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

July 11, 2022

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

RE: **Notice of Exempt Modification for ATT**
Crown #876343; ATT Site ID CT2158
1919 Boston Post Road, Guilford, CT 06437
Latitude: 41° 18′ 1.27″ / Longitude: -73° 42′ 29.13″

Dear Ms. Bachman:

AT&T currently maintains nine (9) antennas at the 108-foot level of the existing 152-foot monopole tower at 1919 Boston Post Road, Guilford, CT. The tower is owned by Crown Castle USA Inc. and the property is owned by DDR Guilford LLC. AT&T now intends to replace three (3) antennas, relocate three (3) existing antenna, install six (6) new antennas and ancillary equipment at the 108-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:
(6) Ericsson-AIR6449 B77D + AIR6419 B77G Stacked Antennas w/integrated Radios
(3) Dual RRH Mounts
(3) 2” Mount Pipes

Remove:
(3) POWERWAVE-7770 Antennas
(6) POWERWAVE-LGP21401 TMAs
(6) COAX CABLES (1-5/8”)

Ground:

Install New:
(1) 6648 with XCEDE
(6) Rectifiers in power plant

Remove:
(1) UMTS Cabinet
(6) POWERWAVE-LGP 21901 Diplexers

The facility was approved by the Connecticut Siting Council in Docket No. 349 on May 22, 2008. Said approval given with conditions. AT&T’s proposed exempt modification complies with the conditions of approval.

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 First Selectman Matthew T. Hoey III, Town Planner George Kral for the municipality and DDR Guilford LLC as the property owner. 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

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

Attachments
cc:

First Selectman Matthew T. Hoey III
Town of Guilford
31 Park Street
Guilford, CT 06437
203-453-8015

George Kral, Town Planner
Town of Guilford
50 Boston Street
Guilford, CT 06437
203-453-8039

DDR Guilford LLC, Property Owner
3300 Enterprise Pkwy
Beachwood, OH 44122
216-755-5500

Crown Castle, Tower Owner

From: TrackingUpdates@fedex.com
To: Tatasciore, Domenica
Subject: FedEx Shipment 777301136605: Your package has been delivered
Date: Tuesday, July 12, 2022 10:09:41 AM

FedEx

Hi. Your package was delivered Tue, 07/12/2022 at 10:08am.

Delivered to 31 PARK ST, GUILFORD, CT 06437
Received by K.QUERCIA

OBTAIN PROOF OF DELIVERY

TRACKING NUMBER 777301136605

FROM Domenica Tatasciore
1800 West Park Drive

	Suite 200 WESTBOROUGH, MA, US, 01581
TO	Town of Guilford First Selectman Matthew Hoey III 31 Park Street GUILFORD, CT, US, 06437
REFERENCE	799001.7680
SHIPPER REFERENCE	799001.7680
SHIP DATE	Mon 7/11/2022 05:30 PM
DELIVERED TO	Receptionist/Front Desk
PACKAGING TYPE	FedEx Pak
ORIGIN	WESTBOROUGH, MA, US, 01581
DESTINATION	GUILFORD, CT, US, 06437
SPECIAL HANDLING	Deliver Weekday
NUMBER OF PIECES	1
TOTAL SHIPMENT WEIGHT	1.00 LB
SERVICE TYPE	FedEx Priority Overnight

FOLLOW FEDEX

Please do not respond to this message. This email was sent from an unattended mailbox. This report was generated at approximately 9:09 AM CDT 07/12/2022.

All weights are estimated.

To track the latest status of your shipment, click on the tracking number above.

Standard transit is the date and time the package is scheduled to be delivered by, based on the selected service, destination and ship date. Limitations and exceptions may apply. Please see the FedEx Service Guide for terms and conditions of service, including the FedEx Money-Back Guarantee, or contact your FedEx Customer Support representative.

Thank you for your business.

From: TrackingUpdates@fedex.com
To: Tatasciore, Domenica
Subject: FedEx Shipment 777301152656: Your package has been delivered
Date: Tuesday, July 12, 2022 10:10:07 AM

FedEx

Hi. Your package was delivered Tue, 07/12/2022 at 10:05am.

Delivered to 50 BOSTON ST, GUILFORD, CT 06437
Received by P.PIOMBINO

OBTAIN PROOF OF DELIVERY

TRACKING NUMBER 777301152656

FROM Domenica Tatasciore
1800 West Park Drive

	Suite 200 WESTBOROUGH, MA, US, 01581
TO	Town of Guilford Town Planner George Kral 50 Boston Street GUILFORD, CT, US, 06437
REFERENCE	799001.7680
SHIPPER REFERENCE	799001.7680
SHIP DATE	Mon 7/11/2022 05:30 PM
DELIVERED TO	Receptionist/Front Desk
PACKAGING TYPE	FedEx Pak
ORIGIN	WESTBOROUGH, MA, US, 01581
DESTINATION	GUILFORD, CT, US, 06437
SPECIAL HANDLING	Deliver Weekday
NUMBER OF PIECES	1
TOTAL SHIPMENT WEIGHT	1.00 LB
SERVICE TYPE	FedEx Priority Overnight

FOLLOW FEDEX 

Please do not respond to this message. This email was sent from an unattended mailbox. This report was generated at approximately 9:06 AM CDT 07/12/2022.

All weights are estimated.

To track the latest status of your shipment, click on the tracking number above.

Standard transit is the date and time the package is scheduled to be delivered by, based on the selected service, destination and ship date. Limitations and exceptions may apply. Please see the FedEx Service Guide for terms and conditions of service, including the FedEx Money-Back Guarantee, or contact your FedEx Customer Support representative.

Thank you for your business.

From: TrackingUpdates@fedex.com
To: Tatasciore, Domenica
Subject: FedEx Shipment 777301180792: Your package has been delivered
Date: Tuesday, July 12, 2022 9:55:27 AM

FedEx

Hi. Your package was delivered Tue, 07/12/2022 at 9:54am.

Delivered to 3300 ENTERPRISE PKWY, BEACHWOOD, OH 44122

OBTAIN PROOF OF DELIVERY

TRACKING NUMBER 777301180792

FROM Domenica Tatasciore
1800 West Park Drive
Suite 200

	WESTBOROUGH, MA, US, 01581
TO	DDR Guilford LLC 3300 Enterprise Parkway BEACHWOOD, OH, US, 44122
REFERENCE	799001.7680
SHIPPER REFERENCE	799001.7680
SHIP DATE	Mon 7/11/2022 05:30 PM
PACKAGING TYPE	FedEx Pak
ORIGIN	WESTBOROUGH, MA, US, 01581
DESTINATION	BEACHWOOD, OH, US, 44122
SPECIAL HANDLING	Deliver Weekday
NUMBER OF PIECES	1
TOTAL SHIPMENT WEIGHT	1.00 LB
SERVICE TYPE	FedEx Priority Overnight

FOLLOW FEDEX 

Please do not respond to this message. This email was sent from an unattended mailbox. This report was generated at approximately 8:55 AM CDT 07/12/2022.

All weights are estimated.

To track the latest status of your shipment, click on the tracking number above.

Standard transit is the date and time the package is scheduled to be delivered by, based on the selected service, destination and ship date. Limitations and exceptions may apply. Please see the FedEx Service Guide for terms and conditions of service, including the FedEx Money-Back Guarantee, or contact your FedEx Customer Support representative.

Thank you for your business.

DOCKET NO. 349 – Global Signal Acquisitions II application for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance and operation of a telecommunications facility located at 1919 Boston Post Road, Guilford, Connecticut.	}	Connecticut
	}	Siting
	}	Council
		May 22, 2008

Decision and Order

Pursuant to the foregoing Findings of Fact and Opinion, the Connecticut Siting Council (Council) finds that the effects associated with the construction, operation, and maintenance of a telecommunications facility, including effects on the natural environment; ecological integrity and balance; public health and safety; scenic, historic, and recreational values; forests and parks; air and water purity; and fish and wildlife are not disproportionate, either alone or cumulatively with other effects, when compared to need, are not in conflict with the policies of the State concerning such effects, and are not sufficient reason to deny the application, and therefore directs that a Certificate of Environmental Compatibility and Public Need, as provided by General Statutes § 16-50k, be issued to Global Signal Acquisitions II, hereinafter referred to as the Certificate Holder, for an existing telecommunications facility to be relocated to the site identified as the Alternate Site in the Findings of Fact, located at 1919 Boston Post Road, Guilford, Connecticut. The Council denies certification of the site identified as the Application Site in the Findings of Fact, located at 1919 Boston Post Road, Guilford, Connecticut.

The facility shall be constructed, operated, and maintained substantially as specified in the Council's record in this matter, and subject to the following conditions:

1. The tower shall be constructed as a monopole, no taller than necessary to provide the proposed telecommunications services, sufficient to accommodate the antennas of the wireless carriers that utilize the existing tower and other entities, both public and private, but such tower shall not exceed a height of 150 feet above ground level.

2. The Certificate Holder shall prepare a Development and Management (D&M) Plan for this site in compliance with Sections 16-50j-75 through 16-50j-77 of the Regulations of Connecticut State Agencies. The D&M Plan shall be served on the Town of Guilford for comment, and all parties and intervenors as listed in the service list, and submitted to and approved by the Council prior to the commencement of facility construction and shall include:

    a) a final site plan(s) of site development to include specifications for the tower, tower foundation, antennas, equipment compound, radio equipment, access road, utility line, and landscaping; and
    b) construction plans for site clearing, grading, landscaping, water drainage, and erosion and sedimentation controls consistent with the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control, as amended.

3. The Certificate Holder shall, prior to the commencement of operation, provide the Council worst-case modeling of the electromagnetic radio frequency power density of all proposed entities' antennas at the closest point of uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin No. 65, August 1997. The Certificate Holder shall ensure a recalculated report of the electromagnetic radio frequency power density be submitted to the Council if and when circumstances in operation cause a change in power density above the levels calculated and provided pursuant to this Decision and Order.

4. Upon the establishment of any new State or federal radio frequency standards applicable to frequencies of this facility, the facility granted herein shall be brought into compliance with such standards.

5. The Certificate Holder shall permit public or private entities to share space on the proposed tower for fair consideration, or shall provide any requesting entity with specific legal, technical, environmental, or economic reasons precluding such tower sharing.

6. The Certificate Holder shall provide reasonable space on the tower for no compensation for any Town of Guilford public safety services (police, fire and medical services), provided such use can be accommodated and is compatible with the structural integrity of the tower.

7. Unless otherwise approved by the Council, if the facility authorized herein is not fully constructed and providing wireless services within eighteen months from the date of the mailing of the Council's Findings of Fact, Opinion, and Decision and Order (collectively called "Final Decision"), this Decision and Order shall be void, and the Certificate Holder shall dismantle the tower and remove all associated equipment or reapply for any continued or new use to the Council before any such use is made. The time between the filing and resolution of any appeals of the Council's Final Decision shall not be counted in calculating this deadline.

8. Any request for extension of the time period referred to in Condition 7 shall be filed with the Council not later than 60 days prior to the expiration date of this Certificate and shall be served on all parties and intervenors, as listed in the service list, and the Town of Guilford. Any proposed modifications to this Decision and Order shall likewise be so served.

9. If the facility ceases to provide wireless services for a period of one year, this Decision and Order shall be void, and the Certificate Holder shall dismantle the tower and remove all associated equipment or reapply for any continued or new use to the Council before any such use is made.

10. The Certificate Holder shall remove any nonfunctioning antenna, and associated antenna mounting equipment, within 60 days of the date the antenna ceased to function.

11. In accordance with Section 16-50j-77 of the Regulations of Connecticut State Agencies, the Certificate Holder shall provide the Council with written notice two weeks prior to the commencement of site construction activities. In addition, the Certificate Holder shall provide the Council with written notice of the completion of site construction and the commencement of site operation.

Pursuant to General Statutes § 16-50p, the Council hereby directs that a copy of the Findings of Fact, Opinion, and Decision and Order be served on each person listed below, and notice of issuance shall be published in the New Haven Register and the Shoreline Times.

By this Decision and Order, the Council disposes of the legal rights, duties, and privileges of each party named or admitted to the proceeding in accordance with Section 16-50j-17 of the Regulations of Connecticut State Agencies.

The parties and intervenors to this proceeding are:

APPLICANT	**ITS REPRESENTATIVE**
Global Signal Acquisitions II	Julie Kohler, Esq. Carrie Larson, Esq. Cohen and Wolf, P.C.

PARTY	**ITS REPRESENTATIVE**
Anthony Poccia William and Myung Arabolos Margaret Rose Richard and Sandra Wilson	John S. Bennet, Esq. Gould, Larson, Bennet, Wells & McDonnell, P.C.

INTERVENORS	**THEIR REPRESENTATIVE**
Heather Fernandes Diane and Alan Sholomskas Brian Denning Daniel Capozziello Joel and Donna Zemke	John S. Bennet, Esq. Gould, Larson, Bennet, Wells & McDonnell, P.C.

All information is for assessment purposes only. Assessments are calculated at 70% of the estimated October 1, 2017 market value which was the date of the last revaluation as completed by eQuality Valuation Services, LLC.

Information on the Property Records for the Municipality of Guilford was last updated on 7/1/2022.

Parcel Information

Location:	1919 BOSTON POST RD	Map and Parcel:	079035	Census Tract:	1903
Zoning:	SCW	Developer's Map:	5074	Developer's Lot:	
Total Acreage:	27.83	Farm, Forest, Open Space Acres:		Unique ID:	7001

Value Information

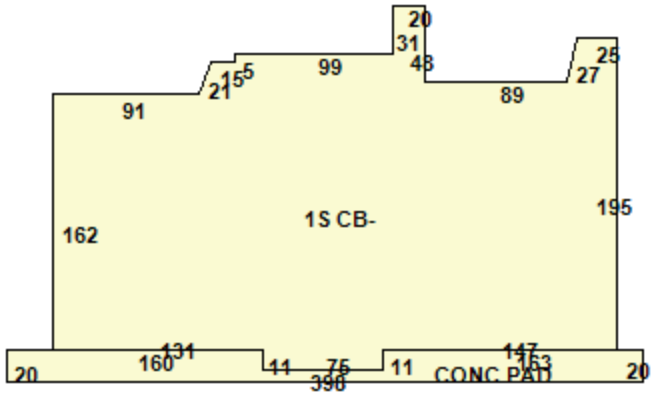
	Appraised Value	Assessed Value
Land	6,694,400	4,686,080
Buildings	22,716,123	15,901,280
Detached Outbuildings	695,997	487,200
Total	30,106,520	21,074,560

Owner's Information

Owner's Data
DDR GUILFORD LLC 3300 ENTERPRISE PKWY BEACHWOOD, OH 44122

Building 1

Photo Not Available



Category:	RETAIL	Use:	REGIONAL SHOPPING CENTER	GLA:	63,416
Stories:	1.00	Construction:	GOOD	Year Built:	2015
Condition:	GOOD	Heating:	RADIANT CEILING	Fuel:	GAS
Cooling Percent:	100%	Siding:	CONCRETE BLOCK	Roof Material:	RUBBER/EPDM

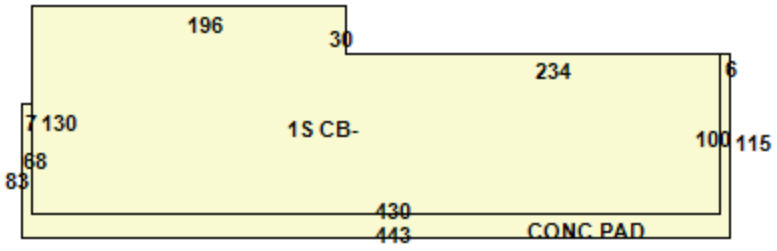
Special Features

LOAD LEVELER	2
OVERHEAD DOORS	2
WET SPRINKLERS	1

Attached Components

Type:	Year Built:	Area:
CONCRETE COMM PATIO	2015	7,135

Building 2



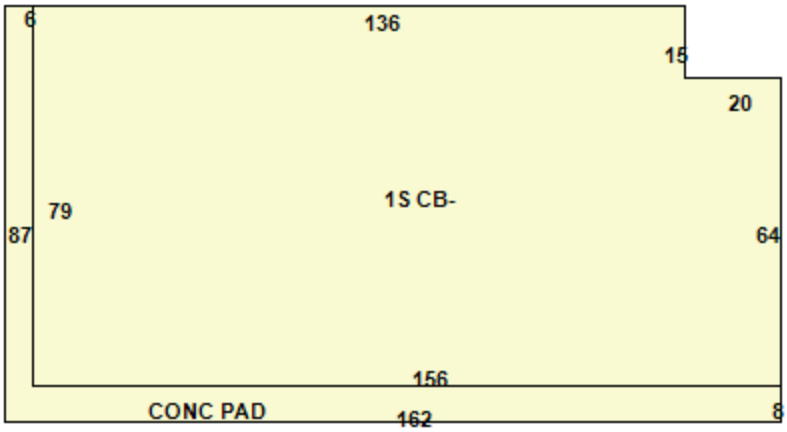
Category:	RETAIL	Use:	REGIONAL SHOPPING CENTER	GLA:	48,880
Stories:	1.00	Construction:	GOOD	Year Built:	2015
Condition:	GOOD	Heating:	RADIANT CEILING	Fuel:	GAS
Cooling Percent:	100%	Siding:	CONCRETE BLOCK	Roof Material:	RUBBER/EPDM

Special Features

Attached Components

Type:	Year Built:	Area:
CONCRETE COMM PATIO	2015	7,721

Building 3



Category:	RETAIL	Use:	REGIONAL SHOPPING CENTER	GLA:	12,024
Stories:	1.00	Construction:	GOOD	Year Built:	2015
Condition:	GOOD	Heating:		Fuel:	
Cooling Percent:	0%	Siding:	CONCRETE BLOCK	Roof Material:	POLY RUBBER

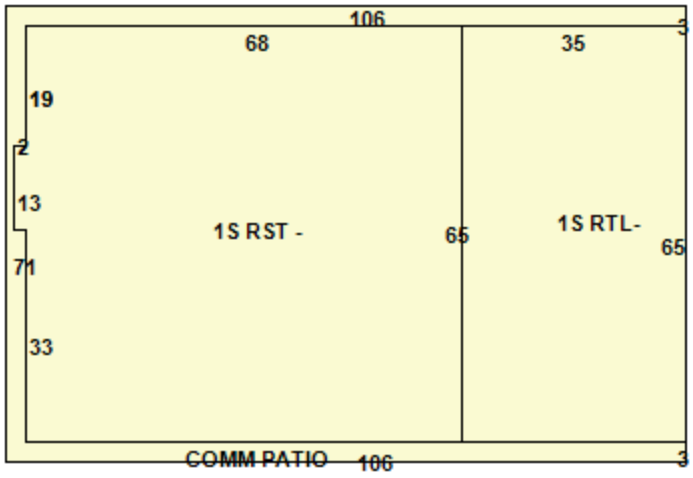
Special Features

Attached Components

Type:	Year Built:	Area:
CONCRETE COMM PATIO	2015	1,770

Building 4

Photo Not Available



Category:	RESTURANT	Use:	FAST FOOD	GLA:	6,721
Stories:	1.00	Construction:	GOOD	Year Built:	2019
Condition:	GOOD	Heating:	RADIANT CEILING	Fuel:	GAS
Cooling Percent:	100%	Siding:	GLASS	Roof Material:	COMPOSITE BUILT UP

Special Features

DETAILED FIREPLACES	1
WET SPRINKLERS	1

Attached Components

Type:	Year Built:	Area:

Type:	Year Built:	Area:
CONCRETE COMM PATIO	2019	805

Detached Outbuildings

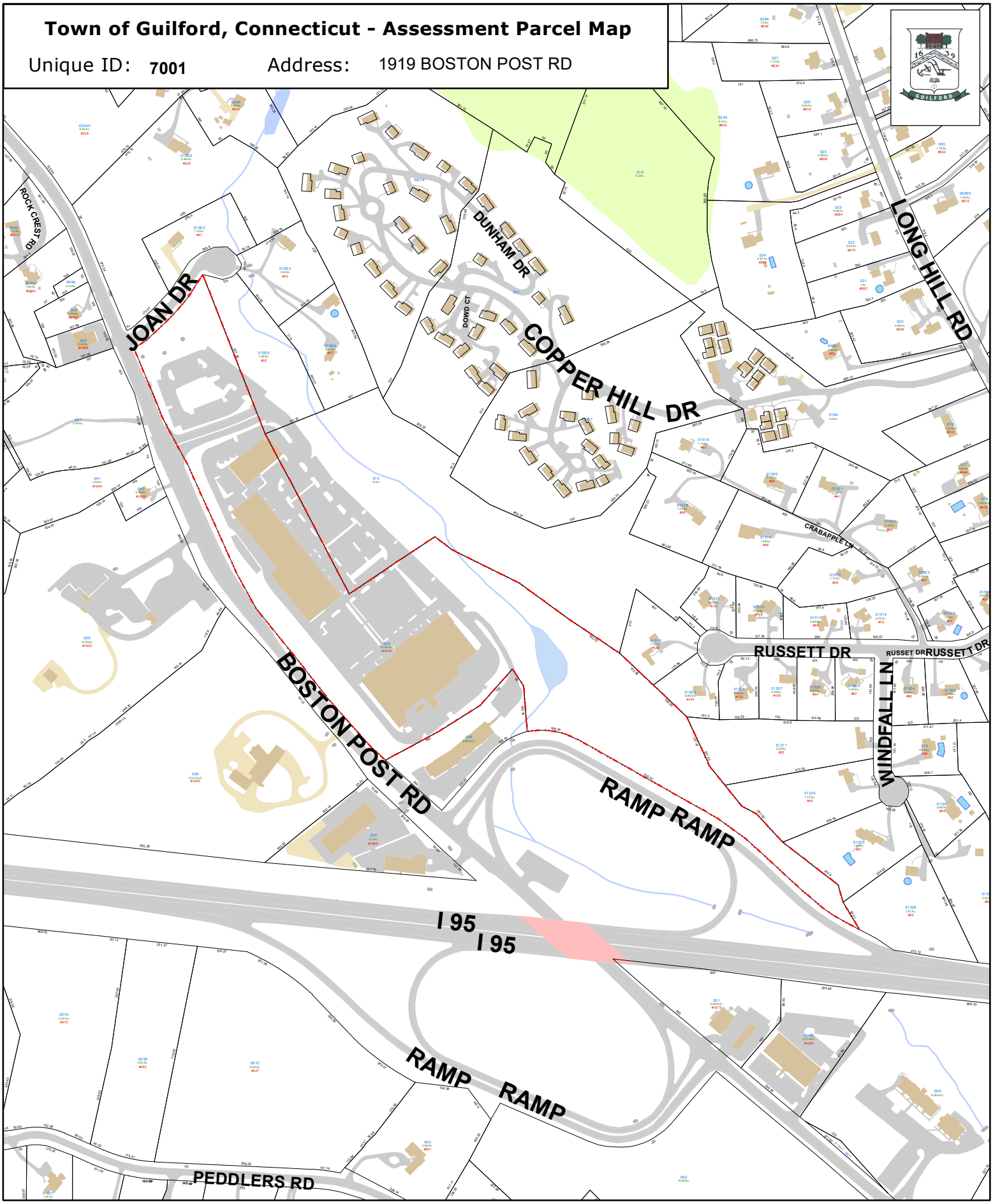
Type:	Year Built:	Length:	Width:	Area:
CONCRETE COMM PATIO	2019	15	17	255
FENCING	2015			1,200
PAVING	2015			130,000
LIGHT FIXTURES POLES	2015			33

Owner History - Sales

Owner Name	Volume	Page	Sale Date	Deed Type	Sale Price
DDR GUILFORD LLC	0879	1141	01/28/2015	Quit Claim	$0
DDR GUILFORD LLC	0870	1017	05/16/2014	Warranty Deed	$1,200,000
STONE ROGER W	0780	0035	04/21/2009	Quit Claim	$0
STONE ROGER LLC	0775	0087	01/21/2009	Quit Claim	$0
STONE ROGER W	0335	0022	05/18/1987		$0

Town of Guilford, Connecticut - Assessment Parcel Map

Unique ID: **7001** Address: 1919 BOSTON POST RD



N

Approximate Scale: **1 inch = 400 feet**

0 275 550 Feet

Map Produced:
August 2021

Disclaimer:
This map is for informational purposes only.
All information is subject to verification by any user.
The Town of Guilford and its mapping contractors assume no legal responsibility for the information contained herein.

Radio Frequency Safety Survey Report Predictive (RFSSRP) Prepared For AT&T

Site Name:	2158 GUILFORD POST ROAD
FA#	10035218
USID:	24494
Site ID:	CTL02158
Address:	1919 BOSTON POST ROAD, GUILFORD, CT 06437
County:	NEW HAVEN
Latitude:	41.3003250
Longitude:	-72.7076381
Structure Type:	MONOPOLE
Property Owner:	DDR GUILFORD LLC
Pace Job:	MRCTB054669
RFDS Technology:	5G NR 1SR CBAND

Report Information

Report Writer: Sushil Dogra

Report Generated Date: 06-30-2022

Compliance Statement

AT&T Mobility Compliance Statement: Based on the information collected, AT&T Mobility will be Compliant when the remediation recommended in section 5 or appropriate remediation determined by AT&T is implemented

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1. Executive Summary

1.1 Site Summary

Max Predictive Spatial Average MPE% & Location on Site (General Public)	17089.70% on Antenna Centerline Level & at AT&T Sec-A antenna no. #A3-1
Max Predictive Spatial Average MPE% on Ground (General Public)	2.94%
AT&T Mobility Site Compliance	AT&T Mobility will be Compliant by implementing remediation recommended as per section 5 in this report.

TABLE 1: Site Summary

1.2 Signage Summary (Proposed)

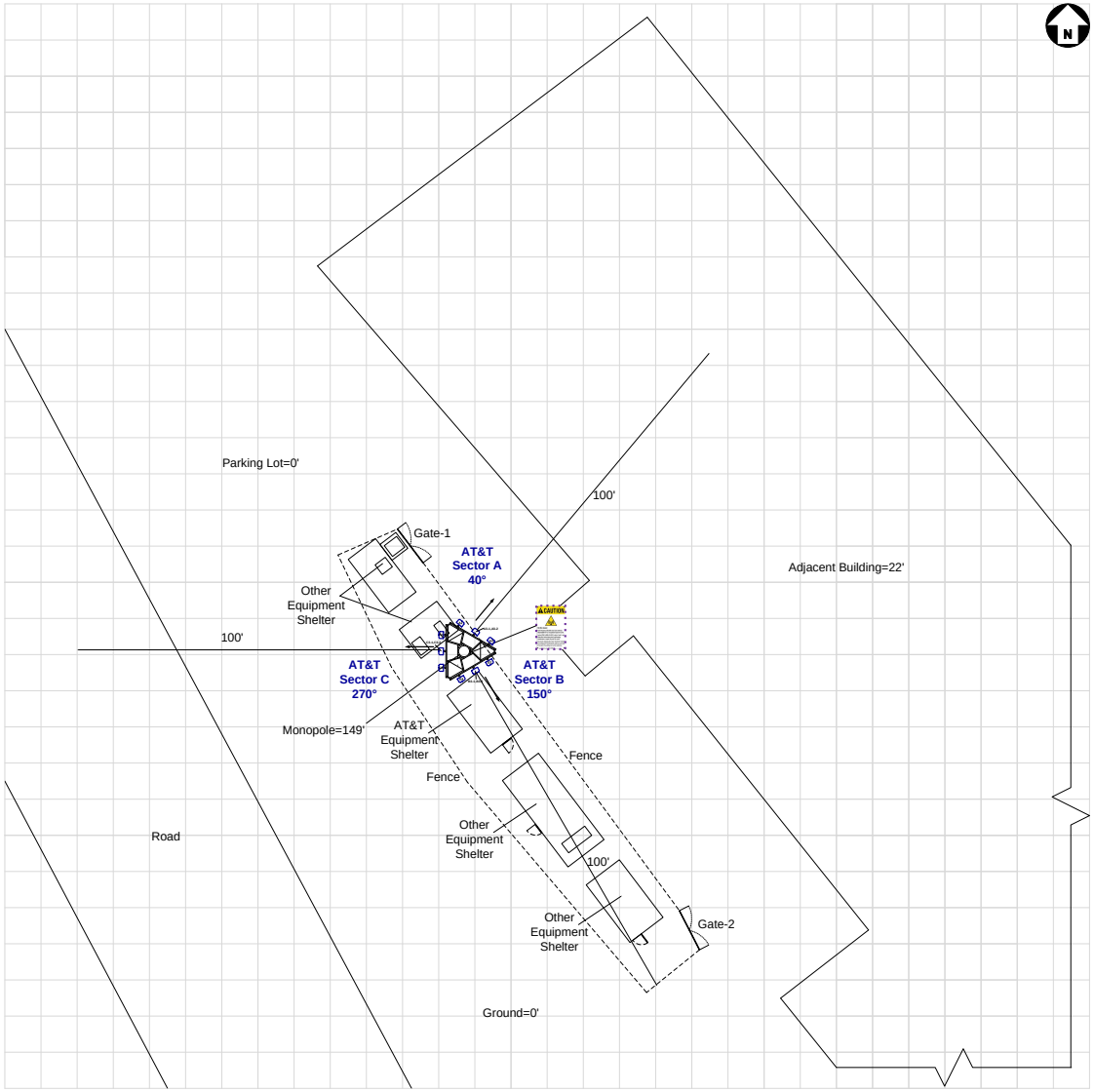
AT&T Signage Locations	Sign Type									
	Safety Instructions	Notice Sign 2	Caution Sign 2	Caution Sign 2B	Caution Sign 2C	Caution 7"x7"	Warning Sign 1B	RF Exposure Map	Lock	Barriers
Access Point(s)				1						
Alpha										
Beta										
Gamma										

TABLE 2: Signage Summary (Proposed)

1.3 List of Documents used to prepare this Report

- *CD*
- *RFDS*

2. Site Scale Map



AT&T Antenna	Proposed	Proposed Signage									
Panel	Barrier	Safety Instructions	Notice 2	Caution 2	Caution 2B	Caution 2C	Caution 7"x7"	Warning 1B	RF Exposure Map	Lock	***Map Scale = 10 ft***
OMNI	Posts										

3. Antenna Inventory

Ant ID	Operator	Antenna Mfg	Antenna Model	Antenna Type	FREQ. (MHz)	TECH.	AZ. (0)	HBW (0)	Antenna Gain (dBd)	Antenna Aperture (ft)	Transmitter Power (Watts)	Total Loss (dB)	Total ERP (Watts)	Total EIRP (Watts)
A2	AT&T	CCI	DMP65R-BU6D	Panel	700	LTE(FN)	40	74	11.85	6	120.00	0.5	1637.50	2686.47
A2	AT&T	CCI	DMP65R-BU6D	Panel	2100	LTE/5G	40	68	15.95	6	120.00	0.5	4209.02	6905.28
A3-1	AT&T	Ericsson	AIR 6419 B77G^	Panel	3450	5G	40	11	23.5	2.55	108.44*	0	24277.05*	39828.68*
A3-2	AT&T	Ericsson	AIR 6449 B77D^	Panel	3840	5G	40	11	23.5	2.55	108.44*	0	24277.05*	39828.68*
A4	AT&T	CCI	DMP65R-BU6D	Panel	700	LTE(B12)	40	74	11.85	6	120.00	0.5	1637.50	2686.47
A4	AT&T	CCI	DMP65R-BU6D	Panel	850	5G	40	63	12.45	6	120.00	0.5	1880.10	3084.47
A4	AT&T	CCI	DMP65R-BU6D	Panel	1900	LTE/5G	40	69	15.55	6	120.00	0.5	3838.67	6297.69
B2	AT&T	CCI	DMP65R-BU6D	Panel	700	LTE(FN)	150	74	11.85	6	120.00	0.5	1637.50	2686.47
B2	AT&T	CCI	DMP65R-BU6D	Panel	2100	LTE/5G	150	68	15.95	6	120.00	0.5	4209.02	6905.28
B3-1	AT&T	Ericsson	AIR 6419 B77G^	Panel	3450	5G	150	11	23.5	2.55	108.44*	0	24277.05*	39828.68*
B3-2	AT&T	Ericsson	AIR 6449 B77D^	Panel	3840	5G	150	11	23.5	2.55	108.44*	0	24277.05*	39828.68*
B4	AT&T	CCI	DMP65R-BU6D	Panel	700	LTE(B12)	150	74	11.85	6	120.00	0.5	1637.50	2686.47
B4	AT&T	CCI	DMP65R-BU6D	Panel	850	5G	150	63	12.45	6	120.00	0.5	1880.10	3084.47
B4	AT&T	CCI	DMP65R-BU6D	Panel	1900	LTE/5G	150	69	15.55	6	120.00	0.5	3838.67	6297.69
C2	AT&T	CCI	DMP65R-BU4D	Panel	700	LTE(FN)	270	75	10.55	4	120.00	0.5	1213.90	1991.50
C2	AT&T	CCI	DMP65R-BU4D	Panel	2100	LTE/5G	270	69	14.75	4	120.00	0.5	3192.87	5238.19
C3-1	AT&T	Ericsson	AIR 6419 B77G^	Panel	3450	5G	270	11	23.5	2.55	108.44*	0	24277.05*	39828.68*
C3-2	AT&T	Ericsson	AIR 6449 B77D^	Panel	3840	5G	270	11	23.5	2.55	108.44*	0	24277.05*	39828.68*
C4	AT&T	CCI	DMP65R-BU4D	Panel	700	LTE(B12)	270	75	10.55	4	120.00	0.5	1213.90	1991.50
C4	AT&T	CCI	DMP65R-BU4D	Panel	850	5G	270	67	10.85	4	120.00	0.5	1300.71	2133.94
C4	AT&T	CCI	DMP65R-BU4D	Panel	1900	LTE/5G	270	69	14.25	4	120.00	0.5	2845.65	4668.54

Table 3.1: Antenna Inventory Table

Note: **^ Mechanical Tilt value of "0°" MUST be retained for C-BAND and/or DoD AAS antenna(s) at all times to ensure that "EME (Predictive) Study" shall remain valid.**

* 75% TDD duty Cycle, 1.5dB Power Tolerance & 0.32 Power Reduction factor[1] are used to calculate Transmitter Power & ERP/EiRP

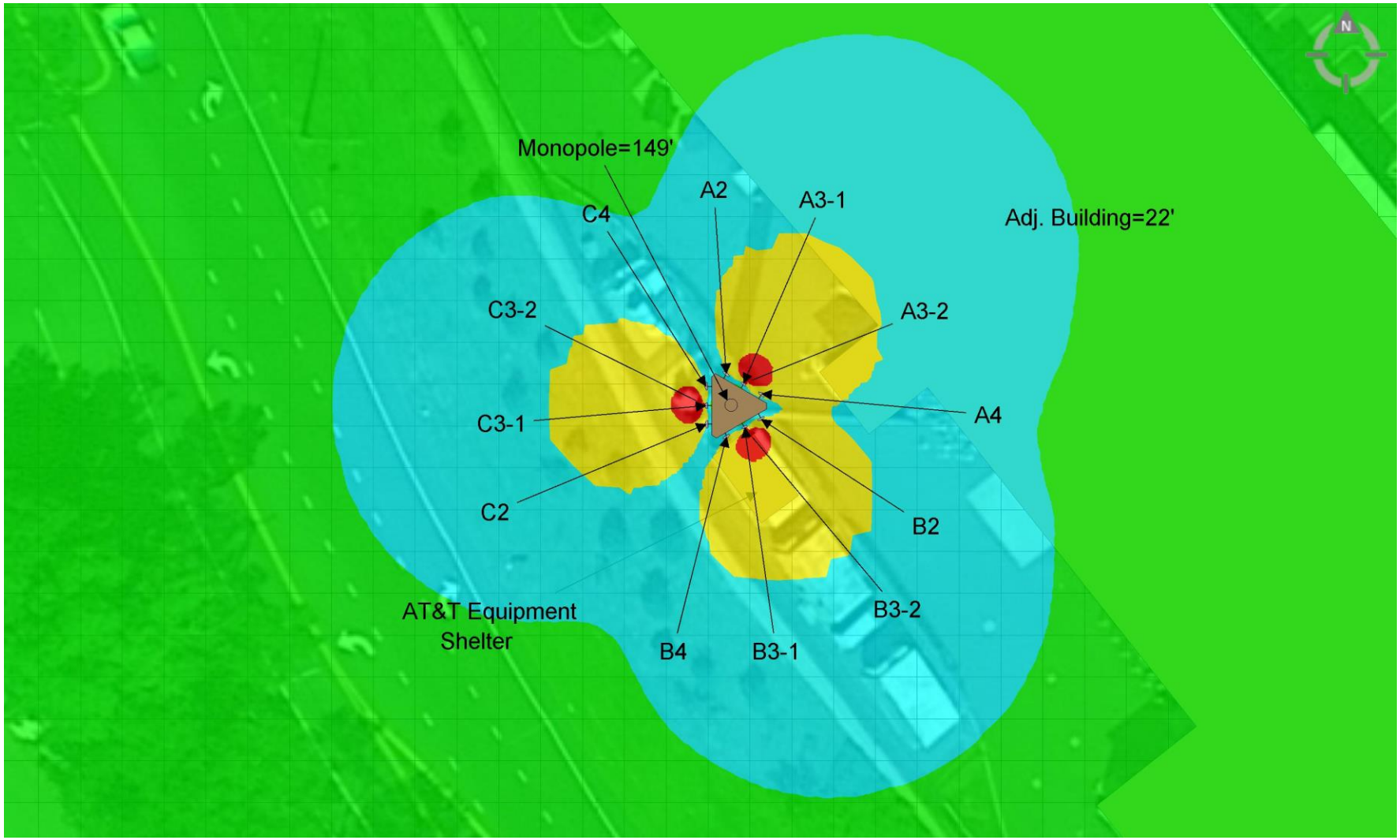
Antenna Heights (Z)

Ant ID	Operator	Antenna Radiation Centerline	Z-Height from Adjacent Building	Z-Height from Ground
A2	AT&T	108.00	83.00	105.00
A3-1	AT&T	109.75	86.48	108.48
A3-2	AT&T	106.25	82.98	104.98
A4	AT&T	108.00	83.00	105.00
B2	AT&T	108.00	83.00	105.00
B3-1	AT&T	109.75	86.48	108.48
B3-2	AT&T	106.25	82.98	104.98
B4	AT&T	108.00	83.00	105.00
C2	AT&T	108.00	84.00	106.00
C3-1	AT&T	109.75	86.48	108.48
C3-2	AT&T	106.25	82.98	104.98
C4	AT&T	108.00	84.00	106.00

Table 3.2: Antenna Height(s) Summary Table

4. Predicted Emission

4.1 Predictive Cumulative MPE Contribution from All Sources at Antennas Centerline Level (108 ft.)



Max. Predictive Spatial Average MPE% = **17089.70%**

Proposed Barrier
Proposed Posts

% of FCC General Public Exposure Limit (Predictive Spatial Average)

Non-Simulated	0-1	1-100	100-500	500-5000	>5000

Map Scale = 10 ft

4.2 Predictive Cumulative MPE Contribution from All Sources at Adjacent Building Level (22 ft.)

Max. Predictive Spatial Average MPE% = **4.58%**

Proposed Barrier

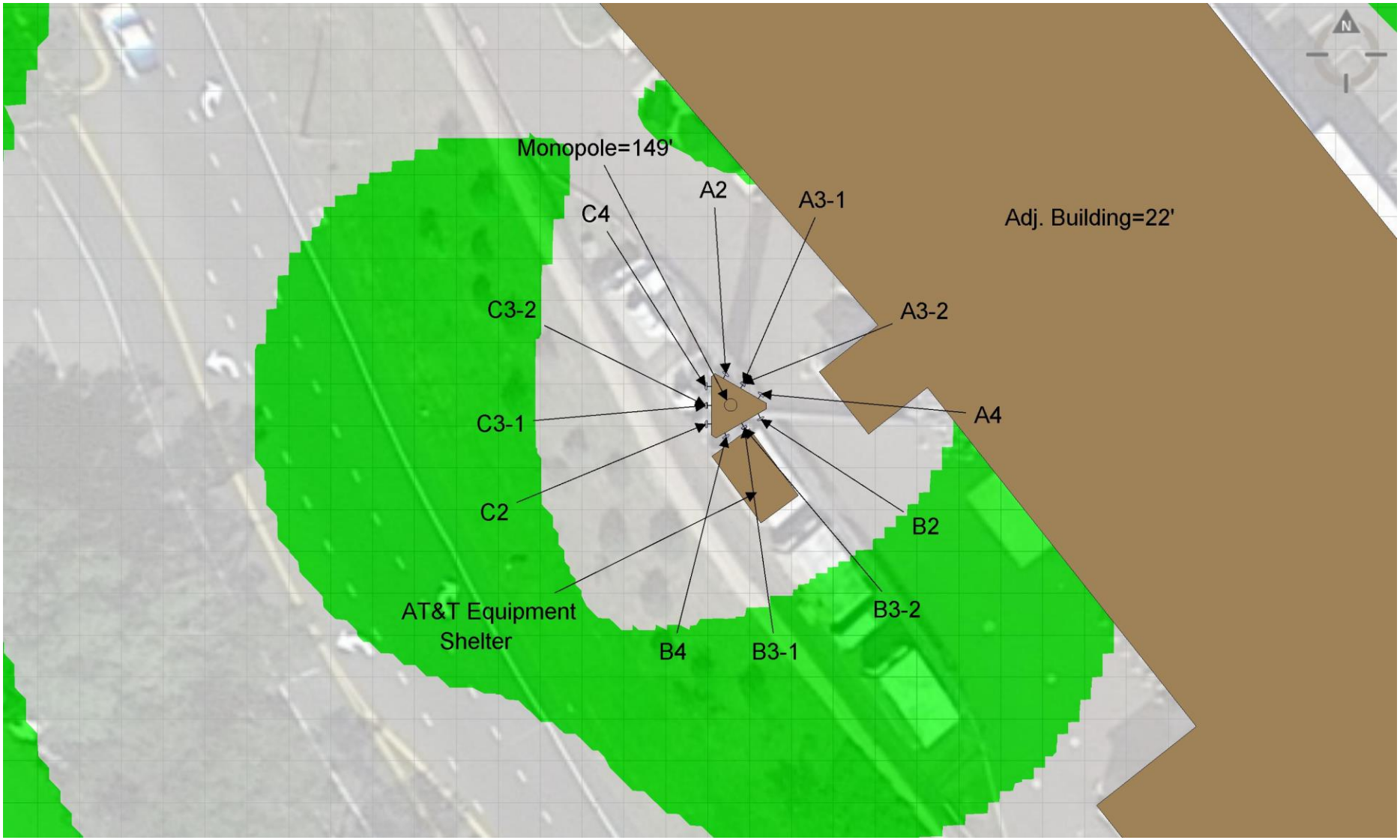
Proposed Posts

% of FCC General Public Exposure Limit (Predictive Spatial Average)

Non-Simulated	0-1	1-100	100-500	500-5000	>5000

Map Scale = 10 ft

4.3 Predictive Cumulative MPE Contribution from All Sources at Ground Level (0 ft.)



Max. Predictive Spatial Average MPE% = **2.94%**

Proposed Barrier

Proposed Posts

% of FCC General Public Exposure Limit (Predictive Spatial Average)

Non-Simulated	0-1	1-100	100-500	500-5000	>5000

Map Scale = 10 ft

5. Statement of Compliance

5.1 Statement of AT&T Mobility Compliance

At the time of our Analysis, AT&T Mobility is required to take action to fulfill their Obligations to comply with the FCC's mandate as defined in OET-65

Recommendations

AT&T Alpha Sector:

- No Action Required

AT&T Beta Sector:

- No Action Required

AT&T Gamma Sector:

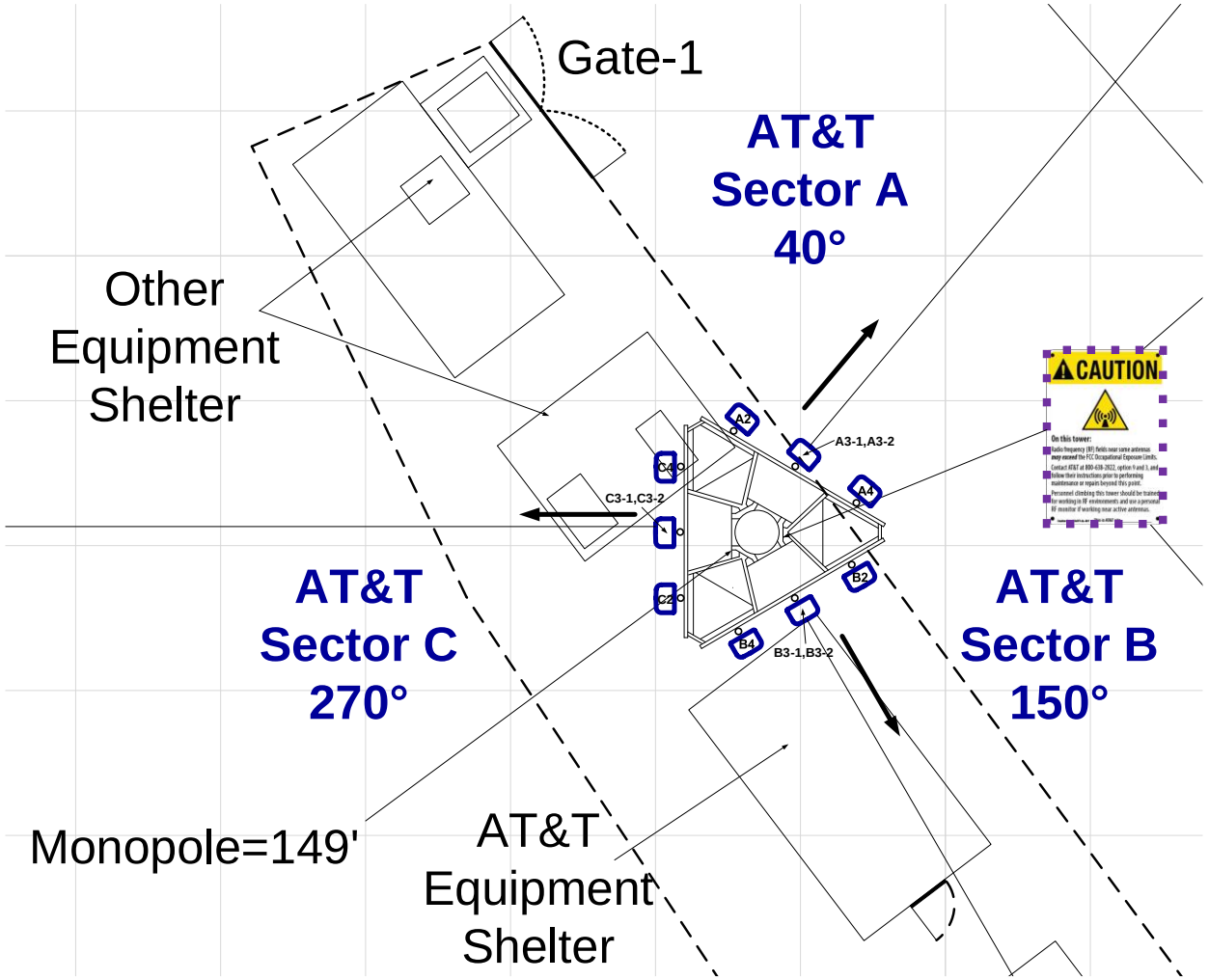
- No Action Required

Monopole:

- One Caution 2B Sign to be posted on Monopole at climbing access, facing outwards so approaching people can see as shown in "Recommendations Map – Detailed View" on page 11. (1 Total Sign)

Recommendations Map – Detailed View

AT&T Alpha, Beta & Gamma Sectors



AT&T Antenna	Proposed	Proposed Signage									
Panel	Barrier	Safety Instructions	Notice 2	Caution 2	Caution 2B	Caution 2C	Caution 7"x7"	Warning 1B	RF Exposure Map	Lock	***Map Scale = 10 ft***
OMNI	Posts										

Appendix A – Statement of Limiting Conditions

General Model Assumptions

In this site compliance report, it is assumed that all antennas are operating at full power at all times. AT&T has further recommended to assume a 75% duty cycle of maximum radiated power for all LTE & 5G carriers (& consider 100% duty cycle for all UMTS carriers).

In this site compliance report, it is assumed that Mechanical Tilt value of "0°" MUST be retained for C-BAND and/or DoD AAS^ antenna(s) at all times to ensure that "EME (Predictive) Study" shall remain valid.

AT&T recommended to consider - For C-BAND and/or DoD AAS^ antenna(s) 75% TDD duty Cycle, 1.5dB Power Tolerance & 0.32 Power Reduction factor[1] are used to calculate Transmitter Power & ERP/EiRP.

AT&T recommended to use worst-case tilts for the simulations.

*[1] **Power Reduction Factor**: IEC Standard 62232: 2017 allows for a statistically conservative power density model to more realistically define the RF exposure area. AT&T recommends a "0.32" factor to calculate the "Actual Maximum" (time averaged) power value, which accounts for "Beam Scanning," "Scheduling," and "RBS Utilization" This recommended value is a conservative figure modelled and supported by other vendors and through measurements published in scientific articles and white papers by IEEE and others. Those publication are listed below:*

1. IEEE Access, Time-Averaged Realistic Maximum Power Levels for the Assessment of RF Exposure for 5G Radio Base Stations Using Massive MIMO (Published Sept. 18, 2017 / BJÖRN THORS, ANDERS FURUSKÄR, DAVIDE COLOMBI, AND CHRISTER TÖRNEVIK)
2. IEEE Explore, A Statistical Approach for RF Exposure Compliance Boundary Assessment in Massive MIMO Systems (Published Jan. 25, 2018 / Paolo Baracca, Andreas Weber, Thorsten Wild, Christophe Grangeat)
3. IEEE Access, In-situ Measurement Methodology for the Assessment of 5G NR Massive MIMO Base Station Exposure at Sub-6 GHz Frequencies (Published Dec. 20, 2019 / SAM AERTS, LEEN VERLOOCK, MATTHIAS VAN DEN BOSSCHE, DAVIDE COLOMBI, LUC MARTENS, CHRISTER TÖRNEVIK AND WOUT JOSEPH)
4. Applied Sciences, Analysis of the Actual Power and EMF Exposure from Base Stations in a Commercial 5G Network (Published July 30, 2020 / Davide Colombi, Paramananda Joshi, Bo Xu, Fatemeh Ghasemifard, Vignesh Narasaraju and Christer Törnevik)
5. Ofcom Technical Report, Electromagnetic Field (EMF) measurements near 5G mobile phone base stations (Published Feb. 21, 2020 / Davide Colombi, Paramananda Joshi, Bo Xu, Fatemeh Ghasemifard, Vignesh Narasaraju and Christer Törnevik)

MobileComm believes these areas to be safe for entry by occupationally trained personnel utilizing appropriate personal protective equipment (in most cases, a personal monitor). Thus, at any time, if power density measurements were made, we believe the real time measurements would indicate levels below those depicted in the RF emission diagram(s) in this report. By modelling in this way, MobileComm has conservatively shown exclusion areas – areas that should not be entered without the use of a personal monitor, carriers reducing power, or performing real-time measurements to indicate real-time exposure levels.

Use of Generic Antennas

For the purposes of this report, the use of "Generic" as an antenna model, or "Other Carrier" for an operator means the information about a carrier, their FCC license and/or antenna information was not provided and could not be obtained while on site. In the event of unknown information, MobileComm will use our industry specific knowledge of equipment, antenna models, and transmit power to model the site. Information about similar facilities is used when the service is identified and associated with a particular antenna. If no information is available regarding the transmitting service associated with an unidentified antenna, using the antenna manufacturer's published data regarding the antenna's physical characteristics makes more conservative assumptions.

Where the frequency is unknown, MobileComm uses the closest frequency in the antenna's range that corresponds to the highest Maximum Exposure Limit (MPE), resulting in a conservative analysis.

Appendix B – FCC Guidelines and Emissions Threshold Limits

All power density values used in this report were 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 (µW/cm2).The number of µW/cm2 calculated at each sample point is called the power density. The exposure limit for power density varies depending upon the frequencies being utilized. Wireless Carriers and Paging Services use different frequency bands each with different exposure limits, therefore it is necessary to report results and limits in terms of percent MPE rather than power density.

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

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

Public exposure to radio frequencies is regulated and enforced in units of microwatts per square centimeter (µW/cm2). The general population exposure limit for the 700 and 800 MHz Bands is approximately 467 µW/cm2 and 567 µW/cm2 respectively, and the general population exposure limit for the 1900 MHz PCS and 2100 MHz AWS bands is 1000 µW/cm2. Because each carrier will be using different frequency bands, and each frequency band has different exposure limits, it is necessary to report percent of MPE rather than power density.

Occupational/Controlled exposure limits apply to situations in which persons are exposed as a consequence of their employment and in which those persons who are exposed have been made fully aware of the potential for exposure, have been properly trained in RF safety 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, have been trained in RF safety and can exercise control over his or her exposure by leaving the area or by some other appropriate means. The Occupational/Controlled exposure limits all utilized frequency bands is five (5) times the FCC's General Public / Uncontrolled exposure limit.

Additional details can be found in FCC OET 65.

Table 1: Limits for Maximum Permissible Exposure (MPE)				
(A) Limits for Occupational/Controlled Exposure				
Frequency Range (MHz)	**Electric Field Strength (E) (V/m)**	**Magnetic Field Strength (H) (A/m)**	**Power Density (S) (mW/cm^2)**	**Averaging Time $[E]^2$, $[H]^2$, or S (minutes)**
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842/f	4.89/f	($900/f^2$)*	6
30-300	61.4	0.163	1.0	6
300-I,500	--	--	f/300	6
1,500-100,000	--	--	5	6
(B) Limits for General Public/Uncontrolled Exposure				
Frequency Range (MHz)	**Electric Field Strength (E) (V/m)**	**Magnetic Field Strength (H) (A/m)**	**Power Density (S) (mW/cm^2)**	**Averaging Time $[E]^2$, $[H]^2$, or S (minutes)**
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	($180/f^2$)*	30
30-300	27.5	0.073	0.2	30
300-I,500	--	--	f/1,500	30
1,500-100,000	--	--	1.0	30

Appendix C – Rules & Regulations

Explanation of Applicable Rules and Regulations

FCC has set forth guidelines in OET Bulletin 65 for human exposure to radio frequency electromagnetic fields. Currently, there are two different levels of MPE - General Public MPE and Occupational MPE. An individual classified as Occupational can be defined as an individual who has received appropriate RF training and meets the conditions outlined below. General Public is defined as anyone who does not meet the conditions of being Occupational. FCC Rules and Regulations define compliance in terms of total exposure to total RF energy, regardless of location of or proximity to the sources of energy.

It is the responsibility of all licensees to ensure these guidelines are maintained at all times. It is the ongoing responsibility of all licensees composing the site to maintain ongoing compliance with FCC rules and regulations.

A building owner or site manager can use this report as part of an overall RF Health and Safety Policy. It is important for building owners/site managers to identify areas in excess of the General Population MPE and ensure that only persons qualified as Occupational are granted access to those areas.

Occupational Environment Explained

The FCC definition of Occupational exposure limits apply to persons who:

- *are exposed to RF energy as a consequence of their employment;*
- *have been made aware of the possibility of exposure; and*
- *can exercise control over their exposure.*

FCC guidelines go further to state that persons must complete RF Safety Awareness training and must be trained in the use of appropriate personal protective equipment.

In order to consider this site an Occupational Environment, the site must be controlled to prevent access by any individuals classified as the General Public. Compliance is also maintained when any non-occupational individuals (the General Public) are prevented from accessing areas indicated as Red or Yellow in the attached RF Emissions diagram. In addition, a person must be aware of the RF environment into which they are entering. This can be accomplished by an RF Safety Awareness class, and by appropriate written documentation such as this Site Compliance Report.

Appendix D – General Safety Recommendations

The following are general recommendations appropriate for any site with accessible areas in excess of 100% General Public MPE. These recommendations are not specific to this site. These are safety recommendations appropriate for typical site management, building management, and other tenant operations.

1. All individuals needing access to the main site should be instructed to read and obey all posted placards and signs.

2. The site should be routinely inspected and this or similar report updated with the addition of any antennas or upon any changes to the RF environment including:

- *adding new antennas that may have been located on the site*
- *removing of any existing antennas*
- *changes in the radiating power or number of RF emitters*

3. Post the appropriate SAFETY INSTRUCTIONS, NOTICE, CAUTION & WARNING sign at the main site access point(s) and other locations as required. Note: Please refer to RF Exposure Diagrams in the report section above, to inform everyone who has access to this site that beyond posted signs there may be levels in excess of the limits prescribed by the FCC. The signs below are examples of signs meeting FCC guidelines.

4. Ensure that the site door remains locked (or appropriately controlled) to deny access to the general public if deemed as policy by the building/site owner.

5. For a General Public environment the five color levels identified in measured RF emission diagram can be interpreted in the following manner:

- *White represents areas predicted to be greater than or equal to 0% and less than 1% of the MPE general public limits*
- *Green represents areas predicted to be greater than or equal to 1% and less than 100% of the MPE general public limits*
- *Blue represents areas predicted to be greater than or equal to 100% and lesser than 500% of the MPE general public limits.*
- *Yellow represents areas predicted to be greater than or equal to 500% and lesser than 5000% of the MPE general public limits.*
- *Red areas indicates predicted levels greater than or equal to 5000% of the MPE general public limits.*

Appendix E – References

1 - FCC Definition

FCC defines an Occupational or Controlled environment as one where persons are exposed to RF fields as a consequence of their employment and where those persons exposed have been made fully aware of the potential for exposure and can exercise control over their exposure. Typical criteria for an Occupational or Controlled environment is restricted access (i.e. locked doors, gates, etc.) to areas where antennas are located coupled with proper RF warning signage.

FCC defines a site as a General Public or Uncontrolled environment when human exposure to RF fields occurs to the general public or in which persons who are exposed as a consequence of their employment may not be fully aware of the potential for exposure or cannot exercise control over the exposure. Typical criteria for a General Public or Uncontrolled environment are unrestricted access (i.e. unlocked or no restrictions) to areas where antennas are located without proper RF warning signage being posted.

2 - Physical Testing measurement procedure and Tools

The Narda Broadband Field Meter NBM-550 can make rapid conformance measurements with evaluation in the time domain when used in conjunction EA5091 probe. This probe is a so-called Shaped Probe, i.e. it is frequency weighted so that it automatically takes account of the FCC Occupational limit values. To collect data, the probe is pointed towards the potential source(s) of EME radiation and moved slowly from ground level up to slightly above head height (approx. 6 ft).

Spatial Average Measurement A technique used to average a minimum of ten (10) measurements taken in a ten (10) second interval from zero (0) to six (6) feet. This measurement is intended to model the average energy an average sized human body will absorb while present in an electromagnetic field of energy.

3 - Site Safety Procedures

The following items are general safety recommendations that should be administered on a site by site basis as needed by the carrier.

