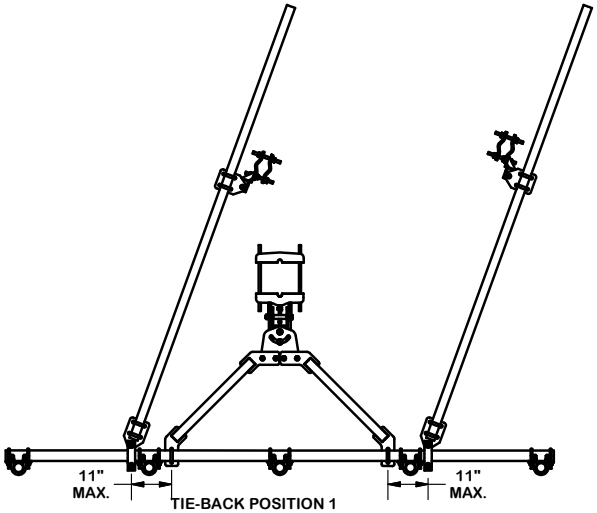
CPD NO.	DRAWN BY	ENG. APPROVAL	PART NO.
SP1	CSL 1/25/2017		VFA12-WLL-30120

CLASS	SUB	DRAWING USAGE	CHECKED BY	DWG. NO.
87	02	CUSTOMER	BMC 5/3/2018	VFA12-WLL-30120

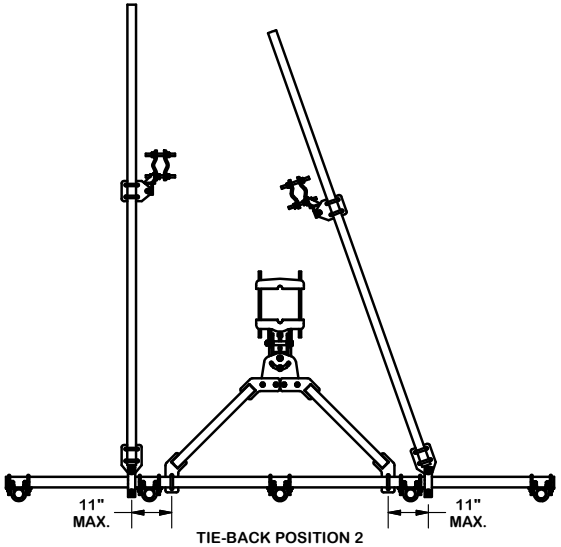
SITE PRO 1 — A valmont COMPANY
Engineering Support Team: 1-888-753-7446
Locations: New York, NY; Atlanta, GA; Los Angeles, CA; Plymouth, IN; Salem, OR; Dallas, TX

PAGE 1 OF 5

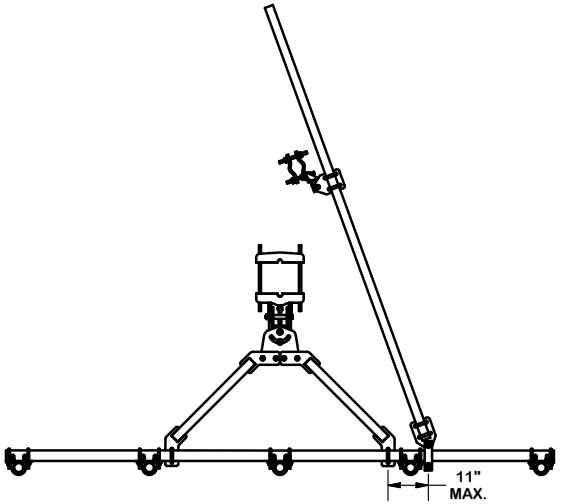
TIE-BACK POSITIONS



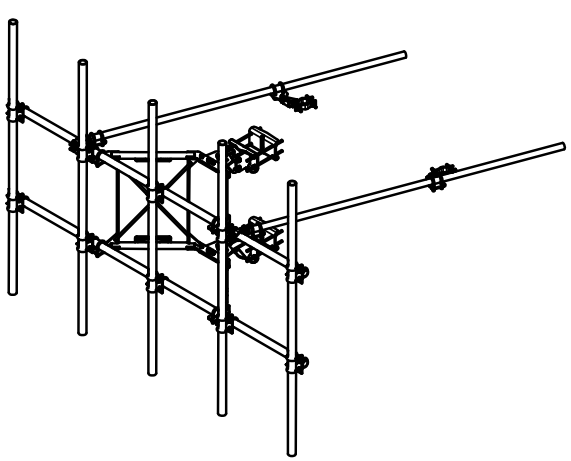
TIE-BACK POSITION 1
-20° / +20° TOP PARALLEL

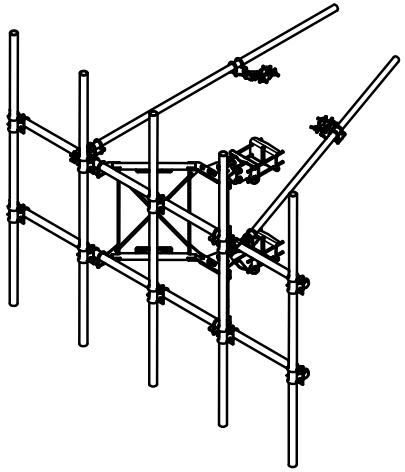


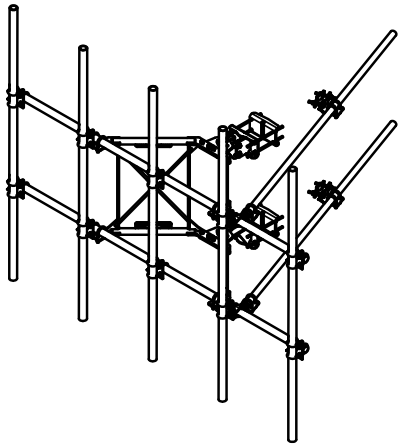
TIE-BACK POSITION 2
-20° / -20° TOP CROSS



TIE-BACK POSITION 3
-20° SAME SIDE STACKED







REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
A	UPDATED BCAM VERSION 1 TO BCAM VERSION 2	SP1	CSL	7/2/2018

REVISION HISTORY

TOLERANCE NOTES

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BENDS ARE ± 1/2 DEGREE
ALL OTHER MACHINING *(± 0.030")*
ALL OTHER ASSEMBLY *(± 0.060")*

DESCRIPTION: 12' 6" HEAVY DUTY V-FRAME ASSEMBLY W/ 2 STIFF ARMS & MOUNT PIPES

SITE PRO 1 — A valmont COMPANY

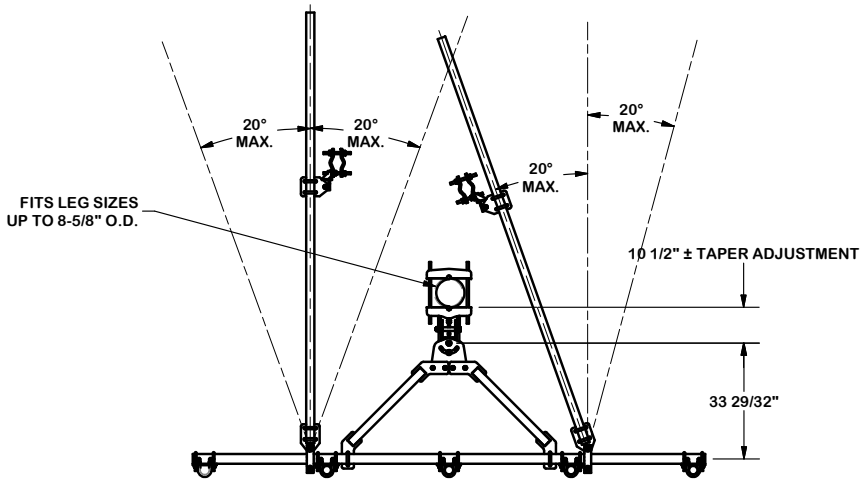
Engineering Support Team: 1-888-753-7446

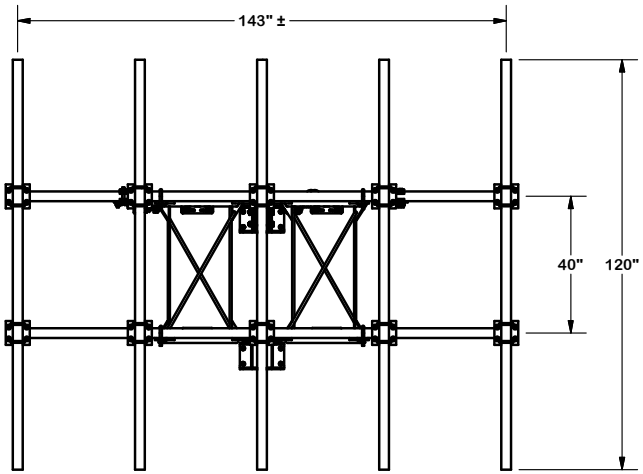
Locations: New York, NY; Atlanta, GA; Los Angeles, CA; Plymouth, IN; Salem, OR; Dallas, TX

CPD NO.	DRAWN BY	ENG. APPROVAL	PART NO.
SP1	CSL 1/25/2017		VFA12-WLL-30120

CLASS	SUB	DRAWING USAGE	CHECKED BY	DWG. NO.
87	02	CUSTOMER	BMC 5/3/2018	VFA12-WLL-30120

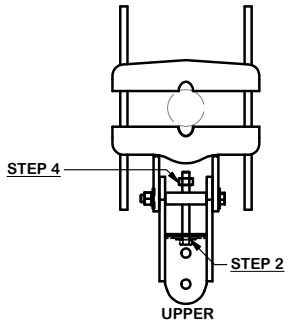
PAGE 2 OF 5

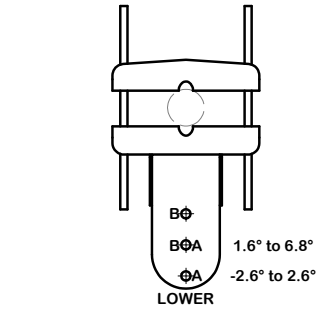


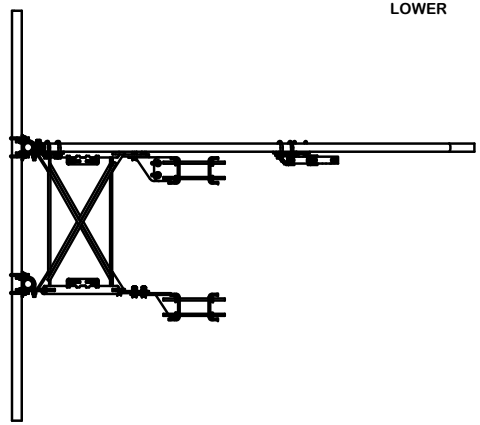


ANGLE CALIBRATING PROCEDURE:

1. MEASURE TOWER TAPER AND PICK LOWER BRACKET HOLE:
   - HOLE A = -2.6° TO 2.6°
   - HOLE B = 1.6° TO 6.8°
2. USE CALIBRATING BOLT TO ADJUST FRAME TO DESIRED TAPER
3. TORQUE LOCKING BOLTS TO 100 ft.-lbs.
4. ADVANCE LOCKING NUT TO POSITIONING PLATE, THEN TIGHTEN.







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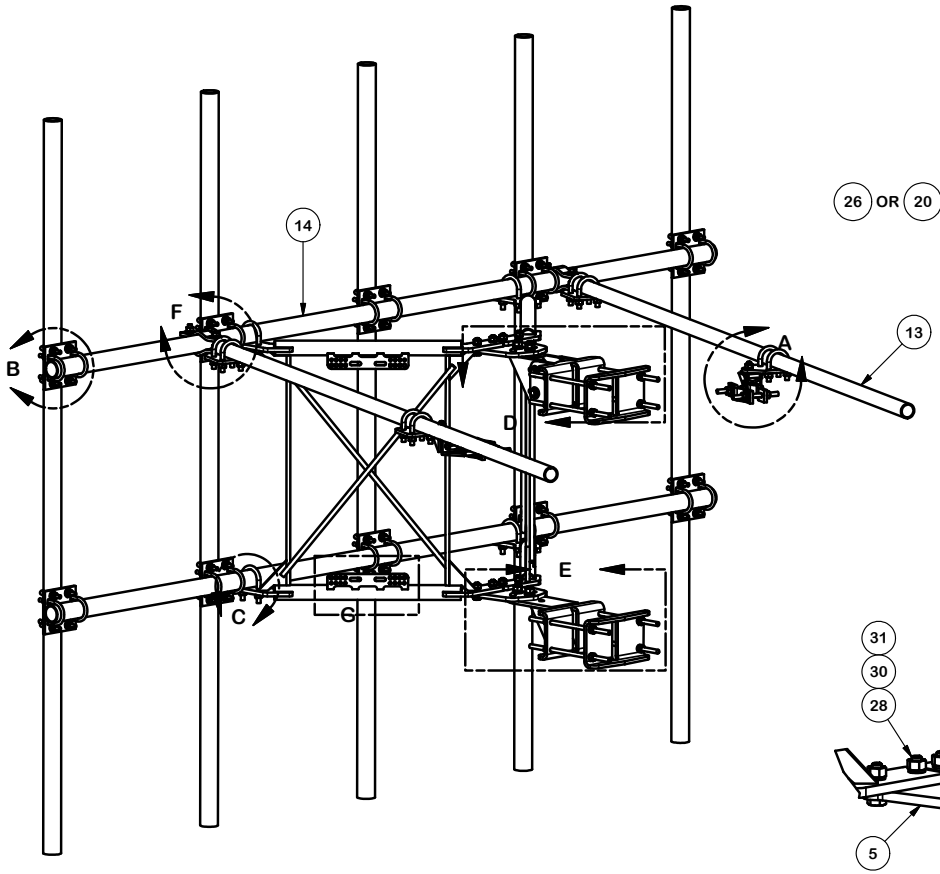
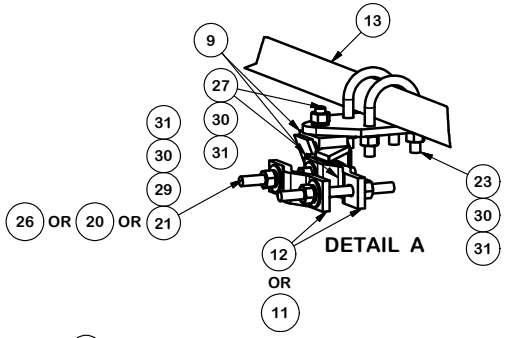
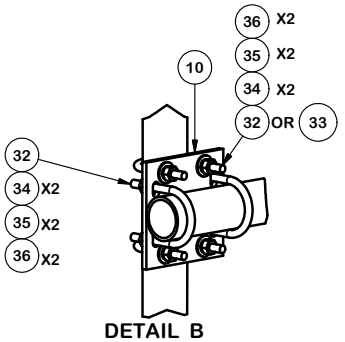
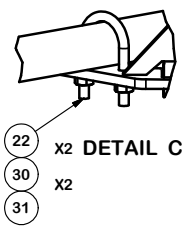
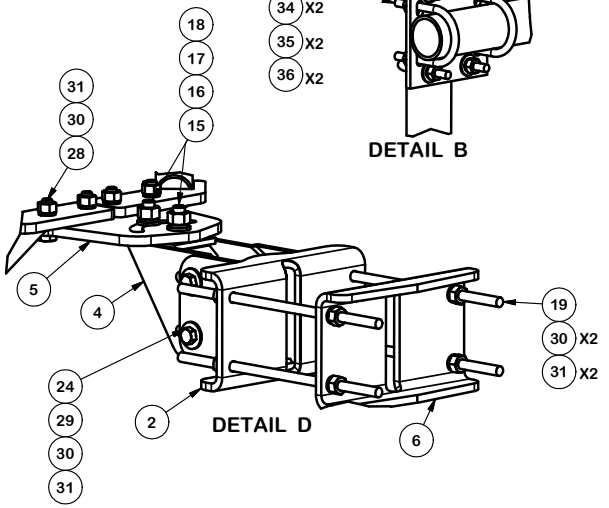
PAGE 3 OF 5

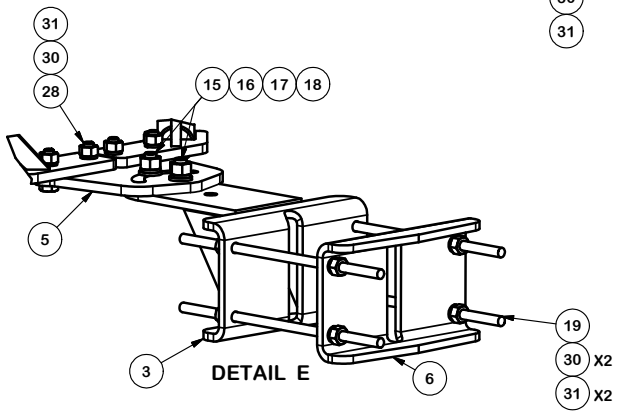


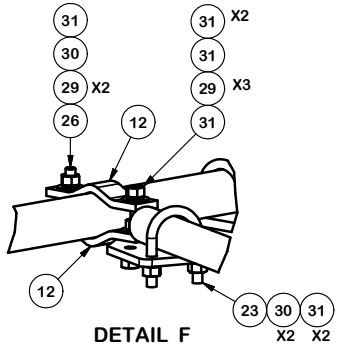








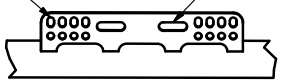




7/16" LUG HOLES

REVIEW CARRIER STANDARDS FOR PROPER SURFACE PREPARTION AND ASSEMBLY OF ELECTRICAL CONNECTIONS

9/16" SLOTTED HOLE FOR EQUIPMENT PIPE U-BOLT



DETAIL G

REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
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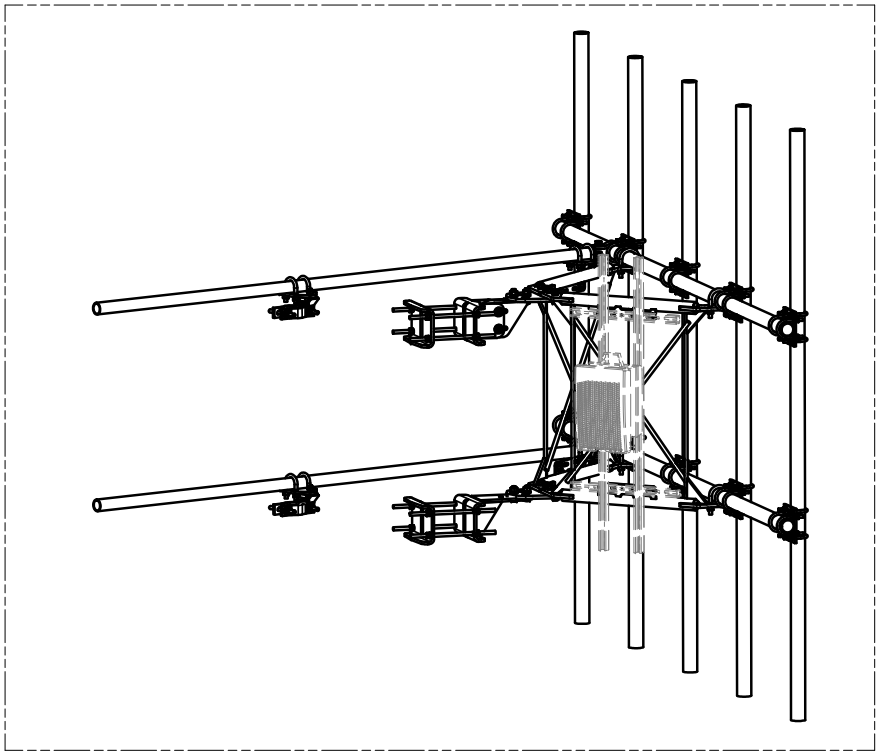
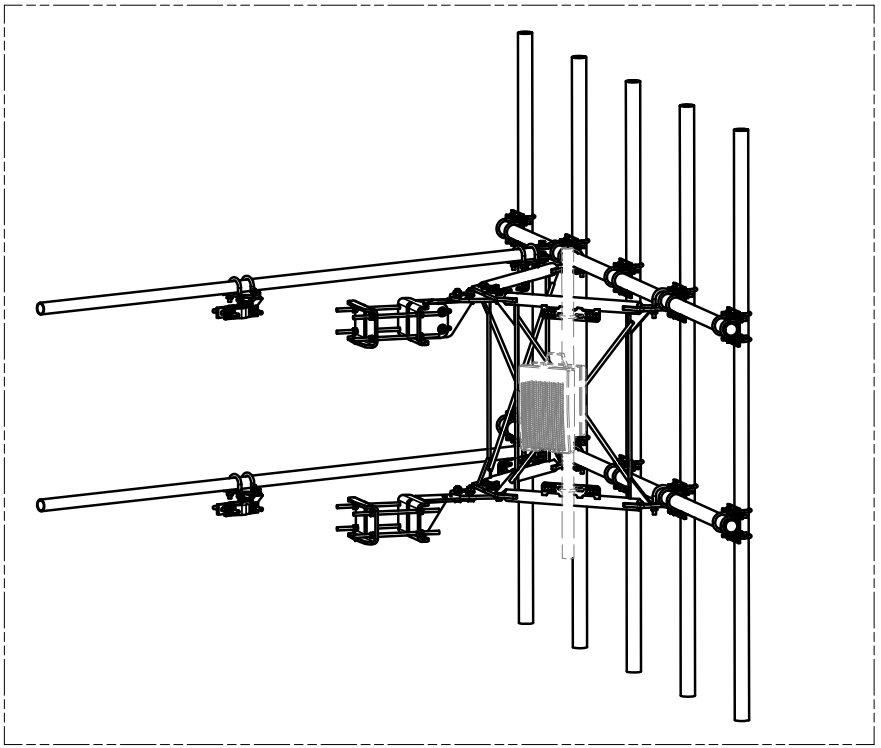
87	02	CUSTOMER	BMC 5/3/2018	VFA12-WLL-30120

SITE PRO 1 — A valmont COMPANY
Engineering Support Team: 1-888-753-7446
Locations: New York, NY; Atlanta, GA; Los Angeles, CA; Plymouth, IN; Salem, OR; Dallas, TX



UNISTRUT AND HARDWARE
SOLD SEPARATELY.

REQUIRES 3/8" HARDWARE



EQUIPMENT PIPE AND HARDWARE
SOLD SEPARATELY.

REQUIRES 1/2" HARDWARE
AND 2-3/8" TO 4-1/2" O.D. PIPE

REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
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Engineering Support Team: 1-888-753-7446

Locations: New York, NY; Atlanta, GA; Los Angeles, CA; Plymouth, IN; Salem, OR; Dallas, TX

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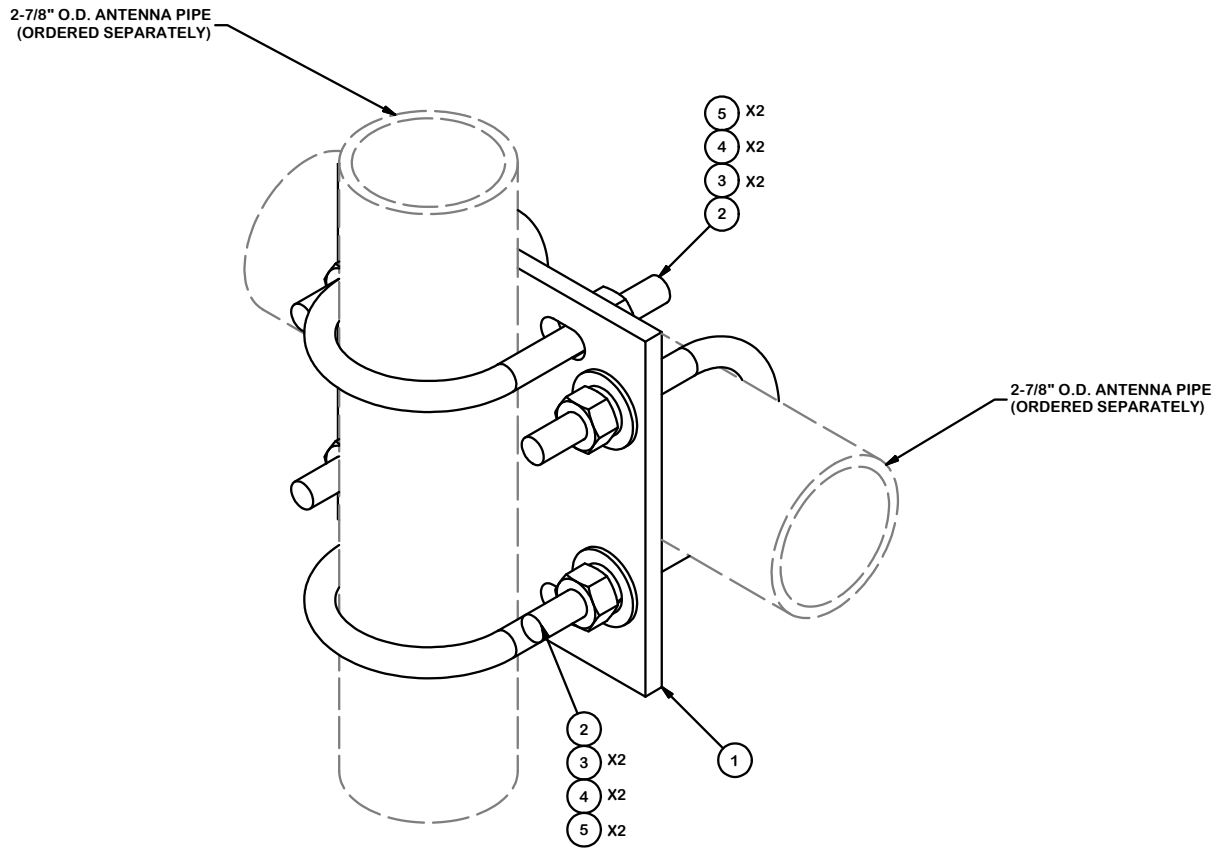
CLASS	SUB	DRAWING USAGE	CHECKED BY	DWG. NO.
87	02	CUSTOMER	BMC 5/3/2018	VFA12-WLL-30120

PAGE 5 OF 5

PARTS LIST						
ITEM	QTY	PART NO.	PART DESCRIPTION	LENGTH	UNIT WT.	NET WT.
1	1	SCX2	CROSSOVER PLATE	7 in	4.80	4.80
2	4	X-UB1300	1/2" X 3" X 5" X 2" U-BOLT (HDG.)		0.73	2.93
3	8	G12FW	1/2" HDG USS FLATWASHER		0.03	0.27
4	8	G12LW	1/2" HDG LOCKWASHER		0.01	0.11
5	8	G12NUT	1/2" HDG HEAVY 2H HEX NUT		0.07	0.57
					TOTAL WT. #	8.40



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DESCRIPTION: CROSSOVER PLATE KIT

SITE PRO 1 — A valmont COMPANY

Engineering Support Team: 1-888-753-7446

Locations: New York, NY; Atlanta, GA; Los Angeles, CA; Plymouth, IN; Salem, OR; Dallas, TX

CPD NO.	DRAWN BY	ENG. APPROVAL	PART NO.	PAGE
	CEK 2/19/2015		SCX23-K	1 OF 1
CLASS / SUB	DRAWING USAGE	CHECKED BY	DWG. NO.	
81 / 01	CUSTOMER	BMC 2/19/2015	SCX23-K	

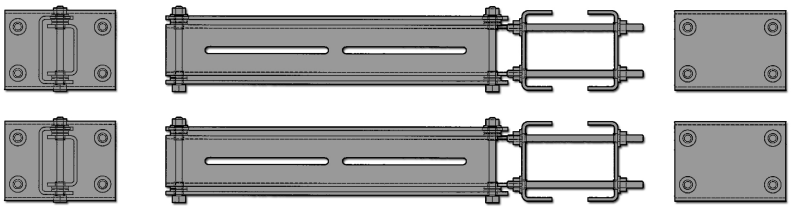
Product Specifications

Rosenberger
Rosenberger Site Solutions, LLC

DUAL RRU MOUNT

D220RRUDSM

LOW PIM UNIVERSAL REMOTE RADIO HEAD DUAL SWIVEL MOUNT.
FITS ROUND LEGS 2-3/8" TO 4-1/2" ANGLE UP TO 3" X 3"



Dimensions

Height	101.60 mm | 4.0 in
Length	565.15 mm | 22-3/4 in
Width	165.10 mm | 6-1/2 in
Weight	kg | lb

General Specifications

Material Type	Steel
Finish	Hot Dip Galvanized

Mounting

Mounting Type	Angle Member | Round Member
Mounting Range	60 Deg Angle Legs: 1 in to 5 in 90 Deg Angle Legs: 1 in to 3 1/2 in Fits Round Legs: 1-1/2 in to 5 in OD
Torque	25 ft-lbs

Packaging

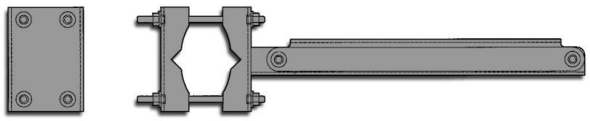
Package Quantity	1 Kit

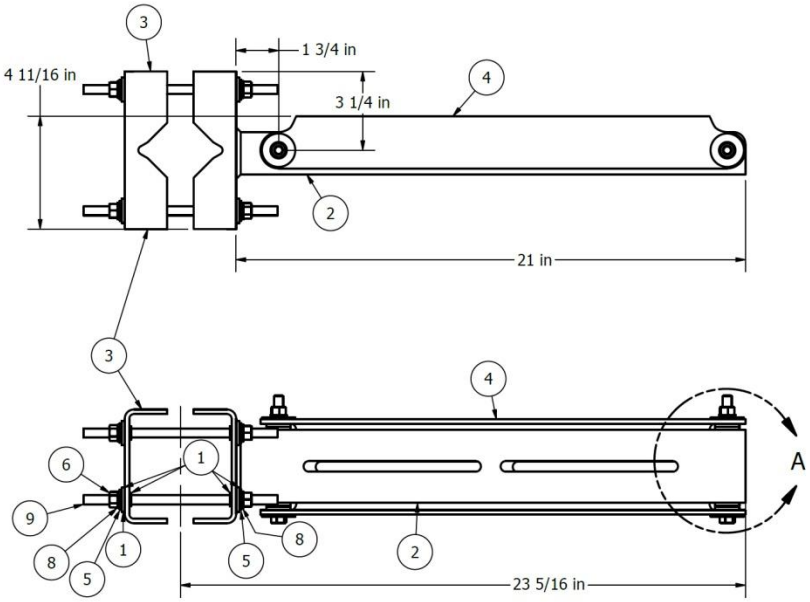
NOTE
Installation of this product should only be performed by trained, qualified and experienced personnel. Installation instructions for this product should be read thoroughly before installation is performed. The manufacturer and supplier of this product disclaims any liability or responsibility for the results of improper or unsafe installation practice.

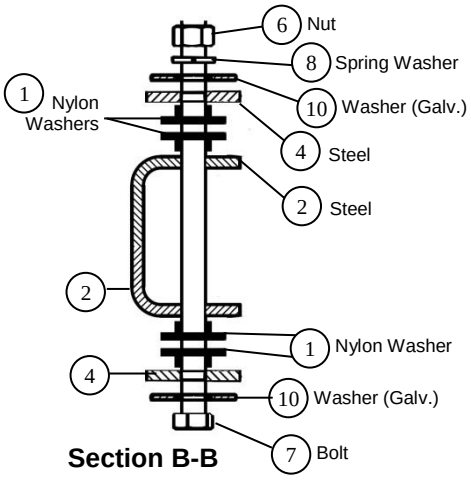
When installed properly, this product meets the requirements for installation in High Risk PIM Zones. Static and dynamic testing was conducted per IEC 46/666 "Passive RF and Microwave Devices, Intermodulation Level Measurement", "Part 8: Measurement of passive intermodulation generated by objects exposed to RF radiation" and IEC 62037-1.

D220RRUDSM

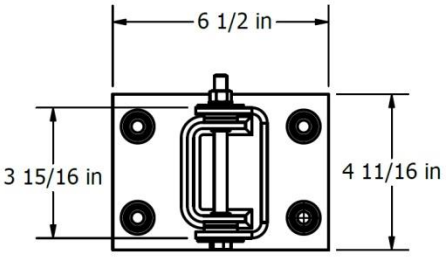
DUAL RRU MOUNT

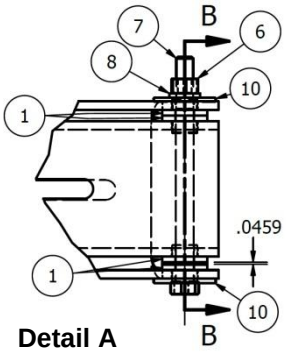






Section B-B





Detail A

PARTS LIST			
ITEM	QUANTITY PER BRACKET	TOTAL QUANTITY REQUIRED *	DESCRIPTION
1	16	32	NYLON SHOULDER WASHER
2	1	2	MOUNTING ARM WELDMENT
3	1	2	BENT CLAMP PLATE
4	1	2	SWIVEL MOUNT PLATE
5	8	16	3/8" DIA. GALVANIZED WASHER
6	10	20	3/8" DIA. GALVANIZED NUT
7	2	4	3/8" DIA. X 5" LONG A-307 GRADE C GALVANIZED BOLT
8	10	20	3/8" DIA. GALVANIZED SPRING WASHER
9	4	8	3/8" DIA. X 8" LONG A-36 THREADED ROD
10	12	24	3/8" DIA. F436 GALVANIZED WASHER
* TWO BRACKETS ARE REQUIRED TO SUPPORT (2) RRU ASSEMBLIES			

When installed properly, this product meets the requirements for installation in High Risk PIM Zones. Static and dynamic testing was conducted per IEC 46/666 "Passive RF and Microwave Devices, Intermodulation Level Measurement", "Part 8: Measurement of passive intermodulation generated by objects exposed to RF radiation" and IEC 62037-1.

STRUCTURAL ANALYSIS REPORT

STRUCTURE: GUYED TOWER

PREPARED FOR: SMARTLINK

CARRIER: AT&T

SITE NAME : NAUGATUCK EASTSIDE BOULEVARD

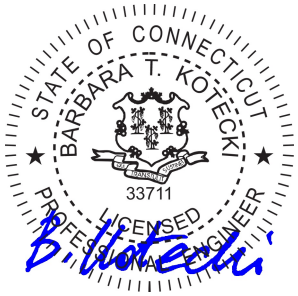
SITE NUMBER : CTL02056

SITE LOCATION:
130 Eastside Boulevard
Naugatuck, CT 06770
N41.51777, W73.01861

DATE: August 18, 2023

REV. 5: RFDS Change (Modifications Included)

RESULTS
PASS (MAX STRESS RATIO: 99.2%)



Barbara T. Kotecki, P.E.

Fullerton Engineering, P.C.
1100 E. Woodfield Road, Suite 500
Schaumburg, IL 60173
Tel: 847.908.8400
www.fullertonengineering.com

Project Number: 2021.0215.0004

Summary

A structural analysis was performed by Fullerton, as requested by the client, to determine the adequacy of the existing structure with the proposed appurtenance and equipment addition on the abovementioned structure. The analysis considers the tower properties, existing and proposed appurtenances, and the required loading criteria.

Conclusion

Component	% Capacity	Pass / Fail
Tower	99.2%	PASS
Guy Anchor	96.0%	PASS
Base Foundation	57.0%	PASS
Guy Anchor Foundation	98.9%	PASS
Structural Rating (max from all components) = 99.2%		**PASS**

*Modifications by Fullerton Engineering Consultants, LLC and Hudson Design Group are assumed to have been installed.

Analysis Criteria

Reference Standard:	2022 Connecticut State Building Code	
	TIA-222-H Standard	
Wind Parameters:	Basic Wind Speed:	118 mph (3-Sec gust)
	Ice Wind Speed:	50 mph (3-Sec gust)
	Design Ice Thickness:	1.0 in.
	Risk Category	II
	Exposure Category:	B
	Topographic Category:	Escarpment

Sources

The following documents for the existing structure were made available for our structural analysis.

Document Type	Reference Date
Structural Analysis and Modification by Fullerton Engineering Consultants, Inc.	07/21/2017
Structural Analysis by Fullerton Engineering Consultants, Inc.	08/07/2017
Structural Analysis by Maser Consulting, Project Number: 18946008A.	09/25/2018
Mount Analysis by Fullerton Engineering, PC.	03/29/2022
Foundation Investigation by Hudson Design Group,	11/05/2014
Geotechnical Investigation Report by Hudson Design Group	11/04/2014
Structural Analysis and Modification by Hudson Design Group	05/14/2014
RFDS Ver.8.0 by AT&T	08/09/2023
Structural Analysis by Centek Engineering, Project Number: 23009.03	03/31/2023

Modification History

This analysis assumes that the following modifications were installed.

Elevation	Modification Description
0’-0” to 42’-0”	Installed 2L2 1/2x2 1/2x1/4 secondary horizontals
42’-0” to 74’-0”	Increase diagonal size to L2x2x1/4
42’-0” to 106’-0”	Installed L2x2x3/16 secondary horizontals
126’-0” to 130’-0”	Installed L2x2x3/16 secondary horizontals
130’-0” to 146’-0”	Increase diagonal size to L2x2x3/8
62’-0”	Increase guy wire size from 1/2” to 9/16”
130’-0”	Increase guy wire size from 5/8” to 3/4”
Base Foundation	Footing increased from 8” to 18” thick
Guy Anchor Foundation	Installed additional 5.5yd^3 of concrete on top of each guy anchor foundation

Proposed Modification

It is recommended to install/replace/modify the following members before adding the proposed loading. See Fullerton Engineering Construction Drawings for sections and details. Remove all interferences prior to installing the new modification members. Reinforce / remove only one member at a time. Apply the modifications members to all sides of the tower.

Tower Member	Elevation	Modification Description
Tower Legs	114’-0” to 126’-0”	Install new 1 ¼” solid rod secondary horizontals (Mfr.: Perfect Vision; Part#: RSR-0015-48) between existing main leg members in the middle of each bay.
	130’-0” to 138’-0”	Install new 1 ¼” solid rod secondary horizontals (Mfr.: Perfect Vision; Part#: RSR-0015-48) between existing main leg members in the middle of each bay.
	222’-0” to 250’-0”	Install new 1 ¼” solid rod secondary horizontals (Mfr.: Perfect Vision; Part#: RSR-0015-48) between existing main leg members in the middle of each bay.
Guy Anchor Foundation	Install additional 1’x4’-6”x6’-4” (1.055yd^3) of concrete on top of upper concrete anchor block at guy anchor location #3.	

Final Appurtenance Loading Schedule

ANTENNA/EQUIPMENT				COAXIAL*	
Elev. (Ft)	QTY.	MANUFACTURER/MODEL	MOUNT TYPE	QTY.	SIZE/TYPE.
236.0 (T-Mobile)	3	(E) Commscope DBXNH-6565A-A2M	(3) Pirod 10' Lightweight T-Frame	7	1-5/8" Fiber
	3	(E) Ericsson AIR32			
	3	(E) Ericsson RRUS-11 B12			
220.0 (AT&T)	1	(N) CCI TPA65R-BU8DV2	New Sector Frame – Site Pro 1: VFA12-WLL-30120 Heavy Duty	3 7	Fiber DC Power
	2	(N) CCI TPA65R-BU6DV2			
	1	(E) Kathrein 800-10966			
	2	(E) Kathrein 800-10965			
	3	(N) Ericsson Air 6472 B77G B77M			
	3	(N) Ericsson Radio 4449 B5/B12			
	3	(E) Ericsson Radio 4478 B14			
	3	(E) Ericsson Radio 4426 B66			
	3	(E) Ericsson RRUS 32 B30			
	3	(E) Ericsson RRUS 32 B2			
	2	(E) Raycap DC6-48-60-18-8F			
	1	(E) Raycap DC9-48-60-24-PC16-EV			
170.0 (Dish)	3	(N) JMA MX08FRO665-21	(3) New Commscope V-Frame Sector Frames	1	1.75" Hybrid Cable
	3	(N) Fujitsu TA08025-B605			
	3	(N) Fujitsu TA08025-B604			

*(12) 1 5/8" coax shall be removed prior to installation.

Results

Tower

Section No.	Elevation ft	Component Type	Size	Critical Element	P lb	ϕP_{allow} lb	% Capacity	Pass Fail
T1	276 - 265.5	Leg	1 3/4	1	-1925.13	55173.40	3.5	Pass
T2	265.5 - 261.75	Leg	1 3/4	24	-4253.27	49937.80	8.5	Pass
T3	261.75 - 258	Leg	1 3/4	31	-3035.43	49937.80	6.1	Pass
T4	258 - 254	Leg	1 3/4	44	-36396.30	44889.40	81.1	Pass
T5	254 - 250	Leg	1 3/4	54	-40540.00	44889.40	90.3	Pass
T6	250 - 246	Leg	1 3/4	62	-44955.20	86860.00	51.8	Pass
T7	246 - 242	Leg	1 3/4	75	-47942.70	86860.00	55.2	Pass
T8	242 - 238	Leg	1 3/4	86	-51983.90	86860.00	59.8	Pass
T9	238 - 234	Leg	1 3/4	99	-53804.90	86860.00	61.9	Pass
T10	234 - 230	Leg	1 3/4	110	-55120.10	86860.00	63.5	Pass
T11	230 - 226	Leg	1 3/4	123	-52803.50	86860.00	60.8	Pass
T12	226 - 222	Leg	1 3/4	134	-53057.60	86860.00	61.1	Pass
T13	222 - 206	Leg	2	146	-50270.90	72063.20	69.8	Pass
T14	206 - 202	Leg	2	172	-33687.10	72063.20	46.7	Pass
T15	202 - 198	Leg	2	183	-23570.80	72063.20	32.7	Pass
T16	198 - 194	Leg	2	194	-57442.50	72063.20	79.7	Pass
T17	194 - 182	Leg	2	203	-67085.10	72063.20	93.1	Pass
T18	182 - 162	Leg	2	224	-67501.90	72063.20	93.7	Pass
T19	162 - 158	Leg	2	257	-56016.80	72063.20	77.7	Pass
T20	158 - 154	Leg	2	265	-51676.20	72063.20	71.7	Pass
T21	154 - 150	Leg	2	275	-48471.10	72063.20	67.3	Pass
T22	150 - 146	Leg	2	283	-46899.70	72063.20	65.1	Pass
T23	146 - 142	Leg	2	292	-58048.30	72063.20	80.6	Pass
T24	142 - 138	Leg	2	301	-67506.70	72063.20	93.7	Pass
T25	138 - 134	Leg	2	310	-80437.60	119454.00	67.3	Pass
T26	134 - 130	Leg	2	322	-91543.60	119454.00	76.6	Pass
T27	130 - 126	Leg	2	334	-95633.10	119454.00	80.1	Pass
T28	126 - 122	Leg	2	346	-87048.10	119454.00	72.9	Pass
T29	122 - 118	Leg	2	358	-82070.60	119454.00	68.7	Pass
T30	118 - 114	Leg	2	370	-75083.00	119454.00	62.9	Pass
T31	114 - 110	Leg	2	382	-71454.40	72063.20	99.2	Pass
T32	110 - 106	Leg	2	391	-66138.60	72063.20	91.8	Pass
T33	106 - 102	Leg	2	400	-63902.60	72063.20	88.7	Pass
T34	102 - 98	Leg	2	409	-60314.00	119454.00	50.5	Pass
T35	98 - 94	Leg	2	421	-59632.00	119454.00	49.9	Pass
T36	94 - 90	Leg	2	433	-57946.80	119454.00	48.5	Pass
T37	90 - 86	Leg	2	445	-58915.60	119454.00	49.3	Pass
T38	86 - 82	Leg	2	457	-59125.50	119454.00	49.5	Pass
T39	82 - 78	Leg	2	469	-61685.50	119454.00	51.6	Pass
T40	78 - 74	Leg	2	481	-63733.90	119454.00	53.4	Pass
T41	74 - 70	Leg	2	493	-67817.30	119454.00	56.8	Pass
T42	70 - 66	Leg	2	505	-71630.20	119454.00	60.0	Pass
T43	66 - 62	Leg	2	517	-77126.00	119454.00	64.6	Pass
T44	62 - 58	Leg	2	529	-76325.10	119454.00	63.9	Pass
T45	58 - 54	Leg	2	541	-71030.30	119454.00	59.5	Pass
T46	54 - 50	Leg	2	553	-65281.60	119454.00	54.7	Pass
T47	50 - 46	Leg	2	567	-63599.80	119454.00	53.2	Pass
T48	46 - 42	Leg	2	577	-65201.90	119454.00	54.6	Pass
T49	42 - 38	Leg	2	591	-66749.60	119454.00	55.9	Pass
T50	38 - 34	Leg	2	601	-67381.10	119454.00	56.4	Pass
T51	34 - 30	Leg	2	615	-68482.30	119454.00	57.3	Pass
T52	30 - 26	Leg	2	627	-68455.50	119454.00	57.3	Pass
T53	26 - 22	Leg	2	639	-68849.00	119454.00	57.6	Pass
T54	22 - 18	Leg	2	651	-69089.00	119454.00	57.8	Pass
T55	18 - 14	Leg	2	663	-69050.80	119454.00	57.8	Pass
T56	14 - 10	Leg	2	675	-68834.40	119454.00	57.6	Pass
T57	10 - 6	Leg	2	686	-68359.50	119454.00	57.2	Pass
T58	6 - 2	Leg	2	698	-67623.00	119454.00	56.6	Pass

Results (cont.)

Tower

Section No.	Elevation ft	Component Type	Size	Critical Element	P lb	ϕP_{allow} lb	% Capacity	Pass Fail
T1	276 - 265.5	Diagonal	L1 3/4x1 3/4x3/16	7	-691.80	7281.78	9.5	Pass
T2	265.5 - 261.75	Diagonal	L1 3/4x1 3/4x3/16	30	-2998.28	6968.34	43.0	Pass
T3	261.75 - 258	Diagonal	L1 3/4x1 3/4x3/16	39	-5752.06	15437.80	37.3	Pass
T4	258 - 254	Diagonal	L1 3/4x1 3/4x3/16	50	-5776.72	6664.44	86.7	Pass
T5	254 - 250	Diagonal	L1 3/4x1 3/4x3/16	59	-5130.61	6664.44	77.0	Pass
T6	250 - 246	Diagonal	L1 3/4x1 3/4x3/16	68	-4919.76	6664.44	73.8	Pass
T7	246 - 242	Diagonal	L1 3/4x1 3/4x3/16	80	-4350.76	6664.44	65.3	Pass
T8	242 - 238	Diagonal	L1 3/4x1 3/4x3/16	92	-4420.96	6664.44	66.3	Pass
T9	238 - 234	Diagonal	L1 3/4x1 3/4x3/16	104	-2620.30	6664.44	39.3	Pass
T10	234 - 230	Diagonal	L1 3/4x1 3/4x3/16	117	-2244.92	6664.44	33.7	Pass
T11	230 - 226	Diagonal	L1 3/4x1 3/4x3/16	127	-2223.76	6664.44	33.4	Pass
T12	226 - 222	Diagonal	L1 3/4x1 3/4x3/16	141	-2464.45	6664.44	37.0	Pass
T13	222 - 206	Diagonal	L2 1/2x2 1/2x1/4	153	-9538.51	20892.00	45.7	Pass
T14	206 - 202	Diagonal	L2 1/2x2 1/2x3/8	180	-11069.40	30056.40	36.8	Pass
T15	202 - 198	Diagonal	L2 1/2x2 1/2x3/8	191	-9804.59	49717.40	19.7	Pass
T16	198 - 194	Diagonal	L2 1/2x2 1/2x3/8	200	-5837.17	30056.40	19.4	Pass
T17	194 - 182	Diagonal	L2 1/2x2 1/2x1/4	222	-5216.48	20892.00	25.0	Pass
T18	182 - 162	Diagonal	L2x2x1/4	229	-7186.33	12170.70	59.0	Pass
T19	162 - 158	Diagonal	L2x2x1/4	262	-7166.67	12170.70	58.9	Pass
T20	158 - 154	Diagonal	L2x2x1/4	271	-8271.53	12170.70	68.0	Pass
T21	154 - 150	Diagonal	L2x2x1/4	280	-8312.01	12170.70	68.3	Pass
T22	150 - 146	Diagonal	L2x2x1/4	289	-9340.62	12170.70	76.7	Pass
T23	146 - 142	Diagonal	L2x2x3/8	298	-9361.24	15235.30	61.4	Pass
T24	142 - 138	Diagonal	L2x2x3/8	307	-10318.20	15235.30	67.7	Pass
T25	138 - 134	Diagonal	L2x2x3/8	316	-10337.80	15235.30	67.9	Pass
T26	134 - 130	Diagonal	L2x2x3/8	328	-11197.40	15235.30	73.5	Pass
T27	130 - 126	Diagonal	L2x2x1/4	341	-7207.23	12170.70	59.2	Pass
T28	126 - 122	Diagonal	L2x2x1/4	353	-6705.64	12170.70	55.1	Pass
T29	122 - 118	Diagonal	L2x2x1/4	365	-6070.93	12170.70	49.9	Pass
T30	118 - 114	Diagonal	L2x2x1/4	377	-5562.51	12170.70	45.7	Pass
T31	114 - 110	Diagonal	L2x2x1/4	389	-4815.60	12170.70	39.6	Pass
T32	110 - 106	Diagonal	L2x2x1/4	398	-4375.54	12170.70	36.0	Pass
T33	106 - 102	Diagonal	L2x2x1/4	407	-3624.67	12170.70	29.8	Pass
T34	102 - 98	Diagonal	L2x2x3/16	416	-3140.42	9375.35	33.5	Pass
T35	98 - 94	Diagonal	L2x2x3/16	428	-2284.41	9375.35	24.4	Pass
T36	94 - 90	Diagonal	L2x2x3/16	440	-1809.45	9375.35	19.3	Pass
T37	90 - 86	Diagonal	L2x2x3/16	451	-1553.44	9375.35	16.6	Pass
T38	86 - 82	Diagonal	L2x2x3/16	463	-2150.53	9375.35	22.9	Pass
T39	82 - 78	Diagonal	L2x2x3/16	475	-2733.70	9375.35	29.2	Pass
T40	78 - 74	Diagonal	L2x2x3/16	487	-3271.49	9375.35	34.9	Pass
T41	74 - 70	Diagonal	L2x2x1/4	499	-3849.70	10616.20	36.3	Pass
T42	70 - 66	Diagonal	L2x2x1/4	511	-4329.04	10616.20	40.8	Pass
T43	66 - 62	Diagonal	L2x2x1/4	523	-4880.83	10616.20	46.0	Pass
T44	62 - 58	Diagonal	L2x2x1/4	536	-5587.76	10616.20	52.6	Pass
T45	58 - 54	Diagonal	L2x2x1/4	548	-4909.25	10616.20	46.2	Pass
T46	54 - 50	Diagonal	L2x2x1/4	560	-4412.50	10616.20	41.6	Pass
T47	50 - 46	Diagonal	L2x2x1/4	572	-3678.76	10616.20	34.7	Pass
T48	46 - 42	Diagonal	L2x2x3/16	584	-3209.87	9375.35	34.2	Pass
T49	42 - 38	Diagonal	L2x2x3/16	596	-2476.18	9375.35	26.4	Pass
T50	38 - 34	Diagonal	L2x2x3/16	608	-2062.32	9375.35	22.0	Pass
T51	34 - 30	Diagonal	L2x2x3/16	620	-1350.93	9375.35	14.4	Pass
T52	30 - 26	Diagonal	L2x2x3/16	632	-964.17	9375.35	10.3	Pass
T53	26 - 22	Diagonal	L2x2x3/16	643	-881.71	9375.35	9.4	Pass
T54	22 - 18	Diagonal	L2x2x1/4	657	-1153.70	12170.70	9.5	Pass
T55	18 - 14	Diagonal	L2x2x1/4	667	-1825.64	12170.70	15.0	Pass
T56	14 - 10	Diagonal	L2x2x1/4	681	-2213.76	12170.70	18.2	Pass
T57	10 - 6	Diagonal	L2x2x1/4	691	-2710.88	12170.70	22.3	Pass
T58	6 - 2	Diagonal	L2x2x1/4	705	-2953.66	12170.70	24.3	Pass

Results (cont.)

Tower

Section No.	Elevation ft	Component Type	Size	Critical Element	P lb	ØP$_{allow}$ lb	% Capacity	Pass Fail
T13	222 - 206	Horizontal	L2x2x3/16	167	-1433.11	14398.30	10.0	Pass
T17	194 - 182	Horizontal	L2x2x3/16	211	-1626.73	14398.30	11.3	Pass
T18	182 - 162	Horizontal	L2x2x3/16	238	-1636.84	14398.30	11.4	Pass
T25	138 - 134	Horizontal	L2 1/2x2 1/2x1/4	315	-1950.51	27462.40	7.1	Pass
T26	134 - 130	Horizontal	L2 1/2x2 1/2x1/4	327	-2219.81	27462.40	8.1	Pass
T27	130 - 126	Horizontal	L2 1/2x2 1/2x1/4	338	12137.70	38556.00	31.5	Pass
T28	126 - 122	Horizontal	L2 1/2x2 1/2x1/4	351	-2110.80	27462.40	7.7	Pass
T6	250 - 246	Secondary Horizontal	1 1/4	70	-1208.76	22597.80	5.3	Pass
T7	246 - 242	Secondary Horizontal	1 1/4	83	-1289.08	22597.80	5.7	Pass
T8	242 - 238	Secondary Horizontal	1 1/4	94	-1397.74	22597.80	6.2	Pass
T9	238 - 234	Secondary Horizontal	1 1/4	107	-1446.71	22597.80	6.4	Pass
T10	234 - 230	Secondary Horizontal	1 1/4	118	-1482.07	22597.80	6.6	Pass
T11	230 - 226	Secondary Horizontal	1 1/4	131	-1419.78	22597.80	6.3	Pass
T12	226 - 222	Secondary Horizontal	1 1/4	142	-1426.62	22597.80	6.3	Pass
T25	138 - 134	Secondary Horizontal	1 1/4	321	-1950.51	22735.80	8.6	Pass
T26	134 - 130	Secondary Horizontal	1 1/4	333	-2219.81	22735.80	9.8	Pass
T27	130 - 126	Secondary Horizontal	L2x2x3/16	345	-2318.98	14398.30	16.1	Pass
T28	126 - 122	Secondary Horizontal	1 1/4	357	-2110.80	22735.80	9.3	Pass
T29	122 - 118	Secondary Horizontal	1 1/4	369	-1990.11	22735.80	8.8	Pass
T30	118 - 114	Secondary Horizontal	1 1/4	381	-1820.67	22735.80	8.0	Pass
T34	102 - 98	Secondary Horizontal	L2x2x3/16	420	-1462.54	14398.30	10.2	Pass
T35	98 - 94	Secondary Horizontal	L2x2x3/16	432	-1446.00	14398.30	10.0	Pass
T34	102 - 98	Secondary Horizontal	L2x2x3/16	420	-1462.54	14398.30	10.2	Pass
T35	98 - 94	Secondary Horizontal	L2x2x3/16	432	-1446.00	14398.30	10.0	Pass
T36	94 - 90	Secondary Horizontal	L2x2x3/16	444	-1405.13	14398.30	9.8	Pass
T37	90 - 86	Secondary Horizontal	L2x2x3/16	456	-1428.63	14398.30	9.9	Pass
T38	86 - 82	Secondary Horizontal	L2x2x3/16	468	-1433.72	14398.30	10.0	Pass
T39	82 - 78	Secondary Horizontal	L2x2x3/16	480	-1495.79	14398.30	10.4	Pass
T40	78 - 74	Secondary Horizontal	L2x2x3/16	492	-1545.46	14398.30	10.7	Pass
T41	74 - 70	Secondary Horizontal	L2x2x3/16	504	-1644.48	14398.30	11.4	Pass
T42	70 - 66	Secondary Horizontal	L2x2x3/16	516	-1736.94	14398.30	12.1	Pass

Results (cont.)

Tower

Section No.	Elevation ft	Component Type	Size	Critical Element	P lb	ϕP_{allow} lb	% Capacity	Pass Fail
T43	66 - 62	Secondary Horizontal	L2x2x3/16	528	-1870.21	14398.30	13.0	Pass
T44	62 - 58	Secondary Horizontal	L2x2x3/16	540	-1850.79	14398.30	12.9	Pass
T45	58 - 54	Secondary Horizontal	L2x2x3/16	552	-1722.39	14398.30	12.0	Pass
T46	54 - 50	Secondary Horizontal	L2x2x3/16	564	-1582.99	14398.30	11.0	Pass
T47	50 - 46	Secondary Horizontal	L2x2x3/16	575	-1542.21	14398.30	10.7	Pass
T48	46 - 42	Secondary Horizontal	L2x2x3/16	588	-1581.06	14398.30	11.0	Pass
T49	42 - 38	Secondary Horizontal	L2 1/2x2 1/2x1/4	599	-1618.59	27462.40	5.9	Pass
T50	38 - 34	Secondary Horizontal	L2 1/2x2 1/2x1/4	612	-1633.91	27462.40	5.9	Pass
T51	34 - 30	Secondary Horizontal	L2 1/2x2 1/2x1/4	623	-1660.61	27462.40	6.0	Pass
T52	30 - 26	Secondary Horizontal	L2 1/2x2 1/2x1/4	635	-1659.96	27462.40	6.0	Pass
T53	26 - 22	Secondary Horizontal	L2 1/2x2 1/2x1/4	647	-1669.50	27462.40	6.1	Pass
T54	22 - 18	Secondary Horizontal	L2 1/2x2 1/2x1/4	659	-1675.32	27462.40	6.1	Pass
T55	18 - 14	Secondary Horizontal	L2 1/2x2 1/2x1/4	671	-1674.39	27462.40	6.1	Pass
T56	14 - 10	Secondary Horizontal	L2 1/2x2 1/2x1/4	683	-1669.14	27462.40	6.1	Pass
T57	10 - 6	Secondary Horizontal	L2 1/2x2 1/2x1/4	694	-1657.63	27462.40	6.0	Pass
T58	6 - 2	Secondary Horizontal	L2 1/2x2 1/2x1/4	706	-1639.77	27462.40	6.0	Pass
T1	276 - 265.5	Top Girt	L2x2x3/16	6	-77.19	14337.40	0.5	Pass
T2	265.5 - 261.75	Top Girt	L2x2x3/16	27	-862.21	14337.40	6.0	Pass
T4	258 - 254	Top Girt	L2x2x3/16	48	-3644.71	14337.40	25.4	Pass
T5	254 - 250	Top Girt	L2x2x3/16	56	-1090.04	14337.40	7.6	Pass
T6	250 - 246	Top Girt	L2x2x3/16	64	-1208.76	14337.40	8.4	Pass
T7	246 - 242	Top Girt	L2x2x3/16	77	-1289.08	14337.40	9.0	Pass
T8	242 - 238	Top Girt	L2x2x3/16	88	-1397.74	14337.40	9.7	Pass
T9	238 - 234	Top Girt	L2x2x3/16	101	-1446.71	14337.40	10.1	Pass
T10	234 - 230	Top Girt	L2x2x3/16	112	-1482.07	14337.40	10.3	Pass
T11	230 - 226	Top Girt	L2x2x3/16	125	-1419.78	14337.40	9.9	Pass
T12	226 - 222	Top Girt	L2x2x3/16	136	-1426.62	14337.40	10.0	Pass
T13	222 - 206	Top Girt	L2x2x3/16	148	-1219.00	14398.30	8.5	Pass
T14	206 - 202	Top Girt	L2x2x3/16	177	-816.87	14398.30	5.7	Pass
T16	198 - 194	Top Girt	L2x2x3/16	196	-2344.37	14398.30	16.3	Pass
T17	194 - 182	Top Girt	L2x2x3/16	205	-1626.73	14398.30	11.3	Pass
T18	182 - 162	Top Girt	L2x2x3/16	226	-1636.84	14398.30	11.4	Pass
T19	162 - 158	Top Girt	L2x2x3/16	259	-1358.34	14398.30	9.4	Pass
T20	158 - 154	Top Girt	L2x2x3/16	270	-1253.08	14398.30	8.7	Pass
T21	154 - 150	Top Girt	L2x2x3/16	277	-1175.36	14398.30	8.2	Pass
T22	150 - 146	Top Girt	L2x2x3/16	288	-1137.26	14398.30	7.9	Pass
T23	146 - 142	Top Girt	L2x2x3/16	297	-1407.60	14398.30	9.8	Pass
T24	142 - 138	Top Girt	L2x2x3/16	306	-1636.95	14398.30	11.4	Pass
T29	122 - 118	Top Girt	L2x2x3/16	363	-1990.11	14398.30	13.8	Pass
T30	118 - 114	Top Girt	L2x2x3/16	375	-1820.67	14398.30	12.6	Pass
T31	114 - 110	Top Girt	L2x2x3/16	387	-1732.68	14398.30	12.0	Pass

Results (cont.)

Tower

Section No.	Elevation ft	Component Type	Size	Critical Element	P lb	ØP$_{allow}$ lb	% Capacity	Pass Fail
T32	110 - 106	Top Girt	L2x2x3/16	396	-1603.78	14398.30	11.1	Pass
T33	106 - 102	Top Girt	L2x2x3/16	405	-1549.56	14398.30	10.8	Pass
T34	102 - 98	Top Girt	L2x2x3/16	414	-1462.54	14398.30	10.2	Pass
T35	98 - 94	Top Girt	L2x2x3/16	426	-1446.00	14398.30	10.0	Pass
T36	94 - 90	Top Girt	L2x2x3/16	438	-1405.13	14398.30	9.8	Pass
T37	90 - 86	Top Girt	L2x2x3/16	450	-1428.63	14398.30	9.9	Pass
T38	86 - 82	Top Girt	L2x2x3/16	462	-1433.72	14398.30	10.0	Pass
T39	82 - 78	Top Girt	L2x2x3/16	474	-1495.79	14398.30	10.4	Pass
T40	78 - 74	Top Girt	L2x2x3/16	486	-1545.46	14398.30	10.7	Pass
T41	74 - 70	Top Girt	L2x2x3/16	498	-1644.48	14398.30	11.4	Pass
T42	70 - 66	Top Girt	L2x2x3/16	510	-1736.94	14398.30	12.1	Pass
T43	66 - 62	Top Girt	L2x2x3/16	522	-1870.21	14398.30	13.0	Pass
T44	62 - 58	Top Girt	L2 1/2x2 1/2x1/4	533	7497.88	38556.00	19.4	Pass
T45	58 - 54	Top Girt	L2x2x3/16	546	-1722.39	14398.30	12.0	Pass
T46	54 - 50	Top Girt	L2x2x3/16	558	-1582.99	14398.30	11.0	Pass
T47	50 - 46	Top Girt	L2x2x3/16	569	-1542.21	14398.30	10.7	Pass
T48	46 - 42	Top Girt	L2x2x3/16	582	-1581.06	14398.30	11.0	Pass
T49	42 - 38	Top Girt	L2x2x3/16	593	-1618.59	14398.30	11.2	Pass
T50	38 - 34	Top Girt	L2x2x3/16	606	-1633.91	14398.30	11.3	Pass
T51	34 - 30	Top Girt	L2x2x3/16	617	-1660.61	14398.30	11.5	Pass
T52	30 - 26	Top Girt	L2x2x3/16	629	-1659.96	14398.30	11.5	Pass
T53	26 - 22	Top Girt	L2x2x3/16	641	-1669.50	14398.30	11.6	Pass
T54	22 - 18	Top Girt	L2x2x3/16	653	-1675.32	14398.30	11.6	Pass
T55	18 - 14	Top Girt	L2x2x3/16	665	-1674.39	14398.30	11.6	Pass
T56	14 - 10	Top Girt	L2x2x3/16	677	-1669.14	14398.30	11.6	Pass
T57	10 - 6	Top Girt	L2x2x3/16	688	-1657.63	14398.30	11.5	Pass
T58	6 - 2	Top Girt	L2x2x3/16	700	-1639.77	14398.30	11.4	Pass
T3	261.75 - 258	Guy A@261.75	9/16	722	15476.50	21000.00	73.7	Pass
T15	202 - 198	Guy A@202	9/16	740	18932.00	21000.00	90.2	Pass
T27	130 - 126	Guy A@130	3/4	747	27848.00	34980.00	79.6	Pass
T44	62 - 58	Guy A@62	9/16	750	13307.10	21000.00	63.4	Pass
T3	261.75 - 258	Guy B@261.75	9/16	716	15142.00	21000.00	72.1	Pass
T15	202 - 198	Guy B@202	9/16	734	19320.30	21000.00	92.0	Pass
T27	130 - 126	Guy B@130	3/4	746	28253.50	34980.00	80.8	Pass
T44	62 - 58	Guy B@62	9/16	749	13470.30	21000.00	64.1	Pass
T3	261.75 - 258	Guy C@261.75	9/16	709	14556.60	21000.00	69.3	Pass
T15	202 - 198	Guy C@202	9/16	727	17897.30	21000.00	85.2	Pass
T27	130 - 126	Guy C@130	3/4	745	26833.40	34980.00	76.7	Pass
T44	62 - 58	Guy C@62	9/16	748	13161.90	21000.00	62.7	Pass
T3	261.75 - 258	Top Guy Pull-Off@261.75	L2 1/2x2 1/2x3/8	34	10045.30	56052.00	17.9	Pass
T15	202 - 198	Top Guy Pull-Off@202	L2 1/2x2 1/2x3/8	184	18488.10	56052.00	33.0	Pass
T3	261.75 - 258	Torque Arm Top@261.75	L3 1/2x3 1/2x3/8	723	21081.70	80352.00	26.2	Pass
T15	202 - 198	Torque Arm Top@202	L3 1/2x3 1/2x3/8	742	24973.50	80352.00	31.1	Pass
T3	261.75 - 258	Torque Arm Bottom@261.75	L3 1/2x3 1/2x3/8	725	-23770.50	47293.60	50.3	Pass
T15	202 - 198	Torque Arm Bottom@202	L3 1/2x3 1/2x3/8	744	-27263.20	46405.10	58.8	Pass

Results (cont.)

Tower

Section No.	Elevation ft	Component Type	Size	Critical Element	P lb	ØP$_{allow}$ lb	% Capacity	Pass Fail
							Summary	
						Leg (T31)	99.2	Pass
						Diagonal (T4)	86.7	Pass
						Horizontal (T27)	31.5	Pass
						Secondary Horizontal (T27)	16.1	Pass
						Top Girt (T4)	25.4	Pass
						Guy A (T15)	90.2	Pass
						Guy B (T15)	92.0	Pass
						Guy C (T15)	85.2	Pass
						Top Guy Pull-Off (T15)	33.0	Pass
						Torque Arm Top (T15)	31.1	Pass
						Torque Arm Bottom (T15)	58.8	Pass
						Bolt Checks	81.1	Pass
						RATING =	99.2	Pass

Foundation

Components	%Capacity	PASS/FAIL
GUY ANCHOR	96.0%	PASS
BASE FOUNDATION	57.0%	PASS
GUY ANCHOR FOUNDATION	98.9%	PASS

Assumptions

This analysis is based on the theoretical capacity of the members and is not a condition assessment of the tower. The analysis is based solely on the information supplied, and the results, in turn, are only as accurate as data extracted from this information. Fullerton has been instructed by the client to assume the information supplied is accurate, and Fullerton has made no independent determination of its accuracy. The exception to the previous statement is if Fullerton has been contracted by the client to provide an independent structural mapping report of the tower and related appurtenances, in which case Fullerton has made an independent determination of the accuracy of the information resulting from the mapping report.

- The tower member sizes and geometry are considered accurate as supplied. The material grade is as per data supplied and/or as assumed and stated in the materials section.
- The existing tower is assumed to have been properly maintained in accordance with the TIA/EIA standard and/or its original manufacturer's recommendations. The existing tower is assumed to be in good condition with no structural defects and with no deterioration to its member capacities.
- The antenna configuration is as supplied and/or stated in the analysis section. It is assumed to be complete and accurate. All antennas, mounts, remote radios, cables, and cable supports are assumed to be properly installed and supported as per the manufacturer's requirements.
- The antennas, mounts, remote radios, cables, and cable supports, and lines stated in the appurtenance loading schedule represent Fullerton's understanding of the overall antenna configuration. If the actual configuration is different than above, then this analysis is invalid. Please refer to this report for the projected wind areas used in the calculations for antennas and mounts. If variations or discrepancies are identified, please inform Fullerton.
- Some assumptions are made regarding antenna and mount sizes and their projected areas based on a best interpretation of the data supplied and a best knowledge of antenna type and industry practice.
- The existing foundation is assumed to be in good condition with no structural defects and with no deterioration to its member capacities.
- The soil parameters are as per data supplied, or as assumed, and stated in the calculations.
- All welds and connections are assumed to develop at least the member capacity, unless determined otherwise and explicitly stated in this report.
- All prior structural modifications, if any, are assumed to be as per date supplied/ available, to be properly installed and to be fully effective.

Scope and Limitations

The engineering services rendered by Fullerton Engineering, P.C. (Fullerton) in connection with this structural analysis are limited to an analysis of the structure, size, and capacity of its members. Fullerton does not analyze the fabrication, including welding and connection capacities, except as included in this report.

The information and conclusions contained in this report were determined by application of the current engineering standards and analysis procedures and formulae, and Fullerton assumes no obligation to revise any of the information or conclusions contained in this report in the event such engineering and analysis procedures and formulae are hereafter modified or revised.

Fullerton makes no warranties, expressed, or implied in connection with this report and disclaims any liability arising from original design, material, fabrication, and erection deficiencies or the “as-built” condition of this tower.

Installation procedures are not within the scope of this report and should be performed and evaluated by a competent tower erection contractor.

Structural Calculations

1100 E. Woodfield Rd. Suite 500 Schaumburg, IL 60173 | 847-908-8400 | fullertonengineering.com

Tower Analysis Summary Form

General Info

Site Name	Naugatuck Eastside Boulevard
Site Number	CTL02056
FA Number	10050930
Date of Analysis	7/15/2022
Company Performing Evaluation	Fullerton Engineering Consultants, LLC.

The information contained in this summary report is not to be used independently from the PE stamped tower analysis.

Tower Info	Description	Date
Tower Type (GT, SST, MP)	GT	N/A
Tower Height (Top of Steel)	276 ft	N/A
Tower Manufacturer	N/A	N/A
Tower Model	N/A	N/A
Tower Design	N/A	N/A
Foundation Design	N/A	N/A
Geotech Report	Hudson Design Group	11/4/2014
No Climb Site Visit	N/A	N/A
Previous Structural Analysis	Maser Consulting	9/25/2018
Foundation Mapping	Hudson Design Group	5/14/2014

Design Parameters	
Design Code Used	2022 IBC & ASCE 7-16
Location of Tower (County, State)	New Haven County, CT
Basic Wind Speed (mph)	118
Ice Thickness (in)	1
Structure Classification (I, II, III)	II
Exposure Category (B, C, D)	B
Topographic Category (1 to 5)	5

Analysis Results (% Maximum Usage)	
Existing/Reserved + Proposed Condition	
Tower (%)	98.6%
Connection (%)	N/A
Foundation (%)	104.6%
Foundation Adequate?	Yes

Steel Yield Strength (ksi)

Solid Rounds	A572-50
Anchor Bolts	N/A

Note: Material grade assumed based on preferred material specifications.

Existing / Reserved Loading

Antenna								Mount			Transmission Line			
Antenna Owner	Mount Height (ft)	Antenna CL (ft)	Quantity	Type	Manufacturer	Model	Azimuth	Quantity	Manufacturer	Type	Quantity	Model	Size	Attachment Internal/External
Unknown	264	264	2	Dish	Unknown	HP6-105C		1	Unknown	SO301-1	4	EW63	1.5742	External
Unknown	254	254	1	Dish	Kathrein	PR-460					1	Unknown	7/8"	External
Unknown	236	236	3	Panel	Commscope	DBXNH-6565A-A2M	0,120,240	3	Unknown	Sector Mount Frames	7	Unknown	1 5/8"	External
Unknown	236	236	3	Panel	Nokia	Air 32	0,120,240				1	Unknown	3/8"	External
Unknown	236	236	3	RRH	Unknown	RRUS-11 B12								
AT&T	220	220	2	Panel	Kathrein	800-10966	30, 160				7	DC Cable	0.75"	External
AT&T	220	220	1	Panel	Kathrein	800-10965	280				3	Fiber Cable	0.25"	External
AT&T	220	220	3	RRH	Ericsson	RRUS-32 B30								
AT&T	220	220	3	RRH	Ericsson	RRUS 4478 B14								
AT&T	220	220	3	RRH	Ericsson	Radio 4426 B66								
AT&T	220	220	1	RRH	Raycap	DC9-48-60-24-8C-EV								
AT&T	220	220	2	RRH	Raycap	DC6-48-60-18-8F								
Unknown	208	208	3	Panel	RFS	APXVSPP18-C		3	Unknown	Sector Mount Frames	12	Unknown	1 5/8"	External
Unknown	208	208	4	Panel	Unknown	FR65-17-DP					3	Unknown	1 1/4"	External
Unknown	208	208	3	RRH	Unknown	800 MHz								
Unknown	208	208	6	RRH	Unknown	1900 MHz								
Unknown	196	196	1	Panel	Unknown	F24x18					1	Unknown	1/2"	External
Unknown	164	164	1	Dish	Unknown	GHF4-23A					1	Unknown	1/2"	External
Unknown	162	162	1	Dipole	Uknown	4 Bay Dipole					1	Unknown	7/8"	External
Unknown	115	115	1	Omni	Unknown	DB222-A		1	Unknown	SO301-1	1	Unknown	7/8"	External
Unknown	56	56	1	Wind Gauge							1	Unknown	3/8"	External
Unknown	20	20	1	Alarm							1	Unknown	3/8"	External

Note: The existing loading shall be re-used, in addition to the proposed loading.

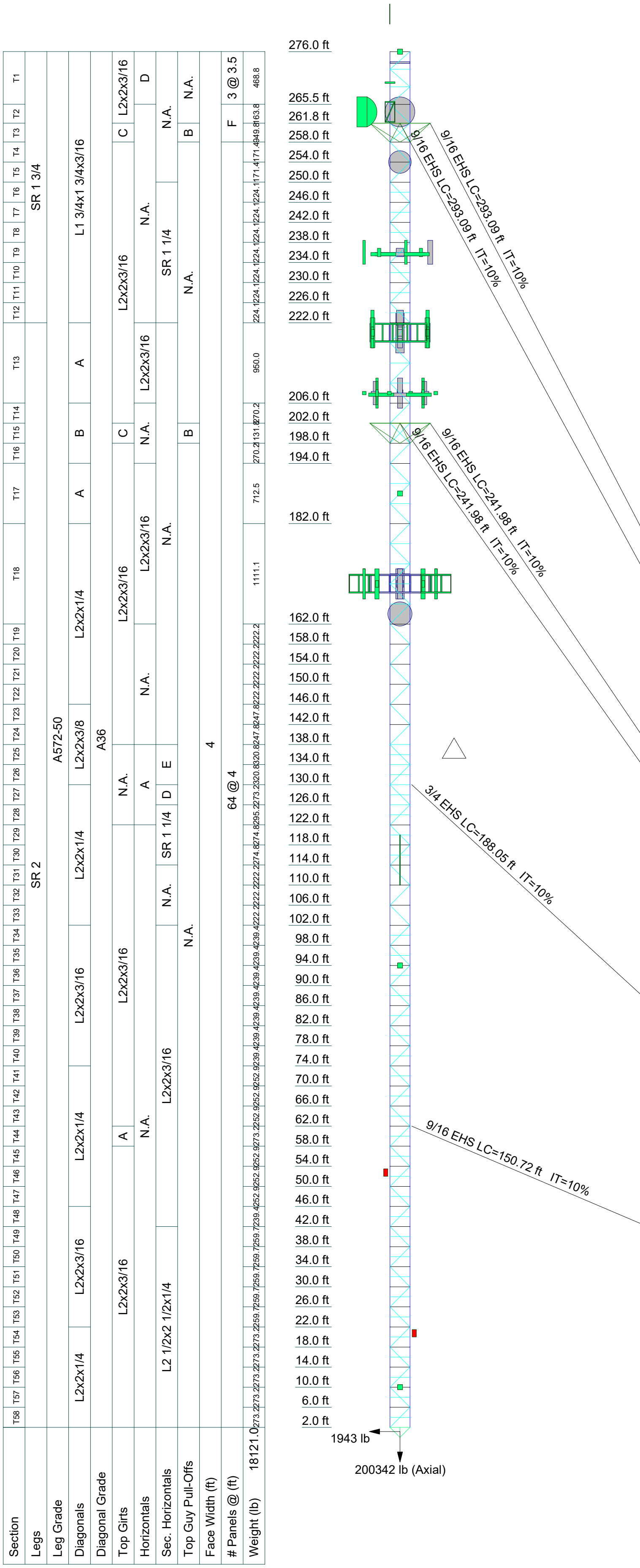
Proposed Loading

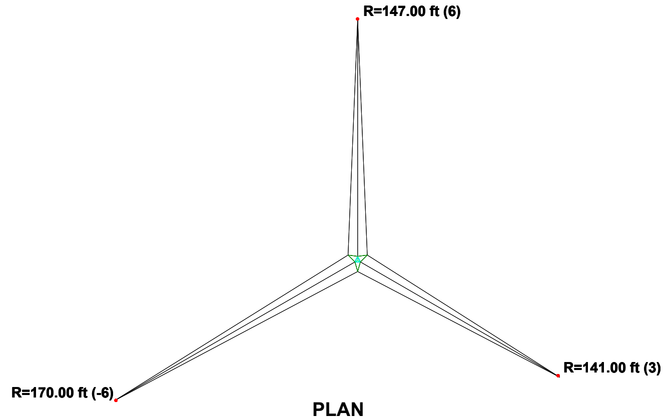
Antenna								Mount			Transmission Line			
Antenna Owner	Mount Height (ft)	Antenna CL (ft)	Quantity	Type	Manufacturer	Model	Azimuth	Quantity	Manufacturer	Type	Quantity	Model	Size	Attachment Internal/External
AT&T	220	220	1	Panel	CCI	TPA65R-BU8DV2		3	Site Pro 1	VFA12-HD				
AT&T	220	220	2	Panel	CCI	TPA65R-BU6DV2								
AT&T	220	220	3	Panel	Ericsson	Air6472 B77G B77M								
AT&T	220	220	3	RRH	Ericsson	Radio 4449 B5/B12								
AT&T	220	220	3	Panel	Ericsson	Radio 8843 B2/B66A								

Note: The proposed equipment shall be installed in addition to the existing/reserved loading at the same elevation.

Future Loading

JMAAntenna								Mount			Transmission Line			
Antenna Owner	Mount Height (ft)	Antenna CL (ft)	Quantity	Type	Manufacturer	Model	Azimuth	Quantity	Manufacturer	Type	Quantity	Model	Size	Attachment Internal/External
Dish	170	170	3	Panel	JMA	MX08FRO665-21		3	Commscope	V-Frame Sector Frame	1		1.75	External
	170	170	3	RRH	Fujitsu	TA08025-B605								
	170	170	3	RRH	Fujitsu	TA08025-B604								





PLAN

SYMBOL LIST

MARK	SIZE	MARK	SIZE
A	L2 1/2x2 1/2x1/4	D	L2x2x3/16
B	L2 1/2x2 1/2x3/8	E	SR 1 1/4
C	N.A.	F	2 @ 3.75

MATERIAL STRENGTH

GRADE	Fy	Fu	GRADE	Fy	Fu
A572-50	50 ksi	65 ksi	A36	36 ksi	58 ksi

TOWER DESIGN NOTES

1. Tower is located in New Haven County, Connecticut.
2. Tower designed for Exposure B to the TIA-222-H Standard.
3. Tower designed for a 118 mph basic wind in accordance with the TIA-222-H Standard.
4. Tower is also designed for a 50 mph basic wind with 1.00 in ice. Ice is considered to increase in thickness with height.
5. Deflections are based upon a 60 mph wind.
6. Tower Risk Category II.
7. Topographic Category 5 with Crest Height of 437.00 ft
8. TOWER RATING: 99.2%

ALL REACTIONS ARE FACTORED

Fullerton Engineering
1100 E. Woodfield Road, Suite 500
Schaumburg, IL 60173
Phone: (847) 908-8400
FAX:

Job: ***Naugatuck East Blvd. - CTL02056***			
Project:			
Client: Smartlink / AT&T		Drawn by: FAD	App'd:
Code: TIA-222-H	Page 15 of 184	Date: 05/05/23	Scale: NTS
Path: C:\Users\fdelmundo\OneDrive - Fullerton Engineering\Desktop\New folder\CTL02056\CTL02056.eri			Dwg No. E-1

Section	T1	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
Legs	SR 1 3/4																													SR 2																												
Leg Grade	A572-50																																																										
Diagonals	L1 3/4x1 3/4x3/16																																																										
Diagonal Grade	A36																																																										
Top Girts	L2x2x3/16													C	L2x2x3/16																																														
Horizontals	N.A.													N.A.	L2x2x3/16																																													
Sec. Horizontals	L2 1/2x2 1/2x1/4													L2x2x3/16																																															
Top Guy Pull-Offs	N.A.													N.A.																																																
Face Width (ft)	4																																																										
# Panels @ (ft)	64 @ 4													F	3 @ 3.5																																															
Weight (lb)	18121.0	273	2273	2273	2273	2273	7259	7259	7259	7259	4252	4252	4252	4252	4239	4239	4239	4239	4239	4239	4239	4222	4222	4222	4222	4222	4222	4222	4222	4222	4222	4222	4222	4222	4222	4222	4222	4222	4222	4222	4222	4222	4222	4222	4222	4222	4222	4222	4222	4222	4222	4222	4222	4222	4222	4222

276.0 ft
265.5 ft
261.8 ft
258.0 ft
254.0 ft
250.0 ft
246.0 ft
242.0 ft
238.0 ft
234.0 ft
230.0 ft
226.0 ft
222.0 ft
206.0 ft
202.0 ft
198.0 ft
194.0 ft
182.0 ft
162.0 ft
158.0 ft
154.0 ft
150.0 ft
146.0 ft
142.0 ft
138.0 ft
134.0 ft
130.0 ft
126.0 ft
122.0 ft
118.0 ft
114.0 ft
110.0 ft
106.0 ft
102.0 ft
98.0 ft
94.0 ft
90.0 ft
86.0 ft
82.0 ft
78.0 ft
74.0 ft
70.0 ft
66.0 ft
62.0 ft
58.0 ft
54.0 ft
50.0 ft
46.0 ft
42.0 ft
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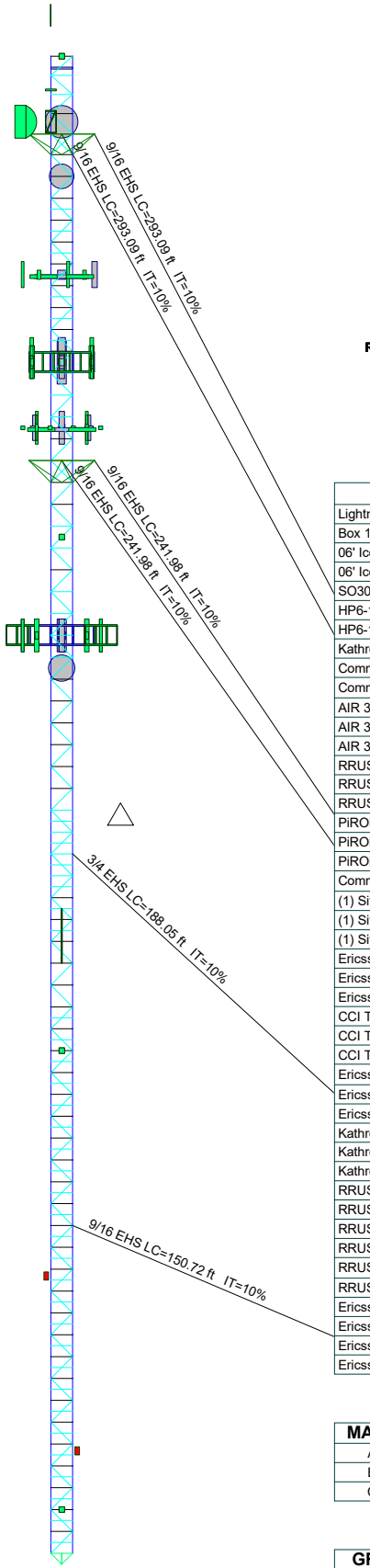
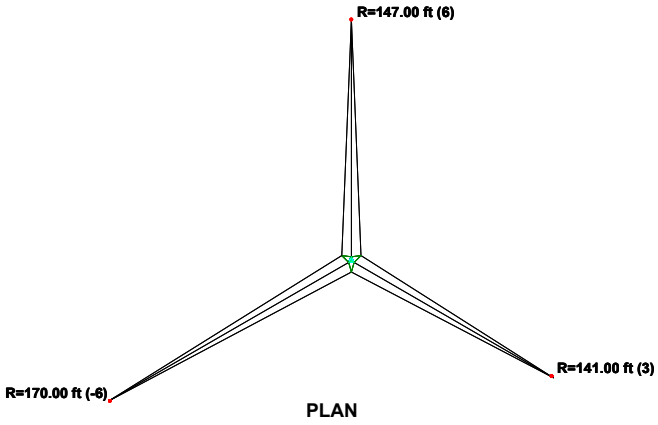
18.0 ft
14.0 ft
10.0 ft
6.0 ft
2.0 ft





PLAN

DESIGNED APPURTENANCE LOADING

TYPE	ELEVATION	TYPE	ELEVATION
Lightning Rod 5'x.625"	281.5	Ericsson Radio 4426 B66	220
Box 12 x 12 x 6 (Other Carrier Future)	276	Ericsson Radio 4426 B66	220
06' Ice Shield	274	Raycap DC9-48-60-24-8C-EV	220
06' Ice Shield	270	Raycap DC6-48-60-18-8F	220
SO301-1	264	Raycap DC6-48-60-18-8F	220
HP6-105C	264	(2) FR65-17-DP	208
HP6-105C	264	FR65-17-DP	208
Kathrein PR-460	254	FR65-17-DP	208
Commscope DBXNH-6565A-A2M	236	800 MHz with Notch Filter	208
Commscope DBXNH-6565A-A2M	236	800 MHz with Notch Filter	208
AIR 32 w/Mount Pipe	236	800 MHz with Notch Filter	208
AIR 32 w/Mount Pipe	236	(2) 1900 RRH Combiner	208
AIR 32 w/Mount Pipe	236	(2) 1900 RRH Combiner	208
RRUS-11 B12	236	(2) 1900 RRH Combiner	208
RRUS-11 B12	236	RFS APXVSPP18-C	208
RRUS-11 B12	236	RFS APXVSPP18-C	208
PiROD 10' Lightweight T-Frame	236	PiROD 12' T-Frame	208
PiROD 10' Lightweight T-Frame	236	PiROD 12' T-Frame	208
PiROD 10' Lightweight T-Frame	236	PiROD 12' T-Frame	208
Commscope DBXNH-6565A-A2M	236	RFS APXVSPP18-C	208
(1) SitePro1 VFA12-HD Sector Frame	220	F 24 x 18	196
(1) SitePro1 VFA12-HD Sector Frame	220	Box 12 x 12 x 6 (Other Carrier Future)	188
(1) SitePro1 VFA12-HD Sector Frame	220	06' Ice Shield	172
Ericsson AIR6472 B77G B77M	220	Site Pro 1 VFA10-SD (DISH)	170
Ericsson AIR6472 B77G B77M	220	JMA MX08FRO665-21 (DISH)	170
Ericsson AIR6472 B77G B77M	220	Fujitsu TA08025-B605 RRU (DISH)	170
CCI TPA65R-BU8DV2	220	Fujitsu TA08025-B604 RRU (DISH)	170
CCI TPA65R-BU6DV2	220	Site Pro 1 VFA10-SD (DISH)	170
CCI TPA65R-BU6DV2	220	JMA MX08FRO665-21 (DISH)	170
Ericsson 4449	220	Fujitsu TA08025-B605 RRU (DISH)	170
Ericsson 4449	220	Fujitsu TA08025-B604 RRU (DISH)	170
Ericsson 4449	220	Site Pro 1 VFA10-SD (DISH)	170
Kathrein 800-10966	220	JMA MX08FRO665-21 (DISH)	170
Kathrein 800-10966	220	Fujitsu TA08025-B605 RRU (DISH)	170
Kathrein 800-10965	220	Fujitsu TA08025-B604 RRU (DISH)	170
RRUS-32 B2	220	GHF4-23A	164
RRUS-32 B2	220	4 Bay DiPole	162
RRUS-32 B2	220	SO301-1 (Other Carrier Future)	115
RRUS-32 B30	220	DB222-A (Other Carrier Future)	115
RRUS-32 B30	220	Box 12 x 12 x 6 (Other Carrier Future)	94
RRUS-32 B30	220	Weather/Wind Gauge	52
Ericsson RRUS 4478 B14	220	Alarm	20
Ericsson RRUS 4478 B14	220	Box 12 x 12 x 6 (Other Carrier Future)	10
Ericsson RRUS 4478 B14	220	1.5' Omni Antenna	0
Ericsson Radio 4426 B66	220		

SYMBOL LIST

MARK	SIZE	MARK	SIZE
A	L2 1/2x2 1/2x1/4	D	L2x2x3/16
B	L2 1/2x2 1/2x3/8	E	SR 1 1/4
C	N.A.	F	2 @ 3.75

MATERIAL STRENGTH

GRADE	Fy	Fu	GRADE	Fy	Fu
A572-50	50 ksi	65 ksi	A36	36 ksi	58 ksi

Fullerton Engineering
1100 E. Woodfield Road, Suite 500
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Phone: (847) 908-8400
FAX:

Job: *Naugatuck East Blvd. - CTL02056*			
Project:			
Client: Smartlink / AT&T	Drawn by: FAD		App'd:
Code: TIA-222-H	Date: 05/08/23	Page 16 of 184	Scale: NTS
Path: C:\Users\fdelmundo\OneDrive - Fullerton Engineering\Desktop\New folder\CTL02056\CTL02056.er			Dwg No. E-1

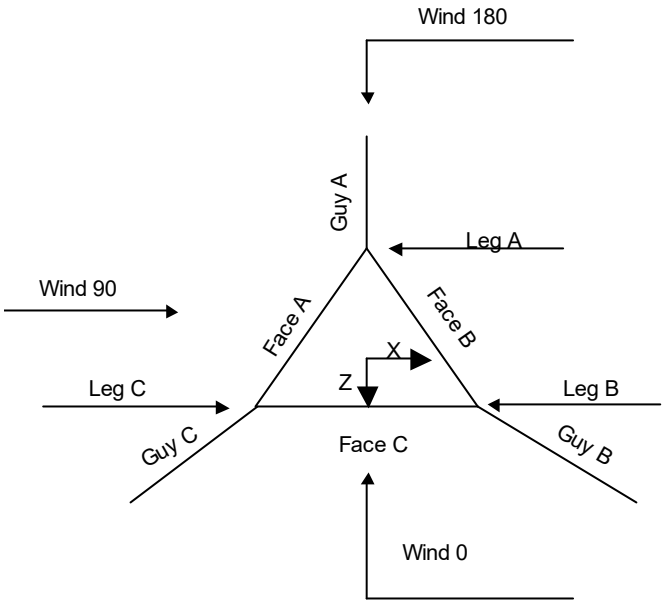
Tower Input Data

The main tower is a 3x guyed tower with an overall height of 276.00 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 4.00 ft at the top and 4.00 ft at the base.
This tower is designed using the TIA-222-H standard.
The following design criteria apply:

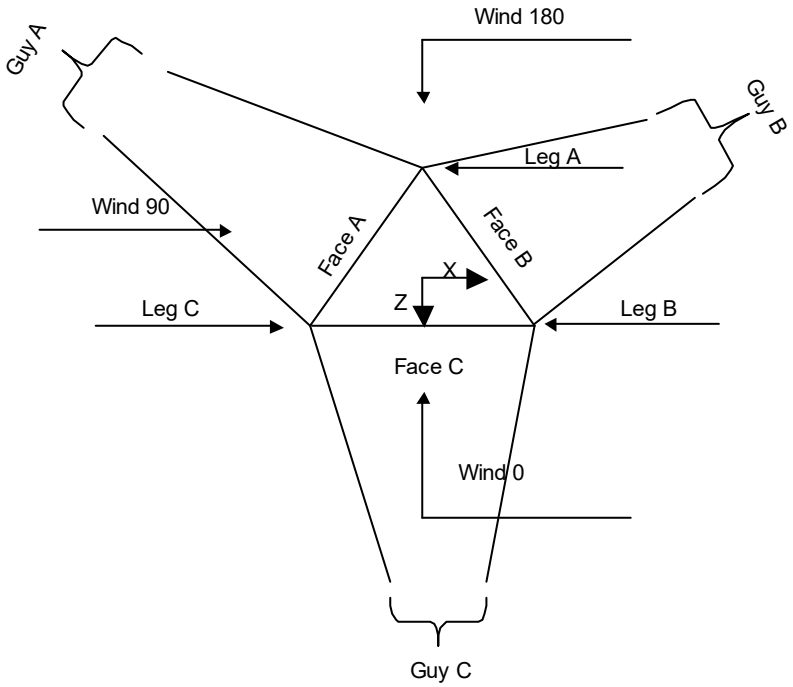
Tower is located in New Haven County, Connecticut.
Tower base elevation above sea level: 743.63 ft.
Basic wind speed of 118 mph.
Risk Category II.
Exposure Category B.
Crest Height: 437.00 ft.
Rigorous Topographic Factor Procedure for wind speed-up calculations is used.
Topographic Feature: Continuous Escarpment.
Slope Distance L: 2108.00 ft.
Distance from Crest x: 351.00 ft.
Horizontal Distance Downwind: No.
Nominal ice thickness of 1.0000 in.
Ice thickness is considered to increase with height.
Ice density of 56 pcf.
A wind speed of 50 mph is used in combination with ice.
Temperature drop of 50 °F.
Deflections calculated using a wind speed of 60 mph.
I-Beam base is 2.00 ft above the pivot.
Pressures are calculated at each section.
Stress ratio used in tower member design is 1.
Safety factor used in guy 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-H Bracing Resist. Exemption
Include Bolts In Member Capacity	√ Autocalc Torque Arm Areas	Use TIA-222-H Tension Splice Exemption
Leg Bolts Are At Top Of Section	Add IBC .6D+W Combination	Poles
√ Secondary Horizontal Braces Leg	√ Sort Capacity Reports By Component	Include Shear-Torsion Interaction
Use Diamond Inner Bracing (4 Sided)	Triangulate Diamond Inner Bracing	Always Use Sub-Critical Flow
SR Members Have Cut Ends	√ Treat Feed Line Bundles As Cylinder	Use Top Mounted Sockets
SR Members Are Concentric	Ignore KL/ry For 60 Deg. Angle Legs	Pole Without Linear Attachments
		Pole With Shroud Or No Appurtenances
		Outside and Inside Corner Radii Are Known



Corner & Starmount Guyed Tower



Face Guyed

Tower Section Geometry

Tower Section	Tower Elevation	Assembly Database	Description	Section Width	Number of Sections	Section Length
	ft			ft		ft
T1	276.00-265.50			4.00	1	10.50
T2	265.50-261.75			4.00	1	3.75
T3	261.75-258.00			4.00	1	3.75
T4	258.00-254.00			4.00	1	4.00
T5	254.00-250.00			4.00	1	4.00
T6	250.00-246.00			4.00	1	4.00
T7	246.00-242.00			4.00	1	4.00
T8	242.00-238.00			4.00	1	4.00
T9	238.00-234.00			4.00	1	4.00
T10	234.00-230.00			4.00	1	4.00
T11	230.00-226.00			4.00	1	4.00
T12	226.00-222.00			4.00	1	4.00
T13	222.00-206.00			4.00	1	16.00
T14	206.00-202.00			4.00	1	4.00
T15	202.00-198.00			4.00	1	4.00
T16	198.00-194.00			4.00	1	4.00

Tower Section	Tower Elevation ft	Assembly Database	Description	Section Width ft	Number of Sections	Section Length ft
T17	194.00-182.00			4.00	1	12.00
T18	182.00-162.00			4.00	1	20.00
T19	162.00-158.00			4.00	1	4.00
T20	158.00-154.00			4.00	1	4.00
T21	154.00-150.00			4.00	1	4.00
T22	150.00-146.00			4.00	1	4.00
T23	146.00-142.00			4.00	1	4.00
T24	142.00-138.00			4.00	1	4.00
T25	138.00-134.00			4.00	1	4.00
T26	134.00-130.00			4.00	1	4.00
T27	130.00-126.00			4.00	1	4.00
T28	126.00-122.00			4.00	1	4.00
T29	122.00-118.00			4.00	1	4.00
T30	118.00-114.00			4.00	1	4.00
T31	114.00-110.00			4.00	1	4.00
T32	110.00-106.00			4.00	1	4.00
T33	106.00-102.00			4.00	1	4.00
T34	102.00-98.00			4.00	1	4.00
T35	98.00-94.00			4.00	1	4.00
T36	94.00-90.00			4.00	1	4.00
T37	90.00-86.00			4.00	1	4.00
T38	86.00-82.00			4.00	1	4.00
T39	82.00-78.00			4.00	1	4.00
T40	78.00-74.00			4.00	1	4.00
T41	74.00-70.00			4.00	1	4.00
T42	70.00-66.00			4.00	1	4.00
T43	66.00-62.00			4.00	1	4.00
T44	62.00-58.00			4.00	1	4.00
T45	58.00-54.00			4.00	1	4.00
T46	54.00-50.00			4.00	1	4.00
T47	50.00-46.00			4.00	1	4.00
T48	46.00-42.00			4.00	1	4.00
T49	42.00-38.00			4.00	1	4.00
T50	38.00-34.00			4.00	1	4.00
T51	34.00-30.00			4.00	1	4.00
T52	30.00-26.00			4.00	1	4.00
T53	26.00-22.00			4.00	1	4.00
T54	22.00-18.00			4.00	1	4.00
T55	18.00-14.00			4.00	1	4.00
T56	14.00-10.00			4.00	1	4.00
T57	10.00-6.00			4.00	1	4.00
T58	6.00-2.00			4.00	1	4.00

Tower Section Geometry *(cont'd)*

Tower Section	Tower Elevation ft	Diagonal Spacing ft	Bracing Type	Has K Brace End Panels	Has Horizontals	Top Girt Offset in	Bottom Girt Offset in
T1	276.00-265.50	3.50	K Brace Left	No	Yes	0.0000	0.0000
T2	265.50-261.75	3.75	Diag Down	No	Yes	0.0000	0.0000
T3	261.75-258.00	3.75	X Brace	No	Yes	0.0000	0.0000
T4	258.00-254.00	4.00	Diag Down	No	Yes	0.0000	0.0000
T5	254.00-250.00	4.00	Diag Up	No	Yes	0.0000	0.0000
T6	250.00-246.00	4.00	Diag Down	No	Yes	0.0000	0.0000

Tower Section	Tower Elevation ft	Diagonal Spacing ft	Bracing Type	Has K Brace End Panels	Has Horizontals	Top Girt Offset in	Bottom Girt Offset in
T7	246.00-242.00	4.00	Diag Up	No	Yes	0.0000	0.0000
T8	242.00-238.00	4.00	Diag Down	No	Yes	0.0000	0.0000
T9	238.00-234.00	4.00	Diag Up	No	Yes	0.0000	0.0000
T10	234.00-230.00	4.00	Diag Down	No	Yes	0.0000	0.0000
T11	230.00-226.00	4.00	Diag Up	No	Yes	0.0000	0.0000
T12	226.00-222.00	4.00	Diag Down	No	Yes	0.0000	0.0000
T13	222.00-206.00	4.00	K Brace Right	No	Yes	0.0000	0.0000
T14	206.00-202.00	4.00	Diag Up	No	Yes	0.0000	0.0000
T15	202.00-198.00	4.00	X Brace	No	Yes	0.0000	0.0000
T16	198.00-194.00	4.00	Diag Up	No	Yes	0.0000	0.0000
T17	194.00-182.00	4.00	K Brace Right	No	Yes	0.0000	0.0000
T18	182.00-162.00	4.00	K Brace Left	No	Yes	0.0000	0.0000
T19	162.00-158.00	4.00	Diag Down	No	Yes	0.0000	0.0000
T20	158.00-154.00	4.00	Diag Up	No	Yes	0.0000	0.0000
T21	154.00-150.00	4.00	Diag Down	No	Yes	0.0000	0.0000
T22	150.00-146.00	4.00	Diag Up	No	Yes	0.0000	0.0000
T23	146.00-142.00	4.00	Diag Down	No	Yes	0.0000	0.0000
T24	142.00-138.00	4.00	Diag Up	No	Yes	0.0000	0.0000
T25	138.00-134.00	4.00	Diag Down	No	Yes	0.0000	0.0000
T26	134.00-130.00	4.00	Diag Up	No	Yes	0.0000	0.0000
T27	130.00-126.00	4.00	Diag Down	No	Yes	0.0000	0.0000
T28	126.00-122.00	4.00	Diag Up	No	Yes	0.0000	0.0000
T29	122.00-118.00	4.00	Diag Down	No	Yes	0.0000	0.0000
T30	118.00-114.00	4.00	Diag Up	No	Yes	0.0000	0.0000
T31	114.00-110.00	4.00	Diag Down	No	Yes	0.0000	0.0000
T32	110.00-106.00	4.00	Diag Up	No	Yes	0.0000	0.0000
T33	106.00-102.00	4.00	Diag Down	No	Yes	0.0000	0.0000
T34	102.00-98.00	4.00	Diag Up	No	Yes	0.0000	0.0000
T35	98.00-94.00	4.00	Diag Down	No	Yes	0.0000	0.0000
T36	94.00-90.00	4.00	Diag Up	No	Yes	0.0000	0.0000
T37	90.00-86.00	4.00	Diag Down	No	Yes	0.0000	0.0000
T38	86.00-82.00	4.00	Diag Up	No	Yes	0.0000	0.0000
T39	82.00-78.00	4.00	Diag Down	No	Yes	0.0000	0.0000
T40	78.00-74.00	4.00	Diag Up	No	Yes	0.0000	0.0000
T41	74.00-70.00	4.00	Diag Down	No	Yes	0.0000	0.0000
T42	70.00-66.00	4.00	Diag Up	No	Yes	0.0000	0.0000
T43	66.00-62.00	4.00	Diag Down	No	Yes	0.0000	0.0000
T44	62.00-58.00	4.00	Diag Up	No	Yes	0.0000	0.0000
T45	58.00-54.00	4.00	Diag Down	No	Yes	0.0000	0.0000
T46	54.00-50.00	4.00	Diag Up	No	Yes	0.0000	0.0000
T47	50.00-46.00	4.00	Diag Down	No	Yes	0.0000	0.0000
T48	46.00-42.00	4.00	Diag Up	No	Yes	0.0000	0.0000
T49	42.00-38.00	4.00	Diag Down	No	Yes	0.0000	0.0000
T50	38.00-34.00	4.00	Diag Up	No	Yes	0.0000	0.0000
T51	34.00-30.00	4.00	Diag Down	No	Yes	0.0000	0.0000
T52	30.00-26.00	4.00	Diag Up	No	Yes	0.0000	0.0000
T53	26.00-22.00	4.00	Diag Down	No	Yes	0.0000	0.0000
T54	22.00-18.00	4.00	Diag Up	No	Yes	0.0000	0.0000
T55	18.00-14.00	4.00	Diag Down	No	Yes	0.0000	0.0000
T56	14.00-10.00	4.00	Diag Up	No	Yes	0.0000	0.0000
T57	10.00-6.00	4.00	Diag Down	No	Yes	0.0000	0.0000
T58	6.00-2.00	4.00	Diag Up	No	Yes	0.0000	0.0000

