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

September 19, 2022

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

RE: **Notice of Exempt Modification for ATT**
Crown #842864; ATT Site ID CTL05200
201 Granite Road, Guilford, CT 06437
Latitude: 41.291983° / Longitude: -72.732856°

Dear Ms. Bachman:

AT&T currently maintains nine (9) antennas at the 97-foot level of the existing 109-foot monopole tower at 201 Granite Road, Guilford, CT. The tower is owned by Crown Castle USA Inc. and the property is owned by Winterfell Gables (CT) Owner LLC. AT&T now intends to replace nine (9) antennas with twelve (12) new antennas and ancillary equipment at the 97-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:

(1) SITEPRO1-VFA12-M3-WLL 3-Sector Mount w/Monopole attachment hardware
(6) 2-1/2" SCH 40 x 6'-0" mount pipes w/SCX7-U crossover hardware
(1) CCI-TPA65A-BU4DA-K Antenna
(2) CCI-TPA65R-BU6DA-K Antennas
(2) CCI-OPA65R-BU6DA Antennas
(1) CCI-OPA65R-BU4DA Antenna
(6) Ericsson-AIR6449 B77D + AIR6419 B77G Stacked Antennas
(3) Ericsson-4478 B14 RRUs
(3) Ericsson-8843 B2/B66A RRUs
(3) Ericsson-4449 B5/B12 RRUs
(2) RAYCAP-DC6-48-60-18-8F Squids
(4) 7/8" 6AWG DC Cables
(2) 3/8" 18-Pair Fiber Cables
(6) Dual RRU Mounts
(6) Mounting Pipes w/associated hardware
(6) Y CABLES for dual band RRUs

Remove:

(6) POWERWAVE-7770 Antennas
(2) CCI-HPA-65R-BUU-H6 Antennas
(1) ANDREW-SBNHH-1D65A Antennas
(3) ERICSSON-RRUS-11 B12 RRUs
(3) ERICSSON-RRUS-32-B2 RRUs
(12) POWERWAVE-LGP21401 TMAs
Platform Mount

Ground:

Install New:

(1) NETSURE 5100 OD DC Power Plan in (E) Cabinet
(1) OD DC 12
(1) FLEX Battery Cabinet & (5) 170 AH Battery Strings
(1) 6648 w/XCEDE Cable & (1) 6630 w/IDLE Cable
(1) 6630 w/IDLE Cable
FLX16 Door Upgrade

Remove:

(1) Power Plant from Cabinet
(12) Diplexers

The Facility was approved by the Connecticut Siting Council on October 14, 2003, Docket#252. 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
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

Winterfell Gables (CT) Owner LLC
590 Madison Avenue, 34th Floor
New York, NY 10022
212-547-2600

Crown Castle, Tower Owner

From: TrackingUpdates@fedex.com
To: Tatasciore, Domenica
Subject: FedEx Shipment 777966528255: Your package has been delivered
Date: Tuesday, September 20, 2022 10:40:17 AM

Hi. Your package was delivered Tue, 09/20/2022 at 10:29am.

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

OBTAIN PROOF OF DELIVERY

TRACKING NUMBER 777966528255

FROM Domenica Tatasciore
1800 West Park Drive

	Suite 200 WESTBOROUGH, MA, US, 01581
TO	Town of Guilford First Selectman Matthew T. Hoey III 31 Park Street GUILFORD, CT, US, 06437
REFERENCE	799001.7680
SHIPPER REFERENCE	799001.7680
SHIP DATE	Mon 9/19/2022 05:47 PM
DELIVERED TO	Receptionist/Front Desk
PACKAGING TYPE	FedEx Envelope
ORIGIN	WESTBOROUGH, MA, US, 01581
DESTINATION	GUILFORD, CT, US, 06437
SPECIAL HANDLING	Deliver Weekday
NUMBER OF PIECES	1
TOTAL SHIPMENT WEIGHT	0.50 LB
SERVICE TYPE	FedEx Priority Overnight

From: TrackingUpdates@fedex.com
To: Tatasciore, Domenica
Subject: FedEx Shipment 777966534993: Your package has been delivered
Date: Tuesday, September 20, 2022 10:39:55 AM

Hi. Your package was delivered Tue, 09/20/2022 at 10:26am.

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

OBTAIN PROOF OF DELIVERY

TRACKING NUMBER 777966534993

FROM Domenica Tatasciore
1800 West Park Drive

	Suite 200 WESTBOROUGH, MA, US, 01581
TO	Town of Guilford George Kral, Town Planner 50 Boston Street GUILFORD, CT, US, 06437
REFERENCE	799001.7680
SHIPPER REFERENCE	799001.7680
SHIP DATE	Mon 9/19/2022 05:47 PM
DELIVERED TO	Receptionist/Front Desk
PACKAGING TYPE	FedEx Envelope
ORIGIN	WESTBOROUGH, MA, US, 01581
DESTINATION	GUILFORD, CT, US, 06437
SPECIAL HANDLING	Deliver Weekday
NUMBER OF PIECES	1
TOTAL SHIPMENT WEIGHT	0.50 LB
SERVICE TYPE	FedEx Priority Overnight

From: TrackingUpdates@fedex.com
To: Tatasciore, Domenica
Subject: FedEx Shipment 777966545133: Your package has been delivered
Date: Tuesday, September 20, 2022 9:39:46 AM

Hi. Your package was delivered Tue, 09/20/2022 at 9:32am.

Delivered to 590 MADISON AVE 34, NEW YORK CITY, NY 10022

OBTAIN PROOF OF DELIVERY

TRACKING NUMBER 777966545133

FROM Domenica Tatasciore
1800 West Park Drive
Suite 200

	WESTBOROUGH, MA, US, 01581
TO	Winterfell Gables (CT) Owner LLC 590 Madison Avenue 34th Floor NEW YORK CITY, NY, US, 10022
REFERENCE	799001.7680
SHIPPER REFERENCE	799001.7680
SHIP DATE	Mon 9/19/2022 05:47 PM
PACKAGING TYPE	FedEx Envelope
ORIGIN	WESTBOROUGH, MA, US, 01581
DESTINATION	NEW YORK CITY, NY, US, 10022
SPECIAL HANDLING	Deliver Weekday
NUMBER OF PIECES	1
TOTAL SHIPMENT WEIGHT	1.00 LB
SERVICE TYPE	FedEx Priority Overnight

DOCKET NO. 252 - AT&T Wireless PCS, LLC d/b/a AT&T Wireless application for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance and operation of a wireless telecommunications facility at one of two sites at 201 Granite Road, Guilford, Connecticut.

} Connecticut

} Siting

} Council

October 14, 2003

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 AT&T Wireless PCS d/b/a AT&T Wireless for the construction, maintenance and operation of a wireless telecommunications facility at Site B, located at 201 Granite Road, Guilford, Connecticut. The Council denies certification of Site A, also located at 201 Granite 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 AT&T Wireless and other entities, both public and private, but such tower shall not exceed a height of 100 feet above ground level. The tower and foundation shall be designed and constructed capable of being extended from 100 feet above ground level to 140 feet above ground level, subject to Council approval by a Petition for a Declaratory Ruling pursuant to Sections 16-50j-38 through 16-50j-40 of the Regulations of Connecticut State Agencies.

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 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 building, access road, utility line, and landscaping, methods to reduce tree clearing at the site compound and access road; and

b. construction plans for site clearing, water drainage, and erosion and sedimentation control 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 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 electromagnetic radio frequency power density is 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. The Certificate Holder shall provide space on the tower for no compensation for any municipal antennas, provided such antennas are compatible with the structural integrity of the tower.

6. If the facility does not initially provide wireless services within one year of completion of construction or 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.

7. Any antenna that becomes obsolete and ceases to function shall be removed within 60 days after such antennas become obsolete and cease to function.

8. Unless otherwise approved by the Council, this Decision and Order shall be void if the facility authorized herein is not operational within one year of the effective date of this Decision and Order or within one year after all appeals to this Decision and Order have been resolved.

Pursuant to General Statutes § 16-50p, we hereby direct 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 Hartford Courant, the New Haven Register, the Shoreline Times, and the Guilford Courier.

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

AT&T Wireless PCS, LLC d/b/a AT&T Wireless (AT&T)

Its Representative

Christopher B. Fisher, Esq.
Cuddy & Feder LLP
90 Maple Avenue
White Plains, New York 10601
(914) 761-1300

Intervenor

Guilford Land Conservation Trust, Inc.

Its Representative

William M. Bloss, Esq.
Jacobs, Grudberg, Belt & Dow, P.C.
350 Orange Street
PO Box 606
New Haven, Connecticut 06503
(203) 772-3100

Town of Guilford, CT

Property Listing Report

Map Block Lot	071011	Building #	1	Unique Identifier	6477

Property Information

Property Location	201 GRANITE RD
Mailing Address	399 PARK AVENUE 18TH FL NEW YORK NY 10022
Land Use	NURSING HOME
Zoning Code	R-8
Neighborhood	E

Owner	WINTERFELL GABLES (CT) OWNER LLC
Co-Owner	
Book / Page	0884/0672
Land Class	Commercial
Census Tract	1902
Acreage	58.31

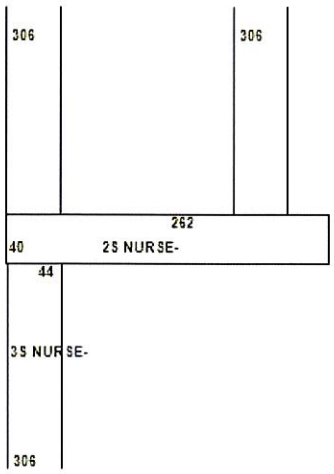
Valuation Summary

(Assessed value = 70% of Appraised Value)

Item	Appraised	Assessed
Buildings	1.51925e+007	1.06348e+007
Outbuildings	311200	217840
Land	1.008e+006	705600
Total	16511710	11558200

Utility Information

Electric	
Gas	
Sewer	
Public Water	
Well	



Primary Construction Details

Year Built	1993
Building Desc.	COMMERCIAL
Building Style	
Stories	2
Exterior Walls	STUCCO
Exterior Walls 2	
Interior Walls	DRYWALL
Interior Walls 2	
Interior Floors 1	CARPET
Interior Floors 2	

Heating Fuel	GAS
Heating Type	FHA
AC Type	CENTRAL
Bedrooms	0
Full Bathrooms	0
Half Bathrooms	0
Extra Fixtures	
Total Rooms	0
Bath Style	
Kitchen Style	
Occupancy	

Building Use	NURSING HOME
Building Condition	AVERAGE
Frame Type	
Fireplaces	
Bsmt Gar	
Fin Bsmt Area	
Fin Bsmt Quality	
Building Grade	
Roof Style	HIP
Roof Cover	METAL

Report Created On 9/7/2022

Town of Guilford, CT

Property Listing Report | Map Block Lot 071011 | Building # 1 | Unique Identifier 6477

Detached Outbuildings

Type	Description	Area (sq ft)	Condition	Year Built
PAVING	PAVING	8000	AVERAGE	1993

Attached Extra Features

Type	Description	Area (sq ft)	Condition	Year Built

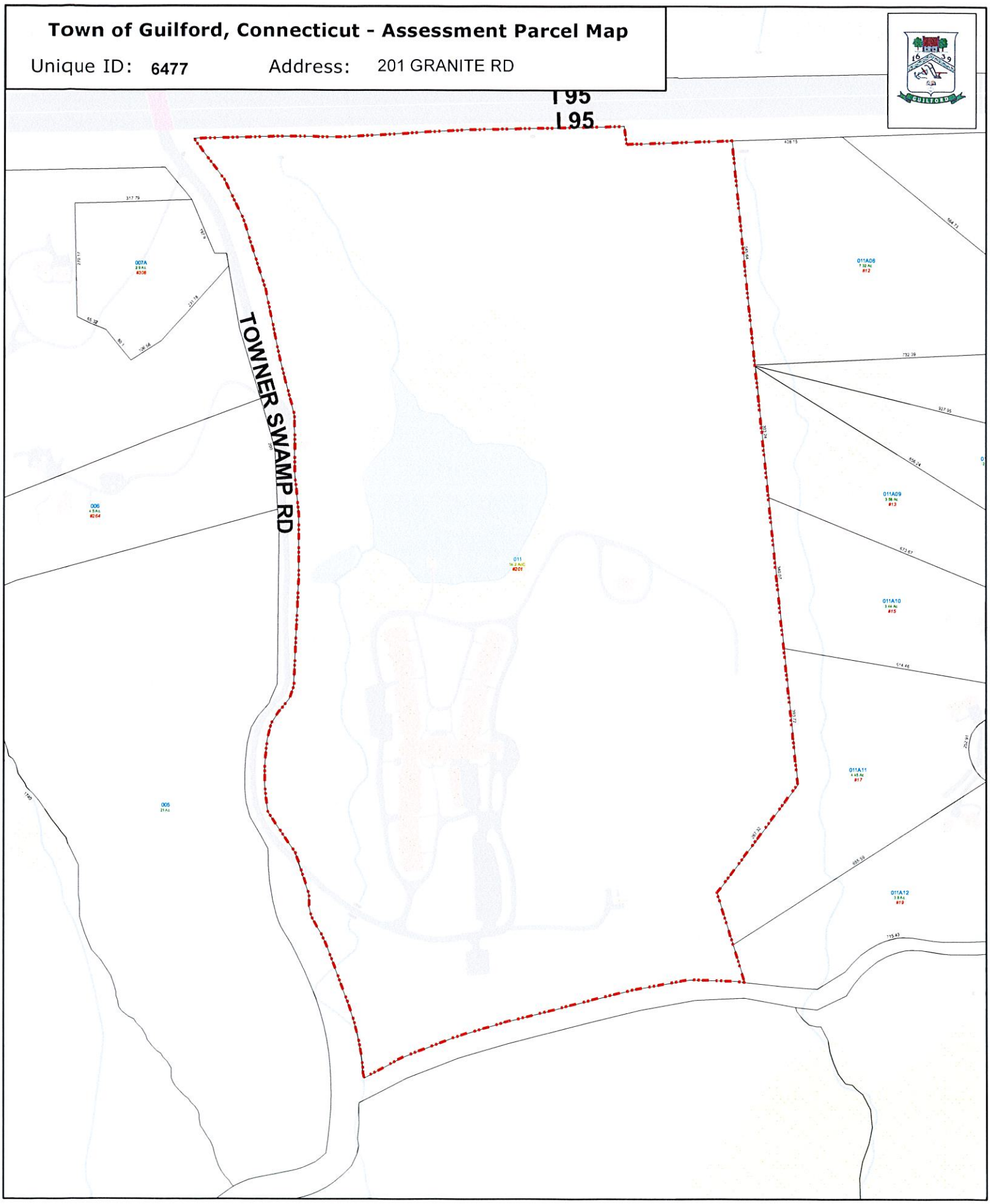
Sales History

Owner of Record	Book/ Page	Sale Date	Sale Price
WINTERFELL GABLES (CT) OWNER LLC	0884/0672	5/26/2015	32535600
HARVEST GUILFORD RET RES LLC	0741/1146	3/23/2007	15751149

Report Created On 9/7/2022

Town of Guilford, Connecticut - Assessment Parcel Map

Unique ID: **6477** Address: 201 GRANITE RD



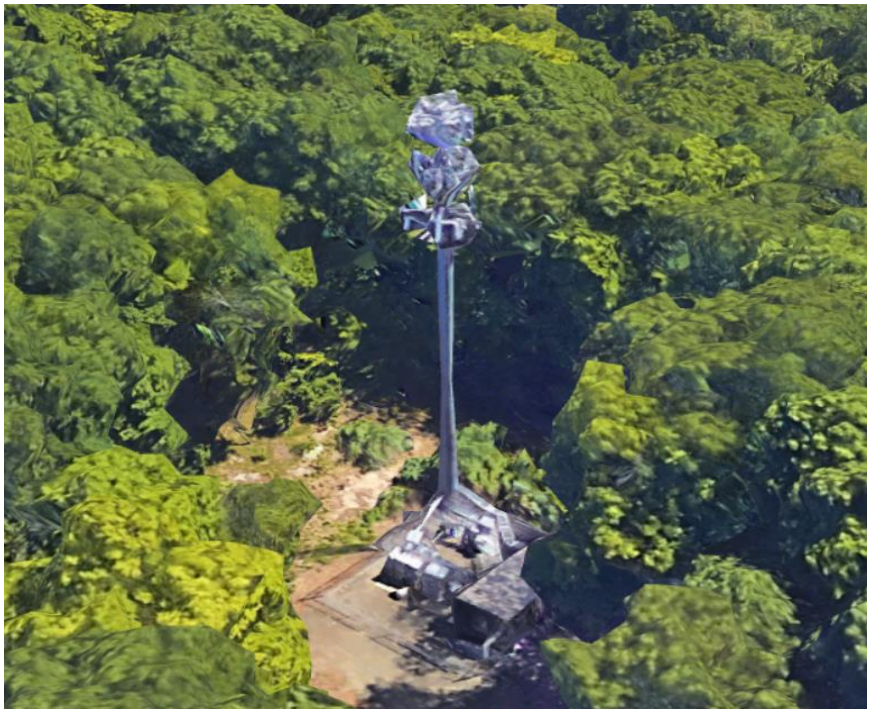
Approximate Scale: **1 inch = 300 feet**

0 210 420 Feet

Map Produced:
July 2022

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



Site Name:	GUILFORD SW
Crown Castle Site#	842864
Site ID:	CTL05200
Project Name:	5G NR 1SR C-BAND
Address:	201 GRANITE ROAD, GUILFORD, CT 06437
County:	NEW HAVEN
Latitude:	41.2919919
Longitude:	-72.7329989
Structure Type:	MONOPOLE
Property Owner:	WINTERFELLS, GABLES (CT) OWNER LLC
Property Contact:	VERONICA CHAPMAN

AT&T Existing Facility

Report Information

Report Writer: Sushil Dogra **Report Generated Date:** 09-14-2022

Site Compliance Statement

Compliance Status	Compliant
Cumulative General Population % MPE (Ground Level)	84.38%

September 14, 2022

Emissions Analysis for Site: **CTL05200– GUILFORD SW**

MobileComm Professionals, Inc was directed to analyze the proposed AT&T facility located at **201 GRANITE ROAD, GUILFORD, CT 06437**, for the purpose of determining whether the emissions from the Proposed AT&T Antenna Installation located on this property are within specified federal limits.

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

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

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

Public exposure to radio frequencies is regulated and enforced in units of milliwatts per square centimeter (mW/cm^2). The general population exposure limits for the 700 and 850 MHz Bands are approximately 0.467 mW/cm^2 and 0.567 mW/cm^2 respectively. The general population exposure limit for the 1900 MHz (PCS), 2100 MHz (AWS), 2300 MHz (WCS), 3450 MHz (DoD Band) and 3840 MHz (C Band) bands is 1 mW/cm^2. Because each carrier will be using different frequency bands, and each frequency band has different exposure limits, it is necessary to report percent of MPE rather than power density.

Occupational/controlled exposure limits apply to situations in which persons are exposed as a consequence of their employment and in which those persons who are exposed have been made fully aware of the potential for exposure and can exercise control over their exposure. Occupational/controlled exposure limits also apply where exposure is of a transient nature as a result of incidental passage through a location where exposure levels may be above general population/uncontrolled limits (see below), as long as the exposed person has been made fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means.

Additional details can be found in FCC OET 65.

1. Theoretical Calculations

Calculations were done for the proposed AT&T Wireless antenna facility located at **201 GRANITE ROAD, GUILFORD, CT 06437** using the equipment information listed below. All calculations were performed per the specifications under FCC OET 65. Since AT&T is proposing highly focused directional panel antennas, which project most of the emitted energy out toward the horizon, all calculations were performed assuming a lobe representing the maximum gain of the antenna per the antenna manufacturer's supplied specifications, minus 10 dB for directional panel antennas and 20 dB for highly focused parabolic microwave dishes, was focused at the base of the tower. For this report, the sample point is the top of a 6-foot person standing at the base of the tower.

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

1) 4 LTE channels (700 MHz Band 14) were considered for each sector of the proposed installation. These Channels have a transmit power of 40 Watts per Channel.
2) 4 LTE/5G channels (1900 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 40 Watts per Channel.
3) 4 LTE/5G channels (2100 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 40 Watts per Channel.
4) 1 NR channel (DoD Band - 3450 MHz) was considered for each sector of the proposed installation. This Channel has a transmit power of 108.44 Watts per Channel.
5) 1 NR channel (C Band - 3840 MHz) was considered for each sector of the proposed installation. This Channel has a transmit power of 108.44 Watts per Channel.
6) 4 LTE channels (700 MHz Band 12) were considered for each sector of the proposed installation. These Channels have a transmit power of 40 Watts per Channel.
7) 4 5G channels (850 MHz Band) were considered for each sector of the proposed installation. These Channels have a transmit power of 40 Watts per Channel.
8) All radios at the proposed installation were considered to be running at full power and were uncombined in their RF transmissions paths per carrier prescribed configuration. Per FCC OET Bulletin No. 65 - Edition 97-01 recommendations to achieve the maximum anticipated value at each sample point, all power levels emitting from the proposed antenna installation are increased by a factor of 2.56 to account for possible in-phase reflections from the surrounding environment. This is rarely the case, and if so, is never continuous.

9) For the following calculations, the sample point was the top of a 6-foot person standing at the base of the tower. The maximum gain of the antenna per the antenna manufacturer's supplied specifications, minus 10 dB for directional panel antennas and 20 dB for highly focused parabolic microwave dishes, was used in this direction. This value is a very conservative estimate as gain reductions for these particular antennas are typically much higher in this direction.
10) The antennas used in this modeling are the CCI TPA65R-BU6D for the 700 MHz(Band 14) / 1900 MHz/ 2100 MHz channel(s), the Ericsson AIR6419 for the DoD Band (3450 MHz) channel(s), the Ericsson AIR6449 for the C Band (3840 MHz) channel(s), the CCI OPA65R-BU6D for the 700 MHz(B12) / 850 MHz channel(s) in Sector A, CCI TPA65R-BU4D for the 700 MHz(Band 14) / 1900 MHz/ 2100 MHz channel(s), the Ericsson AIR6419 for the DoD Band (3450 MHz) channel(s), the Ericsson AIR6449 for the C Band (3840 MHz) channel(s), the CCI OPA65R-BU4D for the 700 MHz(B12) / 850 MHz channel(s) in Sector B, CCI TPA65R-BU6D for the 700 MHz(Band 14) / 1900 MHz/ 2100 MHz channel(s), the Ericsson AIR6419 for the DoD Band (3450 MHz) channel(s), the Ericsson AIR6449 for the C Band (3840 MHz) channel(s), the CCI OPA65R-BU6D for the 700 MHz(B12) / 850 MHz channel(s) in Sector C. This is based on feedback from the carrier with regard to anticipated antenna selection. All Antenna gain values and associated transmit power levels are shown in the Site Inventory and Power Data table below. The maximum gain of the antenna per the antenna manufacturer's supplied specifications, minus 10 dB for directional panel antennas and 20 dB for highly focused parabolic microwave dishes, was used for all calculations. This value is a very conservative estimate as gain reductions for these particular antennas are typically much higher in this direction.
11) The antenna mounting height centerline of the proposed antennas is 97 feet above ground level (AGL).
12) Emissions values for additional carriers were taken from the Connecticut Siting Council active database. Values in this database are provided by the individual carriers themselves.
13) All calculations were done with respect to uncontrolled / general population threshold limits.

2. Antenna Inventory & Power Data

Sector	Ant ID	Operator	Antenna Mfg	Antenna Model	Antenna Type	FREQ. (MHz)	TECH.	AZ. (^{0})	H B W (^{0})	Antenna Gain (dBd)	Antenna Aperture (ft)	#of Channels	Transmitter Power (Watts)	Total ERP (Watts)	Total EIRP (Watts)	Total Ant Transmitter Power (Watts)	Total Ant ERP(Watts)	Ant MPE%
A	1	AT&T	CCI	TPA65R-BU6D	Panel	700	LTE(B14)	60	73	12.35	6	4	160.00	2748.65	4509.41	480	15792.60	7.24%
A	1	AT&T	CCI	TPA65R-BU6D	Panel	1900	LTE/5G	60	66	15.95	6	4	160.00	6296.80	10330.47			
A	1	AT&T	CCI	TPA65R-BU6D	Panel	2100	LTE/5G	60	66	16.25	6	4	160.00	6747.14	11069.30			
A	2-1	AT&T	Ericsson	AIR 6419 B77G	Panel	3450	5G	60	11	23.5	2.55	1	108.44	24276.69	39828.68	108.44	24276.69	8.96%
A	2-2	AT&T	Ericsson	AIR 6449 B77D	Panel	3840	5G	60	11	23.5	2.55	1	108.44	24276.69	39828.68	108.44	24276.69	9.63%
A	3	AT&T	CCI	OPA65R-BU6D	Panel	700	LTE(B12)	60	73	12.15	6	4	160.00	2624.94	4306.46	320	5854.33	4.33%
A	3	AT&T	CCI	OPA65R-BU6D	Panel	850	5G	60	64	13.05	6	4	160.00	3229.39	5298.10			
B	4	AT&T	CCI	TPA65R-BU4D	Panel	700	LTE(B14)	180	74	11.15	4	4	160.00	2085.07	3420.74	480	12205.03	5.58%
B	4	AT&T	CCI	TPA65R-BU4D	Panel	1900	LTE/5G	180	66	14.95	4	4	160.00	5001.73	8205.78			
B	4	AT&T	CCI	TPA65R-BU4D	Panel	2100	LTE/5G	180	66	15.05	4	4	160.00	5118.23	8396.92			
B	5-1	AT&T	Ericsson	AIR 6419 B77G	Panel	3450	5G	180	11	23.5	2.55	1	108.44	24276.69	39828.68	108.44	24276.69	8.96%
B	5-2	AT&T	Ericsson	AIR 6449 B77D	Panel	3840	5G	180	11	23.5	2.55	1	108.44	24276.69	39828.68	108.44	24276.69	9.63%
B	6	AT&T	CCI	OPA65R-BU4D	Panel	700	LTE(B12)	180	73	11.05	4.6	4	160.00	2037.60	3342.87	320	4487.34	3.32%
B	6	AT&T	CCI	OPA65R-BU4D	Panel	850	5G	180	62	11.85	4.6	4	160.00	2449.74	4019.02			
C	7	AT&T	CCI	TPA65R-BU6D	Panel	700	LTE(B14)	300	73	12.35	6	4	160.00	2748.65	4509.41	480	15792.60	7.24%
C	7	AT&T	CCI	TPA65R-BU6D	Panel	1900	LTE/5G	300	66	15.95	6	4	160.00	6296.80	10330.47			
C	7	AT&T	CCI	TPA65R-BU6D	Panel	2100	LTE/5G	300	66	16.25	6	4	160.00	6747.14	11069.30			
C	8-2	AT&T	Ericsson	AIR 6419 B77G	Panel	3450	5G	300	11	23.5	2.55	1	108.44	24276.69	39828.68	108.44	24276.69	8.96%
C	8-1	AT&T	Ericsson	AIR 6449 B77D	Panel	3840	5G	300	11	23.5	2.55	1	108.44	24276.69	39828.68	108.44	24276.69	9.63%
C	9	AT&T	CCI	OPA65R-BU6D	Panel	700	LTE(B12)	300	73	12.15	6	4	160.00	2624.94	4306.46	320	5854.33	4.33%
C	9	AT&T	CCI	OPA65R-BU6D	Panel	850	5G	300	64	13.05	6	4	160.00	3229.39	5298.10			

Table 2.1: Antenna Inventory & Power Data

**NOTE: 75% Duty Cycle and adjusted power reduction factor of 0.32 was applied to the AIR6449 & AIR6419 antennas per guidance from AT&T. Specifications were not available for the Ericsson AIR 6419 antenna. Per AT&T, specifications for the AIR 6449 antenna were used to model the 6419 due to its similarity.*

Cumulative Site MPE%	
Carrier	**MPE%**
AT&T (Max MPE% at Sector A)	30.16%
T-Mobile	32.50%
Verizon	17.02%
Dish	4.70%
Site Total MPE%	**84.38%**

Table 2.2: Cumulative Site MPE%

AT&T Max MPE% Per Sector	
AT&T Sector A Total	30.16%
AT&T Sector B Total	27.49%
AT&T Sector C Total	30.16%
Site Total MPE%	**84.38%**

Table 2.3: AT&T MPE% Per Sector

Sector	Ant ID	Operator	Antenna Mfg	Antenna Model	FREQ. (MHz)	TECH.	#of Channels	Transmitter Power (Watts)	Total ERP (Watts)	Total EIRP (Watts)	Height (ft)	Total Power Density (mW/cm^2)	Allowable MPE (mW/cm^2)	Calculated MPE%
A	1	AT&T	CCI	TPA65R-BU6D	700	LTE(B14)	4	160.00	2748.65	4509.41	97.00	0.010513	0.467	2.25%
A	1	AT&T	CCI	TPA65R-BU6D	1900	LTE/5G	4	160.00	6296.80	10330.47	97.00	0.024085	1.000	2.41%
A	1	AT&T	CCI	TPA65R-BU6D	2100	LTE/5G	4	160.00	6747.14	11069.30	97.00	0.025807	1.000	2.58%
A	2-1	AT&T	Ericsson	AIR 6419 B77G	3450	5G	1	108.44	24276.69	39828.68	98.75	0.089594	1.000	8.96%
A	2-2	AT&T	Ericsson	AIR 6449 B77D	3840	5G	1	108.44	24276.69	39828.68	95.25	0.096300	1.000	9.63%
A	3	AT&T	CCI	OPA65R-BU6D	700	LTE(B12)	4	160.00	2624.94	4306.46	97.00	0.010040	0.467	2.15%
A	3	AT&T	CCI	OPA65R-BU6D	850	5G	4	160.00	3229.39	5298.10	97.00	0.012352	0.567	2.18%
													Total	**30.16%**

Table 2.4: Detailed MPE% at AT&T Sector A

3. Compliance Summary

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

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

AT&T Sector	Power Density Value (%)
Sector A	30.16%
Sector B	27.49%
Sector C	30.16%
AT&T Maximum Total (per sector)	30.16%
Site Total MPE%	**84.38%**
Site Compliance Status	**COMPLIANT**

The anticipated composite MPE value for this site assuming all carriers present is 84.38% of the allowable FCC established general public limit sampled at the ground level. This is based upon values listed in the Connecticut Siting Council database for existing carrier emissions.

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

Date: **May 11, 2022**

Tower Engineering Professionals
326 Tryon Road
Raleigh, NC 27603
(919) 661-6351
CrownMA@tepgroup.net

Subject:	**Mount Replacement Analysis Report**	
Carrier Designation:	***AT&T Mobility Reconfiguration***	
	Client Site Number:	CT5200
	Client Site Name:	Guilford SW
	FA Location Code:	10071060
Crown Castle Designation:	***Crown Castle* BU Number:**	842864
	***Crown Castle* Site Name:**	Guilford SW
	***Crown Castle* JDE Job Number:**	686238
	***Crown Castle* Order Number:**	586336 Rev. 1
Engineering Firm Designation:	**TEP Project Number:**	217399.698883
Site Data:	**201 Granite Road, Guilford, New Haven County, CT 06437** **Latitude *41° 17' 31.14"*, Longitude *-72° 43' 58.28"***	
Structure Information:	**Tower Height & Type:**	110.0±ft Monopole
	Mount Elevation:	96.0 ft
	Mount Width & Type:	14.5 ft Sector Mount

Tower Engineering Professionals is pleased to submit this **"Mount Replacement Analysis Report"** to determine the structural integrity of AT&T Mobility's antenna mounting system with the proposed appurtenance and equipment addition on the above-mentioned 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:

Sector Mount	**Sufficient Capacity w/Mount replacement**

The 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: Gautam Sopal, E.I. / MMW

Respectfully submitted by:

Electronic Copy

05/11/2022

Aaron T. Rucker, P.E.
Division Manager
(919) 661-6351
arucker@tepgroup.net

TABLE OF CONTENTS

1) INTRODUCTION

The mount is a proposed, 3-sector, 14.5' Sector mount designed by Site Pro 1. It is to be installed at the 96.0' elevation on 3 sectors of the 110.0' Monopole.

2) ANALYSIS CRITERIA

Building Code:	2018 IBC
TIA-222 Revision:	TIA-222-H
Risk Category:	II
Ultimate Wind Speed:	122 mph
Exposure Category:	B
Topographic Factor at Base:	1.0
Topographic Factor at Mount:	1.0
Ice Thickness:	1.0 in
Wind Speed with Ice:	50 mph
Live Loading Wind Speed:	30 mph
Live Loading at Mid/End-Points:	250 lb
Man Live Loading 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
96.0	98.0	3	Ericsson	AIR 6449 B77D	(3) Site Pro 1 VFA 14-HD Sector Mounts
	97.0	3	CCI Antennas	TPA65R-BU6D_CCIV2	
		3	CCI Antennas	OPA65R-BU6D	
		3	Ericsson	RADIO 4478 B14	
		3	Ericsson	RRUS 4449 B5/B12	
		3	Ericsson	RRUS 8843 B2/B66A	
		3	Raycap	DC6-48-60-18-8F	
	96.0	3	Ericsson	AIR 6419 B77G	

3) ANALYSIS PROCEDURE

Table 2 - Documents Provided

Document	Remarks	Reference	Source
Loading Application	AT&T	Order 586336 Rev. 1	CCIsites
Mount Manufacturer Drawing	Site Pro 1	VFA-14 HD	TEP
Mount Manufacturer Drawing	Sabre	C10899050	TEP

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. Selected output from the analysis is included in Appendix A and Appendix C.

TEP Mount Analysis Tool, a tool internally developed by TEP using Microsoft Excel, was used to calculate member loading for various load cases. Selected output from the analysis is included in Appendix B.

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

In addition, this analysis is in aacordance with AT&T's Mount Technical Guidance – Revision 16.

3.2) Assumptions

1) The mount was built in accordance with the manufacturer's specifications.
2) The mount has been maintained in accordance with the manufacturer's specification.
3) The configuration of antennas, mounts and other appurtenances are as specified in Table 1. All mount components have been assumed to be in sufficient condition to carry their full design capacity for this analysis. Refer to the issued mapping for any structural and/or maintenance issues found during our site visit if applicable.
4) All mount components are in sufficient condition to carry their full design capacity.
5) TEP did not analyze the collar mount connection to the pole and assumes it to have sufficient structural capacity to transfer the applied forces from the mount to the tower.
6) All material grades used for this analysis, unless verified by mount manufacturer design, were assumed per AISC Table 2-4, 15th Edition. See RISA-3D output for confirmation on grades used in this analysis.

This analysis may be affected if any assumptions are not valid or have been made in error. Tower Engineering Professionals 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 (Sector Mount)[3]

Notes	Component	Critical Member	Centerline (ft)	% Capacity	Pass / Fail
1	Face Horizontals	FFTH-1	96.0	42.2	Pass
1	Support Horizontals	SF2-TH	96.0	23.2	Pass
1	Mount Pipes	MP-4	96.0	37.6	Pass
1	Bracing 1	SF2-D1-X	96.0	20.9	Pass
1	Bracing 2	SF2-V2	96.0	18.9	Pass
1	Stab Arm	SA-L	96.0	8.5	Pass
1	Monopole Attachment	MAST	96.0	16.9	Pass
1	Connection Plate	SF3-CPB	96.0	35.1	Pass
2	Connection Bolts	-	-	10.8	Pass

Structure Rating (max from all components) =	42.2%

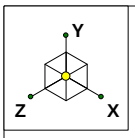
Notes:
1) See additional documentation in “Appendix C - Software Analysis Output” for calculations supporting the % capacity consumed.
2) See additional documentation in “Appendix D - Additional Calculations” for calculations supporting the % capacity listed.
3) All sectors typical.

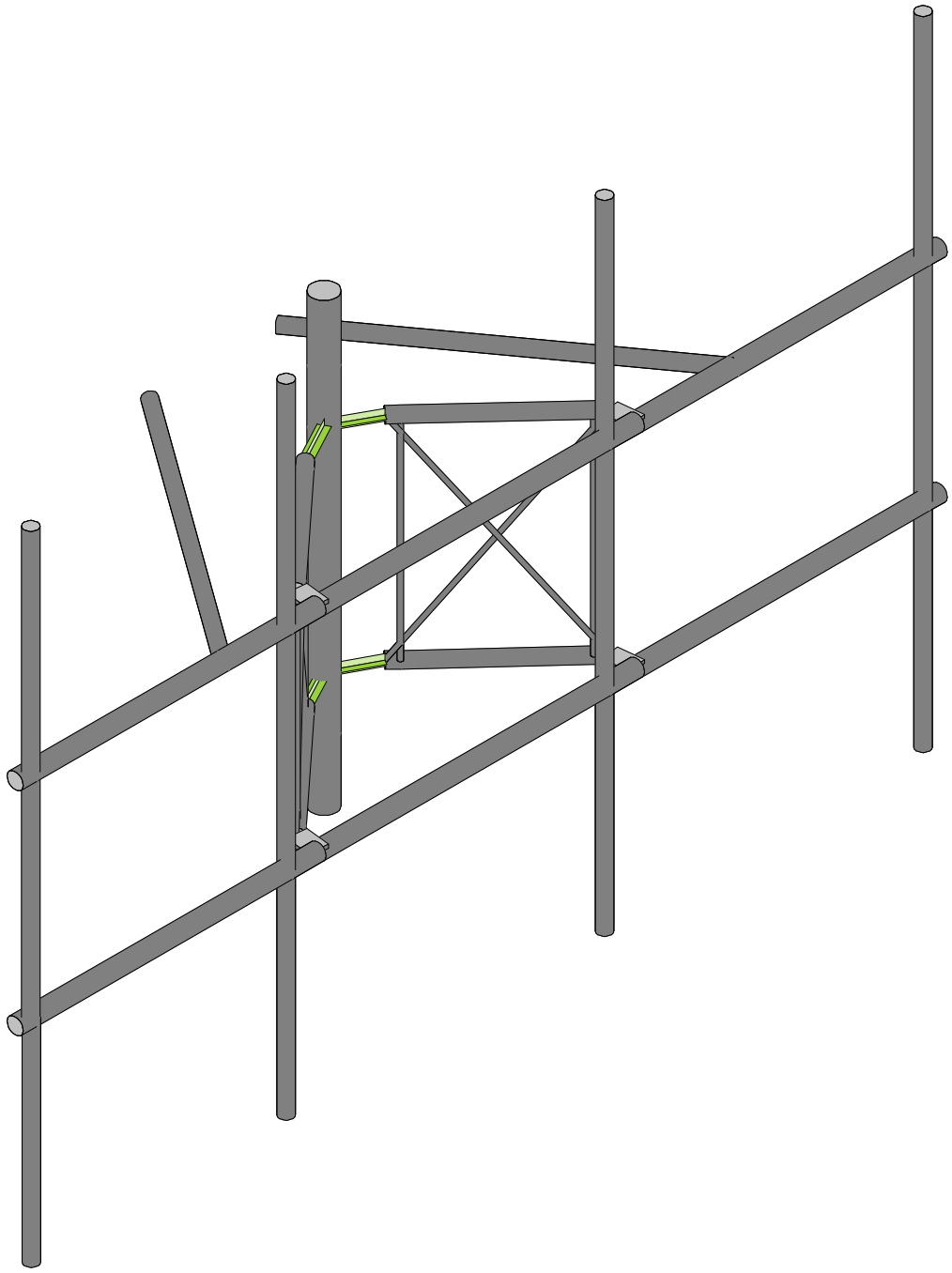
4.1) Recommendations

1) If the load differs from that described in Table 1 of this report or the provisions of this analysis are found to be invalid, another structural analysis should be performed.
2) In order for the results of this analysis to be considered valid, the mount listed below shall be installed to support the proposed loading configuration.
   a) (3) Site Pro 1 VFA 14-HD Sector Mounts with (12) 10’ x 2.0 SCH40 Mount Pipes
   b) (1) Sabre C10899050 Monopole Attachment Kit

APPENDIX A

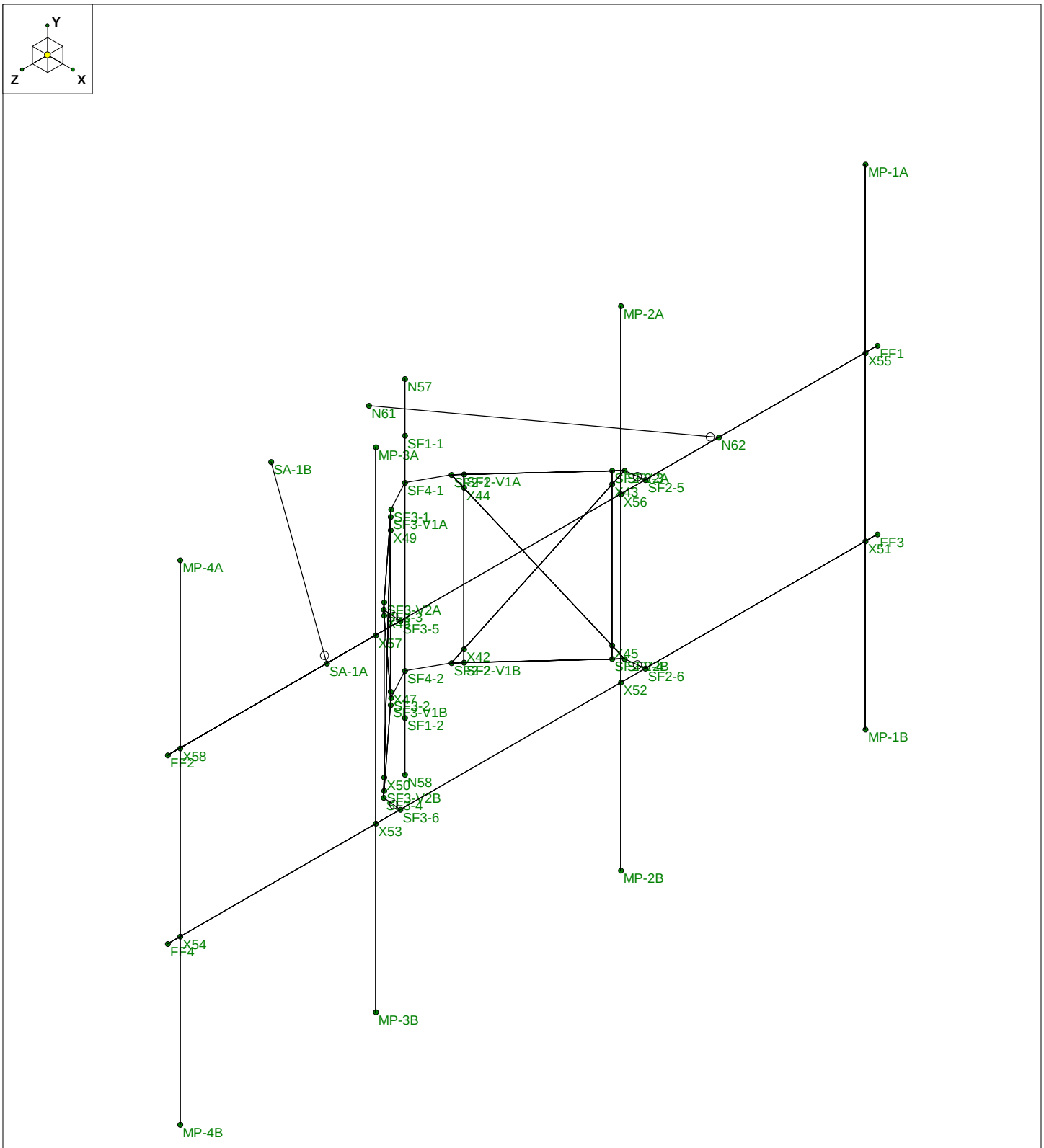
WIRE FRAME AND RENDERED MODELS





Envelope Only Solution

Tower Engineering Profess...	Guilford SW (BU 842864)	SK - 1
GJS		May 11, 2022 at 10:21 AM
TEP No. 217399.698883		VFA14-HD.r3d



Envelope Only Solution

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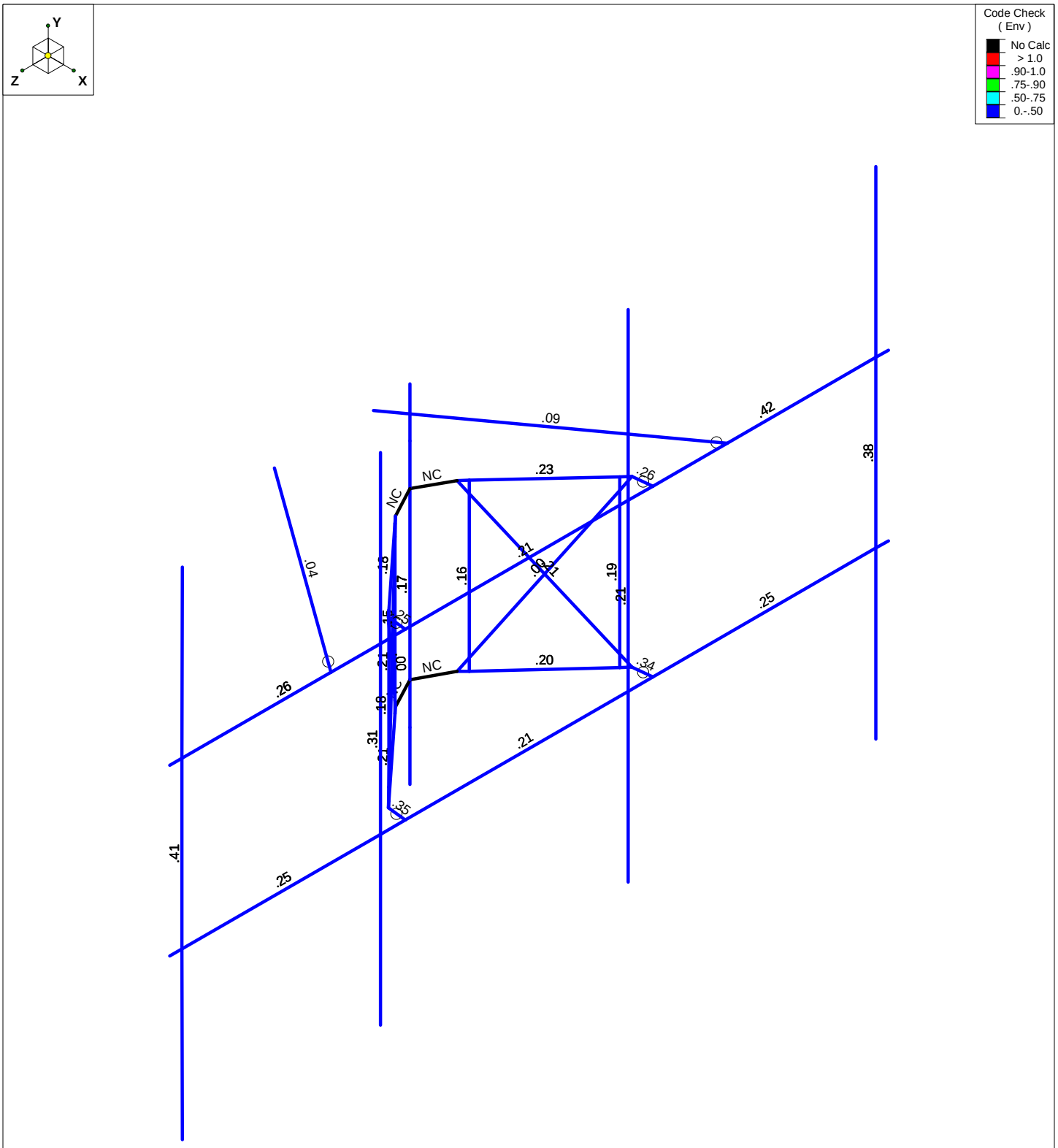

Member Code Checks Displayed (Enveloped)
Envelope Only Solution

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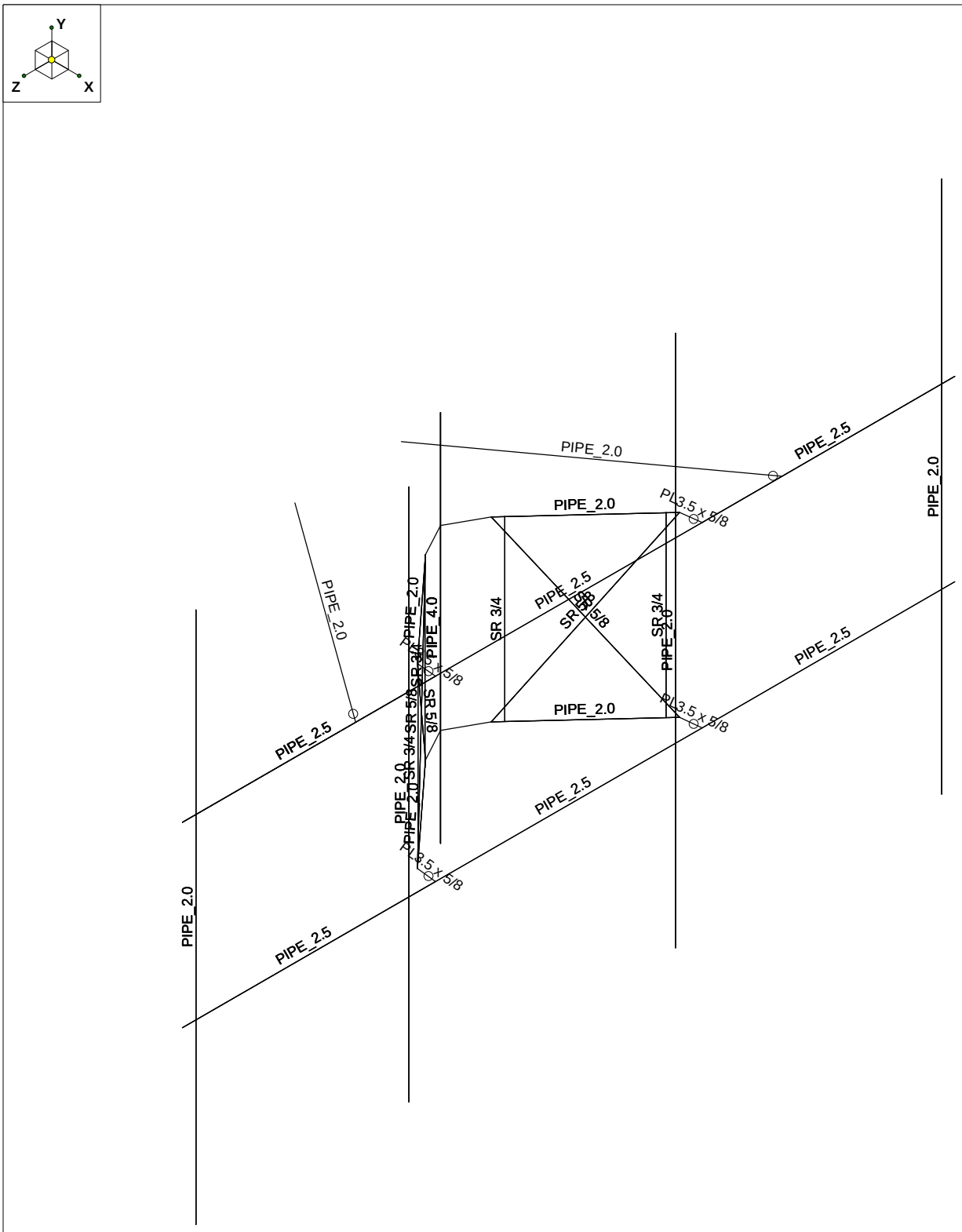

Envelope Only Solution

Tower Engineering Profess...	Guilford SW (BU 842864)	SK - 4
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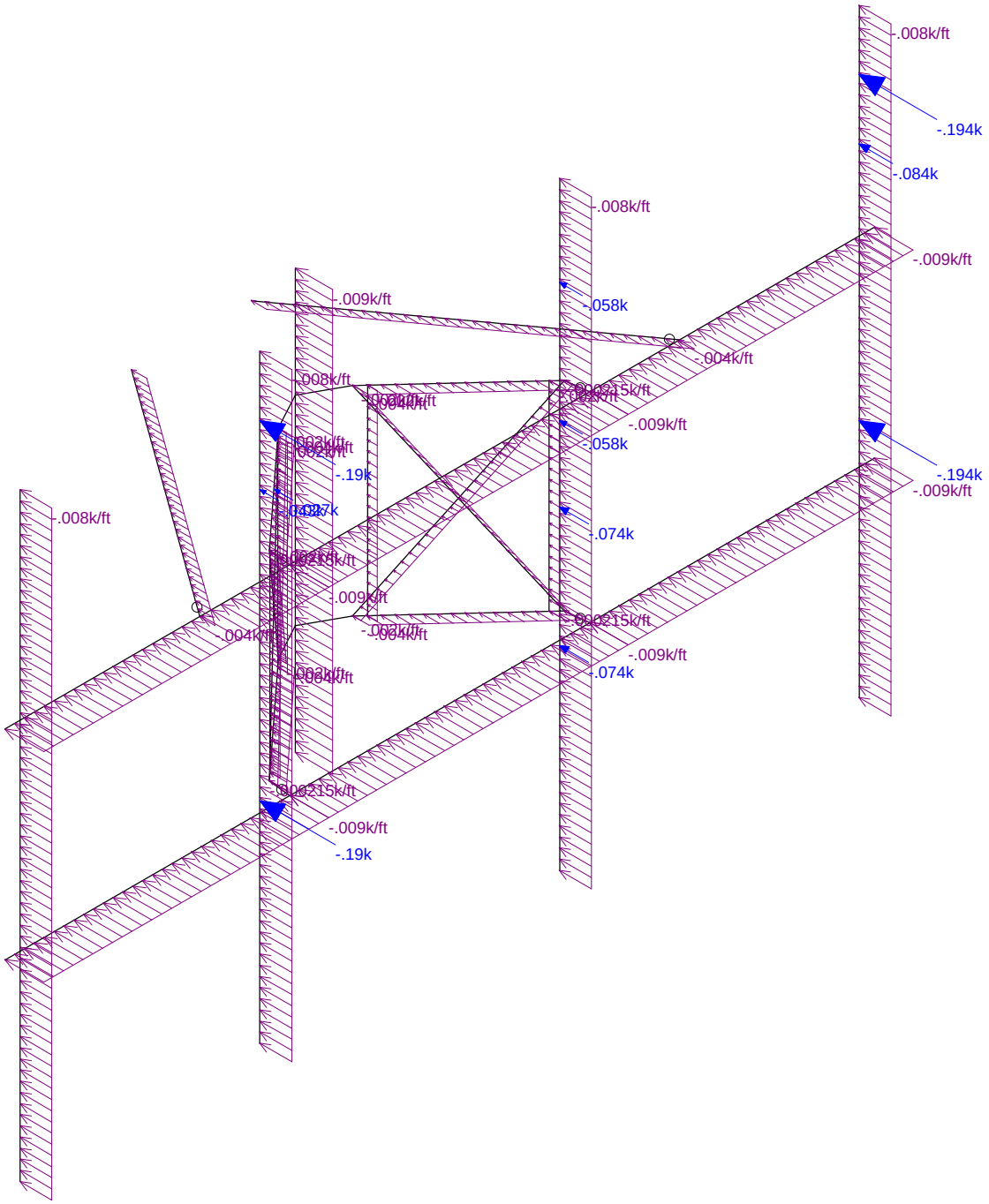
TEP No. 217399.698883		VFA14-HD.r3d