General Maintenance Work: *Any maintenance personnel required to work immediately in front of antennas and / or in areas indicated as above 100% of the Occupational MPE limits should coordinate with the wireless operators to disable transmitters during their work activities.*

Training and Qualification Verification: *All personnel accessing areas indicated as exceeding the General Population MPE limits should have a basic understanding of EME awareness and RF Safety procedures when working around transmitting antennas. Awareness training increases a workers understanding to potential RF exposure scenarios. Awareness can be achieved in a number of ways (e.g. videos, formal classroom lecture or internet based courses).*

Physical Access Control: *Access restrictions to transmitting antennas locations is the primary element in a site safety plan. Examples of access restrictions are as follows:*

- *Locked door or gate*
- *Alarmed door*
- *Locked ladder access*
- *Restrictive Barrier at antenna locations (e.g. Chain link with posted RF Sign)*

RF Signage: *Everyone should obey all posted signs at all times. RF signs play an important role in properly warning a worker prior to entering into a potential RF Exposure area.*

Assume all antennas are active: *Due to the nature of telecommunications transmissions, an antenna transmits intermittently. Always assume an antenna is transmitting. Never stop in front of an antenna. If you have to pass by an antenna, move through as quickly and safely as possible thereby reducing any exposure to a minimum.*

Maintain a 3 foot clearance from all antennas: *There is a direct correlation between the strength of an EME field and the distance from the transmitting antenna. The further away from an antenna, the lower the corresponding EME field is.*

Rooftop RF Emissions Diagram: *Section 4 of this report contains an RF Emissions Diagram that outlines various theoretical Maximum Permissible Exposure (MPE) areas on the rooftop. This analysis is all theoretical and assumes a duty cycle of 75% for each transmitting antenna at full power. This analysis is a worst case scenario. This analysis is based on one of two access control criteria: General Public criteria means the access to the site is uncontrolled and anyone can gain access. Occupational criteria means the access is restricted and only properly trained individuals can gain access to the antenna locations.*

4 - Definitions

Compliance- *The determination of whether a site is safe or not with regards to Human Exposure to Radio Frequency Radiation from transmitting antennas.*

Decibel (dB) – *A unit for measuring power or strength of a signal.*

Duty Cycle – *The percent of pulse duration to the pulse period of a periodic pulse train. Also, may be a measure of the temporal transmission characteristic of an intermittently transmitting RF source such as a paging antenna by dividing average transmission duration by the average period for transmission. A duty cycle of 75% corresponds to continuous operation.*

Effective (or Equivalent) Isotropic Radiated Power (EIRP) – *The product of the power supplied to the antenna and the antenna gain in a given direction relative to an isotropic antenna, this product is divided by the cable losses*

Effective Radiated Power (ERP) – *In a given direction, the relative gain of a transmitting antenna with respect to the maximum directivity of a half wave dipole multiplied by the net power accepted by the antenna from the connecting transmitter.*

Gain (of an antenna in dbd) – *The ratio of the maximum intensity in a given direction to the maximum radiation in the same direction from a reference dipole. Gain is a measure of the relative efficiency of a directional antennas as compared to a reference dipole.*

General Population/Uncontrolled Environment – *Defined by the FCC, as an area where RFR exposure may occur to persons who are unaware of the potential for exposure and who have no control of their exposure. General Population is also referenced as General Public.*

Generic Antenna – *For the purposes of this report, the use of "Generic" as an antenna model means the antenna information was not provided and could not be obtained while on site. In the event of unknown information, MobileComm will use our industry specific knowledge of antenna models to select a worst case scenario antenna to model the site.*

Isotropic Antenna – *An antenna that is completely non-directional. In other words, an antenna that radiates energy equally in all directions.*

Maximum Measurement – *This measurement represents the single largest measurement recorded when performing a spatial average measurement.*

Maximum Exposure Limit (MPE) – *The RMS and peak electric and magnetic field strength, their squares, or the plane-wave equivalent power densities associated with these fields to which a person may be exposed without harmful effect and with acceptable safety factor.*

Occupational/Controlled Environment – *Defined by the FCC, as an area where Radio Frequency Radiation (RFR) exposure may occur to persons who are aware of the potential for exposure as a condition of employment or specific activity and can exercise control over their exposure.*

Radio Frequency Radiation – *Electromagnetic waves that are propagated from antennas through space.*

Spatial Average Measurement – *A technique used to average a minimum of ten (10) measurements taken in a ten (10) second interval from zero (0) to six (6) feet. This measurement is intended to model the average energy an average sized human body will absorb while present in an electromagnetic field of energy.*

Transmitter Power Output (TPO) – *The radio frequency output power of a transmitter's final radio frequency stage as measured at the output terminal while connected to a load.*

Appendix F – Proprietary Statement

This report was prepared for the use of AT&T Mobility, LLC to meet requirements specified in AT&T's corporate RF safety guidelines. It was performed in accordance with generally accepted practices of other consultants undertaking similar studies at the same time and in the same locale under like circumstances. The conclusions provided by MobileComm are based solely on the information provided by AT&T Mobility and all observations in this report are valid on the date of the investigation. Any additional information that becomes available concerning the site should be provided to MobileComm so that our conclusions may be revised and modified, if necessary. This report has been prepared in accordance with Standard Conditions for Engagement and authorized proposal, both of which are integral parts of this report. No other warranty, expressed or implied, is made.

Date: **April 26, 2022**

Infinigy
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Fort Washington, PA 19034
(518) 690-0790
structural@infinigy.com

Subject:	**Mount Analysis Report**	
Carrier Designation:	**AT&T Mobility Equiment Change-Out**	
	Carrier Site Number:	CT2158
	Carrier Site Name:	--
	Carrier FA Number:	10035218
Crown Castle Designation:	**Crown Castle BU Number:**	876343
	Crown Castle Site Name:	GUILFORD WEST STONE PROPERTY
	Crown Castle JDE Job Number:	702660
	Crown Castle Order Number:	601775 Rev.0
Engineering Firm Designation:	**Infinigy Report Designation:**	1039-Z0001-B
Site Data:	**1919 Boston Post Rd., Guilford, New Haven County, CT, 06437** **Latitude 41°18'1.27" Longitude -72°42'29.13"**	
Structure Information:	**Tower Height & Type:**	**149.0 ft Monopole**
	Mount Elevation:	**106.0 ft**
	Mount Type:	**14.5 ft Platform**

Infinigy 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.

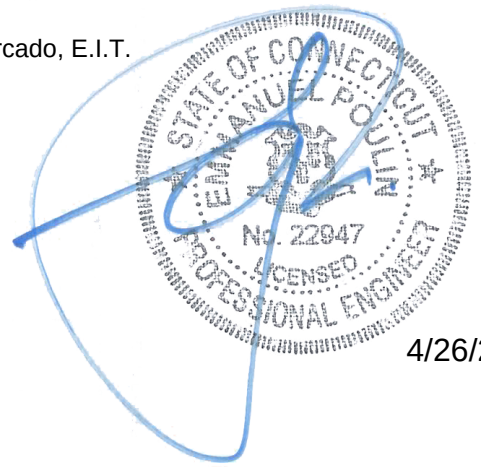
The purpose of the analysis is to determine acceptability of the mount stress level. Based on our analysis we have determined the mount stress level to be:

Platform **Sufficient**

This analysis has been performed in accordance with the 2018 International Building Code based upon an ultimate 3-second gust wind speed of 122 mph. Applicable Standard references and design criteria are listed in Section 2 - Analysis Criteria.

Mount analysis prepared by: Alex Mercado, E.I.T.

Respectfully Submitted by:
Emmanuel Poulin, P.E.
(518) 690-0790
structural@infinigy.com
CT PE License No. 22947



4/26/22

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1) INTRODUCTION

This is an existing 3 sector 14.5 ft Platform, designed by Site Pro 1.

2) ANALYSIS CRITERIA

Building Code:	2018 IBC
TIA-222 Revision:	TIA-222-H
Risk Category:	II
Ultimate Wind Speed:	122 mph
Exposure Category:	C
Topographic Factor at Base:	1.0
Topographic Factor at Mount:	1.0
Ice Thickness:	1.0 in
Wind Speed with Ice:	50 mph
Seismic S_s:	0.204
Seismic S_1:	0.054
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

Mount Centerline (ft)	Antenna Centerline (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Mount / Modification Details
106.0	108.0	4	CCI ANTENNAS	DMP65R-BU6D	14.5 ft Platform
		3	ERICSSON	AIR 6419 B77G_CCIV3	
		3	ERICSSON	RRUS 4449 B5/B12	
		3	ERICSSON	RRUS 4478 B14_CCIV2	
		3	ERICSSON	RRUS 8843 B2/B66A	
		2	CCI ANTENNAS	DMP65R-BU4D	
		1	RAYCAP	DC6-48-60-18-8F	
		1	RAYCAP	DC9-48-60-24-8C-EV	
	104.0	3	ERICSSON	AIR 6449 B77D_CCVI2	

3) ANALYSIS PROCEDURE

Table 2 - Documents Provided

Document	Remarks	Reference	Source
Crown Application	AT&T Mobility Application	601775 Rev.0	CCI Sites
Mount Manufacturer Drawings	Site Pro 1	RMQLP-4120-H10	Infinigy
Loading Documents	AT&T Mobility	RFDS ID: 4863127	TSA

3.1) Analysis Method

RISA-3D (Version 17.0.4), 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.

Infinigy Mount Analysis Tool V2.1.7, a tool internally developed by Infinigy, was used to calculate wind loading on all appurtenances, dishes and mount members for various loading cases. Selected output from the analysis is included in Appendix B “Software Input Calculations”.

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

3.2) Assumptions

1) The antenna mounting system was properly fabricated, installed and maintained in good condition in accordance with its original design and manufacturer's specifications.
2) The configuration of antennas, mounts, and other appurtenances are as specified in Table 1 and the referenced drawings.
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.
5) Prior structural modifications to the tower mounting system are assumed to be installed as shown per available data.
6) Steel grades have been assumed as follows, unless noted otherwise:

Channel, Solid Round, Angle, Plate	Q345 (GR 36)
HSS (Rectangular)	Q235-GB (GR 35)
Pipe	Q235-GB (GR 35)
Connection Bolts	ASTM A325

This analysis may be affected if any assumptions are not valid or have been made in error. Infinigy 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 (Platform, All Sectors)

Notes	Component	Critical Member	Centerline (ft)	% Capacity	Pass / Fail
1,2	Mount Pipe(s)	MP2	106.0	25.5	Pass
	Horizontal(s)	H2		14.2	Pass
	Standoff(s)	S1		35.9	Pass
	Handrail(s)	HR1		35.1	Pass
	Grating Angle(s)	M19		39.7	Pass
	Corner Plate(s)	M3		34.8	Pass
	Mount Connection(s)	--		20.8	Pass

Structure Rating (max from all components) =	39.7%

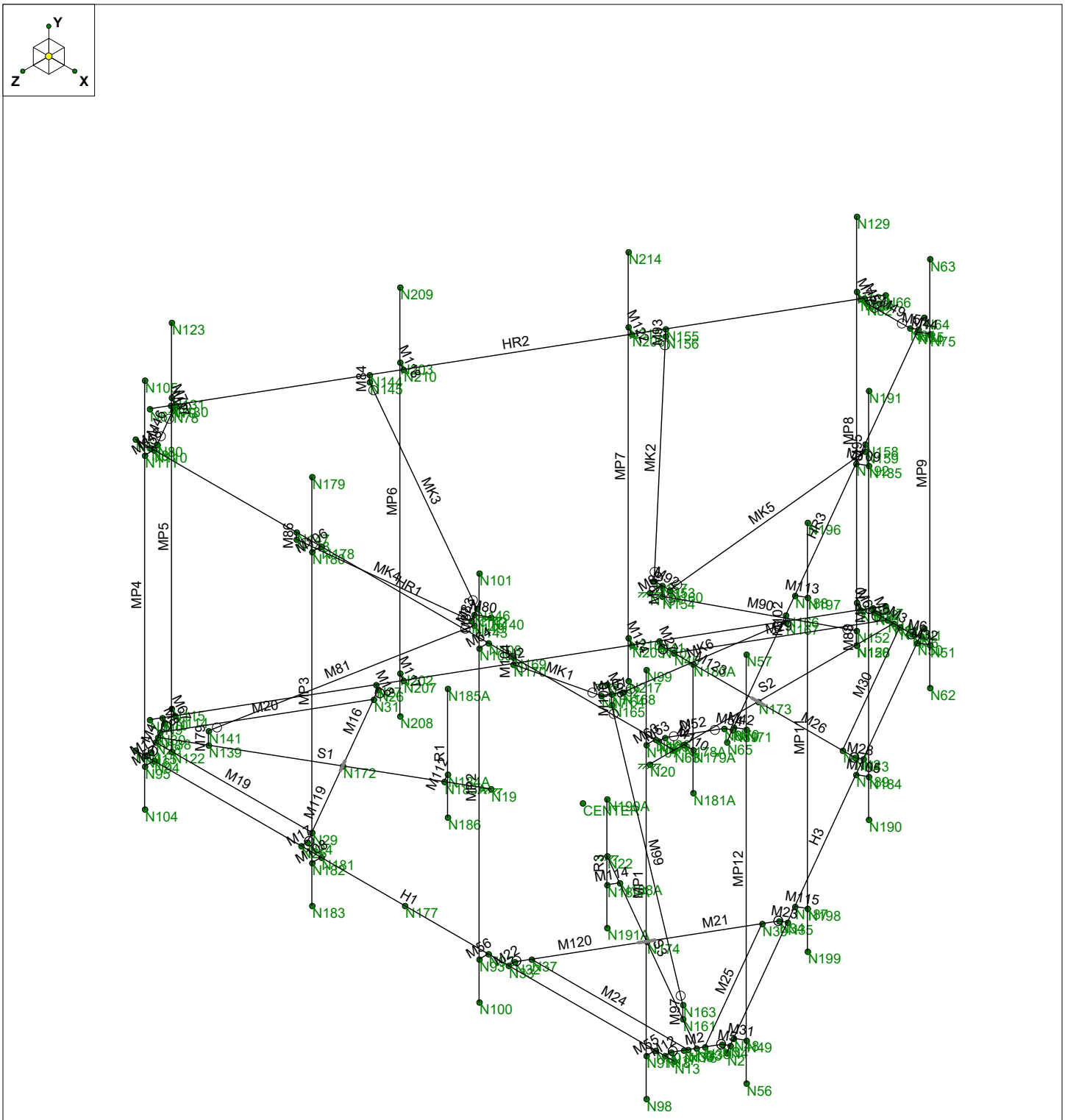
Notes:
1) See additional documentation in "Appendix C - Software Analysis Output" for calculations supporting the % capacity consumed.
2) See additional documentation in “Appendix D – Additional Calculations” for detailed mount connection calculations.

4.1) Recommendations

The mount has sufficient capacity to carry the proposed loading configuration. No modifications are required at this time.

APPENDIX A

WIRE FRAME AND RENDERED MODELS



Infinigy Engineering	876343	Wireframe
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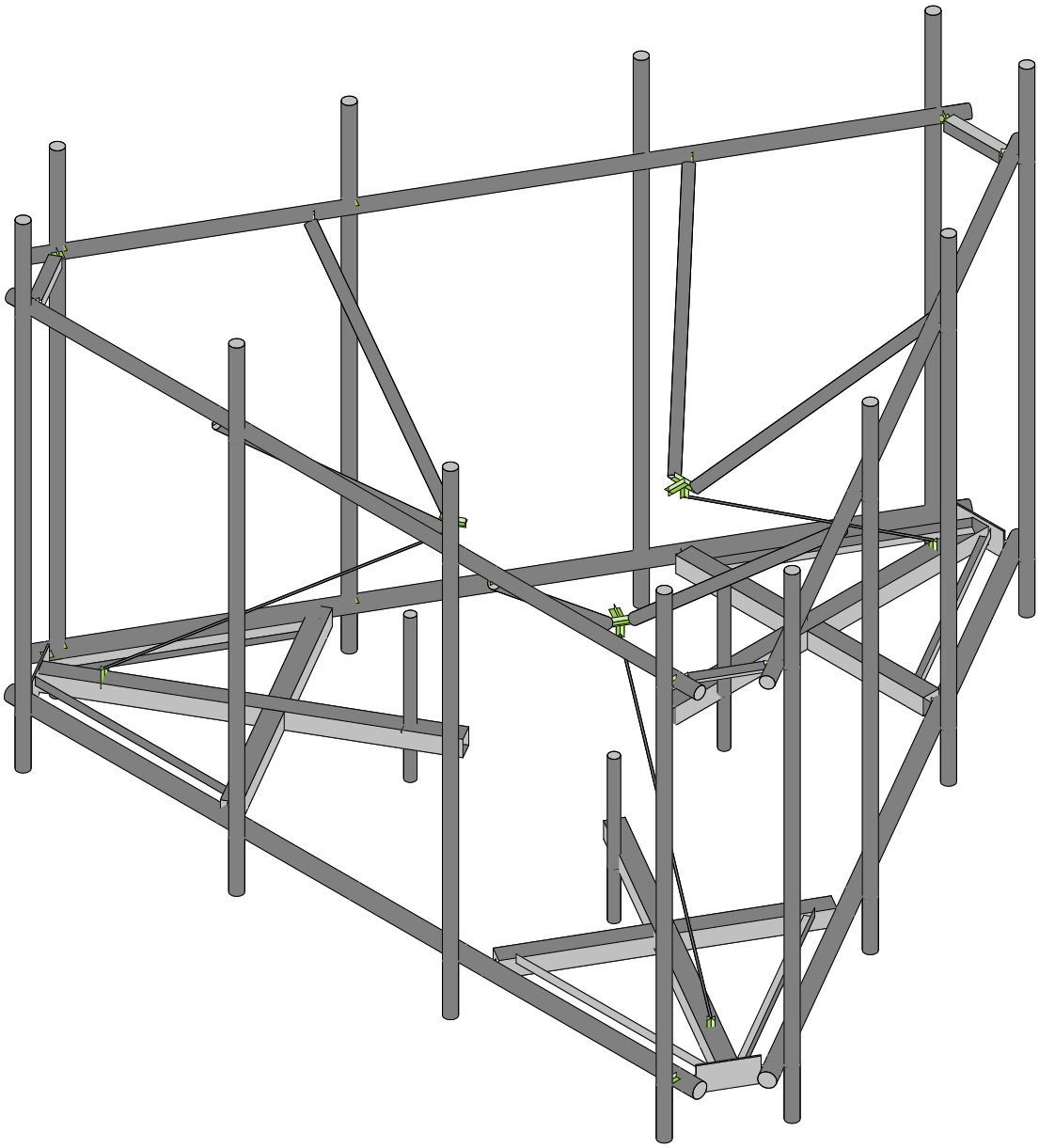

Infinigy Engineering	876343	Render
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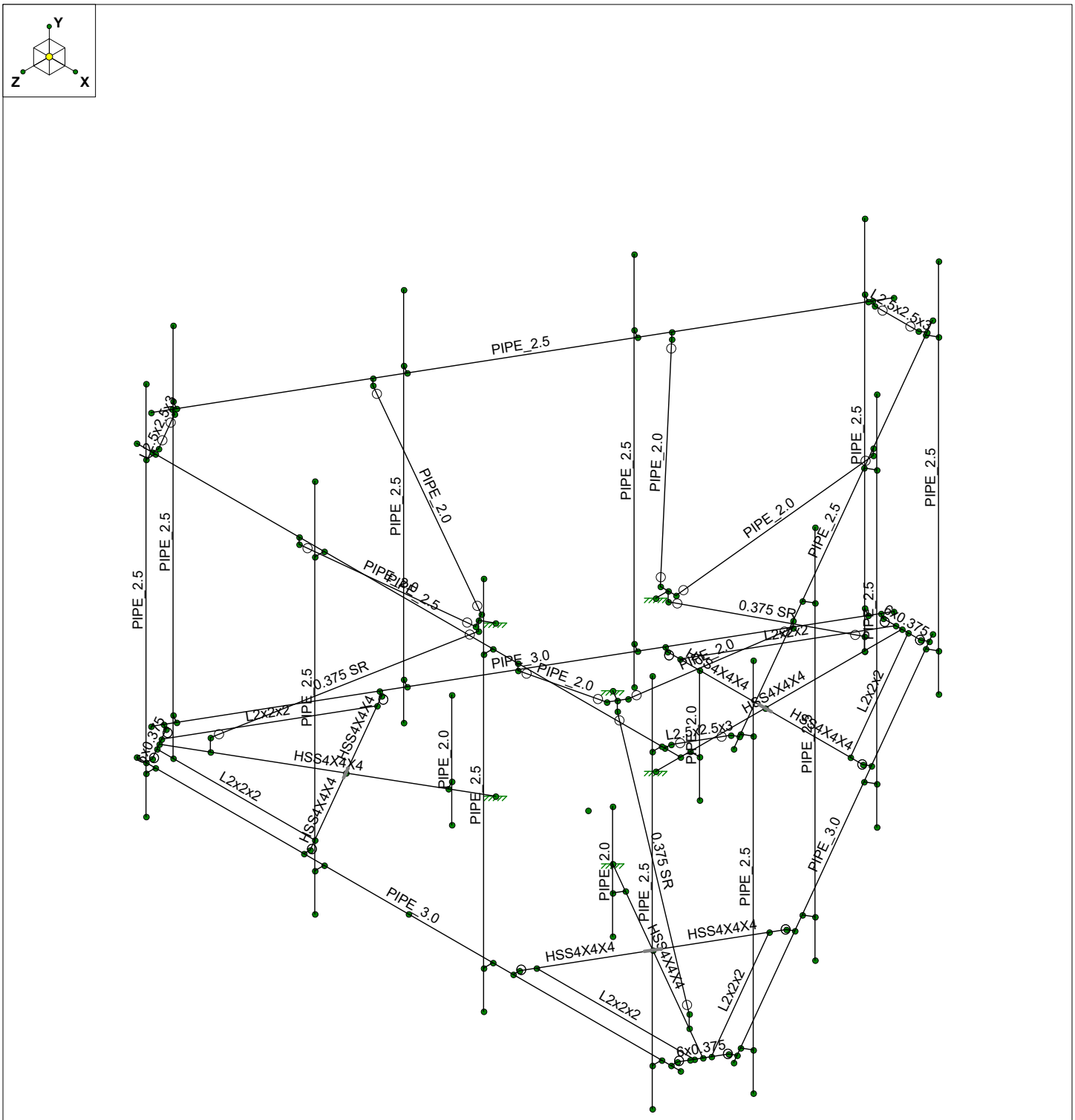

Infinigy Engineering	876343	Shape
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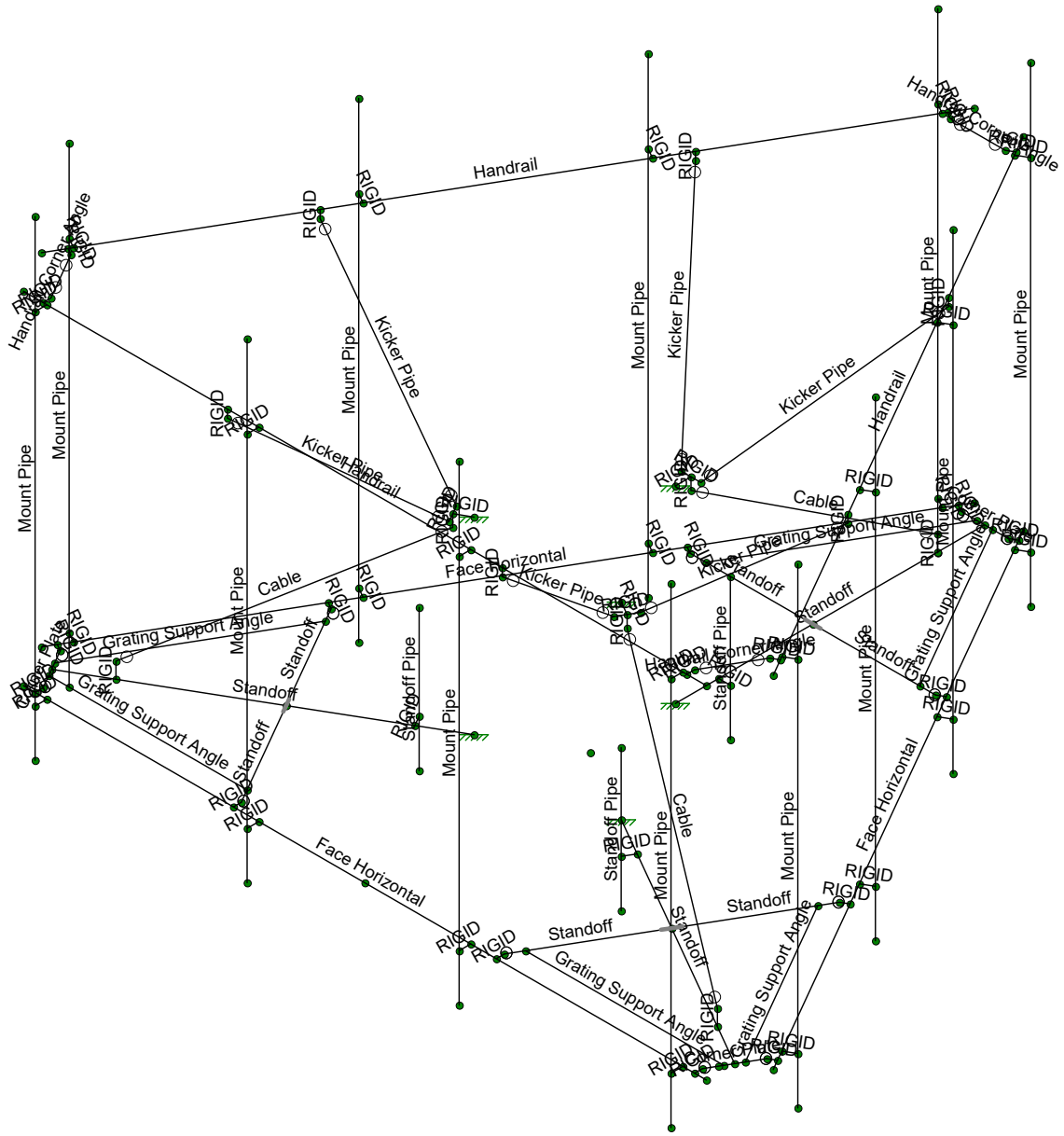

Infinigy Engineering	876343	Section Sets
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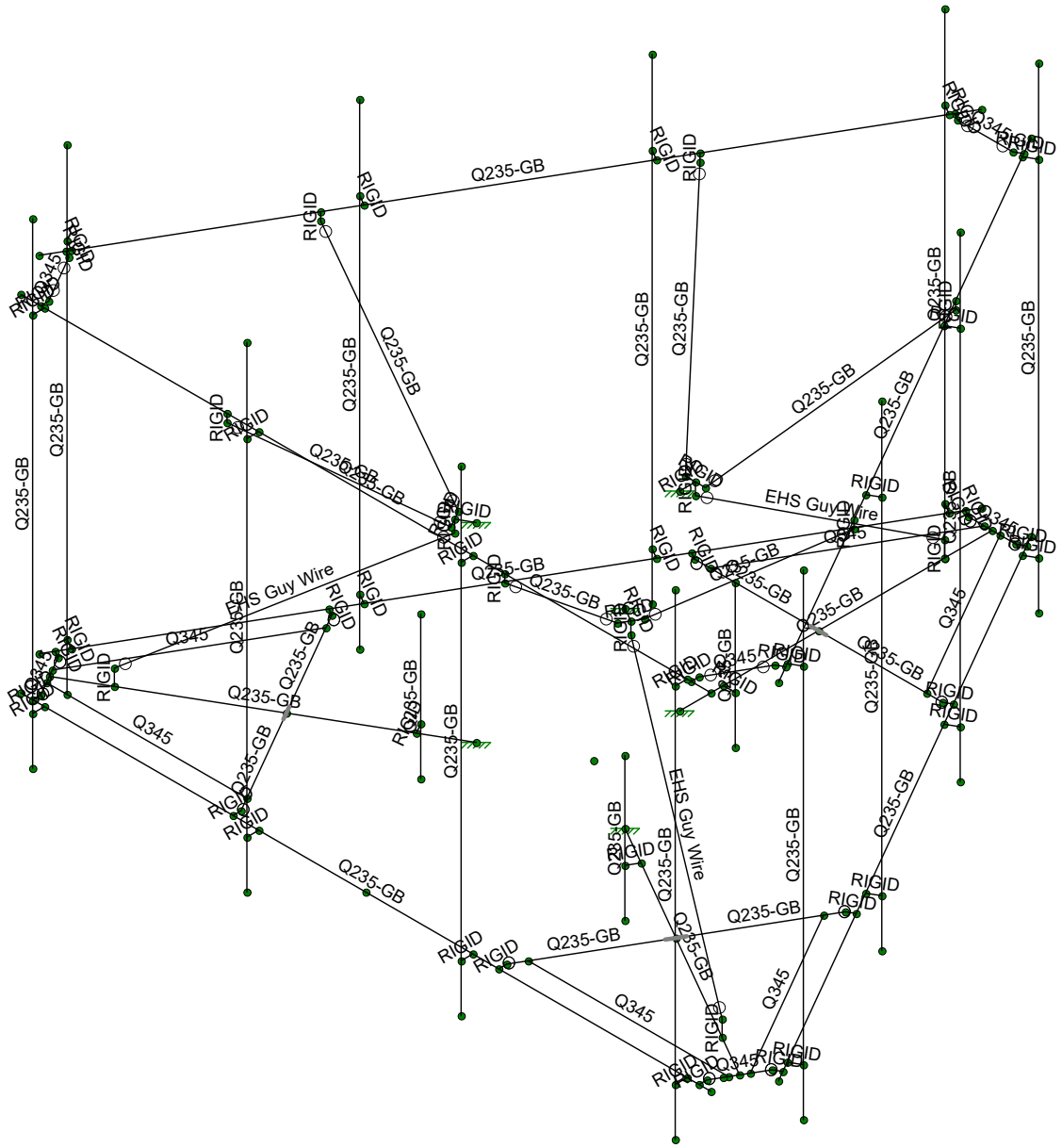

Infinigy Engineering	876343	Grade
AM		Apr 26, 2022 at 1:22 PM
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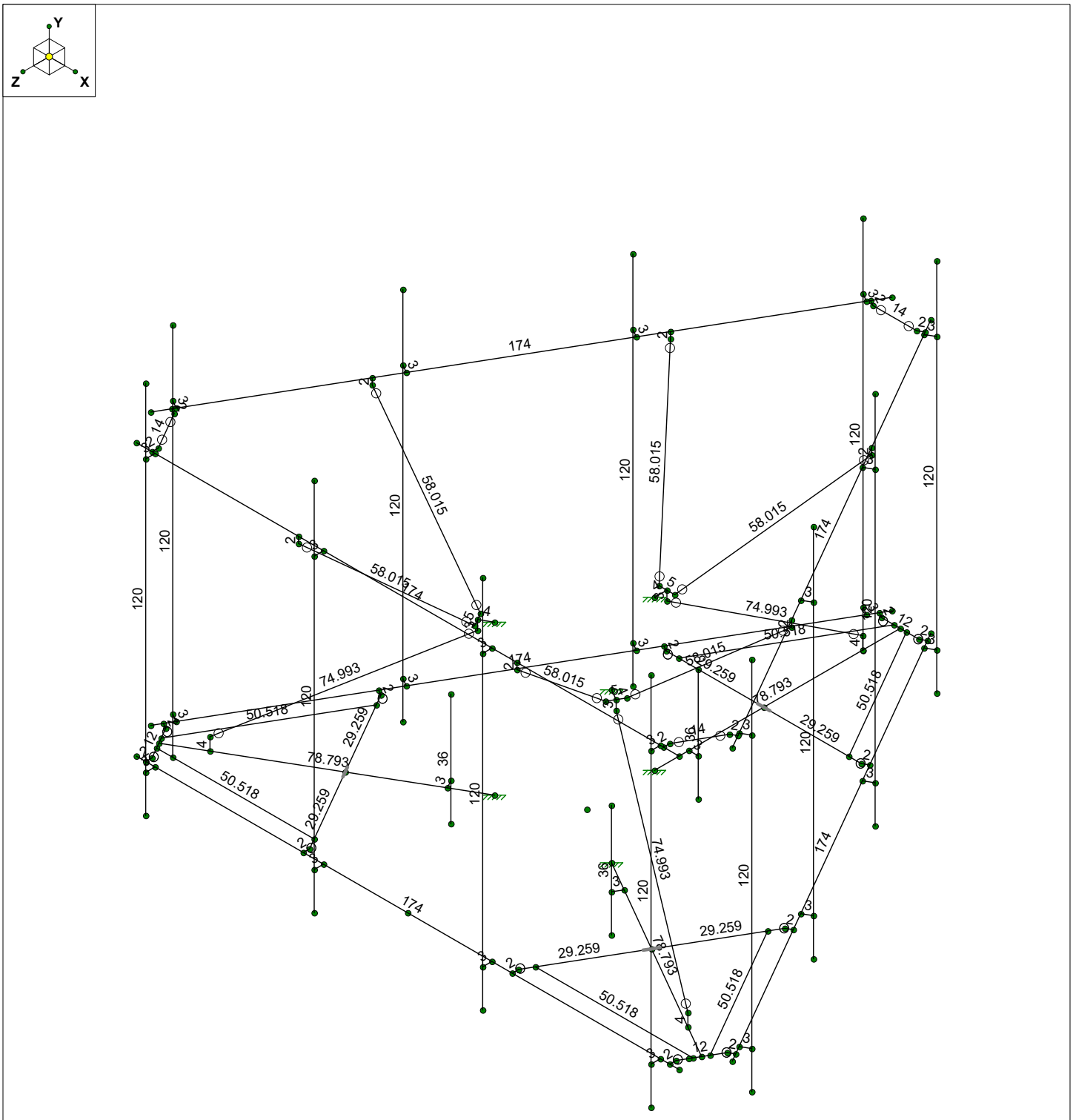

Member Length (in) Displayed

Infinigy Engineering	876343	Length
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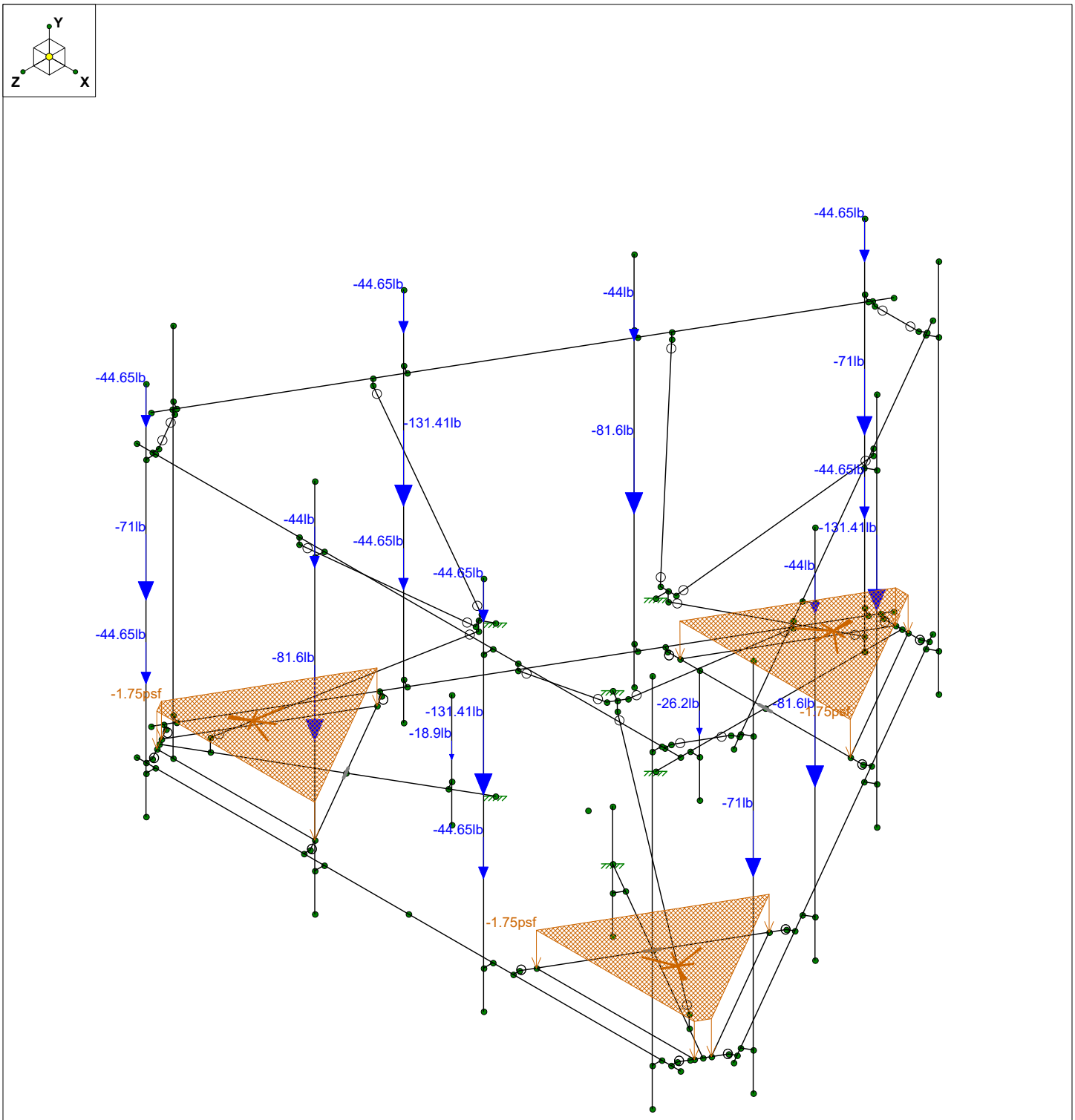

Loads: BLC 1, Self Weight

Infinigy Engineering	876343	Self Weight
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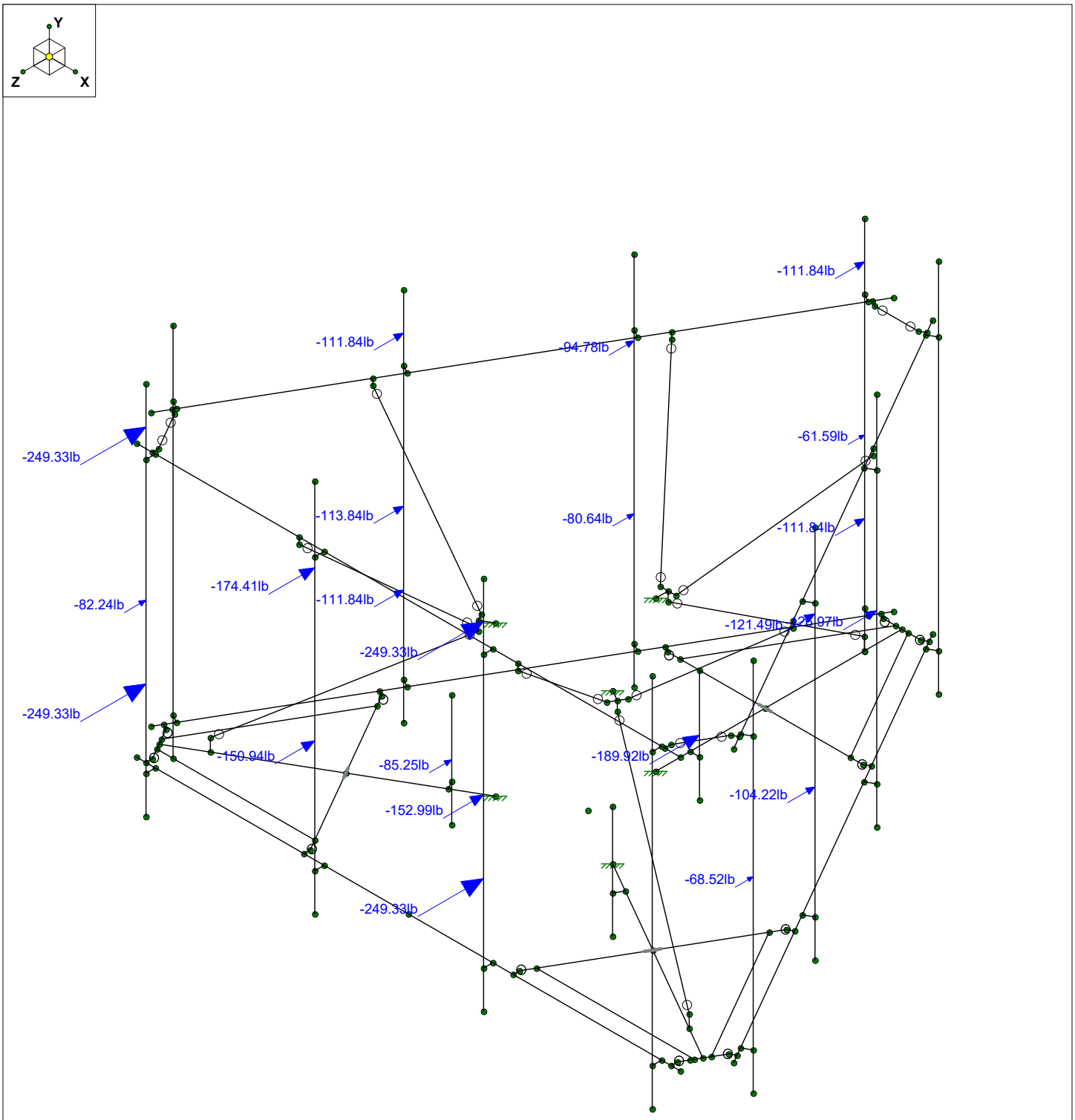

Loads: BLC 2, Wind Load AZI 0

Infinigy Engineering	876343	Wind Loading 0
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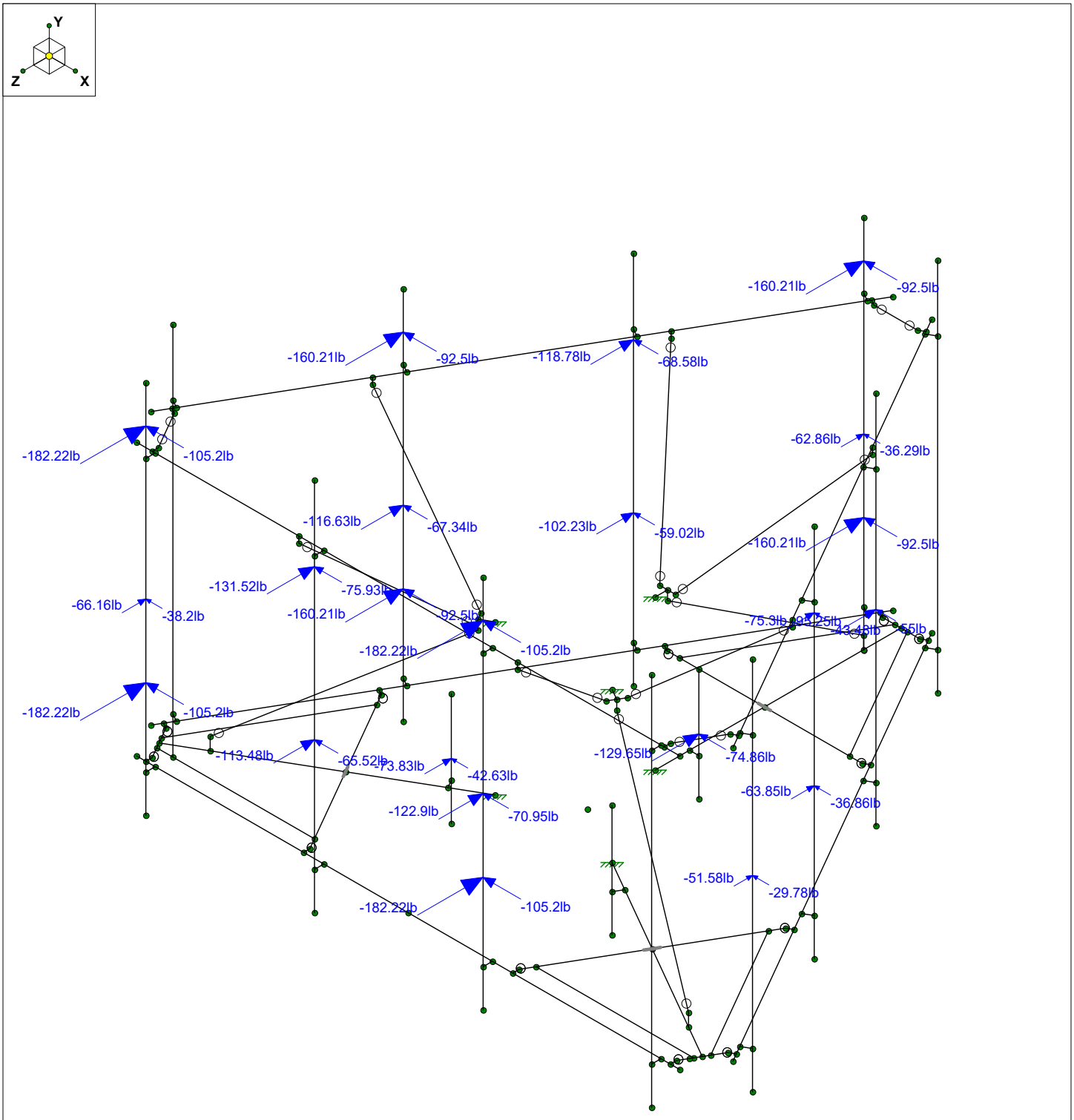
1039-Z0001-B		876343_loaded.r3d



Loads: BLC 3, Wind Load AZI 30

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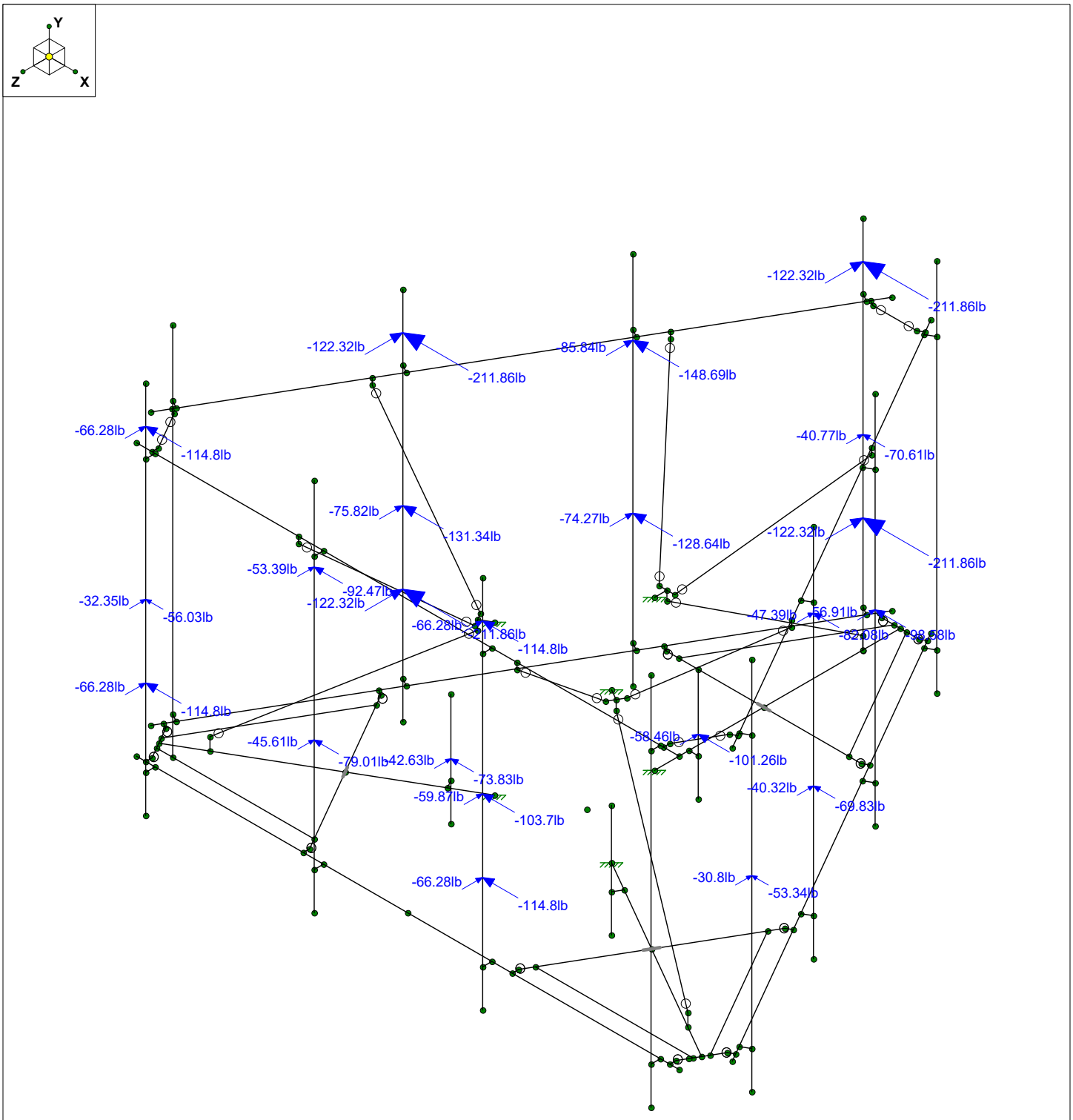

Loads: BLC 4, Wind Load AZI 60

Infinigy Engineering	876343	Wind Loading 60
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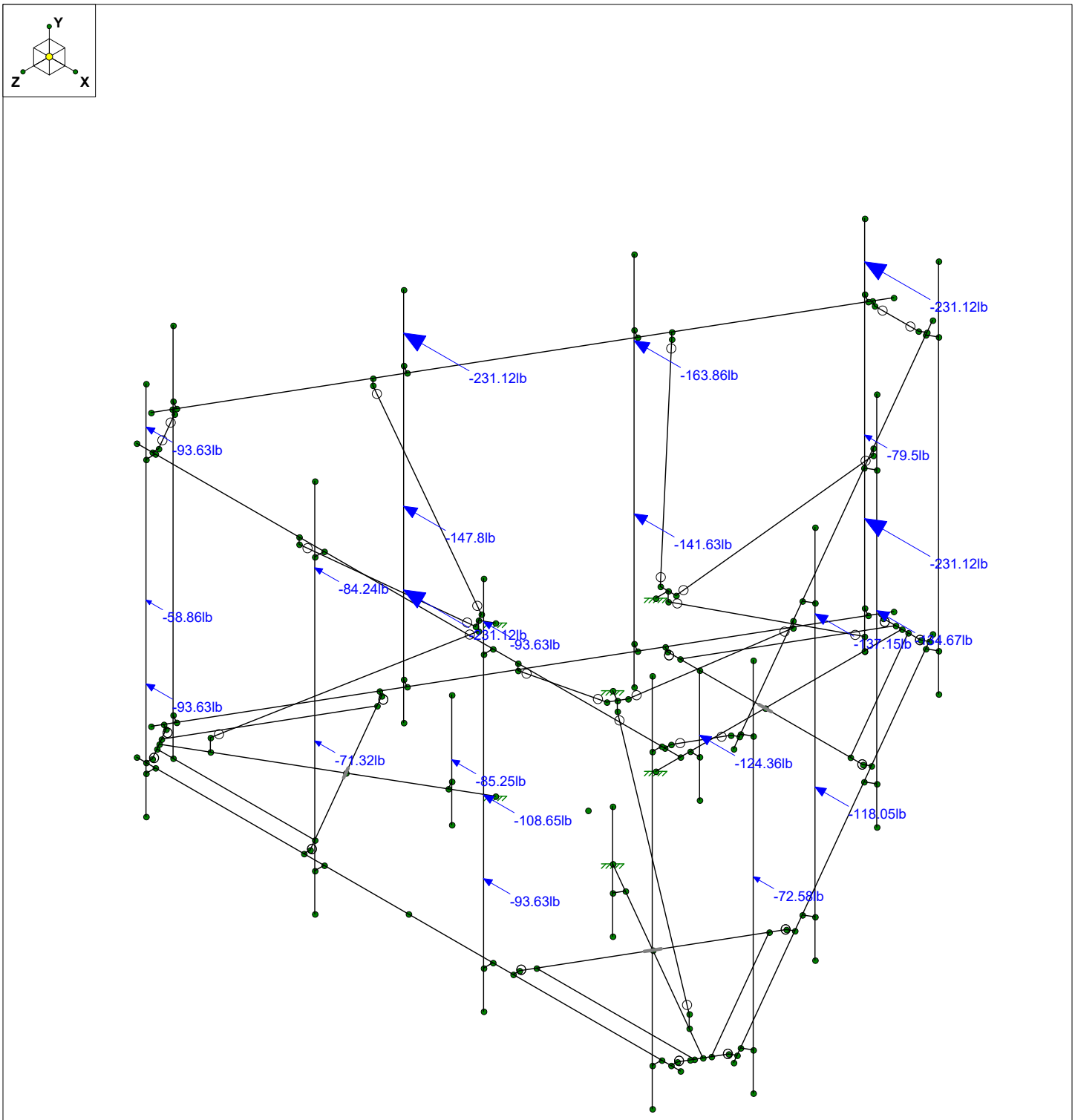

Loads: BLC 5, Wind Load AZI 90

Infinigy Engineering	876343	Wind Loading 90
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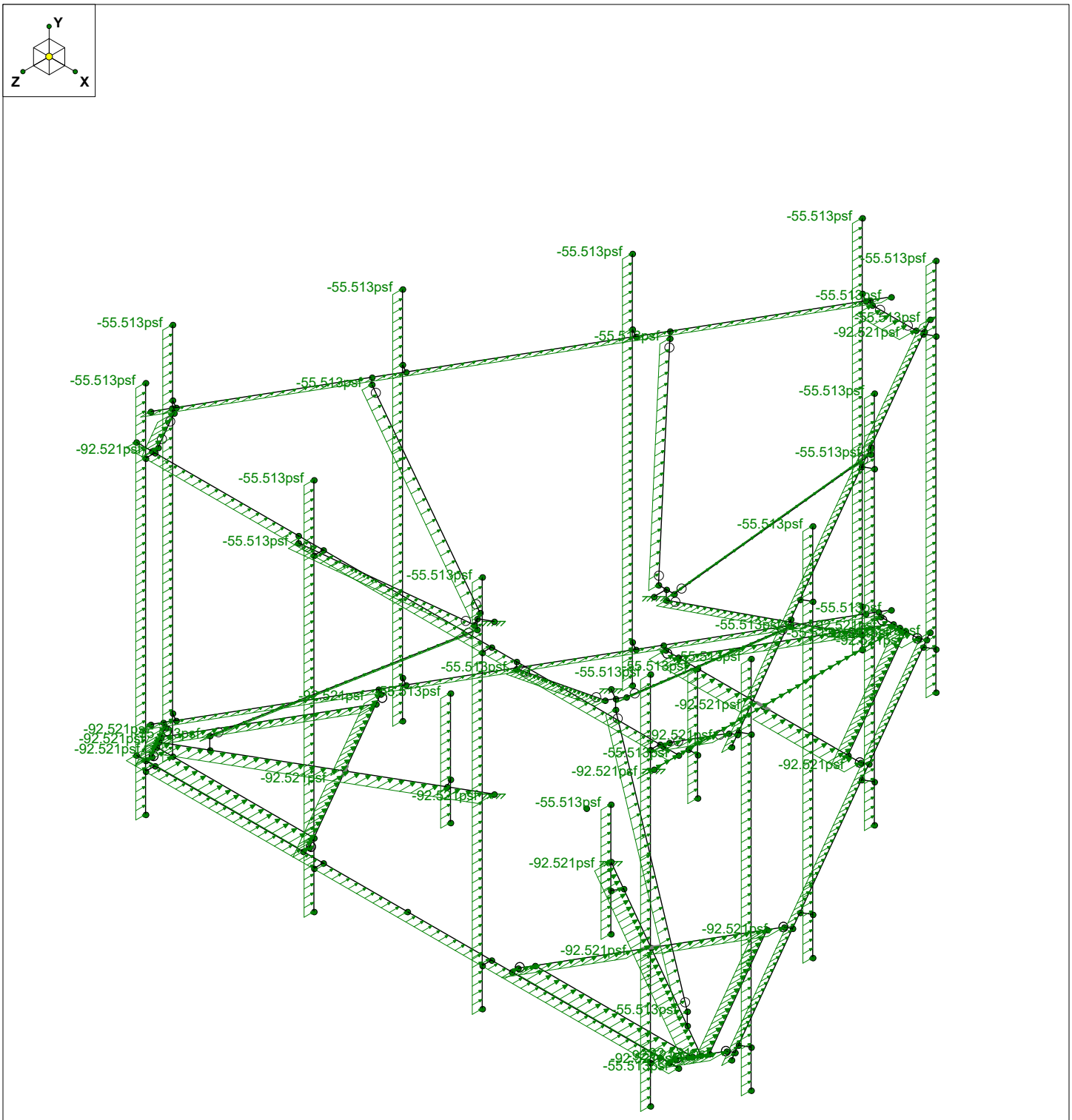

Loads: BLC 14, Distr. Wind Load Z

Infinigy Engineering	876343	Dist. Wind Loading 0
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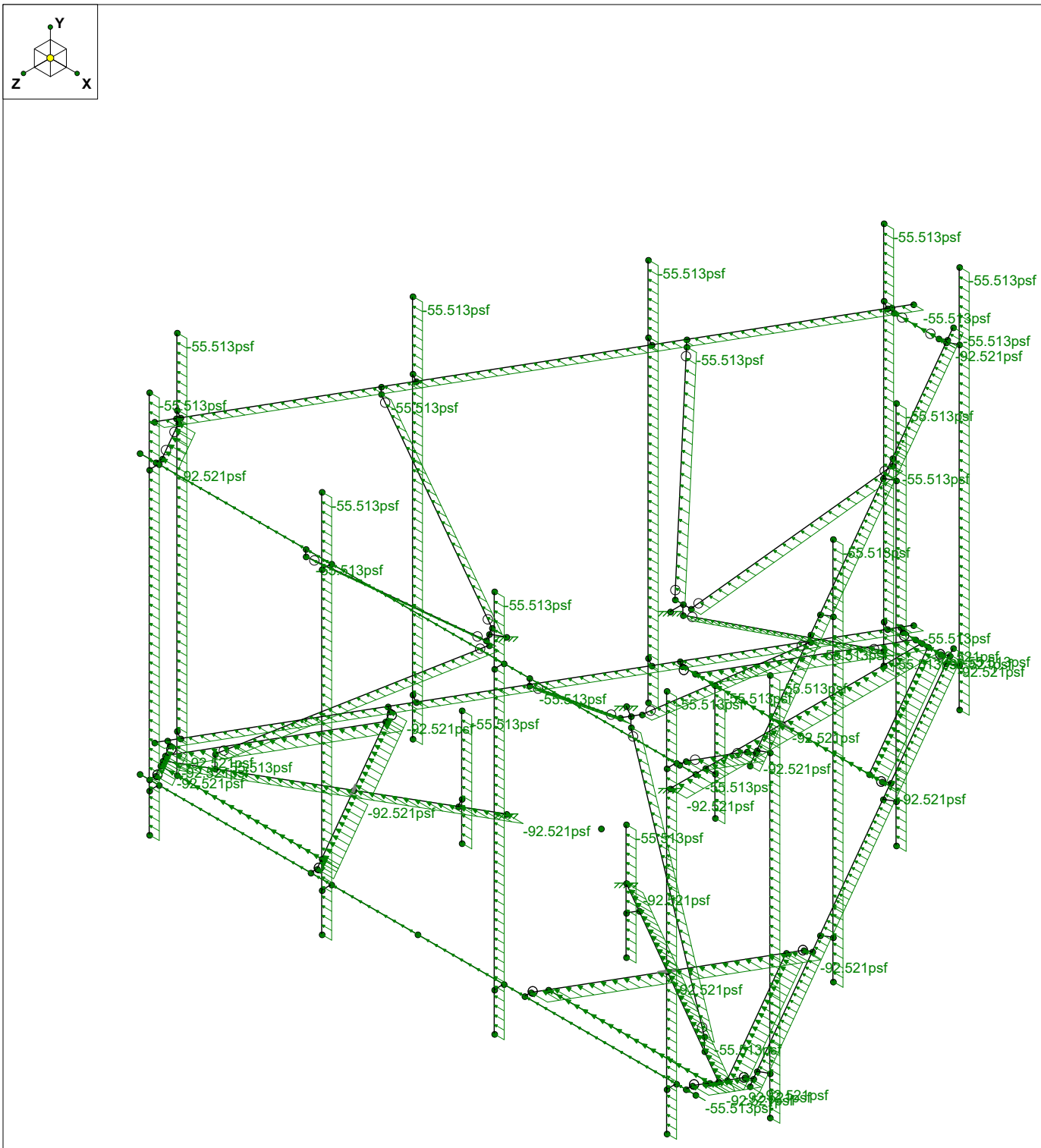

Loads: BLC 15, Distr. Wind Load X

Infinigy Engineering	876343	Dist. Wind Loading 90
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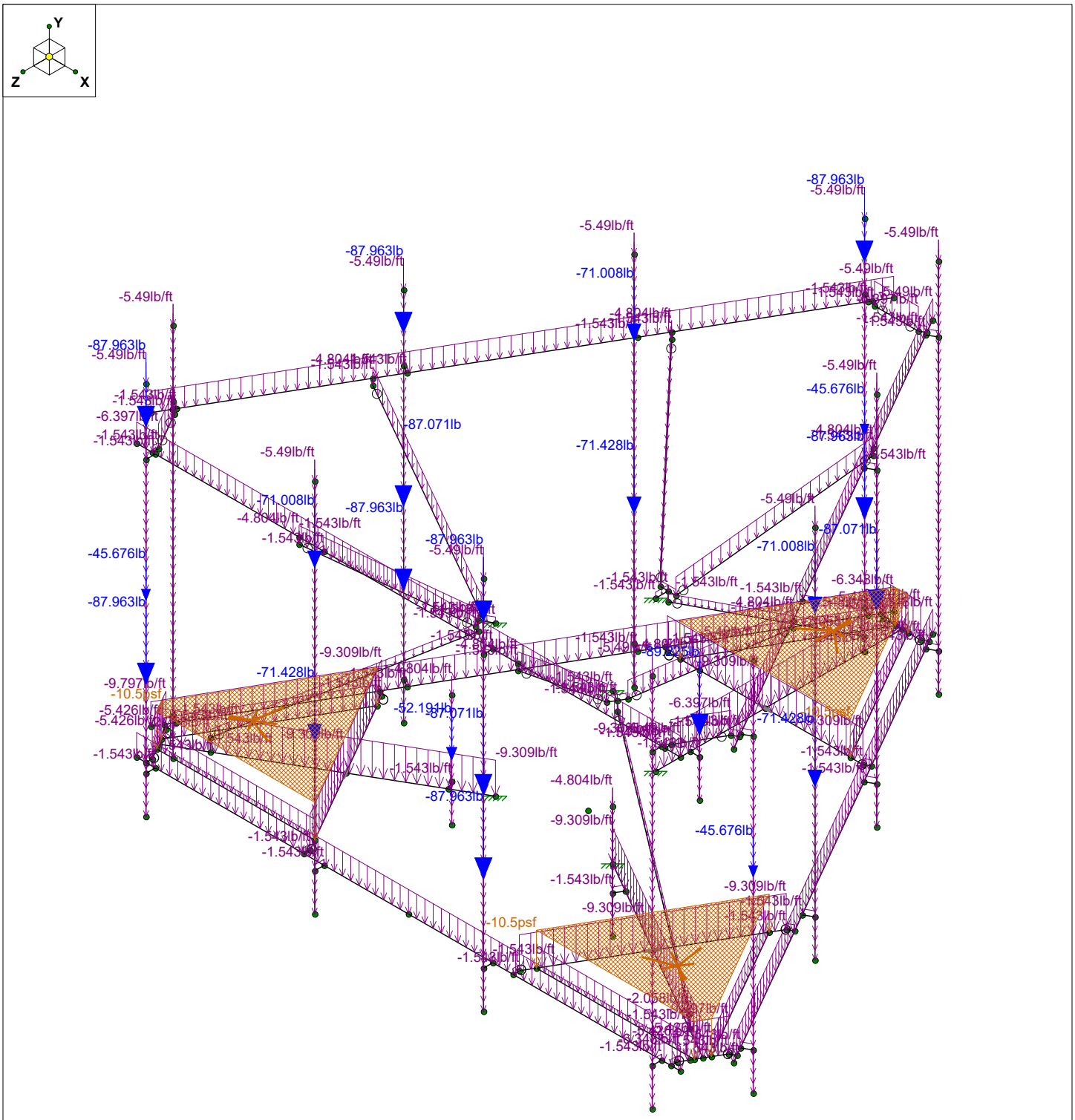