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Leg Type	Leg Size	Leg Grade	Diagonal Type	Diagonal Size	Diagonal Grade
T1 276.00-265.50	Solid Round	1 3/4	A572-50 (50 ksi)	Equal Angle	L1 3/4x1 3/4x3/16	A36 (36 ksi)
T2 265.50-261.75	Solid Round	1 3/4	A572-50 (50 ksi)	Equal Angle	L1 3/4x1 3/4x3/16	A36 (36 ksi)
T3 261.75-258.00	Solid Round	1 3/4	A572-50 (50 ksi)	Equal Angle	L1 3/4x1 3/4x3/16	A36 (36 ksi)
T4 258.00-254.00	Solid Round	1 3/4	A572-50 (50 ksi)	Equal Angle	L1 3/4x1 3/4x3/16	A36 (36 ksi)
T5 254.00-250.00	Solid Round	1 3/4	A572-50 (50 ksi)	Equal Angle	L1 3/4x1 3/4x3/16	A36 (36 ksi)
T6 250.00-246.00	Solid Round	1 3/4	A572-50 (50 ksi)	Equal Angle	L1 3/4x1 3/4x3/16	A36 (36 ksi)
T7 246.00-242.00	Solid Round	1 3/4	A572-50 (50 ksi)	Equal Angle	L1 3/4x1 3/4x3/16	A36 (36 ksi)
T8 242.00-238.00	Solid Round	1 3/4	A572-50 (50 ksi)	Equal Angle	L1 3/4x1 3/4x3/16	A36 (36 ksi)
T9 238.00-234.00	Solid Round	1 3/4	A572-50 (50 ksi)	Equal Angle	L1 3/4x1 3/4x3/16	A36 (36 ksi)
T10 234.00-230.00	Solid Round	1 3/4	A572-50 (50 ksi)	Equal Angle	L1 3/4x1 3/4x3/16	A36 (36 ksi)
T11 230.00-226.00	Solid Round	1 3/4	A572-50 (50 ksi)	Equal Angle	L1 3/4x1 3/4x3/16	A36 (36 ksi)
T12 226.00-222.00	Solid Round	1 3/4	A572-50 (50 ksi)	Equal Angle	L1 3/4x1 3/4x3/16	A36 (36 ksi)
T13 222.00-206.00	Solid Round	2	A572-50 (50 ksi)	Equal Angle	L2 1/2x2 1/2x1/4	A36 (36 ksi)
T14 206.00-202.00	Solid Round	2	A572-50 (50 ksi)	Equal Angle	L2 1/2x2 1/2x3/8	A36 (36 ksi)
T15 202.00-198.00	Solid Round	2	A572-50 (50 ksi)	Equal Angle	L2 1/2x2 1/2x3/8	A36 (36 ksi)
T16 198.00-194.00	Solid Round	2	A572-50 (50 ksi)	Equal Angle	L2 1/2x2 1/2x3/8	A36 (36 ksi)
T17 194.00-182.00	Solid Round	2	A572-50 (50 ksi)	Equal Angle	L2 1/2x2 1/2x1/4	A36 (36 ksi)
T18 182.00-162.00	Solid Round	2	A572-50 (50 ksi)	Equal Angle	L2x2x1/4	A36 (36 ksi)
T19 162.00-158.00	Solid Round	2	A572-50 (50 ksi)	Equal Angle	L2x2x1/4	A36 (36 ksi)
T20 158.00-154.00	Solid Round	2	A572-50 (50 ksi)	Equal Angle	L2x2x1/4	A36 (36 ksi)
T21 154.00-150.00	Solid Round	2	A572-50 (50 ksi)	Equal Angle	L2x2x1/4	A36 (36 ksi)
T22 150.00-146.00	Solid Round	2	A572-50 (50 ksi)	Equal Angle	L2x2x1/4	A36 (36 ksi)
T23 146.00-142.00	Solid Round	2	A572-50 (50 ksi)	Equal Angle	L2x2x3/8	A36 (36 ksi)
T24 142.00-138.00	Solid Round	2	A572-50 (50 ksi)	Equal Angle	L2x2x3/8	A36 (36 ksi)
T25 138.00-134.00	Solid Round	2	A572-50 (50 ksi)	Equal Angle	L2x2x3/8	A36 (36 ksi)
T26 134.00-130.00	Solid Round	2	A572-50 (50 ksi)	Equal Angle	L2x2x3/8	A36 (36 ksi)
T27 130.00-126.00	Solid Round	2	A572-50 (50 ksi)	Equal Angle	L2x2x1/4	A36 (36 ksi)
T28 126.00-122.00	Solid Round	2	A572-50 (50 ksi)	Equal Angle	L2x2x1/4	A36 (36 ksi)
T29 122.00-118.00	Solid Round	2	A572-50 (50 ksi)	Equal Angle	L2x2x1/4	A36 (36 ksi)
T30 118.00-114.00	Solid Round	2	A572-50 (50 ksi)	Equal Angle	L2x2x1/4	A36 (36 ksi)
T31	Solid Round	2	A572-50	Equal Angle	L2x2x1/4	A36

Tower Elevation ft	Leg Type	Leg Size	Leg Grade	Diagonal Type	Diagonal Size	Diagonal Grade
114.00-110.00			(50 ksi)			(36 ksi)
T32	Solid Round	2	A572-50	Equal Angle	L2x2x1/4	A36
110.00-106.00			(50 ksi)			(36 ksi)
T33	Solid Round	2	A572-50	Equal Angle	L2x2x1/4	A36
106.00-102.00			(50 ksi)			(36 ksi)
T34 102.00-98.00	Solid Round	2	A572-50	Equal Angle	L2x2x3/16	A36
			(50 ksi)			(36 ksi)
T35 98.00-94.00	Solid Round	2	A572-50	Equal Angle	L2x2x3/16	A36
			(50 ksi)			(36 ksi)
T36 94.00-90.00	Solid Round	2	A572-50	Equal Angle	L2x2x3/16	A36
			(50 ksi)			(36 ksi)
T37 90.00-86.00	Solid Round	2	A572-50	Equal Angle	L2x2x3/16	A36
			(50 ksi)			(36 ksi)
T38 86.00-82.00	Solid Round	2	A572-50	Equal Angle	L2x2x3/16	A36
			(50 ksi)			(36 ksi)
T39 82.00-78.00	Solid Round	2	A572-50	Equal Angle	L2x2x3/16	A36
			(50 ksi)			(36 ksi)
T40 78.00-74.00	Solid Round	2	A572-50	Equal Angle	L2x2x3/16	A36
			(50 ksi)			(36 ksi)
T41 74.00-70.00	Solid Round	2	A572-50	Equal Angle	L2x2x1/4	A36
			(50 ksi)			(36 ksi)
T42 70.00-66.00	Solid Round	2	A572-50	Equal Angle	L2x2x1/4	A36
			(50 ksi)			(36 ksi)
T43 66.00-62.00	Solid Round	2	A572-50	Equal Angle	L2x2x1/4	A36
			(50 ksi)			(36 ksi)
T44 62.00-58.00	Solid Round	2	A572-50	Equal Angle	L2x2x1/4	A36
			(50 ksi)			(36 ksi)
T45 58.00-54.00	Solid Round	2	A572-50	Equal Angle	L2x2x1/4	A36
			(50 ksi)			(36 ksi)
T46 54.00-50.00	Solid Round	2	A572-50	Equal Angle	L2x2x1/4	A36
			(50 ksi)			(36 ksi)
T47 50.00-46.00	Solid Round	2	A572-50	Equal Angle	L2x2x1/4	A36
			(50 ksi)			(36 ksi)
T48 46.00-42.00	Solid Round	2	A572-50	Equal Angle	L2x2x3/16	A36
			(50 ksi)			(36 ksi)
T49 42.00-38.00	Solid Round	2	A572-50	Equal Angle	L2x2x3/16	A36
			(50 ksi)			(36 ksi)
T50 38.00-34.00	Solid Round	2	A572-50	Equal Angle	L2x2x3/16	A36
			(50 ksi)			(36 ksi)
T51 34.00-30.00	Solid Round	2	A572-50	Equal Angle	L2x2x3/16	A36
			(50 ksi)			(36 ksi)
T52 30.00-26.00	Solid Round	2	A572-50	Equal Angle	L2x2x3/16	A36
			(50 ksi)			(36 ksi)
T53 26.00-22.00	Solid Round	2	A572-50	Equal Angle	L2x2x3/16	A36
			(50 ksi)			(36 ksi)
T54 22.00-18.00	Solid Round	2	A572-50	Equal Angle	L2x2x1/4	A36
			(50 ksi)			(36 ksi)
T55 18.00-14.00	Solid Round	2	A572-50	Equal Angle	L2x2x1/4	A36
			(50 ksi)			(36 ksi)
T56 14.00-10.00	Solid Round	2	A572-50	Equal Angle	L2x2x1/4	A36
			(50 ksi)			(36 ksi)
T57 10.00-6.00	Solid Round	2	A572-50	Equal Angle	L2x2x1/4	A36
			(50 ksi)			(36 ksi)
T58 6.00-2.00	Solid Round	2	A572-50	Equal Angle	L2x2x1/4	A36
			(50 ksi)			(36 ksi)

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Top Girt Type	Top Girt Size	Top Girt Grade	Bottom Girt Type	Bottom Girt Size	Bottom Girt Grade
T1 276.00-265.50	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T2 265.50-261.75	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T3 261.75-258.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T4 258.00-254.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T5 254.00-250.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T6 250.00-246.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T7 246.00-242.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T8 242.00-238.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T9 238.00-234.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T10 234.00-230.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T11 230.00-226.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T12 226.00-222.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T13 222.00-206.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T14 206.00-202.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T15 202.00-198.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T16 198.00-194.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T17 194.00-182.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T18 182.00-162.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T19 162.00-158.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T20 158.00-154.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T21 154.00-150.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T22 150.00-146.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T23 146.00-142.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T24 142.00-138.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T29 122.00-118.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T30 118.00-114.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T31 114.00-110.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T32 110.00-106.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T33 106.00-102.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)

Tower Elevation ft	Top Girt Type	Top Girt Size	Top Girt Grade	Bottom Girt Type	Bottom Girt Size	Bottom Girt Grade
T34 102.00-98.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T35 98.00-94.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T36 94.00-90.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T37 90.00-86.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T38 86.00-82.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T39 82.00-78.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T40 78.00-74.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T41 74.00-70.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T42 70.00-66.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T43 66.00-62.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T44 62.00-58.00	Equal Angle	L2 1/2x2 1/2x1/4	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T45 58.00-54.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T46 54.00-50.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T47 50.00-46.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T48 46.00-42.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T49 42.00-38.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T50 38.00-34.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T51 34.00-30.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T52 30.00-26.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T53 26.00-22.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T54 22.00-18.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T55 18.00-14.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T56 14.00-10.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T57 10.00-6.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T58 6.00-2.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)

Tower Section Geometry *(cont'd)*

Tower Elevation ft	No. of Mid Girts	Mid Girt Type	Mid Girt Size	Mid Girt Grade	Horizontal Type	Horizontal Size	Horizontal Grade
T1 276.00-265.50	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T2 265.50-261.75	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T3 261.75-258.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T4 258.00-254.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T5 254.00-250.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T6 250.00-246.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T7 246.00-242.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T8 242.00-238.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T9 238.00-234.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T10 234.00-230.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T11 230.00-226.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T12 226.00-222.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T13 222.00-206.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T14 206.00-202.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T15 202.00-198.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T16 198.00-194.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T17 194.00-182.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T18 182.00-162.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T19 162.00-158.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T20 158.00-154.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T21 154.00-150.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T22 150.00-146.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T23 146.00-142.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T24 142.00-138.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2 1/2x2 1/2x1/4	A36 (36 ksi)
T25 138.00-134.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2 1/2x2 1/2x1/4	A36 (36 ksi)
T26 134.00-130.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2 1/2x2 1/2x1/4	A36 (36 ksi)
T27 130.00-126.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2 1/2x2 1/2x1/4	A36 (36 ksi)
T28 126.00-122.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2 1/2x2 1/2x1/4	A36 (36 ksi)
T29 122.00-118.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T30 118.00-114.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)

Tower Elevation ft	No. of Mid Girts	Mid Girt Type	Mid Girt Size	Mid Girt Grade	Horizontal Type	Horizontal Size	Horizontal Grade
T31 114.00-110.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T32 110.00-106.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T33 106.00-102.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T34 102.00-98.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T35 98.00-94.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T36 94.00-90.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T37 90.00-86.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T38 86.00-82.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T39 82.00-78.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T40 78.00-74.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T41 74.00-70.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T42 70.00-66.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T43 66.00-62.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T44 62.00-58.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T45 58.00-54.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T46 54.00-50.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T47 50.00-46.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T48 46.00-42.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T49 42.00-38.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T50 38.00-34.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T51 34.00-30.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T52 30.00-26.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T53 26.00-22.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T54 22.00-18.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T55 18.00-14.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T56 14.00-10.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T57 10.00-6.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T58 6.00-2.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Secondary Horizontal Type	Secondary Horizontal Size	Secondary Horizontal Grade	Inner Bracing Type	Inner Bracing Size	Inner Bracing Grade
T6 250.00-246.00	Solid Round	1 1/4	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T7 246.00-242.00	Solid Round	1 1/4	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T8 242.00-238.00	Solid Round	1 1/4	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T9 238.00-234.00	Solid Round	1 1/4	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T10 234.00-230.00	Solid Round	1 1/4	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T11 230.00-226.00	Solid Round	1 1/4	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T12 226.00-222.00	Solid Round	1 1/4	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T25 138.00-134.00	Solid Round	1 1/4	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T26 134.00-130.00	Solid Round	1 1/4	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T27 130.00-126.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T28 126.00-122.00	Solid Round	1 1/4	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T29 122.00-118.00	Solid Round	1 1/4	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T30 118.00-114.00	Solid Round	1 1/4	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T34 102.00-98.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T35 98.00-94.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T36 94.00-90.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T37 90.00-86.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T38 86.00-82.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T39 82.00-78.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T40 78.00-74.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T41 74.00-70.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T42 70.00-66.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T43 66.00-62.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T44 62.00-58.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T45 58.00-54.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T46 54.00-50.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T47 50.00-46.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T48 46.00-42.00	Equal Angle	L2x2x3/16	A36	Solid Round		A36

Tower Elevation ft	Secondary Horizontal Type	Secondary Horizontal Size	Secondary Horizontal Grade	Inner Bracing Type	Inner Bracing Size	Inner Bracing Grade
T49 42.00-38.00	Equal Angle	L2 1/2x2 1/2x1/4	(36 ksi) A36 (36 ksi)	Solid Round		(36 ksi) A36 (36 ksi)
T50 38.00-34.00	Equal Angle	L2 1/2x2 1/2x1/4	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T51 34.00-30.00	Equal Angle	L2 1/2x2 1/2x1/4	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T52 30.00-26.00	Equal Angle	L2 1/2x2 1/2x1/4	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T53 26.00-22.00	Equal Angle	L2 1/2x2 1/2x1/4	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T54 22.00-18.00	Equal Angle	L2 1/2x2 1/2x1/4	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T55 18.00-14.00	Equal Angle	L2 1/2x2 1/2x1/4	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T56 14.00-10.00	Equal Angle	L2 1/2x2 1/2x1/4	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T57 10.00-6.00	Equal Angle	L2 1/2x2 1/2x1/4	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T58 6.00-2.00	Equal Angle	L2 1/2x2 1/2x1/4	A36 (36 ksi)	Solid Round		A36 (36 ksi)

Tower 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
T1 276.00-265.50	0.00	0.0000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000	36.0000
T2 265.50-261.75	0.00	0.0000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000	36.0000
T3 261.75-258.00	0.00	0.0000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000	36.0000
T4 258.00-254.00	0.00	0.0000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000	36.0000
T5 254.00-250.00	0.00	0.0000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000	36.0000
T6 250.00-246.00	0.00	0.0000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000	36.0000
T7 246.00-242.00	0.00	0.0000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000	36.0000
T8 242.00-238.00	0.00	0.0000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000	36.0000
T9 238.00-234.00	0.00	0.0000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000	36.0000
T10 234.00-230.00	0.00	0.0000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000	36.0000
T11 230.00-226.00	0.00	0.0000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000	36.0000
T12 226.00-222.00	0.00	0.0000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000	36.0000
T13 222.00-206.00	0.00	0.0000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000	36.0000

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
T14 206.00-202.00	0.00	0.0000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000	36.0000
T15 202.00-198.00	0.00	0.0000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000	36.0000
T16 198.00-194.00	0.00	0.0000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000	36.0000
T17 194.00-182.00	0.00	0.0000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000	36.0000
T18 182.00-162.00	0.00	0.0000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000	36.0000
T19 162.00-158.00	0.00	0.0000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000	36.0000
T20 158.00-154.00	0.00	0.0000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000	36.0000
T21 154.00-150.00	0.00	0.0000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000	36.0000
T22 150.00-146.00	0.00	0.0000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000	36.0000
T23 146.00-142.00	0.00	0.0000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000	36.0000
T24 142.00-138.00	0.00	0.0000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000	36.0000
T25 138.00-134.00	0.00	0.0000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000	36.0000
T26 134.00-130.00	0.00	0.0000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000	36.0000
T27 130.00-126.00	0.00	0.0000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000	36.0000
T28 126.00-122.00	0.00	0.0000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000	36.0000
T29 122.00-118.00	0.00	0.0000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000	36.0000
T30 118.00-114.00	0.00	0.0000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000	36.0000
T31 114.00-110.00	0.00	0.0000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000	36.0000
T32 110.00-106.00	0.00	0.0000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000	36.0000
T33 106.00-102.00	0.00	0.0000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000	36.0000
T34 102.00-98.00	0.00	0.0000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000	36.0000
T35 98.00-94.00	0.00	0.0000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000	36.0000
T36 94.00-90.00	0.00	0.0000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000	36.0000
T37 90.00-86.00	0.00	0.0000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000	36.0000
T38 86.00-82.00	0.00	0.0000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000	36.0000
T39 82.00-78.00	0.00	0.0000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000	36.0000
T40 78.00-74.00	0.00	0.0000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000	36.0000
T41 74.00-70.00	0.00	0.0000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000	36.0000
T42 70.00-66.00	0.00	0.0000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000	36.0000
T43	0.00	0.0000	A36	1	1	1.05	36.0000	36.0000	36.0000

Tower Elevation ft	Gusset Area (per face) ft²	Gusset Thickness in	Gusset Grade	Adjust. Factor A_f	Adjust. Factor A_r	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals in	Double Angle Stitch Bolt Spacing Horizontals in	Double Angle Stitch Bolt Spacing Redundants in
66.00-62.00			(36 ksi)						
T44	0.00	0.0000	A36	1	1	1.05	36.0000	36.0000	36.0000
62.00-58.00			(36 ksi)						
T45	0.00	0.0000	A36	1	1	1.05	36.0000	36.0000	36.0000
58.00-54.00			(36 ksi)						
T46	0.00	0.0000	A36	1	1	1.05	36.0000	36.0000	36.0000
54.00-50.00			(36 ksi)						
T47	0.00	0.0000	A36	1	1	1.05	36.0000	36.0000	36.0000
50.00-46.00			(36 ksi)						
T48	0.00	0.0000	A36	1	1	1.05	36.0000	36.0000	36.0000
46.00-42.00			(36 ksi)						
T49	0.00	0.0000	A36	1	1	1.05	36.0000	36.0000	36.0000
42.00-38.00			(36 ksi)						
T50	0.00	0.0000	A36	1	1	1.05	36.0000	36.0000	36.0000
38.00-34.00			(36 ksi)						
T51	0.00	0.0000	A36	1	1	1.05	36.0000	36.0000	36.0000
34.00-30.00			(36 ksi)						
T52	0.00	0.0000	A36	1	1	1.05	36.0000	36.0000	36.0000
30.00-26.00			(36 ksi)						
T53	0.00	0.0000	A36	1	1	1.05	36.0000	36.0000	36.0000
26.00-22.00			(36 ksi)						
T54	0.00	0.0000	A36	1	1	1.05	36.0000	36.0000	36.0000
22.00-18.00			(36 ksi)						
T55	0.00	0.0000	A36	1	1	1.05	36.0000	36.0000	36.0000
18.00-14.00			(36 ksi)						
T56	0.00	0.0000	A36	1	1	1.05	36.0000	36.0000	36.0000
14.00-10.00			(36 ksi)						
T57 10.00-6.00	0.00	0.0000	A36	1	1	1.05	36.0000	36.0000	36.0000
			(36 ksi)						
T58 6.00-2.00	0.00	0.0000	A36	1	1	1.05	36.0000	36.0000	36.0000
			(36 ksi)						

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Calc K Single Angles	Calc K Solid Rounds	K Factors[1] Legs	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
T1	Yes	Yes	1	1	1	1	1	1	1	1
276.00-265.50				1	1	1	1	1	1	1
T2	Yes	Yes	1	1	1	1	1	1	1	1
265.50-261.75				1	1	1	1	1	1	1
T3	Yes	Yes	1	1	1	1	1	1	1	1
261.75-258.00				1	1	1	1	1	1	1
T4	Yes	Yes	1	1	1	1	1	1	1	1
258.00-254.00				1	1	1	1	1	1	1
T5	Yes	Yes	1	1	1	1	1	1	1	1
254.00-250.00				1	1	1	1	1	1	1
T6	Yes	Yes	1	1	1	1	1	1	1	1
250.00-246.00				1	1	1	1	1	1	1
T7	Yes	Yes	1	1	1	1	1	1	1	1
246.00-242.00				1	1	1	1	1	1	1
T8	Yes	Yes	1	1	1	1	1	1	1	1

Tower Elevation ft	Calc K Single Angles	Calc K Solid Rounds	K Factors[1] Legs	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
242.00-238.00				1	1	1	1	1	1	1
T9	Yes	Yes	1	1	1	1	1	1	1	1
238.00-234.00				1	1	1	1	1	1	1
T10	Yes	Yes	1	1	1	1	1	1	1	1
234.00-230.00				1	1	1	1	1	1	1
T11	Yes	Yes	1	1	1	1	1	1	1	1
230.00-226.00				1	1	1	1	1	1	1
T12	Yes	Yes	1	1	1	1	1	1	1	1
226.00-222.00				1	1	1	1	1	1	1
T13	Yes	Yes	1	1	1	1	1	1	1	1
222.00-206.00				1	1	1	1	1	1	1
T14	Yes	Yes	1	1	1	1	1	1	1	1
206.00-202.00				1	1	1	1	1	1	1
T15	Yes	Yes	1	1	1	1	1	1	1	1
202.00-198.00				1	1	1	1	1	1	1
T16	Yes	Yes	1	1	1	1	1	1	1	1
198.00-194.00				1	1	1	1	1	1	1
T17	Yes	Yes	1	1	1	1	1	1	1	1
194.00-182.00				1	1	1	1	1	1	1
T18	Yes	Yes	1	1	1	1	1	1	1	1
182.00-162.00				1	1	1	1	1	1	1
T19	Yes	Yes	1	1	1	1	1	1	1	1
162.00-158.00				1	1	1	1	1	1	1
T20	Yes	Yes	1	1	1	1	1	1	1	1
158.00-154.00				1	1	1	1	1	1	1
T21	Yes	Yes	1	1	1	1	1	1	1	1
154.00-150.00				1	1	1	1	1	1	1
T22	Yes	Yes	1	1	1	1	1	1	1	1
150.00-146.00				1	1	1	1	1	1	1
T23	Yes	Yes	1	1	1	1	1	1	1	1
146.00-142.00				1	1	1	1	1	1	1
T24	Yes	Yes	1	1	1	1	1	1	1	1
142.00-138.00				1	1	1	1	1	1	1
T25	Yes	Yes	1	1	1	1	1	1	1	1
138.00-134.00				1	1	1	1	1	1	1
T26	Yes	Yes	1	1	1	1	1	1	1	1
134.00-130.00				1	1	1	1	1	1	1
T27	Yes	Yes	1	1	1	1	1	1	1	1
130.00-126.00				1	1	1	1	1	1	1
T28	Yes	Yes	1	1	1	1	1	1	1	1
126.00-122.00				1	1	1	1	1	1	1
T29	Yes	Yes	1	1	1	1	1	1	1	1
122.00-118.00				1	1	1	1	1	1	1
T30	Yes	Yes	1	1	1	1	1	1	1	1
118.00-114.00				1	1	1	1	1	1	1
T31	Yes	Yes	1	1	1	1	1	1	1	1
114.00-110.00				1	1	1	1	1	1	1
T32	Yes	Yes	1	1	1	1	1	1	1	1
110.00-106.00				1	1	1	1	1	1	1
T33	Yes	Yes	1	1	1	1	1	1	1	1
106.00-102.00				1	1	1	1	1	1	1
T34	Yes	Yes	1	1	1	1	1	1	1	1
102.00-98.00				1	1	1	1	1	1	1
T35	Yes	Yes	1	1	1	1	1	1	1	1
98.00-94.00				1	1	1	1	1	1	1
T36	Yes	Yes	1	1	1	1	1	1	1	1
94.00-90.00				1	1	1	1	1	1	1
T37	Yes	Yes	1	1	1	1	1	1	1	1

Tower Elevation ft	Calc K Single Angles	Calc K Solid Rounds	K Factors[1] Legs	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
90.00-86.00				1	1	1	1	1	1	1
T38	Yes	Yes	1	1	1	1	1	1	1	1
86.00-82.00				1	1	1	1	1	1	1
T39	Yes	Yes	1	1	1	1	1	1	1	1
82.00-78.00				1	1	1	1	1	1	1
T40	Yes	Yes	1	1	1	1	1	1	1	1
78.00-74.00				1	1	1	1	1	1	1
T41	Yes	Yes	1	1	1	1	1	1	1	1
74.00-70.00				1	1	1	1	1	1	1
T42	Yes	Yes	1	1	1	1	1	1	1	1
70.00-66.00				1	1	1	1	1	1	1
T43	Yes	Yes	1	1	1	1	1	1	1	1
66.00-62.00				1	1	1	1	1	1	1
T44	Yes	Yes	1	1	1	1	1	1	1	1
62.00-58.00				1	1	1	1	1	1	1
T45	Yes	Yes	1	1	1	1	1	1	1	1
58.00-54.00				1	1	1	1	1	1	1
T46	Yes	Yes	1	1	1	1	1	1	1	1
54.00-50.00				1	1	1	1	1	1	1
T47	Yes	Yes	1	1	1	1	1	1	1	1
50.00-46.00				1	1	1	1	1	1	1
T48	Yes	Yes	1	1	1	1	1	1	1	1
46.00-42.00				1	1	1	1	1	1	1
T49	Yes	Yes	1	1	1	1	1	1	1	1
42.00-38.00				1	1	1	1	1	1	1
T50	Yes	Yes	1	1	1	1	1	1	1	1
38.00-34.00				1	1	1	1	1	1	1
T51	Yes	Yes	1	1	1	1	1	1	1	1
34.00-30.00				1	1	1	1	1	1	1
T52	Yes	Yes	1	1	1	1	1	1	1	1
30.00-26.00				1	1	1	1	1	1	1
T53	Yes	Yes	1	1	1	1	1	1	1	1
26.00-22.00				1	1	1	1	1	1	1
T54	Yes	Yes	1	1	1	1	1	1	1	1
22.00-18.00				1	1	1	1	1	1	1
T55	Yes	Yes	1	1	1	1	1	1	1	1
18.00-14.00				1	1	1	1	1	1	1
T56	Yes	Yes	1	1	1	1	1	1	1	1
14.00-10.00				1	1	1	1	1	1	1
T57	Yes	Yes	1	1	1	1	1	1	1	1
10.00-6.00				1	1	1	1	1	1	1
T58 6.00-2.00	Yes	Yes	1	1	1	1	1	1	1	1
				1	1	1	1	1	1	1

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

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Leg		Diagonal		Top Girt		Bottom Girt		Mid Girt		Long Horizontal		Short Horizontal	
	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U
T1 276.00-265.50	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
T2 265.50-261.75	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
T3 261.75-258.00	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
T4 258.00-254.00	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
T5 254.00-250.00	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
T6 250.00-246.00	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
T7 246.00-242.00	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
T8 242.00-238.00	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
T9 238.00-234.00	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
T10 234.00-230.00	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
T11 230.00-226.00	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
T12 226.00-222.00	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
T13 222.00-206.00	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
T14 206.00-202.00	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
T15 202.00-198.00	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
T16 198.00-194.00	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
T17 194.00-182.00	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
T18 182.00-162.00	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
T19 162.00-158.00	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
T20 158.00-154.00	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
T21 154.00-150.00	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
T22 150.00-146.00	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
T23 146.00-142.00	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
T24 142.00-138.00	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
T25 138.00-134.00	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
T26 134.00-130.00	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
T27 130.00-126.00	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
T28 126.00-122.00	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 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
T29 122.00-118.00	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
T30 118.00-114.00	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
T31 114.00-110.00	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
T32 110.00-106.00	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
T33 106.00-102.00	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
T34 102.00-98.00	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
T35 98.00-94.00	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
T36 94.00-90.00	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
T37 90.00-86.00	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
T38 86.00-82.00	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
T39 82.00-78.00	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
T40 78.00-74.00	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
T41 74.00-70.00	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
T42 70.00-66.00	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
T43 66.00-62.00	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
T44 62.00-58.00	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
T45 58.00-54.00	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
T46 54.00-50.00	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
T47 50.00-46.00	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
T48 46.00-42.00	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
T49 42.00-38.00	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
T50 38.00-34.00	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
T51 34.00-30.00	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
T52 30.00-26.00	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
T53 26.00-22.00	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
T54 22.00-18.00	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
T55 18.00-14.00	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
T56 14.00-10.00	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
T57 10.00-6.00	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 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
T58 6.00-2.00	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 Elevation ft	Redundant Horizontal		Redundant Diagonal		Redundant Sub-Diagonal		Redundant Sub-Horizontal		Redundant Vertical		Redundant Hip		Redundant Hip Diagonal	
	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U
T1 276.00-265.50	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T2 265.50-261.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T3 261.75-258.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T4 258.00-254.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T5 254.00-250.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T6 250.00-246.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T7 246.00-242.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T8 242.00-238.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T9 238.00-234.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T10 234.00-230.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T11 230.00-226.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T12 226.00-222.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T13 222.00-206.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T14 206.00-202.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T15 202.00-198.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T16 198.00-194.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T17 194.00-182.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T18 182.00-162.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T19 162.00-158.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T20 158.00-154.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T21 154.00-150.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T22 150.00-146.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T23 146.00-142.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75

Tower Elevation ft	Redundant Horizontal		Redundant Diagonal		Redundant Sub-Diagonal		Redundant Sub-Horizontal		Redundant Vertical		Redundant Hip		Redundant Hip Diagonal	
	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U
T24 142.00-138.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T25 138.00-134.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T26 134.00-130.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T27 130.00-126.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T28 126.00-122.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T29 122.00-118.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T30 118.00-114.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T31 114.00-110.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T32 110.00-106.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T33 106.00-102.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T34 102.00-98.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T35 98.00-94.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T36 94.00-90.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T37 90.00-86.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T38 86.00-82.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T39 82.00-78.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T40 78.00-74.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T41 74.00-70.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T42 70.00-66.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T43 66.00-62.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T44 62.00-58.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T45 58.00-54.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T46 54.00-50.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T47 50.00-46.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T48 46.00-42.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T49 42.00-38.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T50 38.00-34.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T51 34.00-30.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75

Tower Elevation ft	Redundant Horizontal		Redundant Diagonal		Redundant Sub-Diagonal		Redundant Sub-Horizontal		Redundant Vertical		Redundant Hip		Redundant Hip Diagonal	
	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U
T52 30.00-26.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T53 26.00-22.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T54 22.00-18.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T55 18.00-14.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T56 14.00-10.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T57 10.00-6.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T58 6.00-2.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Leg Connection Type	Leg		Diagonal		Top Girt		Bottom Girt		Mid Girt		Long Horizontal		Short Horizontal	
		Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.
T1 276.00-265.50	Flange	0.7500 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T2 265.50-261.75	Flange	0.7500 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T3 261.75-258.00	Flange	0.7500 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T4 258.00-254.00	Flange	0.7500 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T5 254.00-250.00	Flange	0.7500 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T6 250.00-246.00	Flange	0.7500 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T7 246.00-242.00	Flange	0.7500 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T8 242.00-238.00	Flange	0.7500 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T9 238.00-234.00	Flange	0.7500 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T10 234.00-230.00	Flange	0.7500 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T11 230.00-226.00	Flange	0.7500 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T12 226.00-222.00	Flange	0.7500 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T13 222.00-206.00	Flange	0.7500 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T14 206.00-202.00	Flange	0.7500 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T15 202.00-198.00	Flange	0.7500 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T16 198.00-194.00	Flange	0.7500 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0

Tower Elevation ft	Leg Connection Type	Leg		Diagonal		Top Girt		Bottom Girt		Mid Girt		Long Horizontal		Short Horizontal	
		Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.
T17	Flange	0.7500	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0
194.00-182.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T18	Flange	0.7500	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0
182.00-162.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T19	Flange	0.7500	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0
162.00-158.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T20	Flange	0.7500	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0
158.00-154.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T21	Flange	0.7500	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0
154.00-150.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T22	Flange	0.7500	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0
150.00-146.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T23	Flange	0.7500	0	0.6250	1	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0
146.00-142.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T24	Flange	0.7500	0	0.6250	1	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0
142.00-138.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T25	Flange	0.7500	0	0.6250	1	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0
138.00-134.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T26	Flange	0.7500	0	0.6250	1	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0
134.00-130.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T27	Flange	0.7500	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0
130.00-126.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T28	Flange	0.7500	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0
126.00-122.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T29	Flange	0.7500	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0
122.00-118.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T30	Flange	0.7500	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0
118.00-114.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T31	Flange	0.7500	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0
114.00-110.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T32	Flange	0.7500	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0
110.00-106.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T33	Flange	0.7500	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0
106.00-102.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T34	Flange	0.7500	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0
102.00-98.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T35	Flange	0.7500	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0
98.00-94.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T36	Flange	0.7500	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0
94.00-90.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T37	Flange	0.7500	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0
90.00-86.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T38	Flange	0.7500	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0
86.00-82.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T39	Flange	0.7500	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0
82.00-78.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T40	Flange	0.7500	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0
78.00-74.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T41	Flange	0.7500	0	0.6250	1	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0
74.00-70.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T42	Flange	0.7500	0	0.6250	1	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0
70.00-66.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T43	Flange	0.7500	0	0.6250	1	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0
66.00-62.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T44	Flange	0.7500	0	0.6250	1	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0
62.00-58.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T45	Flange	0.7500	0	0.6250	1	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0
58.00-54.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	

Tower Elevation ft	Leg Connection Type	Leg		Diagonal		Top Girt		Bottom Girt		Mid Girt		Long Horizontal		Short Horizontal	
		Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.
T46	Flange	0.7500	0	0.6250	1	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0
54.00-50.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T47	Flange	0.7500	0	0.6250	1	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0
50.00-46.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T48	Flange	0.7500	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0
46.00-42.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T49	Flange	0.7500	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0
42.00-38.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T50	Flange	0.7500	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0
38.00-34.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T51	Flange	0.7500	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0
34.00-30.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T52	Flange	0.7500	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0
30.00-26.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T53	Flange	0.7500	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0
26.00-22.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T54	Flange	0.7500	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0
22.00-18.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T55	Flange	0.7500	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0
18.00-14.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T56	Flange	0.7500	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0
14.00-10.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T57 10.00-6.00	Flange	0.7500	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0
		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T58 6.00-2.00	Flange	0.7500	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0
		A325N		A325N		A325N		A325N		A325N		A325N		A325N	

Guy Data

Guy Elevation ft	Guy Grade		Guy Size	Initial Tension lb	%	Guy Modulus ksi	Guy Weight plf	L_u ft	Anchor Radius ft	Anchor Azimuth Adj. °	Anchor Elevation ft	End Fitting Efficiency %
261.75	EHS	A	9/16	3500.00	10%	21000	0.671	293.09	147.00	0.0000	6.00	100%
		B	9/16	3500.00	10%	21000	0.671	292.84	141.00	0.0000	3.00	100%
		C	9/16	3500.00	10%	21000	0.671	315.11	170.00	0.0000	-6.00	100%
202	EHS	A	9/16	3500.00	10%	21000	0.671	242.81	147.00	0.0000	6.00	100%
		B	9/16	3500.00	10%	21000	0.671	241.77	141.00	0.0000	3.00	100%
		C	9/16	3500.00	10%	21000	0.671	266.30	170.00	0.0000	-6.00	100%
130	EHS	A	3/4	5830.00	10%	19000	1.155	190.39	147.00	0.0000	6.00	100%
		B	3/4	5830.00	10%	19000	1.155	187.89	141.00	0.0000	3.00	100%
		C	3/4	5830.00	10%	19000	1.155	215.72	170.00	0.0000	-6.00	100%
62	EHS	A	9/16	3500.00	10%	21000	0.671	155.02	147.00	0.0000	6.00	100%
		B	9/16	3500.00	10%	21000	0.671	150.59	141.00	0.0000	3.00	100%
		C	9/16	3500.00	10%	21000	0.671	180.80	170.00	0.0000	-6.00	100%

Guy Data*(cont'd)*

Guy Elevation ft	Mount Type	Torque-Arm Spread ft	Torque-Arm Leg Angle °	Torque-Arm Style	Torque-Arm Grade	Torque-Arm Type	Torque-Arm Size
261.75	Torque Arm	12.00	30.0000	Bat Ear	A36 (36 ksi)	Equal Angle	L3 1/2x3 1/2x3/8
202	Torque Arm	12.00	30.0000	Bat Ear	A36 (36 ksi)	Equal Angle	L3 1/2x3 1/2x3/8
130	Corner						
62	Corner						

Guy Data *(cont'd)*

Guy Elevation ft	Diagonal Grade	Diagonal Type	Upper Diagonal Size	Lower Diagonal Size	Is Strap.	Pull-Off Grade	Pull-Off Type	Pull-Off Size
261.75	A572-50 (50 ksi)	Solid Round			No	A36 (36 ksi)	Equal Angle	L2 1/2x2 1/2x3/8
202.00	A572-50 (50 ksi)	Solid Round			No	A36 (36 ksi)	Equal Angle	L2 1/2x2 1/2x3/8
130.00	A572-50 (50 ksi)	Solid Round				A36 (36 ksi)	Equal Angle	
62.00	A572-50 (50 ksi)	Solid Round				A36 (36 ksi)	Equal Angle	

Guy Data *(cont'd)*

Guy Elevation ft	Cable Weight A lb	Cable Weight B lb	Cable Weight C lb	Cable Weight D lb	Tower Intercept A ft	Tower Intercept B ft	Tower Intercept C ft	Tower Intercept D ft
261.75	196.66	196.50	211.44		8.04 4.9 sec/pulse	8.03 4.9 sec/pulse	9.29 5.3 sec/pulse	
202	162.92	162.23	178.69		5.55 4.1 sec/pulse	5.50 4.1 sec/pulse	6.67 4.5 sec/pulse	
130	219.90	217.01	249.15		3.55 3.3 sec/pulse	3.46 3.2 sec/pulse	4.55 3.7 sec/pulse	
62	104.02	101.05	121.32		2.29 2.6 sec/pulse	2.16 2.5 sec/pulse	3.12 3.0 sec/pulse	

Guy Data *(cont'd)*

Guy Elevation ft	Calc K Single Angles	Calc K Solid Rounds	Torque Arm K_x	Torque Arm K_y	Pull Off K_x	Pull Off K_y	Diagonal K_x	Diagonal K_y
261.75	Yes	No	1	1	1	1	1	1
202	Yes	No	1	1	1	1	1	1
130	No	No			1	1	1	1
62	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
261.75	0.0000 A325N	0	0.0000	1	0.6250 A325N	0	0.0000	0.75	0.6250 A325N	0	0.0000	0.75
202	0.0000 A325N	0	0.0000	1	0.6250 A325N	0	0.0000	0.75	0.6250 A325N	0	0.0000	0.75
130	0.6250 A325N	0	0.0000	0.75	0.6250 A325N	0	0.0000	0.75	0.6250 A325N	0	0.0000	0.75
62	0.6250 A325N	0	0.0000	0.75	0.6250 A325N	0	0.0000	0.75	0.6250 A325N	0	0.0000	0.75

Guy Pressures

Guy Elevation ft	Guy Location	z ft	q_z psf	q_z Ice psf	Ice Thickness in
261.75	A	133.88	44	8	1.2904
	B	132.38	44	8	1.2895
	C	127.88	44	8	1.2865
202	A	104.00	42	8	1.2680
	B	102.50	42	7	1.2667
	C	98.00	41	7	1.2626
130	A	68.00	38	7	1.2275
	B	66.50	38	7	1.2252
	C	62.00	37	7	1.2183
62	A	34.00	32	6	1.1569
	B	32.50	32	6	1.1522
	C	28.00	31	6	1.1367

Guy-Tensioning Information

Guy Elevation ft		H ft	V ft	Temperature At Time Of Tensioning: 0 F Initial Tension lb	0 F Intercept ft	20 F Initial Tension lb	20 F Intercept ft	40 F Initial Tension lb	40 F Intercept ft	60 F Initial Tension lb	60 F Intercept ft	80 F Initial Tension lb	80 F Intercept ft	100 F Initial Tension lb	100 F Intercept ft	120 F Initial Tension lb	120 F Intercept ft
261.75	A	143.66	255.75	3861	7.31	3740	7.54	3620	7.78	3500	8.04	3381	8.32	3263	8.62	3146	8.93
	B	137.67	258.75	3833	7.34	3722	7.56	3611	7.79	3500	8.03	3390	8.28	3281	8.55	3173	8.84
	C	166.64	267.75	3913	8.33	3774	8.63	3636	8.95	3500	9.29	3365	9.65	3231	10.04	3099	10.46
202	A	143.66	196.00	4027	4.84	3850	5.05	3674	5.29	3500	5.55	3327	5.84	3157	6.15	2988	6.49
	B	137.67	199.00	3990	4.84	3826	5.04	3662	5.26	3500	5.50	3339	5.76	3180	6.05	3022	6.36
	C	166.64	208.00	4080	5.74	3885	6.02	3691	6.33	3500	6.67	3311	7.04	3126	7.45	2944	7.91
130	A	144.69	124.00	7194	2.88	6735	3.08	6280	3.30	5830	3.55	5387	3.84	4954	4.17	4532	4.55
	B	138.69	127.00	7121	2.84	6687	3.02	6256	3.22	5830	3.46	5410	3.72	4997	4.03	4593	4.37
	C	167.69	136.00	7234	3.68	6760	3.93	6291	4.22	5830	4.55	5378	4.93	4939	5.36	4515	5.86
62	A	144.69	56.00	4825	1.67	4377	1.84	3935	2.04	3500	2.29	3076	2.61	2668	3.00	2286	3.50
	B	138.69	59.00	4794	1.58	4358	1.74	3925	1.93	3500	2.16	3084	2.45	2683	2.82	2304	3.28
	C	167.69	68.00	4788	2.28	4351	2.51	3921	2.78	3500	3.12	3092	3.52	2704	4.03	2343	4.64

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
EW63	B	No	No	Ar (CaAa)	264.00 - 8.00	-0.2000	0.1	2	1	1.5742	1.5742		0.51
EW63	B	No	No	Ar (CaAa)	264.00 - 8.00	-1.0000	0.25	2	2	1.5742	1.5742		0.51
7/8	C	No	No	Ar (CaAa)	254.00 - 8.00	-1.0000	0.1	1	1	1.1100	1.1100		0.54
7/8	C	No	No	Ar (CaAa)	162.00 - 8.00	-1.0000	0.14	1	1	1.1100	1.1100		0.54
1 5/8	B	No	No	Ar (CaAa)	236.00 - 8.00	0.0000	-0.2	7	4	0.5000	1.9800		1.04
***													
1 5/8	B	No	No	Ar (CaAa)	208.00 - 8.00	-5.0000	-0.2	9	3	0.5000	1.9800		1.04
1 5/8	B	No	No	Ar (CaAa)	208.00 - 8.00	-0.7500	-0.1	1	1	0.5000	1.9800		1.04
1 5/8	C	No	No	Ar (CaAa)	208.00 - 8.00	-1.0000	-0.1	2	2	0.5000	1.9800		1.04
1 1/4	B	No	No	Ar (CaAa)	208.00 - 8.00	-2.0000	-0.35	3	2	0.7500	1.5500		0.66
***													
1/2	B	No	No	Ar (CaAa)	196.00 - 8.00	-1.0000	0.18	1	1	0.5800	0.5800		0.25
1/2	B	No	No	Ar (CaAa)	164.00 - 8.00	0.0000	-0.08	1	1	0.5800	0.5800		0.25
3/8 (Grounding Cable)	B	No	No	Ar (CaAa)	236.00 - 8.00	0.0000	-0.05	1	1	0.4650	0.4650		0.13
3/8	A	No	No	Ar (CaAa)	56.00 - 8.00	0.0000	-0.5	1	1	0.4650	0.4650		0.13
3/8	C	No	No	Ar (CaAa)	20.00 - 8.00	-0.5000	-0.5	1	1	0.4650	0.4650		0.13
Safety Line 3/8	A	No	No	Ar (CaAa)	276.00 - 8.00	-6.0000	-0.3	1	1	0.3750	0.3750		0.22
***													
Fiber	A	No	No	Ar (CaAa)	220.00 - 8.00	0.0000	0.26	3	2	0.2500	0.2500		0.07
DC	A	No	No	Ar (CaAa)	220.00 - 8.00	0.0000	0.28	7	3	0.7500	0.7500		1.13
***													
1-1/2" (Other Carrier Future)	C	No	No	Ar (CaAa)	276.00 - 0.00	-1.0000	0	1	1	1.5000	1.5000		1.12
7/8 (Other Carrier Future)	C	No	No	Ar (CaAa)	115.00 - 0.00	-1.0000	0.05	1	1	1.1100	1.1100		0.54
***													
L2x2x3/16 half bay brace	A	No	No	Af (CaAa)	106.00 - 42.00	0.0000	0	1	1	1.4000	1.4000		1.73
L2x2x3/16 half bay brace	B	No	No	Af (CaAa)	106.00 - 42.00	0.0000	0	1	1	1.4000	1.4000		1.73
L2x2x3/16 half bay brace	C	No	No	Af (CaAa)	106.00 - 42.00	0.0000	0	1	1	1.4000	1.4000		1.73
L2x2x3/16 half bay brace	A	No	No	Af (CaAa)	130.00 - 126.00	0.0000	0	1	1	1.4000	1.4000		1.73
L2x2x3/16 half bay brace	B	No	No	Af (CaAa)	130.00 - 126.00	0.0000	0	1	1	1.4000	1.4000		1.73
L2x2x3/16 half bay brace *	C	No	No	Af (CaAa)	130.00 - 126.00	0.0000	0	1	1	1.4000	1.4000		1.73

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
4 AWG HYBRID (DISH)	C	Yes	No	Af (CaAa)	170.00 - 8.00	0.0000	0	1	1	1.1900	1.1900		1.00

Feed Line/Linear Appurtenances - Entered As Area

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Face Offset in	Lateral Offset (Frac FW)	#		C_AA_A ft^2/ft	Weight plf
Climbing Ladder	A	No	No	CaAa (In Face)	276.00 - 8.00	-1.0000	-0.38	1	No Ice 1/2" Ice 1" Ice	0.29 0.55 0.81	4.81 10.60 13.30

Feed Line/Linear Appurtenances Section Areas

Tower Section	Tower Elevation ft	Face	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight lb
T1	276.00-265.50	A	0.000	0.000	3.439	0.000	52.81
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	1.575	0.000	11.76
T2	265.50-261.75	A	0.000	0.000	1.228	0.000	18.86
		B	0.000	0.000	1.417	0.000	4.59
		C	0.000	0.000	0.563	0.000	4.20
T3	261.75-258.00	A	0.000	0.000	1.228	0.000	18.86
		B	0.000	0.000	2.361	0.000	7.65
		C	0.000	0.000	0.563	0.000	4.20
T4	258.00-254.00	A	0.000	0.000	1.310	0.000	20.12
		B	0.000	0.000	2.519	0.000	8.16
		C	0.000	0.000	0.600	0.000	4.48
T5	254.00-250.00	A	0.000	0.000	1.310	0.000	20.12
		B	0.000	0.000	2.519	0.000	8.16
		C	0.000	0.000	1.044	0.000	6.64
T6	250.00-246.00	A	0.000	0.000	1.310	0.000	20.12
		B	0.000	0.000	2.519	0.000	8.16
		C	0.000	0.000	1.044	0.000	6.64
T7	246.00-242.00	A	0.000	0.000	1.310	0.000	20.12
		B	0.000	0.000	2.519	0.000	8.16
		C	0.000	0.000	1.044	0.000	6.64
T8	242.00-238.00	A	0.000	0.000	1.310	0.000	20.12
		B	0.000	0.000	2.519	0.000	8.16
		C	0.000	0.000	1.044	0.000	6.64
T9	238.00-234.00	A	0.000	0.000	1.310	0.000	20.12
		B	0.000	0.000	5.384	0.000	22.98
		C	0.000	0.000	1.044	0.000	6.64
T10	234.00-230.00	A	0.000	0.000	1.310	0.000	20.12
		B	0.000	0.000	8.249	0.000	37.80
		C	0.000	0.000	1.044	0.000	6.64
T11	230.00-226.00	A	0.000	0.000	1.310	0.000	20.12
		B	0.000	0.000	8.249	0.000	37.80

Tower Section	Tower Elevation ft	Face	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight lb
		C	0.000	0.000	1.044	0.000	6.64
T12	226.00-222.00	A	0.000	0.000	1.310	0.000	20.12
		B	0.000	0.000	8.249	0.000	37.80
		C	0.000	0.000	1.044	0.000	6.64
T13	222.00-206.00	A	0.000	0.000	10.140	0.000	145.72
		B	0.000	0.000	37.885	0.000	175.96
		C	0.000	0.000	4.968	0.000	30.72
T14	206.00-202.00	A	0.000	0.000	2.710	0.000	38.76
		B	0.000	0.000	18.029	0.000	87.32
		C	0.000	0.000	2.628	0.000	14.96
T15	202.00-198.00	A	0.000	0.000	2.710	0.000	38.76
		B	0.000	0.000	18.029	0.000	87.32
		C	0.000	0.000	2.628	0.000	14.96
T16	198.00-194.00	A	0.000	0.000	2.710	0.000	38.76
		B	0.000	0.000	18.145	0.000	87.82
		C	0.000	0.000	2.628	0.000	14.96
T17	194.00-182.00	A	0.000	0.000	8.130	0.000	116.28
		B	0.000	0.000	54.782	0.000	264.96
		C	0.000	0.000	7.884	0.000	44.88
T18	182.00-162.00	A	0.000	0.000	13.550	0.000	193.80
		B	0.000	0.000	91.420	0.000	442.10
		C	0.000	0.000	14.727	0.000	82.80
T19	162.00-158.00	A	0.000	0.000	2.710	0.000	38.76
		B	0.000	0.000	18.493	0.000	89.32
		C	0.000	0.000	3.865	0.000	21.12
T20	158.00-154.00	A	0.000	0.000	2.710	0.000	38.76
		B	0.000	0.000	18.493	0.000	89.32
		C	0.000	0.000	3.865	0.000	21.12
T21	154.00-150.00	A	0.000	0.000	2.710	0.000	38.76
		B	0.000	0.000	18.493	0.000	89.32
		C	0.000	0.000	3.865	0.000	21.12
T22	150.00-146.00	A	0.000	0.000	2.710	0.000	38.76
		B	0.000	0.000	18.493	0.000	89.32
		C	0.000	0.000	3.865	0.000	21.12
T23	146.00-142.00	A	0.000	0.000	2.710	0.000	38.76
		B	0.000	0.000	18.493	0.000	89.32
		C	0.000	0.000	3.865	0.000	21.12
T24	142.00-138.00	A	0.000	0.000	2.710	0.000	38.76
		B	0.000	0.000	18.493	0.000	89.32
		C	0.000	0.000	3.865	0.000	21.12
T25	138.00-134.00	A	0.000	0.000	2.710	0.000	38.76
		B	0.000	0.000	18.493	0.000	89.32
		C	0.000	0.000	3.865	0.000	21.12
T26	134.00-130.00	A	0.000	0.000	2.710	0.000	38.76
		B	0.000	0.000	18.493	0.000	89.32
		C	0.000	0.000	3.865	0.000	21.12
T27	130.00-126.00	A	0.000	0.000	3.632	0.000	45.66
		B	0.000	0.000	19.414	0.000	96.22
		C	0.000	0.000	4.787	0.000	28.02
T28	126.00-122.00	A	0.000	0.000	2.710	0.000	38.76
		B	0.000	0.000	18.493	0.000	89.32
		C	0.000	0.000	3.865	0.000	21.12
T29	122.00-118.00	A	0.000	0.000	2.710	0.000	38.76
		B	0.000	0.000	18.493	0.000	89.32
		C	0.000	0.000	3.865	0.000	21.12
T30	118.00-114.00	A	0.000	0.000	2.710	0.000	38.76
		B	0.000	0.000	18.493	0.000	89.32
		C	0.000	0.000	3.976	0.000	21.66
T31	114.00-110.00	A	0.000	0.000	2.710	0.000	38.76
		B	0.000	0.000	18.493	0.000	89.32
		C	0.000	0.000	4.309	0.000	23.28

Tower Section	Tower Elevation ft	Face	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight lb
T32	110.00-106.00	A	0.000	0.000	2.710	0.000	38.76
		B	0.000	0.000	18.493	0.000	89.32
		C	0.000	0.000	4.309	0.000	23.28
T33	106.00-102.00	A	0.000	0.000	3.643	0.000	45.66
		B	0.000	0.000	19.426	0.000	96.22
		C	0.000	0.000	5.243	0.000	30.18
T34	102.00-98.00	A	0.000	0.000	3.643	0.000	45.66
		B	0.000	0.000	19.426	0.000	96.22
		C	0.000	0.000	5.243	0.000	30.18
T35	98.00-94.00	A	0.000	0.000	3.643	0.000	45.66
		B	0.000	0.000	19.426	0.000	96.22
		C	0.000	0.000	5.243	0.000	30.18
T36	94.00-90.00	A	0.000	0.000	3.643	0.000	45.66
		B	0.000	0.000	19.426	0.000	96.22
		C	0.000	0.000	5.243	0.000	30.18
T37	90.00-86.00	A	0.000	0.000	3.643	0.000	45.66
		B	0.000	0.000	19.426	0.000	96.22
		C	0.000	0.000	5.243	0.000	30.18
T38	86.00-82.00	A	0.000	0.000	3.643	0.000	45.66
		B	0.000	0.000	19.426	0.000	96.22
		C	0.000	0.000	5.243	0.000	30.18
T39	82.00-78.00	A	0.000	0.000	3.643	0.000	45.66
		B	0.000	0.000	19.426	0.000	96.22
		C	0.000	0.000	5.243	0.000	30.18
T40	78.00-74.00	A	0.000	0.000	3.643	0.000	45.66
		B	0.000	0.000	19.426	0.000	96.22
		C	0.000	0.000	5.243	0.000	30.18
T41	74.00-70.00	A	0.000	0.000	3.643	0.000	45.66
		B	0.000	0.000	19.426	0.000	96.22
		C	0.000	0.000	5.243	0.000	30.18
T42	70.00-66.00	A	0.000	0.000	3.643	0.000	45.66
		B	0.000	0.000	19.426	0.000	96.22
		C	0.000	0.000	5.243	0.000	30.18
T43	66.00-62.00	A	0.000	0.000	3.643	0.000	45.66
		B	0.000	0.000	19.426	0.000	96.22
		C	0.000	0.000	5.243	0.000	30.18
T44	62.00-58.00	A	0.000	0.000	3.643	0.000	45.66
		B	0.000	0.000	19.426	0.000	96.22
		C	0.000	0.000	5.243	0.000	30.18
T45	58.00-54.00	A	0.000	0.000	3.736	0.000	45.92
		B	0.000	0.000	19.426	0.000	96.22
		C	0.000	0.000	5.243	0.000	30.18
T46	54.00-50.00	A	0.000	0.000	3.829	0.000	46.18
		B	0.000	0.000	19.426	0.000	96.22
		C	0.000	0.000	5.243	0.000	30.18
T47	50.00-46.00	A	0.000	0.000	3.829	0.000	46.18
		B	0.000	0.000	19.426	0.000	96.22
		C	0.000	0.000	5.243	0.000	30.18
T48	46.00-42.00	A	0.000	0.000	3.829	0.000	46.18
		B	0.000	0.000	19.426	0.000	96.22
		C	0.000	0.000	5.243	0.000	30.18
T49	42.00-38.00	A	0.000	0.000	2.896	0.000	39.28
		B	0.000	0.000	18.493	0.000	89.32
		C	0.000	0.000	4.309	0.000	23.28
T50	38.00-34.00	A	0.000	0.000	2.896	0.000	39.28
		B	0.000	0.000	18.493	0.000	89.32
		C	0.000	0.000	4.309	0.000	23.28
T51	34.00-30.00	A	0.000	0.000	2.896	0.000	39.28
		B	0.000	0.000	18.493	0.000	89.32
		C	0.000	0.000	4.309	0.000	23.28
T52	30.00-26.00	A	0.000	0.000	2.896	0.000	39.28

Tower Section	Tower Elevation ft	Face	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight lb
		B	0.000	0.000	18.493	0.000	89.32
		C	0.000	0.000	4.309	0.000	23.28
T53	26.00-22.00	A	0.000	0.000	2.896	0.000	39.28
		B	0.000	0.000	18.493	0.000	89.32
		C	0.000	0.000	4.309	0.000	23.28
T54	22.00-18.00	A	0.000	0.000	2.896	0.000	39.28
		B	0.000	0.000	18.493	0.000	89.32
		C	0.000	0.000	4.402	0.000	23.54
T55	18.00-14.00	A	0.000	0.000	2.896	0.000	39.28
		B	0.000	0.000	18.493	0.000	89.32
		C	0.000	0.000	4.495	0.000	23.80
T56	14.00-10.00	A	0.000	0.000	2.896	0.000	39.28
		B	0.000	0.000	18.493	0.000	89.32
		C	0.000	0.000	4.495	0.000	23.80
T57	10.00-6.00	A	0.000	0.000	1.448	0.000	19.64
		B	0.000	0.000	9.246	0.000	44.66
		C	0.000	0.000	2.770	0.000	15.22
T58	6.00-2.00	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	1.044	0.000	6.64

Feed Line/Linear Appurtenances Section Areas - With Ice

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight lb
T1	276.00-265.50	A	1.344	0.000	0.000	13.597	0.000	191.07
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	4.397	0.000	60.77
T2	265.50-261.75	A	1.342	0.000	0.000	4.851	0.000	68.18
		B		0.000	0.000	4.806	0.000	46.89
		C		0.000	0.000	1.569	0.000	21.67
T3	261.75-258.00	A	1.341	0.000	0.000	4.849	0.000	68.15
		B		0.000	0.000	8.007	0.000	78.08
		C		0.000	0.000	1.568	0.000	21.65
T4	258.00-254.00	A	1.340	0.000	0.000	5.169	0.000	72.65
		B		0.000	0.000	8.538	0.000	83.21
		C		0.000	0.000	1.672	0.000	23.08
T5	254.00-250.00	A	1.339	0.000	0.000	5.166	0.000	72.61
		B		0.000	0.000	8.535	0.000	83.14
		C		0.000	0.000	3.186	0.000	41.24
T6	250.00-246.00	A	1.338	0.000	0.000	5.163	0.000	72.57
		B		0.000	0.000	8.532	0.000	83.06
		C		0.000	0.000	3.184	0.000	41.20
T7	246.00-242.00	A	1.337	0.000	0.000	5.160	0.000	72.53
		B		0.000	0.000	8.529	0.000	82.98
		C		0.000	0.000	3.183	0.000	41.15
T8	242.00-238.00	A	1.336	0.000	0.000	5.156	0.000	72.49
		B		0.000	0.000	8.526	0.000	82.90
		C		0.000	0.000	3.181	0.000	41.11
T9	238.00-234.00	A	1.334	0.000	0.000	5.153	0.000	72.45
		B		0.000	0.000	12.658	0.000	144.47
		C		0.000	0.000	3.179	0.000	41.06
T10	234.00-230.00	A	1.333	0.000	0.000	5.150	0.000	72.41
		B		0.000	0.000	16.788	0.000	205.97
		C		0.000	0.000	3.177	0.000	41.02
T11	230.00-226.00	A	1.332	0.000	0.000	5.146	0.000	72.36
		B		0.000	0.000	16.782	0.000	205.80

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight lb
		C		0.000	0.000	3.175	0.000	40.97
T12	226.00-222.00	A	1.331	0.000	0.000	5.143	0.000	72.32
		B		0.000	0.000	16.775	0.000	205.62
		C		0.000	0.000	3.173	0.000	40.92
T13	222.00-206.00	A	1.327	0.000	0.000	40.505	0.000	505.31
		B		0.000	0.000	73.657	0.000	923.34
		C		0.000	0.000	14.795	0.000	184.62
T14	206.00-202.00	A	1.324	0.000	0.000	10.820	0.000	133.79
		B		0.000	0.000	29.968	0.000	409.62
		C		0.000	0.000	7.403	0.000	83.42
T15	202.00-198.00	A	1.323	0.000	0.000	10.811	0.000	133.68
		B		0.000	0.000	29.956	0.000	409.26
		C		0.000	0.000	7.399	0.000	83.32
T16	198.00-194.00	A	1.321	0.000	0.000	10.803	0.000	133.56
		B		0.000	0.000	30.587	0.000	415.52
		C		0.000	0.000	7.395	0.000	83.22
T17	194.00-182.00	A	1.318	0.000	0.000	32.354	0.000	399.94
		B		0.000	0.000	93.607	0.000	1264.00
		C		0.000	0.000	22.155	0.000	249.01
T18	182.00-162.00	A	1.311	0.000	0.000	53.728	0.000	663.89
		B		0.000	0.000	156.332	0.000	2104.17
		C		0.000	0.000	40.508	0.000	456.14
T19	162.00-158.00	A	1.305	0.000	0.000	10.713	0.000	132.33
		B		0.000	0.000	32.361	0.000	431.03
		C		0.000	0.000	10.673	0.000	121.33
T20	158.00-154.00	A	1.303	0.000	0.000	10.701	0.000	132.17
		B		0.000	0.000	32.340	0.000	430.46
		C		0.000	0.000	10.664	0.000	121.10
T21	154.00-150.00	A	1.301	0.000	0.000	10.689	0.000	132.01
		B		0.000	0.000	32.319	0.000	429.87
		C		0.000	0.000	10.654	0.000	120.88
T22	150.00-146.00	A	1.299	0.000	0.000	10.676	0.000	131.84
		B		0.000	0.000	32.296	0.000	429.26
		C		0.000	0.000	10.644	0.000	120.64
T23	146.00-142.00	A	1.297	0.000	0.000	10.663	0.000	131.66
		B		0.000	0.000	32.273	0.000	428.63
		C		0.000	0.000	10.634	0.000	120.39
T24	142.00-138.00	A	1.294	0.000	0.000	10.650	0.000	131.48
		B		0.000	0.000	32.249	0.000	427.97
		C		0.000	0.000	10.623	0.000	120.14
T25	138.00-134.00	A	1.292	0.000	0.000	10.636	0.000	131.29
		B		0.000	0.000	32.224	0.000	427.29
		C		0.000	0.000	10.611	0.000	119.88
T26	134.00-130.00	A	1.289	0.000	0.000	10.621	0.000	131.09
		B		0.000	0.000	32.198	0.000	426.58
		C		0.000	0.000	10.600	0.000	119.60
T27	130.00-126.00	A	1.287	0.000	0.000	12.124	0.000	158.74
		B		0.000	0.000	33.690	0.000	453.70
		C		0.000	0.000	12.106	0.000	147.17
T28	126.00-122.00	A	1.284	0.000	0.000	10.590	0.000	130.68
		B		0.000	0.000	32.143	0.000	425.09
		C		0.000	0.000	10.575	0.000	119.02
T29	122.00-118.00	A	1.281	0.000	0.000	10.574	0.000	130.45
		B		0.000	0.000	32.114	0.000	424.29
		C		0.000	0.000	10.562	0.000	118.72
T30	118.00-114.00	A	1.278	0.000	0.000	10.557	0.000	130.22
		B		0.000	0.000	32.084	0.000	423.46
		C		0.000	0.000	10.914	0.000	122.66
T31	114.00-110.00	A	1.275	0.000	0.000	10.539	0.000	129.98
		B		0.000	0.000	32.052	0.000	422.60
		C		0.000	0.000	11.997	0.000	135.08

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight lb
T32	110.00-106.00	A	1.271	0.000	0.000	10.520	0.000	129.73
		B		0.000	0.000	32.019	0.000	421.69
		C		0.000	0.000	11.980	0.000	134.67
T33	106.00-102.00	A	1.268	0.000	0.000	12.448	0.000	156.88
		B		0.000	0.000	33.932	0.000	448.16
		C		0.000	0.000	13.909	0.000	161.66
T34	102.00-98.00	A	1.264	0.000	0.000	12.425	0.000	156.52
		B		0.000	0.000	33.892	0.000	447.08
		C		0.000	0.000	13.886	0.000	161.13
T35	98.00-94.00	A	1.261	0.000	0.000	12.400	0.000	156.14
		B		0.000	0.000	33.851	0.000	445.96
		C		0.000	0.000	13.863	0.000	160.57
T36	94.00-90.00	A	1.257	0.000	0.000	12.374	0.000	155.75
		B		0.000	0.000	33.807	0.000	444.77
		C		0.000	0.000	13.838	0.000	159.98
T37	90.00-86.00	A	1.252	0.000	0.000	12.347	0.000	155.33
		B		0.000	0.000	33.761	0.000	443.53
		C		0.000	0.000	13.812	0.000	159.37
T38	86.00-82.00	A	1.248	0.000	0.000	12.318	0.000	154.89
		B		0.000	0.000	33.713	0.000	442.21
		C		0.000	0.000	13.785	0.000	158.72
T39	82.00-78.00	A	1.243	0.000	0.000	12.287	0.000	154.42
		B		0.000	0.000	33.662	0.000	440.83
		C		0.000	0.000	13.756	0.000	158.04
T40	78.00-74.00	A	1.238	0.000	0.000	12.255	0.000	153.93
		B		0.000	0.000	33.608	0.000	439.36
		C		0.000	0.000	13.725	0.000	157.32
T41	74.00-70.00	A	1.233	0.000	0.000	12.221	0.000	153.41
		B		0.000	0.000	33.550	0.000	437.80
		C		0.000	0.000	13.693	0.000	156.55
T42	70.00-66.00	A	1.227	0.000	0.000	12.184	0.000	152.86
		B		0.000	0.000	33.488	0.000	436.15
		C		0.000	0.000	13.658	0.000	155.74
T43	66.00-62.00	A	1.221	0.000	0.000	12.145	0.000	152.26
		B		0.000	0.000	33.423	0.000	434.38
		C		0.000	0.000	13.621	0.000	154.87
T44	62.00-58.00	A	1.215	0.000	0.000	12.103	0.000	151.63
		B		0.000	0.000	33.352	0.000	432.50
		C		0.000	0.000	13.581	0.000	153.94
T45	58.00-54.00	A	1.208	0.000	0.000	12.634	0.000	156.15
		B		0.000	0.000	33.277	0.000	430.47
		C		0.000	0.000	13.538	0.000	152.95
T46	54.00-50.00	A	1.201	0.000	0.000	13.156	0.000	160.52
		B		0.000	0.000	33.195	0.000	428.28
		C		0.000	0.000	13.492	0.000	151.88
T47	50.00-46.00	A	1.192	0.000	0.000	13.096	0.000	159.61
		B		0.000	0.000	33.106	0.000	425.91
		C		0.000	0.000	13.441	0.000	150.72
T48	46.00-42.00	A	1.183	0.000	0.000	13.031	0.000	158.62
		B		0.000	0.000	33.008	0.000	423.33
		C		0.000	0.000	13.386	0.000	149.46
T49	42.00-38.00	A	1.174	0.000	0.000	11.087	0.000	132.31
		B		0.000	0.000	31.029	0.000	395.27
		C		0.000	0.000	11.453	0.000	122.84
T50	38.00-34.00	A	1.163	0.000	0.000	11.016	0.000	131.36
		B		0.000	0.000	30.919	0.000	392.38
		C		0.000	0.000	11.395	0.000	121.56
T51	34.00-30.00	A	1.151	0.000	0.000	10.937	0.000	130.30
		B		0.000	0.000	30.795	0.000	389.16
		C		0.000	0.000	11.329	0.000	120.13
T52	30.00-26.00	A	1.137	0.000	0.000	10.847	0.000	129.11

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight lb
		B		0.000	0.000	30.655	0.000	385.52
		C		0.000	0.000	11.254	0.000	118.52
T53	26.00-22.00	A	1.121	0.000	0.000	10.743	0.000	127.74
		B		0.000	0.000	30.494	0.000	381.35
		C		0.000	0.000	11.168	0.000	116.68
T54	22.00-18.00	A	1.102	0.000	0.000	10.620	0.000	126.13
		B		0.000	0.000	30.303	0.000	376.45
		C		0.000	0.000	11.601	0.000	119.00
T55	18.00-14.00	A	1.079	0.000	0.000	10.471	0.000	124.20
		B		0.000	0.000	30.071	0.000	370.55
		C		0.000	0.000	11.992	0.000	120.59
T56	14.00-10.00	A	1.050	0.000	0.000	10.280	0.000	121.77
		B		0.000	0.000	29.775	0.000	363.09
		C		0.000	0.000	11.812	0.000	116.96
T57	10.00-6.00	A	1.009	0.000	0.000	5.009	0.000	59.23
		B		0.000	0.000	14.684	0.000	176.46
		C		0.000	0.000	7.110	0.000	70.76
T58	6.00-2.00	A	0.943	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	2.553	0.000	27.35

Feed Line Shielding

Section	Elevation ft	Face	A_R ft^2	A_R Ice ft^2	A_F ft^2	A_F Ice ft^2
T1	276.00-265.50	A	0.000	0.000	0.000	0.000
		B	0.000	0.000	0.000	0.000
		C	0.000	0.000	0.000	0.000
T2	265.50-261.75	A	0.000	0.000	0.000	0.000
		B	0.000	0.000	0.000	0.000
		C	0.000	0.000	0.000	0.000
T3	261.75-258.00	A	0.000	0.000	0.000	0.000
		B	0.000	0.000	0.000	0.000
		C	0.000	0.000	0.000	0.000
T4	258.00-254.00	A	0.000	0.000	0.000	0.000
		B	0.000	0.000	0.000	0.000
		C	0.000	0.000	0.000	0.000
T5	254.00-250.00	A	0.000	0.000	0.000	0.000
		B	0.000	0.000	0.000	0.000
		C	0.000	0.000	0.000	0.000
T6	250.00-246.00	A	0.000	0.000	0.000	0.000
		B	0.000	0.000	0.000	0.000
		C	0.000	0.000	0.000	0.000
T7	246.00-242.00	A	0.000	0.000	0.000	0.000
		B	0.000	0.000	0.000	0.000
		C	0.000	0.000	0.000	0.000
T8	242.00-238.00	A	0.000	0.000	0.000	0.000
		B	0.000	0.000	0.000	0.000
		C	0.000	0.000	0.000	0.000
T9	238.00-234.00	A	0.000	0.000	0.000	0.000
		B	0.000	0.000	0.000	0.000
		C	0.000	0.000	0.000	0.000
T10	234.00-230.00	A	0.000	0.000	0.000	0.000
		B	0.000	0.000	0.000	0.000
		C	0.000	0.000	0.000	0.000
T11	230.00-226.00	A	0.000	0.000	0.000	0.000

Section	Elevation ft	Face	A_R ft^2	A_R Ice ft^2	A_F ft^2	A_F Ice ft^2
		B	0.000	0.000	0.000	0.000
		C	0.000	0.000	0.000	0.000
T12	226.00-222.00	A	0.000	0.000	0.000	0.000
		B	0.000	0.000	0.000	0.000
		C	0.000	0.000	0.000	0.000
T13	222.00-206.00	A	0.000	0.000	0.000	0.000
		B	0.000	0.000	0.000	0.000
		C	0.000	0.000	0.000	0.000
T14	206.00-202.00	A	0.000	0.000	0.000	0.000
		B	0.000	0.000	0.000	0.000
		C	0.000	0.000	0.000	0.000
T15	202.00-198.00	A	0.000	0.000	0.000	0.000
		B	0.000	0.000	0.000	0.000
		C	0.000	0.000	0.000	0.000
T16	198.00-194.00	A	0.000	0.000	0.000	0.000
		B	0.000	0.000	0.000	0.000
		C	0.000	0.000	0.000	0.000
T17	194.00-182.00	A	0.000	0.000	0.000	0.000
		B	0.000	0.000	0.000	0.000
		C	0.000	0.000	0.000	0.000
T18	182.00-162.00	A	0.000	0.000	0.000	0.000
		B	0.000	0.000	0.000	0.000
		C	0.000	0.335	0.080	0.256
T19	162.00-158.00	A	0.000	0.000	0.000	0.000
		B	0.000	0.000	0.000	0.000
		C	0.000	0.166	0.040	0.127
T20	158.00-154.00	A	0.000	0.000	0.000	0.000
		B	0.000	0.000	0.000	0.000
		C	0.000	0.166	0.040	0.127
T21	154.00-150.00	A	0.000	0.000	0.000	0.000
		B	0.000	0.000	0.000	0.000
		C	0.000	0.165	0.040	0.127
T22	150.00-146.00	A	0.000	0.000	0.000	0.000
		B	0.000	0.000	0.000	0.000
		C	0.000	0.165	0.040	0.127
T23	146.00-142.00	A	0.000	0.000	0.000	0.000
		B	0.000	0.000	0.000	0.000
		C	0.000	0.164	0.040	0.127
T24	142.00-138.00	A	0.000	0.000	0.000	0.000
		B	0.000	0.000	0.000	0.000
		C	0.000	0.164	0.040	0.127
T25	138.00-134.00	A	0.000	0.000	0.000	0.000
		B	0.000	0.000	0.000	0.000
		C	0.010	0.264	0.044	0.140
T26	134.00-130.00	A	0.000	0.000	0.000	0.000
		B	0.000	0.000	0.000	0.000
		C	0.010	0.263	0.044	0.139
T27	130.00-126.00	A	0.000	0.000	0.000	0.000
		B	0.000	0.000	0.000	0.000
		C	0.000	0.230	0.061	0.192
T28	126.00-122.00	A	0.000	0.000	0.000	0.000
		B	0.000	0.000	0.000	0.000
		C	0.010	0.261	0.044	0.139
T29	122.00-118.00	A	0.000	0.000	0.000	0.000
		B	0.000	0.000	0.000	0.000
		C	0.010	0.260	0.040	0.126
T30	118.00-114.00	A	0.000	0.000	0.000	0.000
		B	0.000	0.000	0.000	0.000
		C	0.010	0.260	0.040	0.126
T31	114.00-110.00	A	0.000	0.000	0.000	0.000
		B	0.000	0.000	0.000	0.000

Section	Elevation ft	Face	A_R ft^2	A_R Ice ft^2	A_F ft^2	A_F Ice ft^2
		C	0.000	0.160	0.040	0.125
T32	110.00-106.00	A	0.000	0.000	0.000	0.000
		B	0.000	0.000	0.000	0.000
		C	0.000	0.159	0.040	0.125
T33	106.00-102.00	A	0.000	0.000	0.000	0.000
		B	0.000	0.000	0.000	0.000
		C	0.000	0.158	0.040	0.125
T34	102.00-98.00	A	0.000	0.000	0.000	0.000
		B	0.000	0.000	0.000	0.000
		C	0.000	0.223	0.056	0.176
T35	98.00-94.00	A	0.000	0.000	0.000	0.000
		B	0.000	0.000	0.000	0.000
		C	0.000	0.222	0.056	0.176
T36	94.00-90.00	A	0.000	0.000	0.000	0.000
		B	0.000	0.000	0.000	0.000
		C	0.000	0.221	0.056	0.176
T37	90.00-86.00	A	0.000	0.000	0.000	0.000
		B	0.000	0.000	0.000	0.000
		C	0.000	0.219	0.056	0.175
T38	86.00-82.00	A	0.000	0.000	0.000	0.000
		B	0.000	0.000	0.000	0.000
		C	0.000	0.218	0.056	0.175
T39	82.00-78.00	A	0.000	0.000	0.000	0.000
		B	0.000	0.000	0.000	0.000
		C	0.000	0.217	0.056	0.174
T40	78.00-74.00	A	0.000	0.000	0.000	0.000
		B	0.000	0.000	0.000	0.000
		C	0.000	0.215	0.056	0.174
T41	74.00-70.00	A	0.000	0.000	0.000	0.000
		B	0.000	0.000	0.000	0.000
		C	0.000	0.214	0.056	0.173
T42	70.00-66.00	A	0.000	0.000	0.000	0.000
		B	0.000	0.000	0.000	0.000
		C	0.000	0.212	0.056	0.173
T43	66.00-62.00	A	0.000	0.000	0.000	0.000
		B	0.000	0.000	0.000	0.000
		C	0.000	0.210	0.056	0.172
T44	62.00-58.00	A	0.000	0.000	0.000	0.000
		B	0.000	0.000	0.000	0.000
		C	0.000	0.209	0.061	0.184
T45	58.00-54.00	A	0.000	0.000	0.000	0.000
		B	0.000	0.000	0.000	0.000
		C	0.000	0.207	0.056	0.171
T46	54.00-50.00	A	0.000	0.000	0.000	0.000
		B	0.000	0.000	0.000	0.000
		C	0.000	0.204	0.056	0.170
T47	50.00-46.00	A	0.000	0.000	0.000	0.000
		B	0.000	0.000	0.000	0.000
		C	0.000	0.202	0.056	0.170
T48	46.00-42.00	A	0.000	0.000	0.000	0.000
		B	0.000	0.000	0.000	0.000
		C	0.000	0.200	0.056	0.169
T49	42.00-38.00	A	0.000	0.000	0.000	0.000
		B	0.000	0.000	0.000	0.000
		C	0.000	0.197	0.061	0.180
T50	38.00-34.00	A	0.000	0.000	0.000	0.000
		B	0.000	0.000	0.000	0.000
		C	0.000	0.194	0.061	0.179
T51	34.00-30.00	A	0.000	0.000	0.000	0.000
		B	0.000	0.000	0.000	0.000
		C	0.000	0.190	0.061	0.178

Section	Elevation	Face	A_R	A_R Ice	A_F	A_F Ice
	ft		ft^2	ft^2	ft^2	ft^2
T52	30.00-26.00	A	0.000	0.000	0.000	0.000
		B	0.000	0.000	0.000	0.000
		C	0.000	0.187	0.061	0.176
T53	26.00-22.00	A	0.000	0.000	0.000	0.000
		B	0.000	0.000	0.000	0.000
		C	0.000	0.182	0.061	0.175
T54	22.00-18.00	A	0.000	0.000	0.000	0.000
		B	0.000	0.000	0.000	0.000
		C	0.000	0.177	0.061	0.173
T55	18.00-14.00	A	0.000	0.000	0.000	0.000
		B	0.000	0.000	0.000	0.000
		C	0.000	0.171	0.061	0.170
T56	14.00-10.00	A	0.000	0.000	0.000	0.000
		B	0.000	0.000	0.000	0.000
		C	0.000	0.164	0.061	0.167
T57	10.00-6.00	A	0.000	0.000	0.000	0.000
		B	0.000	0.000	0.000	0.000
		C	0.000	0.077	0.030	0.082
T58	6.00-2.00	A	0.000	0.000	0.000	0.000
		B	0.000	0.000	0.000	0.000
		C	0.000	0.000	0.000	0.000

Feed Line Center of Pressure

Section	Elevation	CP_X	CP_Z	CP_X Ice	CP_Z Ice
	ft	in	in	in	in
T1	276.00-265.50	-2.1145	1.7634	-4.0622	2.9439
T2	265.50-261.75	-0.2001	1.6810	-1.5756	2.7476
T3	261.75-258.00	0.7126	1.3192	-0.1554	1.9707
T4	258.00-254.00	0.9045	1.6413	-0.2103	2.6479
T5	254.00-250.00	0.7287	1.9940	-0.4385	3.1413
T6	250.00-246.00	0.6934	1.8867	-0.3916	2.8023
T7	246.00-242.00	0.6934	1.8867	-0.3910	2.8026
T8	242.00-238.00	0.6934	1.8867	-0.3904	2.8029
T9	238.00-234.00	1.4729	-0.4621	0.3494	1.1729
T10	234.00-230.00	2.1221	-2.2667	0.9872	-0.1847
T11	230.00-226.00	2.1221	-2.2667	0.9882	-0.1855
T12	226.00-222.00	2.1221	-2.2667	0.9891	-0.1864
T13	222.00-206.00	1.6838	-3.5062	0.5948	-2.1121
T14	206.00-202.00	2.2486	-5.4022	1.3589	-3.8645
T15	202.00-198.00	1.9551	-4.7860	1.1024	-3.1689
T16	198.00-194.00	2.3021	-5.3744	1.5230	-3.8058
T17	194.00-182.00	2.3551	-5.3469	1.6830	-3.7487
T18	182.00-162.00	2.3941	-5.1253	1.6983	-3.4257
T19	162.00-158.00	2.2577	-4.3840	1.6177	-2.6440
T20	158.00-154.00	2.2577	-4.3840	1.6184	-2.6453
T21	154.00-150.00	2.2577	-4.3840	1.6193	-2.6466
T22	150.00-146.00	2.2577	-4.3840	1.6201	-2.6480
T23	146.00-142.00	2.2577	-4.3840	1.6210	-2.6494
T24	142.00-138.00	2.2577	-4.3840	1.6219	-2.6509
T25	138.00-134.00	2.1655	-4.2110	1.5079	-2.3974
T26	134.00-130.00	2.1655	-4.2110	1.5093	-2.4003
T27	130.00-126.00	1.9013	-3.7319	1.3760	-2.1798
T28	126.00-122.00	2.1655	-4.2110	1.5123	-2.4065
T29	122.00-118.00	2.2051	-4.2761	1.5339	-2.4510
T30	118.00-114.00	2.1880	-4.2140	1.5127	-2.3676

Section	Elevation	CP_X	CP_Z	CP_X Ice	CP_Z Ice
	ft	in	in	in	in
T31	114.00-110.00	2.1879	-4.1309	1.5319	-2.2965
T32	110.00-106.00	2.1879	-4.1309	1.5332	-2.2988
T33	106.00-102.00	1.9990	-3.7703	1.3989	-2.0956
T34	102.00-98.00	1.8725	-3.5658	1.3004	-1.8954
T35	98.00-94.00	1.8725	-3.5658	1.3022	-1.8993
T36	94.00-90.00	1.8725	-3.5658	1.3042	-1.9034
T37	90.00-86.00	1.8725	-3.5658	1.3062	-1.9076
T38	86.00-82.00	1.8725	-3.5658	1.3084	-1.9122
T39	82.00-78.00	1.8725	-3.5658	1.3107	-1.9170
T40	78.00-74.00	1.8725	-3.5658	1.3132	-1.9221
T41	74.00-70.00	1.8725	-3.5658	1.3158	-1.9275
T42	70.00-66.00	1.8725	-3.5658	1.3186	-1.9333
T43	66.00-62.00	1.8725	-3.5658	1.3216	-1.9395
T44	62.00-58.00	1.8450	-3.5208	1.3092	-1.9145
T45	58.00-54.00	1.8026	-3.5184	1.1172	-1.8218
T46	54.00-50.00	1.7332	-3.4714	0.9139	-1.7004
T47	50.00-46.00	1.7332	-3.4714	0.9187	-1.7092
T48	46.00-42.00	1.7332	-3.4714	0.9239	-1.7188
T49	42.00-38.00	1.8549	-3.7303	0.9993	-1.8521
T50	38.00-34.00	1.8549	-3.7303	1.0063	-1.8652
T51	34.00-30.00	1.8549	-3.7303	1.0143	-1.8799
T52	30.00-26.00	1.8549	-3.7303	1.0234	-1.8967
T53	26.00-22.00	1.8549	-3.7303	1.0341	-1.9163
T54	22.00-18.00	1.9180	-3.6811	1.2431	-1.8086
T55	18.00-14.00	1.9808	-3.6321	1.4495	-1.7094
T56	14.00-10.00	1.9808	-3.6321	1.4669	-1.7476
T57	10.00-6.00	1.3596	-2.3141	1.0578	-0.9278
T58	6.00-2.00	-0.0752	1.0034	-0.1379	1.5848

Shielding Factor Ka

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T1	17	Safety Line 3/8	265.50 - 276.00	0.6000	0.6000
T1	18	Climbing Ladder	265.50 - 276.00	0.6000	0.6000
T1	26	1-1/2"	265.50 - 276.00	0.6000	0.6000
T2	1	EW63	261.75 - 264.00	0.6000	0.6000
T2	2	EW63	261.75 - 264.00	0.6000	0.6000
T2	17	Safety Line 3/8	261.75 - 265.50	0.6000	0.6000
T2	18	Climbing Ladder	261.75 - 265.50	0.6000	0.6000
T2	26	1-1/2"	261.75 - 265.50	0.6000	0.6000
T3	1	EW63	258.00 - 261.75	0.6000	0.4912
T3	2	EW63	258.00 - 261.75	0.6000	0.4912
T3	17	Safety Line 3/8	258.00 - 261.75	0.6000	0.4912

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T3	18	Climbing Ladder	258.00 - 261.75	0.6000	0.4912
T3	26	1-1/2"	258.00 - 261.75	0.6000	0.4912
T4	1	EW63	254.00 - 258.00	0.6000	0.6000
T4	2	EW63	254.00 - 258.00	0.6000	0.6000
T4	17	Safety Line 3/8	254.00 - 258.00	0.6000	0.6000
T4	18	Climbing Ladder	254.00 - 258.00	0.6000	0.6000
T4	26	1-1/2"	254.00 - 258.00	0.6000	0.6000
T5	1	EW63	250.00 - 254.00	0.6000	0.6000
T5	2	EW63	250.00 - 254.00	0.6000	0.6000
T5	3	7/8	250.00 - 254.00	0.6000	0.6000
T5	17	Safety Line 3/8	250.00 - 254.00	0.6000	0.6000
T5	18	Climbing Ladder	250.00 - 254.00	0.6000	0.6000
T5	26	1-1/2"	250.00 - 254.00	0.6000	0.6000
T6	1	EW63	246.00 - 250.00	0.6000	0.5581
T6	2	EW63	246.00 - 250.00	0.6000	0.5581
T6	3	7/8	246.00 - 250.00	0.6000	0.5581
T6	17	Safety Line 3/8	246.00 - 250.00	0.6000	0.5581
T6	18	Climbing Ladder	246.00 - 250.00	0.6000	0.5581
T6	26	1-1/2"	246.00 - 250.00	0.6000	0.5581
T7	1	EW63	242.00 - 246.00	0.6000	0.5583
T7	2	EW63	242.00 - 246.00	0.6000	0.5583
T7	3	7/8	242.00 - 246.00	0.6000	0.5583
T7	17	Safety Line 3/8	242.00 - 246.00	0.6000	0.5583
T7	18	Climbing Ladder	242.00 - 246.00	0.6000	0.5583
T7	26	1-1/2"	242.00 - 246.00	0.6000	0.5583
T8	1	EW63	238.00 - 242.00	0.6000	0.5585
T8	2	EW63	238.00 - 242.00	0.6000	0.5585
T8	3	7/8	238.00 - 242.00	0.6000	0.5585
T8	17	Safety Line 3/8	238.00 - 242.00	0.6000	0.5585
T8	18	Climbing Ladder	238.00 - 242.00	0.6000	0.5585
T8	26	1-1/2"	238.00 - 242.00	0.6000	0.5585

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T9	1	EW63	234.00 - 238.00	0.6000	0.5587
T9	2	EW63	234.00 - 238.00	0.6000	0.5587
T9	3	7/8	234.00 - 238.00	0.6000	0.5587
T9	5	1 5/8	234.00 - 236.00	0.6000	0.5587
T9	14	3/8	234.00 - 236.00	0.6000	0.5587
T9	17	Safety Line 3/8	234.00 - 238.00	0.6000	0.5587
T9	18	Climbing Ladder	234.00 - 238.00	0.6000	0.5587
T9	26	1-1/2"	234.00 - 238.00	0.6000	0.5587
T10	1	EW63	230.00 - 234.00	0.6000	0.5589
T10	2	EW63	230.00 - 234.00	0.6000	0.5589
T10	3	7/8	230.00 - 234.00	0.6000	0.5589
T10	5	1 5/8	230.00 - 234.00	0.6000	0.5589
T10	14	3/8	230.00 - 234.00	0.6000	0.5589
T10	17	Safety Line 3/8	230.00 - 234.00	0.6000	0.5589
T10	18	Climbing Ladder	230.00 - 234.00	0.6000	0.5589
T10	26	1-1/2"	230.00 - 234.00	0.6000	0.5589
T11	1	EW63	226.00 - 230.00	0.6000	0.5591
T11	2	EW63	226.00 - 230.00	0.6000	0.5591
T11	3	7/8	226.00 - 230.00	0.6000	0.5591
T11	5	1 5/8	226.00 - 230.00	0.6000	0.5591
T11	14	3/8	226.00 - 230.00	0.6000	0.5591
T11	17	Safety Line 3/8	226.00 - 230.00	0.6000	0.5591
T11	18	Climbing Ladder	226.00 - 230.00	0.6000	0.5591
T11	26	1-1/2"	226.00 - 230.00	0.6000	0.5591
T12	1	EW63	222.00 - 226.00	0.6000	0.5594
T12	2	EW63	222.00 - 226.00	0.6000	0.5594
T12	3	7/8	222.00 - 226.00	0.6000	0.5594
T12	5	1 5/8	222.00 - 226.00	0.6000	0.5594
T12	14	3/8	222.00 - 226.00	0.6000	0.5594
T12	17	Safety Line 3/8	222.00 - 226.00	0.6000	0.5594
T12	18	Climbing Ladder	222.00 - 226.00	0.6000	0.5594

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T12	26	1-1/2"	222.00 - 226.00	0.6000	0.5594
T13	1	EW63	206.00 - 222.00	0.6000	0.6000
T13	2	EW63	206.00 - 222.00	0.6000	0.6000
T13	3	7/8	206.00 - 222.00	0.6000	0.6000
T13	5	1 5/8	206.00 - 222.00	0.6000	0.6000
T13	7	1 5/8	206.00 - 208.00	0.6000	0.6000
T13	8	1 5/8	206.00 - 208.00	0.6000	0.6000
T13	9	1 5/8	206.00 - 208.00	0.6000	0.6000
T13	10	1 1/4	206.00 - 208.00	0.6000	0.6000
T13	14	3/8	206.00 - 222.00	0.6000	0.6000
T13	17	Safety Line 3/8	206.00 - 222.00	0.6000	0.6000
T13	18	Climbing Ladder	206.00 - 222.00	0.6000	0.6000
T13	21	Fiber	206.00 - 220.00	0.6000	0.6000
T13	22	DC	206.00 - 220.00	0.6000	0.6000
T13	26	1-1/2"	206.00 - 222.00	0.6000	0.6000
T14	1	EW63	202.00 - 206.00	0.6000	0.6000
T14	2	EW63	202.00 - 206.00	0.6000	0.6000
T14	3	7/8	202.00 - 206.00	0.6000	0.6000
T14	5	1 5/8	202.00 - 206.00	0.6000	0.6000
T14	7	1 5/8	202.00 - 206.00	0.6000	0.6000
T14	8	1 5/8	202.00 - 206.00	0.6000	0.6000
T14	9	1 5/8	202.00 - 206.00	0.6000	0.6000
T14	10	1 1/4	202.00 - 206.00	0.6000	0.6000
T14	14	3/8	202.00 - 206.00	0.6000	0.6000
T14	17	Safety Line 3/8	202.00 - 206.00	0.6000	0.6000
T14	18	Climbing Ladder	202.00 - 206.00	0.6000	0.6000
T14	21	Fiber	202.00 - 206.00	0.6000	0.6000
T14	22	DC	202.00 - 206.00	0.6000	0.6000
T14	26	1-1/2"	202.00 - 206.00	0.6000	0.6000
T15	1	EW63	198.00 - 202.00	0.6000	0.4650
T15	2	EW63	198.00 - 202.00	0.6000	0.4650

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T15	3	7/8	198.00 - 202.00	0.6000	0.4650
T15	5	1 5/8	198.00 - 202.00	0.6000	0.4650
T15	7	1 5/8	198.00 - 202.00	0.6000	0.4650
T15	8	1 5/8	198.00 - 202.00	0.6000	0.4650
T15	9	1 5/8	198.00 - 202.00	0.6000	0.4650
T15	10	1 1/4	198.00 - 202.00	0.6000	0.4650
T15	14	3/8	198.00 - 202.00	0.6000	0.4650
T15	17	Safety Line 3/8	198.00 - 202.00	0.6000	0.4650
T15	18	Climbing Ladder	198.00 - 202.00	0.6000	0.4650
T15	21	Fiber	198.00 - 202.00	0.6000	0.4650
T15	22	DC	198.00 - 202.00	0.6000	0.4650
T15	26	1-1/2"	198.00 - 202.00	0.6000	0.4650
T16	1	EW63	194.00 - 198.00	0.6000	0.6000
T16	2	EW63	194.00 - 198.00	0.6000	0.6000
T16	3	7/8	194.00 - 198.00	0.6000	0.6000
T16	5	1 5/8	194.00 - 198.00	0.6000	0.6000
T16	7	1 5/8	194.00 - 198.00	0.6000	0.6000
T16	8	1 5/8	194.00 - 198.00	0.6000	0.6000
T16	9	1 5/8	194.00 - 198.00	0.6000	0.6000
T16	10	1 1/4	194.00 - 198.00	0.6000	0.6000
T16	12	1/2	194.00 - 196.00	0.6000	0.6000
T16	14	3/8	194.00 - 198.00	0.6000	0.6000
T16	17	Safety Line 3/8	194.00 - 198.00	0.6000	0.6000
T16	18	Climbing Ladder	194.00 - 198.00	0.6000	0.6000
T16	21	Fiber	194.00 - 198.00	0.6000	0.6000
T16	22	DC	194.00 - 198.00	0.6000	0.6000
T16	26	1-1/2"	194.00 - 198.00	0.6000	0.6000
T17	1	EW63	182.00 - 194.00	0.6000	0.6000
T17	2	EW63	182.00 - 194.00	0.6000	0.6000
T17	3	7/8	182.00 - 194.00	0.6000	0.6000
T17	5	1 5/8	182.00 - 194.00	0.6000	0.6000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T17	7	1 5/8	182.00 - 194.00	0.6000	0.6000
T17	8	1 5/8	182.00 - 194.00	0.6000	0.6000
T17	9	1 5/8	182.00 - 194.00	0.6000	0.6000
T17	10	1 1/4	182.00 - 194.00	0.6000	0.6000
T17	12	1/2	182.00 - 194.00	0.6000	0.6000
T17	14	3/8	182.00 - 194.00	0.6000	0.6000
T17	17	Safety Line 3/8	182.00 - 194.00	0.6000	0.6000
T17	18	Climbing Ladder	182.00 - 194.00	0.6000	0.6000
T17	21	Fiber	182.00 - 194.00	0.6000	0.6000
T17	22	DC	182.00 - 194.00	0.6000	0.6000
T17	26	1-1/2"	182.00 - 194.00	0.6000	0.6000
T18	1	EW63	162.00 - 182.00	0.6000	0.6000
T18	2	EW63	162.00 - 182.00	0.6000	0.6000
T18	3	7/8	162.00 - 182.00	0.6000	0.6000
T18	5	1 5/8	162.00 - 182.00	0.6000	0.6000
T18	7	1 5/8	162.00 - 182.00	0.6000	0.6000
T18	8	1 5/8	162.00 - 182.00	0.6000	0.6000
T18	9	1 5/8	162.00 - 182.00	0.6000	0.6000
T18	10	1 1/4	162.00 - 182.00	0.6000	0.6000
T18	12	1/2	162.00 - 182.00	0.6000	0.6000
T18	13	1/2	162.00 - 164.00	0.6000	0.6000
T18	14	3/8	162.00 - 182.00	0.6000	0.6000
T18	17	Safety Line 3/8	162.00 - 182.00	0.6000	0.6000
T18	18	Climbing Ladder	162.00 - 182.00	0.6000	0.6000
T18	21	Fiber	162.00 - 182.00	0.6000	0.6000
T18	22	DC	162.00 - 182.00	0.6000	0.6000
T18	26	1-1/2"	162.00 - 182.00	0.6000	0.6000
T18	36	4 AWG HYBRID	162.00 - 170.00	1.0000	1.0000
T19	1	EW63	158.00 - 162.00	0.6000	0.6000
T19	2	EW63	158.00 - 162.00	0.6000	0.6000
T19	3	7/8	158.00 - 162.00	0.6000	0.6000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T19	4	7/8	158.00 - 162.00	0.6000	0.6000
T19	5	1 5/8	158.00 - 162.00	0.6000	0.6000
T19	7	1 5/8	158.00 - 162.00	0.6000	0.6000
T19	8	1 5/8	158.00 - 162.00	0.6000	0.6000
T19	9	1 5/8	158.00 - 162.00	0.6000	0.6000
T19	10	1 1/4	158.00 - 162.00	0.6000	0.6000
T19	12	1/2	158.00 - 162.00	0.6000	0.6000
T19	13	1/2	158.00 - 162.00	0.6000	0.6000
T19	14	3/8	158.00 - 162.00	0.6000	0.6000
T19	17	Safety Line 3/8	158.00 - 162.00	0.6000	0.6000
T19	18	Climbing Ladder	158.00 - 162.00	0.6000	0.6000
T19	21	Fiber	158.00 - 162.00	0.6000	0.6000
T19	22	DC	158.00 - 162.00	0.6000	0.6000
T19	26	1-1/2"	158.00 - 162.00	0.6000	0.6000
T19	36	4 AWG HYBRID	158.00 - 162.00	1.0000	1.0000
T20	1	EW63	154.00 - 158.00	0.6000	0.6000
T20	2	EW63	154.00 - 158.00	0.6000	0.6000
T20	3	7/8	154.00 - 158.00	0.6000	0.6000
T20	4	7/8	154.00 - 158.00	0.6000	0.6000
T20	5	1 5/8	154.00 - 158.00	0.6000	0.6000
T20	7	1 5/8	154.00 - 158.00	0.6000	0.6000
T20	8	1 5/8	154.00 - 158.00	0.6000	0.6000
T20	9	1 5/8	154.00 - 158.00	0.6000	0.6000
T20	10	1 1/4	154.00 - 158.00	0.6000	0.6000
T20	12	1/2	154.00 - 158.00	0.6000	0.6000
T20	13	1/2	154.00 - 158.00	0.6000	0.6000
T20	14	3/8	154.00 - 158.00	0.6000	0.6000
T20	17	Safety Line 3/8	154.00 - 158.00	0.6000	0.6000
T20	18	Climbing Ladder	154.00 - 158.00	0.6000	0.6000
T20	21	Fiber	154.00 - 158.00	0.6000	0.6000
T20	22	DC	154.00 - 158.00	0.6000	0.6000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T20	26	1-1/2"	154.00 - 158.00	0.6000	0.6000
T20	36	4 AWG HYBRID	154.00 - 158.00	1.0000	1.0000
T21	1	EW63	150.00 - 154.00	0.6000	0.6000
T21	2	EW63	150.00 - 154.00	0.6000	0.6000
T21	3	7/8	150.00 - 154.00	0.6000	0.6000
T21	4	7/8	150.00 - 154.00	0.6000	0.6000
T21	5	1 5/8	150.00 - 154.00	0.6000	0.6000
T21	7	1 5/8	150.00 - 154.00	0.6000	0.6000
T21	8	1 5/8	150.00 - 154.00	0.6000	0.6000
T21	9	1 5/8	150.00 - 154.00	0.6000	0.6000
T21	10	1 1/4	150.00 - 154.00	0.6000	0.6000
T21	12	1/2	150.00 - 154.00	0.6000	0.6000
T21	13	1/2	150.00 - 154.00	0.6000	0.6000
T21	14	3/8	150.00 - 154.00	0.6000	0.6000
T21	17	Safety Line 3/8	150.00 - 154.00	0.6000	0.6000
T21	18	Climbing Ladder	150.00 - 154.00	0.6000	0.6000
T21	21	Fiber	150.00 - 154.00	0.6000	0.6000
T21	22	DC	150.00 - 154.00	0.6000	0.6000
T21	26	1-1/2"	150.00 - 154.00	0.6000	0.6000
T21	36	4 AWG HYBRID	150.00 - 154.00	1.0000	1.0000
T22	1	EW63	146.00 - 150.00	0.6000	0.6000
T22	2	EW63	146.00 - 150.00	0.6000	0.6000
T22	3	7/8	146.00 - 150.00	0.6000	0.6000
T22	4	7/8	146.00 - 150.00	0.6000	0.6000
T22	5	1 5/8	146.00 - 150.00	0.6000	0.6000
T22	7	1 5/8	146.00 - 150.00	0.6000	0.6000
T22	8	1 5/8	146.00 - 150.00	0.6000	0.6000
T22	9	1 5/8	146.00 - 150.00	0.6000	0.6000
T22	10	1 1/4	146.00 - 150.00	0.6000	0.6000
T22	12	1/2	146.00 - 150.00	0.6000	0.6000
T22	13	1/2	146.00 - 150.00	0.6000	0.6000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T22	14	3/8	146.00 - 150.00	0.6000	0.6000
T22	17	Safety Line 3/8	146.00 - 150.00	0.6000	0.6000
T22	18	Climbing Ladder	146.00 - 150.00	0.6000	0.6000
T22	21	Fiber	146.00 - 150.00	0.6000	0.6000
T22	22	DC	146.00 - 150.00	0.6000	0.6000
T22	26	1-1/2"	146.00 - 150.00	0.6000	0.6000
T22	36	4 AWG HYBRID	146.00 - 150.00	1.0000	1.0000
T23	1	EW63	142.00 - 146.00	0.6000	0.6000
T23	2	EW63	142.00 - 146.00	0.6000	0.6000
T23	3	7/8	142.00 - 146.00	0.6000	0.6000
T23	4	7/8	142.00 - 146.00	0.6000	0.6000
T23	5	1 5/8	142.00 - 146.00	0.6000	0.6000
T23	7	1 5/8	142.00 - 146.00	0.6000	0.6000
T23	8	1 5/8	142.00 - 146.00	0.6000	0.6000
T23	9	1 5/8	142.00 - 146.00	0.6000	0.6000
T23	10	1 1/4	142.00 - 146.00	0.6000	0.6000
T23	12	1/2	142.00 - 146.00	0.6000	0.6000
T23	13	1/2	142.00 - 146.00	0.6000	0.6000
T23	14	3/8	142.00 - 146.00	0.6000	0.6000
T23	17	Safety Line 3/8	142.00 - 146.00	0.6000	0.6000
T23	18	Climbing Ladder	142.00 - 146.00	0.6000	0.6000
T23	21	Fiber	142.00 - 146.00	0.6000	0.6000
T23	22	DC	142.00 - 146.00	0.6000	0.6000
T23	26	1-1/2"	142.00 - 146.00	0.6000	0.6000
T23	36	4 AWG HYBRID	142.00 - 146.00	1.0000	1.0000
T24	1	EW63	138.00 - 142.00	0.6000	0.6000
T24	2	EW63	138.00 - 142.00	0.6000	0.6000
T24	3	7/8	138.00 - 142.00	0.6000	0.6000
T24	4	7/8	138.00 - 142.00	0.6000	0.6000
T24	5	1 5/8	138.00 - 142.00	0.6000	0.6000
T24	7	1 5/8	138.00 - 142.00	0.6000	0.6000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T24	8	1 5/8	138.00 - 142.00	0.6000	0.6000
T24	9	1 5/8	138.00 - 142.00	0.6000	0.6000
T24	10	1 1/4	138.00 - 142.00	0.6000	0.6000
T24	12	1/2	138.00 - 142.00	0.6000	0.6000
T24	13	1/2	138.00 - 142.00	0.6000	0.6000
T24	14	3/8	138.00 - 142.00	0.6000	0.6000
T24	17	Safety Line 3/8	138.00 - 142.00	0.6000	0.6000
T24	18	Climbing Ladder	138.00 - 142.00	0.6000	0.6000
T24	21	Fiber	138.00 - 142.00	0.6000	0.6000
T24	22	DC	138.00 - 142.00	0.6000	0.6000
T24	26	1-1/2"	138.00 - 142.00	0.6000	0.6000
T24	36	4 AWG HYBRID	138.00 - 142.00	1.0000	1.0000
T25	1	EW63	134.00 - 138.00	0.6000	0.5450
T25	2	EW63	134.00 - 138.00	0.6000	0.5450
T25	3	7/8	134.00 - 138.00	0.6000	0.5450
T25	4	7/8	134.00 - 138.00	0.6000	0.5450
T25	5	1 5/8	134.00 - 138.00	0.6000	0.5450
T25	7	1 5/8	134.00 - 138.00	0.6000	0.5450
T25	8	1 5/8	134.00 - 138.00	0.6000	0.5450
T25	9	1 5/8	134.00 - 138.00	0.6000	0.5450
T25	10	1 1/4	134.00 - 138.00	0.6000	0.5450
T25	12	1/2	134.00 - 138.00	0.6000	0.5450
T25	13	1/2	134.00 - 138.00	0.6000	0.5450
T25	14	3/8	134.00 - 138.00	0.6000	0.5450
T25	17	Safety Line 3/8	134.00 - 138.00	0.6000	0.5450
T25	18	Climbing Ladder	134.00 - 138.00	0.6000	0.5450
T25	21	Fiber	134.00 - 138.00	0.6000	0.5450
T25	22	DC	134.00 - 138.00	0.6000	0.5450
T25	26	1-1/2"	134.00 - 138.00	0.6000	0.5450
T25	36	4 AWG HYBRID	134.00 - 138.00	1.0000	1.0000
T26	1	EW63	130.00 - 134.00	0.6000	0.5455

