



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

October 9, 2019

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

RE: Notice of Exempt Modification for AT&T: 842858
49 South Road, Bolton, CT 06043
Latitude: 41° 47' 20.55" / Longitude: -72° 25' 45.10"

Dear Ms. Bachman:

AT&T currently maintains nine (9) antennas at the 116-foot mount on the existing 120-foot Monopole Tower, located at 49 South Road, Bolton, CT. The tower is owned by Crown Castle and the property is owned by Leonard Giglio. AT&T now intends to replace six (6) existing antennas with six (6) new antennas. The new antennas will be installed at the 116-ft level of the tower. AT&T is also proposing tower mount modifications, as shown on the enclosed mount analysis.

The facility was approved by the Connecticut Siting Council via a Decision and Order dated July 7, 2003. The approval was given with conditions as shown on the enclosed Decision. AT&T's proposed modification complies with the listed conditions.

Please accept this letter as notification pursuant to Regulations of Connecticut State Agencies §16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b)(2). In accordance with R.C.S.A. § 16-50j-73, a copy of this letter is being sent to Sandra Pierog, First Selectman for the Town of Bolton, Jim Rupert, Building Official and Zoning Enforcement Officer, Crown Castle as the tower owner, and Leonard Giglio, the property owner.

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

The Foundation for a Wireless World.

CrownCastle.com

Melanie A. Bachman

Page 2

For the foregoing reasons, T-Mobile 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
Network Real Estate Specialist
3 Corporate Park Drive, Suite 101
Clifton Park, NY 12065
(201) 236-9224
AnneMarie.Zsamba@crowncastle.com

Attachments

cc:

Sandra Pierog, First Selectman
Town of Bolton
Town Hall – Selectman's Office
222 Bolton Center Road
Bolton, CT 06043
860.649.8066

Jim Rupert, ZEO
Town of Bolton
Town Hall – Land Use Department
222 Bolton Center Road
Bolton, CT 06043
860.649.8066

Leonard Giglio, Property Owner
49 South Road
Bolton, CT 06043
203.967.8367

Crown Castle, Tower Owner

ORIGIN ID: ONHA (585) 445-5896
RICHARD ZAJAC
CROWN CASTLE
300 MERIDIAN CENTRE
ROCHESTER, NY 14618
UNITED STATES US

SHIP DATE: 09OCT19
ACTWGT: 1.50 LB
CAD: 104924194/INET4160

BILL SENDER

TO SANDRA PIEROG, FIRST SELECTMAN

TOWN OF BOLTON

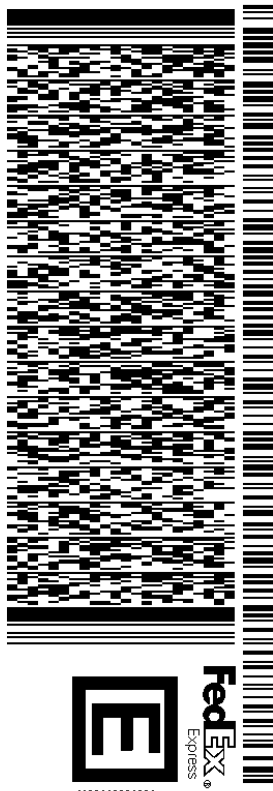
TOWN HALL - SELECTMAN'S OFFICE

222 BOLTON CENTER ROAD

BOLTON CT 06043

REF: 1734.7890
(860) 649-8066
INV:
PO: DEPT:

567J3/2A3C/05A2

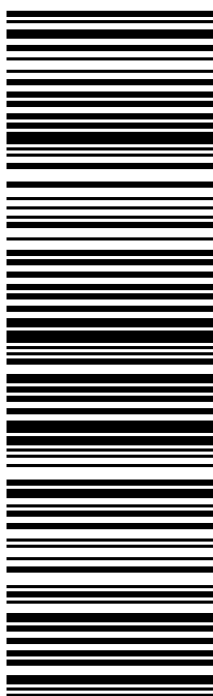


THU - 10 OCT 10:30A

PRIORITY OVERNIGHT

TRK# 7766 2540 7249
0201

XE QCWA 06043
CT-US BDL



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

ORIGIN ID: ONHA (585) 445-5896
RICHARD ZAJAC
CROWN CASTLE
300 MERIDIAN CENTRE
ROCHESTER, NY 14618
UNITED STATES US

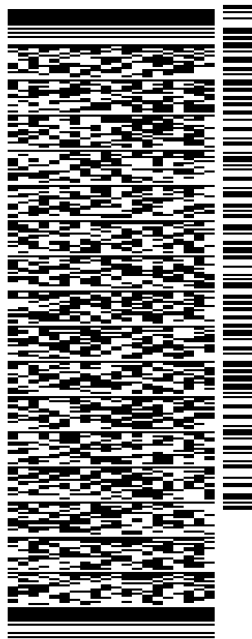
SHIP DATE: 09OCT19
ACTWGT: 3.50 LB
CAD: 104924194/INET4160

BILL SENDER

TO **MELANIE BACHMAN**
CONNECTICUT SITING COUNCIL
10 FRANKLIN SQUARE

NEW BRITAIN CT 06051

(860) 827-2951 REF: 1765 6880
INV: DEPT:
PO:

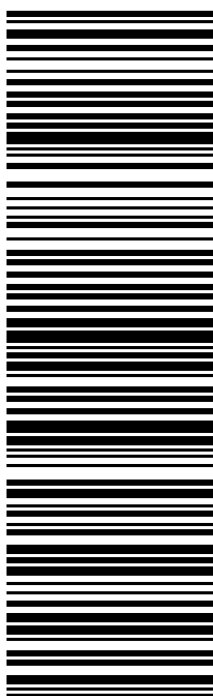


J192119091901uv

567J3/2A3C/05A2

TRK# THU - 10 OCT 10:30A
0201 7766 2543 2114 PRIORITY OVERNIGHT

XE BDLA 06051
CT-US BDL



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RICHARD ZAJAC
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300 MERIDIAN CENTRE
ROCHESTER, NY 14618
UNITED STATES US

SHIP DATE: 09OCT19
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CAD: 104924194/INET4160

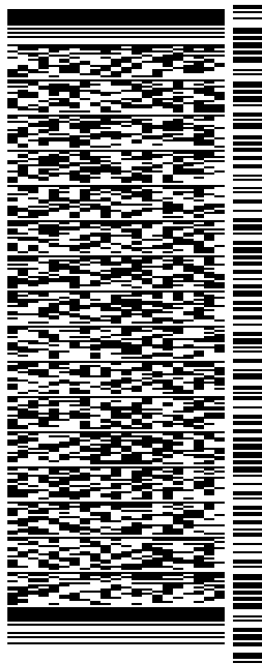
BILL SENDER

TO JIM RUPERT, ZEO

TOWN OF BOLTON
TOWN HALL - LAND USE DEPT
222 BOLTON CENTER ROAD
BOLTON CT 06043

REF: 1734.7890
(860) 649-8066
INV:
PO: DEPT:

567J3/2A3C/05A2



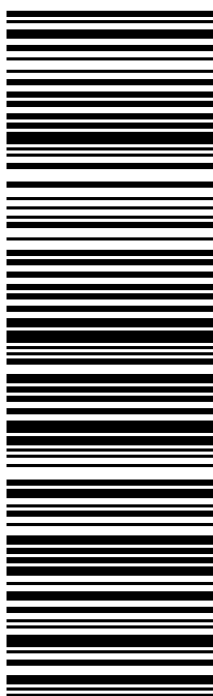
J192119091901uv

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THU - 10 OCT 10:30A
PRIORITY OVERNIGHT

XE QCWA

06043
CT-US BDL



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ROCHESTER, NY 14618
UNITED STATES US

SHIP DATE: 09OCT19
ACTWGT: 1.50 LB
CAD: 104924194/INET4160

BILL SENDER

TO LEONARD GIGLIO

49 SOUTH ROAD

BOLTON CT 06043

(201) 236-9224 REF: 1734.7880

INV: PO: DEPT:

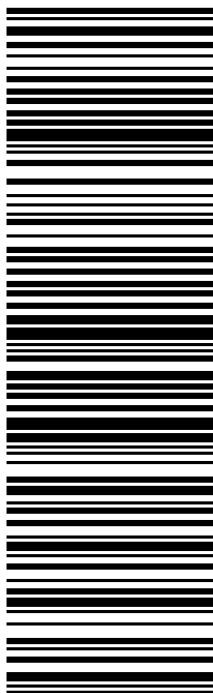


567J3/2A3C/05A2

TRK# 7766 2550 0751
0201

THU - 10 OCT 10:30A
PRIORITY OVERNIGHT

XE QCWA 06043
CT-US BDL



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Exhibit A

Original Facility Approval

DOCKET NO. 240 – AT&T Wireless PCS, LLC d/b/a AT&T	)	Connecticut
Wireless application for a Certificate of Environmental	)	
Compatibility and Public Need for the construction, maintenance	)	Siting
and operation of a telecommunications facility in Bolton,	)	
Connecticut.	)	Council

July 7, 2003

Decision and Order

Pursuant to the foregoing Findings of Fact and Opinion, the Connecticut Siting Council (Council) finds that the effects associated with the construction, operation, and maintenance of a telecommunications facility including effects on the natural environment; ecological integrity and balance; public health and safety; scenic, historic, and recreational values; forests and parks; air and water purity; and fish and wildlife are not disproportionate either alone or cumulatively with other effects when compared to need, are not in conflict with the policies of the State concerning such effects, and are not sufficient reason to deny the application and therefore directs that a Certificate of Environmental Compatibility and Public Need, as provided by General Statutes § 16-50k, be issued to AT&T Wireless PCS, LLC (AT&T) for the construction, maintenance and operation of a wireless telecommunications facility at proposed Candidate A site (Giglio property) located at 49 South Road, Bolton, Connecticut. We deny certification of the proposed Candidate B site located at 299 Hop River Road (Route 6), Bolton, Connecticut.

