



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

September 11, 2020

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

**RE: Notice of Exempt Modification for AT&T: 806364
143 R Old Blue Hill Road, Durham, CT 06422
Latitude: 41° 27' 33.67" / Longitude: -72° 39' 45.83"**

Dear Ms. Bachman:

AT&T currently maintains twelve (12) antennas at the 116-foot mount on the existing 120-foot Monopole Tower, located at 143 R. Old Blue Hill Road in Durham, CT. The tower is owned by Crown Castle and the property is owned by Francis E. Behrens. AT&T now intends to add three (3) new remote radio units to their existing configuration. AT&T is also proposing tower mount modifications and a tower mount replacement, as shown on the enclosed mount analysis.

The facility was approved by the Connecticut Siting Council on March 11, 1994 in Docket No. 161. The Council subsequently allowed an increase in tower height to 120' in Petition No. 697 on May 11, 2005. AT&T's proposed exempt modification complies with the original siting conditions.

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 Laura Francis, First Selectwoman for the Town of Durham, Robin Newton, Town Planner, Crown Castle as the tower owner, and Francis Behrens, the property 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.

Melanie A. Bachman

Page 2

For the foregoing reasons, AT&T 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: Anne Marie Zsamba.

Sincerely,

Anne Marie Zsamba
Site Acquisition Specialist
3 Corporate Park Drive, Suite 101
Clifton Park, NY 12065
(201) 236-9224
AnneMarie.Zsamba@crowncastle.com

Attachments

cc:

Laura Francis, First Selectwoman (*via email only to lfrancis@townofdurhamct.org*)
Town of Durham
Town Hall – Selectman’s Office
30 Townhouse Road
Durham, CT 06422

Robin Newton, Town Planner (*via email only to rnewton@townofdurhamct.org*)
Town of Durham
30 Townhouse Road
Durham, CT 06422

Francis E. Behrens, Property Owner
109 Old Blue Hills Road
Durham, CT 06422-3005

Crown Castle, Tower Owner

ORIGIN ID: SCHA (518) 350-3639
ANNE MARIE ZSAMBRA
CROWN CASTLE
21 HEATHER DRIVE
GANSEVOORT, NY 12831
UNITED STATES US

SHIP DATE: 27AUG20
ACT WGT: 1.00 LB
CAD: 104924194/NET4280

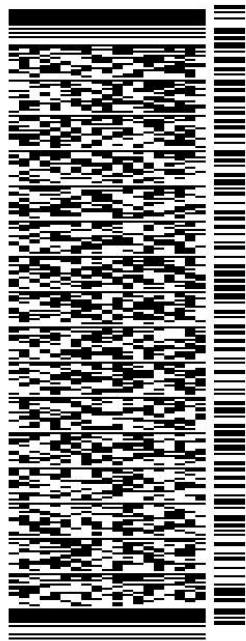
BILL SENDER

TO FRANCIS E. BEHRENS

109 OLD BLUE HILLS ROAD

DURHAM CENTER CT 06422

(201) 236-9224 REF: 1734.7690
INV/ PO: DEPT:



J202020071401uv

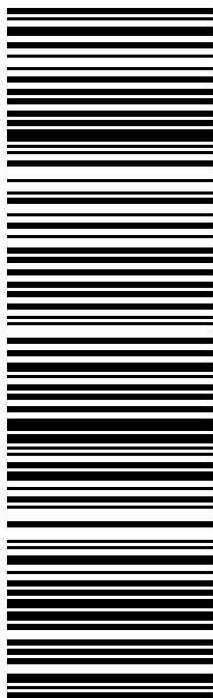
56BJ2I7709IB766

TRK# 7713 7178 2653
0201

FRI - 28 AUG 10:30A
PRIORITY OVERNIGHT

EB RSPA

06422
CT-US BDL



After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number. Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

From: [Zsamba, Anne Marie](#)
To: newton@townofdurhamct.org
Subject: Notice of Exempt Modification - AT&T - 143 R Old Blue Hill Road
Date: Friday, September 11, 2020 5:27:00 AM
Attachments: [EM-AT&T-143 R Old Blue Hill Rd Durham-806364-notice.pdf](#)

Dear Town Planner Newton:

Attached please find AT&T's exempt modification application that is being submitted to the Connecticut Siting Council today, September 11, 2020.

In light of the present circumstances with Covid-19, The Council has advised that electronic notification of this filing is acceptable. If you could kindly confirm receipt. Thank you.

Best,
Anne Marie Zsamba

ANNE MARIE ZSAMBA
Site Acquisition Specialist
T: (201) 236-9224
M: (518) 350-3639
F: (724) 416-6112

CROWN CASTLE
3 Corporate Park Drive, Suite 101
Clifton Park, NY 12065
CrownCastle.com

From: [Zsamba, Anne Marie](#)
To: lfrancis@townofdurhamct.org
Subject: Notice of Exempt Modification - AT&T - 143 R Old Blue Hill Road
Date: Friday, September 11, 2020 5:27:00 AM
Attachments: [EM-AT&T-143 R Old Blue Hill Rd Durham-806364-notice.pdf](#)

Dear First Selectwoman Francis:

Attached please find AT&T's exempt modification application that is being submitted to the Connecticut Siting Council today, September 11, 2020.

In light of the present circumstances with Covid-19, The Council has advised that electronic notification of this filing is acceptable. If you could kindly confirm receipt. Thank you.

Best,
Anne Marie Zsamba

ANNE MARIE ZSAMBA
Site Acquisition Specialist
T: (201) 236-9224
M: (518) 350-3639
F: (724) 416-6112

CROWN CASTLE
3 Corporate Park Drive, Suite 101
Clifton Park, NY 12065
CrownCastle.com

Exhibit A

Original Facility Approval

DOCKET NO. 161 - An application of Metro Mobile CTS of Hartford Inc., for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance, and operation of a cellular telecommunications facility. The proposed prime site is located off of Old Blue Hills Road approximately 2,000 feet from the end of the improved portion of the road in Durham, Connecticut. The proposed alternate sites are located at 199R Cherry Lane and 100 New Haven Road, Durham, Connecticut.

Connecticut

Siting

Council

March 11, 1994

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 cellular telecommunications tower and equipment building at the proposed prime site in Durham, Connecticut, 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 section 16-50k of the Connecticut General Statutes (CGS), be issued to Metro Mobile CTS of Hartford, Inc. (Metro Mobile), for the construction, operation, and maintenance of a cellular telecommunications tower, associated equipment, and building at the proposed prime site located off of Old Blue Hills Road, Durham, Connecticut. We find the effects on scenic resources and adjacent land uses of the alternative sites to be significant, and therefore deny certification of these sites.

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 self-supporting monopole tower shall be no taller than necessary to provide the proposed communications service and the tower shall not exceed a total height of 113 feet above ground level (AGL), with antennas and appurtenances.
2. The road design and drainage system for improvements on approximately 1,600 feet of the Old Blue Hills Road right-of-way shall be subject to approval by the Town of Durham.

3. 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 State Agencies. The D&M plan shall include detailed plans of the tower, antenna placement on the tower including entities sharing tower space, tower foundation, equipment building, access road, utility connection, security fence, and erosion and sedimentation controls consistent with the Connecticut Guidelines for Soil Erosion and Sedimentation Control (as amended).
4. The Certificate Holder shall make provision for a Phase I archaeological reconnaissance survey, subject to the consent of the landowner, at the Merwin Cave site, due within six months after the commencement of construction. A final report of this survey shall be provided to the Council upon completion. The Certificate Holder shall not be liable for any site protection, collection and exhibition of artifacts, or other actions beyond a Phase I reconnaissance survey.
5. The Certificate Holder shall comply with any existing and future radio frequency (RF) standard promulgated by State or federal regulatory agencies. Upon the establishment of any new governmental RF standards, the facility granted herein shall be brought into compliance with such standards.
6. The Certificate Holder shall provide the Council a recalculated report of electromagnetic radio frequency power density if and when circumstances in operation cause a change in power density above the levels originally calculated and provided in the application.
7. 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.
8. If the facility does not initially provide, or permanently ceases to provide cellular or other services following completion of construction, this Decision and Order shall be void, and the Certificate holder shall dismantle the tower and remove all associated equipment or reapplication for any continued or new use shall be made to the Council before any such use is made.
9. Unless otherwise approved by the Council, this Decision and Order shall be void if all construction authorized herein is not completed within three years of the effective date of this Decision and Order or within three years after all appeals to this Decision and Order have been resolved.

Pursuant to CGS section 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 and Middletown Press.

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 State Agencies.

The parties and intervenors to this proceeding are:

APPLICANT

Metro Mobile CTS of
Hartford, Inc.

ITS REPRESENTATIVES

Metro Mobile CTS of
Hartford, Inc.
20 Alexander Drive
Wallingford, CT 06492
Attn: David S. Malko, P.E.
Manager, Engineering and
Regulatory Services

Robinson & Cole
One Commercial Plaza
Hartford, CT 06103-3597
Attn: Brian C. S. Freeman, Esq.

PARTY

Town of Durham

ITS REPRESENTATIVE

Henry A. Robinson
First Selectman
30 Town House Road
P.O. Box 428
Durham, CT 06422

INTERVENOR

Springwich Cellular
Limited Partnership

ITS REPRESENTATIVE

Peter J. Tyrrell
Senior Attorney
Springwich Cellular
Limited Partnership
227 Church Street
New Haven, CT 06506

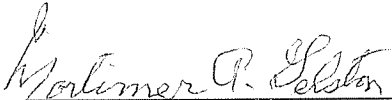
7695E

CERTIFICATION

The undersigned members of the Connecticut Siting Council (Council) hereby certify that they have heard this case, or read the record thereof, in Docket No. 161 - Certificate of Environmental Compatibility and Public Need for the construction, maintenance, and operation of a cellular telecommunications facility, in Durham, Connecticut, and voted as follows to approve the proposed prime site located off of Old Blue Hills Road:

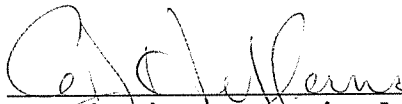
Council Members

Vote Cast



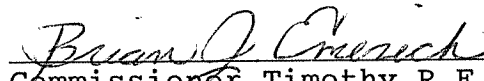
Mortimer A. Gelston
Chairman

YES



Commissioner Reginald J. Smith
Designee: Gerald J. Heffernan

YES

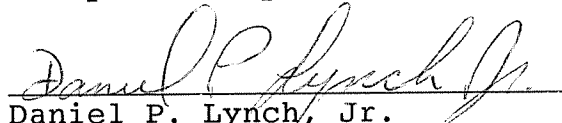


Commissioner Timothy R.E. Keeney
Designee: Brian Emerick

YES


Harry E. Covey

ABSENT



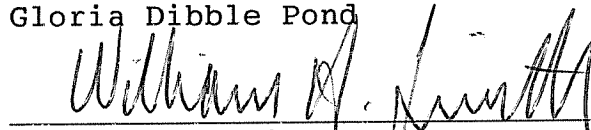
Daniel P. Lynch, Jr.

YES




Gloria Dibble Pond

YES



William H. Smith

YES



Colin C. Tait

YES

Dana J. Wright

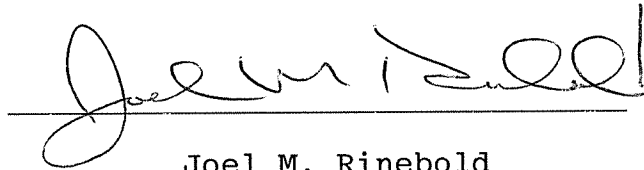
ABSENT

Dated at New Britain, Connecticut, March 11, 1994.
7697E

STATE OF CONNECTICUT)
 :
ss. New Britain, Connecticut
COUNTY OF HARTFORD)

I hereby certify that the foregoing is a true and correct copy of the Findings of Fact, Opinion, and Decision and Order issued by the Connecticut Siting Council, State of Connecticut.

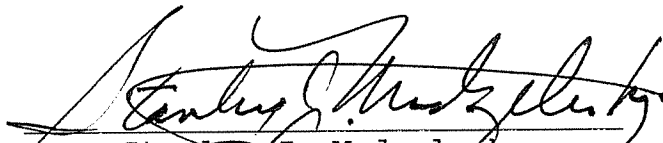
ATTEST:



Joel M. Rinebold
Executive Director
Connecticut Siting Council

I certify that a copy of the Findings of Fact, Opinion, and Decision and Order in Docket 161 have been forwarded by Certified First Class Return Receipt Requested mail on March 11, 1994, to all parties and intervenors of record as listed on the attached service list, dated December 7, 1993.

ATTEST:



Stanley J. Modzelesky
Executive Assistant
Connecticut Siting Council



CONNECTICUT SITING COUNCIL

Home About Us Pending Matters Decisions Forms Contact Us

- Filing Guides
- Meetings & Minutes
- Public Participation
- Audio Link to New Britain Hearing Rooms
- Programs & Services
- Telecommunications Database
- Maps
- Publications
- Other Resources
- Statutes & Regulations
- Frequently Asked Questions



Melanie Bachman,
Executive Director

NOTICE TO USERS

The Connecticut Siting Council posts filed documents to this site as a public service. The Council disclaims any liability for the content of submissions made by parties, intervenors, public officials, and the general public. Further, while the Council seeks to be complete in its postings, the Council urges users of this site to confirm with the submitter the completeness of the postings made. The posting of any document does not constitute or imply endorsement by the Connecticut Siting Council. Finally, the Connecticut Siting Council assumes no responsibility for the use of documents posted on this site.

For further information about the proper use of material posted on this site, please see the State of Connecticut [disclaimer](#).

Petition Staff Reports

[Printable Version](#)

Petition No. 697 Nextel Communications Durham, Connecticut May 11, 2005 Updated Staff Report

On November 4, 2004, the Connecticut Siting Council (Council) received a petition (Petition) from Nextel Communications of the Mid-Atlantic, Inc. d/b/a Nextel Communications (Nextel) for a declaratory ruling that no Certificate of Environmental Compatibility and Public Need is required for its proposed modifications to an existing monopole located at 143 Old Blue Hills Road, Durham. The existing monopole is 100' feet tall (without appurtenances). Nextel seeks to extend the monopole to 120' in order to remove their omni-directional whip antennas and install a platform of 12 panel antennas at the 115' level of the tower. This would require the relocation of certain town antennas. Nextel states that the proposed modification would improve frequency reuse, provide more control over the coverage footprint, provide greater localized coverage within the intended coverage area, and reduce interference to neighboring sites.

In the Petition, Nextel also originally sought to remove the Town of Durham's (Town) existing 30' whip antenna and replace it with a 14' whip antenna to be located on a 4' standoff arm at a height of 118'. (By letter dated November 18, 2004 (Town Letter), the Communications Coordinator for the Town stated that the 30' whip antenna does not exist.) Nextel also seeks to remove the Town's cellwave antenna and relocate it to a 4' standoff arm at a height of 118'. In addition, Nextel seeks to remove its existing equipment shelter and ice bridge located in the southwestern portion of the compound. Nextel would install a 10' x 20' equipment shelter, an ice bridge, and a concrete retaining wall within the fenced area in the northeastern side of the compound. Lastly, Nextel would remove three coaxial cables and install 12 coaxial cables within the proposed ice bridge to connect to the proposed panel antennas.

In the Town Letter, some possible discrepancies in the Petition were brought to the Council's attention. First, it was argued that the 30' whip antenna does not exist. Next, Verizon Wireless is not listed as an existing carrier. In addition, the Town's cellwave antenna is listed in the Petition as being located at the 122' level, whereas the Town Letter asserts that the height is 112'7". The Airspace Obstruction report lists the structure height at 500', in apparent conflict with the height in the Petition. The Town Letter also argues that total height with appurtenances is currently 124' and would reach 132' with the proposed modifications.

The Town Letter also included some additional concerns about the proposed project. It is recommended that at least one spare underground conduit be installed prior to the installation of the equipment building, as it would not be possible to access the area underneath the building later. Concerns were expressed regarding access to the emergency generator. Also, some structural concerns were expressed such whether the side arm mounting was taken into account, as well as weight and wind load of the Model 101-68-10-3-03N antenna. Additional structural concerns include the possibility of having to mount the antenna cables on the outside of the monopole, the possible cutting of cable ports into the tower, and a possible redundant dish listing in the tower inventory. Visibility concerns related to the appurtenances were also expressed. Also, a list of recommended conditions was included.

On December 16, 2004, staff issued a first set of interrogatories to investigate the issues brought to light in the Town Letter. On December 21, 2004, the Council received a request for a hearing from the Town. The petition was field reviewed on January 4, 2005 by Council member Daniel P. Lynch, Jr. and Mike Perrone of the Council staff.

On February 23, 2005, the Council received the responses to the interrogatories and a filing correcting the errors in the original application. (Originally, the petition had incorrectly stated that there is an existing 30' town whip antenna which extends to a maximum height of 132'.) The whip is actually 14' tall and makes the existing total height with appurtenances 122'.

The applicant has originally stated in the petition that the total height with appurtenances would remain unchanged with the proposed modifications (i.e. the total height with appurtenances would remain at 132', despite the 20' increase in the monopole height). This has since been corrected. The total height with appurtenances would in fact increase from 122' to 132' with the proposed modifications.

A revised abutters notice was sent on February 17, 2005 to correct the original notice. (The original notice had indicated that there would be no increase in the total height with appurtenances.) The revised notice properly informed the abutters that the total height would in fact increase.

There are 19 homes within a 1000' radius of the tower. The closest home is 350' away and is located on 40 Stephen Woods Lane. The tower is and would still be visible from this home with the proposed modifications.

The incremental visual impact would be largely due to the additional platform, as seen in the photo simulation. The viewshed analysis indicates that the tower is visible both seasonally, as well as year round from portions of Old Blue Hills Road adjacent to the site. During the field review, staff observed that the tower is indeed visible from the home on the opposite side of Old Blue Hills Road.

The worst-case power density at the base of the tower would be 23.28% of the maximum permissible exposure. No antenna transmission cables would be located on the outside of the monopole. In response to the structural concerns in the Town Letter, Nextel has indicated that the 4' standoff arm, as well as the cellwave antenna have been taken into account structurally. Nextel also noted that a 5' walkway to be located between the existing shelter and the proposed Nextel shelter would not affect access to the emergency generator. Nextel also notes that the existing Verizon antennas are taken into account in the structural analysis. Lastly, Nextel would work with the Town to maintain the continuity of the Town's emergency services while the construction is taking place.

On April 26, 2005, Nextel held a public meeting to address any outstanding concerns that neighbors or the Town had regarding its proposal. The residents' concerns were singularly related to RF emissions. Nextel explained the dynamics of RF emissions and reiterated that the site total would be approximately 23 % of the allowable total. Nextel then met with First Selectwoman Maryann Boord and the Town's technical expert Scott Wright.

By letter dated April 27, 2005, Nextel listed and responded to all of the concerns of the Town and agreed to meet all conditions, including not limited to: installing a spare 3" and 4" conduit; locating all cables within the tower; minimizing the Town's off-air time during construction; providing sufficient headroom under the antennas; replacement of the Town's dipole antenna; including a jumper at the antenna end to allow for cable movement; and temporary bracing of Town microwave antenna.

Content Last Modified on 5/18/2005 10:48:36 AM

Ten Franklin Square New Britain, CT 06051 / 860-827-2935

[Home](#) | [CT.gov Home](#) | [Send Feedback](#) | [Login](#) | [Register](#)

State of Connecticut [Disclaimer](#), [Privacy Policy](#), and [Web Site Accessibility Policy](#). Copyright © 2002-2019 State of Connecticut.



Exhibit B

Property Card



Property Card: OLD BLUE HILLS RD
Town of Durham, CT



Parcel ID: 69-12
Account #: B0016900

Owner: BEHRENS FRANCIS E JR
Mailing Address: 109 OLD BLUE HILLS RD
DURHAM, CT 06422-3005

General Information	Assessed Value
<p>State Class: 130 Class: R Census-Tract: 5851 District No.: M Neighborhood: 80 Zone: FR Total Acres: 6.31</p>	<p>Land: \$126,400 Buildings: \$0 Total: \$2,030</p>
Sale History	
<p>Book/Page: 100-255 Deed Date: 19840824 Sale Date: Sale Type: 0 Sale Price: 0</p>	
Building Details	
<p>Living Units: 0 Style: 0 Year Built: 0 Effective Year Built: 0 Ture TLA: 0 Stories: 0 Total Rooms: 0 Total Bedrooms: 0 Number Full Baths: 0 Number Half Baths: 0 WB/FP Openings: 0 Heating Type: 0 Heating Fuel Type: 0</p>	<p>Basement: 0 FBLA Size: 0 Attic: 0 Exterior Walls: 0 Basement / Garage: 0</p>



www.cai-tech.com

Data shown on this report is provided for planning and informational purposes only. The municipality and CAI Technologies are not responsible for any use for other purposes or misuse or misrepresentation of this report.

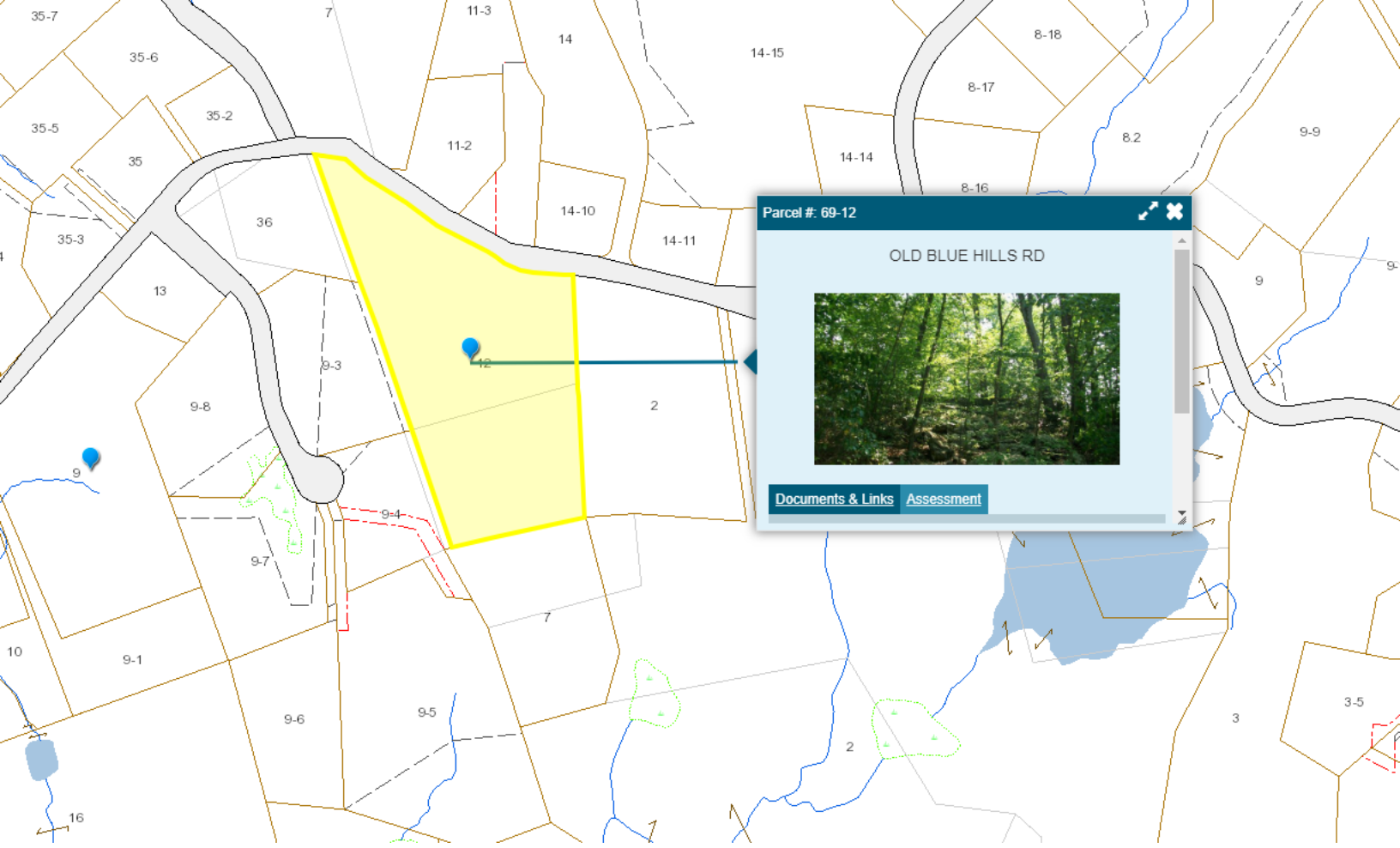
BUILDING SKETCH

	<u>Descriptor/Area</u>



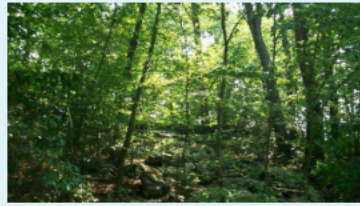
www.cai-tech.com

Data shown on this report is provided for planning and informational purposes only. The municipality and CAI Technologies are not responsible for any use for other purposes or misuse or misrepresentation of this report.



Parcel #: 69-12

OLD BLUE HILLS RD



Documents & Links Assessment

Exhibit C

Construction Drawings



AT&T SITE NUMBER: CT5841
AT&T SITE NAME: DURHAM CENTRAL
AT&T FA CODE: 10071003
AT&T PACE NUMBER: MRCTB047193
AT&T PROJECT: LTE 6C

BUSINESS UNIT #: 806364
SITE ADDRESS: 143 R OLD BLUE HILL ROAD
COUNTY: DURHAM, CT 06422
SITE TYPE: MIDDLESEX
TOWER HEIGHT: MONOPOLE
 120'-0"



AT&T SITE NUMBER: CT5841
 BU #: 806364
 HRT 106(B) 943202
 143 R OLD BLUE HILL ROAD
 DURHAM, CT 06422
 EXISTING 120'-0" MONOPOLE

SITE INFORMATION	
CROWN CASTLE USA INC.	HRT 106(B) 943202
SITE NAME:	
SITE ADDRESS:	143 R OLD BLUE HILL ROAD DURHAM, CT 06422
COUNTY:	MIDDLESEX
MAP/PARCEL #:	MAP 09/LOT 12
AREA OF CONSTRUCTION:	EXISTING
LATITUDE:	41° 27' 33.67"
LONGITUDE:	-72° 39' 45.83"
LAT/LONG TYPE:	NAD83
GROUND ELEVATION:	517 FT.
CURRENT ZONING:	NOT REQUIRED
JURISDICTION:	TOWN OF DURHAM
OCCUPANCY CLASSIFICATION:	U
TYPE OF CONSTRUCTION:	11B
A.D.A. COMPLIANCE:	FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION
PROPERTY OWNER:	GLOBAL SIGNAL ACQUISITIONS IV LLC PO BOX 27455 ATLANTA, GA 30384-7455
TOWER OWNER:	CROWN ATLANTIC COMPANY LLC 2000 CORPORATE DRIVE CANONSBURG, PA 15317
CARRIER/APPLICANT:	AT&T TOWER ASSET GROUP 575 MOROSGO DRIVE ATLANTA, GA 30324-3300
ELECTRIC PROVIDER:	CONNECTICUT LIGHT & POWER CO (800) 286-2000
TELCO PROVIDER:	LIGHTTOWER (866) 518-5635

DRAWING INDEX	
SHEET #	SHEET DESCRIPTION
T-1	TITLE SHEET
T-2	GENERAL NOTES
C-1.1	SITE PLAN
C-1.2	EXISTING & FINAL EQUIPMENT PLANS
C-2	FINAL ELEVATION & ANTENNA PLANS
C-3	FINAL EQUIPMENT SCHEDULE
C-4	MOUNTING ELEVATION & EQUIPMENT SPECS
E-1	POWER ANALYSIS
G-1	GROUNDING SCHEMATIC
G-2	GROUNDING DETAILS
ATTACHED	PLUMBING DIAGRAM
ATTACHED	MOUNT SPECIFICATIONS

ALL DRAWINGS CONTAINED HEREIN ARE FORMATTED FOR 11X17. 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 CTVOC.COM
CELL 2 WORKING DIALS
BEFORE YOU DIG



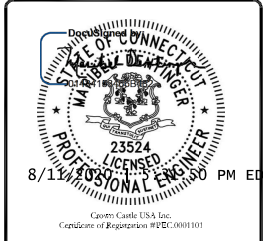
PROJECT TEAM	
A&E FIRM:	CROWN CASTLE USA INC. 2000 CORPORATE DRIVE CANONSBURG, PA 15317 CROWN.AE.APPROVAL@CROWNCastle.COM
CROWN CASTLE USA INC. DISTRICT CONTACTS:	3 CORPORATE PARK DRIVE, SUITE 101 CLIFTON PARK, NY 12065
	VERONICA DELLA - PROJECT MANAGER (610) 635-3222
	JASON D'AMICO - CONSTRUCTION MANAGER (860) 209-0104

PROJECT DESCRIPTION
THE PURPOSE OF THIS PROJECT IS TO ENHANCE BROADBAND CONNECTIVITY AND CAPACITY TO THE EXISTING ELIGIBLE WIRELESS FACILITY.
TOWER SCOPE OF WORKS: <ul style="list-style-type: none"> REMOVE (1) PLATFORM MOUNT INSTALL (1) SITE PRO 1 - RMQLP-4964K PLATFORM MOUNT INSTALL (3) VALMONT - RRCDISM DUAL SWIVEL MOUNTS INSTALL (1) 2-1/2" SCH 40 (2-7/8" O.D.) BY 6-0" LONG GALV. PIPE W/ CROSSOVER HARDWARE INSTALL (3) ERICSSON - 4478 B14 RRC's INSTALL (1) RAYCAP - DCG-4840-18-8C-EV SQUID INSTALL (2) DC CABLES
GROUND SCOPE OF WORKS: <ul style="list-style-type: none"> REMOVE (1) SMU

INSTALLER NOTE:
 NO PROPOSED LOADING TO BE ADDED UNTIL MOUNT SWAP IS COMPLETE. CONTRACTOR TO INSTALL MOUNT PER MANUFACTURER'S SPECIFICATIONS.

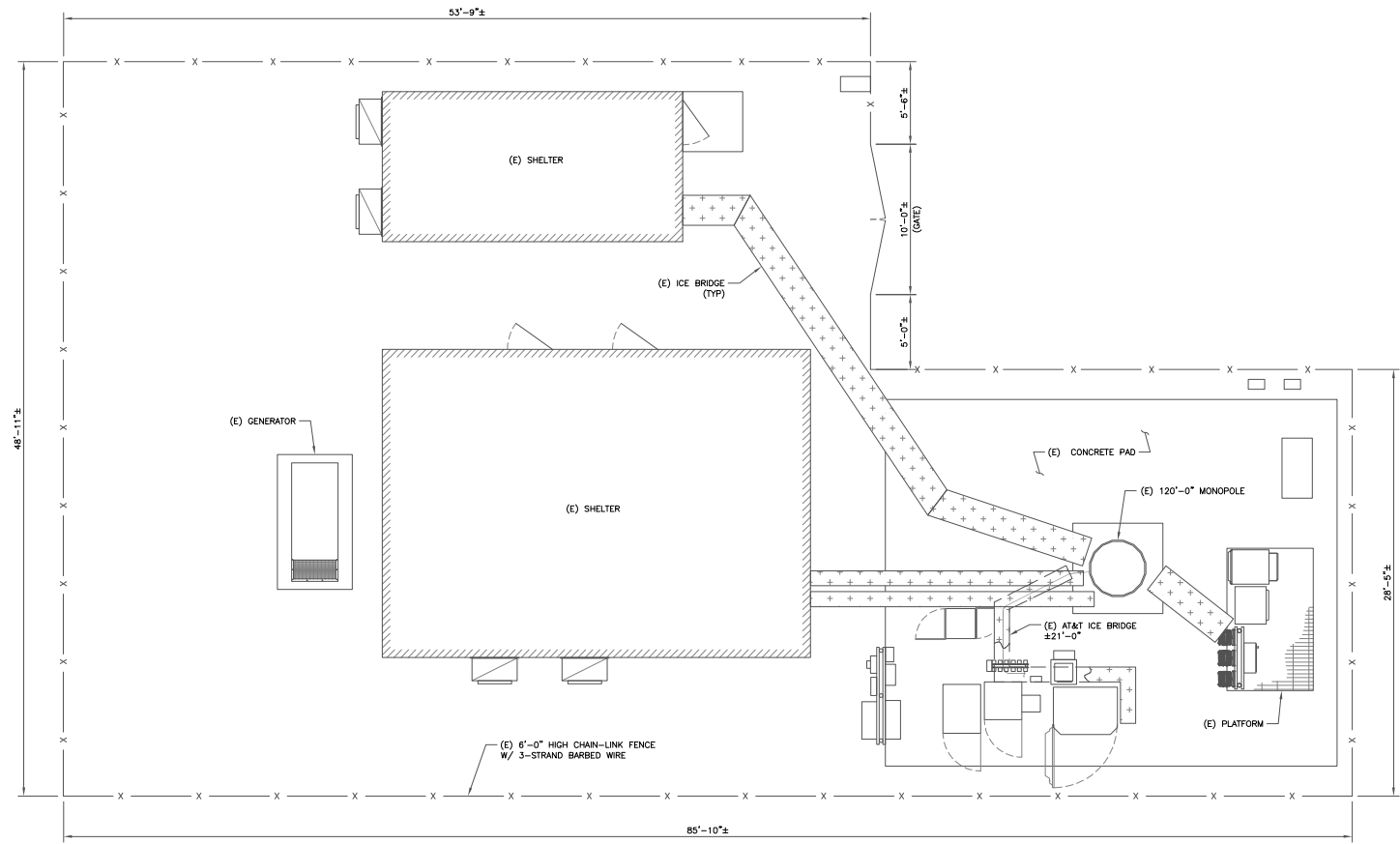
APPLICABLE CODES/REFERENCE DOCUMENTS								
ALL WORK SHALL BE PERFORMED AND MATERIALS INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES:								
<table border="0"> <tr> <td>CODE TYPE</td> <td>CODE</td> </tr> <tr> <td>BUILDING</td> <td>2018 CT STATE BUILDING CODE/2015 IBC W/ CT AMENDMENTS</td> </tr> <tr> <td>MECHANICAL</td> <td>2018 CT STATE BUILDING CODE/2015 IMC W/ CT AMENDMENTS</td> </tr> <tr> <td>ELECTRICAL</td> <td>2018 CT STATE BUILDING CODE/2017 NEC W/ CT AMENDMENTS</td> </tr> </table>	CODE TYPE	CODE	BUILDING	2018 CT STATE BUILDING CODE/2015 IBC W/ CT AMENDMENTS	MECHANICAL	2018 CT STATE BUILDING CODE/2015 IMC W/ CT AMENDMENTS	ELECTRICAL	2018 CT STATE BUILDING CODE/2017 NEC W/ CT AMENDMENTS
CODE TYPE	CODE							
BUILDING	2018 CT STATE BUILDING CODE/2015 IBC W/ CT AMENDMENTS							
MECHANICAL	2018 CT STATE BUILDING CODE/2015 IMC W/ CT AMENDMENTS							
ELECTRICAL	2018 CT STATE BUILDING CODE/2017 NEC W/ CT AMENDMENTS							
REFERENCE DOCUMENTS: STRUCTURAL ANALYSIS: BY OTHERS DATED: MOUNT ANALYSIS: KIMLEY-HORN AND ASSOCIATES, INC. DATED: JULY 21, 2020 RFDS REVISION: BRONZE STANDARD DATED: 04/20/20 ORDER ID: 517085 REVISION: 0								
NOTE: PRIOR TO ACCESSING/ENTERING THE SITE YOU MUST CONTACT THE CROWN NOC AT (800) 788-7011 & CROWN CONSTRUCTION MANAGER.								

ISSUED FOR:				
REV	DATE	DRWN	DESCRIPTION	DES./QA
A	05/08/20	AI	PRELIMINARY	1.R
B	05/21/20	AI	PRELIMINARY	1.R
C	07/30/20	AI	PRELIMINARY	1.R
D	08/11/20	AI	CONSTRUCTION	31D



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

SHEET NUMBER: T-1	REVISION: 0
------------------------------------	------------------------------



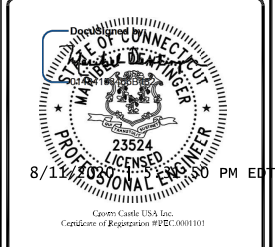
1 SITE PLAN
 SCALE: 1/4"=1'-0" (FULL SIZE)
 1/8"=1'-0" (1x17)



AT&T SITE NUMBER: CT5841
 BU #: 806364
 HRT 106(B) 943202
 143 R OLD BLUE HILL ROAD
 DURHAM, CT 06422
 EXISTING 120'-0" MONOPOLE

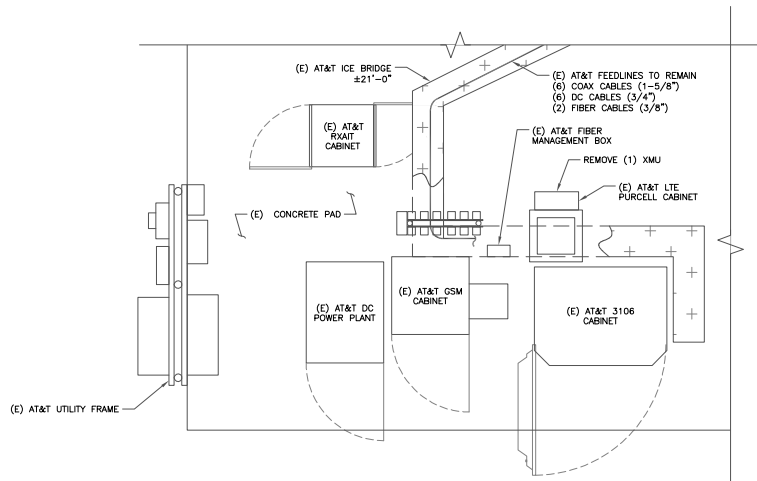
ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
A	05/08/20	AI	PRELIMINARY	LR
B	05/21/20	AI	PRELIMINARY	LR
C	07/30/20	AI	PRELIMINARY	LR
D	08/11/20	AI	CONSTRUCTION	MD



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

SHEET NUMBER: C-1.1 REVISION: 0

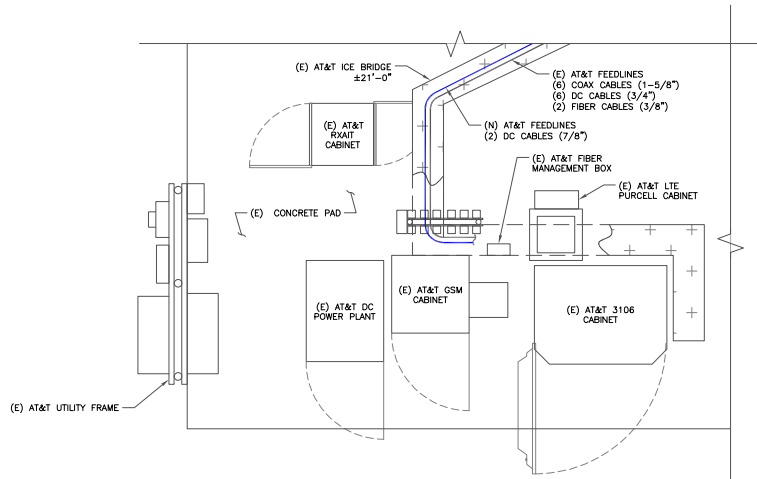


1 EXISTING EQUIPMENT PLAN
 SCALE: 1/2"=1'-0" (FULL SIZE)
 1/4"=1'-0" (1:1x17)



GROUND SCOPE OF WORK:

- REMOVE (1) XMU



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



AT&T SITE NUMBER: CT5841

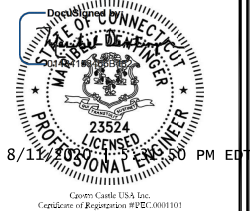
BU #: 806364
 HRT 106(B) 943202

143 R OLD BLUE HILL ROAD
 DURHAM, CT 06422

EXISTING 120'-0" MONOPOLE

ISSUED FOR:

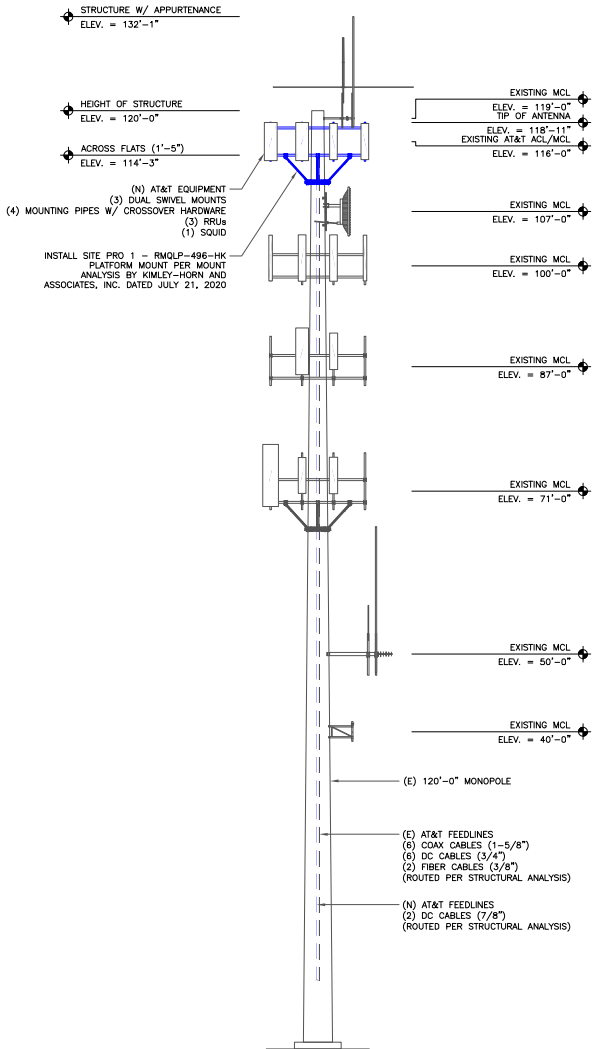
REV	DATE	DRWN	DESCRIPTION	DES./QA
A	05/08/20	AI	PRELIMINARY	LR
B	05/21/20	AI	PRELIMINARY	LR
C	07/30/20	AI	PRELIMINARY	LR
D	08/11/20	AI	CONSTRUCTION	MD



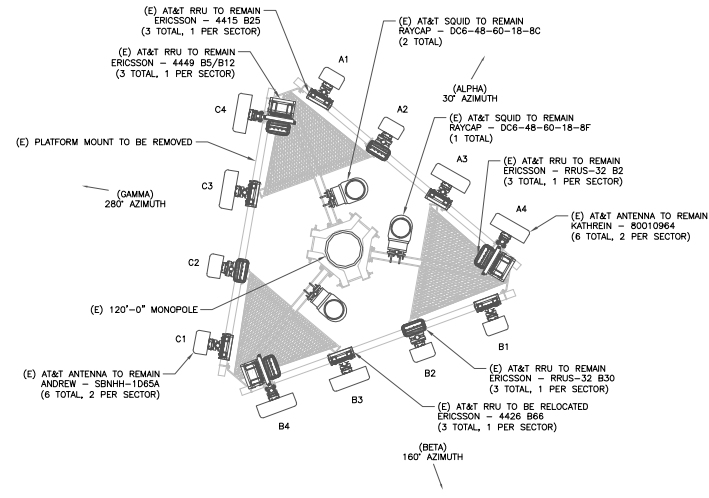
Copyright © 2020 Crown Castle USA, Inc.
 Certificate of Registration #2EC0001101

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

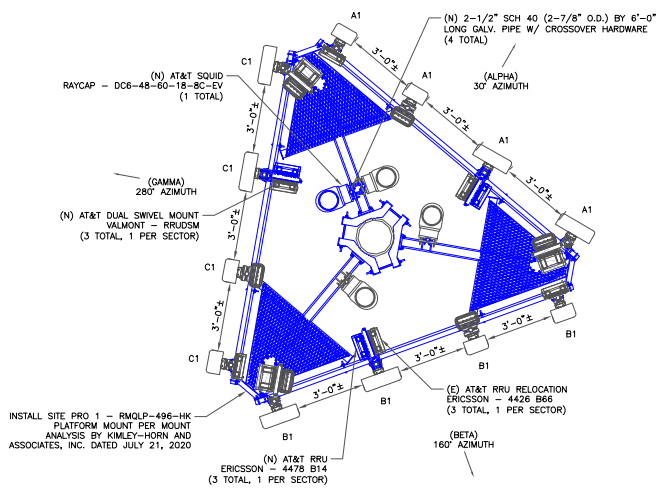
SHEET NUMBER: C-1.2 REVISION: 0



1 FINAL ELEVATION
SCALE: NOT TO SCALE



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



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

LOOK UP! - CROWN CASTLE USA INC. SAFETY CLIMB REQUIREMENTS

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 NCC 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. 4'-0" MINIMUM DISTANCE REQUIRED BETWEEN LTE 700 ANTENNAS ON OPPOSING SECTORS.
6. ALL ANTENNA MEASUREMENT DISTANCES MUST BE EDGE TO EDGE. (RELOCATE ANTENNAS AS NEEDED).
7. 6" MINIMUM DISTANCE REQUIRED BETWEEN ANTENNA & RADIO. SEE GENERIC EXAMPLE DETAIL ON SHEET C-4.



AT&T SITE NUMBER: CT5841

BU #: 806364
HRT 106(B) 943202

143 R OLD BLUE HILL ROAD
DURHAM, CT 06422

EXISTING 120'-0" MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
A	05/08/20	A1	PRELIMINARY	1.R
B	05/21/20	A1	PRELIMINARY	1.R
C	07/30/20	A1	PRELIMINARY	1.R
D	08/11/20	A1	CONSTRUCTION	31D



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

SHEET NUMBER: C-2
REVISION: 0

FINAL EQUIPMENT SCHEDULE
(VERIFY WITH CURRENT RFDS)

ALPHA																			
POSITION	ANTENNA				RADIO			DIPLEXER			TMA		SURGE PROTECTION		CABLES				
	TECH.	STATUS/MANUFACTURER	MODEL	AZIMUTH	RAD CENTER	QTY.	STATUS/MODEL	LOCATION	QTY.	STATUS	LOCATION	QTY.	STATUS	QTY.	STATUS/MODEL	QTY.	STATUS/TYPE	SIZE	LENGTH
A1	UMTS LTE	(E) ANDREW	SBNHH-1D65A	30'	116'-0"	1	(E) 4415 B25	TOWER	-	-	-	-	-	-	2	(E) COAX	1-5/8"	116'-0"	
A2	LTE	(E) ANDREW	SBNHH-1D65A	30'	116'-0"	1	(E) RRUS-32 B30	TOWER	-	-	-	-	-	1	(E) DC6-48-60-18-8F	2	(E) DC	3/4"	116'-0"
A3	LTE	(E) KATHREIN	800-10964	30'	116'-0"	1	(E) 4426 B66	TOWER	-	-	-	-	-	2	(E) DC6-48-60-18-8C	4	(E) DC	3/4"	116'-0"
						1	(N) 4478 B14	TOWER	-	-	-	-	-	2	(E) FIBER	3/8"	116'-0"		
A4	LTE 5G	(E) KATHREIN	800-10964	30'	116'-0"	1	(E) RRUS-32 B2	TOWER	-	-	-	-	-	1	(N) DC6-48-60-18-8C-EV	2	(N) DC	7/8"	116'-0"
						1	(E) 4449 B5/B12	TOWER	-	-	-	-	-	-	-	-	-		
BETA																			
B1	UMTS LTE	(E) ANDREW	SBNHH-1D65A	160'	116'-0"	1	(E) 4415 B25	TOWER	-	-	-	-	-	-	2	(E) COAX	1-5/8"	116'-0"	
B2	LTE	(E) ANDREW	SBNHH-1D65A	160'	116'-0"	1	(E) RRUS-32 B30	TOWER	-	-	-	-	-	-	-	-	-	-	
B3	LTE	(E) KATHREIN	800-10964	160'	116'-0"	1	(E) 4426 B66	TOWER	-	-	-	-	-	-	-	-	-	-	
						1	(N) 4478 B14	TOWER	-	-	-	-	-	-	-	-			
B4	LTE 5G	(E) KATHREIN	800-10964	160'	116'-0"	1	(E) RRUS-32 B2	TOWER	-	-	-	-	-	-	-	-	-	-	
						1	(E) 4449 B5/B12	TOWER	-	-	-	-	-	-	-	-			
GAMMA																			
C1	UMTS LTE	(E) ANDREW	SBNHH-1D65A	280'	116'-0"	1	(E) 4415 B25	TOWER	-	-	-	-	-	-	2	(E) COAX	1-5/8"	116'-0"	
C2	LTE	(E) ANDREW	SBNHH-1D65A	280'	116'-0"	1	(E) RRUS-32 B30	TOWER	-	-	-	-	-	-	-	-	-	-	
C3	LTE	(E) KATHREIN	800-10964	280'	116'-0"	1	(E) 4426 B66	TOWER	-	-	-	-	-	-	-	-	-	-	
						1	(N) 4478 B14	TOWER	-	-	-	-	-	-	-				
C4	LTE 5G	(E) KATHREIN	800-10964	280'	116'-0"	1	(E) RRUS-32 B2	TOWER	-	-	-	-	-	-	-	-	-	-	
						1	(E) 4449 B5/B12	TOWER	-	-	-	-	-	-	-				

NOTE:
(E) - EXISTING
(N) - NEW



AT&T SITE NUMBER: CT5841

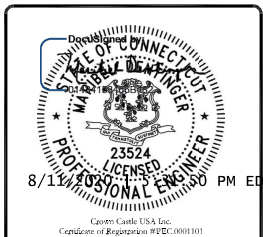
BU #: 806364
HRT 106(B) 943202

143 R OLD BLUE HILL ROAD
DURHAM, CT 06422

EXISTING 120'-0" MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
A	05/08/20	AI	PRELIMINARY	LR
B	05/21/20	AI	PRELIMINARY	LR
C	07/30/20	AI	PRELIMINARY	LR
D	08/11/20	AI	CONSTRUCTION	MD



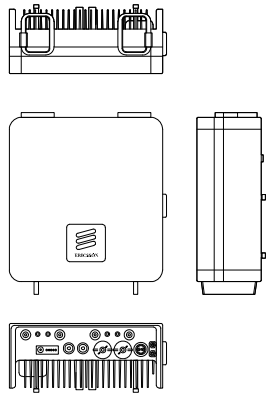
8/11/2020 3:50 PM EDT

Capgemini Castle USA, Inc.
Certificate of Registration #PEC0001101

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

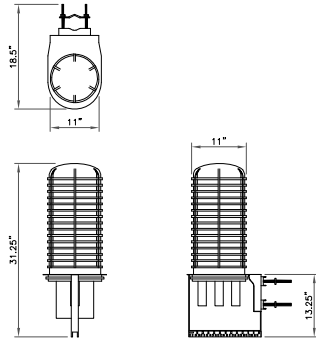
SHEET NUMBER: **C-3** REVISION: **0**

1 FINAL EQUIPMENT SCHEDULE
SCALE: NOT TO SCALE



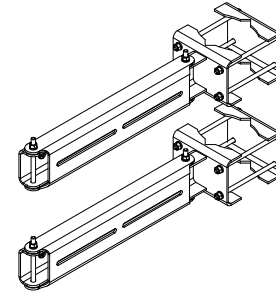
ERICSSON - RRU4478 B14
WEIGHT: 80.0 LBS
SIZE (HxWxD): 15.0x13.0x8.0 IN.

① ERICSSON - RRU4478 B14
SCALE: NOT TO SCALE



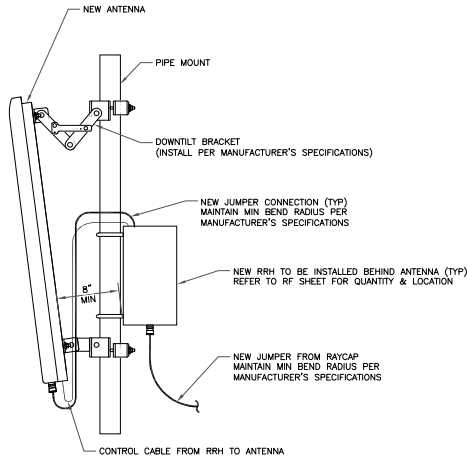
RAYCAP - DC6-48-60-0-8C-EV
SIZE: 11x31.25 IN.
WEIGHT: 32.8 LBS
NOMINAL OPERATING VOLTAGE: 48 VDC
VOLTAGE PROTECTION RATING: 400 V
WIND LOADING: 150 MPH SUSTAINED (105.7 LBS)
WIND LOADING: 195 MPH GUST (213.6 LBS)
CONTRACTOR TO USE "THREAD LUBRICANT" ON MOUNTING BOLTS DURING INSTALLATION

② RAYCAP - DC6-48-60-0-8C-EV
SCALE: NOT TO SCALE



VALMONT - RRUDSM
DUAL SWIVEL MOUNT KITS FOR RRU8
(2 SWIVEL MOUNTS PER KIT)

③ VALMONT - RRUDSM
SCALE: NOT TO SCALE



④ GENERIC ANTENNA MOUNTING ELEVATION
SCALE: NOT TO SCALE

⑤ NOT USED
SCALE: NOT TO SCALE

⑥ NOT USED
SCALE: NOT TO SCALE



AT&T SITE NUMBER: CT5841

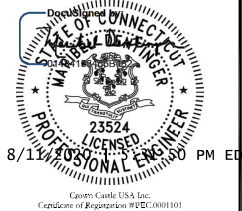
BU #: 806364
HRT 106(B) 943202

143 R OLD BLUE HILL ROAD
DURHAM, CT 06422

EXISTING 120'-0" MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
A	05/08/20	AI	PRELIMINARY	LR
B	05/21/20	AI	PRELIMINARY	LR
C	07/30/20	AI	PRELIMINARY	LR
D	08/11/20	AI	CONSTRUCTION	MD



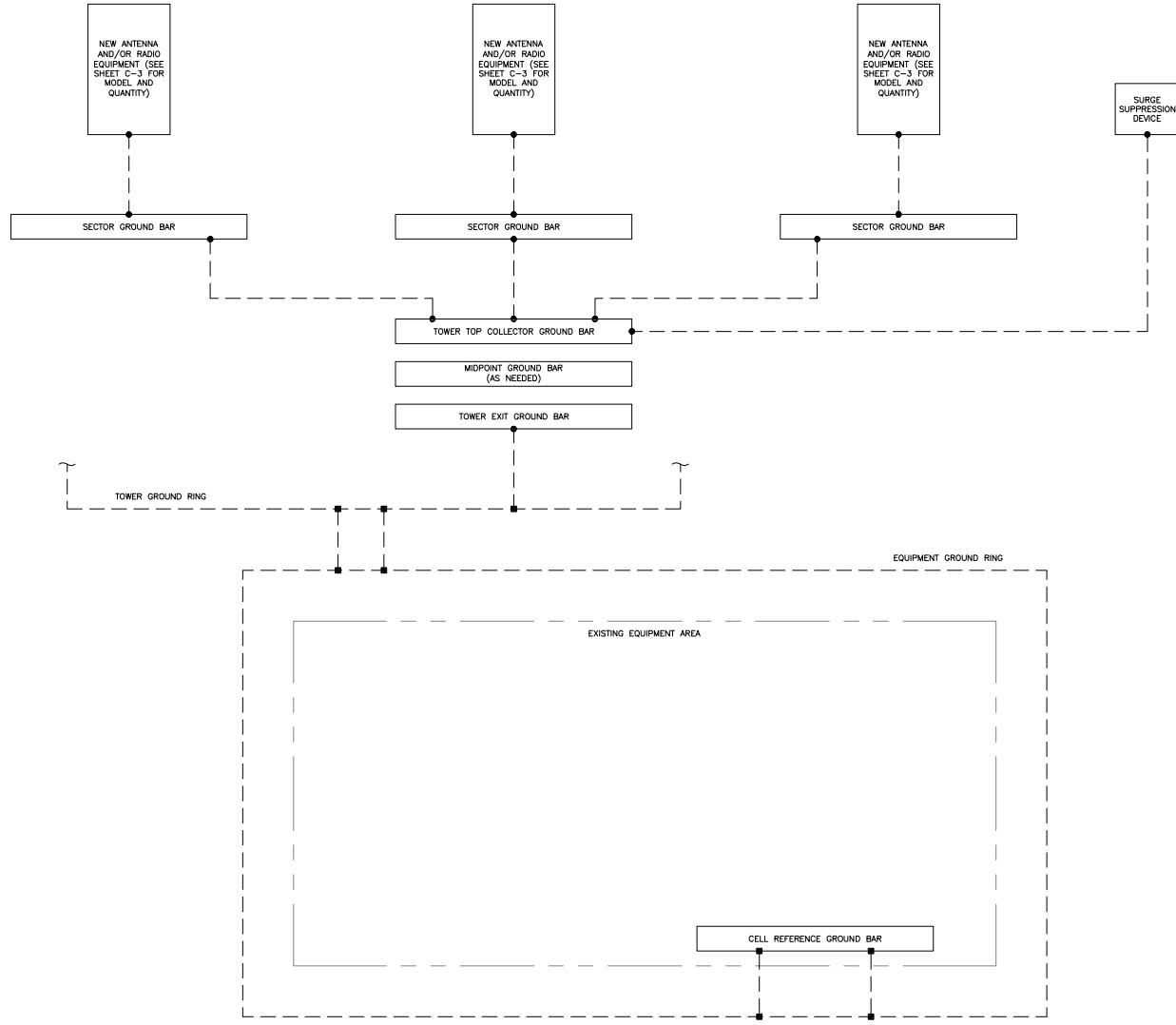
Copyright © 2020 Crown Castle USA, Inc.
Certificate of Registration #20C0001101

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

SHEET NUMBER: REVISION:

C-4

0



1 GROUNDING SCHEMATIC
SCALE: NOT TO SCALE

GROUNDING PLAN LEGEND:

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

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.

575 MOROSGO DRIVE
ATLANTA, GA 30324-3300

3 CORPORATE PARK DRIVE, SCITE 101
CLIFTON PARK, NY 12065

AT&T SITE NUMBER: **CT5841**

BU #: **806364**
HRT **106(B) 943202**

143 R OLD BLUE HILL ROAD
DURHAM, CT 06422

EXISTING 120'-0" MONOPOLE

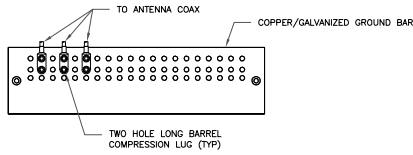
ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
A	05/08/20	AI	PRELIMINARY	LR
B	05/21/20	AI	PRELIMINARY	LR
C	07/30/20	AI	PRELIMINARY	LR
D	08/11/20	AI	CONSTRUCTION	MD

David J. DeAngelis
STATE OF CONNECTICUT
DAVID J. DEANGELOS
PROFESSIONAL ENGINEER
LICENSED
23524
8/11/2020 10:30 PM EDT
Crown Castle USA, Inc.
Certificate of Registration #PEC0001001

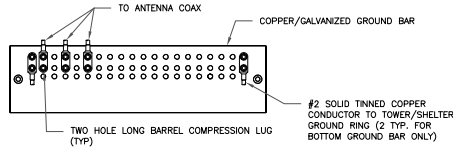
IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

SHEET NUMBER: **G-1** REVISION: **0**



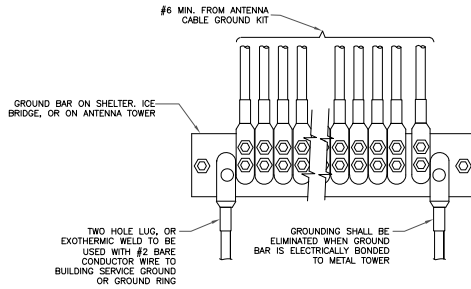
- NOTES:
1. DOUBLING UP "OR STACKING" OF CONNECTIONS IS NOT PERMITTED.
 2. EXTERIOR ANTIOXIDANT JOINT COMPOUND TO BE USED ON ALL EXTERIOR CONNECTIONS.
 3. GROUND BAR SHALL NOT BE ISOLATED FROM TOWER. MOUNT DIRECTLY TO ANTENNA MOUNT STEEL.

1 ANTENNA SECTOR GROUND BAR DETAIL
SCALE: NOT TO SCALE

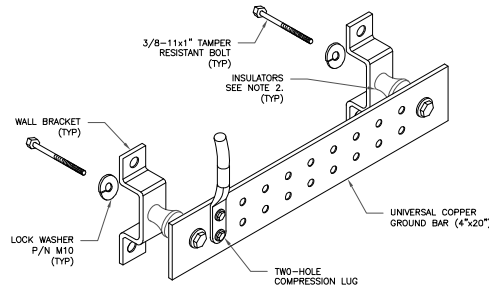


- NOTES:
1. EXTERIOR ANTIOXIDANT JOINT COMPOUND TO BE USED ON ALL EXTERIOR CONNECTIONS.
 2. GROUND BAR SHALL NOT BE ISOLATED FROM TOWER. MOUNT DIRECTLY TO TOWER STEEL (TOWER ONLY).
 3. GROUND BAR SHALL BE ISOLATED FROM BUILDING OR SHELTER.

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

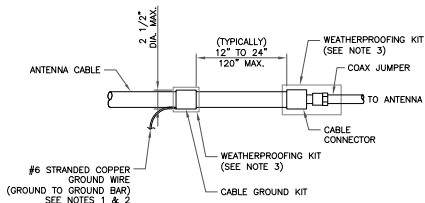


4 GROUNDWIRE INSTALLATION
SCALE: NOT TO SCALE



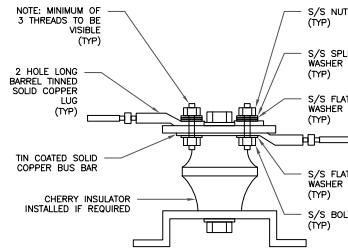
- NOTES:
1. DOWN LEAD (HOME RUN) CONDUCTORS ARE NOT TO BE INSTALLED ON CROWN CASTLE USA INC. TOWER. PER THE GROUNDING DOWN CONDUCTOR POLICY GAS-STD-10091. NO MODIFICATION OR DRILLING TO TOWER STEEL IS ALLOWED IN ANY FORM OR FASHION. CAD-WELDING ON THE TOWER AND/OR IN THE AIR ARE NOT PERMITTED.
 2. OMIT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



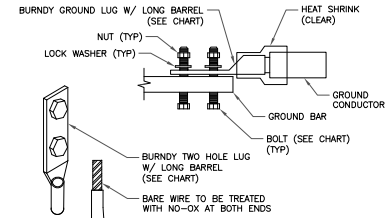
- NOTES:
1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.
 2. GROUNDING KIT SHALL BE TYPE AND PART NUMBER AS SUPPLIED OR RECOMMENDED BY CABLE MANUFACTURER.
 3. WEATHER PROOFING SHALL BE TWO-PART TAPE KIT, COLD SHRINK SHALL NOT BE USED.

6 CABLE GROUND KIT CONNECTION
SCALE: NOT TO SCALE



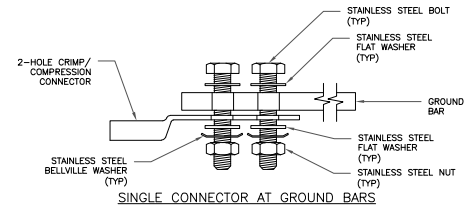
7 LUG DETAIL
SCALE: NOT TO SCALE

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

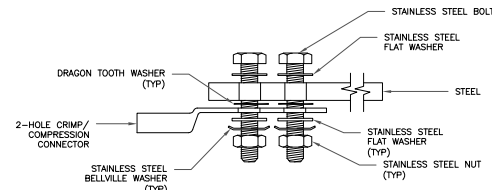


- NOTE:
- ALL GROUNDING LUGS ARE TO BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS. ALL HARDWARE BOLTS, NUTS, LOCK WASHERS SHALL BE STAINLESS STEEL. ALL HARDWARE ARE TO BE AS FOLLOWS: BOLT, TYP WASHER, GROUND BAR, GROUND LUG, FLAT WASHER AND NUT.

