



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

July 9, 2020

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

RE: Notice of Exempt Modification for AT&T - 876338
41 Manitock Hill Road, Waterford, CT 06385
Latitude: 41° 21' 16.70" / Longitude: -72° 9' 1.60"

Dear Ms. Bachman:

AT&T currently maintains six (6) antennas at the 97-foot mount on the existing 136-foot Self-Support Tower, located at 41 Manitock Hill Road, Waterford, CT. The property is owned by the City of New London and the Tower is owned by Crown Castle. AT&T now intends to remove and replace three (3) existing antennas with six (6) new antennas. The new antennas will be installed at the 97-ft level of the tower. AT&T is also proposing tower mount modifications and a mount replacement as shown on the enclosed Mount Analysis.

The facility was approved by the Town of Waterford Planning & Zoning Commission on September 29, 1997 via grant of Special Permit #97-112/304.

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 Robert Brule, First Selectman for the Town of Waterford, Abby Piersall, Planning Director, the City of New London as the property owner and Crown Castle is the tower owner.

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

The Foundation for a Wireless World.

CrownCastle.com

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:

The Honorable Robert Brule, First Selectman (*via email only to firstsel@waterfordct.org*)
Waterford Town Hall
15 Rope Ferry Road
Waterford, CT 06385

Abby Piersall, AICP, Planning Director (*via email only to permits@waterfordct.org*)
Waterford Town Hall
15 Rope Ferry Road
Waterford, CT 06385

City of New London, Property Owner (*via email only to drinehart@ci.new-london.ct.us*)
181 State Street
ATTN: Treasurer's Office
New London, CT 06320

Crown Castle, Tower Owner

From: [Zsamba, Anne Marie](#)
To: drinehart@ci.new-london.ct.us
Subject: Notice of Exempt Modification - AT&T - 41 Manitock Hill Road
Date: Thursday, July 9, 2020 12:57:00 PM
Attachments: [EM-AT&T-41 Manitock Hill Rd Waterford-876338-10071306_notice.pdf](#)

Dear Property Owner:

Attached please find AT&T's exempt modification application that is being submitted to the Connecticut Siting Council, today July 9, 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

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From: Zsamba, Anne Marie
To: permits@waterfordct.org
Subject: Notice of Exempt Modification - AT&T - 41 Manitock Hill Road
Date: Thursday, July 9, 2020 12:57:00 PM
Attachments: [EM-AT&T-41 Manitock Hill Rd Waterford-876338-10071306_notice.pdf](#)

Dear Planning Director Piersall:

Attached please find AT&T's exempt modification application that is being submitted to the Connecticut Siting Council, today July 9, 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

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

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From: Zsamba, Anne Marie
To: firstsel@waterfordct.org
Subject: Notice of Exempt Modification - AT&T - 41 Manitock Hill Road
Date: Thursday, July 9, 2020 12:57:00 PM
Attachments: [EM-AT&T-41 Manitock Hill Rd Waterford-876338-10071306_notice.pdf](#)

Dear First Selectman Brule:

Attached please find AT&T's exempt modification application that is being submitted to the Connecticut Siting Council, today July 9, 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,
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Exhibit A

Original Facility Approval

NOTICE OF GRANT OF A SPECIAL PERMIT

This is to certify that on September 29, 1997 the Waterford Planning & Zoning Commission granted Special Permit #97-112/304.

Owner of Record: City of New London

Address: 41 Manitock Hill Road

Description of Premises:

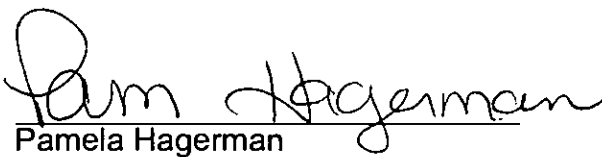
As recorded in Volume 173, Page 256 of the Waterford Land Records.

Nature of Special Permit: Special Permit granted for the construction of a 140 foot lattice design communications tower by Sprint. Co-location for additional carriers is provided for on this tower.

Applicable Zoning Regulations: Section 3.6, 5.2.1, 5.2.3 and 23.

Permit findings, stipulations and conditions are filed in the office of the Town Clerk as stated in the minutes of the Planning & Zoning Commission meeting of September 29, 1997.

PLANNING & ZONING COMMISSION

By: 
Pamela Hagerman
Recording Secretary
Planning & Zoning Commission

This notice is to be recorded on the land records of the Town of Waterford, indexed in the Grantor's Index under the name of the record owner.

RECEIVED FOR RECORD March 16, 1999
4:02 P M. ATTEST 
TOWN CLERK

Exhibit B

Property Card

41 MANITOCK HILL ROAD

Location 41 MANITOCK HILL ROAD

Mblu 117 / / 4376 / /

Acct# 00395800

Owner NEW LONDON CITY OF

Assessment \$851,550

Appraisal \$1,216,500

PID 4376

Building Count 1

Current Value

Appraisal			
Valuation Year	Improvements	Land	Total
2017	\$1,216,500	\$0	\$1,216,500

Assessment			
Valuation Year	Improvements	Land	Total
2017	\$851,550	\$0	\$851,550

Parcel Addresses

Additional Addresses
No Additional Addresses available for this parcel

Owner of Record

Owner NEW LONDON CITY OF
Co-Owner

Sale Price \$0
Certificate
Book & Page 0173/0256
Sale Date 06/11/1968
Instrument 00

Ownership History

Ownership History					
Owner	Sale Price	Certificate	Book & Page	Instrument	Sale Date
NEW LONDON CITY OF	\$0		0173/0256	00	06/11/1968

Building Information

Building 1 : Section 1

Year Built:

Living Area: 0

Replacement Cost: \$0

Building Percent Good:


Building Attributes	
Field	Description
Style	Outbuildings
Model	
Grade:	
Stories	
Occupancy	
Exterior Wall 1	
Exterior Wall 2	
Roof Structure	
Roof Cover	
Interior Wall 1	
Interior Wall 2	
Interior Flr 1	
Interior Flr 2	
Heat Fuel	
Heat Type:	
AC Percent	
Total Bedrooms:	
Full Bthrms:	
Half Baths:	
Extra Fixtures	
Total Rooms:	
Bath Style:	
Kitchen Style:	
Num Kitchens	
Fireplace(s)	
Extra Opening(s)	
Gas Fireplace(s)	
% Attic Fin	
LF Dormer	
Foundation	
Bsmt Gar(s)	
Bsmt %	
SF FBM	
SF Rec Rm	

Building Photo



(<http://images.vgsi.com/photos/WaterfordCTPhotos//default.jpg>)

Building Layout

 Building Layout

(http://images.vgsi.com/photos/WaterfordCTPhotos//Sketches/4376_4376.j)

Building Sub-Areas (sq ft)	Legend
No Data for Building Sub-Areas	

Fin Bsmt Qual	
Bsmt Access	
Usrflid 300	
Usrflid 301	

Extra Features

Extra Features	Legend
No Data for Extra Features	

Land

Land Use

Use Code 929
Description Exempt Comm Vac OB
Zone R-40
Neighborhood 600
Alt Land Appr No
Category

Land Line Valuation

Size (Acres) 0
Frontage 0
Depth 0
Assessed Value \$0
Appraised Value \$0

Outbuildings

Outbuildings						Legend
Code	Description	Sub Code	Sub Description	Size	Value	Bldg #
SHD1	Shed	MT	Metal	200.00 S.F.	\$1,500	1
LSUM	Lump Sum			1620000.00 UNITS	\$1,215,000	1

Valuation History

Appraisal			
Valuation Year	Improvements	Land	Total
4000	\$1,216,500	\$0	\$1,216,500
2019	\$1,216,500	\$0	\$1,216,500

Assessment			
Valuation Year	Improvements	Land	Total
4000	\$851,550	\$0	\$851,550
2019	\$851,550	\$0	\$851,550



Exhibit C

Construction Drawings



AT&T SITE NUMBER: CT5220
AT&T SITE NAME: WATERFORD CENTRAL
AT&T FA CODE: 10071306
AT&T PACE NUMBER: MRCTB047413
AT&T PROJECT: LTE 3C/4C/5GNR/BWE/4T4R+PACE

BUSINESS UNIT #: 876338
SITE ADDRESS: 41 MANITOCK HILL ROAD
 WATERFORD, CT 06385-2000
COUNTY: NEW LONDON
SITE TYPE: SELF SUPPORT TOWER
TOWER HEIGHT: 136'-0"



AT&T SITE NUMBER: CT5220

BU #: 876338
 WATERFORD

41 MANITOCK HILL ROAD
 WATERFORD, CT 06385-2000

EXISTING 136'-0" SELF
 SUPPORT TOWER

ISSUED FOR:

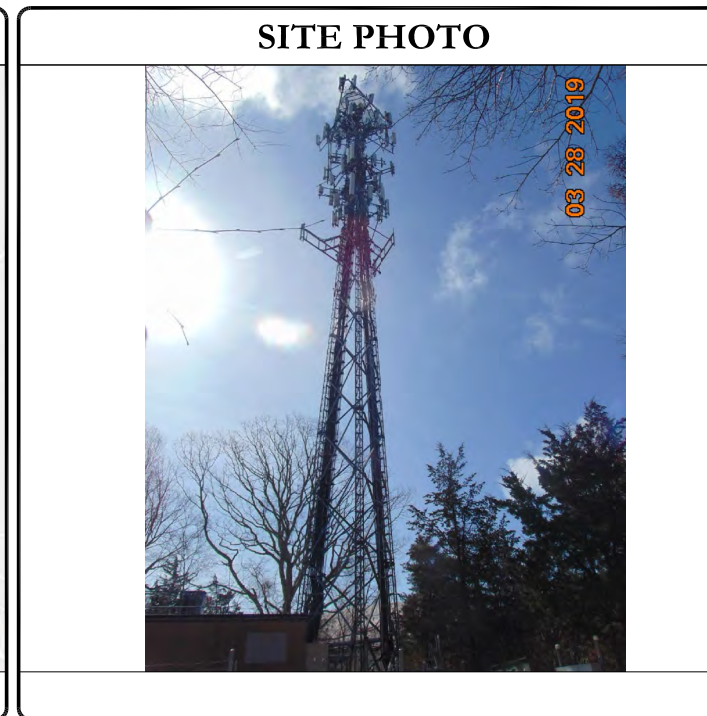
REV	DATE	DRWN	DESCRIPTION	DES./QA
A	05/22/20	JHW	PRELIMINARY	RO
B	06/04/20	SM	PRELIMINARY	RO
0	07/01/20	JHW	CONSTRUCTION	JL

SITE INFORMATION	
CROWN CASTLE USA INC. SITE NAME:	WATERFORD
SITE ADDRESS:	41 MANITOCK HILL ROAD WATERFORD, CT 06385-2000
COUNTY:	NEW LONDON
MAP/PARCEL #:	0395700
AREA OF CONSTRUCTION:	EXISTING
LATITUDE:	41° 21' 16.70"
LONGITUDE:	-72° 09' 01.60"
LAT/LONG TYPE:	NAD83
GROUND ELEVATION:	243 FT.
CURRENT ZONING:	R-40
JURISDICTION:	TOWN OF WATERFORD
OCCUPANCY CLASSIFICATION:	U
TYPE OF CONSTRUCTION:	IIB
A.D.A. COMPLIANCE:	FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION
PROPERTY OWNER:	CITY OF NEW LONDON 181 STATE STREET NEW LONDON, CT 06320
TOWER OWNER:	GLOBAL SIGNAL ACQUISITIONS II LLC 2000 CORPORATE DRIVE CANONSBURG, PA 15317
CARRIER/APPLICANT:	AT&T TOWER ASSET GROUP 575 MOROSGO DRIVE ATLANTA, GA 30324-3300
ELECTRIC PROVIDER:	NORTHEAST UTILITIES (800) 286-2000
TELCO PROVIDER:	LIGHTTOWER (845) 458-7720

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	EQUIPMENT SPECS
C-5	EQUIPMENT SPECS
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 CBYD.COM
 CALL 2 WORKING DAYS
 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 DELIA - 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 WORK:	
<ul style="list-style-type: none"> REMOVE (1) KMW - AM-X-CD-16-65-00T-RET ANTENNA REMOVE (1) KMW - AM-X-CD-14-65-00T-RET ANTENNA REMOVE (1) ANDREW - SBNH-1D6565C ANTENNA REMOVE (3) ERICSSON - RRUS-11 B12 RRU's REMOVE (3) ERICSSON - RRUS-11 B2 RRU's REMOVE EXISTING SECTOR MOUNTS AND ALL ASSOCIATED PARTS RELOCATE (3) POWERWAVE - 7770.00.850.06 ANTENNAS INSTALL (3) SABRE - C10857003C SECTOR MOUNTS INSTALL (14) 2-1/2" SCH 40 (2-7/8" O.D.) x 8'-0" LONG GALV. PIPE W/CROSSOVER HARDWARE INSTALL (1) CCI - DMP65R-BU4DA ANTENNA INSTALL (1) CCI - OPA65R-BU4DA ANTENNA INSTALL (1) CCI - DMP65R-BU6DA ANTENNA INSTALL (1) CCI - OPA65R-BU6DA ANTENNA INSTALL (1) CCI - DMP65R-BU8DA ANTENNA INSTALL (1) CCI - OPA65R-BU8DA ANTENNA INSTALL (1) RAYCAP - DC9-48-60-24-8C-EV SQUID INSTALL (3) ERICSSON - 4449 B5/B12 RRU's INSTALL (3) ERICSSON - 8843 B2/B66A RRU's INSTALL (3) ERICSSON - 4478 B14 RRU's INSTALL (3) BACK TO BACK MOUNTS INSTALL (2) 7/8" #6AWG DC CABLES INSTALL (1) 3/8" FIBER CABLE 	
GROUND SCOPE OF WORK:	
<ul style="list-style-type: none"> REMOVE (1) UMTS BBU INSTALL (1) 6601 INSTALL (2) 6630 INSTALL (1) XMU03 + IDLe INSTALL (1) 5G BBU 	

APPLICABLE CODES/REFERENCE DOCUMENTS	
ALL WORK SHALL BE PERFORMED AND MATERIALS INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES:	
CODE TYPE	CODE
BUILDING	2018 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
<p>REFERENCE DOCUMENTS:</p> <p>STRUCTURAL ANALYSIS: TOWER ENGINEERING PROFESSIONALS DATED: MAY 20, 2020</p> <p>MOUNT REPLACEMENT ANALYSIS: KIMLEY-HORN AND ASSOCIATES, INC. DATED: MAY 18, 2020</p> <p>RFDS REVISION: FINAL DATED: 04/26/2020</p> <p>ORDER ID: 517091 REVISION: 1</p>	
<p>NOTE: PRIOR TO ACCESSING/ENTERING THE SITE YOU MUST CONTACT THE CROWN NOC AT (800) 788-7011 & CROWN CONSTRUCTION MANAGER.</p>	

INSTALLER NOTE:
 NO PROPOSED LOADING TO BE ADDED UNTIL MOUNT SWAP IS INSTALLED PER MOUNT REPLACEMENT ANALYSIS BY KIMLEY-HORN AND ASSOCIATES, INC. DATED MAY 18, 2020.

DocuSigned by:
 Justin Lucette
 83400582647C419

7/1/2020 4:35 PM EDT

Crown Castle USA Inc. Certificate of Registration #PEC.0001101

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

SHEET NUMBER:	REVISION:
T-1	0

CROWN CASTLE USA INC. SITE ACTIVITY REQUIREMENTS:

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

GREENFIELD GROUNDING NOTES:

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

GENERAL NOTES:

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

CONCRETE, FOUNDATIONS, AND REINFORCING STEEL:

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

ELECTRICAL INSTALLATION NOTES:

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

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

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

ABBREVIATIONS:

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

APWA UNIFORM COLOR CODE:

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



575 MOROSZO DRIVE
ATLANTA, GA 30324-3300



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

AT&T SITE NUMBER: **CT5220**

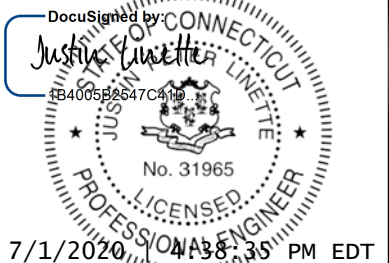
BU #: **876338**
WATERFORD

41 MANITOCK HILL ROAD
WATERFORD, CT 06385-2000

EXISTING 136'-0" SELF
SUPPORT TOWER

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
A	05/22/20	JHW	PRELIMINARY	RO
B	06/04/20	SM	PRELIMINARY	RO
0	07/01/20	JHW	CONSTRUCTION	JL



Crown Castle USA Inc. Certificate of
Registration #PEC.0001101

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.

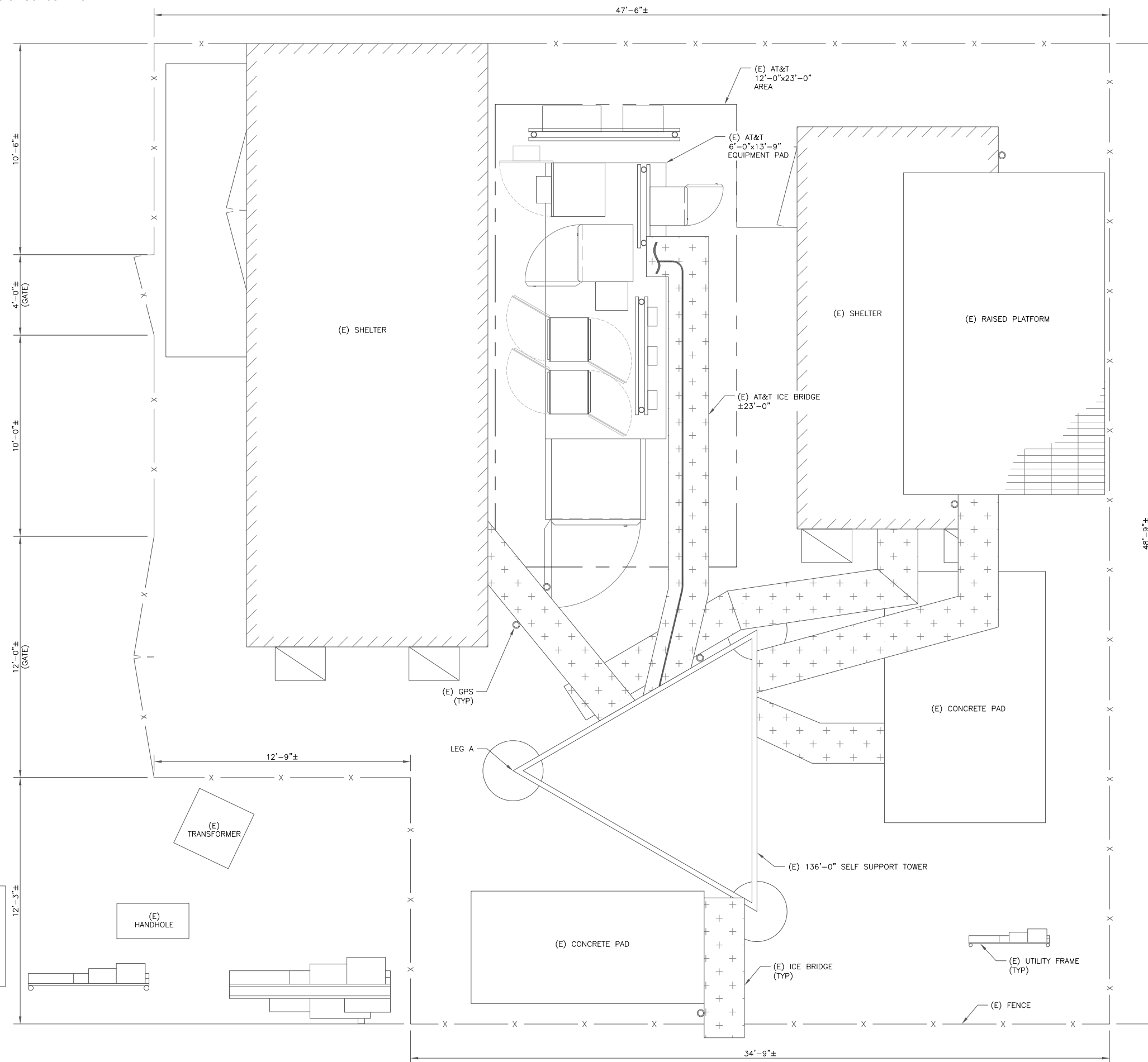
SHEET NUMBER:

T-2

REVISION:

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7/1/2020 4:38:35 PM EDT



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



AT&T SITE NUMBER: CT5220

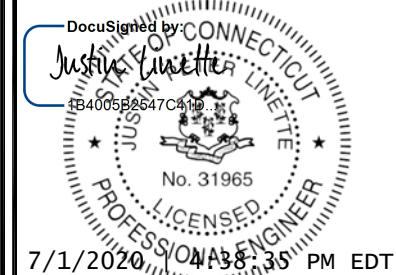
BU #: 876338
WATERFORD

41 MANTOCK HILL ROAD
 WATERFORD, CT 06385-2000

EXISTING 136'-0" SELF
 SUPPORT TOWER

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
A	05/22/20	JHW	PRELIMINARY	RO
B	06/04/20	SM	PRELIMINARY	RO
0	07/01/20	JHW	CONSTRUCTION	JL



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SHEET NUMBER: **C-1.1** REVISION: **0**

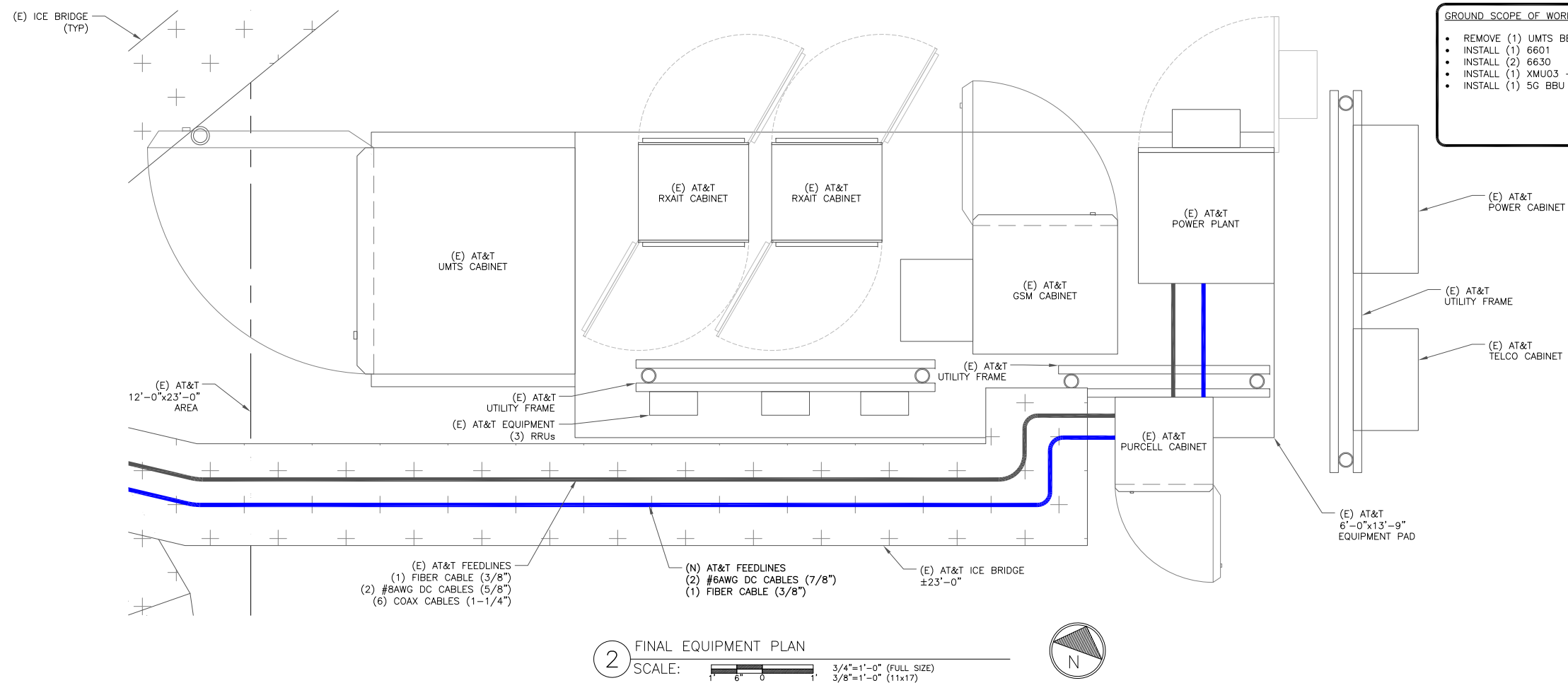
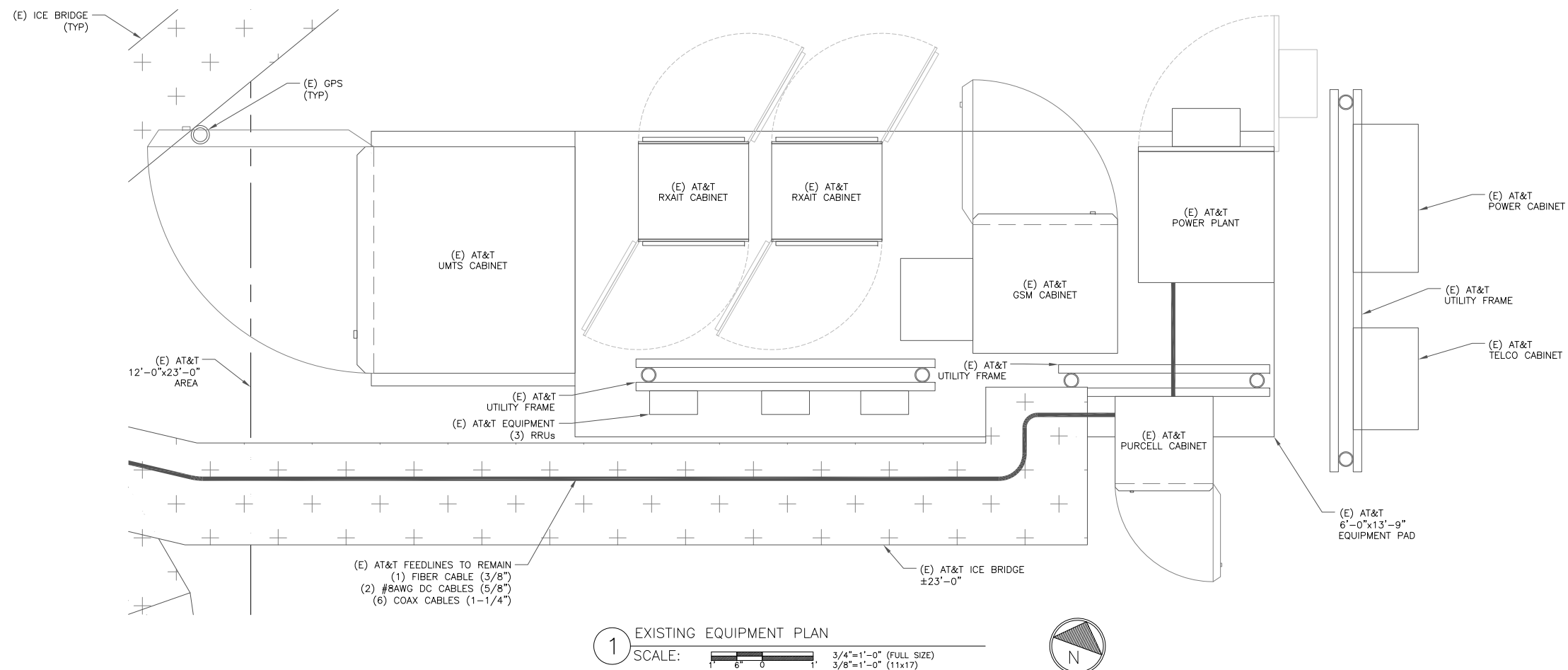


AT&T SITE NUMBER: CT5220

BU #: 876338
WATERFORD

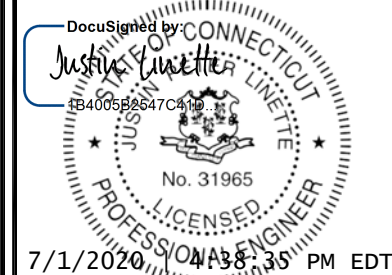
41 MANTOCK HILL ROAD
WATERFORD, CT 06385-2000

EXISTING 136'-0" SELF
SUPPORT TOWER



ISSUED FOR:

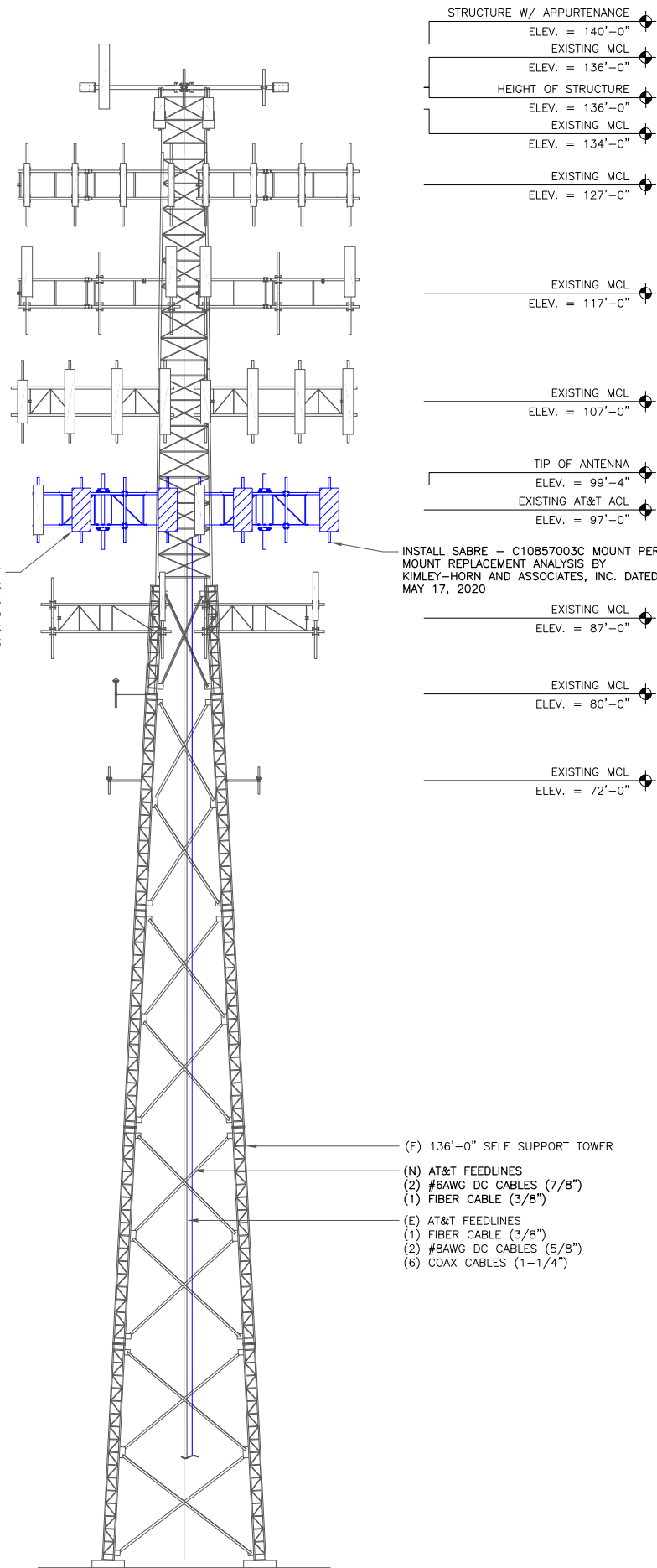
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B	06/04/20	SM	PRELIMINARY	RO
0	07/01/20	JHW	CONSTRUCTION	JL



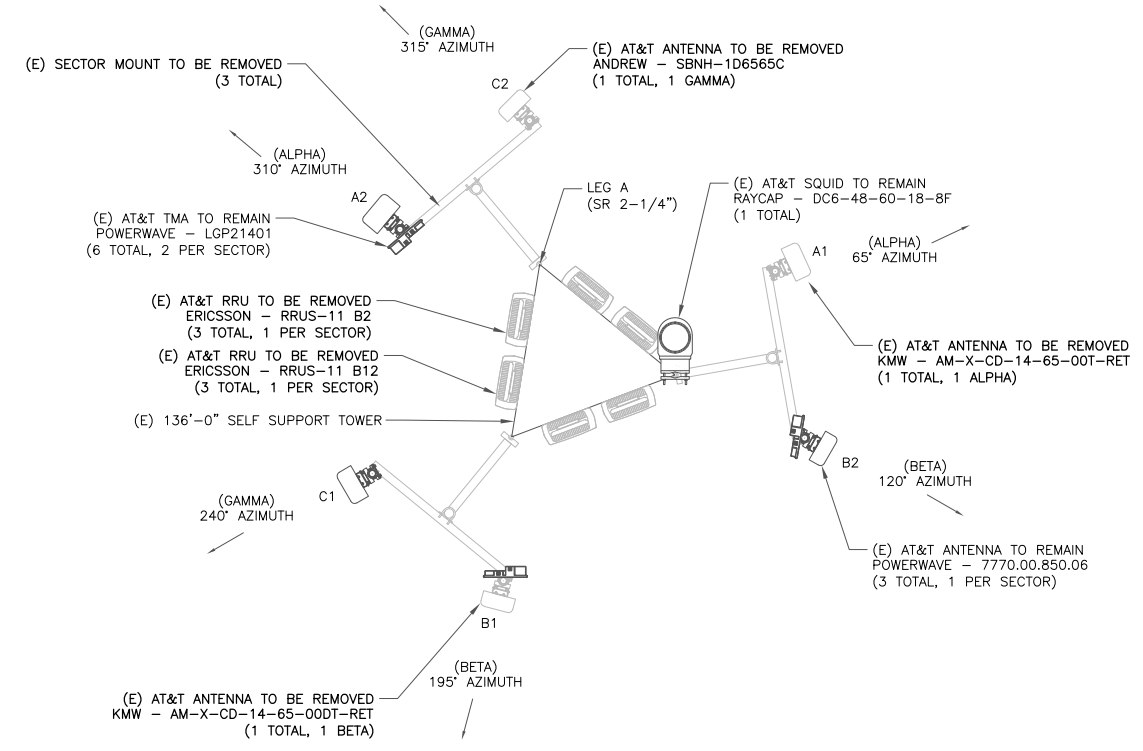
Crown Castle USA Inc. Certificate of Registration #PEC.0001101

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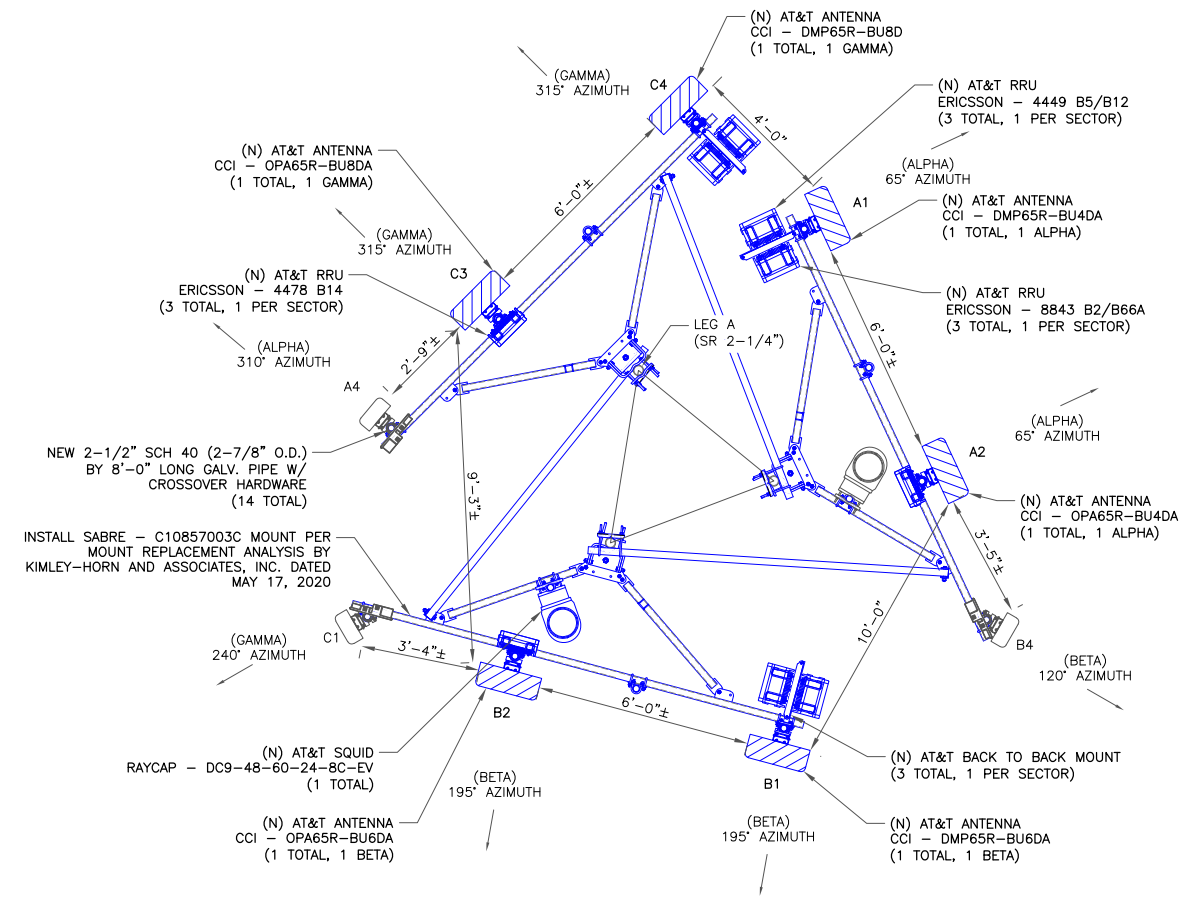
SHEET NUMBER: **C-1.2** REVISION: **0**



1 FINAL ELEVATION
 SCALE: NOT TO SCALE



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



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

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

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

- INSTALLER NOTES:
- REFERENCE C-3 FOR FINAL EQUIPMENT SCHEDULE.
 - REFERENCE C-4 FOR NEW EQUIPMENT SPECIFICATIONS.
 - CONTRACTOR TO VERIFY ALL ANTENNA TIP HEIGHTS DO NOT EXCEED BEACON BASE HEIGHT.
 - INSTALL SABRE - C10857003C MOUNT PER MOUNT REPLACEMENT ANALYSIS BY KIMLEY-HORN AND ASSOCIATES, INC. DATED MAY 17, 2020
 - 3'-0" MINIMUM DISTANCE REQUIRED BETWEEN LTE ANTENNAS ON SAME SECTOR.
 - 6'-0" MINIMUM DISTANCE REQUIRED BETWEEN 700BC & 700DE ANTENNAS ON SAME SECTOR.
 - 4'-0" MINIMUM DISTANCE REQUIRED BETWEEN LTE 700 ANTENNAS ON OPPOSING SECTORS.
 - ALL ANTENNA MEASUREMENT DISTANCES MUST BE EDGE TO EDGE (RELOCATE ANTENNAS AS NEEDED).
 - 8" MINIMUM DISTANCE REQUIRED BETWEEN ANTENNA & RADIO. SEE GENERIC EXAMPLE DETAIL ON SHEET C-4.

INSTALLER NOTE:
 TIEBACK INSTALLATION SHALL COMPLY WITH THE REQUIREMENTS OF CROWN CASTLE USA INC. "STANDARD FOR INSTALLATION OF MOUNTS AND APPURTENANCES" CED-STD-10294.

575 MOROSGO DRIVE
 ATLANTA, GA 30324-3300

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

AT&T SITE NUMBER: CT5220

BU #: 876338
 WATERFORD

41 MANTOCK HILL ROAD
 WATERFORD, CT 06385-2000

EXISTING 136'-0" SELF SUPPORT TOWER

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
A	05/22/20	JHW	PRELIMINARY	RO
B	06/04/20	SM	PRELIMINARY	RO
0	07/01/20	JHW	CONSTRUCTION	JL

DocuSigned by:
 Justin Linette
 8400582647C419

7/1/2020 4:38:35 PM EDT

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SHEET NUMBER: C-2
 REVISION: 0



AT&T SITE NUMBER: **CT5220**

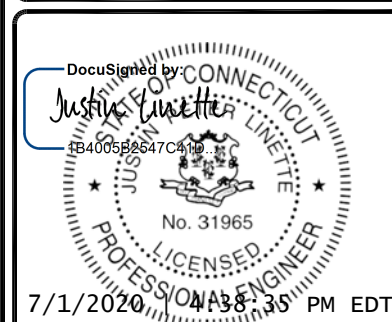
BU #: **876338**
WATERFORD

41 MANITOCK HILL ROAD
WATERFORD, CT 06385-2000

EXISTING 136'-0" SELF
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0	07/01/20	JHW	CONSTRUCTION	JL



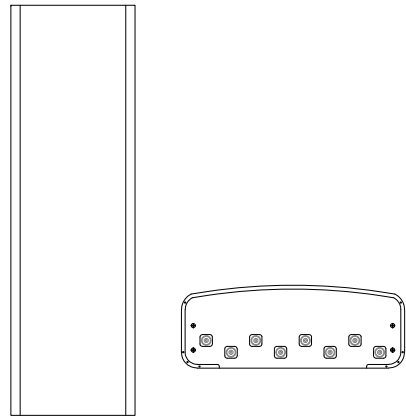
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SHEET NUMBER: **C-3** REVISION: **0**

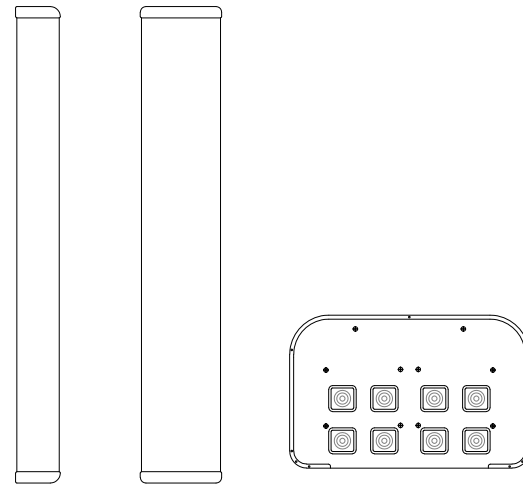
FINAL EQUIPMENT SCHEDULE (VERIFY WITH CURRENT RFDS)																		
ALPHA																		
POSITION	ANTENNA				RADIO			DIPLEXER			TMA		SURGE PROTECTION		CABLES			
	TECH.	STATUS/MANUFACTURER	MODEL	AZIMUTH	RAD CENTER	QTY.	STATUS/MODEL	LOCATION	QTY.	STATUS	LOCATION	QTY.	STATUS	QTY.	STATUS/MODEL	QTY.	STATUS/TYPE	SIZE
A1	LTE/5G	(N) CCI DMP65R-BU4DA	65°	97'-0"	1	(N) 4449 B5/B12	TOWER	-	-	-	-	-	1	(E) DC6-48-60-18-8F	1	(E) FIBER	3/8"	147'-0"
					1	(N) 8843 B2/B66A	TOWER	-	-	-	-	-	2	(E) #8AWG DC	5/8"	147'-0"		
A2	UMTS	(N) CCI OPA65R-BU4DA	65°	97'-0"	1	(N) 4478 B14	TOWER	-	-	-	-	-	1	(N) DC9-48-60-24-8C-EV	1	(N) FIBER	3/8"	147'-0"
					-	-	-	-	-	2	(N) #6AWG DC	7/8"	147'-0"					
A3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
A4	LTE	(E) POWERWAVE 770.00.850.06	310°	97'-0"	-	-	-	2	(E)	GROUND	2	(E)	-	-	2	(E) COAX	1-1/4"	147'-0"
BETA																		
B1	LTE/5G	(N) CCI DMP65R-BU4DA	195°	97'-0"	1	(N) 4449 B5/B12	TOWER	-	-	-	-	-	-	-	-	-	-	-
					1	(N) 8843 B2/B66A	TOWER	-	-	-	-	-	-	-	-	-		
B2	UMTS	(N) CCI OPA65R-BU4DA	195°	97'-0"	1	(N) 4478 B14	TOWER	-	-	-	-	-	-	-	-	-	-	
B3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
B4	LTE	(E) POWERWAVE 770.00.850.06	120°	97'-0"	-	-	-	2	(E)	GROUND	2	(E)	-	-	2	(E) COAX	1-1/4"	147'-0"
GAMMA																		
C1	LTE	(E) POWERWAVE 770.00.850.06	240°	97'-0"	-	-	-	2	(E)	GROUND	2	(E)	-	-	-	-	-	
C2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
C3	UMTS	(N) CCI OPA65R-BU4DA	315°	97'-0"	1	(N) 4478 B14	TOWER	-	-	-	-	-	-	-	-	-		
C4	LTE/5G	(N) CCI DMP65R-BU4DA	315°	97'-0"	1	(N) 4449 B5/B12	TOWER	-	-	-	-	-	-	-	2	(E) COAX	1-1/4"	147'-0"
					1	(N) 8843 B2/B66A	TOWER	-	-	-	-	-	-	-	-			

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



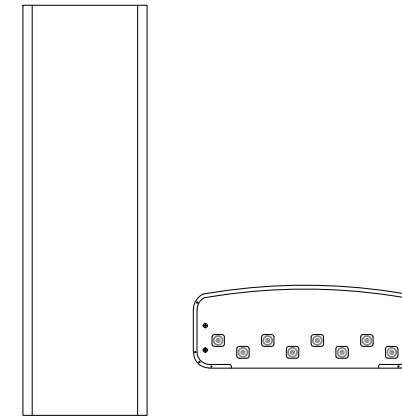
CCI ANTENNAS - DMP65R-BU4DA
 WEIGHT (WITHOUT MOUNTING HARDWARE): 76.5 LBS
 SIZE (HxWxD): 48.0x20.7x7.7 IN.

1 CCI ANTENNAS - DMP65R-BU4DA
 SCALE: NOT TO SCALE



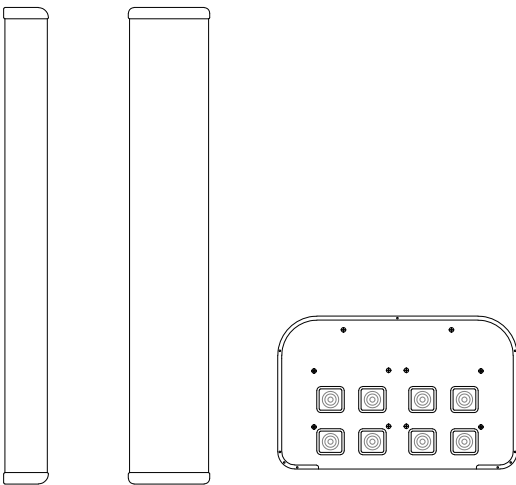
CCI ANTENNAS - OPA65R-BU46DA
 WEIGHT (WITHOUT MOUNTING HARDWARE): 62.3 LBS
 SIZE (HxWxD): 48.0x21.0x7.8 IN.
 MOUNTING HARDWARE P/N: MBK-01
 RATED WIND VELOCITY: 150.0 MPH

2 CCI ANTENNAS - OPA65R-BU46DA
 SCALE: NOT TO SCALE



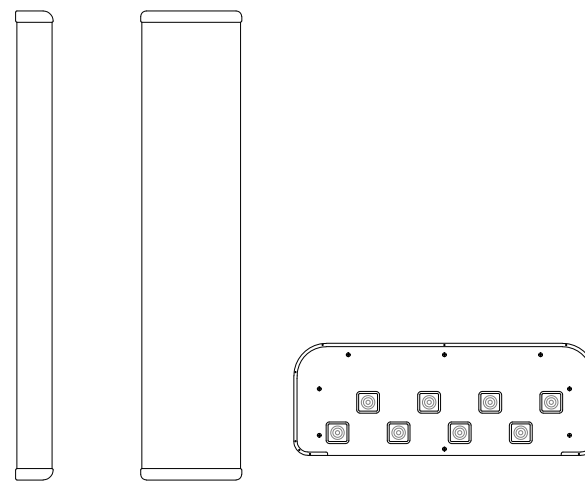
CCI ANTENNAS - DMP65R-BU6DA
 WEIGHT (WITHOUT MOUNTING HARDWARE): 89.3 LBS
 SIZE (HxWxD): 71.2x20.7x7.7 IN.

3 CCI ANTENNAS - DMP65R-BU6DA
 SCALE: NOT TO SCALE



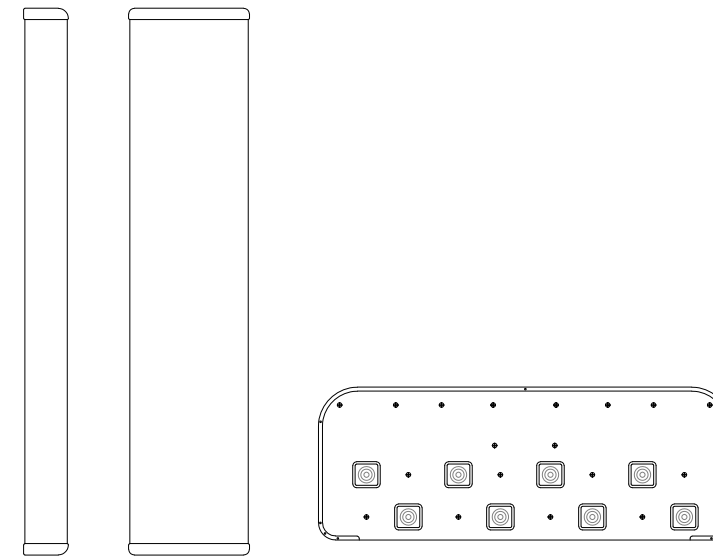
CCI ANTENNAS - OPA65R-BU6DA
 WEIGHT (WITHOUT MOUNTING HARDWARE): 63.5 LBS
 SIZE (HxWxD): 71.1x21.0x7.8 IN.
 MOUNTING HARDWARE P/N: MBK-01
 RATED WIND VELOCITY: 150.0 MPH

4 CCI ANTENNAS - OPA65R-BU6DA
 SCALE: NOT TO SCALE



CCI ANTENNAS - DMP65R-BU8DA
 WEIGHT (WITHOUT MOUNTING HARDWARE): 95.7 LBS
 SIZE (HxWxD): 96.0x20.7x7.7 IN.

5 CCI ANTENNAS - DMP65R-BU8DA
 SCALE: NOT TO SCALE



CCI ANTENNAS - OPA65R-BU8DA
 WEIGHT (WITHOUT MOUNTING HARDWARE): 76.5 LBS
 SIZE (HxWxD): 96.0x21.0x7.8 IN.
 MOUNTING HARDWARE P/N: MBK-01
 RATED WIND VELOCITY: 150.0 MPH

6 CCI ANTENNAS - OPA65R-BU8DA
 SCALE: NOT TO SCALE



AT&T SITE NUMBER: CT5220

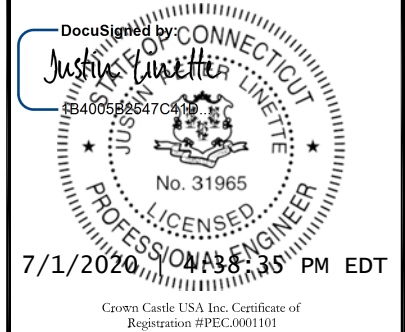
BU #: 876338
WATERFORD

41 MANTOCK HILL ROAD
 WATERFORD, CT 06385-2000

EXISTING 136'-0" SELF
 SUPPORT TOWER

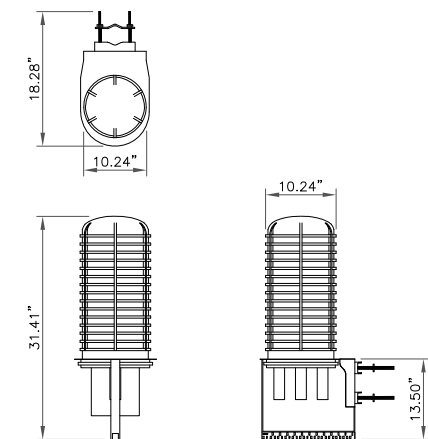
ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
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B	06/04/20	SM	PRELIMINARY	RO
0	07/01/20	JHW	CONSTRUCTION	JL



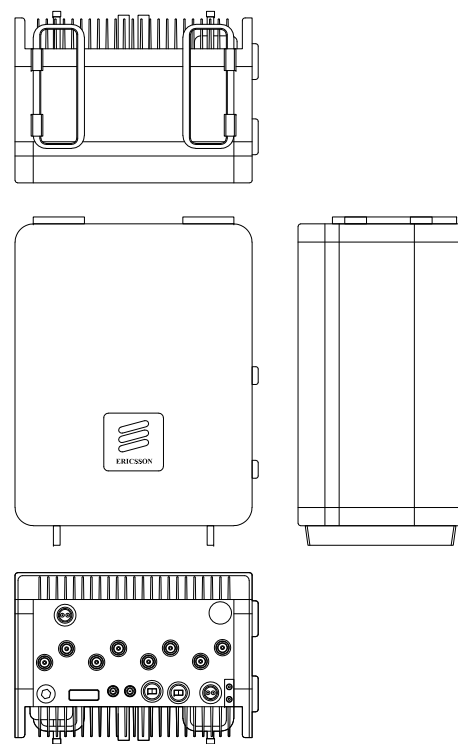
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SHEET NUMBER: **C-4** REVISION: **0**



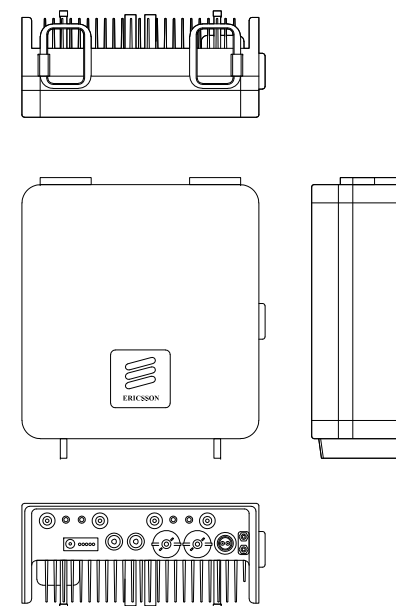
RAYCAP - DC9-48-60-24-8C-EV
 WEIGHT (WITHOUT MOUNTING HARDWARE): 16.0 LBS
 SIZE (HxWxD): 31.4x10.24x18.28 IN.

1 RAYCAP - DC9-48-60-24-8C-EV
 SCALE: NOT TO SCALE



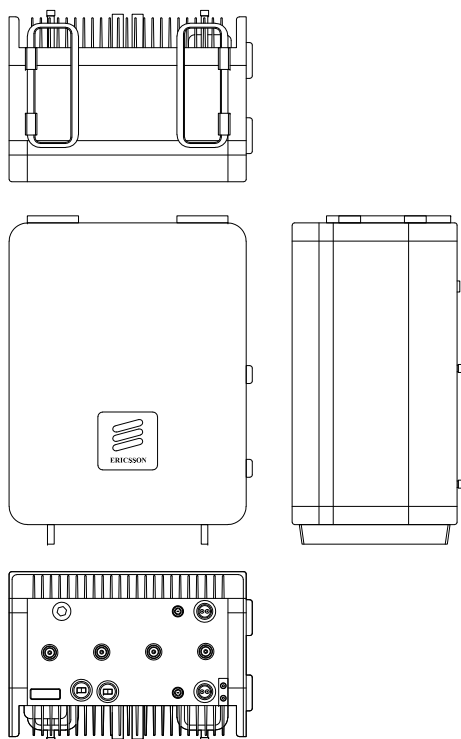
ERICSSON - 8843 B2/B66A
 WEIGHT: 75.0 LBS
 SIZE (HxWxD): 18.0x13.2x11.3 IN.

2 ERICSSON - 8843 B2/B66A
 SCALE: NOT TO SCALE



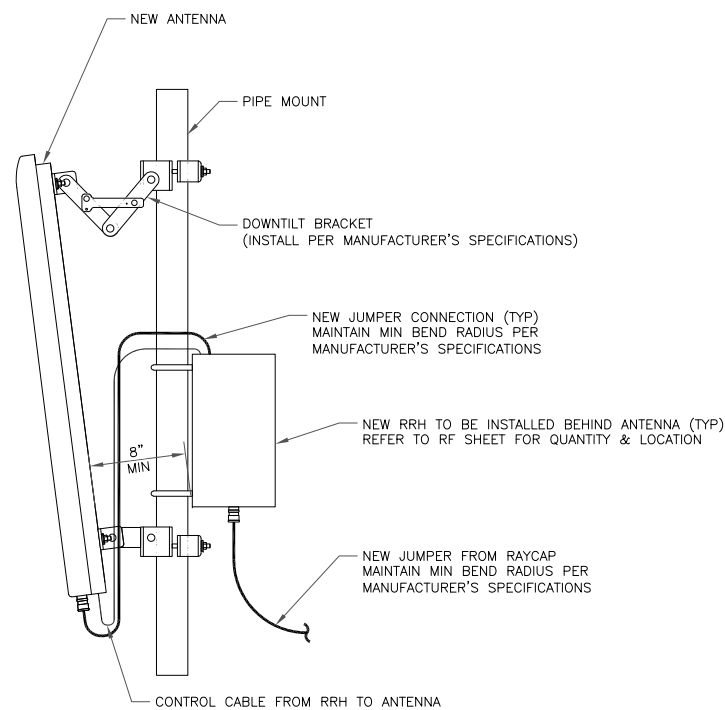
ERICSSON - 4478 B14
 WEIGHT: 60.0 LBS
 SIZE (HxWxD): 15.0x13.0x8.0 IN.

3 ERICSSON - 4478 B14
 SCALE: NOT TO SCALE



ERICSSON - 4449 B5/B12
 WEIGHT: 70.0 LBS
 SIZE (HxWxD): 18.0x13.2x9.4 IN.