Loads: BLC 2, 0 Wind - No Ice
Envelope Only Solution

Tower Engineering Profess...	Guilford SW (BU 842864)	SK - 2
GJS		May 11, 2022 at 10:32 AM
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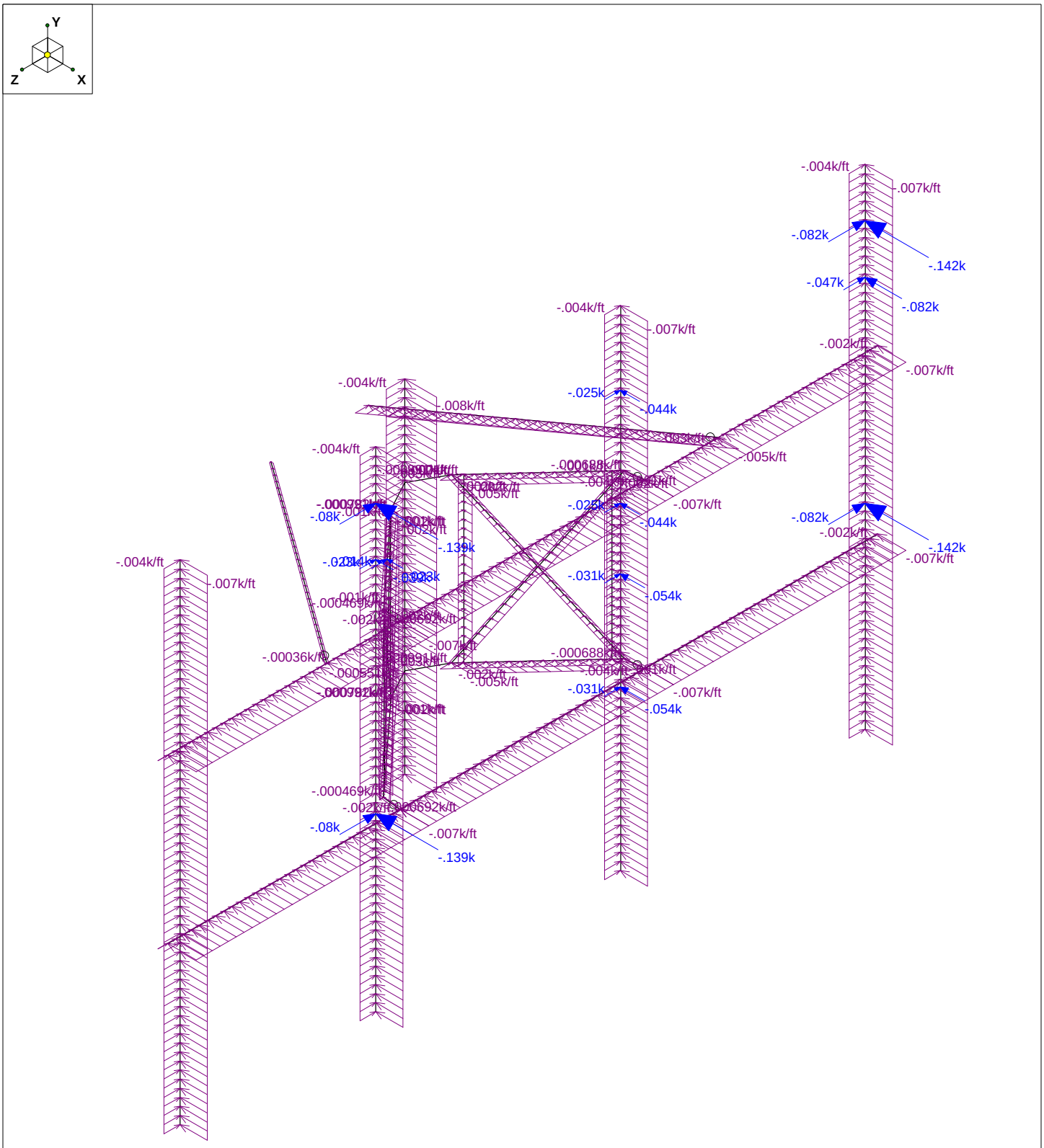
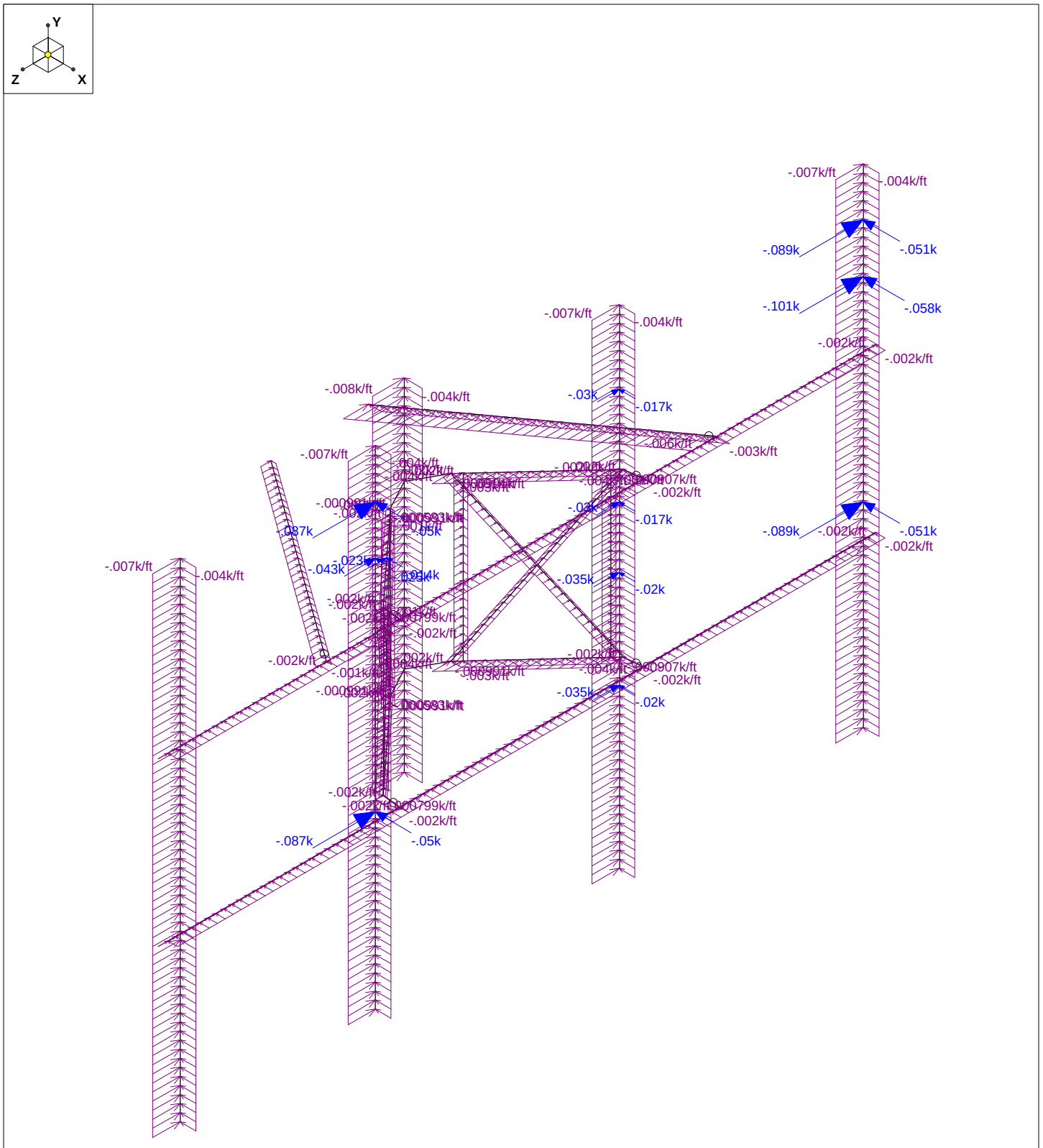


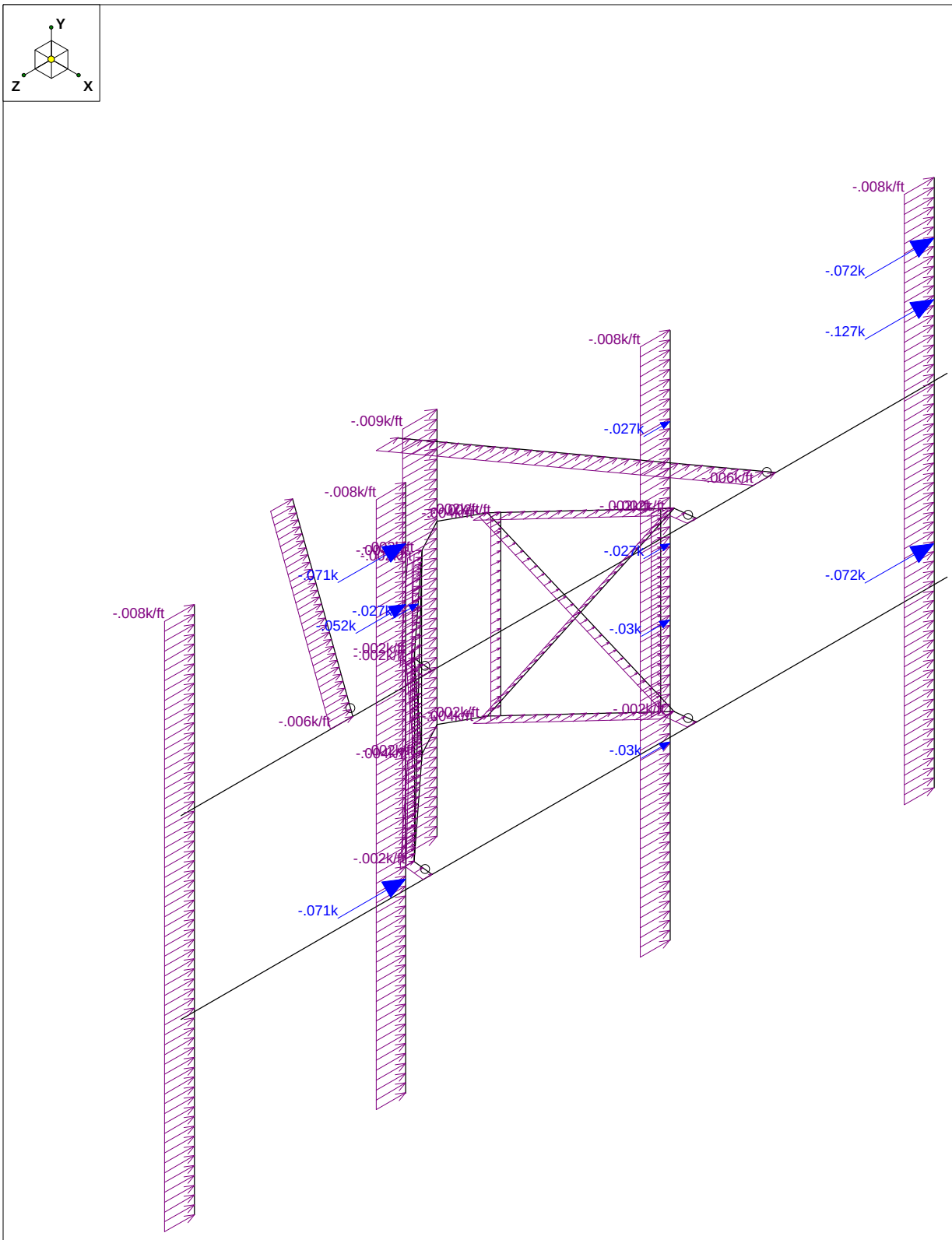
Loads: BLC 3, 30 Wind - No Ice
Envelope Only Solution

Tower Engineering Profess...		SK - 3
GJS	Guilford SW (BU 842864)	May 11, 2022 at 10:32 AM
TEP No. 217399.698883		VFA14-HD.r3d



Loads: BLC 5, 60 Wind - No Ice
Envelope Only Solution

Tower Engineering Profess...		SK - 4
GJS	Guilford SW (BU 842864)	May 11, 2022 at 10:32 AM
TEP No. 217399.698883		VFA14-HD.r3d



Loads: BLC 6, 90 Wind - No Ice
Envelope Only Solution

Tower Engineering Profess...	Guilford SW (BU 842864)	SK - 5
GJS		May 11, 2022 at 10:32 AM
TEP No. 217399.698883		VFA14-HD.r3d

APPENDIX B

SOFTWARE INPUT CALCULATIONS

TOWER ENGINEERING PROFESSIONALS

Guilford SW (BU 842864)
TEP No. 217399.698883
Analysis By: GJS 5/11/2022
Checked By: MMW 5/11/2022

Code Revisions:	TIA-222-H	IBC 2018
Tower Type:	Monopole	

Wind Inputs:

Ult. Wind Velocity:	122.0	mph
Live Load Velocity:	30.0	mph
Ice Wind Velocity:	50.0	mph
Base Ice Thickness:	1.00	inches
Mount Centerline:	96.0	ft
Antenna Centerline:	97.0	ft
Exposure Category:	B	
Topo Category:	1	
Risk Category:	II	
Ground Elevation:	106	ft

Wind Calculations:

K_{zt}:	1.000	Section 2.6.6
K_d:	0.950	
$K_{z\text{-}Mount}$:	0.977	Section 2.6.5.2
$K_{z\text{-}Antenna}$:	0.980	Section 2.6.5.2
K_{iz}:	1.113	Section 2.6.10
Ice Thickness:	1.113	inches - Section 2.6.10

Without Ice - (psf)		With Ice - (psf)	
$(q_zG_h)_{Mount}$:	35.22	$(q_zG_h)_{Mount}$:	5.92
$(q_zG_h)_{Antenna}$:	35.33	$(q_zG_h)_{Antenna}$:	5.93

Seismic Code Revisions:	TIA-222-H
Seismic Risk Category:	II

Seismic Input

S_{DS}:	0.217	Design Short Period Spectral Accel.
I_p:	1.0	Importance Factor
R_p:	2.0	Response Modification Factor
ρ:	1.0	
A_s:	1.0	Applification Factor - TIA-222-H Section 2.7.8.1
S_1:	0.054	Spectral Acceleration at a Period of 1 Second

Seismic Design Force

Cs:	0.109	kips/kip	TIA-H Sec 2.7.7.1.1
Cs-min:	0.030	kips/kip	TIA-H Sec 2.7.7.1.1

Antenna Loads are Calculated in Accordance with TIA-222-H
Azimuth is the absolute angle measured clockwise from RISA-3D global X-axis.

										Distance from start node of the member		
MFR	Model	Height (in)	Width (in)	Depth (in)	Wt. (lbs)	Azimuth°	Qty	Shape	Member Label	Location #1 (ft,%)	Location #2 (ft,%)	Location #3 (ft,%)
ERICSSON	AIR 6449 B77D	30.39	15.87	8.07	81.60	0.00	1	Flat	MP-2	1.50	3.50	
ERICSSON	AIR 6419 B77G	27.95	15.75	6.68	66.20	0.00	1	Flat	MP-2	4.75	6.75	
CCI ANTENNAS	OPA65R-BU6D	71.20	21.00	7.80	63.50	0.00	1	Flat	MP-1	1.00	6.00	
CCI ANTENNAS	TPA65R-BU6D_CCIV2	71.20	20.70	7.70	69.00	0.00	1	Flat	MP-3	1.00	6.50	
ERICSSON	RADIO 4478 B14	18.10	13.40	8.26	59.40	90.00	1	Flat	MP-1	2.00		
ERICSSON	RRUS 4449 B5/B12	17.90	13.19	9.44	71.00	90.00	1	Flat	MP-1	2.00		
ERICSSON	RRUS 8843 B2/B66A	14.90	13.20	10.90	72.00	90.00	1	Flat	MP-3	2.00		
RAYCAP	DC6-48-60-18-8F	22.25	11.00	11.00	18.90	0.00	1	Round	SF3-TH	1.25		

Member Forces are Calculated in Accordance with TIA-222-H

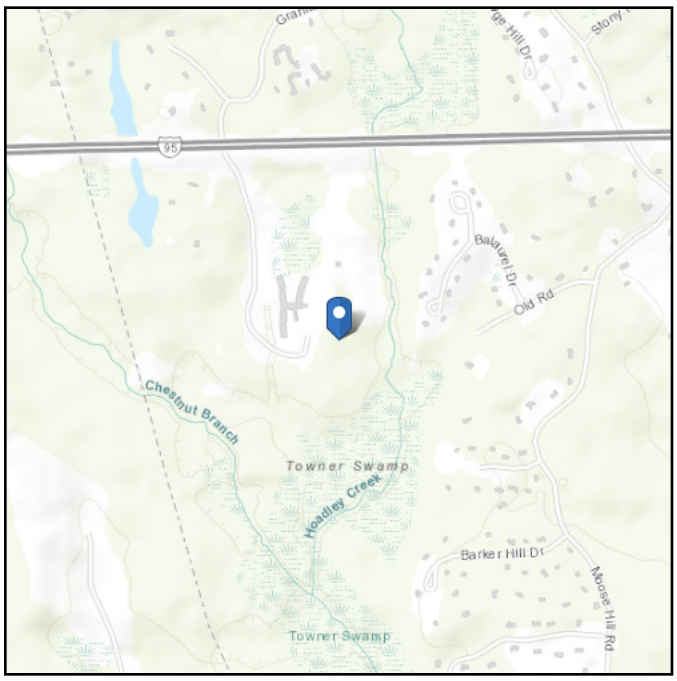
Member Name	Wind Proj. (in)	Length (in)	Shape	θ (°)	Perimeter (in)
SF2-D1	0.625	50.00	Round		1.96
SF2-D1-X	0.625	50.00	Round		1.96
SF3-D1	0.625	50.00	Round		1.96
SF3-D1-X	0.625	50.00	Round		1.96
SF2-V1	0.750	40.00	Round		2.36
SF2-V2	0.750	40.00	Round		2.36
SF3-V1	0.750	40.00	Round		2.36
SF3-V2	0.750	40.00	Round		2.36
SF2-CPB	0.625	4.59	Flat	6.22	2.50
SF2-CPT	0.625	4.59	Flat	6.22	2.50
SF3-CPB	0.625	4.59	Flat	-6.22	2.50
SF3-CPT	0.625	4.59	Flat	-6.22	2.50
FFBH-1	2.875	174.00	Round	90.00	9.03
FFBH-2	2.875	174.00	Round	90.00	9.03
FFBH-3	2.875	174.00	Round	-90.00	9.03
FFTH-1	2.875	174.00	Round	90.00	9.03
FFTH-2	2.875	174.00	Round	90.00	9.03
FFTH-3	2.875	174.00	Round	-90.00	9.03
SA-R	2.375	61.34	Round	-35.93	7.46
SF2-BH	2.375	30.00	Round	47.38	7.46
SF2-TH	2.375	30.00	Round	47.38	7.46
SF3-BH	2.375	30.00	Round	-47.38	7.46
SF3-TH	2.375	30.00	Round	-47.38	7.46
MP-1	2.375	120.00	Round		7.46
MP-2	2.375	120.00	Round		7.46
MP-3	2.375	120.00	Round		7.46
MP-4	2.375	120.00	Round		7.46
MAST	4.500	84.00	Round		14.14
SA-L	2.375	61.34	Round	35.93	7.46

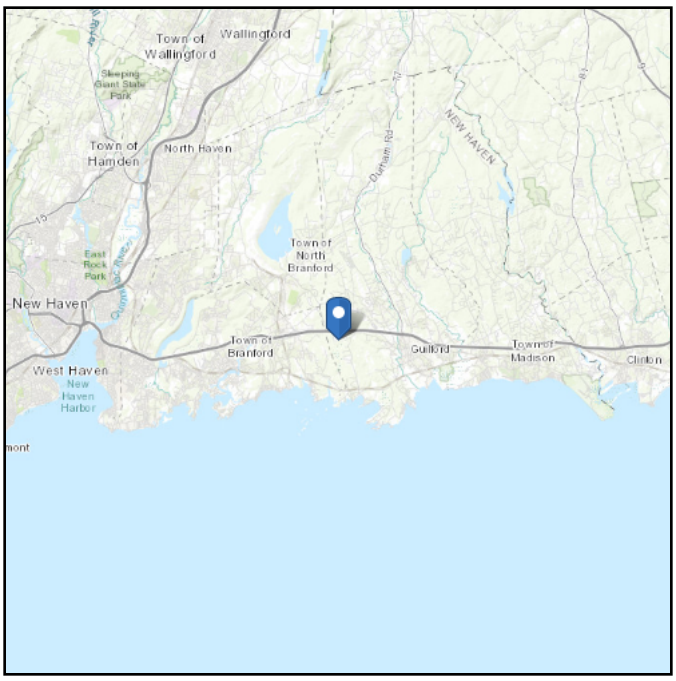
ASCE 7 Hazards Report

Address:
No Address at This Location

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

Elevation: 105.75 ft (NAVD 88)
Latitude: 41.291983
Longitude: -72.732856





Wind

Results:

Wind Speed	122 Vmph
10-year MRI	75 Vmph
25-year MRI	85 Vmph
50-year MRI	93 Vmph
100-year MRI	99 Vmph

Data Source: ASCE/SEI 7-16, Fig. 26.5-1B and Figs. CC.2-1–CC.2-4, and Section 26.5.2
Date Accessed: Fri May 06 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.

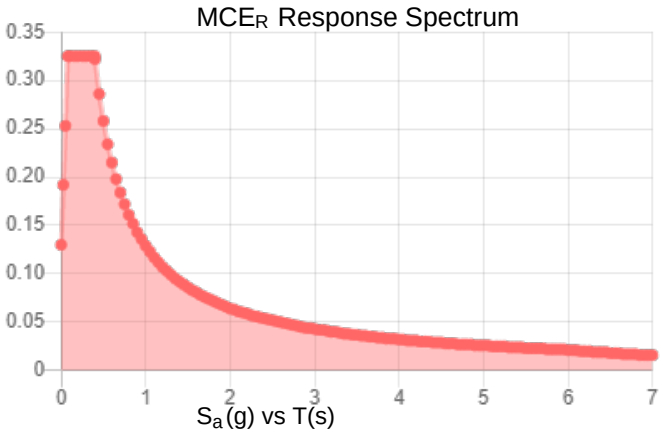
Seismic

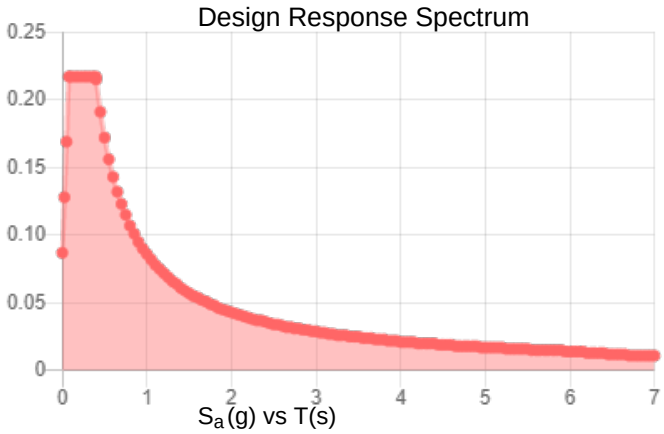
Site Soil Class: D - Default (see Section 11.4.3)

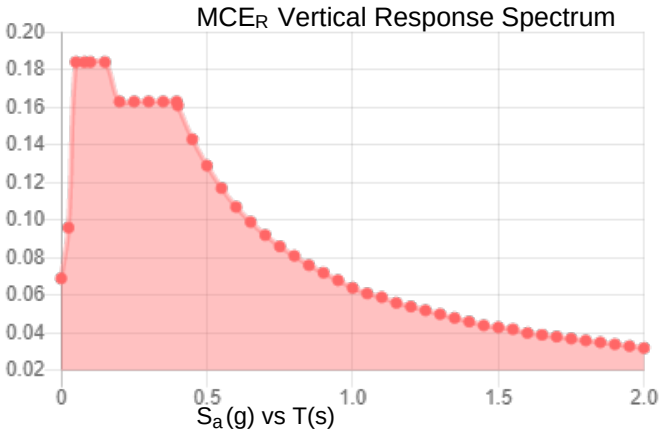
Results:

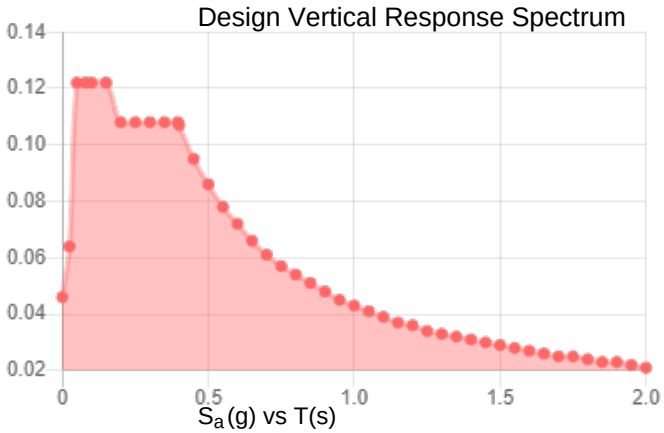
S_S :	0.203	S_{D1} :	0.086
S_1 :	0.054	T_L :	6
F_a :	1.6	PGA :	0.114
F_v :	2.4	PGA_M :	0.179
S_{MS} :	0.325	F_{PGA} :	1.573
S_{M1} :	0.129	I_e :	1
S_{DS} :	0.217	C_v :	0.706

Seismic Design Category B









Data Accessed: **Fri May 06 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:	Fri May 06 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

(Global) Model Settings

Display Sections for Member Calcs	5
Max Internal Sections for Member Calcs	97
Include Shear Deformation?	Yes
Increase Nailing Capacity for Wind?	Yes
Include Warping?	Yes
Trans Load Btwn Intersecting Wood Wall?	Yes
Area Load Mesh (in^2)	144
Merge Tolerance (in)	.12
P-Delta Analysis Tolerance	0.50%
Include P-Delta for Walls?	Yes
Automatically Iterate Stiffness for Walls?	Yes
Max Iterations for Wall Stiffness	3
Gravity Acceleration (ft/sec^2)	32.2
Wall Mesh Size (in)	24
Eigensolution Convergence Tol. (1.E-)	4
Vertical Axis	Y
Global Member Orientation Plane	XZ
Static Solver	Sparse Accelerated
Dynamic Solver	Accelerated Solver

Hot Rolled Steel Code	AISC 15th(360-16): LRFD
Adjust Stiffness?	No
RISAConnection Code	None
Cold Formed Steel Code	None
Wood Code	None
Wood Temperature	< 100F
Concrete Code	None
Masonry Code	None
Aluminum Code	None - Building
Stainless Steel Code	None

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

Company : Tower Engineering Professionals, Inc.
Designer : GJS
Job Number : TEP No. 217399.698883
Model Name : Guilford SW (BU 842864)

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(Global) Model Settings, Continued

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

Hot Rolled Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm (/1E...	Density[k/ft...	Yield[ksi]	Ry	Fu[ksi]	Rt
1	A992	29000	11154	.3	.65	.49	50	1.1	65	1.1
2	A36 Gr.36	29000	11154	.3	.65	.49	36	1.5	58	1.2
3	A572 Gr.50	29000	11154	.3	.65	.49	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	.49	35	1.6	60	1.2
7	A1085	29000	11154	.3	.65	.49	50	1.4	65	1.3

Cold Formed Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm (/1E5 F)	Density[k/ft^3]	Yield[ksi]	Fu[ksi]
1	A653 SS Gr33	29500	11346	.3	.65	.49	33	45
2	A653 SS Gr50/1	29500	11346	.3	.65	.49	50	65

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design L...	Material	Design ...	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	Face Horizontals	PIPE 2.5	None	None	A53 Gr.B	Typical	1.61	1.45	1.45	2.89
2	Support Horizontal	PIPE 2.0	None	None	A53 Gr.B	Typical	1.02	.627	.627	1.25
3	Bracing 1	SR 5/8	None	None	A36 Gr.36	Typical	.307	.007	.007	.015
4	Bracing 2	SR 3/4	None	None	A36 Gr.36	Typical	.442	.016	.016	.031
5	Connection Plate	PL3.5 x 5/8	None	None	A36 Gr.36	Typical	2.188	.071	2.233	.253
6	Mount Pipe	PIPE 2.0	None	None	A53 Gr.B	Typical	1.02	.627	.627	1.25
7	Stabilizer Arm	PIPE 2.0	None	None	A53 Gr.B	Typical	1.02	.627	.627	1.25

Hot Rolled Steel Section Sets (Continued)

	Label	Shape	Type	Design L...	Material	Design ...	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
8	Monopole Attachment	PIPE_4.0	None	None	A53 Gr.B	Typical	2.96	6.82	6.82	13.6

Cold Formed Steel Section Sets

	Label	Shape	Type	Design List	Material	Design Rules	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	CF1A	8CU1.25X057	Beam	None	A653 SS G...	Typical	.581	.057	4.41	.00063

Material Takeoff

	Material	Size	Pieces	Length[ft]	Weight[K]
1	General				
2	RIGID		4	2.8	0
3	Total General		4	2.8	0
4					
5	Hot Rolled Steel				
6	A36 Gr.36	PL3.5 x 5/8	4	1.5	.011
7	A36 Gr.36	SR 3/4	4	13.3	.02
8	A36 Gr.36	SR 5/8	4	16.7	.017
9	A53 Gr.B	PIPE_2.0	10	60.2	.209
10	A53 Gr.B	PIPE_2.5	6	29	.159
11	A53 Gr.B	PIPE_4.0	1	7	.071
12	Total HR Steel		29	127.8	.487

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	SA-1B	Reaction	Reaction	Reaction			
2	SF1-1	Reaction	Reaction	Reaction			
3	SF1-2	Reaction	Reaction	Reaction			
4	N61	Reaction	Reaction	Reaction			
5	SF4-1						
6	SF4-2						

Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotate(d...	Section/Shape	Type	Design List	Material	Design Rul...
1	SF2-D1	SF2-2	SF2-3			Bracing 1	None	None	A36 Gr.36	Typical
2	SF2-D1-X	SF2-1	SF2-4			Bracing 1	None	None	A36 Gr.36	Typical
3	SF3-D1	SF3-2	SF3-3			Bracing 1	None	None	A36 Gr.36	Typical
4	SF3-D1-X	SF3-1	SF3-4			Bracing 1	None	None	A36 Gr.36	Typical
5	SF2-V1	SF2-V1A	SF2-V1B			Bracing 2	None	None	A36 Gr.36	Typical
6	SF2-V2	SF2-V2A	SF2-V2B			Bracing 2	None	None	A36 Gr.36	Typical
7	SF3-V1	SF3-V1A	SF3-V1B			Bracing 2	None	None	A36 Gr.36	Typical
8	SF3-V2	SF3-V2A	SF3-V2B			Bracing 2	None	None	A36 Gr.36	Typical
9	SF2-CPB	SF2-4	SF2-6		90	Connection Plate	None	None	A36 Gr.36	Typical
10	SF2-CPT	SF2-3	SF2-5		90	Connection Plate	None	None	A36 Gr.36	Typical
11	SF3-CPB	SF3-4	SF3-6		90	Connection Plate	None	None	A36 Gr.36	Typical
12	SF3-CPT	SF3-3	SF3-5		90	Connection Plate	None	None	A36 Gr.36	Typical
13	FFBH-1	FF3	SF2-6			Face Horizontals	None	None	A53 Gr.B	Typical
14	FFBH-2	SF2-6	SF3-6			Face Horizontals	None	None	A53 Gr.B	Typical

Company : Tower Engineering Professionals, Inc.
Designer : GJS
Job Number : TEP No. 217399.698883
Model Name : Guilford SW (BU 842864)

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Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(d...	Section/Shape	Type	Design List	Material	Design Rul...
15	FFBH-3	SF3-6	FF4			Face Horizontals	None	None	A53 Gr.B	Typical
16	FFTH-1	FF1	SF2-5			Face Horizontals	None	None	A53 Gr.B	Typical
17	FFTH-2	SF2-5	SF3-5			Face Horizontals	None	None	A53 Gr.B	Typical
18	FFTH-3	SF3-5	FF2			Face Horizontals	None	None	A53 Gr.B	Typical
19	BC-BH1	SF3-2	SF4-2			RIGID	None	None	RIGID	Typical
20	BC-BH2	SF4-2	SF2-2			RIGID	None	None	RIGID	Typical
21	BC-TH1	SF3-1	SF4-1			RIGID	None	None	RIGID	Typical
22	BC-TH2	SF4-1	SF2-1			RIGID	None	None	RIGID	Typical
23	SA-R	SA-1A	SA-1B			Stabilizer Arm	None	None	A53 Gr.B	Typical
24	SF2-BH	SF2-2	SF2-4			Support Horizontal	None	None	A53 Gr.B	Typical
25	SF2-TH	SF2-1	SF2-3			Support Horizontal	None	None	A53 Gr.B	Typical
26	SF3-BH	SF3-2	SF3-4			Support Horizontal	None	None	A53 Gr.B	Typical
27	SF3-TH	SF3-1	SF3-3			Support Horizontal	None	None	A53 Gr.B	Typical
28	MP-1	MP-1A	MP-1B			Mount Pipe	None	None	A53 Gr.B	Typical
29	MP-2	MP-2A	MP-2B			Mount Pipe	None	None	A53 Gr.B	Typical
30	MP-3	MP-3A	MP-3B			Mount Pipe	None	None	A53 Gr.B	Typical
31	MP-4	MP-4A	MP-4B			Mount Pipe	None	None	A53 Gr.B	Typical
32	MAST	N57	N58			Monopole Attachment	None	None	A53 Gr.B	Typical
33	SA-L	N62	N61			Stabilizer Arm	None	None	A53 Gr.B	Typical

Member Advanced Data

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rat...	Analysis ...	Inactive	Seismic...
1	SF2-D1					Tension ...	Yes	** NA **			None
2	SF2-D1-X					Tension ...	Yes	** NA **			None
3	SF3-D1					Tension ...	Yes	** NA **			None
4	SF3-D1-X					Tension ...	Yes	** NA **			None
5	SF2-V1						Yes	** NA **			None
6	SF2-V2						Yes	** NA **			None
7	SF3-V1						Yes	** NA **			None
8	SF3-V2						Yes	** NA **			None
9	SF2-CPB		BenPIN				Yes	** NA **			None
10	SF2-CPT		BenPIN				Yes	** NA **			None
11	SF3-CPB		BenPIN				Yes	** NA **			None
12	SF3-CPT		BenPIN				Yes	** NA **			None
13	FFBH-1						Yes	** NA **			None
14	FFBH-2						Yes	** NA **			None
15	FFBH-3						Yes	** NA **			None
16	FFTH-1						Yes	** NA **			None
17	FFTH-2						Yes	** NA **			None
18	FFTH-3						Yes	** NA **			None
19	BC-BH1						Yes	** NA **			None
20	BC-BH2						Yes	** NA **			None
21	BC-TH1						Yes	** NA **			None
22	BC-TH2						Yes	** NA **			None
23	SA-R	BenPIN					Yes	** NA **			None
24	SF2-BH						Yes	** NA **			None
25	SF2-TH						Yes	** NA **			None
26	SF3-BH						Yes	** NA **			None
27	SF3-TH						Yes	** NA **			None
28	MP-1						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...
29	MP-2						Yes	** NA **			None
30	MP-3						Yes	** NA **			None
31	MP-4						Yes	** NA **			None
32	MAST						Yes	** NA **			None
33	SA-L	BenPIN					Yes	** NA **			None

Hot Rolled Steel Design Parameters

	Label	Shape	Length[ft]	Lbyy[ft]	Lbzz[ft]	Lcomp top[ft]	Lcomp bot[ft]	L-torqu...	Kyy	Kzz	Cb	Function
1	SF2-D1	Bracing 1	4.167						.65	.65		Lateral
2	SF2-D1-X	Bracing 1	4.167						.65	.65		Lateral
3	SF3-D1	Bracing 1	4.167						.65	.65		Lateral
4	SF3-D1-X	Bracing 1	4.167						.65	.65		Lateral
5	SF2-V1	Bracing 2	3.333						.65	.65		Lateral
6	SF2-V2	Bracing 2	3.333						.65	.65		Lateral
7	SF3-V1	Bracing 2	3.333						.65	.65		Lateral
8	SF3-V2	Bracing 2	3.333						.65	.65		Lateral
9	SF2-CPB	Connection ...	.383						1	1		Lateral
10	SF2-CPT	Connection ...	.383						1	1		Lateral
11	SF3-CPB	Connection ...	.383						1	1		Lateral
12	SF3-CPT	Connection ...	.383						1	1		Lateral
13	FFBH-1	Face Horizo...	4.75						2.1	2.1		Lateral
14	FFBH-2	Face Horizo...	5						1	1		Lateral
15	FFBH-3	Face Horizo...	4.75						2.1	2.1		Lateral
16	FFTH-1	Face Horizo...	4.75						2.1	2.1		Lateral
17	FFTH-2	Face Horizo...	5						1	1		Lateral
18	FFTH-3	Face Horizo...	4.75						2.1	2.1		Lateral
19	SA-R	Stabilizer Arm	5.112						1	1		Lateral
20	SF2-BH	Support Hor...	2.5		2.145				1	1		Lateral
21	SF2-TH	Support Hor...	2.5		2.145				1	1		Lateral
22	SF3-BH	Support Hor...	2.5		2.145				1	1		Lateral
23	SF3-TH	Support Hor...	2.5		2.145				1	1		Lateral
24	MP-1	Mount Pipe	10	Segment	Segment				2.1	2.1		Lateral
25	MP-2	Mount Pipe	10	Segment	Segment				2.1	2.1		Lateral
26	MP-3	Mount Pipe	10	Segment	Segment				2.1	2.1		Lateral
27	MP-4	Mount Pipe	10	Segment	Segment				2.1	2.1		Lateral
28	MAST	Monopole A...	7	Segment	Segment				2.1	2.1		Lateral
29	SA-L	Stabilizer Arm	5.112						1	1		Lateral

Cold Formed Steel Design Parameters

Label	Shape	Lengt...	Lbyy[ft]	Lbzz[ft]	Lcomp to...	Lcomp b...	Kyy	Kzz	Cm-yy	Cm-zz	Cb	R	y sway	z sway
No Data to Print ...														

Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed	Area(Me...	Surface(P...
1	Dead	None		-1			12			
2	0 Wind - No Ice	None					12	29		
3	30 Wind - No Ice	None					24	58		

Company : Tower Engineering Professionals, Inc.
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Basic Load Cases (Continued)

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed	Area(Me...	Surface(P...
4	45 Wind - No Ice	None					24	58		
5	60 Wind - No Ice	None					24	58		
6	90 Wind - No Ice	None					12	29		
7	120 Wind - No Ice	None					24	58		
8	135 Wind - No Ice	None					24	58		
9	150 Wind - No Ice	None					24	58		
10	180 Wind - No Ice	None					12	29		
11	210 Wind - No Ice	None					24	58		
12	225 Wind - No Ice	None					24	58		
13	240 Wind - No Ice	None					24	58		
14	270 Wind - No Ice	None					12	29		
15	300 Wind - No Ice	None					24	58		
16	315 Wind - No Ice	None					24	58		
17	330 Wind - No Ice	None					24	58		
18	Ice Weight	None					12	29		
19	0 Wind - Ice	None					12	29		
20	30 Wind - Ice	None					24	58		
21	45 Wind - Ice	None					24	58		
22	60 Wind - Ice	None					24	58		
23	90 Wind - Ice	None					12	29		
24	120 Wind - Ice	None					24	58		
25	135 Wind - Ice	None					24	58		
26	150 Wind - Ice	None					24	58		
27	180 Wind - Ice	None					12	29		
28	210 Wind - Ice	None					24	58		
29	225 Wind - Ice	None					24	58		
30	240 Wind - Ice	None					24	58		
31	270 Wind - Ice	None					12	29		
32	300 Wind - Ice	None					24	58		
33	315 Wind - Ice	None					24	58		
34	330 Wind - Ice	None					24	58		
35	Lm	None				1				
36	Lv	None				1				
37	Seismic Load X	ELX	-1				12			
38	Seismic Load Z	ELZ			-1		12			

Load Combinations

	Description	S...	P...	S...	B...	Fac...	B...	Fac...	B...	Fac...	B...	Fac...	B...	Fac...	B...	Fac...	B...	Fac...	B...	Fac...	B...	Fac...	B...	Fac...	B...	Fac...
1	1.4D	Yes	Y		1	1.4																				
2	0.9D+1.0 0-Wind	Yes	Y		1	.9	2	1																		
3	0.9D+1.0 30-Wind	Yes	Y		1	.9	3	1																		
4	0.9D+1.0 45-Wind	Yes	Y		1	.9	4	1																		
5	0.9D+1.0 60-Wind	Yes	Y		1	.9	5	1																		
6	0.9D+1.0 90-Wind	Yes	Y		1	.9	6	1																		
7	0.9D+1.0 120-Wind	Yes	Y		1	.9	7	1																		
8	0.9D+1.0 135-Wind	Yes	Y		1	.9	8	1																		
9	0.9D+1.0 150-Wind	Yes	Y		1	.9	9	1																		
10	0.9D+1.0 180-Wind	Yes	Y		1	.9	10	1																		
11	0.9D+1.0 210-Wind	Yes	Y		1	.9	11	1																		
12	0.9D+1.0 225-Wind	Yes	Y		1	.9	12	1																		

Load Combinations (Continued)

	Description	S...	P...	S...	B...	Fac..	B...	Fac..	B...	Fac..	B...	Fac..	B...	Fac..	B...	Fac..	B...	Fac..	B...	Fac..	B...	Fac..	B...	Fac..	B...	Fac..	B...	Fac...
13	0.9D+1.0 240-Wind	Yes	Y		1	.9	13	1																		
14	0.9D+1.0 270-Wind	Yes	Y		1	.9	14	1																		
15	0.9D+1.0 300-Wind	Yes	Y		1	.9	15	1																		
16	0.9D+1.0 315-Wind	Yes	Y		1	.9	16	1																		
17	0.9D+1.0 330-Wind	Yes	Y		1	.9	17	1																		
18	1.2D+1.0 0-Wind	Yes	Y		1	1.2	2	1																		
19	1.2D+1.0 30-Wind	Yes	Y		1	1.2	3	1																		
20	1.2D+1.0 45-Wind	Yes	Y		1	1.2	4	1																		
21	1.2D+1.0 60-Wind	Yes	Y		1	1.2	5	1																		
22	1.2D+1.0 90-Wind	Yes	Y		1	1.2	6	1																		
23	1.2D+1.0 120-Wind	Yes	Y		1	1.2	7	1																		
24	1.2D+1.0 135-Wind	Yes	Y		1	1.2	8	1																		
25	1.2D+1.0 150-Wind	Yes	Y		1	1.2	9	1																		
26	1.2D+1.0 180-Wind	Yes	Y		1	1.2	10	1																		
27	1.2D+1.0 210-Wind	Yes	Y		1	1.2	11	1																		
28	1.2D+1.0 225-Wind	Yes	Y		1	1.2	12	1																		
29	1.2D+1.0 240-Wind	Yes	Y		1	1.2	13	1																		
30	1.2D+1.0 270-Wind	Yes	Y		1	1.2	14	1																		
31	1.2D+1.0 300-Wind	Yes	Y		1	1.2	15	1																		
32	1.2D+1.0 315-Wind	Yes	Y		1	1.2	16	1																		
33	1.2D+1.0 330-Wind	Yes	Y		1	1.2	17	1																		
34	1.2D+1.0Di+1.0 0-Wind Ice	Yes	Y		1	1.2	18	1	19	1																
35	1.2D+1.0Di+1.0 30-Wind Ice	Yes	Y		1	1.2	18	1	20	1																
36	1.2D+1.0Di+1.0 45-Wind Ice	Yes	Y		1	1.2	18	1	21	1																
37	1.2D+1.0Di+1.0 60-Wind Ice	Yes	Y		1	1.2	18	1	22	1																
38	1.2D+1.0Di+1.0 90-Wind Ice	Yes	Y		1	1.2	18	1	23	1																
39	1.2D+1.0Di+1.0 120-Wind Ice	Yes	Y		1	1.2	18	1	24	1																
40	1.2D+1.0Di+1.0 135-Wind Ice	Yes	Y		1	1.2	18	1	25	1																
41	1.2D+1.0Di+1.0 150-Wind Ice	Yes	Y		1	1.2	18	1	26	1																
42	1.2D+1.0Di+1.0 180-Wind Ice	Yes	Y		1	1.2	18	1	27	1																
43	1.2D+1.0Di+1.0 210-Wind Ice	Yes	Y		1	1.2	18	1	28	1																
44	1.2D+1.0Di+1.0 225-Wind Ice	Yes	Y		1	1.2	18	1	29	1																
45	1.2D+1.0Di+1.0 240-Wind Ice	Yes	Y		1	1.2	18	1	30	1																
46	1.2D+1.0Di+1.0 270-Wind Ice	Yes	Y		1	1.2	18	1	31	1																
47	1.2D+1.0Di+1.0 300-Wind Ice	Yes	Y		1	1.2	18	1	32	1																
48	1.2D+1.0Di+1.0 315-Wind Ice	Yes	Y		1	1.2	18	1	33	1																
49	1.2D+1.0Di+1.0 330-Wind Ice	Yes	Y		1	1.2	18	1	34	1																
50	1.2D+1.5Lv	Yes	Y		36	1.5	1	1.2																		
51	1.2D+1.5Lm+1.0 0-Wind	Yes	Y		1	1.2	2	.06	35	1.5																
52	1.2D+1.5Lm+1.0 30-Wind	Yes	Y		1	1.2	3	.06	35	1.5																
53	1.2D+1.5Lm+1.0 45-Wind	Yes	Y		1	1.2	4	.06	35	1.5																
54	1.2D+1.5Lm+1.0 60-Wind	Yes	Y		1	1.2	5	.06	35	1.5																
55	1.2D+1.5Lm+1.0 90-Wind	Yes	Y		1	1.2	6	.06	35	1.5																
56	1.2D+1.5Lm+1.0 120-Wind	Yes	Y		1	1.2	7	.06	35	1.5																
57	1.2D+1.5Lm+1.0 135-Wind	Yes	Y		1	1.2	8	.06	35	1.5																
58	1.2D+1.5Lm+1.0 150-Wind	Yes	Y		1	1.2	9	.06	35	1.5																
59	1.2D+1.5Lm+1.0 180-Wind	Yes	Y		1	1.2	10	.06	35	1.5																
60	1.2D+1.5Lm+1.0 210-Wind	Yes	Y		1	1.2	11	.06	35	1.5																
61	1.2D+1.5Lm+1.0 225-Wind	Yes	Y		1	1.2	12	.06	35	1.5																
62	1.2D+1.5Lm+1.0 240-Wind	Yes	Y		1	1.2	13	.06	35	1.5																
63	1.2D+1.5Lm+1.0 270-Wind	Yes	Y		1	1.2	14	.06	35	1.5																
64	1.2D+1.5Lm+1.0 300-Wind	Yes	Y		1	1.2	15	.06	35	1.5																

Company : Tower Engineering Professionals, Inc.
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Load Combinations (Continued)

	Description	S...	P...	S...	B...	Fac..	B...	Fac..	B...	Fac..	B...	Fac..	B...	Fac..	B...	Fac..	B...	Fac..	B...	Fac..	B...	Fac..	B...	Fac..	B...	Fac..	B...	Fac...
65	1.2D+1.5Lm+1.0 315-Wind	Yes	Y		1	1.2	16	.06	35	1.5																
66	1.2D+1.5Lm+1.0 330-Wind	Yes	Y		1	1.2	17	.06	35	1.5																
67	(1.2+0.2Sds)D+1.0 0 Seismic	Yes	Y		1	1.2...	E...	.108	0																	
68	(1.2+0.2Sds)D+1.0 30 Seismic	Yes	Y		1	1.2...	E...	.094	ELZ	.054																
69	(1.2+0.2Sds)D+1.0 45 Seismic	Yes	Y		1	1.2...	E...	.077	ELZ	.077																
70	(1.2+0.2Sds)D+1.0 60 Seismic	Yes	Y		1	1.2...	E...	.054	ELZ	.094																
71	(1.2+0.2Sds)D+1.0 90 Seismic	Yes	Y		1	1.2...	0		ELZ	.108																
72	(1.2+0.2Sds)D+1.0 120 Seis...	Yes	Y		1	1.2...	E...	-.054	ELZ	.094																
73	(1.2+0.2Sds)D+1.0 135 Seis...	Yes	Y		1	1.2...	E...	-.077	ELZ	.077																
74	(1.2+0.2Sds)D+1.0 150 Seis...	Yes	Y		1	1.2...	E...	-.094	ELZ	.054																
75	(1.2+0.2Sds)D+1.0 180 Seis...	Yes	Y		1	1.2...	E...	-.108	0																	
76	(1.2+0.2Sds)D+1.0 210 Seis...	Yes	Y		1	1.2...	E...	-.094	ELZ	-.054																
77	(1.2+0.2Sds)D+1.0 225 Seis...	Yes	Y		1	1.2...	E...	-.077	ELZ	-.077																
78	(1.2+0.2Sds)D+1.0 240 Seis...	Yes	Y		1	1.2...	E...	-.054	ELZ	-.094																
79	(1.2+0.2Sds)D+1.0 270 Seis...	Yes	Y		1	1.2...	0		ELZ	-.108																
80	(1.2+0.2Sds)D+1.0 300 Seis...	Yes	Y		1	1.2...	E...	.054	ELZ	-.094																
81	(1.2+0.2Sds)D+1.0 315 Seis...	Yes	Y		1	1.2...	E...	.077	ELZ	-.077																
82	(1.2+0.2Sds)D+1.0 330 Seis...	Yes	Y		1	1.2...	E...	.094	ELZ	-.054																
83	(0.9-0.2Sds)*DL+1.0 0 Seismic	Yes	Y		1	.857	E...	.108	0																	
84	(0.9-0.2Sds)*DL+1.0 30 Seis...	Yes	Y		1	.857	E...	.094	ELZ	.054																
85	(0.9-0.2Sds)*DL+1.0 Seismic	Yes	Y		1	.857	E...	.077	ELZ	.077																
86	(0.9-0.2Sds)*DL+1.0 60 Seis...	Yes	Y		1	.857	E...	.054	ELZ	.094																
87	(0.9-0.2Sds)*DL+1.0 90 Seis...	Yes	Y		1	.857	0		ELZ	.108																
88	(0.9-0.2Sds)*DL+1.0 120 Sei...	Yes	Y		1	.857	E...	-.054	ELZ	.094																
89	(0.9-0.2Sds)*DL+1.0 135 Sei...	Yes	Y		1	.857	E...	-.077	ELZ	.077																
90	(0.9-0.2Sds)*DL+1.0 150 Sei...	Yes	Y		1	.857	E...	-.094	ELZ	.054																
91	(0.9-0.2Sds)*DL+1.0 180 Sei...	Yes	Y		1	.857	E...	-.108	0																	
92	(0.9-0.2Sds)*DL+1.0 210 Sei...	Yes	Y		1	.857	E...	-.094	ELZ	-.054																
93	(0.9-0.2Sds)*DL+1.0 225 Sei...	Yes	Y		1	.857	E...	-.077	ELZ	-.077																
94	(0.9-0.2Sds)*DL+1.0 240 Sei...	Yes	Y		1	.857	E...	-.054	ELZ	-.094																
95	(0.9-0.2Sds)*DL+1.0 270 Sei...	Yes	Y		1	.857	0		ELZ	-.108																
96	(0.9-0.2Sds)*DL+1.0 300 Sei...	Yes	Y		1	.857	E...	.054	ELZ	-.094																
97	(0.9-0.2Sds)*DL+1.0 315 Sei...	Yes	Y		1	.857	E...	.077	ELZ	-.077																
98	(0.9-0.2Sds)*DL+1.0 330 Sei...	Yes	Y		1	.857	E...	.094	ELZ	-.054																

Joint Loads and Enforced Displacements (BLC 35 : Lm)

	Joint Label	L,D,M	Direction	Magnitude[(k,k-ft), (in,rad), (k*s^2/f...
1	X58	L	Y	-.5

Joint Loads and Enforced Displacements (BLC 36 : Lv)

	Joint Label	L,D,M	Direction	Magnitude[(k,k-ft), (in,rad), (k*s^2/f...
1	FF4	L	Y	-.25

Member Point Loads (BLC 1 : Dead)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP-2	Y	-.041	1.5
2	MP-2	Y	-.033	4.75
3	MP-1	Y	-.032	1

Member Point Loads (BLC 1 : Dead) (Continued)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
4	MP-3	Y	-.035	1
5	MP-1	Y	-.059	2
6	MP-1	Y	-.071	2
7	MP-3	Y	-.072	2
8	SF3-TH	Y	-.019	1.25
9	MP-2	Y	-.041	3.5
10	MP-2	Y	-.033	6.75
11	MP-1	Y	-.032	6
12	MP-3	Y	-.035	6.5

Member Point Loads (BLC 2 : 0 Wind - No Ice)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP-2	X	-.058	1.5
2	MP-2	X	-.074	4.75
3	MP-1	X	-.194	1
4	MP-3	X	-.19	1
5	MP-1	X	-.04	2
6	MP-1	X	-.045	2
7	MP-3	X	-.043	2
8	SF3-TH	X	-.027	1.25
9	MP-2	X	-.058	3.5
10	MP-2	X	-.074	6.75
11	MP-1	X	-.194	6
12	MP-3	X	-.19	6.5

Member Point Loads (BLC 3 : 30 Wind - No Ice)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP-2	X	-.044	1.5
2	MP-2	X	-.054	4.75
3	MP-1	X	-.142	1
4	MP-3	X	-.139	1
5	MP-1	X	-.04	2
6	MP-1	X	-.043	2
7	MP-3	X	-.039	2
8	SF3-TH	X	-.023	1.25
9	MP-2	X	-.044	3.5
10	MP-2	X	-.054	6.75
11	MP-1	X	-.142	6
12	MP-3	X	-.139	6.5
13	MP-2	Z	-.025	1.5
14	MP-2	Z	-.031	4.75
15	MP-1	Z	-.082	1
16	MP-3	Z	-.08	1
17	MP-1	Z	-.023	2
18	MP-1	Z	-.025	2
19	MP-3	Z	-.023	2
20	SF3-TH	Z	-.014	1.25
21	MP-2	Z	-.025	3.5
22	MP-2	Z	-.031	6.75
23	MP-1	Z	-.082	6
24	MP-3	Z	-.08	6.5