Loads: BLC 16, Ice Weight

Infinigy Engineering	876343	Ice Weight
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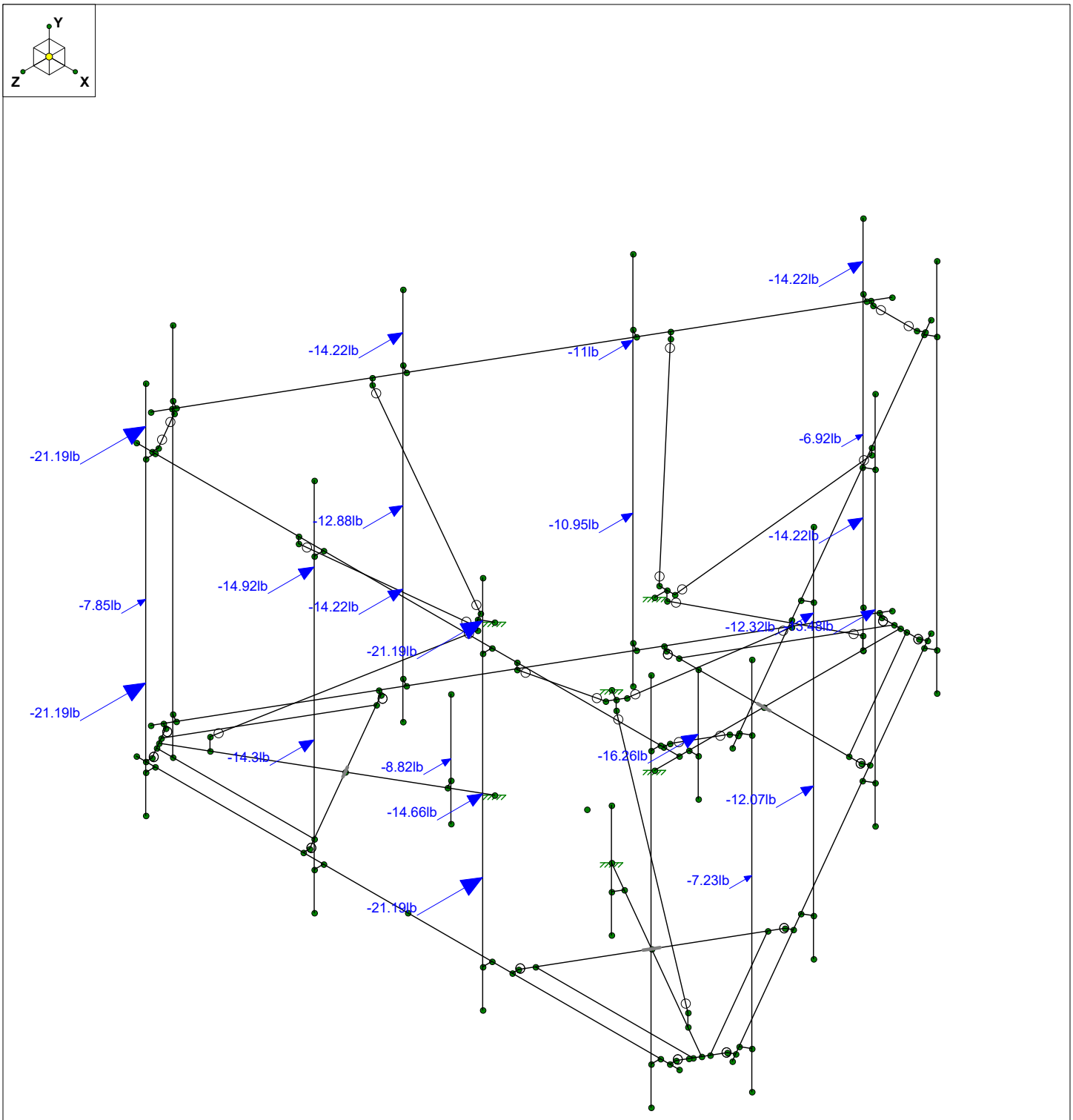

Loads: BLC 17, Ice Wind Load AZI 0

Infinigy Engineering	876343	Ice Wind Loading 0
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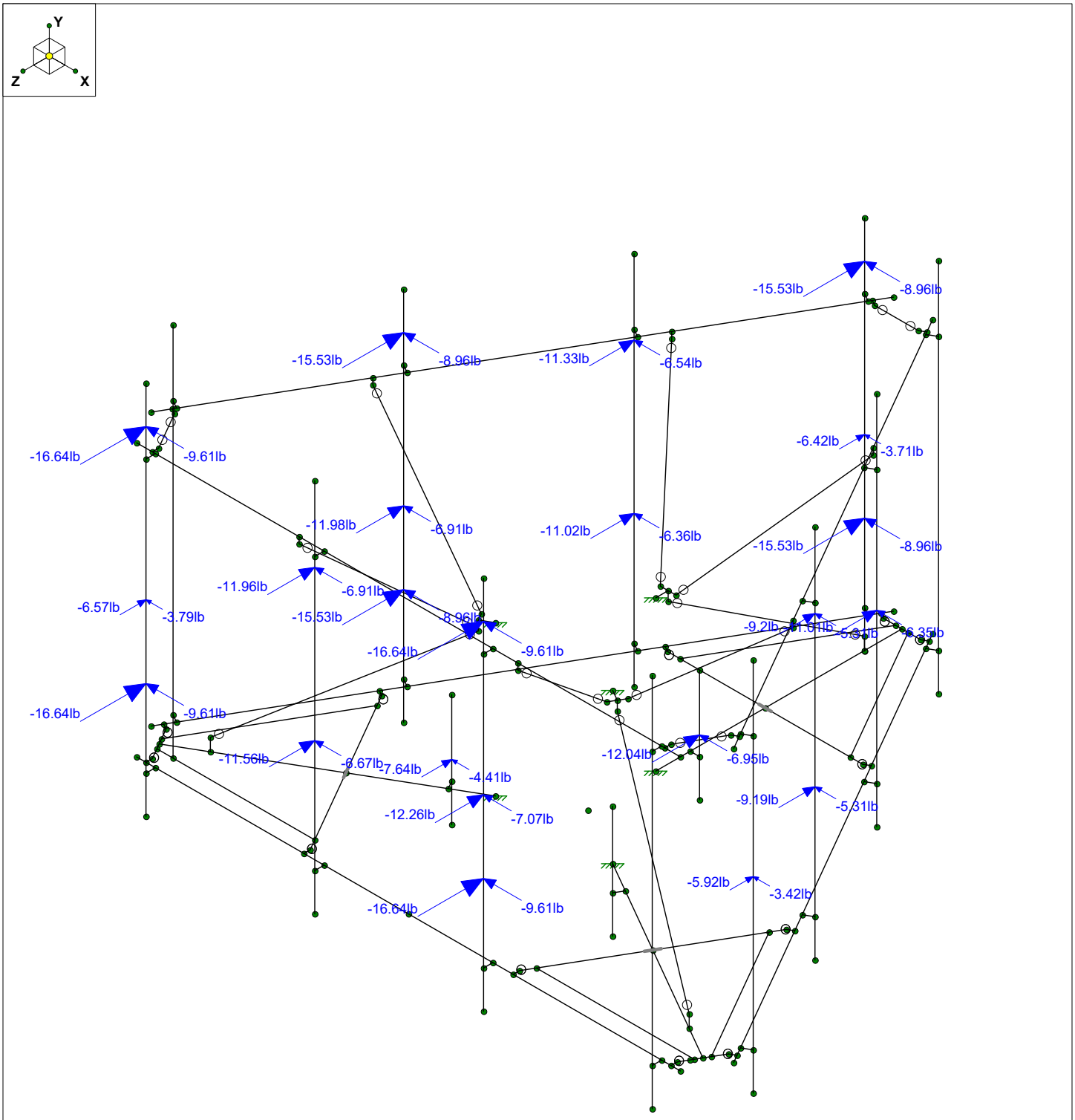

Loads: BLC 18, Ice Wind Load AZI 30

Infinigy Engineering	876343	Ice Wind Loading 30
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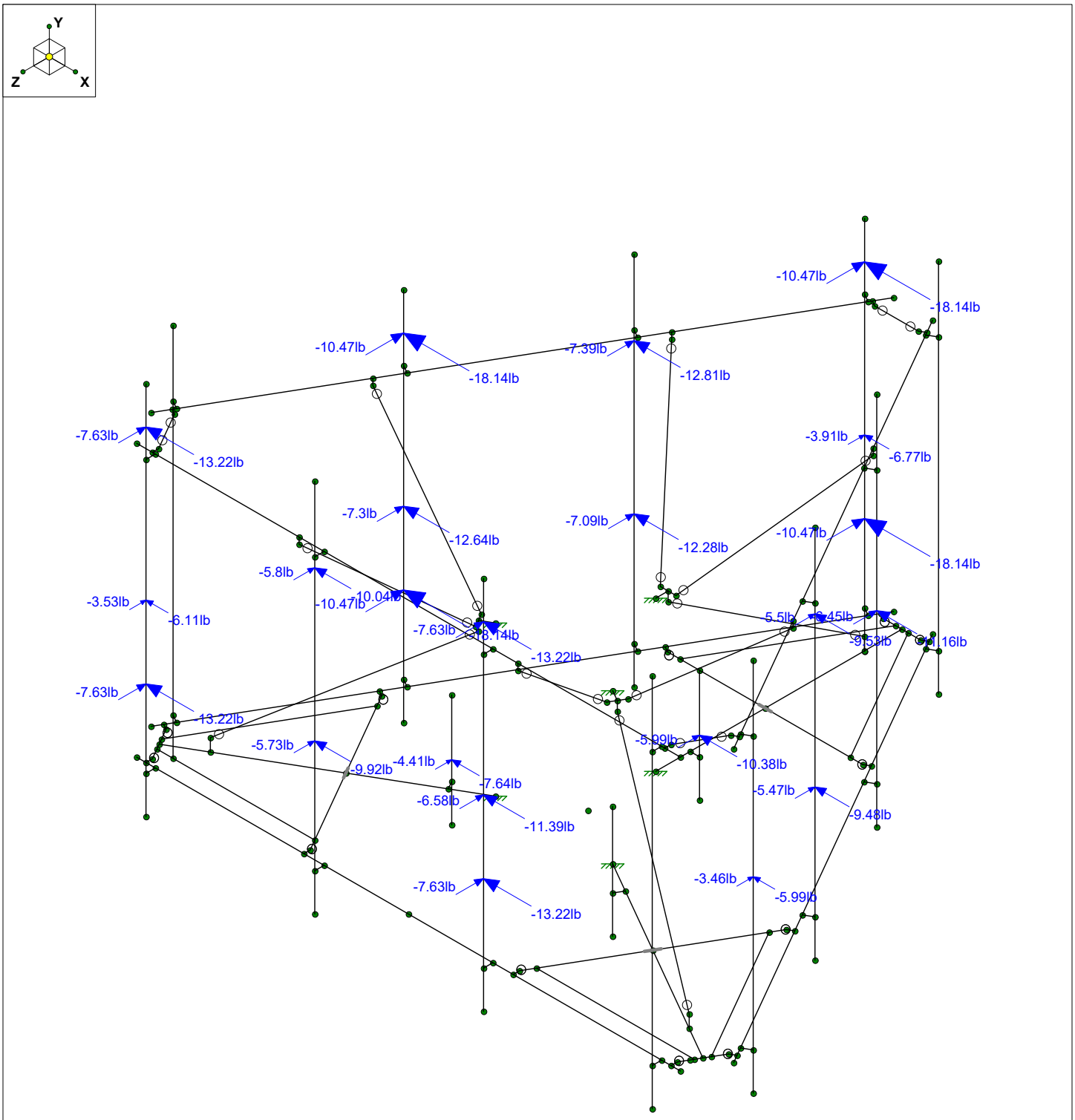

Loads: BLC 19, Ice Wind Load AZI 60

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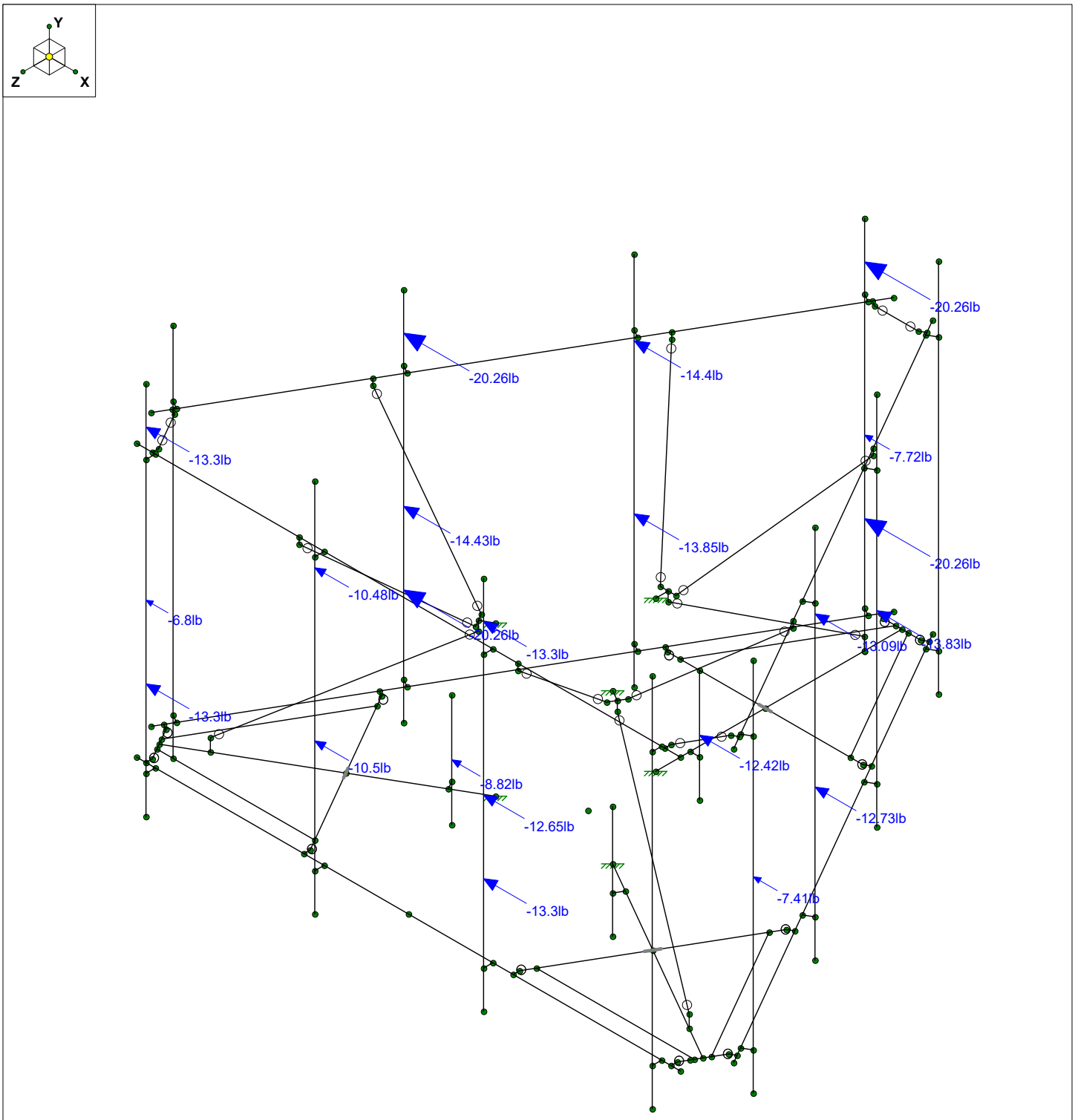

Loads: BLC 20, Ice Wind Load AZI 90

Infinigy Engineering	876343	Ice Wind Loading 90
AM		Apr 26, 2022 at 1:24 PM
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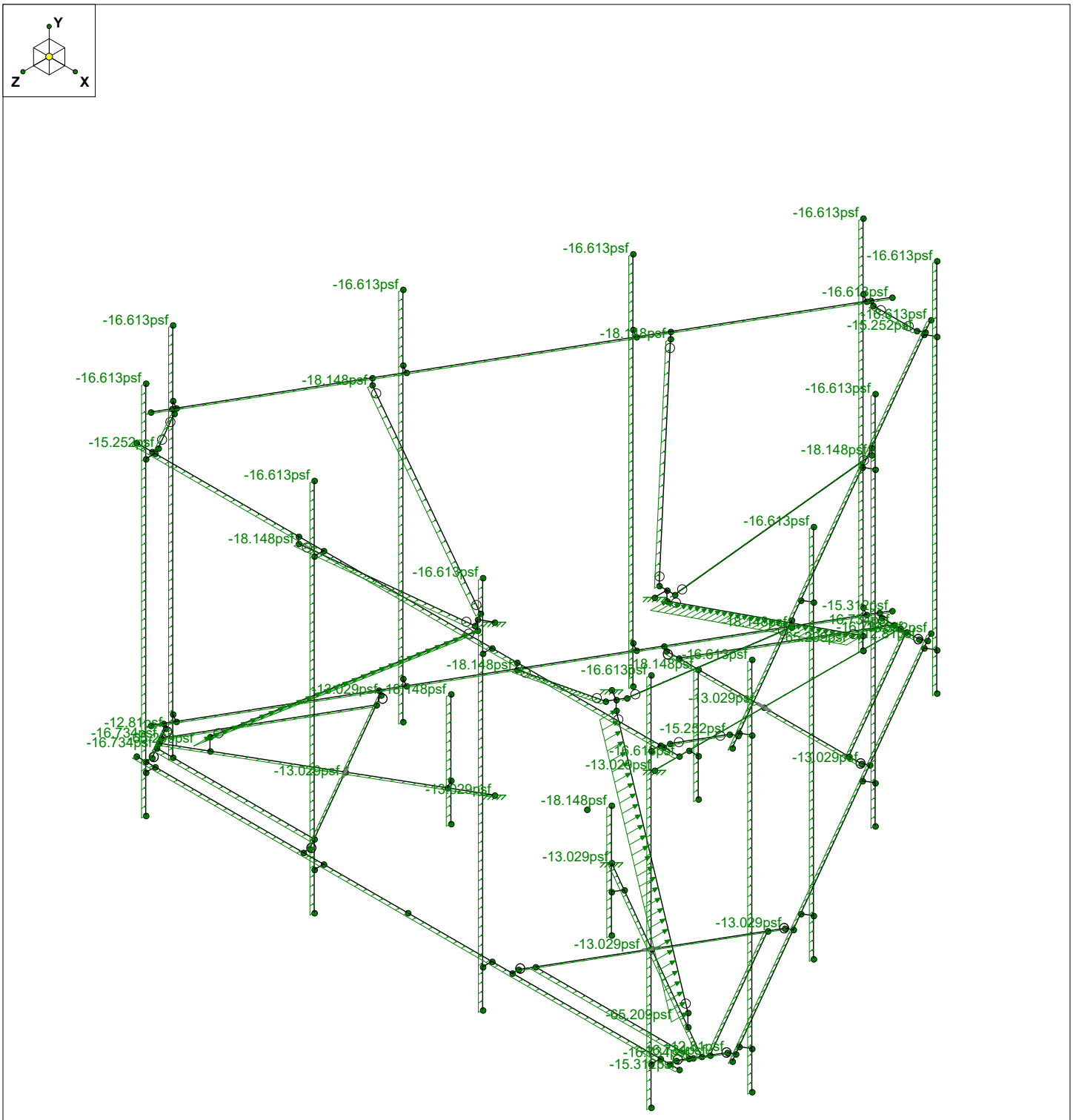

Loads: BLC 29, Distr. Ice Wind Load Z

Infinigy Engineering	876343	Dist. Ice Wind Loading 0
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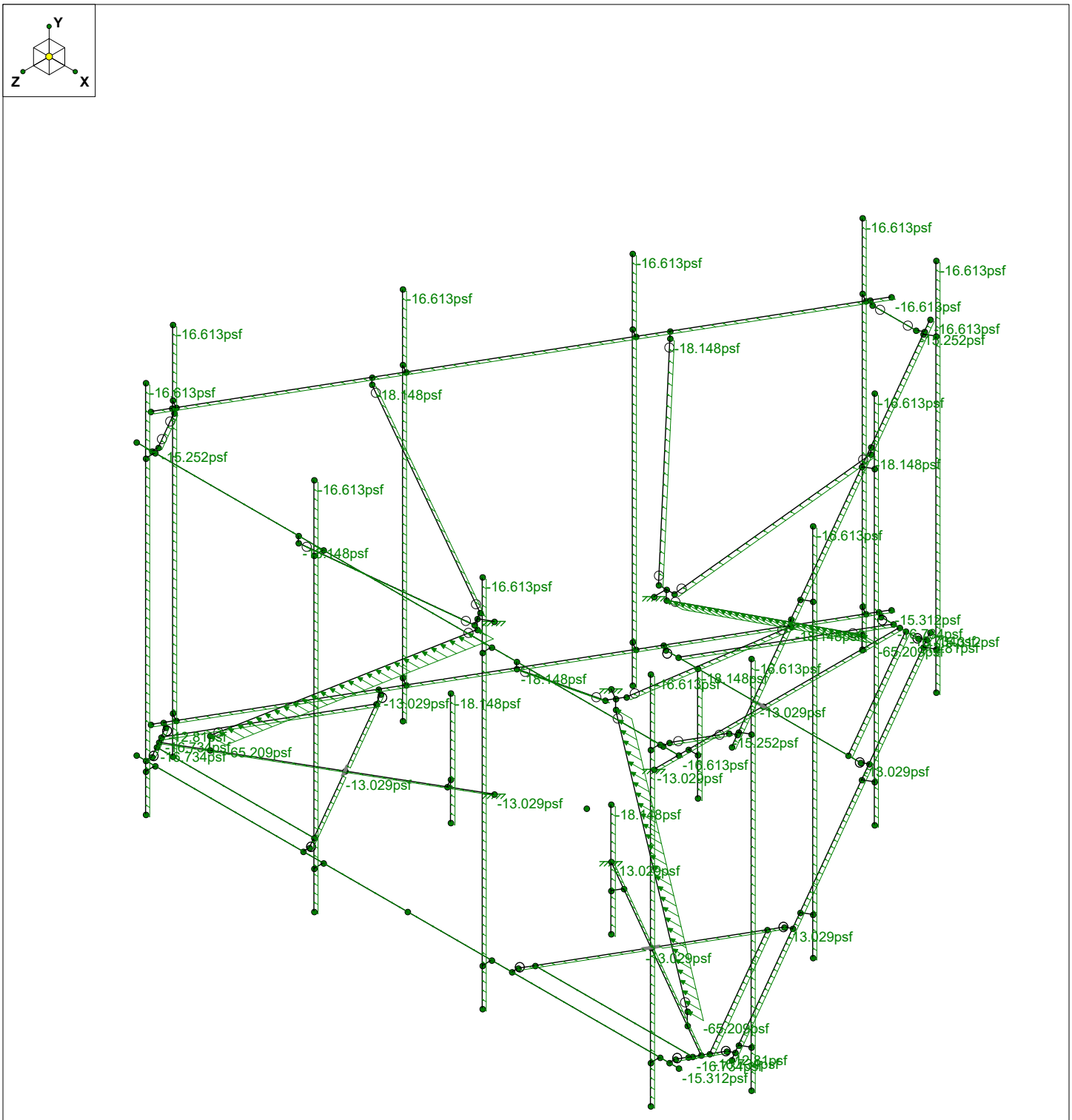

Loads: BLC 30, Distr. Ice Wind Load X

Infinigy Engineering	876343	Dist. Ice Wind Loading 90
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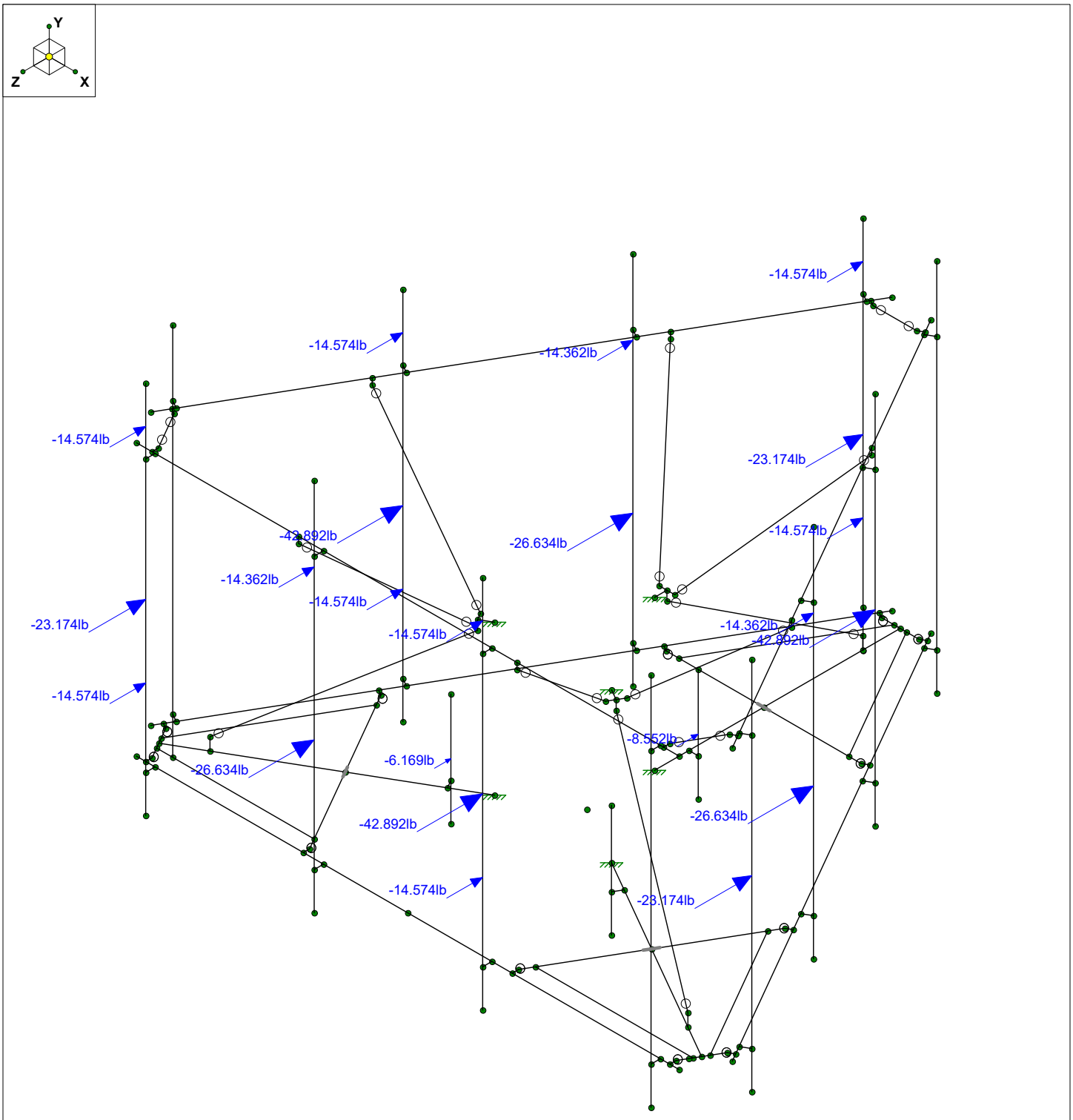

Loads: BLC 31, Seismic Load Z

Infinigy Engineering	876343	Seismic Loading 0
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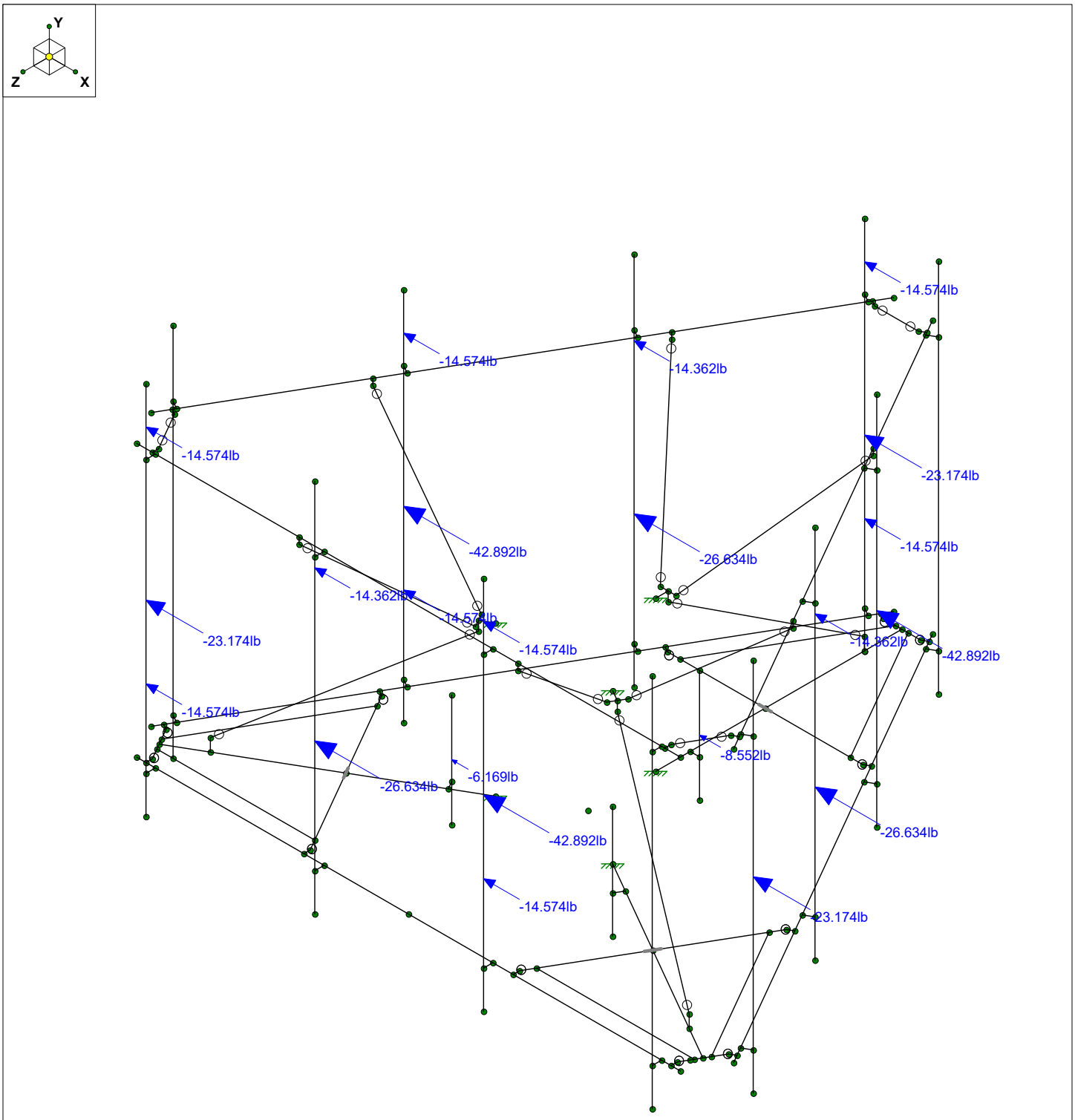
1039-Z0001-B		876343_loaded.r3d



Loads: BLC 32, Seismic Load X

Infinigy Engineering	876343	Seismic Loading 90
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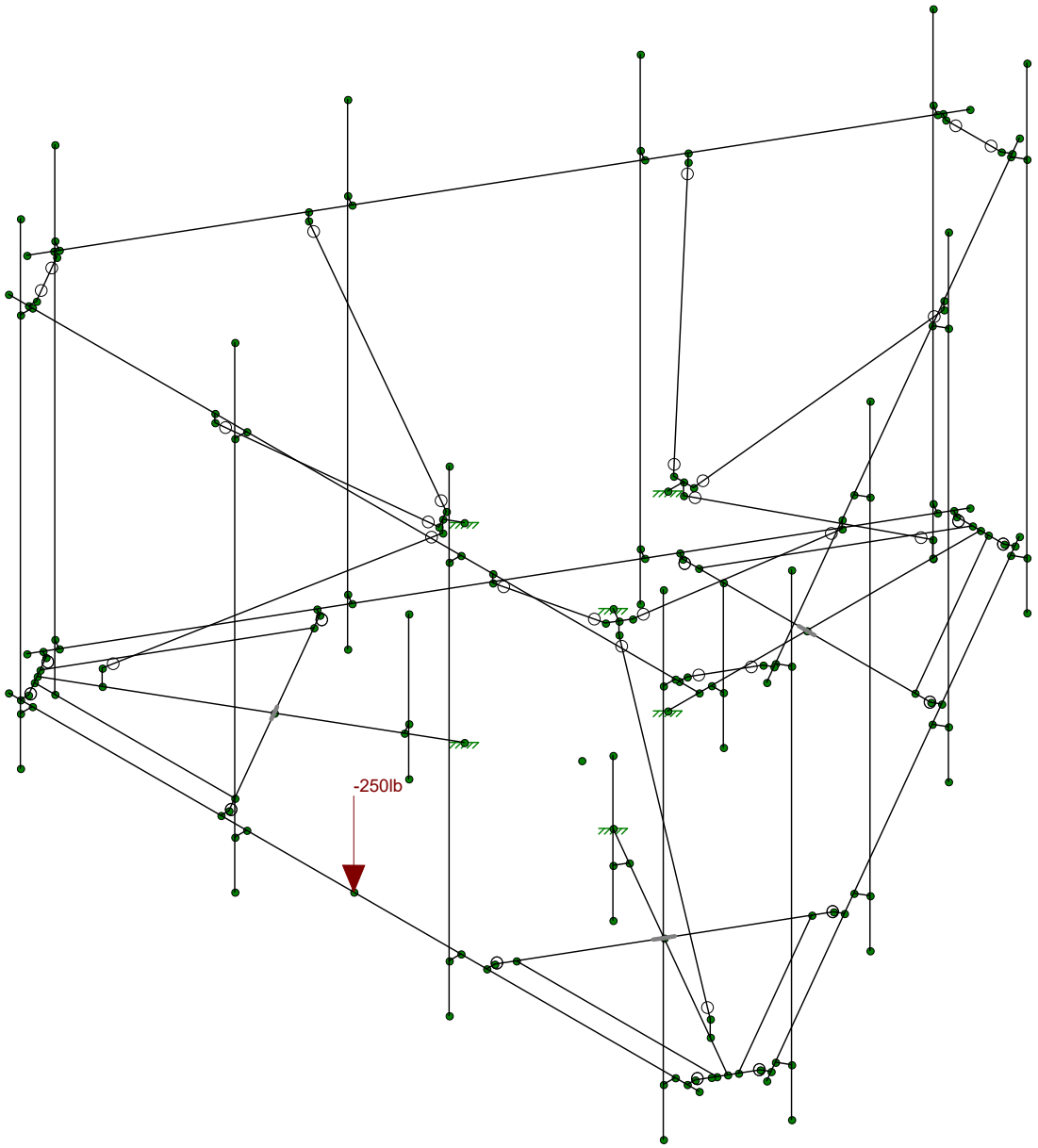

Loads: BLC 33, Service Live Loads

Infinigy Engineering	876343	Service
AM		Apr 26, 2022 at 1:25 PM
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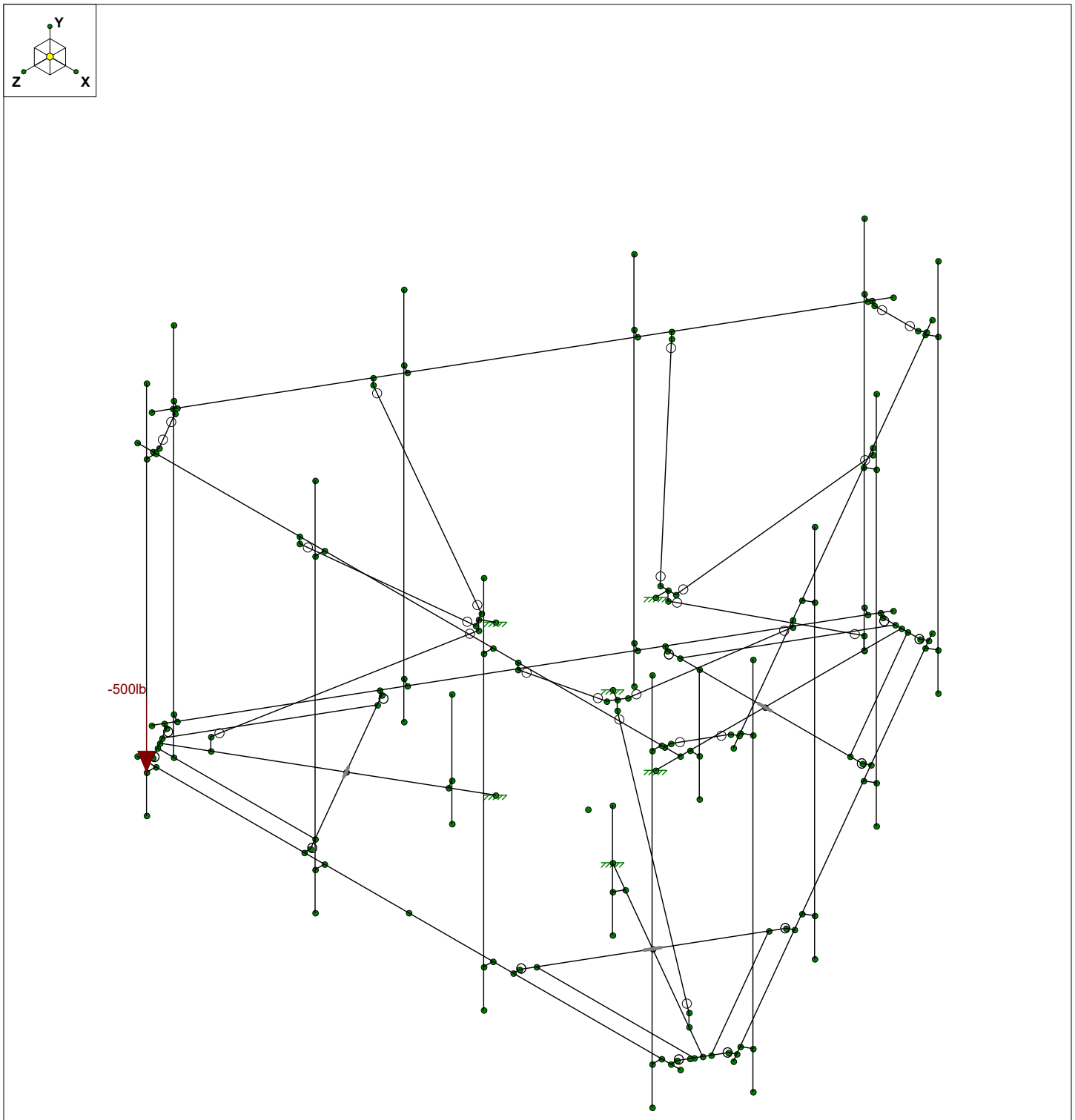

Loads: BLC 38, Maintenance Load 5

Infinigy Engineering	876343	Maintenance Load 1
AM		Apr 26, 2022 at 2:03 PM
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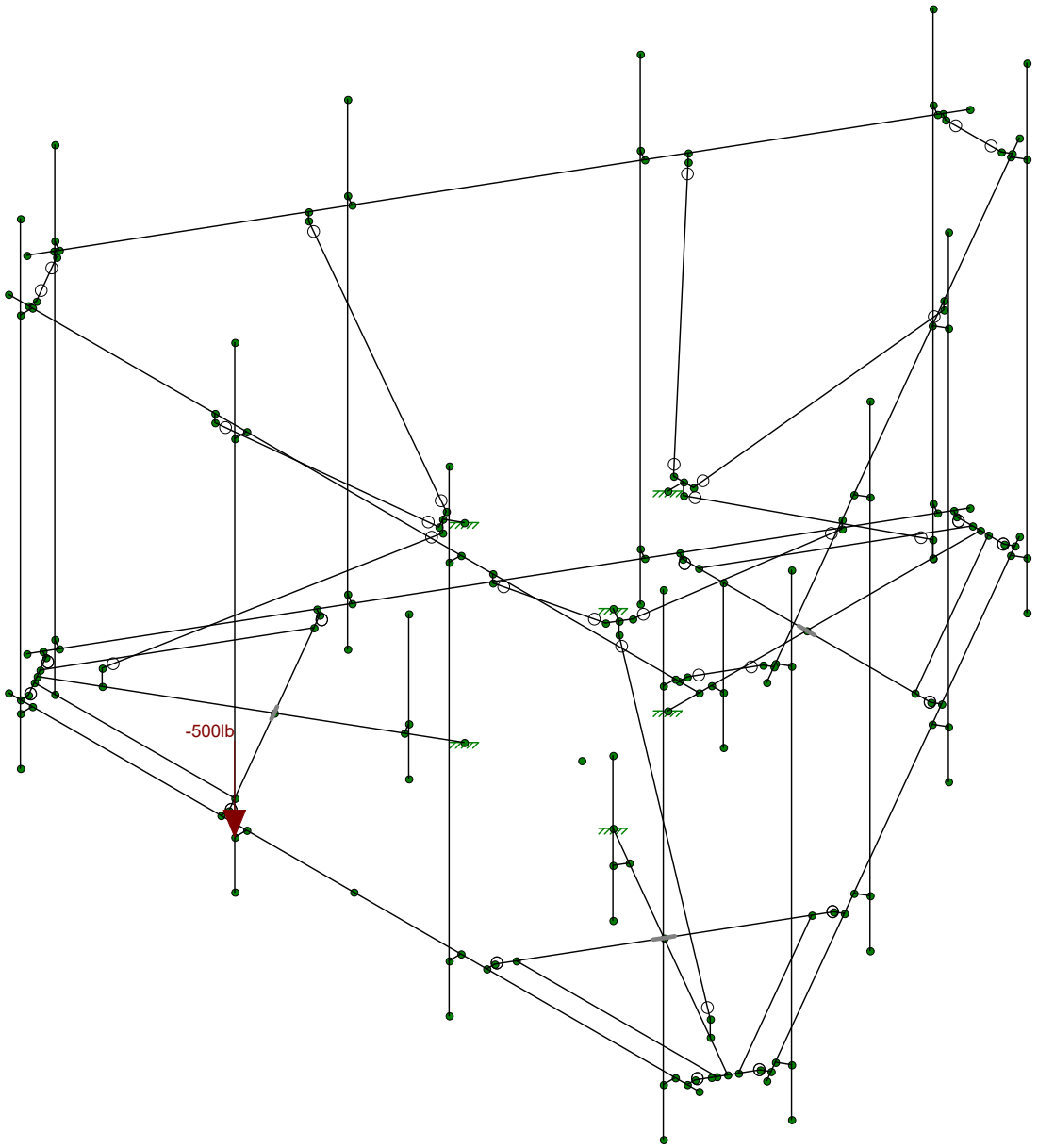

Loads: BLC 41, Maintenance Load 8

Infinigy Engineering	876343	Maintenance Load 2
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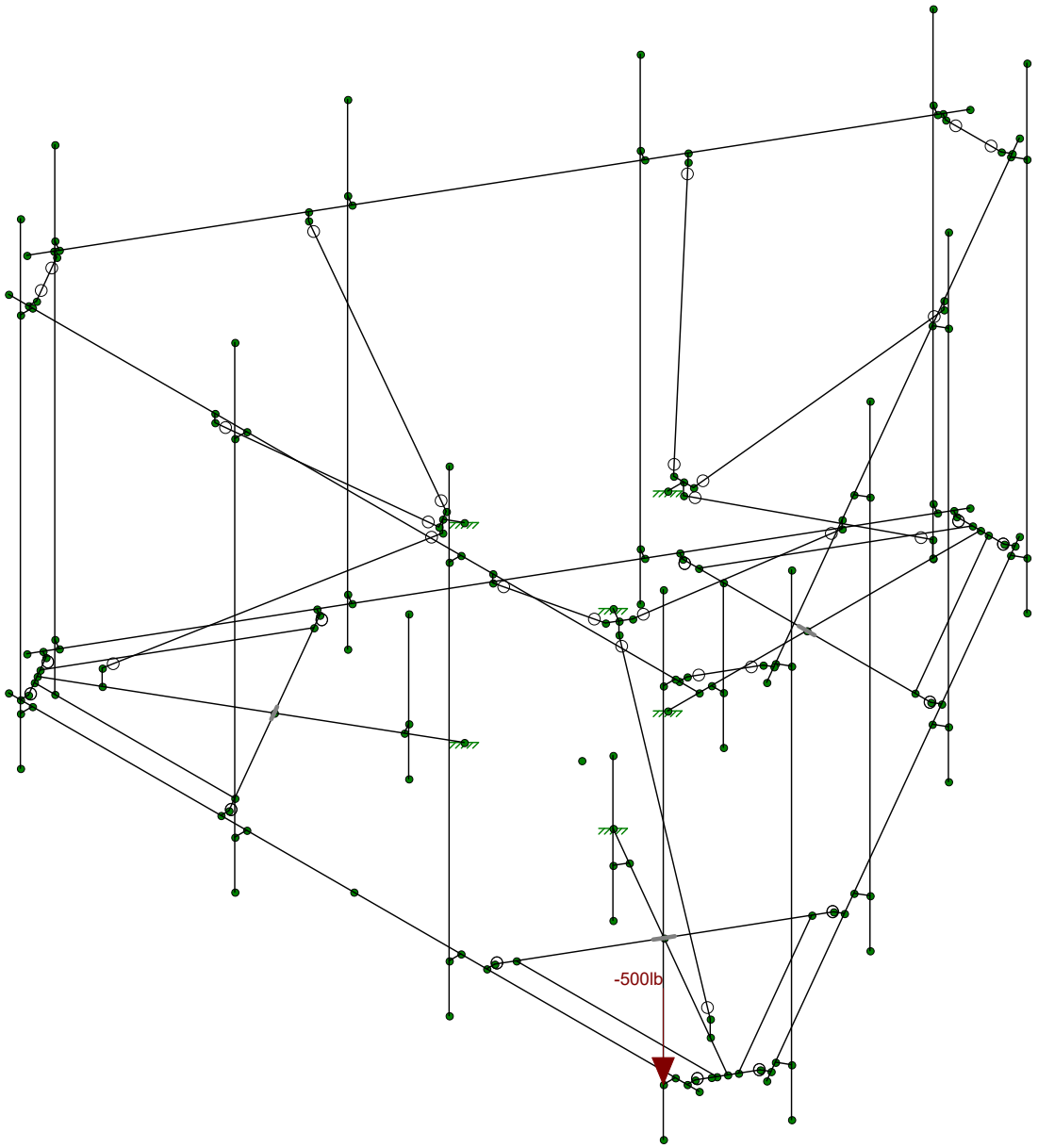

Loads: BLC 36, Maintenance Load 3

Infinigy Engineering	876343	Maintenance Load 3
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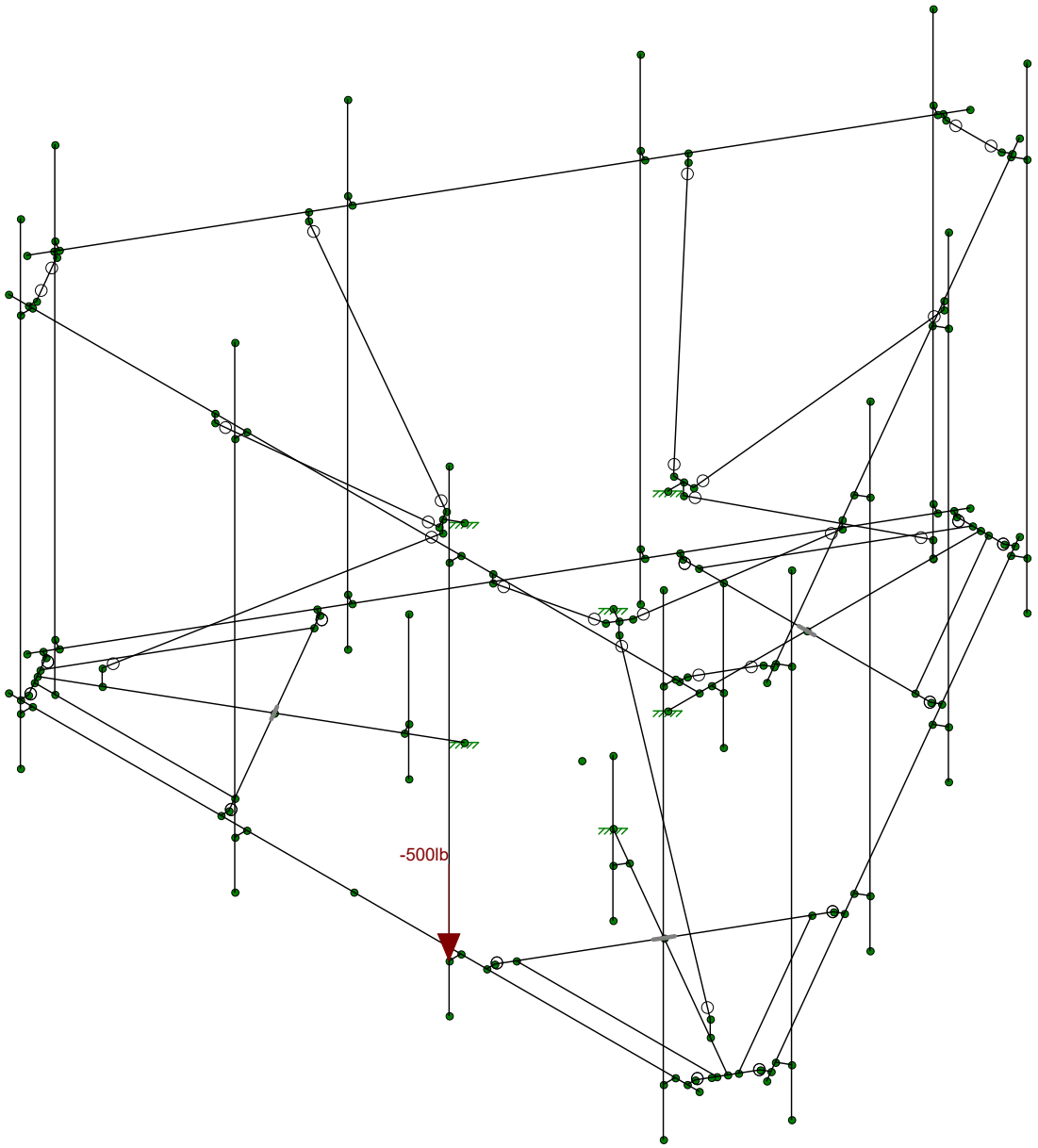
1039-Z0001-B		876343_loaded.r3d



Loads: BLC 37, Maintenance Load 4

Infinigy Engineering	876343	Maintenance Load 4
AM		Apr 26, 2022 at 1:25 PM
1039-Z0001-B		876343_loaded.r3d

APPENDIX B

SOFTWARE INPUT CALCULATIONS

Program Inputs

PROJECT INFORMATION	
Client:	Crown Castle
Carrier:	AT&T Mobility
Engineer:	Alex Mercado

SITE INFORMATION		
Risk Category:	II	
Exposure Category:	C	
Topo Factor Procedure:	Method 1, Category 1	
Site Class:	D - Stiff Soil (Assumed)	
Ground Elevation:	70.13	ft *Rev H

MOUNT INFORMATION		
Mount Type:	Platform	
Num Sectors:	3	
Centerline AGL:	106.00	ft
Tower Height AGL:	149.00	ft

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

FACTORS		
Directionality Fact. (K_d):	0.950	
Ground Ele. Factor (K_e):	0.997	*Rev H Only
Rooftop Speed-Up (K_s):	1.000	*Rev H Only
Topographic Factor (K_{zt}):	1.000	
Gust Effect Factor (G_h):	1.000	

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

WIND AND ICE DATA		
Ultimate Wind (V_{ult}):	122	mph
Design Wind (V):	N/A	mph
Ice Wind (V_{ice}):	50	mph
Base Ice Thickness (t_i):	1	in
Flat Pressure:	92.521	psf
Round Pressure:	55.513	psf
Ice Wind Pressure:	9.324	psf

SEISMIC DATA		
Short-Period Accel. (S_s):	0.204	g
1-Second Accel. (S_1):	0.054	g
Short-Period Design (S_{DS}):	0.218	
1-Second Design (S_{D1}):	0.086	
Short-Period Coeff. (F_a):	1.600	
1-Second Coeff. (F_v):	2.400	
Amplification Factor (A_s):	3.000	
Response Mod. Coeff. (R):	2.000	

INFINIGY

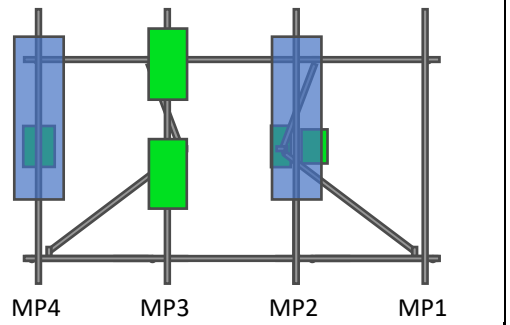
FROM ZERO TO INFINIGY

the solutions are endless

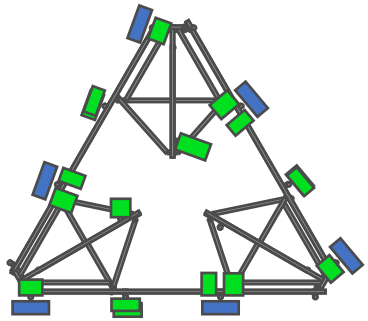
Infinigy Load Calculator V2.1.7

Program Inputs

ELEVATION VIEW



PLAN VIEW



INFINIGY
FROM ZERO TO INFINIGY
the solutions are endless

Infinigy Load Calculator V2.1.7

APPURTENANCE INFORMATION

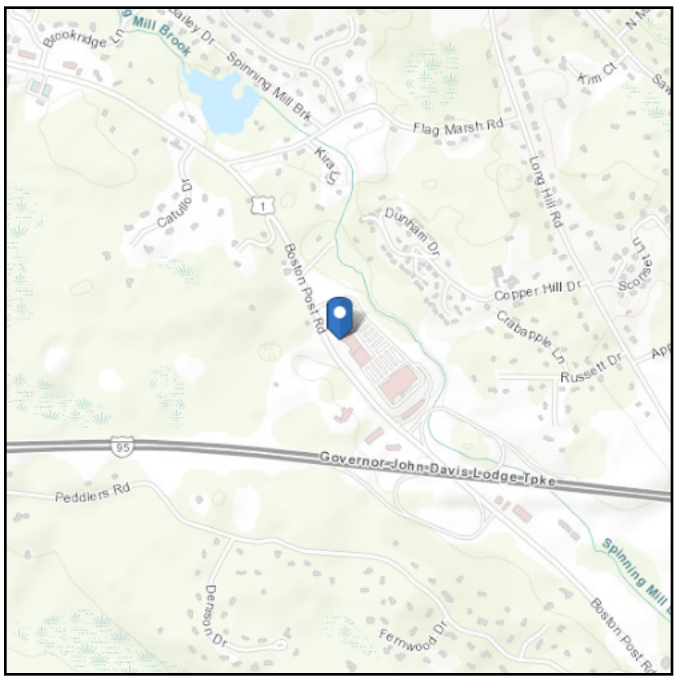
Appurtenance Name	Elevation	Qty.	K_a	q_z (psf)	EPA_N (ft^2)	EPA_T (ft^2)	Wind F_z (lbs)	Wind F_x (lbs)	Weight (lbs)	Seismic F (lbs)	Member (α sector)
CCI ANTENNAS DMP65R-BU6D	108.0	2	0.90	46.44	11.93	4.48	498.66	187.26	89.30	29.15	MP2
CCI ANTENNAS DMP65R-BU6D	108.0	2	0.90	46.44	11.93	4.48	498.66	187.26	89.30	29.15	MP4
CCI ANTENNAS DMP65R-BU4D	108.0	1	0.90	46.44	7.48	2.81	312.65	117.45	76.50	24.97	Leg/Flush
CCI ANTENNAS DMP65R-BU4D	108.0	1	0.90	46.44	7.48	2.81	312.65	117.45	76.50	24.97	Leg/Flush
ERICSSON AIR 6449 B77D_CCVI2	104.0	3	0.90	46.08	3.64	1.72	150.94	71.32	81.60	26.63	MP3
ERICSSON AIR 6419 B77G_CCIV3	108.0	3	0.90	46.44	4.17	2.02	174.41	84.24	44.00	14.36	MP3
ERICSSON RRUS 4449 B5/B12	108.0	3	0.90	46.44	1.97	1.41	82.24	58.86	71.00	23.17	MP4
ERICSSON RRUS 4478 B14_CCIV2	108.0	3	0.90	46.44	2.02	1.25	84.48	52.08	59.41	19.39	MP2
ERICSSON RRUS 8843 B2/B66A	108.0	3	0.90	46.44	1.64	1.35	68.51	56.57	72.00	23.50	MP2
RAYCAP DC6-48-60-18-8F	108.0	1	0.90	46.44	2.04	2.04	85.25	85.25	18.90	6.17	R1
RAYCAP DC9-48-60-24-8C-EV	108.0	1	0.90	46.44	2.74	4.78	114.35	199.93	26.20	8.55	Leg/Flush

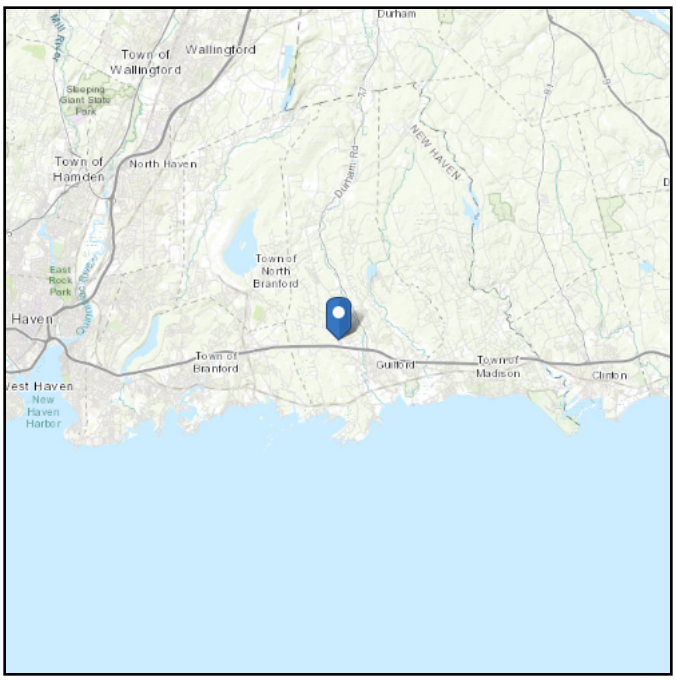
ASCE 7 Hazards Report

Address:
No Address at This Location

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

Elevation: 70.13 ft (NAVD 88)
Latitude: 41.300353
Longitude: -72.708092





Wind

Results:

Wind Speed	122 Vmph
10-year MRI	75 Vmph
25-year MRI	85 Vmph
50-year MRI	93 Vmph
100-year MRI	100 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 Apr 26 2022

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.