4 ERICSSON - 4449 B5/B12
 SCALE: NOT TO SCALE



5 GENERIC ANTENNA MOUNTING ELEVATION
 SCALE: NOT TO SCALE

6 NOT USED
 SCALE: NOT TO SCALE



AT&T SITE NUMBER: CT5220

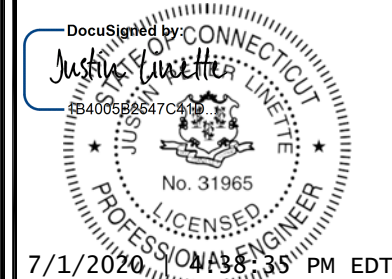
BU #: 876338
WATERFORD

41 MANTOCK HILL ROAD
 WATERFORD, CT 06385-2000

EXISTING 136'-0" SELF
 SUPPORT TOWER

ISSUED FOR:

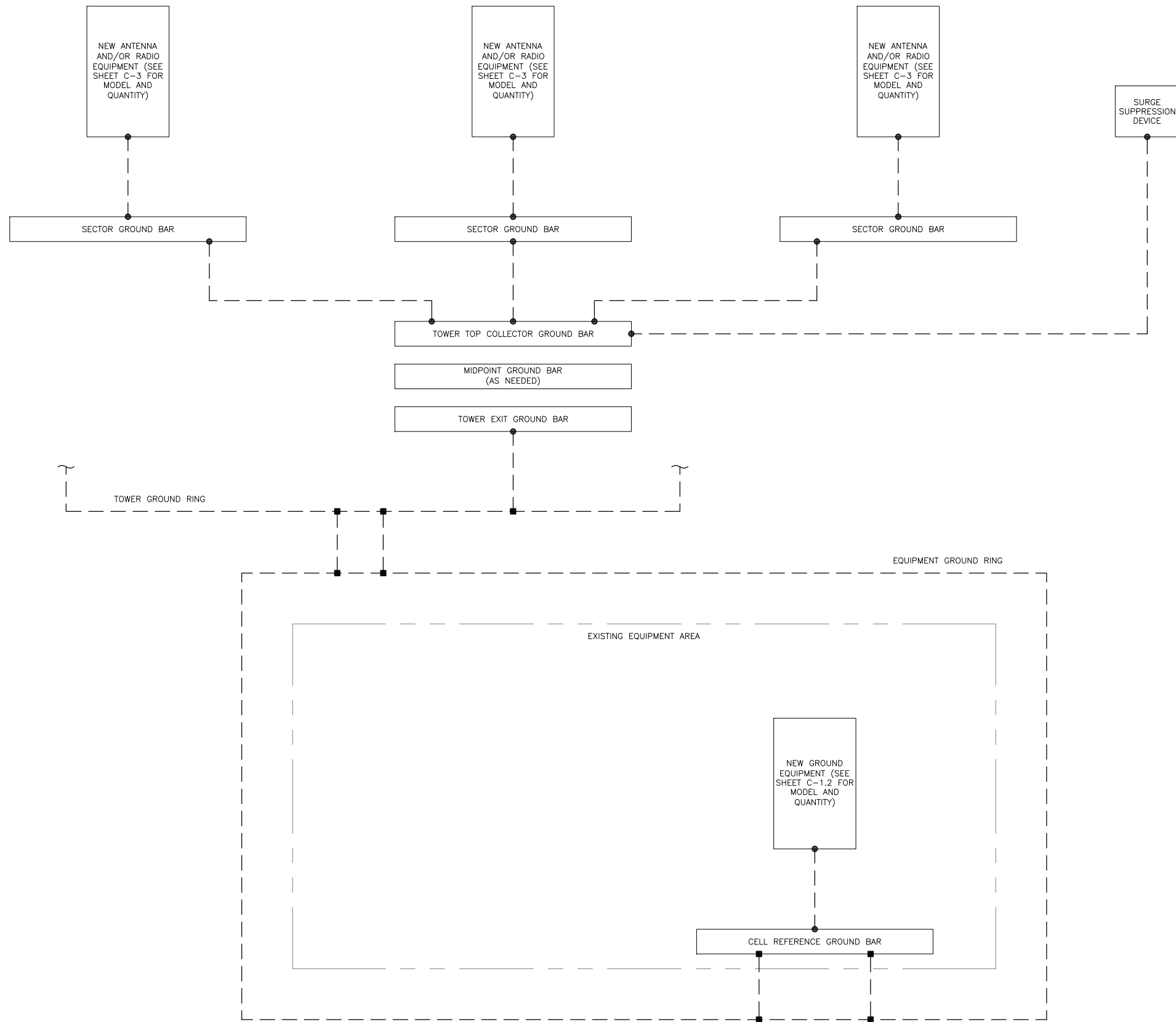
REV	DATE	DRWN	DESCRIPTION	DES./QA
A	05/22/20	JHW	PRELIMINARY	RO
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0	07/01/20	JHW	CONSTRUCTION	JL



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SHEET NUMBER: **C-5** REVISION: **0**



GROUNDING PLAN LEGEND:

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

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

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

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

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



AT&T SITE NUMBER: **CT5220**

BU #: **876338**
WATERFORD

41 MANITOCK HILL ROAD
WATERFORD, CT 06385-2000

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SUPPORT TOWER

ISSUED FOR:

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B	06/04/20	SM	PRELIMINARY	RO
0	07/01/20	JHW	CONSTRUCTION	JL

DocuSigned by:
Justin Lucette
#3400582647C419

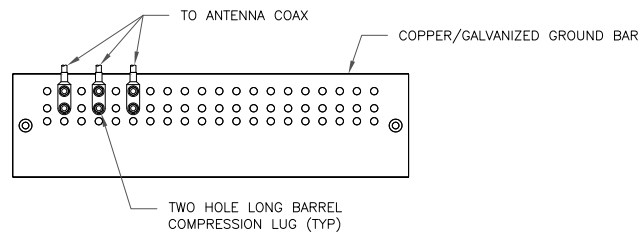
7/1/2020 4:38:35 PM EDT

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

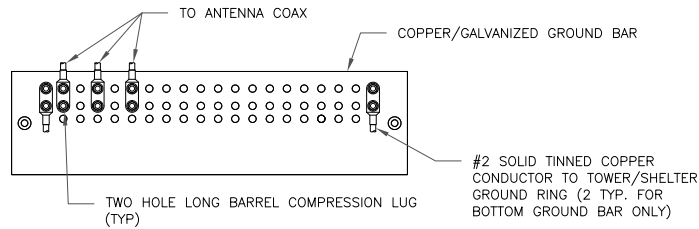
1 GROUNDING SCHEMATIC
SCALE: NOT TO SCALE



NOTES:

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

1 ANTENNA SECTOR GROUND BAR DETAIL
SCALE: NOT TO SCALE

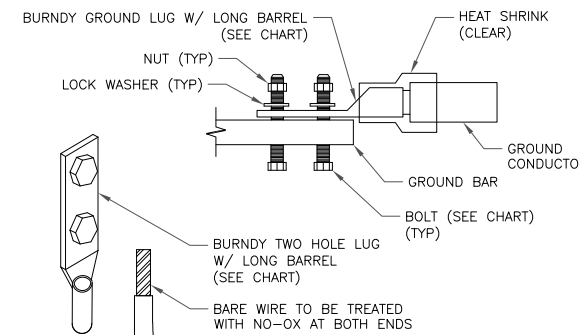


NOTES:

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

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

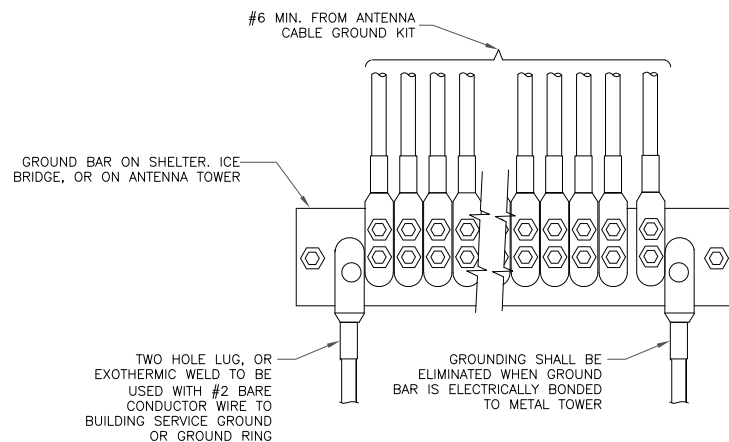
WIRE SIZE	BURNDY LUG	BOLT SIZE
#6 GREEN INSULATED	YA6C-2TC38	3/8" - 16 NC SS 2 BOLT
#2 SOLID TINNED	YA3C-2TC38	3/8" - 16 NC SS 2 BOLT
#2 STRANDED	YA2C-2TC38	3/8" - 16 NC SS 2 BOLT
#2/0 STRANDED	YA26-2TC38	3/8" - 16 NC SS 2 BOLT
#4/0 STRANDED	YA28-2N	1/2" - 16 NC SS 2 BOLT



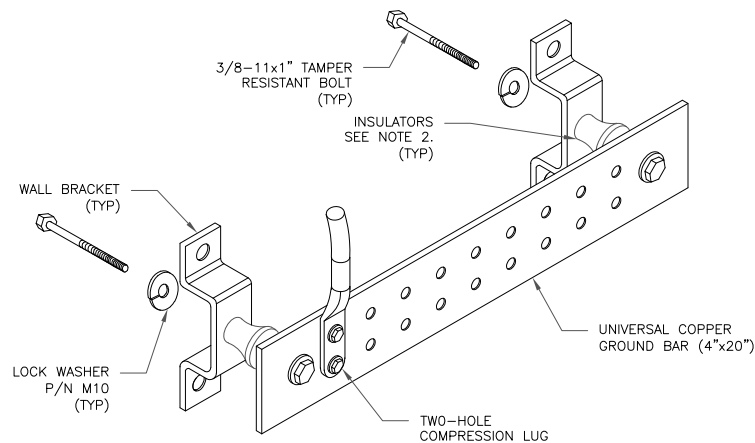
NOTE:

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

3 MECHANICAL LUG CONNECTION
SCALE: NOT TO SCALE



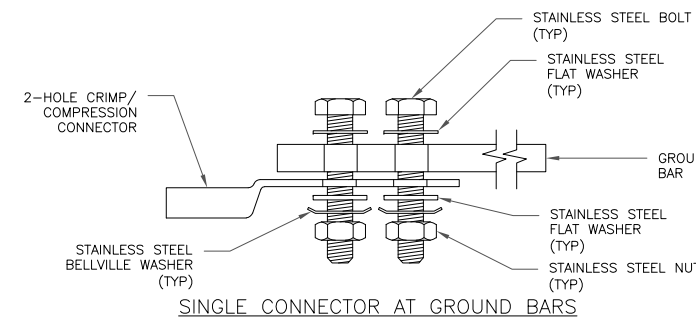
4 GROUNDWIRE INSTALLATION
SCALE: NOT TO SCALE



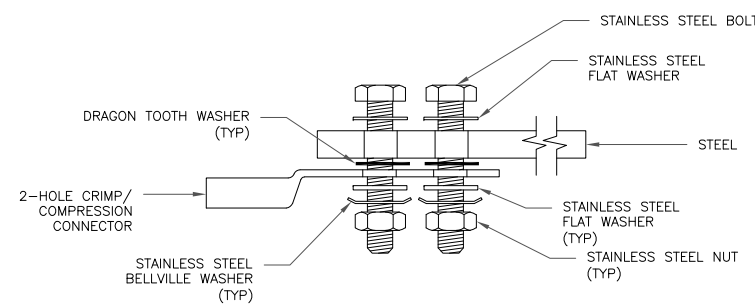
NOTES:

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

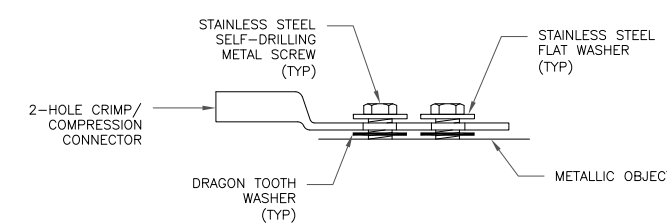
5 GROUND BAR DETAIL
SCALE: NOT TO SCALE



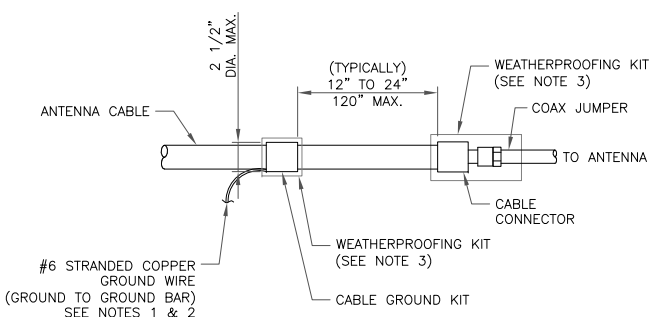
SINGLE CONNECTOR AT GROUND BARS



SINGLE CONNECTOR AT STEEL OBJECTS



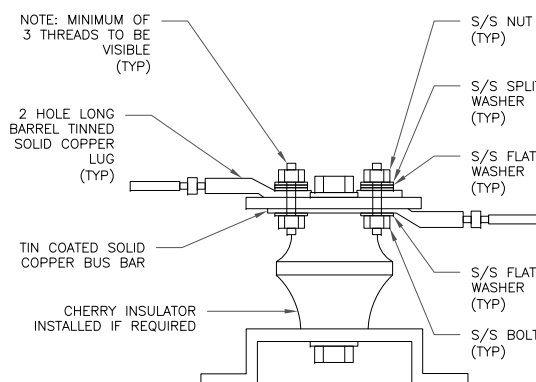
SINGLE CONNECTOR AT METALLIC/STEEL OBJECTS



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

8 HARDWARE DETAIL FOR EXTERIOR CONNECTIONS
SCALE: NOT TO SCALE



AT&T SITE NUMBER: CT5220

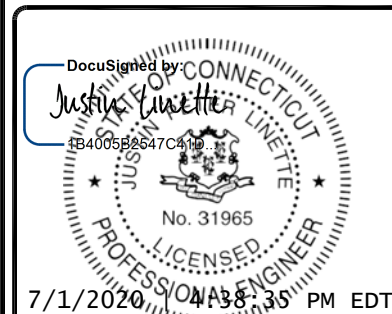
BU #: 876338
WATERFORD

41 MANITOCK HILL ROAD
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0	07/01/20	JHW	CONSTRUCTION	JL



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

Diagram - Sector	A	Diagram File Name -	CT5220_A_B_LTE Multi Carrier_Rev.1.vsd		
Atoll Site Name -	CT5220	Location Name -	WATERFORD 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"

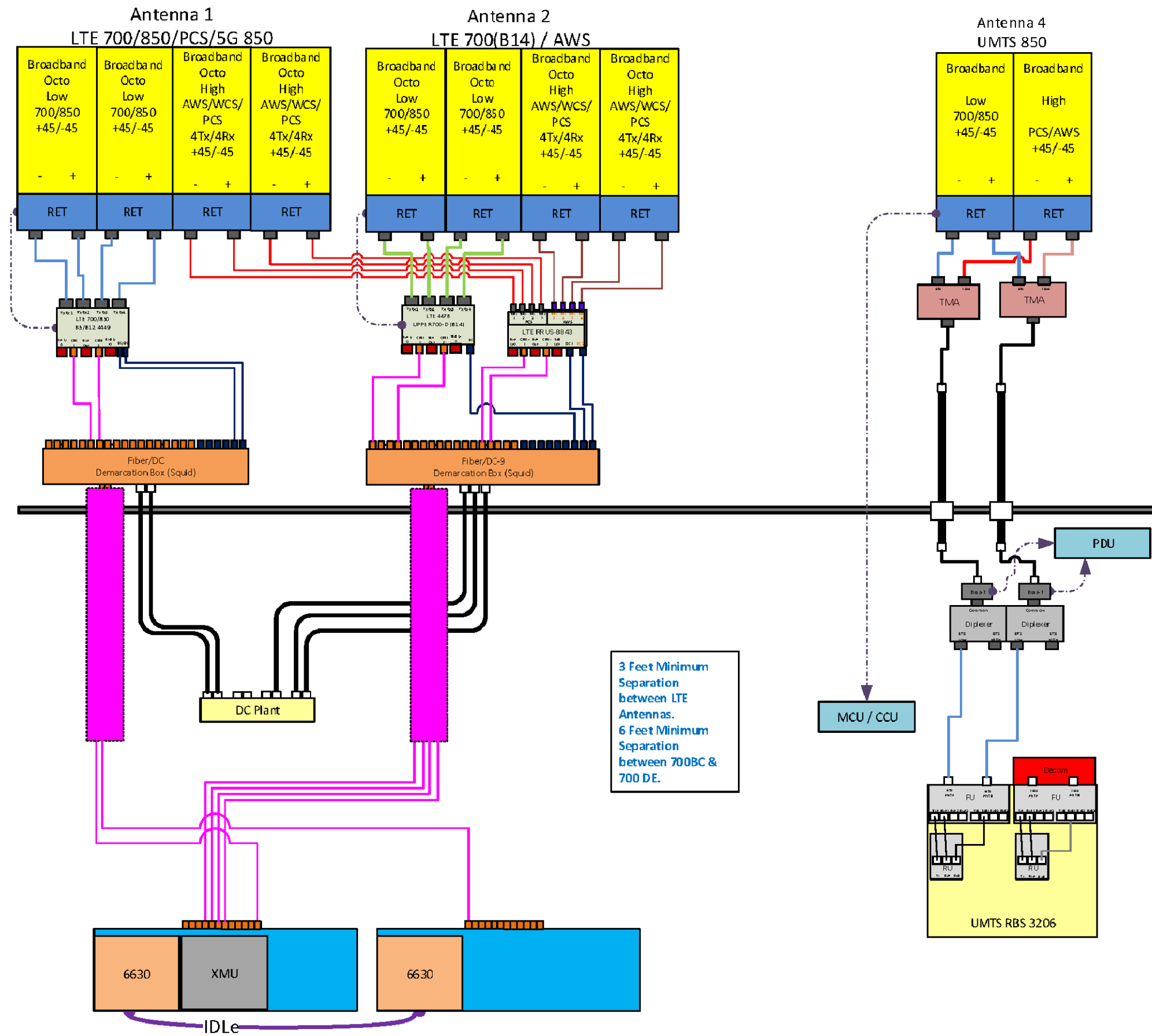


Diagram - Sector B Diagram File Name - CT5220_A_B_LTE Multi Carrier_Rev.1.vsd
Atoll Site Name - CT5220 Location Name - WATERFORD CENTRAL Market - CONNECTICUT Market Cluster - NEW ENGLAND
Comments: "Important Note: For detailed radio to antenna wiring refer to the latest field notice - Antenna_Radio Connection Drawings Playbook v6.0_Ericsson"

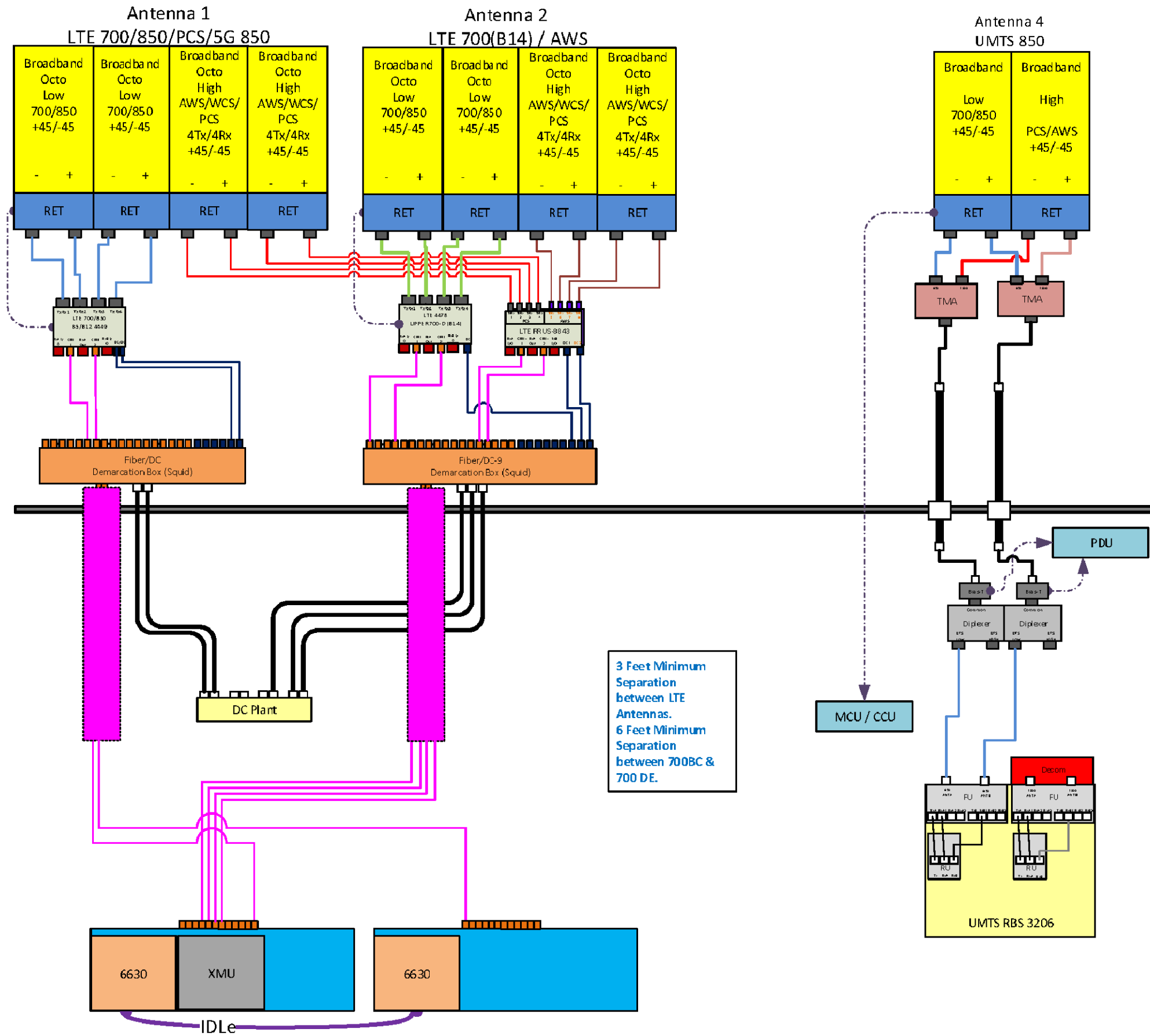
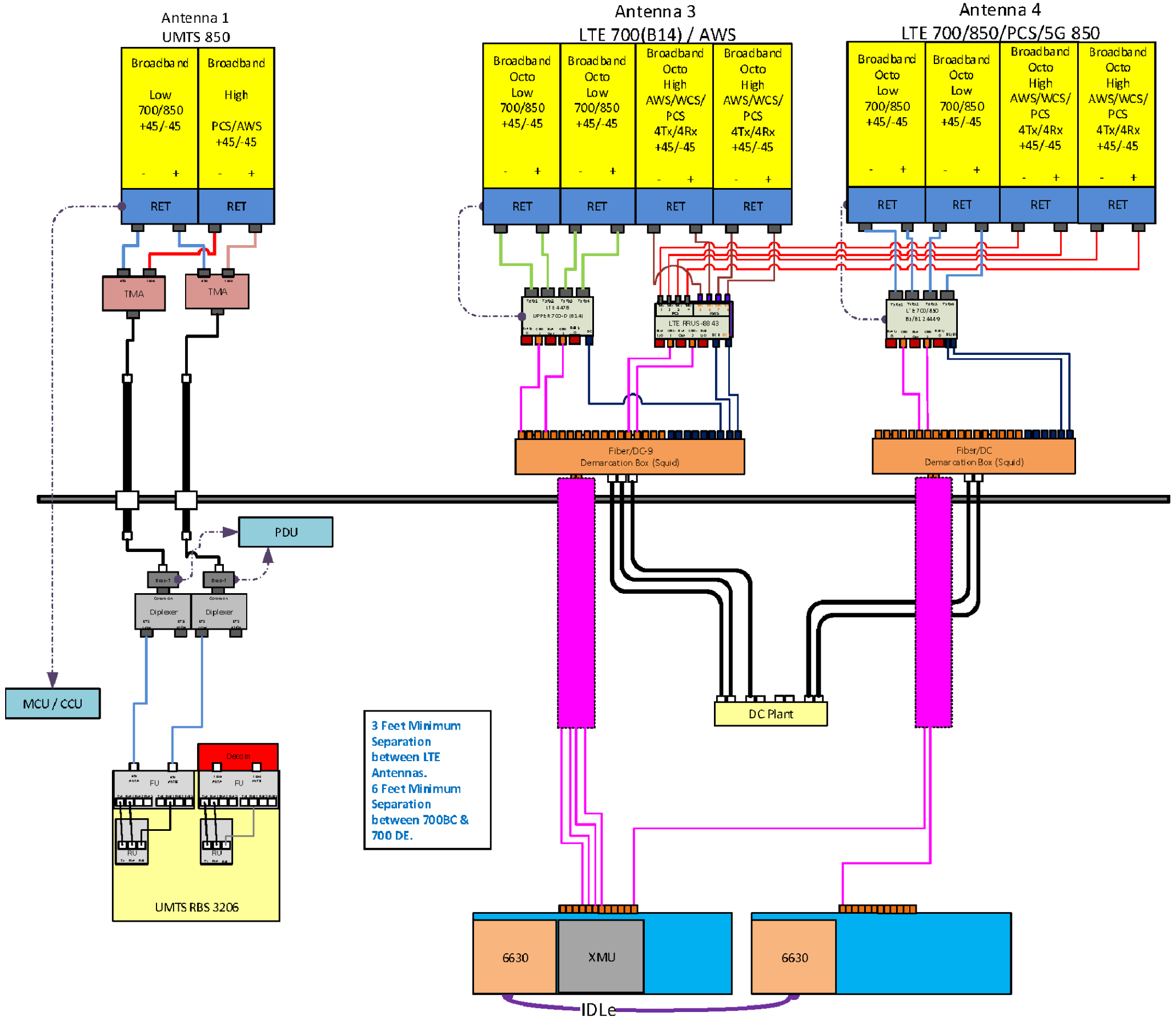
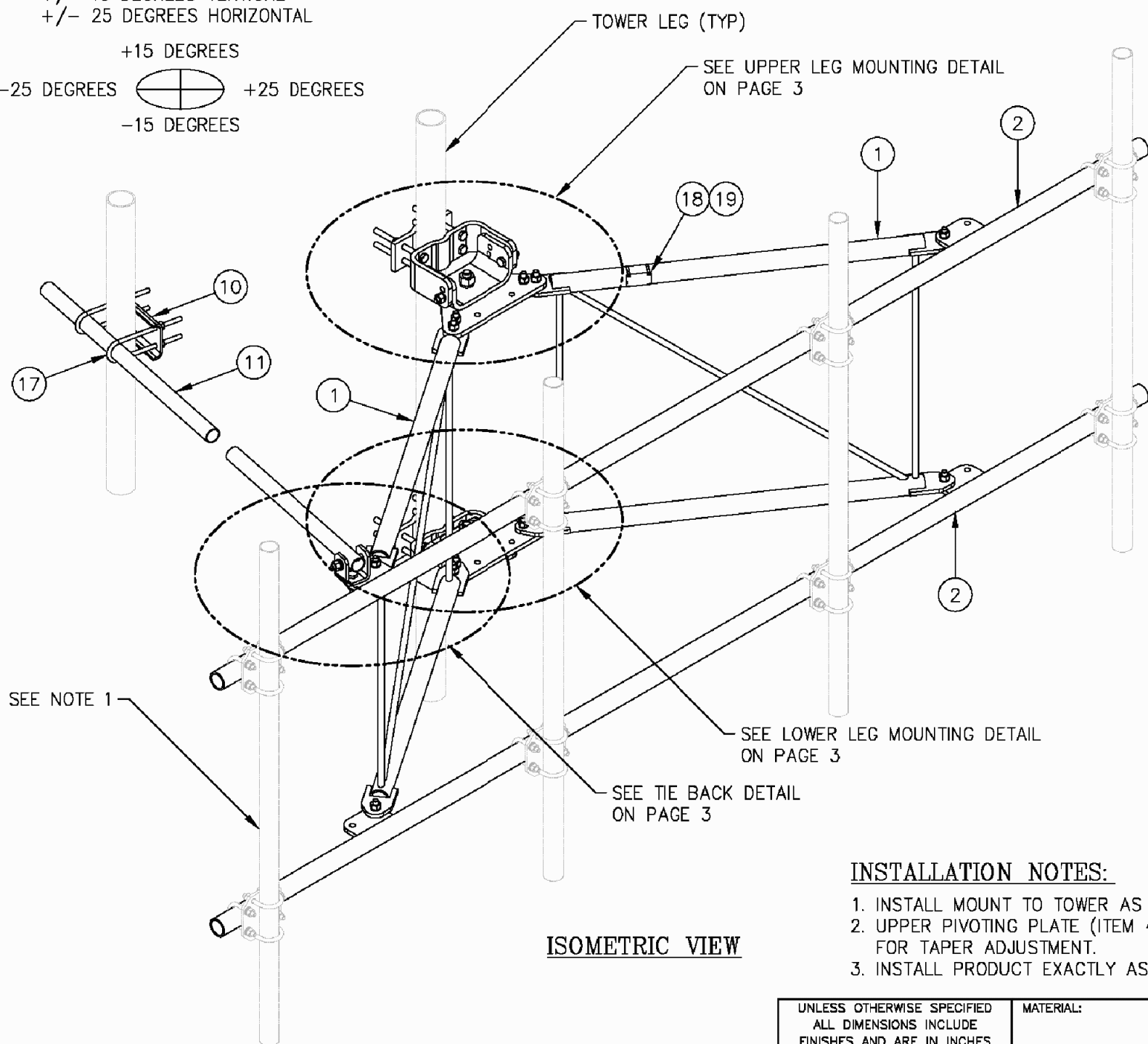


Diagram - Sector C Diagram File Name - CT5220_C_LTE Multi Carrier_Rev.1.vsd
Atoll Site Name - CT5220 Location Name - WATERFORD CENTRAL Market - CONNECTICUT Market Cluster - NEW ENGLAND
Comments: "Important Note: For detailed radio to antenna wiring refer to the latest field notice - Antenna_Radio Connection Drawings Playbook v6.0_Ericsson"



TIEBACK ANGLE RANGE DETAIL

+/- 15 DEGREES VERTICAL
 +/- 25 DEGREES HORIZONTAL
 +15 DEGREES
 -25 DEGREES +25 DEGREES
 -15 DEGREES



ISOMETRIC VIEW

NOTES:

1. MOUNTING PIPES & CROSSOVER PLATE KITS MUST BE PURCHASED SEPARATELY.
2. QUANTITIES SHOWN IN LISTS OF MATERIAL ARE FOR ONE (1) V-BOOM ONLY.
3. THIS V-BOOM WILL MOUNT TO THE FOLLOWING: 1 1/2" TO 5 9/16" ROUND LEG.
4. TIEBACK MUST BE CONNECTED TO A RIGID MEMBER THAT PROVIDES ADEQUATE SUPPORT WITHIN THE LIMITS NOTED ABOVE IN THE TIEBACK ANGLE RANGE DETAIL UNLESS APPROVED BY THE ENGINEER OF RECORD.

INSTALLATION NOTES:

1. INSTALL MOUNT TO TOWER AS SHOWN, SO THAT WELDED STANDOFF DIAGONAL IS SLOPING DOWNWARD FROM TOWER END TO FACE PIPE END.
2. UPPER PIVOTING PLATE (ITEM 4) HAS THREE HOLES ON EACH SIDE AND UPPER LEG CLAMP PLATE (ITEM 5) HAS TWO HOLES ON EACH SIDE FOR TAPER ADJUSTMENT.
3. INSTALL PRODUCT EXACTLY AS SHOWN IN DRAWING, WITH ALL BOLTS FACING UPWARDS.

C10857003C 14' HD V-BOOM ASSEMBLY W/TIEBACK

ITEM	QTY.	PART NO.	DESCRIPTION	WEIGHT
1.	2	CW01222	WELDMENT, STANDOFF ARM	126
2.	2	CW01249	WELDMENT, FACE PIPE	168
3.	2	CS03109	PLATE, ROTATING	34
4.	1	CS03110	PLATE, PIVOTING (UPPER)	16
5.	1	CS03111	PLATE, LEG CLAMP (UPPER)	17
6.	1	CS03112	PLATE, PIVOTING (LOWER)	14
7.	1	CS03113	PLATE, LEG CLAMP (LOWER)	17
8.	2	CS03114	PLATE, LEG CLAMP (BACK)	14
9.	1	CS00098	PLATE, TIE BACK SWIVEL	3
10.	1	CS03285	PLATE, TIE BACK CLAMP	4
11.	1	CS03333	PIPE, TIE BACK	38
12.	2	C40026073	BOLT ASSEMBLY, 1 Ø X 3 A325	4
13.	8	C40140004	BOLT ASSEMBLY, 5/8 Ø X 8 A307	13
14.	1	C40026033	BOLT ASSEMBLY, 5/8 Ø X 4 1/2 A325	1
15.	12	C40026025	BOLT ASSEMBLY, 5/8 Ø X 2 1/2 A325	6
16.	5	C40026024	BOLT ASSEMBLY, 5/8 Ø X 2 1/4 A325	3
17.	2	C40034183	U-BOLT ASSEMBLY, 1/2 Ø X 2 15/16 C-C	3
18.	1	Z30992020	MOUNT CLASSIFICATION TAG C10857003C	1
19.	2	C40062103	STAINLESS STEEL SELF-LOCKING CABLE TIE	1
TOTAL WEIGHT				483

PACKAGING NOTE

CK00386 INCLUDES ITEMS 1, 3, 4, 5, 6, 7, 12 & 15 (8 QTY)
 CK00404-HDW INCLUDES ITEMS 8, 9, 10, 13, 14, 15 (4 QTY), 16, 17, 18 & 19
 CK00404-STL INCLUDES ITEMS 2 & 11

UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS INCLUDE FINISHES AND ARE IN INCHES		MATERIAL:		Sabre Industries Towers and Poles	14' HD V-BOOM ASSEMBLY W/TIEBACK (3' STANDOFF) W/NO ANTENNA MOUNTING PIPES											
TOLERANCES: FRACTIONS ± 1/16" ANGLES ± 1/2 DEG. DECIMALS ± .010"		TOLERANCES DO NOT APPLY TO RAW MATERIAL														
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									DATE	07/17/18	SIZE	B	DRAWING NO.	C10857003C	REV	1
									DRAWN BY	KLE			SCALE	None	PAGE	1 OF 3
									CHECKED BY	EK						
1	11/05/18	KLE	EK	ADDED TIEBACK ANGLE RANGE DETAIL												
REV	DATE	DRW	CHK	DESCRIPTION												

Certificate Of Completion

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Envelope Summary Events	Status	Timestamps
Envelope Sent	Hashed/Encrypted	7/1/2020 4:12:03 PM
Certified Delivered	Security Checked	7/1/2020 4:38:19 PM
Signing Complete	Security Checked	7/1/2020 4:38:35 PM
Completed	Security Checked	7/1/2020 4:38:35 PM
Payment Events	Status	Timestamps
Electronic Record and Signature Disclosure		

Parties agreed to: Justin Linette

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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

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Screen Resolution:	1024 x 768

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Exhibit D

Structural Analysis Report

Date: **May 20, 2020**

Amanda Brown
Crown Castle
6325 Ardrey Kell Rd., Suite 600
Charlotte, NC 28277



Tower Engineering Professionals
326 Tryon Road
Raleigh, NC 27603
(919) 661-6351

Subject: Structural Analysis Report

Carrier Designation: **AT&T Mobility Co-Locate**
Carrier Site Number: 10071306
Carrier Site Name: Waterford Central

Crown Castle Designation: **Crown Castle BU Number:** 876338
Crown Castle Site Name: Waterford
Crown Castle JDE Job Number: 605412
Crown Castle Work Order Number: 1847107
Crown Castle Order Number: 517091 Rev. 1

Engineering Firm Designation: **TEP Project Number:** 25598.415380

Site Data: **41 Manitock Hill Road, Waterford, New London County, CT 06385**
Latitude 41° 21' 16.70", Longitude -72° 9' 1.60"
136 Foot - Self Supporting Tower

Dear Amanda Brown,

Tower Engineering Professionals 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 - 73.8%**

This analysis utilizes an ultimate 3-second gust wind speed of 135 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: Paul Stewart, P.E. / CJB

Respectfully submitted by:

Aaron T. Rucker, P.E.



Electronic Copy

05/20/2020

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1) INTRODUCTION

This tower is a 136-ft self supporting tower designed by PiRod, Inc. The tower has been modified per reinforcement drawings prepared by Vertical Structures in October of 2007.

2) ANALYSIS CRITERIA

TIA-222 Revision:	TIA-222-H
Risk Category:	II
Wind Speed:	135 mph
Exposure Category:	B
Topographic Factor:	1.0
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)
97.0	97.0	1	CCI Antennas	DMP65R-BU4D w/ Mount Pipe		
		1	CCI Antennas	DMP65R-BU6D w/ Mount Pipe		
		1	CCI Antennas	DMP65R-BU8D w/ Mount Pipe		
		1	CCI Antennas	OPA65R-BU4D w/ Mount Pipe		
		1	CCI Antennas	OPA65R-BU6D w/ Mount Pipe		
		1	CCI Antennas	OPA65R-BU8D w/ Mount Pipe		
		3	Powerwave Technologies	7770.00 w/ Mount Pipe	6	1-1/4
		3	Ericsson	RRUS 4449 B5/B12	2	7/8
		3	Ericsson	RRUS 4478 B14_CCIV2	2	5/8
		3	Ericsson	RRUS 8843 B2/B66A_CCIV2	2	3/8
		6	Powerwave Technologies	LGP21401		
		1	Raycap	DC6-48-60-18-8F		
		1	Raycap	DC9-48-60-24-8C-EV		
		3	Sabre	C10857003C		

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)
136.0	137.0	3	RFS Celwave	APXVTM14-C-120 w/ Mount Pipe	4	1-1/4
		3	Alcatel Lucent	TD-RRH8x20-25		
		3	RFS Celwave	APXVSPP18-C-A20 w/ Mount Pipe		
	136.0	3	RFS Celwave	IBC1900HG-2A		
		3	RFS Celwave	IBC1900BB-1		
		1	Tower Mounts	Platform Mount [LP 405-1]		

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
134.0	134.0	3	Alcatel Lucent	1900MHz RRH (65MHz)	-	-
		1	Tower Mounts	Side Arm Mount [SO 104-3]		
	133.0	3	Alcatel Lucent	800MHz 2X50W RRH w/ Filter		
127.0	127.0	12	Decibel	DB844H90E-XY w/ Mount Pipe	12	1-1/4
		1	Tower Mounts	Sector Mount [SM 411-3]		
117.0	119.0	3	RFS Celwave	APXVAARR24_43-U-NA20 w/ Mount Pipe	10	1-5/8
		3	Ericsson	AIR 21 B2A B4P w/ Mount Pipe		
		3	Ericsson	AIR 21 B4A B2P w/ Mount Pipe		
		3	Ericsson	Radio 4449 B12/B71		
		3	Ericsson	KRY 112 144/1		
	117.0	1	Tower Mounts	Sector Mount [SM 411-3]		
107.0	107.0	3	Antel	BXA-80063/4CF	14	1-5/8
		6	RFS Celwave	FD9R6004/2C-3L		
		6	Commscope	SBNHH-1D65B w/ Mount Pipe		
		3	Antel	BXA-70063-6CF-2 w/ Mount Pipe		
		3	Alcatel Lucent	B66A RRH4X45		
		3	Alcatel Lucent	RRH2x60-700		
		3	Alcatel Lucent	RRH2X60-PCS		
		2	Commscope	RC2DC-3315-PF-48		
		1	Tower Mounts	Sector Mount [SM 403-3]		
87.0	89.0	3	Kathrein	800 10504 w/ Mount Pipe	6	7/8
		3	Kathrein	860 10118		
	87.0	1	Tower Mounts	Sector Mount [SM 104-3]		
80.0	81.0	1	GPS	GPS_A	1	1/2
	80.0	1	Tower Mounts	Side Arm Mount [SO 701-1]		
72.0	72.0	2	GPS	GPS_A	2	1/2
		2	Tower Mounts	Side Arm Mount [SO 701-1]		

3) ANALYSIS PROCEDURE

Table 3 - Documents Provided

Document	Remarks	Reference	Source
Geotechnical Report	SEA Consultants, Inc.	2035622	CCISites
Tower Foundation Drawings	Pirot, Inc.	2068030	CCISites
Tower Manufacturer Drawings	Pirot, Inc.	1441523	CCISites
Tower Reinforcement Drawings	Vertical Structures, Inc.	2125417	CCISites
Post Modification Inspection	Vertical Structures, Inc.	2376132	CCISites

3.1) Analysis Method

tnxTower (version 8.0.5.0), a commercially available analysis software package, was used to create a three-dimensional model of the tower and calculate member stresses for various loading cases. Selected output from the analysis is included in Appendix A. When applicable, Crown Castle has calculated and provided the effective area for panel antennas using approved methods following the intent of the TIA-222 Standard.

tnxTower was used to determine the loads on the modified structure. Additional calculations were performed to determine the stresses in the reinforced leg sections. These calculations are presented in Appendix C.

3.2) Assumptions

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

This analysis may be affected if any assumptions are not valid or have been made in error. Tower Engineering Professionals 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)	ϕP_{allow} (K)	% Capacity	Pass / Fail
T1	136 - 132.813	Leg	1 1/2	2	-2.95	46.31	6.4	Pass
T2	132.813 - 130	Leg	1 1/2	14	-5.07	48.62	10.4	Pass
T3	130 - 110	Leg	2	28	-38.83	116.92	33.2	Pass
T4	110 - 94.9434	Leg	2 1/4	87	-82.42	156.33	52.7	Pass
T5	94.9434 - 92.5938	Leg	2 1/4	129	-90.99	179.34	50.7	Pass
T6	92.5938 - 90	Leg	2 1/4	139	-103.81	185.75	55.9	Pass
T7	90 - 80	Leg	PiRod 105244 w/ (2) 1-1/4" Tie Rod	Note 1	Note 1	Note 1	51.2	Pass
T8	80 - 60	Leg	PiRod 105217	163	-156.52	225.60	69.4	Pass
T9	60 - 40	Leg	PiRod 105218	178	-193.50	315.72	61.3	Pass
T10	40 - 20	Leg	PiRod 105218	193	-226.07	315.72	71.6	Pass
T11	20 - 0	Leg	PiRod 105219	208	-256.08	419.86	61.0	Pass
T1	136 - 132.813	Diagonal	7/8	9	-1.58	9.18	17.3	Pass
T2	132.813 - 130	Diagonal	3/4	24	-1.42	5.80	24.5	Pass
T3	130 - 110	Diagonal	7/8	39	-3.90	9.72	40.1	Pass
T4	110 - 94.9434	Diagonal	1	96	-5.70	14.70	38.8	Pass
T5	94.9434 - 92.5938	Diagonal	1	135	-6.06	14.41	42.1	Pass
T6	92.5938 - 90	Diagonal	1	150	-6.99	14.87	47.0	Pass
T7	90 - 80	Diagonal	L3x3x3/16	162	-7.74	26.25	29.5 66.4 (b)	Pass
T8	80 - 60	Diagonal	L2 1/2x2 1/2x3/16	171	-6.61	14.57	45.4 65.0 (b)	Pass
T9	60 - 40	Diagonal	L3x3x3/16	181	-6.22	20.18	30.8 51.3 (b)	Pass

Section No.	Elevation (ft)	Component Type	Size	Critical Element	P (K)	ΦP_{allow} (K)	% Capacity	Pass / Fail	
T10	40 - 20	Diagonal	L3x3x3/16	196	-6.49	16.11	40.3 50.1 (b)	Pass	
T11	20 - 0	Diagonal	L3x3x5/16	211	-8.74	20.54	42.6	Pass	
T5	94.9434 - 92.5938	Secondary Horizontal	1 1/2	137	-1.58	36.90	4.3	Pass	
T6	92.5938 - 90	Secondary Horizontal	1 1/2	151	-1.71	36.21	4.7	Pass	
T1	136 - 132.813	Top Girt	6x3/8	5	-1.07	5.14	20.8	Pass	
T2	132.813 - 130	Top Girt	7/8	16	0.21	28.41	0.7	Pass	
T3	130 - 110	Top Girt	7/8	32	-0.55	6.51	8.5	Pass	
T4	110 - 94.9434	Top Girt	1	89	-1.36	8.78	15.5	Pass	
T2	132.813 - 130	Bottom Girt	7/8	20	-0.51	6.44	7.9	Pass	
T3	130 - 110	Bottom Girt	7/8	35	-1.72	5.16	33.4	Pass	
T6	92.5938 - 90	Bottom Girt	1	142	-0.89	7.17	12.4	Pass	
							Summary		
							Leg (T10)	71.6	Pass
							Diagonal (T7)	66.4	Pass
							Secondary Horizontal (T6)	4.7	Pass
							Top Girt (T1)	20.8	Pass
							Bottom Girt (T3)	33.4	Pass
							Bolt Checks	66.4	Pass
							RATING =	71.6	Pass

Table 5 - Tower Component Stresses vs. Capacity - LC7

Notes	Component	Elevation (ft)	% Capacity	Pass / Fail
1,2	Anchor Rods	-	18.2	Pass
1,2	Base Foundation Soil Interaction	-	73.8	Pass
1,2	Base Foundation Structural	-	22.3	Pass

Structure Rating (max from all components) =	73.8%
---	--------------

Notes:

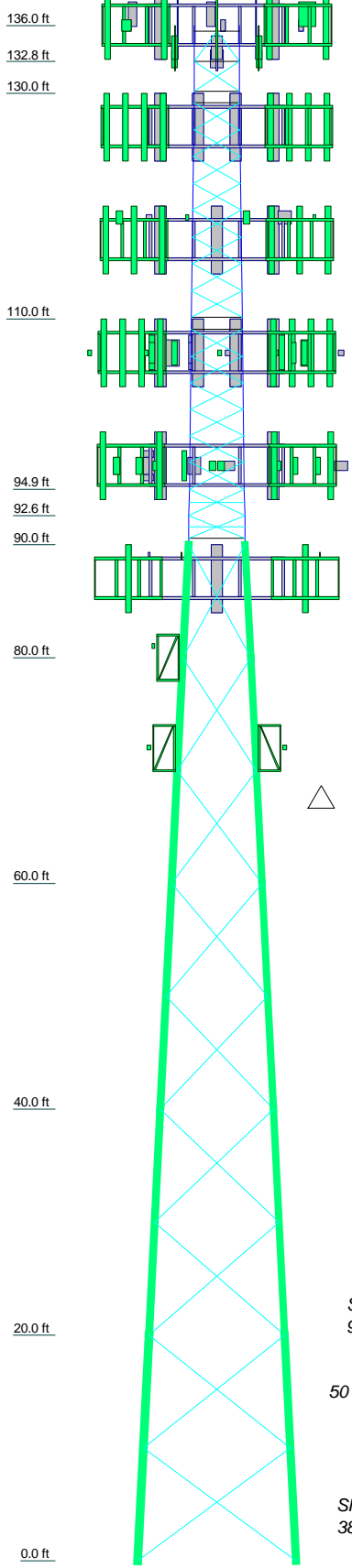
- 1) See additional documentation in "Appendix C - Additional Calculations" for calculations supporting the % capacity listed.
- 2) Rating per TIA-222-H Section 15.5

4.1) Recommendations

- 1) 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

Section	T10	T9	T8	T7	T6	T5	T4	T3	T2	T1
Legs	Pirrod 105218	Pirrod 105217	A				SR 2 1/4	SR 2	SR 1 1/2	SR 1
Leg Grade	L3x3x5/16	L3x3x3/16	L2 1/2x2 1/2x3/16	L3x3x3/16				SR 7/8	C	B
Diagonals	L3x3x5/16	L3x3x3/16						SR 7/8		
Diagonal Grade	A36	A36						A572-50		
Top Girts	N.A.	N.A.						SR 1	6x3/8	
Bottom Girts	N.A.	N.A.						SR 7/8	SR 7/8	N.A.
Sec. Horizontals	N.A.	N.A.						SR 1 1/2		
Face Width (ft)	12	10	8	6	4.5	4				
# Panels @ (ft)	4.6	3.0	2.9	2.3	1.4	0.3	0.3	1.2	1.2	0.1
Weight (K)	17.3							8 @ 2.38021	2 @ 2.6875	0.2



SYMBOL LIST

MARK	SIZE	MARK	SIZE
A	PiRod 105244 w/ (2) 1-1/4" Tie Rod	D	SR 1
B	SR 7/8	E	1 @ 2.01042
C	SR 3/4		

MATERIAL STRENGTH

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

TOWER DESIGN NOTES

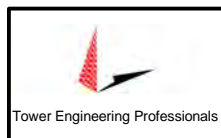
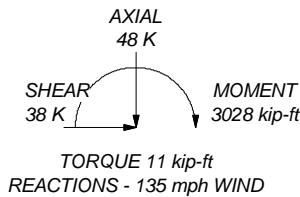
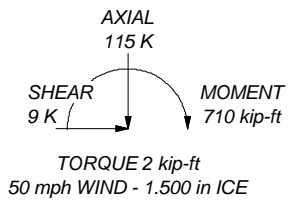
1. Tower is located in New London County, Connecticut.
2. Tower designed for Exposure B to the TIA-222-H Standard.
3. Tower designed for a 135 mph basic wind in accordance with the TIA-222-H Standard.
4. Tower is also designed for a 50 mph basic wind with 1.50 in ice. Ice is considered to increase in 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: 71.6%

ALL REACTIONS ARE FACTORED

MAX. CORNER REACTIONS AT BASE:

DOWN: 266 K
SHEAR: 26 K

UPLIFT: -235 K
SHEAR: 24 K



Tower Engineering Professionals, Inc.
326 Tryon Road
Raleigh, NC 27603
Phone: (619) 661-6351
FAX: (619) 661-6350

Job: Waterford (BU 876338)		
Project: TEP No. 25598.415380		
Client: Crown Castle	Drawn by: CJB	App'd:
Code: TIA-222-H	Date: 05/20/20	Scale: NTS
Path: <small>C:\Users\cbrown\Desktop\25598 (BU 876338)\876338_1847107_LC7.dwg</small>		Dwg No. E-1

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Tower Input Data

The main tower is a 3x free standing tower with an overall height of 136.00 ft above the ground line.

The base of the tower is set at an elevation of 0.00 ft above the ground line.

The face width of the tower is 4.000 ft at the top and 14.000 ft at the base.

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

The following design criteria apply:

Tower is located in New London County, Connecticut.

Tower base elevation above sea level: 242.00 ft.

Basic wind speed of 135 mph.

Risk Category II.

Exposure Category B.

Simplified Topographic Factor Procedure for wind speed-up calculations is used.

Topographic Category: 1.

Crest Height: 0.00 ft.

Nominal ice thickness of 1.500 in.

Ice thickness is considered to increase with height.

Ice density of 56 pcf.

A wind speed of 50 mph is used in combination with ice.

Temperature drop of 50 °F.

Deflections calculated using a wind speed of 60 mph.

Pressures are calculated at each section.

Tower analysis based on target reliabilities in accordance with Annex S.

Load Modification Factors used: $K_{es}(F_w) = 0.95$, $K_{es}(t_i) = 0.85$.

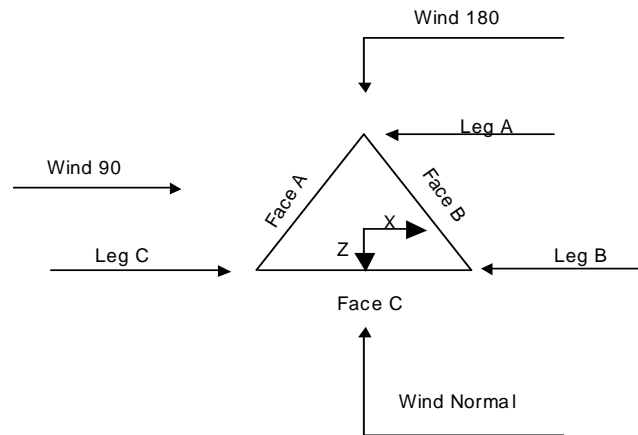
Stress ratio used in tower member design is 1.05.

Local bending stresses due to climbing loads, feed line supports, and appurtenance mounts are not considered.

Options

<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> 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/r For 60 Deg. Angle Legs 	<ul style="list-style-type: none"> 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 <p style="text-align: center; background-color: #e0e0e0; margin: 5px 0;">Poles</p> <ul style="list-style-type: none"> 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
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Triangular Tower

Tower Section Geometry

Tower Section	Tower Elevation	Assembly Database	Description	Section Width	Number of Sections	Section Length
	<i>ft</i>			<i>ft</i>		<i>ft</i>
T1	136.00-132.81			4.000	1	3.19
T2	132.81-130.00			4.000	1	2.81
T3	130.00-110.00			4.000	1	20.00
T4	110.00-94.94			4.500	1	15.06
T5	94.94-92.59			4.876	1	2.35
T6	92.59-90.00			4.935	1	2.59
T7	90.00-80.00			5.000	1	10.00
T8	80.00-60.00			6.000	1	20.00
T9	60.00-40.00			8.000	1	20.00
T10	40.00-20.00			10.000	1	20.00
T11	20.00-0.00			12.000	1	20.00

Tower Section Geometry (cont'd)

Tower Section	Tower Elevation	Diagonal Spacing	Bracing Type	Has K Brace End Panels	Has Horizontals	Top Girt Offset	Bottom Girt Offset
	<i>ft</i>	<i>ft</i>				<i>in</i>	<i>in</i>
T1	136.00-132.81	2.688	K Brace Down	No	Yes	6.000	0.000
T2	132.81-130.00	2.688	X Brace	No	No	0.000	1.500
T3	130.00-110.00	2.380	X Brace	No	No	10.000	1.500
T4	110.00-94.94	2.350	X Brace	No	No	11.500	0.000

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Tower Section	Tower Elevation ft	Diagonal Spacing ft	Bracing Type	Has K Brace End Panels	Has Horizontals	Top Girt Offset in	Bottom Girt Offset in
T5	94.94-92.59	2.350	X Brace	No	Yes	0.000	0.000
T6	92.59-90.00	2.010	X Brace	No	Yes	0.000	7.000
T7	90.00-80.00	10.000	X Brace	No	No	0.000	0.000
T8	80.00-60.00	10.000	X Brace	No	No	0.000	0.000
T9	60.00-40.00	10.000	X Brace	No	No	0.000	0.000
T10	40.00-20.00	10.000	X Brace	No	No	0.000	0.000
T11	20.00-0.00	10.000	X Brace	No	No	0.000	0.000

Tower Section Geometry (cont'd)

Tower Elevation ft	Leg Type	Leg Size	Leg Grade	Diagonal Type	Diagonal Size	Diagonal Grade
T1 136.00-132.81	Solid Round	1 1/2	A572-50 (50 ksi)	Solid Round	7/8	A572-50 (50 ksi)
T2 132.81-130.00	Solid Round	1 1/2	A572-50 (50 ksi)	Solid Round	3/4	A572-50 (50 ksi)
T3 130.00-110.00	Solid Round	2	A572-50 (50 ksi)	Solid Round	7/8	A572-50 (50 ksi)
T4 110.00-94.94	Solid Round	2 1/4	A572-50 (50 ksi)	Solid Round	1	A572-50 (50 ksi)
T5 94.94-92.59	Solid Round	2 1/4	A572-50 (50 ksi)	Solid Round	1	A572-50 (50 ksi)
T6 92.59-90.00	Solid Round	2 1/4	A572-50 (50 ksi)	Solid Round	1	A572-50 (50 ksi)
T7 90.00-80.00	Truss Leg	PiRod 105244 w/ (2) 1-1/4" Tie Rod	A572-50 (50 ksi)	Equal Angle	L3x3x3/16	A36 (36 ksi)
T8 80.00-60.00	Truss Leg	PiRod 105217	A572-50 (50 ksi)	Equal Angle	L2 1/2x2 1/2x3/16	A36 (36 ksi)
T9 60.00-40.00	Truss Leg	PiRod 105218	A572-50 (50 ksi)	Equal Angle	L3x3x3/16	A36 (36 ksi)
T10 40.00-20.00	Truss Leg	PiRod 105218	A572-50 (50 ksi)	Equal Angle	L3x3x3/16	A36 (36 ksi)
T11 20.00-0.00	Truss Leg	PiRod 105219	A572-50 (50 ksi)	Equal Angle	L3x3x5/16	A36 (36 ksi)

Tower Section Geometry (cont'd)

Tower Elevation ft	Top Girt Type	Top Girt Size	Top Girt Grade	Bottom Girt Type	Bottom Girt Size	Bottom Girt Grade
T1 136.00-132.81	Flat Bar	6x3/8	A36 (36 ksi)	Solid Round		A572-50 (50 ksi)
T2 132.81-130.00	Solid Round	7/8	A572-50 (50 ksi)	Solid Round	7/8	A572-50 (50 ksi)
T3 130.00-110.00	Solid Round	7/8	A572-50 (50 ksi)	Solid Round	7/8	A572-50 (50 ksi)
T4 110.00-94.94	Solid Round	1	A572-50 (50 ksi)	Solid Round		A572-50 (50 ksi)
T6 92.59-90.00	Solid Round		A572-50 (50 ksi)	Solid Round	1	A572-50 (50 ksi)

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Tower Section Geometry (cont'd)

Tower Elevation	No. of Mid Girts	Mid Girt Type	Mid Girt Size	Mid Girt Grade	Horizontal Type	Horizontal Size	Horizontal Grade
ft							
T1 136.00-132.81	None	Flat Bar		A36 (36 ksi)	Flat Bar	3 x 3/8	A36 (36 ksi)

Tower Section Geometry (cont'd)

Tower Elevation	Secondary Horizontal Type	Secondary Horizontal Size	Secondary Horizontal Grade	Inner Bracing Type	Inner Bracing Size	Inner Bracing Grade
ft						
T5 94.94-92.59	Solid Round	1 1/2	A572-50 (50 ksi)	Solid Round		A572-50 (50 ksi)
T6 92.59-90.00	Solid Round	1 1/2	A572-50 (50 ksi)	Solid Round		A572-50 (50 ksi)

Tower Section Geometry (cont'd)

Tower Elevation	Gusset Area (per face)	Gusset Thickness	Gusset Grade	Adjust. Factor A_f	Adjust. Factor A_r	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals	Double Angle Stitch Bolt Spacing Horizontals	Double Angle Stitch Bolt Spacing Redundants
ft	ft ²	in					in	in	in
T1 136.00-132.81	0.00	0.000	A36 (36 ksi)	1	1	1	36.000	36.000	36.000
T2 132.81-130.00	0.00	0.000	A36 (36 ksi)	1	1	1	36.000	36.000	36.000
T3 130.00-110.00	0.00	0.000	A36 (36 ksi)	1	1	1	36.000	36.000	36.000
T4 110.00-94.94	0.00	0.000	A36 (36 ksi)	1	1	1	36.000	36.000	36.000
T5 94.94-92.59	0.00	0.000	A36 (36 ksi)	1	1	1	36.000	36.000	36.000
T6 92.59-90.00	0.00	0.000	A36 (36 ksi)	1	1	1	36.000	36.000	36.000
T7 90.00-80.00	0.00	0.500	A36 (36 ksi)	1.03	1	1.05	36.000	36.000	36.000
T8 80.00-60.00	0.00	0.500	A36 (36 ksi)	1.03	1	1.05	36.000	36.000	36.000
T9 60.00-40.00	0.00	0.500	A36 (36 ksi)	1.03	1	1.05	36.000	36.000	36.000
T10 40.00-20.00	0.00	0.500	A36 (36 ksi)	1.03	1	1.05	36.000	36.000	36.000
T11 20.00-0.00	0.00	0.500	A36 (36 ksi)	1.03	1	1.05	36.000	36.000	36.000

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Tower Section Geometry (cont'd)

Tower Elevation ft	Calc K Single Angles	Calc K Solid Rounds	Legs	K Factors ¹							
				X Brace Diags	K Brace Diags	Single Diags	Girts	Horiz.	Sec. Horiz.	Inner Brace	
				X Y	X Y	X Y	X Y	X Y	X Y	X Y	
T1	No	Yes	1	1	1	1	1	1	1	1	1
136.00-132.81				1	1	1	1	1	1	1	1
T2	Yes	Yes	1	1	1	1	1	1	1	1	1
132.81-130.00				1	1	1	1	1	1	1	1
T3	Yes	Yes	1	1	1	1	1	1	1	1	1
130.00-110.00				1	1	1	1	1	1	1	1
T4	Yes	Yes	1	1	1	1	1	1	1	1	1
110.00-94.94				1	1	1	1	1	1	1	1
T5	Yes	Yes	1	1	1	1	1	1	1	1	1
94.94-92.59				1	1	1	1	0.5	1	1	1
T6	Yes	Yes	1	1	1	1	1	1	1	1	1
92.59-90.00				1	1	1	1	0.5	1	1	1
T7	Yes	Yes	1	1	1	1	1	1	1	1	1
90.00-80.00				1	1	1	1	1	1	1	1
T8	Yes	Yes	1	1	1	1	1	1	1	1	1
80.00-60.00				1	1	1	1	1	1	1	1
T9	Yes	Yes	1	1	1	1	1	1	1	1	1
60.00-40.00				1	1	1	1	1	1	1	1
T10	Yes	Yes	1	1	1	1	1	1	1	1	1
40.00-20.00				1	1	1	1	1	1	1	1
T11	Yes	Yes	1	1	1	1	1	1	1	1	1
20.00-0.00				1	1	1	1	1	1	1	1

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

Tower Section Geometry (cont'd)

Tower Elevation ft	Truss-Leg K Factors					
	Truss-Legs Used As Leg Members			Truss-Legs Used As Inner Members		
	Leg Panels	X Brace Diagonals	Z Brace Diagonals	Leg Panels	X Brace Diagonals	Z Brace Diagonals
T7	1	0.5	0.8	1	1	1
90.00-80.00						
T8	1	0.5	0.8	1	1	1
80.00-60.00						
T9	1	0.5	0.8	1	1	1
60.00-40.00						
T10	1	0.5	0.8	1	1	1
40.00-20.00						
T11	1	0.5	0.8	1	0.5	0.85
20.00-0.00						

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Feed Line/Linear Appurtenances - Entered As Round Or Flat

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Face Offset in	Lateral Offset (Frac FW)	#	# Per Row	Clear Spacing in	Width or Diameter in	Perimeter in	Weight plf
Inside B leg													
WR-VG82ST-BRDA(5/8")	B	No	No	Ar (CaAa)	97.00 - 0.00	-9.000	0.35	2	1	0.500	0.645		0.307
FB-L98-002-XXX(3/8)	B	No	No	Ar (CaAa)	97.00 - 0.00	-10.000	0.35	1	1	0.394	0.394		0.065
LDF6-50A(1-1/4)	B	No	No	Ar (CaAa)	97.00 - 0.00	-9.000	0.4	6	6	0.500	1.550		0.600
HB114-21U3 M12-XXXXF(1-1/4)	C	No	No	Ar (CaAa)	97.00 - 0.00	-5.000	-0.4	5	5	0.500	1.540		1.220
((3) 1-1/4 + (2) 7/8)													
HB114-21U3 M12-XXXXF(1-1/4)	C	No	No	Ar (CaAa)	136.00 - 97.00	-5.000	-0.4	3	3	0.500	1.540		1.220
HB114-21U3 M12-XXXXF(1-1/4)	C	No	No	Ar (CaAa)	136.00 - 0.00	-3.000	-0.45	1	1	0.500	1.540		1.220
FB-L98-002-XXX(3/8)	C	No	No	Ar (CaAa)	97.00 - 0.00	-6.000	-0.37	1	1	0.394	0.394		0.065
FLC 12-50J(1/2")	C	No	No	Ar (CaAa)	80.00 - 0.00	-5.000	-0.47	1	1	0.500	0.640		0.170
LDF7-50A(1-5/8")	B	No	No	Ar (CaAa)	107.00 - 0.00	-4.000	0.37	14	7	0.500	1.980		0.820
T-Brackets	B	No	No	Af (CaAa)	136.00 - 0.00	-7.000	0.4	1	1	1.000	1.000		8.400
Inside A leg													
LDF6-50A(1-1/4)	B	No	No	Ar (CaAa)	127.00 - 0.00	-5.000	-0.4	6	6	0.500	1.550		0.600
LDF6-50A(1-1/4)	A	No	No	Ar (CaAa)	127.00 - 0.00	-5.000	0.4	6	6	0.500	1.550		0.600
LDF4-50A(1/2")	A	No	No	Ar (CaAa)	72.00 - 0.00	-9.000	0.4	2	2	0.500	0.630		0.150
T-Brackets	A	No	No	Af (CaAa)	127.00 - 0.00	-7.000	0.4	1	1	1.000	1.000		8.400
Inside C leg													
LDF7-50A(1-5/8")	C	No	No	Ar (CaAa)	117.00 - 0.00	-5.000	0.4	7	7	0.500	1.980		0.820
LDF7-50A(1-5/8")	A	No	No	Ar (CaAa)	117.00 - 0.00	-5.000	-0.4	2	2	0.500	1.980		0.820
LDF7-50A(1-5/8")	A	No	No	Ar (CaAa)	117.00 - 0.00	-3.000	-0.45	1	1	0.500	1.980		0.820
T-Brackets	C	No	No	Af (CaAa)	117.00 - 0.00	-5.000	0.4	1	1	1.000	1.000		8.400
A face													
FXL 780 PE(7/8)	A	No	No	Ar (CaAa)	87.00 - 0.00	0.000	0	6	6	1.000	1.090		0.250
Feed Line Ladder	A	No	No	Af (CaAa)	87.00 - 0.00	0.000	0	1	1	3.000	3.000		4.000
Safety													
Safety Line 3/8	C	No	No	Ar (CaAa)	90.00 - 0.00	0.000	0.48	1	1	0.375	0.375		0.220

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Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Face Offset in	Lateral Offset (Frac FW)	# Per Row	# Per Row	Clear Spacing in	Width or Diameter in	Perimeter in	Weight plf
Safety Line 3/8	C	No	No	Ar (CaAa)	136.00 - 90.00	0.000	0	1	1	0.375	0.375		0.220
Ladder Rung SR 3/4 (48" w 26"s)	C	No	No	Af (CaAa)	136.00 - 90.00	0.000	0	1	1	1.350	1.350		2.706

Feed Line/Linear Appurtenances Section Areas

Tower Section	Tower Elevation ft	Face	A _R ft ²	A _F ft ²	C _{A_A} In Face ft ²	C _{A_A} Out Face ft ²	Weight K
T1	136.00-132.81	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.319	0.000	0.03
		C	0.000	0.000	2.800	0.000	0.02
T2	132.81-130.00	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.281	0.000	0.02
		C	0.000	0.000	2.471	0.000	0.02
T3	130.00-110.00	A	0.000	0.000	21.668	0.000	0.22
		B	0.000	0.000	17.810	0.000	0.23
		C	0.000	0.000	27.972	0.000	0.26
T4	110.00-94.94	A	0.000	0.000	24.452	0.000	0.22
		B	0.000	0.000	51.188	0.000	0.33
		C	0.000	0.000	36.316	0.000	0.34
T5	94.94-92.59	A	0.000	0.000	3.816	0.000	0.03
		B	0.000	0.000	11.514	0.000	0.07
		C	0.000	0.000	6.372	0.000	0.06
T6	92.59-90.00	A	0.000	0.000	4.212	0.000	0.04
		B	0.000	0.000	12.710	0.000	0.07
		C	0.000	0.000	7.034	0.000	0.06
T7	90.00-80.00	A	0.000	0.000	24.318	0.000	0.18
		B	0.000	0.000	49.004	0.000	0.28
		C	0.000	0.000	24.869	0.000	0.22
T8	80.00-60.00	A	0.000	0.000	57.072	0.000	0.40
		B	0.000	0.000	98.007	0.000	0.56
		C	0.000	0.000	51.017	0.000	0.44
T9	60.00-40.00	A	0.000	0.000	58.080	0.000	0.41
		B	0.000	0.000	98.007	0.000	0.56
		C	0.000	0.000	51.017	0.000	0.44
T10	40.00-20.00	A	0.000	0.000	58.080	0.000	0.41
		B	0.000	0.000	98.007	0.000	0.56
		C	0.000	0.000	51.017	0.000	0.44
T11	20.00-0.00	A	0.000	0.000	58.080	0.000	0.41
		B	0.000	0.000	98.007	0.000	0.56
		C	0.000	0.000	51.017	0.000	0.44

Feed Line/Linear Appurtenances Section Areas - With Ice

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A _R ft ²	A _F ft ²	C _{A_A} In Face ft ²	C _{A_A} Out Face ft ²	Weight K
T1	136.00-132.81	A	1.467	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	1.254	0.000	0.04
		C		0.000	0.000	7.980	0.000	0.11

tnxTower Tower Engineering Professionals, Inc. 326 Tryon Road Raleigh, NC 27603 Phone: (619) 661-6351 FAX: (619) 661-6350	Job	Waterford (BU 876338)	Page	9 of 35
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	Client	Crown Castle	Designed by	CJB

Tower Section	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
T2	132.81-130.00	A	1.464	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	1.105	0.000	0.04
		C		0.000	0.000	7.033	0.000	0.09
T3	130.00-110.00	A	1.451	0.000	0.000	50.419	0.000	0.73
		B		0.000	0.000	40.444	0.000	0.64
		C		0.000	0.000	70.304	0.000	0.97
T4	110.00-94.94	A	1.428	0.000	0.000	58.395	0.000	0.80
		B		0.000	0.000	72.400	0.000	1.19
		C		0.000	0.000	82.787	0.000	1.19
T5	94.94-92.59	A	1.415	0.000	0.000	9.082	0.000	0.12
		B		0.000	0.000	18.495	0.000	0.28
		C		0.000	0.000	14.483	0.000	0.21
T6	92.59-90.00	A	1.412	0.000	0.000	10.015	0.000	0.14
		B		0.000	0.000	20.399	0.000	0.30
		C		0.000	0.000	15.972	0.000	0.23
T7	90.00-80.00	A	1.402	0.000	0.000	56.971	0.000	0.75
		B		0.000	0.000	78.476	0.000	1.16
		C		0.000	0.000	56.361	0.000	0.79
T8	80.00-60.00	A	1.375	0.000	0.000	137.379	0.000	1.74
		B		0.000	0.000	156.040	0.000	2.29
		C		0.000	0.000	118.736	0.000	1.63
T9	60.00-40.00	A	1.329	0.000	0.000	141.275	0.000	1.73
		B		0.000	0.000	154.501	0.000	2.23
		C		0.000	0.000	117.263	0.000	1.58
T10	40.00-20.00	A	1.263	0.000	0.000	138.747	0.000	1.65
		B		0.000	0.000	152.266	0.000	2.15
		C		0.000	0.000	115.122	0.000	1.52
T11	20.00-0.00	A	1.132	0.000	0.000	133.739	0.000	1.51
		B		0.000	0.000	147.840	0.000	1.99
		C		0.000	0.000	110.880	0.000	1.39

Feed Line Center of Pressure

Section	Elevation ft	CP _x in	CP _z in	CP _x Ice in	CP _z Ice in
T1	136.00-132.81	3.152	1.735	3.716	2.880
T2	132.81-130.00	5.229	2.766	3.122	2.301
T3	130.00-110.00	0.072	-6.178	0.928	-2.536
T4	110.00-94.94	-1.324	-1.366	-1.067	0.074
T5	94.94-92.59	1.401	1.075	1.411	1.847
T6	92.59-90.00	1.397	1.049	1.253	1.620
T7	90.00-80.00	0.219	-0.008	0.197	0.544
T8	80.00-60.00	0.227	-0.712	0.627	0.134
T9	60.00-40.00	0.428	-1.289	0.931	-0.385
T10	40.00-20.00	0.604	-1.719	1.207	-0.711
T11	20.00-0.00	0.744	-2.056	1.346	-1.145

Shielding Factor Ka

<p>tnxTower</p> <p>Tower Engineering Professionals, Inc. 326 Tryon Road Raleigh, NC 27603 Phone: (619) 661-6351 FAX: (619) 661-6350</p>	Job Waterford (BU 876338)	Page 10 of 35
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	Client Crown Castle	Designed by CJB

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T1	6	HB114-21U3M12-XXXXF(1-1/4)	132.81 - 136.00	0.6000	0.4758
T1	7	HB114-21U3M12-XXXXF(1-1/4)	132.81 - 136.00	0.6000	0.4758
T1	11	T-Brackets	132.81 - 136.00	0.6000	0.4758
T1	27	Safety Line 3/8	132.81 - 136.00	0.6000	0.4758
T1	28	Ladder Rung SR 3/4 (48"w 26"s)	132.81 - 136.00	0.6000	0.4758
T2	6	HB114-21U3M12-XXXXF(1-1/4)	130.00 - 132.81	0.6000	0.3983
T2	7	HB114-21U3M12-XXXXF(1-1/4)	130.00 - 132.81	0.6000	0.3983
T2	11	T-Brackets	130.00 - 132.81	0.6000	0.3983
T2	27	Safety Line 3/8	130.00 - 132.81	0.6000	0.3983
T2	28	Ladder Rung SR 3/4 (48"w 26"s)	130.00 - 132.81	0.6000	0.3983
T3	6	HB114-21U3M12-XXXXF(1-1/4)	110.00 - 130.00	0.6000	0.5436
T3	7	HB114-21U3M12-XXXXF(1-1/4)	110.00 - 130.00	0.6000	0.5436
T3	11	T-Brackets	110.00 - 130.00	0.6000	0.5436
T3	13	LDF6-50A(1-1/4)	110.00 - 127.00	0.6000	0.5436
T3	14	LDF6-50A(1-1/4)	110.00 - 127.00	0.6000	0.5436
T3	16	T-Brackets	110.00 - 127.00	0.6000	0.5436
T3	18	LDF7-50A(1-5/8")	110.00 - 117.00	0.6000	0.5436
T3	19	LDF7-50A(1-5/8")	110.00 - 117.00	0.6000	0.5436
T3	20	LDF7-50A(1-5/8")	110.00 - 117.00	0.6000	0.5436
T3	21	T-Brackets	110.00 - 117.00	0.6000	0.5436
T3	27	Safety Line 3/8	110.00 - 130.00	0.6000	0.5436
T3	28	Ladder Rung SR 3/4 (48"w 26"s)	110.00 - 130.00	0.6000	0.5436
T4	2	WR-VG82ST-BRDA(5/8")	94.94 - 97.00	0.6000	0.5628
T4	3	FB-L98-002-XXX(3/8)	94.94 - 97.00	0.6000	0.5628
T4	4	LDF6-50A(1-1/4)	94.94 - 97.00	0.6000	0.5628
T4	5	HB114-21U3M12-XXXXF(1-1/4)	94.94 - 97.00	0.6000	0.5628
T4	6	HB114-21U3M12-XXXXF(1-1/4)	97.00 - 110.00	0.6000	0.5628
T4	7	HB114-21U3M12-XXXXF(1-1/4)	94.94 - 110.00	0.6000	0.5628
T4	8	FB-L98-002-XXX(3/8)	94.94 - 97.00	0.6000	0.5628
T4	10	LDF7-50A(1-5/8")	94.94 - 107.00	0.6000	0.5628
T4	11	T-Brackets	94.94 - 110.00	0.6000	0.5628
T4	13	LDF6-50A(1-1/4)	94.94 - 110.00	0.6000	0.5628
T4	14	LDF6-50A(1-1/4)	94.94 - 110.00	0.6000	0.5628
T4	16	T-Brackets	94.94 - 110.00	0.6000	0.5628
T4	18	LDF7-50A(1-5/8")	94.94 - 110.00	0.6000	0.5628
T4	19	LDF7-50A(1-5/8")	94.94 - 110.00	0.6000	0.5628
T4	20	LDF7-50A(1-5/8")	94.94 - 110.00	0.6000	0.5628