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

1. The tower shall be constructed as a monopole, no taller than necessary to provide the proposed telecommunications services, sufficient to accommodate the antennas of AT&T and other entities, both public and private, but such tower shall not exceed a height of 120 feet above ground level.
2. The Certificate Holder shall prepare a Development and Management (D&M) Plan for this site in compliance with Sections 16-50j-75 through 16-50j-77 of the Regulations of Connecticut State Agencies. The D&M Plan shall be submitted to and approved by the Council prior to the commencement of facility construction and shall include:
 - a) a detailed site development plan that depicts the location of the access road, compound, tower, and utility line;
 - b) specifications for the tower, tower foundation, antennas, equipment building, and security fence;
 - c) construction plans for site clearing, water drainage, and erosion and sedimentation control consistent with the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control, as amended.

3. The Certificate Holder shall, prior to the commencement of operation, provide the Council worst-case modeling of electromagnetic radio frequency power densities of all proposed entities' antennas at the closest point of uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin No. 65, August 1997. The Certificate Holder shall provide a recalculated report of electromagnetic radio frequency power density if and when circumstances in operation cause a change in power density above the levels calculated and provided pursuant to this Decision and Order.
4. Upon the establishment of any new state or federal radio frequency standards applicable to frequencies of this facility, the facility granted herein shall be brought into compliance with such standards.
5. The Certificate Holder shall permit public or private entities to share space on the proposed tower for fair consideration, or shall provide any requesting entity with specific legal, technical, environmental, or economic reasons precluding such tower sharing.
6. If the facility does not initially provide wireless services within one year of completion of construction or ceases to provide wireless services for a period of one year, this Decision and Order shall be void, and the Certificate Holder shall dismantle the tower and remove all associated equipment or reapply for any continued or new use to the Council before any such use is made.
7. Any antenna that becomes obsolete and ceases to function shall be removed within 60 days after such antennas become obsolete and cease to function.
8. Unless otherwise approved by the Council, this Decision and Order shall be void if the facility authorized herein is not operational within one year of the effective date of this Decision and Order or within one year after all appeals to this Decision and Order have been resolved.

Pursuant to General Statutes § 16-50p, we hereby direct that a copy of the Findings of Fact, Opinion, and Decision and Order be served on each person listed below, and notice of issuance shall be published in The Hartford Courant.

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

The parties and intervenors to this proceeding are:

Applicant

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

Its Representative

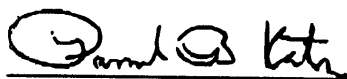
Christopher B. Fisher, Esq.
Cuddy & Feder & Worby LLP
90 Maple Avenue
White Plains, NY 10601
(914) 761-1300
(914) 761-6405 - fax

CERTIFICATION

The undersigned members of the Connecticut Siting Council (Council) hereby certify that they have heard this case, or read the record thereof, in **DOCKET NO. 240 - AT&T Wireless PCS, LLC d/b/a AT&T Wireless** application for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance and operation of a telecommunications facility in Bolton, Connecticut, and voted as follows to approve the proposed Candidate A site located at 49 South Road (Giglio property), Bolton, Connecticut, and deny certification of the proposed Candidate B site located at 299 Hop River Road (Route 6), Bolton, Connecticut:

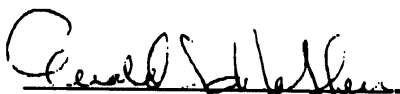
Council Members

Vote Cast



Pamela B. Katz, P.E., Chairman

Yes



Commissioner Donald W. Downes

Designee: Gerald J. Hefferhan

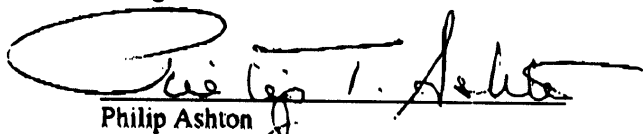
Yes



Commissioner Arthur J. Rocque, Jr.

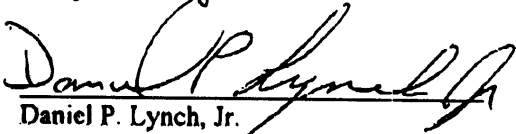
Designee: Brian J. Emerick

Yes



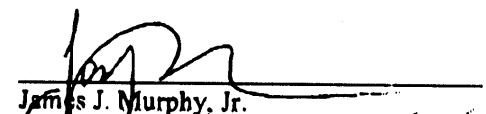
Philip Ashton

Yes



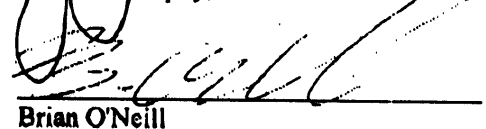
Daniel P. Lynch, Jr.

No



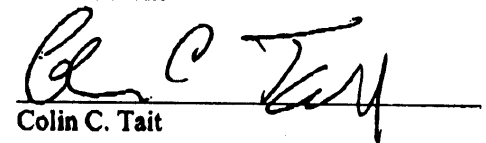
James J. Murphy, Jr.

Abstain



Brian O'Neill

No



Colin C. Tait

No

Edward S. Wilensky

Abstain

Dated at New Britain, Connecticut July 8, 2003.

STATE OF CONNECTICUT)

ss. New Britain, Connecticut :

COUNTY OF HARTFORD)

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

ATTEST:



S. Derek Phelps
Executive Director
Connecticut Siting Council

I certify that a copy of the Findings of Fact, Opinion, and Decision and Order in Docket No. 240 has been forwarded by Certified First Class Return Receipt Requested mail on July 11, 2003, to all parties and intervenors of record as listed on the attached service list, dated January 21, 2003.

ATTEST:



Lisa Fontaine
Administrative Assistant
Connecticut Siting Council

Exhibit B

Property Card



49 SOUTH RD

Location 49 SOUTH RD

Mblu 05/ / 107/ /

Owner GIGLIO LEONARD W &

Assessment \$394,650

Appraisal \$743,600

PID 1348

Building Count 1

Current Value

Appraisal	
Valuation Year	Total
2018	\$743,600
Assessment	
Valuation Year	Total
2018	\$394,650

Owner of Record

Owner	GIGLIO LEONARD W &	Sale Price	\$0
Co-Owner	GIGLIO CHERYL P	Certificate	SURV
Address	49 SOUTH RD	Book & Page	165/120
	BOLTON, CT 06043	Sale Date	04/15/2014
		Instrument	24

Ownership History

Ownership History					
Owner	Sale Price	Certificate	Book & Page	Instrument	Sale Date
GIGLIO LEONARD W &	\$0	SURV	165/120	24	04/15/2014
GIGLIO LEONARD W &	\$0	salemaster	0087/0548		05/01/1996

Building Information

Building 1 : Section 1

Year Built: 1996
Living Area: 2,044
Building Percent 89
Good:

Building Attributes	
Field	Description
Style	Cape

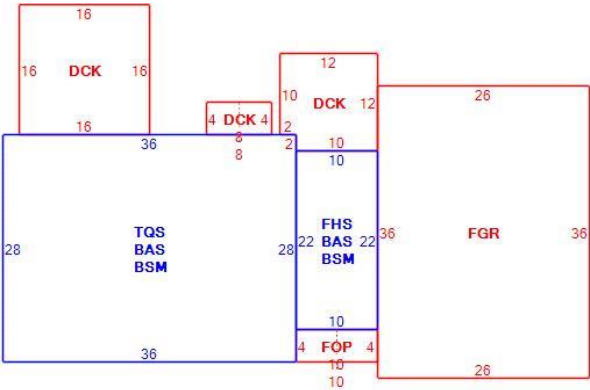
Model	Residential
Grade:	B-
Stories	1.75
Occupancy	1
Exterior Wall 1	Vinyl Siding
Exterior Wall 2	
Roof Structure	Gable
Roof Cover	Arch Shingles
Interior Wall 1	Drywall
Interior Wall 2	
Interior Flr 1	Hardwood
Bath Floors	Ceramic Tile
Heat Fuel	Oil
Heat Type:	Hot Water
AC Percent	0
Total Bedrooms:	3 Bedrooms
Full Bthrms:	2
Half Baths:	0
Extra Fixtures	0
Total Rooms:	6
Num Kitchens	1
Fireplace(s)	1
Wood Stoves	
Foundation	Concrete
Bsmt Gar(s)	
Fin Bsmt Qual	

Building Photo



(http://images.vgsi.com/photos/BoltonCTPhotos//default.jpg)

Building Layout



(ParcelSketch.ashx?pid=1348&bid=1348)

Building Sub-Areas (sq ft)			Legend
Code	Description	Gross Area	Living Area
BAS	First Floor	1,228	1,228
TQS	Three Quarter Story	1,008	706
FHS	Finished Half Story	220	110
BSM	Basement	1,228	0
DCK	Deck	428	0
FGR	Garage	936	0
FOP	Open Porch	40	0
		5,088	2,044

Extra Features

Extra Features	Legend
----------------	--------

No Data for Extra Features

Land

Land Use

Zone R-1

Land Line Valuation

Size (Acres) 29.00
Depth
Assessed Value \$199,550
Appraised Value \$464,900

Outbuildings

Outbuildings					Legend
Code	Description	Sub Code	Sub Description	Size	Bldg #
FGR2	Garage W/ Loft	FR	Frame	1320.00 S.F.	1
FGR2	Garage W/ Loft	FR	Frame	2400.00 S.F.	1
FOP	Porch			960.00 S.F.	1
CELL	Cell Tower			120.00 FEET	1