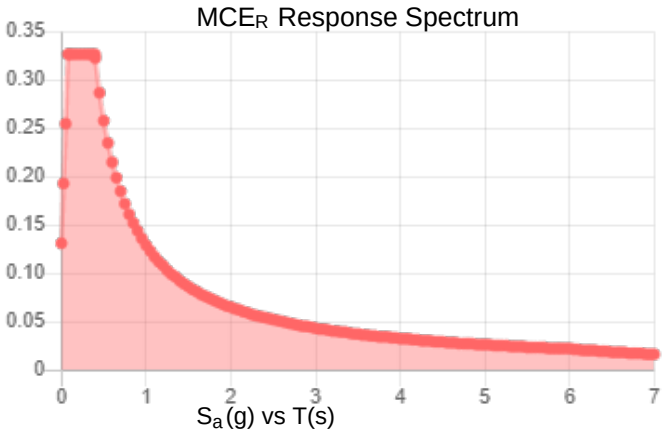
Seismic

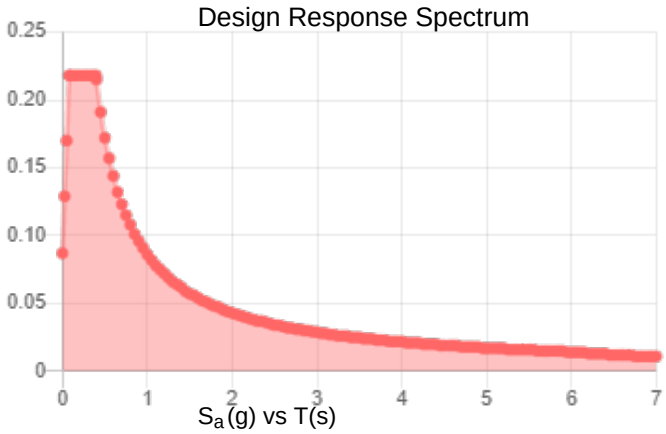
Site Soil Class: D - Default (see Section 11.4.3)

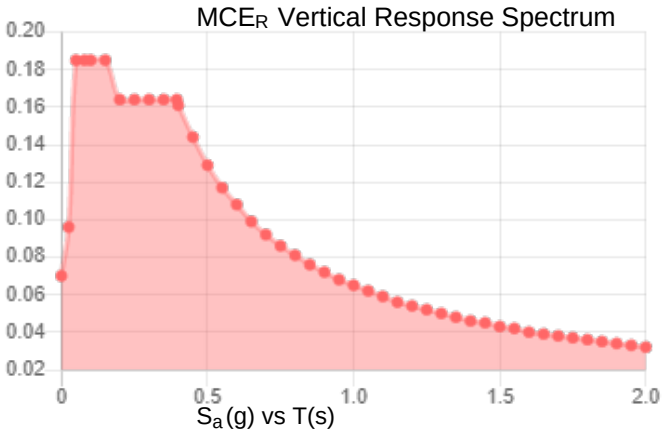
Results:

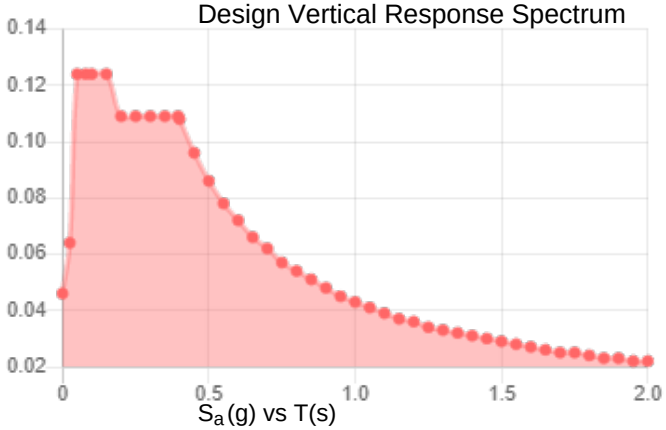
S_S :	0.204	S_{D1} :	0.086
S_1 :	0.054	T_L :	6
F_a :	1.6	PGA :	0.114
F_v :	2.4	PGA_M :	0.18
S_{MS} :	0.327	F_{PGA} :	1.571
S_{M1} :	0.129	I_e :	1
S_{DS} :	0.218	C_v :	0.709

Seismic Design Category B









Data Accessed: **Tue Apr 26 2022**

Date Source:

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

Ice

Results:

Ice Thickness:	1.00 in.
Concurrent Temperature:	15 F
Gust Speed	50 mph
Data Source:	Standard ASCE/SEI 7-16, Figs. 10-2 through 10-8
Date Accessed:	Tue Apr 26 2022

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

Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotate(d...	Section/Shape	Type	Design List	Material	Design Ru...
1	H3	N1	N2			Face Horizontal	Beam	Pipe	Q235-GB	Typical
2	M2	N3	N17			Corner Plate	Beam	None	Q345	Typical
3	M3	N5	N11			Corner Plate	Beam	None	Q345	Typical
4	M4	N9	N15			Corner Plate	Beam	None	Q345	Typical
5	M5	N3	N4			RIGID	None	None	RIGID	Typical
6	M6	N5	N6			RIGID	None	None	RIGID	Typical
7	H2	N7	N8			Face Horizontal	Beam	Pipe	Q235-GB	Typical
8	M8	N9	N10			RIGID	None	None	RIGID	Typical
9	M9	N11	N12			RIGID	None	None	RIGID	Typical
10	H1	N13	N14			Face Horizontal	Beam	Pipe	Q235-GB	Typical
11	M11	N15	N16			RIGID	None	None	RIGID	Typical
12	M12	N17	N18			RIGID	None	None	RIGID	Typical
13	S1	N19	N138			Standoff	Beam	None	Q235-GB	Typical
14	S2	N20	N21			Standoff	Beam	None	Q235-GB	Typical
15	S3	N22	N23			Standoff	Beam	None	Q235-GB	Typical
16	M16	N26	N172			Standoff	Beam	None	Q235-GB	Typical
17	M17	N24	N25			RIGID	None	None	RIGID	Typical
18	M18	N26	N27			RIGID	None	None	RIGID	Typical
19	M19	N28	N29		270	Grating Support Angle	Beam	None	Q345	Typical
20	M20	N30	N31			Grating Support Angle	Beam	None	Q345	Typical
21	M21	N34	N174			Standoff	Beam	None	Q235-GB	Typical
22	M22	N32	N33			RIGID	None	None	RIGID	Typical
23	M23	N34	N35			RIGID	None	None	RIGID	Typical
24	M24	N36	N37			Grating Support Angle	Beam	None	Q345	Typical
25	M25	N38	N39		270	Grating Support Angle	Beam	None	Q345	Typical
26	M26	N42	N173			Standoff	Beam	None	Q235-GB	Typical
27	M27	N40	N41			RIGID	None	None	RIGID	Typical
28	M28	N42	N43			RIGID	None	None	RIGID	Typical
29	M29	N44	N45		270	Grating Support Angle	Beam	None	Q345	Typical
30	M30	N46	N47			Grating Support Angle	Beam	None	Q345	Typical
31	M31	N48	N49			RIGID	None	None	RIGID	Typical
32	M32	N50	N51			RIGID	None	None	RIGID	Typical
33	MP12	N57	N56			Mount Pipe	Column	Pipe	Q235-GB	Typical
34	MP9	N63	N62			Mount Pipe	Column	Pipe	Q235-GB	Typical
35	HR3	N64	N65			Handrail	Beam	Pipe	Q235-GB	Typical
36	HR2	N66	N67			Handrail	Beam	Pipe	Q235-GB	Typical
37	HR1	N68	N69			Handrail	Beam	Pipe	Q235-GB	Typical
38	M42	N70	N71			RIGID	None	None	RIGID	Typical
39	M44	N74	N75			RIGID	None	None	RIGID	Typical
40	M46	N80	N78		180	Handrail Corner Angle	Beam	None	Q345	Typical
41	M47	N78	N79			RIGID	None	None	RIGID	Typical
42	M48	N80	N81			RIGID	None	None	RIGID	Typical
43	M49	N84	N82		90	Handrail Corner Angle	Beam	None	Q345	Typical
44	M50	N82	N83			RIGID	None	None	RIGID	Typical
45	M51	N84	N85			RIGID	None	None	RIGID	Typical
46	M52	N88	N86		180	Handrail Corner Angle	Beam	None	Q345	Typical
47	M53	N86	N87			RIGID	None	None	RIGID	Typical
48	M54	N88	N89			RIGID	None	None	RIGID	Typical
49	M55	N90	N91			RIGID	None	None	RIGID	Typical
50	M56	N92	N93			RIGID	None	None	RIGID	Typical
51	M57	N94	N95			RIGID	None	None	RIGID	Typical
52	MP1	N99	N98			Mount Pipe	Column	Pipe	Q235-GB	Typical
53	MP2	N101	N100			Mount Pipe	Column	Pipe	Q235-GB	Typical
54	MP4	N105	N104			Mount Pipe	Column	Pipe	Q235-GB	Typical
55	M63	N106	N107			RIGID	None	None	RIGID	Typical
56	M64	N108	N109			RIGID	None	None	RIGID	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(d...	Section/Shape	Type	Design List	Material	Design Ru...
57	M65	N110	N111			RIGID	None	None	RIGID	Typical
58	M67	N114	N115			RIGID	None	None	RIGID	Typical
59	M69	N118	N119			RIGID	None	None	RIGID	Typical
60	MP5	N123	N122			Mount Pipe	Column	Pipe	Q235-GB	Typical
61	MP8	N129	N128			Mount Pipe	Column	Pipe	Q235-GB	Typical
62	M75	N130	N131			RIGID	None	None	RIGID	Typical
63	M77	N134	N135			RIGID	None	None	RIGID	Typical
64	M79	N139	N141			RIGID	None	None	RIGID	Typical
65	M80	N140	N142			RIGID	None	None	RIGID	Typical
66	M81	N141	N143			Cable	VBrace	None	EHS Gu...	Typical
67	M82	N142	N143			RIGID	None	None	RIGID	Typical
68	M83	N149	N146			RIGID	None	None	RIGID	Typical
69	M84	N144	N145			RIGID	None	None	RIGID	Typical
70	MK3	N145	N146			Kicker Pipe	VBrace	Pipe	Q235-GB	Typical
71	M86	N147	N148			RIGID	None	None	RIGID	Typical
72	MK4	N148	N149			Kicker Pipe	VBrace	Pipe	Q235-GB	Typical
73	M88	N150	N152			RIGID	None	None	RIGID	Typical
74	M89	N151	N153			RIGID	None	None	RIGID	Typical
75	M90	N152	N154			Cable	VBrace	None	EHS Gu...	Typical
76	M91	N153	N154			RIGID	None	None	RIGID	Typical
77	M92	N160	N157			RIGID	None	None	RIGID	Typical
78	M93	N155	N156			RIGID	None	None	RIGID	Typical
79	MK2	N156	N157			Kicker Pipe	VBrace	Pipe	Q235-GB	Typical
80	M95	N158	N159			RIGID	None	None	RIGID	Typical
81	MK5	N159	N160			Kicker Pipe	VBrace	Pipe	Q235-GB	Typical
82	M97	N161	N163			RIGID	None	None	RIGID	Typical
83	M98	N162	N164			RIGID	None	None	RIGID	Typical
84	M99	N163	N165			Cable	VBrace	None	EHS Gu...	Typical
85	M100	N164	N165			RIGID	None	None	RIGID	Typical
86	M101	N171	N168			RIGID	None	None	RIGID	Typical
87	M102	N166	N167			RIGID	None	None	RIGID	Typical
88	MK6	N167	N168			Kicker Pipe	VBrace	Pipe	Q235-GB	Typical
89	M104	N169	N170			RIGID	None	None	RIGID	Typical
90	MK1	N170	N171			Kicker Pipe	VBrace	Pipe	Q235-GB	Typical
91	M106	N178	N180			RIGID	None	None	RIGID	Typical
92	MP3	N179	N183			Mount Pipe	Column	Pipe	Q235-GB	Typical
93	M108	N181	N182			RIGID	None	None	RIGID	Typical
94	M105	N189	N184			RIGID	None	None	RIGID	Typical
95	M109	N192	N185			RIGID	None	None	RIGID	Typical
96	MP10	N191	N190			Mount Pipe	Column	Pipe	Q235-GB	Typical
97	M113	N188	N197			RIGID	None	None	RIGID	Typical
98	MP11	N196	N199			Mount Pipe	Column	Pipe	Q235-GB	Typical
99	M115	N187	N198			RIGID	None	None	RIGID	Typical
100	M117	N207	N202			RIGID	None	None	RIGID	Typical
101	M118	N210	N203			RIGID	None	None	RIGID	Typical
102	MP6	N209	N208			Mount Pipe	Column	Pipe	Q235-GB	Typical
103	M122	N206	N215			RIGID	None	None	RIGID	Typical
104	MP7	N214	N217			Mount Pipe	Column	Pipe	Q235-GB	Typical
105	M124	N205	N216			RIGID	None	None	RIGID	Typical
106	M119	N172	N24			Standoff	Beam	None	Q235-GB	Typical
107	M120	N174	N32			Standoff	Beam	None	Q235-GB	Typical
108	M123	N173	N40			Standoff	Beam	None	Q235-GB	Typical
109	R2	N180A	N181A			Standoff Pipe	Column	Wide Flange	Q235-GB	Typical
110	M110	N179A	N178A			RIGID	None	None	RIGID	Typical
111	R1	N185A	N186			Standoff Pipe	Column	Wide Flange	Q235-GB	Typical
112	M112	N184A	N183A			RIGID	None	None	RIGID	Typical
113	R3	N190A	N191A			Standoff Pipe	Column	Wide Flange	Q235-GB	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(d...	Section/Shape	Type	Design List	Material	Design Ru...
114	M114	N189A	N188A			RIGID	None	None	RIGID	Typical

Material Takeoff

	Material	Size	Pieces	Length[in]	Weight[LB]
1	General				
2	RIGID		63	177	0
3	Total General		63	177	0
4					
5	Hot Rolled Steel				
6	EHS Guy Wire	0.375 SR	3	225	7.046
7	Q235-GB	HSS4X4X4	9	411.9	393.649
8	Q235-GB	PIPE_2.0	9	456.1	131.918
9	Q235-GB	PIPE_2.5	15	1962	895.73
10	Q235-GB	PIPE_3.0	3	522	306.403
11	Q345	6x0.375	3	36	22.969
12	Q345	L2.5x2.5x3	3	42	10.731
13	Q345	L2x2x2	6	303.1	42.202
14	Total HR Steel		51	3958.1	1810.647

Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distribut...	Area(M...	Surface(Plate/Wall)
1	Self Weight	DL		-1			25		3	
2	Wind Load AZI 0	WLZ					50			
3	Wind Load AZI 30	None					50			
4	Wind Load AZI 60	None					50			
5	Wind Load AZI 90	WLX					50			
6	Wind Load AZI 120	None					50			
7	Wind Load AZI 150	None					50			
8	Wind Load AZI 180	None					50			
9	Wind Load AZI 210	None					50			
10	Wind Load AZI 240	None					50			
11	Wind Load AZI 270	None					50			
12	Wind Load AZI 300	None					50			
13	Wind Load AZI 330	None					50			
14	Distr. Wind Load Z	WLZ						114		
15	Distr. Wind Load X	WLX						114		
16	Ice Weight	OL1					25	114	3	
17	Ice Wind Load AZI 0	OL2					50			
18	Ice Wind Load AZI ...	None					50			
19	Ice Wind Load AZI ...	None					50			
20	Ice Wind Load AZI ...	OL3					50			
21	Ice Wind Load AZI ...	None					50			
22	Ice Wind Load AZI ...	None					50			
23	Ice Wind Load AZI ...	None					50			
24	Ice Wind Load AZI ...	None					50			
25	Ice Wind Load AZI ...	None					50			
26	Ice Wind Load AZI ...	None					50			
27	Ice Wind Load AZI ...	None					50			
28	Ice Wind Load AZI ...	None					50			
29	Distr. Ice Wind Loa...	OL2						114		
30	Distr. Ice Wind Loa...	OL3						114		
31	Seismic Load Z	ELZ			-.326		25			
32	Seismic Load X	ELX	-.326				25			
33	Service Live Loads	LL				1				

Basic Load Cases (Continued)

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distribut...	Area(M...	Surface(Plate/Wall)
34	Maintenance Load 1	LL				1				
35	Maintenance Load 2	LL				1				
36	Maintenance Load 3	LL				1				
37	Maintenance Load 4	LL				1				
38	Maintenance Load 5	LL				1				
39	Maintenance Load 6	LL				1				
40	Maintenance Load 7	LL				1				
41	Maintenance Load 8	LL				1				
42	Maintenance Load 9	LL				1				
43	Maintenance Load ...	LL				1				
44	Maintenance Load ...	LL				1				
45	Maintenance Load ...	LL				1				
46	BLC 1 Transient Ar...	None						72		
47	BLC 16 Transient ...	None						72		

Load Combinations

	Description	Solve	PDelta	SRSS	BLC	Factor	BLC	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...
1	1.4DL	Yes	Y		1	1.4																		
2	1.2DL + 1WL AZI 0	Yes	Y		1	1.2	2	1	14	1	15													
3	1.2DL + 1WL AZI 30	Yes	Y		1	1.2	3	1	14	.866	15	.5												
4	1.2DL + 1WL AZI 60	Yes	Y		1	1.2	4	1	14	.5	15	.866												
5	1.2DL + 1WL AZI 90	Yes	Y		1	1.2	5	1	14		15	1												
6	1.2DL + 1WL AZI 120	Yes	Y		1	1.2	6	1	14	-.5	15	.866												
7	1.2DL + 1WL AZI 150	Yes	Y		1	1.2	7	1	14	-.8...	15	.5												
8	1.2DL + 1WL AZI 180	Yes	Y		1	1.2	8	1	14	-1	15													
9	1.2DL + 1WL AZI 210	Yes	Y		1	1.2	9	1	14	-.8...	15	-.5												
10	1.2DL + 1WL AZI 240	Yes	Y		1	1.2	10	1	14	-.5	15	-.8...												
11	1.2DL + 1WL AZI 270	Yes	Y		1	1.2	11	1	14		15	-1												
12	1.2DL + 1WL AZI 300	Yes	Y		1	1.2	12	1	14	.5	15	-.8...												
13	1.2DL + 1WL AZI 330	Yes	Y		1	1.2	13	1	14	.866	15	-.5												
14	0.9DL + 1WL AZI 0	Yes	Y		1	.9	2	1	14	1	15													
15	0.9DL + 1WL AZI 30	Yes	Y		1	.9	3	1	14	.866	15	.5												
16	0.9DL + 1WL AZI 60	Yes	Y		1	.9	4	1	14	.5	15	.866												
17	0.9DL + 1WL AZI 90	Yes	Y		1	.9	5	1	14		15	1												
18	0.9DL + 1WL AZI 120	Yes	Y		1	.9	6	1	14	-.5	15	.866												
19	0.9DL + 1WL AZI 150	Yes	Y		1	.9	7	1	14	-.8...	15	.5												
20	0.9DL + 1WL AZI 180	Yes	Y		1	.9	8	1	14	-1	15													
21	0.9DL + 1WL AZI 210	Yes	Y		1	.9	9	1	14	-.8...	15	-.5												
22	0.9DL + 1WL AZI 240	Yes	Y		1	.9	10	1	14	-.5	15	-.8...												
23	0.9DL + 1WL AZI 270	Yes	Y		1	.9	11	1	14		15	-1												
24	0.9DL + 1WL AZI 300	Yes	Y		1	.9	12	1	14	.5	15	-.8...												
25	0.9DL + 1WL AZI 330	Yes	Y		1	.9	13	1	14	.866	15	-.5												
26	1.2D + 1.0Di	Yes	Y		1	1.2	16	1																
27	1.2D + 1.0Di +1.0Wi A...	Yes	Y		1	1.2	16	1	17	1	29	1	30											
28	1.2D + 1.0Di +1.0Wi A...	Yes	Y		1	1.2	16	1	18	1	29	.866	30	.5										
29	1.2D + 1.0Di +1.0Wi A...	Yes	Y		1	1.2	16	1	19	1	29	.5	30	.866										
30	1.2D + 1.0Di +1.0Wi A...	Yes	Y		1	1.2	16	1	20	1	29		30	1										
31	1.2D + 1.0Di +1.0Wi A...	Yes	Y		1	1.2	16	1	21	1	29	-.5	30	.866										
32	1.2D + 1.0Di +1.0Wi A...	Yes	Y		1	1.2	16	1	22	1	29	-.8...	30	.5										
33	1.2D + 1.0Di +1.0Wi A...	Yes	Y		1	1.2	16	1	23	1	29	-1	30											
34	1.2D + 1.0Di +1.0Wi A...	Yes	Y		1	1.2	16	1	24	1	29	-.8...	30	-.5										
35	1.2D + 1.0Di +1.0Wi A...	Yes	Y		1	1.2	16	1	25	1	29	-.5	30	-.8...										
36	1.2D + 1.0Di +1.0Wi A...	Yes	Y		1	1.2	16	1	26	1	29		30	-1										
37	1.2D + 1.0Di +1.0Wi A...	Yes	Y		1	1.2	16	1	27	1	29	.5	30	-.8...										
38	1.2D + 1.0Di +1.0Wi A...	Yes	Y		1	1.2	16	1	28	1	29	.866	30	-.5										

Load Combinations (Continued)

	Description	Solve	PDelta	SRSS	BLC	Factor	BLC	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...
39	(1.2 + 0.2Sds)DL + 1.0...	Yes	Y		1	1.244	31	1	32															
40	(1.2 + 0.2Sds)DL + 1.0...	Yes	Y		1	1.244	31	.866	32	.5														
41	(1.2 + 0.2Sds)DL + 1.0...	Yes	Y		1	1.244	31	.5	32	.866														
42	(1.2 + 0.2Sds)DL + 1.0...	Yes	Y		1	1.244	31		32	1														
43	(1.2 + 0.2Sds)DL + 1.0...	Yes	Y		1	1.244	31	-.5	32	.866														
44	(1.2 + 0.2Sds)DL + 1.0...	Yes	Y		1	1.244	31	-.8...	32	.5														
45	(1.2 + 0.2Sds)DL + 1.0...	Yes	Y		1	1.244	31	-1	32															
46	(1.2 + 0.2Sds)DL + 1.0...	Yes	Y		1	1.244	31	-.8...	32	-.5														
47	(1.2 + 0.2Sds)DL + 1.0...	Yes	Y		1	1.244	31	-.5	32	-.8...														
48	(1.2 + 0.2Sds)DL + 1.0...	Yes	Y		1	1.244	31		32	-1														
49	(1.2 + 0.2Sds)DL + 1.0...	Yes	Y		1	1.244	31	.5	32	-.8...														
50	(1.2 + 0.2Sds)DL + 1.0...	Yes	Y		1	1.244	31	.866	32	-.5														
51	(0.9 - 0.2Sds)DL + 1.0...	Yes	Y		1	.856	31	1	32															
52	(0.9 - 0.2Sds)DL + 1.0...	Yes	Y		1	.856	31	.866	32	.5														
53	(0.9 - 0.2Sds)DL + 1.0...	Yes	Y		1	.856	31	.5	32	.866														
54	(0.9 - 0.2Sds)DL + 1.0...	Yes	Y		1	.856	31		32	1														
55	(0.9 - 0.2Sds)DL + 1.0...	Yes	Y		1	.856	31	-.5	32	.866														
56	(0.9 - 0.2Sds)DL + 1.0...	Yes	Y		1	.856	31	-.8...	32	.5														
57	(0.9 - 0.2Sds)DL + 1.0...	Yes	Y		1	.856	31	-1	32															
58	(0.9 - 0.2Sds)DL + 1.0...	Yes	Y		1	.856	31	-.8...	32	-.5														
59	(0.9 - 0.2Sds)DL + 1.0...	Yes	Y		1	.856	31	-.5	32	-.8...														
60	(0.9 - 0.2Sds)DL + 1.0...	Yes	Y		1	.856	31		32	-1														
61	(0.9 - 0.2Sds)DL + 1.0...	Yes	Y		1	.856	31	.5	32	-.8...														
62	(0.9 - 0.2Sds)DL + 1.0...	Yes	Y		1	.856	31	.866	32	-.5														
63	1.0DL + 1.5LL + 1.0SW...	Yes	Y		1	1	2	.242	14	.242	15		33	1.5										
64	1.0DL + 1.5LL + 1.0SW...	Yes	Y		1	1	3	.242	14	.209	15	.121	33	1.5										
65	1.0DL + 1.5LL + 1.0SW...	Yes	Y		1	1	4	.242	14	.121	15	.209	33	1.5										
66	1.0DL + 1.5LL + 1.0SW...	Yes	Y		1	1	5	.242	14		15	.242	33	1.5										
67	1.0DL + 1.5LL + 1.0SW...	Yes	Y		1	1	6	.242	14	-.1...	15	.209	33	1.5										
68	1.0DL + 1.5LL + 1.0SW...	Yes	Y		1	1	7	.242	14	-.2...	15	.121	33	1.5										
69	1.0DL + 1.5LL + 1.0SW...	Yes	Y		1	1	8	.242	14	-.2...	15		33	1.5										
70	1.0DL + 1.5LL + 1.0SW...	Yes	Y		1	1	9	.242	14	-.2...	15	-.1...	33	1.5										
71	1.0DL + 1.5LL + 1.0SW...	Yes	Y		1	1	10	.242	14	-.1...	15	-.2...	33	1.5										
72	1.0DL + 1.5LL + 1.0SW...	Yes	Y		1	1	11	.242	14		15	-.2...	33	1.5										
73	1.0DL + 1.5LL + 1.0SW...	Yes	Y		1	1	12	.242	14	.121	15	-.2...	33	1.5										
74	1.0DL + 1.5LL + 1.0SW...	Yes	Y		1	1	13	.242	14	.209	15	-.1...	33	1.5										
75	1.2DL + 1.5LL	Yes	Y		1	1.2	33	1.5																
76	1.2DL + 1.5LM-MP1 + ...	Yes	Y		1	1.2	34	1.5	2	.06	14	.06	15											
77	1.2DL + 1.5LM-MP1 + ...	Yes	Y		1	1.2	34	1.5	3	.06	14	.052	15	.03										
78	1.2DL + 1.5LM-MP1 + ...	Yes	Y		1	1.2	34	1.5	4	.06	14	.03	15	.052										
79	1.2DL + 1.5LM-MP1 + ...	Yes	Y		1	1.2	34	1.5	5	.06	14		15	.06										
80	1.2DL + 1.5LM-MP1 + ...	Yes	Y		1	1.2	34	1.5	6	.06	14	-.03	15	.052										
81	1.2DL + 1.5LM-MP1 + ...	Yes	Y		1	1.2	34	1.5	7	.06	14	-.0...	15	.03										
82	1.2DL + 1.5LM-MP1 + ...	Yes	Y		1	1.2	34	1.5	8	.06	14	-.06	15											
83	1.2DL + 1.5LM-MP1 + ...	Yes	Y		1	1.2	34	1.5	9	.06	14	-.0...	15	-.03										
84	1.2DL + 1.5LM-MP1 + ...	Yes	Y		1	1.2	34	1.5	10	.06	14	-.03	15	-.0...										
85	1.2DL + 1.5LM-MP1 + ...	Yes	Y		1	1.2	34	1.5	11	.06	14		15	-.06										
86	1.2DL + 1.5LM-MP1 + ...	Yes	Y		1	1.2	34	1.5	12	.06	14	.03	15	-.0...										
87	1.2DL + 1.5LM-MP1 + ...	Yes	Y		1	1.2	34	1.5	13	.06	14	.052	15	-.03										
88	1.2DL + 1.5LM-MP2 + ...	Yes	Y		1	1.2	35	1.5	2	.06	14	.06	15											
89	1.2DL + 1.5LM-MP2 + ...	Yes	Y		1	1.2	35	1.5	3	.06	14	.052	15	.03										
90	1.2DL + 1.5LM-MP2 + ...	Yes	Y		1	1.2	35	1.5	4	.06	14	.03	15	.052										
91	1.2DL + 1.5LM-MP2 + ...	Yes	Y		1	1.2	35	1.5	5	.06	14		15	.06										
92	1.2DL + 1.5LM-MP2 + ...	Yes	Y		1	1.2	35	1.5	6	.06	14	-.03	15	.052										
93	1.2DL + 1.5LM-MP2 + ...	Yes	Y		1	1.2	35	1.5	7	.06	14	-.0...	15	.03										
94	1.2DL + 1.5LM-MP2 + ...	Yes	Y		1	1.2	35	1.5	8	.06	14	-.06	15											
95	1.2DL + 1.5LM-MP2 + ...	Yes	Y		1	1.2	35	1.5	9	.06	14	-.0...	15	-.03										

Load Combinations (Continued)

	Description	Solve	PDelta	SRSS	BLC	Factor	BLC	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...
96	1.2DL + 1.5LM-MP2 + ...	Yes	Y		1	1.2	35	1.5	10	.06	14	-.03	15	-.0...										
97	1.2DL + 1.5LM-MP2 + ...	Yes	Y		1	1.2	35	1.5	11	.06	14		15	-.06										
98	1.2DL + 1.5LM-MP2 + ...	Yes	Y		1	1.2	35	1.5	12	.06	14	.03	15	-.0...										
99	1.2DL + 1.5LM-MP2 + ...	Yes	Y		1	1.2	35	1.5	13	.06	14	.052	15	-.03										
100	1.2DL + 1.5LM-MP3 + ...	Yes	Y		1	1.2	36	1.5	2	.06	14	.06	15											
101	1.2DL + 1.5LM-MP3 + ...	Yes	Y		1	1.2	36	1.5	3	.06	14	.052	15	.03										
102	1.2DL + 1.5LM-MP3 + ...	Yes	Y		1	1.2	36	1.5	4	.06	14	.03	15	.052										
103	1.2DL + 1.5LM-MP3 + ...	Yes	Y		1	1.2	36	1.5	5	.06	14		15	.06										
104	1.2DL + 1.5LM-MP3 + ...	Yes	Y		1	1.2	36	1.5	6	.06	14	-.03	15	.052										
105	1.2DL + 1.5LM-MP3 + ...	Yes	Y		1	1.2	36	1.5	7	.06	14	-.0...	15	.03										
106	1.2DL + 1.5LM-MP3 + ...	Yes	Y		1	1.2	36	1.5	8	.06	14	-.06	15											
107	1.2DL + 1.5LM-MP3 + ...	Yes	Y		1	1.2	36	1.5	9	.06	14	-.0...	15	-.03										
108	1.2DL + 1.5LM-MP3 + ...	Yes	Y		1	1.2	36	1.5	10	.06	14	-.03	15	-.0...										
109	1.2DL + 1.5LM-MP3 + ...	Yes	Y		1	1.2	36	1.5	11	.06	14		15	-.06										
110	1.2DL + 1.5LM-MP3 + ...	Yes	Y		1	1.2	36	1.5	12	.06	14	.03	15	-.0...										
111	1.2DL + 1.5LM-MP3 + ...	Yes	Y		1	1.2	36	1.5	13	.06	14	.052	15	-.03										
112	1.2DL + 1.5LM-MP4 + ...	Yes	Y		1	1.2	37	1.5	2	.06	14	.06	15											
113	1.2DL + 1.5LM-MP4 + ...	Yes	Y		1	1.2	37	1.5	3	.06	14	.052	15	.03										
114	1.2DL + 1.5LM-MP4 + ...	Yes	Y		1	1.2	37	1.5	4	.06	14	.03	15	.052										
115	1.2DL + 1.5LM-MP4 + ...	Yes	Y		1	1.2	37	1.5	5	.06	14		15	.06										
116	1.2DL + 1.5LM-MP4 + ...	Yes	Y		1	1.2	37	1.5	6	.06	14	-.03	15	.052										
117	1.2DL + 1.5LM-MP4 + ...	Yes	Y		1	1.2	37	1.5	7	.06	14	-.0...	15	.03										
118	1.2DL + 1.5LM-MP4 + ...	Yes	Y		1	1.2	37	1.5	8	.06	14	-.06	15											
119	1.2DL + 1.5LM-MP4 + ...	Yes	Y		1	1.2	37	1.5	9	.06	14	-.0...	15	-.03										
120	1.2DL + 1.5LM-MP4 + ...	Yes	Y		1	1.2	37	1.5	10	.06	14	-.03	15	-.0...										
121	1.2DL + 1.5LM-MP4 + ...	Yes	Y		1	1.2	37	1.5	11	.06	14		15	-.06										
122	1.2DL + 1.5LM-MP4 + ...	Yes	Y		1	1.2	37	1.5	12	.06	14	.03	15	-.0...										
123	1.2DL + 1.5LM-MP4 + ...	Yes	Y		1	1.2	37	1.5	13	.06	14	.052	15	-.03										
124	1.2DL + 1.5LM-MP5 + ...	Yes	Y		1	1.2	38	1.5	2	.06	14	.06	15											
125	1.2DL + 1.5LM-MP5 + ...	Yes	Y		1	1.2	38	1.5	3	.06	14	.052	15	.03										
126	1.2DL + 1.5LM-MP5 + ...	Yes	Y		1	1.2	38	1.5	4	.06	14	.03	15	.052										
127	1.2DL + 1.5LM-MP5 + ...	Yes	Y		1	1.2	38	1.5	5	.06	14		15	.06										
128	1.2DL + 1.5LM-MP5 + ...	Yes	Y		1	1.2	38	1.5	6	.06	14	-.03	15	.052										
129	1.2DL + 1.5LM-MP5 + ...	Yes	Y		1	1.2	38	1.5	7	.06	14	-.0...	15	.03										
130	1.2DL + 1.5LM-MP5 + ...	Yes	Y		1	1.2	38	1.5	8	.06	14	-.06	15											
131	1.2DL + 1.5LM-MP5 + ...	Yes	Y		1	1.2	38	1.5	9	.06	14	-.0...	15	-.03										
132	1.2DL + 1.5LM-MP5 + ...	Yes	Y		1	1.2	38	1.5	10	.06	14	-.03	15	-.0...										
133	1.2DL + 1.5LM-MP5 + ...	Yes	Y		1	1.2	38	1.5	11	.06	14		15	-.06										
134	1.2DL + 1.5LM-MP5 + ...	Yes	Y		1	1.2	38	1.5	12	.06	14	.03	15	-.0...										
135	1.2DL + 1.5LM-MP5 + ...	Yes	Y		1	1.2	38	1.5	13	.06	14	.052	15	-.03										
136	1.2DL + 1.5LM-MP6 + ...	Yes	Y		1	1.2	39	1.5	2	.06	14	.06	15											
137	1.2DL + 1.5LM-MP6 + ...	Yes	Y		1	1.2	39	1.5	3	.06	14	.052	15	.03										
138	1.2DL + 1.5LM-MP6 + ...	Yes	Y		1	1.2	39	1.5	4	.06	14	.03	15	.052										
139	1.2DL + 1.5LM-MP6 + ...	Yes	Y		1	1.2	39	1.5	5	.06	14		15	.06										
140	1.2DL + 1.5LM-MP6 + ...	Yes	Y		1	1.2	39	1.5	6	.06	14	-.03	15	.052										
141	1.2DL + 1.5LM-MP6 + ...	Yes	Y		1	1.2	39	1.5	7	.06	14	-.0...	15	.03										
142	1.2DL + 1.5LM-MP6 + ...	Yes	Y		1	1.2	39	1.5	8	.06	14	-.06	15											
143	1.2DL + 1.5LM-MP6 + ...	Yes	Y		1	1.2	39	1.5	9	.06	14	-.0...	15	-.03										
144	1.2DL + 1.5LM-MP6 + ...	Yes	Y		1	1.2	39	1.5	10	.06	14	-.03	15	-.0...										
145	1.2DL + 1.5LM-MP6 + ...	Yes	Y		1	1.2	39	1.5	11	.06	14		15	-.06										
146	1.2DL + 1.5LM-MP6 + ...	Yes	Y		1	1.2	39	1.5	12	.06	14	.03	15	-.0...										
147	1.2DL + 1.5LM-MP6 + ...	Yes	Y		1	1.2	39	1.5	13	.06	14	.052	15	-.03										
148	1.2DL + 1.5LM-MP7 + ...	Yes	Y		1	1.2	40	1.5	2	.06	14	.06	15											
149	1.2DL + 1.5LM-MP7 + ...	Yes	Y		1	1.2	40	1.5	3	.06	14	.052	15	.03										
150	1.2DL + 1.5LM-MP7 + ...	Yes	Y		1	1.2	40	1.5	4	.06	14	.03	15	.052										
151	1.2DL + 1.5LM-MP7 + ...	Yes	Y		1	1.2	40	1.5	5	.06	14		15	.06										
152	1.2DL + 1.5LM-MP7 + ...	Yes	Y		1	1.2	40	1.5	6	.06	14	-.03	15	.052										

Load Combinations (Continued)

	Description	Solve	PDelta	SRSS	BLC	Factor	BLC	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...
153	1.2DL + 1.5LM-MP7 + ...	Yes	Y		1	1.2	40	1.5	7	.06	14	-.0...	15	.03										
154	1.2DL + 1.5LM-MP7 + ...	Yes	Y		1	1.2	40	1.5	8	.06	14	-.06	15											
155	1.2DL + 1.5LM-MP7 + ...	Yes	Y		1	1.2	40	1.5	9	.06	14	-.0...	15	-.03										
156	1.2DL + 1.5LM-MP7 + ...	Yes	Y		1	1.2	40	1.5	10	.06	14	-.03	15	-.0...										
157	1.2DL + 1.5LM-MP7 + ...	Yes	Y		1	1.2	40	1.5	11	.06	14		15	-.06										
158	1.2DL + 1.5LM-MP7 + ...	Yes	Y		1	1.2	40	1.5	12	.06	14	.03	15	-.0...										
159	1.2DL + 1.5LM-MP7 + ...	Yes	Y		1	1.2	40	1.5	13	.06	14	.052	15	-.03										
160	1.2DL + 1.5LM-MP8 + ...	Yes	Y		1	1.2	41	1.5	2	.06	14	.06	15											
161	1.2DL + 1.5LM-MP8 + ...	Yes	Y		1	1.2	41	1.5	3	.06	14	.052	15	.03										
162	1.2DL + 1.5LM-MP8 + ...	Yes	Y		1	1.2	41	1.5	4	.06	14	.03	15	.052										
163	1.2DL + 1.5LM-MP8 + ...	Yes	Y		1	1.2	41	1.5	5	.06	14		15	.06										
164	1.2DL + 1.5LM-MP8 + ...	Yes	Y		1	1.2	41	1.5	6	.06	14	-.03	15	.052										
165	1.2DL + 1.5LM-MP8 + ...	Yes	Y		1	1.2	41	1.5	7	.06	14	-.0...	15	.03										
166	1.2DL + 1.5LM-MP8 + ...	Yes	Y		1	1.2	41	1.5	8	.06	14	-.06	15											
167	1.2DL + 1.5LM-MP8 + ...	Yes	Y		1	1.2	41	1.5	9	.06	14	-.0...	15	-.03										
168	1.2DL + 1.5LM-MP8 + ...	Yes	Y		1	1.2	41	1.5	10	.06	14	-.03	15	-.0...										
169	1.2DL + 1.5LM-MP8 + ...	Yes	Y		1	1.2	41	1.5	11	.06	14		15	-.06										
170	1.2DL + 1.5LM-MP8 + ...	Yes	Y		1	1.2	41	1.5	12	.06	14	.03	15	-.0...										
171	1.2DL + 1.5LM-MP8 + ...	Yes	Y		1	1.2	41	1.5	13	.06	14	.052	15	-.03										
172	1.2DL + 1.5LM-MP9 + ...	Yes	Y		1	1.2	42	1.5	2	.06	14	.06	15											
173	1.2DL + 1.5LM-MP9 + ...	Yes	Y		1	1.2	42	1.5	3	.06	14	.052	15	.03										
174	1.2DL + 1.5LM-MP9 + ...	Yes	Y		1	1.2	42	1.5	4	.06	14	.03	15	.052										
175	1.2DL + 1.5LM-MP9 + ...	Yes	Y		1	1.2	42	1.5	5	.06	14		15	.06										
176	1.2DL + 1.5LM-MP9 + ...	Yes	Y		1	1.2	42	1.5	6	.06	14	-.03	15	.052										
177	1.2DL + 1.5LM-MP9 + ...	Yes	Y		1	1.2	42	1.5	7	.06	14	-.0...	15	.03										
178	1.2DL + 1.5LM-MP9 + ...	Yes	Y		1	1.2	42	1.5	8	.06	14	-.06	15											
179	1.2DL + 1.5LM-MP9 + ...	Yes	Y		1	1.2	42	1.5	9	.06	14	-.0...	15	-.03										
180	1.2DL + 1.5LM-MP9 + ...	Yes	Y		1	1.2	42	1.5	10	.06	14	-.03	15	-.0...										
181	1.2DL + 1.5LM-MP9 + ...	Yes	Y		1	1.2	42	1.5	11	.06	14		15	-.06										
182	1.2DL + 1.5LM-MP9 + ...	Yes	Y		1	1.2	42	1.5	12	.06	14	.03	15	-.0...										
183	1.2DL + 1.5LM-MP9 + ...	Yes	Y		1	1.2	42	1.5	13	.06	14	.052	15	-.03										
184	1.2DL + 1.5LM-MP10 +...	Yes	Y		1	1.2	43	1.5	2	.06	14	.06	15											
185	1.2DL + 1.5LM-MP10 +...	Yes	Y		1	1.2	43	1.5	3	.06	14	.052	15	.03										
186	1.2DL + 1.5LM-MP10 +...	Yes	Y		1	1.2	43	1.5	4	.06	14	.03	15	.052										
187	1.2DL + 1.5LM-MP10 +...	Yes	Y		1	1.2	43	1.5	5	.06	14		15	.06										
188	1.2DL + 1.5LM-MP10 +...	Yes	Y		1	1.2	43	1.5	6	.06	14	-.03	15	.052										
189	1.2DL + 1.5LM-MP10 +...	Yes	Y		1	1.2	43	1.5	7	.06	14	-.0...	15	.03										
190	1.2DL + 1.5LM-MP10 +...	Yes	Y		1	1.2	43	1.5	8	.06	14	-.06	15											
191	1.2DL + 1.5LM-MP10 +...	Yes	Y		1	1.2	43	1.5	9	.06	14	-.0...	15	-.03										
192	1.2DL + 1.5LM-MP10 +...	Yes	Y		1	1.2	43	1.5	10	.06	14	-.03	15	-.0...										
193	1.2DL + 1.5LM-MP10 +...	Yes	Y		1	1.2	43	1.5	11	.06	14		15	-.06										
194	1.2DL + 1.5LM-MP10 +...	Yes	Y		1	1.2	43	1.5	12	.06	14	.03	15	-.0...										
195	1.2DL + 1.5LM-MP10 +...	Yes	Y		1	1.2	43	1.5	13	.06	14	.052	15	-.03										
196	1.2DL + 1.5LM-MP11 +...	Yes	Y		1	1.2	44	1.5	2	.06	14	.06	15											
197	1.2DL + 1.5LM-MP11 +...	Yes	Y		1	1.2	44	1.5	3	.06	14	.052	15	.03										
198	1.2DL + 1.5LM-MP11 +...	Yes	Y		1	1.2	44	1.5	4	.06	14	.03	15	.052										
199	1.2DL + 1.5LM-MP11 +...	Yes	Y		1	1.2	44	1.5	5	.06	14		15	.06										
200	1.2DL + 1.5LM-MP11 +...	Yes	Y		1	1.2	44	1.5	6	.06	14	-.03	15	.052										
201	1.2DL + 1.5LM-MP11 +...	Yes	Y		1	1.2	44	1.5	7	.06	14	-.0...	15	.03										
202	1.2DL + 1.5LM-MP11 +...	Yes	Y		1	1.2	44	1.5	8	.06	14	-.06	15											
203	1.2DL + 1.5LM-MP11 +...	Yes	Y		1	1.2	44	1.5	9	.06	14	-.0...	15	-.03										
204	1.2DL + 1.5LM-MP11 +...	Yes	Y		1	1.2	44	1.5	10	.06	14	-.03	15	-.0...										
205	1.2DL + 1.5LM-MP11 +...	Yes	Y		1	1.2	44	1.5	11	.06	14		15	-.06										
206	1.2DL + 1.5LM-MP11 +...	Yes	Y		1	1.2	44	1.5	12	.06	14	.03	15	-.0...										
207	1.2DL + 1.5LM-MP11 +...	Yes	Y		1	1.2	44	1.5	13	.06	14	.052	15	-.03										
208	1.2DL + 1.5LM-MP12 +...	Yes	Y		1	1.2	45	1.5	2	.06	14	.06	15											
209	1.2DL + 1.5LM-MP12 +...	Yes	Y		1	1.2	45	1.5	3	.06	14	.052	15	.03										

Load Combinations (Continued)

	Description	Solve	PDelta	SRSS	BLC	Factor	BLC	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...
210	1.2DL + 1.5LM-MP12 +...	Yes	Y		1	1.2	45	1.5	4	.06	14	.03	15	.052										
211	1.2DL + 1.5LM-MP12 +...	Yes	Y		1	1.2	45	1.5	5	.06	14		15	.06										
212	1.2DL + 1.5LM-MP12 +...	Yes	Y		1	1.2	45	1.5	6	.06	14	-.03	15	.052										
213	1.2DL + 1.5LM-MP12 +...	Yes	Y		1	1.2	45	1.5	7	.06	14	-.0...	15	.03										
214	1.2DL + 1.5LM-MP12 +...	Yes	Y		1	1.2	45	1.5	8	.06	14	-.06	15											
215	1.2DL + 1.5LM-MP12 +...	Yes	Y		1	1.2	45	1.5	9	.06	14	-.0...	15	-.03										
216	1.2DL + 1.5LM-MP12 +...	Yes	Y		1	1.2	45	1.5	10	.06	14	-.03	15	-.0...										
217	1.2DL + 1.5LM-MP12 +...	Yes	Y		1	1.2	45	1.5	11	.06	14		15	-.06										
218	1.2DL + 1.5LM-MP12 +...	Yes	Y		1	1.2	45	1.5	12	.06	14	.03	15	-.0...										

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	N19	max	33.342	16	1664.852	31	1322.577	3	1944.927	25	2021.014	3	2524.821	24
2		min	-1660.878	12	-929.76	24	-550.259	21	-2502.4...	8	-2014.3...	21	-3180.4...	5
3	N20	max	1041.747	17	1485.453	27	210.224	14	3193.934	2	2084.175	11	1270.575	23
4		min	-1056.199	11	-866.364	20	-2019.1...	8	-2713.1...	20	-2054.5...	17	-1407.1...	16
5	N140	max	2990.946	6	1387.155	37	996.349	14	348.336	8	156.034	2	357.225	5
6		min	-1051.3	23	344.478	18	-2114.5...	7	-330.743	2	-158.854	8	-319.178	11
7	N162	max	844.94	5	1158.463	77	752.366	3	227.201	9	93	7	255.73	4
8		min	-2517.788	10	321.065	21	-1715.76	9	-214.626	3	-95.171	13	-290.121	22
9	N151	max	727.299	4	1263.955	34	3086.147	2	294.85	9	151.707	11	226.036	4
10		min	-714.47	22	371.561	16	-970.627	20	-341.511	3	-153.86	5	-228.931	22
11	N22	max	1559.795	16	1445.979	10	1024.257	16	1685.408	15	792.655	7	2682.897	11
12		min	-122.074	22	-939.885	16	-312.162	19	-2180.1...	8	-794.806	13	-2454.8...	16
13	Totals:	max	6628.077	17	7769.166	27	7006.829	14						
14		min	-6628.062	23	2778.113	57	-7006.86	20						

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design R...	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	Standoff	HSS4X4X4	Beam	None	Q235-GB	Typical	3.37	7.8	7.8	12.8
2	Face Horizontal	PIPE_3.0	Beam	Pipe	Q235-GB	Typical	2.07	2.85	2.85	5.69
3	Grating Support An...	L2x2x2	Beam	None	Q345	Typical	.491	.189	.189	.003
4	Mount Pipe	PIPE_2.5	Column	Pipe	Q235-GB	Typical	1.61	1.45	1.45	2.89
5	Kicker Pipe	PIPE_2.0	VBrace	Pipe	Q235-GB	Typical	1.02	.627	.627	1.25
6	Standoff Pipe	PIPE_2.0	Column	Wide Flange	Q235-GB	Typical	1.02	.627	.627	1.25
7	Handrail Corner An...	L2.5x2.5x3	Beam	None	Q345	Typical	.901	.535	.535	.011
8	Corner Plate	6x0.375	Beam	None	Q345	Typical	2.25	.026	6.75	.101
9	Handrail	PIPE_2.5	Beam	Pipe	Q235-GB	Typical	1.61	1.45	1.45	2.89
10	Cable	0.375 SR	VBrace	None	EHS Guy Wire	Typical	.11	.000971	.000971	.002

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	N19	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
2	N20	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
3	N140	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
4	N162	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
5	N151	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
6	N22	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction

Member Advanced Data

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rat...	Analysis ...	Inactive	Seismic...
1	H3						Yes	Default			None
2	M2						Yes	Default			None
3	M3						Yes	Default			None
4	M4						Yes	Default			None
5	M5		OOOXOO				Yes	** NA **			None
6	M6		OOOXOO				Yes	** NA **			None
7	H2						Yes	Default			None
8	M8		OOOXOO				Yes	** NA **			None
9	M9		OOOXOO				Yes	** NA **			None
10	H1						Yes	Default			None
11	M11		OOOXOO				Yes	** NA **			None
12	M12		OOOXOO				Yes	** NA **			None
13	S1						Yes	Default			None
14	S2						Yes	Default			None
15	S3						Yes	Default			None
16	M16				2		Yes	Default			None
17	M17		OOOXOO				Yes	** NA **			None
18	M18		OOOXOO				Yes	** NA **			None
19	M19						Yes	Default			None
20	M20						Yes	Default			None
21	M21				2		Yes	Default			None
22	M22		OOOXOO				Yes	** NA **			None
23	M23		OOOXOO				Yes	** NA **			None
24	M24						Yes	Default			None
25	M25						Yes	Default			None
26	M26				2		Yes	Default			None
27	M27		OOOXOO				Yes	** NA **			None
28	M28		OOOXOO				Yes	** NA **			None
29	M29						Yes	Default			None
30	M30						Yes	Default			None
31	M31						Yes	** NA **			None
32	M32						Yes	** NA **			None
33	MP12						Yes	** NA **			None
34	MP9						Yes	** NA **			None
35	HR3						Yes	Default			None
36	HR2						Yes	Default			None
37	HR1						Yes	Default			None
38	M42						Yes	** NA **			None
39	M44						Yes	** NA **			None
40	M46	BenPIN	BenPIN				Yes	Default			None
41	M47						Yes	** NA **			None
42	M48						Yes	** NA **			None
43	M49	BenPIN	BenPIN				Yes	Default			None
44	M50						Yes	** NA **			None
45	M51						Yes	** NA **			None
46	M52	BenPIN	BenPIN				Yes	Default			None
47	M53						Yes	** NA **			None
48	M54						Yes	** NA **			None
49	M55						Yes	** NA **			None
50	M56						Yes	** NA **			None
51	M57						Yes	** NA **			None
52	MP1						Yes	** NA **			None
53	MP2						Yes	** NA **			None
54	MP4						Yes	** NA **			None
55	M63						Yes	** NA **			None
56	M64						Yes	** NA **			None

Member Advanced Data (Continued)

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rat...	Analysis ...	Inactive	Seismic...
57	M65						Yes	** NA **			None
58	M67						Yes	** NA **			None
59	M69						Yes	** NA **			None
60	MP5						Yes	** NA **			None
61	MP8						Yes	** NA **			None
62	M75						Yes	** NA **			None
63	M77						Yes	** NA **			None
64	M79						Yes	** NA **			None
65	M80						Yes	** NA **			None
66	M81	BenPIN	BenPIN			Tension ...	Yes	** NA **			None
67	M82						Yes	** NA **			None
68	M83						Yes	** NA **			None
69	M84						Yes	** NA **			None
70	MK3	BenPIN	BenPIN				Yes	** NA **			None
71	M86						Yes	** NA **			None
72	MK4	BenPIN	BenPIN				Yes	** NA **			None
73	M88						Yes	** NA **			None
74	M89						Yes	** NA **			None
75	M90	BenPIN	BenPIN			Tension ...	Yes	** NA **			None
76	M91						Yes	** NA **			None
77	M92						Yes	** NA **			None
78	M93						Yes	** NA **			None
79	MK2	BenPIN	BenPIN				Yes	** NA **			None
80	M95						Yes	** NA **			None
81	MK5	BenPIN	BenPIN				Yes	** NA **			None
82	M97						Yes	** NA **			None
83	M98						Yes	** NA **			None
84	M99	BenPIN	BenPIN			Tension ...	Yes	** NA **			None
85	M100						Yes	** NA **			None
86	M101						Yes	** NA **			None
87	M102						Yes	** NA **			None
88	MK6	BenPIN	BenPIN				Yes	** NA **			None
89	M104						Yes	** NA **			None
90	MK1	BenPIN	BenPIN				Yes	** NA **			None
91	M106						Yes	** NA **			None
92	MP3						Yes	** NA **			None
93	M108						Yes	** NA **			None
94	M105						Yes	** NA **			None
95	M109						Yes	** NA **			None
96	MP10						Yes	** NA **			None
97	M113						Yes	** NA **			None
98	MP11						Yes	** NA **			None
99	M115						Yes	** NA **			None
100	M117						Yes	** NA **			None
101	M118						Yes	** NA **			None
102	MP6						Yes	** NA **			None
103	M122						Yes	** NA **			None
104	MP7						Yes	** NA **			None
105	M124						Yes	** NA **			None
106	M119			2			Yes	Default			None
107	M120			2			Yes	Default			None
108	M123			2			Yes	Default			None
109	R2						Yes	** NA **			None
110	M110						Yes	** NA **			None
111	R1						Yes	** NA **			None
112	M112						Yes	** NA **			None
113	R3						Yes	** NA **			None

Member Advanced Data (Continued)

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rat...	Analysis ...	Inactive	Seismic...
114	M114						Yes	** NA **			None

Hot Rolled Steel Design Parameters

	Label	Shape	Length[in]	Lbyy[in]	Lbzz[in]	Lcomp top[in]	Lcomp bot[in]	L-torq...	Kyy	Kzz	Cb	Function
1	H3	Face Horizo...	174			Lbyy						Lateral
2	M2	Corner Plate	12			Lbyy						Lateral
3	M3	Corner Plate	12			Lbyy						Lateral
4	M4	Corner Plate	12			Lbyy						Lateral
5	H2	Face Horizo...	174			Lbyy						Lateral
6	H1	Face Horizo...	174			Lbyy						Lateral
7	S1	Standoff	78.793			Lbyy						Lateral
8	S2	Standoff	78.793			Lbyy						Lateral
9	S3	Standoff	78.793			Lbyy						Lateral
10	M16	Standoff	31.259			Lbyy						Lateral
11	M19	Grating Sup...	50.518			Lbyy						Lateral
12	M20	Grating Sup...	50.518			Lbyy						Lateral
13	M21	Standoff	31.259			Lbyy						Lateral
14	M24	Grating Sup...	50.518			Lbyy						Lateral
15	M25	Grating Sup...	50.518			Lbyy						Lateral
16	M26	Standoff	31.259			Lbyy						Lateral
17	M29	Grating Sup...	50.518			Lbyy						Lateral
18	M30	Grating Sup...	50.518			Lbyy						Lateral
19	MP12	Mount Pipe	120			Lbyy						Lateral
20	MP9	Mount Pipe	120			Lbyy						Lateral
21	HR3	Handrail	174			Lbyy						Lateral
22	HR2	Handrail	174			Lbyy						Lateral
23	HR1	Handrail	174			Lbyy						Lateral
24	M46	Handrail Co...	14			Lbyy						Lateral
25	M49	Handrail Co...	14			Lbyy						Lateral
26	M52	Handrail Co...	14			Lbyy						Lateral
27	MP1	Mount Pipe	120			Lbyy						Lateral
28	MP2	Mount Pipe	120			Lbyy						Lateral
29	MP4	Mount Pipe	120			Lbyy						Lateral
30	MP5	Mount Pipe	120			Lbyy						Lateral
31	MP8	Mount Pipe	120			Lbyy						Lateral
32	M81	Cable	74.993			Lbyy						Lateral
33	MK3	Kicker Pipe	58.015			Lbyy						Lateral
34	MK4	Kicker Pipe	58.015			Lbyy						Lateral
35	M90	Cable	74.993			Lbyy						Lateral
36	MK2	Kicker Pipe	58.015			Lbyy						Lateral
37	MK5	Kicker Pipe	58.015			Lbyy						Lateral
38	M99	Cable	74.993			Lbyy						Lateral
39	MK6	Kicker Pipe	58.015			Lbyy						Lateral
40	MK1	Kicker Pipe	58.015			Lbyy						Lateral
41	MP3	Mount Pipe	120			Lbyy						Lateral
42	MP10	Mount Pipe	120			Lbyy						Lateral
43	MP11	Mount Pipe	120			Lbyy						Lateral
44	MP6	Mount Pipe	120			Lbyy						Lateral
45	MP7	Mount Pipe	120			Lbyy						Lateral
46	M119	Standoff	31.259			Lbyy						Lateral
47	M120	Standoff	31.259			Lbyy						Lateral
48	M123	Standoff	31.259			Lbyy						Lateral
49	R2	Standoff Pipe	36									Lateral
50	R1	Standoff Pipe	36									Lateral
51	R3	Standoff Pipe	36									Lateral

Hot Rolled Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Ther...	Density[lb/ft^3]	Yield[ksi]	Ry	Fu[ksi]	Rt
1	A992	29000	11154	.3	.65	490	50	1.1	65	1.1
2	A36 Gr.36	29000	11154	.3	.65	490	36	1.5	58	1.2
3	A572 Gr.50	29000	11154	.3	.65	490	50	1.1	65	1.1
4	A500 Gr.B RND	29000	11154	.3	.65	527	42	1.4	58	1.3
5	A500 Gr.B Rect	29000	11154	.3	.65	527	46	1.4	58	1.3
6	A53 Gr.B	29000	11154	.3	.65	490	35	1.6	60	1.2
7	A1085	29000	11154	.3	.65	490	50	1.25	65	1.15
8	A913 Gr.65	29000	11154	.3	.65	490	65	1.1	80	1.1
9	Q235-GB	29000	11154	.3	.65	490	35	1.5	60	1.2
10	Q345	29000	11154	.3	.65	490	36	1.5	58	1.2
11	EHS Guy Wire	29000	11154	.3	.65	490	94.57	1.5	152.36	1.2

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

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (l...
1	N177	L	Y	-250

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

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (l...
1	N49	L	Y	-500

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

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (l...
1	N51	L	Y	-500

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

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (l...
1	N91	L	Y	-500

Joint Loads and Enforced Displacements (BLC 37 : Maintenance Load 4)

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (l...
1	N93	L	Y	-500

Joint Loads and Enforced Displacements (BLC 38 : Maintenance Load 5)

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (l...
1	N95	L	Y	-500

Joint Loads and Enforced Displacements (BLC 39 : Maintenance Load 6)

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (l...
1	N115	L	Y	-500

Joint Loads and Enforced Displacements (BLC 40 : Maintenance Load 7)

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (l...
1	N119	L	Y	-500

Joint Loads and Enforced Displacements (BLC 41 : Maintenance Load 8)

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (l...
1	N182	L	Y	-500

Joint Loads and Enforced Displacements (BLC 42 : Maintenance Load 9)

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (l...