Company : Tower Engineering Professionals, Inc.
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Member Point Loads (BLC 4 : 45 Wind - No Ice)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP-2	X	-.03	1.5
2	MP-2	X	-.037	4.75
3	MP-1	X	-.094	1
4	MP-3	X	-.092	1
5	MP-1	X	-.037	2
6	MP-1	X	-.038	2
7	MP-3	X	-.034	2
8	SF3-TH	X	-.019	1.25
9	MP-2	X	-.03	3.5
10	MP-2	X	-.037	6.75
11	MP-1	X	-.094	6
12	MP-3	X	-.092	6.5
13	MP-2	Z	-.03	1.5
14	MP-2	Z	-.037	4.75
15	MP-1	Z	-.094	1
16	MP-3	Z	-.092	1
17	MP-1	Z	-.037	2
18	MP-1	Z	-.038	2
19	MP-3	Z	-.034	2
20	SF3-TH	Z	-.019	1.25
21	MP-2	Z	-.03	3.5
22	MP-2	Z	-.037	6.75
23	MP-1	Z	-.094	6
24	MP-3	Z	-.092	6.5

Member Point Loads (BLC 5 : 60 Wind - No Ice)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP-2	X	-.017	1.5
2	MP-2	X	-.02	4.75
3	MP-1	X	-.051	1
4	MP-3	X	-.05	1
5	MP-1	X	-.029	2
6	MP-1	X	-.029	2
7	MP-3	X	-.025	2
8	SF3-TH	X	-.014	1.25
9	MP-2	X	-.017	3.5
10	MP-2	X	-.02	6.75
11	MP-1	X	-.051	6
12	MP-3	X	-.05	6.5
13	MP-2	Z	-.03	1.5
14	MP-2	Z	-.035	4.75
15	MP-1	Z	-.089	1
16	MP-3	Z	-.087	1
17	MP-1	Z	-.05	2
18	MP-1	Z	-.05	2
19	MP-3	Z	-.043	2
20	SF3-TH	Z	-.023	1.25
21	MP-2	Z	-.03	3.5
22	MP-2	Z	-.035	6.75
23	MP-1	Z	-.089	6
24	MP-3	Z	-.087	6.5

Member Point Loads (BLC 6 : 90 Wind - No Ice)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP-2	Z	-.027	1.5
2	MP-2	Z	-.03	4.75
3	MP-1	Z	-.072	1
4	MP-3	Z	-.071	1
5	MP-1	Z	-.064	2
6	MP-1	Z	-.063	2
7	MP-3	Z	-.052	2
8	SF3-TH	Z	-.027	1.25
9	MP-2	Z	-.027	3.5
10	MP-2	Z	-.03	6.75
11	MP-1	Z	-.072	6
12	MP-3	Z	-.071	6.5

Member Point Loads (BLC 7 : 120 Wind - No Ice)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP-2	X	.017	1.5
2	MP-2	X	.02	4.75
3	MP-1	X	.051	1
4	MP-3	X	.05	1
5	MP-1	X	.029	2
6	MP-1	X	.029	2
7	MP-3	X	.025	2
8	SF3-TH	X	.014	1.25
9	MP-2	X	.017	3.5
10	MP-2	X	.02	6.75
11	MP-1	X	.051	6
12	MP-3	X	.05	6.5
13	MP-2	Z	-.03	1.5
14	MP-2	Z	-.035	4.75
15	MP-1	Z	-.089	1
16	MP-3	Z	-.087	1
17	MP-1	Z	-.05	2
18	MP-1	Z	-.05	2
19	MP-3	Z	-.043	2
20	SF3-TH	Z	-.023	1.25
21	MP-2	Z	-.03	3.5
22	MP-2	Z	-.035	6.75
23	MP-1	Z	-.089	6
24	MP-3	Z	-.087	6.5

Member Point Loads (BLC 8 : 135 Wind - No Ice)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP-2	X	.03	1.5
2	MP-2	X	.037	4.75
3	MP-1	X	.094	1
4	MP-3	X	.092	1
5	MP-1	X	.037	2
6	MP-1	X	.038	2
7	MP-3	X	.034	2
8	SF3-TH	X	.019	1.25
9	MP-2	X	.03	3.5

Company : Tower Engineering Professionals, Inc.
Designer : GJS
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Member Point Loads (BLC 8 : 135 Wind - No Ice) (Continued)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
10	MP-2	X	.037	6.75
11	MP-1	X	.094	6
12	MP-3	X	.092	6.5
13	MP-2	Z	-.03	1.5
14	MP-2	Z	-.037	4.75
15	MP-1	Z	-.094	1
16	MP-3	Z	-.092	1
17	MP-1	Z	-.037	2
18	MP-1	Z	-.038	2
19	MP-3	Z	-.034	2
20	SF3-TH	Z	-.019	1.25
21	MP-2	Z	-.03	3.5
22	MP-2	Z	-.037	6.75
23	MP-1	Z	-.094	6
24	MP-3	Z	-.092	6.5

Member Point Loads (BLC 9 : 150 Wind - No Ice)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP-2	X	.044	1.5
2	MP-2	X	.054	4.75
3	MP-1	X	.142	1
4	MP-3	X	.139	1
5	MP-1	X	.04	2
6	MP-1	X	.043	2
7	MP-3	X	.039	2
8	SF3-TH	X	.023	1.25
9	MP-2	X	.044	3.5
10	MP-2	X	.054	6.75
11	MP-1	X	.142	6
12	MP-3	X	.139	6.5
13	MP-2	Z	-.025	1.5
14	MP-2	Z	-.031	4.75
15	MP-1	Z	-.082	1
16	MP-3	Z	-.08	1
17	MP-1	Z	-.023	2
18	MP-1	Z	-.025	2
19	MP-3	Z	-.023	2
20	SF3-TH	Z	-.014	1.25
21	MP-2	Z	-.025	3.5
22	MP-2	Z	-.031	6.75
23	MP-1	Z	-.082	6
24	MP-3	Z	-.08	6.5

Member Point Loads (BLC 10 : 180 Wind - No Ice)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP-2	X	.058	1.5
2	MP-2	X	.074	4.75
3	MP-1	X	.194	1
4	MP-3	X	.19	1
5	MP-1	X	.04	2
6	MP-1	X	.045	2

Member Point Loads (BLC 10 : 180 Wind - No Ice) (Continued)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
7	MP-3	X	.043	2
8	SF3-TH	X	.027	1.25
9	MP-2	X	.058	3.5
10	MP-2	X	.074	6.75
11	MP-1	X	.194	6
12	MP-3	X	.19	6.5

Member Point Loads (BLC 11 : 210 Wind - No Ice)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP-2	X	.044	1.5
2	MP-2	X	.054	4.75
3	MP-1	X	.142	1
4	MP-3	X	.139	1
5	MP-1	X	.04	2
6	MP-1	X	.043	2
7	MP-3	X	.039	2
8	SF3-TH	X	.023	1.25
9	MP-2	X	.044	3.5
10	MP-2	X	.054	6.75
11	MP-1	X	.142	6
12	MP-3	X	.139	6.5
13	MP-2	Z	.025	1.5
14	MP-2	Z	.031	4.75
15	MP-1	Z	.082	1
16	MP-3	Z	.08	1
17	MP-1	Z	.023	2
18	MP-1	Z	.025	2
19	MP-3	Z	.023	2
20	SF3-TH	Z	.014	1.25
21	MP-2	Z	.025	3.5
22	MP-2	Z	.031	6.75
23	MP-1	Z	.082	6
24	MP-3	Z	.08	6.5

Member Point Loads (BLC 12 : 225 Wind - No Ice)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP-2	X	.03	1.5
2	MP-2	X	.037	4.75
3	MP-1	X	.094	1
4	MP-3	X	.092	1
5	MP-1	X	.037	2
6	MP-1	X	.038	2
7	MP-3	X	.034	2
8	SF3-TH	X	.019	1.25
9	MP-2	X	.03	3.5
10	MP-2	X	.037	6.75
11	MP-1	X	.094	6
12	MP-3	X	.092	6.5
13	MP-2	Z	.03	1.5
14	MP-2	Z	.037	4.75
15	MP-1	Z	.094	1

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Member Point Loads (BLC 12 : 225 Wind - No Ice) (Continued)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
16	MP-3	Z	.092	1
17	MP-1	Z	.037	2
18	MP-1	Z	.038	2
19	MP-3	Z	.034	2
20	SF3-TH	Z	.019	1.25
21	MP-2	Z	.03	3.5
22	MP-2	Z	.037	6.75
23	MP-1	Z	.094	6
24	MP-3	Z	.092	6.5

Member Point Loads (BLC 13 : 240 Wind - No Ice)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP-2	X	.017	1.5
2	MP-2	X	.02	4.75
3	MP-1	X	.051	1
4	MP-3	X	.05	1
5	MP-1	X	.029	2
6	MP-1	X	.029	2
7	MP-3	X	.025	2
8	SF3-TH	X	.014	1.25
9	MP-2	X	.017	3.5
10	MP-2	X	.02	6.75
11	MP-1	X	.051	6
12	MP-3	X	.05	6.5
13	MP-2	Z	.03	1.5
14	MP-2	Z	.035	4.75
15	MP-1	Z	.089	1
16	MP-3	Z	.087	1
17	MP-1	Z	.05	2
18	MP-1	Z	.05	2
19	MP-3	Z	.043	2
20	SF3-TH	Z	.023	1.25
21	MP-2	Z	.03	3.5
22	MP-2	Z	.035	6.75
23	MP-1	Z	.089	6
24	MP-3	Z	.087	6.5

Member Point Loads (BLC 14 : 270 Wind - No Ice)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP-2	Z	.027	1.5
2	MP-2	Z	.03	4.75
3	MP-1	Z	.072	1
4	MP-3	Z	.071	1
5	MP-1	Z	.064	2
6	MP-1	Z	.063	2
7	MP-3	Z	.052	2
8	SF3-TH	Z	.027	1.25
9	MP-2	Z	.027	3.5
10	MP-2	Z	.03	6.75
11	MP-1	Z	.072	6
12	MP-3	Z	.071	6.5

Member Point Loads (BLC 15 : 300 Wind - No Ice)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP-2	X	-.017	1.5
2	MP-2	X	-.02	4.75
3	MP-1	X	-.051	1
4	MP-3	X	-.05	1
5	MP-1	X	-.029	2
6	MP-1	X	-.029	2
7	MP-3	X	-.025	2
8	SF3-TH	X	-.014	1.25
9	MP-2	X	-.017	3.5
10	MP-2	X	-.02	6.75
11	MP-1	X	-.051	6
12	MP-3	X	-.05	6.5
13	MP-2	Z	.03	1.5
14	MP-2	Z	.035	4.75
15	MP-1	Z	.089	1
16	MP-3	Z	.087	1
17	MP-1	Z	.05	2
18	MP-1	Z	.05	2
19	MP-3	Z	.043	2
20	SF3-TH	Z	.023	1.25
21	MP-2	Z	.03	3.5
22	MP-2	Z	.035	6.75
23	MP-1	Z	.089	6
24	MP-3	Z	.087	6.5

Member Point Loads (BLC 16 : 315 Wind - No Ice)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP-2	X	-.03	1.5
2	MP-2	X	-.037	4.75
3	MP-1	X	-.094	1
4	MP-3	X	-.092	1
5	MP-1	X	-.037	2
6	MP-1	X	-.038	2
7	MP-3	X	-.034	2
8	SF3-TH	X	-.019	1.25
9	MP-2	X	-.03	3.5
10	MP-2	X	-.037	6.75
11	MP-1	X	-.094	6
12	MP-3	X	-.092	6.5
13	MP-2	Z	.03	1.5
14	MP-2	Z	.037	4.75
15	MP-1	Z	.094	1
16	MP-3	Z	.092	1
17	MP-1	Z	.037	2
18	MP-1	Z	.038	2
19	MP-3	Z	.034	2
20	SF3-TH	Z	.019	1.25
21	MP-2	Z	.03	3.5
22	MP-2	Z	.037	6.75
23	MP-1	Z	.094	6
24	MP-3	Z	.092	6.5

Company : Tower Engineering Professionals, Inc.
Designer : GJS
Job Number : TEP No. 217399.698883
Model Name : Guilford SW (BU 842864)

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Member Point Loads (BLC 17 : 330 Wind - No Ice)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP-2	X	-.044	1.5
2	MP-2	X	-.054	4.75
3	MP-1	X	-.142	1
4	MP-3	X	-.139	1
5	MP-1	X	-.04	2
6	MP-1	X	-.043	2
7	MP-3	X	-.039	2
8	SF3-TH	X	-.023	1.25
9	MP-2	X	-.044	3.5
10	MP-2	X	-.054	6.75
11	MP-1	X	-.142	6
12	MP-3	X	-.139	6.5
13	MP-2	Z	.025	1.5
14	MP-2	Z	.031	4.75
15	MP-1	Z	.082	1
16	MP-3	Z	.08	1
17	MP-1	Z	.023	2
18	MP-1	Z	.025	2
19	MP-3	Z	.023	2
20	SF3-TH	Z	.014	1.25
21	MP-2	Z	.025	3.5
22	MP-2	Z	.031	6.75
23	MP-1	Z	.082	6
24	MP-3	Z	.08	6.5

Member Point Loads (BLC 18 : Ice Weight)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP-2	Y	-.035	1.5
2	MP-2	Y	-.031	4.75
3	MP-1	Y	-.088	1
4	MP-3	Y	-.087	1
5	MP-1	Y	-.043	2
6	MP-1	Y	-.045	2
7	MP-3	Y	-.043	2
8	SF3-TH	Y	-.034	1.25
9	MP-2	Y	-.035	3.5
10	MP-2	Y	-.031	6.75
11	MP-1	Y	-.088	6
12	MP-3	Y	-.087	6.5

Member Point Loads (BLC 19 : 0 Wind - Ice)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP-2	X	-.012	1.5
2	MP-2	X	-.015	4.75
3	MP-1	X	-.037	1
4	MP-3	X	-.036	1
5	MP-1	X	-.014	2
6	MP-1	X	-.014	2
7	MP-3	X	-.012	2
8	SF3-TH	X	-.006	1.25
9	MP-2	X	-.012	3.5

Member Point Loads (BLC 19 : 0 Wind - Ice) (Continued)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
10	MP-2	X	-.015	6.75
11	MP-1	X	-.037	6
12	MP-3	X	-.036	6.5

Member Point Loads (BLC 20 : 30 Wind - Ice)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP-2	X	-.009	1.5
2	MP-2	X	-.011	4.75
3	MP-1	X	-.027	1
4	MP-3	X	-.027	1
5	MP-1	X	-.009	2
6	MP-1	X	-.01	2
7	MP-3	X	-.009	2
8	SF3-TH	X	-.005	1.25
9	MP-2	X	-.009	3.5
10	MP-2	X	-.011	6.75
11	MP-1	X	-.027	6
12	MP-3	X	-.027	6.5
13	MP-2	Z	-.005	1.5
14	MP-2	Z	-.006	4.75
15	MP-1	Z	-.016	1
16	MP-3	Z	-.015	1
17	MP-1	Z	-.005	2
18	MP-1	Z	-.006	2
19	MP-3	Z	-.005	2
20	SF3-TH	Z	-.003	1.25
21	MP-2	Z	-.005	3.5
22	MP-2	Z	-.006	6.75
23	MP-1	Z	-.016	6
24	MP-3	Z	-.015	6.5

Member Point Loads (BLC 21 : 45 Wind - Ice)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP-2	X	-.006	1.5
2	MP-2	X	-.008	4.75
3	MP-1	X	-.019	1
4	MP-3	X	-.018	1
5	MP-1	X	-.008	2
6	MP-1	X	-.009	2
7	MP-3	X	-.008	2
8	SF3-TH	X	-.004	1.25
9	MP-2	X	-.006	3.5
10	MP-2	X	-.008	6.75
11	MP-1	X	-.019	6
12	MP-3	X	-.018	6.5
13	MP-2	Z	-.006	1.5
14	MP-2	Z	-.008	4.75
15	MP-1	Z	-.019	1
16	MP-3	Z	-.018	1
17	MP-1	Z	-.008	2
18	MP-1	Z	-.009	2

Company : Tower Engineering Professionals, Inc.
Designer : GJS
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Member Point Loads (BLC 21 : 45 Wind - Ice) (Continued)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
19	MP-3	Z	-.008	2
20	SF3-TH	Z	-.004	1.25
21	MP-2	Z	-.006	3.5
22	MP-2	Z	-.008	6.75
23	MP-1	Z	-.019	6
24	MP-3	Z	-.018	6.5

Member Point Loads (BLC 22 : 60 Wind - Ice)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP-2	X	-.004	1.5
2	MP-2	X	-.004	4.75
3	MP-1	X	-.01	1
4	MP-3	X	-.01	1
5	MP-1	X	-.006	2
6	MP-1	X	-.006	2
7	MP-3	X	-.006	2
8	SF3-TH	X	-.003	1.25
9	MP-2	X	-.004	3.5
10	MP-2	X	-.004	6.75
11	MP-1	X	-.01	6
12	MP-3	X	-.01	6.5
13	MP-2	Z	-.007	1.5
14	MP-2	Z	-.008	4.75
15	MP-1	Z	-.018	1
16	MP-3	Z	-.018	1
17	MP-1	Z	-.011	2
18	MP-1	Z	-.011	2
19	MP-3	Z	-.01	2
20	SF3-TH	Z	-.005	1.25
21	MP-2	Z	-.007	3.5
22	MP-2	Z	-.008	6.75
23	MP-1	Z	-.018	6
24	MP-3	Z	-.018	6.5

Member Point Loads (BLC 23 : 90 Wind - Ice)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP-2	Z	-.006	1.5
2	MP-2	Z	-.007	4.75
3	MP-1	Z	-.016	1
4	MP-3	Z	-.015	1
5	MP-1	Z	-.009	2
6	MP-1	Z	-.01	2
7	MP-3	Z	-.01	2
8	SF3-TH	Z	-.006	1.25
9	MP-2	Z	-.006	3.5
10	MP-2	Z	-.007	6.75
11	MP-1	Z	-.016	6
12	MP-3	Z	-.015	6.5

Member Point Loads (BLC 24 : 120 Wind - Ice)

Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]

Member Point Loads (BLC 24 : 120 Wind - Ice) (Continued)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP-2	X	.004	1.5
2	MP-2	X	.004	4.75
3	MP-1	X	.01	1
4	MP-3	X	.01	1
5	MP-1	X	.006	2
6	MP-1	X	.006	2
7	MP-3	X	.006	2
8	SF3-TH	X	.003	1.25
9	MP-2	X	.004	3.5
10	MP-2	X	.004	6.75
11	MP-1	X	.01	6
12	MP-3	X	.01	6.5
13	MP-2	Z	-.007	1.5
14	MP-2	Z	-.008	4.75
15	MP-1	Z	-.018	1
16	MP-3	Z	-.018	1
17	MP-1	Z	-.011	2
18	MP-1	Z	-.011	2
19	MP-3	Z	-.01	2
20	SF3-TH	Z	-.005	1.25
21	MP-2	Z	-.007	3.5
22	MP-2	Z	-.008	6.75
23	MP-1	Z	-.018	6
24	MP-3	Z	-.018	6.5

Member Point Loads (BLC 25 : 135 Wind - Ice)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP-2	X	.006	1.5
2	MP-2	X	.008	4.75
3	MP-1	X	.019	1
4	MP-3	X	.018	1
5	MP-1	X	.008	2
6	MP-1	X	.009	2
7	MP-3	X	.008	2
8	SF3-TH	X	.004	1.25
9	MP-2	X	.006	3.5
10	MP-2	X	.008	6.75
11	MP-1	X	.019	6
12	MP-3	X	.018	6.5
13	MP-2	Z	-.006	1.5
14	MP-2	Z	-.008	4.75
15	MP-1	Z	-.019	1
16	MP-3	Z	-.018	1
17	MP-1	Z	-.008	2
18	MP-1	Z	-.009	2
19	MP-3	Z	-.008	2
20	SF3-TH	Z	-.004	1.25
21	MP-2	Z	-.006	3.5
22	MP-2	Z	-.008	6.75
23	MP-1	Z	-.019	6
24	MP-3	Z	-.018	6.5

Company : Tower Engineering Professionals, Inc.
Designer : GJS
Job Number : TEP No. 217399.698883
Model Name : Guilford SW (BU 842864)

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Member Point Loads (BLC 26 : 150 Wind - Ice)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP-2	X	.009	1.5
2	MP-2	X	.011	4.75
3	MP-1	X	.027	1
4	MP-3	X	.027	1
5	MP-1	X	.009	2
6	MP-1	X	.01	2
7	MP-3	X	.009	2
8	SF3-TH	X	.005	1.25
9	MP-2	X	.009	3.5
10	MP-2	X	.011	6.75
11	MP-1	X	.027	6
12	MP-3	X	.027	6.5
13	MP-2	Z	-.005	1.5
14	MP-2	Z	-.006	4.75
15	MP-1	Z	-.016	1
16	MP-3	Z	-.015	1
17	MP-1	Z	-.005	2
18	MP-1	Z	-.006	2
19	MP-3	Z	-.005	2
20	SF3-TH	Z	-.003	1.25
21	MP-2	Z	-.005	3.5
22	MP-2	Z	-.006	6.75
23	MP-1	Z	-.016	6
24	MP-3	Z	-.015	6.5

Member Point Loads (BLC 27 : 180 Wind - Ice)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP-2	X	.012	1.5
2	MP-2	X	.015	4.75
3	MP-1	X	.037	1
4	MP-3	X	.036	1
5	MP-1	X	.014	2
6	MP-1	X	.014	2
7	MP-3	X	.012	2
8	SF3-TH	X	.006	1.25
9	MP-2	X	.012	3.5
10	MP-2	X	.015	6.75
11	MP-1	X	.037	6
12	MP-3	X	.036	6.5

Member Point Loads (BLC 28 : 210 Wind - Ice)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP-2	X	.009	1.5
2	MP-2	X	.011	4.75
3	MP-1	X	.027	1
4	MP-3	X	.027	1
5	MP-1	X	.009	2
6	MP-1	X	.01	2
7	MP-3	X	.009	2
8	SF3-TH	X	.005	1.25
9	MP-2	X	.009	3.5

Member Point Loads (BLC 28 : 210 Wind - Ice) (Continued)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
10	MP-2	X	.011	6.75
11	MP-1	X	.027	6
12	MP-3	X	.027	6.5
13	MP-2	Z	.005	1.5
14	MP-2	Z	.006	4.75
15	MP-1	Z	.016	1
16	MP-3	Z	.015	1
17	MP-1	Z	.005	2
18	MP-1	Z	.006	2
19	MP-3	Z	.005	2
20	SF3-TH	Z	.003	1.25
21	MP-2	Z	.005	3.5
22	MP-2	Z	.006	6.75
23	MP-1	Z	.016	6
24	MP-3	Z	.015	6.5

Member Point Loads (BLC 29 : 225 Wind - Ice)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP-2	X	.006	1.5
2	MP-2	X	.008	4.75
3	MP-1	X	.019	1
4	MP-3	X	.018	1
5	MP-1	X	.008	2
6	MP-1	X	.009	2
7	MP-3	X	.008	2
8	SF3-TH	X	.004	1.25
9	MP-2	X	.006	3.5
10	MP-2	X	.008	6.75
11	MP-1	X	.019	6
12	MP-3	X	.018	6.5
13	MP-2	Z	.006	1.5
14	MP-2	Z	.008	4.75
15	MP-1	Z	.019	1
16	MP-3	Z	.018	1
17	MP-1	Z	.008	2
18	MP-1	Z	.009	2
19	MP-3	Z	.008	2
20	SF3-TH	Z	.004	1.25
21	MP-2	Z	.006	3.5
22	MP-2	Z	.008	6.75
23	MP-1	Z	.019	6
24	MP-3	Z	.018	6.5

Member Point Loads (BLC 30 : 240 Wind - Ice)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP-2	X	.004	1.5
2	MP-2	X	.004	4.75
3	MP-1	X	.01	1
4	MP-3	X	.01	1
5	MP-1	X	.006	2
6	MP-1	X	.006	2

Company : Tower Engineering Professionals, Inc.
Designer : GJS
Job Number : TEP No. 217399.698883
Model Name : Guilford SW (BU 842864)

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Member Point Loads (BLC 30 : 240 Wind - Ice) (Continued)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
7	MP-3	X	.006	2
8	SF3-TH	X	.003	1.25
9	MP-2	X	.004	3.5
10	MP-2	X	.004	6.75
11	MP-1	X	.01	6
12	MP-3	X	.01	6.5
13	MP-2	Z	.007	1.5
14	MP-2	Z	.008	4.75
15	MP-1	Z	.018	1
16	MP-3	Z	.018	1
17	MP-1	Z	.011	2
18	MP-1	Z	.011	2
19	MP-3	Z	.01	2
20	SF3-TH	Z	.005	1.25
21	MP-2	Z	.007	3.5
22	MP-2	Z	.008	6.75
23	MP-1	Z	.018	6
24	MP-3	Z	.018	6.5

Member Point Loads (BLC 31 : 270 Wind - Ice)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP-2	Z	.006	1.5
2	MP-2	Z	.007	4.75
3	MP-1	Z	.016	1
4	MP-3	Z	.015	1
5	MP-1	Z	.009	2
6	MP-1	Z	.01	2
7	MP-3	Z	.01	2
8	SF3-TH	Z	.006	1.25
9	MP-2	Z	.006	3.5
10	MP-2	Z	.007	6.75
11	MP-1	Z	.016	6
12	MP-3	Z	.015	6.5

Member Point Loads (BLC 32 : 300 Wind - Ice)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP-2	X	-.004	1.5
2	MP-2	X	-.004	4.75
3	MP-1	X	-.01	1
4	MP-3	X	-.01	1
5	MP-1	X	-.006	2
6	MP-1	X	-.006	2
7	MP-3	X	-.006	2
8	SF3-TH	X	-.003	1.25
9	MP-2	X	-.004	3.5
10	MP-2	X	-.004	6.75
11	MP-1	X	-.01	6
12	MP-3	X	-.01	6.5
13	MP-2	Z	.007	1.5
14	MP-2	Z	.008	4.75
15	MP-1	Z	.018	1

Member Point Loads (BLC 32 : 300 Wind - Ice) (Continued)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
16	MP-3	Z	.018	1
17	MP-1	Z	.011	2
18	MP-1	Z	.011	2
19	MP-3	Z	.01	2
20	SF3-TH	Z	.005	1.25
21	MP-2	Z	.007	3.5
22	MP-2	Z	.008	6.75
23	MP-1	Z	.018	6
24	MP-3	Z	.018	6.5

Member Point Loads (BLC 33 : 315 Wind - Ice)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP-2	X	-.006	1.5
2	MP-2	X	-.008	4.75
3	MP-1	X	-.019	1
4	MP-3	X	-.018	1
5	MP-1	X	-.008	2
6	MP-1	X	-.009	2
7	MP-3	X	-.008	2
8	SF3-TH	X	-.004	1.25
9	MP-2	X	-.006	3.5
10	MP-2	X	-.008	6.75
11	MP-1	X	-.019	6
12	MP-3	X	-.018	6.5
13	MP-2	Z	.006	1.5
14	MP-2	Z	.008	4.75
15	MP-1	Z	.019	1
16	MP-3	Z	.018	1
17	MP-1	Z	.008	2
18	MP-1	Z	.009	2
19	MP-3	Z	.008	2
20	SF3-TH	Z	.004	1.25
21	MP-2	Z	.006	3.5
22	MP-2	Z	.008	6.75
23	MP-1	Z	.019	6
24	MP-3	Z	.018	6.5

Member Point Loads (BLC 34 : 330 Wind - Ice)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP-2	X	-.009	1.5
2	MP-2	X	-.011	4.75
3	MP-1	X	-.027	1
4	MP-3	X	-.027	1
5	MP-1	X	-.009	2
6	MP-1	X	-.01	2
7	MP-3	X	-.009	2
8	SF3-TH	X	-.005	1.25
9	MP-2	X	-.009	3.5
10	MP-2	X	-.011	6.75
11	MP-1	X	-.027	6
12	MP-3	X	-.027	6.5

Company : Tower Engineering Professionals, Inc.
Designer : GJS
Job Number : TEP No. 217399.698883
Model Name : Guilford SW (BU 842864)

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Member Point Loads (BLC 34 : 330 Wind - Ice) (Continued)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
13	MP-2	Z	.005	1.5
14	MP-2	Z	.006	4.75
15	MP-1	Z	.016	1
16	MP-3	Z	.015	1
17	MP-1	Z	.005	2
18	MP-1	Z	.006	2
19	MP-3	Z	.005	2
20	SF3-TH	Z	.003	1.25
21	MP-2	Z	.005	3.5
22	MP-2	Z	.006	6.75
23	MP-1	Z	.016	6
24	MP-3	Z	.015	6.5

Member Point Loads (BLC 37 : Seismic Load X)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP-2	X	-.041	1.5
2	MP-2	X	-.033	4.75
3	MP-1	X	-.032	1
4	MP-3	X	-.035	1
5	MP-1	X	-.059	2
6	MP-1	X	-.071	2
7	MP-3	X	-.072	2
8	SF3-TH	X	-.019	1.25
9	MP-2	X	-.041	3.5
10	MP-2	X	-.033	6.75
11	MP-1	X	-.032	6
12	MP-3	X	-.035	6.5

Member Point Loads (BLC 38 : Seismic Load Z)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP-2	Z	-.041	1.5
2	MP-2	Z	-.033	4.75
3	MP-1	Z	-.032	1
4	MP-3	Z	-.035	1
5	MP-1	Z	-.059	2
6	MP-1	Z	-.071	2
7	MP-3	Z	-.072	2
8	SF3-TH	Z	-.019	1.25
9	MP-2	Z	-.041	3.5
10	MP-2	Z	-.033	6.75
11	MP-1	Z	-.032	6
12	MP-3	Z	-.035	6.5

Member Distributed Loads (BLC 2 : 0 Wind - No Ice)

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	SF2-D1	X	-.002	-.002	0	%100
2	SF2-D1-X	X	-.002	-.002	0	%100
3	SF3-D1	X	-.002	-.002	0	%100
4	SF3-D1-X	X	-.002	-.002	0	%100

Member Distributed Loads (BLC 2 : 0 Wind - No Ice) (Continued)

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft,%]	End Location[ft,%]
5	SF2-V1	X	-.002	-.002	0	%100
6	SF2-V2	X	-.002	-.002	0	%100
7	SF3-V1	X	-.002	-.002	0	%100
8	SF3-V2	X	-.002	-.002	0	%100
9	SF2-CPB	X	-.000215	-.000215	0	%100
10	SF2-CPT	X	-.000215	-.000215	0	%100
11	SF3-CPB	X	-.000215	-.000215	0	%100
12	SF3-CPT	X	-.000215	-.000215	0	%100
13	FFBH-1	X	-.009	-.009	0	%100
14	FFBH-2	X	-.009	-.009	0	%100
15	FFBH-3	X	-.009	-.009	0	%100
16	FFTH-1	X	-.009	-.009	0	%100
17	FFTH-2	X	-.009	-.009	0	%100
18	FFTH-3	X	-.009	-.009	0	%100
19	SA-R	X	-.004	-.004	0	%100
20	SF2-BH	X	-.004	-.004	0	%100
21	SF2-TH	X	-.004	-.004	0	%100
22	SF3-BH	X	-.004	-.004	0	%100
23	SF3-TH	X	-.004	-.004	0	%100
24	MP-1	X	-.008	-.008	0	%100
25	MP-2	X	-.008	-.008	0	%100
26	MP-3	X	-.008	-.008	0	%100
27	MP-4	X	-.008	-.008	0	%100
28	MAST	X	-.009	-.009	0	%100
29	SA-L	X	-.004	-.004	0	%100

Member Distributed Loads (BLC 3 : 30 Wind - No Ice)

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	SF2-D1	X	-.002	-.002	0	%100
2	SF2-D1-X	X	-.002	-.002	0	%100
3	SF3-D1	X	-.002	-.002	0	%100
4	SF3-D1-X	X	-.002	-.002	0	%100
5	SF2-V1	X	-.002	-.002	0	%100
6	SF2-V2	X	-.002	-.002	0	%100
7	SF3-V1	X	-.002	-.002	0	%100
8	SF3-V2	X	-.002	-.002	0	%100
9	SF2-CPB	X	-.001	-.001	0	%100
10	SF2-CPT	X	-.001	-.001	0	%100
11	SF3-CPB	X	-.000692	-.000692	0	%100
12	SF3-CPT	X	-.000692	-.000692	0	%100
13	FFBH-1	X	-.007	-.007	0	%100
14	FFBH-2	X	-.007	-.007	0	%100
15	FFBH-3	X	-.007	-.007	0	%100
16	FFTH-1	X	-.007	-.007	0	%100
17	FFTH-2	X	-.007	-.007	0	%100
18	FFTH-3	X	-.007	-.007	0	%100
19	SA-R	X	-.000551	-.000551	0	%100
20	SF2-BH	X	-.005	-.005	0	%100
21	SF2-TH	X	-.005	-.005	0	%100
22	SF3-BH	X	-.001	-.001	0	%100
23	SF3-TH	X	-.001	-.001	0	%100

Company : Tower Engineering Professionals, Inc.
Designer : GJS
Job Number : TEP No. 217399.698883
Model Name : Guilford SW (BU 842864)

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Member Distributed Loads (BLC 3 : 30 Wind - No Ice) (Continued)

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft,%]	End Location[ft,%]
24	MP-1	X	-.007	-.007	0	%100
25	MP-2	X	-.007	-.007	0	%100
26	MP-3	X	-.007	-.007	0	%100
27	MP-4	X	-.007	-.007	0	%100
28	MAST	X	-.008	-.008	0	%100
29	SA-L	X	-.005	-.005	0	%100
30	SF2-D1	Z	-.000991	-.000991	0	%100
31	SF2-D1-X	Z	-.000991	-.000991	0	%100
32	SF3-D1	Z	-.000991	-.000991	0	%100
33	SF3-D1-X	Z	-.000991	-.000991	0	%100
34	SF2-V1	Z	-.001	-.001	0	%100
35	SF2-V2	Z	-.001	-.001	0	%100
36	SF3-V1	Z	-.001	-.001	0	%100
37	SF3-V2	Z	-.001	-.001	0	%100
38	SF2-CPB	Z	-.000688	-.000688	0	%100
39	SF2-CPT	Z	-.000688	-.000688	0	%100
40	SF3-CPB	Z	-.000469	-.000469	0	%100
41	SF3-CPT	Z	-.000469	-.000469	0	%100
42	FFBH-1	Z	-.002	-.002	0	%100
43	FFBH-2	Z	-.004	-.004	0	%100
44	FFBH-3	Z	-.002	-.002	0	%100
45	FFTH-1	Z	-.002	-.002	0	%100
46	FFTH-2	Z	-.004	-.004	0	%100
47	FFTH-3	Z	-.002	-.002	0	%100
48	SA-R	Z	-.00036	-.00036	0	%100
49	SF2-BH	Z	-.003	-.003	0	%100
50	SF2-TH	Z	-.003	-.003	0	%100
51	SF3-BH	Z	-.000782	-.000782	0	%100
52	SF3-TH	Z	-.000782	-.000782	0	%100
53	MP-1	Z	-.004	-.004	0	%100
54	MP-2	Z	-.004	-.004	0	%100
55	MP-3	Z	-.004	-.004	0	%100
56	MP-4	Z	-.004	-.004	0	%100
57	MAST	Z	-.004	-.004	0	%100
58	SA-L	Z	-.003	-.003	0	%100

Member Distributed Loads (BLC 4 : 45 Wind - No Ice)

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	SF2-D1	X	-.001	-.001	0	%100
2	SF2-D1-X	X	-.001	-.001	0	%100
3	SF3-D1	X	-.001	-.001	0	%100
4	SF3-D1-X	X	-.001	-.001	0	%100
5	SF2-V1	X	-.002	-.002	0	%100
6	SF2-V2	X	-.002	-.002	0	%100
7	SF3-V1	X	-.002	-.002	0	%100
8	SF3-V2	X	-.002	-.002	0	%100
9	SF2-CPB	X	-.001	-.001	0	%100
10	SF2-CPT	X	-.001	-.001	0	%100
11	SF3-CPB	X	-.000877	-.000877	0	%100
12	SF3-CPT	X	-.000877	-.000877	0	%100
13	FFBH-1	X	-.005	-.005	0	%100

Member Distributed Loads (BLC 4 : 45 Wind - No Ice) (Continued)

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft,%]	End Location[ft,%]
14	FFBH-2	X	-.005	-.005	0	%100
15	FFBH-3	X	-.005	-.005	0	%100
16	FFTH-1	X	-.005	-.005	0	%100
17	FFTH-2	X	-.005	-.005	0	%100
18	FFTH-3	X	-.005	-.005	0	%100
19	SA-R	X	-.000686	-.000686	0	%100
20	SF2-BH	X	-.004	-.004	0	%100
21	SF2-TH	X	-.004	-.004	0	%100
22	SF3-BH	X	-.000157	-.000157	0	%100
23	SF3-TH	X	-.000157	-.000157	0	%100
24	MP-1	X	-.005	-.005	0	%100
25	MP-2	X	-.005	-.005	0	%100
26	MP-3	X	-.005	-.005	0	%100
27	MP-4	X	-.005	-.005	0	%100
28	MAST	X	-.006	-.006	0	%100
29	SA-L	X	-.004	-.004	0	%100
30	SF2-D1	Z	-.001	-.001	0	%100
31	SF2-D1-X	Z	-.001	-.001	0	%100
32	SF3-D1	Z	-.001	-.001	0	%100
33	SF3-D1-X	Z	-.001	-.001	0	%100
34	SF2-V1	Z	-.002	-.002	0	%100
35	SF2-V2	Z	-.002	-.002	0	%100
36	SF3-V1	Z	-.002	-.002	0	%100
37	SF3-V2	Z	-.002	-.002	0	%100
38	SF2-CPB	Z	-.001	-.001	0	%100
39	SF2-CPT	Z	-.001	-.001	0	%100
40	SF3-CPB	Z	-.001	-.001	0	%100
41	SF3-CPT	Z	-.001	-.001	0	%100
42	FFBH-1	Z	-.003	-.003	0	%100
43	FFBH-2	Z	-.005	-.005	0	%100
44	FFBH-3	Z	-.003	-.003	0	%100
45	FFTH-1	Z	-.003	-.003	0	%100
46	FFTH-2	Z	-.005	-.005	0	%100
47	FFTH-3	Z	-.003	-.003	0	%100
48	SA-R	Z	-.000775	-.000775	0	%100
49	SF2-BH	Z	-.004	-.004	0	%100
50	SF2-TH	Z	-.004	-.004	0	%100
51	SF3-BH	Z	-.000154	-.000154	0	%100
52	SF3-TH	Z	-.000154	-.000154	0	%100
53	MP-1	Z	-.005	-.005	0	%100
54	MP-2	Z	-.005	-.005	0	%100
55	MP-3	Z	-.005	-.005	0	%100
56	MP-4	Z	-.005	-.005	0	%100
57	MAST	Z	-.006	-.006	0	%100
58	SA-L	Z	-.005	-.005	0	%100

Member Distributed Loads (BLC 5 : 60 Wind - No Ice)

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	SF2-D1	X	-.000991	-.000991	0	%100
2	SF2-D1-X	X	-.000991	-.000991	0	%100
3	SF3-D1	X	-.000991	-.000991	0	%100

Company : Tower Engineering Professionals, Inc.
Designer : GJS
Job Number : TEP No. 217399.698883
Model Name : Guilford SW (BU 842864)

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Member Distributed Loads (BLC 5 : 60 Wind - No Ice) (Continued)

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft,%]	End Location[ft,%]
4	SF3-D1-X	X	-.000991	-.000991	0	%100
5	SF2-V1	X	-.001	-.001	0	%100
6	SF2-V2	X	-.001	-.001	0	%100
7	SF3-V1	X	-.001	-.001	0	%100
8	SF3-V2	X	-.001	-.001	0	%100
9	SF2-CPB	X	-.000907	-.000907	0	%100
10	SF2-CPT	X	-.000907	-.000907	0	%100
11	SF3-CPB	X	-.000799	-.000799	0	%100
12	SF3-CPT	X	-.000799	-.000799	0	%100
13	FFBH-1	X	-.002	-.002	0	%100
14	FFBH-2	X	-.002	-.002	0	%100
15	FFBH-3	X	-.002	-.002	0	%100
16	FFTH-1	X	-.002	-.002	0	%100
17	FFTH-2	X	-.002	-.002	0	%100
18	FFTH-3	X	-.002	-.002	0	%100
19	SA-R	X	-.001	-.001	0	%100
20	SF2-BH	X	-.003	-.003	0	%100
21	SF2-TH	X	-.003	-.003	0	%100
22	SF3-BH	X	-.000583	-.000583	0	%100
23	SF3-TH	X	-.000583	-.000583	0	%100
24	MP-1	X	-.004	-.004	0	%100
25	MP-2	X	-.004	-.004	0	%100
26	MP-3	X	-.004	-.004	0	%100
27	MP-4	X	-.004	-.004	0	%100
28	MAST	X	-.004	-.004	0	%100
29	SA-L	X	-.003	-.003	0	%100
30	SF2-D1	Z	-.002	-.002	0	%100
31	SF2-D1-X	Z	-.002	-.002	0	%100
32	SF3-D1	Z	-.002	-.002	0	%100
33	SF3-D1-X	Z	-.002	-.002	0	%100
34	SF2-V1	Z	-.002	-.002	0	%100
35	SF2-V2	Z	-.002	-.002	0	%100
36	SF3-V1	Z	-.002	-.002	0	%100
37	SF3-V2	Z	-.002	-.002	0	%100
38	SF2-CPB	Z	-.002	-.002	0	%100
39	SF2-CPT	Z	-.002	-.002	0	%100
40	SF3-CPB	Z	-.002	-.002	0	%100
41	SF3-CPT	Z	-.002	-.002	0	%100
42	FFBH-1	Z	-.002	-.002	0	%100
43	FFBH-2	Z	-.004	-.004	0	%100
44	FFBH-3	Z	-.002	-.002	0	%100
45	FFTH-1	Z	-.002	-.002	0	%100
46	FFTH-2	Z	-.004	-.004	0	%100
47	FFTH-3	Z	-.002	-.002	0	%100
48	SA-R	Z	-.002	-.002	0	%100
49	SF2-BH	Z	-.004	-.004	0	%100
50	SF2-TH	Z	-.004	-.004	0	%100
51	SF3-BH	Z	-.000991	-.000991	0	%100
52	SF3-TH	Z	-.000991	-.000991	0	%100
53	MP-1	Z	-.007	-.007	0	%100
54	MP-2	Z	-.007	-.007	0	%100
55	MP-3	Z	-.007	-.007	0	%100

Member Distributed Loads (BLC 5 : 60 Wind - No Ice) (Continued)

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft,%]	End Location[ft,%]
56	MP-4	Z	-.007	-.007	0	%100
57	MAST	Z	-.008	-.008	0	%100
58	SA-L	Z	-.006	-.006	0	%100

Member Distributed Loads (BLC 6 : 90 Wind - No Ice)

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	SF2-D1	Z	-.002	-.002	0	%100
2	SF2-D1-X	Z	-.002	-.002	0	%100
3	SF3-D1	Z	-.002	-.002	0	%100
4	SF3-D1-X	Z	-.002	-.002	0	%100
5	SF2-V1	Z	-.002	-.002	0	%100
6	SF2-V2	Z	-.002	-.002	0	%100
7	SF3-V1	Z	-.002	-.002	0	%100
8	SF3-V2	Z	-.002	-.002	0	%100
9	SF2-CPB	Z	-.002	-.002	0	%100
10	SF2-CPT	Z	-.002	-.002	0	%100
11	SF3-CPB	Z	-.002	-.002	0	%100
12	SF3-CPT	Z	-.002	-.002	0	%100
13	FFBH-1	Z	0	0	0	%100
14	FFBH-2	Z	0	0	0	%100
15	FFBH-3	Z	0	0	0	%100
16	FFTH-1	Z	0	0	0	%100
17	FFTH-2	Z	0	0	0	%100
18	FFTH-3	Z	0	0	0	%100
19	SA-R	Z	-.006	-.006	0	%100
20	SF2-BH	Z	-.004	-.004	0	%100
21	SF2-TH	Z	-.004	-.004	0	%100
22	SF3-BH	Z	-.004	-.004	0	%100
23	SF3-TH	Z	-.004	-.004	0	%100
24	MP-1	Z	-.008	-.008	0	%100
25	MP-2	Z	-.008	-.008	0	%100
26	MP-3	Z	-.008	-.008	0	%100
27	MP-4	Z	-.008	-.008	0	%100
28	MAST	Z	-.009	-.009	0	%100
29	SA-L	Z	-.006	-.006	0	%100

Member Distributed Loads (BLC 7 : 120 Wind - No Ice)

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	SF2-D1	X	.000991	.000991	0	%100
2	SF2-D1-X	X	.000991	.000991	0	%100
3	SF3-D1	X	.000991	.000991	0	%100
4	SF3-D1-X	X	.000991	.000991	0	%100
5	SF2-V1	X	.001	.001	0	%100
6	SF2-V2	X	.001	.001	0	%100
7	SF3-V1	X	.001	.001	0	%100
8	SF3-V2	X	.001	.001	0	%100
9	SF2-CPB	X	.000799	.000799	0	%100
10	SF2-CPT	X	.000799	.000799	0	%100
11	SF3-CPB	X	.000907	.000907	0	%100
12	SF3-CPT	X	.000907	.000907	0	%100
13	FFBH-1	X	.002	.002	0	%100

Company : Tower Engineering Professionals, Inc.
Designer : GJS
Job Number : TEP No. 217399.698883
Model Name : Guilford SW (BU 842864)

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Member Distributed Loads (BLC 7 : 120 Wind - No Ice) (Continued)

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft,%]	End Location[ft,%]
14	FFBH-2	X	.002	.002	0	%100
15	FFBH-3	X	.002	.002	0	%100
16	FFTH-1	X	.002	.002	0	%100
17	FFTH-2	X	.002	.002	0	%100
18	FFTH-3	X	.002	.002	0	%100
19	SA-R	X	.003	.003	0	%100
20	SF2-BH	X	.000583	.000583	0	%100
21	SF2-TH	X	.000583	.000583	0	%100
22	SF3-BH	X	.003	.003	0	%100
23	SF3-TH	X	.003	.003	0	%100
24	MP-1	X	.004	.004	0	%100
25	MP-2	X	.004	.004	0	%100
26	MP-3	X	.004	.004	0	%100
27	MP-4	X	.004	.004	0	%100
28	MAST	X	.004	.004	0	%100
29	SA-L	X	.001	.001	0	%100
30	SF2-D1	Z	-.002	-.002	0	%100
31	SF2-D1-X	Z	-.002	-.002	0	%100
32	SF3-D1	Z	-.002	-.002	0	%100
33	SF3-D1-X	Z	-.002	-.002	0	%100
34	SF2-V1	Z	-.002	-.002	0	%100
35	SF2-V2	Z	-.002	-.002	0	%100
36	SF3-V1	Z	-.002	-.002	0	%100
37	SF3-V2	Z	-.002	-.002	0	%100
38	SF2-CPB	Z	-.002	-.002	0	%100
39	SF2-CPT	Z	-.002	-.002	0	%100
40	SF3-CPB	Z	-.002	-.002	0	%100
41	SF3-CPT	Z	-.002	-.002	0	%100
42	FFBH-1	Z	-.002	-.002	0	%100
43	FFBH-2	Z	-.004	-.004	0	%100
44	FFBH-3	Z	-.002	-.002	0	%100
45	FFTH-1	Z	-.002	-.002	0	%100
46	FFTH-2	Z	-.004	-.004	0	%100
47	FFTH-3	Z	-.002	-.002	0	%100
48	SA-R	Z	-.006	-.006	0	%100
49	SF2-BH	Z	-.000991	-.000991	0	%100
50	SF2-TH	Z	-.000991	-.000991	0	%100
51	SF3-BH	Z	-.004	-.004	0	%100
52	SF3-TH	Z	-.004	-.004	0	%100
53	MP-1	Z	-.007	-.007	0	%100
54	MP-2	Z	-.007	-.007	0	%100
55	MP-3	Z	-.007	-.007	0	%100
56	MP-4	Z	-.007	-.007	0	%100
57	MAST	Z	-.008	-.008	0	%100
58	SA-L	Z	-.002	-.002	0	%100

Member Distributed Loads (BLC 8 : 135 Wind - No Ice)

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	SF2-D1	X	.001	.001	0	%100
2	SF2-D1-X	X	.001	.001	0	%100
3	SF3-D1	X	.001	.001	0	%100

Member Distributed Loads (BLC 8 : 135 Wind - No Ice) (Continued)

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft,%]	End Location[ft,%]
4	SF3-D1-X	X	.001	.001	0	%100
5	SF2-V1	X	.002	.002	0	%100
6	SF2-V2	X	.002	.002	0	%100
7	SF3-V1	X	.002	.002	0	%100
8	SF3-V2	X	.002	.002	0	%100
9	SF2-CPB	X	.000877	.000877	0	%100
10	SF2-CPT	X	.000877	.000877	0	%100
11	SF3-CPB	X	.001	.001	0	%100
12	SF3-CPT	X	.001	.001	0	%100
13	FFBH-1	X	.005	.005	0	%100
14	FFBH-2	X	.005	.005	0	%100
15	FFBH-3	X	.005	.005	0	%100
16	FFTH-1	X	.005	.005	0	%100
17	FFTH-2	X	.005	.005	0	%100
18	FFTH-3	X	.005	.005	0	%100
19	SA-R	X	.004	.004	0	%100
20	SF2-BH	X	.000157	.000157	0	%100
21	SF2-TH	X	.000157	.000157	0	%100
22	SF3-BH	X	.004	.004	0	%100
23	SF3-TH	X	.004	.004	0	%100
24	MP-1	X	.005	.005	0	%100
25	MP-2	X	.005	.005	0	%100
26	MP-3	X	.005	.005	0	%100
27	MP-4	X	.005	.005	0	%100
28	MAST	X	.006	.006	0	%100
29	SA-L	X	.000686	.000686	0	%100
30	SF2-D1	Z	-.001	-.001	0	%100
31	SF2-D1-X	Z	-.001	-.001	0	%100
32	SF3-D1	Z	-.001	-.001	0	%100
33	SF3-D1-X	Z	-.001	-.001	0	%100
34	SF2-V1	Z	-.002	-.002	0	%100
35	SF2-V2	Z	-.002	-.002	0	%100
36	SF3-V1	Z	-.002	-.002	0	%100
37	SF3-V2	Z	-.002	-.002	0	%100
38	SF2-CPB	Z	-.001	-.001	0	%100
39	SF2-CPT	Z	-.001	-.001	0	%100
40	SF3-CPB	Z	-.001	-.001	0	%100
41	SF3-CPT	Z	-.001	-.001	0	%100
42	FFBH-1	Z	-.003	-.003	0	%100
43	FFBH-2	Z	-.005	-.005	0	%100
44	FFBH-3	Z	-.003	-.003	0	%100
45	FFTH-1	Z	-.003	-.003	0	%100
46	FFTH-2	Z	-.005	-.005	0	%100
47	FFTH-3	Z	-.003	-.003	0	%100
48	SA-R	Z	-.005	-.005	0	%100
49	SF2-BH	Z	-.000154	-.000154	0	%100
50	SF2-TH	Z	-.000154	-.000154	0	%100
51	SF3-BH	Z	-.004	-.004	0	%100
52	SF3-TH	Z	-.004	-.004	0	%100
53	MP-1	Z	-.005	-.005	0	%100
54	MP-2	Z	-.005	-.005	0	%100
55	MP-3	Z	-.005	-.005	0	%100

Company : Tower Engineering Professionals, Inc.
Designer : GJS
Job Number : TEP No. 217399.698883
Model Name : Guilford SW (BU 842864)

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Member Distributed Loads (BLC 8 : 135 Wind - No Ice) (Continued)

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft,%]	End Location[ft,%]
56	MP-4	Z	-.005	-.005	0	%100
57	MAST	Z	-.006	-.006	0	%100
58	SA-L	Z	-.000775	-.000775	0	%100

Member Distributed Loads (BLC 9 : 150 Wind - No Ice)

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	SF2-D1	X	.002	.002	0	%100
2	SF2-D1-X	X	.002	.002	0	%100
3	SF3-D1	X	.002	.002	0	%100
4	SF3-D1-X	X	.002	.002	0	%100
5	SF2-V1	X	.002	.002	0	%100
6	SF2-V2	X	.002	.002	0	%100
7	SF3-V1	X	.002	.002	0	%100
8	SF3-V2	X	.002	.002	0	%100
9	SF2-CPB	X	.000692	.000692	0	%100
10	SF2-CPT	X	.000692	.000692	0	%100
11	SF3-CPB	X	.001	.001	0	%100
12	SF3-CPT	X	.001	.001	0	%100
13	FFBH-1	X	.007	.007	0	%100
14	FFBH-2	X	.007	.007	0	%100
15	FFBH-3	X	.007	.007	0	%100
16	FFTH-1	X	.007	.007	0	%100
17	FFTH-2	X	.007	.007	0	%100
18	FFTH-3	X	.007	.007	0	%100
19	SA-R	X	.005	.005	0	%100
20	SF2-BH	X	.001	.001	0	%100
21	SF2-TH	X	.001	.001	0	%100
22	SF3-BH	X	.005	.005	0	%100
23	SF3-TH	X	.005	.005	0	%100
24	MP-1	X	.007	.007	0	%100
25	MP-2	X	.007	.007	0	%100
26	MP-3	X	.007	.007	0	%100
27	MP-4	X	.007	.007	0	%100
28	MAST	X	.008	.008	0	%100
29	SA-L	X	.000551	.000551	0	%100
30	SF2-D1	Z	-.000991	-.000991	0	%100
31	SF2-D1-X	Z	-.000991	-.000991	0	%100
32	SF3-D1	Z	-.000991	-.000991	0	%100
33	SF3-D1-X	Z	-.000991	-.000991	0	%100
34	SF2-V1	Z	-.001	-.001	0	%100
35	SF2-V2	Z	-.001	-.001	0	%100
36	SF3-V1	Z	-.001	-.001	0	%100
37	SF3-V2	Z	-.001	-.001	0	%100
38	SF2-CPB	Z	-.000469	-.000469	0	%100
39	SF2-CPT	Z	-.000469	-.000469	0	%100
40	SF3-CPB	Z	-.000688	-.000688	0	%100
41	SF3-CPT	Z	-.000688	-.000688	0	%100
42	FFBH-1	Z	-.002	-.002	0	%100
43	FFBH-2	Z	-.004	-.004	0	%100
44	FFBH-3	Z	-.002	-.002	0	%100
45	FFTH-1	Z	-.002	-.002	0	%100