<i>Tower Section</i>	<i>Feed Line Record No.</i>	<i>Description</i>	<i>Feed Line Segment Elev.</i>	<i>K_a No Ice</i>	<i>K_a Ice</i>
T4	21	T-Brackets	94.94 - 110.00	0.6000	0.5628
T4	27	Safety Line 3/8	94.94 - 110.00	0.6000	0.5628
T4	28	Ladder Rung SR 3/4 (48" w 26"s)	94.94 - 110.00	0.6000	0.5628
T5	2	WR-VG82ST-BRDA(5/8")	92.59 - 94.94	0.6000	0.4384
T5	3	FB-L98-002-XXX(3/8)	92.59 - 94.94	0.6000	0.4384
T5	4	LDF6-50A(1-1/4)	92.59 - 94.94	0.6000	0.4384
T5	5	HB114-21U3M12-XXXXF(1-1 /4)	92.59 - 94.94	0.6000	0.4384
T5	7	HB114-21U3M12-XXXXF(1-1 /4)	92.59 - 94.94	0.6000	0.4384
T5	8	FB-L98-002-XXX(3/8)	92.59 - 94.94	0.6000	0.4384
T5	10	LDF7-50A(1-5/8")	92.59 - 94.94	0.6000	0.4384
T5	11	T-Brackets	92.59 - 94.94	0.6000	0.4384
T5	13	LDF6-50A(1-1/4)	92.59 - 94.94	0.6000	0.4384
T5	14	LDF6-50A(1-1/4)	92.59 - 94.94	0.6000	0.4384
T5	16	T-Brackets	92.59 - 94.94	0.6000	0.4384
T5	18	LDF7-50A(1-5/8")	92.59 - 94.94	0.6000	0.4384
T5	19	LDF7-50A(1-5/8")	92.59 - 94.94	0.6000	0.4384
T5	20	LDF7-50A(1-5/8")	92.59 - 94.94	0.6000	0.4384
T5	21	T-Brackets	92.59 - 94.94	0.6000	0.4384
T5	27	Safety Line 3/8	92.59 - 94.94	0.6000	0.4384
T5	28	Ladder Rung SR 3/4 (48" w 26"s)	92.59 - 94.94	0.6000	0.4384
T6	2	WR-VG82ST-BRDA(5/8")	90.00 - 92.59	0.6000	0.3761
T6	3	FB-L98-002-XXX(3/8)	90.00 - 92.59	0.6000	0.3761
T6	4	LDF6-50A(1-1/4)	90.00 - 92.59	0.6000	0.3761
T6	5	HB114-21U3M12-XXXXF(1-1 /4)	90.00 - 92.59	0.6000	0.3761
T6	7	HB114-21U3M12-XXXXF(1-1 /4)	90.00 - 92.59	0.6000	0.3761
T6	8	FB-L98-002-XXX(3/8)	90.00 - 92.59	0.6000	0.3761
T6	10	LDF7-50A(1-5/8")	90.00 - 92.59	0.6000	0.3761
T6	11	T-Brackets	90.00 - 92.59	0.6000	0.3761
T6	13	LDF6-50A(1-1/4)	90.00 - 92.59	0.6000	0.3761
T6	14	LDF6-50A(1-1/4)	90.00 - 92.59	0.6000	0.3761
T6	16	T-Brackets	90.00 - 92.59	0.6000	0.3761
T6	18	LDF7-50A(1-5/8")	90.00 - 92.59	0.6000	0.3761
T6	19	LDF7-50A(1-5/8")	90.00 - 92.59	0.6000	0.3761
T6	20	LDF7-50A(1-5/8")	90.00 - 92.59	0.6000	0.3761
T6	21	T-Brackets	90.00 - 92.59	0.6000	0.3761
T6	27	Safety Line 3/8	90.00 - 92.59	0.6000	0.3761
T6	28	Ladder Rung SR 3/4 (48" w 26"s)	90.00 - 92.59	0.6000	0.3761
T7	2	WR-VG82ST-BRDA(5/8")	80.00 - 90.00	0.6000	0.3377
T7	3	FB-L98-002-XXX(3/8)	80.00 - 90.00	0.6000	0.3377
T7	4	LDF6-50A(1-1/4)	80.00 - 90.00	0.6000	0.3377
T7	5	HB114-21U3M12-XXXXF(1-1 /4)	80.00 - 90.00	0.6000	0.3377
T7	7	HB114-21U3M12-XXXXF(1-1 /4)	80.00 - 90.00	0.6000	0.3377
T7	8	FB-L98-002-XXX(3/8)	80.00 - 90.00	0.6000	0.3377
T7	10	LDF7-50A(1-5/8")	80.00 - 90.00	0.6000	0.3377
T7	11	T-Brackets	80.00 - 90.00	0.6000	0.3377
T7	13	LDF6-50A(1-1/4)	80.00 - 90.00	0.6000	0.3377
T7	14	LDF6-50A(1-1/4)	80.00 - 90.00	0.6000	0.3377
T7	16	T-Brackets	80.00 - 90.00	0.6000	0.3377
T7	18	LDF7-50A(1-5/8")	80.00 - 90.00	0.6000	0.3377
T7	19	LDF7-50A(1-5/8")	80.00 - 90.00	0.6000	0.3377
T7	20	LDF7-50A(1-5/8")	80.00 - 90.00	0.6000	0.3377
T7	21	T-Brackets	80.00 - 90.00	0.6000	0.3377
T7	23	FXL 780 PE(7/8)	80.00 - 87.00	0.6000	0.3377

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Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T7	24	Feed Line Ladder	80.00 - 87.00	0.6000	0.3377
T7	26	Safety Line 3/8	80.00 - 90.00	0.6000	0.3377
T8	2	WR-VG82ST-BRDA(5/8")	60.00 - 80.00	0.6000	0.4754
T8	3	FB-L98-002-XXX(3/8)	60.00 - 80.00	0.6000	0.4754
T8	4	LDF6-50A(1-1/4)	60.00 - 80.00	0.6000	0.4754
T8	5	HB114-21U3M12-XXXXF(1-1/4)	60.00 - 80.00	0.6000	0.4754
T8	7	HB114-21U3M12-XXXXF(1-1/4)	60.00 - 80.00	0.6000	0.4754
T8	8	FB-L98-002-XXX(3/8)	60.00 - 80.00	0.6000	0.4754
T8	9	FLC 12-50J(1/2")	60.00 - 80.00	0.6000	0.4754
T8	10	LDF7-50A(1-5/8")	60.00 - 80.00	0.6000	0.4754
T8	11	T-Brackets	60.00 - 80.00	0.6000	0.4754
T8	13	LDF6-50A(1-1/4)	60.00 - 80.00	0.6000	0.4754
T8	14	LDF6-50A(1-1/4)	60.00 - 80.00	0.6000	0.4754
T8	15	LDF4-50A(1/2")	60.00 - 72.00	0.6000	0.4754
T8	16	T-Brackets	60.00 - 80.00	0.6000	0.4754
T8	18	LDF7-50A(1-5/8")	60.00 - 80.00	0.6000	0.4754
T8	19	LDF7-50A(1-5/8")	60.00 - 80.00	0.6000	0.4754
T8	20	LDF7-50A(1-5/8")	60.00 - 80.00	0.6000	0.4754
T8	21	T-Brackets	60.00 - 80.00	0.6000	0.4754
T8	23	FXL 780 PE(7/8)	60.00 - 80.00	0.6000	0.4754
T8	24	Feed Line Ladder	60.00 - 80.00	0.6000	0.4754
T8	26	Safety Line 3/8	60.00 - 80.00	0.6000	0.4754
T9	2	WR-VG82ST-BRDA(5/8")	40.00 - 60.00	0.6000	0.5384
T9	3	FB-L98-002-XXX(3/8)	40.00 - 60.00	0.6000	0.5384
T9	4	LDF6-50A(1-1/4)	40.00 - 60.00	0.6000	0.5384
T9	5	HB114-21U3M12-XXXXF(1-1/4)	40.00 - 60.00	0.6000	0.5384
T9	7	HB114-21U3M12-XXXXF(1-1/4)	40.00 - 60.00	0.6000	0.5384
T9	8	FB-L98-002-XXX(3/8)	40.00 - 60.00	0.6000	0.5384
T9	9	FLC 12-50J(1/2")	40.00 - 60.00	0.6000	0.5384
T9	10	LDF7-50A(1-5/8")	40.00 - 60.00	0.6000	0.5384
T9	11	T-Brackets	40.00 - 60.00	0.6000	0.5384
T9	13	LDF6-50A(1-1/4)	40.00 - 60.00	0.6000	0.5384
T9	14	LDF6-50A(1-1/4)	40.00 - 60.00	0.6000	0.5384
T9	15	LDF4-50A(1/2")	40.00 - 60.00	0.6000	0.5384
T9	16	T-Brackets	40.00 - 60.00	0.6000	0.5384
T9	18	LDF7-50A(1-5/8")	40.00 - 60.00	0.6000	0.5384
T9	19	LDF7-50A(1-5/8")	40.00 - 60.00	0.6000	0.5384
T9	20	LDF7-50A(1-5/8")	40.00 - 60.00	0.6000	0.5384
T9	21	T-Brackets	40.00 - 60.00	0.6000	0.5384
T9	23	FXL 780 PE(7/8)	40.00 - 60.00	0.6000	0.5384
T9	24	Feed Line Ladder	40.00 - 60.00	0.6000	0.5384
T9	26	Safety Line 3/8	40.00 - 60.00	0.6000	0.5384
T10	2	WR-VG82ST-BRDA(5/8")	20.00 - 40.00	0.6000	0.6000
T10	3	FB-L98-002-XXX(3/8)	20.00 - 40.00	0.6000	0.6000
T10	4	LDF6-50A(1-1/4)	20.00 - 40.00	0.6000	0.6000
T10	5	HB114-21U3M12-XXXXF(1-1/4)	20.00 - 40.00	0.6000	0.6000
T10	7	HB114-21U3M12-XXXXF(1-1/4)	20.00 - 40.00	0.6000	0.6000
T10	8	FB-L98-002-XXX(3/8)	20.00 - 40.00	0.6000	0.6000
T10	9	FLC 12-50J(1/2")	20.00 - 40.00	0.6000	0.6000
T10	10	LDF7-50A(1-5/8")	20.00 - 40.00	0.6000	0.6000
T10	11	T-Brackets	20.00 - 40.00	0.6000	0.6000
T10	13	LDF6-50A(1-1/4)	20.00 - 40.00	0.6000	0.6000
T10	14	LDF6-50A(1-1/4)	20.00 - 40.00	0.6000	0.6000
T10	15	LDF4-50A(1/2")	20.00 - 40.00	0.6000	0.6000
T10	16	T-Brackets	20.00 - 40.00	0.6000	0.6000
T10	18	LDF7-50A(1-5/8")	20.00 - 40.00	0.6000	0.6000

tnxTower Tower Engineering Professionals, Inc. 326 Tryon Road Raleigh, NC 27603 Phone: (619) 661-6351 FAX: (619) 661-6350	Job Waterford (BU 876338)	Page 13 of 35
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Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T10	19	LDF7-50A(1-5/8")	20.00 - 40.00	0.6000	0.6000
T10	20	LDF7-50A(1-5/8")	20.00 - 40.00	0.6000	0.6000
T10	21	T-Brackets	20.00 - 40.00	0.6000	0.6000
T10	23	FXL 780 PE(7/8)	20.00 - 40.00	0.6000	0.6000
T10	24	Feed Line Ladder	20.00 - 40.00	0.6000	0.6000
T10	26	Safety Line 3/8	20.00 - 40.00	0.6000	0.6000
T11	2	WR-VG82ST-BRDA(5/8")	0.00 - 20.00	0.6000	0.6000
T11	3	FB-L98-002-XXX(3/8)	0.00 - 20.00	0.6000	0.6000
T11	4	LDF6-50A(1-1/4)	0.00 - 20.00	0.6000	0.6000
T11	5	HB114-21U3M12-XXXXF(1-1/4)	0.00 - 20.00	0.6000	0.6000
T11	7	HB114-21U3M12-XXXXF(1-1/4)	0.00 - 20.00	0.6000	0.6000
T11	8	FB-L98-002-XXX(3/8)	0.00 - 20.00	0.6000	0.6000
T11	9	FLC 12-50J(1/2")	0.00 - 20.00	0.6000	0.6000
T11	10	LDF7-50A(1-5/8")	0.00 - 20.00	0.6000	0.6000
T11	11	T-Brackets	0.00 - 20.00	0.6000	0.6000
T11	13	LDF6-50A(1-1/4)	0.00 - 20.00	0.6000	0.6000
T11	14	LDF6-50A(1-1/4)	0.00 - 20.00	0.6000	0.6000
T11	15	LDF4-50A(1/2")	0.00 - 20.00	0.6000	0.6000
T11	16	T-Brackets	0.00 - 20.00	0.6000	0.6000
T11	18	LDF7-50A(1-5/8")	0.00 - 20.00	0.6000	0.6000
T11	19	LDF7-50A(1-5/8")	0.00 - 20.00	0.6000	0.6000
T11	20	LDF7-50A(1-5/8")	0.00 - 20.00	0.6000	0.6000
T11	21	T-Brackets	0.00 - 20.00	0.6000	0.6000
T11	23	FXL 780 PE(7/8)	0.00 - 20.00	0.6000	0.6000
T11	24	Feed Line Ladder	0.00 - 20.00	0.6000	0.6000
T11	26	Safety Line 3/8	0.00 - 20.00	0.6000	0.6000

Discrete Tower Loads

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft	C_{AA} Front ft ²	C_{AA} Side ft ²	Weight K	
136									
APXVSPP18-C-A20 w/ Mount Pipe	A	From	4.00	0.000	136.00	No Ice	4.60	4.01	0.10
		Centroid-Fa	8.000			1/2" Ice	5.05	4.45	0.16
		ce	1.000			1" Ice	5.50	4.89	0.23
						2" Ice	6.44	5.82	0.42
APXVSPP18-C-A20 w/ Mount Pipe	B	From	4.00	20.000	136.00	No Ice	4.60	4.01	0.10
		Centroid-Fa	8.000			1/2" Ice	5.05	4.45	0.16
		ce	1.000			1" Ice	5.50	4.89	0.23
						2" Ice	6.44	5.82	0.42
APXVSPP18-C-A20 w/ Mount Pipe	C	From	4.00	40.000	136.00	No Ice	4.60	4.01	0.10
		Centroid-Fa	8.000			1/2" Ice	5.05	4.45	0.16
		ce	1.000			1" Ice	5.50	4.89	0.23
						2" Ice	6.44	5.82	0.42
APXVTM14-C-120 w/ Mount Pipe	A	From	4.00	20.000	136.00	No Ice	4.09	2.86	0.08
		Centroid-Fa	-8.000			1/2" Ice	4.48	3.23	0.13
		ce	1.000			1" Ice	4.88	3.61	0.19
						2" Ice	5.71	4.40	0.33

tnxTower Tower Engineering Professionals, Inc. 326 Tryon Road Raleigh, NC 27603 Phone: (619) 661-6351 FAX: (619) 661-6350	Job	Waterford (BU 876338)	Page	14 of 35
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	Client	Crown Castle	Designed by	CJB

Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement	C _{AA} Front	C _{AA} Side	Weight	
			Horz	Vert						ft
			ft	ft	°	ft	ft ²	ft ²	K	
APXVTM14-C-120 w/ Mount Pipe	B	From Centroid-Face	4.00	4.00	20.000	136.00	No Ice	4.09	2.86	0.08
			-8.000	-8.000			1/2" Ice	4.48	3.23	0.13
			1.000	1.000			1" Ice	4.88	3.61	0.19
							2" Ice	5.71	4.40	0.33
APXVTM14-C-120 w/ Mount Pipe	C	From Centroid-Face	4.00	4.00	20.000	136.00	No Ice	4.09	2.86	0.08
			-8.000	-8.000			1/2" Ice	4.48	3.23	0.13
			1.000	1.000			1" Ice	4.88	3.61	0.19
							2" Ice	5.71	4.40	0.33
TD-RRH8x20-25	A	From Centroid-Face	4.00	4.00	20.000	136.00	No Ice	3.70	1.29	0.07
			-8.000	-8.000			1/2" Ice	3.95	1.46	0.09
			1.000	1.000			1" Ice	4.20	1.64	0.12
							2" Ice	4.72	2.02	0.18
TD-RRH8x20-25	B	From Centroid-Face	4.00	4.00	20.000	136.00	No Ice	3.70	1.29	0.07
			-8.000	-8.000			1/2" Ice	3.95	1.46	0.09
			1.000	1.000			1" Ice	4.20	1.64	0.12
							2" Ice	4.72	2.02	0.18
TD-RRH8x20-25	C	From Centroid-Face	4.00	4.00	20.000	136.00	No Ice	3.70	1.29	0.07
			-8.000	-8.000			1/2" Ice	3.95	1.46	0.09
			1.000	1.000			1" Ice	4.20	1.64	0.12
							2" Ice	4.72	2.02	0.18
IBC1900HG-2A	A	From Centroid-Face	4.00	4.00	0.000	136.00	No Ice	0.97	0.46	0.02
			8.000	8.000			1/2" Ice	1.09	0.56	0.03
			0.000	0.000			1" Ice	1.22	0.66	0.04
							2" Ice	1.51	0.89	0.06
IBC1900HG-2A	B	From Centroid-Face	4.00	4.00	20.000	136.00	No Ice	0.97	0.46	0.02
			8.000	8.000			1/2" Ice	1.09	0.56	0.03
			0.000	0.000			1" Ice	1.22	0.66	0.04
							2" Ice	1.51	0.89	0.06
IBC1900HG-2A	C	From Centroid-Face	4.00	4.00	40.000	136.00	No Ice	0.97	0.46	0.02
			8.000	8.000			1/2" Ice	1.09	0.56	0.03
			0.000	0.000			1" Ice	1.22	0.66	0.04
							2" Ice	1.51	0.89	0.06
IBC1900BB-1	A	From Centroid-Face	4.00	4.00	0.000	136.00	No Ice	0.97	0.46	0.02
			8.000	8.000			1/2" Ice	1.09	0.56	0.03
			0.000	0.000			1" Ice	1.22	0.66	0.04
							2" Ice	1.51	0.89	0.06
IBC1900BB-1	B	From Centroid-Face	4.00	4.00	20.000	136.00	No Ice	0.97	0.46	0.02
			8.000	8.000			1/2" Ice	1.09	0.56	0.03
			0.000	0.000			1" Ice	1.22	0.66	0.04
							2" Ice	1.51	0.89	0.06
IBC1900BB-1	C	From Centroid-Face	4.00	4.00	40.000	136.00	No Ice	0.97	0.46	0.02
			8.000	8.000			1/2" Ice	1.09	0.56	0.03
			0.000	0.000			1" Ice	1.22	0.66	0.04
							2" Ice	1.51	0.89	0.06
2.4" Dia x 6-ft Pipe	A	From Centroid-Face	4.00	4.00	0.000	136.00	No Ice	1.43	1.43	0.02
			0.000	0.000			1/2" Ice	1.93	1.93	0.03
			0.000	0.000			1" Ice	2.30	2.30	0.05
							2" Ice	3.06	3.06	0.09
2.4" Dia x 6-ft Pipe	B	From Centroid-Face	4.00	4.00	0.000	136.00	No Ice	1.43	1.43	0.02
			0.000	0.000			1/2" Ice	1.93	1.93	0.03
			0.000	0.000			1" Ice	2.30	2.30	0.05
							2" Ice	3.06	3.06	0.09
2.4" Dia x 6-ft Pipe	C	From Centroid-Face	4.00	4.00	0.000	136.00	No Ice	1.43	1.43	0.02
			0.000	0.000			1/2" Ice	1.93	1.93	0.03
			0.000	0.000			1" Ice	2.30	2.30	0.05
							2" Ice	3.06	3.06	0.09
Platform Mount [LP 405-1]	C	None			0.000	136.00	No Ice	20.88	20.88	1.80

<p>tnxTower</p> <p>Tower Engineering Professionals, Inc. 326 Tryon Road Raleigh, NC 27603 Phone: (619) 661-6351 FAX: (619) 661-6350</p>	Job		Waterford (BU 876338)		Page		15 of 35	
	Project		TEP No. 25598.415380		Date		10:17:17 05/20/20	
	Client		Crown Castle		Designed by		CJB	

Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement	C _{AA} Front	C _{AA} Side	Weight	
			Horz	Vert						ft
						1/2" Ice	28.89	28.89	2.28	
						1" Ice	37.04	37.04	2.87	
						2" Ice	53.73	53.73	4.39	
134										
800MHz 2X50W RRH W/FILTER	A	From Leg	2.00	0.000	0.000	134.00	No Ice	2.06	1.93	0.06
			0.000				1/2" Ice	2.24	2.11	0.09
			-1.000				1" Ice	2.43	2.29	0.11
							2" Ice	2.83	2.68	0.17
800MHz 2X50W RRH W/FILTER	B	From Leg	2.00	0.000	0.000	134.00	No Ice	2.06	1.93	0.06
			0.000				1/2" Ice	2.24	2.11	0.09
			-1.000				1" Ice	2.43	2.29	0.11
							2" Ice	2.83	2.68	0.17
800MHz 2X50W RRH W/FILTER	C	From Leg	2.00	0.000	0.000	134.00	No Ice	2.06	1.93	0.06
			0.000				1/2" Ice	2.24	2.11	0.09
			-1.000				1" Ice	2.43	2.29	0.11
							2" Ice	2.83	2.68	0.17
1900MHz RRH (65MHz)	A	From Leg	2.00	0.000	0.000	134.00	No Ice	2.31	2.38	0.06
			0.000				1/2" Ice	2.52	2.58	0.08
			0.000				1" Ice	2.73	2.79	0.11
							2" Ice	3.17	3.24	0.18
1900MHz RRH (65MHz)	B	From Leg	2.00	0.000	0.000	134.00	No Ice	2.31	2.38	0.06
			0.000				1/2" Ice	2.52	2.58	0.08
			0.000				1" Ice	2.73	2.79	0.11
							2" Ice	3.17	3.24	0.18
1900MHz RRH (65MHz)	C	From Leg	2.00	0.000	0.000	134.00	No Ice	2.31	2.38	0.06
			0.000				1/2" Ice	2.52	2.58	0.08
			0.000				1" Ice	2.73	2.79	0.11
							2" Ice	3.17	3.24	0.18
(2) 2.4" Dia x 4-ft Mount Pipe	A	From Leg	2.00	0.000	0.000	134.00	No Ice	0.87	0.87	0.01
			0.000				1/2" Ice	1.12	1.12	0.02
			0.000				1" Ice	1.37	1.37	0.03
							2" Ice	1.91	1.91	0.06
(2) 2.4" Dia x 4-ft Mount Pipe	B	From Leg	2.00	0.000	0.000	134.00	No Ice	0.87	0.87	0.01
			0.000				1/2" Ice	1.12	1.12	0.02
			0.000				1" Ice	1.37	1.37	0.03
							2" Ice	1.91	1.91	0.06
(2) 2.4" Dia x 4-ft Mount Pipe	C	From Leg	2.00	0.000	0.000	134.00	No Ice	0.87	0.87	0.01
			0.000				1/2" Ice	1.12	1.12	0.02
			0.000				1" Ice	1.37	1.37	0.03
							2" Ice	1.91	1.91	0.06
Side Arm Mount [SO 104-3]	C	None		0.000		134.00	No Ice	2.62	2.62	0.29
							1/2" Ice	3.30	3.30	0.41
							1" Ice	3.98	3.98	0.53
							2" Ice	5.35	5.35	0.77
127										
(4) DB844H90E-XY w/ Mount Pipe (Abandoned)	A	From Face	4.00	-10.000	0.000	127.00	No Ice	2.24	3.34	0.04
			0.000				1/2" Ice	2.61	3.73	0.08
			0.000				1" Ice	2.99	4.13	0.12
							2" Ice	3.78	4.97	0.23
(4) DB844H90E-XY w/ Mount Pipe (Abandoned)	B	From Face	4.00	-10.000	0.000	127.00	No Ice	2.24	3.34	0.04
			0.000				1/2" Ice	2.61	3.73	0.08
			0.000				1" Ice	2.99	4.13	0.12
							2" Ice	3.78	4.97	0.23
(4) DB844H90E-XY w/ Mount Pipe (Abandoned)	C	From Face	4.00	-10.000	0.000	127.00	No Ice	2.24	3.34	0.04
			0.000				1/2" Ice	2.61	3.73	0.08
			0.000				1" Ice	2.99	4.13	0.12
							2" Ice	3.78	4.97	0.23

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	Client	Crown Castle	Designed by	CJB

Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement	C _{AA} Front	C _{AA} Side	Weight	
			Horz	Vert						
			ft	ft	°	ft	ft ²	ft ²	K	
HSS 4"x4"x4'	A	From Face	0.50	0.000	0.000	127.00	No Ice	2.09	0.00	0.04
			0.000				1/2" Ice	2.39	0.00	0.05
			1.000				1" Ice	2.70	0.00	0.07
							2" Ice	3.33	0.00	0.12
HSS 4"x4"x4'	A	From Face	0.50	0.000	0.000	127.00	No Ice	2.09	0.00	0.04
			0.000				1/2" Ice	2.39	0.00	0.05
			-1.000				1" Ice	2.70	0.00	0.07
							2" Ice	3.33	0.00	0.12
HSS 4"x4"x4'	B	From Face	0.50	0.000	0.000	127.00	No Ice	2.09	0.00	0.04
			0.000				1/2" Ice	2.39	0.00	0.05
			1.000				1" Ice	2.70	0.00	0.07
							2" Ice	3.33	0.00	0.12
HSS 4"x4"x4'	B	From Face	0.50	0.000	0.000	127.00	No Ice	2.09	0.00	0.04
			0.000				1/2" Ice	2.39	0.00	0.05
			-1.000				1" Ice	2.70	0.00	0.07
							2" Ice	3.33	0.00	0.12
HSS 4"x4"x4'	C	From Face	0.50	0.000	0.000	127.00	No Ice	2.09	0.00	0.04
			0.000				1/2" Ice	2.39	0.00	0.05
			1.000				1" Ice	2.70	0.00	0.07
							2" Ice	3.33	0.00	0.12
HSS 4"x4"x4'	C	From Face	0.50	0.000	0.000	127.00	No Ice	2.09	0.00	0.04
			0.000				1/2" Ice	2.39	0.00	0.05
			-1.000				1" Ice	2.70	0.00	0.07
							2" Ice	3.33	0.00	0.12
Sector Mount [SM 411-3]	C	None			0.000	127.00	No Ice	20.53	20.53	1.07
							1/2" Ice	28.62	28.62	1.46
							1" Ice	36.63	36.63	1.97
							2" Ice	52.73	52.73	3.37
117										
ERICSSON AIR 21 B2A B4P w/ Mount Pipe	A	From Leg	4.00	80.000	80.000	117.00	No Ice	6.33	5.64	0.11
			6.000				1/2" Ice	6.78	6.43	0.17
			2.000				1" Ice	7.21	7.13	0.23
							2" Ice	8.12	8.59	0.38
ERICSSON AIR 21 B2A B4P w/ Mount Pipe	B	From Leg	4.00	80.000	80.000	117.00	No Ice	6.33	5.64	0.11
			-6.000				1/2" Ice	6.78	6.43	0.17
			2.000				1" Ice	7.21	7.13	0.23
							2" Ice	8.12	8.59	0.38
ERICSSON AIR 21 B2A B4P w/ Mount Pipe	C	From Leg	4.00	80.000	80.000	117.00	No Ice	6.33	5.64	0.11
			-6.000				1/2" Ice	6.78	6.43	0.17
			2.000				1" Ice	7.21	7.13	0.23
							2" Ice	8.12	8.59	0.38
ERICSSON AIR 21 B4A B2P w/ Mount Pipe	A	From Leg	4.00	80.000	80.000	117.00	No Ice	6.33	5.64	0.11
			-6.000				1/2" Ice	6.78	6.43	0.17
			2.000				1" Ice	7.21	7.13	0.23
							2" Ice	8.12	8.59	0.38
ERICSSON AIR 21 B4A B2P w/ Mount Pipe	B	From Leg	4.00	80.000	80.000	117.00	No Ice	6.33	5.64	0.11
			0.000				1/2" Ice	6.78	6.43	0.17
			2.000				1" Ice	7.21	7.13	0.23
							2" Ice	8.12	8.59	0.38
ERICSSON AIR 21 B4A B2P w/ Mount Pipe	C	From Leg	4.00	80.000	80.000	117.00	No Ice	6.33	5.64	0.11
			0.000				1/2" Ice	6.78	6.43	0.17
			2.000				1" Ice	7.21	7.13	0.23
							2" Ice	8.12	8.59	0.38
APXVAARR24_43-U-NA20 w/ Mount Pipe	A	From Leg	4.00	80.000	80.000	117.00	No Ice	14.69	6.87	0.19
			0.000				1/2" Ice	15.46	7.55	0.31
			2.000				1" Ice	16.23	8.25	0.46
							2" Ice	17.82	9.67	0.79

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	Client	Crown Castle	Designed by	CJB

Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement	C _{AA} Front	C _{AA} Side	Weight	
			Horz	Vert						°
			ft	ft						
APXVAARR24_43-U-NA20 w/ Mount Pipe	B	From Leg	4.00		80.000	117.00	No Ice	14.69	6.87	0.19
			6.000				1/2" Ice	15.46	7.55	0.31
			2.000				1" Ice	16.23	8.25	0.46
							2" Ice	17.82	9.67	0.79
APXVAARR24_43-U-NA20 w/ Mount Pipe	C	From Leg	4.00		80.000	117.00	No Ice	14.69	6.87	0.19
			6.000				1/2" Ice	15.46	7.55	0.31
			2.000				1" Ice	16.23	8.25	0.46
							2" Ice	17.82	9.67	0.79
RADIO 4449 B12/B71	A	From Leg	4.00		80.000	117.00	No Ice	1.64	1.15	0.07
			6.000				1/2" Ice	1.80	1.29	0.09
			2.000				1" Ice	1.97	1.44	0.11
							2" Ice	2.33	1.75	0.15
RADIO 4449 B12/B71	B	From Leg	4.00		80.000	117.00	No Ice	1.64	1.15	0.07
			6.000				1/2" Ice	1.80	1.29	0.09
			2.000				1" Ice	1.97	1.44	0.11
							2" Ice	2.33	1.75	0.15
RADIO 4449 B12/B71	C	From Leg	4.00		80.000	117.00	No Ice	1.64	1.15	0.07
			6.000				1/2" Ice	1.80	1.29	0.09
			2.000				1" Ice	1.97	1.44	0.11
							2" Ice	2.33	1.75	0.15
KRY 112 144/1	A	From Leg	4.00		80.000	117.00	No Ice	0.35	0.16	0.01
			-6.000				1/2" Ice	0.43	0.22	0.01
			2.000				1" Ice	0.51	0.28	0.02
							2" Ice	0.70	0.44	0.03
KRY 112 144/1	B	From Leg	4.00		80.000	117.00	No Ice	0.35	0.16	0.01
			-6.000				1/2" Ice	0.43	0.22	0.01
			2.000				1" Ice	0.51	0.28	0.02
							2" Ice	0.70	0.44	0.03
KRY 112 144/1	C	From Leg	4.00		80.000	117.00	No Ice	0.35	0.16	0.01
			-6.000				1/2" Ice	0.43	0.22	0.01
			2.000				1" Ice	0.51	0.28	0.02
							2" Ice	0.70	0.44	0.03
Sector Mount [SM 411-3]	C	None			0.000	117.00	No Ice	20.53	20.53	1.07
							1/2" Ice	28.62	28.62	1.46
							1" Ice	36.63	36.63	1.97
							2" Ice	52.73	52.73	3.37
107										
BXA-80063/4CF	A	From Leg	4.00		50.000	107.00	No Ice	4.71	2.25	0.01
			6.000				1/2" Ice	5.03	2.55	0.04
			0.000				1" Ice	5.35	2.85	0.07
							2" Ice	6.02	3.49	0.15
BXA-80063/4CF	B	From Leg	4.00		50.000	107.00	No Ice	4.71	2.25	0.01
			6.000				1/2" Ice	5.03	2.55	0.04
			0.000				1" Ice	5.35	2.85	0.07
							2" Ice	6.02	3.49	0.15
BXA-80063/4CF	C	From Leg	4.00		50.000	107.00	No Ice	4.71	2.25	0.01
			6.000				1/2" Ice	5.03	2.55	0.04
			0.000				1" Ice	5.35	2.85	0.07
							2" Ice	6.02	3.49	0.15
(2) SBNHH-1D65B w/ Mount Pipe	A	From Leg	4.00		80.000	107.00	No Ice	4.09	3.30	0.07
			-2.000				1/2" Ice	4.49	3.68	0.13
			0.000				1" Ice	4.89	4.07	0.20
							2" Ice	5.72	4.87	0.39
(2) SBNHH-1D65B w/ Mount Pipe	B	From Leg	4.00		60.000	107.00	No Ice	4.09	3.30	0.07
			-3.000				1/2" Ice	4.49	3.68	0.13
			0.000				1" Ice	4.89	4.07	0.20
							2" Ice	5.72	4.87	0.39

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	Client	Crown Castle	Designed by	CJB

Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement	C _{AA} Front	C _{AA} Side	Weight
			Horz	Vert					
				-4.000					0.06
				0.000					0.10
(2) FD9R6004/2C-3L	A	From Leg	4.00	50.000	107.00	No Ice	4.04	2.72	0.06
			6.000			1" Ice	4.30	2.94	0.10
			0.000			2" Ice	4.84	3.41	0.18
			4.00	50.000	107.00	No Ice	0.31	0.08	0.00
			6.000			1/2" Ice	0.39	0.12	0.01
			0.000			1" Ice	0.47	0.17	0.01
(2) FD9R6004/2C-3L	B	From Leg	4.00	50.000	107.00	2" Ice	0.65	0.29	0.02
			6.000			No Ice	0.31	0.08	0.00
			0.000			1/2" Ice	0.39	0.12	0.01
			4.00	50.000	107.00	1" Ice	0.47	0.17	0.01
(2) FD9R6004/2C-3L	C	From Leg	4.00	50.000	107.00	2" Ice	0.65	0.29	0.02
			6.000			No Ice	0.31	0.08	0.00
			0.000			1/2" Ice	0.39	0.12	0.01
			4.00	50.000	107.00	1" Ice	0.47	0.17	0.01
Sector Mount [SM 403-3]	C	None		0.000	107.00	2" Ice	0.65	0.29	0.02
						No Ice	19.43	19.43	0.87
						1/2" Ice	27.51	27.51	1.27
						1" Ice	35.59	35.59	1.66
						2" Ice	51.75	51.75	2.45
97									
7770.00 w/ Mount Pipe	A	From Leg	4.00	-40.000	97.00	No Ice	5.75	4.25	0.06
			6.000			1/2" Ice	6.18	5.01	0.10
			0.000			1" Ice	6.61	5.71	0.16
7770.00 w/ Mount Pipe	B	From Leg	4.00	-40.000	97.00	2" Ice	7.49	7.16	0.29
			6.000			No Ice	5.75	4.25	0.06
			0.000			1/2" Ice	6.18	5.01	0.10
			4.00	90.000	97.00	1" Ice	6.61	5.71	0.16
7770.00 w/ Mount Pipe	C	From Leg	4.00	90.000	97.00	2" Ice	7.49	7.16	0.29
			-6.000			No Ice	5.75	4.25	0.06
			0.000			1/2" Ice	6.18	5.01	0.10
			4.00	85.000	97.00	1" Ice	6.61	5.71	0.16
DMP65R-BU4D w/ Mount Pipe	A	From Leg	4.00	85.000	97.00	2" Ice	7.49	7.16	0.29
			-6.000			No Ice	7.53	3.79	0.09
			0.000			1/2" Ice	8.04	4.23	0.16
			4.00	-85.000	97.00	1" Ice	8.57	4.68	0.22
DMP65R-BU6D w/ Mount Pipe	B	From Leg	4.00	-85.000	97.00	2" Ice	9.68	5.63	0.39
			-6.000			No Ice	11.96	5.97	0.11
			0.000			1/2" Ice	12.70	6.63	0.20
			4.00	-85.000	97.00	1" Ice	13.46	7.30	0.30
DMP65R-BU8D w/ Mount Pipe	C	From Leg	4.00	-85.000	97.00	2" Ice	15.02	8.69	0.53
			6.000			No Ice	15.89	7.89	0.14
			0.000			1/2" Ice	16.81	8.74	0.25
			4.00	85.000	97.00	1" Ice	17.76	9.60	0.38
OPA65R-BU4D w/ Mount Pipe	A	From Leg	4.00	85.000	97.00	2" Ice	19.70	11.37	0.68
			-2.000			No Ice	8.10	4.03	0.08
			0.000			1/2" Ice	8.65	4.50	0.14
			4.00	-85.000	97.00	1" Ice	9.21	4.98	0.21
OPA65R-BU6D w/ Mount Pipe	B	From Leg	4.00	-85.000	97.00	2" Ice	10.39	5.98	0.38
			-2.000			No Ice	12.25	6.05	0.09
			0.000			1/2" Ice	13.00	6.71	0.18
			4.00	-85.000	97.00	1" Ice	13.76	7.39	0.27
OPA65R-BU8B w/ Mount Pipe	C	From Leg	4.00	-85.000	97.00	2" Ice	15.34	8.79	0.51
			2.000			No Ice	8.87	7.93	0.11
			0.000			1/2" Ice	9.68	8.73	0.19
			4.00	-40.000	97.00	1" Ice	10.51	9.55	0.29
(2) LGP21401	A	From Leg	4.00	-40.000	97.00	2" Ice	12.21	11.24	0.53
						No Ice	1.10	0.21	0.01

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	Client	Crown Castle	Designed by	CJB

Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement	C _{AA} Front	C _{AA} Side	Weight
			Horz	Vert					
				6.000					
				0.000		1/2" Ice	1.24	0.27	0.02
						1" Ice	1.38	0.35	0.03
						2" Ice	1.69	0.52	0.05
(2) LGP21401	B	From Leg	4.00	-40.000	97.00	No Ice	1.10	0.21	0.01
			6.000			1/2" Ice	1.24	0.27	0.02
			0.000			1" Ice	1.38	0.35	0.03
						2" Ice	1.69	0.52	0.05
(2) LGP21401	C	From Leg	4.00	90.000	97.00	No Ice	1.10	0.21	0.01
			-6.000			1/2" Ice	1.24	0.27	0.02
			0.000			1" Ice	1.38	0.35	0.03
						2" Ice	1.69	0.52	0.05
DC6-48-60-18-8F	A	From Leg	4.00	85.000	97.00	No Ice	1.21	1.21	0.03
			-6.000			1/2" Ice	1.89	1.89	0.05
			0.000			1" Ice	2.11	2.11	0.08
						2" Ice	2.57	2.57	0.14
RRUS 4449 B5/B12	A	From Leg	4.00	85.000	97.00	No Ice	1.97	1.41	0.07
			-6.000			1/2" Ice	2.14	1.56	0.09
			0.000			1" Ice	2.33	1.73	0.11
						2" Ice	2.72	2.07	0.16
RRUS 4449 B5/B12	B	From Leg	4.00	-85.000	97.00	No Ice	1.97	1.41	0.07
			-6.000			1/2" Ice	2.14	1.56	0.09
			0.000			1" Ice	2.33	1.73	0.11
						2" Ice	2.72	2.07	0.16
RRUS 4449 B5/B12	C	From Leg	4.00	-85.000	97.00	No Ice	1.97	1.41	0.07
			6.000			1/2" Ice	2.14	1.56	0.09
			0.000			1" Ice	2.33	1.73	0.11
						2" Ice	2.72	2.07	0.16
RRUS 8843 B2/B66A_CCIV2	A	From Leg	4.00	85.000	97.00	No Ice	1.98	1.70	0.08
			-6.000			1/2" Ice	2.16	1.86	0.10
			0.000			1" Ice	2.34	2.04	0.12
						2" Ice	2.73	2.41	0.18
RRUS 8843 B2/B66A_CCIV2	B	From Leg	4.00	-85.000	97.00	No Ice	1.98	1.70	0.08
			-6.000			1/2" Ice	2.16	1.86	0.10
			0.000			1" Ice	2.34	2.04	0.12
						2" Ice	2.73	2.41	0.18
RRUS 8843 B2/B66A_CCIV2	C	From Leg	4.00	-85.000	97.00	No Ice	1.98	1.70	0.08
			6.000			1/2" Ice	2.16	1.86	0.10
			0.000			1" Ice	2.34	2.04	0.12
						2" Ice	2.73	2.41	0.18
RRUS 4478 B14_CCIV2	A	From Leg	4.00	85.000	97.00	No Ice	2.02	1.25	0.06
			-2.000			1/2" Ice	2.20	1.40	0.08
			0.000			1" Ice	2.39	1.55	0.10
						2" Ice	2.78	1.89	0.15
RRUS 4478 B14_CCIV2	B	From Leg	4.00	-85.000	97.00	No Ice	2.02	1.25	0.06
			-2.000			1/2" Ice	2.20	1.40	0.08
			0.000			1" Ice	2.39	1.55	0.10
						2" Ice	2.78	1.89	0.15
RRUS 4478 B14_CCIV2	C	From Leg	4.00	-85.000	97.00	No Ice	2.02	1.25	0.06
			2.000			1/2" Ice	2.20	1.40	0.08
			0.000			1" Ice	2.39	1.55	0.10
						2" Ice	2.78	1.89	0.15
DC9-48-60-24-8C-EV	C	From Leg	4.00	90.000	97.00	No Ice	2.74	4.78	0.03
			-6.000			1/2" Ice	2.96	5.06	0.06
			0.000			1" Ice	3.20	5.35	0.10
						2" Ice	3.68	5.95	0.20
2.4" Dia. x 7-ft	A	From Leg	4.00	0.000	97.00	No Ice	1.66	1.66	0.03
			2.000			1/2" Ice	2.39	2.39	0.04

<p>tnxTower</p> <p>Tower Engineering Professionals, Inc. 326 Tryon Road Raleigh, NC 27603 Phone: (619) 661-6351 FAX: (619) 661-6350</p>	Job	Waterford (BU 876338)	Page	21 of 35
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	Client	Crown Castle	Designed by	CJB

Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement	C _{AA} Front	C _{AA} Side	Weight	
			Horz	Vert						ft
			Lateral		°	ft	ft ²	ft ²	K	
			ft	ft						
			0.000				1" Ice	2.83	2.83	0.06
							2" Ice	3.71	3.71	0.10
2.4" Dia. x 7-ft	B	From Leg	4.00		0.000	97.00	No Ice	1.66	1.66	0.03
			2.000				1/2" Ice	2.39	2.39	0.04
			0.000				1" Ice	2.83	2.83	0.06
							2" Ice	3.71	3.71	0.10
2.4" Dia. x 7-ft	C	From Leg	4.00		0.000	97.00	No Ice	1.66	1.66	0.03
			-2.000				1/2" Ice	2.39	2.39	0.04
			0.000				1" Ice	2.83	2.83	0.06
							2" Ice	3.71	3.71	0.10
Sector Mount [SM 504-3]	C	None			0.000	97.00	No Ice	31.05	31.05	1.71
							1/2" Ice	43.83	43.83	2.33
							1" Ice	56.44	56.44	3.14
							2" Ice	81.28	81.28	5.36
87										
800 10504 w/ Mount Pipe	A	From Leg	4.00		-80.000	87.00	No Ice	2.69	2.26	0.04
			-6.000				1/2" Ice	3.12	2.68	0.07
			2.000				1" Ice	3.56	3.12	0.11
							2" Ice	4.49	4.03	0.21
800 10504 w/ Mount Pipe	B	From Leg	4.00		70.000	87.00	No Ice	2.69	2.26	0.04
			-6.000				1/2" Ice	3.12	2.68	0.07
			2.000				1" Ice	3.56	3.12	0.11
							2" Ice	4.49	4.03	0.21
800 10504 w/ Mount Pipe	C	From Leg	4.00		70.000	87.00	No Ice	2.69	2.26	0.04
			-6.000				1/2" Ice	3.12	2.68	0.07
			2.000				1" Ice	3.56	3.12	0.11
							2" Ice	4.49	4.03	0.21
860 10118	A	From Leg	4.00		-80.000	87.00	No Ice	0.15	0.13	0.00
			-6.000				1/2" Ice	0.21	0.18	0.00
			2.000				1" Ice	0.27	0.24	0.01
							2" Ice	0.42	0.39	0.01
860 10118	B	From Leg	4.00		70.000	87.00	No Ice	0.15	0.13	0.00
			-6.000				1/2" Ice	0.21	0.18	0.00
			2.000				1" Ice	0.27	0.24	0.01
							2" Ice	0.42	0.39	0.01
860 10118	C	From Leg	4.00		70.000	87.00	No Ice	0.15	0.13	0.00
			-6.000				1/2" Ice	0.21	0.18	0.00
			2.000				1" Ice	0.27	0.24	0.01
							2" Ice	0.42	0.39	0.01
2.4" x 6-ft pipe	A	From Leg	4.00		0.000	87.00	No Ice	1.43	1.43	0.02
			6.000				1/2" Ice	1.92	1.92	0.03
			0.000				1" Ice	2.29	2.29	0.05
							2" Ice	3.06	3.06	0.09
2.4" x 6-ft pipe	B	From Leg	4.00		0.000	87.00	No Ice	1.43	1.43	0.02
			6.000				1/2" Ice	1.92	1.92	0.03
			0.000				1" Ice	2.29	2.29	0.05
							2" Ice	3.06	3.06	0.09
2.4" x 6-ft pipe	C	From Leg	4.00		0.000	87.00	No Ice	1.44	1.44	0.02
			6.000				1/2" Ice	1.93	1.93	0.03
			0.000				1" Ice	2.30	2.30	0.05
							2" Ice	3.07	3.07	0.09
Sector Mount [SM 104-3]	C	None			0.000	87.00	No Ice	30.21	30.21	0.95
							1/2" Ice	38.12	38.12	1.43
							1" Ice	46.01	46.01	2.03
							2" Ice	62.03	62.03	3.58
80										
GPS_A	C	From Leg	3.00		0.000	80.00	No Ice	0.12	0.12	0.00

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	Client	Crown Castle	Designed by	CJB

Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement	C _{AA} Front	C _{AA} Side	Weight	
			Horz	Vert						
			ft	ft	°	ft	ft ²	ft ²	K	
Side Arm Mount [SO 701-1]	C	From Leg	0.000				1/2" Ice	0.21	0.21	0.00
			1.000				1" Ice	0.28	0.28	0.01
							2" Ice	0.44	0.44	0.02
			1.50	0.000	80.00	No Ice	0.85	1.67	0.07	
			0.000			1/2" Ice	1.14	2.34	0.08	
			0.000			1" Ice	1.43	3.01	0.09	
						2" Ice	2.01	4.35	0.12	
72										
GPS_A	B	From Leg	3.00	0.000	72.00	No Ice	0.12	0.12	0.00	
			0.000			1/2" Ice	0.21	0.21	0.00	
			0.000			1" Ice	0.28	0.28	0.01	
						2" Ice	0.44	0.44	0.02	
			3.00	0.000	72.00	No Ice	0.12	0.12	0.00	
			0.000			1/2" Ice	0.21	0.21	0.00	
			1" Ice	0.28	0.28	0.01				
						2" Ice	0.44	0.44	0.02	
GPS_A	C	From Leg	3.00	0.000	72.00	No Ice	0.12	0.12	0.00	
			0.000			1/2" Ice	0.21	0.21	0.00	
			0.000			1" Ice	0.28	0.28	0.01	
						2" Ice	0.44	0.44	0.02	
			3.00	0.000	72.00	No Ice	0.12	0.12	0.00	
			0.000			1/2" Ice	0.21	0.21	0.00	
			1" Ice	0.28	0.28	0.01				
						2" Ice	0.44	0.44	0.02	
Side Arm Mount [SO 701-1]	B	From Leg	1.50	0.000	72.00	No Ice	0.85	1.67	0.07	
			0.000			1/2" Ice	1.14	2.34	0.08	
			0.000			1" Ice	1.43	3.01	0.09	
						2" Ice	2.01	4.35	0.12	
			1.50	0.000	72.00	No Ice	0.85	1.67	0.07	
			0.000			1/2" Ice	1.14	2.34	0.08	
			1" Ice	1.43	3.01	0.09				
						2" Ice	2.01	4.35	0.12	
Side Arm Mount [SO 701-1]	C	From Leg	1.50	0.000	72.00	No Ice	0.85	1.67	0.07	
			0.000			1/2" Ice	1.14	2.34	0.08	
			0.000			1" Ice	1.43	3.01	0.09	
						2" Ice	2.01	4.35	0.12	
			1.50	0.000	72.00	No Ice	0.85	1.67	0.07	
			0.000			1/2" Ice	1.14	2.34	0.08	
			1" Ice	1.43	3.01	0.09				
						2" Ice	2.01	4.35	0.12	

Truss-Leg Properties

Section Designation	Area	Area Ice	Self Weight	Ice Weight	Equiv. Diameter	Equiv. Diameter Ice	Leg Area
	in ²	in ²	K	K	in	in	in ²
PiRod 105244 w/ (2) 1-1/4" Tie Rod	1132.481	3061.651	0.74	0.54	7.864	21.261	6.136
PiRod 105217	2312.617	5959.026	0.60	0.82	8.030	20.691	5.301
PiRod 105218	2263.469	6279.964	0.75	0.80	7.859	21.805	7.216
PiRod 105218	2263.469	6221.454	0.75	0.74	7.859	21.602	7.216
PiRod 105219	2634.349	5930.127	1.11	0.69	9.147	20.591	9.425

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

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<i>Comb. No.</i>	<i>Description</i>
7	0.9 Dead+1.0 Wind 60 deg - No Ice
8	1.2 Dead+1.0 Wind 90 deg - No Ice
9	0.9 Dead+1.0 Wind 90 deg - No Ice
10	1.2 Dead+1.0 Wind 120 deg - No Ice
11	0.9 Dead+1.0 Wind 120 deg - No Ice
12	1.2 Dead+1.0 Wind 150 deg - No Ice
13	0.9 Dead+1.0 Wind 150 deg - No Ice
14	1.2 Dead+1.0 Wind 180 deg - No Ice
15	0.9 Dead+1.0 Wind 180 deg - No Ice
16	1.2 Dead+1.0 Wind 210 deg - No Ice
17	0.9 Dead+1.0 Wind 210 deg - No Ice
18	1.2 Dead+1.0 Wind 240 deg - No Ice
19	0.9 Dead+1.0 Wind 240 deg - No Ice
20	1.2 Dead+1.0 Wind 270 deg - No Ice
21	0.9 Dead+1.0 Wind 270 deg - No Ice
22	1.2 Dead+1.0 Wind 300 deg - No Ice
23	0.9 Dead+1.0 Wind 300 deg - No Ice
24	1.2 Dead+1.0 Wind 330 deg - No Ice
25	0.9 Dead+1.0 Wind 330 deg - No Ice
26	1.2 Dead+1.0 Ice+1.0 Temp
27	1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp
28	1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp
29	1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp
30	1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp
31	1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp
32	1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp
33	1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp
34	1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp
35	1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp
36	1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp
37	1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp
38	1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp
39	Dead+Wind 0 deg - Service
40	Dead+Wind 30 deg - Service
41	Dead+Wind 60 deg - Service
42	Dead+Wind 90 deg - Service
43	Dead+Wind 120 deg - Service
44	Dead+Wind 150 deg - Service
45	Dead+Wind 180 deg - Service
46	Dead+Wind 210 deg - Service
47	Dead+Wind 240 deg - Service
48	Dead+Wind 270 deg - Service
49	Dead+Wind 300 deg - Service
50	Dead+Wind 330 deg - Service

Maximum Member Forces

<i>Section No.</i>	<i>Elevation ft</i>	<i>Component Type</i>	<i>Condition</i>	<i>Gov. Load Comb.</i>	<i>Axial K</i>	<i>Major Axis Moment kip-ft</i>	<i>Minor Axis Moment kip-ft</i>
T1	136 - 132.813	Leg	Max Tension	30	0.00	0.00	0.00
			Max. Compression	31	-2.99	-0.01	-0.00
			Max. Mx	8	-1.05	-0.36	0.00
			Max. My	3	-0.65	-0.01	0.34
			Max. Vy	8	0.72	-0.36	0.00
			Max. Vx	3	-0.69	-0.01	0.34
		Diagonal	Max Tension	13	1.50	0.00	0.00
			Max. Compression	12	-1.58	0.00	0.00
			Max. Mx	26	-0.10	0.01	0.00

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Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft	
T2	132.813 - 130	Top Girt	Max. Vy	26	-0.01	0.00	0.00	
			Max Tension	23	1.07	0.00	0.00	
			Max. Compression	10	-1.07	-0.06	0.00	
			Max. Mx	33	-0.12	-0.11	0.00	
			Max. My	2	0.48	-0.04	-0.00	
			Max. Vy	33	0.08	-0.11	0.00	
		Leg	Max. Vx	18	-0.00	0.00	0.00	
			Max Tension	7	3.74	0.21	-0.12	
			Max. Compression	10	-6.46	0.09	0.06	
			Max. Mx	20	-4.55	-0.24	0.01	
			Max. My	2	-4.94	-0.01	-0.25	
			Max. Vy	20	-1.06	-0.11	0.00	
			Max. Vx	2	-1.11	-0.00	-0.11	
			Diagonal	Max Tension	25	1.29	0.00	0.00
				Max. Compression	12	-1.42	0.00	0.00
				Max. Mx	30	0.15	-0.00	0.00
				Max. My	24	1.27	-0.00	0.00
				Max. Vy	30	0.01	-0.00	0.00
				Max. Vx	24	0.00	0.00	0.00
			Top Girt	Max Tension	27	0.21	0.00	0.00
				Max. Compression	15	-0.01	0.00	0.00
Max. Mx	26	0.19		0.01	0.00			
Bottom Girt	Max. Vy	26	0.01	0.00	0.00			
	Max Tension	6	0.60	0.00	0.00			
	Max. Compression	19	-0.51	0.00	0.00			
	Max. Mx	26	0.12	0.01	0.00			
	Max. Vy	26	0.01	0.00	0.00			
	Max. Vx	26	0.01	0.00	0.00			
T3	130 - 110	Leg	Max Tension	7	34.88	1.32	-0.03	
			Max. Compression	18	-42.20	-0.93	0.02	
			Max. Mx	6	33.87	1.32	-0.03	
			Max. My	8	-4.10	0.00	-1.12	
			Max. Vy	2	-3.04	-0.93	-0.00	
			Max. Vx	8	-2.60	0.00	-0.79	
		Diagonal	Max Tension	25	3.85	0.00	0.00	
			Max. Compression	12	-3.90	0.00	0.00	
			Max. Mx	34	0.87	-0.01	-0.00	
			Max. My	24	-3.03	-0.00	0.00	
			Max. Vy	34	0.01	-0.01	-0.00	
			Max. Vx	24	-0.00	0.00	0.00	
		Top Girt	Max Tension	18	0.57	0.00	0.00	
			Max. Compression	7	-0.55	0.00	0.00	
			Max. Mx	26	0.01	0.01	0.00	
		Bottom Girt	Max. Vy	26	0.01	0.00	0.00	
			Max Tension	6	1.77	0.00	0.00	
			Max. Compression	19	-1.72	0.00	0.00	
			Max. Mx	26	0.07	0.02	0.00	
			Max. Vy	26	0.01	0.00	0.00	
			Max. Vx	26	0.01	0.00	0.00	
T4	110 - 94.9434	Leg	Max Tension	7	70.78	-0.20	-0.00	
			Max. Compression	2	-82.42	0.01	0.01	
			Max. Mx	2	-41.97	1.99	-0.00	
			Max. My	8	-4.15	0.01	1.71	
			Max. Vy	2	-3.05	1.99	-0.00	
			Max. Vx	8	-2.61	0.01	1.71	
		Diagonal	Max Tension	17	5.66	0.00	0.00	
			Max. Compression	16	-5.70	0.00	0.00	
			Max. Mx	27	1.05	-0.01	-0.00	
			Max. My	24	-4.34	-0.00	0.00	
			Max. Vy	27	0.01	-0.01	-0.00	
			Max. Vx	24	-0.00	-0.00	0.00	
			Top Girt	Max Tension	2	1.39	0.00	0.00
				Max. Compression	7	-1.36	0.00	0.00

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Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
T5	94.9434 - 92.5938	Leg	Max. Mx	26	0.04	0.02	0.00
			Max. Vy	26	-0.02	0.00	0.00
			Max Tension	23	78.29	-0.03	0.01
			Max. Compression	2	-90.99	-0.23	-0.00
			Max. Mx	2	-90.97	0.31	-0.00
			Max. My	24	-7.50	-0.01	0.24
		Diagonal	Max. Vy	18	0.46	0.31	-0.00
			Max. Vx	24	0.26	-0.01	0.24
			Max Tension	17	5.97	-0.00	0.00
			Max. Compression	16	-6.06	0.00	0.00
			Max. Mx	27	1.14	-0.01	0.00
			Max. My	18	4.76	-0.01	0.00
		Secondary Horizontal	Max. Vy	27	0.01	-0.01	0.00
			Max. Vx	18	-0.00	0.00	0.00
			Max Tension	2	1.58	0.00	0.00
			Max. Compression	2	-1.58	-0.00	0.00
			Max. Mx	36	0.30	-0.01	-0.00
			Max. My	4	-0.40	-0.00	-0.00
T6	92.5938 - 90	Leg	Max. Vy	36	-0.02	-0.01	-0.00
			Max. Vx	4	-0.00	0.00	0.00
			Max Tension	7	90.41	1.14	-0.01
			Max. Compression	18	-103.81	3.23	-0.02
			Max. Mx	18	-103.81	3.23	-0.02
			Max. My	20	-7.92	0.03	-1.52
		Diagonal	Max. Vy	18	-7.47	3.23	-0.02
			Max. Vx	20	3.38	0.03	-1.52
			Max Tension	17	6.84	-0.00	0.00
			Max. Compression	16	-6.99	0.00	0.00
			Max. Mx	27	0.97	-0.01	0.00
			Max. My	8	-3.34	-0.00	-0.00
		Secondary Horizontal	Max. Vy	27	0.01	-0.01	0.00
			Max. Vx	8	-0.00	0.00	0.00
			Max Tension	18	1.71	0.00	0.00
			Max. Compression	18	-1.71	-0.00	0.00
			Max. Mx	27	-0.29	-0.01	-0.00
			Max. My	4	-1.46	-0.01	-0.00
Bottom Girt	Max. Vy	27	0.02	-0.01	-0.00		
	Max. Vx	4	0.00	0.00	0.00		
	Max Tension	22	0.96	0.00	0.00		
	Max. Compression	3	-0.89	0.00	0.00		
	Max. Mx	26	0.08	0.02	0.00		
	Max. Vy	26	0.02	0.00	0.00		
T7	90 - 80	Leg	Max Tension	7	97.82	-3.17	0.02
			Max. Compression	18	-111.57	4.82	0.08
			Max. Mx	22	94.76	-5.53	0.00
			Max. My	4	-7.77	-0.38	-8.35
			Max. Vy	22	0.49	-5.53	0.00
			Max. Vx	4	0.96	-0.38	-8.35
		Diagonal	Max Tension	15	7.08	0.11	-0.02
			Max. Compression	18	-7.74	0.00	0.00
			Max. Mx	6	6.97	0.11	0.02
			Max. My	4	-6.87	-0.08	0.03
			Max. Vy	37	0.03	0.04	0.00
			Max. Vx	4	-0.01	0.00	0.00
T8	80 - 60	Leg	Max Tension	7	138.63	-5.65	-0.02
			Max. Compression	18	-156.52	6.15	0.06
			Max. Mx	19	-154.03	6.15	0.06
			Max. My	4	-8.98	-0.38	-8.35

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Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft			
T9	60 - 40	Diagonal	Max. Vy	2	-0.22	5.75	0.00			
			Max. Vx	24	0.41	-0.35	8.28			
			Max Tension	16	7.28	0.07	0.00			
			Max. Compression	5	-7.12	0.00	0.00			
			Max. Mx	18	6.43	0.09	0.00			
			Max. My	24	6.01	0.07	0.01			
		Leg	Max. Vy	35	-0.03	0.06	0.01			
			Max. Vx	38	-0.00	0.00	0.00			
			Max Tension	7	172.21	-5.69	-0.02			
			Max. Compression	18	-193.50	5.68	0.03			
			Max. Mx	19	-172.96	6.15	0.06			
			Max. My	4	-10.58	-0.02	-5.69			
			Max. Vy	22	-0.16	-6.02	0.01			
			Max. Vx	16	0.18	-0.05	5.69			
Diagonal	Max Tension	8	6.30	0.00	0.00					
	Max. Compression	8	-6.31	0.00	0.00					
	Max. Mx	18	5.45	0.11	0.01					
	Max. My	34	-0.87	0.05	0.01					
	Max. Vy	29	0.04	0.07	-0.01					
	Max. Vx	34	-0.00	0.00	0.00					
T10	40 - 20	Leg	Max Tension	7	201.29	-5.05	-0.02			
			Max. Compression	18	-226.07	7.09	0.12			
			Max. Mx	18	-226.07	7.09	0.12			
			Max. My	4	-13.25	-0.19	-6.13			
			Max. Vy	37	0.42	-3.93	-0.00			
			Max. Vx	4	-0.29	-0.19	-6.13			
		Diagonal	Max Tension	20	6.14	0.00	0.00			
			Max. Compression	18	-6.49	0.00	0.00			
			Max. Mx	18	4.83	0.10	0.01			
			Max. My	34	1.71	0.08	0.01			
			Max. Vy	29	0.05	0.08	-0.01			
			Max. Vx	34	-0.00	0.00	0.00			
			T11	20 - 0	Leg	Max Tension	7	226.97	-5.30	-0.03
						Max. Compression	18	-256.08	0.00	0.00
Max. Mx	18	-242.24				7.09	0.12			
Max. My	4	-15.26				-0.45	-9.36			
Max. Vy	37	-0.72				-3.93	-0.00			
Max. Vx	4	-1.07				-0.45	-9.36			
Diagonal	Max Tension	7			8.06	0.00	0.00			
	Max. Compression	18			-8.74	0.00	0.00			
			Max. Mx	18	4.60	0.14	0.02			
			Max. My	4	6.64	0.12	-0.02			
			Max. Vy	29	0.06	0.13	-0.01			
			Max. Vx	34	-0.00	0.00	0.00			

Maximum Reactions

Location	Condition	Gov. Load Comb.	Vertical K	Horizontal, X K	Horizontal, Z K
Leg C	Max. Vert	18	265.78	22.99	-12.89
	Max. H _x	18	265.78	22.99	-12.89
	Max. H _z	7	-235.04	-20.54	11.48
	Min. Vert	7	-235.04	-20.54	11.48
	Min. H _x	7	-235.04	-20.54	11.48
	Min. H _z	18	265.78	22.99	-12.89
Leg B	Max. Vert	10	256.25	-21.70	-12.59

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Location	Condition	Gov. Load Comb.	Vertical K	Horizontal, X K	Horizontal, Z K
Leg A	Max. H _x	23	-224.91	19.24	11.17
	Max. H _z	23	-224.91	19.24	11.17
	Min. Vert	23	-224.91	19.24	11.17
	Min. H _x	10	256.25	-21.70	-12.59
	Min. H _z	10	256.25	-21.70	-12.59
	Max. Vert	2	258.83	-0.01	25.44
	Max. H _x	20	15.99	0.51	1.36
	Max. H _z	2	258.83	-0.01	25.44
	Min. Vert	15	-228.04	0.02	-22.62
	Min. H _x	9	11.92	-0.51	1.01
	Min. H _z	15	-228.04	0.02	-22.62

Tower Mast Reaction Summary

Load Combination	Vertical K	Shear _x K	Shear _z K	Overturning Moment, M _x kip-ft	Overturning Moment, M _z kip-ft	Torque kip-ft
Dead Only	40.11	0.00	0.00	0.98	-1.98	0.00
1.2 Dead+1.0 Wind 0 deg - No Ice	48.13	-0.01	-36.69	-2943.60	-1.84	-0.49
0.9 Dead+1.0 Wind 0 deg - No Ice	36.10	-0.01	-36.69	-2943.89	-1.24	-0.49
1.2 Dead+1.0 Wind 30 deg - No Ice	48.13	18.82	-32.55	-2602.15	-1510.36	10.70
0.9 Dead+1.0 Wind 30 deg - No Ice	36.10	18.82	-32.55	-2602.45	-1509.76	10.70
1.2 Dead+1.0 Wind 60 deg - No Ice	48.13	32.44	-18.69	-1491.88	-2598.08	8.06
0.9 Dead+1.0 Wind 60 deg - No Ice	36.10	32.44	-18.69	-1492.18	-2597.49	8.06
1.2 Dead+1.0 Wind 90 deg - No Ice	48.13	36.94	0.01	1.72	-2965.52	-3.07
0.9 Dead+1.0 Wind 90 deg - No Ice	36.10	36.94	0.01	1.42	-2964.92	-3.07
1.2 Dead+1.0 Wind 120 deg - No Ice	48.13	31.28	18.03	1452.31	-2524.37	-1.25
0.9 Dead+1.0 Wind 120 deg - No Ice	36.10	31.28	18.03	1452.02	-2523.78	-1.25
1.2 Dead+1.0 Wind 150 deg - No Ice	48.13	17.82	30.80	2503.03	-1452.38	5.79
0.9 Dead+1.0 Wind 150 deg - No Ice	36.10	17.82	30.80	2502.73	-1451.79	5.79
1.2 Dead+1.0 Wind 180 deg - No Ice	48.13	0.01	35.93	2911.05	-2.91	0.49
0.9 Dead+1.0 Wind 180 deg - No Ice	36.10	0.01	35.93	2910.75	-2.32	0.49
1.2 Dead+1.0 Wind 210 deg - No Ice	48.13	-18.82	32.55	2604.52	1505.61	-10.70
0.9 Dead+1.0 Wind 210 deg - No Ice	36.10	-18.82	32.55	2604.22	1506.20	-10.70
1.2 Dead+1.0 Wind 240 deg - No Ice	48.13	-33.09	19.07	1511.71	2623.57	-8.06
0.9 Dead+1.0 Wind 240 deg - No Ice	36.10	-33.09	19.07	1511.41	2624.17	-8.06
1.2 Dead+1.0 Wind 270 deg - No Ice	48.13	-36.94	-0.01	0.65	2960.77	3.07
0.9 Dead+1.0 Wind 270 deg - No Ice	36.10	-36.94	-0.01	0.35	2961.36	3.07

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Load Combination	Vertical K	Shear _x K	Shear _z K	Overturning Moment, M _x kip-ft	Overturning Moment, M _z kip-ft	Torque kip-ft
No Ice						
1.2 Dead+1.0 Wind 300 deg - No Ice	48.13	-30.62	-17.65	-1432.49	2489.39	1.25
0.9 Dead+1.0 Wind 300 deg - No Ice	36.10	-30.62	-17.65	-1432.78	2489.98	1.25
1.2 Dead+1.0 Wind 330 deg - No Ice	48.13	-17.82	-30.80	-2500.66	1447.63	-5.79
0.9 Dead+1.0 Wind 330 deg - No Ice	36.10	-17.82	-30.80	-2500.96	1448.23	-5.79
1.2 Dead+1.0 Ice+1.0 Temp	115.23	0.00	0.00	5.49	-8.40	0.00
1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp	115.23	0.00	-8.83	-696.22	-8.52	0.12
1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp	115.23	4.44	-7.68	-604.44	-361.14	2.05
1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp	115.23	7.70	-4.44	-346.53	-618.91	1.62
1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp	115.23	8.85	-0.00	5.38	-709.68	-0.20
1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp	115.23	7.63	4.40	354.36	-613.67	-0.17
1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp	115.23	4.36	7.54	607.06	-356.17	0.87
1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp	115.23	-0.00	8.75	703.60	-8.29	-0.12
1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp	115.23	-4.44	7.68	615.43	344.33	-2.05
1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp	115.23	-7.77	4.48	359.32	605.22	-1.62
1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp	115.23	-8.85	0.00	5.61	692.88	0.20
1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp	115.23	-7.56	-4.36	-341.56	593.73	0.17
1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp	115.23	-4.36	-7.54	-596.07	339.37	-0.87
Dead+Wind 0 deg - Service	40.11	-0.00	-7.63	-611.32	-1.87	-0.10
Dead+Wind 30 deg - Service	40.11	3.91	-6.77	-540.32	-315.53	2.22
Dead+Wind 60 deg - Service	40.11	6.74	-3.89	-309.46	-541.70	1.68
Dead+Wind 90 deg - Service	40.11	7.68	0.00	1.10	-618.10	-0.64
Dead+Wind 120 deg - Service	40.11	6.50	3.75	302.71	-526.37	-0.26
Dead+Wind 150 deg - Service	40.11	3.71	6.40	521.19	-303.47	1.20
Dead+Wind 180 deg - Service	40.11	0.00	7.47	606.02	-2.09	0.10
Dead+Wind 210 deg - Service	40.11	-3.91	6.77	542.29	311.57	-2.22
Dead+Wind 240 deg - Service	40.11	-6.88	3.96	315.06	544.03	-1.68
Dead+Wind 270 deg - Service	40.11	-7.68	-0.00	0.87	614.14	0.64
Dead+Wind 300 deg - Service	40.11	-6.37	-3.67	-297.11	516.13	0.26
Dead+Wind 330 deg - Service	40.11	-3.71	-6.40	-519.22	299.52	-1.20

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	-40.11	0.00	0.00	40.11	0.00	0.000%
2	-0.01	-48.13	-36.69	0.01	48.13	36.69	0.000%
3	-0.01	-36.10	-36.69	0.01	36.10	36.69	0.000%
4	18.82	-48.13	-32.55	-18.82	48.13	32.55	0.000%
5	18.82	-36.10	-32.55	-18.82	36.10	32.55	0.000%
6	32.44	-48.13	-18.69	-32.44	48.13	18.69	0.000%