Joint Loads and Enforced Displacements (BLC 42 : Maintenance Load 9) (Continued)

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (l...
1	N184	L	Y	-500

Joint Loads and Enforced Displacements (BLC 43 : Maintenance Load 10)

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (l...
1	N198	L	Y	-500

Joint Loads and Enforced Displacements (BLC 44 : Maintenance Load 11)

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (l...
1	N202	L	Y	-500

Joint Loads and Enforced Displacements (BLC 45 : Maintenance Load 12)

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (l...
1	N216	L	Y	-500

Member Point Loads (BLC 1 : Self Weight)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP2	Y	-44.65	12
2	MP2	Y	-44.65	83.2
3	MP4	Y	-44.65	12
4	MP4	Y	-44.65	83.2
5	MP3	Y	-81.6	72
6	MP3	Y	-44	24
7	MP4	Y	-71	%50
8	MP2	Y	-59.41	%50
9	MP2	Y	-72	%50
10	R1	Y	-18.9	%50
11	MP6	Y	-44.65	12
12	MP6	Y	-44.65	83.2
13	MP8	Y	-44.65	12
14	MP8	Y	-44.65	83.2
15	MP7	Y	-81.6	72
16	MP7	Y	-44	24
17	MP8	Y	-71	%50
18	MP6	Y	-59.41	%50
19	MP6	Y	-72	%50
20	R2	Y	-26.2	%50
21	MP11	Y	-81.6	72
22	MP11	Y	-44	24
23	MP12	Y	-71	%50
24	MP10	Y	-59.41	%50
25	MP10	Y	-72	%50

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP2	X	0	12
2	MP2	Z	-249.33	12
3	MP2	X	0	83.2
4	MP2	Z	-249.33	83.2
5	MP4	X	0	12
6	MP4	Z	-249.33	12
7	MP4	X	0	83.2
8	MP4	Z	-249.33	83.2
9	MP3	X	0	72

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
10	MP3	Z	-150.94	72
11	MP3	X	0	24
12	MP3	Z	-174.41	24
13	MP4	X	0	%50
14	MP4	Z	-82.24	%50
15	MP2	X	0	%50
16	MP2	Z	-84.48	%50
17	MP2	X	0	%50
18	MP2	Z	-68.51	%50
19	R1	X	0	%50
20	R1	Z	-85.25	%50
21	MP6	X	0	12
22	MP6	Z	-111.84	12
23	MP6	X	0	83.2
24	MP6	Z	-111.84	83.2
25	MP8	X	0	12
26	MP8	Z	-111.84	12
27	MP8	X	0	83.2
28	MP8	Z	-111.84	83.2
29	MP7	X	0	72
30	MP7	Z	-80.64	72
31	MP7	X	0	24
32	MP7	Z	-94.78	24
33	MP8	X	0	%50
34	MP8	Z	-61.59	%50
35	MP6	X	0	%50
36	MP6	Z	-55.87	%50
37	MP6	X	0	%50
38	MP6	Z	-57.97	%50
39	R2	X	0	%50
40	R2	Z	-189.92	%50
41	MP11	X	0	72
42	MP11	Z	-104.22	72
43	MP11	X	0	24
44	MP11	Z	-121.49	24
45	MP12	X	0	%50
46	MP12	Z	-68.52	%50
47	MP10	X	0	%50
48	MP10	Z	-65.47	%50
49	MP10	X	0	%50
50	MP10	Z	-61.5	%50

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP2	X	-105.2	12
2	MP2	Z	-182.22	12
3	MP2	X	-105.2	83.2
4	MP2	Z	-182.22	83.2
5	MP4	X	-105.2	12
6	MP4	Z	-182.22	12
7	MP4	X	-105.2	83.2
8	MP4	Z	-182.22	83.2
9	MP3	X	-65.52	72
10	MP3	Z	-113.48	72
11	MP3	X	-75.93	24
12	MP3	Z	-131.52	24

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
13	MP4	X	-38.2	%50
14	MP4	Z	-66.16	%50
15	MP2	X	-38.19	%50
16	MP2	Z	-66.15	%50
17	MP2	X	-32.76	%50
18	MP2	Z	-56.75	%50
19	R1	X	-42.63	%50
20	R1	Z	-73.83	%50
21	MP6	X	-92.5	12
22	MP6	Z	-160.21	12
23	MP6	X	-92.5	83.2
24	MP6	Z	-160.21	83.2
25	MP8	X	-92.5	12
26	MP8	Z	-160.21	12
27	MP8	X	-92.5	83.2
28	MP8	Z	-160.21	83.2
29	MP7	X	-59.02	72
30	MP7	Z	-102.23	72
31	MP7	X	-68.58	24
32	MP7	Z	-118.78	24
33	MP8	X	-36.29	%50
34	MP8	Z	-62.86	%50
35	MP6	X	-35.55	%50
36	MP6	Z	-61.57	%50
37	MP6	X	-31.79	%50
38	MP6	Z	-55.06	%50
39	R2	X	-74.86	%50
40	R2	Z	-129.65	%50
41	MP11	X	-36.86	72
42	MP11	Z	-63.85	72
43	MP11	X	-43.48	24
44	MP11	Z	-75.3	24
45	MP12	X	-29.78	%50
46	MP12	Z	-51.58	%50
47	MP10	X	-26.53	%50
48	MP10	Z	-45.95	%50
49	MP10	X	-28.47	%50
50	MP10	Z	-49.3	%50

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP2	X	-114.8	12
2	MP2	Z	-66.28	12
3	MP2	X	-114.8	83.2
4	MP2	Z	-66.28	83.2
5	MP4	X	-114.8	12
6	MP4	Z	-66.28	12
7	MP4	X	-114.8	83.2
8	MP4	Z	-66.28	83.2
9	MP3	X	-79.01	72
10	MP3	Z	-45.61	72
11	MP3	X	-92.47	24
12	MP3	Z	-53.39	24
13	MP4	X	-56.03	%50
14	MP4	Z	-32.35	%50
15	MP2	X	-52.12	%50

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
16	MP2	Z	-30.09	%50
17	MP2	X	-51.58	%50
18	MP2	Z	-29.78	%50
19	R1	X	-73.83	%50
20	R1	Z	-42.63	%50
21	MP6	X	-211.86	12
22	MP6	Z	-122.32	12
23	MP6	X	-211.86	83.2
24	MP6	Z	-122.32	83.2
25	MP8	X	-211.86	12
26	MP8	Z	-122.32	12
27	MP8	X	-211.86	83.2
28	MP8	Z	-122.32	83.2
29	MP7	X	-128.64	72
30	MP7	Z	-74.27	72
31	MP7	X	-148.69	24
32	MP7	Z	-85.84	24
33	MP8	X	-70.61	%50
34	MP8	Z	-40.77	%50
35	MP6	X	-72.32	%50
36	MP6	Z	-41.75	%50
37	MP6	X	-59.02	%50
38	MP6	Z	-34.07	%50
39	R2	X	-101.26	%50
40	R2	Z	-58.46	%50
41	MP11	X	-69.83	72
42	MP11	Z	-40.32	72
43	MP11	X	-82.08	24
44	MP11	Z	-47.39	24
45	MP12	X	-53.34	%50
46	MP12	Z	-30.8	%50
47	MP10	X	-48.38	%50
48	MP10	Z	-27.93	%50
49	MP10	X	-50.2	%50
50	MP10	Z	-28.98	%50

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP2	X	-93.63	12
2	MP2	Z	0	12
3	MP2	X	-93.63	83.2
4	MP2	Z	0	83.2
5	MP4	X	-93.63	12
6	MP4	Z	0	12
7	MP4	X	-93.63	83.2
8	MP4	Z	0	83.2
9	MP3	X	-71.32	72
10	MP3	Z	0	72
11	MP3	X	-84.24	24
12	MP3	Z	0	24
13	MP4	X	-58.86	%50
14	MP4	Z	0	%50
15	MP2	X	-52.08	%50
16	MP2	Z	0	%50
17	MP2	X	-56.57	%50
18	MP2	Z	0	%50

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
19	R1	X	-85.25	%50
20	R1	Z	0	%50
21	MP6	X	-231.12	12
22	MP6	Z	0	12
23	MP6	X	-231.12	83.2
24	MP6	Z	0	83.2
25	MP8	X	-231.12	12
26	MP8	Z	0	12
27	MP8	X	-231.12	83.2
28	MP8	Z	0	83.2
29	MP7	X	-141.63	72
30	MP7	Z	0	72
31	MP7	X	-163.86	24
32	MP7	Z	0	24
33	MP8	X	-79.5	%50
34	MP8	Z	0	%50
35	MP6	X	-80.69	%50
36	MP6	Z	0	%50
37	MP6	X	-67.11	%50
38	MP6	Z	0	%50
39	R2	X	-124.36	%50
40	R2	Z	0	%50
41	MP11	X	-118.05	72
42	MP11	Z	0	72
43	MP11	X	-137.15	24
44	MP11	Z	0	24
45	MP12	X	-72.58	%50
46	MP12	Z	0	%50
47	MP10	X	-71.09	%50
48	MP10	Z	0	%50
49	MP10	X	-63.58	%50
50	MP10	Z	0	%50

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP2	X	-114.8	12
2	MP2	Z	66.28	12
3	MP2	X	-114.8	83.2
4	MP2	Z	66.28	83.2
5	MP4	X	-114.8	12
6	MP4	Z	66.28	12
7	MP4	X	-114.8	83.2
8	MP4	Z	66.28	83.2
9	MP3	X	-79.01	72
10	MP3	Z	45.61	72
11	MP3	X	-92.47	24
12	MP3	Z	53.39	24
13	MP4	X	-56.03	%50
14	MP4	Z	32.35	%50
15	MP2	X	-52.12	%50
16	MP2	Z	30.09	%50
17	MP2	X	-51.58	%50
18	MP2	Z	29.78	%50
19	R1	X	-73.83	%50
20	R1	Z	42.63	%50
21	MP6	X	-136.8	12

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
22	MP6	Z	78.98	12
23	MP6	X	-136.8	83.2
24	MP6	Z	78.98	83.2
25	MP8	X	-136.8	12
26	MP8	Z	78.98	12
27	MP8	X	-136.8	83.2
28	MP8	Z	78.98	83.2
29	MP7	X	-90.26	72
30	MP7	Z	52.11	72
31	MP7	X	-105.22	24
32	MP7	Z	60.75	24
33	MP8	X	-59.34	%50
34	MP8	Z	34.26	%50
35	MP6	X	-56.69	%50
36	MP6	Z	32.73	%50
37	MP6	X	-53.26	%50
38	MP6	Z	30.75	%50
39	R2	X	-142.52	%50
40	R2	Z	82.29	%50
41	MP11	X	-128.64	72
42	MP11	Z	74.27	72
43	MP11	X	-148.69	24
44	MP11	Z	85.84	24
45	MP12	X	-70.61	%50
46	MP12	Z	40.77	%50
47	MP10	X	-72.32	%50
48	MP10	Z	41.75	%50
49	MP10	X	-59.02	%50
50	MP10	Z	34.07	%50

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP2	X	-105.2	12
2	MP2	Z	182.22	12
3	MP2	X	-105.2	83.2
4	MP2	Z	182.22	83.2
5	MP4	X	-105.2	12
6	MP4	Z	182.22	12
7	MP4	X	-105.2	83.2
8	MP4	Z	182.22	83.2
9	MP3	X	-65.52	72
10	MP3	Z	113.48	72
11	MP3	X	-75.93	24
12	MP3	Z	131.52	24
13	MP4	X	-38.2	%50
14	MP4	Z	66.16	%50
15	MP2	X	-38.19	%50
16	MP2	Z	66.15	%50
17	MP2	X	-32.76	%50
18	MP2	Z	56.75	%50
19	R1	X	-42.63	%50
20	R1	Z	73.83	%50
21	MP6	X	-49.16	12
22	MP6	Z	85.15	12
23	MP6	X	-49.16	83.2
24	MP6	Z	85.15	83.2

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
25	MP8	X	-49.16	12
26	MP8	Z	85.15	12
27	MP8	X	-49.16	83.2
28	MP8	Z	85.15	83.2
29	MP7	X	-36.86	72
30	MP7	Z	63.85	72
31	MP7	X	-43.48	24
32	MP7	Z	75.3	24
33	MP8	X	-29.78	%50
34	MP8	Z	51.58	%50
35	MP6	X	-26.53	%50
36	MP6	Z	45.95	%50
37	MP6	X	-28.47	%50
38	MP6	Z	49.3	%50
39	R2	X	-98.68	%50
40	R2	Z	170.91	%50
41	MP11	X	-70.81	72
42	MP11	Z	122.65	72
43	MP11	X	-81.93	24
44	MP11	Z	141.91	24
45	MP12	X	-39.75	%50
46	MP12	Z	68.85	%50
47	MP10	X	-40.35	%50
48	MP10	Z	69.88	%50
49	MP10	X	-33.56	%50
50	MP10	Z	58.12	%50

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP2	X	0	12
2	MP2	Z	249.33	12
3	MP2	X	0	83.2
4	MP2	Z	249.33	83.2
5	MP4	X	0	12
6	MP4	Z	249.33	12
7	MP4	X	0	83.2
8	MP4	Z	249.33	83.2
9	MP3	X	0	72
10	MP3	Z	150.94	72
11	MP3	X	0	24
12	MP3	Z	174.41	24
13	MP4	X	0	%50
14	MP4	Z	82.24	%50
15	MP2	X	0	%50
16	MP2	Z	84.48	%50
17	MP2	X	0	%50
18	MP2	Z	68.51	%50
19	R1	X	0	%50
20	R1	Z	85.25	%50
21	MP6	X	0	12
22	MP6	Z	111.84	12
23	MP6	X	0	83.2
24	MP6	Z	111.84	83.2
25	MP8	X	0	12
26	MP8	Z	111.84	12
27	MP8	X	0	83.2

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
28	MP8	Z	111.84	83.2
29	MP7	X	0	72
30	MP7	Z	80.64	72
31	MP7	X	0	24
32	MP7	Z	94.78	24
33	MP8	X	0	%50
34	MP8	Z	61.59	%50
35	MP6	X	0	%50
36	MP6	Z	55.87	%50
37	MP6	X	0	%50
38	MP6	Z	57.97	%50
39	R2	X	0	%50
40	R2	Z	189.92	%50
41	MP11	X	0	72
42	MP11	Z	104.22	72
43	MP11	X	0	24
44	MP11	Z	121.49	24
45	MP12	X	0	%50
46	MP12	Z	68.52	%50
47	MP10	X	0	%50
48	MP10	Z	65.47	%50
49	MP10	X	0	%50
50	MP10	Z	61.5	%50

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP2	X	105.2	12
2	MP2	Z	182.22	12
3	MP2	X	105.2	83.2
4	MP2	Z	182.22	83.2
5	MP4	X	105.2	12
6	MP4	Z	182.22	12
7	MP4	X	105.2	83.2
8	MP4	Z	182.22	83.2
9	MP3	X	65.52	72
10	MP3	Z	113.48	72
11	MP3	X	75.93	24
12	MP3	Z	131.52	24
13	MP4	X	38.2	%50
14	MP4	Z	66.16	%50
15	MP2	X	38.19	%50
16	MP2	Z	66.15	%50
17	MP2	X	32.76	%50
18	MP2	Z	56.75	%50
19	R1	X	42.63	%50
20	R1	Z	73.83	%50
21	MP6	X	92.5	12
22	MP6	Z	160.21	12
23	MP6	X	92.5	83.2
24	MP6	Z	160.21	83.2
25	MP8	X	92.5	12
26	MP8	Z	160.21	12
27	MP8	X	92.5	83.2
28	MP8	Z	160.21	83.2
29	MP7	X	59.02	72
30	MP7	Z	102.23	72

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
31	MP7	X	68.58	24
32	MP7	Z	118.78	24
33	MP8	X	36.29	%50
34	MP8	Z	62.86	%50
35	MP6	X	35.55	%50
36	MP6	Z	61.57	%50
37	MP6	X	31.79	%50
38	MP6	Z	55.06	%50
39	R2	X	74.86	%50
40	R2	Z	129.65	%50
41	MP11	X	36.86	72
42	MP11	Z	63.85	72
43	MP11	X	43.48	24
44	MP11	Z	75.3	24
45	MP12	X	29.78	%50
46	MP12	Z	51.58	%50
47	MP10	X	26.53	%50
48	MP10	Z	45.95	%50
49	MP10	X	28.47	%50
50	MP10	Z	49.3	%50

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP2	X	114.8	12
2	MP2	Z	66.28	12
3	MP2	X	114.8	83.2
4	MP2	Z	66.28	83.2
5	MP4	X	114.8	12
6	MP4	Z	66.28	12
7	MP4	X	114.8	83.2
8	MP4	Z	66.28	83.2
9	MP3	X	79.01	72
10	MP3	Z	45.61	72
11	MP3	X	92.47	24
12	MP3	Z	53.39	24
13	MP4	X	56.03	%50
14	MP4	Z	32.35	%50
15	MP2	X	52.12	%50
16	MP2	Z	30.09	%50
17	MP2	X	51.58	%50
18	MP2	Z	29.78	%50
19	R1	X	73.83	%50
20	R1	Z	42.63	%50
21	MP6	X	211.86	12
22	MP6	Z	122.32	12
23	MP6	X	211.86	83.2
24	MP6	Z	122.32	83.2
25	MP8	X	211.86	12
26	MP8	Z	122.32	12
27	MP8	X	211.86	83.2
28	MP8	Z	122.32	83.2
29	MP7	X	128.64	72
30	MP7	Z	74.27	72
31	MP7	X	148.69	24
32	MP7	Z	85.84	24
33	MP8	X	70.61	%50

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
34	MP8	Z	40.77	%50
35	MP6	X	72.32	%50
36	MP6	Z	41.75	%50
37	MP6	X	59.02	%50
38	MP6	Z	34.07	%50
39	R2	X	101.26	%50
40	R2	Z	58.46	%50
41	MP11	X	69.83	72
42	MP11	Z	40.32	72
43	MP11	X	82.08	24
44	MP11	Z	47.39	24
45	MP12	X	53.34	%50
46	MP12	Z	30.8	%50
47	MP10	X	48.38	%50
48	MP10	Z	27.93	%50
49	MP10	X	50.2	%50
50	MP10	Z	28.98	%50

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP2	X	93.63	12
2	MP2	Z	0	12
3	MP2	X	93.63	83.2
4	MP2	Z	0	83.2
5	MP4	X	93.63	12
6	MP4	Z	0	12
7	MP4	X	93.63	83.2
8	MP4	Z	0	83.2
9	MP3	X	71.32	72
10	MP3	Z	0	72
11	MP3	X	84.24	24
12	MP3	Z	0	24
13	MP4	X	58.86	%50
14	MP4	Z	0	%50
15	MP2	X	52.08	%50
16	MP2	Z	0	%50
17	MP2	X	56.57	%50
18	MP2	Z	0	%50
19	R1	X	85.25	%50
20	R1	Z	0	%50
21	MP6	X	231.12	12
22	MP6	Z	0	12
23	MP6	X	231.12	83.2
24	MP6	Z	0	83.2
25	MP8	X	231.12	12
26	MP8	Z	0	12
27	MP8	X	231.12	83.2
28	MP8	Z	0	83.2
29	MP7	X	141.63	72
30	MP7	Z	0	72
31	MP7	X	163.86	24
32	MP7	Z	0	24
33	MP8	X	79.5	%50
34	MP8	Z	0	%50
35	MP6	X	80.69	%50
36	MP6	Z	0	%50

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
37	MP6	X	67.11	%50
38	MP6	Z	0	%50
39	R2	X	124.36	%50
40	R2	Z	0	%50
41	MP11	X	118.05	72
42	MP11	Z	0	72
43	MP11	X	137.15	24
44	MP11	Z	0	24
45	MP12	X	72.58	%50
46	MP12	Z	0	%50
47	MP10	X	71.09	%50
48	MP10	Z	0	%50
49	MP10	X	63.58	%50
50	MP10	Z	0	%50

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP2	X	114.8	12
2	MP2	Z	-66.28	12
3	MP2	X	114.8	83.2
4	MP2	Z	-66.28	83.2
5	MP4	X	114.8	12
6	MP4	Z	-66.28	12
7	MP4	X	114.8	83.2
8	MP4	Z	-66.28	83.2
9	MP3	X	79.01	72
10	MP3	Z	-45.61	72
11	MP3	X	92.47	24
12	MP3	Z	-53.39	24
13	MP4	X	56.03	%50
14	MP4	Z	-32.35	%50
15	MP2	X	52.12	%50
16	MP2	Z	-30.09	%50
17	MP2	X	51.58	%50
18	MP2	Z	-29.78	%50
19	R1	X	73.83	%50
20	R1	Z	-42.63	%50
21	MP6	X	136.8	12
22	MP6	Z	-78.98	12
23	MP6	X	136.8	83.2
24	MP6	Z	-78.98	83.2
25	MP8	X	136.8	12
26	MP8	Z	-78.98	12
27	MP8	X	136.8	83.2
28	MP8	Z	-78.98	83.2
29	MP7	X	90.26	72
30	MP7	Z	-52.11	72
31	MP7	X	105.22	24
32	MP7	Z	-60.75	24
33	MP8	X	59.34	%50
34	MP8	Z	-34.26	%50
35	MP6	X	56.69	%50
36	MP6	Z	-32.73	%50
37	MP6	X	53.26	%50
38	MP6	Z	-30.75	%50
39	R2	X	142.52	%50

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
40	R2	Z	-82.29	%50
41	MP11	X	128.64	72
42	MP11	Z	-74.27	72
43	MP11	X	148.69	24
44	MP11	Z	-85.84	24
45	MP12	X	70.61	%50
46	MP12	Z	-40.77	%50
47	MP10	X	72.32	%50
48	MP10	Z	-41.75	%50
49	MP10	X	59.02	%50
50	MP10	Z	-34.07	%50

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP2	X	105.2	12
2	MP2	Z	-182.22	12
3	MP2	X	105.2	83.2
4	MP2	Z	-182.22	83.2
5	MP4	X	105.2	12
6	MP4	Z	-182.22	12
7	MP4	X	105.2	83.2
8	MP4	Z	-182.22	83.2
9	MP3	X	65.52	72
10	MP3	Z	-113.48	72
11	MP3	X	75.93	24
12	MP3	Z	-131.52	24
13	MP4	X	38.2	%50
14	MP4	Z	-66.16	%50
15	MP2	X	38.19	%50
16	MP2	Z	-66.15	%50
17	MP2	X	32.76	%50
18	MP2	Z	-56.75	%50
19	R1	X	42.63	%50
20	R1	Z	-73.83	%50
21	MP6	X	49.16	12
22	MP6	Z	-85.15	12
23	MP6	X	49.16	83.2
24	MP6	Z	-85.15	83.2
25	MP8	X	49.16	12
26	MP8	Z	-85.15	12
27	MP8	X	49.16	83.2
28	MP8	Z	-85.15	83.2
29	MP7	X	36.86	72
30	MP7	Z	-63.85	72
31	MP7	X	43.48	24
32	MP7	Z	-75.3	24
33	MP8	X	29.78	%50
34	MP8	Z	-51.58	%50
35	MP6	X	26.53	%50
36	MP6	Z	-45.95	%50
37	MP6	X	28.47	%50
38	MP6	Z	-49.3	%50
39	R2	X	98.68	%50
40	R2	Z	-170.91	%50
41	MP11	X	70.81	72
42	MP11	Z	-122.65	72

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
43	MP11	X	81.93	24
44	MP11	Z	-141.91	24
45	MP12	X	39.75	%50
46	MP12	Z	-68.85	%50
47	MP10	X	40.35	%50
48	MP10	Z	-69.88	%50
49	MP10	X	33.56	%50
50	MP10	Z	-58.12	%50

Member Point Loads (BLC 16 : Ice Weight)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP2	Y	-87.963	12
2	MP2	Y	-87.963	83.2
3	MP4	Y	-87.963	12
4	MP4	Y	-87.963	83.2
5	MP3	Y	-71.428	72
6	MP3	Y	-71.008	24
7	MP4	Y	-45.676	%50
8	MP2	Y	-43.589	%50
9	MP2	Y	-43.482	%50
10	R1	Y	-52.191	%50
11	MP6	Y	-87.963	12
12	MP6	Y	-87.963	83.2
13	MP8	Y	-87.963	12
14	MP8	Y	-87.963	83.2
15	MP7	Y	-71.428	72
16	MP7	Y	-71.008	24
17	MP8	Y	-45.676	%50
18	MP6	Y	-43.589	%50
19	MP6	Y	-43.482	%50
20	R2	Y	-89.225	%50
21	MP11	Y	-71.428	72
22	MP11	Y	-71.008	24
23	MP12	Y	-45.676	%50
24	MP10	Y	-43.589	%50
25	MP10	Y	-43.482	%50

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP2	X	0	12
2	MP2	Z	-21.19	12
3	MP2	X	0	83.2
4	MP2	Z	-21.19	83.2
5	MP4	X	0	12
6	MP4	Z	-21.19	12
7	MP4	X	0	83.2
8	MP4	Z	-21.19	83.2
9	MP3	X	0	72
10	MP3	Z	-14.3	72
11	MP3	X	0	24
12	MP3	Z	-14.92	24
13	MP4	X	0	%50
14	MP4	Z	-7.85	%50
15	MP2	X	0	%50
16	MP2	Z	-7.98	%50
17	MP2	X	0	%50

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
18	MP2	Z	-6.68	%50
19	R1	X	0	%50
20	R1	Z	-8.82	%50
21	MP6	X	0	12
22	MP6	Z	-14.22	12
23	MP6	X	0	83.2
24	MP6	Z	-14.22	83.2
25	MP8	X	0	12
26	MP8	Z	-14.22	12
27	MP8	X	0	83.2
28	MP8	Z	-14.22	83.2
29	MP7	X	0	72
30	MP7	Z	-10.95	72
31	MP7	X	0	24
32	MP7	Z	-11	24
33	MP8	X	0	%50
34	MP8	Z	-6.92	%50
35	MP6	X	0	%50
36	MP6	Z	-6.67	%50
37	MP6	X	0	%50
38	MP6	Z	-6.21	%50
39	R2	X	0	%50
40	R2	Z	-16.26	%50
41	MP11	X	0	72
42	MP11	Z	-12.07	72
43	MP11	X	0	24
44	MP11	Z	-12.32	24
45	MP12	X	0	%50
46	MP12	Z	-7.23	%50
47	MP10	X	0	%50
48	MP10	Z	-7.11	%50
49	MP10	X	0	%50
50	MP10	Z	-6.37	%50

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP2	X	-9.61	12
2	MP2	Z	-16.64	12
3	MP2	X	-9.61	83.2
4	MP2	Z	-16.64	83.2
5	MP4	X	-9.61	12
6	MP4	Z	-16.64	12
7	MP4	X	-9.61	83.2
8	MP4	Z	-16.64	83.2
9	MP3	X	-6.67	72
10	MP3	Z	-11.56	72
11	MP3	X	-6.91	24
12	MP3	Z	-11.96	24
13	MP4	X	-3.79	%50
14	MP4	Z	-6.57	%50
15	MP2	X	-3.8	%50
16	MP2	Z	-6.59	%50
17	MP2	X	-3.27	%50
18	MP2	Z	-5.67	%50
19	R1	X	-4.41	%50
20	R1	Z	-7.64	%50

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
21	MP6	X	-8.96	12
22	MP6	Z	-15.53	12
23	MP6	X	-8.96	83.2
24	MP6	Z	-15.53	83.2
25	MP8	X	-8.96	12
26	MP8	Z	-15.53	12
27	MP8	X	-8.96	83.2
28	MP8	Z	-15.53	83.2
29	MP7	X	-6.36	72
30	MP7	Z	-11.02	72
31	MP7	X	-6.54	24
32	MP7	Z	-11.33	24
33	MP8	X	-3.71	%50
34	MP8	Z	-6.42	%50
35	MP6	X	-3.68	%50
36	MP6	Z	-6.38	%50
37	MP6	X	-3.23	%50
38	MP6	Z	-5.6	%50
39	R2	X	-6.95	%50
40	R2	Z	-12.04	%50
41	MP11	X	-5.31	72
42	MP11	Z	-9.19	72
43	MP11	X	-5.31	24
44	MP11	Z	-9.2	24
45	MP12	X	-3.42	%50
46	MP12	Z	-5.92	%50
47	MP10	X	-3.27	%50
48	MP10	Z	-5.67	%50
49	MP10	X	-3.08	%50
50	MP10	Z	-5.34	%50

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP2	X	-13.22	12
2	MP2	Z	-7.63	12
3	MP2	X	-13.22	83.2
4	MP2	Z	-7.63	83.2
5	MP4	X	-13.22	12
6	MP4	Z	-7.63	12
7	MP4	X	-13.22	83.2
8	MP4	Z	-7.63	83.2
9	MP3	X	-9.92	72
10	MP3	Z	-5.73	72
11	MP3	X	-10.04	24
12	MP3	Z	-5.8	24
13	MP4	X	-6.11	%50
14	MP4	Z	-3.53	%50
15	MP2	X	-5.95	%50
16	MP2	Z	-3.44	%50
17	MP2	X	-5.44	%50
18	MP2	Z	-3.14	%50
19	R1	X	-7.64	%50
20	R1	Z	-4.41	%50
21	MP6	X	-18.14	12
22	MP6	Z	-10.47	12
23	MP6	X	-18.14	83.2

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
24	MP6	Z	-10.47	83.2
25	MP8	X	-18.14	12
26	MP8	Z	-10.47	12
27	MP8	X	-18.14	83.2
28	MP8	Z	-10.47	83.2
29	MP7	X	-12.28	72
30	MP7	Z	-7.09	72
31	MP7	X	-12.81	24
32	MP7	Z	-7.39	24
33	MP8	X	-6.77	%50
34	MP8	Z	-3.91	%50
35	MP6	X	-6.87	%50
36	MP6	Z	-3.97	%50
37	MP6	X	-5.77	%50
38	MP6	Z	-3.33	%50
39	R2	X	-10.38	%50
40	R2	Z	-5.99	%50
41	MP11	X	-9.48	72
42	MP11	Z	-5.47	72
43	MP11	X	-9.53	24
44	MP11	Z	-5.5	24
45	MP12	X	-5.99	%50
46	MP12	Z	-3.46	%50
47	MP10	X	-5.78	%50
48	MP10	Z	-3.34	%50
49	MP10	X	-5.38	%50
50	MP10	Z	-3.11	%50

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP2	X	-13.3	12
2	MP2	Z	0	12
3	MP2	X	-13.3	83.2
4	MP2	Z	0	83.2
5	MP4	X	-13.3	12
6	MP4	Z	0	12
7	MP4	X	-13.3	83.2
8	MP4	Z	0	83.2
9	MP3	X	-10.5	72
10	MP3	Z	0	72
11	MP3	X	-10.48	24
12	MP3	Z	0	24
13	MP4	X	-6.8	%50
14	MP4	Z	0	%50
15	MP2	X	-6.5	%50
16	MP2	Z	0	%50
17	MP2	X	-6.15	%50
18	MP2	Z	0	%50
19	R1	X	-8.82	%50
20	R1	Z	0	%50
21	MP6	X	-20.26	12
22	MP6	Z	0	12
23	MP6	X	-20.26	83.2
24	MP6	Z	0	83.2
25	MP8	X	-20.26	12
26	MP8	Z	0	12

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
27	MP8	X	-20.26	83.2
28	MP8	Z	0	83.2
29	MP7	X	-13.85	72
30	MP7	Z	0	72
31	MP7	X	-14.4	24
32	MP7	Z	0	24
33	MP8	X	-7.72	%50
34	MP8	Z	0	%50
35	MP6	X	-7.81	%50
36	MP6	Z	0	%50
37	MP6	X	-6.62	%50
38	MP6	Z	0	%50
39	R2	X	-12.42	%50
40	R2	Z	0	%50
41	MP11	X	-12.73	72
42	MP11	Z	0	72
43	MP11	X	-13.09	24
44	MP11	Z	0	24
45	MP12	X	-7.41	%50
46	MP12	Z	0	%50
47	MP10	X	-7.37	%50
48	MP10	Z	0	%50
49	MP10	X	-6.46	%50
50	MP10	Z	0	%50

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP2	X	-13.22	12
2	MP2	Z	7.63	12
3	MP2	X	-13.22	83.2
4	MP2	Z	7.63	83.2
5	MP4	X	-13.22	12
6	MP4	Z	7.63	12
7	MP4	X	-13.22	83.2
8	MP4	Z	7.63	83.2
9	MP3	X	-9.92	72
10	MP3	Z	5.73	72
11	MP3	X	-10.04	24
12	MP3	Z	5.8	24
13	MP4	X	-6.11	%50
14	MP4	Z	3.53	%50
15	MP2	X	-5.95	%50
16	MP2	Z	3.44	%50
17	MP2	X	-5.44	%50
18	MP2	Z	3.14	%50
19	R1	X	-7.64	%50
20	R1	Z	4.41	%50
21	MP6	X	-14.34	12
22	MP6	Z	8.28	12
23	MP6	X	-14.34	83.2
24	MP6	Z	8.28	83.2
25	MP8	X	-14.34	12
26	MP8	Z	8.28	12
27	MP8	X	-14.34	83.2
28	MP8	Z	8.28	83.2
29	MP7	X	-10.45	72

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
30	MP7	Z	6.03	72
31	MP7	X	-10.67	24
32	MP7	Z	6.16	24
33	MP8	X	-6.26	%50
34	MP8	Z	3.62	%50
35	MP6	X	-6.16	%50
36	MP6	Z	3.56	%50
37	MP6	X	-5.52	%50
38	MP6	Z	3.18	%50
39	R2	X	-12.8	%50
40	R2	Z	7.39	%50
41	MP11	X	-12.28	72
42	MP11	Z	7.09	72
43	MP11	X	-12.81	24
44	MP11	Z	7.39	24
45	MP12	X	-6.77	%50
46	MP12	Z	3.91	%50
47	MP10	X	-6.87	%50
48	MP10	Z	3.97	%50
49	MP10	X	-5.77	%50
50	MP10	Z	3.33	%50

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP2	X	-9.61	12
2	MP2	Z	16.64	12
3	MP2	X	-9.61	83.2
4	MP2	Z	16.64	83.2
5	MP4	X	-9.61	12
6	MP4	Z	16.64	12
7	MP4	X	-9.61	83.2
8	MP4	Z	16.64	83.2
9	MP3	X	-6.67	72
10	MP3	Z	11.56	72
11	MP3	X	-6.91	24
12	MP3	Z	11.96	24
13	MP4	X	-3.79	%50
14	MP4	Z	6.57	%50
15	MP2	X	-3.8	%50
16	MP2	Z	6.59	%50
17	MP2	X	-3.27	%50
18	MP2	Z	5.67	%50
19	R1	X	-4.41	%50
20	R1	Z	7.64	%50
21	MP6	X	-6.77	12
22	MP6	Z	11.72	12
23	MP6	X	-6.77	83.2
24	MP6	Z	11.72	83.2
25	MP8	X	-6.77	12
26	MP8	Z	11.72	12
27	MP8	X	-6.77	83.2
28	MP8	Z	11.72	83.2
29	MP7	X	-5.31	72
30	MP7	Z	9.19	72
31	MP7	X	-5.31	24
32	MP7	Z	9.2	24

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
33	MP8	X	-3.42	%50
34	MP8	Z	5.92	%50
35	MP6	X	-3.27	%50
36	MP6	Z	5.67	%50
37	MP6	X	-3.08	%50
38	MP6	Z	5.34	%50
39	R2	X	-8.35	%50
40	R2	Z	14.46	%50
41	MP11	X	-6.93	72
42	MP11	Z	12	72
43	MP11	X	-7.2	24
44	MP11	Z	12.47	24
45	MP12	X	-3.86	%50
46	MP12	Z	6.69	%50
47	MP10	X	-3.9	%50
48	MP10	Z	6.76	%50
49	MP10	X	-3.31	%50
50	MP10	Z	5.73	%50

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP2	X	0	12
2	MP2	Z	21.19	12
3	MP2	X	0	83.2
4	MP2	Z	21.19	83.2
5	MP4	X	0	12
6	MP4	Z	21.19	12
7	MP4	X	0	83.2
8	MP4	Z	21.19	83.2
9	MP3	X	0	72
10	MP3	Z	14.3	72
11	MP3	X	0	24
12	MP3	Z	14.92	24
13	MP4	X	0	%50
14	MP4	Z	7.85	%50
15	MP2	X	0	%50
16	MP2	Z	7.98	%50
17	MP2	X	0	%50
18	MP2	Z	6.68	%50
19	R1	X	0	%50
20	R1	Z	8.82	%50
21	MP6	X	0	12
22	MP6	Z	14.22	12
23	MP6	X	0	83.2
24	MP6	Z	14.22	83.2
25	MP8	X	0	12
26	MP8	Z	14.22	12
27	MP8	X	0	83.2
28	MP8	Z	14.22	83.2
29	MP7	X	0	72
30	MP7	Z	10.95	72
31	MP7	X	0	24
32	MP7	Z	11	24
33	MP8	X	0	%50
34	MP8	Z	6.92	%50
35	MP6	X	0	%50

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
36	MP6	Z	6.67	%50
37	MP6	X	0	%50
38	MP6	Z	6.21	%50
39	R2	X	0	%50
40	R2	Z	16.26	%50
41	MP11	X	0	72
42	MP11	Z	12.07	72
43	MP11	X	0	24
44	MP11	Z	12.32	24
45	MP12	X	0	%50
46	MP12	Z	7.23	%50
47	MP10	X	0	%50
48	MP10	Z	7.11	%50
49	MP10	X	0	%50
50	MP10	Z	6.37	%50

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP2	X	9.61	12
2	MP2	Z	16.64	12
3	MP2	X	9.61	83.2
4	MP2	Z	16.64	83.2
5	MP4	X	9.61	12
6	MP4	Z	16.64	12
7	MP4	X	9.61	83.2
8	MP4	Z	16.64	83.2
9	MP3	X	6.67	72
10	MP3	Z	11.56	72
11	MP3	X	6.91	24
12	MP3	Z	11.96	24
13	MP4	X	3.79	%50
14	MP4	Z	6.57	%50
15	MP2	X	3.8	%50
16	MP2	Z	6.59	%50
17	MP2	X	3.27	%50
18	MP2	Z	5.67	%50
19	R1	X	4.41	%50
20	R1	Z	7.64	%50
21	MP6	X	8.96	12
22	MP6	Z	15.53	12
23	MP6	X	8.96	83.2
24	MP6	Z	15.53	83.2
25	MP8	X	8.96	12
26	MP8	Z	15.53	12
27	MP8	X	8.96	83.2
28	MP8	Z	15.53	83.2
29	MP7	X	6.36	72
30	MP7	Z	11.02	72
31	MP7	X	6.54	24
32	MP7	Z	11.33	24
33	MP8	X	3.71	%50
34	MP8	Z	6.42	%50
35	MP6	X	3.68	%50
36	MP6	Z	6.38	%50
37	MP6	X	3.23	%50
38	MP6	Z	5.6	%50

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
39	R2	X	6.95	%50
40	R2	Z	12.04	%50
41	MP11	X	5.31	72
42	MP11	Z	9.19	72
43	MP11	X	5.31	24
44	MP11	Z	9.2	24
45	MP12	X	3.42	%50
46	MP12	Z	5.92	%50
47	MP10	X	3.27	%50
48	MP10	Z	5.67	%50
49	MP10	X	3.08	%50
50	MP10	Z	5.34	%50

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP2	X	13.22	12
2	MP2	Z	7.63	12
3	MP2	X	13.22	83.2
4	MP2	Z	7.63	83.2
5	MP4	X	13.22	12
6	MP4	Z	7.63	12
7	MP4	X	13.22	83.2
8	MP4	Z	7.63	83.2
9	MP3	X	9.92	72
10	MP3	Z	5.73	72
11	MP3	X	10.04	24
12	MP3	Z	5.8	24
13	MP4	X	6.11	%50
14	MP4	Z	3.53	%50
15	MP2	X	5.95	%50
16	MP2	Z	3.44	%50
17	MP2	X	5.44	%50
18	MP2	Z	3.14	%50
19	R1	X	7.64	%50
20	R1	Z	4.41	%50
21	MP6	X	18.14	12
22	MP6	Z	10.47	12
23	MP6	X	18.14	83.2
24	MP6	Z	10.47	83.2
25	MP8	X	18.14	12
26	MP8	Z	10.47	12
27	MP8	X	18.14	83.2
28	MP8	Z	10.47	83.2
29	MP7	X	12.28	72
30	MP7	Z	7.09	72
31	MP7	X	12.81	24
32	MP7	Z	7.39	24
33	MP8	X	6.77	%50
34	MP8	Z	3.91	%50
35	MP6	X	6.87	%50
36	MP6	Z	3.97	%50
37	MP6	X	5.77	%50
38	MP6	Z	3.33	%50
39	R2	X	10.38	%50
40	R2	Z	5.99	%50
41	MP11	X	9.48	72

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
42	MP11	Z	5.47	72
43	MP11	X	9.53	24
44	MP11	Z	5.5	24
45	MP12	X	5.99	%50
46	MP12	Z	3.46	%50
47	MP10	X	5.78	%50
48	MP10	Z	3.34	%50
49	MP10	X	5.38	%50
50	MP10	Z	3.11	%50

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP2	X	13.3	12
2	MP2	Z	0	12
3	MP2	X	13.3	83.2
4	MP2	Z	0	83.2
5	MP4	X	13.3	12
6	MP4	Z	0	12
7	MP4	X	13.3	83.2
8	MP4	Z	0	83.2
9	MP3	X	10.5	72
10	MP3	Z	0	72
11	MP3	X	10.48	24
12	MP3	Z	0	24
13	MP4	X	6.8	%50
14	MP4	Z	0	%50
15	MP2	X	6.5	%50
16	MP2	Z	0	%50
17	MP2	X	6.15	%50
18	MP2	Z	0	%50
19	R1	X	8.82	%50
20	R1	Z	0	%50
21	MP6	X	20.26	12
22	MP6	Z	0	12
23	MP6	X	20.26	83.2
24	MP6	Z	0	83.2
25	MP8	X	20.26	12
26	MP8	Z	0	12
27	MP8	X	20.26	83.2
28	MP8	Z	0	83.2
29	MP7	X	13.85	72
30	MP7	Z	0	72
31	MP7	X	14.4	24
32	MP7	Z	0	24
33	MP8	X	7.72	%50
34	MP8	Z	0	%50
35	MP6	X	7.81	%50
36	MP6	Z	0	%50
37	MP6	X	6.62	%50
38	MP6	Z	0	%50
39	R2	X	12.42	%50
40	R2	Z	0	%50
41	MP11	X	12.73	72
42	MP11	Z	0	72
43	MP11	X	13.09	24
44	MP11	Z	0	24

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
45	MP12	X	7.41	%50
46	MP12	Z	0	%50
47	MP10	X	7.37	%50
48	MP10	Z	0	%50
49	MP10	X	6.46	%50
50	MP10	Z	0	%50

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP2	X	13.22	12
2	MP2	Z	-7.63	12
3	MP2	X	13.22	83.2
4	MP2	Z	-7.63	83.2
5	MP4	X	13.22	12
6	MP4	Z	-7.63	12
7	MP4	X	13.22	83.2
8	MP4	Z	-7.63	83.2
9	MP3	X	9.92	72
10	MP3	Z	-5.73	72
11	MP3	X	10.04	24
12	MP3	Z	-5.8	24
13	MP4	X	6.11	%50
14	MP4	Z	-3.53	%50
15	MP2	X	5.95	%50
16	MP2	Z	-3.44	%50
17	MP2	X	5.44	%50
18	MP2	Z	-3.14	%50
19	R1	X	7.64	%50
20	R1	Z	-4.41	%50
21	MP6	X	14.34	12
22	MP6	Z	-8.28	12
23	MP6	X	14.34	83.2
24	MP6	Z	-8.28	83.2
25	MP8	X	14.34	12
26	MP8	Z	-8.28	12
27	MP8	X	14.34	83.2
28	MP8	Z	-8.28	83.2
29	MP7	X	10.45	72
30	MP7	Z	-6.03	72
31	MP7	X	10.67	24
32	MP7	Z	-6.16	24
33	MP8	X	6.26	%50
34	MP8	Z	-3.62	%50
35	MP6	X	6.16	%50
36	MP6	Z	-3.56	%50
37	MP6	X	5.52	%50
38	MP6	Z	-3.18	%50
39	R2	X	12.8	%50
40	R2	Z	-7.39	%50
41	MP11	X	12.28	72
42	MP11	Z	-7.09	72
43	MP11	X	12.81	24
44	MP11	Z	-7.39	24
45	MP12	X	6.77	%50
46	MP12	Z	-3.91	%50
47	MP10	X	6.87	%50

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
48	MP10	Z	-3.97	%50
49	MP10	X	5.77	%50
50	MP10	Z	-3.33	%50

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP2	X	9.61	12
2	MP2	Z	-16.64	12
3	MP2	X	9.61	83.2
4	MP2	Z	-16.64	83.2
5	MP4	X	9.61	12
6	MP4	Z	-16.64	12
7	MP4	X	9.61	83.2
8	MP4	Z	-16.64	83.2
9	MP3	X	6.67	72
10	MP3	Z	-11.56	72
11	MP3	X	6.91	24
12	MP3	Z	-11.96	24
13	MP4	X	3.79	%50
14	MP4	Z	-6.57	%50
15	MP2	X	3.8	%50
16	MP2	Z	-6.59	%50
17	MP2	X	3.27	%50
18	MP2	Z	-5.67	%50
19	R1	X	4.41	%50
20	R1	Z	-7.64	%50
21	MP6	X	6.77	12
22	MP6	Z	-11.72	12
23	MP6	X	6.77	83.2
24	MP6	Z	-11.72	83.2
25	MP8	X	6.77	12
26	MP8	Z	-11.72	12
27	MP8	X	6.77	83.2
28	MP8	Z	-11.72	83.2
29	MP7	X	5.31	72
30	MP7	Z	-9.19	72
31	MP7	X	5.31	24
32	MP7	Z	-9.2	24
33	MP8	X	3.42	%50
34	MP8	Z	-5.92	%50
35	MP6	X	3.27	%50
36	MP6	Z	-5.67	%50
37	MP6	X	3.08	%50
38	MP6	Z	-5.34	%50
39	R2	X	8.35	%50
40	R2	Z	-14.46	%50
41	MP11	X	6.93	72
42	MP11	Z	-12	72
43	MP11	X	7.2	24
44	MP11	Z	-12.47	24
45	MP12	X	3.86	%50
46	MP12	Z	-6.69	%50
47	MP10	X	3.9	%50
48	MP10	Z	-6.76	%50
49	MP10	X	3.31	%50
50	MP10	Z	-5.73	%50

Member Point Loads (BLC 31 : Seismic Load Z)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP2	Z	-14.574	12
2	MP2	Z	-14.574	83.2
3	MP4	Z	-14.574	12
4	MP4	Z	-14.574	83.2
5	MP3	Z	-26.634	72
6	MP3	Z	-14.362	24
7	MP4	Z	-23.174	%50
8	MP2	Z	-19.391	%50
9	MP2	Z	-23.501	%50
10	R1	Z	-6.169	%50
11	MP6	Z	-14.574	12
12	MP6	Z	-14.574	83.2
13	MP8	Z	-14.574	12
14	MP8	Z	-14.574	83.2
15	MP7	Z	-26.634	72
16	MP7	Z	-14.362	24
17	MP8	Z	-23.174	%50
18	MP6	Z	-19.391	%50
19	MP6	Z	-23.501	%50
20	R2	Z	-8.552	%50
21	MP11	Z	-26.634	72
22	MP11	Z	-14.362	24
23	MP12	Z	-23.174	%50
24	MP10	Z	-19.391	%50
25	MP10	Z	-23.501	%50

Member Point Loads (BLC 32 : Seismic Load X)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP2	X	-14.574	12
2	MP2	X	-14.574	83.2
3	MP4	X	-14.574	12
4	MP4	X	-14.574	83.2
5	MP3	X	-26.634	72
6	MP3	X	-14.362	24
7	MP4	X	-23.174	%50
8	MP2	X	-19.391	%50
9	MP2	X	-23.501	%50
10	R1	X	-6.169	%50
11	MP6	X	-14.574	12
12	MP6	X	-14.574	83.2
13	MP8	X	-14.574	12
14	MP8	X	-14.574	83.2
15	MP7	X	-26.634	72
16	MP7	X	-14.362	24
17	MP8	X	-23.174	%50
18	MP6	X	-19.391	%50
19	MP6	X	-23.501	%50
20	R2	X	-8.552	%50
21	MP11	X	-26.634	72
22	MP11	X	-14.362	24
23	MP12	X	-23.174	%50
24	MP10	X	-19.391	%50
25	MP10	X	-23.501	%50

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

	Member Label	Direction	Start Magnitude..	End Magnitude[...	Start Location[i...	End Location[in...
1	H3	SZ	-55.513	-55.513	0	%100
2	M2	SZ	-92.521	-92.521	0	%100
3	M3	SZ	-92.521	-92.521	0	%100
4	M4	SZ	-92.521	-92.521	0	%100
5	M5	SZ	0	0	0	%100
6	M6	SZ	0	0	0	%100
7	H2	SZ	-55.513	-55.513	0	%100
8	M8	SZ	0	0	0	%100
9	M9	SZ	0	0	0	%100
10	H1	SZ	-55.513	-55.513	0	%100
11	M11	SZ	0	0	0	%100
12	M12	SZ	0	0	0	%100
13	S1	SZ	-92.521	-92.521	0	%100
14	S2	SZ	-92.521	-92.521	0	%100
15	S3	SZ	-92.521	-92.521	0	%100
16	M16	SZ	-92.521	-92.521	0	%100
17	M17	SZ	0	0	0	%100
18	M18	SZ	0	0	0	%100
19	M19	SZ	-92.521	-92.521	0	%100
20	M20	SZ	-92.521	-92.521	0	%100
21	M21	SZ	-92.521	-92.521	0	%100
22	M22	SZ	0	0	0	%100
23	M23	SZ	0	0	0	%100
24	M24	SZ	-92.521	-92.521	0	%100
25	M25	SZ	-92.521	-92.521	0	%100
26	M26	SZ	-92.521	-92.521	0	%100
27	M27	SZ	0	0	0	%100
28	M28	SZ	0	0	0	%100
29	M29	SZ	-92.521	-92.521	0	%100
30	M30	SZ	-92.521	-92.521	0	%100
31	M31	SZ	0	0	0	%100
32	M32	SZ	0	0	0	%100
33	MP12	SZ	-55.513	-55.513	0	%100
34	MP9	SZ	-55.513	-55.513	0	%100
35	HR3	SZ	-55.513	-55.513	0	%100
36	HR2	SZ	-55.513	-55.513	0	%100
37	HR1	SZ	-55.513	-55.513	0	%100
38	M42	SZ	0	0	0	%100
39	M44	SZ	0	0	0	%100
40	M46	SZ	-92.521	-92.521	0	%100
41	M47	SZ	0	0	0	%100
42	M48	SZ	0	0	0	%100
43	M49	SZ	-92.521	-92.521	0	%100
44	M50	SZ	0	0	0	%100
45	M51	SZ	0	0	0	%100
46	M52	SZ	-92.521	-92.521	0	%100
47	M53	SZ	0	0	0	%100
48	M54	SZ	0	0	0	%100
49	M55	SZ	0	0	0	%100
50	M56	SZ	0	0	0	%100
51	M57	SZ	0	0	0	%100
52	MP1	SZ	-55.513	-55.513	0	%100
53	MP2	SZ	-55.513	-55.513	0	%100
54	MP4	SZ	-55.513	-55.513	0	%100
55	M63	SZ	0	0	0	%100
56	M64	SZ	0	0	0	%100

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

	Member Label	Direction	Start Magnitude...	End Magnitude[...	Start Location[i...	End Location[in...
57	M65	SZ	0	0	0	%100
58	M67	SZ	0	0	0	%100
59	M69	SZ	0	0	0	%100
60	MP5	SZ	-55.513	-55.513	0	%100
61	MP8	SZ	-55.513	-55.513	0	%100
62	M75	SZ	0	0	0	%100
63	M77	SZ	0	0	0	%100
64	M79	SZ	0	0	0	%100
65	M80	SZ	0	0	0	%100
66	M81	SZ	-55.513	-55.513	0	%100
67	M82	SZ	0	0	0	%100
68	M83	SZ	0	0	0	%100
69	M84	SZ	0	0	0	%100
70	MK3	SZ	-55.513	-55.513	0	%100
71	M86	SZ	0	0	0	%100
72	MK4	SZ	-55.513	-55.513	0	%100
73	M88	SZ	0	0	0	%100
74	M89	SZ	0	0	0	%100
75	M90	SZ	-55.513	-55.513	0	%100
76	M91	SZ	0	0	0	%100
77	M92	SZ	0	0	0	%100
78	M93	SZ	0	0	0	%100
79	MK2	SZ	-55.513	-55.513	0	%100
80	M95	SZ	0	0	0	%100
81	MK5	SZ	-55.513	-55.513	0	%100
82	M97	SZ	0	0	0	%100
83	M98	SZ	0	0	0	%100
84	M99	SZ	-55.513	-55.513	0	%100
85	M100	SZ	0	0	0	%100
86	M101	SZ	0	0	0	%100
87	M102	SZ	0	0	0	%100
88	MK6	SZ	-55.513	-55.513	0	%100
89	M104	SZ	0	0	0	%100
90	MK1	SZ	-55.513	-55.513	0	%100
91	M106	SZ	0	0	0	%100
92	MP3	SZ	-55.513	-55.513	0	%100
93	M108	SZ	0	0	0	%100
94	M105	SZ	0	0	0	%100
95	M109	SZ	0	0	0	%100
96	MP10	SZ	-55.513	-55.513	0	%100
97	M113	SZ	0	0	0	%100
98	MP11	SZ	-55.513	-55.513	0	%100
99	M115	SZ	0	0	0	%100
100	M117	SZ	0	0	0	%100
101	M118	SZ	0	0	0	%100
102	MP6	SZ	-55.513	-55.513	0	%100
103	M122	SZ	0	0	0	%100
104	MP7	SZ	-55.513	-55.513	0	%100
105	M124	SZ	0	0	0	%100
106	M119	SZ	-92.521	-92.521	0	%100
107	M120	SZ	-92.521	-92.521	0	%100
108	M123	SZ	-92.521	-92.521	0	%100
109	R2	SZ	-55.513	-55.513	0	%100
110	M110	SZ	0	0	0	%100
111	R1	SZ	-55.513	-55.513	0	%100
112	M112	SZ	0	0	0	%100
113	R3	SZ	-55.513	-55.513	0	%100

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

	Member Label	Direction	Start Magnitude..	End Magnitude[...	Start Location[i...	End Location[in...
114	M114	SZ	0	0	0	%100

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

	Member Label	Direction	Start Magnitude..	End Magnitude[...	Start Location[i...	End Location[in...
1	H3	SX	-55.513	-55.513	0	%100
2	M2	SX	-92.521	-92.521	0	%100
3	M3	SX	-92.521	-92.521	0	%100
4	M4	SX	-92.521	-92.521	0	%100
5	M5	SX	0	0	0	%100
6	M6	SX	0	0	0	%100
7	H2	SX	-55.513	-55.513	0	%100
8	M8	SX	0	0	0	%100
9	M9	SX	0	0	0	%100
10	H1	SX	-55.513	-55.513	0	%100
11	M11	SX	0	0	0	%100
12	M12	SX	0	0	0	%100
13	S1	SX	-92.521	-92.521	0	%100
14	S2	SX	-92.521	-92.521	0	%100
15	S3	SX	-92.521	-92.521	0	%100
16	M16	SX	-92.521	-92.521	0	%100
17	M17	SX	0	0	0	%100
18	M18	SX	0	0	0	%100
19	M19	SX	-92.521	-92.521	0	%100
20	M20	SX	-92.521	-92.521	0	%100
21	M21	SX	-92.521	-92.521	0	%100
22	M22	SX	0	0	0	%100
23	M23	SX	0	0	0	%100
24	M24	SX	-92.521	-92.521	0	%100
25	M25	SX	-92.521	-92.521	0	%100
26	M26	SX	-92.521	-92.521	0	%100
27	M27	SX	0	0	0	%100
28	M28	SX	0	0	0	%100
29	M29	SX	-92.521	-92.521	0	%100
30	M30	SX	-92.521	-92.521	0	%100
31	M31	SX	0	0	0	%100
32	M32	SX	0	0	0	%100
33	MP12	SX	-55.513	-55.513	0	%100
34	MP9	SX	-55.513	-55.513	0	%100
35	HR3	SX	-55.513	-55.513	0	%100
36	HR2	SX	-55.513	-55.513	0	%100
37	HR1	SX	-55.513	-55.513	0	%100
38	M42	SX	0	0	0	%100
39	M44	SX	0	0	0	%100
40	M46	SX	-92.521	-92.521	0	%100
41	M47	SX	0	0	0	%100
42	M48	SX	0	0	0	%100
43	M49	SX	-92.521	-92.521	0	%100
44	M50	SX	0	0	0	%100
45	M51	SX	0	0	0	%100
46	M52	SX	-92.521	-92.521	0	%100
47	M53	SX	0	0	0	%100
48	M54	SX	0	0	0	%100
49	M55	SX	0	0	0	%100
50	M56	SX	0	0	0	%100
51	M57	SX	0	0	0	%100
52	MP1	SX	-55.513	-55.513	0	%100

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

	Member Label	Direction	Start Magnitude..	End Magnitude[...	Start Location[i...	End Location[in...
53	MP2	SX	-55.513	-55.513	0	%100
54	MP4	SX	-55.513	-55.513	0	%100
55	M63	SX	0	0	0	%100
56	M64	SX	0	0	0	%100
57	M65	SX	0	0	0	%100
58	M67	SX	0	0	0	%100
59	M69	SX	0	0	0	%100
60	MP5	SX	-55.513	-55.513	0	%100
61	MP8	SX	-55.513	-55.513	0	%100
62	M75	SX	0	0	0	%100
63	M77	SX	0	0	0	%100
64	M79	SX	0	0	0	%100
65	M80	SX	0	0	0	%100
66	M81	SX	-55.513	-55.513	0	%100
67	M82	SX	0	0	0	%100
68	M83	SX	0	0	0	%100
69	M84	SX	0	0	0	%100
70	MK3	SX	-55.513	-55.513	0	%100
71	M86	SX	0	0	0	%100
72	MK4	SX	-55.513	-55.513	0	%100
73	M88	SX	0	0	0	%100
74	M89	SX	0	0	0	%100
75	M90	SX	-55.513	-55.513	0	%100
76	M91	SX	0	0	0	%100
77	M92	SX	0	0	0	%100
78	M93	SX	0	0	0	%100
79	MK2	SX	-55.513	-55.513	0	%100
80	M95	SX	0	0	0	%100
81	MK5	SX	-55.513	-55.513	0	%100
82	M97	SX	0	0	0	%100
83	M98	SX	0	0	0	%100
84	M99	SX	-55.513	-55.513	0	%100
85	M100	SX	0	0	0	%100
86	M101	SX	0	0	0	%100
87	M102	SX	0	0	0	%100
88	MK6	SX	-55.513	-55.513	0	%100
89	M104	SX	0	0	0	%100
90	MK1	SX	-55.513	-55.513	0	%100
91	M106	SX	0	0	0	%100
92	MP3	SX	-55.513	-55.513	0	%100
93	M108	SX	0	0	0	%100
94	M105	SX	0	0	0	%100
95	M109	SX	0	0	0	%100
96	MP10	SX	-55.513	-55.513	0	%100
97	M113	SX	0	0	0	%100
98	MP11	SX	-55.513	-55.513	0	%100
99	M115	SX	0	0	0	%100
100	M117	SX	0	0	0	%100
101	M118	SX	0	0	0	%100
102	MP6	SX	-55.513	-55.513	0	%100
103	M122	SX	0	0	0	%100
104	MP7	SX	-55.513	-55.513	0	%100
105	M124	SX	0	0	0	%100
106	M119	SX	-92.521	-92.521	0	%100
107	M120	SX	-92.521	-92.521	0	%100
108	M123	SX	-92.521	-92.521	0	%100
109	R2	SX	-55.513	-55.513	0	%100

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

	Member Label	Direction	Start Magnitude..	End Magnitude[...	Start Location[i...	End Location[in...
110	M110	SX	0	0	0	%100
111	R1	SX	-55.513	-55.513	0	%100
112	M112	SX	0	0	0	%100
113	R3	SX	-55.513	-55.513	0	%100
114	M114	SX	0	0	0	%100

Member Distributed Loads (BLC 16 : Ice Weight)

	Member Label	Direction	Start Magnitude..	End Magnitude[...	Start Location[i...	End Location[in...
1	H3	Y	-6.348	-6.348	0	%100
2	M2	Y	-9.797	-9.797	0	%100
3	M3	Y	-9.797	-9.797	0	%100
4	M4	Y	-9.797	-9.797	0	%100
5	M5	Y	-1.543	-1.543	0	%100
6	M6	Y	-1.543	-1.543	0	%100
7	H2	Y	-6.348	-6.348	0	%100
8	M8	Y	-1.543	-1.543	0	%100
9	M9	Y	-1.543	-1.543	0	%100
10	H1	Y	-6.348	-6.348	0	%100
11	M11	Y	-1.543	-1.543	0	%100
12	M12	Y	-1.543	-1.543	0	%100
13	S1	Y	-9.309	-9.309	0	%100
14	S2	Y	-9.309	-9.309	0	%100
15	S3	Y	-9.309	-9.309	0	%100
16	M16	Y	-9.309	-9.309	0	%100
17	M17	Y	-1.543	-1.543	0	%100
18	M18	Y	-1.543	-1.543	0	%100
19	M19	Y	-5.426	-5.426	0	%100
20	M20	Y	-5.426	-5.426	0	%100
21	M21	Y	-9.309	-9.309	0	%100
22	M22	Y	-1.543	-1.543	0	%100
23	M23	Y	-1.543	-1.543	0	%100
24	M24	Y	-5.426	-5.426	0	%100
25	M25	Y	-5.426	-5.426	0	%100
26	M26	Y	-9.309	-9.309	0	%100
27	M27	Y	-1.543	-1.543	0	%100
28	M28	Y	-1.543	-1.543	0	%100
29	M29	Y	-5.426	-5.426	0	%100
30	M30	Y	-5.426	-5.426	0	%100
31	M31	Y	-1.543	-1.543	0	%100
32	M32	Y	-1.543	-1.543	0	%100
33	MP12	Y	-5.49	-5.49	0	%100
34	MP9	Y	-5.49	-5.49	0	%100
35	HR3	Y	-5.49	-5.49	0	%100
36	HR2	Y	-5.49	-5.49	0	%100
37	HR1	Y	-5.49	-5.49	0	%100
38	M42	Y	-1.543	-1.543	0	%100
39	M44	Y	-1.543	-1.543	0	%100
40	M46	Y	-6.397	-6.397	0	%100
41	M47	Y	-1.543	-1.543	0	%100
42	M48	Y	-1.543	-1.543	0	%100
43	M49	Y	-6.397	-6.397	0	%100
44	M50	Y	-1.543	-1.543	0	%100
45	M51	Y	-1.543	-1.543	0	%100
46	M52	Y	-6.397	-6.397	0	%100
47	M53	Y	-1.543	-1.543	0	%100
48	M54	Y	-1.543	-1.543	0	%100

Member Distributed Loads (BLC 16 : Ice Weight) (Continued)