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T26	2	EW63	130.00 - 134.00	0.6000	0.5455
T26	3	7/8	130.00 - 134.00	0.6000	0.5455
T26	4	7/8	130.00 - 134.00	0.6000	0.5455
T26	5	1 5/8	130.00 - 134.00	0.6000	0.5455
T26	7	1 5/8	130.00 - 134.00	0.6000	0.5455
T26	8	1 5/8	130.00 - 134.00	0.6000	0.5455
T26	9	1 5/8	130.00 - 134.00	0.6000	0.5455
T26	10	1 1/4	130.00 - 134.00	0.6000	0.5455
T26	12	1/2	130.00 - 134.00	0.6000	0.5455
T26	13	1/2	130.00 - 134.00	0.6000	0.5455
T26	14	3/8	130.00 - 134.00	0.6000	0.5455
T26	17	Safety Line 3/8	130.00 - 134.00	0.6000	0.5455
T26	18	Climbing Ladder	130.00 - 134.00	0.6000	0.5455
T26	21	Fiber	130.00 - 134.00	0.6000	0.5455
T26	22	DC	130.00 - 134.00	0.6000	0.5455
T26	26	1-1/2"	130.00 - 134.00	0.6000	0.5455
T26	36	4 AWG HYBRID	130.00 - 134.00	1.0000	1.0000
T27	1	EW63	126.00 - 130.00	0.6000	0.5323
T27	2	EW63	126.00 - 130.00	0.6000	0.5323
T27	3	7/8	126.00 - 130.00	0.6000	0.5323
T27	4	7/8	126.00 - 130.00	0.6000	0.5323
T27	5	1 5/8	126.00 - 130.00	0.6000	0.5323
T27	7	1 5/8	126.00 - 130.00	0.6000	0.5323
T27	8	1 5/8	126.00 - 130.00	0.6000	0.5323
T27	9	1 5/8	126.00 - 130.00	0.6000	0.5323
T27	10	1 1/4	126.00 - 130.00	0.6000	0.5323
T27	12	1/2	126.00 - 130.00	0.6000	0.5323
T27	13	1/2	126.00 - 130.00	0.6000	0.5323
T27	14	3/8	126.00 - 130.00	0.6000	0.5323
T27	17	Safety Line 3/8	126.00 - 130.00	0.6000	0.5323
T27	18	Climbing Ladder	126.00 - 130.00	0.6000	0.5323

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T27	21	Fiber	126.00 - 130.00	0.6000	0.5323
T27	22	DC	126.00 - 130.00	0.6000	0.5323
T27	26	1-1/2"	126.00 - 130.00	0.6000	0.5323
T27	32	L2x2x3/16 half bay brace	126.00 - 130.00	0.6000	0.5323
T27	33	L2x2x3/16 half bay brace	126.00 - 130.00	0.6000	0.5323
T27	34	L2x2x3/16 half bay brace	126.00 - 130.00	0.6000	0.5323
T27	36	4 AWG HYBRID	126.00 - 130.00	1.0000	1.0000
T28	1	EW63	122.00 - 126.00	0.6000	0.5465
T28	2	EW63	122.00 - 126.00	0.6000	0.5465
T28	3	7/8	122.00 - 126.00	0.6000	0.5465
T28	4	7/8	122.00 - 126.00	0.6000	0.5465
T28	5	1 5/8	122.00 - 126.00	0.6000	0.5465
T28	7	1 5/8	122.00 - 126.00	0.6000	0.5465
T28	8	1 5/8	122.00 - 126.00	0.6000	0.5465
T28	9	1 5/8	122.00 - 126.00	0.6000	0.5465
T28	10	1 1/4	122.00 - 126.00	0.6000	0.5465
T28	12	1/2	122.00 - 126.00	0.6000	0.5465
T28	13	1/2	122.00 - 126.00	0.6000	0.5465
T28	14	3/8	122.00 - 126.00	0.6000	0.5465
T28	17	Safety Line 3/8	122.00 - 126.00	0.6000	0.5465
T28	18	Climbing Ladder	122.00 - 126.00	0.6000	0.5465
T28	21	Fiber	122.00 - 126.00	0.6000	0.5465
T28	22	DC	122.00 - 126.00	0.6000	0.5465
T28	26	1-1/2"	122.00 - 126.00	0.6000	0.5465
T28	36	4 AWG HYBRID	122.00 - 126.00	1.0000	1.0000
T29	1	EW63	118.00 - 122.00	0.6000	0.5561
T29	2	EW63	118.00 - 122.00	0.6000	0.5561
T29	3	7/8	118.00 - 122.00	0.6000	0.5561
T29	4	7/8	118.00 - 122.00	0.6000	0.5561
T29	5	1 5/8	118.00 - 122.00	0.6000	0.5561
T29	7	1 5/8	118.00 - 122.00	0.6000	0.5561

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T29	8	1 5/8	118.00 - 122.00	0.6000	0.5561
T29	9	1 5/8	118.00 - 122.00	0.6000	0.5561
T29	10	1 1/4	118.00 - 122.00	0.6000	0.5561
T29	12	1/2	118.00 - 122.00	0.6000	0.5561
T29	13	1/2	118.00 - 122.00	0.6000	0.5561
T29	14	3/8	118.00 - 122.00	0.6000	0.5561
T29	17	Safety Line 3/8	118.00 - 122.00	0.6000	0.5561
T29	18	Climbing Ladder	118.00 - 122.00	0.6000	0.5561
T29	21	Fiber	118.00 - 122.00	0.6000	0.5561
T29	22	DC	118.00 - 122.00	0.6000	0.5561
T29	26	1-1/2"	118.00 - 122.00	0.6000	0.5561
T29	36	4 AWG HYBRID	118.00 - 122.00	1.0000	1.0000
T30	1	EW63	114.00 - 118.00	0.6000	0.5567
T30	2	EW63	114.00 - 118.00	0.6000	0.5567
T30	3	7/8	114.00 - 118.00	0.6000	0.5567
T30	4	7/8	114.00 - 118.00	0.6000	0.5567
T30	5	1 5/8	114.00 - 118.00	0.6000	0.5567
T30	7	1 5/8	114.00 - 118.00	0.6000	0.5567
T30	8	1 5/8	114.00 - 118.00	0.6000	0.5567
T30	9	1 5/8	114.00 - 118.00	0.6000	0.5567
T30	10	1 1/4	114.00 - 118.00	0.6000	0.5567
T30	12	1/2	114.00 - 118.00	0.6000	0.5567
T30	13	1/2	114.00 - 118.00	0.6000	0.5567
T30	14	3/8	114.00 - 118.00	0.6000	0.5567
T30	17	Safety Line 3/8	114.00 - 118.00	0.6000	0.5567
T30	18	Climbing Ladder	114.00 - 118.00	0.6000	0.5567
T30	21	Fiber	114.00 - 118.00	0.6000	0.5567
T30	22	DC	114.00 - 118.00	0.6000	0.5567
T30	26	1-1/2"	114.00 - 118.00	0.6000	0.5567
T30	27	7/8	114.00 - 115.00	0.6000	0.5567
T30	36	4 AWG HYBRID	114.00 - 118.00	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T31	1	EW63	110.00 - 114.00	0.6000	0.6000
T31	2	EW63	110.00 - 114.00	0.6000	0.6000
T31	3	7/8	110.00 - 114.00	0.6000	0.6000
T31	4	7/8	110.00 - 114.00	0.6000	0.6000
T31	5	1 5/8	110.00 - 114.00	0.6000	0.6000
T31	7	1 5/8	110.00 - 114.00	0.6000	0.6000
T31	8	1 5/8	110.00 - 114.00	0.6000	0.6000
T31	9	1 5/8	110.00 - 114.00	0.6000	0.6000
T31	10	1 1/4	110.00 - 114.00	0.6000	0.6000
T31	12	1/2	110.00 - 114.00	0.6000	0.6000
T31	13	1/2	110.00 - 114.00	0.6000	0.6000
T31	14	3/8	110.00 - 114.00	0.6000	0.6000
T31	17	Safety Line 3/8	110.00 - 114.00	0.6000	0.6000
T31	18	Climbing Ladder	110.00 - 114.00	0.6000	0.6000
T31	21	Fiber	110.00 - 114.00	0.6000	0.6000
T31	22	DC	110.00 - 114.00	0.6000	0.6000
T31	26	1-1/2"	110.00 - 114.00	0.6000	0.6000
T31	27	7/8	110.00 - 114.00	0.6000	0.6000
T31	36	4 AWG HYBRID	110.00 - 114.00	1.0000	1.0000
T32	1	EW63	106.00 - 110.00	0.6000	0.6000
T32	2	EW63	106.00 - 110.00	0.6000	0.6000
T32	3	7/8	106.00 - 110.00	0.6000	0.6000
T32	4	7/8	106.00 - 110.00	0.6000	0.6000
T32	5	1 5/8	106.00 - 110.00	0.6000	0.6000
T32	7	1 5/8	106.00 - 110.00	0.6000	0.6000
T32	8	1 5/8	106.00 - 110.00	0.6000	0.6000
T32	9	1 5/8	106.00 - 110.00	0.6000	0.6000
T32	10	1 1/4	106.00 - 110.00	0.6000	0.6000
T32	12	1/2	106.00 - 110.00	0.6000	0.6000
T32	13	1/2	106.00 - 110.00	0.6000	0.6000
T32	14	3/8	106.00 - 110.00	0.6000	0.6000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T32	17	Safety Line 3/8	106.00 - 110.00	0.6000	0.6000
T32	18	Climbing Ladder	106.00 - 110.00	0.6000	0.6000
T32	21	Fiber	106.00 - 110.00	0.6000	0.6000
T32	22	DC	106.00 - 110.00	0.6000	0.6000
T32	26	1-1/2"	106.00 - 110.00	0.6000	0.6000
T32	27	7/8	106.00 - 110.00	0.6000	0.6000
T32	36	4 AWG HYBRID	106.00 - 110.00	1.0000	1.0000
T33	1	EW63	102.00 - 106.00	0.6000	0.6000
T33	2	EW63	102.00 - 106.00	0.6000	0.6000
T33	3	7/8	102.00 - 106.00	0.6000	0.6000
T33	4	7/8	102.00 - 106.00	0.6000	0.6000
T33	5	1 5/8	102.00 - 106.00	0.6000	0.6000
T33	7	1 5/8	102.00 - 106.00	0.6000	0.6000
T33	8	1 5/8	102.00 - 106.00	0.6000	0.6000
T33	9	1 5/8	102.00 - 106.00	0.6000	0.6000
T33	10	1 1/4	102.00 - 106.00	0.6000	0.6000
T33	12	1/2	102.00 - 106.00	0.6000	0.6000
T33	13	1/2	102.00 - 106.00	0.6000	0.6000
T33	14	3/8	102.00 - 106.00	0.6000	0.6000
T33	17	Safety Line 3/8	102.00 - 106.00	0.6000	0.6000
T33	18	Climbing Ladder	102.00 - 106.00	0.6000	0.6000
T33	21	Fiber	102.00 - 106.00	0.6000	0.6000
T33	22	DC	102.00 - 106.00	0.6000	0.6000
T33	26	1-1/2"	102.00 - 106.00	0.6000	0.6000
T33	27	7/8	102.00 - 106.00	0.6000	0.6000
T33	29	L2x2x3/16 half bay brace	102.00 - 106.00	0.6000	0.6000
T33	30	L2x2x3/16 half bay brace	102.00 - 106.00	0.6000	0.6000
T33	31	L2x2x3/16 half bay brace	102.00 - 106.00	0.6000	0.6000
T33	36	4 AWG HYBRID	102.00 - 106.00	1.0000	1.0000
T34	1	EW63	98.00 - 102.00	0.6000	0.5455
T34	2	EW63	98.00 - 102.00	0.6000	0.5455
T34	3	7/8	98.00 - 102.00	0.6000	0.5455
T34	4	7/8	98.00 - 102.00	0.6000	0.5455

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T34	5	1 5/8	98.00 - 102.00	0.6000	0.5455
T34	7	1 5/8	98.00 - 102.00	0.6000	0.5455
T34	8	1 5/8	98.00 - 102.00	0.6000	0.5455
T34	9	1 5/8	98.00 - 102.00	0.6000	0.5455
T34	10	1 1/4	98.00 - 102.00	0.6000	0.5455
T34	12	1/2	98.00 - 102.00	0.6000	0.5455
T34	13	1/2	98.00 - 102.00	0.6000	0.5455
T34	14	3/8	98.00 - 102.00	0.6000	0.5455
T34	17	Safety Line 3/8	98.00 - 102.00	0.6000	0.5455
T34	18	Climbing Ladder	98.00 - 102.00	0.6000	0.5455
T34	21	Fiber	98.00 - 102.00	0.6000	0.5455
T34	22	DC	98.00 - 102.00	0.6000	0.5455
T34	26	1-1/2"	98.00 - 102.00	0.6000	0.5455
T34	27	7/8	98.00 - 102.00	0.6000	0.5455
T34	29	L2x2x3/16 half bay brace	98.00 - 102.00	0.6000	0.5455
T34	30	L2x2x3/16 half bay brace	98.00 - 102.00	0.6000	0.5455
T34	31	L2x2x3/16 half bay brace	98.00 - 102.00	0.6000	0.5455
T34	36	4 AWG HYBRID	98.00 - 102.00	1.0000	1.0000
T35	1	EW63	94.00 - 98.00	0.6000	0.5462
T35	2	EW63	94.00 - 98.00	0.6000	0.5462
T35	3	7/8	94.00 - 98.00	0.6000	0.5462
T35	4	7/8	94.00 - 98.00	0.6000	0.5462
T35	5	1 5/8	94.00 - 98.00	0.6000	0.5462
T35	7	1 5/8	94.00 - 98.00	0.6000	0.5462
T35	8	1 5/8	94.00 - 98.00	0.6000	0.5462
T35	9	1 5/8	94.00 - 98.00	0.6000	0.5462
T35	10	1 1/4	94.00 - 98.00	0.6000	0.5462
T35	12	1/2	94.00 - 98.00	0.6000	0.5462
T35	13	1/2	94.00 - 98.00	0.6000	0.5462
T35	14	3/8	94.00 - 98.00	0.6000	0.5462
T35	17	Safety Line 3/8	94.00 - 98.00	0.6000	0.5462
T35	18	Climbing Ladder	94.00 - 98.00	0.6000	0.5462
T35	21	Fiber	94.00 - 98.00	0.6000	0.5462
T35	22	DC	94.00 - 98.00	0.6000	0.5462
T35	26	1-1/2"	94.00 - 98.00	0.6000	0.5462
T35	27	7/8	94.00 - 98.00	0.6000	0.5462
T35	29	L2x2x3/16 half bay brace	94.00 - 98.00	0.6000	0.5462
T35	30	L2x2x3/16 half bay brace	94.00 - 98.00	0.6000	0.5462
T35	31	L2x2x3/16 half bay brace	94.00 - 98.00	0.6000	0.5462
T35	36	4 AWG HYBRID	94.00 - 98.00	1.0000	1.0000
T36	1	EW63	90.00 - 94.00	0.6000	0.5469
T36	2	EW63	90.00 - 94.00	0.6000	0.5469
T36	3	7/8	90.00 - 94.00	0.6000	0.5469
T36	4	7/8	90.00 - 94.00	0.6000	0.5469
T36	5	1 5/8	90.00 - 94.00	0.6000	0.5469
T36	7	1 5/8	90.00 - 94.00	0.6000	0.5469
T36	8	1 5/8	90.00 - 94.00	0.6000	0.5469
T36	9	1 5/8	90.00 - 94.00	0.6000	0.5469
T36	10	1 1/4	90.00 - 94.00	0.6000	0.5469
T36	12	1/2	90.00 - 94.00	0.6000	0.5469
T36	13	1/2	90.00 - 94.00	0.6000	0.5469
T36	14	3/8	90.00 - 94.00	0.6000	0.5469
T36	17	Safety Line 3/8	90.00 - 94.00	0.6000	0.5469
T36	18	Climbing Ladder	90.00 - 94.00	0.6000	0.5469
T36	21	Fiber	90.00 - 94.00	0.6000	0.5469
T36	22	DC	90.00 - 94.00	0.6000	0.5469
T36	26	1-1/2"	90.00 - 94.00	0.6000	0.5469
T36	27	7/8	90.00 - 94.00	0.6000	0.5469
T36	29	L2x2x3/16 half bay brace	90.00 - 94.00	0.6000	0.5469
T36	30	L2x2x3/16 half bay brace	90.00 - 94.00	0.6000	0.5469
T36	31	L2x2x3/16 half bay brace	90.00 - 94.00	0.6000	0.5469
T36	36	4 AWG HYBRID	90.00 - 94.00	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T37	1	EW63	86.00 - 90.00	0.6000	0.5477
T37	2	EW63	86.00 - 90.00	0.6000	0.5477
T37	3	7/8	86.00 - 90.00	0.6000	0.5477
T37	4	7/8	86.00 - 90.00	0.6000	0.5477
T37	5	1 5/8	86.00 - 90.00	0.6000	0.5477
T37	7	1 5/8	86.00 - 90.00	0.6000	0.5477
T37	8	1 5/8	86.00 - 90.00	0.6000	0.5477
T37	9	1 5/8	86.00 - 90.00	0.6000	0.5477
T37	10	1 1/4	86.00 - 90.00	0.6000	0.5477
T37	12	1/2	86.00 - 90.00	0.6000	0.5477
T37	13	1/2	86.00 - 90.00	0.6000	0.5477
T37	14	3/8	86.00 - 90.00	0.6000	0.5477
T37	17	Safety Line 3/8	86.00 - 90.00	0.6000	0.5477
T37	18	Climbing Ladder	86.00 - 90.00	0.6000	0.5477
T37	21	Fiber	86.00 - 90.00	0.6000	0.5477
T37	22	DC	86.00 - 90.00	0.6000	0.5477
T37	26	1-1/2"	86.00 - 90.00	0.6000	0.5477
T37	27	7/8	86.00 - 90.00	0.6000	0.5477
T37	29	L2x2x3/16 half bay brace	86.00 - 90.00	0.6000	0.5477
T37	30	L2x2x3/16 half bay brace	86.00 - 90.00	0.6000	0.5477
T37	31	L2x2x3/16 half bay brace	86.00 - 90.00	0.6000	0.5477
T37	36	4 AWG HYBRID	86.00 - 90.00	1.0000	1.0000
T38	1	EW63	82.00 - 86.00	0.6000	0.5485
T38	2	EW63	82.00 - 86.00	0.6000	0.5485
T38	3	7/8	82.00 - 86.00	0.6000	0.5485
T38	4	7/8	82.00 - 86.00	0.6000	0.5485
T38	5	1 5/8	82.00 - 86.00	0.6000	0.5485
T38	7	1 5/8	82.00 - 86.00	0.6000	0.5485
T38	8	1 5/8	82.00 - 86.00	0.6000	0.5485
T38	9	1 5/8	82.00 - 86.00	0.6000	0.5485
T38	10	1 1/4	82.00 - 86.00	0.6000	0.5485
T38	12	1/2	82.00 - 86.00	0.6000	0.5485
T38	13	1/2	82.00 - 86.00	0.6000	0.5485
T38	14	3/8	82.00 - 86.00	0.6000	0.5485
T38	17	Safety Line 3/8	82.00 - 86.00	0.6000	0.5485
T38	18	Climbing Ladder	82.00 - 86.00	0.6000	0.5485
T38	21	Fiber	82.00 - 86.00	0.6000	0.5485
T38	22	DC	82.00 - 86.00	0.6000	0.5485
T38	26	1-1/2"	82.00 - 86.00	0.6000	0.5485
T38	27	7/8	82.00 - 86.00	0.6000	0.5485
T38	29	L2x2x3/16 half bay brace	82.00 - 86.00	0.6000	0.5485
T38	30	L2x2x3/16 half bay brace	82.00 - 86.00	0.6000	0.5485
T38	31	L2x2x3/16 half bay brace	82.00 - 86.00	0.6000	0.5485
T38	36	4 AWG HYBRID	82.00 - 86.00	1.0000	1.0000
T39	1	EW63	78.00 - 82.00	0.6000	0.5493
T39	2	EW63	78.00 - 82.00	0.6000	0.5493
T39	3	7/8	78.00 - 82.00	0.6000	0.5493
T39	4	7/8	78.00 - 82.00	0.6000	0.5493
T39	5	1 5/8	78.00 - 82.00	0.6000	0.5493
T39	7	1 5/8	78.00 - 82.00	0.6000	0.5493
T39	8	1 5/8	78.00 - 82.00	0.6000	0.5493
T39	9	1 5/8	78.00 - 82.00	0.6000	0.5493
T39	10	1 1/4	78.00 - 82.00	0.6000	0.5493
T39	12	1/2	78.00 - 82.00	0.6000	0.5493
T39	13	1/2	78.00 - 82.00	0.6000	0.5493
T39	14	3/8	78.00 - 82.00	0.6000	0.5493
T39	17	Safety Line 3/8	78.00 - 82.00	0.6000	0.5493
T39	18	Climbing Ladder	78.00 - 82.00	0.6000	0.5493
T39	21	Fiber	78.00 - 82.00	0.6000	0.5493
T39	22	DC	78.00 - 82.00	0.6000	0.5493
T39	26	1-1/2"	78.00 - 82.00	0.6000	0.5493
T39	27	7/8	78.00 - 82.00	0.6000	0.5493

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T39	29	L2x2x3/16 half bay brace	78.00 - 82.00	0.6000	0.5493
T39	30	L2x2x3/16 half bay brace	78.00 - 82.00	0.6000	0.5493
T39	31	L2x2x3/16 half bay brace	78.00 - 82.00	0.6000	0.5493
T39	36	4 AWG HYBRID	78.00 - 82.00	1.0000	1.0000
T40	1	EW63	74.00 - 78.00	0.6000	0.5503
T40	2	EW63	74.00 - 78.00	0.6000	0.5503
T40	3	7/8	74.00 - 78.00	0.6000	0.5503
T40	4	7/8	74.00 - 78.00	0.6000	0.5503
T40	5	1 5/8	74.00 - 78.00	0.6000	0.5503
T40	7	1 5/8	74.00 - 78.00	0.6000	0.5503
T40	8	1 5/8	74.00 - 78.00	0.6000	0.5503
T40	9	1 5/8	74.00 - 78.00	0.6000	0.5503
T40	10	1 1/4	74.00 - 78.00	0.6000	0.5503
T40	12	1/2	74.00 - 78.00	0.6000	0.5503
T40	13	1/2	74.00 - 78.00	0.6000	0.5503
T40	14	3/8	74.00 - 78.00	0.6000	0.5503
T40	17	Safety Line 3/8	74.00 - 78.00	0.6000	0.5503
T40	18	Climbing Ladder	74.00 - 78.00	0.6000	0.5503
T40	21	Fiber	74.00 - 78.00	0.6000	0.5503
T40	22	DC	74.00 - 78.00	0.6000	0.5503
T40	26	1-1/2"	74.00 - 78.00	0.6000	0.5503
T40	27	7/8	74.00 - 78.00	0.6000	0.5503
T40	29	L2x2x3/16 half bay brace	74.00 - 78.00	0.6000	0.5503
T40	30	L2x2x3/16 half bay brace	74.00 - 78.00	0.6000	0.5503
T40	31	L2x2x3/16 half bay brace	74.00 - 78.00	0.6000	0.5503
T40	36	4 AWG HYBRID	74.00 - 78.00	1.0000	1.0000
T41	1	EW63	70.00 - 74.00	0.6000	0.5512
T41	2	EW63	70.00 - 74.00	0.6000	0.5512
T41	3	7/8	70.00 - 74.00	0.6000	0.5512
T41	4	7/8	70.00 - 74.00	0.6000	0.5512
T41	5	1 5/8	70.00 - 74.00	0.6000	0.5512
T41	7	1 5/8	70.00 - 74.00	0.6000	0.5512
T41	8	1 5/8	70.00 - 74.00	0.6000	0.5512
T41	9	1 5/8	70.00 - 74.00	0.6000	0.5512
T41	10	1 1/4	70.00 - 74.00	0.6000	0.5512
T41	12	1/2	70.00 - 74.00	0.6000	0.5512
T41	13	1/2	70.00 - 74.00	0.6000	0.5512
T41	14	3/8	70.00 - 74.00	0.6000	0.5512
T41	17	Safety Line 3/8	70.00 - 74.00	0.6000	0.5512
T41	18	Climbing Ladder	70.00 - 74.00	0.6000	0.5512
T41	21	Fiber	70.00 - 74.00	0.6000	0.5512
T41	22	DC	70.00 - 74.00	0.6000	0.5512
T41	26	1-1/2"	70.00 - 74.00	0.6000	0.5512
T41	27	7/8	70.00 - 74.00	0.6000	0.5512
T41	29	L2x2x3/16 half bay brace	70.00 - 74.00	0.6000	0.5512
T41	30	L2x2x3/16 half bay brace	70.00 - 74.00	0.6000	0.5512
T41	31	L2x2x3/16 half bay brace	70.00 - 74.00	0.6000	0.5512
T41	36	4 AWG HYBRID	70.00 - 74.00	1.0000	1.0000
T42	1	EW63	66.00 - 70.00	0.6000	0.5523
T42	2	EW63	66.00 - 70.00	0.6000	0.5523
T42	3	7/8	66.00 - 70.00	0.6000	0.5523
T42	4	7/8	66.00 - 70.00	0.6000	0.5523
T42	5	1 5/8	66.00 - 70.00	0.6000	0.5523
T42	7	1 5/8	66.00 - 70.00	0.6000	0.5523
T42	8	1 5/8	66.00 - 70.00	0.6000	0.5523
T42	9	1 5/8	66.00 - 70.00	0.6000	0.5523
T42	10	1 1/4	66.00 - 70.00	0.6000	0.5523
T42	12	1/2	66.00 - 70.00	0.6000	0.5523
T42	13	1/2	66.00 - 70.00	0.6000	0.5523
T42	14	3/8	66.00 - 70.00	0.6000	0.5523
T42	17	Safety Line 3/8	66.00 - 70.00	0.6000	0.5523
T42	18	Climbing Ladder	66.00 - 70.00	0.6000	0.5523

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T42	21	Fiber	66.00 - 70.00	0.6000	0.5523
T42	22	DC	66.00 - 70.00	0.6000	0.5523
T42	26	1-1/2"	66.00 - 70.00	0.6000	0.5523
T42	27	7/8	66.00 - 70.00	0.6000	0.5523
T42	29	L2x2x3/16 half bay brace	66.00 - 70.00	0.6000	0.5523
T42	30	L2x2x3/16 half bay brace	66.00 - 70.00	0.6000	0.5523
T42	31	L2x2x3/16 half bay brace	66.00 - 70.00	0.6000	0.5523
T42	36	4 AWG HYBRID	66.00 - 70.00	1.0000	1.0000
T43	1	EW63	62.00 - 66.00	0.6000	0.5534
T43	2	EW63	62.00 - 66.00	0.6000	0.5534
T43	3	7/8	62.00 - 66.00	0.6000	0.5534
T43	4	7/8	62.00 - 66.00	0.6000	0.5534
T43	5	1 5/8	62.00 - 66.00	0.6000	0.5534
T43	7	1 5/8	62.00 - 66.00	0.6000	0.5534
T43	8	1 5/8	62.00 - 66.00	0.6000	0.5534
T43	9	1 5/8	62.00 - 66.00	0.6000	0.5534
T43	10	1 1/4	62.00 - 66.00	0.6000	0.5534
T43	12	1/2	62.00 - 66.00	0.6000	0.5534
T43	13	1/2	62.00 - 66.00	0.6000	0.5534
T43	14	3/8	62.00 - 66.00	0.6000	0.5534
T43	17	Safety Line 3/8	62.00 - 66.00	0.6000	0.5534
T43	18	Climbing Ladder	62.00 - 66.00	0.6000	0.5534
T43	21	Fiber	62.00 - 66.00	0.6000	0.5534
T43	22	DC	62.00 - 66.00	0.6000	0.5534
T43	26	1-1/2"	62.00 - 66.00	0.6000	0.5534
T43	27	7/8	62.00 - 66.00	0.6000	0.5534
T43	29	L2x2x3/16 half bay brace	62.00 - 66.00	0.6000	0.5534
T43	30	L2x2x3/16 half bay brace	62.00 - 66.00	0.6000	0.5534
T43	31	L2x2x3/16 half bay brace	62.00 - 66.00	0.6000	0.5534
T43	36	4 AWG HYBRID	62.00 - 66.00	1.0000	1.0000
T44	1	EW63	58.00 - 62.00	0.6000	0.5454
T44	2	EW63	58.00 - 62.00	0.6000	0.5454
T44	3	7/8	58.00 - 62.00	0.6000	0.5454
T44	4	7/8	58.00 - 62.00	0.6000	0.5454
T44	5	1 5/8	58.00 - 62.00	0.6000	0.5454
T44	7	1 5/8	58.00 - 62.00	0.6000	0.5454
T44	8	1 5/8	58.00 - 62.00	0.6000	0.5454
T44	9	1 5/8	58.00 - 62.00	0.6000	0.5454
T44	10	1 1/4	58.00 - 62.00	0.6000	0.5454
T44	12	1/2	58.00 - 62.00	0.6000	0.5454
T44	13	1/2	58.00 - 62.00	0.6000	0.5454
T44	14	3/8	58.00 - 62.00	0.6000	0.5454
T44	17	Safety Line 3/8	58.00 - 62.00	0.6000	0.5454
T44	18	Climbing Ladder	58.00 - 62.00	0.6000	0.5454
T44	21	Fiber	58.00 - 62.00	0.6000	0.5454
T44	22	DC	58.00 - 62.00	0.6000	0.5454
T44	26	1-1/2"	58.00 - 62.00	0.6000	0.5454
T44	27	7/8	58.00 - 62.00	0.6000	0.5454
T44	29	L2x2x3/16 half bay brace	58.00 - 62.00	0.6000	0.5454
T44	30	L2x2x3/16 half bay brace	58.00 - 62.00	0.6000	0.5454
T44	31	L2x2x3/16 half bay brace	58.00 - 62.00	0.6000	0.5454
T44	36	4 AWG HYBRID	58.00 - 62.00	1.0000	1.0000
T45	1	EW63	54.00 - 58.00	0.6000	0.5558
T45	2	EW63	54.00 - 58.00	0.6000	0.5558
T45	3	7/8	54.00 - 58.00	0.6000	0.5558
T45	4	7/8	54.00 - 58.00	0.6000	0.5558
T45	5	1 5/8	54.00 - 58.00	0.6000	0.5558
T45	7	1 5/8	54.00 - 58.00	0.6000	0.5558
T45	8	1 5/8	54.00 - 58.00	0.6000	0.5558
T45	9	1 5/8	54.00 - 58.00	0.6000	0.5558
T45	10	1 1/4	54.00 - 58.00	0.6000	0.5558
T45	12	1/2	54.00 - 58.00	0.6000	0.5558

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T45	13	1/2	54.00 - 58.00	0.6000	0.5558
T45	14	3/8	54.00 - 58.00	0.6000	0.5558
T45	15	3/8	54.00 - 56.00	0.6000	0.5558
T45	17	Safety Line 3/8	54.00 - 58.00	0.6000	0.5558
T45	18	Climbing Ladder	54.00 - 58.00	0.6000	0.5558
T45	21	Fiber	54.00 - 58.00	0.6000	0.5558
T45	22	DC	54.00 - 58.00	0.6000	0.5558
T45	26	1-1/2"	54.00 - 58.00	0.6000	0.5558
T45	27	7/8	54.00 - 58.00	0.6000	0.5558
T45	29	L2x2x3/16 half bay brace	54.00 - 58.00	0.6000	0.5558
T45	30	L2x2x3/16 half bay brace	54.00 - 58.00	0.6000	0.5558
T45	31	L2x2x3/16 half bay brace	54.00 - 58.00	0.6000	0.5558
T45	36	4 AWG HYBRID	54.00 - 58.00	1.0000	1.0000
T46	1	EW63	50.00 - 54.00	0.6000	0.5572
T46	2	EW63	50.00 - 54.00	0.6000	0.5572
T46	3	7/8	50.00 - 54.00	0.6000	0.5572
T46	4	7/8	50.00 - 54.00	0.6000	0.5572
T46	5	1 5/8	50.00 - 54.00	0.6000	0.5572
T46	7	1 5/8	50.00 - 54.00	0.6000	0.5572
T46	8	1 5/8	50.00 - 54.00	0.6000	0.5572
T46	9	1 5/8	50.00 - 54.00	0.6000	0.5572
T46	10	1 1/4	50.00 - 54.00	0.6000	0.5572
T46	12	1/2	50.00 - 54.00	0.6000	0.5572
T46	13	1/2	50.00 - 54.00	0.6000	0.5572
T46	14	3/8	50.00 - 54.00	0.6000	0.5572
T46	15	3/8	50.00 - 54.00	0.6000	0.5572
T46	17	Safety Line 3/8	50.00 - 54.00	0.6000	0.5572
T46	18	Climbing Ladder	50.00 - 54.00	0.6000	0.5572
T46	21	Fiber	50.00 - 54.00	0.6000	0.5572
T46	22	DC	50.00 - 54.00	0.6000	0.5572
T46	26	1-1/2"	50.00 - 54.00	0.6000	0.5572
T46	27	7/8	50.00 - 54.00	0.6000	0.5572
T46	29	L2x2x3/16 half bay brace	50.00 - 54.00	0.6000	0.5572
T46	30	L2x2x3/16 half bay brace	50.00 - 54.00	0.6000	0.5572
T46	31	L2x2x3/16 half bay brace	50.00 - 54.00	0.6000	0.5572
T46	36	4 AWG HYBRID	50.00 - 54.00	1.0000	1.0000
T47	1	EW63	46.00 - 50.00	0.6000	0.5587
T47	2	EW63	46.00 - 50.00	0.6000	0.5587
T47	3	7/8	46.00 - 50.00	0.6000	0.5587
T47	4	7/8	46.00 - 50.00	0.6000	0.5587
T47	5	1 5/8	46.00 - 50.00	0.6000	0.5587
T47	7	1 5/8	46.00 - 50.00	0.6000	0.5587
T47	8	1 5/8	46.00 - 50.00	0.6000	0.5587
T47	9	1 5/8	46.00 - 50.00	0.6000	0.5587
T47	10	1 1/4	46.00 - 50.00	0.6000	0.5587
T47	12	1/2	46.00 - 50.00	0.6000	0.5587
T47	13	1/2	46.00 - 50.00	0.6000	0.5587
T47	14	3/8	46.00 - 50.00	0.6000	0.5587
T47	15	3/8	46.00 - 50.00	0.6000	0.5587
T47	17	Safety Line 3/8	46.00 - 50.00	0.6000	0.5587
T47	18	Climbing Ladder	46.00 - 50.00	0.6000	0.5587
T47	21	Fiber	46.00 - 50.00	0.6000	0.5587
T47	22	DC	46.00 - 50.00	0.6000	0.5587
T47	26	1-1/2"	46.00 - 50.00	0.6000	0.5587
T47	27	7/8	46.00 - 50.00	0.6000	0.5587
T47	29	L2x2x3/16 half bay brace	46.00 - 50.00	0.6000	0.5587
T47	30	L2x2x3/16 half bay brace	46.00 - 50.00	0.6000	0.5587
T47	31	L2x2x3/16 half bay brace	46.00 - 50.00	0.6000	0.5587
T47	36	4 AWG HYBRID	46.00 - 50.00	1.0000	1.0000
T48	1	EW63	42.00 - 46.00	0.6000	0.5604
T48	2	EW63	42.00 - 46.00	0.6000	0.5604
T48	3	7/8	42.00 - 46.00	0.6000	0.5604

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T48	4	7/8	42.00 - 46.00	0.6000	0.5604
T48	5	1 5/8	42.00 - 46.00	0.6000	0.5604
T48	7	1 5/8	42.00 - 46.00	0.6000	0.5604
T48	8	1 5/8	42.00 - 46.00	0.6000	0.5604
T48	9	1 5/8	42.00 - 46.00	0.6000	0.5604
T48	10	1 1/4	42.00 - 46.00	0.6000	0.5604
T48	12	1/2	42.00 - 46.00	0.6000	0.5604
T48	13	1/2	42.00 - 46.00	0.6000	0.5604
T48	14	3/8	42.00 - 46.00	0.6000	0.5604
T48	15	3/8	42.00 - 46.00	0.6000	0.5604
T48	17	Safety Line 3/8	42.00 - 46.00	0.6000	0.5604
T48	18	Climbing Ladder	42.00 - 46.00	0.6000	0.5604
T48	21	Fiber	42.00 - 46.00	0.6000	0.5604
T48	22	DC	42.00 - 46.00	0.6000	0.5604
T48	26	1-1/2"	42.00 - 46.00	0.6000	0.5604
T48	27	7/8	42.00 - 46.00	0.6000	0.5604
T48	29	L2x2x3/16 half bay brace	42.00 - 46.00	0.6000	0.5604
T48	30	L2x2x3/16 half bay brace	42.00 - 46.00	0.6000	0.5604
T48	31	L2x2x3/16 half bay brace	42.00 - 46.00	0.6000	0.5604
T48	36	4 AWG HYBRID	42.00 - 46.00	1.0000	1.0000
T49	1	EW63	38.00 - 42.00	0.6000	0.5530
T49	2	EW63	38.00 - 42.00	0.6000	0.5530
T49	3	7/8	38.00 - 42.00	0.6000	0.5530
T49	4	7/8	38.00 - 42.00	0.6000	0.5530
T49	5	1 5/8	38.00 - 42.00	0.6000	0.5530
T49	7	1 5/8	38.00 - 42.00	0.6000	0.5530
T49	8	1 5/8	38.00 - 42.00	0.6000	0.5530
T49	9	1 5/8	38.00 - 42.00	0.6000	0.5530
T49	10	1 1/4	38.00 - 42.00	0.6000	0.5530
T49	12	1/2	38.00 - 42.00	0.6000	0.5530
T49	13	1/2	38.00 - 42.00	0.6000	0.5530
T49	14	3/8	38.00 - 42.00	0.6000	0.5530
T49	15	3/8	38.00 - 42.00	0.6000	0.5530
T49	17	Safety Line 3/8	38.00 - 42.00	0.6000	0.5530
T49	18	Climbing Ladder	38.00 - 42.00	0.6000	0.5530
T49	21	Fiber	38.00 - 42.00	0.6000	0.5530
T49	22	DC	38.00 - 42.00	0.6000	0.5530
T49	26	1-1/2"	38.00 - 42.00	0.6000	0.5530
T49	27	7/8	38.00 - 42.00	0.6000	0.5530
T49	36	4 AWG HYBRID	38.00 - 42.00	1.0000	1.0000
T50	1	EW63	34.00 - 38.00	0.6000	0.5550
T50	2	EW63	34.00 - 38.00	0.6000	0.5550
T50	3	7/8	34.00 - 38.00	0.6000	0.5550
T50	4	7/8	34.00 - 38.00	0.6000	0.5550
T50	5	1 5/8	34.00 - 38.00	0.6000	0.5550
T50	7	1 5/8	34.00 - 38.00	0.6000	0.5550
T50	8	1 5/8	34.00 - 38.00	0.6000	0.5550
T50	9	1 5/8	34.00 - 38.00	0.6000	0.5550
T50	10	1 1/4	34.00 - 38.00	0.6000	0.5550
T50	12	1/2	34.00 - 38.00	0.6000	0.5550
T50	13	1/2	34.00 - 38.00	0.6000	0.5550
T50	14	3/8	34.00 - 38.00	0.6000	0.5550
T50	15	3/8	34.00 - 38.00	0.6000	0.5550
T50	17	Safety Line 3/8	34.00 - 38.00	0.6000	0.5550
T50	18	Climbing Ladder	34.00 - 38.00	0.6000	0.5550
T50	21	Fiber	34.00 - 38.00	0.6000	0.5550
T50	22	DC	34.00 - 38.00	0.6000	0.5550
T50	26	1-1/2"	34.00 - 38.00	0.6000	0.5550
T50	27	7/8	34.00 - 38.00	0.6000	0.5550
T50	36	4 AWG HYBRID	34.00 - 38.00	1.0000	1.0000
T51	1	EW63	30.00 - 34.00	0.6000	0.5573
T51	2	EW63	30.00 - 34.00	0.6000	0.5573

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T51	3	7/8	30.00 - 34.00	0.6000	0.5573
T51	4	7/8	30.00 - 34.00	0.6000	0.5573
T51	5	1 5/8	30.00 - 34.00	0.6000	0.5573
T51	7	1 5/8	30.00 - 34.00	0.6000	0.5573
T51	8	1 5/8	30.00 - 34.00	0.6000	0.5573
T51	9	1 5/8	30.00 - 34.00	0.6000	0.5573
T51	10	1 1/4	30.00 - 34.00	0.6000	0.5573
T51	12	1/2	30.00 - 34.00	0.6000	0.5573
T51	13	1/2	30.00 - 34.00	0.6000	0.5573
T51	14	3/8	30.00 - 34.00	0.6000	0.5573
T51	15	3/8	30.00 - 34.00	0.6000	0.5573
T51	17	Safety Line 3/8	30.00 - 34.00	0.6000	0.5573
T51	18	Climbing Ladder	30.00 - 34.00	0.6000	0.5573
T51	21	Fiber	30.00 - 34.00	0.6000	0.5573
T51	22	DC	30.00 - 34.00	0.6000	0.5573
T51	26	1-1/2"	30.00 - 34.00	0.6000	0.5573
T51	27	7/8	30.00 - 34.00	0.6000	0.5573
T51	36	4 AWG HYBRID	30.00 - 34.00	1.0000	1.0000
T52	1	EW63	26.00 - 30.00	0.6000	0.5598
T52	2	EW63	26.00 - 30.00	0.6000	0.5598
T52	3	7/8	26.00 - 30.00	0.6000	0.5598
T52	4	7/8	26.00 - 30.00	0.6000	0.5598
T52	5	1 5/8	26.00 - 30.00	0.6000	0.5598
T52	7	1 5/8	26.00 - 30.00	0.6000	0.5598
T52	8	1 5/8	26.00 - 30.00	0.6000	0.5598
T52	9	1 5/8	26.00 - 30.00	0.6000	0.5598
T52	10	1 1/4	26.00 - 30.00	0.6000	0.5598
T52	12	1/2	26.00 - 30.00	0.6000	0.5598
T52	13	1/2	26.00 - 30.00	0.6000	0.5598
T52	14	3/8	26.00 - 30.00	0.6000	0.5598
T52	15	3/8	26.00 - 30.00	0.6000	0.5598
T52	17	Safety Line 3/8	26.00 - 30.00	0.6000	0.5598
T52	18	Climbing Ladder	26.00 - 30.00	0.6000	0.5598
T52	21	Fiber	26.00 - 30.00	0.6000	0.5598
T52	22	DC	26.00 - 30.00	0.6000	0.5598
T52	26	1-1/2"	26.00 - 30.00	0.6000	0.5598
T52	27	7/8	26.00 - 30.00	0.6000	0.5598
T52	36	4 AWG HYBRID	26.00 - 30.00	1.0000	1.0000
T53	1	EW63	22.00 - 26.00	0.6000	0.5628
T53	2	EW63	22.00 - 26.00	0.6000	0.5628
T53	3	7/8	22.00 - 26.00	0.6000	0.5628
T53	4	7/8	22.00 - 26.00	0.6000	0.5628
T53	5	1 5/8	22.00 - 26.00	0.6000	0.5628
T53	7	1 5/8	22.00 - 26.00	0.6000	0.5628
T53	8	1 5/8	22.00 - 26.00	0.6000	0.5628
T53	9	1 5/8	22.00 - 26.00	0.6000	0.5628
T53	10	1 1/4	22.00 - 26.00	0.6000	0.5628
T53	12	1/2	22.00 - 26.00	0.6000	0.5628
T53	13	1/2	22.00 - 26.00	0.6000	0.5628
T53	14	3/8	22.00 - 26.00	0.6000	0.5628
T53	15	3/8	22.00 - 26.00	0.6000	0.5628
T53	17	Safety Line 3/8	22.00 - 26.00	0.6000	0.5628
T53	18	Climbing Ladder	22.00 - 26.00	0.6000	0.5628
T53	21	Fiber	22.00 - 26.00	0.6000	0.5628
T53	22	DC	22.00 - 26.00	0.6000	0.5628
T53	26	1-1/2"	22.00 - 26.00	0.6000	0.5628
T53	27	7/8	22.00 - 26.00	0.6000	0.5628
T53	36	4 AWG HYBRID	22.00 - 26.00	1.0000	1.0000
T54	1	EW63	18.00 - 22.00	0.6000	0.5663
T54	2	EW63	18.00 - 22.00	0.6000	0.5663
T54	3	7/8	18.00 - 22.00	0.6000	0.5663
T54	4	7/8	18.00 - 22.00	0.6000	0.5663

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T54	5	1 5/8	18.00 - 22.00	0.6000	0.5663
T54	7	1 5/8	18.00 - 22.00	0.6000	0.5663
T54	8	1 5/8	18.00 - 22.00	0.6000	0.5663
T54	9	1 5/8	18.00 - 22.00	0.6000	0.5663
T54	10	1 1/4	18.00 - 22.00	0.6000	0.5663
T54	12	1/2	18.00 - 22.00	0.6000	0.5663
T54	13	1/2	18.00 - 22.00	0.6000	0.5663
T54	14	3/8	18.00 - 22.00	0.6000	0.5663
T54	15	3/8	18.00 - 22.00	0.6000	0.5663
T54	16	3/8	18.00 - 20.00	0.6000	0.5663
T54	17	Safety Line 3/8	18.00 - 22.00	0.6000	0.5663
T54	18	Climbing Ladder	18.00 - 22.00	0.6000	0.5663
T54	21	Fiber	18.00 - 22.00	0.6000	0.5663
T54	22	DC	18.00 - 22.00	0.6000	0.5663
T54	26	1-1/2"	18.00 - 22.00	0.6000	0.5663
T54	27	7/8	18.00 - 22.00	0.6000	0.5663
T54	36	4 AWG HYBRID	18.00 - 22.00	1.0000	1.0000
T55	1	EW63	14.00 - 18.00	0.6000	0.5706
T55	2	EW63	14.00 - 18.00	0.6000	0.5706
T55	3	7/8	14.00 - 18.00	0.6000	0.5706
T55	4	7/8	14.00 - 18.00	0.6000	0.5706
T55	5	1 5/8	14.00 - 18.00	0.6000	0.5706
T55	7	1 5/8	14.00 - 18.00	0.6000	0.5706
T55	8	1 5/8	14.00 - 18.00	0.6000	0.5706
T55	9	1 5/8	14.00 - 18.00	0.6000	0.5706
T55	10	1 1/4	14.00 - 18.00	0.6000	0.5706
T55	12	1/2	14.00 - 18.00	0.6000	0.5706
T55	13	1/2	14.00 - 18.00	0.6000	0.5706
T55	14	3/8	14.00 - 18.00	0.6000	0.5706
T55	15	3/8	14.00 - 18.00	0.6000	0.5706
T55	16	3/8	14.00 - 18.00	0.6000	0.5706
T55	17	Safety Line 3/8	14.00 - 18.00	0.6000	0.5706
T55	18	Climbing Ladder	14.00 - 18.00	0.6000	0.5706
T55	21	Fiber	14.00 - 18.00	0.6000	0.5706
T55	22	DC	14.00 - 18.00	0.6000	0.5706
T55	26	1-1/2"	14.00 - 18.00	0.6000	0.5706
T55	27	7/8	14.00 - 18.00	0.6000	0.5706
T55	36	4 AWG HYBRID	14.00 - 18.00	1.0000	1.0000
T56	1	EW63	10.00 - 14.00	0.6000	0.5760
T56	2	EW63	10.00 - 14.00	0.6000	0.5760
T56	3	7/8	10.00 - 14.00	0.6000	0.5760
T56	4	7/8	10.00 - 14.00	0.6000	0.5760
T56	5	1 5/8	10.00 - 14.00	0.6000	0.5760
T56	7	1 5/8	10.00 - 14.00	0.6000	0.5760
T56	8	1 5/8	10.00 - 14.00	0.6000	0.5760
T56	9	1 5/8	10.00 - 14.00	0.6000	0.5760
T56	10	1 1/4	10.00 - 14.00	0.6000	0.5760
T56	12	1/2	10.00 - 14.00	0.6000	0.5760
T56	13	1/2	10.00 - 14.00	0.6000	0.5760
T56	14	3/8	10.00 - 14.00	0.6000	0.5760
T56	15	3/8	10.00 - 14.00	0.6000	0.5760
T56	16	3/8	10.00 - 14.00	0.6000	0.5760
T56	17	Safety Line 3/8	10.00 - 14.00	0.6000	0.5760
T56	18	Climbing Ladder	10.00 - 14.00	0.6000	0.5760
T56	21	Fiber	10.00 - 14.00	0.6000	0.5760
T56	22	DC	10.00 - 14.00	0.6000	0.5760
T56	26	1-1/2"	10.00 - 14.00	0.6000	0.5760
T56	27	7/8	10.00 - 14.00	0.6000	0.5760
T56	36	4 AWG HYBRID	10.00 - 14.00	1.0000	1.0000
T57	1	EW63	8.00 - 10.00	0.6000	0.5835
T57	2	EW63	8.00 - 10.00	0.6000	0.5835
T57	3	7/8	8.00 - 10.00	0.6000	0.5835

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T57	4	7/8	8.00 - 10.00	0.6000	0.5835
T57	5	1 5/8	8.00 - 10.00	0.6000	0.5835
T57	7	1 5/8	8.00 - 10.00	0.6000	0.5835
T57	8	1 5/8	8.00 - 10.00	0.6000	0.5835
T57	9	1 5/8	8.00 - 10.00	0.6000	0.5835
T57	10	1 1/4	8.00 - 10.00	0.6000	0.5835
T57	12	1/2	8.00 - 10.00	0.6000	0.5835
T57	13	1/2	8.00 - 10.00	0.6000	0.5835
T57	14	3/8	8.00 - 10.00	0.6000	0.5835
T57	15	3/8	8.00 - 10.00	0.6000	0.5835
T57	16	3/8	8.00 - 10.00	0.6000	0.5835
T57	17	Safety Line 3/8	8.00 - 10.00	0.6000	0.5835
T57	18	Climbing Ladder	8.00 - 10.00	0.6000	0.5835
T57	21	Fiber	8.00 - 10.00	0.6000	0.5835
T57	22	DC	8.00 - 10.00	0.6000	0.5835
T57	26	1-1/2"	6.00 - 10.00	0.6000	0.5835
T57	27	7/8	6.00 - 10.00	0.6000	0.5835
T57	36	4 AWG HYBRID	8.00 - 10.00	1.0000	1.0000
T58	26	1-1/2"	2.00 - 6.00	0.6000	0.5959
T58	27	7/8	2.00 - 6.00	0.6000	0.5959

Discrete Tower Loads

Description	Face or Leg	Offset Type	Offsets: Horz Lateral / Vert ft / ft / ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight lb
Lightning Rod 5'x.625"	C	From Leg	0.00 0.00 2.00	0.0000	281.50	No Ice 1/2" Ice 1" Ice	0.31 0.83 1.32	0.31 0.83 1.32	5.20 8.70 15.48
06' Ice Shield	A	From Leg	0.00 0.00 0.00	0.0000	274.00	No Ice 1/2" Ice 1" Ice	3.10 3.48 3.87	3.60 4.04 4.48	341.00 516.29 700.85
06' Ice Shield	C	From Leg	0.00 0.00 0.00	0.0000	270.00	No Ice 1/2" Ice 1" Ice	3.10 3.48 3.87	3.60 4.04 4.48	341.00 516.29 700.85
SO301-1	C	From Leg	0.00 0.00 0.00	0.0000	264.00	No Ice 1/2" Ice 1" Ice	1.00 1.39 1.78	0.90 1.42 1.94	7.67 10.86 14.05
***									
PiROD 10' Lightweight T-Frame	A	From Leg	1.50 0.00 0.00	0.0000	236.00	No Ice 1/2" Ice 1" Ice	9.30 14.50 19.70	9.30 14.50 19.70	251.00 344.00 437.00
PiROD 10' Lightweight T-Frame	B	From Leg	1.50 0.00 0.00	0.0000	236.00	No Ice 1/2" Ice 1" Ice	9.30 14.50 19.70	9.30 14.50 19.70	251.00 344.00 437.00
PiROD 10' Lightweight T-Frame	C	From Leg	1.50 0.00 0.00	0.0000	236.00	No Ice 1/2" Ice 1" Ice	9.30 14.50 19.70	9.30 14.50 19.70	251.00 344.00 437.00
Commscope DBXNH-6565A-A2M	A	From Leg	2.50 -6.00 0.00	0.0000	236.00	No Ice 1/2" Ice 1" Ice	5.80 6.29 6.74	4.95 5.77 6.47	66.90 119.16 177.83

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft / Vert ft / ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight lb
Commscope	B	From Leg	2.50	0.0000	236.00	No Ice	5.80	4.95	66.90
DBXNH-6565A-A2M			-6.00			1/2" Ice	6.29	5.77	119.16
			0.00			1" Ice	6.74	6.47	177.83
Commscope	C	From Leg	2.50	0.0000	236.00	No Ice	5.80	4.95	66.90
DBXNH-6565A-A2M			-6.00			1/2" Ice	6.29	5.77	119.16
			0.00			1" Ice	6.74	6.47	177.83
AIR 32 w/Mount Pipe	A	From Leg	2.50	0.0000	236.00	No Ice	6.47	5.87	120.90
			6.00			1/2" Ice	6.95	6.73	179.37
			0.00			1" Ice	7.41	7.46	244.70
AIR 32 w/Mount Pipe	B	From Leg	2.50	0.0000	236.00	No Ice	6.47	5.87	120.90
			6.00			1/2" Ice	6.95	6.73	179.37
			0.00			1" Ice	7.41	7.46	244.70
AIR 32 w/Mount Pipe	C	From Leg	2.50	0.0000	236.00	No Ice	6.47	5.87	120.90
			6.00			1/2" Ice	6.95	6.73	179.37
			0.00			1" Ice	7.41	7.46	244.70
RRUS-11 B12	A	From Leg	2.50	0.0000	236.00	No Ice	2.79	1.19	50.70
			0.00			1/2" Ice	3.00	1.34	71.56
			0.00			1" Ice	3.21	1.49	95.47
RRUS-11 B12	B	From Leg	2.50	0.0000	236.00	No Ice	2.79	1.19	50.70
			0.00			1/2" Ice	3.00	1.34	71.56
			0.00			1" Ice	3.21	1.49	95.47
RRUS-11 B12	C	From Leg	2.50	0.0000	236.00	No Ice	2.79	1.19	50.70
			0.00			1/2" Ice	3.00	1.34	71.56
			0.00			1" Ice	3.21	1.49	95.47
***									
PiROD 12' T-Frame	A	From Leg	2.00	0.0000	208.00	No Ice	12.20	12.20	360.00
			0.00			1/2" Ice	17.60	17.60	490.00
			0.00			1" Ice	23.00	23.00	620.00
PiROD 12' T-Frame	B	From Leg	2.00	0.0000	208.00	No Ice	12.20	12.20	360.00
			0.00			1/2" Ice	17.60	17.60	490.00
			0.00			1" Ice	23.00	23.00	620.00
PiROD 12' T-Frame	C	From Leg	2.00	0.0000	208.00	No Ice	12.20	12.20	360.00
			0.00			1/2" Ice	17.60	17.60	490.00
			0.00			1" Ice	23.00	23.00	620.00
RFS APXVSPP18-C	A	From Leg	3.00	0.0000	208.00	No Ice	8.66	7.82	125.14
			0.00			1/2" Ice	9.33	9.14	204.84
			0.00			1" Ice	9.92	10.09	294.67
RFS APXVSPP18-C	B	From Leg	3.00	0.0000	208.00	No Ice	8.66	7.82	125.14
			0.00			1/2" Ice	9.33	9.14	204.84
			0.00			1" Ice	9.92	10.09	294.67
RFS APXVSPP18-C	C	From Leg	3.00	0.0000	208.00	No Ice	8.66	7.82	125.14
			0.00			1/2" Ice	9.33	9.14	204.84
			0.00			1" Ice	9.92	10.09	294.67
(2) FR65-17-DP	A	From Leg	3.00	0.0000	208.00	No Ice	4.36	1.97	18.00
			0.00			1/2" Ice	4.70	2.31	40.42
			0.00			1" Ice	5.06	2.66	67.36
FR65-17-DP	B	From Leg	3.00	0.0000	208.00	No Ice	4.36	1.97	18.00
			0.00			1/2" Ice	4.70	2.31	40.42
			0.00			1" Ice	5.06	2.66	67.36
FR65-17-DP	C	From Leg	3.00	0.0000	208.00	No Ice	4.36	1.97	18.00
			0.00			1/2" Ice	4.70	2.31	40.42
			0.00			1" Ice	5.06	2.66	67.36
800 MHz with Notch Filter	A	From Leg	3.00	0.0000	208.00	No Ice	1.71	1.89	64.00
			0.00			1/2" Ice	1.88	2.06	85.46
			0.00			1" Ice	2.05	2.24	109.91
800 MHz with Notch Filter	B	From Leg	3.00	0.0000	208.00	No Ice	1.71	1.89	64.00
			0.00			1/2" Ice	1.88	2.06	85.46

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft	Offsets: Vert ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight lb
				0.00			1" Ice	2.05	2.24	109.91
800 MHz with Notch Filter	C	From Leg	3.00	0.00	0.0000	208.00	No Ice	1.71	1.89	64.00
				0.00			1/2" Ice	1.88	2.06	85.46
				0.00			1" Ice	2.05	2.24	109.91
(2) 1900 RRH Combiner	A	From Leg	3.00	0.00	0.0000	208.00	No Ice	1.13	0.28	40.00
				0.00			1/2" Ice	1.27	0.34	49.01
				0.00			1" Ice	1.42	0.42	60.16
(2) 1900 RRH Combiner	B	From Leg	3.00	0.00	0.0000	208.00	No Ice	1.13	0.28	40.00
				0.00			1/2" Ice	1.27	0.34	49.01
				0.00			1" Ice	1.42	0.42	60.16
(2) 1900 RRH Combiner	C	From Leg	3.00	0.00	0.0000	208.00	No Ice	1.13	0.28	40.00
				0.00			1/2" Ice	1.27	0.34	49.01
				0.00			1" Ice	1.42	0.42	60.16
***										
F 24 x 18	A	None			0.0000	196.00	No Ice	3.60	3.60	30.00
							1/2" Ice	3.84	3.84	70.48
							1" Ice	4.08	4.08	115.04
06' Ice Shield	A	From Leg	0.00	0.00	0.0000	172.00	No Ice	3.10	3.60	341.00
				0.00			1/2" Ice	3.48	4.04	516.29
				0.00			1" Ice	3.87	4.48	700.85
4 Bay DiPole	C	None			0.0000	162.00	No Ice	0.00	0.00	0.00
							1/2" Ice	0.00	0.00	0.00
							1" Ice	0.00	0.00	0.00
***										
(1) SitePro1 VFA12-HD Sector Frame	A	From Leg	0.50	0.00	0.0000	220.00	No Ice	13.20	9.20	658.00
				0.00			1/2" Ice	19.50	14.60	804.00
				0.00			1" Ice	25.80	19.50	1015.00
(1) SitePro1 VFA12-HD Sector Frame	B	From Leg	0.50	0.00	0.0000	220.00	No Ice	13.20	9.20	658.00
				0.00			1/2" Ice	19.50	14.60	804.00
				0.00			1" Ice	25.80	19.50	1015.00
(1) SitePro1 VFA12-HD Sector Frame	C	From Leg	0.50	0.00	0.0000	220.00	No Ice	13.20	9.20	658.00
				0.00			1/2" Ice	19.50	14.60	804.00
				0.00			1" Ice	25.80	19.50	1015.00
Ericsson AIR6472 B77G B77M	A	From Leg	4.00	0.00	0.0000	220.00	No Ice	4.90	2.47	92.59
				0.00			1/2" Ice	5.19	2.71	126.35
				3.00			1" Ice	5.50	2.96	164.20
Ericsson AIR6472 B77G B77M	B	From Leg	4.00	0.00	0.0000	220.00	No Ice	4.90	2.47	92.59
				0.00			1/2" Ice	5.19	2.71	126.35
				3.00			1" Ice	5.50	2.96	164.20
Ericsson AIR6472 B77G B77M	C	From Leg	4.00	0.00	0.0000	220.00	No Ice	4.90	2.47	92.59
				0.00			1/2" Ice	5.19	2.71	126.35
				3.00			1" Ice	5.50	2.96	164.20
CCI TPA65R-BU8DV2	A	From Leg	4.00	0.00	0.0000	220.00	No Ice	17.87	8.12	95.70
				0.00			1/2" Ice	18.50	8.72	193.28
				0.00			1" Ice	19.14	9.32	299.13
CCI TPA65R-BU6DV2	B	From Leg	4.00	0.00	0.0000	220.00	No Ice	12.71	5.62	79.40
				0.00			1/2" Ice	13.21	6.07	153.36
				0.00			1" Ice	13.71	6.53	233.96
CCI TPA65R-BU6DV2	C	From Leg	4.00	0.00	0.0000	220.00	No Ice	12.71	5.62	79.40
				0.00			1/2" Ice	13.21	6.07	153.36
				0.00			1" Ice	13.71	6.53	233.96
Ericsson 4449	A	From Leg	4.00	0.00	0.0000	220.00	No Ice	1.98	1.41	70.00
				0.00			1/2" Ice	2.16	1.57	88.55
				0.00			1" Ice	2.34	1.73	109.93
Ericsson 4449	B	From Leg	4.00	0.00	0.0000	220.00	No Ice	1.98	1.41	70.00
				0.00			1/2" Ice	2.16	1.57	88.55
				0.00			1" Ice	2.34	1.73	109.93

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft	Offsets: Vert ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight lb
Ericsson 4449	C	From Leg	4.00	0.00	0.0000	220.00	No Ice	1.98	1.41	70.00
			0.00				1/2" Ice	2.16	1.57	88.55
			0.00				1" Ice	2.34	1.73	109.93
Kathrein 800-10966	A	From Leg	4.00	0.00	0.0000	220.00	No Ice	17.36	9.40	154.90
			0.00				1/2" Ice	17.99	10.82	268.18
			0.00				1" Ice	18.63	12.09	391.69
Kathrein 800-10966	B	From Leg	4.00	0.00	0.0000	220.00	No Ice	17.36	9.40	154.90
			0.00				1/2" Ice	17.99	10.82	268.18
			0.00				1" Ice	18.63	12.09	391.69
Kathrein 800-10965	C	From Leg	4.00	0.00	0.0000	220.00	No Ice	13.92	7.50	143.15
			0.00				1/2" Ice	14.50	8.71	238.18
			0.00				1" Ice	15.07	9.65	342.12
RRUS-32 B2	A	From Leg	4.00	0.00	0.0000	220.00	No Ice	2.74	1.67	60.00
			0.00				1/2" Ice	2.96	1.86	81.11
			0.00				1" Ice	3.19	2.05	105.42
RRUS-32 B2	B	From Leg	4.00	0.00	0.0000	220.00	No Ice	2.74	1.67	60.00
			0.00				1/2" Ice	2.96	1.86	81.11
			0.00				1" Ice	3.19	2.05	105.42
RRUS-32 B2	C	From Leg	4.00	0.00	0.0000	220.00	No Ice	2.74	1.67	60.00
			0.00				1/2" Ice	2.96	1.86	81.11
			0.00				1" Ice	3.19	2.05	105.42
RRUS-32 B30	A	From Leg	4.00	0.00	0.0000	220.00	No Ice	2.74	1.67	60.00
			0.00				1/2" Ice	2.96	1.86	81.11
			0.00				1" Ice	3.19	2.05	105.42
RRUS-32 B30	B	From Leg	4.00	0.00	0.0000	220.00	No Ice	2.74	1.67	60.00
			0.00				1/2" Ice	2.96	1.86	81.11
			0.00				1" Ice	3.19	2.05	105.42
RRUS-32 B30	C	From Leg	4.00	0.00	0.0000	220.00	No Ice	2.74	1.67	60.00
			0.00				1/2" Ice	2.96	1.86	81.11
			0.00				1" Ice	3.19	2.05	105.42
Ericsson RRUS 4478 B14	A	From Leg	4.00	0.00	0.0000	220.00	No Ice	1.84	1.06	59.90
			0.00				1/2" Ice	2.01	1.20	75.78
			0.00				1" Ice	2.19	1.34	94.29
Ericsson RRUS 4478 B14	B	From Leg	4.00	0.00	0.0000	220.00	No Ice	1.84	1.06	59.90
			0.00				1/2" Ice	2.01	1.20	75.78
			0.00				1" Ice	2.19	1.34	94.29
Ericsson RRUS 4478 B14	C	From Leg	4.00	0.00	0.0000	220.00	No Ice	1.84	1.06	59.90
			0.00				1/2" Ice	2.01	1.20	75.78
			0.00				1" Ice	2.19	1.34	94.29
Ericsson Radio 4426 B66	A	From Leg	4.00	0.00	0.0000	220.00	No Ice	1.64	0.73	48.40
			0.00				1/2" Ice	1.80	0.84	61.22
			0.00				1" Ice	1.97	0.97	76.43
Ericsson Radio 4426 B66	B	From Leg	4.00	0.00	0.0000	220.00	No Ice	1.64	0.73	48.40
			0.00				1/2" Ice	1.80	0.84	61.22
			0.00				1" Ice	1.97	0.97	76.43
Ericsson Radio 4426 B66	C	From Leg	4.00	0.00	0.0000	220.00	No Ice	1.64	0.73	48.40
			0.00				1/2" Ice	1.80	0.84	61.22
			0.00				1" Ice	1.97	0.97	76.43
Raycap DC9-48-60-24-8C-EV	A	From Leg	4.00	0.00	0.0000	220.00	No Ice	0.93	0.93	26.20
			0.00				1/2" Ice	1.48	1.48	43.68
			0.00				1" Ice	1.67	1.67	63.68
Raycap DC6-48-60-18-8F	B	From Leg	4.00	0.00	0.0000	220.00	No Ice	0.83	0.83	22.00
			0.00				1/2" Ice	1.34	1.34	37.91
			0.00				1" Ice	1.52	1.52	56.21
Raycap DC6-48-60-18-8F	C	From Leg	4.00	0.00	0.0000	220.00	No Ice	0.83	0.83	22.00
			0.00				1/2" Ice	1.34	1.34	37.91
			0.00				1" Ice	1.52	1.52	56.21

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft / Vert ft / ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight lb
***									
Weather/Wind Gauge	C	From Leg	1.00 0.00 0.00	0.0000	52.00	No Ice 1/2" Ice 1" Ice	0.40 0.51 0.62	0.40 0.51 0.62	10.00 15.22 21.81
Alarm	B	From Leg	1.00 0.00 0.00	0.0000	20.00	No Ice 1/2" Ice 1" Ice	0.40 0.51 0.62	0.40 0.51 0.62	10.00 15.22 21.81
1.5' Omni Antenna	C	None		0.0000	0.00	No Ice 1/2" Ice 1" Ice	0.17 0.27 0.38	0.17 0.27 0.38	10.00 11.99 15.21
***									
DB222-A (Other Carrier Future)	C	None		0.0000	115.00	No Ice 1/2" Ice 1" Ice	1.60 2.88 4.16	1.60 2.88 4.16	16.00 20.80 25.60
SO301-1 (Other Carrier Future)	C	None		0.0000	115.00	No Ice 1/2" Ice 1" Ice	1.00 1.39 1.78	0.90 1.42 1.94	7.67 10.86 14.05
Box 12 x 12 x 6 (Other Carrier Future)	C	None		0.0000	276.00	No Ice 1/2" Ice 1" Ice	1.20 1.34 1.48	0.60 0.70 0.81	20.00 30.34 42.81
Box 12 x 12 x 6 (Other Carrier Future)	C	None		0.0000	188.00	No Ice 1/2" Ice 1" Ice	1.20 1.34 1.48	0.60 0.70 0.81	20.00 30.34 42.81
Box 12 x 12 x 6 (Other Carrier Future)	C	None		0.0000	94.00	No Ice 1/2" Ice 1" Ice	1.20 1.34 1.48	0.60 0.70 0.81	20.00 30.34 42.81
Box 12 x 12 x 6 (Other Carrier Future)	C	None		0.0000	10.00	No Ice 1/2" Ice 1" Ice	1.20 1.34 1.48	0.60 0.70 0.81	20.00 30.34 42.81
*									
Site Pro 1 VFA10-SD (DISH)	A	From Leg	1.50 0.00 0.00	0.0000	170.00	No Ice 1/2" Ice 1" Ice	10.50 15.90 20.80	8.60 13.30 17.70	500.00 621.00 800.00
JMA MX08FRO665-21 (DISH)	A	From Leg	3.00 0.00 0.00	0.0000	170.00	No Ice 1/2" Ice 1" Ice	12.49 12.99 13.49	7.29 8.25 9.08	86.40 176.08 274.11
Fujitsu TA08025-B605 RRU (DISH)	A	From Leg	3.00 0.00 0.00	0.0000	170.00	No Ice 1/2" Ice 1" Ice	1.96 2.14 2.32	1.19 1.33 1.48	74.95 92.96 113.74
Fujitsu TA08025-B604 RRU (DISH)	A	From Leg	3.00 0.00 0.00	0.0000	170.00	No Ice 1/2" Ice 1" Ice	1.96 2.14 2.32	1.03 1.17 1.31	63.93 80.71 100.18
Site Pro 1 VFA10-SD (DISH)	B	From Leg	1.50 0.00 0.00	0.0000	170.00	No Ice 1/2" Ice 1" Ice	10.50 15.90 20.80	8.60 13.30 17.70	500.00 621.00 800.00
JMA MX08FRO665-21 (DISH)	B	From Leg	3.00 0.00 0.00	0.0000	170.00	No Ice 1/2" Ice 1" Ice	12.49 12.99 13.49	7.29 8.25 9.08	86.40 176.08 274.11
Fujitsu TA08025-B605 RRU (DISH)	B	From Leg	3.00 0.00 0.00	0.0000	170.00	No Ice 1/2" Ice 1" Ice	1.96 2.14 2.32	1.19 1.33 1.48	74.95 92.96 113.74
Fujitsu TA08025-B604 RRU (DISH)	B	From Leg	3.00 0.00 0.00	0.0000	170.00	No Ice 1/2" Ice 1" Ice	1.96 2.14 2.32	1.03 1.17 1.31	63.93 80.71 100.18
Site Pro 1 VFA10-SD (DISH)	C	From Leg	1.50 0.00 0.00	0.0000	170.00	No Ice 1/2" Ice 1" Ice	10.50 15.90 20.80	8.60 13.30 17.70	500.00 621.00 800.00

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft / Vert ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight lb
JMA MX08FRO665-21 (DISH)	C	From Leg	3.00 0.00 0.00	0.0000	170.00	No Ice 1/2" Ice 1" Ice	12.49 12.99 13.49	7.29 8.25 9.08	86.40 176.08 274.11
Fujitsu TA08025-B605 RRU (DISH)	C	From Leg	3.00 0.00 0.00	0.0000	170.00	No Ice 1/2" Ice 1" Ice	1.96 2.14 2.32	1.19 1.33 1.48	74.95 92.96 113.74
Fujitsu TA08025-B604 RRU (DISH)	C	From Leg	3.00 0.00 0.00	0.0000	170.00	No Ice 1/2" Ice 1" Ice	1.96 2.14 2.32	1.03 1.17 1.31	63.93 80.71 100.18

Dishes

Description	Face or Leg	Dish Type	Offset Type	Offsets: Horz Lateral ft / Vert ft	Azimuth Adjustment °	3 dB Beam Width °	Elevation ft	Outside Diameter ft		Aperture Area ft^2	Weight lb
HP6-105C	A	Paraboloid w/Shroud (HP)	From Leg	2.00 0.00 0.00	0.0000		264.00	6.00	No Ice 1/2" Ice 1" Ice	28.27 29.05 29.83	143.00 292.13 441.25
HP6-105C	C	Paraboloid w/Shroud (HP)	From Leg	3.00 0.00 0.00	0.0000		264.00	6.00	No Ice 1/2" Ice 1" Ice	28.27 29.05 29.83	143.00 292.13 441.25
Kathrein PR-460	A	Grid	From Leg	1.00 0.00 0.00	0.0000		254.00	4.65	No Ice 1/2" Ice 1" Ice	8.00 14.00 18.22	38.00 128.40 218.80
GHF4-23A	A	Grid	From Leg	1.00 0.00 0.00	0.0000		164.00	4.88	No Ice 1/2" Ice 1" Ice	14.90 19.30 23.70	105.00 204.07 303.14

Tower Pressures - No Ice

$G_H = 0.850$

Section Elevation ft	z ft	K_Z	q_z psf	A_G ft^2	Face	A_F ft^2	A_R ft^2	A_{leg} ft^2	Leg %	C_AA_A In Face ft^2	C_AA_A Out Face ft^2
T1 276.00-265.50	270.75	1.314	49	43.531	A B C	4.168 4.168 4.168	3.063 3.063 3.063	3.063	42.36 42.36 42.36	3.439 0.000 1.575	0.000 0.000 0.000
T2 265.50-261.75	263.63	1.304	49	15.547	A B C	1.413 1.413 1.413	1.094 1.094 1.094	1.094	43.64 43.64 43.64	1.228 1.417 0.563	0.000 0.000 0.000
T3 261.75-258.00	259.88	1.298	49	15.547	A B C	2.344 2.344 2.344	1.094 1.094 1.094	1.094	31.82 31.82 31.82	1.228 2.361 0.563	0.000 0.000 0.000

Section Elevation ft	z ft	K_Z	q_z psf	A_G ft²	Face	A_F ft²	A_R ft²	A_{leg} ft²	Leg %	C_AA_A In Face ft²	C_AA_A Out Face ft²
T4	256.00	1.293	49	16.583	A	1.437	1.167	1.167	44.80	1.310	0.000
258.00-254.00					B	1.437	1.167		44.80	2.519	0.000
					C	1.437	1.167		44.80	0.600	0.000
T5	252.00	1.287	49	16.583	A	1.437	1.167	1.167	44.80	1.310	0.000
254.00-250.00					B	1.437	1.167		44.80	2.519	0.000
					C	1.437	1.167		44.80	1.044	0.000
T6	248.00	1.281	49	16.583	A	1.437	1.568	1.167	38.82	1.310	0.000
250.00-246.00					B	1.437	1.568		38.82	2.519	0.000
					C	1.437	1.568		38.82	1.044	0.000
T7	244.00	1.275	49	16.583	A	1.437	1.568	1.167	38.82	1.310	0.000
246.00-242.00					B	1.437	1.568		38.82	2.519	0.000
					C	1.437	1.568		38.82	1.044	0.000
T8	240.00	1.269	49	16.583	A	1.437	1.568	1.167	38.82	1.310	0.000
242.00-238.00					B	1.437	1.568		38.82	2.519	0.000
					C	1.437	1.568		38.82	1.044	0.000
T9	236.00	1.263	48	16.583	A	1.437	1.568	1.167	38.82	1.310	0.000
238.00-234.00					B	1.437	1.568		38.82	5.384	0.000
					C	1.437	1.568		38.82	1.044	0.000
T10	232.00	1.257	48	16.583	A	1.437	1.568	1.167	38.82	1.310	0.000
234.00-230.00					B	1.437	1.568		38.82	8.249	0.000
					C	1.437	1.568		38.82	1.044	0.000
T11	228.00	1.251	48	16.583	A	1.437	1.568	1.167	38.82	1.310	0.000
230.00-226.00					B	1.437	1.568		38.82	8.249	0.000
					C	1.437	1.568		38.82	1.044	0.000
T12	224.00	1.244	48	16.583	A	1.437	1.568	1.167	38.82	1.310	0.000
226.00-222.00					B	1.437	1.568		38.82	8.249	0.000
					C	1.437	1.568		38.82	1.044	0.000
T13	214.00	1.228	48	66.667	A	7.073	5.333	5.333	42.99	10.140	0.000
222.00-206.00					B	7.073	5.333		42.99	37.885	0.000
					C	7.073	5.333		42.99	4.968	0.000
T14	204.00	1.212	47	16.667	A	1.768	1.333	1.333	42.99	2.710	0.000
206.00-202.00					B	1.768	1.333		42.99	18.029	0.000
					C	1.768	1.333		42.99	2.628	0.000
T15	200.00	1.205	47	16.667	A	3.057	1.333	1.333	30.37	2.710	0.000
202.00-198.00					B	3.057	1.333		30.37	18.029	0.000
					C	3.057	1.333		30.37	2.628	0.000
T16	196.00	1.198	47	16.667	A	1.768	1.333	1.333	42.99	2.710	0.000
198.00-194.00					B	1.768	1.333		42.99	18.145	0.000
					C	1.768	1.333		42.99	2.628	0.000
T17	188.00	1.184	47	50.000	A	5.305	4.000	4.000	42.99	8.130	0.000
194.00-182.00					B	5.305	4.000		42.99	54.782	0.000
					C	5.305	4.000		42.99	7.884	0.000
T18	172.00	1.154	46	83.333	A	7.712	6.667	6.667	46.36	13.550	0.000
182.00-162.00					B	7.712	6.667		46.36	91.420	0.000
					C	7.632	6.667		46.62	14.727	0.000
T19	160.00	1.13	45	16.667	A	1.542	1.333	1.333	46.36	2.710	0.000
162.00-158.00					B	1.542	1.333		46.36	18.493	0.000
					C	1.503	1.333		47.02	3.865	0.000
T20	156.00	1.122	45	16.667	A	1.542	1.333	1.333	46.36	2.710	0.000
158.00-154.00					B	1.542	1.333		46.36	18.493	0.000
					C	1.503	1.333		47.02	3.865	0.000
T21	152.00	1.114	45	16.667	A	1.542	1.333	1.333	46.36	2.710	0.000
154.00-150.00					B	1.542	1.333		46.36	18.493	0.000
					C	1.503	1.333		47.02	3.865	0.000
T22	148.00	1.105	45	16.667	A	1.542	1.333	1.333	46.36	2.710	0.000
150.00-146.00					B	1.542	1.333		46.36	18.493	0.000
					C	1.503	1.333		47.02	3.865	0.000
T23	144.00	1.097	45	16.667	A	1.542	1.333	1.333	46.36	2.710	0.000
146.00-142.00					B	1.542	1.333		46.36	18.493	0.000
					C	1.503	1.333		47.02	3.865	0.000

Section Elevation ft	z ft	K_Z	q_z psf	A_G ft²	Face	A_F ft²	A_R ft²	A_{leg} ft²	Leg %	C_AA_A In Face ft²	C_AA_A Out Face ft²
T24	140.00	1.088	44	16.667	A	1.542	1.333	1.333	46.36	2.710	0.000
142.00-138.00					B	1.542	1.333		46.36	18.493	0.000
					C	1.503	1.333		47.02	3.865	0.000
T25	136.00	1.079	44	16.667	A	1.702	1.733	1.333	38.82	2.710	0.000
138.00-134.00					B	1.702	1.733		38.82	18.493	0.000
					C	1.658	1.722		39.44	3.865	0.000
T26	132.00	1.07	44	16.667	A	1.702	1.733	1.333	38.82	2.710	0.000
134.00-130.00					B	1.702	1.733		38.82	18.493	0.000
					C	1.658	1.722		39.44	3.865	0.000
T27	128.00	1.06	44	16.667	A	2.341	1.333	1.333	36.29	3.632	0.000
130.00-126.00					B	2.341	1.333		36.29	19.414	0.000
					C	2.280	1.333		36.90	4.787	0.000
T28	124.00	1.051	43	16.667	A	1.702	1.733	1.333	38.82	2.710	0.000
126.00-122.00					B	1.702	1.733		38.82	18.493	0.000
					C	1.658	1.722		39.44	3.865	0.000
T29	120.00	1.041	43	16.667	A	1.542	1.733	1.333	40.71	2.710	0.000
122.00-118.00					B	1.542	1.733		40.71	18.493	0.000
					C	1.503	1.722		41.35	3.865	0.000
T30	116.00	1.031	43	16.667	A	1.542	1.733	1.333	40.71	2.710	0.000
118.00-114.00					B	1.542	1.733		40.71	18.493	0.000
					C	1.503	1.722		41.35	3.976	0.000
T31	112.00	1.021	42	16.667	A	1.542	1.333	1.333	46.36	2.710	0.000
114.00-110.00					B	1.542	1.333		46.36	18.493	0.000
					C	1.503	1.333		47.02	4.309	0.000
T32	108.00	1.01	42	16.667	A	1.542	1.333	1.333	46.36	2.710	0.000
110.00-106.00					B	1.542	1.333		46.36	18.493	0.000
					C	1.503	1.333		47.02	4.309	0.000
T33	104.00	0.999	42	16.667	A	1.542	1.333	1.333	46.36	3.643	0.000
106.00-102.00					B	1.542	1.333		46.36	19.426	0.000
					C	1.503	1.333		47.02	5.243	0.000
T34	100.00	0.988	42	16.667	A	2.181	1.333	1.333	37.94	3.643	0.000
102.00-98.00					B	2.181	1.333		37.94	19.426	0.000
					C	2.125	1.333		38.56	5.243	0.000
T35	96.00	0.977	41	16.667	A	2.181	1.333	1.333	37.94	3.643	0.000
98.00-94.00					B	2.181	1.333		37.94	19.426	0.000
					C	2.125	1.333		38.56	5.243	0.000
T36	92.00	0.965	41	16.667	A	2.181	1.333	1.333	37.94	3.643	0.000
94.00-90.00					B	2.181	1.333		37.94	19.426	0.000
					C	2.125	1.333		38.56	5.243	0.000
T37	88.00	0.953	40	16.667	A	2.181	1.333	1.333	37.94	3.643	0.000
90.00-86.00					B	2.181	1.333		37.94	19.426	0.000
					C	2.125	1.333		38.56	5.243	0.000
T38	84.00	0.94	40	16.667	A	2.181	1.333	1.333	37.94	3.643	0.000
86.00-82.00					B	2.181	1.333		37.94	19.426	0.000
					C	2.125	1.333		38.56	5.243	0.000
T39	80.00	0.927	40	16.667	A	2.181	1.333	1.333	37.94	3.643	0.000
82.00-78.00					B	2.181	1.333		37.94	19.426	0.000
					C	2.125	1.333		38.56	5.243	0.000
T40	76.00	0.914	39	16.667	A	2.181	1.333	1.333	37.94	3.643	0.000
78.00-74.00					B	2.181	1.333		37.94	19.426	0.000
					C	2.125	1.333		38.56	5.243	0.000
T41	72.00	0.9	39	16.667	A	2.181	1.333	1.333	37.94	3.643	0.000
74.00-70.00					B	2.181	1.333		37.94	19.426	0.000
					C	2.125	1.333		38.56	5.243	0.000
T42	68.00	0.885	38	16.667	A	2.181	1.333	1.333	37.94	3.643	0.000
70.00-66.00					B	2.181	1.333		37.94	19.426	0.000
					C	2.125	1.333		38.56	5.243	0.000
T43	64.00	0.87	38	16.667	A	2.181	1.333	1.333	37.94	3.643	0.000
66.00-62.00					B	2.181	1.333		37.94	19.426	0.000
					C	2.125	1.333		38.56	5.243	0.000

Section Elevation ft	z ft	K_Z	q_z psf	A_G ft²	Face	A_F ft²	A_R ft²	A_{leg} ft²	Leg %	C_AA_A In Face ft²	C_AA_A Out Face ft²
T44	60.00	0.854	37	16.667	A	2.341	1.333	1.333	36.29	3.643	0.000
62.00-58.00					B	2.341	1.333		36.29	19.426	0.000
					C	2.280	1.333		36.90	5.243	0.000
T45	56.00	0.837	36	16.667	A	2.181	1.333	1.333	37.94	3.736	0.000
58.00-54.00					B	2.181	1.333		37.94	19.426	0.000
					C	2.125	1.333		38.56	5.243	0.000
T46	52.00	0.82	36	16.667	A	2.181	1.333	1.333	37.94	3.829	0.000
54.00-50.00					B	2.181	1.333		37.94	19.426	0.000
					C	2.125	1.333		38.56	5.243	0.000
T47	48.00	0.801	35	16.667	A	2.181	1.333	1.333	37.94	3.829	0.000
50.00-46.00					B	2.181	1.333		37.94	19.426	0.000
					C	2.125	1.333		38.56	5.243	0.000
T48	44.00	0.782	34	16.667	A	2.181	1.333	1.333	37.94	3.829	0.000
46.00-42.00					B	2.181	1.333		37.94	19.426	0.000
					C	2.125	1.333		38.56	5.243	0.000
T49	40.00	0.761	34	16.667	A	2.341	1.333	1.333	36.29	2.896	0.000
42.00-38.00					B	2.341	1.333		36.29	18.493	0.000
					C	2.280	1.333		36.90	4.309	0.000
T50	36.00	0.738	33	16.667	A	2.341	1.333	1.333	36.29	2.896	0.000
38.00-34.00					B	2.341	1.333		36.29	18.493	0.000
					C	2.280	1.333		36.90	4.309	0.000
T51	32.00	0.714	32	16.667	A	2.341	1.333	1.333	36.29	2.896	0.000
34.00-30.00					B	2.341	1.333		36.29	18.493	0.000
					C	2.280	1.333		36.90	4.309	0.000
T52	28.00	0.7	31	16.667	A	2.341	1.333	1.333	36.29	2.896	0.000
30.00-26.00					B	2.341	1.333		36.29	18.493	0.000
					C	2.280	1.333		36.90	4.309	0.000
T53	24.00	0.7	31	16.667	A	2.341	1.333	1.333	36.29	2.896	0.000
26.00-22.00					B	2.341	1.333		36.29	18.493	0.000
					C	2.280	1.333		36.90	4.309	0.000
T54	20.00	0.7	31	16.667	A	2.341	1.333	1.333	36.29	2.896	0.000
22.00-18.00					B	2.341	1.333		36.29	18.493	0.000
					C	2.280	1.333		36.90	4.402	0.000
T55	16.00	0.7	32	16.667	A	2.341	1.333	1.333	36.29	2.896	0.000
18.00-14.00					B	2.341	1.333		36.29	18.493	0.000
					C	2.280	1.333		36.90	4.495	0.000
T56	12.00	0.7	32	16.667	A	2.341	1.333	1.333	36.29	2.896	0.000
14.00-10.00					B	2.341	1.333		36.29	18.493	0.000
					C	2.280	1.333		36.90	4.495	0.000
T57 10.00-6.00	8.00	0.7	32	16.667	A	2.341	1.333	1.333	36.29	1.448	0.000
					B	2.341	1.333		36.29	9.246	0.000
					C	2.311	1.333		36.59	2.770	0.000
T58 6.00-2.00	4.00	0.7	32	16.667	A	2.341	1.333	1.333	36.29	0.000	0.000
					B	2.341	1.333		36.29	0.000	0.000
					C	2.341	1.333		36.29	1.044	0.000

Tower Pressure - With Ice

$G_H = 0.850$

Section Elevation ft	z ft	K_Z	q_z psf	t_Z in	A_G ft²	Face	A_F ft²	A_R ft²	A_{leg} ft²	Leg %	C_AA_A In Face ft²	C_AA_A Out Face ft²
T1	270.75	1.314	9	1.3436	45.883	A	4.168	13.795	7.765	43.23	13.597	0.000
276.00-265.50						B	4.168	13.795		43.23	0.000	0.000

Section Elevation ft	z ft	K_Z	q_z psf	t_Z in	A_G ft²	Face	A_F ft²	A_R ft²	A_{leg} ft²	Leg %	C_AA_A In Face ft²	C_AA_A Out Face ft²
						C	4.168	13.795		43.23	4.397	0.000
T2	263.63	1.304	9	1.3419	16.386	A	1.413	4.815	2.771	44.50	4.851	0.000
265.50-261.75						B	1.413	4.815		44.50	4.806	0.000
						C	1.413	4.815		44.50	1.569	0.000
T3	259.88	1.298	9	1.3409	16.385	A	2.344	5.993	2.770	33.23	4.849	0.000
261.75-258.00						B	2.344	5.993		33.23	8.007	0.000
						C	2.344	5.993		33.23	1.568	0.000
T4	256.00	1.293	9	1.3399	17.477	A	1.437	5.031	2.953	45.66	5.169	0.000
258.00-254.00						B	1.437	5.031		45.66	8.538	0.000
						C	1.437	5.031		45.66	1.672	0.000
T5	252.00	1.287	9	1.3389	17.476	A	1.437	5.028	2.952	45.66	5.166	0.000
254.00-250.00						B	1.437	5.028		45.66	8.535	0.000
						C	1.437	5.028		45.66	3.186	0.000
T6	248.00	1.281	9	1.3378	17.475	A	1.437	6.286	2.950	38.20	5.163	0.000
250.00-246.00						B	1.437	6.286		38.20	8.532	0.000
						C	1.437	6.286		38.20	3.184	0.000
T7	244.00	1.275	9	1.3367	17.474	A	1.437	6.282	2.949	38.20	5.160	0.000
246.00-242.00						B	1.437	6.282		38.20	8.529	0.000
						C	1.437	6.282		38.20	3.183	0.000
T8	240.00	1.269	9	1.3356	17.474	A	1.437	6.278	2.947	38.20	5.156	0.000
242.00-238.00						B	1.437	6.278		38.20	8.526	0.000
						C	1.437	6.278		38.20	3.181	0.000
T9	236.00	1.263	9	1.3344	17.473	A	1.437	6.274	2.946	38.20	5.153	0.000
238.00-234.00						B	1.437	6.274		38.20	12.658	0.000
						C	1.437	6.274		38.20	3.179	0.000
T10	232.00	1.257	9	1.3332	17.472	A	1.437	6.270	2.944	38.20	5.150	0.000
234.00-230.00						B	1.437	6.270		38.20	16.788	0.000
						C	1.437	6.270		38.20	3.177	0.000
T11	228.00	1.251	9	1.3320	17.471	A	1.437	6.265	2.943	38.20	5.146	0.000
230.00-226.00						B	1.437	6.265		38.20	16.782	0.000
						C	1.437	6.265		38.20	3.175	0.000
T12	224.00	1.244	9	1.3308	17.471	A	1.437	6.261	2.941	38.20	5.143	0.000
226.00-222.00						B	1.437	6.261		38.20	16.775	0.000
						C	1.437	6.261		38.20	3.173	0.000
T13	214.00	1.228	9	1.3275	70.207	A	7.073	20.604	12.413	44.85	40.505	0.000
222.00-206.00						B	7.073	20.604		44.85	73.657	0.000
						C	7.073	20.604		44.85	14.795	0.000
T14	204.00	1.212	9	1.3240	17.549	A	1.768	5.141	3.099	44.85	10.820	0.000
206.00-202.00						B	1.768	5.141		44.85	29.968	0.000
						C	1.768	5.141		44.85	7.403	0.000
T15	200.00	1.205	8	1.3226	17.548	A	3.057	6.332	3.097	32.98	10.811	0.000
202.00-198.00						B	3.057	6.332		32.98	29.956	0.000
						C	3.057	6.332		32.98	7.399	0.000
T16	196.00	1.198	8	1.3210	17.547	A	1.768	5.132	3.095	44.85	10.803	0.000
198.00-194.00						B	1.768	5.132		44.85	30.587	0.000
						C	1.768	5.132		44.85	7.395	0.000
T17	188.00	1.184	8	1.3179	52.636	A	5.305	15.370	9.272	44.85	32.354	0.000
194.00-182.00						B	5.305	15.370		44.85	93.607	0.000
						C	5.305	15.370		44.85	22.155	0.000
T18	172.00	1.154	8	1.3110	87.703	A	7.712	25.518	15.407	46.36	53.728	0.000
182.00-162.00						B	7.712	25.518		46.36	156.332	0.000
						C	7.456	25.182		47.20	40.508	0.000
T19	160.00	1.13	8	1.3053	17.537	A	1.542	5.087	3.074	46.36	10.713	0.000
162.00-158.00						B	1.542	5.087		46.36	32.361	0.000
						C	1.415	4.921		48.51	10.673	0.000
T20	156.00	1.122	8	1.3032	17.535	A	1.542	5.081	3.071	46.36	10.701	0.000
158.00-154.00						B	1.542	5.081		46.36	32.340	0.000
						C	1.415	4.915		48.51	10.664	0.000
T21	152.00	1.114	8	1.3011	17.534	A	1.542	5.075	3.068	46.36	10.689	0.000
154.00-150.00						B	1.542	5.075		46.36	32.319	0.000

Section Elevation ft	z ft	K_Z	q_z psf	t_Z in	A_G ft²	Face	A_F ft²	A_R ft²	A_{leg} ft²	Leg %	C_AA_A In Face ft²	C_AA_A Out Face ft²
						C	1.415	4.910		48.51	10.654	0.000
T22	148.00	1.105	8	1.2989	17.533	A	1.542	5.069	3.065	46.36	10.676	0.000
150.00-146.00						B	1.542	5.069		46.36	32.296	0.000
						C	1.415	4.904		48.51	10.644	0.000
T23	144.00	1.097	8	1.2966	17.531	A	1.542	5.062	3.062	46.36	10.663	0.000
146.00-142.00						B	1.542	5.062		46.36	32.273	0.000
						C	1.416	4.898		48.50	10.634	0.000
T24	140.00	1.088	8	1.2942	17.529	A	1.542	5.055	3.059	46.36	10.650	0.000
142.00-138.00						B	1.542	5.055		46.36	32.249	0.000
						C	1.416	4.891		48.50	10.623	0.000
T25	136.00	1.079	8	1.2918	17.528	A	1.702	6.273	3.056	38.32	10.636	0.000
138.00-134.00						B	1.702	6.273		38.32	32.224	0.000
						C	1.563	6.009		40.36	10.611	0.000
T26	132.00	1.07	8	1.2892	17.526	A	1.702	6.264	3.052	38.32	10.621	0.000
134.00-130.00						B	1.702	6.264		38.32	32.198	0.000
						C	1.563	6.001		40.36	10.600	0.000
T27	128.00	1.06	8	1.2866	17.524	A	2.341	5.855	3.049	37.20	12.124	0.000
130.00-126.00						B	2.341	5.855		37.20	33.690	0.000
						C	2.150	5.626		39.21	12.106	0.000
T28	124.00	1.051	8	1.2838	17.523	A	1.702	6.245	3.045	38.32	10.590	0.000
126.00-122.00						B	1.702	6.245		38.32	32.143	0.000
						C	1.563	5.983		40.35	10.575	0.000
T29	120.00	1.041	8	1.2809	17.521	A	1.542	6.235	3.041	39.11	10.574	0.000
122.00-118.00						B	1.542	6.235		39.11	32.114	0.000
						C	1.417	5.974		41.15	10.562	0.000
T30	116.00	1.031	8	1.2779	17.519	A	1.542	6.224	3.037	39.11	10.557	0.000
118.00-114.00						B	1.542	6.224		39.11	32.084	0.000
						C	1.417	5.965		41.15	10.914	0.000
T31	112.00	1.021	8	1.2748	17.517	A	1.542	4.999	3.033	46.36	10.539	0.000
114.00-110.00						B	1.542	4.999		46.36	32.052	0.000
						C	1.417	4.839		48.48	11.997	0.000
T32	108.00	1.01	8	1.2715	17.514	A	1.542	4.990	3.029	46.36	10.520	0.000
110.00-106.00						B	1.542	4.990		46.36	32.019	0.000
						C	1.417	4.831		48.47	11.980	0.000
T33	104.00	0.999	8	1.2680	17.512	A	1.542	4.980	3.024	46.36	12.448	0.000
106.00-102.00						B	1.542	4.980		46.36	33.932	0.000
						C	1.417	4.821		48.47	13.909	0.000
T34	100.00	0.988	7	1.2644	17.510	A	2.181	5.777	3.019	37.94	12.425	0.000
102.00-98.00						B	2.181	5.777		37.94	33.892	0.000
						C	2.005	5.554		39.94	13.886	0.000
T35 98.00-94.00	96.00	0.977	7	1.2606	17.507	A	2.181	5.764	3.014	37.94	12.400	0.000
						B	2.181	5.764		37.94	33.851	0.000
						C	2.005	5.542		39.94	13.863	0.000
T36 94.00-90.00	92.00	0.965	7	1.2567	17.504	A	2.181	5.750	3.009	37.94	12.374	0.000
						B	2.181	5.750		37.94	33.807	0.000
						C	2.006	5.529		39.93	13.838	0.000
T37 90.00-86.00	88.00	0.953	7	1.2525	17.502	A	2.181	5.735	3.003	37.94	12.347	0.000
						B	2.181	5.735		37.94	33.761	0.000
						C	2.006	5.516		39.93	13.812	0.000
T38 86.00-82.00	84.00	0.94	7	1.2480	17.499	A	2.181	5.720	2.997	37.94	12.318	0.000
						B	2.181	5.720		37.94	33.713	0.000
						C	2.007	5.502		39.92	13.785	0.000
T39 82.00-78.00	80.00	0.927	7	1.2433	17.496	A	2.181	5.703	2.991	37.94	12.287	0.000
						B	2.181	5.703		37.94	33.662	0.000
						C	2.007	5.486		39.92	13.756	0.000
T40 78.00-74.00	76.00	0.914	7	1.2384	17.492	A	2.181	5.686	2.984	37.94	12.255	0.000
						B	2.181	5.686		37.94	33.608	0.000
						C	2.007	5.470		39.91	13.725	0.000
T41 74.00-70.00	72.00	0.9	7	1.2331	17.489	A	2.181	5.667	2.977	37.94	12.221	0.000
						B	2.181	5.667		37.94	33.550	0.000