Member Distributed Loads (BLC 9 : 150 Wind - No Ice) (Continued)

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft,%]	End Location[ft,%]
46	FFTH-2	Z	-.004	-.004	0	%100
47	FFTH-3	Z	-.002	-.002	0	%100
48	SA-R	Z	-.003	-.003	0	%100
49	SF2-BH	Z	-.000782	-.000782	0	%100
50	SF2-TH	Z	-.000782	-.000782	0	%100
51	SF3-BH	Z	-.003	-.003	0	%100
52	SF3-TH	Z	-.003	-.003	0	%100
53	MP-1	Z	-.004	-.004	0	%100
54	MP-2	Z	-.004	-.004	0	%100
55	MP-3	Z	-.004	-.004	0	%100
56	MP-4	Z	-.004	-.004	0	%100
57	MAST	Z	-.004	-.004	0	%100
58	SA-L	Z	-.00036	-.00036	0	%100

Member Distributed Loads (BLC 10 : 180 Wind - No Ice)

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	SF2-D1	X	.002	.002	0	%100
2	SF2-D1-X	X	.002	.002	0	%100
3	SF3-D1	X	.002	.002	0	%100
4	SF3-D1-X	X	.002	.002	0	%100
5	SF2-V1	X	.002	.002	0	%100
6	SF2-V2	X	.002	.002	0	%100
7	SF3-V1	X	.002	.002	0	%100
8	SF3-V2	X	.002	.002	0	%100
9	SF2-CPB	X	.000215	.000215	0	%100
10	SF2-CPT	X	.000215	.000215	0	%100
11	SF3-CPB	X	.000215	.000215	0	%100
12	SF3-CPT	X	.000215	.000215	0	%100
13	FFBH-1	X	.009	.009	0	%100
14	FFBH-2	X	.009	.009	0	%100
15	FFBH-3	X	.009	.009	0	%100
16	FFTH-1	X	.009	.009	0	%100
17	FFTH-2	X	.009	.009	0	%100
18	FFTH-3	X	.009	.009	0	%100
19	SA-R	X	.004	.004	0	%100
20	SF2-BH	X	.004	.004	0	%100
21	SF2-TH	X	.004	.004	0	%100
22	SF3-BH	X	.004	.004	0	%100
23	SF3-TH	X	.004	.004	0	%100
24	MP-1	X	.008	.008	0	%100
25	MP-2	X	.008	.008	0	%100
26	MP-3	X	.008	.008	0	%100
27	MP-4	X	.008	.008	0	%100
28	MAST	X	.009	.009	0	%100
29	SA-L	X	.004	.004	0	%100

Member Distributed Loads (BLC 11 : 210 Wind - No Ice)

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	SF2-D1	X	.002	.002	0	%100
2	SF2-D1-X	X	.002	.002	0	%100
3	SF3-D1	X	.002	.002	0	%100

Company : Tower Engineering Professionals, Inc.
Designer : GJS
Job Number : TEP No. 217399.698883
Model Name : Guilford SW (BU 842864)

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Member Distributed Loads (BLC 11 : 210 Wind - No Ice) (Continued)

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft,%]	End Location[ft,%]
4	SF3-D1-X	X	.002	.002	0	%100
5	SF2-V1	X	.002	.002	0	%100
6	SF2-V2	X	.002	.002	0	%100
7	SF3-V1	X	.002	.002	0	%100
8	SF3-V2	X	.002	.002	0	%100
9	SF2-CPB	X	.001	.001	0	%100
10	SF2-CPT	X	.001	.001	0	%100
11	SF3-CPB	X	.000692	.000692	0	%100
12	SF3-CPT	X	.000692	.000692	0	%100
13	FFBH-1	X	.007	.007	0	%100
14	FFBH-2	X	.007	.007	0	%100
15	FFBH-3	X	.007	.007	0	%100
16	FFTH-1	X	.007	.007	0	%100
17	FFTH-2	X	.007	.007	0	%100
18	FFTH-3	X	.007	.007	0	%100
19	SA-R	X	.000551	.000551	0	%100
20	SF2-BH	X	.005	.005	0	%100
21	SF2-TH	X	.005	.005	0	%100
22	SF3-BH	X	.001	.001	0	%100
23	SF3-TH	X	.001	.001	0	%100
24	MP-1	X	.007	.007	0	%100
25	MP-2	X	.007	.007	0	%100
26	MP-3	X	.007	.007	0	%100
27	MP-4	X	.007	.007	0	%100
28	MAST	X	.008	.008	0	%100
29	SA-L	X	.005	.005	0	%100
30	SF2-D1	Z	.000991	.000991	0	%100
31	SF2-D1-X	Z	.000991	.000991	0	%100
32	SF3-D1	Z	.000991	.000991	0	%100
33	SF3-D1-X	Z	.000991	.000991	0	%100
34	SF2-V1	Z	.001	.001	0	%100
35	SF2-V2	Z	.001	.001	0	%100
36	SF3-V1	Z	.001	.001	0	%100
37	SF3-V2	Z	.001	.001	0	%100
38	SF2-CPB	Z	.000688	.000688	0	%100
39	SF2-CPT	Z	.000688	.000688	0	%100
40	SF3-CPB	Z	.000469	.000469	0	%100
41	SF3-CPT	Z	.000469	.000469	0	%100
42	FFBH-1	Z	.002	.002	0	%100
43	FFBH-2	Z	.004	.004	0	%100
44	FFBH-3	Z	.002	.002	0	%100
45	FFTH-1	Z	.002	.002	0	%100
46	FFTH-2	Z	.004	.004	0	%100
47	FFTH-3	Z	.002	.002	0	%100
48	SA-R	Z	.00036	.00036	0	%100
49	SF2-BH	Z	.003	.003	0	%100
50	SF2-TH	Z	.003	.003	0	%100
51	SF3-BH	Z	.000782	.000782	0	%100
52	SF3-TH	Z	.000782	.000782	0	%100
53	MP-1	Z	.004	.004	0	%100
54	MP-2	Z	.004	.004	0	%100
55	MP-3	Z	.004	.004	0	%100

Member Distributed Loads (BLC 11 : 210 Wind - No Ice) (Continued)

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft,%]	End Location[ft,%]
56	MP-4	Z	.004	.004	0	%100
57	MAST	Z	.004	.004	0	%100
58	SA-L	Z	.003	.003	0	%100

Member Distributed Loads (BLC 12 : 225 Wind - No Ice)

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	SF2-D1	X	.001	.001	0	%100
2	SF2-D1-X	X	.001	.001	0	%100
3	SF3-D1	X	.001	.001	0	%100
4	SF3-D1-X	X	.001	.001	0	%100
5	SF2-V1	X	.002	.002	0	%100
6	SF2-V2	X	.002	.002	0	%100
7	SF3-V1	X	.002	.002	0	%100
8	SF3-V2	X	.002	.002	0	%100
9	SF2-CPB	X	.001	.001	0	%100
10	SF2-CPT	X	.001	.001	0	%100
11	SF3-CPB	X	.000877	.000877	0	%100
12	SF3-CPT	X	.000877	.000877	0	%100
13	FFBH-1	X	.005	.005	0	%100
14	FFBH-2	X	.005	.005	0	%100
15	FFBH-3	X	.005	.005	0	%100
16	FFTH-1	X	.005	.005	0	%100
17	FFTH-2	X	.005	.005	0	%100
18	FFTH-3	X	.005	.005	0	%100
19	SA-R	X	.000686	.000686	0	%100
20	SF2-BH	X	.004	.004	0	%100
21	SF2-TH	X	.004	.004	0	%100
22	SF3-BH	X	.000157	.000157	0	%100
23	SF3-TH	X	.000157	.000157	0	%100
24	MP-1	X	.005	.005	0	%100
25	MP-2	X	.005	.005	0	%100
26	MP-3	X	.005	.005	0	%100
27	MP-4	X	.005	.005	0	%100
28	MAST	X	.006	.006	0	%100
29	SA-L	X	.004	.004	0	%100
30	SF2-D1	Z	.001	.001	0	%100
31	SF2-D1-X	Z	.001	.001	0	%100
32	SF3-D1	Z	.001	.001	0	%100
33	SF3-D1-X	Z	.001	.001	0	%100
34	SF2-V1	Z	.002	.002	0	%100
35	SF2-V2	Z	.002	.002	0	%100
36	SF3-V1	Z	.002	.002	0	%100
37	SF3-V2	Z	.002	.002	0	%100
38	SF2-CPB	Z	.001	.001	0	%100
39	SF2-CPT	Z	.001	.001	0	%100
40	SF3-CPB	Z	.001	.001	0	%100
41	SF3-CPT	Z	.001	.001	0	%100
42	FFBH-1	Z	.003	.003	0	%100
43	FFBH-2	Z	.005	.005	0	%100
44	FFBH-3	Z	.003	.003	0	%100
45	FFTH-1	Z	.003	.003	0	%100

Company : Tower Engineering Professionals, Inc.
Designer : GJS
Job Number : TEP No. 217399.698883
Model Name : Guilford SW (BU 842864)

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Member Distributed Loads (BLC 12 : 225 Wind - No Ice) (Continued)

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft,%]	End Location[ft,%]
46	FFTH-2	Z	.005	.005	0	%100
47	FFTH-3	Z	.003	.003	0	%100
48	SA-R	Z	.000775	.000775	0	%100
49	SF2-BH	Z	.004	.004	0	%100
50	SF2-TH	Z	.004	.004	0	%100
51	SF3-BH	Z	.000154	.000154	0	%100
52	SF3-TH	Z	.000154	.000154	0	%100
53	MP-1	Z	.005	.005	0	%100
54	MP-2	Z	.005	.005	0	%100
55	MP-3	Z	.005	.005	0	%100
56	MP-4	Z	.005	.005	0	%100
57	MAST	Z	.006	.006	0	%100
58	SA-L	Z	.005	.005	0	%100

Member Distributed Loads (BLC 13 : 240 Wind - No Ice)

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	SF2-D1	X	.000991	.000991	0	%100
2	SF2-D1-X	X	.000991	.000991	0	%100
3	SF3-D1	X	.000991	.000991	0	%100
4	SF3-D1-X	X	.000991	.000991	0	%100
5	SF2-V1	X	.001	.001	0	%100
6	SF2-V2	X	.001	.001	0	%100
7	SF3-V1	X	.001	.001	0	%100
8	SF3-V2	X	.001	.001	0	%100
9	SF2-CPB	X	.000907	.000907	0	%100
10	SF2-CPT	X	.000907	.000907	0	%100
11	SF3-CPB	X	.000799	.000799	0	%100
12	SF3-CPT	X	.000799	.000799	0	%100
13	FFBH-1	X	.002	.002	0	%100
14	FFBH-2	X	.002	.002	0	%100
15	FFBH-3	X	.002	.002	0	%100
16	FFTH-1	X	.002	.002	0	%100
17	FFTH-2	X	.002	.002	0	%100
18	FFTH-3	X	.002	.002	0	%100
19	SA-R	X	.001	.001	0	%100
20	SF2-BH	X	.003	.003	0	%100
21	SF2-TH	X	.003	.003	0	%100
22	SF3-BH	X	.000583	.000583	0	%100
23	SF3-TH	X	.000583	.000583	0	%100
24	MP-1	X	.004	.004	0	%100
25	MP-2	X	.004	.004	0	%100
26	MP-3	X	.004	.004	0	%100
27	MP-4	X	.004	.004	0	%100
28	MAST	X	.004	.004	0	%100
29	SA-L	X	.003	.003	0	%100
30	SF2-D1	Z	.002	.002	0	%100
31	SF2-D1-X	Z	.002	.002	0	%100
32	SF3-D1	Z	.002	.002	0	%100
33	SF3-D1-X	Z	.002	.002	0	%100
34	SF2-V1	Z	.002	.002	0	%100
35	SF2-V2	Z	.002	.002	0	%100

Member Distributed Loads (BLC 13 : 240 Wind - No Ice) (Continued)

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft,%]	End Location[ft,%]
36	SF3-V1	Z	.002	.002	0	%100
37	SF3-V2	Z	.002	.002	0	%100
38	SF2-CPB	Z	.002	.002	0	%100
39	SF2-CPT	Z	.002	.002	0	%100
40	SF3-CPB	Z	.002	.002	0	%100
41	SF3-CPT	Z	.002	.002	0	%100
42	FFBH-1	Z	.002	.002	0	%100
43	FFBH-2	Z	.004	.004	0	%100
44	FFBH-3	Z	.002	.002	0	%100
45	FFTH-1	Z	.002	.002	0	%100
46	FFTH-2	Z	.004	.004	0	%100
47	FFTH-3	Z	.002	.002	0	%100
48	SA-R	Z	.002	.002	0	%100
49	SF2-BH	Z	.004	.004	0	%100
50	SF2-TH	Z	.004	.004	0	%100
51	SF3-BH	Z	.000991	.000991	0	%100
52	SF3-TH	Z	.000991	.000991	0	%100
53	MP-1	Z	.007	.007	0	%100
54	MP-2	Z	.007	.007	0	%100
55	MP-3	Z	.007	.007	0	%100
56	MP-4	Z	.007	.007	0	%100
57	MAST	Z	.008	.008	0	%100
58	SA-L	Z	.006	.006	0	%100

Member Distributed Loads (BLC 14 : 270 Wind - No Ice)

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	SF2-D1	Z	.002	.002	0	%100
2	SF2-D1-X	Z	.002	.002	0	%100
3	SF3-D1	Z	.002	.002	0	%100
4	SF3-D1-X	Z	.002	.002	0	%100
5	SF2-V1	Z	.002	.002	0	%100
6	SF2-V2	Z	.002	.002	0	%100
7	SF3-V1	Z	.002	.002	0	%100
8	SF3-V2	Z	.002	.002	0	%100
9	SF2-CPB	Z	.002	.002	0	%100
10	SF2-CPT	Z	.002	.002	0	%100
11	SF3-CPB	Z	.002	.002	0	%100
12	SF3-CPT	Z	.002	.002	0	%100
13	FFBH-1	Z	0	0	0	%100
14	FFBH-2	Z	0	0	0	%100
15	FFBH-3	Z	0	0	0	%100
16	FFTH-1	Z	0	0	0	%100
17	FFTH-2	Z	0	0	0	%100
18	FFTH-3	Z	0	0	0	%100
19	SA-R	Z	.006	.006	0	%100
20	SF2-BH	Z	.004	.004	0	%100
21	SF2-TH	Z	.004	.004	0	%100
22	SF3-BH	Z	.004	.004	0	%100
23	SF3-TH	Z	.004	.004	0	%100
24	MP-1	Z	.008	.008	0	%100
25	MP-2	Z	.008	.008	0	%100

Member Distributed Loads (BLC 14 : 270 Wind - No Ice) (Continued)

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft,%]	End Location[ft,%]
26	MP-3	Z	.008	.008	0	%100
27	MP-4	Z	.008	.008	0	%100
28	MAST	Z	.009	.009	0	%100
29	SA-L	Z	.006	.006	0	%100

Member Distributed Loads (BLC 15 : 300 Wind - No Ice)

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	SF2-D1	X	-.000991	-.000991	0	%100
2	SF2-D1-X	X	-.000991	-.000991	0	%100
3	SF3-D1	X	-.000991	-.000991	0	%100
4	SF3-D1-X	X	-.000991	-.000991	0	%100
5	SF2-V1	X	-.001	-.001	0	%100
6	SF2-V2	X	-.001	-.001	0	%100
7	SF3-V1	X	-.001	-.001	0	%100
8	SF3-V2	X	-.001	-.001	0	%100
9	SF2-CPB	X	-.000799	-.000799	0	%100
10	SF2-CPT	X	-.000799	-.000799	0	%100
11	SF3-CPB	X	-.000907	-.000907	0	%100
12	SF3-CPT	X	-.000907	-.000907	0	%100
13	FFBH-1	X	-.002	-.002	0	%100
14	FFBH-2	X	-.002	-.002	0	%100
15	FFBH-3	X	-.002	-.002	0	%100
16	FFTH-1	X	-.002	-.002	0	%100
17	FFTH-2	X	-.002	-.002	0	%100
18	FFTH-3	X	-.002	-.002	0	%100
19	SA-R	X	-.003	-.003	0	%100
20	SF2-BH	X	-.000583	-.000583	0	%100
21	SF2-TH	X	-.000583	-.000583	0	%100
22	SF3-BH	X	-.003	-.003	0	%100
23	SF3-TH	X	-.003	-.003	0	%100
24	MP-1	X	-.004	-.004	0	%100
25	MP-2	X	-.004	-.004	0	%100
26	MP-3	X	-.004	-.004	0	%100
27	MP-4	X	-.004	-.004	0	%100
28	MAST	X	-.004	-.004	0	%100
29	SA-L	X	-.001	-.001	0	%100
30	SF2-D1	Z	.002	.002	0	%100
31	SF2-D1-X	Z	.002	.002	0	%100
32	SF3-D1	Z	.002	.002	0	%100
33	SF3-D1-X	Z	.002	.002	0	%100
34	SF2-V1	Z	.002	.002	0	%100
35	SF2-V2	Z	.002	.002	0	%100
36	SF3-V1	Z	.002	.002	0	%100
37	SF3-V2	Z	.002	.002	0	%100
38	SF2-CPB	Z	.002	.002	0	%100
39	SF2-CPT	Z	.002	.002	0	%100
40	SF3-CPB	Z	.002	.002	0	%100
41	SF3-CPT	Z	.002	.002	0	%100
42	FFBH-1	Z	.002	.002	0	%100
43	FFBH-2	Z	.004	.004	0	%100
44	FFBH-3	Z	.002	.002	0	%100

Member Distributed Loads (BLC 15 : 300 Wind - No Ice) (Continued)

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft,%]	End Location[ft,%]
45	FFTH-1	Z	.002	.002	0	%100
46	FFTH-2	Z	.004	.004	0	%100
47	FFTH-3	Z	.002	.002	0	%100
48	SA-R	Z	.006	.006	0	%100
49	SF2-BH	Z	.000991	.000991	0	%100
50	SF2-TH	Z	.000991	.000991	0	%100
51	SF3-BH	Z	.004	.004	0	%100
52	SF3-TH	Z	.004	.004	0	%100
53	MP-1	Z	.007	.007	0	%100
54	MP-2	Z	.007	.007	0	%100
55	MP-3	Z	.007	.007	0	%100
56	MP-4	Z	.007	.007	0	%100
57	MAST	Z	.008	.008	0	%100
58	SA-L	Z	.002	.002	0	%100

Member Distributed Loads (BLC 16 : 315 Wind - No Ice)

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	SF2-D1	X	-.001	-.001	0	%100
2	SF2-D1-X	X	-.001	-.001	0	%100
3	SF3-D1	X	-.001	-.001	0	%100
4	SF3-D1-X	X	-.001	-.001	0	%100
5	SF2-V1	X	-.002	-.002	0	%100
6	SF2-V2	X	-.002	-.002	0	%100
7	SF3-V1	X	-.002	-.002	0	%100
8	SF3-V2	X	-.002	-.002	0	%100
9	SF2-CPB	X	-.000877	-.000877	0	%100
10	SF2-CPT	X	-.000877	-.000877	0	%100
11	SF3-CPB	X	-.001	-.001	0	%100
12	SF3-CPT	X	-.001	-.001	0	%100
13	FFBH-1	X	-.005	-.005	0	%100
14	FFBH-2	X	-.005	-.005	0	%100
15	FFBH-3	X	-.005	-.005	0	%100
16	FFTH-1	X	-.005	-.005	0	%100
17	FFTH-2	X	-.005	-.005	0	%100
18	FFTH-3	X	-.005	-.005	0	%100
19	SA-R	X	-.004	-.004	0	%100
20	SF2-BH	X	-.000157	-.000157	0	%100
21	SF2-TH	X	-.000157	-.000157	0	%100
22	SF3-BH	X	-.004	-.004	0	%100
23	SF3-TH	X	-.004	-.004	0	%100
24	MP-1	X	-.005	-.005	0	%100
25	MP-2	X	-.005	-.005	0	%100
26	MP-3	X	-.005	-.005	0	%100
27	MP-4	X	-.005	-.005	0	%100
28	MAST	X	-.006	-.006	0	%100
29	SA-L	X	-.000686	-.000686	0	%100
30	SF2-D1	Z	.001	.001	0	%100
31	SF2-D1-X	Z	.001	.001	0	%100
32	SF3-D1	Z	.001	.001	0	%100
33	SF3-D1-X	Z	.001	.001	0	%100
34	SF2-V1	Z	.002	.002	0	%100

Company : Tower Engineering Professionals, Inc.
Designer : GJS
Job Number : TEP No. 217399.698883
Model Name : Guilford SW (BU 842864)

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Member Distributed Loads (BLC 16 : 315 Wind - No Ice) (Continued)

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft,%]	End Location[ft,%]
35	SF2-V2	Z	.002	.002	0	%100
36	SF3-V1	Z	.002	.002	0	%100
37	SF3-V2	Z	.002	.002	0	%100
38	SF2-CPB	Z	.001	.001	0	%100
39	SF2-CPT	Z	.001	.001	0	%100
40	SF3-CPB	Z	.001	.001	0	%100
41	SF3-CPT	Z	.001	.001	0	%100
42	FFBH-1	Z	.003	.003	0	%100
43	FFBH-2	Z	.005	.005	0	%100
44	FFBH-3	Z	.003	.003	0	%100
45	FFTH-1	Z	.003	.003	0	%100
46	FFTH-2	Z	.005	.005	0	%100
47	FFTH-3	Z	.003	.003	0	%100
48	SA-R	Z	.005	.005	0	%100
49	SF2-BH	Z	.000154	.000154	0	%100
50	SF2-TH	Z	.000154	.000154	0	%100
51	SF3-BH	Z	.004	.004	0	%100
52	SF3-TH	Z	.004	.004	0	%100
53	MP-1	Z	.005	.005	0	%100
54	MP-2	Z	.005	.005	0	%100
55	MP-3	Z	.005	.005	0	%100
56	MP-4	Z	.005	.005	0	%100
57	MAST	Z	.006	.006	0	%100
58	SA-L	Z	.000775	.000775	0	%100

Member Distributed Loads (BLC 17 : 330 Wind - No Ice)

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	SF2-D1	X	-.002	-.002	0	%100
2	SF2-D1-X	X	-.002	-.002	0	%100
3	SF3-D1	X	-.002	-.002	0	%100
4	SF3-D1-X	X	-.002	-.002	0	%100
5	SF2-V1	X	-.002	-.002	0	%100
6	SF2-V2	X	-.002	-.002	0	%100
7	SF3-V1	X	-.002	-.002	0	%100
8	SF3-V2	X	-.002	-.002	0	%100
9	SF2-CPB	X	-.000692	-.000692	0	%100
10	SF2-CPT	X	-.000692	-.000692	0	%100
11	SF3-CPB	X	-.001	-.001	0	%100
12	SF3-CPT	X	-.001	-.001	0	%100
13	FFBH-1	X	-.007	-.007	0	%100
14	FFBH-2	X	-.007	-.007	0	%100
15	FFBH-3	X	-.007	-.007	0	%100
16	FFTH-1	X	-.007	-.007	0	%100
17	FFTH-2	X	-.007	-.007	0	%100
18	FFTH-3	X	-.007	-.007	0	%100
19	SA-R	X	-.005	-.005	0	%100
20	SF2-BH	X	-.001	-.001	0	%100
21	SF2-TH	X	-.001	-.001	0	%100
22	SF3-BH	X	-.005	-.005	0	%100
23	SF3-TH	X	-.005	-.005	0	%100
24	MP-1	X	-.007	-.007	0	%100

Member Distributed Loads (BLC 17 : 330 Wind - No Ice) (Continued)

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft,%]	End Location[ft,%]
25	MP-2	X	-.007	-.007	0	%100
26	MP-3	X	-.007	-.007	0	%100
27	MP-4	X	-.007	-.007	0	%100
28	MAST	X	-.008	-.008	0	%100
29	SA-L	X	-.000551	-.000551	0	%100
30	SF2-D1	Z	.000991	.000991	0	%100
31	SF2-D1-X	Z	.000991	.000991	0	%100
32	SF3-D1	Z	.000991	.000991	0	%100
33	SF3-D1-X	Z	.000991	.000991	0	%100
34	SF2-V1	Z	.001	.001	0	%100
35	SF2-V2	Z	.001	.001	0	%100
36	SF3-V1	Z	.001	.001	0	%100
37	SF3-V2	Z	.001	.001	0	%100
38	SF2-CPB	Z	.000469	.000469	0	%100
39	SF2-CPT	Z	.000469	.000469	0	%100
40	SF3-CPB	Z	.000688	.000688	0	%100
41	SF3-CPT	Z	.000688	.000688	0	%100
42	FFBH-1	Z	.002	.002	0	%100
43	FFBH-2	Z	.004	.004	0	%100
44	FFBH-3	Z	.002	.002	0	%100
45	FFTH-1	Z	.002	.002	0	%100
46	FFTH-2	Z	.004	.004	0	%100
47	FFTH-3	Z	.002	.002	0	%100
48	SA-R	Z	.003	.003	0	%100
49	SF2-BH	Z	.000782	.000782	0	%100
50	SF2-TH	Z	.000782	.000782	0	%100
51	SF3-BH	Z	.003	.003	0	%100
52	SF3-TH	Z	.003	.003	0	%100
53	MP-1	Z	.004	.004	0	%100
54	MP-2	Z	.004	.004	0	%100
55	MP-3	Z	.004	.004	0	%100
56	MP-4	Z	.004	.004	0	%100
57	MAST	Z	.004	.004	0	%100
58	SA-L	Z	.00036	.00036	0	%100

Member Distributed Loads (BLC 18 : Ice Weight)

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	SF2-D1	Y	-.002	-.002	0	%100
2	SF2-D1-X	Y	-.002	-.002	0	%100
3	SF3-D1	Y	-.002	-.002	0	%100
4	SF3-D1-X	Y	-.002	-.002	0	%100
5	SF2-V1	Y	-.003	-.003	0	%100
6	SF2-V2	Y	-.003	-.003	0	%100
7	SF3-V1	Y	-.003	-.003	0	%100
8	SF3-V2	Y	-.003	-.003	0	%100
9	SF2-CPB	Y	-.002	-.002	0	%100
10	SF2-CPT	Y	-.002	-.002	0	%100
11	SF3-CPB	Y	-.002	-.002	0	%100
12	SF3-CPT	Y	-.002	-.002	0	%100
13	FFBH-1	Y	-.005	-.005	0	%100
14	FFBH-2	Y	-.005	-.005	0	%100

Company : Tower Engineering Professionals, Inc.
Designer : GJS
Job Number : TEP No. 217399.698883
Model Name : Guilford SW (BU 842864)

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Member Distributed Loads (BLC 18 : Ice Weight) (Continued)

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft,%]	End Location[ft,%]
15	FFBH-3	Y	-.005	-.005	0	%100
16	FFTH-1	Y	-.005	-.005	0	%100
17	FFTH-2	Y	-.005	-.005	0	%100
18	FFTH-3	Y	-.005	-.005	0	%100
19	SA-R	Y	-.005	-.005	0	%100
20	SF2-BH	Y	-.005	-.005	0	%100
21	SF2-TH	Y	-.005	-.005	0	%100
22	SF3-BH	Y	-.005	-.005	0	%100
23	SF3-TH	Y	-.005	-.005	0	%100
24	MP-1	Y	-.005	-.005	0	%100
25	MP-2	Y	-.005	-.005	0	%100
26	MP-3	Y	-.005	-.005	0	%100
27	MP-4	Y	-.005	-.005	0	%100
28	MAST	Y	-.008	-.008	0	%100
29	SA-L	Y	-.005	-.005	0	%100

Member Distributed Loads (BLC 19 : 0 Wind - Ice)

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	SF2-D1	X	-.001	-.001	0	%100
2	SF2-D1-X	X	-.001	-.001	0	%100
3	SF3-D1	X	-.001	-.001	0	%100
4	SF3-D1-X	X	-.001	-.001	0	%100
5	SF2-V1	X	-.001	-.001	0	%100
6	SF2-V2	X	-.001	-.001	0	%100
7	SF3-V1	X	-.001	-.001	0	%100
8	SF3-V2	X	-.001	-.001	0	%100
9	SF2-CPB	X	-.002	-.002	0	%100
10	SF2-CPT	X	-.002	-.002	0	%100
11	SF3-CPB	X	-.002	-.002	0	%100
12	SF3-CPT	X	-.002	-.002	0	%100
13	FFBH-1	X	-.003	-.003	0	%100
14	FFBH-2	X	-.003	-.003	0	%100
15	FFBH-3	X	-.003	-.003	0	%100
16	FFTH-1	X	-.003	-.003	0	%100
17	FFTH-2	X	-.003	-.003	0	%100
18	FFTH-3	X	-.003	-.003	0	%100
19	SA-R	X	-.002	-.002	0	%100
20	SF2-BH	X	-.002	-.002	0	%100
21	SF2-TH	X	-.002	-.002	0	%100
22	SF3-BH	X	-.002	-.002	0	%100
23	SF3-TH	X	-.002	-.002	0	%100
24	MP-1	X	-.002	-.002	0	%100
25	MP-2	X	-.002	-.002	0	%100
26	MP-3	X	-.002	-.002	0	%100
27	MP-4	X	-.002	-.002	0	%100
28	MAST	X	-.003	-.003	0	%100
29	SA-L	X	-.002	-.002	0	%100

Member Distributed Loads (BLC 20 : 30 Wind - Ice)

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	SF2-D1	X	-.001	-.001	0	%100

Member Distributed Loads (BLC 20 : 30 Wind - Ice) (Continued)

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft,%]	End Location[ft,%]
2	SF2-D1-X	X	-.001	-.001	0	%100
3	SF3-D1	X	-.001	-.001	0	%100
4	SF3-D1-X	X	-.001	-.001	0	%100
5	SF2-V1	X	-.001	-.001	0	%100
6	SF2-V2	X	-.001	-.001	0	%100
7	SF3-V1	X	-.001	-.001	0	%100
8	SF3-V2	X	-.001	-.001	0	%100
9	SF2-CPB	X	-.001	-.001	0	%100
10	SF2-CPT	X	-.001	-.001	0	%100
11	SF3-CPB	X	-.000787	-.000787	0	%100
12	SF3-CPT	X	-.000787	-.000787	0	%100
13	FFBH-1	X	-.002	-.002	0	%100
14	FFBH-2	X	-.002	-.002	0	%100
15	FFBH-3	X	-.002	-.002	0	%100
16	FFTH-1	X	-.002	-.002	0	%100
17	FFTH-2	X	-.002	-.002	0	%100
18	FFTH-3	X	-.002	-.002	0	%100
19	SA-R	X	-.000157	-.000157	0	%100
20	SF2-BH	X	-.001	-.001	0	%100
21	SF2-TH	X	-.001	-.001	0	%100
22	SF3-BH	X	-.000432	-.000432	0	%100
23	SF3-TH	X	-.000432	-.000432	0	%100
24	MP-1	X	-.002	-.002	0	%100
25	MP-2	X	-.002	-.002	0	%100
26	MP-3	X	-.002	-.002	0	%100
27	MP-4	X	-.002	-.002	0	%100
28	MAST	X	-.002	-.002	0	%100
29	SA-L	X	-.001	-.001	0	%100
30	SF2-D1	Z	-.000695	-.000695	0	%100
31	SF2-D1-X	Z	-.000695	-.000695	0	%100
32	SF3-D1	Z	-.000695	-.000695	0	%100
33	SF3-D1-X	Z	-.000695	-.000695	0	%100
34	SF2-V1	Z	-.000669	-.000669	0	%100
35	SF2-V2	Z	-.000669	-.000669	0	%100
36	SF3-V1	Z	-.000669	-.000669	0	%100
37	SF3-V2	Z	-.000669	-.000669	0	%100
38	SF2-CPB	Z	-.000666	-.000666	0	%100
39	SF2-CPT	Z	-.000666	-.000666	0	%100
40	SF3-CPB	Z	-.000454	-.000454	0	%100
41	SF3-CPT	Z	-.000454	-.000454	0	%100
42	FFBH-1	Z	-.000695	-.000695	0	%100
43	FFBH-2	Z	-.001	-.001	0	%100
44	FFBH-3	Z	-.000695	-.000695	0	%100
45	FFTH-1	Z	-.000695	-.000695	0	%100
46	FFTH-2	Z	-.001	-.001	0	%100
47	FFTH-3	Z	-.000695	-.000695	0	%100
48	SA-R	Z	-9.8e-5	-9.8e-5	0	%100
49	SF2-BH	Z	-.000806	-.000806	0	%100
50	SF2-TH	Z	-.000806	-.000806	0	%100
51	SF3-BH	Z	-.000247	-.000247	0	%100
52	SF3-TH	Z	-.000247	-.000247	0	%100
53	MP-1	Z	-.001	-.001	0	%100

Company : Tower Engineering Professionals, Inc.
Designer : GJS
Job Number : TEP No. 217399.698883
Model Name : Guilford SW (BU 842864)

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Member Distributed Loads (BLC 20 : 30 Wind - Ice) (Continued)

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft,%]	End Location[ft,%]
54	MP-2	Z	-.001	-.001	0	%100
55	MP-3	Z	-.001	-.001	0	%100
56	MP-4	Z	-.001	-.001	0	%100
57	MAST	Z	-.001	-.001	0	%100
58	SA-L	Z	-.000865	-.000865	0	%100

Member Distributed Loads (BLC 21 : 45 Wind - Ice)

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	SF2-D1	X	-.000884	-.000884	0	%100
2	SF2-D1-X	X	-.000884	-.000884	0	%100
3	SF3-D1	X	-.000884	-.000884	0	%100
4	SF3-D1-X	X	-.000884	-.000884	0	%100
5	SF2-V1	X	-.000852	-.000852	0	%100
6	SF2-V2	X	-.000852	-.000852	0	%100
7	SF3-V1	X	-.000852	-.000852	0	%100
8	SF3-V2	X	-.000852	-.000852	0	%100
9	SF2-CPB	X	-.001	-.001	0	%100
10	SF2-CPT	X	-.001	-.001	0	%100
11	SF3-CPB	X	-.000998	-.000998	0	%100
12	SF3-CPT	X	-.000998	-.000998	0	%100
13	FFBH-1	X	-.001	-.001	0	%100
14	FFBH-2	X	-.001	-.001	0	%100
15	FFBH-3	X	-.001	-.001	0	%100
16	FFTH-1	X	-.001	-.001	0	%100
17	FFTH-2	X	-.001	-.001	0	%100
18	FFTH-3	X	-.001	-.001	0	%100
19	SA-R	X	-.000195	-.000195	0	%100
20	SF2-BH	X	-.001	-.001	0	%100
21	SF2-TH	X	-.001	-.001	0	%100
22	SF3-BH	X	-4.9e-5	-4.9e-5	0	%100
23	SF3-TH	X	-4.9e-5	-4.9e-5	0	%100
24	MP-1	X	-.002	-.002	0	%100
25	MP-2	X	-.002	-.002	0	%100
26	MP-3	X	-.002	-.002	0	%100
27	MP-4	X	-.002	-.002	0	%100
28	MAST	X	-.002	-.002	0	%100
29	SA-L	X	-.001	-.001	0	%100
30	SF2-D1	Z	-.000983	-.000983	0	%100
31	SF2-D1-X	Z	-.000983	-.000983	0	%100
32	SF3-D1	Z	-.000983	-.000983	0	%100
33	SF3-D1-X	Z	-.000983	-.000983	0	%100
34	SF2-V1	Z	-.000946	-.000946	0	%100
35	SF2-V2	Z	-.000946	-.000946	0	%100
36	SF3-V1	Z	-.000946	-.000946	0	%100
37	SF3-V2	Z	-.000946	-.000946	0	%100
38	SF2-CPB	Z	-.001	-.001	0	%100
39	SF2-CPT	Z	-.001	-.001	0	%100
40	SF3-CPB	Z	-.000998	-.000998	0	%100
41	SF3-CPT	Z	-.000998	-.000998	0	%100
42	FFBH-1	Z	-.000802	-.000802	0	%100
43	FFBH-2	Z	-.001	-.001	0	%100

Member Distributed Loads (BLC 21 : 45 Wind - Ice) (Continued)

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft,%]	End Location[ft,%]
44	FFBH-3	Z	-.000802	-.000802	0	%100
45	FFTH-1	Z	-.000802	-.000802	0	%100
46	FFTH-2	Z	-.001	-.001	0	%100
47	FFTH-3	Z	-.000802	-.000802	0	%100
48	SA-R	Z	-.000211	-.000211	0	%100
49	SF2-BH	Z	-.001	-.001	0	%100
50	SF2-TH	Z	-.001	-.001	0	%100
51	SF3-BH	Z	-4.8e-5	-4.8e-5	0	%100
52	SF3-TH	Z	-4.8e-5	-4.8e-5	0	%100
53	MP-1	Z	-.002	-.002	0	%100
54	MP-2	Z	-.002	-.002	0	%100
55	MP-3	Z	-.002	-.002	0	%100
56	MP-4	Z	-.002	-.002	0	%100
57	MAST	Z	-.002	-.002	0	%100
58	SA-L	Z	-.001	-.001	0	%100

Member Distributed Loads (BLC 22 : 60 Wind - Ice)

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	SF2-D1	X	-.000625	-.000625	0	%100
2	SF2-D1-X	X	-.000625	-.000625	0	%100
3	SF3-D1	X	-.000625	-.000625	0	%100
4	SF3-D1-X	X	-.000625	-.000625	0	%100
5	SF2-V1	X	-.000602	-.000602	0	%100
6	SF2-V2	X	-.000602	-.000602	0	%100
7	SF3-V1	X	-.000602	-.000602	0	%100
8	SF3-V2	X	-.000602	-.000602	0	%100
9	SF2-CPB	X	-.001	-.001	0	%100
10	SF2-CPT	X	-.001	-.001	0	%100
11	SF3-CPB	X	-.000909	-.000909	0	%100
12	SF3-CPT	X	-.000909	-.000909	0	%100
13	FFBH-1	X	-.000688	-.000688	0	%100
14	FFBH-2	X	-.000688	-.000688	0	%100
15	FFBH-3	X	-.000688	-.000688	0	%100
16	FFTH-1	X	-.000688	-.000688	0	%100
17	FFTH-2	X	-.000688	-.000688	0	%100
18	FFTH-3	X	-.000688	-.000688	0	%100
19	SA-R	X	-.000358	-.000358	0	%100
20	SF2-BH	X	-.000797	-.000797	0	%100
21	SF2-TH	X	-.000797	-.000797	0	%100
22	SF3-BH	X	-.000183	-.000183	0	%100
23	SF3-TH	X	-.000183	-.000183	0	%100
24	MP-1	X	-.001	-.001	0	%100
25	MP-2	X	-.001	-.001	0	%100
26	MP-3	X	-.001	-.001	0	%100
27	MP-4	X	-.001	-.001	0	%100
28	MAST	X	-.001	-.001	0	%100
29	SA-L	X	-.000872	-.000872	0	%100
30	SF2-D1	Z	-.001	-.001	0	%100
31	SF2-D1-X	Z	-.001	-.001	0	%100
32	SF3-D1	Z	-.001	-.001	0	%100
33	SF3-D1-X	Z	-.001	-.001	0	%100

Company : Tower Engineering Professionals, Inc.
Designer : GJS
Job Number : TEP No. 217399.698883
Model Name : Guilford SW (BU 842864)

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Member Distributed Loads (BLC 22 : 60 Wind - Ice) (Continued)

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft,%]	End Location[ft,%]
34	SF2-V1	Z	-.001	-.001	0	%100
35	SF2-V2	Z	-.001	-.001	0	%100
36	SF3-V1	Z	-.001	-.001	0	%100
37	SF3-V2	Z	-.001	-.001	0	%100
38	SF2-CPB	Z	-.002	-.002	0	%100
39	SF2-CPT	Z	-.002	-.002	0	%100
40	SF3-CPB	Z	-.002	-.002	0	%100
41	SF3-CPT	Z	-.002	-.002	0	%100
42	FFBH-1	Z	-.000695	-.000695	0	%100
43	FFBH-2	Z	-.001	-.001	0	%100
44	FFBH-3	Z	-.000695	-.000695	0	%100
45	FFTH-1	Z	-.000695	-.000695	0	%100
46	FFTH-2	Z	-.001	-.001	0	%100
47	FFTH-3	Z	-.000695	-.000695	0	%100
48	SA-R	Z	-.000669	-.000669	0	%100
49	SF2-BH	Z	-.001	-.001	0	%100
50	SF2-TH	Z	-.001	-.001	0	%100
51	SF3-BH	Z	-.000313	-.000313	0	%100
52	SF3-TH	Z	-.000313	-.000313	0	%100
53	MP-1	Z	-.002	-.002	0	%100
54	MP-2	Z	-.002	-.002	0	%100
55	MP-3	Z	-.002	-.002	0	%100
56	MP-4	Z	-.002	-.002	0	%100
57	MAST	Z	-.002	-.002	0	%100
58	SA-L	Z	-.002	-.002	0	%100

Member Distributed Loads (BLC 23 : 90 Wind - Ice)

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	SF2-D1	Z	-.001	-.001	0	%100
2	SF2-D1-X	Z	-.001	-.001	0	%100
3	SF3-D1	Z	-.001	-.001	0	%100
4	SF3-D1-X	Z	-.001	-.001	0	%100
5	SF2-V1	Z	-.001	-.001	0	%100
6	SF2-V2	Z	-.001	-.001	0	%100
7	SF3-V1	Z	-.001	-.001	0	%100
8	SF3-V2	Z	-.001	-.001	0	%100
9	SF2-CPB	Z	-.002	-.002	0	%100
10	SF2-CPT	Z	-.002	-.002	0	%100
11	SF3-CPB	Z	-.002	-.002	0	%100
12	SF3-CPT	Z	-.002	-.002	0	%100
13	FFBH-1	Z	0	0	0	%100
14	FFBH-2	Z	0	0	0	%100
15	FFBH-3	Z	0	0	0	%100
16	FFTH-1	Z	0	0	0	%100
17	FFTH-2	Z	0	0	0	%100
18	FFTH-3	Z	0	0	0	%100
19	SA-R	Z	-.002	-.002	0	%100
20	SF2-BH	Z	-.001	-.001	0	%100
21	SF2-TH	Z	-.001	-.001	0	%100
22	SF3-BH	Z	-.001	-.001	0	%100
23	SF3-TH	Z	-.001	-.001	0	%100

Member Distributed Loads (BLC 23 : 90 Wind - Ice) (Continued)

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft,%]	End Location[ft,%]
24	MP-1	Z	-.002	-.002	0	%100
25	MP-2	Z	-.002	-.002	0	%100
26	MP-3	Z	-.002	-.002	0	%100
27	MP-4	Z	-.002	-.002	0	%100
28	MAST	Z	-.003	-.003	0	%100
29	SA-L	Z	-.002	-.002	0	%100

Member Distributed Loads (BLC 24 : 120 Wind - Ice)

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	SF2-D1	X	.000625	.000625	0	%100
2	SF2-D1-X	X	.000625	.000625	0	%100
3	SF3-D1	X	.000625	.000625	0	%100
4	SF3-D1-X	X	.000625	.000625	0	%100
5	SF2-V1	X	.000602	.000602	0	%100
6	SF2-V2	X	.000602	.000602	0	%100
7	SF3-V1	X	.000602	.000602	0	%100
8	SF3-V2	X	.000602	.000602	0	%100
9	SF2-CPB	X	.000909	.000909	0	%100
10	SF2-CPT	X	.000909	.000909	0	%100
11	SF3-CPB	X	.001	.001	0	%100
12	SF3-CPT	X	.001	.001	0	%100
13	FFBH-1	X	.000688	.000688	0	%100
14	FFBH-2	X	.000688	.000688	0	%100
15	FFBH-3	X	.000688	.000688	0	%100
16	FFTH-1	X	.000688	.000688	0	%100
17	FFTH-2	X	.000688	.000688	0	%100
18	FFTH-3	X	.000688	.000688	0	%100
19	SA-R	X	.000872	.000872	0	%100
20	SF2-BH	X	.000183	.000183	0	%100
21	SF2-TH	X	.000183	.000183	0	%100
22	SF3-BH	X	.000797	.000797	0	%100
23	SF3-TH	X	.000797	.000797	0	%100
24	MP-1	X	.001	.001	0	%100
25	MP-2	X	.001	.001	0	%100
26	MP-3	X	.001	.001	0	%100
27	MP-4	X	.001	.001	0	%100
28	MAST	X	.001	.001	0	%100
29	SA-L	X	.000358	.000358	0	%100
30	SF2-D1	Z	-.001	-.001	0	%100
31	SF2-D1-X	Z	-.001	-.001	0	%100
32	SF3-D1	Z	-.001	-.001	0	%100
33	SF3-D1-X	Z	-.001	-.001	0	%100
34	SF2-V1	Z	-.001	-.001	0	%100
35	SF2-V2	Z	-.001	-.001	0	%100
36	SF3-V1	Z	-.001	-.001	0	%100
37	SF3-V2	Z	-.001	-.001	0	%100
38	SF2-CPB	Z	-.002	-.002	0	%100
39	SF2-CPT	Z	-.002	-.002	0	%100
40	SF3-CPB	Z	-.002	-.002	0	%100
41	SF3-CPT	Z	-.002	-.002	0	%100
42	FFBH-1	Z	-.000695	-.000695	0	%100

Company : Tower Engineering Professionals, Inc.
Designer : GJS
Job Number : TEP No. 217399.698883
Model Name : Guilford SW (BU 842864)

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Member Distributed Loads (BLC 24 : 120 Wind - Ice) (Continued)

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft,%]	End Location[ft,%]
43	FFBH-2	Z	-.001	-.001	0	%100
44	FFBH-3	Z	-.000695	-.000695	0	%100
45	FFTH-1	Z	-.000695	-.000695	0	%100
46	FFTH-2	Z	-.001	-.001	0	%100
47	FFTH-3	Z	-.000695	-.000695	0	%100
48	SA-R	Z	-.002	-.002	0	%100
49	SF2-BH	Z	-.000313	-.000313	0	%100
50	SF2-TH	Z	-.000313	-.000313	0	%100
51	SF3-BH	Z	-.001	-.001	0	%100
52	SF3-TH	Z	-.001	-.001	0	%100
53	MP-1	Z	-.002	-.002	0	%100
54	MP-2	Z	-.002	-.002	0	%100
55	MP-3	Z	-.002	-.002	0	%100
56	MP-4	Z	-.002	-.002	0	%100
57	MAST	Z	-.002	-.002	0	%100
58	SA-L	Z	-.000669	-.000669	0	%100

Member Distributed Loads (BLC 25 : 135 Wind - Ice)

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	SF2-D1	X	.000884	.000884	0	%100
2	SF2-D1-X	X	.000884	.000884	0	%100
3	SF3-D1	X	.000884	.000884	0	%100
4	SF3-D1-X	X	.000884	.000884	0	%100
5	SF2-V1	X	.000852	.000852	0	%100
6	SF2-V2	X	.000852	.000852	0	%100
7	SF3-V1	X	.000852	.000852	0	%100
8	SF3-V2	X	.000852	.000852	0	%100
9	SF2-CPB	X	.000998	.000998	0	%100
10	SF2-CPT	X	.000998	.000998	0	%100
11	SF3-CPB	X	.001	.001	0	%100
12	SF3-CPT	X	.001	.001	0	%100
13	FFBH-1	X	.001	.001	0	%100
14	FFBH-2	X	.001	.001	0	%100
15	FFBH-3	X	.001	.001	0	%100
16	FFTH-1	X	.001	.001	0	%100
17	FFTH-2	X	.001	.001	0	%100
18	FFTH-3	X	.001	.001	0	%100
19	SA-R	X	.001	.001	0	%100
20	SF2-BH	X	4.9e-5	4.9e-5	0	%100
21	SF2-TH	X	4.9e-5	4.9e-5	0	%100
22	SF3-BH	X	.001	.001	0	%100
23	SF3-TH	X	.001	.001	0	%100
24	MP-1	X	.002	.002	0	%100
25	MP-2	X	.002	.002	0	%100
26	MP-3	X	.002	.002	0	%100
27	MP-4	X	.002	.002	0	%100
28	MAST	X	.002	.002	0	%100
29	SA-L	X	.000195	.000195	0	%100
30	SF2-D1	Z	-.000983	-.000983	0	%100
31	SF2-D1-X	Z	-.000983	-.000983	0	%100
32	SF3-D1	Z	-.000983	-.000983	0	%100

Member Distributed Loads (BLC 25 : 135 Wind - Ice) (Continued)

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft,%]	End Location[ft,%]
33	SF3-D1-X	Z	-.000983	-.000983	0	%100
34	SF2-V1	Z	-.000946	-.000946	0	%100
35	SF2-V2	Z	-.000946	-.000946	0	%100
36	SF3-V1	Z	-.000946	-.000946	0	%100
37	SF3-V2	Z	-.000946	-.000946	0	%100
38	SF2-CPB	Z	-.000998	-.000998	0	%100
39	SF2-CPT	Z	-.000998	-.000998	0	%100
40	SF3-CPB	Z	-.001	-.001	0	%100
41	SF3-CPT	Z	-.001	-.001	0	%100
42	FFBH-1	Z	-.000802	-.000802	0	%100
43	FFBH-2	Z	-.001	-.001	0	%100
44	FFBH-3	Z	-.000802	-.000802	0	%100
45	FFTH-1	Z	-.000802	-.000802	0	%100
46	FFTH-2	Z	-.001	-.001	0	%100
47	FFTH-3	Z	-.000802	-.000802	0	%100
48	SA-R	Z	-.001	-.001	0	%100
49	SF2-BH	Z	-4.8e-5	-4.8e-5	0	%100
50	SF2-TH	Z	-4.8e-5	-4.8e-5	0	%100
51	SF3-BH	Z	-.001	-.001	0	%100
52	SF3-TH	Z	-.001	-.001	0	%100
53	MP-1	Z	-.002	-.002	0	%100
54	MP-2	Z	-.002	-.002	0	%100
55	MP-3	Z	-.002	-.002	0	%100
56	MP-4	Z	-.002	-.002	0	%100
57	MAST	Z	-.002	-.002	0	%100
58	SA-L	Z	-.000211	-.000211	0	%100

Member Distributed Loads (BLC 26 : 150 Wind - Ice)

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	SF2-D1	X	.001	.001	0	%100
2	SF2-D1-X	X	.001	.001	0	%100
3	SF3-D1	X	.001	.001	0	%100
4	SF3-D1-X	X	.001	.001	0	%100
5	SF2-V1	X	.001	.001	0	%100
6	SF2-V2	X	.001	.001	0	%100
7	SF3-V1	X	.001	.001	0	%100
8	SF3-V2	X	.001	.001	0	%100
9	SF2-CPB	X	.000787	.000787	0	%100
10	SF2-CPT	X	.000787	.000787	0	%100
11	SF3-CPB	X	.001	.001	0	%100
12	SF3-CPT	X	.001	.001	0	%100
13	FFBH-1	X	.002	.002	0	%100
14	FFBH-2	X	.002	.002	0	%100
15	FFBH-3	X	.002	.002	0	%100
16	FFTH-1	X	.002	.002	0	%100
17	FFTH-2	X	.002	.002	0	%100
18	FFTH-3	X	.002	.002	0	%100
19	SA-R	X	.001	.001	0	%100
20	SF2-BH	X	.000432	.000432	0	%100
21	SF2-TH	X	.000432	.000432	0	%100
22	SF3-BH	X	.001	.001	0	%100

Company : Tower Engineering Professionals, Inc.
Designer : GJS
Job Number : TEP No. 217399.698883
Model Name : Guilford SW (BU 842864)

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Member Distributed Loads (BLC 26 : 150 Wind - Ice) (Continued)

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft,%]	End Location[ft,%]
23	SF3-TH	X	.001	.001	0	%100
24	MP-1	X	.002	.002	0	%100
25	MP-2	X	.002	.002	0	%100
26	MP-3	X	.002	.002	0	%100
27	MP-4	X	.002	.002	0	%100
28	MAST	X	.002	.002	0	%100
29	SA-L	X	.000157	.000157	0	%100
30	SF2-D1	Z	-.000695	-.000695	0	%100
31	SF2-D1-X	Z	-.000695	-.000695	0	%100
32	SF3-D1	Z	-.000695	-.000695	0	%100
33	SF3-D1-X	Z	-.000695	-.000695	0	%100
34	SF2-V1	Z	-.000669	-.000669	0	%100
35	SF2-V2	Z	-.000669	-.000669	0	%100
36	SF3-V1	Z	-.000669	-.000669	0	%100
37	SF3-V2	Z	-.000669	-.000669	0	%100
38	SF2-CPB	Z	-.000454	-.000454	0	%100
39	SF2-CPT	Z	-.000454	-.000454	0	%100
40	SF3-CPB	Z	-.000666	-.000666	0	%100
41	SF3-CPT	Z	-.000666	-.000666	0	%100
42	FFBH-1	Z	-.000695	-.000695	0	%100
43	FFBH-2	Z	-.001	-.001	0	%100
44	FFBH-3	Z	-.000695	-.000695	0	%100
45	FFTH-1	Z	-.000695	-.000695	0	%100
46	FFTH-2	Z	-.001	-.001	0	%100
47	FFTH-3	Z	-.000695	-.000695	0	%100
48	SA-R	Z	-.000865	-.000865	0	%100
49	SF2-BH	Z	-.000247	-.000247	0	%100
50	SF2-TH	Z	-.000247	-.000247	0	%100
51	SF3-BH	Z	-.000806	-.000806	0	%100
52	SF3-TH	Z	-.000806	-.000806	0	%100
53	MP-1	Z	-.001	-.001	0	%100
54	MP-2	Z	-.001	-.001	0	%100
55	MP-3	Z	-.001	-.001	0	%100
56	MP-4	Z	-.001	-.001	0	%100
57	MAST	Z	-.001	-.001	0	%100
58	SA-L	Z	-9.8e-5	-9.8e-5	0	%100

Member Distributed Loads (BLC 27 : 180 Wind - Ice)

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	SF2-D1	X	.001	.001	0	%100
2	SF2-D1-X	X	.001	.001	0	%100
3	SF3-D1	X	.001	.001	0	%100
4	SF3-D1-X	X	.001	.001	0	%100
5	SF2-V1	X	.001	.001	0	%100
6	SF2-V2	X	.001	.001	0	%100
7	SF3-V1	X	.001	.001	0	%100
8	SF3-V2	X	.001	.001	0	%100
9	SF2-CPB	X	.002	.002	0	%100
10	SF2-CPT	X	.002	.002	0	%100
11	SF3-CPB	X	.002	.002	0	%100
12	SF3-CPT	X	.002	.002	0	%100