	Member Label	Direction	Start Magnitude..	End Magnitude[...	Start Location[i...	End Location[in...
49	M55	Y	-1.543	-1.543	0	%100
50	M56	Y	-1.543	-1.543	0	%100
51	M57	Y	-1.543	-1.543	0	%100
52	MP1	Y	-5.49	-5.49	0	%100
53	MP2	Y	-5.49	-5.49	0	%100
54	MP4	Y	-5.49	-5.49	0	%100
55	M63	Y	-1.543	-1.543	0	%100
56	M64	Y	-1.543	-1.543	0	%100
57	M65	Y	-1.543	-1.543	0	%100
58	M67	Y	-1.543	-1.543	0	%100
59	M69	Y	-1.543	-1.543	0	%100
60	MP5	Y	-5.49	-5.49	0	%100
61	MP8	Y	-5.49	-5.49	0	%100
62	M75	Y	-1.543	-1.543	0	%100
63	M77	Y	-1.543	-1.543	0	%100
64	M79	Y	-1.543	-1.543	0	%100
65	M80	Y	-1.543	-1.543	0	%100
66	M81	Y	-2.058	-2.058	0	%100
67	M82	Y	-1.543	-1.543	0	%100
68	M83	Y	-1.543	-1.543	0	%100
69	M84	Y	-1.543	-1.543	0	%100
70	MK3	Y	-4.804	-4.804	0	%100
71	M86	Y	-1.543	-1.543	0	%100
72	MK4	Y	-4.804	-4.804	0	%100
73	M88	Y	-1.543	-1.543	0	%100
74	M89	Y	-1.543	-1.543	0	%100
75	M90	Y	-2.058	-2.058	0	%100
76	M91	Y	-1.543	-1.543	0	%100
77	M92	Y	-1.543	-1.543	0	%100
78	M93	Y	-1.543	-1.543	0	%100
79	MK2	Y	-4.804	-4.804	0	%100
80	M95	Y	-1.543	-1.543	0	%100
81	MK5	Y	-4.804	-4.804	0	%100
82	M97	Y	-1.543	-1.543	0	%100
83	M98	Y	-1.543	-1.543	0	%100
84	M99	Y	-2.058	-2.058	0	%100
85	M100	Y	-1.543	-1.543	0	%100
86	M101	Y	-1.543	-1.543	0	%100
87	M102	Y	-1.543	-1.543	0	%100
88	MK6	Y	-4.804	-4.804	0	%100
89	M104	Y	-1.543	-1.543	0	%100
90	MK1	Y	-4.804	-4.804	0	%100
91	M106	Y	-1.543	-1.543	0	%100
92	MP3	Y	-5.49	-5.49	0	%100
93	M108	Y	-1.543	-1.543	0	%100
94	M105	Y	-1.543	-1.543	0	%100
95	M109	Y	-1.543	-1.543	0	%100
96	MP10	Y	-5.49	-5.49	0	%100
97	M113	Y	-1.543	-1.543	0	%100
98	MP11	Y	-5.49	-5.49	0	%100
99	M115	Y	-1.543	-1.543	0	%100
100	M117	Y	-1.543	-1.543	0	%100
101	M118	Y	-1.543	-1.543	0	%100
102	MP6	Y	-5.49	-5.49	0	%100
103	M122	Y	-1.543	-1.543	0	%100
104	MP7	Y	-5.49	-5.49	0	%100
105	M124	Y	-1.543	-1.543	0	%100

Member Distributed Loads (BLC 16 : Ice Weight) (Continued)

	Member Label	Direction	Start Magnitude..	End Magnitude[...	Start Location[i...	End Location[in...
106	M119	Y	-9.309	-9.309	0	%100
107	M120	Y	-9.309	-9.309	0	%100
108	M123	Y	-9.309	-9.309	0	%100
109	R2	Y	-4.804	-4.804	0	%100
110	M110	Y	-1.543	-1.543	0	%100
111	R1	Y	-4.804	-4.804	0	%100
112	M112	Y	-1.543	-1.543	0	%100
113	R3	Y	-4.804	-4.804	0	%100
114	M114	Y	-1.543	-1.543	0	%100

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

	Member Label	Direction	Start Magnitude..	End Magnitude[...	Start Location[i...	End Location[in...
1	H3	SZ	-15.312	-15.312	0	%100
2	M2	SZ	-12.81	-12.81	0	%100
3	M3	SZ	-12.81	-12.81	0	%100
4	M4	SZ	-12.81	-12.81	0	%100
5	M5	SZ	0	0	0	%100
6	M6	SZ	0	0	0	%100
7	H2	SZ	-15.312	-15.312	0	%100
8	M8	SZ	0	0	0	%100
9	M9	SZ	0	0	0	%100
10	H1	SZ	-15.312	-15.312	0	%100
11	M11	SZ	0	0	0	%100
12	M12	SZ	0	0	0	%100
13	S1	SZ	-13.029	-13.029	0	%100
14	S2	SZ	-13.029	-13.029	0	%100
15	S3	SZ	-13.029	-13.029	0	%100
16	M16	SZ	-13.029	-13.029	0	%100
17	M17	SZ	0	0	0	%100
18	M18	SZ	0	0	0	%100
19	M19	SZ	-16.734	-16.734	0	%100
20	M20	SZ	-16.734	-16.734	0	%100
21	M21	SZ	-13.029	-13.029	0	%100
22	M22	SZ	0	0	0	%100
23	M23	SZ	0	0	0	%100
24	M24	SZ	-16.734	-16.734	0	%100
25	M25	SZ	-16.734	-16.734	0	%100
26	M26	SZ	-13.029	-13.029	0	%100
27	M27	SZ	0	0	0	%100
28	M28	SZ	0	0	0	%100
29	M29	SZ	-16.734	-16.734	0	%100
30	M30	SZ	-16.734	-16.734	0	%100
31	M31	SZ	0	0	0	%100
32	M32	SZ	0	0	0	%100
33	MP12	SZ	-16.613	-16.613	0	%100
34	MP9	SZ	-16.613	-16.613	0	%100
35	HR3	SZ	-16.613	-16.613	0	%100
36	HR2	SZ	-16.613	-16.613	0	%100
37	HR1	SZ	-16.613	-16.613	0	%100
38	M42	SZ	0	0	0	%100
39	M44	SZ	0	0	0	%100
40	M46	SZ	-15.252	-15.252	0	%100
41	M47	SZ	0	0	0	%100
42	M48	SZ	0	0	0	%100
43	M49	SZ	-15.252	-15.252	0	%100
44	M50	SZ	0	0	0	%100

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

	Member Label	Direction	Start Magnitude..	End Magnitude[...	Start Location[i...	End Location[in...
45	M51	SZ	0	0	0	%100
46	M52	SZ	-15.252	-15.252	0	%100
47	M53	SZ	0	0	0	%100
48	M54	SZ	0	0	0	%100
49	M55	SZ	0	0	0	%100
50	M56	SZ	0	0	0	%100
51	M57	SZ	0	0	0	%100
52	MP1	SZ	-16.613	-16.613	0	%100
53	MP2	SZ	-16.613	-16.613	0	%100
54	MP4	SZ	-16.613	-16.613	0	%100
55	M63	SZ	0	0	0	%100
56	M64	SZ	0	0	0	%100
57	M65	SZ	0	0	0	%100
58	M67	SZ	0	0	0	%100
59	M69	SZ	0	0	0	%100
60	MP5	SZ	-16.613	-16.613	0	%100
61	MP8	SZ	-16.613	-16.613	0	%100
62	M75	SZ	0	0	0	%100
63	M77	SZ	0	0	0	%100
64	M79	SZ	0	0	0	%100
65	M80	SZ	0	0	0	%100
66	M81	SZ	-65.209	-65.209	0	%100
67	M82	SZ	0	0	0	%100
68	M83	SZ	0	0	0	%100
69	M84	SZ	0	0	0	%100
70	MK3	SZ	-18.148	-18.148	0	%100
71	M86	SZ	0	0	0	%100
72	MK4	SZ	-18.148	-18.148	0	%100
73	M88	SZ	0	0	0	%100
74	M89	SZ	0	0	0	%100
75	M90	SZ	-65.209	-65.209	0	%100
76	M91	SZ	0	0	0	%100
77	M92	SZ	0	0	0	%100
78	M93	SZ	0	0	0	%100
79	MK2	SZ	-18.148	-18.148	0	%100
80	M95	SZ	0	0	0	%100
81	MK5	SZ	-18.148	-18.148	0	%100
82	M97	SZ	0	0	0	%100
83	M98	SZ	0	0	0	%100
84	M99	SZ	-65.209	-65.209	0	%100
85	M100	SZ	0	0	0	%100
86	M101	SZ	0	0	0	%100
87	M102	SZ	0	0	0	%100
88	MK6	SZ	-18.148	-18.148	0	%100
89	M104	SZ	0	0	0	%100
90	MK1	SZ	-18.148	-18.148	0	%100
91	M106	SZ	0	0	0	%100
92	MP3	SZ	-16.613	-16.613	0	%100
93	M108	SZ	0	0	0	%100
94	M105	SZ	0	0	0	%100
95	M109	SZ	0	0	0	%100
96	MP10	SZ	-16.613	-16.613	0	%100
97	M113	SZ	0	0	0	%100
98	MP11	SZ	-16.613	-16.613	0	%100
99	M115	SZ	0	0	0	%100
100	M117	SZ	0	0	0	%100
101	M118	SZ	0	0	0	%100

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

	Member Label	Direction	Start Magnitude..	End Magnitude[...	Start Location[i...	End Location[in...
102	MP6	SZ	-16.613	-16.613	0	%100
103	M122	SZ	0	0	0	%100
104	MP7	SZ	-16.613	-16.613	0	%100
105	M124	SZ	0	0	0	%100
106	M119	SZ	-13.029	-13.029	0	%100
107	M120	SZ	-13.029	-13.029	0	%100
108	M123	SZ	-13.029	-13.029	0	%100
109	R2	SZ	-18.148	-18.148	0	%100
110	M110	SZ	0	0	0	%100
111	R1	SZ	-18.148	-18.148	0	%100
112	M112	SZ	0	0	0	%100
113	R3	SZ	-18.148	-18.148	0	%100
114	M114	SZ	0	0	0	%100

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

	Member Label	Direction	Start Magnitude..	End Magnitude[...	Start Location[i...	End Location[in...
1	H3	SX	-15.312	-15.312	0	%100
2	M2	SX	-12.81	-12.81	0	%100
3	M3	SX	-12.81	-12.81	0	%100
4	M4	SX	-12.81	-12.81	0	%100
5	M5	SX	0	0	0	%100
6	M6	SX	0	0	0	%100
7	H2	SX	-15.312	-15.312	0	%100
8	M8	SX	0	0	0	%100
9	M9	SX	0	0	0	%100
10	H1	SX	-15.312	-15.312	0	%100
11	M11	SX	0	0	0	%100
12	M12	SX	0	0	0	%100
13	S1	SX	-13.029	-13.029	0	%100
14	S2	SX	-13.029	-13.029	0	%100
15	S3	SX	-13.029	-13.029	0	%100
16	M16	SX	-13.029	-13.029	0	%100
17	M17	SX	0	0	0	%100
18	M18	SX	0	0	0	%100
19	M19	SX	-16.734	-16.734	0	%100
20	M20	SX	-16.734	-16.734	0	%100
21	M21	SX	-13.029	-13.029	0	%100
22	M22	SX	0	0	0	%100
23	M23	SX	0	0	0	%100
24	M24	SX	-16.734	-16.734	0	%100
25	M25	SX	-16.734	-16.734	0	%100
26	M26	SX	-13.029	-13.029	0	%100
27	M27	SX	0	0	0	%100
28	M28	SX	0	0	0	%100
29	M29	SX	-16.734	-16.734	0	%100
30	M30	SX	-16.734	-16.734	0	%100
31	M31	SX	0	0	0	%100
32	M32	SX	0	0	0	%100
33	MP12	SX	-16.613	-16.613	0	%100
34	MP9	SX	-16.613	-16.613	0	%100
35	HR3	SX	-16.613	-16.613	0	%100
36	HR2	SX	-16.613	-16.613	0	%100
37	HR1	SX	-16.613	-16.613	0	%100
38	M42	SX	0	0	0	%100
39	M44	SX	0	0	0	%100
40	M46	SX	-15.252	-15.252	0	%100

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

	Member Label	Direction	Start Magnitude...	End Magnitude[...	Start Location[i...	End Location[in...
41	M47	SX	0	0	0	%100
42	M48	SX	0	0	0	%100
43	M49	SX	-15.252	-15.252	0	%100
44	M50	SX	0	0	0	%100
45	M51	SX	0	0	0	%100
46	M52	SX	-15.252	-15.252	0	%100
47	M53	SX	0	0	0	%100
48	M54	SX	0	0	0	%100
49	M55	SX	0	0	0	%100
50	M56	SX	0	0	0	%100
51	M57	SX	0	0	0	%100
52	MP1	SX	-16.613	-16.613	0	%100
53	MP2	SX	-16.613	-16.613	0	%100
54	MP4	SX	-16.613	-16.613	0	%100
55	M63	SX	0	0	0	%100
56	M64	SX	0	0	0	%100
57	M65	SX	0	0	0	%100
58	M67	SX	0	0	0	%100
59	M69	SX	0	0	0	%100
60	MP5	SX	-16.613	-16.613	0	%100
61	MP8	SX	-16.613	-16.613	0	%100
62	M75	SX	0	0	0	%100
63	M77	SX	0	0	0	%100
64	M79	SX	0	0	0	%100
65	M80	SX	0	0	0	%100
66	M81	SX	-65.209	-65.209	0	%100
67	M82	SX	0	0	0	%100
68	M83	SX	0	0	0	%100
69	M84	SX	0	0	0	%100
70	MK3	SX	-18.148	-18.148	0	%100
71	M86	SX	0	0	0	%100
72	MK4	SX	-18.148	-18.148	0	%100
73	M88	SX	0	0	0	%100
74	M89	SX	0	0	0	%100
75	M90	SX	-65.209	-65.209	0	%100
76	M91	SX	0	0	0	%100
77	M92	SX	0	0	0	%100
78	M93	SX	0	0	0	%100
79	MK2	SX	-18.148	-18.148	0	%100
80	M95	SX	0	0	0	%100
81	MK5	SX	-18.148	-18.148	0	%100
82	M97	SX	0	0	0	%100
83	M98	SX	0	0	0	%100
84	M99	SX	-65.209	-65.209	0	%100
85	M100	SX	0	0	0	%100
86	M101	SX	0	0	0	%100
87	M102	SX	0	0	0	%100
88	MK6	SX	-18.148	-18.148	0	%100
89	M104	SX	0	0	0	%100
90	MK1	SX	-18.148	-18.148	0	%100
91	M106	SX	0	0	0	%100
92	MP3	SX	-16.613	-16.613	0	%100
93	M108	SX	0	0	0	%100
94	M105	SX	0	0	0	%100
95	M109	SX	0	0	0	%100
96	MP10	SX	-16.613	-16.613	0	%100
97	M113	SX	0	0	0	%100

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

	Member Label	Direction	Start Magnitude..	End Magnitude[...	Start Location[i...	End Location[in...
98	MP11	SX	-16.613	-16.613	0	%100
99	M115	SX	0	0	0	%100
100	M117	SX	0	0	0	%100
101	M118	SX	0	0	0	%100
102	MP6	SX	-16.613	-16.613	0	%100
103	M122	SX	0	0	0	%100
104	MP7	SX	-16.613	-16.613	0	%100
105	M124	SX	0	0	0	%100
106	M119	SX	-13.029	-13.029	0	%100
107	M120	SX	-13.029	-13.029	0	%100
108	M123	SX	-13.029	-13.029	0	%100
109	R2	SX	-18.148	-18.148	0	%100
110	M110	SX	0	0	0	%100
111	R1	SX	-18.148	-18.148	0	%100
112	M112	SX	0	0	0	%100
113	R3	SX	-18.148	-18.148	0	%100
114	M114	SX	0	0	0	%100

Member Distributed Loads (BLC 46 : BLC 1 Transient Area Loads)

	Member Label	Direction	Start Magnitude..	End Magnitude[...	Start Location[i...	End Location[in...
1	M4	Y	-.158	-.158	4.841	7.159
2	S1	Y	-2.059	-2.34	39.396	47.276
3	S1	Y	-2.34	-2.092	47.276	55.155
4	S1	Y	-2.092	-1.557	55.155	63.034
5	S1	Y	-1.557	-1.002	63.034	70.914
6	S1	Y	-1.002	-.185	70.914	78.793
7	M16	Y	-.212	-.809	8.778	13.898
8	M16	Y	-.809	-1.408	13.898	19.018
9	M16	Y	-1.408	-1.306	19.018	24.139
10	M16	Y	-1.306	-.503	24.139	29.259
11	M19	Y	-.172	-.653	0	10.104
12	M19	Y	-.653	-1.016	10.104	20.207
13	M19	Y	-1.016	-1.219	20.207	30.311
14	M19	Y	-1.219	-.966	30.311	40.415
15	M19	Y	-.966	-.3	40.415	50.518
16	M20	Y	-.172	-.653	0	10.104
17	M20	Y	-.653	-1.016	10.104	20.207
18	M20	Y	-1.016	-1.219	20.207	30.311
19	M20	Y	-1.219	-.966	30.311	40.415
20	M20	Y	-.966	-.301	40.415	50.518
21	M119	Y	-.504	-1.306	2	7.12
22	M119	Y	-1.306	-1.409	7.12	12.241
23	M119	Y	-1.409	-.81	12.241	17.361
24	M119	Y	-.81	-.21	17.361	22.481
25	M2	Y	-.158	-.158	4.841	7.159
26	S3	Y	-2.059	-2.34	39.396	47.276
27	S3	Y	-2.34	-2.092	47.276	55.155
28	S3	Y	-2.092	-1.557	55.155	63.034
29	S3	Y	-1.557	-1.002	63.034	70.914
30	S3	Y	-1.002	-.185	70.914	78.793
31	M21	Y	-.21	-.81	8.778	13.898
32	M21	Y	-.81	-1.409	13.898	19.018
33	M21	Y	-1.409	-1.306	19.018	24.139
34	M21	Y	-1.306	-.504	24.139	29.259
35	M24	Y	-.172	-.653	0	10.104
36	M24	Y	-.653	-1.016	10.104	20.207

Member Distributed Loads (BLC 46 : BLC 1 Transient Area Loads) (Continued)

	Member Label	Direction	Start Magnitude..	End Magnitude[...	Start Location[i...	End Location[in...
37	M24	Y	-1.016	-1.219	20.207	30.311
38	M24	Y	-1.219	-.966	30.311	40.415
39	M24	Y	-.966	-.301	40.415	50.518
40	M25	Y	-.172	-.653	0	10.104
41	M25	Y	-.653	-1.016	10.104	20.207
42	M25	Y	-1.016	-1.219	20.207	30.311
43	M25	Y	-1.219	-.966	30.311	40.415
44	M25	Y	-.966	-.3	40.415	50.518
45	M120	Y	-.503	-1.306	2	7.12
46	M120	Y	-1.306	-1.408	7.12	12.241
47	M120	Y	-1.408	-.809	12.241	17.361
48	M120	Y	-.809	-.212	17.361	22.481
49	M3	Y	-.158	-.158	4.841	7.159
50	S2	Y	-2.059	-2.34	39.396	47.276
51	S2	Y	-2.34	-2.092	47.276	55.155
52	S2	Y	-2.092	-1.557	55.155	63.034
53	S2	Y	-1.557	-1.002	63.034	70.914
54	S2	Y	-1.002	-.185	70.914	78.793
55	M26	Y	-.212	-.809	8.778	13.898
56	M26	Y	-.809	-1.408	13.898	19.018
57	M26	Y	-1.408	-1.306	19.018	24.139
58	M26	Y	-1.306	-.503	24.139	29.259
59	M29	Y	-.172	-.653	0	10.104
60	M29	Y	-.653	-1.016	10.104	20.207
61	M29	Y	-1.016	-1.219	20.207	30.311
62	M29	Y	-1.219	-.966	30.311	40.415
63	M29	Y	-.966	-.3	40.415	50.518
64	M30	Y	-.172	-.653	0	10.104
65	M30	Y	-.653	-1.016	10.104	20.207
66	M30	Y	-1.016	-1.219	20.207	30.311
67	M30	Y	-1.219	-.966	30.311	40.415
68	M30	Y	-.966	-.301	40.415	50.518
69	M123	Y	-.504	-1.306	2	7.12
70	M123	Y	-1.306	-1.409	7.12	12.241
71	M123	Y	-1.409	-.81	12.241	17.361
72	M123	Y	-.81	-.21	17.361	22.481

Member Distributed Loads (BLC 47 : BLC 16 Transient Area Loads)

	Member Label	Direction	Start Magnitude..	End Magnitude[...	Start Location[i...	End Location[in...
1	M4	Y	-.948	-.948	4.841	7.159
2	S1	Y	-12.352	-14.037	39.396	47.276
3	S1	Y	-14.037	-12.554	47.276	55.155
4	S1	Y	-12.554	-9.344	55.155	63.034
5	S1	Y	-9.344	-6.01	63.034	70.914
6	S1	Y	-6.01	-1.111	70.914	78.793
7	M16	Y	-1.272	-4.854	8.778	13.898
8	M16	Y	-4.854	-8.447	13.898	19.018
9	M16	Y	-8.447	-7.839	19.018	24.139
10	M16	Y	-7.839	-3.019	24.139	29.259
11	M19	Y	-1.032	-3.917	0	10.104
12	M19	Y	-3.917	-6.097	10.104	20.207
13	M19	Y	-6.097	-7.314	20.207	30.311
14	M19	Y	-7.314	-5.795	30.311	40.415
15	M19	Y	-5.795	-1.798	40.415	50.518
16	M20	Y	-1.031	-3.917	0	10.104
17	M20	Y	-3.917	-6.097	10.104	20.207

Member Distributed Loads (BLC 47 : BLC 16 Transient Area Loads) (Continued)

	Member Label	Direction	Start Magnitude..	End Magnitude[...	Start Location[i...	End Location[in...
18	M20	Y	-6.097	-7.312	20.207	30.311
19	M20	Y	-7.312	-5.795	30.311	40.415
20	M20	Y	-5.795	-1.804	40.415	50.518
21	M119	Y	-3.023	-7.837	2	7.12
22	M119	Y	-7.837	-8.452	7.12	12.241
23	M119	Y	-8.452	-4.861	12.241	17.361
24	M119	Y	-4.861	-1.262	17.361	22.481
25	M2	Y	-.948	-.948	4.841	7.159
26	S3	Y	-12.352	-14.037	39.396	47.276
27	S3	Y	-14.037	-12.554	47.276	55.155
28	S3	Y	-12.554	-9.344	55.155	63.034
29	S3	Y	-9.344	-6.01	63.034	70.914
30	S3	Y	-6.01	-1.111	70.914	78.793
31	M21	Y	-1.262	-4.861	8.778	13.898
32	M21	Y	-4.861	-8.452	13.898	19.018
33	M21	Y	-8.452	-7.837	19.018	24.139
34	M21	Y	-7.837	-3.023	24.139	29.259
35	M24	Y	-1.031	-3.917	0	10.104
36	M24	Y	-3.917	-6.097	10.104	20.207
37	M24	Y	-6.097	-7.312	20.207	30.311
38	M24	Y	-7.312	-5.795	30.311	40.415
39	M24	Y	-5.795	-1.804	40.415	50.518
40	M25	Y	-1.032	-3.917	0	10.104
41	M25	Y	-3.917	-6.097	10.104	20.207
42	M25	Y	-6.097	-7.314	20.207	30.311
43	M25	Y	-7.314	-5.795	30.311	40.415
44	M25	Y	-5.795	-1.798	40.415	50.518
45	M120	Y	-3.019	-7.839	2	7.12
46	M120	Y	-7.839	-8.447	7.12	12.241
47	M120	Y	-8.447	-4.854	12.241	17.361
48	M120	Y	-4.854	-1.272	17.361	22.481
49	M3	Y	-.948	-.948	4.841	7.159
50	S2	Y	-12.352	-14.037	39.396	47.276
51	S2	Y	-14.037	-12.554	47.276	55.155
52	S2	Y	-12.554	-9.344	55.155	63.034
53	S2	Y	-9.344	-6.01	63.034	70.914
54	S2	Y	-6.01	-1.111	70.914	78.793
55	M26	Y	-1.272	-4.854	8.778	13.898
56	M26	Y	-4.854	-8.447	13.898	19.018
57	M26	Y	-8.447	-7.839	19.018	24.139
58	M26	Y	-7.839	-3.019	24.139	29.259
59	M29	Y	-1.032	-3.917	0	10.104
60	M29	Y	-3.917	-6.097	10.104	20.207
61	M29	Y	-6.097	-7.314	20.207	30.311
62	M29	Y	-7.314	-5.795	30.311	40.415
63	M29	Y	-5.795	-1.798	40.415	50.518
64	M30	Y	-1.031	-3.917	0	10.104
65	M30	Y	-3.917	-6.097	10.104	20.207
66	M30	Y	-6.097	-7.312	20.207	30.311
67	M30	Y	-7.312	-5.795	30.311	40.415
68	M30	Y	-5.795	-1.804	40.415	50.518
69	M123	Y	-3.023	-7.837	2	7.12
70	M123	Y	-7.837	-8.452	7.12	12.241
71	M123	Y	-8.452	-4.861	12.241	17.361
72	M123	Y	-4.861	-1.262	17.361	22.481

Member Area Loads (BLC 1 : Self Weight)

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[psf]
1	N30	N28	N29	N31	Y	Two Way	-1.75
2	N37	N36	N38	N39	Y	Two Way	-1.75
3	N47	N46	N44	N45	Y	Two Way	-1.75

Member Area Loads (BLC 16 : Ice Weight)

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[psf]
1	N30	N28	N29	N31	Y	Two Way	-10.5
2	N37	N36	N38	N39	Y	Two Way	-10.5
3	N47	N46	N44	N45	Y	Two Way	-10.5

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

	Member	Shape	Code Check	Loc[in]	LC	Shear Check	Loc[in]	Dir	LC	phi*...	phi*...	phi*...	phi*...	...	Eqn
1	M19	L2x2x2	.397	50.518	7	.017	50.518	y	8	6606...	1590...	402....	766....	...	H2-1
2	M29	L2x2x2	.388	50.518	3	.014	50.518	y	4	6606...	1590...	402....	775....	...	H2-1
3	M24	L2x2x2	.379	50.518	9	.018	50.518	z	8	6606...	1590...	402....	768....	...	H2-1
4	M20	L2x2x2	.372	50.518	5	.017	50.518	z	5	6606...	1590...	402....	769....	...	H2-1
5	M25	L2x2x2	.360	50.518	11	.016	50.518	y	11	6606...	1590...	402....	768....	...	H2-1
6	S1	HSS4X4X4	.359	0	8	.177	0	z	15	9253...	1061...	1231...	1231...	...	H1-...
7	HR1	PIPE_2.5	.351	123.25	13	.181	121.438		14	1081...	50715	3596...	3596...	...	H1-...
8	M3	6x0.375	.348	6	3	.317	8	y	4	3817...	72900	569....	9112....	...	H1-...
9	M30	L2x2x2	.331	0	13	.015	50.518	z	12	6606...	1590...	402....	773....	...	H2-1
10	M4	6x0.375	.328	6	7	.344	8	y	8	3817...	72900	569....	9112....	...	H1-...
11	S2	HSS4X4X4	.322	0	2	.174	0	y	4	9253...	1061...	1231...	1231...	...	H1-...
12	HR2	PIPE_2.5	.319	50.75	9	.163	52.563		22	1081...	50715	3596...	3596...	...	H1-...
13	M81	0.375 SR	.308	74.993	6	.004	0		9	39.0...	9400...	58.77	58.77	...	H1-...
14	MP6	PIPE_2.5	.290	107.5	6	.075	107.5		8	2237...	50715	3596...	3596...	...	H1-...
15	M2	6x0.375	.289	6	11	.232	4	y	11	3817...	72900	569....	9112....	...	H1-...
16	MP7	PIPE_2.5	.283	107.5	14	.062	21.25		11	2237...	50715	3596...	3596...	...	H1-...
17	M90	0.375 SR	.281	74.993	2	.004	0		5	39.0...	9400...	58.77	58.77	...	H1-...
18	S3	HSS4X4X4	.280	0	11	.147	0	y	8	9253...	1061...	1231...	1231...	...	H1-...
19	M16	HSS4X4X4	.270	29.259	5	.049	3.962	z	5	1041...	1061...	1231...	1231...	...	H1-...
20	M99	0.375 SR	.263	74.993	10	.003	0		7	39.0...	9400...	58.77	58.77	...	H1-...
21	M120	HSS4X4X4	.261	0	9	.049	25.297	z	9	1041...	1061...	1231...	1231...	...	H1-...
22	M119	HSS4X4X4	.257	0	7	.051	25.297	z	8	1041...	1061...	1231...	1231...	...	H1-...
23	MP2	PIPE_2.5	.255	107.5	10	.054	107.5		13	2237...	50715	3596...	3596...	...	H1-...
24	M123	HSS4X4X4	.248	0	3	.050	25.297	z	3	1041...	1061...	1231...	1231...	...	H1-...
25	M21	HSS4X4X4	.227	29.259	11	.044	3.962	z	11	1041...	1061...	1231...	1231...	...	H1-...
26	M26	HSS4X4X4	.223	29.259	13	.041	3.962	z	13	1041...	1061...	1231...	1231...	...	H1-...
27	MP11	PIPE_2.5	.222	107.5	22	.051	21.25		7	2237...	50715	3596...	3596...	...	H1-...
28	HR3	PIPE_2.5	.222	123.25	5	.123	52.562		6	1081...	50715	3596...	3596...	...	H1-...
29	MP3	PIPE_2.5	.219	107.5	6	.066	21.25		2	2237...	50715	3596...	3596...	...	H1-...
30	MP8	PIPE_2.5	.206	107.5	14	.128	107.5		10	2237...	50715	3596...	3596...	...	H1-...
31	MP10	PIPE_2.5	.195	107.5	15	.063	107.5		5	2237...	50715	3596...	3596...	...	H1-...
32	MP4	PIPE_2.5	.181	107.5	19	.137	107.5		2	2237...	50715	3596...	3596...	...	H1-...
33	MP5	PIPE_2.5	.152	107.5	18	.088	107.5		11	2237...	50715	3596...	3596...	...	H1-...
34	H2	PIPE_3.0	.142	112.375	14	.086	119.625		4	2126...	65205	5748...	5748...	...	H1-...
35	MP1	PIPE_2.5	.137	107.5	9	.079	107.5		3	2237...	50715	3596...	3596...	...	H1-...
36	MP12	PIPE_2.5	.130	107.5	22	.091	107.5		5	2237...	50715	3596...	3596...	...	H1-...
37	H1	PIPE_3.0	.129	59.813	9	.092	54.375		8	2126...	65205	5748...	5748...	...	H1-...
38	H3	PIPE_3.0	.114	61.625	22	.071	114.187		16	2126...	65205	5748...	5748...	...	H1-...
39	MP9	PIPE_2.5	.095	107.5	5	.087	107.5		6	2237...	50715	3596...	3596...	...	H1-...
40	R2	PIPE_2.0	.065	24	13	.023	24		13	2884...	32130	1871...	1871...	...	H1-...
41	MK4	PIPE_2.0	.057	58.015	25	.058	58.015		25	2427...	32130	1871...	1871...	...	H1-...
42	MK2	PIPE_2.0	.051	58.015	21	.045	0		21	2427...	32130	1871...	1871...	...	H1-...

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

	Member	Shape	Code Check	Loc[in]	LC	Shear Check	Loc[in]	Dir	LC	phi*...	phi*...	phi*...	phi*...	...	Eqn
43	MK3	PIPE_2.0	.049	58.015	11	.034	0		9	2427..	32130	1871..	1871..	....	H1-..
44	MK1	PIPE_2.0	.045	58.015	3	.036	58.015		16	2427..	32130	1871..	1871..	....	H1-..
45	MK6	PIPE_2.0	.038	58.015	5	.039	0		16	2427..	32130	1871..	1871..	....	H1-..
46	R1	PIPE_2.0	.035	24	7	.011	24		7	2884..	32130	1871..	1871..	....	H1-..
47	MK5	PIPE_2.0	.035	58.015	7	.041	58.015		23	2427..	32130	1871..	1871..	....	H1-..
48	M49	L2.5x2.5x3	.013	7	8	.006	14	y	24	2751..	2919..	872....	1971..	....	H2-1
49	M46	L2.5x2.5x3	.013	7.146	12	.008	14	z	16	2751..	2919..	872....	1971..	....	H2-1
50	M52	L2.5x2.5x3	.013	6.854	4	.011	0	z	19	2751..	2919..	872....	1971..	....	H2-1
51	R3	PIPE_2.0	.012	24	9	.002	24		9	2884..	32130	1871..	1871..	....	H1-..

APPENDIX D

ADDITIONAL CALCUATIONS

INFINIGY

Bolt Calculation Tool, V1.6.1

PROJECT DATA	
Site Name:	UILFORD WEST STONE PROPER
Site Number:	876343
Connection Description:	Standoff to Tower

MAXIMUM BOLT LOADS		
Bolt Tension:	4231.35	lbs
Bolt Shear:	1337.05	lbs

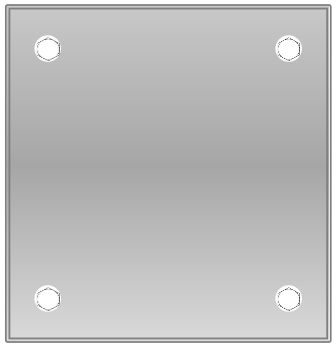
WORST CASE BOLT LOADS[1]		
Bolt Tension:	4231.35	lbs
Bolt Shear:	959.08	lbs

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

[1] *Worst case bolt loads correspond to Load combination #8 on member S1 in RISA-3D, which causes the maximum demand on the bolts.*

Member Information
I nodes of S1, S2, S3,

BOLT CHECK		
Tensile Strength	20340.15	
Shear Strength	13805.83	
Max Tensile Usage	20.8%	
Max Shear Usage	9.7%	
Interaction Check (Worst Case)	0.05	***≤1.05***
Result	Pass	



INFINIGY

Bolt Calculation Tool, V1.6.1

PROJECT DATA	
Site Name:	UILFORD WEST STONE PROPER
Site Number:	876343
Connection Description:	Reinforcemnt to Tower

MAXIMUM BOLT LOADS		
Bolt Tension:	1332.33	lbs
Bolt Shear:	443.33	lbs

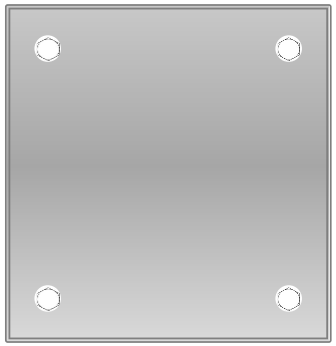
WORST CASE BOLT LOADS[1]		
Bolt Tension:	1332.33	lbs
Bolt Shear:	292.39	lbs

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

[1] *Worst case bolt loads correspond to Load combination #7 on member M80 in RISA-3D, which causes the maximum demand on the bolts.*

Member Information
I nodes of M80, M89, M98,

BOLT CHECK		
Tensile Strength	20340.15	
Shear Strength	13805.83	
Max Tensile Usage	6.6%	
Max Shear Usage	3.2%	
Interaction Check (Worst Case)	0.00	***≤1.05***
Result	Pass	



Date: **May 02, 2022**

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:	CT2158
	FA Number:	10035218
Crown Castle Designation:	**BU Number:**	876343
	Site Name:	Guilford West Stone Property
	JDE Job Number:	702660
	Work Order Number:	2106055
	Order Number:	601775 Rev. 0
Engineering Firm Designation:	**B+T Group Project Number:**	163501.001.01
Site Data:	**1919 Boston Post Rd., Guilford, New Haven County, CT**	
	Latitude *41° 18' 1.27"*, Longitude *-72° 42' 29.13"*	
	149 Foot - Monopole Tower	

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

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

LC7: Proposed Equipment Configuration **Sufficient Capacity – 62.6%**

This analysis utilizes an ultimate 3-second gust wind speed of 122 mph as required by the 2018 Connecticut State Building Code. Applicable Standard references and design are listed in Section 2 - Analysis Criteria.

Structural analysis prepared by: Austin Steward

Respectfully submitted by: B+T Engineering, Inc.
COA: PEC.0001564; Expires: 2/1/2023

Chad E. Tuttle, P.E.

tnxTower Report - version 8.1.1.0

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6) APPENDIX B
Base Level Drawing

7) APPENDIX C
Additional Calculations

1) INTRODUCTION

This tower is a 149 ft Monopole tower designed by Engineered Endeavors, Inc.

2) ANALYSIS CRITERIA

TIA-222 Revision:	TIA-222-H
Risk Category:	II
Wind Speed:	122 mph
Exposure Category:	C
Topographic Factor:	1
Ice Thickness:	1 in
Wind Speed with Ice:	50 mph
Service Wind Speed:	60 mph

Table 1 - Proposed Equipment Configuration

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
106.0	108.0	2	CCI Antennas	DMP65R-BU4D	6 3 2 2	1-5/8 7/8 3/4 3/8
		4	CCI Antennas	DMP65R-BU6D		
		3	Ericsson	AIR 6419 B77G_CCIV3		
		3	Ericsson	RRUS 4449 B5/B12		
		3	Ericsson	RRUS 4478 B14_CCIV2		
		3	Ericsson	RRUS 8843 B2/B66A		
		1	Raycap	DC6-48-60-18-8F		
		1	Raycap	DC9-48-60-24-8C-EV		
	106.0	1	Site Pro1	RMQLP-4120-H10		
	104.0	3	Ericsson	AIR 6449 B77D_CCVI2		

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)
148.0	148.0	3	Commscope	VV-65A-R1_TMO	2 1	1-5/8 1-3/8
		3	Ericsson	AIR6449 B41_T-MOBILE		
		3	Ericsson	RADIO 4449 B71 B85A_T-MOBILE		
		3	Ericsson	RADIO 4460 B2/B25 B66_TMO		
		3	Rfs Celwave	APXVAARR24_43-U-NA20		
		1	Site Pro1	MSFAA		
		1	Site Pro1	VFA12-HD Sector Mount (3)		
138.0	138.0	3	Fujitsu	TA08025-B604	1	1-1/2
		3	Fujitsu	TA08025-B605		
		3	Jma Wireless	MX08FRO665-21		
		1	Raycap	RDIDC-9181-PF-48		
		1	Commscope	MC-PK8-DSH		
129.0	129.0	1	--	Pipe Mount [PM 601-3]	--	--

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
	127.0	3	Alcatel Lucent	TME-800MHZ RRH		
	123.0	3	Alcatel Lucent	TME-1900MHZ RRH (65MHZ)		
128.0	130.0	3	Alcatel Lucent	800 EXTERNAL NOTCH FILTER	4	1-1/4
		3	Alcatel Lucent	TD-RRH8X20-25		
		9	Rfs Celwave	ACU-A20-N		
		3	Rfs Celwave	APXVSPP18-C-A20		
		3	Rfs Celwave	APXVTM14-C-120		
	128.0	1	--	Side Arm Mount [SO 102-3]		
		1	--	Sector Mount [SM 901-3]		
116.0	124.0	3	Vzw	Sub6 Antenna - VZS01	12 2 1	1-5/8 1-1/4 1/2
	122.0	3	Commscope	CBC78T-DS-43-2X		
		6	Commscope	JAHH-65B-R3B		
		1	Raycap	RVZDC-6627-PF-48		
		4	Andrew	DB846F65ZAXY		
		2	Decibel	DB846H80E-SX		
		3	Samsung Telecomm.	RFV01U-D1A		
		3	Samsung Telecomm.	RFV01U-D2A		
	120.0	3	Samsung Telecomm.	CBRS		
	118.0	1	Maxrad	GPS-TMG-26NMS		
	116.0	1	--	Side Arm Mount [SO 102-3]		
		1	--	Sector Mount [SM 901-3]		
98.0	98.0	3	Rfs Celwave	APXV18-206517S-C	6	1-5/8

3) ANALYSIS PROCEDURE

Table 3 - Documents Provided

Document	Reference	Source
Tower Manufacturer Drawing	8702523	CCI Sites
Foundation Drawing	2262540	CCI Sites
Geotech Report	1531881	CCI Sites
Crown CAD Package	Date: 04/22/2022	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.

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	149 - 135.04	Pole	TP26.77x22x0.188	1	-5.120	922.775	10.8	Pass
L2	135.04 - 92.17	Pole	TP40.91x25.056x0.25	2	-27.022	1888.152	52.7	Pass
L3	92.17 - 45.21	Pole	TP56.31x38.489x0.313	3	-38.963	3255.325	62.6	Pass
L4	45.21 - 0	Pole	TP71x53.118x0.375	4	-59.994	5023.872	59.4	Pass
							Summary	
						Pole (L3)	62.6	Pass
						Rating =	62.6	Pass

Table 5 - Tower Component Stresses vs. Capacity – LC7

Notes	Component	Elevation (ft)	% Capacity	Pass / Fail
1,2	Anchor Rods	Base	35.2	Pass
1,2	Base Plate	Base	33.0	Pass
1,2	Base Foundation (Structure)	Base	53.3	Pass
1,2	Base Foundation (Soil Interaction)	Base	28.3	Pass

Structure Rating (max from all components) =	**62.6%**

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.

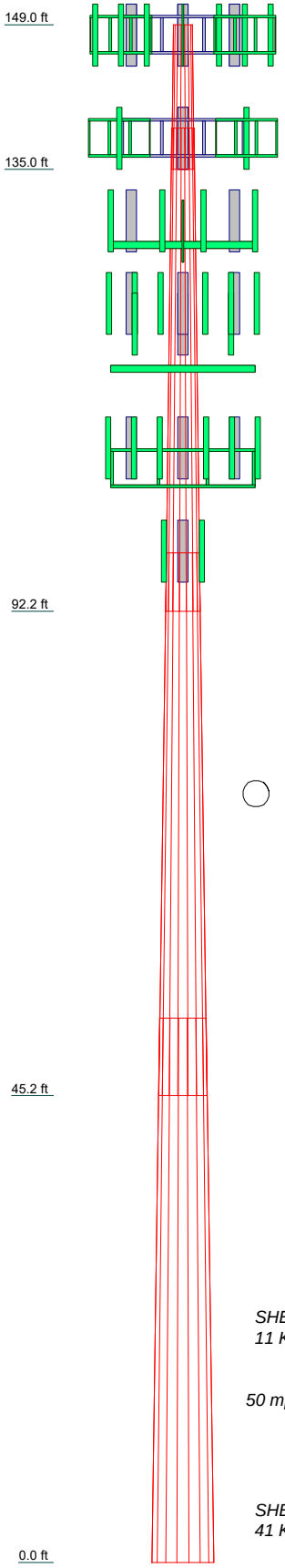
4.1) Recommendations

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	13.960	18	0.188	3.920	22.000	26.770	A572-65	0.7
2	46.790	18	0.250	5.670	25.056	40.910		4.1
3	52.630	18	0.313	7.580	38.489	56.310		8.4
4	52.790	18	0.375		53.118	71.000		13.2
								26.4



MATERIAL STRENGTH

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

TOWER DESIGN NOTES

1. Tower is located in New Haven County, Connecticut.
2. Tower designed for Exposure C to the TIA-222-H Standard.
3. Tower designed for a 122 mph basic wind in accordance with the TIA-222-H Standard.
4. Tower is also designed for a 50 mph basic wind with 1.00 in ice. Ice is considered to increase in thickness with height.
5. Deflections are based upon a 60 mph wind.
6. Tower Risk Category II.
7. Topographic Category 1 with Crest Height of 0.000 ft
8. TIA-222-H Annex S
9. TOWER RATING: 62.6%

ALL REACTIONS ARE FACTORED

AXIAL 83 K

SHEAR 11 K *MOMENT 1113 kip-ft*

TORQUE 1 kip-ft
50 mph WIND - 1.000 in ICE

AXIAL 60 K

SHEAR 41 K *MOMENT 4250 kip-ft*

TORQUE 4 kip-ft
REACTIONS - 122 mph WIND

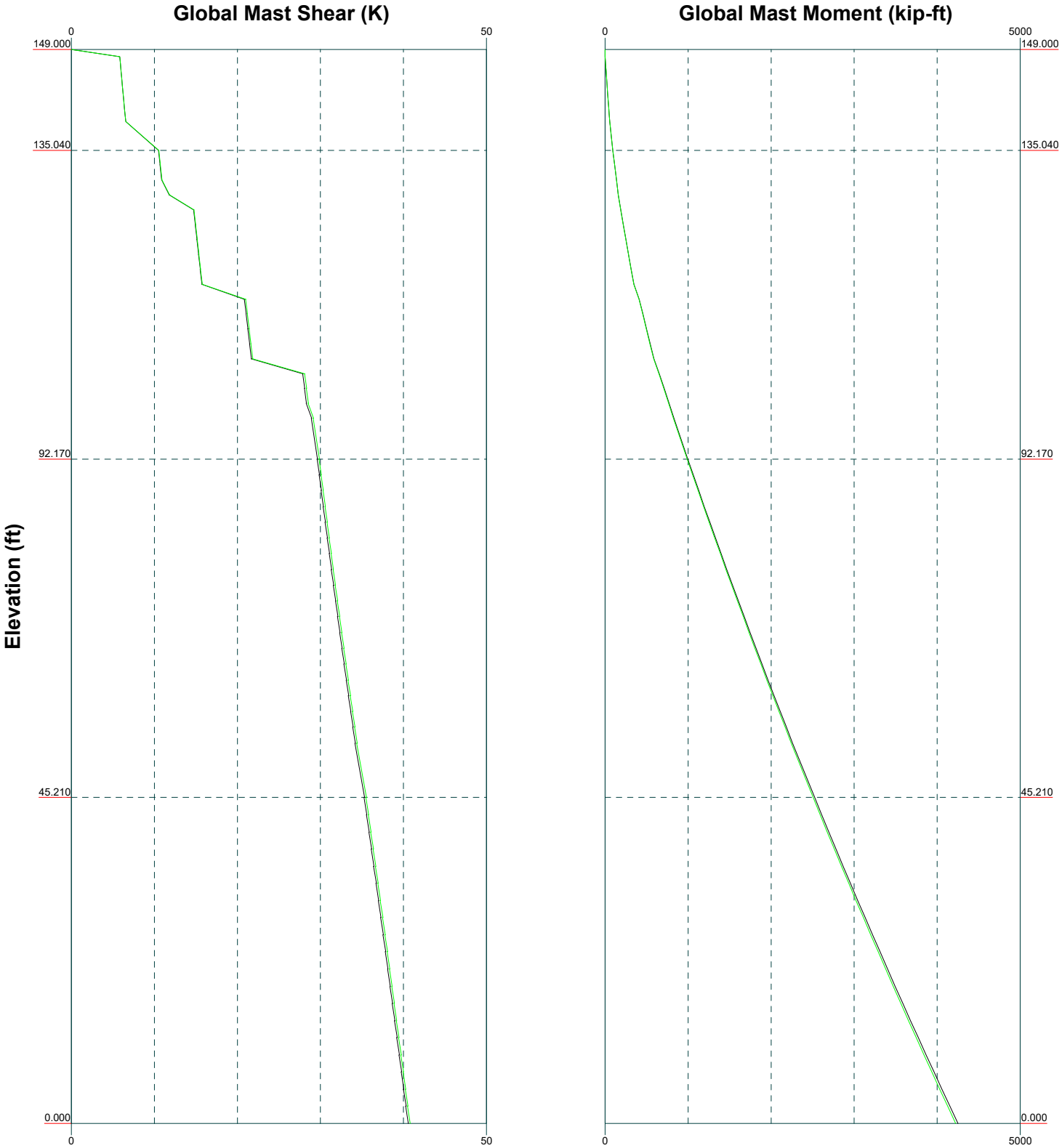
B+T Group
1717 S. Boulder, Suite 300
Tulsa, OK 74119
Phone: (918) 587-4630
FAX: (918) 295-0265

Job: 163501.001.01 - Guilford West Stone, CT (BU# 876343			
Project:			
Client: Crown Castle	Drawn by: S. Shet	App'd:	
Code: TIA-222-H	Date: 05/02/22	Scale: NTS	
Path:		Dwg No. E-1	

TIA-222-H - 122 mph/50 mph 1.000 in Ice Exposure C

Maximum Values

Vx Vz Mx Mz



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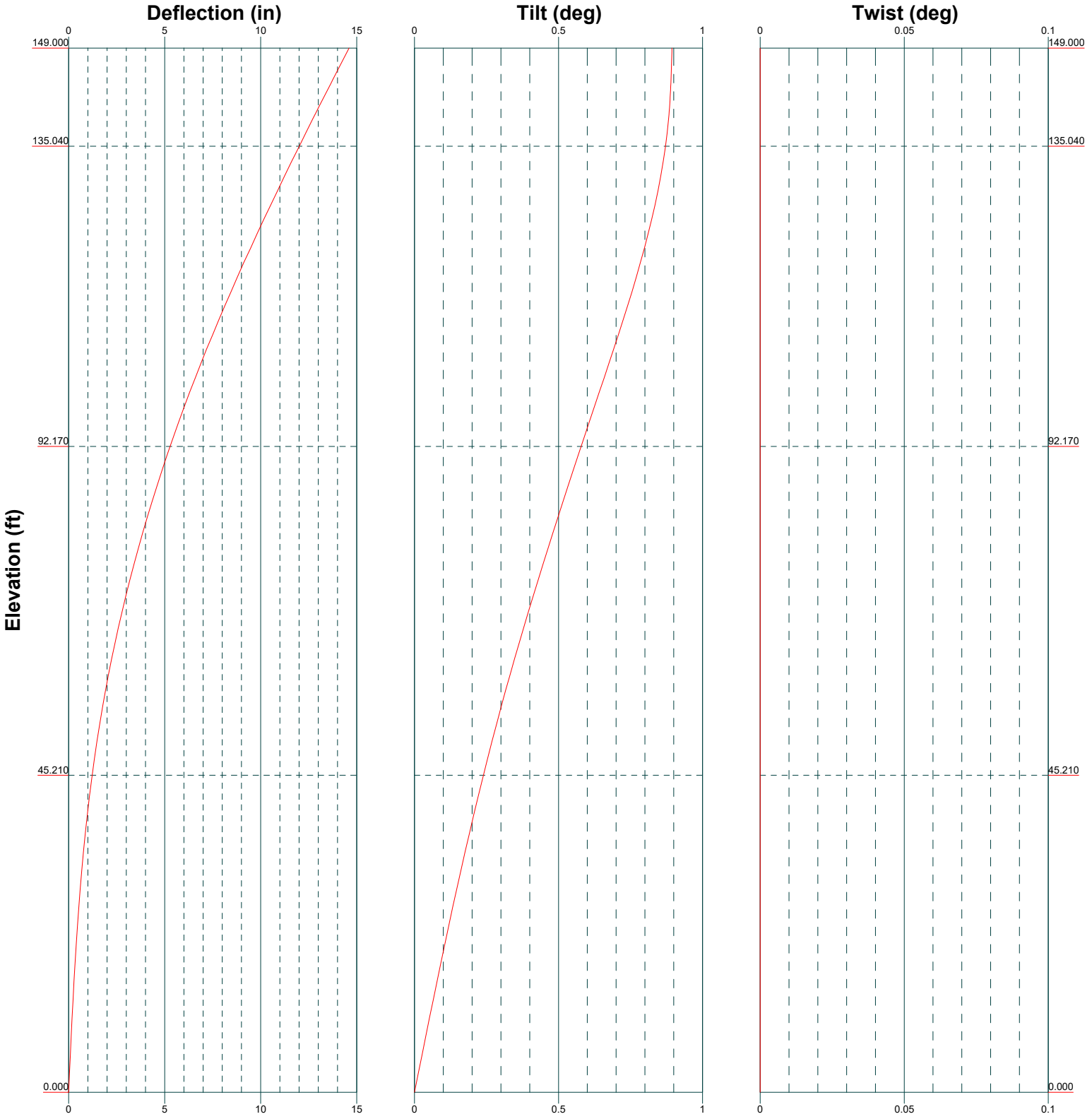
Job: 163501.001.01 - Guilford West Stone, CT (BU# 876343		
Project:		
Client: Crown Castle	Drawn by: S. Shet	App'd:
Code: TIA-222-H	Date: 05/02/22	Scale: NTS
Path:		Dwg No. E-4

TIA-222-H - Service - 60 mph

Maximum Values



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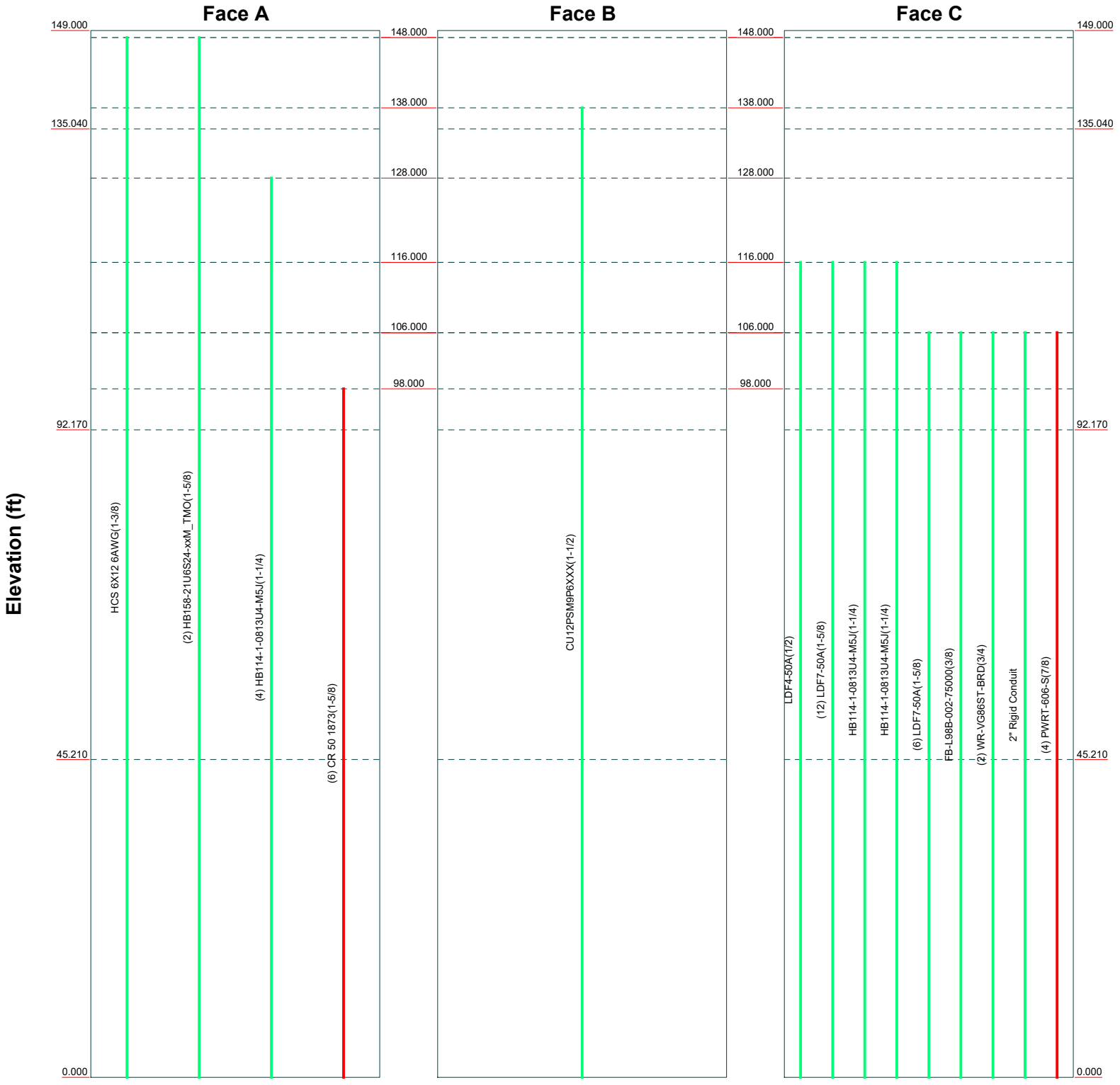
Phone: (918) 587-4630
FAX: (918) 295-0265

Job: 163501.001.01 - Guilford West Stone, CT (BU# 876343			
Project:			
Client: Crown Castle	Drawn by: S. Shet	App'd:	
Code: TIA-222-H	Date: 05/02/22	Scale: NTS	
Path:		Dwg No. E-5	

Feed Line Distribution Chart
0' - 149'

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



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

Job: *163501.001.01 - Guilford West Stone, CT (BU# 876343*			
Project:			
Client: Crown Castle	Drawn by: S. Shet	App'd:	
Code: TIA-222-H	Date: 05/02/22	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 New Haven County, Connecticut.
Tower base elevation above sea level: 70.000 ft.
Basic wind speed of 122 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 1.000 in.
Ice thickness is considered to increase with height.
Ice density of 56.000 pcf.
A wind speed of 50 mph is used in combination with ice.
Temperature drop of 50.000 °F.
Deflections calculated using a wind speed of 60 mph.
TIA-222-H Annex S.
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	149.000-135.040	13.960	3.920	18	22.000	26.770	0.188	0.750	A572-65 (65 ksi)
L2	135.040-92.170	46.790	5.670	18	25.056	40.910	0.250	1.000	A572-65 (65 ksi)
L3	92.170-45.210	52.630	7.580	18	38.489	56.310	0.313	1.250	A572-65 (65 ksi)
L4	45.210-0.000	52.790		18	53.118	71.000	0.375	1.500	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	22.310	12.981	780.301	7.743	11.176	69.819	1561.628	6.492	3.542	18.891
	27.154	15.820	1412.320	9.437	13.599	103.853	2826.498	7.911	4.382	23.368
L2	26.752	19.683	1530.144	8.806	12.728	120.217	3062.300	9.843	3.970	15.879
	41.503	32.264	6738.861	14.434	20.782	324.260	13486.589	16.135	6.760	27.041
L3	40.984	37.866	6972.278	13.553	19.552	356.596	13953.731	18.937	6.224	19.917
	57.130	55.543	22003.933	19.879	28.605	769.221	44036.819	27.777	9.361	29.954
L4	56.487	62.778	22063.670	18.724	26.984	817.654	44156.373	31.395	8.689	23.17
	72.037	84.061	52972.567	25.072	36.068	1468.686	106014.838	42.039	11.836	31.563

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 149.000-135.040				1	1	1			
L2 135.040-92.170				1	1	1			
L3 92.170-45.210				1	1	1			
L4 45.210-0.000				1	1	1			

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
PWRT-606-S(7/8) *	C	No	Surface Ar (CaAa)	106.000 - 0.000	4	4	0.090 0.140	0.920		0.001
CR 50 1873(1-5/8)	A	No	Surface Ar (CaAa)	98.000 - 0.000	6	6	-0.450 -0.200	1.980		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
*										

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
HCS 6X12 6AWG(1-3/8)	A	No	No	Inside Pole	148.000 - 0.000	1	No Ice	0.000	0.002
							1/2" Ice	0.000	0.002
							1" Ice	0.000	0.002
HB158-21U6S24-xx M_TMO(1-5/8)	A	No	No	Inside Pole	148.000 - 0.000	2	No Ice	0.000	0.003
							1/2" Ice	0.000	0.003
							1" Ice	0.000	0.003
*									
*									
CU12PSM9P6XXX(1-1/2)	B	No	No	Inside Pole	138.000 - 0.000	1	No Ice	0.000	0.002
							1/2" Ice	0.000	0.002
							1" Ice	0.000	0.002
*									
HB114-1-0813U4-M 5J(1-1/4)	A	No	No	Inside Pole	128.000 - 0.000	4	No Ice	0.000	0.001
							1/2" Ice	0.000	0.001
							1" Ice	0.000	0.001
*									
LDF4-50A(1/2)	C	No	No	Inside Pole	116.000 - 0.000	1	No Ice	0.000	0.000
							1/2" Ice	0.000	0.000
							1" Ice	0.000	0.000
LDF7-50A(1-5/8)	C	No	No	Inside Pole	116.000 - 0.000	12	No Ice	0.000	0.001
							1/2" Ice	0.000	0.001
							1" Ice	0.000	0.001
HB114-1-0813U4-M 5J(1-1/4)	C	No	No	Inside Pole	116.000 - 0.000	1	No Ice	0.000	0.001
							1/2" Ice	0.000	0.001
							1" Ice	0.000	0.001
HB114-1-0813U4-M 5J(1-1/4)	C	No	No	Inside Pole	116.000 - 0.000	1	No Ice	0.000	0.001
							1/2" Ice	0.000	0.001
							1" Ice	0.000	0.001
*									
LDF7-50A(1-5/8)	C	No	No	Inside Pole	106.000 - 0.000	6	No Ice	0.000	0.001
							1/2" Ice	0.000	0.001
							1" Ice	0.000	0.001
FB-L98B-002-75000 (3/8)	C	No	No	Inside Pole	106.000 - 0.000	1	No Ice	0.000	0.000
							1/2" Ice	0.000	0.000
							1" Ice	0.000	0.000
WR-VG86ST-BRD(3/4)	C	No	No	Inside Pole	106.000 - 0.000	2	No Ice	0.000	0.001
							1/2" Ice	0.000	0.001
							1" Ice	0.000	0.001
2" Rigid Conduit	C	No	No	Inside Pole	106.000 - 0.000	1	No Ice	0.000	0.003
							1/2" Ice	0.000	0.003
							1" Ice	0.000	0.003
*									

