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

May 24, 2022

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

RE: **Notice of Exempt Modification for ATT**
Crown #842872; ATT Site ID CT11427A
52 New Britain Avenue, Rocky Hill, CT 06067
Latitude: 41° 39' 36.89"/ Longitude: -72° 40' 50.58"

Dear Ms. Bachman:

AT&T currently maintains twelve (12) antennas at the 168-foot level of the existing 182-foot monopole tower at 52 New Britain Avenue in Rocky Hill, CT. The property is owned by the Town of Rocky Hill and the Tower is owned by Crown Castle. AT&T now intends to replace nine (9) antennas, install twelve (12) new antennas and ancillary equipment at the 168-foot level. This modification may include B2, B5, B17, B14, B29, B30, B66 & n77 hardware that is 4G(LTE) and/or 5GNR capable through remote software configuration and either or both services may be turned on or off at various times.

Panned Modification:

Tower:

Installed New:

(3) AIR6449 N77D Antennas
(3) AIR6449 N77G Antennas
(3) QD6616-7 Antennas
(3) DMP65R-BU6EA-K Antennas
(1) RRUS 4478 B14 RRU on gamma sector
(3) RRUS 4415 B25 RRUs
(1) DC9-48-60-24-8C-EV
(1) DC Trunk 6AWG CABLE
(3) Fiber Trunk 24-pair CABLE
(3) Y CABLES

Remove:

(3) 7770 Antennas
(3) QS66512-2 Antennas
(3) HPA-65R-BUU-H6 Antennas
(6) RRUS-32 B2 RRUs
(6) LGP21401 TMAs
(6) 782-10250 Diplexers
(1) DC6-48-60-0-8F
(12) COAX CABLES

Ground:

Install New:

(4) GE-48V Rectifiers
(1) Fiber Demarcation Box
(1) 6648 With XCEDE
(30) VERTIV Up-Converters
23" FIF Rack
(2) 23" Distribution Shelves

Remove:

(1) UMTS CABINET
(3) Remove & replace existing string of 170 AMP Batteries

The Town of Rocky Hill approved construction of the tower on November 30, 1998 via permit #13621.

Please accept this letter as notification pursuant to Regulations of Connecticut State Agencies §16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b)(2). In accordance with R.C.S.A. § 16-50j-73, a copy of this letter is being sent to John Mehr, Town Manager, as both the municipality and property owner, and Kim Ricci, Town Planner and Crown Castle is the tower owner.

1. The proposed modifications will not result in an increase in the height of the existing tower.
2. The proposed modifications will not require the extension of the site boundary.
3. The proposed modification will not increase noise levels at the facility by six decibels or more, or to levels that exceed state and local criteria.
4. The operation of the replacement antennas will not increase radio frequency emissions at the facility to a level at or above the Federal Communication Commission safety standard.
5. The proposed modifications will not cause a change or alteration in the physical or environmental characteristics of the site.
6. The existing structure and its foundation can support the proposed loading.

For the foregoing reasons, ATT respectfully submits that the proposed modifications to the above-reference telecommunications facility constitutes an exempt modification under R.C.S.A. § 16-50j-72(b)(2). Please send approval/rejection letter to Attn: Domenica Tatasciore.

Sincerely,

Domenica Tatasciore
Site Acquisition Specialist
1800 W. Park Drive
Westborough, MA 01581
(508) 621-9161/ Domenica.Tatasciore@crowncastle.com

Attachments

cc:

John Mehr, Town Manager
Town of Rocky Hill
761 Old Main Street
Rocky Hill, CT 06067

Kim Ricci, Town Planner
Town of Rocky Hill
761 Old Main Street
Rocky Hill, CT 06067

Crown Castle, Tower Owner

From: TrackingUpdates@fedex.com
To: Tatasciore, Domenica
Subject: FedEx Shipment 776940744412: Your package has been delivered
Date: Wednesday, May 25, 2022 9:56:45 AM

Hi. Your package was delivered Wed, 05/25/2022 at 9:54am.

Delivered to 761 OLD MAIN ST, ROCKY HILL, CT 06067
Received by K.RICCI

OBTAIN PROOF OF DELIVERY

TRACKING NUMBER 776940744412

FROM Domenica Tatasciore
1800 West Park Drive

	Suite 200 WESTBOROUGH, MA, US, 01581
TO	Town of Rocky Hill John Mehr, Town Manager 761 Old Main Street ROCKY HILL, CT, US, 06067
REFERENCE	799001.7680
SHIPPER REFERENCE	799001.7680
SHIP DATE	Tue 5/24/2022 05:32 PM
DELIVERED TO	Receptionist/Front Desk
PACKAGING TYPE	FedEx Pak
ORIGIN	WESTBOROUGH, MA, US, 01581
DESTINATION	ROCKY HILL, CT, US, 06067
SPECIAL HANDLING	Deliver Weekday
NUMBER OF PIECES	1
TOTAL SHIPMENT WEIGHT	1.00 LB
SERVICE TYPE	FedEx Priority Overnight

From: TrackingUpdates@fedex.com
To: Tatasciore, Domenica
Subject: FedEx Shipment 776940781726: Your package has been delivered
Date: Wednesday, May 25, 2022 9:56:43 AM

FedEx

Hi. Your package was delivered Wed, 05/25/2022 at 9:54am.

Delivered to 761 OLD MAIN ST, ROCKY HILL, CT 06067
Received by K.RICCI

OBTAIN PROOF OF DELIVERY

TRACKING NUMBER 776940781726

FROM Domenica Tatasciore
1800 West Park Drive

	Suite 200 WESTBOROUGH, MA, US, 01581
TO	Town of Rocky Hill Kim Ricci, Town Planner/ZEO 761 Old Main Street ROCKY HILL, CT, US, 06067
REFERENCE	799001.7680
SHIPPER REFERENCE	799001.7680
SHIP DATE	Tue 5/24/2022 05:32 PM
DELIVERED TO	Receptionist/Front Desk
PACKAGING TYPE	FedEx Pak
ORIGIN	WESTBOROUGH, MA, US, 01581
DESTINATION	ROCKY HILL, CT, US, 06067
SPECIAL HANDLING	Deliver Weekday
NUMBER OF PIECES	1
TOTAL SHIPMENT WEIGHT	1.00 LB
SERVICE TYPE	FedEx Priority Overnight

TOWN OF ROCKY HILL, CONN.

BUILDING PERMIT

№ 13621

Estimated Cost (structural) $ 669,707.00

Fee $ waived

November 30, 19 98.

APPLICANTS PERMIT

PERMISSION IS HEREBY GRANTED TO Conn.Strux...Inc...860-677-9255

to erect a addition

Location R.H. Fire Station #2 N.Britain Ave No. of families or units

Zoned Lot Area Frontage

Front yard setback Right side yard Left side yard

Rear yard Dimensions of building No. stories

Type of Const Owner Town of Rocky Hill

NOTICE

The recipient of this permit accepts this permit on the condition that he, as owner or as representing the owner, agrees to comply with all Building, Zoning Ordinances of the Town of Rocky Hill and the State Statutes of the State of Connecticut, regarding the use occupancy and type of building to be constructed.

Building Official

License No. .....

.....

Permission must be obtained from the Office of the Town Engineer before Building Materials can be placed in the highway. Surface and roof water must not be connected with the Storm Sewer.

BD.-20

Town of Rocky Hill

699 OLD MAIN STREET • PO BOX 657 • ROCKY HILL, CT 06067 • FAX (860) 258-7638

August 27, 2001

To: Jennifer Charland

From: J-P. Langlois, Building Official

Re: Communication Tower, 52 New Britain Avenue

Dear Jennifer;

This letter is in reference to a communication tower that was installed under building permit #13621 at 52 New Britain Avenue in Rocky Hill, Connecticut.

A final inspection was performed on January 25, 2001 and was approved.

Should you have any questions, please feel free to contact the Building Department At (860) 258-2745.

tyler clt division

COMMERCIAL PROPERTY RECORD CARD 2021

TOWN OF ROCKY HILL

Situs : 52 NEW BRITAIN AVENUE	PARCEL ID: 6855	Class: 907	Card: 1 of 1	Printed: March 15, 2022

CURRENT OWNER

ROCKY HILL TOWN OF
CO 2 FIREHOUSE
761 OLD MAIN STREET
ROCKY HILL CT 06067-1517

GENERAL INFORMATION

Living Units	
Neighborhood	S
Alternate ID	007392
Vol / Pg	057/353
Map/Lot	08-354
Zoning	C
Class	EXEMPT

Property Notes

08-354-001 12/09/2012

Land Information

Type		Size	Influence Factors	Influence %	Value
Primary	AC	0.5700			314,000

Total Acres: .57
Spot: Location:

Assessment Information

	Assessed	Appraised	Cost	Income	Market
Land	219,800	314,000	314,000	0	0
Building	544,110	777,300	777,300	0	0
Total	763,910	1,091,300	1,091,300	0	0

Manual Override Reason
Base Date of Value
Effective Date of Value
Value Flag
Gross Building:

Entrance Information

Date	ID	Entry Code	Source
11/18/21	ST	Measured + 1visit	Owner
10/04/12	ST	Measured + 1visit	From Conversion

Permit Information

Date Issued	Number	Price	Purpose		% Complete
11/09/21	2021-602	50,000	CM	Verizon Wireless: Replacement O	100
07/26/21	2021-329	20,000	CM	"T-Mobile: Tower Scope Of Work:	100
07/26/21	2021-219	7,000	EL	Install (1) Breaker For New Cabine	100
03/24/21	2021-56	1,000	EL	Tie In Portable Generator To Temp	100
03/22/21	2021-51	11,000	EL	"Replacement Of Existing Standby	100

Sales/Ownership History

Transfer Date	Price	Type	Validity	Deed Reference	Deed Type	Grantee
12/15/57		Vacant - Land Only Sale	No Consideration	057/353	No Consideration	ROCKY HILL TOWN OF

Inspection Witnessed By _____

tyler clt division **COMMERCIAL PROPERTY RECORD CARD** 2021 **TOWN OF ROCKY HILL**

Situs : 52 NEW BRITAIN AVENUE	Parcel Id: 6855	Class: 907	Card: 1 of 1	Printed: March 15, 2022

Building Information

Year Built/Eff Year	1958 /
Building #	1
Structure Type	Police/Fire Station
Identical Units	1
Total Units	1
Grade	B
# Covered Parking	
# Uncovered Parking	
DBA	CO 2 FIREHOUSE

Building Other Features

Line	Type	+/-	Meas1	Meas2	# Stops	Ident Units	Line	Type	+/-	Meas1	Meas2	# Stops	Ident Units

Interior/Exterior Information

Line	Level From	To	Int Fin	Area	Perim	Use Type	Wall Height	Ext Walls	Construction	Partitions	Heating	Cooling	Plumbing	Physical	Functional
1	01	01		4,199	260	Municipal	12	Brick & Con	Fire Resistant	Normal	Hot Air	Central	Normal	5	3
2	02	02		3,074	222	Municipal	12	Brick & Con	Fire Resistant	Normal	Hot Air	Central	Normal	5	3

Interior/Exterior Valuation Detail

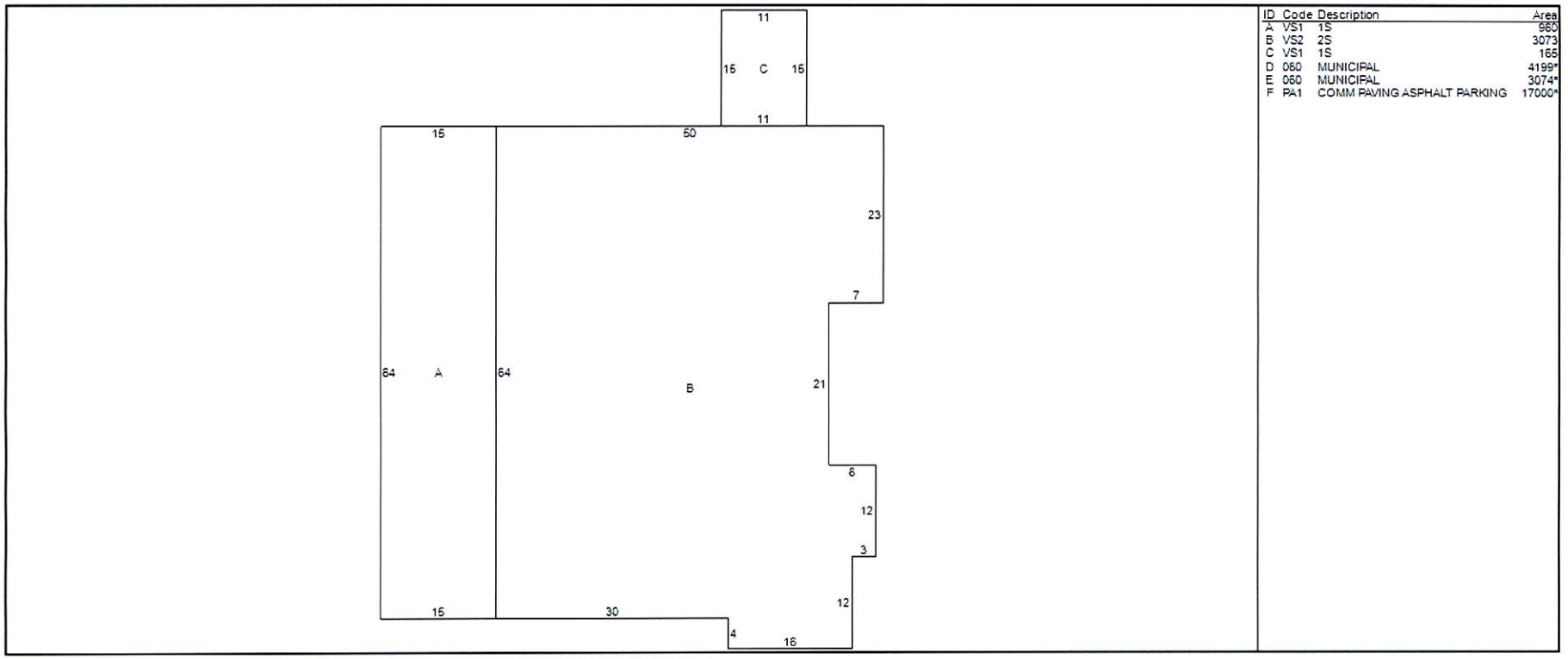
Line	Area	Use Type	% Good	% Complete	Use Value/RCNLD
1	4,199	Municipal	60		456,520
2	3,074	Municipal	60		299,700

Outbuilding Data

Line	Type	Yr Blt	Meas1	Meas2	Qty	Area	Grade	Phy Fun	Value
1	Asph Pav	1958			1	17,000	C	A	21,040

tyler clt division **COMMERCIAL PROPERTY RECORD CARD** 2021 **TOWN OF ROCKY HILL**

Situs : 52 NEW BRITAIN AVENUE	Parcel Id: 6855	Class: 907	Card: 1 of 1	Printed: March 15, 2022



ID	Code	Description	Area
A	VS1	1S	980
B	VS2	2S	3073
C	VS1	1S	165
D	060	MUNICIPAL	4199*
E	060	MUNICIPAL	3074*
F	PA1	COMM PAVING ASPHALT PARKING	17000*

Addtional Property Photos

tyler clt division **COMMERCIAL PROPERTY RECORD CARD** 2021 **TOWN OF ROCKY HILL**

Situs : 52 NEW BRITAIN AVENUE	Parcel Id: 6855	Class: 907	Card: 1 of 1	Printed: March 15, 2022

Income Detail (Includes all Buildings on Parcel)

Use Grp	Mod Type	Inc Mod	Model Description	Units	Net Area	Income Rate	Econ Adjust	Potential Gross Income	Vac Model	Vac Adj	Additional Income	Effective Gross Income	Expense Model %	Expense Adj %	Expense Adj	Other Expenses	Total Expenses	Net Operating Income
00	S	1	Shell Income Use Grou	0	7,273						0							

Apartment Detail - Building 1 of 1

Line	Use Type	Per Bldg	Beds	Baths	Units	Rent	Income

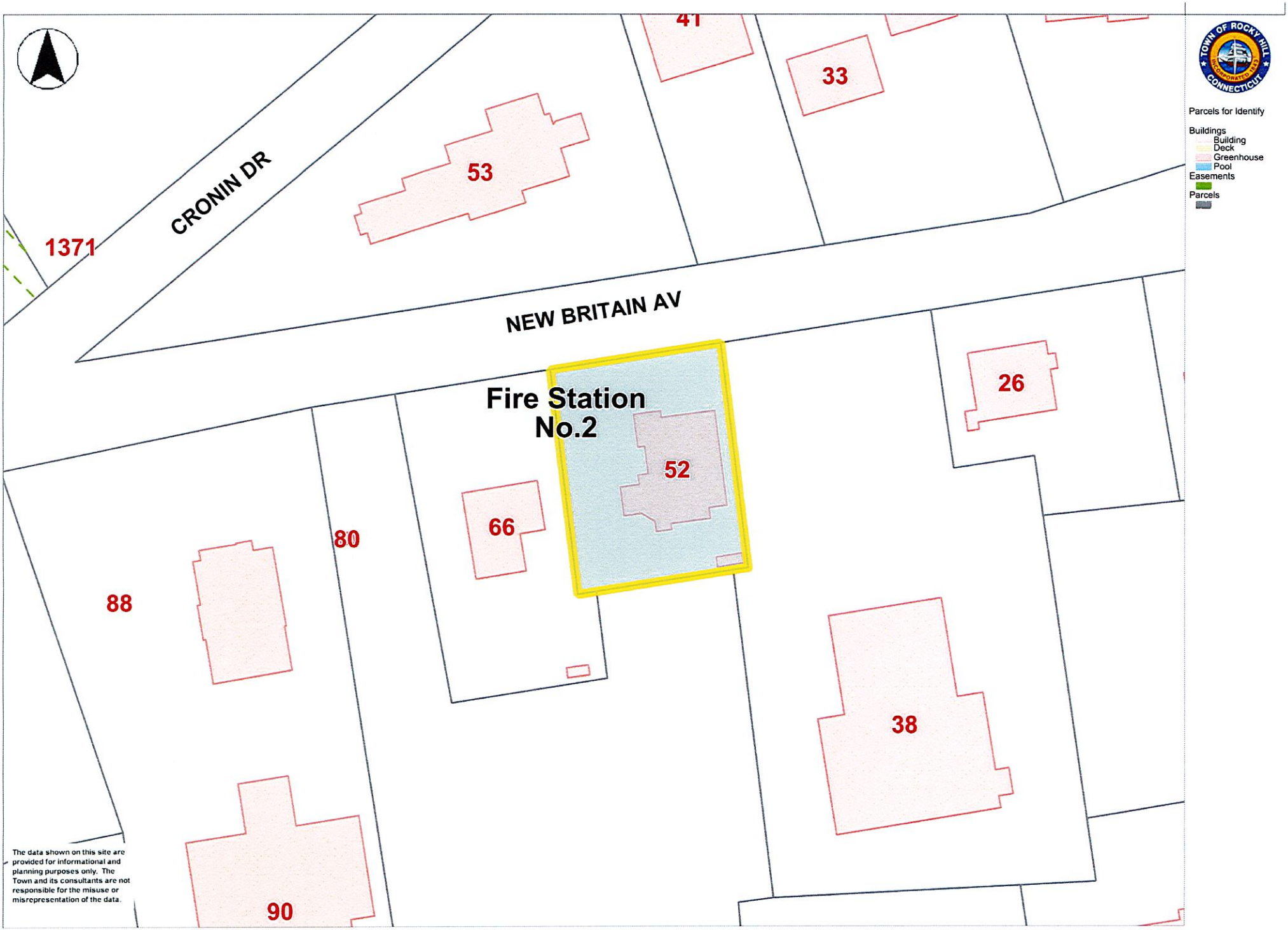
Building Cost Detail - Building 1 of 1

Total Gross Building Area	7,273
Replace, Cost New Less Depr	756,220
Percent Complete	100
Number of Identical Units	1
Economic Condition Factor	
Final Building Value	756,220
Value per SF	103.98

Notes - Building 1 of 1

Income Summary (Includes all Building on Parcel)

Total Net Income	
Capitalization Rate	0.090000
Sub total	
Residual Land Value	
Final Income Value	
Total Gross Rent Area	
Total Gross Building Area	7,273


CRONIN DR
NEW BRITAIN AV
1371
53
41
33
Fire Station
No.2
52
26
66
80
88
38
90
Parcels for Identify
Buildings
Building
Deck
Greenhouse
Pool
Easements
Parcels
The data shown on this site are provided for informational and planning purposes only. The Town and its consultants are not responsible for the misuse or misrepresentation of the data.
0
130
260 ft
Printed on 05/23/2022 at 02:46 PM
MapsOnline by PeopleGIS

EBI Consulting

environmental | engineering | due diligence

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

AT&T Existing Facility

Site ID: CTL05123

842872
52 New Britain Avenue
Rocky Hill, Connecticut 06067

February 18, 2022

EBI Project Number: 6222000323

Site Compliance Summary	
Compliance Status:	**COMPLIANT**
Site total MPE% of FCC general population allowable limit:	**45.06%**

February 18, 2022

AT&T

Emissions Analysis for Site: CTL05123 - 842872

EBI Consulting was directed to analyze the proposed AT&T facility located at **52 New Britain Avenue** in **Rocky Hill, Connecticut** 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 97-01and ANSI/IEEE Std C95.1. The FCC regulates Maximum Permissible Exposure in units of microwatts per square centimeter ($\mu W/cm^2$). The number of $\mu W/cm^2$ 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 population 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 population 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 microwatts per square centimeter ($\mu W/cm^2$). The general population exposure limits for the 600 MHz and 700 MHz frequency bands are approximately 400 $\mu W/cm^2$ and 467 $\mu W/cm^2$, respectively. The general population exposure limit for the 1900 MHz (PCS), 2100 MHz (AWS) and 11 GHz frequency bands is 1000 $\mu W/cm^2$. 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.

CALCULATIONS

Calculations were done for the proposed AT&T Wireless antenna facility located at 52 New Britain Avenue in Rocky Hill, Connecticut using the equipment information listed below. All calculations were performed per the specifications under FCC OET 65. Since AT&T is proposing highly focused directional panel antennas, which project most of the emitted energy out toward the horizon, all calculations were performed assuming a lobe representing the maximum gain of the antenna per the antenna manufacturer's supplied specifications, minus 10 dB for directional panel antennas and 20 dB for highly focused parabolic microwave dishes, was focused at the base of the tower. For this report, the sample point is the top of a 6-foot person standing at the base of the tower. For power density calculations, the broadcast footprint of the AIR6449 antenna has been considered. Due to the beamforming nature of this antenna, the actual beam locations vary depending on demand and are narrow in nature. Using the broadcast footprint accounts for the potential location of beams at any given time.

For all calculations, all equipment was calculated using the following assumptions:

1) 4 LTE channels (700 MHz Band) were considered for each sector of the proposed installation. These Channels have a transmit power of 40 Watts per Channel.

2) 2 LTE DE channels (700 MHz Band) were considered for each sector of the proposed installation. These Channels have a transmit power of 40 Watts per Channel.

3) 4 LTE FN channels (700 MHz Band) were considered for each sector of the proposed installation. These Channels have a transmit power of 40 Watts per Channel.

4) 4 5G channels (850 MHz Band) were considered for each sector of the proposed installation. These Channels have a transmit power of 40 Watts per Channel.

5) 4 LTE / 5G channels (PCS Band - 1900 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 40 Watts per Channel.

6) 4 LTE / 5G channels (AWS Band – 2100 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 40 Watts per Channel.

7) 4 LTE channels (WCS Band – 2300 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 25 Watts per Channel.

8) 2 C-Band Channels (3700 MHz Band) were considered for each sector of the proposed installation. These Channels have a transmit power of 144.58 Watts per Channel.

9) All radios at the proposed installation were considered to be running at full power and were uncombined in their RF transmissions paths per carrier prescribed configuration. Per FCC OET Bulletin No. 65 - Edition 97-01 recommendations to achieve the maximum anticipated value at each sample point, all power levels emitting from the proposed antenna installation are increased by a factor of 2.56 to account for possible in-phase reflections from the surrounding environment. This is rarely the case, and if so, is never continuous.

10) For the following calculations, the sample point was the top of a 6-foot person standing at the base of the tower. The maximum gain of the antenna per the antenna manufacturer's supplied specifications, minus 10 dB for directional panel antennas and 20 dB for highly focused parabolic microwave dishes, was used in this direction. This value is a very conservative estimate as gain reductions for these particular antennas are typically much higher in this direction.

11) The antennas used in this modeling are the Quintel QD6616-7 for the 700 MHz / 1900 MHz / 2100 MHz / 700 MHz channel(s), the Ericsson AIR 6419 for the 3700 MHz channel(s), the Ericsson AIR 6449 for the 3700 MHz channel(s), the CCI DMP65R-BU6DA for the 700 MHz / 850 MHz / 2300 MHz channel(s) in Sector A, the Quintel QD6616-7 for the 700 MHz / 1900 MHz / 2100 MHz / 700 MHz channel(s), the Ericsson AIR 6419 for the 3700 MHz channel(s), the Ericsson AIR 6449 for the 3700 MHz channel(s), the CCI DMP65R-BU6DA for the 700 MHz / 850 MHz / 2300 MHz channel(s) in Sector B, the Quintel QD6616-7 for the 700 MHz / 1900 MHz / 2100 MHz / 700 MHz channel(s), the Ericsson AIR 6419 for the 3700 MHz channel(s), the Ericsson AIR 6449 for the 3700 MHz channel(s), the CCI DMP65R-BU6DA for the 700 MHz / 850 MHz / 2300 MHz channel(s) in Sector C. This is based on feedback from the carrier with regard to anticipated antenna selection. All Antenna gain values and associated transmit power levels are shown in the Site Inventory and Power Data table below. The maximum gain of the antenna per the antenna manufacturer's supplied specifications, minus 10 dB for directional panel antennas and 20 dB for highly focused parabolic microwave dishes, was used for all calculations. This value is a very conservative estimate as gain reductions for these particular antennas are typically much higher in this direction.

12) The antenna mounting height centerline of the proposed antennas is 168 feet above ground level (AGL).

13) Emissions values for additional carriers were taken from the Connecticut Siting Council active database. Values in this database are provided by the individual carriers themselves.

14) All calculations were done with respect to uncontrolled / general population threshold limits.

AT&T Site Inventory and Power Data

Sector:	A	Sector:	B	Sector:	C
Antenna #:	1	Antenna #:	1	Antenna #:	1
Make / Model:	Quintel QD6616-7	Make / Model:	Quintel QD6616-7	Make / Model:	Quintel QD6616-7
Frequency Bands:	700 MHz / 1900 MHz / 2100 MHz / 700 MHz	Frequency Bands:	700 MHz / 1900 MHz / 2100 MHz / 700 MHz	Frequency Bands:	700 MHz / 1900 MHz / 2100 MHz / 700 MHz
Gain:	11.97 dBd / 15.11 dBd / 15.33 dBd / 11.97 dBd	Gain:	11.97 dBd / 15.11 dBd / 15.33 dBd / 11.97 dBd	Gain:	11.97 dBd / 15.11 dBd / 15.33 dBd / 11.97 dBd
Height (AGL):	168 feet	Height (AGL):	168 feet	Height (AGL):	168 feet
Channel Count:	14	Channel Count:	14	Channel Count:	14
Total TX Power (W):	560.00 Watts	Total TX Power (W):	560.00 Watts	Total TX Power (W):	560.00 Watts
ERP (W):	14,426.08	ERP (W):	14,426.08	ERP (W):	14,426.08
Antenna A1 MPE %:	**2.57%**	Antenna B1 MPE %:	**2.57%**	Antenna C1 MPE %:	**2.57%**
Antenna #:	**2**	Antenna #:	**2**	Antenna #:	**2**
Make / Model:	Ericsson AIR 6419	Make / Model:	Ericsson AIR 6419	Make / Model:	Ericsson AIR 6419
Frequency Bands:	3700 MHz	Frequency Bands:	3700 MHz	Frequency Bands:	3700 MHz
Gain:	23.45 dBd	Gain:	23.45 dBd	Gain:	23.45 dBd
Height (AGL):	168 feet	Height (AGL):	168 feet	Height (AGL):	168 feet
Channel Count:	1	Channel Count:	1	Channel Count:	1
Total TX Power (W):	144.58 Watts	Total TX Power (W):	144.58 Watts	Total TX Power (W):	144.58 Watts
ERP (W):	31,996.92	ERP (W):	31,996.92	ERP (W):	31,996.92
Antenna A2 MPE %:	**4.38%**	Antenna B2 MPE %:	**4.38%**	Antenna C2 MPE %:	**4.38%**
Antenna #:	**3**	Antenna #:	**3**	Antenna #:	**3**
Make / Model:	Ericsson AIR 6449	Make / Model:	Ericsson AIR 6449	Make / Model:	Ericsson AIR 6449
Frequency Bands:	3700 MHz	Frequency Bands:	3700 MHz	Frequency Bands:	3700 MHz
Gain:	23.45 dBd	Gain:	23.45 dBd	Gain:	23.45 dBd
Height (AGL):	168 feet	Height (AGL):	168 feet	Height (AGL):	168 feet
Channel Count:	1	Channel Count:	1	Channel Count:	1
Total TX Power (W):	144.58 Watts	Total TX Power (W):	144.58 Watts	Total TX Power (W):	144.58 Watts
ERP (W):	31,996.92	ERP (W):	31,996.92	ERP (W):	31,996.92
Antenna A3 MPE %:	**4.38%**	Antenna B3 MPE %:	**4.38%**	Antenna C3 MPE %:	**4.38%**
Antenna #:	**4**	Antenna #:	**4**	Antenna #:	**4**
Make / Model:	CCI DMP65R-BU6DA	Make / Model:	CCI DMP65R-BU6DA	Make / Model:	CCI DMP65R-BU6DA
Frequency Bands:	700 MHz / 850 MHz / 2300 MHz	Frequency Bands:	700 MHz / 850 MHz / 2300 MHz	Frequency Bands:	700 MHz / 850 MHz / 2300 MHz
Gain:	11.85 dBd / 12.45 dBd / 16.25 dBd	Gain:	11.85 dBd / 12.45 dBd / 16.25 dBd	Gain:	11.85 dBd / 12.45 dBd / 16.25 dBd
Height (AGL):	168 feet	Height (AGL):	168 feet	Height (AGL):	168 feet
Channel Count:	12	Channel Count:	12	Channel Count:	12
Total TX Power (W):	420.00 Watts	Total TX Power (W):	420.00 Watts	Total TX Power (W):	420.00 Watts
ERP (W):	9,479.38	ERP (W):	9,479.38	ERP (W):	9,479.38
Antenna A4 MPE %:	**1.98%**	Antenna B4 MPE %:	**1.98%**	Antenna C4 MPE %:	**1.98%**

• An adjusted power reduction factor of 0.32 was applied to the AIR 6449 antennas per guidance from AT&T.

• Specifications were not available for the Ericsson AIR 6419 antenna. Per AT&T, specifications for the AIR 6449 antenna were used to model the 6419 due to its similarity.

Site Composite MPE %	
Carrier	**MPE %**
AT&T (Max at Sector A):	13.31%
T-Mobile	0.72%
Verizon	25.97%
Police	1%
Fire	1%
Sprint	2.96%
Clearwire	0.1%
Site Total MPE % :	45.06%

AT&T MPE % Per Sector	
AT&T Sector A Total:	13.31%
AT&T Sector B Total:	13.31%
AT&T Sector C Total:	13.31%
Site Total MPE % :	45.06%

AT&T Maximum MPE Power Values (Sector A)

AT&T Frequency Band / Technology (Sector A)	# Channels	Watts ERP (Per Channel)	Height (feet)	Total Power Density (μW/cm²)	Frequency (MHz)	Allowable MPE (μW/cm²)	Calculated % MPE
AT&T 700 MHz LTE FN	4	629.59	168.0	3.45	700 MHz LTE FN	467	0.74%
AT&T 1900 MHz LTE/5G	4	1297.36	168.0	7.11	1900 MHz LTE/5G	1000	0.71%
AT&T 2100 MHz LTE/5G	4	1364.77	168.0	7.48	2100 MHz LTE/5G	1000	0.75%
AT&T 700 MHz LTE DE	2	629.59	168.0	1.72	700 MHz LTE DE	467	0.37%
AT&T 3700 MHz C-Band	1	31996.92	168.0	43.83	3700 MHz C-Band	1000	4.38%
AT&T 3700 MHz C-Band	1	31996.92	168.0	43.83	3700 MHz C-Band	1000	4.38%
AT&T 700 MHz LTE	4	612.43	168.0	3.36	700 MHz LTE	467	0.72%
AT&T 850 MHz 5G	4	703.17	168.0	3.85	850 MHz 5G	567	0.68%
AT&T 2300 MHz LTE	4	1054.24	168.0	5.78	2300 MHz LTE	1000	0.58%
						Total:	**13.31%**

• NOTE: Totals may vary by approximately 0.01% due to summation of remainders in calculations.

Summary

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

The anticipated maximum composite contributions from the AT&T facility as well as the site composite emissions value with regards to compliance with FCC's allowable limits for general population exposure to RF Emissions are shown here:

AT&T Sector	Power Density Value (%)
Sector A:	13.31%
Sector B:	13.31%
Sector C:	13.31%
AT&T Maximum MPE % (Sector A):	13.31%
Site Total:	45.06%
Site Compliance Status:	**COMPLIANT**

The anticipated composite MPE value for this site assuming all carriers present is **45.06%** of the allowable FCC established general population limit sampled at the ground level. This is based upon values listed in the Connecticut Siting Council database for existing carrier emissions.

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 well within the allowable 100% threshold standard per the federal government.

Date: **August 24, 2021**

Kimley-Horn and Associates, Inc.
421 Fayetteville Street, Suite 600
Raleigh, NC 27601
(919) 677-2000
CrownMounts@kimley-horn.com

Subject:	**Mount Analysis Report**	
Carrier Designation:	**AT&T Mobility Equipment Change-Out**	
	Carrier Site Number:	CTL05123
	Carrier Site Name:	CTL05123
Crown Castle Designation:	**BU Number:**	842872
	Site Name:	ROCKY HILL
	JDE Job Number:	650058
	Order Number:	556583, Rev. 0
Engineering Firm Designation:	**Kimley-Horn Project Number:**	019558056
Site Data:	**52 New Britain Avenue, Rocky Hill, Hartford County, CT 06067**	
	Latitude 41° 39′ 36.89″ Longitude -72° 40′ 50.58″	
Structure Information:	**Tower Height & Type:**	**182 ft Monopole**
	Mount Elevation:	**168 ft**
	Mount Type:	**14.5 ft Platform w/ Support Rails**

Kimley-Horn is pleased to submit this **"Mount Analysis Report"** to determine the structural integrity of AT&T Mobility's antenna mounting system with the proposed appurtenance and equipment addition on the abovementioned supporting tower structure. Analysis of the existing supporting tower structure is to be completed by others and therefore is not part of this analysis. Analysis of the antenna mounting system as a tie-off point for fall protection or rigging is not part of this document.

The purpose of the analysis is to determine acceptability of the mount stress level. Based on our analysis we have determined the mount stress level to be:

Platform w/ Support Rails **Sufficient**

This analysis has been performed in accordance with the 2018 International Building Code based upon an ultimate 3-second gust wind speed of 118 mph. Applicable Standard references and design criteria are listed in Section 2 - Analysis Criteria.

Mount analysis prepared by Elliot Ziebart, E.I. under the supervision of Steven C. Ball, P.E., S.E.

8.26.21

TABLE OF CONTENTS

1) INTRODUCTION

The mounting configuration consists of an existing 14.5 ft Platform w/ Support Rails designed by Site Pro 1.

2) ANALYSIS CRITERIA

Building Code:	2018 IBC
TIA-222 Revision:	TIA-222-H
Risk Category:	II
Ultimate Wind Speed:	118 mph
Exposure Category:	C
Topographic Factor at Base:	1.0
Topographic Factor at Mount:	1.0
Ice Thickness:	50 in
Wind Speed with Ice:	1.5 mph
Live Loading Wind Speed:	30 mph
Man Live Load at Mid/End-Points:	250 lb
Man Live Load at Mount Pipes:	500 lb

Table 1 – Proposed Equipment Configuration

Elevation (ft)		Antennas			Mount / Modification Details
Mount	Centerline	#	Manufacturer	Model	
168	168	3	CCI Antennas	DMP65R-BU6e	Existing 14.5 ft Platform w/ Support Rails designed by Site Pro 1
		3	Ericsson	RRUS 4415 B25_CCIV2	
		3	Ericsson	RRUS 4449 B5/B12	
		3	Ericsson	RRUS 4478 B14_CCIV2	
		3	Ericsson	RRUS E2 B29	
		3	Ericsson	RRUS 32 B66	
		3	Ericsson	AIR 6419 B77G	
		3	Ericsson	RRUS-32 B30	
		3	Ericsson	AIR 6449 B77D	
		3	Quintel technology	QD6616-7	
		2	Raycap	DC6-48-60-18-8C-EV	
		1	Raycap	DC6-48-60-18-8C	
		1	Raycap	DC9-48-60-24-8C-EV	

3) ANALYSIS PROCEDURE

Table 2 – Documents Provided

Document	Remarks	Reference	Source
Supplemental Loading	AT&T RFDS	07/13/2021	TSA
Structural Analysis	B+T Group	9792561	CCISites
Tower Drawings	Engineered Endeavors	4844402	CCISites
Mount Analysis	Kimley-Horn and Associates, Inc.	9136487	CCISites
Site Photos	-	-	CCISites

3.1) Analysis Method

RISA-3D (version 17.02.00), a commercially available analysis software package, was used to create a three-dimensional model of the antenna mounting system and calculate member stresses for various loading cases.

A proprietary tool internally developed by Kimley-Horn was used to calculate wind loading on all appurtenances, dishes and mount members for various load cases. Selected output from the analysis is included in Appendix B.

This analysis was performed in accordance with Crown Castle's ENG-SOW-10208 *Mount Analysis* (Revision D).

3.2) Assumptions

1) The antenna mounting system (including any considered modifications) was properly fabricated, installed and maintained in good condition in accordance with its original design, TIA standards, and/or manufacturer specifications.
2) The configuration of antennas, mounts, and other appurtenances are as specified in Table 1 and the provided reference information.
3) All member connections are assumed to have been designed to meet or exceed the load carrying capacity of the connected member unless otherwise specified in this report.
4) The analysis will be required to be revised if the existing conditions in the field differ from those shown in the above-referenced documents or assumed in this analysis. No allowance was made for any damaged, missing, or rusted members that could not be verified at this time.
5) Any referenced prior structural modifications to the tower mounting system are assumed to be installed as shown per available data unless noted otherwise.
6) Steel grades have been assumed as follows, unless noted otherwise:

Channel, Solid Round, Angle, Plate	ASTM A36 (Gr. 36)
HSS (Rectangular)	ASTM A36 (Gr. 36)
Pipe	ASTM A53 (Gr. B-35)
Connection Bolts	ASTM A325
Threaded Rods	ASTM A36 (Gr. 36)

This analysis may be affected if any assumptions are not valid or have been made in error. Kimley-Horn should be notified to determine the effect on the structural integrity of the antenna mounting system.

4) ANALYSIS RESULTS

Table 3 – Mount Component Stresses vs. Capacity

Notes	Component	Critical Member	Centerline (ft)	% Capacity	Pass / Fail
1, 2	Mount Pipes	M385	168	26%	Pass
1, 2	Kickers	KM18		25%	Pass
1, 2	Stand Off Horizontals	M51		18%	Pass
1, 2	Support Rails	M116		16%	Pass
1, 2	Bracing Members	M245A		14%	Pass
1, 2	Face Horizontals	M69		11%	Pass
1, 2	Connections	-		10%	Pass

Structure Rating (max from all components) =	26%

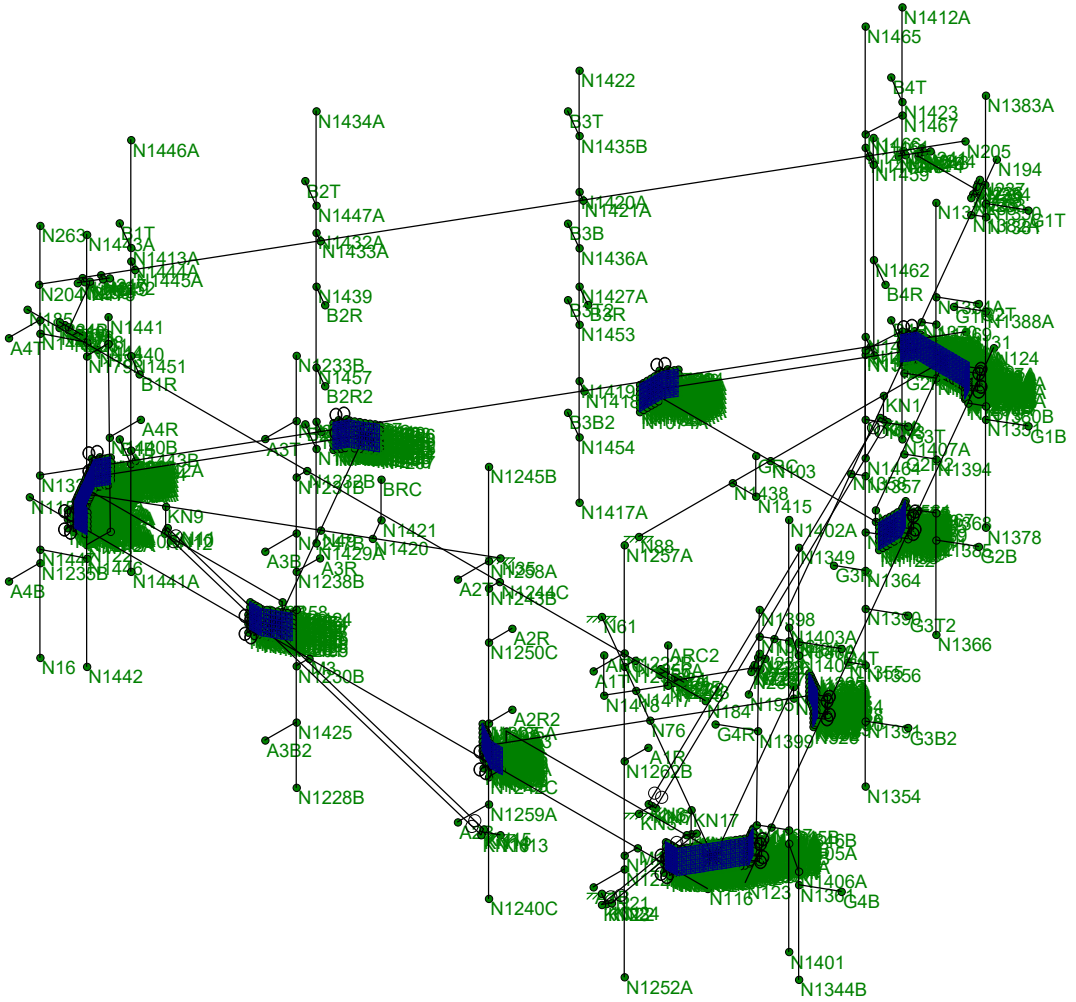
Notes:
1) See additional documentation in Appendix C and Appendix D for calculations supporting the % capacity consumed.
2) A structure rating of 105% or less is within engineering tolerances and considered acceptable.

4.1) Recommendations

The mounting configuration has sufficient design capacity to carry the referenced loading. No modifications are required at this time.

APPENDIX A

WIRE FRAME AND RENDERED MODELS



Envelope Only Solution

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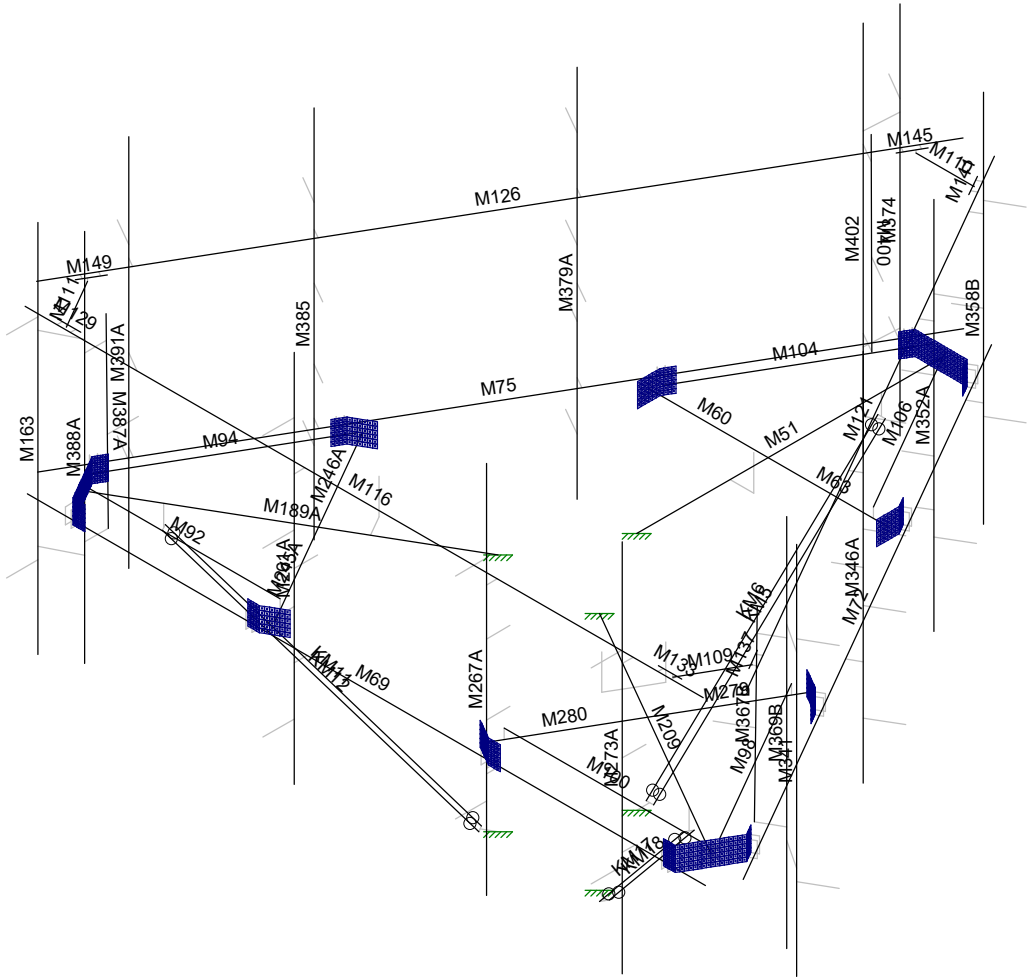

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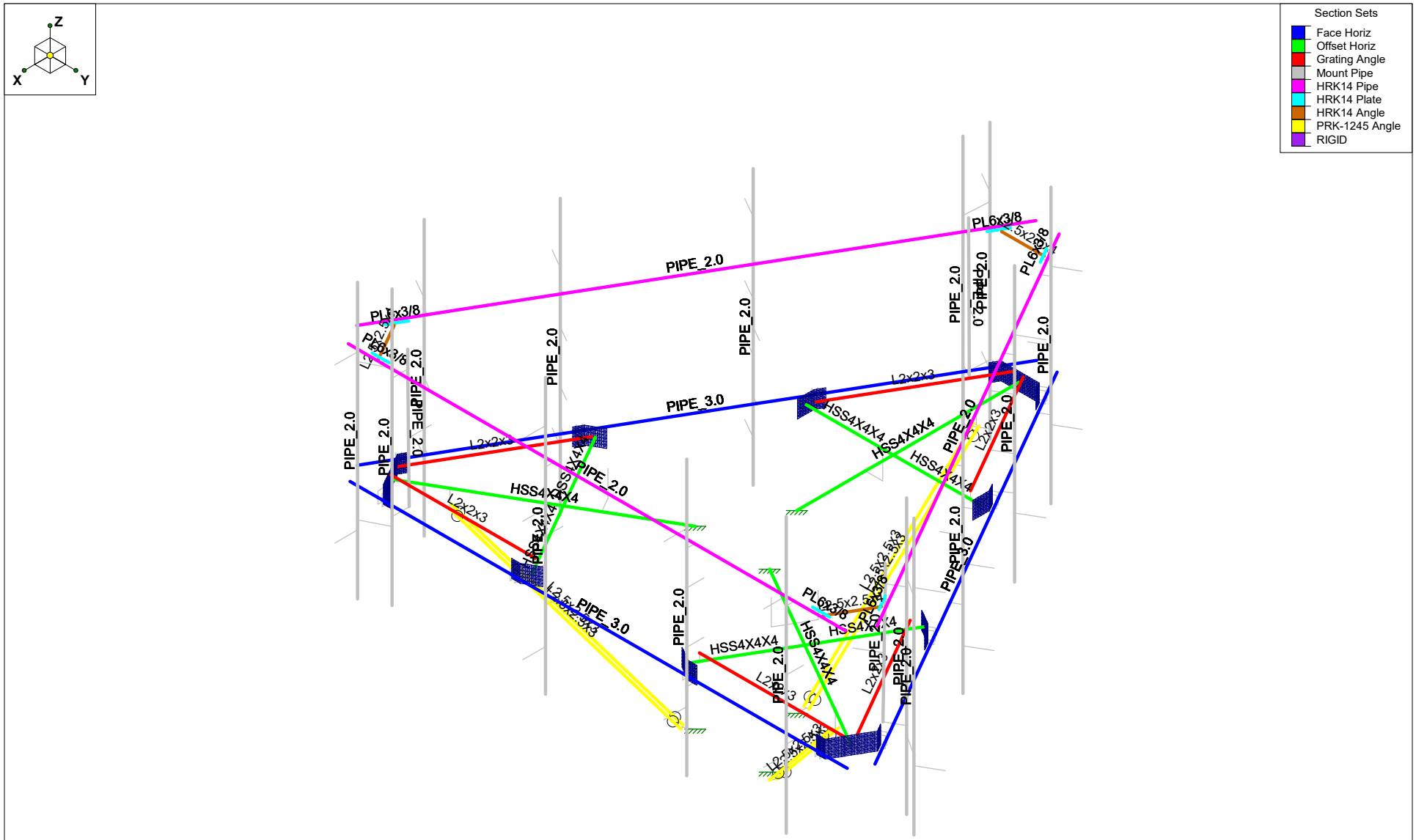

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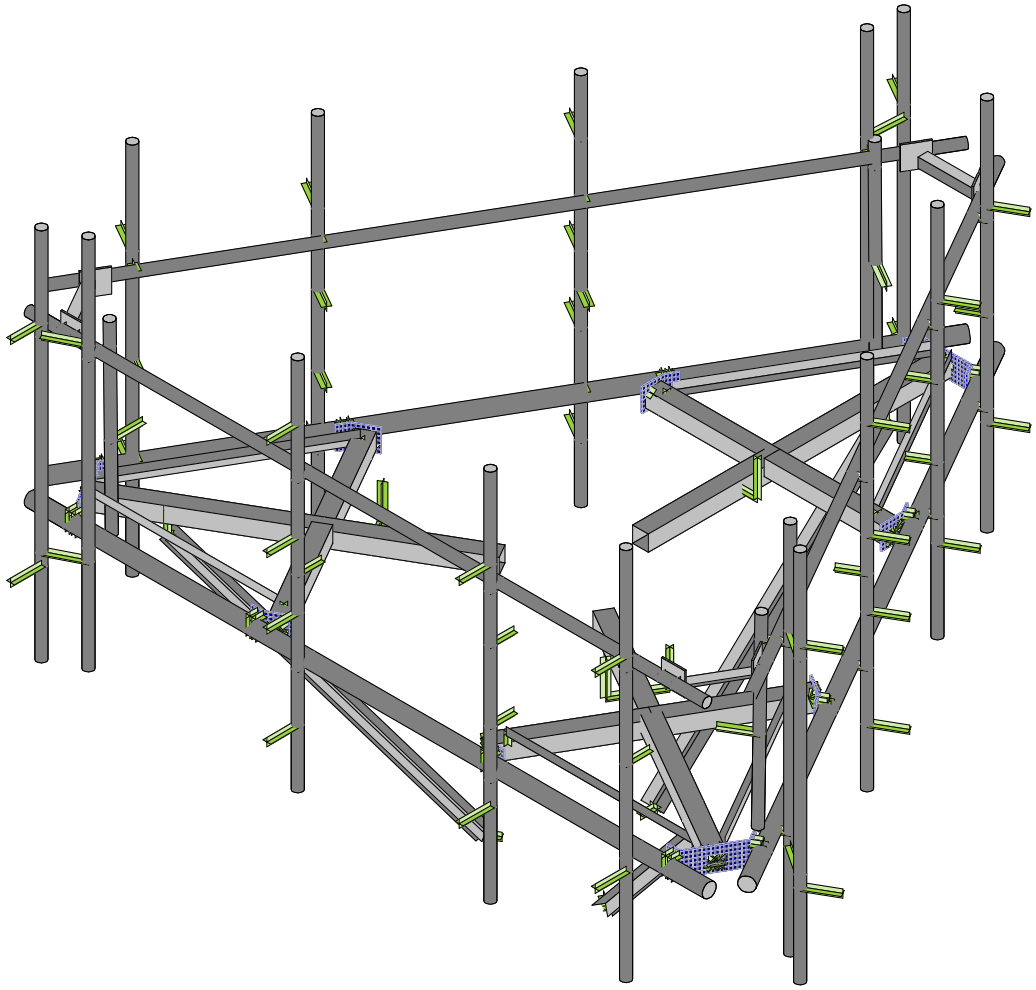

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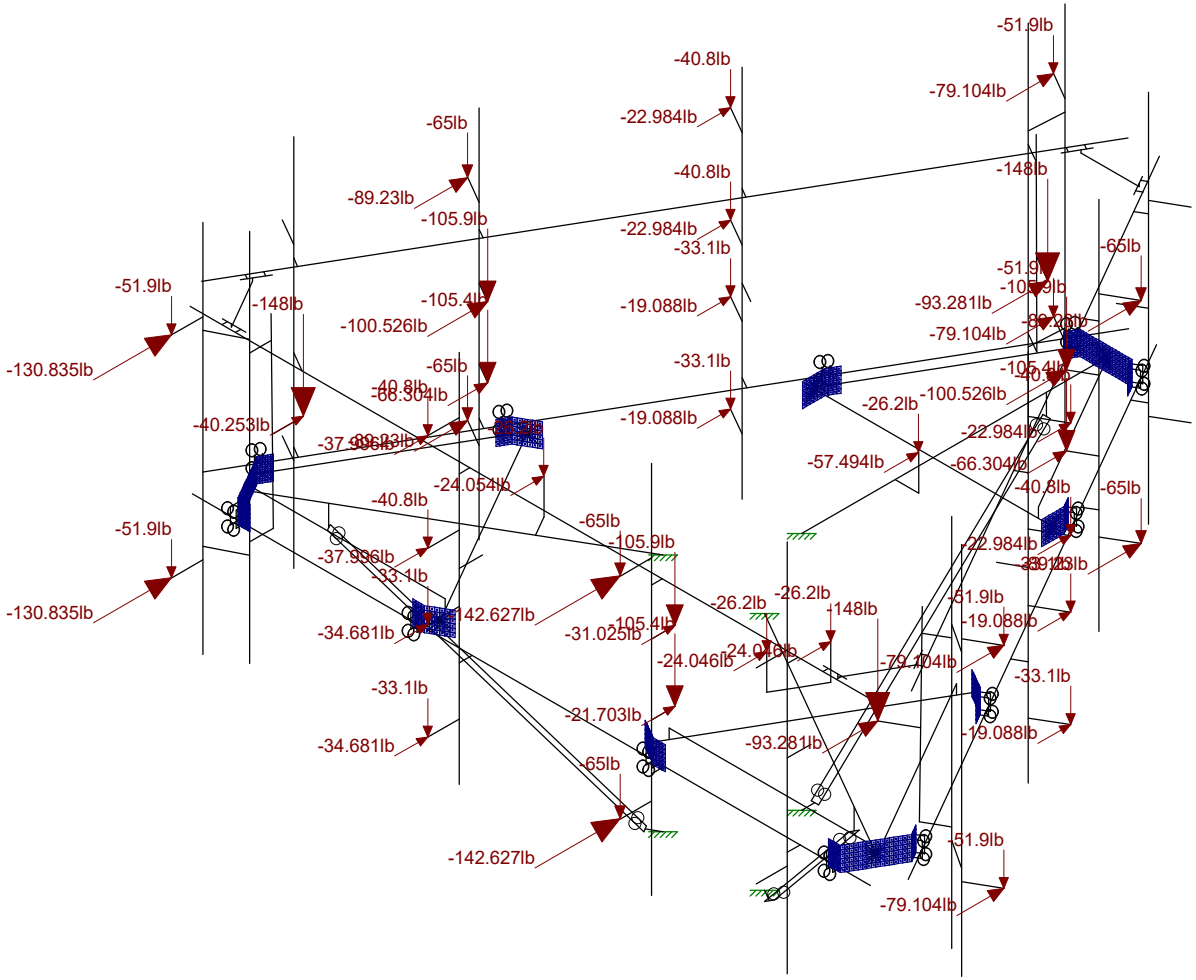

Loads: LC 1, Summary: 1.0D + 1.0W
Envelope Only Solution

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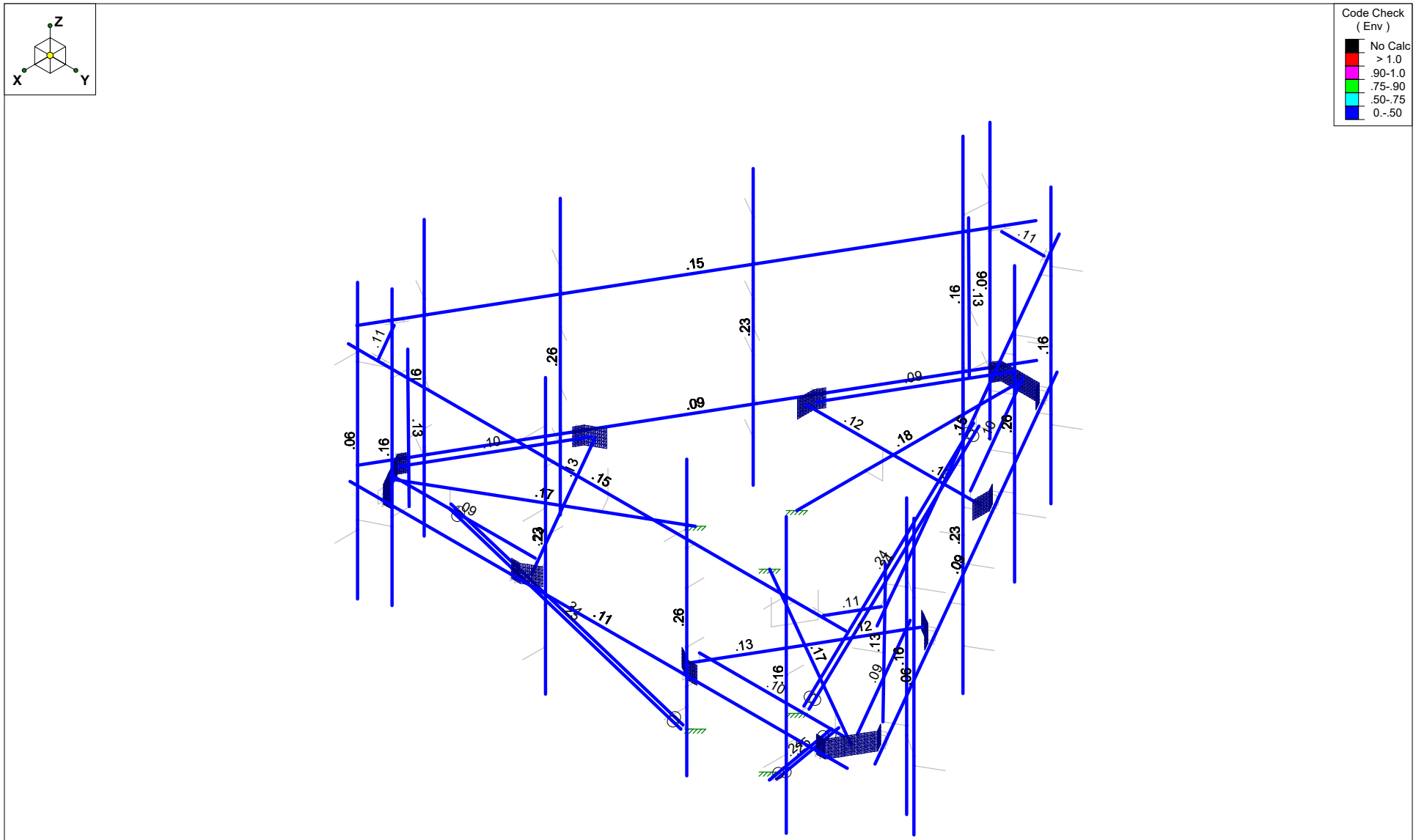

Member Code Checks Displayed (Enveloped)
Envelope Only Solution

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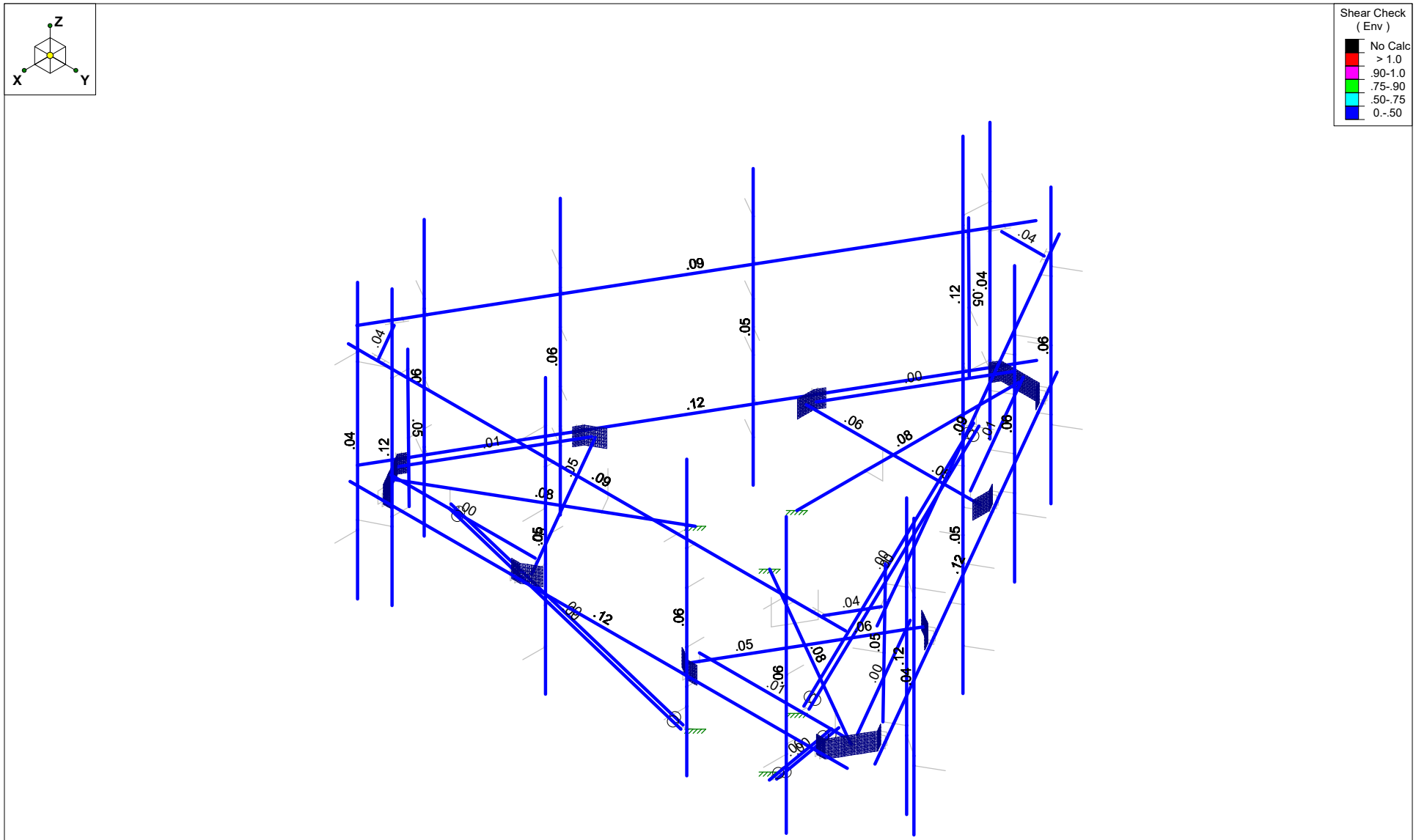

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Envelope Only Solution

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APPENDIX B

SOFTWARE INPUT CALCULATIONS

General Criteria	
TIA Standard	H
IBC Edition	2018
Structure Class	-
Risk Category	II

Site-Specific Criteria	
Exposure Category	C
Topographic Factor, K_{zt}	1.00
Structure Base Elev. (AMSL), z_s (ft)	199.00
Ground Effect Factor, K_e	0.99

Mount & Structure Criteria	
Mount Elevation (AGL) (ft)	168.00
Structure Height (ft)	182.00
Structure Type	Monopole

Constants	
Wind Direction Probability Factor, K_d	0.95
Gust Effect Factor, G_h	1
Shielding Factor, K_a **(antenna)**	0.9
Shielding Factor, K_a **(mount)**	0.9

Wind Summary	
Basic Wind Speed w/o Ice, **V** (mph)	118.00
Velocity Pressure Coeff., K_z	1.41
Velocity Pressure, q_z **(w/o Ice)** (psf)	47.46

Ice Load Summary	
Basic Wind Speed w/ Ice, V_i (mph)	1.50
Design Ice Thick. (ASCE 7-16) , t_i (in)	50
Velocity Pressure, q_z **(w/ Ice)** (psf)	0.01
Escalated Ice Thick. @ Mount, t_{iz} (in)	58.84

Seismic Load Summary	
Spectral Response (Short Periods), S_s	-
Spectral Response (1-Sec. Period), S_1	-
Site Class	-
Seismic Design Category	-
Seismic Risk Category	-

Snow Load Summary	
Ground Snow Load, p_g (psf)	-
Snow Load on Flat Roofs, p_f (psf)	-

Kimley»Horn

Date	August 24, 2021
Client	Crown Castle
Site #	842872
Site Name	ROCKY HILL
Project #	19558056

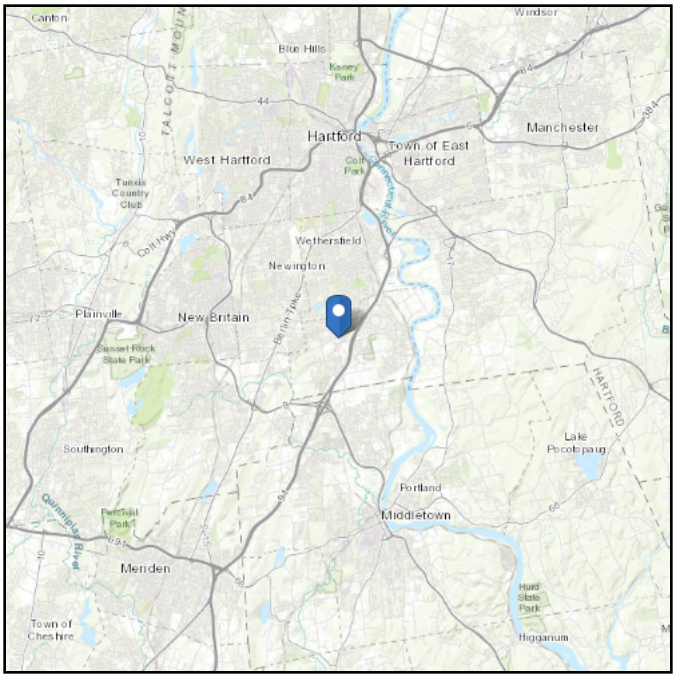
Antenna Name	Qty	Shape	Dimensions (in)			Weight (lb)	Joint Labels								EPA (ft^2)		Wind Force, F_A (lb)			
							Alpha		Beta		Gamma		Delta				No Ice		With Ice	
			H	W	D										Front	Side	Front	Side	Front	Side
DMP65R-BU6e	3	Flat	71.2	20.7	9.7	103.8	A4T	A4B	B4T	B4B	G4T	G4B			12.46	5.89	532.02	251.55	1.47	1.2
AIR 6449 B77D	3	Flat	30.4	15.9	8.1	81.6	A3T	A3B	B3T	B3B	G3T	G3B			3.62	1.71	154.51	73.11	1.02	0.86
AIR 6419 B77G	3	Flat	28	15.8	6.7	66.2	A3T2	A3B2	B3T2	B3B2	G3T2	G3B2			3.3	1.32	141.03	56.48	1.01	0.83
QD6616-7	3	Flat	72	22	9.6	130	A2T	A2B	B2T	B2B	G2T	G2B			13.58	6.8	579.97	290.46	1.52	1.39
RRUS 32 B66	3	Flat	27.2	12.1	7	53	A2R		B2R		G2R				0.83	2.74	35.63	117.15	0.52	1.08
RRUS 4415 B25_CCIV2	3	Flat	16.5	13.4	5.9	46	A2R2		B2R2		G2R2				0.41	1.84	17.52	78.7	0.48	1.01
RRUS 4478 B14_CCIV2	3	Flat	18.1	13.4	8.3	59.4	A2R2		B2R2		G2R2				0.62	2.02	26.61	86.33	0.49	1.02
RRUS 4449 B5/B12	3	Flat	17.9	13.2	9.4	71	A4R		B4R		G4R				0.7	1.97	30.07	84.04	0.5	1.02
RRUS E2 B29	3	Flat	20.4	18.5	7.5	52.9	A2R		B2R		G2R				0.64	3.15	27.45	134.34	0.5	1.08
RRUS-32 B30	3	Flat	29.9	13.3	9.5	77	A4R		B4R		G4R				1.21	3.31	51.77	141.55	0.54	1.11
DC6-48-60-18-8C	1	Round	31.4	10.2	10.2	26.2	BRC								1.14	1.14	48.91	48.91	0.64	0.64
DC6-48-60-18-8C-EV	1	Round	31.4	10.2	10.2	26.2	ARC								1.14	1.14	48.89	48.89	0.64	0.64
DC9-48-60-24-8C-EV	1	Flat	31.4	10.2	18.3	26.2	GRC								2.74	4.78	116.9	204.38	1.1	1.17
DC6-48-60-18-8C-EV	1	Round	31.4	10.2	10.2	26.2	ARC2								1.14	1.14	48.89	48.89	0.64	0.64

ASCE 7 Hazards Report

Address:
No Address at This Location

Standard: ASCE/SEI 7-16
Risk Category: II
Soil Class: D - Stiff Soil

Elevation: 198.53 ft (NAVD 88)
Latitude: 41.660247
Longitude: -72.680717



Wind

Results:

Wind Speed:	118 Vmph
10-year MRI	75 Vmph
25-year MRI	84 Vmph
50-year MRI	90 Vmph
100-year MRI	98 Vmph

Data Source:	ASCE/SEI 7-16, Fig. 26.5-1B and Figs. CC.2-1–CC.2-4, and Section 26.5.2
Date Accessed:	Tue Aug 24 2021

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

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

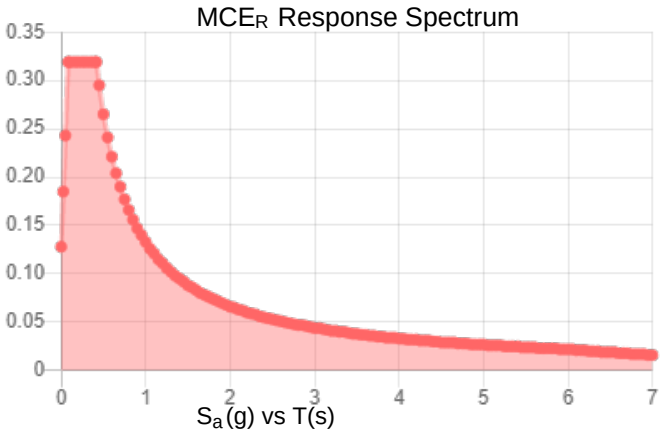
Seismic

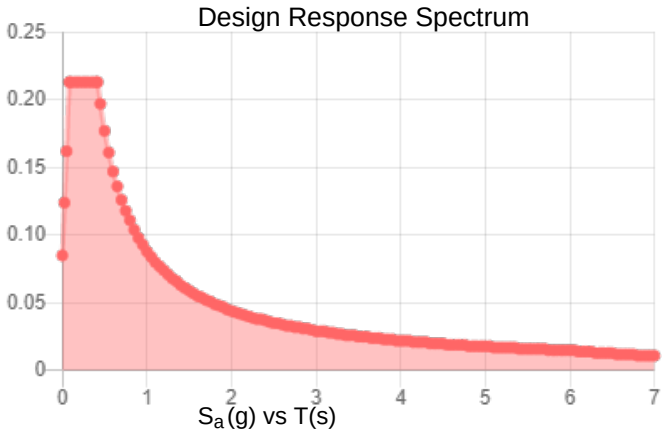
Site Soil Class: D - Stiff Soil

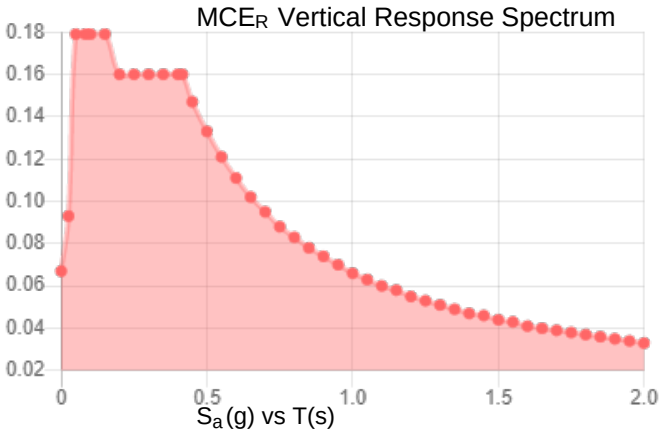
Results:

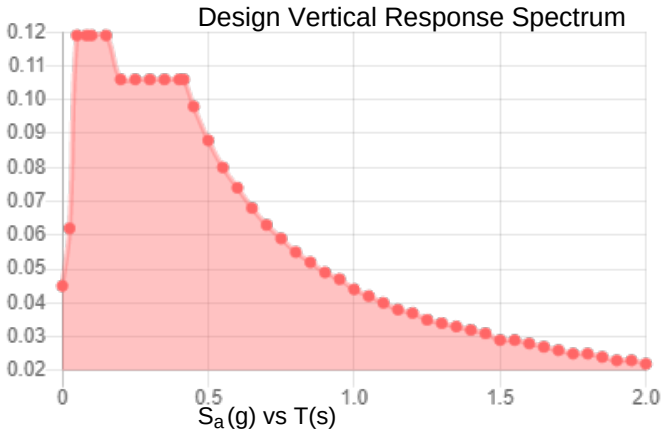
S_S :	0.2	S_{D1} :	0.088
S_1 :	0.055	T_L :	6
F_a :	1.6	PGA :	0.109
F_v :	2.4	PGA_M :	0.173
S_{MS} :	0.319	F_{PGA} :	1.581
S_{M1} :	0.133	I_e :	1
S_{DS} :	0.213	C_v :	0.7

Seismic Design Category B









Data Accessed: Tue Aug 24 2021

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

Ice

Results:

Ice Thickness:	1.50 in.
Concurrent Temperature:	15 F
Gust Speed:	50 mph
Data Source:	Standard ASCE/SEI 7-16, Figs. 10-2 through 10-8
Date Accessed:	Tue Aug 24 2021

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

Values provided are equivalent radial ice thicknesses due to freezing rain with concurrent 3-second gust speeds, for a 500-year mean recurrence interval, and temperatures concurrent with ice thicknesses due to freezing rain. Thicknesses for ice accretions caused by other sources shall be obtained from local meteorological studies. Ice thicknesses in exposed locations at elevations higher than the surrounding terrain and in valleys and gorges may exceed the mapped values.

APPENDIX C

SOFTWARE ANALYSIS OUTPUT

Hot Rolled Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm (\1E...	Density[lb/f...	Yield[ksi]	Ry	Fu[ksi]	Rt
1	A36 Gr.36	29000	11154	.3	.65	490	36	1.5	58	1.2
2	A572 Gr.50	29000	11154	.3	.65	490	50	1.1	65	1.1
3	A992	29000	11154	.3	.65	490	50	1.1	65	1.1
4	A500 Gr.B RND	29000	11154	.3	.65	527	42	1.4	58	1.3
5	A500 Gr.B Rect	29000	11154	.3	.65	527	46	1.4	58	1.3
6	A53 Gr.B	29000	11154	.3	.65	490	35	1.6	60	1.2
7	A1085	29000	11154	.3	.65	490	50	1.4	65	1.3
8	Q235	29000	11154	.3	.65	490	35	1.5	58	1.2

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design Ru...	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	Face Horiz	PIPE_3.0	Beam	None	A53 Gr.B	Typical	2.07	2.85	2.85	5.69
2	Stand-Off Horiz	HSS4X4X4	Beam	None	Q235	Typical	3.37	7.8	7.8	12.8
3	Offset Horiz	HSS4X4X4	Beam	None	Q235	Typical	3.37	7.8	7.8	12.8
4	Offset Side Plate	PL6x3/8	Beam	None	Q235	Typical	2.25	.026	6.75	.101
5	Grating Angle	L2x2x3	Beam	None	Q235	Typical	.722	.271	.271	.009
6	Mount Pipe	PIPE_2.0	Column	None	A53 Gr.B	Typical	1.02	.627	.627	1.25
7	Offset End Plate	PL6x0.5	Beam	None	Q235	Typical	4.5	.094	30.375	.362
8	HRK14 Pipe	PIPE_2.0	Beam	None	A53 Gr.B	Typical	1.02	.627	.627	1.25
9	HRK14 Plate	PL6x3/8	Beam	None	Q235	Typical	2.25	.026	6.75	.101
10	HRK14 Angle	L2.5x2.5x4	Beam	None	Q235	Typical	1.19	.692	.692	.026
11	PRK-1245 Angle	L2.5x2.5x3	Beam	None	A36 Gr.36	Typical	.901	.535	.535	.011
12	HR1A	W10X33	Beam	None	A992	Typical	9.71	36.6	171	.583

Joint Coordinates and Temperatures

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Diap...
1	N16	61.654187	-77.	-27	0	
2	N35	7.5155	-13.017228	0	0	
3	N36	40.7585	-83.970905	0	0	
4	N37	52.341687	-77.283349	0	0	
5	N39	-0.747815	-60.078992	0	0	
6	N42	52.404187	-32.39167	0	0	
7	N43	52.404187	-29.39167	0	0	
8	N48	47.779713	-79.283664	0	0	
9	N49	24.390513	-42.245607	0	0	
10	N50	47.779713	-28.741846	0	0	
11	N51	1.001659	-55.749169	0	0	
12	N52	46.275762	-80.151971	0	0	
13	N53	54.341687	-75.754049	0	0	
14	N60	44.771811	-81.020277	0	0	
15	N61	7.5155	13.017228	0	0	
16	N62	52.341687	77.283349	0	0	
17	N63	40.7585	83.970905	0	0	
18	N66	52.40384	29.39187	0	0	
19	N70	-0.748161	60.079192	0	0	
20	N75	44.771811	81.020277	0	0	
21	N76	24.390513	42.245608	0	0	
22	N77	1.001313	55.749369	0	0	
23	N78	47.779367	28.742046	0	0	
24	N79	46.275762	80.151971	0	0	
25	N87	47.779713	79.283664	0	0	
26	N88	-15.031	-0.	0	0	
27	N89	-93.100187	6.687556	0	0	

Joint Coordinates and Temperatures (Continued)

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Diap...
28	N90	-93.100187	-6.687556	0	0	
29	N93	-51.656026	30.687122	0	0	
30	N97	-51.656026	-30.687522	0	0	
31	N98	-48.781026	-30.437522	0	0	
32	N99	-48.781026	30.437122	0	0	
33	N100	-92.850187	-0.	0	0	
34	N102	-92.551524	-1.736613	0	0	
35	N103	-48.781026	-0.	0	0	
36	N104	-48.781026	-27.007522	0	0	
37	N105	-48.781026	27.007122	0	0	
38	N106	-92.551524	-0.	0	0	
39	N114	-92.551524	1.736613	0	0	
40	N115	54.341687	-87.00002	0	0	
41	N116	54.341687	87.00002	0	0	
42	M4	54.341687	-69.	0	0	
43	N122	57.654187	-69.	0	0	
44	N123	48.173384	90.561292	0	0	
45	N124	-102.515071	3.561271	0	0	
46	N131	-102.515071	-3.561271	0	0	
47	N132	48.173384	-90.561292	0	0	
48	N140	54.341687	-30.89167	0	0	
49	N158	47.779713	-28.741846	2.561	0	
50	N159	1.001659	-55.749169	2.561	0	
51	N160	47.779713	-79.283664	2.561	0	
52	N161	44.771811	-81.020277	2.561	0	
53	N162	1.001313	55.749369	2.561	0	
54	N163	47.779367	28.742046	2.561	0	
55	N164	44.771811	81.020277	2.561	0	
56	N165	47.779713	79.283664	2.561	0	
57	N166	-48.781026	-27.007522	2.561	0	
58	N167	-48.781026	27.007122	2.561	0	
59	N168	-92.551524	-1.736613	2.561	0	
60	N169	-92.551524	1.736613	2.561	0	
61	N170	53.529187	-77.813521	41.289	0	
62	N171	53.529187	77.813521	41.289	0	
63	N172	40.623893	85.264396	41.289	0	
64	N173	-94.153079	7.450875	41.289	0	
65	N174	-94.153079	-7.450875	41.289	0	
66	N175	40.623893	-85.264396	41.289	0	
67	N179	57.654187	-69.	42	0	
68	N183	54.904187	-69.	42	0	
69	N184	54.904187	87.00002	42	0	
70	N185	54.904187	-87.00002	42	0	
71	N194	-102.796321	4.048411	42	0	
72	N195	47.892134	91.048431	42	0	
73	N204	47.892134	-91.048431	42	0	
74	N205	-102.796321	-4.048411	42	0	
75	N206	54.904187	-75.383771	42	0	
76	N207	54.904187	-78.821271	42	0	
77	N208	53.529187	-75.383771	42	0	
78	N209	53.529187	-78.821271	42	0	
79	N210	53.529187	-80.102521	42	0	
80	N211	53.529187	-74.102521	42	0	
81	N218	53.529187	-77.813521	42	0	
82	N219	54.904187	75.383771	42	0	
83	N220	54.904187	78.821271	42	0	
84	N221	53.529187	75.383771	42	0	

Joint Coordinates and Temperatures (Continued)

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Diap...
85	N222	53.529187	78.821271	42	0	
86	N223	53.529187	80.102521	42	0	
87	N224	53.529187	74.102521	42	0	
88	N225	53.529187	77.813521	42	0	
89	N226	37.832167	85.240306	42	0	
90	N227	40.809129	86.959056	42	0	
91	N228	38.519667	84.049521	42	0	
92	N229	41.49663	85.768271	42	0	
93	N230	42.606225	86.408896	42	0	
94	N231	37.410072	83.408896	42	0	
95	N232	40.623893	85.264396	42	0	
96	N233	-92.736354	9.856535	42	0	
97	N234	-95.713317	8.137785	42	0	
98	N235	-92.048854	8.66575	42	0	
99	N236	-95.025816	6.947	42	0	
100	N237	-96.135412	6.306375	42	0	
101	N238	-90.939259	9.306375	42	0	
102	N239	-94.153079	7.450875	42	0	
103	N240	-92.736354	-9.856535	42	0	
104	N241	-95.713317	-8.137785	42	0	
105	N242	-92.048854	-8.66575	42	0	
106	N243	-95.025816	-6.947	42	0	
107	N244	-96.135412	-6.306375	42	0	
108	N245	-90.939259	-9.306375	42	0	
109	N246	-94.153079	-7.450875	42	0	
110	N247	37.832167	-85.240306	42	0	
111	N248	40.809129	-86.959056	42	0	
112	N249	38.519667	-84.049521	42	0	
113	N250	41.49663	-85.768271	42	0	
114	N251	42.606225	-86.408896	42	0	
115	N252	37.410072	-83.408896	42	0	
116	N253	40.623893	-85.264396	42	0	
117	N263	61.654187	-77.	69	0	
118	N272	52.341687	-77.283349	3	0	
119	N274	52.341687	-77.283349	-3	0	
120	N276	54.341687	-75.754049	2	0	
121	N277	52.341687	-75.754049	2	0	
122	N278	54.341687	-75.754049	-2	0	
123	N279	52.341687	-75.754049	-2	0	
124	N275A	52.341687	-77.283349	-2	0	
125	N276A	52.341687	-77.283349	-1	0	
126	N277A	52.341687	-77.283349	1	0	
127	N278A	52.341687	-77.283349	2	0	
128	N319	52.341687	77.283349	3	0	
129	N321	52.341687	77.283349	-3	0	
130	N327	52.341687	77.283349	-2	0	
131	N328	52.341687	77.283349	-1	0	
132	N329	52.341687	77.283349	1	0	
133	N330	52.341687	77.283349	2	0	
134	N365A	52.404187	-30.89167	2	0	
135	N366A	54.341687	-30.89167	2	0	
136	N367A	52.404187	-30.89167	-2	0	
137	N368A	54.341687	-30.89167	-2	0	
138	N368B	52.404187	-32.39167	3	0	
139	N369	52.404187	-29.39167	3	0	
140	N370	52.404187	-32.39167	-3	0	
141	N371	52.404187	-29.39167	-3	0	

Joint Coordinates and Temperatures (Continued)

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Diap...
142	N372	52.404187	-32.39167	-2	0	
143	N373	52.404187	-32.39167	-1	0	
144	N374	52.404187	-32.39167	1	0	
145	N375	52.404187	-32.39167	2	0	
146	N376	52.404187	-31.64167	-3	0	
147	N377	52.404187	-31.64167	-2	0	
148	N378	52.404187	-31.64167	-1	0	
149	N379	52.404187	-31.64167	0	0	
150	N380	52.404187	-31.64167	1	0	
151	N381	52.404187	-31.64167	2	0	
152	N382	52.404187	-31.64167	3	0	
153	N383	52.404187	-30.89167	-3	0	
154	N384	52.404187	-30.89167	-1	0	
155	N385	52.404187	-30.89167	0	0	
156	N386	52.404187	-30.89167	1	0	
157	N387	52.404187	-30.89167	3	0	
158	N388	52.404187	-30.14167	-3	0	
159	N389	52.404187	-30.14167	-2	0	
160	N390	52.404187	-30.14167	-1	0	
161	N391	52.404187	-30.14167	0	0	
162	N392	52.404187	-30.14167	1	0	
163	N393	52.404187	-30.14167	2	0	
164	N394	52.404187	-30.14167	3	0	
165	N395	52.404187	-29.39167	-2	0	
166	N396	52.404187	-29.39167	-1	0	
167	N397	52.404187	-29.39167	1	0	
168	N398	52.404187	-29.39167	2	0	
169	N399	52.404187	32.39167	0	0	
170	N401	54.341687	30.89167	0	0	
171	N402	52.404187	30.89167	2	0	
172	N403	54.341687	30.89167	2	0	
173	N404	52.404187	30.89167	-2	0	
174	N405	54.341687	30.89167	-2	0	
175	N406	52.404187	32.39167	3	0	
176	N407	52.404187	29.39167	3	0	
177	N408	52.404187	32.39167	-3	0	
178	N409	52.404187	29.39167	-3	0	
179	N410	52.404187	32.39167	-2	0	
180	N411	52.404187	32.39167	-1	0	
181	N412	52.404187	32.39167	1	0	
182	N413	52.404187	32.39167	2	0	
183	N414	52.404187	31.64167	-3	0	
184	N415	52.404187	31.64167	-2	0	
185	N416	52.404187	31.64167	-1	0	
186	N417	52.404187	31.64167	0	0	
187	N418	52.404187	31.64167	1	0	
188	N419	52.404187	31.64167	2	0	
189	N420	52.404187	31.64167	3	0	
190	N421	52.404187	30.89167	-3	0	
191	N422	52.404187	30.89167	-1	0	
192	N423	52.404187	30.89167	0	0	
193	N424	52.404187	30.89167	1	0	
194	N425	52.404187	30.89167	3	0	
195	N426	52.404187	30.14167	-3	0	
196	N427	52.404187	30.14167	-2	0	
197	N428	52.404187	30.14167	-1	0	
198	N429	52.404187	30.14167	0	0	

Joint Coordinates and Temperatures (Continued)

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Diap...
199	N430	52.404187	30.14167	1	0	
200	N431	52.404187	30.14167	2	0	
201	N432	52.404187	30.14167	3	0	
202	N433	52.404187	29.39167	-2	0	
203	N434	52.404187	29.39167	-1	0	
204	N435	52.404187	29.39167	1	0	
205	N436	52.404187	29.39167	2	0	
206	N413A	1.849915	61.579192	0	0	
207	N418A	-0.417873	62.507116	0	0	
208	N419A	40.7585	83.970905	3	0	
209	N421A	40.7585	83.970905	-3	0	
210	N427A	40.7585	83.970905	-2	0	
211	N428A	40.7585	83.970905	-1	0	
212	N429A	40.7585	83.970905	1	0	
213	N430A	40.7585	83.970905	2	0	
214	N470	-93.100187	6.687556	3	0	
215	N472	-93.100187	6.687556	-3	0	
216	N478	-93.100187	6.687556	-2	0	
217	N479	-93.100187	6.687556	-1	0	
218	N480	-93.100187	6.687556	1	0	
219	N481	-93.100187	6.687556	2	0	
220	N520	0.550877	60.829192	2	0	
221	N521	-0.417873	62.507116	2	0	
222	N522	0.550877	60.829192	-2	0	
223	N523	-0.417873	62.507116	-2	0	
224	N524	1.849915	61.579192	3	0	
225	N525	-0.748161	60.079192	3	0	
226	N526	1.849915	61.579192	-3	0	
227	N527	-0.748161	60.079192	-3	0	
228	N528	1.849915	61.579192	-2	0	
229	N529	1.849915	61.579192	-1	0	
230	N530	1.849915	61.579192	1	0	
231	N531	1.849915	61.579192	2	0	
232	N532	1.200396	61.204192	-3	0	
233	N533	1.200396	61.204192	-2	0	
234	N534	1.200396	61.204192	-1	0	
235	N535	1.200396	61.204192	0	0	
236	N536	1.200396	61.204192	1	0	
237	N537	1.200396	61.204192	2	0	
238	N538	1.200396	61.204192	3	0	
239	N539	0.550877	60.829192	-3	0	
240	N540	0.550877	60.829192	-1	0	
241	N541	0.550877	60.829192	0	0	
242	N542	0.550877	60.829192	1	0	
243	N543	0.550877	60.829192	3	0	
244	N544	-0.098642	60.454192	-3	0	
245	N545	-0.098642	60.454192	-2	0	
246	N546	-0.098642	60.454192	-1	0	
247	N547	-0.098642	60.454192	0	0	
248	N548	-0.098642	60.454192	1	0	
249	N549	-0.098642	60.454192	2	0	
250	N550	-0.098642	60.454192	3	0	
251	N551	-0.748161	60.079192	-2	0	
252	N552	-0.748161	60.079192	-1	0	
253	N553	-0.748161	60.079192	1	0	
254	N554	-0.748161	60.079192	2	0	
255	N555	-54.254102	29.187522	0	0	

Joint Coordinates and Temperatures (Continued)

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Diap...
256	N556	-53.923814	31.615447	0	0	
257	N557	-52.955064	29.937522	2	0	
258	N558	-53.923814	31.615447	2	0	
259	N559	-52.955064	29.937522	-2	0	
260	N560	-53.923814	31.615447	-2	0	
261	N561	-54.254102	29.187522	3	0	
262	N562	-51.656026	30.687522	3	0	
263	N563	-54.254102	29.187522	-3	0	
264	N564	-51.656026	30.687522	-3	0	
265	N565	-54.254102	29.187522	-2	0	
266	N566	-54.254102	29.187522	-1	0	
267	N567	-54.254102	29.187522	1	0	
268	N568	-54.254102	29.187522	2	0	
269	N569	-53.604583	29.562522	-3	0	
270	N570	-53.604583	29.562522	-2	0	
271	N571	-53.604583	29.562522	-1	0	
272	N572	-53.604583	29.562522	0	0	
273	N573	-53.604583	29.562522	1	0	
274	N574	-53.604583	29.562522	2	0	
275	N575	-53.604583	29.562522	3	0	
276	N576	-52.955064	29.937522	-3	0	
277	N577	-52.955064	29.937522	-1	0	
278	N578	-52.955064	29.937522	0	0	
279	N579	-52.955064	29.937522	1	0	
280	N580	-52.955064	29.937522	3	0	
281	N581	-52.305545	30.312522	-3	0	
282	N582	-52.305545	30.312522	-2	0	
283	N583	-52.305545	30.312522	-1	0	
284	N584	-52.305545	30.312522	0	0	
285	N585	-52.305545	30.312522	1	0	
286	N586	-52.305545	30.312522	2	0	
287	N587	-52.305545	30.312522	3	0	
288	N588	-51.656026	30.687522	-2	0	
289	N589	-51.656026	30.687522	-1	0	
290	N590	-51.656026	30.687522	1	0	
291	N591	-51.656026	30.687522	2	0	
292	N593	-54.254102	-29.187522	0	0	
293	N598	-53.923814	-31.615447	0	0	
294	N599	-93.100187	-6.687556	3	0	
295	N601	-93.100187	-6.687556	-3	0	
296	N607	-93.100187	-6.687556	-2	0	
297	N608	-93.100187	-6.687556	-1	0	
298	N609	-93.100187	-6.687556	1	0	
299	N610	-93.100187	-6.687556	2	0	
300	N650	40.7585	-83.970905	3	0	
301	N652	40.7585	-83.970905	-3	0	
302	N658	40.7585	-83.970905	-2	0	
303	N659	40.7585	-83.970905	-1	0	
304	N660	40.7585	-83.970905	1	0	
305	N661	40.7585	-83.970905	2	0	
306	N700	-52.955064	-29.937522	2	0	
307	N701	-53.923814	-31.615447	2	0	
308	N702	-52.955064	-29.937522	-2	0	
309	N703	-53.923814	-31.615447	-2	0	
310	N704	-54.254102	-29.187522	3	0	
311	N705	-51.656026	-30.687522	3	0	
312	N706	-54.254102	-29.187522	-3	0	

Joint Coordinates and Temperatures (Continued)