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Load Comb.	Sum of Applied Forces			Sum of Reactions			% Error
	PX K	PY K	PZ K	PX K	PY K	PZ K	
7	32.44	-36.10	-18.69	-32.44	36.10	18.69	0.000%
8	36.94	-48.13	0.01	-36.94	48.13	-0.01	0.000%
9	36.94	-36.10	0.01	-36.94	36.10	-0.01	0.000%
10	31.28	-48.13	18.03	-31.28	48.13	-18.03	0.000%
11	31.28	-36.10	18.03	-31.28	36.10	-18.03	0.000%
12	17.82	-48.13	30.80	-17.82	48.13	-30.80	0.000%
13	17.82	-36.10	30.80	-17.82	36.10	-30.80	0.000%
14	0.01	-48.13	35.93	-0.01	48.13	-35.93	0.000%
15	0.01	-36.10	35.93	-0.01	36.10	-35.93	0.000%
16	-18.82	-48.13	32.55	18.82	48.13	-32.55	0.000%
17	-18.82	-36.10	32.55	18.82	36.10	-32.55	0.000%
18	-33.09	-48.13	19.07	33.09	48.13	-19.07	0.000%
19	-33.09	-36.10	19.07	33.09	36.10	-19.07	0.000%
20	-36.94	-48.13	-0.01	36.94	48.13	0.01	0.000%
21	-36.94	-36.10	-0.01	36.94	36.10	0.01	0.000%
22	-30.62	-48.13	-17.65	30.62	48.13	17.65	0.000%
23	-30.62	-36.10	-17.65	30.62	36.10	17.65	0.000%
24	-17.82	-48.13	-30.80	17.82	48.13	30.80	0.000%
25	-17.82	-36.10	-30.80	17.82	36.10	30.80	0.000%
26	0.00	-115.23	0.00	0.00	115.23	0.00	0.000%
27	0.00	-115.23	-8.83	-0.00	115.23	8.83	0.000%
28	4.44	-115.23	-7.68	-4.44	115.23	7.68	0.000%
29	7.70	-115.23	-4.44	-7.70	115.23	4.44	0.000%
30	8.85	-115.23	-0.00	-8.85	115.23	0.00	0.000%
31	7.63	-115.23	4.40	-7.63	115.23	-4.40	0.000%
32	4.36	-115.23	7.54	-4.36	115.23	-7.54	0.000%
33	-0.00	-115.23	8.75	0.00	115.23	-8.75	0.000%
34	-4.44	-115.23	7.68	4.44	115.23	-7.68	0.000%
35	-7.77	-115.23	4.48	7.77	115.23	-4.48	0.000%
36	-8.85	-115.23	0.00	8.85	115.23	-0.00	0.000%
37	-7.56	-115.23	-4.36	7.56	115.23	4.36	0.000%
38	-4.36	-115.23	-7.54	4.36	115.23	7.54	0.000%
39	-0.00	-40.11	-7.63	0.00	40.11	7.63	0.000%
40	3.91	-40.11	-6.77	-3.91	40.11	6.77	0.000%
41	6.74	-40.11	-3.89	-6.74	40.11	3.89	0.000%
42	7.68	-40.11	0.00	-7.68	40.11	-0.00	0.000%
43	6.50	-40.11	3.75	-6.50	40.11	-3.75	0.000%
44	3.71	-40.11	6.40	-3.71	40.11	-6.40	0.000%
45	0.00	-40.11	7.47	-0.00	40.11	-7.47	0.000%
46	-3.91	-40.11	6.77	3.91	40.11	-6.77	0.000%
47	-6.88	-40.11	3.96	6.88	40.11	-3.96	0.000%
48	-7.68	-40.11	-0.00	7.68	40.11	0.00	0.000%
49	-6.37	-40.11	-3.67	6.37	40.11	3.67	0.000%
50	-3.71	-40.11	-6.40	3.71	40.11	6.40	0.000%

Bolt Design Data

Section No.	Elevation ft	Component Type	Bolt Grade	Bolt Size in	Number Of Bolts	Maximum Load per Bolt K	Allowable Load per Bolt K	Ratio Load Allowable	Allowable Ratio	Criteria
T2	132.813	Leg	A325N	0.625	5	1.29	27.61	0.047	1.05	Bolt DS
T3	130	Leg	A325N	0.750	5	8.44	39.76	0.212	1.05	Bolt DS
T6	92.5938	Leg	A325N	1.000	6	15.07	54.52	0.276	1.05	Bolt Tension
T7	90	Diagonal	A325N	1.000	1	7.08	10.16	0.697	1.05	Member Block Shear

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Section No.	Elevation ft	Component Type	Bolt Grade	Bolt Size in	Number Of Bolts	Maximum Load per Bolt K	Allowable Load per Bolt K	Ratio Load Allowable	Allowable Ratio	Criteria
T8	80	Leg Diagonal	A325N A325N	1.000 1.000	6 1	23.10 7.28	54.52 10.66	0.424 0.683	1.05 1.05	Bolt Tension Member Block Shear
T9	60	Leg Diagonal	A325N A325N	1.000 1.000	6 1	28.70 6.30	54.52 11.68	0.526 0.539	1.05 1.05	Bolt Tension Member Block Shear
T10	40	Leg Diagonal	A325N A325N	1.000 1.000	6 1	33.55 6.14	54.52 11.68	0.615 0.526	1.05 1.05	Bolt Tension Member Block Shear
T11	20	Diagonal	A325N	1.250	1	8.06	23.70	0.340	1.05	Member Block Shear

Compression Checks

Leg Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _n K	Ratio $\frac{P_u}{\phi P_n}$
T1	136 - 132.813	1 1/2	3.19	2.69	86.0 K=1.00	1.767	-2.95	46.31	0.064 ¹
T2	132.813 - 130	1 1/2	2.81	2.69	86.0 K=1.00	1.767	-5.07	46.31	0.110 ¹
T3	130 - 110	2	20.00	2.38	57.1 K=1.00	3.142	-38.83	111.36	0.349 ¹
T4	110 - 94.9434	2 1/4	15.06	2.35	50.1 K=1.00	3.976	-82.42	148.89	0.554 ¹
T5	94.9434 - 92.5938	2 1/4	2.35	1.18	25.2 K=1.00	3.976	-90.99	170.80	0.533 ¹
T6	92.5938 - 90	2 1/4	2.59	0.58	12.4 K=1.00	3.976	-103.81	176.91	0.587 ¹
T7	90 - 80	PiRod 105244 w/ (2) 1-1/4" Tie Rod	10.02	10.02	35.2 K=1.00	6.136	-111.57	252.25	0.442 ¹
T8	80 - 60	PiRod 105217	20.03	10.02	37.8 K=1.00	5.301	-156.52	214.86	0.728 ¹
T9	60 - 40	PiRod 105218	20.03	10.02	32.4 K=1.00	7.216	-193.50	300.68	0.644 ¹
T10	40 - 20	PiRod 105218	20.03	10.02	32.4 K=1.00	7.216	-226.07	300.68	0.752 ¹
T11	20 - 0	PiRod 105219	20.03	10.02	28.4 K=1.00	9.425	-256.08	399.87	0.640 ¹

* DL controls

¹ P_u / φP_n controls

Truss-Leg Diagonal Data

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Section No.	Elevation ft	Diagonal Size	L_d ft	Kl/r	ϕP_n K	A in ²	V_u K	ϕV_n K	Stress Ratio
T7	90 - 80	0.5	1.47	112.5	276.12	0.196	0.96	3.92	0.245
T8	80 - 60	0.5	1.47	113.0	238.57	0.196	0.39	3.64	0.108
T9	60 - 40	0.5	1.46	112.0	324.71	0.196	0.18	3.68	0.050
T10	40 - 20	0.5	1.46	112.0	324.71	0.196	0.42	3.68	0.113
T11	20 - 0	0.625	1.45	88.9	424.12	0.307	1.07	8.67	0.125

Diagonal Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in ²	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T1	136 - 132.813	7/8	3.35	3.25	124.6 K=0.70	0.601	-1.58	8.75	0.181 ¹
T2	132.813 - 130	3/4	4.82	2.33	134.4 K=0.90	0.442	-1.42	5.52	0.257 ¹
T3	130 - 110	7/8	5.06	2.45	121.1 K=0.90	0.601	-3.90	9.26	0.421 ¹
T4	110 - 94.9434	1	5.39	2.61	112.6 K=0.90	0.785	-5.70	14.00	0.407 ¹
T5	94.9434 - 92.5938	1	5.44	2.63	113.7 K=0.90	0.785	-6.06	13.72	0.442 ¹
T6	92.5938 - 90	1	5.35	2.59	111.8 K=0.90	0.785	-6.99	14.17	0.494 ¹
T7	90 - 80	L3x3x3/16	11.42	5.02	105.9 K=1.05	1.090	-7.74	25.00	0.310 ¹
T8	80 - 60	L2 1/2x2 1/2x3/16	12.50	5.63	136.4 K=1.00	0.902	-6.61	13.87	0.476 ¹
T9	60 - 40	L3x3x3/16	13.80	6.33	127.4 K=1.00	1.090	-6.22	19.22	0.324 ¹
T10	40 - 20	L3x3x3/16	15.24	7.08	142.6 K=1.00	1.090	-6.49	15.35	0.423 ¹
T11	20 - 0	L3x3x5/16	16.80	7.84	161.4 K=1.00	1.780	-8.74	19.56	0.447 ¹

¹ $P_u / \phi P_n$ controls

Secondary Horizontal Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in ²	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T5	94.9434 - 92.5938	1 1/2	4.91	4.72	105.7 K=0.70	1.767	-1.58	35.14	0.045 ¹
T6	92.5938 - 90	1 1/2	4.96	4.77	106.9 K=0.70	1.767	-1.71	34.48	0.050 ¹

¹ $P_u / \phi P_n$ controls

Top Girt Design Data (Compression)

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Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _n K	Ratio $\frac{P_u}{\phi P_n}$
T1	136 - 132.813	6x3/8	4.00	2.91	322.2 K=1.00	2.250	-1.07	4.90	0.218 ¹
T2	132.813 - 130	7/8 KL/R > 200 (C) - 5	4.00	3.88	148.8 K=0.70	0.601	-0.01	6.14	0.002 ¹
T3	130 - 110	7/8	4.02	3.85	148.0 K=0.70	0.601	-0.55	6.20	0.089 ¹
T4	110 - 94.9434	1	4.52	4.34	145.7 K=0.70	0.785	-1.36	8.36	0.162 ¹

¹ P_u / φP_n controls

Bottom Girt Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _n K	Ratio $\frac{P_u}{\phi P_n}$
T2	132.813 - 130	7/8	4.00	3.88	148.8 K=0.70	0.601	-0.51	6.14	0.083 ¹
T3	130 - 110	7/8	4.50	4.33	166.3 K=0.70	0.601	-1.72	4.91	0.351 ¹
T6	92.5938 - 90	1	4.99	4.80	161.2 K=0.70	0.785	-0.89	6.83	0.130 ¹

¹ P_u / φP_n controls

Tension Checks

Leg Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _n K	Ratio $\frac{P_u}{\phi P_n}$
T2	132.813 - 130	1 1/2	2.81	0.13	4.0	1.767	3.74	79.52	0.047 ¹
T3	130 - 110	2	20.00	0.13	3.0	2.188	34.88	106.69	0.327 ^{1 #}
T4	110 - 94.9434	2 1/4	15.06	2.35	50.1	3.976	70.78	178.92	0.396 ¹
T5	94.9434 - 92.5938	2 1/4	2.35	1.17	24.9	3.976	78.29	178.92	0.438 ¹
T6	92.5938 - 90	2 1/4	2.59	0.58	12.4	3.976	90.41	178.92	0.505 ¹
T7	90 - 80	PiRod 105244 w/ (2) 1-1/4" Tie Rod	10.02	10.02	35.2	6.136	97.82	276.12	0.354 ¹
T8	80 - 60	PiRod 105217	20.03	10.02	37.8	5.301	138.63	238.57	0.581 ¹
T9	60 - 40	PiRod 105218	20.03	10.02	32.4	7.216	172.21	324.71	0.530 ¹
T10	40 - 20	PiRod 105218	20.03	10.02	32.4	7.216	201.29	324.71	0.620 ¹
T11	20 - 0	PiRod 105219	20.03	10.02	28.4	9.425	226.97	424.12	0.535 ¹

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¹ $P_u / \phi P_n$ controls

Based on net area of leg in section below

Truss-Leg Diagonal Data

Section No.	Elevation ft	Diagonal Size	L_d ft	Kl/r	ϕP_n K	A in ²	V_u K	ϕV_n K	Stress Ratio
T7	90 - 80	0.5	1.47	112.5	276.12	0.196	0.96	3.92	0.245
T8	80 - 60	0.5	1.47	113.0	238.57	0.196	0.39	3.64	0.108
T9	60 - 40	0.5	1.46	112.0	324.71	0.196	0.18	3.68	0.050
T10	40 - 20	0.5	1.46	112.0	324.71	0.196	0.42	3.68	0.113
T11	20 - 0	0.625	1.45	88.9	424.12	0.307	1.07	8.67	0.125

Diagonal Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in ²	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T1	136 - 132.813	7/8	3.35	3.25	178.0	0.601	1.50	27.06	0.055 ¹
T2	132.813 - 130	3/4	4.82	2.33	149.4	0.442	1.29	19.88	0.065 ¹
T3	130 - 110	7/8	5.06	2.45	134.6	0.601	3.85	27.06	0.142 ¹
T4	110 - 94.9434	1	5.39	2.61	125.1	0.785	5.66	35.34	0.160 ¹
T5	94.9434 - 92.5938	1	5.44	2.63	126.3	0.785	5.97	35.34	0.169 ¹
T6	92.5938 - 90	1	5.35	2.59	124.2	0.785	6.84	35.34	0.194 ¹
T7	90 - 80	L3x3x3/16	11.42	5.02	66.3	0.659	7.08	28.68	0.247 ¹
T8	80 - 60	L2 1/2x2 1/2x3/16	11.93	5.38	86.2	0.519	7.28	22.56	0.323 ¹
T9	60 - 40	L3x3x3/16	13.13	6.02	79.5	0.659	6.30	28.68	0.220 ¹
T10	40 - 20	L3x3x3/16	14.50	6.73	88.6	0.659	6.14	28.68	0.214 ¹
T11	20 - 0	L3x3x5/16	16.80	7.84	105.8	1.013	8.06	44.05	0.183 ¹

¹ $P_u / \phi P_n$ controls

Secondary Horizontal Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in ²	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T5	94.9434 - 92.5938	1 1/2	4.91	4.72	151.0	1.767	1.58	79.52	0.020 ¹
T6	92.5938 - 90	1 1/2	4.96	4.77	152.7	1.767	1.71	79.52	0.022 ¹

¹ $P_u / \phi P_n$ controls

Top Girt Design Data (Tension)

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Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _n K	Ratio $\frac{P_u}{\phi P_n}$
T1	136 - 132.813	6x3/8	4.00	2.91	322.2	2.250	1.07	72.90	0.015 ¹
T2	132.813 - 130	7/8	4.00	3.88	212.6	0.601	0.21	27.06	0.008 ¹
T3	130 - 110	7/8	4.02	3.85	211.4	0.601	0.57	27.06	0.021 ¹
T4	110 - 94.9434	1	4.52	4.34	208.1	0.785	1.39	35.34	0.039 ¹

¹ P_u / φP_n controls

Bottom Girt Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _n K	Ratio $\frac{P_u}{\phi P_n}$
T2	132.813 - 130	7/8	4.00	3.88	212.6	0.601	0.60	27.06	0.022 ¹
T3	130 - 110	7/8	4.50	4.33	237.5	0.601	1.77	27.06	0.065 ¹
T6	92.5938 - 90	1	4.99	4.80	230.3	0.785	0.96	35.34	0.027 ¹

¹ P_u / φP_n controls

Section Capacity Table

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	φP _{allow} K	% Capacity	Pass Fail
T1	136 - 132.813	Leg	1 1/2	2	-2.95	46.31	6.4	Pass
T2	132.813 - 130	Leg	1 1/2	14	-5.07	48.62	10.4	Pass
T3	130 - 110	Leg	2	28	-38.83	116.92	33.2	Pass
T4	110 - 94.9434	Leg	2 1/4	87	-82.42	156.33	52.7	Pass
T5	94.9434 - 92.5938	Leg	2 1/4	129	-90.99	179.34	50.7	Pass
T6	92.5938 - 90	Leg	2 1/4	139	-103.81	185.75	55.9	Pass
T7	90 - 80	Leg	PiRod 105244 w/ (2) 1-1/4" Tie Rod	Note 1	Note 1	Note 1	51.2	Pass
T8	80 - 60	Leg	PiRod 105217	163	-156.52	225.60	69.4	Pass
T9	60 - 40	Leg	PiRod 105218	178	-193.50	315.72	61.3	Pass
T10	40 - 20	Leg	PiRod 105218	193	-226.07	315.72	71.6	Pass
T11	20 - 0	Leg	PiRod 105219	208	-256.08	419.86	61.0	Pass
T1	136 - 132.813	Diagonal	7/8	9	-1.58	9.18	17.3	Pass
T2	132.813 - 130	Diagonal	3/4	24	-1.42	5.80	24.5	Pass
T3	130 - 110	Diagonal	7/8	39	-3.90	9.72	40.1	Pass
T4	110 - 94.9434	Diagonal	1	96	-5.70	14.70	38.8	Pass
T5	94.9434 - 92.5938	Diagonal	1	135	-6.06	14.41	42.1	Pass
T6	92.5938 - 90	Diagonal	1	150	-6.99	14.87	47.0	Pass
T7	90 - 80	Diagonal	L3x3x3/16	162	-7.74	26.25	29.5	Pass
T8	80 - 60	Diagonal	L2 1/2x2 1/2x3/16	171	-6.61	14.57	66.4 (b) 45.4	Pass
T9	60 - 40	Diagonal	L3x3x3/16	181	-6.22	20.18	65.0 (b) 30.8	Pass
T10	40 - 20	Diagonal	L3x3x3/16	196	-6.49	16.11	51.3 (b) 40.3	Pass
T11	20 - 0	Diagonal	L3x3x5/16	211	-8.74	20.54	50.1 (b) 42.6	Pass

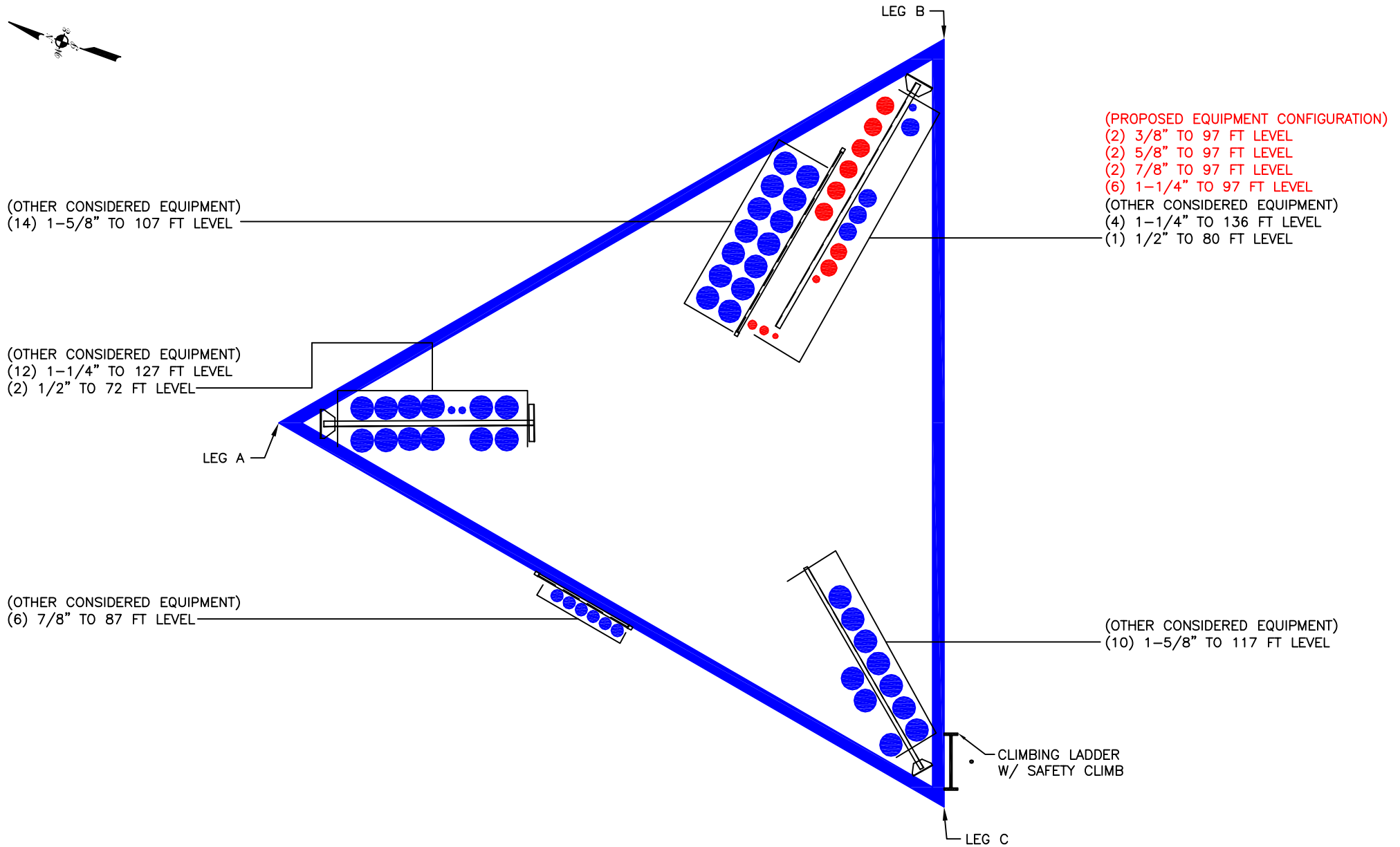
<p>tnxTower</p> <p>Tower Engineering Professionals, Inc. 326 Tryon Road Raleigh, NC 27603 Phone: (619) 661-6351 FAX: (619) 661-6350</p>	Job	Waterford (BU 876338)	Page	35 of 35
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Section No.	Elevation ft	Component Type	Size	Critical Element	P K	ϕP_{allow} K	% Capacity	Pass Fail
T5	94.9434 - 92.5938	Secondary Horizontal	1 1/2	137	-1.58	36.90	4.3	Pass
T6	92.5938 - 90	Secondary Horizontal	1 1/2	151	-1.71	36.21	4.7	Pass
T1	136 - 132.813	Top Girt	6x3/8	5	-1.07	5.14	20.8	Pass
T2	132.813 - 130	Top Girt	7/8	16	0.21	28.41	0.7	Pass
T3	130 - 110	Top Girt	7/8	32	-0.55	6.51	8.5	Pass
T4	110 - 94.9434	Top Girt	1	89	-1.36	8.78	15.5	Pass
T2	132.813 - 130	Bottom Girt	7/8	20	-0.51	6.44	7.9	Pass
T3	130 - 110	Bottom Girt	7/8	35	-1.72	5.16	33.4	Pass
T6	92.5938 - 90	Bottom Girt	1	142	-0.89	7.17	12.4	Pass
Summary								
						Leg (T10)	71.6	Pass
						Diagonal (T7)	66.4	Pass
						Secondary Horizontal (T6)	4.7	Pass
						Top Girt (T1)	20.8	Pass
						Bottom Girt (T3)	33.4	Pass
						Bolt Checks	66.4	Pass
						RATING =	71.6	Pass

Notes:

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

APPENDIX B
BASE LEVEL DRAWING



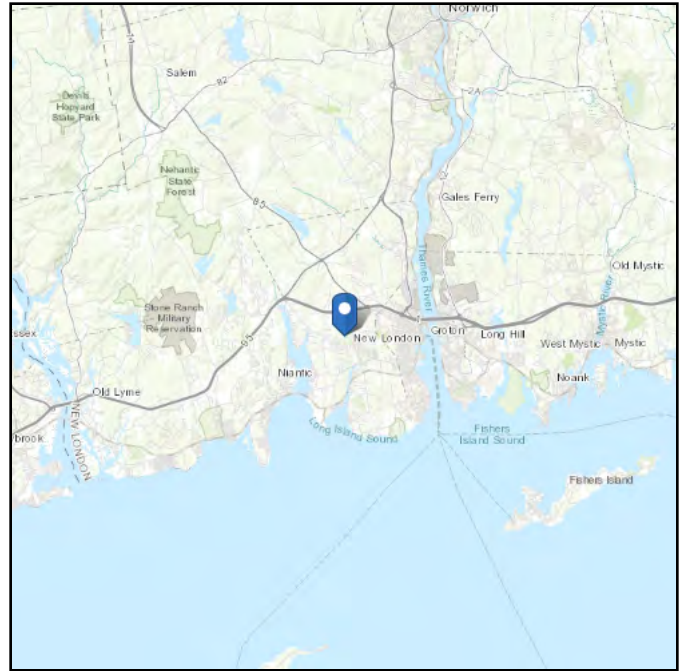
APPENDIX C
ADDITIONAL CALCULATIONS

ASCE 7 Hazards Report

Address:
No Address at This Location

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

Elevation: 242 ft (NAVD 88)
Latitude: 41.354639
Longitude: -72.150444



Wind

Results:

Wind Speed:	134 Vmph	*Waterford, CT Requires 135 Vmph
10-year MRI	79 Vmph	
25-year MRI	89 Vmph	
50-year MRI	99 Vmph	
100-year MRI	109 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 May 19 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.

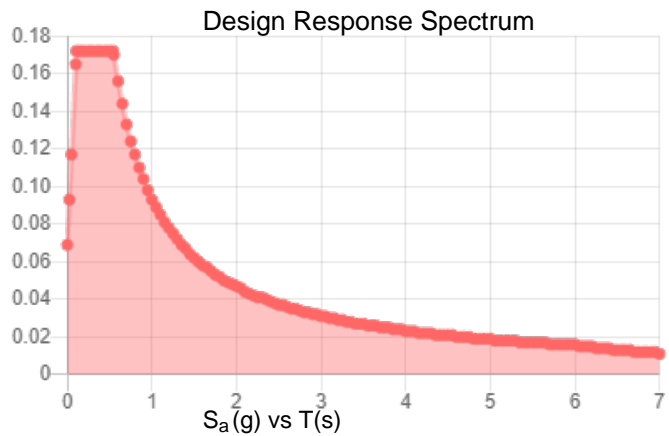
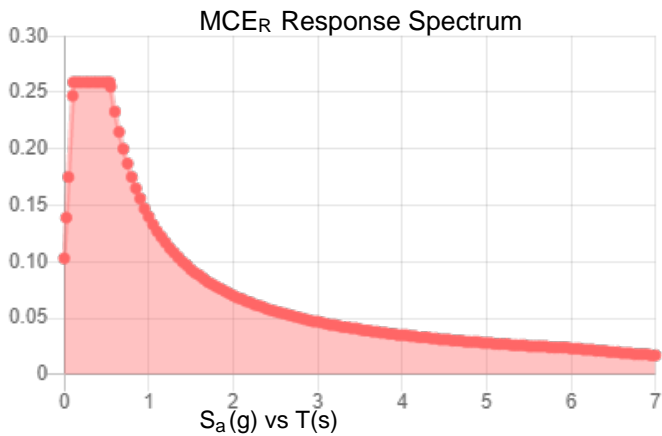
Mountainous terrain, gorges, ocean promontories, and special wind regions should be examined for unusual wind conditions.

Site Soil Class: D - Stiff Soil

Results:

S_s :	0.162	S_{DS} :	0.172
S_1 :	0.058	S_{D1} :	0.093
F_a :	1.6	T_L :	6
F_v :	2.4	PGA :	0.081
S_{MS} :	0.259	PGA _M :	0.129
S_{M1} :	0.14	F _{PGA} :	1.6
		I_e :	1

Seismic Design Category B



Data Accessed:

Tue May 19 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 May 19 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.

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Project Name: Waterford
 Project Number: 25598.415380
 Client Site Number: 876338

Analysis/Design: PRS
 Check: CJB
 Date: 5/20/2020

TIE-ROD REINFORCEMENT FOR PIROD TRUSS LEGS PER TIA-H

Load Input	
Elevation (ft)	80-90
Factored Comp. Load (k)	111.57
Factored Tension Load (k)	97.82

Original Leg Properties	
Leg (P/N)	105224
Truss Leg Face Width (in)	12
Leg SR Diameter (in)	1.25
Quantity	3
Fy (ksi)	50
Fu (ksi)	65
*Max Truss Diag or Girt ϕ (in)	0.75
Total Original Leg Area (in ²)	3.682

Tie-Rod Reinforcement Properties	
SR Diameter (in)	1.25
Quantity	2
Fy (ksi)	50
Fu (ksi)	65
Total Tie-Rod Area (in ²)	2.454

Combined Leg Properties	
Total Area (in ²)	6.136
Equivalent Dia. (in)	1.614

Leg Bolt Properties	
Number of Leg Bolts	6
Leg Bolt Size (in)	1
Leg Bolt Fu (ksi)	105

Original SR	
Unbraced Length (in)	14.1875
r (in)	0.313
KL/r	45.40
F _e (ksi)	138.86
F _{cr} (ksi)	43.01
ϕP_{cr} (k)	47.50
ϕP_t (k)	55.22
*% Capacity	44.7%

Tie-Rod SR	
Typical L _u (in)	14.1875
Maximum L _u (in)	19.5
r (in)	0.313
KL/r	62.40
F _e (ksi)	73.51
F _{cr} (ksi)	37.61
ϕP_{cr} (k)	41.54
ϕP_t (k)	55.22
*% Capacity	51.2%

Built Up Leg Strength	
Unbraced Length (in)	120
r _{Built-Up} (in)	3.949
KL/r _o	30.39
a/r _{Indv. Leg}	45.40
KL/r _{Built-Up}	54.63
KL/r _{Beta}	48.86
F _e (ksi)	95.90
F _{cr} (ksi)	40.20
ϕP_{cr} (k)	221.98
ϕP_t (k)	276.12
*% Capacity	47.9%
Overall % Capacity	51.2%

Leg Bolt Strength	
Existing Leg Load/Bolt (k)	9.78
Proposed Leg Load/Bolt (k)	9.78
Total Leg Load/Bolt (k)	19.56
ϕT_n /Bolt (k)	53.00
*% Capacity	35.2%

*Rating per TIA-222-H Section 15.5

CClplate

Project Information	
BU #	876338
Site Name	Waterford
Order #	517091 Rev. 1

Tower Information	
Tower Type	Self Support
TIA-222 Rev	H

Apply TIA-222-H Section 15.5

Applied Loads		
	Comp.	Uplift
Axial (k)	0.00	235.00
Shear (k)	26.00	24.00

Anchor Rod Data	
Quantity:	6
Diameter (in):	1.25
Material Grade:	A687
Grout Considered:	Yes
l_{ar} (in):	0
Eta Factor, η :	
Thread Type:	N-Included
Configuration:	Symmetrical

Fy=105 ksi Fu=150 ksi
Not Considered, $l_{ar} \leq 1(d)$

Anchor Rod Results	
Axial, P_{u_t} (kips)	39.17
Shear, V_u (kips)	4.00
Moment, M_u (kip-in)	-
Axial Cap., ϕP_{n_t} (kips)	90.84
Shear Cap., ϕV_n (kips)	57.52
Moment Cap., ϕM_n (kip-in)	-
Stress Rating	18.2%

Pass

SST Unit Base Foundation



BU # : 876338
 Site Name: Waterford
 App. Number: 517091 Rev. 1

TIA-222 Revision: H

Top & Bot. Pad Rein. Different?:	<input type="checkbox"/>
Tower Centroid Offset?:	<input checked="" type="checkbox"/>
Block Foundation?:	<input type="checkbox"/>

Superstructure Analysis Reactions		
Global Moment, M :	3028	ft-kips
Global Axial, P :	48	kips
Global Shear, V :	38	kips
Leg Compression, P_{comp} :	266	kips
Leg Comp. Shear, V_{u,comp} :	26	kips
Leg Uplift, P_{uplift} :	235	kips
Leg Uplift. Shear, V_{u,uplift} :	24	kips
Tower Height, H :	136	ft
Base Face Width, BW :	14	ft
BP Dist. Above Fdn, bp_{dist} :	2.25	in

Foundation Analysis Checks				
	Capacity	Demand	Rating	Check
<i>Lateral (Sliding) (kips)</i>	249.37	38.00	15.2%	Pass
<i>Bearing Pressure (ksf)</i>	6.56	2.75	41.9%	Pass
<i>Overtuning (kip*ft)</i>	4574.10	3373.67	73.8%	Pass
<i>Pier Flexure (Comp.) (kip*ft)</i>	857.34	84.50	9.9%	Pass
<i>Pier Flexure (Tension) (kip*ft)</i>	487.98	78.00	16.0%	Pass
<i>Pier Compression (kip)</i>	3374.26	270.14	8.0%	Pass
<i>Pad Flexure (kip*ft)</i>	6695.87	484.31	7.2%	Pass
<i>Pad Shear - 1-way (kips)</i>	777.96	68.85	8.8%	Pass
<i>Pad Shear - Comp 2-way (ksi)</i>	0.164	0.036	22.2%	Pass
<i>Flexural 2-way (Comp) (kip*ft)</i>	5260.90	50.70	1.0%	Pass
<i>Pad Shear - Tension 2-way (ksi)</i>	0.164	0.037	22.3%	Pass
<i>Flexural 2-way (Tension) (kip*ft)</i>	5260.90	46.80	0.9%	Pass

Pier Properties		
Pier Shape:	Circular	
Pier Diameter, dpier :	3.0	ft
Ext. Above Grade, E :	0.50	ft
Pier Rebar Size, Sc :	8	
Pier Rebar Quantity, mc :	15	
Pier Tie/Spiral Size, St :	4	
Pier Tie/Spiral Quantity, mt :	7	
Pier Reinforcement Type:	Tie	
Pier Clear Cover, cc_{pier} :	3	in

Soil Rating:	73.8%
Structural Rating:	22.3%

Pad Properties		
Depth, D :	6.00	ft
Pad Width, W :	23.00	ft
Pad Thickness, T :	3.25	ft
Pad Rebar Size (Bottom), Sp :	9	
Pad Rebar Quantity (Bottom), mp :	46	
Pad Clear Cover, cc_{pad} :	3	in

Material Properties		
Rebar Grade, Fy :	60	ksi
Concrete Compressive Strength, F'c :	3	ksi
Dry Concrete Density, δc :	150	pcf

Soil Properties		
Total Soil Unit Weight, γ :	125	pcf
Ultimate Net Bearing, Qnet :	8.000	ksf
Cohesion, Cu :	0.000	ksf
Friction Angle, φ :	36	degrees
SPT Blow Count, N_{blows} :	25	
Base Friction, μ_i :		
Neglected Depth, N :	3.3	ft
Foundation Bearing on Rock?	No	
Groundwater Depth, gw :	N/A	ft

<-- Toggle between Gross and Net

Exhibit E

Mount Analysis

Date: **May 17, 2020**



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 Equipment Change-Out
Carrier Site Number: 10071306
Carrier Site Name: WATERFORD CENTRAL

Crown Castle Designation: **Crown Castle BU Number:** 876338
Crown Castle Site Name: WATERFORD
Crown Castle JDE Job Number: 605412
Crown Castle Order Number: 517091, Rev. 1

Engineering Firm Designation: Kimley-Horn Report Designation: 019558049

Site Data: 41 Manitock Hill Road, Waterford, New London County, CT 06385
Latitude 41° 21' 16.70" Longitude -72° 9' 1.60"

Structure Information: **Tower Height & Type:** 136 ft Self-Supporting Tower
Mount Elevation: 97 ft
Mount Type: 14.5 ft Sector Frames

Dear Darcy Tarr,

Kimley-Horn is pleased to submit this “**Mount Replacement Analysis Report**” to determine the structural integrity of AT&T’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:

Sector Frames

Sufficient

This analysis has been performed in accordance with the 2018 International Building Code based upon an ultimate 3-second gust wind speed of 126 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

5/18/2020

DocuSigned by:

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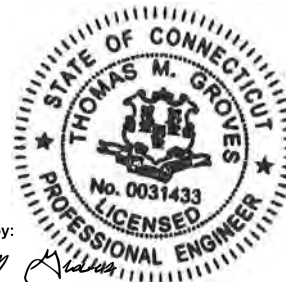


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8) APPENDIX D

Additional Calculations

1) INTRODUCTION

The mounting configuration consists of (3) proposed 14.5 ft Sector Frames designed by Sabre.

2) ANALYSIS CRITERIA

Building Code:	2018 IBC
TIA-222 Revision:	TIA-222-H
Risk Category:	II
Ultimate Wind Speed:	126 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
97	97	1	CCI Antennas DMP65R-BU8D
		1	CCI Antennas OPA65R-BU8D
		1	CCI Antennas DMP65R-BU6D
		1	CCI Antennas OPA65R-BU6D
		3	Powerwave Technologies 7770.00
		1	CCI Antennas DMP65R-BU4D
		1	CCI Antennas OPA65R-BU4D
		1	Raycap DC9-48-60-24-8C-EV
		1	Raycap DC6-48-60-18-8F
		3	Ericsson RRUS 4478 B14 CCIV2
		3	Ericsson RRUS 8843 B2/B66A CCIV2
		3	Ericsson RRUS 4449 B5/B12
		6	Powerwave Technologies LGP21401

3) ANALYSIS PROCEDURE

Table 2 - Documents Provided

Document	Remarks	Reference	Source
Mount Info	Sabre	C10857003C	On File
Site Photos	-	-	CCISites
Supplemental Loading	AT&T RFDS	ID: 3765298	BPM

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	59%	Pass
Mount Pipes	53%	Pass
Face Horizontals	34%	Pass
Connections	27%	Pass
Bracing members	14%	Pass
Stiff Arms	13%	Pass
Stand Off Horizontals	11%	Pass

Structure Rating (max from all components) =	59%
---	------------

Notes:

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

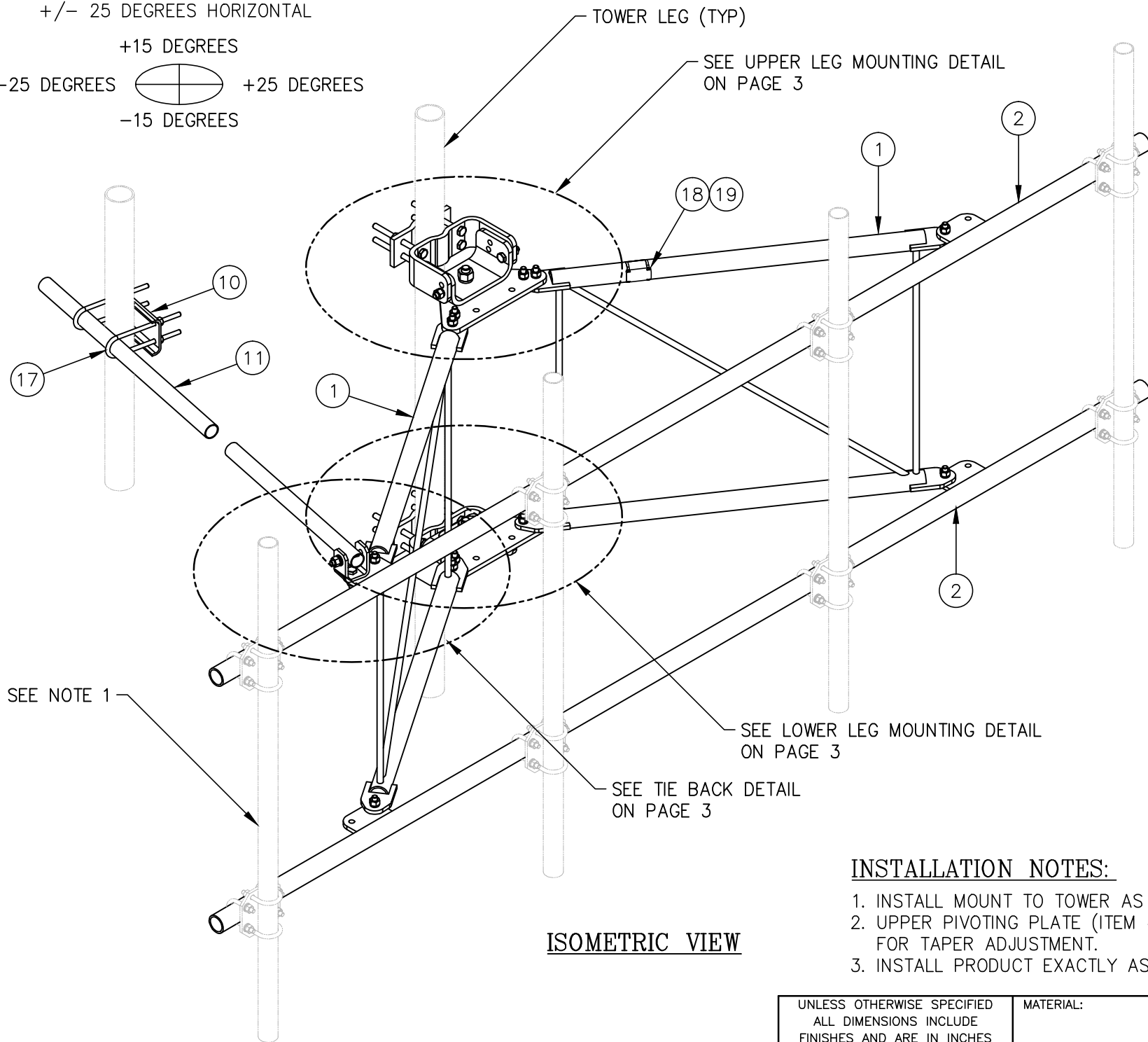
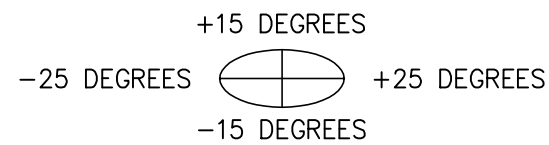
4.1) Recommendations

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 mounts with (3) new Sabre C10857003C sector frames.**

TIEBACK ANGLE RANGE DETAIL

+/- 15 DEGREES VERTICAL
 +/- 25 DEGREES HORIZONTAL



ISOMETRIC VIEW

NOTES:

1. MOUNTING PIPES & CROSSOVER PLATE KITS MUST BE PURCHASED SEPARATELY.
2. QUANTITIES SHOWN IN LISTS OF MATERIAL ARE FOR ONE (1) V-BOOM ONLY.
3. THIS V-BOOM WILL MOUNT TO THE FOLLOWING: 1 1/2"Ø TO 5 9/16"Ø ROUND LEG.
4. TIEBACK MUST BE CONNECTED TO A RIGID MEMBER THAT PROVIDES ADEQUATE SUPPORT WITHIN THE LIMITS NOTED ABOVE IN THE TIEBACK ANGLE RANGE DETAIL UNLESS APPROVED BY THE ENGINEER OF RECORD.

INSTALLATION NOTES:

1. INSTALL MOUNT TO TOWER AS SHOWN, SO THAT WELDED STANDOFF DIAGONAL IS SLOPING DOWNWARD FROM TOWER END TO FACE PIPE END.
2. UPPER PIVOTING PLATE (ITEM 4) HAS THREE HOLES ON EACH SIDE AND UPPER LEG CLAMP PLATE (ITEM 5) HAS TWO HOLES ON EACH SIDE FOR TAPER ADJUSTMENT.
3. INSTALL PRODUCT EXACTLY AS SHOWN IN DRAWING, WITH ALL BOLTS FACING UPWARDS.

C10857003C 14' HD V-BOOM ASSEMBLY W/TIEBACK

ITEM	QTY.	PART NO.	DESCRIPTION	WEIGHT
1.	2	CW01222	WELDMENT, STANDOFF ARM	126
2.	2	CW01249	WELDMENT, FACE PIPE	168
3.	2	CS03109	PLATE, ROTATING	34
4.	1	CS03110	PLATE, PIVOTING (UPPER)	16
5.	1	CS03111	PLATE, LEG CLAMP (UPPER)	17
6.	1	CS03112	PLATE, PIVOTING (LOWER)	14
7.	1	CS03113	PLATE, LEG CLAMP (LOWER)	17
8.	2	CS03114	PLATE, LEG CLAMP (BACK)	14
9.	1	CS00098	PLATE, TIE BACK SWIVEL	3
10.	1	CS03285	PLATE, TIE BACK CLAMP	4
11.	1	CS03333	PIPE, TIE BACK	38
12.	2	C40026073	BOLT ASSEMBLY, 1 Ø X 3 A325	4
13.	8	C40140004	BOLT ASSEMBLY, 5/8 Ø X 8 A307	13
14.	1	C40026033	BOLT ASSEMBLY, 5/8 Ø X 4 1/2 A325	1
15.	12	C40026025	BOLT ASSEMBLY, 5/8 Ø X 2 1/2 A325	6
16.	5	C40026024	BOLT ASSEMBLY, 5/8 Ø X 2 1/4 A325	3
17.	2	C40034183	U-BOLT ASSEMBLY, 1/2 Ø X 2 15/16 C-C	3
18.	1	Z30992020	MOUNT CLASSIFICATION TAG C10857003C	1
19.	2	C40062103	STAINLESS STEEL SELF-LOCKING CABLE TIE	1
TOTAL WEIGHT				483

PACKAGING NOTE

CK00386 INCLUDES ITEMS 1, 3, 4, 5, 6, 7, 12 & 15 (8 QTY)
 CK00404-HDW INCLUDES ITEMS 8, 9, 10, 13, 14, 15 (4 QTY), 16, 17, 18 & 19
 CK00404-STL INCLUDES ITEMS 2 & 11

UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS INCLUDE FINISHES AND ARE IN INCHES		MATERIAL:	
TOLERANCES: FRACTIONS ± 1/16" ANGLES ± 1/2 DEG. DECIMALS ± .010"		TOLERANCES DO NOT APPLY TO RAW MATERIAL	
1	11/05/18	KLE	EK
REV	DATE	DRW	CHK
			DESCRIPTION

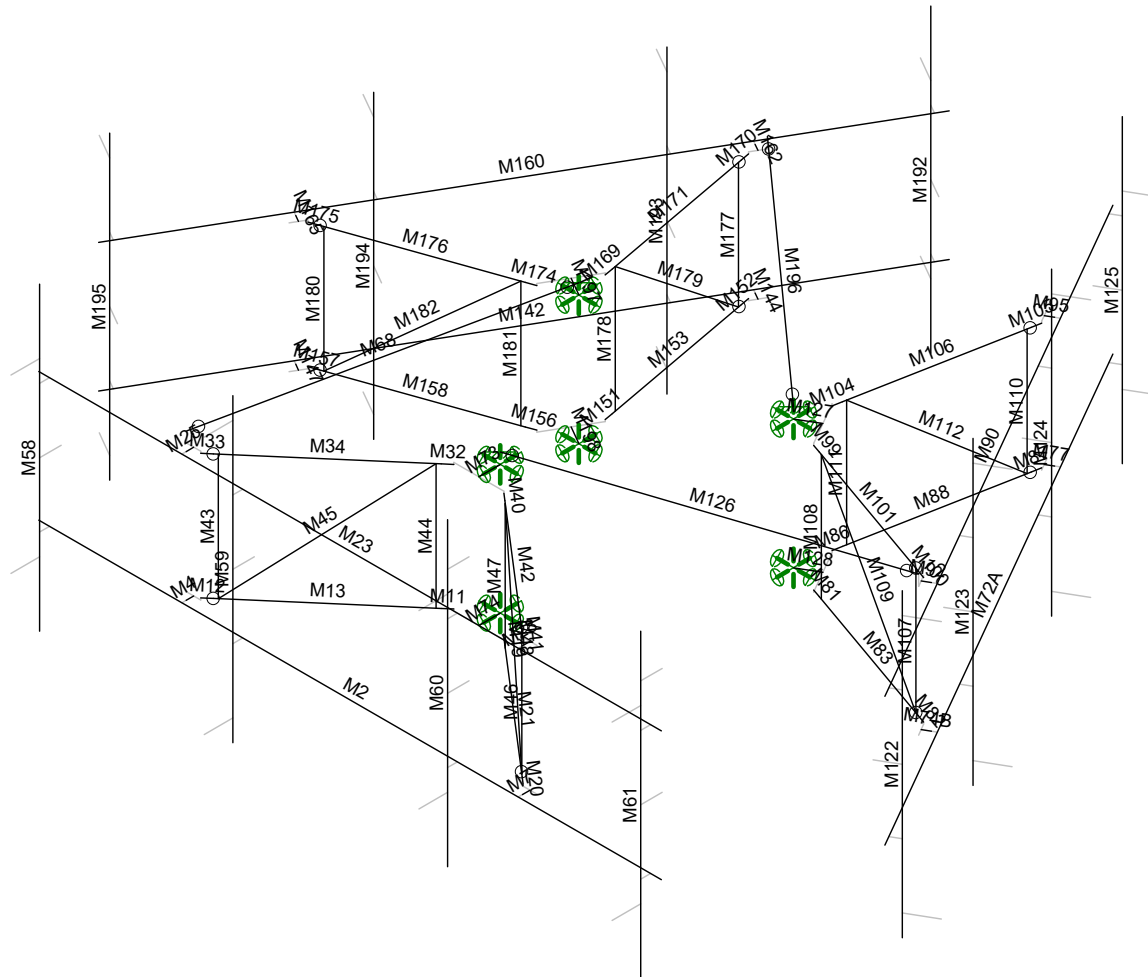
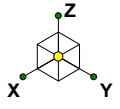


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**14' HD V-BOOM ASSEMBLY W/TIEBACK
 (3' STANDOFF)
 W/NO ANTENNA MOUNTING PIPES**

DATE	07/17/18	SIZE	B	DRAWING NO.	C10857003C	REV	1
DRAWN BY	KLE	CHECKED BY	EK	SCALE	None	PAGE	1 OF 3

APPENDIX A
WIRE FRAME AND RENDERED MODELS



Envelope Only Solution

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RJL

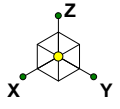
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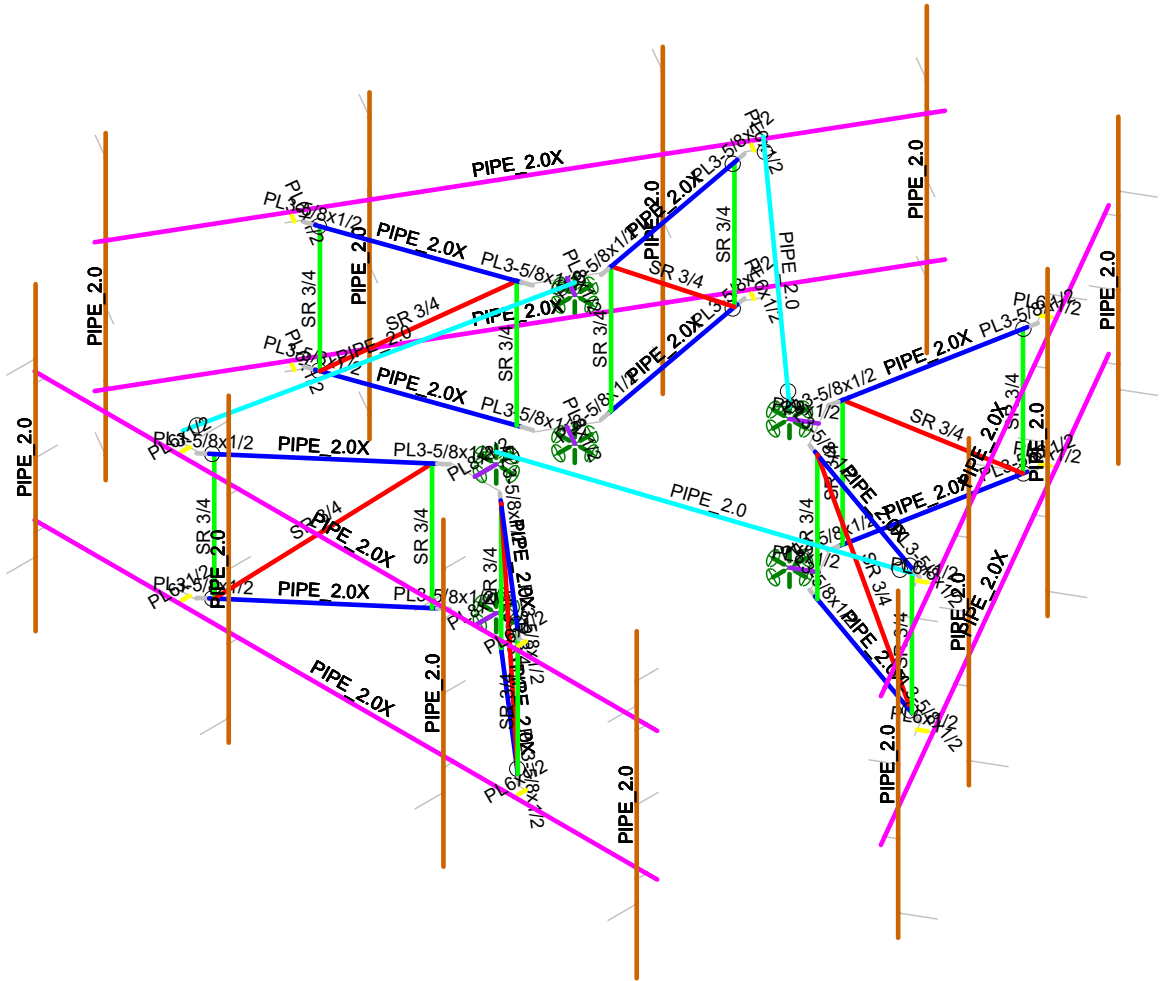
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876338.r3d



- Section Sets
- Standoff Horiz
 - Standoff Vert
 - Standoff Diag
 - Standoff Plate
 - Face Horiz
 - Stiff Arm
 - Mount Pipe
 - Face Conn. PL
 - Tower Conn. PL
 - RIGID



Envelope Only Solution

Kimley-Horn and Associates, Inc.

RJL

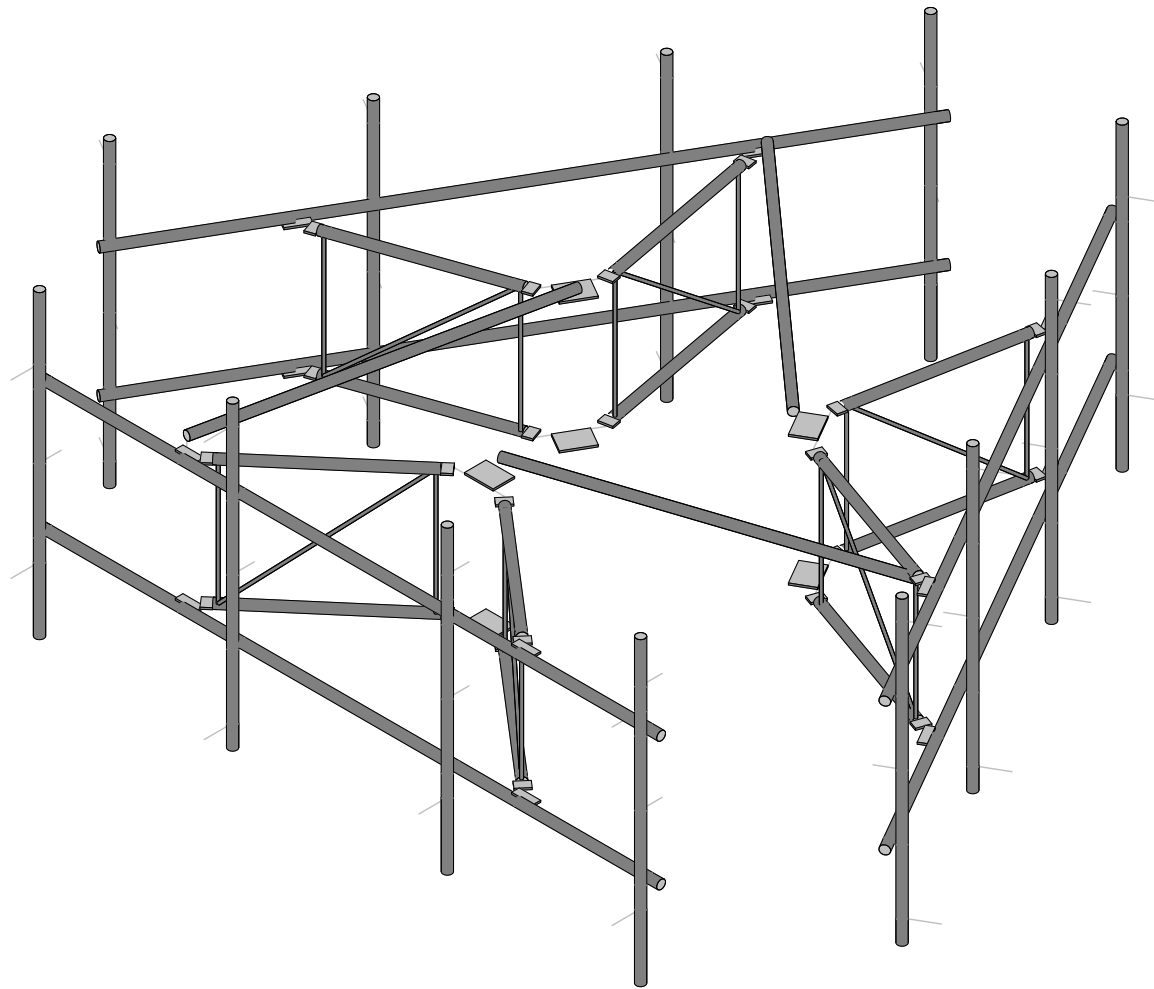
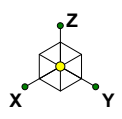
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876338

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Envelope Only Solution

Kimley-Horn and Associates, Inc.

RJL

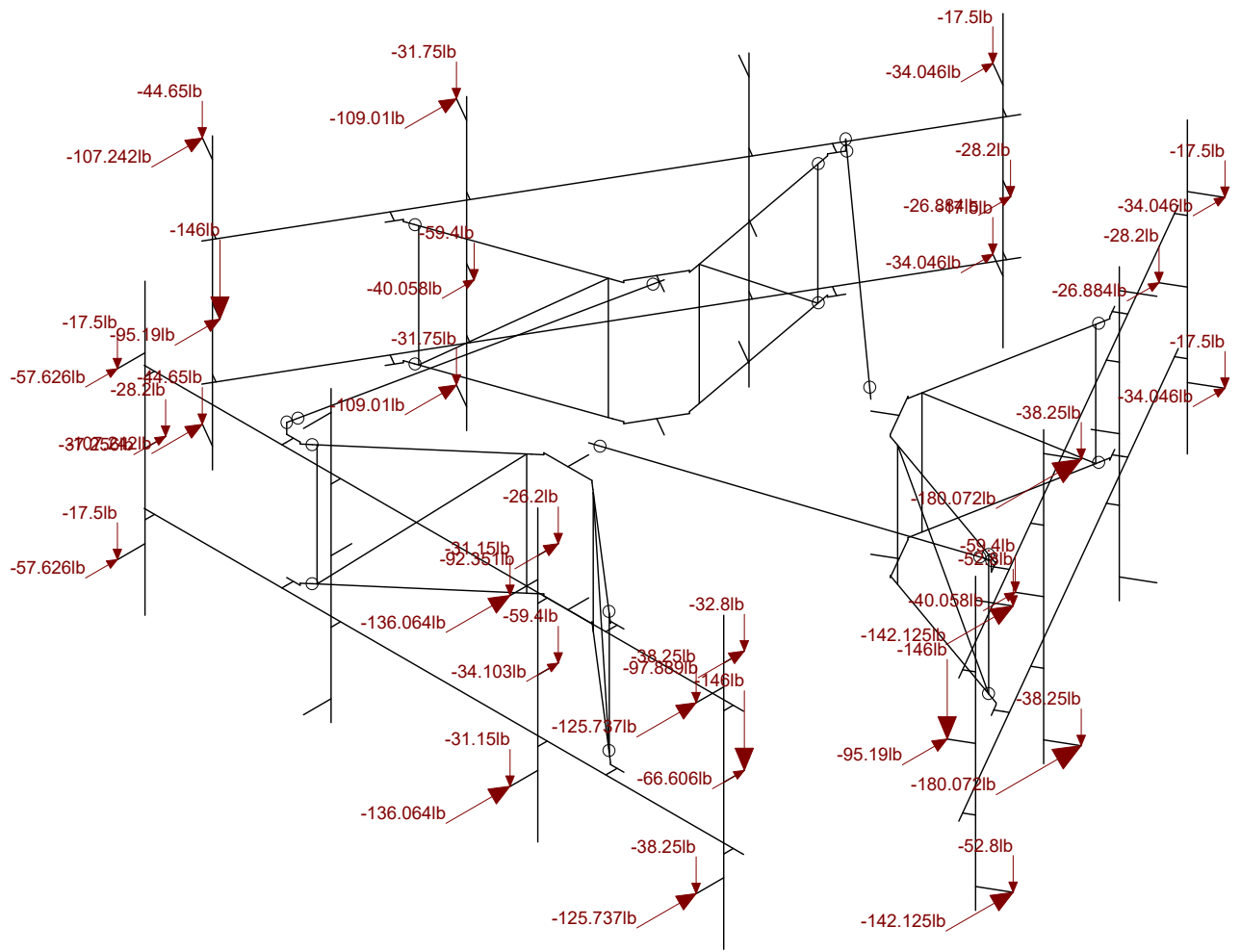
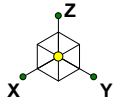
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Loads: LC 1, Summary: 1.0D + 1.0W
Envelope Only Solution

Kimley-Horn and Associates, Inc.

RJL

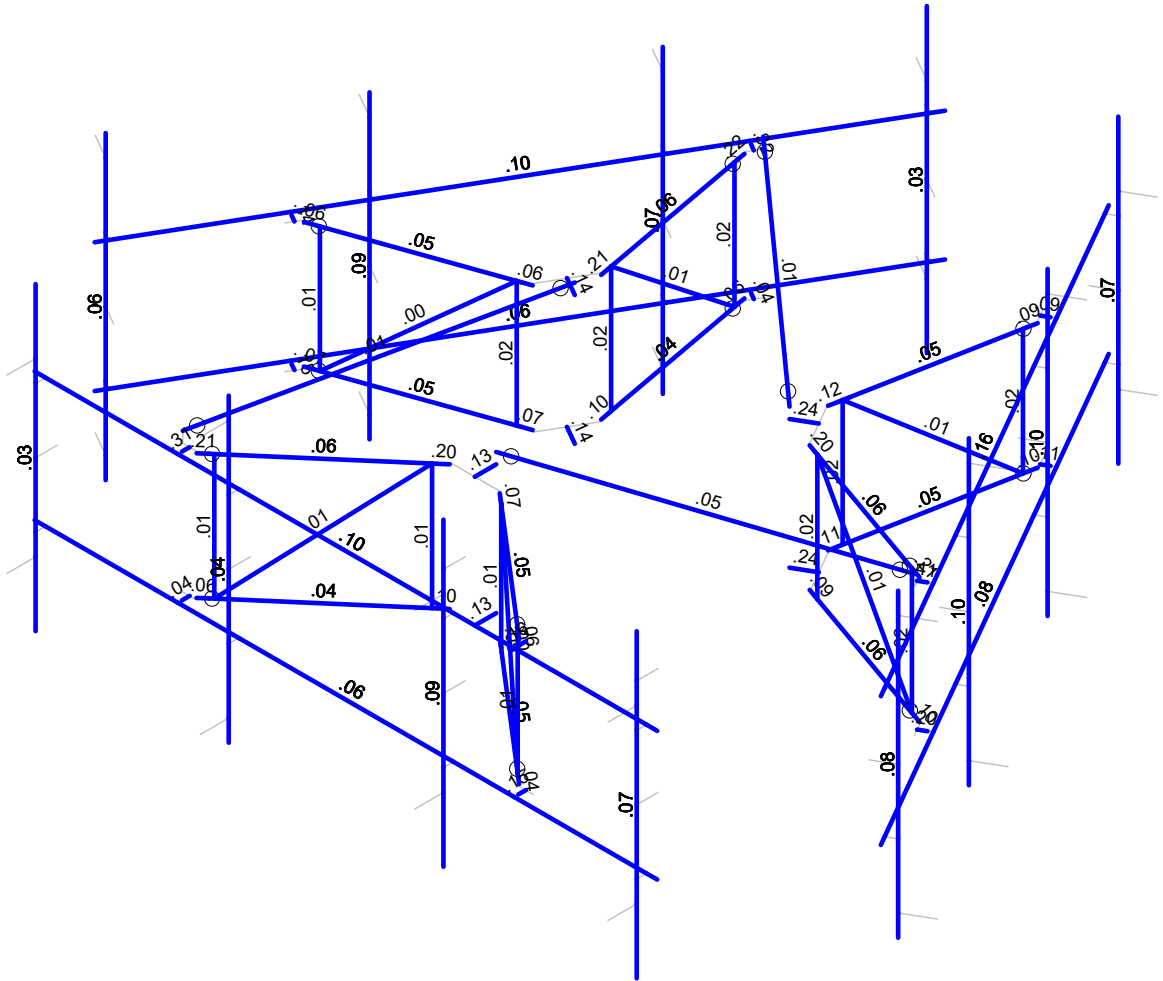
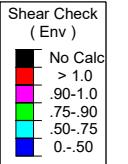
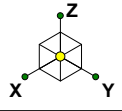
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Member Shear Checks Displayed (Enveloped)
Envelope Only Solution

Kimley-Horn and Associates, Inc.