Member Distributed Loads (BLC 27 : 180 Wind - Ice) (Continued)

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft,%]	End Location[ft,%]
13	FFBH-1	X	.003	.003	0	%100
14	FFBH-2	X	.003	.003	0	%100
15	FFBH-3	X	.003	.003	0	%100
16	FFTH-1	X	.003	.003	0	%100
17	FFTH-2	X	.003	.003	0	%100
18	FFTH-3	X	.003	.003	0	%100
19	SA-R	X	.002	.002	0	%100
20	SF2-BH	X	.002	.002	0	%100
21	SF2-TH	X	.002	.002	0	%100
22	SF3-BH	X	.002	.002	0	%100
23	SF3-TH	X	.002	.002	0	%100
24	MP-1	X	.002	.002	0	%100
25	MP-2	X	.002	.002	0	%100
26	MP-3	X	.002	.002	0	%100
27	MP-4	X	.002	.002	0	%100
28	MAST	X	.003	.003	0	%100
29	SA-L	X	.002	.002	0	%100

Member Distributed Loads (BLC 28 : 210 Wind - Ice)

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	SF2-D1	X	.001	.001	0	%100
2	SF2-D1-X	X	.001	.001	0	%100
3	SF3-D1	X	.001	.001	0	%100
4	SF3-D1-X	X	.001	.001	0	%100
5	SF2-V1	X	.001	.001	0	%100
6	SF2-V2	X	.001	.001	0	%100
7	SF3-V1	X	.001	.001	0	%100
8	SF3-V2	X	.001	.001	0	%100
9	SF2-CPB	X	.001	.001	0	%100
10	SF2-CPT	X	.001	.001	0	%100
11	SF3-CPB	X	.000787	.000787	0	%100
12	SF3-CPT	X	.000787	.000787	0	%100
13	FFBH-1	X	.002	.002	0	%100
14	FFBH-2	X	.002	.002	0	%100
15	FFBH-3	X	.002	.002	0	%100
16	FFTH-1	X	.002	.002	0	%100
17	FFTH-2	X	.002	.002	0	%100
18	FFTH-3	X	.002	.002	0	%100
19	SA-R	X	.000157	.000157	0	%100
20	SF2-BH	X	.001	.001	0	%100
21	SF2-TH	X	.001	.001	0	%100
22	SF3-BH	X	.000432	.000432	0	%100
23	SF3-TH	X	.000432	.000432	0	%100
24	MP-1	X	.002	.002	0	%100
25	MP-2	X	.002	.002	0	%100
26	MP-3	X	.002	.002	0	%100
27	MP-4	X	.002	.002	0	%100
28	MAST	X	.002	.002	0	%100
29	SA-L	X	.001	.001	0	%100
30	SF2-D1	Z	.000695	.000695	0	%100
31	SF2-D1-X	Z	.000695	.000695	0	%100

Company : Tower Engineering Professionals, Inc.
Designer : GJS
Job Number : TEP No. 217399.698883
Model Name : Guilford SW (BU 842864)

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Member Distributed Loads (BLC 28 : 210 Wind - Ice) (Continued)

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft,%]	End Location[ft,%]
32	SF3-D1	Z	.000695	.000695	0	%100
33	SF3-D1-X	Z	.000695	.000695	0	%100
34	SF2-V1	Z	.000669	.000669	0	%100
35	SF2-V2	Z	.000669	.000669	0	%100
36	SF3-V1	Z	.000669	.000669	0	%100
37	SF3-V2	Z	.000669	.000669	0	%100
38	SF2-CPB	Z	.000666	.000666	0	%100
39	SF2-CPT	Z	.000666	.000666	0	%100
40	SF3-CPB	Z	.000454	.000454	0	%100
41	SF3-CPT	Z	.000454	.000454	0	%100
42	FFBH-1	Z	.000695	.000695	0	%100
43	FFBH-2	Z	.001	.001	0	%100
44	FFBH-3	Z	.000695	.000695	0	%100
45	FFTH-1	Z	.000695	.000695	0	%100
46	FFTH-2	Z	.001	.001	0	%100
47	FFTH-3	Z	.000695	.000695	0	%100
48	SA-R	Z	9.8e-5	9.8e-5	0	%100
49	SF2-BH	Z	.000806	.000806	0	%100
50	SF2-TH	Z	.000806	.000806	0	%100
51	SF3-BH	Z	.000247	.000247	0	%100
52	SF3-TH	Z	.000247	.000247	0	%100
53	MP-1	Z	.001	.001	0	%100
54	MP-2	Z	.001	.001	0	%100
55	MP-3	Z	.001	.001	0	%100
56	MP-4	Z	.001	.001	0	%100
57	MAST	Z	.001	.001	0	%100
58	SA-L	Z	.000865	.000865	0	%100

Member Distributed Loads (BLC 29 : 225 Wind - Ice)

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	SF2-D1	X	.000884	.000884	0	%100
2	SF2-D1-X	X	.000884	.000884	0	%100
3	SF3-D1	X	.000884	.000884	0	%100
4	SF3-D1-X	X	.000884	.000884	0	%100
5	SF2-V1	X	.000852	.000852	0	%100
6	SF2-V2	X	.000852	.000852	0	%100
7	SF3-V1	X	.000852	.000852	0	%100
8	SF3-V2	X	.000852	.000852	0	%100
9	SF2-CPB	X	.001	.001	0	%100
10	SF2-CPT	X	.001	.001	0	%100
11	SF3-CPB	X	.000998	.000998	0	%100
12	SF3-CPT	X	.000998	.000998	0	%100
13	FFBH-1	X	.001	.001	0	%100
14	FFBH-2	X	.001	.001	0	%100
15	FFBH-3	X	.001	.001	0	%100
16	FFTH-1	X	.001	.001	0	%100
17	FFTH-2	X	.001	.001	0	%100
18	FFTH-3	X	.001	.001	0	%100
19	SA-R	X	.000195	.000195	0	%100
20	SF2-BH	X	.001	.001	0	%100
21	SF2-TH	X	.001	.001	0	%100

Member Distributed Loads (BLC 29 : 225 Wind - Ice) (Continued)

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft,%]	End Location[ft,%]
22	SF3-BH	X	4.9e-5	4.9e-5	0	%100
23	SF3-TH	X	4.9e-5	4.9e-5	0	%100
24	MP-1	X	.002	.002	0	%100
25	MP-2	X	.002	.002	0	%100
26	MP-3	X	.002	.002	0	%100
27	MP-4	X	.002	.002	0	%100
28	MAST	X	.002	.002	0	%100
29	SA-L	X	.001	.001	0	%100
30	SF2-D1	Z	.000983	.000983	0	%100
31	SF2-D1-X	Z	.000983	.000983	0	%100
32	SF3-D1	Z	.000983	.000983	0	%100
33	SF3-D1-X	Z	.000983	.000983	0	%100
34	SF2-V1	Z	.000946	.000946	0	%100
35	SF2-V2	Z	.000946	.000946	0	%100
36	SF3-V1	Z	.000946	.000946	0	%100
37	SF3-V2	Z	.000946	.000946	0	%100
38	SF2-CPB	Z	.001	.001	0	%100
39	SF2-CPT	Z	.001	.001	0	%100
40	SF3-CPB	Z	.000998	.000998	0	%100
41	SF3-CPT	Z	.000998	.000998	0	%100
42	FFBH-1	Z	.000802	.000802	0	%100
43	FFBH-2	Z	.001	.001	0	%100
44	FFBH-3	Z	.000802	.000802	0	%100
45	FFTH-1	Z	.000802	.000802	0	%100
46	FFTH-2	Z	.001	.001	0	%100
47	FFTH-3	Z	.000802	.000802	0	%100
48	SA-R	Z	.000211	.000211	0	%100
49	SF2-BH	Z	.001	.001	0	%100
50	SF2-TH	Z	.001	.001	0	%100
51	SF3-BH	Z	4.8e-5	4.8e-5	0	%100
52	SF3-TH	Z	4.8e-5	4.8e-5	0	%100
53	MP-1	Z	.002	.002	0	%100
54	MP-2	Z	.002	.002	0	%100
55	MP-3	Z	.002	.002	0	%100
56	MP-4	Z	.002	.002	0	%100
57	MAST	Z	.002	.002	0	%100
58	SA-L	Z	.001	.001	0	%100

Member Distributed Loads (BLC 30 : 240 Wind - Ice)

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	SF2-D1	X	.000625	.000625	0	%100
2	SF2-D1-X	X	.000625	.000625	0	%100
3	SF3-D1	X	.000625	.000625	0	%100
4	SF3-D1-X	X	.000625	.000625	0	%100
5	SF2-V1	X	.000602	.000602	0	%100
6	SF2-V2	X	.000602	.000602	0	%100
7	SF3-V1	X	.000602	.000602	0	%100
8	SF3-V2	X	.000602	.000602	0	%100
9	SF2-CPB	X	.001	.001	0	%100
10	SF2-CPT	X	.001	.001	0	%100
11	SF3-CPB	X	.000909	.000909	0	%100

Company : Tower Engineering Professionals, Inc.
Designer : GJS
Job Number : TEP No. 217399.698883
Model Name : Guilford SW (BU 842864)

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Member Distributed Loads (BLC 30 : 240 Wind - Ice) (Continued)

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft,%]	End Location[ft,%]
12	SF3-CPT	X	.000909	.000909	0	%100
13	FFBH-1	X	.000688	.000688	0	%100
14	FFBH-2	X	.000688	.000688	0	%100
15	FFBH-3	X	.000688	.000688	0	%100
16	FFTH-1	X	.000688	.000688	0	%100
17	FFTH-2	X	.000688	.000688	0	%100
18	FFTH-3	X	.000688	.000688	0	%100
19	SA-R	X	.000358	.000358	0	%100
20	SF2-BH	X	.000797	.000797	0	%100
21	SF2-TH	X	.000797	.000797	0	%100
22	SF3-BH	X	.000183	.000183	0	%100
23	SF3-TH	X	.000183	.000183	0	%100
24	MP-1	X	.001	.001	0	%100
25	MP-2	X	.001	.001	0	%100
26	MP-3	X	.001	.001	0	%100
27	MP-4	X	.001	.001	0	%100
28	MAST	X	.001	.001	0	%100
29	SA-L	X	.000872	.000872	0	%100
30	SF2-D1	Z	.001	.001	0	%100
31	SF2-D1-X	Z	.001	.001	0	%100
32	SF3-D1	Z	.001	.001	0	%100
33	SF3-D1-X	Z	.001	.001	0	%100
34	SF2-V1	Z	.001	.001	0	%100
35	SF2-V2	Z	.001	.001	0	%100
36	SF3-V1	Z	.001	.001	0	%100
37	SF3-V2	Z	.001	.001	0	%100
38	SF2-CPB	Z	.002	.002	0	%100
39	SF2-CPT	Z	.002	.002	0	%100
40	SF3-CPB	Z	.002	.002	0	%100
41	SF3-CPT	Z	.002	.002	0	%100
42	FFBH-1	Z	.000695	.000695	0	%100
43	FFBH-2	Z	.001	.001	0	%100
44	FFBH-3	Z	.000695	.000695	0	%100
45	FFTH-1	Z	.000695	.000695	0	%100
46	FFTH-2	Z	.001	.001	0	%100
47	FFTH-3	Z	.000695	.000695	0	%100
48	SA-R	Z	.000669	.000669	0	%100
49	SF2-BH	Z	.001	.001	0	%100
50	SF2-TH	Z	.001	.001	0	%100
51	SF3-BH	Z	.000313	.000313	0	%100
52	SF3-TH	Z	.000313	.000313	0	%100
53	MP-1	Z	.002	.002	0	%100
54	MP-2	Z	.002	.002	0	%100
55	MP-3	Z	.002	.002	0	%100
56	MP-4	Z	.002	.002	0	%100
57	MAST	Z	.002	.002	0	%100
58	SA-L	Z	.002	.002	0	%100

Member Distributed Loads (BLC 31 : 270 Wind - Ice)

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	SF2-D1	Z	.001	.001	0	%100

Member Distributed Loads (BLC 31 : 270 Wind - Ice) (Continued)

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft,%]	End Location[ft,%]
2	SF2-D1-X	Z	.001	.001	0	%100
3	SF3-D1	Z	.001	.001	0	%100
4	SF3-D1-X	Z	.001	.001	0	%100
5	SF2-V1	Z	.001	.001	0	%100
6	SF2-V2	Z	.001	.001	0	%100
7	SF3-V1	Z	.001	.001	0	%100
8	SF3-V2	Z	.001	.001	0	%100
9	SF2-CPB	Z	.002	.002	0	%100
10	SF2-CPT	Z	.002	.002	0	%100
11	SF3-CPB	Z	.002	.002	0	%100
12	SF3-CPT	Z	.002	.002	0	%100
13	FFBH-1	Z	0	0	0	%100
14	FFBH-2	Z	0	0	0	%100
15	FFBH-3	Z	0	0	0	%100
16	FFTH-1	Z	0	0	0	%100
17	FFTH-2	Z	0	0	0	%100
18	FFTH-3	Z	0	0	0	%100
19	SA-R	Z	.002	.002	0	%100
20	SF2-BH	Z	.001	.001	0	%100
21	SF2-TH	Z	.001	.001	0	%100
22	SF3-BH	Z	.001	.001	0	%100
23	SF3-TH	Z	.001	.001	0	%100
24	MP-1	Z	.002	.002	0	%100
25	MP-2	Z	.002	.002	0	%100
26	MP-3	Z	.002	.002	0	%100
27	MP-4	Z	.002	.002	0	%100
28	MAST	Z	.003	.003	0	%100
29	SA-L	Z	.002	.002	0	%100

Member Distributed Loads (BLC 32 : 300 Wind - Ice)

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	SF2-D1	X	-.000625	-.000625	0	%100
2	SF2-D1-X	X	-.000625	-.000625	0	%100
3	SF3-D1	X	-.000625	-.000625	0	%100
4	SF3-D1-X	X	-.000625	-.000625	0	%100
5	SF2-V1	X	-.000602	-.000602	0	%100
6	SF2-V2	X	-.000602	-.000602	0	%100
7	SF3-V1	X	-.000602	-.000602	0	%100
8	SF3-V2	X	-.000602	-.000602	0	%100
9	SF2-CPB	X	-.000909	-.000909	0	%100
10	SF2-CPT	X	-.000909	-.000909	0	%100
11	SF3-CPB	X	-.001	-.001	0	%100
12	SF3-CPT	X	-.001	-.001	0	%100
13	FFBH-1	X	-.000688	-.000688	0	%100
14	FFBH-2	X	-.000688	-.000688	0	%100
15	FFBH-3	X	-.000688	-.000688	0	%100
16	FFTH-1	X	-.000688	-.000688	0	%100
17	FFTH-2	X	-.000688	-.000688	0	%100
18	FFTH-3	X	-.000688	-.000688	0	%100
19	SA-R	X	-.000872	-.000872	0	%100
20	SF2-BH	X	-.000183	-.000183	0	%100

Company : Tower Engineering Professionals, Inc.
Designer : GJS
Job Number : TEP No. 217399.698883
Model Name : Guilford SW (BU 842864)

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Member Distributed Loads (BLC 32 : 300 Wind - Ice) (Continued)

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft,%]	End Location[ft,%]
21	SF2-TH	X	-.000183	-.000183	0	%100
22	SF3-BH	X	-.000797	-.000797	0	%100
23	SF3-TH	X	-.000797	-.000797	0	%100
24	MP-1	X	-.001	-.001	0	%100
25	MP-2	X	-.001	-.001	0	%100
26	MP-3	X	-.001	-.001	0	%100
27	MP-4	X	-.001	-.001	0	%100
28	MAST	X	-.001	-.001	0	%100
29	SA-L	X	-.000358	-.000358	0	%100
30	SF2-D1	Z	.001	.001	0	%100
31	SF2-D1-X	Z	.001	.001	0	%100
32	SF3-D1	Z	.001	.001	0	%100
33	SF3-D1-X	Z	.001	.001	0	%100
34	SF2-V1	Z	.001	.001	0	%100
35	SF2-V2	Z	.001	.001	0	%100
36	SF3-V1	Z	.001	.001	0	%100
37	SF3-V2	Z	.001	.001	0	%100
38	SF2-CPB	Z	.002	.002	0	%100
39	SF2-CPT	Z	.002	.002	0	%100
40	SF3-CPB	Z	.002	.002	0	%100
41	SF3-CPT	Z	.002	.002	0	%100
42	FFBH-1	Z	.000695	.000695	0	%100
43	FFBH-2	Z	.001	.001	0	%100
44	FFBH-3	Z	.000695	.000695	0	%100
45	FFTH-1	Z	.000695	.000695	0	%100
46	FFTH-2	Z	.001	.001	0	%100
47	FFTH-3	Z	.000695	.000695	0	%100
48	SA-R	Z	.002	.002	0	%100
49	SF2-BH	Z	.000313	.000313	0	%100
50	SF2-TH	Z	.000313	.000313	0	%100
51	SF3-BH	Z	.001	.001	0	%100
52	SF3-TH	Z	.001	.001	0	%100
53	MP-1	Z	.002	.002	0	%100
54	MP-2	Z	.002	.002	0	%100
55	MP-3	Z	.002	.002	0	%100
56	MP-4	Z	.002	.002	0	%100
57	MAST	Z	.002	.002	0	%100
58	SA-L	Z	.000669	.000669	0	%100

Member Distributed Loads (BLC 33 : 315 Wind - Ice)

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	SF2-D1	X	-.000884	-.000884	0	%100
2	SF2-D1-X	X	-.000884	-.000884	0	%100
3	SF3-D1	X	-.000884	-.000884	0	%100
4	SF3-D1-X	X	-.000884	-.000884	0	%100
5	SF2-V1	X	-.000852	-.000852	0	%100
6	SF2-V2	X	-.000852	-.000852	0	%100
7	SF3-V1	X	-.000852	-.000852	0	%100
8	SF3-V2	X	-.000852	-.000852	0	%100
9	SF2-CPB	X	-.000998	-.000998	0	%100
10	SF2-CPT	X	-.000998	-.000998	0	%100

Member Distributed Loads (BLC 33 : 315 Wind - Ice) (Continued)

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft,%]	End Location[ft,%]
11	SF3-CPB	X	-.001	-.001	0	%100
12	SF3-CPT	X	-.001	-.001	0	%100
13	FFBH-1	X	-.001	-.001	0	%100
14	FFBH-2	X	-.001	-.001	0	%100
15	FFBH-3	X	-.001	-.001	0	%100
16	FFTH-1	X	-.001	-.001	0	%100
17	FFTH-2	X	-.001	-.001	0	%100
18	FFTH-3	X	-.001	-.001	0	%100
19	SA-R	X	-.001	-.001	0	%100
20	SF2-BH	X	-4.9e-5	-4.9e-5	0	%100
21	SF2-TH	X	-4.9e-5	-4.9e-5	0	%100
22	SF3-BH	X	-.001	-.001	0	%100
23	SF3-TH	X	-.001	-.001	0	%100
24	MP-1	X	-.002	-.002	0	%100
25	MP-2	X	-.002	-.002	0	%100
26	MP-3	X	-.002	-.002	0	%100
27	MP-4	X	-.002	-.002	0	%100
28	MAST	X	-.002	-.002	0	%100
29	SA-L	X	-.000195	-.000195	0	%100
30	SF2-D1	Z	.000983	.000983	0	%100
31	SF2-D1-X	Z	.000983	.000983	0	%100
32	SF3-D1	Z	.000983	.000983	0	%100
33	SF3-D1-X	Z	.000983	.000983	0	%100
34	SF2-V1	Z	.000946	.000946	0	%100
35	SF2-V2	Z	.000946	.000946	0	%100
36	SF3-V1	Z	.000946	.000946	0	%100
37	SF3-V2	Z	.000946	.000946	0	%100
38	SF2-CPB	Z	.000998	.000998	0	%100
39	SF2-CPT	Z	.000998	.000998	0	%100
40	SF3-CPB	Z	.001	.001	0	%100
41	SF3-CPT	Z	.001	.001	0	%100
42	FFBH-1	Z	.000802	.000802	0	%100
43	FFBH-2	Z	.001	.001	0	%100
44	FFBH-3	Z	.000802	.000802	0	%100
45	FFTH-1	Z	.000802	.000802	0	%100
46	FFTH-2	Z	.001	.001	0	%100
47	FFTH-3	Z	.000802	.000802	0	%100
48	SA-R	Z	.001	.001	0	%100
49	SF2-BH	Z	4.8e-5	4.8e-5	0	%100
50	SF2-TH	Z	4.8e-5	4.8e-5	0	%100
51	SF3-BH	Z	.001	.001	0	%100
52	SF3-TH	Z	.001	.001	0	%100
53	MP-1	Z	.002	.002	0	%100
54	MP-2	Z	.002	.002	0	%100
55	MP-3	Z	.002	.002	0	%100
56	MP-4	Z	.002	.002	0	%100
57	MAST	Z	.002	.002	0	%100
58	SA-L	Z	.000211	.000211	0	%100

Member Distributed Loads (BLC 34 : 330 Wind - Ice)

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft,%]	End Location[ft,%]

Company : Tower Engineering Professionals, Inc.
Designer : GJS
Job Number : TEP No. 217399.698883
Model Name : Guilford SW (BU 842864)

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Member Distributed Loads (BLC 34 : 330 Wind - Ice) (Continued)

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	SF2-D1	X	-.001	-.001	0	%100
2	SF2-D1-X	X	-.001	-.001	0	%100
3	SF3-D1	X	-.001	-.001	0	%100
4	SF3-D1-X	X	-.001	-.001	0	%100
5	SF2-V1	X	-.001	-.001	0	%100
6	SF2-V2	X	-.001	-.001	0	%100
7	SF3-V1	X	-.001	-.001	0	%100
8	SF3-V2	X	-.001	-.001	0	%100
9	SF2-CPB	X	-.000787	-.000787	0	%100
10	SF2-CPT	X	-.000787	-.000787	0	%100
11	SF3-CPB	X	-.001	-.001	0	%100
12	SF3-CPT	X	-.001	-.001	0	%100
13	FFBH-1	X	-.002	-.002	0	%100
14	FFBH-2	X	-.002	-.002	0	%100
15	FFBH-3	X	-.002	-.002	0	%100
16	FFTH-1	X	-.002	-.002	0	%100
17	FFTH-2	X	-.002	-.002	0	%100
18	FFTH-3	X	-.002	-.002	0	%100
19	SA-R	X	-.001	-.001	0	%100
20	SF2-BH	X	-.000432	-.000432	0	%100
21	SF2-TH	X	-.000432	-.000432	0	%100
22	SF3-BH	X	-.001	-.001	0	%100
23	SF3-TH	X	-.001	-.001	0	%100
24	MP-1	X	-.002	-.002	0	%100
25	MP-2	X	-.002	-.002	0	%100
26	MP-3	X	-.002	-.002	0	%100
27	MP-4	X	-.002	-.002	0	%100
28	MAST	X	-.002	-.002	0	%100
29	SA-L	X	-.000157	-.000157	0	%100
30	SF2-D1	Z	.000695	.000695	0	%100
31	SF2-D1-X	Z	.000695	.000695	0	%100
32	SF3-D1	Z	.000695	.000695	0	%100
33	SF3-D1-X	Z	.000695	.000695	0	%100
34	SF2-V1	Z	.000669	.000669	0	%100
35	SF2-V2	Z	.000669	.000669	0	%100
36	SF3-V1	Z	.000669	.000669	0	%100
37	SF3-V2	Z	.000669	.000669	0	%100
38	SF2-CPB	Z	.000454	.000454	0	%100
39	SF2-CPT	Z	.000454	.000454	0	%100
40	SF3-CPB	Z	.000666	.000666	0	%100
41	SF3-CPT	Z	.000666	.000666	0	%100
42	FFBH-1	Z	.000695	.000695	0	%100
43	FFBH-2	Z	.001	.001	0	%100
44	FFBH-3	Z	.000695	.000695	0	%100
45	FFTH-1	Z	.000695	.000695	0	%100
46	FFTH-2	Z	.001	.001	0	%100
47	FFTH-3	Z	.000695	.000695	0	%100
48	SA-R	Z	.000865	.000865	0	%100
49	SF2-BH	Z	.000247	.000247	0	%100
50	SF2-TH	Z	.000247	.000247	0	%100
51	SF3-BH	Z	.000806	.000806	0	%100
52	SF3-TH	Z	.000806	.000806	0	%100

Member Distributed Loads (BLC 34 : 330 Wind - Ice) (Continued)

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft,%]	End Location[ft,%]
53	MP-1	Z	.001	.001	0	%100
54	MP-2	Z	.001	.001	0	%100
55	MP-3	Z	.001	.001	0	%100
56	MP-4	Z	.001	.001	0	%100
57	MAST	Z	.001	.001	0	%100
58	SA-L	Z	9.8e-5	9.8e-5	0	%100

Member Area Loads

Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
No Data to Print ...						

Envelope Joint Reactions

	Joint		X [k]	LC	Y [k]	LC	Z [k]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
1	SA-1B	max	.809	16	.023	40	.568	16	0	98	0	98	0	98
2		min	-.815	24	.008	96	-.568	24	0	1	0	1	0	1
3	SF1-1	max	-.062	10	1.586	43	2.032	20	0	98	0	98	0	98
4		min	-1.06	34	.534	7	-1.538	12	0	1	0	1	0	1
5	SF1-2	max	1.107	34	.823	35	.804	54	0	98	0	98	0	98
6		min	.064	10	.278	15	-.82	29	0	1	0	1	0	1
7	N61	max	1.624	3	.024	43	1.163	27	0	98	0	98	0	98
8		min	-1.634	27	.006	3	-1.164	3	0	1	0	1	0	1
9	Totals:	max	1.954	18	2.421	49	1.176	23						
10		min	-1.954	10	.847	83	-1.176	13						

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

	Member	Shape	Code Check	Lo...		Shear Check	Lo...			phi*P...	phi*P...	phi*M...	phi*M...	Eqn
1	FFTH-1	PIPE_2.5	.422	3.2...		.099	3.2...			22.464	50.715	3.596	3.596	H1-1b
2	MP-4	PIPE_2.0	.407	3.3...		.047	3.3...			17.855	32.13	1.872	1.872	H1-1b
3	MP-1	PIPE_2.0	.376	3.3...		.093	3.3...			17.855	32.13	1.872	1.872	H1-1b
4	SF3-CPB	PL3.5 x ...	.351	0		.246	.383	y		68.496	70.875	.923	5.168	H1-1b
5	SF2-CPB	PL3.5 x ...	.344	0		.230	.383	y		68.496	70.875	.923	5.168	H1-1b
6	MP-3	PIPE_2.0	.306	3.3...		.071	3.3...			17.855	32.13	1.872	1.872	H1-1b
7	SF2-CPT	PL3.5 x ...	.263	0		.186	0	y		68.496	70.875	.923	5.168	H1-1b
8	FFTH-3	PIPE_2.5	.257	.544		.090	1.4...			22.464	50.715	3.596	3.596	H1-1b
9	FFBH-3	PIPE_2.5	.254	.544		.075	0			22.464	50.715	3.596	3.596	H1-1b
10	FFBH-1	PIPE_2.5	.253	4.75		.037	4.75			22.464	50.715	3.596	3.596	H1-1b
11	SF3-CPT	PL3.5 x ...	.249	0		.175	0	y		68.496	70.875	.923	5.168	H1-1b
12	SF2-TH	PIPE_2.0	.232	2.3...		.099	2.3...			29.81	32.13	1.872	1.872	H1-1b
13	MP-2	PIPE_2.0	.212	3.3...		.067	3.3...			17.855	32.13	1.872	1.872	H1-1b
14	FFTH-2	PIPE_2.5	.210	0		.070	0			41.333	50.715	3.596	3.596	H1-1b
15	SF2-D1-X	SR 5/8	.209	.304		.038	4.1...			1.602	9.94	.104	.104	H1-...
16	SF3-BH	PIPE_2.0	.209	0		.125	2.5			29.81	32.13	1.872	1.872	H1-1b
17	FFBH-2	PIPE_2.5	.208	0		.040	0			41.333	50.715	3.596	3.596	H1-1b
18	SF3-D1-X	SR 5/8	.207	.304		.045	4.1...			1.602	9.94	.104	.104	H1-...
19	SF2-BH	PIPE_2.0	.196	2.5		.132	2.5			29.81	32.13	1.872	1.872	H1-1b
20	SF2-V2	SR 3/4	.189	0		.022	.208			5.191	14.314	.179	.179	H1-1b
21	SF3-V2	SR 3/4	.182	3.3...		.022	0			5.191	14.314	.179	.179	H1-1b

Company : Tower Engineering Professionals, Inc.
Designer : GJS
Job Number : TEP No. 217399.698883
Model Name : Guilford SW (BU 842864)

May 11, 2022
10:34 AM
Checked By: MMW

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

	Member	Shape	Code Check	Lo...		Shear Check	Lo...			phi*P...	phi*P...	phi*M...	phi*M...	Eqn
22	SF3-TH	PIPE_2.0	.181	2.3...		.095	2.3...			29.81	32.13	1.872	1.872	H1-1b
23	MAST	PIPE_4.0	.169	1.8...		.076	1.0...			92.331	93.24	10.631	10.631	H1-1b
24	SF2-V1	SR 3/4	.157	0		.030	.208			5.191	14.314	.179	.179	H1-1b
25	SF3-V1	SR 3/4	.147	0		.027	.208			5.191	14.314	.179	.179	H1-1b
26	SA-L	PIPE_2.0	.085	5.1...	3	.002	5.1...			23.488	32.13	1.872	1.872	H1-...
27	SA-R	PIPE_2.0	.042	5.1...		.002	5.1...			23.488	32.13	1.872	1.872	H1-...
28	SF2-D1	SR 5/8	.000	0		.000	0			1.602	9.94	.104	.104	1 H1-1a
29	SF3-D1	SR 5/8	.000	0		.000	0			1.602	9.94	.104	.104	1 H1-1a

Envelope None Cold Formed Steel Code Checks

Member	Shape	Code ...	Loc[ft]	LC	Shear ...	Loc[ft]	Dir	LC	Pn[k]	Tn[k]	Mnyy[k-ft]	Mnzz[k-ft]	Cb	Cmyy	Cmzz	Eqn
No Data to Print ...																

APPENDIX D

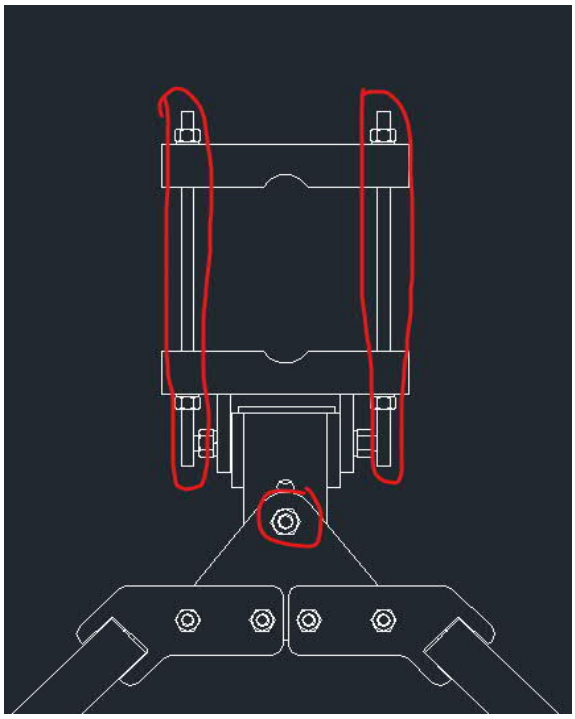
ADDITIONAL CALCULATIONS

Job Name: Guilford SW (BU 842864)
TEP#217399.698883
Calc: GJS Check: MMW
Date: 5/11/2022

Moment Bolt Group - Support Arm

Bolt Size:	0.625	in
# Bolts:	4	
Plate Width:	-	in
Plate Height:	-	in
Bolt H Gap:	9.5	in
Bolt V Gap:	3.5	in
Plate T:	-	in
Tower Leg Ø:	-	in
Bolt Grade:	A36	
Fu_{bolt}	58	ksi
r:	5.0621	in
J:	23.1652	in^4
$Bolt_{Area}$:	0.307	in^2
$Bolt_{Area, Net Tensile}$:	0.226	in^2
Pretension:	9	kips
Slotted Holes:	No	

Code Checks Per ANSI/TIA-222-H:		
Bolt Group Capacity =	9.0%	GOOD
Single Bolt Capacity =	10.8%	GOOD



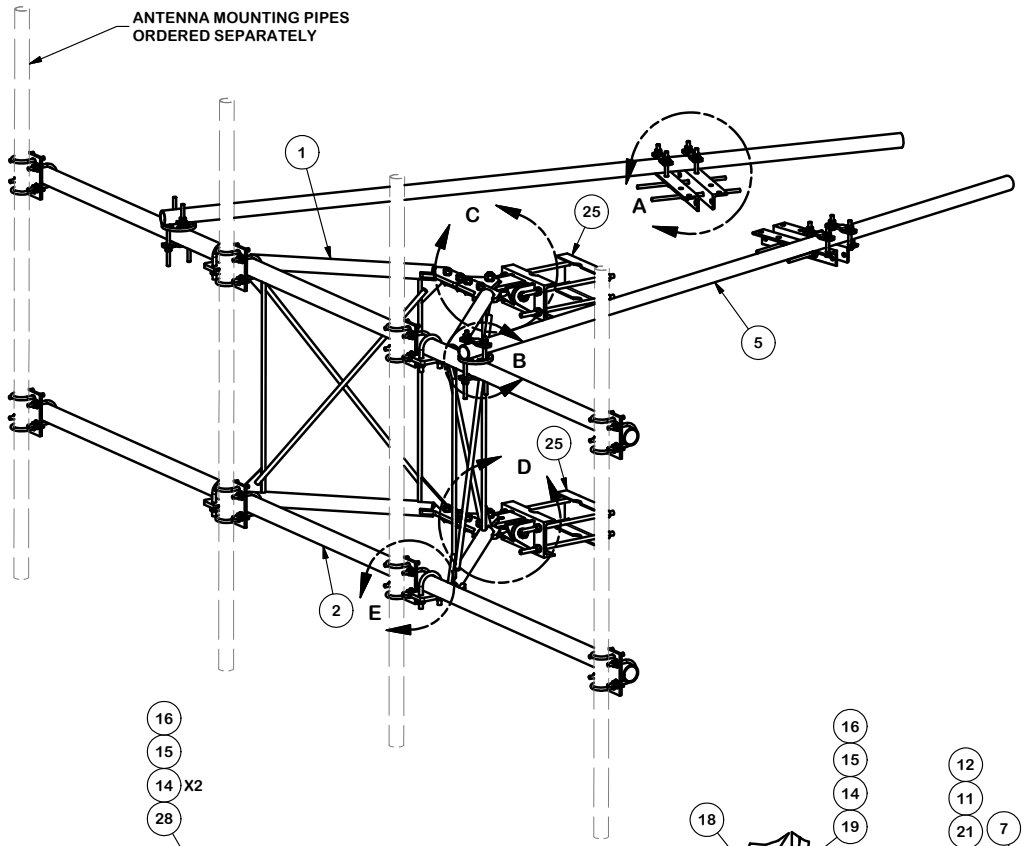
Bolts:
A325N

Single Bolt Check

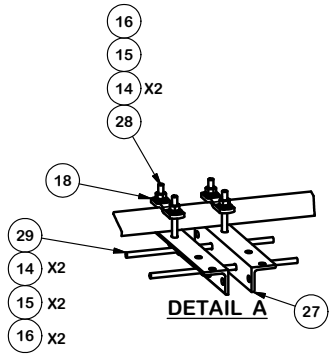
Bolt Size:	0.75	in
Bolt F_u:	120	ksi
$Bolt_{A, Net Tensile}$:	0.334	in^2
V_{max}=	2.141	kips
$ØR_{NV}$ =	19.880	kips
T_{max} =	1.586	kips
$ØR_{NT}$ =	30.060	kips

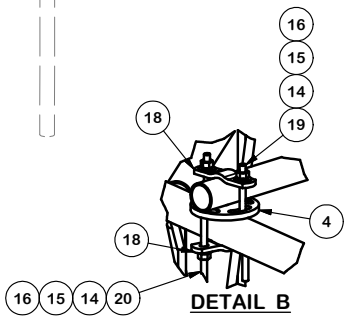
APPENDIX E

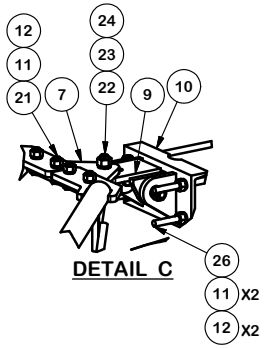
SUPPLEMENTAL DRAWINGS

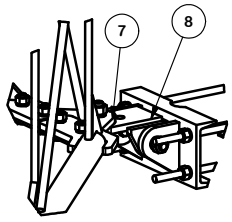


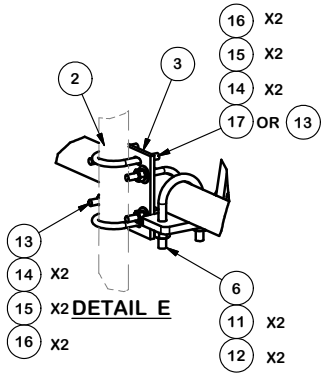
PARTS LIST						
ITEM	QTY	PART NO.	PART DESCRIPTION	LENGTH	UNIT WT.	NET WT.
1	2	X-VFAW	SUPPORT ARM		66.80	133.59
2	2	P30174	2-7/8" O.D. x 174" SCH. 40 PIPE	174 in	84.20	168.39
3	8	SCX2	CROSSOVER PLATE	7 in	4.80	38.37
4	2	X-127594	FLAT DISK CLAMP PLATE 4" CENTERS (GALV.)		2.48	4.97
5	2	P2126	2-3/8" OD X 126" SCH 40 GALVANIZED PIPE	126 in	40.75	81.50
6	4	X-UB5300	5/8" X 3" X 5-1/4" X 2-1/2" U-BOLT (HDG.)		1.15	4.60
7	2	X-VFAPL3	VFA-HD PIVOT PLATE	24 in	9.69	19.38
8	1	X-LPB	LOWER PIVOT BRACKET		8.84	8.84
9	1	X-UPB	UPPER PIVOT BRACKET		8.84	8.84
10	2	X-HDPMW	HEAVY DUTY PIPE MOUNT WELDMENT		18.52	37.04
11	32	G58LW	5/8" HDG LOCKWASHER	5/32 in	0.03	0.83
12	32	G58NUT	5/8" HDG HEAVY 2H HEX NUT	5/8 in	0.13	4.16
13	32	X-UB1300	1/2" X 3" X 5" X 2" GALV U-BOLT		0.74	23.64
14	96	G12FW	1/2" HDG USS FLATWASHER	3/32 in	0.03	3.27
15	88	G12LW	1/2" HDG LOCKWASHER	1/8 in	0.01	1.22
16	88	G12NUT	1/2" HDG HEAVY 2H HEX NUT		0.07	6.30
17	16	X-UB1212	1/2" X 2-1/2" X 4-1/2" X 2" U-BOLT (HDG.)		0.26	4.11
18	8	X-100064	CLAMP (S) (4" V-CLAMP) GALVANIZED		0.91	7.30
19	4	G1204	1/2" x 4" HDG HEX BOLT GR5 FULL THREAD	4 in	0.27	1.08
20	4	G12065	1/2" x 6-1/2" HDG HEX BOLT GR5 FULL THREAD	6 1/2 in	0.41	1.64
21	8	A582114	5/8" x 2-1/4" HDG A325 HEX BOLT	2 1/4 in	0.31	2.50
22	6	A34212	3/4" x 2-1/2" UNC HEX BOLT (A325)	2 1/2 in	0.48	2.87
23	6	G34LW	3/4" HDG LOCKWASHER		0.04	0.26
24	6	G34NUT	3/4" HDG HEAVY 2H HEX NUT		0.21	1.27
25	2	X-HDPMBP	HEAVY DUTY PIPE MOUNT BACKING PLATE	12 in	13.44	26.89
26	8	G58R-18	5/8" x 18" THREADED ROD (HDG.)		0.40	3.19
27	4	X-LLTB	ANGLE BRACKET FOR LLTB	16 1/2 in	7.06	28.25
28	8	G12045	1/2" x 4.5" HDG HEX BOLT GR5 FULL THREAD	4 1/2 in	0.30	2.38
29	4	G12R-15	1/2" x 15" THREADED ROD (HDG.)		0.40	1.60
					TOTAL WT. #	645.31











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")*

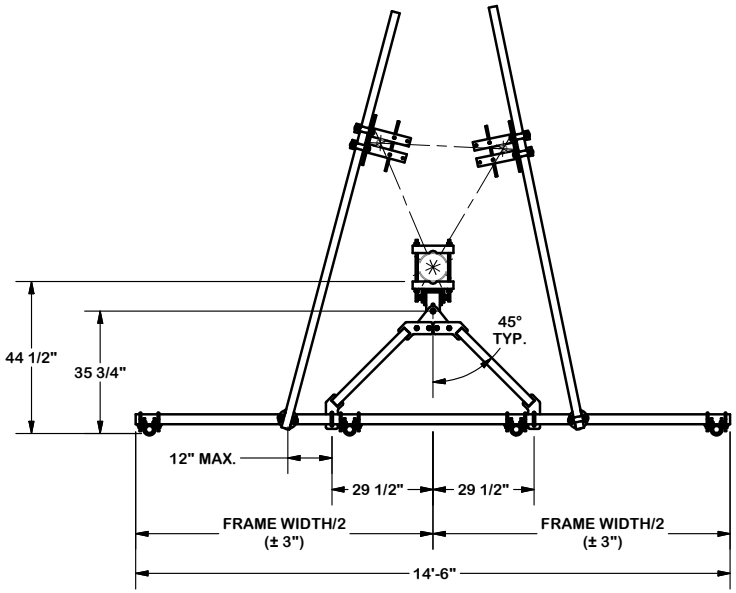
DESCRIPTION
14'-6" HEAVY DUTY
V-FRAME ASSEMBLY
WITH TWO STIFF ARMS

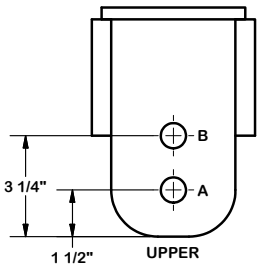
SITE PRO 1
A valmont COMPANY

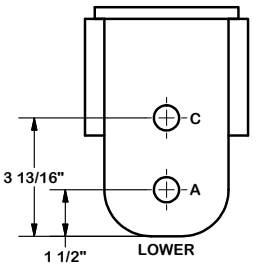
Engineering Support Team:
1-888-753-7446

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

CPD NO.	DRAWN BY	ENG. APPROVAL	PART NO.	
	CEK 4/14/2015		VFA14-HD	PAGE 1 OF 2
CLASS / SUB	DRAWING USAGE	CHECKED BY	DWG. NO.	
81 / 02	CUSTOMER	BMC 4/20/2015	VFA14-HD	

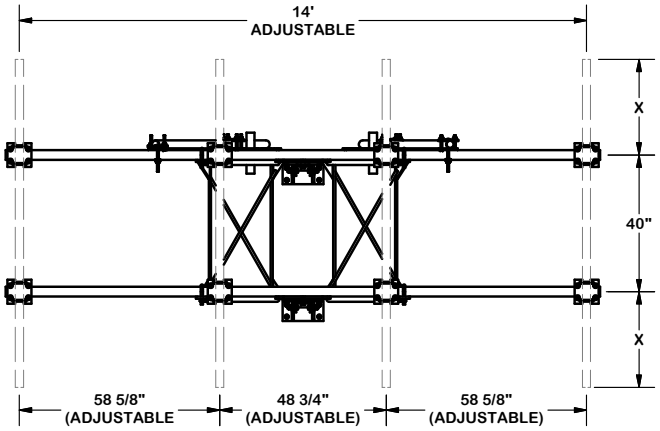




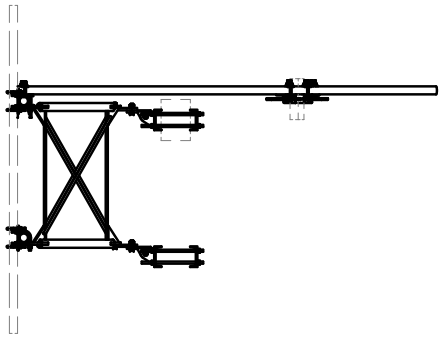


NOTES:

1. USE HOLE "A' IN UPPER AND LOWER BRACKETS FOR STRAIGHT LEGS.
2. USE HOLE "A" IN UPPER BRACKET AND HOLE "C" IN LOWER BRACKET FOR 2" IN 20' TAPER LEGS (3.309°)
3. USE HOLE "B" IN UPPER BRACKET AND HOLE "C" IN LOWER BRACKET FOR 6" IN 20' TAPER LEGS. (0.827°)



CENTER ANTENNA PIPE VERTICALLY ON V-FRAME FACE.



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: 14'-6" HEAVY DUTY V-FRAME ASSEMBLY WITH TWO STIFF ARMS			
CPD NO.	DRAWN BY: CEK 4/14/2015	ENG. APPROVAL	PART NO.: VFA14-HD
CLASS: 81 / SUB: 02	DRAWING USAGE: CUSTOMER	CHECKED BY: BMC 4/20/2015	DWG. NO.: VFA14-HD

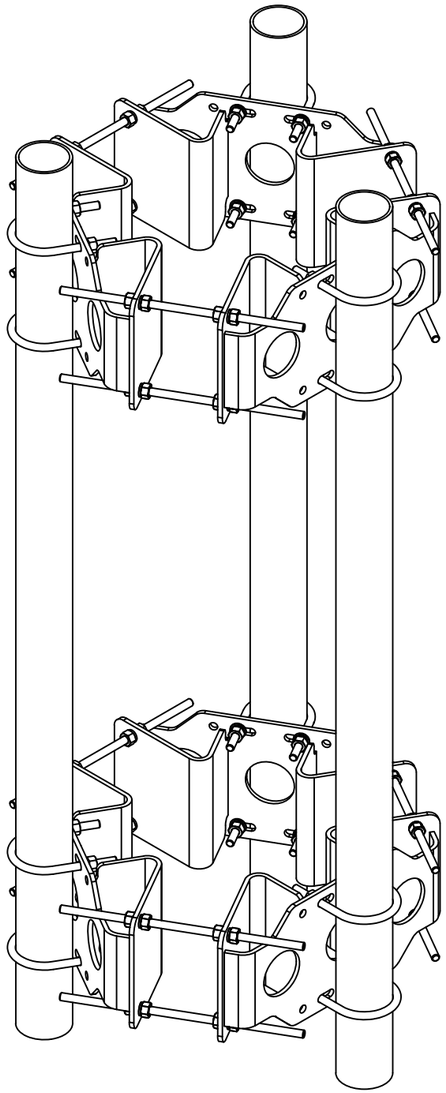
SITE PRO 1
A valmont COMPANY
Engineering Support Team: 1-888-753-7446
Locations: New York, NY; Atlanta, GA; Los Angeles, CA; Plymouth, IN; Salem, OR; Dallas, TX

NOTE:

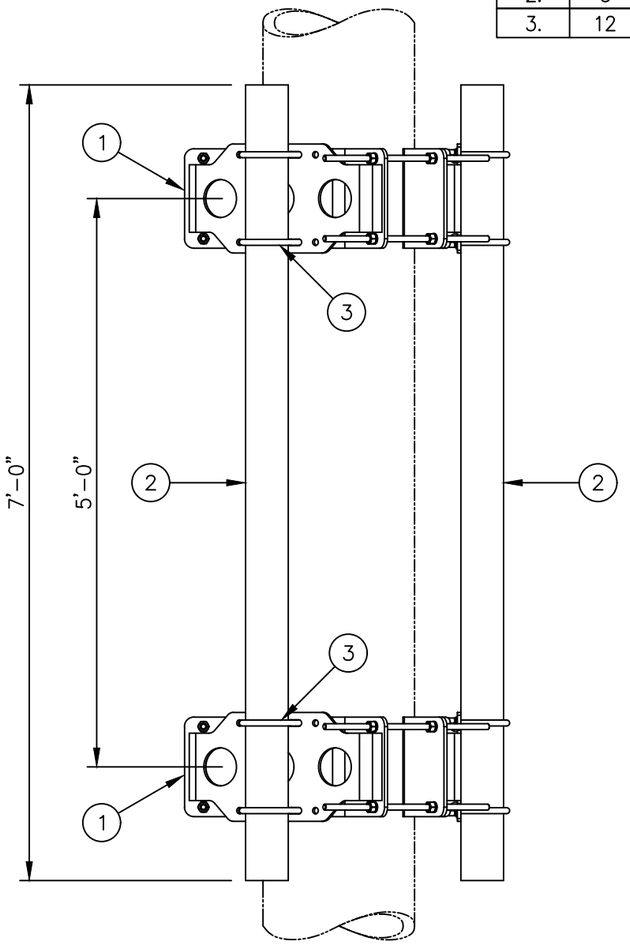
SEE DRAWING C10112377 FOR INSTALLATION OF TRI-COLLAR BRACKET ASSEMBLY

C10899050 4 1/2" O.D. PIPE MOUNT ASSEMBLY

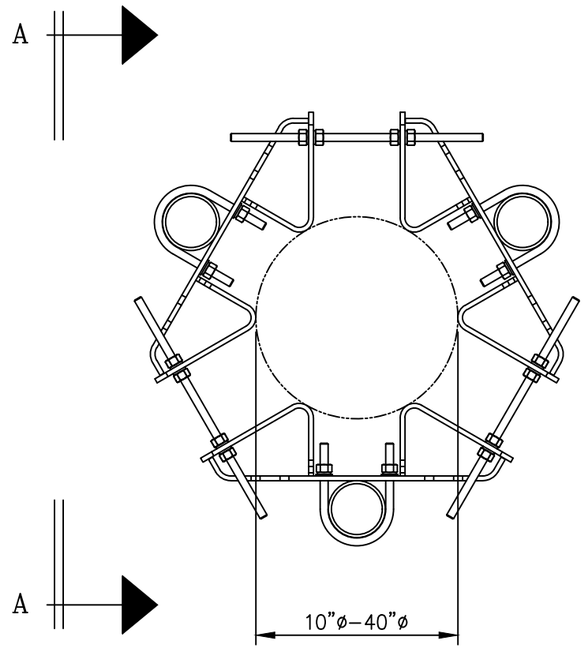
ITEM	QTY.	PART NO.	DESCRIPTION	WEIGHT
1.	2	C10112377	TRI-COLLAR BRACKET ASSEMBLY	416
2.	3	C10901407	PIPE, 4 1/2 O.D. X .237 X 7'-0	236
3.	12	C40034032	U-BOLT ASSEMBLY, 5/8 ø X 5 3/16 C-C	26
			TOTAL WEIGHT	678



ISOMETRIC VIEW



VIEW A-A



PLAN VIEW

UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS INCLUDE FINISHES AND ARE IN INCHES

TOLERANCES: FRACTIONS ± 1/16" ANGLES ± 1/2 DEG. DECIMALS ± .010"

MATERIAL:

TOLERANCES DO NOT APPLY TO RAW MATERIAL

REV	DATE	DRW	CHK	DESCRIPTION
1	02/03/17	WRF	KLE	COLLAR WAS C10112300

Sabre Industries™ Towers and Poles

4 1/2" O.D. PIPE MOUNT ASSEMBLY FOR MONOPOLES (FITS 10" TO 40" DIAMETER)

		SIZE	DRAWING NO.	REV
DATE	01/26/16	B	C10899050	1
DRAWN BY	WRF		SCALE None	PAGE 1 OF 1
CHECKED BY	DLW			

Date: **May 16, 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:	CT5200
	Site Name:	Guilford SW
	FA Number:	10071060
Crown Castle Designation:	**BU Number:**	842864
	Site Name:	Guilford SW
	JDE Job Number:	686238
	Work Order Number:	2115871
	Order Number:	586336 Rev. 1
Engineering Firm Designation:	**B+T Group Project Number:**	93996.011.01
Site Data:	**201 Granite Road, Guilford, New Haven County, CT**	
	Latitude *41° 17' 31.14"*, Longitude *-72° 43' 58.28"*	
	109 Foot - Monopole Tower	

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

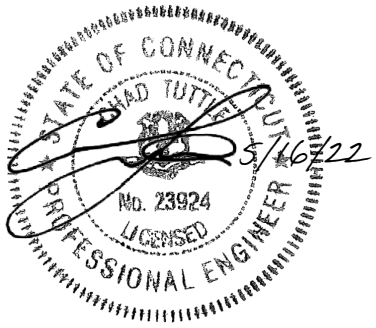
The purpose of the analysis is to determine acceptability of the tower stress level. Based on our analysis we have determined the tower stress level for the structure and foundation, under the following load case, to be:

LC7: Proposed Equipment Configuration **Sufficient Capacity – 48.5%**

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 criteria are listed in Section 2 - Analysis Criteria.

Structural analysis prepared by: Gertha Wesh

Respectfully submitted by: B+T Engineering, Inc.
COA: PEC.0001564; Expires: 02/01/2023



Chad E. Tuttle, P.E.

tnxTower Report - version 8.1.1.0

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1) INTRODUCTION

This is a 99 ft. Monopole tower designed by Engineered Endeavors, Inc. in November 2003.

The tower has been modified per reinforcement drawings prepared by B+T Group in February 2014. Reinforcement consists of a 10-ft tower extension, bringing the total tower height to 109 ft.