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	149.000-135.040	A	0.000	0.000	0.000	0.000	0.087
		B	0.000	0.000	0.000	0.000	0.007
		C	0.000	0.000	0.000	0.000	0.000
L2	135.040-92.170	A	0.000	0.000	6.926	0.000	0.488
		B	0.000	0.000	0.000	0.000	0.101
		C	0.000	0.000	5.089	0.000	0.468
L3	92.170-45.210	A	0.000	0.000	55.788	0.000	0.774
		B	0.000	0.000	0.000	0.000	0.110
		C	0.000	0.000	17.281	0.000	1.169
L4	45.210-0.000	A	0.000	0.000	53.709	0.000	0.745
		B	0.000	0.000	0.000	0.000	0.106
		C	0.000	0.000	16.637	0.000	1.126

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	149.000-135.040	A	0.983	0.000	0.000	0.000	0.000	0.087
		B		0.000	0.000	0.000	0.000	0.007
		C		0.000	0.000	0.000	0.000	0.000
L2	135.040-92.170	A	0.961	0.000	0.000	10.091	0.000	0.563
		B		0.000	0.000	0.000	0.000	0.101
		C		0.000	0.000	9.762	0.000	0.532
L3	92.170-45.210	A	0.913	0.000	0.000	81.014	0.000	1.360
		B		0.000	0.000	0.000	0.000	0.110
		C		0.000	0.000	32.880	0.000	1.380
L4	45.210-0.000	A	0.819	0.000	0.000	77.462	0.000	1.283
		B		0.000	0.000	0.000	0.000	0.106
		C		0.000	0.000	31.121	0.000	1.316

Feed Line Center of Pressure

Section	Elevation ft	CP_X in	CP_Z in	CP_X Ice in	CP_Z Ice in
L1	149.000-135.040	0.000	0.000	0.000	0.000
L2	135.040-92.170	-1.656	1.191	-1.398	1.208
L3	92.170-45.210	-6.981	2.970	-5.625	2.818
L4	45.210-0.000	-7.528	3.212	-6.172	3.082

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
L2	25	PWRT-606-S(7/8)	92.17 - 106.00	1.0000	1.0000
L2	28	CR 50 1873(1-5/8)	92.17 - 98.00	1.0000	1.0000
L3	25	PWRT-606-S(7/8)	45.21 - 92.17	1.0000	1.0000
L3	28	CR 50 1873(1-5/8)	45.21 - 92.17	1.0000	1.0000
L4	25	PWRT-606-S(7/8)	0.00 - 45.21	1.0000	1.0000
L4	28	CR 50 1873(1-5/8)	0.00 - 45.21	1.0000	1.0000

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
APXVAARR24_43-U-NA20 w/ Mount Pipe	A	From Leg	4.000 0.000 0.000	0.000	148.000	No Ice 1/2" Ice 1" Ice	14.690 15.460 16.230	6.870 7.550 8.250	0.186 0.315 0.458
APXVAARR24_43-U-NA20 w/ Mount Pipe	B	From Leg	4.000 0.000 0.000	0.000	148.000	No Ice 1/2" Ice 1" Ice	14.690 15.460 16.230	6.870 7.550 8.250	0.186 0.315 0.458
APXVAARR24_43-U-NA20 w/ Mount Pipe	C	From Leg	4.000 0.000 0.000	0.000	148.000	No Ice 1/2" Ice 1" Ice	14.690 15.460 16.230	6.870 7.550 8.250	0.186 0.315 0.458
AIR6449 B41_T-MOBILE w/ Mount Pipe	A	From Leg	4.000 0.000 0.000	0.000	148.000	No Ice 1/2" Ice 1" Ice	5.190 5.590 6.020	2.710 3.040 3.380	0.128 0.174 0.227
AIR6449 B41_T-MOBILE w/ Mount Pipe	B	From Leg	4.000 0.000 0.000	0.000	148.000	No Ice 1/2" Ice 1" Ice	5.190 5.590 6.020	2.710 3.040 3.380	0.128 0.174 0.227
AIR6449 B41_T-MOBILE w/ Mount Pipe	C	From Leg	4.000 0.000 0.000	0.000	148.000	No Ice 1/2" Ice 1" Ice	5.190 5.590 6.020	2.710 3.040 3.380	0.128 0.174 0.227
VV-65A-R1_TMO w/ Mount Pipe	A	From Leg	4.000 0.000 0.000	0.000	148.000	No Ice 1/2" Ice 1" Ice	4.460 4.910 5.360	2.690 3.100 3.520	0.054 0.097 0.149
VV-65A-R1_TMO w/ Mount Pipe	B	From Leg	4.000 0.000 0.000	0.000	148.000	No Ice 1/2" Ice 1" Ice	4.460 4.910 5.360	2.690 3.100 3.520	0.054 0.097 0.149
VV-65A-R1_TMO w/ Mount Pipe	C	From Leg	4.000 0.000 0.000	0.000	148.000	No Ice 1/2" Ice 1" Ice	4.460 4.910 5.360	2.690 3.100 3.520	0.054 0.097 0.149
RADIO 4449 B71 B85A_T-MOBILE	A	From Leg	4.000 0.000 0.000	0.000	148.000	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
RADIO 4449 B71 B85A_T-MOBILE	B	From Leg	4.000 0.000 0.000	0.000	148.000	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
RADIO 4449 B71 B85A_T-MOBILE	C	From Leg	4.000 0.000 0.000	0.000	148.000	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
RADIO 4460 B2/B25 B66_TMO	A	From Leg	4.000 0.000	0.000	148.000	No Ice 1/2" Ice	2.139 2.321	1.686 1.850	0.109 0.131

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft / Vert ft / ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
			0.000			1" Ice	2.511	2.022	0.156
RADIO 4460 B2/B25 B66_TMO	B	From Leg	4.000 0.000 0.000	0.000	148.000	No Ice 1/2" Ice 1" Ice	2.139 2.321 2.511	1.686 1.850 2.022	0.109 0.131 0.156
RADIO 4460 B2/B25 B66_TMO	C	From Leg	4.000 0.000 0.000	0.000	148.000	No Ice 1/2" Ice 1" Ice	2.139 2.321 2.511	1.686 1.850 2.022	0.109 0.131 0.156
10' x 2" Mount Pipe	A	From Leg	4.000 0.000 0.000	0.000	148.000	No Ice 1/2" Ice 1" Ice	2.375 3.403 4.448	2.375 3.403 4.448	0.037 0.054 0.079
10' x 2" Mount Pipe	B	From Leg	4.000 0.000 0.000	0.000	148.000	No Ice 1/2" Ice 1" Ice	2.375 3.403 4.448	2.375 3.403 4.448	0.037 0.054 0.079
10' x 2" Mount Pipe	C	From Leg	4.000 0.000 0.000	0.000	148.000	No Ice 1/2" Ice 1" Ice	2.375 3.403 4.448	2.375 3.403 4.448	0.037 0.054 0.079
(2) Side Arm Mount [SO 102-3]	C	None		0.000	148.000	No Ice 1/2" Ice 1" Ice	3.600 4.180 4.750	3.600 4.180 4.750	0.075 0.105 0.135
Pipe Mount [PM 601-3]	C	None		0.000	148.000	No Ice 1/2" Ice 1" Ice	3.170 3.790 4.420	3.170 3.790 4.420	0.195 0.232 0.279
Sitepro VFA12-HD Sector Mount (3)	C	None		0.000	148.000	No Ice 1/2" Ice 1" Ice	29.700 43.875 58.050	20.700 32.850 43.875	1.974 2.412 3.045
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MX08FRO665-21 w/ Mount Pipe	A	From Leg	4.000 0.000 0.000	0.000	138.000	No Ice 1/2" Ice 1" Ice	8.010 8.520 9.040	4.230 4.690 5.160	0.108 0.194 0.292
MX08FRO665-21 w/ Mount Pipe	B	From Leg	4.000 0.000 0.000	0.000	138.000	No Ice 1/2" Ice 1" Ice	8.010 8.520 9.040	4.230 4.690 5.160	0.108 0.194 0.292
MX08FRO665-21 w/ Mount Pipe	C	From Leg	4.000 0.000 0.000	0.000	138.000	No Ice 1/2" Ice 1" Ice	8.010 8.520 9.040	4.230 4.690 5.160	0.108 0.194 0.292
TA08025-B604	A	From Leg	4.000 0.000 0.000	0.000	138.000	No Ice 1/2" Ice 1" Ice	1.964 2.138 2.320	0.981 1.112 1.250	0.064 0.081 0.100
TA08025-B604	B	From Leg	4.000 0.000 0.000	0.000	138.000	No Ice 1/2" Ice 1" Ice	1.964 2.138 2.320	0.981 1.112 1.250	0.064 0.081 0.100
TA08025-B604	C	From Leg	4.000 0.000 0.000	0.000	138.000	No Ice 1/2" Ice 1" Ice	1.964 2.138 2.320	0.981 1.112 1.250	0.064 0.081 0.100
TA08025-B605	A	From Leg	4.000 0.000 0.000	0.000	138.000	No Ice 1/2" Ice 1" Ice	1.964 2.138 2.320	1.129 1.267 1.411	0.075 0.093 0.114
TA08025-B605	B	From Leg	4.000 0.000 0.000	0.000	138.000	No Ice 1/2" Ice 1" Ice	1.964 2.138 2.320	1.129 1.267 1.411	0.075 0.093 0.114
TA08025-B605	C	From Leg	4.000 0.000 0.000	0.000	138.000	No Ice 1/2" Ice 1" Ice	1.964 2.138 2.320	1.129 1.267 1.411	0.075 0.093 0.114
RDIDC-9181-PF-48	A	From Leg	4.000 0.000 0.000	0.000	138.000	No Ice 1/2" Ice 1" Ice	2.012 2.189 2.373	1.168 1.311 1.461	0.022 0.040 0.060

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) 8' x 2" Mount Pipe	A	From Leg	4.000 0.000 0.000	0.000	138.000	No Ice 1/2" Ice 1" Ice	1.900 2.728 3.401	1.900 2.728 3.401	0.029 0.044 0.063
(2) 8' x 2" Mount Pipe	B	From Leg	4.000 0.000 0.000	0.000	138.000	No Ice 1/2" Ice 1" Ice	1.900 2.728 3.401	1.900 2.728 3.401	0.029 0.044 0.063
(2) 8' x 2" Mount Pipe	C	From Leg	4.000 0.000 0.000	0.000	138.000	No Ice 1/2" Ice 1" Ice	1.900 2.728 3.401	1.900 2.728 3.401	0.029 0.044 0.063
Commscope MC-PK8-DSH	C	None		0.000	138.000	No Ice 1/2" Ice 1" Ice	34.240 62.950 91.660	34.240 62.950 91.660	1.749 2.099 2.450
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TME-800MHZ RRH	A	From Leg	0.500 0.000 -2.000	0.000	129.000	No Ice 1/2" Ice 1" Ice	2.134 2.320 2.512	1.773 1.946 2.127	0.053 0.074 0.098
TME-800MHZ RRH	B	From Leg	0.500 0.000 -2.000	0.000	129.000	No Ice 1/2" Ice 1" Ice	2.134 2.320 2.512	1.773 1.946 2.127	0.053 0.074 0.098
TME-800MHZ RRH	C	From Leg	0.500 0.000 -2.000	0.000	129.000	No Ice 1/2" Ice 1" Ice	2.134 2.320 2.512	1.773 1.946 2.127	0.053 0.074 0.098
TME-1900MHZ RRH (65MHZ)	A	From Leg	0.500 0.000 -6.000	0.000	129.000	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
TME-1900MHZ RRH (65MHZ)	B	From Leg	0.500 0.000 -6.000	0.000	129.000	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
TME-1900MHZ RRH (65MHZ)	C	From Leg	0.500 0.000 -6.000	0.000	129.000	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
Pipe Mount [PM 601-3]	C	None		0.000	129.000	No Ice 1/2" Ice 1" Ice	3.170 3.790 4.420	3.170 3.790 4.420	0.195 0.232 0.279
*									
APXVTM14-C-120 w/ Mount Pipe	A	From Leg	4.000 0.000 2.000	0.000	128.000	No Ice 1/2" Ice 1" Ice	4.090 4.480 4.880	2.860 3.230 3.610	0.077 0.127 0.185
APXVTM14-C-120 w/ Mount Pipe	B	From Leg	4.000 0.000 2.000	0.000	128.000	No Ice 1/2" Ice 1" Ice	4.090 4.480 4.880	2.860 3.230 3.610	0.077 0.127 0.185
APXVTM14-C-120 w/ Mount Pipe	C	From Leg	4.000 0.000 2.000	0.000	128.000	No Ice 1/2" Ice 1" Ice	4.090 4.480 4.880	2.860 3.230 3.610	0.077 0.127 0.185
APXVSPP18-C-A20 w/ Mount Pipe	A	From Leg	4.000 0.000 2.000	0.000	128.000	No Ice 1/2" Ice 1" Ice	4.600 5.050 5.500	4.010 4.450 4.890	0.095 0.160 0.235
APXVSPP18-C-A20 w/ Mount Pipe	B	From Leg	4.000 0.000 2.000	0.000	128.000	No Ice 1/2" Ice 1" Ice	4.600 5.050 5.500	4.010 4.450 4.890	0.095 0.160 0.235
APXVSPP18-C-A20 w/ Mount Pipe	C	From Leg	4.000 0.000 2.000	0.000	128.000	No Ice 1/2" Ice 1" Ice	4.600 5.050 5.500	4.010 4.450 4.890	0.095 0.160 0.235
TD-RRH8X20-25	A	From Leg	4.000 0.000 2.000	0.000	128.000	No Ice 1/2" Ice 1" Ice	4.045 4.298 4.557	1.535 1.714 1.901	0.070 0.097 0.128
TD-RRH8X20-25	B	From Leg	4.000	0.000	128.000	No Ice	4.045	1.535	0.070

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	4.298	1.714	0.097
			2.000			1" Ice	4.557	1.901	0.128
TD-RRH8X20-25	C	From Leg	4.000	0.000	128.000	No Ice	4.045	1.535	0.070
			0.000			1/2" Ice	4.298	1.714	0.097
			2.000			1" Ice	4.557	1.901	0.128
(3) ACU-A20-N	A	From Leg	4.000	0.000	128.000	No Ice	0.067	0.117	0.001
			0.000			1/2" Ice	0.104	0.162	0.002
			2.000			1" Ice	0.148	0.215	0.004
(3) ACU-A20-N	B	From Leg	4.000	0.000	128.000	No Ice	0.067	0.117	0.001
			0.000			1/2" Ice	0.104	0.162	0.002
			2.000			1" Ice	0.148	0.215	0.004
(3) ACU-A20-N	C	From Leg	4.000	0.000	128.000	No Ice	0.067	0.117	0.001
			0.000			1/2" Ice	0.104	0.162	0.002
			2.000			1" Ice	0.148	0.215	0.004
800 EXTERNAL NOTCH FILTER	A	From Leg	4.000	0.000	128.000	No Ice	0.660	0.321	0.011
			0.000			1/2" Ice	0.763	0.398	0.017
			2.000			1" Ice	0.873	0.483	0.024
800 EXTERNAL NOTCH FILTER	B	From Leg	4.000	0.000	128.000	No Ice	0.660	0.321	0.011
			0.000			1/2" Ice	0.763	0.398	0.017
			2.000			1" Ice	0.873	0.483	0.024
800 EXTERNAL NOTCH FILTER	C	From Leg	4.000	0.000	128.000	No Ice	0.660	0.321	0.011
			0.000			1/2" Ice	0.763	0.398	0.017
			2.000			1" Ice	0.873	0.483	0.024
(2) 7'x2" Antenna Mount Pipe	A	From Leg	4.000	0.000	128.000	No Ice	1.663	1.663	0.026
			0.000			1/2" Ice	2.391	2.391	0.039
			0.000			1" Ice	2.825	2.825	0.056
(2) 7'x2" Antenna Mount Pipe	B	From Leg	4.000	0.000	128.000	No Ice	1.663	1.663	0.026
			0.000			1/2" Ice	2.391	2.391	0.039
			0.000			1" Ice	2.825	2.825	0.056
(2) 7'x2" Antenna Mount Pipe	C	From Leg	4.000	0.000	128.000	No Ice	1.663	1.663	0.026
			0.000			1/2" Ice	2.391	2.391	0.039
			0.000			1" Ice	2.825	2.825	0.056
Side Arm Mount [SO 102-3]	C	None		0.000	128.000	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
Sector Mount [SM 901-3]	C	None		0.000	128.000	No Ice	12.780	12.780	1.257
						1/2" Ice	15.530	15.530	1.449
						1" Ice	18.180	18.180	1.686
*									
(2) DB846F65ZAXY w/ Mount Pipe	A	From Leg	4.000	0.000	116.000	No Ice	6.100	6.810	0.059
			0.000			1/2" Ice	6.800	7.520	0.120
			6.000			1" Ice	7.510	8.240	0.192
(2) DB846H80E-SX w/ Mount Pipe	B	From Leg	4.000	0.000	116.000	No Ice	4.120	6.380	0.052
			0.000			1/2" Ice	4.760	7.050	0.104
			6.000			1" Ice	5.420	7.740	0.166
(2) DB846F65ZAXY w/ Mount Pipe	C	From Leg	4.000	0.000	116.000	No Ice	6.100	6.810	0.059
			0.000			1/2" Ice	6.800	7.520	0.120
			6.000			1" Ice	7.510	8.240	0.192
GPS-TMG-26NMS	B	From Leg	4.000	0.000	116.000	No Ice	0.133	0.133	0.001
			0.000			1/2" Ice	0.183	0.183	0.002
			2.000			1" Ice	0.239	0.239	0.005
(2) JAHH-65B-R3B w/ Mount Pipe	A	From Leg	4.000	0.000	116.000	No Ice	5.500	4.380	0.096
			0.000			1/2" Ice	5.970	4.840	0.169
			6.000			1" Ice	6.450	5.300	0.254
(2) JAHH-65B-R3B w/ Mount Pipe	B	From Leg	4.000	0.000	116.000	No Ice	5.500	4.380	0.096
			0.000			1/2" Ice	5.970	4.840	0.169
			6.000			1" Ice	6.450	5.300	0.254

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
(2) JAHH-65B-R3B w/ Mount Pipe	C	From Leg	4.000 0.000 6.000	0.000	116.000	No Ice 1/2" Ice 1" Ice	5.500 5.970 6.450	4.380 4.840 5.300	0.096 0.169 0.254
CBRS w/ Mount Pipe	A	From Leg	4.000 0.000 4.000	0.000	116.000	No Ice 1/2" Ice 1" Ice	1.450 1.670 1.900	0.990 1.180 1.390	0.032 0.048 0.068
CBRS w/ Mount Pipe	B	From Leg	4.000 0.000 4.000	0.000	116.000	No Ice 1/2" Ice 1" Ice	1.450 1.670 1.900	0.990 1.180 1.390	0.032 0.048 0.068
CBRS w/ Mount Pipe	C	From Leg	4.000 0.000 4.000	0.000	116.000	No Ice 1/2" Ice 1" Ice	1.450 1.670 1.900	0.990 1.180 1.390	0.032 0.048 0.068
Sub6 Antenna - VZS01 w/ Mount Pipe	A	From Leg	4.000 0.000 8.000	0.000	116.000	No Ice 1/2" Ice 1" Ice	4.915 5.264 5.623	2.687 3.151 3.631	0.101 0.141 0.186
Sub6 Antenna - VZS01 w/ Mount Pipe	B	From Leg	4.000 0.000 8.000	0.000	116.000	No Ice 1/2" Ice 1" Ice	4.915 5.264 5.623	2.687 3.151 3.631	0.101 0.141 0.186
Sub6 Antenna - VZS01 w/ Mount Pipe	C	From Leg	4.000 0.000 8.000	0.000	116.000	No Ice 1/2" Ice 1" Ice	4.915 5.264 5.623	2.687 3.151 3.631	0.101 0.141 0.186
CBC78T-DS-43-2X	A	From Leg	4.000 0.000 6.000	0.000	116.000	No Ice 1/2" Ice 1" Ice	0.368 0.446 0.531	0.512 0.605 0.705	0.021 0.027 0.035
CBC78T-DS-43-2X	B	From Leg	4.000 0.000 6.000	0.000	116.000	No Ice 1/2" Ice 1" Ice	0.368 0.446 0.531	0.512 0.605 0.705	0.021 0.027 0.035
CBC78T-DS-43-2X	C	From Leg	4.000 0.000 6.000	0.000	116.000	No Ice 1/2" Ice 1" Ice	0.368 0.446 0.531	0.512 0.605 0.705	0.021 0.027 0.035
RFV01U-D1A	A	From Leg	4.000 0.000 6.000	0.000	116.000	No Ice 1/2" Ice 1" Ice	1.875 2.045 2.223	1.250 1.393 1.543	0.084 0.103 0.124
RFV01U-D1A	B	From Leg	4.000 0.000 6.000	0.000	116.000	No Ice 1/2" Ice 1" Ice	1.875 2.045 2.223	1.250 1.393 1.543	0.084 0.103 0.124
RFV01U-D1A	C	From Leg	4.000 0.000 6.000	0.000	116.000	No Ice 1/2" Ice 1" Ice	1.875 2.045 2.223	1.250 1.393 1.543	0.084 0.103 0.124
RFV01U-D2A	A	From Leg	4.000 0.000 6.000	0.000	116.000	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
RFV01U-D2A	B	From Leg	4.000 0.000 6.000	0.000	116.000	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
RFV01U-D2A	C	From Leg	4.000 0.000 6.000	0.000	116.000	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
RVZDC-6627-PF-48	A	From Leg	4.000 0.000 6.000	0.000	116.000	No Ice 1/2" Ice 1" Ice	3.792 4.044 4.303	2.514 2.727 2.947	0.032 0.063 0.099
6' x 2" Mount Pipe	A	From Leg	4.000 0.000 0.000	0.000	116.000	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
6' x 2" Mount Pipe	B	From Leg	4.000 0.000 0.000	0.000	116.000	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
6' x 2" Mount Pipe	C	From Leg	4.000 0.000 0.000	0.000	116.000	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
Side Arm Mount [SO 102-3]	C	None		0.000	116.000	No Ice 1/2" Ice 1" Ice	3.600 4.180 4.750	3.600 4.180 4.750	0.075 0.105 0.135
Sector Mount [SM 901-3]	C	None		0.000	116.000	No Ice 1/2" Ice 1" Ice	12.780 15.530 18.180	12.780 15.530 18.180	1.257 1.449 1.686
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DC6-48-60-18-8F	A	From Leg	4.000 0.000 2.000	0.000	106.000	No Ice 1/2" Ice 1" Ice	0.917 1.458 1.643	0.917 1.458 1.643	0.019 0.037 0.057
(2) DMP65R-BU6D w/ Mount Pipe	A	From Leg	4.000 0.000 2.000	0.000	106.000	No Ice 1/2" Ice 1" Ice	11.960 12.700 13.460	5.970 6.630 7.300	0.115 0.201 0.298
(2) DMP65R-BU6D w/ Mount Pipe	B	From Leg	4.000 0.000 2.000	0.000	106.000	No Ice 1/2" Ice 1" Ice	11.960 12.700 13.460	5.970 6.630 7.300	0.115 0.201 0.298
(2) DMP65R-BU4D w/ Mount Pipe	C	From Leg	4.000 0.000 2.000	0.000	106.000	No Ice 1/2" Ice 1" Ice	7.530 8.040 8.570	3.790 4.230 4.680	0.095 0.156 0.225
AIR 6419 B77G_CCIV3	A	From Leg	4.000 0.000 2.000	0.000	106.000	No Ice 1/2" Ice 1" Ice	4.173 4.439 4.712	2.015 2.225 2.442	0.044 0.073 0.106
AIR 6419 B77G_CCIV3	B	From Leg	4.000 0.000 2.000	0.000	106.000	No Ice 1/2" Ice 1" Ice	4.173 4.439 4.712	2.015 2.225 2.442	0.044 0.073 0.106
AIR 6419 B77G_CCIV3	C	From Leg	4.000 0.000 2.000	0.000	106.000	No Ice 1/2" Ice 1" Ice	4.173 4.439 4.712	2.015 2.225 2.442	0.044 0.073 0.106
AIR 6449 B77D_CCVI2	A	From Leg	4.000 0.000 -2.000	0.000	106.000	No Ice 1/2" Ice 1" Ice	3.640 4.000 4.370	1.720 2.020 2.330	0.082 0.111 0.144
AIR 6449 B77D_CCVI2	B	From Leg	4.000 0.000 -2.000	0.000	106.000	No Ice 1/2" Ice 1" Ice	3.640 4.000 4.370	1.720 2.020 2.330	0.082 0.111 0.144
AIR 6449 B77D_CCVI2	C	From Leg	4.000 0.000 -2.000	0.000	106.000	No Ice 1/2" Ice 1" Ice	3.640 4.000 4.370	1.720 2.020 2.330	0.082 0.111 0.144
(2) RRUS 8843 B2/B66A	A	From Leg	4.000 0.000 2.000	0.000	106.000	No Ice 1/2" Ice 1" Ice	1.639 1.799 1.966	1.353 1.500 1.655	0.072 0.090 0.110
RRUS 8843 B2/B66A	B	From Leg	4.000 0.000 2.000	0.000	106.000	No Ice 1/2" Ice 1" Ice	1.639 1.799 1.966	1.353 1.500 1.655	0.072 0.090 0.110
(2) RRUS 4478 B14_CCIV2	A	From Leg	4.000 0.000 2.000	0.000	106.000	No Ice 1/2" Ice 1" Ice	2.021 2.200 2.386	1.246 1.396 1.554	0.059 0.077 0.097
RRUS 4478 B14_CCIV2	B	From Leg	4.000 0.000 2.000	0.000	106.000	No Ice 1/2" Ice 1" Ice	2.021 2.200 2.386	1.246 1.396 1.554	0.059 0.077 0.097
RRUS 4449 B5/B12	A	From Leg	4.000 0.000 2.000	0.000	106.000	No Ice 1/2" Ice 1" Ice	1.968 2.144 2.328	1.408 1.564 1.727	0.071 0.090 0.111
(2) RRUS 4449 B5/B12	B	From Leg	4.000	0.000	106.000	No Ice	1.968	1.408	0.071

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft / Vert ft / ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
			0.000			1/2" Ice	2.144	1.564	0.090
			2.000			1" Ice	2.328	1.727	0.111
DC9-48-60-24-8C-EV	A	From Leg	4.000	0.000	106.000	No Ice	2.737	4.785	0.026
			0.000			1/2" Ice	2.963	5.065	0.063
			2.000			1" Ice	3.196	5.352	0.104
3' x 2" Pipe Mount	A	From Leg	1.000	0.000	106.000	No Ice	0.583	0.583	0.011
			0.000			1/2" Ice	0.770	0.770	0.017
			0.000			1" Ice	0.967	0.967	0.024
3' x 2" Pipe Mount	B	From Leg	1.000	0.000	106.000	No Ice	0.583	0.583	0.011
			0.000			1/2" Ice	0.770	0.770	0.017
			0.000			1" Ice	0.967	0.967	0.024
3' x 2" Pipe Mount	C	From Leg	1.000	0.000	106.000	No Ice	0.583	0.583	0.011
			0.000			1/2" Ice	0.770	0.770	0.017
			0.000			1" Ice	0.967	0.967	0.024
(2) 10' x 2.875" Mount Pipe	A	From Leg	4.000	0.000	106.000	No Ice	2.875	2.875	0.058
			0.000			1/2" Ice	3.907	3.907	0.079
			0.000			1" Ice	4.956	4.956	0.107
(2) 10' x 2.875" Mount Pipe	B	From Leg	4.000	0.000	106.000	No Ice	2.875	2.875	0.058
			0.000			1/2" Ice	3.907	3.907	0.079
			0.000			1" Ice	4.956	4.956	0.107
(2) 10' x 2.875" Mount Pipe	C	From Leg	4.000	0.000	106.000	No Ice	2.875	2.875	0.058
			0.000			1/2" Ice	3.907	3.907	0.079
			0.000			1" Ice	4.956	4.956	0.107
(2) Side Arm Mount [SO 102-3]	C	None		0.000	106.000	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
RMQLP-4120-H10	C	None		0.000	106.000	No Ice	28.150	26.410	3.265
						1/2" Ice	34.100	32.350	3.657
						1" Ice	40.100	38.540	4.180
*									
APXV18-206517S-C w/ Mount Pipe	A	From Leg	0.500	0.000	98.000	No Ice	3.790	3.160	0.053
			0.000			1/2" Ice	4.380	3.750	0.094
			0.000			1" Ice	4.990	4.350	0.145
APXV18-206517S-C w/ Mount Pipe	B	From Leg	0.500	0.000	98.000	No Ice	3.790	3.160	0.053
			0.000			1/2" Ice	4.380	3.750	0.094
			0.000			1" Ice	4.990	4.350	0.145
APXV18-206517S-C w/ Mount Pipe	C	From Leg	0.500	0.000	98.000	No Ice	3.790	3.160	0.053
			0.000			1/2" Ice	4.380	3.750	0.094
			0.000			1" Ice	4.990	4.350	0.145
*									

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

Comb. No.	Description
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
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	149 - 135.04	Pole	Max Tension	33	0.000	0.000	0.002
			Max. Compression	26	-8.884	-0.005	0.013
			Max. Mx	8	-5.123	-55.919	0.012
			Max. My	2	-5.120	-0.004	55.938
			Max. Vy	8	6.548	-55.919	0.012
			Max. Vx	2	-6.550	-0.004	55.938
			Max. Torque	21			-0.138
L2	135.04 - 92.17	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-43.518	-2.692	4.304

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Mx	8	-27.043	-823.482	2.142
			Max. My	2	-27.022	-1.786	828.937
			Max. Vy	8	28.941	-823.482	2.142
			Max. Vx	2	-29.167	-1.786	828.937
			Max. Torque	22			-3.852
L3	92.17 - 45.21	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-58.261	-1.363	4.381
			Max. Mx	8	-38.974	-2243.443	-0.571
			Max. My	2	-38.963	1.301	2259.345
			Max. Vy	8	34.213	-2243.443	-0.571
			Max. Vx	2	-34.435	1.301	2259.345
			Max. Torque	22			-3.850
L4	45.21 - 0	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-83.237	0.796	4.463
			Max. Mx	8	-59.994	-4222.059	-3.862
			Max. My	2	-59.994	5.153	4250.143
			Max. Vy	8	40.592	-4222.059	-3.862
			Max. Vx	2	-40.809	5.153	4250.143
			Max. Torque	22			-3.844

Maximum Reactions

Location	Condition	Gov. Load Comb.	Vertical K	Horizontal, X K	Horizontal, Z K
Pole	Max. Vert	33	83.237	-0.010	-10.645
	Max. H_x	20	60.013	40.564	0.059
	Max. H_z	2	60.013	0.059	40.780
	Max. M_x	2	4250.143	0.059	40.780
	Max. M_z	8	4222.059	-40.564	-0.059
	Max. Torsion	10	3.830	-35.159	-20.441
	Min. Vert	19	45.010	35.100	-20.339
	Min. H_x	8	60.013	-40.564	-0.059
	Min. H_z	14	60.013	-0.059	-40.780
	Min. M_x	14	-4246.381	-0.059	-40.780
	Min. M_z	20	-4220.891	40.564	0.059
	Min. Torsion	22	-3.842	35.159	20.441

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	50.011	0.000	0.000	-1.480	-0.433	0.000
1.2 Dead+1.0 Wind 0 deg - No Ice	60.013	-0.059	-40.780	-4250.143	5.153	1.729
0.9 Dead+1.0 Wind 0 deg - No Ice	45.010	-0.059	-40.780	-4217.424	5.278	1.711
1.2 Dead+1.0 Wind 30 deg - No Ice	60.013	20.231	-35.287	-3678.133	-2106.351	-0.215
0.9 Dead+1.0 Wind 30 deg - No Ice	45.010	20.231	-35.287	-3649.744	-2090.208	-0.222
1.2 Dead+1.0 Wind 60 deg - No	60.013	35.100	-20.339	-2121.059	-3653.628	-2.096

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
Ice 0.9 Dead+1.0 Wind 60 deg - No Ice	45.010	35.100	-20.339	-2104.481	-3625.750	-2.091
1.2 Dead+1.0 Wind 90 deg - No Ice	60.013	40.564	0.059	3.862	-4222.059	-3.418
0.9 Dead+1.0 Wind 90 deg - No Ice	45.010	40.564	0.059	4.318	-4189.879	-3.402
1.2 Dead+1.0 Wind 120 deg - No Ice	60.013	35.159	20.441	2127.239	-3659.346	-3.830
0.9 Dead+1.0 Wind 120 deg - No Ice	45.010	35.159	20.441	2111.582	-3631.437	-3.808
1.2 Dead+1.0 Wind 150 deg - No Ice	60.013	20.333	35.346	3680.103	-2116.269	-3.221
0.9 Dead+1.0 Wind 150 deg - No Ice	45.010	20.333	35.346	3652.662	-2100.071	-3.197
1.2 Dead+1.0 Wind 180 deg - No Ice	60.013	0.059	40.780	4246.381	-6.314	-1.746
0.9 Dead+1.0 Wind 180 deg - No Ice	45.010	0.059	40.780	4214.645	-6.122	-1.728
1.2 Dead+1.0 Wind 210 deg - No Ice	60.013	-20.231	35.287	3674.373	2105.180	0.203
0.9 Dead+1.0 Wind 210 deg - No Ice	45.010	-20.231	35.287	3646.966	2089.356	0.210
1.2 Dead+1.0 Wind 240 deg - No Ice	60.013	-35.100	20.339	2117.308	3652.453	2.102
0.9 Dead+1.0 Wind 240 deg - No Ice	45.010	-35.100	20.339	2101.711	3624.895	2.096
1.2 Dead+1.0 Wind 270 deg - No Ice	60.013	-40.564	-0.059	-7.605	4220.891	3.435
0.9 Dead+1.0 Wind 270 deg - No Ice	45.010	-40.564	-0.059	-7.082	4189.029	3.419
1.2 Dead+1.0 Wind 300 deg - No Ice	60.013	-35.159	-20.441	-2130.982	3658.189	3.842
0.9 Dead+1.0 Wind 300 deg - No Ice	45.010	-35.159	-20.441	-2114.347	3630.595	3.819
1.2 Dead+1.0 Wind 330 deg - No Ice	60.013	-20.333	-35.346	-3683.857	2115.116	3.215
0.9 Dead+1.0 Wind 330 deg - No Ice	45.010	-20.333	-35.346	-3655.435	2099.232	3.192
1.2 Dead+1.0 Ice+1.0 Temp	83.237	0.000	-0.000	-4.463	0.796	0.000
1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp	83.237	-0.010	-10.645	-1113.102	1.777	0.373
1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp	83.237	5.295	-9.213	-964.091	-550.208	-0.035
1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp	83.237	9.181	-5.313	-557.994	-954.559	-0.433
1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp	83.237	10.607	0.010	-3.624	-1102.931	-0.715
1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp	83.237	9.191	5.331	550.476	-955.568	-0.806
1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp	83.237	5.312	9.224	955.834	-551.955	-0.681
1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp	83.237	0.010	10.645	1103.825	-0.240	-0.374
1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp	83.237	-5.295	9.213	954.825	551.744	0.034
1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp	83.237	-9.181	5.313	548.729	956.095	0.433
1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp	83.237	-10.607	-0.010	-5.641	1104.467	0.716
1.2 Dead+1.0 Wind 300	83.237	-9.191	-5.331	-559.740	957.104	0.807

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
deg+1.0 Ice+1.0 Temp						
1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp	83.237	-5.312	-9.224	-965.099	553.491	0.681
Dead+Wind 0 deg - Service	50.011	-0.013	-9.291	-965.052	0.822	0.394
Dead+Wind 30 deg - Service	50.011	4.609	-8.039	-835.317	-478.060	-0.052
Dead+Wind 60 deg - Service	50.011	7.997	-4.634	-482.177	-828.974	-0.484
Dead+Wind 90 deg - Service	50.011	9.241	0.013	-0.255	-957.894	-0.786
Dead+Wind 120 deg - Service	50.011	8.010	4.657	481.318	-830.275	-0.878
Dead+Wind 150 deg - Service	50.011	4.632	8.053	833.505	-480.313	-0.735
Dead+Wind 180 deg - Service	50.011	0.013	9.291	961.938	-1.781	-0.395
Dead+Wind 210 deg - Service	50.011	-4.609	8.039	832.204	477.100	0.051
Dead+Wind 240 deg - Service	50.011	-7.997	4.634	479.064	828.014	0.484
Dead+Wind 270 deg - Service	50.011	-9.241	-0.013	-2.858	956.935	0.787
Dead+Wind 300 deg - Service	50.011	-8.010	-4.657	-484.431	829.316	0.879
Dead+Wind 330 deg - Service	50.011	-4.632	-8.053	-836.619	479.354	0.735

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	-50.011	0.000	0.000	50.011	0.000	0.000%
2	-0.059	-60.013	-40.780	0.059	60.013	40.780	0.000%
3	-0.059	-45.010	-40.780	0.059	45.010	40.780	0.000%
4	20.231	-60.013	-35.287	-20.231	60.013	35.287	0.000%
5	20.231	-45.010	-35.287	-20.231	45.010	35.287	0.000%
6	35.100	-60.013	-20.339	-35.100	60.013	20.339	0.000%
7	35.100	-45.010	-20.339	-35.100	45.010	20.339	0.000%
8	40.564	-60.013	0.059	-40.564	60.013	-0.059	0.000%
9	40.564	-45.010	0.059	-40.564	45.010	-0.059	0.000%
10	35.159	-60.013	20.441	-35.159	60.013	-20.441	0.000%
11	35.159	-45.010	20.441	-35.159	45.010	-20.441	0.000%
12	20.333	-60.013	35.346	-20.333	60.013	-35.346	0.000%
13	20.333	-45.010	35.346	-20.333	45.010	-35.346	0.000%
14	0.059	-60.013	40.780	-0.059	60.013	-40.780	0.000%
15	0.059	-45.010	40.780	-0.059	45.010	-40.780	0.000%
16	-20.231	-60.013	35.287	20.231	60.013	-35.287	0.000%
17	-20.231	-45.010	35.287	20.231	45.010	-35.287	0.000%
18	-35.100	-60.013	20.339	35.100	60.013	-20.339	0.000%
19	-35.100	-45.010	20.339	35.100	45.010	-20.339	0.000%
20	-40.564	-60.013	-0.059	40.564	60.013	0.059	0.000%
21	-40.564	-45.010	-0.059	40.564	45.010	0.059	0.000%
22	-35.159	-60.013	-20.441	35.159	60.013	20.441	0.000%
23	-35.159	-45.010	-20.441	35.159	45.010	20.441	0.000%
24	-20.333	-60.013	-35.346	20.333	60.013	35.346	0.000%
25	-20.333	-45.010	-35.346	20.333	45.010	35.346	0.000%
26	0.000	-83.237	0.000	-0.000	83.237	0.000	0.000%
27	-0.010	-83.237	-10.645	0.010	83.237	10.645	0.000%
28	5.295	-83.237	-9.213	-5.295	83.237	9.213	0.000%
29	9.181	-83.237	-5.313	-9.181	83.237	5.313	0.000%
30	10.607	-83.237	0.010	-10.607	83.237	-0.010	0.000%
31	9.191	-83.237	5.331	-9.191	83.237	-5.331	0.000%
32	5.312	-83.237	9.224	-5.312	83.237	-9.224	0.000%
33	0.010	-83.237	10.645	-0.010	83.237	-10.645	0.000%
34	-5.295	-83.237	9.213	5.295	83.237	-9.213	0.000%
35	-9.181	-83.237	5.313	9.181	83.237	-5.313	0.000%
36	-10.607	-83.237	-0.010	10.607	83.237	0.010	0.000%
37	-9.191	-83.237	-5.331	9.191	83.237	5.331	0.000%

	Sum of Applied Forces			Sum of Reactions			
Load Comb.	PX K	PY K	PZ K	PX K	PY K	PZ K	% Error
38	-5.312	-83.237	-9.224	5.312	83.237	9.224	0.000%
39	-0.013	-50.011	-9.291	0.013	50.011	9.291	0.000%
40	4.609	-50.011	-8.039	-4.609	50.011	8.039	0.000%
41	7.997	-50.011	-4.634	-7.997	50.011	4.634	0.000%
42	9.241	-50.011	0.013	-9.241	50.011	-0.013	0.000%
43	8.010	-50.011	4.657	-8.010	50.011	-4.657	0.000%
44	4.632	-50.011	8.053	-4.632	50.011	-8.053	0.000%
45	0.013	-50.011	9.291	-0.013	50.011	-9.291	0.000%
46	-4.609	-50.011	8.039	4.609	50.011	-8.039	0.000%
47	-7.997	-50.011	4.634	7.997	50.011	-4.634	0.000%
48	-9.241	-50.011	-0.013	9.241	50.011	0.013	0.000%
49	-8.010	-50.011	-4.657	8.010	50.011	4.657	0.000%
50	-4.632	-50.011	-8.053	4.632	50.011	8.053	0.000%

Non-Linear Convergence Results

Load Combination	Converged?	Number of Cycles	Displacement Tolerance	Force Tolerance
1	Yes	4	0.00000001	0.00000001
2	Yes	4	0.00000001	0.00027569
3	Yes	4	0.00000001	0.00017071
4	Yes	5	0.00000001	0.00023776
5	Yes	5	0.00000001	0.00010854
6	Yes	5	0.00000001	0.00024745
7	Yes	5	0.00000001	0.00011340
8	Yes	4	0.00000001	0.00059471
9	Yes	4	0.00000001	0.00038109
10	Yes	5	0.00000001	0.00022659
11	Yes	5	0.00000001	0.00010326
12	Yes	5	0.00000001	0.00025112
13	Yes	5	0.00000001	0.00011519
14	Yes	4	0.00000001	0.00030528
15	Yes	4	0.00000001	0.00019025
16	Yes	5	0.00000001	0.00023909
17	Yes	5	0.00000001	0.00010949
18	Yes	5	0.00000001	0.00022971
19	Yes	5	0.00000001	0.00010494
20	Yes	4	0.00000001	0.00062547
21	Yes	4	0.00000001	0.00040099
22	Yes	5	0.00000001	0.00025394
23	Yes	5	0.00000001	0.00011661
24	Yes	5	0.00000001	0.00022911
25	Yes	5	0.00000001	0.00010437
26	Yes	4	0.00000001	0.00000887
27	Yes	5	0.00000001	0.00006576
28	Yes	5	0.00000001	0.00007706
29	Yes	5	0.00000001	0.00007728
30	Yes	5	0.00000001	0.00006525
31	Yes	5	0.00000001	0.00007552
32	Yes	5	0.00000001	0.00007639
33	Yes	4	0.00000001	0.00099866
34	Yes	5	0.00000001	0.00007544
35	Yes	5	0.00000001	0.00007507
36	Yes	5	0.00000001	0.00006488
37	Yes	5	0.00000001	0.00007723
38	Yes	5	0.00000001	0.00007650

39	Yes	4	0.00000001	0.00002541
40	Yes	4	0.00000001	0.00009233
41	Yes	4	0.00000001	0.00010528
42	Yes	4	0.00000001	0.00003998
43	Yes	4	0.00000001	0.00008368
44	Yes	4	0.00000001	0.00010949
45	Yes	4	0.00000001	0.00002547
46	Yes	4	0.00000001	0.00009356
47	Yes	4	0.00000001	0.00008436
48	Yes	4	0.00000001	0.00004015
49	Yes	4	0.00000001	0.00011418
50	Yes	4	0.00000001	0.00008469

Maximum Tower Deflections - Service Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	149 - 135.04	14.602	39	0.895	0.002
L2	138.96 - 92.17	12.730	39	0.880	0.002
L3	97.84 - 45.21	6.021	39	0.627	0.002
L4	52.79 - 0	1.630	39	0.288	0.000

Critical Deflections and Radius of Curvature - Service Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
148.000	APXVAARR24_43-U-NA20 w/ Mount Pipe	39	14.415	0.894	0.002	34940
138.000	MX08FRO665-21 w/ Mount Pipe	39	12.554	0.878	0.002	17330
129.000	TME-800MHZ RRH	39	10.934	0.844	0.002	12917
128.000	APXVTM14-C-120 w/ Mount Pipe	39	10.758	0.839	0.002	12586
116.000	(2) DB846F65ZAXY w/ Mount Pipe	39	8.732	0.766	0.002	9622
106.000	DC6-48-60-18-8F	39	7.179	0.692	0.002	8041
98.000	APXV18-206517S-C w/ Mount Pipe	39	6.043	0.628	0.002	7189

Maximum Tower Deflections - Design Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	149 - 135.04	64.300	2	3.944	0.011
L2	138.96 - 92.17	56.059	2	3.877	0.011
L3	97.84 - 45.21	26.523	2	2.762	0.007
L4	52.79 - 0	7.181	2	1.268	0.002

Critical Deflections and Radius of Curvature - Design Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
148.000	APXVAARR24_43-U-NA20 w/ Mount Pipe	2	63.475	3.939	0.011	7992
138.000	MX08FRO665-21 w/ Mount Pipe	2	55.282	3.866	0.011	3961
129.000	TME-800MHZ RRH	2	48.151	3.716	0.010	2948
128.000	APXVTM14-C-120 w/ Mount Pipe	2	47.378	3.695	0.010	2872
116.000	(2) DB846F65ZAXY w/ Mount Pipe	2	38.458	3.374	0.009	2198
106.000	DC6-48-60-18-8F	2	31.621	3.047	0.008	1838
98.000	APXV18-206517S-C w/ Mount Pipe	2	26.618	2.767	0.007	1643

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	149 - 135.04 (1)	TP26.77x22x0.188	13.960	0.000	0.0	15.023	-5.120	878.833	0.006
L2	135.04 - 92.17 (2)	TP40.91x25.056x0.25	46.790	0.000	0.0	30.739	-27.022	1798.240	0.015
L3	92.17 - 45.21 (3)	TP56.31x38.489x0.313	52.630	0.000	0.0	52.997	-38.963	3100.310	0.013
L4	45.21 - 0 (4)	TP71x53.118x0.375	52.790	0.000	0.0	84.061	-59.994	4784.640	0.013

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	149 - 135.04 (1)	TP26.77x22x0.188	55.938	522.095	0.107	0.000	522.095	0.000
L2	135.04 - 92.17 (2)	TP40.91x25.056x0.25	828.939	1548.175	0.535	0.000	1548.175	0.000
L3	92.17 - 45.21 (3)	TP56.31x38.489x0.313	2259.342	3509.517	0.644	0.000	3509.517	0.000
L4	45.21 - 0 (4)	TP71x53.118x0.375	4250.150	6966.267	0.610	0.000	6966.267	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	149 - 135.04 (1)	TP26.77x22x0.188	6.550	263.650	0.025	0.000	582.841	0.000
L2	135.04 - 92.17	TP40.91x25.056x0.25	29.167	529.721	0.055	1.732	1830.192	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 $\frac{T_u}{\phi T_n}$
L3	92.17 - 45.21 (2)	TP56.31x38.489x0.313	34.435	930.092	0.037	1.730	4352.083	0.000
L4	45.21 - 0 (3)	TP71x53.118x0.375	40.809	1475.280	0.028	1.729	9124.583	0.000

Pole Interaction Design Data

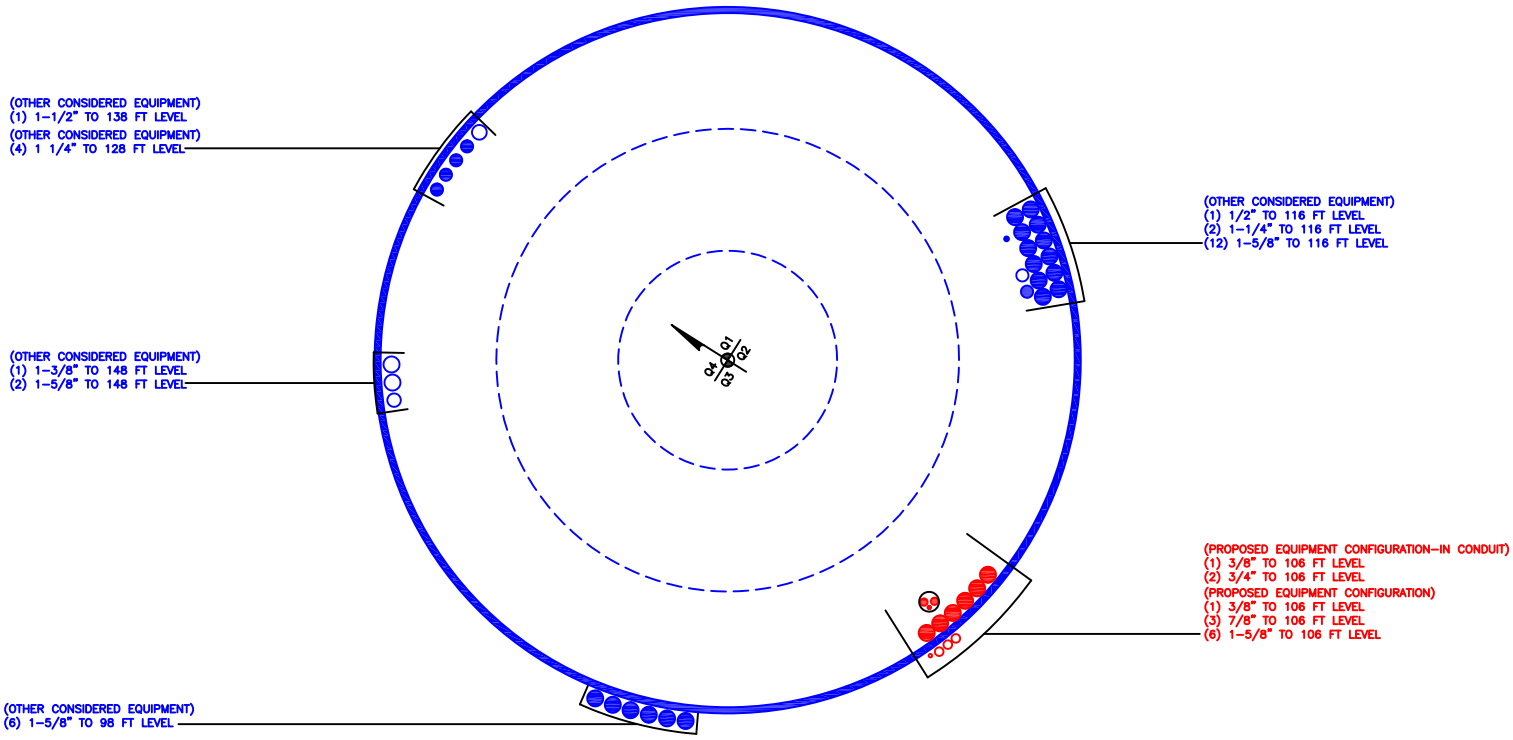
Section No.	Elevation ft	Ratio $\frac{P_u}{\phi P_n}$	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	Ratio $\frac{M_{uy}}{\phi M_{ny}}$	Ratio $\frac{V_u}{\phi V_n}$	Ratio $\frac{T_u}{\phi T_n}$	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
L1	149 - 135.04 (1)	0.006	0.107	0.000	0.025	0.000	0.114 ✔	1.050	4.8.2 ✔
L2	135.04 - 92.17 (2)	0.015	0.535	0.000	0.055	0.001	0.554 ✔	1.050	4.8.2 ✔
L3	92.17 - 45.21 (3)	0.013	0.644	0.000	0.037	0.000	0.658 ✔	1.050	4.8.2 ✔
L4	45.21 - 0 (4)	0.013	0.610	0.000	0.028	0.000	0.623 ✔	1.050	4.8.2 ✔

Section Capacity Table

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	ϕP_{allow} K	% Capacity	Pass Fail
L1	149 - 135.04	Pole	TP26.77x22x0.188	1	-5.120	922.775	10.8	Pass
L2	135.04 - 92.17	Pole	TP40.91x25.056x0.25	2	-27.022	1888.152	52.7	Pass
L3	92.17 - 45.21	Pole	TP56.31x38.489x0.313	3	-38.963	3255.325	62.6	Pass
L4	45.21 - 0	Pole	TP71x53.118x0.375	4	-59.994	5023.872	59.4	Pass
							Summary	
						Pole (L3)	62.6	Pass
						RATING =	**62.6**	**Pass**

APPENDIX B

BASE LEVEL DRAWING



BUSINESS UNIT: 876343

APPENDIX C

ADDITIONAL CALCULATIONS

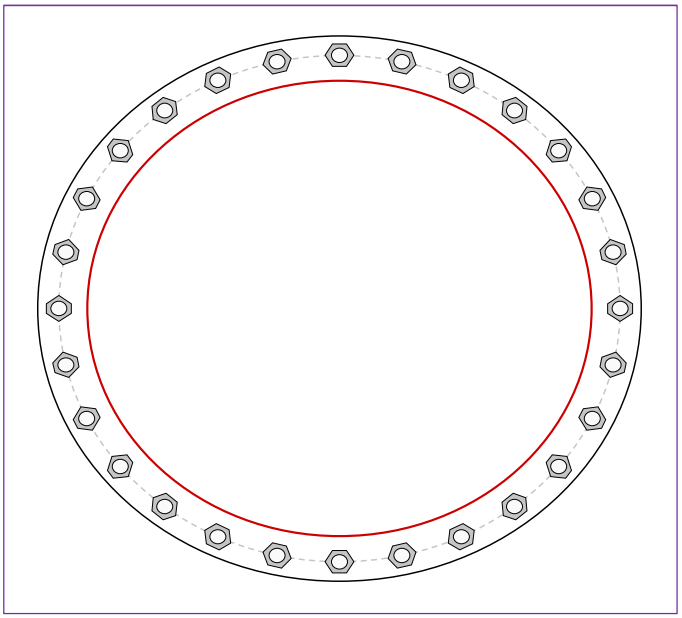
Monopole Base Plate Connection

Site Info	
BU #	876343
Site Name	D WEST STONEPROPE
Order #	601775, Rev# 0

Analysis Considerations	
TIA-222 Revision	H
Grout Considered:	No
I_{ar} (in)	0.5

Applied Loads	
Moment (kip-ft)	4250.15
Axial Force (kips)	59.99
Shear Force (kips)	40.81

**TIA-222-H Section 15.5 Applied*



Connection Properties

Anchor Rod Data

(28) 2-1/4" ø bolts (A615-75 N; Fy=75 ksi, Fu=100 ksi) on 79" BC

Base Plate Data

85" OD x 2.75" Plate (A572-50; Fy=50 ksi, Fu=65 ksi)

Stiffener Data

N/A

Pole Data

71" x 0.375" 18-sided pole (A572-65; Fy=65 ksi, Fu=80 ksi)

Analysis Results

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

Pu_t = 90.05	ϕPn_t = 243.75	**Stress Rating**
Vu = 1.46	ϕVn = 149.1	**35.2%**
Mu = n/a	ϕMn = n/a	**Pass**

Base Plate Summary

Max Stress (ksi):	15.6	(Flexural)
Allowable Stress (ksi):	45	
Stress Rating:	**33.0%**	**Pass**

Pier and Pad Foundation

BU # :	876343
Site Name:	GUILFORD WEST
App. Number:	601775, Rev# 0

TIA-222 Revision:	H
Tower Type:	Monopole

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

Superstructure Analysis Reactions		
Compression, P_{comp}:	60	kips
Base Shear, Vu_comp:	41	kips
Moment, M_u:	4250	ft-kips
Tower Height, **H**:	149	ft
BP Dist. Above Fdn, bp_{dist}:	2.75	in

Pier Properties		
Pier Shape:	Square	
Pier Diameter, **dpier**:	8.5	ft
Ext. Above Grade, **E**:	1	ft
Pier Rebar Size, **Sc**:	9	
Pier Rebar Quantity, **mc**:	48	
Pier Tie/Spiral Size, **St**:	4	
Pier Tie/Spiral Quantity, **mt**:	20	
Pier Reinforcement Type:	Tie	
Pier Clear Cover, cc_{pier}:	3	in

Pad Properties		
Depth, **D**:	12	ft
Pad Width, W_1:	30	ft
Pad Thickness, **T**:	3	ft
Pad Rebar Size (Top dir.2), Sp_{top2}:	8	
Pad Rebar Quantity (Top dir. 2), mp_{top2}:	34	
Pad Rebar Size (Bottom dir. 2), Sp_2:	8	
Pad Rebar Quantity (Bottom dir. 2), mp_2:	58	
Pad Clear Cover, cc_{pad}:	8	in

Material Properties		
Rebar Grade, **Fy**:	60	ksi
Concrete Compressive Strength, **F'c**:	4	ksi
Dry Concrete Density, δ**c**:	150	pcf

Soil Properties		
Total Soil Unit Weight, γ:	120	pcf
Ultimate Net Bearing, Qnet:	16.000	ksf
Cohesion, **Cu**:	0.000	ksf
Friction Angle, φ:	30	degrees
SPT Blow Count, N_{blows}:	50	
Base Friction, μ:	0.5	
Neglected Depth, **N**:	4.25	ft
Foundation Bearing on Rock?	Yes	
Groundwater Depth, **gw**:	N/A	ft

<--Toggle between Gross and Net

Foundation Analysis Checks				
	Capacity	**Demand**	**Rating***	**Check**
Lateral (Sliding) (kips)	819.22	41.00	**4.8%**	**Pass**
Bearing Pressure (ksf)	13.08	3.45	**25.1%**	**Pass**
*Overturning (kip*ft)*	16907.98	4792.40	**28.3%**	**Pass**
*Pier Flexure (Comp.) (kip*ft)*	9592.99	4660.00	**46.3%**	**Pass**
Pier Compression (kip)	45985.68	190.05	**0.4%**	**Pass**
*Pad Flexure (kip*ft)*	5232.48	1590.76	**29.0%**	**Pass**
Pad Shear - 1-way (kips)	905.04	222.65	**23.4%**	**Pass**
Pad Shear - 2-way (Comp) (ksi)	0.190	0.051	**25.4%**	**Pass**
*Flexural 2-way (Comp) (kip*ft)*	4999.15	2796.00	**53.3%**	**Pass**

**Rating per TIA-222-H Section 15.5*

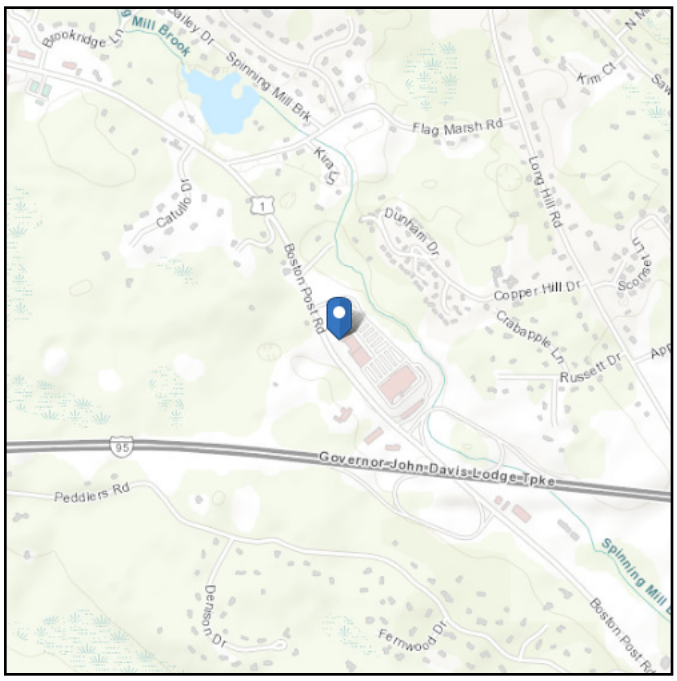
Structural Rating*:	**53.3%**
Soil Rating*:	**28.3%**

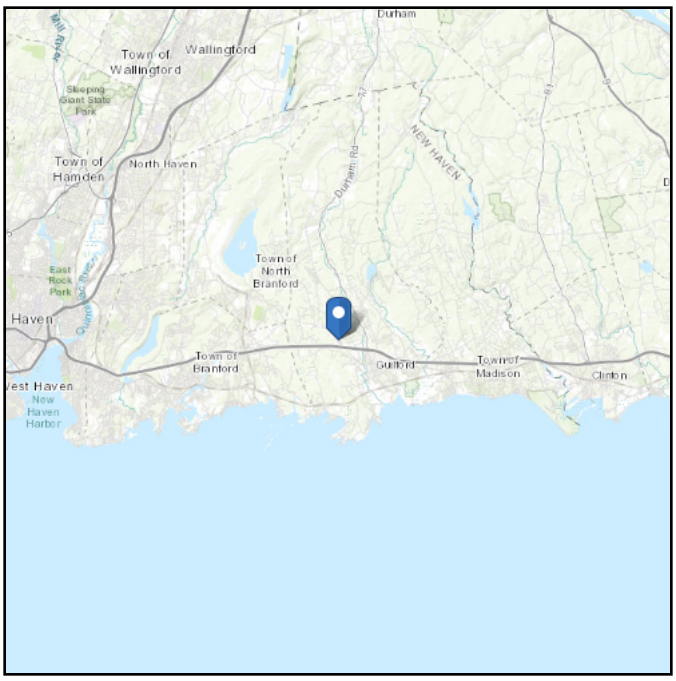
ASCE 7 Hazards Report

Address:
No Address at This Location

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

Elevation: 70.13 ft (NAVD 88)
Latitude: 41.300353
Longitude: -72.708092





Wind

Results:

Wind Speed	122 Vmph
10-year MRI	75 Vmph
25-year MRI	85 Vmph
50-year MRI	93 Vmph
100-year MRI	100 Vmph

Data Source: ASCE/SEI 7-16, Fig. 26.5-1B and Figs. CC.2-1–CC.2-4, and Section 26.5.2
Date Accessed: Thu Apr 28 2022

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.