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Diap...
313	N707	-51.656026	-30.687522	-3	0	
314	N708	-54.254102	-29.187522	-2	0	
315	N709	-54.254102	-29.187522	-1	0	
316	N710	-54.254102	-29.187522	1	0	
317	N711	-54.254102	-29.187522	2	0	
318	N712	-53.604583	-29.562522	-3	0	
319	N713	-53.604583	-29.562522	-2	0	
320	N714	-53.604583	-29.562522	-1	0	
321	N715	-53.604583	-29.562522	0	0	
322	N716	-53.604583	-29.562522	1	0	
323	N717	-53.604583	-29.562522	2	0	
324	N718	-53.604583	-29.562522	3	0	
325	N719	-52.955064	-29.937522	-3	0	
326	N720	-52.955064	-29.937522	-1	0	
327	N721	-52.955064	-29.937522	0	0	
328	N722	-52.955064	-29.937522	1	0	
329	N723	-52.955064	-29.937522	3	0	
330	N724	-52.305545	-30.312522	-3	0	
331	N725	-52.305545	-30.312522	-2	0	
332	N726	-52.305545	-30.312522	-1	0	
333	N727	-52.305545	-30.312522	0	0	
334	N728	-52.305545	-30.312522	1	0	
335	N729	-52.305545	-30.312522	2	0	
336	N730	-52.305545	-30.312522	3	0	
337	N731	-51.656026	-30.687522	-2	0	
338	N732	-51.656026	-30.687522	-1	0	
339	N733	-51.656026	-30.687522	1	0	
340	N734	-51.656026	-30.687522	2	0	
341	N735	1.849915	-61.579192	0	0	
342	N736	-0.417873	-62.507116	0	0	
343	N737	0.550877	-60.829192	2	0	
344	N738	-0.417873	-62.507116	2	0	
345	N739	0.550877	-60.829192	-2	0	
346	N740	-0.417873	-62.507116	-2	0	
347	N741	1.849915	-61.579192	3	0	
348	N742	-0.748161	-60.079192	3	0	
349	N743	1.849915	-61.579192	-3	0	
350	N744	-0.748161	-60.079192	-3	0	
351	N745	1.849915	-61.579192	-2	0	
352	N746	1.849915	-61.579192	-1	0	
353	N747	1.849915	-61.579192	1	0	
354	N748	1.849915	-61.579192	2	0	
355	N749	1.200396	-61.204192	-3	0	
356	N750	1.200396	-61.204192	-2	0	
357	N751	1.200396	-61.204192	-1	0	
358	N752	1.200396	-61.204192	0	0	
359	N753	1.200396	-61.204192	1	0	
360	N754	1.200396	-61.204192	2	0	
361	N755	1.200396	-61.204192	3	0	
362	N756	0.550877	-60.829192	-3	0	
363	N757	0.550877	-60.829192	-1	0	
364	N758	0.550877	-60.829192	0	0	
365	N759	0.550877	-60.829192	1	0	
366	N760	0.550877	-60.829192	3	0	
367	N761	-0.098642	-60.454192	-3	0	
368	N762	-0.098642	-60.454192	-2	0	
369	N763	-0.098642	-60.454192	-1	0	

Joint Coordinates and Temperatures (Continued)

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Diap...
370	N764	-0.098642	-60.454192	0	0	
371	N765	-0.098642	-60.454192	1	0	
372	N766	-0.098642	-60.454192	2	0	
373	N767	-0.098642	-60.454192	3	0	
374	N768	-0.748161	-60.079192	-2	0	
375	N769	-0.748161	-60.079192	-1	0	
376	N770	-0.748161	-60.079192	1	0	
377	N771	-0.748161	-60.079192	2	0	
378	N762A	-93.100187	-5.851611	3	0	
379	N763A	-93.100187	-5.015667	3	0	
380	N764A	-93.100187	-4.179722	3	0	
381	N765A	-93.100187	-3.343778	3	0	
382	N766A	-93.100187	-2.507833	3	0	
383	N767A	-93.100187	-1.671889	3	0	
384	N768A	-93.100187	-0.835944	3	0	
385	N769A	-93.100187	-0.	3	0	
386	N770A	-93.100187	0.835944	3	0	
387	N771A	-93.100187	1.671889	3	0	
388	N772	-93.100187	2.507833	3	0	
389	N773	-93.100187	3.343778	3	0	
390	N774	-93.100187	4.179722	3	0	
391	N775	-93.100187	5.015667	3	0	
392	N776	-93.100187	5.851611	3	0	
393	N777	-93.100187	-5.851611	2	0	
394	N778	-93.100187	-5.015667	2	0	
395	N779	-93.100187	-4.179722	2	0	
396	N780	-93.100187	-3.343778	2	0	
397	N781	-93.100187	-2.507833	2	0	
398	N782	-93.100187	-1.671889	2	0	
399	N783	-93.100187	-0.835944	2	0	
400	N784	-93.100187	-0.	2	0	
401	N785	-93.100187	0.835944	2	0	
402	N786	-93.100187	1.671889	2	0	
403	N787	-93.100187	2.507833	2	0	
404	N788	-93.100187	3.343778	2	0	
405	N789	-93.100187	4.179722	2	0	
406	N790	-93.100187	5.015667	2	0	
407	N791	-93.100187	5.851611	2	0	
408	N792	-93.100187	-5.851611	1	0	
409	N793	-93.100187	-5.015667	1	0	
410	N794	-93.100187	-4.179722	1	0	
411	N795	-93.100187	-3.343778	1	0	
412	N796	-93.100187	-2.507833	1	0	
413	N797	-93.100187	-1.671889	1	0	
414	N798	-93.100187	-0.835944	1	0	
415	N799	-93.100187	-0.	1	0	
416	N800	-93.100187	0.835944	1	0	
417	N801	-93.100187	1.671889	1	0	
418	N802	-93.100187	2.507833	1	0	
419	N803	-93.100187	3.343778	1	0	
420	N804	-93.100187	4.179722	1	0	
421	N805	-93.100187	5.015667	1	0	
422	N806	-93.100187	5.851611	1	0	
423	N807	-93.100187	-5.851611	0	0	
424	N808	-93.100187	-5.015667	0	0	
425	N809	-93.100187	-4.179722	0	0	
426	N810	-93.100187	-3.343778	0	0	

Joint Coordinates and Temperatures (Continued)

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Diap...
427	N811	-93.100187	-2.507833	0	0	
428	N812	-93.100187	-1.671889	0	0	
429	N813	-93.100187	-0.835944	0	0	
430	N814	-93.100187	-0.	0	0	
431	N815	-93.100187	0.835944	0	0	
432	N816	-93.100187	1.671889	0	0	
433	N817	-93.100187	2.507833	0	0	
434	N818	-93.100187	3.343778	0	0	
435	N819	-93.100187	4.179722	0	0	
436	N820	-93.100187	5.015667	0	0	
437	N821	-93.100187	5.851611	0	0	
438	N822	-93.100187	-5.851611	-1	0	
439	N823	-93.100187	-5.015667	-1	0	
440	N824	-93.100187	-4.179722	-1	0	
441	N825	-93.100187	-3.343778	-1	0	
442	N826	-93.100187	-2.507833	-1	0	
443	N827	-93.100187	-1.671889	-1	0	
444	N828	-93.100187	-0.835944	-1	0	
445	N829	-93.100187	-0.	-1	0	
446	N830	-93.100187	0.835944	-1	0	
447	N831	-93.100187	1.671889	-1	0	
448	N832	-93.100187	2.507833	-1	0	
449	N833	-93.100187	3.343778	-1	0	
450	N834	-93.100187	4.179722	-1	0	
451	N835	-93.100187	5.015667	-1	0	
452	N836	-93.100187	5.851611	-1	0	
453	N837	-93.100187	-5.851611	-2	0	
454	N838	-93.100187	-5.015667	-2	0	
455	N839	-93.100187	-4.179722	-2	0	
456	N840	-93.100187	-3.343778	-2	0	
457	N841	-93.100187	-2.507833	-2	0	
458	N842	-93.100187	-1.671889	-2	0	
459	N843	-93.100187	-0.835944	-2	0	
460	N844	-93.100187	-0.	-2	0	
461	N845	-93.100187	0.835944	-2	0	
462	N846	-93.100187	1.671889	-2	0	
463	N847	-93.100187	2.507833	-2	0	
464	N848	-93.100187	3.343778	-2	0	
465	N849	-93.100187	4.179722	-2	0	
466	N850	-93.100187	5.015667	-2	0	
467	N851	-93.100187	5.851611	-2	0	
468	N852	-93.100187	-5.851611	-3	0	
469	N853	-93.100187	-5.015667	-3	0	
470	N854	-93.100187	-4.179722	-3	0	
471	N855	-93.100187	-3.343778	-3	0	
472	N856	-93.100187	-2.507833	-3	0	
473	N857	-93.100187	-1.671889	-3	0	
474	N858	-93.100187	-0.835944	-3	0	
475	N859	-93.100187	-0.	-3	0	
476	N860	-93.100187	0.835944	-3	0	
477	N861	-93.100187	1.671889	-3	0	
478	N862	-93.100187	2.507833	-3	0	
479	N863	-93.100187	3.343778	-3	0	
480	N864	-93.100187	4.179722	-3	0	
481	N865	-93.100187	5.015667	-3	0	
482	N866	-93.100187	5.851611	-3	0	
483	N864A	46.425094	-80.410621	0	0	

Joint Coordinates and Temperatures (Continued)

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Diap...
484	N882	51.617738	-77.701321	3	0	
485	N883	50.893789	-78.119294	3	0	
486	N884	50.169839	-78.537266	3	0	
487	N885	49.44589	-78.955238	3	0	
488	N886	48.721941	-79.37321	3	0	
489	N887	47.997992	-79.791183	3	0	
490	N888	47.274043	-80.209155	3	0	
491	N889	46.550094	-80.627127	3	0	
492	N890	45.826144	-81.045099	3	0	
493	N891	45.102195	-81.463072	3	0	
494	N892	44.378246	-81.881044	3	0	
495	N893	43.654297	-82.299016	3	0	
496	N894	42.930348	-82.716988	3	0	
497	N895	42.206399	-83.134961	3	0	
498	N896	41.482449	-83.552933	3	0	
499	N897	51.617738	-77.701321	2	0	
500	N898	50.893789	-78.119294	2	0	
501	N899	50.169839	-78.537266	2	0	
502	N900	49.44589	-78.955238	2	0	
503	N901	48.721941	-79.37321	2	0	
504	N902	47.997992	-79.791183	2	0	
505	N903	47.274043	-80.209155	2	0	
506	N904	46.550094	-80.627127	2	0	
507	N905	45.826144	-81.045099	2	0	
508	N906	45.102195	-81.463072	2	0	
509	N907	44.378246	-81.881044	2	0	
510	N908	43.654297	-82.299016	2	0	
511	N909	42.930348	-82.716988	2	0	
512	N910	42.206399	-83.134961	2	0	
513	N911	41.482449	-83.552933	2	0	
514	N912	51.617738	-77.701321	1	0	
515	N913	50.893789	-78.119294	1	0	
516	N914	50.169839	-78.537266	1	0	
517	N915	49.44589	-78.955238	1	0	
518	N916	48.721941	-79.37321	1	0	
519	N917	47.997992	-79.791183	1	0	
520	N918	47.274043	-80.209155	1	0	
521	N919	46.550094	-80.627127	1	0	
522	N920	45.826144	-81.045099	1	0	
523	N921	45.102195	-81.463072	1	0	
524	N922	44.378246	-81.881044	1	0	
525	N923	43.654297	-82.299016	1	0	
526	N924	42.930348	-82.716988	1	0	
527	N925	42.206399	-83.134961	1	0	
528	N926	41.482449	-83.552933	1	0	
529	N927	51.617738	-77.701321	0	0	
530	N928	50.893789	-78.119294	0	0	
531	N929	50.169839	-78.537266	0	0	
532	N930	49.44589	-78.955238	0	0	
533	N931	48.721941	-79.37321	0	0	
534	N932	47.997992	-79.791183	0	0	
535	N933	47.274043	-80.209155	0	0	
536	N934	46.550094	-80.627127	0	0	
537	N935	45.826144	-81.045099	0	0	
538	N936	45.102195	-81.463072	0	0	
539	N937	44.378246	-81.881044	0	0	
540	N938	43.654297	-82.299016	0	0	

Joint Coordinates and Temperatures (Continued)

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Diap...
541	N939	42.930348	-82.716988	0	0	
542	N940	42.206399	-83.134961	0	0	
543	N941	41.482449	-83.552933	0	0	
544	N942	51.617738	-77.701321	-1	0	
545	N943	50.893789	-78.119294	-1	0	
546	N944	50.169839	-78.537266	-1	0	
547	N945	49.44589	-78.955238	-1	0	
548	N946	48.721941	-79.37321	-1	0	
549	N947	47.997992	-79.791183	-1	0	
550	N948	47.274043	-80.209155	-1	0	
551	N949	46.550094	-80.627127	-1	0	
552	N950	45.826144	-81.045099	-1	0	
553	N951	45.102195	-81.463072	-1	0	
554	N952	44.378246	-81.881044	-1	0	
555	N953	43.654297	-82.299016	-1	0	
556	N954	42.930348	-82.716988	-1	0	
557	N955	42.206399	-83.134961	-1	0	
558	N956	41.482449	-83.552933	-1	0	
559	N957	51.617738	-77.701321	-2	0	
560	N958	50.893789	-78.119294	-2	0	
561	N959	50.169839	-78.537266	-2	0	
562	N960	49.44589	-78.955238	-2	0	
563	N961	48.721941	-79.37321	-2	0	
564	N962	47.997992	-79.791183	-2	0	
565	N963	47.274043	-80.209155	-2	0	
566	N964	46.550094	-80.627127	-2	0	
567	N965	45.826144	-81.045099	-2	0	
568	N966	45.102195	-81.463072	-2	0	
569	N967	44.378246	-81.881044	-2	0	
570	N968	43.654297	-82.299016	-2	0	
571	N969	42.930348	-82.716988	-2	0	
572	N970	42.206399	-83.134961	-2	0	
573	N971	41.482449	-83.552933	-2	0	
574	N972	51.617738	-77.701321	-3	0	
575	N973	50.893789	-78.119294	-3	0	
576	N974	50.169839	-78.537266	-3	0	
577	N975	49.44589	-78.955238	-3	0	
578	N976	48.721941	-79.37321	-3	0	
579	N977	47.997992	-79.791183	-3	0	
580	N978	47.274043	-80.209155	-3	0	
581	N979	46.550094	-80.627127	-3	0	
582	N980	45.826144	-81.045099	-3	0	
583	N981	45.102195	-81.463072	-3	0	
584	N982	44.378246	-81.881044	-3	0	
585	N983	43.654297	-82.299016	-3	0	
586	N984	42.930348	-82.716988	-3	0	
587	N985	42.206399	-83.134961	-3	0	
588	N986	41.482449	-83.552933	-3	0	
589	N990	46.425094	80.410621	0	0	
590	N1008	41.482449	83.552933	3	0	
591	N1009	42.206399	83.134961	3	0	
592	N1010	42.930348	82.716988	3	0	
593	N1011	43.654297	82.299016	3	0	
594	N1012	44.378246	81.881044	3	0	
595	N1013	45.102195	81.463072	3	0	
596	N1014	45.826144	81.045099	3	0	
597	N1015	46.550094	80.627127	3	0	

Joint Coordinates and Temperatures (Continued)

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Diap...
598	N1016	47.274043	80.209155	3	0	
599	N1017	47.997992	79.791183	3	0	
600	N1018	48.721941	79.37321	3	0	
601	N1019	49.44589	78.955238	3	0	
602	N1020	50.169839	78.537266	3	0	
603	N1021	50.893789	78.119294	3	0	
604	N1022	51.617738	77.701321	3	0	
605	N1023	41.482449	83.552933	2	0	
606	N1024	42.206399	83.134961	2	0	
607	N1025	42.930348	82.716988	2	0	
608	N1026	43.654297	82.299016	2	0	
609	N1027	44.378246	81.881044	2	0	
610	N1028	45.102195	81.463072	2	0	
611	N1029	45.826144	81.045099	2	0	
612	N1030	46.550094	80.627127	2	0	
613	N1031	47.274043	80.209155	2	0	
614	N1032	47.997992	79.791183	2	0	
615	N1033	48.721941	79.37321	2	0	
616	N1034	49.44589	78.955238	2	0	
617	N1035	50.169839	78.537266	2	0	
618	N1036	50.893789	78.119294	2	0	
619	N1037	51.617738	77.701321	2	0	
620	N1038	41.482449	83.552933	1	0	
621	N1039	42.206399	83.134961	1	0	
622	N1040	42.930348	82.716988	1	0	
623	N1041	43.654297	82.299016	1	0	
624	N1042	44.378246	81.881044	1	0	
625	N1043	45.102195	81.463072	1	0	
626	N1044	45.826144	81.045099	1	0	
627	N1045	46.550094	80.627127	1	0	
628	N1046	47.274043	80.209155	1	0	
629	N1047	47.997992	79.791183	1	0	
630	N1048	48.721941	79.37321	1	0	
631	N1049	49.44589	78.955238	1	0	
632	N1050	50.169839	78.537266	1	0	
633	N1051	50.893789	78.119294	1	0	
634	N1052	51.617738	77.701321	1	0	
635	N1053	41.482449	83.552933	0	0	
636	N1054	42.206399	83.134961	0	0	
637	N1055	42.930348	82.716988	0	0	
638	N1056	43.654297	82.299016	0	0	
639	N1057	44.378246	81.881044	0	0	
640	N1058	45.102195	81.463072	0	0	
641	N1059	45.826144	81.045099	0	0	
642	N1060	46.550094	80.627127	0	0	
643	N1061	47.274043	80.209155	0	0	
644	N1062	47.997992	79.791183	0	0	
645	N1063	48.721941	79.37321	0	0	
646	N1064	49.44589	78.955238	0	0	
647	N1065	50.169839	78.537266	0	0	
648	N1066	50.893789	78.119294	0	0	
649	N1067	51.617738	77.701321	0	0	
650	N1068	41.482449	83.552933	-1	0	
651	N1069	42.206399	83.134961	-1	0	
652	N1070	42.930348	82.716988	-1	0	
653	N1071	43.654297	82.299016	-1	0	
654	N1072	44.378246	81.881044	-1	0	

Joint Coordinates and Temperatures (Continued)

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Diap...
655	N1073	45.102195	81.463072	-1	0	
656	N1074	45.826144	81.045099	-1	0	
657	N1075	46.550094	80.627127	-1	0	
658	N1076	47.274043	80.209155	-1	0	
659	N1077	47.997992	79.791183	-1	0	
660	N1078	48.721941	79.37321	-1	0	
661	N1079	49.44589	78.955238	-1	0	
662	N1080	50.169839	78.537266	-1	0	
663	N1081	50.893789	78.119294	-1	0	
664	N1082	51.617738	77.701321	-1	0	
665	N1083	41.482449	83.552933	-2	0	
666	N1084	42.206399	83.134961	-2	0	
667	N1085	42.930348	82.716988	-2	0	
668	N1086	43.654297	82.299016	-2	0	
669	N1087	44.378246	81.881044	-2	0	
670	N1088	45.102195	81.463072	-2	0	
671	N1089	45.826144	81.045099	-2	0	
672	N1090	46.550094	80.627127	-2	0	
673	N1091	47.274043	80.209155	-2	0	
674	N1092	47.997992	79.791183	-2	0	
675	N1093	48.721941	79.37321	-2	0	
676	N1094	49.44589	78.955238	-2	0	
677	N1095	50.169839	78.537266	-2	0	
678	N1096	50.893789	78.119294	-2	0	
679	N1097	51.617738	77.701321	-2	0	
680	N1098	41.482449	83.552933	-3	0	
681	N1099	42.206399	83.134961	-3	0	
682	N1100	42.930348	82.716988	-3	0	
683	N1101	43.654297	82.299016	-3	0	
684	N1102	44.378246	81.881044	-3	0	
685	N1103	45.102195	81.463072	-3	0	
686	N1104	45.826144	81.045099	-3	0	
687	N1105	46.550094	80.627127	-3	0	
688	N1106	47.274043	80.209155	-3	0	
689	N1107	47.997992	79.791183	-3	0	
690	N1108	48.721941	79.37321	-3	0	
691	N1109	49.44589	78.955238	-3	0	
692	N1110	50.169839	78.537266	-3	0	
693	N1111	50.893789	78.119294	-3	0	
694	N1112	51.617738	77.701321	-3	0	
695	N1073B	-45.906026	-30.687522	3	0	
696	N1074A	-45.906026	-30.687522	-3	0	
697	N1073A	-46.864359	-30.687522	3	0	
698	N1074B	-47.822693	-30.687522	3	0	
699	N1075A	-48.781026	-30.687522	3	0	
700	N1076A	-49.739359	-30.687522	3	0	
701	N1077A	-50.697693	-30.687522	3	0	
702	N1078A	-45.906026	-30.687522	2	0	
703	N1079A	-46.864359	-30.687522	2	0	
704	N1080A	-47.822693	-30.687522	2	0	
705	N1081A	-48.781026	-30.687522	2	0	
706	N1082A	-49.739359	-30.687522	2	0	
707	N1083A	-50.697693	-30.687522	2	0	
708	N1084A	-45.906026	-30.687522	1	0	
709	N1085A	-46.864359	-30.687522	1	0	
710	N1086A	-47.822693	-30.687522	1	0	
711	N1087A	-48.781026	-30.687522	1	0	

Joint Coordinates and Temperatures (Continued)

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Diap...
712	N1088A	-49.739359	-30.687522	1	0	
713	N1089A	-50.697693	-30.687522	1	0	
714	N1090A	-45.906026	-30.687522	0	0	
715	N1091A	-46.864359	-30.687522	0	0	
716	N1092A	-47.822693	-30.687522	0	0	
717	N1093A	-48.781026	-30.687522	0	0	
718	N1094A	-49.739359	-30.687522	0	0	
719	N1095A	-50.697693	-30.687522	0	0	
720	N1096A	-45.906026	-30.687522	-1	0	
721	N1097A	-46.864359	-30.687522	-1	0	
722	N1098A	-47.822693	-30.687522	-1	0	
723	N1099A	-48.781026	-30.687522	-1	0	
724	N1100A	-49.739359	-30.687522	-1	0	
725	N1101A	-50.697693	-30.687522	-1	0	
726	N1102A	-45.906026	-30.687522	-2	0	
727	N1103A	-46.864359	-30.687522	-2	0	
728	N1104A	-47.822693	-30.687522	-2	0	
729	N1105A	-48.781026	-30.687522	-2	0	
730	N1106A	-49.739359	-30.687522	-2	0	
731	N1107A	-50.697693	-30.687522	-2	0	
732	N1108A	-46.864359	-30.687522	-3	0	
733	N1109A	-47.822693	-30.687522	-3	0	
734	N1110A	-48.781026	-30.687522	-3	0	
735	N1111A	-49.739359	-30.687522	-3	0	
736	N1112A	-50.697693	-30.687522	-3	0	
737	N1121	-45.906026	30.687522	3	0	
738	N1122	-45.906026	30.687522	-3	0	
739	N1123	-46.864359	30.687522	3	0	
740	N1124	-47.822693	30.687522	3	0	
741	N1125	-48.781026	30.687522	3	0	
742	N1126	-49.739359	30.687522	3	0	
743	N1127	-50.697693	30.687522	3	0	
744	N1128	-45.906026	30.687522	2	0	
745	N1129	-46.864359	30.687522	2	0	
746	N1130	-47.822693	30.687522	2	0	
747	N1131	-48.781026	30.687522	2	0	
748	N1132	-49.739359	30.687522	2	0	
749	N1133	-50.697693	30.687522	2	0	
750	N1134	-45.906026	30.687522	1	0	
751	N1135	-46.864359	30.687522	1	0	
752	N1136	-47.822693	30.687522	1	0	
753	N1137	-48.781026	30.687522	1	0	
754	N1138	-49.739359	30.687522	1	0	
755	N1139	-50.697693	30.687522	1	0	
756	N1140	-45.906026	30.687522	0	0	
757	N1141	-46.864359	30.687522	0	0	
758	N1142	-47.822693	30.687522	0	0	
759	N1143	-48.781026	30.687522	0	0	
760	N1144	-49.739359	30.687522	0	0	
761	N1145	-50.697693	30.687522	0	0	
762	N1146	-45.906026	30.687522	-1	0	
763	N1147	-46.864359	30.687522	-1	0	
764	N1148	-47.822693	30.687522	-1	0	
765	N1149	-48.781026	30.687522	-1	0	
766	N1150	-49.739359	30.687522	-1	0	
767	N1151	-50.697693	30.687522	-1	0	
768	N1152	-45.906026	30.687522	-2	0	

Joint Coordinates and Temperatures (Continued)

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Diap...
769	N1153	-46.864359	30.687522	-2	0	
770	N1154	-47.822693	30.687522	-2	0	
771	N1155	-48.781026	30.687522	-2	0	
772	N1156	-49.739359	30.687522	-2	0	
773	N1157	-50.697693	30.687522	-2	0	
774	N1158	-46.864359	30.687522	-3	0	
775	N1159	-47.822693	30.687522	-3	0	
776	N1160	-48.781026	30.687522	-3	0	
777	N1161	-49.739359	30.687522	-3	0	
778	N1162	-50.697693	30.687522	-3	0	
779	N1149A	50.75018	-27.026846	0	0	
780	N1150A	-1.968808	-57.464169	0	0	
781	N1164	49.529187	-24.412023	3	0	
782	N1165	49.529187	-24.412023	-3	0	
783	N1166	50.008353	-25.241964	3	0	
784	N1167	50.48752	-26.071905	3	0	
785	N1168	50.966687	-26.901846	3	0	
786	N1169	51.445853	-27.731788	3	0	
787	N1170	51.92502	-28.561729	3	0	
788	N1171	49.529187	-24.412023	2	0	
789	N1172	50.008353	-25.241964	2	0	
790	N1173	50.48752	-26.071905	2	0	
791	N1174	50.966687	-26.901846	2	0	
792	N1175	51.445853	-27.731788	2	0	
793	N1176	51.92502	-28.561729	2	0	
794	N1177	49.529187	-24.412023	1	0	
795	N1178	50.008353	-25.241964	1	0	
796	N1179	50.48752	-26.071905	1	0	
797	N1180	50.966687	-26.901846	1	0	
798	N1181	51.445853	-27.731788	1	0	
799	N1182	51.92502	-28.561729	1	0	
800	N1183	49.529187	-24.412023	0	0	
801	N1184	50.008353	-25.241964	0	0	
802	N1185	50.48752	-26.071905	0	0	
803	N1186	50.966687	-26.901846	0	0	
804	N1187	51.445853	-27.731788	0	0	
805	N1188	51.92502	-28.561729	0	0	
806	N1189	49.529187	-24.412023	-1	0	
807	N1190	50.008353	-25.241964	-1	0	
808	N1191	50.48752	-26.071905	-1	0	
809	N1192	50.966687	-26.901846	-1	0	
810	N1193	51.445853	-27.731788	-1	0	
811	N1194	51.92502	-28.561729	-1	0	
812	N1195	49.529187	-24.412023	-2	0	
813	N1196	50.008353	-25.241964	-2	0	
814	N1197	50.48752	-26.071905	-2	0	
815	N1198	50.966687	-26.901846	-2	0	
816	N1199	51.445853	-27.731788	-2	0	
817	N1200	51.92502	-28.561729	-2	0	
818	N1201	50.008353	-25.241964	-3	0	
819	N1202	50.48752	-26.071905	-3	0	
820	N1203	50.966687	-26.901846	-3	0	
821	N1204	51.445853	-27.731788	-3	0	
822	N1205	51.92502	-28.561729	-3	0	
823	N1206	-3.623161	-55.099546	3	0	
824	N1207	-3.623161	-55.099546	-3	0	
825	N1208	-3.143994	-55.929487	3	0	

Joint Coordinates and Temperatures (Continued)

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Diap...
826	N1209	-2.664828	-56.759428	3	0	
827	N1210	-2.185661	-57.589369	3	0	
828	N1211	-1.706494	-58.41931	3	0	
829	N1212	-1.227328	-59.249251	3	0	
830	N1213	-3.623161	-55.099546	2	0	
831	N1214	-3.143994	-55.929487	2	0	
832	N1215	-2.664828	-56.759428	2	0	
833	N1216	-2.185661	-57.589369	2	0	
834	N1217	-1.706494	-58.41931	2	0	
835	N1218	-1.227328	-59.249251	2	0	
836	N1219	-3.623161	-55.099546	1	0	
837	N1220	-3.143994	-55.929487	1	0	
838	N1221	-2.664828	-56.759428	1	0	
839	N1222	-2.185661	-57.589369	1	0	
840	N1223	-1.706494	-58.41931	1	0	
841	N1224	-1.227328	-59.249251	1	0	
842	N1225	-3.623161	-55.099546	0	0	
843	N1226	-3.143994	-55.929487	0	0	
844	N1227	-2.664828	-56.759428	0	0	
845	N1228	-2.185661	-57.589369	0	0	
846	N1229	-1.706494	-58.41931	0	0	
847	N1230	-1.227328	-59.249251	0	0	
848	N1231	-3.623161	-55.099546	-1	0	
849	N1232	-3.143994	-55.929487	-1	0	
850	N1233	-2.664828	-56.759428	-1	0	
851	N1234	-2.185661	-57.589369	-1	0	
852	N1235	-1.706494	-58.41931	-1	0	
853	N1236	-1.227328	-59.249251	-1	0	
854	N1237	-3.623161	-55.099546	-2	0	
855	N1238	-3.143994	-55.929487	-2	0	
856	N1239	-2.664828	-56.759428	-2	0	
857	N1240	-2.185661	-57.589369	-2	0	
858	N1241	-1.706494	-58.41931	-2	0	
859	N1242	-1.227328	-59.249251	-2	0	
860	N1243	-3.143994	-55.929487	-3	0	
861	N1244	-2.664828	-56.759428	-3	0	
862	N1245	-2.185661	-57.589369	-3	0	
863	N1246	-1.706494	-58.41931	-3	0	
864	N1247	-1.227328	-59.249251	-3	0	
865	N1250	-1.969155	57.464369	0	0	
866	N1251	50.749834	27.027046	0	0	
867	N1265	-3.623161	55.099546	3	0	
868	N1266	-3.623161	55.099546	-3	0	
869	N1267	-3.143994	55.929487	3	0	
870	N1268	-2.664828	56.759428	3	0	
871	N1269	-2.185661	57.589369	3	0	
872	N1270	-1.706494	58.41931	3	0	
873	N1271	-1.227328	59.249251	3	0	
874	N1272	-3.623161	55.099546	2	0	
875	N1273	-3.143994	55.929487	2	0	
876	N1274	-2.664828	56.759428	2	0	
877	N1275	-2.185661	57.589369	2	0	
878	N1276	-1.706494	58.41931	2	0	
879	N1277	-1.227328	59.249251	2	0	
880	N1278	-3.623161	55.099546	1	0	
881	N1279	-3.143994	55.929487	1	0	
882	N1280	-2.664828	56.759428	1	0	

Joint Coordinates and Temperatures (Continued)

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Diap...
883	N1281	-2.185661	57.589369	1	0	
884	N1282	-1.706494	58.41931	1	0	
885	N1283	-1.227328	59.249251	1	0	
886	N1284	-3.623161	55.099546	0	0	
887	N1285	-3.143994	55.929487	0	0	
888	N1286	-2.664828	56.759428	0	0	
889	N1287	-2.185661	57.589369	0	0	
890	N1288	-1.706494	58.41931	0	0	
891	N1289	-1.227328	59.249251	0	0	
892	N1290	-3.623161	55.099546	-1	0	
893	N1291	-3.143994	55.929487	-1	0	
894	N1292	-2.664828	56.759428	-1	0	
895	N1293	-2.185661	57.589369	-1	0	
896	N1294	-1.706494	58.41931	-1	0	
897	N1295	-1.227328	59.249251	-1	0	
898	N1296	-3.623161	55.099546	-2	0	
899	N1297	-3.143994	55.929487	-2	0	
900	N1298	-2.664828	56.759428	-2	0	
901	N1299	-2.185661	57.589369	-2	0	
902	N1300	-1.706494	58.41931	-2	0	
903	N1301	-1.227328	59.249251	-2	0	
904	N1302	-3.143994	55.929487	-3	0	
905	N1303	-2.664828	56.759428	-3	0	
906	N1304	-2.185661	57.589369	-3	0	
907	N1305	-1.706494	58.41931	-3	0	
908	N1306	-1.227328	59.249251	-3	0	
909	N1307	49.529187	24.412023	3	0	
910	N1308	49.529187	24.412023	-3	0	
911	N1309	50.008353	25.241964	3	0	
912	N1310	50.48752	26.071905	3	0	
913	N1311	50.966687	26.901846	3	0	
914	N1312	51.445853	27.731788	3	0	
915	N1313	51.92502	28.561729	3	0	
916	N1314	49.529187	24.412023	2	0	
917	N1315	50.008353	25.241964	2	0	
918	N1316	50.48752	26.071905	2	0	
919	N1317	50.966687	26.901846	2	0	
920	N1318	51.445853	27.731788	2	0	
921	N1319	51.92502	28.561729	2	0	
922	N1320	49.529187	24.412023	1	0	
923	N1321	50.008353	25.241964	1	0	
924	N1322	50.48752	26.071905	1	0	
925	N1323	50.966687	26.901846	1	0	
926	N1324	51.445853	27.731788	1	0	
927	N1325	51.92502	28.561729	1	0	
928	N1326	49.529187	24.412023	0	0	
929	N1327	50.008353	25.241964	0	0	
930	N1328	50.48752	26.071905	0	0	
931	N1329	50.966687	26.901846	0	0	
932	N1330	51.445853	27.731788	0	0	
933	N1331	51.92502	28.561729	0	0	
934	N1332	49.529187	24.412023	-1	0	
935	N1333	50.008353	25.241964	-1	0	
936	N1334	50.48752	26.071905	-1	0	
937	N1335	50.966687	26.901846	-1	0	
938	N1336	51.445853	27.731788	-1	0	
939	N1337	51.92502	28.561729	-1	0	

Joint Coordinates and Temperatures (Continued)

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Diap...
940	N1338	49.529187	24.412023	-2	0	
941	N1339	50.008353	25.241964	-2	0	
942	N1340	50.48752	26.071905	-2	0	
943	N1341	50.966687	26.901846	-2	0	
944	N1342	51.445853	27.731788	-2	0	
945	N1343	51.92502	28.561729	-2	0	
946	N1344	50.008353	25.241964	-3	0	
947	N1345	50.48752	26.071905	-3	0	
948	N1346	50.966687	26.901846	-3	0	
949	N1347	51.445853	27.731788	-3	0	
950	N1348	51.92502	28.561729	-3	0	
951	N1239A	52.341687	-75.754049	3	0	
952	N1240A	52.341687	-75.754049	-3	0	
953	N1241A	52.341687	-74.22475	3	0	
954	N1242A	52.341687	-74.22475	-3	0	
955	N1243A	52.341687	-76.773583	3	0	
956	N1244A	52.341687	-76.263816	3	0	
957	N1245A	52.341687	-75.244283	3	0	
958	N1246A	52.341687	-74.734516	3	0	
959	N1247A	52.341687	-76.773583	2	0	
960	N1248	52.341687	-76.263816	2	0	
961	N1249	52.341687	-75.244283	2	0	
962	N1250A	52.341687	-74.734516	2	0	
963	N1251A	52.341687	-74.22475	2	0	
964	N1252	52.341687	-76.773583	1	0	
965	N1253	52.341687	-76.263816	1	0	
966	N1254	52.341687	-75.754049	1	0	
967	N1255	52.341687	-75.244283	1	0	
968	N1256	52.341687	-74.734516	1	0	
969	N1257	52.341687	-74.22475	1	0	
970	N1258	52.341687	-76.773583	0	0	
971	N1259	52.341687	-76.263816	0	0	
972	N1260	52.341687	-75.754049	0	0	
973	N1261	52.341687	-75.244283	0	0	
974	N1262	52.341687	-74.734516	0	0	
975	N1263	52.341687	-74.22475	0	0	
976	N1264	52.341687	-76.773583	-1	0	
977	N1265A	52.341687	-76.263816	-1	0	
978	N1266A	52.341687	-75.754049	-1	0	
979	N1267A	52.341687	-75.244283	-1	0	
980	N1268A	52.341687	-74.734516	-1	0	
981	N1269A	52.341687	-74.22475	-1	0	
982	N1270A	52.341687	-76.773583	-2	0	
983	N1271A	52.341687	-76.263816	-2	0	
984	N1272A	52.341687	-75.244283	-2	0	
985	N1273A	52.341687	-74.734516	-2	0	
986	N1274A	52.341687	-74.22475	-2	0	
987	N1275A	52.341687	-76.773583	-3	0	
988	N1276A	52.341687	-76.263816	-3	0	
989	N1277A	52.341687	-75.244283	-3	0	
990	N1278A	52.341687	-74.734516	-3	0	
991	N1095B	54.341687	75.754049	0	0	
992	N1098B	54.341687	75.754049	2	0	
993	N1099B	52.341687	75.754049	2	0	
994	N1100B	54.341687	75.754049	-2	0	
995	N1101B	52.341687	75.754049	-2	0	
996	N1106B	52.341687	75.754049	3	0	

Joint Coordinates and Temperatures (Continued)

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Diap...
997	N1107B	52.341687	75.754049	-3	0	
998	N1108B	52.341687	74.22475	3	0	
999	N1109B	52.341687	74.22475	-3	0	
1000	N1110B	52.341687	76.773583	3	0	
1001	N1111B	52.341687	76.263816	3	0	
1002	N1112B	52.341687	75.244283	3	0	
1003	N1113	52.341687	74.734516	3	0	
1004	N1114	52.341687	76.773583	2	0	
1005	N1115	52.341687	76.263816	2	0	
1006	N1116	52.341687	75.244283	2	0	
1007	N1117	52.341687	74.734516	2	0	
1008	N1118	52.341687	74.22475	2	0	
1009	N1119	52.341687	76.773583	1	0	
1010	N1120	52.341687	76.263816	1	0	
1011	N1121A	52.341687	75.754049	1	0	
1012	N1122A	52.341687	75.244283	1	0	
1013	N1123A	52.341687	74.734516	1	0	
1014	N1124A	52.341687	74.22475	1	0	
1015	N1125A	52.341687	76.773583	0	0	
1016	N1126A	52.341687	76.263816	0	0	
1017	N1127A	52.341687	75.754049	0	0	
1018	N1128A	52.341687	75.244283	0	0	
1019	N1129A	52.341687	74.734516	0	0	
1020	N1130A	52.341687	74.22475	0	0	
1021	N1131A	52.341687	76.773583	-1	0	
1022	N1132A	52.341687	76.263816	-1	0	
1023	N1133A	52.341687	75.754049	-1	0	
1024	N1134A	52.341687	75.244283	-1	0	
1025	N1135A	52.341687	74.734516	-1	0	
1026	N1136A	52.341687	74.22475	-1	0	
1027	N1137A	52.341687	76.773583	-2	0	
1028	N1138A	52.341687	76.263816	-2	0	
1029	N1139A	52.341687	75.244283	-2	0	
1030	N1140A	52.341687	74.734516	-2	0	
1031	N1141A	52.341687	74.22475	-2	0	
1032	N1142A	52.341687	76.773583	-3	0	
1033	N1143A	52.341687	76.263816	-3	0	
1034	N1144A	52.341687	75.244283	-3	0	
1035	N1145A	52.341687	74.734516	-3	0	
1036	N1140B	38.434087	84.938306	0	0	
1037	N1144B	38.434087	84.938306	2	0	
1038	N1145B	39.434087	83.206255	2	0	
1039	N1146A	38.434087	84.938306	-2	0	
1040	N1147A	39.434087	83.206255	-2	0	
1041	N1158A	39.434087	83.206255	3	0	
1042	N1159A	39.434087	83.206255	-3	0	
1043	N1160A	38.109675	82.441605	3	0	
1044	N1161A	38.109675	82.441605	-3	0	
1045	N1162A	40.317029	83.716022	3	0	
1046	N1163	39.875559	83.461138	3	0	
1047	N1164A	38.992617	82.951372	3	0	
1048	N1165A	38.551146	82.696489	3	0	
1049	N1166A	40.317029	83.716022	2	0	
1050	N1167A	39.875559	83.461138	2	0	
1051	N1168A	38.992617	82.951372	2	0	
1052	N1169A	38.551146	82.696489	2	0	
1053	N1170A	38.109675	82.441605	2	0	

Joint Coordinates and Temperatures (Continued)

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Diap...
1054	N1171A	40.317029	83.716022	1	0	
1055	N1172A	39.875559	83.461138	1	0	
1056	N1173A	39.434088	83.206255	1	0	
1057	N1174A	38.992617	82.951372	1	0	
1058	N1175A	38.551146	82.696489	1	0	
1059	N1176A	38.109675	82.441605	1	0	
1060	N1177A	40.317029	83.716022	0	0	
1061	N1178A	39.875559	83.461138	0	0	
1062	N1179A	39.434088	83.206255	0	0	
1063	N1180A	38.992617	82.951372	0	0	
1064	N1181A	38.551146	82.696489	0	0	
1065	N1182A	38.109675	82.441605	0	0	
1066	N1183A	40.317029	83.716022	-1	0	
1067	N1184A	39.875559	83.461138	-1	0	
1068	N1185A	39.434088	83.206255	-1	0	
1069	N1186A	38.992617	82.951372	-1	0	
1070	N1187A	38.551146	82.696489	-1	0	
1071	N1188A	38.109675	82.441605	-1	0	
1072	N1189A	40.317029	83.716022	-2	0	
1073	N1190A	39.875559	83.461138	-2	0	
1074	N1191A	38.992617	82.951372	-2	0	
1075	N1192A	38.551146	82.696489	-2	0	
1076	N1193A	38.109675	82.441605	-2	0	
1077	N1194A	40.317029	83.716022	-3	0	
1078	N1195A	39.875559	83.461138	-3	0	
1079	N1196A	38.992617	82.951372	-3	0	
1080	N1197A	38.551146	82.696489	-3	0	
1081	N1198A	-92.775774	9.184257	0	0	
1082	N1199A	-92.775774	9.184257	2	0	
1083	N1200A	-91.775774	7.452206	2	0	
1084	N1201A	-92.775774	9.184257	-2	0	
1085	N1202A	-91.775774	7.452206	-2	0	
1086	N1203A	-91.775774	7.452206	3	0	
1087	N1204A	-91.775774	7.452206	-3	0	
1088	N1205A	-90.451362	8.216856	3	0	
1089	N1206A	-90.451362	8.216856	-3	0	
1090	N1207A	-92.658716	6.942439	3	0	
1091	N1208A	-92.217245	7.197322	3	0	
1092	N1209A	-91.334304	7.707089	3	0	
1093	N1210A	-90.892833	7.961972	3	0	
1094	N1211A	-92.658716	6.942439	2	0	
1095	N1212A	-92.217245	7.197322	2	0	
1096	N1213A	-91.334304	7.707089	2	0	
1097	N1214A	-90.892833	7.961972	2	0	
1098	N1215A	-90.451362	8.216856	2	0	
1099	N1216A	-92.658716	6.942439	1	0	
1100	N1217A	-92.217245	7.197322	1	0	
1101	N1218A	-91.775775	7.452206	1	0	
1102	N1219A	-91.334304	7.707089	1	0	
1103	N1220A	-90.892833	7.961972	1	0	
1104	N1221A	-90.451362	8.216856	1	0	
1105	N1222A	-92.658716	6.942439	0	0	
1106	N1223A	-92.217245	7.197322	0	0	
1107	N1224A	-91.775775	7.452206	0	0	
1108	N1225A	-91.334304	7.707089	0	0	
1109	N1226A	-90.892833	7.961972	0	0	
1110	N1227A	-90.451362	8.216856	0	0	

Joint Coordinates and Temperatures (Continued)

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Diap...
1111	N1228A	-92.658716	6.942439	-1	0	
1112	N1229A	-92.217245	7.197322	-1	0	
1113	N1230A	-91.775775	7.452206	-1	0	
1114	N1231A	-91.334304	7.707089	-1	0	
1115	N1232A	-90.892833	7.961972	-1	0	
1116	N1233A	-90.451362	8.216856	-1	0	
1117	N1234A	-92.658716	6.942439	-2	0	
1118	N1235A	-92.217245	7.197322	-2	0	
1119	N1236A	-91.334304	7.707089	-2	0	
1120	N1237A	-90.892833	7.961972	-2	0	
1121	N1238A	-90.451362	8.216856	-2	0	
1122	N1239B	-92.658716	6.942439	-3	0	
1123	N1240B	-92.217245	7.197322	-3	0	
1124	N1241B	-91.334304	7.707089	-3	0	
1125	N1242B	-90.892833	7.961972	-3	0	
1126	N1244B	-92.775774	-9.184257	0	0	
1127	N1248A	-92.775774	-9.184257	2	0	
1128	N1249A	-91.775774	-7.452206	2	0	
1129	N1250B	-92.775774	-9.184257	-2	0	
1130	N1251B	-91.775774	-7.452206	-2	0	
1131	N1262A	-91.775774	-7.452206	3	0	
1132	N1263A	-91.775774	-7.452206	-3	0	
1133	N1264A	-90.451362	-8.216856	3	0	
1134	N1265B	-90.451362	-8.216856	-3	0	
1135	N1266B	-92.658716	-6.942439	3	0	
1136	N1267B	-92.217245	-7.197322	3	0	
1137	N1268B	-91.334304	-7.707089	3	0	
1138	N1269B	-90.892833	-7.961972	3	0	
1139	N1270B	-92.658716	-6.942439	2	0	
1140	N1271B	-92.217245	-7.197322	2	0	
1141	N1272B	-91.334304	-7.707089	2	0	
1142	N1273B	-90.892833	-7.961972	2	0	
1143	N1274B	-90.451362	-8.216856	2	0	
1144	N1275B	-92.658716	-6.942439	1	0	
1145	N1276B	-92.217245	-7.197322	1	0	
1146	N1277B	-91.775775	-7.452206	1	0	
1147	N1278B	-91.334304	-7.707089	1	0	
1148	N1279A	-90.892833	-7.961972	1	0	
1149	N1280A	-90.451362	-8.216856	1	0	
1150	N1281A	-92.658716	-6.942439	0	0	
1151	N1282A	-92.217245	-7.197322	0	0	
1152	N1283A	-91.775775	-7.452206	0	0	
1153	N1284A	-91.334304	-7.707089	0	0	
1154	N1285A	-90.892833	-7.961972	0	0	
1155	N1286A	-90.451362	-8.216856	0	0	
1156	N1287A	-92.658716	-6.942439	-1	0	
1157	N1288A	-92.217245	-7.197322	-1	0	
1158	N1289A	-91.775775	-7.452206	-1	0	
1159	N1290A	-91.334304	-7.707089	-1	0	
1160	N1291A	-90.892833	-7.961972	-1	0	
1161	N1292A	-90.451362	-8.216856	-1	0	
1162	N1293A	-92.658716	-6.942439	-2	0	
1163	N1294A	-92.217245	-7.197322	-2	0	
1164	N1295A	-91.334304	-7.707089	-2	0	
1165	N1296A	-90.892833	-7.961972	-2	0	
1166	N1297A	-90.451362	-8.216856	-2	0	
1167	N1298A	-92.658716	-6.942439	-3	0	

Joint Coordinates and Temperatures (Continued)

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Diap...
1168	N1299A	-92.217245	-7.197322	-3	0	
1169	N1300A	-91.334304	-7.707089	-3	0	
1170	N1301A	-90.892833	-7.961972	-3	0	
1171	N1302A	38.434087	-84.938306	0	0	
1172	N1303A	38.434087	-84.938306	2	0	
1173	N1304A	39.434087	-83.206255	2	0	
1174	N1305A	38.434087	-84.938306	-2	0	
1175	N1306A	39.434087	-83.206255	-2	0	
1176	N1307A	39.434087	-83.206255	3	0	
1177	N1308A	39.434087	-83.206255	-3	0	
1178	N1309A	38.109675	-82.441605	3	0	
1179	N1310A	38.109675	-82.441605	-3	0	
1180	N1311A	40.317029	-83.716022	3	0	
1181	N1312A	39.875559	-83.461138	3	0	
1182	N1313A	38.992617	-82.951372	3	0	
1183	N1314A	38.551146	-82.696489	3	0	
1184	N1315A	40.317029	-83.716022	2	0	
1185	N1316A	39.875559	-83.461138	2	0	
1186	N1317A	38.992617	-82.951372	2	0	
1187	N1318A	38.551146	-82.696489	2	0	
1188	N1319A	38.109675	-82.441605	2	0	
1189	N1320A	40.317029	-83.716022	1	0	
1190	N1321A	39.875559	-83.461138	1	0	
1191	N1322A	39.434088	-83.206255	1	0	
1192	N1323A	38.992617	-82.951372	1	0	
1193	N1324A	38.551146	-82.696489	1	0	
1194	N1325A	38.109675	-82.441605	1	0	
1195	N1326A	40.317029	-83.716022	0	0	
1196	N1327A	39.875559	-83.461138	0	0	
1197	N1328A	39.434088	-83.206255	0	0	
1198	N1329A	38.992617	-82.951372	0	0	
1199	N1330A	38.551146	-82.696489	0	0	
1200	N1331A	38.109675	-82.441605	0	0	
1201	N1332A	40.317029	-83.716022	-1	0	
1202	N1333A	39.875559	-83.461138	-1	0	
1203	N1334A	39.434088	-83.206255	-1	0	
1204	N1335A	38.992617	-82.951372	-1	0	
1205	N1336A	38.551146	-82.696489	-1	0	
1206	N1337A	38.109675	-82.441605	-1	0	
1207	N1338A	40.317029	-83.716022	-2	0	
1208	N1339A	39.875559	-83.461138	-2	0	
1209	N1340A	38.992617	-82.951372	-2	0	
1210	N1341A	38.551146	-82.696489	-2	0	
1211	N1342A	38.109675	-82.441605	-2	0	
1212	N1343A	40.317029	-83.716022	-3	0	
1213	N1344A	39.875559	-83.461138	-3	0	
1214	N1345A	38.992617	-82.951372	-3	0	
1215	N1346A	38.551146	-82.696489	-3	0	
1216	N1222B	57.654187	69.	45	0	
1217	N1223B	57.654187	69.	-3	0	
1218	A1T	65.654187	69	45	0	
1219	A1B	65.654187	69	-3	0	
1220	N1228B	57.654187	-15.25	-27	0	
1221	M3	54.341687	-15.25	0	0	
1222	N1230B	57.654187	-15.25	0	0	
1223	N1231B	57.654187	-15.25	42	0	
1224	N1232B	54.904187	-15.25	42	0	

Joint Coordinates and Temperatures (Continued)

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Diap...
1225	N1233B	57.654187	-15.25	69	0	
1226	N1234B	61.654187	-77.	48	0	
1227	N1235B	61.654187	-77.	-6	0	
1228	A4T	69.654187	-77	48	0	
1229	A4B	69.654187	-77	-6	0	
1230	N1238B	57.654187	-15.25	21	0	
1231	A3R	51.654187	-15.25	21	0	
1232	N1240C	57.654187	34.15	-27	0	
1233	M2	54.341687	34.15	0	0	
1234	N1242C	57.654187	34.15	0	0	
1235	N1243B	57.654187	34.15	42	0	
1236	N1244C	54.904187	34.15	42	0	
1237	N1245B	57.654187	34.15	69	0	
1238	N1246B	57.654187	-15.25	54.5	0	
1239	N1247B	57.654187	-15.25	29.5	0	
1240	A3T	65.654187	-15.25	54.5	0	
1241	A3B	65.654187	-15.25	29.5	0	
1242	N1250C	57.654187	34.15	30	0	
1243	A2R	51.654187	34.15	30	0	
1244	N1252A	57.654187	69.	-27	0	
1245	M1	54.341687	69.	0	0	
1246	N1254A	57.654187	69.	0	0	
1247	N1255A	57.654187	69.	42	0	
1248	N1256A	54.904187	69.	42	0	
1249	N1257A	57.654187	69.	69	0	
1250	N1258A	57.654187	34.15	48	0	
1251	N1259A	57.654187	34.15	-6	0	
1252	A2T	65.654187	34.15	48	0	
1253	A2B	65.654187	34.15	-6	0	
1254	N1262B	57.654187	69.	21	0	
1255	A1R	51.654187	69.	21	0	
1256	KN1	-77.845445	-0.	0	0	
1257	KN2	-77.845445	-0.	-5.375	0	
1258	KN3	-77.845445	0.937	-5.375	0	
1259	KN4	-77.845445	-0.937	-5.375	0	
1260	KN5	-15.031	-0.	-61.499993	0	
1261	KN6	-18.406	-0.	-61.499993	0	
1262	KN7	-18.406	0.937	-61.499993	0	
1263	KN8	-18.406	-.937	-61.499993	0	
1264	KN9	38.922723	-67.416133	0	0	
1265	KN10	38.922723	-67.416133	-5.375	0	
1266	KN11	38.111257	-67.884633	-5.375	0	
1267	KN12	39.734188	-66.947633	-5.375	0	
1268	KN13	7.5155	-13.017228	-61.499993	0	
1269	KN14	9.203	-15.940064	-61.499993	0	
1270	KN15	8.391534	-16.408564	-61.499993	0	
1271	KN16	10.014466	-15.471564	-61.499993	0	
1272	KN17	38.922723	67.416133	0	0	
1273	KN18	38.922723	67.416133	-5.375	0	
1274	KN19	39.734188	66.947633	-5.375	0	
1275	KN20	38.111257	67.884633	-5.375	0	
1276	KN21	7.5155	13.017228	-61.499993	0	
1277	KN22	9.203	15.940064	-61.499993	0	
1278	KN23	10.014466	15.471564	-61.499993	0	
1279	KN24	8.391534	16.408564	-61.499993	0	
1280	N1380	54.341687	-77.28335	0	0	
1281	N1380A	54.341687	77.28335	0	0	

Joint Coordinates and Temperatures (Continued)

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Diap...
1282	N1382	39.758501	85.702957	0	0	
1283	N1383	-94.100188	8.419607	0	0	
1284	N1386	-94.100188	-8.419607	0	0	
1285	N1387	39.758501	-85.702957	0	0	
1286	N1384	54.341687	-29.39167	0	0	
1287	N1386A	54.341687	29.39187	0	0	
1288	N1388	-1.716911	61.757117	0	0	
1289	N1389	-52.62495	32.365347	0	0	
1290	N1392	-52.624777	-32.365447	0	0	
1291	N1393	-1.716737	-61.757217	0	0	
1292	N1402	54.341687	-77.28335	-2	0	
1293	N1403	54.341687	77.28335	-2	0	
1294	N1404	39.758501	85.702957	-2	0	
1295	N1405	-94.100188	8.419607	-2	0	
1296	N1406	-94.100188	-8.419607	-2	0	
1297	N1407	39.758501	-85.702957	-2	0	
1298	N1408	54.341687	-29.39167	-2	0	
1299	N1409	54.341687	29.39187	-2	0	
1300	N1410	-1.716911	61.757117	-2	0	
1301	N1411	-52.62495	32.365347	-2	0	
1302	N1412	-52.624777	-32.365447	-2	0	
1303	N1413	-1.716737	-61.757217	-2	0	
1304	N1426	54.341687	-77.28335	2	0	
1305	N1427	54.341687	77.28335	2	0	
1306	N1428	39.758501	85.702957	2	0	
1307	N1429	-94.100188	8.419607	2	0	
1308	N1430	-94.100188	-8.419607	2	0	
1309	N1431	39.758501	-85.702957	2	0	
1310	N1432	54.341687	-29.39167	2	0	
1311	N1433	54.341687	29.39187	2	0	
1312	N1434	-1.716911	61.757117	2	0	
1313	N1435	-52.62495	32.365347	2	0	
1314	N1436	-52.624777	-32.365447	2	0	
1315	N1437	-1.716737	-61.757217	2	0	
1316	N1438	-39.031	-0.	0	0	
1317	N1415	-39.031	6.	0	0	
1318	GRC	-39.031	6	9	0	
1319	N1417	19.5155	33.801838	0	0	
1320	N1418	24.711652	30.801838	0	0	
1321	ARC	24.711652	30.801838	9	0	
1322	N1420	19.5155	-33.801837	0	0	
1323	N1421	14.319348	-36.801837	0	0	
1324	BRC	14.319348	-36.801838	9	0	
1325	N1424	57.654187	-15.25	12.5	0	
1326	N1425	57.654187	-15.25	-12.5	0	
1327	A3T2	65.654187	-15.25	12.5	0	
1328	A3B2	65.654187	-15.25	-12.5	0	
1329	N1435A	57.654187	34.15	12	0	
1330	A2R2	51.654187	34.15	12	0	
1331	N1443	14.319348	36.801837	0	0	
1332	ARC2	14.319348	36.801838	9	0	
1333	N1440	52.154187	-69.	42	0	
1334	N1440A	51.591687	-69.	0	0	
1335	N1441	52.154187	-69.	48	0	
1336	N1440B	51.837764	-69.	20.998558	0	
1337	A4R	43.837764	-69	20.998558	0	
1338	N1442	57.654187	-69.	-27	0	

Joint Coordinates and Temperatures (Continued)

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Diap...
1339	N1443A	57.654187	-69.	69	0	
1340	N1444	57.654187	-69.	45	0	
1341	N1445	61.654187	-77.	45	0	
1342	N1446	57.654187	-69.	-3	0	
1343	N1447	61.654187	-77.	-3	0	
1344	N1344B	35.856863	91.894093	-27	0	
1345	N1345B	32.58491	81.561282	0	0	
1346	N1346B	30.92866	84.429991	0	0	
1347	N1347A	30.92866	84.429991	42	0	
1348	N1348A	32.30366	82.048421	42	0	
1349	N1349	35.856863	91.894093	69	0	
1350	N1350	-88.582846	15.429991	45	0	
1351	N1351	-88.582846	15.429991	-3	0	
1352	G1T	-92.582846	22.358194	45	0	
1353	G1B	-92.582846	22.358194	-3	0	
1354	N1354	-15.620206	57.554991	-27	0	
1355	N1355	-13.963956	54.686282	0	0	
1356	N1356	-15.620206	57.554991	0	0	
1357	N1357	-15.620206	57.554991	42	0	
1358	N1358	-14.245206	55.173421	42	0	
1359	N1359	-15.620206	57.554991	69	0	
1360	N1360	35.856862	91.894092	48	0	
1361	N1361	35.856862	91.894092	-6	0	
1362	G4T	31.856863	98.822295	48	0	
1363	G4B	31.856863	98.822295	-6	0	
1364	N1364	-15.620206	57.554991	21	0	
1365	G3R	-12.620206	52.358838	21	0	
1366	N1366	-58.401861	32.854991	-27	0	
1367	N1367	-56.745611	29.986281	0	0	
1368	N1368	-58.401861	32.854991	0	0	
1369	N1369	-58.401861	32.854991	42	0	
1370	N1370	-57.026861	30.473421	42	0	
1371	N1371	-58.401861	32.854991	69	0	
1372	N1372	-15.620206	57.554991	54.5	0	
1373	N1373	-15.620206	57.554991	29.5	0	
1374	G3T	-19.620206	64.483194	54.5	0	
1375	G3B	-19.620206	64.483194	29.5	0	
1376	N1376	-58.401861	32.854991	30	0	
1377	G2R	-55.401861	27.658838	30	0	
1378	N1378	-88.582847	15.429991	-27	0	
1379	N1379	-86.926597	12.561281	0	0	
1380	N1380B	-88.582847	15.429991	0	0	
1381	N1381	-88.582847	15.429991	42	0	
1382	N1382A	-87.207847	13.048421	42	0	
1383	N1383A	-88.582847	15.429991	69	0	
1384	N1384A	-58.401861	32.854991	48	0	
1385	N1385	-58.401861	32.854991	-6	0	
1386	G2T	-62.401861	39.783194	48	0	
1387	G2B	-62.401861	39.783194	-6	0	
1388	N1388A	-88.582847	15.429991	21	0	
1389	G1R	-85.582847	10.233838	21	0	
1390	N1390	-15.620206	57.554991	12.5	0	
1391	N1391	-15.620206	57.554991	-12.5	0	
1392	G3T2	-19.620206	64.483194	12.5	0	
1393	G3B2	-19.620206	64.483194	-12.5	0	
1394	N1394	-58.401861	32.854991	12	0	
1395	G2R2	-55.401861	27.658838	12	0	

Joint Coordinates and Temperatures (Continued)

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Diap...
1396	N1396	33.67866	79.666851	42	0	
1397	N1397	33.95991	79.179712	0	0	
1398	N1398	33.67866	79.666851	48	0	
1399	N1399	33.836871	79.392821	20.998558	0	
1400	G4R	37.836871	72.464617	20.998558	0	
1401	N1401	30.92866	84.429991	-27	0	
1402	N1402A	30.92866	84.429991	69	0	
1403	N1403A	30.92866	84.429991	45	0	
1404	N1404A	35.856863	91.894093	45	0	
1405	N1405A	30.92866	84.429991	-3	0	
1406	N1406A	35.856863	91.894093	-3	0	
1407	N1407A	-97.51105	-14.894092	-27	0	
1408	N1408A	-86.926597	-12.561281	0	0	
1409	N1409A	-88.582847	-15.429991	0	0	
1410	N1410A	-88.582847	-15.429991	42	0	
1411	N1411A	-87.207847	-13.048421	42	0	
1412	N1412A	-97.51105	-14.894092	69	0	
1413	N1413A	30.928659	-84.429991	45	0	
1414	N1414	30.928659	-84.429991	-3	0	
1415	B1T	26.928659	-91.358194	45	0	
1416	B1B	26.928659	-91.358194	-3	0	
1417	N1417A	-42.033981	-42.304991	-27	0	
1418	N1418A	-40.377731	-39.436281	0	0	
1419	N1419	-42.033981	-42.304991	0	0	
1420	N1420A	-42.033981	-42.304991	42	0	
1421	N1421A	-40.658981	-39.923421	42	0	
1422	N1422	-42.033981	-42.304991	69	0	
1423	N1423	-97.51105	-14.894092	48	0	
1424	N1424A	-97.51105	-14.894092	-6	0	
1425	B4T	-101.51105	-21.822295	48	0	
1426	B4B	-101.51105	-21.822295	-6	0	
1427	N1427A	-42.033981	-42.304991	21	0	
1428	B3R	-39.033981	-37.108838	21	0	
1429	N1429A	0.747674	-67.004991	-27	0	
1430	N1430A	2.403924	-64.136282	0	0	
1431	N1431A	0.747674	-67.004991	0	0	
1432	N1432A	0.747674	-67.004991	42	0	
1433	N1433A	2.122674	-64.623421	42	0	
1434	N1434A	0.747674	-67.004991	69	0	
1435	N1435B	-42.033981	-42.304991	54.5	0	
1436	N1436A	-42.033981	-42.304991	29.5	0	
1437	B3T	-46.033981	-49.233194	54.5	0	
1438	B3B	-46.033981	-49.233194	29.5	0	
1439	N1439	0.747674	-67.004991	30	0	
1440	B2R	3.747674	-61.808838	30	0	
1441	N1441A	30.92866	-84.429991	-27	0	
1442	N1442A	32.58491	-81.561282	0	0	
1443	N1443B	30.92866	-84.429991	0	0	
1444	N1444A	30.92866	-84.429991	42	0	
1445	N1445A	32.30366	-82.048421	42	0	
1446	N1446A	30.92866	-84.429991	69	0	
1447	N1447A	0.747674	-67.004991	48	0	
1448	N1448	0.747674	-67.004991	-6	0	
1449	B2T	-3.252326	-73.933194	48	0	
1450	B2B	-3.252326	-73.933194	-6	0	
1451	N1451	30.92866	-84.429991	21	0	
1452	B1R	33.92866	-79.233838	21	0	

Joint Coordinates and Temperatures (Continued)

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Diap...
1453	N1453	-42.033981	-42.304991	12.5	0	
1454	N1454	-42.033981	-42.304991	-12.5	0	
1455	B3T2	-46.033981	-49.233194	12.5	0	
1456	B3B2	-46.033981	-49.233194	-12.5	0	
1457	N1457	0.747674	-67.004991	12	0	
1458	B2R2	3.747674	-61.808838	12	0	
1459	N1459	-85.832847	-10.666851	42	0	
1460	N1460	-85.551597	-10.179711	0	0	
1461	N1461	-85.832847	-10.666851	48	0	
1462	N1462	-85.674635	-10.39282	20.998558	0	
1463	B4R	-81.674635	-3.464617	20.998558	0	
1464	N1464	-88.582847	-15.429991	-27	0	
1465	N1465	-88.582847	-15.429991	69	0	
1466	N1466	-88.582847	-15.429991	45	0	
1467	N1467	-97.51105	-14.894092	45	0	
1468	N1468	-88.582847	-15.429991	-3	0	
1469	N1469	-97.51105	-14.894092	-3	0	

Hot Rolled Steel Design Parameters

	Label	Shape	Length[in]	Lbyy[in]	Lbzz[in]	Lcomp top[in]	Lcomp bot[in]	L-torqu...	Kyy	Kzz	Cb	Function
1	M51	Offset Horiz	77.819									Lateral
2	M60	Offset Horiz	30.438			Lbyy						Lateral
3	M63	Offset Horiz	30.437			Lbyy						Lateral
4	M69	Face Horiz	174			Lbyy						Lateral
5	M72	Face Horiz	174			Lbyy						Lateral
6	M75	Face Horiz	174			Lbyy						Lateral
7	M92	Grating Angle	50.542			Lbyy						Lateral
8	M94	Grating Angle	50.542			Lbyy						Lateral
9	M98	Grating Angle	50.542			Lbyy						Lateral
10	M100	Grating Angle	50.542			Lbyy						Lateral
11	M104	Grating Angle	50.542			Lbyy						Lateral
12	M106	Grating Angle	50.542			Lbyy						Lateral
13	M109	HRK14 Angle	14.902			Lbyy						Lateral
14	M110	HRK14 Angle	14.902			Lbyy						Lateral
15	M111	HRK14 Angle	14.902			Lbyy						Lateral
16	M116	HRK14 Pipe	174			Lbyy						Lateral
17	M121	HRK14 Pipe	174			Lbyy						Lateral
18	M126	HRK14 Pipe	174			Lbyy						Lateral
19	M129	HRK14 Plate	6			Lbyy						Lateral
20	M133	HRK14 Plate	6			Lbyy						Lateral
21	M137	HRK14 Plate	6			Lbyy						Lateral
22	M141	HRK14 Plate	6			Lbyy						Lateral
23	M145	HRK14 Plate	6			Lbyy						Lateral
24	M149	HRK14 Plate	6			Lbyy						Lateral
25	M163	Mount Pipe	96			Lbyy						Lateral
26	M189A	Offset Horiz	77.819									Lateral
27	M209	Offset Horiz	77.819									Lateral
28	M245A	Offset Horiz	30.438			Lbyy						Lateral
29	M246A	Offset Horiz	30.437			Lbyy						Lateral
30	M279	Offset Horiz	30.438			Lbyy						Lateral
31	M280	Offset Horiz	30.437			Lbyy						Lateral
32	M261A	Mount Pipe	96			Lbyy						Lateral
33	M267A	Mount Pipe	96			Lbyy						Lateral
34	M273A	Mount Pipe	96			Lbyy						Lateral
35	KM5	PRK-1245 ...	81.75									Lateral

Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length[in]	Lbyy[in]	Lbzz[in]	Lcomp top[in]	Lcomp bot[in]	L-torqu...	Kyy	Kzz	Cb	Function
36	KM6	PRK-1245 ...	81.75									Lateral
37	KM11	PRK-1245 ...	81.75									Lateral
38	KM12	PRK-1245 ...	81.75									Lateral
39	KM17	PRK-1245 ...	81.75									Lateral
40	KM18	PRK-1245 ...	81.75									Lateral
41	M387A	Mount Pipe	48.003									Lateral
42	M388A	Mount Pipe	96			Lbyy						Lateral
43	M341	Mount Pipe	96			Lbyy						Lateral
44	M346A	Mount Pipe	96			Lbyy						Lateral
45	M352A	Mount Pipe	96			Lbyy						Lateral
46	M358B	Mount Pipe	96			Lbyy						Lateral
47	M367B	Mount Pipe	48.003									Lateral
48	M369B	Mount Pipe	96			Lbyy						Lateral
49	M374	Mount Pipe	96			Lbyy						Lateral
50	M379A	Mount Pipe	96			Lbyy						Lateral
51	M385	Mount Pipe	96			Lbyy						Lateral
52	M391A	Mount Pipe	96			Lbyy						Lateral
53	M400	Mount Pipe	48.003									Lateral
54	M402	Mount Pipe	96			Lbyy						Lateral

Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed	Area(Me...	Surface(P...
1	Dead	DL			-1	46				
2	Dead of Ice	RL				46		54		
4	Structure Wind (0)	None						108		
5	Structure Wind (30)	None						108		
6	Structure Wind (45)	None						108		
7	Structure Wind (60)	None						108		
8	Structure Wind (90)	None						108		
9	Structure Wind (120)	None						108		
10	Structure Wind (135)	None						108		
11	Structure Wind (150)	None						108		
12	Structure Wind w/ Ice ...	None						108		
13	Structure Wind w/ Ice ...	None						108		
14	Structure Wind w/ Ice ...	None						108		
15	Structure Wind w/ Ice ...	None						108		
16	Structure Wind w/ Ice ...	None						108		
17	Structure Wind w/ Ice ...	None						108		
18	Structure Wind w/ Ice ...	None						108		
19	Structure Wind w/ Ice ...	None						108		
20	Antenna Wind (0)	None				92				
21	Antenna Wind (30)	None				92				
22	Antenna Wind (45)	None				92				
23	Antenna Wind (60)	None				92				
24	Antenna Wind (90)	None				92				
25	Antenna Wind (120)	None				92				
26	Antenna Wind (135)	None				92				
27	Antenna Wind (150)	None				92				
28	Antenna Wind w/ Ice (...	None				92				
29	Antenna Wind w/ Ice (...	None				92				
30	Antenna Wind w/ Ice (...	None				92				
31	Antenna Wind w/ Ice (...	None				92				
32	Antenna Wind w/ Ice (...	None				92				
33	Antenna Wind w/ Ice (...	None				92				
34	Antenna Wind w/ Ice (...	None				92				

Basic Load Cases (Continued)

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed	Area(Me...	Surface(P...
35	Antenna Wind w/ Ice (...	None				92				
36	Maintenance Live Lm ...	OL1				1				
37	Maintenance Live Lm ...	OL2				1				
38	Maintenance Live Lm ...	OL3				1				
39	Maintenance Live Lm ...	OL4				1				
41	Maintenance Live Lv (...	OL6					1			
42	Maintenance Live Lv (...	OL7					1			
43	Maintenance Live Lv (...	OL8					1			

Load Combinations

	Description	So...	P...	S...	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...
1	Summary: 1.0D...	Yes	Y		DL	1	20	1																
2	1.4D	Yes	Y		DL	1.4																		
3	1.2D + 1.0W(0)	Yes	Y		DL	1.2	4	1	20	1														
4	1.2D + 1.0W(30)	Yes	Y		DL	1.2	5	1	21	1														
5	1.2D + 1.0W(45)	Yes	Y		DL	1.2	6	1	22	1														
6	1.2D + 1.0W(60)	Yes	Y		DL	1.2	7	1	23	1														
7	1.2D + 1.0W(90)	Yes	Y		DL	1.2	8	1	24	1														
8	1.2D + 1.0W(1...	Yes	Y		DL	1.2	9	1	25	1														
9	1.2D + 1.0W(1...	Yes	Y		DL	1.2	10	1	26	1														
10	1.2D + 1.0W(1...	Yes	Y		DL	1.2	11	1	27	1														
11	1.2D + 1.0W(1...	Yes	Y		DL	1.2	4	-1	20	-1														
12	1.2D + 1.0W(2...	Yes	Y		DL	1.2	5	-1	21	-1														
13	1.2D + 1.0W(2...	Yes	Y		DL	1.2	6	-1	22	-1														
14	1.2D + 1.0W(2...	Yes	Y		DL	1.2	7	-1	23	-1														
15	1.2D + 1.0W(2...	Yes	Y		DL	1.2	8	-1	24	-1														
16	1.2D + 1.0W(3...	Yes	Y		DL	1.2	9	-1	25	-1														
17	1.2D + 1.0W(3...	Yes	Y		DL	1.2	10	-1	26	-1														
18	1.2D + 1.0W(3...	Yes	Y		DL	1.2	11	-1	27	-1														
19	1.2D + 1.0Di + ...	Yes	Y		DL	1.2	RL	1	12	1	28	1												
20	1.2D + 1.0Di + ...	Yes	Y		DL	1.2	RL	1	13	1	29	1												
21	1.2D + 1.0Di + ...	Yes	Y		DL	1.2	RL	1	14	1	30	1												
22	1.2D + 1.0Di + ...	Yes	Y		DL	1.2	RL	1	15	1	31	1												
23	1.2D + 1.0Di + ...	Yes	Y		DL	1.2	RL	1	16	1	32	1												
24	1.2D + 1.0Di + ...	Yes	Y		DL	1.2	RL	1	17	1	33	1												
25	1.2D + 1.0Di + ...	Yes	Y		DL	1.2	RL	1	18	1	34	1												
26	1.2D + 1.0Di + ...	Yes	Y		DL	1.2	RL	1	19	1	35	1												
27	1.2D + 1.0Di + ...	Yes	Y		DL	1.2	RL	1	12	-1	28	-1												
28	1.2D + 1.0Di + ...	Yes	Y		DL	1.2	RL	1	13	-1	39	-1												
29	1.2D + 1.0Di + ...	Yes	Y		DL	1.2	RL	1	14	-1	30	-1												
30	1.2D + 1.0Di + ...	Yes	Y		DL	1.2	RL	1	15	-1	31	-1												
31	1.2D + 1.0Di + ...	Yes	Y		DL	1.2	RL	1	16	-1	32	-1												
32	1.2D + 1.0Di + ...	Yes	Y		DL	1.2	RL	1	17	-1	33	-1												
33	1.2D + 1.0Di + ...	Yes	Y		DL	1.2	RL	1	18	-1	34	-1												
34	1.2D + 1.0Di + ...	Yes	Y		DL	1.2	RL	1	19	-1	35	-1												
35	1.2D + 1.5Lm(1...	Yes	Y		DL	1.2	4	.098	20	.098	OL1	1.5												
36	1.2D + 1.5Lm(1...	Yes	Y		DL	1.2	5	.098	21	.098	OL1	1.5												
37	1.2D + 1.5Lm(1...	Yes	Y		DL	1.2	6	.098	22	.098	OL1	1.5												
38	1.2D + 1.5Lm(1...	Yes	Y		DL	1.2	7	.098	23	.098	OL1	1.5												
39	1.2D + 1.5Lm(1...	Yes	Y		DL	1.2	8	.098	24	.098	OL1	1.5												
40	1.2D + 1.5Lm(1...	Yes	Y		DL	1.2	9	.098	25	.098	OL1	1.5												
41	1.2D + 1.5Lm(1...	Yes	Y		DL	1.2	10	.098	26	.098	OL1	1.5												
42	1.2D + 1.5Lm(1...	Yes	Y		DL	1.2	11	.098	27	.098	OL1	1.5												
43	1.2D + 1.5Lm(1...	Yes	Y		DL	1.2	4	-.098	20	-.098	OL1	1.5												
44	1.2D + 1.5Lm(1...	Yes	Y		DL	1.2	5	-.098	21	-.098	OL1	1.5												

Load Combinations (Continued)

	Description	So...	P...	S...	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact...
45	1.2D + 1.5Lm(1...	Yes	Y		DL	1.2	6	-.098	22	-.098	OL1	1.5														
46	1.2D + 1.5Lm(1...	Yes	Y		DL	1.2	7	-.098	23	-.098	OL1	1.5														
47	1.2D + 1.5Lm(1...	Yes	Y		DL	1.2	8	-.098	24	-.098	OL1	1.5														
48	1.2D + 1.5Lm(1...	Yes	Y		DL	1.2	9	-.098	25	-.098	OL1	1.5														
49	1.2D + 1.5Lm(1...	Yes	Y		DL	1.2	10	-.098	26	-.098	OL1	1.5														
50	1.2D + 1.5Lm(1...	Yes	Y		DL	1.2	11	-.098	27	-.098	OL1	1.5														
51	1.2D + 1.5Lm(2...	Yes	Y		DL	1.2	4	.098	20	.098	OL2	1.5														
52	1.2D + 1.5Lm(2...	Yes	Y		DL	1.2	5	.098	21	.098	OL2	1.5														
53	1.2D + 1.5Lm(2...	Yes	Y		DL	1.2	6	.098	22	.098	OL2	1.5														
54	1.2D + 1.5Lm(2...	Yes	Y		DL	1.2	7	.098	23	.098	OL2	1.5														
55	1.2D + 1.5Lm(2...	Yes	Y		DL	1.2	8	.098	24	.098	OL2	1.5														
56	1.2D + 1.5Lm(2...	Yes	Y		DL	1.2	9	.098	25	.098	OL2	1.5														
57	1.2D + 1.5Lm(2...	Yes	Y		DL	1.2	10	.098	26	.098	OL2	1.5														
58	1.2D + 1.5Lm(2...	Yes	Y		DL	1.2	11	.098	27	.098	OL2	1.5														
59	1.2D + 1.5Lm(2...	Yes	Y		DL	1.2	4	-.098	20	-.098	OL2	1.5														
60	1.2D + 1.5Lm(2...	Yes	Y		DL	1.2	5	-.098	21	-.098	OL2	1.5														
61	1.2D + 1.5Lm(2...	Yes	Y		DL	1.2	6	-.098	22	-.098	OL2	1.5														
62	1.2D + 1.5Lm(2...	Yes	Y		DL	1.2	7	-.098	23	-.098	OL2	1.5														
63	1.2D + 1.5Lm(2...	Yes	Y		DL	1.2	8	-.098	24	-.098	OL2	1.5														
64	1.2D + 1.5Lm(2...	Yes	Y		DL	1.2	9	-.098	25	-.098	OL2	1.5														
65	1.2D + 1.5Lm(2...	Yes	Y		DL	1.2	10	-.098	26	-.098	OL2	1.5														
66	1.2D + 1.5Lm(2...	Yes	Y		DL	1.2	11	-.098	27	-.098	OL2	1.5														
67	1.2D + 1.5Lm(3...	Yes	Y		DL	1.2	4	.098	20	.098	OL3	1.5														
68	1.2D + 1.5Lm(3...	Yes	Y		DL	1.2	5	.098	21	.098	OL3	1.5														
69	1.2D + 1.5Lm(3...	Yes	Y		DL	1.2	6	.098	22	.098	OL3	1.5														
70	1.2D + 1.5Lm(3...	Yes	Y		DL	1.2	7	.098	23	.098	OL3	1.5														
71	1.2D + 1.5Lm(3...	Yes	Y		DL	1.2	8	.098	24	.098	OL3	1.5														
72	1.2D + 1.5Lm(3...	Yes	Y		DL	1.2	9	.098	25	.098	OL3	1.5														
73	1.2D + 1.5Lm(3...	Yes	Y		DL	1.2	10	.098	26	.098	OL3	1.5														
74	1.2D + 1.5Lm(3...	Yes	Y		DL	1.2	11	.098	27	.098	OL3	1.5														
75	1.2D + 1.5Lm(3...	Yes	Y		DL	1.2	4	-.098	20	-.098	OL3	1.5														
76	1.2D + 1.5Lm(3...	Yes	Y		DL	1.2	5	-.098	21	-.098	OL3	1.5														
77	1.2D + 1.5Lm(3...	Yes	Y		DL	1.2	6	-.098	22	-.098	OL3	1.5														
78	1.2D + 1.5Lm(3...	Yes	Y		DL	1.2	7	-.098	23	-.098	OL3	1.5														
79	1.2D + 1.5Lm(3...	Yes	Y		DL	1.2	8	-.098	24	-.098	OL3	1.5														
80	1.2D + 1.5Lm(3...	Yes	Y		DL	1.2	9	-.098	25	-.098	OL3	1.5														
81	1.2D + 1.5Lm(3...	Yes	Y		DL	1.2	10	-.098	26	-.098	OL3	1.5														
82	1.2D + 1.5Lm(3...	Yes	Y		DL	1.2	11	-.098	27	-.098	OL3	1.5														
83	1.2D + 1.5Lm(4...	Yes	Y		DL	1.2	4	.098	20	.098	OL4	1.5														
84	1.2D + 1.5Lm(4...	Yes	Y		DL	1.2	5	.098	21	.098	OL4	1.5														
85	1.2D + 1.5Lm(4...	Yes	Y		DL	1.2	6	.098	22	.098	OL4	1.5														
86	1.2D + 1.5Lm(4...	Yes	Y		DL	1.2	7	.098	23	.098	OL4	1.5														
87	1.2D + 1.5Lm(4...	Yes	Y		DL	1.2	8	.098	24	.098	OL4	1.5														
88	1.2D + 1.5Lm(4...	Yes	Y		DL	1.2	9	.098	25	.098	OL4	1.5														
89	1.2D + 1.5Lm(4...	Yes	Y		DL	1.2	10	.098	26	.098	OL4	1.5														
90	1.2D + 1.5Lm(4...	Yes	Y		DL	1.2	11	.098	27	.098	OL4	1.5														
91	1.2D + 1.5Lm(4...	Yes	Y		DL	1.2	4	-.098	20	-.098	OL4	1.5														
92	1.2D + 1.5Lm(4...	Yes	Y		DL	1.2	5	-.098	21	-.098	OL4	1.5														
93	1.2D + 1.5Lm(4...	Yes	Y		DL	1.2	6	-.098	22	-.098	OL4	1.5														
94	1.2D + 1.5Lm(4...	Yes	Y		DL	1.2	7	-.098	23	-.098	OL4	1.5														
95	1.2D + 1.5Lm(4...	Yes	Y		DL	1.2	8	-.098	24	-.098	OL4	1.5														
96	1.2D + 1.5Lm(4...	Yes	Y		DL	1.2	9	-.098	25	-.098	OL4	1.5														
97	1.2D + 1.5Lm(4...	Yes	Y		DL	1.2	10	-.098	26	-.098	OL4	1.5														
98	1.2D + 1.5Lm(4...	Yes	Y		DL	1.2	11	-.098	27	-.098	OL4	1.5														
99	1.2D + 1.5Lv(1)...	Yes	Y		DL	1.2	4	.098	20	.098	OL6	1.5														
100	1.2D + 1.5Lv(1)...	Yes	Y		DL	1.2	5	.098	21	.098	OL6	1.5														
101	1.2D + 1.5Lv(1)...	Yes	Y		DL	1.2	6	.098	22	.098	OL6	1.5														

Load Combinations (Continued)

	Description	So...	P...	S...	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact...
102	1.2D + 1.5Lv(1)...	Yes	Y		DL	1.2	7	.098	23	.098	OL6	1.5														
103	1.2D + 1.5Lv(1)...	Yes	Y		DL	1.2	8	.098	24	.098	OL6	1.5														
104	1.2D + 1.5Lv(1)...	Yes	Y		DL	1.2	9	.098	25	.098	OL6	1.5														
105	1.2D + 1.5Lv(1)...	Yes	Y		DL	1.2	10	.098	26	.098	OL6	1.5														
106	1.2D + 1.5Lv(1)...	Yes	Y		DL	1.2	11	.098	27	.098	OL6	1.5														
107	1.2D + 1.5Lv(1)...	Yes	Y		DL	1.2	4	-.098	20	-.098	OL6	1.5														
108	1.2D + 1.5Lv(1)...	Yes	Y		DL	1.2	5	-.098	21	-.098	OL6	1.5														
109	1.2D + 1.5Lv(1)...	Yes	Y		DL	1.2	6	-.098	22	-.098	OL6	1.5														
110	1.2D + 1.5Lv(1)...	Yes	Y		DL	1.2	7	-.098	23	-.098	OL6	1.5														
111	1.2D + 1.5Lv(1)...	Yes	Y		DL	1.2	8	-.098	24	-.098	OL6	1.5														
112	1.2D + 1.5Lv(1)...	Yes	Y		DL	1.2	9	-.098	25	-.098	OL6	1.5														
113	1.2D + 1.5Lv(1)...	Yes	Y		DL	1.2	10	-.098	26	-.098	OL6	1.5														
114	1.2D + 1.5Lv(1)...	Yes	Y		DL	1.2	11	-.098	27	-.098	OL6	1.5														
115	1.2D + 1.5Lv(2)...	Yes	Y		DL	1.2	4	.098	20	.098	OL7	1.5														
116	1.2D + 1.5Lv(2)...	Yes	Y		DL	1.2	5	.098	21	.098	OL7	1.5														
117	1.2D + 1.5Lv(2)...	Yes	Y		DL	1.2	6	.098	22	.098	OL7	1.5														
118	1.2D + 1.5Lv(2)...	Yes	Y		DL	1.2	7	.098	23	.098	OL7	1.5														
119	1.2D + 1.5Lv(2)...	Yes	Y		DL	1.2	8	.098	24	.098	OL7	1.5														
120	1.2D + 1.5Lv(2)...	Yes	Y		DL	1.2	9	.098	25	.098	OL7	1.5														
121	1.2D + 1.5Lv(2)...	Yes	Y		DL	1.2	10	.098	26	.098	OL7	1.5														
122	1.2D + 1.5Lv(2)...	Yes	Y		DL	1.2	11	.098	27	.098	OL7	1.5														
123	1.2D + 1.5Lv(2)...	Yes	Y		DL	1.2	4	-.098	20	-.098	OL7	1.5														
124	1.2D + 1.5Lv(2)...	Yes	Y		DL	1.2	5	-.098	21	-.098	OL7	1.5														
125	1.2D + 1.5Lv(2)...	Yes	Y		DL	1.2	6	-.098	22	-.098	OL7	1.5														
126	1.2D + 1.5Lv(2)...	Yes	Y		DL	1.2	7	-.098	23	-.098	OL7	1.5														
127	1.2D + 1.5Lv(2)...	Yes	Y		DL	1.2	8	-.098	24	-.098	OL7	1.5														
128	1.2D + 1.5Lv(2)...	Yes	Y		DL	1.2	9	-.098	25	-.098	OL7	1.5														
129	1.2D + 1.5Lv(2)...	Yes	Y		DL	1.2	10	-.098	26	-.098	OL7	1.5														
130	1.2D + 1.5Lv(2)...	Yes	Y		DL	1.2	11	-.098	27	-.098	OL7	1.5														
131	1.2D + 1.5Lv(3)...	Yes	Y		DL	1.2	4	.098	20	.098	OL8	1.5														
132	1.2D + 1.5Lv(3)...	Yes	Y		DL	1.2	5	.098	21	.098	OL8	1.5														
133	1.2D + 1.5Lv(3)...	Yes	Y		DL	1.2	6	.098	22	.098	OL8	1.5														
134	1.2D + 1.5Lv(3)...	Yes	Y		DL	1.2	7	.098	23	.098	OL8	1.5														
135	1.2D + 1.5Lv(3)...	Yes	Y		DL	1.2	8	.098	24	.098	OL8	1.5														
136	1.2D + 1.5Lv(3)...	Yes	Y		DL	1.2	9	.098	25	.098	OL8	1.5														
137	1.2D + 1.5Lv(3)...	Yes	Y		DL	1.2	10	.098	26	.098	OL8	1.5														
138	1.2D + 1.5Lv(3)...	Yes	Y		DL	1.2	11	.098	27	.098	OL8	1.5														
139	1.2D + 1.5Lv(3)...	Yes	Y		DL	1.2	4	-.098	20	-.098	OL8	1.5														
140	1.2D + 1.5Lv(3)...	Yes	Y		DL	1.2	5	-.098	21	-.098	OL8	1.5														
141	1.2D + 1.5Lv(3)...	Yes	Y		DL	1.2	6	-.098	22	-.098	OL8	1.5														
142	1.2D + 1.5Lv(3)...	Yes	Y		DL	1.2	7	-.098	23	-.098	OL8	1.5														
143	1.2D + 1.5Lv(3)...	Yes	Y		DL	1.2	8	-.098	24	-.098	OL8	1.5														
144	1.2D + 1.5Lv(3)...	Yes	Y		DL	1.2	9	-.098	25	-.098	OL8	1.5														
145	1.2D + 1.5Lv(3)...	Yes	Y		DL	1.2	10	-.098	26	-.098	OL8	1.5														
146	1.2D + 1.5Lv(3)...	Yes	Y		DL	1.2	11	-.098	27	-.098	OL8	1.5														

Joint Loads and Enforced Displacements (BLC 1 : Dead)

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2...
1	A4T	L	Z	-51.9
2	A4B	L	Z	-51.9
3	B4T	L	Z	-51.9
4	B4B	L	Z	-51.9
5	G4T	L	Z	-51.9
6	G4B	L	Z	-51.9
7	A3T	L	Z	-40.8

Joint Loads and Enforced Displacements (BLC 1 : Dead) (Continued)

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2...
8	A3B	L	Z	-40.8
9	B3T	L	Z	-40.8
10	B3B	L	Z	-40.8
11	G3T	L	Z	-40.8
12	G3B	L	Z	-40.8
13	A3T2	L	Z	-33.1
14	A3B2	L	Z	-33.1
15	B3T2	L	Z	-33.1
16	B3B2	L	Z	-33.1
17	G3T2	L	Z	-33.1
18	G3B2	L	Z	-33.1
19	A2T	L	Z	-65
20	A2B	L	Z	-65
21	B2T	L	Z	-65
22	B2B	L	Z	-65
23	G2T	L	Z	-65
24	G2B	L	Z	-65
25	A2R	L	Z	-53
26	B2R	L	Z	-53
27	G2R	L	Z	-53
28	A2R2	L	Z	-46
29	B2R2	L	Z	-46
30	G2R2	L	Z	-46
31	A2R2	L	Z	-59.4
32	B2R2	L	Z	-59.4
33	G2R2	L	Z	-59.4
34	A4R	L	Z	-71
35	B4R	L	Z	-71
36	G4R	L	Z	-71
37	A2R	L	Z	-52.9
38	B2R	L	Z	-52.9
39	G2R	L	Z	-52.9
40	A4R	L	Z	-77
41	B4R	L	Z	-77
42	G4R	L	Z	-77
43	BRC	L	Z	-26.2
44	ARC	L	Z	-26.2
45	GRC	L	Z	-26.2
46	ARC2	L	Z	-26.2

Joint Loads and Enforced Displacements (BLC 2 : Dead of Ice)

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2...
1	A4T	L	Z	0
2	A4B	L	Z	0
3	B4T	L	Z	0
4	B4B	L	Z	0
5	G4T	L	Z	0
6	G4B	L	Z	0
7	A3T	L	Z	0
8	A3B	L	Z	0
9	B3T	L	Z	0
10	B3B	L	Z	0
11	G3T	L	Z	0
12	G3B	L	Z	0
13	A3T2	L	Z	0
14	A3B2	L	Z	0

Joint Loads and Enforced Displacements (BLC 2 : Dead of Ice) (Continued)

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2...
15	B3T2	L	Z	0
16	B3B2	L	Z	0
17	G3T2	L	Z	0
18	G3B2	L	Z	0
19	A2T	L	Z	0
20	A2B	L	Z	0
21	B2T	L	Z	0
22	B2B	L	Z	0
23	G2T	L	Z	0
24	G2B	L	Z	0
25	A2R	L	Z	0
26	B2R	L	Z	0
27	G2R	L	Z	0
28	A2R2	L	Z	0
29	B2R2	L	Z	0
30	G2R2	L	Z	0
31	A2R2	L	Z	0
32	B2R2	L	Z	0
33	G2R2	L	Z	0
34	A4R	L	Z	0
35	B4R	L	Z	0
36	G4R	L	Z	0
37	A2R	L	Z	0
38	B2R	L	Z	0
39	G2R	L	Z	0
40	A4R	L	Z	0
41	B4R	L	Z	0
42	G4R	L	Z	0
43	BRC	L	Z	0
44	ARC	L	Z	0
45	GRC	L	Z	0
46	ARC2	L	Z	0

Joint Loads and Enforced Displacements (BLC 20 : Antenna Wind (0))

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2...
1	A4T	L	X	-130.835
2	A4T	L	Y	0
3	A4B	L	X	-130.835
4	A4B	L	Y	0
5	B4T	L	X	-79.104
6	B4T	L	Y	0
7	B4B	L	X	-79.104
8	B4B	L	Y	0
9	G4T	L	X	-79.104
10	G4T	L	Y	0
11	G4B	L	X	-79.104
12	G4B	L	Y	0
13	A3T	L	X	-37.996
14	A3T	L	Y	0
15	A3B	L	X	-37.996
16	A3B	L	Y	0
17	B3T	L	X	-22.984
18	B3T	L	Y	0
19	B3B	L	X	-22.984
20	B3B	L	Y	0
21	G3T	L	X	-22.984

Joint Loads and Enforced Displacements (BLC 20 : Antenna Wind (0)) (Continued)

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2...
22	G3T	L	Y	0
23	G3B	L	X	-22.984
24	G3B	L	Y	0
25	A3T2	L	X	-34.681
26	A3T2	L	Y	0
27	A3B2	L	X	-34.681
28	A3B2	L	Y	0
29	B3T2	L	X	-19.088
30	B3T2	L	Y	0
31	B3B2	L	X	-19.088
32	B3B2	L	Y	0
33	G3T2	L	X	-19.088
34	G3T2	L	Y	0
35	G3B2	L	X	-19.088
36	G3B2	L	Y	0
37	A2T	L	X	-142.627
38	A2T	L	Y	0
39	A2B	L	X	-142.627
40	A2B	L	Y	0
41	B2T	L	X	-89.23
42	B2T	L	Y	0
43	B2B	L	X	-89.23
44	B2B	L	Y	0
45	G2T	L	X	-89.23
46	G2T	L	Y	0
47	G2B	L	X	-89.23
48	G2B	L	Y	0
49	A2R	L	X	-17.522
50	A2R	L	Y	0
51	B2R	L	X	-47.596
52	B2R	L	Y	0
53	G2R	L	X	-47.596
54	G2R	L	Y	0
55	A2R2	L	X	-8.615
56	A2R2	L	Y	0
57	B2R2	L	X	-31.186
58	B2R2	L	Y	0
59	G2R2	L	X	-31.186
60	G2R2	L	Y	0
61	A2R2	L	X	-13.087
62	A2R2	L	Y	0
63	B2R2	L	X	-35.119
64	B2R2	L	Y	0
65	G2R2	L	X	-35.119
66	G2R2	L	Y	0
67	A4R	L	X	-14.792
68	A4R	L	Y	0
69	B4R	L	X	-34.699
70	B4R	L	Y	0
71	G4R	L	X	-34.699
72	G4R	L	Y	0
73	A2R	L	X	-13.502
74	A2R	L	Y	0
75	B2R	L	X	-52.93
76	B2R	L	Y	0
77	G2R	L	X	-52.93
78	G2R	L	Y	0

Joint Loads and Enforced Displacements (BLC 20 : Antenna Wind (0)) (Continued)

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2...
79	A4R	L	X	-25.461
80	A4R	L	Y	0
81	B4R	L	X	-58.582
82	B4R	L	Y	0
83	G4R	L	X	-58.582
84	G4R	L	Y	0
85	BRC	L	X	-24.054
86	BRC	L	Y	0
87	ARC	L	X	-24.046
88	ARC	L	Y	0
89	GRC	L	X	-57.494
90	GRC	L	Y	0
91	ARC2	L	X	-24.046
92	ARC2	L	Y	0

Joint Loads and Enforced Displacements (BLC 21 : Antenna Wind (30))

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2...
1	A4T	L	X	-98.373
2	A4T	L	Y	56.796
3	A4B	L	X	-98.373
4	A4B	L	Y	56.796
5	B4T	L	X	-53.573
6	B4T	L	Y	30.93
7	B4B	L	X	-53.573
8	B4B	L	Y	30.93
9	G4T	L	X	-98.373
10	G4T	L	Y	56.796
11	G4B	L	X	-98.373
12	G4B	L	Y	56.796
13	A3T	L	X	-28.572
14	A3T	L	Y	16.496
15	A3B	L	X	-28.572
16	A3B	L	Y	16.496
17	B3T	L	X	-15.571
18	B3T	L	Y	8.99
19	B3B	L	X	-15.571
20	B3B	L	Y	8.99
21	G3T	L	X	-28.572
22	G3T	L	Y	16.496
23	G3B	L	X	-28.572
24	G3B	L	Y	16.496
25	A3T2	L	X	-25.534
26	A3T2	L	Y	14.742
27	A3B2	L	X	-25.534
28	A3B2	L	Y	14.742
29	B3T2	L	X	-12.03
30	B3T2	L	Y	6.945
31	B3B2	L	X	-12.03
32	B3B2	L	Y	6.945
33	G3T2	L	X	-25.534
34	G3T2	L	Y	14.742
35	G3B2	L	X	-25.534
36	G3B2	L	Y	14.742
37	A2T	L	X	-108.104
38	A2T	L	Y	62.414
39	A2B	L	X	-108.104

Joint Loads and Enforced Displacements (BLC 21 : Antenna Wind (30)) (Continued)

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2...
40	A2B	L	Y	62.414
41	B2T	L	X	-61.86
42	B2T	L	Y	35.715
43	B2B	L	X	-61.86
44	B2B	L	Y	35.715
45	G2T	L	X	-108.104
46	G2T	L	Y	62.414
47	G2B	L	X	-108.104
48	G2B	L	Y	62.414
49	A2R	L	X	-23.856
50	A2R	L	Y	13.773
51	B2R	L	X	-49.901
52	B2R	L	Y	28.81
53	G2R	L	X	-23.856
54	G2R	L	Y	13.773
55	A2R2	L	X	-13.977
56	A2R2	L	Y	8.069
57	B2R2	L	X	-33.523
58	B2R2	L	Y	19.354
59	G2R2	L	X	-13.977
60	G2R2	L	Y	8.069
61	A2R2	L	X	-17.694
62	A2R2	L	Y	10.216
63	B2R2	L	X	-36.774
64	B2R2	L	Y	21.231
65	G2R2	L	X	-17.694
66	G2R2	L	Y	10.216
67	A4R	L	X	-18.557
68	A4R	L	Y	10.714
69	B4R	L	X	-35.797
70	B4R	L	Y	20.668
71	G4R	L	X	-18.557
72	G4R	L	Y	10.714
73	A2R	L	X	-23.075
74	A2R	L	Y	13.322
75	B2R	L	X	-57.221
76	B2R	L	Y	33.037
77	G2R	L	X	-23.075
78	G2R	L	Y	13.322
79	A4R	L	X	-31.611
80	A4R	L	Y	18.251
81	B4R	L	X	-60.294
82	B4R	L	Y	34.811
83	G4R	L	X	-31.611
84	G4R	L	Y	18.251
85	BRC	L	X	-20.832
86	BRC	L	Y	12.027
87	ARC	L	X	-20.824
88	ARC	L	Y	12.023
89	GRC	L	X	-59.107
90	GRC	L	Y	34.126
91	ARC2	L	X	-20.824
92	ARC2	L	Y	12.023

Joint Loads and Enforced Displacements (BLC 22 : Antenna Wind (45))

Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2...