Section Elevation ft	z ft	K_Z	q_z psf	t_Z in	A_G ft²	Face	A_F ft²	A_R ft²	A_{leg} ft²	Leg %	C_AA_A In Face ft²	C_AA_A Out Face ft²
						C	2.008	5.453		39.91	13.693	0.000
T42 70.00-66.00	68.00	0.885	7	1.2275	17.485	A	2.181	5.647	2.970	37.94	12.184	0.000
						B	2.181	5.647		37.94	33.488	0.000
						C	2.008	5.435		39.90	13.658	0.000
T43 66.00-62.00	64.00	0.87	7	1.2214	17.481	A	2.181	5.626	2.962	37.94	12.145	0.000
						B	2.181	5.626		37.94	33.423	0.000
						C	2.009	5.416		39.89	13.621	0.000
T44 62.00-58.00	60.00	0.854	7	1.2150	17.477	A	2.341	5.604	2.953	37.17	12.103	0.000
						B	2.341	5.604		37.17	33.352	0.000
						C	2.157	5.395		39.11	13.581	0.000
T45 58.00-54.00	56.00	0.837	7	1.2080	17.472	A	2.181	5.579	2.944	37.94	12.634	0.000
						B	2.181	5.579		37.94	33.277	0.000
						C	2.010	5.373		39.88	13.538	0.000
T46 54.00-50.00	52.00	0.82	6	1.2005	17.467	A	2.181	5.553	2.934	37.94	13.156	0.000
						B	2.181	5.553		37.94	33.195	0.000
						C	2.011	5.348		39.87	13.492	0.000
T47 50.00-46.00	48.00	0.801	6	1.1924	17.462	A	2.181	5.524	2.923	37.94	13.096	0.000
						B	2.181	5.524		37.94	33.106	0.000
						C	2.012	5.322		39.86	13.441	0.000
T48 46.00-42.00	44.00	0.782	6	1.1835	17.456	A	2.181	5.493	2.911	37.94	13.031	0.000
						B	2.181	5.493		37.94	33.008	0.000
						C	2.013	5.293		39.85	13.386	0.000
T49 42.00-38.00	40.00	0.761	6	1.1737	17.449	A	2.341	5.458	2.898	37.16	11.087	0.000
						B	2.341	5.458		37.16	31.029	0.000
						C	2.161	5.261		39.05	11.453	0.000
T50 38.00-34.00	36.00	0.738	6	1.1628	17.442	A	2.341	5.420	2.884	37.16	11.016	0.000
						B	2.341	5.420		37.16	30.919	0.000
						C	2.162	5.226		39.03	11.395	0.000
T51 34.00-30.00	32.00	0.714	6	1.1506	17.434	A	2.341	5.377	2.867	37.15	10.937	0.000
						B	2.341	5.377		37.15	30.795	0.000
						C	2.163	5.187		39.01	11.329	0.000
T52 30.00-26.00	28.00	0.7	6	1.1367	17.424	A	2.341	5.328	2.849	37.15	10.847	0.000
						B	2.341	5.328		37.15	30.655	0.000
						C	2.165	5.142		38.99	11.254	0.000
T53 26.00-22.00	24.00	0.7	6	1.1207	17.414	A	2.341	5.272	2.828	37.14	10.743	0.000
						B	2.341	5.272		37.14	30.494	0.000
						C	2.166	5.090		38.97	11.168	0.000
T54 22.00-18.00	20.00	0.7	6	1.1018	17.401	A	2.341	5.206	2.802	37.13	10.620	0.000
						B	2.341	5.206		37.13	30.303	0.000
						C	2.168	5.029		38.94	11.601	0.000
T55 18.00-14.00	16.00	0.7	6	1.0789	17.386	A	2.341	5.125	2.772	37.13	10.471	0.000
						B	2.341	5.125		37.13	30.071	0.000
						C	2.171	4.954		38.91	11.992	0.000
T56 14.00-10.00	12.00	0.7	6	1.0496	17.366	A	2.341	5.022	2.733	37.11	10.280	0.000
						B	2.341	5.022		37.11	29.775	0.000
						C	2.174	4.859		38.86	11.812	0.000
T57 10.00-6.00	8.00	0.7	6	1.0092	17.339	A	2.341	4.880	2.679	37.10	5.009	0.000
						B	2.341	4.880		37.10	14.684	0.000
						C	2.259	4.804		37.93	7.110	0.000
T58 6.00-2.00	4.00	0.7	6	0.9429	17.295	A	2.341	4.647	2.590	37.07	0.000	0.000
						B	2.341	4.647		37.07	0.000	0.000
						C	2.341	4.647		37.07	2.553	0.000

Tower Pressure - Service

$G_H = 0.850$

Section Elevation ft	z ft	K_Z	q_z psf	A_G ft²	Face	A_F ft²	A_R ft²	A_{leg} ft²	Leg %	C_AA_A In Face ft²	C_AA_A Out Face ft²
T1	270.75	1.314	13	43.531	A	4.168	3.063	3.063	42.36	3.439	0.000
276.00-265.50					B	4.168	3.063		42.36	0.000	0.000
					C	4.168	3.063		42.36	1.575	0.000
T2	263.63	1.304	13	15.547	A	1.413	1.094	1.094	43.64	1.228	0.000
265.50-261.75					B	1.413	1.094		43.64	1.417	0.000
					C	1.413	1.094		43.64	0.563	0.000
T3	259.88	1.298	13	15.547	A	2.344	1.094	1.094	31.82	1.228	0.000
261.75-258.00					B	2.344	1.094		31.82	2.361	0.000
					C	2.344	1.094		31.82	0.563	0.000
T4	256.00	1.293	13	16.583	A	1.437	1.167	1.167	44.80	1.310	0.000
258.00-254.00					B	1.437	1.167		44.80	2.519	0.000
					C	1.437	1.167		44.80	0.600	0.000
T5	252.00	1.287	13	16.583	A	1.437	1.167	1.167	44.80	1.310	0.000
254.00-250.00					B	1.437	1.167		44.80	2.519	0.000
					C	1.437	1.167		44.80	1.044	0.000
T6	248.00	1.281	13	16.583	A	1.437	1.568	1.167	38.82	1.310	0.000
250.00-246.00					B	1.437	1.568		38.82	2.519	0.000
					C	1.437	1.568		38.82	1.044	0.000
T7	244.00	1.275	13	16.583	A	1.437	1.568	1.167	38.82	1.310	0.000
246.00-242.00					B	1.437	1.568		38.82	2.519	0.000
					C	1.437	1.568		38.82	1.044	0.000
T8	240.00	1.269	13	16.583	A	1.437	1.568	1.167	38.82	1.310	0.000
242.00-238.00					B	1.437	1.568		38.82	2.519	0.000
					C	1.437	1.568		38.82	1.044	0.000
T9	236.00	1.263	13	16.583	A	1.437	1.568	1.167	38.82	1.310	0.000
238.00-234.00					B	1.437	1.568		38.82	5.384	0.000
					C	1.437	1.568		38.82	1.044	0.000
T10	232.00	1.257	12	16.583	A	1.437	1.568	1.167	38.82	1.310	0.000
234.00-230.00					B	1.437	1.568		38.82	8.249	0.000
					C	1.437	1.568		38.82	1.044	0.000
T11	228.00	1.251	12	16.583	A	1.437	1.568	1.167	38.82	1.310	0.000
230.00-226.00					B	1.437	1.568		38.82	8.249	0.000
					C	1.437	1.568		38.82	1.044	0.000
T12	224.00	1.244	12	16.583	A	1.437	1.568	1.167	38.82	1.310	0.000
226.00-222.00					B	1.437	1.568		38.82	8.249	0.000
					C	1.437	1.568		38.82	1.044	0.000
T13	214.00	1.228	12	66.667	A	7.073	5.333	5.333	42.99	10.140	0.000
222.00-206.00					B	7.073	5.333		42.99	37.885	0.000
					C	7.073	5.333		42.99	4.968	0.000
T14	204.00	1.212	12	16.667	A	1.768	1.333	1.333	42.99	2.710	0.000
206.00-202.00					B	1.768	1.333		42.99	18.029	0.000
					C	1.768	1.333		42.99	2.628	0.000
T15	200.00	1.205	12	16.667	A	3.057	1.333	1.333	30.37	2.710	0.000
202.00-198.00					B	3.057	1.333		30.37	18.029	0.000
					C	3.057	1.333		30.37	2.628	0.000
T16	196.00	1.198	12	16.667	A	1.768	1.333	1.333	42.99	2.710	0.000
198.00-194.00					B	1.768	1.333		42.99	18.145	0.000
					C	1.768	1.333		42.99	2.628	0.000
T17	188.00	1.184	12	50.000	A	5.305	4.000	4.000	42.99	8.130	0.000
194.00-182.00					B	5.305	4.000		42.99	54.782	0.000
					C	5.305	4.000		42.99	7.884	0.000
T18	172.00	1.154	12	83.333	A	7.712	6.667	6.667	46.36	13.550	0.000
182.00-162.00					B	7.712	6.667		46.36	91.420	0.000
					C	7.632	6.667		46.62	14.727	0.000
T19	160.00	1.13	12	16.667	A	1.542	1.333	1.333	46.36	2.710	0.000
162.00-158.00					B	1.542	1.333		46.36	18.493	0.000
					C	1.503	1.333		47.02	3.865	0.000
T20	156.00	1.122	12	16.667	A	1.542	1.333	1.333	46.36	2.710	0.000

Section Elevation ft	z ft	K_Z	q_z psf	A_G ft²	Face	A_F ft²	A_R ft²	A_{leg} ft²	Leg %	C_AA_A In Face ft²	C_AA_A Out Face ft²
158.00-154.00					B	1.542	1.333		46.36	18.493	0.000
					C	1.503	1.333		47.02	3.865	0.000
T21	152.00	1.114	12	16.667	A	1.542	1.333	1.333	46.36	2.710	0.000
154.00-150.00					B	1.542	1.333		46.36	18.493	0.000
					C	1.503	1.333		47.02	3.865	0.000
T22	148.00	1.105	12	16.667	A	1.542	1.333	1.333	46.36	2.710	0.000
150.00-146.00					B	1.542	1.333		46.36	18.493	0.000
					C	1.503	1.333		47.02	3.865	0.000
T23	144.00	1.097	12	16.667	A	1.542	1.333	1.333	46.36	2.710	0.000
146.00-142.00					B	1.542	1.333		46.36	18.493	0.000
					C	1.503	1.333		47.02	3.865	0.000
T24	140.00	1.088	11	16.667	A	1.542	1.333	1.333	46.36	2.710	0.000
142.00-138.00					B	1.542	1.333		46.36	18.493	0.000
					C	1.503	1.333		47.02	3.865	0.000
T25	136.00	1.079	11	16.667	A	1.702	1.733	1.333	38.82	2.710	0.000
138.00-134.00					B	1.702	1.733		38.82	18.493	0.000
					C	1.658	1.722		39.44	3.865	0.000
T26	132.00	1.07	11	16.667	A	1.702	1.733	1.333	38.82	2.710	0.000
134.00-130.00					B	1.702	1.733		38.82	18.493	0.000
					C	1.658	1.722		39.44	3.865	0.000
T27	128.00	1.06	11	16.667	A	2.341	1.333	1.333	36.29	3.632	0.000
130.00-126.00					B	2.341	1.333		36.29	19.414	0.000
					C	2.280	1.333		36.90	4.787	0.000
T28	124.00	1.051	11	16.667	A	1.702	1.733	1.333	38.82	2.710	0.000
126.00-122.00					B	1.702	1.733		38.82	18.493	0.000
					C	1.658	1.722		39.44	3.865	0.000
T29	120.00	1.041	11	16.667	A	1.542	1.733	1.333	40.71	2.710	0.000
122.00-118.00					B	1.542	1.733		40.71	18.493	0.000
					C	1.503	1.722		41.35	3.865	0.000
T30	116.00	1.031	11	16.667	A	1.542	1.733	1.333	40.71	2.710	0.000
118.00-114.00					B	1.542	1.733		40.71	18.493	0.000
					C	1.503	1.722		41.35	3.976	0.000
T31	112.00	1.021	11	16.667	A	1.542	1.333	1.333	46.36	2.710	0.000
114.00-110.00					B	1.542	1.333		46.36	18.493	0.000
					C	1.503	1.333		47.02	4.309	0.000
T32	108.00	1.01	11	16.667	A	1.542	1.333	1.333	46.36	2.710	0.000
110.00-106.00					B	1.542	1.333		46.36	18.493	0.000
					C	1.503	1.333		47.02	4.309	0.000
T33	104.00	0.999	11	16.667	A	1.542	1.333	1.333	46.36	3.643	0.000
106.00-102.00					B	1.542	1.333		46.36	19.426	0.000
					C	1.503	1.333		47.02	5.243	0.000
T34	100.00	0.988	11	16.667	A	2.181	1.333	1.333	37.94	3.643	0.000
102.00-98.00					B	2.181	1.333		37.94	19.426	0.000
					C	2.125	1.333		38.56	5.243	0.000
T35	96.00	0.977	11	16.667	A	2.181	1.333	1.333	37.94	3.643	0.000
98.00-94.00					B	2.181	1.333		37.94	19.426	0.000
					C	2.125	1.333		38.56	5.243	0.000
T36	92.00	0.965	11	16.667	A	2.181	1.333	1.333	37.94	3.643	0.000
94.00-90.00					B	2.181	1.333		37.94	19.426	0.000
					C	2.125	1.333		38.56	5.243	0.000
T37	88.00	0.953	10	16.667	A	2.181	1.333	1.333	37.94	3.643	0.000
90.00-86.00					B	2.181	1.333		37.94	19.426	0.000
					C	2.125	1.333		38.56	5.243	0.000
T38	84.00	0.94	10	16.667	A	2.181	1.333	1.333	37.94	3.643	0.000
86.00-82.00					B	2.181	1.333		37.94	19.426	0.000
					C	2.125	1.333		38.56	5.243	0.000
T39	80.00	0.927	10	16.667	A	2.181	1.333	1.333	37.94	3.643	0.000
82.00-78.00					B	2.181	1.333		37.94	19.426	0.000
					C	2.125	1.333		38.56	5.243	0.000
T40	76.00	0.914	10	16.667	A	2.181	1.333	1.333	37.94	3.643	0.000

Section Elevation ft	z ft	K_Z	q_z psf	A_G ft²	Face	A_F ft²	A_R ft²	A_{leg} ft²	Leg %	C_AA_A In Face ft²	C_AA_A Out Face ft²
78.00-74.00					B	2.181	1.333		37.94	19.426	0.000
					C	2.125	1.333		38.56	5.243	0.000
T41	72.00	0.9	10	16.667	A	2.181	1.333	1.333	37.94	3.643	0.000
74.00-70.00					B	2.181	1.333		37.94	19.426	0.000
					C	2.125	1.333		38.56	5.243	0.000
T42	68.00	0.885	10	16.667	A	2.181	1.333	1.333	37.94	3.643	0.000
70.00-66.00					B	2.181	1.333		37.94	19.426	0.000
					C	2.125	1.333		38.56	5.243	0.000
T43	64.00	0.87	10	16.667	A	2.181	1.333	1.333	37.94	3.643	0.000
66.00-62.00					B	2.181	1.333		37.94	19.426	0.000
					C	2.125	1.333		38.56	5.243	0.000
T44	60.00	0.854	10	16.667	A	2.341	1.333	1.333	36.29	3.643	0.000
62.00-58.00					B	2.341	1.333		36.29	19.426	0.000
					C	2.280	1.333		36.90	5.243	0.000
T45	56.00	0.837	9	16.667	A	2.181	1.333	1.333	37.94	3.736	0.000
58.00-54.00					B	2.181	1.333		37.94	19.426	0.000
					C	2.125	1.333		38.56	5.243	0.000
T46	52.00	0.82	9	16.667	A	2.181	1.333	1.333	37.94	3.829	0.000
54.00-50.00					B	2.181	1.333		37.94	19.426	0.000
					C	2.125	1.333		38.56	5.243	0.000
T47	48.00	0.801	9	16.667	A	2.181	1.333	1.333	37.94	3.829	0.000
50.00-46.00					B	2.181	1.333		37.94	19.426	0.000
					C	2.125	1.333		38.56	5.243	0.000
T48	44.00	0.782	9	16.667	A	2.181	1.333	1.333	37.94	3.829	0.000
46.00-42.00					B	2.181	1.333		37.94	19.426	0.000
					C	2.125	1.333		38.56	5.243	0.000
T49	40.00	0.761	9	16.667	A	2.341	1.333	1.333	36.29	2.896	0.000
42.00-38.00					B	2.341	1.333		36.29	18.493	0.000
					C	2.280	1.333		36.90	4.309	0.000
T50	36.00	0.738	8	16.667	A	2.341	1.333	1.333	36.29	2.896	0.000
38.00-34.00					B	2.341	1.333		36.29	18.493	0.000
					C	2.280	1.333		36.90	4.309	0.000
T51	32.00	0.714	8	16.667	A	2.341	1.333	1.333	36.29	2.896	0.000
34.00-30.00					B	2.341	1.333		36.29	18.493	0.000
					C	2.280	1.333		36.90	4.309	0.000
T52	28.00	0.7	8	16.667	A	2.341	1.333	1.333	36.29	2.896	0.000
30.00-26.00					B	2.341	1.333		36.29	18.493	0.000
					C	2.280	1.333		36.90	4.309	0.000
T53	24.00	0.7	8	16.667	A	2.341	1.333	1.333	36.29	2.896	0.000
26.00-22.00					B	2.341	1.333		36.29	18.493	0.000
					C	2.280	1.333		36.90	4.309	0.000
T54	20.00	0.7	8	16.667	A	2.341	1.333	1.333	36.29	2.896	0.000
22.00-18.00					B	2.341	1.333		36.29	18.493	0.000
					C	2.280	1.333		36.90	4.402	0.000
T55	16.00	0.7	8	16.667	A	2.341	1.333	1.333	36.29	2.896	0.000
18.00-14.00					B	2.341	1.333		36.29	18.493	0.000
					C	2.280	1.333		36.90	4.495	0.000
T56	12.00	0.7	8	16.667	A	2.341	1.333	1.333	36.29	2.896	0.000
14.00-10.00					B	2.341	1.333		36.29	18.493	0.000
					C	2.280	1.333		36.90	4.495	0.000
T57 10.00-6.00	8.00	0.7	8	16.667	A	2.341	1.333	1.333	36.29	1.448	0.000
					B	2.341	1.333		36.29	9.246	0.000
					C	2.311	1.333		36.59	2.770	0.000
T58 6.00-2.00	4.00	0.7	8	16.667	A	2.341	1.333	1.333	36.29	0.000	0.000
					B	2.341	1.333		36.29	0.000	0.000
					C	2.341	1.333		36.29	1.044	0.000

Tower Forces - No Ice - Wind Normal To Face

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	q_z psf	D_F	D_R	A_E ft²	F lb	w plf	Ctrl. Face
T1	64.58	468.83	A	0.166	2.713	49	1	1	5.911	799.46	76.14	C
276.00-265.50			B	0.166	2.713		1	1	5.911			
			C	0.166	2.713		1	1	5.911			
T2	27.65	163.84	A	0.161	2.731	49	1	1	2.035	311.72	83.13	C
265.50-261.75			B	0.161	2.731		1	1	2.035			
			C	0.161	2.731		1	1	2.035			
T3	30.71	243.86	A	0.221	2.527	49	1	1	2.977	416.02	110.94	C
261.75-258.00		TA 705.99	B	0.221	2.527		1	1	2.977			
			C	0.221	2.527		1	1	2.977			
T4	32.76	171.44	A	0.157	2.746	49	1	1	2.100	348.85	87.21	C
258.00-254.00			B	0.157	2.746		1	1	2.100			
			C	0.157	2.746		1	1	2.100			
T5	34.92	171.44	A	0.157	2.746	49	1	1	2.100	359.13	89.78	C
254.00-250.00			B	0.157	2.746		1	1	2.100			
			C	0.157	2.746		1	1	2.100			
T6	34.92	224.06	A	0.181	2.66	49	1	1	2.333	376.52	94.13	C
250.00-246.00			B	0.181	2.66		1	1	2.333			
			C	0.181	2.66		1	1	2.333			
T7	34.92	224.06	A	0.181	2.66	49	1	1	2.333	375.63	93.91	C
246.00-242.00			B	0.181	2.66		1	1	2.333			
			C	0.181	2.66		1	1	2.333			
T8	34.92	224.06	A	0.181	2.66	49	1	1	2.333	374.73	93.68	C
242.00-238.00			B	0.181	2.66		1	1	2.333			
			C	0.181	2.66		1	1	2.333			
T9	49.74	224.06	A	0.181	2.66	48	1	1	2.333	424.53	106.13	B
238.00-234.00			B	0.181	2.66		1	1	2.333			
			C	0.181	2.66		1	1	2.333			
T10	64.56	224.06	A	0.181	2.66	48	1	1	2.333	483.74	120.94	B
234.00-230.00			B	0.181	2.66		1	1	2.333			
			C	0.181	2.66		1	1	2.333			
T11	64.56	224.06	A	0.181	2.66	48	1	1	2.333	482.48	120.62	B
230.00-226.00			B	0.181	2.66		1	1	2.333			
			C	0.181	2.66		1	1	2.333			
T12	64.56	224.06	A	0.181	2.66	48	1	1	2.333	481.19	120.30	B
226.00-222.00			B	0.181	2.66		1	1	2.333			
			C	0.181	2.66		1	1	2.333			
T13	352.40	950.03	A	0.186	2.643	48	1	1	10.125	2191.83	136.99	B
222.00-206.00			B	0.186	2.643		1	1	10.125			
			C	0.186	2.643		1	1	10.125			
T14	141.04	270.25	A	0.186	2.643	47	1	1	2.531	704.63	176.16	B
206.00-202.00			B	0.186	2.643		1	1	2.531			
			C	0.186	2.643		1	1	2.531			
T15	141.04	418.67	A	0.263	2.398	47	1	1	3.842	803.59	200.90	B
202.00-198.00		TA 713.11	B	0.263	2.398		1	1	3.842			
			C	0.263	2.398		1	1	3.842			
T16	141.54	270.25	A	0.186	2.643	47	1	1	2.531	702.92	175.73	B
198.00-194.00			B	0.186	2.643		1	1	2.531			
			C	0.186	2.643		1	1	2.531			
T17	426.12	712.52	A	0.186	2.643	47	1	1	7.594	2102.75	175.23	B
194.00-182.00			B	0.186	2.643		1	1	7.594			
			C	0.186	2.643		1	1	7.594			
T18	718.70	1111.14	A	0.173	2.69	46	1	1	11.514	3420.49	171.02	B
182.00-162.00			B	0.173	2.69		1	1	11.514			
			C	0.172	2.694		1	1	11.433			
T19	149.20	222.23	A	0.173	2.69	45	1	1	2.303	709.07	177.27	B
162.00-158.00			B	0.173	2.69		1	1	2.303			
			C	0.17	2.699		1	1	2.262			

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	q_z psf	D_F	D_R	A_E ft²	F lb	w plf	Ctrl. Face
T20	149.20	222.23	A	0.173	2.69	45	1	1	2.303	705.89	176.47	B
158.00-154.00			B	0.173	2.69		1	1	2.303			
			C	0.17	2.699		1	1	2.262			
T21	149.20	222.23	A	0.173	2.69	45	1	1	2.303	702.60	175.65	B
154.00-150.00			B	0.173	2.69		1	1	2.303			
			C	0.17	2.699		1	1	2.262			
T22	149.20	222.23	A	0.173	2.69	45	1	1	2.303	699.21	174.80	B
150.00-146.00			B	0.173	2.69		1	1	2.303			
			C	0.17	2.699		1	1	2.262			
T23	149.20	247.81	A	0.173	2.69	45	1	1	2.303	695.71	173.93	B
146.00-142.00			B	0.173	2.69		1	1	2.303			
			C	0.17	2.699		1	1	2.262			
T24	149.20	247.81	A	0.173	2.69	44	1	1	2.303	692.08	173.02	B
142.00-138.00			B	0.173	2.69		1	1	2.303			
			C	0.17	2.699		1	1	2.262			
T25	149.20	320.80	A	0.206	2.576	44	1	1	2.699	716.77	179.19	B
138.00-134.00			B	0.206	2.576		1	1	2.699			
			C	0.203	2.587		1	1	2.654			
T26	149.20	320.80	A	0.206	2.576	44	1	1	2.699	712.73	178.18	B
134.00-130.00			B	0.206	2.576		1	1	2.699			
			C	0.203	2.587		1	1	2.654			
T27	169.90	273.25	A	0.22	2.529	44	1	1	3.112	804.08	201.02	B
130.00-126.00			B	0.22	2.529		1	1	3.112			
			C	0.217	2.541		1	1	3.051			
T28	149.20	295.21	A	0.206	2.576	43	1	1	2.699	704.20	176.05	B
126.00-122.00			B	0.206	2.576		1	1	2.699			
			C	0.203	2.587		1	1	2.654			
T29	149.20	274.84	A	0.197	2.608	43	1	1	2.537	687.31	171.83	B
122.00-118.00			B	0.197	2.608		1	1	2.537			
			C	0.193	2.618		1	1	2.496			
T30	149.74	274.84	A	0.197	2.608	43	1	1	2.537	685.13	171.28	B
118.00-114.00			B	0.197	2.608		1	1	2.537			
			C	0.193	2.618		1	1	2.496			
T31	151.36	222.23	A	0.173	2.69	42	1	1	2.303	672.37	168.09	B
114.00-110.00			B	0.173	2.69		1	1	2.303			
			C	0.17	2.699		1	1	2.262			
T32	151.36	222.23	A	0.173	2.69	42	1	1	2.303	667.42	166.86	B
110.00-106.00			B	0.173	2.69		1	1	2.303			
			C	0.17	2.699		1	1	2.262			
T33	172.06	222.23	A	0.173	2.69	42	1	1	2.303	722.04	180.51	B
106.00-102.00			B	0.173	2.69		1	1	2.303			
			C	0.17	2.699		1	1	2.262			
T34	172.06	239.36	A	0.211	2.56	42	1	1	2.950	764.06	191.02	B
102.00-98.00			B	0.211	2.56		1	1	2.950			
			C	0.207	2.571		1	1	2.893			
T35	172.06	239.36	A	0.211	2.56	41	1	1	2.950	757.54	189.38	B
98.00-94.00			B	0.211	2.56		1	1	2.950			
			C	0.207	2.571		1	1	2.893			
T36	172.06	239.36	A	0.211	2.56	41	1	1	2.950	750.72	187.68	B
94.00-90.00			B	0.211	2.56		1	1	2.950			
			C	0.207	2.571		1	1	2.893			
T37	172.06	239.36	A	0.211	2.56	40	1	1	2.950	743.57	185.89	B
90.00-86.00			B	0.211	2.56		1	1	2.950			
			C	0.207	2.571		1	1	2.893			
T38	172.06	239.36	A	0.211	2.56	40	1	1	2.950	736.08	184.02	B
86.00-82.00			B	0.211	2.56		1	1	2.950			
			C	0.207	2.571		1	1	2.893			
T39	172.06	239.36	A	0.211	2.56	40	1	1	2.950	728.20	182.05	B
82.00-78.00			B	0.211	2.56		1	1	2.950			
			C	0.207	2.571		1	1	2.893			

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	q_z psf	D_F	D_R	A_E ft²	F lb	w plf	Ctrl. Face
T40	172.06	239.36	A	0.211	2.56	39	1	1	2.950	719.92	179.98	B
78.00-74.00			B	0.211	2.56		1	1	2.950			
			C	0.207	2.571		1	1	2.893			
T41	172.06	252.88	A	0.211	2.56	39	1	1	2.950	711.18	177.79	B
74.00-70.00			B	0.211	2.56		1	1	2.950			
			C	0.207	2.571		1	1	2.893			
T42	172.06	252.88	A	0.211	2.56	38	1	1	2.950	701.95	175.49	B
70.00-66.00			B	0.211	2.56		1	1	2.950			
			C	0.207	2.571		1	1	2.893			
T43	172.06	252.88	A	0.211	2.56	38	1	1	2.950	692.16	173.04	B
66.00-62.00			B	0.211	2.56		1	1	2.950			
			C	0.207	2.571		1	1	2.893			
T44	172.06	273.25	A	0.22	2.529	37	1	1	3.112	691.82	172.95	B
62.00-58.00			B	0.22	2.529		1	1	3.112			
			C	0.217	2.541		1	1	3.051			
T45	172.32	252.88	A	0.211	2.56	36	1	1	2.950	672.43	168.11	B
58.00-54.00			B	0.211	2.56		1	1	2.950			
			C	0.207	2.571		1	1	2.893			
T46	172.58	252.88	A	0.211	2.56	36	1	1	2.950	662.26	165.57	B
54.00-50.00			B	0.211	2.56		1	1	2.950			
			C	0.207	2.571		1	1	2.893			
T47	172.58	252.88	A	0.211	2.56	35	1	1	2.950	649.49	162.37	B
50.00-46.00			B	0.211	2.56		1	1	2.950			
			C	0.207	2.571		1	1	2.893			
T48	172.58	239.36	A	0.211	2.56	34	1	1	2.950	635.71	158.93	B
46.00-42.00			B	0.211	2.56		1	1	2.950			
			C	0.207	2.571		1	1	2.893			
T49	151.88	259.73	A	0.22	2.529	34	1	1	3.112	581.95	145.49	B
42.00-38.00			B	0.22	2.529		1	1	3.112			
			C	0.217	2.541		1	1	3.051			
T50	151.88	259.73	A	0.22	2.529	33	1	1	3.112	566.66	141.66	B
38.00-34.00			B	0.22	2.529		1	1	3.112			
			C	0.217	2.541		1	1	3.051			
T51	151.88	259.73	A	0.22	2.529	32	1	1	3.112	549.83	137.46	B
34.00-30.00			B	0.22	2.529		1	1	3.112			
			C	0.217	2.541		1	1	3.051			
T52	151.88	259.73	A	0.22	2.529	31	1	1	3.112	541.23	135.31	B
30.00-26.00			B	0.22	2.529		1	1	3.112			
			C	0.217	2.541		1	1	3.051			
T53	151.88	259.73	A	0.22	2.529	31	1	1	3.112	543.16	135.79	B
26.00-22.00			B	0.22	2.529		1	1	3.112			
			C	0.217	2.541		1	1	3.051			
T54	152.14	273.25	A	0.22	2.529	31	1	1	3.112	546.60	136.65	B
22.00-18.00			B	0.22	2.529		1	1	3.112			
			C	0.217	2.541		1	1	3.051			
T55	152.40	273.25	A	0.22	2.529	32	1	1	3.112	550.07	137.52	B
18.00-14.00			B	0.22	2.529		1	1	3.112			
			C	0.217	2.541		1	1	3.051			
T56	152.40	273.25	A	0.22	2.529	32	1	1	3.112	552.08	138.02	B
14.00-10.00			B	0.22	2.529		1	1	3.112			
			C	0.217	2.541		1	1	3.051			
T57	79.52	273.25	A	0.22	2.529	32	1	1	3.112	391.79	97.95	B
10.00-6.00			B	0.22	2.529		1	1	3.112			
			C	0.219	2.535		1	1	3.081			
T58 6.00-2.00	6.64	273.25	A	0.22	2.529	32	1	1	3.112	230.33	57.58	C
			B	0.22	2.529		1	1	3.112			
			C	0.22	2.529		1	1	3.112			
Sum Weight:	8631.28	18121.02								41407.60		

Tower Forces - No Ice - Wind 60 To Face

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	q_z psf	D_F	D_R	A_E ft²	F lb	w plf	Ctrl. Face
T1	64.58	468.83	A	0.166	2.713	49	0.8	1	5.078	704.53	67.10	C
276.00-265.50			B	0.166	2.713		0.8	1	5.078			
			C	0.166	2.713		0.8	1	5.078			
T2	27.65	163.84	A	0.161	2.731	49	0.8	1	1.752	279.46	74.52	B
265.50-261.75			B	0.161	2.731		0.8	1	1.752			
			C	0.161	2.731		0.8	1	1.752			
T3	30.71	243.86	A	0.221	2.527	49	0.8	1	2.508	366.58	97.76	B
261.75-258.00		TA 705.99	B	0.221	2.527		0.8	1	2.508			
			C	0.221	2.527		0.8	1	2.508			
T4	32.76	171.44	A	0.157	2.746	49	0.8	1	1.813	315.98	78.99	B
258.00-254.00			B	0.157	2.746		0.8	1	1.813			
			C	0.157	2.746		0.8	1	1.813			
T5	34.92	171.44	A	0.157	2.746	49	0.8	1	1.813	326.34	81.58	B
254.00-250.00			B	0.157	2.746		0.8	1	1.813			
			C	0.157	2.746		0.8	1	1.813			
T6	34.92	224.06	A	0.181	2.66	49	0.8	1	2.046	344.83	86.21	B
250.00-246.00			B	0.181	2.66		0.8	1	2.046			
			C	0.181	2.66		0.8	1	2.046			
T7	34.92	224.06	A	0.181	2.66	49	0.8	1	2.046	344.01	86.00	B
246.00-242.00			B	0.181	2.66		0.8	1	2.046			
			C	0.181	2.66		0.8	1	2.046			
T8	34.92	224.06	A	0.181	2.66	49	0.8	1	2.046	343.18	85.80	B
242.00-238.00			B	0.181	2.66		0.8	1	2.046			
			C	0.181	2.66		0.8	1	2.046			
T9	49.74	224.06	A	0.181	2.66	48	0.8	1	2.046	393.06	98.27	C
238.00-234.00			B	0.181	2.66		0.8	1	2.046			
			C	0.181	2.66		0.8	1	2.046			
T10	64.56	224.06	A	0.181	2.66	48	0.8	1	2.046	452.36	113.09	C
234.00-230.00			B	0.181	2.66		0.8	1	2.046			
			C	0.181	2.66		0.8	1	2.046			
T11	64.56	224.06	A	0.181	2.66	48	0.8	1	2.046	451.18	112.79	C
230.00-226.00			B	0.181	2.66		0.8	1	2.046			
			C	0.181	2.66		0.8	1	2.046			
T12	64.56	224.06	A	0.181	2.66	48	0.8	1	2.046	449.97	112.49	C
226.00-222.00			B	0.181	2.66		0.8	1	2.046			
			C	0.181	2.66		0.8	1	2.046			
T13	352.40	950.03	A	0.186	2.643	48	0.8	1	8.710	2040.22	127.51	C
222.00-206.00			B	0.186	2.643		0.8	1	8.710			
			C	0.186	2.643		0.8	1	8.710			
T14	141.04	270.25	A	0.186	2.643	47	0.8	1	2.178	667.01	166.75	C
206.00-202.00			B	0.186	2.643		0.8	1	2.178			
			C	0.186	2.643		0.8	1	2.178			
T15	141.04	418.67	A	0.263	2.398	47	0.8	1	3.230	744.77	186.19	C
202.00-198.00		TA 713.11	B	0.263	2.398		0.8	1	3.230			
			C	0.263	2.398		0.8	1	3.230			
T16	141.54	270.25	A	0.186	2.643	47	0.8	1	2.178	665.54	166.38	C
198.00-194.00			B	0.186	2.643		0.8	1	2.178			
			C	0.186	2.643		0.8	1	2.178			
T17	426.12	712.52	A	0.186	2.643	47	0.8	1	6.533	1991.38	165.95	C
194.00-182.00			B	0.186	2.643		0.8	1	6.533			
			C	0.186	2.643		0.8	1	6.533			
T18	718.70	1111.14	A	0.173	2.69	46	0.8	1	9.971	3252.63	162.63	C
182.00-162.00			B	0.173	2.69		0.8	1	9.971			

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	q_z psf	D_F	D_R	A_E ft²	F lb	w plf	Ctrl. Face
			C	0.172	2.694		0.8	1	9.906			
T19	149.20	222.23	A	0.173	2.69	45	0.8	1	1.994	674.28	168.57	C
162.00-158.00			B	0.173	2.69		0.8	1	1.994			
			C	0.17	2.699		0.8	1	1.962			
T20	149.20	222.23	A	0.173	2.69	45	0.8	1	1.994	671.26	167.81	C
158.00-154.00			B	0.173	2.69		0.8	1	1.994			
			C	0.17	2.699		0.8	1	1.962			
T21	149.20	222.23	A	0.173	2.69	45	0.8	1	1.994	668.13	167.03	C
154.00-150.00			B	0.173	2.69		0.8	1	1.994			
			C	0.17	2.699		0.8	1	1.962			
T22	149.20	222.23	A	0.173	2.69	45	0.8	1	1.994	664.91	166.23	C
150.00-146.00			B	0.173	2.69		0.8	1	1.994			
			C	0.17	2.699		0.8	1	1.962			
T23	149.20	247.81	A	0.173	2.69	45	0.8	1	1.994	661.58	165.39	C
146.00-142.00			B	0.173	2.69		0.8	1	1.994			
			C	0.17	2.699		0.8	1	1.962			
T24	149.20	247.81	A	0.173	2.69	44	0.8	1	1.994	658.13	164.53	C
142.00-138.00			B	0.173	2.69		0.8	1	1.994			
			C	0.17	2.699		0.8	1	1.962			
T25	149.20	320.80	A	0.206	2.576	44	0.8	1	2.359	681.32	170.33	C
138.00-134.00			B	0.206	2.576		0.8	1	2.359			
			C	0.203	2.587		0.8	1	2.323			
T26	149.20	320.80	A	0.206	2.576	44	0.8	1	2.359	677.48	169.37	C
134.00-130.00			B	0.206	2.576		0.8	1	2.359			
			C	0.203	2.587		0.8	1	2.323			
T27	169.90	273.25	A	0.22	2.529	44	0.8	1	2.644	756.66	189.17	C
130.00-126.00			B	0.22	2.529		0.8	1	2.644			
			C	0.217	2.541		0.8	1	2.595			
T28	149.20	295.21	A	0.206	2.576	43	0.8	1	2.359	669.37	167.34	C
126.00-122.00			B	0.206	2.576		0.8	1	2.359			
			C	0.203	2.587		0.8	1	2.323			
T29	149.20	274.84	A	0.197	2.608	43	0.8	1	2.228	655.54	163.89	C
122.00-118.00			B	0.197	2.608		0.8	1	2.228			
			C	0.193	2.618		0.8	1	2.195			
T30	149.74	274.84	A	0.197	2.608	43	0.8	1	2.228	653.57	163.39	C
118.00-114.00			B	0.197	2.608		0.8	1	2.228			
			C	0.193	2.618		0.8	1	2.195			
T31	151.36	222.23	A	0.173	2.69	42	0.8	1	1.994	639.85	159.96	C
114.00-110.00			B	0.173	2.69		0.8	1	1.994			
			C	0.17	2.699		0.8	1	1.962			
T32	151.36	222.23	A	0.173	2.69	42	0.8	1	1.994	635.15	158.79	C
110.00-106.00			B	0.173	2.69		0.8	1	1.994			
			C	0.17	2.699		0.8	1	1.962			
T33	172.06	222.23	A	0.173	2.69	42	0.8	1	1.994	690.01	172.50	C
106.00-102.00			B	0.173	2.69		0.8	1	1.994			
			C	0.17	2.699		0.8	1	1.962			
T34	172.06	239.36	A	0.211	2.56	42	0.8	1	2.514	721.47	180.37	C
102.00-98.00			B	0.211	2.56		0.8	1	2.514			
			C	0.207	2.571		0.8	1	2.468			
T35	172.06	239.36	A	0.211	2.56	41	0.8	1	2.514	715.31	178.83	C
98.00-94.00			B	0.211	2.56		0.8	1	2.514			
			C	0.207	2.571		0.8	1	2.468			
T36	172.06	239.36	A	0.211	2.56	41	0.8	1	2.514	708.87	177.22	C
94.00-90.00			B	0.211	2.56		0.8	1	2.514			
			C	0.207	2.571		0.8	1	2.468			
T37	172.06	239.36	A	0.211	2.56	40	0.8	1	2.514	702.12	175.53	C
90.00-86.00			B	0.211	2.56		0.8	1	2.514			
			C	0.207	2.571		0.8	1	2.468			
T38	172.06	239.36	A	0.211	2.56	40	0.8	1	2.514	695.04	173.76	C
86.00-82.00			B	0.211	2.56		0.8	1	2.514			

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	q_z psf	D_F	D_R	A_E ft²	F lb	w plf	Ctrl. Face
			C	0.207	2.571		0.8	1	2.468			
T39	172.06	239.36	A	0.211	2.56	40	0.8	1	2.514	687.61	171.90	C
82.00-78.00			B	0.211	2.56		0.8	1	2.514			
			C	0.207	2.571		0.8	1	2.468			
T40	172.06	239.36	A	0.211	2.56	39	0.8	1	2.514	679.78	169.95	C
78.00-74.00			B	0.211	2.56		0.8	1	2.514			
			C	0.207	2.571		0.8	1	2.468			
T41	172.06	252.88	A	0.211	2.56	39	0.8	1	2.514	671.53	167.88	C
74.00-70.00			B	0.211	2.56		0.8	1	2.514			
			C	0.207	2.571		0.8	1	2.468			
T42	172.06	252.88	A	0.211	2.56	38	0.8	1	2.514	662.81	165.70	C
70.00-66.00			B	0.211	2.56		0.8	1	2.514			
			C	0.207	2.571		0.8	1	2.468			
T43	172.06	252.88	A	0.211	2.56	38	0.8	1	2.514	653.58	163.39	C
66.00-62.00			B	0.211	2.56		0.8	1	2.514			
			C	0.207	2.571		0.8	1	2.468			
T44	172.06	273.25	A	0.22	2.529	37	0.8	1	2.644	651.55	162.89	C
62.00-58.00			B	0.22	2.529		0.8	1	2.644			
			C	0.217	2.541		0.8	1	2.595			
T45	172.32	252.88	A	0.211	2.56	36	0.8	1	2.514	635.04	158.76	C
58.00-54.00			B	0.211	2.56		0.8	1	2.514			
			C	0.207	2.571		0.8	1	2.468			
T46	172.58	252.88	A	0.211	2.56	36	0.8	1	2.514	625.53	156.38	C
54.00-50.00			B	0.211	2.56		0.8	1	2.514			
			C	0.207	2.571		0.8	1	2.468			
T47	172.58	252.88	A	0.211	2.56	35	0.8	1	2.514	613.47	153.37	C
50.00-46.00			B	0.211	2.56		0.8	1	2.514			
			C	0.207	2.571		0.8	1	2.468			
T48	172.58	239.36	A	0.211	2.56	34	0.8	1	2.514	600.45	150.11	C
46.00-42.00			B	0.211	2.56		0.8	1	2.514			
			C	0.207	2.571		0.8	1	2.468			
T49	151.88	259.73	A	0.22	2.529	34	0.8	1	2.644	545.48	136.37	C
42.00-38.00			B	0.22	2.529		0.8	1	2.644			
			C	0.217	2.541		0.8	1	2.595			
T50	151.88	259.73	A	0.22	2.529	33	0.8	1	2.644	531.15	132.79	C
38.00-34.00			B	0.22	2.529		0.8	1	2.644			
			C	0.217	2.541		0.8	1	2.595			
T51	151.88	259.73	A	0.22	2.529	32	0.8	1	2.644	515.37	128.84	C
34.00-30.00			B	0.22	2.529		0.8	1	2.644			
			C	0.217	2.541		0.8	1	2.595			
T52	151.88	259.73	A	0.22	2.529	31	0.8	1	2.644	507.31	126.83	C
30.00-26.00			B	0.22	2.529		0.8	1	2.644			
			C	0.217	2.541		0.8	1	2.595			
T53	151.88	259.73	A	0.22	2.529	31	0.8	1	2.644	509.12	127.28	C
26.00-22.00			B	0.22	2.529		0.8	1	2.644			
			C	0.217	2.541		0.8	1	2.595			
T54	152.14	273.25	A	0.22	2.529	31	0.8	1	2.644	512.44	128.11	C
22.00-18.00			B	0.22	2.529		0.8	1	2.644			
			C	0.217	2.541		0.8	1	2.595			
T55	152.40	273.25	A	0.22	2.529	32	0.8	1	2.644	515.78	128.95	C
18.00-14.00			B	0.22	2.529		0.8	1	2.644			
			C	0.217	2.541		0.8	1	2.595			
T56	152.40	273.25	A	0.22	2.529	32	0.8	1	2.644	517.66	129.42	C
14.00-10.00			B	0.22	2.529		0.8	1	2.644			
			C	0.217	2.541		0.8	1	2.595			
T57	79.52	273.25	A	0.22	2.529	32	0.8	1	2.644	358.54	89.63	C
10.00-6.00			B	0.22	2.529		0.8	1	2.644			
			C	0.219	2.535		0.8	1	2.619			
T58 6.00-2.00	6.64	273.25	A	0.22	2.529	32	0.8	1	2.644	198.24	49.56	C
			B	0.22	2.529		0.8	1	2.644			

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	q_z psf	D_F	D_R	A_E ft²	F lb	w plf	Ctrl. Face
Sum Weight:	8631.28	18121.02	C	0.22	2.529		0.8	1	2.644	38925.52		

Tower Forces - No Ice - Wind 90 To Face

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	q_z psf	D_F	D_R	A_E ft²	F lb	w plf	Ctrl. Face
T1	64.58	468.83	A	0.166	2.713	49	0.85	1	5.286	728.26	69.36	C
276.00-265.50			B	0.166	2.713		0.85	1	5.286			
			C	0.166	2.713		0.85	1	5.286			
T2	27.65	163.84	A	0.161	2.731	49	0.85	1	1.823	287.52	76.67	C
265.50-261.75			B	0.161	2.731		0.85	1	1.823			
			C	0.161	2.731		0.85	1	1.823			
T3	30.71	243.86	A	0.221	2.527	49	0.85	1	2.625	378.94	101.05	C
261.75-258.00		TA 705.99	B	0.221	2.527		0.85	1	2.625			
			C	0.221	2.527		0.85	1	2.625			
T4	32.76	171.44	A	0.157	2.746	49	0.85	1	1.885	324.20	81.05	C
258.00-254.00			B	0.157	2.746		0.85	1	1.885			
			C	0.157	2.746		0.85	1	1.885			
T5	34.92	171.44	A	0.157	2.746	49	0.85	1	1.885	334.53	83.63	C
254.00-250.00			B	0.157	2.746		0.85	1	1.885			
			C	0.157	2.746		0.85	1	1.885			
T6	34.92	224.06	A	0.181	2.66	49	0.85	1	2.118	352.75	88.19	C
250.00-246.00			B	0.181	2.66		0.85	1	2.118			
			C	0.181	2.66		0.85	1	2.118			
T7	34.92	224.06	A	0.181	2.66	49	0.85	1	2.118	351.92	87.98	C
246.00-242.00			B	0.181	2.66		0.85	1	2.118			
			C	0.181	2.66		0.85	1	2.118			
T8	34.92	224.06	A	0.181	2.66	49	0.85	1	2.118	351.07	87.77	C
242.00-238.00			B	0.181	2.66		0.85	1	2.118			
			C	0.181	2.66		0.85	1	2.118			
T9	49.74	224.06	A	0.181	2.66	48	0.85	1	2.118	402.99	100.75	C
238.00-234.00			B	0.181	2.66		0.85	1	2.118			
			C	0.181	2.66		0.85	1	2.118			
T10	64.56	224.06	A	0.181	2.66	48	0.85	1	2.118	454.63	113.66	C
234.00-230.00			B	0.181	2.66		0.85	1	2.118			
			C	0.181	2.66		0.85	1	2.118			
T11	64.56	224.06	A	0.181	2.66	48	0.85	1	2.118	453.44	113.36	C
230.00-226.00			B	0.181	2.66		0.85	1	2.118			
			C	0.181	2.66		0.85	1	2.118			
T12	64.56	224.06	A	0.181	2.66	48	0.85	1	2.118	452.23	113.06	C
226.00-222.00			B	0.181	2.66		0.85	1	2.118			
			C	0.181	2.66		0.85	1	2.118			
T13	352.40	950.03	A	0.186	2.643	48	0.85	1	9.064	2054.22	128.39	A
222.00-206.00			B	0.186	2.643		0.85	1	9.064			
			C	0.186	2.643		0.85	1	9.064			
T14	141.04	270.25	A	0.186	2.643	47	0.85	1	2.266	676.30	169.07	A
206.00-202.00			B	0.186	2.643		0.85	1	2.266			
			C	0.186	2.643		0.85	1	2.266			
T15	141.04	418.67	A	0.263	2.398	47	0.85	1	3.383	759.35	189.84	A
202.00-198.00		TA 713.11	B	0.263	2.398		0.85	1	3.383			
			C	0.263	2.398		0.85	1	3.383			

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	q_z psf	D_F	D_R	A_E ft²	F lb	w plf	Ctrl. Face
T16	141.54	270.25	A	0.186	2.643	47	0.85	1	2.266	674.76	168.69	A
198.00-194.00			B	0.186	2.643		0.85	1	2.266			
			C	0.186	2.643		0.85	1	2.266			
T17	426.12	712.52	A	0.186	2.643	47	0.85	1	6.798	2018.87	168.24	A
194.00-182.00			B	0.186	2.643		0.85	1	6.798			
			C	0.186	2.643		0.85	1	6.798			
T18	718.70	1111.14	A	0.173	2.69	46	0.85	1	10.357	3298.14	164.91	A
182.00-162.00			B	0.173	2.69		0.85	1	10.357			
			C	0.172	2.694		0.85	1	10.288			
T19	149.20	222.23	A	0.173	2.69	45	0.85	1	2.071	684.90	171.23	A
162.00-158.00			B	0.173	2.69		0.85	1	2.071			
			C	0.17	2.699		0.85	1	2.037			
T20	149.20	222.23	A	0.173	2.69	45	0.85	1	2.071	681.83	170.46	A
158.00-154.00			B	0.173	2.69		0.85	1	2.071			
			C	0.17	2.699		0.85	1	2.037			
T21	149.20	222.23	A	0.173	2.69	45	0.85	1	2.071	678.66	169.66	A
154.00-150.00			B	0.173	2.69		0.85	1	2.071			
			C	0.17	2.699		0.85	1	2.037			
T22	149.20	222.23	A	0.173	2.69	45	0.85	1	2.071	675.38	168.85	A
150.00-146.00			B	0.173	2.69		0.85	1	2.071			
			C	0.17	2.699		0.85	1	2.037			
T23	149.20	247.81	A	0.173	2.69	45	0.85	1	2.071	672.00	168.00	A
146.00-142.00			B	0.173	2.69		0.85	1	2.071			
			C	0.17	2.699		0.85	1	2.037			
T24	149.20	247.81	A	0.173	2.69	44	0.85	1	2.071	668.50	167.12	A
142.00-138.00			B	0.173	2.69		0.85	1	2.071			
			C	0.17	2.699		0.85	1	2.037			
T25	149.20	320.80	A	0.206	2.576	44	0.85	1	2.444	692.00	173.00	A
138.00-134.00			B	0.206	2.576		0.85	1	2.444			
			C	0.203	2.587		0.85	1	2.406			
T26	149.20	320.80	A	0.206	2.576	44	0.85	1	2.444	688.09	172.02	A
134.00-130.00			B	0.206	2.576		0.85	1	2.444			
			C	0.203	2.587		0.85	1	2.406			
T27	169.90	273.25	A	0.22	2.529	44	0.85	1	2.761	771.04	192.76	A
130.00-126.00			B	0.22	2.529		0.85	1	2.761			
			C	0.217	2.541		0.85	1	2.709			
T28	149.20	295.21	A	0.206	2.576	43	0.85	1	2.444	679.85	169.96	A
126.00-122.00			B	0.206	2.576		0.85	1	2.444			
			C	0.203	2.587		0.85	1	2.406			
T29	149.20	274.84	A	0.197	2.608	43	0.85	1	2.305	665.11	166.28	A
122.00-118.00			B	0.197	2.608		0.85	1	2.305			
			C	0.193	2.618		0.85	1	2.271			
T30	149.74	274.84	A	0.197	2.608	43	0.85	1	2.305	663.08	165.77	A
118.00-114.00			B	0.197	2.608		0.85	1	2.305			
			C	0.193	2.618		0.85	1	2.271			
T31	151.36	222.23	A	0.173	2.69	42	0.85	1	2.071	649.78	162.44	A
114.00-110.00			B	0.173	2.69		0.85	1	2.071			
			C	0.17	2.699		0.85	1	2.037			
T32	151.36	222.23	A	0.173	2.69	42	0.85	1	2.071	645.00	161.25	A
110.00-106.00			B	0.173	2.69		0.85	1	2.071			
			C	0.17	2.699		0.85	1	2.037			
T33	172.06	222.23	A	0.173	2.69	42	0.85	1	2.071	699.79	174.95	A
106.00-102.00			B	0.173	2.69		0.85	1	2.071			
			C	0.17	2.699		0.85	1	2.037			
T34	172.06	239.36	A	0.211	2.56	42	0.85	1	2.623	734.40	183.60	A
102.00-98.00			B	0.211	2.56		0.85	1	2.623			
			C	0.207	2.571		0.85	1	2.574			
T35	172.06	239.36	A	0.211	2.56	41	0.85	1	2.623	728.13	182.03	A
98.00-94.00			B	0.211	2.56		0.85	1	2.623			
			C	0.207	2.571		0.85	1	2.574			

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	q_z psf	D_F	D_R	A_E ft²	F lb	w plf	Ctrl. Face
T36	172.06	239.36	A	0.211	2.56	41	0.85	1	2.623	721.57	180.39	A
94.00-90.00			B	0.211	2.56		0.85	1	2.623			
			C	0.207	2.571		0.85	1	2.574			
T37	172.06	239.36	A	0.211	2.56	40	0.85	1	2.623	714.71	178.68	A
90.00-86.00			B	0.211	2.56		0.85	1	2.623			
			C	0.207	2.571		0.85	1	2.574			
T38	172.06	239.36	A	0.211	2.56	40	0.85	1	2.623	707.50	176.88	A
86.00-82.00			B	0.211	2.56		0.85	1	2.623			
			C	0.207	2.571		0.85	1	2.574			
T39	172.06	239.36	A	0.211	2.56	40	0.85	1	2.623	699.94	174.98	A
82.00-78.00			B	0.211	2.56		0.85	1	2.623			
			C	0.207	2.571		0.85	1	2.574			
T40	172.06	239.36	A	0.211	2.56	39	0.85	1	2.623	691.97	172.99	A
78.00-74.00			B	0.211	2.56		0.85	1	2.623			
			C	0.207	2.571		0.85	1	2.574			
T41	172.06	252.88	A	0.211	2.56	39	0.85	1	2.623	683.57	170.89	A
74.00-70.00			B	0.211	2.56		0.85	1	2.623			
			C	0.207	2.571		0.85	1	2.574			
T42	172.06	252.88	A	0.211	2.56	38	0.85	1	2.623	674.70	168.67	A
70.00-66.00			B	0.211	2.56		0.85	1	2.623			
			C	0.207	2.571		0.85	1	2.574			
T43	172.06	252.88	A	0.211	2.56	38	0.85	1	2.623	665.30	166.32	A
66.00-62.00			B	0.211	2.56		0.85	1	2.623			
			C	0.207	2.571		0.85	1	2.574			
T44	172.06	273.25	A	0.22	2.529	37	0.85	1	2.761	663.76	165.94	A
62.00-58.00			B	0.22	2.529		0.85	1	2.761			
			C	0.217	2.541		0.85	1	2.709			
T45	172.32	252.88	A	0.211	2.56	36	0.85	1	2.623	646.40	161.60	A
58.00-54.00			B	0.211	2.56		0.85	1	2.623			
			C	0.207	2.571		0.85	1	2.574			
T46	172.58	252.88	A	0.211	2.56	36	0.85	1	2.623	636.69	159.17	A
54.00-50.00			B	0.211	2.56		0.85	1	2.623			
			C	0.207	2.571		0.85	1	2.574			
T47	172.58	252.88	A	0.211	2.56	35	0.85	1	2.623	624.40	156.10	A
50.00-46.00			B	0.211	2.56		0.85	1	2.623			
			C	0.207	2.571		0.85	1	2.574			
T48	172.58	239.36	A	0.211	2.56	34	0.85	1	2.623	611.16	152.79	A
46.00-42.00			B	0.211	2.56		0.85	1	2.623			
			C	0.207	2.571		0.85	1	2.574			
T49	151.88	259.73	A	0.22	2.529	34	0.85	1	2.761	556.54	139.13	A
42.00-38.00			B	0.22	2.529		0.85	1	2.761			
			C	0.217	2.541		0.85	1	2.709			
T50	151.88	259.73	A	0.22	2.529	33	0.85	1	2.761	541.91	135.48	A
38.00-34.00			B	0.22	2.529		0.85	1	2.761			
			C	0.217	2.541		0.85	1	2.709			
T51	151.88	259.73	A	0.22	2.529	32	0.85	1	2.761	525.82	131.45	A
34.00-30.00			B	0.22	2.529		0.85	1	2.761			
			C	0.217	2.541		0.85	1	2.709			
T52	151.88	259.73	A	0.22	2.529	31	0.85	1	2.761	517.60	129.40	A
30.00-26.00			B	0.22	2.529		0.85	1	2.761			
			C	0.217	2.541		0.85	1	2.709			
T53	151.88	259.73	A	0.22	2.529	31	0.85	1	2.761	519.44	129.86	A
26.00-22.00			B	0.22	2.529		0.85	1	2.761			
			C	0.217	2.541		0.85	1	2.709			
T54	152.14	273.25	A	0.22	2.529	31	0.85	1	2.761	522.79	130.70	A
22.00-18.00			B	0.22	2.529		0.85	1	2.761			
			C	0.217	2.541		0.85	1	2.709			
T55	152.40	273.25	A	0.22	2.529	32	0.85	1	2.761	526.18	131.55	A
18.00-14.00			B	0.22	2.529		0.85	1	2.761			
			C	0.217	2.541		0.85	1	2.709			

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	q_z psf	D_F	D_R	A_E ft²	F lb	w plf	Ctrl. Face
T56	152.40	273.25	A	0.22	2.529	32	0.85	1	2.761	528.10	132.02	A
14.00-10.00			B	0.22	2.529		0.85	1	2.761			
			C	0.217	2.541		0.85	1	2.709			
T57	79.52	273.25	A	0.22	2.529	32	0.85	1	2.761	367.77	91.94	A
10.00-6.00			B	0.22	2.529		0.85	1	2.761			
			C	0.219	2.535		0.85	1	2.735			
T58 6.00-2.00	6.64	273.25	A	0.22	2.529	32	0.85	1	2.761	206.26	51.57	C
			B	0.22	2.529		0.85	1	2.761			
			C	0.22	2.529		0.85	1	2.761			
Sum Weight:	8631.28	18121.02								39585.76		

Tower Forces - With Ice - Wind Normal To Face

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	q_z psf	D_F	D_R	A_E ft²	F lb	w plf	Ctrl. Face
T1	251.84	1175.21	A	0.391	2.081	9	1	1	12.895	283.59	27.01	C
276.00-265.50			B	0.391	2.081		1	1	12.895			
			C	0.391	2.081		1	1	12.895			
T2	136.74	405.83	A	0.38	2.105	9	1	1	4.436	113.80	30.35	C
265.50-261.75			B	0.38	2.105		1	1	4.436			
			C	0.38	2.105		1	1	4.436			
T3	167.88	602.35	A	0.509	1.889	9	1	1	6.478	135.41	36.11	C
261.75-258.00		TA	B	0.509	1.889		1	1	6.478			
		1527.11	C	0.509	1.889		1	1	6.478			
T4	178.94	420.01	A	0.37	2.126	9	1	1	4.576	129.58	32.40	C
258.00-254.00			B	0.37	2.126		1	1	4.576			
			C	0.37	2.126		1	1	4.576			
T5	196.99	419.74	A	0.37	2.127	9	1	1	4.574	136.02	34.01	C
254.00-250.00			B	0.37	2.127		1	1	4.574			
			C	0.37	2.127		1	1	4.574			
T6	196.83	522.84	A	0.442	1.987	9	1	1	5.557	141.04	35.26	C
250.00-246.00			B	0.442	1.987		1	1	5.557			
			C	0.442	1.987		1	1	5.557			
T7	196.67	522.50	A	0.442	1.987	9	1	1	5.554	140.67	35.17	C
246.00-242.00			B	0.442	1.987		1	1	5.554			
			C	0.442	1.987		1	1	5.554			
T8	196.50	522.15	A	0.442	1.988	9	1	1	5.551	140.29	35.07	C
242.00-238.00			B	0.442	1.988		1	1	5.551			
			C	0.442	1.988		1	1	5.551			
T9	257.99	521.79	A	0.441	1.988	9	1	1	5.547	154.96	38.74	B
238.00-234.00			B	0.441	1.988		1	1	5.547			
			C	0.441	1.988		1	1	5.547			
T10	319.39	521.42	A	0.441	1.988	9	1	1	5.544	169.55	42.39	B
234.00-230.00			B	0.441	1.988		1	1	5.544			
			C	0.441	1.988		1	1	5.544			
T11	319.13	521.05	A	0.441	1.989	9	1	1	5.540	169.07	42.27	B
230.00-226.00			B	0.441	1.989		1	1	5.540			
			C	0.441	1.989		1	1	5.540			
T12	318.86	520.66	A	0.441	1.989	9	1	1	5.537	168.57	42.14	B
226.00-222.00			B	0.441	1.989		1	1	5.537			
			C	0.441	1.989		1	1	5.537			
T13	1613.28	2068.00	A	0.394	2.076	9	1	1	20.131	765.95	47.87	B

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	q_z psf	D_F	D_R	A_E ft²	F lb	w plf	Ctrl. Face
222.00-206.00			B	0.394	2.076		1	1	20.131			
			C	0.394	2.076		1	1	20.131			
T14	626.84	548.78	A	0.394	2.077	9	1	1	5.025	239.46	59.86	B
206.00-202.00			B	0.394	2.077		1	1	5.025			
			C	0.394	2.077		1	1	5.025			
T15	626.26	843.71	A	0.535	1.859	8	1	1	7.518	227.31	56.83	B
202.00-198.00		TA	B	0.535	1.859		1	1	7.518			
		1528.74	C	0.535	1.859		1	1	7.518			
T16	632.30	547.96	A	0.393	2.078	8	1	1	5.019	240.46	60.12	B
198.00-194.00			B	0.393	2.078		1	1	5.019			
			C	0.393	2.078		1	1	5.019			
T17	1912.95	1543.04	A	0.393	2.078	8	1	1	15.036	723.97	60.33	B
194.00-182.00			B	0.393	2.078		1	1	15.036			
			C	0.393	2.078		1	1	15.036			
T18	3224.21	2389.75	A	0.379	2.107	8	1	1	23.721	1200.39	60.02	B
182.00-162.00			B	0.379	2.107		1	1	23.721			
			C	0.372	2.122		1	1	23.396			
T19	684.69	476.45	A	0.378	2.109	8	1	1	4.732	255.21	63.80	B
162.00-158.00			B	0.378	2.109		1	1	4.732			
			C	0.361	2.146		1	1	4.571			
T20	683.74	475.92	A	0.378	2.11	8	1	1	4.728	253.87	63.47	B
158.00-154.00			B	0.378	2.11		1	1	4.728			
			C	0.361	2.146		1	1	4.567			
T21	682.76	475.36	A	0.377	2.11	8	1	1	4.723	252.49	63.12	B
154.00-150.00			B	0.377	2.11		1	1	4.723			
			C	0.361	2.147		1	1	4.562			
T22	681.74	474.79	A	0.377	2.111	8	1	1	4.719	251.07	62.77	B
150.00-146.00			B	0.377	2.111		1	1	4.719			
			C	0.36	2.148		1	1	4.558			
T23	680.68	499.79	A	0.377	2.112	8	1	1	4.714	249.60	62.40	B
146.00-142.00			B	0.377	2.112		1	1	4.714			
			C	0.36	2.148		1	1	4.554			
T24	679.59	499.18	A	0.376	2.113	8	1	1	4.709	248.08	62.02	B
142.00-138.00			B	0.376	2.113		1	1	4.709			
			C	0.36	2.149		1	1	4.549			
T25	678.46	633.05	A	0.455	1.965	8	1	1	5.853	241.71	60.43	B
138.00-134.00			B	0.455	1.965		1	1	5.853			
			C	0.432	2.004		1	1	5.644			
T26	677.28	632.22	A	0.455	1.966	8	1	1	5.846	240.24	60.06	B
134.00-130.00			B	0.455	1.966		1	1	5.846			
			C	0.432	2.005		1	1	5.637			
T27	759.62	613.58	A	0.468	1.946	8	1	1	6.253	244.99*	61.25	C
130.00-126.00			B	0.468	1.946		1	1	6.253			
			C	0.444	1.984		1	1	5.992			
T28	674.78	604.87	A	0.454	1.968	8	1	1	5.830	237.14	59.28	B
126.00-122.00			B	0.454	1.968		1	1	5.830			
			C	0.431	2.006		1	1	5.622			
T29	673.46	570.29	A	0.444	1.984	8	1	1	5.634	236.10	59.03	B
122.00-118.00			B	0.444	1.984		1	1	5.634			
			C	0.422	2.022		1	1	5.444			
T30	676.35	569.35	A	0.443	1.985	8	1	1	5.626	235.73	58.93	B
118.00-114.00			B	0.443	1.985		1	1	5.626			
			C	0.421	2.023		1	1	5.436			
T31	687.66	468.56	A	0.373	2.119	8	1	1	4.668	238.51*	59.63	B
114.00-110.00			B	0.373	2.119		1	1	4.668			
			C	0.357	2.155		1	1	4.510			
T32	686.09	467.72	A	0.373	2.12	8	1	1	4.661	236.73*	59.18	B
110.00-106.00			B	0.373	2.12		1	1	4.661			
			C	0.357	2.156		1	1	4.504			
T33	766.70	466.84	A	0.372	2.121	8	1	1	4.654	234.88*	58.72	C

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	q_z psf	D_F	D_R	A_E ft²	F lb	w plf	Ctrl. Face
106.00-102.00			B	0.372	2.121		1	1	4.654			
			C	0.356	2.157		1	1	4.497			
T34	764.73	558.92	A	0.455	1.966	7	1	1	6.003	232.94*	58.23	C
102.00-98.00			B	0.455	1.966		1	1	6.003			
			C	0.432	2.005		1	1	5.763			
T35	762.67	557.65	A	0.454	1.967	7	1	1	5.992	230.92*	57.73	C
98.00-94.00			B	0.454	1.967		1	1	5.992			
			C	0.431	2.006		1	1	5.753			
T36	760.50	556.32	A	0.453	1.968	7	1	1	5.981	228.80*	57.20	C
94.00-90.00			B	0.453	1.968		1	1	5.981			
			C	0.43	2.007		1	1	5.743			
T37	758.22	554.92	A	0.452	1.97	7	1	1	5.969	226.59*	56.65	C
90.00-86.00			B	0.452	1.97		1	1	5.969			
			C	0.43	2.008		1	1	5.732			
T38	755.82	553.44	A	0.452	1.971	7	1	1	5.956	224.27*	56.07	C
86.00-82.00			B	0.452	1.971		1	1	5.956			
			C	0.429	2.009		1	1	5.720			
T39	753.29	551.89	A	0.451	1.972	7	1	1	5.943	221.83*	55.46	C
82.00-78.00			B	0.451	1.972		1	1	5.943			
			C	0.428	2.011		1	1	5.708			
T40	750.61	550.24	A	0.45	1.974	7	1	1	5.929	219.26*	54.82	C
78.00-74.00			B	0.45	1.974		1	1	5.929			
			C	0.427	2.012		1	1	5.695			
T41	747.76	562.01	A	0.449	1.976	7	1	1	5.914	216.56*	54.14	C
74.00-70.00			B	0.449	1.976		1	1	5.914			
			C	0.427	2.014		1	1	5.681			
T42	744.74	560.16	A	0.448	1.977	7	1	1	5.898	213.70*	53.42	C
70.00-66.00			B	0.448	1.977		1	1	5.898			
			C	0.426	2.015		1	1	5.667			
T43	741.52	558.18	A	0.447	1.979	7	1	1	5.881	210.67*	52.67	C
66.00-62.00			B	0.447	1.979		1	1	5.881			
			C	0.425	2.017		1	1	5.651			
T44	738.07	589.02	A	0.455	1.966	7	1	1	6.048	207.46*	51.86	C
62.00-58.00			B	0.455	1.966		1	1	6.048			
			C	0.432	2.004		1	1	5.803			
T45	739.57	553.78	A	0.444	1.983	7	1	1	5.844	204.04*	51.01	C
58.00-54.00			B	0.444	1.983		1	1	5.844			
			C	0.423	2.021		1	1	5.616			
T46	740.67	551.33	A	0.443	1.986	6	1	1	5.823	200.38*	50.09	C
54.00-50.00			B	0.443	1.986		1	1	5.823			
			C	0.421	2.023		1	1	5.597			
T47	736.24	548.67	A	0.441	1.988	6	1	1	5.800	196.45*	49.11	C
50.00-46.00			B	0.441	1.988		1	1	5.800			
			C	0.42	2.026		1	1	5.576			
T48	731.41	532.26	A	0.44	1.991	6	1	1	5.775	192.22*	48.05	C
46.00-42.00			B	0.44	1.991		1	1	5.775			
			C	0.419	2.028		1	1	5.553			
T49	650.41	561.62	A	0.447	1.978	6	1	1	5.932	187.63*	46.91	B
42.00-38.00			B	0.447	1.978		1	1	5.932			
			C	0.425	2.016		1	1	5.696			
T50	645.30	558.00	A	0.445	1.982	6	1	1	5.901	182.47	45.62	B
38.00-34.00			B	0.445	1.982		1	1	5.901			
			C	0.424	2.019		1	1	5.668			
T51	639.59	553.96	A	0.443	1.986	6	1	1	5.867	176.64	44.16	B
34.00-30.00			B	0.443	1.986		1	1	5.867			
			C	0.422	2.023		1	1	5.636			
T52	633.15	549.39	A	0.44	1.99	6	1	1	5.829	173.42	43.36	B
30.00-26.00			B	0.44	1.99		1	1	5.829			
			C	0.419	2.027		1	1	5.601			
T53	625.76	544.16	A	0.437	1.995	6	1	1	5.784	173.50	43.38	B

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	q_z psf	D_F	D_R	A_E ft²	F lb	w plf	Ctrl. Face
26.00-22.00			B	0.437	1.995		1	1	5.784			
			C	0.417	2.032		1	1	5.560			
T54	621.59	551.54	A	0.434	2.001	6	1	1	5.733	174.93	43.73	B
22.00-18.00			B	0.434	2.001		1	1	5.733			
			C	0.414	2.038		1	1	5.512			
T55	615.34	544.14	A	0.429	2.009	6	1	1	5.670	175.75*	43.94	B
18.00-14.00			B	0.429	2.009		1	1	5.670			
			C	0.41	2.045		1	1	5.454			
T56	601.82	534.81	A	0.424	2.018	6	1	1	5.590	175.77	43.94	B
14.00-10.00			B	0.424	2.018		1	1	5.590			
			C	0.405	2.054		1	1	5.380			
T57	306.45	522.10	A	0.416	2.032	6	1	1	5.482	118.22	29.55	B
10.00-6.00			B	0.416	2.032		1	1	5.482			
			C	0.407	2.05		1	1	5.380			
T58 6.00-2.00	27.35	501.68	A	0.404	2.056	6	1	1	5.306	60.50	15.12	C
			B	0.404	2.056		1	1	5.306			
			C	0.404	2.056		1	1	5.306			
Sum Weight:	38339.83	39360.78			*2.1A_g limit					13761.32		

Tower Forces - With Ice - Wind 60 To Face

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	q_z psf	D_F	D_R	A_E ft²	F lb	w plf	Ctrl. Face
T1	251.84	1175.21	A	0.391	2.081	9	0.8	1	12.061	270.52	25.76	C
276.00-265.50			B	0.391	2.081		0.8	1	12.061			
			C	0.391	2.081		0.8	1	12.061			
T2	136.74	405.83	A	0.38	2.105	9	0.8	1	4.153	109.33	29.16	C
265.50-261.75			B	0.38	2.105		0.8	1	4.153			
			C	0.38	2.105		0.8	1	4.153			
T3	167.88	602.35	A	0.509	1.889	9	0.8	1	6.009	128.78	34.34	C
261.75-258.00		TA	B	0.509	1.889		0.8	1	6.009			
		1527.11	C	0.509	1.889		0.8	1	6.009			
T4	178.94	420.01	A	0.37	2.126	9	0.8	1	4.288	125.01	31.25	C
258.00-254.00			B	0.37	2.126		0.8	1	4.288			
			C	0.37	2.126		0.8	1	4.288			
T5	196.99	419.74	A	0.37	2.127	9	0.8	1	4.286	131.46	32.87	C
254.00-250.00			B	0.37	2.127		0.8	1	4.286			
			C	0.37	2.127		0.8	1	4.286			
T6	196.83	522.84	A	0.442	1.987	9	0.8	1	5.269	136.79	34.20	C
250.00-246.00			B	0.442	1.987		0.8	1	5.269			
			C	0.442	1.987		0.8	1	5.269			
T7	196.67	522.50	A	0.442	1.987	9	0.8	1	5.266	136.43	34.11	C
246.00-242.00			B	0.442	1.987		0.8	1	5.266			
			C	0.442	1.987		0.8	1	5.266			
T8	196.50	522.15	A	0.442	1.988	9	0.8	1	5.263	136.05	34.01	C
242.00-238.00			B	0.442	1.988		0.8	1	5.263			
			C	0.442	1.988		0.8	1	5.263			
T9	257.99	521.79	A	0.441	1.988	9	0.8	1	5.260	150.74	37.68	C
238.00-234.00			B	0.441	1.988		0.8	1	5.260			
			C	0.441	1.988		0.8	1	5.260			
T10	319.39	521.42	A	0.441	1.988	9	0.8	1	5.256	165.34	41.33	C

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	q_z psf	D_F	D_R	A_E ft²	F lb	w plf	Ctrl. Face
234.00-230.00			B	0.441	1.988		0.8	1	5.256			
			C	0.441	1.988		0.8	1	5.256			
T11	319.13	521.05	A	0.441	1.989	9	0.8	1	5.253	164.86	41.22	C
230.00-226.00			B	0.441	1.989		0.8	1	5.253			
			C	0.441	1.989		0.8	1	5.253			
T12	318.86	520.66	A	0.441	1.989	9	0.8	1	5.249	164.38	41.10	C
226.00-222.00			B	0.441	1.989		0.8	1	5.249			
			C	0.441	1.989		0.8	1	5.249			
T13	1613.28	2068.00	A	0.394	2.076	9	0.8	1	18.716	744.58	46.54	C
222.00-206.00			B	0.394	2.076		0.8	1	18.716			
			C	0.394	2.076		0.8	1	18.716			
T14	626.84	548.78	A	0.394	2.077	9	0.8	1	4.672	234.15	58.54	C
206.00-202.00			B	0.394	2.077		0.8	1	4.672			
			C	0.394	2.077		0.8	1	4.672			
T15	626.26	843.71	A	0.535	1.859	8	0.8	1	6.907	219.13	54.78	C
202.00-198.00		TA	B	0.535	1.859		0.8	1	6.907			
		1528.74	C	0.535	1.859		0.8	1	6.907			
T16	632.30	547.96	A	0.393	2.078	8	0.8	1	4.665	235.19	58.80	C
198.00-194.00			B	0.393	2.078		0.8	1	4.665			
			C	0.393	2.078		0.8	1	4.665			
T17	1912.95	1543.04	A	0.393	2.078	8	0.8	1	13.975	708.24	59.02	C
194.00-182.00			B	0.393	2.078		0.8	1	13.975			
			C	0.393	2.078		0.8	1	13.975			
T18	3224.21	2389.75	A	0.379	2.107	8	0.8	1	22.178	1175.72	58.79	C
182.00-162.00			B	0.379	2.107		0.8	1	22.178			
			C	0.372	2.122		0.8	1	21.904			
T19	684.69	476.45	A	0.378	2.109	8	0.8	1	4.423	249.80	62.45	C
162.00-158.00			B	0.378	2.109		0.8	1	4.423			
			C	0.361	2.146		0.8	1	4.288			
T20	683.74	475.92	A	0.378	2.11	8	0.8	1	4.419	248.48	62.12	C
158.00-154.00			B	0.378	2.11		0.8	1	4.419			
			C	0.361	2.146		0.8	1	4.284			
T21	682.76	475.36	A	0.377	2.11	8	0.8	1	4.415	247.13	61.78	C
154.00-150.00			B	0.377	2.11		0.8	1	4.415			
			C	0.361	2.147		0.8	1	4.279			
T22	681.74	474.79	A	0.377	2.111	8	0.8	1	4.410	245.73	61.43	C
150.00-146.00			B	0.377	2.111		0.8	1	4.410			
			C	0.36	2.148		0.8	1	4.275			
T23	680.68	499.79	A	0.377	2.112	8	0.8	1	4.405	244.29	61.07	C
146.00-142.00			B	0.377	2.112		0.8	1	4.405			
			C	0.36	2.148		0.8	1	4.270			
T24	679.59	499.18	A	0.376	2.113	8	0.8	1	4.400	242.79	60.70	C
142.00-138.00			B	0.376	2.113		0.8	1	4.400			
			C	0.36	2.149		0.8	1	4.266			
T25	678.46	633.05	A	0.455	1.965	8	0.8	1	5.513	236.19	59.05	C
138.00-134.00			B	0.455	1.965		0.8	1	5.513			
			C	0.432	2.004		0.8	1	5.331			
T26	677.28	632.22	A	0.455	1.966	8	0.8	1	5.505	234.76	58.69	C
134.00-130.00			B	0.455	1.966		0.8	1	5.505			
			C	0.432	2.005		0.8	1	5.324			
T27	759.62	613.58	A	0.468	1.946	8	0.8	1	5.785	244.99*	61.25	C
130.00-126.00			B	0.468	1.946		0.8	1	5.785			
			C	0.444	1.984		0.8	1	5.562			
T28	674.78	604.87	A	0.454	1.968	8	0.8	1	5.490	231.73	57.93	C
126.00-122.00			B	0.454	1.968		0.8	1	5.490			
			C	0.431	2.006		0.8	1	5.310			
T29	673.46	570.29	A	0.444	1.984	8	0.8	1	5.326	231.24	57.81	C
122.00-118.00			B	0.444	1.984		0.8	1	5.326			
			C	0.422	2.022		0.8	1	5.161			
T30	676.35	569.35	A	0.443	1.985	8	0.8	1	5.317	230.90	57.73	C

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	q_z psf	D_F	D_R	A_E ft²	F lb	w plf	Ctrl. Face
118.00-114.00			B	0.443	1.985		0.8	1	5.317			
			C	0.421	2.023		0.8	1	5.153			
T31	687.66	468.56	A	0.373	2.119	8	0.8	1	4.359	236.47	59.12	C
114.00-110.00			B	0.373	2.119		0.8	1	4.359			
			C	0.357	2.155		0.8	1	4.227			
T32	686.09	467.72	A	0.373	2.12	8	0.8	1	4.352	234.43	58.61	C
110.00-106.00			B	0.373	2.12		0.8	1	4.352			
			C	0.357	2.156		0.8	1	4.220			
T33	766.70	466.84	A	0.372	2.121	8	0.8	1	4.345	234.88*	58.72	C
106.00-102.00			B	0.372	2.121		0.8	1	4.345			
			C	0.356	2.157		0.8	1	4.214			
T34	764.73	558.92	A	0.455	1.966	7	0.8	1	5.567	232.94*	58.23	C
102.00-98.00			B	0.455	1.966		0.8	1	5.567			
			C	0.432	2.005		0.8	1	5.362			
T35	762.67	557.65	A	0.454	1.967	7	0.8	1	5.556	230.92*	57.73	C
98.00-94.00			B	0.454	1.967		0.8	1	5.556			
			C	0.431	2.006		0.8	1	5.352			
T36	760.50	556.32	A	0.453	1.968	7	0.8	1	5.545	228.80*	57.20	C
94.00-90.00			B	0.453	1.968		0.8	1	5.545			
			C	0.43	2.007		0.8	1	5.342			
T37	758.22	554.92	A	0.452	1.97	7	0.8	1	5.533	226.59*	56.65	C
90.00-86.00			B	0.452	1.97		0.8	1	5.533			
			C	0.43	2.008		0.8	1	5.331			
T38	755.82	553.44	A	0.452	1.971	7	0.8	1	5.520	224.27*	56.07	C
86.00-82.00			B	0.452	1.971		0.8	1	5.520			
			C	0.429	2.009		0.8	1	5.319			
T39	753.29	551.89	A	0.451	1.972	7	0.8	1	5.507	221.83*	55.46	C
82.00-78.00			B	0.451	1.972		0.8	1	5.507			
			C	0.428	2.011		0.8	1	5.307			
T40	750.61	550.24	A	0.45	1.974	7	0.8	1	5.493	219.26*	54.82	C
78.00-74.00			B	0.45	1.974		0.8	1	5.493			
			C	0.427	2.012		0.8	1	5.294			
T41	747.76	562.01	A	0.449	1.976	7	0.8	1	5.478	216.56*	54.14	C
74.00-70.00			B	0.449	1.976		0.8	1	5.478			
			C	0.427	2.014		0.8	1	5.280			
T42	744.74	560.16	A	0.448	1.977	7	0.8	1	5.462	213.70*	53.42	C
70.00-66.00			B	0.448	1.977		0.8	1	5.462			
			C	0.426	2.015		0.8	1	5.265			
T43	741.52	558.18	A	0.447	1.979	7	0.8	1	5.445	210.67*	52.67	C
66.00-62.00			B	0.447	1.979		0.8	1	5.445			
			C	0.425	2.017		0.8	1	5.249			
T44	738.07	589.02	A	0.455	1.966	7	0.8	1	5.580	207.46*	51.86	C
62.00-58.00			B	0.455	1.966		0.8	1	5.580			
			C	0.432	2.004		0.8	1	5.372			
T45	739.57	553.78	A	0.444	1.983	7	0.8	1	5.408	204.04*	51.01	C
58.00-54.00			B	0.444	1.983		0.8	1	5.408			
			C	0.423	2.021		0.8	1	5.214			
T46	740.67	551.33	A	0.443	1.986	6	0.8	1	5.386	200.38*	50.09	C
54.00-50.00			B	0.443	1.986		0.8	1	5.386			
			C	0.421	2.023		0.8	1	5.194			
T47	736.24	548.67	A	0.441	1.988	6	0.8	1	5.364	196.45*	49.11	C
50.00-46.00			B	0.441	1.988		0.8	1	5.364			
			C	0.42	2.026		0.8	1	5.173			
T48	731.41	532.26	A	0.44	1.991	6	0.8	1	5.339	192.22*	48.05	C
46.00-42.00			B	0.44	1.991		0.8	1	5.339			
			C	0.419	2.028		0.8	1	5.150			
T49	650.41	561.62	A	0.447	1.978	6	0.8	1	5.463	182.01	45.50	C
42.00-38.00			B	0.447	1.978		0.8	1	5.463			
			C	0.425	2.016		0.8	1	5.264			
T50	645.30	558.00	A	0.445	1.982	6	0.8	1	5.433	176.86	44.21	C

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	q_z psf	D_F	D_R	A_E ft²	F lb	w plf	Ctrl. Face
38.00-34.00			B	0.445	1.982		0.8	1	5.433			
			C	0.424	2.019		0.8	1	5.235			
T51	639.59	553.96	A	0.443	1.986	6	0.8	1	5.399	171.20	42.80	C
34.00-30.00			B	0.443	1.986		0.8	1	5.399			
			C	0.422	2.023		0.8	1	5.204			
T52	633.15	549.39	A	0.44	1.99	6	0.8	1	5.360	168.07	42.02	C
30.00-26.00			B	0.44	1.99		0.8	1	5.360			
			C	0.419	2.027		0.8	1	5.168			
T53	625.76	544.16	A	0.437	1.995	6	0.8	1	5.316	168.13	42.03	C
26.00-22.00			B	0.437	1.995		0.8	1	5.316			
			C	0.417	2.032		0.8	1	5.126			
T54	621.59	551.54	A	0.434	2.001	6	0.8	1	5.264	169.54	42.39	C
22.00-18.00			B	0.434	2.001		0.8	1	5.264			
			C	0.414	2.038		0.8	1	5.078			
T55	615.34	544.14	A	0.429	2.009	6	0.8	1	5.202	170.79	42.70	C
18.00-14.00			B	0.429	2.009		0.8	1	5.202			
			C	0.41	2.045		0.8	1	5.019			
T56	601.82	534.81	A	0.424	2.018	6	0.8	1	5.122	170.34	42.58	C
14.00-10.00			B	0.424	2.018		0.8	1	5.122			
			C	0.405	2.054		0.8	1	4.945			
T57	306.45	522.10	A	0.416	2.032	6	0.8	1	5.013	113.18	28.29	C
10.00-6.00			B	0.416	2.032		0.8	1	5.013			
			C	0.407	2.05		0.8	1	4.928			
T58 6.00-2.00	27.35	501.68	A	0.404	2.056	6	0.8	1	4.838	55.81	13.95	C
			B	0.404	2.056		0.8	1	4.838			
			C	0.404	2.056		0.8	1	4.838			
Sum Weight:	38339.83	39360.78			*2.1A_g limit					13502.49		

Tower Forces - With Ice - Wind 90 To Face

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	q_z psf	D_F	D_R	A_E ft²	F lb	w plf	Ctrl. Face
T1	251.84	1175.21	A	0.391	2.081	9	0.85	1	12.269	273.79	26.07	C
276.00-265.50			B	0.391	2.081		0.85	1	12.269			
			C	0.391	2.081		0.85	1	12.269			
T2	136.74	405.83	A	0.38	2.105	9	0.85	1	4.224	110.45	29.45	C
265.50-261.75			B	0.38	2.105		0.85	1	4.224			
			C	0.38	2.105		0.85	1	4.224			
T3	167.88	602.35	A	0.509	1.889	9	0.85	1	6.126	130.44	34.78	C
261.75-258.00		TA	B	0.509	1.889		0.85	1	6.126			
		1527.11	C	0.509	1.889		0.85	1	6.126			
T4	178.94	420.01	A	0.37	2.126	9	0.85	1	4.360	126.15	31.54	C
258.00-254.00			B	0.37	2.126		0.85	1	4.360			
			C	0.37	2.126		0.85	1	4.360			
T5	196.99	419.74	A	0.37	2.127	9	0.85	1	4.358	132.60	33.15	C
254.00-250.00			B	0.37	2.127		0.85	1	4.358			
			C	0.37	2.127		0.85	1	4.358			
T6	196.83	522.84	A	0.442	1.987	9	0.85	1	5.341	137.85	34.46	C
250.00-246.00			B	0.442	1.987		0.85	1	5.341			
			C	0.442	1.987		0.85	1	5.341			
T7	196.67	522.50	A	0.442	1.987	9	0.85	1	5.338	137.49	34.37	C

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	q_z psf	D_F	D_R	A_E ft²	F lb	w plf	Ctrl. Face
246.00-242.00			B	0.442	1.987		0.85	1	5.338			
			C	0.442	1.987		0.85	1	5.338			
T8	196.50	522.15	A	0.442	1.988	9	0.85	1	5.335	137.11	34.28	C
242.00-238.00			B	0.442	1.988		0.85	1	5.335			
			C	0.442	1.988		0.85	1	5.335			
T9	257.99	521.79	A	0.441	1.988	9	0.85	1	5.332	150.51	37.63	C
238.00-234.00			B	0.441	1.988		0.85	1	5.332			
			C	0.441	1.988		0.85	1	5.332			
T10	319.39	521.42	A	0.441	1.988	9	0.85	1	5.328	163.84	40.96	C
234.00-230.00			B	0.441	1.988		0.85	1	5.328			
			C	0.441	1.988		0.85	1	5.328			
T11	319.13	521.05	A	0.441	1.989	9	0.85	1	5.325	163.37	40.84	C
230.00-226.00			B	0.441	1.989		0.85	1	5.325			
			C	0.441	1.989		0.85	1	5.325			
T12	318.86	520.66	A	0.441	1.989	9	0.85	1	5.321	162.89	40.72	C
226.00-222.00			B	0.441	1.989		0.85	1	5.321			
			C	0.441	1.989		0.85	1	5.321			
T13	1613.28	2068.00	A	0.394	2.076	9	0.85	1	19.070	740.32	46.27	C
222.00-206.00			B	0.394	2.076		0.85	1	19.070			
			C	0.394	2.076		0.85	1	19.070			
T14	626.84	548.78	A	0.394	2.077	9	0.85	1	4.760	235.21	58.80	A
206.00-202.00			B	0.394	2.077		0.85	1	4.760			
			C	0.394	2.077		0.85	1	4.760			
T15	626.26	843.71	A	0.535	1.859	8	0.85	1	7.060	220.96	55.24	A
202.00-198.00		TA	B	0.535	1.859		0.85	1	7.060			
		1528.74	C	0.535	1.859		0.85	1	7.060			
T16	632.30	547.96	A	0.393	2.078	8	0.85	1	4.754	236.24	59.06	A
198.00-194.00			B	0.393	2.078		0.85	1	4.754			
			C	0.393	2.078		0.85	1	4.754			
T17	1912.95	1543.04	A	0.393	2.078	8	0.85	1	14.241	711.37	59.28	A
194.00-182.00			B	0.393	2.078		0.85	1	14.241			
			C	0.393	2.078		0.85	1	14.241			
T18	3224.21	2389.75	A	0.379	2.107	8	0.85	1	22.564	1181.95	59.10	A
182.00-162.00			B	0.379	2.107		0.85	1	22.564			
			C	0.372	2.122		0.85	1	22.277			
T19	684.69	476.45	A	0.378	2.109	8	0.85	1	4.501	251.56	62.89	A
162.00-158.00			B	0.378	2.109		0.85	1	4.501			
			C	0.361	2.146		0.85	1	4.358			
T20	683.74	475.92	A	0.378	2.11	8	0.85	1	4.496	250.24	62.56	A
158.00-154.00			B	0.378	2.11		0.85	1	4.496			
			C	0.361	2.146		0.85	1	4.354			
T21	682.76	475.36	A	0.377	2.11	8	0.85	1	4.492	248.88	62.22	A
154.00-150.00			B	0.377	2.11		0.85	1	4.492			
			C	0.361	2.147		0.85	1	4.350			
T22	681.74	474.79	A	0.377	2.111	8	0.85	1	4.487	247.47	61.87	A
150.00-146.00			B	0.377	2.111		0.85	1	4.487			
			C	0.36	2.148		0.85	1	4.346			
T23	680.68	499.79	A	0.377	2.112	8	0.85	1	4.482	246.02	61.50	A
146.00-142.00			B	0.377	2.112		0.85	1	4.482			
			C	0.36	2.148		0.85	1	4.341			
T24	679.59	499.18	A	0.376	2.113	8	0.85	1	4.477	244.51	61.13	A
142.00-138.00			B	0.376	2.113		0.85	1	4.477			
			C	0.36	2.149		0.85	1	4.336			
T25	678.46	633.05	A	0.455	1.965	8	0.85	1	5.598	238.10	59.52	A
138.00-134.00			B	0.455	1.965		0.85	1	5.598			
			C	0.432	2.004		0.85	1	5.410			
T26	677.28	632.22	A	0.455	1.966	8	0.85	1	5.590	236.65	59.16	A
134.00-130.00			B	0.455	1.966		0.85	1	5.590			
			C	0.432	2.005		0.85	1	5.403			
T27	759.62	613.58	A	0.468	1.946	8	0.85	1	5.902	244.99*	61.25	C

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	q_z psf	D_F	D_R	A_E ft²	F lb	w plf	Ctrl. Face
130.00-126.00			B	0.468	1.946		0.85	1	5.902			
			C	0.444	1.984		0.85	1	5.669			
T28	674.78	604.87	A	0.454	1.968	8	0.85	1	5.575	233.59	58.40	A
126.00-122.00			B	0.454	1.968		0.85	1	5.575			
			C	0.431	2.006		0.85	1	5.388			
T29	673.46	570.29	A	0.444	1.984	8	0.85	1	5.403	232.86	58.21	A
122.00-118.00			B	0.444	1.984		0.85	1	5.403			
			C	0.422	2.022		0.85	1	5.231			
T30	676.35	569.35	A	0.443	1.985	8	0.85	1	5.394	232.51	58.13	A
118.00-114.00			B	0.443	1.985		0.85	1	5.394			
			C	0.421	2.023		0.85	1	5.223			
T31	687.66	468.56	A	0.373	2.119	8	0.85	1	4.436	238.11	59.53	A
114.00-110.00			B	0.373	2.119		0.85	1	4.436			
			C	0.357	2.155		0.85	1	4.298			
T32	686.09	467.72	A	0.373	2.12	8	0.85	1	4.429	236.06	59.02	A
110.00-106.00			B	0.373	2.12		0.85	1	4.429			
			C	0.357	2.156		0.85	1	4.291			
T33	766.70	466.84	A	0.372	2.121	8	0.85	1	4.422	234.88*	58.72	C
106.00-102.00			B	0.372	2.121		0.85	1	4.422			
			C	0.356	2.157		0.85	1	4.285			
T34	764.73	558.92	A	0.455	1.966	7	0.85	1	5.676	232.94*	58.23	C
102.00-98.00			B	0.455	1.966		0.85	1	5.676			
			C	0.432	2.005		0.85	1	5.463			
T35	762.67	557.65	A	0.454	1.967	7	0.85	1	5.665	230.92*	57.73	C
98.00-94.00			B	0.454	1.967		0.85	1	5.665			
			C	0.431	2.006		0.85	1	5.453			
T36	760.50	556.32	A	0.453	1.968	7	0.85	1	5.654	228.80*	57.20	C
94.00-90.00			B	0.453	1.968		0.85	1	5.654			
			C	0.43	2.007		0.85	1	5.442			
T37	758.22	554.92	A	0.452	1.97	7	0.85	1	5.642	226.59*	56.65	C
90.00-86.00			B	0.452	1.97		0.85	1	5.642			
			C	0.43	2.008		0.85	1	5.431			
T38	755.82	553.44	A	0.452	1.971	7	0.85	1	5.629	224.27*	56.07	C
86.00-82.00			B	0.452	1.971		0.85	1	5.629			
			C	0.429	2.009		0.85	1	5.419			
T39	753.29	551.89	A	0.451	1.972	7	0.85	1	5.616	221.83*	55.46	C
82.00-78.00			B	0.451	1.972		0.85	1	5.616			
			C	0.428	2.011		0.85	1	5.407			
T40	750.61	550.24	A	0.45	1.974	7	0.85	1	5.602	219.26*	54.82	C
78.00-74.00			B	0.45	1.974		0.85	1	5.602			
			C	0.427	2.012		0.85	1	5.394			
T41	747.76	562.01	A	0.449	1.976	7	0.85	1	5.587	216.56*	54.14	C
74.00-70.00			B	0.449	1.976		0.85	1	5.587			
			C	0.427	2.014		0.85	1	5.380			
T42	744.74	560.16	A	0.448	1.977	7	0.85	1	5.571	213.70*	53.42	C
70.00-66.00			B	0.448	1.977		0.85	1	5.571			
			C	0.426	2.015		0.85	1	5.365			
T43	741.52	558.18	A	0.447	1.979	7	0.85	1	5.554	210.67*	52.67	C
66.00-62.00			B	0.447	1.979		0.85	1	5.554			
			C	0.425	2.017		0.85	1	5.350			
T44	738.07	589.02	A	0.455	1.966	7	0.85	1	5.697	207.46*	51.86	C
62.00-58.00			B	0.455	1.966		0.85	1	5.697			
			C	0.432	2.004		0.85	1	5.480			
T45	739.57	553.78	A	0.444	1.983	7	0.85	1	5.517	204.04*	51.01	C
58.00-54.00			B	0.444	1.983		0.85	1	5.517			
			C	0.423	2.021		0.85	1	5.315			
T46	740.67	551.33	A	0.443	1.986	6	0.85	1	5.496	200.38*	50.09	C
54.00-50.00			B	0.443	1.986		0.85	1	5.496			
			C	0.421	2.023		0.85	1	5.295			
T47	736.24	548.67	A	0.441	1.988	6	0.85	1	5.473	196.45*	49.11	C

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	q_z psf	D_F	D_R	A_E ft²	F lb	w plf	Ctrl. Face
50.00-46.00			B	0.441	1.988		0.85	1	5.473			
			C	0.42	2.026		0.85	1	5.274			
T48	731.41	532.26	A	0.44	1.991	6	0.85	1	5.448	192.22*	48.05	C
46.00-42.00			B	0.44	1.991		0.85	1	5.448			
			C	0.419	2.028		0.85	1	5.251			
T49	650.41	561.62	A	0.447	1.978	6	0.85	1	5.580	184.04	46.01	A
42.00-38.00			B	0.447	1.978		0.85	1	5.580			
			C	0.425	2.016		0.85	1	5.372			
T50	645.30	558.00	A	0.445	1.982	6	0.85	1	5.550	178.82	44.71	A
38.00-34.00			B	0.445	1.982		0.85	1	5.550			
			C	0.424	2.019		0.85	1	5.343			
T51	639.59	553.96	A	0.443	1.986	6	0.85	1	5.516	173.10	43.27	A
34.00-30.00			B	0.443	1.986		0.85	1	5.516			
			C	0.422	2.023		0.85	1	5.312			
T52	633.15	549.39	A	0.44	1.99	6	0.85	1	5.477	169.93	42.48	A
30.00-26.00			B	0.44	1.99		0.85	1	5.477			
			C	0.419	2.027		0.85	1	5.276			
T53	625.76	544.16	A	0.437	1.995	6	0.85	1	5.433	169.99	42.50	A
26.00-22.00			B	0.437	1.995		0.85	1	5.433			
			C	0.417	2.032		0.85	1	5.235			
T54	621.59	551.54	A	0.434	2.001	6	0.85	1	5.381	171.39	42.85	A
22.00-18.00			B	0.434	2.001		0.85	1	5.381			
			C	0.414	2.038		0.85	1	5.186			
T55	615.34	544.14	A	0.429	2.009	6	0.85	1	5.319	172.63	43.16	A
18.00-14.00			B	0.429	2.009		0.85	1	5.319			
			C	0.41	2.045		0.85	1	5.128			
T56	601.82	534.81	A	0.424	2.018	6	0.85	1	5.239	172.17	43.04	A
14.00-10.00			B	0.424	2.018		0.85	1	5.239			
			C	0.405	2.054		0.85	1	5.054			
T57	306.45	522.10	A	0.416	2.032	6	0.85	1	5.131	114.67	28.67	A
10.00-6.00			B	0.416	2.032		0.85	1	5.131			
			C	0.407	2.05		0.85	1	5.041			
T58 6.00-2.00	27.35	501.68	A	0.404	2.056	6	0.85	1	4.955	56.98	14.25	C
			B	0.404	2.056		0.85	1	4.955			
			C	0.404	2.056		0.85	1	4.955			
Sum Weight:	38339.83	39360.78			*2.1A_g limit					13558.73		

Tower Forces - Service - Wind Normal To Face

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	q_z psf	D_F	D_R	A_E ft²	F lb	w plf	Ctrl. Face
T1	64.58	468.83	A	0.166	2.713	13	1	1	5.911	206.70	19.69	C
276.00-265.50			B	0.166	2.713		1	1	5.911			
			C	0.166	2.713		1	1	5.911			
T2	27.65	163.84	A	0.161	2.731	13	1	1	2.035	80.59	21.49	C
265.50-261.75			B	0.161	2.731		1	1	2.035			
			C	0.161	2.731		1	1	2.035			
T3	30.71	243.86	A	0.221	2.527	13	1	1	2.977	107.56	28.68	C
261.75-258.00		TA 705.99	B	0.221	2.527		1	1	2.977			
			C	0.221	2.527		1	1	2.977			
T4	32.76	171.44	A	0.157	2.746	13	1	1	2.100	90.19	22.55	C