Valuation History

Appraisal	
Valuation Year	Total
2018	\$743,600
2017	\$721,300

Assessment	
Valuation Year	Total
2018	\$394,650
2017	\$376,350

Exhibit C

Construction Drawings

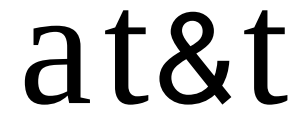
PROJECT INFORMATION	
SCOPE OF WORK:	
<u>ITEMS TO BE INSTALLED ON & REMOVED FROM EXISTING TOWER & ON GROUND:</u>	
• REMOVE (6) EXISTING ANTENNAS, (3) RRU11 B12, (6) DIPLEXERS, • INSTALL AT&T ANTENNA (DMP65-BU4D) (TYP. OF 2 PER SECTOR, TOTAL OF 6). • INSTALL AT&T 4449 B5/B12 (1900) (TYP. OF 1 PER SECTOR, TOTAL OF 3). • INSTALL AT&T 4478 B14 (700) (TYP. OF 1 PER SECTOR, TOTAL OF 3). • INSTALL AT&T 8843 B2/B66A (1900) (TYP. OF 1 PER SECTOR, TOTAL OF 3). • INSTALL SURGE ARRESTOR (DC9-48-60-24-8C-EV) (TOTAL OF 1). • INSTALL (3) DC TRUNK CABLES & (1) 24 PAIR FIBER TRUNK CABLES. • INSTALL (3) BIAS TEE'S • INSTALL DC12 CONDUIT FROM DC12 TO POWER PLANT. • INSTALL FIBER BOX WITH CONDUIT TO LTE CABINET. • INSTALL MOUNT MODIFICATIONS, HANDRAIL AND NEW PIPES TO EXISTING FRAME MOUNTS. • INSTALL (2) 6630 WITH IDL6 TO REPLACE EXISTING BBU.	
<u>ITEMS TO REMAIN:</u>	
• (3) ANTENNAS, (6) TMAS, (1) SURGE SUPPRESSOR, (12) DIPLEXERS & (12) COAX CABLES.	
SITE ADDRESS:	49 SOUTH ROAD BOLTON, CT 06043
LATITUDE (NAD 83):	N 41° 47' 20.55"
LONGITUDE (NAD 83):	W 72° 25' 45.10"
LANDLORD:	CROWN CASTLE INTERNATIONAL 500 W. CUMMINGS PARK, STE 3600 WOBBURN, MA 01801
TYPE OF SITE:	MONOPOLE/OUTDOOR
TOWER HEIGHT:	120'
RAD CENTER:	118'
CURRENT USE:	TELECOMMUNICATIONS FACILITY
PROPOSED USE:	TELECOMMUNICATIONS FACILITY

[illegible]

CROWN CASTLE SITE ID #: 842858
CROWN CASTLE SITE NAME: BOLTON

ENGINEERING

2018 CONNECTICUT STATE BUILDING CODE 2018 AMENDMENT WITH 2015 INTERNATIONAL BUILDING CODE 2009 ICC/ANSI A117.1 ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES 2015 INTERNATIONAL MECHANICAL CODE 2015 INTERNATIONAL ENERGY CONSERVATION CODE 2017 NATIONAL ELECTRICAL CODE (NFPA 70 2017) ANSI/TIA-222-G
--



FA LOCATION CODE: 10070938

CROWN SITE NAME: BOLTON

PACE ID: MRCTB042116, MRCTB025438, MRCTB025595,
MRCTB042118, MRCTB042110

BU#: 842858

VICINITY MAP

CTL05819
BOLTON

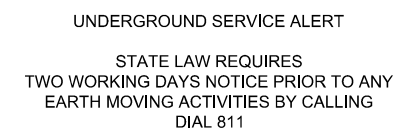
ABLE COIL & ELECTRONICS
BOLTON NOTCH RV STORAGE
MUNSON'S CHOCOLATES
BOLTON COLLISION REPAIR
M&M OIL
BONNIE ANGEL DESIGNS

HOP RIVER RD
HOP RIVER
STONEHEDGE LN
FERNWOOD DR
S RD
SHERRY RD
BOLTON POOND BROOK

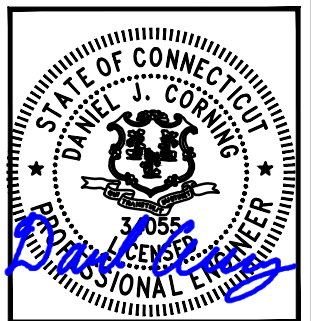
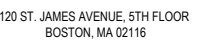
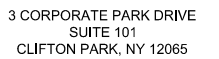
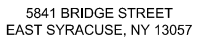
TO EXIT 59 IN EAST HARTFORD GO ONTO 384 EAST TO 44 EAST FOLLOW 44 EAST FOR ABOUT THREE MILES AND TAKE A RIGHT ONTO SOUTH ROADGO DOWN SOUTH ROAD FOR ABOUT A QUARTER MILE AND LOOK TO YOUR RIGHT FOR A TAN HOUSE RIGHT AFTER THE HOUSE THERE IS A DIRT DRIVEWAY THAT LOOKS AS IF YOU ARE GOING INTO THE PEOPLES BACK YARDTAKE THIS DIRT ROAD AND FOLLOW TO THE BACK TO OUR MONOPOLE

GENERAL NOTES

1. THE FACILITY IS AN UNMANNED PRIVATE AND SECURED EQUIPMENT INSTALLATION. IT IS ONLY ACCESSED BY TRAINED TECHNICIANS FOR PERIODIC ROUTINE MAINTENANCE AND THEREFORE DOES NOT REQUIRE ANY WATER OR SANITARY SEWER SERVICE. THE FACILITY IS NOT GOVERNED BY REGULATIONS REQUIRING PUBLIC ACCESS PER ADA REQUIREMENTS.
2. CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE AT&T REPRESENTATIVE IN WRITING OF DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.



ALL CONSTRUCTION ACTIVITIES ARE TO BE COMPLETED DIRECTLY THROUGH CROWN. CONTRACTOR MUST HAVE CONSTRUCTION PO AND NTP FROM CROWN DIRECT IN ORDER TO BEGIN. PRE-APPROVAL TO ENTER THE PROPERTY MUST BE OBTAINED. FOR ACCESS AUTHORIZATION, PLEASE CONTACT CROWN.



DRAWN BY: NTC

SUBMITTALS		
0	10/03/19	ISSUED FOR CONSTRUCTION
0	09/06/19	ISSUED FOR PERMITTING

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FA# 10070938
SITE# CTL05819
BOLTON
49 SOUTH ROAD
BOLTON, CT 06043

TITLE SHEET

T-1

PART 1 - GENERAL

- 1.1GENERAL CONDITIONS:

A.CONTRACTOR SHALL INSPECT THE EXISTING SITE CONDITIONS PRIOR TO SUBMITTING BID. ANY QUESTIONS ARISING DURING THE BID PERIOD IN REGARDS TO THE CONTRACTORS FUNCTIONS, THE SCOPE OF WORK, OR ANY OTHER ISSUE RELATED TO THIS PROJECT SHALL BE BROUGHT UP DURING THE BID PERIOD WITH THE PROJECT MANAGER FOR CLARIFICATION, NOT AFTER THE CONTRACT HAS BEEN AWARDED.

B.THE CONTRACTOR SHALL OBTAIN PERMITS, LICENSES, MAKE ALL DEPOSITS, AND PAY ALL FEES REQUIRED FOR THE CONSTRUCTION PERFORMANCE FOR THE WORK UNDER THIS SECTION.

C.DRAWINGS SHOW THE GENERAL ARRANGEMENT OF ALL SYSTEMS AND COMPONENTS COVERED UNDER THIS SECTION. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS. DRAWING SHALL NOT BE SCALED TO DETERMINE DIMENSIONS.
- 1.2LAWS, REGULATIONS, ORDINANCES, STATUTES AND CODES.

A.ALL WORK SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE, AND ALL APPLICABLE LOCAL LAWS, REGULATIONS, ORDINANCES, STATUTES AND CODES. CONDUIT BENDS SHALL BE THE RADIUS BEND FOR THE TRADE SIZE OF CONDUIT IN COMPLIANCE WITH THE LATEST EDITIONS OF NEC.
- 1.3REFERENCES:

A.THE PUBLICATIONS LISTED BELOW ARE PART OF THIS SPECIFICATION. EACH PUBLICATION SHALL BE THE LATEST REVISION AND ADDENDUM IN EFFECT ON THE DATE. THIS SPECIFICATION IS ISSUED FOR CONSTRUCTION UNLESS OTHERWISE NOTED. EXCEPT AS MODIFIED BY THE REQUIREMENT SPECIFIED HEREIN OR THE DETAILS OF THE DRAWINGS, WORK INCLUDED IN THIS SPECIFICATION SHALL CONFORM TO THE APPLICABLE PROVISION OF THESE PUBLICATIONS.

1.ANSI/IEEE (AMERICAN NATIONAL STANDARDS INSTITUTE)

2.ASTM (AMERICAN SOCIETY FOR TESTING AND MATERIALS)

3.ICEA (INSULATED CABLE ENGINEERS ASSOCIATION)

4.NEMA (NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION)

5.NFPA (NATIONAL FIRE PROTECTION ASSOCIATION)

6.OSHA (OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION)

7.UL (UNDERWRITERS LABORATORIES INC.)

8.AT&T GROUNDING AND BONDING STANDARDS TP-76416
- 1.4SCOPE OF WORK

A.WORK UNDER THIS SECTION SHALL CONSIST OF FURNISHING ALL LABOR, MATERIAL, AND ASSOCIATED SERVICES REQUIRED TO COMPLETE REQUIRED CONSTRUCTION AND BE OPERATIONAL.