Joint Loads and Enforced Displacements (BLC 22 : Antenna Wind (45)) (Continued)

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2...
1	A4T	L	X	-68.128
2	A4T	L	Y	68.128
3	A4B	L	X	-68.128
4	A4B	L	Y	68.128
5	B4T	L	X	-47.009
6	B4T	L	Y	47.009
7	B4B	L	X	-47.009
8	B4B	L	Y	47.009
9	G4T	L	X	-89.248
10	G4T	L	Y	89.248
11	G4B	L	X	-89.248
12	G4B	L	Y	89.248
13	A3T	L	X	-19.791
14	A3T	L	Y	19.791
15	A3B	L	X	-19.791
16	A3B	L	Y	19.791
17	B3T	L	X	-13.662
18	B3T	L	Y	13.662
19	B3B	L	X	-13.662
20	B3B	L	Y	13.662
21	G3T	L	X	-25.919
22	G3T	L	Y	25.919
23	G3B	L	X	-25.919
24	G3B	L	Y	25.919
25	A3T2	L	X	-17.173
26	A3T2	L	Y	17.173
27	A3B2	L	X	-17.173
28	A3B2	L	Y	17.173
29	B3T2	L	X	-10.807
30	B3T2	L	Y	10.807
31	B3B2	L	X	-10.807
32	B3B2	L	Y	10.807
33	G3T2	L	X	-23.539
34	G3T2	L	Y	23.539
35	G3B2	L	X	-23.539
36	G3B2	L	Y	23.539
37	A2T	L	X	-75.681
38	A2T	L	Y	75.681
39	A2B	L	X	-75.681
40	A2B	L	Y	75.681
41	B2T	L	X	-53.881
42	B2T	L	Y	53.881
43	B2B	L	X	-53.881
44	B2B	L	Y	53.881
45	G2T	L	X	-97.48
46	G2T	L	Y	97.48
47	G2B	L	X	-97.48
48	G2B	L	Y	97.48
49	A2R	L	X	-26.567
50	A2R	L	Y	26.567
51	B2R	L	X	-38.844
52	B2R	L	Y	38.844
53	G2R	L	X	-14.29
54	G2R	L	Y	14.29
55	A2R2	L	X	-16.732
56	A2R2	L	Y	16.732
57	B2R2	L	X	-25.946

Joint Loads and Enforced Displacements (BLC 22 : Antenna Wind (45)) (Continued)

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2...
58	B2R2	L	Y	25.946
59	G2R2	L	X	-7.517
60	G2R2	L	Y	7.517
61	A2R2	L	X	-19.64
62	A2R2	L	Y	19.64
63	B2R2	L	X	-28.634
64	B2R2	L	Y	28.634
65	G2R2	L	X	-10.646
66	G2R2	L	Y	10.646
67	A4R	L	X	-19.844
68	A4R	L	Y	19.844
69	B4R	L	X	-27.971
70	B4R	L	Y	27.971
71	G4R	L	X	-11.717
72	G4R	L	Y	11.717
73	A2R	L	X	-28.134
74	A2R	L	Y	28.134
75	B2R	L	X	-44.231
76	B2R	L	Y	44.231
77	G2R	L	X	-12.038
78	G2R	L	Y	12.038
79	A4R	L	X	-33.617
80	A4R	L	Y	33.617
81	B4R	L	X	-47.138
82	B4R	L	Y	47.138
83	G4R	L	X	-20.095
84	G4R	L	Y	20.095
85	BRC	L	X	-17.009
86	BRC	L	Y	17.009
87	ARC	L	X	-17.003
88	ARC	L	Y	17.003
89	GRC	L	X	-55.868
90	GRC	L	Y	55.868
91	ARC2	L	X	-17.003
92	ARC2	L	Y	17.003

Joint Loads and Enforced Displacements (BLC 23 : Antenna Wind (60))

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2...
1	A4T	L	X	-39.552
2	A4T	L	Y	68.506
3	A4B	L	X	-39.552
4	A4B	L	Y	68.506
5	B4T	L	X	-39.552
6	B4T	L	Y	68.506
7	B4B	L	X	-39.552
8	B4B	L	Y	68.506
9	G4T	L	X	-65.418
10	G4T	L	Y	113.307
11	G4B	L	X	-65.418
12	G4B	L	Y	113.307
13	A3T	L	X	-11.492
14	A3T	L	Y	19.905
15	A3B	L	X	-11.492
16	A3B	L	Y	19.905
17	B3T	L	X	-11.492
18	B3T	L	Y	19.905

Joint Loads and Enforced Displacements (BLC 23 : Antenna Wind (60)) (Continued)

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2...
19	B3B	L	X	-11.492
20	B3B	L	Y	19.905
21	G3T	L	X	-18.998
22	G3T	L	Y	32.906
23	G3B	L	X	-18.998
24	G3B	L	Y	32.906
25	A3T2	L	X	-9.544
26	A3T2	L	Y	16.531
27	A3B2	L	X	-9.544
28	A3B2	L	Y	16.531
29	B3T2	L	X	-9.544
30	B3T2	L	Y	16.531
31	B3B2	L	X	-9.544
32	B3B2	L	Y	16.531
33	G3T2	L	X	-17.341
34	G3T2	L	Y	30.035
35	G3B2	L	X	-17.341
36	G3B2	L	Y	30.035
37	A2T	L	X	-44.615
38	A2T	L	Y	77.275
39	A2B	L	X	-44.615
40	A2B	L	Y	77.275
41	B2T	L	X	-44.615
42	B2T	L	Y	77.275
43	B2B	L	X	-44.615
44	B2B	L	Y	77.275
45	G2T	L	X	-71.314
46	G2T	L	Y	123.519
47	G2B	L	X	-71.314
48	G2B	L	Y	123.519
49	A2R	L	X	-23.798
50	A2R	L	Y	41.219
51	B2R	L	X	-23.798
52	B2R	L	Y	41.219
53	G2R	L	X	-8.761
54	G2R	L	Y	15.175
55	A2R2	L	X	-15.593
56	A2R2	L	Y	27.007
57	B2R2	L	X	-15.593
58	B2R2	L	Y	27.007
59	G2R2	L	X	-4.308
60	G2R2	L	Y	7.461
61	A2R2	L	X	-17.559
62	A2R2	L	Y	30.414
63	B2R2	L	X	-17.559
64	B2R2	L	Y	30.414
65	G2R2	L	X	-6.544
66	G2R2	L	Y	11.334
67	A4R	L	X	-17.35
68	A4R	L	Y	30.051
69	B4R	L	X	-17.35
70	B4R	L	Y	30.051
71	G4R	L	X	-7.396
72	G4R	L	Y	12.81
73	A2R	L	X	-26.465
74	A2R	L	Y	45.839
75	B2R	L	X	-26.465

Joint Loads and Enforced Displacements (BLC 23 : Antenna Wind (60)) (Continued)

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2...
76	B2R	L	Y	45.839
77	G2R	L	X	-6.751
78	G2R	L	Y	11.693
79	A4R	L	X	-29.291
80	A4R	L	Y	50.733
81	B4R	L	X	-29.291
82	B4R	L	Y	50.733
83	G4R	L	X	-12.731
84	G4R	L	Y	22.05
85	BRC	L	X	-12.027
86	BRC	L	Y	20.832
87	ARC	L	X	-12.023
88	ARC	L	Y	20.824
89	GRC	L	X	-44.883
90	GRC	L	Y	77.74
91	ARC2	L	X	-12.023
92	ARC2	L	Y	20.824

Joint Loads and Enforced Displacements (BLC 24 : Antenna Wind (90))

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2...
1	A4T	L	X	-1.403e-5
2	A4T	L	Y	61.861
3	A4B	L	X	-1.403e-5
4	A4B	L	Y	61.861
5	B4T	L	X	-2.576e-5
6	B4T	L	Y	113.592
7	B4B	L	X	-2.576e-5
8	B4B	L	Y	113.592
9	G4T	L	X	-2.576e-5
10	G4T	L	Y	113.592
11	G4B	L	X	-2.576e-5
12	G4B	L	Y	113.592
13	A3T	L	X	-4.078e-6
14	A3T	L	Y	17.98
15	A3B	L	X	-4.078e-6
16	A3B	L	Y	17.98
17	B3T	L	X	-7.482e-6
18	B3T	L	Y	32.992
19	B3B	L	X	-7.482e-6
20	B3B	L	Y	32.992
21	G3T	L	X	-7.482e-6
22	G3T	L	Y	32.992
23	G3B	L	X	-7.482e-6
24	G3B	L	Y	32.992
25	A3T2	L	X	-3.15e-6
26	A3T2	L	Y	13.891
27	A3B2	L	X	-3.15e-6
28	A3B2	L	Y	13.891
29	B3T2	L	X	-6.687e-6
30	B3T2	L	Y	29.484
31	B3B2	L	X	-6.687e-6
32	B3B2	L	Y	29.484
33	G3T2	L	X	-6.687e-6
34	G3T2	L	Y	29.484
35	G3B2	L	X	-6.687e-6
36	G3B2	L	Y	29.484

Joint Loads and Enforced Displacements (BLC 24 : Antenna Wind (90)) (Continued)

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2...
37	A2T	L	X	-1.62e-5
38	A2T	L	Y	71.43
39	A2B	L	X	-1.62e-5
40	A2B	L	Y	71.43
41	B2T	L	X	-2.831e-5
42	B2T	L	Y	124.828
43	B2B	L	X	-2.831e-5
44	B2B	L	Y	124.828
45	G2T	L	X	-2.831e-5
46	G2T	L	Y	124.828
47	G2B	L	X	-2.831e-5
48	G2B	L	Y	124.828
49	A2R	L	X	-1.307e-5
50	A2R	L	Y	57.62
51	B2R	L	X	-6.248e-6
52	B2R	L	Y	27.547
53	G2R	L	X	-6.248e-6
54	G2R	L	Y	27.547
55	A2R2	L	X	-8.779e-6
56	A2R2	L	Y	38.709
57	B2R2	L	X	-3.66e-6
58	B2R2	L	Y	16.139
59	G2R2	L	X	-3.66e-6
60	G2R2	L	Y	16.139
61	A2R2	L	X	-9.63e-6
62	A2R2	L	Y	42.463
63	B2R2	L	X	-4.634e-6
64	B2R2	L	Y	20.431
65	G2R2	L	X	-4.634e-6
66	G2R2	L	Y	20.431
67	A4R	L	X	-9.375e-6
68	A4R	L	Y	41.335
69	B4R	L	X	-4.86e-6
70	B4R	L	Y	21.428
71	G4R	L	X	-4.86e-6
72	G4R	L	Y	21.428
73	A2R	L	X	-1.499e-5
74	A2R	L	Y	66.073
75	B2R	L	X	-6.043e-6
76	B2R	L	Y	26.645
77	G2R	L	X	-6.043e-6
78	G2R	L	Y	26.645
79	A4R	L	X	-1.579e-5
80	A4R	L	Y	69.622
81	B4R	L	X	-8.278e-6
82	B4R	L	Y	36.501
83	G4R	L	X	-8.278e-6
84	G4R	L	Y	36.501
85	BRC	L	X	-5.455e-6
86	BRC	L	Y	24.054
87	ARC	L	X	-5.453e-6
88	ARC	L	Y	24.046
89	GRC	L	X	-2.28e-5
90	GRC	L	Y	100.523
91	ARC2	L	X	-5.453e-6
92	ARC2	L	Y	24.046

Joint Loads and Enforced Displacements (BLC 25 : Antenna Wind (120))

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2...
1	A4T	L	X	39.552
2	A4T	L	Y	68.506
3	A4B	L	X	39.552
4	A4B	L	Y	68.506
5	B4T	L	X	65.418
6	B4T	L	Y	113.307
7	B4B	L	X	65.418
8	B4B	L	Y	113.307
9	G4T	L	X	39.552
10	G4T	L	Y	68.506
11	G4B	L	X	39.552
12	G4B	L	Y	68.506
13	A3T	L	X	11.492
14	A3T	L	Y	19.905
15	A3B	L	X	11.492
16	A3B	L	Y	19.905
17	B3T	L	X	18.998
18	B3T	L	Y	32.906
19	B3B	L	X	18.998
20	B3B	L	Y	32.906
21	G3T	L	X	11.492
22	G3T	L	Y	19.905
23	G3B	L	X	11.492
24	G3B	L	Y	19.905
25	A3T2	L	X	9.544
26	A3T2	L	Y	16.531
27	A3B2	L	X	9.544
28	A3B2	L	Y	16.531
29	B3T2	L	X	17.341
30	B3T2	L	Y	30.035
31	B3B2	L	X	17.341
32	B3B2	L	Y	30.035
33	G3T2	L	X	9.544
34	G3T2	L	Y	16.531
35	G3B2	L	X	9.544
36	G3B2	L	Y	16.531
37	A2T	L	X	44.615
38	A2T	L	Y	77.275
39	A2B	L	X	44.615
40	A2B	L	Y	77.275
41	B2T	L	X	71.314
42	B2T	L	Y	123.519
43	B2B	L	X	71.314
44	B2B	L	Y	123.519
45	G2T	L	X	44.615
46	G2T	L	Y	77.275
47	G2B	L	X	44.615
48	G2B	L	Y	77.275
49	A2R	L	X	23.798
50	A2R	L	Y	41.219
51	B2R	L	X	8.761
52	B2R	L	Y	15.175
53	G2R	L	X	23.798
54	G2R	L	Y	41.219
55	A2R2	L	X	15.593
56	A2R2	L	Y	27.007
57	B2R2	L	X	4.308

Joint Loads and Enforced Displacements (BLC 25 : Antenna Wind (120)) (Continued)

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2...
58	B2R2	L	Y	7.461
59	G2R2	L	X	15.593
60	G2R2	L	Y	27.007
61	A2R2	L	X	17.559
62	A2R2	L	Y	30.414
63	B2R2	L	X	6.544
64	B2R2	L	Y	11.334
65	G2R2	L	X	17.559
66	G2R2	L	Y	30.414
67	A4R	L	X	17.35
68	A4R	L	Y	30.051
69	B4R	L	X	7.396
70	B4R	L	Y	12.81
71	G4R	L	X	17.35
72	G4R	L	Y	30.051
73	A2R	L	X	26.465
74	A2R	L	Y	45.839
75	B2R	L	X	6.751
76	B2R	L	Y	11.693
77	G2R	L	X	26.465
78	G2R	L	Y	45.839
79	A4R	L	X	29.291
80	A4R	L	Y	50.733
81	B4R	L	X	12.731
82	B4R	L	Y	22.05
83	G4R	L	X	29.291
84	G4R	L	Y	50.733
85	BRC	L	X	12.027
86	BRC	L	Y	20.832
87	ARC	L	X	12.023
88	ARC	L	Y	20.824
89	GRC	L	X	44.883
90	GRC	L	Y	77.74
91	ARC2	L	X	12.023
92	ARC2	L	Y	20.824

Joint Loads and Enforced Displacements (BLC 26 : Antenna Wind (135))

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2...
1	A4T	L	X	68.128
2	A4T	L	Y	68.128
3	A4B	L	X	68.128
4	A4B	L	Y	68.128
5	B4T	L	X	89.247
6	B4T	L	Y	89.248
7	B4B	L	X	89.247
8	B4B	L	Y	89.248
9	G4T	L	X	47.009
10	G4T	L	Y	47.009
11	G4B	L	X	47.009
12	G4B	L	Y	47.009
13	A3T	L	X	19.791
14	A3T	L	Y	19.791
15	A3B	L	X	19.791
16	A3B	L	Y	19.791
17	B3T	L	X	25.919
18	B3T	L	Y	25.919

Joint Loads and Enforced Displacements (BLC 26 : Antenna Wind (135)) (Continued)

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2...
19	B3B	L	X	25.919
20	B3B	L	Y	25.919
21	G3T	L	X	13.662
22	G3T	L	Y	13.662
23	G3B	L	X	13.662
24	G3B	L	Y	13.662
25	A3T2	L	X	17.173
26	A3T2	L	Y	17.173
27	A3B2	L	X	17.173
28	A3B2	L	Y	17.173
29	B3T2	L	X	23.539
30	B3T2	L	Y	23.539
31	B3B2	L	X	23.539
32	B3B2	L	Y	23.539
33	G3T2	L	X	10.807
34	G3T2	L	Y	10.807
35	G3B2	L	X	10.807
36	G3B2	L	Y	10.807
37	A2T	L	X	75.681
38	A2T	L	Y	75.681
39	A2B	L	X	75.681
40	A2B	L	Y	75.681
41	B2T	L	X	97.48
42	B2T	L	Y	97.48
43	B2B	L	X	97.48
44	B2B	L	Y	97.48
45	G2T	L	X	53.881
46	G2T	L	Y	53.881
47	G2B	L	X	53.881
48	G2B	L	Y	53.881
49	A2R	L	X	26.567
50	A2R	L	Y	26.567
51	B2R	L	X	14.29
52	B2R	L	Y	14.29
53	G2R	L	X	38.844
54	G2R	L	Y	38.845
55	A2R2	L	X	16.732
56	A2R2	L	Y	16.732
57	B2R2	L	X	7.517
58	B2R2	L	Y	7.517
59	G2R2	L	X	25.946
60	G2R2	L	Y	25.946
61	A2R2	L	X	19.64
62	A2R2	L	Y	19.64
63	B2R2	L	X	10.646
64	B2R2	L	Y	10.646
65	G2R2	L	X	28.634
66	G2R2	L	Y	28.634
67	A4R	L	X	19.844
68	A4R	L	Y	19.844
69	B4R	L	X	11.717
70	B4R	L	Y	11.717
71	G4R	L	X	27.971
72	G4R	L	Y	27.971
73	A2R	L	X	28.134
74	A2R	L	Y	28.134
75	B2R	L	X	12.038

Joint Loads and Enforced Displacements (BLC 26 : Antenna Wind (135)) (Continued)

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2...
76	B2R	L	Y	12.038
77	G2R	L	X	44.231
78	G2R	L	Y	44.231
79	A4R	L	X	33.617
80	A4R	L	Y	33.617
81	B4R	L	X	20.095
82	B4R	L	Y	20.095
83	G4R	L	X	47.138
84	G4R	L	Y	47.138
85	BRC	L	X	17.009
86	BRC	L	Y	17.009
87	ARC	L	X	17.003
88	ARC	L	Y	17.003
89	GRC	L	X	55.868
90	GRC	L	Y	55.868
91	ARC2	L	X	17.003
92	ARC2	L	Y	17.003

Joint Loads and Enforced Displacements (BLC 27 : Antenna Wind (150))

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2...
1	A4T	L	X	98.373
2	A4T	L	Y	56.796
3	A4B	L	X	98.373
4	A4B	L	Y	56.796
5	B4T	L	X	98.373
6	B4T	L	Y	56.796
7	B4B	L	X	98.373
8	B4B	L	Y	56.796
9	G4T	L	X	53.573
10	G4T	L	Y	30.93
11	G4B	L	X	53.573
12	G4B	L	Y	30.93
13	A3T	L	X	28.572
14	A3T	L	Y	16.496
15	A3B	L	X	28.572
16	A3B	L	Y	16.496
17	B3T	L	X	28.572
18	B3T	L	Y	16.496
19	B3B	L	X	28.572
20	B3B	L	Y	16.496
21	G3T	L	X	15.571
22	G3T	L	Y	8.99
23	G3B	L	X	15.571
24	G3B	L	Y	8.99
25	A3T2	L	X	25.534
26	A3T2	L	Y	14.742
27	A3B2	L	X	25.534
28	A3B2	L	Y	14.742
29	B3T2	L	X	25.534
30	B3T2	L	Y	14.742
31	B3B2	L	X	25.534
32	B3B2	L	Y	14.742
33	G3T2	L	X	12.03
34	G3T2	L	Y	6.945
35	G3B2	L	X	12.03
36	G3B2	L	Y	6.945

Joint Loads and Enforced Displacements (BLC 27 : Antenna Wind (150)) (Continued)

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2...
37	A2T	L	X	108.104
38	A2T	L	Y	62.414
39	A2B	L	X	108.104
40	A2B	L	Y	62.414
41	B2T	L	X	108.104
42	B2T	L	Y	62.414
43	B2B	L	X	108.104
44	B2B	L	Y	62.414
45	G2T	L	X	61.86
46	G2T	L	Y	35.715
47	G2B	L	X	61.86
48	G2B	L	Y	35.715
49	A2R	L	X	23.856
50	A2R	L	Y	13.774
51	B2R	L	X	23.856
52	B2R	L	Y	13.773
53	G2R	L	X	49.901
54	G2R	L	Y	28.81
55	A2R2	L	X	13.977
56	A2R2	L	Y	8.069
57	B2R2	L	X	13.977
58	B2R2	L	Y	8.069
59	G2R2	L	X	33.523
60	G2R2	L	Y	19.354
61	A2R2	L	X	17.694
62	A2R2	L	Y	10.216
63	B2R2	L	X	17.694
64	B2R2	L	Y	10.216
65	G2R2	L	X	36.774
66	G2R2	L	Y	21.231
67	A4R	L	X	18.557
68	A4R	L	Y	10.714
69	B4R	L	X	18.557
70	B4R	L	Y	10.714
71	G4R	L	X	35.797
72	G4R	L	Y	20.668
73	A2R	L	X	23.075
74	A2R	L	Y	13.323
75	B2R	L	X	23.075
76	B2R	L	Y	13.323
77	G2R	L	X	57.221
78	G2R	L	Y	33.037
79	A4R	L	X	31.611
80	A4R	L	Y	18.251
81	B4R	L	X	31.611
82	B4R	L	Y	18.251
83	G4R	L	X	60.294
84	G4R	L	Y	34.811
85	BRC	L	X	20.832
86	BRC	L	Y	12.027
87	ARC	L	X	20.824
88	ARC	L	Y	12.023
89	GRC	L	X	59.107
90	GRC	L	Y	34.126
91	ARC2	L	X	20.824
92	ARC2	L	Y	12.023

Joint Loads and Enforced Displacements (BLC 28 : Antenna Wind w/ Ice (0))

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2...
1	A4T	L	X	0
2	A4T	L	Y	0
3	A4B	L	X	0
4	A4B	L	Y	0
5	B4T	L	X	0
6	B4T	L	Y	0
7	B4B	L	X	0
8	B4B	L	Y	0
9	G4T	L	X	0
10	G4T	L	Y	0
11	G4B	L	X	0
12	G4B	L	Y	0
13	A3T	L	X	0
14	A3T	L	Y	0
15	A3B	L	X	0
16	A3B	L	Y	0
17	B3T	L	X	0
18	B3T	L	Y	0
19	B3B	L	X	0
20	B3B	L	Y	0
21	G3T	L	X	0
22	G3T	L	Y	0
23	G3B	L	X	0
24	G3B	L	Y	0
25	A3T2	L	X	0
26	A3T2	L	Y	0
27	A3B2	L	X	0
28	A3B2	L	Y	0
29	B3T2	L	X	0
30	B3T2	L	Y	0
31	B3B2	L	X	0
32	B3B2	L	Y	0
33	G3T2	L	X	0
34	G3T2	L	Y	0
35	G3B2	L	X	0
36	G3B2	L	Y	0
37	A2T	L	X	0
38	A2T	L	Y	0
39	A2B	L	X	0
40	A2B	L	Y	0
41	B2T	L	X	0
42	B2T	L	Y	0
43	B2B	L	X	0
44	B2B	L	Y	0
45	G2T	L	X	0
46	G2T	L	Y	0
47	G2B	L	X	0
48	G2B	L	Y	0
49	A2R	L	X	0
50	A2R	L	Y	0
51	B2R	L	X	0
52	B2R	L	Y	0
53	G2R	L	X	0
54	G2R	L	Y	0
55	A2R2	L	X	0
56	A2R2	L	Y	0
57	B2R2	L	X	0

Joint Loads and Enforced Displacements (BLC 28 : Antenna Wind w/ Ice (0)) (Continued)

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2...
58	B2R2	L	Y	0
59	G2R2	L	X	0
60	G2R2	L	Y	0
61	A2R2	L	X	0
62	A2R2	L	Y	0
63	B2R2	L	X	0
64	B2R2	L	Y	0
65	G2R2	L	X	0
66	G2R2	L	Y	0
67	A4R	L	X	0
68	A4R	L	Y	0
69	B4R	L	X	0
70	B4R	L	Y	0
71	G4R	L	X	0
72	G4R	L	Y	0
73	A2R	L	X	0
74	A2R	L	Y	0
75	B2R	L	X	0
76	B2R	L	Y	0
77	G2R	L	X	0
78	G2R	L	Y	0
79	A4R	L	X	0
80	A4R	L	Y	0
81	B4R	L	X	0
82	B4R	L	Y	0
83	G4R	L	X	0
84	G4R	L	Y	0
85	BRC	L	X	0
86	BRC	L	Y	0
87	ARC	L	X	0
88	ARC	L	Y	0
89	GRC	L	X	0
90	GRC	L	Y	0
91	ARC2	L	X	0
92	ARC2	L	Y	0

Joint Loads and Enforced Displacements (BLC 29 : Antenna Wind w/ Ice (30))

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2...
1	A4T	L	X	0
2	A4T	L	Y	0
3	A4B	L	X	0
4	A4B	L	Y	0
5	B4T	L	X	0
6	B4T	L	Y	0
7	B4B	L	X	0
8	B4B	L	Y	0
9	G4T	L	X	0
10	G4T	L	Y	0
11	G4B	L	X	0
12	G4B	L	Y	0
13	A3T	L	X	0
14	A3T	L	Y	0
15	A3B	L	X	0
16	A3B	L	Y	0
17	B3T	L	X	0
18	B3T	L	Y	0

Joint Loads and Enforced Displacements (BLC 29 : Antenna Wind w/ Ice (30)) (Continued)

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2...
19	B3B	L	X	0
20	B3B	L	Y	0
21	G3T	L	X	0
22	G3T	L	Y	0
23	G3B	L	X	0
24	G3B	L	Y	0
25	A3T2	L	X	0
26	A3T2	L	Y	0
27	A3B2	L	X	0
28	A3B2	L	Y	0
29	B3T2	L	X	0
30	B3T2	L	Y	0
31	B3B2	L	X	0
32	B3B2	L	Y	0
33	G3T2	L	X	0
34	G3T2	L	Y	0
35	G3B2	L	X	0
36	G3B2	L	Y	0
37	A2T	L	X	0
38	A2T	L	Y	0
39	A2B	L	X	0
40	A2B	L	Y	0
41	B2T	L	X	0
42	B2T	L	Y	0
43	B2B	L	X	0
44	B2B	L	Y	0
45	G2T	L	X	0
46	G2T	L	Y	0
47	G2B	L	X	0
48	G2B	L	Y	0
49	A2R	L	X	0
50	A2R	L	Y	0
51	B2R	L	X	0
52	B2R	L	Y	0
53	G2R	L	X	0
54	G2R	L	Y	0
55	A2R2	L	X	0
56	A2R2	L	Y	0
57	B2R2	L	X	0
58	B2R2	L	Y	0
59	G2R2	L	X	0
60	G2R2	L	Y	0
61	A2R2	L	X	0
62	A2R2	L	Y	0
63	B2R2	L	X	0
64	B2R2	L	Y	0
65	G2R2	L	X	0
66	G2R2	L	Y	0
67	A4R	L	X	0
68	A4R	L	Y	0
69	B4R	L	X	0
70	B4R	L	Y	0
71	G4R	L	X	0
72	G4R	L	Y	0
73	A2R	L	X	0
74	A2R	L	Y	0
75	B2R	L	X	0

Joint Loads and Enforced Displacements (BLC 29 : Antenna Wind w/ Ice (30)) (Continued)

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2...
76	B2R	L	Y	0
77	G2R	L	X	0
78	G2R	L	Y	0
79	A4R	L	X	0
80	A4R	L	Y	0
81	B4R	L	X	0
82	B4R	L	Y	0
83	G4R	L	X	0
84	G4R	L	Y	0
85	BRC	L	X	0
86	BRC	L	Y	0
87	ARC	L	X	0
88	ARC	L	Y	0
89	GRC	L	X	0
90	GRC	L	Y	0
91	ARC2	L	X	0
92	ARC2	L	Y	0

Joint Loads and Enforced Displacements (BLC 30 : Antenna Wind w/ Ice (45))

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2...
1	A4T	L	X	0
2	A4T	L	Y	0
3	A4B	L	X	0
4	A4B	L	Y	0
5	B4T	L	X	0
6	B4T	L	Y	0
7	B4B	L	X	0
8	B4B	L	Y	0
9	G4T	L	X	0
10	G4T	L	Y	0
11	G4B	L	X	0
12	G4B	L	Y	0
13	A3T	L	X	0
14	A3T	L	Y	0
15	A3B	L	X	0
16	A3B	L	Y	0
17	B3T	L	X	0
18	B3T	L	Y	0
19	B3B	L	X	0
20	B3B	L	Y	0
21	G3T	L	X	0
22	G3T	L	Y	0
23	G3B	L	X	0
24	G3B	L	Y	0
25	A3T2	L	X	0
26	A3T2	L	Y	0
27	A3B2	L	X	0
28	A3B2	L	Y	0
29	B3T2	L	X	0
30	B3T2	L	Y	0
31	B3B2	L	X	0
32	B3B2	L	Y	0
33	G3T2	L	X	0
34	G3T2	L	Y	0
35	G3B2	L	X	0
36	G3B2	L	Y	0

Joint Loads and Enforced Displacements (BLC 30 : Antenna Wind w/ Ice (45)) (Continued)

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2...
37	A2T	L	X	0
38	A2T	L	Y	0
39	A2B	L	X	0
40	A2B	L	Y	0
41	B2T	L	X	0
42	B2T	L	Y	0
43	B2B	L	X	0
44	B2B	L	Y	0
45	G2T	L	X	0
46	G2T	L	Y	0
47	G2B	L	X	0
48	G2B	L	Y	0
49	A2R	L	X	0
50	A2R	L	Y	0
51	B2R	L	X	0
52	B2R	L	Y	0
53	G2R	L	X	0
54	G2R	L	Y	0
55	A2R2	L	X	0
56	A2R2	L	Y	0
57	B2R2	L	X	0
58	B2R2	L	Y	0
59	G2R2	L	X	0
60	G2R2	L	Y	0
61	A2R2	L	X	0
62	A2R2	L	Y	0
63	B2R2	L	X	0
64	B2R2	L	Y	0
65	G2R2	L	X	0
66	G2R2	L	Y	0
67	A4R	L	X	0
68	A4R	L	Y	0
69	B4R	L	X	0
70	B4R	L	Y	0
71	G4R	L	X	0
72	G4R	L	Y	0
73	A2R	L	X	0
74	A2R	L	Y	0
75	B2R	L	X	0
76	B2R	L	Y	0
77	G2R	L	X	0
78	G2R	L	Y	0
79	A4R	L	X	0
80	A4R	L	Y	0
81	B4R	L	X	0
82	B4R	L	Y	0
83	G4R	L	X	0
84	G4R	L	Y	0
85	BRC	L	X	0
86	BRC	L	Y	0
87	ARC	L	X	0
88	ARC	L	Y	0
89	GRC	L	X	0
90	GRC	L	Y	0
91	ARC2	L	X	0
92	ARC2	L	Y	0

Joint Loads and Enforced Displacements (BLC 31 : Antenna Wind w/ Ice (60))

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2...
1	A4T	L	X	0
2	A4T	L	Y	0
3	A4B	L	X	0
4	A4B	L	Y	0
5	B4T	L	X	0
6	B4T	L	Y	0
7	B4B	L	X	0
8	B4B	L	Y	0
9	G4T	L	X	0
10	G4T	L	Y	0
11	G4B	L	X	0
12	G4B	L	Y	0
13	A3T	L	X	0
14	A3T	L	Y	0
15	A3B	L	X	0
16	A3B	L	Y	0
17	B3T	L	X	0
18	B3T	L	Y	0
19	B3B	L	X	0
20	B3B	L	Y	0
21	G3T	L	X	0
22	G3T	L	Y	0
23	G3B	L	X	0
24	G3B	L	Y	0
25	A3T2	L	X	0
26	A3T2	L	Y	0
27	A3B2	L	X	0
28	A3B2	L	Y	0
29	B3T2	L	X	0
30	B3T2	L	Y	0
31	B3B2	L	X	0
32	B3B2	L	Y	0
33	G3T2	L	X	0
34	G3T2	L	Y	0
35	G3B2	L	X	0
36	G3B2	L	Y	0
37	A2T	L	X	0
38	A2T	L	Y	0
39	A2B	L	X	0
40	A2B	L	Y	0
41	B2T	L	X	0
42	B2T	L	Y	0
43	B2B	L	X	0
44	B2B	L	Y	0
45	G2T	L	X	0
46	G2T	L	Y	0
47	G2B	L	X	0
48	G2B	L	Y	0
49	A2R	L	X	0
50	A2R	L	Y	0
51	B2R	L	X	0
52	B2R	L	Y	0
53	G2R	L	X	0
54	G2R	L	Y	0
55	A2R2	L	X	0
56	A2R2	L	Y	0
57	B2R2	L	X	0

Joint Loads and Enforced Displacements (BLC 31 : Antenna Wind w/ Ice (60)) (Continued)

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2...
58	B2R2	L	Y	0
59	G2R2	L	X	0
60	G2R2	L	Y	0
61	A2R2	L	X	0
62	A2R2	L	Y	0
63	B2R2	L	X	0
64	B2R2	L	Y	0
65	G2R2	L	X	0
66	G2R2	L	Y	0
67	A4R	L	X	0
68	A4R	L	Y	0
69	B4R	L	X	0
70	B4R	L	Y	0
71	G4R	L	X	0
72	G4R	L	Y	0
73	A2R	L	X	0
74	A2R	L	Y	0
75	B2R	L	X	0
76	B2R	L	Y	0
77	G2R	L	X	0
78	G2R	L	Y	0
79	A4R	L	X	0
80	A4R	L	Y	0
81	B4R	L	X	0
82	B4R	L	Y	0
83	G4R	L	X	0
84	G4R	L	Y	0
85	BRC	L	X	0
86	BRC	L	Y	0
87	ARC	L	X	0
88	ARC	L	Y	0
89	GRC	L	X	0
90	GRC	L	Y	0
91	ARC2	L	X	0
92	ARC2	L	Y	0

Joint Loads and Enforced Displacements (BLC 32 : Antenna Wind w/ Ice (90))

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2...
1	A4T	L	X	0
2	A4T	L	Y	0
3	A4B	L	X	0
4	A4B	L	Y	0
5	B4T	L	X	0
6	B4T	L	Y	0
7	B4B	L	X	0
8	B4B	L	Y	0
9	G4T	L	X	0
10	G4T	L	Y	0
11	G4B	L	X	0
12	G4B	L	Y	0
13	A3T	L	X	0
14	A3T	L	Y	0
15	A3B	L	X	0
16	A3B	L	Y	0
17	B3T	L	X	0
18	B3T	L	Y	0

Joint Loads and Enforced Displacements (BLC 32 : Antenna Wind w/ Ice (90)) (Continued)

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2...
19	B3B	L	X	0
20	B3B	L	Y	0
21	G3T	L	X	0
22	G3T	L	Y	0
23	G3B	L	X	0
24	G3B	L	Y	0
25	A3T2	L	X	0
26	A3T2	L	Y	0
27	A3B2	L	X	0
28	A3B2	L	Y	0
29	B3T2	L	X	0
30	B3T2	L	Y	0
31	B3B2	L	X	0
32	B3B2	L	Y	0
33	G3T2	L	X	0
34	G3T2	L	Y	0
35	G3B2	L	X	0
36	G3B2	L	Y	0
37	A2T	L	X	0
38	A2T	L	Y	0
39	A2B	L	X	0
40	A2B	L	Y	0
41	B2T	L	X	0
42	B2T	L	Y	0
43	B2B	L	X	0
44	B2B	L	Y	0
45	G2T	L	X	0
46	G2T	L	Y	0
47	G2B	L	X	0
48	G2B	L	Y	0
49	A2R	L	X	0
50	A2R	L	Y	0
51	B2R	L	X	0
52	B2R	L	Y	0
53	G2R	L	X	0
54	G2R	L	Y	0
55	A2R2	L	X	0
56	A2R2	L	Y	0
57	B2R2	L	X	0
58	B2R2	L	Y	0
59	G2R2	L	X	0
60	G2R2	L	Y	0
61	A2R2	L	X	0
62	A2R2	L	Y	0
63	B2R2	L	X	0
64	B2R2	L	Y	0
65	G2R2	L	X	0
66	G2R2	L	Y	0
67	A4R	L	X	0
68	A4R	L	Y	0
69	B4R	L	X	0
70	B4R	L	Y	0
71	G4R	L	X	0
72	G4R	L	Y	0
73	A2R	L	X	0
74	A2R	L	Y	0
75	B2R	L	X	0

Joint Loads and Enforced Displacements (BLC 32 : Antenna Wind w/ Ice (90)) (Continued)

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2...
76	B2R	L	Y	0
77	G2R	L	X	0
78	G2R	L	Y	0
79	A4R	L	X	0
80	A4R	L	Y	0
81	B4R	L	X	0
82	B4R	L	Y	0
83	G4R	L	X	0
84	G4R	L	Y	0
85	BRC	L	X	0
86	BRC	L	Y	0
87	ARC	L	X	0
88	ARC	L	Y	0
89	GRC	L	X	0
90	GRC	L	Y	0
91	ARC2	L	X	0
92	ARC2	L	Y	0

Joint Loads and Enforced Displacements (BLC 33 : Antenna Wind w/ Ice (120))

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2...
1	A4T	L	X	0
2	A4T	L	Y	0
3	A4B	L	X	0
4	A4B	L	Y	0
5	B4T	L	X	0
6	B4T	L	Y	0
7	B4B	L	X	0
8	B4B	L	Y	0
9	G4T	L	X	0
10	G4T	L	Y	0
11	G4B	L	X	0
12	G4B	L	Y	0
13	A3T	L	X	0
14	A3T	L	Y	0
15	A3B	L	X	0
16	A3B	L	Y	0
17	B3T	L	X	0
18	B3T	L	Y	0
19	B3B	L	X	0
20	B3B	L	Y	0
21	G3T	L	X	0
22	G3T	L	Y	0
23	G3B	L	X	0
24	G3B	L	Y	0
25	A3T2	L	X	0
26	A3T2	L	Y	0
27	A3B2	L	X	0
28	A3B2	L	Y	0
29	B3T2	L	X	0
30	B3T2	L	Y	0
31	B3B2	L	X	0
32	B3B2	L	Y	0
33	G3T2	L	X	0
34	G3T2	L	Y	0
35	G3B2	L	X	0
36	G3B2	L	Y	0

Joint Loads and Enforced Displacements (BLC 33 : Antenna Wind w/ Ice (120)) (Continued)

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2...
37	A2T	L	X	0
38	A2T	L	Y	0
39	A2B	L	X	0
40	A2B	L	Y	0
41	B2T	L	X	0
42	B2T	L	Y	0
43	B2B	L	X	0
44	B2B	L	Y	0
45	G2T	L	X	0
46	G2T	L	Y	0
47	G2B	L	X	0
48	G2B	L	Y	0
49	A2R	L	X	0
50	A2R	L	Y	0
51	B2R	L	X	0
52	B2R	L	Y	0
53	G2R	L	X	0
54	G2R	L	Y	0
55	A2R2	L	X	0
56	A2R2	L	Y	0
57	B2R2	L	X	0
58	B2R2	L	Y	0
59	G2R2	L	X	0
60	G2R2	L	Y	0
61	A2R2	L	X	0
62	A2R2	L	Y	0
63	B2R2	L	X	0
64	B2R2	L	Y	0
65	G2R2	L	X	0
66	G2R2	L	Y	0
67	A4R	L	X	0
68	A4R	L	Y	0
69	B4R	L	X	0
70	B4R	L	Y	0
71	G4R	L	X	0
72	G4R	L	Y	0
73	A2R	L	X	0
74	A2R	L	Y	0
75	B2R	L	X	0
76	B2R	L	Y	0
77	G2R	L	X	0
78	G2R	L	Y	0
79	A4R	L	X	0
80	A4R	L	Y	0
81	B4R	L	X	0
82	B4R	L	Y	0
83	G4R	L	X	0
84	G4R	L	Y	0
85	BRC	L	X	0
86	BRC	L	Y	0
87	ARC	L	X	0
88	ARC	L	Y	0
89	GRC	L	X	0
90	GRC	L	Y	0
91	ARC2	L	X	0
92	ARC2	L	Y	0

Joint Loads and Enforced Displacements (BLC 34 : Antenna Wind w/ Ice (135))

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2...
1	A4T	L	X	0
2	A4T	L	Y	0
3	A4B	L	X	0
4	A4B	L	Y	0
5	B4T	L	X	0
6	B4T	L	Y	0
7	B4B	L	X	0
8	B4B	L	Y	0
9	G4T	L	X	0
10	G4T	L	Y	0
11	G4B	L	X	0
12	G4B	L	Y	0
13	A3T	L	X	0
14	A3T	L	Y	0
15	A3B	L	X	0
16	A3B	L	Y	0
17	B3T	L	X	0
18	B3T	L	Y	0
19	B3B	L	X	0
20	B3B	L	Y	0
21	G3T	L	X	0
22	G3T	L	Y	0
23	G3B	L	X	0
24	G3B	L	Y	0
25	A3T2	L	X	0
26	A3T2	L	Y	0
27	A3B2	L	X	0
28	A3B2	L	Y	0
29	B3T2	L	X	0
30	B3T2	L	Y	0
31	B3B2	L	X	0
32	B3B2	L	Y	0
33	G3T2	L	X	0
34	G3T2	L	Y	0
35	G3B2	L	X	0
36	G3B2	L	Y	0
37	A2T	L	X	0
38	A2T	L	Y	0
39	A2B	L	X	0
40	A2B	L	Y	0
41	B2T	L	X	0
42	B2T	L	Y	0
43	B2B	L	X	0
44	B2B	L	Y	0
45	G2T	L	X	0
46	G2T	L	Y	0
47	G2B	L	X	0
48	G2B	L	Y	0
49	A2R	L	X	0
50	A2R	L	Y	0
51	B2R	L	X	0
52	B2R	L	Y	0
53	G2R	L	X	0
54	G2R	L	Y	0
55	A2R2	L	X	0
56	A2R2	L	Y	0
57	B2R2	L	X	0

Joint Loads and Enforced Displacements (BLC 34 : Antenna Wind w/ Ice (135)) (Continued)

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2...
58	B2R2	L	Y	0
59	G2R2	L	X	0
60	G2R2	L	Y	0
61	A2R2	L	X	0
62	A2R2	L	Y	0
63	B2R2	L	X	0
64	B2R2	L	Y	0
65	G2R2	L	X	0
66	G2R2	L	Y	0
67	A4R	L	X	0
68	A4R	L	Y	0
69	B4R	L	X	0
70	B4R	L	Y	0
71	G4R	L	X	0
72	G4R	L	Y	0
73	A2R	L	X	0
74	A2R	L	Y	0
75	B2R	L	X	0
76	B2R	L	Y	0
77	G2R	L	X	0
78	G2R	L	Y	0
79	A4R	L	X	0
80	A4R	L	Y	0
81	B4R	L	X	0
82	B4R	L	Y	0
83	G4R	L	X	0
84	G4R	L	Y	0
85	BRC	L	X	0
86	BRC	L	Y	0
87	ARC	L	X	0
88	ARC	L	Y	0
89	GRC	L	X	0
90	GRC	L	Y	0
91	ARC2	L	X	0
92	ARC2	L	Y	0

Joint Loads and Enforced Displacements (BLC 35 : Antenna Wind w/ Ice (150))

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2...
1	A4T	L	X	0
2	A4T	L	Y	0
3	A4B	L	X	0
4	A4B	L	Y	0
5	B4T	L	X	0
6	B4T	L	Y	0
7	B4B	L	X	0
8	B4B	L	Y	0
9	G4T	L	X	0
10	G4T	L	Y	0
11	G4B	L	X	0
12	G4B	L	Y	0
13	A3T	L	X	0
14	A3T	L	Y	0
15	A3B	L	X	0
16	A3B	L	Y	0
17	B3T	L	X	0
18	B3T	L	Y	0

Joint Loads and Enforced Displacements (BLC 35 : Antenna Wind w/ Ice (150)) (Continued)

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2...
19	B3B	L	X	0
20	B3B	L	Y	0
21	G3T	L	X	0
22	G3T	L	Y	0
23	G3B	L	X	0
24	G3B	L	Y	0
25	A3T2	L	X	0
26	A3T2	L	Y	0
27	A3B2	L	X	0
28	A3B2	L	Y	0
29	B3T2	L	X	0
30	B3T2	L	Y	0
31	B3B2	L	X	0
32	B3B2	L	Y	0
33	G3T2	L	X	0
34	G3T2	L	Y	0
35	G3B2	L	X	0
36	G3B2	L	Y	0
37	A2T	L	X	0
38	A2T	L	Y	0
39	A2B	L	X	0
40	A2B	L	Y	0
41	B2T	L	X	0
42	B2T	L	Y	0
43	B2B	L	X	0
44	B2B	L	Y	0
45	G2T	L	X	0
46	G2T	L	Y	0
47	G2B	L	X	0
48	G2B	L	Y	0
49	A2R	L	X	0
50	A2R	L	Y	0
51	B2R	L	X	0
52	B2R	L	Y	0
53	G2R	L	X	0
54	G2R	L	Y	0
55	A2R2	L	X	0
56	A2R2	L	Y	0
57	B2R2	L	X	0
58	B2R2	L	Y	0
59	G2R2	L	X	0
60	G2R2	L	Y	0
61	A2R2	L	X	0
62	A2R2	L	Y	0
63	B2R2	L	X	0
64	B2R2	L	Y	0
65	G2R2	L	X	0
66	G2R2	L	Y	0
67	A4R	L	X	0
68	A4R	L	Y	0
69	B4R	L	X	0
70	B4R	L	Y	0
71	G4R	L	X	0
72	G4R	L	Y	0
73	A2R	L	X	0
74	A2R	L	Y	0
75	B2R	L	X	0

Joint Loads and Enforced Displacements (BLC 35 : Antenna Wind w/ Ice (150)) (Continued)

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2...
76	B2R	L	Y	0
77	G2R	L	X	0
78	G2R	L	Y	0
79	A4R	L	X	0
80	A4R	L	Y	0
81	B4R	L	X	0
82	B4R	L	Y	0
83	G4R	L	X	0
84	G4R	L	Y	0
85	BRC	L	X	0
86	BRC	L	Y	0
87	ARC	L	X	0
88	ARC	L	Y	0
89	GRC	L	X	0
90	GRC	L	Y	0
91	ARC2	L	X	0
92	ARC2	L	Y	0

Joint Loads and Enforced Displacements (BLC 36 : Maintenance Live Lm (1))

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2...
1	M1	L	Z	-500

Joint Loads and Enforced Displacements (BLC 37 : Maintenance Live Lm (2))

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2...
1	M2	L	Z	-500

Joint Loads and Enforced Displacements (BLC 38 : Maintenance Live Lm (3))

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2...
1	M3	L	Z	-500

Joint Loads and Enforced Displacements (BLC 39 : Maintenance Live Lm (4))

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2...
1	M4	L	Z	-500

Member Distributed Loads (BLC 2 : Dead of Ice)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
1	M51	Z	0	0	0	0
2	M60	Z	0	0	0	0
3	M63	Z	0	0	0	0
4	M69	Z	0	0	0	0
5	M72	Z	0	0	0	0
6	M75	Z	0	0	0	0
7	M92	Z	0	0	0	0
8	M94	Z	0	0	0	0
9	M98	Z	0	0	0	0
10	M100	Z	0	0	0	0
11	M104	Z	0	0	0	0
12	M106	Z	0	0	0	0
13	M109	Z	0	0	0	0
14	M110	Z	0	0	0	0
15	M111	Z	0	0	0	0
16	M116	Z	0	0	0	0
17	M121	Z	0	0	0	0

Member Distributed Loads (BLC 2 : Dead of Ice) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
18	M126	Z	0	0	0	0
19	M129	Z	0	0	0	0
20	M133	Z	0	0	0	0
21	M137	Z	0	0	0	0
22	M141	Z	0	0	0	0
23	M145	Z	0	0	0	0
24	M149	Z	0	0	0	0
25	M163	Z	0	0	0	0
26	M189A	Z	0	0	0	0
27	M209	Z	0	0	0	0
28	M245A	Z	0	0	0	0
29	M246A	Z	0	0	0	0
30	M279	Z	0	0	0	0
31	M280	Z	0	0	0	0
32	M261A	Z	0	0	0	0
33	M267A	Z	0	0	0	0
34	M273A	Z	0	0	0	0
35	KM5	Z	0	0	0	0
36	KM6	Z	0	0	0	0
37	KM11	Z	0	0	0	0
38	KM12	Z	0	0	0	0
39	KM17	Z	0	0	0	0
40	KM18	Z	0	0	0	0
41	M387A	Z	0	0	0	0
42	M388A	Z	0	0	0	0
43	M341	Z	0	0	0	0
44	M346A	Z	0	0	0	0
45	M352A	Z	0	0	0	0
46	M358B	Z	0	0	0	0
47	M367B	Z	0	0	0	0
48	M369B	Z	0	0	0	0
49	M374	Z	0	0	0	0
50	M379A	Z	0	0	0	0
51	M385	Z	0	0	0	0
52	M391A	Z	0	0	0	0
53	M400	Z	0	0	0	0
54	M402	Z	0	0	0	0

Member Distributed Loads (BLC 4 : Structure Wind (0))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
1	M51	X	-4.837e-16	-4.837e-16	0	0
2	M51	Y	0	0	0	0
3	M60	X	-14.006	-14.006	0	0
4	M60	Y	0	0	0	0
5	M63	X	-14.006	-14.006	0	0
6	M63	Y	0	0	0	0
7	M69	X	-7.353	-7.353	0	0
8	M69	Y	0	0	0	0
9	M72	X	-1.838	-1.838	0	0
10	M72	Y	0	0	0	0
11	M75	X	-1.838	-1.838	0	0
12	M75	Y	0	0	0	0
13	M92	X	-7.003	-7.003	0	0
14	M92	Y	0	0	0	0
15	M94	X	-1.751	-1.751	0	0
16	M94	Y	0	0	0	0

Member Distributed Loads (BLC 4 : Structure Wind (0)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
17	M98	X	-1.751	-1.751	0	0
18	M98	Y	0	0	0	0
19	M100	X	-7.003	-7.003	0	0
20	M100	Y	0	0	0	0
21	M104	X	-1.751	-1.751	0	0
22	M104	Y	0	0	0	0
23	M106	X	-1.751	-1.751	0	0
24	M106	Y	0	0	0	0
25	M109	X	-2.188	-2.188	0	0
26	M109	Y	0	0	0	0
27	M110	X	-8.754	-8.754	0	0
28	M110	Y	0	0	0	0
29	M111	X	-2.188	-2.188	0	0
30	M111	Y	0	0	0	0
31	M116	X	-4.99	-4.99	0	0
32	M116	Y	0	0	0	0
33	M121	X	-1.247	-1.247	0	0
34	M121	Y	0	0	0	0
35	M126	X	-1.247	-1.247	0	0
36	M126	Y	0	0	0	0
37	M129	X	-21.009	-21.009	0	0
38	M129	Y	0	0	0	0
39	M133	X	-21.009	-21.009	0	0
40	M133	Y	0	0	0	0
41	M137	X	-5.252	-5.252	0	0
42	M137	Y	0	0	0	0
43	M141	X	-5.252	-5.252	0	0
44	M141	Y	0	0	0	0
45	M145	X	-5.252	-5.252	0	0
46	M145	Y	0	0	0	0
47	M149	X	-5.252	-5.252	0	0
48	M149	Y	0	0	0	0
49	M163	X	-4.99	-4.99	0	0
50	M163	Y	0	0	0	0
51	M189A	X	-10.504	-10.504	0	0
52	M189A	Y	0	0	0	0
53	M209	X	-10.504	-10.504	0	0
54	M209	Y	0	0	0	0
55	M245A	X	-3.501	-3.501	0	0
56	M245A	Y	0	0	0	0
57	M246A	X	-3.501	-3.501	0	0
58	M246A	Y	0	0	0	0
59	M279	X	-3.501	-3.501	0	0
60	M279	Y	0	0	0	0
61	M280	X	-3.501	-3.501	0	0
62	M280	Y	0	0	0	0
63	M261A	X	-4.99	-4.99	0	0
64	M261A	Y	0	0	0	0
65	M267A	X	-4.99	-4.99	0	0
66	M267A	Y	0	0	0	0
67	M273A	X	-4.99	-4.99	0	0
68	M273A	Y	0	0	0	0
69	KM5	X	-4.126	-4.126	0	0
70	KM5	Y	0	0	0	0
71	KM6	X	-4.126	-4.126	0	0
72	KM6	Y	0	0	0	0
73	KM11	X	-7.597	-7.597	0	0

Member Distributed Loads (BLC 4 : Structure Wind (0)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
74	KM11	Y	0	0	0	0
75	KM12	X	-7.597	-7.597	0	0
76	KM12	Y	0	0	0	0
77	KM17	X	-7.597	-7.597	0	0
78	KM17	Y	0	0	0	0
79	KM18	X	-7.597	-7.597	0	0
80	KM18	Y	0	0	0	0
81	M387A	X	-4.989	-4.989	0	0
82	M387A	Y	0	0	0	0
83	M388A	X	-4.99	-4.99	0	0
84	M388A	Y	0	0	0	0
85	M341	X	-4.99	-4.99	0	0
86	M341	Y	0	0	0	0
87	M346A	X	-4.99	-4.99	0	0
88	M346A	Y	0	0	0	0
89	M352A	X	-4.99	-4.99	0	0
90	M352A	Y	0	0	0	0
91	M358B	X	-4.99	-4.99	0	0
92	M358B	Y	0	0	0	0
93	M367B	X	-4.989	-4.989	0	0
94	M367B	Y	0	0	0	0
95	M369B	X	-4.99	-4.99	0	0
96	M369B	Y	0	0	0	0
97	M374	X	-4.99	-4.99	0	0
98	M374	Y	0	0	0	0
99	M379A	X	-4.99	-4.99	0	0
100	M379A	Y	0	0	0	0
101	M385	X	-4.99	-4.99	0	0
102	M385	Y	0	0	0	0
103	M391A	X	-4.99	-4.99	0	0
104	M391A	Y	0	0	0	0
105	M400	X	-4.989	-4.989	0	0
106	M400	Y	0	0	0	0
107	M402	X	-4.99	-4.99	0	0
108	M402	Y	0	0	0	0

Member Distributed Loads (BLC 5 : Structure Wind (30))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
1	M51	X	-3.032	-3.032	0	0
2	M51	Y	1.751	1.751	0	0
3	M60	X	-9.097	-9.097	0	0
4	M60	Y	5.252	5.252	0	0
5	M63	X	-9.097	-9.097	0	0
6	M63	Y	5.252	5.252	0	0
7	M69	X	-4.776	-4.776	0	0
8	M69	Y	2.757	2.757	0	0
9	M72	X	-4.776	-4.776	0	0
10	M72	Y	2.757	2.757	0	0
11	M75	X	-3.639e-14	-3.639e-14	0	0
12	M75	Y	2.101e-14	2.101e-14	0	0
13	M92	X	-4.549	-4.549	0	0
14	M92	Y	2.626	2.626	0	0
15	M94	X	-2.906e-10	-2.906e-10	0	0
16	M94	Y	1.678e-10	1.678e-10	0	0
17	M98	X	-4.549	-4.549	0	0
18	M98	Y	2.626	2.626	0	0

Member Distributed Loads (BLC 5 : Structure Wind (30)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
19	M100	X	-4.549	-4.549	0	0
20	M100	Y	2.626	2.626	0	0
21	M104	X	-4.17e-14	-4.17e-14	0	0
22	M104	Y	2.408e-14	2.408e-14	0	0
23	M106	X	-4.549	-4.549	0	0
24	M106	Y	2.626	2.626	0	0
25	M109	X	-4.333e-14	-4.333e-14	0	0
26	M109	Y	2.501e-14	2.501e-14	0	0
27	M110	X	-5.686	-5.686	0	0
28	M110	Y	3.283	3.283	0	0
29	M111	X	-5.686	-5.686	0	0
30	M111	Y	3.283	3.283	0	0
31	M116	X	-3.241	-3.241	0	0
32	M116	Y	1.871	1.871	0	0
33	M121	X	-3.241	-3.241	0	0
34	M121	Y	1.871	1.871	0	0
35	M126	X	-2.47e-14	-2.47e-14	0	0
36	M126	Y	1.426e-14	1.426e-14	0	0
37	M129	X	-13.646	-13.646	0	0
38	M129	Y	7.878	7.878	0	0
39	M133	X	-13.646	-13.646	0	0
40	M133	Y	7.878	7.878	0	0
41	M137	X	-13.646	-13.646	0	0
42	M137	Y	7.878	7.878	0	0
43	M141	X	-13.646	-13.646	0	0
44	M141	Y	7.878	7.878	0	0
45	M145	X	-1.04e-13	-1.04e-13	0	0
46	M145	Y	6.004e-14	6.004e-14	0	0
47	M149	X	-1.04e-13	-1.04e-13	0	0
48	M149	Y	6.003e-14	6.003e-14	0	0
49	M163	X	-4.321	-4.321	0	0
50	M163	Y	2.495	2.495	0	0
51	M189A	X	-3.032	-3.032	0	0
52	M189A	Y	1.751	1.751	0	0
53	M209	X	-12.13	-12.13	0	0
54	M209	Y	7.003	7.003	0	0
55	M245A	X	-9.097	-9.097	0	0
56	M245A	Y	5.252	5.252	0	0
57	M246A	X	-9.097	-9.097	0	0
58	M246A	Y	5.252	5.252	0	0
59	M279	X	-6.932e-14	-6.932e-14	0	0
60	M279	Y	4.002e-14	4.002e-14	0	0
61	M280	X	-6.932e-14	-6.932e-14	0	0
62	M280	Y	4.002e-14	4.002e-14	0	0
63	M261A	X	-4.321	-4.321	0	0
64	M261A	Y	2.495	2.495	0	0
65	M267A	X	-4.321	-4.321	0	0
66	M267A	Y	2.495	2.495	0	0
67	M273A	X	-4.321	-4.321	0	0
68	M273A	Y	2.495	2.495	0	0
69	KM5	X	-4.575	-4.575	0	0
70	KM5	Y	2.641	2.641	0	0
71	KM6	X	-4.575	-4.575	0	0
72	KM6	Y	2.641	2.641	0	0
73	KM11	X	-4.575	-4.575	0	0
74	KM11	Y	2.641	2.641	0	0
75	KM12	X	-4.575	-4.575	0	0

Member Distributed Loads (BLC 5 : Structure Wind (30)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
76	KM12	Y	2.641	2.641	0	0
77	KM17	X	-7.581	-7.581	0	0
78	KM17	Y	4.377	4.377	0	0
79	KM18	X	-7.581	-7.581	0	0
80	KM18	Y	4.377	4.377	0	0
81	M387A	X	-4.321	-4.321	0	0
82	M387A	Y	2.495	2.495	0	0
83	M388A	X	-4.321	-4.321	0	0
84	M388A	Y	2.495	2.495	0	0
85	M341	X	-4.321	-4.321	0	0
86	M341	Y	2.495	2.495	0	0
87	M346A	X	-4.321	-4.321	0	0
88	M346A	Y	2.495	2.495	0	0
89	M352A	X	-4.321	-4.321	0	0
90	M352A	Y	2.495	2.495	0	0
91	M358B	X	-4.321	-4.321	0	0
92	M358B	Y	2.495	2.495	0	0
93	M367B	X	-4.321	-4.321	0	0
94	M367B	Y	2.495	2.495	0	0
95	M369B	X	-4.321	-4.321	0	0
96	M369B	Y	2.495	2.495	0	0
97	M374	X	-4.321	-4.321	0	0
98	M374	Y	2.495	2.495	0	0
99	M379A	X	-4.321	-4.321	0	0
100	M379A	Y	2.495	2.495	0	0
101	M385	X	-4.321	-4.321	0	0
102	M385	Y	2.495	2.495	0	0
103	M391A	X	-4.321	-4.321	0	0
104	M391A	Y	2.495	2.495	0	0
105	M400	X	-4.321	-4.321	0	0
106	M400	Y	2.495	2.495	0	0
107	M402	X	-4.321	-4.321	0	0
108	M402	Y	2.495	2.495	0	0

Member Distributed Loads (BLC 6 : Structure Wind (45))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
1	M51	X	-4.952	-4.952	0	0
2	M51	Y	4.952	4.952	0	0
3	M60	X	-4.952	-4.952	0	0
4	M60	Y	4.952	4.952	0	0
5	M63	X	-4.952	-4.952	0	0
6	M63	Y	4.952	4.952	0	0
7	M69	X	-2.6	-2.6	0	0
8	M69	Y	2.6	2.6	0	0
9	M72	X	-4.851	-4.851	0	0
10	M72	Y	4.851	4.851	0	0
11	M75	X	-.348	-.348	0	0
12	M75	Y	.348	.348	0	0
13	M92	X	-2.476	-2.476	0	0
14	M92	Y	2.476	2.476	0	0
15	M94	X	-.332	-.332	0	0
16	M94	Y	.332	.332	0	0
17	M98	X	-4.62	-4.62	0	0
18	M98	Y	4.62	4.62	0	0
19	M100	X	-2.476	-2.476	0	0
20	M100	Y	2.476	2.476	0	0

Member Distributed Loads (BLC 6 : Structure Wind (45)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
21	M104	X	-.332	-.332	0	0
22	M104	Y	.332	.332	0	0
23	M106	X	-4.62	-4.62	0	0
24	M106	Y	4.62	4.62	0	0
25	M109	X	-.415	-.415	0	0
26	M109	Y	.415	.415	0	0
27	M110	X	-3.095	-3.095	0	0
28	M110	Y	3.095	3.095	0	0
29	M111	X	-5.775	-5.775	0	0
30	M111	Y	5.775	5.775	0	0
31	M116	X	-1.764	-1.764	0	0
32	M116	Y	1.764	1.764	0	0
33	M121	X	-3.292	-3.292	0	0
34	M121	Y	3.292	3.292	0	0
35	M126	X	-.236	-.236	0	0
36	M126	Y	.236	.236	0	0
37	M129	X	-7.428	-7.428	0	0
38	M129	Y	7.428	7.428	0	0
39	M133	X	-7.428	-7.428	0	0
40	M133	Y	7.428	7.428	0	0
41	M137	X	-13.86	-13.86	0	0
42	M137	Y	13.86	13.86	0	0
43	M141	X	-13.86	-13.86	0	0
44	M141	Y	13.86	13.86	0	0
45	M145	X	-.995	-.995	0	0
46	M145	Y	.995	.995	0	0
47	M149	X	-.995	-.995	0	0
48	M149	Y	.995	.995	0	0
49	M163	X	-3.528	-3.528	0	0
50	M163	Y	3.528	3.528	0	0
51	M189A	X	-.663	-.663	0	0
52	M189A	Y	.663	.663	0	0
53	M209	X	-9.24	-9.24	0	0
54	M209	Y	9.24	9.24	0	0
55	M245A	X	-9.24	-9.24	0	0
56	M245A	Y	9.24	9.24	0	0
57	M246A	X	-9.24	-9.24	0	0
58	M246A	Y	9.24	9.24	0	0
59	M279	X	-.663	-.663	0	0
60	M279	Y	.663	.663	0	0
61	M280	X	-.663	-.663	0	0
62	M280	Y	.663	.663	0	0
63	M261A	X	-3.528	-3.528	0	0
64	M261A	Y	3.528	3.528	0	0
65	M267A	X	-3.528	-3.528	0	0
66	M267A	Y	3.528	3.528	0	0
67	M273A	X	-3.528	-3.528	0	0
68	M273A	Y	3.528	3.528	0	0
69	KM5	X	-4.554	-4.554	0	0
70	KM5	Y	4.554	4.554	0	0
71	KM6	X	-4.554	-4.554	0	0
72	KM6	Y	4.554	4.554	0	0
73	KM11	X	-3.137	-3.137	0	0
74	KM11	Y	3.137	3.137	0	0
75	KM12	X	-3.137	-3.137	0	0
76	KM12	Y	3.137	3.137	0	0
77	KM17	X	-5.971	-5.971	0	0

Member Distributed Loads (BLC 6 : Structure Wind (45)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
78	KM17	Y	5.971	5.971	0	0
79	KM18	X	-5.971	-5.971	0	0
80	KM18	Y	5.971	5.971	0	0
81	M387A	X	-3.528	-3.528	0	0
82	M387A	Y	3.528	3.528	0	0
83	M388A	X	-3.528	-3.528	0	0
84	M388A	Y	3.528	3.528	0	0
85	M341	X	-3.528	-3.528	0	0
86	M341	Y	3.528	3.528	0	0
87	M346A	X	-3.528	-3.528	0	0
88	M346A	Y	3.528	3.528	0	0
89	M352A	X	-3.528	-3.528	0	0
90	M352A	Y	3.528	3.528	0	0
91	M358B	X	-3.528	-3.528	0	0
92	M358B	Y	3.528	3.528	0	0
93	M367B	X	-3.528	-3.528	0	0
94	M367B	Y	3.528	3.528	0	0
95	M369B	X	-3.528	-3.528	0	0
96	M369B	Y	3.528	3.528	0	0
97	M374	X	-3.528	-3.528	0	0
98	M374	Y	3.528	3.528	0	0
99	M379A	X	-3.528	-3.528	0	0
100	M379A	Y	3.528	3.528	0	0
101	M385	X	-3.528	-3.528	0	0
102	M385	Y	3.528	3.528	0	0
103	M391A	X	-3.528	-3.528	0	0
104	M391A	Y	3.528	3.528	0	0
105	M400	X	-3.528	-3.528	0	0
106	M400	Y	3.528	3.528	0	0
107	M402	X	-3.528	-3.528	0	0
108	M402	Y	3.528	3.528	0	0

Member Distributed Loads (BLC 7 : Structure Wind (60))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
1	M51	X	-5.252	-5.252	0	0
2	M51	Y	9.097	9.097	0	0
3	M60	X	-1.751	-1.751	0	0
4	M60	Y	3.032	3.032	0	0
5	M63	X	-1.751	-1.751	0	0
6	M63	Y	3.032	3.032	0	0
7	M69	X	-.919	-.919	0	0
8	M69	Y	1.592	1.592	0	0
9	M72	X	-3.677	-3.677	0	0
10	M72	Y	6.368	6.368	0	0
11	M75	X	-.919	-.919	0	0
12	M75	Y	1.592	1.592	0	0
13	M92	X	-.875	-.875	0	0
14	M92	Y	1.516	1.516	0	0
15	M94	X	-.875	-.875	0	0
16	M94	Y	1.516	1.516	0	0
17	M98	X	-3.501	-3.501	0	0
18	M98	Y	6.065	6.065	0	0
19	M100	X	-.875	-.875	0	0
20	M100	Y	1.516	1.516	0	0
21	M104	X	-.875	-.875	0	0
22	M104	Y	1.516	1.516	0	0

Member Distributed Loads (BLC 7 : Structure Wind (60)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
23	M106	X	-3.501	-3.501	0	0
24	M106	Y	6.065	6.065	0	0
25	M109	X	-1.094	-1.094	0	0
26	M109	Y	1.895	1.895	0	0
27	M110	X	-1.094	-1.094	0	0
28	M110	Y	1.895	1.895	0	0
29	M111	X	-4.377	-4.377	0	0
30	M111	Y	7.581	7.581	0	0
31	M116	X	-.624	-.624	0	0
32	M116	Y	1.08	1.08	0	0
33	M121	X	-2.495	-2.495	0	0
34	M121	Y	4.321	4.321	0	0
35	M126	X	-.624	-.624	0	0
36	M126	Y	1.08	1.08	0	0
37	M129	X	-2.626	-2.626	0	0
38	M129	Y	4.549	4.549	0	0
39	M133	X	-2.626	-2.626	0	0
40	M133	Y	4.549	4.549	0	0
41	M137	X	-10.504	-10.504	0	0
42	M137	Y	18.194	18.194	0	0
43	M141	X	-10.504	-10.504	0	0
44	M141	Y	18.194	18.194	0	0
45	M145	X	-2.626	-2.626	0	0
46	M145	Y	4.549	4.549	0	0
47	M149	X	-2.626	-2.626	0	0
48	M149	Y	4.549	4.549	0	0
49	M163	X	-2.495	-2.495	0	0
50	M163	Y	4.321	4.321	0	0
51	M189A	X	-1.728e-13	-1.728e-13	0	0
52	M189A	Y	2.993e-13	2.993e-13	0	0
53	M209	X	-5.252	-5.252	0	0
54	M209	Y	9.097	9.097	0	0
55	M245A	X	-7.003	-7.003	0	0
56	M245A	Y	12.13	12.13	0	0
57	M246A	X	-7.003	-7.003	0	0
58	M246A	Y	12.13	12.13	0	0
59	M279	X	-1.751	-1.751	0	0
60	M279	Y	3.032	3.032	0	0
61	M280	X	-1.751	-1.751	0	0
62	M280	Y	3.032	3.032	0	0
63	M261A	X	-2.495	-2.495	0	0
64	M261A	Y	4.321	4.321	0	0
65	M267A	X	-2.495	-2.495	0	0
66	M267A	Y	4.321	4.321	0	0
67	M273A	X	-2.495	-2.495	0	0
68	M273A	Y	4.321	4.321	0	0
69	KM5	X	-3.798	-3.798	0	0
70	KM5	Y	6.579	6.579	0	0
71	KM6	X	-3.798	-3.798	0	0
72	KM6	Y	6.579	6.579	0	0
73	KM11	X	-2.063	-2.063	0	0
74	KM11	Y	3.573	3.573	0	0
75	KM12	X	-2.063	-2.063	0	0
76	KM12	Y	3.573	3.573	0	0
77	KM17	X	-3.798	-3.798	0	0
78	KM17	Y	6.579	6.579	0	0
79	KM18	X	-3.798	-3.798	0	0

Member Distributed Loads (BLC 7 : Structure Wind (60)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
80	KM18	Y	6.579	6.579	0	0
81	M387A	X	-2.495	-2.495	0	0
82	M387A	Y	4.321	4.321	0	0
83	M388A	X	-2.495	-2.495	0	0
84	M388A	Y	4.321	4.321	0	0
85	M341	X	-2.495	-2.495	0	0
86	M341	Y	4.321	4.321	0	0
87	M346A	X	-2.495	-2.495	0	0
88	M346A	Y	4.321	4.321	0	0
89	M352A	X	-2.495	-2.495	0	0
90	M352A	Y	4.321	4.321	0	0
91	M358B	X	-2.495	-2.495	0	0
92	M358B	Y	4.321	4.321	0	0
93	M367B	X	-2.494	-2.494	0	0
94	M367B	Y	4.321	4.321	0	0
95	M369B	X	-2.495	-2.495	0	0
96	M369B	Y	4.321	4.321	0	0
97	M374	X	-2.495	-2.495	0	0
98	M374	Y	4.321	4.321	0	0
99	M379A	X	-2.495	-2.495	0	0
100	M379A	Y	4.321	4.321	0	0
101	M385	X	-2.495	-2.495	0	0
102	M385	Y	4.321	4.321	0	0
103	M391A	X	-2.495	-2.495	0	0
104	M391A	Y	4.321	4.321	0	0
105	M400	X	-2.495	-2.495	0	0
106	M400	Y	4.321	4.321	0	0
107	M402	X	-2.495	-2.495	0	0
108	M402	Y	4.321	4.321	0	0

Member Distributed Loads (BLC 8 : Structure Wind (90))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
1	M51	X	-3.176e-6	-3.176e-6	0	0
2	M51	Y	14.006	14.006	0	0
3	M60	X	-1.634e-19	-1.634e-19	0	0
4	M60	Y	7.204e-13	7.204e-13	0	0
5	M63	X	-1.634e-19	-1.634e-19	0	0
6	M63	Y	7.204e-13	7.204e-13	0	0
7	M69	X	-8.578e-20	-8.578e-20	0	0
8	M69	Y	3.782e-13	3.782e-13	0	0
9	M72	X	-1.251e-6	-1.251e-6	0	0
10	M72	Y	5.515	5.515	0	0
11	M75	X	-1.251e-6	-1.251e-6	0	0
12	M75	Y	5.515	5.515	0	0
13	M92	X	-8.706e-20	-8.706e-20	0	0
14	M92	Y	3.839e-13	3.839e-13	0	0
15	M94	X	-1.191e-6	-1.191e-6	0	0
16	M94	Y	5.252	5.252	0	0
17	M98	X	-1.191e-6	-1.191e-6	0	0
18	M98	Y	5.252	5.252	0	0
19	M100	X	-7.946e-17	-7.946e-17	0	0
20	M100	Y	3.504e-10	3.504e-10	0	0
21	M104	X	-1.191e-6	-1.191e-6	0	0
22	M104	Y	5.252	5.252	0	0
23	M106	X	-1.191e-6	-1.191e-6	0	0
24	M106	Y	5.252	5.252	0	0

Member Distributed Loads (BLC 8 : Structure Wind (90)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
25	M109	X	-1.489e-6	-1.489e-6	0	0
26	M109	Y	6.565	6.565	0	0
27	M110	X	-1.021e-19	-1.021e-19	0	0
28	M110	Y	4.503e-13	4.503e-13	0	0
29	M111	X	-1.489e-6	-1.489e-6	0	0
30	M111	Y	6.565	6.565	0	0
31	M116	X	-5.821e-20	-5.821e-20	0	0
32	M116	Y	2.566e-13	2.566e-13	0	0
33	M121	X	-8.487e-7	-8.487e-7	0	0
34	M121	Y	3.742	3.742	0	0
35	M126	X	-8.487e-7	-8.487e-7	0	0
36	M126	Y	3.742	3.742	0	0
37	M129	X	-2.451e-19	-2.451e-19	0	0
38	M129	Y	1.081e-12	1.081e-12	0	0
39	M133	X	-2.451e-19	-2.451e-19	0	0
40	M133	Y	1.081e-12	1.081e-12	0	0
41	M137	X	-3.574e-6	-3.574e-6	0	0
42	M137	Y	15.757	15.757	0	0
43	M141	X	-3.574e-6	-3.574e-6	0	0
44	M141	Y	15.757	15.757	0	0
45	M145	X	-3.574e-6	-3.574e-6	0	0
46	M145	Y	15.757	15.757	0	0
47	M149	X	-3.574e-6	-3.574e-6	0	0
48	M149	Y	15.757	15.757	0	0
49	M163	X	-1.132e-6	-1.132e-6	0	0
50	M163	Y	4.99	4.99	0	0
51	M189A	X	-7.941e-7	-7.941e-7	0	0
52	M189A	Y	3.501	3.501	0	0
53	M209	X	-7.941e-7	-7.941e-7	0	0
54	M209	Y	3.501	3.501	0	0
55	M245A	X	-2.382e-6	-2.382e-6	0	0
56	M245A	Y	10.504	10.504	0	0
57	M246A	X	-2.382e-6	-2.382e-6	0	0
58	M246A	Y	10.504	10.504	0	0
59	M279	X	-2.382e-6	-2.382e-6	0	0
60	M279	Y	10.504	10.504	0	0
61	M280	X	-2.382e-6	-2.382e-6	0	0
62	M280	Y	10.504	10.504	0	0
63	M261A	X	-1.132e-6	-1.132e-6	0	0
64	M261A	Y	4.99	4.99	0	0
65	M267A	X	-1.132e-6	-1.132e-6	0	0
66	M267A	Y	4.99	4.99	0	0
67	M273A	X	-1.132e-6	-1.132e-6	0	0
68	M273A	Y	4.99	4.99	0	0
69	KM5	X	-1.985e-6	-1.985e-6	0	0
70	KM5	Y	8.754	8.754	0	0
71	KM6	X	-1.985e-6	-1.985e-6	0	0
72	KM6	Y	8.754	8.754	0	0
73	KM11	X	-1.198e-6	-1.198e-6	0	0
74	KM11	Y	5.283	5.283	0	0
75	KM12	X	-1.198e-6	-1.198e-6	0	0
76	KM12	Y	5.283	5.283	0	0
77	KM17	X	-1.198e-6	-1.198e-6	0	0
78	KM17	Y	5.283	5.283	0	0
79	KM18	X	-1.198e-6	-1.198e-6	0	0
80	KM18	Y	5.283	5.283	0	0
81	M387A	X	-1.132e-6	-1.132e-6	0	0

Member Distributed Loads (BLC 8 : Structure Wind (90)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
82	M387A	Y	4.99	4.99	0	0
83	M388A	X	-1.132e-6	-1.132e-6	0	0
84	M388A	Y	4.99	4.99	0	0
85	M341	X	-1.132e-6	-1.132e-6	0	0
86	M341	Y	4.99	4.99	0	0
87	M346A	X	-1.132e-6	-1.132e-6	0	0
88	M346A	Y	4.99	4.99	0	0
89	M352A	X	-1.132e-6	-1.132e-6	0	0
90	M352A	Y	4.99	4.99	0	0
91	M358B	X	-1.132e-6	-1.132e-6	0	0
92	M358B	Y	4.99	4.99	0	0
93	M367B	X	-1.132e-6	-1.132e-6	0	0
94	M367B	Y	4.989	4.989	0	0
95	M369B	X	-1.132e-6	-1.132e-6	0	0
96	M369B	Y	4.99	4.99	0	0
97	M374	X	-1.132e-6	-1.132e-6	0	0
98	M374	Y	4.99	4.99	0	0
99	M379A	X	-1.132e-6	-1.132e-6	0	0
100	M379A	Y	4.99	4.99	0	0
101	M385	X	-1.132e-6	-1.132e-6	0	0
102	M385	Y	4.99	4.99	0	0
103	M391A	X	-1.132e-6	-1.132e-6	0	0
104	M391A	Y	4.99	4.99	0	0
105	M400	X	-1.132e-6	-1.132e-6	0	0
106	M400	Y	4.989	4.989	0	0
107	M402	X	-1.132e-6	-1.132e-6	0	0
108	M402	Y	4.99	4.99	0	0

Member Distributed Loads (BLC 9 : Structure Wind (120))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
1	M51	X	5.252	5.252	0	0
2	M51	Y	9.097	9.097	0	0
3	M60	X	1.751	1.751	0	0
4	M60	Y	3.032	3.032	0	0
5	M63	X	1.751	1.751	0	0
6	M63	Y	3.032	3.032	0	0
7	M69	X	.919	.919	0	0
8	M69	Y	1.592	1.592	0	0
9	M72	X	.919	.919	0	0
10	M72	Y	1.592	1.592	0	0
11	M75	X	3.677	3.677	0	0
12	M75	Y	6.368	6.368	0	0
13	M92	X	.875	.875	0	0
14	M92	Y	1.516	1.516	0	0
15	M94	X	3.501	3.501	0	0
16	M94	Y	6.065	6.065	0	0
17	M98	X	.875	.875	0	0
18	M98	Y	1.516	1.516	0	0
19	M100	X	.875	.875	0	0
20	M100	Y	1.516	1.516	0	0
21	M104	X	3.501	3.501	0	0
22	M104	Y	6.065	6.065	0	0
23	M106	X	.875	.875	0	0
24	M106	Y	1.516	1.516	0	0
25	M109	X	4.377	4.377	0	0
26	M109	Y	7.581	7.581	0	0

Member Distributed Loads (BLC 9 : Structure Wind (120)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
27	M110	X	1.094	1.094	0	0
28	M110	Y	1.895	1.895	0	0
29	M111	X	1.094	1.094	0	0
30	M111	Y	1.895	1.895	0	0
31	M116	X	.624	.624	0	0
32	M116	Y	1.08	1.08	0	0
33	M121	X	.624	.624	0	0
34	M121	Y	1.08	1.08	0	0
35	M126	X	2.495	2.495	0	0
36	M126	Y	4.321	4.321	0	0
37	M129	X	2.626	2.626	0	0
38	M129	Y	4.549	4.549	0	0
39	M133	X	2.626	2.626	0	0
40	M133	Y	4.549	4.549	0	0
41	M137	X	2.626	2.626	0	0
42	M137	Y	4.549	4.549	0	0
43	M141	X	2.626	2.626	0	0
44	M141	Y	4.549	4.549	0	0
45	M145	X	10.504	10.504	0	0
46	M145	Y	18.194	18.194	0	0
47	M149	X	10.504	10.504	0	0
48	M149	Y	18.194	18.194	0	0
49	M163	X	2.495	2.495	0	0
50	M163	Y	4.321	4.321	0	0
51	M189A	X	5.252	5.252	0	0
52	M189A	Y	9.097	9.097	0	0
53	M209	X	6.655e-13	6.655e-13	0	0
54	M209	Y	1.153e-12	1.153e-12	0	0
55	M245A	X	1.751	1.751	0	0
56	M245A	Y	3.032	3.032	0	0
57	M246A	X	1.751	1.751	0	0
58	M246A	Y	3.032	3.032	0	0
59	M279	X	7.003	7.003	0	0
60	M279	Y	12.13	12.13	0	0
61	M280	X	7.003	7.003	0	0
62	M280	Y	12.13	12.13	0	0
63	M261A	X	2.495	2.495	0	0
64	M261A	Y	4.321	4.321	0	0
65	M267A	X	2.495	2.495	0	0
66	M267A	Y	4.321	4.321	0	0
67	M273A	X	2.495	2.495	0	0
68	M273A	Y	4.321	4.321	0	0
69	KM5	X	3.798	3.798	0	0
70	KM5	Y	6.579	6.579	0	0
71	KM6	X	3.798	3.798	0	0
72	KM6	Y	6.579	6.579	0	0
73	KM11	X	3.798	3.798	0	0
74	KM11	Y	6.579	6.579	0	0
75	KM12	X	3.798	3.798	0	0
76	KM12	Y	6.579	6.579	0	0
77	KM17	X	2.063	2.063	0	0
78	KM17	Y	3.573	3.573	0	0
79	KM18	X	2.063	2.063	0	0
80	KM18	Y	3.573	3.573	0	0
81	M387A	X	2.495	2.495	0	0
82	M387A	Y	4.321	4.321	0	0
83	M388A	X	2.495	2.495	0	0

Member Distributed Loads (BLC 9 : Structure Wind (120)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
84	M388A	Y	4.321	4.321	0	0
85	M341	X	2.495	2.495	0	0
86	M341	Y	4.321	4.321	0	0
87	M346A	X	2.495	2.495	0	0
88	M346A	Y	4.321	4.321	0	0
89	M352A	X	2.495	2.495	0	0
90	M352A	Y	4.321	4.321	0	0
91	M358B	X	2.495	2.495	0	0
92	M358B	Y	4.321	4.321	0	0
93	M367B	X	2.495	2.495	0	0
94	M367B	Y	4.321	4.321	0	0
95	M369B	X	2.495	2.495	0	0
96	M369B	Y	4.321	4.321	0	0
97	M374	X	2.495	2.495	0	0
98	M374	Y	4.321	4.321	0	0
99	M379A	X	2.495	2.495	0	0
100	M379A	Y	4.321	4.321	0	0
101	M385	X	2.495	2.495	0	0
102	M385	Y	4.321	4.321	0	0
103	M391A	X	2.495	2.495	0	0
104	M391A	Y	4.321	4.321	0	0
105	M400	X	2.494	2.494	0	0
106	M400	Y	4.321	4.321	0	0
107	M402	X	2.495	2.495	0	0
108	M402	Y	4.321	4.321	0	0

Member Distributed Loads (BLC 10 : Structure Wind (135))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
1	M51	X	4.952	4.952	0	0
2	M51	Y	4.952	4.952	0	0
3	M60	X	4.952	4.952	0	0
4	M60	Y	4.952	4.952	0	0
5	M63	X	4.952	4.952	0	0
6	M63	Y	4.952	4.952	0	0
7	M69	X	2.6	2.6	0	0
8	M69	Y	2.6	2.6	0	0
9	M72	X	.348	.348	0	0
10	M72	Y	.348	.348	0	0
11	M75	X	4.851	4.851	0	0
12	M75	Y	4.851	4.851	0	0
13	M92	X	2.476	2.476	0	0
14	M92	Y	2.476	2.476	0	0
15	M94	X	4.62	4.62	0	0
16	M94	Y	4.62	4.62	0	0
17	M98	X	.332	.332	0	0
18	M98	Y	.332	.332	0	0
19	M100	X	2.476	2.476	0	0
20	M100	Y	2.476	2.476	0	0
21	M104	X	4.62	4.62	0	0
22	M104	Y	4.62	4.62	0	0
23	M106	X	.332	.332	0	0
24	M106	Y	.332	.332	0	0
25	M109	X	5.775	5.775	0	0
26	M109	Y	5.775	5.775	0	0
27	M110	X	3.095	3.095	0	0
28	M110	Y	3.095	3.095	0	0

Member Distributed Loads (BLC 10 : Structure Wind (135)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
29	M111	X	.415	.415	0	0
30	M111	Y	.415	.415	0	0
31	M116	X	1.764	1.764	0	0
32	M116	Y	1.764	1.764	0	0
33	M121	X	.236	.236	0	0
34	M121	Y	.236	.236	0	0
35	M126	X	3.292	3.292	0	0
36	M126	Y	3.292	3.292	0	0
37	M129	X	7.428	7.428	0	0
38	M129	Y	7.428	7.428	0	0
39	M133	X	7.428	7.428	0	0
40	M133	Y	7.428	7.428	0	0
41	M137	X	.995	.995	0	0
42	M137	Y	.995	.995	0	0
43	M141	X	.995	.995	0	0
44	M141	Y	.995	.995	0	0
45	M145	X	13.86	13.86	0	0
46	M145	Y	13.86	13.86	0	0
47	M149	X	13.86	13.86	0	0
48	M149	Y	13.86	13.86	0	0
49	M163	X	3.528	3.528	0	0
50	M163	Y	3.528	3.528	0	0
51	M189A	X	9.24	9.24	0	0
52	M189A	Y	9.24	9.24	0	0
53	M209	X	.663	.663	0	0
54	M209	Y	.663	.663	0	0
55	M245A	X	.663	.663	0	0
56	M245A	Y	.663	.663	0	0
57	M246A	X	.663	.663	0	0
58	M246A	Y	.663	.663	0	0
59	M279	X	9.24	9.24	0	0
60	M279	Y	9.24	9.24	0	0
61	M280	X	9.24	9.24	0	0
62	M280	Y	9.24	9.24	0	0
63	M261A	X	3.528	3.528	0	0
64	M261A	Y	3.528	3.528	0	0
65	M267A	X	3.528	3.528	0	0
66	M267A	Y	3.528	3.528	0	0
67	M273A	X	3.528	3.528	0	0
68	M273A	Y	3.528	3.528	0	0
69	KM5	X	4.554	4.554	0	0
70	KM5	Y	4.554	4.554	0	0
71	KM6	X	4.554	4.554	0	0
72	KM6	Y	4.554	4.554	0	0
73	KM11	X	5.971	5.971	0	0
74	KM11	Y	5.971	5.971	0	0
75	KM12	X	5.971	5.971	0	0
76	KM12	Y	5.971	5.971	0	0
77	KM17	X	3.137	3.137	0	0
78	KM17	Y	3.137	3.137	0	0
79	KM18	X	3.137	3.137	0	0
80	KM18	Y	3.137	3.137	0	0
81	M387A	X	3.528	3.528	0	0
82	M387A	Y	3.528	3.528	0	0
83	M388A	X	3.528	3.528	0	0
84	M388A	Y	3.528	3.528	0	0
85	M341	X	3.528	3.528	0	0

Member Distributed Loads (BLC 10 : Structure Wind (135)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
86	M341	Y	3.528	3.528	0	0
87	M346A	X	3.528	3.528	0	0
88	M346A	Y	3.528	3.528	0	0
89	M352A	X	3.528	3.528	0	0
90	M352A	Y	3.528	3.528	0	0
91	M358B	X	3.528	3.528	0	0
92	M358B	Y	3.528	3.528	0	0
93	M367B	X	3.528	3.528	0	0
94	M367B	Y	3.528	3.528	0	0
95	M369B	X	3.528	3.528	0	0
96	M369B	Y	3.528	3.528	0	0
97	M374	X	3.528	3.528	0	0
98	M374	Y	3.528	3.528	0	0
99	M379A	X	3.528	3.528	0	0
100	M379A	Y	3.528	3.528	0	0
101	M385	X	3.528	3.528	0	0
102	M385	Y	3.528	3.528	0	0
103	M391A	X	3.528	3.528	0	0
104	M391A	Y	3.528	3.528	0	0
105	M400	X	3.528	3.528	0	0
106	M400	Y	3.528	3.528	0	0
107	M402	X	3.528	3.528	0	0
108	M402	Y	3.528	3.528	0	0

Member Distributed Loads (BLC 11 : Structure Wind (150))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
1	M51	X	3.032	3.032	0	0
2	M51	Y	1.751	1.751	0	0
3	M60	X	9.097	9.097	0	0
4	M60	Y	5.252	5.252	0	0
5	M63	X	9.097	9.097	0	0
6	M63	Y	5.252	5.252	0	0
7	M69	X	4.776	4.776	0	0
8	M69	Y	2.757	2.757	0	0
9	M72	X	9.098e-13	9.098e-13	0	0
10	M72	Y	5.253e-13	5.253e-13	0	0
11	M75	X	4.776	4.776	0	0
12	M75	Y	2.757	2.757	0	0
13	M92	X	4.549	4.549	0	0
14	M92	Y	2.626	2.626	0	0
15	M94	X	4.549	4.549	0	0
16	M94	Y	2.626	2.626	0	0
17	M98	X	9.004e-13	9.004e-13	0	0
18	M98	Y	5.199e-13	5.199e-13	0	0
19	M100	X	4.549	4.549	0	0
20	M100	Y	2.626	2.626	0	0
21	M104	X	4.549	4.549	0	0
22	M104	Y	2.626	2.626	0	0
23	M106	X	3.166e-10	3.166e-10	0	0
24	M106	Y	1.828e-10	1.828e-10	0	0
25	M109	X	5.686	5.686	0	0
26	M109	Y	3.283	3.283	0	0
27	M110	X	5.686	5.686	0	0
28	M110	Y	3.283	3.283	0	0
29	M111	X	1.083e-12	1.083e-12	0	0
30	M111	Y	6.254e-13	6.254e-13	0	0

Member Distributed Loads (BLC 11 : Structure Wind (150)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
31	M116	X	3.241	3.241	0	0
32	M116	Y	1.871	1.871	0	0
33	M121	X	6.174e-13	6.174e-13	0	0
34	M121	Y	3.565e-13	3.565e-13	0	0
35	M126	X	3.241	3.241	0	0
36	M126	Y	1.871	1.871	0	0
37	M129	X	13.646	13.646	0	0
38	M129	Y	7.878	7.878	0	0
39	M133	X	13.646	13.646	0	0
40	M133	Y	7.878	7.878	0	0
41	M137	X	2.6e-12	2.6e-12	0	0
42	M137	Y	1.501e-12	1.501e-12	0	0
43	M141	X	2.6e-12	2.6e-12	0	0
44	M141	Y	1.501e-12	1.501e-12	0	0
45	M145	X	13.646	13.646	0	0
46	M145	Y	7.878	7.878	0	0
47	M149	X	13.646	13.646	0	0
48	M149	Y	7.878	7.878	0	0
49	M163	X	4.321	4.321	0	0
50	M163	Y	2.495	2.495	0	0
51	M189A	X	12.13	12.13	0	0
52	M189A	Y	7.003	7.003	0	0
53	M209	X	3.032	3.032	0	0
54	M209	Y	1.751	1.751	0	0
55	M245A	X	1.733e-12	1.733e-12	0	0
56	M245A	Y	1.001e-12	1.001e-12	0	0
57	M246A	X	1.733e-12	1.733e-12	0	0
58	M246A	Y	1.001e-12	1.001e-12	0	0
59	M279	X	9.097	9.097	0	0
60	M279	Y	5.252	5.252	0	0
61	M280	X	9.097	9.097	0	0
62	M280	Y	5.252	5.252	0	0
63	M261A	X	4.321	4.321	0	0
64	M261A	Y	2.495	2.495	0	0
65	M267A	X	4.321	4.321	0	0
66	M267A	Y	2.495	2.495	0	0
67	M273A	X	4.321	4.321	0	0
68	M273A	Y	2.495	2.495	0	0
69	KM5	X	4.575	4.575	0	0
70	KM5	Y	2.641	2.641	0	0
71	KM6	X	4.575	4.575	0	0
72	KM6	Y	2.641	2.641	0	0
73	KM11	X	7.581	7.581	0	0
74	KM11	Y	4.377	4.377	0	0
75	KM12	X	7.581	7.581	0	0
76	KM12	Y	4.377	4.377	0	0
77	KM17	X	4.575	4.575	0	0
78	KM17	Y	2.641	2.641	0	0
79	KM18	X	4.575	4.575	0	0
80	KM18	Y	2.641	2.641	0	0
81	M387A	X	4.321	4.321	0	0
82	M387A	Y	2.495	2.495	0	0
83	M388A	X	4.321	4.321	0	0
84	M388A	Y	2.495	2.495	0	0
85	M341	X	4.321	4.321	0	0
86	M341	Y	2.495	2.495	0	0
87	M346A	X	4.321	4.321	0	0