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	q_z psf	D_F	D_R	A_E ft²	F lb	w plf	Ctrl. Face
258.00-254.00			B	0.157	2.746		1	1	2.100			
			C	0.157	2.746		1	1	2.100			
T5	34.92	171.44	A	0.157	2.746	13	1	1	2.100	92.85	23.21	C
254.00-250.00			B	0.157	2.746		1	1	2.100			
			C	0.157	2.746		1	1	2.100			
T6	34.92	224.06	A	0.181	2.66	13	1	1	2.333	97.35	24.34	C
250.00-246.00			B	0.181	2.66		1	1	2.333			
			C	0.181	2.66		1	1	2.333			
T7	34.92	224.06	A	0.181	2.66	13	1	1	2.333	97.12	24.28	C
246.00-242.00			B	0.181	2.66		1	1	2.333			
			C	0.181	2.66		1	1	2.333			
T8	34.92	224.06	A	0.181	2.66	13	1	1	2.333	96.88	24.22	C
242.00-238.00			B	0.181	2.66		1	1	2.333			
			C	0.181	2.66		1	1	2.333			
T9	49.74	224.06	A	0.181	2.66	13	1	1	2.333	109.76	27.44	B
238.00-234.00			B	0.181	2.66		1	1	2.333			
			C	0.181	2.66		1	1	2.333			
T10	64.56	224.06	A	0.181	2.66	12	1	1	2.333	125.07	31.27	B
234.00-230.00			B	0.181	2.66		1	1	2.333			
			C	0.181	2.66		1	1	2.333			
T11	64.56	224.06	A	0.181	2.66	12	1	1	2.333	124.74	31.19	B
230.00-226.00			B	0.181	2.66		1	1	2.333			
			C	0.181	2.66		1	1	2.333			
T12	64.56	224.06	A	0.181	2.66	12	1	1	2.333	124.41	31.10	B
226.00-222.00			B	0.181	2.66		1	1	2.333			
			C	0.181	2.66		1	1	2.333			
T13	352.40	950.03	A	0.186	2.643	12	1	1	10.125	566.69	35.42	B
222.00-206.00			B	0.186	2.643		1	1	10.125			
			C	0.186	2.643		1	1	10.125			
T14	141.04	270.25	A	0.186	2.643	12	1	1	2.531	182.18	45.55	B
206.00-202.00			B	0.186	2.643		1	1	2.531			
			C	0.186	2.643		1	1	2.531			
T15	141.04	418.67	A	0.263	2.398	12	1	1	3.842	207.77	51.94	B
202.00-198.00		TA 713.11	B	0.263	2.398		1	1	3.842			
			C	0.263	2.398		1	1	3.842			
T16	141.54	270.25	A	0.186	2.643	12	1	1	2.531	181.74	45.43	B
198.00-194.00			B	0.186	2.643		1	1	2.531			
			C	0.186	2.643		1	1	2.531			
T17	426.12	712.52	A	0.186	2.643	12	1	1	7.594	543.66	45.30	B
194.00-182.00			B	0.186	2.643		1	1	7.594			
			C	0.186	2.643		1	1	7.594			
T18	718.70	1111.14	A	0.173	2.69	12	1	1	11.514	884.36	44.22	B
182.00-162.00			B	0.173	2.69		1	1	11.514			
			C	0.172	2.694		1	1	11.433			
T19	149.20	222.23	A	0.173	2.69	12	1	1	2.303	183.33	45.83	B
162.00-158.00			B	0.173	2.69		1	1	2.303			
			C	0.17	2.699		1	1	2.262			
T20	149.20	222.23	A	0.173	2.69	12	1	1	2.303	182.50	45.63	B
158.00-154.00			B	0.173	2.69		1	1	2.303			
			C	0.17	2.699		1	1	2.262			
T21	149.20	222.23	A	0.173	2.69	12	1	1	2.303	181.66	45.41	B
154.00-150.00			B	0.173	2.69		1	1	2.303			
			C	0.17	2.699		1	1	2.262			
T22	149.20	222.23	A	0.173	2.69	12	1	1	2.303	180.78	45.19	B
150.00-146.00			B	0.173	2.69		1	1	2.303			
			C	0.17	2.699		1	1	2.262			
T23	149.20	247.81	A	0.173	2.69	12	1	1	2.303	179.87	44.97	B
146.00-142.00			B	0.173	2.69		1	1	2.303			
			C	0.17	2.699		1	1	2.262			
T24	149.20	247.81	A	0.173	2.69	11	1	1	2.303	178.94	44.73	B

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	q_z psf	D_F	D_R	A_E ft²	F lb	w plf	Ctrl. Face
142.00-138.00			B	0.173	2.69		1	1	2.303			
			C	0.17	2.699		1	1	2.262			
T25	149.20	320.80	A	0.206	2.576	11	1	1	2.699	185.32	46.33	B
138.00-134.00			B	0.206	2.576		1	1	2.699			
			C	0.203	2.587		1	1	2.654			
T26	149.20	320.80	A	0.206	2.576	11	1	1	2.699	184.27	46.07	B
134.00-130.00			B	0.206	2.576		1	1	2.699			
			C	0.203	2.587		1	1	2.654			
T27	169.90	273.25	A	0.22	2.529	11	1	1	3.112	207.89	51.97	B
130.00-126.00			B	0.22	2.529		1	1	3.112			
			C	0.217	2.541		1	1	3.051			
T28	149.20	295.21	A	0.206	2.576	11	1	1	2.699	182.07	45.52	B
126.00-122.00			B	0.206	2.576		1	1	2.699			
			C	0.203	2.587		1	1	2.654			
T29	149.20	274.84	A	0.197	2.608	11	1	1	2.537	177.70	44.43	B
122.00-118.00			B	0.197	2.608		1	1	2.537			
			C	0.193	2.618		1	1	2.496			
T30	149.74	274.84	A	0.197	2.608	11	1	1	2.537	177.14	44.28	B
118.00-114.00			B	0.197	2.608		1	1	2.537			
			C	0.193	2.618		1	1	2.496			
T31	151.36	222.23	A	0.173	2.69	11	1	1	2.303	173.84	43.46	B
114.00-110.00			B	0.173	2.69		1	1	2.303			
			C	0.17	2.699		1	1	2.262			
T32	151.36	222.23	A	0.173	2.69	11	1	1	2.303	172.56	43.14	B
110.00-106.00			B	0.173	2.69		1	1	2.303			
			C	0.17	2.699		1	1	2.262			
T33	172.06	222.23	A	0.173	2.69	11	1	1	2.303	186.68	46.67	B
106.00-102.00			B	0.173	2.69		1	1	2.303			
			C	0.17	2.699		1	1	2.262			
T34	172.06	239.36	A	0.211	2.56	11	1	1	2.950	197.55	49.39	B
102.00-98.00			B	0.211	2.56		1	1	2.950			
			C	0.207	2.571		1	1	2.893			
T35	172.06	239.36	A	0.211	2.56	11	1	1	2.950	195.86	48.96	B
98.00-94.00			B	0.211	2.56		1	1	2.950			
			C	0.207	2.571		1	1	2.893			
T36	172.06	239.36	A	0.211	2.56	11	1	1	2.950	194.09	48.52	B
94.00-90.00			B	0.211	2.56		1	1	2.950			
			C	0.207	2.571		1	1	2.893			
T37	172.06	239.36	A	0.211	2.56	10	1	1	2.950	192.25	48.06	B
90.00-86.00			B	0.211	2.56		1	1	2.950			
			C	0.207	2.571		1	1	2.893			
T38	172.06	239.36	A	0.211	2.56	10	1	1	2.950	190.31	47.58	B
86.00-82.00			B	0.211	2.56		1	1	2.950			
			C	0.207	2.571		1	1	2.893			
T39	172.06	239.36	A	0.211	2.56	10	1	1	2.950	188.27	47.07	B
82.00-78.00			B	0.211	2.56		1	1	2.950			
			C	0.207	2.571		1	1	2.893			
T40	172.06	239.36	A	0.211	2.56	10	1	1	2.950	186.13	46.53	B
78.00-74.00			B	0.211	2.56		1	1	2.950			
			C	0.207	2.571		1	1	2.893			
T41	172.06	252.88	A	0.211	2.56	10	1	1	2.950	183.87	45.97	B
74.00-70.00			B	0.211	2.56		1	1	2.950			
			C	0.207	2.571		1	1	2.893			
T42	172.06	252.88	A	0.211	2.56	10	1	1	2.950	181.49	45.37	B
70.00-66.00			B	0.211	2.56		1	1	2.950			
			C	0.207	2.571		1	1	2.893			
T43	172.06	252.88	A	0.211	2.56	10	1	1	2.950	178.96	44.74	B
66.00-62.00			B	0.211	2.56		1	1	2.950			
			C	0.207	2.571		1	1	2.893			
T44	172.06	273.25	A	0.22	2.529	10	1	1	3.112	178.87	44.72	B

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	q_z psf	D_F	D_R	A_E ft²	F lb	w plf	Ctrl. Face
62.00-58.00			B	0.22	2.529		1	1	3.112			
			C	0.217	2.541		1	1	3.051			
T45	172.32	252.88	A	0.211	2.56	9	1	1	2.950	173.85	43.46	B
58.00-54.00			B	0.211	2.56		1	1	2.950			
			C	0.207	2.571		1	1	2.893			
T46	172.58	252.88	A	0.211	2.56	9	1	1	2.950	171.23	42.81	B
54.00-50.00			B	0.211	2.56		1	1	2.950			
			C	0.207	2.571		1	1	2.893			
T47	172.58	252.88	A	0.211	2.56	9	1	1	2.950	167.92	41.98	B
50.00-46.00			B	0.211	2.56		1	1	2.950			
			C	0.207	2.571		1	1	2.893			
T48	172.58	239.36	A	0.211	2.56	9	1	1	2.950	164.36	41.09	B
46.00-42.00			B	0.211	2.56		1	1	2.950			
			C	0.207	2.571		1	1	2.893			
T49	151.88	259.73	A	0.22	2.529	9	1	1	3.112	150.46	37.62	B
42.00-38.00			B	0.22	2.529		1	1	3.112			
			C	0.217	2.541		1	1	3.051			
T50	151.88	259.73	A	0.22	2.529	8	1	1	3.112	146.51	36.63	B
38.00-34.00			B	0.22	2.529		1	1	3.112			
			C	0.217	2.541		1	1	3.051			
T51	151.88	259.73	A	0.22	2.529	8	1	1	3.112	142.16	35.54	B
34.00-30.00			B	0.22	2.529		1	1	3.112			
			C	0.217	2.541		1	1	3.051			
T52	151.88	259.73	A	0.22	2.529	8	1	1	3.112	139.93	34.98	B
30.00-26.00			B	0.22	2.529		1	1	3.112			
			C	0.217	2.541		1	1	3.051			
T53	151.88	259.73	A	0.22	2.529	8	1	1	3.112	140.43	35.11	B
26.00-22.00			B	0.22	2.529		1	1	3.112			
			C	0.217	2.541		1	1	3.051			
T54	152.14	273.25	A	0.22	2.529	8	1	1	3.112	141.32	35.33	B
22.00-18.00			B	0.22	2.529		1	1	3.112			
			C	0.217	2.541		1	1	3.051			
T55	152.40	273.25	A	0.22	2.529	8	1	1	3.112	142.22	35.55	B
18.00-14.00			B	0.22	2.529		1	1	3.112			
			C	0.217	2.541		1	1	3.051			
T56	152.40	273.25	A	0.22	2.529	8	1	1	3.112	142.74	35.68	B
14.00-10.00			B	0.22	2.529		1	1	3.112			
			C	0.217	2.541		1	1	3.051			
T57	79.52	273.25	A	0.22	2.529	8	1	1	3.112	101.30	25.32	B
10.00-6.00			B	0.22	2.529		1	1	3.112			
			C	0.219	2.535		1	1	3.081			
T58 6.00-2.00	6.64	273.25	A	0.22	2.529	8	1	1	3.112	59.55	14.89	C
			B	0.22	2.529		1	1	3.112			
			C	0.22	2.529		1	1	3.112			
Sum Weight:	8631.28	18121.02								10705.78		

Tower Forces - Service - Wind 60 To Face

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	q_z psf	D_F	D_R	A_E ft²	F lb	w plf	Ctrl. Face
T1	64.58	468.83	A	0.166	2.713	13	0.8	1	5.078	182.15	17.35	C
276.00-265.50			B	0.166	2.713		0.8	1	5.078			

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	q_z psf	D_F	D_R	A_E ft²	F lb	w plf	Ctrl. Face
			C	0.166	2.713		0.8	1	5.078			
T2	27.65	163.84	A	0.161	2.731	13	0.8	1	1.752	72.25	19.27	B
265.50-261.75			B	0.161	2.731		0.8	1	1.752			
			C	0.161	2.731		0.8	1	1.752			
T3	30.71	243.86	A	0.221	2.527	13	0.8	1	2.508	94.78	25.27	B
261.75-258.00		TA 705.99	B	0.221	2.527		0.8	1	2.508			
			C	0.221	2.527		0.8	1	2.508			
T4	32.76	171.44	A	0.157	2.746	13	0.8	1	1.813	81.70	20.42	B
258.00-254.00			B	0.157	2.746		0.8	1	1.813			
			C	0.157	2.746		0.8	1	1.813			
T5	34.92	171.44	A	0.157	2.746	13	0.8	1	1.813	84.37	21.09	B
254.00-250.00			B	0.157	2.746		0.8	1	1.813			
			C	0.157	2.746		0.8	1	1.813			
T6	34.92	224.06	A	0.181	2.66	13	0.8	1	2.046	89.15	22.29	B
250.00-246.00			B	0.181	2.66		0.8	1	2.046			
			C	0.181	2.66		0.8	1	2.046			
T7	34.92	224.06	A	0.181	2.66	13	0.8	1	2.046	88.94	22.24	B
246.00-242.00			B	0.181	2.66		0.8	1	2.046			
			C	0.181	2.66		0.8	1	2.046			
T8	34.92	224.06	A	0.181	2.66	13	0.8	1	2.046	88.73	22.18	B
242.00-238.00			B	0.181	2.66		0.8	1	2.046			
			C	0.181	2.66		0.8	1	2.046			
T9	49.74	224.06	A	0.181	2.66	13	0.8	1	2.046	101.62	25.41	C
238.00-234.00			B	0.181	2.66		0.8	1	2.046			
			C	0.181	2.66		0.8	1	2.046			
T10	64.56	224.06	A	0.181	2.66	12	0.8	1	2.046	116.96	29.24	C
234.00-230.00			B	0.181	2.66		0.8	1	2.046			
			C	0.181	2.66		0.8	1	2.046			
T11	64.56	224.06	A	0.181	2.66	12	0.8	1	2.046	116.65	29.16	C
230.00-226.00			B	0.181	2.66		0.8	1	2.046			
			C	0.181	2.66		0.8	1	2.046			
T12	64.56	224.06	A	0.181	2.66	12	0.8	1	2.046	116.34	29.08	C
226.00-222.00			B	0.181	2.66		0.8	1	2.046			
			C	0.181	2.66		0.8	1	2.046			
T13	352.40	950.03	A	0.186	2.643	12	0.8	1	8.710	527.49	32.97	C
222.00-206.00			B	0.186	2.643		0.8	1	8.710			
			C	0.186	2.643		0.8	1	8.710			
T14	141.04	270.25	A	0.186	2.643	12	0.8	1	2.178	172.45	43.11	C
206.00-202.00			B	0.186	2.643		0.8	1	2.178			
			C	0.186	2.643		0.8	1	2.178			
T15	141.04	418.67	A	0.263	2.398	12	0.8	1	3.230	192.56	48.14	C
202.00-198.00		TA 713.11	B	0.263	2.398		0.8	1	3.230			
			C	0.263	2.398		0.8	1	3.230			
T16	141.54	270.25	A	0.186	2.643	12	0.8	1	2.178	172.07	43.02	C
198.00-194.00			B	0.186	2.643		0.8	1	2.178			
			C	0.186	2.643		0.8	1	2.178			
T17	426.12	712.52	A	0.186	2.643	12	0.8	1	6.533	514.86	42.91	C
194.00-182.00			B	0.186	2.643		0.8	1	6.533			
			C	0.186	2.643		0.8	1	6.533			
T18	718.70	1111.14	A	0.173	2.69	12	0.8	1	9.971	840.96	42.05	C
182.00-162.00			B	0.173	2.69		0.8	1	9.971			
			C	0.172	2.694		0.8	1	9.906			
T19	149.20	222.23	A	0.173	2.69	12	0.8	1	1.994	174.33	43.58	C
162.00-158.00			B	0.173	2.69		0.8	1	1.994			
			C	0.17	2.699		0.8	1	1.962			
T20	149.20	222.23	A	0.173	2.69	12	0.8	1	1.994	173.55	43.39	C
158.00-154.00			B	0.173	2.69		0.8	1	1.994			
			C	0.17	2.699		0.8	1	1.962			
T21	149.20	222.23	A	0.173	2.69	12	0.8	1	1.994	172.74	43.19	C
154.00-150.00			B	0.173	2.69		0.8	1	1.994			

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	q_z psf	D_F	D_R	A_E ft²	F lb	w plf	Ctrl. Face
			C	0.17	2.699		0.8	1	1.962			
T22	149.20	222.23	A	0.173	2.69	12	0.8	1	1.994	171.91	42.98	C
150.00-146.00			B	0.173	2.69		0.8	1	1.994			
			C	0.17	2.699		0.8	1	1.962			
T23	149.20	247.81	A	0.173	2.69	12	0.8	1	1.994	171.05	42.76	C
146.00-142.00			B	0.173	2.69		0.8	1	1.994			
			C	0.17	2.699		0.8	1	1.962			
T24	149.20	247.81	A	0.173	2.69	11	0.8	1	1.994	170.16	42.54	C
142.00-138.00			B	0.173	2.69		0.8	1	1.994			
			C	0.17	2.699		0.8	1	1.962			
T25	149.20	320.80	A	0.206	2.576	11	0.8	1	2.359	176.15	44.04	C
138.00-134.00			B	0.206	2.576		0.8	1	2.359			
			C	0.203	2.587		0.8	1	2.323			
T26	149.20	320.80	A	0.206	2.576	11	0.8	1	2.359	175.16	43.79	C
134.00-130.00			B	0.206	2.576		0.8	1	2.359			
			C	0.203	2.587		0.8	1	2.323			
T27	169.90	273.25	A	0.22	2.529	11	0.8	1	2.644	195.63	48.91	C
130.00-126.00			B	0.22	2.529		0.8	1	2.644			
			C	0.217	2.541		0.8	1	2.595			
T28	149.20	295.21	A	0.206	2.576	11	0.8	1	2.359	173.06	43.27	C
126.00-122.00			B	0.206	2.576		0.8	1	2.359			
			C	0.203	2.587		0.8	1	2.323			
T29	149.20	274.84	A	0.197	2.608	11	0.8	1	2.228	169.49	42.37	C
122.00-118.00			B	0.197	2.608		0.8	1	2.228			
			C	0.193	2.618		0.8	1	2.195			
T30	149.74	274.84	A	0.197	2.608	11	0.8	1	2.228	168.98	42.24	C
118.00-114.00			B	0.197	2.608		0.8	1	2.228			
			C	0.193	2.618		0.8	1	2.195			
T31	151.36	222.23	A	0.173	2.69	11	0.8	1	1.994	165.43	41.36	C
114.00-110.00			B	0.173	2.69		0.8	1	1.994			
			C	0.17	2.699		0.8	1	1.962			
T32	151.36	222.23	A	0.173	2.69	11	0.8	1	1.994	164.22	41.05	C
110.00-106.00			B	0.173	2.69		0.8	1	1.994			
			C	0.17	2.699		0.8	1	1.962			
T33	172.06	222.23	A	0.173	2.69	11	0.8	1	1.994	178.40	44.60	C
106.00-102.00			B	0.173	2.69		0.8	1	1.994			
			C	0.17	2.699		0.8	1	1.962			
T34	172.06	239.36	A	0.211	2.56	11	0.8	1	2.514	186.53	46.63	C
102.00-98.00			B	0.211	2.56		0.8	1	2.514			
			C	0.207	2.571		0.8	1	2.468			
T35	172.06	239.36	A	0.211	2.56	11	0.8	1	2.514	184.94	46.24	C
98.00-94.00			B	0.211	2.56		0.8	1	2.514			
			C	0.207	2.571		0.8	1	2.468			
T36	172.06	239.36	A	0.211	2.56	11	0.8	1	2.514	183.27	45.82	C
94.00-90.00			B	0.211	2.56		0.8	1	2.514			
			C	0.207	2.571		0.8	1	2.468			
T37	172.06	239.36	A	0.211	2.56	10	0.8	1	2.514	181.53	45.38	C
90.00-86.00			B	0.211	2.56		0.8	1	2.514			
			C	0.207	2.571		0.8	1	2.468			
T38	172.06	239.36	A	0.211	2.56	10	0.8	1	2.514	179.70	44.93	C
86.00-82.00			B	0.211	2.56		0.8	1	2.514			
			C	0.207	2.571		0.8	1	2.468			
T39	172.06	239.36	A	0.211	2.56	10	0.8	1	2.514	177.78	44.44	C
82.00-78.00			B	0.211	2.56		0.8	1	2.514			
			C	0.207	2.571		0.8	1	2.468			
T40	172.06	239.36	A	0.211	2.56	10	0.8	1	2.514	175.76	43.94	C
78.00-74.00			B	0.211	2.56		0.8	1	2.514			
			C	0.207	2.571		0.8	1	2.468			
T41	172.06	252.88	A	0.211	2.56	10	0.8	1	2.514	173.62	43.41	C
74.00-70.00			B	0.211	2.56		0.8	1	2.514			

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	q_z psf	D_F	D_R	A_E ft²	F lb	w plf	Ctrl. Face
			C	0.207	2.571		0.8	1	2.468			
T42	172.06	252.88	A	0.211	2.56	10	0.8	1	2.514	171.37	42.84	C
70.00-66.00			B	0.211	2.56		0.8	1	2.514			
			C	0.207	2.571		0.8	1	2.468			
T43	172.06	252.88	A	0.211	2.56	10	0.8	1	2.514	168.98	42.25	C
66.00-62.00			B	0.211	2.56		0.8	1	2.514			
			C	0.207	2.571		0.8	1	2.468			
T44	172.06	273.25	A	0.22	2.529	10	0.8	1	2.644	168.46	42.11	C
62.00-58.00			B	0.22	2.529		0.8	1	2.644			
			C	0.217	2.541		0.8	1	2.595			
T45	172.32	252.88	A	0.211	2.56	9	0.8	1	2.514	164.19	41.05	C
58.00-54.00			B	0.211	2.56		0.8	1	2.514			
			C	0.207	2.571		0.8	1	2.468			
T46	172.58	252.88	A	0.211	2.56	9	0.8	1	2.514	161.73	40.43	C
54.00-50.00			B	0.211	2.56		0.8	1	2.514			
			C	0.207	2.571		0.8	1	2.468			
T47	172.58	252.88	A	0.211	2.56	9	0.8	1	2.514	158.61	39.65	C
50.00-46.00			B	0.211	2.56		0.8	1	2.514			
			C	0.207	2.571		0.8	1	2.468			
T48	172.58	239.36	A	0.211	2.56	9	0.8	1	2.514	155.24	38.81	C
46.00-42.00			B	0.211	2.56		0.8	1	2.514			
			C	0.207	2.571		0.8	1	2.468			
T49	151.88	259.73	A	0.22	2.529	9	0.8	1	2.644	141.03	35.26	C
42.00-38.00			B	0.22	2.529		0.8	1	2.644			
			C	0.217	2.541		0.8	1	2.595			
T50	151.88	259.73	A	0.22	2.529	8	0.8	1	2.644	137.33	34.33	C
38.00-34.00			B	0.22	2.529		0.8	1	2.644			
			C	0.217	2.541		0.8	1	2.595			
T51	151.88	259.73	A	0.22	2.529	8	0.8	1	2.644	133.25	33.31	C
34.00-30.00			B	0.22	2.529		0.8	1	2.644			
			C	0.217	2.541		0.8	1	2.595			
T52	151.88	259.73	A	0.22	2.529	8	0.8	1	2.644	131.16	32.79	C
30.00-26.00			B	0.22	2.529		0.8	1	2.644			
			C	0.217	2.541		0.8	1	2.595			
T53	151.88	259.73	A	0.22	2.529	8	0.8	1	2.644	131.63	32.91	C
26.00-22.00			B	0.22	2.529		0.8	1	2.644			
			C	0.217	2.541		0.8	1	2.595			
T54	152.14	273.25	A	0.22	2.529	8	0.8	1	2.644	132.49	33.12	C
22.00-18.00			B	0.22	2.529		0.8	1	2.644			
			C	0.217	2.541		0.8	1	2.595			
T55	152.40	273.25	A	0.22	2.529	8	0.8	1	2.644	133.35	33.34	C
18.00-14.00			B	0.22	2.529		0.8	1	2.644			
			C	0.217	2.541		0.8	1	2.595			
T56	152.40	273.25	A	0.22	2.529	8	0.8	1	2.644	133.84	33.46	C
14.00-10.00			B	0.22	2.529		0.8	1	2.644			
			C	0.217	2.541		0.8	1	2.595			
T57	79.52	273.25	A	0.22	2.529	8	0.8	1	2.644	92.70	23.17	C
10.00-6.00			B	0.22	2.529		0.8	1	2.644			
			C	0.219	2.535		0.8	1	2.619			
T58 6.00-2.00	6.64	273.25	A	0.22	2.529	8	0.8	1	2.644	51.25	12.81	C
			B	0.22	2.529		0.8	1	2.644			
			C	0.22	2.529		0.8	1	2.644			
Sum Weight:	8631.28	18121.02								10064.05		

Tower Forces - Service - Wind 90 To Face

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	q_z psf	D_F	D_R	A_E ft²	F lb	w plf	Ctrl. Face
T1	64.58	468.83	A	0.166	2.713	13	0.85	1	5.286	188.29	17.93	C
276.00-265.50			B	0.166	2.713		0.85	1	5.286			
			C	0.166	2.713		0.85	1	5.286			
T2	27.65	163.84	A	0.161	2.731	13	0.85	1	1.823	74.34	19.82	C
265.50-261.75			B	0.161	2.731		0.85	1	1.823			
			C	0.161	2.731		0.85	1	1.823			
T3	30.71	243.86	A	0.221	2.527	13	0.85	1	2.625	97.97	26.13	C
261.75-258.00		TA 705.99	B	0.221	2.527		0.85	1	2.625			
			C	0.221	2.527		0.85	1	2.625			
T4	32.76	171.44	A	0.157	2.746	13	0.85	1	1.885	83.82	20.95	C
258.00-254.00			B	0.157	2.746		0.85	1	1.885			
			C	0.157	2.746		0.85	1	1.885			
T5	34.92	171.44	A	0.157	2.746	13	0.85	1	1.885	86.49	21.62	C
254.00-250.00			B	0.157	2.746		0.85	1	1.885			
			C	0.157	2.746		0.85	1	1.885			
T6	34.92	224.06	A	0.181	2.66	13	0.85	1	2.118	91.20	22.80	C
250.00-246.00			B	0.181	2.66		0.85	1	2.118			
			C	0.181	2.66		0.85	1	2.118			
T7	34.92	224.06	A	0.181	2.66	13	0.85	1	2.118	90.99	22.75	C
246.00-242.00			B	0.181	2.66		0.85	1	2.118			
			C	0.181	2.66		0.85	1	2.118			
T8	34.92	224.06	A	0.181	2.66	13	0.85	1	2.118	90.77	22.69	C
242.00-238.00			B	0.181	2.66		0.85	1	2.118			
			C	0.181	2.66		0.85	1	2.118			
T9	49.74	224.06	A	0.181	2.66	13	0.85	1	2.118	104.19	26.05	C
238.00-234.00			B	0.181	2.66		0.85	1	2.118			
			C	0.181	2.66		0.85	1	2.118			
T10	64.56	224.06	A	0.181	2.66	12	0.85	1	2.118	117.54	29.39	C
234.00-230.00			B	0.181	2.66		0.85	1	2.118			
			C	0.181	2.66		0.85	1	2.118			
T11	64.56	224.06	A	0.181	2.66	12	0.85	1	2.118	117.24	29.31	C
230.00-226.00			B	0.181	2.66		0.85	1	2.118			
			C	0.181	2.66		0.85	1	2.118			
T12	64.56	224.06	A	0.181	2.66	12	0.85	1	2.118	116.92	29.23	C
226.00-222.00			B	0.181	2.66		0.85	1	2.118			
			C	0.181	2.66		0.85	1	2.118			
T13	352.40	950.03	A	0.186	2.643	12	0.85	1	9.064	531.11	33.19	A
222.00-206.00			B	0.186	2.643		0.85	1	9.064			
			C	0.186	2.643		0.85	1	9.064			
T14	141.04	270.25	A	0.186	2.643	12	0.85	1	2.266	174.85	43.71	A
206.00-202.00			B	0.186	2.643		0.85	1	2.266			
			C	0.186	2.643		0.85	1	2.266			
T15	141.04	418.67	A	0.263	2.398	12	0.85	1	3.383	196.33	49.08	A
202.00-198.00		TA 713.11	B	0.263	2.398		0.85	1	3.383			
			C	0.263	2.398		0.85	1	3.383			
T16	141.54	270.25	A	0.186	2.643	12	0.85	1	2.266	174.46	43.61	A
198.00-194.00			B	0.186	2.643		0.85	1	2.266			
			C	0.186	2.643		0.85	1	2.266			
T17	426.12	712.52	A	0.186	2.643	12	0.85	1	6.798	521.97	43.50	A
194.00-182.00			B	0.186	2.643		0.85	1	6.798			
			C	0.186	2.643		0.85	1	6.798			
T18	718.70	1111.14	A	0.173	2.69	12	0.85	1	10.357	852.72	42.64	A
182.00-162.00			B	0.173	2.69		0.85	1	10.357			
			C	0.172	2.694		0.85	1	10.288			
T19	149.20	222.23	A	0.173	2.69	12	0.85	1	2.071	177.08	44.27	A
162.00-158.00			B	0.173	2.69		0.85	1	2.071			
			C	0.17	2.699		0.85	1	2.037			
T20	149.20	222.23	A	0.173	2.69	12	0.85	1	2.071	176.28	44.07	A
158.00-154.00			B	0.173	2.69		0.85	1	2.071			

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	q_z psf	D_F	D_R	A_E ft²	F lb	w plf	Ctrl. Face
			C	0.17	2.699		0.85	1	2.037			
T21	149.20	222.23	A	0.173	2.69	12	0.85	1	2.071	175.46	43.87	A
154.00-150.00			B	0.173	2.69		0.85	1	2.071			
			C	0.17	2.699		0.85	1	2.037			
T22	149.20	222.23	A	0.173	2.69	12	0.85	1	2.071	174.62	43.65	A
150.00-146.00			B	0.173	2.69		0.85	1	2.071			
			C	0.17	2.699		0.85	1	2.037			
T23	149.20	247.81	A	0.173	2.69	12	0.85	1	2.071	173.74	43.44	A
146.00-142.00			B	0.173	2.69		0.85	1	2.071			
			C	0.17	2.699		0.85	1	2.037			
T24	149.20	247.81	A	0.173	2.69	11	0.85	1	2.071	172.84	43.21	A
142.00-138.00			B	0.173	2.69		0.85	1	2.071			
			C	0.17	2.699		0.85	1	2.037			
T25	149.20	320.80	A	0.206	2.576	11	0.85	1	2.444	178.91	44.73	A
138.00-134.00			B	0.206	2.576		0.85	1	2.444			
			C	0.203	2.587		0.85	1	2.406			
T26	149.20	320.80	A	0.206	2.576	11	0.85	1	2.444	177.90	44.48	A
134.00-130.00			B	0.206	2.576		0.85	1	2.444			
			C	0.203	2.587		0.85	1	2.406			
T27	169.90	273.25	A	0.22	2.529	11	0.85	1	2.761	199.35	49.84	A
130.00-126.00			B	0.22	2.529		0.85	1	2.761			
			C	0.217	2.541		0.85	1	2.709			
T28	149.20	295.21	A	0.206	2.576	11	0.85	1	2.444	175.77	43.94	A
126.00-122.00			B	0.206	2.576		0.85	1	2.444			
			C	0.203	2.587		0.85	1	2.406			
T29	149.20	274.84	A	0.197	2.608	11	0.85	1	2.305	171.96	42.99	A
122.00-118.00			B	0.197	2.608		0.85	1	2.305			
			C	0.193	2.618		0.85	1	2.271			
T30	149.74	274.84	A	0.197	2.608	11	0.85	1	2.305	171.44	42.86	A
118.00-114.00			B	0.197	2.608		0.85	1	2.305			
			C	0.193	2.618		0.85	1	2.271			
T31	151.36	222.23	A	0.173	2.69	11	0.85	1	2.071	168.00	42.00	A
114.00-110.00			B	0.173	2.69		0.85	1	2.071			
			C	0.17	2.699		0.85	1	2.037			
T32	151.36	222.23	A	0.173	2.69	11	0.85	1	2.071	166.76	41.69	A
110.00-106.00			B	0.173	2.69		0.85	1	2.071			
			C	0.17	2.699		0.85	1	2.037			
T33	172.06	222.23	A	0.173	2.69	11	0.85	1	2.071	180.93	45.23	A
106.00-102.00			B	0.173	2.69		0.85	1	2.071			
			C	0.17	2.699		0.85	1	2.037			
T34	172.06	239.36	A	0.211	2.56	11	0.85	1	2.623	189.88	47.47	A
102.00-98.00			B	0.211	2.56		0.85	1	2.623			
			C	0.207	2.571		0.85	1	2.574			
T35	172.06	239.36	A	0.211	2.56	11	0.85	1	2.623	188.26	47.06	A
98.00-94.00			B	0.211	2.56		0.85	1	2.623			
			C	0.207	2.571		0.85	1	2.574			
T36	172.06	239.36	A	0.211	2.56	11	0.85	1	2.623	186.56	46.64	A
94.00-90.00			B	0.211	2.56		0.85	1	2.623			
			C	0.207	2.571		0.85	1	2.574			
T37	172.06	239.36	A	0.211	2.56	10	0.85	1	2.623	184.78	46.20	A
90.00-86.00			B	0.211	2.56		0.85	1	2.623			
			C	0.207	2.571		0.85	1	2.574			
T38	172.06	239.36	A	0.211	2.56	10	0.85	1	2.623	182.92	45.73	A
86.00-82.00			B	0.211	2.56		0.85	1	2.623			
			C	0.207	2.571		0.85	1	2.574			
T39	172.06	239.36	A	0.211	2.56	10	0.85	1	2.623	180.97	45.24	A
82.00-78.00			B	0.211	2.56		0.85	1	2.623			
			C	0.207	2.571		0.85	1	2.574			
T40	172.06	239.36	A	0.211	2.56	10	0.85	1	2.623	178.91	44.73	A
78.00-74.00			B	0.211	2.56		0.85	1	2.623			

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	q_z psf	D_F	D_R	A_E ft²	F lb	w plf	Ctrl. Face
			C	0.207	2.571		0.85	1	2.574			
T41	172.06	252.88	A	0.211	2.56	10	0.85	1	2.623	176.74	44.18	A
74.00-70.00			B	0.211	2.56		0.85	1	2.623			
			C	0.207	2.571		0.85	1	2.574			
T42	172.06	252.88	A	0.211	2.56	10	0.85	1	2.623	174.44	43.61	A
70.00-66.00			B	0.211	2.56		0.85	1	2.623			
			C	0.207	2.571		0.85	1	2.574			
T43	172.06	252.88	A	0.211	2.56	10	0.85	1	2.623	172.01	43.00	A
66.00-62.00			B	0.211	2.56		0.85	1	2.623			
			C	0.207	2.571		0.85	1	2.574			
T44	172.06	273.25	A	0.22	2.529	10	0.85	1	2.761	171.61	42.90	A
62.00-58.00			B	0.22	2.529		0.85	1	2.761			
			C	0.217	2.541		0.85	1	2.709			
T45	172.32	252.88	A	0.211	2.56	9	0.85	1	2.623	167.12	41.78	A
58.00-54.00			B	0.211	2.56		0.85	1	2.623			
			C	0.207	2.571		0.85	1	2.574			
T46	172.58	252.88	A	0.211	2.56	9	0.85	1	2.623	164.61	41.15	A
54.00-50.00			B	0.211	2.56		0.85	1	2.623			
			C	0.207	2.571		0.85	1	2.574			
T47	172.58	252.88	A	0.211	2.56	9	0.85	1	2.623	161.44	40.36	A
50.00-46.00			B	0.211	2.56		0.85	1	2.623			
			C	0.207	2.571		0.85	1	2.574			
T48	172.58	239.36	A	0.211	2.56	9	0.85	1	2.623	158.01	39.50	A
46.00-42.00			B	0.211	2.56		0.85	1	2.623			
			C	0.207	2.571		0.85	1	2.574			
T49	151.88	259.73	A	0.22	2.529	9	0.85	1	2.761	143.89	35.97	A
42.00-38.00			B	0.22	2.529		0.85	1	2.761			
			C	0.217	2.541		0.85	1	2.709			
T50	151.88	259.73	A	0.22	2.529	8	0.85	1	2.761	140.11	35.03	A
38.00-34.00			B	0.22	2.529		0.85	1	2.761			
			C	0.217	2.541		0.85	1	2.709			
T51	151.88	259.73	A	0.22	2.529	8	0.85	1	2.761	135.95	33.99	A
34.00-30.00			B	0.22	2.529		0.85	1	2.761			
			C	0.217	2.541		0.85	1	2.709			
T52	151.88	259.73	A	0.22	2.529	8	0.85	1	2.761	133.82	33.46	A
30.00-26.00			B	0.22	2.529		0.85	1	2.761			
			C	0.217	2.541		0.85	1	2.709			
T53	151.88	259.73	A	0.22	2.529	8	0.85	1	2.761	134.30	33.57	A
26.00-22.00			B	0.22	2.529		0.85	1	2.761			
			C	0.217	2.541		0.85	1	2.709			
T54	152.14	273.25	A	0.22	2.529	8	0.85	1	2.761	135.17	33.79	A
22.00-18.00			B	0.22	2.529		0.85	1	2.761			
			C	0.217	2.541		0.85	1	2.709			
T55	152.40	273.25	A	0.22	2.529	8	0.85	1	2.761	136.04	34.01	A
18.00-14.00			B	0.22	2.529		0.85	1	2.761			
			C	0.217	2.541		0.85	1	2.709			
T56	152.40	273.25	A	0.22	2.529	8	0.85	1	2.761	136.54	34.13	A
14.00-10.00			B	0.22	2.529		0.85	1	2.761			
			C	0.217	2.541		0.85	1	2.709			
T57	79.52	273.25	A	0.22	2.529	8	0.85	1	2.761	95.09	23.77	A
10.00-6.00			B	0.22	2.529		0.85	1	2.761			
			C	0.219	2.535		0.85	1	2.735			
T58 6.00-2.00	6.64	273.25	A	0.22	2.529	8	0.85	1	2.761	53.33	13.33	C
			B	0.22	2.529		0.85	1	2.761			
			C	0.22	2.529		0.85	1	2.761			
Sum Weight:	8631.28	18121.02								10234.76		

Force Totals (Does not include forces on guys)

Load Case	Vertical Forces lb	Sum of Forces X lb	Sum of Forces Z lb	Sum of Torques lb-ft
Leg Weight	8800.51			
Bracing Weight	9320.51			
Total Member Self-Weight	18121.02			
Guy Weight	3229.32			
Total Weight	41138.24			
Wind 0 deg - No Ice		725.55	-56551.62	3932.64
Wind 30 deg - No Ice		28163.94	-48885.94	-2791.60
Wind 60 deg - No Ice		47756.18	-28279.63	-11910.53
Wind 90 deg - No Ice		55187.07	-626.13	-16361.43
Wind 120 deg - No Ice		48277.83	28037.62	-12642.52
Wind 150 deg - No Ice		26160.12	46697.81	-5887.44
Wind 180 deg - No Ice		-443.98	54492.73	-2693.10
Wind 210 deg - No Ice		-28092.07	49064.53	2809.87
Wind 240 deg - No Ice		-49574.14	29623.84	10772.73
Wind 270 deg - No Ice		-55011.03	184.85	15922.84
Wind 300 deg - No Ice		-46105.67	-26814.05	12540.78
Wind 330 deg - No Ice		-26289.93	-46282.50	6307.76
Member Ice	21239.76			
Guy Ice	12416.91			
Total Weight Ice	118318.75			
Wind 0 deg - Ice		140.04	-18261.94	767.56
Wind 30 deg - Ice		9096.54	-15782.29	-891.50
Wind 60 deg - Ice		15572.97	-9169.83	-2582.71
Wind 90 deg - Ice		17875.23	-115.74	-3432.32
Wind 120 deg - Ice		15478.85	9441.38	-2375.55
Wind 150 deg - Ice		8702.12	15846.16	-1006.33
Wind 180 deg - Ice		-85.74	18249.37	-537.63
Wind 210 deg - Ice		-8941.63	16071.85	195.33
Wind 240 deg - Ice		-15663.10	9709.47	1762.91
Wind 270 deg - Ice		-17841.32	40.91	3343.21
Wind 300 deg - Ice		-15313.63	-8921.10	2964.66
Wind 330 deg - Ice		-8868.22	-15510.97	1787.99
Total Weight	41138.24			
Wind 0 deg - Service		187.59	-14627.70	1016.77
Wind 30 deg - Service		7284.93	-12644.90	-721.71
Wind 60 deg - Service		12352.80	-7314.84	-3079.34
Wind 90 deg - Service		14274.90	-161.88	-4230.09
Wind 120 deg - Service		12487.68	7252.27	-3268.59
Wind 150 deg - Service		6766.85	12079.17	-1522.13
Wind 180 deg - Service		-114.79	14095.38	-696.29
Wind 210 deg - Service		-7266.35	12691.07	726.43
Wind 240 deg - Service		-12822.83	7662.38	2785.17
Wind 270 deg - Service		-14229.39	47.79	4116.69
Wind 300 deg - Service		-11926.07	-6935.92	3242.29
Wind 330 deg - Service		-6800.41	-11971.79	1630.80

Load Combinations

Comb. No.	Description

Comb. No.	Description
1	Dead Only
2	1.2 Dead+1.0 Wind 0 deg - No Ice+1.0 Guy
3	1.2 Dead+1.0 Wind 30 deg - No Ice+1.0 Guy
4	1.2 Dead+1.0 Wind 60 deg - No Ice+1.0 Guy
5	1.2 Dead+1.0 Wind 90 deg - No Ice+1.0 Guy
6	1.2 Dead+1.0 Wind 120 deg - No Ice+1.0 Guy
7	1.2 Dead+1.0 Wind 150 deg - No Ice+1.0 Guy
8	1.2 Dead+1.0 Wind 180 deg - No Ice+1.0 Guy
9	1.2 Dead+1.0 Wind 210 deg - No Ice+1.0 Guy
10	1.2 Dead+1.0 Wind 240 deg - No Ice+1.0 Guy
11	1.2 Dead+1.0 Wind 270 deg - No Ice+1.0 Guy
12	1.2 Dead+1.0 Wind 300 deg - No Ice+1.0 Guy
13	1.2 Dead+1.0 Wind 330 deg - No Ice+1.0 Guy
14	1.2 Dead+1.0 Ice+1.0 Temp+Guy
15	1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp+1.0 Guy
16	1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp+1.0 Guy
17	1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp+1.0 Guy
18	1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp+1.0 Guy
19	1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp+1.0 Guy
20	1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp+1.0 Guy
21	1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp+1.0 Guy
22	1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp+1.0 Guy
23	1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp+1.0 Guy
24	1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp+1.0 Guy
25	1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp+1.0 Guy
26	1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp+1.0 Guy
27	Dead+Wind 0 deg - Service+Guy
28	Dead+Wind 30 deg - Service+Guy
29	Dead+Wind 60 deg - Service+Guy
30	Dead+Wind 90 deg - Service+Guy
31	Dead+Wind 120 deg - Service+Guy
32	Dead+Wind 150 deg - Service+Guy
33	Dead+Wind 180 deg - Service+Guy
34	Dead+Wind 210 deg - Service+Guy
35	Dead+Wind 240 deg - Service+Guy
36	Dead+Wind 270 deg - Service+Guy
37	Dead+Wind 300 deg - Service+Guy
38	Dead+Wind 330 deg - Service+Guy

Maximum Member Forces

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial lb	Major Axis Moment lb-ft	Minor Axis Moment lb-ft
T1	276 - 265.5	Leg	Max Tension	11	967.18	-8.35	-23.68
			Max. Compression	23	-1925.13	19.77	-48.08
			Max. Mx	5	-480.70	-298.70	73.76
			Max. My	8	-1321.18	-18.38	-341.27
			Max. Vy	5	116.09	-298.70	73.76
			Max. Vx	8	132.08	-18.38	-341.27
		Diagonal	Max Tension	5	675.49	0.00	0.00
			Max. Compression	11	-691.80	0.00	0.00
			Max. Mx	19	-148.63	-23.85	0.00
			Max. My	18	-9.90	0.00	-0.11
			Max. Vy	19	-17.95	0.00	0.00
			Max. Vx	18	-0.09	0.00	0.00
		Horizontal	Max Tension	8	183.81	0.00	0.00
			Max. Compression	2	-186.65	0.00	0.00
			Max. Mx	25	-25.55	-19.83	0.00

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial lb	Major Axis Moment lb-ft	Minor Axis Moment lb-ft
			Max. My	18	41.16	0.00	-0.00
			Max. Vy	25	19.83	0.00	0.00
			Max. Vx	18	0.00	0.00	0.00
		Top Girt	Max Tension	4	69.70	0.00	0.00
			Max. Compression	10	-77.19	0.00	0.00
			Max. Mx	25	28.59	-19.83	0.00
			Max. My	18	-22.00	0.00	-0.00
			Max. Vy	25	19.83	0.00	0.00
			Max. Vx	18	0.00	0.00	0.00
T2	265.5 - 261.75	Leg	Max Tension	8	2753.24	202.48	-220.70
			Max. Compression	2	-4253.27	-163.57	337.77
			Max. Mx	5	-2163.22	640.02	66.56
			Max. My	8	-1175.30	-55.96	727.15
			Max. Vy	5	-630.67	-298.68	73.74
			Max. Vx	8	-718.21	-18.39	-341.26
		Diagonal	Max Tension	3	2943.34	0.00	0.00
			Max. Compression	8	-2998.28	0.00	0.00
			Max. Mx	19	-517.69	-24.59	0.00
			Max. My	20	-586.03	0.00	0.11
			Max. Vy	19	17.94	0.00	0.00
			Max. Vx	20	0.08	0.00	0.00
		Top Girt	Max Tension	8	1049.88	0.00	0.00
			Max. Compression	2	-862.21	0.00	0.00
			Max. Mx	25	-66.49	-19.81	0.00
			Max. My	18	89.67	0.00	-0.00
			Max. Vy	25	-19.81	0.00	0.00
			Max. Vx	18	-0.00	0.00	0.00
T3	261.75 - 258	Leg	Max Tension	7	1189.91	-198.55	-197.09
			Max. Compression	17	-3035.43	-20.60	-38.70
			Max. Mx	5	-1272.07	-470.59	66.54
			Max. My	8	-276.96	-55.98	-499.93
			Max. Vy	5	-443.72	-470.59	66.54
			Max. Vx	2	447.43	-9.28	458.42
		Diagonal	Max Tension	7	5060.03	0.00	0.00
			Max. Compression	13	-5752.06	0.00	0.00
			Max. Mx	20	622.28	11.20	-0.17
			Max. My	12	-5315.27	2.97	3.49
			Max. Vy	20	-13.03	11.20	-0.17
			Max. Vx	12	-1.28	0.00	0.00
		Guy A	Bottom Tension	9	15309.69		
			Top Tension	9	15476.47		
			Top Cable Vert	9	13578.12		
			Top Cable Norm	9	7426.62		
			Top Cable Tan	9	31.82		
			Bot Cable Vert	9	-13171.36		
			Bot Cable Norm	9	7800.70		
			Bot Cable Tan	9	225.53		
		Guy B	Bottom Tension	13	14973.06		
			Top Tension	13	15142.01		
			Top Cable Vert	13	13450.44		
			Top Cable Norm	13	6954.41		
			Top Cable Tan	13	47.27		
			Bot Cable Vert	13	-13048.49		
			Bot Cable Norm	13	7340.65		
			Bot Cable Tan	13	210.73		
		Guy C	Bottom Tension	3	14381.25		
			Top Tension	3	14556.56		
			Top Cable Vert	3	12465.63		
			Top Cable Norm	3	7516.54		
			Top Cable Tan	3	54.51		
			Bot Cable Vert	3	-12023.97		

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial lb	Major Axis Moment lb-ft	Minor Axis Moment lb-ft
			Bot Cable Norm	3	7886.51		
			Bot Cable Tan	3	217.68		
		Top Guy Pull-Off	Max Tension	8	10045.29	0.00	0.00
			Max. Compression	2	-3980.51	0.00	0.00
			Max. Mx	25	1222.70	-30.81	0.00
			Max. My	4	-990.20	0.00	-0.00
			Max. Vy	25	30.81	0.00	0.00
			Max. Vx	4	0.00	0.00	0.00
		Torque Arm Top	Max Tension	10	21081.73	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	24	8683.18	-97.71	0.00
			Max. My	4	14811.69	0.00	0.00
			Max. Vy	24	-63.97	0.00	0.00
			Max. Vx	4	-0.00	0.00	0.00
		Torque Arm Bottom	Max Tension	1	0.00	0.00	0.00
			Max. Compression	11	-23770.51	0.00	0.00
			Max. Mx	19	-12634.42	-115.12	0.00
			Max. My	4	-20966.06	0.00	-0.41
			Max. Vy	19	-64.23	0.00	0.00
			Max. Vx	4	0.23	0.00	0.00
T4	258 - 254	Leg	Max Tension	6	5944.50	-41.92	-4.44
			Max. Compression	13	-36396.30	55.98	-76.99
			Max. Mx	10	-30099.54	-83.52	-27.91
			Max. My	13	-36358.28	-48.47	86.79
			Max. Vy	10	44.96	47.57	30.71
			Max. Vx	13	54.45	-48.47	86.79
		Diagonal	Max Tension	13	5569.12	0.00	0.00
			Max. Compression	7	-5776.72	0.00	0.00
			Max. Mx	19	1028.37	-25.34	0.00
			Max. My	20	151.50	0.00	0.13
			Max. Vy	19	17.92	0.00	0.00
			Max. Vx	20	-0.09	0.00	0.00
		Top Girt	Max Tension	1	0.00	0.00	0.00
			Max. Compression	10	-3644.71	0.00	0.00
			Max. Mx	25	-1504.84	-19.78	0.00
			Max. My	18	-2072.44	0.00	-0.00
			Max. Vy	25	19.78	0.00	0.00
			Max. Vx	18	0.00	0.00	0.00
T5	254 - 250	Leg	Max Tension	2	11307.99	-52.68	-17.72
			Max. Compression	8	-40540.04	74.03	9.39
			Max. Mx	6	-33121.22	86.79	-21.32
			Max. My	10	-32229.91	-30.57	87.66
			Max. Vy	6	-136.42	-54.18	23.50
			Max. Vx	3	132.53	48.21	57.18
		Diagonal	Max Tension	7	5155.82	0.00	0.00
			Max. Compression	13	-5130.61	0.00	0.00
			Max. Mx	15	1066.19	-25.32	0.00
			Max. My	18	725.60	0.00	-0.13
			Max. Vy	15	17.90	0.00	0.00
			Max. Vx	18	0.09	0.00	0.00
		Top Girt	Max Tension	4	264.92	0.00	0.00
			Max. Compression	10	-230.56	0.00	0.00
			Max. Mx	25	85.66	-19.76	0.00
			Max. My	20	-68.90	0.00	0.00
			Max. Vy	25	19.76	0.00	0.00
			Max. Vx	20	-0.00	0.00	0.00
T6	250 - 246	Leg	Max Tension	6	16568.05	-7.65	35.14
			Max. Compression	12	-44955.23	62.90	-66.04
			Max. Mx	6	-31409.48	-93.47	19.52
			Max. My	10	-33033.54	39.68	-100.56
			Max. Vy	6	56.46	-93.47	19.52

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial lb	Major Axis Moment lb-ft	Minor Axis Moment lb-ft
			Max. Vx	10	57.17	39.68	-100.56
		Diagonal	Max Tension	13	4689.84	0.00	0.00
			Max. Compression	7	-4919.76	0.00	0.00
			Max. Mx	19	754.32	-25.29	0.00
			Max. My	24	544.76	0.00	0.12
			Max. Vy	19	17.88	0.00	0.00
			Max. Vx	24	0.08	0.00	0.00
		Secondary Horizontal	Max Tension	10	4.64	0.00	0.00
			Max. Compression	9	-9.46	0.00	0.00
			Max. Mx	23	1.31	18.98	0.00
			Max. My	4	-5.50	0.00	0.00
			Max. Vy	23	-18.98	0.00	0.00
			Max. Vx	4	-0.00	0.00	0.00
		Top Girt	Max Tension	3	183.07	0.00	0.00
			Max. Compression	10	-124.67	0.00	0.00
			Max. Mx	21	99.78	-19.75	0.00
			Max. My	18	92.56	0.00	-0.00
			Max. Vy	21	-19.75	0.00	0.00
			Max. Vx	18	0.00	0.00	0.00
T7	246 - 242	Leg	Max Tension	2	20850.67	-29.76	17.96
			Max. Compression	8	-47942.67	82.63	78.30
			Max. Mx	6	-37571.18	158.59	4.05
			Max. My	9	-19380.91	-42.97	149.46
			Max. Vy	6	-85.87	-93.46	19.50
			Max. Vx	9	-85.43	14.17	-88.26
		Diagonal	Max Tension	7	4387.85	0.00	0.00
			Max. Compression	13	-4350.76	0.00	0.00
			Max. Mx	15	801.53	-25.26	0.00
			Max. My	18	598.31	0.00	-0.12
			Max. Vy	15	-17.86	0.00	0.00
			Max. Vx	18	0.09	0.00	0.00
		Secondary Horizontal	Max Tension	10	18.45	0.00	0.00
			Max. Compression	9	-41.43	0.00	0.00
			Max. Mx	25	-2.25	18.97	0.00
			Max. My	4	-23.97	0.00	0.00
			Max. Vy	25	-18.97	0.00	0.00
			Max. Vx	4	-0.00	0.00	0.00
		Top Girt	Max Tension	12	235.62	0.00	0.00
			Max. Compression	2	-172.80	0.00	0.00
			Max. Mx	25	11.02	-19.74	0.00
			Max. My	20	-23.84	0.00	0.00
			Max. Vy	25	19.74	0.00	0.00
			Max. Vx	20	-0.00	0.00	0.00
T8	242 - 238	Leg	Max Tension	6	25348.78	62.61	66.12
			Max. Compression	12	-51983.88	264.25	43.19
			Max. Mx	5	-16961.40	-303.97	43.80
			Max. My	2	-36008.80	64.10	307.64
			Max. Vy	5	131.71	-103.04	12.21
			Max. Vx	9	130.32	43.46	-95.19
		Diagonal	Max Tension	13	4198.25	0.00	0.00
			Max. Compression	7	-4420.96	0.00	0.00
			Max. Mx	19	538.92	-25.24	0.00
			Max. My	24	459.76	0.00	0.11
			Max. Vy	19	17.84	0.00	0.00
			Max. Vx	24	-0.08	0.00	0.00
		Secondary Horizontal	Max Tension	11	72.38	0.00	0.00
			Max. Compression	12	-25.59	0.00	0.00
			Max. Mx	22	3.95	18.96	0.00

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial lb	Major Axis Moment lb-ft	Minor Axis Moment lb-ft
			Max. My	11	-3.73	0.00	0.00
			Max. Vy	22	-18.96	0.00	0.00
			Max. Vx	11	-0.00	0.00	0.00
		Top Girt	Max Tension	3	88.14	0.00	0.00
			Max. Compression	11	-53.04	0.00	0.00
			Max. Mx	22	40.05	-19.72	0.00
			Max. My	18	62.39	0.00	-0.00
			Max. Vy	22	19.72	0.00	0.00
			Max. Vx	18	0.00	0.00	0.00
T9	238 - 234	Leg	Max Tension	2	28087.02	-22.06	247.08
			Max. Compression	8	-53804.88	94.92	-241.87
			Max. Mx	11	-51884.25	-636.04	-12.87
			Max. My	2	28042.97	1.35	-641.05
			Max. Vy	5	-477.50	-303.94	43.77
			Max. Vx	2	479.72	64.11	307.64
		Diagonal	Max Tension	7	2672.47	0.00	0.00
			Max. Compression	13	-2620.30	0.00	0.00
			Max. Mx	15	280.30	-25.21	0.00
			Max. My	18	317.98	0.00	-0.11
			Max. Vy	15	17.82	0.00	0.00
			Max. Vx	18	-0.08	0.00	0.00
		Secondary Horizontal	Max Tension	10	107.26	0.00	0.00
			Max. Compression	11	-271.37	0.00	0.00
			Max. Mx	23	14.90	18.95	0.00
			Max. My	11	-271.30	0.00	-0.00
			Max. Vy	23	-18.95	0.00	0.00
			Max. Vx	11	0.00	0.00	0.00
		Top Girt	Max Tension	12	762.59	0.00	0.00
			Max. Compression	2	-631.41	0.00	0.00
			Max. Mx	23	158.31	-19.70	0.00
			Max. My	20	-152.77	0.00	0.00
			Max. Vy	23	19.70	0.00	0.00
			Max. Vx	20	-0.00	0.00	0.00
T10	234 - 230	Leg	Max Tension	6	28849.07	-214.76	-100.26
			Max. Compression	12	-55120.13	1.46	-100.52
			Max. Mx	10	-40272.55	292.70	-82.81
			Max. My	2	-42475.19	-76.43	297.71
			Max. Vy	11	124.46	107.58	3.90
			Max. Vx	7	-125.40	-52.00	-109.67
		Diagonal	Max Tension	12	1933.63	0.00	0.00
			Max. Compression	7	-2244.92	0.00	0.00
			Max. Mx	19	-417.65	-25.18	0.00
			Max. My	24	-94.18	0.00	0.10
			Max. Vy	19	17.80	0.00	0.00
			Max. Vx	24	-0.07	0.00	0.00
		Secondary Horizontal	Max Tension	9	83.42	0.00	0.00
			Max. Compression	12	-29.88	0.00	0.00
			Max. Mx	23	0.12	18.94	0.00
			Max. My	11	74.35	0.00	-0.00
			Max. Vy	23	18.94	0.00	0.00
			Max. Vx	11	0.00	0.00	0.00
		Top Girt	Max Tension	4	754.53	0.00	0.00
			Max. Compression	10	-633.71	0.00	0.00
			Max. Mx	21	-67.14	-19.69	0.00
			Max. My	11	-516.99	0.00	0.00
			Max. Vy	21	19.69	0.00	0.00
			Max. Vx	11	-0.00	0.00	0.00
T11	230 - 226	Leg	Max Tension	2	28149.94	-20.76	-58.75
			Max. Compression	8	-52803.49	93.69	78.52

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial lb	Major Axis Moment lb-ft	Minor Axis Moment lb-ft
			Max. Mx	6	-40781.71	167.50	-5.86
			Max. My	9	-20970.83	-40.61	154.99
			Max. Vy	6	-91.30	-43.05	69.32
			Max. Vx	9	-82.61	-30.65	-31.79
		Diagonal	Max Tension	8	2255.84	0.00	0.00
			Max. Compression	12	-2223.76	0.00	0.00
			Max. Mx	15	-277.91	-25.14	0.00
			Max. My	24	-448.34	0.00	0.11
			Max. Vy	15	17.78	0.00	0.00
			Max. Vx	24	0.07	0.00	0.00
		Secondary Horizontal	Max Tension	10	37.00	0.00	0.00
			Max. Compression	11	-86.10	0.00	0.00
			Max. Mx	18	1.93	18.93	0.00
			Max. My	11	-85.98	0.00	-0.00
			Max. Vy	18	18.93	0.00	0.00
			Max. Vx	11	0.00	0.00	0.00
		Top Girt	Max Tension	5	181.83	0.00	0.00
			Max. Compression	10	-138.75	0.00	0.00
			Max. Mx	18	93.13	-19.67	0.00
			Max. My	11	103.97	0.00	0.00
			Max. Vy	18	19.67	0.00	0.00
			Max. Vx	11	-0.00	0.00	0.00
T12	226 - 222	Leg	Max Tension	6	28082.96	58.63	63.90
			Max. Compression	12	-53057.65	310.69	89.87
			Max. Mx	5	-21482.20	-390.35	42.56
			Max. My	2	-40107.80	68.14	369.88
			Max. Vy	5	166.84	-158.10	20.84
			Max. Vx	9	156.17	63.82	-141.47
		Diagonal	Max Tension	12	2209.46	0.00	0.00
			Max. Compression	8	-2464.45	0.00	0.00
			Max. Mx	19	-603.03	-25.11	0.00
			Max. My	24	-66.94	0.00	0.09
			Max. Vy	19	-17.76	0.00	0.00
			Max. Vx	24	-0.07	0.00	0.00
		Secondary Horizontal	Max Tension	3	111.36	0.00	0.00
			Max. Compression	12	-34.26	0.00	0.00
			Max. Mx	22	4.31	18.91	0.00
			Max. My	11	107.49	0.00	-0.00
			Max. Vy	22	-18.91	0.00	0.00
			Max. Vx	11	0.00	0.00	0.00
		Top Girt	Max Tension	3	145.30	0.00	0.00
			Max. Compression	10	-97.31	0.00	0.00
			Max. Mx	17	24.48	-19.66	0.00
			Max. My	11	-86.89	0.00	0.00
			Max. Vy	17	19.66	0.00	0.00
			Max. Vx	11	-0.00	0.00	0.00
T13	222 - 206	Leg	Max Tension	2	25085.29	-14.90	303.64
			Max. Compression	11	-50270.92	429.65	178.12
			Max. Mx	5	-23189.24	1220.12	-18.48
			Max. My	2	-42685.72	-100.82	-1192.65
			Max. Vy	11	-938.68	637.26	53.63
			Max. Vx	2	-919.99	-100.82	623.23
		Diagonal	Max Tension	3	9029.37	0.00	0.00
			Max. Compression	9	-9538.51	0.00	0.00
			Max. Mx	15	-1019.34	-36.85	0.00
			Max. My	12	721.74	0.00	0.21
			Max. Vy	15	26.05	0.00	0.00
			Max. Vx	12	-0.15	0.00	0.00
		Horizontal	Max Tension	12	1492.46	0.00	0.00

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial lb	Major Axis Moment lb-ft	Minor Axis Moment lb-ft
			Max. Compression	6	-1433.11	0.00	0.00
			Max. Mx	20	-274.46	-19.61	0.00
			Max. My	11	-82.38	0.00	0.00
			Max. Vy	20	19.61	0.00	0.00
			Max. Vx	11	-0.00	0.00	0.00
		Top Girt	Max Tension	4	1177.16	0.00	0.00
			Max. Compression	2	-1207.55	0.00	0.00
			Max. Mx	23	219.08	-19.61	0.00
			Max. My	11	877.06	0.00	0.00
			Max. Vy	23	19.61	0.00	0.00
			Max. Vx	11	-0.00	0.00	0.00
T14	206 - 202	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	7	-33687.11	-105.23	-207.26
			Max. Mx	5	-23774.25	-312.03	46.72
			Max. My	8	-15106.37	0.55	-286.03
			Max. Vy	6	-95.57	-296.56	-82.24
			Max. Vx	7	-73.16	-100.96	-257.45
		Diagonal	Max Tension	9	11241.61	0.00	0.00
			Max. Compression	3	-11069.44	0.00	0.00
			Max. Mx	21	3325.03	-43.33	0.00
			Max. My	11	5517.38	0.00	0.30
			Max. Vy	21	30.64	0.00	0.00
			Max. Vx	11	-0.21	0.00	0.00
		Top Girt	Max Tension	4	832.38	0.00	0.00
			Max. Compression	10	-729.09	0.00	0.00
			Max. Mx	16	78.81	-19.57	0.00
			Max. My	11	630.47	0.00	0.00
			Max. Vy	16	19.57	0.00	0.00
			Max. Vx	11	-0.00	0.00	0.00
T15	202 - 198	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	5	-23570.79	-201.69	50.51
			Max. Mx	11	-11034.61	-246.80	24.43
			Max. My	2	-10833.03	-91.66	-251.40
			Max. Vy	11	394.93	241.95	28.76
			Max. Vx	2	372.74	-76.58	206.17
		Diagonal	Max Tension	13	3763.80	0.00	0.00
			Max. Compression	8	-9804.59	0.00	0.00
			Max. Mx	5	1794.82	105.17	-7.34
			Max. My	13	-8727.23	-26.37	29.94
			Max. Vy	5	-44.57	105.17	-7.34
			Max. Vx	13	10.60	0.00	0.00
		Guy A	Bottom Tension	9	18804.13		
			Top Tension	9	18931.97		
			Top Cable Vert	9	15320.57		
			Top Cable Norm	9	11122.00		
			Top Cable Tan	9	27.36		
			Bot Cable Vert	9	-14982.85		
			Bot Cable Norm	9	11360.51		
			Bot Cable Tan	9	219.09		
		Guy B	Bottom Tension	11	19190.65		
			Top Tension	11	19320.31		
			Top Cable Vert	11	15936.45		
			Top Cable Norm	11	10922.62		
			Top Cable Tan	11	16.66		
			Bot Cable Vert	11	-15607.29		
			Bot Cable Norm	11	11163.95		
			Bot Cable Tan	11	243.97		
		Guy C	Bottom Tension	3	17761.12		
			Top Tension	3	17897.27		
			Top Cable Vert	3	14041.49		
			Top Cable Norm	3	11097.24		

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial lb	Major Axis Moment lb-ft	Minor Axis Moment lb-ft
			Top Cable Tan	3	2.62		
			Bot Cable Vert	3	-13673.74		
			Bot Cable Norm	3	11333.26		
			Bot Cable Tan	3	208.12		
		Top Guy Pull-Off	Max Tension	9	18488.13	0.00	0.00
			Max. Compression	11	-6562.21	0.00	0.00
			Max. Mx	16	558.90	-30.53	0.00
			Max. My	11	7114.76	0.00	0.00
			Max. Vy	16	30.53	0.00	0.00
			Max. Vx	11	-0.00	0.00	0.00
		Torque Arm Top	Max Tension	10	24973.46	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	16	7280.98	-96.92	0.00
			Max. My	11	7190.47	0.00	-0.00
			Max. Vy	16	63.45	0.00	0.00
			Max. Vx	11	0.00	0.00	0.00
		Torque Arm Bottom	Max Tension	1	0.00	0.00	0.00
			Max. Compression	9	-27263.20	0.00	0.00
			Max. Mx	25	-6981.44	-116.04	0.00
			Max. My	12	-25535.61	0.00	0.54
			Max. Vy	25	63.56	0.00	0.00
			Max. Vx	12	-0.30	0.00	0.00
T16	198 - 194	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	10	-57442.52	-103.39	194.38
			Max. Mx	6	-57183.45	-205.64	-5.56
			Max. My	10	-57442.52	-103.39	194.38
			Max. Vy	6	-148.65	-205.64	-5.56
			Max. Vx	7	-112.50	-23.56	-168.81
		Diagonal	Max Tension	6	5486.57	0.00	0.00
			Max. Compression	12	-5837.17	0.00	0.00
			Max. Mx	21	-485.68	-43.27	0.00
			Max. My	11	-5177.62	0.00	0.28
			Max. Vy	21	-30.60	0.00	0.00
			Max. Vx	11	-0.20	0.00	0.00
		Top Girt	Max Tension	11	2724.89	0.00	0.00
			Max. Compression	7	-2344.37	0.00	0.00
			Max. Mx	16	1575.02	-19.53	0.00
			Max. My	11	-127.49	0.00	0.00
			Max. Vy	16	-19.53	0.00	0.00
			Max. Vx	11	-0.00	0.00	0.00
T17	194 - 182	Leg	Max Tension	6	991.27	-46.20	121.46
			Max. Compression	11	-67085.07	71.71	-182.91
			Max. Mx	9	-63205.99	-232.84	-12.55
			Max. My	6	-54297.60	107.31	228.05
			Max. Vy	6	-147.73	-210.75	47.11
			Max. Vx	2	-117.13	-150.18	163.77
		Diagonal	Max Tension	12	4991.32	0.00	0.00
			Max. Compression	5	-5216.48	0.00	0.00
			Max. Mx	25	533.87	-36.66	0.00
			Max. My	12	2887.91	0.00	0.24
			Max. Vy	25	25.92	0.00	0.00
			Max. Vx	12	-0.17	0.00	0.00
		Horizontal	Max Tension	11	430.25	0.00	0.00
			Max. Compression	10	-261.73	0.00	0.00
			Max. Mx	15	181.10	-19.48	0.00
			Max. My	11	-138.74	0.00	0.00
			Max. Vy	15	19.48	0.00	0.00
			Max. Vx	11	-0.00	0.00	0.00
		Top Girt	Max Tension	12	383.52	0.00	0.00
			Max. Compression	6	-256.43	0.00	0.00
			Max. Mx	16	-4.55	-19.48	0.00

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial lb	Major Axis Moment lb-ft	Minor Axis Moment lb-ft
			Max. My	11	-153.18	0.00	0.00
			Max. Vy	16	19.48	0.00	0.00
			Max. Vx	11	-0.00	0.00	0.00
T18	182 - 162	Leg	Max Tension	6	547.55	-43.18	126.07
			Max. Compression	11	-67501.94	86.46	-182.48
			Max. Mx	10	-55275.89	273.15	15.93
			Max. My	10	-58672.10	-119.53	235.88
			Max. Vy	11	660.03	183.98	38.64
			Max. Vx	2	643.67	-144.69	155.52
		Diagonal	Max Tension	11	6336.59	0.00	0.00
			Max. Compression	11	-7186.33	0.00	0.00
			Max. Mx	25	1667.81	-30.26	0.00
			Max. My	11	-521.43	0.00	0.24
			Max. Vy	25	21.40	0.00	0.00
			Max. Vx	11	-0.17	0.00	0.00
		Horizontal	Max Tension	12	1045.72	0.00	0.00
			Max. Compression	6	-878.17	0.00	0.00
			Max. Mx	15	-172.55	-19.39	0.00
			Max. My	11	314.08	0.00	0.00
			Max. Vy	15	19.39	0.00	0.00
			Max. Vx	11	-0.00	0.00	0.00
		Top Girt	Max Tension	4	420.59	0.00	0.00
			Max. Compression	10	-247.46	0.00	0.00
			Max. Mx	24	15.04	-19.39	0.00
			Max. My	11	318.73	0.00	0.00
			Max. Vy	24	19.39	0.00	0.00
			Max. Vx	11	-0.00	0.00	0.00
T19	162 - 158	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	10	-56016.83	97.25	-197.41
			Max. Mx	10	-50741.13	273.14	15.91
			Max. My	10	-55975.98	-109.57	229.83
			Max. Vy	10	153.34	273.14	15.91
			Max. Vx	2	126.03	-135.90	211.12
		Diagonal	Max Tension	11	7330.07	0.00	0.00
			Max. Compression	5	-7166.67	0.00	0.00
			Max. Mx	25	1917.83	-30.16	0.00
			Max. My	12	1975.68	0.00	0.25
			Max. Vy	25	21.32	0.00	0.00
			Max. Vx	12	-0.18	0.00	0.00
		Top Girt	Max Tension	12	527.48	0.00	0.00
			Max. Compression	6	-327.78	0.00	0.00
			Max. Mx	26	39.33	-19.32	0.00
			Max. My	11	-62.93	0.00	0.00
			Max. Vy	26	19.32	0.00	0.00
			Max. Vx	11	-0.00	0.00	0.00
T20	158 - 154	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	6	-51676.22	-100.60	-175.64
			Max. Mx	10	-49583.53	231.54	6.97
			Max. My	6	-51641.55	108.84	197.46
			Max. Vy	10	-142.92	231.54	6.97
			Max. Vx	2	-120.52	-117.92	189.41
		Diagonal	Max Tension	5	7408.33	0.00	0.00
			Max. Compression	11	-8271.53	0.00	0.00
			Max. Mx	21	2072.29	-30.11	0.00
			Max. My	11	547.48	0.00	0.26
			Max. Vy	21	21.29	0.00	0.00
			Max. Vx	11	-0.18	0.00	0.00
		Top Girt	Max Tension	5	393.83	0.00	0.00
			Max. Compression	10	-175.37	0.00	0.00
			Max. Mx	23	172.17	-19.29	0.00
			Max. My	11	341.12	0.00	0.00

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial lb	Major Axis Moment lb-ft	Minor Axis Moment lb-ft
			Max. Vy	23	19.29	0.00	0.00
			Max. Vx	11	-0.00	0.00	0.00
T21	154 - 150	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	10	-48471.07	115.65	-180.43
			Max. Mx	10	-43006.14	231.53	6.95
			Max. My	10	-48430.23	-108.29	195.90
			Max. Vy	6	135.59	-216.78	4.02
			Max. Vx	2	115.92	-117.90	189.40
		Diagonal	Max Tension	11	8465.48	0.00	0.00
			Max. Compression	5	-8312.01	0.00	0.00
			Max. Mx	25	2293.16	-30.08	0.00
			Max. My	12	1823.56	0.00	0.26
			Max. Vy	25	21.27	0.00	0.00
			Max. Vx	12	-0.19	0.00	0.00
		Top Girt	Max Tension	12	413.32	0.00	0.00
			Max. Compression	6	-194.58	0.00	0.00
			Max. Mx	20	132.89	-19.26	0.00
			Max. My	11	-65.67	0.00	0.00
			Max. Vy	20	-19.26	0.00	0.00
			Max. Vx	11	-0.00	0.00	0.00
T22	150 - 146	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	20	-46899.71	108.57	186.24
			Max. Mx	10	-42051.91	240.16	-25.20
			Max. My	10	-46520.27	-85.16	-215.27
			Max. Vy	10	-137.70	240.16	-25.20
			Max. Vx	2	-121.18	-94.00	210.82
		Diagonal	Max Tension	5	8482.54	0.00	0.00
			Max. Compression	11	-9340.62	0.00	0.00
			Max. Mx	21	2457.29	-30.03	0.00
			Max. My	11	1432.03	0.00	0.27
			Max. Vy	21	21.24	0.00	0.00
			Max. Vx	11	-0.19	0.00	0.00
		Top Girt	Max Tension	4	391.21	0.00	0.00
			Max. Compression	10	-154.37	0.00	0.00
			Max. Mx	20	52.91	-19.23	0.00
			Max. My	11	310.58	0.00	0.00
			Max. Vy	20	19.23	0.00	0.00
			Max. Vx	11	-0.00	0.00	0.00
T23	146 - 142	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	10	-58048.26	132.21	194.99
			Max. Mx	10	-33677.82	240.15	-25.22
			Max. My	6	-50343.00	98.16	-215.76
			Max. Vy	11	134.39	232.69	-9.45
			Max. Vx	10	-120.66	-85.17	-215.29
		Diagonal	Max Tension	11	9496.04	0.00	0.00
			Max. Compression	5	-9361.24	0.00	0.00
			Max. Mx	25	2631.51	-35.13	0.00
			Max. My	12	1652.52	0.00	0.39
			Max. Vy	25	24.84	0.00	0.00
			Max. Vx	12	-0.27	0.00	0.00
		Top Girt	Max Tension	11	386.09	0.00	0.00
			Max. Compression	6	-154.47	0.00	0.00
			Max. Mx	23	189.68	-19.20	0.00
			Max. My	11	-38.08	0.00	0.00
			Max. Vy	23	19.20	0.00	0.00
			Max. Vx	11	-0.00	0.00	0.00
T24	142 - 138	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	10	-67506.70	-94.91	-252.69
			Max. Mx	2	-64152.33	256.56	37.83
			Max. My	10	-67506.70	-94.91	-252.69
			Max. Vy	11	-138.51	249.63	-38.23

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial lb	Major Axis Moment lb-ft	Minor Axis Moment lb-ft
			Max. Vx	10	129.93	-94.91	-252.69
		Diagonal	Max Tension	5	9486.56	0.00	0.00
			Max. Compression	11	-10318.21	0.00	0.00
			Max. Mx	21	2808.91	-35.08	0.00
			Max. My	11	2270.26	0.00	0.39
			Max. Vy	21	-24.80	0.00	0.00
			Max. Vx	11	-0.28	0.00	0.00
		Top Girt	Max Tension	5	367.27	0.00	0.00
			Max. Compression	10	-115.89	0.00	0.00
			Max. Mx	23	178.68	-19.17	0.00
			Max. My	11	269.17	0.00	0.00
			Max. Vy	23	19.17	0.00	0.00
			Max. Vx	11	-0.00	0.00	0.00
T25	138 - 134	Leg	Max Tension	8	3018.32	119.53	-43.95
			Max. Compression	10	-80437.61	124.13	220.37
			Max. Mx	2	-76261.46	256.57	37.83
			Max. My	10	-80382.34	-94.92	-252.71
			Max. Vy	13	141.40	254.82	12.71
			Max. Vx	10	-139.66	-94.92	-252.71
		Diagonal	Max Tension	11	10481.24	0.00	0.00
			Max. Compression	5	-10337.77	0.00	0.00
			Max. Mx	25	2946.84	-35.03	0.00
			Max. My	12	1483.61	0.00	0.38
			Max. Vy	25	24.77	0.00	0.00
			Max. Vx	12	-0.27	0.00	0.00
		Horizontal	Max Tension	11	370.90	0.00	0.00
			Max. Compression	6	-144.57	0.00	0.00
			Max. Mx	23	185.25	-25.44	0.00
			Max. My	11	-33.89	0.00	0.00
			Max. Vy	23	25.44	0.00	0.00
			Max. Vx	11	-0.00	0.00	0.00
		Secondary Horizontal	Max Tension	9	20.37	0.00	0.00
			Max. Compression	9	-8.40	0.00	0.00
			Max. Mx	23	7.74	18.55	0.00
			Max. My	11	6.29	0.00	-0.00
			Max. Vy	23	18.55	0.00	0.00
			Max. Vx	11	0.00	0.00	0.00
T26	134 - 130	Leg	Max Tension	12	14240.95	75.92	-75.98
			Max. Compression	10	-91543.59	-125.20	-347.93
			Max. Mx	2	-87327.26	350.85	60.01
			Max. My	10	-91543.59	-125.20	-347.93
			Max. Vy	2	-192.42	350.85	60.01
			Max. Vx	6	-173.88	-67.27	-74.34
		Diagonal	Max Tension	5	10422.56	0.00	0.00
			Max. Compression	11	-11197.36	0.00	0.00
			Max. Mx	22	3477.48	-34.97	0.00
			Max. My	11	3034.67	0.00	0.39
			Max. Vy	22	24.73	0.00	0.00
			Max. Vx	11	-0.28	0.00	0.00
		Horizontal	Max Tension	5	260.44	0.00	0.00
			Max. Compression	10	-34.27	0.00	0.00
			Max. Mx	23	148.53	-25.40	0.00
			Max. My	11	159.37	0.00	0.00
			Max. Vy	23	-25.40	0.00	0.00
			Max. Vx	11	-0.00	0.00	0.00
		Secondary Horizontal	Max Tension	9	141.28	0.00	0.00
			Max. Compression	10	-73.30	0.00	0.00
			Max. Mx	23	52.31	18.52	0.00
			Max. My	11	92.29	0.00	-0.00

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial lb	Major Axis Moment lb-ft	Minor Axis Moment lb-ft
			Max. Vy	23	18.52	0.00	0.00
			Max. Vx	11	0.00	0.00	0.00
T27	130 - 126	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	10	-95633.06	132.59	251.18
			Max. Mx	2	-90938.21	350.87	60.00
			Max. My	10	-95586.37	-125.22	-347.96
			Max. Vy	2	213.59	350.87	60.00
			Max. Vx	6	191.65	-49.43	-109.55
		Diagonal	Max Tension	12	6906.94	0.00	0.00
			Max. Compression	7	-7207.23	0.00	0.00
			Max. Mx	25	-1596.65	-29.78	0.00
			Max. My	12	1530.05	0.00	0.25
			Max. Vy	25	-21.06	0.00	0.00
			Max. Vx	12	-0.18	0.00	0.00
		Horizontal	Max Tension	9	12137.65	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	23	5452.99	-25.36	0.00
			Max. My	11	11136.81	0.00	0.00
			Max. Vy	23	25.36	0.00	0.00
			Max. Vx	11	-0.00	0.00	0.00
		Secondary Horizontal	Max Tension	9	132.78	0.00	0.00
			Max. Compression	10	-59.26	0.00	0.00
			Max. Mx	23	50.64	-19.07	0.00
			Max. My	11	83.36	0.00	0.00
			Max. Vy	23	-19.07	0.00	0.00
			Max. Vx	11	-0.00	0.00	0.00
		Guy A	Bottom Tension	9	27707.02		
			Top Tension	9	27848.05		
			Top Cable Vert	9	18191.08		
			Top Cable Norm	9	21085.44		
			Top Cable Tan	9	50.87		
			Bot Cable Vert	9	-17822.02		
			Bot Cable Norm	9	21213.30		
			Bot Cable Tan	9	225.20		
		Guy B	Bottom Tension	11	28109.08		
			Top Tension	11	28253.52		
			Top Cable Vert	11	19142.59		
			Top Cable Norm	11	20780.29		
			Top Cable Tan	11	44.85		
			Bot Cable Vert	11	-18774.81		
			Bot Cable Norm	11	20918.38		
			Bot Cable Tan	11	219.66		
		Guy C	Bottom Tension	3	26678.50		
			Top Tension	3	26833.38		
			Top Cable Vert	3	16997.00		
			Top Cable Norm	3	20763.72		
			Top Cable Tan	3	25.85		
			Bot Cable Vert	3	-16586.96		
			Bot Cable Norm	3	20894.22		
			Bot Cable Tan	3	215.74		
T28	126 - 122	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	10	-87048.11	-123.29	-290.06
			Max. Mx	2	-82861.39	301.01	32.13
			Max. My	10	-87048.11	-123.29	-290.06
			Max. Vy	13	-153.37	289.89	10.84
			Max. Vx	10	150.84	-123.29	-290.06
		Diagonal	Max Tension	7	6343.94	0.00	0.00
			Max. Compression	12	-6705.64	0.00	0.00
			Max. Mx	22	-1831.02	-29.72	0.00
			Max. My	11	-4895.95	0.00	0.26

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial lb	Major Axis Moment lb-ft	Minor Axis Moment lb-ft
			Max. Vy	22	21.01	0.00	0.00
			Max. Vx	11	-0.18	0.00	0.00
		Horizontal	Max Tension	4	265.04	0.00	0.00
			Max. Compression	10	-56.08	0.00	0.00
			Max. Mx	23	143.80	-25.32	0.00
			Max. My	11	157.55	0.00	0.00
			Max. Vy	23	25.32	0.00	0.00
			Max. Vx	11	-0.00	0.00	0.00
		Secondary Horizontal	Max Tension	9	23.62	0.00	0.00
			Max. Compression	6	-6.80	0.00	0.00
			Max. Mx	23	9.96	18.47	0.00
			Max. My	11	13.91	0.00	-0.00
			Max. Vy	23	-18.47	0.00	0.00
			Max. Vx	11	0.00	0.00	0.00
T29	122 - 118	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	10	-82070.57	164.33	249.50
			Max. Mx	2	-77729.59	301.03	32.13
			Max. My	10	-82015.17	-123.30	-290.09
			Max. Vy	2	154.63	301.03	32.13
			Max. Vx	10	-147.59	-123.30	-290.09
		Diagonal	Max Tension	12	5772.76	0.00	0.00
			Max. Compression	7	-6070.93	0.00	0.00
			Max. Mx	24	-1467.26	-29.66	0.00
			Max. My	5	-4685.16	0.00	-0.25
			Max. Vy	24	-20.97	0.00	0.00
			Max. Vx	5	0.18	0.00	0.00
		Secondary Horizontal	Max Tension	10	13.13	0.00	0.00
			Max. Compression	10	-5.32	0.00	0.00
			Max. Mx	23	5.88	18.44	0.00
			Max. My	11	-4.70	0.00	-0.00
			Max. Vy	23	18.44	0.00	0.00
			Max. Vx	11	0.00	0.00	0.00
		Top Girt	Max Tension	12	360.17	0.00	0.00
			Max. Compression	6	-126.80	0.00	0.00
			Max. Mx	23	181.06	-18.99	0.00
			Max. My	11	-14.11	0.00	0.00
			Max. Vy	23	18.99	0.00	0.00
			Max. Vx	11	-0.00	0.00	0.00
T30	118 - 114	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	10	-75082.98	-122.57	-284.06
			Max. Mx	10	-43495.37	299.56	-37.73
			Max. My	10	-75082.98	-122.57	-284.06
			Max. Vy	11	-174.69	290.05	-21.99
			Max. Vx	10	160.47	-122.57	-284.06
		Diagonal	Max Tension	7	5070.72	0.00	0.00
			Max. Compression	12	-5562.51	0.00	0.00
			Max. Mx	22	-1424.21	-29.60	0.00
			Max. My	11	-4130.22	0.00	0.26
			Max. Vy	22	20.93	0.00	0.00
			Max. Vx	11	-0.19	0.00	0.00
		Secondary Horizontal	Max Tension	10	7.87	0.00	0.00
			Max. Compression	9	-2.77	0.00	0.00
			Max. Mx	23	4.27	18.42	0.00
			Max. My	11	0.72	0.00	-0.00
			Max. Vy	23	18.42	0.00	0.00
			Max. Vx	11	0.00	0.00	0.00
		Top Girt	Max Tension	4	370.43	0.00	0.00
			Max. Compression	10	-96.32	0.00	0.00

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial lb	Major Axis Moment lb-ft	Minor Axis Moment lb-ft
			Max. Mx	23	179.28	-18.95	0.00
			Max. My	11	264.45	0.00	0.00
			Max. Vy	23	-18.95	0.00	0.00
			Max. Vx	11	-0.00	0.00	0.00
T31	114 - 110	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	10	-71454.40	156.24	244.58
			Max. Mx	10	-49871.51	299.55	-37.75
			Max. My	10	-71419.53	-122.58	-284.08
			Max. Vy	10	162.37	299.55	-37.75
			Max. Vx	10	-148.87	-122.58	-284.08
		Diagonal	Max Tension	12	4563.18	0.00	0.00
			Max. Compression	6	-4815.60	0.00	0.00
			Max. Mx	24	-1049.21	-29.54	0.00
			Max. My	5	-3864.53	0.00	-0.26
			Max. Vy	24	20.89	0.00	0.00
			Max. Vx	5	0.18	0.00	0.00
		Top Girt	Max Tension	12	400.09	0.00	0.00
			Max. Compression	6	-139.62	0.00	0.00
			Max. Mx	23	199.22	-18.91	0.00
			Max. My	11	-24.50	0.00	0.00
			Max. Vy	23	-18.91	0.00	0.00
			Max. Vx	11	-0.00	0.00	0.00
T32	110 - 106	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	10	-66138.58	-129.49	-265.94
			Max. Mx	10	-48993.03	295.25	-17.08
			Max. My	10	-66138.58	-129.49	-265.94
			Max. Vy	10	-161.21	295.25	-17.08
			Max. Vx	10	144.25	-129.49	-265.94
		Diagonal	Max Tension	6	3823.10	0.00	0.00
			Max. Compression	12	-4375.54	0.00	0.00
			Max. Mx	22	-970.21	-29.48	0.00
			Max. My	11	-3323.41	0.00	0.27
			Max. Vy	22	20.84	0.00	0.00
			Max. Vx	11	-0.19	0.00	0.00
		Top Girt	Max Tension	5	384.10	0.00	0.00
			Max. Compression	10	-102.10	0.00	0.00
			Max. Mx	23	189.43	-18.87	0.00
			Max. My	11	287.36	0.00	0.00
			Max. Vy	23	18.87	0.00	0.00
			Max. Vx	11	-0.00	0.00	0.00
T33	106 - 102	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	10	-63902.57	149.41	234.57
			Max. Mx	10	-53705.31	295.25	-17.09
			Max. My	10	-63867.69	-129.49	-265.95
			Max. Vy	10	162.38	295.25	-17.09
			Max. Vx	10	-141.58	-129.49	-265.95
		Diagonal	Max Tension	12	3404.76	0.00	0.00
			Max. Compression	6	-3624.67	0.00	0.00
			Max. Mx	24	-649.53	-29.42	0.00
			Max. My	5	-3062.46	0.00	-0.26
			Max. Vy	24	20.80	0.00	0.00
			Max. Vx	5	0.19	0.00	0.00
		Top Girt	Max Tension	12	396.50	0.00	0.00
			Max. Compression	6	-131.79	0.00	0.00
			Max. Mx	23	197.25	-18.82	0.00
			Max. My	11	-20.20	0.00	0.00
			Max. Vy	23	18.82	0.00	0.00
			Max. Vx	11	-0.00	0.00	0.00
T34	102 - 98	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	10	-60314.01	-130.14	-258.14
			Max. Mx	10	-53012.28	292.67	-14.89

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial lb	Major Axis Moment lb-ft	Minor Axis Moment lb-ft
			Max. My	10	-60314.01	-130.14	-258.14
			Max. Vy	6	-162.79	-283.41	-5.78
			Max. Vx	10	140.73	-130.14	-258.14
		Diagonal	Max Tension	6	2546.91	0.00	0.00
			Max. Compression	12	-3140.42	0.00	0.00
			Max. Mx	22	-520.17	-26.64	0.00
			Max. My	11	-2488.88	0.00	0.21
			Max. Vy	22	18.83	0.00	0.00
			Max. Vx	11	-0.15	0.00	0.00
		Secondary Horizontal	Max Tension	10	7.69	0.00	0.00
			Max. Compression	4	-2.76	0.00	0.00
			Max. Mx	23	4.23	-18.78	0.00
			Max. My	11	2.17	0.00	0.00
			Max. Vy	23	18.78	0.00	0.00
			Max. Vx	11	-0.00	0.00	0.00
		Top Girt	Max Tension	4	423.24	0.00	0.00
			Max. Compression	10	-148.67	0.00	0.00
			Max. Mx	23	188.53	-18.78	0.00
			Max. My	11	332.47	0.00	0.00
			Max. Vy	23	18.78	0.00	0.00
			Max. Vx	11	-0.00	0.00	0.00
T35	98 - 94	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	10	-59632.00	144.47	234.85
			Max. Mx	10	-55908.57	292.66	-14.90
			Max. My	10	-59584.85	-130.15	-258.16
			Max. Vy	10	163.65	292.66	-14.90
			Max. Vx	2	142.34	-127.92	246.55
		Diagonal	Max Tension	12	2111.43	0.00	0.00
			Max. Compression	6	-2284.41	0.00	0.00
			Max. Mx	24	-225.05	-26.57	0.00
			Max. My	5	-2173.61	0.00	-0.21
			Max. Vy	24	-18.79	0.00	0.00
			Max. Vx	5	0.15	0.00	0.00
		Secondary Horizontal	Max Tension	10	10.56	0.00	0.00
			Max. Compression	4	-3.77	0.00	0.00
			Max. Mx	23	5.79	-18.73	0.00
			Max. My	11	3.55	0.00	0.00
			Max. Vy	23	-18.73	0.00	0.00
			Max. Vx	11	-0.00	0.00	0.00
		Top Girt	Max Tension	12	421.41	0.00	0.00
			Max. Compression	6	-169.59	0.00	0.00
			Max. Mx	23	191.09	-18.73	0.00
			Max. My	11	-52.68	0.00	0.00
			Max. Vy	23	-18.73	0.00	0.00
			Max. Vx	11	-0.00	0.00	0.00
T36	94 - 90	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	10	-57946.77	-129.91	-257.74
			Max. Mx	10	-55403.18	295.56	-13.28
			Max. My	10	-57946.77	-129.91	-257.74
			Max. Vy	6	-169.56	-277.58	-4.33
			Max. Vx	2	142.13	122.20	249.74
		Diagonal	Max Tension	5	1324.26	0.00	0.00
			Max. Compression	12	-1809.45	0.00	0.00
			Max. Mx	22	-66.29	-26.49	0.00
			Max. My	11	-1586.08	0.00	0.21
			Max. Vy	22	18.73	0.00	0.00
			Max. Vx	11	-0.15	0.00	0.00
		Secondary Horizontal	Max Tension	10	10.78	0.00	0.00

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial lb	Major Axis Moment lb-ft	Minor Axis Moment lb-ft
			Max. Compression	4	-3.76	0.00	0.00
			Max. Mx	23	5.91	-18.67	0.00
			Max. My	11	3.82	0.00	0.00
			Max. Vy	23	-18.67	0.00	0.00
			Max. Vx	11	-0.00	0.00	0.00
		Top Girt	Max Tension	4	438.57	0.00	0.00
			Max. Compression	10	-174.48	0.00	0.00
			Max. Mx	23	185.12	-18.67	0.00
			Max. My	11	351.25	0.00	0.00
			Max. Vy	23	-18.67	0.00	0.00
			Max. Vx	11	-0.00	0.00	0.00
T37	90 - 86	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	10	-58915.62	144.79	237.12
			Max. Mx	10	-56371.07	295.56	-13.29
			Max. My	10	-58868.46	-129.92	-257.75
			Max. Vy	10	164.21	295.56	-13.29
			Max. Vx	2	142.79	-130.56	247.68
		Diagonal	Max Tension	11	1166.56	0.00	0.00
			Max. Compression	5	-1553.44	0.00	0.00
			Max. Mx	24	202.85	-26.42	0.00
			Max. My	5	-1253.88	0.00	-0.21
			Max. Vy	24	18.68	0.00	0.00
			Max. Vx	5	0.15	0.00	0.00
		Secondary Horizontal	Max Tension	10	10.50	0.00	0.00
			Max. Compression	4	-3.53	0.00	0.00
			Max. Mx	23	5.79	-18.62	0.00
			Max. My	11	3.42	0.00	0.00
			Max. Vy	23	-18.62	0.00	0.00
			Max. Vx	11	-0.00	0.00	0.00
		Top Girt	Max Tension	12	422.89	0.00	0.00
			Max. Compression	6	-171.02	0.00	0.00
			Max. Mx	23	189.86	-18.62	0.00
			Max. My	5	355.09	0.00	0.00
			Max. Vy	23	-18.62	0.00	0.00
			Max. Vx	5	-0.00	0.00	0.00
T38	86 - 82	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	10	-59125.49	-130.99	-261.42
			Max. Mx	10	-56029.98	296.94	-15.56
			Max. My	10	-59125.49	-130.99	-261.42
			Max. Vy	10	-163.85	296.94	-15.56
			Max. Vx	2	-142.39	-129.29	249.55
		Diagonal	Max Tension	5	1747.73	0.00	0.00
			Max. Compression	11	-2150.53	0.00	0.00
			Max. Mx	22	375.17	-26.34	0.00
			Max. My	11	-703.60	0.00	0.22
			Max. Vy	22	-18.62	0.00	0.00
			Max. Vx	11	-0.15	0.00	0.00
		Secondary Horizontal	Max Tension	10	10.55	0.00	0.00
			Max. Compression	4	-3.50	0.00	0.00
			Max. Mx	23	5.80	-18.56	0.00
			Max. My	11	3.71	0.00	0.00
			Max. Vy	23	-18.56	0.00	0.00
			Max. Vx	11	-0.00	0.00	0.00
		Top Girt	Max Tension	4	424.59	0.00	0.00
			Max. Compression	10	-158.79	0.00	0.00
			Max. Mx	23	183.42	-18.56	0.00
			Max. My	11	339.43	0.00	0.00
			Max. Vy	23	-18.56	0.00	0.00
			Max. Vx	11	-0.00	0.00	0.00

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial lb	Major Axis Moment lb-ft	Minor Axis Moment lb-ft
T39	82 - 78	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	10	-61685.49	148.43	242.27
			Max. Mx	10	-55132.57	296.94	-15.56
			Max. My	10	-61638.32	-130.99	-261.43
			Max. Vy	10	162.67	296.94	-15.56
			Max. Vx	10	-144.02	-130.99	-261.43
		Diagonal	Max Tension	11	2313.20	0.00	0.00
			Max. Compression	5	-2733.70	0.00	0.00
			Max. Mx	23	677.46	-26.25	0.00
			Max. My	5	-363.59	0.00	-0.22
			Max. Vy	23	18.56	0.00	0.00
			Max. Vx	5	0.15	0.00	0.00
		Secondary Horizontal	Max Tension	10	10.33	0.00	0.00
			Max. Compression	4	-3.34	0.00	0.00
			Max. Mx	23	5.69	-18.50	0.00
			Max. My	11	3.25	0.00	0.00
			Max. Vy	23	18.50	0.00	0.00
			Max. Vx	11	-0.00	0.00	0.00
		Top Girt	Max Tension	12	416.25	0.00	0.00
			Max. Compression	6	-161.30	0.00	0.00
			Max. Mx	23	189.24	-18.50	0.00
			Max. My	5	348.92	0.00	0.00
			Max. Vy	23	18.50	0.00	0.00
			Max. Vx	5	-0.00	0.00	0.00
T40	78 - 74	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	10	-63733.86	-132.02	-269.41
			Max. Mx	10	-54961.33	297.11	-22.42
			Max. My	10	-63733.86	-132.02	-269.41
			Max. Vy	10	-162.19	297.11	-22.42
			Max. Vx	10	143.10	-132.02	-269.41
		Diagonal	Max Tension	5	2902.22	0.00	0.00
			Max. Compression	11	-3271.49	0.00	0.00
			Max. Mx	23	812.84	-26.16	0.00
			Max. My	11	157.54	0.00	0.22
			Max. Vy	23	18.50	0.00	0.00
			Max. Vx	11	-0.15	0.00	0.00
		Secondary Horizontal	Max Tension	10	10.44	0.00	0.00
			Max. Compression	4	-3.32	0.00	0.00
			Max. Mx	23	5.67	-18.44	0.00
			Max. My	11	3.54	0.00	0.00
			Max. Vy	23	18.44	0.00	0.00
			Max. Vx	11	-0.00	0.00	0.00
		Top Girt	Max Tension	4	414.75	0.00	0.00
			Max. Compression	10	-144.15	0.00	0.00
			Max. Mx	23	182.63	-18.44	0.00
			Max. My	11	325.94	0.00	0.00
			Max. Vy	23	18.44	0.00	0.00
			Max. Vx	11	-0.00	0.00	0.00
T41	74 - 70	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	10	-67817.30	160.49	246.33
			Max. Mx	10	-52276.16	297.11	-22.42
			Max. My	10	-67770.11	-132.02	-269.42
			Max. Vy	6	158.51	-283.75	-19.87
			Max. Vx	10	-145.00	-132.02	-269.42
		Diagonal	Max Tension	11	3397.87	0.00	0.00
			Max. Compression	5	-3849.70	0.00	0.00
			Max. Mx	23	1037.39	-28.78	0.00
			Max. My	5	501.40	0.00	-0.29
			Max. Vy	23	20.35	0.00	0.00

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial lb	Major Axis Moment lb-ft	Minor Axis Moment lb-ft
			Max. Vx	5	0.20	0.00	0.00
		Secondary Horizontal	Max Tension	10	10.91	0.00	0.00
			Max. Compression	4	-3.15	0.00	0.00
			Max. Mx	23	5.77	-18.37	0.00
			Max. My	5	3.59	0.00	0.00
			Max. Vy	23	18.37	0.00	0.00
			Max. Vx	5	-0.00	0.00	0.00
		Top Girt	Max Tension	12	399.23	0.00	0.00
			Max. Compression	6	-139.40	0.00	0.00
			Max. Mx	23	186.47	-18.37	0.00
			Max. My	5	329.05	0.00	0.00
			Max. Vy	23	18.37	0.00	0.00
			Max. Vx	5	-0.00	0.00	0.00
T42	70 - 66	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	10	-71630.19	-148.98	-260.76
			Max. Mx	25	-59285.44	290.64	-12.30
			Max. My	2	-51191.38	111.63	261.55
			Max. Vy	6	-159.00	-283.75	-19.87
			Max. Vx	6	-145.96	123.77	-260.66
		Diagonal	Max Tension	5	4011.95	0.00	0.00
			Max. Compression	11	-4329.04	0.00	0.00
			Max. Mx	23	1197.01	-28.67	0.00
			Max. My	11	1000.45	0.00	0.29
			Max. Vy	23	20.28	0.00	0.00
			Max. Vx	11	-0.20	0.00	0.00
		Secondary Horizontal	Max Tension	11	17.48	0.00	0.00
			Max. Compression	4	-3.79	0.00	0.00
			Max. Mx	23	9.29	-18.30	0.00
			Max. My	5	10.49	0.00	0.00
			Max. Vy	23	-18.30	0.00	0.00
			Max. Vx	5	-0.00	0.00	0.00
		Top Girt	Max Tension	4	403.74	0.00	0.00
			Max. Compression	10	-134.84	0.00	0.00
			Max. Mx	14	141.08	-18.30	0.00
			Max. My	11	306.23	0.00	0.00
			Max. Vy	14	-18.30	0.00	0.00
			Max. Vx	11	-0.00	0.00	0.00
T43	66 - 62	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	10	-77125.99	197.59	281.54
			Max. Mx	2	-72619.61	-325.43	36.66
			Max. My	6	-68283.69	128.04	-307.99
			Max. Vy	2	178.77	24.81	54.82
			Max. Vx	10	-172.12	41.85	-47.93
		Diagonal	Max Tension	11	4386.96	0.00	0.00
			Max. Compression	5	-4880.84	0.00	0.00
			Max. Mx	23	1354.59	-28.56	0.00
			Max. My	5	1291.28	0.00	-0.29
			Max. Vy	23	20.20	0.00	0.00
			Max. Vx	5	0.21	0.00	0.00
		Secondary Horizontal	Max Tension	11	84.91	0.00	0.00
			Max. Compression	10	-33.08	0.00	0.00
			Max. Mx	23	38.55	-18.22	0.00
			Max. My	5	65.60	0.00	0.00
			Max. Vy	23	18.22	0.00	0.00
			Max. Vx	5	-0.00	0.00	0.00
		Top Girt	Max Tension	12	325.87	0.00	0.00
			Max. Compression	6	-82.18	0.00	0.00
			Max. Mx	23	168.76	-18.22	0.00