B.ALL ELECTRICAL EQUIPMENT UNDER THIS CONTRACT SHALL BE PROPERLY TESTED, ADJUSTED, AND ALIGNED BY THE CONTRACTOR.

C.THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EXCAVATING, DRAINING, TRENCHES, BACKFILLING, AND REMOVAL OF EXCESS DIRT.

D.THE CONTRACTOR SHALL FURNISH TO THE OWNER WITH CERTIFICATES OF A FINAL INSPECTION AND APPROVAL FROM THE INSPECTION AUTHORITIES HAVING JURISDICTION.

E.THE CONTRACTOR SHALL PREPARE A COMPLETE SET OF AS-BUILT DRAWINGS, DOCUMENT ALL WIRING EQUIPMENT CONDITIONS, AND CHANGES WHILE COMPLETING THIS CONTRACT. THE AS-BUILT DRAWINGS SHALL BE SUBMITTED AT COMPLETION OF THE PROJECT.

PART 2 - PRODUCTS

- 2.1GENERAL:

A.ALL MATERIALS AND EQUIPMENT SHALL BE UL LISTED, NEW, AND FREE FROM DEFECTS.

B.ALL ITEMS OF MATERIALS AND EQUIPMENT SHALL BE ACCEPTABLE TO THE AUTHORITY HAVING JURISDICTION AS SUITABLE FOR THE USE INTENDED.

C.ALL EQUIPMENT SHALL BEAR THE UNDERWRITERS LABORATORIES LABEL OF APPROVAL, AND SHALL CONFORM TO REQUIREMENT OF THE NATIONAL ELECTRICAL CODE.

D.ALL OVERCURRENT DEVICES SHALL HAVE AN INTERRUPTING CURRENT RATING THAT SHALL BE GREATER THAN THE SHORT CIRCUIT CURRENT TO WHICH THEY ARE SUBJECTED, 10,000 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 PER THE GOVERNING JURISDICTION.
- 2.2MATERIALS AND EQUIPMENT:

A.CONDUIT:

1.RIGID METAL CONDUIT (RMC) SHALL BE HOT-DIPPED GALVANIZED INSIDE AND OUTSIDE INCLUDING ENDS AND THREADS AND ENAMELED OR LACQUERED INSIDE IN ADDITION TO GALVANIZING.

2.LIQUIDTIGHT FLEXIBLE METAL CONDUIT SHALL BE UL LISTED.

3.CONDUIT CLAMPS, STRAPS AND SUPPORTS SHALL BE STEEL OR MALLEABLE IRON. ALL FITTINGS SHALL BE COMPRESSION AND CONCRETE TIGHT TYPE. GROUNDING BUSHINGS WITH INSULATED THROATS SHALL BE INSTALLED ON ALL CONDUIT TERMINATIONS.

4.NONMETALLIC CONDUIT AND FITTINGS SHALL BE SCHEDULE 40 PVC. INSTALL USING SOLVENT-CEMENT-TYPE JOINTS AS RECOMMENDED BY THE MANUFACTURER.

B.CONDUCTORS AND CABLE:

1.CONDUCTORS AND CABLE SHALL BE FLAME-RETARDANT, MOISTURE AND HEAT RESISTANT THERMOPLASTIC, SINGLE CONDUCTOR, COPPER, TYPE THHN/THWN-2, 600 VOLT, SIZE AS INDICATED, #12 AWG SHALL BE THE MINIMUM SIZE CONDUCTOR USED.

2.#10 AWG AND SMALLER CONDUCTOR SHALL BE SOLID OR STRANDED AND #8 AWG AND LARGER CONDUCTORS SHALL BE STRANDED.

3.SOLDERLESS, COMPRESSION-TYPE CONNECTORS SHALL BE USED FOR TERMINATION OF ALL STRANDED CONDUCTORS.

4.STRAIN-RELIEF SUPPORTS GRIPS SHALL BE HUBBELL KELLEMS OR APPROVED EQUAL. CABLES SHALL BE SUPPORTED IN ACCORDANCE WITH THE NEC AND CABLE MANUFACTURER'S RECOMMENDATIONS.

5.ALL CONDUCTORS SHALL BE TAGGED AT BOTH ENDS OF THE CONDUCTOR, AT ALL PULL BOXES, J-BOXES, EQUIPMENT AND CABINETS AND SHALL BE IDENTIFIED WITH APPROVED PLASTIC TAGS (ACTION CRAFT, BRADY, OR APPROVED EQUAL).

C.DISCONNECT SWITCHES:

1.DISCONNECT SWITCHES SHALL BE HEAVY DUTY, DEAD-FRONT, QUICK-MAKE, QUICK-BREAK, EXTERNALLY OPERABLE, HANDLE LOCKABLE AND INTERLOCK WITH COVER IN CLOSED POSITION, RATING AS INDICATED, UL LABELED FURNISHED IN NEMA 3R ENCLOSURE, SQUARE-D OR ENGINEER APPROVED EQUAL.

D.CHEMICAL ELECTROLYTIC GROUNDING SYSTEM:

1.INSTALL CHEMICAL GROUNDING AS REQUIRED. THE SYSTEM SHALL BE ELECTROLYTIC MAINTENANCE FREE ELECTRODE CONSISTING OF RODS WITH A MINIMUM #2 AWG CU EXOTHERMICALLY WELDED PIGTAIL, PROTECTIVE BOXES, AND BACKFILL MATERIAL. MANUFACTURER SHALL BE LYNCOLE XIT GROUNDING ROD TYPES K2-(*)CS OR K2L-(*)CS (*) LENGTH AS REQUIRED.

2.GROUND ACCESS BOX SHALL BE A POLYPLASTIC BOX FOR NON-TRAFFIC APPLICATIONS, INCLUDING BOLT DOWN FLUSH COVER WITH "BREATHER" HOLES, XIT MODEL #XB-22. ALL DISCONNECT SWITCHES AND CONTROLLING DEVICES SHALL BE PROVIDED WITH ENGRAVED LAMICOID NAMEPLATES INDICATING EQUIPMENT CONTROLLED, BRANCH CIRCUITS ID
- NUMBERING, AND THE ELECTRICAL POWER SOURCE.
- 3.BACKFILL MATERIAL SHALL BE LYNCONITE AND LYNCOLE GROUNDING GRAVEL.

E.SYSTEM GROUNDING:

1.ALL GROUNDING COMPONENTS SHALL BE TINNED AND GROUNDING CONDUCTOR SHALL BE #2 AWG BARE, SOLID, TINNED, COPPER. ABOVE GRADE GROUNDING CONDUCTORS SHALL BE INSULATED WHERE NOTED.

2.GROUNDING BUSES SHALL BE BARE, TINNED, ANNEALED COPPER BARS OF RECTANGULAR CROSS SECTION. STANDARD BUS BARS MGB, SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR. THEY SHALL NOT BE FABRICATED OR MODIFIED IN THE FIELD. ALL GROUNDING BUSES SHALL BE IDENTIFIED WITH MINIMUM 3/4" LETTERS BY WAY OF STENCILING OR DESIGNATION PLATE.

3.CONNECTORS SHALL BE HIGH-CONDUCTIVITY, HEAVY DUTY, LISTED AND LABELED AS GROUNDING CONNECTORS FOR THE MATERIALS USED. USE TWO-HOLE COMPRESSION LUGS WITH HEAT SHRINK FOR MECHANICAL CONNECTIONS. INTERIOR CONNECTIONS USE TWO-HOLE COMPRESSION LUGS WITH INSPECTION WINDOW AND CLEAR HEAT SHRINK.

4.EXOTHERMIC WELDED CONNECTIONS SHALL BE PROVIDED IN KIT FORM AND SELECTED FOR THE SPECIFIC TYPES, SIZES, AND COMBINATIONS OF CONDUCTORS AND OTHER ITEMS TO BE CONNECTED.

5.GROUND RODS SHALL BE COPPER-CLAD STEEL WITH HIGH-STRENGTH STEEL CORE AND ELECTROLYTIC-GRADE COPPER OUTER SHEATH, MOLTEN WELDED TO CORE, 5/8"x10'-0". ALL GROUNDING RODS SHALL BE INSTALLED WITH INSPECTION SLEEVES.

6.INSTALL AN EQUIPMENT GROUNDING CONDUCTOR IN ALL CONDUITS IN COMPLIANCE WITH THE AT&T SPECIFICATIONS AND NEC. THE EQUIPMENT GROUNDING CONDUCTORS SHALL BE BONDED AT ALL JUNCTION BOXES, PULLBOXES, DISCONNECT SWITCHES, STARTERS, AND EQUIPMENT CABINETS.

F.OTHER MATERIALS:

6.THE CONTRACTOR SHALL PROVIDE OTHER MATERIALS, THOUGH NOT SPECIFICALLY DESCRIBED, WHICH ARE REQUIRED FOR A COMPLETELY OPERATIONAL SYSTEM AND PROPER INSTALLATION OF THE WORK.

7.PROVIDE PULL BOXES AND JUNCTION BOXES WHERE SHOWN OR REQUIRED BY NEC.

G.PANELS AND LOAD CENTERS:

1.ALL PANEL DIRECTORIES SHALL BE TYPEWRITTEN.

PART 3 - EXECUTION

- 3.1GENERAL:

A.ALL MATERIAL AND EQUIPMENT SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

B.EQUIPMENT SHALL BE TIGHTLY COVERED AND PROTECTED AGAINST DIRT OR WATER, AND AGAINST CHEMICAL OR MECHANICAL INJURY DURING INSTALLATION AND CONSTRUCTION PERIODS.
- 3.2LABOR AND WORKMANSHIP:

A.ALL LABOR FOR THE INSTALLATION OF MATERIALS AND EQUIPMENT FURNISHED FOR THE ELECTRICAL SYSTEM SHALL BE INSTALLED BY EXPERIENCED WIREMEN, IN A NEAT AND WORKMAN-LIKE MANNER.