2) ANALYSIS CRITERIA

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

Table 1 - Proposed Equipment Configuration

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
96.0	98.0	3	Ericsson	AIR 6449 B77D	12 4 2 3	1-1/4 7/8 13/16 3/8
	97.0	3	CCI Antennas	OPA65R-BU6D		
		3	CCI Antennas	TPA65R-BU6D_CCIV2		
		3	Ericsson	RADIO 4478 B14		
		3	Ericsson	RRUS 4449 B5/B12		
		3	Ericsson	RRUS 8843 B2/B66A		
		3	Raycap	DC6-48-60-18-8F		
	96.0	3	Site Pro 1	VFA14-HD Sector Mount		
		3	Sabre	C10899050 Mount Attachment		
		3	Ericsson	AIR 6419 B77G		

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)
106.0	107.0	3	Amphenol	BXA-70063-6CF-EDIN-X	2	1-5/8
		6	Commscope	NHH-65B-R2B		
		2	Raycap	RRFDC-3315-PF-48		
		3	Samsung Telecomm.	MT6407-77A		
		3	Samsung Telecomm.	RFV01U-D1A		
		3	Samsung Telecomm.	RFV01U-D2A		
	106.0	3	Commscope	BSAMNT-SBS-1-2 Brackets		
		1	--	Platform Mount [LP 303-1]		
87.0	87.0	1	Site Pro 1	HRK 12 Handrail Kit	4	1-5/8
		1	Site Pro 1	RMQP-496 Platform Mount		
	86.0	3	Ericsson	AIR6449 B41_T-MOBILE		
		3	Ericsson	RADIO 4449 B12/B71		

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
		3	Ericsson	RADIO 4460 B2/B25 B66_TMO		
		3	RFS Celwave	APXVAARR24_43-U-NA20		
77.0	77.0	1	--	Commscope MC-PK8-DSH	1	1-3/8
		3	Fujitsu	TA08025-B604		
		3	Fujitsu	TA08025-B605		
		3	JMA Wireless	MX08FRO665-21		
		1	Raycap	RDIDC-9181-PF-48		

3) ANALYSIS PROCEDURE

Table 3 - Documents Provided

Document	Reference	Source
Tower Manufacturing Drawing	4492171	CCI Sites
Tower Extension Drawing	4492170	CCI Sites
Post Modification Inspection	5415537	CCI Sites
Foundation Drawing	4492141	CCI Sites
Geotechnical Report	4713222	CCI Sites
Crown CAD Package	Date: 05/12/2022	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	109 - 99.5	Pole	TP24x24x0.375	1	-4.526	920.561	6.4	Pass
L2	99.5 - 99	Pole	TP26.42x24x0.375	2	-4.526	920.561	6.4	Pass
L3	99 - 46.93	Pole	TP37.125x26.42x0.313	3	-23.541	2178.456	36.9	Pass
L4	46.93 - 0	Pole	TP46x35.443x0.375	4	-36.616	3335.692	46.6	Pass
							Summary	
						Pole (L4)	46.6	Pass
						Rating =	46.6	Pass

Table 5 - Tower Component Stresses vs. Capacity – LC7

Notes	Component	Elevation (ft)	% Capacity	Pass / Fail
1,2	Flange Connection	99.0	16.1	Pass
1,2	Anchor Rods	Base	40.0	Pass
1,2	Base Plate	Base	48.5	Pass
1,2	Base Foundation (Structure)	Base	42.7	Pass
1,2	Base Foundation (Soil Interaction)	Base	42.2	Pass

Structure Rating (max from all components) =	**48.5%**

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.

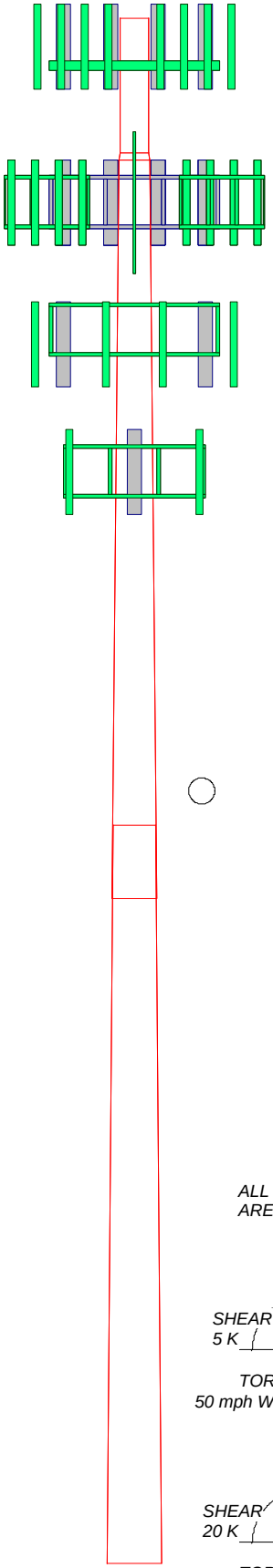
APPENDIX A

TNXTOWER OUTPUT

Section	1	2	3	4
Length (ft)	9.500	0.500	52.070	52.070
Number of Sides	1	1	18	18
Thickness (in)	0.375	0.375	0.313	0.375
Socket Length (ft)			5.140	
Top Dia (in)	24.000	24.000	26.420	35.443
Bot Dia (in)	24.000	26.420	37.125	46.000
Grade	A53-B-35		A572-65	
Weight (K)	0.9	0.0	5.5	8.5

Total Weight: 15.0

109.0 ft
99.5 ft
46.9 ft
0.0 ft



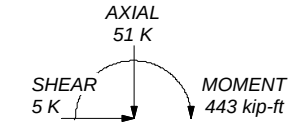
MATERIAL STRENGTH

GRADE	Fy	Fu	GRADE	Fy	Fu
A53-B-35	35 ksi	63 ksi	A572-65	65 ksi	80 ksi

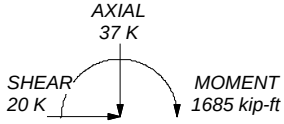
TOWER DESIGN NOTES

1. Tower is located in New Haven County, Connecticut.
2. Tower designed for Exposure B to the TIA-222-H Standard.
3. Tower designed for a 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: 46.6%

ALL REACTIONS ARE FACTORED



TORQUE 0 kip-ft
50 mph WIND - 1.000 in ICE



TORQUE 0 kip-ft
REACTIONS - 122 mph WIND

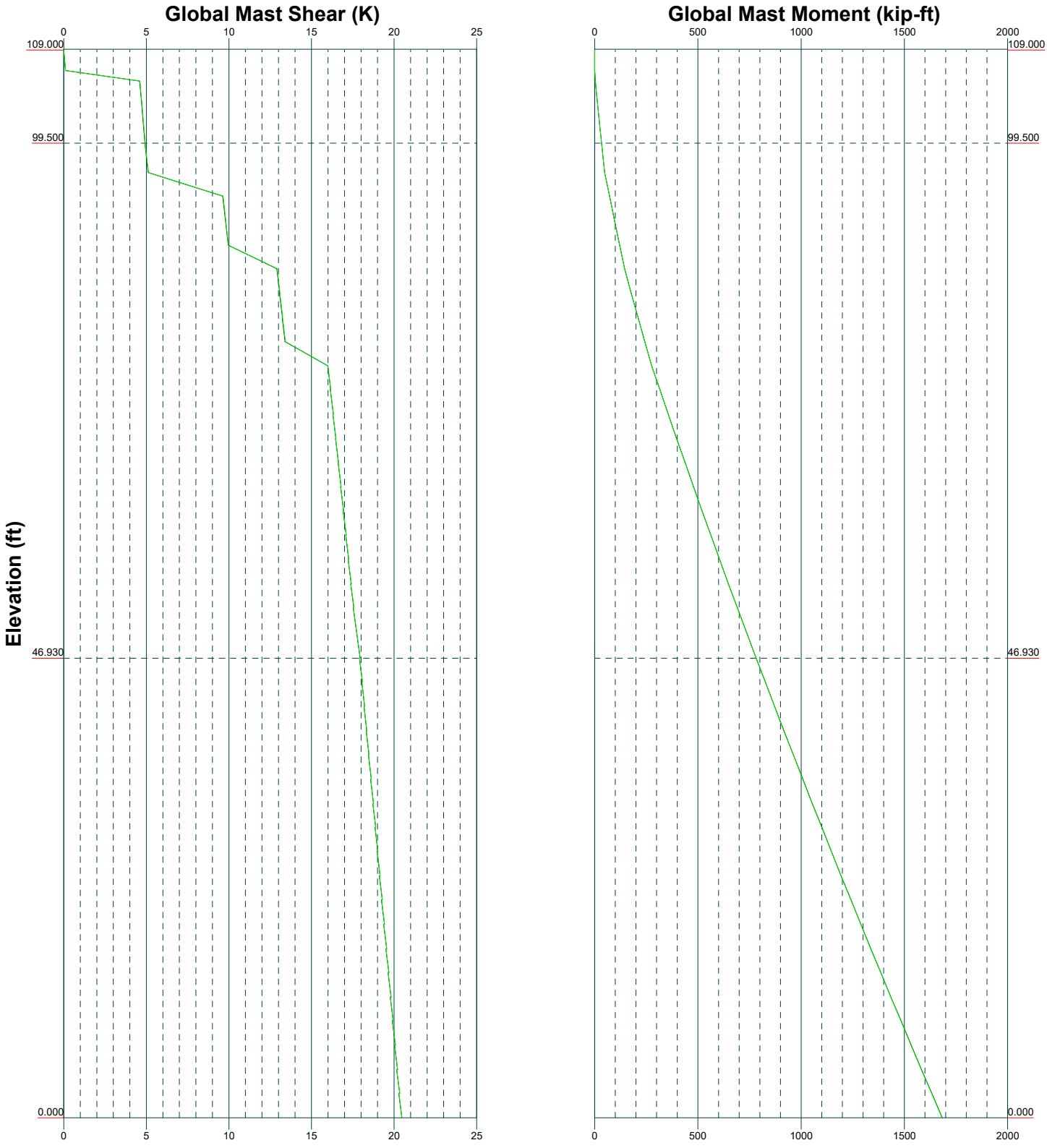
B+T Group
1717 S. Boulder, Suite 300
Tulsa, OK 74119
Phone: (918) 587-4630
FAX: (918) 295-0265

Job:	***93996.011.01 - GUILFORD SW, CT (BU# 842864***		
Project:			
Client: Crown Castle		Drawn by: R AITHAL	App'd:
Code: TIA-222-H		Date: 05/14/22	Scale: NTS
Path: G:\SA jobs\14-05-2022--\93996_842864_Guilford SW-----Ranjith-----Akshaykumar--\Tnx_011_01\93996_011_01_GUILFORD SW_CT.eri			Dwg No. E-1

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

Maximum Values

Vx Vz Mx Mz



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

Job: 93996.011.01 - GUILFORD SW, CT (BU# 842864			
Project:			
Client: Crown Castle	Drawn by: R AITHAL	App'd:	
Code: TIA-222-H	Date: 05/14/22	Scale: NTS	
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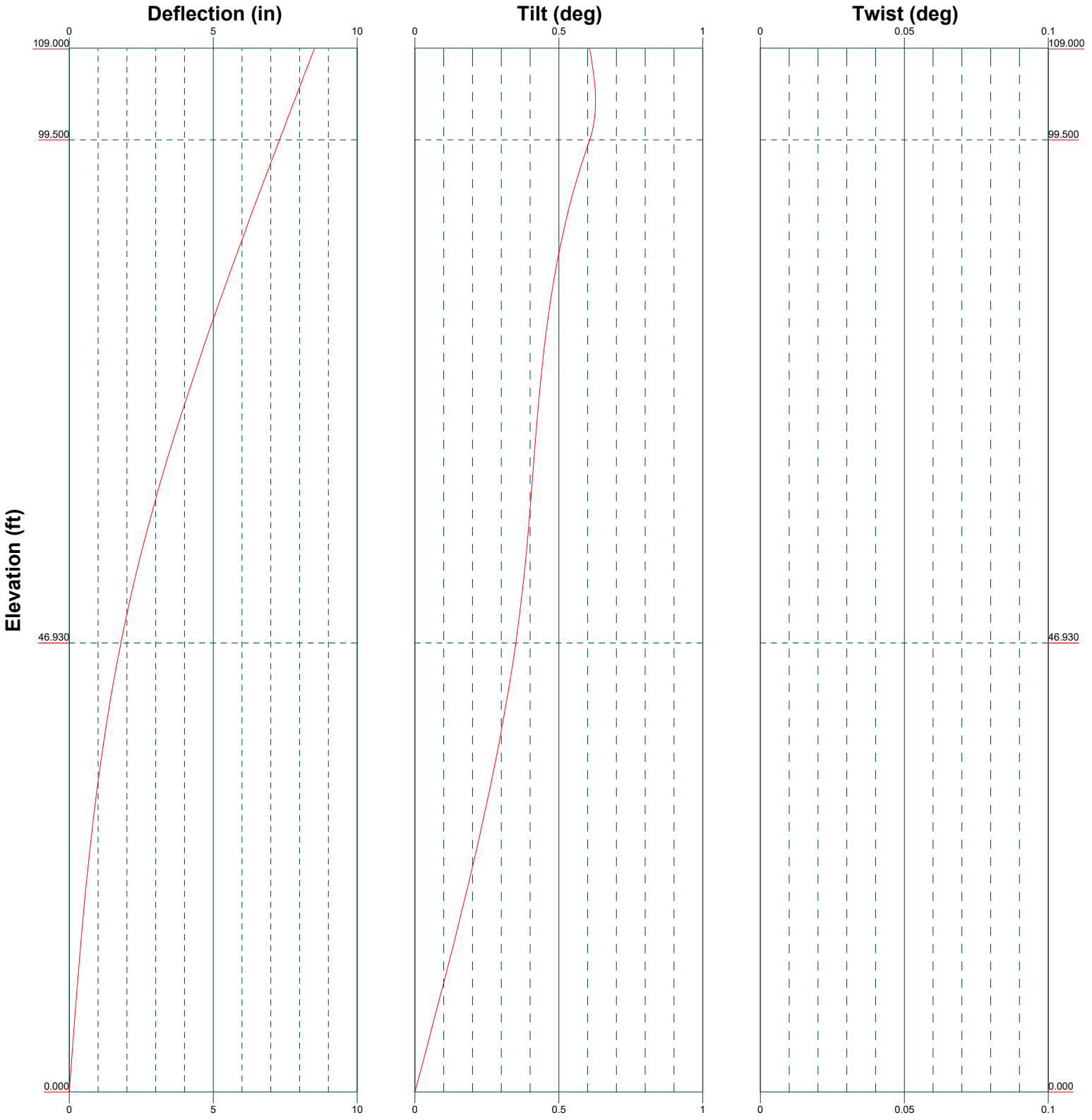
TIA-222-H - Service - 60 mph

Maximum Values



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Project:			
Client: Crown Castle	Drawn by: R AITHAL	App'd:	
Code: TIA-222-H	Date: 05/14/22	Scale: NTS	
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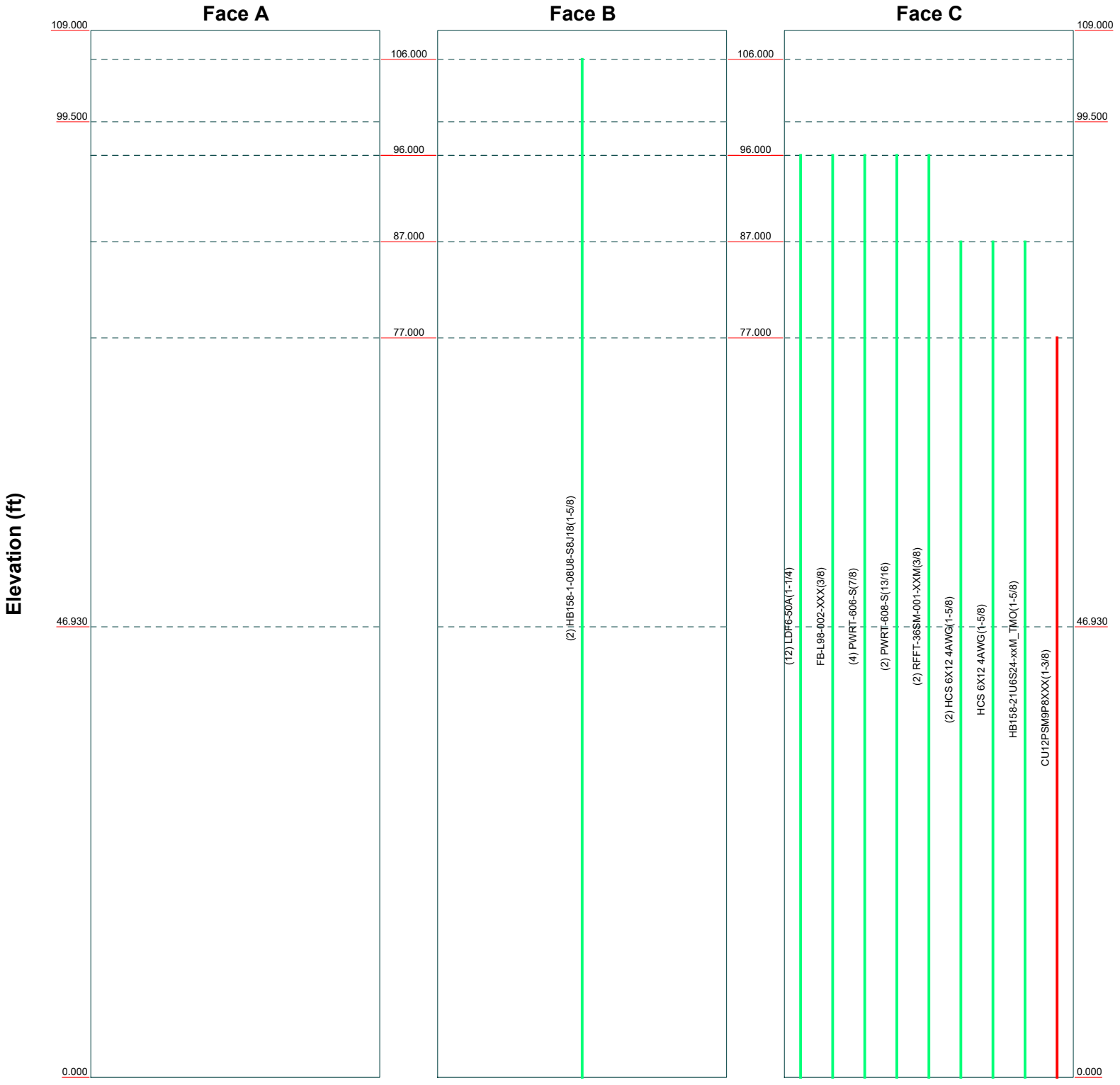
Feed Line Distribution Chart
0' - 109'

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



B+T GRP

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

Job: *93996.011.01 - GUILFORD SW, CT (BU# 842864*			
Project:			
Client: Crown Castle	Drawn by: R AITHAL	App'd:	
Code: TIA-222-H	Date: 05/14/22	Scale: NTS	
Path: G:\SA jobs\14-05-2022--\93996_842864_Guilford SW-----Ranjith-----Akshaykumar--\Tnx_011_01\93996_011_01_GUILFORD SW_CT.eri		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: 106.000 ft.
Basic wind speed of 122 mph.
Risk Category II.
Exposure Category B.
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	109.000-99.500	9.500	0.000	Round	24.000	24.000	0.375		A53-B-35 (35 ksi)
L2	99.500-99.000	0.500	0.000	Round	24.000	26.420	0.375		A53-B-35 (35 ksi)
L3	99.000-46.930	52.070	5.140	18	26.420	37.125	0.313	1.250	A572-65 (65 ksi)
L4	46.930-0.000	52.070		18	35.443	46.000	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	24.000	27.833	1942.299	8.354	12.000	161.858	3884.597	13.908	0.000	0
	24.000	27.833	1942.299	8.354	12.000	161.858	3884.597	13.908	0.000	0
L2	24.000	27.833	1942.299	8.354	12.000	161.858	3884.597	13.908	0.000	0
	26.420	30.684	2602.281	9.209	13.210	196.993	5204.563	15.333	0.000	0
L3	26.779	25.895	2229.925	9.268	13.421	166.147	4462.784	12.950	4.100	13.12
	37.650	36.513	6251.444	13.068	18.860	331.475	12511.113	18.260	5.984	19.149
L4	36.990	41.740	6485.132	12.449	18.005	360.181	12978.797	20.874	5.578	14.875
	46.652	54.305	14281.844	16.197	23.368	611.171	28582.480	27.158	7.436	19.829

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 109.000-99.500				1	1	1			
L2 99.500-99.000				1	1	1			
L3 99.000-46.930				1	1	1			
L4 46.930-0.000				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
* CU12PSM9P8XXX(1-3/8) *	C	No	Surface Ar (CaAa)	77.000 - 0.000	1	1	0.300 0.330	1.411		0.002

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
HB158-1-08U8-S8J 18(1-5/8)	B	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
*									
LDF6-50A(1-1/4)	C	No	No	Inside Pole	96.000 - 0.000	12	No Ice	0.000	0.001
							1/2" Ice	0.000	0.001
							1" Ice	0.000	0.001
FB-L98-002-XXX(3 /8)	C	No	No	Inside Pole	96.000 - 0.000	1	No Ice	0.000	0.000
							1/2" Ice	0.000	0.000
							1" Ice	0.000	0.000
PWRT-606-S(7/8)	C	No	No	Inside Pole	96.000 - 0.000	4	No Ice	0.000	0.001
							1/2" Ice	0.000	0.001
							1" Ice	0.000	0.001
PWRT-608-S(13/16)	C	No	No	Inside Pole	96.000 - 0.000	2	No Ice	0.000	0.001
							1/2" Ice	0.000	0.001
							1" Ice	0.000	0.001
RFFT-36SM-001-X XM(3/8)	C	No	No	Inside Pole	96.000 - 0.000	2	No Ice	0.000	0.000
							1/2" Ice	0.000	0.000
							1" Ice	0.000	0.000
*									
HCS 6X12 4AWG(1-5/8)	C	No	No	Inside Pole	87.000 - 0.000	2	No Ice	0.000	0.002
							1/2" Ice	0.000	0.002
							1" Ice	0.000	0.002
HCS 6X12 4AWG(1-5/8)	C	No	No	Inside Pole	87.000 - 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)	C	No	No	Inside Pole	87.000 - 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	109.000-99.500	A	0.000	0.000	0.000	0.000	0.000
		B	0.000	0.000	0.000	0.000	0.017
		C	0.000	0.000	0.000	0.000	0.000
L2	99.500-99.000	A	0.000	0.000	0.000	0.000	0.000
		B	0.000	0.000	0.000	0.000	0.001
		C	0.000	0.000	0.000	0.000	0.000
L3	99.000-46.930	A	0.000	0.000	0.000	0.000	0.000
		B	0.000	0.000	0.000	0.000	0.135
		C	0.000	0.000	4.243	0.000	1.040
L4	46.930-0.000	A	0.000	0.000	0.000	0.000	0.000
		B	0.000	0.000	0.000	0.000	0.122
		C	0.000	0.000	6.622	0.000	1.108

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	109.000-99.500	A	0.954	0.000	0.000	0.000	0.000	0.000
		B		0.000	0.000	0.000	0.000	0.017
		C		0.000	0.000	0.000	0.000	0.000
L2	99.500-99.000	A	0.949	0.000	0.000	0.000	0.000	0.000
		B		0.000	0.000	0.000	0.000	0.001
		C		0.000	0.000	0.000	0.000	0.000
L3	99.000-46.930	A	0.919	0.000	0.000	0.000	0.000	0.000
		B		0.000	0.000	0.000	0.000	0.135
		C		0.000	0.000	9.771	0.000	1.118
L4	46.930-0.000	A	0.819	0.000	0.000	0.000	0.000	0.000
		B		0.000	0.000	0.000	0.000	0.122
		C		0.000	0.000	15.249	0.000	1.231

Feed Line Center of Pressure

Section	Elevation ft	CP_X in	CP_Z in	CP_X Ice in	CP_Z Ice in
L1	109.000-99.500	0.000	0.000	0.000	0.000
L2	99.500-99.000	0.000	0.000	0.000	0.000
L3	99.000-46.930	-0.434	0.559	-0.567	0.731
L4	46.930-0.000	-0.687	0.885	-0.909	1.172

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
L3	17	CU12PSM9P8XXX(1-3/8)	46.93 - 77.00	1.0000	1.0000
L4	17	CU12PSM9P8XXX(1-3/8)	0.00 - 46.93	1.0000	1.0000

Discrete Tower Loads

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
NHH-65B-R2B w/ Mount Pipe	A	From Leg	4.000 0.000 1.000	0.000	106.000	No Ice 1/2" Ice 1" Ice	4.090 4.480 4.880	3.290 3.670 4.060	0.069 0.132 0.205
NHH-65B-R2B w/ Mount Pipe	B	From Leg	4.000 0.000 1.000	0.000	106.000	No Ice 1/2" Ice 1" Ice	4.090 4.480 4.880	3.290 3.670 4.060	0.069 0.132 0.205
NHH-65B-R2B w/ Mount Pipe	C	From Leg	4.000 0.000 1.000	0.000	106.000	No Ice 1/2" Ice 1" Ice	4.090 4.480 4.880	3.290 3.670 4.060	0.069 0.132 0.205
NHH-65B-R2B	A	From Leg	4.000 0.000 1.000	0.000	106.000	No Ice 1/2" Ice 1" Ice	4.160 4.560 4.980	2.490 2.880 3.270	0.044 0.094 0.150
NHH-65B-R2B	B	From Leg	4.000 0.000 1.000	0.000	106.000	No Ice 1/2" Ice 1" Ice	4.160 4.560 4.980	2.490 2.880 3.270	0.044 0.094 0.150
NHH-65B-R2B	C	From Leg	4.000 0.000 1.000	0.000	106.000	No Ice 1/2" Ice 1" Ice	4.160 4.560 4.980	2.490 2.880 3.270	0.044 0.094 0.150
BXA-70063-6CF-EDIN-X w/ Mount Pipe	A	From Leg	4.000 0.000 1.000	0.000	106.000	No Ice 1/2" Ice 1" Ice	7.400 8.140 8.900	5.390 6.100 6.830	0.058 0.113 0.178
BXA-70063-6CF-EDIN-X w/ Mount Pipe	B	From Leg	4.000 0.000 1.000	0.000	106.000	No Ice 1/2" Ice 1" Ice	7.400 8.140 8.900	5.390 6.100 6.830	0.058 0.113 0.178
BXA-70063-6CF-EDIN-X w/ Mount Pipe	C	From Leg	4.000 0.000 1.000	0.000	106.000	No Ice 1/2" Ice 1" Ice	7.400 8.140 8.900	5.390 6.100 6.830	0.058 0.113 0.178
RRFDC-3315-PF-48	A	From Leg	4.000 0.000 1.000	0.000	106.000	No Ice 1/2" Ice 1" Ice	3.364 3.597 3.838	2.192 2.395 2.606	0.021 0.050 0.082
RRFDC-3315-PF-48	B	From Leg	4.000 0.000 1.000	0.000	106.000	No Ice 1/2" Ice 1" Ice	3.364 3.597 3.838	2.192 2.395 2.606	0.021 0.050 0.082
RFV01U-D1A	A	From Leg	4.000 0.000 1.000	0.000	106.000	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 1.000	0.000	106.000	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 1.000	0.000	106.000	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 1.000	0.000	106.000	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 1.000	0.000	106.000	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 1.000	0.000	106.000	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
MT6407-77A	A	From Leg	4.000 0.000 1.000	0.000	106.000	No Ice 1/2" Ice 1" Ice	4.692 4.980 5.275	1.840 2.063 2.292	0.082 0.111 0.144
MT6407-77A	B	From Leg	4.000 0.000 1.000	0.000	106.000	No Ice 1/2" Ice 1" Ice	4.692 4.980 5.275	1.840 2.063 2.292	0.082 0.111 0.144

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
MT6407-77A	C	From Leg	4.000 0.000 1.000	0.000	106.000	No Ice 1/2" Ice 1" Ice	4.692 4.980 5.275	1.840 2.063 2.292	0.082 0.111 0.144
(2) 8' x 2" Mount Pipe	A	From Leg	4.000 0.000 0.000	0.000	106.000	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	106.000	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	106.000	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
Side Arm Mount [SO 102-3]	C	None		0.000	106.000	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
Platform Mount [LP 303-1]	C	None		0.000	106.000	No Ice 1/2" Ice 1" Ice	14.690 18.010 21.340	14.690 18.010 21.340	1.250 1.569 1.942
Mount Reinforcement Specifications *	C	None		0.000	106.000	No Ice 1/2" Ice 1" Ice	28.630 37.310 45.800	28.630 37.310 45.800	0.280 0.670 0.940
DC6-48-60-18-8F	B	From Leg	4.000 0.000 1.000	0.000	96.000	No Ice 1/2" Ice 1" Ice	1.212 1.892 2.105	1.212 1.892 2.105	0.033 0.055 0.080
DC6-48-60-18-8F	C	From Leg	4.000 0.000 1.000	0.000	96.000	No Ice 1/2" Ice 1" Ice	1.212 1.892 2.105	1.212 1.892 2.105	0.033 0.055 0.080
AIR 6449 B77D w/ Mount Pipe	A	From Leg	4.000 0.000 2.000	0.000	96.000	No Ice 1/2" Ice 1" Ice	3.580 3.920 4.270	2.310 2.600 2.910	0.095 0.130 0.173
AIR 6449 B77D w/ Mount Pipe	B	From Leg	4.000 0.000 2.000	0.000	96.000	No Ice 1/2" Ice 1" Ice	3.580 3.920 4.270	2.310 2.600 2.910	0.095 0.130 0.173
AIR 6449 B77D w/ Mount Pipe	C	From Leg	4.000 0.000 2.000	0.000	96.000	No Ice 1/2" Ice 1" Ice	3.580 3.920 4.270	2.310 2.600 2.910	0.095 0.130 0.173
AIR 6419 B77G w/ Mount Pipe	A	From Leg	4.000 0.000 0.000	0.000	96.000	No Ice 1/2" Ice 1" Ice	4.320 4.740 5.170	2.490 2.840 3.210	0.078 0.110 0.147
AIR 6419 B77G w/ Mount Pipe	B	From Leg	4.000 0.000 0.000	0.000	96.000	No Ice 1/2" Ice 1" Ice	4.320 4.740 5.170	2.490 2.840 3.210	0.078 0.110 0.147
AIR 6419 B77G w/ Mount Pipe	C	From Leg	4.000 0.000 0.000	0.000	96.000	No Ice 1/2" Ice 1" Ice	4.320 4.740 5.170	2.490 2.840 3.210	0.078 0.110 0.147
OPA65R-BU6D w/ Mount Pipe	A	From Leg	4.000 0.000 1.000	0.000	96.000	No Ice 1/2" Ice 1" Ice	12.250 13.000 13.760	6.050 6.710 7.390	0.089 0.176 0.275
OPA65R-BU6D w/ Mount Pipe	B	From Leg	4.000 0.000 1.000	0.000	96.000	No Ice 1/2" Ice 1" Ice	12.250 13.000 13.760	6.050 6.710 7.390	0.089 0.176 0.275
OPA65R-BU6D w/ Mount Pipe	C	From Leg	4.000 0.000 1.000	0.000	96.000	No Ice 1/2" Ice 1" Ice	12.250 13.000 13.760	6.050 6.710 7.390	0.089 0.176 0.275
TPA65R-BU6D_CCIV2 w/ Mount Pipe	A	From Leg	4.000 0.000	0.000	96.000	No Ice 1/2" Ice	11.960 12.700	5.970 6.630	0.094 0.181

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
			1.000			1" Ice	13.460	7.300	0.278
TPA65R-BU6D_CCIV2 w/ Mount Pipe	B	From Leg	4.000 0.000	0.000	96.000	No Ice 1/2" Ice	11.960 12.700	5.970 6.630	0.094 0.181
			1.000			1" Ice	13.460	7.300	0.278
TPA65R-BU6D_CCIV2 w/ Mount Pipe	C	From Leg	4.000 0.000	0.000	96.000	No Ice 1/2" Ice	11.960 12.700	5.970 6.630	0.094 0.181
			1.000			1" Ice	13.460	7.300	0.278
RADIO 4478 B14	A	From Leg	4.000 0.000	0.000	96.000	No Ice 1/2" Ice	2.021 2.200	1.246 1.396	0.059 0.077
			1.000			1" Ice	2.386	1.554	0.097
RADIO 4478 B14	B	From Leg	4.000 0.000	0.000	96.000	No Ice 1/2" Ice	2.021 2.200	1.246 1.396	0.059 0.077
			1.000			1" Ice	2.386	1.554	0.097
RADIO 4478 B14	C	From Leg	4.000 0.000	0.000	96.000	No Ice 1/2" Ice	2.021 2.200	1.246 1.396	0.059 0.077
			1.000			1" Ice	2.386	1.554	0.097
RRUS 4449 B5/B12	A	From Leg	4.000 0.000	0.000	96.000	No Ice 1/2" Ice	1.968 2.144	1.408 1.564	0.071 0.090
			1.000			1" Ice	2.328	1.727	0.111
RRUS 4449 B5/B12	B	From Leg	4.000 0.000	0.000	96.000	No Ice 1/2" Ice	1.968 2.144	1.408 1.564	0.071 0.090
			1.000			1" Ice	2.328	1.727	0.111
RRUS 4449 B5/B12	C	From Leg	4.000 0.000	0.000	96.000	No Ice 1/2" Ice	1.968 2.144	1.408 1.564	0.071 0.090
			1.000			1" Ice	2.328	1.727	0.111
DC6-48-60-18-8F	A	From Leg	4.000 0.000	0.000	96.000	No Ice 1/2" Ice	1.212 1.892	1.212 1.892	0.033 0.055
			1.000			1" Ice	2.105	2.105	0.080
RRUS 8843 B2/B66A	A	From Leg	4.000 0.000	0.000	96.000	No Ice 1/2" Ice	1.639 1.799	1.353 1.500	0.072 0.090
			1.000			1" Ice	1.966	1.655	0.110
RRUS 8843 B2/B66A	B	From Leg	4.000 0.000	0.000	96.000	No Ice 1/2" Ice	1.639 1.799	1.353 1.500	0.072 0.090
			1.000			1" Ice	1.966	1.655	0.110
RRUS 8843 B2/B66A	C	From Leg	4.000 0.000	0.000	96.000	No Ice 1/2" Ice	1.639 1.799	1.353 1.500	0.072 0.090
			1.000			1" Ice	1.966	1.655	0.110
10' x 2" Mount Pipe	A	From Leg	4.000 0.000	0.000	96.000	No Ice 1/2" Ice	2.375 3.403	2.375 3.403	0.037 0.054
			0.000			1" Ice	4.448	4.448	0.079
10' x 2" Mount Pipe	B	From Leg	4.000 0.000	0.000	96.000	No Ice 1/2" Ice	2.375 3.403	2.375 3.403	0.037 0.054
			0.000			1" Ice	4.448	4.448	0.079
10' x 2" Mount Pipe	C	From Leg	4.000 0.000	0.000	96.000	No Ice 1/2" Ice	2.375 3.403	2.375 3.403	0.037 0.054
			0.000			1" Ice	4.448	4.448	0.079
Pipe Mount [PM 602-3]	C	None		0.000	96.000	No Ice 1/2" Ice	6.670 7.700	6.670 7.700	0.279 0.344
						1" Ice	8.740	8.740	0.423
VFA14-HD	A	From Leg	2.000 0.000	0.000	96.000	No Ice 1/2" Ice	14.400 21.400	9.200 14.600	0.672 0.826
			0.000			1" Ice	27.700	19.500	1.048
VFA14-HD	B	From Leg	2.000 0.000	0.000	96.000	No Ice 1/2" Ice	14.400 21.400	9.200 14.600	0.672 0.826
			0.000			1" Ice	27.700	19.500	1.048
VFA14-HD	C	From Leg	2.000 0.000	0.000	96.000	No Ice 1/2" Ice	14.400 21.400	9.200 14.600	0.672 0.826

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	27.700	19.500	1.048
*									
APXVAARR24_43-U-NA20 w/ Mount Pipe	A	From Leg	4.000 0.000 -1.000	0.000	87.000	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 -1.000	0.000	87.000	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 -1.000	0.000	87.000	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
RADIO 4449 B12/B71	A	From Leg	4.000 0.000 -1.000	0.000	87.000	No Ice 1/2" Ice 1" Ice	1.650 1.810 1.978	1.163 1.301 1.447	0.074 0.090 0.109
RADIO 4449 B12/B71	B	From Leg	4.000 0.000 -1.000	0.000	87.000	No Ice 1/2" Ice 1" Ice	1.650 1.810 1.978	1.163 1.301 1.447	0.074 0.090 0.109
RADIO 4449 B12/B71	C	From Leg	4.000 0.000 -1.000	0.000	87.000	No Ice 1/2" Ice 1" Ice	1.650 1.810 1.978	1.163 1.301 1.447	0.074 0.090 0.109
AIR6449 B41_T-MOBILE	A	From Leg	4.000 0.000 -1.000	0.000	87.000	No Ice 1/2" Ice 1" Ice	5.270 5.700 6.140	2.030 2.360 2.700	0.115 0.154 0.197
AIR6449 B41_T-MOBILE	B	From Leg	4.000 0.000 -1.000	0.000	87.000	No Ice 1/2" Ice 1" Ice	5.270 5.700 6.140	2.030 2.360 2.700	0.115 0.154 0.197
AIR6449 B41_T-MOBILE	C	From Leg	4.000 0.000 -1.000	0.000	87.000	No Ice 1/2" Ice 1" Ice	5.270 5.700 6.140	2.030 2.360 2.700	0.115 0.154 0.197
RADIO 4460 B2/B25 B66_TMO	A	From Leg	4.000 0.000 -1.000	0.000	87.000	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	B	From Leg	4.000 0.000 -1.000	0.000	87.000	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 -1.000	0.000	87.000	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
(3) 8' x 2" Mount Pipe	A	From Leg	4.000 0.000 0.000	0.000	87.000	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
(3) 8' x 2" Mount Pipe	B	From Leg	4.000 0.000 0.000	0.000	87.000	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
(3) 8' x 2" Mount Pipe	C	From Leg	4.000 0.000 0.000	0.000	87.000	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
Platform Mount [LP 303-1_HR-1]	C	None		0.000	87.000	No Ice 1/2" Ice 1" Ice	17.090 21.470 25.720	17.090 21.470 25.720	1.495 1.881 2.346
*									
MX08FRO665-21 w/ Mount Pipe	A	From Leg	4.000 0.000 0.000	0.000	77.000	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	77.000	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

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
MX08FRO665-21 w/ Mount Pipe	C	From Leg	4.000 0.000 0.000	0.000	77.000	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	77.000	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	77.000	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	77.000	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	77.000	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	77.000	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	77.000	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	B	From Leg	4.000 0.000 0.000	0.000	77.000	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
(2) 8' x 2" Mount Pipe	A	From Leg	4.000 0.000 0.000	0.000	77.000	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	77.000	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	77.000	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	77.000	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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*									

Load Combinations

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

Comb. No.	Description
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	109 - 99.5	Pole	Max Tension	8	0.000	0.000	-0.000
			Max. Compression	26	-8.119	-0.361	0.208
			Max. Mx	8	-4.528	-33.333	-0.062
			Max. My	2	-4.527	0.020	33.421
			Max. Vy	8	4.916	-33.333	-0.062
			Max. Vx	14	4.934	-0.216	-33.296
			Max. Torque	24			-0.334
L2	99.5 - 99	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-8.195	-0.361	0.208
			Max. Mx	8	-4.588	-35.798	-0.070
			Max. My	2	-4.587	0.027	35.895

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Vy	8	4.943	-35.798	-0.070
			Max. Vx	14	4.961	-0.224	-35.769
			Max. Torque	24			-0.334
L3	99 - 46.93	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-36.357	-0.642	-0.138
			Max. Mx	8	-23.543	-690.452	-1.242
			Max. My	14	-23.542	-1.386	-691.020
			Max. Vy	8	17.560	-690.452	-1.242
			Max. Vx	14	17.567	-1.386	-691.020
			Max. Torque	14			0.439
L4	46.93 - 0	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-51.474	-0.642	-0.543
			Max. Mx	8	-36.616	-1682.245	-2.783
			Max. My	14	-36.616	-2.755	-1683.321
			Max. Vy	8	20.470	-1682.245	-2.783
			Max. Vx	14	20.476	-2.755	-1683.321
			Max. Torque	14			0.439

Maximum Reactions

Location	Condition	Gov. Load Comb.	Vertical K	Horizontal, X K	Horizontal, Z K
Pole	Max. Vert	32	51.474	-2.707	-4.684
	Max. H_x	20	36.631	20.443	0.026
	Max. H_z	2	36.631	0.026	20.449
	Max. M_x	2	1682.783	0.026	20.449
	Max. M_z	8	1682.245	-20.443	-0.026
	Max. Torsion	14	0.439	-0.026	-20.449
	Min. Vert	19	27.473	17.691	-10.202
	Min. H_x	8	36.631	-20.443	-0.026
	Min. H_z	14	36.631	-0.026	-20.449
	Min. M_x	14	-1683.321	-0.026	-20.449
	Min. M_z	20	-1681.759	20.443	0.026
	Min. Torsion	2	-0.438	0.026	20.449

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	30.526	0.000	0.000	0.218	-0.192	0.000
1.2 Dead+1.0 Wind 0 deg - No Ice	36.631	-0.026	-20.449	-1682.783	2.271	0.438
0.9 Dead+1.0 Wind 0 deg - No Ice	27.473	-0.026	-20.449	-1668.573	2.312	0.437
1.2 Dead+1.0 Wind 30 deg - No Ice	36.631	10.199	-17.697	-1456.046	-839.069	0.340
0.9 Dead+1.0 Wind 30 deg - No Ice	27.473	10.199	-17.697	-1443.757	-831.891	0.339
1.2 Dead+1.0 Wind 60 deg - No Ice	36.631	17.691	-10.202	-839.084	-1455.647	0.150
0.9 Dead+1.0 Wind 60 deg - No	27.473	17.691	-10.202	-832.031	-1443.237	0.149

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						
1.2 Dead+1.0 Wind 90 deg - No Ice	36.631	20.443	0.026	2.783	-1682.245	-0.080
0.9 Dead+1.0 Wind 90 deg - No Ice	27.473	20.443	0.026	2.691	-1667.914	-0.080
1.2 Dead+1.0 Wind 120 deg - No Ice	36.631	17.717	10.247	843.974	-1458.157	-0.288
0.9 Dead+1.0 Wind 120 deg - No Ice	27.473	17.717	10.247	836.744	-1445.724	-0.288
1.2 Dead+1.0 Wind 150 deg - No Ice	36.631	10.244	17.722	1459.094	-843.420	-0.420
0.9 Dead+1.0 Wind 150 deg - No Ice	27.473	10.244	17.722	1446.645	-836.202	-0.419
1.2 Dead+1.0 Wind 180 deg - No Ice	36.631	0.026	20.449	1683.321	-2.755	-0.439
0.9 Dead+1.0 Wind 180 deg - No Ice	27.473	0.026	20.449	1668.973	-2.669	-0.438
1.2 Dead+1.0 Wind 210 deg - No Ice	36.631	-10.199	17.697	1456.583	838.584	-0.340
0.9 Dead+1.0 Wind 210 deg - No Ice	27.473	-10.199	17.697	1444.157	831.532	-0.339
1.2 Dead+1.0 Wind 240 deg - No Ice	36.631	-17.691	10.202	839.622	1455.161	-0.150
0.9 Dead+1.0 Wind 240 deg - No Ice	27.473	-17.691	10.202	832.432	1442.878	-0.149
1.2 Dead+1.0 Wind 270 deg - No Ice	36.631	-20.443	-0.026	-2.243	1681.759	0.080
0.9 Dead+1.0 Wind 270 deg - No Ice	27.473	-20.443	-0.026	-2.290	1667.555	0.080
1.2 Dead+1.0 Wind 300 deg - No Ice	36.631	-17.717	-10.247	-843.434	1457.672	0.289
0.9 Dead+1.0 Wind 300 deg - No Ice	27.473	-17.717	-10.247	-836.342	1445.365	0.288
1.2 Dead+1.0 Wind 330 deg - No Ice	36.631	-10.244	-17.722	-1458.555	842.936	0.420
0.9 Dead+1.0 Wind 330 deg - No Ice	27.473	-10.244	-17.722	-1446.244	835.844	0.419
1.2 Dead+1.0 Ice+1.0 Temp	51.474	0.000	0.000	0.543	-0.642	0.000
1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp	51.474	-0.005	-5.407	-441.380	-0.247	0.090
1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp	51.474	2.699	-4.680	-381.942	-221.187	0.071
1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp	51.474	4.679	-2.699	-220.013	-383.049	0.032
1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp	51.474	5.406	0.005	1.021	-442.461	-0.015
1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp	51.474	4.684	2.707	221.932	-383.504	-0.058
1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp	51.474	2.707	4.684	383.529	-221.976	-0.086
1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp	51.474	0.005	5.407	442.510	-1.158	-0.090
1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp	51.474	-2.699	4.680	383.073	219.782	-0.071
1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp	51.474	-4.679	2.699	221.143	381.644	-0.032
1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp	51.474	-5.406	-0.005	0.110	441.056	0.015
1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp	51.474	-4.684	-2.707	-220.802	382.099	0.058
1.2 Dead+1.0 Wind 330	51.474	-2.707	-4.684	-382.398	220.571	0.086

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						
Dead+Wind 0 deg - Service	30.526	-0.006	-4.663	-381.613	0.368	0.100
Dead+Wind 30 deg - Service	30.526	2.326	-4.035	-330.172	-190.507	0.077
Dead+Wind 60 deg - Service	30.526	4.034	-2.326	-190.202	-330.390	0.034
Dead+Wind 90 deg - Service	30.526	4.662	0.006	0.793	-381.799	-0.018
Dead+Wind 120 deg - Service	30.526	4.040	2.337	191.635	-330.960	-0.066
Dead+Wind 150 deg - Service	30.526	2.336	4.041	331.188	-191.493	-0.096
Dead+Wind 180 deg - Service	30.526	0.006	4.663	382.060	-0.770	-0.100
Dead+Wind 210 deg - Service	30.526	-2.326	4.035	330.619	190.105	-0.077
Dead+Wind 240 deg - Service	30.526	-4.034	2.326	190.648	329.988	-0.034
Dead+Wind 270 deg - Service	30.526	-4.662	-0.006	-0.346	381.397	0.018
Dead+Wind 300 deg - Service	30.526	-4.040	-2.337	-191.188	330.558	0.066
Dead+Wind 330 deg - Service	30.526	-2.336	-4.041	-330.741	191.091	0.096

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	-30.526	0.000	0.000	30.526	0.000	0.000%
2	-0.026	-36.631	-20.449	0.026	36.631	20.449	0.000%
3	-0.026	-27.473	-20.449	0.026	27.473	20.449	0.000%
4	10.199	-36.631	-17.697	-10.199	36.631	17.697	0.000%
5	10.199	-27.473	-17.697	-10.199	27.473	17.697	0.000%
6	17.691	-36.631	-10.202	-17.691	36.631	10.202	0.000%
7	17.691	-27.473	-10.202	-17.691	27.473	10.202	0.000%
8	20.443	-36.631	0.026	-20.443	36.631	-0.026	0.000%
9	20.443	-27.473	0.026	-20.443	27.473	-0.026	0.000%
10	17.717	-36.631	10.247	-17.717	36.631	-10.247	0.000%
11	17.717	-27.473	10.247	-17.717	27.473	-10.247	0.000%
12	10.244	-36.631	17.722	-10.244	36.631	-17.722	0.000%
13	10.244	-27.473	17.722	-10.244	27.473	-17.722	0.000%
14	0.026	-36.631	20.449	-0.026	36.631	-20.449	0.000%
15	0.026	-27.473	20.449	-0.026	27.473	-20.449	0.000%
16	-10.199	-36.631	17.697	10.199	36.631	-17.697	0.000%
17	-10.199	-27.473	17.697	10.199	27.473	-17.697	0.000%
18	-17.691	-36.631	10.202	17.691	36.631	-10.202	0.000%
19	-17.691	-27.473	10.202	17.691	27.473	-10.202	0.000%
20	-20.443	-36.631	-0.026	20.443	36.631	0.026	0.000%
21	-20.443	-27.473	-0.026	20.443	27.473	0.026	0.000%
22	-17.717	-36.631	-10.247	17.717	36.631	10.247	0.000%
23	-17.717	-27.473	-10.247	17.717	27.473	10.247	0.000%
24	-10.244	-36.631	-17.722	10.244	36.631	17.722	0.000%
25	-10.244	-27.473	-17.722	10.244	27.473	17.722	0.000%
26	0.000	-51.474	0.000	0.000	51.474	0.000	0.000%
27	-0.005	-51.474	-5.407	0.005	51.474	5.407	0.000%
28	2.699	-51.474	-4.680	-2.699	51.474	4.680	0.000%
29	4.679	-51.474	-2.699	-4.679	51.474	2.699	0.000%
30	5.405	-51.474	0.005	-5.406	51.474	-0.005	0.000%
31	4.684	-51.474	2.707	-4.684	51.474	-2.707	0.000%
32	2.707	-51.474	4.684	-2.707	51.474	-4.684	0.000%
33	0.005	-51.474	5.407	-0.005	51.474	-5.407	0.000%
34	-2.699	-51.474	4.680	2.699	51.474	-4.680	0.000%
35	-4.679	-51.474	2.699	4.679	51.474	-2.699	0.000%
36	-5.405	-51.474	-0.005	5.406	51.474	0.005	0.000%
37	-4.684	-51.474	-2.707	4.684	51.474	2.707	0.000%
38	-2.707	-51.474	-4.684	2.707	51.474	4.684	0.000%
39	-0.006	-30.526	-4.663	0.006	30.526	4.663	0.000%

	Sum of Applied Forces			Sum of Reactions			
Load Comb.	PX K	PY K	PZ K	PX K	PY K	PZ K	% Error
40	2.326	-30.526	-4.035	-2.326	30.526	4.035	0.000%
41	4.034	-30.526	-2.326	-4.034	30.526	2.326	0.000%
42	4.662	-30.526	0.006	-4.662	30.526	-0.006	0.000%
43	4.040	-30.526	2.337	-4.040	30.526	-2.337	0.000%
44	2.336	-30.526	4.041	-2.336	30.526	-4.041	0.000%
45	0.006	-30.526	4.663	-0.006	30.526	-4.663	0.000%
46	-2.326	-30.526	4.035	2.326	30.526	-4.035	0.000%
47	-4.034	-30.526	2.326	4.034	30.526	-2.326	0.000%
48	-4.662	-30.526	-0.006	4.662	30.526	0.006	0.000%
49	-4.040	-30.526	-2.337	4.040	30.526	2.337	0.000%
50	-2.336	-30.526	-4.041	2.336	30.526	4.041	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	0.00049514
3	Yes	4	0.00000001	0.00033140
4	Yes	5	0.00000001	0.00043601
5	Yes	5	0.00000001	0.00021163
6	Yes	5	0.00000001	0.00042516
7	Yes	5	0.00000001	0.00020614
8	Yes	4	0.00000001	0.00014524
9	Yes	4	0.00000001	0.00009080
10	Yes	5	0.00000001	0.00042349
11	Yes	5	0.00000001	0.00020504
12	Yes	5	0.00000001	0.00044369
13	Yes	5	0.00000001	0.00021531
14	Yes	4	0.00000001	0.00057385
15	Yes	4	0.00000001	0.00038377
16	Yes	5	0.00000001	0.00041989
17	Yes	5	0.00000001	0.00020350
18	Yes	5	0.00000001	0.00042983
19	Yes	5	0.00000001	0.00020856
20	Yes	4	0.00000001	0.00021593
21	Yes	4	0.00000001	0.00014054
22	Yes	5	0.00000001	0.00043965
23	Yes	5	0.00000001	0.00021339
24	Yes	5	0.00000001	0.00042036
25	Yes	5	0.00000001	0.00020356
26	Yes	4	0.00000001	0.00000001
27	Yes	5	0.00000001	0.00012907
28	Yes	5	0.00000001	0.00015016
29	Yes	5	0.00000001	0.00014988
30	Yes	5	0.00000001	0.00012945
31	Yes	5	0.00000001	0.00015039
32	Yes	5	0.00000001	0.00015093
33	Yes	5	0.00000001	0.00012932
34	Yes	5	0.00000001	0.00014911
35	Yes	5	0.00000001	0.00014928
36	Yes	5	0.00000001	0.00012867
37	Yes	5	0.00000001	0.00014966
38	Yes	5	0.00000001	0.00014923
39	Yes	4	0.00000001	0.00003004
40	Yes	4	0.00000001	0.00014734

41	Yes	4	0.00000001	0.00013428
42	Yes	4	0.00000001	0.00001478
43	Yes	4	0.00000001	0.00013021
44	Yes	4	0.00000001	0.00015399
45	Yes	4	0.00000001	0.00003094
46	Yes	4	0.00000001	0.00012870
47	Yes	4	0.00000001	0.00013969
48	Yes	4	0.00000001	0.00001529
49	Yes	4	0.00000001	0.00014885
50	Yes	4	0.00000001	0.00012718

Maximum Tower Deflections - Service Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	109 - 99.5	8.510	44	0.608	0.001
L2	99.5 - 99	7.301	44	0.605	0.001
L3	99 - 46.93	7.238	44	0.604	0.001
L4	52.07 - 0	2.156	44	0.374	0.000

Critical Deflections and Radius of Curvature - Service Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
106.000	NHH-65B-R2B w/ Mount Pipe	44	8.127	0.608	0.001	117761
96.000	DC6-48-60-18-8F	44	6.859	0.600	0.001	41144
87.000	APXVAARR24_43-U-NA20 w/ Mount Pipe	44	5.743	0.577	0.000	18857
77.000	MX08FRO665-21 w/ Mount Pipe	44	4.565	0.533	0.000	11736

Maximum Tower Deflections - Design Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	109 - 99.5	37.517	12	2.684	0.003
L2	99.5 - 99	32.189	12	2.667	0.003
L3	99 - 46.93	31.910	12	2.665	0.003
L4	52.07 - 0	9.503	12	1.651	0.001

Critical Deflections and Radius of Curvature - Design Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
106.000	NHH-65B-R2B w/ Mount Pipe	12	35.831	2.681	0.003	27128
96.000	DC6-48-60-18-8F	12	30.241	2.648	0.002	9386
87.000	APXVAARR24_43-U-NA20 w/ Mount Pipe	12	25.320	2.544	0.002	4294
77.000	MX08FRO665-21 w/ Mount Pipe	12	20.124	2.350	0.002	2669

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	109 - 99.5 (1)	TP24x24x0.375	9.500	0.000	0.0	27.833	-4.526	876.725	0.005
L2	99.5 - 99 (2)	TP26.42x24x0.375	0.500	0.000	0.0	27.833	-4.526	876.725	0.005
L3	99 - 46.93 (3)	TP37.125x26.42x0.313	52.070	0.000	0.0	35.465	-23.541	2074.720	0.011
L4	46.93 - 0 (4)	TP46x35.443x0.375	52.070	0.000	0.0	54.305	-36.616	3176.850	0.012

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	109 - 99.5 (1)	TP24x24x0.375	33.428	538.742	0.062	0.000	538.742	0.000
L2	99.5 - 99 (2)	TP26.42x24x0.375	33.427	538.742	0.062	0.000	538.742	0.000
L3	99 - 46.93 (3)	TP37.125x26.42x0.313	691.945	1841.675	0.376	0.000	1841.675	0.000
L4	46.93 - 0 (4)	TP46x35.443x0.375	1685.325	3531.475	0.477	0.000	3531.475	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	109 - 99.5 (1)	TP24x24x0.375	4.944	263.018	0.019	0.334	546.307	0.001
L2	99.5 - 99 (2)	TP26.42x24x0.375	4.972	289.959	0.017	0.334	546.307	0.001
L3	99 - 46.93 (3)	TP37.125x26.42x0.313	17.588	622.415	0.028	0.420	1948.975	0.000
L4	46.93 - 0 (4)	TP46x35.443x0.375	20.496	953.056	0.022	0.420	3808.033	0.000

Pole Interaction Design Data

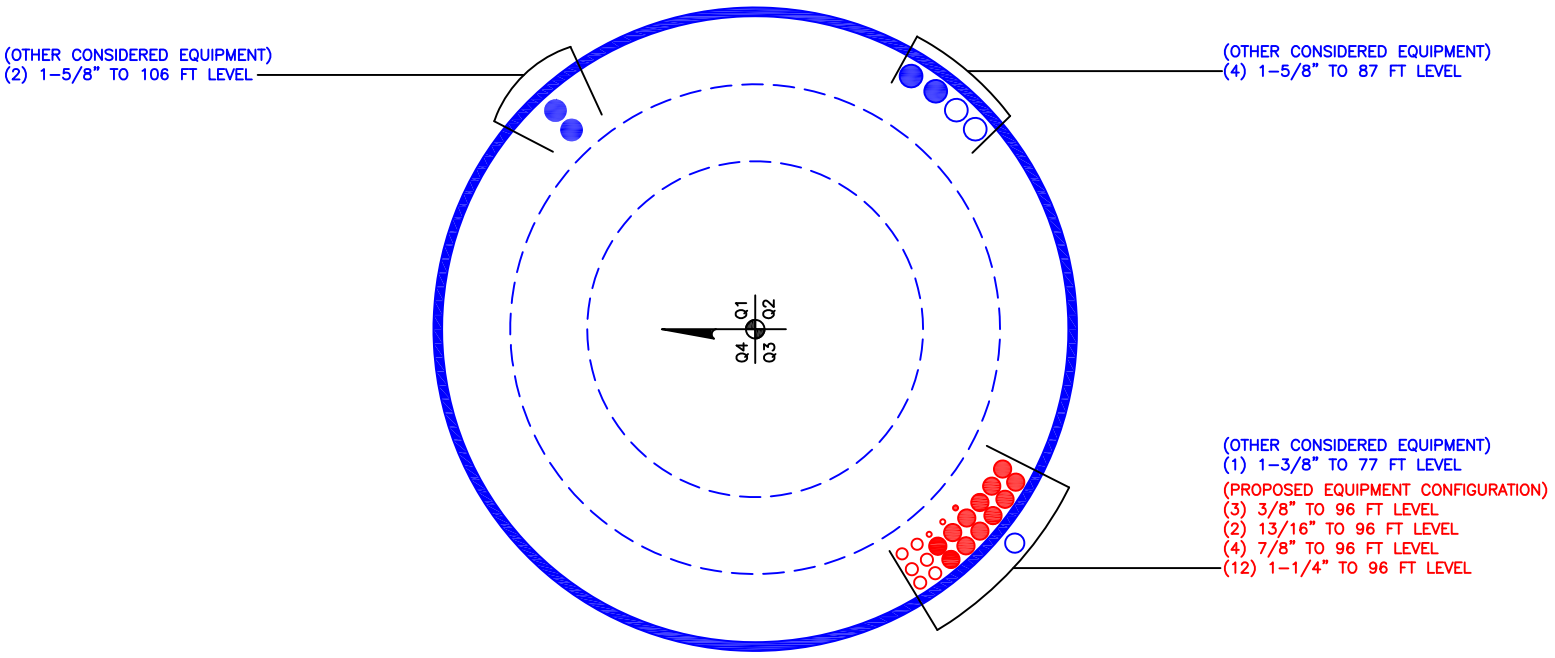
Section No.	Elevation ft	Ratio $\frac{P_u}{\phi P_n}$	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	Ratio $\frac{M_{uy}}{\phi M_{ny}}$	Ratio $\frac{V_u}{\phi V_n}$	Ratio $\frac{T_u}{\phi T_n}$	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
L1	109 - 99.5 (1)	0.005	0.062	0.000	0.019	0.001	0.068 ✔	1.050	4.8.2 ✔
L2	99.5 - 99 (2)	0.005	0.062	0.000	0.017	0.001	0.068 ✔	1.050	4.8.2 ✔
L3	99 - 46.93 (3)	0.011	0.376	0.000	0.028	0.000	0.388 ✔	1.050	4.8.2 ✔
L4	46.93 - 0 (4)	0.012	0.477	0.000	0.022	0.000	0.489 ✔	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	109 - 99.5	Pole	TP24x24x0.375	1	-4.526	920.561	6.4	Pass
L2	99.5 - 99	Pole	TP26.42x24x0.375	2	-4.526	920.561	6.4	Pass
L3	99 - 46.93	Pole	TP37.125x26.42x0.313	3	-23.541	2178.456	36.9	Pass
L4	46.93 - 0	Pole	TP46x35.443x0.375	4	-36.616	3335.692	46.6	Pass
						Summary		
						Pole (L4)	46.6	Pass
						RATING =	**46.6**	**Pass**

APPENDIX B

BASE LEVEL DRAWING



BUSINESS UNIT: 842864

APPENDIX C

ADDITIONAL CALCULATIONS

Monopole Flange Plate Connection

Elevation = 99 ft.