Member Distributed Loads (BLC 11 : Structure Wind (150)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
88	M346A	Y	2.495	2.495	0	0
89	M352A	X	4.321	4.321	0	0
90	M352A	Y	2.495	2.495	0	0
91	M358B	X	4.321	4.321	0	0
92	M358B	Y	2.495	2.495	0	0
93	M367B	X	4.321	4.321	0	0
94	M367B	Y	2.495	2.495	0	0
95	M369B	X	4.321	4.321	0	0
96	M369B	Y	2.495	2.495	0	0
97	M374	X	4.321	4.321	0	0
98	M374	Y	2.495	2.495	0	0
99	M379A	X	4.321	4.321	0	0
100	M379A	Y	2.495	2.495	0	0
101	M385	X	4.321	4.321	0	0
102	M385	Y	2.495	2.495	0	0
103	M391A	X	4.321	4.321	0	0
104	M391A	Y	2.495	2.495	0	0
105	M400	X	4.321	4.321	0	0
106	M400	Y	2.495	2.495	0	0
107	M402	X	4.321	4.321	0	0
108	M402	Y	2.495	2.495	0	0

Member Distributed Loads (BLC 12 : Structure Wind w/ Ice (0))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
1	M51	X	0	0	0	0
2	M51	Y	0	0	0	0
3	M60	X	0	0	0	0
4	M60	Y	0	0	0	0
5	M63	X	0	0	0	0
6	M63	Y	0	0	0	0
7	M69	X	0	0	0	0
8	M69	Y	0	0	0	0
9	M72	X	0	0	0	0
10	M72	Y	0	0	0	0
11	M75	X	0	0	0	0
12	M75	Y	0	0	0	0
13	M92	X	0	0	0	0
14	M92	Y	0	0	0	0
15	M94	X	0	0	0	0
16	M94	Y	0	0	0	0
17	M98	X	0	0	0	0
18	M98	Y	0	0	0	0
19	M100	X	0	0	0	0
20	M100	Y	0	0	0	0
21	M104	X	0	0	0	0
22	M104	Y	0	0	0	0
23	M106	X	0	0	0	0
24	M106	Y	0	0	0	0
25	M109	X	0	0	0	0
26	M109	Y	0	0	0	0
27	M110	X	0	0	0	0
28	M110	Y	0	0	0	0
29	M111	X	0	0	0	0
30	M111	Y	0	0	0	0
31	M116	X	0	0	0	0
32	M116	Y	0	0	0	0

Member Distributed Loads (BLC 12 : Structure Wind w/ Ice (0)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
33	M121	X	0	0	0	0
34	M121	Y	0	0	0	0
35	M126	X	0	0	0	0
36	M126	Y	0	0	0	0
37	M129	X	0	0	0	0
38	M129	Y	0	0	0	0
39	M133	X	0	0	0	0
40	M133	Y	0	0	0	0
41	M137	X	0	0	0	0
42	M137	Y	0	0	0	0
43	M141	X	0	0	0	0
44	M141	Y	0	0	0	0
45	M145	X	0	0	0	0
46	M145	Y	0	0	0	0
47	M149	X	0	0	0	0
48	M149	Y	0	0	0	0
49	M163	X	0	0	0	0
50	M163	Y	0	0	0	0
51	M189A	X	0	0	0	0
52	M189A	Y	0	0	0	0
53	M209	X	0	0	0	0
54	M209	Y	0	0	0	0
55	M245A	X	0	0	0	0
56	M245A	Y	0	0	0	0
57	M246A	X	0	0	0	0
58	M246A	Y	0	0	0	0
59	M279	X	0	0	0	0
60	M279	Y	0	0	0	0
61	M280	X	0	0	0	0
62	M280	Y	0	0	0	0
63	M261A	X	0	0	0	0
64	M261A	Y	0	0	0	0
65	M267A	X	0	0	0	0
66	M267A	Y	0	0	0	0
67	M273A	X	0	0	0	0
68	M273A	Y	0	0	0	0
69	KM5	X	0	0	0	0
70	KM5	Y	0	0	0	0
71	KM6	X	0	0	0	0
72	KM6	Y	0	0	0	0
73	KM11	X	0	0	0	0
74	KM11	Y	0	0	0	0
75	KM12	X	0	0	0	0
76	KM12	Y	0	0	0	0
77	KM17	X	0	0	0	0
78	KM17	Y	0	0	0	0
79	KM18	X	0	0	0	0
80	KM18	Y	0	0	0	0
81	M387A	X	0	0	0	0
82	M387A	Y	0	0	0	0
83	M388A	X	0	0	0	0
84	M388A	Y	0	0	0	0
85	M341	X	0	0	0	0
86	M341	Y	0	0	0	0
87	M346A	X	0	0	0	0
88	M346A	Y	0	0	0	0
89	M352A	X	0	0	0	0

Member Distributed Loads (BLC 12 : Structure Wind w/ Ice (0)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
90	M352A	Y	0	0	0	0
91	M358B	X	0	0	0	0
92	M358B	Y	0	0	0	0
93	M367B	X	0	0	0	0
94	M367B	Y	0	0	0	0
95	M369B	X	0	0	0	0
96	M369B	Y	0	0	0	0
97	M374	X	0	0	0	0
98	M374	Y	0	0	0	0
99	M379A	X	0	0	0	0
100	M379A	Y	0	0	0	0
101	M385	X	0	0	0	0
102	M385	Y	0	0	0	0
103	M391A	X	0	0	0	0
104	M391A	Y	0	0	0	0
105	M400	X	0	0	0	0
106	M400	Y	0	0	0	0
107	M402	X	0	0	0	0
108	M402	Y	0	0	0	0

Member Distributed Loads (BLC 13 : Structure Wind w/ Ice (30))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
1	M51	X	0	0	0	0
2	M51	Y	0	0	0	0
3	M60	X	0	0	0	0
4	M60	Y	0	0	0	0
5	M63	X	0	0	0	0
6	M63	Y	0	0	0	0
7	M69	X	0	0	0	0
8	M69	Y	0	0	0	0
9	M72	X	0	0	0	0
10	M72	Y	0	0	0	0
11	M75	X	0	0	0	0
12	M75	Y	0	0	0	0
13	M92	X	0	0	0	0
14	M92	Y	0	0	0	0
15	M94	X	0	0	0	0
16	M94	Y	0	0	0	0
17	M98	X	0	0	0	0
18	M98	Y	0	0	0	0
19	M100	X	0	0	0	0
20	M100	Y	0	0	0	0
21	M104	X	0	0	0	0
22	M104	Y	0	0	0	0
23	M106	X	0	0	0	0
24	M106	Y	0	0	0	0
25	M109	X	0	0	0	0
26	M109	Y	0	0	0	0
27	M110	X	0	0	0	0
28	M110	Y	0	0	0	0
29	M111	X	0	0	0	0
30	M111	Y	0	0	0	0
31	M116	X	0	0	0	0
32	M116	Y	0	0	0	0
33	M121	X	0	0	0	0
34	M121	Y	0	0	0	0

Member Distributed Loads (BLC 13 : Structure Wind w/ Ice (30)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
35	M126	X	0	0	0	0
36	M126	Y	0	0	0	0
37	M129	X	0	0	0	0
38	M129	Y	0	0	0	0
39	M133	X	0	0	0	0
40	M133	Y	0	0	0	0
41	M137	X	0	0	0	0
42	M137	Y	0	0	0	0
43	M141	X	0	0	0	0
44	M141	Y	0	0	0	0
45	M145	X	0	0	0	0
46	M145	Y	0	0	0	0
47	M149	X	0	0	0	0
48	M149	Y	0	0	0	0
49	M163	X	0	0	0	0
50	M163	Y	0	0	0	0
51	M189A	X	0	0	0	0
52	M189A	Y	0	0	0	0
53	M209	X	0	0	0	0
54	M209	Y	0	0	0	0
55	M245A	X	0	0	0	0
56	M245A	Y	0	0	0	0
57	M246A	X	0	0	0	0
58	M246A	Y	0	0	0	0
59	M279	X	0	0	0	0
60	M279	Y	0	0	0	0
61	M280	X	0	0	0	0
62	M280	Y	0	0	0	0
63	M261A	X	0	0	0	0
64	M261A	Y	0	0	0	0
65	M267A	X	0	0	0	0
66	M267A	Y	0	0	0	0
67	M273A	X	0	0	0	0
68	M273A	Y	0	0	0	0
69	KM5	X	0	0	0	0
70	KM5	Y	0	0	0	0
71	KM6	X	0	0	0	0
72	KM6	Y	0	0	0	0
73	KM11	X	0	0	0	0
74	KM11	Y	0	0	0	0
75	KM12	X	0	0	0	0
76	KM12	Y	0	0	0	0
77	KM17	X	0	0	0	0
78	KM17	Y	0	0	0	0
79	KM18	X	0	0	0	0
80	KM18	Y	0	0	0	0
81	M387A	X	0	0	0	0
82	M387A	Y	0	0	0	0
83	M388A	X	0	0	0	0
84	M388A	Y	0	0	0	0
85	M341	X	0	0	0	0
86	M341	Y	0	0	0	0
87	M346A	X	0	0	0	0
88	M346A	Y	0	0	0	0
89	M352A	X	0	0	0	0
90	M352A	Y	0	0	0	0
91	M358B	X	0	0	0	0

Member Distributed Loads (BLC 13 : Structure Wind w/ Ice (30)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
92	M358B	Y	0	0	0	0
93	M367B	X	0	0	0	0
94	M367B	Y	0	0	0	0
95	M369B	X	0	0	0	0
96	M369B	Y	0	0	0	0
97	M374	X	0	0	0	0
98	M374	Y	0	0	0	0
99	M379A	X	0	0	0	0
100	M379A	Y	0	0	0	0
101	M385	X	0	0	0	0
102	M385	Y	0	0	0	0
103	M391A	X	0	0	0	0
104	M391A	Y	0	0	0	0
105	M400	X	0	0	0	0
106	M400	Y	0	0	0	0
107	M402	X	0	0	0	0
108	M402	Y	0	0	0	0

Member Distributed Loads (BLC 14 : Structure Wind w/ Ice (45))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
1	M51	X	0	0	0	0
2	M51	Y	0	0	0	0
3	M60	X	0	0	0	0
4	M60	Y	0	0	0	0
5	M63	X	0	0	0	0
6	M63	Y	0	0	0	0
7	M69	X	0	0	0	0
8	M69	Y	0	0	0	0
9	M72	X	0	0	0	0
10	M72	Y	0	0	0	0
11	M75	X	0	0	0	0
12	M75	Y	0	0	0	0
13	M92	X	0	0	0	0
14	M92	Y	0	0	0	0
15	M94	X	0	0	0	0
16	M94	Y	0	0	0	0
17	M98	X	0	0	0	0
18	M98	Y	0	0	0	0
19	M100	X	0	0	0	0
20	M100	Y	0	0	0	0
21	M104	X	0	0	0	0
22	M104	Y	0	0	0	0
23	M106	X	0	0	0	0
24	M106	Y	0	0	0	0
25	M109	X	0	0	0	0
26	M109	Y	0	0	0	0
27	M110	X	0	0	0	0
28	M110	Y	0	0	0	0
29	M111	X	0	0	0	0
30	M111	Y	0	0	0	0
31	M116	X	0	0	0	0
32	M116	Y	0	0	0	0
33	M121	X	0	0	0	0
34	M121	Y	0	0	0	0
35	M126	X	0	0	0	0
36	M126	Y	0	0	0	0

Member Distributed Loads (BLC 14 : Structure Wind w/ Ice (45)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
37	M129	X	0	0	0	0
38	M129	Y	0	0	0	0
39	M133	X	0	0	0	0
40	M133	Y	0	0	0	0
41	M137	X	0	0	0	0
42	M137	Y	0	0	0	0
43	M141	X	0	0	0	0
44	M141	Y	0	0	0	0
45	M145	X	0	0	0	0
46	M145	Y	0	0	0	0
47	M149	X	0	0	0	0
48	M149	Y	0	0	0	0
49	M163	X	0	0	0	0
50	M163	Y	0	0	0	0
51	M189A	X	0	0	0	0
52	M189A	Y	0	0	0	0
53	M209	X	0	0	0	0
54	M209	Y	0	0	0	0
55	M245A	X	0	0	0	0
56	M245A	Y	0	0	0	0
57	M246A	X	0	0	0	0
58	M246A	Y	0	0	0	0
59	M279	X	0	0	0	0
60	M279	Y	0	0	0	0
61	M280	X	0	0	0	0
62	M280	Y	0	0	0	0
63	M261A	X	0	0	0	0
64	M261A	Y	0	0	0	0
65	M267A	X	0	0	0	0
66	M267A	Y	0	0	0	0
67	M273A	X	0	0	0	0
68	M273A	Y	0	0	0	0
69	KM5	X	0	0	0	0
70	KM5	Y	0	0	0	0
71	KM6	X	0	0	0	0
72	KM6	Y	0	0	0	0
73	KM11	X	0	0	0	0
74	KM11	Y	0	0	0	0
75	KM12	X	0	0	0	0
76	KM12	Y	0	0	0	0
77	KM17	X	0	0	0	0
78	KM17	Y	0	0	0	0
79	KM18	X	0	0	0	0
80	KM18	Y	0	0	0	0
81	M387A	X	0	0	0	0
82	M387A	Y	0	0	0	0
83	M388A	X	0	0	0	0
84	M388A	Y	0	0	0	0
85	M341	X	0	0	0	0
86	M341	Y	0	0	0	0
87	M346A	X	0	0	0	0
88	M346A	Y	0	0	0	0
89	M352A	X	0	0	0	0
90	M352A	Y	0	0	0	0
91	M358B	X	0	0	0	0
92	M358B	Y	0	0	0	0
93	M367B	X	0	0	0	0

Member Distributed Loads (BLC 14 : Structure Wind w/ Ice (45)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
94	M367B	Y	0	0	0	0
95	M369B	X	0	0	0	0
96	M369B	Y	0	0	0	0
97	M374	X	0	0	0	0
98	M374	Y	0	0	0	0
99	M379A	X	0	0	0	0
100	M379A	Y	0	0	0	0
101	M385	X	0	0	0	0
102	M385	Y	0	0	0	0
103	M391A	X	0	0	0	0
104	M391A	Y	0	0	0	0
105	M400	X	0	0	0	0
106	M400	Y	0	0	0	0
107	M402	X	0	0	0	0
108	M402	Y	0	0	0	0

Member Distributed Loads (BLC 15 : Structure Wind w/ Ice (60))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
1	M51	X	0	0	0	0
2	M51	Y	0	0	0	0
3	M60	X	0	0	0	0
4	M60	Y	0	0	0	0
5	M63	X	0	0	0	0
6	M63	Y	0	0	0	0
7	M69	X	0	0	0	0
8	M69	Y	0	0	0	0
9	M72	X	0	0	0	0
10	M72	Y	0	0	0	0
11	M75	X	0	0	0	0
12	M75	Y	0	0	0	0
13	M92	X	0	0	0	0
14	M92	Y	0	0	0	0
15	M94	X	0	0	0	0
16	M94	Y	0	0	0	0
17	M98	X	0	0	0	0
18	M98	Y	0	0	0	0
19	M100	X	0	0	0	0
20	M100	Y	0	0	0	0
21	M104	X	0	0	0	0
22	M104	Y	0	0	0	0
23	M106	X	0	0	0	0
24	M106	Y	0	0	0	0
25	M109	X	0	0	0	0
26	M109	Y	0	0	0	0
27	M110	X	0	0	0	0
28	M110	Y	0	0	0	0
29	M111	X	0	0	0	0
30	M111	Y	0	0	0	0
31	M116	X	0	0	0	0
32	M116	Y	0	0	0	0
33	M121	X	0	0	0	0
34	M121	Y	0	0	0	0
35	M126	X	0	0	0	0
36	M126	Y	0	0	0	0
37	M129	X	0	0	0	0
38	M129	Y	0	0	0	0

Member Distributed Loads (BLC 15 : Structure Wind w/ Ice (60)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
39	M133	X	0	0	0	0
40	M133	Y	0	0	0	0
41	M137	X	0	0	0	0
42	M137	Y	0	0	0	0
43	M141	X	0	0	0	0
44	M141	Y	0	0	0	0
45	M145	X	0	0	0	0
46	M145	Y	0	0	0	0
47	M149	X	0	0	0	0
48	M149	Y	0	0	0	0
49	M163	X	0	0	0	0
50	M163	Y	0	0	0	0
51	M189A	X	0	0	0	0
52	M189A	Y	0	0	0	0
53	M209	X	0	0	0	0
54	M209	Y	0	0	0	0
55	M245A	X	0	0	0	0
56	M245A	Y	0	0	0	0
57	M246A	X	0	0	0	0
58	M246A	Y	0	0	0	0
59	M279	X	0	0	0	0
60	M279	Y	0	0	0	0
61	M280	X	0	0	0	0
62	M280	Y	0	0	0	0
63	M261A	X	0	0	0	0
64	M261A	Y	0	0	0	0
65	M267A	X	0	0	0	0
66	M267A	Y	0	0	0	0
67	M273A	X	0	0	0	0
68	M273A	Y	0	0	0	0
69	KM5	X	0	0	0	0
70	KM5	Y	0	0	0	0
71	KM6	X	0	0	0	0
72	KM6	Y	0	0	0	0
73	KM11	X	0	0	0	0
74	KM11	Y	0	0	0	0
75	KM12	X	0	0	0	0
76	KM12	Y	0	0	0	0
77	KM17	X	0	0	0	0
78	KM17	Y	0	0	0	0
79	KM18	X	0	0	0	0
80	KM18	Y	0	0	0	0
81	M387A	X	0	0	0	0
82	M387A	Y	0	0	0	0
83	M388A	X	0	0	0	0
84	M388A	Y	0	0	0	0
85	M341	X	0	0	0	0
86	M341	Y	0	0	0	0
87	M346A	X	0	0	0	0
88	M346A	Y	0	0	0	0
89	M352A	X	0	0	0	0
90	M352A	Y	0	0	0	0
91	M358B	X	0	0	0	0
92	M358B	Y	0	0	0	0
93	M367B	X	0	0	0	0
94	M367B	Y	0	0	0	0
95	M369B	X	0	0	0	0

Member Distributed Loads (BLC 15 : Structure Wind w/ Ice (60)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
96	M369B	Y	0	0	0	0
97	M374	X	0	0	0	0
98	M374	Y	0	0	0	0
99	M379A	X	0	0	0	0
100	M379A	Y	0	0	0	0
101	M385	X	0	0	0	0
102	M385	Y	0	0	0	0
103	M391A	X	0	0	0	0
104	M391A	Y	0	0	0	0
105	M400	X	0	0	0	0
106	M400	Y	0	0	0	0
107	M402	X	0	0	0	0
108	M402	Y	0	0	0	0

Member Distributed Loads (BLC 16 : Structure Wind w/ Ice (90))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
1	M51	X	0	0	0	0
2	M51	Y	0	0	0	0
3	M60	X	0	0	0	0
4	M60	Y	0	0	0	0
5	M63	X	0	0	0	0
6	M63	Y	0	0	0	0
7	M69	X	0	0	0	0
8	M69	Y	0	0	0	0
9	M72	X	0	0	0	0
10	M72	Y	0	0	0	0
11	M75	X	0	0	0	0
12	M75	Y	0	0	0	0
13	M92	X	0	0	0	0
14	M92	Y	0	0	0	0
15	M94	X	0	0	0	0
16	M94	Y	0	0	0	0
17	M98	X	0	0	0	0
18	M98	Y	0	0	0	0
19	M100	X	0	0	0	0
20	M100	Y	0	0	0	0
21	M104	X	0	0	0	0
22	M104	Y	0	0	0	0
23	M106	X	0	0	0	0
24	M106	Y	0	0	0	0
25	M109	X	0	0	0	0
26	M109	Y	0	0	0	0
27	M110	X	0	0	0	0
28	M110	Y	0	0	0	0
29	M111	X	0	0	0	0
30	M111	Y	0	0	0	0
31	M116	X	0	0	0	0
32	M116	Y	0	0	0	0
33	M121	X	0	0	0	0
34	M121	Y	0	0	0	0
35	M126	X	0	0	0	0
36	M126	Y	0	0	0	0
37	M129	X	0	0	0	0
38	M129	Y	0	0	0	0
39	M133	X	0	0	0	0
40	M133	Y	0	0	0	0

Member Distributed Loads (BLC 16 : Structure Wind w/ Ice (90)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
41	M137	X	0	0	0	0
42	M137	Y	0	0	0	0
43	M141	X	0	0	0	0
44	M141	Y	0	0	0	0
45	M145	X	0	0	0	0
46	M145	Y	0	0	0	0
47	M149	X	0	0	0	0
48	M149	Y	0	0	0	0
49	M163	X	0	0	0	0
50	M163	Y	0	0	0	0
51	M189A	X	0	0	0	0
52	M189A	Y	0	0	0	0
53	M209	X	0	0	0	0
54	M209	Y	0	0	0	0
55	M245A	X	0	0	0	0
56	M245A	Y	0	0	0	0
57	M246A	X	0	0	0	0
58	M246A	Y	0	0	0	0
59	M279	X	0	0	0	0
60	M279	Y	0	0	0	0
61	M280	X	0	0	0	0
62	M280	Y	0	0	0	0
63	M261A	X	0	0	0	0
64	M261A	Y	0	0	0	0
65	M267A	X	0	0	0	0
66	M267A	Y	0	0	0	0
67	M273A	X	0	0	0	0
68	M273A	Y	0	0	0	0
69	KM5	X	0	0	0	0
70	KM5	Y	0	0	0	0
71	KM6	X	0	0	0	0
72	KM6	Y	0	0	0	0
73	KM11	X	0	0	0	0
74	KM11	Y	0	0	0	0
75	KM12	X	0	0	0	0
76	KM12	Y	0	0	0	0
77	KM17	X	0	0	0	0
78	KM17	Y	0	0	0	0
79	KM18	X	0	0	0	0
80	KM18	Y	0	0	0	0
81	M387A	X	0	0	0	0
82	M387A	Y	0	0	0	0
83	M388A	X	0	0	0	0
84	M388A	Y	0	0	0	0
85	M341	X	0	0	0	0
86	M341	Y	0	0	0	0
87	M346A	X	0	0	0	0
88	M346A	Y	0	0	0	0
89	M352A	X	0	0	0	0
90	M352A	Y	0	0	0	0
91	M358B	X	0	0	0	0
92	M358B	Y	0	0	0	0
93	M367B	X	0	0	0	0
94	M367B	Y	0	0	0	0
95	M369B	X	0	0	0	0
96	M369B	Y	0	0	0	0
97	M374	X	0	0	0	0

Member Distributed Loads (BLC 16 : Structure Wind w/ Ice (90)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
98	M374	Y	0	0	0	0
99	M379A	X	0	0	0	0
100	M379A	Y	0	0	0	0
101	M385	X	0	0	0	0
102	M385	Y	0	0	0	0
103	M391A	X	0	0	0	0
104	M391A	Y	0	0	0	0
105	M400	X	0	0	0	0
106	M400	Y	0	0	0	0
107	M402	X	0	0	0	0
108	M402	Y	0	0	0	0

Member Distributed Loads (BLC 17 : Structure Wind w/ Ice (120))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
1	M51	X	0	0	0	0
2	M51	Y	0	0	0	0
3	M60	X	0	0	0	0
4	M60	Y	0	0	0	0
5	M63	X	0	0	0	0
6	M63	Y	0	0	0	0
7	M69	X	0	0	0	0
8	M69	Y	0	0	0	0
9	M72	X	0	0	0	0
10	M72	Y	0	0	0	0
11	M75	X	0	0	0	0
12	M75	Y	0	0	0	0
13	M92	X	0	0	0	0
14	M92	Y	0	0	0	0
15	M94	X	0	0	0	0
16	M94	Y	0	0	0	0
17	M98	X	0	0	0	0
18	M98	Y	0	0	0	0
19	M100	X	0	0	0	0
20	M100	Y	0	0	0	0
21	M104	X	0	0	0	0
22	M104	Y	0	0	0	0
23	M106	X	0	0	0	0
24	M106	Y	0	0	0	0
25	M109	X	0	0	0	0
26	M109	Y	0	0	0	0
27	M110	X	0	0	0	0
28	M110	Y	0	0	0	0
29	M111	X	0	0	0	0
30	M111	Y	0	0	0	0
31	M116	X	0	0	0	0
32	M116	Y	0	0	0	0
33	M121	X	0	0	0	0
34	M121	Y	0	0	0	0
35	M126	X	0	0	0	0
36	M126	Y	0	0	0	0
37	M129	X	0	0	0	0
38	M129	Y	0	0	0	0
39	M133	X	0	0	0	0
40	M133	Y	0	0	0	0
41	M137	X	0	0	0	0
42	M137	Y	0	0	0	0

Member Distributed Loads (BLC 17 : Structure Wind w/ Ice (120)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
43	M141	X	0	0	0	0
44	M141	Y	0	0	0	0
45	M145	X	0	0	0	0
46	M145	Y	0	0	0	0
47	M149	X	0	0	0	0
48	M149	Y	0	0	0	0
49	M163	X	0	0	0	0
50	M163	Y	0	0	0	0
51	M189A	X	0	0	0	0
52	M189A	Y	0	0	0	0
53	M209	X	0	0	0	0
54	M209	Y	0	0	0	0
55	M245A	X	0	0	0	0
56	M245A	Y	0	0	0	0
57	M246A	X	0	0	0	0
58	M246A	Y	0	0	0	0
59	M279	X	0	0	0	0
60	M279	Y	0	0	0	0
61	M280	X	0	0	0	0
62	M280	Y	0	0	0	0
63	M261A	X	0	0	0	0
64	M261A	Y	0	0	0	0
65	M267A	X	0	0	0	0
66	M267A	Y	0	0	0	0
67	M273A	X	0	0	0	0
68	M273A	Y	0	0	0	0
69	KM5	X	0	0	0	0
70	KM5	Y	0	0	0	0
71	KM6	X	0	0	0	0
72	KM6	Y	0	0	0	0
73	KM11	X	0	0	0	0
74	KM11	Y	0	0	0	0
75	KM12	X	0	0	0	0
76	KM12	Y	0	0	0	0
77	KM17	X	0	0	0	0
78	KM17	Y	0	0	0	0
79	KM18	X	0	0	0	0
80	KM18	Y	0	0	0	0
81	M387A	X	0	0	0	0
82	M387A	Y	0	0	0	0
83	M388A	X	0	0	0	0
84	M388A	Y	0	0	0	0
85	M341	X	0	0	0	0
86	M341	Y	0	0	0	0
87	M346A	X	0	0	0	0
88	M346A	Y	0	0	0	0
89	M352A	X	0	0	0	0
90	M352A	Y	0	0	0	0
91	M358B	X	0	0	0	0
92	M358B	Y	0	0	0	0
93	M367B	X	0	0	0	0
94	M367B	Y	0	0	0	0
95	M369B	X	0	0	0	0
96	M369B	Y	0	0	0	0
97	M374	X	0	0	0	0
98	M374	Y	0	0	0	0
99	M379A	X	0	0	0	0

Member Distributed Loads (BLC 17 : Structure Wind w/ Ice (120)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
100	M379A	Y	0	0	0	0
101	M385	X	0	0	0	0
102	M385	Y	0	0	0	0
103	M391A	X	0	0	0	0
104	M391A	Y	0	0	0	0
105	M400	X	0	0	0	0
106	M400	Y	0	0	0	0
107	M402	X	0	0	0	0
108	M402	Y	0	0	0	0

Member Distributed Loads (BLC 18 : Structure Wind w/ Ice (135))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
1	M51	X	0	0	0	0
2	M51	Y	0	0	0	0
3	M60	X	0	0	0	0
4	M60	Y	0	0	0	0
5	M63	X	0	0	0	0
6	M63	Y	0	0	0	0
7	M69	X	0	0	0	0
8	M69	Y	0	0	0	0
9	M72	X	0	0	0	0
10	M72	Y	0	0	0	0
11	M75	X	0	0	0	0
12	M75	Y	0	0	0	0
13	M92	X	0	0	0	0
14	M92	Y	0	0	0	0
15	M94	X	0	0	0	0
16	M94	Y	0	0	0	0
17	M98	X	0	0	0	0
18	M98	Y	0	0	0	0
19	M100	X	0	0	0	0
20	M100	Y	0	0	0	0
21	M104	X	0	0	0	0
22	M104	Y	0	0	0	0
23	M106	X	0	0	0	0
24	M106	Y	0	0	0	0
25	M109	X	0	0	0	0
26	M109	Y	0	0	0	0
27	M110	X	0	0	0	0
28	M110	Y	0	0	0	0
29	M111	X	0	0	0	0
30	M111	Y	0	0	0	0
31	M116	X	0	0	0	0
32	M116	Y	0	0	0	0
33	M121	X	0	0	0	0
34	M121	Y	0	0	0	0
35	M126	X	0	0	0	0
36	M126	Y	0	0	0	0
37	M129	X	0	0	0	0
38	M129	Y	0	0	0	0
39	M133	X	0	0	0	0
40	M133	Y	0	0	0	0
41	M137	X	0	0	0	0
42	M137	Y	0	0	0	0
43	M141	X	0	0	0	0
44	M141	Y	0	0	0	0

Member Distributed Loads (BLC 18 : Structure Wind w/ Ice (135)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
45	M145	X	0	0	0	0
46	M145	Y	0	0	0	0
47	M149	X	0	0	0	0
48	M149	Y	0	0	0	0
49	M163	X	0	0	0	0
50	M163	Y	0	0	0	0
51	M189A	X	0	0	0	0
52	M189A	Y	0	0	0	0
53	M209	X	0	0	0	0
54	M209	Y	0	0	0	0
55	M245A	X	0	0	0	0
56	M245A	Y	0	0	0	0
57	M246A	X	0	0	0	0
58	M246A	Y	0	0	0	0
59	M279	X	0	0	0	0
60	M279	Y	0	0	0	0
61	M280	X	0	0	0	0
62	M280	Y	0	0	0	0
63	M261A	X	0	0	0	0
64	M261A	Y	0	0	0	0
65	M267A	X	0	0	0	0
66	M267A	Y	0	0	0	0
67	M273A	X	0	0	0	0
68	M273A	Y	0	0	0	0
69	KM5	X	0	0	0	0
70	KM5	Y	0	0	0	0
71	KM6	X	0	0	0	0
72	KM6	Y	0	0	0	0
73	KM11	X	0	0	0	0
74	KM11	Y	0	0	0	0
75	KM12	X	0	0	0	0
76	KM12	Y	0	0	0	0
77	KM17	X	0	0	0	0
78	KM17	Y	0	0	0	0
79	KM18	X	0	0	0	0
80	KM18	Y	0	0	0	0
81	M387A	X	0	0	0	0
82	M387A	Y	0	0	0	0
83	M388A	X	0	0	0	0
84	M388A	Y	0	0	0	0
85	M341	X	0	0	0	0
86	M341	Y	0	0	0	0
87	M346A	X	0	0	0	0
88	M346A	Y	0	0	0	0
89	M352A	X	0	0	0	0
90	M352A	Y	0	0	0	0
91	M358B	X	0	0	0	0
92	M358B	Y	0	0	0	0
93	M367B	X	0	0	0	0
94	M367B	Y	0	0	0	0
95	M369B	X	0	0	0	0
96	M369B	Y	0	0	0	0
97	M374	X	0	0	0	0
98	M374	Y	0	0	0	0
99	M379A	X	0	0	0	0
100	M379A	Y	0	0	0	0
101	M385	X	0	0	0	0

Member Distributed Loads (BLC 18 : Structure Wind w/ Ice (135)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
102	M385	Y	0	0	0	0
103	M391A	X	0	0	0	0
104	M391A	Y	0	0	0	0
105	M400	X	0	0	0	0
106	M400	Y	0	0	0	0
107	M402	X	0	0	0	0
108	M402	Y	0	0	0	0

Member Distributed Loads (BLC 19 : Structure Wind w/ Ice (150))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
1	M51	X	0	0	0	0
2	M51	Y	0	0	0	0
3	M60	X	0	0	0	0
4	M60	Y	0	0	0	0
5	M63	X	0	0	0	0
6	M63	Y	0	0	0	0
7	M69	X	0	0	0	0
8	M69	Y	0	0	0	0
9	M72	X	0	0	0	0
10	M72	Y	0	0	0	0
11	M75	X	0	0	0	0
12	M75	Y	0	0	0	0
13	M92	X	0	0	0	0
14	M92	Y	0	0	0	0
15	M94	X	0	0	0	0
16	M94	Y	0	0	0	0
17	M98	X	0	0	0	0
18	M98	Y	0	0	0	0
19	M100	X	0	0	0	0
20	M100	Y	0	0	0	0
21	M104	X	0	0	0	0
22	M104	Y	0	0	0	0
23	M106	X	0	0	0	0
24	M106	Y	0	0	0	0
25	M109	X	0	0	0	0
26	M109	Y	0	0	0	0
27	M110	X	0	0	0	0
28	M110	Y	0	0	0	0
29	M111	X	0	0	0	0
30	M111	Y	0	0	0	0
31	M116	X	0	0	0	0
32	M116	Y	0	0	0	0
33	M121	X	0	0	0	0
34	M121	Y	0	0	0	0
35	M126	X	0	0	0	0
36	M126	Y	0	0	0	0
37	M129	X	0	0	0	0
38	M129	Y	0	0	0	0
39	M133	X	0	0	0	0
40	M133	Y	0	0	0	0
41	M137	X	0	0	0	0
42	M137	Y	0	0	0	0
43	M141	X	0	0	0	0
44	M141	Y	0	0	0	0
45	M145	X	0	0	0	0
46	M145	Y	0	0	0	0

Member Distributed Loads (BLC 19 : Structure Wind w/ Ice (150)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
47	M149	X	0	0	0	0
48	M149	Y	0	0	0	0
49	M163	X	0	0	0	0
50	M163	Y	0	0	0	0
51	M189A	X	0	0	0	0
52	M189A	Y	0	0	0	0
53	M209	X	0	0	0	0
54	M209	Y	0	0	0	0
55	M245A	X	0	0	0	0
56	M245A	Y	0	0	0	0
57	M246A	X	0	0	0	0
58	M246A	Y	0	0	0	0
59	M279	X	0	0	0	0
60	M279	Y	0	0	0	0
61	M280	X	0	0	0	0
62	M280	Y	0	0	0	0
63	M261A	X	0	0	0	0
64	M261A	Y	0	0	0	0
65	M267A	X	0	0	0	0
66	M267A	Y	0	0	0	0
67	M273A	X	0	0	0	0
68	M273A	Y	0	0	0	0
69	KM5	X	0	0	0	0
70	KM5	Y	0	0	0	0
71	KM6	X	0	0	0	0
72	KM6	Y	0	0	0	0
73	KM11	X	0	0	0	0
74	KM11	Y	0	0	0	0
75	KM12	X	0	0	0	0
76	KM12	Y	0	0	0	0
77	KM17	X	0	0	0	0
78	KM17	Y	0	0	0	0
79	KM18	X	0	0	0	0
80	KM18	Y	0	0	0	0
81	M387A	X	0	0	0	0
82	M387A	Y	0	0	0	0
83	M388A	X	0	0	0	0
84	M388A	Y	0	0	0	0
85	M341	X	0	0	0	0
86	M341	Y	0	0	0	0
87	M346A	X	0	0	0	0
88	M346A	Y	0	0	0	0
89	M352A	X	0	0	0	0
90	M352A	Y	0	0	0	0
91	M358B	X	0	0	0	0
92	M358B	Y	0	0	0	0
93	M367B	X	0	0	0	0
94	M367B	Y	0	0	0	0
95	M369B	X	0	0	0	0
96	M369B	Y	0	0	0	0
97	M374	X	0	0	0	0
98	M374	Y	0	0	0	0
99	M379A	X	0	0	0	0
100	M379A	Y	0	0	0	0
101	M385	X	0	0	0	0
102	M385	Y	0	0	0	0
103	M391A	X	0	0	0	0

Member Distributed Loads (BLC 19 : Structure Wind w/ Ice (150)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
104	M391A	Y	0	0	0	0
105	M400	X	0	0	0	0
106	M400	Y	0	0	0	0
107	M402	X	0	0	0	0
108	M402	Y	0	0	0	0

Joint Boundary Conditions

	Joint Label	X [k/in]	Y [k/in]	Z [k/in]	X Rot.[k-ft/rad]	Y Rot.[k-ft/rad]	Z Rot.[k-ft/rad]
1	N35	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
2	N61	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
3	N88	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
4	KN5	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
5	KN13	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
6	KN21	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
7	N1438						
8	N1415						
9	GRC						
10	N1417						
11	N1418						
12	ARC						
13	N1420						
14	N1421						
15	BRC						
16	N1443						
17	ARC2						

Envelope Joint Reactions

	Joint		X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [lb-ft]	LC	MY [lb-ft]	LC	MZ [lb-ft]	LC
1	N35	max	730.616	4	2717.736	14	733.602	70	-331.159	11	93.428	18	1369.492	18
2		min	-1511.838	12	-1342.702	6	343.08	14	-842.428	115	-918.066	74	-1380.019	10
3	N61	max	846.913	17	1287.996	16	708.773	64	831.497	131	20.117	5	1416.599	12
4		min	-1652.664	9	-2665.615	8	362.731	8	323.103	11	-977.948	61	-1427.207	4
5	N88	max	3126.458	3	860.718	15	557.203	123	506.919	7	834.413	123	1486.697	7
6		min	-1542.48	11	-870.568	7	287.401	1	-409.433	15	449.002	1	-1497.23	15
7	KN5	max	-687.873	11	58.964	15	1656.097	3	40.162	7	465.777	3	58.687	7
8		min	-1699.53	3	-59.011	7	647.972	11	-41.92	15	182.242	11	-60.54	15
9	KN13	max	1034.859	94	-555.609	28	1981.894	94	-157.657	6	-81.006	28	57.461	18
10		min	320.838	28	-1792.754	94	630.807	28	-474.887	94	-292.287	94	-59.416	10
11	KN21	max	1034.182	40	1791.645	40	1980.657	40	475.448	40	-90.003	16	57.936	12
12		min	347.265	16	601.66	16	654.402	16	160.56	16	-290.619	40	-60.188	4
13	Totals:	max	3846.045	3	3889.165	15	5529.039	2						
14		min	-3846.031	11	-3889.185	7	3949.344	1						

Envelope AISC 14th(360-10): LRFD Steel Code Checks

	Member	Shape	Code C...	Loc[in]	LC	Shear ...	Loc[in]	Dir	LC	phi*Pnc [lb]	phi*Pnt [lb]	phi*Mn y-...	phi*Mn z-...	Cb	Eqn
1	M385	PIPE_2.0	.264	68.211	9	.061	37.895		13	14916.096	32130	1871.625	1871.625	2....	H1-1b
2	M352A	PIPE_2.0	.264	68.211	15	.060	37.895		3	14916.096	32130	1871.625	1871.625	2....	H1-1b
3	M267A	PIPE_2.0	.263	68.211	4	.060	37.895		8	14916.096	32130	1871.625	1871.625	3....	H1-1b
4	KM18	L2.5x2.5x3	.251	40.875	5	.005	0	y	4	7075.925	29192.4	872.574	1518.053	1....	H2-1
5	KM12	L2.5x2.5x3	.246	40.875	91	.005	0	y	18	7075.925	29192.4	872.574	1518.053	1....	H2-1
6	KM17	L2.5x2.5x3	.243	40.875	43	.005	81.75	z	4	7075.925	29192.4	872.574	1518.053	1....	H2-1
7	KM6	L2.5x2.5x3	.242	40.875	16	.005	0	y	7	7075.925	29192.4	872.574	1518.053	1....	H2-1

Envelope AISC 14th(360-10): LRFD Steel Code Checks (Continued)

	Member	Shape	Code C...	Loc[in]	LC	Shear ...	Loc[in]	Dir	LC	phi*Pnc [lb]	phi*Pnt [lb]	phi*Mn y-...	phi*Mn z-...	Cb	Eqn
8	KM11	L2.5x2.5x3	.241	40.875	17	.005	81.75	z	18	7075.925	29192.4	872.574	1518.053	1....	H2-1
9	KM5	L2.5x2.5x3	.239	40.875	7	.005	81.75	z	7	7075.925	29192.4	872.574	1518.053	1....	H2-1
10	M261A	PIPE_2.0	.228	68.211	14	.050	68.211		13	14916.096	32130	1871.625	1871.625	3....	H1-1b
11	M346A	PIPE_2.0	.227	68.211	8	.048	68.211		7	14916.096	32130	1871.625	1871.625	3....	H1-1b
12	M379A	PIPE_2.0	.227	68.211	3	.048	68.211		18	14916.096	32130	1871.625	1871.625	2....	H1-1b
13	M51	HSS4X4X4	.177	0	7	.079	77.819	y	16	92850.073	106155	12311.25	12311.25	2....	H1-1b
14	M209	HSS4X4X4	.173	0	4	.080	77.819	y	5	92850.073	106155	12311.25	12311.25	2....	H1-1b
15	M189A	HSS4X4X4	.167	0	18	.079	77.819	y	11	92850.073	106155	12311.25	12311.25	2....	H1-1b
16	M358B	PIPE_2.0	.161	68.211	3	.061	68.211		6	14916.096	32130	1871.625	1871.625	4....	H1-1b
17	M273A	PIPE_2.0	.161	68.211	8	.061	68.211		11	14916.096	32130	1871.625	1871.625	3....	H1-1b
18	M391A	PIPE_2.0	.161	68.211	14	.061	68.211		16	14916.096	32130	1871.625	1871.625	3....	H1-1b
19	M388A	PIPE_2.0	.161	70.737	13	.115	25.263		10	14916.096	32130	1871.625	1871.625	2....	H1-1b
20	M369B	PIPE_2.0	.158	70.737	7	.117	25.263		5	14916.096	32130	1871.625	1871.625	2....	H1-1b
21	M402	PIPE_2.0	.158	70.737	18	.115	25.263		15	14916.096	32130	1871.625	1871.625	1....	H1-1b
22	M116	PIPE_2.0	.155	155.6...	9	.091	155.6...		11	4678.522	32130	1871.625	1871.625	2....	H1-1b
23	M121	PIPE_2.0	.152	155.6...	3	.091	155.6...		6	4678.522	32130	1871.625	1871.625	2....	H1-1b
24	M126	PIPE_2.0	.152	155.6...	14	.091	155.6...		16	4678.522	32130	1871.625	1871.625	2....	H1-1b
25	M245A	HSS4X4X4	.136	30.438	76	.057	3.204	z	3	104002.36	106155	12311.25	12311.25	1....	H1-1b
26	M280	HSS4X4X4	.133	0	58	.052	27.233	z	3	104002.4...	106155	12311.25	12311.25	1....	H1-1b
27	M246A	HSS4X4X4	.131	0	15	.052	27.233	z	8	104002.4...	106155	12311.25	12311.25	1....	H1-1b
28	M63	HSS4X4X4	.131	0	4	.052	27.233	z	14	104002.4...	106155	12311.25	12311.25	1....	H1-1b
29	M367B	PIPE_2.0	.129	0	10	.046	0		3	26520.725	32130	1871.625	1871.625	1....	H1-1b
30	M387A	PIPE_2.0	.129	0	15	.046	0		8	26520.725	32130	1871.625	1871.625	1....	H1-1b
31	M400	PIPE_2.0	.129	0	4	.047	0		13	26520.725	32130	1871.625	1871.625	1....	H1-1b
32	M60	HSS4X4X4	.118	30.438	18	.057	3.204	z	8	104002.36	106155	12311.25	12311.25	1....	H1-1b
33	M279	HSS4X4X4	.118	30.438	7	.057	3.204	z	14	104002.36	106155	12311.25	12311.25	1....	H1-1b
34	M69	PIPE_3.0	.111	73.263	71	.121	13.737		11	21266.01	65205	5748.75	5748.75	2....	H1-1b
35	M110	L2.5x2.5x4	.108	14.902	6	.040	0	y	15	35695.317	37485	1082.622	2466.905	2....	H2-1
36	M111	L2.5x2.5x4	.107	14.902	16	.040	6.667	y	10	35695.317	37485	1082.622	2466.905	2....	H2-1
37	M109	L2.5x2.5x4	.107	14.902	11	.040	0	y	4	35695.317	37485	1082.622	2466.905	2....	H2-1
38	M94	L2x2x3	.102	50.542	11	.006	50.542	z	91	9585.492	22743	542.224	1204.865	2....	H2-1
39	M100	L2x2x3	.102	50.542	6	.007	50.542	z	54	9585.492	22743	542.224	1204.865	2....	H2-1
40	M106	L2x2x3	.102	50.542	16	.006	50.542	z	16	9585.492	22743	542.224	1204.865	2....	H2-1
41	M72	PIPE_3.0	.092	18.316	8	.121	13.737		6	21266.01	65205	5748.75	5748.75	2....	H1-1b
42	M75	PIPE_3.0	.092	18.316	3	.120	13.737		16	21266.01	65205	5748.75	5748.75	2....	H1-1b
43	M104	L2x2x3	.090	0	17	.004	0	z	8	9585.427	22743	542.224	1189.044	2....	H2-1
44	M98	L2x2x3	.086	0	6	.004	0	z	14	9585.427	22743	542.224	1204.865	2....	H2-1
45	M92	L2x2x3	.086	0	11	.004	0	z	3	9585.427	22743	542.224	1204.865	2....	H2-1
46	M341	PIPE_2.0	.061	70.737	9	.037	22.737		3	14916.096	32130	1871.625	1871.625	1....	H1-1b
47	M163	PIPE_2.0	.060	70.737	15	.038	22.737		5	14916.096	32130	1871.625	1871.625	2....	H1-1b
48	M374	PIPE_2.0	.060	70.737	4	.037	22.737		14	14916.096	32130	1871.625	1871.625	1....	H1-1b

Plate Principal Stresses

LC	Plate Label	Loc	Sigma1[ksi]	Sigma2[ksi]	Tau Max[ksi]	Angle[rad]	Von Mises[ksi]
No Data to Print ...							

APPENDIX D

ADDITIONAL CALCULATIONS

Square/Rectangular Flange Connection

TIA-222-H

Site Number	842872
Job number	19558056
Code	TIA-222-H

Memer/Node Under Consideration	N35
Controlling Load Combination	18

Normalize usages per TIA-222-H, Sec. 15.5	☐

REACTIONS		
Moment, Mu (kip-ft)	1.382	*About Y*
Axial, Pu (kips) - *Negative for tension*	3.093	
Shear, Vu (kips)	1.447	

BOLT CONFIGURATION	
Bolt Quantity, n_b	4
Bolt Diameter, d_b (in)	0.625
Bolt Grade	A325
Width between bolts, s (in)	6.00

BOLT USAGE	
Maximum Tension in Bolt, Tub (kip)	1.181
Nominal Tensile Strength, ϕRnt (kip)	20.340
Tensile Usage (Section 4.9.6.1)	6%

PLATE CONFIGURATION	
Plate Grade	A36
Thickness of plate, t (in)	0.750
Width of plate, w (in)	8.00

PLATE USAGE	
Ultimate flexural load in plate, Mu (kip-in)	0.937
Factored flexural capacity, ϕMn (kip-in)	14.026
Flexural Usage	7%

SUPPORT ARM CONFIGURATION	
Member Shape	Square
Member Grade	A36
Thickness of Member, t (in)	0.250
Width of member, w (in)	4.000

SUPPORT ARM USAGE	
Ultimate flexural load in member, Mu (kip-ft)	1.382
Factored flexural capacity, ϕMn (kip-ft)	14.259
Flexural Usage	10%

Stiffeners present?	☐

Date: **September 08, 2021**

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

Subject:	**Structural Analysis Report**	
Carrier Designation:	***AT&T Mobility* Co-Locate**	
	Site Number:	CTL05123
	Site Name:	CTL05123
	FA Number:	10071221
Crown Castle Designation:	**BU Number:**	842872
	Site Name:	Rocky Hill
	JDE Job Number:	650058
	Work Order Number:	2014457
	Order Number:	556583 Rev. 0
Engineering Firm Designation:	**B+T Group Project Number:**	95171.022.01
Site Data:	**52 New Britain Avenue, Rocky Hill, Hartford County, CT** **Latitude *41° 39' 36.89"*, Longitude *-72° 40' 50.58"*** **182 Foot - Monopole**	

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

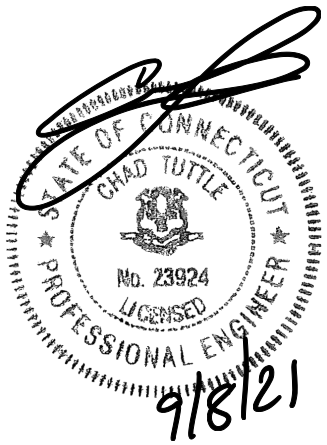
The purpose of the analysis is to determine acceptability of the tower stress level. Based on our analysis we have determined the tower stress level for the structure and foundation, under the following load case, to be:

LC7: Proposed Equipment Configuration **Sufficient Capacity – 93.9%**

This analysis utilizes an ultimate 3-second gust wind speed of 118 mph as required by the 2015 International Building Code. Applicable Standard references and design criteria are listed in Section 2 - Analysis Criteria

Structural analysis prepared by: Mahsa Abdeveis

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



Chad E. Tuttle, P.E.

tnxTower Report - version 8.1.1.0

TABLE OF CONTENTS

1) INTRODUCTION

This tower is a 182 ft. monopole designed by Engineered Endeavors, Inc.
The tower has been modified multiple times to accommodate additional loading.

2) ANALYSIS CRITERIA

TIA-222 Revision:	TIA-222-H
Risk Category:	II
Wind Speed:	118 mph
Exposure Category:	C
Topographic Factor:	1
Ice Thickness:	1.5 in
Wind Speed with Ice:	50 mph
Service Wind Speed:	60 mph

Table 1 - Proposed Equipment Configuration

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
168.0	168.0	3	CCI Antennas	DMP65R-BU6e	5 4 3	7/8 13/16 3/8
		3	Ericsson	AIR 6419 B77G		
		3	Ericsson	AIR 6449 B77D		
		3	Ericsson	RRUS 32 B66		
		3	Ericsson	RRUS 4415 B25_CCIV2		
		3	Ericsson	RRUS 4449 B5/B12		
		3	Ericsson	RRUS 4478 B14_CCIV2		
		3	Ericsson	RRUS E2 B29		
		3	Ericsson	RRUS-32 B30		
		3	Quintel Technology	QD6616-7		
		1	Raycap	DC6-48-60-18-8C		
		2	Raycap	DC6-48-60-18-8C-EV		
		1	Raycap	DC9-48-60-24-8C-EV		
		1	--	Platform Mount [LP 304-1_KCKR-HR-1]		

Table 2 - Other Considered Equipment

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
178.0	188.0	2	Dbspectra	DS4C06F36D-D	12	7/8
	185.0	1	Austin Antenna Company	APC-1362		
		1	Austin Antenna Company	APC-2163		
	184.0	1	Austin Antenna Company	APC-301		
		1	Austin Antenna Company	APC-4065		
	178.0	1	--	Miscellaneous [NA 502-3]		

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
	177.0	2	Radiowaves	HPD2-4.7		
168.0	175.0	1	Telewave	ANT450D6-9	--	--
157.0	160.0	1	Site Pro 1	HRK12 Support Rail Kit	3	1-5/8
	159.0	3	Ericsson	AIR 32 B2A B66AA_T-MOBILE		
		3	Ericsson	AIR6449 B41_T-MOBILE		
		3	Ericsson	RADIO 4415 B25_TMO		
		3	Ericsson	RADIO 4449 B71 B85A_T-MOBILE		
		3	Rfs Celwave	APXVAALL24_43-U-NA20_TMO		
	157.0	1	--	Platform Mount [LP 305-1]		
	155.0	3	Site Pro 1	PRK-SFS Reinforcement Kit		
142.0	144.0	3	Alcatel Lucent	1900MHZ RRH (65MHZ)	--	--
	142.0	1	--	Pipe Mount [PM 601-3]		
	140.0	3	Alcatel Lucent	800 External Notch Filter		
		3	Alcatel Lucent	800MHZ RRH		
140.0	142.0	3	Alcatel Lucent	TD-RRH8X20-25	3 1	1-1/4 7/8
		3	RFS Celwave	APXVSPP18-C-A20		
		3	RFS Celwave	APXVTM14-C-120		
	140.0	1	--	Platform Mount [LP 1201-1]		
130.0	130.0	1	--	Commscope MC-PK8-DSH (1)	1	1-1/2
		3	Fujitsu	TA08025-B604		
		3	Fujitsu	TA08025-B605		
		3	Jma Wireless	MX08FRO665-21		
		1	Raycap	RDIDC-9181-PF-48		
90.0	95.0	3	Site Pro 1	PRK-SFS-L Reinforcement Kit	7 1	1-5/8 1/2
	93.0	1	Site Pro 1	HRK12 Support Rail Kit		
	92.0	6	Samsung Telecomm.	MT6407-77A		
	90.0	3	Antel	BXA-70080-4BF-EDIN-0		
		6	Commscope	NHH-65B-R2B		
		1	Gps	GPS_A		
		1	Rfs Celwave	DB-T1-6Z-8AB-0Z		
		3	Samsung Telecomm.	RFV01U-D1A		
		3	Samsung Telecomm.	RFV01U-D2A		
		1	--	Platform Mount [LP 1201-1]		
	88.0	3	Samsung Telecomm.	CBRS		
73.0	75.0	1	Gps	GPS_A	1	1/2
	73.0	1	--	Side Arm Mount [SO 701-1]		

3) ANALYSIS PROCEDURE

Table 3 - Documents Provided

Document	Reference	Source
Tower Manufacturer Drawing	4844402	CCI Sites
Mount Analysis Report	9950254	CCI Sites
Tower Modification Drawing	4740398	CCI Sites
Legacy Modification Inspection	6040534	CCI Sites
Tower Modification Drawing	4904956	CCI Sites
Post Modification Inspection	4904967	CCI Sites
Tower Modification Drawing	6525881	CCI Sites
Post Modification Inspection	6647989	CCI Sites
Foundation Drawing	4713252	CCI Sites
Geotech Report	4713251	CCI Sites
Crown CAD Package	Date: 08/25/2021	CCI Sites

3.1) Analysis Method

tnxTower (version 8.1.1.0), a commercially available analysis software package, was used to create a three-dimensional model of the tower and calculate member stresses for various loading cases. Selected output from the analysis is included in Appendix A. When applicable, Crown Castle has calculated and provided the effective area for panel antennas using approved methods following the intent of the TIA-222 standard.

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

3.2) Assumptions

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

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

4) ANALYSIS RESULTS

Table 4 - Section Capacity (Summary)

Section No.	Elevation (ft)	Component Type	Size	Critical Element	P (K)	SF*P_allow (K)	% Capacity	Pass / Fail
L1	182 - 177	Pole	TP15.678x14.5x0.25	1	-0.717	--	4.5%	Pass
L2	177 - 172	Pole	TP16.856x15.678x0.25	2	-0.903	--	7.8%	Pass
L3	172 - 167	Pole	TP18.033x16.856x0.25	3	-5.111	--	13.7%	Pass
L4	167 - 162	Pole	TP19.211x18.033x0.25	4	-5.485	--	24.6%	Pass
L5	162 - 157	Pole	TP20.389x19.211x0.25	5	-5.919	--	33.2%	Pass
L6	157 - 152	Pole	TP21.567x20.389x0.25	6	-9.706	--	45.8%	Pass
L7	152 - 147	Pole	TP22.744x21.567x0.25	7	-10.310	--	54.7%	Pass

Section No.	Elevation (ft)	Component Type	Size	Critical Element	P (K)	SF*P_allow (K)	% Capacity	Pass / Fail
L8	147 - 142	Pole	TP23.922x22.744x0.25	8	-10.956	--	61.8%	Pass
L9	142 - 137	Pole	TP25.1x23.922x0.25	9	-15.132	--	70.7%	Pass
L10	137 - 136.83	Pole	TP26.023x25.1x0.25	10	-15.178	--	70.9%	Pass
L11	136.83 - 131.83	Pole	TP25.805x24.639x0.375	11	-16.306	--	53.9%	Pass
L12	131.83 - 126.83	Pole	TP26.972x25.805x0.375	12	-17.250	--	58.6%	Pass
L13	126.83 - 121.83	Pole	TP28.138x26.972x0.375	13	-18.226	--	62.8%	Pass
L14	121.83 - 116.83	Pole	TP29.305x28.138x0.375	14	-19.237	--	66.2%	Pass
L15	116.83 - 111.83	Pole	TP30.471x29.305x0.375	15	-20.281	--	69.1%	Pass
L16	111.83 - 106.83	Pole	TP31.638x30.471x0.375	16	-21.358	--	71.4%	Pass
L17	106.83 - 101.83	Pole	TP32.804x31.638x0.375	17	-22.465	--	73.4%	Pass
L18	101.83 - 96.83	Pole	TP33.971x32.804x0.375	18	-23.605	--	74.9%	Pass
L19	96.83 - 92.47	Pole	TP36.16x33.971x0.375	19	-24.970	--	76.1%	Pass
L20	92.47 - 86.45	Pole	TP35.642x34.239x0.375	20	-31.573	--	81.8%	Pass
L21	86.45 - 85	Pole	TP35.98x35.642x0.375	21	-31.936	--	82.3%	Pass
L22	85 - 84.75	Pole	TP36.038x35.98x0.375	22	-32.032	--	82.5%	Pass
L23	84.75 - 79.75	Pole	TP37.203x36.038x0.375	23	-33.328	--	84.6%	Pass
L24	79.75 - 75	Pole	TP38.31x37.203x0.375	24	-34.602	--	86.5%	Pass
L25	75 - 74.75	Pole + Reinf.	TP38.369x38.31x0.7	25	-34.726	--	74.5%	Pass
L26	74.75 - 74	Pole + Reinf.	TP38.543x38.369x0.7	26	-35.011	--	74.8%	Pass
L27	74 - 73.75	Pole	TP38.602x38.543x0.375	27	-35.084	--	87.0%	Pass
L28	73.75 - 68.75	Pole	TP39.767x38.602x0.375	28	-36.522	--	88.7%	Pass
L29	68.75 - 63.75	Pole	TP40.932x39.767x0.375	29	-37.936	--	90.2%	Pass
L30	63.75 - 58.75	Pole	TP42.098x40.932x0.375	30	-39.380	--	91.6%	Pass
L31	58.75 - 53.75	Pole	TP43.263x42.098x0.375	31	-40.854	--	92.8%	Pass
L32	53.75 - 49.08	Pole	TP45.804x43.263x0.375	32	-42.253	--	93.9%	Pass
L33	49.08 - 41.85	Pole	TP45.281x43.602x0.4375	33	-45.898	--	80.7%	Pass
L34	41.85 - 36.85	Pole	TP46.442x45.281x0.4375	34	-47.609	--	81.3%	Pass
L35	36.85 - 31.85	Pole	TP47.604x46.442x0.4375	35	-49.355	--	81.9%	Pass
L36	31.85 - 26.85	Pole	TP48.765x47.604x0.4375	36	-51.133	--	82.4%	Pass
L37	26.85 - 21.85	Pole	TP49.926x48.765x0.4375	37	-52.944	--	82.8%	Pass
L38	21.85 - 16.85	Pole	TP51.087x49.926x0.4375	38	-54.788	--	83.2%	Pass
L39	16.85 - 11.85	Pole	TP52.248x51.087x0.4375	39	-56.664	--	83.5%	Pass
L40	11.85 - 6.85	Pole	TP53.41x52.248x0.4375	40	-58.572	--	83.9%	Pass
L41	6.85 - 1.85	Pole	TP54.571x53.41x0.4375	41	-60.512	--	84.1%	Pass
L42	1.85 - 0	Pole	TP55x54.571x0.4375	42	-61.221	--	84.2%	Pass
							Summary	
						Pole (L32)	93.9%	Pass
						Reinforcement	74.8%	Pass
						Rating =	93.9%	Pass

Table 5 - Tower Component Stresses vs. Capacity

Notes	Component	Elevation (ft)	% Capacity	Pass / Fail
1,2	Anchor Rods	Base	91.4	Pass
1,2	Base Plate	Base	86.4	Pass
1,2	Base Foundation (Structure)	Base	93.7	Pass
1,2	Base Foundation (Soil Interaction)	Base	64.4	Pass

Structure Rating (max from all components) =	93.9%

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

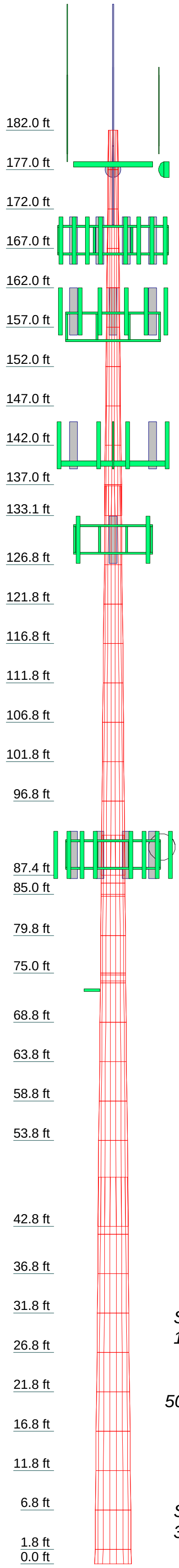
4.1) Recommendations

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

APPENDIX A

TNXTOWER OUTPUT

Section	Length (ft)	Number of Sides	Thickness (in)	Socket Length (ft)	Top Dia (in)	Bot Dia (in)	Grade	Weight (K)
1	5.000	18	0.250		14.500	15.678		0.2
2	5.000	18	0.250		15.678	16.856		0.2
3	5.000	18	0.250		16.856	18.033		0.2
4	5.000	18	0.250		18.033	19.211		0.2
5	5.000	18	0.250		19.211	20.389		0.3
6	5.000	18	0.250		20.389	21.567		0.3
7	5.000	18	0.250		21.567	22.744		0.3
8	5.000	18	0.250		22.744	23.922		0.3
9	5.000	18	0.250		23.922	25.100		0.3
10	[illegible]	18	0.250	3.753	[illegible]	[illegible]		0.3
11	[illegible]	18	[illegible]		[illegible]	[illegible]		0.5
12	5.000	18	0.375		[illegible]	[illegible]		0.5
13	5.000	18	0.375		26.972	28.138		0.6
14	5.000	18	0.375		28.138	29.305		0.6
15	5.000	18	0.375		29.305	30.471		0.6
16	5.000	18	0.375		30.471	31.638		0.6
17	5.000	18	0.375		31.638	32.804		0.6
18	5.000	18	0.375		32.804	33.971		0.7
19	[illegible]	18	0.375	5.021	33.971	36.160	A572-65	1.3
20	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]		[illegible]
21	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]		[illegible]
22	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]		[illegible]
23	5.000	18	0.375		[illegible]	[illegible]		0.7
24	[illegible]	18	0.375		[illegible]	[illegible]		0.7
25	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]		[illegible]
26	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]		[illegible]
27	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]		[illegible]
28	5.000	18	0.375		[illegible]	[illegible]		0.8
29	5.000	18	0.375		39.767	40.932		0.8
30	5.000	18	0.375		40.932	42.098		0.8
31	5.000	18	0.375		42.098	43.263		0.9
32	[illegible]	18	0.375	6.232	43.263	45.804		1.9
33	[illegible]	18	[illegible]		[illegible]	[illegible]		1.5
34	5.000	18	[illegible]		[illegible]	[illegible]		1.1
35	5.000	18	0.438		46.442	47.604		1.1
36	5.000	18	0.438		47.604	48.765		1.1
37	5.000	18	0.438		48.765	49.926		1.2
38	5.000	18	0.438		49.926	51.087		1.2
39	5.000	18	0.438		51.087	52.248		1.2
40	5.000	18	0.438		52.248	53.410		1.2
41	[illegible]	18	[illegible]		[illegible]	[illegible]		1.3
42	[illegible]	18	[illegible]		[illegible]	[illegible]		[illegible]
								28.1



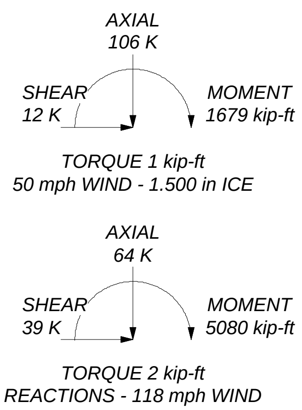
MATERIAL STRENGTH

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

TOWER DESIGN NOTES

1. Tower is located in Hartford County, Connecticut.
2. Tower designed for Exposure C 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 1.50 in ice. Ice is considered to increase in thickness with height.
5. Deflections are based upon a 60 mph wind.
6. Tower Risk Category II.
7. Topographic Category 1 with Crest Height of 0.000 ft
8. TIA-222-H Annex S
9. TOWER RATING: 93.9%

ALL REACTIONS ARE FACTORED



B+T Group	Job: 95171.022.01 - Rocky Hill, CT (BU# 842872		
1717 S. Boulder, Suite 300	Project:		
Tulsa, OK 74119	Client: Crown Castle	Drawn by: Sahana	App'd:
Phone: (918) 587-4630	Code: TIA-222-H	Date: 09/08/21	Scale: NTS
FAX: (918) 295-0265	Path: C:\Users\Sahana\Desktop\Aug 31---Revise\95171_842872_Rocky Hill-----Sahana----Raghu----O----Revise\95171_022_01_CCI Pole\95171_022_01_ROCKY_HILL_CT_Modified.eri		Dwg No. E-1

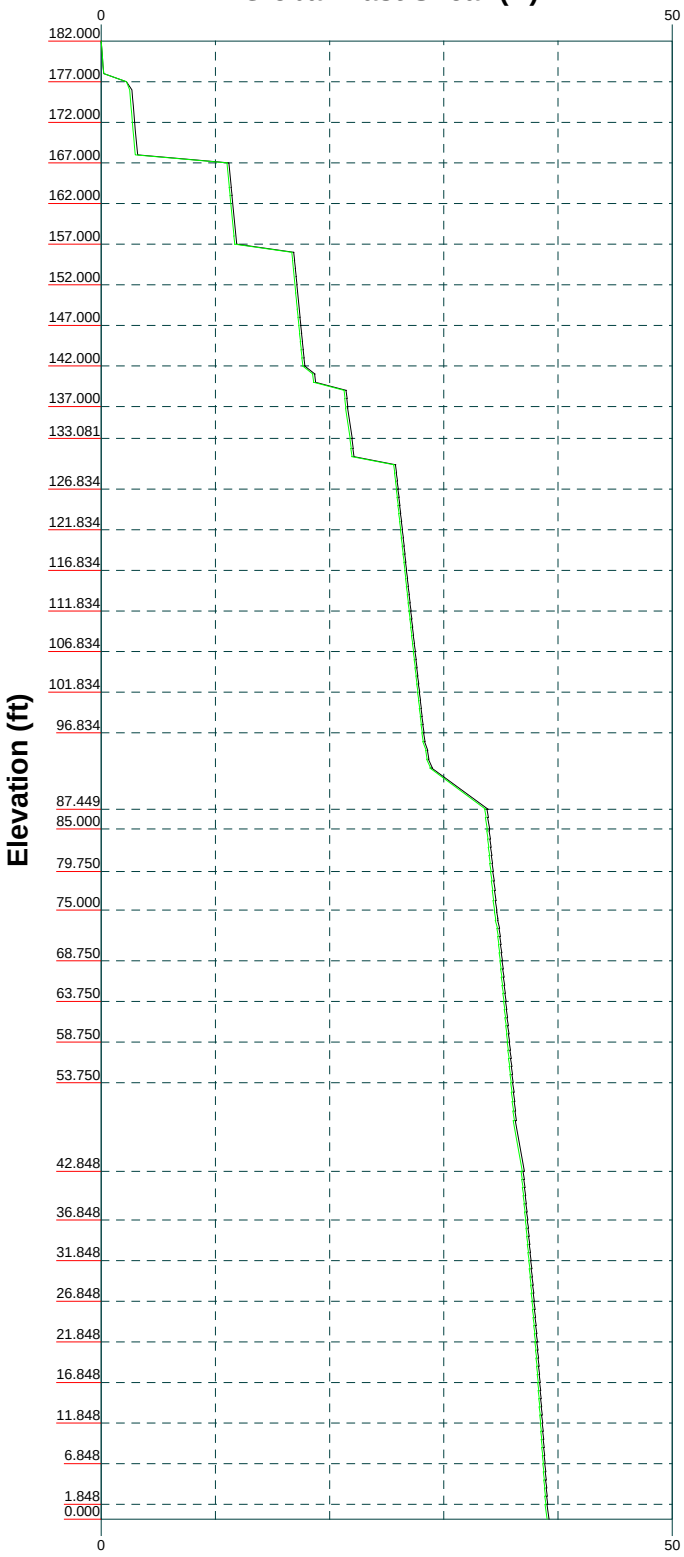
TIA-222-H - 118 mph/50 mph 1.500 in Ice Exposure C

Vx Vz

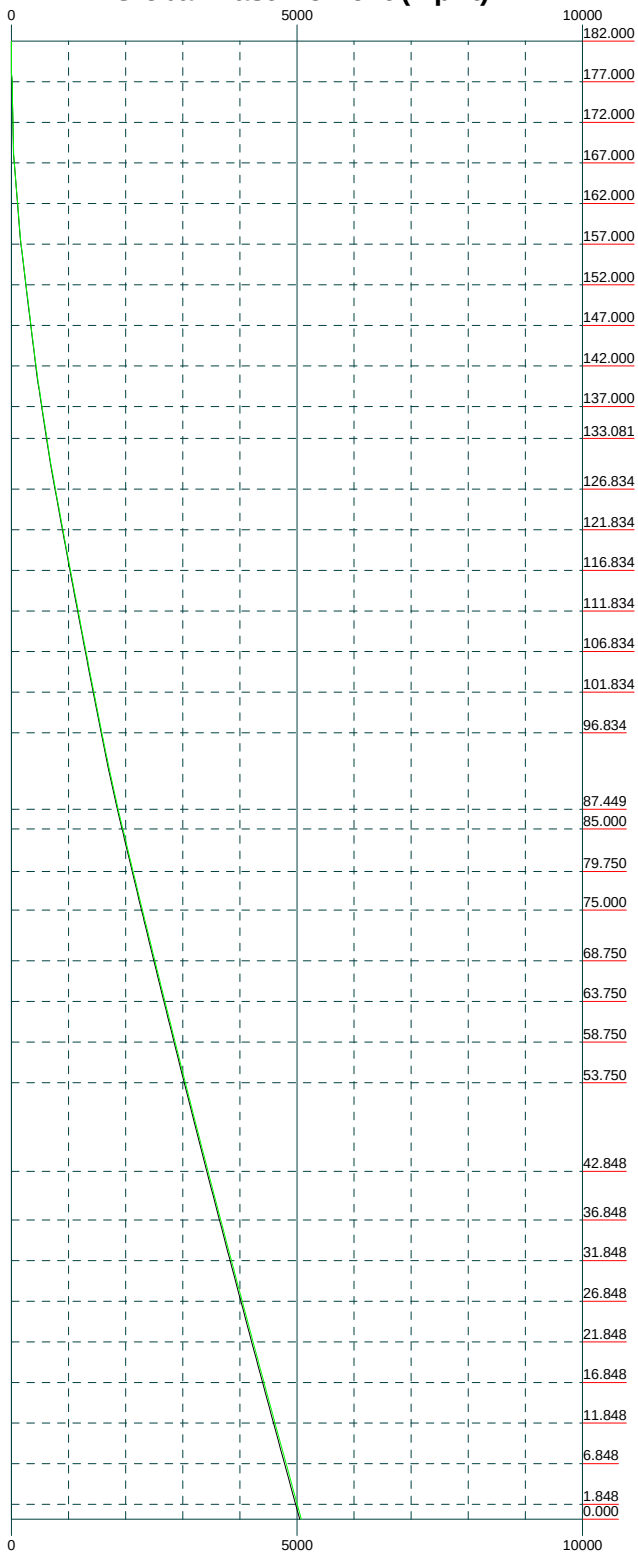
Maximum Values

Mx Mz

Global Mast Shear (K)



Global Mast Moment (kip-ft)

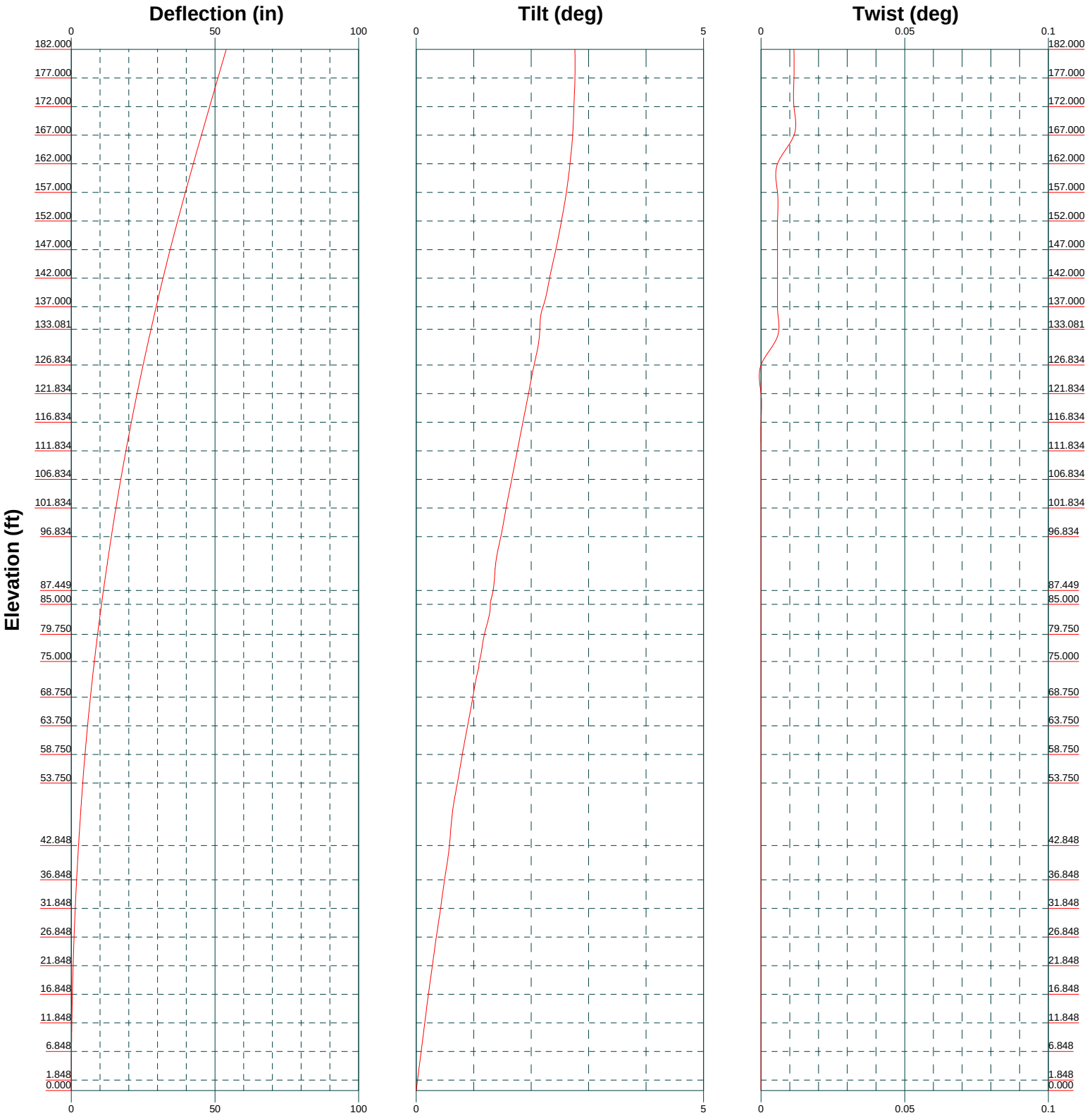


B+T Group
1717 S. Boulder, Suite 300
Tulsa, OK 74119
Phone: (918) 587-4630
FAX: (918) 295-0265

Job: 95171.022.01 - Rocky Hill, CT (BU# 842872			
Project:			
Client: Crown Castle	Drawn by: Sahana	App'd:	
Code: TIA-222-H	Date: 09/08/21	Scale: NTS	
Path:		Dwg No. E-4	

TIA-222-H - Service - 60 mph

Maximum Values



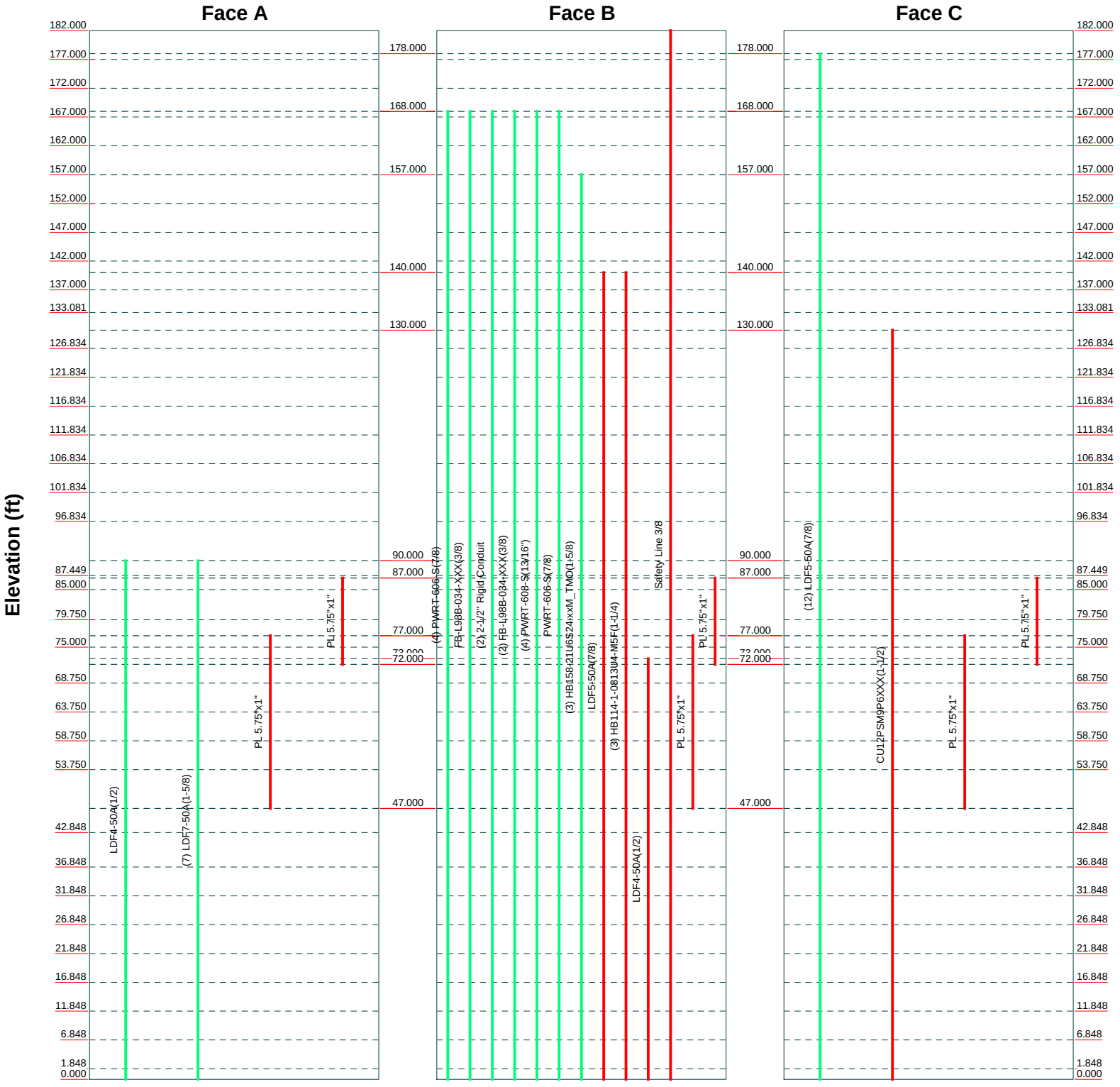
B+T GRP

B+T Group
1717 S. Boulder, Suite 300
Tulsa, OK 74119
Phone: (918) 587-4630
FAX: (918) 295-0265

Job: ***95171.022.01 - Rocky Hill, CT (BU# 842872***			
Project:			
Client: Crown Castle	Drawn by: Sahana	App'd:	
Code: TIA-222-H	Date: 09/08/21	Scale: NTS	
Path:		Dwg No. E-5	

Feed Line Distribution Chart
0' - 182'

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



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B+T Group
1717 S. Boulder, Suite 300
Tulsa, OK 74119
Phone: (918) 587-4630
FAX: (918) 295-0265

Job: ***95171.022.01 - Rocky Hill, CT (BU# 842872***			
Project:			
Client: Crown Castle	Drawn by: Sahana	App'd:	
Code: TIA-222-H	Date: 09/08/21	Scale: NTS	
Path:		Dwg No. E-7	

Tower Input Data

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

Tower is located in Hartford County, Connecticut.
Tower base elevation above sea level: 199.000 ft.
Basic wind speed of 118 mph.
Risk Category II.
Exposure Category C.
Simplified Topographic Factor Procedure for wind speed-up calculations is used.
Topographic Category: 1.
Crest Height: 0.000 ft.
Nominal ice thickness of 1.500 in.
Ice thickness is considered to increase with height.
Ice density of 56.000 pcf.
A wind speed of 50 mph is used in combination with ice.
Temperature drop of 50.000 °F.
Deflections calculated using a wind speed of 60 mph.
TIA-222-H Annex S.
A non-linear (P-delta) analysis was used.
Pressures are calculated at each section.
Stress ratio used in pole design is 1.
Tower analysis based on target reliabilities in accordance with Annex S.
Load Modification Factors used: $K_{es}(F_w) = 0.95$, $K_{es}(t_i) = 0.85$.
Maximum demand-capacity ratio is: 1.05.
Local bending stresses due to climbing loads, feed line supports, and appurtenance mounts are not considered.