B.ALL ELECTRICAL EQUIPMENT SHALL BE ADJUSTED, ALIGNED AND TESTED BY THE CONTRACTOR AS REQUIRED TO PRODUCE THE INTENDED PERFORMANCE.

C.UPON COMPLETION OF WORK, THE CONTRACTOR SHALL THOROUGHLY CLEAN ALL EXPOSED EQUIPMENT, REMOVE ALL LABELS AND ANY DEBRIS, CRATING OR CARTONS AND LEAVE THE INSTALLATION FINISHED AND READY FOR OPERATION.
- 3.3COORDINATION:

A.THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF ELECTRICAL ITEMS WITH THE OWNER-FURNISHED EQUIPMENT DELIVERY SCHEDULE TO PREVENT UNNECESSARY DELAYS IN THE TOTAL WORK.
- 3.4INSTALLATION:

A.CONDUIT:

1.ALL ELECTRICAL WIRING SHALL BE INSTALLED IN CONDUIT AS SPECIFIED. NO CONDUIT OR TUBING OF LESS THAN 3/4 INCH TRADE SIZE.

2.PROVIDE RIGID PVC SCHEDULE 80 CONDUITS FOR ALL RISERS, RMC OTHERWISE NOTED. EMT MAY BE INSTALLED FOR EXTERIOR CONDUITS WHERE NOT SUBJECT TO PHYSICAL DAMAGE.

3.INSTALL SCHEDULE 40 PVC CONDUIT WITH A MINIMUM COVER OF 24" UNDER ROADWAYS, PARKING LOTS, STREETS, AND ALLEYS. CONDUIT SHALL HAVE A MINIMUM COVER OF 18" IN ALL OTHER NON-TRAFFIC APPLICATIONS (REFER TO 2017 NEC, TABLE 300.5).

4.USE GALVANIZED FLEXIBLE STEEL CONDUIT WHERE DIRECT CONNECTION TO EQUIPMENT WITH MOVEMENT, VIBRATION, OR FOR EASE OF MAINTENANCE. USE LIQUID TIGHT, FLEXIBLE METAL CONDUIT FOR OUTDOOR APPLICATIONS. INSTALL GALVANIZED FLEXIBLE STEEL CONDUIT AT ALL POINTS OF CONNECTION TO EQUIPMENT MOUNTED ON SUPPORT TO ALLOW FOR EXPANSION AND CONTRACTION.

5.A RUN OF CONDUIT BETWEEN BOXES OR EQUIPMENT SHALL NOT CONTAIN MORE THAN THE EQUIVALENT OF THREE QUARTER-BENDS. CONDUIT BEND SHALL BE MADE WITH THE UL LISTED BENDER OR FACTORY 90 DEGREE ELBOWS MAY BE USED.

6.FIELD FABRICATED CONDUITS SHALL BE CUT SQUARE WITH A CONDUIT CUTTING TOOL AND REAMED TO PROVIDE A SMOOTH INSIDE SURFACE.

7.PROVIDE INSULATED GROUNDING BUSHING FOR ALL CONDUITS.

8.CONTRACTOR IS RESPONSIBLE FOR PROTECTING ALL CONDUITS DURING CONSTRUCTION. TEMPORARY OPENINGS IN THE CONDUIT SYSTEM SHALL BE PLUGGED OR CAPPED TO PREVENT ENTRANCE OF MOISTURE OR FOREIGN MATTER. CONTRACTOR SHALL REPLACE ANY CONDUITS CONTAINING FOREIGN MATERIALS THAT CANNOT BE REMOVED.

9.ALL CONDUITS SHALL BE SWABBED CLEAN BY PULLING AN APPROPRIATE SIZE MANDREL THROUGH THE CONDUIT BEFORE INSTALLATION OF CONDUCTORS OR CABLES. CONDUIT SHALL BE FREE OF DIRT AND DEBRIS.

10.INSTALL PULL STRINGS IN ALL CLEAN EMPTY CONDUITS. IDENTIFY PULL STRINGS AT EACH END.

11.INSTALL 2" HIGHLY VISIBLE AND DETECTABLE TAPE 12" ABOVE ALL UNDERGROUND CONDUITS AND CONDUCTORS.

12.CONDUITS SHALL BE INSTALLED IN SUCH A MANNER AS TO INSURE AGAINST COLLECTION OF TRAPPED CONDENSATION.

13.PROVIDE CORE DRILLING AS NECESSARY FOR PENETRATIONS TO ALLOW FOR RACEWAYS AND CABLES TO BE ROUTED THROUGH THE BUILDING. DO NOT PENETRATE STRUCTURAL MEMBERS. SLEEVES AND/OR PENETRATIONS IN FIRE RATED CONSTRUCTION SHALL BE EFFECTIVELY SEALED WITH FIRE RATED MATERIAL WHICH SHALL MAINTAIN THE FIRE RATING OF THE WALL OR STRUCTURE. FIRE STOPS AT FLOOR PENETRATIONS SHALL PREVENT PASSAGE OF WATER, SMOKE, FIRE, AND FUMES. ALL MATERIAL SHALL BE UL APPROVED FOR THIS PURPOSE.

B.CONDUCTORS AND CABLE:

1.ALL POWER WIRING SHALL BE COLOR CODED AS FOLLOWS:

DESCRIPTION208/240/120 VOLT SYSTEMS

PHASE ABLACK

PHASE BRED

PHASE CBLUE

NEUTRALWHITE

GROUNDINGGREEN

2.SPICES SHALL BE MADE ONLY AT OUTLETS, JUNCTION BOXES, OR ACCESSIBLE RACEWAY CONDUITS APPROVED FOR THIS PURPOSE.

- 3.PULLING LUBRICANTS SHALL BE UL APPROVED. CONTRACTOR SHALL USE NYLON OR HEMP ROPE FOR PULLING CONDUCTOR OR CABLES INTO THE CONDUIT.
- 4.CABLES SHALL BE NEATLY TRAINED, WITHOUT INTERLACING, AND BE OF SUFFICIENT LENGTH IN ALL BOXES & EQUIPMENT TO PERMIT MAKING A NEAT ARRANGEMENT. CABLES SHALL BE SECURED IN A MANNER TO AVOID TENSION ON CONDUCTORS OR TERMINALS. CONDUCTORS SHALL BE PROTECTED FROM MECHANICAL INJURY AND MOISTURE. SHARP BENDS OVER CONDUIT BUSHINGS IS PROHIBITED. DAMAGED CABLES SHALL BE REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE.
- C.DISCONNECT SWITCHES:

1.INSTALL DISCONNECT SWITCHES LEVEL AND PLUMB. CONNECT TO WIRING SYSTEM AND GROUNDING SYSTEM AS INDICATED.
- D.GROUNDING:

1.ALL METALLIC PARTS OF ELECTRICAL EQUIPMENT WHICH DO NOT CARRY CURRENT SHALL BE GROUNDED IN ACCORDANCE WITH THE REQUIREMENTS OF THE BUILDING MANUFACTURER, AT&T GROUNDING AND BONDING STANDARDS TP-76416, ND-00135, AND THE NATIONAL ELECTRICAL CODE.

2.PROVIDE ELECTRICAL GROUNDING AND BONDING SYSTEM INDICATED WITH ASSEMBLY OF MATERIALS, INCLUDING GROUNDING ELECTRODES, BONDING JUMPERS AND ADDITIONAL ACCESSORIES AS REQUIRED FOR A COMPLETE INSTALLATION.

3.ALL GROUNDING CONDUCTORS SHALL PROVIDE A STRAIGHT DOWNWARD PATH TO GROUND WITH GRADUAL BEND AS REQUIRED. GROUNDING CONDUCTORS SHALL NOT BE LOOPEO OR SHARPLY BENT. ROUTE GROUNDING CONNECTIONS AND CONDUCTORS TO GROUND IN THE SHORTEST AND STRAIGHTEST PATHS POSSIBLE TO MINIMIZE TRANSIENT VOLTAGE RISES.

4.BUILDINGS AND/OR NEW TOWERS GREATER THAN 75 FEET IN HEIGHT AND 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 AWG 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). SEE STANDARD 6.3.2.2.

5.TIGHTEN GROUNDING AND BONDING CONNECTORS, INCLUDING SCREWS AND BOLTS, IN ACCORDANCE WITH MANUFACTURER'S PUBLISHED TORQUE TIGHTENING VALUES FOR CONNECTORS AND BOLTS. WHERE MANUFACTURER'S TORQUING REQUIREMENTS ARE NOT AVAILABLE, TIGHTEN CONNECTIONS TO COMPLY WITH TIGHTENING TORQUE VALUES SPECIFIED IN UL TO ASSURE PERMANENT AND EFFECTIVE GROUNDING.

6.CONTRACTOR SHALL VERIFY THE LOCATIONS OF GROUNDING TIE-IN-POINTS TO THE EXISTING GROUNDING SYSTEM. ALL UNDERGROUND GROUNDING CONNECTIONS SHALL BE MADE BY THE EXOTHERMIC WELD PROCESS AND INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.

7.ALL GROUNDING CONNECTIONS SHALL BE INSPECTED FOR TIGHTNESS. EXOTHERMIC WELDED CONNECTIONS SHALL BE APPROVED BY THE INSPECTOR HAVING JURISDICTION BEFORE BEING PERMANENTLY CONCEALED.

8.APPLY CORROSION-RESISTANT FINISH TO FIELD CONNECTIONS AND PLACES WHERE FACTORY APPLIED PROTECTIVE COATINGS HAVE BEEN DESTROYED. USE KOPR-SHIELD ANTI-OXIDATION COMPOUND ON ALL COMPRESSION GROUNDING CONNECTIONS.