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial lb	Major Axis Moment lb-ft	Minor Axis Moment lb-ft
			Max. My	5	260.93	0.00	0.00
			Max. Vy	23	18.22	0.00	0.00
			Max. Vx	5	-0.00	0.00	0.00
T44	62 - 58	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	10	-76325.09	-156.47	-265.64
			Max. Mx	2	-71743.97	-325.43	36.66
			Max. My	6	-69018.94	128.04	-307.99
			Max. Vy	2	-184.08	35.45	52.76
			Max. Vx	10	176.28	34.46	-56.46
		Diagonal	Max Tension	7	5078.73	0.00	0.00
			Max. Compression	13	-5587.76	0.00	0.00
			Max. Mx	23	-1571.33	-28.44	0.00
			Max. My	11	-3588.10	0.00	0.28
			Max. Vy	23	20.11	0.00	0.00
			Max. Vx	11	-0.20	0.00	0.00
		Secondary Horizontal	Max Tension	11	83.76	0.00	0.00
			Max. Compression	10	-30.55	0.00	0.00
			Max. Mx	14	22.94	-18.14	0.00
			Max. My	5	65.19	0.00	0.00
			Max. Vy	14	-18.14	0.00	0.00
			Max. Vx	5	-0.00	0.00	0.00
		Top Girt	Max Tension	11	7497.88	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	14	3070.54	-24.31	0.00
			Max. My	11	588.27	0.00	0.00
			Max. Vy	14	24.31	0.00	0.00
			Max. Vx	11	-0.00	0.00	0.00
		Guy A	Bottom Tension	9	13269.85		
			Top Tension	9	13307.06		
			Top Cable Vert	9	4855.21		
			Top Cable Norm	9	12389.70		
			Top Cable Tan	9	0.42		
			Bot Cable Vert	9	-4710.17		
			Bot Cable Norm	9	12405.58		
			Bot Cable Tan	9	69.94		
		Guy B	Bottom Tension	11	13431.10		
			Top Tension	11	13470.33		
			Top Cable Vert	11	5322.56		
			Top Cable Norm	11	12374.17		
			Top Cable Tan	11	4.63		
			Bot Cable Vert	11	-5178.34		
			Bot Cable Norm	11	12392.54		
			Bot Cable Tan	11	64.58		
		Guy C	Bottom Tension	3	13116.65		
			Top Tension	3	13161.87		
			Top Cable Vert	3	5009.06		
			Top Cable Norm	3	12171.44		
			Top Cable Tan	3	8.80		
			Bot Cable Vert	3	-4839.22		
			Bot Cable Norm	3	12191.12		
			Bot Cable Tan	3	71.66		
T45	58 - 54	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	10	-71030.30	166.39	256.12
			Max. Mx	17	-59651.92	-309.11	4.04
			Max. My	2	-56961.70	127.46	278.21
			Max. Vy	10	167.22	283.29	-34.19
			Max. Vx	2	149.23	-108.66	248.51
		Diagonal	Max Tension	13	4649.85	0.00	0.00
			Max. Compression	7	-4909.25	0.00	0.00
			Max. Mx	23	-1327.12	-28.32	0.00

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial lb	Major Axis Moment lb-ft	Minor Axis Moment lb-ft
			Max. My	5	-3037.66	0.00	-0.29
			Max. Vy	23	20.02	0.00	0.00
			Max. Vx	5	0.20	0.00	0.00
		Secondary Horizontal	Max Tension	11	16.99	0.00	0.00
			Max. Compression	4	-3.41	0.00	0.00
			Max. Mx	19	8.97	-18.05	0.00
			Max. My	5	10.29	0.00	0.00
			Max. Vy	19	18.05	0.00	0.00
			Max. Vx	5	-0.00	0.00	0.00
		Top Girt	Max Tension	12	323.89	0.00	0.00
			Max. Compression	6	-86.20	0.00	0.00
			Max. Mx	19	150.15	-18.05	0.00
			Max. My	5	259.02	0.00	0.00
			Max. Vy	19	18.05	0.00	0.00
			Max. Vx	5	-0.00	0.00	0.00
T46	54 - 50	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	10	-65281.60	-145.47	-276.92
			Max. Mx	24	-61075.99	316.67	-2.63
			Max. My	2	-61467.73	127.46	278.21
			Max. Vy	6	-171.08	-301.93	-14.51
			Max. Vx	10	149.55	-145.47	-276.92
		Diagonal	Max Tension	7	3872.77	0.00	0.00
			Max. Compression	13	-4412.50	0.00	0.00
			Max. Mx	23	-1239.44	-28.18	0.00
			Max. My	11	-2835.74	0.00	0.28
			Max. Vy	23	19.92	0.00	0.00
			Max. Vx	11	-0.20	0.00	0.00
		Secondary Horizontal	Max Tension	10	10.05	0.00	0.00
			Max. Compression	4	-2.69	0.00	0.00
			Max. Mx	19	5.41	-17.95	0.00
			Max. My	5	3.41	0.00	0.00
			Max. Vy	19	-17.95	0.00	0.00
			Max. Vx	5	-0.00	0.00	0.00
		Top Girt	Max Tension	4	403.14	0.00	0.00
			Max. Compression	10	-137.47	0.00	0.00
			Max. Mx	19	188.95	-17.95	0.00
			Max. My	5	-48.60	0.00	0.00
			Max. Vy	19	-17.95	0.00	0.00
			Max. Vx	5	-0.00	0.00	0.00
T47	50 - 46	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	10	-63599.76	-295.93	-12.97
			Max. Mx	24	-62276.50	316.67	-2.63
			Max. My	21	-60744.03	156.12	-278.70
			Max. Vy	10	174.49	316.24	-10.73
			Max. Vx	26	149.10	-146.62	273.93
		Diagonal	Max Tension	13	3410.12	0.00	0.00
			Max. Compression	7	-3678.76	0.00	0.00
			Max. Mx	23	-1005.23	-28.03	0.00
			Max. My	5	-2249.14	0.00	-0.29
			Max. Vy	23	19.82	0.00	0.00
			Max. Vx	5	0.21	0.00	0.00
		Secondary Horizontal	Max Tension	10	9.54	0.00	0.00
			Max. Compression	4	-2.38	0.00	0.00
			Max. Mx	19	5.38	-17.85	0.00
			Max. My	5	2.88	0.00	0.00
			Max. Vy	19	17.85	0.00	0.00
			Max. Vx	5	-0.00	0.00	0.00
		Top Girt	Max Tension	12	387.69	0.00	0.00

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial lb	Major Axis Moment lb-ft	Minor Axis Moment lb-ft
			Max. Compression	6	-123.94	0.00	0.00
			Max. Mx	19	171.27	-17.85	0.00
			Max. My	5	329.11	0.00	0.00
			Max. Vy	19	17.85	0.00	0.00
			Max. Vx	5	-0.00	0.00	0.00
T48	46 - 42	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	2	-65201.94	-159.61	-264.46
			Max. Mx	10	-63106.49	321.11	-0.57
			Max. My	25	-64333.33	-153.96	280.29
			Max. Vy	6	-175.13	-307.58	0.14
			Max. Vx	16	151.85	146.50	278.41
		Diagonal	Max Tension	7	2651.52	0.00	0.00
			Max. Compression	13	-3209.87	0.00	0.00
			Max. Mx	23	-899.64	-25.16	0.00
			Max. My	11	-2076.62	0.00	0.22
			Max. Vy	23	17.79	0.00	0.00
			Max. Vx	11	-0.15	0.00	0.00
		Secondary Horizontal	Max Tension	10	9.38	0.00	0.00
			Max. Compression	4	-2.07	0.00	0.00
			Max. Mx	19	5.26	-17.73	0.00
			Max. My	5	2.55	0.00	0.00
			Max. Vy	19	17.73	0.00	0.00
			Max. Vx	5	-0.00	0.00	0.00
		Top Girt	Max Tension	4	400.08	0.00	0.00
			Max. Compression	10	-128.69	0.00	0.00
			Max. Mx	19	191.37	-17.73	0.00
			Max. My	5	-44.28	0.00	0.00
			Max. Vy	19	17.73	0.00	0.00
			Max. Vx	5	-0.00	0.00	0.00
T49	42 - 38	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	10	-66749.63	-307.95	-17.32
			Max. Mx	21	-65739.30	-321.47	-2.16
			Max. My	25	-65720.94	-153.96	280.29
			Max. Vy	10	180.76	321.12	-0.56
			Max. Vx	2	153.49	-153.47	264.21
		Diagonal	Max Tension	13	2215.81	0.00	0.00
			Max. Compression	7	-2476.18	0.00	0.00
			Max. Mx	23	-681.42	-24.98	0.00
			Max. My	5	-1480.91	0.00	-0.23
			Max. Vy	23	17.67	0.00	0.00
			Max. Vx	5	0.16	0.00	0.00
		Secondary Horizontal	Max Tension	6	9.41	0.00	0.00
			Max. Compression	4	-1.57	0.00	0.00
			Max. Mx	19	5.30	-23.71	0.00
			Max. My	5	1.95	0.00	0.00
			Max. Vy	19	23.71	0.00	0.00
			Max. Vx	5	-0.00	0.00	0.00
		Top Girt	Max Tension	12	386.75	0.00	0.00
			Max. Compression	6	-125.55	0.00	0.00
			Max. Mx	19	171.76	-17.61	0.00
			Max. My	5	331.45	0.00	0.00
			Max. Vy	19	17.61	0.00	0.00
			Max. Vx	5	-0.00	0.00	0.00
T50	38 - 34	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	2	-67381.13	-166.18	-266.26
			Max. Mx	10	-66393.58	324.93	5.61
			Max. My	25	-66767.95	-159.61	284.41
			Max. Vy	10	-178.96	324.93	5.61
			Max. Vx	2	-152.33	-160.30	265.32

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial lb	Major Axis Moment lb-ft	Minor Axis Moment lb-ft
		Diagonal	Max Tension	7	1497.09	0.00	0.00
			Max. Compression	13	-2062.32	0.00	0.00
			Max. Mx	23	-547.29	-24.79	0.00
			Max. My	11	-1344.63	0.00	0.22
			Max. Vy	23	-17.53	0.00	0.00
			Max. Vx	11	-0.16	0.00	0.00
		Secondary Horizontal	Max Tension	10	9.29	0.00	0.00
			Max. Compression	4	-1.31	0.00	0.00
			Max. Mx	19	5.18	-23.55	0.00
			Max. My	5	1.55	0.00	0.00
			Max. Vy	19	-23.55	0.00	0.00
			Max. Vx	5	-0.00	0.00	0.00
		Top Girt	Max Tension	4	382.99	0.00	0.00
			Max. Compression	10	-121.48	0.00	0.00
			Max. Mx	19	187.50	-17.47	0.00
			Max. My	5	-37.24	0.00	0.00
			Max. Vy	19	17.47	0.00	0.00
			Max. Vx	5	-0.00	0.00	0.00
T51	34 - 30	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	10	-68482.33	-314.12	-20.27
			Max. Mx	21	-67737.43	-327.25	-2.64
			Max. My	25	-67659.63	-159.61	284.41
			Max. Vy	10	182.67	324.94	5.63
			Max. Vx	2	154.48	-160.30	265.32
		Diagonal	Max Tension	13	1097.99	0.00	0.00
			Max. Compression	7	-1350.93	0.00	0.00
			Max. Mx	23	-364.39	-24.58	0.00
			Max. My	5	-756.81	0.00	-0.23
			Max. Vy	23	17.38	0.00	0.00
			Max. Vx	5	0.16	0.00	0.00
		Secondary Horizontal	Max Tension	6	9.27	0.00	0.00
			Max. Compression	4	-1.06	0.00	0.00
			Max. Mx	19	5.25	-23.38	0.00
			Max. My	5	1.24	0.00	0.00
			Max. Vy	15	23.38	0.00	0.00
			Max. Vx	5	-0.00	0.00	0.00
		Top Girt	Max Tension	12	377.17	0.00	0.00
			Max. Compression	6	-119.23	0.00	0.00
			Max. Mx	19	170.24	-17.32	0.00
			Max. My	5	324.98	0.00	0.00
			Max. Vy	15	17.32	0.00	0.00
			Max. Vx	5	-0.00	0.00	0.00
T52	30 - 26	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	21	-68455.45	328.62	-6.27
			Max. Mx	21	-68455.45	328.62	-6.27
			Max. My	10	-67790.65	-151.93	289.02
			Max. Vy	10	-181.61	327.32	8.56
			Max. Vx	2	-153.87	-163.37	266.27
		Diagonal	Max Tension	7	392.41	0.00	0.00
			Max. Compression	13	-964.17	0.00	0.00
			Max. Mx	23	-209.95	-24.33	0.00
			Max. My	11	-645.67	0.00	0.22
			Max. Vy	23	17.20	0.00	0.00
			Max. Vx	11	-0.16	0.00	0.00
		Secondary Horizontal	Max Tension	10	9.29	0.00	0.00
			Max. Compression	4	-0.95	0.00	0.00
			Max. Mx	14	3.50	-23.18	0.00
			Max. My	5	1.03	0.00	0.00

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial lb	Major Axis Moment lb-ft	Minor Axis Moment lb-ft
			Max. Vy	15	-23.18	0.00	0.00
			Max. Vx	5	-0.00	0.00	0.00
		Top Girt	Max Tension	4	375.49	0.00	0.00
			Max. Compression	10	-117.79	0.00	0.00
			Max. Mx	14	146.01	-17.14	0.00
			Max. My	5	-35.73	0.00	0.00
			Max. Vy	15	17.14	0.00	0.00
			Max. Vx	5	-0.00	0.00	0.00
T53	26 - 22	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	10	-68848.99	-317.30	-21.57
			Max. Mx	21	-68836.37	-332.78	-3.23
			Max. My	10	-68224.70	-151.93	289.03
			Max. Vy	10	184.01	327.32	8.57
			Max. Vx	2	154.68	-163.38	266.27
		Diagonal	Max Tension	12	217.95	0.00	0.00
			Max. Compression	5	-881.71	0.00	0.00
			Max. Mx	23	-51.82	-24.05	0.00
			Max. My	5	-58.75	0.00	-0.23
			Max. Vy	23	17.01	0.00	0.00
			Max. Vx	5	0.17	0.00	0.00
		Secondary Horizontal	Max Tension	10	9.19	0.00	0.00
			Max. Compression	10	-1.15	0.00	0.00
			Max. Mx	14	3.46	-22.95	0.00
			Max. My	5	1.26	0.00	0.00
			Max. Vy	15	22.95	0.00	0.00
			Max. Vx	5	-0.00	0.00	0.00
		Top Girt	Max Tension	12	374.57	0.00	0.00
			Max. Compression	6	-116.33	0.00	0.00
			Max. Mx	14	145.18	-16.95	0.00
			Max. My	5	322.44	0.00	0.00
			Max. Vy	15	-16.95	0.00	0.00
			Max. Vx	5	-0.00	0.00	0.00
T54	22 - 18	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	21	-69089.03	332.66	-6.91
			Max. Mx	21	-68893.85	-332.78	-3.23
			Max. My	25	-68986.89	-164.63	293.46
			Max. Vy	10	-182.53	329.93	6.55
			Max. Vx	2	-159.02	-164.66	273.54
		Diagonal	Max Tension	5	939.71	0.00	0.00
			Max. Compression	3	-1153.70	0.00	0.00
			Max. Mx	23	124.12	-26.44	0.00
			Max. My	11	46.17	0.00	0.30
			Max. Vy	23	18.69	0.00	0.00
			Max. Vx	11	-0.21	0.00	0.00
		Secondary Horizontal	Max Tension	10	9.30	0.00	0.00
			Max. Compression	4	-1.07	0.00	0.00
			Max. Mx	14	3.46	-22.69	0.00
			Max. My	5	1.54	0.00	0.00
			Max. Vy	15	22.69	0.00	0.00
			Max. Vx	5	-0.00	0.00	0.00
		Top Girt	Max Tension	4	374.57	0.00	0.00
			Max. Compression	10	-117.62	0.00	0.00
			Max. Mx	14	146.18	-16.71	0.00
			Max. My	5	-34.96	0.00	0.00
			Max. Vy	15	16.71	0.00	0.00
			Max. Vx	5	-0.00	0.00	0.00
T55	18 - 14	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	21	-69050.84	-336.01	-2.71
			Max. Mx	21	-69050.84	-336.01	-2.71

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial lb	Major Axis Moment lb-ft	Minor Axis Moment lb-ft
			Max. My	25	-68941.17	-164.63	293.46
			Max. Vy	10	183.13	329.94	6.57
			Max. Vx	2	157.26	-164.67	273.54
		Diagonal	Max Tension	3	1273.61	0.00	0.00
			Max. Compression	5	-1825.64	0.00	0.00
			Max. Mx	23	268.33	-26.04	0.00
			Max. My	5	635.52	0.00	-0.31
			Max. Vy	23	18.41	0.00	0.00
			Max. Vx	5	0.22	0.00	0.00
		Secondary Horizontal	Max Tension	10	9.09	0.00	0.00
			Max. Compression	4	-1.08	0.00	0.00
			Max. Mx	14	3.43	-22.37	0.00
			Max. My	5	1.90	0.00	0.00
			Max. Vy	14	22.37	0.00	0.00
			Max. Vx	5	-0.00	0.00	0.00
		Top Girt	Max Tension	12	377.96	0.00	0.00
			Max. Compression	6	-117.81	0.00	0.00
			Max. Mx	14	144.61	-16.43	0.00
			Max. My	5	325.46	0.00	0.00
			Max. Vy	15	16.43	0.00	0.00
			Max. Vx	5	-0.00	0.00	0.00
T56	14 - 10	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	21	-68834.36	333.54	-8.67
			Max. Mx	21	-68641.08	-336.01	-2.71
			Max. My	25	-68784.29	-163.43	294.90
			Max. Vy	10	-183.39	332.15	2.80
			Max. Vx	2	-157.41	-161.46	276.57
		Diagonal	Max Tension	5	1861.63	0.00	0.00
			Max. Compression	3	-2213.76	0.00	0.00
			Max. Mx	23	462.50	-25.54	0.00
			Max. My	11	727.51	0.00	0.30
			Max. Vy	23	18.06	0.00	0.00
			Max. Vx	11	-0.21	0.00	0.00
		Secondary Horizontal	Max Tension	10	9.02	0.00	0.00
			Max. Compression	12	-0.86	0.00	0.00
			Max. Mx	14	3.70	-21.96	0.00
			Max. My	5	2.71	0.00	0.00
			Max. Vy	14	21.96	0.00	0.00
			Max. Vx	5	-0.00	0.00	0.00
		Top Girt	Max Tension	4	370.62	0.00	0.00
			Max. Compression	10	-112.38	0.00	0.00
			Max. Mx	14	145.14	-16.08	0.00
			Max. My	5	-24.33	0.00	0.00
			Max. Vy	14	16.08	0.00	0.00
			Max. Vx	5	-0.00	0.00	0.00
T57	10 - 6	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	25	-68359.53	178.97	-280.98
			Max. Mx	22	-67656.31	333.74	-6.87
			Max. My	25	-68235.65	-163.43	294.90
			Max. Vy	10	186.07	332.16	2.82
			Max. Vx	2	162.73	-161.47	276.57
		Diagonal	Max Tension	3	2281.00	0.00	0.00
			Max. Compression	5	-2710.88	0.00	0.00
			Max. Mx	23	566.37	-24.86	0.00
			Max. My	5	1288.28	0.00	-0.32
			Max. Vy	23	17.58	0.00	0.00
			Max. Vx	5	0.22	0.00	0.00
		Secondary Horizontal	Max Tension	10	13.32	0.00	0.00

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial lb	Major Axis Moment lb-ft	Minor Axis Moment lb-ft
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	14	7.99	-21.41	0.00
			Max. My	5	5.18	0.00	0.00
			Max. Vy	14	-21.41	0.00	0.00
			Max. Vx	5	-0.00	0.00	0.00
		Top Girt	Max Tension	12	348.88	0.00	0.00
			Max. Compression	6	-87.22	0.00	0.00
			Max. Mx	14	140.68	-15.59	0.00
			Max. My	5	307.65	0.00	0.00
			Max. Vy	14	15.59	0.00	0.00
			Max. Vx	5	-0.00	0.00	0.00
T58	6 - 2	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	25	-67622.98	-46.15	353.12
			Max. Mx	10	-65592.45	334.03	-113.50
			Max. My	25	-67622.98	-46.15	353.12
			Max. Vy	10	-173.40	14.11	51.63
			Max. Vx	25	-188.74	-46.15	353.12
		Diagonal	Max Tension	5	2533.65	0.00	0.00
			Max. Compression	3	-2953.66	0.00	0.00
			Max. Mx	23	674.14	-23.75	0.00
			Max. My	5	-1366.63	0.00	-0.30
			Max. Vy	23	16.80	0.00	0.00
			Max. Vx	5	0.21	0.00	0.00
		Secondary Horizontal	Max Tension	10	72.45	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	14	61.50	-20.52	0.00
			Max. My	5	44.60	0.00	0.00
			Max. Vy	14	20.52	0.00	0.00
			Max. Vx	5	-0.00	0.00	0.00
		Top Girt	Max Tension	7	234.67	0.00	0.00
			Max. Compression	10	-0.13	0.00	0.00
			Max. Mx	14	125.04	-14.82	0.00
			Max. My	5	44.92	0.00	0.00
			Max. Vy	14	14.82	0.00	0.00
			Max. Vx	5	-0.00	0.00	0.00
		Base Beam	Max Tension	10	23715.56	-41485.86	-2035.94
			Max. Compression	26	-59330.66	79.28	158.62
			Max. Mx	5	-36066.62	-87970.74	639.78
			Max. My	5	5340.88	7882.48	-28591.95
			Max. Vy	5	-37833.19	-86744.25	440.87
			Max. Vx	5	-20909.05	7882.48	-28591.95

Maximum Reactions

Location	Condition	Gov. Load Comb.	Vertical lb	Horizontal, X lb	Horizontal, Z lb
Guy C @ 170 ft Elev -6 ft Azimuth 240 deg	Max. Vert	10	-2823.86	-1231.89	710.99
	Max. H_x	10	-2823.86	-1231.89	710.99
	Max. H_z	3	-71427.76	-60475.38	36313.67
	Min. Vert	3	-71427.76	-60475.38	36313.67
	Min. H_x	5	-70035.74	-60490.78	33665.93
	Min. H_z	10	-2823.86	-1231.89	710.99
Guy B @ 141 ft	Max. Vert	6	-3459.37	1239.77	714.03

Location	Condition	Gov. Load Comb.	Vertical lb	Horizontal, X lb	Horizontal, Z lb
Elev 3 ft Azimuth 120 deg					
	Max. H_x	11	-80013.91	60777.32	33719.09
	Max. H_z	13	-78188.63	57829.90	34790.71
	Min. Vert	11	-80013.91	60777.32	33719.09
	Min. H_x	6	-3459.37	1239.77	714.03
	Min. H_z	6	-3459.37	1239.77	714.03
Guy A @ 147 ft Elev 6 ft Azimuth 0 deg	Max. Vert	2	-3051.38	1.26	-1340.85
	Max. H_x	10	-67842.06	2038.42	-62116.81
	Max. H_z	2	-3051.38	1.26	-1340.85
	Min. Vert	9	-77451.80	1265.45	-71022.04
	Min. H_x	6	-65695.29	-1952.08	-60104.78
	Min. H_z	9	-77451.80	1265.45	-71022.04
Mast	Max. Vert	25	200342.45	317.94	204.38
	Max. H_x	12	144838.26	1397.36	886.37
	Max. H_z	4	137680.47	-1706.30	930.32
	Max. M_x	1	0.00	-18.14	-11.48
	Max. M_z	1	0.00	-18.14	-11.48
	Max. Torsion	1	0.00	-18.14	-11.48
	Min. Vert	1	90930.39	-18.14	-11.48
	Min. H_x	4	137680.47	-1706.30	930.32
	Min. H_z	8	143168.06	-107.73	-1797.31
	Min. M_x	1	0.00	-18.14	-11.48
	Min. M_z	1	0.00	-18.14	-11.48
	Min. Torsion	1	0.00	-18.14	-11.48

Tower Mast Reaction Summary

Load Combination	Vertical lb	$Shear_x$ lb	$Shear_z$ lb	Overturning Moment, M_x lb-ft	Overturning Moment, M_z lb-ft	Torque lb-ft
Dead Only	90930.39	18.14	11.48	0.00	0.00	0.00
1.2 Dead+1.0 Wind 0 deg - No Ice+1.0 Guy	184004.26	105.08	-507.75	0.00	0.00	0.00
1.2 Dead+1.0 Wind 30 deg - No Ice+1.0 Guy	168081.28	1097.29	-617.82	0.00	0.00	0.00
1.2 Dead+1.0 Wind 60 deg - No Ice+1.0 Guy	137680.47	1706.30	-930.32	0.00	0.00	0.00
1.2 Dead+1.0 Wind 90 deg - No Ice+1.0 Guy	162819.49	1195.43	-553.09	0.00	0.00	0.00
1.2 Dead+1.0 Wind 120 deg - No Ice+1.0 Guy	178688.92	650.79	331.90	0.00	0.00	0.00
1.2 Dead+1.0 Wind 150 deg - No Ice+1.0 Guy	163266.96	109.39	1192.62	0.00	0.00	0.00
1.2 Dead+1.0 Wind 180 deg - No Ice+1.0 Guy	143168.06	107.73	1797.31	0.00	0.00	0.00
1.2 Dead+1.0 Wind 210 deg - No Ice+1.0 Guy	173657.61	58.23	1197.35	0.00	0.00	0.00
1.2 Dead+1.0 Wind 240 deg - No Ice+1.0 Guy	189852.22	-384.97	330.08	0.00	0.00	0.00
1.2 Dead+1.0 Wind 270 deg - No Ice+1.0 Guy	173208.18	-877.61	-541.54	0.00	0.00	0.00
1.2 Dead+1.0 Wind 300 deg - No Ice+1.0 Guy	144838.26	-1397.36	-886.37	0.00	0.00	0.00
1.2 Dead+1.0 Wind 330 deg -	167921.36	-870.79	-498.39	0.00	0.00	0.00

Load Combination	Vertical lb	$Shear_x$ lb	$Shear_z$ lb	Overturning Moment, M_x lb-ft	Overturning Moment, M_z lb-ft	Torque lb-ft
No Ice+1.0 Guy						
1.2 Dead+1.0 Ice+1.0 Temp+Guy	190163.71	44.13	34.69	0.00	0.00	0.00
1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp+1.0 Guy	195324.22	51.72	-366.62	0.00	0.00	0.00
1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp+1.0 Guy	195934.50	288.57	-315.40	0.00	0.00	0.00
1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp+1.0 Guy	196360.65	443.50	-194.16	0.00	0.00	0.00
1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp+1.0 Guy	195291.29	488.24	2.89	0.00	0.00	0.00
1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp+1.0 Guy	194409.36	431.36	229.64	0.00	0.00	0.00
1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp+1.0 Guy	197365.79	259.33	420.79	0.00	0.00	0.00
1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp+1.0 Guy	199543.59	72.25	486.30	0.00	0.00	0.00
1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp+1.0 Guy	199161.32	-108.15	412.03	0.00	0.00	0.00
1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp+1.0 Guy	197807.21	-260.80	208.59	0.00	0.00	0.00
1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp+1.0 Guy	199574.39	-346.35	-15.70	0.00	0.00	0.00
1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp+1.0 Guy	200342.45	-317.94	-204.38	0.00	0.00	0.00
1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp+1.0 Guy	198365.93	-180.91	-322.00	0.00	0.00	0.00
Dead+Wind 0 deg - Service+Guy	91837.88	37.56	-633.92	0.00	0.00	0.00
Dead+Wind 30 deg - Service+Guy	91947.60	342.92	-533.61	0.00	0.00	0.00
Dead+Wind 60 deg - Service+Guy	92037.06	554.25	-306.48	0.00	0.00	0.00
Dead+Wind 90 deg - Service+Guy	91852.72	639.15	-4.34	0.00	0.00	0.00
Dead+Wind 120 deg - Service+Guy	91727.09	581.29	319.06	0.00	0.00	0.00
Dead+Wind 150 deg - Service+Guy	92649.60	306.41	509.76	0.00	0.00	0.00
Dead+Wind 180 deg - Service+Guy	93419.61	8.61	599.39	0.00	0.00	0.00
Dead+Wind 210 deg - Service+Guy	93429.52	-299.71	556.25	0.00	0.00	0.00
Dead+Wind 240 deg - Service+Guy	93105.39	-564.37	351.61	0.00	0.00	0.00
Dead+Wind 270 deg - Service+Guy	93507.40	-592.37	22.88	0.00	0.00	0.00
Dead+Wind 300 deg - Service+Guy	93570.72	-478.43	-268.77	0.00	0.00	0.00
Dead+Wind 330 deg - Service+Guy	92809.55	-260.93	-488.68	0.00	0.00	0.00

Solution Summary

	Sum of Applied Forces			Sum of Reactions			
Load Comb.	PX lb	PY lb	PZ lb	PX lb	PY lb	PZ lb	% Error
1	-0.00	-41127.75	0.00	2.10	41127.92	-1.40	0.006%

Load Comb.	Sum of Applied Forces PX lb	PY lb	PZ lb	Sum of Reactions PX lb	PY lb	PZ lb	% Error
2	608.41	-48987.60	-63191.25	-599.69	48989.32	63189.59	0.011%
3	31339.90	-48797.22	-54522.64	-31341.05	48798.12	54521.13	0.003%
4	53361.15	-48579.70	-31477.36	-53359.28	48582.75	31473.38	0.007%
5	61737.10	-48807.63	-533.95	-61726.49	48803.00	524.54	0.019%
6	54045.39	-49003.74	31464.48	-54038.08	49005.66	-31474.33	0.016%
7	29560.07	-48717.94	52538.09	-29551.01	48723.93	-52549.69	0.021%
8	-326.84	-48427.46	61132.36	323.45	48423.19	-61131.85	0.007%
9	-31268.03	-48617.85	54701.22	31267.10	48618.75	-54699.50	0.003%
10	-55179.11	-48835.37	32821.56	55168.45	48837.72	-32836.52	0.023%
11	-61561.05	-48607.43	92.66	61547.42	48604.25	-110.02	0.028%
12	-51873.23	-48411.33	-30240.91	51883.51	48406.50	30251.75	0.020%
13	-29689.87	-48697.12	-52122.78	29701.33	48700.47	52121.47	0.016%
14	0.00	-125886.08	0.00	-1.19	125886.06	1.00	0.001%
15	32.13	-126141.46	-24637.10	-32.99	126141.06	24635.74	0.001%
16	12152.13	-125968.45	-21199.20	-12152.47	125968.49	21197.45	0.001%
17	20961.80	-125770.68	-12244.74	-20962.88	125771.04	12243.82	0.001%
18	24170.79	-125980.22	-30.14	-24171.43	125980.64	32.82	0.002%
19	21018.61	-126160.14	12728.03	-21019.81	126158.96	-12718.13	0.008%
20	11964.85	-125897.85	21450.64	-11964.01	125897.12	-21446.34	0.003%
21	22.17	-125630.69	24624.53	-22.77	125630.31	-24623.09	0.001%
22	-11997.22	-125803.70	21488.77	11996.72	125803.58	-21487.99	0.001%
23	-21051.92	-126001.47	12784.37	21051.16	126001.41	-12783.80	0.001%
24	-24136.88	-125791.93	-44.69	24134.70	125791.54	44.26	0.002%
25	-20853.40	-125612.01	-12207.75	20852.28	125611.75	12207.36	0.001%
26	-12130.95	-125874.31	-21115.46	12130.60	125874.24	21114.16	0.001%
27	157.30	-41200.16	-16344.36	-159.75	41199.19	16342.46	0.007%
28	8106.06	-41150.94	-14102.25	-8106.26	41150.84	14100.24	0.005%
29	13801.95	-41094.70	-8141.60	-13800.84	41087.24	8141.15	0.017%
30	15968.39	-41153.63	-138.05	-15968.29	41149.66	140.68	0.011%
31	13978.86	-41204.33	8138.27	-13979.79	41199.43	-8133.15	0.016%
32	7645.89	-41130.44	13589.15	-7644.31	41119.54	-13582.93	0.029%
33	-84.50	-41055.34	15812.04	83.52	41054.10	-15810.86	0.004%
34	-8087.48	-41104.56	14148.42	8086.46	41104.54	-14148.11	0.002%
35	-14271.98	-41160.80	8489.14	14271.91	41159.57	-8482.75	0.015%
36	-15922.87	-41101.87	23.96	15922.49	41101.83	-22.94	0.002%
37	-13417.25	-41051.17	-7821.92	13415.96	41048.48	7821.52	0.007%
38	-7679.45	-41125.06	-13481.77	7678.35	41123.38	13479.79	0.006%

Non-Linear Convergence Results

Load Combination	Converged?	Number of Cycles	Displacement Tolerance	Force Tolerance
1	Yes	9	0.00000001	0.00006408
2	Yes	20	0.00005309	0.00007979
3	Yes	20	0.00004611	0.00006180
4	Yes	20	0.00006417	0.00002589
5	Yes	19	0.00007028	0.00008679
6	Yes	20	0.00003657	0.00005367
7	Yes	19	0.00008178	0.00009790
8	Yes	20	0.00009524	0.00004565
9	Yes	20	0.00005622	0.00007733
10	Yes	20	0.00006368	0.00009846
11	Yes	20	0.00005686	0.00007881
12	Yes	18	0.00009344	0.00003119
13	Yes	20	0.00005352	0.00006962
14	Yes	13	0.00000001	0.00003842

15	Yes	15	0.00000001	0.00002156
16	Yes	15	0.00000001	0.00003401
17	Yes	15	0.00000001	0.00001818
18	Yes	14	0.00000001	0.00002986
19	Yes	14	0.00000001	0.00003874
20	Yes	14	0.00000001	0.00003980
21	Yes	16	0.00000001	0.00002521
22	Yes	17	0.00000001	0.00001830
23	Yes	16	0.00000001	0.00001786
24	Yes	16	0.00000001	0.00003336
25	Yes	16	0.00000001	0.00001750
26	Yes	15	0.00000001	0.00001859
27	Yes	11	0.00000001	0.00004404
28	Yes	11	0.00000001	0.00005602
29	Yes	10	0.00000001	0.00007929
30	Yes	11	0.00000001	0.00004263
31	Yes	11	0.00000001	0.00004662
32	Yes	10	0.00000001	0.00009518
33	Yes	11	0.00000001	0.00005598
34	Yes	12	0.00000001	0.00003442
35	Yes	11	0.00000001	0.00007744
36	Yes	12	0.00000001	0.00003275
37	Yes	11	0.00000001	0.00005717
38	Yes	11	0.00000001	0.00004763

Maximum Tower Deflections - Service Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
T1	276 - 265.5	3.799	37	0.0930	0.1105
T2	265.5 - 261.75	3.907	37	0.0930	0.1115
T3	261.75 - 258	3.945	37	0.0935	0.1091
T4	258 - 254	3.993	37	0.0929	0.1091
T5	254 - 250	4.038	37	0.0858	0.1355
T6	250 - 246	4.076	37	0.0773	0.1186
T7	246 - 242	4.106	37	0.0672	0.1439
T8	242 - 238	4.126	37	0.0561	0.1269
T9	238 - 234	4.135	37	0.0440	0.1529
T10	234 - 230	4.132	37	0.0334	0.1350
T11	230 - 226	4.115	37	0.0334	0.1628
T12	226 - 222	4.086	37	0.0389	0.1433
T13	222 - 206	4.047	37	0.0514	0.1712
T14	206 - 202	3.810	37	0.0726	0.1766
T15	202 - 198	3.743	37	0.0709	0.1570
T16	198 - 194	3.693	36	0.0693	0.1575
T17	194 - 182	3.647	36	0.0749	0.1919
T18	182 - 162	3.474	36	0.0962	0.2077
T19	162 - 158	3.082	35	0.1315	0.2990
T20	158 - 154	2.990	35	0.1355	0.2893
T21	154 - 150	2.893	35	0.1378	0.3209
T22	150 - 146	2.793	35	0.1382	0.3105
T23	146 - 142	2.691	35	0.1365	0.3413
T24	142 - 138	2.591	35	0.1324	0.3280
T25	138 - 134	2.494	35	0.1259	0.3550
T26	134 - 130	2.401	35	0.1166	0.3411
T27	130 - 126	2.315	35	0.1044	0.3599
T28	126 - 122	2.249	35	0.0949	0.3647
T29	122 - 118	2.188	35	0.0873	0.3849
T30	118 - 114	2.131	35	0.0814	0.3811

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
T31	114 - 110	2.076	35	0.0771	0.4010
T32	110 - 106	2.021	35	0.0742	0.3962
T33	106 - 102	1.966	35	0.0726	0.4157
T34	102 - 98	1.910	35	0.0725	0.4098
T35	98 - 94	1.853	35	0.0732	0.4300
T36	94 - 90	1.792	35	0.0745	0.4253
T37	90 - 86	1.729	35	0.0770	0.4449
T38	86 - 82	1.663	35	0.0795	0.4389
T39	82 - 78	1.594	35	0.0817	0.4580
T40	78 - 74	1.523	35	0.0834	0.4507
T41	74 - 70	1.449	35	0.0843	0.4692
T42	70 - 66	1.375	35	0.0842	0.4603
T43	66 - 62	1.302	35	0.0828	0.4767
T44	62 - 58	1.229	35	0.0799	0.4612
T45	58 - 54	1.168	35	0.0779	0.4867
T46	54 - 50	1.106	35	0.0775	0.4740
T47	50 - 46	1.044	35	0.0783	0.4933
T48	46 - 42	0.981	35	0.0803	0.4801
T49	42 - 38	0.915	35	0.0832	0.4988
T50	38 - 34	0.846	35	0.0867	0.4863
T51	34 - 30	0.773	35	0.0907	0.5043
T52	30 - 26	0.696	35	0.0950	0.4910
T53	26 - 22	0.614	35	0.0994	0.5083
T54	22 - 18	0.528	35	0.1037	0.4943
T55	18 - 14	0.439	35	0.1077	0.5114
T56	14 - 10	0.345	35	0.1113	0.4959
T57	10 - 6	0.249	35	0.1142	0.5124
T58	6 - 2	0.150	35	0.1162	0.4964

Critical Deflections and Radius of Curvature - Service Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
281.50	Lightning Rod 5'x.625"	37	3.799	0.0930	0.1105	76298
276.00	Box 12 x 12 x 6	37	3.799	0.0930	0.1105	76298
274.00	06' Ice Shield	37	3.821	0.0929	0.1119	76298
270.00	06' Ice Shield	37	3.863	0.0929	0.1135	63720
264.00	HP6-105C	37	3.921	0.0932	0.1098	29608
261.75	Guy	37	3.945	0.0935	0.1091	20712
254.00	Kathrein PR-460	37	4.038	0.0858	0.1355	23403
236.00	PiROD 10' Lightweight T-Frame	37	4.136	0.0377	0.1438	13496
220.00	(1) SitePro1 VFA12-HD Sector Frame	37	4.024	0.0567	0.1875	20328
208.00	PiROD 12' T-Frame	37	3.844	0.0725	0.1881	60616
202.00	Guy	37	3.743	0.0709	0.1570	17160
196.00	F 24 x 18	36	3.671	0.0714	0.1654	28497
188.00	Box 12 x 12 x 6	36	3.568	0.0856	0.2063	29404
172.00	06' Ice Shield	35	3.280	0.1155	0.2769	24135
170.00	Site Pro 1 VFA10-SD	35	3.245	0.1192	0.2958	24521
164.00	GHF4-23A	35	3.125	0.1289	0.3139	26140
162.00	4 Bay DiPole	35	3.082	0.1315	0.2990	28124
130.00	Guy	35	2.315	0.1044	0.3599	9970
115.00	DB222-A	35	2.089	0.0780	0.3911	70987
94.00	Box 12 x 12 x 6	35	1.792	0.0745	0.4253	63436
62.00	Guy	35	1.229	0.0799	0.4612	19869
52.00	Weather/Wind Gauge	35	1.076	0.0778	0.4623	138934

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
20.00	Alarm	35	0.484	0.1058	0.4800	51028
10.00	Box 12 x 12 x 6	35	0.249	0.1142	0.5124	78902
0.00	1.5' Omni Antenna	0	0.000	0.1193	0.5926	320605

Maximum Tower Deflections - Design Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
T1	276 - 265.5	36.528	10	0.3483	0.6091
T2	265.5 - 261.75	36.493	10	0.3477	0.6099
T3	261.75 - 258	36.471	10	0.3472	0.5944
T4	258 - 254	36.492	10	0.3444	0.5940
T5	254 - 250	36.499	10	0.3314	0.5596
T6	250 - 246	36.473	10	0.3160	0.5983
T7	246 - 242	36.408	10	0.2986	0.5686
T8	242 - 238	36.299	10	0.2793	0.6095
T9	238 - 234	36.143	10	0.2584	0.5816
T10	234 - 230	35.926	10	0.3034	0.6246
T11	230 - 226	35.644	10	0.3684	0.6468
T12	226 - 222	35.308	10	0.4330	0.6382
T13	222 - 206	34.916	10	0.4971	0.7098
T14	206 - 202	32.914	10	0.6334	0.7563
T15	202 - 198	32.354	10	0.6409	0.7324
T16	198 - 194	31.831	10	0.6474	0.7343
T17	194 - 182	31.280	10	0.6819	0.7119
T18	182 - 162	29.432	10	0.8007	0.8980
T19	162 - 158	25.623	10	0.9863	1.0552
T20	158 - 154	24.767	10	1.0085	1.1567
T21	154 - 150	23.893	10	1.0227	1.1216
T22	150 - 146	23.009	10	1.0278	1.2212
T23	146 - 142	22.122	10	1.0230	1.1819
T24	142 - 138	21.251	10	1.0074	1.2719
T25	138 - 134	20.396	10	0.9801	1.2203
T26	134 - 130	19.567	10	0.9404	1.3093
T27	130 - 126	18.774	10	0.8874	1.2661
T28	126 - 122	18.074	10	0.8438	1.3710
T29	122 - 118	17.403	10	0.8083	1.3132
T30	118 - 114	16.756	10	0.7798	1.4266
T31	114 - 110	16.136	2	0.7577	1.3658
T32	110 - 106	15.545	2	0.7410	1.4768
T33	106 - 102	14.964	2	0.7290	1.4125
T34	102 - 98	14.385	2	0.7208	1.5213
T35	98 - 94	13.812	2	0.7156	1.4602
T36	94 - 90	13.236	2	0.7123	1.5715
T37	90 - 86	12.659	2	0.7101	1.5062
T38	86 - 82	12.076	2	0.7078	1.6146
T39	82 - 78	11.493	2	0.7047	1.5451
T40	78 - 74	10.906	2	0.6998	1.6507
T41	74 - 70	10.322	2	0.6921	1.5770
T42	70 - 66	9.741	2	0.6807	1.6778
T43	66 - 62	9.169	2	0.6648	1.5964
T44	62 - 58	8.604	2	0.6448	1.6873
T45	58 - 54	8.091	2	0.6305	1.6130
T46	54 - 50	7.582	2	0.6223	1.7218
T47	50 - 46	7.077	2	0.6198	1.6366

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
T48	46 - 42	6.569	2	0.6217	1.7438
T49	42 - 38	6.058	2	0.6278	1.6593
T50	38 - 34	5.538	2	0.6367	1.7664
T51	34 - 30	5.008	2	0.6481	1.6784
T52	30 - 26	4.464	2	0.6609	1.7834
T53	26 - 22	3.907	2	0.6747	1.6922
T54	22 - 18	3.335	2	0.6884	1.7952
T55	18 - 14	2.751	2	0.7016	1.6989
T56	14 - 10	2.154	2	0.7133	1.8004
T57	10 - 6	1.546	2	0.7229	1.7012
T58	6 - 2	0.929	2	0.7298	1.8016

Critical Deflections and Radius of Curvature - Design Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
281.50	Lightning Rod 5'x.625"	10	36.528	0.3483	0.6091	7260
276.00	Box 12 x 12 x 6	10	36.528	0.3483	0.6091	7260
274.00	06' Ice Shield	10	36.525	0.3482	0.6140	7260
270.00	06' Ice Shield	10	36.516	0.3480	0.6194	6051
264.00	HP6-105C	10	36.481	0.3475	0.6020	3946
261.75	Guy	10	36.471	0.3472	0.5944	4354
254.00	Kathrein PR-460	10	36.499	0.3314	0.5596	5543
236.00	PiROD 10' Lightweight T-Frame	10	36.043	0.2714	0.6026	2978
220.00	(1) SitePro1 VFA12-HD Sector Frame	10	34.701	0.5251	0.7463	4012
208.00	PiROD 12' T-Frame	10	33.194	0.6261	0.7713	8414
202.00	Guy	10	32.354	0.6409	0.7324	4674
196.00	F 24 x 18	10	31.560	0.6619	0.7192	5582
188.00	Box 12 x 12 x 6	10	30.394	0.7417	0.7776	5662
172.00	06' Ice Shield	10	27.636	0.9023	0.9329	5510
170.00	Site Pro 1 VFA10-SD	10	27.249	0.9215	0.9622	5685
164.00	GHF4-23A	10	26.041	0.9723	1.0249	6392
162.00	4 Bay DiPole	10	25.623	0.9863	1.0552	6958
130.00	Guy	10	18.774	0.8874	1.2661	2324
115.00	DB222-A	2	16.285	0.7627	1.3729	12987
94.00	Box 12 x 12 x 6	2	13.236	0.7123	1.5715	25858
62.00	Guy	2	8.604	0.6448	1.6873	4150
52.00	Weather/Wind Gauge	2	7.330	0.6204	1.6790	45570
20.00	Alarm	2	3.044	0.6951	1.7474	13998
10.00	Box 12 x 12 x 6	2	1.546	0.7229	1.7012	20811
0.00	1.5' Omni Antenna	0	0.000	0.7400	1.9521	62606

Bolt Design Data

Section No.	Elevation ft	Component Type	Bolt Grade	Bolt Size in	Number Of Bolts	Maximum Load per Bolt lb	Allowable Load per Bolt lb	Ratio Load / Allowable	Allowable Ratio	Criteria
T23	146	Diagonal	A325N	0.6250	1	9496.04	13661.70	0.695	1	Member Block Shear

Section No.	Elevation ft	Component Type	Bolt Grade	Bolt Size in	Number Of Bolts	Maximum Load per Bolt lb	Allowable Load per Bolt lb	Ratio Load / Allowable	Allowable Ratio	Criteria
T24	142	Diagonal	A325N	0.6250	1	10318.20	13805.80	0.747	1	Bolt Shear
T25	138	Diagonal	A325N	0.6250	1	10481.20	13661.70	0.767	1	Member Block Shear
T26	134	Diagonal	A325N	0.6250	1	11197.40	13805.80	0.811	1	Bolt Shear
T41	74	Diagonal	A325N	0.6250	1	3397.87	9107.81	0.373	1	Member Block Shear
T42	70	Diagonal	A325N	0.6250	1	4011.95	9107.81	0.440	1	Member Block Shear
T43	66	Diagonal	A325N	0.6250	1	4386.96	9107.81	0.482	1	Member Block Shear
T44	62	Diagonal	A325N	0.6250	1	5078.73	9107.81	0.558	1	Member Block Shear
T45	58	Diagonal	A325N	0.6250	1	4649.85	9107.81	0.511	1	Member Block Shear
T46	54	Diagonal	A325N	0.6250	1	3872.77	9107.81	0.425	1	Member Block Shear
T47	50	Diagonal	A325N	0.6250	1	3410.12	9107.81	0.374	1	Member Block Shear

Guy Design Data

Section No.	Elevation ft	Size	Initial Tension lb	Breaking Load lb	Actual T_u lb	Allowable ϕT_n lb	Required S.F.	Actual S.F.
T3	261.75 (A) (721)	9/16 EHS	3500.00	35000.04	14874.00	21000.00	1.000	1.412
	261.75 (A) (722)	9/16 EHS	3500.00	35000.04	15476.50	21000.00	1.000	1.357
	261.75 (B) (715)	9/16 EHS	3500.00	35000.04	15078.90	21000.00	1.000	1.393
	261.75 (B) (716)	9/16 EHS	3500.00	35000.04	15142.00	21000.00	1.000	1.387
	261.75 (C) (709)	9/16 EHS	3500.00	35000.04	14556.60	21000.00	1.000	1.443
	261.75 (C) (710)	9/16 EHS	3500.00	35000.04	13875.00	21000.00	1.000	1.514
T15	202.00 (A) (739)	9/16 EHS	3500.00	35000.04	18514.00	21000.00	1.000	1.134
	202.00 (A) (740)	9/16 EHS	3500.00	35000.04	18932.00	21000.00	1.000	1.109
	202.00 (B) (733)	9/16 EHS	3500.00	35000.04	18431.10	21000.00	1.000	1.139
	202.00 (B) (734)	9/16 EHS	3500.00	35000.04	19320.30	21000.00	1.000	1.087
	202.00 (C) (727)	9/16 EHS	3500.00	35000.04	17897.30	21000.00	1.000	1.173
	202.00 (C) (728)	9/16 EHS	3500.00	35000.04	17445.50	21000.00	1.000	1.204
T27	130.00 (A) (747)	3/4 EHS	5830.00	58299.91	27848.00	34980.00	1.000	1.256
	130.00 (B) (746)	3/4 EHS	5830.00	58299.91	28253.50	34980.00	1.000	1.238
	130.00 (C) (745)	3/4 EHS	5830.00	58299.91	26833.40	34980.00	1.000	1.304

Section No.	Elevation ft	Size	Initial Tension lb	Breaking Load lb	Actual T_u lb	Allowable ϕT_n lb	Required S.F.	Actual S.F.
T44	62.00 (A) (750)	9/16 EHS	3500.00	35000.04	13307.10	21000.00	1.000	1.578
	62.00 (B) (749)	9/16 EHS	3500.00	35000.04	13470.30	21000.00	1.000	1.559
	62.00 (C) (748)	9/16 EHS	3500.00	35000.04	13161.90	21000.00	1.000	1.596

Compression Checks

Leg Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	Mast Stability Index	P_u lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
T1	276 - 265.5	1 3/4	10.50	3.50	96.0 K=1.00	2.4053	1.00	-1925.13	55173.40	0.035 [1]
T2	265.5 - 261.75	1 3/4	3.75	3.75	102.9 K=1.00	2.4053	1.00	-4253.27	49937.80	0.085 [1]
T3	261.75 - 258	1 3/4	3.75	3.75	102.9 K=1.00	2.4053	1.00	-3035.43	49937.80	0.061 [1]
T4	258 - 254	1 3/4	4.00	4.00	109.7 K=1.00	2.4053	1.00	-36396.30	44889.40	0.811 [1]
T5	254 - 250	1 3/4	4.00	4.00	109.7 K=1.00	2.4053	1.00	-40540.00	44889.40	0.903 [1]
T6	250 - 246	1 3/4	4.00	2.00	54.9 K=1.00	2.4053	1.00	-44955.20	86860.00	0.518 [1]
T7	246 - 242	1 3/4	4.00	2.00	54.9 K=1.00	2.4053	1.00	-47942.70	86860.00	0.552 [1]
T8	242 - 238	1 3/4	4.00	2.00	54.9 K=1.00	2.4053	1.00	-51983.90	86860.00	0.598 [1]
T9	238 - 234	1 3/4	4.00	2.00	54.9 K=1.00	2.4053	1.00	-53804.90	86860.00	0.619 [1]
T10	234 - 230	1 3/4	4.00	2.00	54.9 K=1.00	2.4053	1.00	-55120.10	86860.00	0.635 [1]
T11	230 - 226	1 3/4	4.00	2.00	54.9 K=1.00	2.4053	1.00	-52803.50	86860.00	0.608 [1]
T12	226 - 222	1 3/4	4.00	2.00	54.9 K=1.00	2.4053	1.00	-53057.60	86860.00	0.611 [1]
T13	222 - 206	2	16.00	4.00	96.0 K=1.00	3.1416	1.00	-50270.90	72063.20	0.698 [1]
T14	206 - 202	2	4.00	4.00	96.0 K=1.00	3.1416	1.00	-33687.10	72063.20	0.467 [1]
T15	202 - 198	2	4.00	4.00	96.0 K=1.00	3.1416	1.00	-23570.80	72063.20	0.327 [1]
T16	198 - 194	2	4.00	4.00	96.0 K=1.00	3.1416	1.00	-57442.50	72063.20	0.797 [1]
T17	194 - 182	2	12.00	4.00	96.0 K=1.00	3.1416	1.00	-67085.10	72063.20	0.931 [1]
T18	182 - 162	2	20.00	4.00	96.0 K=1.00	3.1416	1.00	-67501.90	72063.20	0.937 [1]
T19	162 - 158	2	4.00	4.00	96.0 K=1.00	3.1416	1.00	-56016.80	72063.20	0.777 [1]
T20	158 - 154	2	4.00	4.00	96.0 K=1.00	3.1416	1.00	-51676.20	72063.20	0.717 [1]
T21	154 - 150	2	4.00	4.00	96.0	3.1416	1.00	-48471.10	72063.20	0.673 [1]

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	Mast Stability Index	P_u lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
T22	150 - 146	2	4.00	4.00	K=1.00 96.0	3.1416	1.00	-46899.70	72063.20	0.651 [1]
T23	146 - 142	2	4.00	4.00	K=1.00 96.0	3.1416	1.00	-58048.30	72063.20	0.806 [1]
T24	142 - 138	2	4.00	4.00	K=1.00 96.0	3.1416	1.00	-67506.70	72063.20	0.937 [1]
T25	138 - 134	2	4.00	2.00	K=1.00 48.0	3.1416	1.00	-80437.60	119454.00	0.673 [1]
T26	134 - 130	2	4.00	2.00	K=1.00 48.0	3.1416	1.00	-91543.60	119454.00	0.766 [1]
T27	130 - 126	2	4.00	2.00	K=1.00 48.0	3.1416	1.00	-95633.10	119454.00	0.801 [1]
T28	126 - 122	2	4.00	2.00	K=1.00 48.0	3.1416	1.00	-87048.10	119454.00	0.729 [1]
T29	122 - 118	2	4.00	2.00	K=1.00 48.0	3.1416	1.00	-82070.60	119454.00	0.687 [1]
T30	118 - 114	2	4.00	2.00	K=1.00 48.0	3.1416	1.00	-75083.00	119454.00	0.629 [1]
T31	114 - 110	2	4.00	4.00	K=1.00 96.0	3.1416	1.00	-71454.40	72063.20	0.992 [1]
T32	110 - 106	2	4.00	4.00	K=1.00 96.0	3.1416	1.00	-66138.60	72063.20	0.918 [1]
T33	106 - 102	2	4.00	4.00	K=1.00 96.0	3.1416	1.00	-63902.60	72063.20	0.887 [1]
T34	102 - 98	2	4.00	2.00	K=1.00 48.0	3.1416	1.00	-60314.00	119454.00	0.505 [1]
T35	98 - 94	2	4.00	2.00	K=1.00 48.0	3.1416	1.00	-59632.00	119454.00	0.499 [1]
T36	94 - 90	2	4.00	2.00	K=1.00 48.0	3.1416	1.00	-57946.80	119454.00	0.485 [1]
T37	90 - 86	2	4.00	2.00	K=1.00 48.0	3.1416	1.00	-58915.60	119454.00	0.493 [1]
T38	86 - 82	2	4.00	2.00	K=1.00 48.0	3.1416	1.00	-59125.50	119454.00	0.495 [1]
T39	82 - 78	2	4.00	2.00	K=1.00 48.0	3.1416	1.00	-61685.50	119454.00	0.516 [1]
T40	78 - 74	2	4.00	2.00	K=1.00 48.0	3.1416	1.00	-63733.90	119454.00	0.534 [1]
T41	74 - 70	2	4.00	2.00	K=1.00 48.0	3.1416	1.00	-67817.30	119454.00	0.568 [1]
T42	70 - 66	2	4.00	2.00	K=1.00 48.0	3.1416	1.00	-71630.20	119454.00	0.600 [1]
T43	66 - 62	2	4.00	2.00	K=1.00 48.0	3.1416	1.00	-77126.00	119454.00	0.646 [1]
T44	62 - 58	2	4.00	2.00	K=1.00 48.0	3.1416	1.00	-76325.10	119454.00	0.639 [1]
T45	58 - 54	2	4.00	2.00	K=1.00 48.0	3.1416	1.00	-71030.30	119454.00	0.595 [1]
T46	54 - 50	2	4.00	2.00	K=1.00 48.0	3.1416	1.00	-65281.60	119454.00	0.547 [1]
T47	50 - 46	2	4.00	2.00	K=1.00 48.0	3.1416	1.00	-63599.80	119454.00	0.532 [1]
T48	46 - 42	2	4.00	2.00	K=1.00 48.0	3.1416	1.00	-65201.90	119454.00	0.546 [1]
T49	42 - 38	2	4.00	2.00	K=1.00 48.0	3.1416	1.00	-66749.60	119454.00	0.559 [1]
T50	38 - 34	2	4.00	2.00	K=1.00 48.0	3.1416	1.00	-67381.10	119454.00	0.564 [1]
T51	34 - 30	2	4.00	2.00	K=1.00 48.0	3.1416	1.00	-68482.30	119454.00	0.573 [1]

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	Mast Stability Index	P_u lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
T52	30 - 26	2	4.00	2.00	K=1.00 48.0	3.1416	1.00	-68455.50	119454.00	0.573 [1]
T53	26 - 22	2	4.00	2.00	K=1.00 48.0	3.1416	1.00	-68849.00	119454.00	0.576 [1]
T54	22 - 18	2	4.00	2.00	K=1.00 48.0	3.1416	1.00	-69089.00	119454.00	0.578 [1]
T55	18 - 14	2	4.00	2.00	K=1.00 48.0	3.1416	1.00	-69050.80	119454.00	0.578 [1]
T56	14 - 10	2	4.00	2.00	K=1.00 48.0	3.1416	1.00	-68834.40	119454.00	0.576 [1]
T57	10 - 6	2	4.00	2.00	K=1.00 48.0	3.1416	1.00	-68359.50	119454.00	0.572 [1]
T58	6 - 2	2	4.00	2.00	K=1.00 48.0	3.1416	1.00	-67623.00	119454.00	0.566 [1]
					K=1.00					

[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 lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
T1	276 - 265.5	L1 3/4x1 3/4x3/16	5.32	5.12	156.2 K=0.87	0.6211	-691.80	7281.78	0.095 [1]
T2	265.5 - 261.75	L1 3/4x1 3/4x3/16	5.48	5.28	159.7 K=0.87	0.6211	-2998.28	6968.34	0.430 [1]
T3	261.75 - 258	L1 3/4x1 3/4x3/16	5.48	2.64	99.2 K=1.08	0.6211	-5752.06	15437.80	0.373 [1]
T4	258 - 254	L1 3/4x1 3/4x3/16	5.66	5.45	163.3 K=0.86	0.6211	-5776.72	6664.44	0.867 [1]
T5	254 - 250	L1 3/4x1 3/4x3/16	5.66	5.45	163.3 K=0.86	0.6211	-5130.61	6664.44	0.770 [1]
T6	250 - 246	L1 3/4x1 3/4x3/16	5.66	5.45	163.3 K=0.86	0.6211	-4919.76	6664.44	0.738 [1]
T7	246 - 242	L1 3/4x1 3/4x3/16	5.66	5.45	163.3 K=0.86	0.6211	-4350.76	6664.44	0.653 [1]
T8	242 - 238	L1 3/4x1 3/4x3/16	5.66	5.45	163.3 K=0.86	0.6211	-4420.96	6664.44	0.663 [1]
T9	238 - 234	L1 3/4x1 3/4x3/16	5.66	5.45	163.3 K=0.86	0.6211	-2620.30	6664.44	0.393 [1]
T10	234 - 230	L1 3/4x1 3/4x3/16	5.66	5.45	163.3 K=0.86	0.6211	-2244.92	6664.44	0.337 [1]
T11	230 - 226	L1 3/4x1 3/4x3/16	5.66	5.45	163.3 K=0.86	0.6211	-2223.76	6664.44	0.334 [1]
T12	226 - 222	L1 3/4x1 3/4x3/16	5.66	5.45	163.3 K=0.86	0.6211	-2464.45	6664.44	0.370 [1]
T13	222 - 206	L2 1/2x2 1/2x1/4	5.66	5.42	127.7 K=0.96	1.1900	-9538.51	20892.00	0.457 [1]
T14	206 - 202	L2 1/2x2 1/2x3/8	5.66	5.42	128.4 K=0.96	1.7300	-11069.40	30056.40	0.368 [1]
T15	202 - 198	L2 1/2x2 1/2x3/8	5.66	2.71	80.1 K=1.20	1.7300	-9804.59	49717.40	0.197 [1]
T16	198 - 194	L2 1/2x2 1/2x3/8	5.66	5.42	128.4 K=0.96	1.7300	-5837.17	30056.40	0.194 [1]
T17	194 - 182	L2 1/2x2 1/2x1/4	5.66	5.42	127.7	1.1900	-5216.48	20892.00	0.250 [1]

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
T18	182 - 162	L2x2x1/4	5.66	5.42	K=0.96 148.5	0.9380	-7186.33	12170.70	0.590 [1]
T19	162 - 158	L2x2x1/4	5.66	5.42	K=0.89 148.5	0.9380	-7166.67	12170.70	0.589 [1]
T20	158 - 154	L2x2x1/4	5.66	5.42	K=0.89 148.5	0.9380	-8271.53	12170.70	0.680 [1]
T21	154 - 150	L2x2x1/4	5.66	5.42	K=0.89 148.5	0.9380	-8312.01	12170.70	0.683 [1]
T22	150 - 146	L2x2x1/4	5.66	5.42	K=0.89 148.5	0.9380	-9340.62	12170.70	0.767 [1]
T23	146 - 142	L2x2x3/8	5.66	5.18	K=0.89 159.8	1.3600	-9361.24	15235.30	0.614 [1]
T24	142 - 138	L2x2x3/8	5.66	5.18	K=1.00 159.8	1.3600	-10318.20	15235.30	0.677 [1]
T25	138 - 134	L2x2x3/8	5.66	5.18	K=1.00 159.8	1.3600	-10337.80	15235.30	0.679 [1]
T26	134 - 130	L2x2x3/8	5.66	5.18	K=1.00 159.8	1.3600	-11197.40	15235.30	0.735 [1]
T27	130 - 126	L2x2x1/4	5.66	5.42	K=1.00 148.5	0.9380	-7207.23	12170.70	0.592 [1]
T28	126 - 122	L2x2x1/4	5.66	5.42	K=0.89 148.5	0.9380	-6705.64	12170.70	0.551 [1]
T29	122 - 118	L2x2x1/4	5.66	5.42	K=0.89 148.5	0.9380	-6070.93	12170.70	0.499 [1]
T30	118 - 114	L2x2x1/4	5.66	5.42	K=0.89 148.5	0.9380	-5562.51	12170.70	0.457 [1]
T31	114 - 110	L2x2x1/4	5.66	5.42	K=0.89 148.5	0.9380	-4815.60	12170.70	0.396 [1]
T32	110 - 106	L2x2x1/4	5.66	5.42	K=0.89 148.5	0.9380	-4375.54	12170.70	0.360 [1]
T33	106 - 102	L2x2x1/4	5.66	5.42	K=0.89 148.5	0.9380	-3624.67	12170.70	0.298 [1]
T34	102 - 98	L2x2x3/16	5.66	5.42	K=0.89 147.7	0.7150	-3140.42	9375.35	0.335 [1]
T35	98 - 94	L2x2x3/16	5.66	5.42	K=0.89 147.7	0.7150	-2284.41	9375.35	0.244 [1]
T36	94 - 90	L2x2x3/16	5.66	5.42	K=0.89 147.7	0.7150	-1809.45	9375.35	0.193 [1]
T37	90 - 86	L2x2x3/16	5.66	5.42	K=0.89 147.7	0.7150	-1553.44	9375.35	0.166 [1]
T38	86 - 82	L2x2x3/16	5.66	5.42	K=0.89 147.7	0.7150	-2150.53	9375.35	0.229 [1]
T39	82 - 78	L2x2x3/16	5.66	5.42	K=0.89 147.7	0.7150	-2733.70	9375.35	0.292 [1]
T40	78 - 74	L2x2x3/16	5.66	5.42	K=0.89 147.7	0.7150	-3271.49	9375.35	0.349 [1]
T41	74 - 70	L2x2x1/4	5.66	5.18	K=0.89 159.0	0.9380	-3849.70	10616.20	0.363 [1]
T42	70 - 66	L2x2x1/4	5.66	5.18	K=1.00 159.0	0.9380	-4329.04	10616.20	0.408 [1]
T43	66 - 62	L2x2x1/4	5.66	5.18	K=1.00 159.0	0.9380	-4880.83	10616.20	0.460 [1]
T44	62 - 58	L2x2x1/4	5.66	5.18	K=1.00 159.0	0.9380	-5587.76	10616.20	0.526 [1]
T45	58 - 54	L2x2x1/4	5.66	5.18	K=1.00 159.0	0.9380	-4909.25	10616.20	0.462 [1]
T46	54 - 50	L2x2x1/4	5.66	5.18	K=1.00 159.0	0.9380	-4412.50	10616.20	0.416 [1]
T47	50 - 46	L2x2x1/4	5.66	5.18	K=1.00 159.0	0.9380	-3678.76	10616.20	0.347 [1]

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
T48	46 - 42	L2x2x3/16	5.66	5.42	K=1.00 147.7 K=0.89	0.7150	-3209.87	9375.35	0.342 [1]
T49	42 - 38	L2x2x3/16	5.66	5.42	147.7 K=0.89	0.7150	-2476.18	9375.35	0.264 [1]
T50	38 - 34	L2x2x3/16	5.66	5.42	147.7 K=0.89	0.7150	-2062.32	9375.35	0.220 [1]
T51	34 - 30	L2x2x3/16	5.66	5.42	147.7 K=0.89	0.7150	-1350.93	9375.35	0.144 [1]
T52	30 - 26	L2x2x3/16	5.66	5.42	147.7 K=0.89	0.7150	-964.17	9375.35	0.103 [1]
T53	26 - 22	L2x2x3/16	5.66	5.42	147.7 K=0.89	0.7150	-881.71	9375.35	0.094 [1]
T54	22 - 18	L2x2x1/4	5.66	5.42	148.5 K=0.89	0.9380	-1153.70	12170.70	0.095 [1]
T55	18 - 14	L2x2x1/4	5.66	5.42	148.5 K=0.89	0.9380	-1825.64	12170.70	0.150 [1]
T56	14 - 10	L2x2x1/4	5.66	5.42	148.5 K=0.89	0.9380	-2213.76	12170.70	0.182 [1]
T57	10 - 6	L2x2x1/4	5.66	5.42	148.5 K=0.89	0.9380	-2710.88	12170.70	0.223 [1]
T58	6 - 2	L2x2x1/4	5.66	5.42	148.5 K=0.89	0.9380	-2953.66	12170.70	0.243 [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 lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
T1	276 - 265.5	L2x2x3/16	4.00	3.85	118.7 K=1.01	0.7150	-186.65	14337.40	0.013 [1]
T13	222 - 206	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-1433.11	14398.30	0.100 [1]
T17	194 - 182	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-1626.73	14398.30	0.113 [1]
T18	182 - 162	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-1636.84	14398.30	0.114 [1]
T25	138 - 134	L2 1/2x2 1/2x1/4	4.00	3.83	106.8 K=1.14	1.1900	-1950.51	27462.40	0.071 [1]
T26	134 - 130	L2 1/2x2 1/2x1/4	4.00	3.83	106.8 K=1.14	1.1900	-2219.81	27462.40	0.081 [1]
T27	130 - 126	L2 1/2x2 1/2x1/4	4.00	3.83	106.8 K=1.14	1.1900	-2318.98	27462.40	0.084 [1]
T28	126 - 122	L2 1/2x2 1/2x1/4	4.00	3.83	106.8 K=1.14	1.1900	-2110.80	27462.40	0.077 [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 lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
T6	250 - 246	1 1/4	4.00	3.85	103.6 K=0.70	1.2272	-1208.76	22597.80	0.053 [1]
T7	246 - 242	1 1/4	4.00	3.85	103.6 K=0.70	1.2272	-1289.08	22597.80	0.057 [1]
T8	242 - 238	1 1/4	4.00	3.85	103.6 K=0.70	1.2272	-1397.74	22597.80	0.062 [1]
T9	238 - 234	1 1/4	4.00	3.85	103.6 K=0.70	1.2272	-1446.71	22597.80	0.064 [1]
T10	234 - 230	1 1/4	4.00	3.85	103.6 K=0.70	1.2272	-1482.07	22597.80	0.066 [1]
T11	230 - 226	1 1/4	4.00	3.85	103.6 K=0.70	1.2272	-1419.78	22597.80	0.063 [1]
T12	226 - 222	1 1/4	4.00	3.85	103.6 K=0.70	1.2272	-1426.62	22597.80	0.063 [1]
T25	138 - 134	1 1/4	4.00	3.83	103.0 K=0.70	1.2272	-1950.51	22735.80	0.086 [1]
T26	134 - 130	1 1/4	4.00	3.83	103.0 K=0.70	1.2272	-2219.81	22735.80	0.098 [1]
T27	130 - 126	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-2318.98	14398.30	0.161 [1]
T28	126 - 122	1 1/4	4.00	3.83	103.0 K=0.70	1.2272	-2110.80	22735.80	0.093 [1]
T29	122 - 118	1 1/4	4.00	3.83	103.0 K=0.70	1.2272	-1990.11	22735.80	0.088 [1]
T30	118 - 114	1 1/4	4.00	3.83	103.0 K=0.70	1.2272	-1820.67	22735.80	0.080 [1]
T34	102 - 98	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-1462.54	14398.30	0.102 [1]
T35	98 - 94	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-1446.00	14398.30	0.100 [1]
T36	94 - 90	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-1405.13	14398.30	0.098 [1]
T37	90 - 86	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-1428.63	14398.30	0.099 [1]
T38	86 - 82	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-1433.72	14398.30	0.100 [1]
T39	82 - 78	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-1495.79	14398.30	0.104 [1]
T40	78 - 74	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-1545.46	14398.30	0.107 [1]
T41	74 - 70	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-1644.48	14398.30	0.114 [1]
T42	70 - 66	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-1736.94	14398.30	0.121 [1]
T43	66 - 62	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-1870.21	14398.30	0.130 [1]
T44	62 - 58	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-1850.79	14398.30	0.129 [1]
T45	58 - 54	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-1722.39	14398.30	0.120 [1]
T46	54 - 50	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-1582.99	14398.30	0.110 [1]
T47	50 - 46	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-1542.21	14398.30	0.107 [1]
T48	46 - 42	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-1581.06	14398.30	0.110 [1]
T49	42 - 38	L2 1/2x2 1/2x1/4	4.00	3.83	106.8 K=1.14	1.1900	-1618.59	27462.40	0.059 [1]
T50	38 - 34	L2 1/2x2 1/2x1/4	4.00	3.83	106.8 K=1.14	1.1900	-1633.91	27462.40	0.059 [1]

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
T51	34 - 30	L2 1/2x2 1/2x1/4	4.00	3.83	106.8 K=1.14	1.1900	-1660.61	27462.40	0.060 [1]
T52	30 - 26	L2 1/2x2 1/2x1/4	4.00	3.83	106.8 K=1.14	1.1900	-1659.96	27462.40	0.060 [1]
T53	26 - 22	L2 1/2x2 1/2x1/4	4.00	3.83	106.8 K=1.14	1.1900	-1669.50	27462.40	0.061 [1]
T54	22 - 18	L2 1/2x2 1/2x1/4	4.00	3.83	106.8 K=1.14	1.1900	-1675.32	27462.40	0.061 [1]
T55	18 - 14	L2 1/2x2 1/2x1/4	4.00	3.83	106.8 K=1.14	1.1900	-1674.39	27462.40	0.061 [1]
T56	14 - 10	L2 1/2x2 1/2x1/4	4.00	3.83	106.8 K=1.14	1.1900	-1669.14	27462.40	0.061 [1]
T57	10 - 6	L2 1/2x2 1/2x1/4	4.00	3.83	106.8 K=1.14	1.1900	-1657.63	27462.40	0.060 [1]
T58	6 - 2	L2 1/2x2 1/2x1/4	4.00	3.83	106.8 K=1.14	1.1900	-1639.77	27462.40	0.060 [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 lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
T1	276 - 265.5	L2x2x3/16	4.00	3.85	118.7 K=1.01	0.7150	-77.19	14337.40	0.005 [1]
T2	265.5 - 261.75	L2x2x3/16	4.00	3.85	118.7 K=1.01	0.7150	-862.21	14337.40	0.060 [1]
T4	258 - 254	L2x2x3/16	4.00	3.85	118.7 K=1.01	0.7150	-3644.71	14337.40	0.254 [1]
T5	254 - 250	L2x2x3/16	4.00	3.85	118.7 K=1.01	0.7150	-1090.04	14337.40	0.076 [1]
T6	250 - 246	L2x2x3/16	4.00	3.85	118.7 K=1.01	0.7150	-1208.76	14337.40	0.084 [1]
T7	246 - 242	L2x2x3/16	4.00	3.85	118.7 K=1.01	0.7150	-1289.08	14337.40	0.090 [1]
T8	242 - 238	L2x2x3/16	4.00	3.85	118.7 K=1.01	0.7150	-1397.74	14337.40	0.097 [1]
T9	238 - 234	L2x2x3/16	4.00	3.85	118.7 K=1.01	0.7150	-1446.71	14337.40	0.101 [1]
T10	234 - 230	L2x2x3/16	4.00	3.85	118.7 K=1.01	0.7150	-1482.07	14337.40	0.103 [1]
T11	230 - 226	L2x2x3/16	4.00	3.85	118.7 K=1.01	0.7150	-1419.78	14337.40	0.099 [1]
T12	226 - 222	L2x2x3/16	4.00	3.85	118.7 K=1.01	0.7150	-1426.62	14337.40	0.100 [1]
T13	222 - 206	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-1219.00	14398.30	0.085 [1]
T14	206 - 202	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-816.87	14398.30	0.057 [1]
T16	198 - 194	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-2344.37	14398.30	0.163 [1]
T17	194 - 182	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-1626.73	14398.30	0.113 [1]
T18	182 - 162	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-1636.84	14398.30	0.114 [1]

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
T19	162 - 158	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-1358.34	14398.30	0.094 [1]
T20	158 - 154	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-1253.08	14398.30	0.087 [1]
T21	154 - 150	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-1175.36	14398.30	0.082 [1]
T22	150 - 146	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-1137.26	14398.30	0.079 [1]
T23	146 - 142	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-1407.60	14398.30	0.098 [1]
T24	142 - 138	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-1636.95	14398.30	0.114 [1]
T29	122 - 118	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-1990.11	14398.30	0.138 [1]
T30	118 - 114	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-1820.67	14398.30	0.126 [1]
T31	114 - 110	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-1732.68	14398.30	0.120 [1]
T32	110 - 106	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-1603.78	14398.30	0.111 [1]
T33	106 - 102	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-1549.56	14398.30	0.108 [1]
T34	102 - 98	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-1462.54	14398.30	0.102 [1]
T35	98 - 94	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-1446.00	14398.30	0.100 [1]
T36	94 - 90	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-1405.13	14398.30	0.098 [1]
T37	90 - 86	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-1428.63	14398.30	0.099 [1]
T38	86 - 82	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-1433.72	14398.30	0.100 [1]
T39	82 - 78	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-1495.79	14398.30	0.104 [1]
T40	78 - 74	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-1545.46	14398.30	0.107 [1]
T41	74 - 70	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-1644.48	14398.30	0.114 [1]
T42	70 - 66	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-1736.94	14398.30	0.121 [1]
T43	66 - 62	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-1870.21	14398.30	0.130 [1]
T44	62 - 58	L2 1/2x2 1/2x1/4	4.00	3.83	106.8 K=1.14	1.1900	-1850.79	27462.40	0.067 [1]
T45	58 - 54	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-1722.39	14398.30	0.120 [1]
T46	54 - 50	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-1582.99	14398.30	0.110 [1]
T47	50 - 46	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-1542.21	14398.30	0.107 [1]
T48	46 - 42	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-1581.06	14398.30	0.110 [1]
T49	42 - 38	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-1618.59	14398.30	0.112 [1]
T50	38 - 34	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-1633.91	14398.30	0.113 [1]
T51	34 - 30	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-1660.61	14398.30	0.115 [1]
T52	30 - 26	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-1659.96	14398.30	0.115 [1]

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
T53	26 - 22	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-1669.50	14398.30	0.116 [1]
T54	22 - 18	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-1675.32	14398.30	0.116 [1]
T55	18 - 14	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-1674.39	14398.30	0.116 [1]
T56	14 - 10	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-1669.14	14398.30	0.116 [1]
T57	10 - 6	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-1657.63	14398.30	0.115 [1]
T58	6 - 2	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-1639.77	14398.30	0.114 [1]

[1] P_u / ϕP_n controls

Top Guy Pull-Off Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
T3	261.75 - 258	L2 1/2x2 1/2x3/8	4.00	3.85	107.5 K=1.13	1.7300	-3980.51	39655.10	0.100 [1]
T15	202 - 198	L2 1/2x2 1/2x3/8	4.00	3.83	107.2 K=1.14	1.7300	-6562.21	39763.10	0.165 [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 lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
T3	261.75 - 258 (713)	L3 1/2x3 1/2x3/8	7.17	7.08	122.3 K=0.99	2.4800	-21765.00	47293.60	0.460 [1]
T3	261.75 - 258 (714)	L3 1/2x3 1/2x3/8	7.17	7.08	122.3 K=0.99	2.4800	-23224.50	47293.60	0.491 [1]
T3	261.75 - 258 (719)	L3 1/2x3 1/2x3/8	7.17	7.08	122.3 K=0.99	2.4800	-22456.30	47293.60	0.475 [1]
T3	261.75 - 258 (720)	L3 1/2x3 1/2x3/8	7.17	7.08	122.3 K=0.99	2.4800	-22940.30	47293.60	0.485 [1]
T3	261.75 - 258 (725)	L3 1/2x3 1/2x3/8	7.17	7.08	122.3 K=0.99	2.4800	-23770.50	47293.60	0.503 [1]
T3	261.75 - 258 (726)	L3 1/2x3 1/2x3/8	7.17	7.08	122.3 K=0.99	2.4800	-23188.70	47293.60	0.490 [1]
T15	202 - 198 (731)	L3 1/2x3 1/2x3/8	7.30	7.20	123.6 K=0.98	2.4800	-25179.70	46405.10	0.543 [1]
T15	202 - 198 (732)	L3 1/2x3 1/2x3/8	7.30	7.20	123.6 K=0.98	2.4800	-25884.10	46405.10	0.558 [1]
T15	202 - 198 (737)	L3 1/2x3 1/2x3/8	7.30	7.20	123.6 K=0.98	2.4800	-24280.80	46405.10	0.523 [1]
T15	202 - 198 (738)	L3 1/2x3 1/2x3/8	7.30	7.20	123.6	2.4800	-26111.20	46405.10	0.563 [1]

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
T15	202 - 198 (743)	L3 1/2x3 1/2x3/8	7.30	7.20	K=0.98 123.6	2.4800	-26651.20	46405.10	0.574 [1]
T15	202 - 198 (744)	L3 1/2x3 1/2x3/8	7.30	7.20	K=0.98 123.6 K=0.98	2.4800	-27263.20	46405.10	0.588 [1]

[1] P_u / ϕP_n controls

Tension Checks

Leg Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
T1	276 - 265.5	1 3/4	10.50	3.50	96.0	2.4053	967.18	108238.00	0.009 [1]
T2	265.5 - 261.75	1 3/4	3.75	3.75	102.9	2.4053	2753.24	108238.00	0.025 [1]
T3	261.75 - 258	1 3/4	3.75	3.75	102.9	2.4053	1189.91	108238.00	0.011 [1]
T4	258 - 254	1 3/4	4.00	4.00	109.7	2.4053	5944.50	108238.00	0.055 [1]
T5	254 - 250	1 3/4	4.00	4.00	109.7	2.4053	11308.00	108238.00	0.104 [1]
T6	250 - 246	1 3/4	4.00	2.00	54.9	2.4053	16568.10	108238.00	0.153 [1]
T7	246 - 242	1 3/4	4.00	2.00	54.9	2.4053	20850.70	108238.00	0.193 [1]
T8	242 - 238	1 3/4	4.00	2.00	54.9	2.4053	25348.80	108238.00	0.234 [1]
T9	238 - 234	1 3/4	4.00	2.00	54.9	2.4053	28087.00	108238.00	0.259 [1]
T10	234 - 230	1 3/4	4.00	2.00	54.9	2.4053	28849.10	108238.00	0.267 [1]
T11	230 - 226	1 3/4	4.00	2.00	54.9	2.4053	28149.90	108238.00	0.260 [1]
T12	226 - 222	1 3/4	4.00	2.00	54.9	2.4053	28083.00	108238.00	0.259 [1]
T13	222 - 206	2	16.00	4.00	96.0	3.1416	25085.30	141372.00	0.177 [1]
T17	194 - 182	2	12.00	4.00	96.0	3.1416	991.27	141372.00	0.007 [1]
T18	182 - 162	2	20.00	4.00	96.0	3.1416	547.55	141372.00	0.004 [1]
T25	138 - 134	2	4.00	2.00	48.0	3.1416	3018.32	141372.00	0.021 [1]
T26	134 - 130	2	4.00	2.00	48.0	3.1416	14241.00	141372.00	0.101 [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 lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
T1	276 - 265.5	L1 3/4x1 3/4x3/16	5.32	5.12	114.5	0.6211	675.49	20123.40	0.034 [1]
T2	265.5 - 261.75	L1 3/4x1 3/4x3/16	5.48	5.28	118.1	0.6211	2943.34	20123.40	0.146 [1]
T3	261.75 - 258	L1 3/4x1 3/4x3/16	5.48	2.64	59.0	0.6211	5060.03	20123.40	0.251 [1]
T4	258 - 254	L1 3/4x1 3/4x3/16	5.66	5.45	121.8	0.6211	5569.13	20123.40	0.277 [1]
T5	254 - 250	L1 3/4x1 3/4x3/16	5.66	5.45	121.8	0.6211	5155.82	20123.40	0.256 [1]
T6	250 - 246	L1 3/4x1 3/4x3/16	5.66	5.45	121.8	0.6211	4689.84	20123.40	0.233 [1]
T7	246 - 242	L1 3/4x1 3/4x3/16	5.66	5.45	121.8	0.6211	4387.85	20123.40	0.218 [1]
T8	242 - 238	L1 3/4x1 3/4x3/16	5.66	5.45	121.8	0.6211	4198.25	20123.40	0.209 [1]
T9	238 - 234	L1 3/4x1 3/4x3/16	5.66	5.45	121.8	0.6211	2672.47	20123.40	0.133 [1]

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
T10	234 - 230	L1 3/4x1 3/4x3/16	5.66	5.45	121.8	0.6211	1933.63	20123.40	0.096 [1]
T11	230 - 226	L1 3/4x1 3/4x3/16	5.66	5.45	121.8	0.6211	2255.84	20123.40	0.112 [1]
T12	226 - 222	L1 3/4x1 3/4x3/16	5.66	5.45	121.8	0.6211	2209.46	20123.40	0.110 [1]
T13	222 - 206	L2 1/2x2 1/2x1/4	5.66	5.42	84.6	1.1900	9029.37	38556.00	0.234 [1]
T14	206 - 202	L2 1/2x2 1/2x3/8	5.66	5.42	86.4	1.7300	11241.60	56052.00	0.201 [1]
T15	202 - 198	L2 1/2x2 1/2x3/8	5.66	2.71	43.2	1.7300	3763.80	56052.00	0.067 [1]
T16	198 - 194	L2 1/2x2 1/2x3/8	5.66	5.42	86.4	1.7300	5486.57	56052.00	0.098 [1]
T17	194 - 182	L2 1/2x2 1/2x1/4	5.66	5.42	84.6	1.1900	4991.32	38556.00	0.129 [1]
T18	182 - 162	L2x2x1/4	5.66	5.42	106.8	0.9380	6336.59	30391.20	0.209 [1]
T19	162 - 158	L2x2x1/4	5.66	5.42	106.8	0.9380	7330.07	30391.20	0.241 [1]
T20	158 - 154	L2x2x1/4	5.66	5.42	106.8	0.9380	7408.33	30391.20	0.244 [1]
T21	154 - 150	L2x2x1/4	5.66	5.42	106.8	0.9380	8465.48	30391.20	0.279 [1]
T22	150 - 146	L2x2x1/4	5.66	5.42	106.8	0.9380	8482.54	30391.20	0.279 [1]
T23	146 - 142	L2x2x3/8	5.66	5.18	109.5	0.8091	9496.04	35194.20	0.270 [1]
T24	142 - 138	L2x2x3/8	5.66	5.18	109.5	0.8091	9486.56	35194.20	0.270 [1]
T25	138 - 134	L2x2x3/8	5.66	5.18	109.5	0.8091	10481.20	35194.20	0.298 [1]
T26	134 - 130	L2x2x3/8	5.66	5.18	109.5	0.8091	10422.60	35194.20	0.296 [1]
T27	130 - 126	L2x2x1/4	5.66	5.42	106.8	0.9380	6906.94	30391.20	0.227 [1]
T28	126 - 122	L2x2x1/4	5.66	5.42	106.8	0.9380	6343.94	30391.20	0.209 [1]
T29	122 - 118	L2x2x1/4	5.66	5.42	106.8	0.9380	5772.76	30391.20	0.190 [1]
T30	118 - 114	L2x2x1/4	5.66	5.42	106.8	0.9380	5070.72	30391.20	0.167 [1]
T31	114 - 110	L2x2x1/4	5.66	5.42	106.8	0.9380	4563.18	30391.20	0.150 [1]
T32	110 - 106	L2x2x1/4	5.66	5.42	106.8	0.9380	3823.09	30391.20	0.126 [1]
T33	106 - 102	L2x2x1/4	5.66	5.42	106.8	0.9380	3404.76	30391.20	0.112 [1]
T34	102 - 98	L2x2x3/16	5.66	5.42	105.4	0.7150	2546.91	23166.00	0.110 [1]
T35	98 - 94	L2x2x3/16	5.66	5.42	105.4	0.7150	2111.43	23166.00	0.091 [1]
T36	94 - 90	L2x2x3/16	5.66	5.42	105.4	0.7150	1324.26	23166.00	0.057 [1]
T37	90 - 86	L2x2x3/16	5.66	5.42	105.4	0.7150	1166.56	23166.00	0.050 [1]
T38	86 - 82	L2x2x3/16	5.66	5.42	105.4	0.7150	1747.73	23166.00	0.075 [1]
T39	82 - 78	L2x2x3/16	5.66	5.42	105.4	0.7150	2313.20	23166.00	0.100 [1]
T40	78 - 74	L2x2x3/16	5.66	5.42	105.4	0.7150	2902.22	23166.00	0.125 [1]
T41	74 - 70	L2x2x1/4	5.66	5.18	106.8	0.5629	3397.87	24485.10	0.139 [1]
T42	70 - 66	L2x2x1/4	5.66	5.18	106.8	0.5629	4011.95	24485.10	0.164 [1]
T43	66 - 62	L2x2x1/4	5.66	5.18	106.8	0.5629	4386.96	24485.10	0.179 [1]
T44	62 - 58	L2x2x1/4	5.66	5.18	106.8	0.5629	5078.73	24485.10	0.207 [1]
T45	58 - 54	L2x2x1/4	5.66	5.18	106.8	0.5629	4649.85	24485.10	0.190 [1]
T46	54 - 50	L2x2x1/4	5.66	5.18	106.8	0.5629	3872.77	24485.10	0.158 [1]
T47	50 - 46	L2x2x1/4	5.66	5.18	106.8	0.5629	3410.12	24485.10	0.139 [1]
T48	46 - 42	L2x2x3/16	5.66	5.42	105.4	0.7150	2651.52	23166.00	0.114 [1]
T49	42 - 38	L2x2x3/16	5.66	5.42	105.4	0.7150	2215.81	23166.00	0.096 [1]
T50	38 - 34	L2x2x3/16	5.66	5.42	105.4	0.7150	1497.09	23166.00	0.065 [1]
T51	34 - 30	L2x2x3/16	5.66	5.42	105.4	0.7150	1097.99	23166.00	0.047 [1]
T52	30 - 26	L2x2x3/16	5.66	5.42	105.4	0.7150	392.41	23166.00	0.017 [1]
T53	26 - 22	L2x2x3/16	5.66	5.42	105.4	0.7150	217.96	23166.00	0.009 [1]
T54	22 - 18	L2x2x1/4	5.66	5.42	106.8	0.9380	939.71	30391.20	0.031 [1]
T55	18 - 14	L2x2x1/4	5.66	5.42	106.8	0.9380	1273.61	30391.20	0.042 [1]
T56	14 - 10	L2x2x1/4	5.66	5.42	106.8	0.9380	1861.63	30391.20	0.061 [1]
T57	10 - 6	L2x2x1/4	5.66	5.42	106.8	0.9380	2281.00	30391.20	0.075 [1]
T58	6 - 2	L2x2x1/4	5.66	5.42	106.8	0.9380	2533.65	30391.20	0.083 [1]

[1] P_u / ϕP_n controls

Horizontal Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
T1	276 - 265.5	L2x2x3/16	4.00	3.85	75.0	0.7150	183.82	23166.00	0.008 [1]
T13	222 - 206	L2x2x3/16	4.00	3.83	74.6	0.7150	1492.46	23166.00	0.064 [1]
T17	194 - 182	L2x2x3/16	4.00	3.83	74.6	0.7150	1626.73	23166.00	0.070 [1]
T18	182 - 162	L2x2x3/16	4.00	3.83	74.6	0.7150	1636.84	23166.00	0.071 [1]
T25	138 - 134	L2 1/2x2 1/2x1/4	4.00	3.83	59.8	1.1900	1950.51	38556.00	0.051 [1]
T26	134 - 130	L2 1/2x2 1/2x1/4	4.00	3.83	59.8	1.1900	2219.81	38556.00	0.058 [1]
T27	130 - 126	L2 1/2x2 1/2x1/4	4.00	3.83	59.8	1.1900	12137.70	38556.00	0.315 [1]
T28	126 - 122	L2 1/2x2 1/2x1/4	4.00	3.83	59.8	1.1900	2110.80	38556.00	0.055 [1]

[1] P_u / ϕP_n controls

Secondary Horizontal Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
T6	250 - 246	1 1/4	4.00	3.85	148.0	1.2272	1208.76	39760.80	0.030 [1]
T7	246 - 242	1 1/4	4.00	3.85	148.0	1.2272	1289.08	39760.80	0.032 [1]
T8	242 - 238	1 1/4	4.00	3.85	148.0	1.2272	1397.74	39760.80	0.035 [1]
T9	238 - 234	1 1/4	4.00	3.85	148.0	1.2272	1446.71	39760.80	0.036 [1]
T10	234 - 230	1 1/4	4.00	3.85	148.0	1.2272	1482.07	39760.80	0.037 [1]
T11	230 - 226	1 1/4	4.00	3.85	148.0	1.2272	1419.78	39760.80	0.036 [1]
T12	226 - 222	1 1/4	4.00	3.85	148.0	1.2272	1426.62	39760.80	0.036 [1]
T25	138 - 134	1 1/4	4.00	3.83	147.2	1.2272	1950.51	39760.80	0.049 [1]
T26	134 - 130	1 1/4	4.00	3.83	147.2	1.2272	2219.81	39760.80	0.056 [1]
T27	130 - 126	L2x2x3/16	4.00	3.83	74.6	0.7150	2318.98	23166.00	0.100 [1]
T28	126 - 122	1 1/4	4.00	3.83	147.2	1.2272	2110.80	39760.80	0.053 [1]
T29	122 - 118	1 1/4	4.00	3.83	147.2	1.2272	1990.11	39760.80	0.050 [1]
T30	118 - 114	1 1/4	4.00	3.83	147.2	1.2272	1820.67	39760.80	0.046 [1]
T34	102 - 98	L2x2x3/16	4.00	3.83	74.6	0.7150	1462.54	23166.00	0.063 [1]
T35	98 - 94	L2x2x3/16	4.00	3.83	74.6	0.7150	1446.00	23166.00	0.062 [1]
T36	94 - 90	L2x2x3/16	4.00	3.83	74.6	0.7150	1405.13	23166.00	0.061 [1]
T37	90 - 86	L2x2x3/16	4.00	3.83	74.6	0.7150	1428.63	23166.00	0.062 [1]
T38	86 - 82	L2x2x3/16	4.00	3.83	74.6	0.7150	1433.72	23166.00	0.062 [1]
T39	82 - 78	L2x2x3/16	4.00	3.83	74.6	0.7150	1495.79	23166.00	0.065 [1]
T40	78 - 74	L2x2x3/16	4.00	3.83	74.6	0.7150	1545.46	23166.00	0.067 [1]
T41	74 - 70	L2x2x3/16	4.00	3.83	74.6	0.7150	1644.48	23166.00	0.071 [1]
T42	70 - 66	L2x2x3/16	4.00	3.83	74.6	0.7150	1736.94	23166.00	0.075 [1]
T43	66 - 62	L2x2x3/16	4.00	3.83	74.6	0.7150	1870.21	23166.00	0.081 [1]
T44	62 - 58	L2x2x3/16	4.00	3.83	74.6	0.7150	1850.79	23166.00	0.080 [1]
T45	58 - 54	L2x2x3/16	4.00	3.83	74.6	0.7150	1722.39	23166.00	0.074 [1]
T46	54 - 50	L2x2x3/16	4.00	3.83	74.6	0.7150	1582.99	23166.00	0.068 [1]
T47	50 - 46	L2x2x3/16	4.00	3.83	74.6	0.7150	1542.21	23166.00	0.067 [1]
T48	46 - 42	L2x2x3/16	4.00	3.83	74.6	0.7150	1581.06	23166.00	0.068 [1]
T49	42 - 38	L2 1/2x2 1/2x1/4	4.00	3.83	59.8	1.1900	1618.59	38556.00	0.042 [1]
T50	38 - 34	L2 1/2x2 1/2x1/4	4.00	3.83	59.8	1.1900	1633.91	38556.00	0.042 [1]
T51	34 - 30	L2 1/2x2 1/2x1/4	4.00	3.83	59.8	1.1900	1660.61	38556.00	0.043 [1]
T52	30 - 26	L2 1/2x2 1/2x1/4	4.00	3.83	59.8	1.1900	1659.96	38556.00	0.043 [1]
T53	26 - 22	L2 1/2x2 1/2x1/4	4.00	3.83	59.8	1.1900	1669.50	38556.00	0.043 [1]
T54	22 - 18	L2 1/2x2 1/2x1/4	4.00	3.83	59.8	1.1900	1675.32	38556.00	0.043 [1]
T55	18 - 14	L2 1/2x2 1/2x1/4	4.00	3.83	59.8	1.1900	1674.39	38556.00	0.043 [1]
T56	14 - 10	L2 1/2x2 1/2x1/4	4.00	3.83	59.8	1.1900	1669.14	38556.00	0.043 [1]
T57	10 - 6	L2 1/2x2 1/2x1/4	4.00	3.83	59.8	1.1900	1657.63	38556.00	0.043 [1]
T58	6 - 2	L2 1/2x2 1/2x1/4	4.00	3.83	59.8	1.1900	1639.77	38556.00	0.043 [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 lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
T1	276 - 265.5	L2x2x3/16	4.00	3.85	75.0	0.7150	69.70	23166.00	0.003 [1]
T2	265.5 - 261.75	L2x2x3/16	4.00	3.85	75.0	0.7150	1049.88	23166.00	0.045 [1]
T4	258 - 254	L2x2x3/16	4.00	3.85	75.0	0.7150	978.63	23166.00	0.042 [1]
T5	254 - 250	L2x2x3/16	4.00	3.85	75.0	0.7150	1090.04	23166.00	0.047 [1]
T6	250 - 246	L2x2x3/16	4.00	3.85	75.0	0.7150	1208.76	23166.00	0.052 [1]
T7	246 - 242	L2x2x3/16	4.00	3.85	75.0	0.7150	1289.08	23166.00	0.056 [1]
T8	242 - 238	L2x2x3/16	4.00	3.85	75.0	0.7150	1397.74	23166.00	0.060 [1]
T9	238 - 234	L2x2x3/16	4.00	3.85	75.0	0.7150	1446.71	23166.00	0.062 [1]
T10	234 - 230	L2x2x3/16	4.00	3.85	75.0	0.7150	1482.07	23166.00	0.064 [1]
T11	230 - 226	L2x2x3/16	4.00	3.85	75.0	0.7150	1419.78	23166.00	0.061 [1]
T12	226 - 222	L2x2x3/16	4.00	3.85	75.0	0.7150	1426.62	23166.00	0.062 [1]
T13	222 - 206	L2x2x3/16	4.00	3.83	74.6	0.7150	1219.00	23166.00	0.053 [1]
T14	206 - 202	L2x2x3/16	4.00	3.83	74.6	0.7150	832.38	23166.00	0.036 [1]
T16	198 - 194	L2x2x3/16	4.00	3.83	74.6	0.7150	2724.89	23166.00	0.118 [1]
T17	194 - 182	L2x2x3/16	4.00	3.83	74.6	0.7150	1626.73	23166.00	0.070 [1]
T18	182 - 162	L2x2x3/16	4.00	3.83	74.6	0.7150	1636.84	23166.00	0.071 [1]
T19	162 - 158	L2x2x3/16	4.00	3.83	74.6	0.7150	1358.34	23166.00	0.059 [1]
T20	158 - 154	L2x2x3/16	4.00	3.83	74.6	0.7150	1253.08	23166.00	0.054 [1]
T21	154 - 150	L2x2x3/16	4.00	3.83	74.6	0.7150	1175.36	23166.00	0.051 [1]
T22	150 - 146	L2x2x3/16	4.00	3.83	74.6	0.7150	1137.26	23166.00	0.049 [1]
T23	146 - 142	L2x2x3/16	4.00	3.83	74.6	0.7150	1407.60	23166.00	0.061 [1]
T24	142 - 138	L2x2x3/16	4.00	3.83	74.6	0.7150	1636.95	23166.00	0.071 [1]
T29	122 - 118	L2x2x3/16	4.00	3.83	74.6	0.7150	1990.11	23166.00	0.086 [1]
T30	118 - 114	L2x2x3/16	4.00	3.83	74.6	0.7150	1820.67	23166.00	0.079 [1]
T31	114 - 110	L2x2x3/16	4.00	3.83	74.6	0.7150	1732.68	23166.00	0.075 [1]
T32	110 - 106	L2x2x3/16	4.00	3.83	74.6	0.7150	1603.78	23166.00	0.069 [1]
T33	106 - 102	L2x2x3/16	4.00	3.83	74.6	0.7150	1549.56	23166.00	0.067 [1]
T34	102 - 98	L2x2x3/16	4.00	3.83	74.6	0.7150	1462.54	23166.00	0.063 [1]
T35	98 - 94	L2x2x3/16	4.00	3.83	74.6	0.7150	1446.00	23166.00	0.062 [1]
T36	94 - 90	L2x2x3/16	4.00	3.83	74.6	0.7150	1405.13	23166.00	0.061 [1]
T37	90 - 86	L2x2x3/16	4.00	3.83	74.6	0.7150	1428.63	23166.00	0.062 [1]
T38	86 - 82	L2x2x3/16	4.00	3.83	74.6	0.7150	1433.72	23166.00	0.062 [1]
T39	82 - 78	L2x2x3/16	4.00	3.83	74.6	0.7150	1495.79	23166.00	0.065 [1]
T40	78 - 74	L2x2x3/16	4.00	3.83	74.6	0.7150	1545.46	23166.00	0.067 [1]
T41	74 - 70	L2x2x3/16	4.00	3.83	74.6	0.7150	1644.48	23166.00	0.071 [1]
T42	70 - 66	L2x2x3/16	4.00	3.83	74.6	0.7150	1736.94	23166.00	0.075 [1]
T43	66 - 62	L2x2x3/16	4.00	3.83	74.6	0.7150	1870.21	23166.00	0.081 [1]
T44	62 - 58	L2 1/2x2 1/2x1/4	4.00	3.83	59.8	1.1900	7497.88	38556.00	0.194 [1]
T45	58 - 54	L2x2x3/16	4.00	3.83	74.6	0.7150	1722.39	23166.00	0.074 [1]
T46	54 - 50	L2x2x3/16	4.00	3.83	74.6	0.7150	1582.99	23166.00	0.068 [1]
T47	50 - 46	L2x2x3/16	4.00	3.83	74.6	0.7150	1542.21	23166.00	0.067 [1]
T48	46 - 42	L2x2x3/16	4.00	3.83	74.6	0.7150	1581.06	23166.00	0.068 [1]
T49	42 - 38	L2x2x3/16	4.00	3.83	74.6	0.7150	1618.59	23166.00	0.070 [1]
T50	38 - 34	L2x2x3/16	4.00	3.83	74.6	0.7150	1633.91	23166.00	0.071 [1]
T51	34 - 30	L2x2x3/16	4.00	3.83	74.6	0.7150	1660.61	23166.00	0.072 [1]
T52	30 - 26	L2x2x3/16	4.00	3.83	74.6	0.7150	1659.96	23166.00	0.072 [1]
T53	26 - 22	L2x2x3/16	4.00	3.83	74.6	0.7150	1669.50	23166.00	0.072 [1]
T54	22 - 18	L2x2x3/16	4.00	3.83	74.6	0.7150	1675.32	23166.00	0.072 [1]
T55	18 - 14	L2x2x3/16	4.00	3.83	74.6	0.7150	1674.39	23166.00	0.072 [1]
T56	14 - 10	L2x2x3/16	4.00	3.83	74.6	0.7150	1669.14	23166.00	0.072 [1]
T57	10 - 6	L2x2x3/16	4.00	3.83	74.6	0.7150	1657.63	23166.00	0.072 [1]
T58	6 - 2	L2x2x3/16	4.00	3.83	74.6	0.7150	1639.77	23166.00	0.071 [1]