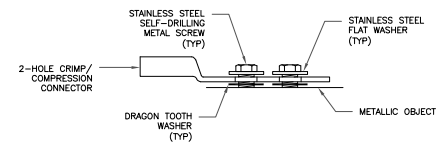
3 MECHANICAL LUG CONNECTION
SCALE: NOT TO SCALE



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



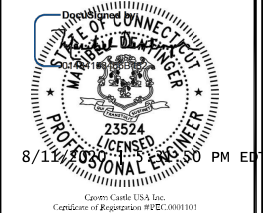
AT&T SITE NUMBER: CT5841

BU #: 806364
HRT 106(B) 943202

143 R OLD BLUE HILL ROAD
DURHAM, CT 06422

EXISTING 120'-0" MONOPOLE

ISSUED FOR:				
REV	DATE	DRWN	DESCRIPTION	DES./QA
A	05/08/20	AI	PRELIMINARY	1.R
B	05/21/20	AI	PRELIMINARY	1.R
C	07/30/20	AI	PRELIMINARY	1.R
D	08/11/20	AI	CONSTRUCTION	31D



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

SHEET NUMBER: **G-2** REVISION: **0**

Diagram - Sector A Diagram File Name - CT5841_A_B_C_LTE_Rev2.vsd
 Atoll Site Name - CTLD5841 Location Name - DURHAM CENTRAL Market - CONNECTICUT Market Cluster - NEW ENGLAND
 Comments - Important Note: For detailed radio to antenna wiring refer to the latest field notice - Antenna Radio Connection Drawings Playbook v6.0 Ericsson

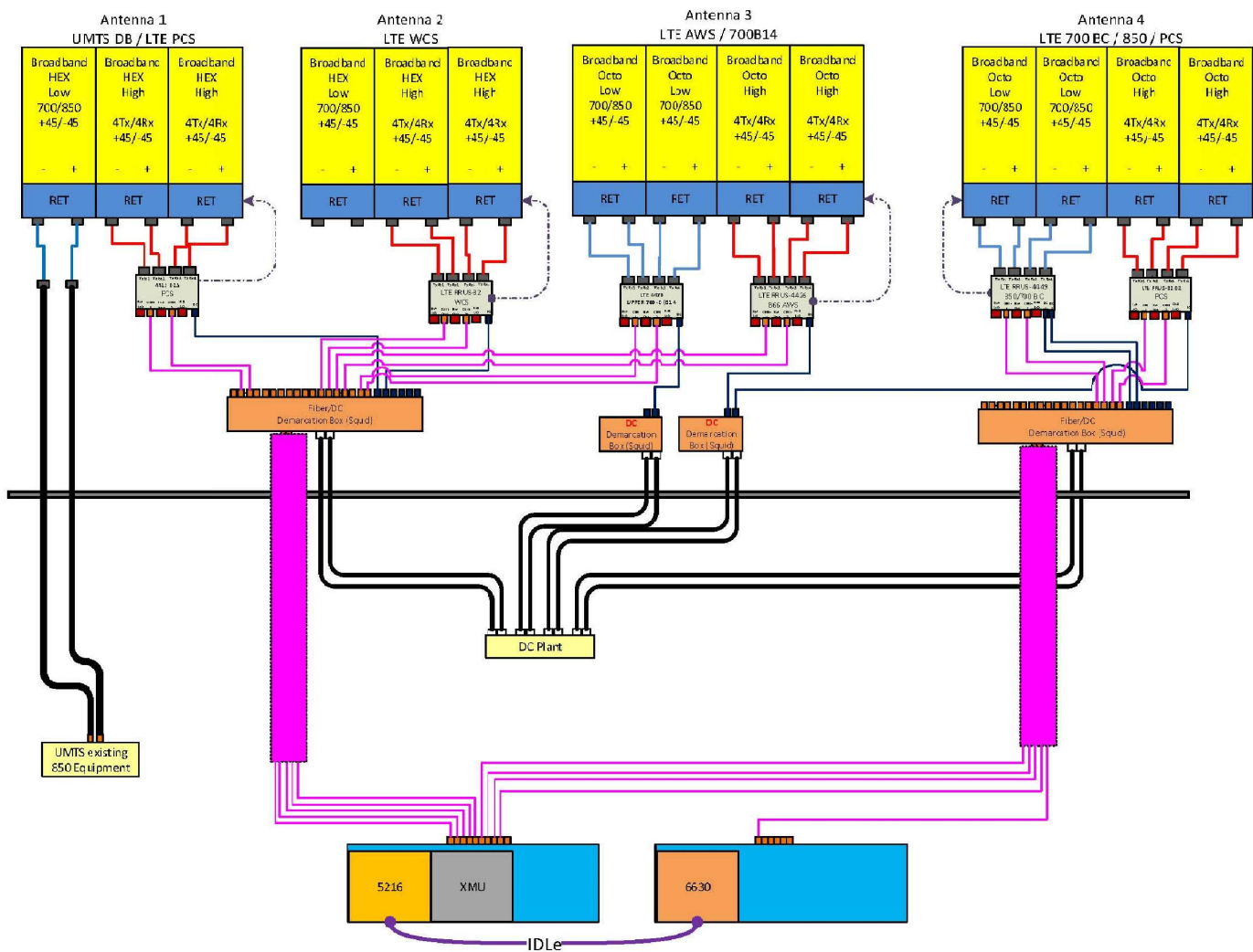


Diagram - Sector B Diagram File Name - CT5841_A_B_C_LTE_Rev2.vsd
 Atoll Site Name - CTLD5841 Location Name - DURHAM CENTRAL Market - CONNECTICUT Market Cluster - NEW ENGLAND
 Comments - Important Note: For detailed radio to antenna wiring refer to the latest field notice - Antenna Radio Connection Drawings Playbook v6.0 Ericsson

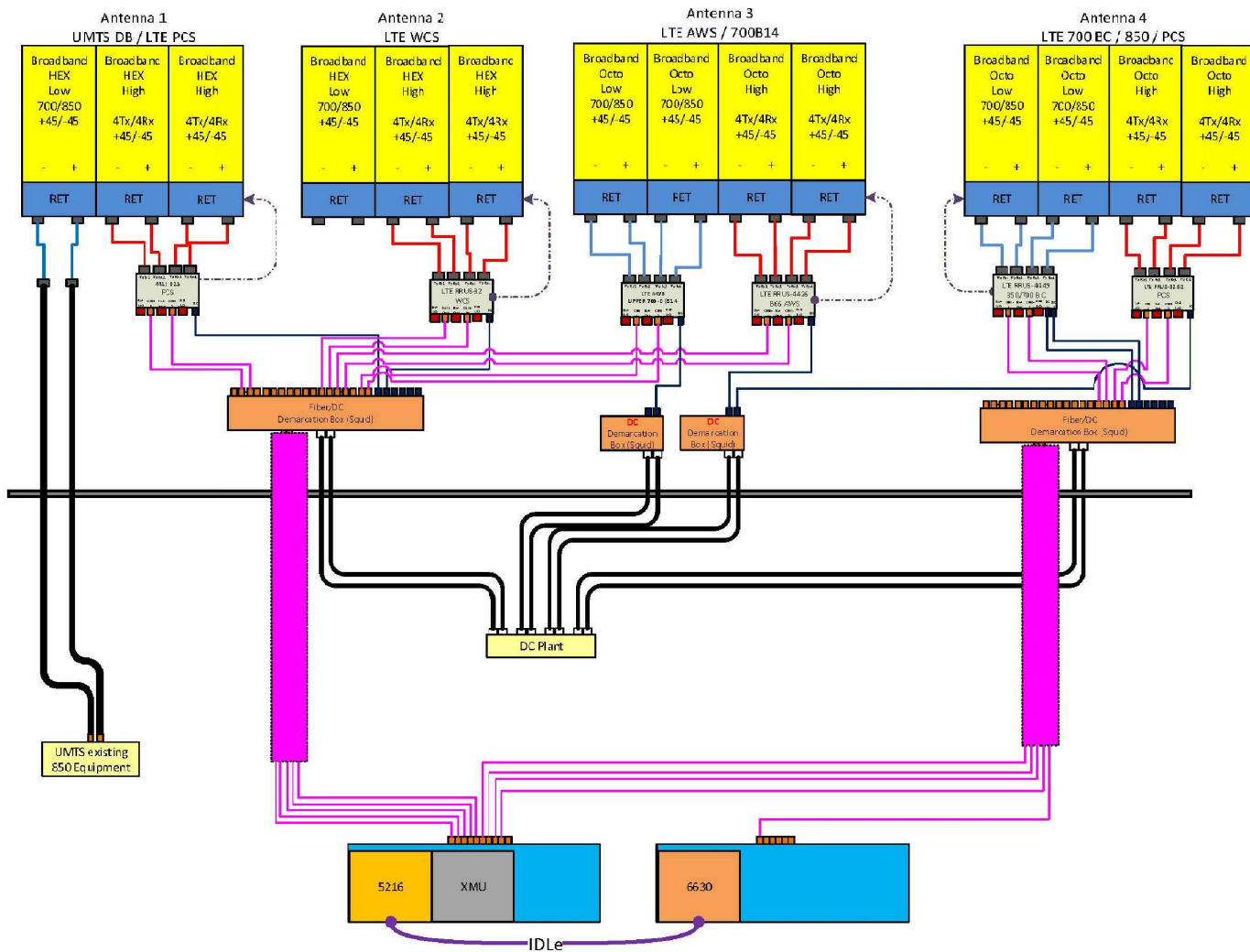
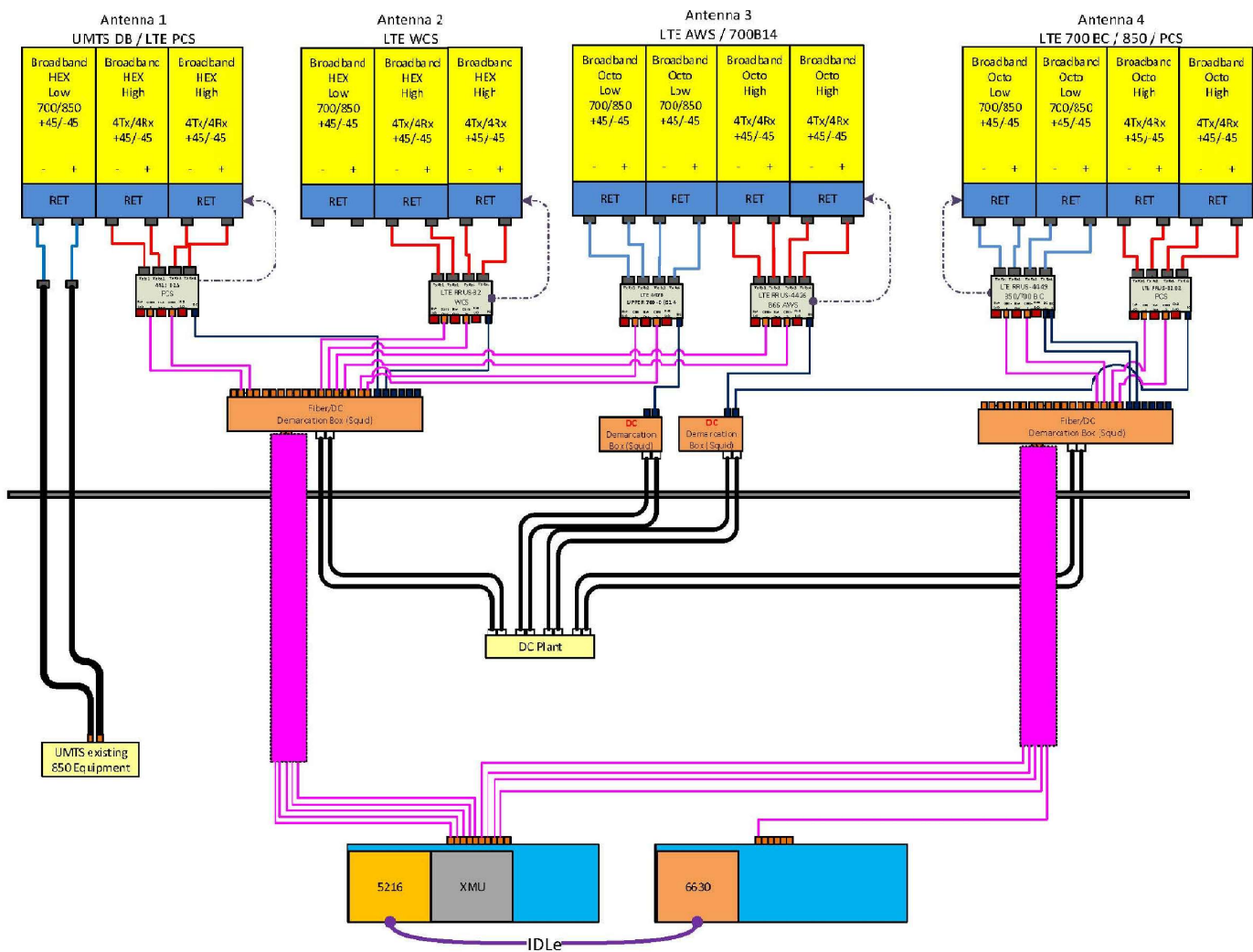
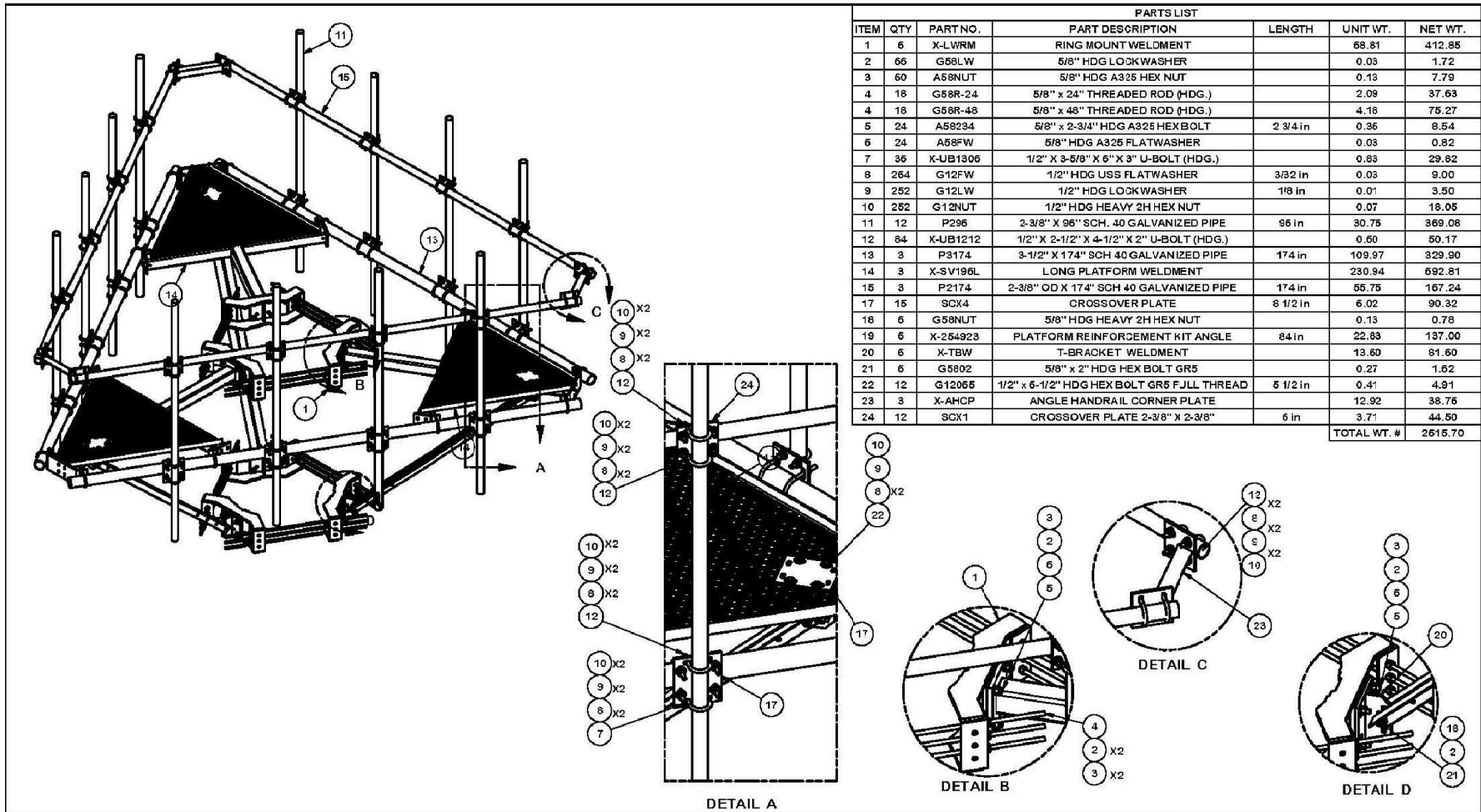


Diagram - Sector C Diagram File Name - CT5841_A_B_C_LTE_Rev2.vsd
 Atoll Site Name - CTLD5841 Location Name - DURHAM CENTRAL Market - CONNECTICUT Market Cluster - NEW ENGLAND
 Comments - Important Note: For detailed radio to antenna wiring refer to the latest field notice - Antenna Radio Connection Drawings Playbook v6.0 Ericsson





PARTS LIST						
ITEM	QTY	PART NO.	PART DESCRIPTION	LENGTH	UNIT WT.	NET WT.
1	6	X-LWRM	RING MOUNT WELDMENT		68.81	412.85
2	66	G58LW	5/8" HDG LOCKWASHER		0.03	1.72
3	60	A58NUT	5/8" HDG A325 HEX NUT		0.13	7.79
4	18	G58R-24	5/8" x 24" THREADED ROD (HDG.)		2.09	37.63
4	18	G58R-48	5/8" x 48" THREADED ROD (HDG.)		4.18	75.27
5	24	A58234	5/8" x 2-3/4" HDG A325 HEX BOLT	2 3/4 in	0.36	8.54
6	24	A58FW	5/8" HDG A325 FLATWASHER		0.03	0.82
7	36	X-UB1306	1/2" X 3-5/8" X 6" X 3" U-BOLT (HDG.)		0.83	29.82
8	264	G12FW	1/2" HDG USS FLATWASHER	3/32 in	0.03	9.00
9	252	G12LW	1/2" HDG LOCKWASHER	1/8 in	0.01	3.50
10	252	G12NUT	1/2" HDG HEAVY 2H HEX NUT		0.07	18.05
11	12	P296	2-3/8" X 96" SCH. 40 GALVANIZED PIPE	96 in	30.75	369.06
12	84	X-UB1212	1/2" X 2-1/2" X 4-1/2" X 2" U-BOLT (HDG.)		0.60	50.17
13	3	P3174	3-1/2" X 174" SCH 40 GALVANIZED PIPE	174 in	109.97	329.90
14	3	X-3V196L	LONG PLATFORM WELDMENT		230.94	692.81
15	3	P2174	2-3/8" OD X 174" SCH 40 GALVANIZED PIPE	174 in	55.75	167.24
17	15	9CX4	CROSSOVER PLATE	8 1/2 in	6.02	90.32
18	6	G58NUT	5/8" HDG HEAVY 2H HEX NUT		0.13	0.78
19	6	X-254923	PLATFORM REINFORCEMENT KIT ANGLE	84 in	22.83	137.00
20	6	X-TBW	T-BRACKET WELDMENT		13.60	81.60
21	6	G5802	5/8" x 2" HDG HEX BOLT GR5		0.27	1.62
22	12	G12055	1/2" x 6-1/2" HDG HEX BOLT GR5 FULL THREAD	5 1/2 in	0.41	4.91
23	3	X-AHCP	ANGLE HANDRAIL CORNER PLATE		12.92	38.76
24	12	9CX1	CROSSOVER PLATE 2-3/8" X 2-3/8"	6 in	3.71	44.50
					TOTAL WT. #	2615.70

TOLERANCE NOTES

TOLERANCES ON DIMENSIONS, UNLESS OTHERWISE NOTED ARE:
 SAWED, SHEARED AND GAS CUT EDGES ($\pm 0.030"$)
 DRILLED AND GAS CUT HOLES ($\pm 0.030"$) - NO CONING OF HOLES
 LASER CUT EDGES AND HOLES ($\pm 0.010"$) - NO CONING OF HOLES
 BENDS ARE $\pm 1/2$ DEGREE
 ALL OTHER MACHINING ($\pm 0.030"$)
 ALL OTHER ASSEMBLY ($\pm 0.050"$)

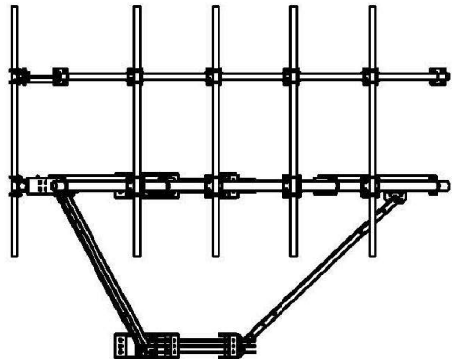
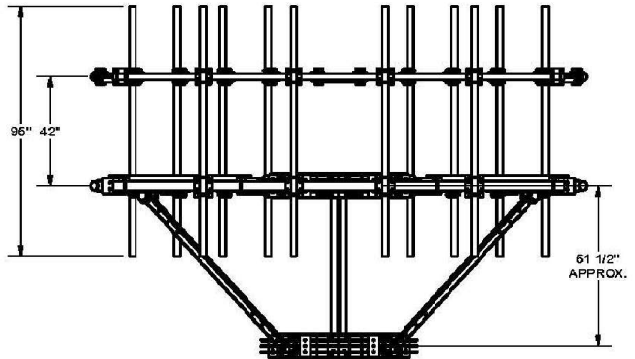
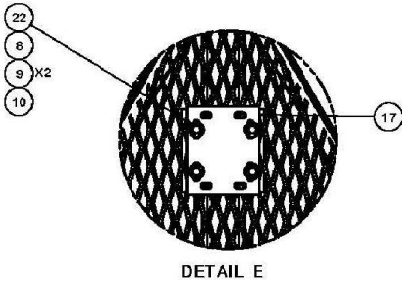
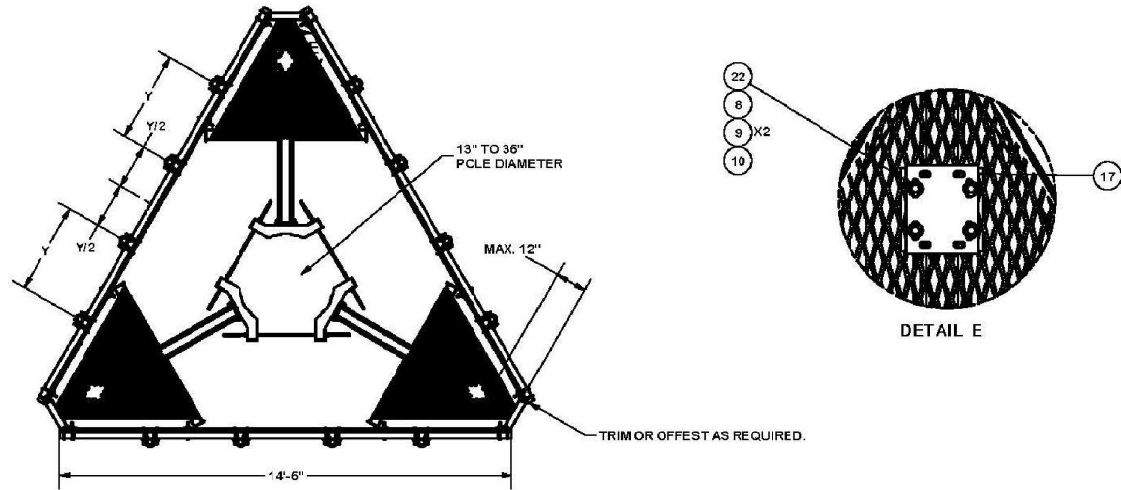
PROPRIETARY NOTE:
 THE DATA AND TECHNIQUE CONTAINED IN THIS DRAWING ARE PROPRIETARY INFORMATION OF VALMONT INDUSTRIES AND CONSIDERED A TRADE SECRET. ANY USE OR DISCLOSURE WITHOUT THE CONSENT OF VALMONT INDUSTRIES IS STRICTLY PROHIBITED.


DESCRIPTION 14' 6" LOW PROFILE PLATFORM WITH TWELVE 2-3/8" ANTENNA MOUNTING PIPES, AND HANDRAIL		
CPD NO. 4488	DRAWN BY CEK 7/15/2014	ENG. APPROVAL
CLASS 81	SUB 02	DRAWING USAGE CUSTOMER
		CHECKED BY BMC 7/23/2014

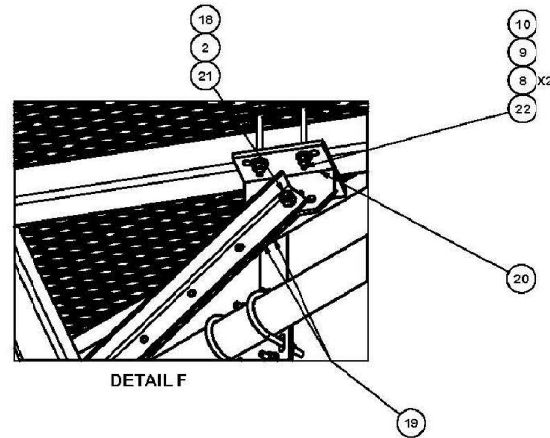
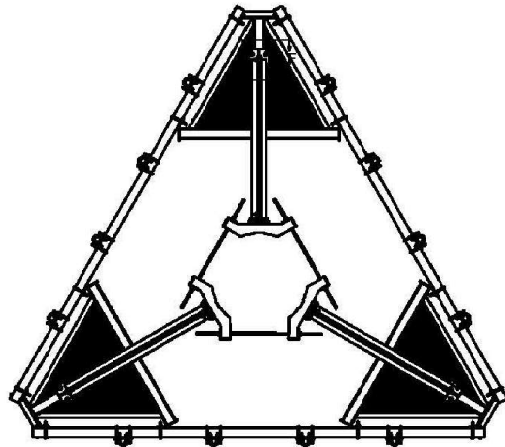
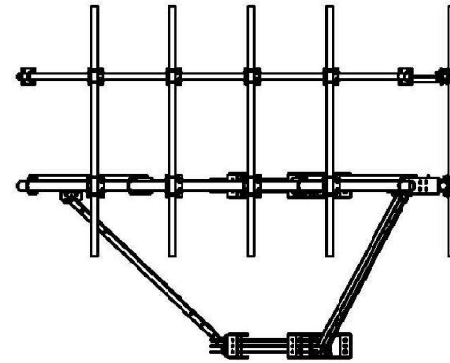
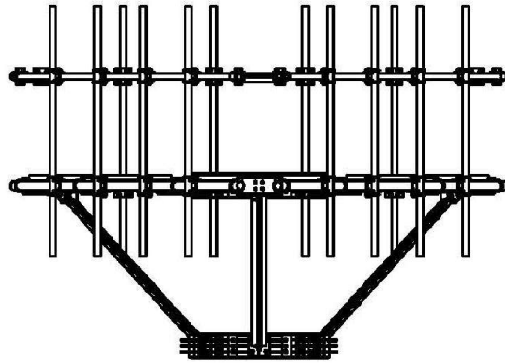
	Locations: New York, NY Atlanta, GA Los Angeles, CA Plymouth, IN Salem, OR Dallas, TX
	Engineering Support Team: 1-888-753-7446
	PART NO. RMQLP-496-HK
	DWG. NO. RMQLP-496-HK

REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
A	CHANGED X-253992 TO X-TBW	4488	CEK	9/20/2018

REVISION HISTORY



REVISION HISTORY <table border="1"> <thead> <tr> <th>REV</th> <th>DESCRIPTION OF REVISIONS</th> <th>CPD</th> <th>BY</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>CHANGED X-253992 TO X-TBW</td> <td>4488</td> <td>CEK</td> <td>9/20/2018</td> </tr> </tbody> </table>				REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE	A	CHANGED X-253992 TO X-TBW	4488	CEK	9/20/2018	TOLERANCE NOTES TOLERANCES ON DIMENSIONS, UNLESS OTHERWISE NOTED ARE: SAWED, SHEARED AND GAS CUT EDGES ($\pm 0.030"$) DRILLED AND GAS CUT HOLES ($\pm 0.030"$) - NO CONING OF HOLES LASER CUT EDGES AND HOLES ($\pm 0.010"$) - NO CONING OF HOLES BENDS ARE $\pm 1/2$ DEGREE ALL OTHER MACHINING ($\pm 0.030"$) ALL OTHER ASSEMBLY ($\pm 0.050"$) <small>PROPRIETARY NOTE: THE DATA AND TECHNIQUE CONTAINED IN THIS DRAWING ARE PROPRIETARY INFORMATION OF VALMONT INDUSTRIES AND CONSIDERED A TRADE SECRET. ANY USE OR DISCLOSURE WITHOUT THE CONSENT OF VALMONT INDUSTRIES IS STRICTLY PROHIBITED.</small>		DESCRIPTION 14' 6" LOW PROFILE PLATFORM WITH TWELVE 2-3/8" ANTENNA MOUNTING PIPES, AND HANDRAIL		 Locations: New York, NY Atlanta, GA Los Angeles, CA Plymouth, IN Salem, OR Dallas, TX Engineering Support Team: 1-888-753-7446		PART NO. RMQLP-496-HK DWG. NO. RMQLP-496-HK	PAGE 2 OF 3
				REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE													
A	CHANGED X-253992 TO X-TBW	4488	CEK	9/20/2018																	
<table border="1"> <thead> <tr> <th>CPD NO.</th> <th>DRAWN BY</th> <th>ENG. APPROVAL</th> </tr> </thead> <tbody> <tr> <td>4488</td> <td>CEK 7/15/2014</td> <td></td> </tr> </tbody> </table>		CPD NO.	DRAWN BY	ENG. APPROVAL	4488	CEK 7/15/2014		<table border="1"> <thead> <tr> <th>CLASS</th> <th>SUB</th> <th>DRAWING USAGE</th> <th>CHECKED BY</th> </tr> </thead> <tbody> <tr> <td>81</td> <td>02</td> <td>CUSTOMER</td> <td>BMC 7/23/2014</td> </tr> </tbody> </table>		CLASS	SUB	DRAWING USAGE	CHECKED BY	81	02	CUSTOMER	BMC 7/23/2014				
CPD NO.	DRAWN BY	ENG. APPROVAL																			
4488	CEK 7/15/2014																				
CLASS	SUB	DRAWING USAGE	CHECKED BY																		
81	02	CUSTOMER	BMC 7/23/2014																		



DETAIL F

TOLERANCE NOTES

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

PROPRIETARY NOTE:
 THE DATA AND TECHNIQUE CONTAINED IN THIS DRAWING ARE PROPRIETARY INFORMATION OF VALMONT INDUSTRIES AND CONSIDERED A TRADE SECRET. ANY USE OR DISCLOSURE WITHOUT THE CONSENT OF VALMONT INDUSTRIES IS STRICTLY PROHIBITED.

DESCRIPTION
 14' 6" LOW PROFILE PLATFORM
 WITH TWELVE 2-3/8" ANTENNA MOUNTING
 PIPES, AND HANDRAIL

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

REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
A	CHANGED X-253992 TO X-TBW	4488	CEK	9/20/2018

CPD NO. 4488	DRAWN BY CEK 7/15/2014	ENG. APPROVAL
CLASS 81	SUB 02	DRAWING USAGE CUSTOMER
CHECKED BY BMC 7/23/2014		

PART NO. RMQLP-496-HK	PAGE 3 OF 3
DWG. NO. RMQLP-496-HK	

Certificate Of Completion

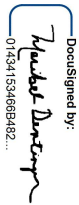
Envelope Id: 5C08D4FC0D434D948E38C5E5222599E9 Status: Completed
 Subject: Please DocuSign: 10071003_806364_HRT 106_B_943202_AT&T LTE 6C_FCD_REV 0_08.11.2020.pdf
 Source Envelope:
 Document Pages: 15 Signatures: 9
 Certificate Pages: 3 Initials: 0
 AutoNav: Enabled
 EnvelopeId Stamping: Enabled
 Time Zone: (UTC-05:00) Eastern Time (US & Canada)

Envelope Originator:
 Whitney Sealover
 2000 Corporate Drive
 Canonsburg, PA 15317
 Whitney.Sealover@crowncastle.com
 IP Address: 8.20.92.226

Record Tracking

Status: Original Holder: Whitney Sealover
 8/11/2020 5:00:51 PM Whitney.Sealover@crowncastle.com Location: DocuSign

Signer Events

Maribel Dertinger maribel.dertinger@crowncastle.com Crown Castle International Corp. Security Level: Email, Account Authentication (None)		Status: Signed Sent: 8/11/2020 5:03:23 PM Viewed: 8/11/2020 5:31:34 PM Signed: 8/11/2020 5:31:50 PM
--	---	--

Signature Adoption: Drawn on Device
 Using IP Address: 64.213.130.12

Electronic Record and Signature Disclosure:

Accepted: 9/20/2018 8:56:27 AM
 ID: 50d48a2f-ee52-4b02-9a1f-3c3a14f58c3b

In Person Signer Events	Signature	Timestamp
Editor Delivery Events	Status	Timestamp
Agent Delivery Events	Status	Timestamp
Intermediary Delivery Events	Status	Timestamp
Certified Delivery Events	Status	Timestamp
Carbon Copy Events	Status	Timestamp
Witness Events	Signature	Timestamp
Notary Events	Signature	Timestamp
Envelope Summary Events	Status	Timestamps
Envelope Sent	Hashed/Encrypted	8/11/2020 5:03:23 PM
Certified Delivered	Security Checked	8/11/2020 5:31:34 PM
Signing Complete	Security Checked	8/11/2020 5:31:50 PM
Completed	Security Checked	8/11/2020 5:31:50 PM
Payment Events	Status	Timestamps

Electronic Record and Signature Disclosure

ELECTRONIC RECORD AND SIGNATURE DISCLOSURE

In order to provide more efficient and faster service, Crown Castle ("we", "us" or "company") is pleased to announce the use of DocuSign, Inc. ("DocuSign") electronic signing system. The terms for providing such documents for execution and various other documents and records to you electronically through DocuSign are set forth below.

Please read the information below carefully and if you can satisfactorily access this information electronically and agree to these terms, please confirm your agreement by clicking the "I agree" button at the bottom of this document.

Getting paper copies

At any time, you may request from us a paper copy of any document for execution or other document or record provided or made available electronically to you by us. You will be able to download and print documents we send to you through the DocuSign system during and immediately after each signing session and, if you elect to create a DocuSign signer account, you may access them for a limited period of time thereafter. To request paper copies of documents previously provided by us to you electronically, send an e-mail to esignature@CrownCastle.com, requesting the subject paper copies and stating your e-mail address, name, US Postal address and telephone number.

Withdrawing your consent to receive and/or execute documents electronically

If you elect to receive documents for execution and various other documents and records from us electronically, you may at any time change your mind and tell us that thereafter you want to receive such documents only in paper format. To withdraw your consent to electronic delivery and execution of documents, use the DocuSign "Withdraw Consent" form on the signing page of a DocuSign envelope, instead of signing it. Thereafter, you will no longer be able to use the DocuSign system to electronically receive and execute documents or other records from us. You may also send an e-mail to esignature@CrownCastle.com stating that you are withdrawing your consent to electronic delivery and execution of documents through the DocuSign system and stating your e-mail address, name, US Postal Address, and telephone number.

Consequences of withdrawing consent to receive and/or execute documents electronically

If you elect to receive documents for execution and various other documents and other records only in paper format, it will slow the speed at which we can complete the subject transactions because of the increased delivery time.

Documents for execution, and other documents and records may be sent to you electronically

Unless you tell us otherwise in accordance with the procedures described herein, we may provide documents for execution, and other documents and records electronically to you through the DocuSign system during the course of our relationship with you. To reduce the chance of you inadvertently not receiving any document for execution or other document or record, we prefer to provide all documents for execution, and other documents and records by the same method and to the same address that you have given us. If you do not agree with this process, please let us know as described below.

How to contact Crown Castle

You may contact us to let us know of any changes related to contacting you electronically, to request paper copies of documents for execution and other documents and records from us, and to withdraw your prior consent to receive documents for execution and other documents and records electronically as follows:

To contact us by phone call: 724-416-2000

To contact us by email, send messages to: esignature@CrownCastle.com

To contact us by paper mail, send correspondence to

Crown Castle
2000 Corporate Drive
Canonsburg, PA 15317

To advise Crown Castle and DocuSign of your new e-mail address

To let us know of a change to the e-mail address where we should send documents for execution and other documents and records to you, you must send an email message to esignature@CrownCastle.com and state your previous e-mail address and your new e-mail address.

In addition, you must notify DocuSign, Inc. to arrange for your new email address to be reflected in your DocuSign account by following the process for changing e-mail in the DocuSign system.

Required hardware and software

Browsers:	Internet Explorer® 11 (Windows only); Windows Edge Current Version; Mozilla Firefox Current Version; Safari™ (Mac OS only) 6.2 or above; Google Chrome Current Version; Note : Pre-release (e.g., beta) versions of operating systems and browsers are not supported.
Mobile Signing:	Apple iOS 7.0 or above; Android 4.0 or above
PDF Reader:	Acrobat® Reader or similar software may be required to view and print PDF files
Screen Resolution:	1024 x 768

Enabled Security Settings:	Allow per session cookies
----------------------------	---------------------------

These minimum requirements are subject to change. If these requirements change, you will be asked to re-accept the disclosure. Pre-release (e.g. beta) versions of operating systems and browsers are not supported.

Acknowledging your access and consent to receive documents electronically

Please confirm that you were able to access this disclosure electronically (which is similar to the manner in which we will deliver documents for execution and other documents and records) and that you were able to print this disclosure on paper or electronically save it for your future reference and access or that you were able to e-mail this disclosure to an address where you will be able to print it on paper or save it for your future reference and access. Further, if you consent to receiving documents for execution and other documents and records in electronic format on the terms described above, please let us know by clicking the "I agree" button below.

By checking the 'I agree' box, I confirm that:

- You can access and read this Electronic Record and Signature Disclosure; and
- As a recipient, you can read, electronically sign and act upon this message, and you agree not to forward it or any other DocuSign e-mail communications. In the event another party needs to be added to the DocuSign communication, you must make a request to the e-mail originator.

Exhibit D

Structural Analysis Report

Date: **September 09, 2020**



Amanda D Brown
Crown Castle
6325 Ardrey Kell RddSuite 600
Charlotte, NC 28277

Crown Castle
2000 Corporate Drive
Canonsburg, PA 15317
(724) 416-2000

Subject: **Structural Analysis Report**

Carrier Designation: **AT&T Mobility Co-Locate**
Carrier Site Number: 10071003
Carrier Site Name: DURHAM CENTRAL

Crown Castle Designation: **Crown Castle BU Number:** 806364
Crown Castle Site Name: HRT 106(B) 943202
Crown Castle JDE Job Number: 605361
Crown Castle Work Order Number: 1884618
Crown Castle Order Number: 517085 Rev. 0

Engineering Firm Designation: **Crown Castle Project Number:** 1884618

Site Data: **143 R Old Blue Hill Road, DURHAM, Middlesex County, CT**
Latitude 41° 27' 33.67", Longitude -72° 39' 45.83"
120 Foot - Monopole Tower

Dear Amanda D Brown,

Crown Castle 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

This analysis utilizes an ultimate 3-second gust wind speed of 130 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: Emma McCarty

Respectfully submitted by:

Maham Barimani, P.E.
Senior Project Engineer



TABLE OF CONTENTS

1) INTRODUCTION

2) ANALYSIS CRITERIA

Table 1 - Proposed Equipment Configuration

Table 2 - Other Considered Equipment

3) ANALYSIS PROCEDURE

Table 3 - Documents Provided

3.1) Analysis Method

3.2) Assumptions

4) ANALYSIS RESULTS

Table 4 - Section Capacity (Summary)

Table 5 – Tower Component Stresses vs. Capacity – LC7

4.1) Recommendations

5) APPENDIX A

tnxTower Output

6) APPENDIX B

Base Level Drawing

7) APPENDIX C

Additional Calculations

1) INTRODUCTION

This tower is a 120 ft Monopole tower designed by Valmont.

2) ANALYSIS CRITERIA

TIA-222 Revision:	TIA-222-H
Risk Category:	II
Wind Speed:	130 mph
Exposure Category:	B
Topographic Factor:	1
Ice Thickness:	1.5 in
Wind Speed with Ice:	50 mph
Service Wind Speed:	60 mph

Table 1 - Proposed Equipment Configuration

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
116.0	116.0	6	andrew	SBNHH-1D65A w/ Mount Pipe	6 6 2 2 3	1-5/8 3/4 7/8 3/8 Conduit
		3	ericsson	RRUS 32 B2		
		3	ericsson	RRUS 4415 B25		
		3	ericsson	RRUS 4426 B66		
		3	ericsson	RRUS 4449 B5/B12		
		3	ericsson	RRUS 4478 B14_CCIV2		
		3	ericsson	RRUS-32 B30		
		6	kathrein	80010964 w/ Mount Pipe		
		2	raycap	DC6-48-60-18-8C		
		1	raycap	DC6-48-60-18-8C-EV		
		1	raycap	DC6-48-60-18-8F		
		1	Site Pro 1	RMQLP-496-HK		

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)
119.0	125.0	1	decibel	DB809MT3-XT	2	7/8
	123.0	1	decibel	DB201-A		
	119.0	1	tower mounts	Side Arm Mount [SO 102-3]		
		2	tower mounts	Side Arm Mount [SO 701-1]		
107.0	107.0	1	gabriel electronics	GLF6-450	1	7/8
		1	tower mounts	Pipe Mount [PM 601-1]		
100.0	101.0	6	andrew	SBNHH-1D65B w/ Mount Pipe	12 2	7/8 1-5/8
		6	antel	LPA-80080/6CF w/ Mount Pipe		
		3	nokia	AIRSCALE RRH 4T4R B5 160W		
		3	rfs celwave	FDJ85020Q4-S1		

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
	100.0	3	alcatel lucent	B13 RRH4X30-4R		
		3	alcatel lucent	B25 RRH4X30		
		3	alcatel lucent	B66A RRH4X45		
		2	raycap	RXXDC-3315-PF-48		
		1	tower mounts	Platform Mount [LP 713-1]		
87.0	89.0	3	alcatel lucent	PCS 1900MHZ 4X45W -65MHZ	3 1	1-1/4 7/8
		6	alcatel lucent	RRH2X50-800		
		3	commscope	NNVV-65B-R4 w/ Mount Pipe		
		3	nokia	FZHN		
	3	rfs celwave	APXVTM14-ALU-I20 w/ Mount Pipe			
	87.0	1	tower mounts	Platform Mount [LP 713-1]		
71.0	75.0	1	commscope	SHP2-13	6 2	1-5/8 3/8
	73.0	3	ericsson	AIR 32 B2a/B66Aa		
		3	ericsson	AIR21 B4A B2P_T-MOBILE		
		3	ericsson	AIR6449 B41		
		3	ericsson	RADIO 4449 B71 B85A_T-MOBILE		
		3	ericsson	RRUS 4415 B25		
	3	rfs celwave	APXVAARR24_43-U-NA20_T-MOBILE			
	71.0	1	tower mounts	Platform Mount [LP 1301-1]		
50.0	57.0	1	rfs celwave	PD1142-1	3 1	7/8 1/2
	54.0	1	decibel	ASP-655		
	53.0	1	rfs celwave	PD1121-6		
	50.0	2	tower mounts	Side Arm Mount [SO 702-1]		
		1	decibel	DB492A		
40.0	41.0	1	tekelec systems.	EPSILON GPS ANTENNA 35 DB	1 1	1/2 Conduit
	40.0	1	tower mounts	Side Arm Mount [SO 701-1]		

3) ANALYSIS PROCEDURE

Table 3 - Documents Provided

Document	Remarks	Reference	Source
4-GEOTECHNICAL REPORTS	Clarence Welti Assoc., Inc.	262150	CCISITES
4-TOWER FOUNDATION DRAWINGS/DESIGN/SPECS	SAC Engineering, Inc.	297341	CCISITES
4-TOWER MANUFACTURER DRAWINGS	Valmont	262153	CCISITES

3.1) Analysis Method

tnxTower (version 8.0.7.5), 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) 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. Crown Castle 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	120 - 100	Pole	TP20.263x15.403x0.1875	1	-5.93	744.51	33.5	Pass
L2	100 - 47.0833	Pole	TP33.13x20.263x0.2813	2	-24.36	1760.81	85.5	Pass
L3	47.0833 - 0	Pole	TP44x31.372x0.375	3	-39.00	3235.70	79.8	Pass
							Summary	
						Pole (L2)	85.5	Pass
						Rating =	85.5	Pass

Table 5 - Tower Component Stresses vs. Capacity – LC7

Notes	Component	Elevation (ft)	% Capacity	Pass / Fail
1	Flange Bolts	100	47.6	Pass
1	Flange Plates	100	14.5	Pass
1	Anchor Rods	0	69.1	Pass
1	Base Plate	0	39.6	Pass
1	Base Foundation Structure	0	9.2	Pass
1	Base Foundation Soil Interaction	0	37.1	Pass

Structure Rating (max from all components) =	85.5%
---	--------------

Notes:

- 1) See additional documentation in "Appendix C – Additional Calculations" for calculations supporting the % capacity consumed.

4.1) Recommendations

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

APPENDIX A
TNXTOWER OUTPUT

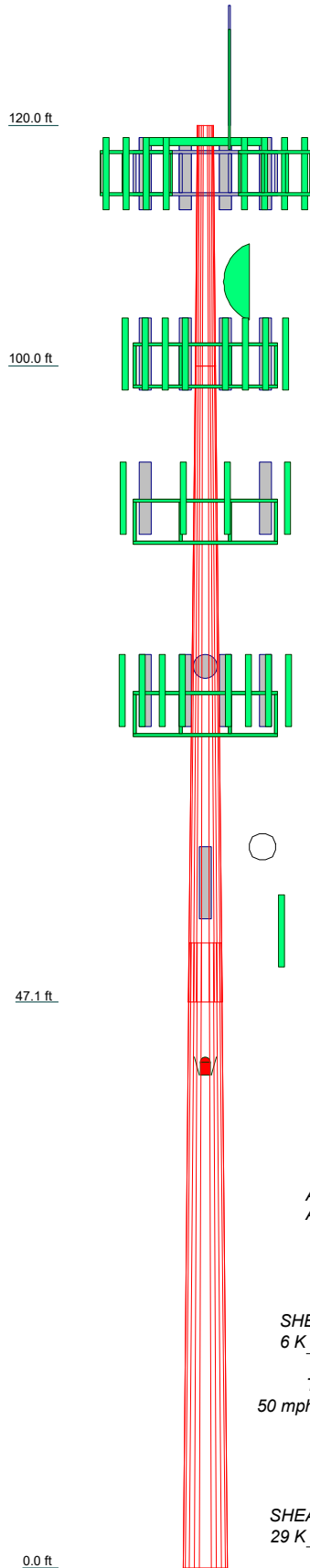
MATERIAL STRENGTH

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

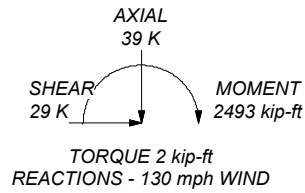
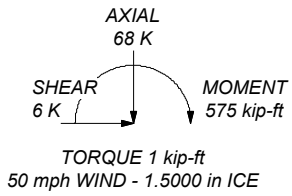
TOWER DESIGN NOTES

1. Tower is located in Middlesex County, Connecticut.
2. Tower designed for Exposure B to the TIA-222-H Standard.
3. Tower designed for a 130 mph basic wind in accordance with the TIA-222-H Standard.
4. Tower is also designed for a 50 mph basic wind with 1.50 in ice. Ice is considered to increase in thickness with height.
5. Deflections are based upon a 60 mph wind.
6. Tower Risk Category II.
7. Topographic Category 1 with Crest Height of 0.00 ft
8. TOWER RATING: 85.5%

Section	1	2	3
Length (ft)	20.00	52.92	52.00
Number of Sides	12	12	12
Thickness (in)	0.1875	0.2813	0.3750
Socket Length (ft)		4.92	
Top Dia (in)	15.4030	20.2630	31.3720
Bot Dia (in)	20.2630	33.1300	44.0000
Grade		A572-65	
Weight (K)	0.7	4.3	8.0



ALL REACTIONS
ARE FACTORED



CROWN CASTLE
The Pathway to Possible

Crown Castle
2000 Corporate Drive
Canonsburg, PA 15317
Phone: (724) 416-2000
FAX:

Job:	BU# 806364		
Project:			
Client:	Crown Castle	Drawn by:	emccarty
Code:	TIA-222-H	Date:	09/09/20
Path:			Scale: NTS
			Dwg No. E-1

C:\Users\emccarty\Desktop\WORK AREA\806364\WO 1884618 - SAIProd\806364_RPA.dwg

Tower Input Data

The tower is a monopole.
 This tower is designed using the TIA-222-H standard.

The following design criteria apply:

- 3) Tower is located in Middlesex County, Connecticut.
- 4) Tower base elevation above sea level: 511.00 ft.
- 5) Basic wind speed of 130 mph.
- 6) Risk Category II.
- 7) Exposure Category B.
- 8) Simplified Topographic Factor Procedure for wind speed-up calculations is used.
- 9) Topographic Category: 1.
- 10) Crest Height: 0.00 ft.
- 11) Nominal ice thickness of 1.5000 in.
- 12) Ice thickness is considered to increase with height.
- 13) Ice density of 56.00 pcf.
- 14) A wind speed of 50 mph is used in combination with ice.
- 15) Temperature drop of 50 °F.
- 16) Deflections calculated using a wind speed of 60 mph.
- 17) A non-linear (P-delta) analysis was used.
- 18) Pressures are calculated at each section.
- 19) Stress ratio used in pole design is 1.05.
- 20) Tower analysis based on target reliabilities in accordance with Annex S.
- 21) Load Modification Factors used: $K_{es}(F_w) = 0.95$, $K_{es}(t_i) = 0.85$.
- 22) Local bending stresses due to climbing loads, feed line supports, and appurtenance mounts are not considered.

Options

Consider Moments - Legs Consider Moments - Horizontals Consider Moments - Diagonals Use Moment Magnification Use Code Stress Ratios ✓ Use Code Safety Factors - Guys Escalate Ice Always Use Max Kz Use Special Wind Profile Include Bolts In Member Capacity Leg Bolts Are At Top Of Section Secondary Horizontal Braces Leg Use Diamond Inner Bracing (4 Sided) SR Members Have Cut Ends SR Members Are Concentric	Distribute Leg Loads As Uniform Assume Legs Pinned ✓ Assume Rigid Index Plate ✓ Use Clear Spans For Wind Area Use Clear Spans For KL/r Retension Guys To Initial Tension ✓ Bypass Mast Stability Checks ✓ Use Azimuth Dish Coefficients ✓ Project Wind Area of Appurt. Autocalc Torque Arm Areas Add IBC .6D+W Combination ✓ Sort Capacity Reports By Component Triangulate Diamond Inner Bracing Treat Feed Line Bundles As Cylinder Ignore KL/ry For 60 Deg. Angle Legs	Use ASCE 10 X-Brace Ly Rules Calculate Redundant Bracing Forces Ignore Redundant Members in FEA SR Leg Bolts Resist Compression All Leg Panels Have Same Allowable Offset Girt At Foundation ✓ Consider Feed Line Torque Include Angle Block Shear Check Use TIA-222-H Bracing Resist. Exemption Use TIA-222-H Tension Splice Exemption <div style="background-color: #e0e0e0; text-align: center; padding: 2px;">Poles</div> ✓ Include Shear-Torsion Interaction Always Use Sub-Critical Flow Use Top Mounted Sockets Pole Without Linear Attachments Pole With Shroud Or No Appurtenances Outside and Inside Corner Radii Are Known
--	---	--

Tapered Pole Section Geometry

Section	Elevation	Section Length	Splice Length	Number of Sides	Top Diameter	Bottom Diameter	Wall Thickness	Bend Radius	Pole Grade
	ft	ft	ft		in	in	in	in	
L1	120.00-100.00	20.00	0.00	12	15.4030	20.2630	0.1875	0.7500	A572-65 (65 ksi)

Section	Elevation ft	Section Length ft	Splice Length ft	Number of Sides	Top Diameter in	Bottom Diameter in	Wall Thickness in	Bend Radius in	Pole Grade
L2	100.00-47.08	52.92	4.92	12	20.2630	33.1300	0.2813	1.1250	A572-65 (65 ksi)
L3	47.08-0.00	52.00		12	31.3720	44.0000	0.3750	1.5000	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	I/Q in ²	w in	w/t
L1	15.8802	9.1864	271.4575	5.4471	7.9788	34.0225	550.0464	4.5212	3.6255	19.336
	20.9117	12.1206	623.5083	7.1870	10.4962	59.4030	1263.3968	5.9654	4.9280	26.283
L2	20.8786	18.0960	922.2208	7.1535	10.4962	87.8621	1868.6694	8.9063	4.6767	16.628
	34.1995	29.7486	4097.2352	11.7599	17.1613	238.7480	8302.1094	14.6414	8.1251	28.889
L3	33.5825	37.4288	4590.1943	11.0969	16.2507	282.4616	9300.9781	18.4213	7.4027	19.741
	45.4199	52.6772	12796.152	15.6177	22.7920	561.4318	25928.474	25.9261	10.7870	28.765

Tower Elevation ft	Gusset Area (per face) ft ²	Gusset Thickness in	Gusset Grade	Adjust. Factor A _r	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 120.00-100.00				1	1	1			
L2 100.00-47.08				1	1	1			
L3 47.08-0.00				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 plf
** 2" Rigid Conduit ****	C	No	Surface Ar (CaAa)	40.00 - 0.00	1	1	0.170 0.180	2.0000		2.80

Feed Line/Linear Appurtenances - Entered As Area

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Total Number	C _A A _A ft ² /ft	Weight plf	
LDF5-50A(7/8)	C	No	No	Inside Pole	119.00 - 0.00	2			
**									
2" Rigid Conduit	A	No	No	Inside Pole	116.00 - 0.00	3	No Ice	0.00	0.33
							1/2" Ice	0.00	0.33
							1" Ice	0.00	0.33
							2" Ice	0.00	0.33
WR-VG66ST-BRD_CCIV2(7/8)	A	No	No	Inside Pole	116.00 - 0.00	2	No Ice	0.00	0.88
							1/2" Ice	0.00	0.88
							1" Ice	0.00	0.88
							2" Ice	0.00	0.88

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Total Number		C _A A _A ft ² /ft	Weight plf
LDF7-50A(1-5/8)	A	No	No	Inside Pole	116.00 -0.00	6	2" Ice	0.00	0.88
							No Ice	0.00	0.82
							1/2" Ice	0.00	0.82
							1" Ice	0.00	0.82
WR-VG86ST-BRD(3/4)	A	No	No	Inside Pole	116.00 -0.00	4	2" Ice	0.00	0.82
							No Ice	0.00	0.58
							1/2" Ice	0.00	0.58
							1" Ice	0.00	0.58
FB-L98B-034-XXX(3/8)	A	No	No	Inside Pole	116.00 -0.00	2	2" Ice	0.00	0.58
							No Ice	0.00	0.06
							1/2" Ice	0.00	0.06
							1" Ice	0.00	0.06
WR-VG86ST-BRD(3/4)	A	No	No	Inside Pole	116.00 -0.00	2	2" Ice	0.00	0.06
							No Ice	0.00	0.58
							1/2" Ice	0.00	0.58
							1" Ice	0.00	0.58
**									
LDF5-50A(7/8)	C	No	No	Inside Pole	107.00 -0.00	1	No Ice	0.00	0.33
							1/2" Ice	0.00	0.33
							1" Ice	0.00	0.33
							2" Ice	0.00	0.33
**									
LDF5-50A(7/8)	C	No	No	Inside Pole	100.00 -0.00	12	No Ice	0.00	0.33
							1/2" Ice	0.00	0.33
							1" Ice	0.00	0.33
							2" Ice	0.00	0.33
HB158-1-08U8-S8J18(1-5/8)	C	No	No	Inside Pole	100.00 -0.00	2	2" Ice	0.00	0.33
							No Ice	0.00	1.30
							1/2" Ice	0.00	1.30
							1" Ice	0.00	1.30
**									
HB114-1-08U4-M5F(1-1/4)	C	No	No	Inside Pole	87.00 -0.00	3	No Ice	0.00	1.30
							1/2" Ice	0.00	1.30
							1" Ice	0.00	1.30
							2" Ice	0.00	1.30
HB114-08U3M12-XXXF(7/8)	C	No	No	Inside Pole	87.00 -0.00	1	No Ice	0.00	0.68
							1/2" Ice	0.00	0.68
							1" Ice	0.00	0.68
							2" Ice	0.00	0.68
**									
HCS 6X12 4AWG(1-5/8)	A	No	No	Inside Pole	71.00 -0.00	3	No Ice	0.00	2.40
							1/2" Ice	0.00	2.40
							1" Ice	0.00	2.40
							2" Ice	0.00	2.40
HCS 6X12 4AWG(1-5/8)	A	No	No	Inside Pole	71.00 -0.00	3	No Ice	0.00	2.40
							1/2" Ice	0.00	2.40
							1" Ice	0.00	2.40
							2" Ice	0.00	2.40
LDF2-50(3/8)	A	No	No	Inside Pole	71.00 -0.00	2	No Ice	0.00	0.08
							1/2" Ice	0.00	0.08
							1" Ice	0.00	0.08
							2" Ice	0.00	0.08
**									
LDF5-50A(7/8)	C	No	No	Inside Pole	50.00 -0.00	3	No Ice	0.00	0.33
							1/2" Ice	0.00	0.33
							1" Ice	0.00	0.33
							2" Ice	0.00	0.33
LDF4-50A(1/2)	C	No	No	Inside Pole	50.00 -0.00	1	No Ice	0.00	0.15
							1/2" Ice	0.00	0.15
							1" Ice	0.00	0.15
							2" Ice	0.00	0.15
LDF4-50A(1/2)	C	No	No	Inside Pole	40.00 -0.00	1	No Ice	0.00	0.15
							1/2" Ice	0.00	0.15
							1" Ice	0.00	0.15
							2" Ice	0.00	0.15

Feed Line/Linear Appurtenances Section Areas

Tower Section n	Tower Elevation ft	Face	A_R ft ²	A_F ft ²	C_{AA} In Face ft ²	C_{AA} Out Face ft ²	Weight K
L1	120.00-100.00	A	0.000	0.000	0.000	0.000	0.30
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.000	0.01
L2	100.00-47.08	A	0.000	0.000	0.000	0.000	1.34
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.000	0.59
L3	47.08-0.00	A	0.000	0.000	0.000	0.000	1.57
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	8.000	0.000	0.74

Feed Line/Linear Appurtenances Section Areas - With Ice

Tower Section n	Tower Elevation ft	Face or Leg	Ice Thickness in	A_R ft ²	A_F ft ²	C_{AA} In Face ft ²	C_{AA} Out Face ft ²	Weight K
L1	120.00-100.00	A	1.438	0.000	0.000	0.000	0.000	0.30
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.000	0.01
L2	100.00-47.08	A	1.379	0.000	0.000	0.000	0.000	1.34
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.000	0.59
L3	47.08-0.00	A	1.228	0.000	0.000	0.000	0.000	1.57
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	19.029	0.000	0.97

Feed Line Center of Pressure

Section	Elevation ft	CP_x in	CP_z in	CP_x Ice in	CP_z Ice in
L1	120.00-100.00	0.0000	0.0000	0.0000	0.0000
L2	100.00-47.08	0.0000	0.0000	0.0000	0.0000
L3	47.08-0.00	-0.3799	0.9897	-0.6477	1.6874

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	25	2" Rigid Conduit	0.00 - 40.00	1.0000	1.0000

Discrete Tower Loads

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustmen t °	Placement ft	C _A A _A Front	C _A A _A Side	Weight K	
						ft ²	ft ²		
DB809MT3-XT	A	From Leg	3.00	0.00	119.00	No Ice	2.84	2.84	0.03
			0.00			1/2"	4.29	4.29	0.05
			6.00			Ice	5.75	5.75	0.08
						1" Ice	8.72	8.72	0.17
						2" Ice			
DB201-A	C	From Face	3.00	0.00	119.00	No Ice	1.10	1.10	0.03
			0.00			1/2"	1.98	1.98	0.03
			4.00			Ice	2.86	2.86	0.04
						1" Ice	4.62	4.62	0.06
						2" Ice			
Side Arm Mount [SO 102-3]	C	None		0.00	119.00	No Ice	3.60	3.60	0.07
						1/2"	4.18	4.18	0.11
						Ice	4.75	4.75	0.14
						1" Ice	5.90	5.90	0.20
						2" Ice			
Side Arm Mount [SO 701-1]	A	From Leg	1.50	0.00	119.00	No Ice	0.85	1.67	0.07
			0.00			1/2"	1.14	2.34	0.08
			0.00			Ice	1.43	3.01	0.09
						1" Ice	2.01	4.35	0.12
						2" Ice			
Side Arm Mount [SO 701-1]	C	From Face	1.50	0.00	119.00	No Ice	0.85	1.67	0.07
			0.00			1/2"	1.14	2.34	0.08
			0.00			Ice	1.43	3.01	0.09
						1" Ice	2.01	4.35	0.12
						2" Ice			
4' x 2" Pipe Mount	A	From Leg	3.00	0.00	119.00	No Ice	0.79	0.79	0.03
			0.00			1/2"	1.03	1.03	0.04
			0.00			Ice	1.28	1.28	0.04
						1" Ice	1.81	1.81	0.07
						2" Ice			
4' x 2" Pipe Mount	C	From Face	3.00	0.00	119.00	No Ice	0.79	0.79	0.03
			0.00			1/2"	1.03	1.03	0.04
			0.00			Ice	1.28	1.28	0.04
						1" Ice	1.81	1.81	0.07
						2" Ice			
**									
(2) SBNHH-1D65A w/ Mount Pipe	A	From Leg	4.00	0.00	116.00	No Ice	3.04	2.45	0.05
			0.00			1/2"	3.34	2.75	0.10
			0.00			Ice	3.65	3.05	0.16
						1" Ice	4.31	3.68	0.31
						2" Ice			
(2) SBNHH-1D65A w/ Mount Pipe	B	From Leg	4.00	0.00	116.00	No Ice	3.04	2.45	0.05
			0.00			1/2"	3.34	2.75	0.10
			0.00			Ice	3.65	3.05	0.16
						1" Ice	4.31	3.68	0.31
						2" Ice			
(2) SBNHH-1D65A w/ Mount Pipe	C	From Leg	4.00	0.00	116.00	No Ice	3.04	2.45	0.05
			0.00			1/2"	3.34	2.75	0.10
			0.00			Ice	3.65	3.05	0.16
						1" Ice	4.31	3.68	0.31
						2" Ice			
RRUS 32 B2	A	From Leg	4.00	0.00	116.00	No Ice	2.73	1.67	0.05
			0.00			1/2"	2.95	1.86	0.07
			0.00			Ice	3.18	2.05	0.10
						1" Ice	3.66	2.46	0.16
						2" Ice			
RRUS 32 B2	B	From Leg	4.00	0.00	116.00	No Ice	2.73	1.67	0.05
			0.00			1/2"	2.95	1.86	0.07
			0.00			Ice	3.18	2.05	0.10
						1" Ice	3.66	2.46	0.16
						2" Ice			

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustmen t °	Placement ft		C _{AA} Front ft ²	C _{AA} Side ft ²	Weight K
RRUS 32 B2	C	From Leg	4.00 0.00 0.00	0.00	116.00	No Ice	2.73	1.67	0.05
						1/2" Ice	2.95	1.86	0.07
						Ice	3.18	2.05	0.10
						1" Ice	3.66	2.46	0.16
						2" Ice			
DC6-48-60-18-8C	B	From Leg	4.00 0.00 0.00	0.00	116.00	No Ice	1.14	1.14	0.03
						1/2" Ice	1.79	1.79	0.05
						Ice	2.00	2.00	0.07
						1" Ice	2.45	2.45	0.13
						2" Ice			
DC6-48-60-18-8F	B	From Leg	4.00 0.00 0.00	0.00	116.00	No Ice	1.21	1.21	0.02
						1/2" Ice	1.89	1.89	0.04
						Ice	2.11	2.11	0.07
						1" Ice	2.57	2.57	0.13
						2" Ice			
(2) 80010964 w/ Mount Pipe	A	From Leg	4.00 0.00 0.00	0.00	116.00	No Ice	8.61	4.10	0.12
						1/2" Ice	9.18	4.59	0.19
						Ice	9.77	5.10	0.26
						1" Ice	10.98	6.16	0.45
						2" Ice			
(2) 80010964 w/ Mount Pipe	B	From Leg	4.00 0.00 0.00	0.00	116.00	No Ice	8.61	4.10	0.12
						1/2" Ice	9.18	4.59	0.19
						Ice	9.77	5.10	0.26
						1" Ice	10.98	6.16	0.45
						2" Ice			
(2) 80010964 w/ Mount Pipe	C	From Leg	4.00 0.00 0.00	0.00	116.00	No Ice	8.61	4.10	0.12
						1/2" Ice	9.18	4.59	0.19
						Ice	9.77	5.10	0.26
						1" Ice	10.98	6.16	0.45
						2" Ice			
DC6-48-60-18-8C	A	From Leg	4.00 0.00 0.00	0.00	116.00	No Ice	1.14	1.14	0.03
						1/2" Ice	1.79	1.79	0.05
						Ice	2.00	2.00	0.07
						1" Ice	2.45	2.45	0.13
						2" Ice			
RRUS-32 B30	A	From Leg	4.00 0.00 0.00	0.00	116.00	No Ice	3.31	2.42	0.08
						1/2" Ice	3.56	2.64	0.10
						Ice	3.81	2.86	0.14
						1" Ice	4.33	3.32	0.21
						2" Ice			
RRUS-32 B30	B	From Leg	4.00 0.00 0.00	0.00	116.00	No Ice	3.31	2.42	0.08
						1/2" Ice	3.56	2.64	0.10
						Ice	3.81	2.86	0.14
						1" Ice	4.33	3.32	0.21
						2" Ice			
RRUS-32 B30	C	From Leg	4.00 0.00 0.00	0.00	116.00	No Ice	3.31	2.42	0.08
						1/2" Ice	3.56	2.64	0.10
						Ice	3.81	2.86	0.14
						1" Ice	4.33	3.32	0.21
						2" Ice			
RRUS 4415 B25	A	From Leg	4.00 0.00 0.00	0.00	116.00	No Ice	1.64	0.68	0.04
						1/2" Ice	1.80	0.79	0.06
						Ice	1.97	0.91	0.07
						1" Ice	2.33	1.18	0.11
						2" Ice			
RRUS 4415 B25	B	From Leg	4.00 0.00 0.00	0.00	116.00	No Ice	1.64	0.68	0.04
						1/2" Ice	1.80	0.79	0.06
						Ice	1.97	0.91	0.07
						1" Ice	2.33	1.18	0.11
						2" Ice			
RRUS 4415 B25	C	From Leg	4.00 0.00 0.00	0.00	116.00	No Ice	1.64	0.68	0.04
						1/2" Ice	1.80	0.79	0.06
						Ice	1.97	0.91	0.07
						1" Ice	2.33	1.18	0.11
						2" Ice			

Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment °	Placement ft	C _{AA} Front ft ²	C _{AA} Side ft ²	Weight K	
			Horz ft	Lateral Vert ft						
DC6-48-60-18-8C-EV	A	From Leg	4.00	0.00	0.00	116.00	No Ice	1.14	1.14	0.03
							1/2"	1.79	1.79	0.05
							Ice	2.00	2.00	0.07
							1" Ice	2.45	2.45	0.13
							2" Ice			
RRUS 4426 B66	A	From Leg	4.00	0.00	0.00	116.00	No Ice	1.64	0.73	0.05
							1/2"	1.80	0.84	0.06
							Ice	1.97	0.97	0.08
							1" Ice	2.33	1.24	0.11
							2" Ice			
RRUS 4426 B66	B	From Leg	4.00	0.00	0.00	116.00	No Ice	1.64	0.73	0.05
							1/2"	1.80	0.84	0.06
							Ice	1.97	0.97	0.08
							1" Ice	2.33	1.24	0.11
							2" Ice			
RRUS 4426 B66	C	From Leg	4.00	0.00	0.00	116.00	No Ice	1.64	0.73	0.05
							1/2"	1.80	0.84	0.06
							Ice	1.97	0.97	0.08
							1" Ice	2.33	1.24	0.11
							2" Ice			
RRUS 4478 B14_CCIV2	A	From Leg	4.00	0.00	0.00	116.00	No Ice	2.02	1.25	0.06
							1/2"	2.20	1.40	0.08
							Ice	2.39	1.55	0.10
							1" Ice	2.78	1.89	0.15
							2" Ice			
RRUS 4478 B14_CCIV2	B	From Leg	4.00	0.00	0.00	116.00	No Ice	2.02	1.25	0.06
							1/2"	2.20	1.40	0.08
							Ice	2.39	1.55	0.10
							1" Ice	2.78	1.89	0.15
							2" Ice			
RRUS 4478 B14_CCIV2	C	From Leg	4.00	0.00	0.00	116.00	No Ice	2.02	1.25	0.06
							1/2"	2.20	1.40	0.08
							Ice	2.39	1.55	0.10
							1" Ice	2.78	1.89	0.15
							2" Ice			
RRUS 4449 B5/B12	A	From Leg	4.00	0.00	0.00	116.00	No Ice	1.97	1.41	0.07
							1/2"	2.14	1.56	0.09
							Ice	2.33	1.73	0.11
							1" Ice	2.72	2.07	0.16
							2" Ice			
RRUS 4449 B5/B12	B	From Leg	4.00	0.00	0.00	116.00	No Ice	1.97	1.41	0.07
							1/2"	2.14	1.56	0.09
							Ice	2.33	1.73	0.11
							1" Ice	2.72	2.07	0.16
							2" Ice			
RRUS 4449 B5/B12	C	From Leg	4.00	0.00	0.00	116.00	No Ice	1.97	1.41	0.07
							1/2"	2.14	1.56	0.09
							Ice	2.33	1.73	0.11
							1" Ice	2.72	2.07	0.16
							2" Ice			
8' x 2" Mount Pipe	A	From Leg	4.00	0.00	0.00	116.00	No Ice	1.90	1.90	0.03
							1/2"	2.73	2.73	0.04
							Ice	3.40	3.40	0.06
							1" Ice	4.40	4.40	0.12
							2" Ice			
6' x 2" Mount Pipe	B	From Leg	4.00	0.00	0.00	116.00	No Ice	1.43	1.43	0.02
							1/2"	1.92	1.92	0.03
							Ice	2.29	2.29	0.05
							1" Ice	3.06	3.06	0.09
							2" Ice			
6' x 2" Mount Pipe	C	From Leg	4.00	0.00	0.00	116.00	No Ice	1.43	1.43	0.02
							1/2"	1.92	1.92	0.03
							Ice	2.29	2.29	0.05
							1" Ice	3.06	3.06	0.09
							2" Ice			