Options

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

Tapered Pole Section Geometry

Section	Elevation ft	Section Length ft	Splice Length ft	Number of Sides	Top Diameter in	Bottom Diameter in	Wall Thickness in	Bend Radius in	Pole Grade
L1	182.000-177.000	5.000	0.000	18	14.500	15.678	0.250	1.000	A572-65 (65 ksi)
L2	177.000-172.000	5.000	0.000	18	15.678	16.856	0.250	1.000	A572-65 (65 ksi)
L3	172.000-167.000	5.000	0.000	18	16.856	18.033	0.250	1.000	A572-65 (65 ksi)
L4	167.000-162.000	5.000	0.000	18	18.033	19.211	0.250	1.000	A572-65 (65 ksi)
L5	162.000-157.000	5.000	0.000	18	19.211	20.389	0.250	1.000	A572-65 (65 ksi)
L6	157.000-152.000	5.000	0.000	18	20.389	21.567	0.250	1.000	A572-65 (65 ksi)
L7	152.000-147.000	5.000	0.000	18	21.567	22.744	0.250	1.000	A572-65 (65 ksi)
L8	147.000-142.000	5.000	0.000	18	22.744	23.922	0.250	1.000	A572-65 (65 ksi)
L9	142.000-137.000	5.000	0.000	18	23.922	25.100	0.250	1.000	A572-65 (65 ksi)
L10	137.000-133.081	3.919	3.753	18	25.100	26.023	0.250	1.000	A572-65 (65 ksi)
L11	133.081-131.834	5.000	0.000	18	24.639	25.805	0.375	1.500	A572-65 (65 ksi)
L12	131.834-126.834	5.000	0.000	18	25.805	26.972	0.375	1.500	A572-65 (65 ksi)
L13	126.834-121.834	5.000	0.000	18	26.972	28.138	0.375	1.500	A572-65 (65 ksi)
L14	121.834-116.834	5.000	0.000	18	28.138	29.305	0.375	1.500	A572-65 (65 ksi)
L15	116.834-111.834	5.000	0.000	18	29.305	30.471	0.375	1.500	A572-65 (65 ksi)
L16	111.834-106.834	5.000	0.000	18	30.471	31.638	0.375	1.500	A572-65 (65 ksi)
L17	106.834-101.834	5.000	0.000	18	31.638	32.804	0.375	1.500	A572-65 (65 ksi)
L18	101.834-96.834	5.000	0.000	18	32.804	33.971	0.375	1.500	A572-65 (65 ksi)
L19	96.834-87.449	9.385	5.021	18	33.971	36.160	0.375	1.500	A572-65 (65 ksi)
L20	87.449-86.449	6.021	0.000	18	34.239	35.642	0.375	1.500	A572-65 (65 ksi)
L21	86.449-85.000	1.449	0.000	18	35.642	35.980	0.375	1.500	A572-65 (65 ksi)
L22	85.000-84.750	0.250	0.000	18	35.980	36.038	0.375	1.500	A572-65 (65 ksi)
L23	84.750-79.750	5.000	0.000	18	36.038	37.203	0.375	1.500	A572-65 (65 ksi)
L24	79.750-75.000	4.750	0.000	18	37.203	38.310	0.375	1.500	A572-65 (65 ksi)
L25	75.000-74.750	0.250	0.000	18	38.310	38.369	0.700	2.800	A572-65 (65 ksi)
L26	74.750-74.000	0.750	0.000	18	38.369	38.543	0.700	2.800	A572-65 (65 ksi)
L27	74.000-73.750	0.250	0.000	18	38.543	38.602	0.375	1.500	A572-65 (65 ksi)
L28	73.750-68.750	5.000	0.000	18	38.602	39.767	0.375	1.500	A572-65 (65 ksi)
L29	68.750-63.750	5.000	0.000	18	39.767	40.932	0.375	1.500	A572-65 (65 ksi)

Section	Elevation ft	Section Length ft	Splice Length ft	Number of Sides	Top Diameter in	Bottom Diameter in	Wall Thickness in	Bend Radius in	Pole Grade
L30	63.750-58.750	5.000	0.000	18	40.932	42.098	0.375	1.500	A572-65 (65 ksi)
L31	58.750-53.750	5.000	0.000	18	42.098	43.263	0.375	1.500	A572-65 (65 ksi)
L32	53.750-42.848	10.902	6.232	18	43.263	45.804	0.375	1.500	A572-65 (65 ksi)
L33	42.848-41.848	7.232	0.000	18	43.602	45.281	0.438	1.750	A572-65 (65 ksi)
L34	41.848-36.848	5.000	0.000	18	45.281	46.442	0.438	1.750	A572-65 (65 ksi)
L35	36.848-31.848	5.000	0.000	18	46.442	47.604	0.438	1.750	A572-65 (65 ksi)
L36	31.848-26.848	5.000	0.000	18	47.604	48.765	0.438	1.750	A572-65 (65 ksi)
L37	26.848-21.848	5.000	0.000	18	48.765	49.926	0.438	1.750	A572-65 (65 ksi)
L38	21.848-16.848	5.000	0.000	18	49.926	51.087	0.438	1.750	A572-65 (65 ksi)
L39	16.848-11.848	5.000	0.000	18	51.087	52.248	0.438	1.750	A572-65 (65 ksi)
L40	11.848-6.848	5.000	0.000	18	52.248	53.410	0.438	1.750	A572-65 (65 ksi)
L41	6.848-1.848	5.000	0.000	18	53.410	54.571	0.438	1.750	A572-65 (65 ksi)
L42	1.848-0.000	1.848		18	54.571	55.000	0.438	1.750	A572-65 (65 ksi)

Tapered Pole Properties

Section	Tip Dia. in	Area in^2	I in^4	r in	C in	I/C in^3	J in^4	It/Q in^2	w in	w/t
L1	14.685	11.307	290.087	5.059	7.366	39.382	580.557	5.655	2.112	8.448
	15.881	12.242	368.123	5.477	7.964	46.222	736.731	6.122	2.319	9.277
L2	15.881	12.242	368.123	5.477	7.964	46.222	736.731	6.122	2.319	9.277
	17.077	13.176	459.031	5.895	8.563	53.609	918.667	6.589	2.527	10.106
L3	17.077	13.176	459.031	5.895	8.563	53.609	918.667	6.589	2.527	10.106
	18.273	14.111	563.794	6.313	9.161	61.543	1128.331	7.057	2.734	10.935
L4	18.273	14.111	563.794	6.313	9.161	61.543	1128.331	7.057	2.734	10.935
	19.469	15.046	683.395	6.731	9.759	70.026	1367.689	7.524	2.941	11.765
L5	19.469	15.046	683.395	6.731	9.759	70.026	1367.689	7.524	2.941	11.765
	20.665	15.980	818.816	7.149	10.358	79.055	1638.709	7.992	3.148	12.594
L6	20.665	15.980	818.816	7.149	10.358	79.055	1638.709	7.992	3.148	12.594
	21.861	16.915	971.040	7.567	10.956	88.632	1943.357	8.459	3.356	13.423
L7	21.861	16.915	971.040	7.567	10.956	88.632	1943.357	8.459	3.356	13.423
	23.057	17.849	1141.049	7.985	11.554	98.757	2283.600	8.926	3.563	14.252
L8	23.057	17.849	1141.049	7.985	11.554	98.757	2283.600	8.926	3.563	14.252
	24.253	18.784	1329.827	8.404	12.152	109.429	2661.403	9.394	3.770	15.081
L9	24.253	18.784	1329.827	8.404	12.152	109.429	2661.403	9.394	3.770	15.081
	25.449	19.718	1538.355	8.822	12.751	120.648	3078.735	9.861	3.978	15.91
L10	25.449	19.718	1538.355	8.822	12.751	120.648	3078.735	9.861	3.978	15.91
	26.386	20.451	1716.245	9.149	13.220	129.825	3434.748	10.227	4.140	16.56
L11	25.850	28.880	2148.134	8.614	12.517	171.623	4299.094	14.443	3.676	9.804
	26.146	30.269	2473.069	9.028	13.109	188.652	4949.393	15.137	3.882	10.351
L12	26.146	30.269	2473.069	9.028	13.109	188.652	4949.393	15.137	3.882	10.351
	27.330	31.657	2829.224	9.442	13.702	206.487	5662.170	15.831	4.087	10.899
L13	27.330	31.657	2829.224	9.442	13.702	206.487	5662.170	15.831	4.087	10.899

Section	Tip Dia. in	Area in^2	I in^4	r in	C in	I/C in^3	J in^4	It/Q in^2	w in	w/t
	28.515	33.045	3218.029	9.856	14.294	225.127	6440.292	16.526	4.292	11.446
L14	28.515	33.045	3218.029	9.856	14.294	225.127	6440.292	16.526	4.292	11.446
	29.699	34.434	3640.916	10.270	14.887	244.573	7286.623	17.220	4.498	11.994
L15	29.699	34.434	3640.916	10.270	14.887	244.573	7286.623	17.220	4.498	11.994
	30.883	35.822	4099.318	10.684	15.479	264.824	8204.030	17.914	4.703	12.541
L16	30.883	35.822	4099.318	10.684	15.479	264.824	8204.030	17.914	4.703	12.541
	32.068	37.210	4594.666	11.098	16.072	285.881	9195.377	18.609	4.908	13.089
L17	32.068	37.210	4594.666	11.098	16.072	285.881	9195.377	18.609	4.908	13.089
	33.252	38.599	5128.392	11.512	16.664	307.744	10263.533	19.303	5.114	13.636
L18	33.252	38.599	5128.392	11.512	16.664	307.744	10263.533	19.303	5.114	13.636
	34.437	39.987	5701.929	11.926	17.257	330.412	11411.361	19.997	5.319	14.184
L19	34.437	39.987	5701.929	11.926	17.257	330.412	11411.361	19.997	5.319	14.184
	36.660	42.593	6890.944	12.704	18.369	375.134	13790.955	21.301	5.704	15.211
L20	35.897	40.306	5839.518	12.022	17.393	335.735	11686.719	20.157	5.366	14.309
	36.134	41.976	6595.985	12.520	18.106	364.296	13200.650	20.992	5.613	14.968
L21	36.134	41.976	6595.985	12.520	18.106	364.296	13200.650	20.992	5.613	14.968
	36.477	42.378	6787.295	12.640	18.278	371.343	13583.522	21.193	5.672	15.126
L22	36.477	42.378	6787.295	12.640	18.278	371.343	13583.522	21.193	5.672	15.126
	36.536	42.448	6820.672	12.660	18.307	372.566	13650.319	21.228	5.683	15.154
L23	36.536	42.448	6820.672	12.660	18.307	372.566	13650.319	21.228	5.683	15.154
	37.719	43.835	7511.389	13.074	18.899	397.443	15032.661	21.922	5.888	15.701
L24	37.719	43.835	7511.389	13.074	18.899	397.443	15032.661	21.922	5.888	15.701
	38.844	45.153	8209.344	13.467	19.462	421.821	16429.491	22.581	6.083	16.22
L25	38.793	83.563	14933.620	13.352	19.462	767.335	29886.890	41.789	5.511	7.872
	38.853	83.692	15003.134	13.372	19.491	769.736	30026.010	41.854	5.521	7.887
L26	38.853	83.692	15003.134	13.372	19.491	769.736	30026.010	41.854	5.521	7.887
	39.030	84.081	15212.972	13.434	19.580	776.962	30445.961	42.048	5.552	7.931
L27	39.080	45.430	8361.587	13.550	19.580	427.046	16734.176	22.719	6.124	16.33
	39.139	45.499	8399.939	13.570	19.610	428.357	16810.931	22.754	6.134	16.357
L28	39.139	45.499	8399.939	13.570	19.610	428.357	16810.931	22.754	6.134	16.357
	40.323	46.886	9191.815	13.984	20.202	455.003	18395.725	23.448	6.339	16.904
L29	40.323	46.886	9191.815	13.984	20.202	455.003	18395.725	23.448	6.339	16.904
	41.506	48.273	10031.958	14.398	20.794	482.453	20077.116	24.141	6.544	17.451
L30	41.506	48.273	10031.958	14.398	20.794	482.453	20077.116	24.141	6.544	17.451
	42.689	49.660	10921.795	14.812	21.386	510.707	21857.961	24.835	6.749	17.998
L31	42.689	49.660	10921.795	14.812	21.386	510.707	21857.961	24.835	6.749	17.998
	43.873	51.048	11862.754	15.225	21.978	539.765	23741.117	25.529	6.954	18.545
L32	43.873	51.048	11862.754	15.225	21.978	539.765	23741.117	25.529	6.954	18.545
	46.453	54.072	14098.573	16.127	23.268	605.910	28215.698	27.041	7.402	19.737
L33	45.676	59.939	14108.729	15.323	22.150	636.975	28236.023	29.975	6.904	15.78
	45.912	62.271	15820.627	15.919	23.003	687.770	31662.071	31.141	7.199	16.456
L34	45.912	62.271	15820.627	15.919	23.003	687.770	31662.071	31.141	7.199	16.456
	47.091	63.883	17081.742	16.332	23.593	724.027	34185.960	31.948	7.404	16.923
L35	47.091	63.883	17081.742	16.332	23.593	724.027	34185.960	31.948	7.404	16.923
	48.270	65.496	18408.155	16.744	24.183	761.215	36840.532	32.754	7.608	17.39
L36	48.270	65.496	18408.155	16.744	24.183	761.215	36840.532	32.754	7.608	17.39
	49.450	67.108	19801.515	17.156	24.772	799.335	39629.084	33.561	7.813	17.857
L37	49.450	67.108	19801.515	17.156	24.772	799.335	39629.084	33.561	7.813	17.857
	50.629	68.721	21263.469	17.568	25.362	838.386	42554.917	34.367	8.017	18.324
L38	50.629	68.721	21263.469	17.568	25.362	838.386	42554.917	34.367	8.017	18.324
	51.808	70.333	22795.666	17.981	25.952	878.368	45621.328	35.173	8.221	18.792
L39	51.808	70.333	22795.666	17.981	25.952	878.368	45621.328	35.173	8.221	18.792
	52.987	71.946	24399.755	18.393	26.542	919.282	48831.615	35.980	8.426	19.259
L40	52.987	71.946	24399.755	18.393	26.542	919.282	48831.615	35.980	8.426	19.259
	54.166	73.558	26077.383	18.805	27.132	961.127	52189.079	36.786	8.630	19.726
L41	54.166	73.558	26077.383	18.805	27.132	961.127	52189.079	36.786	8.630	19.726
	55.345	75.171	27830.198	19.217	27.722	1003.904	55697.016	37.593	8.834	20.193
L42	55.345	75.171	27830.198	19.217	27.722	1003.904	55697.016	37.593	8.834	20.193
	55.781	75.767	28497.398	19.370	27.940	1019.950	57032.294	37.891	8.910	20.366

Tower Elevation ft	Gusset Area (per face) ft^2	Gusset Thickness in	Gusset Grade	Adjust. Factor A_f	Adjust. Factor A_r	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals in	Double Angle Stitch Bolt Spacing Horizontals in	Double Angle Stitch Bolt Spacing Redundants in
L1 182.000-177.000				1	1	1			
L2 177.000-172.000				1	1	1			
L3 172.000-167.000				1	1	1			
L4 167.000-162.000				1	1	1			
L5 162.000-157.000				1	1	1			
L6 157.000-152.000				1	1	1			
L7 152.000-147.000				1	1	1			
L8 147.000-142.000				1	1	1			
L9 142.000-137.000				1	1	1			
L10 137.000-133.081				1	1	1			
L11 133.081-131.834				1	1	1			
L12 131.834-126.834				1	1	1			
L13 126.834-121.834				1	1	1			
L14 121.834-116.834				1	1	1			
L15 116.834-111.834				1	1	1			
L16 111.834-106.834				1	1	1			
L17 106.834-101.834				1	1	1			
L18 101.834-96.834				1	1	1			
L19 96.834-87.449				1	1	1			
L20 87.449-86.449				1	1	1			
L21				1	1	1			

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
86.449-85.000									
L22				1	1	1			
85.000-84.750									
L23				1	1	1			
84.750-79.750									
L24				1	1	1			
79.750-75.000									
L25				1	1	0.952576			
75.000-74.750									
L26				1	1	0.950651			
74.750-74.000									
L27				1	1	1			
74.000-73.750									
L28				1	1	1			
73.750-68.750									
L29				1	1	1			
68.750-63.750									
L30				1	1	1			
63.750-58.750									
L31				1	1	1			
58.750-53.750									
L32				1	1	1			
53.750-42.848									
L33				1	1	1			
42.848-41.848									
L34				1	1	1			
41.848-36.848									
L35				1	1	1			
36.848-31.848									
L36				1	1	1			
31.848-26.848									
L37				1	1	1			
26.848-21.848									
L38				1	1	1			
21.848-16.848									
L39				1	1	1			
16.848-11.848									
L40				1	1	1			
11.848-6.848									
L41				1	1	1			
6.848-1.848									
L42				1	1	1			
1.848-0.000									

Feed Line/Linear Appurtenances - Entered As Round Or Flat

Description	Sector	Exclude From Torque Calculation	Component Type	Placement ft	Total Number	Number Per Row	Start/End Position	Width or Diameter in	Perimeter in	Weight klf
*										
LDF5-50A(7/8)	B	No	Surface Ar (CaAa)	140.000 - 0.000	1	1	-0.150 -0.130	1.090		0.000
HB114-1-0813U4-M5F(1-1/4)	B	No	Surface Ar (CaAa)	140.000 - 0.000	3	3	-0.100 0.000	1.540		0.001

Description	Sector	Exclude From Torque Calculation	Component Type	Placement ft	Total Number	Number Per Row	Start/End Position	Width or Diameter in	Perimeter in	Weight klf
*										
CU12PSM9P6XXX(1-1/2)	C	No	Surface Ar (CaAa)	130.000 - 0.000	1	1	0.370 0.400	1.600		0.002
*										
LDF4-50A(1/2)	B	No	Surface Ar (CaAa)	73.000 - 0.000	1	1	-0.180 -0.150	0.630		0.000
*										
Safety Line 3/8	B	No	Surface Ar (CaAa)	182.000 - 0.000	1	1	0.250 0.250	0.375		0.000
*										
PL 5.75"x1"	A	No	Surface Af (CaAa)	77.000 - 47.000	1	1	0.150 0.200	5.750	13.500	0.000
PL 5.75"x1"	B	No	Surface Af (CaAa)	77.000 - 47.000	1	1	0.150 0.200	5.750	13.500	0.000
PL 5.75"x1"	C	No	Surface Af (CaAa)	77.000 - 47.000	1	1	0.150 0.200	5.750	13.500	0.000
*										
PL 5.75"x1"	A	No	Surface Af (CaAa)	87.000 - 72.000	1	1	0.000 0.050	5.750	13.500	0.000
PL 5.75"x1"	B	No	Surface Af (CaAa)	87.000 - 72.000	1	1	0.000 0.050	5.750	13.500	0.000
PL 5.75"x1"	C	No	Surface Af (CaAa)	87.000 - 72.000	1	1	0.000 0.050	5.750	13.500	0.000
*										

Feed Line/Linear Appurtenances - Entered As Area

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Total Number		C_AA_A ft^2/ft	Weight klf
LDF5-50A(7/8)	C	No	No	Inside Pole	178.000 - 0.000	12	No Ice	0.000	0.000
							1/2" Ice	0.000	0.000
							1" Ice	0.000	0.000
							2" Ice	0.000	0.000
*									
PWRT-606-S(7/8)	B	No	No	Inside Pole	168.000 - 0.000	4	No Ice	0.000	0.001
							1/2" Ice	0.000	0.001
							1" Ice	0.000	0.001
							2" Ice	0.000	0.001
FB-L98B-034-XXX(3/8)	B	No	No	Inside Pole	168.000 - 0.000	1	No Ice	0.000	0.000
							1/2" Ice	0.000	0.000
							1" Ice	0.000	0.000
							2" Ice	0.000	0.000
2-1/2" Rigid Conduit	B	No	No	Inside Pole	168.000 - 0.000	2	No Ice	0.000	0.003
							1/2" Ice	0.000	0.003
							1" Ice	0.000	0.003
							2" Ice	0.000	0.003
FB-L98B-034-XXX(3/8)	B	No	No	Inside Pole	168.000 - 0.000	2	No Ice	0.000	0.000
							1/2" Ice	0.000	0.000
							1" Ice	0.000	0.000
							2" Ice	0.000	0.000
PWRT-608-S(13/16")	B	No	No	Inside Pole	168.000 - 0.000	4	No Ice	0.000	0.001
							1/2" Ice	0.000	0.001
							1" Ice	0.000	0.001
							2" Ice	0.000	0.001
PWRT-606-S(7/8)	B	No	No	Inside Pole	168.000 - 0.000	1	No Ice	0.000	0.001

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Total Number		C_AA_A ft^2/ft	Weight klf
							1/2" Ice	0.000	0.001
							1" Ice	0.000	0.001
							2" Ice	0.000	0.001
*									
HB158-21U6S24-xx M_TMO(1-5/8)	B	No	No	Inside Pole	157.000 - 0.000	3	No Ice	0.000	0.003
							1/2" Ice	0.000	0.003
							1" Ice	0.000	0.003
							2" Ice	0.000	0.003
*									
LDF4-50A(1/2)	A	No	No	Inside Pole	90.000 - 0.000	1	No Ice	0.000	0.000
							1/2" Ice	0.000	0.000
							1" Ice	0.000	0.000
							2" Ice	0.000	0.000
LDF7-50A(1-5/8)	A	No	No	Inside Pole	90.000 - 0.000	7	No Ice	0.000	0.001
							1/2" Ice	0.000	0.001
							1" Ice	0.000	0.001
							2" Ice	0.000	0.001
*									

Feed Line/Linear Appurtenances Section Areas

Tower Section	Tower Elevation ft	Face	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight K
L1	182.000-177.000	A	0.000	0.000	0.000	0.000	0.000
		B	0.000	0.000	0.188	0.000	0.001
		C	0.000	0.000	0.000	0.000	0.004
L2	177.000-172.000	A	0.000	0.000	0.000	0.000	0.000
		B	0.000	0.000	0.188	0.000	0.001
		C	0.000	0.000	0.000	0.000	0.020
L3	172.000-167.000	A	0.000	0.000	0.000	0.000	0.000
		B	0.000	0.000	0.188	0.000	0.014
		C	0.000	0.000	0.000	0.000	0.020
L4	167.000-162.000	A	0.000	0.000	0.000	0.000	0.000
		B	0.000	0.000	0.188	0.000	0.067
		C	0.000	0.000	0.000	0.000	0.020
L5	162.000-157.000	A	0.000	0.000	0.000	0.000	0.000
		B	0.000	0.000	0.188	0.000	0.067
		C	0.000	0.000	0.000	0.000	0.020
L6	157.000-152.000	A	0.000	0.000	0.000	0.000	0.000
		B	0.000	0.000	0.188	0.000	0.104
		C	0.000	0.000	0.000	0.000	0.020
L7	152.000-147.000	A	0.000	0.000	0.000	0.000	0.000
		B	0.000	0.000	0.188	0.000	0.104
		C	0.000	0.000	0.000	0.000	0.020
L8	147.000-142.000	A	0.000	0.000	0.000	0.000	0.000
		B	0.000	0.000	0.188	0.000	0.104
		C	0.000	0.000	0.000	0.000	0.020
L9	142.000-137.000	A	0.000	0.000	0.000	0.000	0.000
		B	0.000	0.000	1.900	0.000	0.116
		C	0.000	0.000	0.000	0.000	0.020
L10	137.000-133.081	A	0.000	0.000	0.000	0.000	0.000
		B	0.000	0.000	2.385	0.000	0.097
		C	0.000	0.000	0.000	0.000	0.016

Tower Section	Tower Elevation ft	Face	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight K
L11	133.081-131.834	A	0.000	0.000	0.000	0.000	0.000
		B	0.000	0.000	0.759	0.000	0.031
		C	0.000	0.000	0.000	0.000	0.005
L12	131.834-126.834	A	0.000	0.000	0.000	0.000	0.000
		B	0.000	0.000	3.043	0.000	0.124
		C	0.000	0.000	0.507	0.000	0.027
L13	126.834-121.834	A	0.000	0.000	0.000	0.000	0.000
		B	0.000	0.000	3.043	0.000	0.124
		C	0.000	0.000	0.800	0.000	0.032
L14	121.834-116.834	A	0.000	0.000	0.000	0.000	0.000
		B	0.000	0.000	3.043	0.000	0.124
		C	0.000	0.000	0.800	0.000	0.032
L15	116.834-111.834	A	0.000	0.000	0.000	0.000	0.000
		B	0.000	0.000	3.043	0.000	0.124
		C	0.000	0.000	0.800	0.000	0.032
L16	111.834-106.834	A	0.000	0.000	0.000	0.000	0.000
		B	0.000	0.000	3.043	0.000	0.124
		C	0.000	0.000	0.800	0.000	0.032
L17	106.834-101.834	A	0.000	0.000	0.000	0.000	0.000
		B	0.000	0.000	3.043	0.000	0.124
		C	0.000	0.000	0.800	0.000	0.032
L18	101.834-96.834	A	0.000	0.000	0.000	0.000	0.000
		B	0.000	0.000	3.043	0.000	0.124
		C	0.000	0.000	0.800	0.000	0.032
L19	96.834-87.449	A	0.000	0.000	0.000	0.000	0.015
		B	0.000	0.000	5.711	0.000	0.232
		C	0.000	0.000	1.502	0.000	0.059
L20	87.449-86.449	A	0.000	0.000	0.528	0.000	0.006
		B	0.000	0.000	1.137	0.000	0.025
		C	0.000	0.000	0.688	0.000	0.006
L21	86.449-85.000	A	0.000	0.000	1.389	0.000	0.009
		B	0.000	0.000	2.270	0.000	0.036
		C	0.000	0.000	1.620	0.000	0.009
L22	85.000-84.750	A	0.000	0.000	0.240	0.000	0.001
		B	0.000	0.000	0.392	0.000	0.006
		C	0.000	0.000	0.280	0.000	0.002
L23	84.750-79.750	A	0.000	0.000	4.792	0.000	0.029
		B	0.000	0.000	7.834	0.000	0.124
		C	0.000	0.000	5.592	0.000	0.032
L24	79.750-75.000	A	0.000	0.000	6.469	0.000	0.028
		B	0.000	0.000	9.359	0.000	0.118
		C	0.000	0.000	7.229	0.000	0.030
L25	75.000-74.750	A	0.000	0.000	0.479	0.000	0.001
		B	0.000	0.000	0.631	0.000	0.006
		C	0.000	0.000	0.519	0.000	0.002
L26	74.750-74.000	A	0.000	0.000	1.438	0.000	0.004
		B	0.000	0.000	1.894	0.000	0.019
		C	0.000	0.000	1.558	0.000	0.005
L27	74.000-73.750	A	0.000	0.000	0.479	0.000	0.001
		B	0.000	0.000	0.631	0.000	0.006
		C	0.000	0.000	0.519	0.000	0.002
L28	73.750-68.750	A	0.000	0.000	6.469	0.000	0.029
		B	0.000	0.000	9.779	0.000	0.124
		C	0.000	0.000	7.269	0.000	0.032
L29	68.750-63.750	A	0.000	0.000	4.792	0.000	0.029
		B	0.000	0.000	8.149	0.000	0.125
		C	0.000	0.000	5.592	0.000	0.032
L30	63.750-58.750	A	0.000	0.000	4.792	0.000	0.029
		B	0.000	0.000	8.149	0.000	0.125
		C	0.000	0.000	5.592	0.000	0.032
L31	58.750-53.750	A	0.000	0.000	4.792	0.000	0.029

Tower Section	Tower Elevation ft	Face	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight K
		B	0.000	0.000	8.149	0.000	0.125
		C	0.000	0.000	5.592	0.000	0.032
L32	53.750-42.848	A	0.000	0.000	6.469	0.000	0.064
		B	0.000	0.000	13.789	0.000	0.271
		C	0.000	0.000	8.213	0.000	0.069
L33	42.848-41.848	A	0.000	0.000	0.000	0.000	0.006
		B	0.000	0.000	0.671	0.000	0.025
		C	0.000	0.000	0.160	0.000	0.006
L34	41.848-36.848	A	0.000	0.000	0.000	0.000	0.029
		B	0.000	0.000	3.357	0.000	0.125
		C	0.000	0.000	0.800	0.000	0.032
L35	36.848-31.848	A	0.000	0.000	0.000	0.000	0.029
		B	0.000	0.000	3.357	0.000	0.125
		C	0.000	0.000	0.800	0.000	0.032
L36	31.848-26.848	A	0.000	0.000	0.000	0.000	0.029
		B	0.000	0.000	3.357	0.000	0.125
		C	0.000	0.000	0.800	0.000	0.032
L37	26.848-21.848	A	0.000	0.000	0.000	0.000	0.029
		B	0.000	0.000	3.357	0.000	0.125
		C	0.000	0.000	0.800	0.000	0.032
L38	21.848-16.848	A	0.000	0.000	0.000	0.000	0.029
		B	0.000	0.000	3.357	0.000	0.125
		C	0.000	0.000	0.800	0.000	0.032
L39	16.848-11.848	A	0.000	0.000	0.000	0.000	0.029
		B	0.000	0.000	3.357	0.000	0.125
		C	0.000	0.000	0.800	0.000	0.032
L40	11.848-6.848	A	0.000	0.000	0.000	0.000	0.029
		B	0.000	0.000	3.357	0.000	0.125
		C	0.000	0.000	0.800	0.000	0.032
L41	6.848-1.848	A	0.000	0.000	0.000	0.000	0.029
		B	0.000	0.000	3.357	0.000	0.125
		C	0.000	0.000	0.800	0.000	0.032
L42	1.848-0.000	A	0.000	0.000	0.000	0.000	0.011
		B	0.000	0.000	1.241	0.000	0.046
		C	0.000	0.000	0.296	0.000	0.012

Feed Line/Linear Appurtenances Section Areas - With Ice

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight K
L1	182.000-177.000	A	1.510	0.000	0.000	0.000	0.000	0.000
		B		0.000	0.000	1.698	0.000	0.018
		C		0.000	0.000	0.000	0.000	0.004
L2	177.000-172.000	A	1.506	0.000	0.000	0.000	0.000	0.000
		B		0.000	0.000	1.694	0.000	0.018
		C		0.000	0.000	0.000	0.000	0.020
L3	172.000-167.000	A	1.502	0.000	0.000	0.000	0.000	0.000
		B		0.000	0.000	1.689	0.000	0.031
		C		0.000	0.000	0.000	0.000	0.020
L4	167.000-162.000	A	1.497	0.000	0.000	0.000	0.000	0.000
		B		0.000	0.000	1.685	0.000	0.084
		C		0.000	0.000	0.000	0.000	0.020
L5	162.000-157.000	A	1.493	0.000	0.000	0.000	0.000	0.000
		B		0.000	0.000	1.680	0.000	0.084
		C		0.000	0.000	0.000	0.000	0.020
L6	157.000-152.000	A	1.488	0.000	0.000	0.000	0.000	0.000
		B		0.000	0.000	1.675	0.000	0.121

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight K
		C		0.000	0.000	0.000	0.000	0.020
L7	152.000-147.000	A	1.483	0.000	0.000	0.000	0.000	0.000
		B		0.000	0.000	1.670	0.000	0.121
		C		0.000	0.000	0.000	0.000	0.020
L8	147.000-142.000	A	1.478	0.000	0.000	0.000	0.000	0.000
		B		0.000	0.000	1.665	0.000	0.121
		C		0.000	0.000	0.000	0.000	0.020
L9	142.000-137.000	A	1.473	0.000	0.000	0.000	0.000	0.000
		B		0.000	0.000	5.708	0.000	0.174
		C		0.000	0.000	0.000	0.000	0.020
L10	137.000-133.081	A	1.468	0.000	0.000	0.000	0.000	0.000
		B		0.000	0.000	6.577	0.000	0.164
		C		0.000	0.000	0.000	0.000	0.016
L11	133.081-131.834	A	1.465	0.000	0.000	0.000	0.000	0.000
		B		0.000	0.000	2.093	0.000	0.052
		C		0.000	0.000	0.000	0.000	0.005
L12	131.834-126.834	A	1.462	0.000	0.000	0.000	0.000	0.000
		B		0.000	0.000	8.370	0.000	0.209
		C		0.000	0.000	1.432	0.000	0.045
L13	126.834-121.834	A	1.456	0.000	0.000	0.000	0.000	0.000
		B		0.000	0.000	8.351	0.000	0.209
		C		0.000	0.000	2.256	0.000	0.059
L14	121.834-116.834	A	1.450	0.000	0.000	0.000	0.000	0.000
		B		0.000	0.000	8.332	0.000	0.208
		C		0.000	0.000	2.250	0.000	0.059
L15	116.834-111.834	A	1.444	0.000	0.000	0.000	0.000	0.000
		B		0.000	0.000	8.312	0.000	0.208
		C		0.000	0.000	2.244	0.000	0.058
L16	111.834-106.834	A	1.437	0.000	0.000	0.000	0.000	0.000
		B		0.000	0.000	8.291	0.000	0.207
		C		0.000	0.000	2.237	0.000	0.058
L17	106.834-101.834	A	1.431	0.000	0.000	0.000	0.000	0.000
		B		0.000	0.000	8.269	0.000	0.207
		C		0.000	0.000	2.231	0.000	0.058
L18	101.834-96.834	A	1.424	0.000	0.000	0.000	0.000	0.000
		B		0.000	0.000	8.246	0.000	0.206
		C		0.000	0.000	2.224	0.000	0.058
L19	96.834-87.449	A	1.413	0.000	0.000	0.000	0.000	0.015
		B		0.000	0.000	15.413	0.000	0.385
		C		0.000	0.000	4.153	0.000	0.108
L20	87.449-86.449	A	1.405	0.000	0.000	0.660	0.000	0.012
		B		0.000	0.000	2.303	0.000	0.047
		C		0.000	0.000	1.103	0.000	0.017
L21	86.449-85.000	A	1.403	0.000	0.000	1.734	0.000	0.023
		B		0.000	0.000	4.104	0.000	0.074
		C		0.000	0.000	2.372	0.000	0.031
L22	85.000-84.750	A	1.401	0.000	0.000	0.299	0.000	0.004
		B		0.000	0.000	0.708	0.000	0.013
		C		0.000	0.000	0.409	0.000	0.005
L23	84.750-79.750	A	1.397	0.000	0.000	5.980	0.000	0.080
		B		0.000	0.000	14.140	0.000	0.255
		C		0.000	0.000	8.177	0.000	0.108
L24	79.750-75.000	A	1.388	0.000	0.000	8.149	0.000	0.096
		B		0.000	0.000	15.874	0.000	0.261
		C		0.000	0.000	10.228	0.000	0.122
L25	75.000-74.750	A	1.384	0.000	0.000	0.607	0.000	0.007
		B		0.000	0.000	1.013	0.000	0.015
		C		0.000	0.000	0.717	0.000	0.008
L26	74.750-74.000	A	1.383	0.000	0.000	1.822	0.000	0.020
		B		0.000	0.000	3.039	0.000	0.046
		C		0.000	0.000	2.150	0.000	0.024

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight K
L27	74.000-73.750	A	1.382	0.000	0.000	0.607	0.000	0.007
		B		0.000	0.000	1.013	0.000	0.015
		C		0.000	0.000	0.716	0.000	0.008
L28	73.750-68.750	A	1.377	0.000	0.000	8.258	0.000	0.097
		B		0.000	0.000	17.792	0.000	0.285
		C		0.000	0.000	10.435	0.000	0.124
L29	68.750-63.750	A	1.367	0.000	0.000	6.159	0.000	0.079
		B		0.000	0.000	15.903	0.000	0.269
		C		0.000	0.000	8.326	0.000	0.106
L30	63.750-58.750	A	1.356	0.000	0.000	6.148	0.000	0.079
		B		0.000	0.000	15.847	0.000	0.267
		C		0.000	0.000	8.304	0.000	0.105
L31	58.750-53.750	A	1.345	0.000	0.000	6.136	0.000	0.078
		B		0.000	0.000	15.787	0.000	0.265
		C		0.000	0.000	8.281	0.000	0.104
L32	53.750-42.848	A	1.324	0.000	0.000	8.257	0.000	0.129
		B		0.000	0.000	29.109	0.000	0.532
		C		0.000	0.000	12.889	0.000	0.185
L33	42.848-41.848	A	1.307	0.000	0.000	0.000	0.000	0.006
		B		0.000	0.000	1.913	0.000	0.043
		C		0.000	0.000	0.425	0.000	0.011
L34	41.848-36.848	A	1.298	0.000	0.000	0.000	0.000	0.029
		B		0.000	0.000	9.450	0.000	0.212
		C		0.000	0.000	2.098	0.000	0.055
L35	36.848-31.848	A	1.280	0.000	0.000	0.000	0.000	0.029
		B		0.000	0.000	9.375	0.000	0.210
		C		0.000	0.000	2.080	0.000	0.054
L36	31.848-26.848	A	1.260	0.000	0.000	0.000	0.000	0.029
		B		0.000	0.000	9.290	0.000	0.208
		C		0.000	0.000	2.060	0.000	0.054
L37	26.848-21.848	A	1.237	0.000	0.000	0.000	0.000	0.029
		B		0.000	0.000	9.191	0.000	0.206
		C		0.000	0.000	2.037	0.000	0.053
L38	21.848-16.848	A	1.209	0.000	0.000	0.000	0.000	0.029
		B		0.000	0.000	9.072	0.000	0.203
		C		0.000	0.000	2.009	0.000	0.052
L39	16.848-11.848	A	1.173	0.000	0.000	0.000	0.000	0.029
		B		0.000	0.000	8.920	0.000	0.200
		C		0.000	0.000	1.973	0.000	0.051
L40	11.848-6.848	A	1.124	0.000	0.000	0.000	0.000	0.029
		B		0.000	0.000	8.711	0.000	0.196
		C		0.000	0.000	1.924	0.000	0.050
L41	6.848-1.848	A	1.041	0.000	0.000	0.000	0.000	0.029
		B		0.000	0.000	8.359	0.000	0.189
		C		0.000	0.000	1.841	0.000	0.048
L42	1.848-0.000	A	0.892	0.000	0.000	0.000	0.000	0.011
		B		0.000	0.000	2.855	0.000	0.065
		C		0.000	0.000	0.625	0.000	0.017

Feed Line Center of Pressure

Section	Elevation ft	CP_X in	CP_Z in	CP_X Ice in	CP_Z Ice in
L1	182.000-177.000	0.300	0.000	1.210	0.000
L2	177.000-172.000	0.300	0.000	1.232	0.000
L3	172.000-167.000	0.300	0.000	1.251	0.000

Section	Elevation	CP_X	CP_Z	CP_X Ice	CP_Z Ice
	ft	in	in	in	in
L4	167.000-162.000	0.300	0.000	1.268	0.000
L5	162.000-157.000	0.301	0.000	1.283	0.000
L6	157.000-152.000	0.301	0.000	1.297	0.000
L7	152.000-147.000	0.301	0.000	1.308	0.000
L8	147.000-142.000	0.301	0.000	1.319	0.000
L9	142.000-137.000	2.110	-1.458	2.890	-1.565
L10	137.000-133.081	2.995	-2.169	3.576	-2.232
L11	133.081-131.834	3.000	-2.172	3.584	-2.237
L12	131.834-126.834	2.446	-1.667	2.904	-1.634
L13	126.834-121.834	2.167	-1.408	2.577	-1.332
L14	121.834-116.834	2.191	-1.423	2.626	-1.358
L15	116.834-111.834	2.213	-1.438	2.672	-1.382
L16	111.834-106.834	2.234	-1.451	2.716	-1.405
L17	106.834-101.834	2.254	-1.464	2.758	-1.428
L18	101.834-96.834	2.273	-1.477	2.798	-1.449
L19	96.834-87.449	2.299	-1.493	2.851	-1.478
L20	87.449-86.449	1.502	-0.975	2.199	-1.139
L21	86.449-85.000	1.175	-0.763	1.853	-0.961
L22	85.000-84.750	1.179	-0.766	1.858	-0.964
L23	84.750-79.750	1.190	-0.773	1.876	-0.973
L24	79.750-75.000	1.007	-0.654	1.656	-0.860
L25	75.000-74.750	0.827	-0.537	1.416	-0.735
L26	74.750-74.000	0.829	-0.538	1.419	-0.737
L27	74.000-73.750	0.830	-0.539	1.421	-0.738
L28	73.750-68.750	1.150	-0.799	1.984	-1.234
L29	68.750-63.750	1.380	-0.968	2.298	-1.464
L30	63.750-58.750	1.402	-0.984	2.331	-1.485
L31	58.750-53.750	1.424	-0.999	2.363	-1.506
L32	53.750-42.848	1.756	-1.232	2.750	-1.754
L33	42.848-41.848	2.637	-1.850	3.589	-2.289
L34	41.848-36.848	2.645	-1.856	3.585	-2.289
L35	36.848-31.848	2.658	-1.865	3.603	-2.302
L36	31.848-26.848	2.671	-1.874	3.617	-2.312
L37	26.848-21.848	2.683	-1.882	3.626	-2.319
L38	21.848-16.848	2.695	-1.890	3.628	-2.323
L39	16.848-11.848	2.706	-1.898	3.620	-2.321
L40	11.848-6.848	2.717	-1.906	3.596	-2.310
L41	6.848-1.848	2.727	-1.913	3.531	-2.276
L42	1.848-0.000	2.734	-1.918	3.375	-2.192

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

Shielding Factor Ka

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
L1	25	Safety Line 3/8	177.00 - 182.00	1.0000	1.0000
L2	25	Safety Line 3/8	172.00 - 177.00	1.0000	1.0000
L3	25	Safety Line 3/8	167.00 - 172.00	1.0000	1.0000
L4	25	Safety Line 3/8	162.00 - 167.00	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
L5	25	Safety Line 3/8	157.00 - 162.00	1.0000	1.0000
L6	25	Safety Line 3/8	152.00 - 157.00	1.0000	1.0000
L7	25	Safety Line 3/8	147.00 - 152.00	1.0000	1.0000
L8	25	Safety Line 3/8	142.00 - 147.00	1.0000	1.0000
L9	15	LDF5-50A(7/8)	137.00 - 140.00	1.0000	1.0000
L9	16	HB114-1-0813U4-M5F(1-1/4)	137.00 - 140.00	1.0000	1.0000
L9	25	Safety Line 3/8	137.00 - 142.00	1.0000	1.0000
L10	15	LDF5-50A(7/8)	133.08 - 137.00	1.0000	1.0000
L10	16	HB114-1-0813U4-M5F(1-1/4)	133.08 - 137.00	1.0000	1.0000
L10	25	Safety Line 3/8	133.08 - 137.00	1.0000	1.0000
L11	15	LDF5-50A(7/8)	131.83 - 133.08	1.0000	1.0000
L11	16	HB114-1-0813U4-M5F(1-1/4)	131.83 - 133.08	1.0000	1.0000
L11	25	Safety Line 3/8	131.83 - 133.08	1.0000	1.0000
L12	15	LDF5-50A(7/8)	126.83 - 131.83	1.0000	1.0000
L12	16	HB114-1-0813U4-M5F(1-1/4)	126.83 - 131.83	1.0000	1.0000
L12	18	CU12PSM9P6XXX(1-1/2)	126.83 - 130.00	1.0000	1.0000
L12	25	Safety Line 3/8	126.83 - 131.83	1.0000	1.0000
L13	15	LDF5-50A(7/8)	121.83 - 126.83	1.0000	1.0000
L13	16	HB114-1-0813U4-M5F(1-1/4)	121.83 - 126.83	1.0000	1.0000
L13	18	CU12PSM9P6XXX(1-1/2)	121.83 - 126.83	1.0000	1.0000
L13	25	Safety Line 3/8	121.83 - 126.83	1.0000	1.0000
L14	15	LDF5-50A(7/8)	116.83 - 121.83	1.0000	1.0000
L14	16	HB114-1-0813U4-M5F(1-1/4)	116.83 - 121.83	1.0000	1.0000
L14	18	CU12PSM9P6XXX(1-1/2)	116.83 - 121.83	1.0000	1.0000
L14	25	Safety Line 3/8	116.83 - 121.83	1.0000	1.0000
L15	15	LDF5-50A(7/8)	111.83 - 116.83	1.0000	1.0000
L15	16	HB114-1-0813U4-M5F(1-1/4)	111.83 - 116.83	1.0000	1.0000
L15	18	CU12PSM9P6XXX(1-1/2)	111.83 - 116.83	1.0000	1.0000
L15	25	Safety Line 3/8	111.83 - 116.83	1.0000	1.0000
L16	15	LDF5-50A(7/8)	106.83 - 111.83	1.0000	1.0000
L16	16	HB114-1-0813U4-M5F(1-1/4)	106.83 - 111.83	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
L16	18	CU12PSM9P6XXX(1-1/2)	106.83 - 111.83	1.0000	1.0000
L16	25	Safety Line 3/8	106.83 - 111.83	1.0000	1.0000
L17	15	LDF5-50A(7/8)	101.83 - 106.83	1.0000	1.0000
L17	16	HB114-1-0813U4-M5F(1-1/4)	101.83 - 106.83	1.0000	1.0000
L17	18	CU12PSM9P6XXX(1-1/2)	101.83 - 106.83	1.0000	1.0000
L17	25	Safety Line 3/8	101.83 - 106.83	1.0000	1.0000
L18	15	LDF5-50A(7/8)	96.83 - 101.83	1.0000	1.0000
L18	16	HB114-1-0813U4-M5F(1-1/4)	96.83 - 101.83	1.0000	1.0000
L18	18	CU12PSM9P6XXX(1-1/2)	96.83 - 101.83	1.0000	1.0000
L18	25	Safety Line 3/8	96.83 - 101.83	1.0000	1.0000
L19	15	LDF5-50A(7/8)	87.45 - 96.83	1.0000	1.0000
L19	16	HB114-1-0813U4-M5F(1-1/4)	87.45 - 96.83	1.0000	1.0000
L19	18	CU12PSM9P6XXX(1-1/2)	87.45 - 96.83	1.0000	1.0000
L19	25	Safety Line 3/8	87.45 - 96.83	1.0000	1.0000
L20	15	LDF5-50A(7/8)	86.45 - 87.45	1.0000	1.0000
L20	16	HB114-1-0813U4-M5F(1-1/4)	86.45 - 87.45	1.0000	1.0000
L20	18	CU12PSM9P6XXX(1-1/2)	86.45 - 87.45	1.0000	1.0000
L20	25	Safety Line 3/8	86.45 - 87.45	1.0000	1.0000
L20	31	PL 5.75"x1"	86.45 - 87.00	1.0000	1.0000
L20	32	PL 5.75"x1"	86.45 - 87.00	1.0000	1.0000
L20	33	PL 5.75"x1"	86.45 - 87.00	1.0000	1.0000
L21	15	LDF5-50A(7/8)	85.00 - 86.45	1.0000	1.0000
L21	16	HB114-1-0813U4-M5F(1-1/4)	85.00 - 86.45	1.0000	1.0000
L21	18	CU12PSM9P6XXX(1-1/2)	85.00 - 86.45	1.0000	1.0000
L21	25	Safety Line 3/8	85.00 - 86.45	1.0000	1.0000
L21	31	PL 5.75"x1"	85.00 - 86.45	1.0000	1.0000
L21	32	PL 5.75"x1"	85.00 - 86.45	1.0000	1.0000
L21	33	PL 5.75"x1"	85.00 - 86.45	1.0000	1.0000
L22	15	LDF5-50A(7/8)	84.75 - 85.00	1.0000	1.0000
L22	16	HB114-1-0813U4-M5F(1-1/4)	84.75 - 85.00	1.0000	1.0000
L22	18	CU12PSM9P6XXX(1-1/2)	84.75 - 85.00	1.0000	1.0000
L22	25	Safety Line 3/8	84.75 - 85.00	1.0000	1.0000
L22	31	PL 5.75"x1"	84.75 - 85.00	1.0000	1.0000
L22	32	PL 5.75"x1"	84.75 - 85.00	1.0000	1.0000
L22	33	PL 5.75"x1"	84.75 - 85.00	1.0000	1.0000
L23	15	LDF5-50A(7/8)	79.75 - 84.75	1.0000	1.0000
L23	16	HB114-1-0813U4-M5F(1-1/4)	79.75 - 84.75	1.0000	1.0000
L23	18	CU12PSM9P6XXX(1-1/2)	79.75 - 84.75	1.0000	1.0000
L23	25	Safety Line 3/8	79.75 - 84.75	1.0000	1.0000
L23	31	PL 5.75"x1"	79.75 - 84.75	1.0000	1.0000
L23	32	PL 5.75"x1"	79.75 - 84.75	1.0000	1.0000
L23	33	PL 5.75"x1"	79.75 - 84.75	1.0000	1.0000
L24	15	LDF5-50A(7/8)	75.00 - 79.75	1.0000	1.0000
L24	16	HB114-1-0813U4-M5F(1-1/4)	75.00 - 79.75	1.0000	1.0000
L24	18	CU12PSM9P6XXX(1-1/2)	75.00 - 79.75	1.0000	1.0000
L24	25	Safety Line 3/8	75.00 - 79.75	1.0000	1.0000
L24	27	PL 5.75"x1"	75.00 - 77.00	1.0000	1.0000
L24	28	PL 5.75"x1"	75.00 - 77.00	1.0000	1.0000
L24	29	PL 5.75"x1"	75.00 - 77.00	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
L24	31	PL 5.75"x1"	75.00 - 79.75	1.0000	1.0000
L24	32	PL 5.75"x1"	75.00 - 79.75	1.0000	1.0000
L24	33	PL 5.75"x1"	75.00 - 79.75	1.0000	1.0000
L25	15	LDF5-50A(7/8)	74.75 - 75.00	1.0000	1.0000
L25	16	HB114-1-0813U4-M5F(1-1/4)	74.75 - 75.00	1.0000	1.0000
L25	18	CU12PSM9P6XXX(1-1/2)	74.75 - 75.00	1.0000	1.0000
L25	25	Safety Line 3/8	74.75 - 75.00	1.0000	1.0000
L25	27	PL 5.75"x1"	74.75 - 75.00	1.0000	1.0000
L25	28	PL 5.75"x1"	74.75 - 75.00	1.0000	1.0000
L25	29	PL 5.75"x1"	74.75 - 75.00	1.0000	1.0000
L25	31	PL 5.75"x1"	74.75 - 75.00	1.0000	1.0000
L25	32	PL 5.75"x1"	74.75 - 75.00	1.0000	1.0000
L25	33	PL 5.75"x1"	74.75 - 75.00	1.0000	1.0000
L26	15	LDF5-50A(7/8)	74.00 - 74.75	1.0000	1.0000
L26	16	HB114-1-0813U4-M5F(1-1/4)	74.00 - 74.75	1.0000	1.0000
L26	18	CU12PSM9P6XXX(1-1/2)	74.00 - 74.75	1.0000	1.0000
L26	25	Safety Line 3/8	74.00 - 74.75	1.0000	1.0000
L26	27	PL 5.75"x1"	74.00 - 74.75	1.0000	1.0000
L26	28	PL 5.75"x1"	74.00 - 74.75	1.0000	1.0000
L26	29	PL 5.75"x1"	74.00 - 74.75	1.0000	1.0000
L26	31	PL 5.75"x1"	74.00 - 74.75	1.0000	1.0000
L26	32	PL 5.75"x1"	74.00 - 74.75	1.0000	1.0000
L26	33	PL 5.75"x1"	74.00 - 74.75	1.0000	1.0000
L27	15	LDF5-50A(7/8)	73.75 - 74.00	1.0000	1.0000
L27	16	HB114-1-0813U4-M5F(1-1/4)	73.75 - 74.00	1.0000	1.0000
L27	18	CU12PSM9P6XXX(1-1/2)	73.75 - 74.00	1.0000	1.0000
L27	25	Safety Line 3/8	73.75 - 74.00	1.0000	1.0000
L27	27	PL 5.75"x1"	73.75 - 74.00	1.0000	1.0000
L27	28	PL 5.75"x1"	73.75 - 74.00	1.0000	1.0000
L27	29	PL 5.75"x1"	73.75 - 74.00	1.0000	1.0000
L27	31	PL 5.75"x1"	73.75 - 74.00	1.0000	1.0000
L27	32	PL 5.75"x1"	73.75 - 74.00	1.0000	1.0000
L27	33	PL 5.75"x1"	73.75 - 74.00	1.0000	1.0000
L28	15	LDF5-50A(7/8)	68.75 - 73.75	1.0000	1.0000
L28	16	HB114-1-0813U4-M5F(1-1/4)	68.75 - 73.75	1.0000	1.0000
L28	18	CU12PSM9P6XXX(1-1/2)	68.75 - 73.75	1.0000	1.0000
L28	23	LDF4-50A(1/2)	68.75 - 73.00	1.0000	1.0000
L28	25	Safety Line 3/8	68.75 - 73.75	1.0000	1.0000
L28	27	PL 5.75"x1"	68.75 - 73.75	1.0000	1.0000
L28	28	PL 5.75"x1"	68.75 - 73.75	1.0000	1.0000
L28	29	PL 5.75"x1"	68.75 - 73.75	1.0000	1.0000
L28	31	PL 5.75"x1"	72.00 - 73.75	1.0000	1.0000
L28	32	PL 5.75"x1"	72.00 - 73.75	1.0000	1.0000
L28	33	PL 5.75"x1"	72.00 - 73.75	1.0000	1.0000
L29	15	LDF5-50A(7/8)	63.75 - 68.75	1.0000	1.0000
L29	16	HB114-1-0813U4-M5F(1-1/4)	63.75 - 68.75	1.0000	1.0000
L29	18	CU12PSM9P6XXX(1-1/2)	63.75 - 68.75	1.0000	1.0000
L29	23	LDF4-50A(1/2)	63.75 - 68.75	1.0000	1.0000
L29	25	Safety Line 3/8	63.75 - 68.75	1.0000	1.0000
L29	27	PL 5.75"x1"	63.75 - 68.75	1.0000	1.0000
L29	28	PL 5.75"x1"	63.75 - 68.75	1.0000	1.0000
L29	29	PL 5.75"x1"	63.75 - 68.75	1.0000	1.0000
L30	15	LDF5-50A(7/8)	58.75 - 63.75	1.0000	1.0000
L30	16	HB114-1-0813U4-M5F(1-1/4)	58.75 - 63.75	1.0000	1.0000
L30	18	CU12PSM9P6XXX(1-1/2)	58.75 - 63.75	1.0000	1.0000
L30	23	LDF4-50A(1/2)	58.75 - 63.75	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
L30	25	Safety Line 3/8	58.75 - 63.75	1.0000	1.0000
L30	27	PL 5.75"x1"	58.75 - 63.75	1.0000	1.0000
L30	28	PL 5.75"x1"	58.75 - 63.75	1.0000	1.0000
L30	29	PL 5.75"x1"	58.75 - 63.75	1.0000	1.0000
L31	15	LDF5-50A(7/8)	53.75 - 58.75	1.0000	1.0000
L31	16	HB114-1-0813U4-M5F(1-1/4)	53.75 - 58.75	1.0000	1.0000
L31	18	CU12PSM9P6XXX(1-1/2)	53.75 - 58.75	1.0000	1.0000
L31	23	LDF4-50A(1/2)	53.75 - 58.75	1.0000	1.0000
L31	25	Safety Line 3/8	53.75 - 58.75	1.0000	1.0000
L31	27	PL 5.75"x1"	53.75 - 58.75	1.0000	1.0000
L31	28	PL 5.75"x1"	53.75 - 58.75	1.0000	1.0000
L31	29	PL 5.75"x1"	53.75 - 58.75	1.0000	1.0000
L32	15	LDF5-50A(7/8)	42.85 - 53.75	1.0000	1.0000
L32	16	HB114-1-0813U4-M5F(1-1/4)	42.85 - 53.75	1.0000	1.0000
L32	18	CU12PSM9P6XXX(1-1/2)	42.85 - 53.75	1.0000	1.0000
L32	23	LDF4-50A(1/2)	42.85 - 53.75	1.0000	1.0000
L32	25	Safety Line 3/8	42.85 - 53.75	1.0000	1.0000
L32	27	PL 5.75"x1"	47.00 - 53.75	1.0000	1.0000
L32	28	PL 5.75"x1"	47.00 - 53.75	1.0000	1.0000
L32	29	PL 5.75"x1"	47.00 - 53.75	1.0000	1.0000
L33	15	LDF5-50A(7/8)	41.85 - 42.85	1.0000	1.0000
L33	16	HB114-1-0813U4-M5F(1-1/4)	41.85 - 42.85	1.0000	1.0000
L33	18	CU12PSM9P6XXX(1-1/2)	41.85 - 42.85	1.0000	1.0000
L33	23	LDF4-50A(1/2)	41.85 - 42.85	1.0000	1.0000
L33	25	Safety Line 3/8	41.85 - 42.85	1.0000	1.0000
L34	15	LDF5-50A(7/8)	36.85 - 41.85	1.0000	1.0000
L34	16	HB114-1-0813U4-M5F(1-1/4)	36.85 - 41.85	1.0000	1.0000
L34	18	CU12PSM9P6XXX(1-1/2)	36.85 - 41.85	1.0000	1.0000
L34	23	LDF4-50A(1/2)	36.85 - 41.85	1.0000	1.0000
L34	25	Safety Line 3/8	36.85 - 41.85	1.0000	1.0000
L35	15	LDF5-50A(7/8)	31.85 - 36.85	1.0000	1.0000
L35	16	HB114-1-0813U4-M5F(1-1/4)	31.85 - 36.85	1.0000	1.0000
L35	18	CU12PSM9P6XXX(1-1/2)	31.85 - 36.85	1.0000	1.0000
L35	23	LDF4-50A(1/2)	31.85 - 36.85	1.0000	1.0000
L35	25	Safety Line 3/8	31.85 - 36.85	1.0000	1.0000
L36	15	LDF5-50A(7/8)	26.85 - 31.85	1.0000	1.0000
L36	16	HB114-1-0813U4-M5F(1-1/4)	26.85 - 31.85	1.0000	1.0000
L36	18	CU12PSM9P6XXX(1-1/2)	26.85 - 31.85	1.0000	1.0000
L36	23	LDF4-50A(1/2)	26.85 - 31.85	1.0000	1.0000
L36	25	Safety Line 3/8	26.85 - 31.85	1.0000	1.0000
L37	15	LDF5-50A(7/8)	21.85 - 26.85	1.0000	1.0000
L37	16	HB114-1-0813U4-M5F(1-1/4)	21.85 - 26.85	1.0000	1.0000
L37	18	CU12PSM9P6XXX(1-1/2)	21.85 - 26.85	1.0000	1.0000
L37	23	LDF4-50A(1/2)	21.85 - 26.85	1.0000	1.0000
L37	25	Safety Line 3/8	21.85 - 26.85	1.0000	1.0000
L38	15	LDF5-50A(7/8)	16.85 - 21.85	1.0000	1.0000
L38	16	HB114-1-0813U4-M5F(1-1/4)	16.85 - 21.85	1.0000	1.0000
L38	18	CU12PSM9P6XXX(1-1/2)	16.85 - 21.85	1.0000	1.0000
L38	23	LDF4-50A(1/2)	16.85 - 21.85	1.0000	1.0000
L38	25	Safety Line 3/8	16.85 - 21.85	1.0000	1.0000
L39	15	LDF5-50A(7/8)	11.85 - 16.85	1.0000	1.0000
L39	16	HB114-1-0813U4-M5F(1-1/4)	11.85 - 16.85	1.0000	1.0000
L39	18	CU12PSM9P6XXX(1-1/2)	11.85 - 16.85	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
L39	23	LDF4-50A(1/2)	11.85 - 16.85	1.0000	1.0000
L39	25	Safety Line 3/8	11.85 - 16.85	1.0000	1.0000
L40	15	LDF5-50A(7/8)	6.85 - 11.85	1.0000	1.0000
L40	16	HB114-1-0813U4-M5F(1-1/4)	6.85 - 11.85	1.0000	1.0000
L40	18	CU12PSM9P6XXX(1-1/2)	6.85 - 11.85	1.0000	1.0000
L40	23	LDF4-50A(1/2)	6.85 - 11.85	1.0000	1.0000
L40	25	Safety Line 3/8	6.85 - 11.85	1.0000	1.0000
L41	15	LDF5-50A(7/8)	1.85 - 6.85	1.0000	1.0000
L41	16	HB114-1-0813U4-M5F(1-1/4)	1.85 - 6.85	1.0000	1.0000
L41	18	CU12PSM9P6XXX(1-1/2)	1.85 - 6.85	1.0000	1.0000
L41	23	LDF4-50A(1/2)	1.85 - 6.85	1.0000	1.0000
L41	25	Safety Line 3/8	1.85 - 6.85	1.0000	1.0000
L42	15	LDF5-50A(7/8)	0.00 - 1.85	1.0000	1.0000
L42	16	HB114-1-0813U4-M5F(1-1/4)	0.00 - 1.85	1.0000	1.0000
L42	18	CU12PSM9P6XXX(1-1/2)	0.00 - 1.85	1.0000	1.0000
L42	23	LDF4-50A(1/2)	0.00 - 1.85	1.0000	1.0000
L42	25	Safety Line 3/8	0.00 - 1.85	1.0000	1.0000

Effective Width of Flat Linear Attachments / Feed Lines

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L20	31	PL 5.75"x1"	86.45 - 87.00	Auto	0.0258
L20	32	PL 5.75"x1"	86.45 - 87.00	Auto	0.0258
L20	33	PL 5.75"x1"	86.45 - 87.00	Auto	0.0258
L21	31	PL 5.75"x1"	85.00 - 86.45	Auto	0.0187
L21	32	PL 5.75"x1"	85.00 - 86.45	Auto	0.0187
L21	33	PL 5.75"x1"	85.00 - 86.45	Auto	0.0187
L22	31	PL 5.75"x1"	84.75 - 85.00	Auto	0.0126
L22	32	PL 5.75"x1"	84.75 - 85.00	Auto	0.0126
L22	33	PL 5.75"x1"	84.75 - 85.00	Auto	0.0126
L23	31	PL 5.75"x1"	79.75 - 84.75	Auto	0.0019
L23	32	PL 5.75"x1"	79.75 - 84.75	Auto	0.0019
L23	33	PL 5.75"x1"	79.75 - 84.75	Auto	0.0019
L24	27	PL 5.75"x1"	75.00 - 77.00	Auto	0.0000
L24	28	PL 5.75"x1"	75.00 - 77.00	Auto	0.0000
L24	29	PL 5.75"x1"	75.00 - 77.00	Auto	0.0000
L24	31	PL 5.75"x1"	75.00 - 79.75	Auto	0.0000
L24	32	PL 5.75"x1"	75.00 - 79.75	Auto	0.0000
L24	33	PL 5.75"x1"	75.00 - 79.75	Auto	0.0000
L25	27	PL 5.75"x1"	74.75 - 75.00	Auto	0.0407
L25	28	PL 5.75"x1"	74.75 - 75.00	Auto	0.0407
L25	29	PL 5.75"x1"	74.75 - 75.00	Auto	0.0407
L25	31	PL 5.75"x1"	74.75 - 75.00	Auto	0.0407
L25	32	PL 5.75"x1"	74.75 - 75.00	Auto	0.0407
L25	33	PL 5.75"x1"	74.75 - 75.00	Auto	0.0407
L26	27	PL 5.75"x1"	74.00 - 74.75	Auto	0.0372
L26	28	PL 5.75"x1"	74.00 - 74.75	Auto	0.0372
L26	29	PL 5.75"x1"	74.00 - 74.75	Auto	0.0372
L26	31	PL 5.75"x1"	74.00 - 74.75	Auto	0.0372

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L26	32	PL 5.75"x1"	74.00 - 74.75	Auto	0.0372
L26	33	PL 5.75"x1"	74.00 - 74.75	Auto	0.0372
L27	27	PL 5.75"x1"	73.75 - 74.00	Auto	0.0000
L27	28	PL 5.75"x1"	73.75 - 74.00	Auto	0.0000
L27	29	PL 5.75"x1"	73.75 - 74.00	Auto	0.0000
L27	31	PL 5.75"x1"	73.75 - 74.00	Auto	0.0000
L27	32	PL 5.75"x1"	73.75 - 74.00	Auto	0.0000
L27	33	PL 5.75"x1"	73.75 - 74.00	Auto	0.0000
L28	27	PL 5.75"x1"	68.75 - 73.75	Auto	0.0000
L28	28	PL 5.75"x1"	68.75 - 73.75	Auto	0.0000
L28	29	PL 5.75"x1"	68.75 - 73.75	Auto	0.0000
L28	31	PL 5.75"x1"	72.00 - 73.75	Auto	0.0000
L28	32	PL 5.75"x1"	72.00 - 73.75	Auto	0.0000
L28	33	PL 5.75"x1"	72.00 - 73.75	Auto	0.0000
L29	27	PL 5.75"x1"	63.75 - 68.75	Auto	0.0000
L29	28	PL 5.75"x1"	63.75 - 68.75	Auto	0.0000
L29	29	PL 5.75"x1"	63.75 - 68.75	Auto	0.0000
L30	27	PL 5.75"x1"	58.75 - 63.75	Auto	0.0000
L30	28	PL 5.75"x1"	58.75 - 63.75	Auto	0.0000
L30	29	PL 5.75"x1"	58.75 - 63.75	Auto	0.0000
L31	27	PL 5.75"x1"	53.75 - 58.75	Auto	0.0000
L31	28	PL 5.75"x1"	53.75 - 58.75	Auto	0.0000
L31	29	PL 5.75"x1"	53.75 - 58.75	Auto	0.0000
L32	27	PL 5.75"x1"	47.00 - 53.75	Auto	0.0000
L32	28	PL 5.75"x1"	47.00 - 53.75	Auto	0.0000
L32	29	PL 5.75"x1"	47.00 - 53.75	Auto	0.0000

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 K
DS4C06F36D-D	A	From Leg	6.000 0.000 10.000	0.000	178.000	No Ice 1/2" Ice 1" Ice 2" Ice	5.820 7.793 9.783 13.813	5.820 7.793 9.783 13.813	0.050 0.092 0.146 0.292
APC-2163	A	From Leg	6.000 0.000 7.000	0.000	178.000	No Ice 1/2" Ice 1" Ice 2" Ice	3.375 4.754 6.150 8.992	3.375 4.754 6.150 8.992	0.014 0.039 0.073 0.167
APC-1362	B	From Leg	6.000 0.000 7.000	0.000	178.000	No Ice 1/2" Ice 1" Ice 2" Ice	3.500 4.929 6.375 9.317	3.500 4.929 6.375 9.317	0.015 0.041 0.076 0.173
APC-4065	B	From Leg	6.000 0.000 6.000	0.000	178.000	No Ice 1/2" Ice 1" Ice 2" Ice	3.125 4.404 5.700 8.140	3.125 4.404 5.700 8.140	0.013 0.036 0.067 0.155
APC-301	C	From Leg	6.000 0.000	0.000	178.000	No Ice 1/2" Ice	3.000 4.229	3.000 4.229	0.013 0.035

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft / Vert ft / ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
			6.000			1" Ice	5.475	5.475	0.065
						2" Ice	7.685	7.685	0.149
DS4C06F36D-D	C	From Leg	6.000	0.000	178.000	No Ice	5.820	5.820	0.050
			0.000			1/2" Ice	7.793	7.793	0.092
			10.000			1" Ice	9.783	9.783	0.146
						2" Ice	13.813	13.813	0.292
Miscellaneous [NA 502-3]	C	None		0.000	178.000	No Ice	10.520	10.520	0.662
						1/2" Ice	13.680	13.680	0.807
						1" Ice	16.610	16.610	1.001
						2" Ice	23.060	23.060	1.551
*									
ANT450D6-9	A	From Leg	4.000	0.000	168.000	No Ice	2.862	2.862	0.176
			0.000			1/2" Ice	4.370	4.370	0.200
			7.000			1" Ice	5.878	5.878	0.224
						2" Ice	8.893	8.893	0.272
*									
RRUS E2 B29	A	From Leg	4.000	0.000	168.000	No Ice	3.145	1.285	0.060
			0.000			1/2" Ice	3.365	1.438	0.083
			0.000			1" Ice	3.592	1.600	0.110
						2" Ice	4.069	1.954	0.173
RRUS E2 B29	B	From Leg	4.000	0.000	168.000	No Ice	3.145	1.285	0.060
			0.000			1/2" Ice	3.365	1.438	0.083
			0.000			1" Ice	3.592	1.600	0.110
						2" Ice	4.069	1.954	0.173
RRUS E2 B29	C	From Leg	4.000	0.000	168.000	No Ice	3.145	1.285	0.060
			0.000			1/2" Ice	3.365	1.438	0.083
			0.000			1" Ice	3.592	1.600	0.110
						2" Ice	4.069	1.954	0.173
DC6-48-60-18-8C-EV	A	From Leg	4.000	0.000	168.000	No Ice	1.145	1.145	0.026
			0.000			1/2" Ice	1.792	1.792	0.047
			0.000			1" Ice	2.002	2.002	0.070
						2" Ice	2.450	2.450	0.125
DC6-48-60-18-8C-EV	C	From Leg	4.000	0.000	168.000	No Ice	1.145	1.145	0.026
			0.000			1/2" Ice	1.792	1.792	0.047
			0.000			1" Ice	2.002	2.002	0.070
						2" Ice	2.450	2.450	0.125
RRUS 4478 B14_CCIV2	A	From Leg	4.000	0.000	168.000	No Ice	2.021	1.246	0.059
			0.000			1/2" Ice	2.200	1.396	0.077
			0.000			1" Ice	2.386	1.554	0.097
						2" Ice	2.780	1.891	0.147
RRUS 4478 B14_CCIV2	B	From Leg	4.000	0.000	168.000	No Ice	2.021	1.246	0.059
			0.000			1/2" Ice	2.200	1.396	0.077
			0.000			1" Ice	2.386	1.554	0.097
						2" Ice	2.780	1.891	0.147
RRUS 4478 B14_CCIV2	C	From Leg	4.000	0.000	168.000	No Ice	2.021	1.246	0.059
			0.000			1/2" Ice	2.200	1.396	0.077
			0.000			1" Ice	2.386	1.554	0.097
						2" Ice	2.780	1.891	0.147
RRUS-32 B30	A	From Leg	4.000	0.000	168.000	No Ice	3.314	2.424	0.077
			0.000			1/2" Ice	3.558	2.638	0.105
			0.000			1" Ice	3.809	2.860	0.136
						2" Ice	4.333	3.324	0.211
RRUS-32 B30	B	From Leg	4.000	0.000	168.000	No Ice	3.314	2.424	0.077
			0.000			1/2" Ice	3.558	2.638	0.105
			0.000			1" Ice	3.809	2.860	0.136
						2" Ice	4.333	3.324	0.211
RRUS-32 B30	C	From Leg	4.000	0.000	168.000	No Ice	3.314	2.424	0.077

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft / Vert ft / ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
			0.000			1/2" Ice	3.558	2.638	0.105
			0.000			1" Ice	3.809	2.860	0.136
						2" Ice	4.333	3.324	0.211
RRUS 4449 B5/B12	A	From Leg	4.000	0.000	168.000	No Ice	1.968	1.408	0.071
			0.000			1/2" Ice	2.144	1.564	0.090
			0.000			1" Ice	2.328	1.727	0.111
						2" Ice	2.718	2.075	0.163
RRUS 4449 B5/B12	B	From Leg	4.000	0.000	168.000	No Ice	1.968	1.408	0.071
			0.000			1/2" Ice	2.144	1.564	0.090
			0.000			1" Ice	2.328	1.727	0.111
						2" Ice	2.718	2.075	0.163
RRUS 4449 B5/B12	C	From Leg	4.000	0.000	168.000	No Ice	1.968	1.408	0.071
			0.000			1/2" Ice	2.144	1.564	0.090
			0.000			1" Ice	2.328	1.727	0.111
						2" Ice	2.718	2.075	0.163
RRUS 32 B66	A	From Leg	4.000	0.000	168.000	No Ice	2.743	1.668	0.053
			0.000			1/2" Ice	2.965	1.855	0.074
			0.000			1" Ice	3.194	2.049	0.098
						2" Ice	3.675	2.458	0.157
RRUS 32 B66	B	From Leg	4.000	0.000	168.000	No Ice	2.743	1.668	0.053
			0.000			1/2" Ice	2.965	1.855	0.074
			0.000			1" Ice	3.194	2.049	0.098
						2" Ice	3.675	2.458	0.157
RRUS 32 B66	C	From Leg	4.000	0.000	168.000	No Ice	2.743	1.668	0.053
			0.000			1/2" Ice	2.965	1.855	0.074
			0.000			1" Ice	3.194	2.049	0.098
						2" Ice	3.675	2.458	0.157
DC6-48-60-18-8C	B	From Leg	4.000	0.000	168.000	No Ice	1.145	1.145	0.026
			0.000			1/2" Ice	1.792	1.792	0.047
			0.000			1" Ice	2.002	2.002	0.070
						2" Ice	2.451	2.451	0.125
QD6616-7 w/ Mount Pipe	A	From Leg	4.000	0.000	168.000	No Ice	13.815	8.463	0.156
			0.000			1/2" Ice	14.426	9.657	0.258
			0.000			1" Ice	15.002	10.548	0.369
						2" Ice	16.177	12.352	0.622
QD6616-7 w/ Mount Pipe	B	From Leg	4.000	0.000	168.000	No Ice	13.815	8.463	0.156
			0.000			1/2" Ice	14.426	9.657	0.258
			0.000			1" Ice	15.002	10.548	0.369
						2" Ice	16.177	12.352	0.622
QD6616-7 w/ Mount Pipe	C	From Leg	4.000	0.000	168.000	No Ice	13.815	8.463	0.156
			0.000			1/2" Ice	14.426	9.657	0.258
			0.000			1" Ice	15.002	10.548	0.369
						2" Ice	16.177	12.352	0.622
AIR 6419 B77G w/ Mount Pipe	A	From Leg	4.000	0.000	168.000	No Ice	3.870	2.324	0.078
			0.000			1/2" Ice	4.178	2.720	0.113
			0.000			1" Ice	4.497	3.132	0.152
						2" Ice	5.165	4.005	0.246
AIR 6419 B77G w/ Mount Pipe	B	From Leg	4.000	0.000	168.000	No Ice	3.870	2.324	0.078
			0.000			1/2" Ice	4.178	2.720	0.113
			0.000			1" Ice	4.497	3.132	0.152
						2" Ice	5.165	4.005	0.246
AIR 6419 B77G w/ Mount Pipe	C	From Leg	4.000	0.000	168.000	No Ice	3.870	2.324	0.078
			0.000			1/2" Ice	4.178	2.720	0.113
			0.000			1" Ice	4.497	3.132	0.152
						2" Ice	5.165	4.005	0.246
AIR 6449 B77D w/ Mount Pipe	A	From Leg	4.000	0.000	168.000	No Ice	3.580	2.310	0.095
			0.000			1/2" Ice	3.920	2.600	0.130

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft / Vert ft / ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
			0.000			1" Ice	4.270	2.910	0.173
						2" Ice	5.020	3.570	0.277
AIR 6449 B77D w/ Mount Pipe	B	From Leg	4.000 0.000 0.000	0.000	168.000	No Ice 1/2" Ice 1" Ice 2" Ice	3.580 3.920 4.270 5.020	2.310 2.600 2.910 3.570	0.095 0.130 0.173 0.277
AIR 6449 B77D w/ Mount Pipe	C	From Leg	4.000 0.000 0.000	0.000	168.000	No Ice 1/2" Ice 1" Ice 2" Ice	3.580 3.920 4.270 5.020	2.310 2.600 2.910 3.570	0.095 0.130 0.173 0.277
DMP65R-BU6e w/ Mount Pipe	A	From Leg	4.000 0.000 0.000	0.000	168.000	No Ice 1/2" Ice 1" Ice 2" Ice	12.520 13.290 14.090 15.720	7.410 8.120 8.840 10.330	0.129 0.221 0.325 0.568
DMP65R-BU6e w/ Mount Pipe	B	From Leg	4.000 0.000 0.000	0.000	168.000	No Ice 1/2" Ice 1" Ice 2" Ice	12.520 13.290 14.090 15.720	7.410 8.120 8.840 10.330	0.129 0.221 0.325 0.568
DMP65R-BU6e w/ Mount Pipe	C	From Leg	4.000 0.000 0.000	0.000	168.000	No Ice 1/2" Ice 1" Ice 2" Ice	12.520 13.290 14.090 15.720	7.410 8.120 8.840 10.330	0.129 0.221 0.325 0.568
RRUS 4415 B25_CCIV2	A	From Leg	4.000 0.000 0.000	0.000	168.000	No Ice 1/2" Ice 1" Ice 2" Ice	1.843 2.012 2.190 2.566	0.820 0.943 1.075 1.368	0.046 0.060 0.077 0.118
RRUS 4415 B25_CCIV2	B	From Leg	4.000 0.000 0.000	0.000	168.000	No Ice 1/2" Ice 1" Ice 2" Ice	1.843 2.012 2.190 2.566	0.820 0.943 1.075 1.368	0.046 0.060 0.077 0.118
RRUS 4415 B25_CCIV2	C	From Leg	4.000 0.000 0.000	0.000	168.000	No Ice 1/2" Ice 1" Ice 2" Ice	1.843 2.012 2.190 2.566	0.820 0.943 1.075 1.368	0.046 0.060 0.077 0.118
DC9-48-60-24-8C-EV	C	From Leg	4.000 0.000 0.000	0.000	168.000	No Ice 1/2" Ice 1" Ice 2" Ice	2.737 2.963 3.196 3.684	4.785 5.065 5.352 5.948	0.026 0.063 0.104 0.200
4' x 2" Pipe Mount	A	From Leg	4.000 0.000 0.000	0.000	168.000	No Ice 1/2" Ice 1" Ice 2" Ice	0.785 1.028 1.281 1.814	0.785 1.028 1.281 1.814	0.029 0.035 0.044 0.072
4' x 2" Pipe Mount	B	From Leg	4.000 0.000 0.000	0.000	168.000	No Ice 1/2" Ice 1" Ice 2" Ice	0.785 1.028 1.281 1.814	0.785 1.028 1.281 1.814	0.029 0.035 0.044 0.072
4' x 2" Pipe Mount	C	From Leg	4.000 0.000 0.000	0.000	168.000	No Ice 1/2" Ice 1" Ice 2" Ice	0.785 1.028 1.281 1.814	0.785 1.028 1.281 1.814	0.029 0.035 0.044 0.072
6' x 2" Mount Pipe	A	From Leg	4.000 0.000 0.000	0.000	168.000	No Ice 1/2" Ice 1" Ice 2" Ice	1.425 1.925 2.294 3.060	1.425 1.925 2.294 3.060	0.022 0.033 0.048 0.090
6' x 2" Mount Pipe	B	From Leg	4.000 0.000 0.000	0.000	168.000	No Ice 1/2" Ice 1" Ice	1.425 1.925 2.294	1.425 1.925 2.294	0.022 0.033 0.048

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 K
						2" Ice	3.060	3.060	0.090
6' x 2" Mount Pipe	C	From Leg	4.000 0.000 0.000	0.000	168.000	No Ice 1/2" Ice 1" Ice 2" Ice	1.425 1.925 2.294 3.060	1.425 1.925 2.294 3.060	0.022 0.033 0.048 0.090
Platform Mount [LP 304-1_KCKR-HR-1]	C	None		0.000	168.000	No Ice 1/2" Ice 1" Ice 2" Ice	32.630 40.840 49.050 65.620	32.630 40.840 49.050 65.620	1.880 2.472 3.195 5.043
*									
AIR 32 B2A B66AA_T-MOBILE w/ Mount Pipe	A	From Leg	4.000 0.000 2.000	0.000	157.000	No Ice 1/2" Ice 1" Ice 2" Ice	3.760 4.120 4.480 5.240	3.150 3.490 3.840 4.580	0.194 0.252 0.320 0.485
AIR 32 B2A B66AA_T-MOBILE w/ Mount Pipe	B	From Leg	4.000 0.000 2.000	0.000	157.000	No Ice 1/2" Ice 1" Ice 2" Ice	3.760 4.120 4.480 5.240	3.150 3.490 3.840 4.580	0.194 0.252 0.320 0.485
AIR 32 B2A B66AA_T-MOBILE w/ Mount Pipe	C	From Leg	4.000 0.000 2.000	0.000	157.000	No Ice 1/2" Ice 1" Ice 2" Ice	3.760 4.120 4.480 5.240	3.150 3.490 3.840 4.580	0.194 0.252 0.320 0.485
APXVAALL24_43-U-NA20 _TMO w/ Mount Pipe	A	From Leg	4.000 0.000 2.000	0.000	157.000	No Ice 1/2" Ice 1" Ice 2" Ice	14.690 15.460 16.230 17.820	6.870 7.550 8.250 9.670	0.183 0.311 0.453 0.782
APXVAALL24_43-U-NA20 _TMO w/ Mount Pipe	B	From Leg	4.000 0.000 2.000	0.000	157.000	No Ice 1/2" Ice 1" Ice 2" Ice	14.690 15.460 16.230 17.820	6.870 7.550 8.250 9.670	0.183 0.311 0.453 0.782
APXVAALL24_43-U-NA20 _TMO w/ Mount Pipe	C	From Leg	4.000 0.000 2.000	0.000	157.000	No Ice 1/2" Ice 1" Ice 2" Ice	14.690 15.460 16.230 17.820	6.870 7.550 8.250 9.670	0.183 0.311 0.453 0.782
AIR6449 B41_T-MOBILE	A	From Leg	4.000 0.000 2.000	0.000	157.000	No Ice 1/2" Ice 1" Ice 2" Ice	5.270 5.700 6.140 7.060	2.030 2.360 2.700 3.430	0.115 0.154 0.197 0.296
AIR6449 B41_T-MOBILE	B	From Leg	4.000 0.000 2.000	0.000	157.000	No Ice 1/2" Ice 1" Ice 2" Ice	5.270 5.700 6.140 7.060	2.030 2.360 2.700 3.430	0.115 0.154 0.197 0.296
AIR6449 B41_T-MOBILE	C	From Leg	4.000 0.000 2.000	0.000	157.000	No Ice 1/2" Ice 1" Ice 2" Ice	5.270 5.700 6.140 7.060	2.030 2.360 2.700 3.430	0.115 0.154 0.197 0.296
RADIO 4449 B71 B85A_T-MOBILE	A	From Leg	4.000 0.000 2.000	0.000	157.000	No Ice 1/2" Ice 1" Ice 2" Ice	1.970 2.147 2.331 2.721	1.587 1.749 1.918 2.280	0.073 0.093 0.116 0.170
RADIO 4449 B71 B85A_T-MOBILE	B	From Leg	4.000 0.000 2.000	0.000	157.000	No Ice 1/2" Ice 1" Ice 2" Ice	1.970 2.147 2.331 2.721	1.587 1.749 1.918 2.280	0.073 0.093 0.116 0.170
RADIO 4449 B71 B85A_T-MOBILE	C	From Leg	4.000 0.000 2.000	0.000	157.000	No Ice 1/2" Ice 1" Ice	1.970 2.147 2.331	1.587 1.749 1.918	0.073 0.093 0.116

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 K
						2" Ice	2.721	2.280	0.170
RADIO 4415 B25_TMO	A	From Leg	4.000 0.000 2.000	0.000	157.000	No Ice 1/2" Ice 1" Ice 2" Ice	1.856 2.027 2.204 2.582	0.870 0.997 1.134 1.432	0.047 0.062 0.079 0.122
RADIO 4415 B25_TMO	B	From Leg	4.000 0.000 2.000	0.000	157.000	No Ice 1/2" Ice 1" Ice 2" Ice	1.856 2.027 2.204 2.582	0.870 0.997 1.134 1.432	0.047 0.062 0.079 0.122
RADIO 4415 B25_TMO	C	From Leg	4.000 0.000 2.000	0.000	157.000	No Ice 1/2" Ice 1" Ice 2" Ice	1.856 2.027 2.204 2.582	0.870 0.997 1.134 1.432	0.047 0.062 0.079 0.122
8' x 2" Mount Pipe	A	From Leg	4.000 0.000 0.000	0.000	157.000	No Ice 1/2" Ice 1" Ice 2" Ice	1.900 2.728 3.401 4.396	1.900 2.728 3.401 4.396	0.029 0.044 0.063 0.119
8' x 2" Mount Pipe	B	From Leg	4.000 0.000 0.000	0.000	157.000	No Ice 1/2" Ice 1" Ice 2" Ice	1.900 2.728 3.401 4.396	1.900 2.728 3.401 4.396	0.029 0.044 0.063 0.119
8' x 2" Mount Pipe	C	From Leg	4.000 0.000 0.000	0.000	157.000	No Ice 1/2" Ice 1" Ice 2" Ice	1.900 2.728 3.401 4.396	1.900 2.728 3.401 4.396	0.029 0.044 0.063 0.119
Platform Mount [LP 305-1_KCKR-HR-1] *	C	None		0.000	157.000	No Ice 1/2" Ice 1" Ice 2" Ice	30.810 38.700 46.630 62.740	30.810 38.700 46.630 62.740	1.641 2.199 2.884 4.647
800MHZ RRH	A	From Leg	4.000 0.000 -2.000	0.000	142.000	No Ice 1/2" Ice 1" Ice 2" Ice	2.134 2.320 2.512 2.920	1.773 1.946 2.127 2.510	0.053 0.074 0.098 0.157
800MHZ RRH	B	From Leg	4.000 0.000 -2.000	0.000	142.000	No Ice 1/2" Ice 1" Ice 2" Ice	2.134 2.320 2.512 2.920	1.773 1.946 2.127 2.510	0.053 0.074 0.098 0.157
800MHZ RRH	C	From Leg	4.000 0.000 -2.000	0.000	142.000	No Ice 1/2" Ice 1" Ice 2" Ice	2.134 2.320 2.512 2.920	1.773 1.946 2.127 2.510	0.053 0.074 0.098 0.157
800 EXTERNAL NOTCH FILTER	A	From Leg	4.000 0.000 -2.000	0.000	142.000	No Ice 1/2" Ice 1" Ice 2" Ice	0.660 0.763 0.873 1.115	0.289 0.364 0.446 0.633	0.011 0.017 0.024 0.044
800 EXTERNAL NOTCH FILTER	B	From Leg	4.000 0.000 -2.000	0.000	142.000	No Ice 1/2" Ice 1" Ice 2" Ice	0.660 0.763 0.873 1.115	0.289 0.364 0.446 0.633	0.011 0.017 0.024 0.044
800 EXTERNAL NOTCH FILTER	C	From Leg	4.000 0.000 -2.000	0.000	142.000	No Ice 1/2" Ice 1" Ice 2" Ice	0.660 0.763 0.873 1.115	0.289 0.364 0.446 0.633	0.011 0.017 0.024 0.044
1900MHZ RRH (65MHZ)	A	From Leg	4.000 0.000 2.000	0.000	142.000	No Ice 1/2" Ice 1" Ice	2.313 2.517 2.728	2.375 2.581 2.794	0.060 0.084 0.111

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft / Vert ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
						2" Ice	3.174	3.243	0.176
1900MHZ RRH (65MHZ)	B	From Leg	4.000 0.000 2.000	0.000	142.000	No Ice 1/2" Ice 1" Ice 2" Ice	2.313 2.517 2.728 3.174	2.375 2.581 2.794 3.243	0.060 0.084 0.111 0.176
1900MHZ RRH (65MHZ)	C	From Leg	4.000 0.000 2.000	0.000	142.000	No Ice 1/2" Ice 1" Ice 2" Ice	2.313 2.517 2.728 3.174	2.375 2.581 2.794 3.243	0.060 0.084 0.111 0.176
Pipe Mount [PM 601-3]	C	None		0.000	142.000	No Ice 1/2" Ice 1" Ice 2" Ice	3.170 3.790 4.420 5.760	3.170 3.790 4.420 5.760	0.195 0.232 0.279 0.401
*									
APXVSPP18-C-A20 w/ Mount Pipe	A	From Leg	4.000 0.000 2.000	0.000	140.000	No Ice 1/2" Ice 1" Ice 2" Ice	4.600 5.050 5.500 6.440	4.010 4.450 4.890 5.820	0.095 0.160 0.235 0.419
APXVSPP18-C-A20 w/ Mount Pipe	B	From Leg	4.000 0.000 2.000	0.000	140.000	No Ice 1/2" Ice 1" Ice 2" Ice	4.600 5.050 5.500 6.440	4.010 4.450 4.890 5.820	0.095 0.160 0.235 0.419
APXVSPP18-C-A20 w/ Mount Pipe	C	From Leg	4.000 0.000 2.000	0.000	140.000	No Ice 1/2" Ice 1" Ice 2" Ice	4.600 5.050 5.500 6.440	4.010 4.450 4.890 5.820	0.095 0.160 0.235 0.419
APXVTM14-C-120 w/ Mount Pipe	A	From Leg	4.000 0.000 2.000	0.000	140.000	No Ice 1/2" Ice 1" Ice 2" Ice	4.090 4.480 4.880 5.710	2.860 3.230 3.610 4.400	0.077 0.127 0.185 0.331
APXVTM14-C-120 w/ Mount Pipe	B	From Leg	4.000 0.000 2.000	0.000	140.000	No Ice 1/2" Ice 1" Ice 2" Ice	4.090 4.480 4.880 5.710	2.860 3.230 3.610 4.400	0.077 0.127 0.185 0.331
APXVTM14-C-120 w/ Mount Pipe	C	From Leg	4.000 0.000 2.000	0.000	140.000	No Ice 1/2" Ice 1" Ice 2" Ice	4.090 4.480 4.880 5.710	2.860 3.230 3.610 4.400	0.077 0.127 0.185 0.331
TD-RRH8X20-25	A	From Leg	4.000 0.000 2.000	0.000	140.000	No Ice 1/2" Ice 1" Ice 2" Ice	4.045 4.298 4.557 5.098	1.535 1.714 1.901 2.295	0.070 0.097 0.128 0.201
TD-RRH8X20-25	B	From Leg	4.000 0.000 2.000	0.000	140.000	No Ice 1/2" Ice 1" Ice 2" Ice	4.045 4.298 4.557 5.098	1.535 1.714 1.901 2.295	0.070 0.097 0.128 0.201
TD-RRH8X20-25	C	From Leg	4.000 0.000 2.000	0.000	140.000	No Ice 1/2" Ice 1" Ice 2" Ice	4.045 4.298 4.557 5.098	1.535 1.714 1.901 2.295	0.070 0.097 0.128 0.201
Platform Mount [LP 1201-1]	C	None		0.000	140.000	No Ice 1/2" Ice 1" Ice 2" Ice	18.380 22.110 25.870 33.470	18.380 22.110 25.870 33.470	2.100 2.652 3.263 4.662
*									
MX08FRO665-21 w/ Mount Pipe	A	From Leg	4.000 0.000	0.000	130.000	No Ice 1/2" Ice	8.010 8.520	4.230 4.690	0.108 0.194

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft / Vert ft / ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
			0.000			1" Ice	9.040	5.160	0.292
						2" Ice	10.110	6.120	0.522
MX08FRO665-21 w/ Mount Pipe	B	From Leg	4.000 0.000 0.000	0.000	130.000	No Ice 1/2" Ice 1" Ice 2" Ice	8.010 8.520 9.040 10.110	4.230 4.690 5.160 6.120	0.108 0.194 0.292 0.522
MX08FRO665-21 w/ Mount Pipe	C	From Leg	4.000 0.000 0.000	0.000	130.000	No Ice 1/2" Ice 1" Ice 2" Ice	8.010 8.520 9.040 10.110	4.230 4.690 5.160 6.120	0.108 0.194 0.292 0.522
TA08025-B605	A	From Leg	4.000 0.000 0.000	0.000	130.000	No Ice 1/2" Ice 1" Ice 2" Ice	1.964 2.138 2.320 2.705	1.129 1.267 1.411 1.723	0.075 0.093 0.114 0.164
TA08025-B605	B	From Leg	4.000 0.000 0.000	0.000	130.000	No Ice 1/2" Ice 1" Ice 2" Ice	1.964 2.138 2.320 2.705	1.129 1.267 1.411 1.723	0.075 0.093 0.114 0.164
TA08025-B605	C	From Leg	4.000 0.000 0.000	0.000	130.000	No Ice 1/2" Ice 1" Ice 2" Ice	1.964 2.138 2.320 2.705	1.129 1.267 1.411 1.723	0.075 0.093 0.114 0.164
TA08025-B604	A	From Leg	4.000 0.000 0.000	0.000	130.000	No Ice 1/2" Ice 1" Ice 2" Ice	1.964 2.138 2.320 2.705	0.981 1.112 1.250 1.548	0.064 0.081 0.100 0.148
TA08025-B604	B	From Leg	4.000 0.000 0.000	0.000	130.000	No Ice 1/2" Ice 1" Ice 2" Ice	1.964 2.138 2.320 2.705	0.981 1.112 1.250 1.548	0.064 0.081 0.100 0.148
TA08025-B604	C	From Leg	4.000 0.000 0.000	0.000	130.000	No Ice 1/2" Ice 1" Ice 2" Ice	1.964 2.138 2.320 2.705	0.981 1.112 1.250 1.548	0.064 0.081 0.100 0.148
RDIDC-9181-PF-48	A	From Leg	4.000 0.000 0.000	0.000	130.000	No Ice 1/2" Ice 1" Ice 2" Ice	2.012 2.189 2.373 2.763	1.168 1.311 1.461 1.784	0.022 0.040 0.060 0.110
(2) 8' x 2" Mount Pipe	A	From Leg	4.000 0.000 0.000	0.000	130.000	No Ice 1/2" Ice 1" Ice 2" Ice	1.900 2.728 3.401 4.396	1.900 2.728 3.401 4.396	0.029 0.044 0.063 0.119
(2) 8' x 2" Mount Pipe	B	From Leg	4.000 0.000 0.000	0.000	130.000	No Ice 1/2" Ice 1" Ice 2" Ice	1.900 2.728 3.401 4.396	1.900 2.728 3.401 4.396	0.029 0.044 0.063 0.119
(2) 8' x 2" Mount Pipe	C	From Leg	4.000 0.000 0.000	0.000	130.000	No Ice 1/2" Ice 1" Ice 2" Ice	1.900 2.728 3.401 4.396	1.900 2.728 3.401 4.396	0.029 0.044 0.063 0.119
Commscope MC-PK8-DSH	C	None		0.000	130.000	No Ice 1/2" Ice 1" Ice 2" Ice	34.240 62.950 91.660 149.080	34.240 62.950 91.660 149.080	1.749 2.099 2.450 3.151
*									
(2) NHH-65B-R2B w/ Mount Pipe	A	From Leg	4.000 0.000	0.000	90.000	No Ice 1/2" Ice	4.090 4.480	3.290 3.670	0.069 0.132

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft / Vert ft / ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
			0.000			1" Ice	4.880	4.060	0.205
						2" Ice	5.700	4.860	0.385
(2) NHH-65B-R2B w/ Mount Pipe	B	From Leg	4.000 0.000 0.000	0.000	90.000	No Ice 1/2" Ice 1" Ice	4.090 4.480 4.880	3.290 3.670 4.060	0.069 0.132 0.205
						2" Ice	5.700	4.860	0.385
(2) NHH-65B-R2B w/ Mount Pipe	C	From Leg	4.000 0.000 0.000	0.000	90.000	No Ice 1/2" Ice 1" Ice	4.090 4.480 4.880	3.290 3.670 4.060	0.069 0.132 0.205
						2" Ice	5.700	4.860	0.385
BXA-70080-4BF-EDIN-0 w/ Mount Pipe	A	From Leg	4.000 0.000 0.000	0.000	90.000	No Ice 1/2" Ice 1" Ice	3.807 4.171 4.543	3.970 4.578 5.195	0.030 0.068 0.112
						2" Ice	5.314	6.460	0.219
BXA-70080-4BF-EDIN-0 w/ Mount Pipe	B	From Leg	4.000 0.000 0.000	0.000	90.000	No Ice 1/2" Ice 1" Ice	3.807 4.171 4.543	3.970 4.578 5.195	0.030 0.068 0.112
						2" Ice	5.314	6.460	0.219
BXA-70080-4BF-EDIN-0 w/ Mount Pipe	C	From Leg	4.000 0.000 0.000	0.000	90.000	No Ice 1/2" Ice 1" Ice	3.807 4.171 4.543	3.970 4.578 5.195	0.030 0.068 0.112
						2" Ice	5.314	6.460	0.219
GPS_A	A	From Leg	4.000 0.000 0.000	0.000	90.000	No Ice 1/2" Ice 1" Ice	0.255 0.320 0.393	0.255 0.320 0.393	0.001 0.005 0.010
						2" Ice	0.561	0.561	0.025
RFV01U-D1A	A	From Leg	4.000 0.000 0.000	0.000	90.000	No Ice 1/2" Ice 1" Ice	1.875 2.045 2.223	1.250 1.393 1.543	0.084 0.103 0.124
						2" Ice	2.601	1.865	0.175
RFV01U-D1A	B	From Leg	4.000 0.000 0.000	0.000	90.000	No Ice 1/2" Ice 1" Ice	1.875 2.045 2.223	1.250 1.393 1.543	0.084 0.103 0.124
						2" Ice	2.601	1.865	0.175
RFV01U-D1A	C	From Leg	4.000 0.000 0.000	0.000	90.000	No Ice 1/2" Ice 1" Ice	1.875 2.045 2.223	1.250 1.393 1.543	0.084 0.103 0.124
						2" Ice	2.601	1.865	0.175
RFV01U-D2A	A	From Leg	4.000 0.000 0.000	0.000	90.000	No Ice 1/2" Ice 1" Ice	1.875 2.045 2.223	1.013 1.145 1.284	0.070 0.087 0.106
						2" Ice	2.601	1.585	0.153
RFV01U-D2A	B	From Leg	4.000 0.000 0.000	0.000	90.000	No Ice 1/2" Ice 1" Ice	1.875 2.045 2.223	1.013 1.145 1.284	0.070 0.087 0.106
						2" Ice	2.601	1.585	0.153
RFV01U-D2A	C	From Leg	4.000 0.000 0.000	0.000	90.000	No Ice 1/2" Ice 1" Ice	1.875 2.045 2.223	1.013 1.145 1.284	0.070 0.087 0.106
						2" Ice	2.601	1.585	0.153
DB-T1-6Z-8AB-0Z	B	From Leg	4.000 0.000 0.000	0.000	90.000	No Ice 1/2" Ice 1" Ice	4.800 5.070 5.348	2.000 2.193 2.393	0.044 0.080 0.120
						2" Ice	5.926	2.815	0.213
CBRS	A	From Leg	4.000 0.000 -2.000	0.000	90.000	No Ice 1/2" Ice 1" Ice	1.540 1.790 2.060	0.610 0.800 1.020	0.023 0.035 0.049

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft / Vert ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
						2" Ice	2.670	1.510	0.086
CBRS	B	From Leg	4.000 0.000 -2.000	0.000	90.000	No Ice 1/2" Ice 1" Ice 2" Ice	1.540 1.790 2.060 2.670	0.610 0.800 1.020 1.510	0.023 0.035 0.049 0.086
CBRS	C	From Leg	4.000 0.000 -2.000	0.000	90.000	No Ice 1/2" Ice 1" Ice 2" Ice	1.540 1.790 2.060 2.670	0.610 0.800 1.020 1.510	0.023 0.035 0.049 0.086
(2) MT6407-77A w/ Mount Pipe	A	From Leg	4.000 0.000 2.000	0.000	90.000	No Ice 1/2" Ice 1" Ice 2" Ice	4.907 5.256 5.615 6.362	2.682 3.145 3.624 4.631	0.096 0.136 0.180 0.288
(2) MT6407-77A w/ Mount Pipe	B	From Leg	4.000 0.000 2.000	0.000	90.000	No Ice 1/2" Ice 1" Ice 2" Ice	4.907 5.256 5.615 6.362	2.682 3.145 3.624 4.631	0.096 0.136 0.180 0.288
(2) MT6407-77A w/ Mount Pipe	C	From Leg	4.000 0.000 2.000	0.000	90.000	No Ice 1/2" Ice 1" Ice 2" Ice	4.907 5.256 5.615 6.362	2.682 3.145 3.624 4.631	0.096 0.136 0.180 0.288
6' x 2" Mount Pipe	A	From Leg	4.000 0.000 0.000	0.000	90.000	No Ice 1/2" Ice 1" Ice 2" Ice	1.425 1.925 2.294 3.060	1.425 1.925 2.294 3.060	0.022 0.033 0.048 0.090
6' x 2" Mount Pipe	B	From Leg	4.000 0.000 0.000	0.000	90.000	No Ice 1/2" Ice 1" Ice 2" Ice	1.425 1.925 2.294 3.060	1.425 1.925 2.294 3.060	0.022 0.033 0.048 0.090
6' x 2" Mount Pipe	C	From Leg	4.000 0.000 0.000	0.000	90.000	No Ice 1/2" Ice 1" Ice 2" Ice	1.425 1.925 2.294 3.060	1.425 1.925 2.294 3.060	0.022 0.033 0.048 0.090
(2) L 2.5x2.5x3/16x6'	A	From Leg	4.000 0.000 5.000	0.000	90.000	No Ice 1/2" Ice 1" Ice 2" Ice	1.500 1.918 2.343 3.215	0.005 0.024 0.049 0.123	0.025 0.034 0.048 0.091
(2) L 2.5x2.5x3/16x6'	B	From Leg	4.000 0.000 5.000	0.000	90.000	No Ice 1/2" Ice 1" Ice 2" Ice	1.500 1.918 2.343 3.215	0.005 0.024 0.049 0.123	0.025 0.034 0.048 0.091
(2) L 2.5x2.5x3/16x6'	C	From Leg	4.000 0.000 5.000	0.000	90.000	No Ice 1/2" Ice 1" Ice 2" Ice	1.500 1.918 2.343 3.215	0.005 0.024 0.049 0.123	0.025 0.034 0.048 0.091
Side Arm Mount [SO 102-3]	C	None		0.000	95.000	No Ice 1/2" Ice 1" Ice 2" Ice	3.600 4.180 4.750 5.900	3.600 4.180 4.750 5.900	0.075 0.105 0.135 0.195
Platform Mount [LP 1201-1]	C	None		0.000	90.000	No Ice 1/2" Ice 1" Ice 2" Ice	18.380 22.110 25.870 33.470	18.380 22.110 25.870 33.470	2.100 2.652 3.263 4.662
Miscellaneous [NA 507-1]	C	None		0.000	93.000	No Ice 1/2" Ice 1" Ice 2" Ice	4.560 6.390 8.180 11.660	4.560 6.390 8.180 11.660	0.245 0.311 0.402 0.657

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft Vert ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
Side Arm Mount [SO 102-3]	C	None		0.000	90.000	No Ice	3.600	3.600	0.075
						1/2" Ice	4.180	4.180	0.105
						1" Ice	4.750	4.750	0.135
						2" Ice	5.900	5.900	0.195
*									
GPS_A	C	From Leg	3.000 0.000 2.000	0.000	73.000	No Ice	0.255	0.255	0.001
						1/2" Ice	0.320	0.320	0.005
						1" Ice	0.393	0.393	0.010
						2" Ice	0.561	0.561	0.025
Side Arm Mount [SO 701-1]	C	From Leg	1.500 0.000 0.000	0.000	73.000	No Ice	0.850	1.670	0.065
						1/2" Ice	1.140	2.340	0.079
						1" Ice	1.430	3.010	0.093
						2" Ice	2.010	4.350	0.121
*									

Dishes

Description	Face or Leg	Dish Type	Offset Type	Offsets: Horz Lateral ft Vert ft	Azimuth Adjustment °	3 dB Beam Width °	Elevation ft	Outside Diameter ft		Aperture Area ft^2	Weight K
Radiowaves HPD2-4.7	A	Paraboloid w/Shroud (HP)	From Leg	6.000 0.000 -1.000	75.000		178.000	2.042	No Ice	3.270	0.027
									1/2" Ice	3.550	0.050
									1" Ice	3.820	0.060
									2" Ice	4.360	0.100
Radiowaves HPD2-4.7	B	Paraboloid w/Shroud (HP)	From Leg	6.000 0.000 -1.000	-24.000		178.000	2.042	No Ice	3.270	0.027
									1/2" Ice	3.550	0.050
									1" Ice	3.820	0.060
									2" Ice	4.360	0.100
*											
*											

Load Combinations

Comb. No.	Description
1	Dead Only
2	1.2 Dead+1.0 Wind 0 deg - No Ice
3	0.9 Dead+1.0 Wind 0 deg - No Ice
4	1.2 Dead+1.0 Wind 30 deg - No Ice
5	0.9 Dead+1.0 Wind 30 deg - No Ice
6	1.2 Dead+1.0 Wind 60 deg - No Ice
7	0.9 Dead+1.0 Wind 60 deg - No Ice
8	1.2 Dead+1.0 Wind 90 deg - No Ice
9	0.9 Dead+1.0 Wind 90 deg - No Ice
10	1.2 Dead+1.0 Wind 120 deg - No Ice
11	0.9 Dead+1.0 Wind 120 deg - No Ice

Comb. No.	Description
12	1.2 Dead+1.0 Wind 150 deg - No Ice
13	0.9 Dead+1.0 Wind 150 deg - No Ice
14	1.2 Dead+1.0 Wind 180 deg - No Ice
15	0.9 Dead+1.0 Wind 180 deg - No Ice
16	1.2 Dead+1.0 Wind 210 deg - No Ice
17	0.9 Dead+1.0 Wind 210 deg - No Ice
18	1.2 Dead+1.0 Wind 240 deg - No Ice
19	0.9 Dead+1.0 Wind 240 deg - No Ice
20	1.2 Dead+1.0 Wind 270 deg - No Ice
21	0.9 Dead+1.0 Wind 270 deg - No Ice
22	1.2 Dead+1.0 Wind 300 deg - No Ice
23	0.9 Dead+1.0 Wind 300 deg - No Ice
24	1.2 Dead+1.0 Wind 330 deg - No Ice
25	0.9 Dead+1.0 Wind 330 deg - No Ice
26	1.2 Dead+1.0 Ice+1.0 Temp
27	1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp
28	1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp
29	1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp
30	1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp
31	1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp
32	1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp
33	1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp
34	1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp
35	1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp
36	1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp
37	1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp
38	1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp
39	Dead+Wind 0 deg - Service
40	Dead+Wind 30 deg - Service
41	Dead+Wind 60 deg - Service
42	Dead+Wind 90 deg - Service
43	Dead+Wind 120 deg - Service
44	Dead+Wind 150 deg - Service
45	Dead+Wind 180 deg - Service
46	Dead+Wind 210 deg - Service
47	Dead+Wind 240 deg - Service
48	Dead+Wind 270 deg - Service
49	Dead+Wind 300 deg - Service
50	Dead+Wind 330 deg - Service

Maximum Member Forces

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L1	182 - 177	Pole	Max Tension	39	0.000	-0.000	-0.000
			Max. Compression	26	-2.774	0.557	0.422
			Max. Mx	20	-0.804	13.068	0.057
			Max. My	2	-0.808	0.115	12.973
			Max. Vy	20	-2.214	13.068	0.057
			Max. Vx	2	-2.213	0.115	12.973
			Max. Torque	4			0.861
L2	177 - 172	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-3.413	0.053	0.723
			Max. Mx	20	-1.018	26.775	-0.070
			Max. My	2	-1.063	-0.187	25.971
			Max. Vy	20	-2.931	26.775	-0.070
			Max. Vx	2	-2.730	-0.187	25.971
			Max. Torque	18			-1.293

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L3	172 - 167	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-16.573	0.687	1.719
			Max. Mx	20	-5.556	51.288	0.750
			Max. My	2	-5.606	-0.353	50.311
			Max. Vy	20	-11.185	51.288	0.750
			Max. Vx	2	-11.016	-0.353	50.311
			Max. Torque	18			-2.037
L4	167 - 162	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-17.177	0.675	1.771
			Max. Mx	20	-5.929	108.046	0.867
			Max. My	2	-5.978	-0.346	106.225
			Max. Vy	20	-11.524	108.046	0.867
			Max. Vx	2	-11.354	-0.346	106.225
			Max. Torque	18			-2.037
L5	162 - 157	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-17.811	0.659	1.818
			Max. Mx	20	-6.336	166.512	0.980
			Max. My	2	-6.385	-0.342	163.845
			Max. Vy	20	-11.871	166.512	0.980
			Max. Vx	2	-11.701	-0.342	163.845
			Max. Torque	18			-2.036
L6	157 - 152	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-27.762	0.639	1.882
			Max. Mx	20	-10.257	256.302	1.106
			Max. My	2	-10.312	-0.334	252.762
			Max. Vy	20	-17.145	256.302	1.106
			Max. Vx	2	-16.970	-0.334	252.762
			Max. Torque	18			-2.035
L7	152 - 147	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-28.499	0.616	1.940
			Max. Mx	20	-10.813	342.845	1.226
			Max. My	2	-10.866	-0.329	338.432
			Max. Vy	20	-17.488	342.845	1.226
			Max. Vx	2	-17.313	-0.329	338.432
			Max. Torque	18			-2.027
L8	147 - 142	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-29.264	0.590	1.994
			Max. Mx	20	-11.405	431.099	1.341
			Max. My	2	-11.455	-0.327	425.813
			Max. Vy	20	-17.832	431.099	1.341
			Max. Vx	2	-17.658	-0.327	425.813
			Max. Torque	18			-2.024
L9	142 - 137	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-38.177	0.506	2.082
			Max. Mx	20	-15.616	535.330	1.468
			Max. My	2	-15.667	-0.338	529.178
			Max. Vy	20	-21.590	535.330	1.468
			Max. Vx	2	-21.411	-0.338	529.178
			Max. Torque	18			-2.022
L10	137 - 133.081	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-38.207	0.501	2.088
			Max. Mx	20	-15.655	538.912	1.475
			Max. My	2	-15.706	-0.337	532.731
			Max. Vy	20	-21.594	538.912	1.475
			Max. Vx	2	-21.415	-0.337	532.731
			Max. Torque	18			-2.017
L11	133.081 - 131.834	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-39.806	0.377	2.196
			Max. Mx	20	-16.748	648.042	1.605
			Max. My	2	-16.798	-0.359	641.003