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

[1] P_u / ϕP_n controls

Top Guy Pull-Off Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
T3	261.75 - 258	L2 1/2x2 1/2x3/8	4.00	3.85	61.4	1.7300	10045.30	56052.00	0.179 [1]
T15	202 - 198	L2 1/2x2 1/2x3/8	4.00	3.83	61.1	1.7300	18488.10	56052.00	0.330 [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 lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
T3	261.75 - 258 (711)	L3 1/2x3 1/2x3/8	6.11	6.04	67.7	2.4800	18220.90	80352.00	0.227 [1]
T3	261.75 - 258 (712)	L3 1/2x3 1/2x3/8	6.11	6.04	67.7	2.4800	20194.40	80352.00	0.251 [1]
T3	261.75 - 258 (717)	L3 1/2x3 1/2x3/8	6.11	6.04	67.7	2.4800	19930.30	80352.00	0.248 [1]
T3	261.75 - 258 (718)	L3 1/2x3 1/2x3/8	6.11	6.04	67.7	2.4800	20217.00	80352.00	0.252 [1]
T3	261.75 - 258 (723)	L3 1/2x3 1/2x3/8	6.11	6.04	67.7	2.4800	21081.70	80352.00	0.262 [1]
T3	261.75 - 258 (724)	L3 1/2x3 1/2x3/8	6.11	6.04	67.7	2.4800	20190.70	80352.00	0.251 [1]
T15	202 - 198 (729)	L3 1/2x3 1/2x3/8	6.11	6.03	67.6	2.4800	22532.30	80352.00	0.280 [1]
T15	202 - 198 (730)	L3 1/2x3 1/2x3/8	6.11	6.03	67.6	2.4800	22581.90	80352.00	0.281 [1]
T15	202 - 198 (735)	L3 1/2x3 1/2x3/8	6.11	6.03	67.6	2.4800	22018.60	80352.00	0.274 [1]
T15	202 - 198 (736)	L3 1/2x3 1/2x3/8	6.11	6.03	67.6	2.4800	24826.60	80352.00	0.309 [1]
T15	202 - 198 (741)	L3 1/2x3 1/2x3/8	6.11	6.03	67.6	2.4800	23675.10	80352.00	0.295 [1]
T15	202 - 198 (742)	L3 1/2x3 1/2x3/8	6.11	6.03	67.6	2.4800	24973.50	80352.00	0.311 [1]

[1] P_u / ϕP_n controls

Section Capacity Table

Section No.	Elevation ft	Component Type	Size	Critical Element	P lb	ϕP_{allow} lb	% Capacity	Pass Fail
T1	276 - 265.5	Leg	1 3/4	1	-1925.13	55173.40	3.5	Pass
T2	265.5 - 261.75	Leg	1 3/4	24	-4253.27	49937.80	8.5	Pass
T3	261.75 - 258	Leg	1 3/4	31	-3035.43	49937.80	6.1	Pass
T4	258 - 254	Leg	1 3/4	44	-36396.30	44889.40	81.1	Pass

Section No.	Elevation ft	Component Type	Size	Critical Element	P lb	ϕP_{allow} lb	% Capacity	Pass Fail
T5	254 - 250	Leg	1 3/4	54	-40540.00	44889.40	90.3	Pass
T6	250 - 246	Leg	1 3/4	62	-44955.20	86860.00	51.8	Pass
T7	246 - 242	Leg	1 3/4	75	-47942.70	86860.00	55.2	Pass
T8	242 - 238	Leg	1 3/4	86	-51983.90	86860.00	59.8	Pass
T9	238 - 234	Leg	1 3/4	99	-53804.90	86860.00	61.9	Pass
T10	234 - 230	Leg	1 3/4	110	-55120.10	86860.00	63.5	Pass
T11	230 - 226	Leg	1 3/4	123	-52803.50	86860.00	60.8	Pass
T12	226 - 222	Leg	1 3/4	134	-53057.60	86860.00	61.1	Pass
T13	222 - 206	Leg	2	146	-50270.90	72063.20	69.8	Pass
T14	206 - 202	Leg	2	172	-33687.10	72063.20	46.7	Pass
T15	202 - 198	Leg	2	183	-23570.80	72063.20	32.7	Pass
T16	198 - 194	Leg	2	194	-57442.50	72063.20	79.7	Pass
T17	194 - 182	Leg	2	203	-67085.10	72063.20	93.1	Pass
T18	182 - 162	Leg	2	224	-67501.90	72063.20	93.7	Pass
T19	162 - 158	Leg	2	257	-56016.80	72063.20	77.7	Pass
T20	158 - 154	Leg	2	265	-51676.20	72063.20	71.7	Pass
T21	154 - 150	Leg	2	275	-48471.10	72063.20	67.3	Pass
T22	150 - 146	Leg	2	283	-46899.70	72063.20	65.1	Pass
T23	146 - 142	Leg	2	292	-58048.30	72063.20	80.6	Pass
T24	142 - 138	Leg	2	301	-67506.70	72063.20	93.7	Pass
T25	138 - 134	Leg	2	310	-80437.60	119454.00	67.3	Pass
T26	134 - 130	Leg	2	322	-91543.60	119454.00	76.6	Pass
T27	130 - 126	Leg	2	334	-95633.10	119454.00	80.1	Pass
T28	126 - 122	Leg	2	346	-87048.10	119454.00	72.9	Pass
T29	122 - 118	Leg	2	358	-82070.60	119454.00	68.7	Pass
T30	118 - 114	Leg	2	370	-75083.00	119454.00	62.9	Pass
T31	114 - 110	Leg	2	382	-71454.40	72063.20	99.2	Pass
T32	110 - 106	Leg	2	391	-66138.60	72063.20	91.8	Pass
T33	106 - 102	Leg	2	400	-63902.60	72063.20	88.7	Pass
T34	102 - 98	Leg	2	409	-60314.00	119454.00	50.5	Pass
T35	98 - 94	Leg	2	421	-59632.00	119454.00	49.9	Pass
T36	94 - 90	Leg	2	433	-57946.80	119454.00	48.5	Pass
T37	90 - 86	Leg	2	445	-58915.60	119454.00	49.3	Pass
T38	86 - 82	Leg	2	457	-59125.50	119454.00	49.5	Pass
T39	82 - 78	Leg	2	469	-61685.50	119454.00	51.6	Pass
T40	78 - 74	Leg	2	481	-63733.90	119454.00	53.4	Pass
T41	74 - 70	Leg	2	493	-67817.30	119454.00	56.8	Pass
T42	70 - 66	Leg	2	505	-71630.20	119454.00	60.0	Pass
T43	66 - 62	Leg	2	517	-77126.00	119454.00	64.6	Pass
T44	62 - 58	Leg	2	529	-76325.10	119454.00	63.9	Pass
T45	58 - 54	Leg	2	541	-71030.30	119454.00	59.5	Pass
T46	54 - 50	Leg	2	553	-65281.60	119454.00	54.7	Pass
T47	50 - 46	Leg	2	567	-63599.80	119454.00	53.2	Pass
T48	46 - 42	Leg	2	577	-65201.90	119454.00	54.6	Pass
T49	42 - 38	Leg	2	591	-66749.60	119454.00	55.9	Pass
T50	38 - 34	Leg	2	601	-67381.10	119454.00	56.4	Pass
T51	34 - 30	Leg	2	615	-68482.30	119454.00	57.3	Pass
T52	30 - 26	Leg	2	627	-68455.50	119454.00	57.3	Pass
T53	26 - 22	Leg	2	639	-68849.00	119454.00	57.6	Pass
T54	22 - 18	Leg	2	651	-69089.00	119454.00	57.8	Pass
T55	18 - 14	Leg	2	663	-69050.80	119454.00	57.8	Pass
T56	14 - 10	Leg	2	675	-68834.40	119454.00	57.6	Pass
T57	10 - 6	Leg	2	686	-68359.50	119454.00	57.2	Pass
T58	6 - 2	Leg	2	698	-67623.00	119454.00	56.6	Pass
T1	276 - 265.5	Diagonal	L1 3/4x1 3/4x3/16	7	-691.80	7281.78	9.5	Pass
T2	265.5 - 261.75	Diagonal	L1 3/4x1 3/4x3/16	30	-2998.28	6968.34	43.0	Pass
T3	261.75 - 258	Diagonal	L1 3/4x1 3/4x3/16	39	-5752.06	15437.80	37.3	Pass
T4	258 - 254	Diagonal	L1 3/4x1 3/4x3/16	50	-5776.72	6664.44	86.7	Pass
T5	254 - 250	Diagonal	L1 3/4x1 3/4x3/16	59	-5130.61	6664.44	77.0	Pass
T6	250 - 246	Diagonal	L1 3/4x1 3/4x3/16	68	-4919.76	6664.44	73.8	Pass
T7	246 - 242	Diagonal	L1 3/4x1 3/4x3/16	80	-4350.76	6664.44	65.3	Pass

Section No.	Elevation ft	Component Type	Size	Critical Element	P lb	ϕP_{allow} lb	% Capacity	Pass Fail
T8	242 - 238	Diagonal	L1 3/4x1 3/4x3/16	92	-4420.96	6664.44	66.3	Pass
T9	238 - 234	Diagonal	L1 3/4x1 3/4x3/16	104	-2620.30	6664.44	39.3	Pass
T10	234 - 230	Diagonal	L1 3/4x1 3/4x3/16	117	-2244.92	6664.44	33.7	Pass
T11	230 - 226	Diagonal	L1 3/4x1 3/4x3/16	127	-2223.76	6664.44	33.4	Pass
T12	226 - 222	Diagonal	L1 3/4x1 3/4x3/16	141	-2464.45	6664.44	37.0	Pass
T13	222 - 206	Diagonal	L2 1/2x2 1/2x1/4	153	-9538.51	20892.00	45.7	Pass
T14	206 - 202	Diagonal	L2 1/2x2 1/2x3/8	180	-11069.40	30056.40	36.8	Pass
T15	202 - 198	Diagonal	L2 1/2x2 1/2x3/8	191	-9804.59	49717.40	19.7	Pass
T16	198 - 194	Diagonal	L2 1/2x2 1/2x3/8	200	-5837.17	30056.40	19.4	Pass
T17	194 - 182	Diagonal	L2 1/2x2 1/2x1/4	222	-5216.48	20892.00	25.0	Pass
T18	182 - 162	Diagonal	L2x2x1/4	229	-7186.33	12170.70	59.0	Pass
T19	162 - 158	Diagonal	L2x2x1/4	262	-7166.67	12170.70	58.9	Pass
T20	158 - 154	Diagonal	L2x2x1/4	271	-8271.53	12170.70	68.0	Pass
T21	154 - 150	Diagonal	L2x2x1/4	280	-8312.01	12170.70	68.3	Pass
T22	150 - 146	Diagonal	L2x2x1/4	289	-9340.62	12170.70	76.7	Pass
T23	146 - 142	Diagonal	L2x2x3/8	298	-9361.24	15235.30	61.4	Pass
T24	142 - 138	Diagonal	L2x2x3/8	307	-10318.20	15235.30	67.7	Pass
T25	138 - 134	Diagonal	L2x2x3/8	316	-10337.80	15235.30	67.9	Pass
T26	134 - 130	Diagonal	L2x2x3/8	328	-11197.40	15235.30	73.5	Pass
T27	130 - 126	Diagonal	L2x2x1/4	341	-7207.23	12170.70	59.2	Pass
T28	126 - 122	Diagonal	L2x2x1/4	353	-6705.64	12170.70	55.1	Pass
T29	122 - 118	Diagonal	L2x2x1/4	365	-6070.93	12170.70	49.9	Pass
T30	118 - 114	Diagonal	L2x2x1/4	377	-5562.51	12170.70	45.7	Pass
T31	114 - 110	Diagonal	L2x2x1/4	389	-4815.60	12170.70	39.6	Pass
T32	110 - 106	Diagonal	L2x2x1/4	398	-4375.54	12170.70	36.0	Pass
T33	106 - 102	Diagonal	L2x2x1/4	407	-3624.67	12170.70	29.8	Pass
T34	102 - 98	Diagonal	L2x2x3/16	416	-3140.42	9375.35	33.5	Pass
T35	98 - 94	Diagonal	L2x2x3/16	428	-2284.41	9375.35	24.4	Pass
T36	94 - 90	Diagonal	L2x2x3/16	440	-1809.45	9375.35	19.3	Pass
T37	90 - 86	Diagonal	L2x2x3/16	451	-1553.44	9375.35	16.6	Pass
T38	86 - 82	Diagonal	L2x2x3/16	463	-2150.53	9375.35	22.9	Pass
T39	82 - 78	Diagonal	L2x2x3/16	475	-2733.70	9375.35	29.2	Pass
T40	78 - 74	Diagonal	L2x2x3/16	487	-3271.49	9375.35	34.9	Pass
T41	74 - 70	Diagonal	L2x2x1/4	499	-3849.70	10616.20	36.3	Pass
T42	70 - 66	Diagonal	L2x2x1/4	511	-4329.04	10616.20	40.8	Pass
T43	66 - 62	Diagonal	L2x2x1/4	523	-4880.83	10616.20	46.0	Pass
T44	62 - 58	Diagonal	L2x2x1/4	536	-5587.76	10616.20	52.6	Pass
T45	58 - 54	Diagonal	L2x2x1/4	548	-4909.25	10616.20	46.2	Pass
T46	54 - 50	Diagonal	L2x2x1/4	560	-4412.50	10616.20	41.6	Pass
T47	50 - 46	Diagonal	L2x2x1/4	572	-3678.76	10616.20	34.7	Pass
T48	46 - 42	Diagonal	L2x2x3/16	584	-3209.87	9375.35	34.2	Pass
T49	42 - 38	Diagonal	L2x2x3/16	596	-2476.18	9375.35	26.4	Pass
T50	38 - 34	Diagonal	L2x2x3/16	608	-2062.32	9375.35	22.0	Pass
T51	34 - 30	Diagonal	L2x2x3/16	620	-1350.93	9375.35	14.4	Pass
T52	30 - 26	Diagonal	L2x2x3/16	632	-964.17	9375.35	10.3	Pass
T53	26 - 22	Diagonal	L2x2x3/16	643	-881.71	9375.35	9.4	Pass
T54	22 - 18	Diagonal	L2x2x1/4	657	-1153.70	12170.70	9.5	Pass
T55	18 - 14	Diagonal	L2x2x1/4	667	-1825.64	12170.70	15.0	Pass
T56	14 - 10	Diagonal	L2x2x1/4	681	-2213.76	12170.70	18.2	Pass
T57	10 - 6	Diagonal	L2x2x1/4	691	-2710.88	12170.70	22.3	Pass
T58	6 - 2	Diagonal	L2x2x1/4	705	-2953.66	12170.70	24.3	Pass
T1	276 - 265.5	Horizontal	L2x2x3/16	18	-186.65	14337.40	1.3	Pass
T13	222 - 206	Horizontal	L2x2x3/16	167	-1433.11	14398.30	10.0	Pass
T17	194 - 182	Horizontal	L2x2x3/16	211	-1626.73	14398.30	11.3	Pass
T18	182 - 162	Horizontal	L2x2x3/16	238	-1636.84	14398.30	11.4	Pass
T25	138 - 134	Horizontal	L2 1/2x2 1/2x1/4	315	-1950.51	27462.40	7.1	Pass
T26	134 - 130	Horizontal	L2 1/2x2 1/2x1/4	327	-2219.81	27462.40	8.1	Pass
T27	130 - 126	Horizontal	L2 1/2x2 1/2x1/4	338	12137.70	38556.00	31.5	Pass
T28	126 - 122	Horizontal	L2 1/2x2 1/2x1/4	351	-2110.80	27462.40	7.7	Pass
T6	250 - 246	Secondary Horizontal	1 1/4	70	-1208.76	22597.80	5.3	Pass
T7	246 - 242	Secondary Horizontal	1 1/4	83	-1289.08	22597.80	5.7	Pass

Section No.	Elevation ft	Component Type	Size	Critical Element	P lb	ϕP_{allow} lb	% Capacity	Pass Fail
T8	242 - 238	Secondary Horizontal	1 1/4	94	-1397.74	22597.80	6.2	Pass
T9	238 - 234	Secondary Horizontal	1 1/4	107	-1446.71	22597.80	6.4	Pass
T10	234 - 230	Secondary Horizontal	1 1/4	118	-1482.07	22597.80	6.6	Pass
T11	230 - 226	Secondary Horizontal	1 1/4	131	-1419.78	22597.80	6.3	Pass
T12	226 - 222	Secondary Horizontal	1 1/4	142	-1426.62	22597.80	6.3	Pass
T25	138 - 134	Secondary Horizontal	1 1/4	321	-1950.51	22735.80	8.6	Pass
T26	134 - 130	Secondary Horizontal	1 1/4	333	-2219.81	22735.80	9.8	Pass
T27	130 - 126	Secondary Horizontal	L2x2x3/16	345	-2318.98	14398.30	16.1	Pass
T28	126 - 122	Secondary Horizontal	1 1/4	357	-2110.80	22735.80	9.3	Pass
T29	122 - 118	Secondary Horizontal	1 1/4	369	-1990.11	22735.80	8.8	Pass
T30	118 - 114	Secondary Horizontal	1 1/4	381	-1820.67	22735.80	8.0	Pass
T34	102 - 98	Secondary Horizontal	L2x2x3/16	420	-1462.54	14398.30	10.2	Pass
T35	98 - 94	Secondary Horizontal	L2x2x3/16	432	-1446.00	14398.30	10.0	Pass
T36	94 - 90	Secondary Horizontal	L2x2x3/16	444	-1405.13	14398.30	9.8	Pass
T37	90 - 86	Secondary Horizontal	L2x2x3/16	456	-1428.63	14398.30	9.9	Pass
T38	86 - 82	Secondary Horizontal	L2x2x3/16	468	-1433.72	14398.30	10.0	Pass
T39	82 - 78	Secondary Horizontal	L2x2x3/16	480	-1495.79	14398.30	10.4	Pass
T40	78 - 74	Secondary Horizontal	L2x2x3/16	492	-1545.46	14398.30	10.7	Pass
T41	74 - 70	Secondary Horizontal	L2x2x3/16	504	-1644.48	14398.30	11.4	Pass
T42	70 - 66	Secondary Horizontal	L2x2x3/16	516	-1736.94	14398.30	12.1	Pass
T43	66 - 62	Secondary Horizontal	L2x2x3/16	528	-1870.21	14398.30	13.0	Pass
T44	62 - 58	Secondary Horizontal	L2x2x3/16	540	-1850.79	14398.30	12.9	Pass
T45	58 - 54	Secondary Horizontal	L2x2x3/16	552	-1722.39	14398.30	12.0	Pass
T46	54 - 50	Secondary Horizontal	L2x2x3/16	564	-1582.99	14398.30	11.0	Pass
T47	50 - 46	Secondary Horizontal	L2x2x3/16	575	-1542.21	14398.30	10.7	Pass
T48	46 - 42	Secondary Horizontal	L2x2x3/16	588	-1581.06	14398.30	11.0	Pass
T49	42 - 38	Secondary Horizontal	L2 1/2x2 1/2x1/4	599	-1618.59	27462.40	5.9	Pass
T50	38 - 34	Secondary Horizontal	L2 1/2x2 1/2x1/4	612	-1633.91	27462.40	5.9	Pass
T51	34 - 30	Secondary Horizontal	L2 1/2x2 1/2x1/4	623	-1660.61	27462.40	6.0	Pass
T52	30 - 26	Secondary Horizontal	L2 1/2x2 1/2x1/4	635	-1659.96	27462.40	6.0	Pass
T53	26 - 22	Secondary Horizontal	L2 1/2x2 1/2x1/4	647	-1669.50	27462.40	6.1	Pass
T54	22 - 18	Secondary Horizontal	L2 1/2x2 1/2x1/4	659	-1675.32	27462.40	6.1	Pass
T55	18 - 14	Secondary Horizontal	L2 1/2x2 1/2x1/4	671	-1674.39	27462.40	6.1	Pass
T56	14 - 10	Secondary Horizontal	L2 1/2x2 1/2x1/4	683	-1669.14	27462.40	6.1	Pass
T57	10 - 6	Secondary Horizontal	L2 1/2x2 1/2x1/4	694	-1657.63	27462.40	6.0	Pass
T58	6 - 2	Secondary Horizontal	L2 1/2x2 1/2x1/4	706	-1639.77	27462.40	6.0	Pass
T1	276 - 265.5	Top Girt	L2x2x3/16	6	-77.19	14337.40	0.5	Pass
T2	265.5 - 261.75	Top Girt	L2x2x3/16	27	-862.21	14337.40	6.0	Pass
T4	258 - 254	Top Girt	L2x2x3/16	48	-3644.71	14337.40	25.4	Pass
T5	254 - 250	Top Girt	L2x2x3/16	56	-1090.04	14337.40	7.6	Pass
T6	250 - 246	Top Girt	L2x2x3/16	64	-1208.76	14337.40	8.4	Pass
T7	246 - 242	Top Girt	L2x2x3/16	77	-1289.08	14337.40	9.0	Pass
T8	242 - 238	Top Girt	L2x2x3/16	88	-1397.74	14337.40	9.7	Pass
T9	238 - 234	Top Girt	L2x2x3/16	101	-1446.71	14337.40	10.1	Pass
T10	234 - 230	Top Girt	L2x2x3/16	112	-1482.07	14337.40	10.3	Pass
T11	230 - 226	Top Girt	L2x2x3/16	125	-1419.78	14337.40	9.9	Pass
T12	226 - 222	Top Girt	L2x2x3/16	136	-1426.62	14337.40	10.0	Pass
T13	222 - 206	Top Girt	L2x2x3/16	148	-1219.00	14398.30	8.5	Pass
T14	206 - 202	Top Girt	L2x2x3/16	177	-816.87	14398.30	5.7	Pass
T16	198 - 194	Top Girt	L2x2x3/16	196	-2344.37	14398.30	16.3	Pass
T17	194 - 182	Top Girt	L2x2x3/16	205	-1626.73	14398.30	11.3	Pass
T18	182 - 162	Top Girt	L2x2x3/16	226	-1636.84	14398.30	11.4	Pass
T19	162 - 158	Top Girt	L2x2x3/16	259	-1358.34	14398.30	9.4	Pass
T20	158 - 154	Top Girt	L2x2x3/16	270	-1253.08	14398.30	8.7	Pass
T21	154 - 150	Top Girt	L2x2x3/16	277	-1175.36	14398.30	8.2	Pass
T22	150 - 146	Top Girt	L2x2x3/16	288	-1137.26	14398.30	7.9	Pass
T23	146 - 142	Top Girt	L2x2x3/16	297	-1407.60	14398.30	9.8	Pass
T24	142 - 138	Top Girt	L2x2x3/16	306	-1636.95	14398.30	11.4	Pass
T29	122 - 118	Top Girt	L2x2x3/16	363	-1990.11	14398.30	13.8	Pass
T30	118 - 114	Top Girt	L2x2x3/16	375	-1820.67	14398.30	12.6	Pass
T31	114 - 110	Top Girt	L2x2x3/16	387	-1732.68	14398.30	12.0	Pass

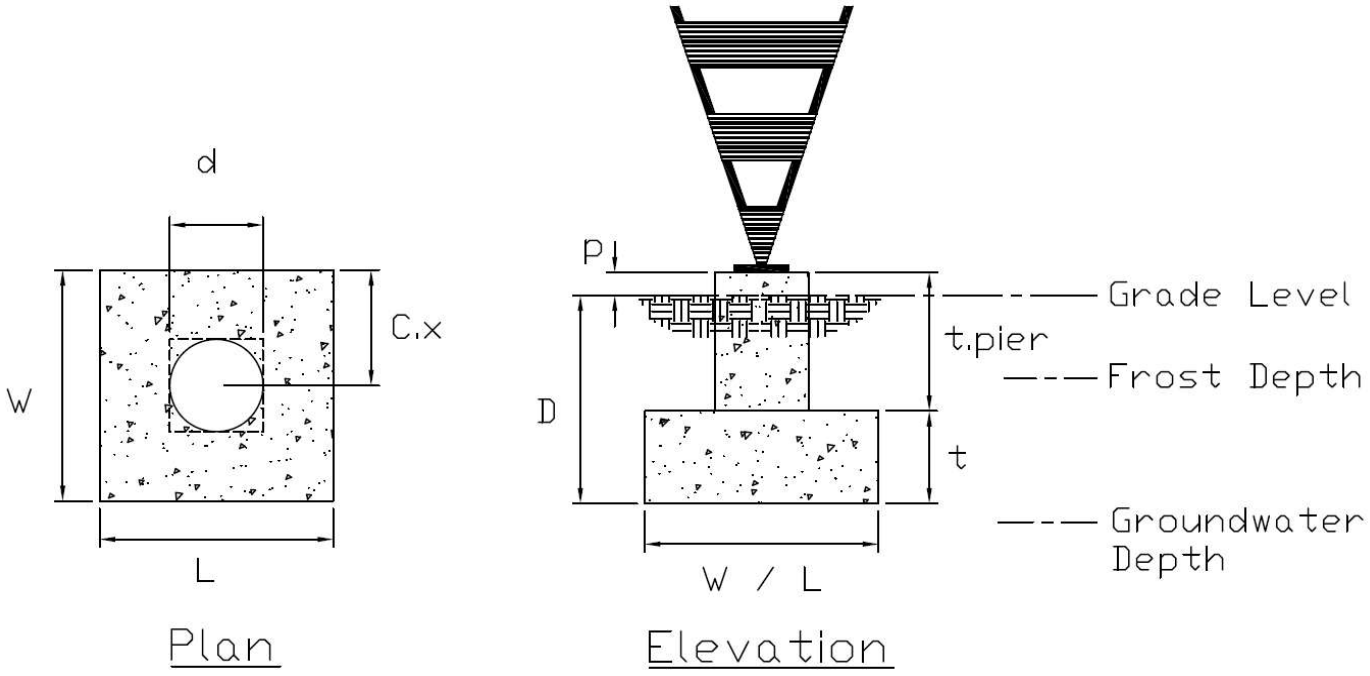
Section No.	Elevation ft	Component Type	Size	Critical Element	P lb	ϕP_{allow} lb	% Capacity	Pass Fail
T32	110 - 106	Top Girt	L2x2x3/16	396	-1603.78	14398.30	11.1	Pass
T33	106 - 102	Top Girt	L2x2x3/16	405	-1549.56	14398.30	10.8	Pass
T34	102 - 98	Top Girt	L2x2x3/16	414	-1462.54	14398.30	10.2	Pass
T35	98 - 94	Top Girt	L2x2x3/16	426	-1446.00	14398.30	10.0	Pass
T36	94 - 90	Top Girt	L2x2x3/16	438	-1405.13	14398.30	9.8	Pass
T37	90 - 86	Top Girt	L2x2x3/16	450	-1428.63	14398.30	9.9	Pass
T38	86 - 82	Top Girt	L2x2x3/16	462	-1433.72	14398.30	10.0	Pass
T39	82 - 78	Top Girt	L2x2x3/16	474	-1495.79	14398.30	10.4	Pass
T40	78 - 74	Top Girt	L2x2x3/16	486	-1545.46	14398.30	10.7	Pass
T41	74 - 70	Top Girt	L2x2x3/16	498	-1644.48	14398.30	11.4	Pass
T42	70 - 66	Top Girt	L2x2x3/16	510	-1736.94	14398.30	12.1	Pass
T43	66 - 62	Top Girt	L2x2x3/16	522	-1870.21	14398.30	13.0	Pass
T44	62 - 58	Top Girt	L2 1/2x2 1/2x1/4	533	7497.88	38556.00	19.4	Pass
T45	58 - 54	Top Girt	L2x2x3/16	546	-1722.39	14398.30	12.0	Pass
T46	54 - 50	Top Girt	L2x2x3/16	558	-1582.99	14398.30	11.0	Pass
T47	50 - 46	Top Girt	L2x2x3/16	569	-1542.21	14398.30	10.7	Pass
T48	46 - 42	Top Girt	L2x2x3/16	582	-1581.06	14398.30	11.0	Pass
T49	42 - 38	Top Girt	L2x2x3/16	593	-1618.59	14398.30	11.2	Pass
T50	38 - 34	Top Girt	L2x2x3/16	606	-1633.91	14398.30	11.3	Pass
T51	34 - 30	Top Girt	L2x2x3/16	617	-1660.61	14398.30	11.5	Pass
T52	30 - 26	Top Girt	L2x2x3/16	629	-1659.96	14398.30	11.5	Pass
T53	26 - 22	Top Girt	L2x2x3/16	641	-1669.50	14398.30	11.6	Pass
T54	22 - 18	Top Girt	L2x2x3/16	653	-1675.32	14398.30	11.6	Pass
T55	18 - 14	Top Girt	L2x2x3/16	665	-1674.39	14398.30	11.6	Pass
T56	14 - 10	Top Girt	L2x2x3/16	677	-1669.14	14398.30	11.6	Pass
T57	10 - 6	Top Girt	L2x2x3/16	688	-1657.63	14398.30	11.5	Pass
T58	6 - 2	Top Girt	L2x2x3/16	700	-1639.77	14398.30	11.4	Pass
T3	261.75 - 258	Guy A@261.75	9/16	722	15476.50	21000.00	73.7	Pass
T15	202 - 198	Guy A@202	9/16	740	18932.00	21000.00	90.2	Pass
T27	130 - 126	Guy A@130	3/4	747	27848.00	34980.00	79.6	Pass
T44	62 - 58	Guy A@62	9/16	750	13307.10	21000.00	63.4	Pass
T3	261.75 - 258	Guy B@261.75	9/16	716	15142.00	21000.00	72.1	Pass
T15	202 - 198	Guy B@202	9/16	734	19320.30	21000.00	92.0	Pass
T27	130 - 126	Guy B@130	3/4	746	28253.50	34980.00	80.8	Pass
T44	62 - 58	Guy B@62	9/16	749	13470.30	21000.00	64.1	Pass
T3	261.75 - 258	Guy C@261.75	9/16	709	14556.60	21000.00	69.3	Pass
T15	202 - 198	Guy C@202	9/16	727	17897.30	21000.00	85.2	Pass
T27	130 - 126	Guy C@130	3/4	745	26833.40	34980.00	76.7	Pass
T44	62 - 58	Guy C@62	9/16	748	13161.90	21000.00	62.7	Pass
T3	261.75 - 258	Top Guy Pull-Off@261.75	L2 1/2x2 1/2x3/8	34	10045.30	56052.00	17.9	Pass
T15	202 - 198	Top Guy Pull-Off@202	L2 1/2x2 1/2x3/8	184	18488.10	56052.00	33.0	Pass
T3	261.75 - 258	Torque Arm Top@261.75	L3 1/2x3 1/2x3/8	723	21081.70	80352.00	26.2	Pass
T15	202 - 198	Torque Arm Top@202	L3 1/2x3 1/2x3/8	742	24973.50	80352.00	31.1	Pass
T3	261.75 - 258	Torque Arm Bottom@261.75	L3 1/2x3 1/2x3/8	725	-23770.50	47293.60	50.3	Pass
T15	202 - 198	Torque Arm Bottom@202	L3 1/2x3 1/2x3/8	744	-27263.20	46405.10	58.8	Pass

Summary		
Leg (T31)	99.2	Pass
Diagonal (T4)	86.7	Pass
Horizontal (T27)	31.5	Pass
Secondary Horizontal (T27)	16.1	Pass
Top Girt	25.4	Pass

Section No.	Elevation ft	Component Type	Size	Critical Element	P lb	ϕP_{allow} lb	% Capacity	Pass Fail
						(T4)		
						Guy A (T15)	90.2	Pass
						Guy B (T15)	92.0	Pass
						Guy C (T15)	85.2	Pass
						Top Guy Pull-Off (T15)	33.0	Pass
						Torque Arm Top (T15)	31.1	Pass
						Torque Arm Bottom (T15)	58.8	Pass
						Bolt Checks	81.1	Pass
						RATING =	**99.2**	**Pass**

Program Version 8.1.1.0 - 6/3/2021 File:C:/Users/fdelmundo/OneDrive - Fullerton Engineering/Desktop/New folder/CTL02056/CTL02056.eri

Guyed Tower Foundation - Pad & Pier with Deadman Guy Anchors



Existing Tower Base Dimensions

$W := 8ft + 2in$ — *Width of Pad*

$L := 6ft + 2in$ — *Length of Pad*

$d := 3ft$ — *Diameter of Pier*

$Cx := 3ft + 1in$ — *Minimum distance to center of gravity of tower from outer edge (based on foundation drawings)*

$p := 1ft + 7in$ — *Projection of Pier above grade*

$D := 5ft + 5in$ — *Depth from grade to the bottom of foundation*

$t := 18in$ — *Thickness of Pad*

$t_{pier} := D + p - t$ $\quad t_{pier} = 5.5\,ft$ — *Length of Pier*

Pier_Type :=
- ○ "Circular"
- ◉ "Square"

Base Pier Reactions

$M_{u\_base} := 0lbf \cdot ft$ *Factored moment reaction*

$P_{u\_base} := 200342lbf$ *Factored download reaction*

$V_{u\_base} := 1943lbf$ *Factored shear reaction*

Soil Properties at Base Pier

$\gamma_{conc} := 150pcf$

$\gamma_{soil} := 120pcf$

$\gamma_{H20} := 62.4pcf$

$Bearing_{Ult} := 12ksf$ *Ultimate bearing pressure*

Bearing_Type :=
- ○ "Gross"
- ◉ "Net"

$H_{frost} := 30in$ *Frost depth*

$H_{water} := 99ft$ *Depth of water*

$\phi_b := 0.60$ *Reduction factor for Bearing*

$\phi_t := 0.80$ *Reduction factor for tensile yielding*

$\phi_u := 0.75$ *Reduction factor for uplift*

$\phi_l := 0.75$ *Reduction factor for Lateral*

Pad & Pier Soil Bearing Calculations

$A_{pad} := W \cdot L$ $\quad A_{pad} = 50.36\ ft^2$ *Area of pad*

$A_{pier} := \begin{cases} \pi \frac{d^2}{4} & \text{if Pier\_Type = "Circular"} \\ d^2 & \text{if Pier\_Type = "Square"} \end{cases}$ $\quad A_{pier} = 9\ ft^2$ *Area of pier*

$S := \frac{A_{pad} \cdot \min(W, L)}{6}$ $\quad S = 51.76 \cdot ft^3$ *Section modulus of base*

$Wt_{pad} = 2.27 \cdot kip$ *Weight of concrete pad*

$Wt_{pier} = 3.2 \cdot kip$ *Weight of concrete piers*

$Wt_{soils} = 0 \cdot kip$ *Weight of soil is ignored if Net Bearing Pressure is given*

$Wt_{total} := 1.2Wt_{pad} + 1.2Wt_{pier} + 1.2Wt_{soils}$ $\quad Wt_{total} = 6.55 \cdot kip$ *Total factored weight of foundation*

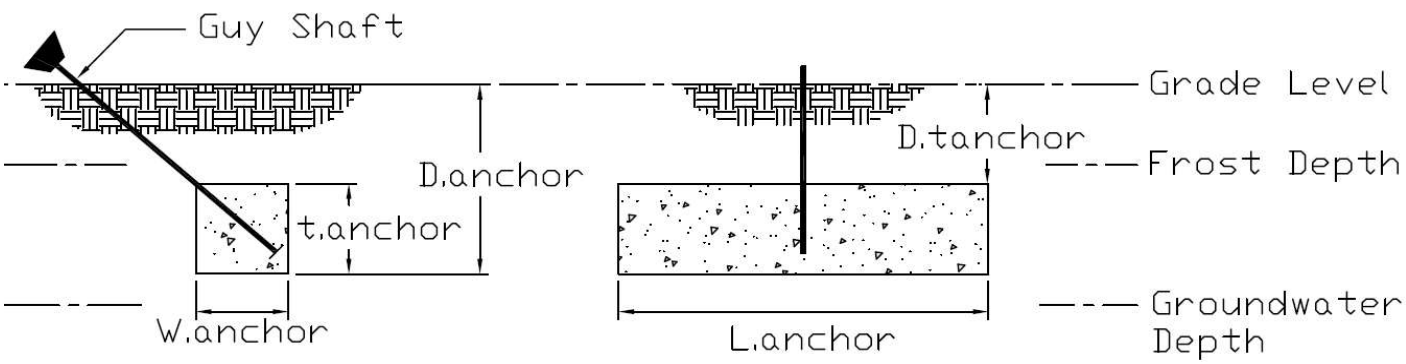
Check soil bearing capacity

$\phi R_s := \phi_b \cdot Bearing_{Ult}$ $\quad \phi R_s = 7.2 \cdot ksf$

$R_u := \frac{(P_{u\_base} + Wt_{total})}{A_{pad}} + \frac{M_{u\_base} + \left[P_{u\_base} \cdot \left(\frac{\min(L, W)}{2} - Cx\right)\right]}{S}$ $\quad R_u = 4.11 \cdot ksf$

$\frac{R_u}{\phi R_s} = 0.57$

BearingCheck = "Bearing of soil is adequate."



Guy Anchor Shaft Dimensions at Radius 141'

Existing guy wires are anchored with (1) C4x4.5 Channel 50ksi Steel

$n_{anchor} := 2$ — *Number of elements in guy anchor shaft*

$A_{g1} := n_{anchor} \cdot 1.38in^2 = 2.76 \cdot in^2$ — *Gross area of guy anchor shaft*

$F_y := 50ksi$ — *Yield strength of steel*

Guy Anchor Reactions at Radius 141'

$P_{u\_anchor1} := 80.014kip$ — *Max factored vertical reaction*

$V_{u\_anchor1} := 69.494kip$ — *Max factored horizontal reaction*

$T_{u\_anchor1} := 105.980kip$ — *Max factored tensile reaction*

Guy Anchor Shaft Tension Calculations at Radius 141'

Check tension capacity

$\phi P_n := \phi_t \cdot F_y \cdot A_{g1}$ $\quad \phi P_n = 110.4 \cdot kip$

$P_u := \max\left(T_{u\_anchor1}, \sqrt{V_{u\_anchor1}^2 + P_{u\_anchor1}^2}\right)$ $\quad P_u = 105.98 \cdot kip$ — *Maximum tensile force in shaft*

$\frac{P_u}{\phi P_n} = 0.96$

AnchorRodCheck = "Anchor shaft is adequate."

Deadman Anchor Dimensions

$$D_{anchor} := \begin{pmatrix} 8ft + 2in \\ 8ft \\ 6ft + 11in \end{pmatrix}$$

SE anchor at 141 feet
SW anchor at 170 feet
NE anchor at 147 feet

Depth to bottom of foundation

$$W_{anchor} := \begin{pmatrix} 6ft + 7in \\ 8ft + 6in \\ 7ft + 6in \end{pmatrix}$$

lower anchor #1
lower anchor #2
lower anchor #3

Width of anchor block

$$t_{anchor} := \begin{pmatrix} 8in \\ 6in \\ 9in \end{pmatrix}$$

Thickness of anchor block

$$L_{anchor} := \begin{pmatrix} 14ft \\ 14ft \\ 11ft \end{pmatrix}$$

Length of anchor block

$$D_{tanchor} := D_{anchor} - t_{anchor} \qquad D_{tanchor} = \begin{pmatrix} 7.5 \\ 7.5 \\ 6.17 \end{pmatrix} ft$$

Depth of soil to top of anchor

$$W_{anchor2} := \begin{pmatrix} 5ft + 0in \\ 4ft + 3in \\ 4ft + 6in \end{pmatrix}$$

upper anchor #1
upper anchor #2
upper anchor #3

Width of front anchor block

$$t_{anchor2} := \begin{pmatrix} 6in \\ 3in \\ 20in \end{pmatrix}$$

<----------Modified Thickness

Thickness of front anchor block

$$L_{anchor2} := \begin{pmatrix} 4ft + 6in \\ 4ft + 3in \\ 6ft + 4in \end{pmatrix}$$

Length of front anchor block

Existing Modification Properties

$$W_{anchor.mod} := \begin{pmatrix} 3\,ft \\ 3\,ft \\ 3\,ft \end{pmatrix}$$

Width of anchor block modification

$$t_{anchor.mod} := \begin{pmatrix} 4.5\,ft \\ 4.5\,ft \\ 4.5\,ft \end{pmatrix}$$

Thickness of anchor block modification

$$L_{anchor.mod} := \begin{pmatrix} 11\,ft \\ 11\,ft \\ 11\,ft \end{pmatrix}$$

Length of anchor block modification

$$V_{conc.mod} := \text{for } u \in 1 .. \text{length}(W_{anchor}) \quad V_u \leftarrow W_{anchor.mod_u} \cdot t_{anchor.mod_u} \cdot L_{anchor.mod_u} \quad V$$

Volume of anchor block

$$V_{conc.mod} = \begin{pmatrix} 148.5 \\ 148.5 \\ 148.5 \end{pmatrix} \cdot ft^3$$

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Site No.: CTL02056
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Checked By: BK

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Soil Properties

$\gamma_{conc} := 150pcf$ — *Concrete unit weight*

$\gamma_{soil} := 120pcf$ — *Soil unit weight*

$\gamma_{H2O} := 62.4pcf$

$\phi_{soil} := 35 \cdot deg$ — *Angle of internal friction at each depth*

$\mu := 0.35$ — *Coefficient of friction (Sliding Friction Factor)*

$P_P := 200 \cdot \frac{psf}{ft} \cdot \left(D_{tanchor} + 0.5t_{anchor}\right)$ $\quad P_P = \begin{pmatrix} 1566.67 \\ 1550 \\ 1308.33 \end{pmatrix} \cdot psf$ — *Ultimate passive pressure for each anchor*

$P_{P.mod} := 200 \cdot \frac{psf}{ft} \cdot \left(D_{tanchor} + 0.5t_{anchor} - 0.5t_{anchor.mod}\right)$ $\quad P_{P.mod} = \begin{pmatrix} 1116.67 \\ 1100 \\ 858.33 \end{pmatrix} \cdot psf$ — *Ultimate passive pressure for each anchor modification*

Deadman Anchor Uplift Calculations

$V_{conc} := \text{for } u \in 1 .. \text{length}\left(W_{anchor}\right)$ — *Volume of anchor block*

$\quad V_u \leftarrow W_{anchor_u} \cdot t_{anchor_u} \cdot L_{anchor_u} + W_{anchor2_u} \cdot t_{anchor2_u} \cdot L_{anchor2_u}$

$\quad V$

$V_{conc} = \begin{pmatrix} 72.69 \\ 64.02 \\ 109.38 \end{pmatrix} \cdot ft^3$

$Wt_{conc} := \text{for } u \in 1 .. \text{length}\left(W_{anchor}\right)$ $\quad Wt_{conc} = \begin{pmatrix} 33.18 \\ 31.88 \\ 38.68 \end{pmatrix} \cdot kip$ — *Weight of concrete*

$\quad W_u \leftarrow \left(V_{conc_u} + V_{conc.mod_u}\right) \cdot \gamma_{conc}$ if $H_{water} \geq D_{anchor_u}$

$\qquad \left(V_{conc_u} + V_{conc.mod_u}\right) \cdot \gamma_{conc\_sub}$ otherwise

$\quad W$

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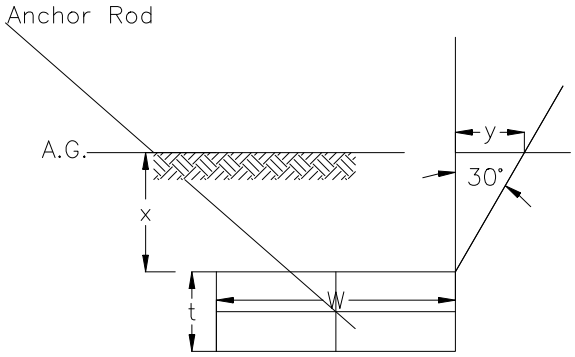

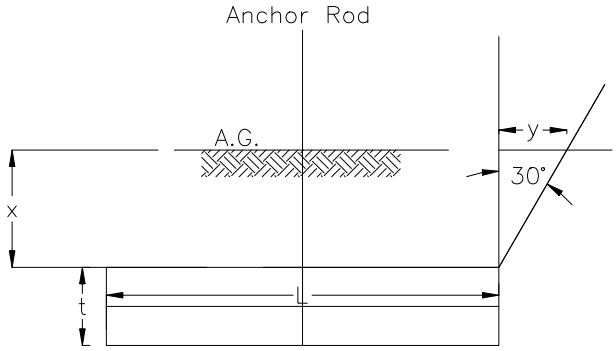

$$V_{soil\_AC} := \text{for } u \in 1 .. \text{length}(W_{anchor}) \quad V_u \leftarrow W_{anchor_u} \cdot D_{tanchor_u} \cdot L_{anchor_u} \quad V$$

$$V_{soil\_AC} = \begin{pmatrix} 691.25 \\ 892.5 \\ 508.75 \end{pmatrix} \cdot ft^3$$

Volume of soil above concrete

$$y := \tan(\phi_{soil}) \cdot D_{tanchor}$$

$$y = \begin{pmatrix} 5.25 \\ 5.25 \\ 4.32 \end{pmatrix} ft$$

$$V_{cone} := \text{for } u \in 1 .. \text{length}(W_{anchor}) \quad V_u \leftarrow y_u \cdot D_{tanchor_u} \cdot (L_{anchor_u} + W_{anchor_u}) + \pi \cdot (y_u)^2 \cdot \frac{D_{tanchor_u}}{3} \quad V$$

$$V_{cone} = \begin{pmatrix} 1027.31 \\ 1102.8 \\ 613.01 \end{pmatrix} \cdot ft^3$$

$$V_{soil} := V_{soil\_AC} + V_{cone} - V_{conc.mod}$$

$$V_{soil} = \begin{pmatrix} 1570.06 \\ 1846.8 \\ 973.26 \end{pmatrix} \cdot ft^3$$

$$Wt_{soil} := V_{soil} \cdot \gamma_{soil}$$

$$Wt_{soil} = \begin{pmatrix} 206.23 \\ 239.44 \\ 134.61 \end{pmatrix} \cdot kip$$

Weight of soil above each deadman anchor

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Check Uplift Capacity

$\phi R_s := \phi_u \cdot (0.9Wt_{conc} + 0.9Wt_{soil})$

$$\phi R_s = \begin{pmatrix} 161.6 \\ 183.14 \\ 116.97 \end{pmatrix} \cdot kip$$

$R_u := \begin{pmatrix} P_{u\_anchor1} \\ P_{u\_anchor1} \\ P_{u\_anchor1} \end{pmatrix}$

$$R_u = \begin{pmatrix} 80.01 \\ 80.01 \\ 80.01 \end{pmatrix} \cdot kip$$

$Capacity := \text{for } z \in 1 .. \text{length}(W_{anchor})$

$W_z \leftarrow \frac{R_{u_z}}{\phi R_{s_z}}$

W

$$Capacity = \begin{pmatrix} 0.5 \\ 0.44 \\ 0.68 \end{pmatrix}$$

$$UpliftCheck = \begin{pmatrix} \text{"Uplift capacity is adequate."} \\ \text{"Uplift capacity is adequate."} \\ \text{"Uplift capacity is adequate."} \end{pmatrix}$$

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Deadman Anchor Lateral Calculations

$$F_{friction} := \text{for } z \in 1 .. \text{length}(W_{anchor}) \quad F_z \leftarrow \max\left[0, \mu\left(0.9\,Wt_{soil_z} + 0.9\,Wt_{conc_z} - R_{u_z}\right)\right] \quad F$$

$$F_{friction} = \begin{pmatrix} 47.41 \\ 57.46 \\ 26.58 \end{pmatrix} \cdot kip$$

Resisting force due to friction

$$P_{res} := \text{for } z \in 1 .. \text{length}(W_{anchor}) \quad P_z \leftarrow P_{P_z} \cdot L_{anchor_z} \cdot t_{anchor_z} + P_{P.mod_z} \cdot L_{anchor.mod_z} \cdot t_{anchor.mod_z} + P_{P_z} \cdot L_{anchor2_z} \cdot t_{anchor2_z} \quad P$$

$$P_{res} = \begin{pmatrix} 73.42 \\ 66.95 \\ 67.09 \end{pmatrix} \cdot kip$$

Resisting force due to passive pressure

Check Lateral Capacity

$$\phi R_s := \text{for } z \in 1 .. \text{length}(W_{anchor}) \quad P_z \leftarrow \phi_l \cdot \left(F_{friction_z} + P_{res_z}\right) \quad P$$

$$\phi R_s = \begin{pmatrix} 90.62 \\ 93.3 \\ 70.26 \end{pmatrix} \cdot kip$$

$$R_u := \begin{pmatrix} V_{u\_anchor1} \\ V_{u\_anchor1} \\ V_{u\_anchor1} \end{pmatrix}$$

$$R_u = \begin{pmatrix} 80.01 \\ 80.01 \\ 80.01 \end{pmatrix} \cdot kip$$

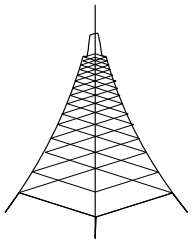
$$Capacity := \text{for } z \in 1 .. \text{length}(W_{anchor}) \quad S_z \leftarrow \frac{R_{u_z}}{\phi R_{s_z}} \quad S$$

$$Capacity = \begin{pmatrix} 0.767 \\ 0.745 \\ 0.989 \end{pmatrix}$$

$$LateralCapacityCheck = \begin{pmatrix} \text{"Lateral Capacity is adequate."} \\ \text{"Lateral Capacity is adequate."} \\ \text{"Lateral Capacity is adequate."} \end{pmatrix}$$

AT&T LETTER OF EXPLANATION

MUST PROVIDE WITH EACH STRUCTURAL ANALYSIS

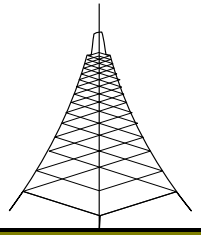


Site Name	***Naugatuck Eastside Boulevard***
Site Number	***CTL02056***
PE of Record	***Barbara T. Kotecki, P.E.***

ALL STRUCTURES	Statement in COL A is Correct	VARIANCE from Col A	N/A	Alternate Value / Concept Used	Explanation	Yes	No	N/A	Comments / Reference
Structure Analyzed to H Code	X								
Guy Tensions Adjusted Within Code to Find Optimum tension / Minimum Reinforcement (Applies to Guyed Tower Failures Only). Note : AT&T requires a pulse chart for altered Tensions	X								
Antenna Azimuths Inputted Per AT&T Information Note Default Azimuths in PL	X								
All Yield Stresses > = 50 ksi (legs)	X								
All Yield Stresses > = 36 ksi (Diagonals and Horizontals))	X								
Structures Designated Class II (G Only) - if site meets criteria for Class III, AT&T must approve justification in advance of completing the analysis.	X								
Exposure B Rating Used (Topography) - Exposure C or higher requires written memo with LOE with details per EBP Document. Same applies for Topography rating higher than 2 also requires memo from PE with details per EBP document. IF PE is CHANGING TOPO cat from last SA of record - MEMO with LOE also required!		X			Topographic feature escarpment used per method 2 rigorous calculation per TIA-222-H. Previous SA used method 1 and topo category = 1.				
K value for Slenderness ratio < 1.0 (provide memo if K value 1.0 or greater).			X						
Shielding of All Appurtenances Used when Appropriate PER 2.6.9.4 (G Code Only)	X								
0.75 Reduction "Shape" Factor (Figure 2.6) for platform mounts, 0.8 for T-Boom Mounts Used (G Only)	X								
Pipes and round Members have 1.0 Drag Factors. Note if Pipe is attached to flat antenna, these must be considered separately if differing Drag factors are Used	X								
Are Tower Diagonals Designed as "Tension Only"							X		

AT&T LETTER OF EXPLANATION

MUST PROVIDE WITH EACH STRUCTURAL ANALYSIS



Site Name	*Naugatuck Eastside Boulevard*
Site Number	*CTL02056*
PE of Record	*Barbara T. Kotecki, P.E.*

MODIFICATION SECTION	Statement in COL A is Correct	Deviation from Col A	N/A	Alternate Value / Concept Used	Explanation	Yes	No	N/A	Comments / Reference
Guyed									
Guyed Only: Reinforcement Recommendation accompanies Optimum Guy Tensioning Scenario.	X								
Compression Failing Legs / Diagonals / Horizontals: Effective Length Reduced by U-Bolted Member	X								
NOTE: Welded Solution Must be Explained and will only be considered in cases where other reinforcing methods will not work.									
Self Supporting									
Compression Failing Legs / Diagonals / Horizontals: Effective Length Reduced by U-Bolted Member			X						
NOTE: Welded Solution Must be Explained and will only be considered in cases where other reinforcing methods will not work.									
Monopole									
Compression Collars			X						
NOTE: Welded Solution Must be Explained and will only be considered in cases where other reinforcing methods will not work.									
Foundation									
Guyed Anchor Failure: Berm Solution			X						
SS Foundation Pad and Pier Failure Berm			X						
SS Foundation Caisson / Concrete Cap			X						
Monopole: Cap			X						

Kristina Robinson

From: TrackingUpdates@fedex.com
Sent: Monday, October 9, 2023 11:02 AM
To: Kristina Robinson
Subject: FedEx Shipment 773591817147: Your package has been delivered

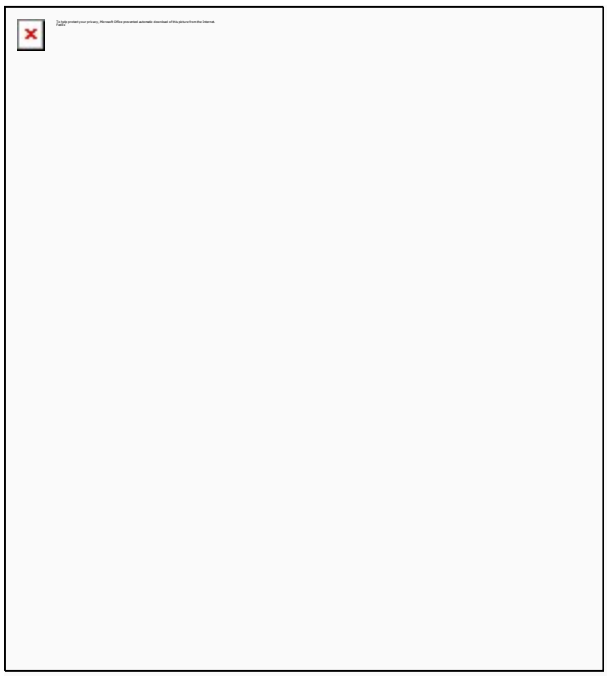
Hi. Your package was delivered Mon, 10/09/2023 at 10:54am.

Delivered to 8350 Broad Street, TYSONS CORNER, VA 22102
Received by A.ALEX

OBTAIN PROOF OF DELIVERY

How was your delivery ?

TRACKING NUMBER	773591817147
FROM	Smartlink LLC 85 Rangeway Road Building 3 Suite 102 NORTH BILLERICA, MA, US, 01862
TO	Tegna Broadcast Holdings LLC 8350 Broad Street TYSONS CORNER, VA, US, 22102
REFERENCE	CTL02056 - Naugatuck
SHIPPER REFERENCE	CTL02056 - Naugatuck
SHIP DATE	Thu 10/05/2023 06:18 PM
DELIVERED TO	Shipping/Receiving
PACKAGING TYPE	FedEx Envelope
ORIGIN	NORTH BILLERICA, MA, US, 01862
DESTINATION	TYSONS CORNER, VA, US, 22102
NUMBER OF PIECES	1
SERVICE TYPE	FedEx 2Day



Kristina Robinson

From: TrackingUpdates@fedex.com
Sent: Tuesday, October 10, 2023 11:35 AM
To: Kristina Robinson
Subject: FedEx Shipment 773591793146: Your package has been delivered

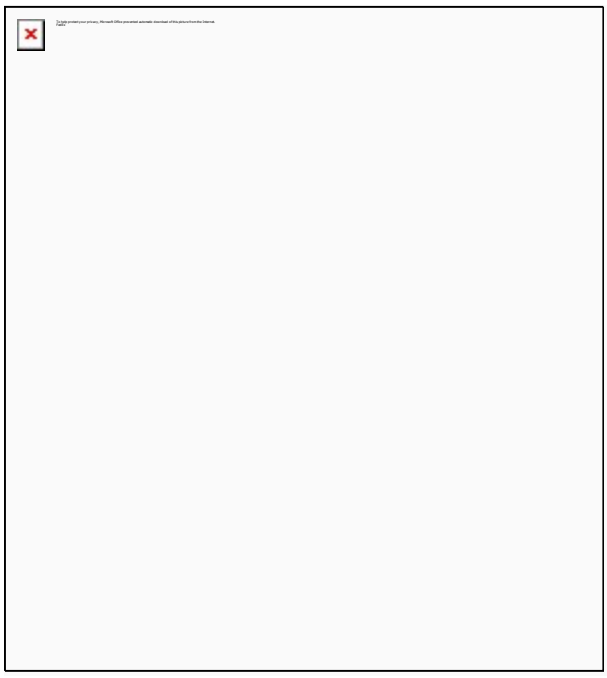
Hi. Your package was delivered Tue, 10/10/2023 at 11:28am.

Delivered to 229 Church Street, NAUGATUCK, CT 06770
Received by A.MAYOR

OBTAIN PROOF OF DELIVERY

How was your delivery ?

TRACKING NUMBER	773591793146
FROM	Smartlink LLC 85 Rangeway Road Building 3 Suite 102 NORTH BILLERICA, MA, US, 01862
TO	Town of Naugatuck ATTN: Mayor N. Warren "Pete" Hess 229 Church Street NAUGATUCK, CT, US, 06770
REFERENCE	CTL02056 - Naugatuck
SHIPPER REFERENCE	CTL02056 - Naugatuck
SHIP DATE	Thu 10/05/2023 06:18 PM
DELIVERED TO	Shipping/Receiving
PACKAGING TYPE	FedEx Envelope
ORIGIN	NORTH BILLERICA, MA, US, 01862
DESTINATION	NAUGATUCK, CT, US, 06770
NUMBER OF PIECES	1
TOTAL SHIPMENT WEIGHT	1.00 LB
SERVICE TYPE	FedEx 2Day



Tracking Number:

9500110255663278790350

Copy Add to Informed Delivery

Latest Update

Your item has been delivered and is available at a PO Box at 12:46 pm on October 7, 2023 in CLERMONT, FL 34712.

Get More Out of USPS Tracking:

USPS Tracking Plus®

Delivered

Delivered, PO Box
CLERMONT, FL 34712
October 7, 2023, 12:46 pm

Arrived at Post Office
CLERMONT, FL 34711
October 7, 2023, 12:43 pm

Arrived at USPS Regional Destination Facility
SEMINOLE-ORLANDO FL DISTRIBUTION CENTER
October 6, 2023, 11:41 pm

In Transit to Next Facility
October 6, 2023

Arrived at USPS Regional Origin Facility
MIDDLESEX-ESSEX MA DISTRIBUTION CENTER
October 5, 2023, 11:51 pm

Departed Post Office
NORTH ANDOVER, MA 01845
October 5, 2023, 5:17 pm

USPS in possession of item
NORTH ANDOVER, MA 01845
October 5, 2023, 5:00 pm

Hide Tracking History

What Do USPS Tracking Statuses Mean?

Kristina Robinson

From: TrackingUpdates@fedex.com
Sent: Tuesday, October 10, 2023 11:35 AM
To: Kristina Robinson
Subject: FedEx Shipment 773591752411: Your package has been delivered

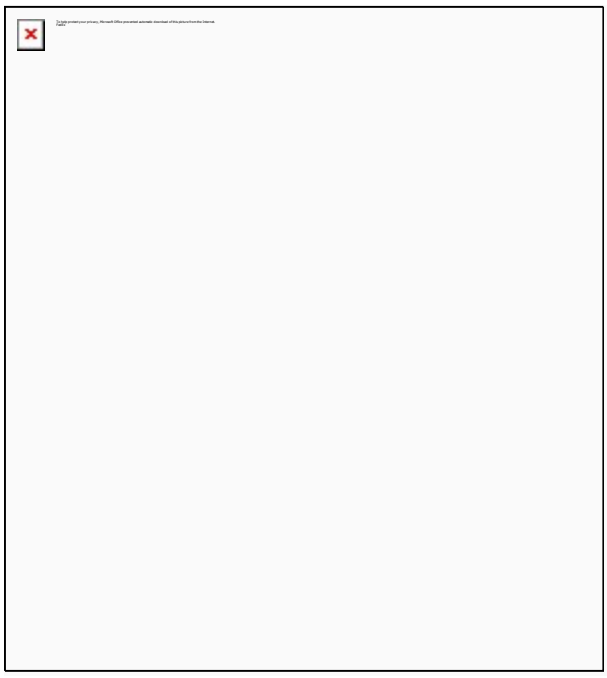
Hi. Your package was delivered Tue, 10/10/2023 at 11:28am.

Delivered to 229 Church Street, NAUGATUCK, CT 06770
Received by A.MAYOR

OBTAIN PROOF OF DELIVERY

How was your delivery ?

TRACKING NUMBER	773591752411
FROM	Smartlink LLC 85 Rangeway Road Building 3 Suite 102 NORTH BILLERICA, MA, US, 01862
TO	Town of Naugatuck ATTN: Building Department Bill H. 229 Church Street NAUGATUCK, CT, US, 06770
REFERENCE	CTL02056 - Naugatuck
SHIPPER REFERENCE	CTL02056 - Naugatuck
SHIP DATE	Thu 10/05/2023 06:18 PM
DELIVERED TO	Shipping/Receiving
PACKAGING TYPE	FedEx Envelope
ORIGIN	NORTH BILLERICA, MA, US, 01862
DESTINATION	NAUGATUCK, CT, US, 06770
NUMBER OF PIECES	1
TOTAL SHIPMENT WEIGHT	1.00 LB
SERVICE TYPE	FedEx 2Day



PROJECT:	LTE 5G NR CBAND + DoD + BBU CONFIGURATION + 4T4R ANTENNA RETRO FIT 5G NR RADIO; 5G NR SOFTWARE RADIO; 5G NR ACTIVATION
SITE NUMBER:	CTL02056
USID:	24931
FA NUMBER:	10050930
PTN NUMBER:	2051A11LM3/2051A11MM6/2051A11LM2/2051A11LW2
PACE NUMBER:	MRCTB056452/MRCTB055105/MRCTB053907/ MRCTB053912/MRCTB056683/MRCTB055221
SITE NAME:	NAUGATUCK EASTSIDE BOULEVARD
SITE ADDRESS:	130 EASTSIDE BLVD NAUGATUCK, CT 06770

at&t
550 COCHITUATE ROAD
SUITE 550 13 AND 14
FRAMINGHAM, MA 01701

smartlink
1362 MELLON ROAD
SUITE 140
HANOVER, MD 21076

Fullerton DESIGN DEVELOP CONSTRUCT
1100 E. WOODFIELD ROAD, SUITE 500
SCHAUMBURG, ILLINOIS 60173
TEL: 847-908-8400
COA# PEC.0001899
www.fullerton-us.com

PROJECT INFORMATION

SITE NAME:	NAUGATUCK EASTSIDE BOULEVARD
SITE NUMBER:	CTL02056
SITE ADDRESS:	130 EASTSIDE BLVD NAUGATUCK, CT 06770
FA NUMBER:	10050930
PTN NUMBER:	2051A11LM3/2051A11MM6/2051A11LM2/2051A11LW2
PACE NUMBER:	MRCTB056452/MRCTB055105/MRCTB053907/ MRCTB053912/MRCTB056683/MRCTB055221
USID NUMBER:	82711
APPLICANT:	AT&T WIRELESS 550 COCHITUATE ROAD SUITE 550 13 AND 14 FRAMINGHAM, MA 01701
OWNER:	WTIC TV FOX 61 285 BROAD STREET HARDFORD, CT 06115
JURISDICTION:/ ZONING:	NAUGATUCK, CT
COUNTY:	NEW HAVEN
SITE COORDINATES FROM	(RFDS)
LATITUDE:	41.5177700° / 41°31'3.972"
LONGITUDE:	-73.0186100° / -73°1'6.996"
GROUND ELEV.:	758'
PROPOSED USE:	TELECOMMUNICATIONS FACILITY
AT&T RF MANAGER:	DEEPAK RATHORE
PHONE:	(860) 965-3068
EMAIL:	dr701e@att.com

PROJECT CONSULTANTS

PROJECT MANAGER:	SMARTLINK
ADDRESS:	85 RANGEWAY ROAD, SUITE 102 NORTH BILLERICA, MA 01862
CONTACT:	SHARON KEEFE (978) 930-3918
EMAIL:	Sharon.Keefe@smartlinkllc.com
SITE AQUISITION:	SMARTLINK
ADDRESS:	85 RANGEWAY ROAD, SUITE 102 NORTH BILLERICA, MA 01862
CONTACT:	KRISTINA COTTONE (978) 551-8627
EMAIL:	Kristina.Cottone@smartlinkllc.com
ENGINEER/ARCHITECT:	FULLERTON ENGINEERING, P.C.
ADDRESS:	1100 E. WOODFIELD ROAD, SUITE 500 SCHAUMBURG, IL 60173
CONTACT:	AHMED GARCEVIC (847) 908-8400
EMAIL:	agarcevic@FullertonEngineering.com
CONSTRUCTION:	SMARTLINK
ADDRESS:	85 RANGEWAY ROAD, SUITE 102 NORTH BILLERICA, MA 01862
CONTACT:	KRISTINA COTTONE (978) 551-8627
EMAIL:	kristina.cottone@smartlinkgroup.com

SCOPE OF WORK

PROJECT SCOPE HEREIN BASED ON RFDS ID # 4462254, VERSION 8.00 LAST UPDATED 08/09/23.

REMAINING AT&T EQUIPMENT @ 156'-0" RAD CENTER TO BE RELOCATED TO 220'-0" RAD CENTER

EXISTING TOWER EQUIPMENT TO BE REMOVED:
(3) EXISTING SECTOR FRAMES
(6) LGP13519 DIPLEXERS,
(6) LGP21401 TMA
(2) HPA-65R-BUU-H6 ANTENNAS
(1) HPA-65R-BUU-H8 ANTENNA
(1) TPA65R-LCUUU-H8 ANTENNA
(2) QUINTEL QS66512-2 ANTENNAS
(3) POWERWAVE 7770 ANTENNAS
(3) RRUS-4478 B5
(3) RRUS-11 B12
(1) DC6-48-60-18-8F RAYCAP UNIT
(12) 1-5/8" COAX CABLES
(3) FIBER TRUNKS
(6) DC POWER TRUNKS

EXISTING TOWER EQUIPMENT TO REMAIN:
(2) KATHREIN 800-10965 ANTENNAS
(1) KATHREIN 800-10966 ANTENNA
(3) RRUS-32 B2
(3) RRUS-32 B30
(3) RRUS-4478 B14
(3) RRUS-4426 B66
(2) DC6-48-60-18-8F RAYCAP UNITS

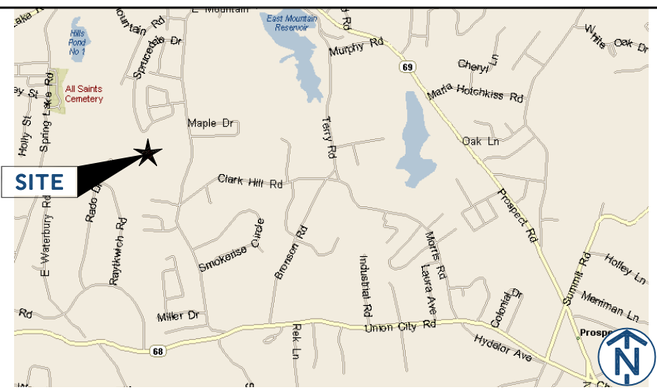
NEW TOWER EQUIPMENT TO BE INSTALLED:
(3) NEW SECTOR FRAMES SITE PRO 1 VFA12-WLL-30120
(1) CCI TPA-65R-BU8DV2 ANTENNA (ALPHA)
(2) CCI TPA-65R-BU6DV2 ANTENNAS (BETA/GAMMA)
(3) ERICSSON AIR6472 B77G B77M
(1) RRUS-4449 B5/B12
(1) DC9-48-60-24-8C-EV
(3) NEW Y-CABLES
(7) DC POWER TRUNKS -PWRT-606-S
(3) FIBER TRUNKS - (2) 18-PAIR AND (1) 24-PAIR EXISTING TOWER TO BE REINFORCED

GROUND EQUIPMENT TO BE REMOVED:
(3) RRUWS
DECOMMISSION EXISTING UMTS

GROUND EQUIPMENT TO BE INSTALLED:
(1) NEW RBS 6651 AND XCEDE CABLE
(3) -48v RECTIFIERS
(1) INDOOR DC12 AND IDLE CABLES
(3) OUTDOOR FIBER SLACK BOXES
(3) FIBER DISTRIBUTION TRAYS
(3) FIBER STORAGE TRAYS

- CONTRACTOR SHALL FURNISH ALL MATERIAL WITH THE EXCEPTION OF AT&T SUPPLIED MATERIAL.
- ALL MATERIAL SHALL BE INSTALLED BY THE CONTRACTOR, UNLESS STATED OTHERWISE.

SITE LOCATION MAP



NO SCALE

DIRECTIONS

SCAN QR CODE FOR LINK TO SITE LOCATION MAP

APPLICABLE BUILDING CODES AND STANDARDS

ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES.

BUILDING CODE:	2021 INTERNATIONAL BUILDING CODE 2022 CONNECTICUT STATE BUILDING CODE SUPPLEMENT
ELECTRICAL CODE:	2020 NATIONAL ELECTRICAL CODE

- FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION.
- ADA ACCESS REQUIREMENTS ARE NOT REQUIRED.
- THIS FACILITY DOES NOT REQUIRE POTABLE WATER AND WILL NOT PRODUCE ANY SEWAGE

DRAWING INDEX

NOTE: DRAWING SCALES ARE FOR 11"x17" SHEETS UNLESS OTHERWISE NOTED

REV	DATE	DESCRIPTION	BY
1	06/30/22	FINAL	SM
2	07/20/22	REV FINAL	IH
3	10/18/22	REV FINAL	JW
4	06/08/23	FOR CONSTRUCTION	MK
5	07/28/23	FOR CONSTRUCTION	MK
6	08/17/23	FOR CONSTRUCTION	KC

I HEREBY CERTIFY THAT THESE DRAWINGS WERE PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND CONTROL, AND TO THE BEST OF MY KNOWLEDGE AND BELIEF COMPLY WITH THE REQUIREMENTS OF ALL APPLICABLE CODES.

SITE NAME
NAUGATUCK EASTSIDE BOULEVARD

SITE NUMBER:
CTL02056

SITE ADDRESS
130 EASTSIDE BLVD
NAUGATUCK, CT 06770

SHEET NAME
TITLE SHEET

SHEET NUMBER
T1

PROJECT# 2021.0215.0004

GENERAL CONSTRUCTION

1. FOR THE PURPOSE OF CONSTRUCTION DRAWINGS, THE FOLLOWING DEFINITIONS SHALL APPLY:
   CONTRACTOR/CM – SMARTLINK
   OWNER – AT&T WIRELESS

2. ALL SITE WORK SHALL BE COMPLETED AS INDICATED ON THE DRAWINGS AND AT&T PROJECT SPECIFICATIONS.

3. GENERAL CONTRACTOR SHALL VISIT THE SITE AND SHALL FAMILIARIZE HIMSELF WITH ALL CONDITIONS AFFECTING THE PROPOSED WORK AND SHALL MAKE PROVISIONS. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING HIMSELF WITH ALL CONTRACT DOCUMENTS, FIELD CONDITIONS, DIMENSIONS, AND CONFIRMING THAT THE WORK MAY BE ACCOMPLISHED AS SHOWN PRIOR TO PROCEEDING WITH CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO THE COMMENCEMENT OF WORK.

4. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. GENERAL CONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS, AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF WORK.

5. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES, AND APPLICABLE REGULATIONS.

6. UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.

7. PLANS ARE NOT TO BE SCALED. THESE PLANS ARE INTENDED TO BE A DIAGRAMMATIC OUTLINE ONLY UNLESS OTHERWISE NOTED. DIMENSIONS SHOWN ARE TO FINISH SURFACES UNLESS OTHERWISE NOTED. SPACING BETWEEN EQUIPMENT IS THE MINIMUM REQUIRED CLEARANCE. THEREFORE, IT IS CRITICAL TO FIELD VERIFY DIMENSIONS, SHOULD THERE BE ANY QUESTIONS REGARDING THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A CLARIFICATION FROM THE ENGINEER PRIOR TO PROCEEDING WITH THE WORK. DETAILS ARE INTENDED TO SHOW DESIGN INTENT. MODIFICATIONS MAY BE REQUIRED TO SUIT JOB DIMENSIONS OR CONDITIONS AND SUCH MODIFICATIONS SHALL BE INCLUDED AS PART OF WORK AND PREPARED BY THE ENGINEER PRIOR TO PROCEEDING WITH WORK.

8. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.

9. IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION SPACE FOR APPROVAL BY THE ENGINEER PRIOR TO PROCEEDING.

10. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF WORK AREA, ADJACENT AREAS AND BUILDING OCCUPANTS THAT ARE LIKELY TO BE AFFECTED BY THE WORK UNDER THIS CONTRACT. WORK SHALL CONFIRM TO ALL OSHA REQUIREMENTS AND THE LOCAL JURISDICTION.

11. GENERAL CONTRACTOR SHALL COORDINATE WORK AND SCHEDULE WORK ACTIVITIES WITH OTHER DISCIPLINES.

12. ERECTION SHALL BE DONE IN A WORKMANLIKE MANNER BY COMPETENT EXPERIENCED WORKMAN IN ACCORDANCE WITH APPLICABLE CODES AND THE BEST ACCEPTED PRACTICE. ALL MEMBERS SHALL BE LAID PLUMB AND TRUE AS INDICATED ON THE DRAWINGS.

13. SEAL PENETRATIONS THROUGH FIRE RATED AREAS WITH UL LISTED MATERIALS APPROVED BY LOCAL JURISDICTION. CONTRACTOR SHALL KEEP AREA CLEAN, HAZARD FREE, AND DISPOSE OF ALL DEBRIS.

14. WORK PREVIOUSLY COMPLETED IS REPRESENTED BY LIGHT SHADED LINES AND NOTES. THE SCOPE OF WORK FOR THIS PROJECT IS REPRESENTED BY DARK SHADED LINES AND NOTES. CONTRACTOR SHALL NOTIFY THE GENERAL CONTRACTOR OF ANY EXISTING CONDITIONS THAT DEVIATE FROM THE DRAWINGS PRIOR TO BEGINNING CONSTRUCTION.

15. CONTRACTOR SHALL PROVIDE WRITTEN NOTICE TO THE CONSTRUCTION MANAGER 48 HOURS PRIOR TO COMMENCEMENT OF WORK.

16. THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER.

17. THE CONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES PRIOR TO THE START OF CONSTRUCTION.

18. GENERAL CONTRACTOR SHALL COORDINATE AND MAINTAIN ACCESS FOR ALL TRADES AND CONTRACTORS TO THE SITE AND/OR BUILDING.

19. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR SECURITY OF THE SITE FOR THE DURATION OF CONSTRUCTION UNTIL JOB COMPLETION.

20. THE GENERAL CONTRACTOR SHALL MAINTAIN IN GOOD CONDITION ONE COMPLETE SET OF PLANS WITH ALL REVISIONS, ADDENDA, AND CHANGE ORDERS ON THE PREMISES AT ALL TIMES.

21. THE GENERAL CONTRACTOR SHALL PROVIDE PORTABLE FIRE EXTINGUISHERS WITH A RATING OF NOT LESS THAN 2–A OT 2–A:10–B:C AND SHALL BE WITHIN 25 FEET OF TRAVEL DISTANCE TO ALL PORTIONS OF WHERE THE WORK IS BEING COMPLETED DURING CONSTRUCTION.

22. ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES SHALL BE PROTECTED AT ALL TIMES, AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY THE ENGINEER. EXTREME CAUTION SHOULD BE USED BY THE CONTRACTOR WHEN EXCAVATING OR DRILLING PIERS AROUND OR NEAR UTILITIES. CONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS SHALL INCLUDE BUT NOT BE LIMITED TO A) FALL PROTECTION, B) CONFINED SPACE, C) ELECTRICAL SAFETY, AND D) TRENCHING & EXCAVATION.

23. ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED, CAPPED, PLUGGED OR OTHERWISE DISCONNECTED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, AS DIRECTED BY THE RESPONSIBLE ENGINEER, AND SUBJECT TO THE APPROVAL OF THE OWNER AND/OR LOCAL UTILITIES.

24. THE AREAS OF THE OWNER'S PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE TOWER, EQUIPMENT OR DRIVEWAY, SHALL BE GRADED TO A UNIFORM SLOPE, AND STABILIZED TO PREVENT EROSION.

25. CONTRACTOR SHALL MINIMIZE DISTURBANCE TO THE EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE FEDERAL AND LOCAL JURISDICTION FOR EROSION AND SEDIMENT CONTROL.

26. NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUNDING. FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.

27. THE SUBGRADE SHALL BE BROUGHT TO A SMOOTH UNIFORM GRADE AND COMPACTED TO 95 PERCENT STANDARD PROCTOR DENSITY UNDER PAVEMENT AND STRUCTURES AND 80 PERCENT STANDARD PROCTOR DENSITY IN OPEN SPACE. ALL TRENCHES IN PUBLIC RIGHT OF WAY SHALL BE BACKFILLED WITH FLOWABLE FILL OR OTHER MATERIAL PRE–APPROVED BY THE LOCAL JURISDICTION.

28. ALL NECESSARY RUBBISH, STUMPS, DEBRIS, STICKS, STONES, AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN A LAWFUL MANNER.

29. ALL BROCHURES, OPERATING AND MAINTENANCE MANUALS, CATALOGS, SHOP DRAWINGS, AND OTHER DOCUMENTS SHALL BE TURNED OVER TO THE GENERAL CONTRACTOR AT COMPLETION OF CONSTRUCTION AND PRIOR TO PAYMENT.

30. CONTRACTOR SHALL SUBMIT A COMPLETE SET OF AS–BUILT REDLINES TO THE GENERAL CONTRACTOR UPON COMPLETION OF PROJECT AND PRIOR TO FINAL PAYMENT.

31. CONTRACTOR SHALL LEAVE PREMISES IN A CLEAN CONDITION.

32. THE PROPOSED FACILITY WILL BE UNMANNED AND DOES NOT REQUIRE POTABLE WATER OR SEWER SERVICE, AND IS NOT FOR HUMAN HABITAT (NO HANDICAP ACCESS REQUIRED).

33. OCCUPANCY IS LIMITED TO PERIODIC MAINTENANCE AND INSPECTION, APPROXIMATELY 2 TIMES PER MONTH, BY AT&T TECHNICIANS.

34. NO OUTDOOR STORAGE OR SOLID WASTE CONTAINERS ARE PROPOSED.

35. ALL MATERIAL SHALL BE FURNISHED AND WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST REVISION AT&T MOBILITY GROUNDING STANDARD "TECHNICAL SPECIFICATION FOR CONSTRUCTION OF GSM/GPRS WIRELESS SITES" AND "TECHNICAL SPECIFICATION FOR FACILITY GROUNDING". IN CASE OF A CONFLICT BETWEEN THE CONSTRUCTION SPECIFICATION AND THE DRAWINGS, THE DRAWINGS SHALL GOVERN.

36. CONTRACTORS SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS REQUIRED FOR CONSTRUCTION. IF CONTRACTOR CANNOT OBTAIN A PERMIT, THEY MUST NOTIFY THE GENERAL CONTRACTOR IMMEDIATELY.

37. CONTRACTOR SHALL REMOVE ALL TRASH AND DEBRIS FROM THE SITE ON A DAILY BASIS.

38. INFORMATION SHOWN ON THESE DRAWINGS WAS OBTAINED FROM SITE VISITS AND/OR DRAWINGS PROVIDED BY THE SITE OWNER. CONTRACTORS SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.

39. NO WHITE STROBE LIGHTS ARE PERMITTED. LIGHTING IF REQUIRED, WILL MEET FAA STANDARDS AND REQUIREMENTS.

ANTENNA MOUNTING

40. DESIGN AND CONSTRUCTION OF ANTENNA SUPPORTS SHALL CONFORM TO CURRENT ANSI/TIA–222 OR APPLICABLE LOCAL CODES.

41. ALL STEEL MATERIALS SHALL BE GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A123 "ZINC (HOT–DIP GALVANIZED) COATINGS ON IRON AND STEEL PRODUCTS", UNLESS NOTED OTHERWISE.

42. ALL BOLTS, ANCHORS AND MISCELLANEOUS HARDWARE SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 "ZINC–COATING (HOT–DIP) ON IRON AND STEEL HARDWARE", UNLESS NOTED OTHERWISE.

43. DAMAGED GALVANIZED SURFACES SHALL BE REPAIRED BY COLD GALVANIZING IN ACCORDANCE WITH ASTM A780.

44. ALL ANTENNA MOUNTS SHALL BE INSTALLED WITH LOCK NUTS, DOUBLE NUTS AND SHALL BE TORQUED TO MANUFACTURER'S RECOMMENDATIONS.

45. CONTRACTOR SHALL INSTALL ANTENNA PER MANUFACTURER'S RECOMMENDATION FOR INSTALLATION AND GROUNDING.

46. ALL UNUSED PORTS ON ANY ANTENNAS SHALL BE TERMINATED WITH A 50–OHM LOAD TO ENSURE ANTENNAS PERFORM AS DESIGNED.

47. PRIOR TO SETTING ANTENNA AZIMUTHS AND DOWNTILTS, ANTENNA CONTRACTOR SHALL CHECK THE ANTENNA MOUNT FOR TIGHTNESS AND ENSURE THAT THEY ARE PLUMB. ANTENNA AZIMUTHS SHALL BE SET FROM TRUE NORTH AND BE ORIENTED WITHIN +/– 5% AS DEFINED BY THE RFDS. ANTENNA DOWNTILTS SHALL BE WITHIN +/– 0.5% AS DEFINED BY THE RFDS. REFER TO ND–00246.

48. JUMPERS FROM THE TMA'S MUST TERMINATE TO OPPOSITE POLARIZATION'S IN EACH SECTOR.

49. CONTRACTOR SHALL RECORD THE SERIAL #, SECTOR, AND POSITION OF EACH ACTUATOR INSTALLED AT THE ANTENNAS AND PROVIDE THE INFORMATION TO AT&T.

50. TMA'S SHALL BE MOUNTED ON PIPE DIRECTLY BEHIND ANTENNAS AS CLOSE TO ANTENNA AS FEASIBLE IN A VERTICAL POSITION.

TORQUE REQUIREMENTS

51. ALL RF CONNECTIONS SHALL BE TIGHTENED BY A TORQUE WRENCH.

52. ALL RF CONNECTIONS, GROUNDING HARDWARE AND ANTENNA HARDWARE SHALL HAVE A TORQUE MARK INSTALLED IN A CONTINUOUS STRAIGHT LINE FROM BOTH SIDES OF THE CONNECTION.
   A. RF CONNECTION BOTH SIDES OF THE CONNECTOR.
   B. GROUNDING AND ANTENNA HARDWARE ON THE NUT SIDE STARTING FROM THE THREADS TO THE SOLID SURFACE. EXAMPLE OF SOLID SURFACE: GROUND BAR, ANTENNA BRACKET METAL.

FIBER & POWER CABLE MOUNTING

53. THE FIBER OPTIC TRUNK CABLES SHALL BE INSTALLED INTO CONDUITS, CHANNEL CABLE TRAYS, OR CABLE TRAY. WHEN INSTALLING FIBER OPTIC TRUNK CABLES INTO A CABLE TRAY SYSTEM, THEY SHALL BE INSTALLED INTO AN INTER DUCT AND A PARTITION BARRIER SHALL BE INSTALLED BETWEEN THE 600 VOLT CABLES AND THE INTER DUCT IN ORDER TO SEGREGATE CABLE TYPES. OPTIC FIBER TRUNK CABLES SHALL HAVE APPROVED CABLE RESTRAINTS EVERY (60) SIXTY FEET AND SECURELY FASTENED TO THE CABLE TRAY SYSTEM. NFPA 70 (NEC) ARTICLE 770 RULES SHALL APPLY.

54. THE TYPE TC–ER CABLES SHALL BE INSTALLED INTO CONDUITS, CHANNEL CABLE TRAYS, OR CABLE TRAY AND SHALL BE SECURED AT INTERVALS NOT EXCEEDING (6) SIX FEET. AN EXCEPTION; WHERE TYPE TC–ER CABLES ARE NOT SUBJECT TO PHYSICAL DAMAGE, CABLES SHALL BE PERMITTED TO MAKE A TRANSITION BETWEEN CONDUITS, CHANNEL CABLE TRAYS, OR CABLE TRAY WHICH ARE SERVING UTILIZATION EQUIPMENT OR DEVICES, A DISTANCE (6) SIX FEET SHALL NOT BE EXCEEDED WITHOUT CONTINUOUS SUPPORTING. NFPA 70 (NEC) ARTICLES 336 AND 392 RULES SHALL APPLY.

55. WHEN INSTALLING OPTIC FIBER TRUNK CABLES OR TYPE TC–ER CABLES INTO CONDUITS, NFPA 70 (NEC) ARTICLE 300 RULES SHALL APPLY.

COAXIAL CABLE NOTES

62. TYPES AND SIZES OF THE ANTENNA CABLE ARE BASED ON ESTIMATED LENGTHS. PRIOR TO

    ORDERING CABLE, CONTRACTOR SHALL VERIFY ACTUAL LENGTH BASED ON CONSTRUCTION LAYOUT AND NOTIFY THE PROJECT MANAGER IF ACTUAL LENGTHS EXCEED ESTIMATED LENGTHS.

63. CONTRACTOR SHALL VERIFY THE DOWN–TILT OF EACH ANTENNA WITH A DIGITAL LEVEL.

64. CONTRACTOR SHALL CONFIRM COAX COLOR CODING PRIOR TO CONSTRUCTION.

65. ALL JUMPERS TO THE ANTENNAS FROM THE MAIN TRANSMISSION LINE SHALL BE 1/2" DIA. LDF AND SHALL NOT EXCEED 6'–0".

66. ALL COAXIAL CABLE SHALL BE SECURED TO THE DESIGNED SUPPORT STRUCTURE, IN AN APPROVED MANNER, AT DISTANCES NOT TO EXCEED 4'–0" OC.

67. CONTRACTOR SHALL FOLLOW ALL MANUFACTURER'S RECOMMENDATIONS REGARDING BOTH THE INSTALLATION AND GROUNDING OF ALL COAXIAL CABLES, CONNECTORS, ANTENNAS, AND ALL OTHER EQUIPMENT.

68. CONTRACTOR SHALL GROUND ALL EQUIPMENT. INCLUDING ANTENNAS, RET MOTORS, TMA'S, COAX CABLES, AND RET CONTROL CABLES AS A COMPLETE SYSTEM. GROUNDING SHALL BE EXECUTED BY QUALIFIED WIREMEN IN COMPLIANCE WITH MANUFACTURER'S SPECIFICATION AND RECOMMENDATION.

69. CONTRACTOR SHALL PROVIDE STRAIN–RELIEF AND CABLE SUPPORTS FOR ALL CABLE ASSEMBLIES, COAX CABLES, AND RET CONTROL CABLES. CABLE STRAIN–RELIEFS AND CABLE SUPPORTS SHALL BE APPROVED FOR THE PURPOSE. INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.

70. CONTRACTOR TO VERIFY THAT EXISTING COAX HANGERS ARE STACKABLE SNAP IN HANGERS. IF EXISTING HANGERS ARE NOT STACKABLE SNAP IN HANGERS THE CONTRACTOR SHALL REPLACE EXISTING HANGERS WITH NEW SNAP IN HANGERS IF APPLICABLE.

GENERAL CABLE AND EQUIPMENT NOTES

71. CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY ANTENNA, TMAS, DIPLEXERS, AND COAX CONFIGURATION, MAKE AND MODELS PRIOR TO INSTALLATION.

72. ALL CONNECTIONS FOR HANGERS, SUPPORTS, BRACING, ETC. SHALL BE INSTALLED PER TOWER MANUFACTURER'S RECOMMENDATIONS.

73. CONTRACTOR SHALL REFERENCE THE TOWER STRUCTURAL ANALYSIS/DESIGN DRAWINGS FOR DIRECTIONS ON CABLE DISTRIBUTION/ROUTING.

74. ALL OUTDOOR RF CONNECTORS/CONNECTIONS SHALL BE WEATHERPROOFED, EXCEPT THE RET CONNECTORS, USING BUTYL TAPE AFTER INSTALLATION AND FINAL CONNECTIONS ARE MADE. BUTYL TAPE SHALL HAVE A MINIMUM OF ONE–HALF TAPE WIDTH OVERLAP ON EACH TURN AND EACH LAYER SHALL BE WRAPPED THREE TIMES. WEATHERPROOFING SHALL BE SMOOTH WITHOUT BUCKLING. BUTYL BLEEDING IS NOT ALLOWED.

75. IF REQUIRED TO PAINT ANTENNAS AND/OR COAX:
   A. TEMPERATURE SHALL BE ABOVE 50° F.
   B. PAINT COLOR MUST BE APPROVED BY BUILDING OWNER/LANDLORD.
   C. FOR REGULATED TOWERS, FAA/FCC APPROVED PAINT IS REQUIRED.
   D. DO NOT PAINT OVER COLOR CODING OR ON EQUIPMENT MODEL NUMBERS

76. ALL CABLES SHALL BE GROUNDED WITH COAXIAL CABLE GROUND KITS. FOLLOW THE MANUFACTURER'S RECOMMENDATIONS.
   A. GROUNDING AT THE ANTENNA LEVEL.
   B. GROUNDING AT MID LEVEL, TOWERS WHICH ARE OVER 200'–0", ADDITIONAL CABLE GROUNDING REQUIRED.
   C. GROUNDING AT BASE OF TOWER PRIOR TO TURNING HORIZONTAL.
   D. GROUNDING OUTSIDE THE EQUIPMENT SHELTER AT ENTRY PORT.
   E. GROUNDING INSIDE THE EQUIPMENT SHELTER AT THE ENTRY PORT.

77. ALL PROPOSED GROUND BAR DOWNLEADS ARE TO BE TERMINATED TO THE EXISTING ADJACENT GROUND BAR DOWNLEADS A MINIMUM DISTANCE OF 4'–0" BELOW GROUND BAR. TERMINATIONS MAY BE EXOTHERMIC OR COMPRESSION.

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STATE OF CONNECTICUT · KATHLEEN TAYLOR COFFEY · 36017 · LICENSED PROFESSIONAL ENGINEER

SITE NAME
NAUGATUCK EASTSIDE BOULEVARD

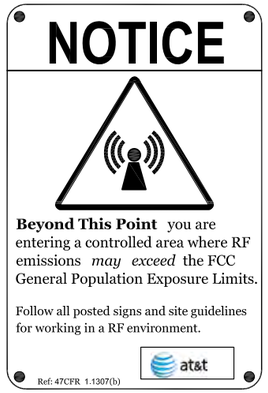
SITE NUMBER:
CTL02056

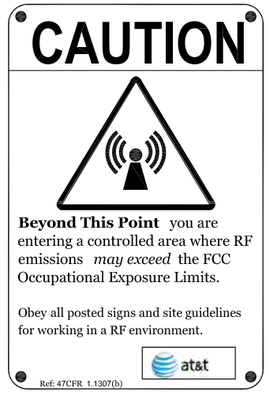
SITE ADDRESS
130 EASTSIDE BLVD
NAUGATUCK, CT 06770

SHEET NAME
NOTES AND SPECIFICATIONS

SHEET NUMBER
SP1

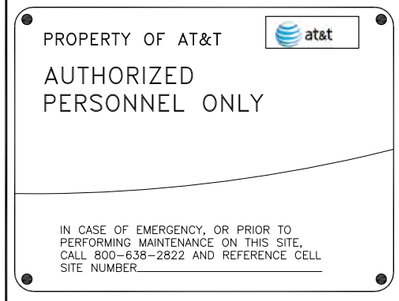
PROJECT# 2021.0215.0004





ALERTING SIGNS

ALERTING SIGN



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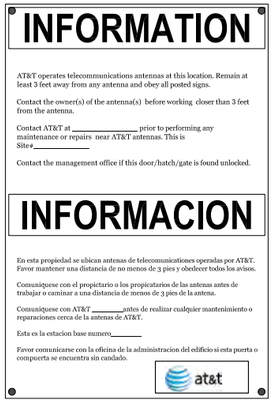

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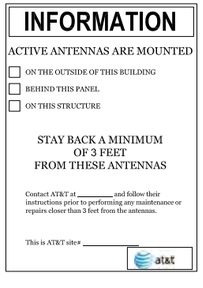

INFO SIGN #2

INFO SIGN #3

ALERTING SIGN (FOR CELL SITE BATTERIES)

ALERTING SIGN (FOR DIESEL FUEL)

ALERTING SIGN (FOR PROPANE)

GENERAL SIGNAGE GUIDELINES

STRUCTURE TYPE	INFO SIGN #1	INFO SIGN #2	INFO SIGN #3	INFO SIGN #4	STRIPING	NOTICE SIGN	CAUTION SIGN
TOWERS							
MONOPOLE/MONOPINE/MONOPALM	ENTRANCE GATES, SHELTER DOORS OR ON THE OUTDOOR CABINETS	CLIMBING SIDE OF THE TOWER	ON BACKSIDE OF ANTENNAS	ENTRANCE GATES, SHELTER DOORS OR ON THE OUTDOOR CABINETS			AT THE HEIGHT OF THE FIRST CLIMBING STEP, MIN 9 FT ABOVE GROUND
SEC TOWERS/TOWERS WITH HIGH VOLTAGE	ENTRANCE GATES, SHELTER DOORS OR ON THE OUTDOOR CABINETS	CLIMBING SIDE OF THE TOWER	ON BACKSIDE OF ANTENNAS	ENTRANCE GATES, SHELTER DOORS OR ON THE OUTDOOR CABINETS			
LIGHT POLES/FLAG POLES	ENTRANCE GATES, SHELTER DOORS OR ON THE OUTDOOR CABINETS	ON THE POLE, NO LESS THAN 3FT BELOW THE ANTENNA AND LESS THAN 9FT ABOVE GROUND	ON BACKSIDE OF ANTENNAS	ENTRANCE GATES, SHELTER DOORS OR ON THE OUTDOOR CABINETS			
UTILITY WOOD POLES (JPA)	ENTRANCE GATES, SHELTER DOORS OR ON THE OUTDOOR CABINETS	ON THE POLE, NO LESS THAN 3FT BELOW THE ANTENNA AND LESS THAN 9FT ABOVE GROUND	ON BACKSIDE OF ANTENNAS	ENTRANCE GATES, SHELTER DOORS OR ON THE OUTDOOR CABINETS		IF GP MAX VALUE OF MPE AT ANTENNA LEVEL IS: 0-99%; NOTICE SIGN; OVER 99%: CAUTION SIGN AT NO LESS THAN 3FT BELOW ANTENNA AND 9FT ABOVE GROUND	
MICROCELLS MOUNTED ON NON-JPA POLES	ENTRANCE GATES, SHELTER DOORS OR ON THE OUTDOOR CABINETS	ON THE POLE, NO LESS THAN 3FT BELOW THE ANTENNA AND LESS THAN 9FT ABOVE GROUND	ON BACKSIDE OF ANTENNAS	ENTRANCE GATES, SHELTER DOORS OR ON THE OUTDOOR CABINETS		NOTICE OR CAUTION SIGN AT NO LESS THAN 9FT ABOVE GROUND: ONLY IF THE EXPOSURE EXCEEDS 90% OF THE GENERAL PUBLIC EXPOSURE AT EXPOSURE AT 6FT ABOVE GROUND OR AT OUTSIDE OF SURFACE OF ADJACENT BUILDING	
TOWERS							
AT ALL ACCESS POINTS TO THE ROOF	X			X			
ON ANTENNAS	X		X	X			
CONCEALED ANTENNAS	X	X		X			
ANTENNAS MOUNTED FACING OUTSIDE THE BUILDING	X	X		X			
ANTENNAS ON SUPPORT STRUCTURE	X	X		X			
ROOFVIEW GRAPH						EITHER NOTICE OR CAUTION SIGN (BASED ON ROOFVIEW RESULTS) AT ANTENNA /BARRIER	
RADIATION AREA IS WITHIN 3FT FROM ANTENNA	X	ADJACENT TO EACH ANTENNA		X			
RADIATION AREA IS BEYOND 3FT FROM ANTENNA	X	ADJACENT TO EACH ANTENNA		X	DIAGONAL, YELLOW STRIPING AS TO ROOFVIEW GRAPH		
CHURCH STEEPLES	ACCESS TO STEEPLE	ADJACENT TO ANTENNAS IF ANTENNAS ARE CONCEALED	ON BACKSIDE OF ANTENNAS	ACCESS TO STEEPLE			CAUTION SIGN AT THE ANTENNAS
WATER STATIONS	ACCESS TO LADDER	ADJACENT TO ANTENNAS IF ANTENNAS ARE CONCEALED	ON BACKSIDE OF ANTENNAS	ACCESS TO LADDER			CAUTION SIGN BESIDE INFO SIGN #1, MIN. 9FT ABOVE GROUND

NOTES FOR ROOFTOP SITES:

1. EITHER NOTICE OR CAUTION SIGNS NEED TO BE POSTED AT EACH SECTOR AS CLOSE AS POSSIBLE TO: THE OUTER EDGE OF THE STRIPED OFF AREA OR THE OUTER ANTENNAS OF THE SECTOR
2. IF ROOFVIEWS SHOWS: ONLY BLUE = NOTICE SIGN, BLUE AND YELLOW = CAUTION SIGN, ONLY YELLOW = CAUTION SIGN TO BE INSTALLED
3. SHOULD THE REQUIRED STRIPING AREAS INTERFERE WITH ANY STRUCTURE OR EQUIPMENT (A/C, VENTS, ROOF HATCH, DOORS, OTHER ANTENNAS, DISHES, ETC.). PLEASE NOTIFY AT&T TO MODIFY THE STRIPING AREA, PRIOR TO STARTING THE WORK.