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustmen t °	Placement ft		C _A A _A Front ft ²	C _A A _A Side ft ²	Weight K
Platform Mount [LP 303-1_KCKR-HR-1]	C	None		0.00	116.00	No Ice	28.31	28.31	1.77
						1/2" Ice	35.69	35.69	2.30
						Ice	43.11	43.11	2.94
						1" Ice	58.21	58.21	4.60
						2" Ice			
**									
Pipe Mount [PM601-1]	B	From Leg	0.50 0.00 0.00	0.00	107.00	No Ice	1.32	1.32	0.07
						1/2" Ice	1.58	1.58	0.08
						Ice	1.84	1.84	0.09
						1" Ice	2.40	2.40	0.13
						2" Ice			
**									
(2) LPA-80080/6CF w/ Mount Pipe	A	From Leg	4.00 0.00 1.00	0.00	100.00	No Ice	4.56	10.26	0.05
						1/2" Ice	5.11	11.43	0.11
						Ice	5.61	12.31	0.19
						1" Ice	6.65	14.13	0.36
						2" Ice			
(2) LPA-80080/6CF w/ Mount Pipe	B	From Leg	4.00 0.00 1.00	0.00	100.00	No Ice	4.56	10.26	0.05
						1/2" Ice	5.11	11.43	0.11
						Ice	5.61	12.31	0.19
						1" Ice	6.65	14.13	0.36
						2" Ice			
(2) LPA-80080/6CF w/ Mount Pipe	C	From Leg	4.00 0.00 1.00	0.00	100.00	No Ice	4.56	10.26	0.05
						1/2" Ice	5.11	11.43	0.11
						Ice	5.61	12.31	0.19
						1" Ice	6.65	14.13	0.36
						2" Ice			
(2) SBNHH-1D65B w/ Mount Pipe	A	From Leg	4.00 0.00 1.00	0.00	100.00	No Ice	4.09	3.30	0.07
						1/2" Ice	4.49	3.68	0.13
						Ice	4.89	4.07	0.20
						1" Ice	5.72	4.87	0.39
						2" Ice			
(2) SBNHH-1D65B w/ Mount Pipe	B	From Leg	4.00 0.00 1.00	0.00	100.00	No Ice	4.09	3.30	0.07
						1/2" Ice	4.49	3.68	0.13
						Ice	4.89	4.07	0.20
						1" Ice	5.72	4.87	0.39
						2" Ice			
(2) SBNHH-1D65B w/ Mount Pipe	C	From Leg	4.00 0.00 1.00	0.00	100.00	No Ice	4.09	3.30	0.07
						1/2" Ice	4.49	3.68	0.13
						Ice	4.89	4.07	0.20
						1" Ice	5.72	4.87	0.39
						2" Ice			
AIRSCALE RRH 4T4R B5 160W	A	From Leg	4.00 0.00 1.00	0.00	100.00	No Ice	1.29	0.72	0.04
						1/2" Ice	1.43	0.83	0.05
						Ice	1.58	0.96	0.06
						1" Ice	1.90	1.22	0.09
						2" Ice			
AIRSCALE RRH 4T4R B5 160W	B	From Leg	4.00 0.00 1.00	0.00	100.00	No Ice	1.29	0.72	0.04
						1/2" Ice	1.43	0.83	0.05
						Ice	1.58	0.96	0.06
						1" Ice	1.90	1.22	0.09
						2" Ice			
AIRSCALE RRH 4T4R B5 160W	C	From Leg	4.00 0.00 1.00	0.00	100.00	No Ice	1.29	0.72	0.04
						1/2" Ice	1.43	0.83	0.05
						Ice	1.58	0.96	0.06
						1" Ice	1.90	1.22	0.09
						2" Ice			
B25 RRH4X30	A	From Leg	4.00 0.00 0.00	0.00	100.00	No Ice	2.20	1.74	0.06
						1/2" Ice	2.39	1.92	0.08
						Ice	2.59	2.11	0.10
						1" Ice	3.01	2.50	0.16
						2" Ice			
B25 RRH4X30	B	From Leg	4.00 0.00 0.00	0.00	100.00	No Ice	2.20	1.74	0.06
						1/2" Ice	2.39	1.92	0.08
						Ice	2.59	2.11	0.10

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustmen t °	Placement ft	C _{AA} Front ft ²	C _{AA} Side ft ²	Weight K	
B25 RRH4X30	C	From Leg	4.00 0.00 0.00	0.00	100.00	1" Ice	3.01	2.50	0.16
						2" Ice			
						No Ice	2.20	1.74	0.06
						1/2" Ice	2.39	1.92	0.08
						Ice	2.59	2.11	0.10
B13 RRH4X30-4R	A	From Leg	4.00 0.00 0.00	0.00	100.00	1" Ice	3.01	2.50	0.16
						2" Ice			
						No Ice	2.16	1.62	0.06
						1/2" Ice	2.35	1.79	0.08
						Ice	2.55	1.97	0.10
B13 RRH4X30-4R	B	From Leg	4.00 0.00 0.00	0.00	100.00	1" Ice	2.97	2.36	0.15
						2" Ice			
						No Ice	2.16	1.62	0.06
						1/2" Ice	2.35	1.79	0.08
						Ice	2.55	1.97	0.10
B13 RRH4X30-4R	C	From Leg	4.00 0.00 0.00	0.00	100.00	1" Ice	2.97	2.36	0.15
						2" Ice			
						No Ice	2.16	1.62	0.06
						1/2" Ice	2.35	1.79	0.08
						Ice	2.55	1.97	0.10
B66A RRH4X45	A	From Leg	4.00 0.00 0.00	0.00	100.00	1" Ice	2.97	2.36	0.15
						2" Ice			
						No Ice	2.58	1.63	0.07
						1/2" Ice	2.79	1.81	0.09
						Ice	3.01	2.00	0.11
B66A RRH4X45	B	From Leg	4.00 0.00 0.00	0.00	100.00	1" Ice	3.48	2.40	0.17
						2" Ice			
						No Ice	2.58	1.63	0.07
						1/2" Ice	2.79	1.81	0.09
						Ice	3.01	2.00	0.11
B66A RRH4X45	C	From Leg	4.00 0.00 0.00	0.00	100.00	1" Ice	3.48	2.40	0.17
						2" Ice			
						No Ice	2.58	1.63	0.07
						1/2" Ice	2.79	1.81	0.09
						Ice	3.01	2.00	0.11
FDJ85020Q4-S1	A	From Leg	4.00 0.00 1.00	0.00	100.00	1" Ice	3.48	2.40	0.17
						2" Ice			
						No Ice	0.96	0.36	0.02
						1/2" Ice	1.09	0.43	0.03
						Ice	1.24	0.52	0.04
FDJ85020Q4-S1	B	From Leg	4.00 0.00 1.00	0.00	100.00	1" Ice	1.54	0.71	0.08
						2" Ice			
						No Ice	0.96	0.36	0.02
						1/2" Ice	1.09	0.43	0.03
						Ice	1.24	0.52	0.04
FDJ85020Q4-S1	C	From Leg	4.00 0.00 1.00	0.00	100.00	1" Ice	1.54	0.71	0.08
						2" Ice			
						No Ice	0.96	0.36	0.02
						1/2" Ice	1.09	0.43	0.03
						Ice	1.24	0.52	0.04
(2) RXXDC-3315-PF-48	A	From Leg	4.00 0.00 0.00	0.00	100.00	1" Ice	1.54	0.71	0.08
						2" Ice			
						No Ice	3.01	1.96	0.02
						1/2" Ice	3.23	2.15	0.05
						Ice	3.46	2.35	0.08
Platform Mount [LP 713-1]	C	None		0.00	100.00	1" Ice	3.93	2.76	0.15
						2" Ice			
						No Ice	32.89	32.89	1.51
						1/2" Ice	35.76	35.76	2.23
						Ice	38.76	38.76	3.03
(4) 6' x 2" Mount Pipe	A	From Leg	4.00 0.00 0.00	0.00	100.00	1" Ice	45.26	45.26	4.86
						2" Ice			
						No Ice	1.43	1.43	0.02
						1/2" Ice	1.92	1.92	0.03
						Ice	2.29	2.29	0.05

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment t °	Placement ft	C _{AA} Front ft ²	C _{AA} Side ft ²	Weight K	
						1" Ice	3.06	3.06	0.09
(4) 6' x 2" Mount Pipe	B	From Leg	4.00 0.00 0.00	0.00	100.00	2" Ice			
						No Ice	1.43	1.43	0.02
						1/2"	1.92	1.92	0.03
						Ice	2.29	2.29	0.05
(4) 6' x 2" Mount Pipe	C	From Leg	4.00 0.00 0.00	0.00	100.00	1" Ice	3.06	3.06	0.09
						2" Ice			
						No Ice	1.43	1.43	0.02
						1/2"	1.92	1.92	0.03
** APXVTM14-ALU-I20 w/ Mount Pipe	A	From Leg	4.00 0.00 2.00	0.00	87.00	Ice	4.88	3.61	0.19
						1" Ice	5.71	4.40	0.33
						2" Ice			
						No Ice	4.09	2.86	0.08
APXVTM14-ALU-I20 w/ Mount Pipe	B	From Leg	4.00 0.00 2.00	0.00	87.00	1/2"	4.48	3.23	0.13
						Ice	4.88	3.61	0.19
						1" Ice	5.71	4.40	0.33
						2" Ice			
APXVTM14-ALU-I20 w/ Mount Pipe	C	From Leg	4.00 0.00 2.00	0.00	87.00	No Ice	4.09	2.86	0.08
						1/2"	4.48	3.23	0.13
						Ice	4.88	3.61	0.19
						1" Ice	5.71	4.40	0.33
NNVV-65B-R4 w/ Mount Pipe	A	From Leg	4.00 0.00 2.00	0.00	87.00	2" Ice			
						No Ice	7.55	4.23	0.11
						1/2"	8.04	4.67	0.20
						Ice	8.53	5.12	0.30
NNVV-65B-R4 w/ Mount Pipe	B	From Leg	4.00 0.00 2.00	0.00	87.00	1" Ice	9.56	6.05	0.53
						2" Ice			
						No Ice	7.55	4.23	0.11
						1/2"	8.04	4.67	0.20
NNVV-65B-R4 w/ Mount Pipe	C	From Leg	4.00 0.00 2.00	0.00	87.00	Ice	8.53	5.12	0.30
						1" Ice	9.56	6.05	0.53
						2" Ice			
						No Ice	7.55	4.23	0.11
(2) RRH2X50-800	A	From Leg	4.00 0.00 2.00	0.00	87.00	1/2"	1.86	1.43	0.07
						Ice	2.03	1.58	0.09
						1" Ice	2.40	1.91	0.14
						2" Ice			
(2) RRH2X50-800	B	From Leg	4.00 0.00 2.00	0.00	87.00	No Ice	1.70	1.28	0.05
						1/2"	1.86	1.43	0.07
						Ice	2.03	1.58	0.09
						1" Ice	2.40	1.91	0.14
(2) RRH2X50-800	C	From Leg	4.00 0.00 2.00	0.00	87.00	2" Ice			
						No Ice	1.70	1.28	0.05
						1/2"	1.86	1.43	0.07
						Ice	2.03	1.58	0.09
FZHN	A	From Leg	4.00 0.00 2.00	0.00	87.00	1" Ice	2.40	1.91	0.14
						2" Ice			
						No Ice	2.02	0.61	0.04
						1/2"	2.20	0.71	0.06
FZHN	B	From Leg	4.00 0.00	0.00	87.00	Ice	2.38	0.83	0.07
						1" Ice	2.77	1.09	0.12
						2" Ice			
						No Ice	2.02	0.61	0.04
						1/2"	2.20	0.71	0.06

Description	Face or Leg	Offset Type	Offsets:			Placement	C _{AA}		Weight
			Horz	Lateral	Vert		Front	Side	
			ft	ft	ft	ft	ft ²	ft ²	K
						Ice	2.38	0.83	0.07
						1" Ice	2.77	1.09	0.12
						2" Ice			
FZHN	C	From Leg	4.00	0.00	87.00	No Ice	2.02	0.61	0.04
			0.00			1/2"	2.20	0.71	0.06
			2.00			Ice	2.38	0.83	0.07
						1" Ice	2.77	1.09	0.12
						2" Ice			
PCS 1900MHZ 4X45W-65MHZ	A	From Leg	4.00	0.00	87.00	No Ice	2.32	2.24	0.06
			0.00			1/2"	2.53	2.44	0.08
			2.00			Ice	2.74	2.65	0.11
						1" Ice	3.19	3.09	0.17
						2" Ice			
PCS 1900MHZ 4X45W-65MHZ	B	From Leg	4.00	0.00	87.00	No Ice	2.32	2.24	0.06
			0.00			1/2"	2.53	2.44	0.08
			2.00			Ice	2.74	2.65	0.11
						1" Ice	3.19	3.09	0.17
						2" Ice			
PCS 1900MHZ 4X45W-65MHZ	C	From Leg	4.00	0.00	87.00	No Ice	2.32	2.24	0.06
			0.00			1/2"	2.53	2.44	0.08
			2.00			Ice	2.74	2.65	0.11
						1" Ice	3.19	3.09	0.17
						2" Ice			
Platform Mount [LP 713-1]	C	None		0.00	87.00	No Ice	32.89	32.89	1.51
						1/2"	35.76	35.76	2.23
						Ice	38.76	38.76	3.03
						1" Ice	45.26	45.26	4.86
						2" Ice			
(2) 6' x 2" Mount Pipe	A	From Leg	4.00	0.00	87.00	No Ice	1.43	1.43	0.02
			0.00			1/2"	1.92	1.92	0.03
			0.00			Ice	2.29	2.29	0.05
						1" Ice	3.06	3.06	0.09
						2" Ice			
(2) 6' x 2" Mount Pipe	B	From Leg	4.00	0.00	87.00	No Ice	1.43	1.43	0.02
			0.00			1/2"	1.92	1.92	0.03
			0.00			Ice	2.29	2.29	0.05
						1" Ice	3.06	3.06	0.09
						2" Ice			
(2) 6' x 2" Mount Pipe	C	From Leg	4.00	0.00	87.00	No Ice	1.43	1.43	0.02
			0.00			1/2"	1.92	1.92	0.03
			0.00			Ice	2.29	2.29	0.05
						1" Ice	3.06	3.06	0.09
						2" Ice			
**									
AIR21 B4A B2P_T-MOBILE	A	From Leg	4.00	0.00	71.00	No Ice	6.11	4.31	0.11
			0.00			1/2"	6.48	4.67	0.16
			2.00			Ice	6.86	5.02	0.20
						1" Ice	7.64	5.76	0.31
						2" Ice			
AIR21 B4A B2P_T-MOBILE	B	From Leg	4.00	0.00	71.00	No Ice	6.11	4.31	0.11
			0.00			1/2"	6.48	4.67	0.16
			2.00			Ice	6.86	5.02	0.20
						1" Ice	7.64	5.76	0.31
						2" Ice			
AIR21 B4A B2P_T-MOBILE	C	From Leg	4.00	0.00	71.00	No Ice	6.11	4.31	0.11
			0.00			1/2"	6.48	4.67	0.16
			2.00			Ice	6.86	5.02	0.20
						1" Ice	7.64	5.76	0.31
						2" Ice			
AIR 32 B2a/B66Aa	A	From Leg	4.00	0.00	71.00	No Ice	6.51	4.71	0.13
			0.00			1/2"	6.89	5.07	0.18
			2.00			Ice	7.27	5.43	0.23
						1" Ice	8.06	6.18	0.35
						2" Ice			
AIR 32 B2a/B66Aa	B	From Leg	4.00	0.00	71.00	No Ice	6.51	4.71	0.13

Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment °	Placement ft	C _{AA} Front ft ²	C _{AA} Side ft ²	Weight K
			Horz ft	Lateral Vert ft					
AIR 32 B2a/B66Aa	C	From Leg	4.00	0.00	71.00	No Ice	6.89	5.07	0.18
						1/2" Ice	7.27	5.43	0.23
						1" Ice	8.06	6.18	0.35
						2" Ice			
						0.00			
APXVAARR24_43-U-NA20_T-MOBILE	A	From Leg	4.00	0.00	71.00	No Ice	14.67	5.32	0.15
						1/2" Ice	15.43	5.99	0.27
						1" Ice	16.21	6.68	0.39
						2" Ice	17.81	8.08	0.66
						0.00			
APXVAARR24_43-U-NA20_T-MOBILE	B	From Leg	4.00	0.00	71.00	No Ice	14.67	5.32	0.15
						1/2" Ice	15.43	5.99	0.27
						1" Ice	16.21	6.68	0.39
						2" Ice	17.81	8.08	0.66
						0.00			
APXVAARR24_43-U-NA20_T-MOBILE	C	From Leg	4.00	0.00	71.00	No Ice	14.67	5.32	0.15
						1/2" Ice	15.43	5.99	0.27
						1" Ice	16.21	6.68	0.39
						2" Ice	17.81	8.08	0.66
						0.00			
AIR6449 B41	A	From Leg	4.00	0.00	71.00	No Ice	5.68	2.49	0.10
						1/2" Ice	5.98	2.72	0.14
						1" Ice	6.29	2.95	0.19
						2" Ice	6.93	3.44	0.29
						0.00			
AIR6449 B41	B	From Leg	4.00	0.00	71.00	No Ice	5.68	2.49	0.10
						1/2" Ice	5.98	2.72	0.14
						1" Ice	6.29	2.95	0.19
						2" Ice	6.93	3.44	0.29
						0.00			
AIR6449 B41	C	From Leg	4.00	0.00	71.00	No Ice	5.68	2.49	0.10
						1/2" Ice	5.98	2.72	0.14
						1" Ice	6.29	2.95	0.19
						2" Ice	6.93	3.44	0.29
						0.00			
RADIO 4449 B71 B85A_T-MOBILE	A	From Leg	4.00	0.00	71.00	No Ice	1.97	1.59	0.07
						1/2" Ice	2.15	1.75	0.09
						1" Ice	2.33	1.92	0.12
						2" Ice	2.72	2.28	0.17
						0.00			
RADIO 4449 B71 B85A_T-MOBILE	B	From Leg	4.00	0.00	71.00	No Ice	1.97	1.59	0.07
						1/2" Ice	2.15	1.75	0.09
						1" Ice	2.33	1.92	0.12
						2" Ice	2.72	2.28	0.17
						0.00			
RADIO 4449 B71 B85A_T-MOBILE	C	From Leg	4.00	0.00	71.00	No Ice	1.97	1.59	0.07
						1/2" Ice	2.15	1.75	0.09
						1" Ice	2.33	1.92	0.12
						2" Ice	2.72	2.28	0.17
						0.00			
RRUS 4415 B25	A	From Leg	4.00	0.00	71.00	No Ice	1.64	0.68	0.04
						1/2" Ice	1.80	0.79	0.06
						1" Ice	1.97	0.91	0.07
						2" Ice	2.33	1.18	0.11
						0.00			
RRUS 4415 B25	B	From Leg	4.00	0.00	71.00	No Ice	1.64	0.68	0.04
						1/2" Ice	1.80	0.79	0.06
						1" Ice	1.97	0.91	0.07
						2" Ice	2.33	1.18	0.11
						0.00			
RRUS 4415 B25	C	From Leg	4.00	0.00	71.00	No Ice	1.64	0.68	0.04

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft	C _A A _A Front ft ²	C _A A _A Side ft ²	Weight K
			0.00			1/2"	1.80	0.06
			2.00			Ice	1.97	0.07
						1" Ice	2.33	0.11
						2" Ice		
Platform Mount [LP 1301-1]	C	None		0.00	71.00	No Ice	51.70	2.26
						1/2"	62.70	2.94
						Ice	73.70	3.61
						1" Ice	95.70	4.95
						2" Ice		
8' x 2" Mount Pipe	C	From Leg	4.00	0.00	71.00	No Ice	1.90	0.03
			0.00			1/2"	2.73	0.04
			0.00			Ice	3.40	0.06
						1" Ice	4.40	0.12
						2" Ice		
**								
PD1142-1	A	From Leg	6.00	0.00	50.00	No Ice	1.32	0.01
			0.00			1/2"	3.21	0.02
			7.00			Ice	5.12	0.05
						1" Ice	8.99	0.14
						2" Ice		
DB492A	A	From Leg	6.00	0.00	50.00	No Ice	1.10	0.01
			0.00			1/2"	1.98	0.01
			0.00			Ice	2.86	0.01
						1" Ice	4.62	0.01
						2" Ice		
ASP-655	A	From Leg	6.00	0.00	50.00	No Ice	0.56	0.00
			0.00			1/2"	1.02	0.01
			4.00			Ice	1.30	0.01
						1" Ice	1.88	0.04
						2" Ice		
PD1121-6	B	From Leg	6.00	0.00	50.00	No Ice	0.23	0.00
			0.00			1/2"	0.41	0.00
			3.00			Ice	0.60	0.00
						1" Ice	0.97	0.01
						2" Ice		
Side Arm Mount [SO 702-1]	A	From Leg	3.00	0.00	50.00	No Ice	1.00	0.03
			0.00			1/2"	1.00	0.04
			0.00			Ice	1.00	0.05
						1" Ice	1.00	0.07
						2" Ice		
Side Arm Mount [SO 702-1]	B	From Leg	3.00	0.00	50.00	No Ice	1.00	0.03
			0.00			1/2"	1.00	0.04
			0.00			Ice	1.00	0.05
						1" Ice	1.00	0.07
						2" Ice		
**								
EPSILON GPS ANTENNA 35 DB	A	From Leg	4.00	0.00	40.00	No Ice	0.11	0.00
			0.00			1/2"	0.16	0.00
			1.00			Ice	0.21	0.00
						1" Ice	0.34	0.01
						2" Ice		
Side Arm Mount [SO 701-1]	A	From Leg	2.00	0.00	40.00	No Ice	0.85	0.07
			0.00			1/2"	1.14	0.08
			0.00			Ice	1.43	0.09
						1" Ice	2.01	0.12
						2" Ice		

Dishes

Description	Face or Leg	Dish Type	Offset Type	Offsets: Horz Lateral Vert	Azimuth Adjustment °	3 dB Beam Width °	Elevation ft	Outside Diameter ft	Aperture Area ft ²	Weight K	
GLF6-450	B	Grid	From Leg	1.00	0.00		107.00	6.40	No Ice	32.17	0.20
				0.00					1/2" Ice	33.01	0.37
				0.00					1" Ice	33.86	0.54
									2" Ice	35.54	0.88
**											
SHP2-13	A	Paraboloid w/Shroud (HP)	From Leg	4.00	0.00		71.00	2.00	No Ice	3.14	0.10
				0.00					1/2" Ice	3.41	0.13
				4.00					1" Ice	3.68	0.17
									2" Ice	4.21	0.23

Load Combinations

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

Comb. No.	Description
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	120 - 100	Pole	Max Tension	9	0.00	0.00	-0.00
			Max. Compression	26	-14.23	-2.16	0.21
			Max. M _x	8	-5.95	-113.19	-0.58
			Max. M _y	14	-5.99	-1.52	-109.63
			Max. V _y	8	7.83	-113.19	-0.58
			Max. V _x	14	7.56	-1.52	-109.63
			Max. Torque	2			-1.61
L2	100 - 47.0833	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-51.05	-2.06	2.51
			Max. M _x	8	-24.37	-1062.67	-3.86
			Max. M _y	14	-24.39	-7.96	-1050.23
			Max. V _y	8	25.24	-1062.67	-3.86
			Max. V _x	14	25.11	-7.96	-1050.23
			Max. Torque	24			-2.01
L3	47.0833 - 0	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-68.18	-2.38	3.36
			Max. M _x	8	-39.00	-2481.14	-7.21
			Max. M _y	14	-39.00	-14.55	-2460.37
			Max. V _y	20	-29.06	2479.66	6.57
			Max. V _x	14	28.91	-14.55	-2460.37
			Max. Torque	24			-2.36

Maximum Reactions

Location	Condition	Gov. Load Comb.	Vertical K	Horizontal, X K	Horizontal, Z K
Pole	Max. Vert	37	68.18	5.38	3.10
	Max. H _x	20	39.04	29.01	0.05
	Max. H _z	2	39.04	0.08	28.82
	Max. M _x	2	2458.36	0.08	28.82
	Max. M _z	8	2481.14	-29.01	-0.07
	Max. Torsion	12	2.28	-14.57	-25.13
	Min. Vert	5	29.28	-14.37	24.79
	Min. H _x	9	29.28	-29.01	-0.07
	Min. H _z	14	39.04	-0.12	-28.86
	Min. M _x	14	-2460.37	-0.12	-28.86
	Min. M _z	20	-2479.66	29.01	0.05
	Min. Torsion	24	-2.35	14.52	25.12

Tower Mast Reaction Summary

Load Combination	Vertical K	Shear _x K	Shear _z K	Overturing Moment, M _x kip-ft	Overturing Moment, M _z kip-ft	Torque kip-ft
Dead Only	32.53	0.00	0.00	-0.86	-0.59	0.00
1.2 Dead+1.0 Wind 0 deg - No Ice	39.04	-0.08	-28.82	-2458.36	8.58	1.51
0.9 Dead+1.0 Wind 0 deg - No Ice	29.28	-0.08	-28.82	-2425.99	8.64	1.49

Load Combination	Vertical K	Shear _x K	Shear _z K	Overturing Moment, M _x kip-ft	Overturing Moment, M _z kip-ft	Torque kip-ft
1.2 Dead+1.0 Wind 30 deg - No Ice	39.04	14.37	-24.79	-2110.30	-1225.79	0.15
0.9 Dead+1.0 Wind 30 deg - No Ice	29.28	14.37	-24.79	-2082.50	-1209.59	0.14
1.2 Dead+1.0 Wind 60 deg - No Ice	39.04	25.01	-14.34	-1220.62	-2136.25	-0.75
0.9 Dead+1.0 Wind 60 deg - No Ice	29.28	25.01	-14.34	-1204.43	-2108.12	-0.75
1.2 Dead+1.0 Wind 90 deg - No Ice	39.04	29.01	0.07	7.21	-2481.14	-1.63
0.9 Dead+1.0 Wind 90 deg - No Ice	29.28	29.01	0.07	7.36	-2448.49	-1.62
1.2 Dead+1.0 Wind 120 deg - No Ice	39.04	25.20	14.61	1249.32	-2157.62	-2.17
0.9 Dead+1.0 Wind 120 deg - No Ice	29.28	25.20	14.61	1233.26	-2129.19	-2.15
1.2 Dead+1.0 Wind 150 deg - No Ice	39.04	14.57	25.13	2145.57	-1248.27	-2.28
0.9 Dead+1.0 Wind 150 deg - No Ice	29.28	14.57	25.13	2117.81	-1231.73	-2.26
1.2 Dead+1.0 Wind 180 deg - No Ice	39.04	0.12	28.86	2460.37	-14.55	-1.49
0.9 Dead+1.0 Wind 180 deg - No Ice	29.28	0.12	28.86	2428.52	-14.14	-1.47
1.2 Dead+1.0 Wind 210 deg - No Ice	39.04	-14.26	24.89	2118.34	1211.24	-0.14
0.9 Dead+1.0 Wind 210 deg - No Ice	29.28	-14.26	24.89	2090.99	1195.63	-0.13
1.2 Dead+1.0 Wind 240 deg - No Ice	39.04	-24.97	14.39	1223.58	2130.20	0.66
0.9 Dead+1.0 Wind 240 deg - No Ice	29.28	-24.97	14.39	1207.91	2102.55	0.66
1.2 Dead+1.0 Wind 270 deg - No Ice	39.04	-29.01	-0.05	-6.57	2479.66	1.55
0.9 Dead+1.0 Wind 270 deg - No Ice	29.28	-29.01	-0.05	-6.20	2447.42	1.54
1.2 Dead+1.0 Wind 300 deg - No Ice	39.04	-25.14	-14.55	-1244.77	2148.98	2.24
0.9 Dead+1.0 Wind 300 deg - No Ice	29.28	-25.14	-14.55	-1228.22	2121.06	2.22
1.2 Dead+1.0 Wind 330 deg - No Ice	39.04	-14.52	-25.12	-2147.81	1242.04	2.35
0.9 Dead+1.0 Wind 330 deg - No Ice	29.28	-14.52	-25.12	-2119.46	1225.97	2.33
1.2 Dead+1.0 Ice+1.0 Temp	68.18	0.00	-0.00	-3.36	-2.38	0.00
1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp	68.18	-0.28	-6.09	-563.65	31.82	0.13
1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp	68.18	2.98	-5.15	-472.93	-274.70	0.04
1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp	68.18	5.23	-2.98	-274.89	-482.16	-0.27
1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp	68.18	6.07	0.00	-2.61	-560.26	-0.55
1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp	68.18	5.29	3.05	277.51	-489.42	-0.79
1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp	68.18	3.04	5.24	477.69	-282.10	-0.85
1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp	68.18	0.03	6.01	546.39	-6.61	-0.53
1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp	68.18	-2.98	5.16	466.80	269.40	-0.04
1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp	68.18	-5.43	2.81	247.78	501.57	0.67
1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp	68.18	-6.17	-0.17	-24.64	567.68	0.93
1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp	68.18	-5.38	-3.10	-290.53	496.02	0.81
1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp	68.18	-3.23	-5.24	-484.78	300.56	0.48

Load Combination	Vertical	Shear _x	Shear _z	Overturing Moment, M _x	Overturing Moment, M _z	Torque
	K	K	K	kip-ft	kip-ft	kip-ft
Dead+Wind 0 deg - Service	32.53	-0.02	-5.78	-490.44	1.23	0.31
Dead+Wind 30 deg - Service	32.53	2.88	-4.97	-421.09	-244.66	0.03
Dead+Wind 60 deg - Service	32.53	5.02	-2.88	-243.86	-426.05	-0.15
Dead+Wind 90 deg - Service	32.53	5.82	0.01	0.74	-494.77	-0.33
Dead+Wind 120 deg - Service	32.53	5.06	2.93	248.21	-430.33	-0.44
Dead+Wind 150 deg - Service	32.53	2.92	5.04	426.76	-249.16	-0.46
Dead+Wind 180 deg - Service	32.53	0.02	5.79	489.46	-3.37	-0.30
Dead+Wind 210 deg - Service	32.53	-2.86	4.99	421.31	240.82	-0.03
Dead+Wind 240 deg - Service	32.53	-5.01	2.89	243.07	423.90	0.13
Dead+Wind 270 deg - Service	32.53	-5.82	-0.01	-2.00	493.54	0.31
Dead+Wind 300 deg - Service	32.53	-5.04	-2.92	-248.68	427.66	0.45
Dead+Wind 330 deg - Service	32.53	-2.91	-5.04	-428.59	246.97	0.47

Solution Summary

Load Comb.	Sum of Applied Forces			Sum of Reactions			% Error
	PX K	PY K	PZ K	PX K	PY K	PZ K	
1	0.00	-32.53	0.00	0.00	32.53	0.00	0.000%
2	-0.08	-39.04	-28.82	0.08	39.04	28.82	0.000%
3	-0.08	-29.28	-28.82	0.08	29.28	28.82	0.000%
4	14.37	-39.04	-24.79	-14.37	39.04	24.79	0.000%
5	14.37	-29.28	-24.79	-14.37	29.28	24.79	0.000%
6	25.01	-39.04	-14.34	-25.01	39.04	14.34	0.000%
7	25.01	-29.28	-14.34	-25.01	29.28	14.34	0.000%
8	29.01	-39.04	0.07	-29.01	39.04	-0.07	0.000%
9	29.01	-29.28	0.07	-29.01	29.28	-0.07	0.000%
10	25.20	-39.04	14.61	-25.20	39.04	-14.61	0.000%
11	25.20	-29.28	14.61	-25.20	29.28	-14.61	0.000%
12	14.57	-39.04	25.13	-14.57	39.04	-25.13	0.000%
13	14.57	-29.28	25.13	-14.57	29.28	-25.13	0.000%
14	0.12	-39.04	28.86	-0.12	39.04	-28.86	0.000%
15	0.12	-29.28	28.86	-0.12	29.28	-28.86	0.000%
16	-14.26	-39.04	24.89	14.26	39.04	-24.89	0.000%
17	-14.26	-29.28	24.89	14.26	29.28	-24.89	0.000%
18	-24.97	-39.04	14.39	24.97	39.04	-14.39	0.000%
19	-24.97	-29.28	14.39	24.97	29.28	-14.39	0.000%
20	-29.01	-39.04	-0.05	29.01	39.04	0.05	0.000%
21	-29.01	-29.28	-0.05	29.01	29.28	0.05	0.000%
22	-25.14	-39.04	-14.55	25.14	39.04	14.55	0.000%
23	-25.14	-29.28	-14.55	25.14	29.28	14.55	0.000%
24	-14.52	-39.04	-25.12	14.52	39.04	25.12	0.000%
25	-14.52	-29.28	-25.12	14.52	29.28	25.12	0.000%
26	0.00	-68.18	0.00	-0.00	68.18	0.00	0.000%
27	-0.28	-68.18	-6.09	0.28	68.18	6.09	0.000%
28	2.98	-68.18	-5.15	-2.98	68.18	5.15	0.000%
29	5.23	-68.18	-2.98	-5.23	68.18	2.98	0.000%
30	6.07	-68.18	0.00	-6.07	68.18	-0.00	0.000%
31	5.29	-68.18	3.05	-5.29	68.18	-3.05	0.000%
32	3.04	-68.18	5.24	-3.04	68.18	-5.24	0.000%
33	0.03	-68.18	6.01	-0.03	68.18	-6.01	0.000%
34	-2.98	-68.18	5.16	2.98	68.18	-5.16	0.000%
35	-5.43	-68.18	2.81	5.43	68.18	-2.81	0.000%
36	-6.17	-68.18	-0.17	6.17	68.18	0.17	0.000%
37	-5.38	-68.18	-3.10	5.38	68.18	3.10	0.000%
38	-3.23	-68.18	-5.24	3.23	68.18	5.24	0.000%
39	-0.02	-32.53	-5.78	0.02	32.53	5.78	0.000%
40	2.88	-32.53	-4.97	-2.88	32.53	4.97	0.000%

Load Comb.	Sum of Applied Forces			Sum of Reactions			% Error
	PX K	PY K	PZ K	PX K	PY K	PZ K	
41	5.02	-32.53	-2.88	-5.02	32.53	2.88	0.000%
42	5.82	-32.53	0.01	-5.82	32.53	-0.01	0.000%
43	5.06	-32.53	2.93	-5.06	32.53	-2.93	0.000%
44	2.92	-32.53	5.04	-2.92	32.53	-5.04	0.000%
45	0.02	-32.53	5.79	-0.02	32.53	-5.79	0.000%
46	-2.86	-32.53	4.99	2.86	32.53	-4.99	0.000%
47	-5.01	-32.53	2.89	5.01	32.53	-2.89	0.000%
48	-5.82	-32.53	-0.01	5.82	32.53	0.01	0.000%
49	-5.04	-32.53	-2.92	5.04	32.53	2.92	0.000%
50	-2.91	-32.53	-5.04	2.91	32.53	5.04	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	5	0.00000001	0.00026102
3	Yes	5	0.00000001	0.00011966
4	Yes	6	0.00000001	0.00021525
5	Yes	6	0.00000001	0.00006693
6	Yes	6	0.00000001	0.00021190
7	Yes	6	0.00000001	0.00006548
8	Yes	5	0.00000001	0.00007258
9	Yes	4	0.00000001	0.00078930
10	Yes	6	0.00000001	0.00021050
11	Yes	6	0.00000001	0.00006415
12	Yes	6	0.00000001	0.00023110
13	Yes	6	0.00000001	0.00007171
14	Yes	5	0.00000001	0.00035492
15	Yes	5	0.00000001	0.00016154
16	Yes	6	0.00000001	0.00020323
17	Yes	6	0.00000001	0.00006299
18	Yes	6	0.00000001	0.00021339
19	Yes	6	0.00000001	0.00006620
20	Yes	5	0.00000001	0.00011787
21	Yes	5	0.00000001	0.00005264
22	Yes	6	0.00000001	0.00022784
23	Yes	6	0.00000001	0.00007059
24	Yes	6	0.00000001	0.00020432
25	Yes	6	0.00000001	0.00006225
26	Yes	4	0.00000001	0.00004348
27	Yes	5	0.00000001	0.00044342
28	Yes	5	0.00000001	0.00074610
29	Yes	5	0.00000001	0.00073607
30	Yes	5	0.00000001	0.00043664
31	Yes	5	0.00000001	0.00073139
32	Yes	5	0.00000001	0.00080314
33	Yes	5	0.00000001	0.00045087
34	Yes	5	0.00000001	0.00066067
35	Yes	5	0.00000001	0.00066635
36	Yes	5	0.00000001	0.00047896
37	Yes	5	0.00000001	0.00083374
38	Yes	5	0.00000001	0.00078247
39	Yes	4	0.00000001	0.00022598
40	Yes	4	0.00000001	0.00064189
41	Yes	4	0.00000001	0.00059148
42	Yes	4	0.00000001	0.00009187
43	Yes	4	0.00000001	0.00055997
44	Yes	4	0.00000001	0.00077516
45	Yes	4	0.00000001	0.00023574
46	Yes	4	0.00000001	0.00052627
47	Yes	4	0.00000001	0.00059858
48	Yes	4	0.00000001	0.00008979
49	Yes	4	0.00000001	0.00072938
50	Yes	4	0.00000001	0.00053769

Maximum Tower Deflections - Service Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	120 - 100	18.72	43	1.36	0.01
L2	100 - 47.0833	13.14	43	1.26	0.00
L3	52 - 0	3.37	43	0.61	0.00

Critical Deflections and Radius of Curvature - Service Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
119.00	DB809MT3-XT	43	18.43	1.36	0.01	23546
116.00	(2) SBNHH-1D65A w/ Mount Pipe	43	17.57	1.35	0.01	23546
107.00	GLF6-450	43	15.04	1.31	0.01	9056
100.00	(2) LPA-80080/6CF w/ Mount Pipe	43	13.14	1.26	0.00	6055
87.00	APXVTM14-ALU-I20w/ Mount Pipe	43	9.87	1.13	0.00	4844
75.00	SHP2-13	43	7.23	0.96	0.00	4157
71.00	AIR21 B4A B2P_T-MOBILE	43	6.43	0.90	0.00	3970
50.00	PD1142-1	43	3.12	0.58	0.00	3418
40.00	EPSILON GPS ANTENNA 35 DB	43	2.07	0.45	0.00	4249

Maximum Tower Deflections - Design Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	120 - 100	93.83	10	6.84	0.04
L2	100 - 47.0833	65.92	10	6.34	0.02
L3	52 - 0	16.92	10	3.08	0.01

Critical Deflections and Radius of Curvature - Design Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
119.00	DB809MT3-XT	10	92.40	6.83	0.04	4877
116.00	(2) SBNHH-1D65A w/ Mount Pipe	10	88.12	6.77	0.03	4877
107.00	GLF6-450	10	75.44	6.57	0.03	1874
100.00	(2) LPA-80080/6CF w/ Mount Pipe	10	65.92	6.34	0.02	1250
87.00	APXVTM14-ALU-I20w/ Mount Pipe	10	49.56	5.66	0.02	989
75.00	SHP2-13	10	36.29	4.83	0.01	842
71.00	AIR21 B4A B2P_T-MOBILE	10	32.32	4.53	0.01	802
50.00	PD1142-1	10	15.67	2.93	0.00	683
40.00	EPSILON GPS ANTENNA 35 DB	10	10.41	2.26	0.00	847

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	120 - 100 (1)	TP20.263x15.403x0.1875	20.00	0.00	0.0	12.120	-5.93	709.05	0.008
L2	100 - 47.0833 (2)	TP33.13x20.263x0.2813	52.92	0.00	0.0	28.666	-24.36	1676.96	0.015
L3	47.0833 - 0 (3)	TP44x31.372x0.375	52.00	0.00	0.0	52.677	-39.00	3081.62	0.013

Pole Bending Design Data

Section No.	Elevation ft	Size	M _{ux} kip-ft	φM _{rx} kip-ft	Ratio $\frac{M_{ux}}{\phi M_{rx}}$	M _{uy} kip-ft	φM _{ry} kip-ft	Ratio $\frac{M_{uy}}{\phi M_{ry}}$
L1	120 - 100 (1)	TP20.263x15.403x0.1875	113.56	332.31	0.342	0.00	332.31	0.000
L2	100 - 47.0833 (2)	TP33.13x20.263x0.2813	1068.66	1213.13	0.881	0.00	1213.13	0.000
L3	47.0833 - 0 (3)	TP44x31.372x0.375	2493.22	3026.69	0.824	0.00	3026.69	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	120 - 100 (1)	TP20.263x15.403x0.1875	7.93	212.72	0.037	0.67	375.64	0.002
L2	100 - 47.0833 (2)	TP33.13x20.263x0.2813	25.38	503.09	0.050	1.16	1400.75	0.001
L3	47.0833 - 0 (3)	TP44x31.372x0.375	29.18	924.49	0.032	2.17	3547.60	0.001

Pole Interaction Design Data

Section No.	Elevation ft	Ratio $\frac{P_u}{\phi P_n}$	Ratio $\frac{M_{ux}}{\phi M_{rx}}$	Ratio $\frac{M_{uy}}{\phi M_{ry}}$	Ratio $\frac{V_u}{\phi V_n}$	Ratio $\frac{T_u}{\phi T_n}$	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
L1	120 - 100 (1)	0.008	0.342	0.000	0.037	0.002	0.352	1.050	4.8.2
L2	100 - 47.0833 (2)	0.015	0.881	0.000	0.050	0.001	0.898	1.050	4.8.2
L3	47.0833 - 0 (3)	0.013	0.824	0.000	0.032	0.001	0.837	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	120 - 100	Pole	TP20.263x15.403x0.1875	1	-5.93	744.51	33.5	Pass	
L2	100 - 47.0833	Pole	TP33.13x20.263x0.2813	2	-24.36	1760.81	85.5	Pass	
L3	47.0833 - 0	Pole	TP44x31.372x0.375	3	-39.00	3235.70	79.8	Pass	
							Summary		
							Pole (L2)	85.5	Pass
							RATING =	85.5	Pass

APPENDIX B
BASE LEVEL DRAWING

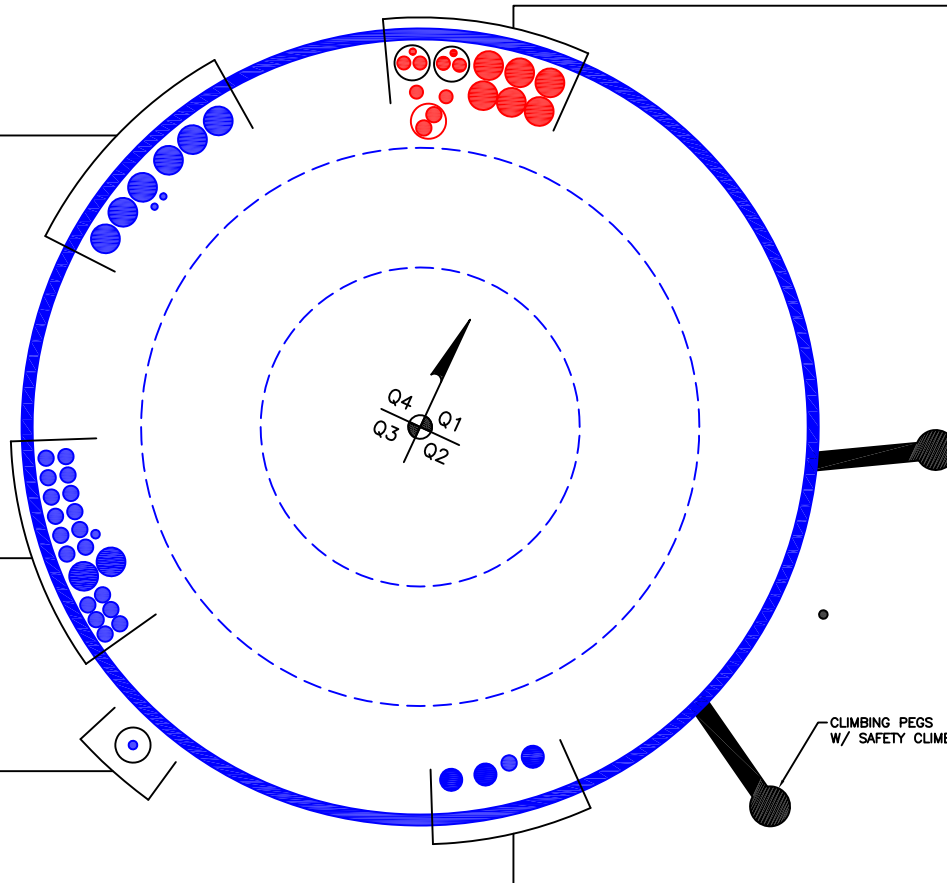


(OTHER CONSIDERED EQUIPMENT)
(2) 3/8" TO 71 FT LEVEL
(6) 1-5/8" TO 71 FT LEVEL

(OTHER CONSIDERED EQUIPMENT)
(12) 7/8" TO 100 FT LEVEL
(2) 1-5/8" TO 100 FT LEVEL

(OTHER CONSIDERED EQUIPMENT)
(1) 1/2" TO 50 FT LEVEL
(3) 7/8" TO 50 FT LEVEL
(1) 7/8" TO 107 FT LEVEL
(2) 7/8" TO 119 FT LEVEL

(OTHER CONSIDERED EQUIPMENT—IN CONDUIT)
(1) 1/2" TO 40 FT LEVEL



(PROPOSED EQUIPMENT CONFIGURATION—IN CONDUIT)
(2) 3/8" TO 116 FT LEVEL
(4) 3/4" TO 116 FT LEVEL
(2) 7/8" TO 116 FT LEVEL
(PROPOSED EQUIPMENT CONFIGURATION)
(2) 3/4" TO 116 FT LEVEL
(6) 1-5/8" TO 116 FT LEVEL

(OTHER CONSIDERED EQUIPMENT)
(1) 7/8" TO 87 FT LEVEL
(3) 1-1/4" TO 87 FT LEVEL

APPENDIX C
ADDITIONAL CALCULATIONS

Monopole Flange Plate Connection

Elevation = 100 ft.

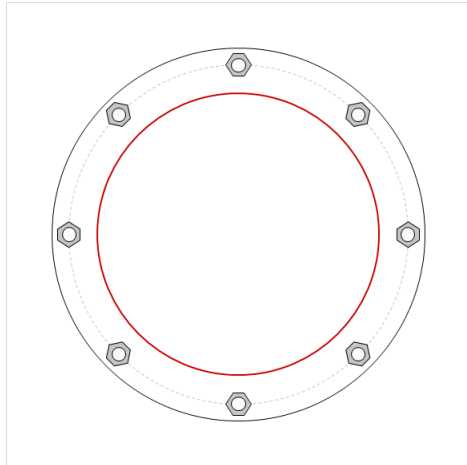


BU #	806364
Site Name	HRT 106(B) 943202
Order #	517085 Rev. 0
TIA-222 Revision	H

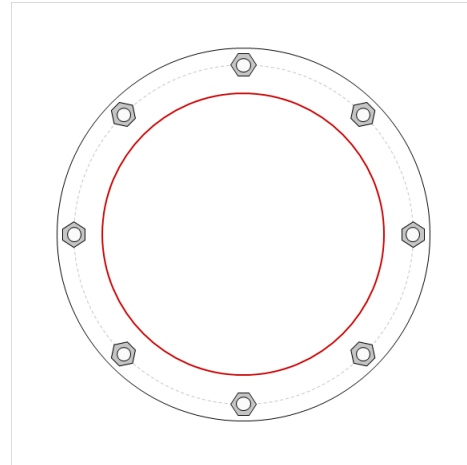
Applied Loads	
Moment (kip-ft)	115.84
Axial Force (kips)	9.83
Shear Force (kips)	13.00

*TIA-222-H Section 15.5 Applied

Top Plate - External



Bottom Plate - External



Connection Properties

Bolt Data

(8) 1" ϕ bolts (A325 N; Fy=92 ksi, Fu=120 ksi) on 24.41" BC

Top Plate Data

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

Top Stiffener Data

N/A

Top Pole Data

20.263" x 0.1875" 12-sided pole (A572-65; Fy=65 ksi, Fu=80 ksi)

Bottom Plate Data

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

Bottom Stiffener Data

N/A

Bottom Pole Data

20.263" x 0.28125" 12-sided pole (A572-65; Fy=65 ksi, Fu=80 ksi)

Analysis Results

Bolt Capacity

Max Load (kips)	27.23
Allowable (kips)	54.48
Stress Rating:	47.6% Pass

Top Plate Capacity

Max Stress (ksi):	8.23	(Flexural)
Allowable Stress (ksi):	54.00	
Stress Rating:	14.5%	Pass
Tension Side Stress Rating:	7.2%	Pass

Bottom Plate Capacity

Max Stress (ksi):	8.23	(Flexural)
Allowable Stress (ksi):	54.00	
Stress Rating:	14.5%	Pass
Tension Side Stress Rating:	7.2%	Pass

Monopole Base Plate Connection

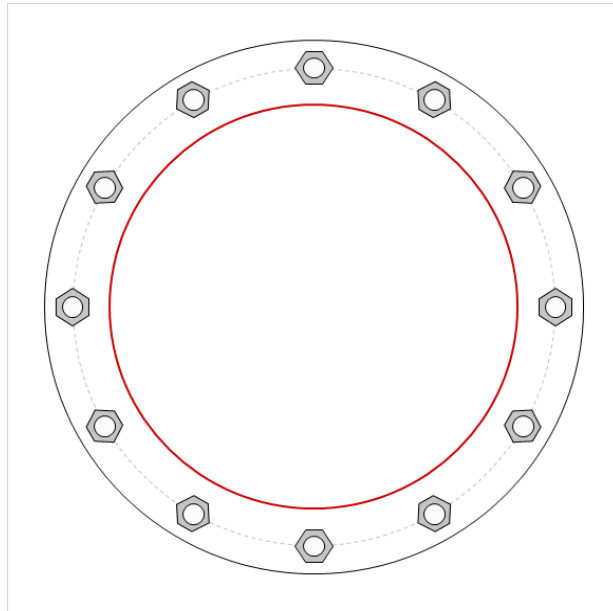


Site Info	
BU #	806364
Site Name	HRT 106(B) 943202
Order #	517085 Rev. 0

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

Applied Loads	
Moment (kip-ft)	2493.22
Axial Force (kips)	39.00
Shear Force (kips)	29.18

*TIA-222-H Section 15.5 Applied



Connection Properties	Analysis Results
-----------------------	------------------

Anchor Rod Data
(12) 2-1/4" ϕ bolts (A615-75 N; $F_y=75$ ksi, $F_u=100$ ksi) on 52.05" BC
Base Plate Data
58.05" OD x 2.75" Plate (S-128; $F_y=60$ ksi, $F_u=80$ ksi)
Stiffener Data
N/A
Pole Data
44" x 0.375" 12-sided pole (A572-65; $F_y=65$ ksi, $F_u=80$ ksi)

Anchor Rod Summary	<i>(units of kips, kip-in)</i>	
$Pu_c = 194.71$	$\phi Pn_c = 268.39$	Stress Rating
$Vu = 2.43$	$\phi Vn = 120.77$	69.1%
$Mu = n/a$	$\phi Mn = n/a$	Pass
Base Plate Summary		
Max Stress (ksi):	22.47	(Flexural)
Allowable Stress (ksi):	54	
Stress Rating:	39.6%	Pass

Pier and Pad Foundation



BU #: 806364
 Site Name: HRT 106(B) 94320
 App. Number: 517085 Rev. 0

TIA-222 Revision: H
 Tower Type: Monopole

Top & Bot. Pad Rein. Different?:
 Block Foundation?:

Superstructure Analysis Reactions		
Compression, P_{comp} :	39	kips
Base Shear, V_{u_comp} :	29	kips
Moment, M_u :	2493	ft-kips
Tower Height, H :	120	ft
BP Dist. Above Fdn, b_{pdist} :	2.25	in
Bolt Circle / Bearing Plate Width, BC :	52.02	in

Foundation Analysis Checks				
	Capacity	Demand	Rating*	Check
<i>Lateral (Sliding) (kips)</i>	305.63	29.00	9.0%	Pass
<i>Bearing Pressure (ksf)</i>	6.00	1.70	27.0%	Pass
<i>Overturing (kip*ft)</i>	7207.33	2672.44	37.1%	Pass
<i>Pad Flexure (kip*ft)</i>	11458.68	1109.93	9.2%	Pass
<i>Pad Shear - 1-way (kips)</i>	1963.65	111.43	5.4%	Pass
<i>Pad Shear - 2-way (Comp) (ksi)</i>	0.190	0.001	0.6%	Pass
<i>Flexural 2-way (Comp) (kip*ft)</i>	15324.08	0.00	0.0%	Pass

*Rating per TIA-222-H Section 15.5

Soil Rating*:	37.1%
Structural Rating*:	9.2%

Pad Properties		
Depth, D :	6	ft
Pad Width, W :	27	ft
Pad Thickness, T :	6	ft
Pad Rebar Size (Bottom), Sp :	11	
Pad Rebar Quantity (Bottom), mp :	26	
Pad Clear Cover, cc_{pad} :	6	in

Material Properties		
Rebar Grade, F_y :	60	ksi
Concrete Compressive Strength, F'_c :	4	ksi
Dry Concrete Density, δ_c :	150	pcf

Soil Properties		
Total Soil Unit Weight, γ :	125	pcf
Ultimate Gross Bearing, Q_{ult} :	8.000	ksf
Cohesion, C_u :	0.000	ksf
Friction Angle, ϕ :	34	degrees
SPT Blow Count, N_{blows} :	24	
Base Friction, μ :		
Neglected Depth, N :	3.33	ft
Foundation Bearing on Rock?	No	
Groundwater Depth, gw :	N/A	ft

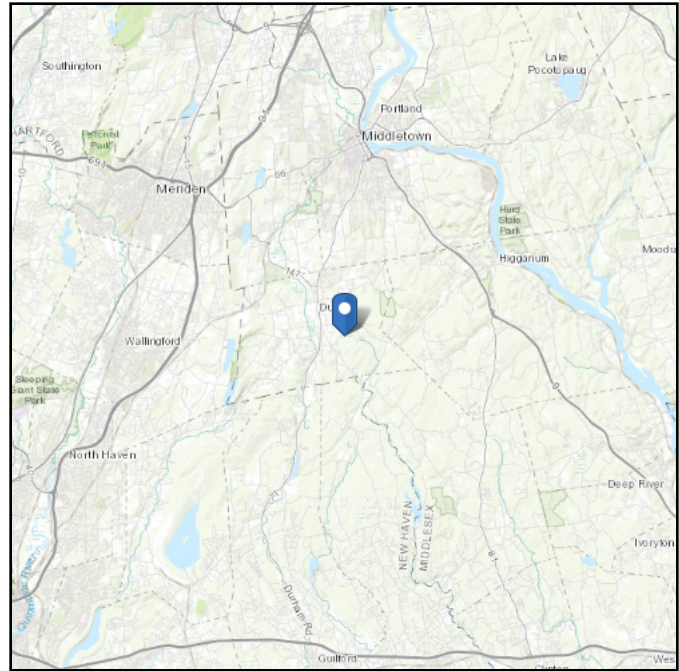
<--Toggle between Gross and Net

ASCE 7 Hazards Report

Address:
No Address at This
Location

Standard: ASCE/SEI 7-10
Risk Category: II
Soil Class: D - Stiff Soil

Elevation: 511.24 ft (NAVD 88)
Latitude: 41.459353
Longitude: -72.662731



Wind

Results:

Wind Speed:	126 Vmph
10-year MRI	78 Vmph
25-year MRI	87 Vmph
50-year MRI	95 Vmph
100-year MRI	103 Vmph

Data Source: ASCE/SEI 7-10, Fig. 26.5-1A and Figs. CC-1–CC-4, incorporating errata of March 12, 2014

Date Accessed: Tue Sep 08 2020

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 7-10 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 7-10 Section 26.2. Glazed openings need not be protected against wind-borne debris.

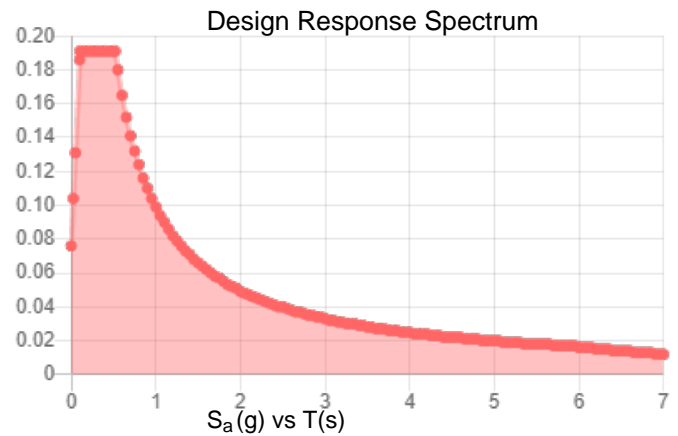
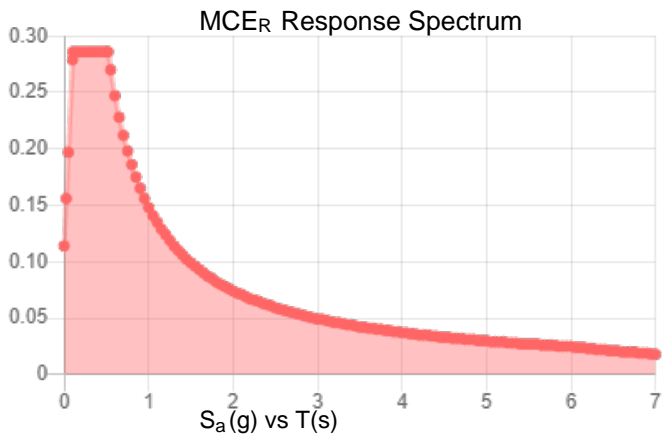
Mountainous terrain, gorges, ocean promontories, and special wind regions should be examined for unusual wind conditions.

Site Soil Class: D - Stiff Soil

Results:

S_S :	0.179	S_{DS} :	0.191
S_1 :	0.062	S_{D1} :	0.099
F_a :	1.6	T_L :	6
F_v :	2.4	PGA :	0.091
S_{MS} :	0.286	PGA _M :	0.146
S_{M1} :	0.148	F _{PGA} :	1.6
		I_e :	1

Seismic Design Category B



Data Accessed:

Tue Sep 08 2020

Date Source:

USGS Seismic Design Maps based on ASCE/SEI 7-10, incorporating Supplement 1 and errata of March 31, 2013, and ASCE/SEI 7-10 Table 1.5-2. Additional data for site-specific ground motion procedures in accordance with ASCE/SEI 7-10 Ch. 21 are available from USGS.

Ice

Results:

Ice Thickness: 0.75 in.

Concurrent Temperature: 15 F

Gust Speed: 50 mph

Data Source: Standard ASCE/SEI 7-10, Figs. 10-2 through 10-8

Date Accessed: Tue Sep 08 2020

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 50-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.

The ASCE 7 Hazard Tool is provided for your convenience, for informational purposes only, and is provided “as is” and without warranties of any kind. The location data included herein has been obtained from information developed, produced, and maintained by third party providers; or has been extrapolated from maps incorporated in the ASCE 7 standard. While ASCE has made every effort to use data obtained from reliable sources or methodologies, ASCE does not make any representations or warranties as to the accuracy, completeness, reliability, currency, or quality of any data provided herein. Any third-party links provided by this Tool should not be construed as an endorsement, affiliation, relationship, or sponsorship of such third-party content by or from ASCE.

ASCE does not intend, nor should anyone interpret, the results provided by this Tool to replace the sound judgment of a competent professional, having knowledge and experience in the appropriate field(s) of practice, nor to substitute for the standard of care required of such professionals in interpreting and applying the contents of this Tool or the ASCE 7 standard.

In using this Tool, you expressly assume all risks associated with your use. Under no circumstances shall ASCE or its officers, directors, employees, members, affiliates, or agents be liable to you or any other person for any direct, indirect, special, incidental, or consequential damages arising from or related to your use of, or reliance on, the Tool or any information obtained therein. To the fullest extent permitted by law, you agree to release and hold harmless ASCE from any and all liability of any nature arising out of or resulting from any use of data provided by the ASCE 7 Hazard Tool.

Exhibit E

Mount Analysis

Date: July 20, 2020

Kimley»Horn

Darcy Tarr
Crown Castle
3530 Toringdon Way, Suite 300
Charlotte, NC 28277
(704) 405-6589

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

Subject: Mount Replacement Analysis Report

Carrier Designation: AT&T Mobility Equipment Change-Out
Carrier Site Number: 10071003
Carrier Site Name: DURHAM CENTRAL

Crown Castle Designation: **Crown Castle BU Number:** 806364
Crown Castle Site Name: HRT 106(B) 943202
Crown Castle JDE Job Number: 605361
Crown Castle Order Number: 517085, Rev. 0

Engineering Firm Designation: Kimley-Horn Report Designation: 019558049

Site Data: 143 R Old Blue Hill Rd., Durham, Middlesex County, CT 06422
Latitude 41° 27' 33.67" Longitude -72° 39' 45.83"

Structure Information: **Tower Height & Type:** 120 ft Monopole
Mount Elevation: 116 ft
Mount Type: 14.5 ft Platform w/ Support Rails

Dear Darcy Tarr,

Kimley-Horn 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 abovementioned supporting tower structure. Analysis of the existing supporting tower structure is to be completed by others and therefore is not part of this analysis. Analysis of the antenna mounting system as a tie-off point for fall protection or rigging is not part of this document.

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

Platform w/ Support Rails

Sufficient

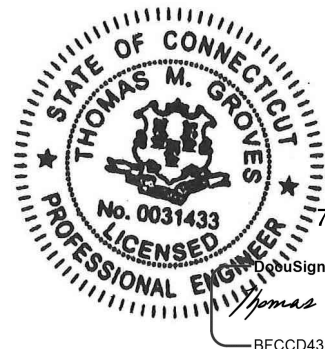
This analysis has been performed in accordance with the 2018 International Building Code based upon an ultimate 3-second gust wind speed of 120 mph. Applicable Standard references and design criteria are listed in Section 2 - Analysis Criteria.

Mount analysis prepared by: Rich Lam, E.I.

Respectfully Submitted by:

Thomas M. Groves, P.E.

Lic. #PEN.0031433, Exp. 01/31/2021
Kimley-Horn and Associates, Inc. COA #PEC.0000738



7/21/2020

Signed by:

Thomas M. Groves

BFCCD43111F54D2...

TABLE OF CONTENTS

1) INTRODUCTION

2) ANALYSIS CRITERIA

Table 1 - Proposed Equipment Configuration

3) ANALYSIS PROCEDURE

Table 2 - Documents Provided

3.1) Analysis Method

3.2) Assumptions

4) ANALYSIS RESULTS

Table 3 - Mount Component Stresses vs. Capacity

4.1) Recommendations

5) APPENDIX A

Wire Frame and Rendered Models

6) APPENDIX B

Software Input Calculations

7) APPENDIX C

Software Analysis Output

8) APPENDIX D

Additional Calculations

1) INTRODUCTION

The mounting configuration consists of a proposed 14.5 ft Platform w/ Support Rails and Kickers designed by Site Pro 1.