RJL

019558049

876338

SK - 7

May 17, 2020 at 11:45 PM

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APPENDIX B
SOFTWARE INPUT CALCULATIONS

Date	May 17, 2020
Client	Crown Castle
Site #	876338
Site Name	WATERFORD
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)	126.00
Velocity Pressure Coeff., K _z	0.98
Velocity Pressure, q _z (w/o Ice) (psf)	37.50

Site-Specific Criteria	
Exposure Category	B
Topographic Factor, K _{zt}	1.00
Structure Base Elev. (AMSL), z _s (ft)	242.00
Ground Effect Factor, K _e	0.99

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)	5.90
Escalated Ice Thick. @ Mount, t _{iz} (in)	1.11

Mount & Structure Criteria	
Mount Elevation (AGL) (ft)	97.00
Structure Height (ft)	136.00
Structure Type	Self-Supporting Tower

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 _f	1
Shielding Factor, K _a (antenna)	0.9
Shielding Factor, K _a (mount)	0.9

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

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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					
													Front	Side	Front	Side				
DMP65R-BU4D	1	Flat	48	20.7	7.7	76.5	N101	N105							7.45	2.8	251.47	94.65	45.9	19.34
DMP65R-BU6D	1	Flat	71.2	20.7	7.7	89.3			N330	N334					11.95	4.49	403.16	151.59	71.9	30.41
DMP65R-BU8D	1	Flat	96	20.7	7.7	105.6					N214	N218			15.91	5.93	536.74	200.09	94.63	39.31
OPA65R-BU4D	1	Flat	48	21	7.8	62.3	N100	N104							8.06	2.98	272.13	100.41	49.6	20.48
OPA65R-BU6D	1	Flat	71.2	21	7.8	63.5			N329	N333					12.23	4.54	412.62	153.15	73.51	30.67
OPA65R-BU8D	1	Flat	96	21	7.8	76.5					N215	N219			18.09	8.2	610.43	276.72	107.51	54.28
7770	3	Flat	55	11	5	35	N98	N102	N327	N331	N217	N221			3.42	1.55	115.25	52.37	22.19	11.57
RRUS 4449 B5/B12	3	Flat	17.9	13.2	9.4	71	N113		N342		N226				0.98	1.41	33.2	47.52	6.87	10.4
RRUS 4478 B14_CCIV2	3	Flat	18.1	13.4	8.3	59.4	N112		N341		N227				1.01	1.25	34.1	42.04	7.03	9.44
RRUS 8843 B2/B66A_CCIV2	3	Flat	18	13.2	11.3	75	N113		N342		N226				0.99	1.7	33.41	57.2	6.91	12.12
LGP21401	6	Flat	14.4	9.2	2.6	14.1	N110		N339		N229				0.55	0.35	18.63	11.71	4.21	3.68
DC6-48-60-18-8F	1	Flat	31.3	11	11	32.8	N347								2.9	2.9	97.89	97.89	19.63	19.63
DC9-48-60-24-8C-EV	1	Flat	31.4	10.2	18.3	26.2	N346								2.74	4.78	92.35	161.47	18.71	30.55

APPENDIX C
SOFTWARE ANALYSIS OUTPUT

Hot Rolled Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm (\...	Density[k/ft^3]	Yield[ksi]	Ry	Fu[ksi]	Rt
1	A992	29000	11154	.3	.65	.49	50	1.1	65	1.1
2	A36 Gr.36	29000	11154	.3	.65	.49	36	1.5	58	1.2
3	A572 Gr.50	29000	11154	.3	.65	.49	50	1.1	65	1.1
4	A500 Gr.B RND	29000	11154	.3	.65	.527	42	1.4	58	1.3
5	A500 Gr.B Rect	29000	11154	.3	.65	.527	46	1.4	58	1.3
6	A53 Gr.B	29000	11154	.3	.65	.49	35	1.6	60	1.2
7	A1085	29000	11154	.3	.65	.49	50	1.4	65	1.3

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design ...	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	Standoff Horiz	PIPE 2.0X	Beam	None	A572 Gr.50	Typical	1.4	.827	.827	1.65
2	Standoff Vert	SR 3/4	Column	None	A572 Gr.50	Typical	.442	.016	.016	.031
3	Standoff Diag	SR 3/4	Beam	None	A572 Gr.50	Typical	.442	.016	.016	.031
4	Standoff Plate	PL3-5/8x1/2	Beam	None	A572 Gr.50	Typical	1.813	.038	1.985	.138
5	Face Horiz	PIPE 2.0X	Beam	None	A572 Gr.50	Typical	1.4	.827	.827	1.65
6	Stiff Arm	PIPE 2.0	Beam	None	A572 Gr.50	Typical	1.02	.627	.627	1.25
7	Mount Pipe	PIPE 2.0	Column	None	A53 Gr.B	Typical	1.02	.627	.627	1.25
8	Face Conn. PL	PL6x1/2	Beam	None	A36 Gr.36	Typical	3	.063	9	.237
9	Tower Conn. PL	PL8x1/2	Beam	None	A572 Gr.50	Typical	4	.083	21.333	.32

Joint Coordinates and Temperatures

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Diap...
1	N1	6	0	0	0	
2	N2	6	0	36	0	
3	N3	12	0	0	0	
4	N4	12	7	0	0	
5	N5	12	-7	0	0	
6	N6	12	-7	.5	0	
7	N7	12	7	.5	0	
8	N8	12	-7	35.5	0	
9	N9	12	7	35.5	0	
10	N10	12	0	36	0	
11	N11	12	7	36	0	
12	N12	12	-7	36	0	
13	N13	13.628773	-8.896602	.5	0	
14	N14	13.628773	8.896602	.5	0	
15	N15	13.628773	-8.896602	35.5	0	
16	N16	13.628773	8.896602	35.5	0	
17	N17	14.280282	-9.655243	.5	0	
18	N18	14.280282	9.655243	.5	0	
19	N19	14.280282	-9.655243	35.5	0	
20	N20	14.280282	9.655243	35.5	0	
21	N21	15.257546	-10.793204	.5	0	
22	N22	15.257546	10.793204	.5	0	
23	N23	15.257546	-10.793204	35.5	0	
24	N24	15.257546	10.793204	35.5	0	
25	N25	41.429974	-41.269319	.5	0	
26	N26	41.429974	41.269319	.5	0	
27	N27	41.429974	-41.269319	35.5	0	
28	N28	41.429974	41.269319	35.5	0	
29	N29	42.407237	-42.40728	.5	0	
30	N30	42.407237	42.40728	.5	0	
31	N31	42.407237	-42.40728	35.5	0	

Joint Coordinates and Temperatures (Continued)

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Diap...
32	N32	42.407237	42.40728	35.5	0	
33	N33	43.058747	-43.165921	.5	0	
34	N34	43.058747	43.165921	.5	0	
35	N35	43.058747	-43.165921	35.5	0	
36	N36	43.058747	43.165921	35.5	0	
37	N37	44.6875	-47	0	0	
38	N38	44.6875	-45.0625	0	0	
39	N39	44.6875	-48.9375	0	0	
40	N40	44.6875	47	0	0	
41	N41	44.6875	45.0625	0	0	
42	N42	44.6875	48.9375	0	0	
43	N43	44.6875	-45.0625	.5	0	
44	N44	44.6875	45.0625	.5	0	
45	N45	44.6875	-45.0625	35.5	0	
46	N46	44.6875	45.0625	35.5	0	
47	N47	44.6875	-47	36	0	
48	N48	44.6875	-45.0625	36	0	
49	N49	44.6875	-48.9375	36	0	
50	N50	44.6875	47	36	0	
51	N51	44.6875	45.0625	36	0	
52	N52	44.6875	48.9375	36	0	
53	N53	44.6875	-48.9375	39	0	
54	N54	46.8125	-47	0	0	
55	N55	46.8125	47	0	0	
56	N56	46.8125	-47	36	0	
57	N57	46.8125	47	36	0	
58	N58	48	87	0	0	
59	N59	48	-87	0	0	
60	N60	48	-47	0	0	
61	N61	48	47	0	0	
62	N62	48	-84	0	0	
63	N63	48	-30	0	0	
64	N64	48	30	0	0	
65	N65	48	84	0	0	
66	N66	48	87	36	0	
67	N67	48	-87	36	0	
68	N68	48	-47	36	0	
69	N69	48	47	36	0	
70	N70	48	-84	36	0	
71	N71	48	-30	36	0	
72	N72	48	30	36	0	
73	N73	48	84	36	0	
74	N74	50.75	-84	-24	0	
75	N75	50.75	-30	-24	0	
76	N76	50.75	30	-24	0	
77	N77	50.75	84	-24	0	
78	N78	50.75	-84	-6	0	
79	N79	50.75	-30	-18	0	
80	N80	50.75	30	-6	0	
81	N81	50.75	84	-6	0	
82	N82	50.75	-84	0	0	
83	N83	50.75	-30	0	0	
84	N84	50.75	30	0	0	
85	N85	50.75	84	0	0	
86	N86	50.75	-84	36	0	
87	N87	50.75	-30	36	0	
88	N88	50.75	30	36	0	

Joint Coordinates and Temperatures (Continued)

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Diap...
89	N89	50.75	84	36	0	
90	N90	50.75	-84	42	0	
91	N91	50.75	-30	54	0	
92	N92	50.75	30	42	0	
93	N93	50.75	84	42	0	
94	N94	50.75	-84	60	0	
95	N95	50.75	-30	60	0	
96	N96	50.75	30	60	0	
97	N97	50.75	84	60	0	
98	N98	58.75	-84	-6	0	
99	N99	58.75	-30	-18	0	
100	N100	58.75	30	-6	0	
101	N101	58.75	84	-6	0	
102	N102	58.75	-84	42	0	
103	N103	58.75	-30	54	0	
104	N104	58.75	30	42	0	
105	N105	58.75	84	42	0	
106	N106	50.75	-84	18	0	
107	N107	50.75	-30	18	0	
108	N108	50.75	30	18	0	
109	N109	50.75	84	18	0	
110	N110	44.75	-84	18	0	
111	N111	44.75	-30	18	0	
112	N112	44.75	30	18	0	
113	N113	44.75	84	18	0	
114	N114	-45.9615	-30	36	0	
115	N115	-45.9615	30	36	0	
116	N116	-45.9615	-30	39	0	
117	N117	-28.641	0	36	0	
118	N118	-45.9615	29.999986	0	0	
119	N119	-48.9615	35.196138	0	0	
120	N120	-55.023678	31.696138	0	0	
121	N121	-42.899322	38.696138	0	0	
122	N122	-42.899322	38.696138	.5	0	
123	N123	-55.023678	31.696138	.5	0	
124	N124	-42.899322	38.696138	35.5	0	
125	N125	-55.023678	31.696138	35.5	0	
126	N126	-48.9615	35.196138	36	0	
127	N127	-55.023678	31.696138	36	0	
128	N128	-42.899322	38.696138	36	0	
129	N129	-42.071203	41.054998	.5	0	
130	N130	-57.48057	32.158396	.5	0	
131	N131	-42.071203	41.054998	35.5	0	
132	N132	-57.48057	32.158396	35.5	0	
133	N133	-41.739956	41.998542	.5	0	
134	N134	-58.463326	32.343299	.5	0	
135	N135	-41.739956	41.998542	35.5	0	
136	N136	-58.463326	32.343299	35.5	0	
137	N137	-41.243084	43.413858	.5	0	
138	N138	-59.937462	32.620654	.5	0	
139	N139	-41.243084	43.413858	35.5	0	
140	N140	-59.937462	32.620654	35.5	0	
141	N141	-27.936208	81.317903	.5	0	
142	N142	-99.416766	40.048584	.5	0	
143	N143	-27.936208	81.317903	35.5	0	
144	N144	-99.416766	40.048584	35.5	0	
145	N145	-27.439337	82.733219	.5	0	

Joint Coordinates and Temperatures (Continued)

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Diap...
146	N146	-100.890901	40.325938	.5	0	
147	N147	-27.439337	82.733219	35.5	0	
148	N148	-100.890901	40.325938	35.5	0	
149	N149	-27.108089	83.676763	.5	0	
150	N150	-101.873657	40.510842	.5	0	
151	N151	-27.108089	83.676763	35.5	0	
152	N152	-101.873657	40.510842	35.5	0	
153	N153	-24.602056	87.004344	0	0	
154	N154	-26.27998	86.035594	0	0	
155	N155	-22.924132	87.973094	0	0	
156	N156	-106.008444	40.004344	0	0	
157	N157	-104.33052	40.973094	0	0	
158	N158	-107.686368	39.035594	0	0	
159	N159	-26.27998	86.035594	.5	0	
160	N160	-104.33052	40.973094	.5	0	
161	N161	-26.27998	86.035594	35.5	0	
162	N162	-104.33052	40.973094	35.5	0	
163	N163	-24.602056	87.004344	36	0	
164	N164	-26.27998	86.035594	36	0	
165	N165	-22.924132	87.973094	36	0	
166	N166	-106.008444	40.004344	36	0	
167	N167	-104.33052	40.973094	36	0	
168	N168	-107.686368	39.035594	36	0	
169	N169	-22.924132	87.973094	39	0	
170	N170	-25.664556	88.844648	0	0	
171	N171	-107.070944	41.844648	0	0	
172	N172	-25.664556	88.844648	36	0	
173	N173	-107.070944	41.844648	36	0	
174	N174	-142.30571	22.873053	0	0	
175	N175	8.38271	109.873053	0	0	
176	N176	-26.258306	89.873053	0	0	
177	N177	-107.664694	42.873053	0	0	
178	N178	5.784634	108.373053	0	0	
179	N179	-40.980738	81.373053	0	0	
180	N180	-92.942262	51.373053	0	0	
181	N181	-139.707634	24.373053	0	0	
182	N182	-142.30571	22.873053	36	0	
183	N183	8.38271	109.873053	36	0	
184	N184	-26.258306	89.873053	36	0	
185	N185	-107.664694	42.873053	36	0	
186	N186	5.784634	108.373053	36	0	
187	N187	-40.980738	81.373053	36	0	
188	N188	-92.942262	51.373053	36	0	
189	N189	-139.707634	24.373053	36	0	
190	N190	4.409634	110.754623	-24	0	
191	N191	-42.355738	83.754623	-24	0	
192	N192	-94.317262	53.754623	-24	0	
193	N193	-141.082634	26.754623	-24	0	
194	N194	4.409634	110.754623	-18	0	
195	N195	-42.355738	83.754623	-18	0	
196	N196	-94.317262	53.754623	-18	0	
197	N197	-141.082634	26.754623	-6	0	
198	N198	4.409634	110.754623	0	0	
199	N199	-42.355738	83.754623	0	0	
200	N200	-94.317262	53.754623	0	0	
201	N201	-141.082634	26.754623	0	0	
202	N202	4.409634	110.754623	36	0	

Joint Coordinates and Temperatures (Continued)

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Diap...
203	N203	-42.355738	83.754623	36	0	
204	N204	-94.317262	53.754623	36	0	
205	N205	-141.082634	26.754623	36	0	
206	N206	4.409634	110.754623	54	0	
207	N207	-42.355738	83.754623	54	0	
208	N208	-94.317262	53.754623	54	0	
209	N209	-141.082634	26.754623	42	0	
210	N210	4.409634	110.754623	60	0	
211	N211	-42.355738	83.754623	60	0	
212	N212	-94.317262	53.754623	60	0	
213	N213	-141.082634	26.754623	60	0	
214	N214	0.409634	117.682826	-18	0	
215	N215	-46.355738	90.682826	-18	0	
216	N216	-98.317262	60.682826	-18	0	
217	N217	-145.082634	33.682826	-6	0	
218	N218	0.409634	117.682826	54	0	
219	N219	-46.355738	90.682826	54	0	
220	N220	-98.317262	60.682826	54	0	
221	N221	-145.082634	33.682826	42	0	
222	N222	4.409634	110.754623	18	0	
223	N223	-42.355738	83.754623	18	0	
224	N224	-94.317262	53.754623	18	0	
225	N225	-141.082634	26.754623	18	0	
226	N226	7.409634	105.55847	18	0	
227	N227	-39.355738	78.55847	18	0	
228	N228	-91.317262	48.55847	18	0	
229	N229	-138.082634	21.55847	18	0	
230	N230	6.000012	0.000007	39	0	
231	N231	-45.9615	-29.999986	0	0	
232	N232	-48.9615	-35.196138	0	0	
233	N233	-42.899322	-38.696138	0	0	
234	N234	-55.023678	-31.696138	0	0	
235	N235	-55.023678	-31.696138	.5	0	
236	N236	-42.899322	-38.696138	.5	0	
237	N237	-55.023678	-31.696138	35.5	0	
238	N238	-42.899322	-38.696138	35.5	0	
239	N239	-48.9615	-35.196138	36	0	
240	N240	-42.899322	-38.696138	36	0	
241	N241	-55.023678	-31.696138	36	0	
242	N242	-57.48057	-32.158396	.5	0	
243	N243	-42.071203	-41.054998	.5	0	
244	N244	-57.48057	-32.158396	35.5	0	
245	N245	-42.071203	-41.054998	35.5	0	
246	N246	-58.463326	-32.343299	.5	0	
247	N247	-41.739956	-41.998542	.5	0	
248	N248	-58.463326	-32.343299	35.5	0	
249	N249	-41.739956	-41.998542	35.5	0	
250	N250	-59.937462	-32.620654	.5	0	
251	N251	-41.243084	-43.413858	.5	0	
252	N252	-59.937462	-32.620654	35.5	0	
253	N253	-41.243084	-43.413858	35.5	0	
254	N254	-99.416766	-40.048584	.5	0	
255	N255	-27.936208	-81.317903	.5	0	
256	N256	-99.416766	-40.048584	35.5	0	
257	N257	-27.936208	-81.317903	35.5	0	
258	N258	-100.890901	-40.325938	.5	0	
259	N259	-27.439337	-82.733219	.5	0	

Joint Coordinates and Temperatures (Continued)

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Diap...
260	N260	-100.890901	-40.325938	35.5	0	
261	N261	-27.439337	-82.733219	35.5	0	
262	N262	-101.873657	-40.510842	.5	0	
263	N263	-27.108089	-83.676763	.5	0	
264	N264	-101.873657	-40.510842	35.5	0	
265	N265	-27.108089	-83.676763	35.5	0	
266	N266	-106.008444	-40.004344	0	0	
267	N267	-104.33052	-40.973094	0	0	
268	N268	-107.686368	-39.035594	0	0	
269	N269	-24.602056	-87.004344	0	0	
270	N270	-26.27998	-86.035594	0	0	
271	N271	-22.924132	-87.973094	0	0	
272	N272	-104.33052	-40.973094	.5	0	
273	N273	-26.27998	-86.035594	.5	0	
274	N274	-104.33052	-40.973094	35.5	0	
275	N275	-26.27998	-86.035594	35.5	0	
276	N276	-106.008444	-40.004344	36	0	
277	N277	-104.33052	-40.973094	36	0	
278	N278	-107.686368	-39.035594	36	0	
279	N279	-24.602056	-87.004344	36	0	
280	N280	-26.27998	-86.035594	36	0	
281	N281	-22.924132	-87.973094	36	0	
282	N282	-107.686368	-39.035594	39	0	
283	N283	-107.070944	-41.844648	0	0	
284	N284	-25.664556	-88.844648	0	0	
285	N285	-107.070944	-41.844648	36	0	
286	N286	-25.664556	-88.844648	36	0	
287	N287	8.38271	-109.873053	0	0	
288	N288	-142.30571	-22.873053	0	0	
289	N289	-107.664694	-42.873053	0	0	
290	N290	-26.258306	-89.873053	0	0	
291	N291	-139.707634	-24.373053	0	0	
292	N292	-92.942262	-51.373053	0	0	
293	N293	-40.980738	-81.373053	0	0	
294	N294	5.784634	-108.373053	0	0	
295	N295	8.38271	-109.873053	36	0	
296	N296	-142.30571	-22.873053	36	0	
297	N297	-107.664694	-42.873053	36	0	
298	N298	-26.258306	-89.873053	36	0	
299	N299	-139.707634	-24.373053	36	0	
300	N300	-92.942262	-51.373053	36	0	
301	N301	-40.980738	-81.373053	36	0	
302	N302	5.784634	-108.373053	36	0	
303	N303	-141.082634	-26.754623	-24	0	
304	N304	-94.317262	-53.754623	-24	0	
305	N305	-42.355738	-83.754623	-24	0	
306	N306	4.409634	-110.754623	-24	0	
307	N307	-141.082634	-26.754623	-6	0	
308	N308	-94.317262	-53.754623	-18	0	
309	N309	-42.355738	-83.754623	-18	0	
310	N310	4.409634	-110.754623	-18	0	
311	N311	-141.082634	-26.754623	0	0	
312	N312	-94.317262	-53.754623	0	0	
313	N313	-42.355738	-83.754623	0	0	
314	N314	4.409634	-110.754623	0	0	
315	N315	-141.082634	-26.754623	36	0	
316	N316	-94.317262	-53.754623	36	0	

Joint Coordinates and Temperatures (Continued)

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Diap...
317	N317	-42.355738	-83.754623	36	0	
318	N318	4.409634	-110.754623	36	0	
319	N319	-141.082634	-26.754623	42	0	
320	N320	-94.317262	-53.754623	54	0	
321	N321	-42.355738	-83.754623	54	0	
322	N322	4.409634	-110.754623	54	0	
323	N323	-141.082634	-26.754623	60	0	
324	N324	-94.317262	-53.754623	60	0	
325	N325	-42.355738	-83.754623	60	0	
326	N326	4.409634	-110.754623	60	0	
327	N327	-145.082634	-33.682826	-6	0	
328	N328	-98.317262	-60.682826	-18	0	
329	N329	-46.355738	-90.682826	-18	0	
330	N330	0.409634	-117.682826	-18	0	
331	N331	-145.082634	-33.682826	42	0	
332	N332	-98.317262	-60.682826	54	0	
333	N333	-46.355738	-90.682826	54	0	
334	N334	0.409634	-117.682826	54	0	
335	N335	-141.082634	-26.754623	18	0	
336	N336	-94.317262	-53.754623	18	0	
337	N337	-42.355738	-83.754623	18	0	
338	N338	4.409634	-110.754623	18	0	
339	N339	-138.082634	-21.55847	18	0	
340	N340	-91.317262	-48.55847	18	0	
341	N341	-39.355738	-78.55847	18	0	
342	N342	7.409634	-105.55847	18	0	
343	N343	-45.961512	29.999993	39	0	
344	N344	50.75	30	48	0	
345	N345	50.75	84	48	0	
346	N346	44.75	30	48	0	
347	N347	44.75	84	48	0	

Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotate(...)	Section/Shape	Type	Design List	Material	Design Rules
1	M1	N5	N4			RIGID	None	None	RIGID	Typical
2	M2	N59	N58			Face Horiz	Beam	None	A572 Gr.50	Typical
3	M3	N54	N60			RIGID	None	None	RIGID	Typical
4	M4	N37	N54		90	Face Conn. PL	Beam	None	A36 Gr.36	Typical
5	M5	N39	N38			RIGID	None	None	RIGID	Typical
6	M6	N55	N61			RIGID	None	None	RIGID	Typical
7	M7	N40	N55		90	Face Conn. PL	Beam	None	A36 Gr.36	Typical
8	M8	N42	N41			RIGID	None	None	RIGID	Typical
9	M9	N43	N38			RIGID	None	None	RIGID	Typical
10	M10	N6	N5			RIGID	None	None	RIGID	Typical
11	M11	N6	N13		90	Standoff Plate	Beam	None	A572 Gr.50	Typical
12	M12	N33	N43		90	Standoff Plate	Beam	None	A572 Gr.50	Typical
13	M13	N13	N33			Standoff Horiz	Beam	None	A572 Gr.50	Typical
14	M17	N44	N41			RIGID	None	None	RIGID	Typical
15	M18	N7	N4			RIGID	None	None	RIGID	Typical
16	M19	N7	N14		90	Standoff Plate	Beam	None	A572 Gr.50	Typical
17	M20	N34	N44		90	Standoff Plate	Beam	None	A572 Gr.50	Typical
18	M21	N14	N34			Standoff Horiz	Beam	None	A572 Gr.50	Typical
19	M22	N12	N11			RIGID	None	None	RIGID	Typical
20	M23	N67	N66			Face Horiz	Beam	None	A572 Gr.50	Typical
21	M24	N56	N68			RIGID	None	None	RIGID	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(...)	Section/Shape	Type	Design List	Material	Design Rules
22	M25	N47	N56		90	Face Conn. PL	Beam	None	A36 Gr.36	Typical
23	M26	N49	N48			RIGID	None	None	RIGID	Typical
24	M27	N57	N69			RIGID	None	None	RIGID	Typical
25	M28	N50	N57		90	Face Conn. PL	Beam	None	A36 Gr.36	Typical
26	M29	N52	N51			RIGID	None	None	RIGID	Typical
27	M30	N45	N48			RIGID	None	None	RIGID	Typical
28	M31	N8	N12			RIGID	None	None	RIGID	Typical
29	M32	N8	N15		90	Standoff Plate	Beam	None	A572 Gr.50	Typical
30	M33	N35	N45		90	Standoff Plate	Beam	None	A572 Gr.50	Typical
31	M34	N15	N35			Standoff Horiz	Beam	None	A572 Gr.50	Typical
32	M38	N46	N51			RIGID	None	None	RIGID	Typical
33	M39	N9	N11			RIGID	None	None	RIGID	Typical
34	M40	N9	N16		90	Standoff Plate	Beam	None	A572 Gr.50	Typical
35	M41	N36	N46		90	Standoff Plate	Beam	None	A572 Gr.50	Typical
36	M42	N16	N36			Standoff Horiz	Beam	None	A572 Gr.50	Typical
37	M43	N31	N29			Standoff Vert	Column	None	A572 Gr.50	Typical
38	M44	N19	N17			Standoff Vert	Column	None	A572 Gr.50	Typical
39	M45	N19	N29			Standoff Diaq	Beam	None	A572 Gr.50	Typical
40	M46	N32	N30			Standoff Vert	Column	None	A572 Gr.50	Typical
41	M47	N20	N18			Standoff Vert	Column	None	A572 Gr.50	Typical
42	M48	N20	N30			Standoff Diaq	Beam	None	A572 Gr.50	Typical
43	M49	N53	N49			RIGID	None	None	RIGID	Typical
44	M50	N62	N82			RIGID	None	None	RIGID	Typical
45	M51	N63	N83			RIGID	None	None	RIGID	Typical
46	M52	N64	N84			RIGID	None	None	RIGID	Typical
47	M53	N65	N85			RIGID	None	None	RIGID	Typical
48	M54	N70	N86			RIGID	None	None	RIGID	Typical
49	M55	N71	N87			RIGID	None	None	RIGID	Typical
50	M56	N72	N88			RIGID	None	None	RIGID	Typical
51	M57	N73	N89			RIGID	None	None	RIGID	Typical
52	M58	N94	N74			Mount Pipe	Column	None	A53 Gr.B	Typical
53	M59	N95	N75			Mount Pipe	Column	None	A53 Gr.B	Typical
54	M60	N96	N76			Mount Pipe	Column	None	A53 Gr.B	Typical
55	M61	N97	N77			Mount Pipe	Column	None	A53 Gr.B	Typical
56	M68	N116	N53			Stiff Arm	Beam	None	A572 Gr.50	Typical
57	M73	N2	N10		90	Tower Conn. PL	Beam	None	A572 Gr.50	Typical
58	M74	N1	N3		90	Tower Conn. PL	Beam	None	A572 Gr.50	Typical
59	M65	N90	N102			RIGID	None	None	RIGID	Typical
60	M66	N91	N103			RIGID	None	None	RIGID	Typical
61	M67	N92	N104			RIGID	None	None	RIGID	Typical
62	M68A	N93	N105			RIGID	None	None	RIGID	Typical
63	M69	N78	N98			RIGID	None	None	RIGID	Typical
64	M70	N79	N99			RIGID	None	None	RIGID	Typical
65	M71	N80	N100			RIGID	None	None	RIGID	Typical
66	M72	N81	N101			RIGID	None	None	RIGID	Typical
67	M73A	N110	N106			RIGID	None	None	RIGID	Typical
68	M74A	N111	N107			RIGID	None	None	RIGID	Typical
69	M75	N112	N108			RIGID	None	None	RIGID	Typical
70	M76	N113	N109			RIGID	None	None	RIGID	Typical
71	M71A	N121	N120			RIGID	None	None	RIGID	Typical
72	M72A	N175	N174			Face Horiz	Beam	None	A572 Gr.50	Typical
73	M73B	N170	N176			RIGID	None	None	RIGID	Typical
74	M74B	N153	N170		90	Face Conn. PL	Beam	None	A36 Gr.36	Typical
75	M75A	N155	N154			RIGID	None	None	RIGID	Typical
76	M76A	N171	N177			RIGID	None	None	RIGID	Typical
77	M77	N156	N171		90	Face Conn. PL	Beam	None	A36 Gr.36	Typical
78	M78	N158	N157			RIGID	None	None	RIGID	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(...)	Section/Shape	Type	Design List	Material	Design Rules
79	M79	N159	N154		240	RIGID	None	None	RIGID	Typical
80	M80	N122	N121		240	RIGID	None	None	RIGID	Typical
81	M81	N122	N129		90	Standoff Plate	Beam	None	A572 Gr.50	Typical
82	M82	N149	N159		90	Standoff Plate	Beam	None	A572 Gr.50	Typical
83	M83	N129	N149			Standoff Horiz	Beam	None	A572 Gr.50	Typical
84	M84	N160	N157		240	RIGID	None	None	RIGID	Typical
85	M85	N123	N120		240	RIGID	None	None	RIGID	Typical
86	M86	N123	N130		90	Standoff Plate	Beam	None	A572 Gr.50	Typical
87	M87	N150	N160		90	Standoff Plate	Beam	None	A572 Gr.50	Typical
88	M88	N130	N150			Standoff Horiz	Beam	None	A572 Gr.50	Typical
89	M89	N128	N127			RIGID	None	None	RIGID	Typical
90	M90	N183	N182			Face Horiz	Beam	None	A572 Gr.50	Typical
91	M91	N172	N184			RIGID	None	None	RIGID	Typical
92	M92	N163	N172		90	Face Conn. PL	Beam	None	A36 Gr.36	Typical
93	M93	N165	N164			RIGID	None	None	RIGID	Typical
94	M94	N173	N185			RIGID	None	None	RIGID	Typical
95	M95	N166	N173		90	Face Conn. PL	Beam	None	A36 Gr.36	Typical
96	M96	N168	N167			RIGID	None	None	RIGID	Typical
97	M97	N161	N164		120	RIGID	None	None	RIGID	Typical
98	M98	N124	N128		120	RIGID	None	None	RIGID	Typical
99	M99	N124	N131		90	Standoff Plate	Beam	None	A572 Gr.50	Typical
100	M100	N151	N161		90	Standoff Plate	Beam	None	A572 Gr.50	Typical
101	M101	N131	N151			Standoff Horiz	Beam	None	A572 Gr.50	Typical
102	M102	N162	N167		120	RIGID	None	None	RIGID	Typical
103	M103	N125	N127		120	RIGID	None	None	RIGID	Typical
104	M104	N125	N132		90	Standoff Plate	Beam	None	A572 Gr.50	Typical
105	M105	N152	N162		90	Standoff Plate	Beam	None	A572 Gr.50	Typical
106	M106	N132	N152			Standoff Horiz	Beam	None	A572 Gr.50	Typical
107	M107	N147	N145		240	Standoff Vert	Column	None	A572 Gr.50	Typical
108	M108	N135	N133		240	Standoff Vert	Column	None	A572 Gr.50	Typical
109	M109	N135	N145			Standoff Diag	Beam	None	A572 Gr.50	Typical
110	M110	N148	N146		240	Standoff Vert	Column	None	A572 Gr.50	Typical
111	M111	N136	N134		240	Standoff Vert	Column	None	A572 Gr.50	Typical
112	M112	N136	N146			Standoff Diag	Beam	None	A572 Gr.50	Typical
113	M113	N169	N165		240	RIGID	None	None	RIGID	Typical
114	M114	N178	N198			RIGID	None	None	RIGID	Typical
115	M115	N179	N199			RIGID	None	None	RIGID	Typical
116	M116	N180	N200			RIGID	None	None	RIGID	Typical
117	M117	N181	N201			RIGID	None	None	RIGID	Typical
118	M118	N186	N202			RIGID	None	None	RIGID	Typical
119	M119	N187	N203			RIGID	None	None	RIGID	Typical
120	M120	N188	N204			RIGID	None	None	RIGID	Typical
121	M121	N189	N205			RIGID	None	None	RIGID	Typical
122	M122	N210	N190		240	Mount Pipe	Column	None	A53 Gr.B	Typical
123	M123	N211	N191		240	Mount Pipe	Column	None	A53 Gr.B	Typical
124	M124	N212	N192		240	Mount Pipe	Column	None	A53 Gr.B	Typical
125	M125	N213	N193		240	Mount Pipe	Column	None	A53 Gr.B	Typical
126	M126	N230	N169			Stiff Arm	Beam	None	A572 Gr.50	Typical
127	M127	N115	N126		90	Tower Conn. PL	Beam	None	A572 Gr.50	Typical
128	M128	N118	N119		90	Tower Conn. PL	Beam	None	A572 Gr.50	Typical
129	M129	N206	N218			RIGID	None	None	RIGID	Typical
130	M130	N207	N219			RIGID	None	None	RIGID	Typical
131	M131	N208	N220			RIGID	None	None	RIGID	Typical
132	M132	N209	N221			RIGID	None	None	RIGID	Typical
133	M133	N194	N214			RIGID	None	None	RIGID	Typical
134	M134	N195	N215			RIGID	None	None	RIGID	Typical
135	M135	N196	N216			RIGID	None	None	RIGID	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(...)	Section/Shape	Type	Design List	Material	Design Rules
136	M136	N197	N217			RIGID	None	None	RIGID	Typical
137	M137	N226	N222			RIGID	None	None	RIGID	Typical
138	M138	N227	N223			RIGID	None	None	RIGID	Typical
139	M139	N228	N224			RIGID	None	None	RIGID	Typical
140	M140	N229	N225			RIGID	None	None	RIGID	Typical
141	M141	N234	N233			RIGID	None	None	RIGID	Typical
142	M142	N288	N287			Face Horiz	Beam	None	A572 Gr.50	Typical
143	M143	N283	N289			RIGID	None	None	RIGID	Typical
144	M144	N266	N283		90	Face Conn. PL	Beam	None	A36 Gr.36	Typical
145	M145	N268	N267			RIGID	None	None	RIGID	Typical
146	M146	N284	N290			RIGID	None	None	RIGID	Typical
147	M147	N269	N284		90	Face Conn. PL	Beam	None	A36 Gr.36	Typical
148	M148	N271	N270			RIGID	None	None	RIGID	Typical
149	M149	N272	N267		120	RIGID	None	None	RIGID	Typical
150	M150	N235	N234		120	RIGID	None	None	RIGID	Typical
151	M151	N235	N242		90	Standoff Plate	Beam	None	A572 Gr.50	Typical
152	M152	N262	N272		90	Standoff Plate	Beam	None	A572 Gr.50	Typical
153	M153	N242	N262			Standoff Horiz	Beam	None	A572 Gr.50	Typical
154	M154	N273	N270		120	RIGID	None	None	RIGID	Typical
155	M155	N236	N233		120	RIGID	None	None	RIGID	Typical
156	M156	N236	N243		90	Standoff Plate	Beam	None	A572 Gr.50	Typical
157	M157	N263	N273		90	Standoff Plate	Beam	None	A572 Gr.50	Typical
158	M158	N243	N263			Standoff Horiz	Beam	None	A572 Gr.50	Typical
159	M159	N241	N240			RIGID	None	None	RIGID	Typical
160	M160	N296	N295			Face Horiz	Beam	None	A572 Gr.50	Typical
161	M161	N285	N297			RIGID	None	None	RIGID	Typical
162	M162	N276	N285		90	Face Conn. PL	Beam	None	A36 Gr.36	Typical
163	M163	N278	N277			RIGID	None	None	RIGID	Typical
164	M164	N286	N298			RIGID	None	None	RIGID	Typical
165	M165	N279	N286		90	Face Conn. PL	Beam	None	A36 Gr.36	Typical
166	M166	N281	N280			RIGID	None	None	RIGID	Typical
167	M167	N274	N277		240	RIGID	None	None	RIGID	Typical
168	M168	N237	N241		240	RIGID	None	None	RIGID	Typical
169	M169	N237	N244		90	Standoff Plate	Beam	None	A572 Gr.50	Typical
170	M170	N264	N274		90	Standoff Plate	Beam	None	A572 Gr.50	Typical
171	M171	N244	N264			Standoff Horiz	Beam	None	A572 Gr.50	Typical
172	M172	N275	N280		240	RIGID	None	None	RIGID	Typical
173	M173	N238	N240		240	RIGID	None	None	RIGID	Typical
174	M174	N238	N245		90	Standoff Plate	Beam	None	A572 Gr.50	Typical
175	M175	N265	N275		90	Standoff Plate	Beam	None	A572 Gr.50	Typical
176	M176	N245	N265			Standoff Horiz	Beam	None	A572 Gr.50	Typical
177	M177	N260	N258		120	Standoff Vert	Column	None	A572 Gr.50	Typical
178	M178	N248	N246		120	Standoff Vert	Column	None	A572 Gr.50	Typical
179	M179	N248	N258			Standoff Diag	Beam	None	A572 Gr.50	Typical
180	M180	N261	N259		120	Standoff Vert	Column	None	A572 Gr.50	Typical
181	M181	N249	N247		120	Standoff Vert	Column	None	A572 Gr.50	Typical
182	M182	N249	N259			Standoff Diag	Beam	None	A572 Gr.50	Typical
183	M183	N282	N278		120	RIGID	None	None	RIGID	Typical
184	M184	N291	N311			RIGID	None	None	RIGID	Typical
185	M185	N292	N312			RIGID	None	None	RIGID	Typical
186	M186	N293	N313			RIGID	None	None	RIGID	Typical
187	M187	N294	N314			RIGID	None	None	RIGID	Typical
188	M188	N299	N315			RIGID	None	None	RIGID	Typical
189	M189	N300	N316			RIGID	None	None	RIGID	Typical
190	M190	N301	N317			RIGID	None	None	RIGID	Typical
191	M191	N302	N318			RIGID	None	None	RIGID	Typical
192	M192	N323	N303		120	Mount Pipe	Column	None	A53 Gr.B	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(...)	Section/Shape	Type	Design List	Material	Design Rules
193	M193	N324	N304		120	Mount Pipe	Column	None	A53 Gr.B	Typical
194	M194	N325	N305		120	Mount Pipe	Column	None	A53 Gr.B	Typical
195	M195	N326	N306		120	Mount Pipe	Column	None	A53 Gr.B	Typical
196	M196	N343	N282			Stiff Arm	Beam	None	A572 Gr.50	Typical
197	M197	N114	N239		90	Tower Conn. PL	Beam	None	A572 Gr.50	Typical
198	M198	N231	N232		90	Tower Conn. PL	Beam	None	A572 Gr.50	Typical
199	M199	N319	N331			RIGID	None	None	RIGID	Typical
200	M200	N320	N332			RIGID	None	None	RIGID	Typical
201	M201	N321	N333			RIGID	None	None	RIGID	Typical
202	M202	N322	N334			RIGID	None	None	RIGID	Typical
203	M203	N307	N327			RIGID	None	None	RIGID	Typical
204	M204	N308	N328			RIGID	None	None	RIGID	Typical
205	M205	N309	N329			RIGID	None	None	RIGID	Typical
206	M206	N310	N330			RIGID	None	None	RIGID	Typical
207	M207	N339	N335			RIGID	None	None	RIGID	Typical
208	M208	N340	N336			RIGID	None	None	RIGID	Typical
209	M209	N341	N337			RIGID	None	None	RIGID	Typical
210	M210	N342	N338			RIGID	None	None	RIGID	Typical
211	M211	N346	N344			RIGID	None	None	RIGID	Typical
212	M212	N347	N345			RIGID	None	None	RIGID	Typical

Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distribu...	Area(M...	Surface...
1	Dead	DL			-1	32				
2	Dead of Ice	RL				32		93		
4	Structure Wind (0)	None						186		
5	Structure Wind (30)	None						186		
6	Structure Wind (45)	None						186		
7	Structure Wind (60)	None						186		
8	Structure Wind (90)	None						186		
9	Structure Wind (120)	None						186		
10	Structure Wind (135)	None						186		
11	Structure Wind (150)	None						186		
12	Structure Wind w/ Ice (0)	None						186		
13	Structure Wind w/ Ice (30)	None						186		
14	Structure Wind w/ Ice (45)	None						186		
15	Structure Wind w/ Ice (60)	None						186		
16	Structure Wind w/ Ice (90)	None						186		
17	Structure Wind w/ Ice (120)	None						186		
18	Structure Wind w/ Ice (135)	None						186		
19	Structure Wind w/ Ice (150)	None						186		
20	Antenna Wind (0)	None				64				
21	Antenna Wind (30)	None				64				
22	Antenna Wind (45)	None				64				
23	Antenna Wind (60)	None				64				
24	Antenna Wind (90)	None				64				
25	Antenna Wind (120)	None				64				
26	Antenna Wind (135)	None				64				
27	Antenna Wind (150)	None				64				
28	Antenna Wind w/ Ice (0)	None				64				
29	Antenna Wind w/ Ice (30)	None				64				
30	Antenna Wind w/ Ice (45)	None				64				
31	Antenna Wind w/ Ice (60)	None				64				
32	Antenna Wind w/ Ice (90)	None				64				
33	Antenna Wind w/ Ice (120)	None				64				

Basic Load Cases (Continued)

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distribu...	Area(M...	Surface...
34	Antenna Wind w/ Ice (135)	None				64				
35	Antenna Wind w/ Ice (150)	None				64				
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	So..	PDe...	S...	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..
1	Summary: 1.0D + 1.0W	Yes	Y		DL	1	20	1											
2	1.4D	Yes	Y		DL	1.4													
3	1.2D + 1.0W(0)	Yes	Y		DL	1.2	4	1	20	1									
4	1.2D + 1.0W(30)	Yes	Y		DL	1.2	5	1	21	1									
5	1.2D + 1.0W(45)	Yes	Y		DL	1.2	6	1	22	1									
6	1.2D + 1.0W(60)	Yes	Y		DL	1.2	7	1	23	1									
7	1.2D + 1.0W(90)	Yes	Y		DL	1.2	8	1	24	1									
8	1.2D + 1.0W(120)	Yes	Y		DL	1.2	9	1	25	1									
9	1.2D + 1.0W(135)	Yes	Y		DL	1.2	10	1	26	1									
10	1.2D + 1.0W(150)	Yes	Y		DL	1.2	11	1	27	1									
11	1.2D + 1.0W(180)	Yes	Y		DL	1.2	4	-1	20	-1									
12	1.2D + 1.0W(210)	Yes	Y		DL	1.2	5	-1	21	-1									
13	1.2D + 1.0W(225)	Yes	Y		DL	1.2	6	-1	22	-1									
14	1.2D + 1.0W(240)	Yes	Y		DL	1.2	7	-1	23	-1									
15	1.2D + 1.0W(270)	Yes	Y		DL	1.2	8	-1	24	-1									
16	1.2D + 1.0W(300)	Yes	Y		DL	1.2	9	-1	25	-1									
17	1.2D + 1.0W(315)	Yes	Y		DL	1.2	10	-1	26	-1									
18	1.2D + 1.0W(330)	Yes	Y		DL	1.2	11	-1	27	-1									
19	1.2D + 1.0Di + 1.0W	Yes	Y		DL	1.2	RL	1	12	1	28	1							
20	1.2D + 1.0Di + 1.0W	Yes	Y		DL	1.2	RL	1	13	1	29	1							
21	1.2D + 1.0Di + 1.0W	Yes	Y		DL	1.2	RL	1	14	1	30	1							
22	1.2D + 1.0Di + 1.0W	Yes	Y		DL	1.2	RL	1	15	1	31	1							
23	1.2D + 1.0Di + 1.0W	Yes	Y		DL	1.2	RL	1	16	1	32	1							
24	1.2D + 1.0Di + 1.0W	Yes	Y		DL	1.2	RL	1	17	1	33	1							
25	1.2D + 1.0Di + 1.0W	Yes	Y		DL	1.2	RL	1	18	1	34	1							
26	1.2D + 1.0Di + 1.0W	Yes	Y		DL	1.2	RL	1	19	1	35	1							
27	1.2D + 1.0Di + 1.0W	Yes	Y		DL	1.2	RL	1	12	-1	28	-1							
28	1.2D + 1.0Di + 1.0W	Yes	Y		DL	1.2	RL	1	13	-1	29	-1							
29	1.2D + 1.0Di + 1.0W	Yes	Y		DL	1.2	RL	1	14	-1	30	-1							
30	1.2D + 1.0Di + 1.0W	Yes	Y		DL	1.2	RL	1	15	-1	31	-1							
31	1.2D + 1.0Di + 1.0W	Yes	Y		DL	1.2	RL	1	16	-1	32	-1							
32	1.2D + 1.0Di + 1.0W	Yes	Y		DL	1.2	RL	1	17	-1	33	-1							
33	1.2D + 1.0Di + 1.0W	Yes	Y		DL	1.2	RL	1	18	-1	34	-1							
34	1.2D + 1.0Di + 1.0W	Yes	Y		DL	1.2	RL	1	19	-1	35	-1							
35	1.2D + 1.5Lm(1) + 1.0W	Yes	Y		DL	1.2	4	.057	20	.057	OL1	1.5							
36	1.2D + 1.5Lm(1) + 1.0W	Yes	Y		DL	1.2	5	.057	21	.057	OL1	1.5							
37	1.2D + 1.5Lm(1) + 1.0W	Yes	Y		DL	1.2	6	.057	22	.057	OL1	1.5							
38	1.2D + 1.5Lm(1) + 1.0W	Yes	Y		DL	1.2	7	.057	23	.057	OL1	1.5							
39	1.2D + 1.5Lm(1) + 1.0W	Yes	Y		DL	1.2	8	.057	24	.057	OL1	1.5							
40	1.2D + 1.5Lm(1) + 1.0W	Yes	Y		DL	1.2	9	.057	25	.057	OL1	1.5							
41	1.2D + 1.5Lm(1) + 1.0W	Yes	Y		DL	1.2	10	.057	26	.057	OL1	1.5							
42	1.2D + 1.5Lm(1) + 1.0W	Yes	Y		DL	1.2	11	.057	27	.057	OL1	1.5							
43	1.2D + 1.5Lm(1) + 1.0W	Yes	Y		DL	1.2	4	-.057	20	-.057	OL1	1.5							
44	1.2D + 1.5Lm(1) + 1.0W	Yes	Y		DL	1.2	5	-.057	21	-.057	OL1	1.5							
45	1.2D + 1.5Lm(1) + 1.0W	Yes	Y		DL	1.2	6	-.057	22	-.057	OL1	1.5							
46	1.2D + 1.5Lm(1) + 1.0W	Yes	Y		DL	1.2	7	-.057	23	-.057	OL1	1.5							

Load Combinations (Continued)

	Description	So.	PDe.	S...	BLCFac.	BLCFac.	BLCFac.	BLCFac.	BLCFac.	BLCFac.	BLCFac.	BLCFac.	BLCFac.	BLCFac.	BLCFac.
47	1.2D + 1.5Lm(1) + 1...	Yes	Y		DL 1.2	8	-.057	24	-.057	OL1	1.5				
48	1.2D + 1.5Lm(1) + 1...	Yes	Y		DL 1.2	9	-.057	25	-.057	OL1	1.5				
49	1.2D + 1.5Lm(1) + 1...	Yes	Y		DL 1.2	10	-.057	26	-.057	OL1	1.5				
50	1.2D + 1.5Lm(1) + 1...	Yes	Y		DL 1.2	11	-.057	27	-.057	OL1	1.5				
51	1.2D + 1.5Lm(2) + 1...	Yes	Y		DL 1.2	4	.057	20	.057	OL2	1.5				
52	1.2D + 1.5Lm(2) + 1...	Yes	Y		DL 1.2	5	.057	21	.057	OL2	1.5				
53	1.2D + 1.5Lm(2) + 1...	Yes	Y		DL 1.2	6	.057	22	.057	OL2	1.5				
54	1.2D + 1.5Lm(2) + 1...	Yes	Y		DL 1.2	7	.057	23	.057	OL2	1.5				
55	1.2D + 1.5Lm(2) + 1...	Yes	Y		DL 1.2	8	.057	24	.057	OL2	1.5				
56	1.2D + 1.5Lm(2) + 1...	Yes	Y		DL 1.2	9	.057	25	.057	OL2	1.5				
57	1.2D + 1.5Lm(2) + 1...	Yes	Y		DL 1.2	10	.057	26	.057	OL2	1.5				
58	1.2D + 1.5Lm(2) + 1...	Yes	Y		DL 1.2	11	.057	27	.057	OL2	1.5				
59	1.2D + 1.5Lm(2) + 1...	Yes	Y		DL 1.2	4	-.057	20	-.057	OL2	1.5				
60	1.2D + 1.5Lm(2) + 1...	Yes	Y		DL 1.2	5	-.057	21	-.057	OL2	1.5				
61	1.2D + 1.5Lm(2) + 1...	Yes	Y		DL 1.2	6	-.057	22	-.057	OL2	1.5				
62	1.2D + 1.5Lm(2) + 1...	Yes	Y		DL 1.2	7	-.057	23	-.057	OL2	1.5				
63	1.2D + 1.5Lm(2) + 1...	Yes	Y		DL 1.2	8	-.057	24	-.057	OL2	1.5				
64	1.2D + 1.5Lm(2) + 1...	Yes	Y		DL 1.2	9	-.057	25	-.057	OL2	1.5				
65	1.2D + 1.5Lm(2) + 1...	Yes	Y		DL 1.2	10	-.057	26	-.057	OL2	1.5				
66	1.2D + 1.5Lm(2) + 1...	Yes	Y		DL 1.2	11	-.057	27	-.057	OL2	1.5				
67	1.2D + 1.5Lm(3) + 1...	Yes	Y		DL 1.2	4	.057	20	.057	OL3	1.5				
68	1.2D + 1.5Lm(3) + 1...	Yes	Y		DL 1.2	5	.057	21	.057	OL3	1.5				
69	1.2D + 1.5Lm(3) + 1...	Yes	Y		DL 1.2	6	.057	22	.057	OL3	1.5				
70	1.2D + 1.5Lm(3) + 1...	Yes	Y		DL 1.2	7	.057	23	.057	OL3	1.5				
71	1.2D + 1.5Lm(3) + 1...	Yes	Y		DL 1.2	8	.057	24	.057	OL3	1.5				
72	1.2D + 1.5Lm(3) + 1...	Yes	Y		DL 1.2	9	.057	25	.057	OL3	1.5				
73	1.2D + 1.5Lm(3) + 1...	Yes	Y		DL 1.2	10	.057	26	.057	OL3	1.5				
74	1.2D + 1.5Lm(3) + 1...	Yes	Y		DL 1.2	11	.057	27	.057	OL3	1.5				
75	1.2D + 1.5Lm(3) + 1...	Yes	Y		DL 1.2	4	-.057	20	-.057	OL3	1.5				
76	1.2D + 1.5Lm(3) + 1...	Yes	Y		DL 1.2	5	-.057	21	-.057	OL3	1.5				
77	1.2D + 1.5Lm(3) + 1...	Yes	Y		DL 1.2	6	-.057	22	-.057	OL3	1.5				
78	1.2D + 1.5Lm(3) + 1...	Yes	Y		DL 1.2	7	-.057	23	-.057	OL3	1.5				
79	1.2D + 1.5Lm(3) + 1...	Yes	Y		DL 1.2	8	-.057	24	-.057	OL3	1.5				
80	1.2D + 1.5Lm(3) + 1...	Yes	Y		DL 1.2	9	-.057	25	-.057	OL3	1.5				
81	1.2D + 1.5Lm(3) + 1...	Yes	Y		DL 1.2	10	-.057	26	-.057	OL3	1.5				
82	1.2D + 1.5Lm(3) + 1...	Yes	Y		DL 1.2	11	-.057	27	-.057	OL3	1.5				
83	1.2D + 1.5Lm(4) + 1...	Yes	Y		DL 1.2	4	.057	20	.057	OL4	1.5				
84	1.2D + 1.5Lm(4) + 1...	Yes	Y		DL 1.2	5	.057	21	.057	OL4	1.5				
85	1.2D + 1.5Lm(4) + 1...	Yes	Y		DL 1.2	6	.057	22	.057	OL4	1.5				
86	1.2D + 1.5Lm(4) + 1...	Yes	Y		DL 1.2	7	.057	23	.057	OL4	1.5				
87	1.2D + 1.5Lm(4) + 1...	Yes	Y		DL 1.2	8	.057	24	.057	OL4	1.5				
88	1.2D + 1.5Lm(4) + 1...	Yes	Y		DL 1.2	9	.057	25	.057	OL4	1.5				
89	1.2D + 1.5Lm(4) + 1...	Yes	Y		DL 1.2	10	.057	26	.057	OL4	1.5				
90	1.2D + 1.5Lm(4) + 1...	Yes	Y		DL 1.2	11	.057	27	.057	OL4	1.5				
91	1.2D + 1.5Lm(4) + 1...	Yes	Y		DL 1.2	4	-.057	20	-.057	OL4	1.5				
92	1.2D + 1.5Lm(4) + 1...	Yes	Y		DL 1.2	5	-.057	21	-.057	OL4	1.5				
93	1.2D + 1.5Lm(4) + 1...	Yes	Y		DL 1.2	6	-.057	22	-.057	OL4	1.5				
94	1.2D + 1.5Lm(4) + 1...	Yes	Y		DL 1.2	7	-.057	23	-.057	OL4	1.5				
95	1.2D + 1.5Lm(4) + 1...	Yes	Y		DL 1.2	8	-.057	24	-.057	OL4	1.5				
96	1.2D + 1.5Lm(4) + 1...	Yes	Y		DL 1.2	9	-.057	25	-.057	OL4	1.5				
97	1.2D + 1.5Lm(4) + 1...	Yes	Y		DL 1.2	10	-.057	26	-.057	OL4	1.5				
98	1.2D + 1.5Lm(4) + 1...	Yes	Y		DL 1.2	11	-.057	27	-.057	OL4	1.5				

Joint Loads and Enforced Displacements (BLC 1 : Dead)

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2/in, lb*s^2...
1	N101	L	Z	-38.25
2	N105	L	Z	-38.25
3	N330	L	Z	-44.65
4	N334	L	Z	-44.65
5	N214	L	Z	-52.8
6	N218	L	Z	-52.8
7	N100	L	Z	-31.15
8	N104	L	Z	-31.15
9	N329	L	Z	-31.75
10	N333	L	Z	-31.75
11	N215	L	Z	-38.25
12	N219	L	Z	-38.25
13	N98	L	Z	-17.5
14	N102	L	Z	-17.5
15	N327	L	Z	-17.5
16	N331	L	Z	-17.5
17	N217	L	Z	-17.5
18	N221	L	Z	-17.5
19	N113	L	Z	-71
20	N342	L	Z	-71
21	N226	L	Z	-71
22	N112	L	Z	-59.4
23	N341	L	Z	-59.4
24	N227	L	Z	-59.4
25	N113	L	Z	-75
26	N342	L	Z	-75
27	N226	L	Z	-75
28	N110	L	Z	-28.2
29	N339	L	Z	-28.2
30	N229	L	Z	-28.2
31	N347	L	Z	-32.8
32	N346	L	Z	-26.2

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

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2/in, lb*s^2...
1	N101	L	Z	-59.786
2	N105	L	Z	-59.786
3	N330	L	Z	-85.035
4	N334	L	Z	-85.035
5	N214	L	Z	-112.025
6	N218	L	Z	-112.025
7	N100	L	Z	-60.663
8	N104	L	Z	-60.663
9	N329	L	Z	-86.247
10	N333	L	Z	-86.247
11	N215	L	Z	-113.595
12	N219	L	Z	-113.595
13	N98	L	Z	-38.235
14	N102	L	Z	-38.235
15	N327	L	Z	-38.235
16	N331	L	Z	-38.235
17	N217	L	Z	-38.235
18	N221	L	Z	-38.235
19	N113	L	Z	-43.353
20	N342	L	Z	-43.353

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...]
21	N226	L	Z	-43.353
22	N112	L	Z	-41.316
23	N341	L	Z	-41.316
24	N227	L	Z	-41.316
25	N113	L	Z	-47.974
26	N342	L	Z	-47.974
27	N226	L	Z	-47.974
28	N110	L	Z	-34.607
29	N339	L	Z	-34.607
30	N229	L	Z	-34.607
31	N347	L	Z	-65.095
32	N346	L	Z	-85.756

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...]
1	N101	L	X	-125.737
2	N101	L	Y	0
3	N105	L	X	-125.737
4	N105	L	Y	0
5	N330	L	X	-107.242
6	N330	L	Y	0
7	N334	L	X	-107.242
8	N334	L	Y	0
9	N214	L	X	-142.125
10	N214	L	Y	0
11	N218	L	X	-142.125
12	N218	L	Y	0
13	N100	L	X	-136.064
14	N100	L	Y	0
15	N104	L	X	-136.064
16	N104	L	Y	0
17	N329	L	X	-109.01
18	N329	L	Y	0
19	N333	L	X	-109.01
20	N333	L	Y	0
21	N215	L	X	-180.072
22	N215	L	Y	0
23	N219	L	X	-180.072
24	N219	L	Y	0
25	N98	L	X	-57.626
26	N98	L	Y	0
27	N102	L	X	-57.626
28	N102	L	Y	0
29	N327	L	X	-34.046
30	N327	L	Y	0
31	N331	L	X	-34.046
32	N331	L	Y	0
33	N217	L	X	-34.046
34	N217	L	Y	0
35	N221	L	X	-34.046
36	N221	L	Y	0
37	N113	L	X	-33.198
38	N113	L	Y	0
39	N342	L	X	-43.939
40	N342	L	Y	0
41	N226	L	X	-43.939

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...
42	N226	L	Y	0
43	N112	L	X	-34.103
44	N112	L	Y	0
45	N341	L	X	-40.058
46	N341	L	Y	0
47	N227	L	X	-40.058
48	N227	L	Y	0
49	N113	L	X	-33.408
50	N113	L	Y	0
51	N342	L	X	-51.252
52	N342	L	Y	0
53	N226	L	X	-51.252
54	N226	L	Y	0
55	N110	L	X	-37.256
56	N110	L	Y	0
57	N339	L	X	-26.884
58	N339	L	Y	0
59	N229	L	X	-26.884
60	N229	L	Y	0
61	N347	L	X	-97.889
62	N347	L	Y	0
63	N346	L	X	-92.351
64	N346	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...
1	N101	L	X	-91.915
2	N101	L	Y	53.067
3	N105	L	X	-91.915
4	N105	L	Y	53.067
5	N330	L	X	-65.642
6	N330	L	Y	37.898
7	N334	L	X	-65.642
8	N334	L	Y	37.898
9	N214	L	X	-195.971
10	N214	L	Y	113.144
11	N218	L	X	-195.971
12	N218	L	Y	113.144
13	N100	L	X	-99.246
14	N100	L	Y	57.299
15	N104	L	X	-99.246
16	N104	L	Y	57.299
17	N329	L	X	-66.316
18	N329	L	Y	38.288
19	N333	L	X	-66.316
20	N333	L	Y	38.288
21	N215	L	X	-228.197
22	N215	L	Y	131.75
23	N219	L	X	-228.197
24	N219	L	Y	131.75
25	N98	L	X	-43.098
26	N98	L	Y	24.883
27	N102	L	X	-43.098
28	N102	L	Y	24.883
29	N327	L	X	-22.678
30	N327	L	Y	13.093

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...
31	N331	L	X	-22.678
32	N331	L	Y	13.093
33	N217	L	X	-43.098
34	N217	L	Y	24.883
35	N221	L	X	-43.098
36	N221	L	Y	24.883
37	N113	L	X	-31.851
38	N113	L	Y	18.389
39	N342	L	X	-41.152
40	N342	L	Y	23.759
41	N226	L	X	-31.851
42	N226	L	Y	18.389
43	N112	L	X	-31.253
44	N112	L	Y	18.044
45	N341	L	X	-36.411
46	N341	L	Y	21.022
47	N227	L	X	-31.253
48	N227	L	Y	18.044
49	N113	L	X	-34.083
50	N113	L	Y	19.678
51	N342	L	X	-49.536
52	N342	L	Y	28.6
53	N226	L	X	-34.083
54	N226	L	Y	19.678
55	N110	L	X	-29.27
56	N110	L	Y	16.899
57	N339	L	X	-20.289
58	N339	L	Y	11.714
59	N229	L	X	-29.27
60	N229	L	Y	16.899
61	N347	L	X	-84.774
62	N347	L	Y	48.944
63	N346	L	X	-94.942
64	N346	L	Y	54.815

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...
1	N101	L	X	-61.187
2	N101	L	Y	61.187
3	N105	L	X	-61.187
4	N105	L	Y	61.187
5	N330	L	X	-59.554
6	N330	L	Y	59.554
7	N334	L	X	-59.554
8	N334	L	Y	59.554
9	N214	L	X	-181.793
10	N214	L	Y	181.793
11	N218	L	X	-181.793
12	N218	L	Y	181.793
13	N100	L	X	-65.856
14	N100	L	Y	65.856
15	N104	L	X	-65.856
16	N104	L	Y	65.856
17	N329	L	X	-60.292
18	N329	L	Y	60.292
19	N333	L	X	-60.292

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...]
20	N333	L	Y	60.292
21	N215	L	X	-207.915
22	N215	L	Y	207.915
23	N219	L	X	-207.915
24	N219	L	Y	207.915
25	N98	L	X	-29.632
26	N98	L	Y	29.632
27	N102	L	X	-29.632
28	N102	L	Y	29.632
29	N327	L	X	-20.006
30	N327	L	Y	20.006
31	N331	L	X	-20.006
32	N331	L	Y	20.006
33	N217	L	X	-39.258
34	N217	L	Y	39.258
35	N221	L	X	-39.258
36	N221	L	Y	39.258
37	N113	L	X	-28.538
38	N113	L	Y	28.538
39	N342	L	X	-32.923
40	N342	L	Y	32.923
41	N226	L	X	-24.153
42	N226	L	Y	24.153
43	N112	L	X	-26.922
44	N112	L	Y	26.922
45	N341	L	X	-29.353
46	N341	L	Y	29.353
47	N227	L	X	-24.491
48	N227	L	Y	24.491
49	N113	L	X	-32.035
50	N113	L	Y	32.035
51	N342	L	X	-39.319
52	N342	L	Y	39.319
53	N226	L	X	-24.75
54	N226	L	Y	24.75
55	N110	L	X	-21.455
56	N110	L	Y	21.455
57	N339	L	X	-17.221
58	N339	L	Y	17.221
59	N229	L	X	-25.689
60	N229	L	Y	25.689
61	N347	L	X	-69.218
62	N347	L	Y	69.218
63	N346	L	X	-89.738
64	N346	L	Y	89.738

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...]
1	N101	L	X	-33.464
2	N101	L	Y	57.961
3	N105	L	X	-33.464
4	N105	L	Y	57.961
5	N330	L	X	-53.621
6	N330	L	Y	92.874
7	N334	L	X	-53.621
8	N334	L	Y	92.874

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...]
9	N214	L	X	-134.185
10	N214	L	Y	232.415
11	N218	L	X	-134.185
12	N218	L	Y	232.415
13	N100	L	X	-35.835
14	N100	L	Y	62.068
15	N104	L	X	-35.835
16	N104	L	Y	62.068
17	N329	L	X	-54.505
18	N329	L	Y	94.405
19	N333	L	X	-54.505
20	N333	L	Y	94.405
21	N215	L	X	-152.607
22	N215	L	Y	264.322
23	N219	L	X	-152.607
24	N219	L	Y	264.322
25	N98	L	X	-17.023
26	N98	L	Y	29.485
27	N102	L	X	-17.023
28	N102	L	Y	29.485
29	N327	L	X	-17.023
30	N327	L	Y	29.485
31	N331	L	X	-17.023
32	N331	L	Y	29.485
33	N217	L	X	-28.813
34	N217	L	Y	49.905
35	N221	L	X	-28.813
36	N221	L	Y	49.905
37	N113	L	X	-21.969
38	N113	L	Y	38.052
39	N342	L	X	-21.969
40	N342	L	Y	38.052
41	N226	L	X	-16.599
42	N226	L	Y	28.75
43	N112	L	X	-20.029
44	N112	L	Y	34.692
45	N341	L	X	-20.029
46	N341	L	Y	34.692
47	N227	L	X	-17.052
48	N227	L	Y	29.534
49	N113	L	X	-25.626
50	N113	L	Y	44.385
51	N342	L	X	-25.626
52	N342	L	Y	44.385
53	N226	L	X	-16.704
54	N226	L	Y	28.933
55	N110	L	X	-13.442
56	N110	L	Y	23.282
57	N339	L	X	-13.442
58	N339	L	Y	23.282
59	N229	L	X	-18.628
60	N229	L	Y	32.264
61	N347	L	X	-48.944
62	N347	L	Y	84.774
63	N346	L	X	-72.094
64	N346	L	Y	124.871

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...]
1	N101	L	X	-1.073e-5
2	N101	L	Y	47.324
3	N105	L	X	-1.073e-5
4	N105	L	Y	47.324
5	N330	L	X	-3.859e-5
6	N330	L	Y	170.133
7	N334	L	X	-3.859e-5
8	N334	L	Y	170.133
9	N214	L	X	-5.132e-5
10	N214	L	Y	226.288
11	N218	L	X	-5.132e-5
12	N218	L	Y	226.288
13	N100	L	X	-1.139e-5
14	N100	L	Y	50.205
15	N104	L	X	-1.139e-5
16	N104	L	Y	50.205
17	N329	L	X	-3.943e-5
18	N329	L	Y	173.878
19	N333	L	X	-3.943e-5
20	N333	L	Y	173.878
21	N215	L	X	-5.976e-5
22	N215	L	Y	263.5
23	N219	L	X	-5.976e-5
24	N219	L	Y	263.5
25	N98	L	X	-5.939e-6
26	N98	L	Y	26.186
27	N102	L	X	-5.939e-6
28	N102	L	Y	26.186
29	N327	L	X	-1.129e-5
30	N327	L	Y	49.766
31	N331	L	X	-1.129e-5
32	N331	L	Y	49.766
33	N217	L	X	-1.129e-5
34	N217	L	Y	49.766
35	N221	L	X	-1.129e-5
36	N221	L	Y	49.766
37	N113	L	X	-1.078e-5
38	N113	L	Y	47.519
39	N342	L	X	-8.341e-6
40	N342	L	Y	36.778
41	N226	L	X	-8.341e-6
42	N226	L	Y	36.778
43	N112	L	X	-9.535e-6
44	N112	L	Y	42.044
45	N341	L	X	-8.185e-6
46	N341	L	Y	36.088
47	N227	L	X	-8.185e-6
48	N227	L	Y	36.088
49	N113	L	X	-1.297e-5
50	N113	L	Y	57.199
51	N342	L	X	-8.926e-6
52	N342	L	Y	39.356
53	N226	L	X	-8.926e-6
54	N226	L	Y	39.356
55	N110	L	X	-5.313e-6
56	N110	L	Y	23.427
57	N339	L	X	-7.665e-6

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...
58	N339	L	Y	33.798
59	N229	L	X	-7.665e-6
60	N229	L	Y	33.798
61	N347	L	X	-2.22e-5
62	N347	L	Y	97.889
63	N346	L	X	-3.662e-5
64	N346	L	Y	161.467

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...
1	N101	L	X	33.464
2	N101	L	Y	57.961
3	N105	L	X	33.464
4	N105	L	Y	57.961
5	N330	L	X	100.789
6	N330	L	Y	174.573
7	N334	L	X	100.789
8	N334	L	Y	174.573
9	N214	L	X	71.062
10	N214	L	Y	123.084
11	N218	L	X	71.062
12	N218	L	Y	123.084
13	N100	L	X	35.835
14	N100	L	Y	62.068
15	N104	L	X	35.835
16	N104	L	Y	62.068
17	N329	L	X	103.156
18	N329	L	Y	178.672
19	N333	L	X	103.156
20	N333	L	Y	178.672
21	N215	L	X	90.036
22	N215	L	Y	155.947
23	N219	L	X	90.036
24	N219	L	Y	155.947
25	N98	L	X	17.023
26	N98	L	Y	29.485
27	N102	L	X	17.023
28	N102	L	Y	29.485
29	N327	L	X	28.813
30	N327	L	Y	49.905
31	N331	L	X	28.813
32	N331	L	Y	49.905
33	N217	L	X	17.023
34	N217	L	Y	29.485
35	N221	L	X	17.023
36	N221	L	Y	29.485
37	N113	L	X	21.969
38	N113	L	Y	38.052
39	N342	L	X	16.599
40	N342	L	Y	28.75
41	N226	L	X	21.969
42	N226	L	Y	38.052
43	N112	L	X	20.029
44	N112	L	Y	34.692
45	N341	L	X	17.052
46	N341	L	Y	29.534

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...
47	N227	L	X	20.029
48	N227	L	Y	34.692
49	N113	L	X	25.626
50	N113	L	Y	44.385
51	N342	L	X	16.704
52	N342	L	Y	28.933
53	N226	L	X	25.626
54	N226	L	Y	44.385
55	N110	L	X	13.442
56	N110	L	Y	23.282
57	N339	L	X	18.628
58	N339	L	Y	32.264
59	N229	L	X	13.442
60	N229	L	Y	23.282
61	N347	L	X	48.944
62	N347	L	Y	84.774
63	N346	L	X	72.094
64	N346	L	Y	124.871

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...
1	N101	L	X	61.187
2	N101	L	Y	61.187
3	N105	L	X	61.187
4	N105	L	Y	61.187
5	N330	L	X	136.58
6	N330	L	Y	136.58
7	N334	L	X	136.58
8	N334	L	Y	136.58
9	N214	L	X	78.715
10	N214	L	Y	78.715
11	N218	L	X	78.715
12	N218	L	Y	78.715
13	N100	L	X	65.856
14	N100	L	Y	65.856
15	N104	L	X	65.856
16	N104	L	Y	65.856
17	N329	L	X	139.74
18	N329	L	Y	139.74
19	N333	L	X	139.74
20	N333	L	Y	139.74
21	N215	L	X	105.738
22	N215	L	Y	105.738
23	N219	L	X	105.738
24	N219	L	Y	105.738
25	N98	L	X	29.632
26	N98	L	Y	29.632
27	N102	L	X	29.632
28	N102	L	Y	29.632
29	N327	L	X	39.258
30	N327	L	Y	39.258
31	N331	L	X	39.258
32	N331	L	Y	39.258
33	N217	L	X	20.006
34	N217	L	Y	20.006
35	N221	L	X	20.006