9.A SEPARATE, CONTINUOUS, INSULATED EQUIPMENT GROUNDING CONDUCTOR SHALL BE INSTALLED IN ALL FEEDER AND BRANCH CIRCUITS.

10.BOND ALL INSULATED GROUNDING BUSHINGS WITH A BARE #6 AWG GROUNDING CONDUCTOR TO A GROUND BUS.

11.DIRECT BURIED GROUNDING CONDUCTORS SHALL BE INSTALLED AT A NOMINAL DEPTH OF 36" MINIMUM BELOW GRADE, OR 6" BELOW THE FROST LINE, USE THE GREATER OF THE TWO DISTANCES.

12.ALL GROUNDING CONDUCTORS EMBEDDED IN OR PENETRATING CONCRETE SHALL BE INSTALLED IN SCHEDULE 40 PVC CONDUIT.

13.THE INSTALLATION OF CHEMICAL ELECTROLYTIC GROUNDING SYSTEM IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. REMOVE SEALING TAPE FROM LEACHING AND BREATHER HOLES. INSTALL PROTECTIVE BOX FLUSH WITH GRADE.

14.DRIVE GROUND RODS UNTIL TOPS ARE A MINIMUM DISTANCE OF 36" DEPTH OR 6" BELOW FROST LINE, USING THE GREATER OF THE TWO DISTANCES.

15.IF COAX ON THE ICE BRIDGE IS MORE THAN 6 FT. FROM THE GROUNDING BAR AT THE BASE OF THE TOWER, A SECOND GROUNDING BAR WILL BE NEEDED AT THE END OF THE ICE BRIDGE, TO GROUND THE COAX CABLE GROUNDING KITS AND IN-LINE ARRESTORS.

16.CONTRACTOR SHALL REPAIR, AND/OR REPLACE, EXISTING GROUNDING SYSTEM COMPONENTS DAMAGED DURING CONSTRUCTION AT THE CONTRACTORS EXPENSE.
- 3.5ACCEPTANCE TESTING:

A.CERTIFIED PERSONNEL USING CERTIFIED EQUIPMENT SHALL PERFORM REQUIRED TESTS AND SUBMIT WRITTEN TEST REPORTS UPON COMPLETION.

B.WHEN MATERIAL AND/OR WORKMANSHIP IS FOUND NOT TO COMPLY WITH THE SPECIFIED REQUIREMENTS, THE NON-COMPLYING ITEMS SHALL BE REMOVED FROM THE PROJECT SITE AND REPLACED WITH ITEMS COMPLYING WITH THE SPECIFIED REQUIREMENTS PROMPTLY AFTER RECEIPT OF NOTICE FOR NON-COMPLIANCE.

C.TEST PROCEDURES:

1.ALL FEEDERS SHALL HAVE INSULATION TESTED AFTER INSTALLATION, BEFORE CONNECTION TO DEVICES. THE CONDUCTORS SHALL TEST FREE FROM SHORT CIRCUITS AND GROUNDS. TESTING SHALL BE FOR ONE MINUTE USING 1000V DC. PROVIDE WRITTEN DOCUMENTATION FOR ALL TEST RESULTS.

2.PRIOR TO ENERGIZING CIRCUITRY, TEST WIRING DEVICES FOR ELECTRICAL CONTINUITY AND PROPER POLARITY CONNECTIONS.

3.MEASURE AND RECORD VOLTAGES BETWEEN PHASES AND BETWEEN PHASE CONDUCTORS AND NEUTRALS. SUBMIT A REPORT OF MAXIMUM AND MINIMUM VOLTAGES.

4.PERFORM GROUNDING TEST TO MEASURE GROUNDING RESISTANCE OF GROUNDING SYSTEM USING THE IEEE STANDARD 3-POINT "FALL-OF-POTENTIAL" METHOD, PROVIDE PLOTTED TEST VALUES AND LOCATION SKETCH. NOTIFY THE ENGINEER IMMEDIATELY IF MEASURED VALUE IS OVER 5 OHMS.



PROJECT NO: ERCC0004

DRAWN BY: NTC

CHECKED BY: DJC

SUBMITTALS		
0	10/03/19	ISSUED FOR CONSTRUCTION
0	09/06/19	ISSUED FOR PERMITTING

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FA# 10070938
SITE# CTLO5819
BOLTON

49 SOUTH ROAD
BOLTON, CT 06043

GENERAL NOTES I

GN-1

ANTENNA MOUNTING

1. DESIGN AND CONSTRUCTION OF ANTENNA SUPPORTS SHALL CONFORM TO CURRENT ANSI/TA-222 OR APPLICABLE LOCAL CODES.
2. ALL STEEL MATERIALS SHALL BE GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A123 "ZINC (HOT-DIP GALVANIZED) COATINGS ON IRON AND STEEL PRODUCTS", UNLESS NOTED OTHERWISE.
3. ALL BOLTS, ANCHORS AND MISCELLANEOUS HARDWARE SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 "ZINC-COATING (HOT-DIP) ON IRON AND STEEL HARDWARE", UNLESS NOTED OTHERWISE.
4. DAMAGED GALVANIZED SURFACES SHALL BE REPAIRED BY COLD GALVANIZING IN ACCORDANCE WITH ASTM A780.
5. ALL ANTENNA MOUNTS SHALL BE INSTALLED WITH LOCK NUTS, DOUBLE NUTS AND SHALL BE TORQUED TO MANUFACTURER'S RECOMMENDATIONS.
6. CONTRACTOR SHALL INSTALL ANTENNA PER MANUFACTURER'S RECOMMENDATION FOR INSTALLATION AND GROUNDING.
7. ALL UNUSED PORTS ON ANY ANTENNAS SHALL BE TERMINATED WITH A 50-OHM LOAD TO ENSURE ANTENNAS PERFORM AS DESIGNED.
8. PRIOR TO SETTING ANTENNA AZIMUTHS AND DOWNTILTS, ANTENNA CONTRACTOR SHALL CHECK THE ANTENNA MOUNT FOR TIGHTNESS AND ENSURE THAT THEY ARE PLUMB. ANTENNA AZIMUTHS SHALL BE SET FROM TRUE NORTH AND BE ORIENTED WITHIN $\pm 5\%$ AS DEFINED BY THE RFDS. ANTENNA DOWNTILTS SHALL BE WITHIN $\pm 0.5\%$ AS DEFINED BY THE RFDS. REFER TO ND-00246.
9. JUMPERS FROM THE TMA'S MUST TERMINATE TO OPPOSITE POLARIZATION'S IN EACH SECTOR.
10. CONTRACTOR SHALL RECORD THE SERIAL #, SECTOR, AND POSITION OF EACH ACTUATOR INSTALLED AT THE ANTENNAS AND PROVIDE THE INFORMATION TO AT&T.
11. TMA'S SHALL BE MOUNTED ON PIPE DIRECTLY BEHIND ANTENNAS AS CLOSE TO ANTENNA AS FEASIBLE IN A VERTICAL POSITION.

TORQUE REQUIREMENTS

12. ALL RF CONNECTIONS SHALL BE TIGHTENED BY A TORQUE WRENCH.
13. ALL RF CONNECTIONS, GROUNDING HARDWARE AND ANTENNA HARDWARE SHALL HAVE A TORQUE MARK INSTALLED IN A CONTINUOUS STRAIGHT LINE FROM BOTH SIDES OF THE CONNECTION.
 - A. RF CONNECTION BOTH SIDES OF THE CONNECTOR.
 - B. GROUNDING AND ANTENNA HARDWARE ON THE NUT SIDE STARTING FROM THE THREADS TO THE SOLID SURFACE. EXAMPLE OF SOLID SURFACE: GROUND BAR, ANTENNA BRACKET METAL.
 - C. ALL 8M ANTENNA HARDWARE SHALL BE TIGHTENED TO 9 LB-FT (12 NM).
14. ALL 12M ANTENNA HARDWARE SHALL BE TIGHTENED TO 43 LB-FT (58 NM).
15. ALL GROUNDING HARDWARE SHALL BE TIGHTENED UNTIL THE LOCK WASHER COLLAPSES AND THE GROUNDING HARDWARE IS NO LONGER LOOSE.
16. ALL DIN TYPE CONNECTIONS SHALL BE TIGHTENED TO 18-22 LB-FT (24.4 - 29.8 NM).
17. ALL N TYPE CONNECTIONS SHALL BE TIGHTENED TO 15-20 LB-FT (1.7 - 2.3 NM).

FIBER & POWER CABLE MOUNTING

18. THE FIBER OPTIC TRUNK CABLES SHALL BE INSTALLED INTO CONDUITS, CHANNEL CABLE TRAYS, OR CABLE TRAY. WHEN INSTALLING FIBER OPTIC TRUNK CABLES INTO A CABLE TRAY SYSTEM, THEY SHALL BE INSTALLED INTO AN INTER DUCT AND A PARTITION BARRIER SHALL BE INSTALLED BETWEEN THE 600 VOLT CABLES AND THE INTER DUCT IN ORDER TO SEGREGATE CABLE TYPES. OPTIC FIBER TRUNK CABLES SHALL HAVE APPROVED CABLE RESTRAINTS EVERY (60) SIXTY FEET AND SECURELY FASTENED TO THE CABLE TRAY SYSTEM. NFPA 70 (NEC) ARTICLE 770 RULES SHALL APPLY.
19. THE TYPE TC-ER CABLES SHALL BE INSTALLED INTO CONDUITS, CHANNEL CABLE TRAYS, OR CABLE TRAY AND SHALL BE SECURED AT INTERVALS NOT EXCEEDING (6) SIX FEET. AN EXCEPTION; WHERE TYPE TC-ER CABLES ARE NOT SUBJECT TO PHYSICAL DAMAGE, CABLES SHALL BE PERMITTED TO MAKE A TRANSITION BETWEEN CONDUITS, CHANNEL CABLE TRAYS, OR CABLE TRAY WHICH ARE SERVING UTILIZATION EQUIPMENT OR DEVICES, A DISTANCE (6) SIX FEET SHALL NOT BE EXCEEDED WITHOUT CONTINUOUS SUPPORTING. NFPA 70 (NEC) ARTICLES 336 AND 392 RULES SHALL APPLY.
20. WHEN INSTALLING OPTIC FIBER TRUNK CABLES OR TYPE TC-ER CABLES INTO CONDUITS, NFPA 70 (NEC) ARTICLE 300 RULES SHALL APPLY.