2) ANALYSIS CRITERIA

Building Code:	2018 IBC
TIA-222 Revision:	TIA-222-H
Risk Category:	II
Ultimate Wind Speed:	120 mph
Exposure Category:	B
Topographic Factor at Base:	1.0
Topographic Factor at Mount:	1.0
Ice Thickness:	1 in
Wind Speed with Ice:	50 mph
Live Loading Wind Speed:	30 mph
Man Live Load at Mount Pipes:	500 lb

Table 1 – Proposed Equipment Configuration

Elevation (ft)		Antennas	
Mount	Centerline	#	Name
116	116	6	Kathrein 80010964
		6	Andrew SBNHH-1D65A
		3	Ericsson RRUS-32 B30
		3	Ericsson RRUS 32 B2
		3	Ericsson RRUS 4478 B14
		3	Ericsson RRUS 4449 B5/B12
		3	Ericsson RRUS 4415 B25
		3	Ericsson RRUS 4426 B66
		2	Raycap DC6-48-60-18-8C
		1	Raycap DC6-48-60-8C-EV
		1	Raycap DC6-48-60-18-8F

3) ANALYSIS PROCEDURE

Table 2 - Documents Provided

Document	Remarks	Reference	Source
Mount Analysis	Kimley-Horn	9055883	CCISites
Supplemental Loading	AT&T RFDS	04/20/2020	TSA
Mount Design Drawings	Site Pro 1	RMQLP-496-HK	On File

3.1) Analysis Method

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

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

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

3.2) Assumptions

- 1) The antenna mounting system was properly fabricated, installed and maintained in good condition in accordance with its original design and manufacturer's specifications.
- 2) The configuration of antennas, mounts, and other appurtenances are as specified in Tables 1 and 2 and the referenced drawings.
- 3) All member connections are assumed to have been designed to meet or exceed the load carrying capacity of the connected member unless otherwise specified in this report.
- 4) Steel grades have been assumed as follows, unless noted otherwise:

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

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

4) ANALYSIS RESULTS

Table 3 - Mount Component Stresses vs. Capacity

Component	% Capacity	Pass / Fail
Corner Plates	62%	Pass
Mount Pipes	32%	Pass
Stand Off Horizontals	20%	Pass
Connections	18%	Pass
Support Rails	18%	Pass
Platform Base	12%	Pass

Structure Rating (max from all components) =	62%
---	------------

Notes:

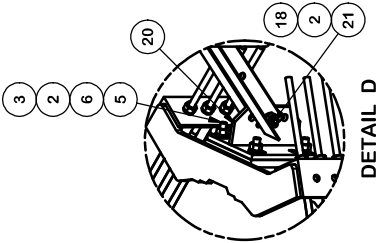
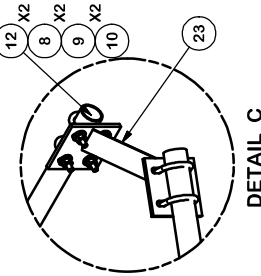
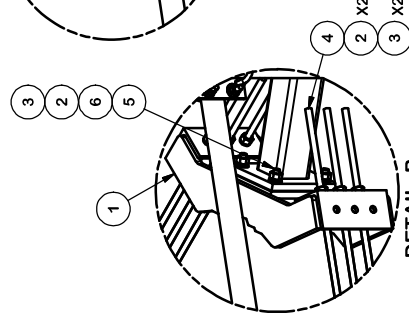
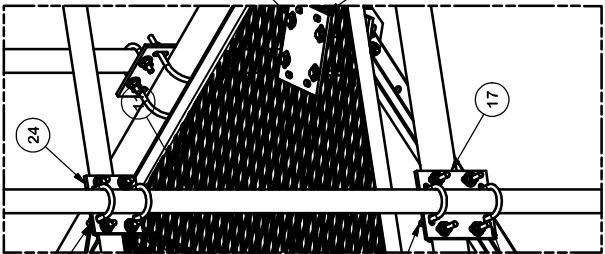
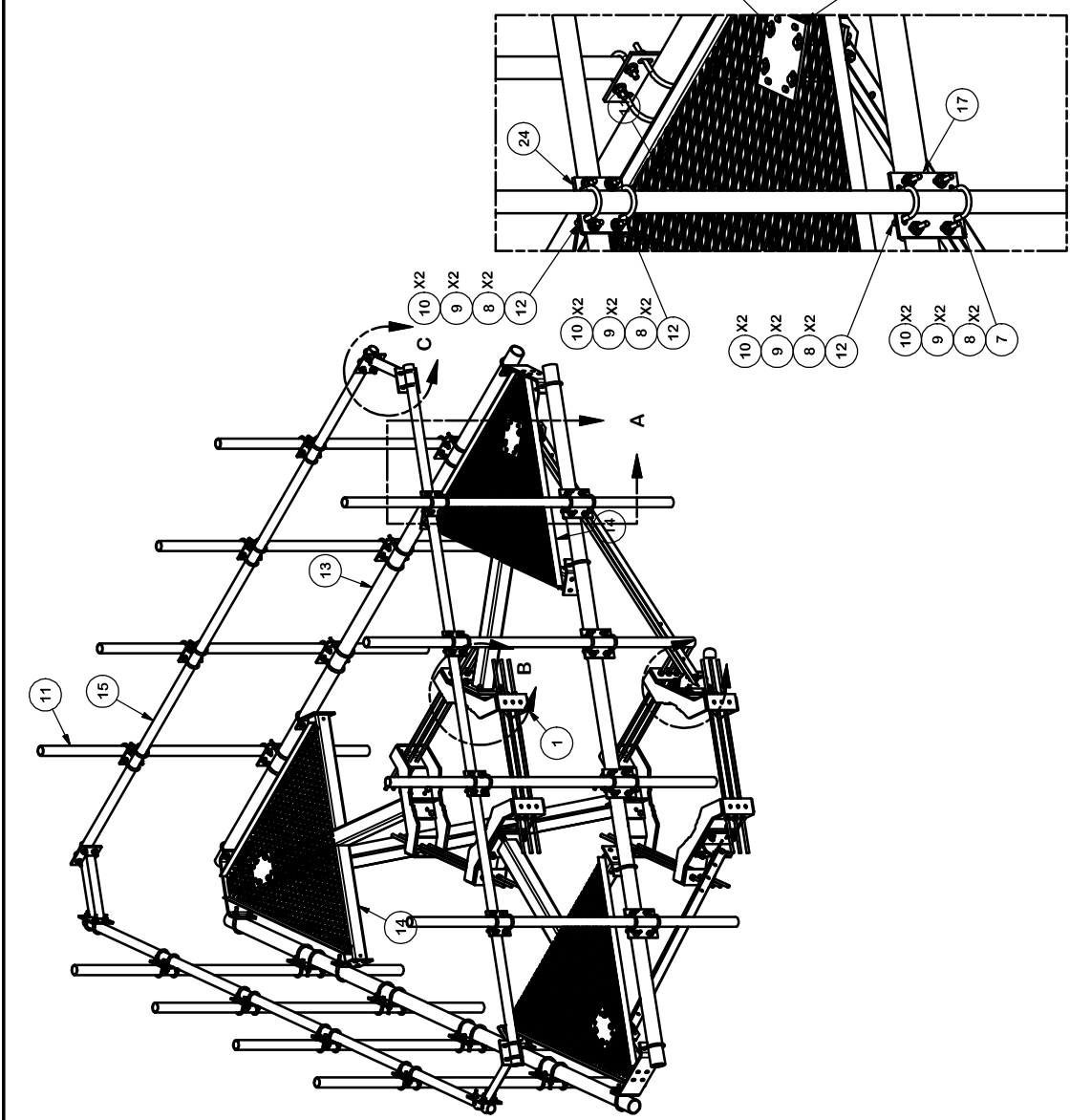
- 1) See additional documentation in "Appendix C - Software Analysis Output" for calculations supporting the % capacity consumed.

4.1) Recommendations

According to our structural analysis, the mounting configuration has been found to **PASS PENDING REPLACEMENT**. The mounting configuration considered in this analysis will be capable of supporting the referenced loading pursuant to referenced standards once the following scope is executed:

- **Replace existing mount with a new Site Pro 1 RMQLP-496-HK platform with support rails and kickers. Install panels vertically centered between the base and the support rail.**

ITEM	QTY	PART NO.	PART DESCRIPTION	LENGTH	UNIT WT.	NET WT.
1	6	X-LWRM	RING MOUNT WELDMENT		68.81	412.85
2	66	G58LW	5/8" HDG LOCKWASHER		0.03	1.72
3	60	A58NUT	5/8" HDG A325 HEX NUT		0.13	7.79
4	18	G58R-24	5/8" x 24" THREADED ROD (HDG.)		2.09	37.83
5	18	G58R-48	5/8" x 48" THREADED ROD (HDG.)		4.18	75.27
6	24	A58234	5/8" x 2-3/4" HDG A325 HEX BOLT	2 3/4 in	0.36	8.54
7	24	A58FW	5/8" HDG A325 FLATWASHER		0.03	0.82
8	36	X-UB1306	1/2" X 3-5/8" X 6" X 3" U-BOLT (HDG.)		0.83	29.82
9	264	G12FW	1/2" HDG USS FLATWASHER	3/32 in	0.03	9.00
10	252	G12LW	1/2" HDG LOCKWASHER	1/8 in	0.01	3.50
11	12	P296	2-3/8" X 96" SCH. 40 GALVANIZED PIPE		0.07	369.08
12	84	X-UB1212	1/2" X 2-1/2" X 4-1/2" X 2" U-BOLT (HDG.)	96 in	30.76	369.08
13	3	P3174	3-1/2" X 174" SCH 40 GALVANIZED PIPE		0.60	50.17
14	3	X-SV196L	LONG PLATFORM WELDMENT	174 in	109.97	329.90
15	3	P2174	2-3/8" OD X 174" SCH 40 GALVANIZED PIPE		230.94	692.81
17	15	SCX4	CROSSOVER PLATE	174 in	55.75	167.24
18	6	G58NUT	5/8" HDG HEAVY 2H HEX NUT	8 1/2 in	6.02	90.32
19	6	X-254923	PLATFORM REINFORCEMENT KIT ANGLE		0.13	0.78
20	6	X-TBW	T-BRACKET WELDMENT	84 in	22.83	137.00
21	6	G5802	5/8" x 2" HDG HEX BOLT GR5		0.27	1.62
22	12	G12065	1/2" x 6-1/2" HDG HEX BOLT GR5 FULL THREAD	5 1/2 in	0.41	4.91
23	3	X-AHCP	ANGLE HANDRAIL CORNER PLATE		12.92	38.76
24	12	SCX1	CROSSOVER PLATE 2-3/8" X 2-3/8"	6 in	3.71	44.50
TOTAL WT. #						2615.70



DETAIL A

DETAIL B

DETAIL C

DETAIL D

TOLERANCE NOTES

TOLERANCES ON DIMENSIONS, UNLESS OTHERWISE NOTED ARE:
 SAWED, SHEARED AND GAS CUT EDGES (± 0.0307)
 DRILLED AND GAS CUT HOLES (± 0.0307) - NO CONING OF HOLES
 LASER CUT EDGES AND HOLES (± 0.0107) - NO CONING OF HOLES
 BENDS ARE $\pm 1/2$ DEGREE
 ALL OTHER MACHINING (± 0.0307)
 ALL OTHER ASSEMBLY (± 0.0607)

PROPRIETARY NOTE: DIMENSIONS CONTAINED IN THIS DRAWING ARE PROPRIETARY INFORMATION OF VALMONT AND SHALL BE KEPT CONFIDENTIAL AND NOT REPRODUCED OR USED IN ANY MANNER WITHOUT THE CONSENT OF VALMONT INDUSTRIES. IT IS STRICTLY PROHIBITED.

DESCRIPTION

14' 6" LOW PROFILE PLATFORM
 WITH TWELVE 2-3/8" ANTENNA MOUNTING
 PIPES, AND HANDRAIL

REV	DESCRIPTION OF REVISIONS	DATE
A	CHANGED X-253992 TO X-TBW	9/20/2018

CPD NO.	CEK	7/15/2014	ENG. APPROVAL
4488	CEK	7/15/2014	
CLASS	SUB	CHECKED BY	CUSTOMER
81	02	BMC	7/23/2014



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

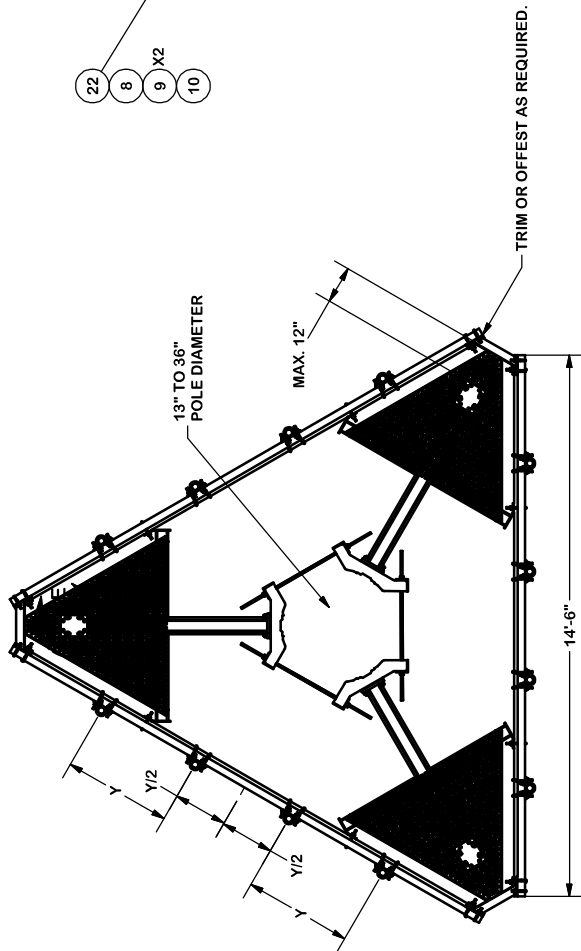
Engineering
 Support Team:
 1-888-753-7446

PART NO.	DWG. NO.
RMQLP-496-HK	RMQLP-496-HK

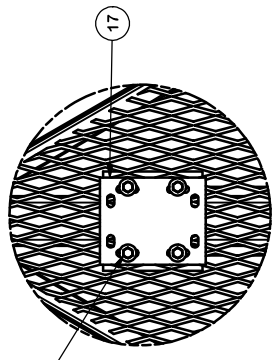
CPD NO.	CEK	7/15/2014	ENG. APPROVAL
4488	CEK	7/15/2014	
CLASS	SUB	CHECKED BY	CUSTOMER
81	02	BMC	7/23/2014

REV	DESCRIPTION OF REVISIONS	DATE
A	CHANGED X-253992 TO X-TBW	9/20/2018

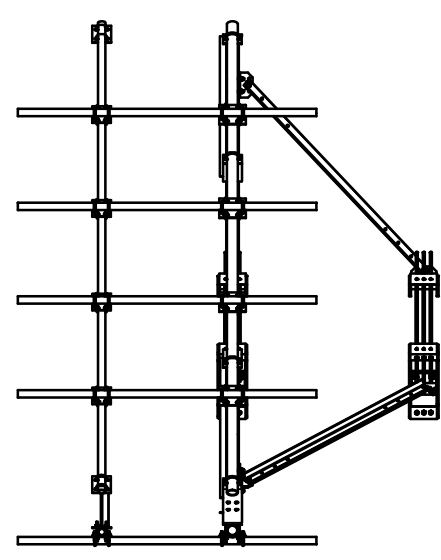
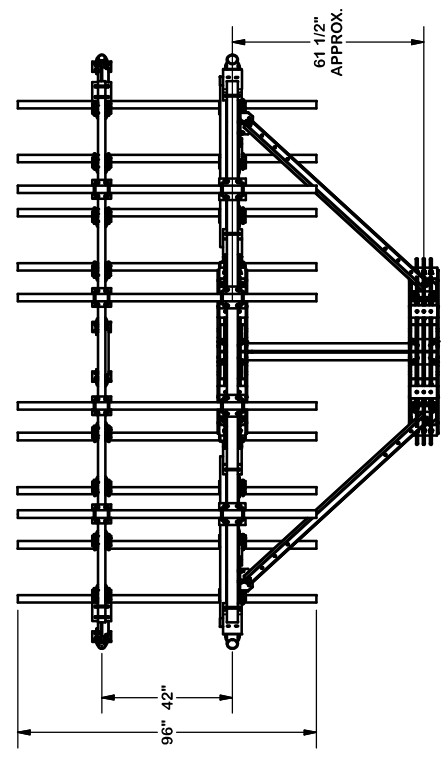
REV	DESCRIPTION OF REVISIONS	DATE
A	CHANGED X-253992 TO X-TBW	9/20/2018



- 22
- 8
- 9 X2
- 10



DETAIL E



TOLERANCE NOTES

TOLERANCES ON DIMENSIONS, UNLESS OTHERWISE NOTED ARE:
 SAWED, SHEARED AND GAS CUT EDGES (± 0.0307)
 DRILLED AND GAS CUT HOLES (± 0.0307) - NO CONING OF HOLES
 LASER CUT EDGES AND HOLES (± 0.0107) - NO CONING OF HOLES
 BENDS ARE $\pm 1/2$ DEGREE
 ALL OTHER MACHINING (± 0.0307)
 ALL OTHER ASSEMBLY (± 0.0607)

PROPRIETARY NOTE:
 THE DATA AND INFORMATION CONTAINED IN THIS DRAWING ARE PROPRIETARY INFORMATION OF VALMONT
 INDUSTRIES, INC. AND ARE NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS
 WITHOUT THE WRITTEN PERMISSION OF VALMONT INDUSTRIES, INC. ANY USE OR DISCLOSURE WITHOUT THE CONSENT OF
 VALMONT INDUSTRIES IS STRICTLY PROHIBITED.

REV	DESCRIPTION OF REVISIONS	DATE
A	CHANGED X-253982 TO X-TBW	9/20/2018

DESCRIPTION
 14' 6" LOW PROFILE PLATFORM
 WITH TWELVE 2-3/8" ANTENNA MOUNTING
 PIPES, AND HANDRAIL

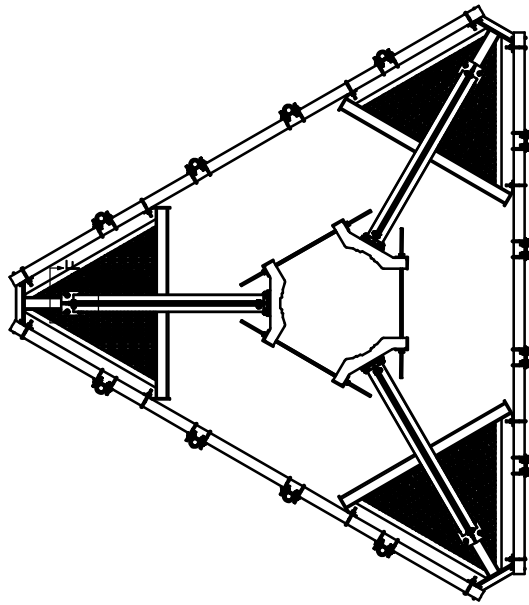
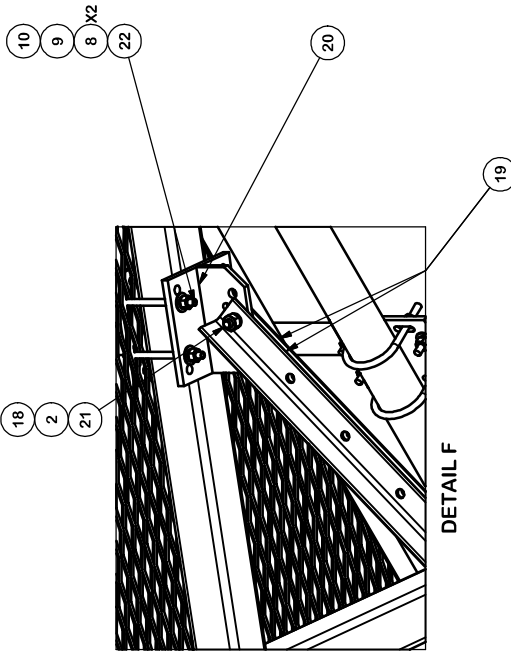
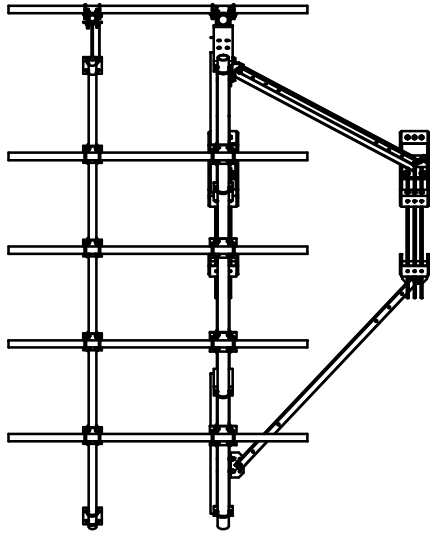
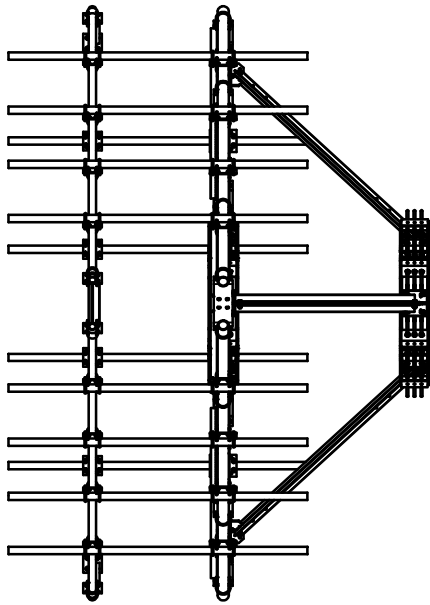
CPD NO.	4488	ENG. APPROVAL	CEK	7/15/2014
CLASS	81	DRAWING USAGE	CUSTOMER	BMC
SUB	02	CHECKED BY	7/23/2014	



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

Engineering
 Support Team:
 1-888-753-7446

PART NO.	RMQLP-496-HK
DWG. NO.	RMQLP-496-HK



TOLERANCE NOTES

TOLERANCES ON DIMENSIONS, UNLESS OTHERWISE NOTED ARE:
 SAWED, SHEARED AND GAS CUT EDGES (± 0.0307)
 DRILLED AND GAS CUT HOLES (± 0.0307) - NO CONING OF HOLES
 LASER CUT EDGES AND HOLES (± 0.0107) - NO CONING OF HOLES
 BENDS ARE $\pm 1/2$ DEGREE
 ALL OTHER MACHINING (± 0.0307)
 ALL OTHER ASSEMBLY (± 0.0607)

PROPRIETARY NOTE: DIMENSIONS CONTAINED IN THIS DRAWING ARE PROPRIETARY INFORMATION OF VALMONT AND ARE NOT TO BE REPRODUCED OR USED IN ANY MANNER WITHOUT THE CONSENT OF VALMONT INDUSTRIES. STRICTLY PROHIBITED.

DESCRIPTION
 14" 6" LOW PROFILE PLATFORM
 WITH TWELVE 2-3/8" ANTENNA MOUNTING
 PIPES, AND HANDRAIL

CPD NO.	4488	CLASS	81	ENG. APPROVAL	
DRAWN BY	CEK	DRAWING USAGE	CUSTOMER	CHECKED BY	BMC
DATE	7/15/2014	SUB	02	DATE	7/23/2014



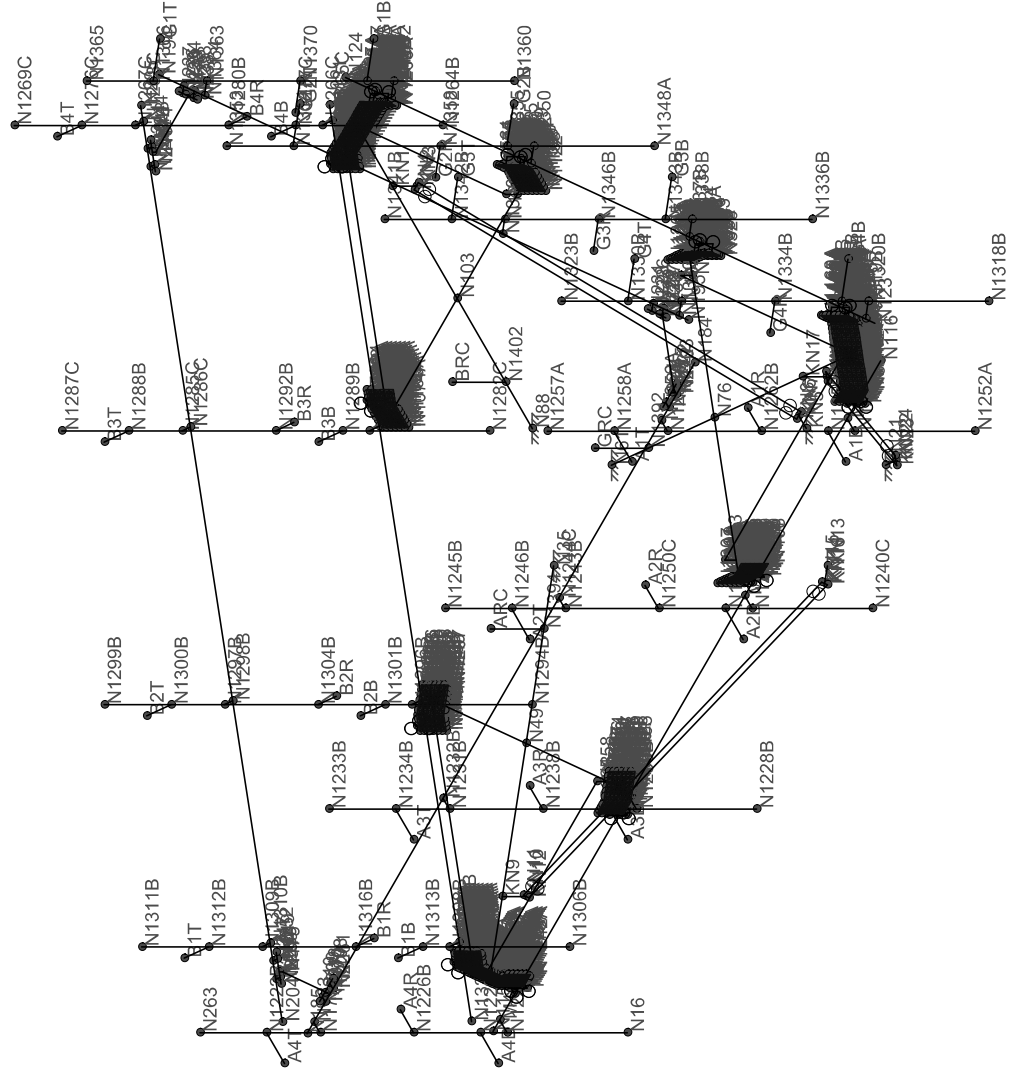
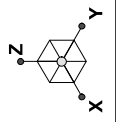
Locations:
 New York, NY
 Atlanta, GA
 Los Angeles, CA
 Plymouth, IN
 Salem, OR
 Dallas, TX

Engineering
 Support Team:
 1-888-753-7446

PART NO.	RMQLP-496-HK
DWG. NO.	RMQLP-496-HK

REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
A	CHANGED X-253992 TO X-TBW	4488	CEK	9/20/2018
REVISION HISTORY				

APPENDIX A
WIRE FRAME AND RENDERED MODELS



Envelope Only Solution

Kimley-Horn and Associates, Inc.

ZAM

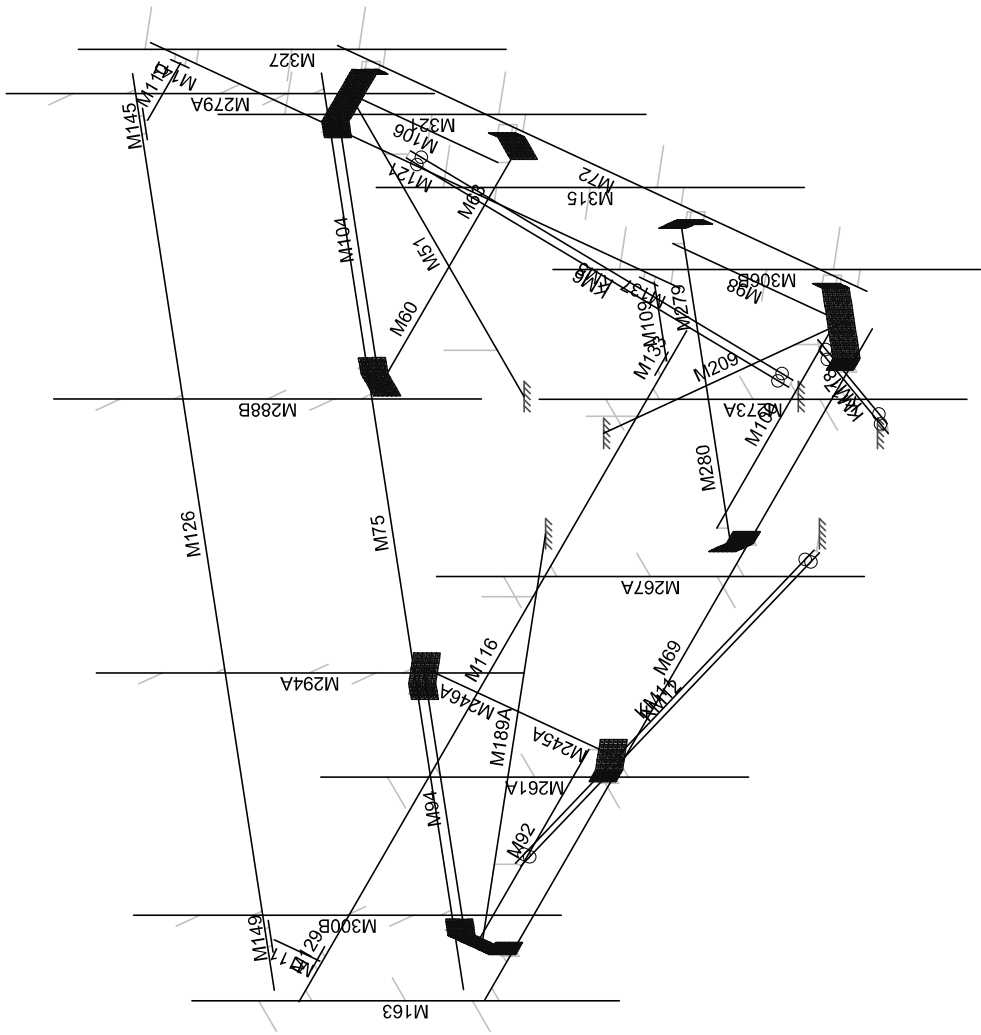
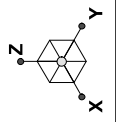
019558049

806364 - HRT 106(B) 943202

SK - 1

July 20, 2020 at 11:24 AM

806364.r3d



Envelope Only Solution

Kimley-Horn and Associates, Inc.

ZAM

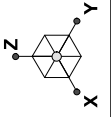
019558049

806364 - HRT 106(B) 943202

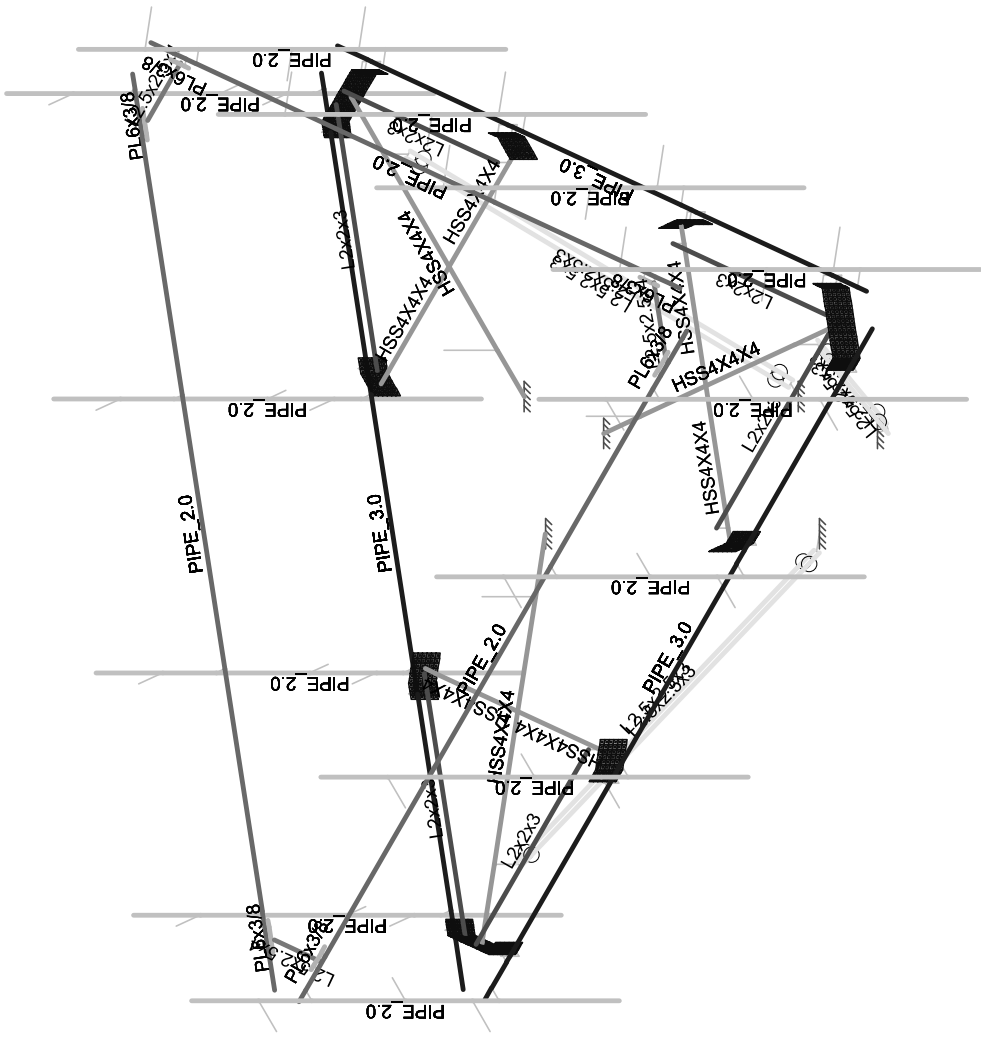
SK - 2

July 20, 2020 at 11:24 AM

806364.r3d



Section Sets
 Face Horiz
 Offset Horiz
 Grating Angle
 Mount Pipe
 HRK14 Pipe
 HRK14 Plate
 PRK-1245 Angle
 RIGID



Envelope Only Solution

Kimley-Horn and Associates, Inc.

ZAM

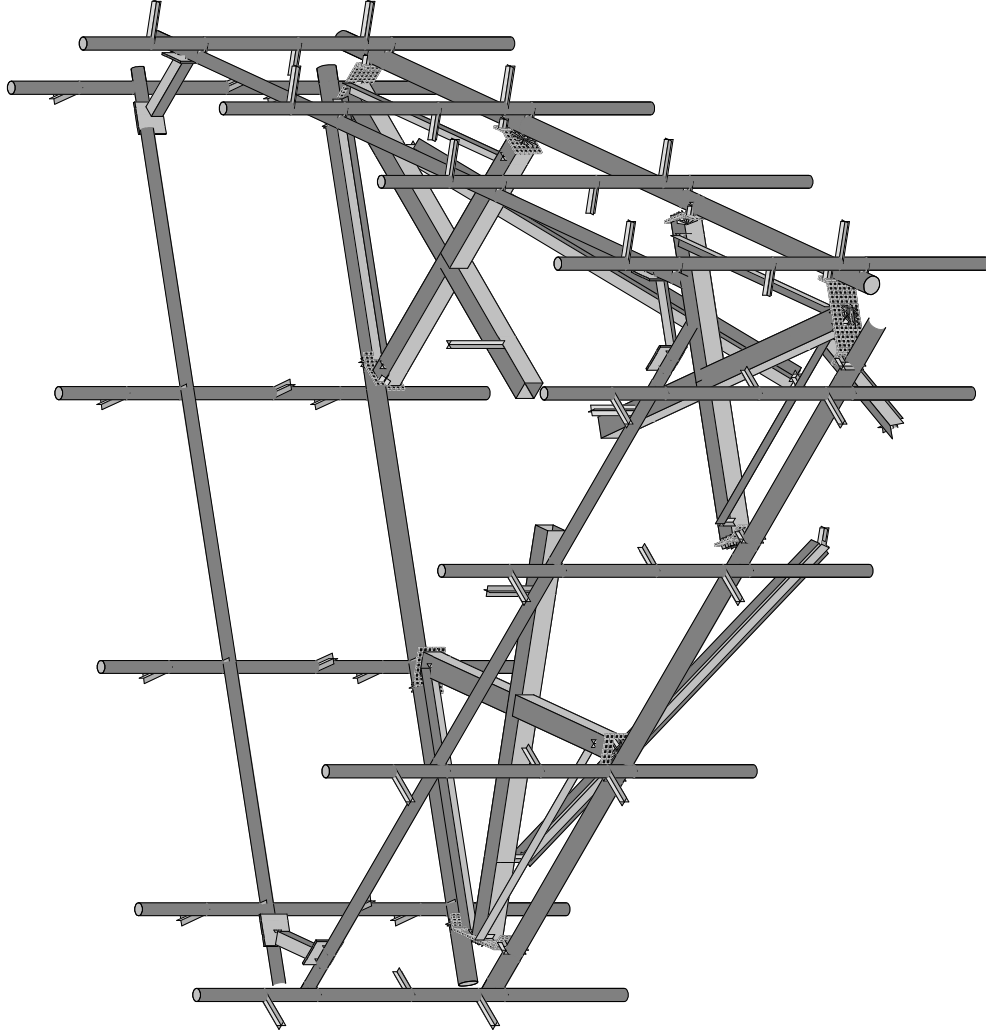
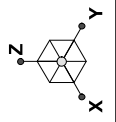
019558049

806364 - HRT 106(B) 943202

SK - 3

July 20, 2020 at 11:24 AM

806364.r3d



Envelope Only Solution

Kimley-Horn and Associates, Inc.

ZAM

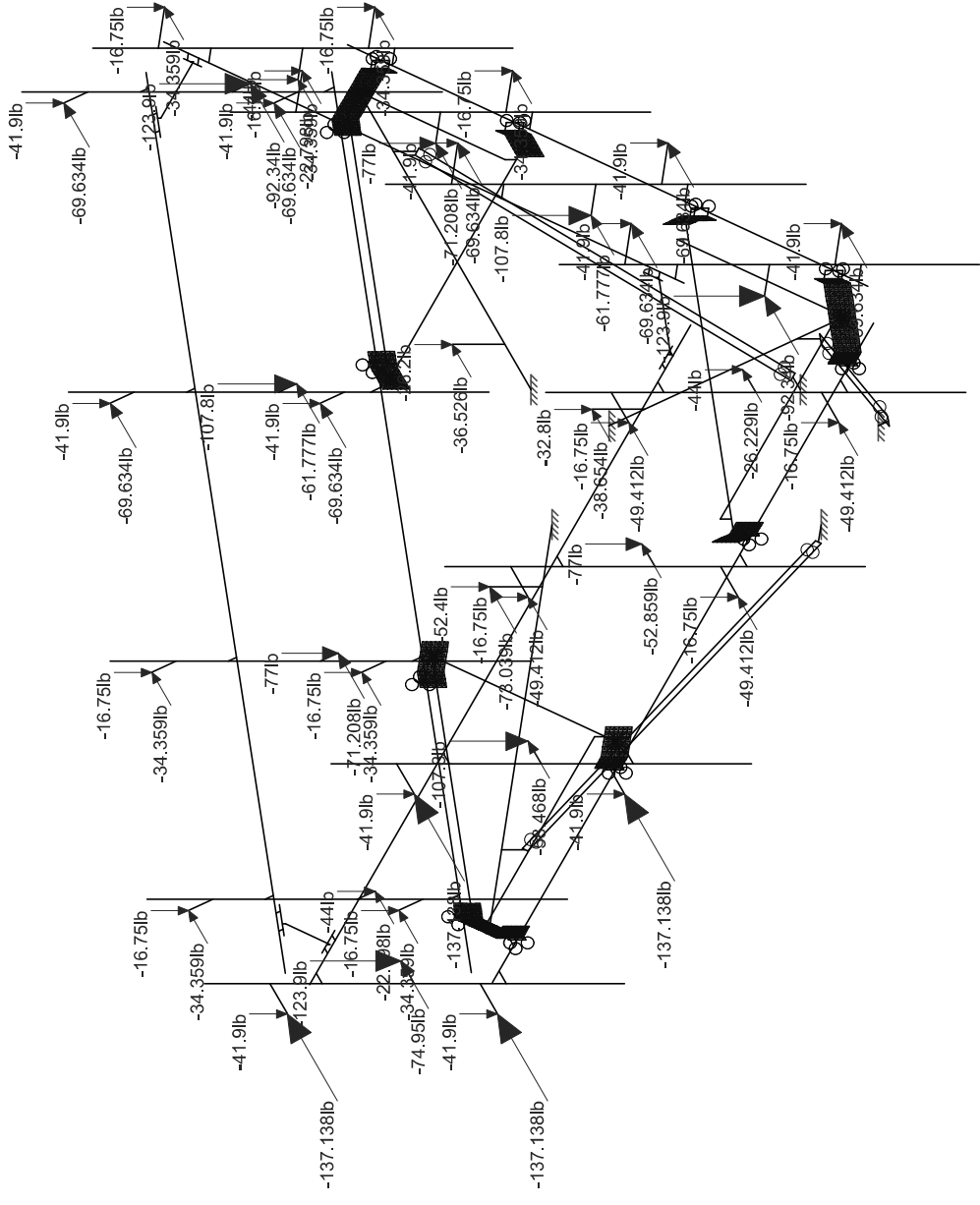
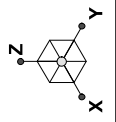
019558049

806364 - HRT 106(B) 943202

SK - 4

July 20, 2020 at 11:25 AM

806364.r3d

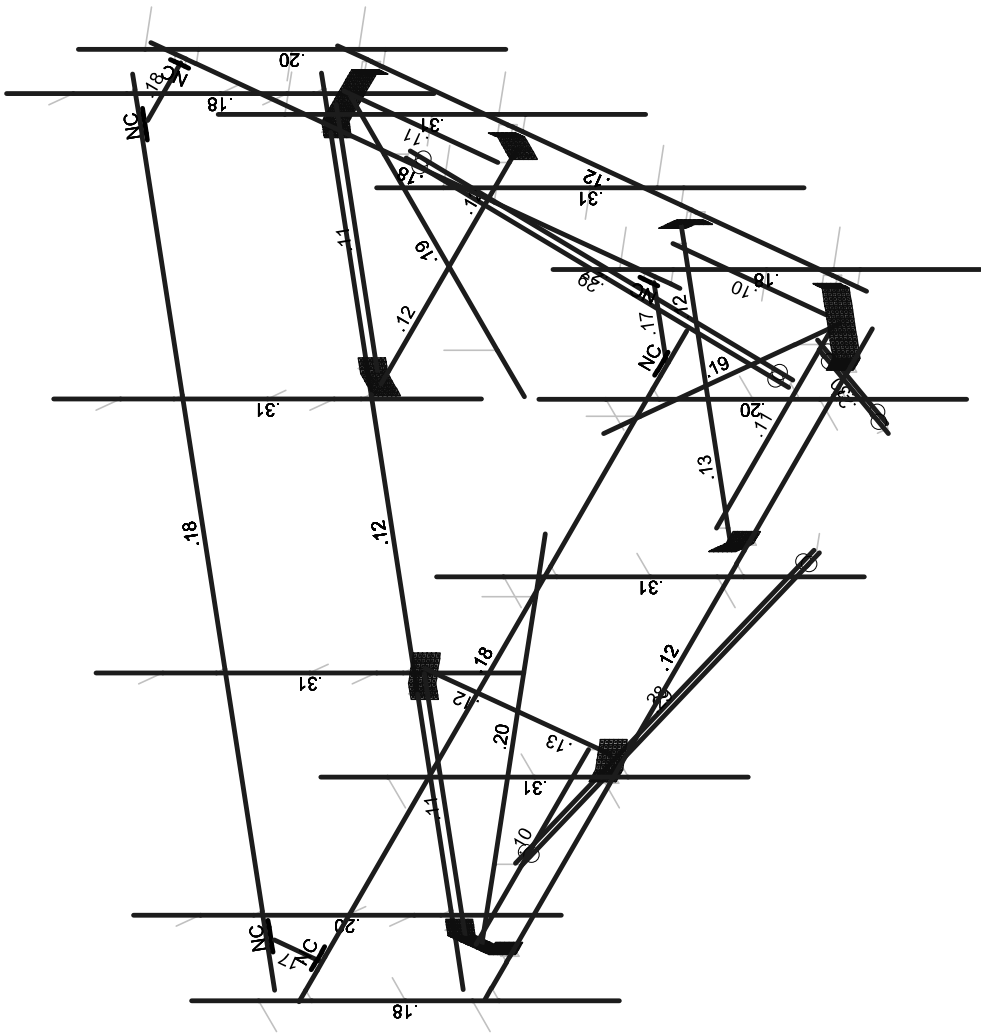
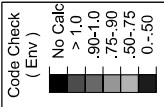
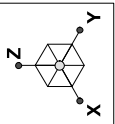


Loads: LC 1, Summary: 1.0D + 1.0W
Envelope Only Solution

Kimley-Horn and Associates, Inc.
ZAM
019558049

806364 - HRT 106(B) 943202

SK - 5
July 20, 2020 at 11:25 AM
806364.r3d



Member Code Checks Displayed (Enveloped)
Envelope Only Solution

Kimley-Horn and Associates, Inc.

ZAM

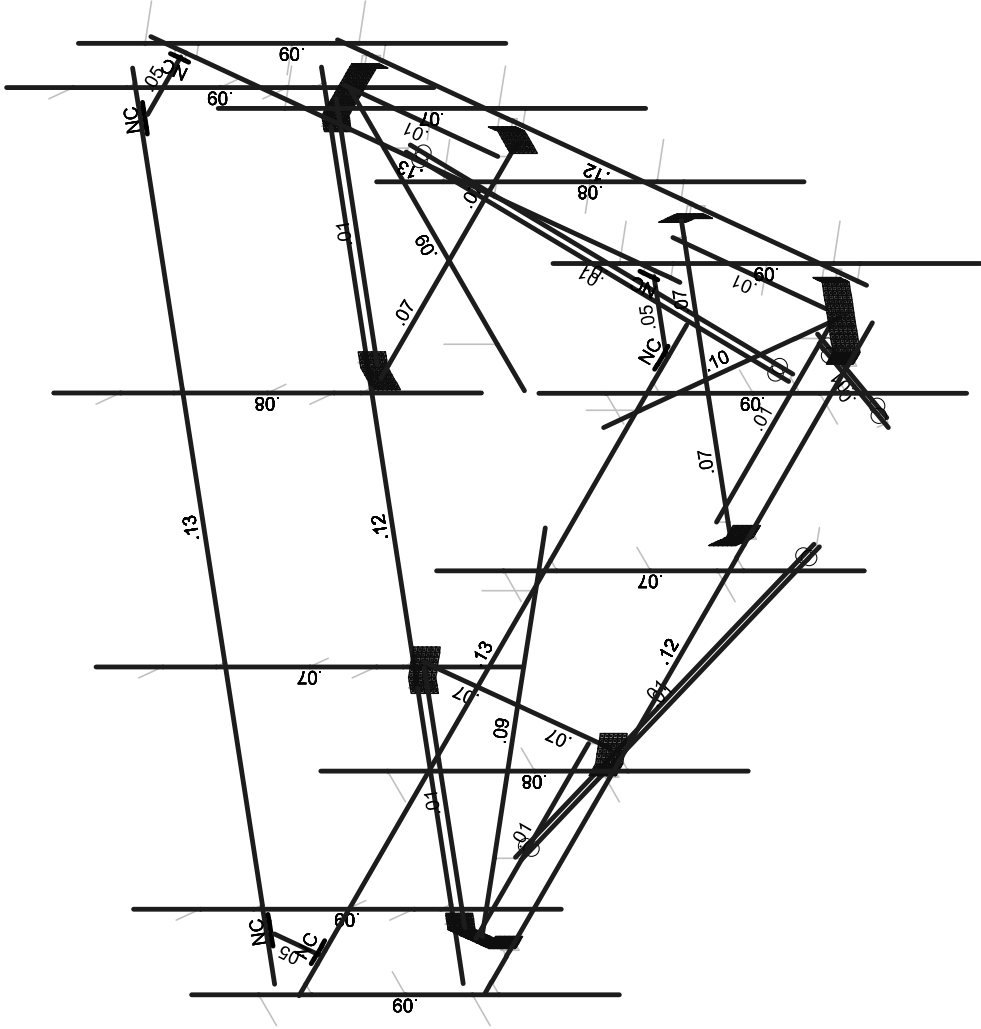
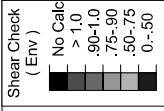
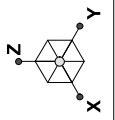
019558049

806364 - HRT 106(B) 943202

SK - 6

July 20, 2020 at 11:25 AM

806364.r3d



Member Shear Checks Displayed (Enveloped)
Envelope Only Solution

Kimley-Horn and Associates, Inc.

ZAM

019558049

806364 - HRT 106(B) 943202

SK - 7

July 20, 2020 at 11:25 AM

806364.r3d

APPENDIX B
SOFTWARE INPUT CALCULATIONS



Date	July 20, 2020
Client	Crown Castle
Site #	806364
Site Name	HRT 106(B) 943202
Project #	19558049

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

Wind Summary	
Basic Wind Speed w/o Ice, V (mph)	120.00
Velocity Pressure Coeff., K _z	1.03
Velocity Pressure, q _z (w/o Ice) (psf)	35.45

Site-Specific Criteria	
Exposure Category	B
Topographic Factor, K _{zt}	1.00
Structure Base Elev. (AMSL), z _g (ft)	511.00
Ground Effect Factor, K _e	0.98

Ice Load Summary	
Basic Wind Speed w/ Ice, V _i (mph)	50.00
Design Ice Thick. (ASCE 7-16), t _i (in)	1
Velocity Pressure, q _z (w/ Ice) (psf)	6.15
Escalated Ice Thick. @ Mount, t _z (in)	1.13

Mount & Structure Criteria	
Mount Elevation (AGL) (ft)	116.00
Structure Height (ft)	120.00
Structure Type	Monopole

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

Constants	
Wind Direction Probability Factor, K _d	0.95
Gust Effect Factor, G _h	1
Shielding Factor, K _s (antenna)	0.9
Shielding Factor, K _s (mount)	0.9

Snow Load Summary	
Ground Snow Load, p _g (psf)	-
Snow Load on Flat Roofs, p _r (psf)	-

Antenna Name	Qty	Shape	Dimensions (in)			Weight (lb)	Joint Labels								EPA (ft ²)		Wind Force, F _A (lb)			
			H	W	D		Alpha		Beta		Gamma		Delta		Front	Side	No Ice		With Ice	
							A1T	A2T	B1T	B2T	G1T	G2T	Front	Side			Front	Side		
SBNHH-1D65A	3	Flat	55.6	11.9	7.1	33.5	A1B	A1T	B1B	B1T	G1B	G1T			3.1	1.84	98.82	58.68	20.83	13.36
SBNHH-1D65A	3	Flat	55.6	11.9	7.1	33.5	A2B	A2T	B2B	B2T	G2B	G2T			3.1	1.84	98.82	58.68	20.83	13.36
80010964	3	Flat	59	20	6.9	83.8	A3B	A3T	B3B	B3T	G3B	G3T			8.6	2.95	274.28	94.27	54.66	21.56
80010964	3	Flat	59	20	6.9	83.8	A4B	A4T	B4B	B4T	G4B	G4T			8.6	2.95	274.28	94.27	54.66	21.56
RRUS 32 B2	3	Flat	27.2	12.1	7	52.9	A4R		B4R		G4R				1.37	1.67	43.57	53.21	9.74	12.92
RRUS 4415 B25	3	Flat	15	13.2	5.4	44	A1R		B1R		G1R				0.82	0.68	26.23	21.66	6.15	6.09
RRUS 4426 B66	3	Flat	15	13.2	5.8	48.4	A3R		B3R		G3R				0.82	0.73	26.23	23.13	6.15	6.42
RRUS 4449 B5/B12	3	Flat	17.9	13.2	9.4	71	A4R		B4R		G4R				0.98	1.41	31.38	44.92	7.19	10.9
RRUS 4478 B14	3	Flat	18.1	13.4	8.3	59.4	A3R		B3R		G3R				1.01	1.25	32.24	39.75	7.36	9.9
RRUS-32 B30	3	Flat	29.9	13.3	9.5	77	A2R		B2R		G2R				1.66	2.42	52.86	77.32	11.56	17.62
DC6-48-60-18-8C	2	Round	31.4	10.2	10.2	26.2	ARC		BRC						1.14	1.14	36.53	36.53	9.9	9.9
DC6-48-60-8C-EV	1	Round	31.4	10.2	10.2	26.2	ARC								1.14	1.14	36.51	36.51	9.9	9.9
DC6-48-60-18-8F	1	Round	31.3	11	11	32.8					GRC				1.21	1.21	38.65	38.65	10.1	10.1

APPENDIX C
SOFTWARE ANALYSIS OUTPUT



Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 806364 - HRT 106(B) 943202

July 20, 2020
 11:26 AM
 Checked By: MLO

Hot Rolled Steel Properties

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

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design ...	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	Face Horiz	PIPE 3.0	Beam	None	A53 Gr.B	Typical	2.07	2.85	2.85	5.69
2	Stand-Off Horiz	HSS4X4X4	Beam	None	Q235	Typical	3.37	7.8	7.8	12.8
3	Offset Horiz	HSS4X4X4	Beam	None	Q235	Typical	3.37	7.8	7.8	12.8
4	Offset Side Plate	PL6x3/8	Beam	None	Q235	Typical	2.25	.026	6.75	.101
5	Grating Angle	L2x2x3	Beam	None	Q235	Typical	.722	.271	.271	.009
6	Mount Pipe	PIPE 2.0	Column	None	A53 Gr.B	Typical	1.02	.627	.627	1.25
7	Offset End Plate	PL6x0.5	Beam	None	Q235	Typical	4.5	.094	30.375	.362
8	HRK14 Pipe	PIPE 2.0	Beam	None	A53 Gr.B	Typical	1.02	.627	.627	1.25
9	HRK14 Plate	PL6x3/8	Beam	None	Q235	Typical	2.25	.026	6.75	.101
10	HRK14 Angle	L2.5x2.5x4	Beam	None	Q235	Typical	1.19	.692	.692	.026
11	PRK-1245 Angle	L2.5x2.5x3	Beam	None	A36 Gr.36	Typical	.901	.535	.535	.011

Joint Coordinates and Temperatures

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Di...
1	N16	57.654187	-84.	-27	0	
2	N35	7.5155	-13.017228	0	0	
3	N36	40.7585	-83.970905	0	0	
4	N37	52.341687	-77.283349	0	0	
5	N39	-0.747815	-60.078992	0	0	
6	N42	52.404187	-32.39167	0	0	
7	N43	52.404187	-29.39167	0	0	
8	N48	47.779713	-79.283664	0	0	
9	N49	24.390513	-42.245608	0	0	
10	N50	47.779713	-28.741846	0	0	
11	N51	1.001659	-55.749169	0	0	
12	N52	46.275762	-80.151971	0	0	
13	N53	54.341687	-75.754049	0	0	
14	N60	44.771811	-81.020277	0	0	
15	N61	7.5155	13.017228	0	0	
16	N62	52.341687	77.283349	0	0	
17	N63	40.7585	83.970905	0	0	
18	N66	52.40384	29.39187	0	0	
19	N70	-0.748161	60.079192	0	0	
20	N75	44.771811	81.020277	0	0	
21	N76	24.390513	42.245608	0	0	
22	N77	1.001313	55.749369	0	0	
23	N78	47.779367	28.742046	0	0	
24	N79	46.275762	80.151971	0	0	
25	N87	47.779713	79.283664	0	0	
26	N88	-15.031	-0.	0	0	
27	N89	-93.100187	6.687556	0	0	
28	N90	-93.100187	-6.687556	0	0	



Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 806364 - HRT 106(B) 943202

July 20, 2020
 11:26 AM
 Checked By: MLO

Joint Coordinates and Temperatures (Continued)

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Di...
29	N93	-51.656026	30.687122	0	0	
30	N97	-51.656026	-30.687522	0	0	
31	N98	-48.781026	-30.437522	0	0	
32	N99	-48.781026	30.437122	0	0	
33	N100	-92.850187	-0.	0	0	
34	N102	-92.551524	-1.736613	0	0	
35	N103	-48.781026	-0.	0	0	
36	N104	-48.781026	-27.007522	0	0	
37	N105	-48.781026	27.007122	0	0	
38	N106	-92.551524	-0.	0	0	
39	N114	-92.551524	1.736613	0	0	
40	N115	54.341687	-87.00002	0	0	
41	N116	54.341687	87.00002	0	0	
42	M4	54.341687	-84.	0	0	
43	N122	57.654187	-84.	0	0	
44	N123	48.173384	90.561292	0	0	
45	N124	-102.515071	3.561271	0	0	
46	N131	-102.515071	-3.561271	0	0	
47	N132	48.173384	-90.561292	0	0	
48	N140	54.341687	-30.89167	0	0	
49	N158	47.779713	-28.741846	2.561	0	
50	N159	1.001659	-55.749169	2.561	0	
51	N160	47.779713	-79.283664	2.561	0	
52	N161	44.771811	-81.020277	2.561	0	
53	N162	1.001313	55.749369	2.561	0	
54	N163	47.779367	28.742046	2.561	0	
55	N164	44.771811	81.020277	2.561	0	
56	N165	47.779713	79.283664	2.561	0	
57	N166	-48.781026	-27.007522	2.561	0	
58	N167	-48.781026	27.007122	2.561	0	
59	N168	-92.551524	-1.736613	2.561	0	
60	N169	-92.551524	1.736613	2.561	0	
61	N170	53.529187	-77.813521	41.289	0	
62	N171	53.529187	77.813521	41.289	0	
63	N172	40.623893	85.264396	41.289	0	
64	N173	-94.153079	7.450875	41.289	0	
65	N174	-94.153079	-7.450875	41.289	0	
66	N175	40.623893	-85.264396	41.289	0	
67	N179	57.654187	-84.	42	0	
68	N183	54.904187	-84.	42	0	
69	N184	54.904187	87.00002	42	0	
70	N185	54.904187	-87.00002	42	0	
71	N194	-102.796321	4.048411	42	0	
72	N195	47.892134	91.048431	42	0	
73	N204	47.892134	-91.048431	42	0	
74	N205	-102.796321	-4.048411	42	0	
75	N206	54.904187	-75.383771	42	0	
76	N207	54.904187	-78.821271	42	0	
77	N208	53.529187	-75.383771	42	0	
78	N209	53.529187	-78.821271	42	0	
79	N210	53.529187	-80.102521	42	0	
80	N211	53.529187	-74.102521	42	0	
81	N218	53.529187	-77.813521	42	0	
82	N219	54.904187	75.383771	42	0	
83	N220	54.904187	78.821271	42	0	
84	N221	53.529187	75.383771	42	0	
85	N222	53.529187	78.821271	42	0	



Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 806364 - HRT 106(B) 943202

July 20, 2020
 11:26 AM
 Checked By: MLO

Joint Coordinates and Temperatures (Continued)

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Di...
86	N223	53.529187	80.102521	42	0	
87	N224	53.529187	74.102521	42	0	
88	N225	53.529187	77.813521	42	0	
89	N226	37.832167	85.240306	42	0	
90	N227	40.809129	86.959056	42	0	
91	N228	38.519667	84.049521	42	0	
92	N229	41.49663	85.768271	42	0	
93	N230	42.606225	86.408896	42	0	
94	N231	37.410072	83.408896	42	0	
95	N232	40.623893	85.264396	42	0	
96	N233	-92.736354	9.856535	42	0	
97	N234	-95.713317	8.137785	42	0	
98	N235	-92.048854	8.66575	42	0	
99	N236	-95.025816	6.947	42	0	
100	N237	-96.135412	6.306375	42	0	
101	N238	-90.939259	9.306375	42	0	
102	N239	-94.153079	7.450875	42	0	
103	N240	-92.736354	-9.856535	42	0	
104	N241	-95.713317	-8.137785	42	0	
105	N242	-92.048854	-8.66575	42	0	
106	N243	-95.025816	-6.947	42	0	
107	N244	-96.135412	-6.306375	42	0	
108	N245	-90.939259	-9.306375	42	0	
109	N246	-94.153079	-7.450875	42	0	
110	N247	37.832167	-85.240306	42	0	
111	N248	40.809129	-86.959056	42	0	
112	N249	38.519667	-84.049521	42	0	
113	N250	41.49663	-85.768271	42	0	
114	N251	42.606225	-86.408896	42	0	
115	N252	37.410072	-83.408896	42	0	
116	N253	40.623893	-85.264396	42	0	
117	N263	57.654187	-84.	69	0	
118	N272	52.341687	-77.283349	3	0	
119	N274	52.341687	-77.283349	-3	0	
120	N276	54.341687	-75.754049	2	0	
121	N277	52.341687	-75.754049	2	0	
122	N278	54.341687	-75.754049	-2	0	
123	N279	52.341687	-75.754049	-2	0	
124	N275A	52.341687	-77.283349	-2	0	
125	N276A	52.341687	-77.283349	-1	0	
126	N277A	52.341687	-77.283349	1	0	
127	N278A	52.341687	-77.283349	2	0	
128	N319	52.341687	77.283349	3	0	
129	N321	52.341687	77.283349	-3	0	
130	N327	52.341687	77.283349	-2	0	
131	N328	52.341687	77.283349	-1	0	
132	N329	52.341687	77.283349	1	0	
133	N330	52.341687	77.283349	2	0	
134	N365A	52.404187	-30.89167	2	0	
135	N366A	54.341687	-30.89167	2	0	
136	N367A	52.404187	-30.89167	-2	0	
137	N368A	54.341687	-30.89167	-2	0	
138	N368B	52.404187	-32.39167	3	0	
139	N369	52.404187	-29.39167	3	0	
140	N370	52.404187	-32.39167	-3	0	
141	N371	52.404187	-29.39167	-3	0	
142	N372	52.404187	-32.39167	-2	0	



Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 806364 - HRT 106(B) 943202

July 20, 2020
 11:26 AM
 Checked By: MLO

Joint Coordinates and Temperatures (Continued)

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Di...
143	N373	52.404187	-32.39167	-1	0	
144	N374	52.404187	-32.39167	1	0	
145	N375	52.404187	-32.39167	2	0	
146	N376	52.404187	-31.64167	-3	0	
147	N377	52.404187	-31.64167	-2	0	
148	N378	52.404187	-31.64167	-1	0	
149	N379	52.404187	-31.64167	0	0	
150	N380	52.404187	-31.64167	1	0	
151	N381	52.404187	-31.64167	2	0	
152	N382	52.404187	-31.64167	3	0	
153	N383	52.404187	-30.89167	-3	0	
154	N384	52.404187	-30.89167	-1	0	
155	N385	52.404187	-30.89167	0	0	
156	N386	52.404187	-30.89167	1	0	
157	N387	52.404187	-30.89167	3	0	
158	N388	52.404187	-30.14167	-3	0	
159	N389	52.404187	-30.14167	-2	0	
160	N390	52.404187	-30.14167	-1	0	
161	N391	52.404187	-30.14167	0	0	
162	N392	52.404187	-30.14167	1	0	
163	N393	52.404187	-30.14167	2	0	
164	N394	52.404187	-30.14167	3	0	
165	N395	52.404187	-29.39167	-2	0	
166	N396	52.404187	-29.39167	-1	0	
167	N397	52.404187	-29.39167	1	0	
168	N398	52.404187	-29.39167	2	0	
169	N399	52.404187	32.39167	0	0	
170	N401	54.341687	30.89167	0	0	
171	N402	52.404187	30.89167	2	0	
172	N403	54.341687	30.89167	2	0	
173	N404	52.404187	30.89167	-2	0	
174	N405	54.341687	30.89167	-2	0	
175	N406	52.404187	32.39167	3	0	
176	N407	52.404187	29.39167	3	0	
177	N408	52.404187	32.39167	-3	0	
178	N409	52.404187	29.39167	-3	0	
179	N410	52.404187	32.39167	-2	0	
180	N411	52.404187	32.39167	-1	0	
181	N412	52.404187	32.39167	1	0	
182	N413	52.404187	32.39167	2	0	
183	N414	52.404187	31.64167	-3	0	
184	N415	52.404187	31.64167	-2	0	
185	N416	52.404187	31.64167	-1	0	
186	N417	52.404187	31.64167	0	0	
187	N418	52.404187	31.64167	1	0	
188	N419	52.404187	31.64167	2	0	
189	N420	52.404187	31.64167	3	0	
190	N421	52.404187	30.89167	-3	0	
191	N422	52.404187	30.89167	-1	0	
192	N423	52.404187	30.89167	0	0	
193	N424	52.404187	30.89167	1	0	
194	N425	52.404187	30.89167	3	0	
195	N426	52.404187	30.14167	-3	0	
196	N427	52.404187	30.14167	-2	0	
197	N428	52.404187	30.14167	-1	0	
198	N429	52.404187	30.14167	0	0	
199	N430	52.404187	30.14167	1	0	



Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 806364 - HRT 106(B) 943202

July 20, 2020
 11:26 AM
 Checked By: MLO

Joint Coordinates and Temperatures (Continued)

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Di...
200	N431	52.404187	30.14167	2	0	
201	N432	52.404187	30.14167	3	0	
202	N433	52.404187	29.39167	-2	0	
203	N434	52.404187	29.39167	-1	0	
204	N435	52.404187	29.39167	1	0	
205	N436	52.404187	29.39167	2	0	
206	N413A	1.849915	61.579192	0	0	
207	N418A	-0.417873	62.507116	0	0	
208	N419A	40.7585	83.970905	3	0	
209	N421A	40.7585	83.970905	-3	0	
210	N427A	40.7585	83.970905	-2	0	
211	N428A	40.7585	83.970905	-1	0	
212	N429A	40.7585	83.970905	1	0	
213	N430A	40.7585	83.970905	2	0	
214	N470	-93.100187	6.687556	3	0	
215	N472	-93.100187	6.687556	-3	0	
216	N478	-93.100187	6.687556	-2	0	
217	N479	-93.100187	6.687556	-1	0	
218	N480	-93.100187	6.687556	1	0	
219	N481	-93.100187	6.687556	2	0	
220	N520	0.550877	60.829192	2	0	
221	N521	-0.417873	62.507116	2	0	
222	N522	0.550877	60.829192	-2	0	
223	N523	-0.417873	62.507116	-2	0	
224	N524	1.849915	61.579192	3	0	
225	N525	-0.748161	60.079192	3	0	
226	N526	1.849915	61.579192	-3	0	
227	N527	-0.748161	60.079192	-3	0	
228	N528	1.849915	61.579192	-2	0	
229	N529	1.849915	61.579192	-1	0	
230	N530	1.849915	61.579192	1	0	
231	N531	1.849915	61.579192	2	0	
232	N532	1.200396	61.204192	-3	0	
233	N533	1.200396	61.204192	-2	0	
234	N534	1.200396	61.204192	-1	0	
235	N535	1.200396	61.204192	0	0	
236	N536	1.200396	61.204192	1	0	
237	N537	1.200396	61.204192	2	0	
238	N538	1.200396	61.204192	3	0	
239	N539	0.550877	60.829192	-3	0	
240	N540	0.550877	60.829192	-1	0	
241	N541	0.550877	60.829192	0	0	
242	N542	0.550877	60.829192	1	0	
243	N543	0.550877	60.829192	3	0	
244	N544	-0.098642	60.454192	-3	0	
245	N545	-0.098642	60.454192	-2	0	
246	N546	-0.098642	60.454192	-1	0	
247	N547	-0.098642	60.454192	0	0	
248	N548	-0.098642	60.454192	1	0	
249	N549	-0.098642	60.454192	2	0	
250	N550	-0.098642	60.454192	3	0	
251	N551	-0.748161	60.079192	-2	0	
252	N552	-0.748161	60.079192	-1	0	
253	N553	-0.748161	60.079192	1	0	
254	N554	-0.748161	60.079192	2	0	
255	N555	-54.254102	29.187522	0	0	
256	N556	-53.923814	31.615447	0	0	



Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 806364 - HRT 106(B) 943202

July 20, 2020
 11:26 AM
 Checked By: MLO

Joint Coordinates and Temperatures (Continued)