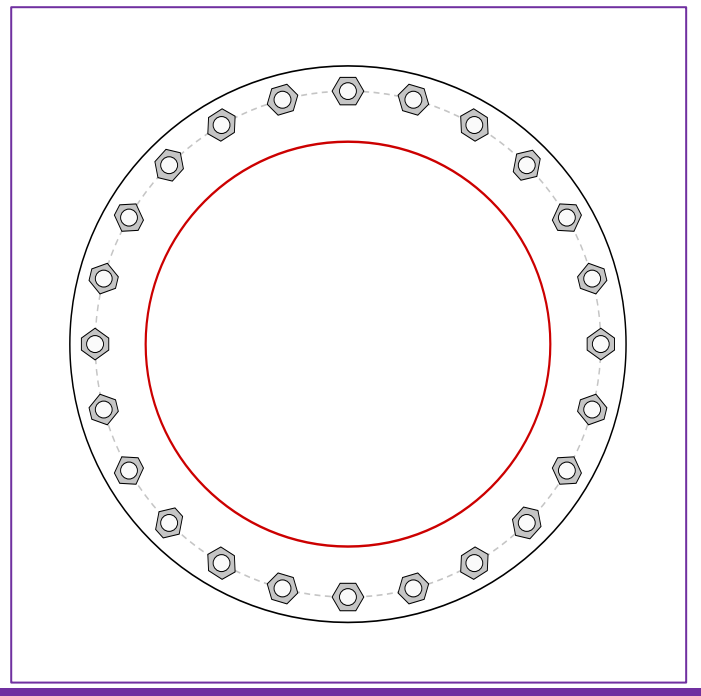
BU #	842864
Site Name	GUILFORD SW, CT
Order #	586336, Rev# 1

TIA-222 Revision	H

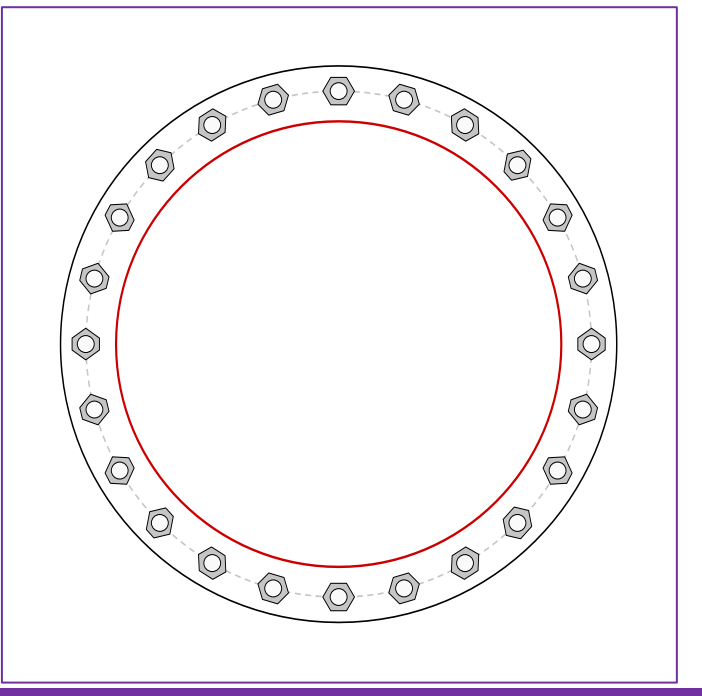
Applied Loads	
Moment (kip-ft)	35.91
Axial Force (kips)	4.59
Shear Force (kips)	4.97

**TIA-222-H Section 15.5 Applied*

Top Plate - External



Bottom Plate - External



Connection Properties

Bolt Data

(24) 1" ø bolts (A325 X; Fy=92 ksi, Fu=120 ksi) on 30" BC

Top Plate Data

33" OD x 1" Plate (A36; Fy=36 ksi, Fu=58 ksi)

Bottom Plate Data

33" OD x 1.5" Plate (A572-60; Fy=60 ksi, Fu=75 ksi)

Top Stiffener Data

N/A

Bottom Stiffener Data

N/A

Top Pole Data

24" x 0.375" round pole (A53-B-35; Fy=35 ksi, Fu=60 ksi)

Bottom Pole Data

26.42" x 0.3125" 18-sided pole (A572-65; Fy=65 ksi, Fu=80 ksi)

Analysis Results

Bolt Capacity

Max Load (kips)	2.20	
Allowable (kips)	54.54	
Stress Rating:	**3.8%**	**Pass**

Top Plate Capacity

Max Stress (ksi):	5.49	(Flexural)
Allowable Stress (ksi):	32.40	
Stress Rating:	**16.1%**	**Pass**
Tension Side Stress Rating:	**7.7%**	**Pass**

Bottom Plate Capacity

Max Stress (ksi):	1.46	(Flexural)
Allowable Stress (ksi):	54.00	
Stress Rating:	**2.6%**	**Pass**
Tension Side Stress Rating:	**1.2%**	**Pass**

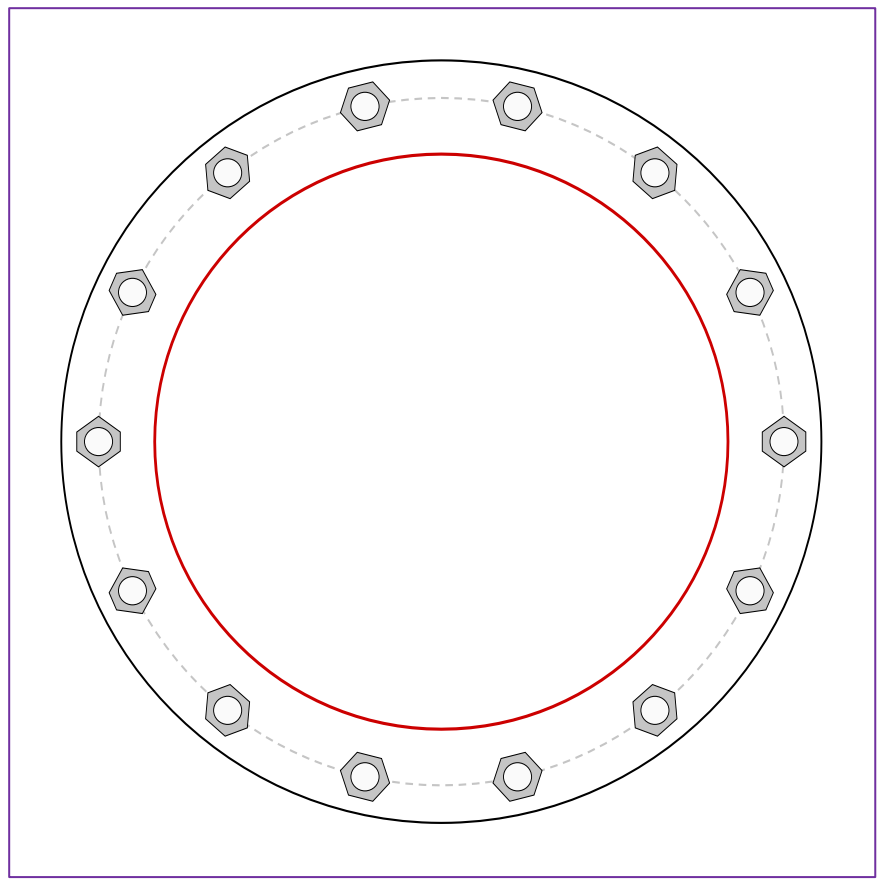
Monopole Base Plate Connection

Site Info	
BU #	842864
Site Name	GUILFORD SW, CT
Order #	586336, Rev# 1

Analysis Considerations	
TIA-222 Revision	H
Grout Considered:	No
l_{ar} (in)	0.25

Applied Loads	
Moment (kip-ft)	1685.32
Axial Force (kips)	36.62
Shear Force (kips)	20.50

**TIA-222-H Section 15.5 Applied*



Connection Properties

Anchor Rod Data

(14) 2-1/4" ø bolts (A615-75 N; Fy=75 ksi, Fu=100 ksi) on 55" BC

Base Plate Data

61" OD x 2" Plate (A572-60; Fy=60 ksi, Fu=75 ksi)

Stiffener Data

N/A

Pole Data

46" 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 = 102.37	ϕPn_t = 243.75	**Stress Rating**
Vu = 1.46	ϕVn = 149.1	**40.0%**
Mu = n/a	ϕMn = n/a	**Pass**

Base Plate Summary

Max Stress (ksi):	27.52	(Flexural)
Allowable Stress (ksi):	54	
Stress Rating:	**48.5%**	**Pass**

Pier and Pad Foundation

BU # :	842864
Site Name:	GUILFORD SW, C
App. Number:	586336, Rev# 1

TIA-222 Revision:	H
Tower Type:	Monopole

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

Superstructure Analysis Reactions

Compression, P_{comp}:	36.63	kips
Base Shear, Vu_comp:	20.47	kips
Moment, M_u:	1685.32	ft-kips
Tower Height, **H**:	109	ft
BP Dist. Above Fdn, bp_{dist}:	2.75	in

Pier Properties

Pier Shape:	Square	
Pier Diameter, **dpier**:	7	ft
Ext. Above Grade, **E**:	1	ft
Pier Rebar Size, **Sc**:	8	
Pier Rebar Quantity, **mc**:	30	
Pier Tie/Spiral Size, **St**:	4	
Pier Tie/Spiral Quantity, **mt**:	10	
Pier Reinforcement Type:	Tie	
Pier Clear Cover, cc_{pier}:	3	in

Pad Properties

Depth, **D**:	7	ft
Pad Width, W_1:	21.5	ft
Pad Thickness, **T**:	3	ft
Pad Rebar Size (Top dir.2), Sp_{top2}:	8	
Pad Rebar Quantity (Top dir. 2), mp_{top2}:	22	
Pad Rebar Size (Bottom dir. 2), Sp_2:	8	
Pad Rebar Quantity (Bottom dir. 2), mp_2:	30	
Pad Clear Cover, cc_{pad}:	3	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}:	5	
Base Friction, μ:	0.5	
Neglected Depth, **N**:	3.50	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)	259.18	20.47	**7.5%**	**Pass**
Bearing Pressure (ksf)	12.63	2.33	**18.5%**	**Pass**
*Overturning (kip*ft)*	4389.59	1853.77	**42.2%**	**Pass**
*Pier Flexure (Comp.) (kip*ft)*	3983.33	1787.67	**42.7%**	**Pass**
Pier Compression (kip)	31187.52	80.73	**0.2%**	**Pass**
*Pad Flexure (kip*ft)*	3273.03	554.40	**16.1%**	**Pass**
Pad Shear - 1-way (kips)	770.99	98.64	**12.2%**	**Pass**
Pad Shear - 2-way (Comp) (ksi)	0.190	0.020	**10.1%**	**Pass**
*Flexural 2-way (Comp) (kip*ft)*	4186.18	1072.60	**24.4%**	**Pass**

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

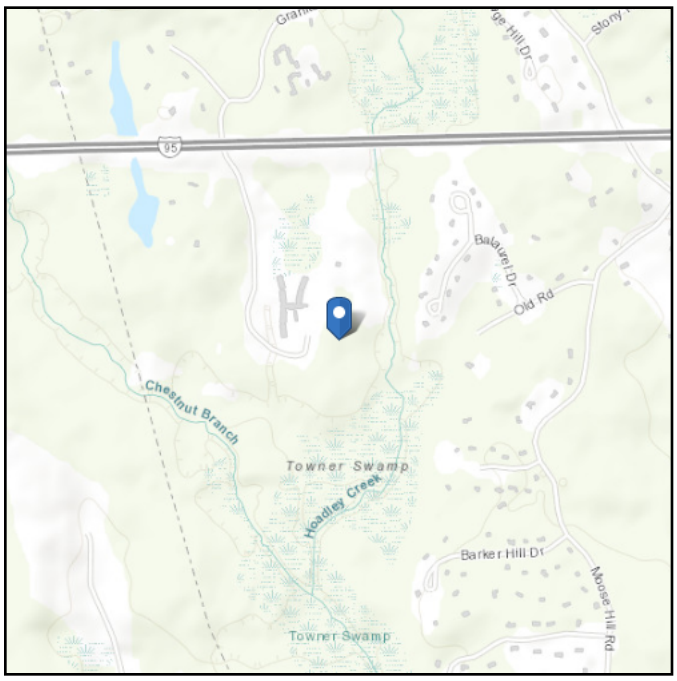
Structural Rating*:	**42.7%**
Soil Rating*:	**42.2%**

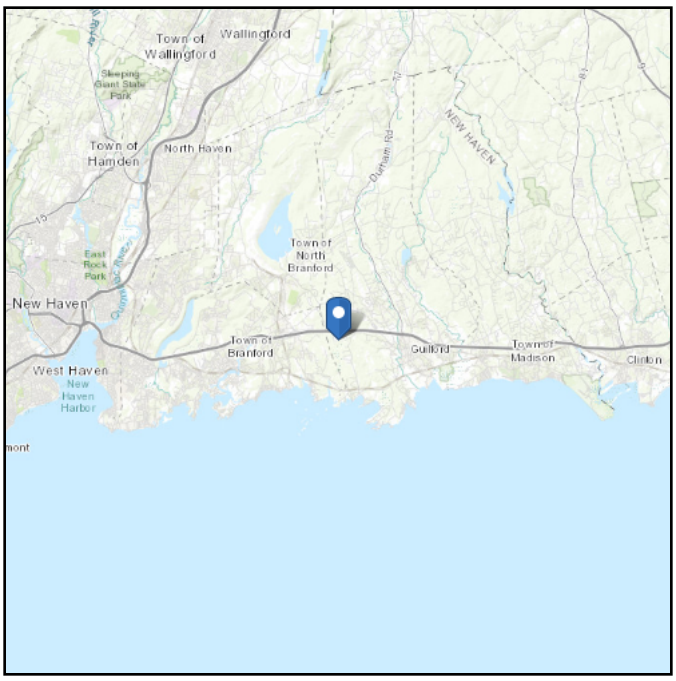
ASCE 7 Hazards Report

Address:
No Address at This Location

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

Elevation: 105.75 ft (NAVD 88)
Latitude: 41.291983
Longitude: -72.732856





Wind

Results:

Wind Speed	122 Vmph
10-year MRI	75 Vmph
25-year MRI	85 Vmph
50-year MRI	93 Vmph
100-year MRI	99 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 Mar 29 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.

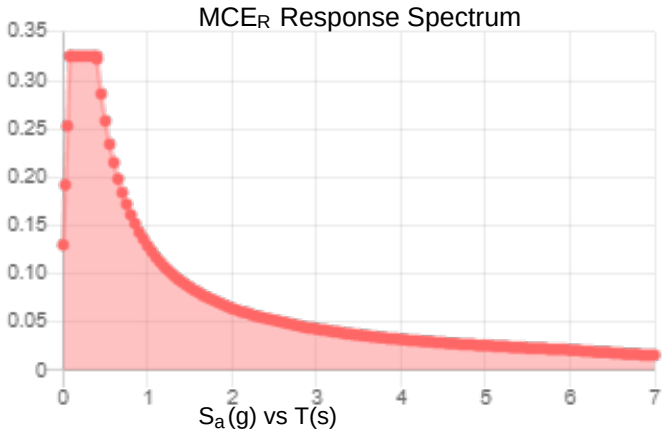
Seismic

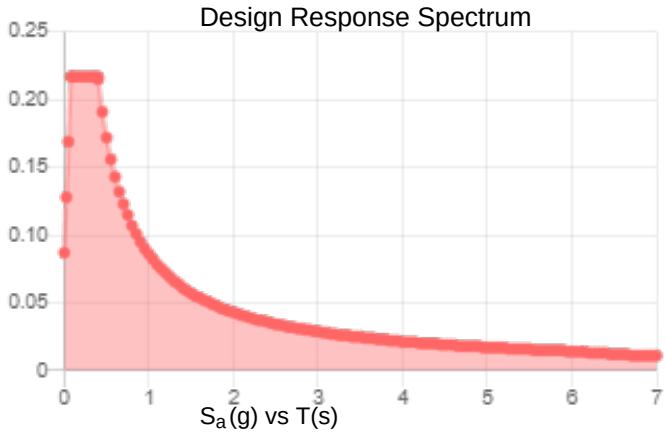
Site Soil Class: D - Default (see Section 11.4.3)

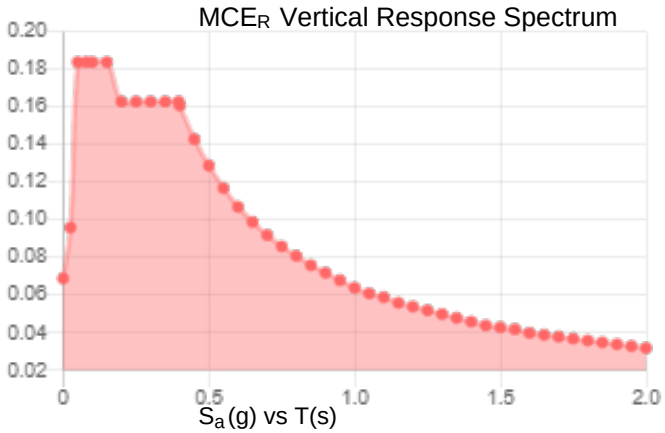
Results:

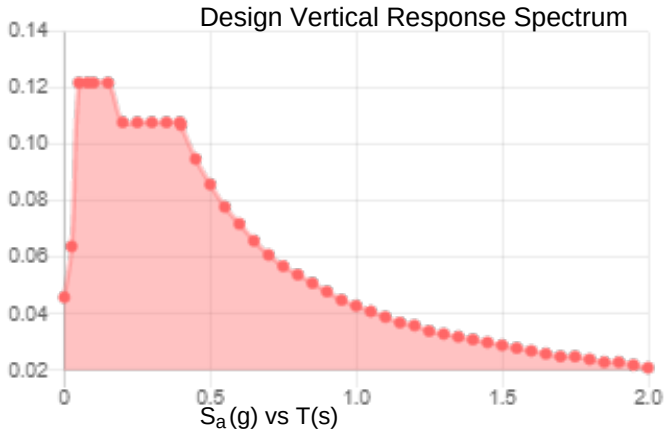
S_S :	0.203	S_{D1} :	0.086
S_1 :	0.054	T_L :	6
F_a :	1.6	PGA :	0.114
F_v :	2.4	PGA_M :	0.179
S_{MS} :	0.325	F_{PGA} :	1.573
S_{M1} :	0.129	I_e :	1
S_{DS} :	0.217	C_v :	0.706

Seismic Design Category B









Data Accessed: **Tue Mar 29 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 Mar 29 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: CTL05200
AT&T SITE NAME: GUILFORD SW
AT&T FA CODE: 10071060
AT&T PACE NUMBER: MRCTB056506, MRCTB056502,MRCTB054569, MRCTB054391, MRCTB055038, MRCTB055044, MRCTB054091
AT&T PROJECT: 5G NR 1SR CBAND, 5G NR 1SR, LTE 3C, 4TX4RX SOFTWARE RETROFIT, 5G NR 1DR-1, 5G NR ACTIVATION

BUSINESS UNIT #: 842864
SITE ADDRESS: 201 GRANITE ROAD GUILFORD, CT 06437
COUNTY: NEW HAVEN
SITE TYPE: MONOPOLE
TOWER HEIGHT: 109'-0"

SITE INFORMATION

CROWN CASTLE USA INC. SITE NAME:	GUILFORD SW
SITE ADDRESS:	201 GRANITE ROAD GUILFORD, CT 06437
COUNTY:	NEW HAVEN
MAP/PARCEL #:	071011
AREA OF CONSTRUCTION:	EXISTING
LATITUDE:	41.291983°
LONGITUDE:	-72.732856°
LAT/LONG TYPE:	NAD83
GROUND ELEVATION:	117'
CURRENT ZONING:	R-8
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:	WINTERFELL GABLES (CT) OWNER LLC 590 MADISON AVE 34TH FL NEW YORK, NY 10022
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:	NORTHEAST UTILITIES 800-286-2000
TELCO PROVIDER:	AT&T 866-620-6900

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

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

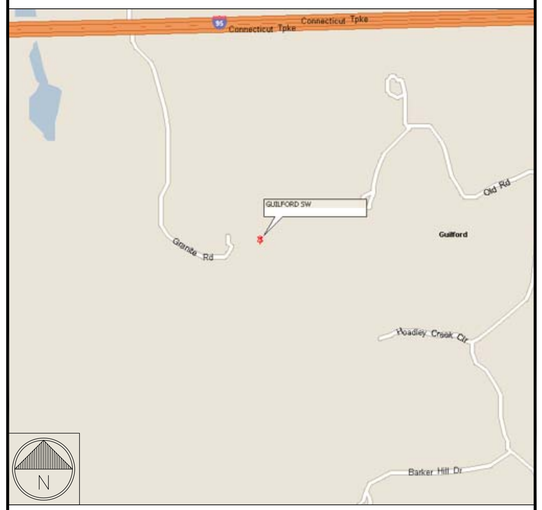
DRAWING INDEX

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-5.1	EQUIPMENT SPECIFICATIONS
C-5.2	EQUIPMENT SPECIFICATIONS
G-1	GROUNDING DETAILS
G-2	GROUNDING DETAILS
ATTACHED	PLUMBING DIAGRAM
ATTACHED	3-SECTOR MOUNT SPECIFICATIONS
ATTACHED	CROSSOVER HARDWARE SPECIFICATIONS

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 (6) POWERWAVE - 7770 ANTENNAS
- REMOVE (2) CCI - HPA-65R-BUU-H6
- REMOVE (1) ANDREW - SBNHH-1D65A
- REMOVE (3) ERICSSON - RRUS-11 B12 RRUs
- REMOVE (3) ERICSSON - RRUS-32-B2 RRUs
- REMOVE (12) POWERWAVE - LGP21401 TMAs
- RELOCATE (1) RAYCAP - DC6-48-60-18-8F SQUID
- REMOVE PLATFORM MOUNT
- INSTALL (1) SITEPRO1 - VFA12-M3-WLL 3-SECTOR MOUNT W/ MONOPOLE ATTACHMENT HARDWARE
- INSTALL (6) 2-1/2" SCH 40 x 6'-0" MOUNT PIPES W/ SCX7-U CROSSOVER HARDWARE
- INSTALL (1) CCI - TPA65A-BU4DA-K ANTENNA
- INSTALL (2) CCI - TPA65R-BU6DA-K ANTENNAS
- INSTALL (2) CCI - OPA65R-BU6DA ANTENNAS
- INSTALL (1) CCI - OPA65R-BU4DA ANTENNAS
- INSTALL (6) ERICSSON - AIR6449 B77D (BELOW) + AIR6419 B77G (ABOVE) STACKED ANTENNAS
- INSTALL (3) ERICSSON - 4478 B14 RRUs
- INSTALL (3) ERICSSON - 8843 B2/B66A RRUs
- INSTALL (3) ERICSSON - 4449 B5/B12 RRUs
- INSTALL (2) RAYCAP - DC6-48-60-18-8F SQUIDS
- INSTALL (4) 7/8" 6AWG DC CABLES
- INSTALL (2) 3/8" 18-PAIR FIBER CABLES
- INSTALL (6) DUAL RRU MOUNTS
- INSTALL (6) MOUNTING PIPES W/ASSOCIATED HARDWARE
- INSTALL (6) Y-CABLES FOR DUAL BAND RRUs

GROUND SCOPE OF WORK:
- REMOVE (1) POWER PLANT FROM CABINET
- REMOVE (12) DIPLEXERS
- INSTALL (1) NETSURE 5100 OD DC POWER PLANT IN (E) CABINET
- INSTALL (1) OD DC 12
- INSTALL (1) FLEX BATTERY CABINET & (5) 170 AH BATTERY STRINGS
- INSTALL (1) 6648 W/ XCEDE CABLE & (1) 6630 W/ IDLE CABLE
- INSTALL (1) 6630 W/ IDLE CABLE
- FLX16 DOOR UPGRADE REQUIRED

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:	5/16/22
MOUNT ANALYSIS:	TOWER ENGINEERING PROFESSIONALS
DATED:	8/13/22
RFDS REVISION:	PRELIMINARY
DATED:	2/28/22
ORDER ID:	586336
REVISION:	0

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

CROWN CASTLE
3 CORPORATE PARK DRIVE, SUITE 101
CLIFTON PARK, NY 12065

B+T GRP
1717 S. BOULDER
SUITE 300
TULSA, OK 74119
PH: (918) 587-4630
www.btgrp.com

AT&T SITE NUMBER: **CTL05200**

BU #: **842864**
GUILFORD SW

201 GRANITE ROAD
GUILFORD, CT 06437

EXISTING
109'-0" MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
A	4/13/22	TDG	PRELIMINARY REVIEW	KT
B	7/18/22	TDG	PRELIMINARY REVIEW	LR
0	8/25/22	TDG	PRELIMINARY REVIEW	MTJ

B&T ENGINEERING, INC.
PEC.0001564
Expires 2/10/23

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

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

CROWN CASTLE
3 CORPORATE PARK DRIVE, SUITE 101
CLIFTON PARK, NY 12065

B+T GRP
1717 S. BOULDER
SUITE 300
TULSA, OK 74119
PH: (918) 587-4630
www.btgrp.com

AT&T SITE NUMBER: **CTL05200**

BU #: 842864
GUILFORD SW

201 GRANITE ROAD
GUILFORD, CT 06437

EXISTING
109'-0" MONOPOLE

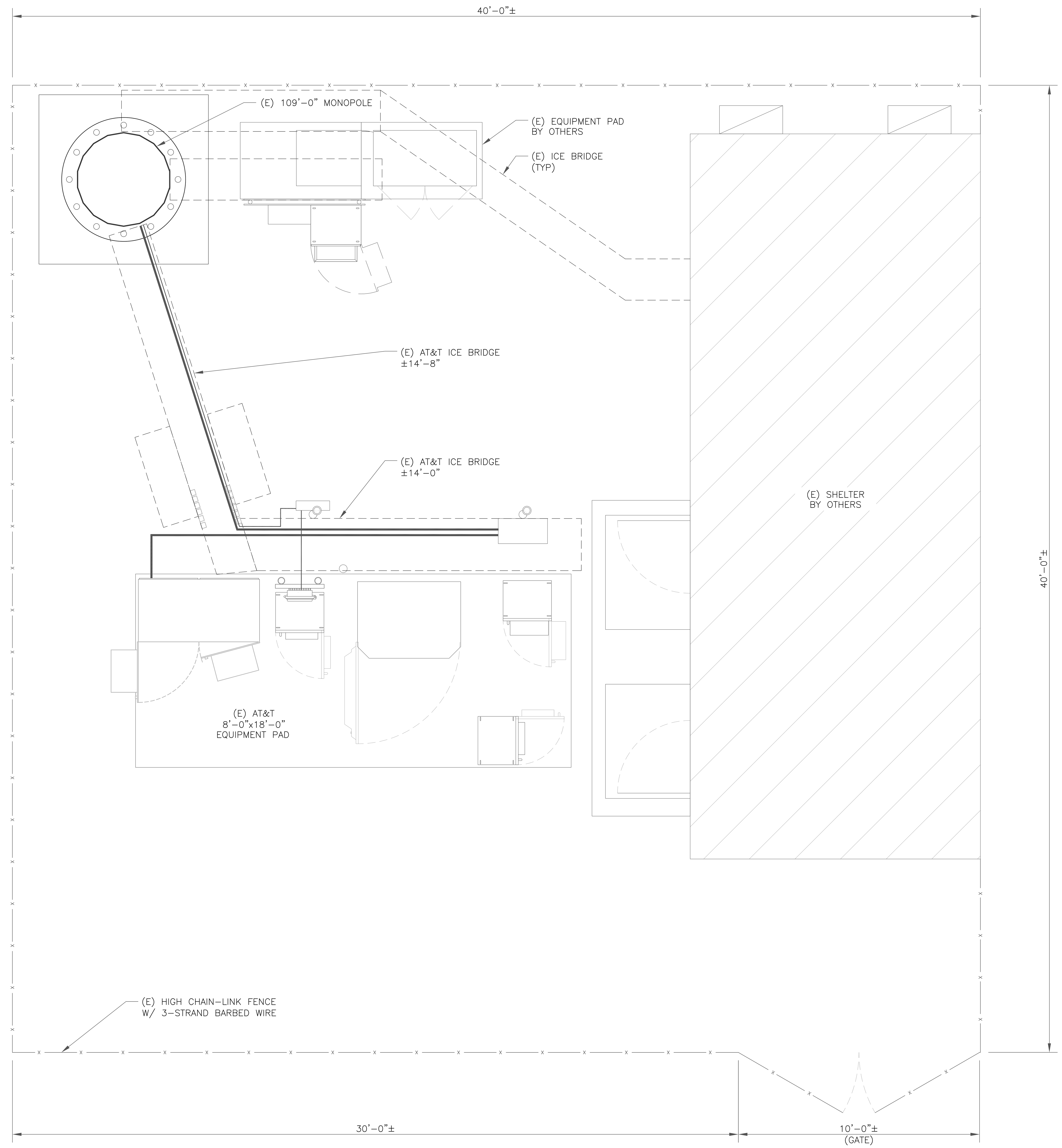
ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
A	4/13/22	TDG	PRELIMINARY REVIEW	KT
B	7/18/22	TDG	PRELIMINARY REVIEW	LR
0	8/25/22	TDG	PRELIMINARY REVIEW	MTJ

STATE OF CONNECTICUT
CHAD TUTTLE
No. 23924
LICENSED
PROFESSIONAL ENGINEER
8/25/22

B&T ENGINEERING, INC.
PEC.0001564
Expires 2/10/23

SHEET NUMBER: T-2
REVISION: 0



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

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

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AT&T SITE NUMBER: **CTL05200**

BU #: **842864**
GUILFORD SW

201 GRANITE ROAD
GUILFORD, CT 06437

EXISTING
109'-0" MONOPOLE

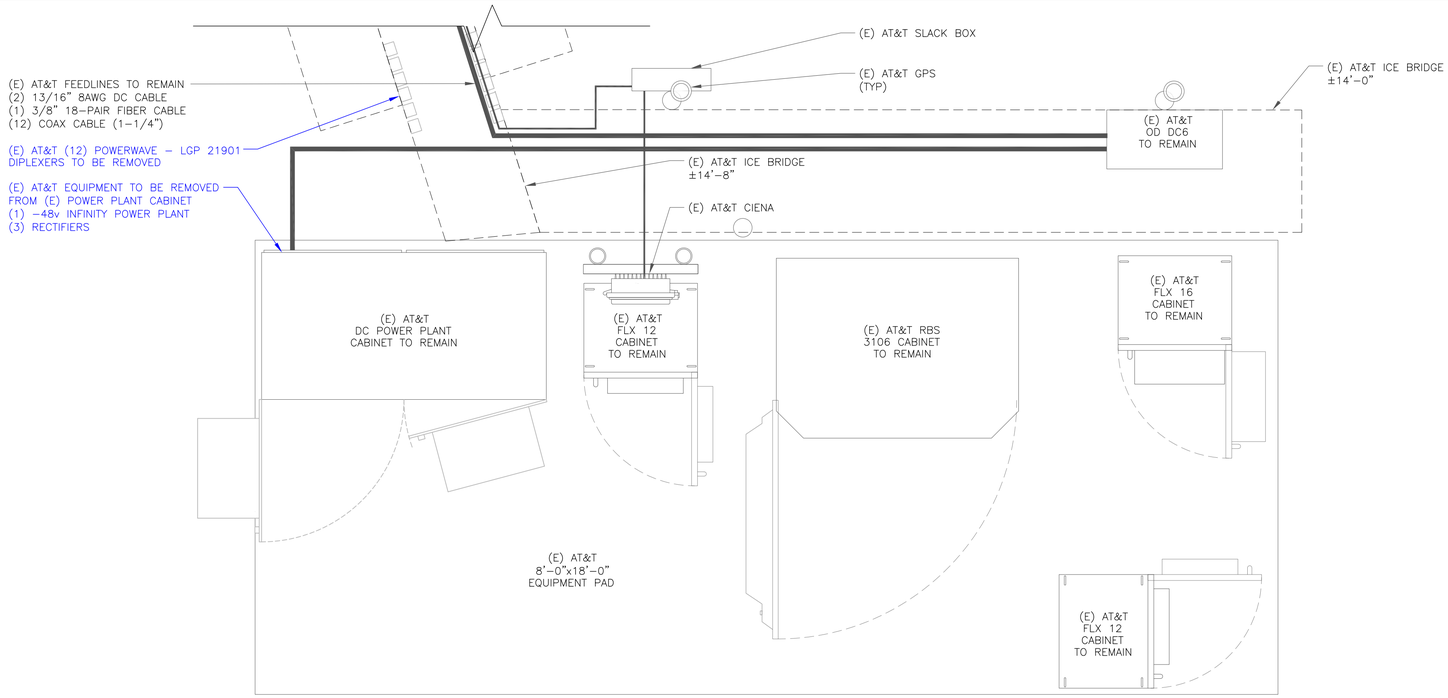
ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
A	4/13/22	TDG	PRELIMINARY REVIEW	KT
B	7/18/22	TDG	PRELIMINARY REVIEW	LR
0	8/25/22	TDG	PRELIMINARY REVIEW	MTJ

No. 23924 LICENSED PROFESSIONAL ENGINEER
8/25/22

B&T ENGINEERING, INC.
PEC.0001564
Expires 2/10/23

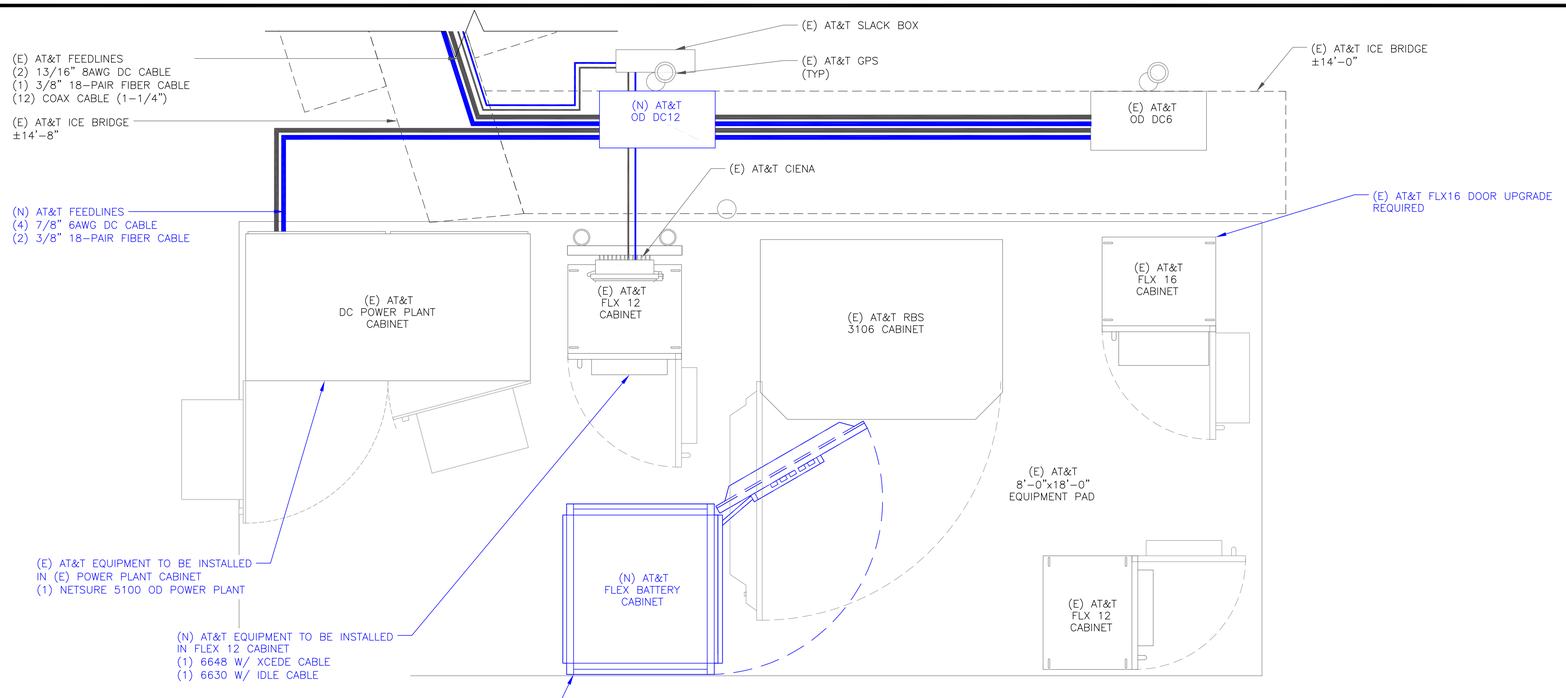
SHEET NUMBER: C-1.1
REVISION: 0



1 EXISTING EQUIPMENT PLAN

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

N



2 FINAL EQUIPMENT PLAN

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

N

GROUND SCOPE OF WORK:

- REMOVE (12) LGP 21901 DIPLEXERS
- REMOVE (1) -48v INFINITY POWER PLANT
- REMOVE (3) RECTIFIERS
- INSTALL (1) NETSURE 5100 OD DC POWER PLANT IN (E) CABINET
- INSTALL (1) OD DC12
- INSTALL (1) FLEX BATTERY CABINET
- INSTALL (5) 170AH BATTERY STRINGS
- INSTALL 6648 W/ XCEDE CABLE
- INSTALL 6630 W/ IDLE CABLE
- FLX16 DOOR UPGRADE REQUIRED

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.

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

CROWN CASTLE
3 CORPORATE PARK DRIVE, SUITE 101
CLIFTON PARK, NY 12065

B+T GRP
1717 S. BOULDER
SUITE 300
TULSA, OK 74119
PH: (918) 587-4630
www.btgrp.com

AT&T SITE NUMBER: **CTL05200**

BU #: **842864**
GUILFORD SW

201 GRANITE ROAD
GUILFORD, CT 06437

EXISTING
109'-0" MONOPOLE

ISSUED FOR:

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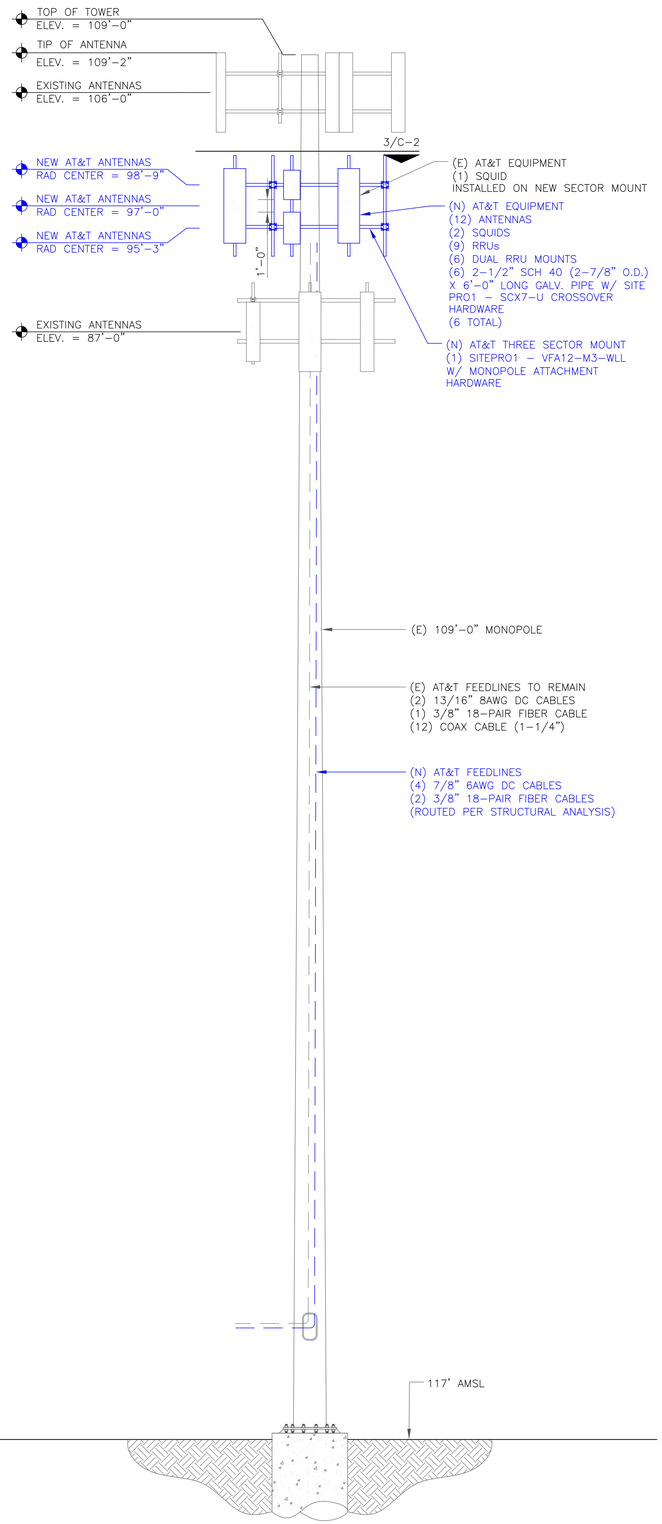
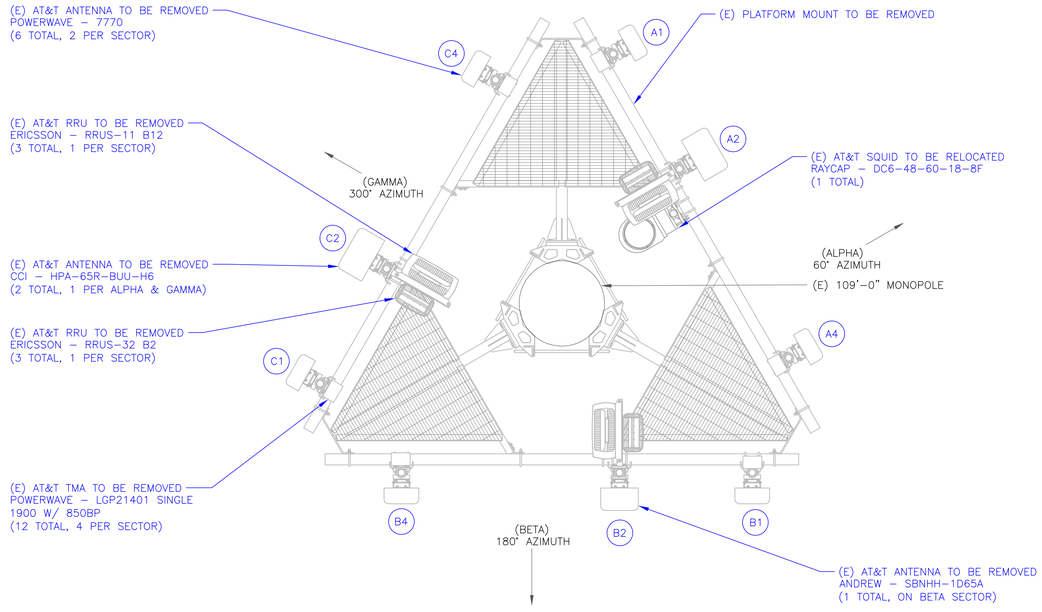
B&T ENGINEERING, INC.
PEC.0001564
Expires 2/10/23

SHEET NUMBER: C-1.2

REVISION: 0



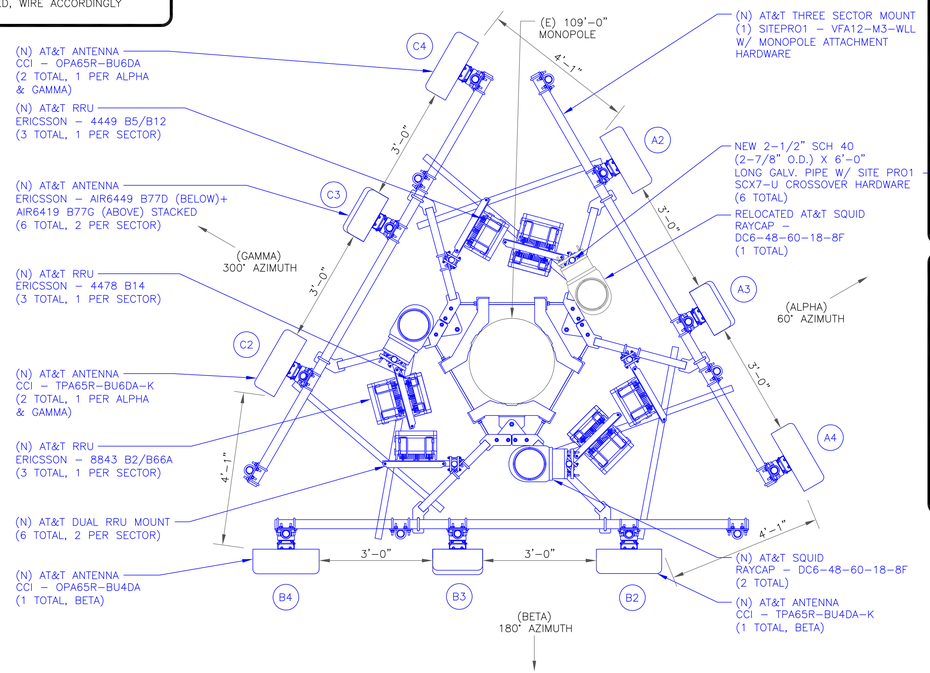
1 FINAL ELEVATION
SCALE: NOT TO SCALE



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

NOTE:

THE SURGE SUPPRESSION ON THIS SITE IS SECTORIZED, WIRE ACCORDINGLY



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

"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: **CTL05200**

BU #: **842864**
GUILFORD SW

201 GRANITE ROAD
GUILFORD, CT 06437

EXISTING
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B&T ENGINEERING, INC.
PEC.0001564
Expires 2/10/23

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																			
A1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
A2	LTE/5G	(N) CCI – TPA65R–BU6DA–K	60°	97'–0"	1 1	(N) 4478 B14 (N) 8843 B2/B66A (N) Y–CABLE	TOWER	–	–	–	–	–	1	(E) DC6–48–60–18–8F	2 1	(E) 8AWG DC CABLES (E) 18–PAIR FIBER CABLE	13/16" 3/8"	147'–0" 147'–0"
A3	5G DoD 5G CBAND	(N) ERICSSON – AIR6419 B77G (ABOVE) (N) ERICSSON – AIR6449 B77D (BELOW) STACKED	60°	98'–9" 95'–3"	1	(N) INTEGRATED WITHIN	TOWER	–	–	–	–	–	–	–	–	–	–	–
A4	LTE/5G	(N) CCI – OPA65R–BU6DA	60°	97'–0"	1	(N) 4449 B5/B12 (N) Y–CABLE	TOWER	–	–	–	–	–	–	–	–	–	–	–
BETA																			
B1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
B2	LTE/5G	(N) CCI – TPA65R–BU4DA–K	180°	97'–0"	1 1	(N) 4478 B14 (N) 8843 B2/B66A (N) Y–CABLE	TOWER	–	–	–	–	–	1	(N) DC6–48–60–18–8F	2 1	(N) 6AWG DC CABLE (N) 18–PAIR FIBER CABLE	7/8" 3/8"	147'–0" 147'–0"
B3	5G DoD 5G CBAND	(N) ERICSSON – AIR6419 B77G (ABOVE) (N) ERICSSON – AIR6449 B77D (BELOW) STACKED	180°	98'–9" 95'–3"	1	(N) INTEGRATED WITHIN	TOWER	–	–	–	–	–	–	–	–	–	–	–
B4	LTE/5G	(N) CCI – OPA65R–BU4DA	180°	97'–0"	1	(N) 4449 B5/B12 (N) Y–CABLE	TOWER	–	–	–	–	–	–	–		–	–	–
GAMMA																			
C1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
C2	LTE/5G	(N) CCI – TPA65R–BU6DA–K	300°	97'–0"	1 1	(N) 4478 B14 (N) 8843 B2/B66A (N) Y–CABLE	TOWER	–	–	–	–	–	1	(N) DC6–48–60–18–8F	2 1	(N) 6AWG DC CABLE (N) 18–PAIR FIBER CABLE	7/8" 3/8"	147'–0" 147'–0"
C3	5G DoD 5G CBAND	(N) ERICSSON – AIR6419 B77G (ABOVE) (N) ERICSSON – AIR6449 B77D (BELOW) STACKED	300°	98'–9" 95'–3"	1	(N) INTEGRATED WITHIN	TOWER	–	–	–	–	–	–	–	–	–	–	–
C4	LTE/5G	(N) CCI – OPA65R–BU6DA	300°	97'–0"	1	(N) 4449 B5/B12 (N) Y–CABLE	TOWER	–	–	–	–	–	–	–		–	–	–
														UNUSED FEEDLINES:	12	(E) COAX	1–1/4"	147'–0"

NOTE:
(E) – EXISTING
(N) – NEW

1 FINAL ANTENNA AND FEEDLINE SCHEDULE
SCALE: NOT TO SCALE

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STATE OF CONNECTICUT
No. 23924
LICENSED
PROFESSIONAL ENGINEER
8/25/22

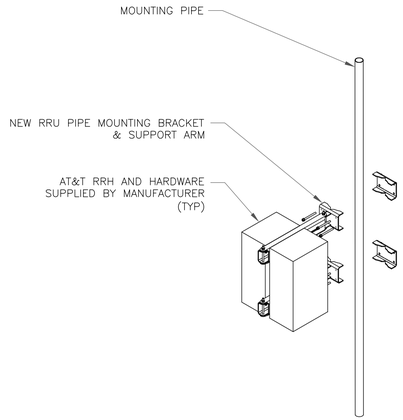
B&T ENGINEERING, INC.
PEC.0001564
Expires 2/10/23

SHEET NUMBER: C-3

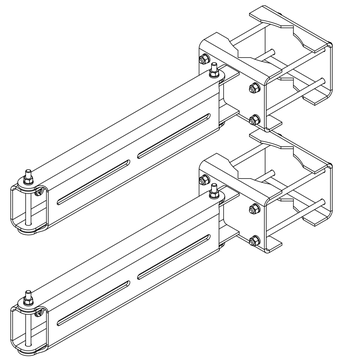
REVISION: 0

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.
4. RRHs SHALL NOT BE INSTALLED CLOSER THAN 8" TO ANTENNAS.