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Vy	20	-22.068	648.042	1.605
			Max. Vx	2	-21.888	-0.359	641.003
			Max. Torque	18			-2.015
L12	131.834 - 126.834	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-46.875	0.246	2.725
			Max. Mx	20	-20.369	770.529	1.831
			Max. My	2	-20.416	-0.381	762.845
			Max. Vy	20	-26.009	770.529	1.831
			Max. Vx	2	-25.858	-0.381	762.845
			Max. Torque	18			-2.208
L13	126.834 - 121.834	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-48.095	0.109	2.789
			Max. Mx	20	-21.329	901.405	1.949
			Max. My	2	-21.374	-0.404	892.991
			Max. Vy	20	-26.381	901.405	1.949
			Max. Vx	2	-26.230	-0.404	892.991
			Max. Torque	18			-2.206
L14	121.834 - 116.834	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-49.351	-0.032	2.851
			Max. Mx	20	-22.325	1034.136	2.064
			Max. My	2	-22.368	-0.429	1024.994
			Max. Vy	20	-26.754	1034.136	2.064
			Max. Vx	2	-26.604	-0.429	1024.994
			Max. Torque	18			-2.204
L15	116.834 - 111.834	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-50.645	-0.179	2.909
			Max. Mx	20	-23.356	1168.732	2.178
			Max. My	2	-23.396	-0.455	1158.864
			Max. Vy	20	-27.129	1168.732	2.178
			Max. Vx	2	-26.979	-0.455	1158.864
			Max. Torque	18			-2.201
L16	111.834 - 106.834	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-51.975	-0.330	2.964
			Max. Mx	20	-24.420	1305.204	2.288
			Max. My	2	-24.458	-0.483	1294.614
			Max. Vy	20	-27.507	1305.204	2.288
			Max. Vx	2	-27.357	-0.483	1294.614
			Max. Torque	18			-2.198
L17	106.834 - 101.834	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-53.342	-0.484	3.016
			Max. Mx	20	-25.516	1443.565	2.397
			Max. My	2	-25.551	-0.513	1432.256
			Max. Vy	20	-27.886	1443.565	2.397
			Max. Vx	2	-27.737	-0.513	1432.256
			Max. Torque	18			-2.196
L18	101.834 - 96.834	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-54.745	-0.643	3.066
			Max. Mx	20	-26.643	1583.827	2.504
			Max. My	2	-26.677	-0.544	1571.802
			Max. Vy	20	-28.269	1583.827	2.504
			Max. Vx	2	-28.120	-0.544	1571.802
			Max. Torque	18			-2.193
L19	96.834 - 87.449	Pole	Max Tension	1	0.000	0.000	0.000

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Compression	26	-56.742	-0.786	3.108
			Max. Mx	20	-28.005	1708.350	2.596
			Max. My	2	-28.037	-0.573	1695.704
			Max. Vy	20	-28.999	1708.350	2.596
			Max. Vx	2	-28.851	-0.573	1695.704
			Max. Torque	18			-2.191
L20	87.449 - 86.449	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-69.766	-1.781	2.798
			Max. Mx	20	-34.664	1901.872	2.753
			Max. My	2	-34.702	-0.678	1888.296
			Max. Vy	20	-33.899	1901.872	2.753
			Max. Vx	2	-33.699	-0.678	1888.296
			Max. Torque	18			-1.913
L21	86.449 - 85	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-70.249	-1.830	2.812
			Max. Mx	20	-35.022	1951.015	2.846
			Max. My	2	-35.059	-0.626	1937.158
			Max. Vy	20	-34.005	1951.015	2.846
			Max. Vx	2	-33.805	-0.626	1937.158
			Max. Torque	18			-1.913
L22	85 - 84.75	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-70.332	-1.841	2.818
			Max. Mx	20	-35.115	1959.508	2.863
			Max. My	2	-35.152	-0.617	1945.603
			Max. Vy	20	-33.998	1959.508	2.863
			Max. Vx	2	-33.798	-0.617	1945.603
			Max. Torque	18			-1.912
L23	84.75 - 79.75	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-72.021	-2.010	2.863
			Max. Mx	20	-36.394	2130.213	3.181
			Max. My	2	-36.428	-0.438	2115.343
			Max. Vy	20	-34.337	2130.213	3.181
			Max. Vx	2	-34.138	-0.438	2115.343
			Max. Torque	18			-1.912
L24	79.75 - 75	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-73.718	-2.168	2.901
			Max. Mx	20	-37.649	2293.885	3.482
			Max. My	2	-37.681	-0.269	2278.104
			Max. Vy	20	-34.650	2293.885	3.482
			Max. Vx	2	-34.452	-0.269	2278.104
			Max. Torque	18			-1.910
L25	75 - 74.75	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-73.848	-2.180	2.909
			Max. Mx	20	-37.772	2302.542	3.500
			Max. My	2	-37.803	-0.259	2286.712
			Max. Vy	20	-34.652	2302.542	3.500
			Max. Vx	2	-34.454	-0.259	2286.712
			Max. Torque	18			-1.908
L26	74.75 - 74	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-74.237	-2.199	2.907
			Max. Mx	20	-38.055	2328.546	3.546
			Max. My	2	-38.087	-0.233	2312.573
			Max. Vy	20	-34.729	2328.546	3.546
			Max. Vx	2	-34.531	-0.233	2312.573
			Max. Torque	18			-1.908
L27	74 - 73.75	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-74.332	-2.208	2.910
			Max. Mx	20	-38.127	2337.226	3.562
			Max. My	2	-38.158	-0.224	2321.205
			Max. Vy	20	-34.746	2337.226	3.562

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Vx	2	-34.548	-0.224	2321.205
			Max. Torque	18			-1.908
L28	73.75 - 68.75	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-76.296	-2.000	2.722
			Max. Mx	20	-39.547	2512.146	3.826
			Max. My	2	-39.575	0.210	2494.910
			Max. Vy	20	-35.141	2512.146	3.826
			Max. Vx	2	-34.961	0.210	2494.910
			Max. Torque	18			-1.908
L29	68.75 - 63.75	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-78.110	-2.180	2.758
			Max. Mx	20	-40.941	2688.469	4.213
			Max. My	2	-40.966	0.458	2670.373
			Max. Vy	20	-35.459	2688.469	4.213
			Max. Vx	2	-35.280	0.458	2670.373
			Max. Torque	18			-1.906
L30	63.75 - 58.75	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-79.956	-2.364	2.794
			Max. Mx	20	-42.364	2866.366	4.598
			Max. My	2	-42.387	0.704	2847.418
			Max. Vy	20	-35.772	2866.366	4.598
			Max. Vx	2	-35.595	0.704	2847.418
			Max. Torque	18			-1.904
L31	58.75 - 53.75	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-81.834	-2.550	2.831
			Max. Mx	20	-43.816	3045.817	4.982
			Max. My	2	-43.836	0.948	3026.025
			Max. Vy	20	-36.081	3045.817	4.982
			Max. Vx	2	-35.905	0.948	3026.025
			Max. Torque	18			-1.902
L32	53.75 - 42.848	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-83.567	-2.729	2.867
			Max. Mx	20	-45.195	3214.791	5.337
			Max. My	2	-45.212	1.174	3194.217
			Max. Vy	20	-36.363	3214.791	5.337
			Max. Vx	2	-36.188	1.174	3194.217
			Max. Torque	18			-1.901
L33	42.848 - 41.848	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-88.332	-3.006	2.922
			Max. Mx	20	-48.819	3480.102	5.888
			Max. My	2	-48.834	1.525	3458.324
			Max. Vy	20	-37.049	3480.102	5.888
			Max. Vx	2	-36.875	1.525	3458.324
			Max. Torque	18			-1.899
L34	41.848 - 36.848	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-90.330	-3.198	2.959
			Max. Mx	20	-50.509	3665.936	6.266
			Max. My	2	-50.523	1.765	3643.330
			Max. Vy	20	-37.356	3665.936	6.266
			Max. Vx	2	-37.183	1.765	3643.330
			Max. Torque	18			-1.899
L35	36.848 - 31.848	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-92.364	-3.392	2.997
			Max. Mx	20	-52.232	3853.273	6.642
			Max. My	2	-52.244	2.004	3829.848
			Max. Vy	20	-37.652	3853.273	6.642
			Max. Vx	2	-37.480	2.004	3829.848
			Max. Torque	18			-1.898

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L36	31.848 - 26.848	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-94.430	-3.587	3.035
			Max. Mx	20	-53.987	4042.052	7.015
			Max. My	2	-53.997	2.240	4017.815
			Max. Vy	20	-37.934	4042.052	7.015
			Max. Vx	2	-37.763	2.240	4017.815
			Max. Torque	18			-1.897
L37	26.848 - 21.848	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-96.529	-3.783	3.072
			Max. Mx	20	-55.775	4232.196	7.386
			Max. My	2	-55.783	2.475	4207.155
			Max. Vy	20	-38.199	4232.196	7.386
			Max. Vx	2	-38.029	2.475	4207.155
			Max. Torque	18			-1.897
L38	21.848 - 16.848	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-98.656	-3.979	3.109
			Max. Mx	20	-57.596	4423.608	7.754
			Max. My	2	-57.602	2.707	4397.770
			Max. Vy	20	-38.442	4423.608	7.754
			Max. Vx	2	-38.274	2.707	4397.770
			Max. Torque	18			-1.896
L39	16.848 - 11.848	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-100.810	-4.172	3.146
			Max. Mx	20	-59.448	4616.175	8.120
			Max. My	2	-59.452	2.938	4589.550
			Max. Vy	20	-38.661	4616.175	8.120
			Max. Vx	2	-38.495	2.938	4589.550
			Max. Torque	18			-1.896
L40	11.848 - 6.848	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-102.982	-4.361	3.180
			Max. Mx	20	-61.332	4809.842	8.483
			Max. My	2	-61.334	3.166	4782.437
			Max. Vy	20	-38.882	4809.842	8.483
			Max. Vx	2	-38.717	3.166	4782.437
			Max. Torque	18			-1.896
L41	6.848 - 1.848	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-105.157	-4.540	3.212
			Max. Mx	20	-63.247	5004.617	8.843
			Max. My	2	-63.248	3.392	4976.440
			Max. Vy	20	-39.105	5004.617	8.843
			Max. Vx	2	-38.941	3.392	4976.440
			Max. Torque	18			-1.896
L42	1.848 - 0	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-105.946	-4.598	3.221
			Max. Mx	20	-63.948	5076.888	8.976
			Max. My	2	-63.948	3.475	5048.430
			Max. Vy	20	-39.212	5076.888	8.976
			Max. Vx	2	-39.049	3.475	5048.430
			Max. Torque	18			-1.895

Maximum Reactions

Location	Condition	Gov. Load Comb.	Vertical K	Horizontal, X K	Horizontal, Z K
Pole	Max. Vert	30	105.946	-11.883	-0.018
	Max. H_x	20	63.980	39.160	0.073
	Max. H_z	2	63.980	0.056	38.998
	Max. M_x	2	5048.430	0.056	38.998
	Max. M_z	8	5062.314	-39.075	-0.078
	Max. Torsion	6	1.751	-33.819	19.394
	Min. Vert	25	47.985	19.730	33.802
	Min. H_x	8	63.980	-39.075	-0.078
	Min. H_z	14	63.980	-0.070	-38.997
	Min. M_x	14	-5045.909	-0.070	-38.997
	Min. M_z	20	-5076.888	39.160	0.073
	Min. Torsion	18	-1.895	33.901	-19.412

Tower Mast Reaction Summary

Load Combination	Vertical K	$Shear_x$ K	$Shear_z$ K	Overturning Moment, M_x kip-ft	Overturning Moment, M_z kip-ft	Torque kip-ft
Dead Only	53.317	0.000	-0.000	-0.906	-0.762	-0.000
1.2 Dead+1.0 Wind 0 deg - No Ice	63.980	-0.056	-38.998	-5048.430	3.475	-1.016
0.9 Dead+1.0 Wind 0 deg - No Ice	47.985	-0.056	-38.998	-4939.236	3.698	-1.007
1.2 Dead+1.0 Wind 30 deg - No Ice	63.980	19.533	-33.698	-4360.707	-2536.396	-1.624
0.9 Dead+1.0 Wind 30 deg - No Ice	47.985	19.533	-33.698	-4266.371	-2481.327	-1.586
1.2 Dead+1.0 Wind 60 deg - No Ice	63.980	33.819	-19.394	-2509.802	-4383.583	-1.751
0.9 Dead+1.0 Wind 60 deg - No Ice	47.985	33.819	-19.394	-2455.380	-4288.722	-1.695
1.2 Dead+1.0 Wind 90 deg - No Ice	63.980	39.075	0.078	7.571	-5062.314	-1.426
0.9 Dead+1.0 Wind 90 deg - No Ice	47.985	39.075	0.078	7.754	-4952.861	-1.367
1.2 Dead+1.0 Wind 120 deg - No Ice	63.980	33.912	19.522	2521.296	-4395.115	-0.851
0.9 Dead+1.0 Wind 120 deg - No Ice	47.985	33.912	19.522	2467.326	-4300.040	-0.804
1.2 Dead+1.0 Wind 150 deg - No Ice	63.980	19.689	33.811	4371.223	-2554.195	0.045
0.9 Dead+1.0 Wind 150 deg - No Ice	47.985	19.689	33.811	4277.357	-2498.817	0.067
1.2 Dead+1.0 Wind 180 deg - No Ice	63.980	0.070	38.997	5045.909	-8.318	1.119
0.9 Dead+1.0 Wind 180 deg - No Ice	47.985	0.070	38.997	4937.419	-7.932	1.110
1.2 Dead+1.0 Wind 210 deg - No Ice	63.980	-19.595	33.698	4358.272	2546.403	1.861
0.9 Dead+1.0 Wind 210 deg - No Ice	47.985	-19.595	33.698	4264.625	2491.551	1.824
1.2 Dead+1.0 Wind 240 deg - No Ice	63.980	-33.901	19.412	2510.962	4397.375	1.895
0.9 Dead+1.0 Wind 240 deg - No Ice	47.985	-33.901	19.412	2457.126	4302.625	1.840
1.2 Dead+1.0 Wind 270 deg - No Ice	63.980	-39.160	-0.073	-8.975	5076.888	1.572

Load Combination	Vertical	$Shear_x$	$Shear_z$	Overturning Moment, M_x	Overturning Moment, M_z	Torque
	K	K	K	kip-ft	kip-ft	kip-ft
0.9 Dead+1.0 Wind 270 deg - No Ice	47.985	-39.160	-0.073	-8.505	4967.513	1.513
1.2 Dead+1.0 Wind 300 deg - No Ice	63.980	-33.991	-19.527	-2524.596	4408.565	0.967
0.9 Dead+1.0 Wind 300 deg - No Ice	47.985	-33.991	-19.527	-2469.914	4313.589	0.921
1.2 Dead+1.0 Wind 330 deg - No Ice	63.980	-19.730	-33.802	-4371.979	2560.293	-0.163
0.9 Dead+1.0 Wind 330 deg - No Ice	47.985	-19.730	-33.802	-4277.451	2505.215	-0.185
1.2 Dead+1.0 Ice+1.0 Temp	105.946	0.000	-0.000	-3.221	-4.598	-0.000
1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp	105.946	-0.013	-11.869	-1674.233	-3.942	-0.357
1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp	105.946	5.940	-10.261	-1447.590	-843.416	-0.624
1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp	105.946	10.287	-5.910	-835.236	-1454.844	-0.714
1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp	105.946	11.883	0.018	-1.423	-1679.233	-0.618
1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp	105.946	10.308	5.940	831.543	-1457.550	-0.389
1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp	105.946	5.972	10.281	1443.098	-847.107	-0.032
1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp	105.946	0.016	11.869	1667.375	-6.461	0.380
1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp	105.946	-5.954	10.261	1440.773	836.768	0.684
1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp	105.946	-10.305	5.915	829.339	1449.184	0.752
1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp	105.946	-11.903	-0.017	-5.143	1673.785	0.654
1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp	105.946	-10.325	-5.941	-838.613	1451.807	0.412
1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp	105.946	-5.982	-10.279	-1449.516	839.474	-0.002
Dead+Wind 0 deg - Service	53.317	-0.014	-9.500	-1218.184	0.285	-0.257
Dead+Wind 30 deg - Service	53.317	4.758	-8.209	-1052.346	-612.219	-0.404
Dead+Wind 60 deg - Service	53.317	8.239	-4.725	-605.997	-1057.709	-0.433
Dead+Wind 90 deg - Service	53.317	9.519	0.019	1.105	-1221.421	-0.352
Dead+Wind 120 deg - Service	53.317	8.261	4.756	607.345	-1060.523	-0.211
Dead+Wind 150 deg - Service	53.317	4.796	8.237	1053.477	-616.538	0.011
Dead+Wind 180 deg - Service	53.317	0.017	9.500	1216.144	-2.564	0.282
Dead+Wind 210 deg - Service	53.317	-4.774	8.209	1050.328	613.524	0.471
Dead+Wind 240 deg - Service	53.317	-8.259	4.729	604.846	1059.945	0.476
Dead+Wind 270 deg - Service	53.317	-9.540	-0.018	-2.890	1223.843	0.391
Dead+Wind 300 deg - Service	53.317	-8.281	-4.757	-609.597	1062.659	0.235
Dead+Wind 330 deg - Service	53.317	-4.807	-8.235	-1055.095	616.884	-0.050

Solution Summary

	Sum of Applied Forces			Sum of Reactions			
Load Comb.	PX	PY	PZ	PX	PY	PZ	% Error
	K	K	K	K	K	K	
1	0.000	-53.317	0.000	0.000	53.317	0.000	0.000%
2	-0.056	-63.980	-38.998	0.056	63.980	38.998	0.000%
3	-0.056	-47.985	-38.998	0.056	47.985	38.998	0.000%
4	19.533	-63.980	-33.698	-19.533	63.980	33.698	0.000%
5	19.533	-47.985	-33.698	-19.533	47.985	33.698	0.000%

	Sum of Applied Forces			Sum of Reactions			
Load Comb.	PX K	PY K	PZ K	PX K	PY K	PZ K	% Error
6	33.819	-63.980	-19.394	-33.819	63.980	19.394	0.000%
7	33.819	-47.985	-19.394	-33.819	47.985	19.394	0.000%
8	39.075	-63.980	0.078	-39.075	63.980	-0.078	0.000%
9	39.075	-47.985	0.078	-39.075	47.985	-0.078	0.000%
10	33.912	-63.980	19.522	-33.912	63.980	-19.522	0.000%
11	33.912	-47.985	19.522	-33.912	47.985	-19.522	0.000%
12	19.689	-63.980	33.811	-19.689	63.980	-33.811	0.000%
13	19.689	-47.985	33.811	-19.689	47.985	-33.811	0.000%
14	0.070	-63.980	38.997	-0.070	63.980	-38.997	0.000%
15	0.070	-47.985	38.997	-0.070	47.985	-38.997	0.000%
16	-19.595	-63.980	33.698	19.595	63.980	-33.698	0.000%
17	-19.595	-47.985	33.698	19.595	47.985	-33.698	0.000%
18	-33.901	-63.980	19.412	33.901	63.980	-19.412	0.000%
19	-33.901	-47.985	19.412	33.901	47.985	-19.412	0.000%
20	-39.160	-63.980	-0.073	39.160	63.980	0.073	0.000%
21	-39.160	-47.985	-0.073	39.160	47.985	0.073	0.000%
22	-33.991	-63.980	-19.527	33.991	63.980	19.527	0.000%
23	-33.991	-47.985	-19.527	33.991	47.985	19.527	0.000%
24	-19.730	-63.980	-33.802	19.730	63.980	33.802	0.000%
25	-19.730	-47.985	-33.802	19.730	47.985	33.802	0.000%
26	0.000	-105.946	0.000	-0.000	105.946	0.000	0.000%
27	-0.013	-105.946	-11.869	0.013	105.946	11.869	0.000%
28	5.940	-105.946	-10.261	-5.940	105.946	10.261	0.000%
29	10.287	-105.946	-5.910	-10.287	105.946	5.910	0.000%
30	11.883	-105.946	0.018	-11.883	105.946	-0.018	0.000%
31	10.308	-105.946	5.940	-10.308	105.946	-5.940	0.000%
32	5.972	-105.946	10.281	-5.972	105.946	-10.281	0.000%
33	0.016	-105.946	11.869	-0.016	105.946	-11.869	0.000%
34	-5.954	-105.946	10.261	5.954	105.946	-10.261	0.000%
35	-10.305	-105.946	5.915	10.305	105.946	-5.915	0.000%
36	-11.903	-105.946	-0.017	11.903	105.946	0.017	0.000%
37	-10.325	-105.946	-5.941	10.325	105.946	5.941	0.000%
38	-5.982	-105.946	-10.279	5.982	105.946	10.279	0.000%
39	-0.014	-53.317	-9.500	0.014	53.317	9.500	0.000%
40	4.758	-53.317	-8.209	-4.758	53.317	8.209	0.000%
41	8.239	-53.317	-4.725	-8.239	53.317	4.725	0.000%
42	9.519	-53.317	0.019	-9.519	53.317	-0.019	0.000%
43	8.261	-53.317	4.756	-8.261	53.317	-4.756	0.000%
44	4.796	-53.317	8.237	-4.796	53.317	-8.237	0.000%
45	0.017	-53.317	9.500	-0.017	53.317	-9.500	0.000%
46	-4.774	-53.317	8.209	4.774	53.317	-8.209	0.000%
47	-8.259	-53.317	4.729	8.259	53.317	-4.729	0.000%
48	-9.540	-53.317	-0.018	9.540	53.317	0.018	0.000%
49	-8.281	-53.317	-4.757	8.281	53.317	4.757	0.000%
50	-4.807	-53.317	-8.235	4.807	53.317	8.235	0.000%

Non-Linear Convergence Results

Load Combination	Converged?	Number of Cycles	Displacement Tolerance	Force Tolerance
1	Yes	4	0.00000001	0.00000309
2	Yes	6	0.00000001	0.00050051
3	Yes	6	0.00000001	0.00016167
4	Yes	8	0.00000001	0.00025967
5	Yes	7	0.00000001	0.00059587
6	Yes	8	0.00000001	0.00027021

7	Yes	7	0.00000001	0.00062308
8	Yes	6	0.00000001	0.00058950
9	Yes	6	0.00000001	0.00018247
10	Yes	8	0.00000001	0.00026221
11	Yes	7	0.00000001	0.00060255
12	Yes	8	0.00000001	0.00026462
13	Yes	7	0.00000001	0.00060793
14	Yes	6	0.00000001	0.00040663
15	Yes	6	0.00000001	0.00013169
16	Yes	8	0.00000001	0.00026975
17	Yes	7	0.00000001	0.00062167
18	Yes	8	0.00000001	0.00025879
19	Yes	7	0.00000001	0.00059385
20	Yes	6	0.00000001	0.00088571
21	Yes	6	0.00000001	0.00027714
22	Yes	8	0.00000001	0.00026847
23	Yes	7	0.00000001	0.00061748
24	Yes	8	0.00000001	0.00026539
25	Yes	7	0.00000001	0.00060969
26	Yes	5	0.00000001	0.00021097
27	Yes	8	0.00000001	0.00054805
28	Yes	9	0.00000001	0.00028814
29	Yes	9	0.00000001	0.00029549
30	Yes	8	0.00000001	0.00055084
31	Yes	9	0.00000001	0.00028513
32	Yes	9	0.00000001	0.00028985
33	Yes	8	0.00000001	0.00054346
34	Yes	9	0.00000001	0.00029131
35	Yes	9	0.00000001	0.00028210
36	Yes	8	0.00000001	0.00055147
37	Yes	9	0.00000001	0.00029474
38	Yes	9	0.00000001	0.00029135
39	Yes	5	0.00000001	0.00055922
40	Yes	6	0.00000001	0.00061047
41	Yes	6	0.00000001	0.00065610
42	Yes	5	0.00000001	0.00065898
43	Yes	6	0.00000001	0.00061552
44	Yes	6	0.00000001	0.00063221
45	Yes	5	0.00000001	0.00056048
46	Yes	6	0.00000001	0.00065668
47	Yes	6	0.00000001	0.00060176
48	Yes	5	0.00000001	0.00072954
49	Yes	6	0.00000001	0.00065385
50	Yes	6	0.00000001	0.00064183

Maximum Tower Deflections - Service Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	182 - 177	53.918	49	2.764	0.012
L2	177 - 172	51.026	49	2.761	0.012
L3	172 - 167	48.145	49	2.745	0.010
L4	167 - 162	45.284	49	2.720	0.009
L5	162 - 157	42.459	49	2.676	0.008
L6	157 - 152	39.691	49	2.612	0.006
L7	152 - 147	36.999	49	2.529	0.005
L8	147 - 142	34.402	49	2.431	0.005
L9	142 - 137	31.914	49	2.323	0.004
L10	137 - 133.081	29.543	49	2.207	0.003

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L11	136.834 - 131.834	29.466	49	2.203	0.003
L12	131.834 - 126.834	27.188	49	2.142	0.003
L13	126.834 - 121.834	24.994	49	2.050	0.003
L14	121.834 - 116.834	22.898	49	1.955	0.002
L15	116.834 - 111.834	20.902	49	1.858	0.002
L16	111.834 - 106.834	19.007	49	1.760	0.002
L17	106.834 - 101.834	17.216	49	1.663	0.002
L18	101.834 - 96.834	15.525	49	1.566	0.002
L19	96.834 - 87.449	13.936	49	1.470	0.001
L20	92.47 - 86.449	12.631	49	1.388	0.001
L21	86.449 - 85	10.918	49	1.320	0.001
L22	85 - 84.75	10.522	49	1.291	0.001
L23	84.75 - 79.75	10.455	49	1.287	0.001
L24	79.75 - 75	9.159	49	1.189	0.001
L25	75 - 74.75	8.022	49	1.097	0.001
L26	74.75 - 74	7.965	49	1.095	0.001
L27	74 - 73.75	7.793	49	1.087	0.001
L28	73.75 - 68.75	7.736	49	1.082	0.001
L29	68.75 - 63.75	6.653	49	0.988	0.001
L30	63.75 - 58.75	5.667	49	0.895	0.001
L31	58.75 - 53.75	4.778	49	0.804	0.001
L32	53.75 - 42.848	3.982	49	0.716	0.000
L33	49.08 - 41.848	3.322	49	0.634	0.000
L34	41.848 - 36.848	2.406	49	0.569	0.000
L35	36.848 - 31.848	1.849	49	0.495	0.000
L36	31.848 - 26.848	1.369	49	0.422	0.000
L37	26.848 - 21.848	0.965	49	0.351	0.000
L38	21.848 - 16.848	0.633	49	0.282	0.000
L39	16.848 - 11.848	0.373	49	0.215	0.000
L40	11.848 - 6.848	0.183	49	0.149	0.000
L41	6.848 - 1.848	0.060	49	0.085	0.000
L42	1.848 - 0	0.004	49	0.022	0.000

Critical Deflections and Radius of Curvature - Service Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
178.000	DS4C06F36D-D	49	51.604	2.763	0.012	28779
177.000	Radiowaves HPD2-4.7	49	51.026	2.761	0.012	28779
168.000	ANT450D6-9	49	45.854	2.726	0.009	9566
157.000	AIR 32 B2A B66AA_T-MOBILE w/ Mount Pipe	49	39.691	2.612	0.006	3941
142.000	800MHZ RRH	49	31.914	2.323	0.004	2567
140.000	APXVSPP18-C-A20 w/ Mount Pipe	49	30.951	2.277	0.004	2617
130.000	MX08FRO665-21 w/ Mount Pipe	49	26.373	2.114	0.003	3274
95.000	Side Arm Mount [SO 102-3]	49	13.380	1.432	0.001	3421
93.000	Miscellaneous [NA 507-1]	49	12.786	1.396	0.001	3984
90.000	(2) NHH-65B-R2B w/ Mount Pipe	49	11.916	1.361	0.001	4341
73.000	GPS_A	49	7.568	1.067	0.001	3222

Maximum Tower Deflections - Design Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	182 - 177	222.916	20	11.442	0.045
L2	177 - 172	211.016	20	11.432	0.044
L3	172 - 167	199.157	20	11.365	0.038
L4	167 - 162	187.383	20	11.267	0.034
L5	162 - 157	175.747	20	11.086	0.028
L6	157 - 152	164.339	20	10.827	0.024
L7	152 - 147	153.238	20	10.488	0.021
L8	147 - 142	142.521	20	10.085	0.018
L9	142 - 137	132.244	20	9.639	0.015
L10	137 - 133.081	122.443	20	9.161	0.013
L11	136.834 - 131.834	122.126	20	9.145	0.013
L12	131.834 - 126.834	112.705	20	8.893	0.012
L13	126.834 - 121.834	103.627	20	8.514	0.011
L14	121.834 - 116.834	94.948	20	8.120	0.009
L15	116.834 - 111.834	86.683	20	7.719	0.008
L16	111.834 - 106.834	78.836	20	7.314	0.007
L17	106.834 - 101.834	71.411	20	6.909	0.007
L18	101.834 - 96.834	64.405	20	6.506	0.006
L19	96.834 - 87.449	57.816	20	6.109	0.005
L20	92.47 - 86.449	52.401	20	5.766	0.005
L21	86.449 - 85	45.298	20	5.483	0.004
L22	85 - 84.75	43.655	22	5.366	0.004
L23	84.75 - 79.75	43.375	22	5.346	0.004
L24	79.75 - 75	38.003	22	4.940	0.004
L25	75 - 74.75	33.287	22	4.559	0.003
L26	74.75 - 74	33.049	22	4.548	0.003
L27	74 - 73.75	32.339	22	4.516	0.003
L28	73.75 - 68.75	32.103	22	4.496	0.003
L29	68.75 - 63.75	27.608	22	4.104	0.003
L30	63.75 - 58.75	23.519	22	3.719	0.002
L31	58.75 - 53.75	19.827	22	3.341	0.002
L32	53.75 - 42.848	16.525	22	2.972	0.002
L33	49.08 - 41.848	13.786	22	2.634	0.002
L34	41.848 - 36.848	9.983	22	2.363	0.001
L35	36.848 - 31.848	7.673	22	2.053	0.001
L36	31.848 - 26.848	5.681	22	1.752	0.001
L37	26.848 - 21.848	4.002	22	1.458	0.001
L38	21.848 - 16.848	2.627	22	1.171	0.001
L39	16.848 - 11.848	1.548	22	0.891	0.000
L40	11.848 - 6.848	0.758	22	0.618	0.000
L41	6.848 - 1.848	0.251	22	0.352	0.000
L42	1.848 - 0	0.018	22	0.093	0.000

Critical Deflections and Radius of Curvature - Design Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
178.000	DS4C06F36D-D	20	213.394	11.438	0.046	7792
177.000	Radiowaves HPD2-4.7	20	211.016	11.432	0.046	7792
168.000	ANT450D6-9	20	189.729	11.292	0.037	2554
157.000	AIR 32 B2A B66AA_T-MOBILE w/ Mount Pipe	20	164.339	10.827	0.026	1030
142.000	800MHZ RRH	20	132.244	9.639	0.016	656
140.000	APXVSPP18-C-A20 w/ Mount Pipe	20	128.264	9.452	0.015	667
130.000	MX08FRO665-21 w/ Mount Pipe	20	109.330	8.777	0.012	826
95.000	Side Arm Mount [SO 102-3]	20	55.507	5.952	0.005	840

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
93.000	Miscellaneous [NA 507-1]	20	53.045	5.799	0.005	978
90.000	(2) NHH-65B-R2B w/ Mount Pipe	20	49.438	5.656	0.004	1064
73.000	GPS_A	22	31.403	4.434	0.003	784

Compression Checks

Pole Design Data

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
L1	182 - 181	TP15.678x14.5x0.25	5.000	0.000	0.0	11.494	-0.081	672.416	0.000 [1]
	181 - 180					11.681	-0.076	683.350	0.000
	180 - 179					11.868	-0.116	694.284	0.000
	179 - 178					12.055	-0.155	705.219	0.000
	178 - 177					12.242	-0.804	716.153	0.001
L2	177 - 176	TP16.856x15.678x0.25	5.000	0.000	0.0	12.429	-0.840	727.087	0.001
	176 - 175					12.616	-0.886	738.022	0.001
	175 - 174					12.803	-0.923	748.956	0.001
	174 - 173					12.990	-0.970	759.890	0.001
	173 - 172					13.177	-1.018	770.824	0.001
L3	172 - 171	TP18.033x16.856x0.25	5.000	0.000	0.0	13.363	-1.070	781.759	0.001
	171 - 170					13.550	-1.123	792.693	0.001
	170 - 169					13.737	-1.176	803.627	0.001
	169 - 168					13.924	-1.230	814.562	0.002
	168 - 167					14.111	-5.557	825.496	0.007
L4	167 - 166	TP19.211x18.033x0.25	5.000	0.000	0.0	14.298	-5.629	836.430	0.007
	166 - 165					14.485	-5.702	847.364	0.007
	165 - 164					14.672	-5.776	858.299	0.007
	164 - 163					14.859	-5.852	869.233	0.007
	163 - 162					15.046	-5.930	880.167	0.007
L5	162 - 161	TP20.389x19.211x0.25	5.000	0.000	0.0	15.233	-6.009	891.102	0.007
	161 - 160					15.419	-6.089	902.036	0.007
	160 - 159					15.606	-6.170	912.970	0.007
	159 - 158					15.793	-6.252	923.905	0.007
	158 - 157					15.980	-6.336	934.839	0.007
L6	157 - 156	TP21.567x20.389x0.25	5.000	0.000	0.0	16.167	-9.841	945.773	0.010
	156 - 155					16.354	-9.942	956.707	0.010
	155 - 154					16.541	-10.045	967.642	0.010
	154 - 153					16.728	-10.150	978.576	0.010
	153 - 152					16.915	-10.257	989.510	0.010
L7	152 - 151	TP22.744x21.567x0.25	5.000	0.000	0.0	17.102	-10.365	1000.440	0.010
	151 - 150					17.288	-10.475	1011.380	0.010
	150 - 149					17.475	-10.586	1022.310	0.010
	149 - 148					17.662	-10.699	1033.250	0.010
	148 - 147					17.849	-10.813	1044.180	0.010
L8	147 - 146	TP23.922x22.744x0.25	5.000	0.000	0.0	18.036	-10.929	1055.120	0.010
	146 - 145					18.223	-11.046	1066.050	0.010
	145 - 144					18.410	-11.164	1076.980	0.010
	144 - 143					18.597	-11.284	1087.920	0.010
	143 - 142					18.784	-11.405	1098.850	0.010
L9	142 - 141	TP25.1x23.922x0.25	5.000	0.000	0.0	18.971	-12.084	1109.790	0.011
	141 - 140					19.158	-12.212	1120.720	0.011
	140 - 139					19.344	-15.345	1131.660	0.014

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
	139 - 138					19.531	-15.480	1142.590	0.014
	138 - 137					19.718	-15.616	1153.520	0.014
L10	137 - 136.834	TP26.023x25.1x0.25	3.919	0.000	0.0	19.749	-15.655	1155.340	0.014
	136.834 - 133.081					20.451	-6.732	1196.380	0.006
L11	136.834 - 133.081	TP25.805x24.639x0.375	5.000	0.000	0.0	29.922	-9.788	1750.450	0.006
	133.081 - 131.834					30.269	-16.748	1770.710	0.009
L12	131.834 - 130.834	TP26.972x25.805x0.375	5.000	0.000	0.0	30.546	-16.927	1786.950	0.009
	130.834 - 129.834					30.824	-19.815	1803.200	0.011
	129.834 - 128.834					31.102	-19.998	1819.440	0.011
	128.834 - 127.834					31.379	-20.183	1835.690	0.011
	127.834 - 126.834					31.657	-20.369	1851.930	0.011
L13	126.834 - 125.834	TP28.138x26.972x0.375	5.000	0.000	0.0	31.935	-20.558	1868.170	0.011
	125.834 - 124.834					32.212	-20.749	1884.420	0.011
	124.834 - 123.834					32.490	-20.941	1900.660	0.011
	123.834 - 122.834					32.768	-21.134	1916.910	0.011
	122.834 - 121.834					33.045	-21.329	1933.150	0.011
L14	121.834 - 120.834	TP29.305x28.138x0.375	5.000	0.000	0.0	33.323	-21.525	1949.390	0.011
	120.834 - 119.834					33.601	-21.723	1965.640	0.011
	119.834 - 118.834					33.878	-21.922	1981.880	0.011
	118.834 - 117.834					34.156	-22.123	1998.130	0.011
	117.834 - 116.834					34.434	-22.325	2014.370	0.011
L15	116.834 - 115.834	TP30.471x29.305x0.375	5.000	0.000	0.0	34.711	-22.529	2030.610	0.011
	115.834 - 114.834					34.989	-22.733	2046.860	0.011
	114.834 - 113.834					35.267	-22.940	2063.100	0.011
	113.834 - 112.834					35.544	-23.147	2079.340	0.011
	112.834 - 111.834					35.822	-23.356	2095.590	0.011
L16	111.834 - 110.834	TP31.638x30.471x0.375	5.000	0.000	0.0	36.100	-23.566	2111.830	0.011
	110.834 - 109.834					36.377	-23.778	2128.080	0.011
	109.834 - 108.834					36.655	-23.990	2144.320	0.011
	108.834 - 107.834					36.933	-24.204	2160.560	0.011
	107.834 - 106.834					37.210	-24.420	2176.810	0.011
L17	106.834 -	TP32.804x31.638x0.375	5.000	0.000	0.0	37.488	-24.636	2193.050	0.011

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
	105.834								
	105.834 - 104.834					37.766	-24.854	2209.300	0.011
	104.834 - 103.834					38.043	-25.074	2225.540	0.011
	103.834 - 102.834					38.321	-25.294	2241.780	0.011
	102.834 - 101.834					38.599	-25.516	2258.030	0.011
L18	101.834 - 100.834	TP33.971x32.804x0.375	5.000	0.000	0.0	38.876	-25.739	2274.270	0.011
	100.834 - 99.834					39.154	-25.963	2290.520	0.011
	99.834 - 98.834					39.432	-26.188	2306.760	0.011
	98.834 - 97.834					39.709	-26.415	2323.000	0.011
	97.834 - 96.834					39.987	-26.643	2339.250	0.011
L19	96.834 - 95.743	TP36.16x33.971x0.375	9.385	0.000	0.0	40.290	-26.893	2356.970	0.011
	95.743 - 94.652					40.593	-27.220	2374.690	0.011
	94.652 - 93.561					40.896	-27.476	2392.410	0.011
	93.561 - 92.47					41.199	-28.005	2410.140	0.012
	92.47 - 87.449					42.593	-18.522	2491.700	0.007
L20	92.47 - 87.449	TP35.642x34.239x0.375	6.021	0.000	0.0	41.699	-15.852	2439.400	0.006
	87.449 - 86.449					41.977	-34.664	2455.630	0.014
L21	86.449 - 85 (21)	TP35.98x35.642x0.375	1.449	0.000	0.0	42.379	-35.019	2479.140	0.014
L22	85 - 84.75 (22)	TP36.038x35.98x0.375	0.250	0.000	0.0	42.448	-35.111	2483.200	0.014
L23	84.75 - 83.75	TP37.203x36.038x0.375	5.000	0.000	0.0	42.725	-35.350	2499.430	0.014
	83.75 - 82.75					43.003	-35.608	2515.650	0.014
	82.75 - 81.75					43.280	-35.868	2531.880	0.014
	81.75 - 80.75					43.557	-36.128	2548.110	0.014
	80.75 - 79.75					43.835	-36.390	2564.340	0.014
L24	79.75 - 78.5625	TP38.31x37.203x0.375	4.750	0.000	0.0	44.164	-36.698	2583.610	0.014
	78.5625 - 77.375					44.494	-37.013	2602.880	0.014
	77.375 - 76.1875					44.823	-37.329	2622.150	0.014
	76.1875 - 75					45.153	-37.646	2641.430	0.014
L25	75 - 74.75 (25)	TP38.369x38.31x0.7	0.250	0.000	0.0	83.692	-37.768	4895.990	0.008
L26	74.75 - 74 (26)	TP38.543x38.369x0.7	0.750	0.000	0.0	84.080	-38.052	4918.710	0.008
L27	74 - 73.75 (27)	TP38.602x38.543x0.375	0.250	0.000	0.0	45.499	-38.124	2661.710	0.014
L28	73.75 - 72.75	TP39.767x38.602x0.375	5.000	0.000	0.0	45.777	-38.449	2677.940	0.014
	72.75 - 71.75					46.054	-38.721	2694.170	0.014
	71.75 - 70.75					46.332	-38.994	2710.400	0.014
	70.75 - 69.75					46.609	-39.268	2726.630	0.014
	69.75 - 68.75					46.886	-39.543	2742.850	0.014
L29	68.75 - 67.75	TP40.932x39.767x0.375	5.000	0.000	0.0	47.164	-39.820	2759.080	0.014
	67.75 - 66.75					47.441	-40.097	2775.310	0.014
	66.75 - 65.75					47.719	-40.376	2791.540	0.014
	65.75 - 64.75					47.996	-40.656	2807.770	0.014
	64.75 - 63.75					48.273	-40.937	2824.000	0.014
L30	63.75 - 62.75	TP42.098x40.932x0.375	5.000	0.000	0.0	48.551	-41.220	2840.220	0.015
	62.75 - 61.75					48.828	-41.503	2856.450	0.015

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
	61.75 - 60.75					49.106	-41.788	2872.680	0.015
	60.75 - 59.75					49.383	-42.074	2888.910	0.015
	59.75 - 58.75					49.660	-42.361	2905.140	0.015
L31	58.75 - 57.75	TP43.263x42.098x0.375	5.000	0.000	0.0	49.938	-42.649	2921.370	0.015
	57.75 - 56.75					50.215	-42.938	2937.600	0.015
	56.75 - 55.75					50.493	-43.229	2953.820	0.015
	55.75 - 54.75					50.770	-43.520	2970.050	0.015
	54.75 - 53.75					51.048	-43.813	2986.280	0.015
L32	53.75 - 52.5825	TP45.804x43.263x0.375	10.902	0.000	0.0	51.371	-44.153	3005.230	0.015
	52.5825 - 51.415					51.695	-44.498	3024.170	0.015
	51.415 - 50.2475					52.019	-44.844	3043.120	0.015
	50.2475 - 49.08					52.343	-45.192	3062.070	0.015
	49.08 - 42.848					54.072	-22.642	3163.200	0.007
L33	49.08 - 42.848	TP45.281x43.602x0.438	7.232	0.000	0.0	61.948	-25.792	3623.980	0.007
	42.848 - 41.848					62.271	-48.816	3642.850	0.013
L34	41.848 - 40.848	TP46.442x45.281x0.438	5.000	0.000	0.0	62.593	-49.151	3661.720	0.013
	40.848 - 39.848					62.916	-49.488	3680.580	0.013
	39.848 - 38.848					63.238	-49.827	3699.450	0.013
	38.848 - 37.848					63.561	-50.166	3718.310	0.013
	37.848 - 36.848					63.883	-50.507	3737.180	0.014
L35	36.848 - 35.848	TP47.604x46.442x0.438	5.000	0.000	0.0	64.206	-50.849	3756.050	0.014
	35.848 - 34.848					64.528	-51.192	3774.910	0.014
	34.848 - 33.848					64.851	-51.537	3793.780	0.014
	33.848 - 32.848					65.173	-51.883	3812.650	0.014
	32.848 - 31.848					65.496	-52.230	3831.510	0.014
L36	31.848 - 30.848	TP48.765x47.604x0.438	5.000	0.000	0.0	65.818	-52.578	3850.380	0.014
	30.848 - 29.848					66.141	-52.928	3869.240	0.014
	29.848 - 28.848					66.463	-53.280	3888.110	0.014
	28.848 - 27.848					66.786	-53.632	3906.980	0.014
	27.848 - 26.848					67.108	-53.986	3925.840	0.014
L37	26.848 - 25.848	TP49.926x48.765x0.438	5.000	0.000	0.0	67.431	-54.341	3944.710	0.014
	25.848 - 24.848					67.753	-54.697	3963.570	0.014
	24.848 - 23.848					68.076	-55.055	3982.440	0.014
	23.848 - 22.848					68.398	-55.414	4001.310	0.014
	22.848 - 21.848					68.721	-55.774	4020.170	0.014

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
L38	21.848 - 20.848	TP51.087x49.926x0.438	5.000	0.000	0.0	69.043	-56.136	4039.040	0.014
	20.848 - 19.848					69.366	-56.498	4057.910	0.014
	19.848 - 18.848					69.688	-56.863	4076.770	0.014
	18.848 - 17.848					70.011	-57.228	4095.640	0.014
	17.848 - 16.848					70.333	-57.595	4114.500	0.014
L39	16.848 - 15.848	TP52.248x51.087x0.438	5.000	0.000	0.0	70.656	-57.963	4133.370	0.014
	15.848 - 14.848					70.978	-58.332	4152.240	0.014
	14.848 - 13.848					71.301	-58.702	4171.100	0.014
	13.848 - 12.848					71.623	-59.074	4189.970	0.014
	12.848 - 11.848					71.946	-59.447	4208.830	0.014
L40	11.848 - 10.848	TP53.41x52.248x0.438	5.000	0.000	0.0	72.268	-59.822	4227.700	0.014
	10.848 - 9.848					72.591	-60.197	4246.570	0.014
	9.848 - 8.848					72.913	-60.574	4265.430	0.014
	8.848 - 7.848					73.236	-60.952	4284.300	0.014
	7.848 - 6.848					73.558	-61.331	4303.170	0.014
L41	6.848 - 5.848	TP54.571x53.41x0.438	5.000	0.000	0.0	73.881	-61.712	4322.030	0.014
	5.848 - 4.848					74.203	-62.094	4340.900	0.014
	4.848 - 3.848					74.526	-62.477	4359.760	0.014
	3.848 - 2.848					74.848	-62.861	4378.630	0.014
	2.848 - 1.848					75.171	-63.247	4397.500	0.014
L42	1.848 - 0 (42)	TP55x54.571x0.438	1.848	0.000	0.0	75.767	-63.948	4432.360	0.014

[1] P_u / ϕP_n controls

Pole Bending Design Data

Section No.	Elevation ft	Size	M_{ux} kip-ft	ϕM_{nx} kip-ft	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	M_{uy} kip-ft	ϕM_{ny} kip-ft	Ratio $\frac{M_{uy}}{\phi M_{ny}}$
L1	182 - 181	TP15.678x14.5x0.25	0.013	252.022	0.000	0.000	252.022	0.000
	181 - 180		0.108	260.355	0.000	0.000	260.355	0.000
	180 - 179		0.245	268.824	0.001	0.000	268.824	0.000
	179 - 178		0.437	277.429	0.002	0.000	277.429	0.000
	178 - 177		13.110	286.170	0.046	0.000	286.170	0.000
L2	177 - 176	TP16.856x15.678x0.25	15.612	295.046	0.053	0.000	295.046	0.000
	176 - 175		18.284	304.058	0.060	0.000	304.058	0.000
	175 - 174		21.037	313.204	0.067	0.000	313.204	0.000
	174 - 173		23.875	322.488	0.074	0.000	322.488	0.000
	173 - 172		26.775	331.906	0.081	0.000	331.906	0.000
L3	172 - 171	TP18.033x16.856x0.25	29.737	341.460	0.087	0.000	341.460	0.000
	171 - 170		32.763	351.149	0.093	0.000	351.149	0.000
	170 - 169		35.852	360.974	0.099	0.000	360.974	0.000
	169 - 168		39.007	370.935	0.105	0.000	370.935	0.000
	168 - 167		51.416	381.031	0.135	0.000	381.031	0.000
L4	167 - 166	TP19.211x18.033x0.25	62.626	391.262	0.160	0.000	391.262	0.000

Section No.	Elevation ft	Size	M_{ux} kip-ft	ϕM_{nx} kip-ft	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	M_{uy} kip-ft	ϕM_{ny} kip-ft	Ratio $\frac{M_{uy}}{\phi M_{ny}}$
	166 - 165		73.902	401.630	0.184	0.000	401.630	0.000
	165 - 164		85.245	412.133	0.207	0.000	412.133	0.000
	164 - 163		96.657	422.772	0.229	0.000	422.772	0.000
	163 - 162		108.136	433.546	0.249	0.000	433.546	0.000
L5	162 - 161	TP20.389x19.211x0.25	119.683	444.456	0.269	0.000	444.456	0.000
	161 - 160		131.299	455.501	0.288	0.000	455.501	0.000
	160 - 159		142.985	466.682	0.306	0.000	466.682	0.000
	159 - 158		154.683	477.998	0.324	0.000	477.998	0.000
	158 - 157		166.515	489.451	0.340	0.000	489.451	0.000
L6	157 - 156	TP21.567x20.389x0.25	188.295	501.038	0.376	0.000	501.038	0.000
	156 - 155		205.196	512.762	0.400	0.000	512.762	0.000
	155 - 154		222.163	524.620	0.423	0.000	524.620	0.000
	154 - 153		239.200	536.615	0.446	0.000	536.615	0.000
	153 - 152		256.304	548.745	0.467	0.000	548.745	0.000
L7	152 - 151	TP22.744x21.567x0.25	273.477	561.010	0.487	0.000	561.010	0.000
	151 - 150		290.717	573.412	0.507	0.000	573.412	0.000
	150 - 149		308.026	585.948	0.526	0.000	585.948	0.000
	149 - 148		325.402	598.621	0.544	0.000	598.621	0.000
	148 - 147		342.848	611.428	0.561	0.000	611.428	0.000
L8	147 - 146	TP23.922x22.744x0.25	360.361	624.372	0.577	0.000	624.372	0.000
	146 - 145		377.943	637.451	0.593	0.000	637.451	0.000
	145 - 144		395.593	650.666	0.608	0.000	650.666	0.000
	144 - 143		413.313	664.016	0.622	0.000	664.016	0.000
	143 - 142		431.101	677.502	0.636	0.000	677.502	0.000
L9	142 - 141	TP25.1x23.922x0.25	449.743	690.138	0.652	0.000	690.138	0.000
	141 - 140		468.471	702.209	0.667	0.000	702.209	0.000
	140 - 139		492.313	714.351	0.689	0.000	714.351	0.000
	139 - 138		513.790	726.562	0.707	0.000	726.562	0.000
	138 - 137		535.332	738.840	0.725	0.000	738.840	0.000
L10	137 - 136.834	TP26.023x25.1x0.25	538.913	740.884	0.727	0.000	740.884	0.000
	136.834 - 133.081		259.610	787.594	0.330	0.000	787.594	0.000
L11	136.834 - 133.081	TP25.805x24.639x0.375	360.998	1141.233	0.316	0.000	1141.233	0.000
	133.081 - 131.834		648.044	1167.992	0.555	0.000	1167.992	0.000
L12	131.834 - 130.834	TP26.972x25.805x0.375	670.132	1189.675	0.563	0.000	1189.675	0.000
	130.834 - 129.834		692.893	1211.558	0.572	0.000	1211.558	0.000
	129.834 - 128.834		718.698	1233.642	0.583	0.000	1233.642	0.000
	128.834 - 127.834		744.577	1255.925	0.593	0.000	1255.925	0.000
	127.834 - 126.834		770.532	1278.408	0.603	0.000	1278.408	0.000
L13	126.834 - 125.834	TP28.138x26.972x0.375	796.558	1301.092	0.612	0.000	1301.092	0.000
	125.834 - 124.834		822.659	1323.975	0.621	0.000	1323.975	0.000
	124.834 - 123.834		848.833	1347.058	0.630	0.000	1347.058	0.000
	123.834 - 122.834		875.083	1370.342	0.639	0.000	1370.342	0.000
	122.834 - 121.834		901.408	1393.817	0.647	0.000	1393.817	0.000
L14	121.834 - 120.834	TP29.305x28.138x0.375	927.808	1417.500	0.655	0.000	1417.500	0.000
	120.834 - 119.834		954.275	1441.375	0.662	0.000	1441.375	0.000

Section No.	Elevation ft	Size	M_{ux} kip-ft	ϕM_{nx} kip-ft	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	M_{uy} kip-ft	ϕM_{ny} kip-ft	Ratio $\frac{M_{uy}}{\phi M_{ny}}$
	119.834 - 118.834		980.825	1465.458	0.669	0.000	1465.458	0.000
	118.834 - 117.834		1007.442	1489.733	0.676	0.000	1489.733	0.000
	117.834 - 116.834		1034.142	1514.217	0.683	0.000	1514.217	0.000
L15	116.834 - 115.834	TP30.471x29.305x0.375	1060.908	1538.892	0.689	0.000	1538.892	0.000
	115.834 - 114.834		1087.750	1563.767	0.696	0.000	1563.767	0.000
	114.834 - 113.834		1114.667	1588.842	0.702	0.000	1588.842	0.000
	113.834 - 112.834		1141.667	1614.117	0.707	0.000	1614.117	0.000
	112.834 - 111.834		1168.733	1639.592	0.713	0.000	1639.592	0.000
L16	111.834 - 110.834	TP31.638x30.471x0.375	1195.875	1665.267	0.718	0.000	1665.267	0.000
	110.834 - 109.834		1223.100	1691.142	0.723	0.000	1691.142	0.000
	109.834 - 108.834		1250.392	1717.217	0.728	0.000	1717.217	0.000
	108.834 - 107.834		1277.758	1743.492	0.733	0.000	1743.492	0.000
	107.834 - 106.834		1305.208	1769.958	0.737	0.000	1769.958	0.000
L17	106.834 - 105.834	TP32.804x31.638x0.375	1332.725	1796.633	0.742	0.000	1796.633	0.000
	105.834 - 104.834		1360.325	1823.508	0.746	0.000	1823.508	0.000
	104.834 - 103.834		1387.992	1850.575	0.750	0.000	1850.575	0.000
	103.834 - 102.834		1415.742	1877.850	0.754	0.000	1877.850	0.000
	102.834 - 101.834		1443.567	1905.317	0.758	0.000	1905.317	0.000
L18	101.834 - 100.834	TP33.971x32.804x0.375	1471.467	1932.992	0.761	0.000	1932.992	0.000
	100.834 - 99.834		1499.442	1960.858	0.765	0.000	1960.858	0.000
	99.834 - 98.834		1527.492	1988.925	0.768	0.000	1988.925	0.000
	98.834 - 97.834		1555.625	2017.192	0.771	0.000	2017.192	0.000
	97.834 - 96.834		1583.825	2045.658	0.774	0.000	2045.658	0.000
L19	96.834 - 95.743	TP36.16x33.971x0.375	1614.692	2076.950	0.777	0.000	2076.950	0.000
	95.743 - 94.652		1645.692	2108.467	0.781	0.000	2108.467	0.000
	94.652 - 93.561		1676.917	2140.233	0.784	0.000	2140.233	0.000
	93.561 - 92.47		1708.350	2172.225	0.786	0.000	2172.225	0.000
	92.47 - 87.449		965.192	2320.425	0.416	0.000	2320.425	0.000
L20	92.47 - 87.449	TP35.642x34.239x0.375	902.850	2225.583	0.406	0.000	2225.583	0.000
	87.449 - 86.449		1901.875	2255.450	0.843	0.000	2255.450	0.000
L21	86.449 - 85 (21)	TP35.98x35.642x0.375	1951.067	2299.083	0.849	0.000	2299.083	0.000
L22	85 - 84.75 (22)	TP36.038x35.98x0.375	1959.567	2306.425	0.850	0.000	2306.425	0.000

Section No.	Elevation ft	Size	M_{ux} kip-ft	ϕM_{nx} kip-ft	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	M_{uy} kip-ft	ϕM_{ny} kip-ft	Ratio $\frac{M_{uy}}{\phi M_{ny}}$
L23	84.75 - 83.75	TP37.203x36.038x0.375	1993.600	2333.183	0.854	0.000	2333.183	0.000
	83.75 - 82.75		2027.700	2360.050	0.859	0.000	2360.050	0.000
	82.75 - 81.75		2061.867	2387.017	0.864	0.000	2387.017	0.000
	81.75 - 80.75		2096.100	2414.083	0.868	0.000	2414.083	0.000
	80.75 - 79.75		2130.400	2441.250	0.873	0.000	2441.250	0.000
L24	79.75 - 78.5625	TP38.31x37.203x0.375	2171.208	2473.650	0.878	0.000	2473.650	0.000
	78.5625 - 77.375		2212.108	2506.183	0.883	0.000	2506.183	0.000
	77.375 - 76.1875		2253.108	2538.850	0.887	0.000	2538.850	0.000
	76.1875 - 75		2294.192	2571.658	0.892	0.000	2571.658	0.000
L25	75 - 74.75 (25)	TP38.369x38.31x0.7	2302.850	4765.633	0.483	0.000	4765.633	0.000
L26	74.75 - 74 (26)	TP38.543x38.369x0.7	2328.875	4810.367	0.484	0.000	4810.367	0.000
L27	74 - 73.75 (27)	TP38.602x38.543x0.375	2337.558	2606.342	0.897	0.000	2606.342	0.000
L28	73.75 - 72.75	TP39.767x38.602x0.375	2372.508	2634.192	0.901	0.000	2634.192	0.000
	72.75 - 71.75		2407.433	2662.133	0.904	0.000	2662.133	0.000
	71.75 - 70.75		2442.425	2690.167	0.908	0.000	2690.167	0.000
	70.75 - 69.75		2477.475	2718.292	0.911	0.000	2718.292	0.000
	69.75 - 68.75		2512.592	2746.517	0.915	0.000	2746.517	0.000
L29	68.75 - 67.75	TP40.932x39.767x0.375	2547.775	2774.825	0.918	0.000	2774.825	0.000
	67.75 - 66.75		2583.017	2803.217	0.921	0.000	2803.217	0.000
	66.75 - 65.75		2618.325	2831.700	0.925	0.000	2831.700	0.000
	65.75 - 64.75		2653.700	2860.275	0.928	0.000	2860.275	0.000
	64.75 - 63.75		2689.133	2888.933	0.931	0.000	2888.933	0.000
L30	63.75 - 62.75	TP42.098x40.932x0.375	2724.625	2917.675	0.934	0.000	2917.675	0.000
	62.75 - 61.75		2760.183	2946.500	0.937	0.000	2946.500	0.000
	61.75 - 60.75		2795.808	2975.408	0.940	0.000	2975.408	0.000
	60.75 - 59.75		2831.492	3004.400	0.942	0.000	3004.400	0.000
	59.75 - 58.75		2867.242	3033.475	0.945	0.000	3033.475	0.000
L31	58.75 - 57.75	TP43.263x42.098x0.375	2903.050	3062.633	0.948	0.000	3062.633	0.000
	57.75 - 56.75		2938.925	3091.867	0.951	0.000	3091.867	0.000
	56.75 - 55.75		2974.858	3121.175	0.953	0.000	3121.175	0.000
	55.75 - 54.75		3010.850	3150.567	0.956	0.000	3150.567	0.000
	54.75 - 53.75		3046.908	3180.033	0.958	0.000	3180.033	0.000
L32	53.75 - 52.5825	TP45.804x43.263x0.375	3089.075	3214.533	0.961	0.000	3214.533	0.000
	52.5825 - 51.415		3131.333	3249.133	0.964	0.000	3249.133	0.000
	51.415 - 50.2475		3173.667	3283.833	0.966	0.000	3283.833	0.000
	50.2475 - 49.08		3216.083	3318.625	0.969	0.000	3318.625	0.000
	49.08 - 42.848		1637.358	3505.992	0.467	0.000	3505.992	0.000
L33	49.08 - 42.848	TP45.281x43.602x0.438	1807.317	4140.967	0.436	0.000	4140.967	0.000
	42.848 - 41.848		3481.700	4178.733	0.833	0.000	4178.733	0.000
L34	41.848 - 40.848	TP46.442x45.281x0.438	3518.783	4216.617	0.835	0.000	4216.617	0.000
	40.848 - 39.848		3555.933	4254.600	0.836	0.000	4254.600	0.000
	39.848 - 38.848		3593.142	4292.692	0.837	0.000	4292.692	0.000
	38.848 - 37.848		3630.417	4330.892	0.838	0.000	4330.892	0.000
	37.848 - 36.848		3667.750	4369.192	0.839	0.000	4369.192	0.000
L35	36.848 - 35.848	TP47.604x46.442x0.438	3705.142	4407.600	0.841	0.000	4407.600	0.000
	35.848 -		3742.592	4446.108	0.842	0.000	4446.108	0.000

Section No.	Elevation ft	Size	M_{ux} kip-ft	ϕM_{nx} kip-ft	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	M_{uy} kip-ft	ϕM_{ny} kip-ft	Ratio $\frac{M_{uy}}{\phi M_{ny}}$
	34.848							
	34.848 - 33.848		3780.100	4484.717	0.843	0.000	4484.717	0.000
	33.848 - 32.848		3817.667	4523.425	0.844	0.000	4523.425	0.000
	32.848 - 31.848		3855.300	4562.242	0.845	0.000	4562.242	0.000
L36	31.848 - 30.848	TP48.765x47.604x0.438	3892.983	4601.150	0.846	0.000	4601.150	0.000
	30.848 - 29.848		3930.725	4640.158	0.847	0.000	4640.158	0.000
	29.848 - 28.848		3968.525	4679.267	0.848	0.000	4679.267	0.000
	28.848 - 27.848		4006.375	4718.467	0.849	0.000	4718.467	0.000
	27.848 - 26.848		4044.292	4757.767	0.850	0.000	4757.767	0.000
L37	26.848 - 25.848	TP49.926x48.765x0.438	4082.258	4797.158	0.851	0.000	4797.158	0.000
	25.848 - 24.848		4120.275	4836.650	0.852	0.000	4836.650	0.000
	24.848 - 23.848		4158.342	4876.225	0.853	0.000	4876.225	0.000
	23.848 - 22.848		4196.467	4915.900	0.854	0.000	4915.900	0.000
	22.848 - 21.848		4234.642	4955.658	0.855	0.000	4955.658	0.000
L38	21.848 - 20.848	TP51.087x49.926x0.438	4272.875	4995.508	0.855	0.000	4995.508	0.000
	20.848 - 19.848		4311.150	5035.450	0.856	0.000	5035.450	0.000
	19.848 - 18.848		4349.475	5075.483	0.857	0.000	5075.483	0.000
	18.848 - 17.848		4387.850	5115.600	0.858	0.000	5115.600	0.000
	17.848 - 16.848		4426.267	5155.800	0.859	0.000	5155.800	0.000
L39	16.848 - 15.848	TP52.248x51.087x0.438	4464.742	5196.083	0.859	0.000	5196.083	0.000
	15.848 - 14.848		4503.250	5236.458	0.860	0.000	5236.458	0.000
	14.848 - 13.848		4541.808	5276.917	0.861	0.000	5276.917	0.000
	13.848 - 12.848		4580.408	5317.450	0.861	0.000	5317.450	0.000
	12.848 - 11.848		4619.050	5358.075	0.862	0.000	5358.075	0.000
L40	11.848 - 10.848	TP53.41x52.248x0.438	4657.733	5398.775	0.863	0.000	5398.775	0.000
	10.848 - 9.848		4696.467	5439.550	0.863	0.000	5439.550	0.000
	9.848 - 8.848		4735.242	5480.408	0.864	0.000	5480.408	0.000
	8.848 - 7.848		4774.058	5521.350	0.865	0.000	5521.350	0.000
	7.848 - 6.848		4812.925	5562.358	0.865	0.000	5562.358	0.000
L41	6.848 - 5.848	TP54.571x53.41x0.438	4851.833	5603.450	0.866	0.000	5603.450	0.000
	5.848 - 4.848		4890.783	5644.617	0.866	0.000	5644.617	0.000
	4.848 - 3.848		4929.783	5685.858	0.867	0.000	5685.858	0.000
	3.848 - 2.848		4968.825	5727.167	0.868	0.000	5727.167	0.000
	2.848 - 1.848		5007.908	5768.558	0.868	0.000	5768.558	0.000
L42	1.848 - 0 (42)	TP55x54.571x0.438	5080.258	5845.225	0.869	0.000	5845.225	0.000

Pole Shear Design Data

Section No.	Elevation ft	Size	Actual V_u K	ϕV_n K	Ratio $\frac{V_u}{\phi V_n}$	Actual T_u kip-ft	ϕT_n kip-ft	Ratio $\frac{T_u}{\phi T_n}$
L1	182 - 181	TP15.678x14.5x0.25	0.022	201.725	0.000	0.000	255.903	0.000
	181 - 180		0.109	205.005	0.001	0.000	264.293	0.000
	180 - 179		0.164	208.285	0.001	0.000	272.818	0.000
	179 - 178		0.221	211.566	0.001	0.000	281.479	0.000
	178 - 177		2.214	214.846	0.010	0.123	290.275	0.000
L2	177 - 176	TP16.856x15.678x0.25	2.645	218.126	0.012	1.028	299.207	0.003
	176 - 175		2.704	221.406	0.012	1.028	308.273	0.003
	175 - 174		2.808	224.687	0.012	1.259	317.476	0.004
	174 - 173		2.869	227.967	0.013	1.259	326.813	0.004
	173 - 172		2.931	231.247	0.013	1.259	336.287	0.004
L3	172 - 171	TP18.033x16.856x0.25	2.994	234.528	0.013	1.259	345.895	0.004
	171 - 170		3.058	237.808	0.013	1.259	355.638	0.004
	170 - 169		3.122	241.088	0.013	1.259	365.517	0.003
	169 - 168		3.188	244.368	0.013	1.259	375.532	0.003
	168 - 167		11.177	247.649	0.045	0.986	385.681	0.003
L4	167 - 166	TP19.211x18.033x0.25	11.244	250.929	0.045	0.986	395.966	0.002
	166 - 165		11.312	254.209	0.044	0.986	406.386	0.002
	165 - 164		11.379	257.490	0.044	0.986	416.942	0.002
	164 - 163		11.448	260.770	0.044	0.986	427.632	0.002
	163 - 162		11.516	264.050	0.044	0.986	438.459	0.002
L5	162 - 161	TP20.389x19.211x0.25	11.585	267.331	0.043	0.985	449.421	0.002
	161 - 160		11.654	270.611	0.043	0.985	460.517	0.002
	160 - 159		11.723	273.891	0.043	0.985	471.750	0.002
	159 - 158		11.800	277.171	0.043	1.663	483.118	0.003
	158 - 157		11.871	280.452	0.042	1.663	494.620	0.003
L6	157 - 156	TP21.567x20.389x0.25	16.872	283.732	0.059	1.662	506.258	0.003
	156 - 155		16.940	287.012	0.059	1.660	518.033	0.003
	155 - 154		17.009	290.293	0.059	1.660	529.941	0.003
	154 - 153		17.077	293.573	0.058	1.660	541.985	0.003
	153 - 152		17.145	296.853	0.058	1.659	554.165	0.003
L7	152 - 151	TP22.744x21.567x0.25	17.214	300.133	0.057	1.659	566.480	0.003
	151 - 150		17.282	303.414	0.057	1.658	578.930	0.003
	150 - 149		17.350	306.694	0.057	1.658	591.516	0.003
	149 - 148		17.419	309.974	0.056	1.658	604.237	0.003
	148 - 147		17.488	313.255	0.056	1.657	617.093	0.003
L8	147 - 146	TP23.922x22.744x0.25	17.556	316.535	0.055	1.657	630.085	0.003
	146 - 145		17.625	319.815	0.055	1.656	643.212	0.003
	145 - 144		17.694	323.095	0.055	1.656	656.474	0.003
	144 - 143		17.763	326.376	0.054	1.655	669.872	0.002
	143 - 142		17.833	329.656	0.054	1.655	683.404	0.002
L9	142 - 141	TP25.1x23.922x0.25	18.706	332.936	0.056	1.654	697.072	0.002
	141 - 140		18.775	336.217	0.056	1.654	710.877	0.002
	140 - 139		21.461	339.497	0.063	1.652	724.816	0.002
	139 - 138		21.526	342.777	0.063	1.652	738.890	0.002
	138 - 137		21.590	346.057	0.062	1.651	753.099	0.002
L10	137 - 136.834	TP26.023x25.1x0.25	21.594	346.602	0.062	1.651	755.472	0.002
	136.834 - 133.081		9.283	358.913	0.026	0.690	810.092	0.001
L11	136.834 - 133.081	TP25.805x24.639x0.375	12.699	525.136	0.024	0.960	1156.133	0.001
	133.081 - 131.834		22.068	531.213	0.042	1.650	1183.050	0.001
L12	131.834 - 130.834	TP26.972x25.805x0.375	22.142	536.086	0.041	1.649	1204.850	0.001
	130.834 -		25.787	540.960	0.048	1.873	1226.858	0.002

Section No.	Elevation ft	Size	Actual V_u K	ϕV_n K	Ratio $\frac{V_u}{\phi V_n}$	Actual T_u kip-ft	ϕT_n kip-ft	Ratio $\frac{T_u}{\phi T_n}$
	129.834							
	129.834 - 128.834		25.861	545.833	0.047	1.873	1249.058	0.001
	128.834 - 127.834		25.935	550.706	0.047	1.872	1271.467	0.001
	127.834 - 126.834		26.009	555.579	0.047	1.872	1294.067	0.001
L13	126.834 - 125.834	TP28.138x26.972x0.375	26.083	560.452	0.047	1.871	1316.867	0.001
	125.834 - 124.834		26.157	565.325	0.046	1.871	1339.867	0.001
	124.834 - 123.834		26.232	570.199	0.046	1.870	1363.067	0.001
	123.834 - 122.834		26.306	575.072	0.046	1.870	1386.467	0.001
	122.834 - 121.834		26.381	579.945	0.045	1.869	1410.058	0.001
L14	121.834 - 120.834	TP29.305x28.138x0.375	26.455	584.818	0.045	1.869	1433.858	0.001
	120.834 - 119.834		26.529	589.691	0.045	1.868	1457.858	0.001
	119.834 - 118.834		26.604	594.564	0.045	1.868	1482.050	0.001
	118.834 - 117.834		26.679	599.438	0.045	1.867	1506.442	0.001
	117.834 - 116.834		26.754	604.311	0.044	1.867	1531.033	0.001
L15	116.834 - 115.834	TP30.471x29.305x0.375	26.829	609.184	0.044	1.866	1555.825	0.001
	115.834 - 114.834		26.903	614.057	0.044	1.866	1580.817	0.001
	114.834 - 113.834		26.978	618.930	0.044	1.865	1606.008	0.001
	113.834 - 112.834		27.054	623.803	0.043	1.865	1631.400	0.001
	112.834 - 111.834		27.129	628.677	0.043	1.864	1656.992	0.001
L16	111.834 - 110.834	TP31.638x30.471x0.375	27.204	633.550	0.043	1.864	1682.775	0.001
	110.834 - 109.834		27.279	638.423	0.043	1.863	1708.758	0.001
	109.834 - 108.834		27.355	643.296	0.043	1.863	1734.950	0.001
	108.834 - 107.834		27.431	648.169	0.042	1.862	1761.333	0.001
	107.834 - 106.834		27.507	653.042	0.042	1.862	1787.917	0.001
L17	106.834 - 105.834	TP32.804x31.638x0.375	27.582	657.916	0.042	1.861	1814.700	0.001
	105.834 - 104.834		27.658	662.789	0.042	1.861	1841.683	0.001
	104.834 - 103.834		27.734	667.662	0.042	1.860	1868.867	0.001
	103.834 - 102.834		27.810	672.535	0.041	1.860	1896.250	0.001
	102.834 - 101.834		27.887	677.408	0.041	1.859	1923.825	0.001
L18	101.834 - 100.834	TP33.971x32.804x0.375	27.962	682.282	0.041	1.859	1951.608	0.001
	100.834 -		28.038	687.155	0.041	1.858	1979.583	0.001

Section No.	Elevation ft	Size	Actual V_u K	ϕV_n K	Ratio $\frac{V_u}{\phi V_n}$	Actual T_u kip-ft	ϕT_n kip-ft	Ratio $\frac{T_u}{\phi T_n}$
	99.834							
	99.834 - 98.834		28.115	692.028	0.041	1.858	2007.758	0.001
	98.834 - 97.834		28.192	696.901	0.040	1.858	2036.133	0.001
	97.834 - 96.834		28.269	701.774	0.040	1.857	2064.708	0.001
L19	96.834 - 95.743	TP36.16x33.971x0.375	28.353	707.091	0.040	1.857	2096.117	0.001
	95.743 - 94.652		28.604	712.407	0.040	1.856	2127.758	0.001
	94.652 - 93.561		28.687	717.724	0.040	1.856	2159.633	0.001
	93.561 - 92.47		28.999	723.041	0.040	1.855	2191.742	0.001
	92.47 - 87.449		18.340	747.509	0.025	0.991	2342.600	0.000
L20	92.47 - 87.449	TP35.642x34.239x0.375	15.529	731.819	0.021	0.863	2245.292	0.000
	87.449 - 86.449		33.899	736.688	0.046	1.719	2275.258	0.001
L21	86.449 - 85 (21)	TP35.98x35.642x0.375	34.030	743.742	0.046	1.205	2319.050	0.001
L22	85 - 84.75 (22)	TP36.038x35.98x0.375	34.020	744.959	0.046	1.204	2326.642	0.001
L23	84.75 - 83.75	TP37.203x36.038x0.375	34.101	749.828	0.045	1.204	2357.150	0.001
	83.75 - 82.75		34.166	754.696	0.045	1.204	2387.858	0.001
	82.75 - 81.75		34.231	759.565	0.045	1.204	2418.767	0.000
	81.75 - 80.75		34.296	764.433	0.045	1.203	2449.875	0.000
	80.75 - 79.75		34.362	769.302	0.045	1.203	2481.183	0.000
L24	79.75 - 78.5625	TP38.31x37.203x0.375	34.443	775.083	0.044	1.203	2518.617	0.000
	78.5625 - 77.375		34.520	780.865	0.044	1.202	2556.325	0.000
	77.375 - 76.1875		34.597	786.646	0.044	1.202	2594.317	0.000
	76.1875 - 75		34.674	792.428	0.044	1.202	2632.592	0.000
L25	75 - 74.75 (25)	TP38.369x38.31x0.7	34.676	1468.800	0.024	1.202	4845.317	0.000
L26	74.75 - 74 (26)	TP38.543x38.369x0.7	34.754	1475.610	0.024	1.202	4890.383	0.000
L27	74 - 73.75 (27)	TP38.602x38.543x0.375	34.767	798.513	0.044	1.202	2673.183	0.000
L28	73.75 - 72.75	TP39.767x38.602x0.375	34.926	803.382	0.043	1.201	2705.883	0.000
	72.75 - 71.75		34.990	808.250	0.043	0.974	2738.775	0.000
	71.75 - 70.75		35.054	813.119	0.043	0.974	2771.867	0.000
	70.75 - 69.75		35.119	817.988	0.043	0.973	2805.158	0.000
	69.75 - 68.75		35.183	822.856	0.043	0.973	2838.650	0.000
L29	68.75 - 67.75	TP40.932x39.767x0.375	35.246	827.725	0.043	0.973	2872.342	0.000
	67.75 - 66.75		35.310	832.593	0.042	0.973	2906.233	0.000
	66.75 - 65.75		35.373	837.462	0.042	0.973	2940.317	0.000
	65.75 - 64.75		35.437	842.330	0.042	0.972	2974.608	0.000
	64.75 - 63.75		35.501	847.199	0.042	0.972	3009.092	0.000
L30	63.75 - 62.75	TP42.098x40.932x0.375	35.563	852.067	0.042	0.972	3043.775	0.000
	62.75 - 61.75		35.625	856.936	0.042	0.972	3078.658	0.000
	61.75 - 60.75		35.688	861.804	0.041	0.972	3113.742	0.000
	60.75 - 59.75		35.751	866.673	0.041	0.972	3149.017	0.000
	59.75 - 58.75		35.814	871.542	0.041	0.971	3184.500	0.000
L31	58.75 - 57.75	TP43.263x42.098x0.375	35.876	876.410	0.041	0.971	3220.175	0.000
	57.75 - 56.75		35.937	881.279	0.041	0.971	3256.050	0.000
	56.75 - 55.75		35.999	886.147	0.041	0.971	3292.125	0.000
	55.75 - 54.75		36.061	891.016	0.040	0.971	3328.400	0.000
	54.75 - 53.75		36.123	895.884	0.040	0.971	3364.875	0.000
L32	53.75 - 52.5825	TP45.804x43.263x0.375	36.197	901.568	0.040	0.970	3407.708	0.000
	52.5825 - 51.415		36.266	907.252	0.040	0.970	3450.808	0.000

Section No.	Elevation ft	Size	Actual V_u K	ϕV_n K	Ratio $\frac{V_u}{\phi V_n}$	Actual T_u kip-ft	ϕT_n kip-ft	Ratio $\frac{T_u}{\phi T_n}$
	51.415 - 50.2475		36.335	912.936	0.040	0.970	3494.183	0.000
	50.2475 - 49.08		36.405	918.620	0.040	0.970	3537.833	0.000
	49.08 - 42.848		17.810	948.961	0.019	0.461	3775.392	0.000
L33	49.08 - 42.848	TP45.281x43.602x0.438	19.282	1087.200	0.018	0.509	4247.492	0.000
	42.848 - 41.848		37.091	1092.860	0.034	0.970	4291.833	0.000
L34	41.848 - 40.848	TP46.442x45.281x0.438	37.152	1098.510	0.034	0.969	4336.400	0.000
	40.848 - 39.848		37.213	1104.170	0.034	0.969	4381.200	0.000
	39.848 - 38.848		37.275	1109.830	0.034	0.969	4426.233	0.000
	38.848 - 37.848		37.336	1115.490	0.033	0.969	4471.492	0.000
	37.848 - 36.848		37.398	1121.150	0.033	0.969	4516.983	0.000
L35	36.848 - 35.848	TP47.604x46.442x0.438	37.457	1126.810	0.033	0.969	4562.708	0.000
	35.848 - 34.848		37.516	1132.470	0.033	0.969	4608.658	0.000
	34.848 - 33.848		37.575	1138.130	0.033	0.969	4654.833	0.000
	33.848 - 32.848		37.634	1143.790	0.033	0.969	4701.250	0.000
	32.848 - 31.848		37.693	1149.450	0.033	0.969	4747.892	0.000
L36	31.848 - 30.848	TP48.765x47.604x0.438	37.749	1155.110	0.033	0.969	4794.758	0.000
	30.848 - 29.848		37.806	1160.770	0.033	0.968	4841.867	0.000
	29.848 - 28.848		37.862	1166.430	0.032	0.968	4889.200	0.000
	28.848 - 27.848		37.919	1172.090	0.032	0.968	4936.758	0.000
	27.848 - 26.848		37.975	1177.750	0.032	0.968	4984.550	0.000
L37	26.848 - 25.848	TP49.926x48.765x0.438	38.028	1183.410	0.032	0.968	5032.575	0.000
	25.848 - 24.848		38.081	1189.070	0.032	0.968	5080.825	0.000
	24.848 - 23.848		38.134	1194.730	0.032	0.968	5129.308	0.000
	23.848 - 22.848		38.187	1200.390	0.032	0.968	5178.025	0.000
	22.848 - 21.848		38.240	1206.050	0.032	0.968	5226.967	0.000
L38	21.848 - 20.848	TP51.087x49.926x0.438	38.288	1211.710	0.032	0.968	5276.142	0.000
	20.848 - 19.848		38.337	1217.370	0.031	0.968	5325.550	0.000
	19.848 - 18.848		38.385	1223.030	0.031	0.968	5375.183	0.000
	18.848 - 17.848		38.434	1228.690	0.031	0.968	5425.050	0.000
	17.848 - 16.848		38.483	1234.350	0.031	0.968	5475.142	0.000
L39	16.848 - 15.848	TP52.248x51.087x0.438	38.527	1240.010	0.031	0.968	5525.467	0.000

Section No.	Elevation ft	Size	Actual V_u K	ϕV_n K	Ratio $\frac{V_u}{\phi V_n}$	Actual T_u kip-ft	ϕT_n kip-ft	Ratio $\frac{T_u}{\phi T_n}$
	15.848 - 14.848		38.570	1245.670	0.031	0.968	5576.025	0.000
	14.848 - 13.848		38.614	1251.330	0.031	0.968	5626.808	0.000
	13.848 - 12.848		38.658	1256.990	0.031	0.968	5677.825	0.000
	12.848 - 11.848		38.702	1262.650	0.031	0.968	5729.067	0.000
L40	11.848 - 10.848	TP53.41x52.248x0.438	38.746	1268.310	0.031	0.968	5780.550	0.000
	10.848 - 9.848		38.791	1273.970	0.030	0.968	5832.250	0.000
	9.848 - 8.848		38.835	1279.630	0.030	0.968	5884.191	0.000
	8.848 - 7.848		38.879	1285.290	0.030	0.968	5936.358	0.000
	7.848 - 6.848		38.923	1290.950	0.030	0.968	5988.750	0.000
L41	6.848 - 5.848	TP54.571x53.41x0.438	38.968	1296.610	0.030	0.968	6041.383	0.000
	5.848 - 4.848		39.012	1302.270	0.030	0.968	6094.241	0.000
	4.848 - 3.848		39.057	1307.930	0.030	0.967	6147.325	0.000
	3.848 - 2.848		39.101	1313.590	0.030	0.967	6200.650	0.000
	2.848 - 1.848		39.146	1319.250	0.030	0.967	6254.191	0.000
L42	1.848 - 0 (42)	TP55x54.571x0.438	39.253	1329.710	0.030	0.967	6353.758	0.000

Pole Interaction Design Data

Section No.	Elevation ft	Ratio $\frac{P_u}{\phi P_n}$	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	Ratio $\frac{M_{uy}}{\phi M_{ny}}$	Ratio $\frac{V_u}{\phi V_n}$	Ratio $\frac{T_u}{\phi T_n}$	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
L1	182 - 181	0.000	0.000	0.000	0.000	0.000	0.000 [1] ✔	1.050	4.8.2 ✔
	181 - 180	0.000	0.000	0.000	0.001	0.000	0.001 ✔	1.050	4.8.2 ✔
	180 - 179	0.000	0.001	0.000	0.001	0.000	0.001 ✔	1.050	4.8.2 ✔
	179 - 178	0.000	0.002	0.000	0.001	0.000	0.002 ✔	1.050	4.8.2 ✔
	178 - 177	0.001	0.046	0.000	0.010	0.000	0.047 ✔	1.050	4.8.2 ✔
L2	177 - 176	0.001	0.053	0.000	0.012	0.003	0.054 ✔	1.050	4.8.2 ✔
	176 - 175	0.001	0.060	0.000	0.012	0.003	0.062 ✔	1.050	4.8.2 ✔
	175 - 174	0.001	0.067	0.000	0.012	0.004	0.069 ✔	1.050	4.8.2 ✔
	174 - 173	0.001	0.074	0.000	0.013	0.004	0.076 ✔	1.050	4.8.2 ✔
	173 - 172	0.001	0.081	0.000	0.013	0.004	0.082 ✔	1.050	4.8.2 ✔
L3	172 - 171	0.001	0.087	0.000	0.013	0.004	0.089 ✔	1.050	4.8.2 ✔
	171 - 170	0.001	0.093	0.000	0.013	0.004	0.095 ✔	1.050	4.8.2 ✔
	170 - 169	0.001	0.099	0.000	0.013	0.003	0.101	1.050	4.8.2 ✔

Section No.	Elevation ft	Ratio $\frac{P_u}{\phi P_n}$	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	Ratio $\frac{M_{uy}}{\phi M_{ny}}$	Ratio $\frac{V_u}{\phi V_n}$	Ratio $\frac{T_u}{\phi T_n}$	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
	169 - 168	0.002	0.105	0.000	0.013	0.003	0.107 ✔	1.050	4.8.2 ✔
	168 - 167	0.007	0.135	0.000	0.045	0.003	0.144 ✔	1.050	4.8.2 ✔
L4	167 - 166	0.007	0.160	0.000	0.045	0.002	0.169 ✔	1.050	4.8.2 ✔
	166 - 165	0.007	0.184	0.000	0.044	0.002	0.193 ✔	1.050	4.8.2 ✔
	165 - 164	0.007	0.207	0.000	0.044	0.002	0.216 ✔	1.050	4.8.2 ✔
	164 - 163	0.007	0.229	0.000	0.044	0.002	0.237 ✔	1.050	4.8.2 ✔
	163 - 162	0.007	0.249	0.000	0.044	0.002	0.258 ✔	1.050	4.8.2 ✔
L5	162 - 161	0.007	0.269	0.000	0.043	0.002	0.278 ✔	1.050	4.8.2 ✔
	161 - 160	0.007	0.288	0.000	0.043	0.002	0.297 ✔	1.050	4.8.2 ✔
	160 - 159	0.007	0.306	0.000	0.043	0.002	0.315 ✔	1.050	4.8.2 ✔
	159 - 158	0.007	0.324	0.000	0.043	0.003	0.332 ✔	1.050	4.8.2 ✔
	158 - 157	0.007	0.340	0.000	0.042	0.003	0.349 ✔	1.050	4.8.2 ✔
L6	157 - 156	0.010	0.376	0.000	0.059	0.003	0.390 ✔	1.050	4.8.2 ✔
	156 - 155	0.010	0.400	0.000	0.059	0.003	0.414 ✔	1.050	4.8.2 ✔
	155 - 154	0.010	0.423	0.000	0.059	0.003	0.438 ✔	1.050	4.8.2 ✔
	154 - 153	0.010	0.446	0.000	0.058	0.003	0.460 ✔	1.050	4.8.2 ✔
	153 - 152	0.010	0.467	0.000	0.058	0.003	0.481 ✔	1.050	4.8.2 ✔
L7	152 - 151	0.010	0.487	0.000	0.057	0.003	0.501 ✔	1.050	4.8.2 ✔
	151 - 150	0.010	0.507	0.000	0.057	0.003	0.521 ✔	1.050	4.8.2 ✔
	150 - 149	0.010	0.526	0.000	0.057	0.003	0.540 ✔	1.050	4.8.2 ✔
	149 - 148	0.010	0.544	0.000	0.056	0.003	0.557 ✔	1.050	4.8.2 ✔
	148 - 147	0.010	0.561	0.000	0.056	0.003	0.575 ✔	1.050	4.8.2 ✔
L8	147 - 146	0.010	0.577	0.000	0.055	0.003	0.591 ✔	1.050	4.8.2 ✔
	146 - 145	0.010	0.593	0.000	0.055	0.003	0.607 ✔	1.050	4.8.2 ✔
	145 - 144	0.010	0.608	0.000	0.055	0.003	0.622 ✔	1.050	4.8.2 ✔
	144 - 143	0.010	0.622	0.000	0.054	0.002	0.636 ✔	1.050	4.8.2 ✔

Section No.	Elevation ft	Ratio $P_u/\phi P_n$	Ratio $M_{ux}/\phi M_{nx}$	Ratio $M_{uy}/\phi M_{ny}$	Ratio $V_u/\phi V_n$	Ratio $T_u/\phi T_n$	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
	143 - 142	0.010	0.636	0.000	0.054	0.002	0.650 ✔	1.050	4.8.2 ✔
L9	142 - 141	0.011	0.652	0.000	0.056	0.002	0.666 ✔	1.050	4.8.2 ✔
	141 - 140	0.011	0.667	0.000	0.056	0.002	0.681 ✔	1.050	4.8.2 ✔
	140 - 139	0.014	0.689	0.000	0.063	0.002	0.707 ✔	1.050	4.8.2 ✔
	139 - 138	0.014	0.707	0.000	0.063	0.002	0.725 ✔	1.050	4.8.2 ✔
	138 - 137	0.014	0.725	0.000	0.062	0.002	0.742 ✔	1.050	4.8.2 ✔
L10	137 - 136.834	0.014	0.727	0.000	0.062	0.002	0.745 ✔	1.050	4.8.2 ✔
	136.834 - 133.081	0.006	0.330	0.000	0.026	0.001	0.336 ✔	1.050	4.8.2 ✔
L11	136.834 - 133.081	0.006	0.316	0.000	0.024	0.001	0.323 ✔	1.050	4.8.2 ✔
	133.081 - 131.834	0.009	0.555	0.000	0.042	0.001	0.566 ✔	1.050	4.8.2 ✔
L12	131.834 - 130.834	0.009	0.563	0.000	0.041	0.001	0.575 ✔	1.050	4.8.2 ✔
	130.834 - 129.834	0.011	0.572	0.000	0.048	0.002	0.585 ✔	1.050	4.8.2 ✔
	129.834 - 128.834	0.011	0.583	0.000	0.047	0.001	0.596 ✔	1.050	4.8.2 ✔
	128.834 - 127.834	0.011	0.593	0.000	0.047	0.001	0.606 ✔	1.050	4.8.2 ✔
	127.834 - 126.834	0.011	0.603	0.000	0.047	0.001	0.616 ✔	1.050	4.8.2 ✔
L13	126.834 - 125.834	0.011	0.612	0.000	0.047	0.001	0.626 ✔	1.050	4.8.2 ✔
	125.834 - 124.834	0.011	0.621	0.000	0.046	0.001	0.635 ✔	1.050	4.8.2 ✔
	124.834 - 123.834	0.011	0.630	0.000	0.046	0.001	0.643 ✔	1.050	4.8.2 ✔
	123.834 - 122.834	0.011	0.639	0.000	0.046	0.001	0.652 ✔	1.050	4.8.2 ✔
	122.834 - 121.834	0.011	0.647	0.000	0.045	0.001	0.660 ✔	1.050	4.8.2 ✔
L14	121.834 - 120.834	0.011	0.655	0.000	0.045	0.001	0.668 ✔	1.050	4.8.2 ✔
	120.834 - 119.834	0.011	0.662	0.000	0.045	0.001	0.675 ✔	1.050	4.8.2 ✔
	119.834 - 118.834	0.011	0.669	0.000	0.045	0.001	0.682 ✔	1.050	4.8.2 ✔
	118.834 - 117.834	0.011	0.676	0.000	0.045	0.001	0.689 ✔	1.050	4.8.2 ✔
	117.834 - 116.834	0.011	0.683	0.000	0.044	0.001	0.696 ✔	1.050	4.8.2 ✔
L15	116.834 -	0.011	0.689	0.000	0.044	0.001	0.703	1.050	4.8.2 ✔

Section No.	Elevation ft	Ratio $\frac{P_u}{\phi P_n}$	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	Ratio $\frac{M_{uy}}{\phi M_{ny}}$	Ratio $\frac{V_u}{\phi V_n}$	Ratio $\frac{T_u}{\phi T_n}$	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
	115.834						✔		
	115.834 - 114.834	0.011	0.696	0.000	0.044	0.001	0.709 ✔	1.050	4.8.2 ✔
	114.834 - 113.834	0.011	0.702	0.000	0.044	0.001	0.715 ✔	1.050	4.8.2 ✔
	113.834 - 112.834	0.011	0.707	0.000	0.043	0.001	0.720 ✔	1.050	4.8.2 ✔
	112.834 - 111.834	0.011	0.713	0.000	0.043	0.001	0.726 ✔	1.050	4.8.2 ✔
L16	111.834 - 110.834	0.011	0.718	0.000	0.043	0.001	0.731 ✔	1.050	4.8.2 ✔
	110.834 - 109.834	0.011	0.723	0.000	0.043	0.001	0.736 ✔	1.050	4.8.2 ✔
	109.834 - 108.834	0.011	0.728	0.000	0.043	0.001	0.741 ✔	1.050	4.8.2 ✔
	108.834 - 107.834	0.011	0.733	0.000	0.042	0.001	0.746 ✔	1.050	4.8.2 ✔
	107.834 - 106.834	0.011	0.737	0.000	0.042	0.001	0.751 ✔	1.050	4.8.2 ✔
L17	106.834 - 105.834	0.011	0.742	0.000	0.042	0.001	0.755 ✔	1.050	4.8.2 ✔
	105.834 - 104.834	0.011	0.746	0.000	0.042	0.001	0.759 ✔	1.050	4.8.2 ✔
	104.834 - 103.834	0.011	0.750	0.000	0.042	0.001	0.763 ✔	1.050	4.8.2 ✔
	103.834 - 102.834	0.011	0.754	0.000	0.041	0.001	0.767 ✔	1.050	4.8.2 ✔
	102.834 - 101.834	0.011	0.758	0.000	0.041	0.001	0.771 ✔	1.050	4.8.2 ✔
L18	101.834 - 100.834	0.011	0.761	0.000	0.041	0.001	0.774 ✔	1.050	4.8.2 ✔
	100.834 - 99.834	0.011	0.765	0.000	0.041	0.001	0.778 ✔	1.050	4.8.2 ✔
	99.834 - 98.834	0.011	0.768	0.000	0.041	0.001	0.781 ✔	1.050	4.8.2 ✔
	98.834 - 97.834	0.011	0.771	0.000	0.040	0.001	0.784 ✔	1.050	4.8.2 ✔
	97.834 - 96.834	0.011	0.774	0.000	0.040	0.001	0.787 ✔	1.050	4.8.2 ✔
L19	96.834 - 95.743	0.011	0.777	0.000	0.040	0.001	0.791 ✔	1.050	4.8.2 ✔
	95.743 - 94.652	0.011	0.781	0.000	0.040	0.001	0.794 ✔	1.050	4.8.2 ✔
	94.652 - 93.561	0.011	0.784	0.000	0.040	0.001	0.797 ✔	1.050	4.8.2 ✔
	93.561 - 92.47	0.012	0.786	0.000	0.040	0.001	0.800 ✔	1.050	4.8.2 ✔
	92.47 - 87.449	0.007	0.416	0.000	0.025	0.000	0.424 ✔	1.050	4.8.2 ✔
L20	92.47 - 87.449	0.006	0.406	0.000	0.021	0.000	0.413 ✔	1.050	4.8.2 ✔
	87.449 -	0.014	0.843	0.000	0.046	0.001	0.860	1.050	4.8.2 ✔