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Di...
314	N708	-54.254102	-29.187522	-2	0	
315	N709	-54.254102	-29.187522	-1	0	
316	N710	-54.254102	-29.187522	1	0	
317	N711	-54.254102	-29.187522	2	0	
318	N712	-53.604583	-29.562522	-3	0	
319	N713	-53.604583	-29.562522	-2	0	
320	N714	-53.604583	-29.562522	-1	0	
321	N715	-53.604583	-29.562522	0	0	
322	N716	-53.604583	-29.562522	1	0	
323	N717	-53.604583	-29.562522	2	0	
324	N718	-53.604583	-29.562522	3	0	
325	N719	-52.955064	-29.937522	-3	0	
326	N720	-52.955064	-29.937522	-1	0	
327	N721	-52.955064	-29.937522	0	0	
328	N722	-52.955064	-29.937522	1	0	
329	N723	-52.955064	-29.937522	3	0	
330	N724	-52.305545	-30.312522	-3	0	
331	N725	-52.305545	-30.312522	-2	0	
332	N726	-52.305545	-30.312522	-1	0	
333	N727	-52.305545	-30.312522	0	0	
334	N728	-52.305545	-30.312522	1	0	
335	N729	-52.305545	-30.312522	2	0	
336	N730	-52.305545	-30.312522	3	0	
337	N731	-51.656026	-30.687522	-2	0	
338	N732	-51.656026	-30.687522	-1	0	
339	N733	-51.656026	-30.687522	1	0	
340	N734	-51.656026	-30.687522	2	0	
341	N735	1.849915	-61.579192	0	0	
342	N736	-0.417873	-62.507116	0	0	
343	N737	0.550877	-60.829192	2	0	
344	N738	-0.417873	-62.507116	2	0	
345	N739	0.550877	-60.829192	-2	0	
346	N740	-0.417873	-62.507116	-2	0	
347	N741	1.849915	-61.579192	3	0	
348	N742	-0.748161	-60.079192	3	0	
349	N743	1.849915	-61.579192	-3	0	
350	N744	-0.748161	-60.079192	-3	0	
351	N745	1.849915	-61.579192	-2	0	
352	N746	1.849915	-61.579192	-1	0	
353	N747	1.849915	-61.579192	1	0	
354	N748	1.849915	-61.579192	2	0	
355	N749	1.200396	-61.204192	-3	0	
356	N750	1.200396	-61.204192	-2	0	
357	N751	1.200396	-61.204192	-1	0	
358	N752	1.200396	-61.204192	0	0	
359	N753	1.200396	-61.204192	1	0	
360	N754	1.200396	-61.204192	2	0	
361	N755	1.200396	-61.204192	3	0	
362	N756	0.550877	-60.829192	-3	0	
363	N757	0.550877	-60.829192	-1	0	
364	N758	0.550877	-60.829192	0	0	
365	N759	0.550877	-60.829192	1	0	
366	N760	0.550877	-60.829192	3	0	
367	N761	-0.098642	-60.454192	-3	0	
368	N762	-0.098642	-60.454192	-2	0	
369	N763	-0.098642	-60.454192	-1	0	
370	N764	-0.098642	-60.454192	0	0	



Joint Coordinates and Temperatures (Continued)

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Di...
371	N765	-0.098642	-60.454192	1	0	
372	N766	-0.098642	-60.454192	2	0	
373	N767	-0.098642	-60.454192	3	0	
374	N768	-0.748161	-60.079192	-2	0	
375	N769	-0.748161	-60.079192	-1	0	
376	N770	-0.748161	-60.079192	1	0	
377	N771	-0.748161	-60.079192	2	0	
378	N762A	-93.100187	-5.851611	3	0	
379	N763A	-93.100187	-5.015667	3	0	
380	N764A	-93.100187	-4.179722	3	0	
381	N765A	-93.100187	-3.343778	3	0	
382	N766A	-93.100187	-2.507833	3	0	
383	N767A	-93.100187	-1.671889	3	0	
384	N768A	-93.100187	-0.835944	3	0	
385	N769A	-93.100187	-0.	3	0	
386	N770A	-93.100187	0.835944	3	0	
387	N771A	-93.100187	1.671889	3	0	
388	N772	-93.100187	2.507833	3	0	
389	N773	-93.100187	3.343778	3	0	
390	N774	-93.100187	4.179722	3	0	
391	N775	-93.100187	5.015667	3	0	
392	N776	-93.100187	5.851611	3	0	
393	N777	-93.100187	-5.851611	2	0	
394	N778	-93.100187	-5.015667	2	0	
395	N779	-93.100187	-4.179722	2	0	
396	N780	-93.100187	-3.343778	2	0	
397	N781	-93.100187	-2.507833	2	0	
398	N782	-93.100187	-1.671889	2	0	
399	N783	-93.100187	-0.835944	2	0	
400	N784	-93.100187	-0.	2	0	
401	N785	-93.100187	0.835944	2	0	
402	N786	-93.100187	1.671889	2	0	
403	N787	-93.100187	2.507833	2	0	
404	N788	-93.100187	3.343778	2	0	
405	N789	-93.100187	4.179722	2	0	
406	N790	-93.100187	5.015667	2	0	
407	N791	-93.100187	5.851611	2	0	
408	N792	-93.100187	-5.851611	1	0	
409	N793	-93.100187	-5.015667	1	0	
410	N794	-93.100187	-4.179722	1	0	
411	N795	-93.100187	-3.343778	1	0	
412	N796	-93.100187	-2.507833	1	0	
413	N797	-93.100187	-1.671889	1	0	
414	N798	-93.100187	-0.835944	1	0	
415	N799	-93.100187	-0.	1	0	
416	N800	-93.100187	0.835944	1	0	
417	N801	-93.100187	1.671889	1	0	
418	N802	-93.100187	2.507833	1	0	
419	N803	-93.100187	3.343778	1	0	
420	N804	-93.100187	4.179722	1	0	
421	N805	-93.100187	5.015667	1	0	
422	N806	-93.100187	5.851611	1	0	
423	N807	-93.100187	-5.851611	0	0	
424	N808	-93.100187	-5.015667	0	0	
425	N809	-93.100187	-4.179722	0	0	
426	N810	-93.100187	-3.343778	0	0	
427	N811	-93.100187	-2.507833	0	0	



Joint Coordinates and Temperatures (Continued)

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Di...
428	N812	-93.100187	-1.671889	0	0	
429	N813	-93.100187	-0.835944	0	0	
430	N814	-93.100187	-0.	0	0	
431	N815	-93.100187	0.835944	0	0	
432	N816	-93.100187	1.671889	0	0	
433	N817	-93.100187	2.507833	0	0	
434	N818	-93.100187	3.343778	0	0	
435	N819	-93.100187	4.179722	0	0	
436	N820	-93.100187	5.015667	0	0	
437	N821	-93.100187	5.851611	0	0	
438	N822	-93.100187	-5.851611	-1	0	
439	N823	-93.100187	-5.015667	-1	0	
440	N824	-93.100187	-4.179722	-1	0	
441	N825	-93.100187	-3.343778	-1	0	
442	N826	-93.100187	-2.507833	-1	0	
443	N827	-93.100187	-1.671889	-1	0	
444	N828	-93.100187	-0.835944	-1	0	
445	N829	-93.100187	-0.	-1	0	
446	N830	-93.100187	0.835944	-1	0	
447	N831	-93.100187	1.671889	-1	0	
448	N832	-93.100187	2.507833	-1	0	
449	N833	-93.100187	3.343778	-1	0	
450	N834	-93.100187	4.179722	-1	0	
451	N835	-93.100187	5.015667	-1	0	
452	N836	-93.100187	5.851611	-1	0	
453	N837	-93.100187	-5.851611	-2	0	
454	N838	-93.100187	-5.015667	-2	0	
455	N839	-93.100187	-4.179722	-2	0	
456	N840	-93.100187	-3.343778	-2	0	
457	N841	-93.100187	-2.507833	-2	0	
458	N842	-93.100187	-1.671889	-2	0	
459	N843	-93.100187	-0.835944	-2	0	
460	N844	-93.100187	-0.	-2	0	
461	N845	-93.100187	0.835944	-2	0	
462	N846	-93.100187	1.671889	-2	0	
463	N847	-93.100187	2.507833	-2	0	
464	N848	-93.100187	3.343778	-2	0	
465	N849	-93.100187	4.179722	-2	0	
466	N850	-93.100187	5.015667	-2	0	
467	N851	-93.100187	5.851611	-2	0	
468	N852	-93.100187	-5.851611	-3	0	
469	N853	-93.100187	-5.015667	-3	0	
470	N854	-93.100187	-4.179722	-3	0	
471	N855	-93.100187	-3.343778	-3	0	
472	N856	-93.100187	-2.507833	-3	0	
473	N857	-93.100187	-1.671889	-3	0	
474	N858	-93.100187	-0.835944	-3	0	
475	N859	-93.100187	-0.	-3	0	
476	N860	-93.100187	0.835944	-3	0	
477	N861	-93.100187	1.671889	-3	0	
478	N862	-93.100187	2.507833	-3	0	
479	N863	-93.100187	3.343778	-3	0	
480	N864	-93.100187	4.179722	-3	0	
481	N865	-93.100187	5.015667	-3	0	
482	N866	-93.100187	5.851611	-3	0	
483	N864A	46.425094	-80.410621	0	0	
484	N882	51.617738	-77.701321	3	0	



Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 806364 - HRT 106(B) 943202

July 20, 2020
 11:26 AM
 Checked By: MLO

Joint Coordinates and Temperatures (Continued)

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Di...
485	N883	50.893789	-78.119294	3	0	
486	N884	50.169839	-78.537266	3	0	
487	N885	49.44589	-78.955238	3	0	
488	N886	48.721941	-79.37321	3	0	
489	N887	47.997992	-79.791183	3	0	
490	N888	47.274043	-80.209155	3	0	
491	N889	46.550094	-80.627127	3	0	
492	N890	45.826144	-81.045099	3	0	
493	N891	45.102195	-81.463072	3	0	
494	N892	44.378246	-81.881044	3	0	
495	N893	43.654297	-82.299016	3	0	
496	N894	42.930348	-82.716988	3	0	
497	N895	42.206399	-83.134961	3	0	
498	N896	41.482449	-83.552933	3	0	
499	N897	51.617738	-77.701321	2	0	
500	N898	50.893789	-78.119294	2	0	
501	N899	50.169839	-78.537266	2	0	
502	N900	49.44589	-78.955238	2	0	
503	N901	48.721941	-79.37321	2	0	
504	N902	47.997992	-79.791183	2	0	
505	N903	47.274043	-80.209155	2	0	
506	N904	46.550094	-80.627127	2	0	
507	N905	45.826144	-81.045099	2	0	
508	N906	45.102195	-81.463072	2	0	
509	N907	44.378246	-81.881044	2	0	
510	N908	43.654297	-82.299016	2	0	
511	N909	42.930348	-82.716988	2	0	
512	N910	42.206399	-83.134961	2	0	
513	N911	41.482449	-83.552933	2	0	
514	N912	51.617738	-77.701321	1	0	
515	N913	50.893789	-78.119294	1	0	
516	N914	50.169839	-78.537266	1	0	
517	N915	49.44589	-78.955238	1	0	
518	N916	48.721941	-79.37321	1	0	
519	N917	47.997992	-79.791183	1	0	
520	N918	47.274043	-80.209155	1	0	
521	N919	46.550094	-80.627127	1	0	
522	N920	45.826144	-81.045099	1	0	
523	N921	45.102195	-81.463072	1	0	
524	N922	44.378246	-81.881044	1	0	
525	N923	43.654297	-82.299016	1	0	
526	N924	42.930348	-82.716988	1	0	
527	N925	42.206399	-83.134961	1	0	
528	N926	41.482449	-83.552933	1	0	
529	N927	51.617738	-77.701321	0	0	
530	N928	50.893789	-78.119294	0	0	
531	N929	50.169839	-78.537266	0	0	
532	N930	49.44589	-78.955238	0	0	
533	N931	48.721941	-79.37321	0	0	
534	N932	47.997992	-79.791183	0	0	
535	N933	47.274043	-80.209155	0	0	
536	N934	46.550094	-80.627127	0	0	
537	N935	45.826144	-81.045099	0	0	
538	N936	45.102195	-81.463072	0	0	
539	N937	44.378246	-81.881044	0	0	
540	N938	43.654297	-82.299016	0	0	
541	N939	42.930348	-82.716988	0	0	

Joint Coordinates and Temperatures (Continued)

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Di...
542	N940	42.206399	-83.134961	0	0	
543	N941	41.482449	-83.552933	0	0	
544	N942	51.617738	-77.701321	-1	0	
545	N943	50.893789	-78.119294	-1	0	
546	N944	50.169839	-78.537266	-1	0	
547	N945	49.44589	-78.955238	-1	0	
548	N946	48.721941	-79.37321	-1	0	
549	N947	47.997992	-79.791183	-1	0	
550	N948	47.274043	-80.209155	-1	0	
551	N949	46.550094	-80.627127	-1	0	
552	N950	45.826144	-81.045099	-1	0	
553	N951	45.102195	-81.463072	-1	0	
554	N952	44.378246	-81.881044	-1	0	
555	N953	43.654297	-82.299016	-1	0	
556	N954	42.930348	-82.716988	-1	0	
557	N955	42.206399	-83.134961	-1	0	
558	N956	41.482449	-83.552933	-1	0	
559	N957	51.617738	-77.701321	-2	0	
560	N958	50.893789	-78.119294	-2	0	
561	N959	50.169839	-78.537266	-2	0	
562	N960	49.44589	-78.955238	-2	0	
563	N961	48.721941	-79.37321	-2	0	
564	N962	47.997992	-79.791183	-2	0	
565	N963	47.274043	-80.209155	-2	0	
566	N964	46.550094	-80.627127	-2	0	
567	N965	45.826144	-81.045099	-2	0	
568	N966	45.102195	-81.463072	-2	0	
569	N967	44.378246	-81.881044	-2	0	
570	N968	43.654297	-82.299016	-2	0	
571	N969	42.930348	-82.716988	-2	0	
572	N970	42.206399	-83.134961	-2	0	
573	N971	41.482449	-83.552933	-2	0	
574	N972	51.617738	-77.701321	-3	0	
575	N973	50.893789	-78.119294	-3	0	
576	N974	50.169839	-78.537266	-3	0	
577	N975	49.44589	-78.955238	-3	0	
578	N976	48.721941	-79.37321	-3	0	
579	N977	47.997992	-79.791183	-3	0	
580	N978	47.274043	-80.209155	-3	0	
581	N979	46.550094	-80.627127	-3	0	
582	N980	45.826144	-81.045099	-3	0	
583	N981	45.102195	-81.463072	-3	0	
584	N982	44.378246	-81.881044	-3	0	
585	N983	43.654297	-82.299016	-3	0	
586	N984	42.930348	-82.716988	-3	0	
587	N985	42.206399	-83.134961	-3	0	
588	N986	41.482449	-83.552933	-3	0	
589	N990	46.425094	80.410621	0	0	
590	N1008	41.482449	83.552933	3	0	
591	N1009	42.206399	83.134961	3	0	
592	N1010	42.930348	82.716988	3	0	
593	N1011	43.654297	82.299016	3	0	
594	N1012	44.378246	81.881044	3	0	
595	N1013	45.102195	81.463072	3	0	
596	N1014	45.826144	81.045099	3	0	
597	N1015	46.550094	80.627127	3	0	
598	N1016	47.274043	80.209155	3	0	



Joint Coordinates and Temperatures (Continued)

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Di...
599	N1017	47.997992	79.791183	3	0	
600	N1018	48.721941	79.37321	3	0	
601	N1019	49.44589	78.955238	3	0	
602	N1020	50.169839	78.537266	3	0	
603	N1021	50.893789	78.119294	3	0	
604	N1022	51.617738	77.701321	3	0	
605	N1023	41.482449	83.552933	2	0	
606	N1024	42.206399	83.134961	2	0	
607	N1025	42.930348	82.716988	2	0	
608	N1026	43.654297	82.299016	2	0	
609	N1027	44.378246	81.881044	2	0	
610	N1028	45.102195	81.463072	2	0	
611	N1029	45.826144	81.045099	2	0	
612	N1030	46.550094	80.627127	2	0	
613	N1031	47.274043	80.209155	2	0	
614	N1032	47.997992	79.791183	2	0	
615	N1033	48.721941	79.37321	2	0	
616	N1034	49.44589	78.955238	2	0	
617	N1035	50.169839	78.537266	2	0	
618	N1036	50.893789	78.119294	2	0	
619	N1037	51.617738	77.701321	2	0	
620	N1038	41.482449	83.552933	1	0	
621	N1039	42.206399	83.134961	1	0	
622	N1040	42.930348	82.716988	1	0	
623	N1041	43.654297	82.299016	1	0	
624	N1042	44.378246	81.881044	1	0	
625	N1043	45.102195	81.463072	1	0	
626	N1044	45.826144	81.045099	1	0	
627	N1045	46.550094	80.627127	1	0	
628	N1046	47.274043	80.209155	1	0	
629	N1047	47.997992	79.791183	1	0	
630	N1048	48.721941	79.37321	1	0	
631	N1049	49.44589	78.955238	1	0	
632	N1050	50.169839	78.537266	1	0	
633	N1051	50.893789	78.119294	1	0	
634	N1052	51.617738	77.701321	1	0	
635	N1053	41.482449	83.552933	0	0	
636	N1054	42.206399	83.134961	0	0	
637	N1055	42.930348	82.716988	0	0	
638	N1056	43.654297	82.299016	0	0	
639	N1057	44.378246	81.881044	0	0	
640	N1058	45.102195	81.463072	0	0	
641	N1059	45.826144	81.045099	0	0	
642	N1060	46.550094	80.627127	0	0	
643	N1061	47.274043	80.209155	0	0	
644	N1062	47.997992	79.791183	0	0	
645	N1063	48.721941	79.37321	0	0	
646	N1064	49.44589	78.955238	0	0	
647	N1065	50.169839	78.537266	0	0	
648	N1066	50.893789	78.119294	0	0	
649	N1067	51.617738	77.701321	0	0	
650	N1068	41.482449	83.552933	-1	0	
651	N1069	42.206399	83.134961	-1	0	
652	N1070	42.930348	82.716988	-1	0	
653	N1071	43.654297	82.299016	-1	0	
654	N1072	44.378246	81.881044	-1	0	
655	N1073	45.102195	81.463072	-1	0	



Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 806364 - HRT 106(B) 943202

July 20, 2020
 11:26 AM
 Checked By: MLO

Joint Coordinates and Temperatures (Continued)

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Di...
656	N1074	45.826144	81.045099	-1	0	
657	N1075	46.550094	80.627127	-1	0	
658	N1076	47.274043	80.209155	-1	0	
659	N1077	47.997992	79.791183	-1	0	
660	N1078	48.721941	79.37321	-1	0	
661	N1079	49.44589	78.955238	-1	0	
662	N1080	50.169839	78.537266	-1	0	
663	N1081	50.893789	78.119294	-1	0	
664	N1082	51.617738	77.701321	-1	0	
665	N1083	41.482449	83.552933	-2	0	
666	N1084	42.206399	83.134961	-2	0	
667	N1085	42.930348	82.716988	-2	0	
668	N1086	43.654297	82.299016	-2	0	
669	N1087	44.378246	81.881044	-2	0	
670	N1088	45.102195	81.463072	-2	0	
671	N1089	45.826144	81.045099	-2	0	
672	N1090	46.550094	80.627127	-2	0	
673	N1091	47.274043	80.209155	-2	0	
674	N1092	47.997992	79.791183	-2	0	
675	N1093	48.721941	79.37321	-2	0	
676	N1094	49.44589	78.955238	-2	0	
677	N1095	50.169839	78.537266	-2	0	
678	N1096	50.893789	78.119294	-2	0	
679	N1097	51.617738	77.701321	-2	0	
680	N1098	41.482449	83.552933	-3	0	
681	N1099	42.206399	83.134961	-3	0	
682	N1100	42.930348	82.716988	-3	0	
683	N1101	43.654297	82.299016	-3	0	
684	N1102	44.378246	81.881044	-3	0	
685	N1103	45.102195	81.463072	-3	0	
686	N1104	45.826144	81.045099	-3	0	
687	N1105	46.550094	80.627127	-3	0	
688	N1106	47.274043	80.209155	-3	0	
689	N1107	47.997992	79.791183	-3	0	
690	N1108	48.721941	79.37321	-3	0	
691	N1109	49.44589	78.955238	-3	0	
692	N1110	50.169839	78.537266	-3	0	
693	N1111	50.893789	78.119294	-3	0	
694	N1112	51.617738	77.701321	-3	0	
695	N1073B	-45.906026	-30.687522	3	0	
696	N1074A	-45.906026	-30.687522	-3	0	
697	N1073A	-46.864359	-30.687522	3	0	
698	N1074B	-47.822693	-30.687522	3	0	
699	N1075A	-48.781026	-30.687522	3	0	
700	N1076A	-49.739359	-30.687522	3	0	
701	N1077A	-50.697693	-30.687522	3	0	
702	N1078A	-45.906026	-30.687522	2	0	
703	N1079A	-46.864359	-30.687522	2	0	
704	N1080A	-47.822693	-30.687522	2	0	
705	N1081A	-48.781026	-30.687522	2	0	
706	N1082A	-49.739359	-30.687522	2	0	
707	N1083A	-50.697693	-30.687522	2	0	
708	N1084A	-45.906026	-30.687522	1	0	
709	N1085A	-46.864359	-30.687522	1	0	
710	N1086A	-47.822693	-30.687522	1	0	
711	N1087A	-48.781026	-30.687522	1	0	
712	N1088A	-49.739359	-30.687522	1	0	



Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 806364 - HRT 106(B) 943202

July 20, 2020
 11:26 AM
 Checked By: MLO

Joint Coordinates and Temperatures (Continued)

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Di...
713	N1089A	-50.697693	-30.687522	1	0	
714	N1090A	-45.906026	-30.687522	0	0	
715	N1091A	-46.864359	-30.687522	0	0	
716	N1092A	-47.822693	-30.687522	0	0	
717	N1093A	-48.781026	-30.687522	0	0	
718	N1094A	-49.739359	-30.687522	0	0	
719	N1095A	-50.697693	-30.687522	0	0	
720	N1096A	-45.906026	-30.687522	-1	0	
721	N1097A	-46.864359	-30.687522	-1	0	
722	N1098A	-47.822693	-30.687522	-1	0	
723	N1099A	-48.781026	-30.687522	-1	0	
724	N1100A	-49.739359	-30.687522	-1	0	
725	N1101A	-50.697693	-30.687522	-1	0	
726	N1102A	-45.906026	-30.687522	-2	0	
727	N1103A	-46.864359	-30.687522	-2	0	
728	N1104A	-47.822693	-30.687522	-2	0	
729	N1105A	-48.781026	-30.687522	-2	0	
730	N1106A	-49.739359	-30.687522	-2	0	
731	N1107A	-50.697693	-30.687522	-2	0	
732	N1108A	-46.864359	-30.687522	-3	0	
733	N1109A	-47.822693	-30.687522	-3	0	
734	N1110A	-48.781026	-30.687522	-3	0	
735	N1111A	-49.739359	-30.687522	-3	0	
736	N1112A	-50.697693	-30.687522	-3	0	
737	N1121	-45.906026	30.687522	3	0	
738	N1122	-45.906026	30.687522	-3	0	
739	N1123	-46.864359	30.687522	3	0	
740	N1124	-47.822693	30.687522	3	0	
741	N1125	-48.781026	30.687522	3	0	
742	N1126	-49.739359	30.687522	3	0	
743	N1127	-50.697693	30.687522	3	0	
744	N1128	-45.906026	30.687522	2	0	
745	N1129	-46.864359	30.687522	2	0	
746	N1130	-47.822693	30.687522	2	0	
747	N1131	-48.781026	30.687522	2	0	
748	N1132	-49.739359	30.687522	2	0	
749	N1133	-50.697693	30.687522	2	0	
750	N1134	-45.906026	30.687522	1	0	
751	N1135	-46.864359	30.687522	1	0	
752	N1136	-47.822693	30.687522	1	0	
753	N1137	-48.781026	30.687522	1	0	
754	N1138	-49.739359	30.687522	1	0	
755	N1139	-50.697693	30.687522	1	0	
756	N1140	-45.906026	30.687522	0	0	
757	N1141	-46.864359	30.687522	0	0	
758	N1142	-47.822693	30.687522	0	0	
759	N1143	-48.781026	30.687522	0	0	
760	N1144	-49.739359	30.687522	0	0	
761	N1145	-50.697693	30.687522	0	0	
762	N1146	-45.906026	30.687522	-1	0	
763	N1147	-46.864359	30.687522	-1	0	
764	N1148	-47.822693	30.687522	-1	0	
765	N1149	-48.781026	30.687522	-1	0	
766	N1150	-49.739359	30.687522	-1	0	
767	N1151	-50.697693	30.687522	-1	0	
768	N1152	-45.906026	30.687522	-2	0	
769	N1153	-46.864359	30.687522	-2	0	



Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 806364 - HRT 106(B) 943202

July 20, 2020
 11:26 AM
 Checked By: MLO

Joint Coordinates and Temperatures (Continued)

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Di...
770	N1154	-47.822693	30.687522	-2	0	
771	N1155	-48.781026	30.687522	-2	0	
772	N1156	-49.739359	30.687522	-2	0	
773	N1157	-50.697693	30.687522	-2	0	
774	N1158	-46.864359	30.687522	-3	0	
775	N1159	-47.822693	30.687522	-3	0	
776	N1160	-48.781026	30.687522	-3	0	
777	N1161	-49.739359	30.687522	-3	0	
778	N1162	-50.697693	30.687522	-3	0	
779	N1149A	50.75018	-27.026846	0	0	
780	N1150A	-1.968808	-57.464169	0	0	
781	N1164	49.529187	-24.412023	3	0	
782	N1165	49.529187	-24.412023	-3	0	
783	N1166	50.008353	-25.241964	3	0	
784	N1167	50.48752	-26.071905	3	0	
785	N1168	50.966687	-26.901846	3	0	
786	N1169	51.445853	-27.731788	3	0	
787	N1170	51.92502	-28.561729	3	0	
788	N1171	49.529187	-24.412023	2	0	
789	N1172	50.008353	-25.241964	2	0	
790	N1173	50.48752	-26.071905	2	0	
791	N1174	50.966687	-26.901846	2	0	
792	N1175	51.445853	-27.731788	2	0	
793	N1176	51.92502	-28.561729	2	0	
794	N1177	49.529187	-24.412023	1	0	
795	N1178	50.008353	-25.241964	1	0	
796	N1179	50.48752	-26.071905	1	0	
797	N1180	50.966687	-26.901846	1	0	
798	N1181	51.445853	-27.731788	1	0	
799	N1182	51.92502	-28.561729	1	0	
800	N1183	49.529187	-24.412023	0	0	
801	N1184	50.008353	-25.241964	0	0	
802	N1185	50.48752	-26.071905	0	0	
803	N1186	50.966687	-26.901846	0	0	
804	N1187	51.445853	-27.731788	0	0	
805	N1188	51.92502	-28.561729	0	0	
806	N1189	49.529187	-24.412023	-1	0	
807	N1190	50.008353	-25.241964	-1	0	
808	N1191	50.48752	-26.071905	-1	0	
809	N1192	50.966687	-26.901846	-1	0	
810	N1193	51.445853	-27.731788	-1	0	
811	N1194	51.92502	-28.561729	-1	0	
812	N1195	49.529187	-24.412023	-2	0	
813	N1196	50.008353	-25.241964	-2	0	
814	N1197	50.48752	-26.071905	-2	0	
815	N1198	50.966687	-26.901846	-2	0	
816	N1199	51.445853	-27.731788	-2	0	
817	N1200	51.92502	-28.561729	-2	0	
818	N1201	50.008353	-25.241964	-3	0	
819	N1202	50.48752	-26.071905	-3	0	
820	N1203	50.966687	-26.901846	-3	0	
821	N1204	51.445853	-27.731788	-3	0	
822	N1205	51.92502	-28.561729	-3	0	
823	N1206	-3.623161	-55.099546	3	0	
824	N1207	-3.623161	-55.099546	-3	0	
825	N1208	-3.143994	-55.929487	3	0	
826	N1209	-2.664828	-56.759428	3	0	



Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 806364 - HRT 106(B) 943202

July 20, 2020
 11:26 AM
 Checked By: MLO

Joint Coordinates and Temperatures (Continued)

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Di...
827	N1210	-2.185661	-57.589369	3	0	
828	N1211	-1.706494	-58.41931	3	0	
829	N1212	-1.227328	-59.249251	3	0	
830	N1213	-3.623161	-55.099546	2	0	
831	N1214	-3.143994	-55.929487	2	0	
832	N1215	-2.664828	-56.759428	2	0	
833	N1216	-2.185661	-57.589369	2	0	
834	N1217	-1.706494	-58.41931	2	0	
835	N1218	-1.227328	-59.249251	2	0	
836	N1219	-3.623161	-55.099546	1	0	
837	N1220	-3.143994	-55.929487	1	0	
838	N1221	-2.664828	-56.759428	1	0	
839	N1222	-2.185661	-57.589369	1	0	
840	N1223	-1.706494	-58.41931	1	0	
841	N1224	-1.227328	-59.249251	1	0	
842	N1225	-3.623161	-55.099546	0	0	
843	N1226	-3.143994	-55.929487	0	0	
844	N1227	-2.664828	-56.759428	0	0	
845	N1228	-2.185661	-57.589369	0	0	
846	N1229	-1.706494	-58.41931	0	0	
847	N1230	-1.227328	-59.249251	0	0	
848	N1231	-3.623161	-55.099546	-1	0	
849	N1232	-3.143994	-55.929487	-1	0	
850	N1233	-2.664828	-56.759428	-1	0	
851	N1234	-2.185661	-57.589369	-1	0	
852	N1235	-1.706494	-58.41931	-1	0	
853	N1236	-1.227328	-59.249251	-1	0	
854	N1237	-3.623161	-55.099546	-2	0	
855	N1238	-3.143994	-55.929487	-2	0	
856	N1239	-2.664828	-56.759428	-2	0	
857	N1240	-2.185661	-57.589369	-2	0	
858	N1241	-1.706494	-58.41931	-2	0	
859	N1242	-1.227328	-59.249251	-2	0	
860	N1243	-3.143994	-55.929487	-3	0	
861	N1244	-2.664828	-56.759428	-3	0	
862	N1245	-2.185661	-57.589369	-3	0	
863	N1246	-1.706494	-58.41931	-3	0	
864	N1247	-1.227328	-59.249251	-3	0	
865	N1250	-1.969155	57.464369	0	0	
866	N1251	50.749834	27.027046	0	0	
867	N1265	-3.623161	55.099546	3	0	
868	N1266	-3.623161	55.099546	-3	0	
869	N1267	-3.143994	55.929487	3	0	
870	N1268	-2.664828	56.759428	3	0	
871	N1269	-2.185661	57.589369	3	0	
872	N1270	-1.706494	58.41931	3	0	
873	N1271	-1.227328	59.249251	3	0	
874	N1272	-3.623161	55.099546	2	0	
875	N1273	-3.143994	55.929487	2	0	
876	N1274	-2.664828	56.759428	2	0	
877	N1275	-2.185661	57.589369	2	0	
878	N1276	-1.706494	58.41931	2	0	
879	N1277	-1.227328	59.249251	2	0	
880	N1278	-3.623161	55.099546	1	0	
881	N1279	-3.143994	55.929487	1	0	
882	N1280	-2.664828	56.759428	1	0	
883	N1281	-2.185661	57.589369	1	0	



Joint Coordinates and Temperatures (Continued)

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Di...
884	N1282	-1.706494	58.41931	1	0	
885	N1283	-1.227328	59.249251	1	0	
886	N1284	-3.623161	55.099546	0	0	
887	N1285	-3.143994	55.929487	0	0	
888	N1286	-2.664828	56.759428	0	0	
889	N1287	-2.185661	57.589369	0	0	
890	N1288	-1.706494	58.41931	0	0	
891	N1289	-1.227328	59.249251	0	0	
892	N1290	-3.623161	55.099546	-1	0	
893	N1291	-3.143994	55.929487	-1	0	
894	N1292	-2.664828	56.759428	-1	0	
895	N1293	-2.185661	57.589369	-1	0	
896	N1294	-1.706494	58.41931	-1	0	
897	N1295	-1.227328	59.249251	-1	0	
898	N1296	-3.623161	55.099546	-2	0	
899	N1297	-3.143994	55.929487	-2	0	
900	N1298	-2.664828	56.759428	-2	0	
901	N1299	-2.185661	57.589369	-2	0	
902	N1300	-1.706494	58.41931	-2	0	
903	N1301	-1.227328	59.249251	-2	0	
904	N1302	-3.143994	55.929487	-3	0	
905	N1303	-2.664828	56.759428	-3	0	
906	N1304	-2.185661	57.589369	-3	0	
907	N1305	-1.706494	58.41931	-3	0	
908	N1306	-1.227328	59.249251	-3	0	
909	N1307	49.529187	24.412023	3	0	
910	N1308	49.529187	24.412023	-3	0	
911	N1309	50.008353	25.241964	3	0	
912	N1310	50.48752	26.071905	3	0	
913	N1311	50.966687	26.901846	3	0	
914	N1312	51.445853	27.731788	3	0	
915	N1313	51.92502	28.561729	3	0	
916	N1314	49.529187	24.412023	2	0	
917	N1315	50.008353	25.241964	2	0	
918	N1316	50.48752	26.071905	2	0	
919	N1317	50.966687	26.901846	2	0	
920	N1318	51.445853	27.731788	2	0	
921	N1319	51.92502	28.561729	2	0	
922	N1320	49.529187	24.412023	1	0	
923	N1321	50.008353	25.241964	1	0	
924	N1322	50.48752	26.071905	1	0	
925	N1323	50.966687	26.901846	1	0	
926	N1324	51.445853	27.731788	1	0	
927	N1325	51.92502	28.561729	1	0	
928	N1326	49.529187	24.412023	0	0	
929	N1327	50.008353	25.241964	0	0	
930	N1328	50.48752	26.071905	0	0	
931	N1329	50.966687	26.901846	0	0	
932	N1330	51.445853	27.731788	0	0	
933	N1331	51.92502	28.561729	0	0	
934	N1332	49.529187	24.412023	-1	0	
935	N1333	50.008353	25.241964	-1	0	
936	N1334	50.48752	26.071905	-1	0	
937	N1335	50.966687	26.901846	-1	0	
938	N1336	51.445853	27.731788	-1	0	
939	N1337	51.92502	28.561729	-1	0	
940	N1338	49.529187	24.412023	-2	0	



Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 806364 - HRT 106(B) 943202

July 20, 2020
 11:26 AM
 Checked By: MLO

Joint Coordinates and Temperatures (Continued)

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Di...
941	N1339	50.008353	25.241964	-2	0	
942	N1340	50.48752	26.071905	-2	0	
943	N1341	50.966687	26.901846	-2	0	
944	N1342	51.445853	27.731788	-2	0	
945	N1343	51.92502	28.561729	-2	0	
946	N1344	50.008353	25.241964	-3	0	
947	N1345	50.48752	26.071905	-3	0	
948	N1346	50.966687	26.901846	-3	0	
949	N1347	51.445853	27.731788	-3	0	
950	N1348	51.92502	28.561729	-3	0	
951	N1239A	52.341687	-75.754049	3	0	
952	N1240A	52.341687	-75.754049	-3	0	
953	N1241A	52.341687	-74.22475	3	0	
954	N1242A	52.341687	-74.22475	-3	0	
955	N1243A	52.341687	-76.773583	3	0	
956	N1244A	52.341687	-76.263816	3	0	
957	N1245A	52.341687	-75.244283	3	0	
958	N1246A	52.341687	-74.734516	3	0	
959	N1247A	52.341687	-76.773583	2	0	
960	N1248	52.341687	-76.263816	2	0	
961	N1249	52.341687	-75.244283	2	0	
962	N1250A	52.341687	-74.734516	2	0	
963	N1251A	52.341687	-74.22475	2	0	
964	N1252	52.341687	-76.773583	1	0	
965	N1253	52.341687	-76.263816	1	0	
966	N1254	52.341687	-75.754049	1	0	
967	N1255	52.341687	-75.244283	1	0	
968	N1256	52.341687	-74.734516	1	0	
969	N1257	52.341687	-74.22475	1	0	
970	N1258	52.341687	-76.773583	0	0	
971	N1259	52.341687	-76.263816	0	0	
972	N1260	52.341687	-75.754049	0	0	
973	N1261	52.341687	-75.244283	0	0	
974	N1262	52.341687	-74.734516	0	0	
975	N1263	52.341687	-74.22475	0	0	
976	N1264	52.341687	-76.773583	-1	0	
977	N1265A	52.341687	-76.263816	-1	0	
978	N1266A	52.341687	-75.754049	-1	0	
979	N1267A	52.341687	-75.244283	-1	0	
980	N1268A	52.341687	-74.734516	-1	0	
981	N1269A	52.341687	-74.22475	-1	0	
982	N1270A	52.341687	-76.773583	-2	0	
983	N1271A	52.341687	-76.263816	-2	0	
984	N1272A	52.341687	-75.244283	-2	0	
985	N1273A	52.341687	-74.734516	-2	0	
986	N1274A	52.341687	-74.22475	-2	0	
987	N1275A	52.341687	-76.773583	-3	0	
988	N1276A	52.341687	-76.263816	-3	0	
989	N1277A	52.341687	-75.244283	-3	0	
990	N1278A	52.341687	-74.734516	-3	0	
991	N1095B	54.341687	75.754049	0	0	
992	N1098B	54.341687	75.754049	2	0	
993	N1099B	52.341687	75.754049	2	0	
994	N1100B	54.341687	75.754049	-2	0	
995	N1101B	52.341687	75.754049	-2	0	
996	N1106B	52.341687	75.754049	3	0	
997	N1107B	52.341687	75.754049	-3	0	



Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 806364 - HRT 106(B) 943202

July 20, 2020
 11:26 AM
 Checked By: MLO

Joint Coordinates and Temperatures (Continued)

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Di...
998	N1108B	52.341687	74.22475	3	0	
999	N1109B	52.341687	74.22475	-3	0	
1000	N1110B	52.341687	76.773583	3	0	
1001	N1111B	52.341687	76.263816	3	0	
1002	N1112B	52.341687	75.244283	3	0	
1003	N1113	52.341687	74.734516	3	0	
1004	N1114	52.341687	76.773583	2	0	
1005	N1115	52.341687	76.263816	2	0	
1006	N1116	52.341687	75.244283	2	0	
1007	N1117	52.341687	74.734516	2	0	
1008	N1118	52.341687	74.22475	2	0	
1009	N1119	52.341687	76.773583	1	0	
1010	N1120	52.341687	76.263816	1	0	
1011	N1121A	52.341687	75.754049	1	0	
1012	N1122A	52.341687	75.244283	1	0	
1013	N1123A	52.341687	74.734516	1	0	
1014	N1124A	52.341687	74.22475	1	0	
1015	N1125A	52.341687	76.773583	0	0	
1016	N1126A	52.341687	76.263816	0	0	
1017	N1127A	52.341687	75.754049	0	0	
1018	N1128A	52.341687	75.244283	0	0	
1019	N1129A	52.341687	74.734516	0	0	
1020	N1130A	52.341687	74.22475	0	0	
1021	N1131A	52.341687	76.773583	-1	0	
1022	N1132A	52.341687	76.263816	-1	0	
1023	N1133A	52.341687	75.754049	-1	0	
1024	N1134A	52.341687	75.244283	-1	0	
1025	N1135A	52.341687	74.734516	-1	0	
1026	N1136A	52.341687	74.22475	-1	0	
1027	N1137A	52.341687	76.773583	-2	0	
1028	N1138A	52.341687	76.263816	-2	0	
1029	N1139A	52.341687	75.244283	-2	0	
1030	N1140A	52.341687	74.734516	-2	0	
1031	N1141A	52.341687	74.22475	-2	0	
1032	N1142A	52.341687	76.773583	-3	0	
1033	N1143A	52.341687	76.263816	-3	0	
1034	N1144A	52.341687	75.244283	-3	0	
1035	N1145A	52.341687	74.734516	-3	0	
1036	N1140B	38.434087	84.938306	0	0	
1037	N1144B	38.434087	84.938306	2	0	
1038	N1145B	39.434087	83.206255	2	0	
1039	N1146A	38.434087	84.938306	-2	0	
1040	N1147A	39.434087	83.206255	-2	0	
1041	N1158A	39.434087	83.206255	3	0	
1042	N1159A	39.434087	83.206255	-3	0	
1043	N1160A	38.109675	82.441605	3	0	
1044	N1161A	38.109675	82.441605	-3	0	
1045	N1162A	40.317029	83.716022	3	0	
1046	N1163	39.875559	83.461138	3	0	
1047	N1164A	38.992617	82.951372	3	0	
1048	N1165A	38.551146	82.696489	3	0	
1049	N1166A	40.317029	83.716022	2	0	
1050	N1167A	39.875559	83.461138	2	0	
1051	N1168A	38.992617	82.951372	2	0	
1052	N1169A	38.551146	82.696489	2	0	
1053	N1170A	38.109675	82.441605	2	0	
1054	N1171A	40.317029	83.716022	1	0	



Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 806364 - HRT 106(B) 943202

July 20, 2020
 11:26 AM
 Checked By: MLO

Joint Coordinates and Temperatures (Continued)

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Di...
1055	N1172A	39.875559	83.461138	1	0	
1056	N1173A	39.434088	83.206255	1	0	
1057	N1174A	38.992617	82.951372	1	0	
1058	N1175A	38.551146	82.696489	1	0	
1059	N1176A	38.109675	82.441605	1	0	
1060	N1177A	40.317029	83.716022	0	0	
1061	N1178A	39.875559	83.461138	0	0	
1062	N1179A	39.434088	83.206255	0	0	
1063	N1180A	38.992617	82.951372	0	0	
1064	N1181A	38.551146	82.696489	0	0	
1065	N1182A	38.109675	82.441605	0	0	
1066	N1183A	40.317029	83.716022	-1	0	
1067	N1184A	39.875559	83.461138	-1	0	
1068	N1185A	39.434088	83.206255	-1	0	
1069	N1186A	38.992617	82.951372	-1	0	
1070	N1187A	38.551146	82.696489	-1	0	
1071	N1188A	38.109675	82.441605	-1	0	
1072	N1189A	40.317029	83.716022	-2	0	
1073	N1190A	39.875559	83.461138	-2	0	
1074	N1191A	38.992617	82.951372	-2	0	
1075	N1192A	38.551146	82.696489	-2	0	
1076	N1193A	38.109675	82.441605	-2	0	
1077	N1194A	40.317029	83.716022	-3	0	
1078	N1195A	39.875559	83.461138	-3	0	
1079	N1196A	38.992617	82.951372	-3	0	
1080	N1197A	38.551146	82.696489	-3	0	
1081	N1198A	-92.775774	9.184257	0	0	
1082	N1199A	-92.775774	9.184257	2	0	
1083	N1200A	-91.775774	7.452206	2	0	
1084	N1201A	-92.775774	9.184257	-2	0	
1085	N1202A	-91.775774	7.452206	-2	0	
1086	N1203A	-91.775774	7.452206	3	0	
1087	N1204A	-91.775774	7.452206	-3	0	
1088	N1205A	-90.451362	8.216856	3	0	
1089	N1206A	-90.451362	8.216856	-3	0	
1090	N1207A	-92.658716	6.942439	3	0	
1091	N1208A	-92.217245	7.197322	3	0	
1092	N1209A	-91.334304	7.707089	3	0	
1093	N1210A	-90.892833	7.961972	3	0	
1094	N1211A	-92.658716	6.942439	2	0	
1095	N1212A	-92.217245	7.197322	2	0	
1096	N1213A	-91.334304	7.707089	2	0	
1097	N1214A	-90.892833	7.961972	2	0	
1098	N1215A	-90.451362	8.216856	2	0	
1099	N1216A	-92.658716	6.942439	1	0	
1100	N1217A	-92.217245	7.197322	1	0	
1101	N1218A	-91.775775	7.452206	1	0	
1102	N1219A	-91.334304	7.707089	1	0	
1103	N1220A	-90.892833	7.961972	1	0	
1104	N1221A	-90.451362	8.216856	1	0	
1105	N1222A	-92.658716	6.942439	0	0	
1106	N1223A	-92.217245	7.197322	0	0	
1107	N1224A	-91.775775	7.452206	0	0	
1108	N1225A	-91.334304	7.707089	0	0	
1109	N1226A	-90.892833	7.961972	0	0	
1110	N1227A	-90.451362	8.216856	0	0	
1111	N1228A	-92.658716	6.942439	-1	0	



Company : Kimley-Horn and Associates, Inc.
Designer : ZAM
Job Number : 019558049
Model Name : 806364 - HRT 106(B) 943202

July 20, 2020
11:26 AM
Checked By: MLO

Joint Coordinates and Temperatures (Continued)

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Di...
1112	N1229A	-92.217245	7.197322	-1	0	
1113	N1230A	-91.775775	7.452206	-1	0	
1114	N1231A	-91.334304	7.707089	-1	0	
1115	N1232A	-90.892833	7.961972	-1	0	
1116	N1233A	-90.451362	8.216856	-1	0	
1117	N1234A	-92.658716	6.942439	-2	0	
1118	N1235A	-92.217245	7.197322	-2	0	
1119	N1236A	-91.334304	7.707089	-2	0	
1120	N1237A	-90.892833	7.961972	-2	0	
1121	N1238A	-90.451362	8.216856	-2	0	
1122	N1239B	-92.658716	6.942439	-3	0	
1123	N1240B	-92.217245	7.197322	-3	0	
1124	N1241B	-91.334304	7.707089	-3	0	
1125	N1242B	-90.892833	7.961972	-3	0	
1126	N1244B	-92.775774	-9.184257	0	0	
1127	N1248A	-92.775774	-9.184257	2	0	
1128	N1249A	-91.775774	-7.452206	2	0	
1129	N1250B	-92.775774	-9.184257	-2	0	
1130	N1251B	-91.775774	-7.452206	-2	0	
1131	N1262A	-91.775774	-7.452206	3	0	
1132	N1263A	-91.775774	-7.452206	-3	0	
1133	N1264A	-90.451362	-8.216856	3	0	
1134	N1265B	-90.451362	-8.216856	-3	0	
1135	N1266B	-92.658716	-6.942439	3	0	
1136	N1267B	-92.217245	-7.197322	3	0	
1137	N1268B	-91.334304	-7.707089	3	0	
1138	N1269B	-90.892833	-7.961972	3	0	
1139	N1270B	-92.658716	-6.942439	2	0	
1140	N1271B	-92.217245	-7.197322	2	0	
1141	N1272B	-91.334304	-7.707089	2	0	
1142	N1273B	-90.892833	-7.961972	2	0	
1143	N1274B	-90.451362	-8.216856	2	0	
1144	N1275B	-92.658716	-6.942439	1	0	
1145	N1276B	-92.217245	-7.197322	1	0	
1146	N1277B	-91.775775	-7.452206	1	0	
1147	N1278B	-91.334304	-7.707089	1	0	
1148	N1279A	-90.892833	-7.961972	1	0	
1149	N1280A	-90.451362	-8.216856	1	0	
1150	N1281A	-92.658716	-6.942439	0	0	
1151	N1282A	-92.217245	-7.197322	0	0	
1152	N1283A	-91.775775	-7.452206	0	0	
1153	N1284A	-91.334304	-7.707089	0	0	
1154	N1285A	-90.892833	-7.961972	0	0	
1155	N1286A	-90.451362	-8.216856	0	0	
1156	N1287A	-92.658716	-6.942439	-1	0	
1157	N1288A	-92.217245	-7.197322	-1	0	
1158	N1289A	-91.775775	-7.452206	-1	0	
1159	N1290A	-91.334304	-7.707089	-1	0	
1160	N1291A	-90.892833	-7.961972	-1	0	
1161	N1292A	-90.451362	-8.216856	-1	0	
1162	N1293A	-92.658716	-6.942439	-2	0	
1163	N1294A	-92.217245	-7.197322	-2	0	
1164	N1295A	-91.334304	-7.707089	-2	0	
1165	N1296A	-90.892833	-7.961972	-2	0	
1166	N1297A	-90.451362	-8.216856	-2	0	
1167	N1298A	-92.658716	-6.942439	-3	0	
1168	N1299A	-92.217245	-7.197322	-3	0	



Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 806364 - HRT 106(B) 943202

July 20, 2020
 11:26 AM
 Checked By: MLO

Joint Coordinates and Temperatures (Continued)

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Di...
1169	N1300A	-91.334304	-7.707089	-3	0	
1170	N1301A	-90.892833	-7.961972	-3	0	
1171	N1302A	38.434087	-84.938306	0	0	
1172	N1303A	38.434087	-84.938306	2	0	
1173	N1304A	39.434087	-83.206255	2	0	
1174	N1305A	38.434087	-84.938306	-2	0	
1175	N1306A	39.434087	-83.206255	-2	0	
1176	N1307A	39.434087	-83.206255	3	0	
1177	N1308A	39.434087	-83.206255	-3	0	
1178	N1309A	38.109675	-82.441605	3	0	
1179	N1310A	38.109675	-82.441605	-3	0	
1180	N1311A	40.317029	-83.716022	3	0	
1181	N1312A	39.875559	-83.461138	3	0	
1182	N1313A	38.992617	-82.951372	3	0	
1183	N1314A	38.551146	-82.696489	3	0	
1184	N1315A	40.317029	-83.716022	2	0	
1185	N1316A	39.875559	-83.461138	2	0	
1186	N1317A	38.992617	-82.951372	2	0	
1187	N1318A	38.551146	-82.696489	2	0	
1188	N1319A	38.109675	-82.441605	2	0	
1189	N1320A	40.317029	-83.716022	1	0	
1190	N1321A	39.875559	-83.461138	1	0	
1191	N1322A	39.434088	-83.206255	1	0	
1192	N1323A	38.992617	-82.951372	1	0	
1193	N1324A	38.551146	-82.696489	1	0	
1194	N1325A	38.109675	-82.441605	1	0	
1195	N1326A	40.317029	-83.716022	0	0	
1196	N1327A	39.875559	-83.461138	0	0	
1197	N1328A	39.434088	-83.206255	0	0	
1198	N1329A	38.992617	-82.951372	0	0	
1199	N1330A	38.551146	-82.696489	0	0	
1200	N1331A	38.109675	-82.441605	0	0	
1201	N1332A	40.317029	-83.716022	-1	0	
1202	N1333A	39.875559	-83.461138	-1	0	
1203	N1334A	39.434088	-83.206255	-1	0	
1204	N1335A	38.992617	-82.951372	-1	0	
1205	N1336A	38.551146	-82.696489	-1	0	
1206	N1337A	38.109675	-82.441605	-1	0	
1207	N1338A	40.317029	-83.716022	-2	0	
1208	N1339A	39.875559	-83.461138	-2	0	
1209	N1340A	38.992617	-82.951372	-2	0	
1210	N1341A	38.551146	-82.696489	-2	0	
1211	N1342A	38.109675	-82.441605	-2	0	
1212	N1343A	40.317029	-83.716022	-3	0	
1213	N1344A	39.875559	-83.461138	-3	0	
1214	N1345A	38.992617	-82.951372	-3	0	
1215	N1346A	38.551146	-82.696489	-3	0	
1216	N1222B	57.654187	-84.	54	0	
1217	N1223B	57.654187	-84.	6	0	
1218	A4T	65.654187	-84.	54	0	
1219	A4B	65.654187	-84.	6	0	
1220	N1226B	57.654187	-84.	21	0	
1221	A4R	51.654187	-84.	21	0	
1222	N1228B	57.654187	-26.	-27	0	
1223	M3	54.341687	-26.	0	0	
1224	N1230B	57.654187	-26.	0	0	
1225	N1231B	57.654187	-26.	42	0	



Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 806364 - HRT 106(B) 943202

July 20, 2020
 11:26 AM
 Checked By: MLO

Joint Coordinates and Temperatures (Continued)

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Di...
1226	N1232B	54.904187	-26.	42	0	
1227	N1233B	57.654187	-26.	69	0	
1228	N1234B	57.654187	-26.	54	0	
1229	N1235B	57.654187	-26.	6	0	
1230	A3T	65.654187	-26.	54	0	
1231	A3B	65.654187	-26.	6	0	
1232	N1238B	57.654187	-26.	21	0	
1233	A3R	51.654187	-26.	21	0	
1234	N1240C	57.654187	26.	-27	0	
1235	M2	54.341687	26.	0	0	
1236	N1242C	57.654187	26.	0	0	
1237	N1243B	57.654187	26.	42	0	
1238	N1244C	54.904187	26.	42	0	
1239	N1245B	57.654187	26.	69	0	
1240	N1246B	57.654187	26.	54	0	
1241	N1247B	57.654187	26.	6	0	
1242	A2T	65.654187	26.	54	0	
1243	A2B	65.654187	26.	6	0	
1244	N1250C	57.654187	26.	21	0	
1245	A2R	51.654187	26.	21	0	
1246	N1252A	57.654187	72.	-27	0	
1247	M1	54.341687	72.	0	0	
1248	N1254A	57.654187	72.	0	0	
1249	N1255A	57.654187	72.	42	0	
1250	N1256A	54.904187	72.	42	0	
1251	N1257A	57.654187	72.	69	0	
1252	N1258A	57.654187	72.	54	0	
1253	N1259A	57.654187	72.	6	0	
1254	A1T	65.654187	72.	54	0	
1255	A1B	65.654187	72.	6	0	
1256	N1262B	57.654187	72.	21	0	
1257	A1R	51.654187	72.	21	0	
1258	N1264B	-101.573228	-7.929991	-27	0	
1259	N1265C	-99.916978	-5.061281	0	0	
1260	N1266C	-101.573228	-7.929991	0	0	
1261	N1267C	-101.573228	-7.929991	42	0	
1262	N1268C	-100.198228	-5.548421	42	0	
1263	N1269C	-101.573228	-7.929991	69	0	
1264	N1276C	-101.573228	-7.929991	54	0	
1265	N1277C	-101.573228	-7.929991	6	0	
1266	B4T	-105.573228	-14.858194	54	0	
1267	B4B	-105.573228	-14.858194	6	0	
1268	N1280B	-101.573228	-7.929991	21	0	
1269	B4R	-98.573228	-2.733838	21	0	
1270	N1282C	-51.343754	-36.929991	-27	0	
1271	N1283C	-49.687504	-34.061282	0	0	
1272	N1284C	-51.343754	-36.929991	0	0	
1273	N1285C	-51.343754	-36.929991	42	0	
1274	N1286C	-49.968754	-34.548421	42	0	
1275	N1287C	-51.343754	-36.929991	69	0	
1276	N1288B	-51.343754	-36.929991	54	0	
1277	N1289B	-51.343754	-36.929991	6	0	
1278	B3T	-55.343754	-43.858193	54	0	
1279	B3B	-55.343754	-43.858193	6	0	
1280	N1292B	-51.343754	-36.929991	21	0	
1281	B3R	-48.343754	-31.733839	21	0	
1282	N1294B	-6.310433	-62.929991	-27	0	



Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 806364 - HRT 106(B) 943202

July 20, 2020
 11:26 AM
 Checked By: MLO

Joint Coordinates and Temperatures (Continued)

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Di...
1283	N1295B	-4.654183	-60.061282	0	0	
1284	N1296B	-6.310433	-62.929991	0	0	
1285	N1297B	-6.310433	-62.929991	42	0	
1286	N1298B	-4.935433	-60.548421	42	0	
1287	N1299B	-6.310433	-62.929991	69	0	
1288	N1300B	-6.310433	-62.929991	54	0	
1289	N1301B	-6.310433	-62.929991	6	0	
1290	B2T	-10.310433	-69.858194	54	0	
1291	B2B	-10.310433	-69.858194	6	0	
1292	N1304B	-6.310433	-62.929991	21	0	
1293	B2R	-3.310433	-57.733839	21	0	
1294	N1306B	33.526736	-85.929991	-27	0	
1295	N1307B	35.182986	-83.061282	0	0	
1296	N1308B	33.526736	-85.929991	0	0	
1297	N1309B	33.526736	-85.929991	42	0	
1298	N1310B	34.901736	-83.548421	42	0	
1299	N1311B	33.526736	-85.929991	69	0	
1300	N1312B	33.526736	-85.929991	54	0	
1301	N1313B	33.526736	-85.929991	6	0	
1302	B1T	29.526736	-92.858194	54	0	
1303	B1B	29.526736	-92.858194	6	0	
1304	N1316B	33.526736	-85.929991	21	0	
1305	B1R	36.526736	-80.733838	21	0	
1306	N1318B	43.919041	91.929991	-27	0	
1307	N1319B	45.575291	89.061282	0	0	
1308	N1320B	43.919041	91.929991	0	0	
1309	N1321B	43.919041	91.929991	42	0	
1310	N1322B	45.294041	89.548421	42	0	
1311	N1323B	43.919041	91.929991	69	0	
1312	N1330B	43.919041	91.929991	54	0	
1313	N1331B	43.919041	91.929991	6	0	
1314	G4T	39.919041	98.858194	54	0	
1315	G4B	39.919041	98.858194	6	0	
1316	N1334B	43.919041	91.929991	21	0	
1317	G4R	46.919041	86.733838	21	0	
1318	N1336B	-6.310433	62.929991	-27	0	
1319	N1337B	-4.654183	60.061282	0	0	
1320	N1338B	-6.310433	62.929991	0	0	
1321	N1339B	-6.310433	62.929991	42	0	
1322	N1340B	-4.935433	60.548421	42	0	
1323	N1341B	-6.310433	62.929991	69	0	
1324	N1342B	-6.310433	62.929991	54	0	
1325	N1343B	-6.310433	62.929991	6	0	
1326	G3T	-10.310433	69.858194	54	0	
1327	G3B	-10.310433	69.858194	6	0	
1328	N1346B	-6.310433	62.929991	21	0	
1329	G3R	-3.310433	57.733839	21	0	
1330	N1348A	-51.343754	36.929991	-27	0	
1331	N1349	-49.687504	34.061282	0	0	
1332	N1350	-51.343754	36.929991	0	0	
1333	N1351	-51.343754	36.929991	42	0	
1334	N1352	-49.968754	34.548421	42	0	
1335	N1353	-51.343754	36.929991	69	0	
1336	N1354	-51.343754	36.929991	54	0	
1337	N1355	-51.343754	36.929991	6	0	
1338	G2T	-55.343754	43.858193	54	0	
1339	G2B	-55.343754	43.858193	6	0	



Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 806364 - HRT 106(B) 943202

July 20, 2020
 11:26 AM
 Checked By: MLO

Joint Coordinates and Temperatures (Continued)

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Di...
1340	N1358	-51.343754	36.929991	21	0	
1341	G2R	-48.343754	31.733839	21	0	
1342	N1360	-91.180923	13.929991	-27	0	
1343	N1361	-89.524673	11.061281	0	0	
1344	N1362	-91.180923	13.929991	0	0	
1345	N1363	-91.180923	13.929991	42	0	
1346	N1364	-89.805923	11.548421	42	0	
1347	N1365	-91.180923	13.929991	69	0	
1348	N1366	-91.180923	13.929991	54	0	
1349	N1367	-91.180923	13.929991	6	0	
1350	G1T	-95.180923	20.858194	54	0	
1351	G1B	-95.180923	20.858194	6	0	
1352	N1370	-91.180923	13.929991	21	0	
1353	G1R	-88.180923	8.733838	21	0	
1354	KN1	-77.845445	-0.	0	0	
1355	KN2	-77.845445	-0.	-5.375	0	
1356	KN3	-77.845445	0.937	-5.375	0	
1357	KN4	-77.845445	-0.937	-5.375	0	
1358	KN5	-15.031	-0.	-61.499993	0	
1359	KN6	-18.406	-0.	-61.499993	0	
1360	KN7	-18.406	0.937	-61.499993	0	
1361	KN8	-18.406	-.937	-61.499993	0	
1362	KN9	38.922723	-67.416133	0	0	
1363	KN10	38.922723	-67.416133	-5.375	0	
1364	KN11	38.111257	-67.884633	-5.375	0	
1365	KN12	39.734188	-66.947633	-5.375	0	
1366	KN13	7.5155	-13.017228	-61.499993	0	
1367	KN14	9.203	-15.940064	-61.499993	0	
1368	KN15	8.391534	-16.408564	-61.499993	0	
1369	KN16	10.014466	-15.471564	-61.499993	0	
1370	KN17	38.922723	67.416133	0	0	
1371	KN18	38.922723	67.416133	-5.375	0	
1372	KN19	39.734188	66.947633	-5.375	0	
1373	KN20	38.111257	67.884633	-5.375	0	
1374	KN21	7.5155	13.017228	-61.499993	0	
1375	KN22	9.203	15.940064	-61.499993	0	
1376	KN23	10.014466	15.471564	-61.499993	0	
1377	KN24	8.391534	16.408564	-61.499993	0	
1378	N1426	54.341687	-77.28335	0	0	
1379	N1427	54.341687	77.28335	0	0	
1380	N1428	39.758501	85.702957	0	0	
1381	N1429	-94.100188	8.419607	0	0	
1382	N1430	-94.100188	-8.419607	0	0	
1383	N1431	39.758501	-85.702957	0	0	
1384	N1432	54.341687	-29.39167	0	0	
1385	N1433	54.341687	29.39187	0	0	
1386	N1434	-1.716911	61.757117	0	0	
1387	N1435	-52.62495	32.365347	0	0	
1388	N1436	-52.624777	-32.365447	0	0	
1389	N1437	-1.716737	-61.757217	0	0	
1390	N1402	-27.031	-0.	0	0	
1391	BRC	-27.031	0	12	0	
1392	N1392	13.5155	23.409533	0	0	
1393	GRC	13.5155	23.409533	12	0	
1394	N1394	13.5155	-23.409532	0	0	
1395	ARC	13.5155	-23.409533	12	0	



Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 806364 - HRT 106(B) 943202

July 20, 2020
 11:26 AM
 Checked By: MLO

Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotate(...)	Section/Shape	Type	Design List	Material	Design R...
1	M26	N48	N60			RIGID	None	None	RIGID	Typical
2	M44	N75	N87			RIGID	None	None	RIGID	Typical
3	M51	N88	N100			Offset Horiz	Beam	None	Q235	Typical
4	M60	N98	N103			Offset Horiz	Beam	None	Q235	Typical
5	M62	N102	N114			RIGID	None	None	RIGID	Typical
6	M63	N103	N99			Offset Horiz	Beam	None	Q235	Typical
7	M69	N115	N116			Face Horiz	Beam	None	A53 Gr.B	Typical
8	M71	M4	N122			RIGID	None	None	RIGID	Typical
9	M72	N123	N124			Face Horiz	Beam	None	A53 Gr.B	Typical
10	M75	N131	N132			Face Horiz	Beam	None	A53 Gr.B	Typical
11	M91	N158	N50		360	RIGID	None	None	RIGID	Typical
12	M92	N158	N160			Grating Angle	Beam	None	Q235	Typical
13	M93	N159	N51		360	RIGID	None	None	RIGID	Typical
14	M94	N159	N161		270	Grating Angle	Beam	None	Q235	Typical
15	M95	N160	N48		360	RIGID	None	None	RIGID	Typical
16	M96	N161	N60		360	RIGID	None	None	RIGID	Typical
17	M97	N162	N77		360	RIGID	None	None	RIGID	Typical
18	M98	N162	N164			Grating Angle	Beam	None	Q235	Typical
19	M99	N163	N78		360	RIGID	None	None	RIGID	Typical
20	M100	N163	N165		270	Grating Angle	Beam	None	Q235	Typical
21	M101	N164	N75		360	RIGID	None	None	RIGID	Typical
22	M102	N165	N87		360	RIGID	None	None	RIGID	Typical
23	M103	N166	N104		360	RIGID	None	None	RIGID	Typical
24	M104	N166	N168			Grating Angle	Beam	None	Q235	Typical
25	M105	N167	N105		360	RIGID	None	None	RIGID	Typical
26	M106	N167	N169		270	Grating Angle	Beam	None	Q235	Typical
27	M107	N168	N102		360	RIGID	None	None	RIGID	Typical
28	M108	N169	N114		360	RIGID	None	None	RIGID	Typical
29	M109	N171	N172		90	HRK14 Angle	Beam	None	Q235	Typical
30	M110	N173	N174		90	HRK14 Angle	Beam	None	Q235	Typical
31	M111	N175	N170		90	HRK14 Angle	Beam	None	Q235	Typical
32	M115	N183	N179			RIGID	None	None	RIGID	Typical
33	M116	N185	N184			HRK14 Pipe	Beam	None	A53 Gr.B	Typical
34	M121	N195	N194			HRK14 Pipe	Beam	None	A53 Gr.B	Typical
35	M126	N205	N204			HRK14 Pipe	Beam	None	A53 Gr.B	Typical
36	M127	N208	N206			RIGID	None	None	RIGID	Typical
37	M128	N209	N207			RIGID	None	None	RIGID	Typical
38	M129	N210	N211			HRK14 Plate	Beam	None	Q235	Typical
39	M130	N218	N170		360	RIGID	None	None	RIGID	Typical
40	M131	N221	N219			RIGID	None	None	RIGID	Typical
41	M132	N222	N220			RIGID	None	None	RIGID	Typical
42	M133	N223	N224			HRK14 Plate	Beam	None	Q235	Typical
43	M134	N225	N171		360	RIGID	None	None	RIGID	Typical
44	M135	N228	N226			RIGID	None	None	RIGID	Typical
45	M136	N229	N227			RIGID	None	None	RIGID	Typical
46	M137	N230	N231			HRK14 Plate	Beam	None	Q235	Typical
47	M138	N232	N172		360	RIGID	None	None	RIGID	Typical
48	M139	N235	N233			RIGID	None	None	RIGID	Typical
49	M140	N236	N234			RIGID	None	None	RIGID	Typical
50	M141	N237	N238			HRK14 Plate	Beam	None	Q235	Typical
51	M142	N239	N173		360	RIGID	None	None	RIGID	Typical
52	M143	N242	N240			RIGID	None	None	RIGID	Typical
53	M144	N243	N241			RIGID	None	None	RIGID	Typical
54	M145	N244	N245			HRK14 Plate	Beam	None	Q235	Typical
55	M146	N246	N174		360	RIGID	None	None	RIGID	Typical
56	M147	N249	N247			RIGID	None	None	RIGID	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(...)	Section/Shape	Type	Design List	Material	Design R...
57	M148	N250	N248			RIGID	None	None	RIGID	Typical
58	M149	N251	N252			HRK14 Plate	Beam	None	Q235	Typical
59	M150	N253	N175		360	RIGID	None	None	RIGID	Typical
60	M163	N263	N16		360	Mount Pipe	Column	None	A53 Gr.B	Typical
61	M171A	N277	N276			RIGID	None	None	RIGID	Typical
62	M172	N279	N278			RIGID	None	None	RIGID	Typical
63	M172A	N276	N278		360	RIGID	None	None	RIGID	Typical
64	M172C	N365A	N366A			RIGID	None	None	RIGID	Typical
65	M173A	N367A	N368A			RIGID	None	None	RIGID	Typical
66	M173B	N366A	N368A		360	RIGID	None	None	RIGID	Typical
67	M173C	N402	N403			RIGID	None	None	RIGID	Typical
68	M174	N404	N405			RIGID	None	None	RIGID	Typical
69	M175	N403	N405		360	RIGID	None	None	RIGID	Typical
70	M166A	N520	N521			RIGID	None	None	RIGID	Typical
71	M167A	N522	N523			RIGID	None	None	RIGID	Typical
72	M168A	N521	N523		360	RIGID	None	None	RIGID	Typical
73	M169A	N557	N558			RIGID	None	None	RIGID	Typical
74	M170A	N559	N560			RIGID	None	None	RIGID	Typical
75	M171C	N558	N560		360	RIGID	None	None	RIGID	Typical
76	M178	N700	N701			RIGID	None	None	RIGID	Typical
77	M179	N702	N703			RIGID	None	None	RIGID	Typical
78	M180	N701	N703		360	RIGID	None	None	RIGID	Typical
79	M181	N737	N738			RIGID	None	None	RIGID	Typical
80	M182	N739	N740			RIGID	None	None	RIGID	Typical
81	M183	N738	N740		360	RIGID	None	None	RIGID	Typical
82	M181A	N786	N100			RIGID	None	None	RIGID	Typical
83	M182A	N782	N100			RIGID	None	None	RIGID	Typical
84	M183A	N842	N100			RIGID	None	None	RIGID	Typical
85	M184	N846	N100			RIGID	None	None	RIGID	Typical
86	M185	N785	N100			RIGID	None	None	RIGID	Typical
87	M186	N784	N100		360	RIGID	None	None	RIGID	Typical
88	M187	N783	N100			RIGID	None	None	RIGID	Typical
89	M188	N801	N100			RIGID	None	None	RIGID	Typical
90	M189	N816	N100			RIGID	None	None	RIGID	Typical
91	M190	N831	N100			RIGID	None	None	RIGID	Typical
92	M191	N845	N100			RIGID	None	None	RIGID	Typical
93	M192	N844	N100		1e-6	RIGID	None	None	RIGID	Typical
94	M193	N843	N100			RIGID	None	None	RIGID	Typical
95	M194	N827	N100			RIGID	None	None	RIGID	Typical
96	M195	N812	N100			RIGID	None	None	RIGID	Typical
97	M196	N797	N100			RIGID	None	None	RIGID	Typical
98	M189A	N35	N864A			Offset Horiz	Beam	None	Q235	Typical
99	M193A	N906	N864A			RIGID	None	None	RIGID	Typical
100	M194A	N902	N864A			RIGID	None	None	RIGID	Typical
101	M195A	N962	N864A			RIGID	None	None	RIGID	Typical
102	M196A	N966	N864A			RIGID	None	None	RIGID	Typical
103	M197	N905	N864A			RIGID	None	None	RIGID	Typical
104	M198	N904	N864A		360	RIGID	None	None	RIGID	Typical
105	M199	N903	N864A			RIGID	None	None	RIGID	Typical
106	M200	N921	N864A			RIGID	None	None	RIGID	Typical
107	M201	N936	N864A			RIGID	None	None	RIGID	Typical
108	M202	N951	N864A			RIGID	None	None	RIGID	Typical
109	M203	N965	N864A			RIGID	None	None	RIGID	Typical
110	M204	N964	N864A		1e-6	RIGID	None	None	RIGID	Typical
111	M205	N963	N864A			RIGID	None	None	RIGID	Typical
112	M206	N947	N864A			RIGID	None	None	RIGID	Typical
113	M207	N932	N864A			RIGID	None	None	RIGID	Typical