COAXIAL CABLE NOTES

21. TYPES AND SIZES OF THE ANTENNA CABLE ARE BASED ON ESTIMATED LENGTHS. PRIOR TO ORDERING CABLE, CONTRACTOR SHALL VERIFY ACTUAL LENGTH BASED ON CONSTRUCTION LAYOUT AND NOTIFY THE PROJECT MANAGER IF ACTUAL LENGTHS EXCEED ESTIMATED LENGTHS.
22. CONTRACTOR SHALL VERIFY THE DOWN-TILT OF EACH ANTENNA WITH A DIGITAL LEVEL.
23. CONTRACTOR SHALL CONFIRM COAX COLOR CODING PRIOR TO CONSTRUCTION. REFER TO "ANTENNA SYSTEM LABELING STANDARD" ND-00027 LATEST VERSION.
24. ALL JUMPERS TO THE ANTENNAS FROM THE MAIN TRANSMISSION LINE SHALL BE 1/2" DIA. LDF AND SHALL NOT EXCEED 6'-0".
25. ALL COAXIAL CABLE SHALL BE SECURED TO THE DESIGNED SUPPORT STRUCTURE, IN AN APPROVED MANNER, AT DISTANCES NOT TO EXCEED 4'-0" O.C.
26. CONTRACTOR SHALL FOLLOW ALL MANUFACTURER'S RECOMMENDATIONS REGARDING BOTH THE INSTALLATION AND GROUNDING OF ALL COAXIAL CABLES, CONNECTORS, ANTENNAS, AND ALL OTHER EQUIPMENT.
27. CONTRACTOR SHALL WEATHERPROOF ALL ANTENNA CONNECTORS WITH SELF AMALGAMATING TAPE. WEATHERPROOFING SHALL BE COMPLETED IN STRICT ACCORDANCE WITH AT&T STANDARDS.
28. CONTRACTOR SHALL GROUND ALL EQUIPMENT, INCLUDING ANTENNAS, RET MOTORS, TMA'S, COAX CABLES, AND RET CONTROL CABLES AS A COMPLETE SYSTEM. GROUNDING SHALL BE EXECUTED BY QUALIFIED WIREMEN IN COMPLIANCE WITH MANUFACTURER'S SPECIFICATION AND RECOMMENDATION.
29. CONTRACTOR SHALL PROVIDE STRAIN-RELIEF AND CABLE SUPPORTS FOR ALL CABLE ASSEMBLIES, COAX CABLES, AND RET CONTROL CABLES. CABLE STRAIN-RELIEFS AND CABLE SUPPORTS SHALL BE APPROVED FOR THE PURPOSE. INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.
30. CONTRACTOR TO VERIFY THAT EXISTING COAX HANGERS ARE STACKABLE SNAP IN HANGERS. IF EXISTING HANGERS ARE NOT STACKABLE SNAP IN HANGERS THE CONTRACTOR SHALL REPLACE EXISTING HANGERS WITH NEW SNAP IN HANGERS IF APPLICABLE.

GENERAL CABLE AND EQUIPMENT NOTES

31. CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY ANTENNA, TMAS, DIPLEXERS, AND COAX CONFIGURATION, MAKE AND MODEL PRIOR TO INSTALLATION.
32. ALL CONNECTIONS FOR HANGERS, SUPPORTS, BRACING, ETC. SHALL BE INSTALLED PER TOWER MANUFACTURER'S RECOMMENDATIONS.

33. CONTRACTOR SHALL REFERENCE THE TOWER STRUCTURAL ANALYSIS/DESIGN DRAWINGS FOR DIRECTIONS ON CABLE DISTRIBUTION/ROUTING.
34. ALL OUTDOOR RF CONNECTORS/CONNECTIONS SHALL BE WEATHERPROOFED, EXCEPT THE RET CONNECTORS, USING BUTYL TAPE AFTER INSTALLATION AND FINAL CONNECTIONS ARE MADE. BUTYL TAPE SHALL HAVE A MINIMUM OF ONE-HALF TAPE WIDTH OVERLAP ON EACH TURN AND EACH LAYER SHALL BE WRAPPED THREE TIMES. WEATHERPROOFING SHALL BE SMOOTH WITHOUT BUCKLING. BUTYL BLEEDING IS NOT ALLOWED.
35. IF REQUIRED TO PAINT ANTENNAS AND/OR COAX:
 - A. TEMPERATURE SHALL BE ABOVE 50° F.
 - B. PAINT COLOR MUST BE APPROVED BY BUILDING OWNER/LANDLORD.
 - C. FOR REGULATED TOWERS, FAA/FCC APPROVED PAINT IS REQUIRED.
 - D. DO NOT PAINT OVER COLOR CODING OR ON EQUIPMENT MODEL NUMBERS.
36. ALL CABLES SHALL BE GROUNDED WITH COAXIAL CABLE GROUND KITS, FOLLOW THE MANUFACTURER'S RECOMMENDATIONS.
 - A. GROUNDING AT THE ANTENNA LEVEL.
 - B. GROUNDING AT MID LEVEL, TOWERS WHICH ARE OVER 200'-0", ADDITIONAL CABLE GROUNDING REQUIRED.
 - C. GROUNDING AT BASE OF TOWER PRIOR TO TURNING HORIZONTAL.
 - D. GROUNDING OUTSIDE THE EQUIPMENT SHELTER AT ENTRY PORT.
 - E. GROUNDING INSIDE THE EQUIPMENT SHELTER AT THE ENTRY PORT.
37. ALL PROPOSED GROUND BAR DOWNLEADS ARE TO BE TERMINATED TO THE EXISTING ADJACENT GROUND
38. BAR DOWNLEADS A MINIMUM DISTANCE OF 4'-0" BELOW GROUND BAR. TERMINATIONS MAY BE EXOTHERMIC OR COMPRESSION.
39. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE ANTENNA AND THE COAX CONFIGURATION IS THE CORRECT MAKE AND MODELS, PRIOR TO INSTALLATION.

GROUNDING NOTES

42. GROUNDING IS SHOWN DIAGRAMMATICALLY ONLY.
43. CONTRACTOR SHALL GROUND ALL EQUIPMENT AS A COMPLETE SYSTEM. GROUNDING SHALL BE IN COMPLIANCE WITH NEC SECTION 250 AND AT&T GROUNDING AND BONDING REQUIREMENTS (ATT-TP-76416) AND MANUFACTURER'S SPECIFICATIONS.
44. ALL GROUND CONDUCTORS SHALL BE COPPER; NO ALUMINUM CONDUCTORS SHALL BE USED.
45. ALL CABLES SHALL BE GROUNDED WITH COAXIAL CABLE GROUNDING KITS. FOLLOW THE MANUFACTURER'S RECOMMENDATIONS.
 - A. GROUNDING AT THE ANTENNA LEVEL.
 - B. GROUNDING AT MID LEVEL, TOWERS WHICH ARE OVER 200', ADDITIONAL CABLE GROUNDING REQUIRED.
 - C. GROUNDING AT BASE OF TOWER PRIOR TO TURNING HORIZONTAL.
 - D. GROUNDING OUTSIDE THE EQUIPMENT SHELTER AT ENTRY PORT.
 - E. GROUNDING INSIDE THE EQUIPMENT SHELTER AT THE ENTRY PORT.
46. ALL PROPOSED GROUNDING BAR DOWNLEADS ARE TO BE TERMINATED TO THE EXISTING ADJACENT GROUNDING BAR DOWNLEADS A MINIMUM DISTANCE OF 4'-0" BELOW GROUNDING BAR. TERMINATIONS MAY BE EXOTHERMIC OR COMPRESSION.

- | | | | |
|--|--|---------------------|--|
| EXOTHERMIC CONNECTION | | CALLOUT REFERENCE | |
| MECHANICAL CONNECTION | | | |
| CHEMICAL ELECTROLYTIC GROUNDING SYSTEM | | REVISION REFERENCE | |
| TEST CHEMICAL ELECTROLYTIC GROUNDING SYSTEM | | | |
| EXOTHERMIC WITH INSPECTION SLEEVE | | WORKPOINT | |
| GROUNDING BAR | | | |
| SHELTER GROUNDING BAR | | | |
| GROUND ROD | | SECTION REFERENCE | |
| TEST GROUND ROD WITH INSPECTION SLEEVE | | | |
| SINGLE POLE SWITCH | | DETAIL REFERENCE | |
| DUPLEX RECEPTACLE | | | |
| DUPLEX GFCI RECEPTACLE | | ELEVATION REFERENCE | |
| FLUORESCENT LIGHTING FIXTURE
(2) TWO LAMPS 48-T8 | | | |
| EXISTING SMOKE DETECTION (DC) | | | |
| EXISTING EMERGENCY LIGHTING (DC) | | | |
| SECURITY LIGHT W/PHOTOCELL LITHONIA ALXW
LED-1-25A400/51K-SR4-120-PE-DBBTXD | | | |
| EXISTING UTILITY POLE | | | |
| EXISTING CHAIN LINK FENCE | | | |
| EXISTING WOOD/WROUGHT IRON FENCE | | | |
| EXISTING WALL STRUCTURE | | | |
| LEASE AREA | | | |
| PROPERTY LINE (PL) | | | |
| SETBACKS | | | |
| PROPOSED/EXISTING ICE BRIDGE | | | |
| PROPOSED/EXISTING CABLE TRAY | | | |
| EXISTING WATER LINE | | | |
| PROPOSED UNDERGROUND POWER | | | |
| PROPOSED UNDERGROUND TELCO | | | |
| PROPOSED OVERHEAD POWER | | | |
| PROPOSED OVERHEAD TELCO | | | |
| PROPOSED OVERHEAD UTILITIES | | | |
| PROPOSED ABOVE GROUND POWER | | | |
| PROPOSED ABOVE GROUND TELCO | | | |