Section No.	Elevation ft	Ratio P_u / ϕP_n	Ratio M_{ux} / ϕM_{nx}	Ratio M_{uy} / ϕM_{ny}	Ratio V_u / ϕV_n	Ratio T_u / ϕT_n	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
	86.449						✔		
L21	86.449 - 85 (21)	0.014	0.849	0.000	0.046	0.001	0.865 ✔	1.050	4.8.2 ✔
L22	85 - 84.75 (22)	0.014	0.850	0.000	0.046	0.001	0.866 ✔	1.050	4.8.2 ✔
L23	84.75 - 83.75	0.014	0.854	0.000	0.045	0.001	0.871 ✔	1.050	4.8.2 ✔
	83.75 - 82.75	0.014	0.859	0.000	0.045	0.001	0.875 ✔	1.050	4.8.2 ✔
	82.75 - 81.75	0.014	0.864	0.000	0.045	0.000	0.880 ✔	1.050	4.8.2 ✔
	81.75 - 80.75	0.014	0.868	0.000	0.045	0.000	0.885 ✔	1.050	4.8.2 ✔
	80.75 - 79.75	0.014	0.873	0.000	0.045	0.000	0.889 ✔	1.050	4.8.2 ✔
L24	79.75 - 78.5625	0.014	0.878	0.000	0.044	0.000	0.894 ✔	1.050	4.8.2 ✔
	78.5625 - 77.375	0.014	0.883	0.000	0.044	0.000	0.899 ✔	1.050	4.8.2 ✔
	77.375 - 76.1875	0.014	0.887	0.000	0.044	0.000	0.904 ✔	1.050	4.8.2 ✔
	76.1875 - 75	0.014	0.892	0.000	0.044	0.000	0.908 ✔	1.050	4.8.2 ✔
L25	75 - 74.75 (25)	0.008	0.483	0.000	0.024	0.000	0.492 ✔	1.050	4.8.2 ✔
L26	74.75 - 74 (26)	0.008	0.484	0.000	0.024	0.000	0.492 ✔	1.050	4.8.2 ✔
L27	74 - 73.75 (27)	0.014	0.897	0.000	0.044	0.000	0.913 ✔	1.050	4.8.2 ✔
L28	73.75 - 72.75	0.014	0.901	0.000	0.043	0.000	0.917 ✔	1.050	4.8.2 ✔
	72.75 - 71.75	0.014	0.904	0.000	0.043	0.000	0.921 ✔	1.050	4.8.2 ✔
	71.75 - 70.75	0.014	0.908	0.000	0.043	0.000	0.924 ✔	1.050	4.8.2 ✔
	70.75 - 69.75	0.014	0.911	0.000	0.043	0.000	0.928 ✔	1.050	4.8.2 ✔
	69.75 - 68.75	0.014	0.915	0.000	0.043	0.000	0.931 ✔	1.050	4.8.2 ✔
L29	68.75 - 67.75	0.014	0.918	0.000	0.043	0.000	0.934 ✔	1.050	4.8.2 ✔
	67.75 - 66.75	0.014	0.921	0.000	0.042	0.000	0.938 ✔	1.050	4.8.2 ✔
	66.75 - 65.75	0.014	0.925	0.000	0.042	0.000	0.941 ✔	1.050	4.8.2 ✔
	65.75 - 64.75	0.014	0.928	0.000	0.042	0.000	0.944 ✔	1.050	4.8.2 ✔
	64.75 - 63.75	0.014	0.931	0.000	0.042	0.000	0.947 ✔	1.050	4.8.2 ✔
L30	63.75 - 62.75	0.015	0.934	0.000	0.042	0.000	0.950 ✔	1.050	4.8.2 ✔
	62.75 - 61.75	0.015	0.937	0.000	0.042	0.000	0.953	1.050	4.8.2 ✔

Section No.	Elevation ft	Ratio $P_u/\phi P_n$	Ratio $M_{ux}/\phi M_{nx}$	Ratio $M_{uy}/\phi M_{ny}$	Ratio $V_u/\phi V_n$	Ratio $T_u/\phi T_n$	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
	61.75 - 60.75	0.015	0.940	0.000	0.041	0.000	0.956 ✔	1.050	4.8.2 ✔
	60.75 - 59.75	0.015	0.942	0.000	0.041	0.000	0.959 ✔	1.050	4.8.2 ✔
	59.75 - 58.75	0.015	0.945	0.000	0.041	0.000	0.961 ✔	1.050	4.8.2 ✔
L31	58.75 - 57.75	0.015	0.948	0.000	0.041	0.000	0.964 ✔	1.050	4.8.2 ✔
	57.75 - 56.75	0.015	0.951	0.000	0.041	0.000	0.967 ✔	1.050	4.8.2 ✔
	56.75 - 55.75	0.015	0.953	0.000	0.041	0.000	0.969 ✔	1.050	4.8.2 ✔
	55.75 - 54.75	0.015	0.956	0.000	0.040	0.000	0.972 ✔	1.050	4.8.2 ✔
	54.75 - 53.75	0.015	0.958	0.000	0.040	0.000	0.974 ✔	1.050	4.8.2 ✔
L32	53.75 - 52.5825	0.015	0.961	0.000	0.040	0.000	0.977 ✔	1.050	4.8.2 ✔
	52.5825 - 51.415	0.015	0.964	0.000	0.040	0.000	0.980 ✔	1.050	4.8.2 ✔
	51.415 - 50.2475	0.015	0.966	0.000	0.040	0.000	0.983 ✔	1.050	4.8.2 ✔
	50.2475 - 49.08	0.015	0.969	0.000	0.040	0.000	0.985 ✔	1.050	4.8.2 ✔
	49.08 - 42.848	0.007	0.467	0.000	0.019	0.000	0.475 ✔	1.050	4.8.2 ✔
L33	49.08 - 42.848	0.007	0.436	0.000	0.018	0.000	0.444 ✔	1.050	4.8.2 ✔
	42.848 - 41.848	0.013	0.833	0.000	0.034	0.000	0.848 ✔	1.050	4.8.2 ✔
L34	41.848 - 40.848	0.013	0.835	0.000	0.034	0.000	0.849 ✔	1.050	4.8.2 ✔
	40.848 - 39.848	0.013	0.836	0.000	0.034	0.000	0.850 ✔	1.050	4.8.2 ✔
	39.848 - 38.848	0.013	0.837	0.000	0.034	0.000	0.852 ✔	1.050	4.8.2 ✔
	38.848 - 37.848	0.013	0.838	0.000	0.033	0.000	0.853 ✔	1.050	4.8.2 ✔
	37.848 - 36.848	0.014	0.839	0.000	0.033	0.000	0.854 ✔	1.050	4.8.2 ✔
L35	36.848 - 35.848	0.014	0.841	0.000	0.033	0.000	0.855 ✔	1.050	4.8.2 ✔
	35.848 - 34.848	0.014	0.842	0.000	0.033	0.000	0.856 ✔	1.050	4.8.2 ✔
	34.848 - 33.848	0.014	0.843	0.000	0.033	0.000	0.858 ✔	1.050	4.8.2 ✔
	33.848 - 32.848	0.014	0.844	0.000	0.033	0.000	0.859 ✔	1.050	4.8.2 ✔
	32.848 - 31.848	0.014	0.845	0.000	0.033	0.000	0.860 ✔	1.050	4.8.2 ✔
L36	31.848 -	0.014	0.846	0.000	0.033	0.000	0.861	1.050	4.8.2 ✔

Section No.	Elevation ft	Ratio $P_u/\phi P_n$	Ratio $M_{ux}/\phi M_{nx}$	Ratio $M_{uy}/\phi M_{ny}$	Ratio $V_u/\phi V_n$	Ratio $T_u/\phi T_n$	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
	30.848						✔		
	30.848 - 29.848	0.014	0.847	0.000	0.033	0.000	0.862 ✔	1.050	4.8.2 ✔
	29.848 - 28.848	0.014	0.848	0.000	0.032	0.000	0.863 ✔	1.050	4.8.2 ✔
	28.848 - 27.848	0.014	0.849	0.000	0.032	0.000	0.864 ✔	1.050	4.8.2 ✔
	27.848 - 26.848	0.014	0.850	0.000	0.032	0.000	0.865 ✔	1.050	4.8.2 ✔
L37	26.848 - 25.848	0.014	0.851	0.000	0.032	0.000	0.866 ✔	1.050	4.8.2 ✔
	25.848 - 24.848	0.014	0.852	0.000	0.032	0.000	0.867 ✔	1.050	4.8.2 ✔
	24.848 - 23.848	0.014	0.853	0.000	0.032	0.000	0.868 ✔	1.050	4.8.2 ✔
	23.848 - 22.848	0.014	0.854	0.000	0.032	0.000	0.869 ✔	1.050	4.8.2 ✔
	22.848 - 21.848	0.014	0.855	0.000	0.032	0.000	0.869 ✔	1.050	4.8.2 ✔
L38	21.848 - 20.848	0.014	0.855	0.000	0.032	0.000	0.870 ✔	1.050	4.8.2 ✔
	20.848 - 19.848	0.014	0.856	0.000	0.031	0.000	0.871 ✔	1.050	4.8.2 ✔
	19.848 - 18.848	0.014	0.857	0.000	0.031	0.000	0.872 ✔	1.050	4.8.2 ✔
	18.848 - 17.848	0.014	0.858	0.000	0.031	0.000	0.873 ✔	1.050	4.8.2 ✔
	17.848 - 16.848	0.014	0.859	0.000	0.031	0.000	0.873 ✔	1.050	4.8.2 ✔
L39	16.848 - 15.848	0.014	0.859	0.000	0.031	0.000	0.874 ✔	1.050	4.8.2 ✔
	15.848 - 14.848	0.014	0.860	0.000	0.031	0.000	0.875 ✔	1.050	4.8.2 ✔
	14.848 - 13.848	0.014	0.861	0.000	0.031	0.000	0.876 ✔	1.050	4.8.2 ✔
	13.848 - 12.848	0.014	0.861	0.000	0.031	0.000	0.876 ✔	1.050	4.8.2 ✔
	12.848 - 11.848	0.014	0.862	0.000	0.031	0.000	0.877 ✔	1.050	4.8.2 ✔
L40	11.848 - 10.848	0.014	0.863	0.000	0.031	0.000	0.878 ✔	1.050	4.8.2 ✔
	10.848 - 9.848	0.014	0.863	0.000	0.030	0.000	0.879 ✔	1.050	4.8.2 ✔
	9.848 - 8.848	0.014	0.864	0.000	0.030	0.000	0.879 ✔	1.050	4.8.2 ✔
	8.848 - 7.848	0.014	0.865	0.000	0.030	0.000	0.880 ✔	1.050	4.8.2 ✔
	7.848 - 6.848	0.014	0.865	0.000	0.030	0.000	0.880 ✔	1.050	4.8.2 ✔
L41	6.848 - 5.848	0.014	0.866	0.000	0.030	0.000	0.881 ✔	1.050	4.8.2 ✔
	5.848 - 4.848	0.014	0.866	0.000	0.030	0.000	0.882	1.050	4.8.2 ✔

Section No.	Elevation ft	Ratio P_u / ϕP_n	Ratio M_{ux} / ϕM_{nx}	Ratio M_{uy} / ϕM_{ny}	Ratio V_u / ϕV_n	Ratio T_u / ϕT_n	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
	4.848 - 3.848	0.014	0.867	0.000	0.030	0.000	0.882	1.050	4.8.2
	3.848 - 2.848	0.014	0.868	0.000	0.030	0.000	0.883	1.050	4.8.2
	2.848 - 1.848	0.014	0.868	0.000	0.030	0.000	0.883	1.050	4.8.2
L42	1.848 - 0 (42)	0.014	0.869	0.000	0.030	0.000	0.884	1.050	4.8.2

[1] P_u / ϕP_n controls

Section Capacity Table

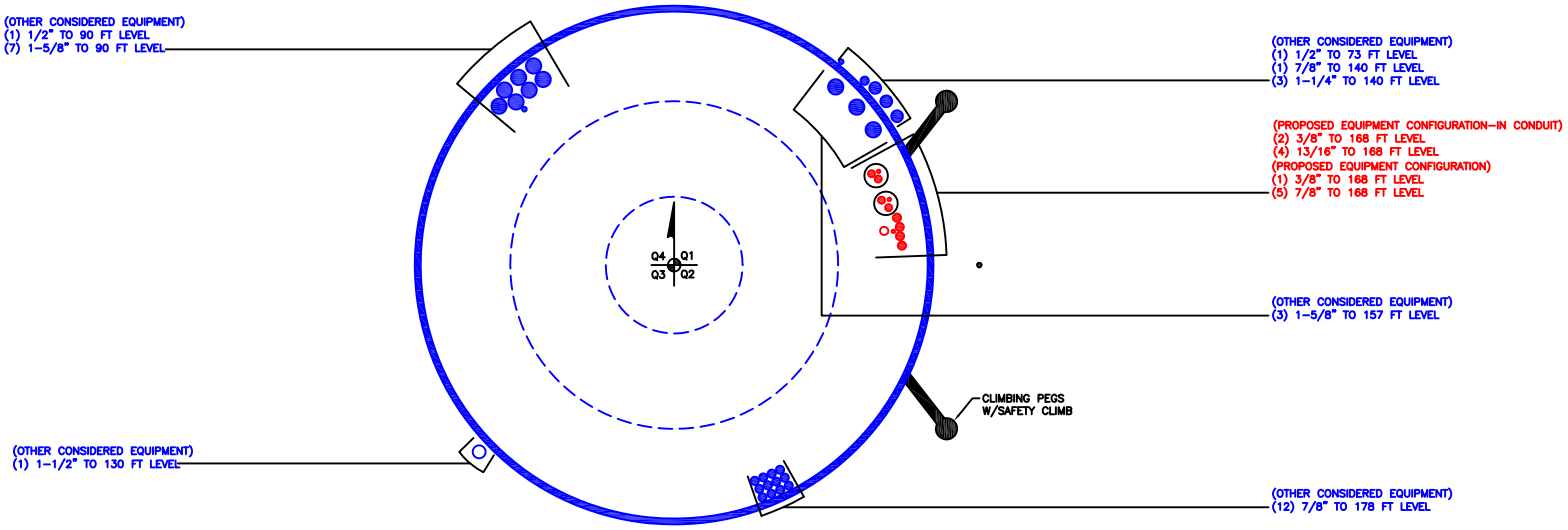
Section No.	Elevation ft	Component Type	Size	Critical Element	P K	ϕP_{allow} K	% Capacity	Pass Fail
L1	182 - 177	Pole	TP15.678x14.5x0.25	1	-0.804	751.961	4.5	Pass
L2	177 - 172	Pole	TP16.856x15.678x0.25	2	-1.018	809.365	7.8	Pass
L3	172 - 167	Pole	TP18.033x16.856x0.25	3	-5.557	866.771	13.7	Pass
L4	167 - 162	Pole	TP19.211x18.033x0.25	4	-5.930	924.175	24.6	Pass
L5	162 - 157	Pole	TP20.389x19.211x0.25	5	-6.336	981.581	33.2	Pass
L6	157 - 152	Pole	TP21.567x20.389x0.25	6	-10.257	1038.985	45.8	Pass
L7	152 - 147	Pole	TP22.744x21.567x0.25	7	-10.813	1096.389	54.7	Pass
L8	147 - 142	Pole	TP23.922x22.744x0.25	8	-11.405	1153.792	61.9	Pass
L9	142 - 137	Pole	TP25.1x23.922x0.25	9	-15.616	1211.196	70.7	Pass
L10	137 - 133.081	Pole	TP26.023x25.1x0.25	10	-15.655	1213.107	71.0	Pass
L11	133.081 - 131.834	Pole	TP25.805x24.639x0.375	11	-16.748	1859.245	53.9	Pass
L12	131.834 - 126.834	Pole	TP26.972x25.805x0.375	12	-20.369	1944.526	58.7	Pass
L13	126.834 - 121.834	Pole	TP28.138x26.972x0.375	13	-21.329	2029.807	62.9	Pass
L14	121.834 - 116.834	Pole	TP29.305x28.138x0.375	14	-22.325	2115.088	66.3	Pass
L15	116.834 - 111.834	Pole	TP30.471x29.305x0.375	15	-23.356	2200.369	69.1	Pass
L16	111.834 - 106.834	Pole	TP31.638x30.471x0.375	16	-24.420	2285.650	71.5	Pass
L17	106.834 - 101.834	Pole	TP32.804x31.638x0.375	17	-25.516	2370.931	73.4	Pass
L18	101.834 - 96.834	Pole	TP33.971x32.804x0.375	18	-26.643	2456.212	75.0	Pass
L19	96.834 - 87.449	Pole	TP36.16x33.971x0.375	19	-28.005	2530.647	76.2	Pass
L20	87.449 - 86.449	Pole	TP35.642x34.239x0.375	20	-34.664	2578.411	81.9	Pass
L21	86.449 - 85	Pole	TP35.98x35.642x0.375	21	-35.019	2603.097	82.4	Pass
L22	85 - 84.75	Pole	TP36.038x35.98x0.375	22	-35.111	2607.360	82.5	Pass
L23	84.75 - 79.75	Pole	TP37.203x36.038x0.375	23	-36.390	2692.557	84.7	Pass
L24	79.75 - 75	Pole	TP38.31x37.203x0.375	24	-37.646	2773.501	86.5	Pass
L25	75 - 74.75	Pole	TP38.369x38.31x0.7	25	-37.768	5140.789	46.8	Pass
L26	74.75 - 74	Pole	TP38.543x38.369x0.7	26	-38.052	5164.645	46.9	Pass
L27	74 - 73.75	Pole	TP38.602x38.543x0.375	27	-38.124	2794.795	87.0	Pass
L28	73.75 - 68.75	Pole	TP39.767x38.602x0.375	28	-39.543	2879.992	88.7	Pass

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	ϕP_{allow} K	% Capacity	Pass Fail
L29	68.75 - 63.75	Pole	TP40.932x39.767x0.375	29	-40.937	2965.200	90.2	Pass
L30	63.75 - 58.75	Pole	TP42.098x40.932x0.375	30	-42.361	3050.397	91.6	Pass
L31	58.75 - 53.75	Pole	TP43.263x42.098x0.375	31	-43.813	3135.594	92.8	Pass
L32	53.75 - 42.848	Pole	TP45.804x43.263x0.375	32	-45.192	3215.173	93.9	Pass
L33	42.848 - 41.848	Pole	TP45.281x43.602x0.438	33	-48.816	3824.992	80.7	Pass
L34	41.848 - 36.848	Pole	TP46.442x45.281x0.438	34	-50.507	3924.039	81.3	Pass
L35	36.848 - 31.848	Pole	TP47.604x46.442x0.438	35	-52.230	4023.085	81.9	Pass
L36	31.848 - 26.848	Pole	TP48.765x47.604x0.438	36	-53.986	4122.132	82.4	Pass
L37	26.848 - 21.848	Pole	TP49.926x48.765x0.438	37	-55.774	4221.178	82.8	Pass
L38	21.848 - 16.848	Pole	TP51.087x49.926x0.438	38	-57.595	4320.225	83.2	Pass
L39	16.848 - 11.848	Pole	TP52.248x51.087x0.438	39	-59.447	4419.271	83.5	Pass
L40	11.848 - 6.848	Pole	TP53.41x52.248x0.438	40	-61.331	4518.328	83.9	Pass
L41	6.848 - 1.848	Pole	TP54.571x53.41x0.438	41	-63.247	4617.375	84.1	Pass
L42	1.848 - 0	Pole	TP55x54.571x0.438	42	-63.948	4653.978	84.2	Pass
							Summary	
						Pole (L32)	93.9	Pass
						RATING =	**93.9**	**Pass**

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

APPENDIX B

BASE LEVEL DRAWING



BUSINESS UNIT: 842872

APPENDIX C

ADDITIONAL CALCULATIONS

CCIpole

per TIA-222- H

Site BU: 842872

Work Order: 2014457

Pole Geometry

	Pole Height Above Base (ft)	Section Length (ft)	Lap Splice Length (ft)	Number of Sides	Top Diameter (in)	Bottom Diameter (in)	Wall Thickness (in)	Bend Radius (in)	Pole Material
1	182	48.919	3.753	18	14.5	26.023	0.25	Auto	A572-65
2	136.834	49.385	5.021	18	24.64	36.16	0.375	Auto	A572-65
3	92.47	49.622	6.232	18	34.24	45.804	0.375	Auto	A572-65
4	49.08	49.08	0	18	43.60	55	0.4375	Auto	A572-65

Reinforcement Configuration

	Bottom Effective Elevation (ft)	Top Effective Elevation (ft)	Type	Model	Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	49	75	plate	PL 5.75" x 1"	3			E2						E2						E2			
2	74	85	plate	PL 5.75" x 1"	3				E2						E2						E2		
3																							
4																							
5																							
6																							
7																							
8																							
9																							
10																							

Reinforcement Details

	B (in)	H (in)	Gross Area (in^2)	Pole Face to Centroid (in)	Bottom Termination Type	Bottom Termination Length (in)	Top Termination Type	Top Termination Length (in)	Lu (in)	Net Area (in2)	Bolt Hole Size (in)	Reinforcement Material
1	5.75	1	5.75	0.5	PC 8.8 - M20 (100)	24	PC 8.8 - M20 (100)	24.000	14.000	4.500	1.1875	A572-65
2	5.75	1	5.75	0.5	PC 8.8 - M20 (100)	24	PC 8.8 - M20 (100)	24.000	14.000	4.500	1.1875	A572-65

Connection Details for Custom Reinforcements

Reinforcement	End	# Bolts	N or X	Bolt Spacing (in)	Edge Dist (in)	Weld Grade (ksi)	Transverse (Horiz.) Weld Type	Horiz. Weld Length (in)	Horiz. Groove Depth (in)	Horiz. Groove Angle (deg)	Horiz. Fillet Size (in)	Vertical Weld Length (in)	Vertical Fillet Size (in)	Rev H Connection Capacity (kip)
PL 5.75" x 1"	Top	8	N	3	3	-	-	-	-	-	-	-	-	-
	Bottom	8	N	3	3	-	-	-	-	-	-	-	-	-

TNX Geometry Input

Increment (ft): 5 Export to TNX

	Section Height (ft)	Section Length (ft)	Lap Splice Length (ft)	Number of Sides	Top Diameter (in)	Bottom Diameter (in)	Wall Thickness (in)	Tapered Pole Grade	Weight Multiplier
1	182 - 177	5		18	14.500	15.678	0.25	A572-65	1.000
2	177 - 172	5		18	15.678	16.856	0.25	A572-65	1.000
3	172 - 167	5		18	16.856	18.033	0.25	A572-65	1.000
4	167 - 162	5		18	18.033	19.211	0.25	A572-65	1.000
5	162 - 157	5		18	19.211	20.389	0.25	A572-65	1.000
6	157 - 152	5		18	20.389	21.567	0.25	A572-65	1.000
7	152 - 147	5		18	21.567	22.744	0.25	A572-65	1.000
8	147 - 142	5		18	22.744	23.922	0.25	A572-65	1.000
9	142 - 137	5		18	23.922	25.100	0.25	A572-65	1.000
10	137 - 136.834	3.919	3.753	18	25.100	26.023	0.25	A572-65	1.000
11	136.834 - 131.834	5		18	24.639	25.805	0.375	A572-65	1.000
12	131.834 - 126.834	5		18	25.805	26.972	0.375	A572-65	1.000
13	126.834 - 121.834	5		18	26.972	28.138	0.375	A572-65	1.000
14	121.834 - 116.834	5		18	28.138	29.305	0.375	A572-65	1.000
15	116.834 - 111.834	5		18	29.305	30.471	0.375	A572-65	1.000
16	111.834 - 106.834	5		18	30.471	31.638	0.375	A572-65	1.000
17	106.834 - 101.834	5		18	31.638	32.804	0.375	A572-65	1.000
18	101.834 - 96.834	5		18	32.804	33.971	0.375	A572-65	1.000
19	96.834 - 92.47	9.385	5.021	18	33.971	36.160	0.375	A572-65	1.000
20	92.47 - 86.449	6.021		18	34.239	35.642	0.375	A572-65	1.000
21	86.449 - 85	1.449		18	35.642	35.980	0.375	A572-65	1.000
22	85 - 84.75	0.25		18	35.980	36.038	0.375	A572-65	1.000
23	84.75 - 79.75	5		18	36.038	37.203	0.375	A572-65	1.000
24	79.75 - 75	4.75		18	37.203	38.310	0.375	A572-65	1.000
25	75 - 74.75	0.25		18	38.310	38.369	0.7	A572-65	0.953
26	74.75 - 74	0.75		18	38.369	38.543	0.7	A572-65	0.951
27	74 - 73.75	0.25		18	38.543	38.602	0.375	A572-65	1.000
28	73.75 - 68.75	5		18	38.602	39.767	0.375	A572-65	1.000
29	68.75 - 63.75	5		18	39.767	40.932	0.375	A572-65	1.000
30	63.75 - 58.75	5		18	40.932	42.098	0.375	A572-65	1.000
31	58.75 - 53.75	5		18	42.098	43.263	0.375	A572-65	1.000
32	53.75 - 49.08	10.902	6.232	18	43.263	45.804	0.375	A572-65	1.000
33	49.08 - 41.848	7.232		18	43.602	45.281	0.4375	A572-65	1.000
34	41.848 - 36.848	5		18	45.281	46.442	0.4375	A572-65	1.000
35	36.848 - 31.848	5		18	46.442	47.604	0.4375	A572-65	1.000
36	31.848 - 26.848	5		18	47.604	48.765	0.4375	A572-65	1.000
37	26.848 - 21.848	5		18	48.765	49.926	0.4375	A572-65	1.000
38	21.848 - 16.848	5		18	49.926	51.087	0.4375	A572-65	1.000
39	16.848 - 11.848	5		18	51.087	52.248	0.4375	A572-65	1.000
40	11.848 - 6.848	5		18	52.248	53.410	0.4375	A572-65	1.000
41	6.848 - 1.848	5		18	53.410	54.571	0.4375	A572-65	1.000
42	1.848 - 0	1.848		18	54.571	55.000	0.4375	A572-65	1.000

TNX Section Forces

Increment (ft):	5	TNX Output		
	Section Height (ft)	P_u (K)	M_{ux} (kip-ft)	V_u (K)
1	182 - 177	0.80	13.11	2.21
2	177 - 172	1.02	26.78	2.93
3	172 - 167	5.56	51.42	11.18
4	167 - 162	5.93	108.14	11.52
5	162 - 157	6.34	166.56	11.86
6	157 - 152	10.26	256.31	17.14
7	152 - 147	10.81	342.85	17.49
8	147 - 142	11.41	431.10	17.83
9	142 - 137	15.62	535.33	21.59
10	137 - 136.834	15.65	538.91	21.59
11	136.834 - 131.834	16.75	648.04	22.07
12	131.834 - 126.834	20.37	770.53	26.01
13	126.834 - 121.834	21.33	901.41	26.38
14	121.834 - 116.834	22.33	1034.14	26.75
15	116.834 - 111.834	23.36	1168.73	27.13
16	111.834 - 106.834	24.42	1305.21	27.51
17	106.834 - 101.834	25.52	1443.57	27.89
18	101.834 - 96.834	26.64	1583.83	28.27
19	96.834 - 92.47	28.00	1708.35	29.00
20	92.47 - 86.449	34.66	1901.88	33.92
21	86.449 - 85	35.02	1951.06	34.03
22	85 - 84.75	35.11	1959.56	34.02
23	84.75 - 79.75	36.39	2130.40	34.36
24	79.75 - 75	37.65	2294.19	34.67
25	75 - 74.75	37.77	2302.85	34.68
26	74.75 - 74	38.05	2328.88	34.75
27	74 - 73.75	38.12	2337.56	34.77
28	73.75 - 68.75	39.54	2512.59	35.18
29	68.75 - 63.75	40.94	2689.13	35.50
30	63.75 - 58.75	42.36	2867.24	35.81
31	58.75 - 53.75	43.81	3046.91	36.12
32	53.75 - 49.08	45.19	3216.08	36.40
33	49.08 - 41.848	48.82	3481.70	37.09
34	41.848 - 36.848	50.51	3667.75	37.40
35	36.848 - 31.848	52.23	3855.30	37.69
36	31.848 - 26.848	53.99	4044.29	37.98
37	26.848 - 21.848	55.77	4234.65	38.24
38	21.848 - 16.848	57.59	4426.27	38.48
39	16.848 - 11.848	59.45	4619.05	38.70
40	11.848 - 6.848	61.33	4812.93	38.92
41	6.848 - 1.848	63.25	5007.91	39.15
42	1.848 - 0	63.95	5080.26	39.25

Analysis Results

Elevation (ft)	Component Type	Size	Critical Element	% Capacity	Pass / Fail
182 - 177	Pole	TP15.678x14.5x0.25	Pole	4.5%	Pass
177 - 172	Pole	TP16.856x15.678x0.25	Pole	7.8%	Pass
172 - 167	Pole	TP18.033x16.856x0.25	Pole	13.7%	Pass
167 - 162	Pole	TP19.211x18.033x0.25	Pole	24.6%	Pass
162 - 157	Pole	TP20.389x19.211x0.25	Pole	33.2%	Pass
157 - 152	Pole	TP21.567x20.389x0.25	Pole	45.8%	Pass
152 - 147	Pole	TP22.744x21.567x0.25	Pole	54.7%	Pass
147 - 142	Pole	TP23.922x22.744x0.25	Pole	61.8%	Pass
142 - 137	Pole	TP25.1x23.922x0.25	Pole	70.7%	Pass
137 - 136.83	Pole	TP26.023x25.1x0.25	Pole	70.9%	Pass
136.83 - 131.83	Pole	TP25.805x24.639x0.375	Pole	53.9%	Pass
131.83 - 126.83	Pole	TP26.972x25.805x0.375	Pole	58.6%	Pass
126.83 - 121.83	Pole	TP28.138x26.972x0.375	Pole	62.8%	Pass
121.83 - 116.83	Pole	TP29.305x28.138x0.375	Pole	66.2%	Pass
116.83 - 111.83	Pole	TP30.471x29.305x0.375	Pole	69.1%	Pass
111.83 - 106.83	Pole	TP31.638x30.471x0.375	Pole	71.4%	Pass
106.83 - 101.83	Pole	TP32.804x31.638x0.375	Pole	73.4%	Pass
101.83 - 96.83	Pole	TP33.971x32.804x0.375	Pole	74.9%	Pass
96.83 - 92.47	Pole	TP36.16x33.971x0.375	Pole	76.1%	Pass
92.47 - 86.45	Pole	TP35.642x34.239x0.375	Pole	81.8%	Pass
86.45 - 85	Pole	TP35.98x35.642x0.375	Pole	82.3%	Pass
85 - 84.75	Pole	TP36.038x35.98x0.375	Pole	82.5%	Pass
84.75 - 79.75	Pole	TP37.203x36.038x0.375	Pole	84.6%	Pass
79.75 - 75	Pole	TP38.31x37.203x0.375	Pole	86.5%	Pass
75 - 74.75	Pole + Reinf.	TP38.369x38.31x0.7	Reinf. 2 Tension Rupture	74.5%	Pass
74.75 - 74	Pole + Reinf.	TP38.543x38.369x0.7	Reinf. 2 Tension Rupture	74.8%	Pass
74 - 73.75	Pole	TP38.602x38.543x0.375	Pole	87.0%	Pass
73.75 - 68.75	Pole	TP39.767x38.602x0.375	Pole	88.7%	Pass
68.75 - 63.75	Pole	TP40.932x39.767x0.375	Pole	90.2%	Pass
63.75 - 58.75	Pole	TP42.098x40.932x0.375	Pole	91.6%	Pass
58.75 - 53.75	Pole	TP43.263x42.098x0.375	Pole	92.8%	Pass
53.75 - 49.08	Pole	TP45.804x43.263x0.375	Pole	93.9%	Pass
49.08 - 41.85	Pole	TP45.281x43.602x0.4375	Pole	80.7%	Pass
41.85 - 36.85	Pole	TP46.442x45.281x0.4375	Pole	81.3%	Pass
36.85 - 31.85	Pole	TP47.604x46.442x0.4375	Pole	81.9%	Pass
31.85 - 26.85	Pole	TP48.765x47.604x0.4375	Pole	82.4%	Pass
26.85 - 21.85	Pole	TP49.926x48.765x0.4375	Pole	82.8%	Pass
21.85 - 16.85	Pole	TP51.087x49.926x0.4375	Pole	83.2%	Pass
16.85 - 11.85	Pole	TP52.248x51.087x0.4375	Pole	83.5%	Pass
11.85 - 6.85	Pole	TP53.41x52.248x0.4375	Pole	83.9%	Pass
6.85 - 1.85	Pole	TP54.571x53.41x0.4375	Pole	84.1%	Pass
1.85 - 0	Pole	TP55x54.571x0.4375	Pole	84.2%	Pass
				Summary	
			Pole	93.9%	Pass
			Reinforcement	74.8%	Pass
			Overall	93.9%	Pass

Additional Calculations

Section Elevation (ft)	Moment of Inertia (in^4)			Area (in^2)			% Capacity*		
	Pole	Reinf.	Total	Pole	Reinf.	Total	Pole	R1	R2
182 - 177	368	n/a	368	12.24	n/a	12.24	4.5%		
177 - 172	459	n/a	459	13.18	n/a	13.18	7.8%		
172 - 167	564	n/a	564	14.11	n/a	14.11	13.7%		
167 - 162	683	n/a	683	15.05	n/a	15.05	24.6%		
162 - 157	819	n/a	819	15.98	n/a	15.98	33.2%		
157 - 152	971	n/a	971	16.91	n/a	16.91	45.8%		
152 - 147	1141	n/a	1141	17.85	n/a	17.85	54.7%		
147 - 142	1329	n/a	1329	18.78	n/a	18.78	61.8%		
142 - 137	1538	n/a	1538	19.72	n/a	19.72	70.7%		
137 - 136.83	1545	n/a	1545	19.75	n/a	19.75	70.9%		
136.83 - 131.83	2472	n/a	2472	30.27	n/a	30.27	53.9%		
131.83 - 126.83	2828	n/a	2828	31.66	n/a	31.66	58.6%		
126.83 - 121.83	3217	n/a	3217	33.04	n/a	33.04	62.8%		
121.83 - 116.83	3640	n/a	3640	34.43	n/a	34.43	66.2%		
116.83 - 111.83	4098	n/a	4098	35.82	n/a	35.82	69.1%		
111.83 - 106.83	4593	n/a	4593	37.21	n/a	37.21	71.4%		
106.83 - 101.83	5127	n/a	5127	38.60	n/a	38.60	73.4%		
101.83 - 96.83	5700	n/a	5700	39.99	n/a	39.99	74.9%		
96.83 - 92.47	6234	n/a	6234	41.20	n/a	41.20	76.1%		
92.47 - 86.45	6594	n/a	6594	41.97	n/a	41.97	81.8%		
86.45 - 85	6785	n/a	6785	42.38	n/a	42.38	82.3%		
85 - 84.75	6818	n/a	6818	42.45	n/a	42.45	82.5%		
84.75 - 79.75	7509	n/a	7509	43.83	n/a	43.83	84.6%		
79.75 - 75	8206	n/a	8206	45.15	n/a	45.15	86.5%		
75 - 74.75	8244	6733	14977	45.22	34.50	79.72	47.0%	74.5%	74.5%
74.75 - 74	8359	6792	15151	45.43	34.50	79.93	47.2%	74.8%	74.8%
74 - 73.75	8397	n/a	8397	45.50	n/a	45.50	87.0%		
73.75 - 68.75	9189	n/a	9189	46.88	n/a	46.88	88.7%		
68.75 - 63.75	10028	n/a	10028	48.27	n/a	48.27	90.2%		
63.75 - 58.75	10918	n/a	10918	49.66	n/a	49.66	91.6%		
58.75 - 53.75	11859	n/a	11859	51.05	n/a	51.05	92.8%		
53.75 - 49.08	12784	n/a	12784	52.34	n/a	52.34	93.9%		
49.08 - 41.85	15815	n/a	15815	62.27	n/a	62.27	80.7%		
41.85 - 36.85	17076	n/a	17076	63.88	n/a	63.88	81.3%		
36.85 - 31.85	18402	n/a	18402	65.49	n/a	65.49	81.9%		
31.85 - 26.85	19795	n/a	19795	67.11	n/a	67.11	82.4%		
26.85 - 21.85	21256	n/a	21256	68.72	n/a	68.72	82.8%		
21.85 - 16.85	22788	n/a	22788	70.33	n/a	70.33	83.2%		
16.85 - 11.85	24391	n/a	24391	71.94	n/a	71.94	83.5%		
11.85 - 6.85	26068	n/a	26068	73.56	n/a	73.56	83.9%		
6.85 - 1.85	27820	n/a	27820	75.17	n/a	75.17	84.1%		
1.85 - 0	28487	n/a	28487	75.76	n/a	75.76	84.2%		

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

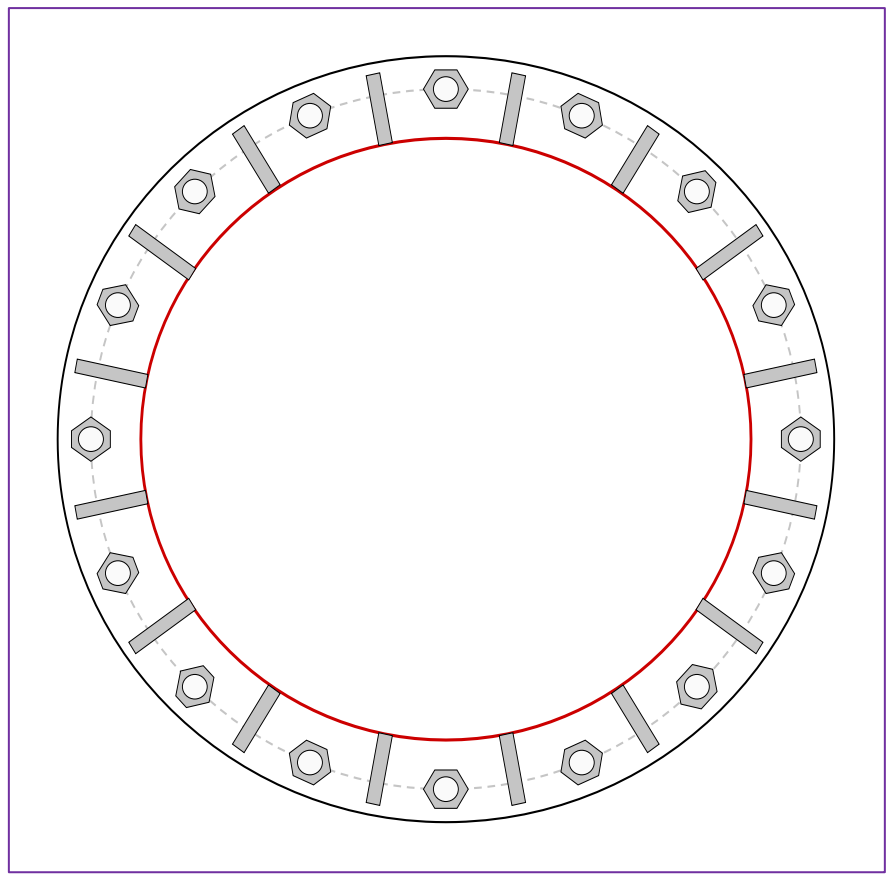
Monopole Base Plate Connection

Site Info	
BU #	842872
Site Name	Rocky Hill, CT
Order #	556583 Rev. 0

Analysis Considerations	
TIA-222 Revision	H
Grout Considered:	No
l_{ar} (in)	3.125

Applied Loads	
Moment (kip-ft)	5080.26
Axial Force (kips)	63.95
Shear Force (kips)	39.25

**TIA-222-H Section 15.5 Applied*



Connection Properties

Anchor Rod Data

(16) 2-1/4" ø bolts (A615-75 N; Fy=75 ksi, Fu=100 ksi) on 64" BC

Base Plate Data

70" OD x 2" Plate (A871-60; Fy=60 ksi, Fu=80 ksi)

Stiffener Data

(16) 36"H x 6.5"W x 1.25"T, Notch: 0.75"

plate: Fy= 65 ksi ; weld: Fy= 80 ksi

horiz. weld: 0.625" fillet

vert. weld: 0.375" fillet

Pole Data

55" x 0.4375" 18-sided pole (A572-65; Fy=65 ksi, Fu=80 ksi)

Analysis Results

Anchor Rod Summary		*(units of kips, kip-in)*
Pu_t = 234.02	ϕPn_t = 243.75	**Stress Rating**
Vu = 2.45	ϕVn = 149.1	**91.4%**
Mu = n/a	ϕMn = n/a	**Pass**

Base Plate Summary		
Max Stress (ksi):	40.19	(Roark's Flexural)
Allowable Stress (ksi):	54	
Stress Rating:	**70.9%**	**Pass**

Stiffener Summary		
Horizontal Weld:	**86.4%**	**Pass**
Vertical Weld:	**24.2%**	**Pass**
Plate Flexure+Shear:	**2.7%**	**Pass**
Plate Tension+Shear:	**37.9%**	**Pass**
Plate Compression:	**31.8%**	**Pass**
Pole Summary		
Punching Shear:	**3.8%**	**Pass**

Drilled Pier Foundation

BU # :	842872
Site Name:	Rocky Hill, CT
Order Number:	556583 Rev. 0
TIA-222 Revison:	H
Tower Type:	Monopole

Applied Loads	Comp.	Uplift
Moment (kip-ft)	5080	
Axial Force (kips)	64	
Shear Force (kips)	39	

Material Properties			Rebar 2, Fy Override (ksi)	Rebar 3, Fy Override (ksi)
Concrete Strength, f'c:	3	ksi		
Rebar Strength, Fy:	60	ksi		
Tie Yield Strength, Fyt:	40	ksi		

Pier Design Data		
Depth	17.667	ft
Ext. Above Grade	0.833	ft
Pier Section 1		
From 0.833' above grade to 15.167' below grade		
Pier Diameter	7	ft
Rebar Quantity	20	
Rebar Size	11	
Clear Cover to Ties	3	in
Tie Size	3	
Tie Spacing		in
Rebar Quantity	4	
Rebar Size	11	
Rebar Cage Diameter	71	in
Pier Section 2		
From 15.167' below grade to 17.617' below grade		
Pier Diameter	7	ft
Rebar Quantity	20	
Rebar Size	11	
Clear Cover to Ties	3	in
Tie Size	3	
Tie Spacing		in

Rebar & Pier Options

Embedded Pole Inputs

Belled Pier Inputs

Analysis Results		
Soil Lateral Check	*Compression*	*Uplift*
$D_{v=0}$ (ft from TOC)	4.62	-
Soil Safety Factor	1.97	-
Max Moment (kip-ft)	5436.59	-
Rating*	*64.4%*	-
Soil Vertical Check	*Compression*	*Uplift*
Skin Friction (kips)	439.84	-
End Bearing (kips)	659.53	-
Weight of Concrete (kips)	101.71	-
Total Capacity (kips)	1099.36	-
Axial (kips)	165.71	-
Rating*	*14.4%*	-
Reinforced Concrete Flexure	*Compression*	*Uplift*
Critical Depth (ft from TOC)	4.50	-
Critical Moment (kip-ft)	5435.94	-
Critical Moment Capacity	5867.40	-
Rating*	*88.2%*	-
Reinforced Concrete Shear	*Compression*	*Uplift*
Critical Depth (ft from TOC)	14.39	-
Critical Shear (kip)	585.00	-
Critical Shear Capacity	594.68	-
Rating*	*93.7%*	-

Shear-Friction Methodology is Applied

Structural Foundation Rating*	**93.7%**
Soil Interaction Rating*	**64.4%**

*Rating per TIA-222-H Section 15.5

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

Go to Soil Calculations

Soil Profile

Groundwater Depth	8.5	# of Layers	6

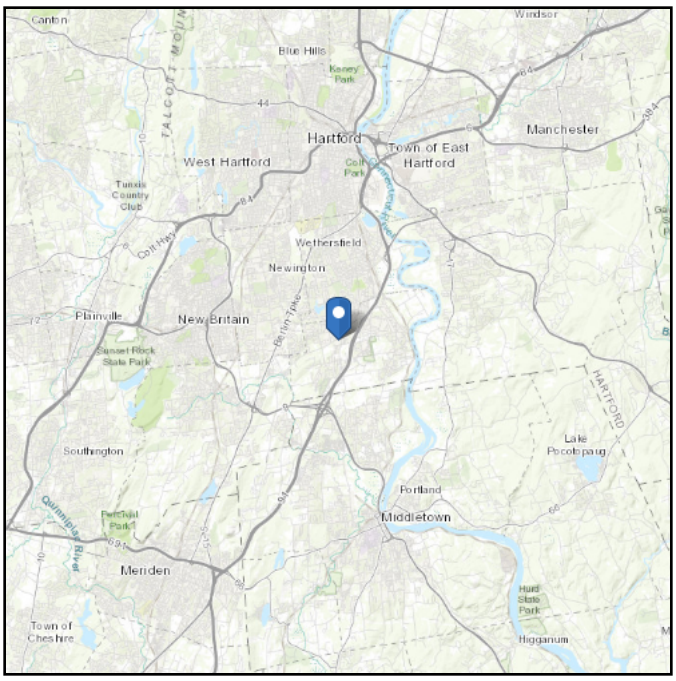
Layer	Top (ft)	Bottom (ft)	Thickness (ft)	γ_{soil} (pcf)	$\gamma_{concrete}$ (pcf)	Cohesion (ksf)	Angle of Friction (degrees)	Calculated Ultimate Skin Friction Comp (ksf)	Calculated Ultimate Skin Friction Uplift (ksf)	Ultimate Skin Friction Comp Override (ksf)	Ultimate Skin Friction Uplift Override (ksf)	Ult. Gross Bearing Capacity (ksf)	SPT Blow Count	Soil Type
1	0	3.33	3.33	110	150	0	0	0.000	0.000	0.00	0.00			Cohesionless
2	3.33	5	1.67	120	150	3	0	1.650	1.650	0.00	0.00			Cohesive
3	5	7	2	110	150	1.75	0	0.963	0.963	0.96	0.96			Cohesive
4	7	8.5	1.5	135	150	5	0	2.321	2.321	2.32	2.32			Cohesive
5	8.5	12	3.5	73	87.6	5	0	2.321	2.321	2.32	2.32			Cohesive
6	12	17.667	5.667	73	87.6	5	0	2.321	2.321	2.32	2.32	22.85		Cohesive

ASCE 7 Hazards Report

Address:
No Address at This Location

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

Elevation: 198.53 ft (NAVD 88)
Latitude: 41.660247
Longitude: -72.680717



Wind

Results:

Wind Speed:	118 Vmph
10-year MRI	75 Vmph
25-year MRI	84 Vmph
50-year MRI	90 Vmph
100-year MRI	98 Vmph

Data Source:	ASCE/SEI 7-16, Fig. 26.5-1B and Figs. CC.2-1–CC.2-4, and Section 26.5.2
Date Accessed:	Wed Sep 08 2021

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

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

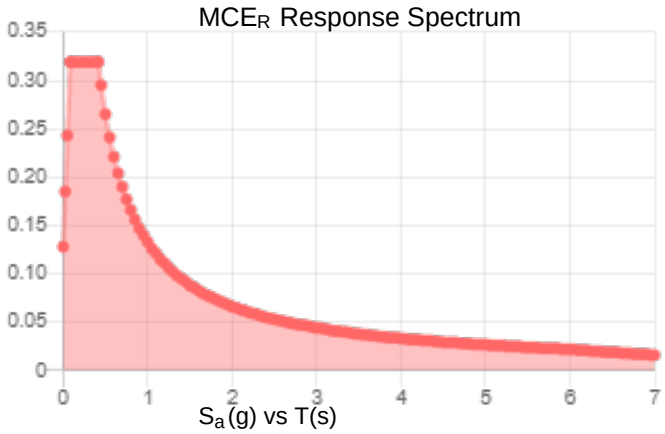
Seismic

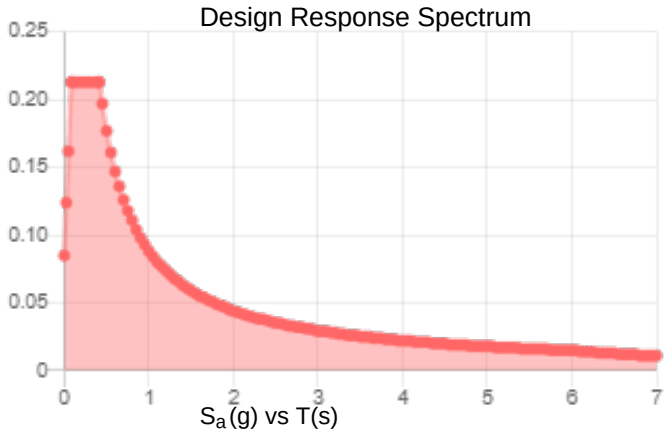
Site Soil Class: D - Default (see Section 11.4.3)

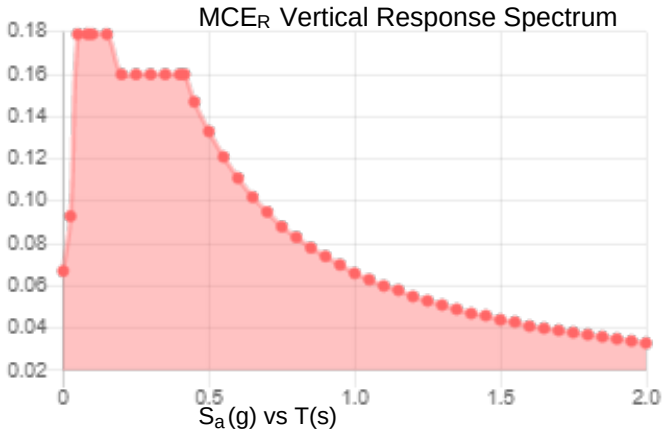
Results:

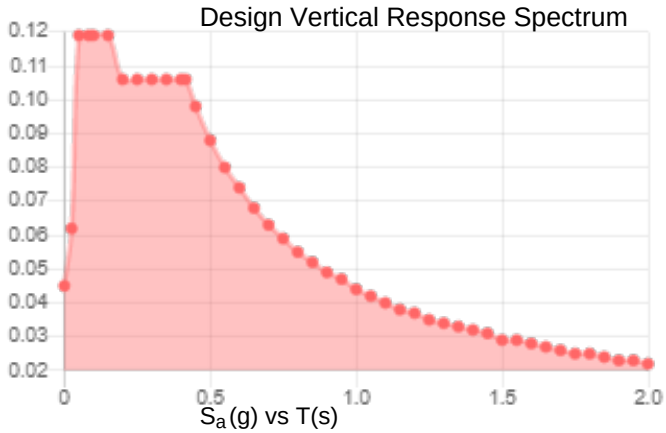
S_S :	0.2	S_{D1} :	0.088
S_1 :	0.055	T_L :	6
F_a :	1.6	PGA :	0.109
F_v :	2.4	PGA_M :	0.173
S_{MS} :	0.319	F_{PGA} :	1.581
S_{M1} :	0.133	I_e :	1
S_{DS} :	0.213	C_v :	0.7

Seismic Design Category B









Data Accessed: Wed Sep 08 2021

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

Ice

Results:

Ice Thickness:	1.50 in.
Concurrent Temperature:	15 F
Gust Speed:	50 mph
Data Source:	Standard ASCE/SEI 7-16, Figs. 10-2 through 10-8
Date Accessed:	Wed Sep 08 2021

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

Values provided are equivalent radial ice thicknesses due to freezing rain with concurrent 3-second gust speeds, for a 500-year mean recurrence interval, and temperatures concurrent with ice thicknesses due to freezing rain. Thicknesses for ice accretions caused by other sources shall be obtained from local meteorological studies. Ice thicknesses in exposed locations at elevations higher than the surrounding terrain and in valleys and gorges may exceed the mapped values.

AT&T

AT&T SITE NUMBER: CTL05123
AT&T SITE NAME: ROCKY HILL
AT&T FA CODE: 10071221
AT&T PACE NUMBER: MRCTB052883, MRCTB052194, MRCTB051506

AT&T PROJECT: 2021 CELL SITE CAPACITY MODIFICATIONS

BUSINESS UNIT #: 842872
SITE ADDRESS: 52 NEW BRITAIN AVENUE
ROCKY HILL, CT 06067
COUNTY: HARTFORD
STRUCTURE TYPE: MONOPOLE
TOWER HEIGHT: 182'-0"

SITE INFORMATION

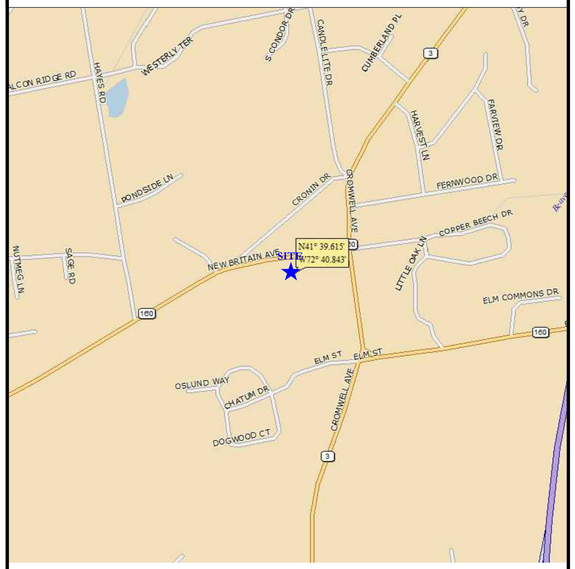
CROWN CASTLE USA INC. SITE NAME:	ROCKY HILL
SITE ADDRESS:	52 NEW BRITAIN AVENUE ROCKY HILL, CT 06067
COUNTY:	HARTFORD
PARCEL #:	09003119-08-354
AREA OF CONSTRUCTION:	EXISTING
LATITUDE:	41° 39' 36.89" (41.660247)
LONGITUDE:	-72° 40' 50.58" (-72.680717)
LAT/LONG TYPE:	NAD83
GROUND ELEVATION:	191' (AMSL)
CURRENT ZONING:	C
JURISDICTION:	TOWN OF ROCKY HILL
OCCUPANCY CLASSIFICATION:	U
TYPE OF CONSTRUCTION:	IIB
A.D.A. COMPLIANCE:	FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION
PROPERTY OWNER:	TOWN OF ROCKY HILL 761 OLD MAIN STREET ROCKY HILL, CT 06067
TOWER OWNER:	CROWN CASTLE USA INC. 2000 CORPORATE DRIVE CANONSBURG, PA 15317
CARRIER/APPLICANT:	AT&T MOBILITY 700 BELL STREET AKRON, OHIO 44307
ELECTRIC PROVIDER:	EVERSOURCE ENERGY (800) 286-2000
TELCO PROVIDER:	LIGHTOWER (855) 933-4237

DRAWING INDEX

SHEET #	SHEET DESCRIPTION
T-1	TITLE SHEET
T-2	GENERAL NOTES
C-1..1	COMPOUND PLAN
C-1.2	EQUIPMENT LAYOUT
C-2	FINAL ELEVATION & ANTENNA PLANS
C-3	EQUIPMENT DETAILS
C-4	EQUIPMENT DETAILS
C-5	COLOR CODE CHART
C-6	LTE RET NAMING CONVENTION
E-1	ELECTRICAL NOTES
E-2	EQUIPMENT ONE-LINE DIAGRAM
G-1	GROUNDING SCHEMATIC
G-2	GROUNDING DETAILS
ATTACHED	PLUMBING DIAGRAMS

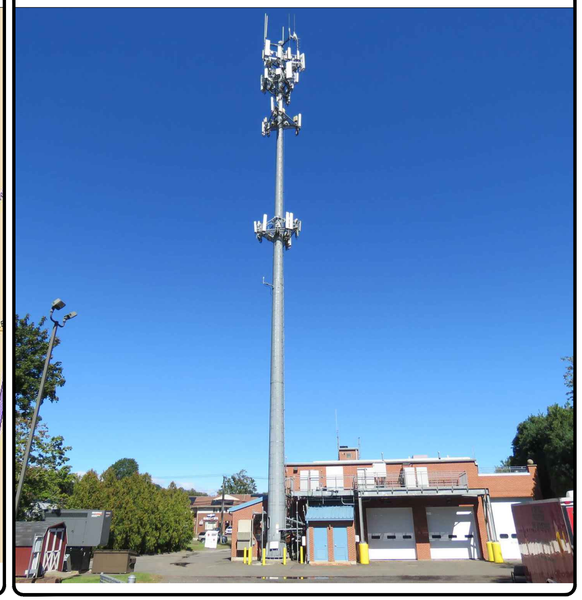
ALL DRAWINGS CONTAINED HEREIN ARE FORMATTED FOR 22x34. CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

LOCATION MAP



NO SCALE

SITE PHOTO



PROJECT TEAM

A&E FIRM:	TOWER ENGINEERING PROFESSIONALS 326 TRYON ROAD RALEIGH, NC 27603
	JOSEPH T. CRESS - PROJECT MANAGER (919) 703-4128
	GRAHAM M. ANDRES - CIVIL ENGINEER (919) 661-6351
	GRAHAM M. ANDRES - ELECTRICAL ENGINEER (919) 661-6351
CROWN CASTLE USA INC. DISTRICT CONTACTS:	12 GILL STREET, SUITE 5800 WOBURN, MA 01801
	PAUL PEDICONE - PROJECT MANAGER PAUL.PEDICONE@CROWNCASTLE.COM

NOTE:
PRIOR TO ACCESSING/ENTERING THE SITE YOU MUST CONTACT THE CROWN NOC AT (800) 788-7011 & CROWN CONSTRUCTION MANAGER.

PROJECT DESCRIPTION

THE PURPOSE OF THIS PROJECT IS TO ENHANCE BROADBAND CONNECTIVITY AND CAPACITY TO THE EXISTING ELIGIBLE WIRELESS FACILITY.

TOWER SCOPE OF WORK:
- REMOVE (3) 7770 ANTENNAS
- REMOVE (3) QS66512-2 ANTENNAS
- REMOVE (3) HPA-65R-BUU-H6 ANTENNAS
- REMOVE (6) RRUS-32 B2 RRUs
- REMOVE (6) LGP21401 TMAS
- REMOVE (6) 782-10250 DIPLEXERS
- REMOVE (1) DC6-48-60-0-8F
- REMOVE (12) COAX CABLES
- INSTALL (3) AIR6449 N77D ANTENNAS
- INSTALL (3) AIR6419 N77G ANTENNAS
- INSTALL (3) QD6616-7 ANTENNAS
- INSTALL (3) DMP65R-BU6EA-K ANTENNAS
- INSTALL (1) RRUS 4478 B14 RRU ON GAMMA SECTOR
- INSTALL (3) RRUS 4415 B25 RRUs
- INSTALL (1) DC9-48-60-24-8C-EV
- INSTALL (1) DC TRUNK 6AWG CABLE
- INSTALL (3) Y-CABLES
- INSTALL (3) FIBER TRUNK 24 PAIR CABLE

GROUND SCOPE OF WORK:
- REMOVE (1) UMTS CABINET
- REMOVE AND REPLACE (3) EXISTING STRING OF 170 AMP BATTERIES
- INSTALL (4) GE -48V RECTIFIER
- INSTALL (1) FIBER DEMARCATION BOX
- INSTALL (1) 6648 WITH XCEDE
- INSTALL (30) VERTIV UP-CONVERTERS
- INSTALL 23" FIF RACK
- INSTALL (2) 23" DISTRIBUTION SHELVES

APPLICABLE CODES/REFERENCE DOCUMENTS

ALL WORK SHALL BE PERFORMED AND MATERIALS INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES:

CODE TYPE	CODE
BUILDING	2018 CONNECTICUT BUILDING CODE/2015 IBC
MECHANICAL	2018 CONNECTICUT BUILDING CODE/2015 IMC
ELECTRICAL	2018 CONNECTICUT BUILDING CODE/2017 NEC

NOTE:
THE POWER DESIGN FOR ANY AC ELECTRICAL POWER CHANGES IS TO BE PERFORMED BY OTHERS AND IS SHOWN HEREIN FOR REFERENCE PURPOSES ONLY. AT&T IS SOLELY RESPONSIBLE FOR THE ELECTRICAL POWER DESIGN.

AT&T
700 BELL STREET
AKRON, OHIO 44307

CROWN CASTLE
12 GILL STREET, SUITE 5800
WOBURN, MA 01801

TOWER ENGINEERING PROFESSIONALS
326 TRYON RD
RALEIGH, NC 27603
(919) 661-6351
TEP JOB #: 25659.631384

AT&T SITE NUMBER:
CTL05123

BU #: **842872**
ROCKY HILL

52 NEW BRITAIN AVENUE
ROCKY HILL, CT 06067
(HARTFORD COUNTY)

EXISTING 182' MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
A	12/17/21	KDP	PRELIMINARY	DA
0	05/20/22	CAC	CONSTRUCTION	NH

STATE OF CONNECTICUT
SCOTT C. BRANTLY
05508
LICENSED PROFESSIONAL ENGINEER

05/20/22

SHEET NUMBER: T-1
REVISION: 0

CROWN CASTLE USA INC. SITE ACTIVITY REQUIREMENTS:

1. NOTICE TO PROCEED– NO WORK SHALL COMMENCE PRIOR TO CROWN CASTLE USA INC. WRITTEN NOTICE TO PROCEED (NTP) AND THE ISSUANCE OF A PURCHASE ORDER. PRIOR TO ACCESSING/ENTERING THE SITE YOU MUST CONTACT THE CROWN CASTLE USA INC. NOC AT 800–788–7011 & THE CROWN CASTLE USA INC. CONSTRUCTION MANAGER.
2. "LOOK UP" – CROWN CASTLE USA INC. SAFETY CLIMB REQUIREMENT:
THE INTEGRITY OF THE SAFETY CLIMB AND ALL COMPONENTS OF THE CLIMBING FACILITY SHALL BE CONSIDERED DURING ALL STAGES OF DESIGN, INSTALLATION, AND INSPECTION. TOWER MODIFICATION, MOUNT REINFORCEMENTS, AND/OR EQUIPMENT INSTALLATIONS SHALL NOT COMPROMISE THE INTEGRITY OR FUNCTIONAL USE OF THE SAFETY CLIMB OR ANY COMPONENTS OF THE CLIMBING FACILITY ON THE STRUCTURE. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO: PINCHING OF THE WIRE ROPE, BENDING OF THE WIRE ROPE FROM ITS SUPPORTS, DIRECT CONTACT OR CLOSE PROXIMITY TO THE WIRE ROPE WHICH MAY CAUSE FRICTIONAL WEAR, IMPACT TO THE ANCHORAGE POINTS IN ANY WAY, OR TO IMPEDE/BLOCK ITS INTENDED USE. ANY COMPROMISED SAFETY CLIMB, INCLUDING EXISTING CONDITIONS MUST BE TAGGED OUT AND REPORTED TO YOUR CROWN CASTLE USA INC. POC OR CALL THE NOC TO GENERATE A SAFETY CLIMB MAINTENANCE AND CONTRACTOR NOTICE TICKET.
3. PRIOR TO THE START OF CONSTRUCTION, ALL REQUIRED JURISDICTIONAL PERMITS SHALL BE OBTAINED. THIS INCLUDES, BUT IS NOT LIMITED TO, BUILDING, ELECTRICAL, MECHANICAL, FIRE, FLOOD ZONE, ENVIRONMENTAL, AND ZONING. AFTER ONSITE ACTIVITIES AND CONSTRUCTION ARE COMPLETED, ALL REQUIRED PERMITS SHALL BE SATISFIED AND CLOSED OUT ACCORDING TO LOCAL JURISDICTIONAL REQUIREMENTS.
4. ALL CONSTRUCTION MEANS AND METHODS; INCLUDING BUT NOT LIMITED TO, ERECTION PLANS, RIGGING PLANS, CLIMBING PLANS, AND RESCUE PLANS SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR RESPONSIBLE FOR THE EXECUTION OF THE WORK CONTAINED HEREIN, AND SHALL MEET ANSI/ASSE A10.48 (LATEST EDITION); FEDERAL, STATE, AND LOCAL REGULATIONS; AND ANY APPLICABLE INDUSTRY CONSENSUS STANDARDS RELATED TO THE CONSTRUCTION ACTIVITIES BEING PERFORMED. ALL RIGGING PLANS SHALL ADHERE TO ANSI/ASSE A10.48 (LATEST EDITION) AND CROWN CASTLE USA INC. STANDARD CED–STD–10253, INCLUDING THE REQUIRED INVOLVEMENT OF A QUALIFIED ENGINEER FOR CLASS IV CONSTRUCTION, TO CERTIFY THE SUPPORTING STRUCTURE(S) IN ACCORDANCE WITH ANSI/TIA–322 (LATEST EDITION).
5. ALL SITE WORK TO COMPLY WITH QAS–STD–10068 "INSTALLATION STANDARDS FOR CONSTRUCTION ACTIVITIES ON CROWN CASTLE USA INC. TOWER SITE," CED–STD–10294 "STANDARD FOR INSTALLATION OF MOUNTS AND APPURTENANCES," AND LATEST VERSION OF ANSI/TIA–1019–A–2012 "STANDARD FOR INSTALLATION, ALTERATION, AND MAINTENANCE OF ANTENNA SUPPORTING STRUCTURES AND ANTENNAS."
6. IF THE SPECIFIED EQUIPMENT CAN NOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY CROWN CASTLE USA INC. PRIOR TO PROCEEDING WITH ANY SUCH CHANGE OF INSTALLATION.
7. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES. 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 THE WORK. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
8. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
9. THE CONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES PRIOR TO THE START OF CONSTRUCTION.
10. ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES WHERE ENCOUNTERED IN THE WORK, SHALL BE PROTECTED AT ALL TIMES AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY CONTRACTOR. 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 WILL INCLUDE BUT NOT BE LIMITED TO A) FALL PROTECTION B) CONFINED SPACE C) ELECTRICAL SAFETY D) TRENCHING AND EXCAVATION E) CONSTRUCTION SAFETY PROCEDURES.
11. ALL SITE WORK SHALL BE AS INDICATED ON THE STAMPED CONSTRUCTION DRAWINGS AND PROJECT SPECIFICATIONS, LATEST APPROVED REVISION.
12. CONTRACTOR SHALL KEEP THE SITE FREE FROM ACCUMULATING WASTE MATERIAL, DEBRIS, AND TRASH AT THE COMPLETION OF THE WORK. IF NECESSARY, RUBBISH, STUMPS, DEBRIS, STICKS, STONES AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY.
13. ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED AND/OR CAPPED, PLUGGED OR OTHERWISE DISCONTINUED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, SUBJECT TO THE APPROVAL OF CONTRACTOR, TOWER OWNER, CROWN CASTLE USA INC., AND/OR LOCAL UTILITIES.
14. THE CONTRACTOR SHALL PROVIDE SITE SIGNAGE IN ACCORDANCE WITH THE TECHNICAL SPECIFICATION FOR SITE SIGNAGE REQUIRED BY LOCAL JURISDICTION AND SIGNAGE REQUIRED ON INDIVIDUAL PIECES OF EQUIPMENT, ROOMS, AND SHELTERS.
15. THE SITE SHALL BE GRADED TO CAUSE SURFACE WATER TO FLOW AWAY FROM THE CARRIER'S EQUIPMENT AND TOWER AREAS.
16. THE SUB GRADE SHALL BE COMPACTED AND BROUGHT TO A SMOOTH UNIFORM GRADE PRIOR TO FINISHED SURFACE APPLICATION.
17. THE AREAS OF THE OWNERS 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 AS SPECIFIED ON THE CONSTRUCTION DRAWINGS AND/OR PROJECT SPECIFICATIONS.
18. CONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE LOCAL GUIDELINES FOR EROSION AND SEDIMENT CONTROL.
19. 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 OWNER.
20. CONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.
21. CONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION. TRASH AND DEBRIS SHOULD BE REMOVED FROM SITE ON A DAILY BASIS.
22. NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUND. FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.

GENERAL NOTES:

1. FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY:
CONTRACTOR: GENERAL CONTRACTOR RESPONSIBLE FOR CONSTRUCTION
CARRIER: AT&T
TOWER OWNER: CROWN CASTLE USA INC.
2. THESE DRAWINGS HAVE BEEN PREPARED USING STANDARDS OF PROFESSIONAL CARE AND COMPLETENESS NORMALLY EXERCISED UNDER SIMILAR CIRCUMSTANCES BY REPUTABLE ENGINEERS IN THIS OR SIMILAR LOCALITIES. IT IS ASSUMED THAT THE WORK DEPICTED WILL BE PERFORMED BY AN EXPERIENCED CONTRACTOR AND/OR WORKPEOPLE WHO HAVE A WORKING KNOWLEDGE OF THE APPLICABLE CODE STANDARDS AND REQUIREMENTS AND OF INDUSTRY ACCEPTED STANDARD GOOD PRACTICE. AS NOT EVERY CONDITION OR ELEMENT IS (OR CAN BE) EXPLICITLY SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL USE INDUSTRY ACCEPTED STANDARD GOOD PRACTICE FOR MISCELLANEOUS WORK NOT EXPLICITLY SHOWN.
3. THESE DRAWINGS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE MEANS OR METHODS OF CONSTRUCTION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY FOR PROTECTION OF LIFE AND PROPERTY DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO, BRACING, FORMWORK, SHORING, ETC. SITE VISITS BY THE ENGINEER OR HIS REPRESENTATIVE WILL NOT INCLUDE INSPECTION OF THESE ITEMS AND IS FOR STRUCTURAL OBSERVATION OF THE FINISHED STRUCTURE ONLY.
4. NOTES AND DETAILS IN THE CONSTRUCTION DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS. WHERE NO DETAILS ARE SHOWN, CONSTRUCTION SHALL CONFORM TO SIMILAR WORK ON THE PROJECT, AND/OR AS PROVIDED FOR IN THE CONTRACT DOCUMENTS. WHERE DISCREPANCIES OCCUR BETWEEN PLANS, DETAILS, GENERAL NOTES, AND SPECIFICATIONS, THE GREATER, MORE STRICT REQUIREMENTS, SHALL GOVERN. IF FURTHER CLARIFICATION IS REQUIRED CONTACT THE ENGINEER OF RECORD.
5. SUBSTANTIAL EFFORT HAS BEEN MADE TO PROVIDE ACCURATE DIMENSIONS AND MEASUREMENTS ON THE DRAWINGS TO ASSIST IN THE FABRICATION AND/OR PLACEMENT OF CONSTRUCTION ELEMENTS BUT IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY THE DIMENSIONS, MEASUREMENTS, AND/OR CLEARANCES SHOWN IN THE CONSTRUCTION DRAWINGS PRIOR TO FABRICATION OR CUTTING OF ANY NEW OR EXISTING CONSTRUCTION ELEMENTS. IF IT IS DETERMINED THAT THERE ARE DISCREPANCIES AND/OR CONFLICTS WITH THE CONSTRUCTION DRAWINGS THE ENGINEER OF RECORD IS TO BE NOTIFIED AS SOON AS POSSIBLE.
6. PRIOR TO THE SUBMISSION OF BIDS, THE BIDDING CONTRACTOR SHALL VISIT THE CELL SITE TO FAMILIARIZE WITH THE EXISTING CONDITIONS AND TO CONFIRM THAT THE WORK CAN BE ACCOMPLISHED AS SHOWN ON THE CONSTRUCTION DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE ATTENTION OF CROWN CASTLE.
7. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES. 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 THE WORK. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
8. UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
9. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
10. IF THE SPECIFIED EQUIPMENT CAN NOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY THE CARRIER AND CROWN CASTLE PRIOR TO PROCEEDING WITH ANY SUCH CHANGE OF INSTALLATION.
11. CONTRACTOR IS TO PERFORM A SITE INVESTIGATION AND IS TO DETERMINE THE BEST ROUTING OF ALL CONDUITS FOR POWER, AND TELCO AND FOR GROUNDING CABLES AS SHOWN IN THE POWER, TELCO, AND GROUNDING PLAN DRAWINGS.
12. 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 CROWN CASTLE USA INC.
13. CONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.
14. CONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION. TRASH AND DEBRIS SHOULD BE REMOVED FROM SITE ON A DAILY BASIS.

CONCRETE, FOUNDATIONS, AND REINFORCING STEEL:

1. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 301, ACI 318, ACI 336, ASTM A184, ASTM A185 AND THE DESIGN AND CONSTRUCTION SPECIFICATION FOR CAST–IN–PLACE CONCRETE.
2. UNLESS NOTED OTHERWISE, SOIL BEARING PRESSURE USED FOR DESIGN OF SLABS AND FOUNDATIONS IS ASSUMED TO BE 1000 psf.
3. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH (f'c) OF 3000 psi AT 28 DAYS, UNLESS NOTED OTHERWISE. NO MORE THAN 90 MINUTES SHALL ELAPSE FROM BATCH TIME TO TIME OF PLACEMENT UNLESS APPROVED BY THE ENGINEER OF RECORD. TEMPERATURE OF CONCRETE SHALL NOT EXCEED 90°f AT TIME OF PLACEMENT.
4. CONCRETE EXPOSED TO FREEZE–THAW CYCLES SHALL CONTAIN AIR ENTRAINING ADMIXTURES. AMOUNT OF AIR ENTRAINMENT TO BE BASED ON SIZE OF AGGREGATE AND F3 CLASS EXPOSURE (VERY SEVERE). CEMENT USED TO BE TYPE II PORTLAND CEMENT WITH A MAXIMUM WATER–TO–CEMENT RATIO (W/C) OF 0.45.
5. ALL STEEL REINFORCING SHALL CONFORM TO ASTM A615. ALL WELDED WIRE FABRIC (WWF) SHALL CONFORM TO ASTM A185. ALL SPLICES SHALL BE CLASS "B" TENSION SPLICES, UNLESS NOTED OTHERWISE. ALL HOOKS SHALL BE STANDARD 90 DEGREE HOOKS, UNLESS NOTED OTHERWISE. YIELD STRENGTH (Fy) OF STANDARD DEFORMED BARS ARE AS FOLLOWS:
#4 BARS AND SMALLER....................40 ksi
#5 BARS AND LARGER....................60 ksi
6. THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING STEEL UNLESS SHOWN OTHERWISE ON DRAWINGS:
CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH....................3"
CONCRETE EXPOSED TO EARTH OR WEATHER:
#6 BARS AND LARGER....................2"
#5 BARS AND SMALLER....................1–1/2"
CONCRETE NOT EXPOSED TO EARTH OR WEATHER:
SLAB AND WALLS....................3/4"
BEAMS AND COLUMNS....................1–1/2"
7. A TOOLED EDGE OR A 3/4" CHAMFER SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE, UNLESS NOTED OTHERWISE, IN ACCORDANCE WITH ACI 301 SECTION 4.2.4.

ELECTRICAL INSTALLATION NOTES:

1. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, NEC AND ALL APPLICABLE FEDERAL, STATE, AND LOCAL CODES/ORDINANCES.
2. CONDUIT ROUTINGS ARE SCHEMATIC. CONTRACTOR SHALL INSTALL CONDUITS SO THAT ACCESS TO EQUIPMENT IS NOT BLOCKED AND TRIP HAZARDS ARE ELIMINATED.
3. WIRING, RACEWAY AND SUPPORT METHODS AND MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE NEC.
4. ALL CIRCUITS SHALL BE SEGREGATED AND MAINTAIN MINIMUM CABLE SEPARATION AS REQUIRED BY THE NEC.
4.1. ALL EQUIPMENT SHALL BEAR THE UNDERWRITERS LABORATORIES LABEL OF APPROVAL, AND SHALL CONFORM TO REQUIREMENT OF THE NATIONAL ELECTRICAL CODE.
4.2. ALL OVERCURRENT DEVICES SHALL HAVE AN INTERRUPTING CURRENT RATING THAT SHALL BE GREATER THAN THE SHORT CIRCUIT CURRENT TO WHICH THEY ARE SUBJECTED, 22,000 AIC MINIMUM. VERYIFY AVAILABLE SHORT CIRCUIT CURRENT DOES NOT EXCEED THE RATING OF ELECTRICAL EQUIPMENT IN ACCORDANCE WITH ARTICLE 110.24 NEC OR THE MOST CURRENT ADOPTED CODE PRE THE GOVERNING JURISDICTION.
5. EACH END OF EVERY POWER PHASE CONDUCTOR, GROUNDING CONDUCTOR, AND TELCO CONDUCTOR OR CABLE SHALL BE LABELED WITH COLOR–CODED INSULATION OR ELECTRICAL TAPE (3M BRAND, 1/2" PLASTIC ELECTRICAL TAPE WITH UV PROTECTION, OR EQUAL). THE IDENTIFICATION METHOD SHALL CONFORM WITH NEC AND OSHA.
6. ALL ELECTRICAL COMPONENTS SHALL BE CLEARLY LABELED WITH LAMICOID TAGS SHOWING THEIR RATED VOLTAGE, PHASE CONFIGURATION, WIRE CONFIGURATION, POWER OR AMPACITY RATING AND BRANCH CIRCUIT ID NUMBERS (i.e. PANEL BOARD AND CIRCUIT ID'S).
7. PANEL BOARDS (ID NUMBERS) SHALL BE CLEARLY LABELED WITH PLASTIC LABELS.
8. ALL TIE WRAPS SHALL BE CUT FLUSH WITH APPROVED CUTTING TOOL TO REMOVE SHARP EDGES.
9. ALL POWER AND EQUIPMENT GROUND WIRING IN TUBING OR CONDUIT SHALL BE SINGLE COPPER CONDUCTOR (#14 OR LARGER) WITH TYPE THHW, THWN, THWN–2, XHHW, XHHW–2, THW, THW–2, RHW, OR RHW–2 INSULATION UNLESS OTHERWISE SPECIFIED.
10. SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED INDOORS SHALL BE SINGLE COPPER CONDUCTOR (#6 OR LARGER) WITH TYPE THHW, THWN, THWN–2, XHHW, XHHW–2, THW, THW–2, RHW, OR RHW–2 INSULATION UNLESS OTHERWISE SPECIFIED.
11. POWER AND CONTROL WIRING IN FLEXIBLE CORD SHALL BE MULTI–CONDUCTOR, TYPE SOOW CORD (#14 OR LARGER) UNLESS OTHERWISE SPECIFIED.
12. POWER AND CONTROL WIRING FOR USE IN CABLE TRAY SHALL BE MULTI–CONDUCTOR, TYPE TC CABLE (#14 OR LARGER), WITH TYPE THHW, THWN, THWN–2, XHHW, XHHW–2, THW, THW–2, RHW, OR RHW–2 INSULATION UNLESS OTHERWISE SPECIFIED.
13. ALL POWER AND GROUNDING CONNECTIONS SHALL BE CRIMP–STYLE, COMPRESSION WIRE LUGS AND WIRE NUTS BY THOMAS AND BETTS (OR EQUAL). LUGS AND WIRE NUTS SHALL BE RATED FOR OPERATION NOT LESS THAN 75° C (90° C IF AVAILABLE).
14. RACEWAY AND CABLE TRAY SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND NEC.
15. ELECTRICAL METALLIC TUBING (EMT), INTERMEDIATE METAL CONDUIT (IMC), OR RIGID METAL CONDUIT (RMC) SHALL BE USED FOR EXPOSED INDOOR LOCATIONS.
16. ELECTRICAL METALLIC TUBING (EMT) OR METAL–CLAD CABLE (MC) SHALL BE USED FOR CONCEALED INDOOR LOCATIONS.
17. SCHEDULE 40 PVC UNDERGROUND ON STRAIGHTS AND SCHEDULE 80 PVC FOR ALL ELBOWS/90s AND ALL APPROVED ABOVE GRADE PVC CONDUIT.
18. LIQUID–TIGHT FLEXIBLE METALLIC CONDUIT (LIQUID–TITE FLEX) SHALL BE USED INDOORS AND OUTDOORS, WHERE VIBRATION OCCURS OR FLEXIBILITY IS NEEDED.
19. CONDUIT AND TUBING FITTINGS SHALL BE THREADED OR COMPRESSION–TYPE AND APPROVED FOR THE LOCATION USED. SET SCREW FITTINGS ARE NOT ACCEPTABLE.
20. CABINETS, BOXES AND WIRE WAYS SHALL BE LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND THE NEC.
21. WIREWAYS SHALL BE METAL WITH AN ENAMEL FINISH AND INCLUDE A HINGED COVER, DESIGNED TO SWING OPEN DOWNWARDS (WIREMOLD SPECMATE WIREWAY).
22. SLOTTED WIRING DUCT SHALL BE PVC AND INCLUDE COVER (PANDUIT TYPE E OR EQUAL).
23. CONDUITS SHALL BE FASTENED SECURELY IN PLACE WITH APPROVED NON–PERFORATED STRAPS AND HANGERS. EXPLOSIVE DEVICES (i.e. POWDER–ACTUATED) FOR ATTACHING HANGERS TO STRUCTURE WILL NOT BE PERMITTED. CLOSELY FOLLOW THE LINES OF THE STRUCTURE, MAINTAIN CLOSE PROXIMITY TO THE STRUCTURE AND KEEP CONDUITS IN TIGHT ENVELOPES. CHANGES IN DIRECTION TO ROUTE AROUND OBSTACLES SHALL BE MADE WITH CONDUIT OUTLET BODIES. CONDUIT SHALL BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER. PARALLEL AND PERPENDICULAR TO STRUCTURE WALL AND CEILING LINES. ALL CONDUIT SHALL BE FISHED TO CLEAR OBSTRUCTIONS. ENDS OF CONDUITS SHALL BE TEMPORARILY CAPPED FLUSH TO FINISH GRADE TO PREVENT CONCRETE, PLASTER OR DIRT FROM ENTERING. CONDUITS SHALL BE RIGIDLY CLAMPED TO BOXES BY GALVANIZED MALLEABLE IRON BUSHING ON INSIDE AND GALVANIZED MALLEABLE IRON LOCKNUT ON OUTSIDE AND INSIDE.
24. EQUIPMENT CABINETS, TERMINAL BOXES, JUNCTION BOXES AND PULL BOXES SHALL BE GALVANIZED OR EPOXY–COATED SHEET STEEL. SHALL MEET OR EXCEED UL 50 AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND NEMA 3R (OR BETTER) FOR EXTERIOR LOCATIONS.
25. METAL RECEPTACLE, SWITCH AND DEVICE BOXES SHALL BE GALVANIZED, EPOXY–COATED OR NON–CORRODING; SHALL MEET OR EXCEED UL 514A AND NEMA OS 1 AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND WEATHER PROTECTED (WP OR BETTER) FOR EXTERIOR LOCATIONS.
26. NONMETALLIC RECEPTACLE, SWITCH AND DEVICE BOXES SHALL MEET OR EXCEED NEMA OS 2 (NEWEST REVISION) AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND WEATHER PROTECTED (WP OR BETTER) FOR EXTERIOR LOCATIONS.
27. THE CONTRACTOR SHALL NOTIFY AND OBTAIN NECESSARY AUTHORIZATION FROM THE CARRIER AND/OR CROWN CASTLE USA INC. BEFORE COMMENCING WORK ON THE AC POWER DISTRIBUTION PANELS.
28. THE CONTRACTOR SHALL PROVIDE NECESSARY TAGGING ON THE BREAKERS, CABLES AND DISTRIBUTION PANELS IN ACCORDANCE WITH THE APPLICABLE CODES AND STANDARDS TO SAFEGUARD LIFE AND PROPERTY.
29. INSTALL LAMICOID LABEL ON THE METER CENTER TO SHOW "AT&T".
30. ALL EMPTY/SPARE CONDUITS THAT ARE INSTALLED ARE TO HAVE A METERED MULE TAPE PULL CORD INSTALLED.

CONDUCTOR COLOR CODE		
SYSTEM	CONDUCTOR	COLOR
120/240V, 1Ø	A PHASE	BLACK
	B PHASE	RED
	NEUTRAL	WHITE
	GROUND	GREEN
120/208V, 3Ø	A PHASE	BLACK
	B PHASE	RED
	C PHASE	BLUE
	NEUTRAL	WHITE
	GROUND	GREEN
277/480V, 3Ø	A PHASE	BROWN
	B PHASE	ORANGE OR PURPLE
	C PHASE	YELLOW
	NEUTRAL	GREY
	GROUND	GREEN
DC VOLTAGE	POS (+)	RED**
	NEG (–)	BLACK**

* SEE NEC 210.5(C)(1) AND (2)
** POLARITY MARKED AT TERMINATION

APWA UNIFORM COLOR CODE:

WHITE	PROPOSED EXCAVATION
PINK	TEMPORARY SURVEY MARKINGS
RED	ELECTRIC POWER LINES, CABLES, CONDUIT, AND LIGHTING CABLES
YELLOW	GAS, OIL, STEAM, PETROLEUM, OR GASEOUS MATERIALS
ORANGE	COMMUNICATION, ALARM OR SIGNAL LINES, CABLES, OR CONDUIT AND TRAFFIC LOOPS
BLUE	POTABLE WATER
PURPLE	RECLAIMED WATER, IRRIGATION, AND SLURRY LINES
GREEN	SEWERS AND DRAIN LINES

ABBREVIATIONS:

ANT	ANTENNA
(E)	EXISTING
FIF	FACILITY INTERFACE FRAME
GEN	GENERATOR
GPS	GLOBAL POSITIONING SYSTEM
GSM	GLOBAL SYSTEM FOR MOBILE
LTE	LONG TERM EVOLUTION
MGB	MASTER GROUND BAR
MW	MICROWAVE
(N)	NEW
NEC	NATIONAL ELECTRIC CODE
(P)	PROPOSED
PP	POWER PLANT
QTY	QUANTITY
RECT	RECTIFIER
RBS	RADIO BASE STATION
RET	REMOTE ELECTRIC TILT
RFDS	RADIO FREQUENCY DATA SHEET
RRH	REMOTE RADIO HEAD
RRU	REMOTE RADIO UNIT
SIAD	SMART INTEGRATED DEVICE
TMA	TOWER MOUNTED AMPLIFIER
TYP	TYPICAL
UMTS	UNIVERSAL MOBILE TELECOMMUNICATIONS SYSTEM
W.P.	WORK POINT

GREENFIELD GROUNDING NOTES:

1. ALL GROUND ELECTRODE SYSTEMS (INCLUDING TELECOMMUNICATION, RADIO, LIGHTNING PROTECTION AND AC POWER GES'S) SHALL BE BONDED TOGETHER AT OR BELOW GRADE, BY TWO OR MORE COPPER BONDING CONDUCTORS IN ACCORDANCE WITH THE NEC.
2. THE CONTRACTOR SHALL PERFORM IEEE FALL–OF–POTENTAL RESISTANCE TO EARTH TESTING (PER IEEE 1100 AND 81) FOR GROUND ELECTRODE SYSTEMS, THE CONTRACTOR SHALL FURNISH AND INSTALL SUPPLEMENTAL GROUND ELECTRODES AS NEEDED TO ACHIEVE A TEST RESULT OF 5 OHMS OR LESS.
3. THE CONTRACTOR IS RESPONSIBLE FOR PROPERLY SEQUENCING GROUNDING AND UNDERGROUND CONDUIT INSTALLATION AS TO PREVENT ANY LOSS OF CONTINUITY IN THE GROUNDING SYSTEM OR DAMAGE TO THE CONDUIT AND PROVIDE TESTING RESULTS.
4. METAL CONDUIT AND TRAY SHALL BE GROUNDED AND MADE ELECTRICALLY CONTINUOUS WITH LISTED BONDING FITTINGS OR BY BONDING ACROSS THE DISCONTINUITY WITH #6 COPPER WIRE UL APPROVED GROUNDING TYPE CONDUIT CLAMPS.
5. METAL RACEWAY SHALL NOT BE USED AS THE NEC REQUIRED EQUIPMENT GROUND CONDUCTOR. STRANDED COPPER CONDUCTORS WITH GREEN INSULATION, SIZED IN ACCORDANCE WITH THE NEC, SHALL BE FURNISHED AND INSTALLED WITH THE POWER CIRCUITS TO BTS EQUIPMENT.
6. EACH CABINET FRAME SHALL BE DIRECTLY CONNECTED TO THE MASTER GROUND BAR WITH GREEN INSULATED SUPPLEMENTAL EQUIPMENT GROUND WIRES, #6 STRANDED COPPER OR LARGER FOR INDOOR BTS; #2 BARE SOLID TINNED COPPER FOR OUTDOOR BTS.
7. CONNECTIONS TO THE GROUND BUS SHALL NOT BE DOUBLED UP OR STACKED BACK TO BACK CONNECTIONS ON OPPOSITE SIDE OF THE GROUND BUS ARE PERMITTED.
8. ALL EXTERIOR GROUND CONDUCTORS BETWEEN EQUIPMENT/GROUND BARS AND THE GROUND RING SHALL BE #2 SOLID TINNED COPPER UNLESS OTHERWISE INDICATED.
9. ALUMINUM CONDUCTOR OR COPPER CLAD STEEL CONDUCTOR SHALL NOT BE USED FOR GROUNDING CONNECTIONS.
10. USE OF 90° BENDS IN THE PROTECTION GROUNDING CONDUCTORS SHALL BE AVOIDED WHEN 45° BENDS CAN BE ADEQUATELY SUPPORTED.
11. EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE.
12. ALL GROUND CONNECTIONS ABOVE GRADE (INTERIOR AND EXTERIOR) SHALL BE FORMED USING HIGH PRESS CRIMPS.
13. COMPRESSION GROUND CONNECTIONS MAY BE REPLACED BY EXOTHERMIC WELD CONNECTIONS.
14. ICE BRIDGE BONDING CONDUCTORS SHALL BE EXOTHERMICALLY BONDED OR BOLTED TO THE BRIDGE AND THE TOWER GROUND BAR.
15. APPROVED ANTIOXIDANT COATINGS (i.e. CONDUCTIVE GEL OR PASTE) SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND CONNECTIONS.
16. ALL EXTERIOR GROUND CONNECTIONS SHALL BE COATED WITH A CORROSION RESISTANT MATERIAL.
17. MISCELLANEOUS ELECTRICAL AND NON–ELECTRICAL METAL BOXES, FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH THE NEC.
18. BOND ALL METALLIC OBJECTS WITHIN 6 ft OF MAIN GROUND RING WITH (1) #2 BARE SOLID TINNED COPPER GROUND CONDUCTOR.
19. GROUND CONDUCTORS USED FOR THE FACILITY GROUNDING AND LIGHTNING PROTECTION SYSTEMS SHALL NOT BE ROUTED THROUGH METALLIC OBJECTS THAT FORM A RING AROUND THE CONDUCTOR, SUCH AS METALLIC CONDUITS, METAL SUPPORT CLIPS OR SLEEVES THROUGH WALLS OR FLOORS. WHEN IT IS REQUIRED TO BE HOUSED IN CONDUIT TO MEET CODE REQUIREMENTS OR LOCAL CONDITIONS, NON–METALLIC MATERIAL SUCH AS PVC CONDUIT SHALL BE USED. WHERE USE OF METAL CONDUIT IS UNAVOIDABLE (i.e., NONMETALLIC CONDUIT PROHIBITED BY LOCAL CODE) THE GROUND CONDUCTOR SHALL BE BONDED TO EACH END OF THE METAL CONDUIT.
20. ALL GROUNDS THAT TRANSITION FROM BELOW GRADE TO ABOVE GRADE MUST BE #2 BARE SOLID TINNED COPPER IN 3/4" NON–METALLIC, FLEXIBLE CONDUIT FROM 24" BELOW GRADE TO WITHIN 3" TO 6" OF CAD–WELD TERMINATION POINT. THE EXPOSED END OF THE CONDUIT MUST BE SEALED WITH SILICONE CAULK. (ADD TRANSITIONING GROUND STANDARD DETAIL AS WELL).
21. BUILDINGS WHERE THE MAIN GROUNDING CONDUCTORS ARE REQUIRED TO BE ROUTED TO GRADE, THE CONTRACTOR SHALL ROUTE TWO GROUNDING CONDUCTORS FROM THE ROOFTOP, TOWERS, AND WATER TOWERS GROUNDING RING, TO THE EXISTING GROUNDING SYSTEM, THE GROUNDING CONDUCTORS SHALL NOT BE SMALLER THAN 2/0 COPPER. ROOFTOP GROUNDING RING SHALL BE BONDED TO THE EXISTING GROUNDING SYSTEM, THE BUILDING STEEL COLUMNS, LIGHTNING PROTECTION SYSTEM, AND BUILDING MAIN WATER LINE (FERROUS OR NONFERROUS METAL PIPING ONLY).