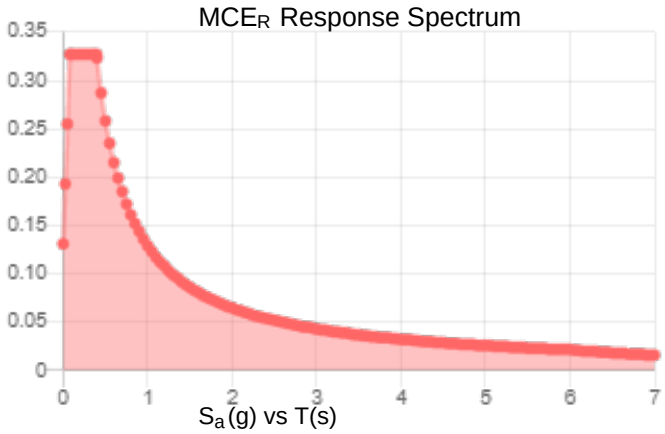
Seismic

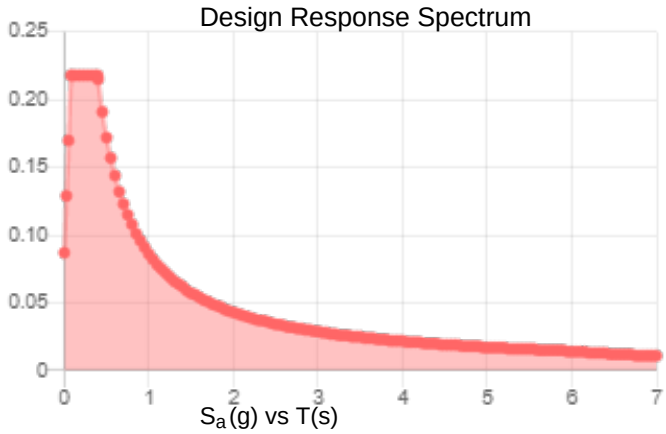
Site Soil Class: D - Default (see Section 11.4.3)

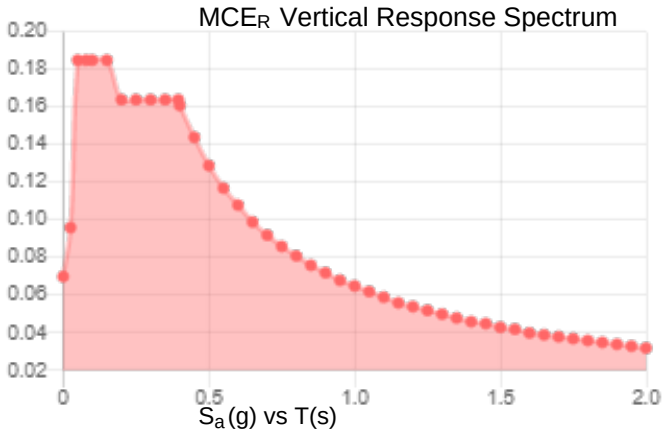
Results:

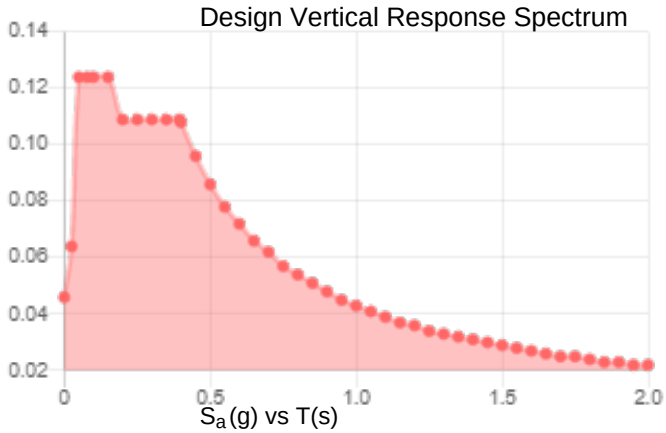
S_S :	0.204	S_{D1} :	0.086
S_1 :	0.054	T_L :	6
F_a :	1.6	PGA :	0.114
F_v :	2.4	PGA_M :	0.18
S_{MS} :	0.327	F_{PGA} :	1.571
S_{M1} :	0.129	I_e :	1
S_{DS} :	0.218	C_v :	0.709

Seismic Design Category B









Data Accessed: **Thu Apr 28 2022**

Date Source:

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

Ice

Results:

Ice Thickness:	1.00 in.
Concurrent Temperature:	15 F
Gust Speed	50 mph
Data Source:	Standard ASCE/SEI 7-16, Figs. 10-2 through 10-8
Date Accessed:	Thu Apr 28 2022

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:	**CTL02158**
AT&T SITE NAME:	**2158 GUILFORD POST ROAD**
AT&T FA CODE:	**10035218**
AT&T PACE NUMBER:	**MRCTB054669, MRCTB056109, MRCTB056858, MRCTB054570**
AT&T PROJECT:	**5G NR 1DR-2, 5G NR 1SR CBAND, 5G NR 1DR-1**
BUSINESS UNIT #:	**876343**
SITE ADDRESS:	**1919 BOSTON POST RD. GUILFORD, CT 06437**
COUNTY:	**NEW HAVEN**
SITE TYPE:	**MONOPOLE**
TOWER HEIGHT:	**149'-0"**

SITE INFORMATION

CROWN CASTLE USA INC. SITE NAME:	GUILFORD WEST STONE PROPERTY
SITE ADDRESS:	1919 BOSTON POST RD. GUILFORD, CT 06437
COUNTY:	NEW HAVEN
MAP/PARCEL #:	079035
AREA OF CONSTRUCTION:	EXISTING
LATITUDE:	41° 18' 1.27"
LONGITUDE:	-72° 42' 29.13"
LAT/LONG TYPE:	NAD83
GROUND ELEVATION:	87'
CURRENT ZONING:	SCW - SERVICE CENTER WEST
JURISDICTION:	CONNECTICUT SITING COUNCIL
OCCUPANCY CLASSIFICATION:	U
TYPE OF CONSTRUCTION:	IIB
A.D.A. COMPLIANCE:	FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION
PROPERTY OWNER:	DDR GUILFORD LLC 3300 ENTERPRISE PKWY BEACHWOOD, OH 44122
TOWER OWNER:	CROWN CASTLE USA INC 2000 CORPORATE DRIVE CANONSBURG, PA 15317
CARRIER/APPLICANT:	AT&T TOWER ASSET GROUP 575 MOROSGO DRIVE ATLANTA, GA 30324-3300
ELECTRIC PROVIDER:	CONNECTICUT LIGHT & POWER CO 1-800-286-2000
TELCO PROVIDER:	LIGHTTOWER

PROJECT TEAM

A&E FIRM:	B+T GROUP 1717 S. BOULDER AVE. TULSA, OK 74119 MARVIN PHILLIPS marvin.phillips@btgrp.com
CROWN CASTLE USA INC. DISTRICT CONTACTS:	3530 TORINGDON WAY, SUITE 300 CHARLOTTE, NC 28277
	VERONICA CHAPMAN - PROJECT MANAGER VERONICA.CHAPMAN@CROWNCASTLE.COM
	JASON D'AMICO - CONSTRUCTION MANAGER JASON.DAMICO@CROWNCASTLE.COM
	HEATHER MILLER - AES HEATHER.MILLER@CROWNCASTLE.COM

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

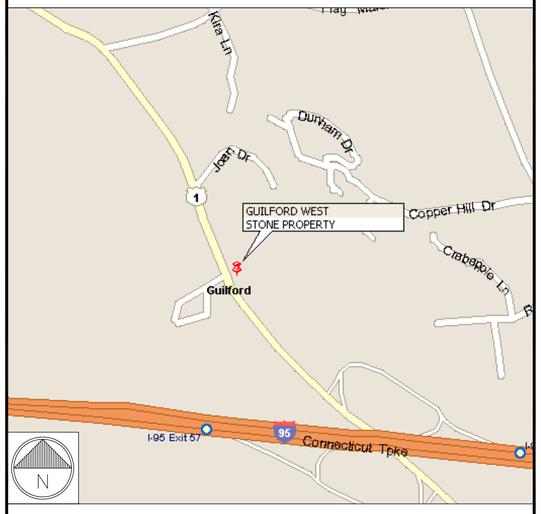
DRAWING INDEX

SHEET #	SHEET DESCRIPTION
T-1	TITLE SHEET
T-2	GENERAL NOTES
C-1.1	SITE PLAN
C-1.2	EQUIPMENT PLANS
C-2	TOWER ELEVATION & ANTENNA PLANS
C-3	ANTENNA SCHEDULE
C-4	EQUIPMENT DETAILS
C-5	EQUIPMENT SPECS.
G-1	GROUNDING DETAILS
G-2	GROUNDING DETAILS
ATTACHED	PLUMBING DIAGRAM
ATTACHED	MOUNT SPECS

ALL DRAWINGS CONTAINED HEREIN ARE FORMATTED FOR FULL SIZE. 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.

CALL CONNECTICUT ONE CALL
(800) 922-4455 CBYD.COM
CALL 2 WORKING DAYS
BEFORE YOU DIG!

LOCATION MAP



NO SCALE

SITE PHOTO

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) POWERWAVE - 7770 ANTENNAS
- REMOVE (6) POWERWAVE - LGP21401 TMAs
- REMOVE (6) COAX CABLES (1-5/8")
- RELOCATE (2) CCI - DMP65R-BU6DA ANTENNAS
- RELOCATE (1) CCI - DMP65R-BU4DA ANTENNAS
- RELOCATE (3) ERICSSON - 4478 B14 RRUs
- RELOCATE (3) ERICSSON - 8843 B2/B66A RRUs
- INSTALL (3) DUAL RRH MOUNTS
- INSTALL (3) 2" MOUNT PIPES
- INSTALL (6) ERICSSON - AIR6449 B77D+AIR6419 B77G STACKED ANTENNAS WITH INTEGRATED RADIOs

GROUND SCOPE OF WORK:
- REMOVE (1) UMTS CABINET
- REMOVE (6) POWERWAVE - LGP 21901 DIPLEXERs
- INSTALL (1) 6648 WITH XCEDE
- INSTALL (6) RECTIFIERS IN POWER PLANT

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

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 SBC/2015 IBC
MECHANICAL	2018 CONNECTICUT SBC/2015 IMC
ELECTRICAL	2018 CONNECTICUT SBC/2017 NEC

REFERENCE DOCUMENTS:

STRUCTURAL ANALYSIS:	B+T GROUP
DATED:	5/2/22
MOUNT ANALYSIS:	INFINIGY
DATED:	4/26/22
RFDS REVISION:	PRELIMINARY
DATED:	3/24/22
ORDER ID:	601775
REVISION:	0
AC ELECTRICAL POWER DESIGN:	BY OTHERS
DATED:	

575 MOROSGO DRIVE
ATLANTA, GA 30324-3300

CROWN CASTLE
3530 TORINGDON WAY, SUITE 300
CHARLOTTE, NC 28277

B+T GRP
MTS ENGINEERING, P.L.L.C.
1717 S. BOULDER,
SUITE 300
TULSA, OK 74119
PH: (918) 587-4630
btwo@btgrp.com

AT&T SITE NUMBER: **CTL02158**

BU #: **876343**
GUILFORD WEST STONE PROPERTY

1919 BOSTON POST RD.
GUILFORD, CT 06437

EXISTING
149'-0" MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
A	5/13/22	YX	PRELIMINARY REVIEW	MTJ
0	6/22/22	YX	CONSTRUCTION	MTJ

STATE OF CONNECTICUT
MARVIN T. JONES
No. 23924
LICENSED
PROFESSIONAL ENGINEER
6/22/22

MTS ENGINEERING P.L.L.C.
BER:2386985
Expires 3/31/23

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–POTENTIAL 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. PROPER GROUNDING RING SHALL BE BONDED TO THE EXISTING GROUND SYSTEM, THE BUILDING STEEL COLUMNS, LIGHTNING PROTECTION SYSTEM, AND BUILDING MAIN WATER LINE (FERROUS OR NONFERROUS METAL PIPING ONLY).

AT&T
575 MOROSGO DRIVE
ATLANTA, GA 30324-3300

CROWN CASTLE
3530 TORINGDON WAY, SUITE 300
CHARLOTTE, NC 28277

B+T GRP
MTS ENGINEERING, P.L.L.C.
1717 S. BOULDER,
SUITE 300
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PH: (918) 587-4630
btwo@btgrp.com

AT&T SITE NUMBER: **CTL02158**

BU #: **876343**

GUILFORD WEST STONE PROPERTY

1919 BOSTON POST RD.
GUILFORD, CT 06437

EXISTING
149'-0" MONOPOLE

ISSUED FOR:

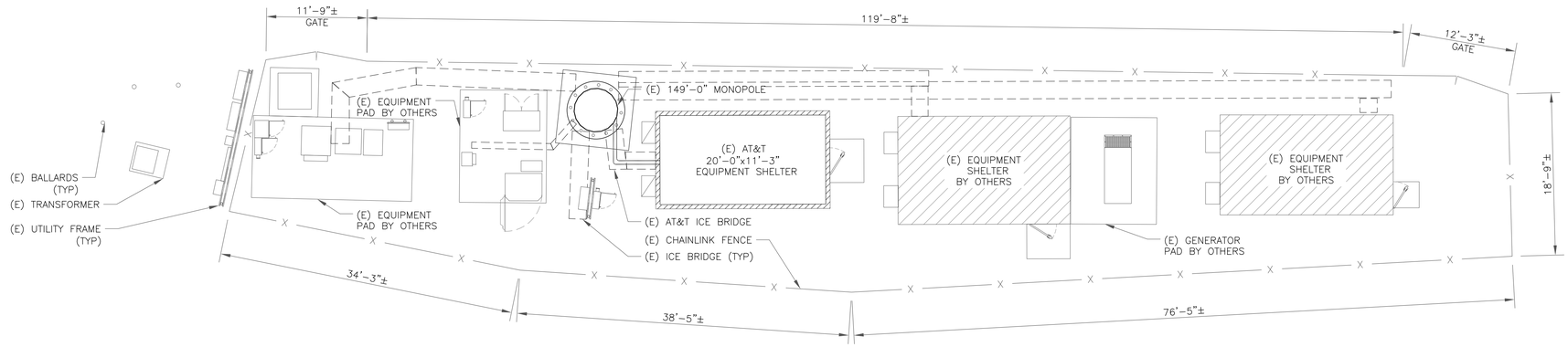
REV	DATE	DRWN	DESCRIPTION	DES./QA
A	5/13/22	YX	PRELIMINARY REVIEW	MTJ
0	6/22/22	YX	CONSTRUCTION	MTJ

No. 23924 LICENSED PROFESSIONAL ENGINEER
6/22/22

MTS ENGINEERING P.L.L.C.
BER:2386985
Expires 3/31/23

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

SHEET NUMBER:	REVISION:
T-2	0



1 SITE PLAN
SCALE: 8' 6' 4' 2' 0 8'
1/8"=1'-0" (FULL SIZE)
1/16"=1'-0" (11x17)

N

575 MOROSGO DRIVE
ATLANTA, GA 30324-3300

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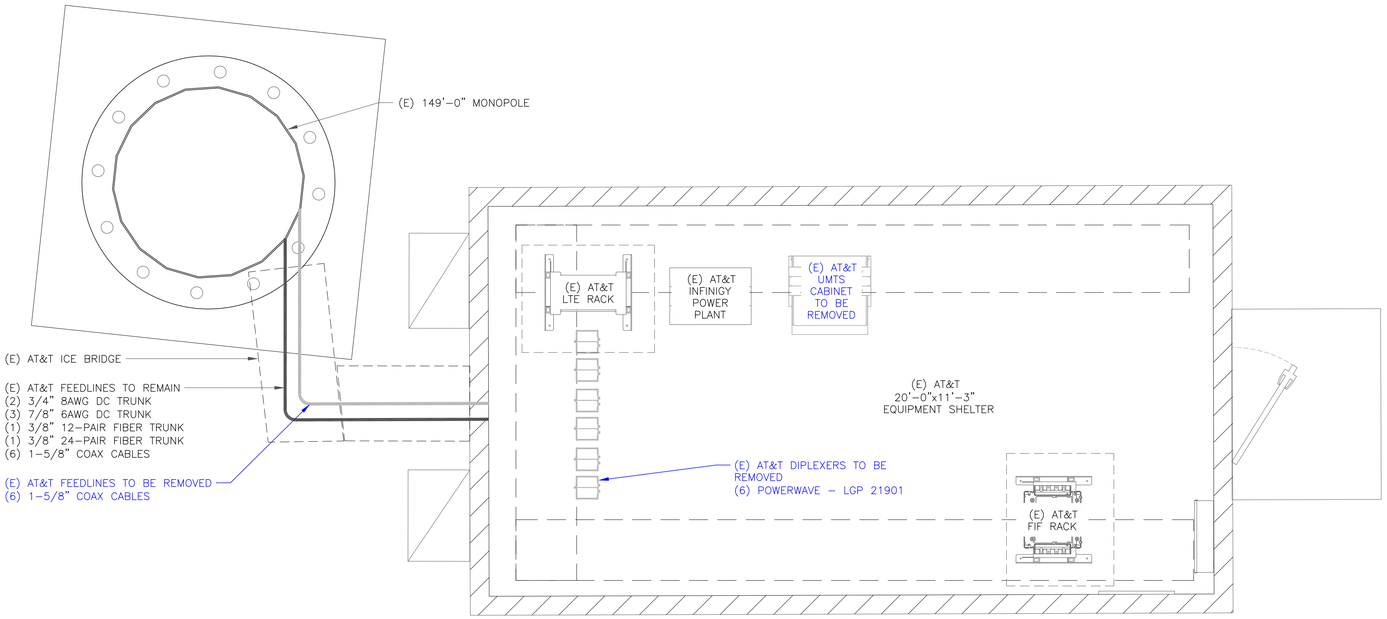
STATE OF CONNECTICUT
CHRISTOPHER M. CLOUT
No. 23924
LICENSED
PROFESSIONAL ENGINEER
6/22/22

MTS ENGINEERING P.L.L.C.
BER:2386985
Expires 3/31/23

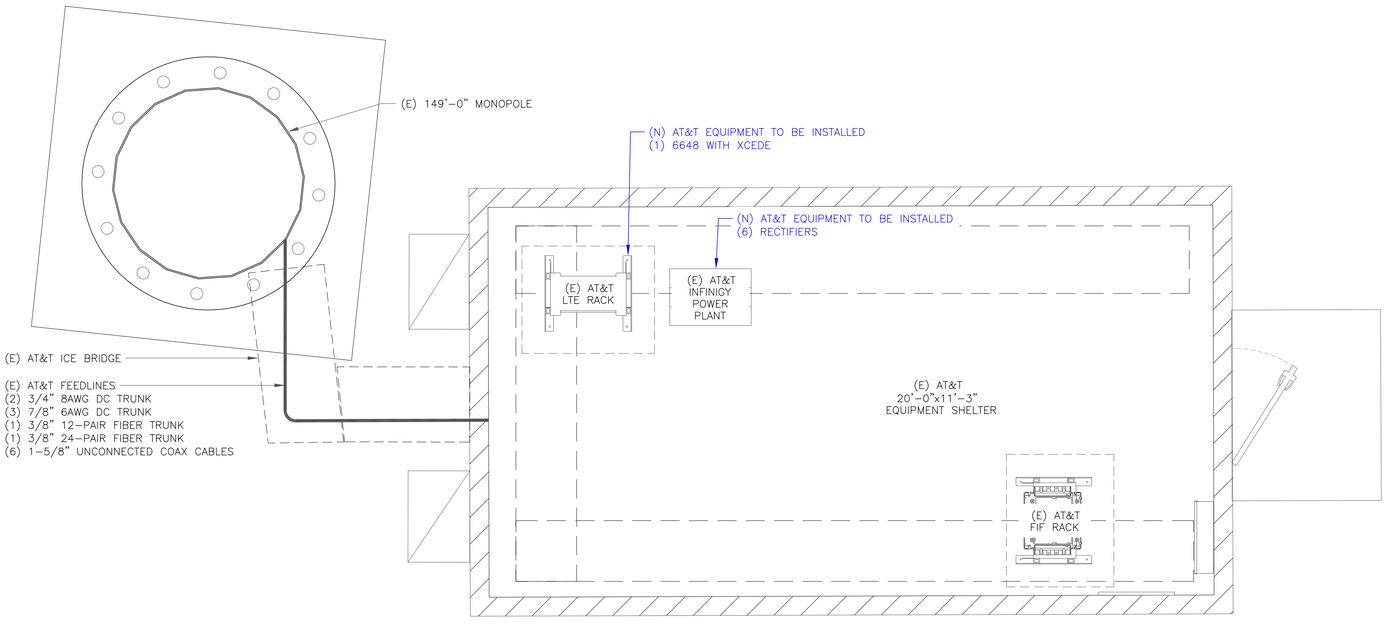
SHEET NUMBER: C-1.1

REVISION: 0



1 EXISTING EQUIPMENT PLAN

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



2 FINAL EQUIPMENT PLAN

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

GROUND SCOPE OF WORK:

- REMOVE (1) UMTS CABINET
- REMOVE (6) POWERWAVE - LGP 21901 DIPLEXERS
- REMOVE (6) COAX XABLES (1-5/8")
- INSTALL (1) 6648 WITH XCEDE
- INSTALL (6) RECTIFIERS IN POWER PLANT

NOTE:

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

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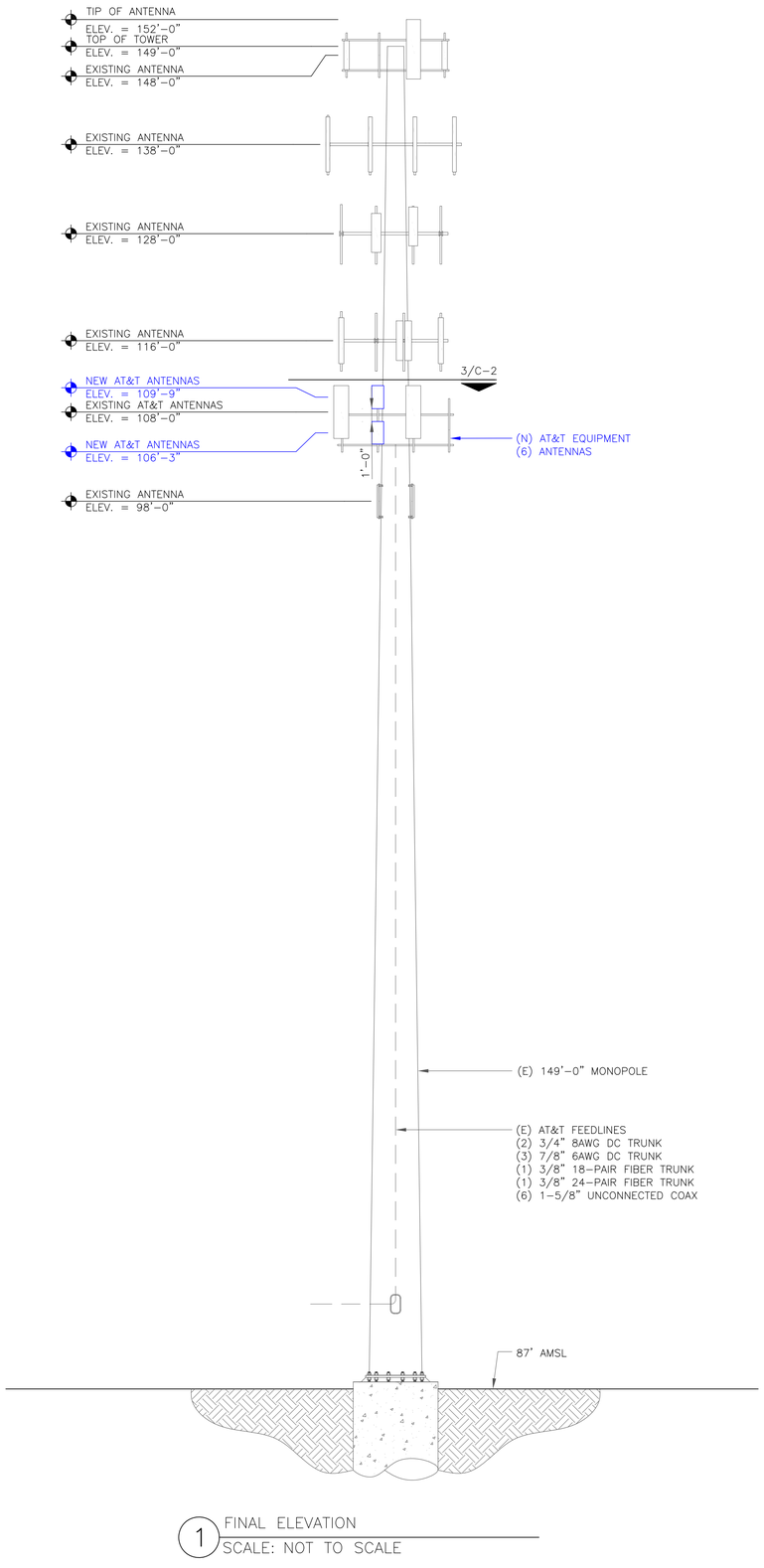
STATE OF CONNECTICUT
No. 23924
LICENSED
PROFESSIONAL ENGINEER
8/22/22

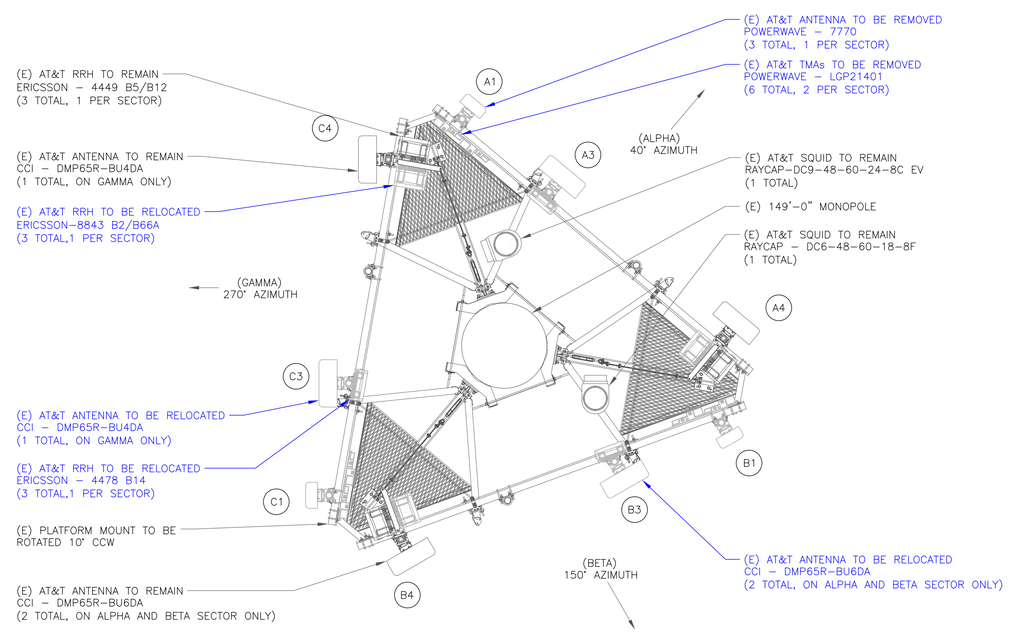
MTS ENGINEERING P.L.L.C.
BER:2386985
Expires 3/31/23

SHEET NUMBER: C-1.2

REVISION: 0

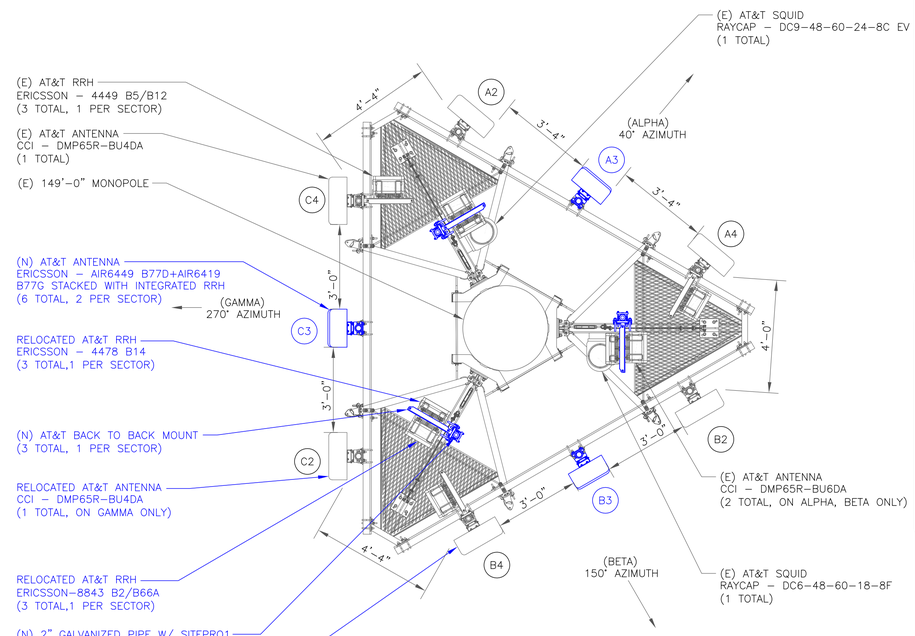


1 FINAL ELEVATION
SCALE: NOT TO SCALE



2 EXISTING ANTENNA PLAN
SCALE: 2' 1' 0 2' 3/8"=1'-0" (FULL SIZE) 3/16"=1'-0" (11x17)

N



3 FINAL ANTENNA PLAN
SCALE: 2' 1' 0 2' 3/8"=1'-0" (FULL SIZE) 3/16"=1'-0" (11x17)

N

"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.

INSTALLER NOTES:

1. REFERENCE C-3 FOR FINAL EQUIPMENT SCHEDULE.
2. REFERENCE C-4 FOR NEW EQUIPMENT SPECIFICATIONS.
3. CONTRACTOR TO VERIFY ALL ANTENNA TIP HEIGHTS DO NOT EXCEED BEACON BASE HEIGHT.
4. 3'-0" MINIMUM DISTANCE REQUIRED BETWEEN LTE ANTENNAS ON SAME SECTOR.
5. 6'-0" MINIMUM DISTANCE REQUIRED BETWEEN 700BC & 700DE ANTENNAS ON SAME SECTOR.
6. 4'-0" MINIMUM DISTANCE REQUIRED BETWEEN LTE 700 ANTENNAS ON OPPOSING SECTORS.
7. ALL ANTENNA MEASUREMENT DISTANCES MUST BE EDGE TO EDGE (RELOCATE ANTENNAS AS NEEDED).
8. 8" MINIMUM DISTANCE REQUIRED BETWEEN ANTENNA & RADIO. SEE GENERIC EXAMPLE DETAIL ON SHEET C-4.

AT&T
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AT&T SITE NUMBER: **CTL02158**

BU #: **876343**
GUILFORD WEST STONE PROPERTY

1919 BOSTON POST RD.
GUILFORD, CT 06437

EXISTING
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0	6/22/22	YX	CONSTRUCTION	MTJ

STATE OF CONNECTICUT
MICHAEL T. JONES
No. 23924
LICENSED
PROFESSIONAL ENGINEER
6/22/22

MTS ENGINEERING P.L.L.C.
BER:2386985
Expires 3/31/23

SHEET NUMBER: C-2

REVISION: 0

FINAL EQUIPMENT SCHEDULE
(VERIFY WITH CURRENT RFDS)

POSITION	ANTENNA				RADIO			DIPLEXER			TMA			SURGE PROTECTION		CABLES			
	TECH.	STATUS/MANUFACTURER MODEL	AZIMUTH	RAD CENTER	QTY.	STATUS/MODEL	LOCATION	QTY.	STATUS	LOCATION	QTY.	STATUS/MANUFACTURER MODEL	QTY.	STATUS/MODEL	QTY.	STATUS/TYPE	SIZE	LENGTH
ALPHA																		
A2	LTE/**5G**	(E) CCI – DMP65R–BU6DA	40°	108'–0"	1	(E) ERICSSON – 4478 B14	TOWER	–	–	–	–	–	1	(E) RAYCAP – DC6–48–60–18–8F SQUID	2	(E) DC	3/4"	158'–0"
					1	(E) ERICSSON – 8843 B2/B66A	TOWER								1	(E) FIBER	3/8"	158'–0"
A3	5G CBAND/5G DOD	(N) ERICSSON – AIR6419 B77G	40°	109'–9"	–	INTEGRATED WITHIN	–	–	–	–	–	–	–	–	–	–	–	–
		(N) ERICSSON – AIR6449 B77D		106'–3"														
A4	LTE/5G	(E) CCI – DMP65R–BU6DA	40°	108'–0"	1	(E) ERICSSON – 4449 B5/B12 (N) Y–CABLE	TOWER	–	–	–	–	–	–	–	–	–	–	–
BETA																		
B2	LTE/**5G**	(E) CCI – DMP65R–BU6DA	150°	108'–0"	1	(E) ERICSSON – 4478 B14	TOWER	–	–	–	–	–	1	(E) RAYCAP – DC9–48–60–24–8C EV SQUID	3	(E) DC	7/8"	158'–0"
					1	(E) ERICSSON – 8843 B2/B66A	TOWER								1	(E) FIBER	3/8"	158'–0"
B3	5G CBAND/5G DOD	(N) ERICSSON – AIR6419 B77G	150°	109'–9"	–	INTEGRATED WITHIN	–	–	–	–	–	–	–	–	–	–	–	–
		(N) ERICSSON – AIR6449 B77D		106'–3"														
B4	LTE/5G	(E) CCI – DMP65R–BU6DA	150°	108'–0"	1	(E) ERICSSON – 4449 B5/B12 (N) Y–CABLE	TOWER	–	–	–	–	–	–	–	–	–	–	–
GAMMA																		
C4	LTE/5G	(E) CCI – DMP65R–BU4DA	270°	108'–0"	1	(E) ERICSSON – 4478 B14	TOWER	–	–	–	–	–	–	–	–	–	–	–
					1	(E) ERICSSON – 8843 B2/B66A	TOWER											
C2	5G CBAND/5G DOD	(N) ERICSSON – AIR6419 B77G	270°	109'–9"	–	INTEGRATED WITHIN	–	–	–	–	–	–	–	–	–	–	–	–
		(N) ERICSSON – AIR6449 B77D		106'–3"														
C3	LTE/**5G**	(E) CCI – DMP65R–BU4DA	270°	108'–0"	1	(E) ERICSSON – 4449 B5/B12 (N) Y–CABLE	TOWER	–	–	–	–	–	–	–	–	–	–	–
														UNUSED FEEDLINES:	6	COAX	1–5/8"	158'–0"

NOTE:
(E) – EXISTING
(N) – NEW

1 FINAL ANTENNA AND FEEDLINE SCHEDULE
SCALE: NOT TO SCALE

AT&T
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btwo@btgrp.com

AT&T SITE NUMBER: **CTL02158**

BU #: **876343**
GUILFORD WEST STONE PROPERTY

1919 BOSTON POST RD.
GUILFORD, CT 06437

EXISTING
149'-0" MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
A	5/13/22	YX	PRELIMINARY REVIEW	MTJ
0	6/22/22	YX	CONSTRUCTION	MTJ

STATE OF CONNECTICUT
MICHAEL T. JONES
No. 23924
LICENSED
PROFESSIONAL ENGINEER
6/22/22

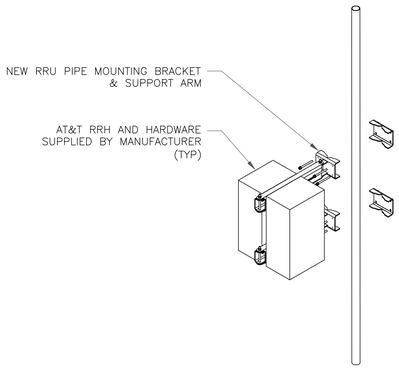
MTS ENGINEERING P.L.L.C.
BER:2386985
Expires 3/31/23

SHEET NUMBER: C-3

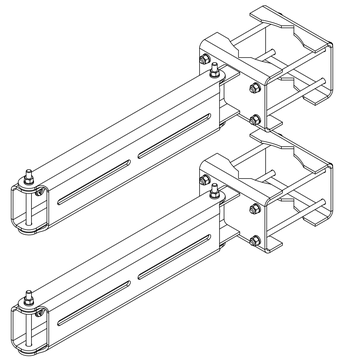
REVISION: 0

INSTALLER NOTES:

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



1 DUAL RRH MOUNTING DETAIL
SCALE: NOT TO SCALE

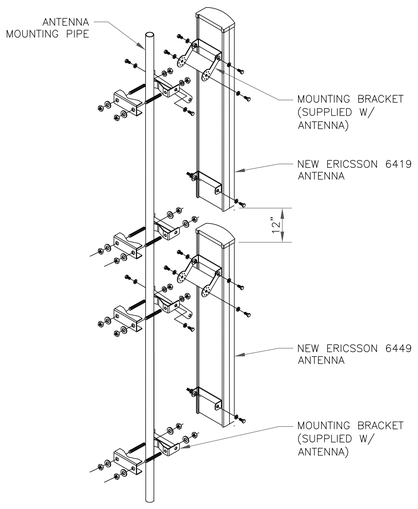


2 DUAL RADIO MOUNT
SCALE: NOT TO SCALE

3 NOT USED
SCALE: NOT TO SCALE

INSTALLER NOTE:

ALL PIPES, BRACKETS, AND MISCELLANEOUS HARDWARE TO BE GALVANIZED UNLESS NOTED OTHERWISE.



4 STACKED ANTENNA MOUNTING DETAIL
SCALE: NOT TO SCALE

5 NOT USED
SCALE: NOT TO SCALE

6 NOT USED
SCALE: NOT TO SCALE

AT&T
575 MOROSGO DRIVE
ATLANTA, GA 30324-3300

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GUILFORD WEST STONE PROPERTY

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GUILFORD, CT 06437

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STATE OF CONNECTICUT
MICHAEL T. JONES
No. 23924
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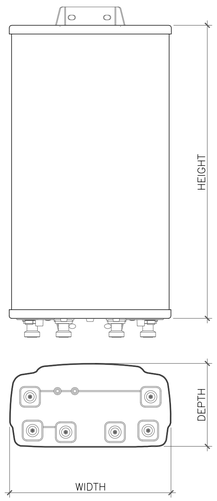
PROFESSIONAL ENGINEER
6/22/22

MTS ENGINEERING P.L.L.C.
BER:2386985
Expires 3/31/23

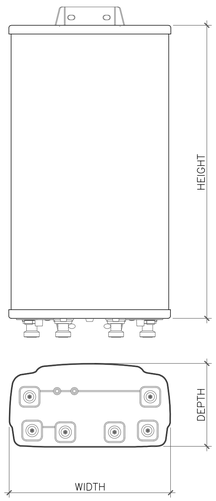
SHEET NUMBER: C-4

REVISION: 0



ANTENNA DIMENSIONS (INCHES)					
MANUFACTURER	MODEL	HEIGHT	WIDTH	DEPTH	WEIGHT
ERICSSON	AIR 6449 B77D	30.39"	15.87"	8.07"	81.6 LBS

1 ANTENNA DETAIL
SCALE: NOT TO SCALE



ANTENNA DIMENSIONS (INCHES)					
MANUFACTURER	MODEL	HEIGHT	WIDTH	DEPTH	WEIGHT
ERICSSON	AIR6419 B77G	31.1"	16.1"	7.3"	44 LBS

2 ANTENNA DETAIL
SCALE: NOT TO SCALE

3 NOT USED
SCALE: NOT TO SCALE

4 NOT USED
SCALE: NOT TO SCALE

5 NOT USED
SCALE: NOT TO SCALE

6 NOT USED
SCALE: NOT TO SCALE

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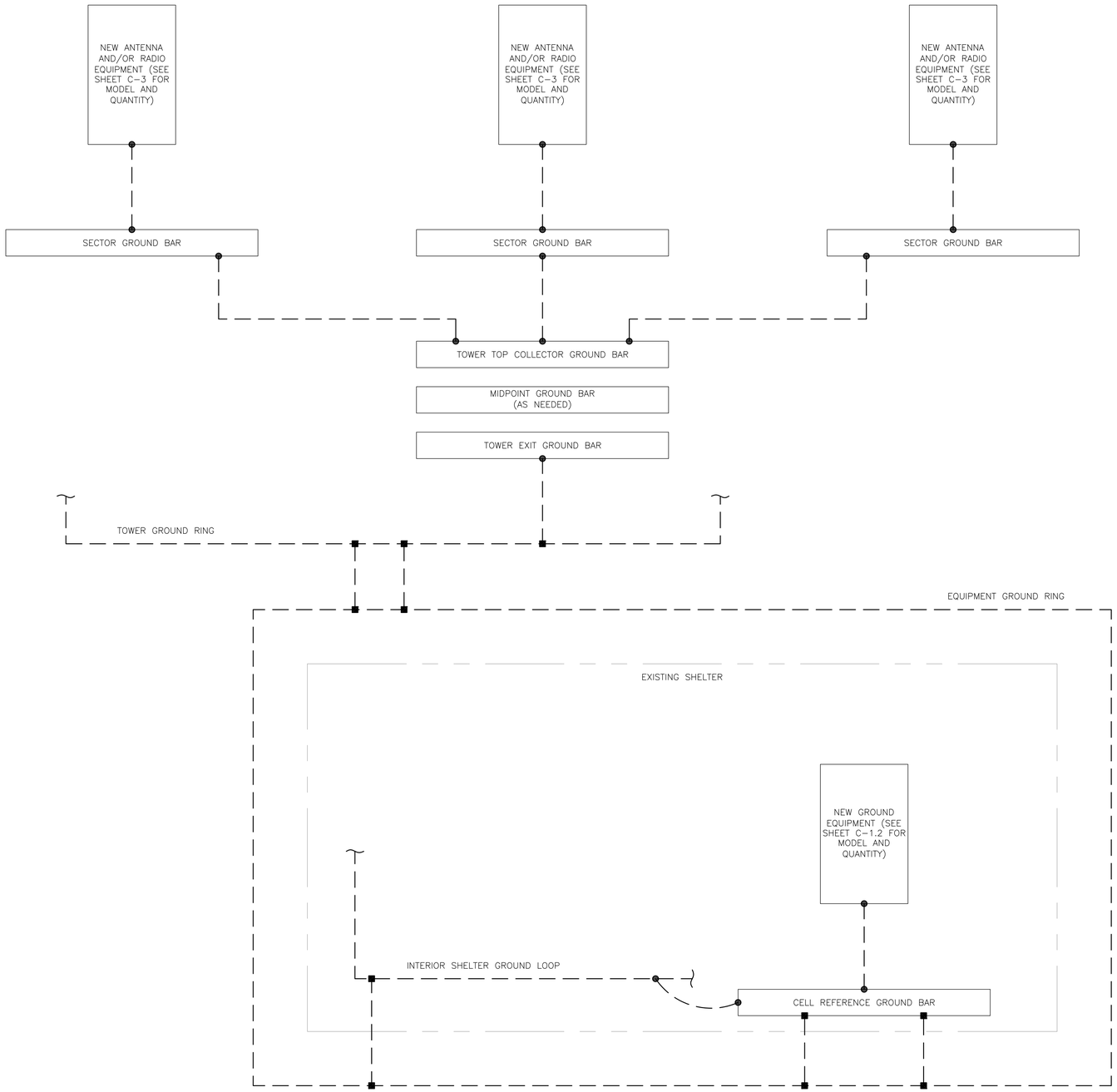
SHEET NUMBER: C-5

REVISION: 0



1 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
575 MOROSGO DRIVE
ATLANTA, GA 30324-3300

CROWN CASTLE
3530 TORINGDON WAY, SUITE 300
CHARLOTTE, NC 28277

B+T GRP
MTS ENGINEERING, P.L.L.C.
1717 S. BOULDER,
SUITE 300
TULSA, OK 74119
PH: (918) 587-4630
btwo@btgrp.com

AT&T SITE NUMBER: **CTL02158**

BU #: **876343**

GUILFORD WEST STONE PROPERTY

1919 BOSTON POST RD.
GUILFORD, CT 06437

EXISTING
149'-0" MONOPOLE

ISSUED FOR:

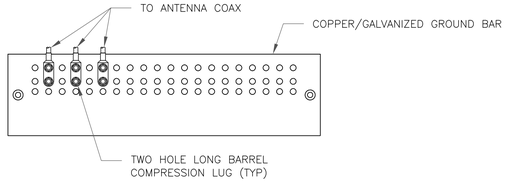
REV	DATE	DRWN	DESCRIPTION	DES./QA
A	5/13/22	YX	PRELIMINARY REVIEW	MTJ
0	6/22/22	YX	CONSTRUCTION	MTJ

STATE OF CONNECTICUT
TIMOTHY J. MAY
No. 23924
LICENSED
PROFESSIONAL ENGINEER
6/22/22

MTS ENGINEERING P.L.L.C.
BER:2386985
Expires 3/31/23

SHEET NUMBER: G-1

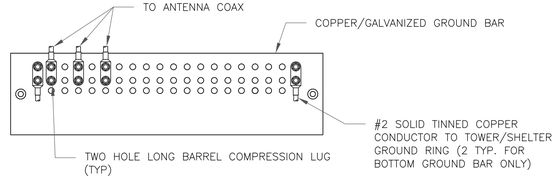
REVISION: 0



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

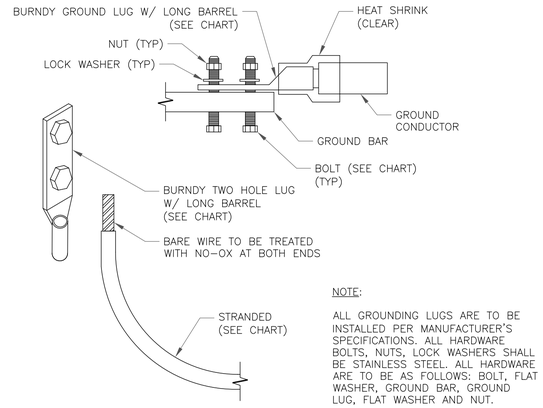


NOTES:

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

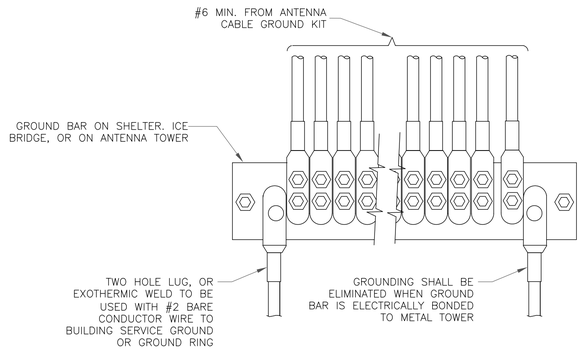
WIRE SIZE	BURNDY LUG	BOLT SIZE
#6 GREEN INSULATED	YA6C-2TC38	3/8" - 16 NC SS 2 BOLT
#2 SOLID TINNED	YA3C-2TC38	3/8" - 16 NC SS 2 BOLT
#2 STRANDED	YA2C-2TC38	3/8" - 16 NC SS 2 BOLT
#2/0 STRANDED	YA26-2TC38	3/8" - 16 NC SS 2 BOLT
#4/0 STRANDED	YA28-2N	1/2" - 16 NC SS 2 BOLT



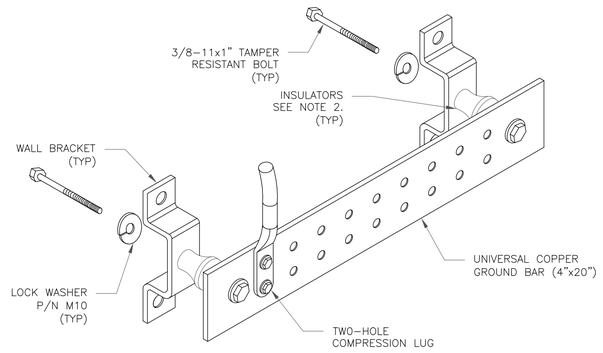
NOTE:

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

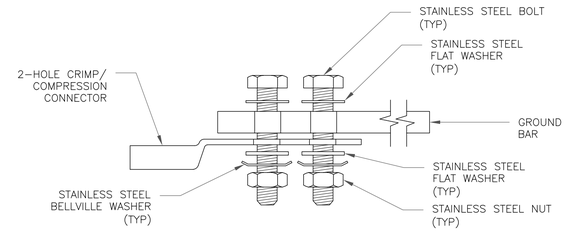


NOTES:

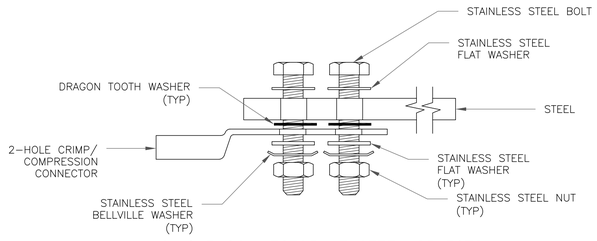
1. DOWN LEAD (HOME RUN) CONDUCTORS ARE NOT TO BE INSTALLED ON CROWN CASTLE USA INC. TOWER, PER THE GROUNDING DOWN CONDUCTOR POLICY QAS-STD-10091. NO MODIFICATION OR DRILLING TO TOWER STEEL IS ALLOWED IN ANY FORM OR FASHION, CAD-WELDING ON THE TOWER AND/OR IN THE AIR ARE NOT PERMITTED.

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

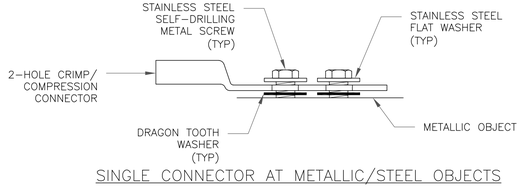
5 GROUND BAR DETAIL
SCALE: NOT TO SCALE



SINGLE CONNECTOR AT GROUND BARS

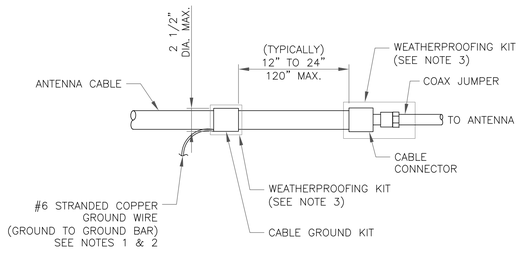


SINGLE CONNECTOR AT STEEL OBJECTS



SINGLE CONNECTOR AT METALLIC/STEEL OBJECTS

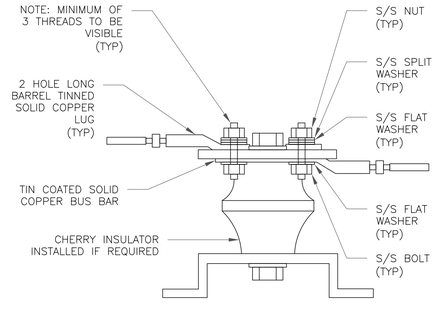
8 HARDWARE DETAIL FOR EXTERIOR CONNECTIONS
SCALE: NOT TO SCALE



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
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GUILFORD WEST STONE PROPERTY

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149'-0" MONOPOLE

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A	5/13/22	YX	PRELIMINARY REVIEW	MTJ
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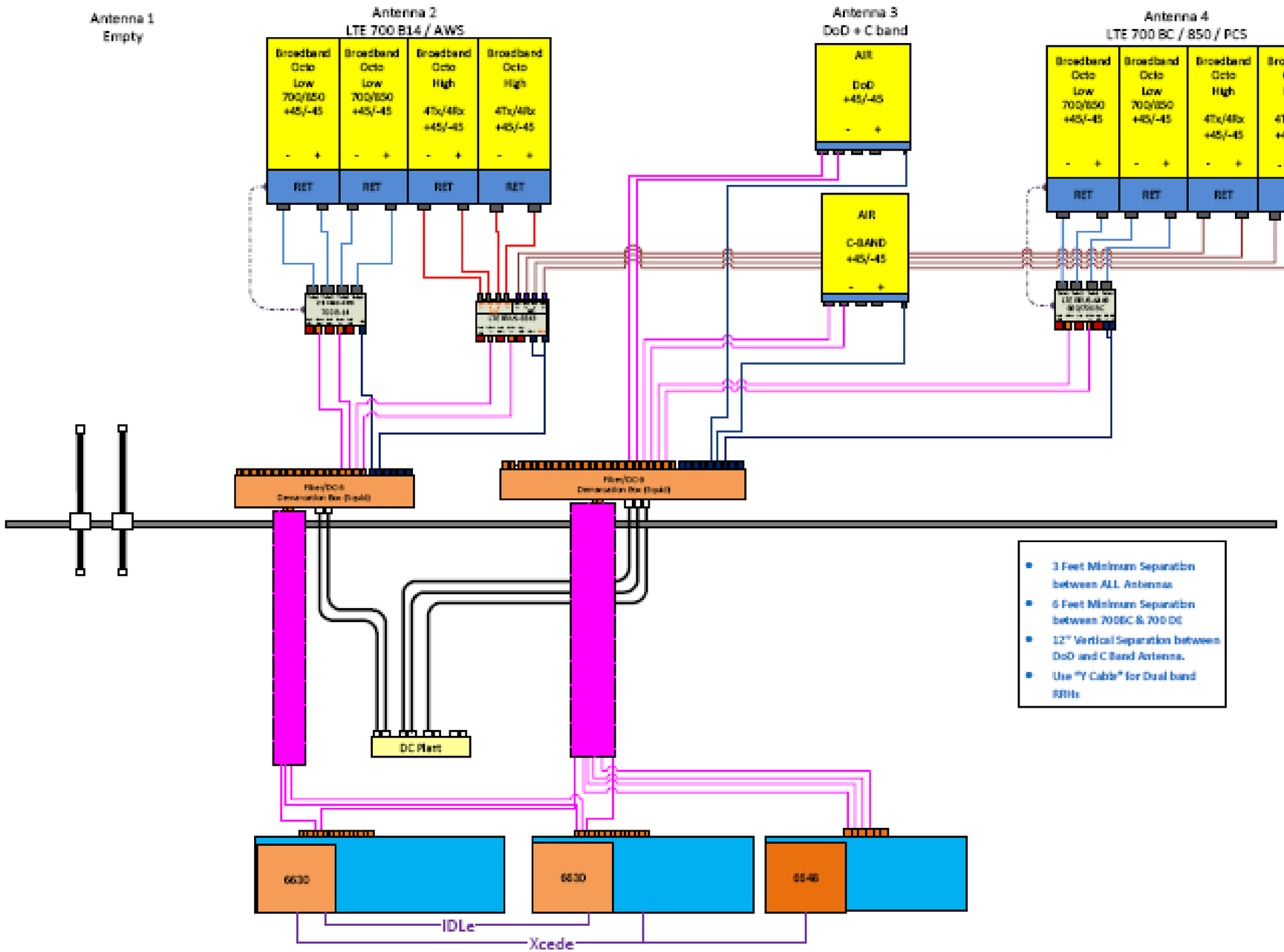
MTS ENGINEERING P.L.L.C.
BER:2386985
Expires 3/31/23

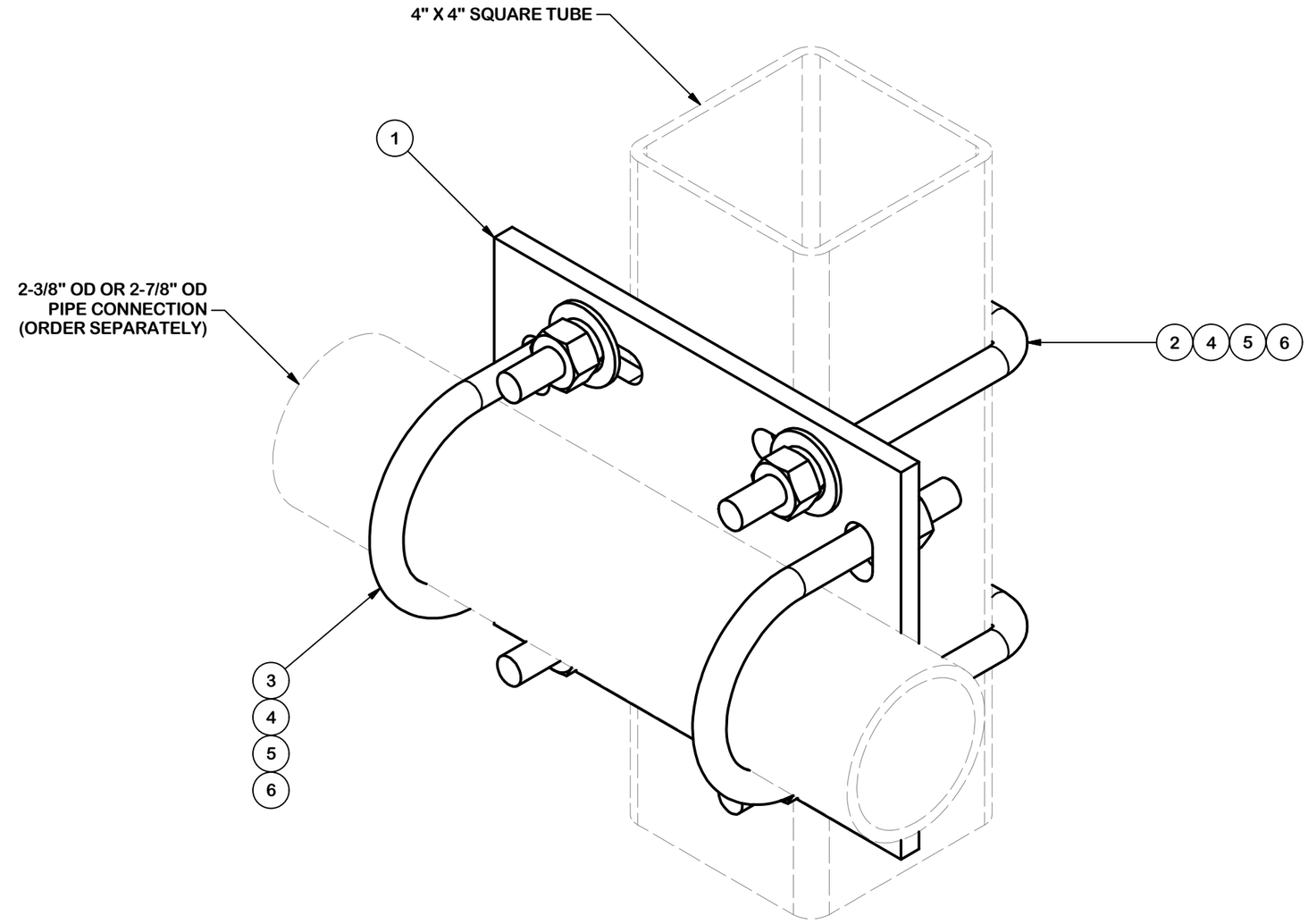
SHEET NUMBER: G-2

REVISION: 0

Diagram - Sector	A	Diagram File Name - CT2158_ABC C-BAND DOD.vsd					
Atoll Site Name -	CTL02158	Location Name -	2158 GUILFORD POST ROAD	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 v6.0_Ericsson"							



PARTS LIST						
ITEM	QTY	PART NO.	PART DESCRIPTION	LENGTH	UNIT WT.	NET WT.
1	1	SCX4	CROSSOVER PLATE	8 1/2 in	6.02	6.02
2	2	X-SUB1418	SQUARE U-BOLT 0.5" DIA. X 4.125" IW X 6" IL X 3" TR		0.98	1.95
3	2	X-UB1212	1/2" X 2-1/2" X 4-1/2" X 2" U-BOLT (HDG.)		0.60	1.19
3	2	X-UB1300	1/2" X 3" X 5" X 2" U-BOLT (HDG.)		0.67	1.34
4	8	G12FW	1/2" HDG USS FLATWASHER	3/32 in	0.03	0.27
5	8	G12LW	1/2" HDG LOCKWASHER	1/8 in	0.01	0.11
6	8	G12NUT	1/2" HDG HEAVY 2H HEX NUT		0.07	0.57
					TOTAL WT. #	11.35



TOLERANCE NOTES

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

DESCRIPTION
CROSSOVER PLATE KIT
W/ SQUARE U-BOLTS AND STD. U-BOLTS

SITE PRO 1
A valmont COMPANY

Engineering
Support Team:
1-888-753-7446

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

CPD NO.	DRAWN BY	ENG. APPROVAL	PART NO.
	CSL 9/18/2018	3RD PARTY	SQCX4-K

CLASS	SUB	DRAWING USAGE	CHECKED BY	DWG. NO.
87	02	CUSTOMER	BMC 11/12/2018	SQCX4-K