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...
36	N221	L	Y	20.006
37	N113	L	X	28.538
38	N113	L	Y	28.538
39	N342	L	X	24.153
40	N342	L	Y	24.153
41	N226	L	X	32.923
42	N226	L	Y	32.923
43	N112	L	X	26.922
44	N112	L	Y	26.922
45	N341	L	X	24.491
46	N341	L	Y	24.491
47	N227	L	X	29.353
48	N227	L	Y	29.353
49	N113	L	X	32.035
50	N113	L	Y	32.035
51	N342	L	X	24.75
52	N342	L	Y	24.75
53	N226	L	X	39.319
54	N226	L	Y	39.319
55	N110	L	X	21.455
56	N110	L	Y	21.455
57	N339	L	X	25.689
58	N339	L	Y	25.689
59	N229	L	X	17.221
60	N229	L	Y	17.221
61	N347	L	X	69.218
62	N347	L	Y	69.218
63	N346	L	X	89.738
64	N346	L	Y	89.738

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...
1	N101	L	X	91.915
2	N101	L	Y	53.067
3	N105	L	X	91.915
4	N105	L	Y	53.067
5	N330	L	X	147.34
6	N330	L	Y	85.067
7	N334	L	X	147.34
8	N334	L	Y	85.067
9	N214	L	X	86.64
10	N214	L	Y	50.022
11	N218	L	X	86.64
12	N218	L	Y	50.022
13	N100	L	X	99.246
14	N100	L	Y	57.3
15	N104	L	X	99.246
16	N104	L	Y	57.3
17	N329	L	X	150.583
18	N329	L	Y	86.939
19	N333	L	X	150.583
20	N333	L	Y	86.939
21	N215	L	X	119.822
22	N215	L	Y	69.179
23	N219	L	X	119.822
24	N219	L	Y	69.179

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...
25	N98	L	X	43.098
26	N98	L	Y	24.883
27	N102	L	X	43.098
28	N102	L	Y	24.883
29	N327	L	X	43.098
30	N327	L	Y	24.883
31	N331	L	X	43.098
32	N331	L	Y	24.883
33	N217	L	X	22.678
34	N217	L	Y	13.093
35	N221	L	X	22.678
36	N221	L	Y	13.093
37	N113	L	X	31.851
38	N113	L	Y	18.389
39	N342	L	X	31.851
40	N342	L	Y	18.389
41	N226	L	X	41.152
42	N226	L	Y	23.759
43	N112	L	X	31.253
44	N112	L	Y	18.044
45	N341	L	X	31.253
46	N341	L	Y	18.044
47	N227	L	X	36.411
48	N227	L	Y	21.022
49	N113	L	X	34.083
50	N113	L	Y	19.678
51	N342	L	X	34.083
52	N342	L	Y	19.678
53	N226	L	X	49.536
54	N226	L	Y	28.6
55	N110	L	X	29.27
56	N110	L	Y	16.899
57	N339	L	X	29.27
58	N339	L	Y	16.899
59	N229	L	X	20.289
60	N229	L	Y	11.714
61	N347	L	X	84.774
62	N347	L	Y	48.944
63	N346	L	X	94.942
64	N346	L	Y	54.815

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...
1	N101	L	X	-22.949
2	N101	L	Y	0
3	N105	L	X	-22.949
4	N105	L	Y	0
5	N330	L	X	-20.393
6	N330	L	Y	0
7	N334	L	X	-20.393
8	N334	L	Y	0
9	N214	L	X	-26.571
10	N214	L	Y	0
11	N218	L	X	-26.571
12	N218	L	Y	0
13	N100	L	X	-24.799

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...
14	N100	L	Y	0
15	N104	L	X	-24.799
16	N104	L	Y	0
17	N329	L	X	-20.688
18	N329	L	Y	0
19	N333	L	X	-20.688
20	N333	L	Y	0
21	N215	L	X	-33.792
22	N215	L	Y	0
23	N219	L	X	-33.792
24	N219	L	Y	0
25	N98	L	X	-11.095
26	N98	L	Y	0
27	N102	L	X	-11.095
28	N102	L	Y	0
29	N327	L	X	-7.114
30	N327	L	Y	0
31	N331	L	X	-7.114
32	N331	L	Y	0
33	N217	L	X	-7.114
34	N217	L	Y	0
35	N221	L	X	-7.114
36	N221	L	Y	0
37	N113	L	X	-6.871
38	N113	L	Y	0
39	N342	L	X	-9.517
40	N342	L	Y	0
41	N226	L	X	-9.517
42	N226	L	Y	0
43	N112	L	X	-7.034
44	N112	L	Y	0
45	N341	L	X	-8.839
46	N341	L	Y	0
47	N227	L	X	-8.839
48	N227	L	Y	0
49	N113	L	X	-6.91
50	N113	L	Y	0
51	N342	L	X	-10.815
52	N342	L	Y	0
53	N226	L	X	-10.815
54	N226	L	Y	0
55	N110	L	X	-8.415
56	N110	L	Y	0
57	N339	L	X	-7.622
58	N339	L	Y	0
59	N229	L	X	-7.622
60	N229	L	Y	0
61	N347	L	X	-19.632
62	N347	L	Y	0
63	N346	L	X	-18.708
64	N346	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...
1	N101	L	X	-16.999
2	N101	L	Y	9.814

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...]
3	N105	L	X	-16.999
4	N105	L	Y	9.814
5	N330	L	X	-13.169
6	N330	L	Y	7.603
7	N334	L	X	-13.169
8	N334	L	Y	7.603
9	N214	L	X	-34.987
10	N214	L	Y	20.2
11	N218	L	X	-34.987
12	N218	L	Y	20.2
13	N100	L	X	-18.324
14	N100	L	Y	10.579
15	N104	L	X	-18.324
16	N104	L	Y	10.579
17	N329	L	X	-13.279
18	N329	L	Y	7.667
19	N333	L	X	-13.279
20	N333	L	Y	7.667
21	N215	L	X	-40.789
22	N215	L	Y	23.55
23	N219	L	X	-40.789
24	N219	L	Y	23.55
25	N98	L	X	-8.459
26	N98	L	Y	4.884
27	N102	L	X	-8.459
28	N102	L	Y	4.884
29	N327	L	X	-5.011
30	N327	L	Y	2.893
31	N331	L	X	-5.011
32	N331	L	Y	2.893
33	N217	L	X	-8.459
34	N217	L	Y	4.884
35	N221	L	X	-8.459
36	N221	L	Y	4.884
37	N113	L	X	-6.714
38	N113	L	Y	3.877
39	N342	L	X	-9.006
40	N342	L	Y	5.2
41	N226	L	X	-6.714
42	N226	L	Y	3.877
43	N112	L	X	-6.613
44	N112	L	Y	3.818
45	N341	L	X	-8.176
46	N341	L	Y	4.72
47	N227	L	X	-6.613
48	N227	L	Y	3.818
49	N113	L	X	-7.111
50	N113	L	Y	4.106
51	N342	L	X	-10.494
52	N342	L	Y	6.059
53	N226	L	X	-7.111
54	N226	L	Y	4.106
55	N110	L	X	-7.058
56	N110	L	Y	4.075
57	N339	L	X	-6.372
58	N339	L	Y	3.679
59	N229	L	X	-7.058

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...
60	N229	L	Y	4.075
61	N347	L	X	-17.002
62	N347	L	Y	9.816
63	N346	L	X	-18.765
64	N346	L	Y	10.834

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...
1	N101	L	X	-11.532
2	N101	L	Y	11.532
3	N105	L	X	-11.532
4	N105	L	Y	11.532
5	N330	L	X	-11.735
6	N330	L	Y	11.735
7	N334	L	X	-11.735
8	N334	L	Y	11.735
9	N214	L	X	-32.146
10	N214	L	Y	32.146
11	N218	L	X	-32.146
12	N218	L	Y	32.146
13	N100	L	X	-12.387
14	N100	L	Y	12.387
15	N104	L	X	-12.387
16	N104	L	Y	12.387
17	N329	L	X	-11.857
18	N329	L	Y	11.857
19	N333	L	X	-11.857
20	N333	L	Y	11.857
21	N215	L	X	-36.749
22	N215	L	Y	36.749
23	N219	L	X	-36.749
24	N219	L	Y	36.749
25	N98	L	X	-5.968
26	N98	L	Y	5.968
27	N102	L	X	-5.968
28	N102	L	Y	5.968
29	N327	L	X	-4.343
30	N327	L	Y	4.343
31	N331	L	X	-4.343
32	N331	L	Y	4.343
33	N217	L	X	-7.594
34	N217	L	Y	7.594
35	N221	L	X	-7.594
36	N221	L	Y	7.594
37	N113	L	X	-6.106
38	N113	L	Y	6.106
39	N342	L	X	-7.187
40	N342	L	Y	7.187
41	N226	L	X	-5.026
42	N226	L	Y	5.026
43	N112	L	X	-5.825
44	N112	L	Y	5.825
45	N341	L	X	-6.562
46	N341	L	Y	6.562
47	N227	L	X	-5.088
48	N227	L	Y	5.088

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...
49	N113	L	X	-6.727
50	N113	L	Y	6.727
51	N342	L	X	-8.322
52	N342	L	Y	8.322
53	N226	L	X	-5.133
54	N226	L	Y	5.133
55	N110	L	X	-5.576
56	N110	L	Y	5.576
57	N339	L	X	-5.253
58	N339	L	Y	5.253
59	N229	L	X	-5.9
60	N229	L	Y	5.9
61	N347	L	X	-13.882
62	N347	L	Y	13.882
63	N346	L	X	-17.415
64	N346	L	Y	17.415

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...
1	N101	L	X	-6.495
2	N101	L	Y	11.249
3	N105	L	X	-6.495
4	N105	L	Y	11.249
5	N330	L	X	-10.196
6	N330	L	Y	17.661
7	N334	L	X	-10.196
8	N334	L	Y	17.661
9	N214	L	X	-23.657
10	N214	L	Y	40.975
11	N218	L	X	-23.657
12	N218	L	Y	40.975
13	N100	L	X	-6.939
14	N100	L	Y	12.019
15	N104	L	X	-6.939
16	N104	L	Y	12.019
17	N329	L	X	-10.344
18	N329	L	Y	17.917
19	N333	L	X	-10.344
20	N333	L	Y	17.917
21	N215	L	X	-26.877
22	N215	L	Y	46.552
23	N219	L	X	-26.877
24	N219	L	Y	46.552
25	N98	L	X	-3.557
26	N98	L	Y	6.161
27	N102	L	X	-3.557
28	N102	L	Y	6.161
29	N327	L	X	-3.557
30	N327	L	Y	6.161
31	N331	L	X	-3.557
32	N331	L	Y	6.161
33	N217	L	X	-5.547
34	N217	L	Y	9.608
35	N221	L	X	-5.547
36	N221	L	Y	9.608
37	N113	L	X	-4.759

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...]
38	N113	L	Y	8.242
39	N342	L	X	-4.759
40	N342	L	Y	8.242
41	N226	L	X	-3.436
42	N226	L	Y	5.95
43	N112	L	X	-4.42
44	N112	L	Y	7.655
45	N341	L	X	-4.42
46	N341	L	Y	7.655
47	N227	L	X	-3.517
48	N227	L	Y	6.091
49	N113	L	X	-5.408
50	N113	L	Y	9.366
51	N342	L	X	-5.408
52	N342	L	Y	9.366
53	N226	L	X	-3.455
54	N226	L	Y	5.984
55	N110	L	X	-3.811
56	N110	L	Y	6.601
57	N339	L	X	-3.811
58	N339	L	Y	6.601
59	N229	L	X	-4.207
60	N229	L	Y	7.287
61	N347	L	X	-9.816
62	N347	L	Y	17.002
63	N346	L	X	-13.794
64	N346	L	Y	23.892

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...]
1	N101	L	X	-2.193e-6
2	N101	L	Y	9.67
3	N105	L	X	-2.193e-6
4	N105	L	Y	9.67
5	N330	L	X	-6.977e-6
6	N330	L	Y	30.765
7	N334	L	X	-6.977e-6
8	N334	L	Y	30.765
9	N214	L	X	-9.162e-6
10	N214	L	Y	40.399
11	N218	L	X	-9.162e-6
12	N218	L	Y	40.399
13	N100	L	X	-2.322e-6
14	N100	L	Y	10.238
15	N104	L	X	-2.322e-6
16	N104	L	Y	10.238
17	N329	L	X	-7.121e-6
18	N329	L	Y	31.399
19	N333	L	X	-7.121e-6
20	N333	L	Y	31.399
21	N215	L	X	-1.068e-5
22	N215	L	Y	47.099
23	N219	L	X	-1.068e-5
24	N219	L	Y	47.099
25	N98	L	X	-1.312e-6
26	N98	L	Y	5.787

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...
27	N102	L	X	-1.312e-6
28	N102	L	Y	5.787
29	N327	L	X	-2.215e-6
30	N327	L	Y	9.768
31	N331	L	X	-2.215e-6
32	N331	L	Y	9.768
33	N217	L	X	-2.215e-6
34	N217	L	Y	9.768
35	N221	L	X	-2.215e-6
36	N221	L	Y	9.768
37	N113	L	X	-2.359e-6
38	N113	L	Y	10.4
39	N342	L	X	-1.758e-6
40	N342	L	Y	7.753
41	N226	L	X	-1.758e-6
42	N226	L	Y	7.753
43	N112	L	X	-2.141e-6
44	N112	L	Y	9.441
45	N341	L	X	-1.732e-6
46	N341	L	Y	7.636
47	N227	L	X	-1.732e-6
48	N227	L	Y	7.636
49	N113	L	X	-2.748e-6
50	N113	L	Y	12.117
51	N342	L	X	-1.862e-6
52	N342	L	Y	8.212
53	N226	L	X	-1.862e-6
54	N226	L	Y	8.212
55	N110	L	X	-1.669e-6
56	N110	L	Y	7.358
57	N339	L	X	-1.848e-6
58	N339	L	Y	8.15
59	N229	L	X	-1.848e-6
60	N229	L	Y	8.15
61	N347	L	X	-4.453e-6
62	N347	L	Y	19.632
63	N346	L	X	-6.928e-6
64	N346	L	Y	30.548

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...
1	N101	L	X	6.495
2	N101	L	Y	11.249
3	N105	L	X	6.495
4	N105	L	Y	11.249
5	N330	L	X	17.976
6	N330	L	Y	31.135
7	N334	L	X	17.976
8	N334	L	Y	31.135
9	N214	L	X	13.285
10	N214	L	Y	23.011
11	N218	L	X	13.285
12	N218	L	Y	23.011
13	N100	L	X	6.939
14	N100	L	Y	12.019
15	N104	L	X	6.939

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...
16	N104	L	Y	12.019
17	N329	L	X	18.377
18	N329	L	Y	31.83
19	N333	L	X	18.377
20	N333	L	Y	31.83
21	N215	L	X	16.896
22	N215	L	Y	29.265
23	N219	L	X	16.896
24	N219	L	Y	29.265
25	N98	L	X	3.557
26	N98	L	Y	6.161
27	N102	L	X	3.557
28	N102	L	Y	6.161
29	N327	L	X	5.547
30	N327	L	Y	9.608
31	N331	L	X	5.547
32	N331	L	Y	9.608
33	N217	L	X	3.557
34	N217	L	Y	6.161
35	N221	L	X	3.557
36	N221	L	Y	6.161
37	N113	L	X	4.759
38	N113	L	Y	8.242
39	N342	L	X	3.436
40	N342	L	Y	5.951
41	N226	L	X	4.759
42	N226	L	Y	8.242
43	N112	L	X	4.42
44	N112	L	Y	7.655
45	N341	L	X	3.517
46	N341	L	Y	6.091
47	N227	L	X	4.42
48	N227	L	Y	7.655
49	N113	L	X	5.408
50	N113	L	Y	9.366
51	N342	L	X	3.455
52	N342	L	Y	5.984
53	N226	L	X	5.408
54	N226	L	Y	9.366
55	N110	L	X	3.811
56	N110	L	Y	6.601
57	N339	L	X	4.207
58	N339	L	Y	7.287
59	N229	L	X	3.811
60	N229	L	Y	6.601
61	N347	L	X	9.816
62	N347	L	Y	17.002
63	N346	L	X	13.794
64	N346	L	Y	23.892

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...
1	N101	L	X	11.532
2	N101	L	Y	11.532
3	N105	L	X	11.532
4	N105	L	Y	11.532

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...]
5	N330	L	X	24.439
6	N330	L	Y	24.439
7	N334	L	X	24.439
8	N334	L	Y	24.439
9	N214	L	X	15.209
10	N214	L	Y	15.209
11	N218	L	X	15.209
12	N218	L	Y	15.209
13	N100	L	X	12.387
14	N100	L	Y	12.387
15	N104	L	X	12.387
16	N104	L	Y	12.387
17	N329	L	X	24.974
18	N329	L	Y	24.974
19	N333	L	X	24.974
20	N333	L	Y	24.974
21	N215	L	X	20.45
22	N215	L	Y	20.45
23	N219	L	X	20.45
24	N219	L	Y	20.45
25	N98	L	X	5.968
26	N98	L	Y	5.968
27	N102	L	X	5.968
28	N102	L	Y	5.968
29	N327	L	X	7.594
30	N327	L	Y	7.594
31	N331	L	X	7.594
32	N331	L	Y	7.594
33	N217	L	X	4.343
34	N217	L	Y	4.343
35	N221	L	X	4.343
36	N221	L	Y	4.343
37	N113	L	X	6.106
38	N113	L	Y	6.106
39	N342	L	X	5.026
40	N342	L	Y	5.026
41	N226	L	X	7.187
42	N226	L	Y	7.187
43	N112	L	X	5.825
44	N112	L	Y	5.825
45	N341	L	X	5.088
46	N341	L	Y	5.088
47	N227	L	X	6.562
48	N227	L	Y	6.562
49	N113	L	X	6.727
50	N113	L	Y	6.727
51	N342	L	X	5.133
52	N342	L	Y	5.133
53	N226	L	X	8.322
54	N226	L	Y	8.322
55	N110	L	X	5.576
56	N110	L	Y	5.576
57	N339	L	X	5.9
58	N339	L	Y	5.9
59	N229	L	X	5.253
60	N229	L	Y	5.253
61	N347	L	X	13.882

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...
62	N347	L	Y	13.882
63	N346	L	X	17.415
64	N346	L	Y	17.415

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...
1	N101	L	X	16.999
2	N101	L	Y	9.814
3	N105	L	X	16.999
4	N105	L	Y	9.814
5	N330	L	X	26.643
6	N330	L	Y	15.383
7	N334	L	X	26.643
8	N334	L	Y	15.383
9	N214	L	X	17.023
10	N214	L	Y	9.828
11	N218	L	X	17.023
12	N218	L	Y	9.828
13	N100	L	X	18.324
14	N100	L	Y	10.579
15	N104	L	X	18.324
16	N104	L	Y	10.579
17	N329	L	X	27.192
18	N329	L	Y	15.699
19	N333	L	X	27.192
20	N333	L	Y	15.699
21	N215	L	X	23.502
22	N215	L	Y	13.569
23	N219	L	X	23.502
24	N219	L	Y	13.569
25	N98	L	X	8.459
26	N98	L	Y	4.884
27	N102	L	X	8.459
28	N102	L	Y	4.884
29	N327	L	X	8.459
30	N327	L	Y	4.884
31	N331	L	X	8.459
32	N331	L	Y	4.884
33	N217	L	X	5.011
34	N217	L	Y	2.893
35	N221	L	X	5.011
36	N221	L	Y	2.893
37	N113	L	X	6.714
38	N113	L	Y	3.877
39	N342	L	X	6.714
40	N342	L	Y	3.877
41	N226	L	X	9.006
42	N226	L	Y	5.2
43	N112	L	X	6.613
44	N112	L	Y	3.818
45	N341	L	X	6.613
46	N341	L	Y	3.818
47	N227	L	X	8.176
48	N227	L	Y	4.72
49	N113	L	X	7.111
50	N113	L	Y	4.106

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...
51	N342	L	X	7.111
52	N342	L	Y	4.106
53	N226	L	X	10.494
54	N226	L	Y	6.059
55	N110	L	X	7.058
56	N110	L	Y	4.075
57	N339	L	X	7.058
58	N339	L	Y	4.075
59	N229	L	X	6.372
60	N229	L	Y	3.679
61	N347	L	X	17.002
62	N347	L	Y	9.816
63	N346	L	X	18.765
64	N346	L	Y	10.834

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...
1	N178	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...
1	N179	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...
1	N180	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...
1	N181	L	Z	-500

Member Point Loads

Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
No Data to Print ...			

Member Distributed Loads (BLC 2 : Dead of Ice)

	Member Label	Direction	Start Magnitude[lb/ft,F,psf]	End Magnitude[lb/ft,F,psf]	Start Location[in...End Location[in...
1	M2	Z	-4.748	-4.748	0 0
2	M4	Z	-7.147	-7.147	0 0
3	M7	Z	-7.147	-7.147	0 0
4	M11	Z	-5.089	-5.089	0 0
5	M12	Z	-5.089	-5.089	0 0
6	M13	Z	-4.748	-4.748	0 0
7	M19	Z	-5.089	-5.089	0 0
8	M20	Z	-5.089	-5.089	0 0
9	M21	Z	-4.748	-4.748	0 0
10	M23	Z	-4.748	-4.748	0 0
11	M25	Z	-7.147	-7.147	0 0
12	M28	Z	-7.147	-7.147	0 0
13	M32	Z	-5.089	-5.089	0 0
14	M33	Z	-5.089	-5.089	0 0
15	M34	Z	-4.748	-4.748	0 0

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

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in...]	End Location[in...]
16	M40	Z	-5.089	-5.089	0	0
17	M41	Z	-5.089	-5.089	0	0
18	M42	Z	-4.748	-4.748	0	0
19	M43	Z	-2.536	-2.536	0	0
20	M44	Z	-2.536	-2.536	0	0
21	M45	Z	-2.536	-2.536	0	0
22	M46	Z	-2.536	-2.536	0	0
23	M47	Z	-2.536	-2.536	0	0
24	M48	Z	-2.536	-2.536	0	0
25	M58	Z	-4.748	-4.748	0	0
26	M59	Z	-4.748	-4.748	0	0
27	M60	Z	-4.748	-4.748	0	0
28	M61	Z	-4.748	-4.748	0	0
29	M68	Z	-4.748	-4.748	0	0
30	M73	Z	-8.88	-8.88	0	0
31	M74	Z	-8.88	-8.88	0	0
32	M72A	Z	-4.748	-4.748	0	0
33	M74B	Z	-7.147	-7.147	0	0
34	M77	Z	-7.147	-7.147	0	0
35	M81	Z	-5.089	-5.089	0	0
36	M82	Z	-5.089	-5.089	0	0
37	M83	Z	-4.748	-4.748	0	0
38	M86	Z	-5.089	-5.089	0	0
39	M87	Z	-5.089	-5.089	0	0
40	M88	Z	-4.748	-4.748	0	0
41	M90	Z	-4.748	-4.748	0	0
42	M92	Z	-7.147	-7.147	0	0
43	M95	Z	-7.147	-7.147	0	0
44	M99	Z	-5.089	-5.089	0	0
45	M100	Z	-5.089	-5.089	0	0
46	M101	Z	-4.748	-4.748	0	0
47	M104	Z	-5.089	-5.089	0	0
48	M105	Z	-5.089	-5.089	0	0
49	M106	Z	-4.748	-4.748	0	0
50	M107	Z	-2.536	-2.536	0	0
51	M108	Z	-2.536	-2.536	0	0
52	M109	Z	-2.536	-2.536	0	0
53	M110	Z	-2.536	-2.536	0	0
54	M111	Z	-2.536	-2.536	0	0
55	M112	Z	-2.536	-2.536	0	0
56	M122	Z	-4.748	-4.748	0	0
57	M123	Z	-4.748	-4.748	0	0
58	M124	Z	-4.748	-4.748	0	0
59	M125	Z	-4.748	-4.748	0	0
60	M126	Z	-4.748	-4.748	0	0
61	M127	Z	-8.88	-8.88	0	0
62	M128	Z	-8.88	-8.88	0	0
63	M142	Z	-4.748	-4.748	0	0
64	M144	Z	-7.147	-7.147	0	0
65	M147	Z	-7.147	-7.147	0	0
66	M151	Z	-5.089	-5.089	0	0
67	M152	Z	-5.089	-5.089	0	0
68	M153	Z	-4.748	-4.748	0	0
69	M156	Z	-5.089	-5.089	0	0
70	M157	Z	-5.089	-5.089	0	0
71	M158	Z	-4.748	-4.748	0	0
72	M160	Z	-4.748	-4.748	0	0

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

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in...]	End Location[in...]
73	M162	Z	-7.147	-7.147	0	0
74	M165	Z	-7.147	-7.147	0	0
75	M169	Z	-5.089	-5.089	0	0
76	M170	Z	-5.089	-5.089	0	0
77	M171	Z	-4.748	-4.748	0	0
78	M174	Z	-5.089	-5.089	0	0
79	M175	Z	-5.089	-5.089	0	0
80	M176	Z	-4.748	-4.748	0	0
81	M177	Z	-2.536	-2.536	0	0
82	M178	Z	-2.536	-2.536	0	0
83	M179	Z	-2.536	-2.536	0	0
84	M180	Z	-2.536	-2.536	0	0
85	M181	Z	-2.536	-2.536	0	0
86	M182	Z	-2.536	-2.536	0	0
87	M192	Z	-4.748	-4.748	0	0
88	M193	Z	-4.748	-4.748	0	0
89	M194	Z	-4.748	-4.748	0	0
90	M195	Z	-4.748	-4.748	0	0
91	M196	Z	-4.748	-4.748	0	0
92	M197	Z	-8.88	-8.88	0	0
93	M198	Z	-8.88	-8.88	0	0

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

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in...]	End Location[in...]
1	M2	X	-8.015	-8.015	0	0
2	M2	Y	0	0	0	0
3	M4	X	0	0	0	0
4	M4	Y	0	0	0	0
5	M7	X	0	0	0	0
6	M7	Y	0	0	0	0
7	M11	X	-11.734	-11.734	0	0
8	M11	Y	0	0	0	0
9	M12	X	-11.734	-11.734	0	0
10	M12	Y	0	0	0	0
11	M13	X	-4.613	-4.613	0	0
12	M13	Y	0	0	0	0
13	M19	X	-11.734	-11.734	0	0
14	M19	Y	0	0	0	0
15	M20	X	-11.734	-11.734	0	0
16	M20	Y	0	0	0	0
17	M21	X	-4.613	-4.613	0	0
18	M21	Y	0	0	0	0
19	M23	X	-8.015	-8.015	0	0
20	M23	Y	0	0	0	0
21	M25	X	0	0	0	0
22	M25	Y	0	0	0	0
23	M28	X	0	0	0	0
24	M28	Y	0	0	0	0
25	M32	X	-11.734	-11.734	0	0
26	M32	Y	0	0	0	0
27	M33	X	-11.734	-11.734	0	0
28	M33	Y	0	0	0	0
29	M34	X	-4.613	-4.613	0	0
30	M34	Y	0	0	0	0
31	M40	X	-11.734	-11.734	0	0
32	M40	Y	0	0	0	0

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

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in...]	End Location[in...]
33	M41	X	-11.734	-11.734	0	0
34	M41	Y	0	0	0	0
35	M42	X	-4.613	-4.613	0	0
36	M42	Y	0	0	0	0
37	M43	X	-2.531	-2.531	0	0
38	M43	Y	0	0	0	0
39	M44	X	-2.531	-2.531	0	0
40	M44	Y	0	0	0	0
41	M45	X	-1.883	-1.883	0	0
42	M45	Y	0	0	0	0
43	M46	X	-2.531	-2.531	0	0
44	M46	Y	0	0	0	0
45	M47	X	-2.531	-2.531	0	0
46	M47	Y	0	0	0	0
47	M48	X	-1.883	-1.883	0	0
48	M48	Y	0	0	0	0
49	M58	X	-8.015	-8.015	0	0
50	M58	Y	0	0	0	0
51	M59	X	-8.015	-8.015	0	0
52	M59	Y	0	0	0	0
53	M60	X	-8.015	-8.015	0	0
54	M60	Y	0	0	0	0
55	M61	X	-8.015	-8.015	0	0
56	M61	Y	0	0	0	0
57	M68	X	-.335	-.335	0	0
58	M68	Y	0	0	0	0
59	M73	X	0	0	0	0
60	M73	Y	0	0	0	0
61	M74	X	0	0	0	0
62	M74	Y	0	0	0	0
63	M72A	X	-2.004	-2.004	0	0
64	M72A	Y	0	0	0	0
65	M74B	X	-25.309	-25.309	0	0
66	M74B	Y	0	0	0	0
67	M77	X	-25.309	-25.309	0	0
68	M77	Y	0	0	0	0
69	M81	X	-18.151	-18.151	0	0
70	M81	Y	0	0	0	0
71	M82	X	-18.151	-18.151	0	0
72	M82	Y	0	0	0	0
73	M83	X	-7.135	-7.135	0	0
74	M83	Y	0	0	0	0
75	M86	X	-.697	-.697	0	0
76	M86	Y	0	0	0	0
77	M87	X	-.697	-.697	0	0
78	M87	Y	0	0	0	0
79	M88	X	-.274	-.274	0	0
80	M88	Y	0	0	0	0
81	M90	X	-2.004	-2.004	0	0
82	M90	Y	0	0	0	0
83	M92	X	-25.309	-25.309	0	0
84	M92	Y	0	0	0	0
85	M95	X	-25.309	-25.309	0	0
86	M95	Y	0	0	0	0
87	M99	X	-18.151	-18.151	0	0
88	M99	Y	0	0	0	0
89	M100	X	-18.151	-18.151	0	0

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

Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in...]	End Location[in...]
90	M100	Y	0	0	0
91	M101	X	-7.135	-7.135	0
92	M101	Y	0	0	0
93	M104	X	-.697	-.697	0
94	M104	Y	0	0	0
95	M105	X	-.697	-.697	0
96	M105	Y	0	0	0
97	M106	X	-.274	-.274	0
98	M106	Y	0	0	0
99	M107	X	-2.531	-2.531	0
100	M107	Y	0	0	0
101	M108	X	-2.531	-2.531	0
102	M108	Y	0	0	0
103	M109	X	-2.363	-2.363	0
104	M109	Y	0	0	0
105	M110	X	-2.531	-2.531	0
106	M110	Y	0	0	0
107	M111	X	-2.531	-2.531	0
108	M111	Y	0	0	0
109	M112	X	-1.056	-1.056	0
110	M112	Y	0	0	0
111	M122	X	-8.015	-8.015	0
112	M122	Y	0	0	0
113	M123	X	-8.015	-8.015	0
114	M123	Y	0	0	0
115	M124	X	-8.015	-8.015	0
116	M124	Y	0	0	0
117	M125	X	-8.015	-8.015	0
118	M125	Y	0	0	0
119	M126	X	-7.233	-7.233	0
120	M126	Y	0	0	0
121	M127	X	-33.746	-33.746	0
122	M127	Y	0	0	0
123	M128	X	-33.746	-33.746	0
124	M128	Y	0	0	0
125	M142	X	-2.004	-2.004	0
126	M142	Y	0	0	0
127	M144	X	-25.309	-25.309	0
128	M144	Y	0	0	0
129	M147	X	-25.309	-25.309	0
130	M147	Y	0	0	0
131	M151	X	-.697	-.697	0
132	M151	Y	0	0	0
133	M152	X	-.697	-.697	0
134	M152	Y	0	0	0
135	M153	X	-.274	-.274	0
136	M153	Y	0	0	0
137	M156	X	-18.151	-18.151	0
138	M156	Y	0	0	0
139	M157	X	-18.151	-18.151	0
140	M157	Y	0	0	0
141	M158	X	-7.135	-7.135	0
142	M158	Y	0	0	0
143	M160	X	-2.004	-2.004	0
144	M160	Y	0	0	0
145	M162	X	-25.309	-25.309	0
146	M162	Y	0	0	0

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

	Member Label	Direction	Start Magnitude[lb/ft,F.psf]	End Magnitude[lb/ft,F.psf]	Start Location[in...]	End Location[in...]
147	M165	X	-25.309	-25.309	0	0
148	M165	Y	0	0	0	0
149	M169	X	-.697	-.697	0	0
150	M169	Y	0	0	0	0
151	M170	X	-.697	-.697	0	0
152	M170	Y	0	0	0	0
153	M171	X	-.274	-.274	0	0
154	M171	Y	0	0	0	0
155	M174	X	-18.151	-18.151	0	0
156	M174	Y	0	0	0	0
157	M175	X	-18.151	-18.151	0	0
158	M175	Y	0	0	0	0
159	M176	X	-7.135	-7.135	0	0
160	M176	Y	0	0	0	0
161	M177	X	-2.531	-2.531	0	0
162	M177	Y	0	0	0	0
163	M178	X	-2.531	-2.531	0	0
164	M178	Y	0	0	0	0
165	M179	X	-1.056	-1.056	0	0
166	M179	Y	0	0	0	0
167	M180	X	-2.531	-2.531	0	0
168	M180	Y	0	0	0	0
169	M181	X	-2.531	-2.531	0	0
170	M181	Y	0	0	0	0
171	M182	X	-2.363	-2.363	0	0
172	M182	Y	0	0	0	0
173	M192	X	-8.015	-8.015	0	0
174	M192	Y	0	0	0	0
175	M193	X	-8.015	-8.015	0	0
176	M193	Y	0	0	0	0
177	M194	X	-8.015	-8.015	0	0
178	M194	Y	0	0	0	0
179	M195	X	-8.015	-8.015	0	0
180	M195	Y	0	0	0	0
181	M196	X	-4.454	-4.454	0	0
182	M196	Y	0	0	0	0
183	M197	X	-33.746	-33.746	0	0
184	M197	Y	0	0	0	0
185	M198	X	-33.746	-33.746	0	0
186	M198	Y	0	0	0	0

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

	Member Label	Direction	Start Magnitude[lb/ft,F.psf]	End Magnitude[lb/ft,F.psf]	Start Location[in...]	End Location[in...]
1	M2	X	-5.206	-5.206	0	0
2	M2	Y	3.005	3.005	0	0
3	M4	X	-7.306	-7.306	0	0
4	M4	Y	4.218	4.218	0	0
5	M7	X	-7.306	-7.306	0	0
6	M7	Y	4.218	4.218	0	0
7	M11	X	-1.937	-1.937	0	0
8	M11	Y	1.119	1.119	0	0
9	M12	X	-1.937	-1.937	0	0
10	M12	Y	1.119	1.119	0	0
11	M13	X	-.762	-.762	0	0
12	M13	Y	.44	.44	0	0
13	M19	X	-17.053	-17.053	0	0

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

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in...]	End Location[in...]
14	M19	Y	9.846	9.846	0	0
15	M20	X	-17.053	-17.053	0	0
16	M20	Y	9.846	9.846	0	0
17	M21	X	-6.704	-6.704	0	0
18	M21	Y	3.87	3.87	0	0
19	M23	X	-5.206	-5.206	0	0
20	M23	Y	3.005	3.005	0	0
21	M25	X	-7.306	-7.306	0	0
22	M25	Y	4.218	4.218	0	0
23	M28	X	-7.306	-7.306	0	0
24	M28	Y	4.218	4.218	0	0
25	M32	X	-1.937	-1.937	0	0
26	M32	Y	1.119	1.119	0	0
27	M33	X	-1.937	-1.937	0	0
28	M33	Y	1.119	1.119	0	0
29	M34	X	-.762	-.762	0	0
30	M34	Y	.44	.44	0	0
31	M40	X	-17.053	-17.053	0	0
32	M40	Y	9.846	9.846	0	0
33	M41	X	-17.053	-17.053	0	0
34	M41	Y	9.846	9.846	0	0
35	M42	X	-6.704	-6.704	0	0
36	M42	Y	3.87	3.87	0	0
37	M43	X	-2.192	-2.192	0	0
38	M43	Y	1.265	1.265	0	0
39	M44	X	-2.192	-2.192	0	0
40	M44	Y	1.265	1.265	0	0
41	M45	X	-1.014	-1.014	0	0
42	M45	Y	.586	.586	0	0
43	M46	X	-2.192	-2.192	0	0
44	M46	Y	1.265	1.265	0	0
45	M47	X	-2.192	-2.192	0	0
46	M47	Y	1.265	1.265	0	0
47	M48	X	-2.147	-2.147	0	0
48	M48	Y	1.239	1.239	0	0
49	M58	X	-6.941	-6.941	0	0
50	M58	Y	4.007	4.007	0	0
51	M59	X	-6.941	-6.941	0	0
52	M59	Y	4.007	4.007	0	0
53	M60	X	-6.941	-6.941	0	0
54	M60	Y	4.007	4.007	0	0
55	M61	X	-6.941	-6.941	0	0
56	M61	Y	4.007	4.007	0	0
57	M68	X	-.677	-.677	0	0
58	M68	Y	.391	.391	0	0
59	M73	X	-9.742	-9.742	0	0
60	M73	Y	5.624	5.624	0	0
61	M74	X	-9.742	-9.742	0	0
62	M74	Y	5.624	5.624	0	0
63	M72A	X	-5.206	-5.206	0	0
64	M72A	Y	3.005	3.005	0	0
65	M74B	X	-7.306	-7.306	0	0
66	M74B	Y	4.218	4.218	0	0
67	M77	X	-7.306	-7.306	0	0
68	M77	Y	4.218	4.218	0	0
69	M81	X	-17.053	-17.053	0	0
70	M81	Y	9.846	9.846	0	0

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

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in...]	End Location[in...]
71	M82	X	-17.053	-17.053	0	0
72	M82	Y	9.846	9.846	0	0
73	M83	X	-6.704	-6.704	0	0
74	M83	Y	3.87	3.87	0	0
75	M86	X	-1.937	-1.937	0	0
76	M86	Y	1.119	1.119	0	0
77	M87	X	-1.937	-1.937	0	0
78	M87	Y	1.119	1.119	0	0
79	M88	X	-.762	-.762	0	0
80	M88	Y	.44	.44	0	0
81	M90	X	-5.206	-5.206	0	0
82	M90	Y	3.005	3.005	0	0
83	M92	X	-7.306	-7.306	0	0
84	M92	Y	4.218	4.218	0	0
85	M95	X	-7.306	-7.306	0	0
86	M95	Y	4.218	4.218	0	0
87	M99	X	-17.053	-17.053	0	0
88	M99	Y	9.846	9.846	0	0
89	M100	X	-17.053	-17.053	0	0
90	M100	Y	9.846	9.846	0	0
91	M101	X	-6.704	-6.704	0	0
92	M101	Y	3.87	3.87	0	0
93	M104	X	-1.937	-1.937	0	0
94	M104	Y	1.119	1.119	0	0
95	M105	X	-1.937	-1.937	0	0
96	M105	Y	1.119	1.119	0	0
97	M106	X	-.762	-.762	0	0
98	M106	Y	.44	.44	0	0
99	M107	X	-2.192	-2.192	0	0
100	M107	Y	1.265	1.265	0	0
101	M108	X	-2.192	-2.192	0	0
102	M108	Y	1.265	1.265	0	0
103	M109	X	-2.147	-2.147	0	0
104	M109	Y	1.239	1.239	0	0
105	M110	X	-2.192	-2.192	0	0
106	M110	Y	1.265	1.265	0	0
107	M111	X	-2.192	-2.192	0	0
108	M111	Y	1.265	1.265	0	0
109	M112	X	-1.014	-1.014	0	0
110	M112	Y	.586	.586	0	0
111	M122	X	-6.941	-6.941	0	0
112	M122	Y	4.007	4.007	0	0
113	M123	X	-6.941	-6.941	0	0
114	M123	Y	4.007	4.007	0	0
115	M124	X	-6.941	-6.941	0	0
116	M124	Y	4.007	4.007	0	0
117	M125	X	-6.941	-6.941	0	0
118	M125	Y	4.007	4.007	0	0
119	M126	X	-3.084	-3.084	0	0
120	M126	Y	1.78	1.78	0	0
121	M127	X	-9.742	-9.742	0	0
122	M127	Y	5.624	5.624	0	0
123	M128	X	-9.742	-9.742	0	0
124	M128	Y	5.624	5.624	0	0
125	M142	X	-3.967e-14	-3.967e-14	0	0
126	M142	Y	2.29e-14	2.29e-14	0	0
127	M144	X	-29.225	-29.225	0	0

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

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in...]	End Location[in...]
128	M144	Y	16.873	16.873	0	0
129	M147	X	-29.225	-29.225	0	0
130	M147	Y	16.873	16.873	0	0
131	M151	X	-7.495	-7.495	0	0
132	M151	Y	4.327	4.327	0	0
133	M152	X	-7.495	-7.495	0	0
134	M152	Y	4.327	4.327	0	0
135	M153	X	-2.946	-2.946	0	0
136	M153	Y	1.701	1.701	0	0
137	M156	X	-7.495	-7.495	0	0
138	M156	Y	4.327	4.327	0	0
139	M157	X	-7.495	-7.495	0	0
140	M157	Y	4.327	4.327	0	0
141	M158	X	-2.946	-2.946	0	0
142	M158	Y	1.701	1.701	0	0
143	M160	X	-3.967e-14	-3.967e-14	0	0
144	M160	Y	2.29e-14	2.29e-14	0	0
145	M162	X	-29.225	-29.225	0	0
146	M162	Y	16.873	16.873	0	0
147	M165	X	-29.225	-29.225	0	0
148	M165	Y	16.873	16.873	0	0
149	M169	X	-7.495	-7.495	0	0
150	M169	Y	4.327	4.327	0	0
151	M170	X	-7.495	-7.495	0	0
152	M170	Y	4.327	4.327	0	0
153	M171	X	-2.946	-2.946	0	0
154	M171	Y	1.701	1.701	0	0
155	M174	X	-7.495	-7.495	0	0
156	M174	Y	4.327	4.327	0	0
157	M175	X	-7.495	-7.495	0	0
158	M175	Y	4.327	4.327	0	0
159	M176	X	-2.946	-2.946	0	0
160	M176	Y	1.701	1.701	0	0
161	M177	X	-2.192	-2.192	0	0
162	M177	Y	1.265	1.265	0	0
163	M178	X	-2.192	-2.192	0	0
164	M178	Y	1.265	1.265	0	0
165	M179	X	-1.431	-1.431	0	0
166	M179	Y	.826	.826	0	0
167	M180	X	-2.192	-2.192	0	0
168	M180	Y	1.265	1.265	0	0
169	M181	X	-2.192	-2.192	0	0
170	M181	Y	1.265	1.265	0	0
171	M182	X	-1.431	-1.431	0	0
172	M182	Y	.826	.826	0	0
173	M192	X	-6.941	-6.941	0	0
174	M192	Y	4.007	4.007	0	0
175	M193	X	-6.941	-6.941	0	0
176	M193	Y	4.007	4.007	0	0
177	M194	X	-6.941	-6.941	0	0
178	M194	Y	4.007	4.007	0	0
179	M195	X	-6.941	-6.941	0	0
180	M195	Y	4.007	4.007	0	0
181	M196	X	-6.651	-6.651	0	0
182	M196	Y	3.84	3.84	0	0
183	M197	X	-38.966	-38.966	0	0
184	M197	Y	22.497	22.497	0	0

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

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in...]	End Location[in...]
185	M198	X	-38.966	-38.966	0	0
186	M198	Y	22.497	22.497	0	0

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

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in...]	End Location[in...]
1	M2	X	-2.834	-2.834	0	0
2	M2	Y	2.834	2.834	0	0
3	M4	X	-11.931	-11.931	0	0
4	M4	Y	11.931	11.931	0	0
5	M7	X	-11.931	-11.931	0	0
6	M7	Y	11.931	11.931	0	0
7	M11	X	-.083	-.083	0	0
8	M11	Y	.083	.083	0	0
9	M12	X	-.083	-.083	0	0
10	M12	Y	.083	.083	0	0
11	M13	X	-.033	-.033	0	0
12	M13	Y	.033	.033	0	0
13	M19	X	-14.334	-14.334	0	0
14	M19	Y	14.334	14.334	0	0
15	M20	X	-14.334	-14.334	0	0
16	M20	Y	14.334	14.334	0	0
17	M21	X	-5.635	-5.635	0	0
18	M21	Y	5.635	5.635	0	0
19	M23	X	-2.834	-2.834	0	0
20	M23	Y	2.834	2.834	0	0
21	M25	X	-11.931	-11.931	0	0
22	M25	Y	11.931	11.931	0	0
23	M28	X	-11.931	-11.931	0	0
24	M28	Y	11.931	11.931	0	0
25	M32	X	-.083	-.083	0	0
26	M32	Y	.083	.083	0	0
27	M33	X	-.083	-.083	0	0
28	M33	Y	.083	.083	0	0
29	M34	X	-.033	-.033	0	0
30	M34	Y	.033	.033	0	0
31	M40	X	-14.334	-14.334	0	0
32	M40	Y	14.334	14.334	0	0
33	M41	X	-14.334	-14.334	0	0
34	M41	Y	14.334	14.334	0	0
35	M42	X	-5.635	-5.635	0	0
36	M42	Y	5.635	5.635	0	0
37	M43	X	-1.79	-1.79	0	0
38	M43	Y	1.79	1.79	0	0
39	M44	X	-1.79	-1.79	0	0
40	M44	Y	1.79	1.79	0	0
41	M45	X	-.716	-.716	0	0
42	M45	Y	.716	.716	0	0
43	M46	X	-1.79	-1.79	0	0
44	M46	Y	1.79	1.79	0	0
45	M47	X	-1.79	-1.79	0	0
46	M47	Y	1.79	1.79	0	0
47	M48	X	-1.783	-1.783	0	0
48	M48	Y	1.783	1.783	0	0
49	M58	X	-5.667	-5.667	0	0
50	M58	Y	5.667	5.667	0	0
51	M59	X	-5.667	-5.667	0	0

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

Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in...]	End Location[in...]	
52	M59	Y	5.667	5.667	0	0
53	M60	X	-5.667	-5.667	0	0
54	M60	Y	5.667	5.667	0	0
55	M61	X	-5.667	-5.667	0	0
56	M61	Y	5.667	5.667	0	0
57	M68	X	-1.699	-1.699	0	0
58	M68	Y	1.699	1.699	0	0
59	M73	X	-15.908	-15.908	0	0
60	M73	Y	15.908	15.908	0	0
61	M74	X	-15.908	-15.908	0	0
62	M74	Y	15.908	15.908	0	0
63	M72A	X	-5.288	-5.288	0	0
64	M72A	Y	5.288	5.288	0	0
65	M74B	X	-1.598	-1.598	0	0
66	M74B	Y	1.598	1.598	0	0
67	M77	X	-1.598	-1.598	0	0
68	M77	Y	1.598	1.598	0	0
69	M81	X	-11.714	-11.714	0	0
70	M81	Y	11.714	11.714	0	0
71	M82	X	-11.714	-11.714	0	0
72	M82	Y	11.714	11.714	0	0
73	M83	X	-4.605	-4.605	0	0
74	M83	Y	4.605	4.605	0	0
75	M86	X	-4.589	-4.589	0	0
76	M86	Y	4.589	4.589	0	0
77	M87	X	-4.589	-4.589	0	0
78	M87	Y	4.589	4.589	0	0
79	M88	X	-1.804	-1.804	0	0
80	M88	Y	1.804	1.804	0	0
81	M90	X	-5.288	-5.288	0	0
82	M90	Y	5.288	5.288	0	0
83	M92	X	-1.598	-1.598	0	0
84	M92	Y	1.598	1.598	0	0
85	M95	X	-1.598	-1.598	0	0
86	M95	Y	1.598	1.598	0	0
87	M99	X	-11.714	-11.714	0	0
88	M99	Y	11.714	11.714	0	0
89	M100	X	-11.714	-11.714	0	0
90	M100	Y	11.714	11.714	0	0
91	M101	X	-4.605	-4.605	0	0
92	M101	Y	4.605	4.605	0	0
93	M104	X	-4.589	-4.589	0	0
94	M104	Y	4.589	4.589	0	0
95	M105	X	-4.589	-4.589	0	0
96	M105	Y	4.589	4.589	0	0
97	M106	X	-1.804	-1.804	0	0
98	M106	Y	1.804	1.804	0	0
99	M107	X	-1.79	-1.79	0	0
100	M107	Y	1.79	1.79	0	0
101	M108	X	-1.79	-1.79	0	0
102	M108	Y	1.79	1.79	0	0
103	M109	X	-1.587	-1.587	0	0
104	M109	Y	1.587	1.587	0	0
105	M110	X	-1.79	-1.79	0	0
106	M110	Y	1.79	1.79	0	0
107	M111	X	-1.79	-1.79	0	0
108	M111	Y	1.79	1.79	0	0

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

	Member Label	Direction	Start Magnitude[lb/ft,F.psf]	End Magnitude[lb/ft,F.psf]	Start Location[in...]	End Location[in...]
109	M112	X	-1.053	-1.053	0	0
110	M112	Y	1.053	1.053	0	0
111	M122	X	-5.667	-5.667	0	0
112	M122	Y	5.667	5.667	0	0
113	M123	X	-5.667	-5.667	0	0
114	M123	Y	5.667	5.667	0	0
115	M124	X	-5.667	-5.667	0	0
116	M124	Y	5.667	5.667	0	0
117	M125	X	-5.667	-5.667	0	0
118	M125	Y	5.667	5.667	0	0
119	M126	X	-1.152	-1.152	0	0
120	M126	Y	1.152	1.152	0	0
121	M127	X	-2.131	-2.131	0	0
122	M127	Y	2.131	2.131	0	0
123	M128	X	-2.131	-2.131	0	0
124	M128	Y	2.131	2.131	0	0
125	M142	X	-.38	-.38	0	0
126	M142	Y	.38	.38	0	0
127	M144	X	-22.264	-22.264	0	0
128	M144	Y	22.264	22.264	0	0
129	M147	X	-22.264	-22.264	0	0
130	M147	Y	22.264	22.264	0	0
131	M151	X	-9.828	-9.828	0	0
132	M151	Y	9.828	9.828	0	0
133	M152	X	-9.828	-9.828	0	0
134	M152	Y	9.828	9.828	0	0
135	M153	X	-3.863	-3.863	0	0
136	M153	Y	3.863	3.863	0	0
137	M156	X	-2.702	-2.702	0	0
138	M156	Y	2.702	2.702	0	0
139	M157	X	-2.702	-2.702	0	0
140	M157	Y	2.702	2.702	0	0
141	M158	X	-1.062	-1.062	0	0
142	M158	Y	1.062	1.062	0	0
143	M160	X	-.38	-.38	0	0
144	M160	Y	.38	.38	0	0
145	M162	X	-22.264	-22.264	0	0
146	M162	Y	22.264	22.264	0	0
147	M165	X	-22.264	-22.264	0	0
148	M165	Y	22.264	22.264	0	0
149	M169	X	-9.828	-9.828	0	0
150	M169	Y	9.828	9.828	0	0
151	M170	X	-9.828	-9.828	0	0
152	M170	Y	9.828	9.828	0	0
153	M171	X	-3.863	-3.863	0	0
154	M171	Y	3.863	3.863	0	0
155	M174	X	-2.702	-2.702	0	0
156	M174	Y	2.702	2.702	0	0
157	M175	X	-2.702	-2.702	0	0
158	M175	Y	2.702	2.702	0	0
159	M176	X	-1.062	-1.062	0	0
160	M176	Y	1.062	1.062	0	0
161	M177	X	-1.79	-1.79	0	0
162	M177	Y	1.79	1.79	0	0
163	M178	X	-1.79	-1.79	0	0
164	M178	Y	1.79	1.79	0	0
165	M179	X	-1.446	-1.446	0	0

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

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in...]	End Location[in...]
166	M179	Y	1.446	1.446	0	0
167	M180	X	-1.79	-1.79	0	0
168	M180	Y	1.79	1.79	0	0
169	M181	X	-1.79	-1.79	0	0
170	M181	Y	1.79	1.79	0	0
171	M182	X	-.912	-.912	0	0
172	M182	Y	.912	.912	0	0
173	M192	X	-5.667	-5.667	0	0
174	M192	Y	5.667	5.667	0	0
175	M193	X	-5.667	-5.667	0	0
176	M193	Y	5.667	5.667	0	0
177	M194	X	-5.667	-5.667	0	0
178	M194	Y	5.667	5.667	0	0
179	M195	X	-5.667	-5.667	0	0
180	M195	Y	5.667	5.667	0	0
181	M196	X	-5.65	-5.65	0	0
182	M196	Y	5.65	5.65	0	0
183	M197	X	-29.685	-29.685	0	0
184	M197	Y	29.685	29.685	0	0
185	M198	X	-29.685	-29.685	0	0
186	M198	Y	29.685	29.685	0	0

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

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in...]	End Location[in...]
1	M2	X	-1.002	-1.002	0	0
2	M2	Y	1.735	1.735	0	0
3	M4	X	-12.655	-12.655	0	0
4	M4	Y	21.919	21.919	0	0
5	M7	X	-12.655	-12.655	0	0
6	M7	Y	21.919	21.919	0	0
7	M11	X	-.349	-.349	0	0
8	M11	Y	.604	.604	0	0
9	M12	X	-.349	-.349	0	0
10	M12	Y	.604	.604	0	0
11	M13	X	-.137	-.137	0	0
12	M13	Y	.237	.237	0	0
13	M19	X	-9.076	-9.076	0	0
14	M19	Y	15.719	15.719	0	0
15	M20	X	-9.076	-9.076	0	0
16	M20	Y	15.719	15.719	0	0
17	M21	X	-3.568	-3.568	0	0
18	M21	Y	6.179	6.179	0	0
19	M23	X	-1.002	-1.002	0	0
20	M23	Y	1.735	1.735	0	0
21	M25	X	-12.655	-12.655	0	0
22	M25	Y	21.919	21.919	0	0
23	M28	X	-12.655	-12.655	0	0
24	M28	Y	21.919	21.919	0	0
25	M32	X	-.349	-.349	0	0
26	M32	Y	.604	.604	0	0
27	M33	X	-.349	-.349	0	0
28	M33	Y	.604	.604	0	0
29	M34	X	-.137	-.137	0	0
30	M34	Y	.237	.237	0	0
31	M40	X	-9.076	-9.076	0	0
32	M40	Y	15.719	15.719	0	0

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

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in...]	End Location[in...]
33	M41	X	-9.076	-9.076	0	0
34	M41	Y	15.719	15.719	0	0
35	M42	X	-3.568	-3.568	0	0
36	M42	Y	6.179	6.179	0	0
37	M43	X	-1.265	-1.265	0	0
38	M43	Y	2.192	2.192	0	0
39	M44	X	-1.265	-1.265	0	0
40	M44	Y	2.192	2.192	0	0
41	M45	X	-.528	-.528	0	0
42	M45	Y	.914	.914	0	0
43	M46	X	-1.265	-1.265	0	0
44	M46	Y	2.192	2.192	0	0
45	M47	X	-1.265	-1.265	0	0
46	M47	Y	2.192	2.192	0	0
47	M48	X	-1.182	-1.182	0	0
48	M48	Y	2.047	2.047	0	0
49	M58	X	-4.007	-4.007	0	0
50	M58	Y	6.941	6.941	0	0
51	M59	X	-4.007	-4.007	0	0
52	M59	Y	6.941	6.941	0	0
53	M60	X	-4.007	-4.007	0	0
54	M60	Y	6.941	6.941	0	0
55	M61	X	-4.007	-4.007	0	0
56	M61	Y	6.941	6.941	0	0
57	M68	X	-2.227	-2.227	0	0
58	M68	Y	3.857	3.857	0	0
59	M73	X	-16.873	-16.873	0	0
60	M73	Y	29.225	29.225	0	0
61	M74	X	-16.873	-16.873	0	0
62	M74	Y	29.225	29.225	0	0
63	M72A	X	-4.007	-4.007	0	0
64	M72A	Y	6.941	6.941	0	0
65	M74B	X	-3.857e-13	-3.857e-13	0	0
66	M74B	Y	6.681e-13	6.681e-13	0	0
67	M77	X	-3.857e-13	-3.857e-13	0	0
68	M77	Y	6.681e-13	6.681e-13	0	0
69	M81	X	-5.867	-5.867	0	0
70	M81	Y	10.162	10.162	0	0
71	M82	X	-5.867	-5.867	0	0
72	M82	Y	10.162	10.162	0	0
73	M83	X	-2.306	-2.306	0	0
74	M83	Y	3.995	3.995	0	0
75	M86	X	-5.867	-5.867	0	0
76	M86	Y	10.162	10.162	0	0
77	M87	X	-5.867	-5.867	0	0
78	M87	Y	10.162	10.162	0	0
79	M88	X	-2.306	-2.306	0	0
80	M88	Y	3.995	3.995	0	0
81	M90	X	-4.007	-4.007	0	0
82	M90	Y	6.941	6.941	0	0
83	M92	X	-3.857e-13	-3.857e-13	0	0
84	M92	Y	6.681e-13	6.681e-13	0	0
85	M95	X	-3.857e-13	-3.857e-13	0	0
86	M95	Y	6.681e-13	6.681e-13	0	0
87	M99	X	-5.867	-5.867	0	0
88	M99	Y	10.162	10.162	0	0
89	M100	X	-5.867	-5.867	0	0

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

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in...]	End Location[in...]
90	M100	Y	10.162	10.162	0	0
91	M101	X	-2.306	-2.306	0	0
92	M101	Y	3.995	3.995	0	0
93	M104	X	-5.867	-5.867	0	0
94	M104	Y	10.162	10.162	0	0
95	M105	X	-5.867	-5.867	0	0
96	M105	Y	10.162	10.162	0	0
97	M106	X	-2.306	-2.306	0	0
98	M106	Y	3.995	3.995	0	0
99	M107	X	-1.265	-1.265	0	0
100	M107	Y	2.192	2.192	0	0
101	M108	X	-1.265	-1.265	0	0
102	M108	Y	2.192	2.192	0	0
103	M109	X	-.941	-.941	0	0
104	M109	Y	1.63	1.63	0	0
105	M110	X	-1.265	-1.265	0	0
106	M110	Y	2.192	2.192	0	0
107	M111	X	-1.265	-1.265	0	0
108	M111	Y	2.192	2.192	0	0
109	M112	X	-.941	-.941	0	0
110	M112	Y	1.63	1.63	0	0
111	M122	X	-4.007	-4.007	0	0
112	M122	Y	6.941	6.941	0	0
113	M123	X	-4.007	-4.007	0	0
114	M123	Y	6.941	6.941	0	0
115	M124	X	-4.007	-4.007	0	0
116	M124	Y	6.941	6.941	0	0
117	M125	X	-4.007	-4.007	0	0
118	M125	Y	6.941	6.941	0	0
119	M126	X	-.168	-.168	0	0
120	M126	Y	.29	.29	0	0
121	M127	X	-2.315e-11	-2.315e-11	0	0
122	M127	Y	4.01e-11	4.01e-11	0	0
123	M128	X	-5.143e-13	-5.143e-13	0	0
124	M128	Y	8.908e-13	8.908e-13	0	0
125	M142	X	-1.002	-1.002	0	0
126	M142	Y	1.735	1.735	0	0
127	M144	X	-12.655	-12.655	0	0
128	M144	Y	21.919	21.919	0	0
129	M147	X	-12.655	-12.655	0	0
130	M147	Y	21.919	21.919	0	0
131	M151	X	-9.076	-9.076	0	0
132	M151	Y	15.719	15.719	0	0
133	M152	X	-9.076	-9.076	0	0
134	M152	Y	15.719	15.719	0	0
135	M153	X	-3.568	-3.568	0	0
136	M153	Y	6.179	6.179	0	0
137	M156	X	-.349	-.349	0	0
138	M156	Y	.604	.604	0	0
139	M157	X	-.349	-.349	0	0
140	M157	Y	.604	.604	0	0
141	M158	X	-.137	-.137	0	0
142	M158	Y	.237	.237	0	0
143	M160	X	-1.002	-1.002	0	0
144	M160	Y	1.735	1.735	0	0
145	M162	X	-12.655	-12.655	0	0
146	M162	Y	21.919	21.919	0	0

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

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in...]	End Location[in...]
147	M165	X	-12.655	-12.655	0	0
148	M165	Y	21.919	21.919	0	0
149	M169	X	-9.076	-9.076	0	0
150	M169	Y	15.719	15.719	0	0
151	M170	X	-9.076	-9.076	0	0
152	M170	Y	15.719	15.719	0	0
153	M171	X	-3.568	-3.568	0	0
154	M171	Y	6.179	6.179	0	0
155	M174	X	-.349	-.349	0	0
156	M174	Y	.604	.604	0	0
157	M175	X	-.349	-.349	0	0
158	M175	Y	.604	.604	0	0
159	M176	X	-.137	-.137	0	0
160	M176	Y	.237	.237	0	0
161	M177	X	-1.265	-1.265	0	0
162	M177	Y	2.192	2.192	0	0
163	M178	X	-1.265	-1.265	0	0
164	M178	Y	2.192	2.192	0	0
165	M179	X	-1.182	-1.182	0	0
166	M179	Y	2.047	2.047	0	0
167	M180	X	-1.265	-1.265	0	0
168	M180	Y	2.192	2.192	0	0
169	M181	X	-1.265	-1.265	0	0
170	M181	Y	2.192	2.192	0	0
171	M182	X	-.528	-.528	0	0
172	M182	Y	.914	.914	0	0
173	M192	X	-4.007	-4.007	0	0
174	M192	Y	6.941	6.941	0	0
175	M193	X	-4.007	-4.007	0	0
176	M193	Y	6.941	6.941	0	0
177	M194	X	-4.007	-4.007	0	0
178	M194	Y	6.941	6.941	0	0
179	M195	X	-4.007	-4.007	0	0
180	M195	Y	6.941	6.941	0	0
181	M196	X	-3.616	-3.616	0	0
182	M196	Y	6.264	6.264	0	0
183	M197	X	-16.873	-16.873	0	0
184	M197	Y	29.225	29.225	0	0
185	M198	X	-16.873	-16.873	0	0
186	M198	Y	29.225	29.225	0	0

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

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in...]	End Location[in...]
1	M2	X	-9.349e-20	-9.349e-20	0	0
2	M2	Y	4.122e-13	4.122e-13	0	0
3	M4	X	-7.653e-6	-7.653e-6	0	0
4	M4	Y	33.746	33.746	0	0
5	M7	X	-7.653e-6	-7.653e-6	0	0
6	M7	Y	33.746	33.746	0	0
7	M11	X	-1.963e-6	-1.963e-6	0	0
8	M11	Y	8.654	8.654	0	0
9	M12	X	-1.963e-6	-1.963e-6	0	0
10	M12	Y	8.654	8.654	0	0
11	M13	X	-7.715e-7	-7.715e-7	0	0
12	M13	Y	3.402	3.402	0	0
13	M19	X	-1.963e-6	-1.963e-6	0	0

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

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in...]	End Location[in...]
14	M19	Y	8.654	8.654	0	0
15	M20	X	-1.963e-6	-1.963e-6	0	0
16	M20	Y	8.654	8.654	0	0
17	M21	X	-7.715e-7	-7.715e-7	0	0
18	M21	Y	3.402	3.402	0	0
19	M23	X	-9.349e-20	-9.349e-20	0	0
20	M23	Y	4.122e-13	4.122e-13	0	0
21	M25	X	-7.653e-6	-7.653e-6	0	0
22	M25	Y	33.746	33.746	0	0
23	M28	X	-7.653e-6	-7.653e-6	0	0
24	M28	Y	33.746	33.746	0	0
25	M32	X	-1.963e-6	-1.963e-6	0	0
26	M32	Y	8.654	8.654	0	0
27	M33	X	-1.963e-6	-1.963e-6	0	0
28	M33	Y	8.654	8.654	0	0
29	M34	X	-7.715e-7	-7.715e-7	0	0
30	M34	Y	3.402	3.402	0	0
31	M40	X	-1.963e-6	-1.963e-6	0	0
32	M40	Y	8.654	8.654	0	0
33	M41	X	-1.963e-6	-1.963e-6	0	0
34	M41	Y	8.654	8.654	0	0
35	M42	X	-7.715e-7	-7.715e-7	0	0
36	M42	Y	3.402	3.402	0	0
37	M43	X	-5.74e-7	-5.74e-7	0	0
38	M43	Y	2.531	2.531	0	0
39	M44	X	-5.74e-7	-5.74e-7	0	0
40	M44	Y	2.531	2.531	0	0
41	M45	X	-3.747e-7	-3.747e-7	0	0
42	M45	Y	1.652	1.652	0	0
43	M46	X	-5.74e-7	-5.74e-7	0	0
44	M46	Y	2.531	2.531	0	0
45	M47	X	-5.74e-7	-5.74e-7	0	0
46	M47	Y	2.531	2.531	0	0
47	M48	X	-3.747e-7	-3.747e-7	0	0
48	M48	Y	1.652	1.652	0	0
49	M58	X	-1.818e-6	-1.818e-6	0	0
50	M58	Y	8.015	8.015	0	0
51	M59	X	-1.818e-6	-1.818e-6	0	0
52	M59	Y	8.015	8.015	0	0
53	M60	X	-1.818e-6	-1.818e-6	0	0
54	M60	Y	8.015	8.015	0	0
55	M61	X	-1.818e-6	-1.818e-6	0	0
56	M61	Y	8.015	8.015	0	0
57	M68	X	-1.742e-6	-1.742e-6	0	0
58	M68	Y	7.68	7.68	0	0
59	M73	X	-1.02e-5	-1.02e-5	0	0
60	M73	Y	44.995	44.995	0	0
61	M74	X	-1.02e-5	-1.02e-5	0	0
62	M74	Y	44.995	44.995	0	0
63	M72A	X	-1.363e-6	-1.363e-6	0	0
64	M72A	Y	6.011	6.011	0	0
65	M74B	X	-1.913e-6	-1.913e-6	0	0
66	M74B	Y	8.436	8.436	0	0
67	M77	X	-1.913e-6	-1.913e-6	0	0
68	M77	Y	8.436	8.436	0	0
69	M81	X	-5.074e-7	-5.074e-7	0	0
70	M81	Y	2.237	2.237	0	0