1 DUAL RRH MOUNTING DETAIL
SCALE: NOT TO SCALE



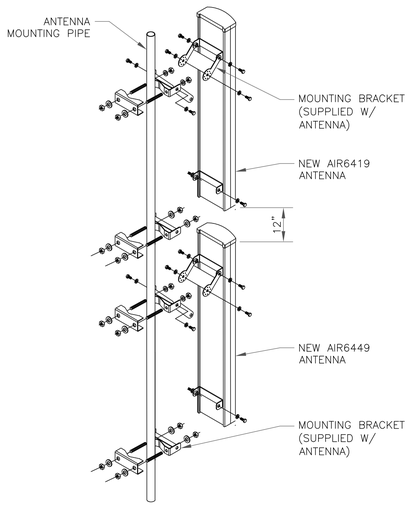
DUAL RADIO MOUNT
(2 SWIVEL MOUNTS PER KIT)

2 DUAL RRU MOUNT
SCALE: NOT TO SCALE

3 NOT USED
SCALE: NOT TO SCALE

INSTALLER NOTES:

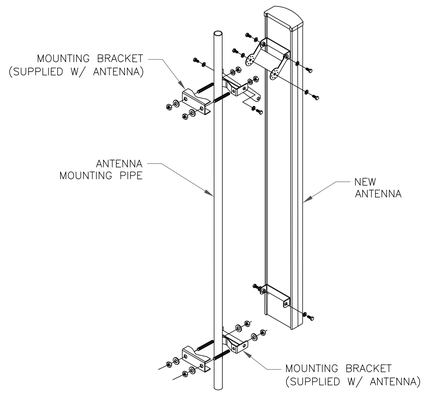
1. COMPLY WITH MANUFACTURERS INSTRUCTIONS TO ENSURE THAT ALL RRHs RECEIVE ELECTRICAL POWER WITHIN 24 HOURS OF BEING REMOVED FROM THE MANUFACTURER'S PACKAGING.
2. DO NOT OPEN RRH PACKAGES IN THE RAIN.
3. ALL PIPES, BRACKETS, AND MISCELLANEOUS HARDWARE TO BE GALVANIZED UNLESS NOTED OTHERWISE.



4 ANTENNA MOUNTING DETAIL
SCALE: NOT TO SCALE

INSTALLER NOTE:

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

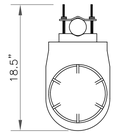


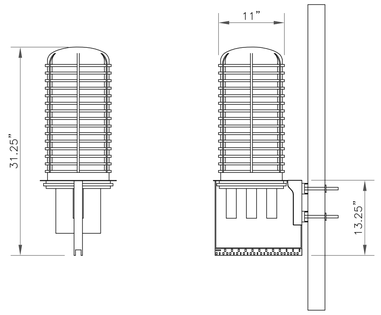
5 ANTENNA MOUNTING DETAIL
SCALE: NOT TO SCALE

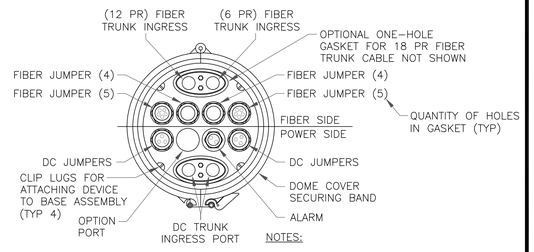
RAYCAP
DC6-48-60-18-8F

RAYCAP – DC6-48-60-18-8F
SIZE: 11x31.25 IN.
WEIGHT: 32.8 LBS
NOMINAL OPERATING VOLTAGE: 48 VDC
VOLTAGE PROTECTION RATING: 400 V
WIND LOADING: 150 MPH SUSTAINED (105.7 LBS)
WIND LOADING: 195 MPH GUST (213.6 LBS)

CONTRACTOR TO USE "THREAD LUBRICANT" ON MOUNTING BOLTS DURING INSTALLATION







NOTES:

1. REMOVE CABLE SEALING GLAND AND INSTALL M32x1.5 METRIC-TO-1" NPT ADAPTER (COOPER CROUSE-HINES P/N CAP 740 994 OR EQUIVALENT MFR) WHEN CONNECTING CONDUIT TO OVP.

6 SQUID MOUNTING DETAIL
SCALE: NOT TO SCALE

AT&T
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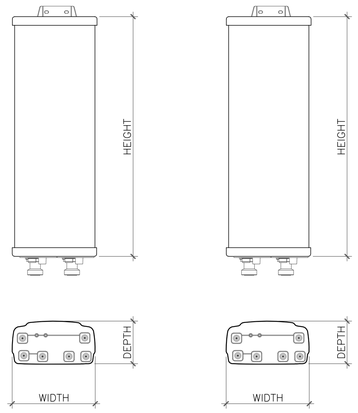
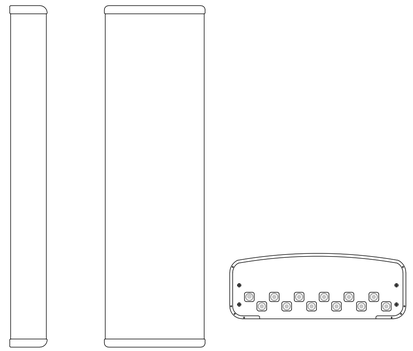


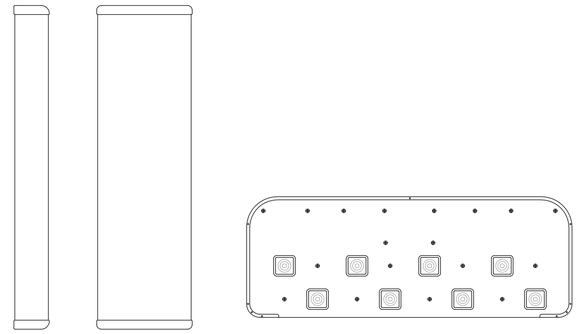
ANTENNA DIMENSIONS (INCHES)				
MODEL	HEIGHT	WIDTH	DEPTH	WEIGHT
ERICSSON – AIR6449 B77D	30.39"	15.87"	8.07"	81.60 lbs
ERICSSON – AIR6419 B77G	27.95"	15.75"	6.68"	66.20 lbs

1 ANTENNA DETAIL
SCALE: NOT TO SCALE



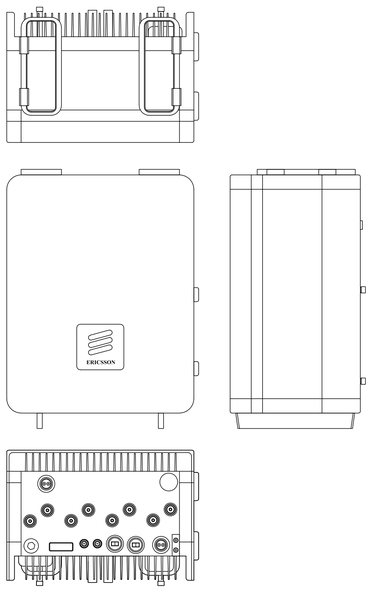
CCI ANTENNAS – TPA–65R–BU6DA–K
WEIGHT (WITHOUT MOUNTING HARDWARE): 72.5 LBS
SIZE (HXWXD): 71.2X21.0X7.8 IN.
MOUNTING HARDWARE P/N: BSA–M03
RATED WIND VELOCITY: 150.0 MPH

2 CCI ANTENNAS – TPA–65R–BU6DA–K
SCALE: NOT TO SCALE



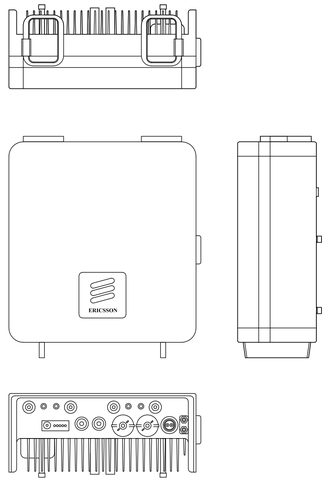
CCI ANTENNAS – OPA65R–BU6DA
WEIGHT (WITHOUT MOUNTING HARDWARE): 60.2 LBS
SIZE (HxWxD): 71.2x21.0x7.8 IN.
MOUNTING HARDWARE P/N: MBK–01
RATED WIND VELOCITY: 150.0 MPH

3 CCI ANTENNAS – OPA65R–BU6DA
SCALE: NOT TO SCALE



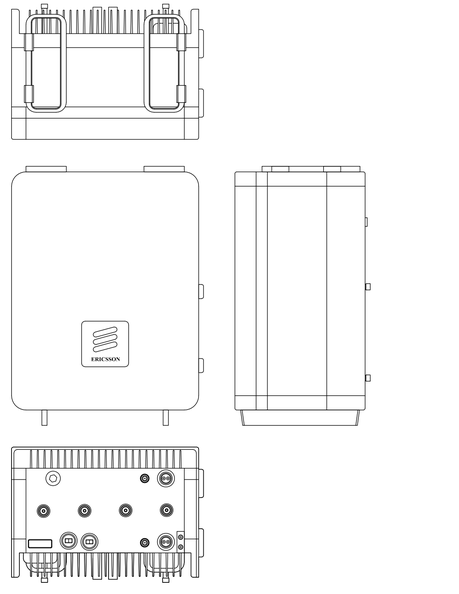
ERICSSON – RRUS 8843 B2/B66A
WEIGHT (FULLY EQUIPPED): 72 LBS
SIZE (HxWxD): 14.9x13.2x10.9 IN.
CONNECTOR TYPE: 4.3–10 FEMALE (4 TOTAL PORTS)

4 ERICSSON – RRUS 8843 B2/B66A
SCALE: NOT TO SCALE



ERICSSON – RRUS 4478 B14
WEIGHT (FULLY EQUIPPED): 59.4 LBS
SIZE (HxWxD): 18.1x13.4x8.26 IN.
CONNECTOR TYPE: 4.3–10 FEMALE (4 TOTAL PORTS)

5 ERICSSON – RRUS 4478 B14
SCALE: NOT TO SCALE



ERICSSON – 4449 B5/B12
WEIGHT (FULLY EQUIPPED): 71.0 LBS
SIZE (HxWxD): 17.9x13.19x9.44 IN.
CONNECTOR TYPE: 4.3–10 FEMALE (4 TOTAL PORTS)

6 ERICSSON – RRUS 4449 B5/B12
SCALE: NOT TO SCALE

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8/25/22

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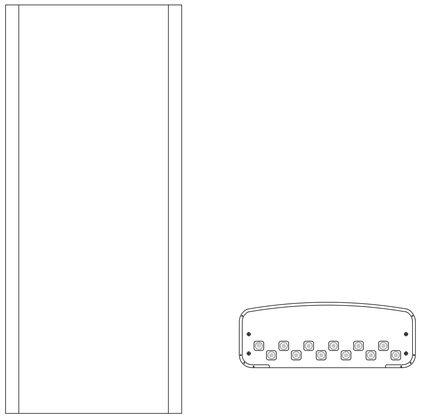
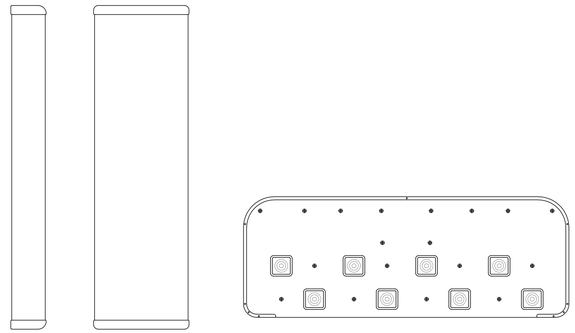
SHEET NUMBER: C-5.1
REVISION: 0



CCI ANTENNAS – TPA-65R-BU4DA-K
WEIGHT (WITHOUT MOUNTING HARDWARE): 52.6 LBS
SIZE (HXWXD): 48.0X20.7X7.7 IN.
MOUNTING HARDWARE P/N: BSA-M03
RATED WIND VELOCITY: 150.0 MPH

1 CCI ANTENNAS – TPA-65R-BU4DA-K
SCALE: NOT TO SCALE



CCI ANTENNAS – OPA65R-BU4DA
WEIGHT (WITHOUT MOUNTING HARDWARE): 52.5 LBS
SIZE (HxWxD): 48x21.0x7.8 IN.
RATED WIND VELOCITY: 150.0 MPH

2 CCI ANTENNAS – OPA65R-BU4DA
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

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

CROWN CASTLE
3 CORPORATE PARK DRIVE, SUITE 101
CLIFTON PARK, NY 12065

B+T GRP
1717 S. BOULDER
SUITE 300
TULSA, OK 74119
PH: (918) 587-4630
www.btgrp.com

AT&T SITE NUMBER: **CTL05200**

BU #: **842864**
GUILFORD SW

201 GRANITE ROAD
GUILFORD, CT 06437

EXISTING
109'-0" MONOPOLE

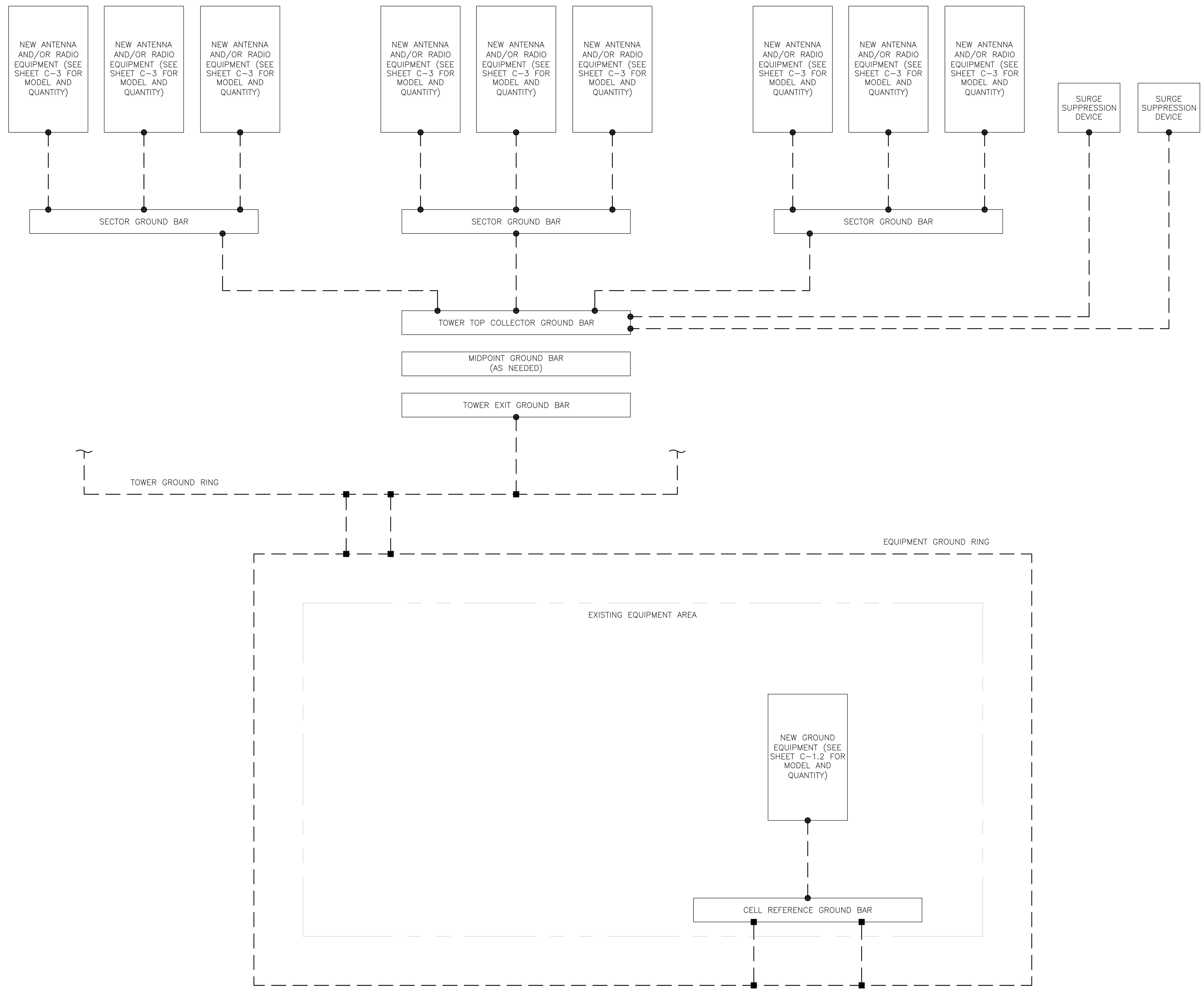
ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
A	4/13/22	TDG	PRELIMINARY REVIEW	KT
B	7/18/22	TDG	PRELIMINARY REVIEW	LR
0	8/25/22	TDG	PRELIMINARY REVIEW	MTJ

STATE OF CONNECTICUT
No. 23924
LICENSED
PROFESSIONAL ENGINEER
8/25/22

B&T ENGINEERING, INC.
PEC.0001564
Expires 2/10/23

SHEET NUMBER: C-5.2
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.

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AT&T SITE NUMBER: **CTL05200**

BU #: **842864**
GUILFORD SW

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GUILFORD, CT 06437

EXISTING
109'-0" MONOPOLE

ISSUED FOR:

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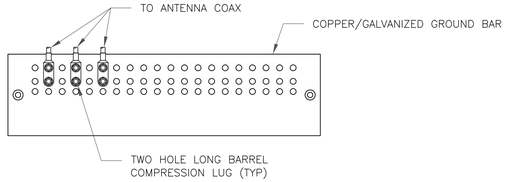
0	8/25/22	TDG	PRELIMINARY REVIEW	MTJ

8/25/22

B&T ENGINEERING, INC.
PEC.0001564
Expires 2/10/23

SHEET NUMBER: G-1

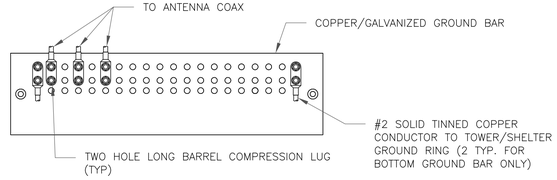
REVISION: 0



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

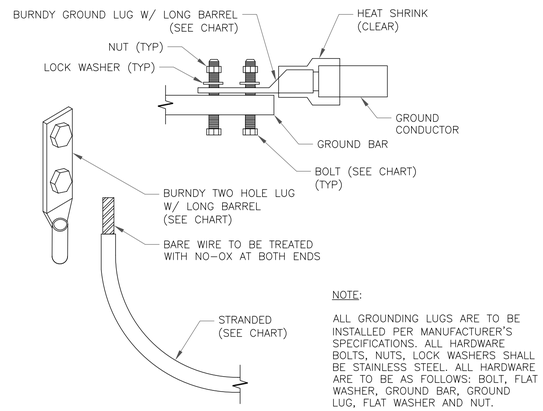


NOTES:

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

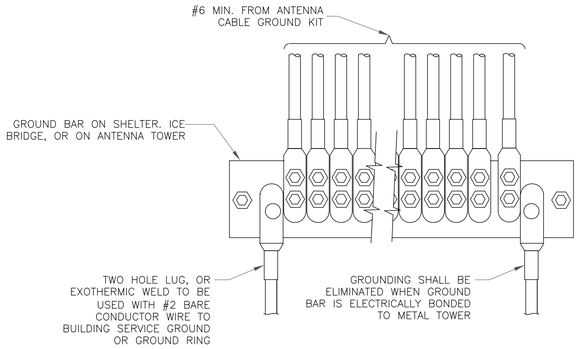
WIRE SIZE	BURNDY LUG	BOLT SIZE
#6 GREEN INSULATED	YA6C-2TC38	3/8" - 16 NC SS 2 BOLT
#2 SOLID TINNED	YA3C-2TC38	3/8" - 16 NC SS 2 BOLT
#2 STRANDED	YA2C-2TC38	3/8" - 16 NC SS 2 BOLT
#2/0 STRANDED	YA26-2TC38	3/8" - 16 NC SS 2 BOLT
#4/0 STRANDED	YA28-2N	1/2" - 16 NC SS 2 BOLT



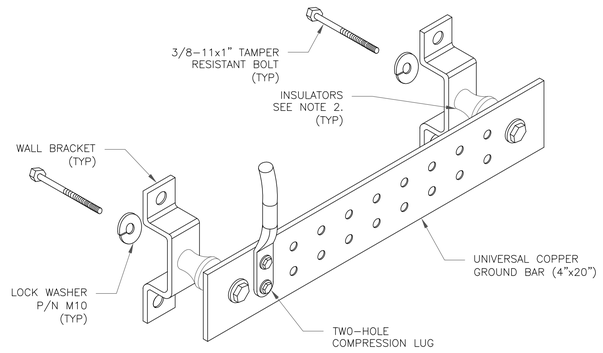
NOTE:

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

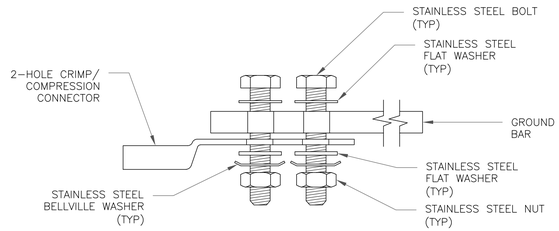


NOTES:

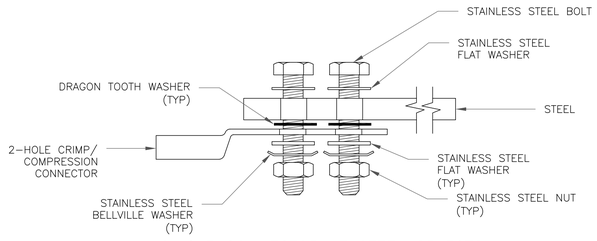
1. DOWN LEAD (HOME RUN) CONDUCTORS ARE NOT TO BE INSTALLED ON CROWN CASTLE USA INC. TOWER, PER THE GROUNDING DOWN CONDUCTOR POLICY QAS-STD-10091. NO MODIFICATION OR DRILLING TO TOWER STEEL IS ALLOWED IN ANY FORM OR FASHION, CAD-WELDING ON THE TOWER AND/OR IN THE AIR ARE NOT PERMITTED.

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

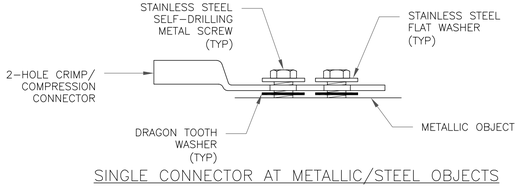
5 GROUND BAR DETAIL
SCALE: NOT TO SCALE



SINGLE CONNECTOR AT GROUND BARS

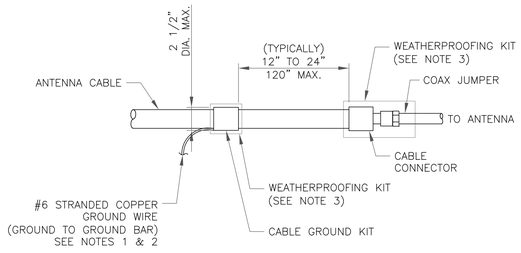


SINGLE CONNECTOR AT STEEL OBJECTS



SINGLE CONNECTOR AT METALLIC/STEEL OBJECTS

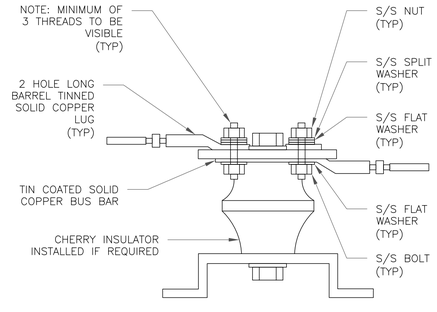
8 HARDWARE DETAIL FOR EXTERIOR CONNECTIONS
SCALE: NOT TO SCALE



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

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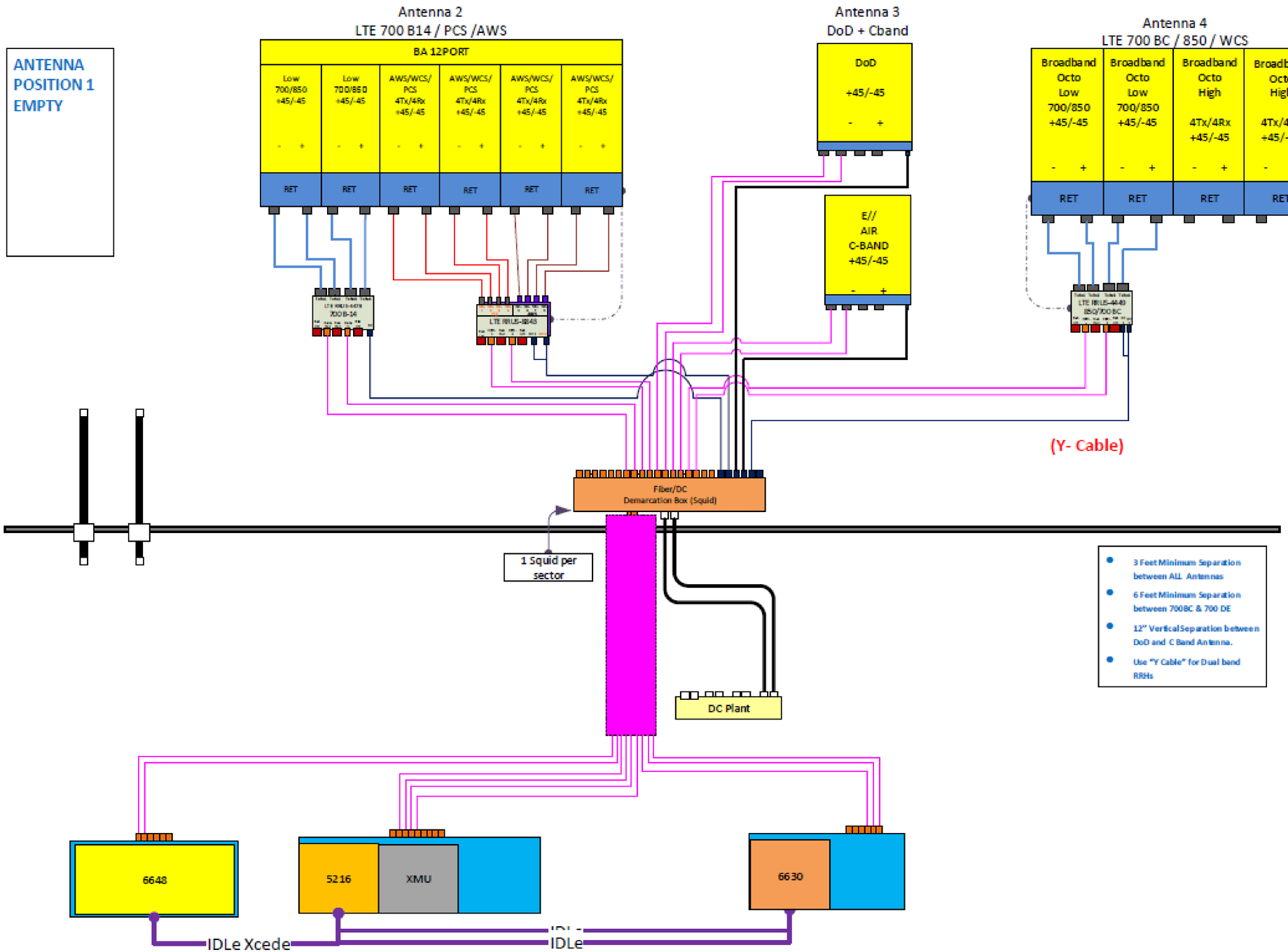
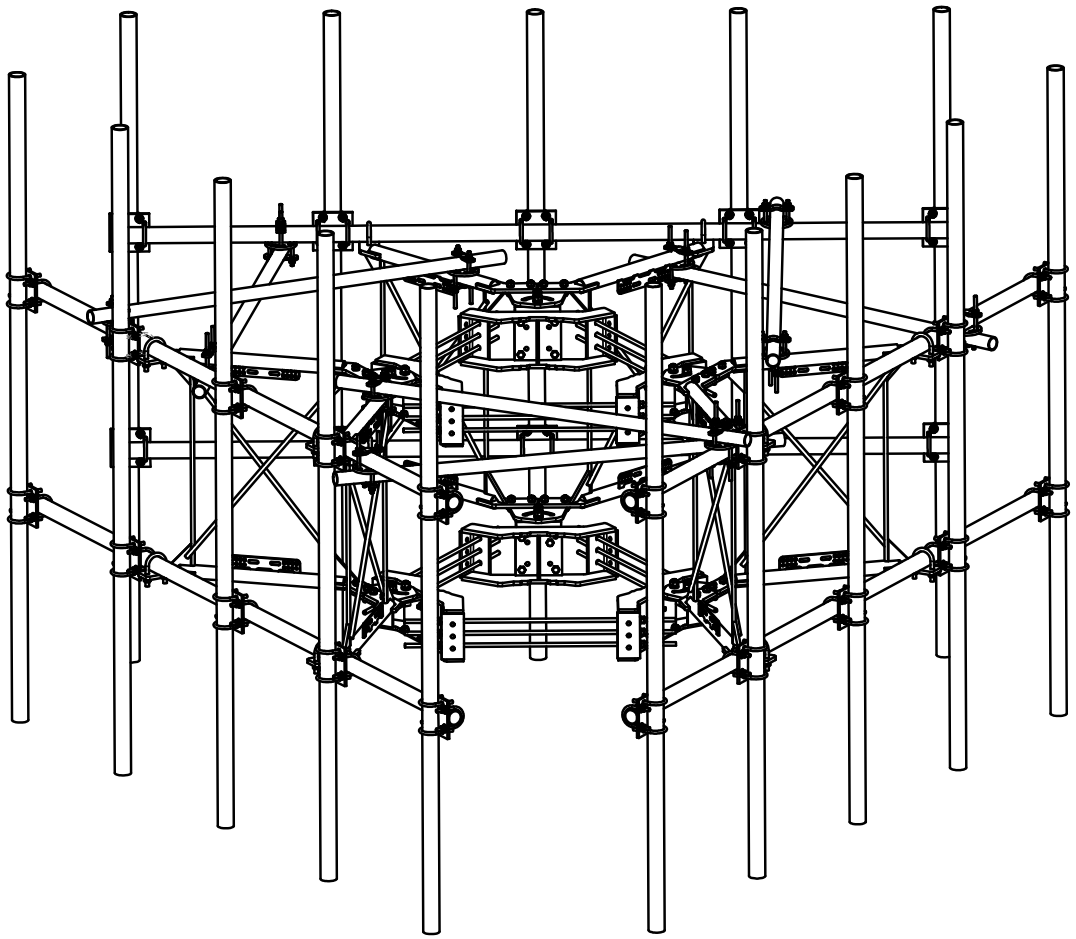
B&T ENGINEERING, INC.
PEC.0001564
Expires 2/10/23

SHEET NUMBER: G-2

REVISION: 0

Diagram - Sector	A	Diagram File Name - Cband_3Ant_2Coax_BA12_DoD_CB_DMP__8843_1DCFib_1x5216_XMU_6630_6648_NoWCS.vsd					
Atoll Site Name -	CTL05200	Location Name -	GUILFORD SW	Market -	CONNECTICUT	Market Cluster -	NEW ENGLAND
Comments: Important Note: For detailed radio to antenna wiring refer to the latest 4T4R Antenna/ radio Port connections Field Notice (RF-HW-2016-265)							





PARTS LIST						
ITEM	QTY	PART NO.	PART DESCRIPTION	LENGTH	UNIT WT.	NET WT.
1	6	X-LWRM	RING MOUNT WELDMENT		68.81	412.85
2	6	X-RMBP	RING MOUNT BENT PLATE CONNECTION	15 1/2 in	17.02	102.13
3	6	X-VFAPL4	VFA-HD PIVOT PLATE	12 in	15.88	95.30
4	6	X-VFAW	SUPPORT ARM		71.41	428.44
5	30	SCX2	CROSSOVER PLATE	7 in	4.80	143.89
6	6	P284	2-3/8" X 84" SCH 40 GALVANIZED PIPE	84 in	26.91	161.47
7	15	P30120	2-7/8" x 120" (2-1/2" SCH. 40) GALVANIZED PIPE	120 in	58.07	870.99
8	6	P30150	2-7/8" X 150" (2-1/2" SCH. 40) GALVANIZED PIPE	150 in	76.94	461.62
9	12	X-127594	FLAT DISK CLAMP PLATE 4" CENTERS (GALV.)		2.51	30.08
10	24	X-100064	CLAMP (4" V-CLAMP) GALVANIZED		0.92	22.12
11	12	A34212	3/4" x 2-1/2" UNC HEX BOLT (A325)	2 1/2 in	0.48	5.75
12	18	G34FW	3/4" HDG USS FLATWASHER		0.06	1.06
13	12	G34LW	3/4" HDG LOCKWASHER		0.04	0.51
14	12	G34NUT	3/4" HDG HEAVY 2H HEX NUT		0.21	2.55
15	18	G58R-48	5/8" x 48" THREADED ROD (HDG.)		4.18	75.27
16	12	X-UB5300	5/8" X 3" X 5-1/4" X 2-1/2" U-BOLT (HDG.)		1.15	13.79
17	24	A582112	5/8" x 2-1/2" HDG A325 HEX BOLT	2 1/2 in	0.33	8.02
18	24	A582114	5/8" x 2-1/4" HDG A325 HEX BOLT	2 1/4 in	0.31	7.50
19	108	G58LW	5/8" HDG LOCKWASHER		0.03	2.82
20	108	G58NUT	5/8" HDG HEAVY 2H HEX NUT		0.13	14.03
21	120	X-UB1300	1/2" X 3" X 5" X 2" GALV U-BOLT		0.74	88.64
22	24	G12065	1/2" x 6-1/2" HDG HEX BOLT GR5 FULL THREAD	5 1/2 in	0.41	9.83
23	24	G1204	1/2" x 4" HDG HEX BOLT GR5 FULL THREAD	4 in	0.27	6.48
24	288	G12FW	1/2" HDG USS FLATWASHER	3/32 in	0.03	9.82
25	288	G12LW	1/2" HDG LOCKWASHER	1/8 in	0.01	4.00
26	288	G12NUT	1/2" HDG HEAVY 2H HEX NUT		0.07	20.63
					TOTAL WT. #	2999.58

TOLERANCE NOTES

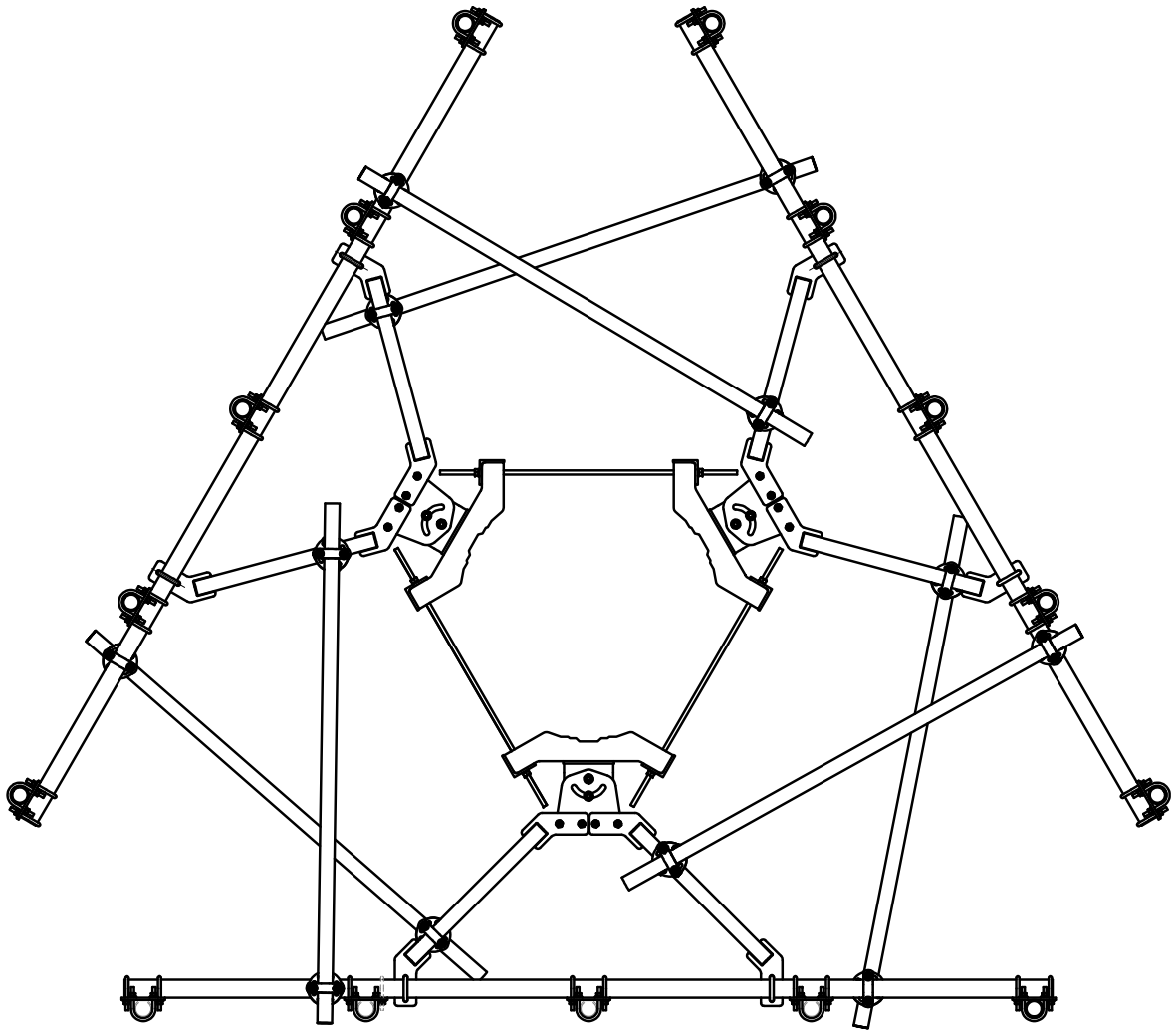
TOLERANCES ON DIMENSIONS, UNLESS OTHERWISE NOTED ARE:
SAWED, SHEARED AND GAS CUT EDGES *(± 0.030")*
DRILLED AND GAS CUT HOLES *(± 0.030")* - NO CONING OF HOLES
LASER CUT EDGES AND HOLES *(± 0.010")* - NO CONING OF HOLES
BENDS ARE ± 1/2 DEGREE
ALL OTHER MACHINING *(± 0.030")*
ALL OTHER ASSEMBLY *(± 0.060")*

DESCRIPTION
THREE SECTORS HEAVY WLL FRAME
AND MONOPOLE ATTACHMENT HARDWARE
WITH FIVE MOUNTING PIPES

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

CPD NO.	DRAWN BY	ENG. APPROVAL	PART NO.	
	CEK 10/26/2018		VFA12-M3-WLL	PAGE 1 OF 4

CLASS	SUB	DRAWING USAGE	CHECKED BY	DWG. NO.
81	02	CUSTOMER	BMC 10/29/2018	VFA12-M3-WLL



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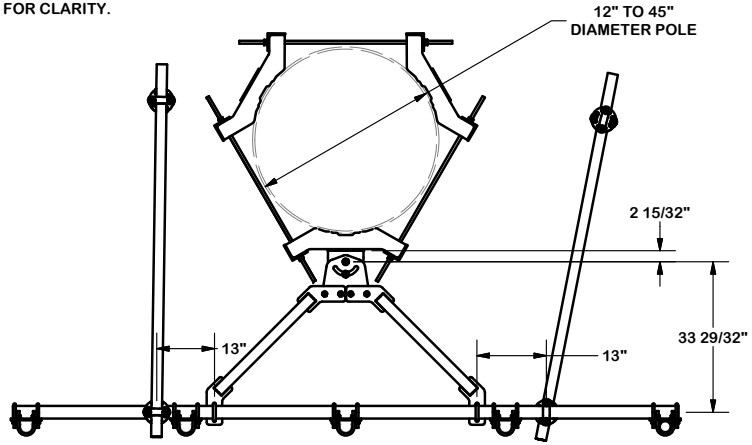
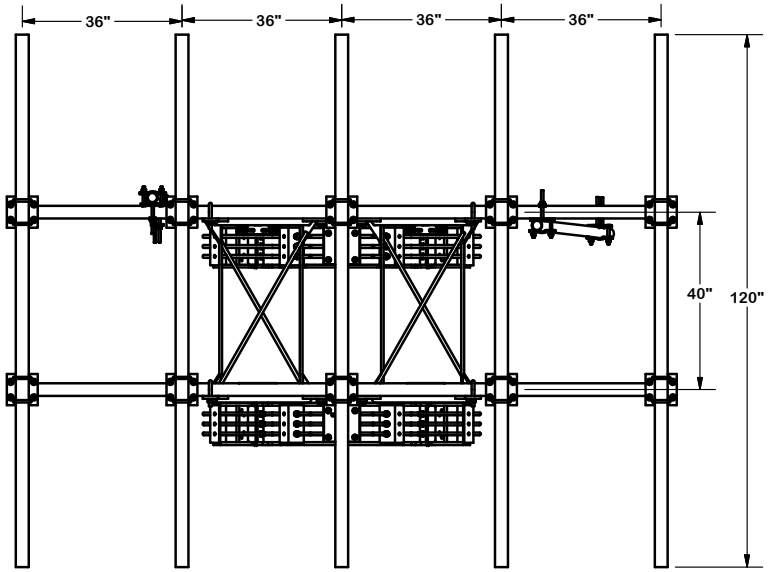
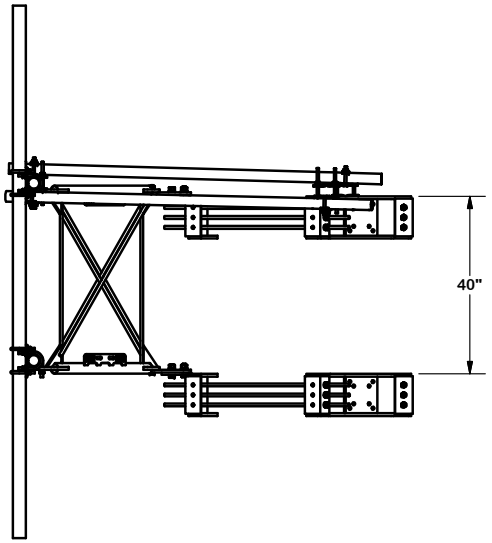
81	02	CUSTOMER	BMC 10/29/2018	VFA12-M3-WLL

NOTE:
OTHER SECTORS REMOVED FOR CLARITY.







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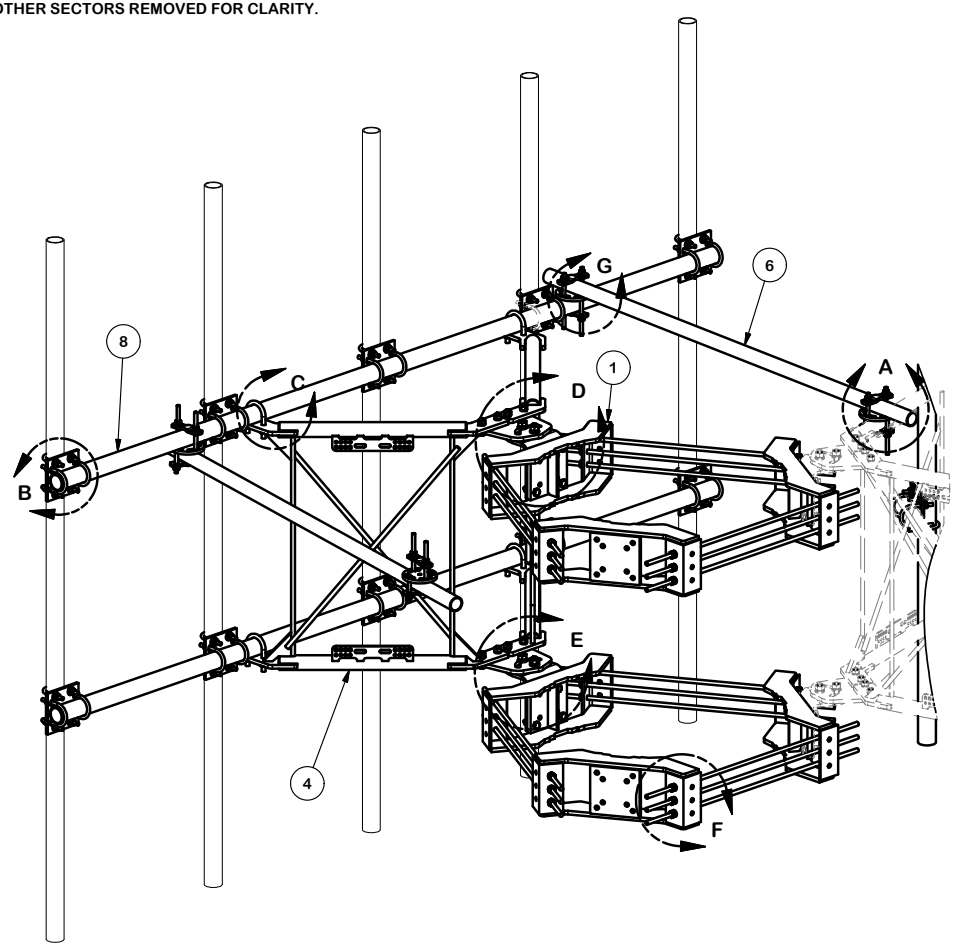
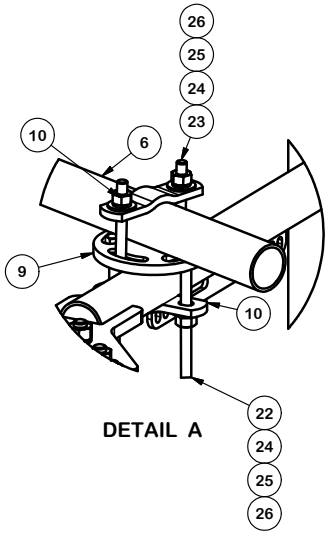
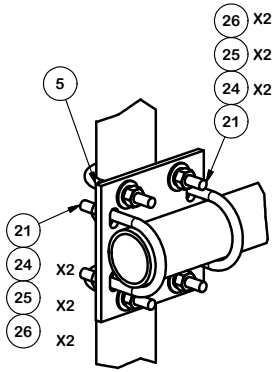
CPD NO.	DRAWN BY	ENG. APPROVAL	PART NO.	
	CEK 10/26/2018		VFA12-M3-WLL	PAGE 3 OF 4
CLASS / SUB: 81 / 02	DRAWING USAGE: CUSTOMER	CHECKED BY: BMC 10/29/2018	DWG. NO.: VFA12-M3-WLL	

NOTE:
OTHER SECTORS REMOVED FOR CLARITY.

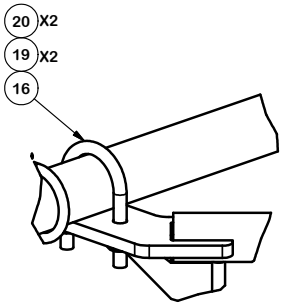




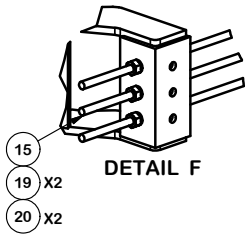
DETAIL A



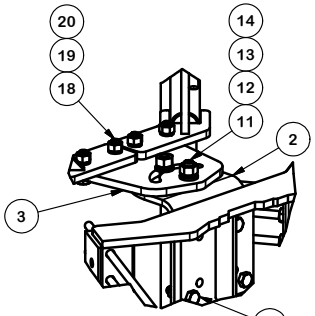
DETAIL B



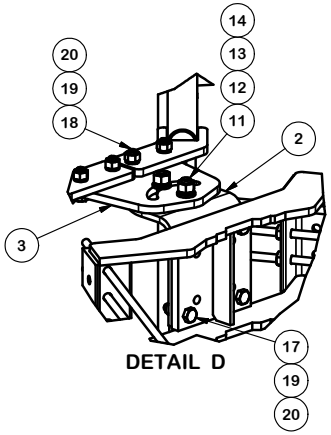
DETAIL C



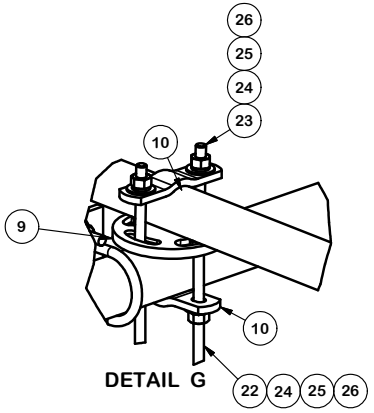
DETAIL F



DETAIL E



DETAIL D



DETAIL G

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")*

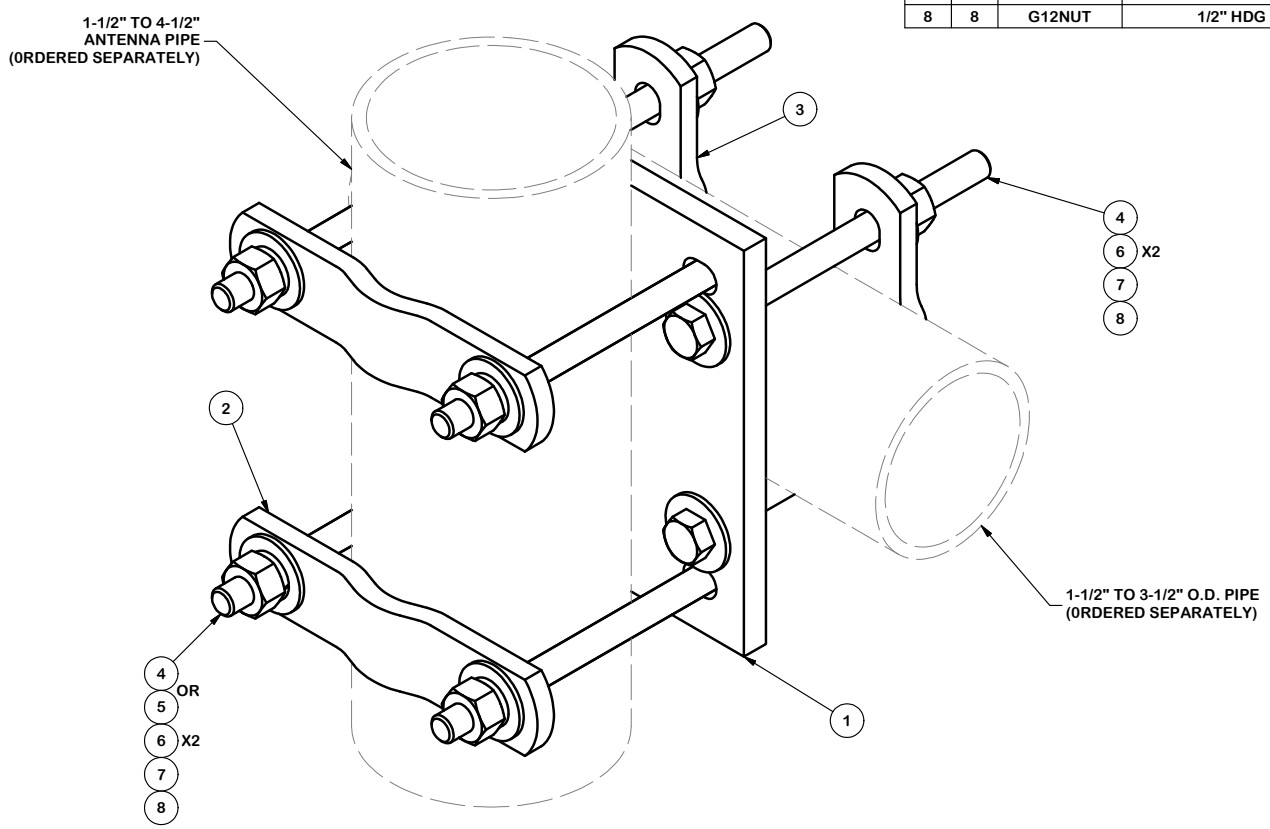
DESCRIPTION
THREE SECTORS HEAVY WLL FRAME
AND MONOPOLE ATTACHMENT HARDWARE
WITH FIVE MOUNTING PIPES

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

CPD NO.	DRAWN BY	ENG. APPROVAL	PART NO.
	CEK 10/26/2018		VFA12-M3-WLL

CLASS	SUB	DRAWING USAGE	CHECKED BY	DWG. NO.
81	02	CUSTOMER	BMC 10/29/2018	VFA12-M3-WLL

PARTS LIST						
ITEM	QTY	PART NO.	PART DESCRIPTION	LENGTH	UNIT WT.	NET WT.
1	1	SCX7	CROSSOVER PLATE	8 in	7.55	7.55
2	2	X-115765	5" V-CLAMP		1.02	2.04
3	2	X-100064	CLAMP (S) (4" V-CLAMP) GALVANIZED		0.91	1.83
4	8	G12065	1/2" x 6-1/2" HDG HEX BOLT GR5 FULL THREAD	6 1/2 in	0.41	3.28
5	4	G12045	1/2" x 4.5" HDG HEX BOLT GR5 FULL THREAD	4 1/2 in	0.30	1.19
6	16	G12FW	1/2" HDG USS FLATWASHER		0.03	0.54
7	8	G12LW	1/2" HDG LOCKWASHER		0.01	0.11
8	8	G12NUT	1/2" HDG HEAVY 2H HEX NUT		0.07	0.57
					TOTAL WT. #	16.98



TOLERANCE NOTES

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ALL OTHER MACHINING *(± 0.030")*
ALL OTHER ASSEMBLY *(± 0.060")*

DESCRIPTION: CROSSOVER PLATE (V-CLAMP STYLE)

SITE PRO 1 — A valmont COMPANY

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CPD NO.	DRAWN BY	ENG. APPROVAL	PART NO.	PAGE
	CEK 10/7/2010		SCX7-U	1 OF 1
CLASS / SUB: 81 / 01	DRAWING USAGE: CUSTOMER	CHECKED BY: BMC 10/8/2010	DWG. NO.: SCX7-U	