SIGNAGE GUIDELINES CHART

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SHEET NAME
NOTES AND SPECIFICATIONS

SHEET NUMBER
SP2

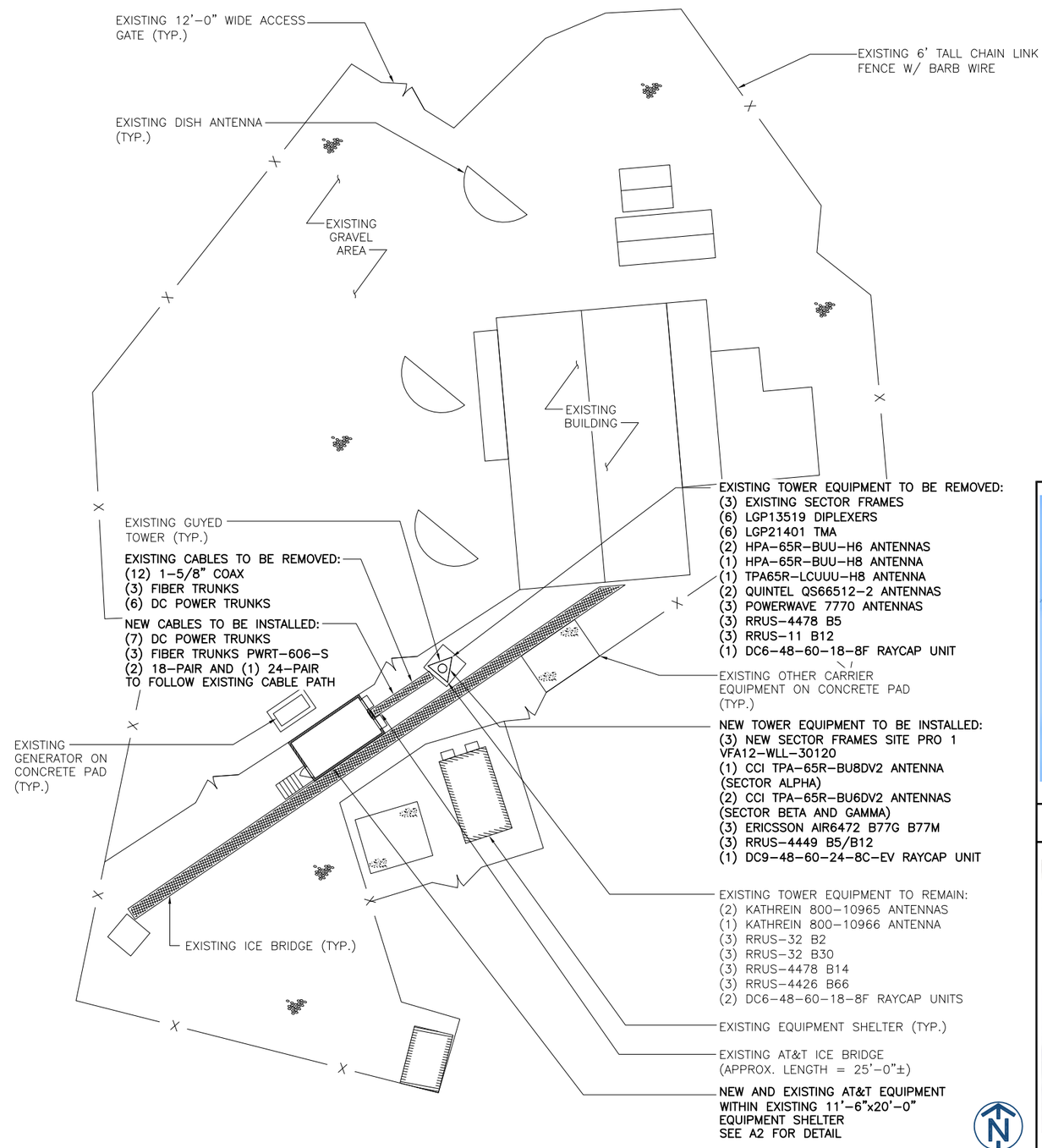
PROJECT# 2021.02150004

ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR
AGL	ABOVE GRADE LEVEL
AMSL	ABOVE MEAN SEA LEVEL
APPROX	APPROXIMATE
ATS	AUTOMATIC TRANSFER SWITCH
AWG	AMERICAN WIRE GAUGE
BLDG	BUILDING
BTS	BASE TRANSMISSION STATION
℄	CENTERLINE
CLR	CLEAR
COL	COLUMN
CONC	CONCRETE
CND	CONDUIT
DWG	DRAWING
FT	FOOT(FEET)
EGB	EQUIPMENT GROUND BAR
ELEC	ELECTRICAL
EMT	ELECTRICAL METALLIC TUBING
ELEV	ELEVATION
EQUIP	EQUIPMENT
(E)	EXISTING
EXT	EXTERIOR
FND	FOUNDATION
F	FIBER
FIF	FACILITY INTERFACE FRAME
GA	GAUGE
GALV	GALVANIZED
GPS	GLOBAL POSITIONING SYSTEM
GND	GROUND
GSM	GLOBAL SYSTEM FOR MOBILE COMMUNICATION
LTE	LONG TERM EVOLUTION
MAX	MAXIMUM
MCPA	MULTI-CARRIER POWER AMPLIFIER
MFR	MANUFACTURER
MGB	MASTER GROUND BAR
MIN	MINIMUM
MTS	MANUAL TRANSFER SWITCH
N.T.S.	NOT TO SCALE
O.C.	ON CENTER
OE/OT	OVERHEAD ELECTRIC/TELCO
PPC	POWER PROTECTION CABINET
PL	PROPERY LINE
RBS	RADIO BASED STATION
RET	REMOTE ELECTRIC TILT
RRU	REMOTE RADIO UNIT
RGS	RIGID GALVANIZED STEEL
IN	INCH(ES)
INT	INTERIOR
LB(S), #	POUND(S)
SF	SQUARE FOOT
STL	STEEL
TMA	TOWER MOUNTED AMPLIFIER
TYP	TYPICAL
UE/UT	UNDERGROUND ELECTRIC/TELCO
UNO	UNLESS NOTED OTHERWISE
UMTS	UNIVERSAL MOBILE TELE-COMMUNICATION SYSTEM
VIF	VERIFY IN FIELD
W/	WITH
XFMR	TRANSFORMER

SYMBOLS

- REVISION
- WORK POINT
- UTILITY POLE
- COMPRESSED STONE
- BRICK
- CONCRETE
- EARTH
- GRAVEL
- MASONRY
- STEEL
- CENTERLINE
- PROPERTY LINE
- LEASE LINE
- EASEMENT LINE
- CHAIN LINK FENCE
- WOOD FENCE
- UE — BELOW GRADE ELECTRIC
- UT — BELOW GRADE TELEPHONE
- OE/OT — OVERHEAD ELECTRIC/TELEPHONE
- SECTION REFERENCE (A-1 / A)



COMPOUND PLAN — 0 15 30 45 — SCALE: 1" = 30'-0" — 1

SITE PHOTO 1 — SCALE: N.T.S. — 2

SITE PHOTO 2 — SCALE: N.T.S. — 3

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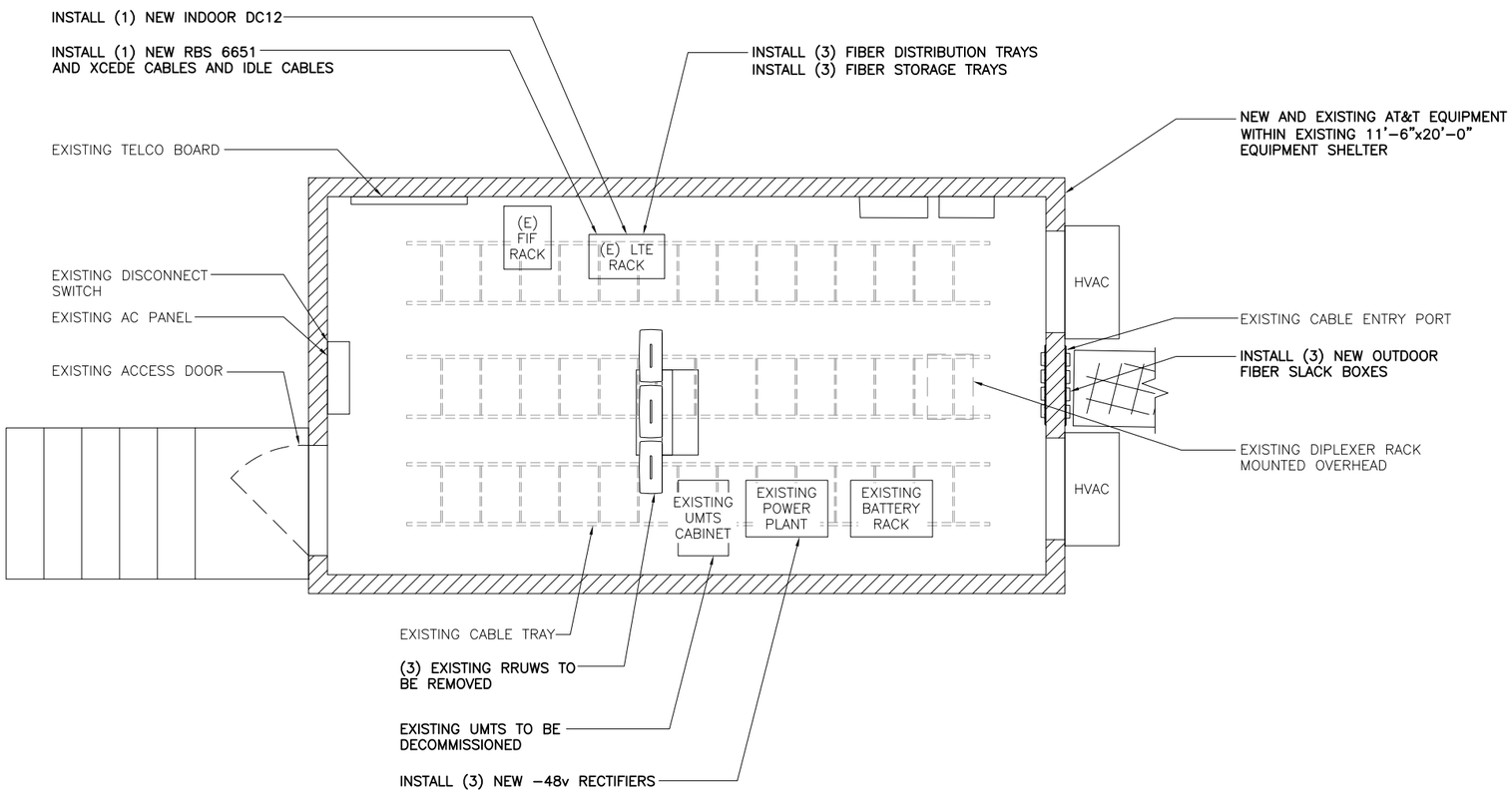
SHEET NAME
COMPOUND PLAN

SHEET NUMBER
A1

PROJECT# 2021.02150004



EQUIPMENT PLAN

0 1' 2' 4' 6'

SCALE: 1/4" = 1'-0"

1

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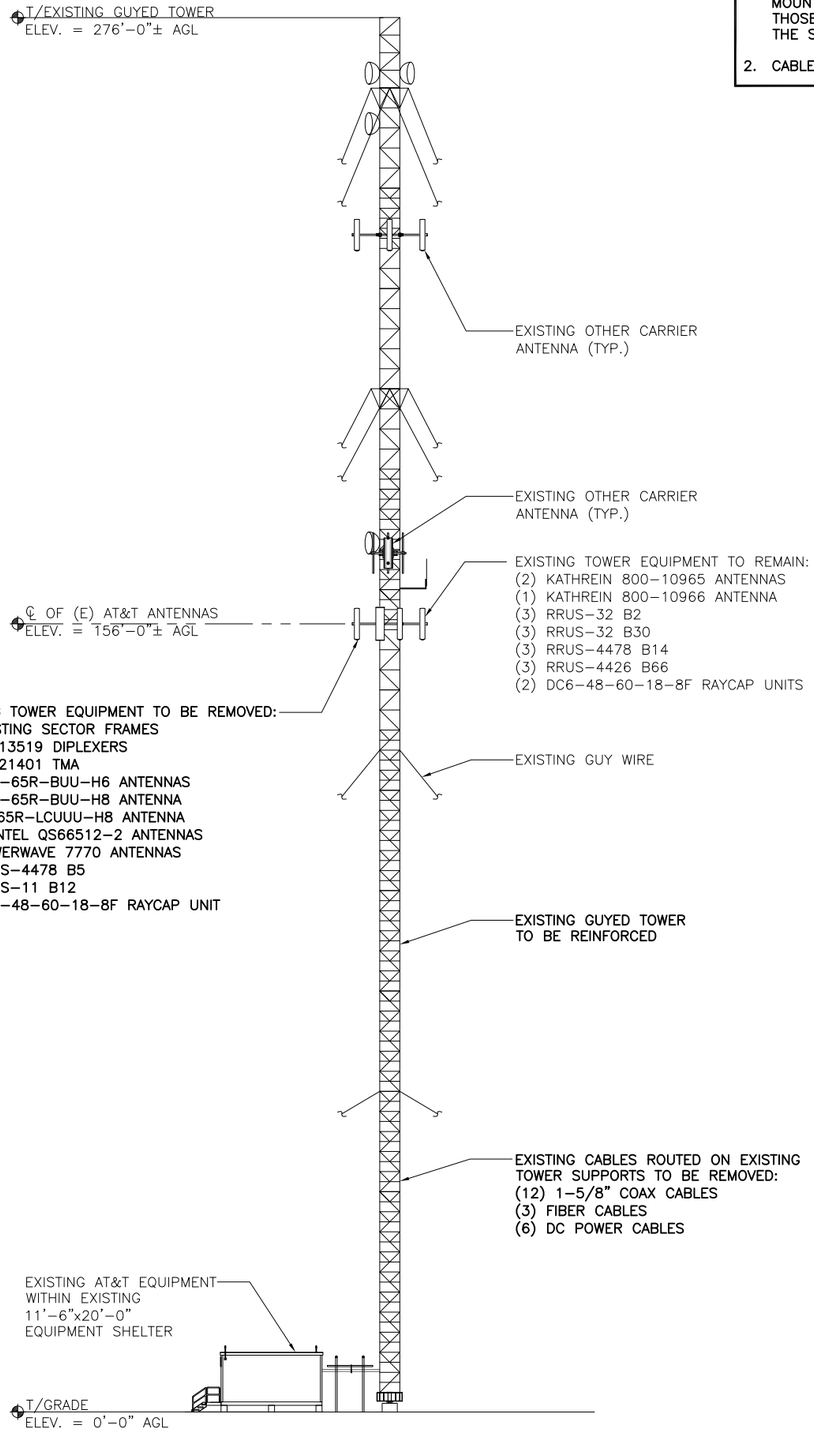
SHEET NAME
EQUIPMENT PLAN

SHEET NUMBER
A2

PROJECT# 2021.02150004

NOTES:

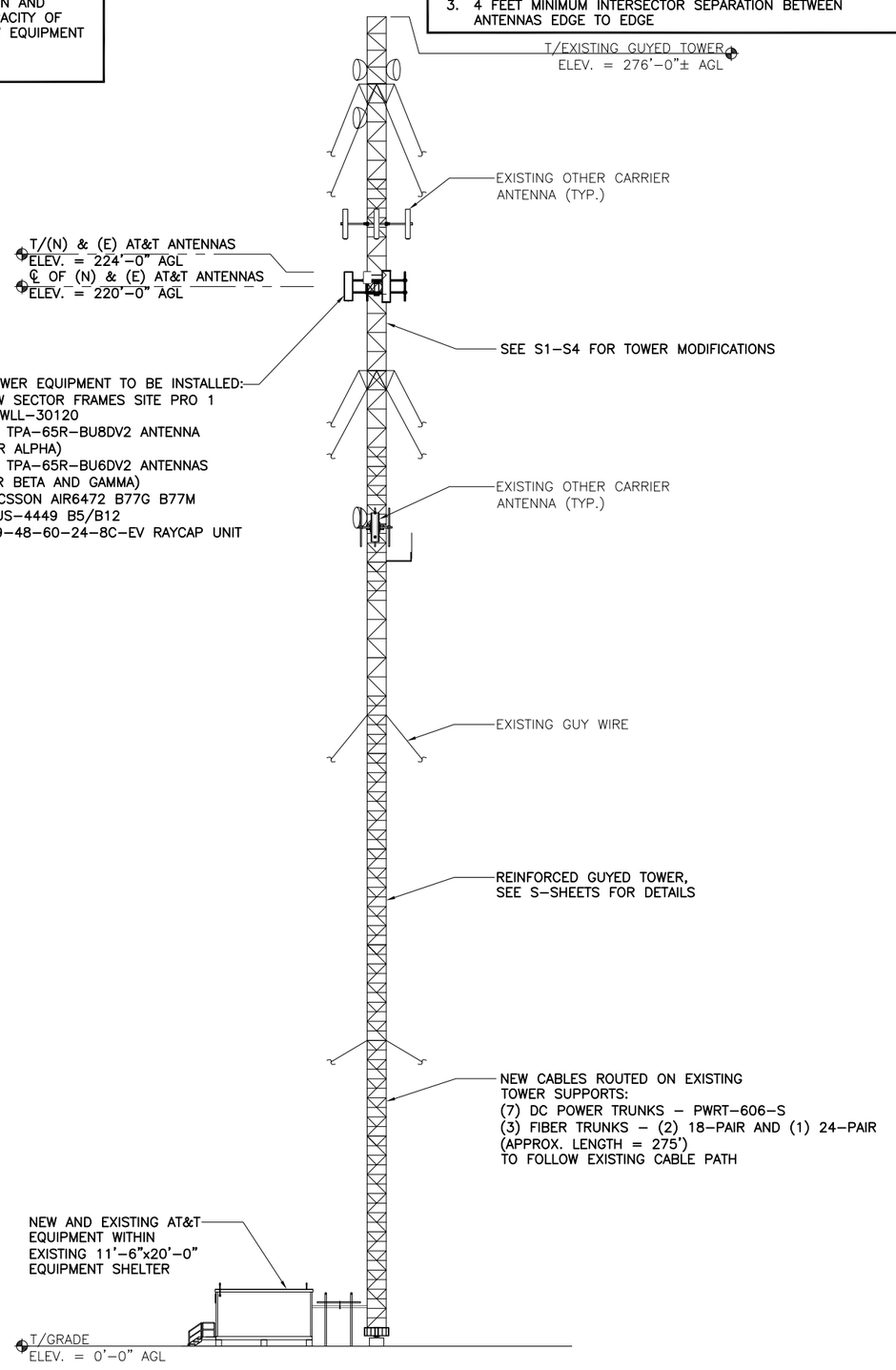
1. CALCULATIONS FOR THE STRUCTURE AND ANTENNA MOUNTS WERE PREPARED BY FULLERTON AND THOSE CALCULATIONS CERTIFY THE CAPACITY OF THE STRUCTURE TO SUPPORT THE NEW EQUIPMENT
2. CABLES NOT SHOWN FOR CLARITY



EXISTING ELEVATION — SCALE: 1" = 30'-0" — 1

NOTES:

1. 3 FEET MINIMUM SEPARATION BETWEEN LTE ANTENNAS
2. 6 FEET MINIMUM SEPARATION BETWEEN 700DE & 700BC
3. 4 FEET MINIMUM INTERSECTOR SEPARATION BETWEEN ANTENNAS EDGE TO EDGE



NEW ELEVATION — SCALE: 1" = 30'-0" — 2

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NAUGATUCK, CT 06770

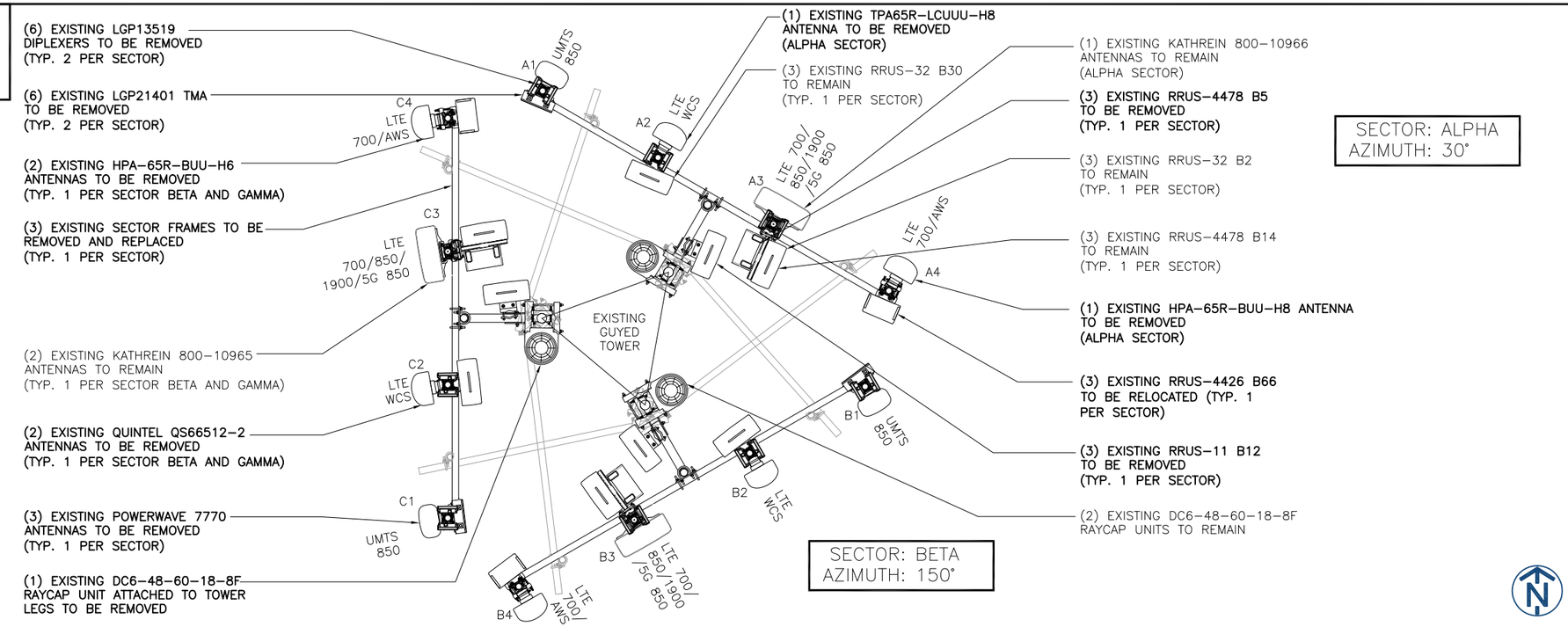
SHEET NAME
ELEVATIONS

SHEET NUMBER
A3

PROJECT# 2021.02150004

NOTES:

ALL REMAINING AT&T EQUIPMENT TO BE RELOCATED TO NEW AT&T SECTOR FRAMES @ 220'-0" AGL

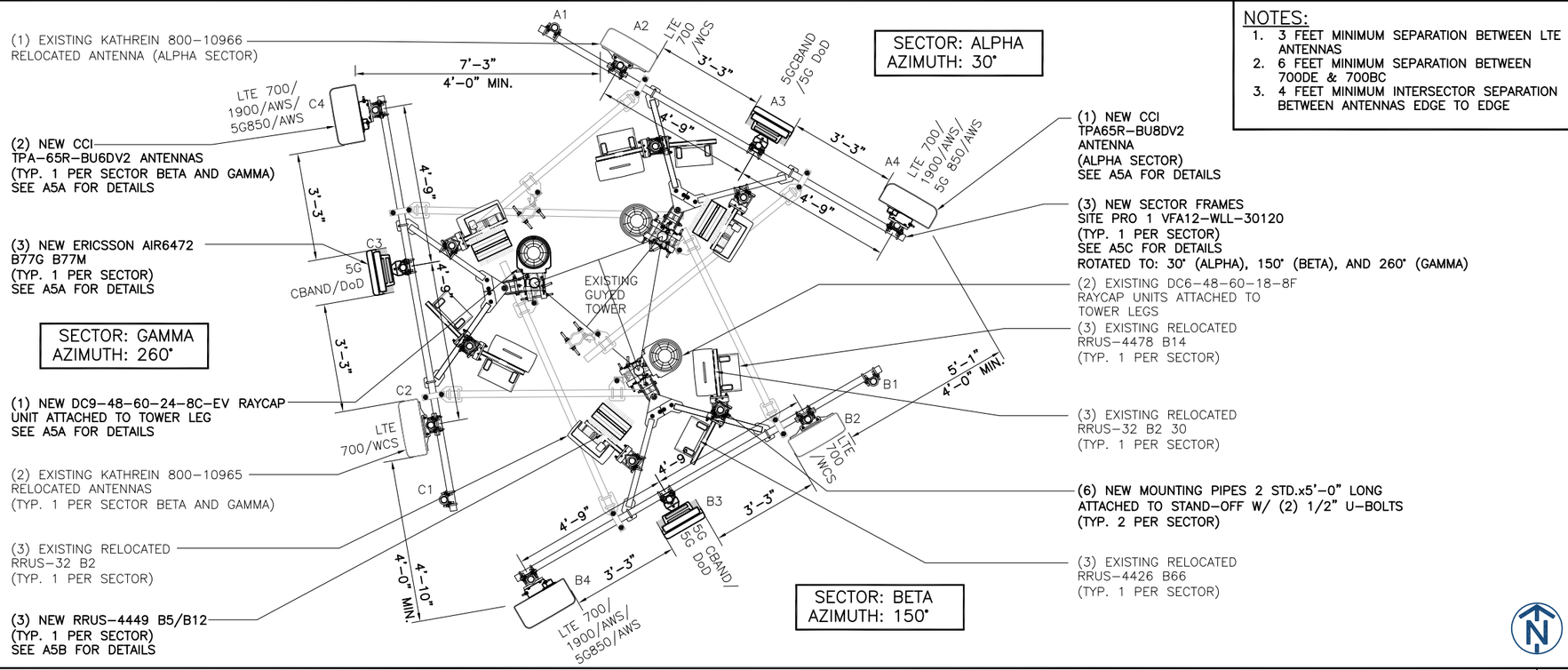


EXISTING ANTENNA PLAN @ 156'-0" AGL

0 1' 2' 4' 6'

SCALE: 1/4" = 1'-0"

1



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2. 6 FEET MINIMUM SEPARATION BETWEEN 700DE & 700BC
3. 4 FEET MINIMUM INTERSECTOR SEPARATION BETWEEN ANTENNAS EDGE TO EDGE

FINAL ANTENNA PLAN @ 220'-0" AGL

0 1' 2' 4' 6'

SCALE: 1/4" = 1'-0"

2

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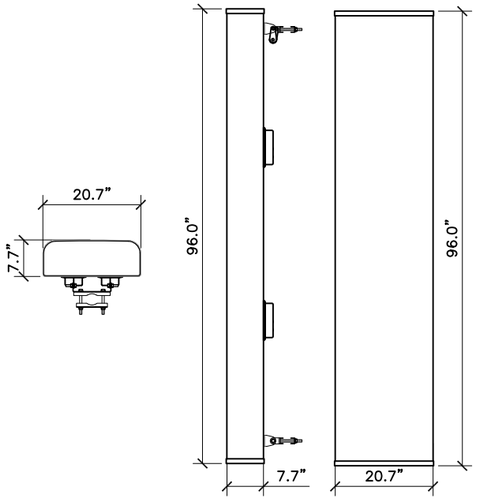
SHEET NAME
ANTENNA PLANS

SHEET NUMBER
A4

PROJECT# 2021.02150004



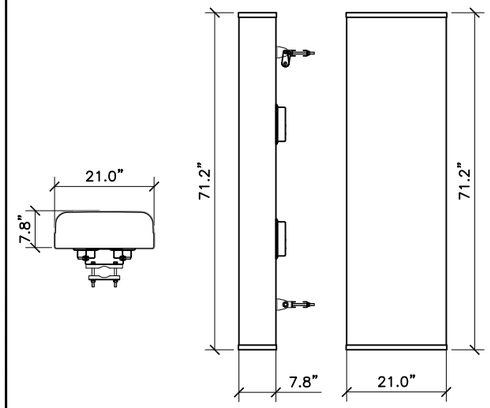
PLAN VIEW SIDE VIEW FRONT VIEW

CCI – TPA–65R–BU8DV2

MULTI–BAND ANTENNA

FREQUENCY RANGE	4 LOW x 698–896 MHz 8 HIGH x 1695–2400 MHz
ANTENNA WEIGHT	88 Lbs

ANTENNA SPEC SCALE: N.T.S. 1



PLAN VIEW SIDE VIEW FRONT VIEW

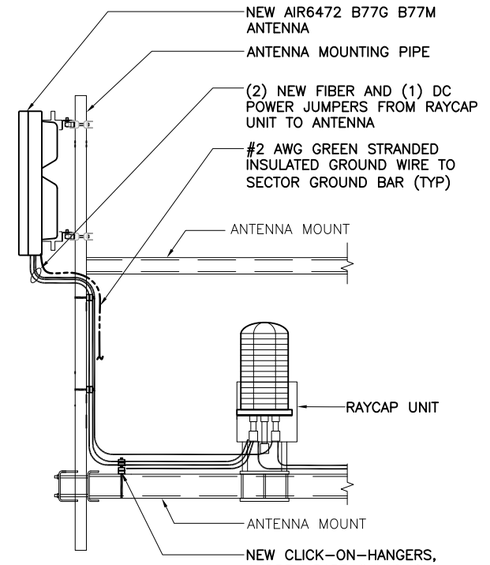
CCI – TPA–65R–BU6DV2

MULTI–BAND ANTENNA

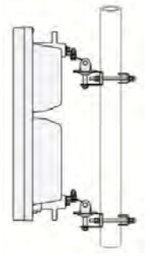
FREQUENCY RANGE	4 LOW x 698–896 MHz 8 HIGH 1695–2400 MHz
ANTENNA WEIGHT	68.3 Lbs

ANTENNA SPEC SCALE: N.T.S. 2

NOT USED SCALE: N.T.S. 3



ANTENNA SCHEMATIC SCALE: N.T.S. 4

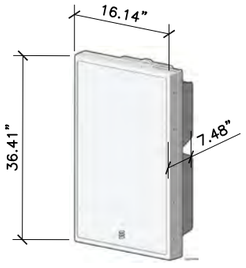


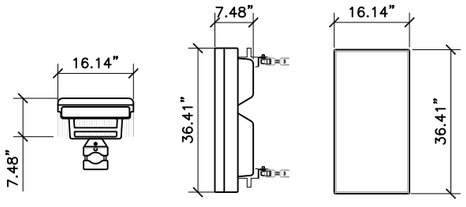
Pole	Circular	Square	90° Angle
Minimum outer dimension	Ø76 mm	50 × 50 mm	50 × 50 mm
Maximum outer dimension	Ø114 mm	80 × 80 mm	80 × 80 mm

ERICSSON – AIR 6472 B77D MOUNT

BRACKET SUPPORTING AIR WITH TILTING +/–20 DEGREE AND RIGHT/LEFT 30 DEGREE

ANTENNA SPEC SCALE: N.T.S. 5





PLAN VIEW SIDE VIEW FRONT VIEW

ERICSSON – AIR6472 B77G B77M

MASSIVE MIMO MID–BAND

WEIGHT W/ HARDWARE 92.59 Lbs

ANTENNA SPEC SCALE: N.T.S. 6

NOT USED SCALE: N.T.S. 7

NOT USED SCALE: N.T.S. 8

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REV	DATE	DESCRIPTION	BY
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2	07/20/22	REV FINAL	IH
3	10/18/22	REV FINAL	JW
4	06/08/23	FOR CONSTRUCTION	MK
5	07/28/23	FOR CONSTRUCTION	MK
6	08/17/23	FOR CONSTRUCTION	KC

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SITE NAME
NAUGATUCK EASTSIDE BOULEVARD

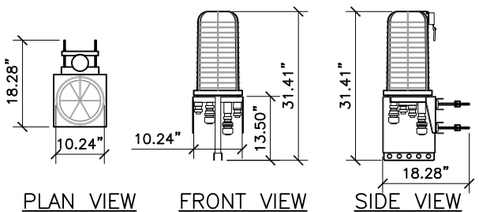
SITE NUMBER:
CTL02056

SITE ADDRESS
130 EASTSIDE BLVD
NAUGATUCK, CT 06770

SHEET NAME
EQUIPMENT DETAILS

SHEET NUMBER
A5A

PROJECT# 2021.02150004



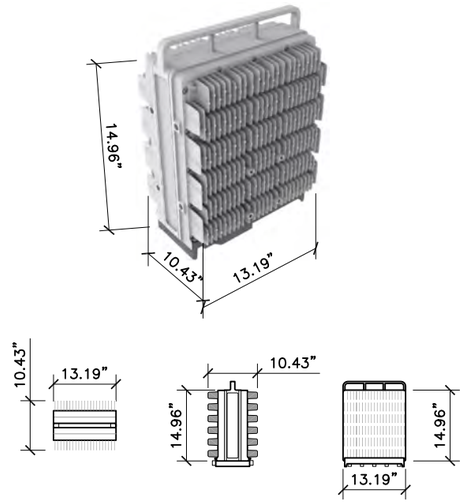
PLAN VIEW FRONT VIEW SIDE VIEW

RAYCAP – DC9-48-60-24-8C-EV

SYSTEM WEIGHT	16.0 Lbs
MOUNT WEIGHT	10.2 Lbs
TOTAL WEIGHT	26.2 Lbs

DIMENSIONS (LxWxH) 18.28"x10.24"x31.4"

RAYCAP SPEC SCALE: N.T.S. 1



PLAN VIEW SIDE VIEW FRONT VIEW

ERICSSON

RADIO 4449 DUAL B5 & B12

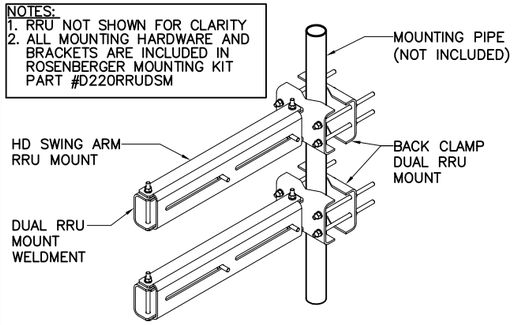
AISG TMA & RET SUPPORT

4TX/4RX PER BAND (B5 & B12)

WEIGHT ~73 Lbs

RRU SPEC SCALE: N.T.S. 2

NOTES:
1. RRU NOT SHOWN FOR CLARITY
2. ALL MOUNTING HARDWARE AND BRACKETS ARE INCLUDED IN ROSENBERGER MOUNTING KIT PART #D220RRUDSM



RRH MOUNT DETAIL SCALE: N.T.S. 3

NOT USED SCALE: N.T.S. 4

NOT USED SCALE: N.T.S. 5

NOT USED SCALE: N.T.S. 6

NOT USED SCALE: N.T.S. 7

NOT USED SCALE: N.T.S. 8

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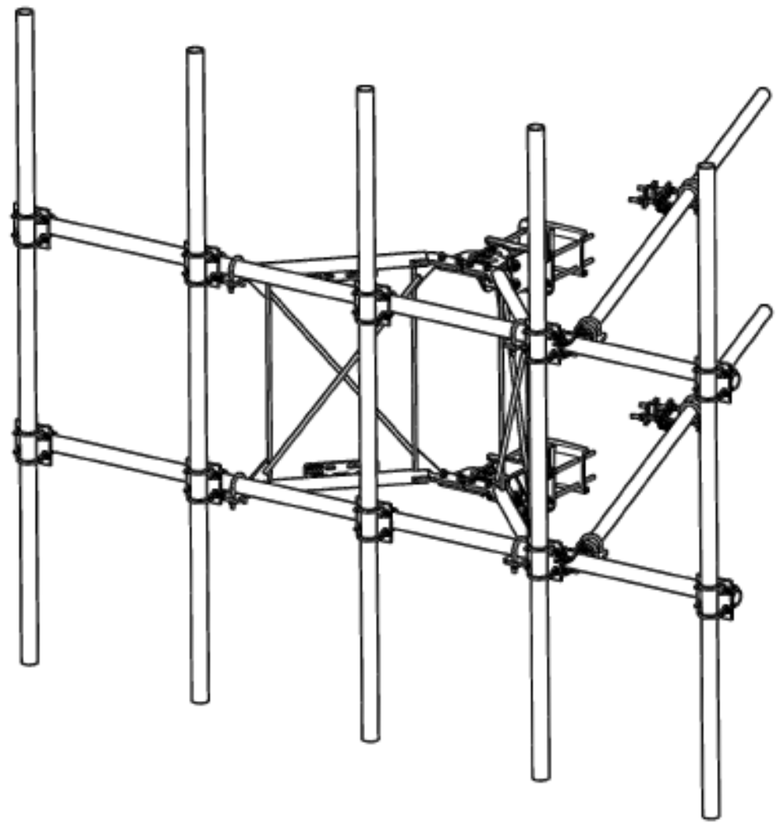

PARTS LIST

ITEM	QTY	PART NO.	PART DESCRIPTION	LENGTH	UNIT WT.	NET WT.
1	2	X-VFAW	SUPPORT ARM		71.41	142.81
2	1	X-HDCAMTBW	CLAMP WELDMENT FOR BCAM-HD		33.86	33.86
3	1	X-MHTPHD	MULTI-HOLE TAPER PLATE WELDMENT		36.24	36.24
4	1	X-HDCAMSS	ANGLE ADJUSTMENT WELDMENT FOR BCAM-HD		16.39	16.39
5	2	X-VFAPL4	VFA-HD PIVOT PLATE	12 in	15.88	31.77
6	2	X-LCBP4	BENT BACKING PLATE	13 in	19.00	38.01
7	4	X-SPTB	SLIDING PIPE TIE BACK PLATE	5 1/2 in	5.87	23.49
8	1	X-HDCAMSP	POSITIONING PLATE WELDMENT FOR BCAM-HD		2.58	2.58
9	4	X-TBCA	TIE BACK CLIP ANGLE		2.01	8.02
10	10	SCX2	CROSSOVER PLATE	7 in	4.80	47.96
11	4	MCP	CLAMP HALF 1/2" THICK, 11-5/8" LONG	12 1/16 in	3.59	14.37
12	8	DCP	1/2" THICK, 5-3/4" CNTER TO CENTER CLAMP HALF	8 1/8 in	2.36	18.90
13	2	P2126	2-3/8" X 126" (2" SCH. 40) GALVANIZED PIPE	126 in	40.75	81.50
14	2	P30150	2-7/8" X 150" (2-1/2" SCH. 40) GALVANIZED PIPE	150 in	76.94	153.87
15	4	A34212	3/4" x 2-1/2" UNC HEX BOLT (A325)	2 1/2 in	0.48	1.92
16	4	G34FW	3/4" HDG USS FLATWASHER		0.06	0.24
17	4	G34LW	3/4" HDG LOCKWASHER		0.04	0.17
18	4	G34NUT	3/4" HDG HEAVY 2H HEX NUT		0.21	0.85
19	8	G58R-18	5/8" x 18" THREADED ROD (HDG.)		1.57	12.54
20	4	G58R-12	5/8" x 12" THREADED ROD (HDG.)		1.05	4.18
21	4	G58R-8	5/8" x 8" THREADED ROD (HDG.)		0.70	2.79
22	4	X-UB5300	5/8" X 3" X 5-1/4" X 2-1/2" U-BOLT (HDG.)		1.15	4.60
23	8	X-UB5258	5/8" X 2-5/8" X 4-1/2" X 2" U-BOLT (HDG.)		1.00	8.00
24	2	G5807	5/8" x 7" HDG HEX BOLT GR5 FULL THREAD	7 in	0.70	1.41
25	1	G5806	5/8" x 6" HDG HEX BOLT GR5 FULL THREAD	6 in	0.62	0.62
26	8	G5804	5/8" x 4" HDG HEX BOLT GR5		0.44	3.55
27	4	G5802	5/8" x 2" HDG HEX BOLT GR5		0.27	1.08
28	8	A582114	5/8" x 2-1/4" HDG A325 HEX BOLT	2 1/4 in	0.31	2.50
29	25	G58FW	5/8" HDG USS FLATWASHER	1/8 in	0.07	1.76
30	66	G58LW	5/8" HDG LOCKWASHER		0.03	1.72
31	71	G58NUT	5/8" HDG HEAVY 2H HEX NUT		0.13	9.22
32	48	X-UB1300	1/2" X 3" X 5" X 2" GALV U-BOLT		0.74	35.45
33	20	X-UB1212	1/2" X 2-1/2" X 4-1/2" X 2" GALV. U-BOLT		0.66	13.13
34	80	G12FW	1/2" HDG USS FLATWASHER	3/32 in	0.03	2.73
35	80	G12LW	1/2" HDG LOCKWASHER	1/8 in	0.01	1.11
36	80	G12NUT	1/2" HDG HEAVY 2H HEX NUT		0.07	5.73
37	5	P30120	2-7/8" x 120" (2-1/2" SCH. 40) GALVANIZED PIPE	120 in	58.07	290.33
					TOTAL WT. #	1055.41

REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
A	UPDATED BCAM VERSION 1 TO BCAM VERSION 2	SP1	CSL	7/2/2018

REVISION HISTORY

TOLERANCE NOTES

TOLERANCES ON DIMENSIONS, UNLESS OTHERWISE NOTED ARE:
SAWED, SHEARED AND GAS CUT EDGES *(± 0.030")*
DRILLED AND GAS CUT HOLES *(± 0.030")* - NO CONING OF HOLES
LASER CUT EDGES AND HOLES *(± 0.010")* - NO CONING OF HOLES
BENDS ARE ± 1/2 DEGREE
ALL OTHER MACHINING *(± 0.030")*
ALL OTHER ASSEMBLY *(± 0.060")*

DESCRIPTION: 12' 6" HEAVY DUTY V-FRAME ASSEMBLY W/ 2 STIFF ARMS & MOUNT PIPES

CPD NO.	DRAWN BY	ENG. APPROVAL	PART NO.	
SP1	CSL 1/25/2017		VFA12-WLL-30120	PAGE 1 OF 5
CLASS / SUB	DRAWING USAGE	CHECKED BY	DWG. NO.	
87 / 02	CUSTOMER	BMC 5/3/2018	VFA12-WLL-30120	

SITE PRO 1 — A valmont COMPANY
Engineering Support Team: 1-888-753-7448
Locations: New York, NY; Atlanta, GA; Los Angeles, CA; Plymouth, IN; Salem, OR; Dallas, TX

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STATE OF CONNECTICUT · KATHLEEN TAYLOR COFFEY · 36017 · LICENSED PROFESSIONAL ENGINEER

SITE NAME
NAUGATUCK EASTSIDE BOULEVARD

SITE NUMBER:
CTL02056

SITE ADDRESS
130 EASTSIDE BLVD
NAUGATUCK, CT 06770

SHEET NAME
EQUIPMENT DETAILS

SHEET NUMBER
A5C

PROJECT# 2021.0215.0004

FINAL ANTENNA CONFIGURATION AND CABLE SCHEDULE
SUPPLIED BY AT&T WIRELESS, FROM RF CONFIG. DATED (07/10/23, V7.0)

SECTOR	ANTENNA NUMBER	ANTENNA STATUS & TYPE	ANTENNA MODEL NUMBER	ANTENNA VENDOR	TMA/RRU UNIT	AZIMUTH	ANTENNA CL FROM GROUND	CABLE FEEDER TYPE	CABLE FEEDER LENGTH	RAYCAP UNIT
ALPHA	A-1	-	-	-	-	-	-	-		(1) (E) DC6-48-60-18-8F UNIT
	A-2	(E) LTE 700/WCS	800-10966	KATHREIN	(1) EXISTING RRUS-4478 B14 (1) EXISTING RRUS-32 B30	30°	220'-0"	(1) NEW 18-PAIR FIBER CABLE	250'-0"	
								(2) NEW 6AWG6 DC POWER CABLE	250'-0"	
	A-3	(N) 5G CBAND 5G DoD	AIR6472 B77G B77M	ERICSSON	-	30°	220'-0"	SEE ANTENNA A-2 FOR CABLE TYPE AND LENGTH		
	A-4	(N) LTE 700BC/850 /PCS/AWS	TPA-65R-BU8DV2	CCI	(1) EXISTING RRUS-32 B2 (1) EXISTING RRUS-4426 B66 (1) NEW 4449 B5/B12 (1) NEW Y-CABLE	30°	220'-0"	SEE ANTENNA A-2 FOR CABLE TYPE AND LENGTH		
BETA	B-1	-	-	-	-	-	-	-		(1) (E) DC6-48-60-18-8F UNIT
	B-2	(E) LTE 700/WCS	800-10965	KATHREIN	(1) EXISTING RRUS-4478 B14 (1) EXISTING RRUS-32 B30	150°	220'-0"	SEE ANTENNA B-3 FOR CABLE TYPE AND LENGTH		
	B-3	(N) 5G CBAND 5G DoD	AIR6472 B77G B77M	ERICSSON	-	150°	220'-0"	(1) NEW 18-PAIR FIBER CABLE	250'-0"	
								(2) NEW 6AWG6 DC POWER CABLE	250'-0"	
	B-4	(N) LTE 700BC/850 /PCS/AWS	TPA-65R-BU6DV2	CCI	(1) EXISTING RRUS-32 B2 (1) EXISTING RRUS-4426 B66 (1) NEW 4449 B5/B12 (1) NEW Y-CABLE	150°	220'-0"	SEE ANTENNA B-3 FOR CABLE TYPE AND LENGTH		
GAMMA	C-1	-	-	-	-	-	-	-		(1) (N) DC9-48-60-24-8C-EV UNIT
	C-2	(E) LTE 700/WCS	800-10965	KATHREIN	(1) EXISTING RRUS-4478 B14 (1) EXISTING RRUS-32 B30	260°	220'-0"	SEE ANTENNA C-4 FOR CABLE TYPE AND LENGTH		
	C-3	(N) 5G CBAND 5G DoD	AIR6472 B77G B77M	ERICSSON	-	260°	220'-0"	SEE ANTENNA C-4 FOR CABLE TYPE AND LENGTH		
	C-4	(N) LTE 700BC/850 /PCS/AWS	TPA-65R-BU6DV2	CCI	(1) EXISTING RRUS-32 B2 (1) EXISTING RRUS-4426 B66 (1) NEW 4449 B5/B12 (1) NEW Y-CABLE	260°	220'-0"	(1) NEW 24-PAIR FIBER CABLE	250'-0"	
								(3) NEW 6AWG6 DC POWER CABLE	250'-0"	

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KATHLEEN TAYLOR COFFEY
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SITE NUMBER:
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SITE ADDRESS
130 EASTSIDE BLVD
NAUGATUCK, CT 06770

SHEET NAME
ANTENNA & CABLE CONFIGURATION

SHEET NUMBER
A6

1. CONTRACTOR IS TO REFER TO AT&T'S MOST CURRENT RADIO FREQUENCY DATA SHEET (RFDS) PRIOR TO CONSTRUCTION.
2. THE SIZE, HEIGHT, AND DIRECTION OF THE ANTENNAS SHALL BE ADJUSTED TO ACHIEVE THE AZIMUTHS SPECIFIED AND LIMIT SHADOWING AND TO MEET THE SYSTEM REQUIREMENTS.
3. CONTRACTOR SHALL VERIFY THE HEIGHT OF THE ANTENNA WITH THE AT&T WIRELESS PROJECT MANAGER.
4. VERIFY TYPE AND SIZE OF TOWER LEG PRIOR TO ORDERING ANY ANTENNA MOUNT.
5. UNLESS NOTED OTHERWISE THE CONTRACTOR MUST PROVIDE ALL MATERIAL NECESSARY.
6. ANTENNA AZIMUTHS ARE DEGREES OFF OF TRUE NORTH, BEARING CLOCKWISE, IN WHICH ANTENNA FACE IS DIRECTED. ALL ANTENNAS (AND SUPPORTING STRUCTURES AS PRACTICAL) SHALL BE ACCURATELY ORIENTED IN THE SPECIFIED DIRECTION.
7. CONTRACTOR SHALL VERIFY ALL RF INFORMATION PRIOR TO CONSTRUCTION.
8. SWEEP TEST SHALL BE PERFORMED BY GENERAL CONTRACTOR AND SUBMITTED TO AT&T WIRELESS CONSTRUCTION SPECIALIST. TEST SHALL BE PERFORMED PER AT&T WIRELESS STANDARDS.
9. CABLE LENGTHS WERE DETERMINED BASED ON THE DESIGN DRAWING. CONTRACTOR TO VERIFY ACTUAL LENGTH DURING PRE-CONSTRUCTION WALK.
10. CONTRACTOR TO USE ROSENBERGER FIBER LINE HANGER COMPONENTS (OR ENGINEER APPROVED EQUAL).

ANTENNA AND CABLING NOTES

SCALE: N.T.S. | 1

RF, DC, & COAX CABLE MARKING LOCATIONS TABLE	
NO	LOCATIONS
1	EACH TOP-JUMPER SHALL BE COLOR CODED WITH (1) SET OF 3" WIDE BANDS.
2	EACH MAIN COAX SHALL BE COLOR CODED WITH (1) SET OF 3" WIDE BANDS NEAR THE TOP-JUMPER CONNECTION AND WITH (1) SET OF 3/4" WIDE COLOR BANDS JUST PRIOR TO ENTERING THE BTS OR TRANSMITTER BUILDING.
3	CABLE ENTRY PORT ON THE INTERIOR OF THE SHELTER.
4	ALL BOTTOM JUMPERS SHALL BE COLOR CODED WITH (1) SET OF 3/4" WIDE BANDS ON EACH END OF THE BOTTOM JUMPER.
5	ALL BOTTOM JUMPERS SHALL BE COLOR CODED WITH (1) SET OF 3/4" WIDE BANDS ON EACH END OF THE BOTTOM JUMPER.

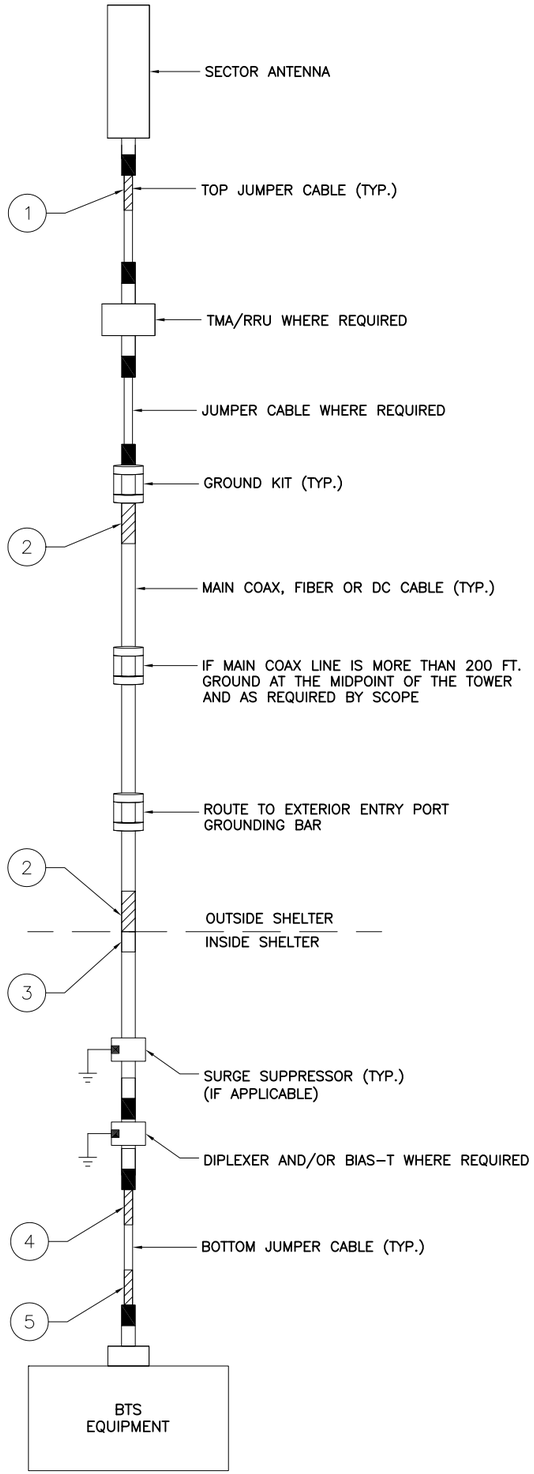
CABLE MARKING DIAGRAM

SCALE: N.T.S. | 2

1. THE ANTENNA SYSTEM COAX SHALL BE LABELED WITH VINYL TAPE.
2. THE STANDARD IS BASED ON EIGHT COLORED TAPES-RED, BLUE, GREEN, YELLOW, ORANGE, BROWN, WHITE, AND VIOLET. THESE TAPES MUST BE 3/4" WIDE & UV RESISTANT SUCH AS SCOTCH 35 VINYL ELECTRICAL COLOR CODING TAPE AND SHOULD BE READILY AVAILABLE TO THE ELECTRICIAN OR CONTRACTOR ON SITE.
3. USING COLOR BANDS ON THE CABLES, MARK ALL RF CABLE BY SECTOR AND CABLE NUMBER AS SHOWN ON "CABLE COLOR CHART".
4. WHEN AN EXISTING COAXIAL LINE THAT IS INTENDED TO BE A SHARED LINE BETWEEN TECHNOLOGIES IS ENCOUNTERED, THE CONTRACTOR SHALL REMOVE THE EXISTING COLOR CODING SCHEME AND REPLACE IT WITH THE COLOR CODING STANDARD. IN THE ABSENCE OF AN EXISTING COLOR CODING AND TAGGING SCHEME, OR WHEN INSTALLING PROPOSED COAXIAL CABLES, THIS GUIDELINE SHALL BE IMPLEMENTED AT THAT SITE REGARDLESS OF TECHNOLOGY.
5. ALL COLOR CODE TAPE SHALL BE 3M-35 AND SHALL BE INSTALLED USING A MINIMUM OF (3) THREE WRAPS OF TAPE AND SHALL BE NEATLY TRIMMED AND SMOOTHED OUT SO AS TO AVOID UNRAVELING.
6. ALL COLOR BANDS INSTALLED AT THE TOP OF THE TOWER SHALL BE A MINIMUM OF 3" WIDE, AND SHALL HAVE A MINIMUM OF 3/4" OF SPACE BETWEEN EACH COLOR.
7. ALL COLOR CODES SHALL BE INSTALLED SO AS TO ALIGN NEATLY WITH ONE ANOTHER FROM SIDE-TO-SIDE.
8. IF EXISTING CABLES AT THE SITE ALREADY HAVE A COLOR CODING SCHEME AND THEY ARE NOT INTENDED TO BE REUSED OR SHARED WITH THE NEW TECHNOLOGY, THE EXISTING COLOR CODING SCHEME SHALL REMAIN UNTOUCHED.

CABLE MARKING NOTES

SCALE: N.T.S. | 3



CABLE COLOR CODING DIAGRAM

SCALE: N.T.S. | 4

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REV	DATE	DESCRIPTION	BY
1	06/30/22	FINAL	SM
2	07/20/22	REV FINAL	IH
3	10/18/22	REV FINAL	JW
4	06/08/23	FOR CONSTRUCTION	MK
5	07/28/23	FOR CONSTRUCTION	MK
6	08/17/23	FOR CONSTRUCTION	KC

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STATE OF CONNECTICUT · KATHLEEN TAYLOR COFFEY · 36017 · LICENSED PROFESSIONAL ENGINEER

SITE NAME
NAUGATUCK EASTSIDE BOULEVARD

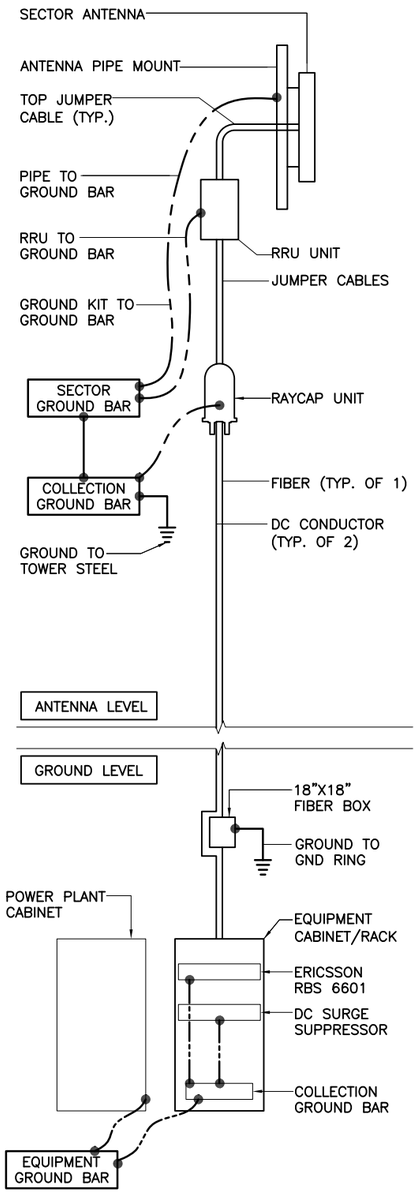
SITE NUMBER:
CTL02056

SITE ADDRESS
130 EASTSIDE BLVD
NAUGATUCK, CT 06770

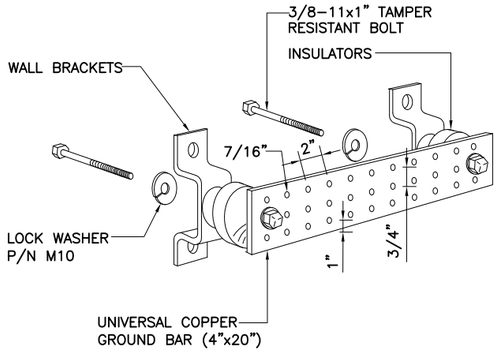
SHEET NAME
CABLE NOTES AND COLOR CODING

SHEET NUMBER
A7

PROJECT# 2021.02150004



GROUNDING SCHEMATIC SCALE: N.T.S. 1



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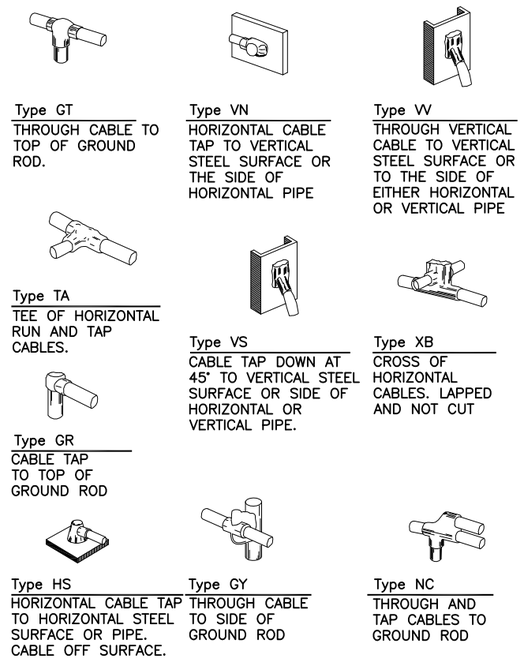

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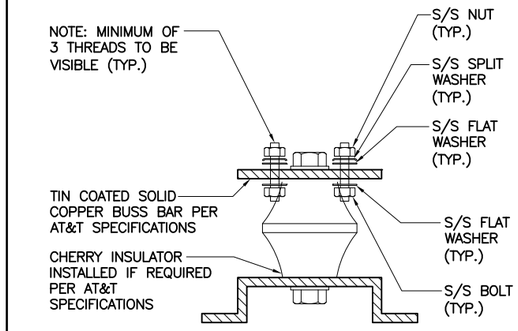
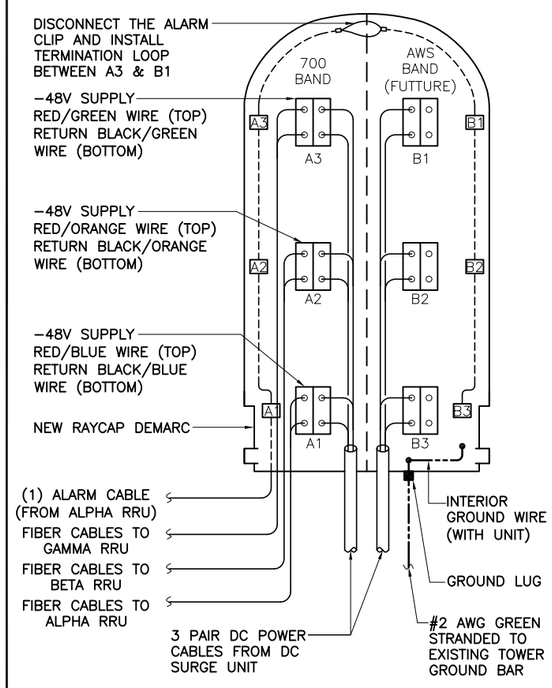


NOTES:

1. ALL HARDWARE 18-8 STAINLESS STEEL INCLUDING SPLIT WASHERS.
2. COAT WIRE END WITH ANTI-OXIDATION COMPOUND PRIOR TO INSERTION INTO LUG BARREL AND CRIMPING.
3. APPLY ANTI-OXIDATION COMPOUND BETWEEN ALL LUGS AND BUSS BARS PRIOR TO MATING AND BOLTING.

LUG DETAIL SCALE: N.T.S. 3



RAYCAP DC POWER AND ALARM DET. SCALE: N.T.S. 5

NOT USED SCALE: N.T.S. 6

at&t
550 COCHITUATE ROAD
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1362 MELLON ROAD
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SITE NUMBER:
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SITE ADDRESS
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SHEET NAME
GROUNDING DETAILS

SHEET NUMBER
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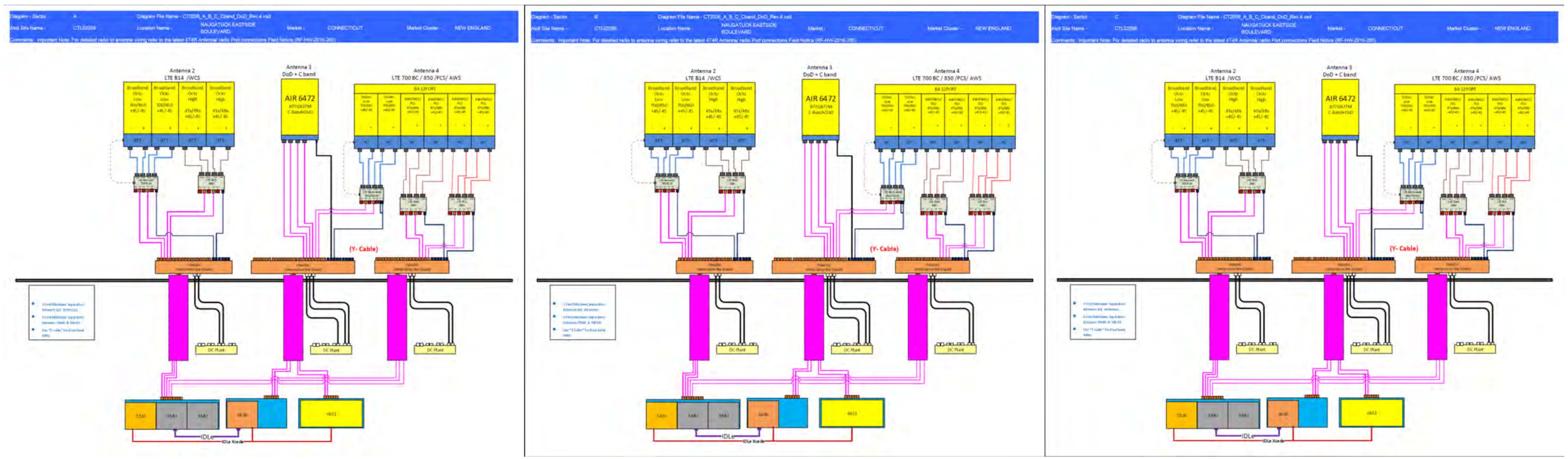
PROJECT# 2021.02150004



*BASED ON RFDS V8.0, DATED (08/09/23)

PLUMBING DIAGRAMS

SCALE: N.T.S. 1

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STATE OF CONNECTICUT
KATHLEEN TAYLOR COFFEY
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SHEET NAME
PLUMBING DIAGRAMS

SHEET NUMBER
A9

PROJECT# 2021.0215.0004

APPLICABLE CODES

1. DESIGN, FABRICATION, CONSTRUCTION, AND ERECTION OF ALL WORK SHALL CONFORM TO THE FOLLOWING CODES:
   2022 CONNECTICUT STATE BUILDING CODE
   ANSI/TIA-222-H STRUCTURAL STANDARDS FOR ANTENNA SUPPORTING STRUCTURES
   ANSI/TIA-1019-A STANDARD FOR INSTALLATION, ALTERATIONS AND MAINTENANCE OF ANTENNA SUPPORTING STRUCTURES AND ANTENNAS
   ANSI/AISC 360-10 SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS

MANDATORY SUBMITTALS AND INSPECTIONS

1. THE FOLLOWING PRE CONSTRUCTION ITEMS SHALL BE SUBMITTED BY THE CONTRACTOR FOR REVIEW AND APPROVAL TO THE ENGINEER OF RECORD PRIOR TO ORDERING OR FABRICATION OF ANY MATERIAL:

   STRUCTURAL STEEL SHOP DRAWINGS

2. INTERNATIONAL BUILDING CODE CHAPTER 17 "SPECIAL INSPECTIONS AND TESTS", SECTION 1704 IS REQUIRED TO BE PERFORMED BY AN INDEPENDENT TESTING AGENCY EMPLOYED BY THE PROJECT MANAGER FOR THE FOLLOWING:

   STEEL INSTALLATION

3. THE CONTRACTOR SHALL COORDINATE A FINAL INSPECTION WITH THE PROJECT MANAGER AFTER 100% COMPLETION OF THE INSTALLATION.

GENERAL

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FOLLOWING ALL LAWS, REGULATIONS, AND RULES SET FORTH BY FEDERAL, STATE, AND LOCAL AUTHORITIES WITH JURISDICTION OVER THE PROJECT. THIS RESPONSIBILITY IS IN EFFECT REGARDLESS OF WHETHER THE LAW, ORDINANCE, REGULATION, OR RULE IS MENTIONED IN THESE SPECIFICATIONS.
2. ALL WORK SHALL BE COMPLETED AS INDICATED ON THE DRAWINGS, PROJECT SPECIFICATIONS, AND THE CONSTRUCTION CONTRACT DOCUMENTS.
3. THE CONTRACTOR SHALL FOLLOW ALL APPLICABLE RULES AND REGULATIONS OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) AND STATE LAW AS DEFINED IN THE FEDERAL OCCUPATIONAL SAFETY AND HEALTH ACT.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INITIATING, MAINTAINING, AND SUPERVISING ALL SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK.
5. THE CONTRACTOR SHALL HAVE AND MAINTAIN A VALID CONTRACTOR'S LICENSE FOR THE LOCATION IN WHICH THE WORK IS TO BE PERFORMED. FOR JURISDICTIONS THAT LICENSE INDIVIDUAL TRADES, THE TRADESMAN OR SUBCONTRACTOR PERFORMING THOSE TRADES SHALL BE LICENSED.
6. THE CONTRACTOR SHALL PROVIDE THE NECESSARY CERTIFICATIONS OF ALL WORKERS ON THE TOWER TO THE OWNER OR THE PROJECT MANAGER UPON REQUEST.
7. THE CONTRACTOR SHALL BE EXPERIENCED IN THE PERFORMANCE OF WORK SIMILAR TO THAT DESCRIBED HEREIN. BY ACCEPTANCE OF THIS ASSIGNMENT, THE CONTRACTOR IS ATTESTING THAT HE DOES HAVE SUFFICIENT EXPERIENCE AND ABILITY AND THAT HE IS KNOWLEDGEABLE OF THE WORK TO BE PERFORMED.
8. PRIOR TO THE SUBMISSION OF THE BID, THE CONTRACTOR SHALL VISIT THE JOB SITE, VERIFY ALL DIMENSIONS, POTENTIAL SAFETY HAZARDS, AND BECOME FAMILIAR WITH THE FIELD CONDITIONS. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE PROJECT MANAGER.
9. DO NOT SCALE DRAWINGS. USE DIMENSIONS.
10. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS UNLESS SPECIFICALLY OTHERWISE NOTED.
11. ALL MATERIALS SHALL BE NEW AND OF GOOD QUALITY, FREE FROM FAULTS AND DEFECTS AND IN CONFORMANCE WITH THE DRAWINGS. ANY AND ALL SUBSTITUTIONS SHALL BE SUBMITTED FOR REVIEW AND APPROVAL BY THE PROJECT MANAGER AND THE ENGINEER OF RECORD PRIOR TO PROCUREMENT.
12. ALL MEANS AND METHODS OF CONSTRUCTION DEALING WITH TOWER CONSTRUCTION AND SAFETY, STEEL ERECTION, EXCAVATIONS, SCAFFOLDING, FORMWORK, AND WORK IN CONFINED SPACES ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
13. THE CONTRACTOR SHALL PROVIDE SUFFICIENT TEMPORARY BRACING AND/OR SHORING OF ALL STRUCTURAL AND NON-STRUCTURAL ELEMENTS DURING CONSTRUCTION UNTIL ALL STRUCTURAL ELEMENTS HAVE BEEN PROPERLY INSTALLED.
14. THE CONTRACTOR SHALL COORDINATE WITH THE PROJECT MANAGER IF ANY WIRELESS CARRIER DOWNTIME WILL BE REQUIRED FOR THE PROJECT. DO NOT PERFORM ANY WORK ON THE TOWER UNTIL ALL NECESSARY DOWNTIME HAS BEEN APPROVED.
15. WORK IS TO BE CONTAINED TO THE SITE COMPOUND AREA ONLY. ANY OUTSIDE OR ADJACENT PROPERTY NEEDED FOR ACCESS OR TO COMPLETE THE WORK SHALL BE COORDINATED WITH THE PROJECT MANAGER PRIOR TO CONSTRUCTION.
16. THE CONTRACTOR SHALL COORDINATE SITE ACCESS AND SECURITY WITH THE PROPERTY OWNER AND THE PROJECT MANAGER PRIOR TO CONSTRUCTION.
17. THE CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT EXISTING SITE CONDITIONS AND UPON COMPLETION OF WORK REPAIR BACK TO ORIGINAL CONDITIONS ANY DAMAGE THAT OCCURRED DURING CONSTRUCTION.
18. THE CONTRACTOR SHALL KEEP THE CONSTRUCTION SITE CLEAN, HAZARD FREE, AND DISPOSE OF ALL DIRT, DEBRIS, RUBBISH AND REMOVE EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY. LEAVE PREMISES IN CLEAN CONDITION, SUBJECT TO APPROVAL BY THE PROPERTY OWNER AND THE PROJECT MANAGER.
19. THE CONTRACTOR SHALL PROVIDE ON-SITE TRASH RECEPTACLES FOR COLLECTION OF NON-TOXIC DEBRIS. ALL TRASH SHALL BE COLLECTED ON A DAILY BASIS.
20. ALL TOXIC AND ENVIRONMENTALLY HAZARDOUS SUBSTANCES SHALL BE USED AND DISPOSED OF IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS. UNDER NO CIRCUMSTANCES SHALL RINSING OR DUMPING OF THESE SUBSTANCES OCCUR ON-SITE.
21. UNLESS NOTED OTHERWISE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND PAYING FOR ALL PERMITS NECESSARY FOR CONSTRUCTION.
22. INCORRECTLY FABRICATED, DAMAGED, OR OTHERWISE MISFITTING OR NONCONFORMING MATERIALS SHALL BE REPORTED TO THE PROJECT MANAGER AND ENGINEER, AND SHALL REQUIRE APPROVAL PRIOR TO PERFORMING ANY REMEDIAL OR CORRECTIVE ACTION.
23. THE PROJECT MANAGER MAY RETAIN THE SERVICES OF A TESTING LABORATORY TO PERFORM QUALITY ASSURANCE TESTING ON VARIOUS PORTIONS OF THE CONTRACTOR'S WORK. WHEN REQUESTED, THE CONTRACTOR SHALL INFORM THE TESTING LABORATORY AND ASSIST THEM IN COMPLETING THE TESTS.
24. THE CONTRACTOR SHALL MAINTAIN AND SUPPLY THE PROJECT MANAGER WITH AS-BUILT PLANS UPON COMPLETION OF THE PROJECT.

STRUCTURAL STEEL

1. ALL STRUCTURAL STEEL IS TO BE NEW AND CONFORM TO THE FOLLOWING, UNLESS NOTED OTHERWISE ON THE DRAWINGS:
   ALL NEW REINFORCING STEEL SHALL BE:
   ASTM A53 GRADE B. MAY BE SUBSTITUTED WITH ASTM 500 GRADE C (ROUND HSS)
   ASTM A36 (FY = 36 KSI) M-SHAPES, S-SHAPES, ANGLES, PLATES (U.N.O.)
   ASTM A992 (FY = 50 KSI) W-SHAPES, CHANNELS (U.N.O.)
   ASTM A500 GR C (FY = 50 KSI) ROUND AND SQUARE HSS
   ALL NEW BOLTS SHALL BE:
   A325X (Fy = 90 KSI)
   A490 (Fy = 130 KSI) MAIN LEG BOLTS
2. ALL STRUCTURAL STEEL SHALL BE HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM A153 AND A123, INCLUDING CONNECTION HARDWARE, (BOLTS, WASHERS, NUTS, AND PINS) PLATES, SPACERS AND FILLERS.
3. ALL BOLTS SHALL HAVE LOCK WASHERS OR LOCKING DEVICES. DO NOT RE-USE BOLTS. BOLT THREADS ARE TO BE EXCLUDED FROM THE SHEARING PLANES. USE BEARING TYPE CONNECTIONS UNLESS NOTED OTHERWISE. ALL BOLTS SHALL BE PRETENSIONED USING THE TURN-OF-THE-NUT METHOD.
4. ALL U-BOLTS SHALL BE A307. ALL BOLTS SHALL BE HOT DIP GALVANIZED AND HAVE LOCK WASHERS OR LOCKING DEVICES. DO NOT RE-USE BOLTS.
5. THE FINISHED DIAMETER OF BOLT HOLES SHALL NOT BE MORE THAN 1/16" LARGER THAN THE NOMINAL BOLT DIAMETER UNLESS OTHERWISE NOTED.
6. THE CONTRACTOR SHALL PROVIDE ALL REQUIRED GUSSETS, SPACERS, FILLERS AND BATTEN PLATES.
7. NO HOLES SHALL BE MADE IN ANY NEW OR EXISTING STRUCTURAL STEEL MEMBER OTHER THAN THOSE SHOWN ON THE STRUCTURAL DRAWINGS WITHOUT THE WRITTEN APPROVAL OF THE ENGINEER OF RECORD.

COLD GALVANIZING

1. THE CONTRACTOR SHALL REPAIR ALL AREAS OF GALVANIZING ON THE EXISTING STRUCTURE OR NEW STEEL COMPONENTS THAT ARE DAMAGED OR ABRADED DURING CONSTRUCTION. GALVANIZED SURFACES DAMAGED DURING TRANSPORTATION OR ERECTION AND ASSEMBLY AS WELL AS ANY AND ALL ABRASIONS, CUTS, FIELD DRILLING, AND ALL FIELD WELDING SHALL BE WIRE BRUSHED, CLEARED AND REPAIRED WITH TWO (2) COATS OF ZINC RICH COLD GALVANIZING COMPOUND PER MANUFACTURER'S RECOMMENDATION.
2. PRIOR TO FIELD WELDING GALVANIZED MATERIAL, CONTRACTOR SHALL GRIND OFF GALVANIZING 1/2" BEYOND ALL FIELD WELD SURFACES. AFTER WELD AND WELD INSPECTION IS COMPLETE, REPAIR ALL GROUND AND WELDED SURFACES WITH TWO (2) COATS OF ZINC RICH COLD GALVANIZING COMPOUND AND MANUFACTURER'S RECOMMENDATIONS.

EPOXY GROUTED REINFORCING ANCHOR RODS

1. UNLESS OTHERWISE NOTED, REINFORCING ANCHOR RODS SHALL BE 150 KSI ALL-THREAD BAR CONFORMING TO ASTM A722.
2. ALL REINFORCING ANCHOR RODS SHALL BE HOT DIP GALVANIZED PER ASTM A153. ALTERNATIVELY, ALL REINFORCING ANCHOR RODS MAY BE EPOXY COATED PER ASTM A775.
3. THE CORE-DRILLED HOLES IN THE CONCRETE FOR THE ANCHOR RODS SHALL BE CLEAN AND DRY, AND OTHERWISE PROPERLY PREPARED ACCORDING TO THE ANCHOR ROD AND EPOXY MANUFACTURERS' INSTRUCTIONS, PRIOR TO PLACEMENT OF ANCHOR RODS AND EPOXY. CONTRACTOR SHALL FOLLOW ALL ANCHOR ROD AND EPOXY MANUFACTURER RECOMMENDATIONS REGARDING HANDLING OF RODS, EPOXY, ACCEPTABLE AMBIENT TEMPERATURE RANGE DURING INSTALLATION AND POST-INSTALLATION CURING, THE EFFECT OF TEMPERATURE ON EPOXY CURING TIME, PREPARATION OF HOLE, ETC.
4. IF CONTRACTOR INTENDS TO USE A DIFFERENT EPOXY, A REQUEST INCLUDING THE EPOXY TECHNICAL DATA SHEET(S) SHALL BE SUBMITTED TO THE ENGINEER OF RECORD FOR REVIEW PRIOR TO CONSTRUCTION.

CONCRETE:

1. MEET OR EXCEED THE FOLLOWING CODES AND STANDARDS:

DESIGN	ACI 318
CONSTRUCTION	ACI 301
HOT WEATHER PLACEMENT	ACI 305
COLD WEATHER PLACEMENT	ACI 306
CEMENT	ASTM C-150 (TYPE I)
REINFORCING BARS	ASTM A-615
WIRE MESH	ASTM A-185
NORMAL WT AGGREGATE	ASTM C-33
MIXING	ASTM C-94
ADMIXTURES	ASTM C-494
AIR ENTRAINMENT	ASTM C-260
WATER	POTABLE
DETAILING	CRSI MANUAL OF STANDARD PRACTICE

2. CONCRETE SHALL BE NORMAL WEIGHT WITH A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 4500 PSI.
3. PROVIDE AIR ENTRAINED CONCRETE WITH AIR CONTENT OF 4% TO 7%. FOR ALL CONCRETE EXPOSED TO EARTH OR WEATHER
4. ALL REINFORCING STEEL SHALL BE GRADE 60.
5. MINIMUM CONCRETE COVER FOR REINFORCING BARS:
   A. CAST AGAINST AND EXPOSED TO EARTH: 3"
   B. EXPOSED TO EARTH OR WEATHER (NO. 5 AND SMALLER): 1 1/2"
   C. EXPOSED TO EARTH OR WEATHER (NO. 6 AND LARGER): 2"
6. NO ADMIXTURE SHALL CONTAIN CALCIUM CHLORIDE.
7. PROVIDE ALL ACCESSORIES NECESSARY TO SUPPORT REINFORCEMENT.

SITE WORK:

1. BEFORE STARTING GENERAL SITE PREPARATION ACTIVITIES, INSTALL EROSION AND SEDIMENT CONTROL MEASURES. THE WORK AREA SHALL BE CONSTRUCTED AND MAINTAINED IN SUCH CONDITION THAT IN THE EVENT OF RAIN THE SITE WILL BE WELL DRAINED AT ALL TIMES.
2. PERFORM ALL SURVEY, LAYOUT, STAKING AND MARKING TO ESTABLISH AND MAINTAIN ALL LINES, GRADES, ELEVATIONS AND BENCHMARKS NEEDED FOR EXECUTION OF THE WORK.
3. LOCATE AND CLEARLY FLAG TREES, VEGETATION AND EXISTING SITE CONDITIONS TO REMAIN UNDISTURBED DURING CONSTRUCTION.
4. THE CONTRACTOR SHALL COORDINATE WITH THE PROJECT MANAGER TO ESTABLISH INSPECTIONS AND APPROVAL PROCESS FOR ALL SITE WORK.
5. EXCAVATION AND STRUCTURAL BACKFILL FOR TOWER FOUNDATIONS SHALL BE PERFORMED IN ACCORDANCE WITH THE GEOTECHNICAL REPORT. CONTRACTOR IS REQUIRED TO OBTAIN A COPY OF THE REPORT PRIOR TO CONSTRUCTION.
6. SUITABLE NON-STRUCTURAL BACKFILL: EXCAVATED INORGANIC MATERIAL, COHESIVE AND NON-COHESIVE MATERIALS, INCLUDING GRAVEL, SAND, SILT, CLAY, AND COMBINATIONS THEREOF FREE FROM REFUSE, FROZEN LUMPS, STONES OR ROCKS LARGER THAN 3 INCHES.
7. UNSUITABLE BACKFILL: TOP SOIL, HIGH AND MODERATELY PLASTIC SILTS AND CLAY, MATERIAL CONTAINING REFUSE, FROZEN LUMPS, DEMOLISHED BITUMINOUS MATERIAL, VEGETATIVE MATTER, WOOD, STONES IN EXCESS OF 3 INCHES.
8. GEOTEXTILE FABRIC SHALL BE INSTALLED PER MANUFACTURER RECOMMENDATIONS.
9. REMOVE ALL FORMWORK RESULTING FROM CONCRETE CONSTRUCTION PRIOR TO BACKFILL.
10. UNDISTURBED SUBGRADE SHALL BE COMPACTED TO A DENSITY EQUAL TO ADJACENT GROUND.
11. ALL SUITABLE FILL MATERIAL SHALL BE INSTALLED IN HORIZONTAL LAYERS NOT EXCEEDING A LOOSE DEPTH OF 9 INCHES AND SHALL BE COMPACTED TO NOT LESS THAN 95% OF THE MAXIMUM DRY DENSITY PER THE MODIFIED PROCTOR TEST, ASTM D1557.
12. COMPACT FINAL BACKFILL TO A DENSITY EQUAL TO OR GREATER THAN THAT OF THE EXISTING UNDISTURBED MATERIAL IMMEDIATELY ADJACENT TO EXCAVATION BUT NO LESS THAN A MINIMUM OF 95% OF THE MAXIMUM DRY DENSITY AS PROVIDED BY THE MODIFIED PROCTOR TEST, ASTM D1557.
13. PERFORM ALL FINISHED GRADING TO PROVIDE SMOOTH, EVEN SURFACE AND SUBSURFACE DRAINAGE OF THE ENTIRE AREA WITHIN THE LIMITS OF CONSTRUCTION. GRADING SHALL BE COMPATIBLE WITH ALL SURROUNDING TOPOGRAPHY AND STRUCTURES.
14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING PRIVATE UTILITIES.
15. WHEN EXCAVATING IN THE AREA OF EXISTING UTILITIES, THE CONTRACTOR SHALL USE REASONABLE CARE IN PROTECTING SUCH UTILITIES. THE CONTRACTOR SHALL NOTIFY THE PROJECT MANAGER IMMEDIATELY OF ANY CONFLICTS BETWEEN EXISTING UTILITIES AND PROPOSED CONSTRUCTION.
16. DAMAGE TO PUBLIC OR PRIVATE UTILITIES SHALL BE REPORTED TO THE PROJECT MANAGER AND THE OWNER OF THE UTILITY IMMEDIATELY. ANY DAMAGE RESULTING FROM THE CONTRACTOR'S NEGLIGENCE OR FAILURE TO ACT WITH DUE REGARD SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.

ABBREVIATIONS

1. W.A.F. – WIDTH ACROSS FLATS
2. TYP. – TYPICAL
3. ELEV. – ELEVATION
4. U.N.O. – UNLESS NOTED OTHERWISE

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BARBARA T. KOTECKI
33711
LICENSED
PROFESSIONAL ENGINEER

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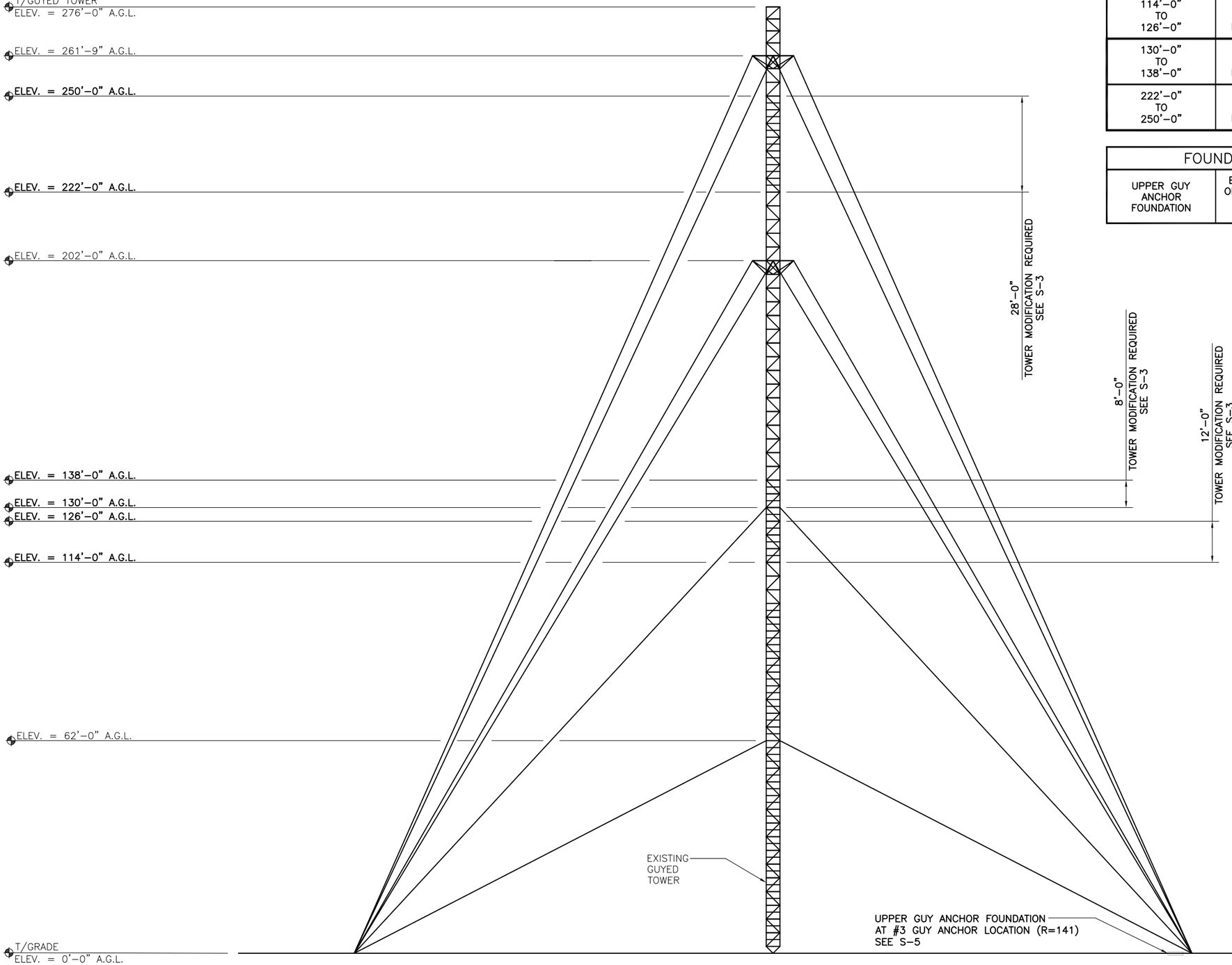

TOWER MODIFICATION		
ELEVATION	MEMBER	SHEET NUMBER
114'-0" TO 126'-0"	SECONDARY HORIZONTAL INSTALLATION	SEE S-3
130'-0" TO 138'-0"	SECONDARY HORIZONTAL INSTALLATION	SEE S-3
222'-0" TO 250'-0"	SECONDARY HORIZONTAL INSTALLATION	SEE S-3

FOUNDATION MODIFICATION		
UPPER GUY ANCHOR FOUNDATION	ENLARGEMENT OF UPPER GUY ANCHOR FOUNDATION	SEE S-5

TOWER MODIFICATIONS

SCALE: N.T.S. | 1

at&t
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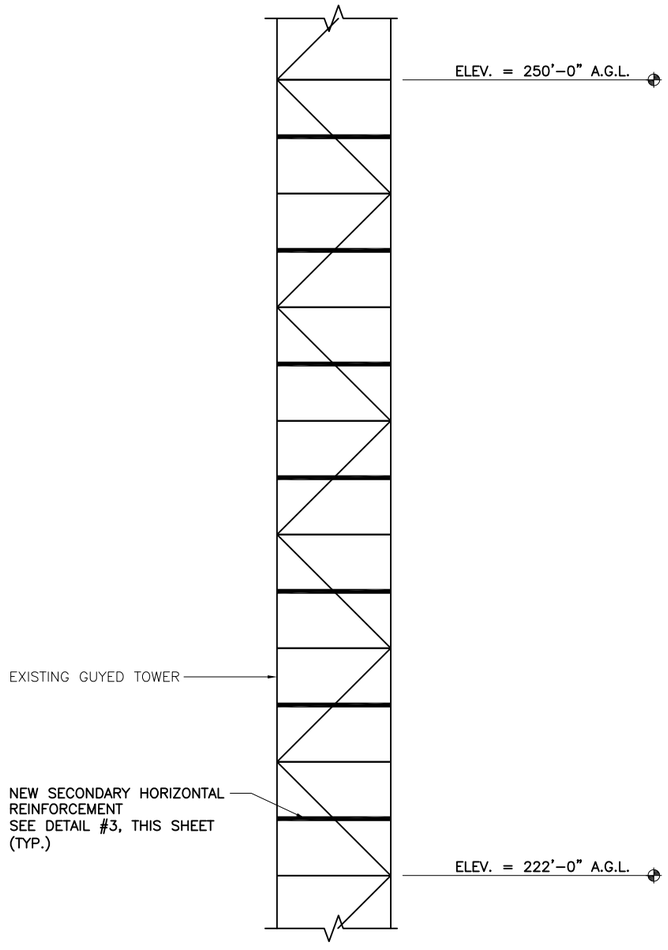
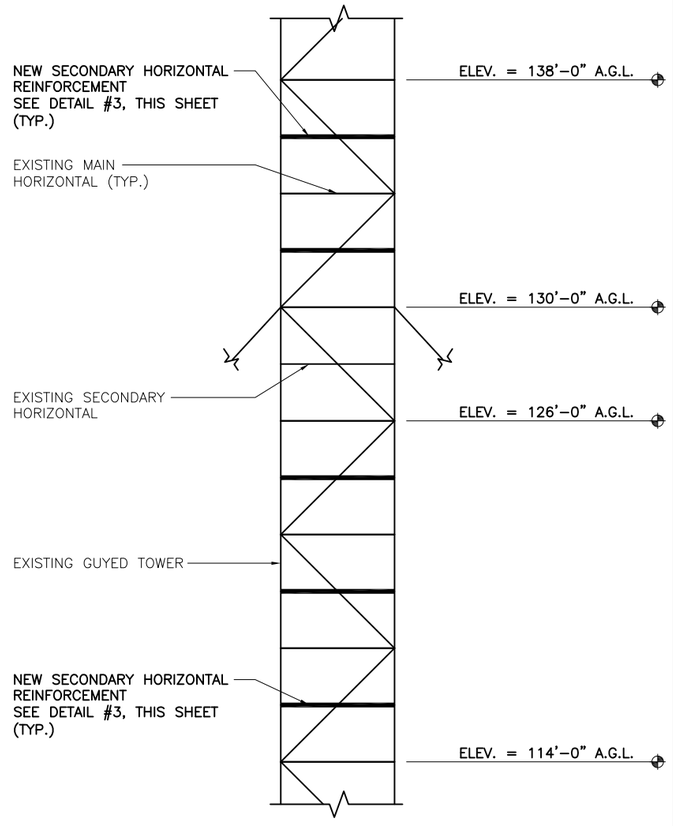
SHEET NAME
TOWER REINFORCEMENT ELEVATION

SHEET NUMBER
S2

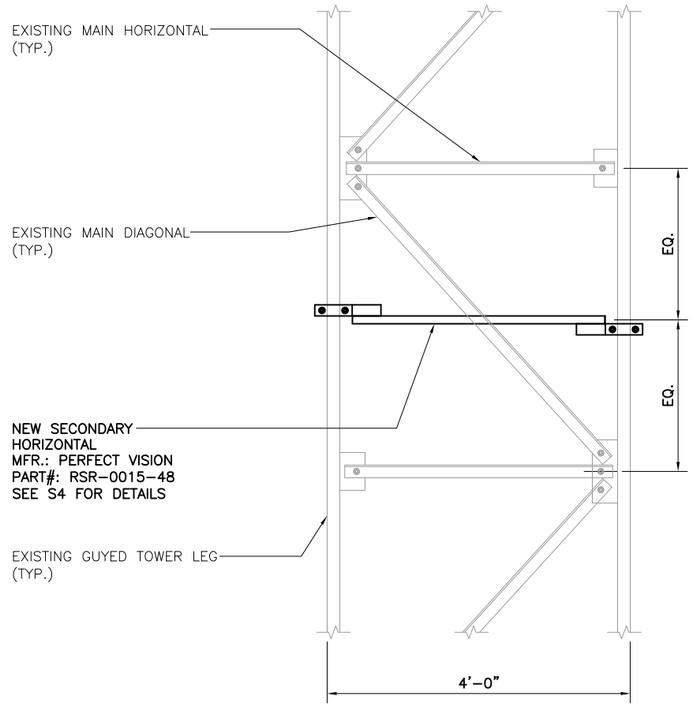
PROJECT# 2021.0215.0004



TOWER REINFORCEMENT FROM ELEV. 222' TO 250' SCALE: 3/16" = 1'–0" | 1



TOWER REINFORCEMENT FROM ELEV. 130' TO 138' & 114' TO 126' SCALE: 3/16" = 1'–0" | 2



TYPICAL TOWER REINFORCEMENT SECTION SCALE: N.T.S. | 3

NOT USED SCALE: N.T.S. | 4

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SCHAUMBURG, ILLINOIS 60173
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COA# PEC.0001899
www.fullerton-us.com

REV	DATE	DESCRIPTION	BY
1	06/30/22	FINAL	SM
2	07/20/22	REV FINAL	IH
3	10/18/22	REV FINAL	JW
4	06/08/23	FOR CONSTRUCTION	MK
5	07/28/23	FOR CONSTRUCTION	MK
6	08/17/23	FOR CONSTRUCTION	KC

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STATE OF CONNECTICUT · BARBARA T. KOTECKI · 33711 · PROFESSIONAL ENGINEER · LICENSED

SITE NAME
NAUGATUCK EASTSIDE BOULEVARD

SITE NUMBER:
CTL02056

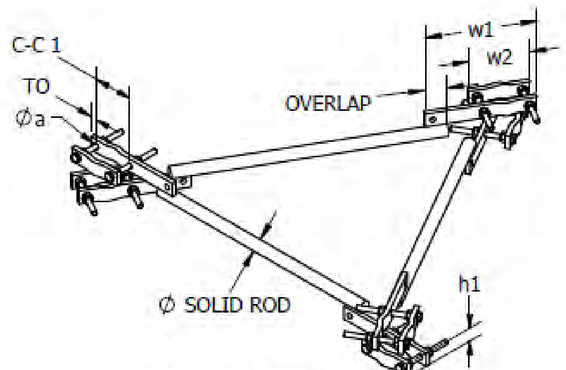
SITE ADDRESS
130 EASTSIDE BLVD
NAUGATUCK, CT 06770

SHEET NAME
TOWER REINFORCEMENT DETAILS

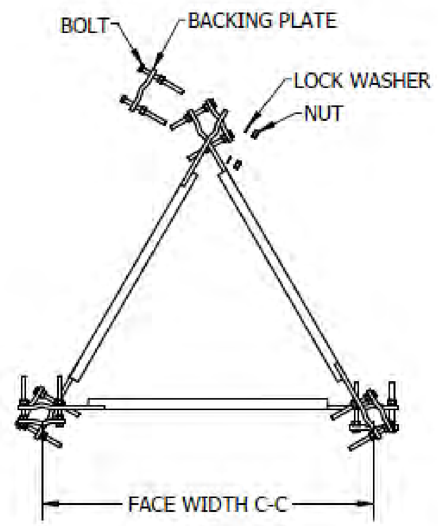
SHEET NUMBER
S3

PROJECT# 2021.02150004

RSR: SOLID ROD SUB-HORIZONTAL ENGINEERING DETAIL



ISOMETRIC VIEW



EXPLODED VIEW

RSR - GUYED TOWER SOLID ROB SUB-HORIZONTAL															
ASSEMBLY #	RSR-0015-18	RSR-0015-24	RSR-0015-30	RSR-0015-33	RSR-0015-36	RSR-0015-39	RSR-0015-40	RSR-0015-41	RSR-0015-42	RSR-0015-45	RSR-0015-48	RSR-0015-54	RSR-0015-57	RSR-0015-60	RSR-0015-72
FACE WIDTH C-C (in)	18	24	30	33	36	39	40	41	42	45	48	54	57	60	72
LEG OD (in)	1-1/4- 4	1-1/4-4	1-1/4 -4	1-1/4-4	1-1/4-4	1-1/4-4	1-1/4-4	1-1/4-4	1-1/4-4	1-1/4-4	1-1/4-4	1-1/4-4	1-1/4-4	1-1/4-4	1-1/4-4

PERFECTVISION MANUFACTURING
16101 La Grande Dr.
Little Rock, AR 72223
1-800-205-8620

STAMP:

REVISIONS:

NO	DATE	DESCRIPTION	BY	CHK	APD
0	9/27/19	ENGINEERING DETAIL	DT	SS	DW
1	4/12/18	CATALOG RELEASE UPDATE	TT	MN	SS

FILE NAME: RSR - E Solid Rod Sub-Horizontal Engineering Detail REV 1

DESIGN TYPE: RSR - SOLID ROD SUB-HORIZONTALS

SHEET TITLE: ENGINEERING DETAIL

SHEET TITLE: **RSR-E** REVISION: **1**

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FOR REFERENCE ONLY

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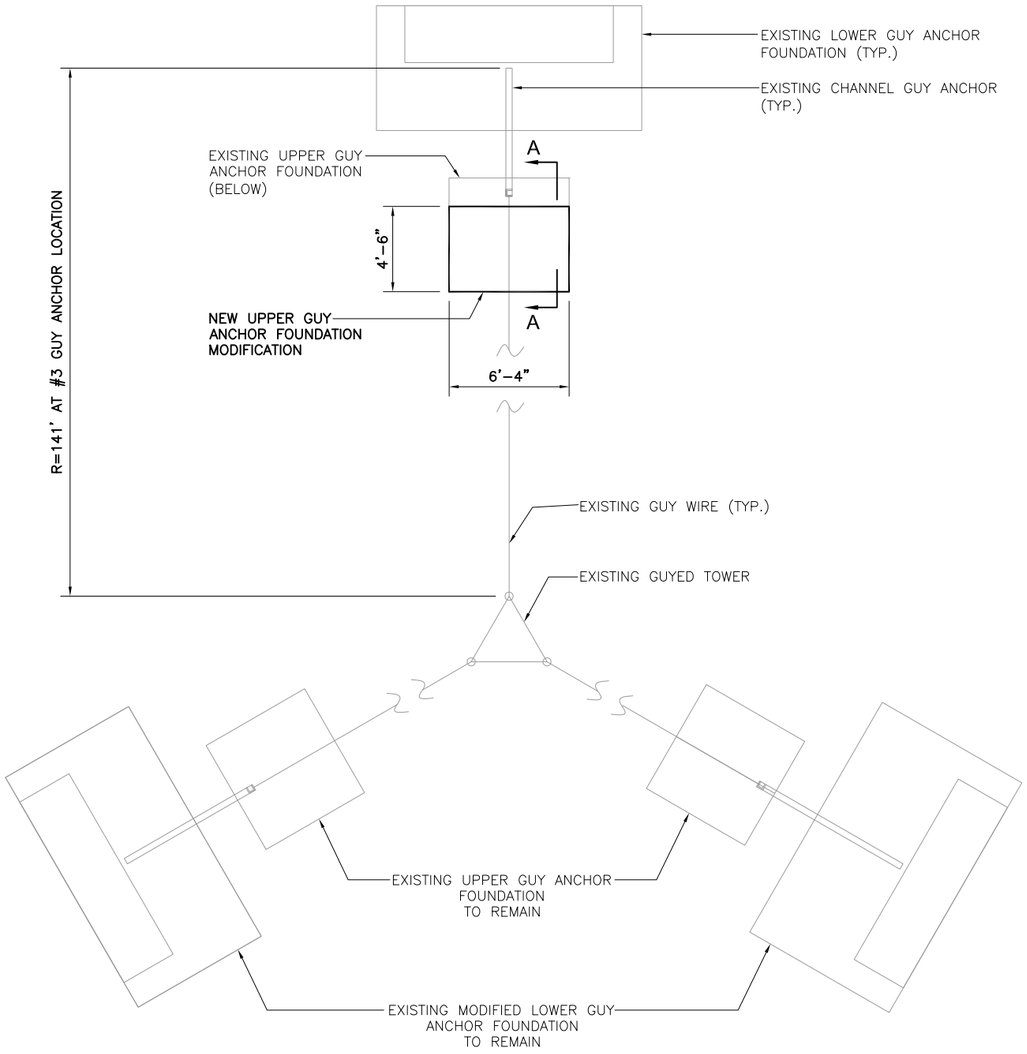
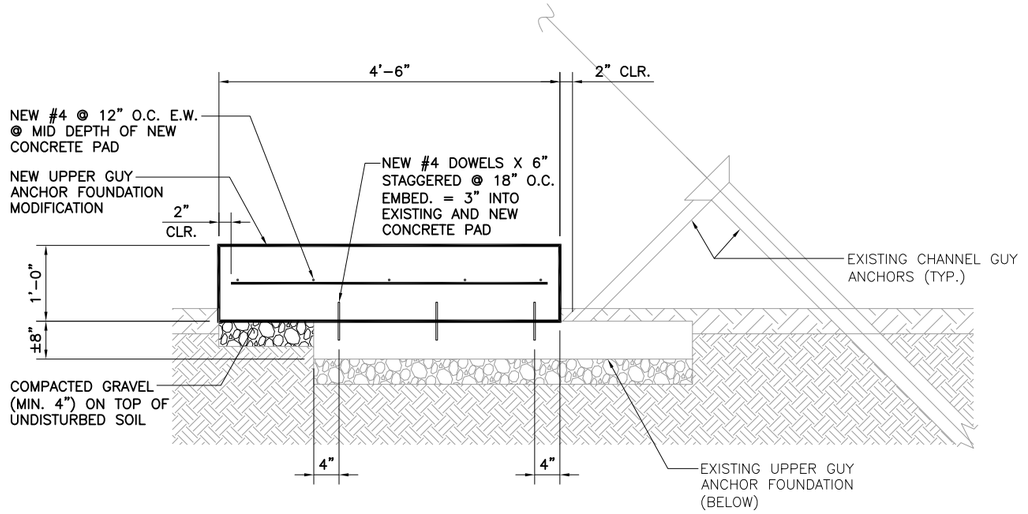
SHEET NAME
TOWER REINFORCEMENT DETAILS

SHEET NUMBER
S4

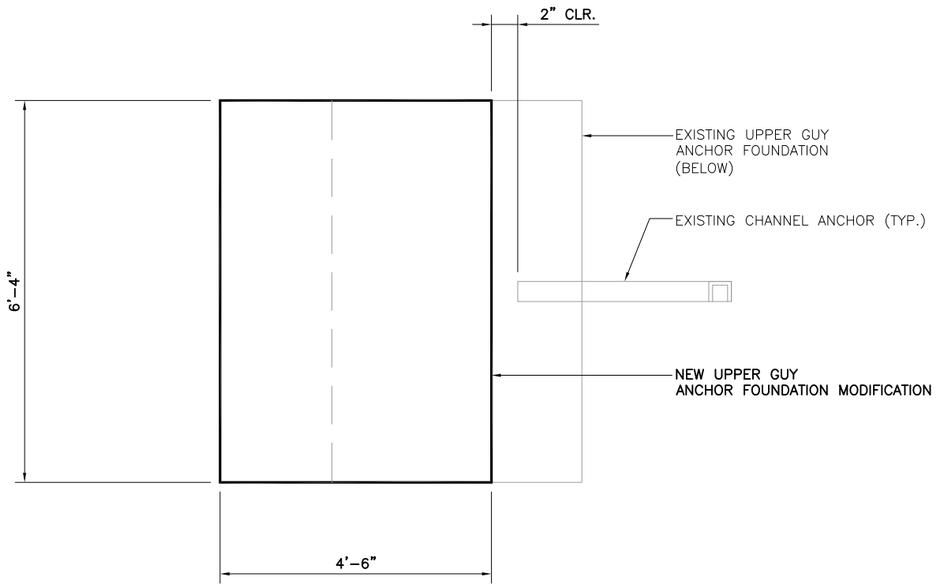
PROJECT# 2021.0215.0004



TOWER FOUNDATION MODIFICATION PLAN — SCALE: 1/8" = 1'-0" | 1



GUYED TOWER FOUNDATION MODIFICATION SECTION A-A — SCALE: 1/4" = 1'-0" | 2



UPPER CONCRETE ANCHOR MODIFICATION (PLAN VIEW) — SCALE: 1/4" = 1'-0" | 3

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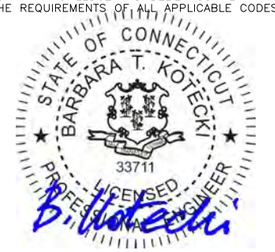

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SHEET NAME
FOUNDATION MODIFICATION DETAILS

SHEET NUMBER
S5

PROJECT# 2021.02150004