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

Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in...]	End Location[in...]
71	M82	X	-5.074e-7	-5.074e-7	0 0
72	M82	Y	2.237	2.237	0 0
73	M83	X	-1.994e-7	-1.994e-7	0 0
74	M83	Y	.879	.879	0 0
75	M86	X	-4.466e-6	-4.466e-6	0 0
76	M86	Y	19.691	19.691	0 0
77	M87	X	-4.466e-6	-4.466e-6	0 0
78	M87	Y	19.691	19.691	0 0
79	M88	X	-1.756e-6	-1.756e-6	0 0
80	M88	Y	7.741	7.741	0 0
81	M90	X	-1.363e-6	-1.363e-6	0 0
82	M90	Y	6.011	6.011	0 0
83	M92	X	-1.913e-6	-1.913e-6	0 0
84	M92	Y	8.436	8.436	0 0
85	M95	X	-1.913e-6	-1.913e-6	0 0
86	M95	Y	8.436	8.436	0 0
87	M99	X	-5.074e-7	-5.074e-7	0 0
88	M99	Y	2.237	2.237	0 0
89	M100	X	-5.074e-7	-5.074e-7	0 0
90	M100	Y	2.237	2.237	0 0
91	M101	X	-1.994e-7	-1.994e-7	0 0
92	M101	Y	.879	.879	0 0
93	M104	X	-4.466e-6	-4.466e-6	0 0
94	M104	Y	19.691	19.691	0 0
95	M105	X	-4.466e-6	-4.466e-6	0 0
96	M105	Y	19.691	19.691	0 0
97	M106	X	-1.756e-6	-1.756e-6	0 0
98	M106	Y	7.741	7.741	0 0
99	M107	X	-5.74e-7	-5.74e-7	0 0
100	M107	Y	2.531	2.531	0 0
101	M108	X	-5.74e-7	-5.74e-7	0 0
102	M108	Y	2.531	2.531	0 0
103	M109	X	-2.657e-7	-2.657e-7	0 0
104	M109	Y	1.171	1.171	0 0
105	M110	X	-5.74e-7	-5.74e-7	0 0
106	M110	Y	2.531	2.531	0 0
107	M111	X	-5.74e-7	-5.74e-7	0 0
108	M111	Y	2.531	2.531	0 0
109	M112	X	-5.622e-7	-5.622e-7	0 0
110	M112	Y	2.479	2.479	0 0
111	M122	X	-1.818e-6	-1.818e-6	0 0
112	M122	Y	8.015	8.015	0 0
113	M123	X	-1.818e-6	-1.818e-6	0 0
114	M123	Y	8.015	8.015	0 0
115	M124	X	-1.818e-6	-1.818e-6	0 0
116	M124	Y	8.015	8.015	0 0
117	M125	X	-1.818e-6	-1.818e-6	0 0
118	M125	Y	8.015	8.015	0 0
119	M126	X	-1.773e-7	-1.773e-7	0 0
120	M126	Y	.782	.782	0 0
121	M127	X	-2.551e-6	-2.551e-6	0 0
122	M127	Y	11.249	11.249	0 0
123	M128	X	-2.551e-6	-2.551e-6	0 0
124	M128	Y	11.249	11.249	0 0
125	M142	X	-1.363e-6	-1.363e-6	0 0
126	M142	Y	6.011	6.011	0 0
127	M144	X	-1.913e-6	-1.913e-6	0 0

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

Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in...]	End Location[in...]	
128	M144	Y	8.436	8.436	0	0
129	M147	X	-1.913e-6	-1.913e-6	0	0
130	M147	Y	8.436	8.436	0	0
131	M151	X	-4.466e-6	-4.466e-6	0	0
132	M151	Y	19.691	19.691	0	0
133	M152	X	-4.466e-6	-4.466e-6	0	0
134	M152	Y	19.691	19.691	0	0
135	M153	X	-1.756e-6	-1.756e-6	0	0
136	M153	Y	7.741	7.741	0	0
137	M156	X	-5.074e-7	-5.074e-7	0	0
138	M156	Y	2.237	2.237	0	0
139	M157	X	-5.074e-7	-5.074e-7	0	0
140	M157	Y	2.237	2.237	0	0
141	M158	X	-1.994e-7	-1.994e-7	0	0
142	M158	Y	.879	.879	0	0
143	M160	X	-1.363e-6	-1.363e-6	0	0
144	M160	Y	6.011	6.011	0	0
145	M162	X	-1.913e-6	-1.913e-6	0	0
146	M162	Y	8.436	8.436	0	0
147	M165	X	-1.913e-6	-1.913e-6	0	0
148	M165	Y	8.436	8.436	0	0
149	M169	X	-4.466e-6	-4.466e-6	0	0
150	M169	Y	19.691	19.691	0	0
151	M170	X	-4.466e-6	-4.466e-6	0	0
152	M170	Y	19.691	19.691	0	0
153	M171	X	-1.756e-6	-1.756e-6	0	0
154	M171	Y	7.741	7.741	0	0
155	M174	X	-5.074e-7	-5.074e-7	0	0
156	M174	Y	2.237	2.237	0	0
157	M175	X	-5.074e-7	-5.074e-7	0	0
158	M175	Y	2.237	2.237	0	0
159	M176	X	-1.994e-7	-1.994e-7	0	0
160	M176	Y	.879	.879	0	0
161	M177	X	-5.74e-7	-5.74e-7	0	0
162	M177	Y	2.531	2.531	0	0
163	M178	X	-5.74e-7	-5.74e-7	0	0
164	M178	Y	2.531	2.531	0	0
165	M179	X	-5.622e-7	-5.622e-7	0	0
166	M179	Y	2.479	2.479	0	0
167	M180	X	-5.74e-7	-5.74e-7	0	0
168	M180	Y	2.531	2.531	0	0
169	M181	X	-5.74e-7	-5.74e-7	0	0
170	M181	Y	2.531	2.531	0	0
171	M182	X	-2.656e-7	-2.656e-7	0	0
172	M182	Y	1.171	1.171	0	0
173	M192	X	-1.818e-6	-1.818e-6	0	0
174	M192	Y	8.015	8.015	0	0
175	M193	X	-1.818e-6	-1.818e-6	0	0
176	M193	Y	8.015	8.015	0	0
177	M194	X	-1.818e-6	-1.818e-6	0	0
178	M194	Y	8.015	8.015	0	0
179	M195	X	-1.818e-6	-1.818e-6	0	0
180	M195	Y	8.015	8.015	0	0
181	M196	X	-8.075e-7	-8.075e-7	0	0
182	M196	Y	3.561	3.561	0	0
183	M197	X	-2.551e-6	-2.551e-6	0	0
184	M197	Y	11.249	11.249	0	0

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

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in...]	End Location[in...]
185	M198	X	-2.551e-6	-2.551e-6	0	0
186	M198	Y	11.249	11.249	0	0

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

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in...]	End Location[in...]
1	M2	X	1.002	1.002	0	0
2	M2	Y	1.735	1.735	0	0
3	M4	X	12.655	12.655	0	0
4	M4	Y	21.919	21.919	0	0
5	M7	X	12.655	12.655	0	0
6	M7	Y	21.919	21.919	0	0
7	M11	X	9.076	9.076	0	0
8	M11	Y	15.719	15.719	0	0
9	M12	X	9.076	9.076	0	0
10	M12	Y	15.719	15.719	0	0
11	M13	X	3.568	3.568	0	0
12	M13	Y	6.179	6.179	0	0
13	M19	X	.349	.349	0	0
14	M19	Y	.604	.604	0	0
15	M20	X	.349	.349	0	0
16	M20	Y	.604	.604	0	0
17	M21	X	.137	.137	0	0
18	M21	Y	.237	.237	0	0
19	M23	X	1.002	1.002	0	0
20	M23	Y	1.735	1.735	0	0
21	M25	X	12.655	12.655	0	0
22	M25	Y	21.919	21.919	0	0
23	M28	X	12.655	12.655	0	0
24	M28	Y	21.919	21.919	0	0
25	M32	X	9.076	9.076	0	0
26	M32	Y	15.719	15.719	0	0
27	M33	X	9.076	9.076	0	0
28	M33	Y	15.719	15.719	0	0
29	M34	X	3.568	3.568	0	0
30	M34	Y	6.179	6.179	0	0
31	M40	X	.349	.349	0	0
32	M40	Y	.604	.604	0	0
33	M41	X	.349	.349	0	0
34	M41	Y	.604	.604	0	0
35	M42	X	.137	.137	0	0
36	M42	Y	.237	.237	0	0
37	M43	X	1.265	1.265	0	0
38	M43	Y	2.192	2.192	0	0
39	M44	X	1.265	1.265	0	0
40	M44	Y	2.192	2.192	0	0
41	M45	X	1.182	1.182	0	0
42	M45	Y	2.047	2.047	0	0
43	M46	X	1.265	1.265	0	0
44	M46	Y	2.192	2.192	0	0
45	M47	X	1.265	1.265	0	0
46	M47	Y	2.192	2.192	0	0
47	M48	X	.528	.528	0	0
48	M48	Y	.914	.914	0	0
49	M58	X	4.007	4.007	0	0
50	M58	Y	6.941	6.941	0	0
51	M59	X	4.007	4.007	0	0

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

Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in...]	End Location[in...]	
52	M59	Y	6.941	6.941	0	0
53	M60	X	4.007	4.007	0	0
54	M60	Y	6.941	6.941	0	0
55	M61	X	4.007	4.007	0	0
56	M61	Y	6.941	6.941	0	0
57	M68	X	3.616	3.616	0	0
58	M68	Y	6.264	6.264	0	0
59	M73	X	16.873	16.873	0	0
60	M73	Y	29.225	29.225	0	0
61	M74	X	16.873	16.873	0	0
62	M74	Y	29.225	29.225	0	0
63	M72A	X	1.002	1.002	0	0
64	M72A	Y	1.735	1.735	0	0
65	M74B	X	12.655	12.655	0	0
66	M74B	Y	21.919	21.919	0	0
67	M77	X	12.655	12.655	0	0
68	M77	Y	21.919	21.919	0	0
69	M81	X	.349	.349	0	0
70	M81	Y	.604	.604	0	0
71	M82	X	.349	.349	0	0
72	M82	Y	.604	.604	0	0
73	M83	X	.137	.137	0	0
74	M83	Y	.237	.237	0	0
75	M86	X	9.076	9.076	0	0
76	M86	Y	15.719	15.719	0	0
77	M87	X	9.076	9.076	0	0
78	M87	Y	15.719	15.719	0	0
79	M88	X	3.568	3.568	0	0
80	M88	Y	6.179	6.179	0	0
81	M90	X	1.002	1.002	0	0
82	M90	Y	1.735	1.735	0	0
83	M92	X	12.655	12.655	0	0
84	M92	Y	21.919	21.919	0	0
85	M95	X	12.655	12.655	0	0
86	M95	Y	21.919	21.919	0	0
87	M99	X	.349	.349	0	0
88	M99	Y	.604	.604	0	0
89	M100	X	.349	.349	0	0
90	M100	Y	.604	.604	0	0
91	M101	X	.137	.137	0	0
92	M101	Y	.237	.237	0	0
93	M104	X	9.076	9.076	0	0
94	M104	Y	15.719	15.719	0	0
95	M105	X	9.076	9.076	0	0
96	M105	Y	15.719	15.719	0	0
97	M106	X	3.568	3.568	0	0
98	M106	Y	6.179	6.179	0	0
99	M107	X	1.265	1.265	0	0
100	M107	Y	2.192	2.192	0	0
101	M108	X	1.265	1.265	0	0
102	M108	Y	2.192	2.192	0	0
103	M109	X	.528	.528	0	0
104	M109	Y	.914	.914	0	0
105	M110	X	1.265	1.265	0	0
106	M110	Y	2.192	2.192	0	0
107	M111	X	1.265	1.265	0	0
108	M111	Y	2.192	2.192	0	0

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

	Member Label	Direction	Start Magnitude[lb/ft,F.psf]	End Magnitude[lb/ft,F.psf]	Start Location[in...]	End Location[in...]
109	M112	X	1.182	1.182	0	0
110	M112	Y	2.047	2.047	0	0
111	M122	X	4.007	4.007	0	0
112	M122	Y	6.941	6.941	0	0
113	M123	X	4.007	4.007	0	0
114	M123	Y	6.941	6.941	0	0
115	M124	X	4.007	4.007	0	0
116	M124	Y	6.941	6.941	0	0
117	M125	X	4.007	4.007	0	0
118	M125	Y	6.941	6.941	0	0
119	M126	X	2.227	2.227	0	0
120	M126	Y	3.857	3.857	0	0
121	M127	X	16.873	16.873	0	0
122	M127	Y	29.225	29.225	0	0
123	M128	X	16.873	16.873	0	0
124	M128	Y	29.225	29.225	0	0
125	M142	X	4.007	4.007	0	0
126	M142	Y	6.941	6.941	0	0
127	M144	X	1.543e-12	1.543e-12	0	0
128	M144	Y	2.672e-12	2.672e-12	0	0
129	M147	X	1.543e-12	1.543e-12	0	0
130	M147	Y	2.672e-12	2.672e-12	0	0
131	M151	X	5.867	5.867	0	0
132	M151	Y	10.162	10.162	0	0
133	M152	X	5.867	5.867	0	0
134	M152	Y	10.162	10.162	0	0
135	M153	X	2.306	2.306	0	0
136	M153	Y	3.995	3.995	0	0
137	M156	X	5.867	5.867	0	0
138	M156	Y	10.162	10.162	0	0
139	M157	X	5.867	5.867	0	0
140	M157	Y	10.162	10.162	0	0
141	M158	X	2.306	2.306	0	0
142	M158	Y	3.995	3.995	0	0
143	M160	X	4.007	4.007	0	0
144	M160	Y	6.941	6.941	0	0
145	M162	X	1.543e-12	1.543e-12	0	0
146	M162	Y	2.672e-12	2.672e-12	0	0
147	M165	X	1.543e-12	1.543e-12	0	0
148	M165	Y	2.672e-12	2.672e-12	0	0
149	M169	X	5.867	5.867	0	0
150	M169	Y	10.162	10.162	0	0
151	M170	X	5.867	5.867	0	0
152	M170	Y	10.162	10.162	0	0
153	M171	X	2.306	2.306	0	0
154	M171	Y	3.995	3.995	0	0
155	M174	X	5.867	5.867	0	0
156	M174	Y	10.162	10.162	0	0
157	M175	X	5.867	5.867	0	0
158	M175	Y	10.162	10.162	0	0
159	M176	X	2.306	2.306	0	0
160	M176	Y	3.995	3.995	0	0
161	M177	X	1.265	1.265	0	0
162	M177	Y	2.192	2.192	0	0
163	M178	X	1.265	1.265	0	0
164	M178	Y	2.192	2.192	0	0
165	M179	X	.941	.941	0	0

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

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in...]	End Location[in...]
166	M179	Y	1.63	1.63	0	0
167	M180	X	1.265	1.265	0	0
168	M180	Y	2.192	2.192	0	0
169	M181	X	1.265	1.265	0	0
170	M181	Y	2.192	2.192	0	0
171	M182	X	.941	.941	0	0
172	M182	Y	1.63	1.63	0	0
173	M192	X	4.007	4.007	0	0
174	M192	Y	6.941	6.941	0	0
175	M193	X	4.007	4.007	0	0
176	M193	Y	6.941	6.941	0	0
177	M194	X	4.007	4.007	0	0
178	M194	Y	6.941	6.941	0	0
179	M195	X	4.007	4.007	0	0
180	M195	Y	6.941	6.941	0	0
181	M196	X	.168	.168	0	0
182	M196	Y	.29	.29	0	0
183	M197	X	4.848e-11	4.848e-11	0	0
184	M197	Y	8.398e-11	8.398e-11	0	0
185	M198	X	2.057e-12	2.057e-12	0	0
186	M198	Y	3.563e-12	3.563e-12	0	0

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

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in...]	End Location[in...]
1	M2	X	2.834	2.834	0	0
2	M2	Y	2.834	2.834	0	0
3	M4	X	11.931	11.931	0	0
4	M4	Y	11.931	11.931	0	0
5	M7	X	11.931	11.931	0	0
6	M7	Y	11.931	11.931	0	0
7	M11	X	14.334	14.334	0	0
8	M11	Y	14.334	14.334	0	0
9	M12	X	14.334	14.334	0	0
10	M12	Y	14.334	14.334	0	0
11	M13	X	5.635	5.635	0	0
12	M13	Y	5.635	5.635	0	0
13	M19	X	.083	.083	0	0
14	M19	Y	.083	.083	0	0
15	M20	X	.083	.083	0	0
16	M20	Y	.083	.083	0	0
17	M21	X	.033	.033	0	0
18	M21	Y	.033	.033	0	0
19	M23	X	2.834	2.834	0	0
20	M23	Y	2.834	2.834	0	0
21	M25	X	11.931	11.931	0	0
22	M25	Y	11.931	11.931	0	0
23	M28	X	11.931	11.931	0	0
24	M28	Y	11.931	11.931	0	0
25	M32	X	14.334	14.334	0	0
26	M32	Y	14.334	14.334	0	0
27	M33	X	14.334	14.334	0	0
28	M33	Y	14.334	14.334	0	0
29	M34	X	5.635	5.635	0	0
30	M34	Y	5.635	5.635	0	0
31	M40	X	.083	.083	0	0
32	M40	Y	.083	.083	0	0

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

	Member Label	Direction	Start Magnitude[lb/ft,F.psf]	End Magnitude[lb/ft,F.psf]	Start Location[in...]	End Location[in...]
33	M41	X	.083	.083	0	0
34	M41	Y	.083	.083	0	0
35	M42	X	.033	.033	0	0
36	M42	Y	.033	.033	0	0
37	M43	X	1.79	1.79	0	0
38	M43	Y	1.79	1.79	0	0
39	M44	X	1.79	1.79	0	0
40	M44	Y	1.79	1.79	0	0
41	M45	X	1.783	1.783	0	0
42	M45	Y	1.783	1.783	0	0
43	M46	X	1.79	1.79	0	0
44	M46	Y	1.79	1.79	0	0
45	M47	X	1.79	1.79	0	0
46	M47	Y	1.79	1.79	0	0
47	M48	X	.716	.716	0	0
48	M48	Y	.716	.716	0	0
49	M58	X	5.667	5.667	0	0
50	M58	Y	5.667	5.667	0	0
51	M59	X	5.667	5.667	0	0
52	M59	Y	5.667	5.667	0	0
53	M60	X	5.667	5.667	0	0
54	M60	Y	5.667	5.667	0	0
55	M61	X	5.667	5.667	0	0
56	M61	Y	5.667	5.667	0	0
57	M68	X	3.968	3.968	0	0
58	M68	Y	3.968	3.968	0	0
59	M73	X	15.908	15.908	0	0
60	M73	Y	15.908	15.908	0	0
61	M74	X	15.908	15.908	0	0
62	M74	Y	15.908	15.908	0	0
63	M72A	X	.38	.38	0	0
64	M72A	Y	.38	.38	0	0
65	M74B	X	22.264	22.264	0	0
66	M74B	Y	22.264	22.264	0	0
67	M77	X	22.264	22.264	0	0
68	M77	Y	22.264	22.264	0	0
69	M81	X	2.702	2.702	0	0
70	M81	Y	2.702	2.702	0	0
71	M82	X	2.702	2.702	0	0
72	M82	Y	2.702	2.702	0	0
73	M83	X	1.062	1.062	0	0
74	M83	Y	1.062	1.062	0	0
75	M86	X	9.828	9.828	0	0
76	M86	Y	9.828	9.828	0	0
77	M87	X	9.828	9.828	0	0
78	M87	Y	9.828	9.828	0	0
79	M88	X	3.863	3.863	0	0
80	M88	Y	3.863	3.863	0	0
81	M90	X	.38	.38	0	0
82	M90	Y	.38	.38	0	0
83	M92	X	22.264	22.264	0	0
84	M92	Y	22.264	22.264	0	0
85	M95	X	22.264	22.264	0	0
86	M95	Y	22.264	22.264	0	0
87	M99	X	2.702	2.702	0	0
88	M99	Y	2.702	2.702	0	0
89	M100	X	2.702	2.702	0	0

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

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in...]	End Location[in...]
90	M100	Y	2.702	2.702	0	0
91	M101	X	1.062	1.062	0	0
92	M101	Y	1.062	1.062	0	0
93	M104	X	9.828	9.828	0	0
94	M104	Y	9.828	9.828	0	0
95	M105	X	9.828	9.828	0	0
96	M105	Y	9.828	9.828	0	0
97	M106	X	3.863	3.863	0	0
98	M106	Y	3.863	3.863	0	0
99	M107	X	1.79	1.79	0	0
100	M107	Y	1.79	1.79	0	0
101	M108	X	1.79	1.79	0	0
102	M108	Y	1.79	1.79	0	0
103	M109	X	.912	.912	0	0
104	M109	Y	.912	.912	0	0
105	M110	X	1.79	1.79	0	0
106	M110	Y	1.79	1.79	0	0
107	M111	X	1.79	1.79	0	0
108	M111	Y	1.79	1.79	0	0
109	M112	X	1.446	1.446	0	0
110	M112	Y	1.446	1.446	0	0
111	M122	X	5.667	5.667	0	0
112	M122	Y	5.667	5.667	0	0
113	M123	X	5.667	5.667	0	0
114	M123	Y	5.667	5.667	0	0
115	M124	X	5.667	5.667	0	0
116	M124	Y	5.667	5.667	0	0
117	M125	X	5.667	5.667	0	0
118	M125	Y	5.667	5.667	0	0
119	M126	X	4.515	4.515	0	0
120	M126	Y	4.515	4.515	0	0
121	M127	X	29.685	29.685	0	0
122	M127	Y	29.685	29.685	0	0
123	M128	X	29.685	29.685	0	0
124	M128	Y	29.685	29.685	0	0
125	M142	X	5.288	5.288	0	0
126	M142	Y	5.288	5.288	0	0
127	M144	X	1.598	1.598	0	0
128	M144	Y	1.598	1.598	0	0
129	M147	X	1.598	1.598	0	0
130	M147	Y	1.598	1.598	0	0
131	M151	X	4.589	4.589	0	0
132	M151	Y	4.589	4.589	0	0
133	M152	X	4.589	4.589	0	0
134	M152	Y	4.589	4.589	0	0
135	M153	X	1.804	1.804	0	0
136	M153	Y	1.804	1.804	0	0
137	M156	X	11.714	11.714	0	0
138	M156	Y	11.714	11.714	0	0
139	M157	X	11.714	11.714	0	0
140	M157	Y	11.714	11.714	0	0
141	M158	X	4.605	4.605	0	0
142	M158	Y	4.605	4.605	0	0
143	M160	X	5.288	5.288	0	0
144	M160	Y	5.288	5.288	0	0
145	M162	X	1.598	1.598	0	0
146	M162	Y	1.598	1.598	0	0

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

	Member Label	Direction	Start Magnitude[lb/ft,F.psf]	End Magnitude[lb/ft,F.psf]	Start Location[in...]	End Location[in...]
147	M165	X	1.598	1.598	0	0
148	M165	Y	1.598	1.598	0	0
149	M169	X	4.589	4.589	0	0
150	M169	Y	4.589	4.589	0	0
151	M170	X	4.589	4.589	0	0
152	M170	Y	4.589	4.589	0	0
153	M171	X	1.804	1.804	0	0
154	M171	Y	1.804	1.804	0	0
155	M174	X	11.714	11.714	0	0
156	M174	Y	11.714	11.714	0	0
157	M175	X	11.714	11.714	0	0
158	M175	Y	11.714	11.714	0	0
159	M176	X	4.605	4.605	0	0
160	M176	Y	4.605	4.605	0	0
161	M177	X	1.79	1.79	0	0
162	M177	Y	1.79	1.79	0	0
163	M178	X	1.79	1.79	0	0
164	M178	Y	1.79	1.79	0	0
165	M179	X	1.053	1.053	0	0
166	M179	Y	1.053	1.053	0	0
167	M180	X	1.79	1.79	0	0
168	M180	Y	1.79	1.79	0	0
169	M181	X	1.79	1.79	0	0
170	M181	Y	1.79	1.79	0	0
171	M182	X	1.587	1.587	0	0
172	M182	Y	1.587	1.587	0	0
173	M192	X	5.667	5.667	0	0
174	M192	Y	5.667	5.667	0	0
175	M193	X	5.667	5.667	0	0
176	M193	Y	5.667	5.667	0	0
177	M194	X	5.667	5.667	0	0
178	M194	Y	5.667	5.667	0	0
179	M195	X	5.667	5.667	0	0
180	M195	Y	5.667	5.667	0	0
181	M196	X	.018	.018	0	0
182	M196	Y	.018	.018	0	0
183	M197	X	2.131	2.131	0	0
184	M197	Y	2.131	2.131	0	0
185	M198	X	2.131	2.131	0	0
186	M198	Y	2.131	2.131	0	0

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

	Member Label	Direction	Start Magnitude[lb/ft,F.psf]	End Magnitude[lb/ft,F.psf]	Start Location[in...]	End Location[in...]
1	M2	X	5.206	5.206	0	0
2	M2	Y	3.005	3.005	0	0
3	M4	X	7.306	7.306	0	0
4	M4	Y	4.218	4.218	0	0
5	M7	X	7.306	7.306	0	0
6	M7	Y	4.218	4.218	0	0
7	M11	X	17.053	17.053	0	0
8	M11	Y	9.846	9.846	0	0
9	M12	X	17.053	17.053	0	0
10	M12	Y	9.846	9.846	0	0
11	M13	X	6.704	6.704	0	0
12	M13	Y	3.87	3.87	0	0
13	M19	X	1.937	1.937	0	0

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

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in...]	End Location[in...]
14	M19	Y	1.119	1.119	0	0
15	M20	X	1.937	1.937	0	0
16	M20	Y	1.119	1.119	0	0
17	M21	X	.762	.762	0	0
18	M21	Y	.44	.44	0	0
19	M23	X	5.206	5.206	0	0
20	M23	Y	3.005	3.005	0	0
21	M25	X	7.306	7.306	0	0
22	M25	Y	4.218	4.218	0	0
23	M28	X	7.306	7.306	0	0
24	M28	Y	4.218	4.218	0	0
25	M32	X	17.053	17.053	0	0
26	M32	Y	9.846	9.846	0	0
27	M33	X	17.053	17.053	0	0
28	M33	Y	9.846	9.846	0	0
29	M34	X	6.704	6.704	0	0
30	M34	Y	3.87	3.87	0	0
31	M40	X	1.937	1.937	0	0
32	M40	Y	1.119	1.119	0	0
33	M41	X	1.937	1.937	0	0
34	M41	Y	1.119	1.119	0	0
35	M42	X	.762	.762	0	0
36	M42	Y	.44	.44	0	0
37	M43	X	2.192	2.192	0	0
38	M43	Y	1.265	1.265	0	0
39	M44	X	2.192	2.192	0	0
40	M44	Y	1.265	1.265	0	0
41	M45	X	2.147	2.147	0	0
42	M45	Y	1.239	1.239	0	0
43	M46	X	2.192	2.192	0	0
44	M46	Y	1.265	1.265	0	0
45	M47	X	2.192	2.192	0	0
46	M47	Y	1.265	1.265	0	0
47	M48	X	1.014	1.014	0	0
48	M48	Y	.586	.586	0	0
49	M58	X	6.941	6.941	0	0
50	M58	Y	4.007	4.007	0	0
51	M59	X	6.941	6.941	0	0
52	M59	Y	4.007	4.007	0	0
53	M60	X	6.941	6.941	0	0
54	M60	Y	4.007	4.007	0	0
55	M61	X	6.941	6.941	0	0
56	M61	Y	4.007	4.007	0	0
57	M68	X	3.084	3.084	0	0
58	M68	Y	1.78	1.78	0	0
59	M73	X	9.742	9.742	0	0
60	M73	Y	5.624	5.624	0	0
61	M74	X	9.742	9.742	0	0
62	M74	Y	5.624	5.624	0	0
63	M72A	X	9.917e-13	9.917e-13	0	0
64	M72A	Y	5.726e-13	5.726e-13	0	0
65	M74B	X	29.225	29.225	0	0
66	M74B	Y	16.873	16.873	0	0
67	M77	X	29.225	29.225	0	0
68	M77	Y	16.873	16.873	0	0
69	M81	X	7.495	7.495	0	0
70	M81	Y	4.327	4.327	0	0

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

	Member Label	Direction	Start Magnitude[lb/ft,F.psf]	End Magnitude[lb/ft,F.psf]	Start Location[in...]	End Location[in...]
71	M82	X	7.495	7.495	0	0
72	M82	Y	4.327	4.327	0	0
73	M83	X	2.946	2.946	0	0
74	M83	Y	1.701	1.701	0	0
75	M86	X	7.495	7.495	0	0
76	M86	Y	4.327	4.327	0	0
77	M87	X	7.495	7.495	0	0
78	M87	Y	4.327	4.327	0	0
79	M88	X	2.946	2.946	0	0
80	M88	Y	1.701	1.701	0	0
81	M90	X	9.917e-13	9.917e-13	0	0
82	M90	Y	5.726e-13	5.726e-13	0	0
83	M92	X	29.225	29.225	0	0
84	M92	Y	16.873	16.873	0	0
85	M95	X	29.225	29.225	0	0
86	M95	Y	16.873	16.873	0	0
87	M99	X	7.495	7.495	0	0
88	M99	Y	4.327	4.327	0	0
89	M100	X	7.495	7.495	0	0
90	M100	Y	4.327	4.327	0	0
91	M101	X	2.946	2.946	0	0
92	M101	Y	1.701	1.701	0	0
93	M104	X	7.495	7.495	0	0
94	M104	Y	4.327	4.327	0	0
95	M105	X	7.495	7.495	0	0
96	M105	Y	4.327	4.327	0	0
97	M106	X	2.946	2.946	0	0
98	M106	Y	1.701	1.701	0	0
99	M107	X	2.192	2.192	0	0
100	M107	Y	1.265	1.265	0	0
101	M108	X	2.192	2.192	0	0
102	M108	Y	1.265	1.265	0	0
103	M109	X	1.431	1.431	0	0
104	M109	Y	.826	.826	0	0
105	M110	X	2.192	2.192	0	0
106	M110	Y	1.265	1.265	0	0
107	M111	X	2.192	2.192	0	0
108	M111	Y	1.265	1.265	0	0
109	M112	X	1.431	1.431	0	0
110	M112	Y	.826	.826	0	0
111	M122	X	6.941	6.941	0	0
112	M122	Y	4.007	4.007	0	0
113	M123	X	6.941	6.941	0	0
114	M123	Y	4.007	4.007	0	0
115	M124	X	6.941	6.941	0	0
116	M124	Y	4.007	4.007	0	0
117	M125	X	6.941	6.941	0	0
118	M125	Y	4.007	4.007	0	0
119	M126	X	6.651	6.651	0	0
120	M126	Y	3.84	3.84	0	0
121	M127	X	38.966	38.966	0	0
122	M127	Y	22.497	22.497	0	0
123	M128	X	38.966	38.966	0	0
124	M128	Y	22.497	22.497	0	0
125	M142	X	5.206	5.206	0	0
126	M142	Y	3.006	3.006	0	0
127	M144	X	7.306	7.306	0	0

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

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in...]	End Location[in...]
128	M144	Y	4.218	4.218	0	0
129	M147	X	7.306	7.306	0	0
130	M147	Y	4.218	4.218	0	0
131	M151	X	1.937	1.937	0	0
132	M151	Y	1.119	1.119	0	0
133	M152	X	1.937	1.937	0	0
134	M152	Y	1.119	1.119	0	0
135	M153	X	.762	.762	0	0
136	M153	Y	.44	.44	0	0
137	M156	X	17.053	17.053	0	0
138	M156	Y	9.846	9.846	0	0
139	M157	X	17.053	17.053	0	0
140	M157	Y	9.846	9.846	0	0
141	M158	X	6.704	6.704	0	0
142	M158	Y	3.87	3.87	0	0
143	M160	X	5.206	5.206	0	0
144	M160	Y	3.006	3.006	0	0
145	M162	X	7.306	7.306	0	0
146	M162	Y	4.218	4.218	0	0
147	M165	X	7.306	7.306	0	0
148	M165	Y	4.218	4.218	0	0
149	M169	X	1.937	1.937	0	0
150	M169	Y	1.119	1.119	0	0
151	M170	X	1.937	1.937	0	0
152	M170	Y	1.119	1.119	0	0
153	M171	X	.762	.762	0	0
154	M171	Y	.44	.44	0	0
155	M174	X	17.053	17.053	0	0
156	M174	Y	9.846	9.846	0	0
157	M175	X	17.053	17.053	0	0
158	M175	Y	9.846	9.846	0	0
159	M176	X	6.704	6.704	0	0
160	M176	Y	3.87	3.87	0	0
161	M177	X	2.192	2.192	0	0
162	M177	Y	1.265	1.265	0	0
163	M178	X	2.192	2.192	0	0
164	M178	Y	1.265	1.265	0	0
165	M179	X	1.014	1.014	0	0
166	M179	Y	.586	.586	0	0
167	M180	X	2.192	2.192	0	0
168	M180	Y	1.265	1.265	0	0
169	M181	X	2.192	2.192	0	0
170	M181	Y	1.265	1.265	0	0
171	M182	X	2.147	2.147	0	0
172	M182	Y	1.239	1.239	0	0
173	M192	X	6.941	6.941	0	0
174	M192	Y	4.007	4.007	0	0
175	M193	X	6.941	6.941	0	0
176	M193	Y	4.007	4.007	0	0
177	M194	X	6.941	6.941	0	0
178	M194	Y	4.007	4.007	0	0
179	M195	X	6.941	6.941	0	0
180	M195	Y	4.007	4.007	0	0
181	M196	X	.677	.677	0	0
182	M196	Y	.391	.391	0	0
183	M197	X	9.742	9.742	0	0
184	M197	Y	5.624	5.624	0	0

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

	Member Label	Direction	Start Magnitude[lb/ft,F.psf]	End Magnitude[lb/ft,F.psf]	Start Location[in...]	End Location[in...]
185	M198	X	9.742	9.742	0	0
186	M198	Y	5.624	5.624	0	0

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

	Member Label	Direction	Start Magnitude[lb/ft,F.psf]	End Magnitude[lb/ft,F.psf]	Start Location[in...]	End Location[in...]
1	M2	X	-2.446	-2.446	0	0
2	M2	Y	0	0	0	0
3	M4	X	0	0	0	0
4	M4	Y	0	0	0	0
5	M7	X	0	0	0	0
6	M7	Y	0	0	0	0
7	M11	X	-1.8	-1.8	0	0
8	M11	Y	0	0	0	0
9	M12	X	-1.8	-1.8	0	0
10	M12	Y	0	0	0	0
11	M13	X	-1.408	-1.408	0	0
12	M13	Y	0	0	0	0
13	M19	X	-1.8	-1.8	0	0
14	M19	Y	0	0	0	0
15	M20	X	-1.8	-1.8	0	0
16	M20	Y	0	0	0	0
17	M21	X	-1.408	-1.408	0	0
18	M21	Y	0	0	0	0
19	M23	X	-2.446	-2.446	0	0
20	M23	Y	0	0	0	0
21	M25	X	0	0	0	0
22	M25	Y	0	0	0	0
23	M28	X	0	0	0	0
24	M28	Y	0	0	0	0
25	M32	X	-1.8	-1.8	0	0
26	M32	Y	0	0	0	0
27	M33	X	-1.8	-1.8	0	0
28	M33	Y	0	0	0	0
29	M34	X	-1.408	-1.408	0	0
30	M34	Y	0	0	0	0
31	M40	X	-1.8	-1.8	0	0
32	M40	Y	0	0	0	0
33	M41	X	-1.8	-1.8	0	0
34	M41	Y	0	0	0	0
35	M42	X	-1.408	-1.408	0	0
36	M42	Y	0	0	0	0
37	M43	X	-1.582	-1.582	0	0
38	M43	Y	0	0	0	0
39	M44	X	-1.582	-1.582	0	0
40	M44	Y	0	0	0	0
41	M45	X	-1.177	-1.177	0	0
42	M45	Y	0	0	0	0
43	M46	X	-1.582	-1.582	0	0
44	M46	Y	0	0	0	0
45	M47	X	-1.582	-1.582	0	0
46	M47	Y	0	0	0	0
47	M48	X	-1.177	-1.177	0	0
48	M48	Y	0	0	0	0
49	M58	X	-2.446	-2.446	0	0
50	M58	Y	0	0	0	0
51	M59	X	-2.446	-2.446	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/ft.F.psf]	Start Location[in...]	End Location[in...]
52	M59	Y	0	0	0
53	M60	X	-2.446	-2.446	0
54	M60	Y	0	0	0
55	M61	X	-2.446	-2.446	0
56	M61	Y	0	0	0
57	M68	X	-.102	-.102	0
58	M68	Y	0	0	0
59	M73	X	0	0	0
60	M73	Y	0	0	0
61	M74	X	0	0	0
62	M74	Y	0	0	0
63	M72A	X	-.611	-.611	0
64	M72A	Y	0	0	0
65	M74B	X	-3.287	-3.287	0
66	M74B	Y	0	0	0
67	M77	X	-3.287	-3.287	0
68	M77	Y	0	0	0
69	M81	X	-2.785	-2.785	0
70	M81	Y	0	0	0
71	M82	X	-2.785	-2.785	0
72	M82	Y	0	0	0
73	M83	X	-2.177	-2.177	0
74	M83	Y	0	0	0
75	M86	X	-.107	-.107	0
76	M86	Y	0	0	0
77	M87	X	-.107	-.107	0
78	M87	Y	0	0	0
79	M88	X	-.084	-.084	0
80	M88	Y	0	0	0
81	M90	X	-.611	-.611	0
82	M90	Y	0	0	0
83	M92	X	-3.287	-3.287	0
84	M92	Y	0	0	0
85	M95	X	-3.287	-3.287	0
86	M95	Y	0	0	0
87	M99	X	-2.785	-2.785	0
88	M99	Y	0	0	0
89	M100	X	-2.785	-2.785	0
90	M100	Y	0	0	0
91	M101	X	-2.177	-2.177	0
92	M101	Y	0	0	0
93	M104	X	-.107	-.107	0
94	M104	Y	0	0	0
95	M105	X	-.107	-.107	0
96	M105	Y	0	0	0
97	M106	X	-.084	-.084	0
98	M106	Y	0	0	0
99	M107	X	-1.582	-1.582	0
100	M107	Y	0	0	0
101	M108	X	-1.582	-1.582	0
102	M108	Y	0	0	0
103	M109	X	-1.478	-1.478	0
104	M109	Y	0	0	0
105	M110	X	-1.582	-1.582	0
106	M110	Y	0	0	0
107	M111	X	-1.582	-1.582	0
108	M111	Y	0	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/ft,F.psf]	Start Location[in...]	End Location[in...]
109	M112	X	-0.66	-0.66	0	0
110	M112	Y	0	0	0	0
111	M122	X	-2.446	-2.446	0	0
112	M122	Y	0	0	0	0
113	M123	X	-2.446	-2.446	0	0
114	M123	Y	0	0	0	0
115	M124	X	-2.446	-2.446	0	0
116	M124	Y	0	0	0	0
117	M125	X	-2.446	-2.446	0	0
118	M125	Y	0	0	0	0
119	M126	X	-2.207	-2.207	0	0
120	M126	Y	0	0	0	0
121	M127	X	-4.082	-4.082	0	0
122	M127	Y	0	0	0	0
123	M128	X	-4.082	-4.082	0	0
124	M128	Y	0	0	0	0
125	M142	X	-0.611	-0.611	0	0
126	M142	Y	0	0	0	0
127	M144	X	-3.287	-3.287	0	0
128	M144	Y	0	0	0	0
129	M147	X	-3.287	-3.287	0	0
130	M147	Y	0	0	0	0
131	M151	X	-0.107	-0.107	0	0
132	M151	Y	0	0	0	0
133	M152	X	-0.107	-0.107	0	0
134	M152	Y	0	0	0	0
135	M153	X	-0.084	-0.084	0	0
136	M153	Y	0	0	0	0
137	M156	X	-2.785	-2.785	0	0
138	M156	Y	0	0	0	0
139	M157	X	-2.785	-2.785	0	0
140	M157	Y	0	0	0	0
141	M158	X	-2.177	-2.177	0	0
142	M158	Y	0	0	0	0
143	M160	X	-0.611	-0.611	0	0
144	M160	Y	0	0	0	0
145	M162	X	-3.287	-3.287	0	0
146	M162	Y	0	0	0	0
147	M165	X	-3.287	-3.287	0	0
148	M165	Y	0	0	0	0
149	M169	X	-0.107	-0.107	0	0
150	M169	Y	0	0	0	0
151	M170	X	-0.107	-0.107	0	0
152	M170	Y	0	0	0	0
153	M171	X	-0.084	-0.084	0	0
154	M171	Y	0	0	0	0
155	M174	X	-2.785	-2.785	0	0
156	M174	Y	0	0	0	0
157	M175	X	-2.785	-2.785	0	0
158	M175	Y	0	0	0	0
159	M176	X	-2.177	-2.177	0	0
160	M176	Y	0	0	0	0
161	M177	X	-1.582	-1.582	0	0
162	M177	Y	0	0	0	0
163	M178	X	-1.582	-1.582	0	0
164	M178	Y	0	0	0	0
165	M179	X	-0.66	-0.66	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/ft.F.psf]	Start Location[in...]	End Location[in...]
166	M179	Y	0	0	0	0
167	M180	X	-1.582	-1.582	0	0
168	M180	Y	0	0	0	0
169	M181	X	-1.582	-1.582	0	0
170	M181	Y	0	0	0	0
171	M182	X	-1.478	-1.478	0	0
172	M182	Y	0	0	0	0
173	M192	X	-2.446	-2.446	0	0
174	M192	Y	0	0	0	0
175	M193	X	-2.446	-2.446	0	0
176	M193	Y	0	0	0	0
177	M194	X	-2.446	-2.446	0	0
178	M194	Y	0	0	0	0
179	M195	X	-2.446	-2.446	0	0
180	M195	Y	0	0	0	0
181	M196	X	-1.359	-1.359	0	0
182	M196	Y	0	0	0	0
183	M197	X	-4.082	-4.082	0	0
184	M197	Y	0	0	0	0
185	M198	X	-4.082	-4.082	0	0
186	M198	Y	0	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/ft.F.psf]	Start Location[in...]	End Location[in...]
1	M2	X	-1.589	-1.589	0	0
2	M2	Y	.917	.917	0	0
3	M4	X	-.949	-.949	0	0
4	M4	Y	.548	.548	0	0
5	M7	X	-.949	-.949	0	0
6	M7	Y	.548	.548	0	0
7	M11	X	-.297	-.297	0	0
8	M11	Y	.172	.172	0	0
9	M12	X	-.297	-.297	0	0
10	M12	Y	.172	.172	0	0
11	M13	X	-.232	-.232	0	0
12	M13	Y	.134	.134	0	0
13	M19	X	-2.617	-2.617	0	0
14	M19	Y	1.511	1.511	0	0
15	M20	X	-2.617	-2.617	0	0
16	M20	Y	1.511	1.511	0	0
17	M21	X	-2.046	-2.046	0	0
18	M21	Y	1.181	1.181	0	0
19	M23	X	-1.589	-1.589	0	0
20	M23	Y	.917	.917	0	0
21	M25	X	-.949	-.949	0	0
22	M25	Y	.548	.548	0	0
23	M28	X	-.949	-.949	0	0
24	M28	Y	.548	.548	0	0
25	M32	X	-.297	-.297	0	0
26	M32	Y	.172	.172	0	0
27	M33	X	-.297	-.297	0	0
28	M33	Y	.172	.172	0	0
29	M34	X	-.232	-.232	0	0
30	M34	Y	.134	.134	0	0
31	M40	X	-2.617	-2.617	0	0
32	M40	Y	1.511	1.511	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/ft.F.psf]	Start Location[in...]	End Location[in...]
33	M41	X	-2.617	-2.617	0	0
34	M41	Y	1.511	1.511	0	0
35	M42	X	-2.046	-2.046	0	0
36	M42	Y	1.181	1.181	0	0
37	M43	X	-1.37	-1.37	0	0
38	M43	Y	.791	.791	0	0
39	M44	X	-1.37	-1.37	0	0
40	M44	Y	.791	.791	0	0
41	M45	X	-.634	-.634	0	0
42	M45	Y	.366	.366	0	0
43	M46	X	-1.37	-1.37	0	0
44	M46	Y	.791	.791	0	0
45	M47	X	-1.37	-1.37	0	0
46	M47	Y	.791	.791	0	0
47	M48	X	-1.342	-1.342	0	0
48	M48	Y	.775	.775	0	0
49	M58	X	-2.118	-2.118	0	0
50	M58	Y	1.223	1.223	0	0
51	M59	X	-2.118	-2.118	0	0
52	M59	Y	1.223	1.223	0	0
53	M60	X	-2.118	-2.118	0	0
54	M60	Y	1.223	1.223	0	0
55	M61	X	-2.118	-2.118	0	0
56	M61	Y	1.223	1.223	0	0
57	M68	X	-.207	-.207	0	0
58	M68	Y	.119	.119	0	0
59	M73	X	-1.179	-1.179	0	0
60	M73	Y	.68	.68	0	0
61	M74	X	-1.179	-1.179	0	0
62	M74	Y	.68	.68	0	0
63	M72A	X	-1.589	-1.589	0	0
64	M72A	Y	.917	.917	0	0
65	M74B	X	-.949	-.949	0	0
66	M74B	Y	.548	.548	0	0
67	M77	X	-.949	-.949	0	0
68	M77	Y	.548	.548	0	0
69	M81	X	-2.617	-2.617	0	0
70	M81	Y	1.511	1.511	0	0
71	M82	X	-2.617	-2.617	0	0
72	M82	Y	1.511	1.511	0	0
73	M83	X	-2.046	-2.046	0	0
74	M83	Y	1.181	1.181	0	0
75	M86	X	-.297	-.297	0	0
76	M86	Y	.172	.172	0	0
77	M87	X	-.297	-.297	0	0
78	M87	Y	.172	.172	0	0
79	M88	X	-.232	-.232	0	0
80	M88	Y	.134	.134	0	0
81	M90	X	-1.589	-1.589	0	0
82	M90	Y	.917	.917	0	0
83	M92	X	-.949	-.949	0	0
84	M92	Y	.548	.548	0	0
85	M95	X	-.949	-.949	0	0
86	M95	Y	.548	.548	0	0
87	M99	X	-2.617	-2.617	0	0
88	M99	Y	1.511	1.511	0	0
89	M100	X	-2.617	-2.617	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/ft,F.psf]	Start Location[in...]	End Location[in...]
90	M100	Y	1.511	1.511	0 0
91	M101	X	-2.046	-2.046	0 0
92	M101	Y	1.181	1.181	0 0
93	M104	X	-.297	-.297	0 0
94	M104	Y	.172	.172	0 0
95	M105	X	-.297	-.297	0 0
96	M105	Y	.172	.172	0 0
97	M106	X	-.232	-.232	0 0
98	M106	Y	.134	.134	0 0
99	M107	X	-1.37	-1.37	0 0
100	M107	Y	.791	.791	0 0
101	M108	X	-1.37	-1.37	0 0
102	M108	Y	.791	.791	0 0
103	M109	X	-1.342	-1.342	0 0
104	M109	Y	.775	.775	0 0
105	M110	X	-1.37	-1.37	0 0
106	M110	Y	.791	.791	0 0
107	M111	X	-1.37	-1.37	0 0
108	M111	Y	.791	.791	0 0
109	M112	X	-.634	-.634	0 0
110	M112	Y	.366	.366	0 0
111	M122	X	-2.118	-2.118	0 0
112	M122	Y	1.223	1.223	0 0
113	M123	X	-2.118	-2.118	0 0
114	M123	Y	1.223	1.223	0 0
115	M124	X	-2.118	-2.118	0 0
116	M124	Y	1.223	1.223	0 0
117	M125	X	-2.118	-2.118	0 0
118	M125	Y	1.223	1.223	0 0
119	M126	X	-.941	-.941	0 0
120	M126	Y	.543	.543	0 0
121	M127	X	-1.179	-1.179	0 0
122	M127	Y	.68	.68	0 0
123	M128	X	-1.179	-1.179	0 0
124	M128	Y	.68	.68	0 0
125	M142	X	-1.211e-14	-1.211e-14	0 0
126	M142	Y	6.989e-15	6.989e-15	0 0
127	M144	X	-3.796	-3.796	0 0
128	M144	Y	2.192	2.192	0 0
129	M147	X	-3.796	-3.796	0 0
130	M147	Y	2.192	2.192	0 0
131	M151	X	-1.15	-1.15	0 0
132	M151	Y	.664	.664	0 0
133	M152	X	-1.15	-1.15	0 0
134	M152	Y	.664	.664	0 0
135	M153	X	-.899	-.899	0 0
136	M153	Y	.519	.519	0 0
137	M156	X	-1.15	-1.15	0 0
138	M156	Y	.664	.664	0 0
139	M157	X	-1.15	-1.15	0 0
140	M157	Y	.664	.664	0 0
141	M158	X	-.899	-.899	0 0
142	M158	Y	.519	.519	0 0
143	M160	X	-1.211e-14	-1.211e-14	0 0
144	M160	Y	6.989e-15	6.989e-15	0 0
145	M162	X	-3.796	-3.796	0 0
146	M162	Y	2.192	2.192	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/ft,F.psf]	Start Location[in...]	End Location[in...]
147	M165	X	-3.796	-3.796	0	0
148	M165	Y	2.192	2.192	0	0
149	M169	X	-1.15	-1.15	0	0
150	M169	Y	.664	.664	0	0
151	M170	X	-1.15	-1.15	0	0
152	M170	Y	.664	.664	0	0
153	M171	X	-.899	-.899	0	0
154	M171	Y	.519	.519	0	0
155	M174	X	-1.15	-1.15	0	0
156	M174	Y	.664	.664	0	0
157	M175	X	-1.15	-1.15	0	0
158	M175	Y	.664	.664	0	0
159	M176	X	-.899	-.899	0	0
160	M176	Y	.519	.519	0	0
161	M177	X	-1.37	-1.37	0	0
162	M177	Y	.791	.791	0	0
163	M178	X	-1.37	-1.37	0	0
164	M178	Y	.791	.791	0	0
165	M179	X	-.894	-.894	0	0
166	M179	Y	.516	.516	0	0
167	M180	X	-1.37	-1.37	0	0
168	M180	Y	.791	.791	0	0
169	M181	X	-1.37	-1.37	0	0
170	M181	Y	.791	.791	0	0
171	M182	X	-.894	-.894	0	0
172	M182	Y	.516	.516	0	0
173	M192	X	-2.118	-2.118	0	0
174	M192	Y	1.223	1.223	0	0
175	M193	X	-2.118	-2.118	0	0
176	M193	Y	1.223	1.223	0	0
177	M194	X	-2.118	-2.118	0	0
178	M194	Y	1.223	1.223	0	0
179	M195	X	-2.118	-2.118	0	0
180	M195	Y	1.223	1.223	0	0
181	M196	X	-2.03	-2.03	0	0
182	M196	Y	1.172	1.172	0	0
183	M197	X	-4.714	-4.714	0	0
184	M197	Y	2.722	2.722	0	0
185	M198	X	-4.714	-4.714	0	0
186	M198	Y	2.722	2.722	0	0

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

	Member Label	Direction	Start Magnitude[lb/ft,F.psf]	End Magnitude[lb/ft,F.psf]	Start Location[in...]	End Location[in...]
1	M2	X	-.865	-.865	0	0
2	M2	Y	.865	.865	0	0
3	M4	X	-1.55	-1.55	0	0
4	M4	Y	1.55	1.55	0	0
5	M7	X	-1.55	-1.55	0	0
6	M7	Y	1.55	1.55	0	0
7	M11	X	-.013	-.013	0	0
8	M11	Y	.013	.013	0	0
9	M12	X	-.013	-.013	0	0
10	M12	Y	.013	.013	0	0
11	M13	X	-.01	-.01	0	0
12	M13	Y	.01	.01	0	0
13	M19	X	-2.199	-2.199	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/ft.F.psf]	Start Location[in...]	End Location[in...]
14	M19	Y	2.199	2.199	0	0
15	M20	X	-2.199	-2.199	0	0
16	M20	Y	2.199	2.199	0	0
17	M21	X	-1.72	-1.72	0	0
18	M21	Y	1.72	1.72	0	0
19	M23	X	-.865	-.865	0	0
20	M23	Y	.865	.865	0	0
21	M25	X	-1.55	-1.55	0	0
22	M25	Y	1.55	1.55	0	0
23	M28	X	-1.55	-1.55	0	0
24	M28	Y	1.55	1.55	0	0
25	M32	X	-.013	-.013	0	0
26	M32	Y	.013	.013	0	0
27	M33	X	-.013	-.013	0	0
28	M33	Y	.013	.013	0	0
29	M34	X	-.01	-.01	0	0
30	M34	Y	.01	.01	0	0
31	M40	X	-2.199	-2.199	0	0
32	M40	Y	2.199	2.199	0	0
33	M41	X	-2.199	-2.199	0	0
34	M41	Y	2.199	2.199	0	0
35	M42	X	-1.72	-1.72	0	0
36	M42	Y	1.72	1.72	0	0
37	M43	X	-1.119	-1.119	0	0
38	M43	Y	1.119	1.119	0	0
39	M44	X	-1.119	-1.119	0	0
40	M44	Y	1.119	1.119	0	0
41	M45	X	-.448	-.448	0	0
42	M45	Y	.448	.448	0	0
43	M46	X	-1.119	-1.119	0	0
44	M46	Y	1.119	1.119	0	0
45	M47	X	-1.119	-1.119	0	0
46	M47	Y	1.119	1.119	0	0
47	M48	X	-1.115	-1.115	0	0
48	M48	Y	1.115	1.115	0	0
49	M58	X	-1.729	-1.729	0	0
50	M58	Y	1.729	1.729	0	0
51	M59	X	-1.729	-1.729	0	0
52	M59	Y	1.729	1.729	0	0
53	M60	X	-1.729	-1.729	0	0
54	M60	Y	1.729	1.729	0	0
55	M61	X	-1.729	-1.729	0	0
56	M61	Y	1.729	1.729	0	0
57	M68	X	-.519	-.519	0	0
58	M68	Y	.519	.519	0	0
59	M73	X	-1.924	-1.924	0	0
60	M73	Y	1.924	1.924	0	0
61	M74	X	-1.924	-1.924	0	0
62	M74	Y	1.924	1.924	0	0
63	M72A	X	-1.614	-1.614	0	0
64	M72A	Y	1.614	1.614	0	0
65	M74B	X	-.208	-.208	0	0
66	M74B	Y	.208	.208	0	0
67	M77	X	-.208	-.208	0	0
68	M77	Y	.208	.208	0	0
69	M81	X	-1.797	-1.797	0	0
70	M81	Y	1.797	1.797	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/ft.F.psf]	Start Location[in...]	End Location[in...]
71	M82	X	-1.797	-1.797	0	0
72	M82	Y	1.797	1.797	0	0
73	M83	X	-1.405	-1.405	0	0
74	M83	Y	1.405	1.405	0	0
75	M86	X	-.704	-.704	0	0
76	M86	Y	.704	.704	0	0
77	M87	X	-.704	-.704	0	0
78	M87	Y	.704	.704	0	0
79	M88	X	-.55	-.55	0	0
80	M88	Y	.55	.55	0	0
81	M90	X	-1.614	-1.614	0	0
82	M90	Y	1.614	1.614	0	0
83	M92	X	-.208	-.208	0	0
84	M92	Y	.208	.208	0	0
85	M95	X	-.208	-.208	0	0
86	M95	Y	.208	.208	0	0
87	M99	X	-1.797	-1.797	0	0
88	M99	Y	1.797	1.797	0	0
89	M100	X	-1.797	-1.797	0	0
90	M100	Y	1.797	1.797	0	0
91	M101	X	-1.405	-1.405	0	0
92	M101	Y	1.405	1.405	0	0
93	M104	X	-.704	-.704	0	0
94	M104	Y	.704	.704	0	0
95	M105	X	-.704	-.704	0	0
96	M105	Y	.704	.704	0	0
97	M106	X	-.55	-.55	0	0
98	M106	Y	.55	.55	0	0
99	M107	X	-1.119	-1.119	0	0
100	M107	Y	1.119	1.119	0	0
101	M108	X	-1.119	-1.119	0	0
102	M108	Y	1.119	1.119	0	0
103	M109	X	-.992	-.992	0	0
104	M109	Y	.992	.992	0	0
105	M110	X	-1.119	-1.119	0	0
106	M110	Y	1.119	1.119	0	0
107	M111	X	-1.119	-1.119	0	0
108	M111	Y	1.119	1.119	0	0
109	M112	X	-.659	-.659	0	0
110	M112	Y	.659	.659	0	0
111	M122	X	-1.729	-1.729	0	0
112	M122	Y	1.729	1.729	0	0
113	M123	X	-1.729	-1.729	0	0
114	M123	Y	1.729	1.729	0	0
115	M124	X	-1.729	-1.729	0	0
116	M124	Y	1.729	1.729	0	0
117	M125	X	-1.729	-1.729	0	0
118	M125	Y	1.729	1.729	0	0
119	M126	X	-.352	-.352	0	0
120	M126	Y	.352	.352	0	0
121	M127	X	-.258	-.258	0	0
122	M127	Y	.258	.258	0	0
123	M128	X	-.258	-.258	0	0
124	M128	Y	.258	.258	0	0
125	M142	X	-.116	-.116	0	0
126	M142	Y	.116	.116	0	0
127	M144	X	-2.892	-2.892	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/ft.F.psf]	Start Location[in...]	End Location[in...]
128	M144	Y	2.892	2.892	0	0
129	M147	X	-2.892	-2.892	0	0
130	M147	Y	2.892	2.892	0	0
131	M151	X	-1.508	-1.508	0	0
132	M151	Y	1.508	1.508	0	0
133	M152	X	-1.508	-1.508	0	0
134	M152	Y	1.508	1.508	0	0
135	M153	X	-1.179	-1.179	0	0
136	M153	Y	1.179	1.179	0	0
137	M156	X	-.415	-.415	0	0
138	M156	Y	.415	.415	0	0
139	M157	X	-.415	-.415	0	0
140	M157	Y	.415	.415	0	0
141	M158	X	-.324	-.324	0	0
142	M158	Y	.324	.324	0	0
143	M160	X	-.116	-.116	0	0
144	M160	Y	.116	.116	0	0
145	M162	X	-2.892	-2.892	0	0
146	M162	Y	2.892	2.892	0	0
147	M165	X	-2.892	-2.892	0	0
148	M165	Y	2.892	2.892	0	0
149	M169	X	-1.508	-1.508	0	0
150	M169	Y	1.508	1.508	0	0
151	M170	X	-1.508	-1.508	0	0
152	M170	Y	1.508	1.508	0	0
153	M171	X	-1.179	-1.179	0	0
154	M171	Y	1.179	1.179	0	0
155	M174	X	-.415	-.415	0	0
156	M174	Y	.415	.415	0	0
157	M175	X	-.415	-.415	0	0
158	M175	Y	.415	.415	0	0
159	M176	X	-.324	-.324	0	0
160	M176	Y	.324	.324	0	0
161	M177	X	-1.119	-1.119	0	0
162	M177	Y	1.119	1.119	0	0
163	M178	X	-1.119	-1.119	0	0
164	M178	Y	1.119	1.119	0	0
165	M179	X	-.904	-.904	0	0
166	M179	Y	.904	.904	0	0
167	M180	X	-1.119	-1.119	0	0
168	M180	Y	1.119	1.119	0	0
169	M181	X	-1.119	-1.119	0	0
170	M181	Y	1.119	1.119	0	0
171	M182	X	-.57	-.57	0	0
172	M182	Y	.57	.57	0	0
173	M192	X	-1.729	-1.729	0	0
174	M192	Y	1.729	1.729	0	0
175	M193	X	-1.729	-1.729	0	0
176	M193	Y	1.729	1.729	0	0
177	M194	X	-1.729	-1.729	0	0
178	M194	Y	1.729	1.729	0	0
179	M195	X	-1.729	-1.729	0	0
180	M195	Y	1.729	1.729	0	0
181	M196	X	-1.724	-1.724	0	0
182	M196	Y	1.724	1.724	0	0
183	M197	X	-3.591	-3.591	0	0
184	M197	Y	3.591	3.591	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/ft,F.psf]	Start Location[in...]	End Location[in...]
185	M198	X	-3.591	-3.591	0	0
186	M198	Y	3.591	3.591	0	0

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

	Member Label	Direction	Start Magnitude[lb/ft,F.psf]	End Magnitude[lb/ft,F.psf]	Start Location[in...]	End Location[in...]
1	M2	X	-.306	-.306	0	0
2	M2	Y	.53	.53	0	0
3	M4	X	-1.644	-1.644	0	0
4	M4	Y	2.847	2.847	0	0
5	M7	X	-1.644	-1.644	0	0
6	M7	Y	2.847	2.847	0	0
7	M11	X	-.053	-.053	0	0
8	M11	Y	.093	.093	0	0
9	M12	X	-.053	-.053	0	0
10	M12	Y	.093	.093	0	0
11	M13	X	-.042	-.042	0	0
12	M13	Y	.072	.072	0	0
13	M19	X	-1.393	-1.393	0	0
14	M19	Y	2.412	2.412	0	0
15	M20	X	-1.393	-1.393	0	0
16	M20	Y	2.412	2.412	0	0
17	M21	X	-1.089	-1.089	0	0
18	M21	Y	1.886	1.886	0	0
19	M23	X	-.306	-.306	0	0
20	M23	Y	.53	.53	0	0
21	M25	X	-1.644	-1.644	0	0
22	M25	Y	2.847	2.847	0	0
23	M28	X	-1.644	-1.644	0	0
24	M28	Y	2.847	2.847	0	0
25	M32	X	-.053	-.053	0	0
26	M32	Y	.093	.093	0	0
27	M33	X	-.053	-.053	0	0
28	M33	Y	.093	.093	0	0
29	M34	X	-.042	-.042	0	0
30	M34	Y	.072	.072	0	0
31	M40	X	-1.393	-1.393	0	0
32	M40	Y	2.412	2.412	0	0
33	M41	X	-1.393	-1.393	0	0
34	M41	Y	2.412	2.412	0	0
35	M42	X	-1.089	-1.089	0	0
36	M42	Y	1.886	1.886	0	0
37	M43	X	-.791	-.791	0	0
38	M43	Y	1.37	1.37	0	0
39	M44	X	-.791	-.791	0	0
40	M44	Y	1.37	1.37	0	0
41	M45	X	-.33	-.33	0	0
42	M45	Y	.572	.572	0	0
43	M46	X	-.791	-.791	0	0
44	M46	Y	1.37	1.37	0	0
45	M47	X	-.791	-.791	0	0
46	M47	Y	1.37	1.37	0	0
47	M48	X	-.739	-.739	0	0
48	M48	Y	1.28	1.28	0	0
49	M58	X	-1.223	-1.223	0	0
50	M58	Y	2.118	2.118	0	0
51	M59	X	-1.223	-1.223	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/ft.F.psf]	Start Location[in...]	End Location[in...]
52	M59	Y	2.118	2.118	0 0
53	M60	X	-1.223	-1.223	0 0
54	M60	Y	2.118	2.118	0 0
55	M61	X	-1.223	-1.223	0 0
56	M61	Y	2.118	2.118	0 0
57	M68	X	-.68	-.68	0 0
58	M68	Y	1.177	1.177	0 0
59	M73	X	-2.041	-2.041	0 0
60	M73	Y	3.536	3.536	0 0
61	M74	X	-2.041	-2.041	0 0
62	M74	Y	3.536	3.536	0 0
63	M72A	X	-1.223	-1.223	0 0
64	M72A	Y	2.118	2.118	0 0
65	M74B	X	-5.01e-14	-5.01e-14	0 0
66	M74B	Y	8.678e-14	8.678e-14	0 0
67	M77	X	-5.01e-14	-5.01e-14	0 0
68	M77	Y	8.678e-14	8.678e-14	0 0
69	M81	X	-.9	-.9	0 0
70	M81	Y	1.559	1.559	0 0
71	M82	X	-.9	-.9	0 0
72	M82	Y	1.559	1.559	0 0
73	M83	X	-.704	-.704	0 0
74	M83	Y	1.219	1.219	0 0
75	M86	X	-.9	-.9	0 0
76	M86	Y	1.559	1.559	0 0
77	M87	X	-.9	-.9	0 0
78	M87	Y	1.559	1.559	0 0
79	M88	X	-.704	-.704	0 0
80	M88	Y	1.219	1.219	0 0
81	M90	X	-1.223	-1.223	0 0
82	M90	Y	2.118	2.118	0 0
83	M92	X	-5.01e-14	-5.01e-14	0 0
84	M92	Y	8.678e-14	8.678e-14	0 0
85	M95	X	-5.01e-14	-5.01e-14	0 0
86	M95	Y	8.678e-14	8.678e-14	0 0
87	M99	X	-.9	-.9	0 0
88	M99	Y	1.559	1.559	0 0
89	M100	X	-.9	-.9	0 0
90	M100	Y	1.559	1.559	0 0
91	M101	X	-.704	-.704	0 0
92	M101	Y	1.219	1.219	0 0
93	M104	X	-.9	-.9	0 0
94	M104	Y	1.559	1.559	0 0
95	M105	X	-.9	-.9	0 0
96	M105	Y	1.559	1.559	0 0
97	M106	X	-.704	-.704	0 0
98	M106	Y	1.219	1.219	0 0
99	M107	X	-.791	-.791	0 0
100	M107	Y	1.37	1.37	0 0
101	M108	X	-.791	-.791	0 0
102	M108	Y	1.37	1.37	0 0
103	M109	X	-.589	-.589	0 0
104	M109	Y	1.019	1.019	0 0
105	M110	X	-.791	-.791	0 0
106	M110	Y	1.37	1.37	0 0
107	M111	X	-.791	-.791	0 0
108	M111	Y	1.37	1.37	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/ft,F.psf]	Start Location[in...]	End Location[in...]
109	M112	X	- .589	- .589	0	0
110	M112	Y	1.019	1.019	0	0
111	M122	X	-1.223	-1.223	0	0
112	M122	Y	2.118	2.118	0	0
113	M123	X	-1.223	-1.223	0	0
114	M123	Y	2.118	2.118	0	0
115	M124	X	-1.223	-1.223	0	0
116	M124	Y	2.118	2.118	0	0
117	M125	X	-1.223	-1.223	0	0
118	M125	Y	2.118	2.118	0	0
119	M126	X	- .051	- .051	0	0
120	M126	Y	.089	.089	0	0
121	M127	X	-2.801e-12	-2.801e-12	0	0
122	M127	Y	4.851e-12	4.851e-12	0	0
123	M128	X	-6.222e-14	-6.222e-14	0	0
124	M128	Y	1.078e-13	1.078e-13	0	0
125	M142	X	- .306	- .306	0	0
126	M142	Y	.53	.53	0	0
127	M144	X	-1.644	-1.644	0	0
128	M144	Y	2.847	2.847	0	0
129	M147	X	-1.644	-1.644	0	0
130	M147	Y	2.847	2.847	0	0
131	M151	X	-1.393	-1.393	0	0
132	M151	Y	2.412	2.412	0	0
133	M152	X	-1.393	-1.393	0	0
134	M152	Y	2.412	2.412	0	0
135	M153	X	-1.089	-1.089	0	0
136	M153	Y	1.886	1.886	0	0
137	M156	X	- .053	- .053	0	0
138	M156	Y	.093	.093	0	0
139	M157	X	- .053	- .053	0	0
140	M157	Y	.093	.093	0	0
141	M158	X	- .042	- .042	0	0
142	M158	Y	.072	.072	0	0
143	M160	X	- .306	- .306	0	0
144	M160	Y	.53	.53	0	0
145	M162	X	-1.644	-1.644	0	0
146	M162	Y	2.847	2.847	0	0
147	M165	X	-1.644	-1.644	0	0
148	M165	Y	2.847	2.847	0	0
149	M169	X	-1.393	-1.393	0	0
150	M169	Y	2.412	2.412	0	0
151	M170	X	-1.393	-1.393	0	0
152	M170	Y	2.412	2.412	0	0
153	M171	X	-1.089	-1.089	0	0
154	M171	Y	1.886	1.886	0	0
155	M174	X	- .053	- .053	0	0
156	M174	Y	.093	.093	0	0
157	M175	X	- .053	- .053	0	0
158	M175	Y	.093	.093	0	0
159	M176	X	- .042	- .042	0	0
160	M176	Y	.072	.072	0	0
161	M177	X	- .791	- .791	0	0
162	M177	Y	1.37	1.37	0	0
163	M178	X	- .791	- .791	0	0
164	M178	Y	1.37	1.37	0	0
165	M179	X	- .739	- .739	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/ft.F.psf]	Start Location[in...]	End Location[in...]
166	M179	Y	1.28	1.28	0	0
167	M180	X	-.791	-.791	0	0
168	M180	Y	1.37	1.37	0	0
169	M181	X	-.791	-.791	0	0
170	M181	Y	1.37	1.37	0	0
171	M182	X	-.33	-.33	0	0
172	M182	Y	.572	.572	0	0
173	M192	X	-1.223	-1.223	0	0
174	M192	Y	2.118	2.118	0	0
175	M193	X	-1.223	-1.223	0	0
176	M193	Y	2.118	2.118	0	0
177	M194	X	-1.223	-1.223	0	0
178	M194	Y	2.118	2.118	0	0
179	M195	X	-1.223	-1.223	0	0
180	M195	Y	2.118	2.118	0	0
181	M196	X	-1.104	-1.104	0	0
182	M196	Y	1.912	1.912	0	0
183	M197	X	-2.041	-2.041	0	0
184	M197	Y	3.536	3.536	0	0
185	M198	X	-2.041	-2.041	0	0
186	M198	Y	3.536	3.536	0	0