Member Primary Data (Continued)

Label	I Joint	J Joint	K Joint	Rotate(...)	Section/Shape	Type	Design List	Material	Design R...
114	M208	N917	N864A		RIGID	None	None	RIGID	Typical
115	M209	N61	N990		Offset Horiz	Beam	None	Q235	Typical
116	M213	N1032	N990		RIGID	None	None	RIGID	Typical
117	M214	N1028	N990		RIGID	None	None	RIGID	Typical
118	M215	N1088	N990		RIGID	None	None	RIGID	Typical
119	M216	N1092	N990		RIGID	None	None	RIGID	Typical
120	M217	N1031	N990		RIGID	None	None	RIGID	Typical
121	M218	N1030	N990	360	RIGID	None	None	RIGID	Typical
122	M219	N1029	N990		RIGID	None	None	RIGID	Typical
123	M220	N1047	N990		RIGID	None	None	RIGID	Typical
124	M221	N1062	N990		RIGID	None	None	RIGID	Typical
125	M222	N1077	N990		RIGID	None	None	RIGID	Typical
126	M223	N1091	N990		RIGID	None	None	RIGID	Typical
127	M224	N1090	N990	1e-6	RIGID	None	None	RIGID	Typical
128	M225	N1089	N990		RIGID	None	None	RIGID	Typical
129	M226	N1073	N990		RIGID	None	None	RIGID	Typical
130	M227	N1058	N990		RIGID	None	None	RIGID	Typical
131	M228	N1043	N990		RIGID	None	None	RIGID	Typical
132	M225A	N1079A	N98		RIGID	None	None	RIGID	Typical
133	M226A	N1083A	N98		RIGID	None	None	RIGID	Typical
134	M227A	N1103A	N98		RIGID	None	None	RIGID	Typical
135	M228A	N1107A	N98		RIGID	None	None	RIGID	Typical
136	M229	N1082A	N98		RIGID	None	None	RIGID	Typical
137	M230	N1081A	N98		RIGID	None	None	RIGID	Typical
138	M231	N1080A	N98		RIGID	None	None	RIGID	Typical
139	M232	N1085A	N98		RIGID	None	None	RIGID	Typical
140	M233	N1091A	N98		RIGID	None	None	RIGID	Typical
141	M234	N1097A	N98		RIGID	None	None	RIGID	Typical
142	M235	N1104A	N98		RIGID	None	None	RIGID	Typical
143	M236	N1105A	N98		RIGID	None	None	RIGID	Typical
144	M237	N1106A	N98		RIGID	None	None	RIGID	Typical
145	M238	N1101A	N98		RIGID	None	None	RIGID	Typical
146	M239	N1095A	N98		RIGID	None	None	RIGID	Typical
147	M240	N1089A	N98		RIGID	None	None	RIGID	Typical
148	M241	N1129	N99		RIGID	None	None	RIGID	Typical
149	M242	N1133	N99		RIGID	None	None	RIGID	Typical
150	M243	N1153	N99		RIGID	None	None	RIGID	Typical
151	M244	N1157	N99		RIGID	None	None	RIGID	Typical
152	M245	N1132	N99		RIGID	None	None	RIGID	Typical
153	M246	N1131	N99		RIGID	None	None	RIGID	Typical
154	M247	N1130	N99		RIGID	None	None	RIGID	Typical
155	M248	N1135	N99		RIGID	None	None	RIGID	Typical
156	M249	N1141	N99		RIGID	None	None	RIGID	Typical
157	M250	N1147	N99		RIGID	None	None	RIGID	Typical
158	M251	N1154	N99		RIGID	None	None	RIGID	Typical
159	M252	N1155	N99		RIGID	None	None	RIGID	Typical
160	M253	N1156	N99		RIGID	None	None	RIGID	Typical
161	M254	N1151	N99		RIGID	None	None	RIGID	Typical
162	M255	N1145	N99		RIGID	None	None	RIGID	Typical
163	M256	N1139	N99		RIGID	None	None	RIGID	Typical
164	M245A	N1149A	N49		Offset Horiz	Beam	None	Q235	Typical
165	M246A	N49	N1150A		Offset Horiz	Beam	None	Q235	Typical
166	M247A	N1172	N1149A		RIGID	None	None	RIGID	Typical
167	M248A	N1176	N1149A		RIGID	None	None	RIGID	Typical
168	M249A	N1196	N1149A		RIGID	None	None	RIGID	Typical
169	M250A	N1200	N1149A		RIGID	None	None	RIGID	Typical
170	M251A	N1175	N1149A		RIGID	None	None	RIGID	Typical



Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 806364 - HRT 106(B) 943202

July 20, 2020
 11:26 AM
 Checked By: MLO

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(...)	Section/Shape	Type	Design List	Material	Design R...
171	M252A	N1174	N1149A			RIGID	None	None	RIGID	Typical
172	M253A	N1173	N1149A			RIGID	None	None	RIGID	Typical
173	M254A	N1178	N1149A			RIGID	None	None	RIGID	Typical
174	M255A	N1184	N1149A			RIGID	None	None	RIGID	Typical
175	M256A	N1190	N1149A			RIGID	None	None	RIGID	Typical
176	M257	N1197	N1149A			RIGID	None	None	RIGID	Typical
177	M258	N1198	N1149A			RIGID	None	None	RIGID	Typical
178	M259	N1199	N1149A			RIGID	None	None	RIGID	Typical
179	M260	N1194	N1149A			RIGID	None	None	RIGID	Typical
180	M261	N1188	N1149A			RIGID	None	None	RIGID	Typical
181	M262	N1182	N1149A			RIGID	None	None	RIGID	Typical
182	M263	N1214	N1150A			RIGID	None	None	RIGID	Typical
183	M264	N1218	N1150A			RIGID	None	None	RIGID	Typical
184	M265	N1238	N1150A			RIGID	None	None	RIGID	Typical
185	M266	N1242	N1150A			RIGID	None	None	RIGID	Typical
186	M267	N1217	N1150A			RIGID	None	None	RIGID	Typical
187	M268	N1216	N1150A			RIGID	None	None	RIGID	Typical
188	M269	N1215	N1150A			RIGID	None	None	RIGID	Typical
189	M270	N1220	N1150A			RIGID	None	None	RIGID	Typical
190	M271	N1226	N1150A			RIGID	None	None	RIGID	Typical
191	M272	N1232	N1150A			RIGID	None	None	RIGID	Typical
192	M273	N1239	N1150A			RIGID	None	None	RIGID	Typical
193	M274	N1240	N1150A			RIGID	None	None	RIGID	Typical
194	M275	N1241	N1150A			RIGID	None	None	RIGID	Typical
195	M276	N1236	N1150A			RIGID	None	None	RIGID	Typical
196	M277	N1230	N1150A			RIGID	None	None	RIGID	Typical
197	M278	N1224	N1150A			RIGID	None	None	RIGID	Typical
198	M279	N1250	N76			Offset Horiz	Beam	None	Q235	Typical
199	M280	N76	N1251			Offset Horiz	Beam	None	Q235	Typical
200	M281	N1273	N1250			RIGID	None	None	RIGID	Typical
201	M282	N1277	N1250			RIGID	None	None	RIGID	Typical
202	M283	N1297	N1250			RIGID	None	None	RIGID	Typical
203	M284	N1301	N1250			RIGID	None	None	RIGID	Typical
204	M285	N1276	N1250			RIGID	None	None	RIGID	Typical
205	M286	N1275	N1250			RIGID	None	None	RIGID	Typical
206	M287	N1274	N1250			RIGID	None	None	RIGID	Typical
207	M288	N1279	N1250			RIGID	None	None	RIGID	Typical
208	M289	N1285	N1250			RIGID	None	None	RIGID	Typical
209	M290	N1291	N1250			RIGID	None	None	RIGID	Typical
210	M291	N1298	N1250			RIGID	None	None	RIGID	Typical
211	M292	N1299	N1250			RIGID	None	None	RIGID	Typical
212	M293	N1300	N1250			RIGID	None	None	RIGID	Typical
213	M294	N1295	N1250			RIGID	None	None	RIGID	Typical
214	M295	N1289	N1250			RIGID	None	None	RIGID	Typical
215	M296	N1283	N1250			RIGID	None	None	RIGID	Typical
216	M297	N1315	N1251			RIGID	None	None	RIGID	Typical
217	M298	N1319	N1251			RIGID	None	None	RIGID	Typical
218	M299	N1339	N1251			RIGID	None	None	RIGID	Typical
219	M300	N1343	N1251			RIGID	None	None	RIGID	Typical
220	M301	N1318	N1251			RIGID	None	None	RIGID	Typical
221	M302	N1317	N1251			RIGID	None	None	RIGID	Typical
222	M303	N1316	N1251			RIGID	None	None	RIGID	Typical
223	M304	N1321	N1251			RIGID	None	None	RIGID	Typical
224	M305	N1327	N1251			RIGID	None	None	RIGID	Typical
225	M306	N1333	N1251			RIGID	None	None	RIGID	Typical
226	M307	N1340	N1251			RIGID	None	None	RIGID	Typical
227	M308	N1341	N1251			RIGID	None	None	RIGID	Typical



Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 806364 - HRT 106(B) 943202

July 20, 2020
 11:26 AM
 Checked By: MLO

Member Primary Data (Continued)

Label	I Joint	J Joint	K Joint	Rotate(...)	Section/Shape	Type	Design List	Material	Design R...
228	M309	N1342	N1251			RIGID	None	RIGID	Typical
229	M310	N1337	N1251			RIGID	None	RIGID	Typical
230	M311	N1331	N1251			RIGID	None	RIGID	Typical
231	M312	N1325	N1251			RIGID	None	RIGID	Typical
232	M298A	N1099B	N1098B			RIGID	None	RIGID	Typical
233	M299A	N1101B	N1100B			RIGID	None	RIGID	Typical
234	M300A	N1098B	N1100B	360		RIGID	None	RIGID	Typical
235	M301A	N1145B	N1144B			RIGID	None	RIGID	Typical
236	M302A	N1147A	N1146A			RIGID	None	RIGID	Typical
237	M303A	N1144B	N1146A	240		RIGID	None	RIGID	Typical
238	M304A	N1200A	N1199A			RIGID	None	RIGID	Typical
239	M305A	N1202A	N1201A			RIGID	None	RIGID	Typical
240	M306A	N1199A	N1201A	240		RIGID	None	RIGID	Typical
241	M307A	N1249A	N1248A			RIGID	None	RIGID	Typical
242	M308A	N1251B	N1250B			RIGID	None	RIGID	Typical
243	M309A	N1248A	N1250B	120		RIGID	None	RIGID	Typical
244	M310A	N1304A	N1303A			RIGID	None	RIGID	Typical
245	M311A	N1306A	N1305A			RIGID	None	RIGID	Typical
246	M312A	N1303A	N1305A	120		RIGID	None	RIGID	Typical
247	M256B	N1223B	A4B			RIGID	None	RIGID	Typical
248	M257A	N1222B	A4T			RIGID	None	RIGID	Typical
249	M258A	N1226B	A4R			RIGID	None	RIGID	Typical
250	M259A	M3	N1230B			RIGID	None	RIGID	Typical
251	M260A	N1232B	N1231B			RIGID	None	RIGID	Typical
252	M261A	N1233B	N1228B	360	Mount Pipe	Column	None	A53 Gr.B	Typical
253	M262A	N1235B	A3B			RIGID	None	RIGID	Typical
254	M263A	N1234B	A3T			RIGID	None	RIGID	Typical
255	M264A	N1238B	A3R			RIGID	None	RIGID	Typical
256	M265A	M2	N1242C			RIGID	None	RIGID	Typical
257	M266A	N1244C	N1243B			RIGID	None	RIGID	Typical
258	M267A	N1245B	N1240C	360	Mount Pipe	Column	None	A53 Gr.B	Typical
259	M268A	N1247B	A2B			RIGID	None	RIGID	Typical
260	M269A	N1246B	A2T			RIGID	None	RIGID	Typical
261	M270A	N1250C	A2R			RIGID	None	RIGID	Typical
262	M271A	M1	N1254A			RIGID	None	RIGID	Typical
263	M272A	N1256A	N1255A			RIGID	None	RIGID	Typical
264	M273A	N1257A	N1252A	360	Mount Pipe	Column	None	A53 Gr.B	Typical
265	M274A	N1259A	A1B			RIGID	None	RIGID	Typical
266	M275A	N1258A	A1T			RIGID	None	RIGID	Typical
267	M276A	N1262B	A1R			RIGID	None	RIGID	Typical
268	M277A	N1265C	N1266C			RIGID	None	RIGID	Typical
269	M278A	N1268C	N1267C			RIGID	None	RIGID	Typical
270	M279A	N1269C	N1264B	120	Mount Pipe	Column	None	A53 Gr.B	Typical
271	M283A	N1277C	B4B			RIGID	None	RIGID	Typical
272	M284A	N1276C	B4T			RIGID	None	RIGID	Typical
273	M285A	N1280B	B4R			RIGID	None	RIGID	Typical
274	M286B	N1283C	N1284C			RIGID	None	RIGID	Typical
275	M287B	N1286C	N1285C			RIGID	None	RIGID	Typical
276	M288B	N1287C	N1282C	120	Mount Pipe	Column	None	A53 Gr.B	Typical
277	M289A	N1289B	B3B			RIGID	None	RIGID	Typical
278	M290A	N1288B	B3T			RIGID	None	RIGID	Typical
279	M291A	N1292B	B3R			RIGID	None	RIGID	Typical
280	M292A	N1295B	N1296B			RIGID	None	RIGID	Typical
281	M293A	N1298B	N1297B			RIGID	None	RIGID	Typical
282	M294A	N1299B	N1294B	120	Mount Pipe	Column	None	A53 Gr.B	Typical
283	M295A	N1301B	B2B			RIGID	None	RIGID	Typical
284	M296A	N1300B	B2T			RIGID	None	RIGID	Typical



Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 806364 - HRT 106(B) 943202

July 20, 2020
 11:26 AM
 Checked By: MLO

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(...)	Section/Shape	Type	Design List	Material	Design R...
285	M297A	N1304B	B2R			RIGID	None	None	RIGID	Typical
286	M298B	N1307B	N1308B			RIGID	None	None	RIGID	Typical
287	M299B	N1310B	N1309B			RIGID	None	None	RIGID	Typical
288	M300B	N1311B	N1306B		120	Mount Pipe	Column	None	A53 Gr.B	Typical
289	M301B	N1313B	B1B			RIGID	None	None	RIGID	Typical
290	M302B	N1312B	B1T			RIGID	None	None	RIGID	Typical
291	M303B	N1316B	B1R			RIGID	None	None	RIGID	Typical
292	M304B	N1319B	N1320B			RIGID	None	None	RIGID	Typical
293	M305B	N1322B	N1321B			RIGID	None	None	RIGID	Typical
294	M306B	N1323B	N1318B		240	Mount Pipe	Column	None	A53 Gr.B	Typical
295	M310B	N1331B	G4B			RIGID	None	None	RIGID	Typical
296	M311B	N1330B	G4T			RIGID	None	None	RIGID	Typical
297	M312B	N1334B	G4R			RIGID	None	None	RIGID	Typical
298	M313	N1337B	N1338B			RIGID	None	None	RIGID	Typical
299	M314	N1340B	N1339B			RIGID	None	None	RIGID	Typical
300	M315	N1341B	N1336B		240	Mount Pipe	Column	None	A53 Gr.B	Typical
301	M316	N1343B	G3B			RIGID	None	None	RIGID	Typical
302	M317	N1342B	G3T			RIGID	None	None	RIGID	Typical
303	M318	N1346B	G3R			RIGID	None	None	RIGID	Typical
304	M319	N1349	N1350			RIGID	None	None	RIGID	Typical
305	M320	N1352	N1351			RIGID	None	None	RIGID	Typical
306	M321	N1353	N1348A		240	Mount Pipe	Column	None	A53 Gr.B	Typical
307	M322	N1355	G2B			RIGID	None	None	RIGID	Typical
308	M323	N1354	G2T			RIGID	None	None	RIGID	Typical
309	M324	N1358	G2R			RIGID	None	None	RIGID	Typical
310	M325	N1361	N1362			RIGID	None	None	RIGID	Typical
311	M326	N1364	N1363			RIGID	None	None	RIGID	Typical
312	M327	N1365	N1360		240	Mount Pipe	Column	None	A53 Gr.B	Typical
313	M328	N1367	G1B			RIGID	None	None	RIGID	Typical
314	M329	N1366	G1T			RIGID	None	None	RIGID	Typical
315	M330	N1370	G1R			RIGID	None	None	RIGID	Typical
316	KM1	KN1	KN2		360	RIGID	None	None	RIGID	Typical
317	KM2	KN3	KN4			RIGID	None	None	RIGID	Typical
318	KM3	KN5	KN6			RIGID	None	None	RIGID	Typical
319	KM4	KN7	KN8			RIGID	None	None	RIGID	Typical
320	KM5	KN3	KN7		180	PRK-1245 Angle	Beam	None	A36 Gr....	Typical
321	KM6	KN4	KN8		90	PRK-1245 Angle	Beam	None	A36 Gr....	Typical
322	KM7	KN9	KN10		360	RIGID	None	None	RIGID	Typical
323	KM8	KN11	KN12			RIGID	None	None	RIGID	Typical
324	KM9	KN13	KN14			RIGID	None	None	RIGID	Typical
325	KM10	KN15	KN16			RIGID	None	None	RIGID	Typical
326	KM11	KN11	KN15		180	PRK-1245 Angle	Beam	None	A36 Gr....	Typical
327	KM12	KN12	KN16		90	PRK-1245 Angle	Beam	None	A36 Gr....	Typical
328	KM13	KN17	KN18		360	RIGID	None	None	RIGID	Typical
329	KM14	KN19	KN20			RIGID	None	None	RIGID	Typical
330	KM15	KN21	KN22			RIGID	None	None	RIGID	Typical
331	KM16	KN23	KN24			RIGID	None	None	RIGID	Typical
332	KM17	KN19	KN23		180	PRK-1245 Angle	Beam	None	A36 Gr....	Typical
333	KM18	KN20	KN24		90	PRK-1245 Angle	Beam	None	A36 Gr....	Typical
334	M358	N37	N1426			RIGID	None	None	RIGID	Typical
335	M359	N62	N1427			RIGID	None	None	RIGID	Typical
336	M360	N63	N1428			RIGID	None	None	RIGID	Typical
337	M361	N89	N1429			RIGID	None	None	RIGID	Typical
338	M362	N90	N1430			RIGID	None	None	RIGID	Typical
339	M363	N36	N1431			RIGID	None	None	RIGID	Typical
340	M364	N43	N1432			RIGID	None	None	RIGID	Typical
341	M365	N66	N1433			RIGID	None	None	RIGID	Typical



Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(...)	Section/Shape	Type	Design List	Material	Design R...
342	M366	N70	N1434			RIGID	None	None	RIGID	Typical
343	M367	N93	N1435			RIGID	None	None	RIGID	Typical
344	M368	N97	N1436			RIGID	None	None	RIGID	Typical
345	M369	N39	N1437			RIGID	None	None	RIGID	Typical
346	M346	N1402	BRC			RIGID	None	None	RIGID	Typical
347	M347	N1392	GRC		240	RIGID	None	None	RIGID	Typical
348	M348	N1394	ARC		120	RIGID	None	None	RIGID	Typical

Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distribut...	Area(Member)	Surface(...)
1	Dead	DL			-1	46				
2	Dead of Ice	RL				46		48		
4	Structure Wind (0)	None						96		
5	Structure Wind (30)	None						96		
6	Structure Wind (45)	None						96		
7	Structure Wind (60)	None						96		
8	Structure Wind (90)	None						96		
9	Structure Wind (120)	None						96		
10	Structure Wind (135)	None						96		
11	Structure Wind (150)	None						96		
12	Structure Wind w/ Ice (0)	None						96		
13	Structure Wind w/ Ice (30)	None						96		
14	Structure Wind w/ Ice (45)	None						96		
15	Structure Wind w/ Ice (60)	None						96		
16	Structure Wind w/ Ice (90)	None						96		
17	Structure Wind w/ Ice (120)	None						96		
18	Structure Wind w/ Ice (135)	None						96		
19	Structure Wind w/ Ice (150)	None						96		
20	Antenna Wind (0)	None				92				
21	Antenna Wind (30)	None				92				
22	Antenna Wind (45)	None				92				
23	Antenna Wind (60)	None				92				
24	Antenna Wind (90)	None				92				
25	Antenna Wind (120)	None				92				
26	Antenna Wind (135)	None				92				
27	Antenna Wind (150)	None				92				
28	Antenna Wind w/ Ice (0)	None				92				
29	Antenna Wind w/ Ice (30)	None				92				
30	Antenna Wind w/ Ice (45)	None				92				
31	Antenna Wind w/ Ice (60)	None				92				
32	Antenna Wind w/ Ice (90)	None				92				
33	Antenna Wind w/ Ice (120)	None				92				
34	Antenna Wind w/ Ice (135)	None				92				
35	Antenna Wind w/ Ice (150)	None				92				
36	Maintenance Live Lm (1)	OL1				1				
37	Maintenance Live Lm (2)	OL2				1				
38	Maintenance Live Lm (3)	OL3				1				
39	Maintenance Live Lm (4)	OL4				1				

Load Combinations

	Description	S...PD...	S...	B...	Fa...	BLC Fact..B...	Fact...B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...
1	Summary: 1.0D + 1.0W	Y...	Y		DL	1	20	1													
2	1.4D	Y...	Y		DL	1.4															
3	1.2D + 1.0W(0)	Y...	Y		DL	1.2	4	1	20	1											



Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 806364 - HRT 106(B) 943202

July 20, 2020
 11:26 AM
 Checked By: MLO

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

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
15	B3B	L	Z	-41.9
16	B3T	L	Z	-41.9
17	G3B	L	Z	-41.9
18	G3T	L	Z	-41.9
19	A4B	L	Z	-41.9
20	A4T	L	Z	-41.9
21	B4B	L	Z	-41.9
22	B4T	L	Z	-41.9
23	G4B	L	Z	-41.9
24	G4T	L	Z	-41.9
25	A4R	L	Z	-52.9
26	B4R	L	Z	-52.9
27	G4R	L	Z	-52.9
28	A1R	L	Z	-44
29	B1R	L	Z	-44
30	G1R	L	Z	-44
31	A3R	L	Z	-48.4
32	B3R	L	Z	-48.4
33	G3R	L	Z	-48.4
34	A4R	L	Z	-71
35	B4R	L	Z	-71
36	G4R	L	Z	-71
37	A3R	L	Z	-59.4
38	B3R	L	Z	-59.4
39	G3R	L	Z	-59.4
40	A2R	L	Z	-77
41	B2R	L	Z	-77
42	G2R	L	Z	-77
43	ARC	L	Z	-26.2
44	BRC	L	Z	-26.2
45	ARC	L	Z	-26.2
46	GRC	L	Z	-32.8

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

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
1	A1B	L	Z	-46.809
2	A1T	L	Z	-46.809
3	B1B	L	Z	-46.809
4	B1T	L	Z	-46.809
5	G1B	L	Z	-46.809
6	G1T	L	Z	-46.809
7	A2B	L	Z	-46.809
8	A2T	L	Z	-46.809
9	B2B	L	Z	-46.809
10	B2T	L	Z	-46.809
11	G2B	L	Z	-46.809
12	G2T	L	Z	-46.809
13	A3B	L	Z	-69.017
14	A3T	L	Z	-69.017
15	B3B	L	Z	-69.017
16	B3T	L	Z	-69.017
17	G3B	L	Z	-69.017
18	G3T	L	Z	-69.017
19	A4B	L	Z	-69.017
20	A4T	L	Z	-69.017
21	B4B	L	Z	-69.017



Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 806364 - HRT 106(B) 943202

July 20, 2020
 11:26 AM
 Checked By: MLO

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

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
22	B4T	L	Z	-69.017
23	G4B	L	Z	-69.017
24	G4T	L	Z	-69.017
25	A4R	L	Z	-50.337
26	B4R	L	Z	-50.337
27	G4R	L	Z	-50.337
28	A1R	L	Z	-30.045
29	B1R	L	Z	-30.045
30	G1R	L	Z	-30.045
31	A3R	L	Z	-30.947
32	B3R	L	Z	-30.947
33	G3R	L	Z	-30.947
34	A4R	L	Z	-44.229
35	B4R	L	Z	-44.229
36	G4R	L	Z	-44.229
37	A3R	L	Z	-42.154
38	B3R	L	Z	-42.154
39	G3R	L	Z	-42.154
40	A2R	L	Z	-66.29
41	B2R	L	Z	-66.29
42	G2R	L	Z	-66.29
43	ARC	L	Z	-48.031
44	BRC	L	Z	-48.031
45	ARC	L	Z	-48.018
46	GRC	L	Z	-51.544

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

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
1	A1B	L	X	-49.412
2	A1B	L	Y	0
3	A1T	L	X	-49.412
4	A1T	L	Y	0
5	B1B	L	X	-34.359
6	B1B	L	Y	0
7	B1T	L	X	-34.359
8	B1T	L	Y	0
9	G1B	L	X	-34.359
10	G1B	L	Y	0
11	G1T	L	X	-34.359
12	G1T	L	Y	0
13	A2B	L	X	-49.412
14	A2B	L	Y	0
15	A2T	L	X	-49.412
16	A2T	L	Y	0
17	B2B	L	X	-34.359
18	B2B	L	Y	0
19	B2T	L	X	-34.359
20	B2T	L	Y	0
21	G2B	L	X	-34.359
22	G2B	L	Y	0
23	G2T	L	X	-34.359
24	G2T	L	Y	0
25	A3B	L	X	-137.138
26	A3B	L	Y	0
27	A3T	L	X	-137.138
28	A3T	L	Y	0



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

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2/in, lb*s^2*in)]
29	B3B	L	X	-69.634
30	B3B	L	Y	0
31	B3T	L	X	-69.634
32	B3T	L	Y	0
33	G3B	L	X	-69.634
34	G3B	L	Y	0
35	G3T	L	X	-69.634
36	G3T	L	Y	0
37	A4B	L	X	-137.138
38	A4B	L	Y	0
39	A4T	L	X	-137.138
40	A4T	L	Y	0
41	B4B	L	X	-69.634
42	B4B	L	Y	0
43	B4T	L	X	-69.634
44	B4T	L	Y	0
45	G4B	L	X	-69.634
46	G4B	L	Y	0
47	G4T	L	X	-69.634
48	G4T	L	Y	0
49	A4R	L	X	-43.567
50	A4R	L	Y	0
51	B4R	L	X	-50.803
52	B4R	L	Y	0
53	G4R	L	X	-50.803
54	G4R	L	Y	0
55	A1R	L	X	-26.229
56	A1R	L	Y	0
57	B1R	L	X	-22.798
58	B1R	L	Y	0
59	G1R	L	X	-22.798
60	G1R	L	Y	0
61	A3R	L	X	-26.229
62	A3R	L	Y	0
63	B3R	L	X	-23.908
64	B3R	L	Y	0
65	G3R	L	X	-23.908
66	G3R	L	Y	0
67	A4R	L	X	-31.383
68	A4R	L	Y	0
69	B4R	L	X	-41.537
70	B4R	L	Y	0
71	G4R	L	X	-41.537
72	G4R	L	Y	0
73	A3R	L	X	-32.239
74	A3R	L	Y	0
75	B3R	L	X	-37.869
76	B3R	L	Y	0
77	G3R	L	X	-37.869
78	G3R	L	Y	0
79	A2R	L	X	-52.859
80	A2R	L	Y	0
81	B2R	L	X	-71.208
82	B2R	L	Y	0
83	G2R	L	X	-71.208
84	G2R	L	Y	0
85	ARC	L	X	-36.526



Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 806364 - HRT 106(B) 943202

July 20, 2020
 11:26 AM
 Checked By: MLO

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

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
86	ARC	L	Y	0
87	BRC	L	X	-36.526
88	BRC	L	Y	0
89	ARC	L	X	-36.513
90	ARC	L	Y	0
91	GRC	L	X	-38.654
92	GRC	L	Y	0

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

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
1	A1B	L	X	-38.447
2	A1B	L	Y	22.197
3	A1T	L	X	-38.447
4	A1T	L	Y	22.197
5	B1B	L	X	-25.411
6	B1B	L	Y	14.671
7	B1T	L	X	-25.411
8	B1T	L	Y	14.671
9	G1B	L	X	-38.447
10	G1B	L	Y	22.197
11	G1T	L	X	-38.447
12	G1T	L	Y	22.197
13	A2B	L	X	-38.447
14	A2B	L	Y	22.197
15	A2T	L	X	-38.447
16	A2T	L	Y	22.197
17	B2B	L	X	-25.411
18	B2B	L	Y	14.671
19	B2T	L	X	-25.411
20	B2T	L	Y	14.671
21	G2B	L	X	-38.447
22	G2B	L	Y	22.197
23	G2T	L	X	-38.447
24	G2T	L	Y	22.197
25	A3B	L	X	-99.278
26	A3B	L	Y	57.318
27	A3T	L	X	-99.278
28	A3T	L	Y	57.318
29	B3B	L	X	-40.818
30	B3B	L	Y	23.567
31	B3T	L	X	-40.818
32	B3T	L	Y	23.567
33	G3B	L	X	-99.278
34	G3B	L	Y	57.318
35	G3T	L	X	-99.278
36	G3T	L	Y	57.318
37	A4B	L	X	-99.278
38	A4B	L	Y	57.318
39	A4T	L	X	-99.278
40	A4T	L	Y	57.318
41	B4B	L	X	-40.818
42	B4B	L	Y	23.567
43	B4T	L	X	-40.818
44	B4T	L	Y	23.567
45	G4B	L	X	-99.278
46	G4B	L	Y	57.318



Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 806364 - HRT 106(B) 943202

July 20, 2020
 11:26 AM
 Checked By: MLO

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

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
47	G4T	L	X	-99.278
48	G4T	L	Y	57.318
49	A4R	L	X	-39.819
50	A4R	L	Y	22.989
51	B4R	L	X	-46.085
52	B4R	L	Y	26.607
53	G4R	L	X	-39.819
54	G4R	L	Y	22.989
55	A1R	L	X	-21.724
56	A1R	L	Y	12.543
57	B1R	L	X	-18.754
58	B1R	L	Y	10.828
59	G1R	L	X	-21.724
60	G1R	L	Y	12.543
61	A3R	L	X	-22.045
62	A3R	L	Y	12.728
63	B3R	L	X	-20.035
64	B3R	L	Y	11.567
65	G3R	L	X	-22.045
66	G3R	L	Y	12.728
67	A4R	L	X	-30.11
68	A4R	L	Y	17.384
69	B4R	L	X	-38.903
70	B4R	L	Y	22.461
71	G4R	L	X	-30.11
72	G4R	L	Y	17.384
73	A3R	L	X	-29.545
74	A3R	L	Y	17.058
75	B3R	L	X	-34.421
76	B3R	L	Y	19.873
77	G3R	L	X	-29.545
78	G3R	L	Y	17.058
79	A2R	L	X	-51.074
80	A2R	L	Y	29.488
81	B2R	L	X	-66.964
82	B2R	L	Y	38.662
83	G2R	L	X	-51.074
84	G2R	L	Y	29.488
85	ARC	L	X	-31.632
86	ARC	L	Y	18.263
87	BRC	L	X	-31.632
88	BRC	L	Y	18.263
89	ARC	L	X	-31.621
90	ARC	L	Y	18.256
91	GRC	L	X	-33.475
92	GRC	L	Y	19.327

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

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
1	A1B	L	X	-27.844
2	A1B	L	Y	27.844
3	A1T	L	X	-27.844
4	A1T	L	Y	27.844
5	B1B	L	X	-21.698
6	B1B	L	Y	21.698
7	B1T	L	X	-21.698



Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 806364 - HRT 106(B) 943202

July 20, 2020
 11:26 AM
 Checked By: MLO

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

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
8	B1T	L	Y	21.698
9	G1B	L	X	-33.989
10	G1B	L	Y	33.989
11	G1T	L	X	-33.989
12	G1T	L	Y	33.989
13	A2B	L	X	-27.844
14	A2B	L	Y	27.844
15	A2T	L	X	-27.844
16	A2T	L	Y	27.844
17	B2B	L	X	-21.698
18	B2B	L	Y	21.698
19	B2T	L	X	-21.698
20	B2T	L	Y	21.698
21	G2B	L	X	-33.989
22	G2B	L	Y	33.989
23	G2T	L	X	-33.989
24	G2T	L	Y	33.989
25	A3B	L	X	-65.15
26	A3B	L	Y	65.15
27	A3T	L	X	-65.15
28	A3T	L	Y	65.15
29	B3B	L	X	-37.591
30	B3B	L	Y	37.591
31	B3T	L	X	-37.591
32	B3T	L	Y	37.591
33	G3B	L	X	-92.708
34	G3B	L	Y	92.708
35	G3T	L	X	-92.708
36	G3T	L	Y	92.708
37	A4B	L	X	-65.15
38	A4B	L	Y	65.15
39	A4T	L	X	-65.15
40	A4T	L	Y	65.15
41	B4B	L	X	-37.591
42	B4B	L	Y	37.591
43	B4T	L	X	-37.591
44	B4T	L	Y	37.591
45	G4B	L	X	-92.708
46	G4B	L	Y	92.708
47	G4T	L	X	-92.708
48	G4T	L	Y	92.708
49	A4R	L	X	-34.217
50	A4R	L	Y	34.217
51	B4R	L	X	-37.171
52	B4R	L	Y	37.171
53	G4R	L	X	-31.263
54	G4R	L	Y	31.263
55	A1R	L	X	-16.929
56	A1R	L	Y	16.929
57	B1R	L	X	-15.529
58	B1R	L	Y	15.529
59	G1R	L	X	-18.33
60	G1R	L	Y	18.33
61	A3R	L	X	-17.453
62	A3R	L	Y	17.453
63	B3R	L	X	-16.505
64	B3R	L	Y	16.505



Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 806364 - HRT 106(B) 943202

July 20, 2020
 11:26 AM
 Checked By: MLO

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

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
65	G3R	L	X	-18.4
66	G3R	L	Y	18.4
67	A4R	L	X	-26.978
68	A4R	L	Y	26.978
69	B4R	L	X	-31.123
70	B4R	L	Y	31.123
71	G4R	L	X	-22.833
72	G4R	L	Y	22.833
73	A3R	L	X	-25.45
74	A3R	L	Y	25.45
75	B3R	L	X	-27.749
76	B3R	L	Y	27.749
77	G3R	L	X	-23.152
78	G3R	L	Y	23.152
79	A2R	L	X	-46.027
80	A2R	L	Y	46.027
81	B2R	L	X	-53.517
82	B2R	L	Y	53.517
83	G2R	L	X	-38.536
84	G2R	L	Y	38.536
85	ARC	L	X	-25.828
86	ARC	L	Y	25.828
87	BRC	L	X	-25.828
88	BRC	L	Y	25.828
89	ARC	L	X	-25.818
90	ARC	L	Y	25.818
91	GRC	L	X	-27.332
92	GRC	L	Y	27.332

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

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
1	A1B	L	X	-17.18
2	A1B	L	Y	29.756
3	A1T	L	X	-17.18
4	A1T	L	Y	29.756
5	B1B	L	X	-17.18
6	B1B	L	Y	29.756
7	B1T	L	X	-17.18
8	B1T	L	Y	29.756
9	G1B	L	X	-24.706
10	G1B	L	Y	42.792
11	G1T	L	X	-24.706
12	G1T	L	Y	42.792
13	A2B	L	X	-17.18
14	A2B	L	Y	29.756
15	A2T	L	X	-17.18
16	A2T	L	Y	29.756
17	B2B	L	X	-17.18
18	B2B	L	Y	29.756
19	B2T	L	X	-17.18
20	B2T	L	Y	29.756
21	G2B	L	X	-24.706
22	G2B	L	Y	42.792
23	G2T	L	X	-24.706
24	G2T	L	Y	42.792
25	A3B	L	X	-34.817



Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 806364 - HRT 106(B) 943202

July 20, 2020
 11:26 AM
 Checked By: MLO

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

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
26	A3B	L	Y	60.305
27	A3T	L	X	-34.817
28	A3T	L	Y	60.305
29	B3B	L	X	-34.817
30	B3B	L	Y	60.305
31	B3T	L	X	-34.817
32	B3T	L	Y	60.305
33	G3B	L	X	-68.569
34	G3B	L	Y	118.765
35	G3T	L	X	-68.569
36	G3T	L	Y	118.765
37	A4B	L	X	-34.817
38	A4B	L	Y	60.305
39	A4T	L	X	-34.817
40	A4T	L	Y	60.305
41	B4B	L	X	-34.817
42	B4B	L	Y	60.305
43	B4T	L	X	-34.817
44	B4T	L	Y	60.305
45	G4B	L	X	-68.569
46	G4B	L	Y	118.765
47	G4T	L	X	-68.569
48	G4T	L	Y	118.765
49	A4R	L	X	-25.401
50	A4R	L	Y	43.996
51	B4R	L	X	-25.401
52	B4R	L	Y	43.996
53	G4R	L	X	-21.783
54	G4R	L	Y	37.73
55	A1R	L	X	-11.399
56	A1R	L	Y	19.744
57	B1R	L	X	-11.399
58	B1R	L	Y	19.744
59	G1R	L	X	-13.114
60	G1R	L	Y	22.715
61	A3R	L	X	-11.954
62	A3R	L	Y	20.705
63	B3R	L	X	-11.954
64	B3R	L	Y	20.705
65	G3R	L	X	-13.114
66	G3R	L	Y	22.715
67	A4R	L	X	-20.768
68	A4R	L	Y	35.972
69	B4R	L	X	-20.768
70	B4R	L	Y	35.972
71	G4R	L	X	-15.692
72	G4R	L	Y	27.179
73	A3R	L	X	-18.934
74	A3R	L	Y	32.795
75	B3R	L	X	-18.934
76	B3R	L	Y	32.795
77	G3R	L	X	-16.12
78	G3R	L	Y	27.92
79	A2R	L	X	-35.604
80	A2R	L	Y	61.668
81	B2R	L	X	-35.604
82	B2R	L	Y	61.668



Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 806364 - HRT 106(B) 943202

July 20, 2020
 11:26 AM
 Checked By: MLO

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

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
83	G2R	L	X	-26.43
84	G2R	L	Y	45.778
85	ARC	L	X	-18.263
86	ARC	L	Y	31.632
87	BRC	L	X	-18.263
88	BRC	L	Y	31.632
89	ARC	L	X	-18.256
90	ARC	L	Y	31.621
91	GRC	L	X	-19.327
92	GRC	L	Y	33.475

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

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
1	A1B	L	X	-6.655e-6
2	A1B	L	Y	29.342
3	A1T	L	X	-6.655e-6
4	A1T	L	Y	29.342
5	B1B	L	X	-1.007e-5
6	B1B	L	Y	44.394
7	B1T	L	X	-1.007e-5
8	B1T	L	Y	44.394
9	G1B	L	X	-1.007e-5
10	G1B	L	Y	44.394
11	G1T	L	X	-1.007e-5
12	G1T	L	Y	44.394
13	A2B	L	X	-6.655e-6
14	A2B	L	Y	29.342
15	A2T	L	X	-6.655e-6
16	A2T	L	Y	29.342
17	B2B	L	X	-1.007e-5
18	B2B	L	Y	44.394
19	B2T	L	X	-1.007e-5
20	B2T	L	Y	44.394
21	G2B	L	X	-1.007e-5
22	G2B	L	Y	44.394
23	G2T	L	X	-1.007e-5
24	G2T	L	Y	44.394
25	A3B	L	X	-1.069e-5
26	A3B	L	Y	47.133
27	A3T	L	X	-1.069e-5
28	A3T	L	Y	47.133
29	B3B	L	X	-2.6e-5
30	B3B	L	Y	114.637
31	B3T	L	X	-2.6e-5
32	B3T	L	Y	114.637
33	G3B	L	X	-2.6e-5
34	G3B	L	Y	114.637
35	G3T	L	X	-2.6e-5
36	G3T	L	Y	114.637
37	A4B	L	X	-1.069e-5
38	A4B	L	Y	47.133
39	A4T	L	X	-1.069e-5
40	A4T	L	Y	47.133
41	B4B	L	X	-2.6e-5
42	B4B	L	Y	114.637
43	B4T	L	X	-2.6e-5



Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 806364 - HRT 106(B) 943202

July 20, 2020
 11:26 AM
 Checked By: MLO

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

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
44	B4T	L	Y	114.637
45	G4B	L	X	-2.6e-5
46	G4B	L	Y	114.637
47	G4T	L	X	-2.6e-5
48	G4T	L	Y	114.637
49	A4R	L	X	-1.207e-5
50	A4R	L	Y	53.215
51	B4R	L	X	-1.043e-5
52	B4R	L	Y	45.979
53	G4R	L	X	-1.043e-5
54	G4R	L	Y	45.979
55	A1R	L	X	-4.911e-6
56	A1R	L	Y	21.655
57	B1R	L	X	-5.689e-6
58	B1R	L	Y	25.085
59	G1R	L	X	-5.689e-6
60	G1R	L	Y	25.085
61	A3R	L	X	-5.247e-6
62	A3R	L	Y	23.135
63	B3R	L	X	-5.773e-6
64	B3R	L	Y	25.455
65	G3R	L	X	-5.773e-6
66	G3R	L	Y	25.455
67	A4R	L	X	-1.019e-5
68	A4R	L	Y	44.921
69	B4R	L	X	-7.885e-6
70	B4R	L	Y	34.768
71	G4R	L	X	-7.885e-6
72	G4R	L	Y	34.768
73	A3R	L	X	-9.014e-6
74	A3R	L	Y	39.745
75	B3R	L	X	-7.737e-6
76	B3R	L	Y	34.116
77	G3R	L	X	-7.737e-6
78	G3R	L	Y	34.116
79	A2R	L	X	-1.754e-5
80	A2R	L	Y	77.324
81	B2R	L	X	-1.338e-5
82	B2R	L	Y	58.975
83	G2R	L	X	-1.338e-5
84	G2R	L	Y	58.975
85	ARC	L	X	-8.284e-6
86	ARC	L	Y	36.526
87	BRC	L	X	-8.284e-6
88	BRC	L	Y	36.526
89	ARC	L	X	-8.281e-6
90	ARC	L	Y	36.513
91	GRC	L	X	-8.766e-6
92	GRC	L	Y	38.654

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

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
1	A1B	L	X	17.18
2	A1B	L	Y	29.756
3	A1T	L	X	17.18
4	A1T	L	Y	29.756



Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 806364 - HRT 106(B) 943202

July 20, 2020
 11:26 AM
 Checked By: MLO

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

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
5	B1B	L	X	24.706
6	B1B	L	Y	42.792
7	B1T	L	X	24.706
8	B1T	L	Y	42.792
9	G1B	L	X	17.18
10	G1B	L	Y	29.756
11	G1T	L	X	17.18
12	G1T	L	Y	29.756
13	A2B	L	X	17.18
14	A2B	L	Y	29.756
15	A2T	L	X	17.18
16	A2T	L	Y	29.756
17	B2B	L	X	24.706
18	B2B	L	Y	42.792
19	B2T	L	X	24.706
20	B2T	L	Y	42.792
21	G2B	L	X	17.18
22	G2B	L	Y	29.756
23	G2T	L	X	17.18
24	G2T	L	Y	29.756
25	A3B	L	X	34.817
26	A3B	L	Y	60.305
27	A3T	L	X	34.817
28	A3T	L	Y	60.305
29	B3B	L	X	68.569
30	B3B	L	Y	118.765
31	B3T	L	X	68.569
32	B3T	L	Y	118.765
33	G3B	L	X	34.817
34	G3B	L	Y	60.305
35	G3T	L	X	34.817
36	G3T	L	Y	60.305
37	A4B	L	X	34.817
38	A4B	L	Y	60.305
39	A4T	L	X	34.817
40	A4T	L	Y	60.305
41	B4B	L	X	68.569
42	B4B	L	Y	118.765
43	B4T	L	X	68.569
44	B4T	L	Y	118.765
45	G4B	L	X	34.817
46	G4B	L	Y	60.305
47	G4T	L	X	34.817
48	G4T	L	Y	60.305
49	A4R	L	X	25.401
50	A4R	L	Y	43.996
51	B4R	L	X	21.783
52	B4R	L	Y	37.73
53	G4R	L	X	25.401
54	G4R	L	Y	43.996
55	A1R	L	X	11.399
56	A1R	L	Y	19.744
57	B1R	L	X	13.114
58	B1R	L	Y	22.715
59	G1R	L	X	11.399
60	G1R	L	Y	19.744
61	A3R	L	X	11.954



Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 806364 - HRT 106(B) 943202

July 20, 2020
 11:26 AM
 Checked By: MLO

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

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
62	A3R	L	Y	20.705
63	B3R	L	X	13.114
64	B3R	L	Y	22.715
65	G3R	L	X	11.954
66	G3R	L	Y	20.705
67	A4R	L	X	20.768
68	A4R	L	Y	35.972
69	B4R	L	X	15.692
70	B4R	L	Y	27.179
71	G4R	L	X	20.768
72	G4R	L	Y	35.972
73	A3R	L	X	18.934
74	A3R	L	Y	32.795
75	B3R	L	X	16.12
76	B3R	L	Y	27.92
77	G3R	L	X	18.934
78	G3R	L	Y	32.795
79	A2R	L	X	35.604
80	A2R	L	Y	61.668
81	B2R	L	X	26.43
82	B2R	L	Y	45.778
83	G2R	L	X	35.604
84	G2R	L	Y	61.668
85	ARC	L	X	18.263
86	ARC	L	Y	31.632
87	BRC	L	X	18.263
88	BRC	L	Y	31.632
89	ARC	L	X	18.256
90	ARC	L	Y	31.621
91	GRC	L	X	19.327
92	GRC	L	Y	33.475

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

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
1	A1B	L	X	27.844
2	A1B	L	Y	27.844
3	A1T	L	X	27.844
4	A1T	L	Y	27.844
5	B1B	L	X	33.989
6	B1B	L	Y	33.989
7	B1T	L	X	33.989
8	B1T	L	Y	33.989
9	G1B	L	X	21.698
10	G1B	L	Y	21.698
11	G1T	L	X	21.698
12	G1T	L	Y	21.698
13	A2B	L	X	27.844
14	A2B	L	Y	27.844
15	A2T	L	X	27.844
16	A2T	L	Y	27.844
17	B2B	L	X	33.989
18	B2B	L	Y	33.989
19	B2T	L	X	33.989
20	B2T	L	Y	33.989
21	G2B	L	X	21.698
22	G2B	L	Y	21.698



Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 806364 - HRT 106(B) 943202

July 20, 2020
 11:26 AM
 Checked By: MLO

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

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
23	G2T	L	X	21.698
24	G2T	L	Y	21.698
25	A3B	L	X	65.15
26	A3B	L	Y	65.15
27	A3T	L	X	65.15
28	A3T	L	Y	65.15
29	B3B	L	X	92.708
30	B3B	L	Y	92.708
31	B3T	L	X	92.708
32	B3T	L	Y	92.708
33	G3B	L	X	37.591
34	G3B	L	Y	37.591
35	G3T	L	X	37.591
36	G3T	L	Y	37.591
37	A4B	L	X	65.15
38	A4B	L	Y	65.15
39	A4T	L	X	65.15
40	A4T	L	Y	65.15
41	B4B	L	X	92.708
42	B4B	L	Y	92.708
43	B4T	L	X	92.708
44	B4T	L	Y	92.708
45	G4B	L	X	37.591
46	G4B	L	Y	37.591
47	G4T	L	X	37.591
48	G4T	L	Y	37.591
49	A4R	L	X	34.217
50	A4R	L	Y	34.217
51	B4R	L	X	31.263
52	B4R	L	Y	31.263
53	G4R	L	X	37.171
54	G4R	L	Y	37.172
55	A1R	L	X	16.929
56	A1R	L	Y	16.929
57	B1R	L	X	18.33
58	B1R	L	Y	18.33
59	G1R	L	X	15.529
60	G1R	L	Y	15.529
61	A3R	L	X	17.453
62	A3R	L	Y	17.453
63	B3R	L	X	18.4
64	B3R	L	Y	18.4
65	G3R	L	X	16.505
66	G3R	L	Y	16.505
67	A4R	L	X	26.978
68	A4R	L	Y	26.978
69	B4R	L	X	22.833
70	B4R	L	Y	22.833
71	G4R	L	X	31.123
72	G4R	L	Y	31.123
73	A3R	L	X	25.45
74	A3R	L	Y	25.45
75	B3R	L	X	23.152
76	B3R	L	Y	23.152
77	G3R	L	X	27.749
78	G3R	L	Y	27.749
79	A2R	L	X	46.027



Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 806364 - HRT 106(B) 943202

July 20, 2020
 11:26 AM
 Checked By: MLO

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

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
80	A2R	L	Y	46.027
81	B2R	L	X	38.536
82	B2R	L	Y	38.536
83	G2R	L	X	53.517
84	G2R	L	Y	53.517
85	ARC	L	X	25.828
86	ARC	L	Y	25.828
87	BRC	L	X	25.828
88	BRC	L	Y	25.828
89	ARC	L	X	25.818
90	ARC	L	Y	25.818
91	GRC	L	X	27.332
92	GRC	L	Y	27.332

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

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
1	A1B	L	X	38.447
2	A1B	L	Y	22.197
3	A1T	L	X	38.447
4	A1T	L	Y	22.197
5	B1B	L	X	38.447
6	B1B	L	Y	22.197
7	B1T	L	X	38.447
8	B1T	L	Y	22.197
9	G1B	L	X	25.411
10	G1B	L	Y	14.671
11	G1T	L	X	25.411
12	G1T	L	Y	14.671
13	A2B	L	X	38.447
14	A2B	L	Y	22.197
15	A2T	L	X	38.447
16	A2T	L	Y	22.197
17	B2B	L	X	38.447
18	B2B	L	Y	22.197
19	B2T	L	X	38.447
20	B2T	L	Y	22.197
21	G2B	L	X	25.411
22	G2B	L	Y	14.671
23	G2T	L	X	25.411
24	G2T	L	Y	14.671
25	A3B	L	X	99.278
26	A3B	L	Y	57.318
27	A3T	L	X	99.278
28	A3T	L	Y	57.318
29	B3B	L	X	99.278
30	B3B	L	Y	57.318
31	B3T	L	X	99.278
32	B3T	L	Y	57.318
33	G3B	L	X	40.818
34	G3B	L	Y	23.567
35	G3T	L	X	40.818
36	G3T	L	Y	23.567
37	A4B	L	X	99.278
38	A4B	L	Y	57.318
39	A4T	L	X	99.278
40	A4T	L	Y	57.318



Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 806364 - HRT 106(B) 943202

July 20, 2020
 11:26 AM
 Checked By: MLO

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

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
41	B4B	L	X	99.278
42	B4B	L	Y	57.318
43	B4T	L	X	99.278
44	B4T	L	Y	57.318
45	G4B	L	X	40.818
46	G4B	L	Y	23.567
47	G4T	L	X	40.818
48	G4T	L	Y	23.567
49	A4R	L	X	39.819
50	A4R	L	Y	22.989
51	B4R	L	X	39.819
52	B4R	L	Y	22.989
53	G4R	L	X	46.085
54	G4R	L	Y	26.607
55	A1R	L	X	21.724
56	A1R	L	Y	12.543
57	B1R	L	X	21.724
58	B1R	L	Y	12.543
59	G1R	L	X	18.754
60	G1R	L	Y	10.828
61	A3R	L	X	22.045
62	A3R	L	Y	12.728
63	B3R	L	X	22.045
64	B3R	L	Y	12.728
65	G3R	L	X	20.035
66	G3R	L	Y	11.567
67	A4R	L	X	30.11
68	A4R	L	Y	17.384
69	B4R	L	X	30.11
70	B4R	L	Y	17.384
71	G4R	L	X	38.903
72	G4R	L	Y	22.461
73	A3R	L	X	29.545
74	A3R	L	Y	17.058
75	B3R	L	X	29.545
76	B3R	L	Y	17.058
77	G3R	L	X	34.421
78	G3R	L	Y	19.873
79	A2R	L	X	51.074
80	A2R	L	Y	29.488
81	B2R	L	X	51.074
82	B2R	L	Y	29.488
83	G2R	L	X	66.964
84	G2R	L	Y	38.662
85	ARC	L	X	31.632
86	ARC	L	Y	18.263
87	BRC	L	X	31.632
88	BRC	L	Y	18.263
89	ARC	L	X	31.621
90	ARC	L	Y	18.256
91	GRC	L	X	33.475
92	GRC	L	Y	19.327

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

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
1	A1B	L	X	-10.416



Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 806364 - HRT 106(B) 943202

July 20, 2020
 11:26 AM
 Checked By: MLO

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

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
2	A1B	L	Y	0
3	A1T	L	X	-10.416
4	A1T	L	Y	0
5	B1B	L	X	-7.614
6	B1B	L	Y	0
7	B1T	L	X	-7.614
8	B1T	L	Y	0
9	G1B	L	X	-7.614
10	G1B	L	Y	0
11	G1T	L	X	-7.614
12	G1T	L	Y	0
13	A2B	L	X	-10.416
14	A2B	L	Y	0
15	A2T	L	X	-10.416
16	A2T	L	Y	0
17	B2B	L	X	-7.614
18	B2B	L	Y	0
19	B2T	L	X	-7.614
20	B2T	L	Y	0
21	G2B	L	X	-7.614
22	G2B	L	Y	0
23	G2T	L	X	-7.614
24	G2T	L	Y	0
25	A3B	L	X	-27.328
26	A3B	L	Y	0
27	A3T	L	X	-27.328
28	A3T	L	Y	0
29	B3B	L	X	-14.916
30	B3B	L	Y	0
31	B3T	L	X	-14.916
32	B3T	L	Y	0
33	G3B	L	X	-14.916
34	G3B	L	Y	0
35	G3T	L	X	-14.916
36	G3T	L	Y	0
37	A4B	L	X	-27.328
38	A4B	L	Y	0
39	A4T	L	X	-27.328
40	A4T	L	Y	0
41	B4B	L	X	-14.916
42	B4B	L	Y	0
43	B4T	L	X	-14.916
44	B4T	L	Y	0
45	G4B	L	X	-14.916
46	G4B	L	Y	0
47	G4T	L	X	-14.916
48	G4T	L	Y	0
49	A4R	L	X	-9.737
50	A4R	L	Y	0
51	B4R	L	X	-12.126
52	B4R	L	Y	0
53	G4R	L	X	-12.126
54	G4R	L	Y	0
55	A1R	L	X	-6.146
56	A1R	L	Y	0
57	B1R	L	X	-6.103
58	B1R	L	Y	0



Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 806364 - HRT 106(B) 943202

July 20, 2020
 11:26 AM
 Checked By: MLO

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

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
59	G1R	L	X	-6.103
60	G1R	L	Y	0
61	A3R	L	X	-6.146
62	A3R	L	Y	0
63	B3R	L	X	-6.348
64	B3R	L	Y	0
65	G3R	L	X	-6.348
66	G3R	L	Y	0
67	A4R	L	X	-7.194
68	A4R	L	Y	0
69	B4R	L	X	-9.972
70	B4R	L	Y	0
71	G4R	L	X	-9.972
72	G4R	L	Y	0
73	A3R	L	X	-7.364
74	A3R	L	Y	0
75	B3R	L	X	-9.264
76	B3R	L	Y	0
77	G3R	L	X	-9.264
78	G3R	L	Y	0
79	A2R	L	X	-11.557
80	A2R	L	Y	0
81	B2R	L	X	-16.106
82	B2R	L	Y	0
83	G2R	L	X	-16.106
84	G2R	L	Y	0
85	ARC	L	X	-9.9
86	ARC	L	Y	0
87	BRC	L	X	-9.9
88	BRC	L	Y	0
89	ARC	L	X	-9.897
90	ARC	L	Y	0
91	GRC	L	X	-10.095
92	GRC	L	Y	0

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

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
1	A1B	L	X	-8.212
2	A1B	L	Y	4.741
3	A1T	L	X	-8.212
4	A1T	L	Y	4.741
5	B1B	L	X	-5.785
6	B1B	L	Y	3.34
7	B1T	L	X	-5.785
8	B1T	L	Y	3.34
9	G1B	L	X	-8.212
10	G1B	L	Y	4.741
11	G1T	L	X	-8.212
12	G1T	L	Y	4.741
13	A2B	L	X	-8.212
14	A2B	L	Y	4.741
15	A2T	L	X	-8.212
16	A2T	L	Y	4.741
17	B2B	L	X	-5.785
18	B2B	L	Y	3.34
19	B2T	L	X	-5.785



Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 806364 - HRT 106(B) 943202

July 20, 2020
 11:26 AM
 Checked By: MLO

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

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
20	B2T	L	Y	3.34
21	G2B	L	X	-8.212
22	G2B	L	Y	4.741
23	G2T	L	X	-8.212
24	G2T	L	Y	4.741
25	A3B	L	X	-20.084
26	A3B	L	Y	11.595
27	A3T	L	X	-20.084
28	A3T	L	Y	11.595
29	B3B	L	X	-9.335
30	B3B	L	Y	5.389
31	B3T	L	X	-9.335
32	B3T	L	Y	5.389
33	G3B	L	X	-20.084
34	G3B	L	Y	11.595
35	G3T	L	X	-20.084
36	G3T	L	Y	11.595
37	A4B	L	X	-20.084
38	A4B	L	Y	11.595
39	A4T	L	X	-20.084
40	A4T	L	Y	11.595
41	B4B	L	X	-9.335
42	B4B	L	Y	5.389
43	B4T	L	X	-9.335
44	B4T	L	Y	5.389
45	G4B	L	X	-20.084
46	G4B	L	Y	11.595
47	G4T	L	X	-20.084
48	G4T	L	Y	11.595
49	A4R	L	X	-9.122
50	A4R	L	Y	5.266
51	B4R	L	X	-11.191
52	B4R	L	Y	6.461
53	G4R	L	X	-9.122
54	G4R	L	Y	5.266
55	A1R	L	X	-5.31
56	A1R	L	Y	3.066
57	B1R	L	X	-5.273
58	B1R	L	Y	3.045
59	G1R	L	X	-5.31
60	G1R	L	Y	3.066
61	A3R	L	X	-5.381
62	A3R	L	Y	3.106
63	B3R	L	X	-5.556
64	B3R	L	Y	3.208
65	G3R	L	X	-5.381
66	G3R	L	Y	3.106
67	A4R	L	X	-7.032
68	A4R	L	Y	4.06
69	B4R	L	X	-9.438
70	B4R	L	Y	5.449
71	G4R	L	X	-7.032
72	G4R	L	Y	4.06
73	A3R	L	X	-6.926
74	A3R	L	Y	3.999
75	B3R	L	X	-8.571
76	B3R	L	Y	4.948



Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 806364 - HRT 106(B) 943202

July 20, 2020
 11:26 AM
 Checked By: MLO

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

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2/in, lb*s^2*in)]
77	G3R	L	X	-6.926
78	G3R	L	Y	3.999
79	A2R	L	X	-11.322
80	A2R	L	Y	6.537
81	B2R	L	X	-15.262
82	B2R	L	Y	8.811
83	G2R	L	X	-11.322
84	G2R	L	Y	6.537
85	ARC	L	X	-8.574
86	ARC	L	Y	4.95
87	BRC	L	X	-8.574
88	BRC	L	Y	4.95
89	ARC	L	X	-8.571
90	ARC	L	Y	4.948
91	GRC	L	X	-8.743
92	GRC	L	Y	5.048

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

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2/in, lb*s^2*in)]
1	A1B	L	X	-6.044
2	A1B	L	Y	6.044
3	A1T	L	X	-6.044
4	A1T	L	Y	6.044
5	B1B	L	X	-4.901
6	B1B	L	Y	4.901
7	B1T	L	X	-4.901
8	B1T	L	Y	4.901
9	G1B	L	X	-7.188
10	G1B	L	Y	7.188
11	G1T	L	X	-7.188
12	G1T	L	Y	7.188
13	A2B	L	X	-6.044
14	A2B	L	Y	6.044
15	A2T	L	X	-6.044
16	A2T	L	Y	6.044
17	B2B	L	X	-4.901
18	B2B	L	Y	4.901
19	B2T	L	X	-4.901
20	B2T	L	Y	4.901
21	G2B	L	X	-7.188
22	G2B	L	Y	7.188
23	G2T	L	X	-7.188
24	G2T	L	Y	7.188
25	A3B	L	X	-13.473
26	A3B	L	Y	13.473
27	A3T	L	X	-13.473
28	A3T	L	Y	13.473
29	B3B	L	X	-8.406
30	B3B	L	Y	8.406
31	B3T	L	X	-8.406
32	B3T	L	Y	8.406
33	G3B	L	X	-18.54
34	G3B	L	Y	18.54
35	G3T	L	X	-18.54
36	G3T	L	Y	18.54
37	A4B	L	X	-13.473



Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 806364 - HRT 106(B) 943202

July 20, 2020
 11:26 AM
 Checked By: MLO

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

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
38	A4B	L	Y	13.473
39	A4T	L	X	-13.473
40	A4T	L	Y	13.473
41	B4B	L	X	-8.406
42	B4B	L	Y	8.406
43	B4T	L	X	-8.406
44	B4T	L	Y	8.406
45	G4B	L	X	-18.54
46	G4B	L	Y	18.54
47	G4T	L	X	-18.54
48	G4T	L	Y	18.54
49	A4R	L	X	-8.011
50	A4R	L	Y	8.011
51	B4R	L	X	-8.986
52	B4R	L	Y	8.986
53	G4R	L	X	-7.036
54	G4R	L	Y	7.036
55	A1R	L	X	-4.326
56	A1R	L	Y	4.326
57	B1R	L	X	-4.308
58	B1R	L	Y	4.308
59	G1R	L	X	-4.343
60	G1R	L	Y	4.343
61	A3R	L	X	-4.441
62	A3R	L	Y	4.441
63	B3R	L	X	-4.523
64	B3R	L	Y	4.523
65	G3R	L	X	-4.358
66	G3R	L	Y	4.358
67	A4R	L	X	-6.397
68	A4R	L	Y	6.397
69	B4R	L	X	-7.531
70	B4R	L	Y	7.531
71	G4R	L	X	-5.263
72	G4R	L	Y	5.263
73	A3R	L	X	-6.103
74	A3R	L	Y	6.103
75	B3R	L	X	-6.878
76	B3R	L	Y	6.878
77	G3R	L	X	-5.327
78	G3R	L	Y	5.327
79	A2R	L	X	-10.316
80	A2R	L	Y	10.316
81	B2R	L	X	-12.174
82	B2R	L	Y	12.174
83	G2R	L	X	-8.459
84	G2R	L	Y	8.459
85	ARC	L	X	-7
86	ARC	L	Y	7
87	BRC	L	X	-7
88	BRC	L	Y	7
89	ARC	L	X	-6.998
90	ARC	L	Y	6.998
91	GRC	L	X	-7.138
92	GRC	L	Y	7.138



Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 806364 - HRT 106(B) 943202

July 20, 2020
 11:26 AM
 Checked By: MLO

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

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
1	A1B	L	X	-3.807
2	A1B	L	Y	6.594
3	A1T	L	X	-3.807
4	A1T	L	Y	6.594
5	B1B	L	X	-3.807
6	B1B	L	Y	6.594
7	B1T	L	X	-3.807
8	B1T	L	Y	6.594
9	G1B	L	X	-5.208
10	G1B	L	Y	9.02
11	G1T	L	X	-5.208
12	G1T	L	Y	9.02
13	A2B	L	X	-3.807
14	A2B	L	Y	6.594
15	A2T	L	X	-3.807
16	A2T	L	Y	6.594
17	B2B	L	X	-3.807
18	B2B	L	Y	6.594
19	B2T	L	X	-3.807
20	B2T	L	Y	6.594
21	G2B	L	X	-5.208
22	G2B	L	Y	9.02
23	G2T	L	X	-5.208
24	G2T	L	Y	9.02
25	A3B	L	X	-7.458
26	A3B	L	Y	12.918
27	A3T	L	X	-7.458
28	A3T	L	Y	12.918
29	B3B	L	X	-7.458
30	B3B	L	Y	12.918
31	B3T	L	X	-7.458
32	B3T	L	Y	12.918
33	G3B	L	X	-13.664
34	G3B	L	Y	23.667
35	G3T	L	X	-13.664
36	G3T	L	Y	23.667
37	A4B	L	X	-7.458
38	A4B	L	Y	12.918
39	A4T	L	X	-7.458
40	A4T	L	Y	12.918
41	B4B	L	X	-7.458
42	B4B	L	Y	12.918
43	B4T	L	X	-7.458
44	B4T	L	Y	12.918
45	G4B	L	X	-13.664
46	G4B	L	Y	23.667
47	G4T	L	X	-13.664
48	G4T	L	Y	23.667
49	A4R	L	X	-6.063
50	A4R	L	Y	10.501
51	B4R	L	X	-6.063
52	B4R	L	Y	10.501
53	G4R	L	X	-4.868
54	G4R	L	Y	8.432
55	A1R	L	X	-3.052
56	A1R	L	Y	5.285
57	B1R	L	X	-3.052



Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 806364 - HRT 106(B) 943202

July 20, 2020
 11:26 AM
 Checked By: MLO

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

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2/in, lb*s^2*in)]
58	B1R	L	Y	5.285
59	G1R	L	X	-3.073
60	G1R	L	Y	5.322
61	A3R	L	X	-3.174
62	A3R	L	Y	5.497
63	B3R	L	X	-3.174
64	B3R	L	Y	5.497
65	G3R	L	X	-3.073
66	G3R	L	Y	5.322
67	A4R	L	X	-4.986
68	A4R	L	Y	8.636
69	B4R	L	X	-4.986
70	B4R	L	Y	8.636
71	G4R	L	X	-3.597
72	G4R	L	Y	6.23
73	A3R	L	X	-4.632
74	A3R	L	Y	8.023
75	B3R	L	X	-4.632
76	B3R	L	Y	8.023
77	G3R	L	X	-3.682
78	G3R	L	Y	6.378
79	A2R	L	X	-8.053
80	A2R	L	Y	13.948
81	B2R	L	X	-8.053
82	B2R	L	Y	13.948
83	G2R	L	X	-5.778
84	G2R	L	Y	10.008
85	ARC	L	X	-4.95
86	ARC	L	Y	8.574
87	BRC	L	X	-4.95
88	BRC	L	Y	8.574
89	ARC	L	X	-4.948
90	ARC	L	Y	8.571
91	GRC	L	X	-5.048
92	GRC	L	Y	8.743

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

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2/in, lb*s^2*in)]
1	A1B	L	X	-1.515e-6
2	A1B	L	Y	6.68
3	A1T	L	X	-1.515e-6
4	A1T	L	Y	6.68
5	B1B	L	X	-2.15e-6
6	B1B	L	Y	9.482
7	B1T	L	X	-2.15e-6
8	B1T	L	Y	9.482
9	G1B	L	X	-2.15e-6
10	G1B	L	Y	9.482
11	G1T	L	X	-2.15e-6
12	G1T	L	Y	9.482
13	A2B	L	X	-1.515e-6
14	A2B	L	Y	6.68
15	A2T	L	X	-1.515e-6
16	A2T	L	Y	6.68
17	B2B	L	X	-2.15e-6
18	B2B	L	Y	9.482



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

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
19	B2T	L	X	-2.15e-6
20	B2T	L	Y	9.482
21	G2B	L	X	-2.15e-6
22	G2B	L	Y	9.482
23	G2T	L	X	-2.15e-6
24	G2T	L	Y	9.482
25	A3B	L	X	-2.445e-6
26	A3B	L	Y	10.779
27	A3T	L	X	-2.445e-6
28	A3T	L	Y	10.779
29	B3B	L	X	-5.26e-6
30	B3B	L	Y	23.191
31	B3T	L	X	-5.26e-6
32	B3T	L	Y	23.191
33	G3B	L	X	-5.26e-6
34	G3B	L	Y	23.191
35	G3T	L	X	-5.26e-6
36	G3T	L	Y	23.191
37	A4B	L	X	-2.445e-6
38	A4B	L	Y	10.779
39	A4T	L	X	-2.445e-6
40	A4T	L	Y	10.779
41	B4B	L	X	-5.26e-6
42	B4B	L	Y	23.191
43	B4T	L	X	-5.26e-6
44	B4T	L	Y	23.191
45	G4B	L	X	-5.26e-6
46	G4B	L	Y	23.191
47	G4T	L	X	-5.26e-6
48	G4T	L	Y	23.191
49	A4R	L	X	-2.931e-6
50	A4R	L	Y	12.922
51	B4R	L	X	-2.389e-6
52	B4R	L	Y	10.533
53	G4R	L	X	-2.389e-6
54	G4R	L	Y	10.533
55	A1R	L	X	-1.381e-6
56	A1R	L	Y	6.089
57	B1R	L	X	-1.391e-6
58	B1R	L	Y	6.131
59	G1R	L	X	-1.391e-6
60	G1R	L	Y	6.131
61	A3R	L	X	-1.455e-6
62	A3R	L	Y	6.415
63	B3R	L	X	-1.409e-6
64	B3R	L	Y	6.213
65	G3R	L	X	-1.409e-6
66	G3R	L	Y	6.213
67	A4R	L	X	-2.472e-6
68	A4R	L	Y	10.898
69	B4R	L	X	-1.842e-6
70	B4R	L	Y	8.12
71	G4R	L	X	-1.842e-6
72	G4R	L	Y	8.12
73	A3R	L	X	-2.245e-6
74	A3R	L	Y	9.897
75	B3R	L	X	-1.814e-6



Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 806364 - HRT 106(B) 943202

July 20, 2020
 11:26 AM
 Checked By: MLO

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

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
76	B3R	L	Y	7.997
77	G3R	L	X	-1.814e-6
78	G3R	L	Y	7.997
79	A2R	L	X	-3.997e-6
80	A2R	L	Y	17.623
81	B2R	L	X	-2.965e-6
82	B2R	L	Y	13.073
83	G2R	L	X	-2.965e-6
84	G2R	L	Y	13.073
85	ARC	L	X	-2.245e-6
86	ARC	L	Y	9.9
87	BRC	L	X	-2.245e-6
88	BRC	L	Y	9.9
89	ARC	L	X	-2.245e-6
90	ARC	L	Y	9.897
91	GRC	L	X	-2.29e-6
92	GRC	L	Y	10.095

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

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
1	A1B	L	X	3.807
2	A1B	L	Y	6.594
3	A1T	L	X	3.807
4	A1T	L	Y	6.594
5	B1B	L	X	5.208
6	B1B	L	Y	9.02
7	B1T	L	X	5.208
8	B1T	L	Y	9.02
9	G1B	L	X	3.807
10	G1B	L	Y	6.594
11	G1T	L	X	3.807
12	G1T	L	Y	6.594
13	A2B	L	X	3.807
14	A2B	L	Y	6.594
15	A2T	L	X	3.807
16	A2T	L	Y	6.594
17	B2B	L	X	5.208
18	B2B	L	Y	9.02
19	B2T	L	X	5.208
20	B2T	L	Y	9.02
21	G2B	L	X	3.807
22	G2B	L	Y	6.594
23	G2T	L	X	3.807
24	G2T	L	Y	6.594
25	A3B	L	X	7.458
26	A3B	L	Y	12.918
27	A3T	L	X	7.458
28	A3T	L	Y	12.918
29	B3B	L	X	13.664
30	B3B	L	Y	23.667
31	B3T	L	X	13.664
32	B3T	L	Y	23.667
33	G3B	L	X	7.458
34	G3B	L	Y	12.918
35	G3T	L	X	7.458
36	G3T	L	Y	12.918



Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 806364 - HRT 106(B) 943202

July 20, 2020
 11:26 AM
 Checked By: MLO

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

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
37	A4B	L	X	7.458
38	A4B	L	Y	12.918
39	A4T	L	X	7.458
40	A4T	L	Y	12.918
41	B4B	L	X	13.664
42	B4B	L	Y	23.667
43	B4T	L	X	13.664
44	B4T	L	Y	23.667
45	G4B	L	X	7.458
46	G4B	L	Y	12.918
47	G4T	L	X	7.458
48	G4T	L	Y	12.918
49	A4R	L	X	6.063
50	A4R	L	Y	10.501
51	B4R	L	X	4.868
52	B4R	L	Y	8.432
53	G4R	L	X	6.063
54	G4R	L	Y	10.501
55	A1R	L	X	3.052
56	A1R	L	Y	5.285
57	B1R	L	X	3.073
58	B1R	L	Y	5.322
59	G1R	L	X	3.052
60	G1R	L	Y	5.285
61	A3R	L	X	3.174
62	A3R	L	Y	5.497
63	B3R	L	X	3.073
64	B3R	L	Y	5.322
65	G3R	L	X	3.174
66	G3R	L	Y	5.497
67	A4R	L	X	4.986
68	A4R	L	Y	8.636
69	B4R	L	X	3.597
70	B4R	L	Y	6.23
71	G4R	L	X	4.986
72	G4R	L	Y	8.636
73	A3R	L	X	4.632
74	A3R	L	Y	8.023
75	B3R	L	X	3.682
76	B3R	L	Y	6.378
77	G3R	L	X	4.632
78	G3R	L	Y	8.023
79	A2R	L	X	8.053
80	A2R	L	Y	13.948
81	B2R	L	X	5.778
82	B2R	L	Y	10.008
83	G2R	L	X	8.053
84	G2R	L	Y	13.948
85	ARC	L	X	4.95
86	ARC	L	Y	8.574
87	BRC	L	X	4.95
88	BRC	L	Y	8.574
89	ARC	L	X	4.948
90	ARC	L	Y	8.571
91	GRC	L	X	5.048
92	GRC	L	Y	8.743



Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 806364 - HRT 106(B) 943202

July 20, 2020
 11:26 AM
 Checked By: MLO

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

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
1	A1B	L	X	6.044
2	A1B	L	Y	6.044
3	A1T	L	X	6.044
4	A1T	L	Y	6.044
5	B1B	L	X	7.188
6	B1B	L	Y	7.188
7	B1T	L	X	7.188
8	B1T	L	Y	7.188
9	G1B	L	X	4.901
10	G1B	L	Y	4.901
11	G1T	L	X	4.901
12	G1T	L	Y	4.901
13	A2B	L	X	6.044
14	A2B	L	Y	6.044
15	A2T	L	X	6.044
16	A2T	L	Y	6.044
17	B2B	L	X	7.188
18	B2B	L	Y	7.188
19	B2T	L	X	7.188
20	B2T	L	Y	7.188
21	G2B	L	X	4.901
22	G2B	L	Y	4.901
23	G2T	L	X	4.901
24	G2T	L	Y	4.901
25	A3B	L	X	13.473
26	A3B	L	Y	13.473
27	A3T	L	X	13.473
28	A3T	L	Y	13.473
29	B3B	L	X	18.54
30	B3B	L	Y	18.54
31	B3T	L	X	18.54
32	B3T	L	Y	18.54
33	G3B	L	X	8.406
34	G3B	L	Y	8.406
35	G3T	L	X	8.406
36	G3T	L	Y	8.406
37	A4B	L	X	13.473
38	A4B	L	Y	13.473
39	A4T	L	X	13.473
40	A4T	L	Y	13.473
41	B4B	L	X	18.54
42	B4B	L	Y	18.54
43	B4T	L	X	18.54
44	B4T	L	Y	18.54
45	G4B	L	X	8.406
46	G4B	L	Y	8.406
47	G4T	L	X	8.406
48	G4T	L	Y	8.406
49	A4R	L	X	8.011
50	A4R	L	Y	8.011
51	B4R	L	X	7.036
52	B4R	L	Y	7.036
53	G4R	L	X	8.986
54	G4R	L	Y	8.986
55	A1R	L	X	4.326
56	A1R	L	Y	4.326
57	B1R	L	X	4.343



Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 806364 - HRT 106(B) 943202

July 20, 2020
 11:26 AM
 Checked By: MLO

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

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
58	B1R	L	Y	4.343
59	G1R	L	X	4.308
60	G1R	L	Y	4.308
61	A3R	L	X	4.441
62	A3R	L	Y	4.441
63	B3R	L	X	4.358
64	B3R	L	Y	4.358
65	G3R	L	X	4.523
66	G3R	L	Y	4.523
67	A4R	L	X	6.397
68	A4R	L	Y	6.397
69	B4R	L	X	5.263
70	B4R	L	Y	5.263
71	G4R	L	X	7.531
72	G4R	L	Y	7.531
73	A3R	L	X	6.103
74	A3R	L	Y	6.103
75	B3R	L	X	5.327
76	B3R	L	Y	5.327
77	G3R	L	X	6.878
78	G3R	L	Y	6.878
79	A2R	L	X	10.316
80	A2R	L	Y	10.316
81	B2R	L	X	8.459
82	B2R	L	Y	8.459
83	G2R	L	X	12.174
84	G2R	L	Y	12.174
85	ARC	L	X	7
86	ARC	L	Y	7
87	BRC	L	X	7
88	BRC	L	Y	7
89	ARC	L	X	6.998
90	ARC	L	Y	6.998
91	GRC	L	X	7.138
92	GRC	L	Y	7.138

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

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
1	A1B	L	X	8.212
2	A1B	L	Y	4.741
3	A1T	L	X	8.212
4	A1T	L	Y	4.741
5	B1B	L	X	8.212
6	B1B	L	Y	4.741
7	B1T	L	X	8.212
8	B1T	L	Y	4.741
9	G1B	L	X	5.785
10	G1B	L	Y	3.34
11	G1T	L	X	5.785
12	G1T	L	Y	3.34
13	A2B	L	X	8.212
14	A2B	L	Y	4.741
15	A2T	L	X	8.212
16	A2T	L	Y	4.741
17	B2B	L	X	8.212
18	B2B	L	Y	4.741



Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 806364 - HRT 106(B) 943202

July 20, 2020
 11:26 AM
 Checked By: MLO

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

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
19	B2T	L	X	8.212
20	B2T	L	Y	4.741
21	G2B	L	X	5.785
22	G2B	L	Y	3.34
23	G2T	L	X	5.785
24	G2T	L	Y	3.34
25	A3B	L	X	20.084
26	A3B	L	Y	11.595
27	A3T	L	X	20.084
28	A3T	L	Y	11.595
29	B3B	L	X	20.084
30	B3B	L	Y	11.595
31	B3T	L	X	20.084
32	B3T	L	Y	11.595
33	G3B	L	X	9.335
34	G3B	L	Y	5.389
35	G3T	L	X	9.335
36	G3T	L	Y	5.389
37	A4B	L	X	20.084
38	A4B	L	Y	11.595
39	A4T	L	X	20.084
40	A4T	L	Y	11.595
41	B4B	L	X	20.084
42	B4B	L	Y	11.595
43	B4T	L	X	20.084
44	B4T	L	Y	11.595
45	G4B	L	X	9.335
46	G4B	L	Y	5.389
47	G4T	L	X	9.335
48	G4T	L	Y	5.389
49	A4R	L	X	9.122
50	A4R	L	Y	5.266
51	B4R	L	X	9.122
52	B4R	L	Y	5.266
53	G4R	L	X	11.191
54	G4R	L	Y	6.461
55	A1R	L	X	5.31
56	A1R	L	Y	3.066
57	B1R	L	X	5.31
58	B1R	L	Y	3.066
59	G1R	L	X	5.273
60	G1R	L	Y	3.045
61	A3R	L	X	5.381
62	A3R	L	Y	3.106
63	B3R	L	X	5.381
64	B3R	L	Y	3.106
65	G3R	L	X	5.556
66	G3R	L	Y	3.208
67	A4R	L	X	7.032
68	A4R	L	Y	4.06
69	B4R	L	X	7.032
70	B4R	L	Y	4.06
71	G4R	L	X	9.438
72	G4R	L	Y	5.449
73	A3R	L	X	6.926
74	A3R	L	Y	3.999
75	B3R	L	X	6.926



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

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
76	B3R	L	Y	3.999
77	G3R	L	X	8.571
78	G3R	L	Y	4.948
79	A2R	L	X	11.322
80	A2R	L	Y	6.537
81	B2R	L	X	11.322
82	B2R	L	Y	6.537
83	G2R	L	X	15.262
84	G2R	L	Y	8.811
85	ARC	L	X	8.574
86	ARC	L	Y	4.95
87	BRC	L	X	8.574
88	BRC	L	Y	4.95
89	ARC	L	X	8.571
90	ARC	L	Y	4.948
91	GRC	L	X	8.743
92	GRC	L	Y	5.048

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

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

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

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

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

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

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

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

Member Distributed Loads (BLC 2 : Dead of Ice)

	Member Label	Direction	Start Magnitude[lb/ft,F,psf]	End Magnitude[lb/f...	Start Location[in,%]	End Location[in,%]
1	M51	Z	-8.627	-8.627	0	0
2	M60	Z	-8.627	-8.627	0	0
3	M63	Z	-8.627	-8.627	0	0
4	M69	Z	-6.42	-6.42	0	0
5	M72	Z	-6.42	-6.42	0	0
6	M75	Z	-6.42	-6.42	0	0
7	M92	Z	-4.991	-4.991	0	0
8	M94	Z	-4.991	-4.991	0	0
9	M98	Z	-4.991	-4.991	0	0
10	M100	Z	-4.991	-4.991	0	0
11	M104	Z	-4.991	-4.991	0	0
12	M106	Z	-4.991	-4.991	0	0
13	M109	Z	-5.873	-5.873	0	0
14	M110	Z	-5.873	-5.873	0	0
15	M111	Z	-5.873	-5.873	0	0
16	M116	Z	-4.861	-4.861	0	0
17	M121	Z	-4.861	-4.861	0	0



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

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/f...	Start Location[in, %]	End Location[in, %]
18	M126	Z	-4.861	-4.861	0	0
19	M129	Z	-7.193	-7.193	0	0
20	M133	Z	-7.193	-7.193	0	0
21	M137	Z	-7.193	-7.193	0	0
22	M141	Z	-7.193	-7.193	0	0
23	M145	Z	-7.193	-7.193	0	0
24	M149	Z	-7.193	-7.193	0	0
25	M163	Z	-4.861	-4.861	0	0
26	M189A	Z	-8.627	-8.627	0	0
27	M209	Z	-8.627	-8.627	0	0
28	M245A	Z	-8.627	-8.627	0	0
29	M246A	Z	-8.627	-8.627	0	0
30	M279	Z	-8.627	-8.627	0	0
31	M280	Z	-8.627	-8.627	0	0
32	M261A	Z	-4.861	-4.861	0	0
33	M267A	Z	-4.861	-4.861	0	0
34	M273A	Z	-4.861	-4.861	0	0
35	M279A	Z	-4.861	-4.861	0	0
36	M288B	Z	-4.861	-4.861	0	0
37	M294A	Z	-4.861	-4.861	0	0
38	M300B	Z	-4.861	-4.861	0	0
39	M306B	Z	-4.861	-4.861	0	0
40	M315	Z	-4.861	-4.861	0	0
41	M321	Z	-4.861	-4.861	0	0
42	M327	Z	-4.861	-4.861	0	0
43	KM5	Z	-5.873	-5.873	0	0
44	KM6	Z	-5.873	-5.873	0	0
45	KM11	Z	-5.873	-5.873	0	0
46	KM12	Z	-5.873	-5.873	0	0
47	KM17	Z	-5.873	-5.873	0	0
48	KM18	Z	-5.873	-5.873	0	0

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

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/f...	Start Location[in, %]	End Location[in, %]
1	M51	X	-7.344e-16	-7.344e-16	0	0
2	M51	Y	0	0	0	0
3	M60	X	-21.268	-21.268	0	0
4	M60	Y	0	0	0	0
5	M63	X	-21.268	-21.268	0	0
6	M63	Y	0	0	0	0
7	M69	X	-11.165	-11.165	0	0
8	M69	Y	0	0	0	0
9	M72	X	-2.791	-2.791	0	0
10	M72	Y	0	0	0	0
11	M75	X	-2.791	-2.791	0	0
12	M75	Y	0	0	0	0
13	M92	X	-10.634	-10.634	0	0
14	M92	Y	0	0	0	0
15	M94	X	-2.659	-2.659	0	0
16	M94	Y	0	0	0	0
17	M98	X	-2.658	-2.658	0	0
18	M98	Y	0	0	0	0
19	M100	X	-10.634	-10.634	0	0
20	M100	Y	0	0	0	0
21	M104	X	-2.658	-2.658	0	0
22	M104	Y	0	0	0	0



Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 806364 - HRT 106(B) 943202

July 20, 2020
 11:26 AM
 Checked By: MLO

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

Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/f...	Start Location[in.%]	End Location[in.%]	
23	M106	X	-2.658	-2.658	0	0
24	M106	Y	0	0	0	0
25	M109	X	-3.323	-3.323	0	0
26	M109	Y	0	0	0	0
27	M110	X	-13.292	-13.292	0	0
28	M110	Y	0	0	0	0
29	M111	X	-3.323	-3.323	0	0
30	M111	Y	0	0	0	0
31	M116	X	-7.577	-7.577	0	0
32	M116	Y	0	0	0	0
33	M121	X	-1.894	-1.894	0	0
34	M121	Y	0	0	0	0
35	M126	X	-1.894	-1.894	0	0
36	M126	Y	0	0	0	0
37	M129	X	-31.901	-31.901	0	0
38	M129	Y	0	0	0	0
39	M133	X	-31.901	-31.901	0	0
40	M133	Y	0	0	0	0
41	M137	X	-7.975	-7.975	0	0
42	M137	Y	0	0	0	0
43	M141	X	-7.975	-7.975	0	0
44	M141	Y	0	0	0	0
45	M145	X	-7.975	-7.975	0	0
46	M145	Y	0	0	0	0
47	M149	X	-7.975	-7.975	0	0
48	M149	Y	0	0	0	0
49	M163	X	-7.577	-7.577	0	0
50	M163	Y	0	0	0	0
51	M189A	X	-15.951	-15.951	0	0
52	M189A	Y	0	0	0	0
53	M209	X	-15.951	-15.951	0	0
54	M209	Y	0	0	0	0
55	M245A	X	-5.317	-5.317	0	0
56	M245A	Y	0	0	0	0
57	M246A	X	-5.317	-5.317	0	0
58	M246A	Y	0	0	0	0
59	M279	X	-5.317	-5.317	0	0
60	M279	Y	0	0	0	0
61	M280	X	-5.317	-5.317	0	0
62	M280	Y	0	0	0	0
63	M261A	X	-7.577	-7.577	0	0
64	M261A	Y	0	0	0	0
65	M267A	X	-7.577	-7.577	0	0
66	M267A	Y	0	0	0	0
67	M273A	X	-7.577	-7.577	0	0
68	M273A	Y	0	0	0	0
69	M279A	X	-7.577	-7.577	0	0
70	M279A	Y	0	0	0	0
71	M288B	X	-7.577	-7.577	0	0
72	M288B	Y	0	0	0	0
73	M294A	X	-7.577	-7.577	0	0
74	M294A	Y	0	0	0	0
75	M300B	X	-7.577	-7.577	0	0
76	M300B	Y	0	0	0	0
77	M306B	X	-7.577	-7.577	0	0
78	M306B	Y	0	0	0	0
79	M315	X	-7.577	-7.577	0	0



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

Member Label	Direction	Start Magnitude[lb/ft,F,psf]	End Magnitude[lb/f...	Start Location[in, %]	End Location[in, %]
80	M315	Y	0	0	0
81	M321	X	-7.577	-7.577	0
82	M321	Y	0	0	0
83	M327	X	-7.577	-7.577	0
84	M327	Y	0	0	0
85	KM5	X	-6.265	-6.265	0
86	KM5	Y	0	0	0
87	KM6	X	-6.265	-6.265	0
88	KM6	Y	0	0	0
89	KM11	X	-11.535	-11.535	0
90	KM11	Y	0	0	0
91	KM12	X	-11.535	-11.535	0
92	KM12	Y	0	0	0
93	KM17	X	-11.535	-11.535	0
94	KM17	Y	0	0	0
95	KM18	X	-11.535	-11.535	0
96	KM18	Y	0	0	0

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

Member Label	Direction	Start Magnitude[lb/ft,F,psf]	End Magnitude[lb/f...	Start Location[in, %]	End Location[in, %]
1	M51	X	-4.605	-4.605	0
2	M51	Y	2.658	2.658	0
3	M60	X	-13.814	-13.814	0
4	M60	Y	7.975	7.975	0
5	M63	X	-13.814	-13.814	0
6	M63	Y	7.975	7.975	0
7	M69	X	-7.252	-7.252	0
8	M69	Y	4.187	4.187	0
9	M72	X	-7.252	-7.252	0
10	M72	Y	4.187	4.187	0
11	M75	X	-5.526e-14	-5.526e-14	0
12	M75	Y	3.191e-14	3.191e-14	0
13	M92	X	-6.907	-6.907	0
14	M92	Y	3.988	3.988	0
15	M94	X	-4.413e-10	-4.413e-10	0
16	M94	Y	2.548e-10	2.548e-10	0
17	M98	X	-6.907	-6.907	0
18	M98	Y	3.988	3.988	0
19	M100	X	-6.907	-6.907	0
20	M100	Y	3.988	3.988	0
21	M104	X	-6.333e-14	-6.333e-14	0
22	M104	Y	3.656e-14	3.656e-14	0
23	M106	X	-6.907	-6.907	0
24	M106	Y	3.988	3.988	0
25	M109	X	-6.579e-14	-6.579e-14	0
26	M109	Y	3.798e-14	3.798e-14	0
27	M110	X	-8.634	-8.634	0
28	M110	Y	4.985	4.985	0
29	M111	X	-8.634	-8.634	0
30	M111	Y	4.985	4.985	0
31	M116	X	-4.921	-4.921	0
32	M116	Y	2.841	2.841	0
33	M121	X	-4.921	-4.921	0
34	M121	Y	2.841	2.841	0
35	M126	X	-3.75e-14	-3.75e-14	0
36	M126	Y	2.165e-14	2.165e-14	0



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

Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/f...	Start Location[in, %]	End Location[in, %]
37	M129	X	-20.721	-20.721	0 0
38	M129	Y	11.963	11.963	0 0
39	M133	X	-20.721	-20.721	0 0
40	M133	Y	11.963	11.963	0 0
41	M137	X	-20.721	-20.721	0 0
42	M137	Y	11.963	11.963	0 0
43	M141	X	-20.721	-20.721	0 0
44	M141	Y	11.963	11.963	0 0
45	M145	X	-1.579e-13	-1.579e-13	0 0
46	M145	Y	9.116e-14	9.116e-14	0 0
47	M149	X	-1.579e-13	-1.579e-13	0 0
48	M149	Y	9.116e-14	9.116e-14	0 0
49	M163	X	-6.562	-6.562	0 0
50	M163	Y	3.788	3.788	0 0
51	M189A	X	-4.605	-4.605	0 0
52	M189A	Y	2.658	2.658	0 0
53	M209	X	-18.418	-18.418	0 0
54	M209	Y	10.634	10.634	0 0
55	M245A	X	-13.814	-13.814	0 0
56	M245A	Y	7.975	7.975	0 0
57	M246A	X	-13.814	-13.814	0 0
58	M246A	Y	7.975	7.975	0 0
59	M279	X	-1.053e-13	-1.053e-13	0 0
60	M279	Y	6.077e-14	6.077e-14	0 0
61	M280	X	-1.053e-13	-1.053e-13	0 0
62	M280	Y	6.077e-14	6.077e-14	0 0
63	M261A	X	-6.562	-6.562	0 0
64	M261A	Y	3.788	3.788	0 0
65	M267A	X	-6.562	-6.562	0 0
66	M267A	Y	3.788	3.788	0 0
67	M273A	X	-6.562	-6.562	0 0
68	M273A	Y	3.788	3.788	0 0
69	M279A	X	-6.562	-6.562	0 0
70	M279A	Y	3.788	3.788	0 0
71	M288B	X	-6.562	-6.562	0 0
72	M288B	Y	3.788	3.788	0 0
73	M294A	X	-6.562	-6.562	0 0
74	M294A	Y	3.788	3.788	0 0
75	M300B	X	-6.562	-6.562	0 0
76	M300B	Y	3.788	3.788	0 0
77	M306B	X	-6.562	-6.562	0 0
78	M306B	Y	3.788	3.788	0 0
79	M315	X	-6.562	-6.562	0 0
80	M315	Y	3.788	3.788	0 0
81	M321	X	-6.562	-6.562	0 0
82	M321	Y	3.788	3.788	0 0
83	M327	X	-6.562	-6.562	0 0
84	M327	Y	3.788	3.788	0 0
85	KM5	X	-6.947	-6.947	0 0
86	KM5	Y	4.011	4.011	0 0
87	KM6	X	-6.947	-6.947	0 0
88	KM6	Y	4.011	4.011	0 0
89	KM11	X	-6.947	-6.947	0 0
90	KM11	Y	4.011	4.011	0 0
91	KM12	X	-6.947	-6.947	0 0
92	KM12	Y	4.011	4.011	0 0
93	KM17	X	-11.511	-11.511	0 0



Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 806364 - HRT 106(B) 943202

July 20, 2020
 11:26 AM
 Checked By: MLO

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

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/f...	Start Location[in, %]	End Location[in, %]
94	KM17	Y	6.646	6.646	0	0
95	KM18	X	-11.511	-11.511	0	0
96	KM18	Y	6.646	6.646	0	0

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

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/f...	Start Location[in, %]	End Location[in, %]
1	M51	X	-7.519	-7.519	0	0
2	M51	Y	7.519	7.519	0	0
3	M60	X	-7.519	-7.519	0	0
4	M60	Y	7.519	7.519	0	0
5	M63	X	-7.519	-7.519	0	0
6	M63	Y	7.519	7.519	0	0
7	M69	X	-3.948	-3.948	0	0
8	M69	Y	3.948	3.948	0	0
9	M72	X	-7.366	-7.366	0	0
10	M72	Y	7.366	7.366	0	0
11	M75	X	-.529	-.529	0	0
12	M75	Y	.529	.529	0	0
13	M92	X	-3.76	-3.76	0	0
14	M92	Y	3.76	3.76	0	0
15	M94	X	-.504	-.504	0	0
16	M94	Y	.504	.504	0	0
17	M98	X	-7.016	-7.016	0	0
18	M98	Y	7.016	7.016	0	0
19	M100	X	-3.76	-3.76	0	0
20	M100	Y	3.76	3.76	0	0
21	M104	X	-.504	-.504	0	0
22	M104	Y	.504	.504	0	0
23	M106	X	-7.016	-7.016	0	0
24	M106	Y	7.016	7.016	0	0
25	M109	X	-.63	-.63	0	0
26	M109	Y	.63	.63	0	0
27	M110	X	-4.7	-4.7	0	0
28	M110	Y	4.7	4.7	0	0
29	M111	X	-8.769	-8.769	0	0
30	M111	Y	8.769	8.769	0	0
31	M116	X	-2.679	-2.679	0	0
32	M116	Y	2.679	2.679	0	0
33	M121	X	-4.999	-4.999	0	0
34	M121	Y	4.999	4.999	0	0
35	M126	X	-.359	-.359	0	0
36	M126	Y	.359	.359	0	0
37	M129	X	-11.279	-11.279	0	0
38	M129	Y	11.279	11.279	0	0
39	M133	X	-11.279	-11.279	0	0
40	M133	Y	11.279	11.279	0	0
41	M137	X	-21.047	-21.047	0	0
42	M137	Y	21.047	21.047	0	0
43	M141	X	-21.047	-21.047	0	0
44	M141	Y	21.047	21.047	0	0
45	M145	X	-1.511	-1.511	0	0
46	M145	Y	1.511	1.511	0	0
47	M149	X	-1.511	-1.511	0	0
48	M149	Y	1.511	1.511	0	0
49	M163	X	-5.357	-5.357	0	0
50	M163	Y	5.357	5.357	0	0



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

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/f...	Start Location[in.%]	End Location[in.%]
51	M189A	X	-1.007	-1.007	0	0
52	M189A	Y	1.007	1.007	0	0
53	M209	X	-14.031	-14.031	0	0
54	M209	Y	14.031	14.031	0	0
55	M245A	X	-14.031	-14.031	0	0
56	M245A	Y	14.031	14.031	0	0
57	M246A	X	-14.031	-14.031	0	0
58	M246A	Y	14.031	14.031	0	0
59	M279	X	-1.007	-1.007	0	0
60	M279	Y	1.007	1.007	0	0
61	M280	X	-1.007	-1.007	0	0
62	M280	Y	1.007	1.007	0	0
63	M261A	X	-5.357	-5.357	0	0
64	M261A	Y	5.357	5.357	0	0
65	M267A	X	-5.357	-5.357	0	0
66	M267A	Y	5.357	5.357	0	0
67	M273A	X	-5.357	-5.357	0	0
68	M273A	Y	5.357	5.357	0	0
69	M279A	X	-5.357	-5.357	0	0
70	M279A	Y	5.357	5.357	0	0
71	M288B	X	-5.357	-5.357	0	0
72	M288B	Y	5.357	5.357	0	0
73	M294A	X	-5.357	-5.357	0	0
74	M294A	Y	5.357	5.357	0	0
75	M300B	X	-5.357	-5.357	0	0
76	M300B	Y	5.357	5.357	0	0
77	M306B	X	-5.357	-5.357	0	0
78	M306B	Y	5.357	5.357	0	0
79	M315	X	-5.357	-5.357	0	0
80	M315	Y	5.357	5.357	0	0
81	M321	X	-5.357	-5.357	0	0
82	M321	Y	5.357	5.357	0	0
83	M327	X	-5.357	-5.357	0	0
84	M327	Y	5.357	5.357	0	0
85	KM5	X	-6.915	-6.915	0	0
86	KM5	Y	6.915	6.915	0	0
87	KM6	X	-6.915	-6.915	0	0
88	KM6	Y	6.915	6.915	0	0
89	KM11	X	-4.763	-4.763	0	0
90	KM11	Y	4.763	4.763	0	0
91	KM12	X	-4.763	-4.763	0	0
92	KM12	Y	4.763	4.763	0	0
93	KM17	X	-9.066	-9.066	0	0
94	KM17	Y	9.066	9.066	0	0
95	KM18	X	-9.066	-9.066	0	0
96	KM18	Y	9.066	9.066	0	0

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

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/f...	Start Location[in.%]	End Location[in.%]
1	M51	X	-7.975	-7.975	0	0
2	M51	Y	13.814	13.814	0	0
3	M60	X	-2.658	-2.658	0	0
4	M60	Y	4.605	4.605	0	0
5	M63	X	-2.658	-2.658	0	0
6	M63	Y	4.605	4.605	0	0
7	M69	X	-1.396	-1.396	0	0



Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 806364 - HRT 106(B) 943202

July 20, 2020
 11:26 AM
 Checked By: MLO

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

Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/f...	Start Location[in, %]	End Location[in, %]	
8	M69	Y	2.417	2.417	0	0
9	M72	X	-5.583	-5.583	0	0
10	M72	Y	9.67	9.67	0	0
11	M75	X	-1.396	-1.396	0	0
12	M75	Y	2.417	2.417	0	0
13	M92	X	-1.329	-1.329	0	0
14	M92	Y	2.302	2.302	0	0
15	M94	X	-1.329	-1.329	0	0
16	M94	Y	2.302	2.302	0	0
17	M98	X	-5.317	-5.317	0	0
18	M98	Y	9.209	9.209	0	0
19	M100	X	-1.329	-1.329	0	0
20	M100	Y	2.302	2.302	0	0
21	M104	X	-1.329	-1.329	0	0
22	M104	Y	2.302	2.302	0	0
23	M106	X	-5.317	-5.317	0	0
24	M106	Y	9.209	9.209	0	0
25	M109	X	-1.662	-1.662	0	0
26	M109	Y	2.878	2.878	0	0
27	M110	X	-1.662	-1.662	0	0
28	M110	Y	2.878	2.878	0	0
29	M111	X	-6.646	-6.646	0	0
30	M111	Y	11.511	11.511	0	0
31	M116	X	-.947	-.947	0	0
32	M116	Y	1.64	1.64	0	0
33	M121	X	-3.788	-3.788	0	0
34	M121	Y	6.562	6.562	0	0
35	M126	X	-.947	-.947	0	0
36	M126	Y	1.64	1.64	0	0
37	M129	X	-3.988	-3.988	0	0
38	M129	Y	6.907	6.907	0	0
39	M133	X	-3.988	-3.988	0	0
40	M133	Y	6.907	6.907	0	0
41	M137	X	-15.951	-15.951	0	0
42	M137	Y	27.627	27.627	0	0
43	M141	X	-15.951	-15.951	0	0
44	M141	Y	27.627	27.627	0	0
45	M145	X	-3.988	-3.988	0	0
46	M145	Y	6.907	6.907	0	0
47	M149	X	-3.988	-3.988	0	0
48	M149	Y	6.907	6.907	0	0
49	M163	X	-3.788	-3.788	0	0
50	M163	Y	6.562	6.562	0	0
51	M189A	X	-2.624e-13	-2.624e-13	0	0
52	M189A	Y	4.544e-13	4.544e-13	0	0
53	M209	X	-7.975	-7.975	0	0
54	M209	Y	13.814	13.814	0	0
55	M245A	X	-10.634	-10.634	0	0
56	M245A	Y	18.418	18.418	0	0
57	M246A	X	-10.634	-10.634	0	0
58	M246A	Y	18.418	18.418	0	0
59	M279	X	-2.658	-2.658	0	0
60	M279	Y	4.605	4.605	0	0
61	M280	X	-2.658	-2.658	0	0
62	M280	Y	4.605	4.605	0	0
63	M261A	X	-3.788	-3.788	0	0
64	M261A	Y	6.562	6.562	0	0



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

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/f...	Start Location[in.%]	End Location[in.%]
65	M267A	X	-3.788	-3.788	0	0
66	M267A	Y	6.562	6.562	0	0
67	M273A	X	-3.788	-3.788	0	0
68	M273A	Y	6.562	6.562	0	0
69	M279A	X	-3.788	-3.788	0	0
70	M279A	Y	6.562	6.562	0	0
71	M288B	X	-3.788	-3.788	0	0
72	M288B	Y	6.562	6.562	0	0
73	M294A	X	-3.788	-3.788	0	0
74	M294A	Y	6.562	6.562	0	0
75	M300B	X	-3.788	-3.788	0	0
76	M300B	Y	6.562	6.562	0	0
77	M306B	X	-3.788	-3.788	0	0
78	M306B	Y	6.562	6.562	0	0
79	M315	X	-3.788	-3.788	0	0
80	M315	Y	6.562	6.562	0	0
81	M321	X	-3.788	-3.788	0	0
82	M321	Y	6.562	6.562	0	0
83	M327	X	-3.788	-3.788	0	0
84	M327	Y	6.562	6.562	0	0
85	KM5	X	-5.768	-5.768	0	0
86	KM5	Y	9.99	9.99	0	0
87	KM6	X	-5.768	-5.768	0	0
88	KM6	Y	9.99	9.99	0	0
89	KM11	X	-3.133	-3.133	0	0
90	KM11	Y	5.426	5.426	0	0
91	KM12	X	-3.133	-3.133	0	0
92	KM12	Y	5.426	5.426	0	0
93	KM17	X	-5.768	-5.768	0	0
94	KM17	Y	9.99	9.99	0	0
95	KM18	X	-5.768	-5.768	0	0
96	KM18	Y	9.99	9.99	0	0

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

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/f...	Start Location[in.%]	End Location[in.%]
1	M51	X	-4.823e-6	-4.823e-6	0	0
2	M51	Y	21.268	21.268	0	0
3	M60	X	-2.481e-19	-2.481e-19	0	0
4	M60	Y	1.094e-12	1.094e-12	0	0
5	M63	X	-2.481e-19	-2.481e-19	0	0
6	M63	Y	1.094e-12	1.094e-12	0	0
7	M69	X	-1.303e-19	-1.303e-19	0	0
8	M69	Y	5.743e-13	5.743e-13	0	0
9	M72	X	-1.899e-6	-1.899e-6	0	0
10	M72	Y	8.374	8.374	0	0
11	M75	X	-1.899e-6	-1.899e-6	0	0
12	M75	Y	8.374	8.374	0	0
13	M92	X	-1.322e-19	-1.322e-19	0	0
14	M92	Y	5.829e-13	5.829e-13	0	0
15	M94	X	-1.809e-6	-1.809e-6	0	0
16	M94	Y	7.975	7.975	0	0
17	M98	X	-1.809e-6	-1.809e-6	0	0
18	M98	Y	7.975	7.975	0	0
19	M100	X	-1.207e-16	-1.207e-16	0	0
20	M100	Y	5.32e-10	5.32e-10	0	0
21	M104	X	-1.809e-6	-1.809e-6	0	0



Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 806364 - HRT 106(B) 943202

July 20, 2020
 11:26 AM
 Checked By: MLO

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

Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/f...	Start Location[in,%]	End Location[in,%]	
22	M104	Y	7.975	7.975	0	0
23	M106	X	-1.809e-6	-1.809e-6	0	0
24	M106	Y	7.975	7.975	0	0
25	M109	X	-2.261e-6	-2.261e-6	0	0
26	M109	Y	9.969	9.969	0	0
27	M110	X	-1.551e-19	-1.551e-19	0	0
28	M110	Y	6.837e-13	6.837e-13	0	0
29	M111	X	-2.261e-6	-2.261e-6	0	0
30	M111	Y	9.969	9.969	0	0
31	M116	X	-8.838e-20	-8.838e-20	0	0
32	M116	Y	3.897e-13	3.897e-13	0	0
33	M121	X	-1.289e-6	-1.289e-6	0	0
34	M121	Y	5.682	5.682	0	0
35	M126	X	-1.289e-6	-1.289e-6	0	0
36	M126	Y	5.682	5.682	0	0
37	M129	X	-3.721e-19	-3.721e-19	0	0
38	M129	Y	1.641e-12	1.641e-12	0	0
39	M133	X	-3.721e-19	-3.721e-19	0	0
40	M133	Y	1.641e-12	1.641e-12	0	0
41	M137	X	-5.426e-6	-5.426e-6	0	0
42	M137	Y	23.926	23.926	0	0
43	M141	X	-5.426e-6	-5.426e-6	0	0
44	M141	Y	23.926	23.926	0	0
45	M145	X	-5.426e-6	-5.426e-6	0	0
46	M145	Y	23.926	23.926	0	0
47	M149	X	-5.426e-6	-5.426e-6	0	0
48	M149	Y	23.926	23.926	0	0
49	M163	X	-1.718e-6	-1.718e-6	0	0
50	M163	Y	7.577	7.577	0	0
51	M189A	X	-1.206e-6	-1.206e-6	0	0
52	M189A	Y	5.317	5.317	0	0
53	M209	X	-1.206e-6	-1.206e-6	0	0
54	M209	Y	5.317	5.317	0	0
55	M245A	X	-3.618e-6	-3.618e-6	0	0
56	M245A	Y	15.951	15.951	0	0
57	M246A	X	-3.618e-6	-3.618e-6	0	0
58	M246A	Y	15.951	15.951	0	0
59	M279	X	-3.618e-6	-3.618e-6	0	0
60	M279	Y	15.951	15.951	0	0
61	M280	X	-3.618e-6	-3.618e-6	0	0
62	M280	Y	15.951	15.951	0	0
63	M261A	X	-1.718e-6	-1.718e-6	0	0
64	M261A	Y	7.577	7.577	0	0
65	M267A	X	-1.718e-6	-1.718e-6	0	0
66	M267A	Y	7.577	7.577	0	0
67	M273A	X	-1.718e-6	-1.718e-6	0	0
68	M273A	Y	7.577	7.577	0	0
69	M279A	X	-1.718e-6	-1.718e-6	0	0
70	M279A	Y	7.577	7.577	0	0
71	M288B	X	-1.718e-6	-1.718e-6	0	0
72	M288B	Y	7.577	7.577	0	0
73	M294A	X	-1.718e-6	-1.718e-6	0	0
74	M294A	Y	7.577	7.577	0	0
75	M300B	X	-1.718e-6	-1.718e-6	0	0
76	M300B	Y	7.577	7.577	0	0
77	M306B	X	-1.718e-6	-1.718e-6	0	0
78	M306B	Y	7.577	7.577	0	0



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

Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/f...	Start Location[in.%]	End Location[in.%]	
79	M315	X	-1.718e-6	-1.718e-6	0	0
80	M315	Y	7.577	7.577	0	0
81	M321	X	-1.718e-6	-1.718e-6	0	0
82	M321	Y	7.577	7.577	0	0
83	M327	X	-1.718e-6	-1.718e-6	0	0
84	M327	Y	7.577	7.577	0	0
85	KM5	X	-3.015e-6	-3.015e-6	0	0
86	KM5	Y	13.292	13.292	0	0
87	KM6	X	-3.015e-6	-3.015e-6	0	0
88	KM6	Y	13.292	13.292	0	0
89	KM11	X	-1.819e-6	-1.819e-6	0	0
90	KM11	Y	8.022	8.022	0	0
91	KM12	X	-1.819e-6	-1.819e-6	0	0
92	KM12	Y	8.022	8.022	0	0
93	KM17	X	-1.819e-6	-1.819e-6	0	0
94	KM17	Y	8.022	8.022	0	0
95	KM18	X	-1.819e-6	-1.819e-6	0	0
96	KM18	Y	8.022	8.022	0	0

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

Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/f...	Start Location[in.%]	End Location[in.%]	
1	M51	X	7.975	7.975	0	0
2	M51	Y	13.814	13.814	0	0
3	M60	X	2.658	2.658	0	0
4	M60	Y	4.605	4.605	0	0
5	M63	X	2.658	2.658	0	0
6	M63	Y	4.605	4.605	0	0
7	M69	X	1.396	1.396	0	0
8	M69	Y	2.417	2.417	0	0
9	M72	X	1.396	1.396	0	0
10	M72	Y	2.417	2.417	0	0
11	M75	X	5.583	5.583	0	0
12	M75	Y	9.67	9.67	0	0
13	M92	X	1.329	1.329	0	0
14	M92	Y	2.302	2.302	0	0
15	M94	X	5.317	5.317	0	0
16	M94	Y	9.209	9.209	0	0
17	M98	X	1.329	1.329	0	0
18	M98	Y	2.302	2.302	0	0
19	M100	X	1.329	1.329	0	0
20	M100	Y	2.302	2.302	0	0
21	M104	X	5.317	5.317	0	0
22	M104	Y	9.209	9.209	0	0
23	M106	X	1.329	1.329	0	0
24	M106	Y	2.302	2.302	0	0
25	M109	X	6.646	6.646	0	0
26	M109	Y	11.511	11.511	0	0
27	M110	X	1.662	1.662	0	0
28	M110	Y	2.878	2.878	0	0
29	M111	X	1.662	1.662	0	0
30	M111	Y	2.878	2.878	0	0
31	M116	X	.947	.947	0	0
32	M116	Y	1.64	1.64	0	0
33	M121	X	.947	.947	0	0
34	M121	Y	1.64	1.64	0	0
35	M126	X	3.788	3.788	0	0



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

Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/f...	Start Location[in,%]	End Location[in,%]	
36	M126	Y	6.562	6.562	0	0
37	M129	X	3.988	3.988	0	0
38	M129	Y	6.907	6.907	0	0
39	M133	X	3.988	3.988	0	0
40	M133	Y	6.907	6.907	0	0
41	M137	X	3.988	3.988	0	0
42	M137	Y	6.907	6.907	0	0
43	M141	X	3.988	3.988	0	0
44	M141	Y	6.907	6.907	0	0
45	M145	X	15.951	15.951	0	0
46	M145	Y	27.627	27.627	0	0
47	M149	X	15.951	15.951	0	0
48	M149	Y	27.627	27.627	0	0
49	M163	X	3.788	3.788	0	0
50	M163	Y	6.562	6.562	0	0
51	M189A	X	7.975	7.975	0	0
52	M189A	Y	13.814	13.814	0	0
53	M209	X	1.011e-12	1.011e-12	0	0
54	M209	Y	1.75e-12	1.75e-12	0	0
55	M245A	X	2.658	2.658	0	0
56	M245A	Y	4.605	4.605	0	0
57	M246A	X	2.658	2.658	0	0
58	M246A	Y	4.605	4.605	0	0
59	M279	X	10.634	10.634	0	0
60	M279	Y	18.418	18.418	0	0
61	M280	X	10.634	10.634	0	0
62	M280	Y	18.418	18.418	0	0
63	M261A	X	3.788	3.788	0	0
64	M261A	Y	6.562	6.562	0	0
65	M267A	X	3.788	3.788	0	0
66	M267A	Y	6.562	6.562	0	0
67	M273A	X	3.788	3.788	0	0
68	M273A	Y	6.562	6.562	0	0
69	M279A	X	3.788	3.788	0	0
70	M279A	Y	6.562	6.562	0	0
71	M288B	X	3.788	3.788	0	0
72	M288B	Y	6.562	6.562	0	0
73	M294A	X	3.788	3.788	0	0
74	M294A	Y	6.562	6.562	0	0
75	M300B	X	3.788	3.788	0	0
76	M300B	Y	6.562	6.562	0	0
77	M306B	X	3.788	3.788	0	0
78	M306B	Y	6.562	6.562	0	0
79	M315	X	3.788	3.788	0	0
80	M315	Y	6.562	6.562	0	0
81	M321	X	3.788	3.788	0	0
82	M321	Y	6.562	6.562	0	0
83	M327	X	3.788	3.788	0	0
84	M327	Y	6.562	6.562	0	0
85	KM5	X	5.768	5.768	0	0
86	KM5	Y	9.99	9.99	0	0
87	KM6	X	5.768	5.768	0	0
88	KM6	Y	9.99	9.99	0	0
89	KM11	X	5.768	5.768	0	0
90	KM11	Y	9.99	9.99	0	0
91	KM12	X	5.768	5.768	0	0
92	KM12	Y	9.99	9.99	0	0



Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 806364 - HRT 106(B) 943202

July 20, 2020
 11:26 AM
 Checked By: MLO

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

	Member Label	Direction	Start Magnitude[lb/ft.F,psf]	End Magnitude[lb/f...	Start Location[in, %]	End Location[in, %]
93	KM17	X	3.133	3.133	0	0
94	KM17	Y	5.426	5.426	0	0
95	KM18	X	3.133	3.133	0	0
96	KM18	Y	5.426	5.426	0	0

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

	Member Label	Direction	Start Magnitude[lb/ft.F,psf]	End Magnitude[lb/f...	Start Location[in, %]	End Location[in, %]
1	M51	X	7.519	7.519	0	0
2	M51	Y	7.519	7.519	0	0
3	M60	X	7.519	7.519	0	0
4	M60	Y	7.519	7.519	0	0
5	M63	X	7.519	7.519	0	0
6	M63	Y	7.519	7.519	0	0
7	M69	X	3.948	3.948	0	0
8	M69	Y	3.948	3.948	0	0
9	M72	X	.529	.529	0	0
10	M72	Y	.529	.529	0	0
11	M75	X	7.366	7.366	0	0
12	M75	Y	7.366	7.366	0	0
13	M92	X	3.76	3.76	0	0
14	M92	Y	3.76	3.76	0	0
15	M94	X	7.016	7.016	0	0
16	M94	Y	7.016	7.016	0	0
17	M98	X	.504	.504	0	0
18	M98	Y	.504	.504	0	0
19	M100	X	3.76	3.76	0	0
20	M100	Y	3.76	3.76	0	0
21	M104	X	7.016	7.016	0	0
22	M104	Y	7.016	7.016	0	0
23	M106	X	.504	.504	0	0
24	M106	Y	.504	.504	0	0
25	M109	X	8.769	8.769	0	0
26	M109	Y	8.769	8.769	0	0
27	M110	X	4.7	4.7	0	0
28	M110	Y	4.7	4.7	0	0
29	M111	X	.63	.63	0	0
30	M111	Y	.63	.63	0	0
31	M116	X	2.679	2.679	0	0
32	M116	Y	2.679	2.679	0	0
33	M121	X	.359	.359	0	0
34	M121	Y	.359	.359	0	0
35	M126	X	4.999	4.999	0	0
36	M126	Y	4.999	4.999	0	0
37	M129	X	11.279	11.279	0	0
38	M129	Y	11.279	11.279	0	0
39	M133	X	11.279	11.279	0	0
40	M133	Y	11.279	11.279	0	0
41	M137	X	1.511	1.511	0	0
42	M137	Y	1.511	1.511	0	0
43	M141	X	1.511	1.511	0	0
44	M141	Y	1.511	1.511	0	0
45	M145	X	21.047	21.047	0	0
46	M145	Y	21.047	21.047	0	0
47	M149	X	21.047	21.047	0	0
48	M149	Y	21.047	21.047	0	0
49	M163	X	5.357	5.357	0	0



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

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/f...	Start Location[in, %]	End Location[in, %]
50	M163	Y	5.357	5.357	0	0
51	M189A	X	14.031	14.031	0	0
52	M189A	Y	14.031	14.031	0	0
53	M209	X	1.007	1.007	0	0
54	M209	Y	1.007	1.007	0	0
55	M245A	X	1.007	1.007	0	0
56	M245A	Y	1.007	1.007	0	0
57	M246A	X	1.007	1.007	0	0
58	M246A	Y	1.007	1.007	0	0
59	M279	X	14.031	14.031	0	0
60	M279	Y	14.031	14.031	0	0
61	M280	X	14.031	14.031	0	0
62	M280	Y	14.031	14.031	0	0
63	M261A	X	5.357	5.357	0	0
64	M261A	Y	5.357	5.357	0	0
65	M267A	X	5.357	5.357	0	0
66	M267A	Y	5.357	5.357	0	0
67	M273A	X	5.357	5.357	0	0
68	M273A	Y	5.357	5.357	0	0
69	M279A	X	5.357	5.357	0	0
70	M279A	Y	5.357	5.357	0	0
71	M288B	X	5.357	5.357	0	0
72	M288B	Y	5.357	5.357	0	0
73	M294A	X	5.357	5.357	0	0
74	M294A	Y	5.357	5.357	0	0
75	M300B	X	5.357	5.357	0	0
76	M300B	Y	5.357	5.357	0	0
77	M306B	X	5.357	5.357	0	0
78	M306B	Y	5.357	5.357	0	0
79	M315	X	5.357	5.357	0	0
80	M315	Y	5.357	5.357	0	0
81	M321	X	5.357	5.357	0	0
82	M321	Y	5.357	5.357	0	0
83	M327	X	5.357	5.357	0	0
84	M327	Y	5.357	5.357	0	0
85	KM5	X	6.915	6.915	0	0
86	KM5	Y	6.915	6.915	0	0
87	KM6	X	6.915	6.915	0	0
88	KM6	Y	6.915	6.915	0	0
89	KM11	X	9.066	9.066	0	0
90	KM11	Y	9.066	9.066	0	0
91	KM12	X	9.066	9.066	0	0
92	KM12	Y	9.066	9.066	0	0
93	KM17	X	4.763	4.763	0	0
94	KM17	Y	4.763	4.763	0	0
95	KM18	X	4.763	4.763	0	0
96	KM18	Y	4.763	4.763	0	0

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

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/f...	Start Location[in, %]	End Location[in, %]
1	M51	X	4.605	4.605	0	0
2	M51	Y	2.658	2.658	0	0
3	M60	X	13.814	13.814	0	0
4	M60	Y	7.975	7.975	0	0
5	M63	X	13.814	13.814	0	0
6	M63	Y	7.975	7.975	0	0



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

Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/f...	Start Location[in, %]	End Location[in, %]	
7	M69	X	7.252	7.252	0	0
8	M69	Y	4.187	4.187	0	0
9	M72	X	1.382e-12	1.382e-12	0	0
10	M72	Y	7.976e-13	7.976e-13	0	0
11	M75	X	7.252	7.252	0	0
12	M75	Y	4.187	4.187	0	0
13	M92	X	6.907	6.907	0	0
14	M92	Y	3.988	3.988	0	0
15	M94	X	6.907	6.907	0	0
16	M94	Y	3.988	3.988	0	0
17	M98	X	1.367e-12	1.367e-12	0	0
18	M98	Y	7.894e-13	7.894e-13	0	0
19	M100	X	6.907	6.907	0	0
20	M100	Y	3.988	3.988	0	0
21	M104	X	6.907	6.907	0	0
22	M104	Y	3.988	3.988	0	0
23	M106	X	4.807e-10	4.807e-10	0	0
24	M106	Y	2.775e-10	2.775e-10	0	0
25	M109	X	8.634	8.634	0	0
26	M109	Y	4.985	4.985	0	0
27	M110	X	8.634	8.634	0	0
28	M110	Y	4.985	4.985	0	0
29	M111	X	1.645e-12	1.645e-12	0	0
30	M111	Y	9.496e-13	9.496e-13	0	0
31	M116	X	4.921	4.921	0	0
32	M116	Y	2.841	2.841	0	0
33	M121	X	9.375e-13	9.375e-13	0	0
34	M121	Y	5.413e-13	5.413e-13	0	0
35	M126	X	4.921	4.921	0	0
36	M126	Y	2.841	2.841	0	0
37	M129	X	20.721	20.721	0	0
38	M129	Y	11.963	11.963	0	0
39	M133	X	20.721	20.721	0	0
40	M133	Y	11.963	11.963	0	0
41	M137	X	3.947e-12	3.947e-12	0	0
42	M137	Y	2.279e-12	2.279e-12	0	0
43	M141	X	3.947e-12	3.947e-12	0	0
44	M141	Y	2.279e-12	2.279e-12	0	0
45	M145	X	20.721	20.721	0	0
46	M145	Y	11.963	11.963	0	0
47	M149	X	20.721	20.721	0	0
48	M149	Y	11.963	11.963	0	0
49	M163	X	6.562	6.562	0	0
50	M163	Y	3.788	3.788	0	0
51	M189A	X	18.418	18.418	0	0
52	M189A	Y	10.634	10.634	0	0
53	M209	X	4.605	4.605	0	0
54	M209	Y	2.658	2.658	0	0
55	M245A	X	2.632e-12	2.632e-12	0	0
56	M245A	Y	1.519e-12	1.519e-12	0	0
57	M246A	X	2.632e-12	2.632e-12	0	0
58	M246A	Y	1.519e-12	1.519e-12	0	0
59	M279	X	13.814	13.814	0	0
60	M279	Y	7.975	7.975	0	0
61	M280	X	13.814	13.814	0	0
62	M280	Y	7.975	7.975	0	0
63	M261A	X	6.562	6.562	0	0



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

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/f...	Start Location[in, %]	End Location[in, %]
64	M261A	Y	3.788	3.788	0	0
65	M267A	X	6.562	6.562	0	0
66	M267A	Y	3.788	3.788	0	0
67	M273A	X	6.562	6.562	0	0
68	M273A	Y	3.788	3.788	0	0
69	M279A	X	6.562	6.562	0	0
70	M279A	Y	3.788	3.788	0	0
71	M288B	X	6.562	6.562	0	0
72	M288B	Y	3.788	3.788	0	0
73	M294A	X	6.562	6.562	0	0
74	M294A	Y	3.788	3.788	0	0
75	M300B	X	6.562	6.562	0	0
76	M300B	Y	3.788	3.788	0	0
77	M306B	X	6.562	6.562	0	0
78	M306B	Y	3.788	3.788	0	0
79	M315	X	6.562	6.562	0	0
80	M315	Y	3.788	3.788	0	0
81	M321	X	6.562	6.562	0	0
82	M321	Y	3.788	3.788	0	0
83	M327	X	6.562	6.562	0	0
84	M327	Y	3.788	3.788	0	0
85	KM5	X	6.947	6.947	0	0
86	KM5	Y	4.011	4.011	0	0
87	KM6	X	6.947	6.947	0	0
88	KM6	Y	4.011	4.011	0	0
89	KM11	X	11.511	11.511	0	0
90	KM11	Y	6.646	6.646	0	0
91	KM12	X	11.511	11.511	0	0
92	KM12	Y	6.646	6.646	0	0
93	KM17	X	6.947	6.947	0	0
94	KM17	Y	4.011	4.011	0	0
95	KM18	X	6.947	6.947	0	0
96	KM18	Y	4.011	4.011	0	0

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

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/f...	Start Location[in, %]	End Location[in, %]
1	M51	X	-5.4e-17	-5.4e-17	0	0
2	M51	Y	0	0	0	0
3	M60	X	-1.564	-1.564	0	0
4	M60	Y	0	0	0	0
5	M63	X	-1.564	-1.564	0	0
6	M63	Y	0	0	0	0
7	M69	X	-3.195	-3.195	0	0
8	M69	Y	0	0	0	0
9	M72	X	-.799	-.799	0	0
10	M72	Y	0	0	0	0
11	M75	X	-.799	-.799	0	0
12	M75	Y	0	0	0	0
13	M92	X	-1.41	-1.41	0	0
14	M92	Y	0	0	0	0
15	M94	X	-.352	-.352	0	0
16	M94	Y	0	0	0	0
17	M98	X	-.352	-.352	0	0
18	M98	Y	0	0	0	0
19	M100	X	-1.41	-1.41	0	0
20	M100	Y	0	0	0	0



Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 806364 - HRT 106(B) 943202

July 20, 2020
 11:26 AM
 Checked By: MLO

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

Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/f...	Start Location[in,%]	End Location[in,%]
21	M104	X	-0.352	-0.352	0 0
22	M104	Y	0	0	0 0
23	M106	X	-0.352	-0.352	0 0
24	M106	Y	0	0	0 0
25	M109	X	-0.362	-0.362	0 0
26	M109	Y	0	0	0 0
27	M110	X	-1.448	-1.448	0 0
28	M110	Y	0	0	0 0
29	M111	X	-0.362	-0.362	0 0
30	M111	Y	0	0	0 0
31	M116	X	-2.571	-2.571	0 0
32	M116	Y	0	0	0 0
33	M121	X	-0.643	-0.643	0 0
34	M121	Y	0	0	0 0
35	M126	X	-0.643	-0.643	0 0
36	M126	Y	0	0	0 0
37	M129	X	-4.586	-4.586	0 0
38	M129	Y	0	0	0 0
39	M133	X	-4.586	-4.586	0 0
40	M133	Y	0	0	0 0
41	M137	X	-1.146	-1.146	0 0
42	M137	Y	0	0	0 0
43	M141	X	-1.146	-1.146	0 0
44	M141	Y	0	0	0 0
45	M145	X	-1.146	-1.146	0 0
46	M145	Y	0	0	0 0
47	M149	X	-1.146	-1.146	0 0
48	M149	Y	0	0	0 0
49	M163	X	-2.571	-2.571	0 0
50	M163	Y	0	0	0 0
51	M189A	X	-1.173	-1.173	0 0
52	M189A	Y	0	0	0 0
53	M209	X	-1.173	-1.173	0 0
54	M209	Y	0	0	0 0
55	M245A	X	-0.391	-0.391	0 0
56	M245A	Y	0	0	0 0
57	M246A	X	-0.391	-0.391	0 0
58	M246A	Y	0	0	0 0
59	M279	X	-0.391	-0.391	0 0
60	M279	Y	0	0	0 0
61	M280	X	-0.391	-0.391	0 0
62	M280	Y	0	0	0 0
63	M261A	X	-2.571	-2.571	0 0
64	M261A	Y	0	0	0 0
65	M267A	X	-2.571	-2.571	0 0
66	M267A	Y	0	0	0 0
67	M273A	X	-2.571	-2.571	0 0
68	M273A	Y	0	0	0 0
69	M279A	X	-2.571	-2.571	0 0
70	M279A	Y	0	0	0 0
71	M288B	X	-2.571	-2.571	0 0
72	M288B	Y	0	0	0 0
73	M294A	X	-2.571	-2.571	0 0
74	M294A	Y	0	0	0 0
75	M300B	X	-2.571	-2.571	0 0
76	M300B	Y	0	0	0 0
77	M306B	X	-2.571	-2.571	0 0



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

Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/f...	Start Location[in.%]	End Location[in.%]
78	M306B	Y	0	0	0
79	M315	X	-2.571	-2.571	0
80	M315	Y	0	0	0
81	M321	X	-2.571	-2.571	0
82	M321	Y	0	0	0
83	M327	X	-2.571	-2.571	0
84	M327	Y	0	0	0
85	KM5	X	-.683	-.683	0
86	KM5	Y	0	0	0
87	KM6	X	-.683	-.683	0
88	KM6	Y	0	0	0
89	KM11	X	-1.257	-1.257	0
90	KM11	Y	0	0	0
91	KM12	X	-1.257	-1.257	0
92	KM12	Y	0	0	0
93	KM17	X	-1.257	-1.257	0
94	KM17	Y	0	0	0
95	KM18	X	-1.257	-1.257	0
96	KM18	Y	0	0	0

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

Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/f...	Start Location[in.%]	End Location[in.%]
1	M51	X	-.339	-.339	0
2	M51	Y	.195	.195	0
3	M60	X	-1.016	-1.016	0
4	M60	Y	.586	.586	0
5	M63	X	-1.016	-1.016	0
6	M63	Y	.586	.586	0
7	M69	X	-2.075	-2.075	0
8	M69	Y	1.198	1.198	0
9	M72	X	-2.075	-2.075	0
10	M72	Y	1.198	1.198	0
11	M75	X	-1.581e-14	-1.581e-14	0
12	M75	Y	9.129e-15	9.129e-15	0
13	M92	X	-.916	-.916	0
14	M92	Y	.529	.529	0
15	M94	X	-5.851e-11	-5.851e-11	0
16	M94	Y	3.378e-11	3.378e-11	0
17	M98	X	-.916	-.916	0
18	M98	Y	.529	.529	0
19	M100	X	-.916	-.916	0
20	M100	Y	.529	.529	0
21	M104	X	-8.396e-15	-8.396e-15	0
22	M104	Y	4.848e-15	4.848e-15	0
23	M106	X	-.916	-.916	0
24	M106	Y	.529	.529	0
25	M109	X	-7.169e-15	-7.169e-15	0
26	M109	Y	4.139e-15	4.139e-15	0
27	M110	X	-.941	-.941	0
28	M110	Y	.543	.543	0
29	M111	X	-.941	-.941	0
30	M111	Y	.543	.543	0
31	M116	X	-1.67	-1.67	0
32	M116	Y	.964	.964	0
33	M121	X	-1.67	-1.67	0
34	M121	Y	.964	.964	0



Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 806364 - HRT 106(B) 943202

July 20, 2020
 11:26 AM
 Checked By: MLO

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

Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/f...	Start Location[in, %]	End Location[in, %]	
35	M126	X	-1.273e-14	-1.273e-14	0	0
36	M126	Y	7.348e-15	7.348e-15	0	0
37	M129	X	-2.978	-2.978	0	0
38	M129	Y	1.72	1.72	0	0
39	M133	X	-2.978	-2.978	0	0
40	M133	Y	1.72	1.72	0	0
41	M137	X	-2.978	-2.978	0	0
42	M137	Y	1.72	1.72	0	0
43	M141	X	-2.978	-2.978	0	0
44	M141	Y	1.72	1.72	0	0
45	M145	X	-2.27e-14	-2.27e-14	0	0
46	M145	Y	1.31e-14	1.31e-14	0	0
47	M149	X	-2.27e-14	-2.27e-14	0	0
48	M149	Y	1.31e-14	1.31e-14	0	0
49	M163	X	-2.227	-2.227	0	0
50	M163	Y	1.286	1.286	0	0
51	M189A	X	-.339	-.339	0	0
52	M189A	Y	.195	.195	0	0
53	M209	X	-1.354	-1.354	0	0
54	M209	Y	.782	.782	0	0
55	M245A	X	-1.016	-1.016	0	0
56	M245A	Y	.586	.586	0	0
57	M246A	X	-1.016	-1.016	0	0
58	M246A	Y	.586	.586	0	0
59	M279	X	-7.74e-15	-7.74e-15	0	0
60	M279	Y	4.469e-15	4.469e-15	0	0
61	M280	X	-7.74e-15	-7.74e-15	0	0
62	M280	Y	4.469e-15	4.469e-15	0	0
63	M261A	X	-2.227	-2.227	0	0
64	M261A	Y	1.286	1.286	0	0
65	M267A	X	-2.227	-2.227	0	0
66	M267A	Y	1.286	1.286	0	0
67	M273A	X	-2.227	-2.227	0	0
68	M273A	Y	1.286	1.286	0	0
69	M279A	X	-2.227	-2.227	0	0
70	M279A	Y	1.286	1.286	0	0
71	M288B	X	-2.227	-2.227	0	0
72	M288B	Y	1.286	1.286	0	0
73	M294A	X	-2.227	-2.227	0	0
74	M294A	Y	1.286	1.286	0	0
75	M300B	X	-2.227	-2.227	0	0
76	M300B	Y	1.286	1.286	0	0
77	M306B	X	-2.227	-2.227	0	0
78	M306B	Y	1.286	1.286	0	0
79	M315	X	-2.227	-2.227	0	0
80	M315	Y	1.286	1.286	0	0
81	M321	X	-2.227	-2.227	0	0
82	M321	Y	1.286	1.286	0	0
83	M327	X	-2.227	-2.227	0	0
84	M327	Y	1.286	1.286	0	0
85	KM5	X	-.757	-.757	0	0
86	KM5	Y	.437	.437	0	0
87	KM6	X	-.757	-.757	0	0
88	KM6	Y	.437	.437	0	0
89	KM11	X	-.757	-.757	0	0
90	KM11	Y	.437	.437	0	0
91	KM12	X	-.757	-.757	0	0