AT&T
700 BELL STREET
AKRON, OHIO 44307

CROWN CASTLE
12 GILL STREET, SUITE 5800
WOBURN, MA 01801

TOWER ENGINEERING PROFESSIONALS
326 TRYON RD
RALEIGH, NC 27603
(919) 661-6351

TEP JOB #: 25659.631384

AT&T SITE NUMBER:
CTL05123

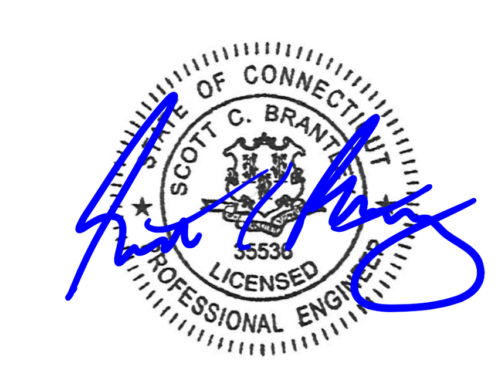
BU #: **842872**
ROCKY HILL

52 NEW BRITAIN AVENUE
ROCKY HILL, CT 06067
(HARTFORD COUNTY)

EXISTING 182' MONOPOLE

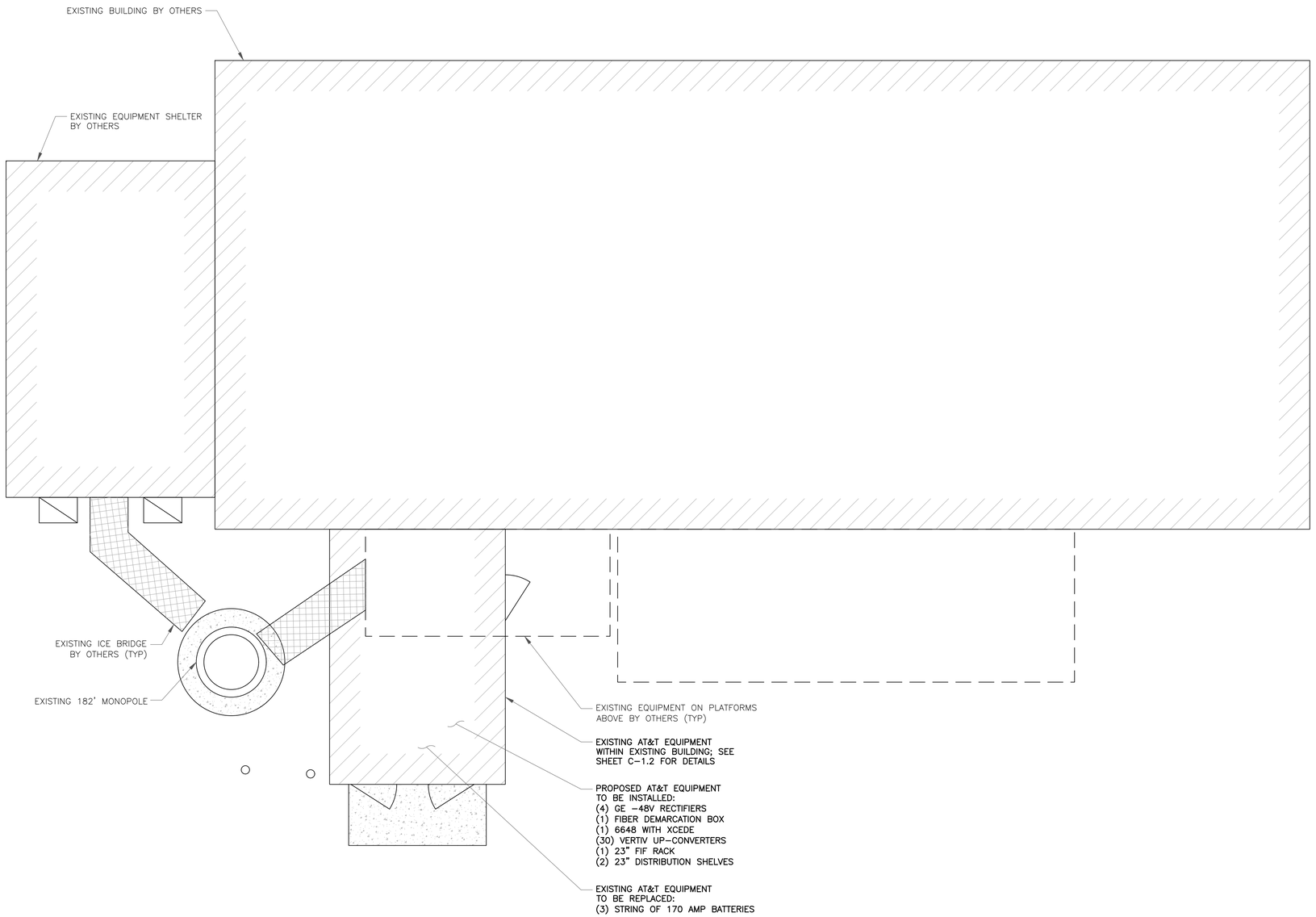
ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
A	12/17/21	KDP	PRELIMINARY	DA
0	05/20/22	CAC	CONSTRUCTION	NH



05/20/22

SHEET NUMBER: T-2
REVISION: 0



1 COMPOUND AREA

SCALE: 4' 3' 2' 1' 0 4' 1/4"=1'-0" (FULL SIZE) 1/8"=1'-0" (11x17)

N

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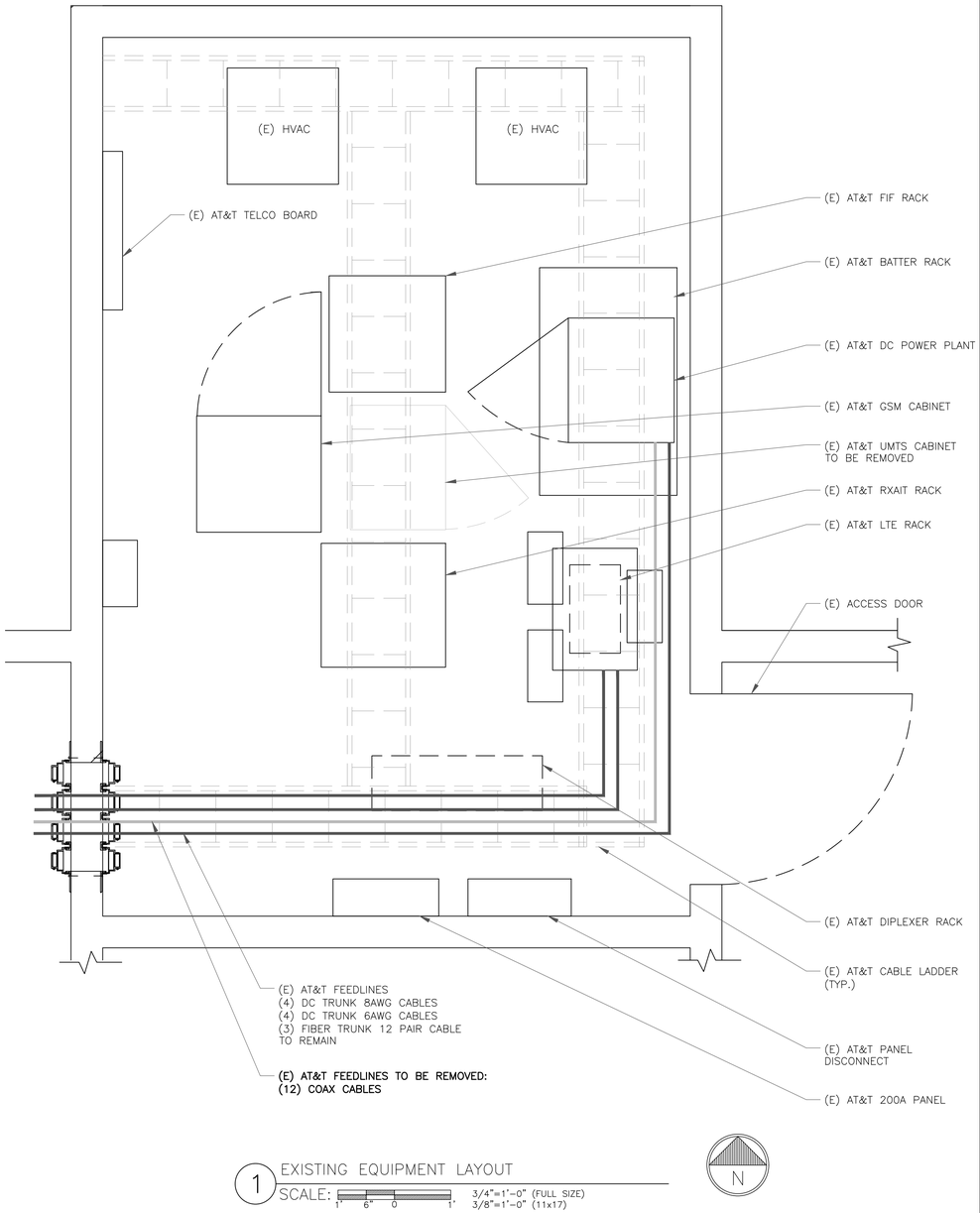
STATE OF CONNECTICUT
SCOTT C. BRANTLEY
20336
LICENSED PROFESSIONAL ENGINEER

05/20/22

SHEET NUMBER:	REVISION:
C-1.1	0

NOTE:

TEP DID NOT CONDUCT FIELD VISIT TO VERIFY LAYOUT. LAYOUT SHOWN BELOW GENERATED FROM INFORMATION PROVIDED BY CROWN CASTLE. FIELD VERIFY EXISTING CONDITIONS PRIOR TO CONSTRUCTION.

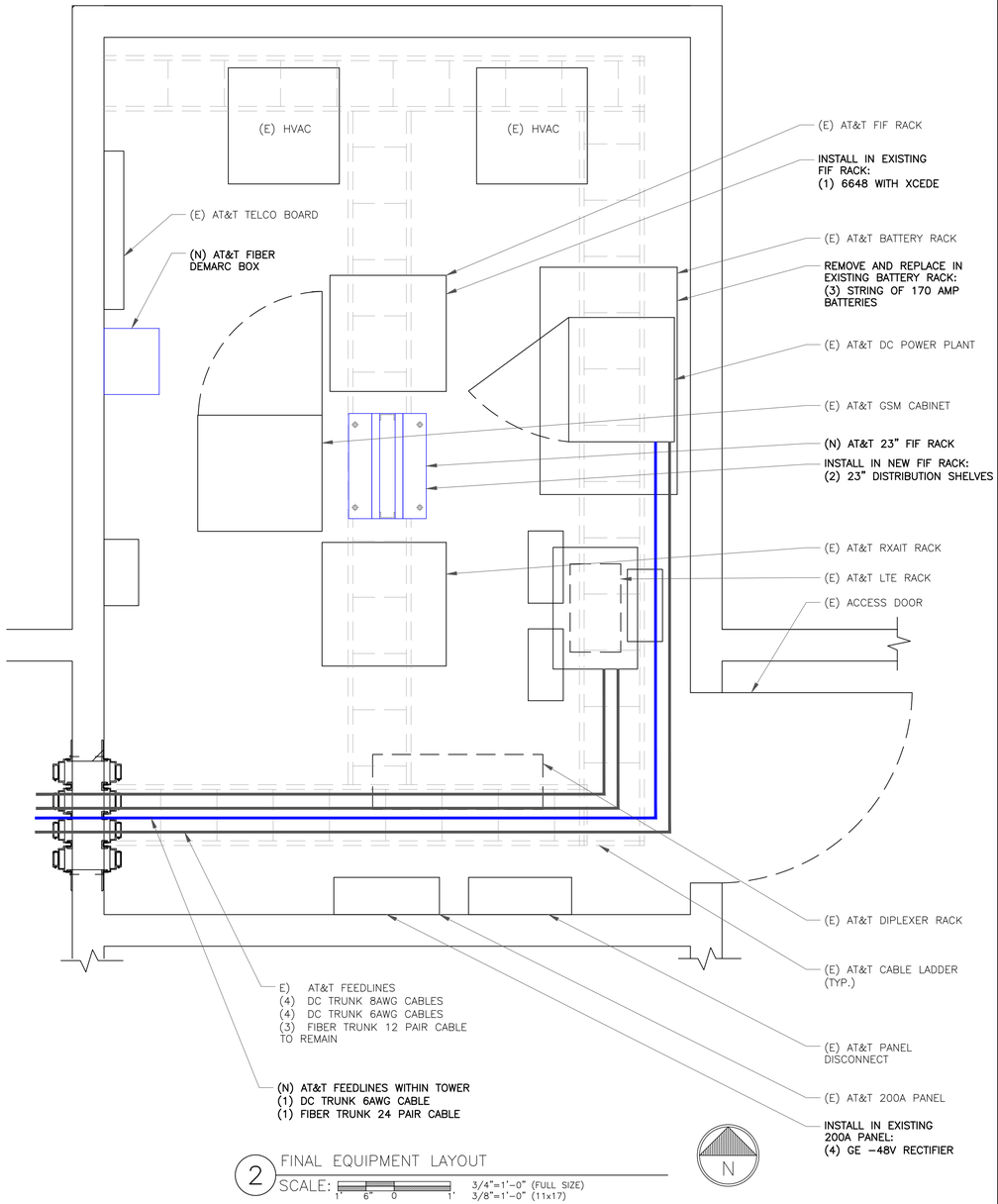


1 EXISTING EQUIPMENT LAYOUT

SCALE: 1" 6" 0 1' 3/4"=1'-0" (FULL SIZE) 3/8"=1'-0" (11x17)

GROUND SCOPE OF WORK:

- INSTALL (4) GE -48v RECTIFIERS IN (E) POWER PLANT
- INSTALL (30) VERTIV UP-CONVERTERS IN PROPOSED DISTRIBUTION SHELVES
- INSTALL (1) FIBER DEMARCATION BOX
- INSTALL (1) 66648 WITH XCEDEINSTALL (1) 23" FIF RACK
- INSTALL (2) 23" DISTRIBUTION SHELVES
- REMOVE AND REPLACE (3) STRING OF 170 AMP BATTERIES



2 FINAL EQUIPMENT LAYOUT

SCALE: 1" 6" 0 1' 3/4"=1'-0" (FULL SIZE) 3/8"=1'-0" (11x17)

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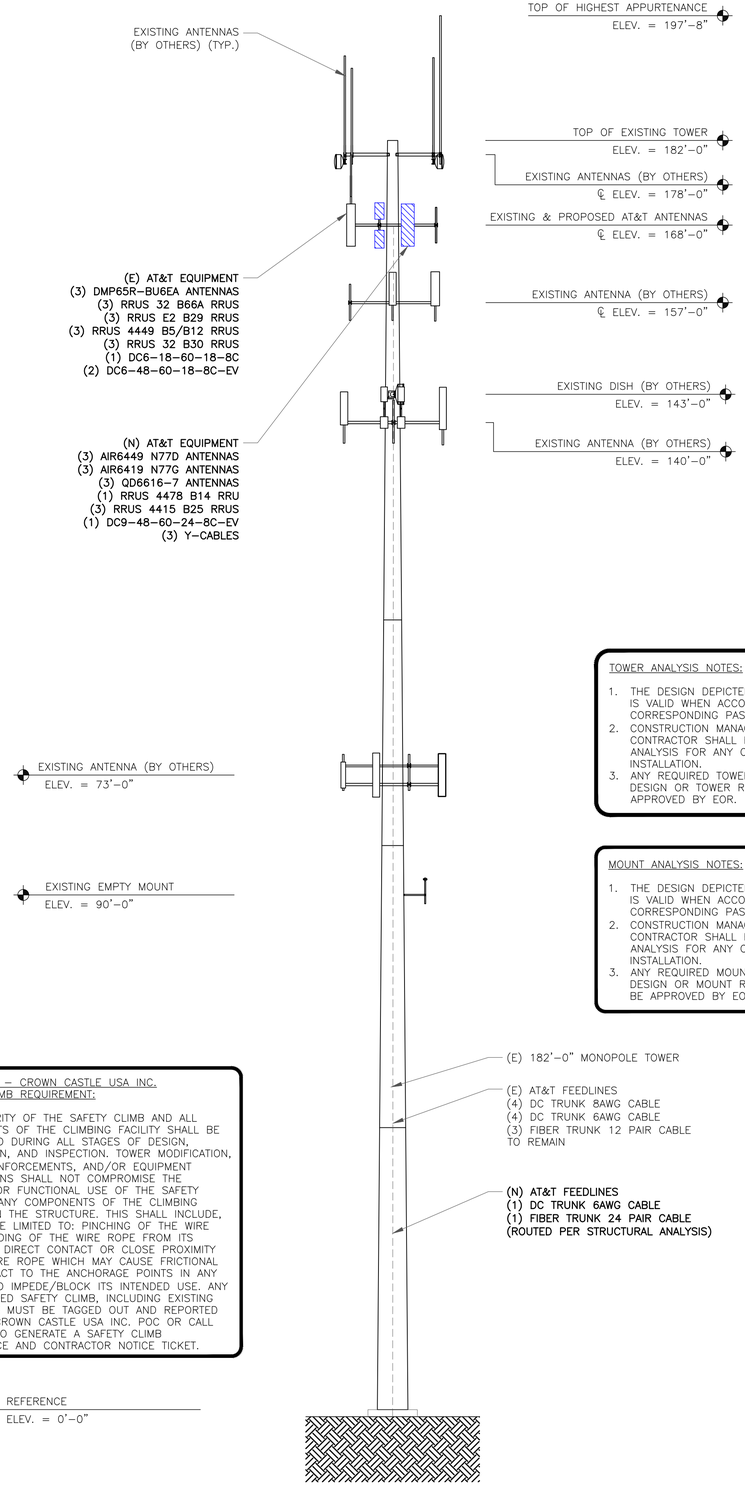
0	05/20/22	CAC	CONSTRUCTION	NH

05/20/22

SHEET NUMBER: C-1.2

REVISION: 0



1 FINAL ELEVATION
SCALE: NOT TO SCALE

"LOOK UP" – CROWN CASTLE USA INC.
SAFETY CLIMB REQUIREMENT:

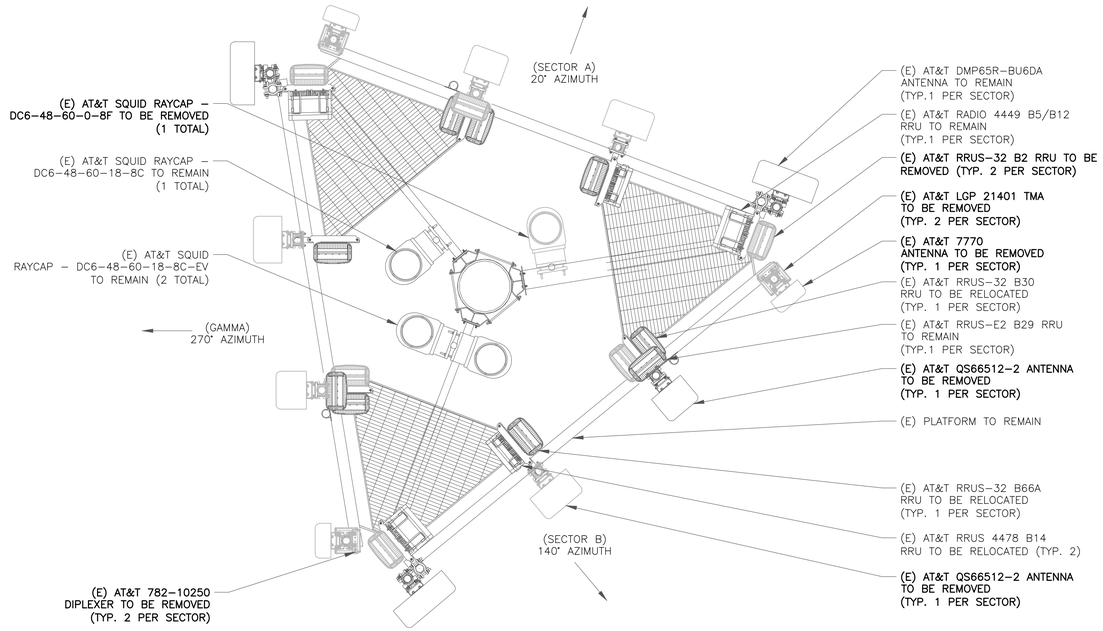
THE INTEGRITY OF THE SAFETY CLIMB AND ALL COMPONENTS OF THE CLIMBING FACILITY SHALL BE CONSIDERED DURING ALL STAGES OF DESIGN, INSTALLATION, AND INSPECTION. TOWER MODIFICATION, MOUNT REINFORCEMENTS, AND/OR EQUIPMENT INSTALLATIONS SHALL NOT COMPROMISE THE INTEGRITY OR FUNCTIONAL USE OF THE SAFETY CLIMB OR ANY COMPONENTS OF THE CLIMBING FACILITY ON THE STRUCTURE. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO: PINCHING OF THE WIRE ROPE, BENDING OF THE WIRE ROPE FROM ITS SUPPORTS, DIRECT CONTACT OR CLOSE PROXIMITY TO THE WIRE ROPE WHICH MAY CAUSE FRICTIONAL WEAR, IMPACT TO THE ANCHORAGE POINTS IN ANY WAY, OR TO IMPEDE/BLOCK ITS INTENDED USE. ANY COMPROMISED SAFETY CLIMB, INCLUDING EXISTING CONDITIONS MUST BE TAGGED OUT AND REPORTED TO YOUR CROWN CASTLE USA INC. POC OR CALL THE NOC TO GENERATE A SAFETY CLIMB MAINTENANCE AND CONTRACTOR NOTICE TICKET.

TOWER ANALYSIS NOTES:

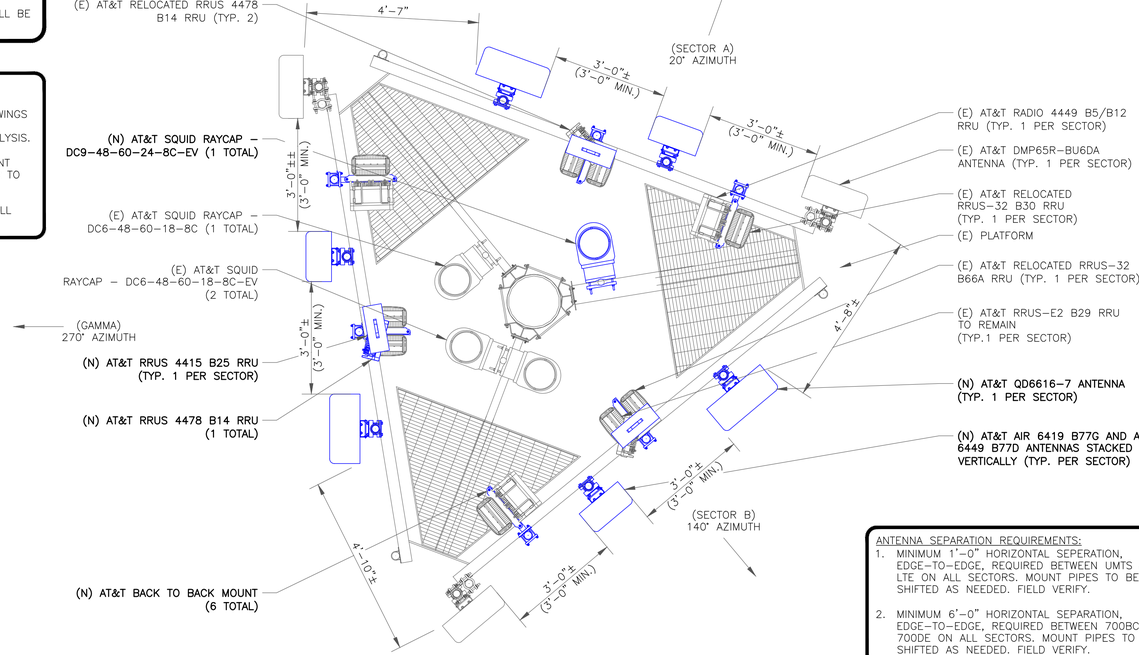
1. THE DESIGN DEPICTED IN THESE DRAWINGS IS VALID WHEN ACCOMPANIED BY A CORRESPONDING PASSING TOWER ANALYSIS.
2. CONSTRUCTION MANAGER / GENERAL CONTRACTOR SHALL REVIEW THE TOWER ANALYSIS FOR ANY CONDITIONS PRIOR TO INSTALLATION.
3. ANY REQUIRED TOWER MODIFICATION DESIGN OR TOWER REPLACEMENT SHALL BE APPROVED BY EOR.

MOUNT ANALYSIS NOTES:

1. THE DESIGN DEPICTED IN THESE DRAWINGS IS VALID WHEN ACCOMPANIED BY A CORRESPONDING PASSING MOUNT ANALYSIS.
2. CONSTRUCTION MANAGER / GENERAL CONTRACTOR SHALL REVIEW THE MOUNT ANALYSIS FOR ANY CONDITIONS PRIOR TO INSTALLATION.
3. ANY REQUIRED MOUNT MODIFICATION DESIGN OR MOUNT REPLACEMENT SHALL BE APPROVED BY EOR.



2 EXISTING ANTENNA PLAN
SCALE: 1/2"=1'-0" (FULL SIZE)
1/4"=1'-0" (11x17)



3 FINAL ANTENNA PLAN
SCALE: 1/2"=1'-0" (FULL SIZE)
1/4"=1'-0" (11x17)

ANTENNA SEPARATION REQUIREMENTS:

1. MINIMUM 1'-0" HORIZONTAL SEPERATION, EDGE-TO-EDGE, REQUIRED BETWEEN UMTS & LTE ON ALL SECTORS. MOUNT PIPES TO BE SHIFTED AS NEEDED. FIELD VERIFY.
2. MINIMUM 6'-0" HORIZONTAL SEPARATION, EDGE-TO-EDGE, REQUIRED BETWEEN 700BC AND 700DE ON ALL SECTORS. MOUNT PIPES TO BE SHIFTED AS NEEDED. FIELD VERIFY.

INSTALLER NOTES:

1. REFERENCE C-3 FOR FINAL EQUIPMENT SCHEDULE.
2. REFERENCE C-4 FOR NEW EQUIPMENT SPECIFICATIONS.
3. CONTRACTOR TO VERIFY FILTER LOCATION PRIOR TO INSTALLATION, WHEN APPLICABLE.

AT&T
700 BELL STREET
AKRON, OHIO 44307

CROWN CASTLE
12 GILL STREET, SUITE 5800
WOBURN, MA 01801

TOWER ENGINEERING PROFESSIONALS
326 TRYON RD
RALEIGH, NC 27603
(919) 661-6351
TEP JOB #: 25659.631384

AT&T SITE NUMBER:
CTL05123

BU #: **842872**
ROCKY HILL

52 NEW BRITAIN AVENUE
ROCKY HILL, CT 06067
(HARTFORD COUNTY)

EXISTING 182' MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
A	12/17/21	KDP	PRELIMINARY	DA
0	05/20/22	CAC	CONSTRUCTION	NH

05/20/22

SHEET NUMBER: C-2

REVISION: 0

EXISTING ANTENNA SCHEDULE PER RFDS DATED 05/09/2022, VERSION 4.00

SECTOR	ANTENNA					TMA	RRH	RAYCAP	DIPLEXER	TRANSMISSION LINE		
	POS.	TECHNOLOGY	AZIMUTH	MODEL NO.	RAD CL.	MODEL NO.	MODEL NO.	MODEL NO.	MODEL NO.	DC POWER	FIBER	COAX
A	A1	UMTS 850	20°	*POWERWAVE 7770	168'-0"	*(2) POWERWAVE – LGP21401	–	–	*(2) KATHREIN – 782-10250	(4) DC TRUNK 8AWG (4) DC TRUNK 6AWG	(3) FIBER TRUNK 12 PAIR	**2
	A2	LTE 700 LTE 1900 LTE WCS	20°	*QUINTEL QS66512-2	168'-0"	–	(1) RRUS-11 B12 *(1) RRUS-32 B2 (1) RRUS-32 B30	–	–			–
	A3	LTE 700 LTE AWS	20°	*CCI HPA-65R-BUU-H6	168'-0"	–	(1) RADIO 4478 B14 (1) RRUS-32 B66A	*(1) RAYCAP DC6-48-60-0-8F	–			**2
	A4	LTE 700 LTE 850, 5G 850 LTE 1900	20°	CCI DMP65R-BU6DA	168'-0"	–	(1) RADIO 49 B5/B12 *(1) RRUS-32 B2	–	–			–
B	B1	UMTS 850	140°	*POWERWAVE 7770	168'-0"	*(2) POWERWAVE – LGP21401	–	–	*(2) KATHREIN – 782-10250			**2
	B2	LTE 700 LTE 1900 LTE WCS	140°	*QUINTEL QS66512-2	168'-0"	–	(1) RRUS-11 B12 *(1) RRUS-32 B2 (1) RRUS-32 B30	–	–			–
	B3	LTE 700 LTE AWS	140°	*CCI HPA-65R-BUU-H6	168'-0"	–	(1) RADIO 4478 B14 (1) RRUS-32 B66A	(2) RAYCAP DC6-48-60-18-8C-EV	–			**2
	B4	LTE 700 LTE 850, 5G 850 LTE 1900	140°	CCI DMP65R-BU6DA	168'-0"	–	(1) RADIO 49 B5/B12 *(1) RRUS-32 B2	–	–			–
C	C1	UMTS 850	270°	*POWERWAVE 7770	168'-0"	*(2) POWERWAVE – LGP21401	–	–	*(2) KATHREIN – 782-10250			**2
	C2	LTE 700 LTE 1900 LTE WCS	270°	*QUINTEL QS66512-2	168'-0"	–	(1) RRUS-11 B12 *(1) RRUS-32 B2 (1) RRUS-32 B30	–	–			–
	C3	LTE 700 LTE AWS	270°	*CCI HPA-65R-BUU-H6	168'-0"	–	(1) RRUS-32 B66A	(1) RAYCAP DC6-48-60-18-8C	–			**2
	C4	LTE 700 LTE 850, 5G 850 LTE 1900	270°	CCI DMP65R-BU6DA	168'-0"	–	(1) RADIO 49 B5/B12 *(1) RRUS-32 B2	–	–			–

*ANTENNA/TOWER MOUNTED EQUIPMENT TO BE REMOVED
**COAX TO BE REMOVED

1 EXISTING EQUIPMENT SCHEDULE
SCALE: NOT TO SCALE

FINAL ANTENNA SCHEDULE PER RFDS DATED 05/09/2022, VERSION 4.00

SECTOR	ANTENNA					TMA	RRH	RAYCAP	DIPLEXER	TRANSMISSION LINE			
	POS.	TECHNOLOGY	AZIMUTH	MODEL NO.	RAD CL.	MODEL NO.	MODEL NO.	MODEL NO.	MODEL NO.	DC POWER	FIBER	COAX	ADDITIONAL COMPONENT
A	A1	–	–	–	168'-0"	–	–	–	–	(4) DC TRUNK 8AWG (4) DC TRUNK 6AWG (1) DC TRUNK 6AWG	(3) FIBER TRUNK 12 PAIR (1) FIBER TRUNK 24 PAIR	–	–
	A2	**LTE 700, LTE AWS, LTE 1900, 5G 1900, 5G AWS**	**40°**	**QUINTEL QD6616-7**	168'-0"	–	(1) RRH 4478 B14 (1) RRUS-32 B66A, (1) RRUS-E2 B29 **(1) RRH 4415 B25**	–	–			–	–
	A3A	**5G DoD**	**40°**	**ERICSSON AIR6419 N77D**	169'-0"	–	**–**	**(1) RAYCAP DC9-48-60-24-8C-EV**	–			–	–
	A3B	**5G CBAND**	**40°**	**ERICSSON AIR6449 N77D**	167'-0"	–	**–**	–	–			–	–
	A4	LTE 700, LTE WCS, 5G 850	40°	CCI DMP65R-BU6DA	168'-0"	–	(1) RRH 4449 B5/B12 (1) RRH RRUS-32 B30	–	–			–	(1) Y-CABLE
B	B1	–	140°	–	168'-0"	–	–	–	–			–	–
	B2	**LTE 700, LTE AWS, LTE 1900, 5G 1900, 5G AWS**	140°	**QUINTEL QD6616-7**	168'-0"	–	(1) RRH 4478 B14 (1) RRUS-32 B66A, (1) RRUS-E2 B29 **(1) RRH 4415 B25**	–	–			–	–
	B3A	**5G DoD**	**140°**	**ERICSSON AIR6419 N77D**	169'-0"	–	**–**	(2) RAYCAP DC6-48-60-18-8C-EV	–			–	–
	B3B	**5G CBAND**	**140°**	**ERICSSON AIR6449 N77D**	167'-0"	–	**–**	–	–			–	–
	B4	LTE 700, LTE WCS, 5G 850	140°	CCI DMP65R-BU6DA	168'-0"	–	(1) RRH 4449 B5/B12 (1) RRH RRUS-32 B30	–	–			–	(1) Y-CABLE
C	C1	–	270	–	168'-0"	–	–	–	–			–	–
	C2	**LTE 700, LTE AWS, LTE 1900, 5G 1900, 5G AWS**	270	**QUINTEL QD6616-7**	168'-0"	–	**(1) RRH 4478 B14** (1) RRUS-32 B66A, (1) RRUS-E2 B29 **(1) RRH 4415 B25**	–	–			–	–
	C3A	**5G DoD**	–	**ERICSSON AIR6419 N77D**	169'-0"	–	**–**	(1) RAYCAP DC6-48-60-18-8C	–			–	–
	C3B	**5G CBAND**	270	**ERICSSON AIR6449 N77D**	167'-0"	–	**–**	–	–			–	–
	C4	LTE 700, LTE WCS, 5G 850	270	CCI DMP65R-BU6DA	168'-0"	–	(1) RRH 4449 B5/B12 (1) RRH RRUS-32 B30	–	–			–	(1) Y-CABLE

NEW ANTENNA/TOWER MOUNTED EQUIPMENT IN BOLD.

2 FINAL EQUIPMENT SCHEDULE
SCALE: NOT TO SCALE

AT&T
700 BELL STREET
AKRON, OHIO 44307

CROWN CASTLE
12 GILL STREET, SUITE 5800
WOBURN, MA 01801

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TEP JOB #: 25659.631384

AT&T SITE NUMBER:
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BU #: **842872**
ROCKY HILL

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ROCKY HILL, CT 06067
(HARTFORD COUNTY)

EXISTING 182' MONOPOLE

ISSUED FOR:

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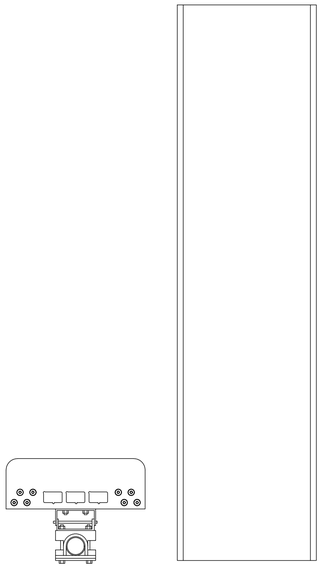
0	05/20/22	CAC	CONSTRUCTION	NH

05/20/22

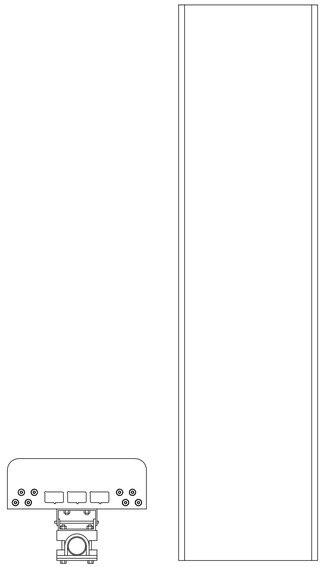
SHEET NUMBER: C-3

REVISION: 0



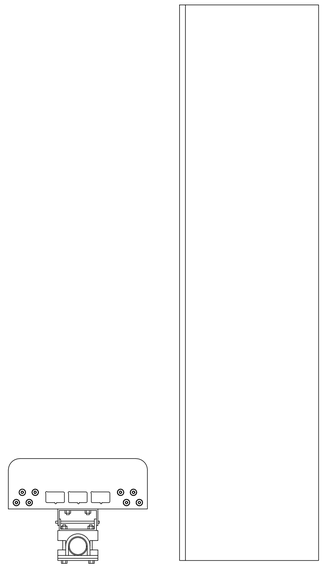
ERICSSON – AIR 6419 B77G
WEIGHT (WITHOUT MOUNTING HARDWARE): 66.20 LBS
SIZE (HxWxD): 27.95x15.75x6.68 IN.

1 ERICSSON – AIR 6419 B77G
SCALE: NOT TO SCALE



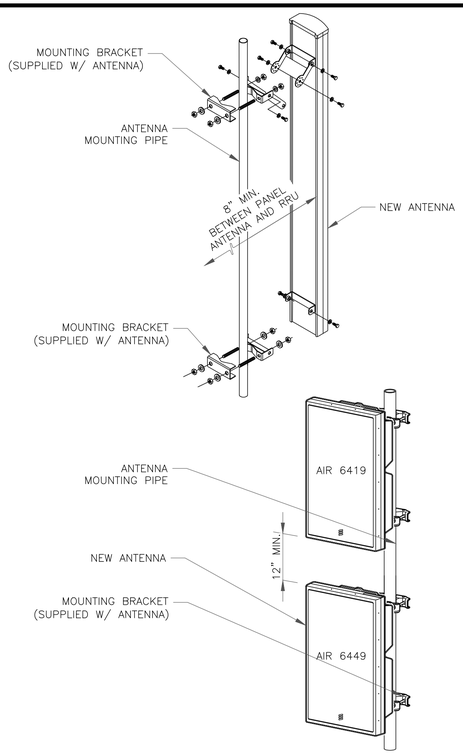
ERICSSON – AIR 6449 B77D
WEIGHT (WITHOUT MOUNTING HARDWARE): 81.60 LBS
SIZE (HxWxD): 30.39x15.87x8.07 IN.

2 ERICSSON – AIR 6419 B77D
SCALE: NOT TO SCALE

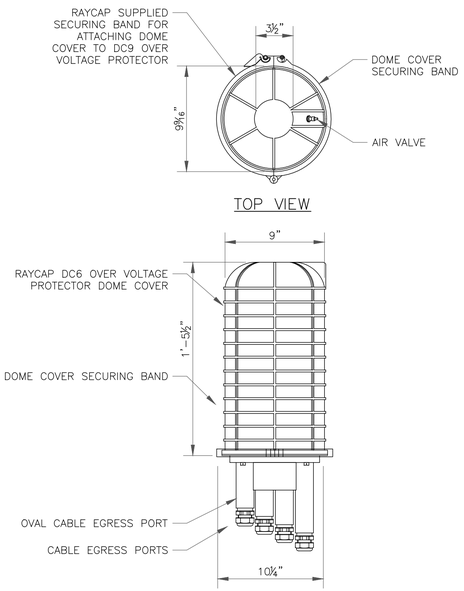


QUINTEL – QD6616-7
WEIGHT (WITHOUT MOUNTING HARDWARE): 81.60 LBS
SIZE (HxWxD): 72.0x22.0x9.60 IN.

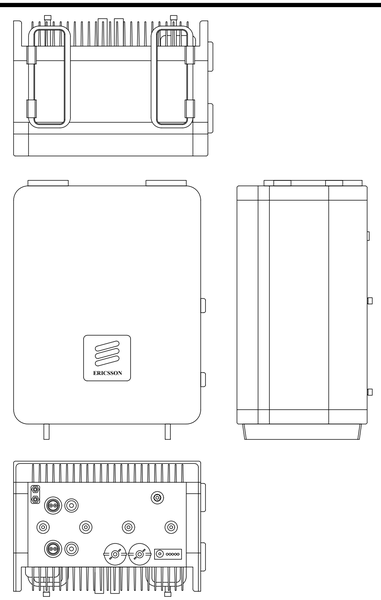
3 QUINTEL – QD6616-7
SCALE: NOT TO SCALE



4 ANTENNA MOUNTING DETAIL
SCALE: NOT TO SCALE

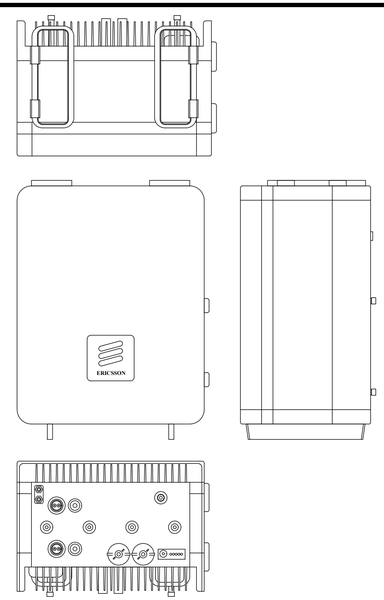


5 RAYCAP–DC9–48–60–24–8C–EV
SCALE: NOT TO SCALE



ERICSSON – RADIO 4415 B25
WEIGHT: 75.0 LBS
SIZE (HxWxD): 16.50X13.4X5.9 IN.

6 ERICSSON – RADIO RRUS 4415 B25
SCALE: NOT TO SCALE

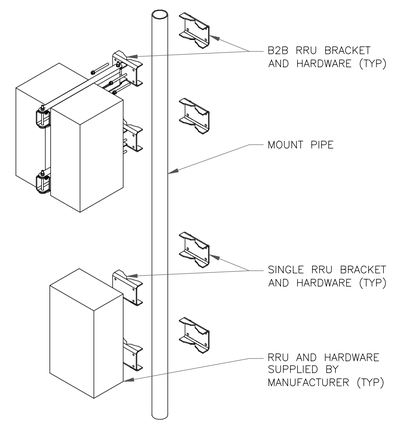


ERICSSON – RADIO 4478 B14
WEIGHT: 59.9 LBS
SIZE (HxWxD): 16.5X13.4X7.7 IN.

7 ERICSSON – RADIO 4478 B14
SCALE: NOT TO SCALE

INSTALLER NOTES:

1. COMPLY WITH MANUFACTURERS INSTRUCTIONS TO ENSURE THAT ALL RRUs RECEIVE ELECTRICAL POWER WITHIN 24 HOURS OF BEING REMOVED FROM THE MANUFACTURER'S PACKAGING.
2. DO NOT OPEN RRU PACKAGES IN THE RAIN.
3. ALL PIPES, BRACKETS, AND MISCELLANEOUS HARDWARE TO BE GALVANIZED UNLESS NOTED OTHERWISE.



8 RRHs MOUNTING DETAIL
SCALE: NOT TO SCALE

AT&T
700 BELL STREET
AKRON, OHIO 44307

CROWN CASTLE
12 GILL STREET, SUITE 5800
WOBURN, MA 01801

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ROCKY HILL

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EXISTING 182' MONOPOLE

ISSUED FOR:

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0	05/20/22	CAC	CONSTRUCTION	NH

STATE OF CONNECTICUT
SCOTT C. BRANTLEY
35536
LICENSED PROFESSIONAL ENGINEER

05/20/22

SHEET NUMBER: C-4

REVISION: 0

Table 1: E. PA/S. NJ/DE Coax Trunk/Jumper Color Code Definition		
Sector	Alpha	Green
	Beta	Blue
	Gamma	White
	Delta	Orange
	Epsilon	Brown
	Psi	Violet
Frequency Band	700 (B/C)	Violet
	850	Yellow
	850 - 2nd Block	Yellow
	1900	Red
	1900 - 2nd Block	Red
	2100 (AWS)	Orange
	2100 (AWS) - 2nd Block	Orange
	2300 (WCS)	Brown
	2300 (WCS) - 2nd Block	Brown
	700 (D/E)	Slate
	700 - FIRSTNET	Violet/ Blue

Table 2 E. PA/S. NJ/DE Coax Trunk/Jumper Color Code Standard

Sector	Technology	Frequency Band	Color Code - Additional Stripe for Sector Split	Color Code - Sector (Amount of Stripes based on Antenna Position)	BOTTOM- Code Code - Frequency Band (RRH JUMPERS ONLY)	45+ Coax	45- Coax	TOP- Low Port (ANTENNA JUMPERS ONLY)	TOP- High Port (ANTENNA JUMPERS ONLY)
A	LTE	700 B/C	Blank	GREEN	VIOLET	YELLOW	Blank	Blank	RED
A	LTE	850	Blank	GREEN	YELLOW	YELLOW	Blank	Blank	RED
A	LTE	850 - 2nd Block	Blank	GREEN	YELLOW	YELLOW	Blank	Blank	RED
A	LTE	1900	Blank	GREEN	RED	YELLOW	Blank	Blank	RED
A	LTE	1900 - 2nd Block	Blank	GREEN	RED	YELLOW	Blank	Blank	RED
A	LTE	2100	Blank	GREEN	ORANGE	YELLOW	Blank	Blank	RED
A	LTE	2100 - 2nd Block	Blank	GREEN	ORANGE	YELLOW	Blank	Blank	RED
A	LTE	700 D/E	Blank	GREEN	SLATE	YELLOW	Blank	Blank	RED
A	LTE	2300	Blank	GREEN	BROWN	YELLOW	Blank	Blank	RED
A	LTE	2300 - 2nd Block	Blank	GREEN	BROWN	YELLOW	Blank	Blank	RED
A	LTE FirstNet	700 - FirstNet	Blank	GREEN	VIOLET / BLUE	YELLOW	Blank	Blank	RED
A	UMTS	850	Blank	GREEN	YELLOW	YELLOW	Blank	Blank	RED
A	UMTS	1900	Blank	GREEN	RED	YELLOW	Blank	Blank	RED
B	LTE	700 B/C	Blank	BLUE	VIOLET	YELLOW	Blank	Blank	RED
B	LTE	850	Blank	BLUE	YELLOW	YELLOW	Blank	Blank	RED
B	LTE	850 - 2nd Block	Blank	BLUE	YELLOW	YELLOW	Blank	Blank	RED
B	LTE	1900	Blank	BLUE	RED	YELLOW	Blank	Blank	RED
B	LTE	1900 - 2nd Block	Blank	BLUE	RED	YELLOW	Blank	Blank	RED
B	LTE	2100	Blank	BLUE	ORANGE	YELLOW	Blank	Blank	RED
B	LTE	2100 - 2nd Block	Blank	BLUE	ORANGE	YELLOW	Blank	Blank	RED
B	LTE	700 D/E	Blank	BLUE	SLATE	YELLOW	Blank	Blank	RED
B	LTE	2300	Blank	BLUE	BROWN	YELLOW	Blank	Blank	RED
B	LTE	2300 - 2nd Block	Blank	BLUE	BROWN	YELLOW	Blank	Blank	RED
B	LTE FirstNet	700 - FirstNet	Blank	BLUE	VIOLET / BLUE	YELLOW	Blank	Blank	RED
B	UMTS	850	Blank	BLUE	YELLOW	YELLOW	Blank	Blank	RED
B	UMTS	1900	Blank	BLUE	RED	YELLOW	Blank	Blank	RED
C	LTE	700 B/C	Blank	WHITE	VIOLET	YELLOW	Blank	Blank	RED
C	LTE	850	Blank	WHITE	YELLOW	YELLOW	Blank	Blank	RED
C	LTE	850 - 2nd Block	Blank	WHITE	YELLOW	YELLOW	Blank	Blank	RED
C	LTE	1900	Blank	WHITE	RED	YELLOW	Blank	Blank	RED
C	LTE	1900 - 2nd Block	Blank	WHITE	RED	YELLOW	Blank	Blank	RED
C	LTE	2100	Blank	WHITE	ORANGE	YELLOW	Blank	Blank	RED
C	LTE	2100 - 2nd Block	Blank	WHITE	ORANGE	YELLOW	Blank	Blank	RED
C	LTE	700 D/E	Blank	WHITE	SLATE	YELLOW	Blank	Blank	RED
C	LTE	2300	Blank	WHITE	BROWN	YELLOW	Blank	Blank	RED
C	LTE	2300 - 2nd Block	Blank	WHITE	BROWN	YELLOW	Blank	Blank	RED
C	LTE FirstNet	700 - FirstNet	Blank	WHITE	VIOLET / BLUE	YELLOW	Blank	Blank	RED
C	UMTS	850	Blank	WHITE	YELLOW	YELLOW	Blank	Blank	RED
C	UMTS	1900	Blank	WHITE	RED	YELLOW	Blank	Blank	RED
D	LTE	700 B/C	Blank	ORANGE	VIOLET	YELLOW	Blank	Blank	RED
D	LTE	850	Blank	ORANGE	YELLOW	YELLOW	Blank	Blank	RED
D	LTE	850 - 2nd Block	Blank	ORANGE	YELLOW	YELLOW	Blank	Blank	RED
D	LTE	1900	Blank	ORANGE	RED	YELLOW	Blank	Blank	RED
D	LTE	1900 - 2nd Block	Blank	ORANGE	RED	YELLOW	Blank	Blank	RED
D	LTE	2100	Blank	ORANGE	ORANGE	YELLOW	Blank	Blank	RED
D	LTE	2100 - 2nd Block	Blank	ORANGE	ORANGE	YELLOW	Blank	Blank	RED
D	LTE	700 D/E	Blank	ORANGE	SLATE	YELLOW	Blank	Blank	RED
D	LTE	2300	Blank	ORANGE	BROWN	YELLOW	Blank	Blank	RED
D	LTE	2300 - 2nd Block	Blank	ORANGE	BROWN	YELLOW	Blank	Blank	RED
D	LTE FirstNet	700 - FirstNet	Blank	ORANGE	VIOLET / BLUE	YELLOW	Blank	Blank	RED
D	UMTS	850	Blank	ORANGE	YELLOW	YELLOW	Blank	Blank	RED
D	UMTS	1900	Blank	ORANGE	RED	YELLOW	Blank	Blank	RED

COAX COLOR CODE

1 COLOR CODE CHART

SCALE: 1" 6" 0 1" 3/4"=1'-0" (FULL SIZE) 3/8"=1'-0" (11x17)

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STATE OF CONNECTICUT · SCOTT C. BRANT · 35956 · LICENSED PROFESSIONAL ENGINEER

05/20/22

SHEET NUMBER: C-5

REVISION: 0

3. ATT Naming Convention for "RET NAME"

ATT-002-290-125 (Issue 8, 02/03/14)
Antenna Remote Electrical Tilt (RET) Guidelines

Usage: [USID][CellId1][CellId2][CellId3][AntPos][FrequencyBand][Tech]

USID						CellId 1	CellId 2	CellId 3	AntPos	Freq	Tech
1	2	3	4	5	6	7	8	9	10	11	12

Field	Length	Description	
USID	6	Six characters that define the sites USID. USID's less than 6 characters in length are preceded with 0's (zeros) (example: 003831)	
CellId1	1	Allowed Value	Description
		A	Alpha
		B	Beta
		C	Gamma
CellId2	1	D	Delta
		E	Epsilon
CellId3	1	F	Zeta
		-	No Transmitter connected to this port
AntPos	1	Allowed Value	Description
		1	Antenna Position 1 on this face
		2	Antenna Position 2 on this face
		3	Antenna Position 3 on this face
		4	Antenna Position 4 on this face
		5	Antenna Position 5 on this face
FreqBand	1	Allowed Value	Description
		2	2100 MHz (AWS)
		7	700 MHz
		8	850 MHz
		9	1900 MHz
		Q	700 MHz D & E Band Only
		W	2300 MHz (WCS)

Field	Length	Description				
Tech	1	Allowed Value	GSM	UMTS	LTE	Split Sector
		G	GSM			
		J	GSM	UMTS		
		K	GSM		LTE	
		L			LTE	
		N				
		U		UMTS		
		V		UMTS	LTE	
		Y	GSM	UMTS	LTE	
		H	GSM			Split
		M	GSM	UMTS		Split
		P	GSM		LTE	Split
		Q			LTE	Split
		R				Split
		S		UMTS		Split
		T		UMTS	LTE	Split

1 LTE RET NAMING CONVENTION
SCALE: 1" 6" 0 1" 3/4"=1'-0" (FULL SIZE) 3/8"=1'-0" (11x17)

AT&T
700 BELL STREET
AKRON, OHIO 44307

CROWN CASTLE
12 GILL STREET, SUITE 5800
WOBURN, MA 01801

TOWER ENGINEERING PROFESSIONALS
326 TRYON RD
RALEIGH, NC 27603
(919) 661-6351
TEP JOB #: 25659.631384

AT&T SITE NUMBER:
CTL05123

BU #: **842872**
ROCKY HILL

52 NEW BRITAIN AVENUE
ROCKY HILL, CT 06067
(HARTFORD COUNTY)

EXISTING 182' MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
A	12/17/21	KDP	PRELIMINARY	DA
0	05/20/22	CAC	CONSTRUCTION	NH

STATE OF CONNECTICUT
SCOTT C. BRANTLEY
25550
LICENSED PROFESSIONAL ENGINEER

05/20/22

SHEET NUMBER: C-6
REVISION: 0

SCOPE:

1. PROVIDE LABOR, MATERIALS, INSPECTION, AND TESTING TO PROVIDE CODE COMPLIANCE FOR ELECTRIC, TELEPHONE, AND GROUNDING/LIGHTNING SYSTEMS.

CODES:

1. THE INSTALLATION SHALL COMPLY WITH APPLICABLE LAWS AND CODES. THESE INCLUDE BUT ARE NOT LIMITED TO THE LATEST ADOPTED EDITIONS OF:
   A. THE NATIONAL ELECTRICAL SAFETY CODE
   B. THE NATIONAL ELECTRIC CODE – NFPA–70
   C. REGULATIONS OF THE SERVING UTILITY COMPANY
   D. LOCAL AND STATE AMENDMENTS
   E. THE INTERNATIONAL ELECTRIC CODE – IEC (WHERE APPLICABLE)
2. PERMITS REQUIRED SHALL BE OBTAINED BY THE CONTRACTOR.
3. AFTER COMPLETION AND FINAL INSPECTION OF THE WORK, THE OWNER SHALL BE FURNISHED A CERTIFICATE OF COMPLETION AND APPROVAL.

TESTING:

1. UPON COMPLETION OF THE INSTALLATION, OPERATE AND ADJUST THE EQUIPMENT AND SYSTEMS TO MEET SPECIFIED PERFORMANCE REQUIREMENTS. THE TESTING SHALL BE DONE BY QUALIFIED PERSONNEL.

GUARANTEE:

1. IN ADDITION TO THE GUARANTEE OF THE EQUIPMENT BY THE MANUFACTURER, EACH PIECE OF EQUIPMENT SPECIFIED HEREIN SHALL ALSO BE GUARANTEED FOR DEFECTS OF MATERIAL OR WORKMANSHIP OCCURRING DURING A PERIOD OF ONE (1) YEAR FROM FINAL ACCEPTANCE OF THE WORK BY THE OWNER AND WITHOUT EXPENSE TO THE OWNER.
2. THE WARRANTEE CERTIFICATES & GUARANTEES FURNISHED BY THE MANUFACTURERS SHALL BE TURNED OVER TO THE OWNER.

UTILITY CO-ORDINATION:

1. CONTRACTOR SHALL COORDINATE WORK WITH THE POWER AND TELEPHONE COMPANIES AND SHALL COMPLY WITH THE SERVICE REQUIREMENTS OF EACH UTILITY COMPANY.

EXAMINATION OF SITE:

1. PRIOR TO BEGINNING WORK, THE CONTRACTOR SHALL VISIT THE SITE OF THE JOB AND SHALL FAMILIARIZE HIMSELF WITH THE CONDITIONS AFFECTING THE PROPOSED ELECTRICAL INSTALLATION AND SHALL MAKE PROVISIONS AS TO THE COST THEREOF. FAILURE TO COMPLY WITH THE INTENT OF THIS SECTION WILL IN NO WAY RELIEVE THE CONTRACTOR OF PERFORMING THE WORK NECESSARY FOR A COMPLETE AND WORKING SYSTEM OR SYSTEMS.

CUTTING, PATCHING AND EXCAVATION:

1. COORDINATION OF SLEEVES, CHASES, ETC., BETWEEN SUBCONTRACTORS WILL BE REQUIRED PRIOR TO THE CONSTRUCTION OF ANY PORTION OF THE WORK. CUTTING AND PATCHING OF WALLS, PARTITIONS, FLOORS, AND CHASES IN CONCRETE, WOOD, STEEL OR MASONRY SHALL BE DONE AS PROVIDED ON THE DRAWINGS.
2. NECESSARY EXCAVATIONS AND BACKFILLING INCIDENTAL TO THE ELECTRICAL WORK SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR UNLESS SPECIFICALLY NOTED OTHERWISE ON THE DRAWING.
3. SEAL PENETRATIONS THROUGH RATED WALLS, FLOORS, ETC., WITH APPROVED METHOD AS LISTED BY UL.

RACEWAYS / CONDUITS GENERAL:

1. CONDUCTORS SHALL BE INSTALLED IN LISTED RACEWAYS. CONDUIT SHALL BE RIGID STEEL, EMT, SCH40 PVC, OR SCH80PVC AS INDICATED ON THE DRAWINGS. THE RACEWAY SYSTEM SHALL BE COMPLETE COMPLETE BEFORE INSTALLING CONDUCTORS.
2. EXTERIOR RACEWAYS AND GROUNDING SLEEVES SHALL BE SEALED AT POINTS OF ENTRANCE AND EXIT. THE RACEWAY SYSTEM SHALL BE BONDED PER NEC.

EXTERIOR CONDUIT:

1. EXPOSED CONDUIT SHALL BE NEATLY INSTALLED AND RUN PARALLEL OR PERPENDICULAR TO STRUCTURAL ELEMENTS. SUPPORTS AND MOUNTING HARDWARE SHALL BE HOT DIPPED GALVANIZED STEEL.
2. THE CONDUIT SHALL BE RIGID STEEL AT GRADE TRANSITIONS OR WHERE EXPOSED TO DAMAGE.
3. UNDERGROUND CONDUITS SHALL BE RIGID STEEL, SCH40 PVC, OR SCH80 PVC AS INDICATED ON THE DRAWINGS.
4. BURIAL DEPTH OF CONDUITS SHALL BE AS REQUIRED BY CODE FOR EACH SPECIFIC CONDUIT TYPE AND APPLICATION, BUT SHALL NOT BE LESS THAN THE FROST DEPTH AT THE SITE.
5. CONDUIT ROUTES ARE SCHEMATIC. CONTRACTOR SHALL FIELD VERIFY ROUTES BEFORE BID. COORDINATE ROUTE WITH WIRELESS CARRIER AND/OR BUILDING OWNER.

INTERIOR CONDUIT:

1. CONCEALED CONDUIT IN WALLS OR INTERIOR SPACES ABOVE GRADE MAY BE EMT OR PVC.
2. CONDUIT RUNS SHALL USE APPROVED COUPLINGS AND CONNECTORS. PROVIDE INSULATED BUSHING FOR ALL CONDUIT TERMINATIONS. CONDUIT RUNS IN A WET LOCATION SHALL HAVE WATERPROOF FITTINGS.
3. PROVIDE SUPPORTS FOR CONDUITS IN ACCORDANCE WITH NEC REQUIREMENTS. CONDUITS SHALL BE SIZED AS REQUIRED BY NEC.

EQUIPMENT:

1. DISCONNECT SWITCHES SHALL BE SERVICE ENTRANCE RATED, HEAVY DUTY TYPE.
2. CONTRACTOR SHALL VERIFY MAXIMUM AVAILABLE FAULT CURRENT AND COORDINATE INSTALLATION WITH THE LOCAL UTILITY BEFORE STARTING WORK. CONTRACTOR WILL VERIFY THAT EXISTING CIRCUIT BREAKERS ARE RATED FOR MORE THAN AVAILABLE FAULT CURRENT AND REPLACE AS NECESSARY.
3. NEW CIRCUIT BREAKERS SHALL BE RATED TO WITHSTAND THE MAXIMUM AVAILABLE FAULT CURRENT AS DETERMINED BY THE LOCAL UTILITY.

CONDUCTORS:

1. FURNISH AND INSTALL CONDUCTORS SPECIFIED IN THE DRAWINGS. CONDUCTORS SHALL BE COPPER AND SHALL HAVE TYPE THWN (MIN) (75° C) INSULATION, RATED FOR 600 VOLTS.
2. THE USE OF ALUMINUM CONDUCTORS SHALL BE LIMITED TO THE SERVICE FEEDERS INSTALLED BY THE UTILITY.
3. CONDUCTORS SHALL BE PROVIDED AND INSTALLED AS FOLLOWS:
   A. MINIMUM WIRE SIZE SHALL BE #12 AWG.
   B. CONDUCTORS SIZE #8 AND LARGER SHALL BE STRANDED. CONDUCTORS SIZED #10 AND #12 MAY BE SOLID OR STRANDED.
   C. CONNECTION FOR #10 AWG #12 AWG SHALL BE BY TWISTING TIGHT AND INSTALLING INSULATED PRESSURE OR WIRE NUT CONNECTIONS.
   D. CONNECTION FOR #8 AWG AND LARGER SHALL BE BY USE OF STEEL CRIMP–ON SLEEVES WITH NYLON INSULATOR.
3. CONDUCTORS SHALL BE COLOR CODED IN ACCORDANCE WITH NEC STANDARDS.

UL COMPLIANCE:

1. ELECTRICAL MATERIALS, DEVICES, CONDUCTORS, APPLIANCES, AND EQUIPMENT SHALL BE LABELED/LISTED BY UL OR ACCEPTED BY JURISDICTION (I.E., LOCAL COUNTY OR STATE) APPROVED THIRD PARTY TESTING AGENCY.

GROUNDING:

1. ELECTRICAL NEUTRALS, RACEWAYS AND NON–CURRENT CARRYING PARTS OF ELECTRICAL EQUIPMENT AND ASSOCIATED ENCLOSURES SHALL BE GROUNDED IN ACCORDANCE WITH NEC ARTICLE 250. THIS SHALL INCLUDE NEUTRAL CONDUCTORS, CONDUITS, SUPPORTS, CABINETS, BOXES, GROUND BUSSES, ETC. THE NEUTRAL CONDUCTOR FOR EACH SYSTEM SHALL BE GROUNDED AT A SINGLE POINT.
2. PROVIDE GROUND CONDUCTOR IN RACEWAYS PER NEC.
3. PROVIDE BONDING AND GROUND TO MEET NFPA 780 – "LIGHTNING PROTECTION" AS A MINIMUM.
4. PROVIDE GROUNDING SYSTEM AS INDICATED ON THE DRAWINGS, AS REQUIRED BY THE NATIONAL ELECTRIC CODE, RADIO EQUIPMENT MANUFACTURERS, AND MOTOROLA R56 (AS APPLICABLE).

ABBREVIATIONS AND LEGEND

A	–	AMPERE
AFG	–	ABOVE FINISHED GRADE
ATS	–	AUTOMATIC TRANSFER SWITCH
AWG	–	AMERICAN WIRE GAUGE
BCW	–	BARE COPPER WIRE
BFG	–	BELOW FINISHED GRADE
BKR	–	BREAKER
C	–	CONDUIT
CKT	–	CIRCUIT
DISC	–	DISCONNECT
EGR	–	EXTERNAL GROUND RING
EMT	–	ELECTRIC METALLIC TUBING
FSC	–	FLEXIBLE STEEL CONDUIT
GEN	–	GENERATOR
GPS	–	GLOBAL POSITIONING SYSTEM
GRD	–	GROUND
IGB	–	ISOLATED GROUND BAR
IGR	–	INTERIOR GROUND RING (HALO)
KW	–	KILOWATTS
NEC	–	NATIONAL ELECTRIC CODE
PCS	–	PERSONAL COMMUNICATION SYSTEM
PH	–	PHASE
PNL	–	PANEL
PNLBD	–	PANELBOARD
PVC	–	RIGID NON–METALLIC CONDUIT
RGS	–	RIGID GALVANIZED STEEL CONDUIT
SW	–	SWITCH
TGB	–	TOWER GROUND BAR
UL	–	UNDERWRITERS LABORATORIES
V	–	VOLTAGE
W	–	WATTS
XFMR	–	TRANSFORMER
XMTR	–	TRANSMITTER

——E——	UNDERGROUND ELECTRICAL CONDUIT
——T——	UNDERGROUND TELEPHONE CONDUIT
	KILOWATT–HOUR METER
—— ——	UNDERGROUND BONDING AND GROUNDING CONDUCTOR.
⌀	GROUND ROD
●	CADWELD
⊠	GROUND ROD WITH INSPECTION WELL

1 ELECTRICAL NOTES
SCALE: NOT TO SCALE

AT&T
700 BELL STREET
AKRON, OHIO 44307

CROWN CASTLE
12 GILL STREET, SUITE 5800
WOBURN, MA 01801

TOWER ENGINEERING PROFESSIONALS
326 TRYON RD
RALEIGH, NC 27603
(919) 661-6351
TEP JOB #: 25659.631384

AT&T SITE NUMBER:
CTL05123

BU #: **842872**
ROCKY HILL

52 NEW BRITAIN AVENUE
ROCKY HILL, CT 06067
(HARTFORD COUNTY)

EXISTING 182' MONOPOLE

ISSUED FOR:

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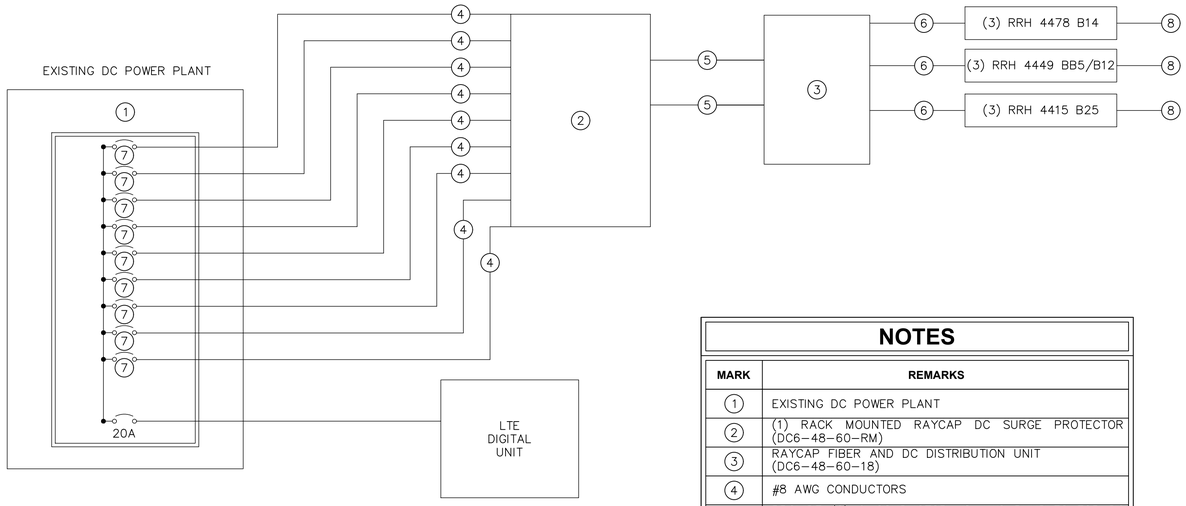
STATE OF CONNECTICUT
SCOTT C. BRANDT
LICENSED PROFESSIONAL ENGINEER

05/20/22

SHEET NUMBER: E-1

REVISION: 0



NOTES

MARK	REMARKS
1	EXISTING DC POWER PLANT
2	(1) RACK MOUNTED RAYCAP DC SURGE PROTECTOR (DC6-48-60-RM)
3	RAYCAP FIBER AND DC DISTRIBUTION UNIT (DC6-48-60-18)
4	#8 AWG CONDUCTORS
5	PROVIDE (2) 6-CONDUCTOR #8 AWG BUNDLES FOR DC POWER FROM RACK MOUNTED RAYCAP SURGE PROTECTION UNIT TO THE RAYCAP FIBER AND DISTRIBUTION UNIT ON TOWER
6	EXISTING FIBER AND DC CABLE ROUTED TO EXISTING RRH UNITS
7	REFER TO BREAKER SCHEDULE FOR BREAKER SIZES
8	REFER TO LATEST RFDS FOR RRH TECHNOLOGIES AND QUANTITIES

RRUS BREAKER SCHEDULE

RRU MODEL	BREAKER SIZE	TECHNOLOGY
RRUS 32 B66	30A	AWS (2100)
RRUS 32 B30	20A	WCS (2300)
RRUS 32 B2	30A	PCS (1900)
RRUS 11	25A	VARIOUS BANDS (700 [B12], 850 [B5], 1900 [B2], 2100 [B4])
RRUS 12	25A	VARIOUS BANDS (850 [B5], 1900 [B2], 2100 [B4])
RRUS 4415 B25	25A	1900
RRUS 4426 B66	30A	2100
RRUS 4478 B14	25A	700
RRUS 4478 B5	25A	850
RRUS E2 B29	25A	700
RRUS 4449 B5/B12	(2) 25A	700/850
RRUS 8843 B2/B66	(2) 30A	1900/2100
RRUS 2203 B5	10A	850
RRUS 2205 B46	10A	5 GHz

1 EQUIPMENT ONE-LINE DIAGRAM
SCALE: NOT TO SCALE

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AKRON, OHIO 44307

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WOBURN, MA 01801

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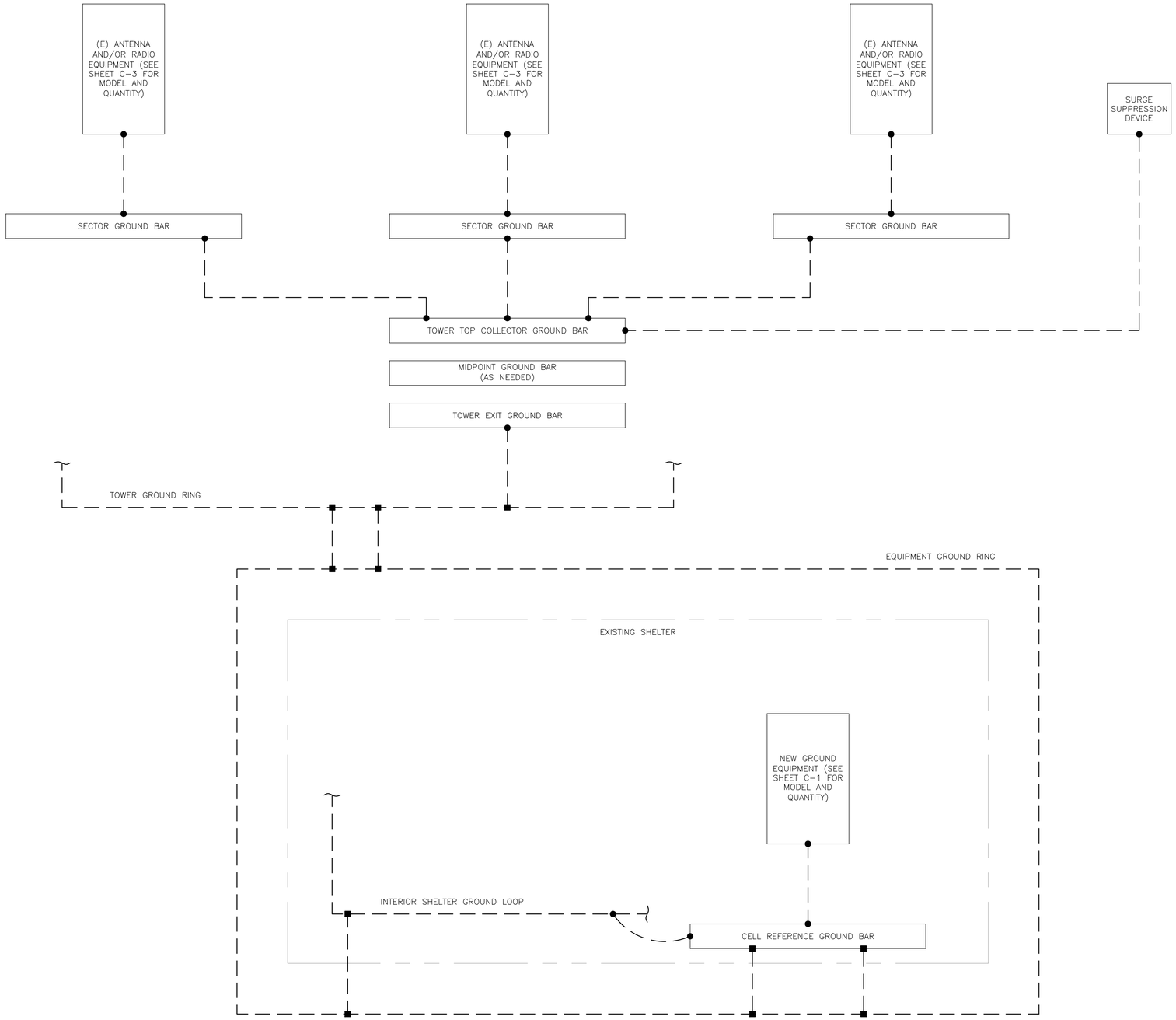
STATE OF CONNECTICUT
SCOTT C. BRANT
25859
LICENSED
PROFESSIONAL ENGINEER

05/20/22

SHEET NUMBER: E-2

REVISION: 0



1 TYPICAL GROUNDING SCHEMATIC
SCALE: NOT TO SCALE

GROUNDING PLAN LEGEND:

- GROUND WIRE
- EXOTHERMIC WELD
- MECHANICAL CONNECTION
- COPPER GROUND ROD
- GROUND ROD W/ TEST WELL

CELL REFERENCE GROUND BAR: POINT OF GROUND REFERENCE FOR ALL COMMUNICATIONS EQUIPMENT FRAMES. ALL BONDS ARE MADE WITH #2 STRANDED GREEN INSULATED COPPER CONDUCTORS. BOND TO GROUND RING WITH (2) #2 SOLID TINNED COPPER CONDUITS (ATT-TP-76416 7.6.7).

HATCH PLATE GROUND BAR: BOND TO THE INTERIOR GROUND RING WITH (2) #2 STRANDED GREEN INSULATED COPPER CONDUCTORS. WHEN A HATCH-PLATE AND A CELL REFERENCE GROUND BAR ARE BOTH PRESENT, THE CELL SITE REFERENCE GROUND BAR MUST BE CONNECTED TO THE HATCH-PLATE AND TO THE INTERIOR GROUND RING USING (2) #2 STRANDED GREEN INSULATED COPPER CONDUCTORS.

EXTERIOR CABLE ENTRY PORT GROUND BARS: LOCATED AT THE ENTRANCE TO THE CELL SITE BUILDING. BOND TO GROUND RING WITH A #2 SOLID TINNED COPPER CONDUCTORS WITH AN EXOTHERMIC WELD AND INSPECTION SLEEVE (ATT-TP-76416 7.6.7.2).

DURING ALL DC POWER SYSTEM CHANGES INCLUDING DC SYSTEM CHANGE OUTS, RECTIFIER REPLACEMENTS OR ADDITIONS, BREAKER DISTRIBUTION CHANGES, BATTERY ADDITIONS, BATTERY REPLACEMENTS AND INSTALLATIONS OR CHANGES TO DC CONVERTER SYSTEMS IT SHALL BE REQUIRED THAT SERVICES CONTRACTORS VERIFY ALL DC POWER SYSTEMS ARE EQUIPPED WITH MASTER DC SYSTEM RETURN GROUND CONDUCTOR FROM THE DC POWER SYSTEM COMMON RETURN BUS DIRECTLY CONNECTED TO THE CELL SITE REFERENCE GROUND BAR PER TP76300 SECTION H 6 AND TP76416 FIGURE 7-11 REQUIREMENTS.

AT&T
700 BELL STREET
AKRON, OHIO 44307

CROWN CASTLE
12 GILL STREET, SUITE 5800
WOBURN, MA 01801

TOWER ENGINEERING PROFESSIONALS
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RALEIGH, NC 27603
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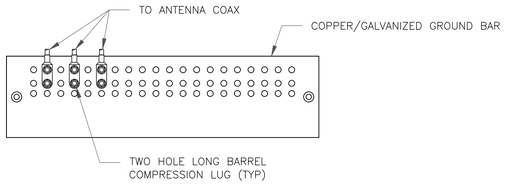
0	05/20/22	CAC	CONSTRUCTION	NH

STATE OF CONNECTICUT
SCOTT C. BRANDT
29536
LICENSED PROFESSIONAL ENGINEER

05/20/22

SHEET NUMBER: G-1

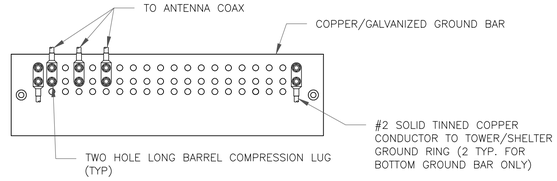
REVISION: 0



NOTES:

1. DOUBLING UP "OR STACKING" OF CONNECTIONS IS NOT PERMITTED.
2. EXTERIOR ANTIOXIDANT JOINT COMPOUND TO BE USED ON ALL EXTERIOR CONNECTIONS.
3. GROUND BAR SHALL NOT BE ISOLATED FROM TOWER. MOUNT DIRECTLY TO ANTENNA MOUNT STEEL.

1 ANTENNA SECTOR GROUND BAR DETAIL
SCALE: NOT TO SCALE

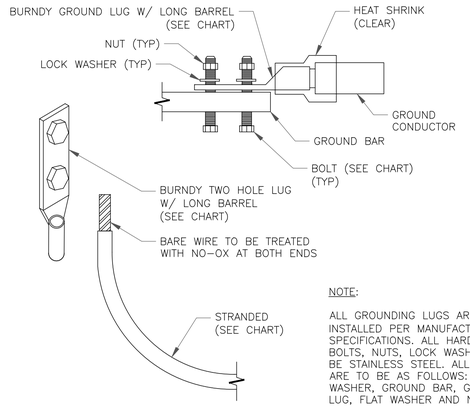


NOTES:

1. EXTERIOR ANTIOXIDANT JOINT COMPOUND TO BE USED ON ALL EXTERIOR CONNECTIONS.
2. GROUND BAR SHALL NOT BE ISOLATED FROM TOWER. MOUNT DIRECTLY TO TOWER STEEL (TOWER ONLY).
3. GROUND BAR SHALL BE ISOLATED FROM BUILDING OR SHELTER.

2 TOWER/SHELTER GROUND BAR DETAIL
SCALE: NOT TO SCALE

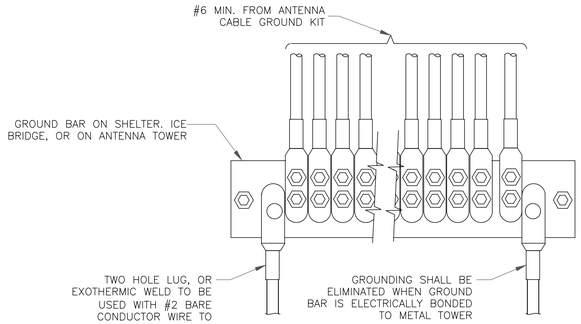
WIRE SIZE	BURNDY LUG	BOLT SIZE
#6 GREEN INSULATED	YA6C-2TC38	3/8" - 16 NC SS 2 BOLT
#2 SOLID TINNED	YA3C-2TC38	3/8" - 16 NC SS 2 BOLT
#2 STRANDED	YA2C-2TC38	3/8" - 16 NC SS 2 BOLT
#2/0 STRANDED	YA26-2TC38	3/8" - 16 NC SS 2 BOLT
#4/0 STRANDED	YA28-2N	1/2" - 16 NC SS 2 BOLT



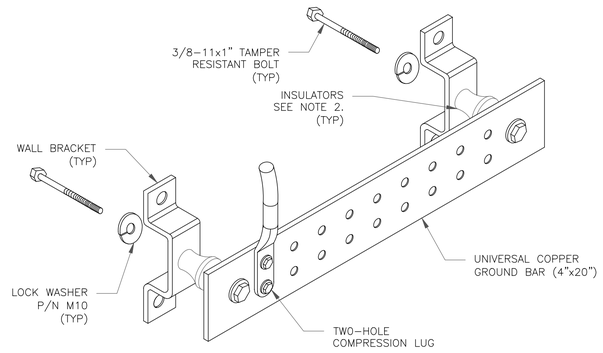
NOTE:

ALL GROUNDING LUGS ARE TO BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS. ALL HARDWARE BOLTS, NUTS, LOCK WASHERS SHALL BE STAINLESS STEEL. ALL HARDWARE ARE TO BE AS FOLLOWS: BOLT, FLAT WASHER, GROUND BAR, GROUND LUG, FLAT WASHER AND NUT.

3 MECHANICAL LUG CONNECTION
SCALE: NOT TO SCALE



4 GROUNDWIRE INSTALLATION
SCALE: NOT TO SCALE

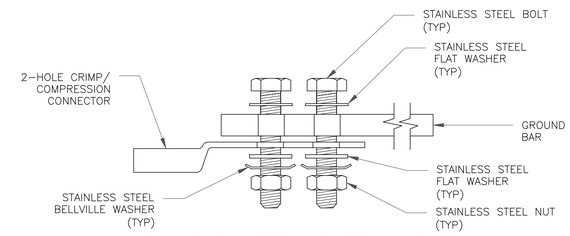


NOTES:

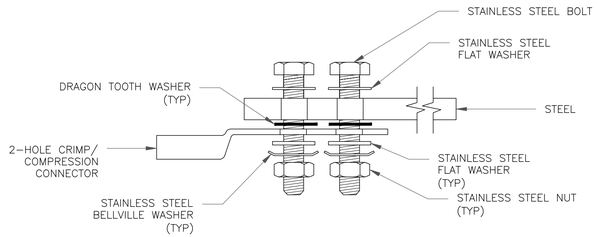
1. DOWN LEAD (HOME RUN) CONDUCTORS ARE NOT TO BE INSTALLED ON CROWN CASTLE USA INC. TOWER, PER THE GROUNDING DOWN CONDUCTOR POLICY QAS-STD-10091. NO MODIFICATION OR DRILLING TO TOWER STEEL IS ALLOWED IN ANY FORM OR FASHION, CAD-WELDING ON THE TOWER AND/OR IN THE AIR ARE NOT PERMITTED.

2. OMIT INSULATOR WHEN MOUNTING TO TOWER STEEL OR PLATFORM STEEL USE INSULATORS WHEN ATTACHING TO BUILDING OR SHELTERS.

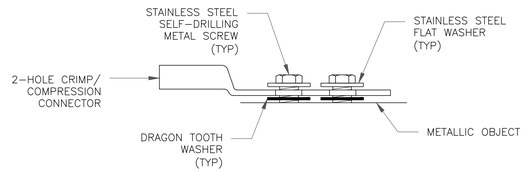
5 GROUND BAR DETAIL
SCALE: NOT TO SCALE



SINGLE CONNECTOR AT GROUND BARS

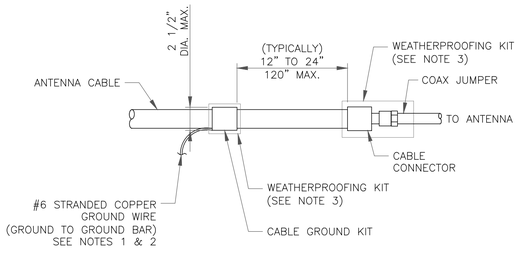


SINGLE CONNECTOR AT STEEL OBJECTS



SINGLE CONNECTOR AT METALLIC/STEEL OBJECTS

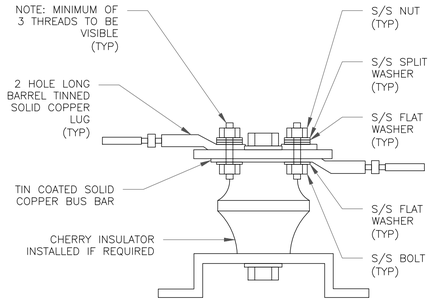
8 HARDWARE DETAIL FOR EXTERIOR CONNECTIONS
SCALE: NOT TO SCALE



NOTES:

1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.
2. GROUNDING KIT SHALL BE TYPE AND PART NUMBER AS SUPPLIED OR RECOMMENDED BY CABLE MANUFACTURER.
3. WEATHER PROOFING SHALL BE TWO-PART TAPE KIT, COLD SHRINK SHALL NOT BE USED.

6 CABLE GROUND KIT CONNECTION
SCALE: NOT TO SCALE



7 LUG DETAIL
SCALE: NOT TO SCALE

AT&T
700 BELL STREET
AKRON, OHIO 44307

CROWN CASTLE
12 GILL STREET, SUITE 5800
WOBURN, MA 01801

TOWER
ENGINEERING
PROFESSIONALS
326 TRYON RD
RALEIGH, NC 27603
(919) 661-6351
TEP JOB #: 25659.631384

AT&T SITE NUMBER:
CTL05123

BU #: **842872**
ROCKY HILL

52 NEW BRITAIN AVENUE
ROCKY HILL, CT 06067
(HARTFORD COUNTY)

EXISTING 182' MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
A	12/17/21	KDP	PRELIMINARY	DA
0	05/20/22	CAC	CONSTRUCTION	NH

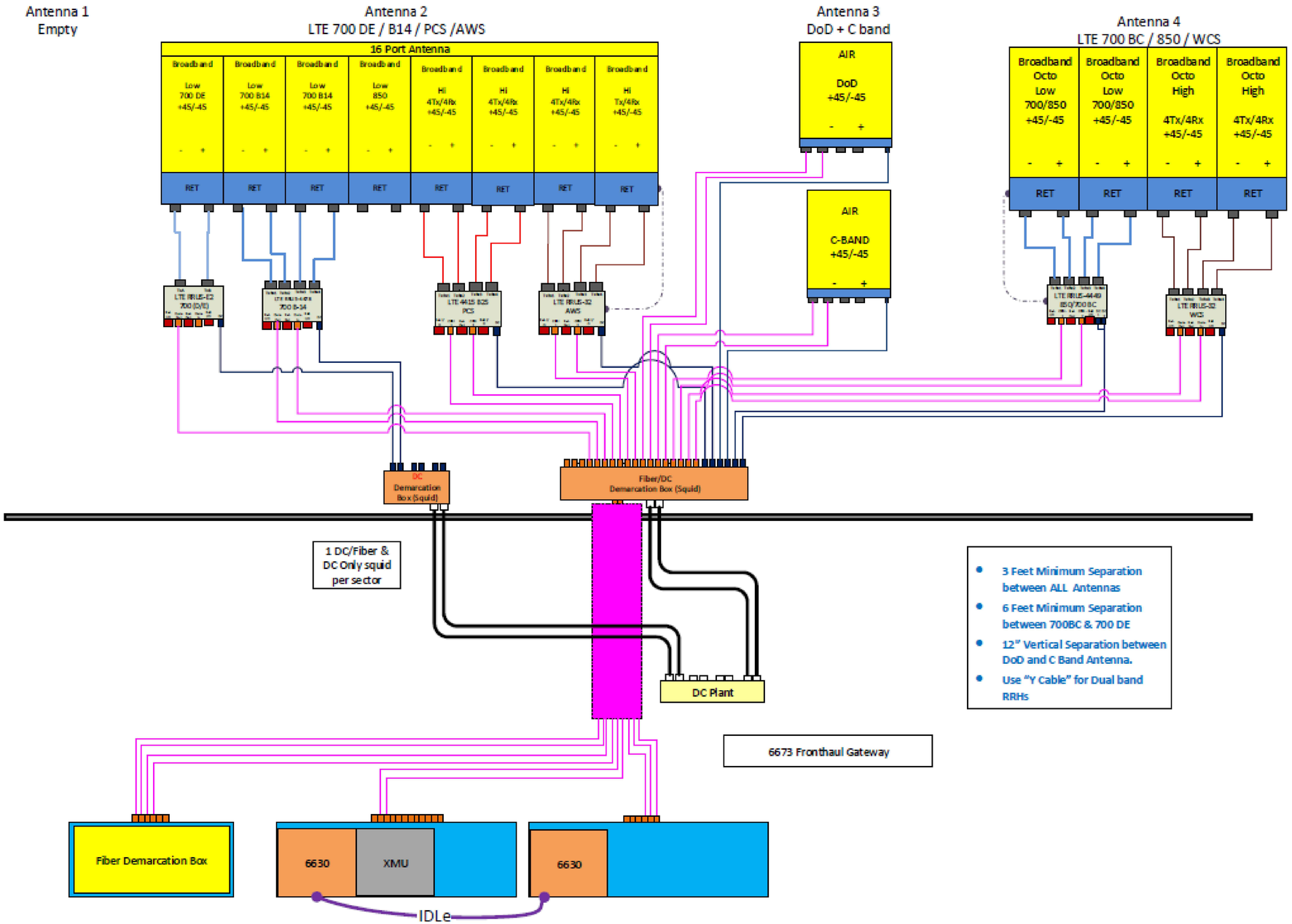
05/20/22

SHEET NUMBER: G-2

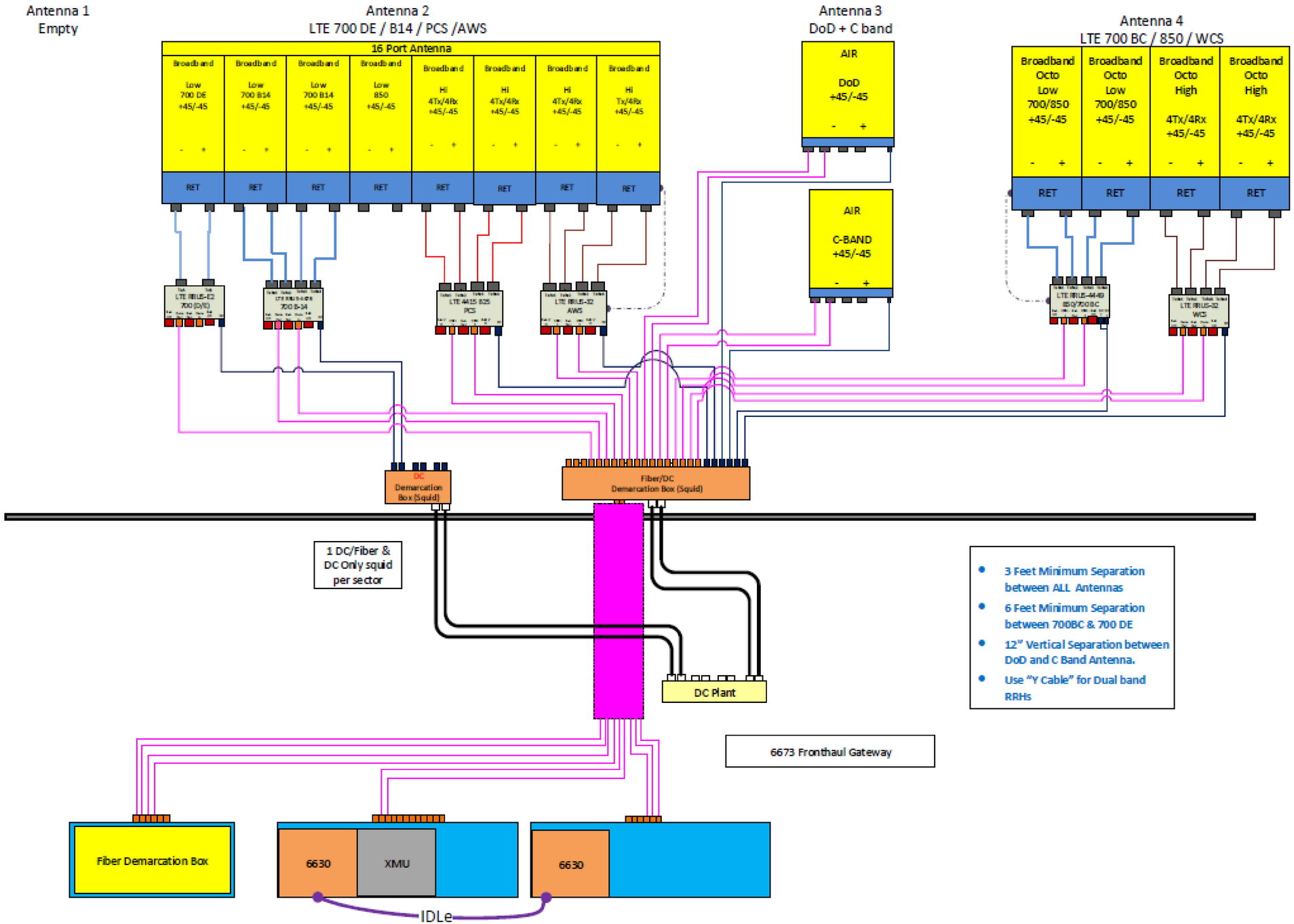
REVISION: 0

Diagram - Sector	A	Diagram File Name - CT5123_ABC_C-BAND DOD.vsd					
Atoll Site Name -	CTL05123	Location Name -	ROCKY HILL	Market -	CONNECTICUT	Market Cluster -	NEW ENGLAND

Comments: Important Note: For detailed radio to antenna wiring refer to the latest field notice - Antenna_Radio Connection Drawings Playbook v8.0_Ericsson



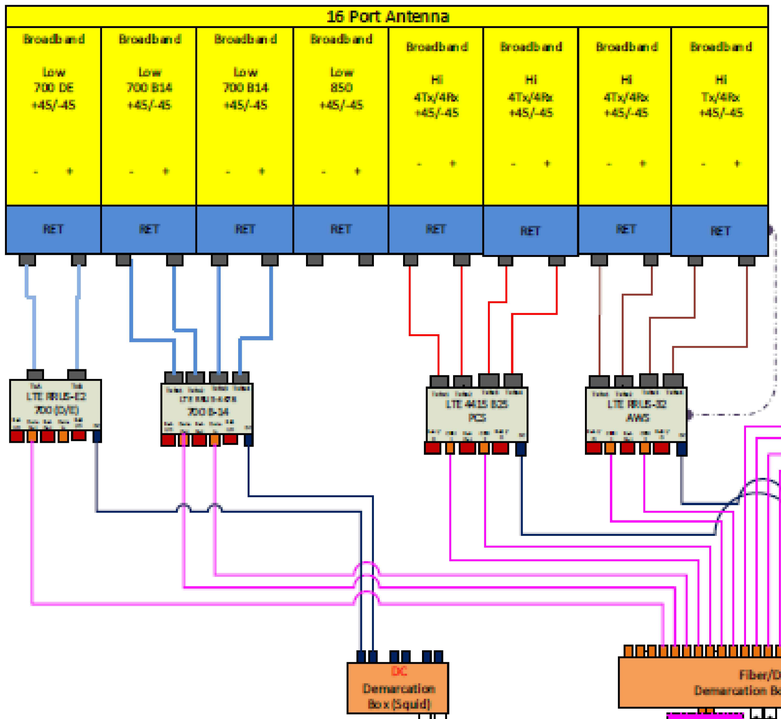
PLUMBING DIAGRAM



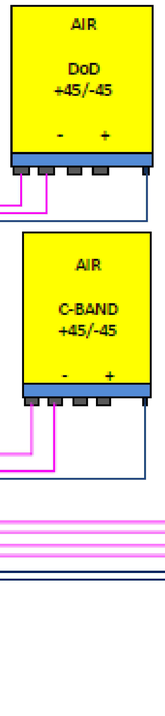
PLUMBING DIAGRAM

Antenna 1
Empty

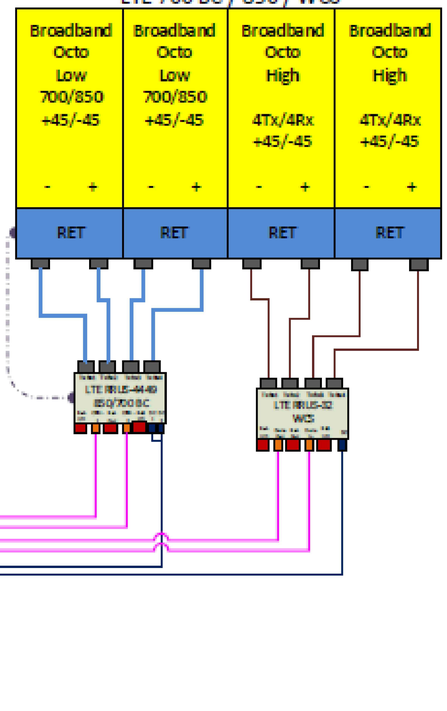
Antenna 2
LTE 700 DE / B14 / PCS /AWS

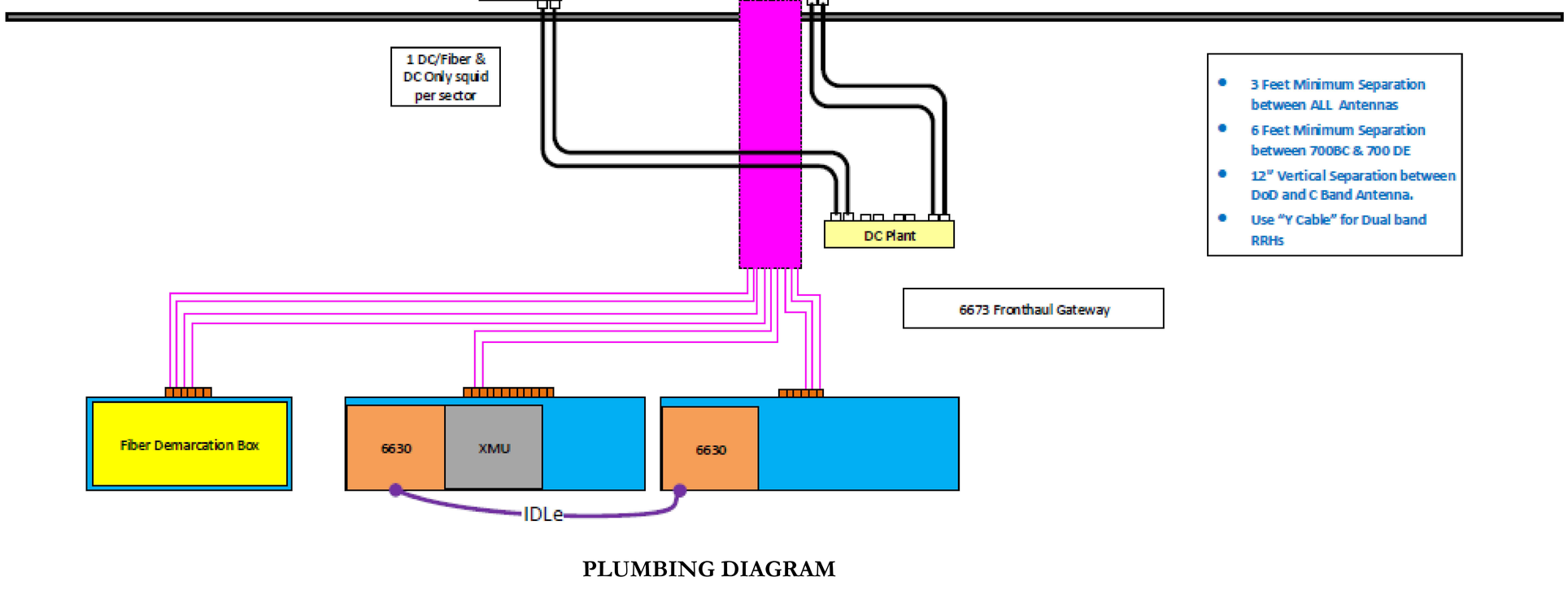


Antenna 3
DoD + C band



Antenna 4
LTE 700 BC / 850 / WCS





- 3 Feet Minimum Separation between ALL Antennas
- 6 Feet Minimum Separation between 700BC & 700 DE
- 12" Vertical Separation between DoD and C Band Antenna.
- Use "Y Cable" for Dual band RRHs

PLUMBING DIAGRAM