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

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in...]	End Location[in...]
1	M2	X	-2.853e-20	-2.853e-20	0	0
2	M2	Y	1.258e-13	1.258e-13	0	0
3	M4	X	-9.941e-7	-9.941e-7	0	0
4	M4	Y	4.383	4.383	0	0
5	M7	X	-9.941e-7	-9.941e-7	0	0
6	M7	Y	4.383	4.383	0	0
7	M11	X	-3.012e-7	-3.012e-7	0	0
8	M11	Y	1.328	1.328	0	0
9	M12	X	-3.012e-7	-3.012e-7	0	0
10	M12	Y	1.328	1.328	0	0
11	M13	X	-2.355e-7	-2.355e-7	0	0
12	M13	Y	1.038	1.038	0	0
13	M19	X	-3.012e-7	-3.012e-7	0	0
14	M19	Y	1.328	1.328	0	0
15	M20	X	-3.012e-7	-3.012e-7	0	0
16	M20	Y	1.328	1.328	0	0
17	M21	X	-2.355e-7	-2.355e-7	0	0
18	M21	Y	1.038	1.038	0	0
19	M23	X	-2.853e-20	-2.853e-20	0	0
20	M23	Y	1.258e-13	1.258e-13	0	0
21	M25	X	-9.941e-7	-9.941e-7	0	0
22	M25	Y	4.383	4.383	0	0
23	M28	X	-9.941e-7	-9.941e-7	0	0
24	M28	Y	4.383	4.383	0	0
25	M32	X	-3.012e-7	-3.012e-7	0	0
26	M32	Y	1.328	1.328	0	0
27	M33	X	-3.012e-7	-3.012e-7	0	0
28	M33	Y	1.328	1.328	0	0
29	M34	X	-2.355e-7	-2.355e-7	0	0
30	M34	Y	1.038	1.038	0	0
31	M40	X	-3.012e-7	-3.012e-7	0	0
32	M40	Y	1.328	1.328	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/ft.F.psf]	Start Location[in...]	End Location[in...]
33	M41	X	-3.012e-7	-3.012e-7	0	0
34	M41	Y	1.328	1.328	0	0
35	M42	X	-2.355e-7	-2.355e-7	0	0
36	M42	Y	1.038	1.038	0	0
37	M43	X	-3.589e-7	-3.589e-7	0	0
38	M43	Y	1.582	1.582	0	0
39	M44	X	-3.589e-7	-3.589e-7	0	0
40	M44	Y	1.582	1.582	0	0
41	M45	X	-2.342e-7	-2.342e-7	0	0
42	M45	Y	1.033	1.033	0	0
43	M46	X	-3.589e-7	-3.589e-7	0	0
44	M46	Y	1.582	1.582	0	0
45	M47	X	-3.589e-7	-3.589e-7	0	0
46	M47	Y	1.582	1.582	0	0
47	M48	X	-2.342e-7	-2.342e-7	0	0
48	M48	Y	1.033	1.033	0	0
49	M58	X	-5.547e-7	-5.547e-7	0	0
50	M58	Y	2.446	2.446	0	0
51	M59	X	-5.547e-7	-5.547e-7	0	0
52	M59	Y	2.446	2.446	0	0
53	M60	X	-5.547e-7	-5.547e-7	0	0
54	M60	Y	2.446	2.446	0	0
55	M61	X	-5.547e-7	-5.547e-7	0	0
56	M61	Y	2.446	2.446	0	0
57	M68	X	-5.315e-7	-5.315e-7	0	0
58	M68	Y	2.344	2.344	0	0
59	M73	X	-1.235e-6	-1.235e-6	0	0
60	M73	Y	5.443	5.443	0	0
61	M74	X	-1.235e-6	-1.235e-6	0	0
62	M74	Y	5.443	5.443	0	0
63	M72A	X	-4.16e-7	-4.16e-7	0	0
64	M72A	Y	1.834	1.834	0	0
65	M74B	X	-2.485e-7	-2.485e-7	0	0
66	M74B	Y	1.096	1.096	0	0
67	M77	X	-2.485e-7	-2.485e-7	0	0
68	M77	Y	1.096	1.096	0	0
69	M81	X	-7.785e-8	-7.785e-8	0	0
70	M81	Y	.343	.343	0	0
71	M82	X	-7.785e-8	-7.785e-8	0	0
72	M82	Y	.343	.343	0	0
73	M83	X	-6.087e-8	-6.087e-8	0	0
74	M83	Y	.268	.268	0	0
75	M86	X	-6.852e-7	-6.852e-7	0	0
76	M86	Y	3.021	3.021	0	0
77	M87	X	-6.852e-7	-6.852e-7	0	0
78	M87	Y	3.021	3.021	0	0
79	M88	X	-5.357e-7	-5.357e-7	0	0
80	M88	Y	2.362	2.362	0	0
81	M90	X	-4.16e-7	-4.16e-7	0	0
82	M90	Y	1.834	1.834	0	0
83	M92	X	-2.485e-7	-2.485e-7	0	0
84	M92	Y	1.096	1.096	0	0
85	M95	X	-2.485e-7	-2.485e-7	0	0
86	M95	Y	1.096	1.096	0	0
87	M99	X	-7.785e-8	-7.785e-8	0	0
88	M99	Y	.343	.343	0	0
89	M100	X	-7.785e-8	-7.785e-8	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/ft.F.psf]	Start Location[in...]	End Location[in...]
90	M100	Y	.343	.343	0 0
91	M101	X	-6.087e-8	-6.087e-8	0 0
92	M101	Y	.268	.268	0 0
93	M104	X	-6.852e-7	-6.852e-7	0 0
94	M104	Y	3.021	3.021	0 0
95	M105	X	-6.852e-7	-6.852e-7	0 0
96	M105	Y	3.021	3.021	0 0
97	M106	X	-5.357e-7	-5.357e-7	0 0
98	M106	Y	2.362	2.362	0 0
99	M107	X	-3.589e-7	-3.589e-7	0 0
100	M107	Y	1.582	1.582	0 0
101	M108	X	-3.589e-7	-3.589e-7	0 0
102	M108	Y	1.582	1.582	0 0
103	M109	X	-1.661e-7	-1.661e-7	0 0
104	M109	Y	.732	.732	0 0
105	M110	X	-3.589e-7	-3.589e-7	0 0
106	M110	Y	1.582	1.582	0 0
107	M111	X	-3.589e-7	-3.589e-7	0 0
108	M111	Y	1.582	1.582	0 0
109	M112	X	-3.515e-7	-3.515e-7	0 0
110	M112	Y	1.55	1.55	0 0
111	M122	X	-5.547e-7	-5.547e-7	0 0
112	M122	Y	2.446	2.446	0 0
113	M123	X	-5.547e-7	-5.547e-7	0 0
114	M123	Y	2.446	2.446	0 0
115	M124	X	-5.547e-7	-5.547e-7	0 0
116	M124	Y	2.446	2.446	0 0
117	M125	X	-5.547e-7	-5.547e-7	0 0
118	M125	Y	2.446	2.446	0 0
119	M126	X	-5.411e-8	-5.411e-8	0 0
120	M126	Y	.239	.239	0 0
121	M127	X	-3.086e-7	-3.086e-7	0 0
122	M127	Y	1.361	1.361	0 0
123	M128	X	-3.086e-7	-3.086e-7	0 0
124	M128	Y	1.361	1.361	0 0
125	M142	X	-4.16e-7	-4.16e-7	0 0
126	M142	Y	1.834	1.834	0 0
127	M144	X	-2.485e-7	-2.485e-7	0 0
128	M144	Y	1.096	1.096	0 0
129	M147	X	-2.485e-7	-2.485e-7	0 0
130	M147	Y	1.096	1.096	0 0
131	M151	X	-6.852e-7	-6.852e-7	0 0
132	M151	Y	3.021	3.021	0 0
133	M152	X	-6.852e-7	-6.852e-7	0 0
134	M152	Y	3.021	3.021	0 0
135	M153	X	-5.357e-7	-5.357e-7	0 0
136	M153	Y	2.362	2.362	0 0
137	M156	X	-7.785e-8	-7.785e-8	0 0
138	M156	Y	.343	.343	0 0
139	M157	X	-7.785e-8	-7.785e-8	0 0
140	M157	Y	.343	.343	0 0
141	M158	X	-6.087e-8	-6.087e-8	0 0
142	M158	Y	.268	.268	0 0
143	M160	X	-4.16e-7	-4.16e-7	0 0
144	M160	Y	1.834	1.834	0 0
145	M162	X	-2.485e-7	-2.485e-7	0 0
146	M162	Y	1.096	1.096	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/ft.F.psf]	Start Location[in...]	End Location[in...]
147	M165	X	-2.485e-7	-2.485e-7	0	0
148	M165	Y	1.096	1.096	0	0
149	M169	X	-6.852e-7	-6.852e-7	0	0
150	M169	Y	3.021	3.021	0	0
151	M170	X	-6.852e-7	-6.852e-7	0	0
152	M170	Y	3.021	3.021	0	0
153	M171	X	-5.357e-7	-5.357e-7	0	0
154	M171	Y	2.362	2.362	0	0
155	M174	X	-7.785e-8	-7.785e-8	0	0
156	M174	Y	.343	.343	0	0
157	M175	X	-7.785e-8	-7.785e-8	0	0
158	M175	Y	.343	.343	0	0
159	M176	X	-6.087e-8	-6.087e-8	0	0
160	M176	Y	.268	.268	0	0
161	M177	X	-3.589e-7	-3.589e-7	0	0
162	M177	Y	1.582	1.582	0	0
163	M178	X	-3.589e-7	-3.589e-7	0	0
164	M178	Y	1.582	1.582	0	0
165	M179	X	-3.515e-7	-3.515e-7	0	0
166	M179	Y	1.55	1.55	0	0
167	M180	X	-3.589e-7	-3.589e-7	0	0
168	M180	Y	1.582	1.582	0	0
169	M181	X	-3.589e-7	-3.589e-7	0	0
170	M181	Y	1.582	1.582	0	0
171	M182	X	-1.661e-7	-1.661e-7	0	0
172	M182	Y	.732	.732	0	0
173	M192	X	-5.547e-7	-5.547e-7	0	0
174	M192	Y	2.446	2.446	0	0
175	M193	X	-5.547e-7	-5.547e-7	0	0
176	M193	Y	2.446	2.446	0	0
177	M194	X	-5.547e-7	-5.547e-7	0	0
178	M194	Y	2.446	2.446	0	0
179	M195	X	-5.547e-7	-5.547e-7	0	0
180	M195	Y	2.446	2.446	0	0
181	M196	X	-2.464e-7	-2.464e-7	0	0
182	M196	Y	1.087	1.087	0	0
183	M197	X	-3.086e-7	-3.086e-7	0	0
184	M197	Y	1.361	1.361	0	0
185	M198	X	-3.086e-7	-3.086e-7	0	0
186	M198	Y	1.361	1.361	0	0

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

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in...]	End Location[in...]
1	M2	X	.306	.306	0	0
2	M2	Y	.53	.53	0	0
3	M4	X	1.644	1.644	0	0
4	M4	Y	2.847	2.847	0	0
5	M7	X	1.644	1.644	0	0
6	M7	Y	2.847	2.847	0	0
7	M11	X	1.393	1.393	0	0
8	M11	Y	2.412	2.412	0	0
9	M12	X	1.393	1.393	0	0
10	M12	Y	2.412	2.412	0	0
11	M13	X	1.089	1.089	0	0
12	M13	Y	1.886	1.886	0	0
13	M19	X	.053	.053	0	0

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

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in...]	End Location[in...]
14	M19	Y	.093	.093	0	0
15	M20	X	.053	.053	0	0
16	M20	Y	.093	.093	0	0
17	M21	X	.042	.042	0	0
18	M21	Y	.072	.072	0	0
19	M23	X	.306	.306	0	0
20	M23	Y	.53	.53	0	0
21	M25	X	1.644	1.644	0	0
22	M25	Y	2.847	2.847	0	0
23	M28	X	1.644	1.644	0	0
24	M28	Y	2.847	2.847	0	0
25	M32	X	1.393	1.393	0	0
26	M32	Y	2.412	2.412	0	0
27	M33	X	1.393	1.393	0	0
28	M33	Y	2.412	2.412	0	0
29	M34	X	1.089	1.089	0	0
30	M34	Y	1.886	1.886	0	0
31	M40	X	.053	.053	0	0
32	M40	Y	.093	.093	0	0
33	M41	X	.053	.053	0	0
34	M41	Y	.093	.093	0	0
35	M42	X	.042	.042	0	0
36	M42	Y	.072	.072	0	0
37	M43	X	.791	.791	0	0
38	M43	Y	1.37	1.37	0	0
39	M44	X	.791	.791	0	0
40	M44	Y	1.37	1.37	0	0
41	M45	X	.739	.739	0	0
42	M45	Y	1.28	1.28	0	0
43	M46	X	.791	.791	0	0
44	M46	Y	1.37	1.37	0	0
45	M47	X	.791	.791	0	0
46	M47	Y	1.37	1.37	0	0
47	M48	X	.33	.33	0	0
48	M48	Y	.572	.572	0	0
49	M58	X	1.223	1.223	0	0
50	M58	Y	2.118	2.118	0	0
51	M59	X	1.223	1.223	0	0
52	M59	Y	2.118	2.118	0	0
53	M60	X	1.223	1.223	0	0
54	M60	Y	2.118	2.118	0	0
55	M61	X	1.223	1.223	0	0
56	M61	Y	2.118	2.118	0	0
57	M68	X	1.104	1.104	0	0
58	M68	Y	1.912	1.912	0	0
59	M73	X	2.041	2.041	0	0
60	M73	Y	3.536	3.536	0	0
61	M74	X	2.041	2.041	0	0
62	M74	Y	3.536	3.536	0	0
63	M72A	X	.306	.306	0	0
64	M72A	Y	.53	.53	0	0
65	M74B	X	1.644	1.644	0	0
66	M74B	Y	2.847	2.847	0	0
67	M77	X	1.644	1.644	0	0
68	M77	Y	2.847	2.847	0	0
69	M81	X	.053	.053	0	0
70	M81	Y	.093	.093	0	0

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

	Member Label	Direction	Start Magnitude[lb/ft,F.psf]	End Magnitude[lb/ft,F.psf]	Start Location[in...]	End Location[in...]
71	M82	X	.053	.053	0	0
72	M82	Y	.093	.093	0	0
73	M83	X	.042	.042	0	0
74	M83	Y	.072	.072	0	0
75	M86	X	1.393	1.393	0	0
76	M86	Y	2.412	2.412	0	0
77	M87	X	1.393	1.393	0	0
78	M87	Y	2.412	2.412	0	0
79	M88	X	1.089	1.089	0	0
80	M88	Y	1.886	1.886	0	0
81	M90	X	.306	.306	0	0
82	M90	Y	.53	.53	0	0
83	M92	X	1.644	1.644	0	0
84	M92	Y	2.847	2.847	0	0
85	M95	X	1.644	1.644	0	0
86	M95	Y	2.847	2.847	0	0
87	M99	X	.053	.053	0	0
88	M99	Y	.093	.093	0	0
89	M100	X	.053	.053	0	0
90	M100	Y	.093	.093	0	0
91	M101	X	.042	.042	0	0
92	M101	Y	.072	.072	0	0
93	M104	X	1.393	1.393	0	0
94	M104	Y	2.412	2.412	0	0
95	M105	X	1.393	1.393	0	0
96	M105	Y	2.412	2.412	0	0
97	M106	X	1.089	1.089	0	0
98	M106	Y	1.886	1.886	0	0
99	M107	X	.791	.791	0	0
100	M107	Y	1.37	1.37	0	0
101	M108	X	.791	.791	0	0
102	M108	Y	1.37	1.37	0	0
103	M109	X	.33	.33	0	0
104	M109	Y	.572	.572	0	0
105	M110	X	.791	.791	0	0
106	M110	Y	1.37	1.37	0	0
107	M111	X	.791	.791	0	0
108	M111	Y	1.37	1.37	0	0
109	M112	X	.739	.739	0	0
110	M112	Y	1.28	1.28	0	0
111	M122	X	1.223	1.223	0	0
112	M122	Y	2.118	2.118	0	0
113	M123	X	1.223	1.223	0	0
114	M123	Y	2.118	2.118	0	0
115	M124	X	1.223	1.223	0	0
116	M124	Y	2.118	2.118	0	0
117	M125	X	1.223	1.223	0	0
118	M125	Y	2.118	2.118	0	0
119	M126	X	.68	.68	0	0
120	M126	Y	1.177	1.177	0	0
121	M127	X	2.041	2.041	0	0
122	M127	Y	3.536	3.536	0	0
123	M128	X	2.041	2.041	0	0
124	M128	Y	3.536	3.536	0	0
125	M142	X	1.223	1.223	0	0
126	M142	Y	2.118	2.118	0	0
127	M144	X	2.004e-13	2.004e-13	0	0

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

Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in...]	End Location[in...]
128	M144	Y	3.471e-13	3.471e-13	0 0
129	M147	X	2.004e-13	2.004e-13	0 0
130	M147	Y	3.471e-13	3.471e-13	0 0
131	M151	X	.9	.9	0 0
132	M151	Y	1.559	1.559	0 0
133	M152	X	.9	.9	0 0
134	M152	Y	1.559	1.559	0 0
135	M153	X	.704	.704	0 0
136	M153	Y	1.219	1.219	0 0
137	M156	X	.9	.9	0 0
138	M156	Y	1.559	1.559	0 0
139	M157	X	.9	.9	0 0
140	M157	Y	1.559	1.559	0 0
141	M158	X	.704	.704	0 0
142	M158	Y	1.219	1.219	0 0
143	M160	X	1.223	1.223	0 0
144	M160	Y	2.118	2.118	0 0
145	M162	X	2.004e-13	2.004e-13	0 0
146	M162	Y	3.471e-13	3.471e-13	0 0
147	M165	X	2.004e-13	2.004e-13	0 0
148	M165	Y	3.471e-13	3.471e-13	0 0
149	M169	X	.9	.9	0 0
150	M169	Y	1.559	1.559	0 0
151	M170	X	.9	.9	0 0
152	M170	Y	1.559	1.559	0 0
153	M171	X	.704	.704	0 0
154	M171	Y	1.219	1.219	0 0
155	M174	X	.9	.9	0 0
156	M174	Y	1.559	1.559	0 0
157	M175	X	.9	.9	0 0
158	M175	Y	1.559	1.559	0 0
159	M176	X	.704	.704	0 0
160	M176	Y	1.219	1.219	0 0
161	M177	X	.791	.791	0 0
162	M177	Y	1.37	1.37	0 0
163	M178	X	.791	.791	0 0
164	M178	Y	1.37	1.37	0 0
165	M179	X	.589	.589	0 0
166	M179	Y	1.019	1.019	0 0
167	M180	X	.791	.791	0 0
168	M180	Y	1.37	1.37	0 0
169	M181	X	.791	.791	0 0
170	M181	Y	1.37	1.37	0 0
171	M182	X	.589	.589	0 0
172	M182	Y	1.019	1.019	0 0
173	M192	X	1.223	1.223	0 0
174	M192	Y	2.118	2.118	0 0
175	M193	X	1.223	1.223	0 0
176	M193	Y	2.118	2.118	0 0
177	M194	X	1.223	1.223	0 0
178	M194	Y	2.118	2.118	0 0
179	M195	X	1.223	1.223	0 0
180	M195	Y	2.118	2.118	0 0
181	M196	X	.051	.051	0 0
182	M196	Y	.089	.089	0 0
183	M197	X	5.865e-12	5.865e-12	0 0
184	M197	Y	1.016e-11	1.016e-11	0 0

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

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in...]	End Location[in...]
185	M198	X	2.489e-13	2.489e-13	0	0
186	M198	Y	4.311e-13	4.311e-13	0	0

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

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in...]	End Location[in...]
1	M2	X	.865	.865	0	0
2	M2	Y	.865	.865	0	0
3	M4	X	1.55	1.55	0	0
4	M4	Y	1.55	1.55	0	0
5	M7	X	1.55	1.55	0	0
6	M7	Y	1.55	1.55	0	0
7	M11	X	2.199	2.199	0	0
8	M11	Y	2.199	2.199	0	0
9	M12	X	2.199	2.199	0	0
10	M12	Y	2.199	2.199	0	0
11	M13	X	1.72	1.72	0	0
12	M13	Y	1.72	1.72	0	0
13	M19	X	.013	.013	0	0
14	M19	Y	.013	.013	0	0
15	M20	X	.013	.013	0	0
16	M20	Y	.013	.013	0	0
17	M21	X	.01	.01	0	0
18	M21	Y	.01	.01	0	0
19	M23	X	.865	.865	0	0
20	M23	Y	.865	.865	0	0
21	M25	X	1.55	1.55	0	0
22	M25	Y	1.55	1.55	0	0
23	M28	X	1.55	1.55	0	0
24	M28	Y	1.55	1.55	0	0
25	M32	X	2.199	2.199	0	0
26	M32	Y	2.199	2.199	0	0
27	M33	X	2.199	2.199	0	0
28	M33	Y	2.199	2.199	0	0
29	M34	X	1.72	1.72	0	0
30	M34	Y	1.72	1.72	0	0
31	M40	X	.013	.013	0	0
32	M40	Y	.013	.013	0	0
33	M41	X	.013	.013	0	0
34	M41	Y	.013	.013	0	0
35	M42	X	.01	.01	0	0
36	M42	Y	.01	.01	0	0
37	M43	X	1.119	1.119	0	0
38	M43	Y	1.119	1.119	0	0
39	M44	X	1.119	1.119	0	0
40	M44	Y	1.119	1.119	0	0
41	M45	X	1.115	1.115	0	0
42	M45	Y	1.115	1.115	0	0
43	M46	X	1.119	1.119	0	0
44	M46	Y	1.119	1.119	0	0
45	M47	X	1.119	1.119	0	0
46	M47	Y	1.119	1.119	0	0
47	M48	X	.448	.448	0	0
48	M48	Y	.448	.448	0	0
49	M58	X	1.729	1.729	0	0
50	M58	Y	1.729	1.729	0	0
51	M59	X	1.729	1.729	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/ft.F.psf]	Start Location[in...]	End Location[in...]
52	M59	Y	1.729	1.729	0	0
53	M60	X	1.729	1.729	0	0
54	M60	Y	1.729	1.729	0	0
55	M61	X	1.729	1.729	0	0
56	M61	Y	1.729	1.729	0	0
57	M68	X	1.211	1.211	0	0
58	M68	Y	1.211	1.211	0	0
59	M73	X	1.924	1.924	0	0
60	M73	Y	1.924	1.924	0	0
61	M74	X	1.924	1.924	0	0
62	M74	Y	1.924	1.924	0	0
63	M72A	X	.116	.116	0	0
64	M72A	Y	.116	.116	0	0
65	M74B	X	2.892	2.892	0	0
66	M74B	Y	2.892	2.892	0	0
67	M77	X	2.892	2.892	0	0
68	M77	Y	2.892	2.892	0	0
69	M81	X	.415	.415	0	0
70	M81	Y	.415	.415	0	0
71	M82	X	.415	.415	0	0
72	M82	Y	.415	.415	0	0
73	M83	X	.324	.324	0	0
74	M83	Y	.324	.324	0	0
75	M86	X	1.508	1.508	0	0
76	M86	Y	1.508	1.508	0	0
77	M87	X	1.508	1.508	0	0
78	M87	Y	1.508	1.508	0	0
79	M88	X	1.179	1.179	0	0
80	M88	Y	1.179	1.179	0	0
81	M90	X	.116	.116	0	0
82	M90	Y	.116	.116	0	0
83	M92	X	2.892	2.892	0	0
84	M92	Y	2.892	2.892	0	0
85	M95	X	2.892	2.892	0	0
86	M95	Y	2.892	2.892	0	0
87	M99	X	.415	.415	0	0
88	M99	Y	.415	.415	0	0
89	M100	X	.415	.415	0	0
90	M100	Y	.415	.415	0	0
91	M101	X	.324	.324	0	0
92	M101	Y	.324	.324	0	0
93	M104	X	1.508	1.508	0	0
94	M104	Y	1.508	1.508	0	0
95	M105	X	1.508	1.508	0	0
96	M105	Y	1.508	1.508	0	0
97	M106	X	1.179	1.179	0	0
98	M106	Y	1.179	1.179	0	0
99	M107	X	1.119	1.119	0	0
100	M107	Y	1.119	1.119	0	0
101	M108	X	1.119	1.119	0	0
102	M108	Y	1.119	1.119	0	0
103	M109	X	.57	.57	0	0
104	M109	Y	.57	.57	0	0
105	M110	X	1.119	1.119	0	0
106	M110	Y	1.119	1.119	0	0
107	M111	X	1.119	1.119	0	0
108	M111	Y	1.119	1.119	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/ft,F.psf]	Start Location[in...]	End Location[in...]
109	M112	X	.904	.904	0	0
110	M112	Y	.904	.904	0	0
111	M122	X	1.729	1.729	0	0
112	M122	Y	1.729	1.729	0	0
113	M123	X	1.729	1.729	0	0
114	M123	Y	1.729	1.729	0	0
115	M124	X	1.729	1.729	0	0
116	M124	Y	1.729	1.729	0	0
117	M125	X	1.729	1.729	0	0
118	M125	Y	1.729	1.729	0	0
119	M126	X	1.378	1.378	0	0
120	M126	Y	1.378	1.378	0	0
121	M127	X	3.591	3.591	0	0
122	M127	Y	3.591	3.591	0	0
123	M128	X	3.591	3.591	0	0
124	M128	Y	3.591	3.591	0	0
125	M142	X	1.614	1.614	0	0
126	M142	Y	1.614	1.614	0	0
127	M144	X	.208	.208	0	0
128	M144	Y	.208	.208	0	0
129	M147	X	.208	.208	0	0
130	M147	Y	.208	.208	0	0
131	M151	X	.704	.704	0	0
132	M151	Y	.704	.704	0	0
133	M152	X	.704	.704	0	0
134	M152	Y	.704	.704	0	0
135	M153	X	.55	.55	0	0
136	M153	Y	.55	.55	0	0
137	M156	X	1.797	1.797	0	0
138	M156	Y	1.797	1.797	0	0
139	M157	X	1.797	1.797	0	0
140	M157	Y	1.797	1.797	0	0
141	M158	X	1.405	1.405	0	0
142	M158	Y	1.405	1.405	0	0
143	M160	X	1.614	1.614	0	0
144	M160	Y	1.614	1.614	0	0
145	M162	X	.208	.208	0	0
146	M162	Y	.208	.208	0	0
147	M165	X	.208	.208	0	0
148	M165	Y	.208	.208	0	0
149	M169	X	.704	.704	0	0
150	M169	Y	.704	.704	0	0
151	M170	X	.704	.704	0	0
152	M170	Y	.704	.704	0	0
153	M171	X	.55	.55	0	0
154	M171	Y	.55	.55	0	0
155	M174	X	1.797	1.797	0	0
156	M174	Y	1.797	1.797	0	0
157	M175	X	1.797	1.797	0	0
158	M175	Y	1.797	1.797	0	0
159	M176	X	1.405	1.405	0	0
160	M176	Y	1.405	1.405	0	0
161	M177	X	1.119	1.119	0	0
162	M177	Y	1.119	1.119	0	0
163	M178	X	1.119	1.119	0	0
164	M178	Y	1.119	1.119	0	0
165	M179	X	.659	.659	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/ft.F.psf]	Start Location[in...]	End Location[in...]
166	M179	Y	.659	.659	0	0
167	M180	X	1.119	1.119	0	0
168	M180	Y	1.119	1.119	0	0
169	M181	X	1.119	1.119	0	0
170	M181	Y	1.119	1.119	0	0
171	M182	X	.992	.992	0	0
172	M182	Y	.992	.992	0	0
173	M192	X	1.729	1.729	0	0
174	M192	Y	1.729	1.729	0	0
175	M193	X	1.729	1.729	0	0
176	M193	Y	1.729	1.729	0	0
177	M194	X	1.729	1.729	0	0
178	M194	Y	1.729	1.729	0	0
179	M195	X	1.729	1.729	0	0
180	M195	Y	1.729	1.729	0	0
181	M196	X	.005	.005	0	0
182	M196	Y	.005	.005	0	0
183	M197	X	.258	.258	0	0
184	M197	Y	.258	.258	0	0
185	M198	X	.258	.258	0	0
186	M198	Y	.258	.258	0	0

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

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in...]	End Location[in...]
1	M2	X	1.589	1.589	0	0
2	M2	Y	.917	.917	0	0
3	M4	X	.949	.949	0	0
4	M4	Y	.548	.548	0	0
5	M7	X	.949	.949	0	0
6	M7	Y	.548	.548	0	0
7	M11	X	2.617	2.617	0	0
8	M11	Y	1.511	1.511	0	0
9	M12	X	2.617	2.617	0	0
10	M12	Y	1.511	1.511	0	0
11	M13	X	2.046	2.046	0	0
12	M13	Y	1.181	1.181	0	0
13	M19	X	.297	.297	0	0
14	M19	Y	.172	.172	0	0
15	M20	X	.297	.297	0	0
16	M20	Y	.172	.172	0	0
17	M21	X	.232	.232	0	0
18	M21	Y	.134	.134	0	0
19	M23	X	1.589	1.589	0	0
20	M23	Y	.917	.917	0	0
21	M25	X	.949	.949	0	0
22	M25	Y	.548	.548	0	0
23	M28	X	.949	.949	0	0
24	M28	Y	.548	.548	0	0
25	M32	X	2.617	2.617	0	0
26	M32	Y	1.511	1.511	0	0
27	M33	X	2.617	2.617	0	0
28	M33	Y	1.511	1.511	0	0
29	M34	X	2.046	2.046	0	0
30	M34	Y	1.181	1.181	0	0
31	M40	X	.297	.297	0	0
32	M40	Y	.172	.172	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/ft.F.psf]	Start Location[in...]	End Location[in...]
33	M41	X	.297	.297	0	0
34	M41	Y	.172	.172	0	0
35	M42	X	.232	.232	0	0
36	M42	Y	.134	.134	0	0
37	M43	X	1.37	1.37	0	0
38	M43	Y	.791	.791	0	0
39	M44	X	1.37	1.37	0	0
40	M44	Y	.791	.791	0	0
41	M45	X	1.342	1.342	0	0
42	M45	Y	.775	.775	0	0
43	M46	X	1.37	1.37	0	0
44	M46	Y	.791	.791	0	0
45	M47	X	1.37	1.37	0	0
46	M47	Y	.791	.791	0	0
47	M48	X	.634	.634	0	0
48	M48	Y	.366	.366	0	0
49	M58	X	2.118	2.118	0	0
50	M58	Y	1.223	1.223	0	0
51	M59	X	2.118	2.118	0	0
52	M59	Y	1.223	1.223	0	0
53	M60	X	2.118	2.118	0	0
54	M60	Y	1.223	1.223	0	0
55	M61	X	2.118	2.118	0	0
56	M61	Y	1.223	1.223	0	0
57	M68	X	.941	.941	0	0
58	M68	Y	.543	.543	0	0
59	M73	X	1.179	1.179	0	0
60	M73	Y	.68	.68	0	0
61	M74	X	1.179	1.179	0	0
62	M74	Y	.68	.68	0	0
63	M72A	X	3.026e-13	3.026e-13	0	0
64	M72A	Y	1.747e-13	1.747e-13	0	0
65	M74B	X	3.796	3.796	0	0
66	M74B	Y	2.192	2.192	0	0
67	M77	X	3.796	3.796	0	0
68	M77	Y	2.192	2.192	0	0
69	M81	X	1.15	1.15	0	0
70	M81	Y	.664	.664	0	0
71	M82	X	1.15	1.15	0	0
72	M82	Y	.664	.664	0	0
73	M83	X	.899	.899	0	0
74	M83	Y	.519	.519	0	0
75	M86	X	1.15	1.15	0	0
76	M86	Y	.664	.664	0	0
77	M87	X	1.15	1.15	0	0
78	M87	Y	.664	.664	0	0
79	M88	X	.899	.899	0	0
80	M88	Y	.519	.519	0	0
81	M90	X	3.026e-13	3.026e-13	0	0
82	M90	Y	1.747e-13	1.747e-13	0	0
83	M92	X	3.796	3.796	0	0
84	M92	Y	2.192	2.192	0	0
85	M95	X	3.796	3.796	0	0
86	M95	Y	2.192	2.192	0	0
87	M99	X	1.15	1.15	0	0
88	M99	Y	.664	.664	0	0
89	M100	X	1.15	1.15	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/ft.F.psf]	Start Location[in...	End Location[in...
90	M100	Y	.664	.664	0	0
91	M101	X	.899	.899	0	0
92	M101	Y	.519	.519	0	0
93	M104	X	1.15	1.15	0	0
94	M104	Y	.664	.664	0	0
95	M105	X	1.15	1.15	0	0
96	M105	Y	.664	.664	0	0
97	M106	X	.899	.899	0	0
98	M106	Y	.519	.519	0	0
99	M107	X	1.37	1.37	0	0
100	M107	Y	.791	.791	0	0
101	M108	X	1.37	1.37	0	0
102	M108	Y	.791	.791	0	0
103	M109	X	.894	.894	0	0
104	M109	Y	.516	.516	0	0
105	M110	X	1.37	1.37	0	0
106	M110	Y	.791	.791	0	0
107	M111	X	1.37	1.37	0	0
108	M111	Y	.791	.791	0	0
109	M112	X	.894	.894	0	0
110	M112	Y	.516	.516	0	0
111	M122	X	2.118	2.118	0	0
112	M122	Y	1.223	1.223	0	0
113	M123	X	2.118	2.118	0	0
114	M123	Y	1.223	1.223	0	0
115	M124	X	2.118	2.118	0	0
116	M124	Y	1.223	1.223	0	0
117	M125	X	2.118	2.118	0	0
118	M125	Y	1.223	1.223	0	0
119	M126	X	2.03	2.03	0	0
120	M126	Y	1.172	1.172	0	0
121	M127	X	4.714	4.714	0	0
122	M127	Y	2.722	2.722	0	0
123	M128	X	4.714	4.714	0	0
124	M128	Y	2.722	2.722	0	0
125	M142	X	1.589	1.589	0	0
126	M142	Y	.917	.917	0	0
127	M144	X	.949	.949	0	0
128	M144	Y	.548	.548	0	0
129	M147	X	.949	.949	0	0
130	M147	Y	.548	.548	0	0
131	M151	X	.297	.297	0	0
132	M151	Y	.172	.172	0	0
133	M152	X	.297	.297	0	0
134	M152	Y	.172	.172	0	0
135	M153	X	.232	.232	0	0
136	M153	Y	.134	.134	0	0
137	M156	X	2.617	2.617	0	0
138	M156	Y	1.511	1.511	0	0
139	M157	X	2.617	2.617	0	0
140	M157	Y	1.511	1.511	0	0
141	M158	X	2.046	2.046	0	0
142	M158	Y	1.181	1.181	0	0
143	M160	X	1.589	1.589	0	0
144	M160	Y	.917	.917	0	0
145	M162	X	.949	.949	0	0
146	M162	Y	.548	.548	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/ft,F.psf]	Start Location[in...]	End Location[in...]
147	M165	X	.949	.949	0	0
148	M165	Y	.548	.548	0	0
149	M169	X	.297	.297	0	0
150	M169	Y	.172	.172	0	0
151	M170	X	.297	.297	0	0
152	M170	Y	.172	.172	0	0
153	M171	X	.232	.232	0	0
154	M171	Y	.134	.134	0	0
155	M174	X	2.617	2.617	0	0
156	M174	Y	1.511	1.511	0	0
157	M175	X	2.617	2.617	0	0
158	M175	Y	1.511	1.511	0	0
159	M176	X	2.046	2.046	0	0
160	M176	Y	1.181	1.181	0	0
161	M177	X	1.37	1.37	0	0
162	M177	Y	.791	.791	0	0
163	M178	X	1.37	1.37	0	0
164	M178	Y	.791	.791	0	0
165	M179	X	.634	.634	0	0
166	M179	Y	.366	.366	0	0
167	M180	X	1.37	1.37	0	0
168	M180	Y	.791	.791	0	0
169	M181	X	1.37	1.37	0	0
170	M181	Y	.791	.791	0	0
171	M182	X	1.342	1.342	0	0
172	M182	Y	.775	.775	0	0
173	M192	X	2.118	2.118	0	0
174	M192	Y	1.223	1.223	0	0
175	M193	X	2.118	2.118	0	0
176	M193	Y	1.223	1.223	0	0
177	M194	X	2.118	2.118	0	0
178	M194	Y	1.223	1.223	0	0
179	M195	X	2.118	2.118	0	0
180	M195	Y	1.223	1.223	0	0
181	M196	X	.207	.207	0	0
182	M196	Y	.119	.119	0	0
183	M197	X	1.178	1.178	0	0
184	M197	Y	.68	.68	0	0
185	M198	X	1.179	1.179	0	0
186	M198	Y	.68	.68	0	0

Member Area Loads

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

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	N2	max	1383.963	4	481.735	14	1102.52	27	173.217	29	-155.84	1	98
2		min	-3412.362	12	-1697.997	6	422.378	1	-7.4	5	-384.977	26	1
3	N1	max	2275.083	19	1211.92	32	1017.996	19	166.912	29	-149.404	1	98
4		min	462.846	11	313.62	9	426.998	1	-4.815	5	-362.249	19	1
5	N114	max	1930.366	18	2806.595	17	1040.057	32	-127.516	10	138.725	10	98
6		min	-1890.9	10	-598.526	9	415.442	1	-390.986	34	-83.445	18	1
7	N115	max	1760.12	83	717.397	3	1110.797	21	435.55	20	283.319	92	98

Envelope Joint Reactions (Continued)

Joint	X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [lb-ft]	LC	MY [lb-ft]	LC	MZ [lb-ft]	LC
8	min -1215.163	28	-3101.823	11	433.55	1	109.298	12	-118.363	4	0	1
9	N116 max 1539.758	13	314.863	5	34.486	21	1.372	18	2.067	26	0	98
10	min -1539.007	5	-318.226	13	13.495	1	-9.897	26	-.287	18	0	1
11	N118 max 1090.562	28	2833.1	30	1041.469	29	410.652	20	271.442	92	0	98
12	min -1791.479	92	179.648	6	399.343	1	109.331	12	-119.635	4	0	1
13	N230 max 695.061	4	2088.708	12	34.957	20	36.469	36	-12.61	92	0	98
14	min -695.056	12	-2083.683	4	14.316	1	4.146	92	-110.92	36	0	1
15	N231 max 453.606	18	-363.049	15	968.641	24	-120.675	10	131.713	10	0	98
16	min -493.88	10	-2481.072	23	389.006	1	-368.313	34	-83.034	18	0	1
17	N343 max 1098.61	10	1232.791	10	34.503	26	8.809	26	9.852	26	0	98
18	min -1097.816	18	-1226.196	18	13.43	1	-1.8	18	-2.014	18	0	1
19	Totals: max 4092.007	3	4423.545	15	6313.021	19						
20	min -4092.019	11	-4423.472	7	2527.958	1						

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

Member	Shape	Code Check	Loc...	LC	She...	Loc[in]	Dir	LC	phi*...	phi*P...	phi*M...	phi*...	Cb	Eqn
1	M92 PL6x1/2	.587	2.1...	12	.409	0	y	12	9649..	97200	1012.5	121....	1.191	H1-1b
2	M122 PIPE_2.0	.527	24.5	43	.078	42		27	1785..	32130	1871....	187....	4.84	H1-1b
3	M162 PL6x1/2	.443	0	18	.319	0	y	18	9649..	97200	1012.5	121....	1.294	H1-1b
4	M25 PL6x1/2	.431	0	13	.309	0	y	13	9649..	97200	1012.5	121....	1.293	H1-1b
5	M125 PIPE_2.0	.423	24.5	84	.067	24.5		84	1785..	32130	1871....	187....	4.899	H1-1b
6	M90 PIPE_2...	.344	39....	5	.158	41.687		12	2114..	63000	3615	3615	3.344	H1-1b
7	M61 PIPE_2.0	.328	24.5	23	.066	24.5		5	1785..	32130	1871....	187....	4.671	H1-1b
8	M123 PIPE_2.0	.328	59.5	13	.102	42		4	1785..	32130	1871....	187....	3.385	H1-1b
9	M195 PIPE_2.0	.324	59.5	23	.063	42		20	1785..	32130	1871....	187....	4.587	H1-1b
10	M72A PIPE_2...	.319	39....	14	.083	39.875		37	2114..	63000	3615	3615	2.319	H1-1b
11	M193 PIPE_2.0	.286	24.5	18	.067	24.5		18	1785..	32130	1871....	187....	4.282	H1-1b
12	M160 PIPE_2...	.286	13....	17	.103	56.187		18	2114..	63000	3615	3615	2.162	H1-1b
13	M23 PIPE_2...	.283	13....	11	.098	56.188		13	2114..	63000	3615	3615	1.872	H1-1b
14	M99 PL3-5/8...	.277	2.5	36	.200	0	y	4	7979..	8156...	849.611	615....	1.031	H1-1b
15	M81 PL3-5/8...	.271	2.5	36	.088	2.5	y	5	7979..	8156...	849.611	615....	1.005	H1-1b
16	M124 PIPE_2.0	.267	59.5	4	.096	24.5		4	1785..	32130	1871....	187....	4.831	H1-1b
17	M194 PIPE_2.0	.254	24.5	18	.094	42		18	1785..	32130	1871....	187....	2.429	H1-1b
18	M142 PIPE_2...	.246	13....	8	.063	132.312		33	2114..	63000	3615	3615	2.627	H1-1b
19	M59 PIPE_2.0	.228	24.5	13	.043	24.5		13	1785..	32130	1871....	187....	4.172	H1-1b
20	M40 PL3-5/8...	.224	2.5	29	.068	2.5	y	33	7979..	8156...	849.611	615....	1.202	H1-1b
21	M19 PL3-5/8...	.219	2.5	29	.052	0	y	22	7979..	8156...	849.611	615....	1.004	H1-1b
22	M127 PL8x1/2	.215	0	23	.242	6	y	36	1586..	180000	1875	300....	1.667	H1-1b
23	M82 PL3-5/8...	.213	0	38	.103	2.5	y	5	7979..	8156...	849.611	615....	1.664	H1-1b
24	M73 PL8x1/2	.212	0	27	.133	6	y	29	1586..	180000	1875	300....	1.667	H1-1b
25	M128 PL8x1/2	.205	0	30	.237	0	y	36	1586..	180000	1875	300....	1.667	H1-1b
26	M60 PIPE_2.0	.205	24.5	12	.091	42		13	1785..	32130	1871....	187....	3.057	H1-1b
27	M174 PL3-5/8...	.205	2.5	34	.059	0	y	19	7979..	8156...	849.611	615....	2.011	H1-1b
28	M156 PL3-5/8...	.204	2.5	34	.068	2.5	y	17	7979..	8156...	849.611	615....	1.007	H1-1b
29	M74B PL6x1/2	.203	2.1...	38	.200	2.125	y	28	9609..	97200	1012.5	121....	1.96	H1-1b
30	M2 PIPE_2...	.201	13....	3	.062	132.313		27	2114..	63000	3615	3615	2.348	H1-1b
31	M197 PL8x1/2	.201	0	33	.140	0	y	18	1586..	180000	1875	300....	1.667	H1-1b
32	M74 PL8x1/2	.200	0	19	.133	0	y	29	1586..	180000	1875	300....	1.667	H1-1b
33	M100 PL3-5/8...	.195	0	47	.210	2.5	y	4	7979..	8156...	849.611	615....	1.666	H1-1b
34	M198 PL8x1/2	.191	0	24	.142	0	y	18	1586..	180000	1875	300....	1.667	H1-1b
35	M104 PL3-5/8...	.186	2.5	92	.121	0	y	25	7979..	8156...	849.611	615....	1.027	H1-1b
36	M86 PL3-5/8...	.179	2.5	92	.109	0	y	29	7979..	8156...	849.611	615....	1.012	H1-1b
37	M20 PL3-5/8...	.171	0	29	.039	0	z	29	7979..	8156...	849.611	615....	1.656	H1-1b
38	M41 PL3-5/8...	.171	0	34	.062	2.5	y	3	7979..	8156...	849.611	615....	1.665	H1-1b
39	M157 PL3-5/8...	.168	0	33	.069	2.5	y	16	7979..	8156...	849.611	615....	1.658	H1-1b

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

Member	Shape	Code Check	Loc...	LC	She...	Loc[fin]	Dir	LC	phi*...	phi*P...	phi*M...	phi*...	Cb	Eqn	
40	M77	PL6x1/2	.163	2.1...	92	.111	0	y	77	9609...	.97200	1012.5	121...	1.994	H1-1b
41	M175	PL3-5/8...	.156	0	23	.062	2.5	y	8	7979...	.8156...	849.611	615...	1.665	H1-1b
42	M192	PIPE_2.0	.154	59.5	34	.032	42		19	1785...	.32130	1871....	187...	4.57	H1-1b
43	M87	PL3-5/8...	.154	0	92	.097	2.5	y	87	7979...	.8156...	849.611	615...	1.667	H1-1b
44	M58	PIPE_2.0	.154	59.5	29	.032	42		30	1785...	.32130	1871....	187...	4.534	H1-1b
45	M28	PL6x1/2	.153	2.1...	29	.156	0	y	27	9609...	.97200	1012.5	121...	2.139	H1-1b
46	M95	PL6x1/2	.149	2.1...	92	.091	2.125	y	75	9609...	.97200	1012.5	121...	1.966	H1-1b
47	M7	PL6x1/2	.147	2.1...	29	.148	0	y	34	9609...	.97200	1012.5	121...	1.871	H1-1b
48	M147	PL6x1/2	.145	2.1...	34	.147	0	y	23	9609...	.97200	1012.5	121...	1.86	H1-1b
49	M105	PL3-5/8...	.138	0	92	.091	2.5	y	94	7979...	.8156...	849.611	615...	1.666	H1-1b
50	M165	PL6x1/2	.137	2.1...	23	.145	2.125	y	34	9609...	.97200	1012.5	121...	1.992	H1-1b
51	M108	SR 3/4	.137	35	36	.020	35		4	6983...	.19890	256	256	2.277	H1-1b*
52	M107	SR 3/4	.134	35	47	.019	0		4	6983...	.19890	256	256	2.254	H1-1b*
53	M126	PIPE_2.0	.133	0	12	.050	0		36	1651...	.45900	2673.75	267...	1.136	H1-1b*
54	M46	SR 3/4	.121	35	34	.010	0		13	6983...	.19890	256	256	2.021	H1-1b*
55	M47	SR 3/4	.117	35	30	.012	35		13	6983...	.19890	256	256	2.282	H1-1b*
56	M109	SR 3/4	.116	55....	28	.007	55.577		11	2769...	.19890	256	256	2.351	H1-1b
57	M170	PL3-5/8...	.115	0	10	.217	2.5	y	10	7979...	.8156...	849.611	615...	1.665	H1-1b
58	M180	SR 3/4	.110	35	23	.014	0		18	6983...	.19890	256	256	1.982	H1-1b*
59	M181	SR 3/4	.109	35	34	.015	35		18	6983...	.19890	256	256	2.271	H1-1b*
60	M169	PL3-5/8...	.108	2.5	10	.211	2.5	y	10	7979...	.8156...	849.611	615...	1.016	H1-1b
61	M48	SR 3/4	.107	55....	31	.003	55.577		17	2769...	.19890	256	256	2.423	H1-1b
62	M83	PIPE_2...	.105	.941	36	.063	44.231		38	4893...	.63000	3615	3615	2.178	H1-1b
63	M111	SR 3/4	.103	35	28	.020	0		4	6983...	.19890	256	256	2.301	H1-1b
64	M101	PIPE_2...	.102	.941	28	.065	0		4	4893...	.63000	3615	3615	2.123	H1-1b
65	M44	SR 3/4	.102	0	29	.013	0		13	6983...	.19890	256	256	2.255	H1-1b
66	M182	SR 3/4	.101	55....	20	.004	55.577		15	2769...	.19890	256	256	2.44	H1-1b
67	M196	PIPE_2.0	.100	92....	18	.008	92.606		27	1651...	.45900	2673.75	267...	1.136	H1-1b*
68	M33	PL3-5/8...	.100	0	5	.207	2.5	y	5	7979...	.8156...	849.611	615...	1.667	H1-1b
69	M178	SR 3/4	.097	0	34	.016	0		18	6983...	.19890	256	256	2.246	H1-1b
70	M68	PIPE_2.0	.096	92....	13	.007	0		26	1651...	.45900	2673.75	267...	1.136	H1-1b*
71	M110	SR 3/4	.095	35	92	.018	35		4	6983...	.19890	256	256	2.276	H1-1b*
72	M112	SR 3/4	.094	55....	28	.010	0		5	2769...	.19890	256	256	2.529	H1-1b*
73	M32	PL3-5/8...	.092	0	12	.202	2.5	y	5	7979...	.8156...	849.611	615...	1.004	H1-1b
74	M21	PIPE_2...	.087	.941	30	.049	0		33	4893...	.63000	3615	3615	2.116	H1-1b
75	M151	PL3-5/8...	.086	2.5	10	.098	0	y	26	7979...	.8156...	849.611	615...	1.019	H1-1b
76	M42	PIPE_2...	.086	.941	29	.053	0		28	4893...	.63000	3615	3615	2.11	H1-1b
77	M158	PIPE_2...	.081	.941	19	.046	0		34	4893...	.63000	3615	3615	2.112	H1-1b
78	M176	PIPE_2...	.080	.941	34	.049	0		19	4893...	.63000	3615	3615	2.097	H1-1b
79	M88	PIPE_2...	.073	.941	92	.052	44.231		91	4893...	.63000	3615	3615	2.164	H1-1b
80	M144	PL6x1/2	.071	2.1...	30	.038	2.125	y	23	9609...	.97200	1012.5	121...	1.793	H1-1b
81	M106	PIPE_2...	.070	.941	92	.052	0		92	4893...	.63000	3615	3615	2.159	H1-1b
82	M4	PL6x1/2	.070	2.1...	30	.039	2.125	y	14	9609...	.97200	1012.5	121...	2.104	H1-1b
83	M177	SR 3/4	.067	35	10	.016	0		18	6983...	.19890	256	256	1.047	H1-1b*
84	M45	SR 3/4	.064	55....	34	.010	0		12	2769...	.19890	256	256	2.508	H1-1b
85	M179	SR 3/4	.064	55....	23	.012	0		18	2769...	.19890	256	256	2.492	H1-1b
86	M152	PL3-5/8...	.062	0	34	.060	2.5	y	30	7979...	.8156...	849.611	615...	1.665	H1-1b
87	M11	PL3-5/8...	.061	2.5	4	.102	0	y	20	7979...	.8156...	849.611	615...	1.015	H1-1b
88	M12	PL3-5/8...	.061	0	29	.063	2.5	y	24	7979...	.8156...	849.611	615...	1.667	H1-1b
89	M171	PIPE_2...	.058	44....	10	.064	44.231		10	4893...	.63000	3615	3615	2.298	H1-1b
90	M43	SR 3/4	.057	35	5	.013	0		13	6983...	.19890	256	256	1.164	H1-1b*
91	M34	PIPE_2...	.053	44....	5	.059	44.231		5	4893...	.63000	3615	3615	2.299	H1-1b
92	M153	PIPE_2...	.039	.941	9	.036	0		26	4893...	.63000	3615	3615	1.501	H1-1b
93	M13	PIPE_2...	.031	.941	3	.037	0		20	4893...	.63000	3615	3615	1.403	H1-1b

APPENDIX D
ADDITIONAL CALCUATIONS

CONNECTION SLIP RESISTANCE



DESIGN LOADS	
Factored Axial, P_u (lb)	2202
Factored Moment, M_u (lb-ft)	

BOLT PROPERTIES	
Bolt Type	U-Bolt
# of U-Bolts	2
Hole Type	Standard
Bolt Grade	A36
Bolt Diameter, d (in)	0.5
Leg Width, W_{leg} (in)	2.4
Bolt Torque Override, T (lb-ft)	
Bolt Pretension Stress Override (ksi)	
Bolt Ultimate Strength, F_u (ksi)	58
Specified Torque, T (lb-ft)	49.82
Clamping Force per Bolt, P_u (lb)	5978.84
Bolt Pretension Stress (ksi)	30.45
Tensile Strength per Bolt, ϕP_n (lb)	6405.90
Axial Slip Resistance per Bolt, ϕP_n (lb)	2026.83
Total Axial Slip Resistance, ϕP_n (lb)	8107.31
Rotational Slip Resistance per Bolt, ϕM_n (lb-ft)	405.37
Total Rotational Slip Resistance, ϕM_n (lb-ft)	1621.46
Axial Slip Usage, $P_u / \phi P_n$	27.2%

FACTORS	
Nut Factor, K	0.20
$\Phi_{(BOLT\ TENSION)}$	0.75
$\Phi_{(SLIP-CRITICAL)}$	1.00
Mean Slip Coefficient, μ	0.30
Installed Pretension Ratio, D_u	1.13
Turn-of-Nut Pretension Factor	0.70

Rule-of-thumb estimate
 AISC 15th, J3.6
 AISC 15th, J3.8
 AISC 15th, J3.8
 AISC 15th, J3.8
 AISC 15th, Table J3.1[a]

Using Turn-of-Nut!

Exhibit F

Power Density/RF Emissions Report



RF EMISSIONS COMPLIANCE REPORT

Crown Castle on behalf of AT&T Mobility, LLC

Crown Castle Site Order ID: 517091
Crown Castle Site BU Number: 876338
Crown Castle Site Name: WATERFORD
AT&T Mobility, LLC Site FA Number: 10071306
AT&T Mobility, LLC Site Name: WATERFORD CENTRAL
41 Manitock Hill Road
Waterford, CT
6/9/2020

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 09 June 2020

Prepared By:

Site Safe, LLC

Engineering Statement in Re:
Electromagnetic Energy Analysis
Crown Castle
Waterford, 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 "WATERFORD" ("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 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 4.396% 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 10.265% 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.

**Crown Castle
WATERFORD
Site Summary**

Carrier	Area Maximum Percentage MPE
AT&T Mobility, LLC (Proposed)	0.719 %
AT&T Mobility, LLC (Proposed)	0.606 %
AT&T Mobility, LLC (Proposed)	0.957 %
AT&T Mobility, LLC (Proposed)	1.063 %
AT&T Mobility, LLC (Proposed)	0.561 %
AT&T Mobility, LLC (Proposed)	0.490 %
Crown Castle (Abandoned)	0.000 %
Crown Castle (Abandoned)	0.000 %
Sprint	0.325 %
Sprint	0.239 %
Sprint	0.295 %
T-Mobile	0.322 %
T-Mobile	0.423 %
T-Mobile	0.344 %
T-Mobile	0.322 %
Verizon Wireless	0.920 %
Verizon Wireless	0.978 %
Verizon Wireless	0.656 %
Verizon Wireless	1.045 %
 Composite Site MPE:	 10.265 %

**AT&T Mobility, LLC (Proposed)
WATERFORD
Carrier Summary**

Frequency: 2300 MHz
 Maximum Permissible Exposure (MPE): 1000 $\mu\text{W}/\text{cm}^2$
 Maximum power density at ground level: 7.18664 $\mu\text{W}/\text{cm}^2$
 Highest percentage of Maximum Permissible Exposure: 0.71866 %

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
CCI	OPA65R-BU4D	97	65	2851	5.516393	0.551639	7.043286	0.704329
CCI	OPA65R-BU4D	97	195	2851	5.516393	0.551639	7.043286	0.704329
CCI	OPA65R-BU4D	97	315	2851	5.516393	0.551639	7.043286	0.704329

**AT&T Mobility, LLC (Proposed)
WATERFORD
Carrier Summary**

Frequency: 763 MHz
 Maximum Permissible Exposure (MPE): 508.67 $\mu\text{W}/\text{cm}^2$
 Maximum power density at ground level: 3.08224 $\mu\text{W}/\text{cm}^2$
 Highest percentage of Maximum Permissible Exposure: 0.60594 %

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
CCI Antennas	OPA65R-BU4D	97	65	1775	2.814028	0.553216	3.017974	0.593311
CCI Antennas	OPA65R-BU4D	97	195	1775	2.814028	0.553216	3.017974	0.593311
CCI Antennas	OPA65R-BU4D	97	315	1775	2.814028	0.553216	3.017974	0.593311

**AT&T Mobility, LLC (Proposed)
WATERFORD
Carrier Summary**

Frequency: 2100 MHz
 Maximum Permissible Exposure (MPE): 1000 $\mu\text{W}/\text{cm}^2$
 Maximum power density at ground level: 9.56503 $\mu\text{W}/\text{cm}^2$
 Highest percentage of Maximum Permissible Exposure: 0.95650 %

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
CCI Antennas	DMP65R-BU4D	97	65	4066	6.948938	0.694894	9.316253	0.931625
CCI Antennas	DMP65R-BU4D	97	195	4066	6.948938	0.694894	9.316253	0.931625
CCI Antennas	DMP65R-BU4D	97	315	4066	6.948938	0.694894	9.316253	0.931625

**AT&T Mobility, LLC (Proposed)
WATERFORD
Carrier Summary**

Frequency: 1900 MHz
Maximum Permissible Exposure (MPE): 1000 $\mu\text{W}/\text{cm}^2$
Maximum power density at ground level: 10.63196 $\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure: 1.06320 %

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
CCI Antennas	DMP65R-BU4D	97	65	3541	8.300504	0.830050	10.427533	1.042753
CCI Antennas	DMP65R-BU4D	97	195	3541	8.300504	0.830050	10.427533	1.042753
CCI Antennas	DMP65R-BU4D	97	315	3541	8.300504	0.830050	10.427533	1.042753

**AT&T Mobility, LLC (Proposed)
WATERFORD
Carrier Summary**

Frequency: 850 MHz
 Maximum Permissible Exposure (MPE): 566.67 $\mu\text{W}/\text{cm}^2$
 Maximum power density at ground level: 3.17936 $\mu\text{W}/\text{cm}^2$
 Highest percentage of Maximum Permissible Exposure: 0.56106 %

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
CCI Antennas	DMP65R-BU4D	97	65	1695	2.271045	0.400773	2.402704	0.424007
Powerwave	7770	97	120	547	0.581304	0.102583	0.907941	0.160225
CCI Antennas	DMP65R-BU4D	97	195	1695	2.271045	0.400773	2.402704	0.424007
Powerwave	7770	97	240	547	0.581304	0.102583	0.907941	0.160225
CCI Antennas	DMP65R-BU4D	97	315	1695	2.271045	0.400773	2.402704	0.424007
Powerwave	7770	97	310	547	0.581304	0.102583	0.907941	0.160225

**AT&T Mobility, LLC (Proposed)
WATERFORD
Carrier Summary**

Frequency: 737 MHz
 Maximum Permissible Exposure (MPE): 491.33 $\mu\text{W}/\text{cm}^2$
 Maximum power density at ground level: 2.40879 $\mu\text{W}/\text{cm}^2$
 Highest percentage of Maximum Permissible Exposure: 0.49026 %

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
CCI Antennas	DMP65R-BU4D	97	65	1582	2.264192	0.460826	2.374669	0.483311
CCI Antennas	DMP65R-BU4D	97	195	1582	2.264192	0.460826	2.374669	0.483311
CCI Antennas	DMP65R-BU4D	97	315	1582	2.264192	0.460826	2.374669	0.483311

**Crown Castle (Abandoned)
WATERFORD
Carrier Summary**

Frequency: 850 MHz
 Maximum Permissible Exposure (MPE): 566.67 $\mu\text{W}/\text{cm}^2$
 Maximum power density at ground level: 0.00000 $\mu\text{W}/\text{cm}^2$
 Highest percentage of Maximum Permissible Exposure: 0.00000 %

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	DB844H90E-XY	127	30	0	0.000000	0.000000	0.000000	0.000000
ANDREW	DB844H90E-XY	127	30	0	0.000000	0.000000	0.000000	0.000000
ANDREW	DB844H90E-XY	127	30	0	0.000000	0.000000	0.000000	0.000000
ANDREW	DB844H90E-XY	127	30	0	0.000000	0.000000	0.000000	0.000000
ANDREW	DB844H90E-XY	127	150	0	0.000000	0.000000	0.000000	0.000000
ANDREW	DB844H90E-XY	127	150	0	0.000000	0.000000	0.000000	0.000000
ANDREW	DB844H90E-XY	127	150	0	0.000000	0.000000	0.000000	0.000000
ANDREW	DB844H90E-XY	127	150	0	0.000000	0.000000	0.000000	0.000000
ANDREW	DB844H90E-XY	127	270	0	0.000000	0.000000	0.000000	0.000000
ANDREW	DB844H90E-XY	127	270	0	0.000000	0.000000	0.000000	0.000000
ANDREW	DB844H90E-XY	127	270	0	0.000000	0.000000	0.000000	0.000000
ANDREW	DB844H90E-XY	127	270	0	0.000000	0.000000	0.000000	0.000000

**Crown Castle (Abandoned)
WATERFORD
Carrier Summary**

Frequency: 1900 MHz
 Maximum Permissible Exposure (MPE): 1000 $\mu\text{W}/\text{cm}^2$
 Maximum power density at ground level: 0.00000 $\mu\text{W}/\text{cm}^2$
 Highest percentage of Maximum Permissible Exposure: 0.00000 %

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	80010504	89	80	0	0.000000	0.000000	0.000000	0.000000
Kathrein-Scala	80010504	89	170	0	0.000000	0.000000	0.000000	0.000000
Kathrein-Scala	80010504	89	290	0	0.000000	0.000000	0.000000	0.000000

Sprint WATERFORD Carrier Summary

Frequency: 1900 MHz
Maximum Permissible Exposure (MPE): 1000 $\mu\text{W}/\text{cm}^2$
Maximum power density at ground level: 3.24613 $\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure: 0.32461 %

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	APXVSPP18-C-A20	137	60	3804	1.024525	0.102453	1.828128	0.182813
RFS	APXVSPP18-C-A20	137	200	3804	1.024525	0.102453	1.828128	0.182813
RFS	APXVSPP18-C-A20	137	280	3804	1.024525	0.102453	1.828128	0.182813

Sprint WATERFORD Carrier Summary

Frequency: 850 MHz
Maximum Permissible Exposure (MPE): 566.67 $\mu\text{W}/\text{cm}^2$
Maximum power density at ground level: 1.35708 $\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure: 0.23948 %

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	APXVSPP18-C-A20	137	60	2168	0.831252	0.146692	0.852207	0.150389
RFS	APXVSPP18-C-A20	137	200	2168	0.831252	0.146692	0.852207	0.150389
RFS	APXVSPP18-C-A20	137	280	2168	0.831252	0.146692	0.852207	0.150389

Sprint WATERFORD Carrier Summary

Frequency: 2500 MHz
Maximum Permissible Exposure (MPE): 1000 $\mu\text{W}/\text{cm}^2$
Maximum power density at ground level: 2.94528 $\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure: 0.29453 %

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	137	60	6168	1.213645	0.121365	2.270233	0.227023
RFS	APXVTM14-C-I20	137	180	6168	1.213645	0.121365	2.270233	0.227023
RFS	APXVTM14-C-I20	137	300	6168	1.213645	0.121365	2.270233	0.227023

T-Mobile WATERFORD Carrier Summary

Frequency: 1900 MHz
Maximum Permissible Exposure (MPE): 1000 $\mu\text{W}/\text{cm}^2$
Maximum power density at ground level: 3.21619 $\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure: 0.32162 %

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 21 B2A B4P	119	60	5497	1.919446	0.191945	2.194146	0.219415
Ericsson	AIR 21 B2A B4P	119	180	5497	1.919446	0.191945	2.194146	0.219415
Ericsson	AIR 21 B2A B4P	119	300	5497	1.919446	0.191945	2.194146	0.219415

T-Mobile WATERFORD Carrier Summary

Frequency: 700 MHz
Maximum Permissible Exposure (MPE): 466.67 $\mu\text{W}/\text{cm}^2$
Maximum power density at ground level: 1.97386 $\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure: 0.42297 %

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	119	60	3484	1.597018	0.342218	1.693628	0.362920
RFS	APXVAARR24_43-U-NA20	119	180	3484	1.597018	0.342218	1.693628	0.362920
RFS	APXVAARR24_43-U-NA20	119	300	3484	1.597018	0.342218	1.693628	0.362920

T-Mobile WATERFORD Carrier Summary

Frequency: 600 MHz
Maximum Permissible Exposure (MPE): 400 $\mu\text{W}/\text{cm}^2$
Maximum power density at ground level: 1.37624 $\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure: 0.34406 %

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	119	60	2501	1.217881	0.304470	1.261282	0.315321
RFS	APXVAARR24_43-U-NA20	119	180	2501	1.217881	0.304470	1.261282	0.315321
RFS	APXVAARR24_43-U-NA20	119	300	2501	1.217881	0.304470	1.261282	0.315321

T-Mobile WATERFORD Carrier Summary

Frequency: 2100 MHz
Maximum Permissible Exposure (MPE): 1000 $\mu\text{W}/\text{cm}^2$
Maximum power density at ground level: 3.21619 $\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure: 0.32162 %

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 21 B4A B2P	119	60	5497	1.919446	0.191945	2.194146	0.219415
Ericsson	AIR 21 B4A B2P	119	180	5497	1.919446	0.191945	2.194146	0.219415
Ericsson	AIR 21 B4A B2P	119	300	5497	1.919446	0.191945	2.194146	0.219415

**Verizon Wireless
WATERFORD
Carrier Summary**

Frequency: 850 MHz
Maximum Permissible Exposure (MPE): 566.67 $\mu\text{W}/\text{cm}^2$
Maximum power density at ground level: 5.21055 $\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure: 0.91951 %

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	BXA-80063-4CF	107	30	3192	3.902750	0.688721	5.133789	0.905963
Antel	BXA-80063-4CF	107	150	3192	3.902750	0.688721	5.133789	0.905963
Antel	BXA-80063-4CF	107	270	3192	3.902750	0.688721	5.133789	0.905963

**Verizon Wireless
WATERFORD
Carrier Summary**

Frequency: 1900 MHz
Maximum Permissible Exposure (MPE): 1000 $\mu\text{W}/\text{cm}^2$
Maximum power density at ground level: 9.77819 $\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure: 0.97782 %

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	107	60	4583	7.096666	0.709667	9.228112	0.922811
ANDREW	SBNHH-1D65B	107	160	4583	7.096666	0.709667	9.228112	0.922811
ANDREW	SBNHH-1D65B	107	285	4583	7.096666	0.709667	9.228112	0.922811

**Verizon Wireless
WATERFORD
Carrier Summary**

Frequency: 700 MHz
Maximum Permissible Exposure (MPE): 466.67 $\mu\text{W}/\text{cm}^2$
Maximum power density at ground level: 3.06144 $\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure: 0.65602 %

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	BXA-70063-6CF	107	60	3014	2.914271	0.624487	3.038185	0.651040
Antel	BXA-70063-6CF	107	160	3014	2.914271	0.624487	3.038185	0.651040
Antel	BXA-70063-6CF	107	285	3014	2.914271	0.624487	3.038185	0.651040

**Verizon Wireless
WATERFORD
Carrier Summary**

Frequency: 2100 MHz
Maximum Permissible Exposure (MPE): 1000 $\mu\text{W}/\text{cm}^2$
Maximum power density at ground level: 10.44520 $\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure: 1.04452 %

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	107	60	7732	6.076978	0.607698	9.276718	0.927672
ANDREW	SBNHH-1D65B	107	160	7732	6.076978	0.607698	9.276718	0.927672
ANDREW	SBNHH-1D65B	107	285	7732	6.076978	0.607698	9.276718	0.927672