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

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/f...	Start Location[in, %]	End Location[in, %]
92	KM12	Y	.437	.437	0	0
93	KM17	X	-1.254	-1.254	0	0
94	KM17	Y	.724	.724	0	0
95	KM18	X	-1.254	-1.254	0	0
96	KM18	Y	.724	.724	0	0

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

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/f...	Start Location[in, %]	End Location[in, %]
1	M51	X	-.553	-.553	0	0
2	M51	Y	.553	.553	0	0
3	M60	X	-.553	-.553	0	0
4	M60	Y	.553	.553	0	0
5	M63	X	-.553	-.553	0	0
6	M63	Y	.553	.553	0	0
7	M69	X	-1.129	-1.129	0	0
8	M69	Y	1.129	1.129	0	0
9	M72	X	-2.108	-2.108	0	0
10	M72	Y	2.108	2.108	0	0
11	M75	X	-.151	-.151	0	0
12	M75	Y	.151	.151	0	0
13	M92	X	-.498	-.498	0	0
14	M92	Y	.498	.498	0	0
15	M94	X	-.067	-.067	0	0
16	M94	Y	.067	.067	0	0
17	M98	X	-.93	-.93	0	0
18	M98	Y	.93	.93	0	0
19	M100	X	-.498	-.498	0	0
20	M100	Y	.498	.498	0	0
21	M104	X	-.067	-.067	0	0
22	M104	Y	.067	.067	0	0
23	M106	X	-.93	-.93	0	0
24	M106	Y	.93	.93	0	0
25	M109	X	-.069	-.069	0	0
26	M109	Y	.069	.069	0	0
27	M110	X	-.512	-.512	0	0
28	M110	Y	.512	.512	0	0
29	M111	X	-.956	-.956	0	0
30	M111	Y	.956	.956	0	0
31	M116	X	-.909	-.909	0	0
32	M116	Y	.909	.909	0	0
33	M121	X	-1.696	-1.696	0	0
34	M121	Y	1.696	1.696	0	0
35	M126	X	-.122	-.122	0	0
36	M126	Y	.122	.122	0	0
37	M129	X	-1.621	-1.621	0	0
38	M129	Y	1.621	1.621	0	0
39	M133	X	-1.621	-1.621	0	0
40	M133	Y	1.621	1.621	0	0
41	M137	X	-3.025	-3.025	0	0
42	M137	Y	3.025	3.025	0	0
43	M141	X	-3.025	-3.025	0	0
44	M141	Y	3.025	3.025	0	0
45	M145	X	-.217	-.217	0	0
46	M145	Y	.217	.217	0	0
47	M149	X	-.217	-.217	0	0
48	M149	Y	.217	.217	0	0



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

Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/f...	Start Location[in, %]	End Location[in, %]	
49	M163	X	-1.818	-1.818	0	0
50	M163	Y	1.818	1.818	0	0
51	M189A	X	-.074	-.074	0	0
52	M189A	Y	.074	.074	0	0
53	M209	X	-1.032	-1.032	0	0
54	M209	Y	1.032	1.032	0	0
55	M245A	X	-1.032	-1.032	0	0
56	M245A	Y	1.032	1.032	0	0
57	M246A	X	-1.032	-1.032	0	0
58	M246A	Y	1.032	1.032	0	0
59	M279	X	-.074	-.074	0	0
60	M279	Y	.074	.074	0	0
61	M280	X	-.074	-.074	0	0
62	M280	Y	.074	.074	0	0
63	M261A	X	-1.818	-1.818	0	0
64	M261A	Y	1.818	1.818	0	0
65	M267A	X	-1.818	-1.818	0	0
66	M267A	Y	1.818	1.818	0	0
67	M273A	X	-1.818	-1.818	0	0
68	M273A	Y	1.818	1.818	0	0
69	M279A	X	-1.818	-1.818	0	0
70	M279A	Y	1.818	1.818	0	0
71	M288B	X	-1.818	-1.818	0	0
72	M288B	Y	1.818	1.818	0	0
73	M294A	X	-1.818	-1.818	0	0
74	M294A	Y	1.818	1.818	0	0
75	M300B	X	-1.818	-1.818	0	0
76	M300B	Y	1.818	1.818	0	0
77	M306B	X	-1.818	-1.818	0	0
78	M306B	Y	1.818	1.818	0	0
79	M315	X	-1.818	-1.818	0	0
80	M315	Y	1.818	1.818	0	0
81	M321	X	-1.818	-1.818	0	0
82	M321	Y	1.818	1.818	0	0
83	M327	X	-1.818	-1.818	0	0
84	M327	Y	1.818	1.818	0	0
85	KM5	X	-.753	-.753	0	0
86	KM5	Y	.753	.753	0	0
87	KM6	X	-.753	-.753	0	0
88	KM6	Y	.753	.753	0	0
89	KM11	X	-.519	-.519	0	0
90	KM11	Y	.519	.519	0	0
91	KM12	X	-.519	-.519	0	0
92	KM12	Y	.519	.519	0	0
93	KM17	X	-.988	-.988	0	0
94	KM17	Y	.988	.988	0	0
95	KM18	X	-.988	-.988	0	0
96	KM18	Y	.988	.988	0	0

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

Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/f...	Start Location[in, %]	End Location[in, %]	
1	M51	X	-.586	-.586	0	0
2	M51	Y	1.016	1.016	0	0
3	M60	X	-.195	-.195	0	0
4	M60	Y	.339	.339	0	0
5	M63	X	-.195	-.195	0	0



Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 806364 - HRT 106(B) 943202

July 20, 2020
 11:26 AM
 Checked By: MLO

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

Member Label	Direction	Start Magnitude[lb/ft,F,psf]	End Magnitude[lb/f...	Start Location[in,°]	End Location[in,°]
6	M63	Y	.339	.339	0 0
7	M69	X	-.399	-.399	0 0
8	M69	Y	.692	.692	0 0
9	M72	X	-1.597	-1.597	0 0
10	M72	Y	2.767	2.767	0 0
11	M75	X	-.399	-.399	0 0
12	M75	Y	.692	.692	0 0
13	M92	X	-.176	-.176	0 0
14	M92	Y	.305	.305	0 0
15	M94	X	-.176	-.176	0 0
16	M94	Y	.305	.305	0 0
17	M98	X	-.705	-.705	0 0
18	M98	Y	1.221	1.221	0 0
19	M100	X	-.176	-.176	0 0
20	M100	Y	.305	.305	0 0
21	M104	X	-.176	-.176	0 0
22	M104	Y	.305	.305	0 0
23	M106	X	-.705	-.705	0 0
24	M106	Y	1.221	1.221	0 0
25	M109	X	-.181	-.181	0 0
26	M109	Y	.314	.314	0 0
27	M110	X	-.181	-.181	0 0
28	M110	Y	.314	.314	0 0
29	M111	X	-.724	-.724	0 0
30	M111	Y	1.254	1.254	0 0
31	M116	X	-.321	-.321	0 0
32	M116	Y	.557	.557	0 0
33	M121	X	-1.286	-1.286	0 0
34	M121	Y	2.227	2.227	0 0
35	M126	X	-.321	-.321	0 0
36	M126	Y	.557	.557	0 0
37	M129	X	-.573	-.573	0 0
38	M129	Y	.993	.993	0 0
39	M133	X	-.573	-.573	0 0
40	M133	Y	.993	.993	0 0
41	M137	X	-2.293	-2.293	0 0
42	M137	Y	3.971	3.971	0 0
43	M141	X	-2.293	-2.293	0 0
44	M141	Y	3.971	3.971	0 0
45	M145	X	-.573	-.573	0 0
46	M145	Y	.993	.993	0 0
47	M149	X	-.573	-.573	0 0
48	M149	Y	.993	.993	0 0
49	M163	X	-1.286	-1.286	0 0
50	M163	Y	2.227	2.227	0 0
51	M189A	X	-1.929e-14	-1.929e-14	0 0
52	M189A	Y	3.341e-14	3.341e-14	0 0
53	M209	X	-.586	-.586	0 0
54	M209	Y	1.016	1.016	0 0
55	M245A	X	-.782	-.782	0 0
56	M245A	Y	1.354	1.354	0 0
57	M246A	X	-.782	-.782	0 0
58	M246A	Y	1.354	1.354	0 0
59	M279	X	-.195	-.195	0 0
60	M279	Y	.339	.339	0 0
61	M280	X	-.195	-.195	0 0
62	M280	Y	.339	.339	0 0



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

Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/f...	Start Location[in.%]	End Location[in.%]	
63	M261A	X	-1.286	-1.286	0	0
64	M261A	Y	2.227	2.227	0	0
65	M267A	X	-1.286	-1.286	0	0
66	M267A	Y	2.227	2.227	0	0
67	M273A	X	-1.286	-1.286	0	0
68	M273A	Y	2.227	2.227	0	0
69	M279A	X	-1.286	-1.286	0	0
70	M279A	Y	2.227	2.227	0	0
71	M288B	X	-1.286	-1.286	0	0
72	M288B	Y	2.227	2.227	0	0
73	M294A	X	-1.286	-1.286	0	0
74	M294A	Y	2.227	2.227	0	0
75	M300B	X	-1.286	-1.286	0	0
76	M300B	Y	2.227	2.227	0	0
77	M306B	X	-1.286	-1.286	0	0
78	M306B	Y	2.227	2.227	0	0
79	M315	X	-1.286	-1.286	0	0
80	M315	Y	2.227	2.227	0	0
81	M321	X	-1.286	-1.286	0	0
82	M321	Y	2.227	2.227	0	0
83	M327	X	-1.286	-1.286	0	0
84	M327	Y	2.227	2.227	0	0
85	KM5	X	-0.628	-0.628	0	0
86	KM5	Y	1.089	1.089	0	0
87	KM6	X	-0.628	-0.628	0	0
88	KM6	Y	1.089	1.089	0	0
89	KM11	X	-0.341	-0.341	0	0
90	KM11	Y	0.591	0.591	0	0
91	KM12	X	-0.341	-0.341	0	0
92	KM12	Y	0.591	0.591	0	0
93	KM17	X	-0.628	-0.628	0	0
94	KM17	Y	1.089	1.089	0	0
95	KM18	X	-0.628	-0.628	0	0
96	KM18	Y	1.089	1.089	0	0

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

Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/f...	Start Location[in.%]	End Location[in.%]	
1	M51	X	-3.547e-7	-3.547e-7	0	0
2	M51	Y	1.564	1.564	0	0
3	M60	X	-1.824e-20	-1.824e-20	0	0
4	M60	Y	8.043e-14	8.043e-14	0	0
5	M63	X	-1.824e-20	-1.824e-20	0	0
6	M63	Y	8.043e-14	8.043e-14	0	0
7	M69	X	-3.727e-20	-3.727e-20	0	0
8	M69	Y	1.643e-13	1.643e-13	0	0
9	M72	X	-5.434e-7	-5.434e-7	0	0
10	M72	Y	2.396	2.396	0	0
11	M75	X	-5.434e-7	-5.434e-7	0	0
12	M75	Y	2.396	2.396	0	0
13	M92	X	-1.753e-20	-1.753e-20	0	0
14	M92	Y	7.728e-14	7.728e-14	0	0
15	M94	X	-2.398e-7	-2.398e-7	0	0
16	M94	Y	1.057	1.057	0	0
17	M98	X	-2.398e-7	-2.398e-7	0	0
18	M98	Y	1.057	1.057	0	0
19	M100	X	-1.6e-17	-1.6e-17	0	0



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

Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/f...	Start Location[in,%]	End Location[in,%]	
20	M100	Y	7.054e-11	7.054e-11	0	0
21	M104	X	-2.398e-7	-2.398e-7	0	0
22	M104	Y	1.057	1.057	0	0
23	M106	X	-2.398e-7	-2.398e-7	0	0
24	M106	Y	1.057	1.057	0	0
25	M109	X	-2.464e-7	-2.464e-7	0	0
26	M109	Y	1.086	1.086	0	0
27	M110	X	-1.69e-20	-1.69e-20	0	0
28	M110	Y	7.45e-14	7.45e-14	0	0
29	M111	X	-2.464e-7	-2.464e-7	0	0
30	M111	Y	1.086	1.086	0	0
31	M116	X	-3e-20	-3e-20	0	0
32	M116	Y	1.323e-13	1.323e-13	0	0
33	M121	X	-4.374e-7	-4.374e-7	0	0
34	M121	Y	1.929	1.929	0	0
35	M126	X	-4.374e-7	-4.374e-7	0	0
36	M126	Y	1.929	1.929	0	0
37	M129	X	-5.349e-20	-5.349e-20	0	0
38	M129	Y	2.359e-13	2.359e-13	0	0
39	M133	X	-5.349e-20	-5.349e-20	0	0
40	M133	Y	2.359e-13	2.359e-13	0	0
41	M137	X	-7.8e-7	-7.8e-7	0	0
42	M137	Y	3.439	3.439	0	0
43	M141	X	-7.8e-7	-7.8e-7	0	0
44	M141	Y	3.439	3.439	0	0
45	M145	X	-7.8e-7	-7.8e-7	0	0
46	M145	Y	3.439	3.439	0	0
47	M149	X	-7.8e-7	-7.8e-7	0	0
48	M149	Y	3.439	3.439	0	0
49	M163	X	-5.832e-7	-5.832e-7	0	0
50	M163	Y	2.571	2.571	0	0
51	M189A	X	-8.866e-8	-8.866e-8	0	0
52	M189A	Y	.391	.391	0	0
53	M209	X	-8.866e-8	-8.866e-8	0	0
54	M209	Y	.391	.391	0	0
55	M245A	X	-2.66e-7	-2.66e-7	0	0
56	M245A	Y	1.173	1.173	0	0
57	M246A	X	-2.66e-7	-2.66e-7	0	0
58	M246A	Y	1.173	1.173	0	0
59	M279	X	-2.66e-7	-2.66e-7	0	0
60	M279	Y	1.173	1.173	0	0
61	M280	X	-2.66e-7	-2.66e-7	0	0
62	M280	Y	1.173	1.173	0	0
63	M261A	X	-5.832e-7	-5.832e-7	0	0
64	M261A	Y	2.571	2.571	0	0
65	M267A	X	-5.832e-7	-5.832e-7	0	0
66	M267A	Y	2.571	2.571	0	0
67	M273A	X	-5.832e-7	-5.832e-7	0	0
68	M273A	Y	2.571	2.571	0	0
69	M279A	X	-5.832e-7	-5.832e-7	0	0
70	M279A	Y	2.571	2.571	0	0
71	M288B	X	-5.832e-7	-5.832e-7	0	0
72	M288B	Y	2.571	2.571	0	0
73	M294A	X	-5.832e-7	-5.832e-7	0	0
74	M294A	Y	2.571	2.571	0	0
75	M300B	X	-5.832e-7	-5.832e-7	0	0
76	M300B	Y	2.571	2.571	0	0



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

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/f...	Start Location[in.%]	End Location[in.%]
77	M306B	X	-5.832e-7	-5.832e-7	0	0
78	M306B	Y	2.571	2.571	0	0
79	M315	X	-5.832e-7	-5.832e-7	0	0
80	M315	Y	2.571	2.571	0	0
81	M321	X	-5.832e-7	-5.832e-7	0	0
82	M321	Y	2.571	2.571	0	0
83	M327	X	-5.832e-7	-5.832e-7	0	0
84	M327	Y	2.571	2.571	0	0
85	KM5	X	-3.285e-7	-3.285e-7	0	0
86	KM5	Y	1.448	1.448	0	0
87	KM6	X	-3.285e-7	-3.285e-7	0	0
88	KM6	Y	1.448	1.448	0	0
89	KM11	X	-1.982e-7	-1.982e-7	0	0
90	KM11	Y	.874	.874	0	0
91	KM12	X	-1.982e-7	-1.982e-7	0	0
92	KM12	Y	.874	.874	0	0
93	KM17	X	-1.982e-7	-1.982e-7	0	0
94	KM17	Y	.874	.874	0	0
95	KM18	X	-1.982e-7	-1.982e-7	0	0
96	KM18	Y	.874	.874	0	0

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

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/f...	Start Location[in.%]	End Location[in.%]
1	M51	X	.586	.586	0	0
2	M51	Y	1.016	1.016	0	0
3	M60	X	.195	.195	0	0
4	M60	Y	.339	.339	0	0
5	M63	X	.195	.195	0	0
6	M63	Y	.339	.339	0	0
7	M69	X	.399	.399	0	0
8	M69	Y	.692	.692	0	0
9	M72	X	.399	.399	0	0
10	M72	Y	.692	.692	0	0
11	M75	X	1.597	1.597	0	0
12	M75	Y	2.767	2.767	0	0
13	M92	X	.176	.176	0	0
14	M92	Y	.305	.305	0	0
15	M94	X	.705	.705	0	0
16	M94	Y	1.221	1.221	0	0
17	M98	X	.176	.176	0	0
18	M98	Y	.305	.305	0	0
19	M100	X	.176	.176	0	0
20	M100	Y	.305	.305	0	0
21	M104	X	.705	.705	0	0
22	M104	Y	1.221	1.221	0	0
23	M106	X	.176	.176	0	0
24	M106	Y	.305	.305	0	0
25	M109	X	.724	.724	0	0
26	M109	Y	1.254	1.254	0	0
27	M110	X	.181	.181	0	0
28	M110	Y	.314	.314	0	0
29	M111	X	.181	.181	0	0
30	M111	Y	.314	.314	0	0
31	M116	X	.321	.321	0	0
32	M116	Y	.557	.557	0	0
33	M121	X	.321	.321	0	0



Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 806364 - HRT 106(B) 943202

July 20, 2020
 11:26 AM
 Checked By: MLO

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

Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/f...	Start Location[in,%]	End Location[in,%]
34	M121	Y	.557	.557	0 0
35	M126	X	1.286	1.286	0 0
36	M126	Y	2.227	2.227	0 0
37	M129	X	.573	.573	0 0
38	M129	Y	.993	.993	0 0
39	M133	X	.573	.573	0 0
40	M133	Y	.993	.993	0 0
41	M137	X	.573	.573	0 0
42	M137	Y	.993	.993	0 0
43	M141	X	.573	.573	0 0
44	M141	Y	.993	.993	0 0
45	M145	X	2.293	2.293	0 0
46	M145	Y	3.971	3.971	0 0
47	M149	X	2.293	2.293	0 0
48	M149	Y	3.971	3.971	0 0
49	M163	X	1.286	1.286	0 0
50	M163	Y	2.227	2.227	0 0
51	M189A	X	.586	.586	0 0
52	M189A	Y	1.016	1.016	0 0
53	M209	X	7.43e-14	7.43e-14	0 0
54	M209	Y	1.287e-13	1.287e-13	0 0
55	M245A	X	.195	.195	0 0
56	M245A	Y	.339	.339	0 0
57	M246A	X	.195	.195	0 0
58	M246A	Y	.339	.339	0 0
59	M279	X	.782	.782	0 0
60	M279	Y	1.354	1.354	0 0
61	M280	X	.782	.782	0 0
62	M280	Y	1.354	1.354	0 0
63	M261A	X	1.286	1.286	0 0
64	M261A	Y	2.227	2.227	0 0
65	M267A	X	1.286	1.286	0 0
66	M267A	Y	2.227	2.227	0 0
67	M273A	X	1.286	1.286	0 0
68	M273A	Y	2.227	2.227	0 0
69	M279A	X	1.286	1.286	0 0
70	M279A	Y	2.227	2.227	0 0
71	M288B	X	1.286	1.286	0 0
72	M288B	Y	2.227	2.227	0 0
73	M294A	X	1.286	1.286	0 0
74	M294A	Y	2.227	2.227	0 0
75	M300B	X	1.286	1.286	0 0
76	M300B	Y	2.227	2.227	0 0
77	M306B	X	1.286	1.286	0 0
78	M306B	Y	2.227	2.227	0 0
79	M315	X	1.286	1.286	0 0
80	M315	Y	2.227	2.227	0 0
81	M321	X	1.286	1.286	0 0
82	M321	Y	2.227	2.227	0 0
83	M327	X	1.286	1.286	0 0
84	M327	Y	2.227	2.227	0 0
85	KM5	X	.628	.628	0 0
86	KM5	Y	1.089	1.089	0 0
87	KM6	X	.628	.628	0 0
88	KM6	Y	1.089	1.089	0 0
89	KM11	X	.628	.628	0 0
90	KM11	Y	1.089	1.089	0 0



Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 806364 - HRT 106(B) 943202

July 20, 2020
 11:26 AM
 Checked By: MLO

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

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/f...	Start Location[in,%]	End Location[in,%]
91	KM12	X	.628	.628	0	0
92	KM12	Y	1.089	1.089	0	0
93	KM17	X	.341	.341	0	0
94	KM17	Y	.591	.591	0	0
95	KM18	X	.341	.341	0	0
96	KM18	Y	.591	.591	0	0

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

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/f...	Start Location[in,%]	End Location[in,%]
1	M51	X	.553	.553	0	0
2	M51	Y	.553	.553	0	0
3	M60	X	.553	.553	0	0
4	M60	Y	.553	.553	0	0
5	M63	X	.553	.553	0	0
6	M63	Y	.553	.553	0	0
7	M69	X	1.129	1.129	0	0
8	M69	Y	1.129	1.129	0	0
9	M72	X	.151	.151	0	0
10	M72	Y	.151	.151	0	0
11	M75	X	2.108	2.108	0	0
12	M75	Y	2.108	2.108	0	0
13	M92	X	.498	.498	0	0
14	M92	Y	.498	.498	0	0
15	M94	X	.93	.93	0	0
16	M94	Y	.93	.93	0	0
17	M98	X	.067	.067	0	0
18	M98	Y	.067	.067	0	0
19	M100	X	.498	.498	0	0
20	M100	Y	.498	.498	0	0
21	M104	X	.93	.93	0	0
22	M104	Y	.93	.93	0	0
23	M106	X	.067	.067	0	0
24	M106	Y	.067	.067	0	0
25	M109	X	.956	.956	0	0
26	M109	Y	.956	.956	0	0
27	M110	X	.512	.512	0	0
28	M110	Y	.512	.512	0	0
29	M111	X	.069	.069	0	0
30	M111	Y	.069	.069	0	0
31	M116	X	.909	.909	0	0
32	M116	Y	.909	.909	0	0
33	M121	X	.122	.122	0	0
34	M121	Y	.122	.122	0	0
35	M126	X	1.696	1.696	0	0
36	M126	Y	1.696	1.696	0	0
37	M129	X	1.621	1.621	0	0
38	M129	Y	1.621	1.621	0	0
39	M133	X	1.621	1.621	0	0
40	M133	Y	1.621	1.621	0	0
41	M137	X	.217	.217	0	0
42	M137	Y	.217	.217	0	0
43	M141	X	.217	.217	0	0
44	M141	Y	.217	.217	0	0
45	M145	X	3.025	3.025	0	0
46	M145	Y	3.025	3.025	0	0
47	M149	X	3.025	3.025	0	0



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

Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/f...	Start Location[in, %]	End Location[in, %]	
48	M149	Y	3.025	3.025	0	0
49	M163	X	1.818	1.818	0	0
50	M163	Y	1.818	1.818	0	0
51	M189A	X	1.032	1.032	0	0
52	M189A	Y	1.032	1.032	0	0
53	M209	X	.074	.074	0	0
54	M209	Y	.074	.074	0	0
55	M245A	X	.074	.074	0	0
56	M245A	Y	.074	.074	0	0
57	M246A	X	.074	.074	0	0
58	M246A	Y	.074	.074	0	0
59	M279	X	1.032	1.032	0	0
60	M279	Y	1.032	1.032	0	0
61	M280	X	1.032	1.032	0	0
62	M280	Y	1.032	1.032	0	0
63	M261A	X	1.818	1.818	0	0
64	M261A	Y	1.818	1.818	0	0
65	M267A	X	1.818	1.818	0	0
66	M267A	Y	1.818	1.818	0	0
67	M273A	X	1.818	1.818	0	0
68	M273A	Y	1.818	1.818	0	0
69	M279A	X	1.818	1.818	0	0
70	M279A	Y	1.818	1.818	0	0
71	M288B	X	1.818	1.818	0	0
72	M288B	Y	1.818	1.818	0	0
73	M294A	X	1.818	1.818	0	0
74	M294A	Y	1.818	1.818	0	0
75	M300B	X	1.818	1.818	0	0
76	M300B	Y	1.818	1.818	0	0
77	M306B	X	1.818	1.818	0	0
78	M306B	Y	1.818	1.818	0	0
79	M315	X	1.818	1.818	0	0
80	M315	Y	1.818	1.818	0	0
81	M321	X	1.818	1.818	0	0
82	M321	Y	1.818	1.818	0	0
83	M327	X	1.818	1.818	0	0
84	M327	Y	1.818	1.818	0	0
85	KM5	X	.753	.753	0	0
86	KM5	Y	.753	.753	0	0
87	KM6	X	.753	.753	0	0
88	KM6	Y	.753	.753	0	0
89	KM11	X	.988	.988	0	0
90	KM11	Y	.988	.988	0	0
91	KM12	X	.988	.988	0	0
92	KM12	Y	.988	.988	0	0
93	KM17	X	.519	.519	0	0
94	KM17	Y	.519	.519	0	0
95	KM18	X	.519	.519	0	0
96	KM18	Y	.519	.519	0	0

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

Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/f...	Start Location[in, %]	End Location[in, %]	
1	M51	X	.339	.339	0	0
2	M51	Y	.195	.195	0	0
3	M60	X	1.016	1.016	0	0
4	M60	Y	.586	.586	0	0



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

Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/f...	Start Location[in,%]	End Location[in,%]
5	M63	X	1.016	1.016	0 0
6	M63	Y	.586	.586	0 0
7	M69	X	2.075	2.075	0 0
8	M69	Y	1.198	1.198	0 0
9	M72	X	3.953e-13	3.953e-13	0 0
10	M72	Y	2.282e-13	2.282e-13	0 0
11	M75	X	2.075	2.075	0 0
12	M75	Y	1.198	1.198	0 0
13	M92	X	.916	.916	0 0
14	M92	Y	.529	.529	0 0
15	M94	X	.916	.916	0 0
16	M94	Y	.529	.529	0 0
17	M98	X	1.813e-13	1.813e-13	0 0
18	M98	Y	1.047e-13	1.047e-13	0 0
19	M100	X	.916	.916	0 0
20	M100	Y	.529	.529	0 0
21	M104	X	.916	.916	0 0
22	M104	Y	.529	.529	0 0
23	M106	X	6.373e-11	6.373e-11	0 0
24	M106	Y	3.68e-11	3.68e-11	0 0
25	M109	X	.941	.941	0 0
26	M109	Y	.543	.543	0 0
27	M110	X	.941	.941	0 0
28	M110	Y	.543	.543	0 0
29	M111	X	1.792e-13	1.792e-13	0 0
30	M111	Y	1.035e-13	1.035e-13	0 0
31	M116	X	1.67	1.67	0 0
32	M116	Y	.964	.964	0 0
33	M121	X	3.182e-13	3.182e-13	0 0
34	M121	Y	1.837e-13	1.837e-13	0 0
35	M126	X	1.67	1.67	0 0
36	M126	Y	.964	.964	0 0
37	M129	X	2.978	2.978	0 0
38	M129	Y	1.72	1.72	0 0
39	M133	X	2.978	2.978	0 0
40	M133	Y	1.72	1.72	0 0
41	M137	X	5.674e-13	5.674e-13	0 0
42	M137	Y	3.276e-13	3.276e-13	0 0
43	M141	X	5.674e-13	5.674e-13	0 0
44	M141	Y	3.276e-13	3.276e-13	0 0
45	M145	X	2.978	2.978	0 0
46	M145	Y	1.72	1.72	0 0
47	M149	X	2.978	2.978	0 0
48	M149	Y	1.72	1.72	0 0
49	M163	X	2.227	2.227	0 0
50	M163	Y	1.286	1.286	0 0
51	M189A	X	1.354	1.354	0 0
52	M189A	Y	.782	.782	0 0
53	M209	X	.339	.339	0 0
54	M209	Y	.195	.195	0 0
55	M245A	X	1.935e-13	1.935e-13	0 0
56	M245A	Y	1.117e-13	1.117e-13	0 0
57	M246A	X	1.935e-13	1.935e-13	0 0
58	M246A	Y	1.117e-13	1.117e-13	0 0
59	M279	X	1.016	1.016	0 0
60	M279	Y	.586	.586	0 0
61	M280	X	1.016	1.016	0 0



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

Member Label	Direction	Start Magnitude[lb/ft,F,psf]	End Magnitude[lb/f...	Start Location[in, %]	End Location[in, %]	
62	M280	Y	.586	.586	0	0
63	M261A	X	2.227	2.227	0	0
64	M261A	Y	1.286	1.286	0	0
65	M267A	X	2.227	2.227	0	0
66	M267A	Y	1.286	1.286	0	0
67	M273A	X	2.227	2.227	0	0
68	M273A	Y	1.286	1.286	0	0
69	M279A	X	2.227	2.227	0	0
70	M279A	Y	1.286	1.286	0	0
71	M288B	X	2.227	2.227	0	0
72	M288B	Y	1.286	1.286	0	0
73	M294A	X	2.227	2.227	0	0
74	M294A	Y	1.286	1.286	0	0
75	M300B	X	2.227	2.227	0	0
76	M300B	Y	1.286	1.286	0	0
77	M306B	X	2.227	2.227	0	0
78	M306B	Y	1.286	1.286	0	0
79	M315	X	2.227	2.227	0	0
80	M315	Y	1.286	1.286	0	0
81	M321	X	2.227	2.227	0	0
82	M321	Y	1.286	1.286	0	0
83	M327	X	2.227	2.227	0	0
84	M327	Y	1.286	1.286	0	0
85	KM5	X	.757	.757	0	0
86	KM5	Y	.437	.437	0	0
87	KM6	X	.757	.757	0	0
88	KM6	Y	.437	.437	0	0
89	KM11	X	1.254	1.254	0	0
90	KM11	Y	.724	.724	0	0
91	KM12	X	1.254	1.254	0	0
92	KM12	Y	.724	.724	0	0
93	KM17	X	.757	.757	0	0
94	KM17	Y	.437	.437	0	0
95	KM18	X	.757	.757	0	0
96	KM18	Y	.437	.437	0	0

Joint Boundary Conditions

Joint Label	X [k/in]	Y [k/in]	Z [k/in]	X Rot.[k-ft/rad]	Y Rot.[k-ft/rad]	Z Rot.[k-ft/rad]
1	N35	Reaction	Reaction	Reaction	Reaction	Reaction
2	N61	Reaction	Reaction	Reaction	Reaction	Reaction
3	N88	Reaction	Reaction	Reaction	Reaction	Reaction
4	KN5	Reaction	Reaction	Reaction	Reaction	Reaction
5	KN13	Reaction	Reaction	Reaction	Reaction	Reaction
6	KN21	Reaction	Reaction	Reaction	Reaction	Reaction
7	N1402					
8	BRC					
9	N1392					
10	GRC					
11	N1394					
12	ARC					



Envelope Joint Reactions

Joint	X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [lb-ft]	LC	MY [lb-ft]	LC	MZ [lb-ft]	LC		
1	N35	max	1115.761	3	3003.039	14	780.378	28	-94.998	11	163.833	18	1861.522	18
2		min	-1755.821	11	-1884.086	6	213.939	92	-917.661	28	-977.551	74	-1863.445	10
3	N61	max	1088.782	16	1820.254	16	654.928	31	856.666	20	259.697	5	1832.046	12
4		min	-1736.318	8	-2931.829	8	250.421	7	212.932	12	-906.301	61	-1833.854	4
5	N88	max	3404.56	3	1004.64	15	644.241	25	470.44	7	921.093	25	1830.063	7
6		min	-2119.078	11	-1009.207	7	221.144	1	-529.602	15	343.151	81	-1832.01	15
7	KN5	max	-409.303	11	89.716	15	2200.111	19	52.925	7	618.781	19	80.828	7
8		min	-2256.941	19	-89.728	7	371.224	11	-58.927	15	104.407	11	-87.096	15
9	KN13	max	1131.202	30	-352.86	6	2205.44	30	-88.043	6	-55.352	6	81.047	18
10		min	203.795	6	-1959.517	30	369.506	6	-534.984	30	-313.942	30	-87.307	10
11	KN21	max	1128.916	24	1955.128	24	2200.779	24	538.227	24	-48.909	16	80.867	12
12		min	204.745	16	354.751	16	371.5	16	92.411	16	-305.702	24	-87.092	4
13	Totals:	max	4545.338	3	4545.203	15	8087.996	23						
14		min	-4545.335	11	-4545.172	7	3370.164	1						

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

Member	Shape	Code Check	Loc[...]	LC	Shear C...	Lo.....	LC phi*...	phi*...	phi*M...	phi*...	Eqn
1	M288B PIPE 2.0	.315	68.2...	8	.083	68...	18	1491...	32130	1871...	1871... H1-...
2	M315 PIPE 2.0	.315	68.2...	14	.083	68...	7	1491...	32130	1871...	1871... H1-...
3	M261A PIPE 2.0	.315	68.2...	3	.083	68...	12	1491...	32130	1871...	1871... H1-...
4	M321 PIPE 2.0	.310	68.2...	16	.070	68...	4	1491...	32130	1871...	1871... H1-...
5	M294A PIPE 2.0	.310	68.2...	11	.070	68...	15	1491...	32130	1871...	1871... H1-...
6	M267A PIPE 2.0	.310	68.2...	6	.070	68...	10	1491...	32130	1871...	1871... H1-...
7	KM18 L2.5x2.5x3	.298	40.8...	5	.007	0 y	4	7075...	2919...	872.5...	1518... H2-1
8	KM12 L2.5x2.5x3	.288	40.8...	27	.007	81... y	10	7075...	2919...	872.5...	1518... H2-1
9	KM6 L2.5x2.5x3	.288	40.8...	32	.007	0 y	15	7075...	2919...	872.5...	1518... H2-1
10	KM11 L2.5x2.5x3	.276	40.8...	17	.007	0 z	10	7075...	2919...	872.5...	1518... H2-1
11	KM17 L2.5x2.5x3	.273	40.8...	12	.007	81... z	4	7075...	2919...	872.5...	1518... H2-1
12	KM5 L2.5x2.5x3	.273	40.8...	7	.007	0 z	15	7075...	2919...	872.5...	1518... H2-1
13	M273A PIPE 2.0	.205	68.2...	6	.085	60...	4	1491...	32130	1871...	1871... H1-...
14	M327 PIPE 2.0	.205	68.2...	16	.085	60...	15	1491...	32130	1871...	1871... H1-...
15	M300B PIPE 2.0	.205	68.2...	11	.085	60...	10	1491...	32130	1871...	1871... H1-...
16	M189A HSS4X4X4	.197	0	18	.095	77... y	11	9285...	1061...	1231...	1231... H1-...
17	M209 HSS4X4X4	.194	0	12	.097	77... y	5	9285...	1061...	1231...	1231... H1-...
18	M51 HSS4X4X4	.193	0	7	.095	77... y	16	9285...	1061...	1231...	1231... H1-...
19	M110 L2.5x2.5x4	.181	0	17	.053	0 z	7	3569...	37485	1082...	2466... H2-1
20	M306B PIPE 2.0	.181	68.2...	17	.086	68...	7	1491...	32130	1871...	1871... H1-...
21	M279A PIPE 2.0	.177	68.2...	12	.089	68...	17	1491...	32130	1871...	1871... H1-...
22	M163 PIPE 2.0	.177	68.2...	7	.086	68...	12	1491...	32130	1871...	1871... H1-...
23	M126 PIPE 2.0	.176	160...	3	.133	16...	18	4678...	32130	1871...	1871... H1-...
24	M116 PIPE 2.0	.176	160...	14	.133	16...	12	4678...	32130	1871...	1871... H1-...
25	M121 PIPE 2.0	.176	160...	8	.133	16...	7	4678...	32130	1871...	1871... H1-...
26	M111 L2.5x2.5x4	.170	0	12	.053	0 z	18	3569...	37485	1082...	2466... H2-1
27	M109 L2.5x2.5x4	.169	0	7	.053	0 z	12	3569...	37485	1082...	2466... H2-1
28	M245A HSS4X4X4	.126	30.4...	76	.066	3... z	3	1040...	1061...	1231...	1231... H1-...
29	M280 HSS4X4X4	.126	0	58	.067	27... z	3	1040...	1061...	1231...	1231... H1-...
30	M69 PIPE 3.0	.119	13.7...	14	.121	59...	11	2126...	65205	5748...	5748... H1-...
31	M75 PIPE 3.0	.119	13.7...	3	.121	59...	16	2126...	65205	5748...	5748... H1-...
32	M72 PIPE 3.0	.119	13.7...	8	.122	59...	6	2126...	65205	5748...	5748... H1-...
33	M63 HSS4X4X4	.118	0	20	.067	27... z	14	1040...	1061...	1231...	1231... H1-...
34	M246A HSS4X4X4	.118	0	31	.067	27... z	8	1040...	1061...	1231...	1231... H1-...
35	M60 HSS4X4X4	.115	30.4...	34	.066	3... z	9	1040...	1061...	1231...	1231... H1-...
36	M279 HSS4X4X4	.115	30.4...	23	.066	3... z	14	1040...	1061...	1231...	1231... H1-...
37	M100 L2x2x3	.113	50.5...	21	.007	50... z	21	9585...	22743	542.2...	1204... H2-1



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

Member	Shape	Code Check	Loc...	LC	Shear C...	Lo.....	LC phi*...	phi*...	phi*M...	phi*...	Egn	
38	M106	L2x2x3		.113	50.5...	32	.007	50...	Z 32	9585..22743	542.2..1204.....	H2-1
39	M94	L2x2x3		.113	50.5...	27	.007	50...	Z 27	9585..22743	542.2..1204.....	H2-1
40	M104	L2x2x3		.112	0	17	.006	0	Z 8	9585..22743	542.2..1204.....	H2-1
41	M92	L2x2x3		.104	0	12	.006	0	Z 3	9585..22743	542.2..1199.....	H2-1
42	M98	L2x2x3		.104	0	7	.006	0	Z 14	9585..22743	542.2..1199.....	H2-1

Envelope Plate/Shell Principal Stresses

Plate	Surf...	Sigma1 [ksi]	LC	Sigma2 [ksi]	LC	Tau Max [ksi]	LC	Angle [rad]	LC	Von Mises [ksi]	LC		
1	P798	max	T	22.208	6	5.037	6	8.586	6	1.846	12	20.167	6
2		min		-3.891	14	-19.55	14	.183	91	.146	18	.45	92
3		max	B	15.17	14	4.242	14	6.641	6	2.126	94	16.655	6
4		min		-5.403	6	-18.685	6	.118	29	-.699	31	.285	30
5	P726	max	T	22.202	11	5.033	11	8.584	11	1.974	76	20.162	11
6		min		-3.887	3	-19.544	3	.245	35	.145	7	.798	35
7		max	B	15.16	3	4.239	3	6.638	11	2.098	21	16.646	11
8		min		-5.4	11	-18.675	11	.152	19	-.701	20	.285	19
9	P655	max	T	22.202	16	5.037	16	8.583	16	1.846	7	20.161	16
10		min		-3.893	8	-19.571	9	.067	70	.146	12	.166	75
11		max	B	15.178	8	4.245	8	6.641	16	2.323	89	16.654	16
12		min		-5.404	16	-18.685	16	.043	71	-.689	26	.075	71
13	P828	max	T	19.015	14	4.099	14	8.241	6	1.295	4	19.466	6
14		min		-4.994	6	-21.476	6	.075	95	-.304	15	.261	95
15		max	B	18.148	6	5.295	6	6.427	6	2.276	44	16.165	6
16		min		-4.397	14	-15.279	14	.12	18	-.729	47	.234	18
17	P756	max	T	19.004	3	4.095	3	8.239	11	1.296	10	19.459	11
18		min		-4.99	11	-21.468	11	.147	21	-.443	75	.368	7
19		max	B	18.138	11	5.292	11	6.423	11	2.18	34	16.155	11
20		min		-4.393	3	-15.266	3	.12	7	-.509	33	.236	7
21	P685	max	T	19.019	8	4.101	8	8.237	16	1.441	75	19.458	16
22		min		-4.993	16	-21.468	16	.037	42	-.504	58	.07	58
23		max	B	18.145	16	5.294	16	6.425	16	2.156	23	16.162	16
24		min		-4.4	8	-15.286	8	.031	74	-.625	40	.072	55
25	P661	max	T	19.386	17	5.353	16	7.028	17	1.885	55	17.346	17
26		min		-4.464	8	-16.848	9	.011	70	.197	12	.059	75
27		max	B	14.349	9	4.313	8	6.591	17	2.237	74	16.452	17
28		min		-5.324	16	-18.438	17	.015	72	-.688	72	.084	74
29	P804	max	T	19.263	6	5.353	6	6.955	6	1.867	12	17.222	6
30		min		-4.462	14	-16.631	14	.067	46	.196	18	.159	93
31		max	B	14.261	14	4.31	14	6.553	6	1.934	4	16.428	6
32		min		-5.323	6	-18.43	6	.374	94	.33	16	.827	30
33	P732	max	T	19.257	11	5.351	11	6.953	11	2.086	75	17.217	11
34		min		-4.459	3	-16.625	3	.162	34	.195	7	.281	34
35		max	B	14.249	3	4.307	3	6.549	11	1.936	9	16.417	11
36		min		-5.32	11	-18.417	11	.186	75	-.127	75	.584	75
37	P822	max	T	15.646	13	3.484	14	6.839	6	1.275	1	16.167	6
38		min		-4.163	6	-17.842	6	.033	94	-.344	16	.102	94
39		max	B	17.536	6	4.177	6	6.679	6	1.56	18	15.866	6
40		min		-3.558	14	-14.431	14	.086	30	-.565	45	.15	30
41	P679	max	T	15.634	8	3.485	8	6.837	16	2.24	58	16.161	16
42		min		-4.161	16	-17.835	16	.015	39	-.688	41	.094	41
43		max	B	17.534	16	4.176	16	6.679	16	2.319	74	15.864	16
44		min		-3.56	8	-14.439	8	.022	74	-.707	55	.06	74
45	P750	max	T	15.619	3	3.481	3	6.837	11	1.277	9	16.16	11
46		min		-4.16	11	-17.834	11	.099	20	-.501	75	.199	20
47		max	B	17.525	11	4.175	11	6.675	11	1.641	75	15.855	11

APPENDIX D
ADDITIONAL CALCUATIONS

CCI Mount Analysis Square Plate Connection 1.0.1



Location:	A	Select
------------------	---	--------

TIA Revision:	TIA-222-H	Select
----------------------	-----------	--------

Normalizing to 100% per TIA-222-H Section 15.5

SITE DATA	
BU Number:	806364
Site Name:	HRT 106(B) 943202
Order Number:	517085

REACTIONS		
Moment:	1.860	kip-ft
Axial:	0.710	kips
Shear:	1.040	kips

BOLT DATA		
Quantity:	4	
Diameter:	0.625	in
Material:	A325	Select
Fy:	92	ksi
Fu:	120	ksi
Bolt Spacing:	6	in

Load Combination	10
-------------------------	----

BOLT RESULTS		
Max Bolt ($C_u + V_u/\eta$):	2.81	kips
Axial Design Strength:	21.70	kips
Stress Ratio	12.33%	

PLATE DATA		
Width:	8	in
Thickness:	0.75	in
Fy:	36	ksi

PLATE RESULTS		
Base Plate Stress:	6.12	ksi
Bending Strength:	32.40	ksi
Stress Ratio:	18.00%	

Controlling Load Combination	10
-------------------------------------	----

SUPPORT ARM DATA		
Type:	HSST	Select
Diameter/Width:	4	in
Thickness:	0.25	in
Fy:	35	ksi
Number of Sides:	4	

Exhibit F

Power Density/RF Emissions Report



RF EMISSIONS COMPLIANCE REPORT

Crown Castle on behalf of AT&T Mobility, LLC

**BU: 806364
Site: HRT 106(B) 943202
Order ID: 517085
143 R Old Blue Hill Road
Durham, CT
6/11/2020**

Report Status:

AT&T Mobility, LLC is Compliant



**Michael Fischer, P.E.
Registered Professional Engineer (Electrical)
Connecticut License Number 33928
Expires January 31, 2021**

Signed 12 June 2020

Prepared By:

Site Safe, LLC

Engineering Statement in Re:
Electromagnetic Energy Analysis
AT&T Mobility, LLC
Durham, CT

My signature on the cover of this document indicates:

That I am registered as a Professional Engineer in the jurisdiction indicated; and

That I have extensive professional experience in the wireless communications engineering industry; and

That I am an employee of Site Safe, LLC in Vienna, Virginia; and

That I am thoroughly familiar with the Rules and Regulations of the Federal Communications Commission ("the FCC" and "the FCC Rules") both in general and specifically as they apply to the FCC's Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields; and

That the technical information serving as the basis for this report was supplied by Crown Castle on behalf of AT&T Mobility, LLC (see attached Site Summary and Carrier documents) and that AT&T Mobility, LLC's installation involves communications equipment, antennas and associated technical equipment at a location referred to as "HRT 106(B) 943202" ("the site"); and

That AT&T Mobility, LLC proposes to operate at the site with transmit antennas listed in the carrier summary and with a maximum effective radiated power as specified by AT&T Mobility, LLC and shown on the worksheet and that worst-case 100% duty cycle has been assumed; and

That in addition to the emitters specified in the worksheet, there are additional collocated point-to-point microwave facilities on this structure, and the antennas used are highly directional and oriented at angles at or just below the horizontal, and that the energy present at ground level is typically so low as to be considered insignificant and has not been included in this analysis (a list of microwave antennas is included); and

That this analysis has been performed with the assumption that the ground immediately surrounding the tower is primarily flat or falling; and

That at this time, the FCC requires that certain licensees address specific levels of radio frequency energy to which workers or members of the public might possibly be exposed (at §1.1307(b) of the FCC Rules); and

That such consideration of possible exposure of humans to radio frequency energy must utilize the standards set by the FCC, which is the federal agency having jurisdiction over communications facilities; and

That the FCC rules define two tiers of permissible exposure guidelines: 1) "uncontrolled environments," which defines situations in which persons may not be aware of (the "general public"), or may not be able to control their exposure to a transmission facility; and 2) "controlled environments," which defines situations in which persons are aware of their potential for exposure (industry personnel); and

That this statement specifically addresses the uncontrolled environment (which is more conservative than the controlled environment) and the limit set forth in the FCC rules for licensees of AT&T Mobility, LLC's operating frequencies as shown on the attached antenna worksheet; and

That when applying the uncontrolled environment standards, the predicted Maximum Power Density at two meters above ground level from the proposed AT&T Mobility, LLC operation is no more than 1.221% of the maximum permissible exposure limits in any accessible area on the ground; and

That it is understood per FCC Guidelines and OET 65 Appendix A, that regardless of the existent radio frequency environment, only those licensees whose contributions exceed 5% of the exposure limit pertinent to their operation(s) bear any responsibility for bringing any non-compliant area(s) into compliance; and

That when applying the uncontrolled environment standards, the cumulative predicted energy density from the proposed operation is no more than 10.833% of the maximum in any accessible area up to two meters above the ground per OET 65; and

That the calculations provided in this report are based on data provided by the client and antenna pattern data supplied by the antenna manufacturer, in accordance with FCC guidelines listed in OET 65. Horizontal and vertical antenna patterns are combined for modeling purposes to accurately reflect the energy two meters above ground level where on-axis energy refers to maximum energy two meters above the ground along the azimuth of the antenna and where area energy refers to the maximum energy anywhere two meters above the ground regardless of the antenna azimuth, accounting for cumulative energy from multiple antennas for the carrier(s) and frequency range(s) indicated; and

That the Occupational Safety and Health Administration has policies in place which address worker safety in and around communications sites, thus individual companies will be responsible for their employees' training regarding radio frequency safety; and

In summary, it is stated here that the proposed operation at the site will not result in exposure of the public to excessive levels of radio frequency energy as defined in the FCC Rules and Regulations, specifically 47 CFR 1.1307(b), and that AT&T Mobility, LLC's proposed operation is completely compliant.

Finally, it is stated that access to the tower should be restricted to communication industry professionals and approved contractor personnel trained in radio frequency safety and that this instant analysis addresses exposure levels at two meters above ground level and does not address exposure levels on the tower or in the immediate proximity of the antennas.

**AT&T Mobility, LLC
HRT 106(B) 943202
Site Summary**

Carrier	Area Maximum Percentage MPE
AT&T Mobility, LLC	0.050 %
AT&T Mobility, LLC	0.161 %
AT&T Mobility, LLC	0.148 %
AT&T Mobility, LLC (Proposed)	0.170 %
AT&T Mobility, LLC (Proposed)	0.126 %
AT&T Mobility, LLC (Proposed)	0.164 %
AT&T Mobility, LLC (Proposed)	0.402 %
Sprint	0.951 %
Sprint	0.390 %
Sprint	0.391 %
T-Mobile	0.682 %
T-Mobile	0.832 %
T-Mobile	0.949 %
T-Mobile	0.570 %
T-Mobile	0.287 %
Town of Durham CT	0.142 %
Town of Durham CT	0.330 %
Town of Durham CT	0.331 %
Town of Durham CT	1.944 %
Verizon Wireless	0.462 %
Verizon Wireless	0.343 %
Verizon Wireless	0.413 %
Verizon Wireless	0.595 %
Composite Site MPE:	10.833 %

**AT&T Mobility, LLC
HRT 106(B) 943202
Carrier Summary**

Frequency: 850 MHz
 Maximum Permissible Exposure (MPE): 566.67 $\mu\text{W}/\text{cm}^2$
 Maximum power density at ground level: 0.28346 $\mu\text{W}/\text{cm}^2$
 Highest percentage of Maximum Permissible Exposure: 0.05002 %

Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	On Axis		Area	
					Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
ANDREW	SBNHH-1D65A	116	30	560	0.177715	0.031361	0.253697	0.044770
ANDREW	SBNHH-1D65A	116	160	560	0.177715	0.031361	0.253697	0.044770
ANDREW	SBNHH-1D65A	116	280	560	0.177715	0.031361	0.253697	0.044770

**AT&T Mobility, LLC
HRT 106(B) 943202
Carrier Summary**

Frequency: 1900 MHz
 Maximum Permissible Exposure (MPE): 1000 $\mu\text{W}/\text{cm}^2$
 Maximum power density at ground level: 1.60565 $\mu\text{W}/\text{cm}^2$
 Highest percentage of Maximum Permissible Exposure: 0.16057 %

Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	On Axis		Area	
					Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
ANDREW	SBNHH-1D65A	116	30	4657	0.663722	0.066372	1.187918	0.118792
ANDREW	SBNHH-1D65A	116	160	4657	0.663722	0.066372	1.187918	0.118792
ANDREW	SBNHH-1D65A	116	280	4657	0.663722	0.066372	1.187918	0.118792

**AT&T Mobility, LLC
HRT 106(B) 943202
Carrier Summary**

Frequency: 2300 MHz
 Maximum Permissible Exposure (MPE): 1000 $\mu\text{W}/\text{cm}^2$
 Maximum power density at ground level: 1.48154 $\mu\text{W}/\text{cm}^2$
 Highest percentage of Maximum Permissible Exposure: 0.14815 %

Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	On Axis		Area	
					Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
ANDREW	SBNHH-1D65A	116	30	2685	0.917196	0.091720	1.472741	0.147274
ANDREW	SBNHH-1D65A	116	160	2685	0.917196	0.091720	1.472741	0.147274
ANDREW	SBNHH-1D65A	116	280	2685	0.917196	0.091720	1.472741	0.147274

AT&T Mobility, LLC (Proposed)
HRT 106(B) 943202
Carrier Summary

Frequency: 737 MHz
 Maximum Permissible Exposure (MPE): 491.33 $\mu\text{W}/\text{cm}^2$
 Maximum power density at ground level: 0.83447 $\mu\text{W}/\text{cm}^2$
 Highest percentage of Maximum Permissible Exposure: 0.16984 %

Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	On Axis		Area	
					Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
Kathrein-Scala	800-10964	116	30	2209	0.521863	0.106214	0.732260	0.149035
Kathrein-Scala	800-10964	116	160	2209	0.521863	0.106214	0.732260	0.149035
Kathrein-Scala	800-10964	116	280	2209	0.521863	0.106214	0.732260	0.149035

AT&T Mobility, LLC (Proposed)
HRT 106(B) 943202
Carrier Summary

Frequency: 850 MHz
Maximum Permissible Exposure (MPE): 566.67 $\mu\text{W}/\text{cm}^2$
Maximum power density at ground level: 0.71256 $\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure: 0.12575 %

Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	On Axis		Area	
					Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
Kathrein-Scala	800-10964	116	30	2631	0.454437	0.080195	0.556542	0.098213
Kathrein-Scala	800-10964	116	160	2631	0.454437	0.080195	0.556542	0.098213
Kathrein-Scala	800-10964	116	280	2631	0.454437	0.080195	0.556542	0.098213

AT&T Mobility, LLC (Proposed)
HRT 106(B) 943202
Carrier Summary

Frequency: 763 MHz
 Maximum Permissible Exposure (MPE): 508.67 $\mu\text{W}/\text{cm}^2$
 Maximum power density at ground level: 0.83447 $\mu\text{W}/\text{cm}^2$
 Highest percentage of Maximum Permissible Exposure: 0.16405 %

Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	On Axis		Area	
					Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
Kathrein-Scala	800-10964	116	30	2209	0.521863	0.102594	0.732260	0.143957
Kathrein-Scala	800-10964	116	160	2209	0.521863	0.102594	0.732260	0.143957
Kathrein-Scala	800-10964	116	280	2209	0.521863	0.102594	0.732260	0.143957

**AT&T Mobility, LLC (Proposed)
HRT 106(B) 943202
Carrier Summary**

Frequency: 2100 MHz
 Maximum Permissible Exposure (MPE): 1000 $\mu\text{W}/\text{cm}^2$
 Maximum power density at ground level: 4.02294 $\mu\text{W}/\text{cm}^2$
 Highest percentage of Maximum Permissible Exposure: 0.40229 %

Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	On Axis		Area	
					Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
Kathrein-Scala	800-10964	116	30	7911	1.015688	0.101569	2.430218	0.243022
Kathrein-Scala	800-10964	116	30	3955	0.507845	0.050784	1.215110	0.121511
Kathrein-Scala	800-10964	116	160	7911	1.015688	0.101569	2.430218	0.243022
Kathrein-Scala	800-10964	116	160	3955	0.507845	0.050784	1.215110	0.121511
Kathrein-Scala	800-10964	116	280	7911	1.015688	0.101569	2.430218	0.243022
Kathrein-Scala	800-10964	116	280	3955	0.507845	0.050784	1.215110	0.121511

Sprint
HRT 106(B) 943202
Carrier Summary

Frequency: 1900 MHz
Maximum Permissible Exposure (MPE): 1000 $\mu\text{W}/\text{cm}^2$
Maximum power density at ground level: 9.51202 $\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure: 0.95120 %

Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	On Axis		Area	
					Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
Commscope	NNVV-65B-R4	89	10	7333	3.085459	0.308546	5.137908	0.513791
Commscope	NNVV-65B-R4	89	150	7333	3.085459	0.308546	5.137908	0.513791
Commscope	NNVV-65B-R4	89	270	7333	3.085459	0.308546	5.137908	0.513791

Sprint
HRT 106(B) 943202
Carrier Summary

Frequency: 862 MHz
Maximum Permissible Exposure (MPE): 574.67 $\mu\text{W}/\text{cm}^2$
Maximum power density at ground level: 2.23924 $\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure: 0.38966 %

Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	On Axis		Area	
					Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
Commscope	NNVV-65B-R4	89	10	2042	0.877350	0.152671	1.287775	0.224091
Commscope	NNVV-65B-R4	89	150	2042	0.877350	0.152671	1.287775	0.224091
Commscope	NNVV-65B-R4	89	270	2042	0.877350	0.152671	1.287775	0.224091

Sprint
HRT 106(B) 943202
Carrier Summary

Frequency: 2500 MHz
Maximum Permissible Exposure (MPE): 1000 $\mu\text{W}/\text{cm}^2$
Maximum power density at ground level: 3.91219 $\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure: 0.39122 %

Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	On Axis		Area	
					Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
RFS	APXVTM14-C-I20	89	10	6939	1.326560	0.132656	2.502871	0.250287
RFS	APXVTM14-C-I20	89	150	6939	1.326560	0.132656	2.502871	0.250287
RFS	APXVTM14-C-I20	89	270	6939	1.326560	0.132656	2.502871	0.250287

**T-Mobile
HRT 106(B) 943202
Carrier Summary**

Frequency: 2500 MHz
 Maximum Permissible Exposure (MPE): 1000 $\mu\text{W}/\text{cm}^2$
 Maximum power density at ground level: 6.81789 $\mu\text{W}/\text{cm}^2$
 Highest percentage of Maximum Permissible Exposure: 0.68179 %

Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	On Axis		Area	
					Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
Ericsson	AIR6449 B41	73	60	5084	2.718751	0.271875	3.395821	0.339582
Ericsson	AIR6449 B41	73	180	5084	2.718751	0.271875	3.395821	0.339582
Ericsson	AIR6449 B41	73	300	5084	2.718751	0.271875	3.395821	0.339582

**T-Mobile
HRT 106(B) 943202
Carrier Summary**

Frequency: 700 MHz
 Maximum Permissible Exposure (MPE): 466.67 $\mu\text{W}/\text{cm}^2$
 Maximum power density at ground level: 3.88279 $\mu\text{W}/\text{cm}^2$
 Highest percentage of Maximum Permissible Exposure: 0.83203 %

Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	On Axis		Area	
					Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
RFS	APXVAARR24_43-U-NA20	73	60	3484	1.804981	0.386782	1.895023	0.406076
RFS	APXVAARR24_43-U-NA20	73	180	3484	1.804981	0.386782	1.895023	0.406076
RFS	APXVAARR24_43-U-NA20	73	300	3484	1.804981	0.386782	1.895023	0.406076

**T-Mobile
HRT 106(B) 943202
Carrier Summary**

Frequency: 600 MHz
 Maximum Permissible Exposure (MPE): 400 $\mu\text{W}/\text{cm}^2$
 Maximum power density at ground level: 3.79712 $\mu\text{W}/\text{cm}^2$
 Highest percentage of Maximum Permissible Exposure: 0.94928 %

Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	On Axis		Area	
					Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
RFS	APXVAARR24_43-U-NA20	73	60	3335	1.867786	0.466946	1.896668	0.474167
RFS	APXVAARR24_43-U-NA20	73	180	3335	1.867786	0.466946	1.896668	0.474167
RFS	APXVAARR24_43-U-NA20	73	300	3335	1.867786	0.466946	1.896668	0.474167

**T-Mobile
HRT 106(B) 943202
Carrier Summary**

Frequency: 2100 MHz
 Maximum Permissible Exposure (MPE): 1000 $\mu\text{W}/\text{cm}^2$
 Maximum power density at ground level: 5.69995 $\mu\text{W}/\text{cm}^2$
 Highest percentage of Maximum Permissible Exposure: 0.57000 %

Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	On Axis		Area	
					Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
Ericsson	AIR 32 B2A/B66AA	73	60	2313	3.876491	0.387649	3.876491	0.387649
Ericsson	AIR 21 B4A B2P	73	60	2438	0.952985	0.095299	1.088594	0.108859
Ericsson	AIR 32 B2A/B66AA	73	180	2313	3.876491	0.387649	3.876491	0.387649
Ericsson	AIR 21 B4A B2P	73	180	2438	0.952985	0.095299	1.088594	0.108859
Ericsson	AIR 32 B2A/B66AA	73	300	2313	3.876491	0.387649	3.876491	0.387649
Ericsson	AIR 21 B4A B2P	73	300	2438	0.952985	0.095299	1.088594	0.108859

**T-Mobile
HRT 106(B) 943202
Carrier Summary**

Frequency: 1900 MHz
 Maximum Permissible Exposure (MPE): 1000 $\mu\text{W}/\text{cm}^2$
 Maximum power density at ground level: 2.86545 $\mu\text{W}/\text{cm}^2$
 Highest percentage of Maximum Permissible Exposure: 0.28655 %

Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	On Axis		Area	
					Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
Ericsson	AIR 32 B2A/B66AA	73	60	2313	0.904081	0.090408	1.032731	0.103273
Ericsson	AIR 21 B4A B2P	73	60	2061	0.805765	0.080576	0.920425	0.092042
Ericsson	AIR 32 B2A/B66AA	73	180	2313	0.904081	0.090408	1.032731	0.103273
Ericsson	AIR 21 B4A B2P	73	180	2061	0.805765	0.080576	0.920425	0.092042
Ericsson	AIR 32 B2A/B66AA	73	300	2313	0.904081	0.090408	1.032731	0.103273
Ericsson	AIR 21 B4A B2P	73	300	2061	0.805765	0.080576	0.920425	0.092042

**Town of Durham CT
HRT 106(B) 943202
Carrier Summary**

Frequency: 462 MHz
 Maximum Permissible Exposure (MPE): 308 $\mu\text{W}/\text{cm}^2$
 Maximum power density at ground level: 0.43889 $\mu\text{W}/\text{cm}^2$
 Highest percentage of Maximum Permissible Exposure: 0.14250 %

Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	On Axis		Area	
					Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
ANDREW	DB201-A	123	0	170	0.438890	0.142497	0.438891	0.142497

**Town of Durham CT
HRT 106(B) 943202
Carrier Summary**

Frequency: 153 MHz
 Maximum Permissible Exposure (MPE): 200 $\mu\text{W}/\text{cm}^2$
 Maximum power density at ground level: 0.65923 $\mu\text{W}/\text{cm}^2$
 Highest percentage of Maximum Permissible Exposure: 0.32961 %

Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	On Axis		Area	
					Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
ANDREW	ASP-655	54	0	45	0.499340	0.249670	0.589974	0.294987
RFS	PD1121-6	53	0	45	0.111698	0.055849	0.114332	0.057166

**Town of Durham CT
HRT 106(B) 943202
Carrier Summary**

Frequency: 800 MHz
 Maximum Permissible Exposure (MPE): 533.33 $\mu\text{W}/\text{cm}^2$
 Maximum power density at ground level: 1.76356 $\mu\text{W}/\text{cm}^2$
 Highest percentage of Maximum Permissible Exposure: 0.33067 %

Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	On Axis		Area	
					Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
ANDREW	DB492A	50	320	100	1.477148	0.276965	1.498738	0.281013
ANDREW	DB809MT3-XT	125	0	794	0.330897	0.062043	0.330897	0.062043

**Town of Durham CT
HRT 106(B) 943202
Carrier Summary**

Frequency: 45 MHz
 Maximum Permissible Exposure (MPE): 200 $\mu\text{W}/\text{cm}^2$
 Maximum power density at ground level: 3.88766 $\mu\text{W}/\text{cm}^2$
 Highest percentage of Maximum Permissible Exposure: 1.94383 %

Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	On Axis		Area	
					Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
RFS	PD1142-1	57	0	300	3.887659	1.943830	3.887661	1.943830

**Verizon Wireless
HRT 106(B) 943202
Carrier Summary**

Frequency: 2100 MHz
 Maximum Permissible Exposure (MPE): 1000 $\mu\text{W}/\text{cm}^2$
 Maximum power density at ground level: 4.61907 $\mu\text{W}/\text{cm}^2$
 Highest percentage of Maximum Permissible Exposure: 0.46191 %

Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	On Axis		Area	
					Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
ANDREW	SBNHH-1D65B	101	30	7732	2.665638	0.266564	4.080253	0.408025
ANDREW	SBNHH-1D65B	101	170	7732	2.665638	0.266564	4.080253	0.408025
ANDREW	SBNHH-1D65B	101	290	7732	2.665638	0.266564	4.080253	0.408025

**Verizon Wireless
HRT 106(B) 943202
Carrier Summary**

Frequency: 751 MHz
 Maximum Permissible Exposure (MPE): 500.67 $\mu\text{W}/\text{cm}^2$
 Maximum power density at ground level: 1.71539 $\mu\text{W}/\text{cm}^2$
 Highest percentage of Maximum Permissible Exposure: 0.34262 %

Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	On Axis		Area	
					Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
ANDREW	SBNHH-1D65B	101	30	2043	0.587292	0.117302	0.956563	0.191058
ANDREW	SBNHH-1D65B	101	170	2043	0.587292	0.117302	0.956563	0.191058
ANDREW	SBNHH-1D65B	101	290	2043	0.587292	0.117302	0.956563	0.191058

**Verizon Wireless
HRT 106(B) 943202
Carrier Summary**

Frequency: 1900 MHz
 Maximum Permissible Exposure (MPE): 1000 $\mu\text{W}/\text{cm}^2$
 Maximum power density at ground level: 4.12546 $\mu\text{W}/\text{cm}^2$
 Highest percentage of Maximum Permissible Exposure: 0.41255 %

Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	On Axis		Area	
					Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
ANDREW	SBNHH-1D65B	101	30	4583	3.175927	0.317593	4.072351	0.407235
ANDREW	SBNHH-1D65B	101	170	4583	3.175927	0.317593	4.072351	0.407235
ANDREW	SBNHH-1D65B	101	290	4583	3.175927	0.317593	4.072351	0.407235

**Verizon Wireless
HRT 106(B) 943202
Carrier Summary**

Frequency: 850 MHz
 Maximum Permissible Exposure (MPE): 566.67 $\mu\text{W}/\text{cm}^2$
 Maximum power density at ground level: 3.37027 $\mu\text{W}/\text{cm}^2$
 Highest percentage of Maximum Permissible Exposure: 0.59475 %

Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	On Axis		Area	
					Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
Antel	LPA-80080/6CF	101	20	3014	0.808608	0.142696	1.236973	0.218289
Antel	LPA-80080/6CF	101	20	3014	0.808608	0.142696	1.236973	0.218289
Antel	LPA-80080/6CF	101	150	3014	0.808608	0.142696	1.236973	0.218289
Antel	LPA-80080/6CF	101	150	3014	0.808608	0.142696	1.236973	0.218289
Antel	LPA-80080/6CF	101	270	3014	0.808608	0.142696	1.236973	0.218289
Antel	LPA-80080/6CF	101	270	3014	0.808608	0.142696	1.236973	0.218289

HRT 106(B) 943202
Composite Microwave Antenna Summary

Carrier	Antenna Make/Model	Height (feet)
T-Mobile	Commscope SHP2-13	75
Town of Durham CT	Gabriel Electronics GLF6-450	107