at&t

5841 BRIDGE STREET
EAST SYRACUSE, NY 13057



**CROWN
CASTLE**

3 CORPORATE PARK DRIVE
SUITE 101
CLIFTON PARK, NY 12065

JACOBS™
JACOBS ENGINEERING GROUP, INC.
120 ST. JAMES AVENUE, 5TH FLOOR
BOSTON, MA 02116

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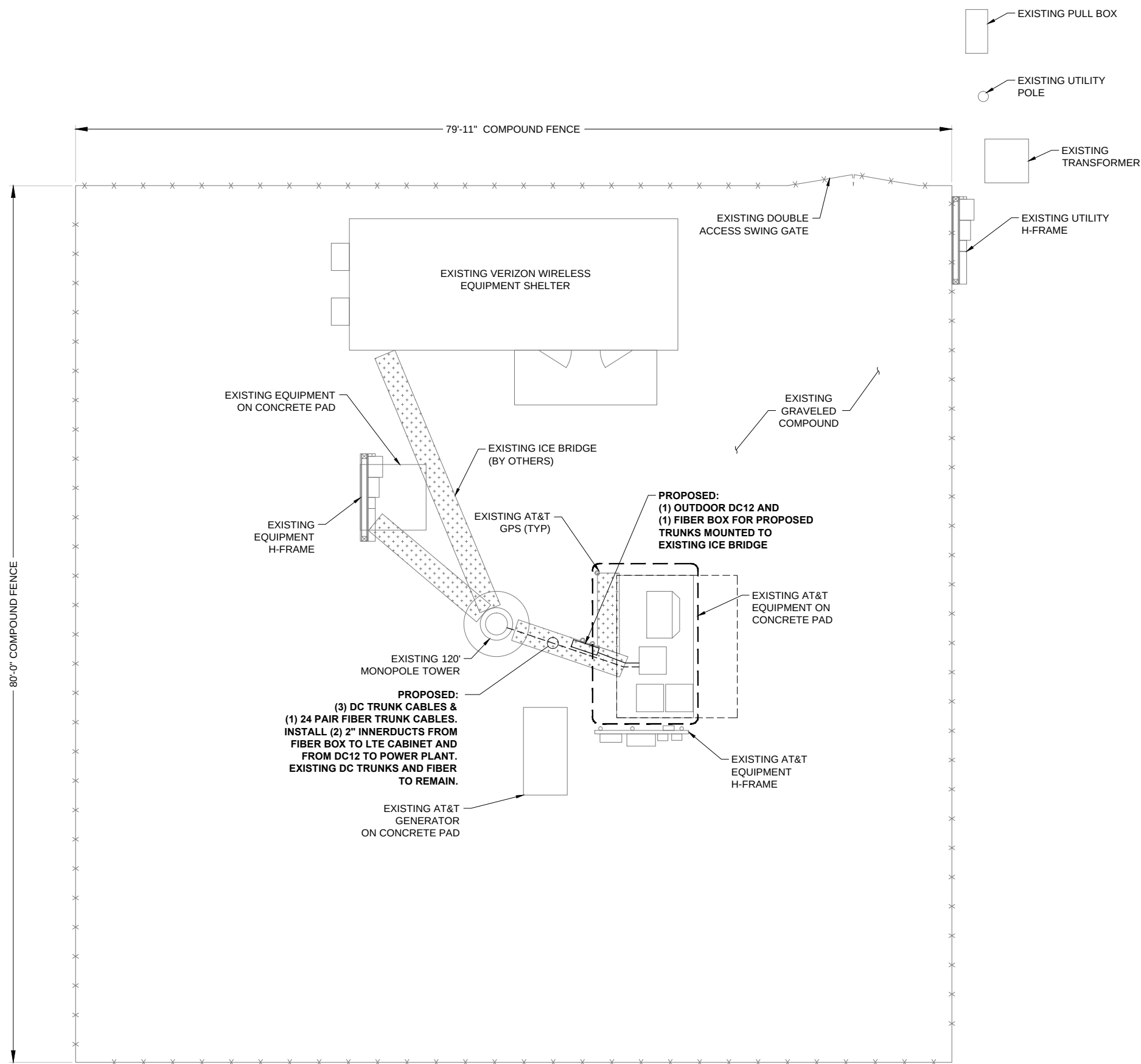
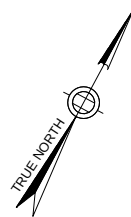
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FA# 10070938
SITE# CTL05819
BOLTON
49 SOUTH ROAD
BOLTON, CT 06043

GENERAL NOTES II

GN-2

	ANCHOR BOLT	COL	COLUMN	FIN	FINISH(ED)	MAS	MASONRY	QTY	QUANTITY	TOF	TOP OF FOUNDATION
ABV	ABOVE	COMM	COMMON	FLR	FLOOR	MAX	MAXIMUM	RAD	RADIUS	TOP	TOP OF PLATE (PARAPET)
AC	ALTERNATING CURRENT	CONC	CONCRETE	FDN	FOUNDATION	MB	MACHINE BOLT	RECT	RECTIFIER	TOS	TOP OF STEEL
ADDL	ADDITIONAL	CONSTR	CONSTRUCTION	FOC	FACE OF CONCRETE	MECH	MECHANICAL	REF	REFERENCE	TOW	TOP OF WALL
AFF	ABOVE FINISHED FLOOR	DBL	DOUBLE	FOM	FACE OF MASONRY	MFR	MANUFACTURER	REINF	REINFORCEMENT	TVSS	TRANSIENT VOLTAGE SUPPRESSION
AFG	ABOVE FINISHED GRADE	DC	DIRECT CURRENT	FOS	FACE OF STUD	MGB	MASTER GROUND BAR	REQ'D	REQUIRED		SYSTEM
AIC	AMPERAGE INTERRUPTION CAPACITY	DEPT	DEPARTMENT	FOW	FACE OF WALL	MIN	MINIMUM	RET	REMOTE ELECTRIC TILT	TYP	TYPICAL
ALUM	ALUMINUM	DF	DOUGLAS FIR	FS	FINISH SURFACE	MISC	MISCELLANEOUS	RMC	RIGID METALLIC CONDUIT	UG	UNDERGROUND
ALT	ALTERNATE	DIA	DIAMETER	FT	FOOT	MTL	METAL	RRH	REMOTE RADIO HEAD	UL	UNDERWRITERS LABORATORY
ANT	ANTENNA	DIAG	DIAGONAL	FTG	FOOTING	MTS	MANUAL TRANSFER SWITCH	RRU	REMOTE RADIO UNIT	UNO	UNLESS NOTED OTHERWISE
APPROX	APPROXIMATE	DIM	DIMENSION	GA	GAUGE	MW	MICROWAVE	RWY	RACEWAY	UMTS	UNIVERSAL MOBILE
ARCH	ARCHITECTURAL	DWG	DRAWING	GEN	GENERATOR	(N)	NEW	SCH	SCHEDULE		TELECOMMUNICATIONS SYSTEM
ATS	AUTOMATIC TRANSFER SWITCH	DWL	DOWEL	GFCI	GROUND FAULT CIRCUIT INTERRUPTER	NEC	NATIONAL ELECTRIC CODE	SHT	SHEET	UPS	UNINTERRUPTIBLE POWER SYSTEM
AWG	AMERICAN WIRE GAUGE	(E)	EXISTING	GLB	GLUE LAMINATED BEAM	NO.(#)	NUMBER	SIAD	SMART INTEGRATED DEVICE		(DC POWER PLANT)
BATT	BATTERY	EA	EACH	GLV	GALVANIZED	NTS	NOT TO SCALE	SIM	SIMILAR	VIF	VERIFIED IN FIELD
BLDG	BUILDING	EC	ELECTRICAL CONDUCTOR	GPS	GLOBAL POSITIONING SYSTEM	OC	ON CENTER	SPEC	SPECIFICATION	W	WIDE
BLK	BLOCK	EL	ELEVATION	GND	GROUND	OPNG	OPENING	SQ	SQUARE	W/	WITH
BLKG	BLOCKING	ELEC	ELECTRICAL	GSM	GLOBAL SYSTEM FOR MOBILE	(P)	PROPOSED	SS	STAINLESS STEEL	WD	WOOD
BM	BEAM	EMT	ELECTRICAL METALLIC TUBING	HDR	HEADER	P/C	PRECAST CONCRETE	STD	STANDARD	W.P.	WORK POINT
BTC	BARE TINNED COPPER CONDUCTOR	ENG	ENGINEER	HGR	HANGER	PCS	PERSONAL COMMUNICATION SERVICES	STL	STEEL	WP	WEATHERPROOF
BOF	BOTTOM OF FOOTING	EQ	EQUAL	HVAC	HEAT/VENTILATION/AIR CONDITIONING	PCU	PRIMARY CONTROL UNIT	STRUCT	STRUCTURAL	WT	WEIGHT
CAB	CABINET	EXP	EXPANSION	HT	HEIGHT	PRC	PRIMARY RADIO CABINET	TEMP	TEMPORARY		
CANT	CANTILEVERED	EXT	EXTERIOR	IGR	INTERIOR GROUND RING	PP	POLARIZING PRESERVING	THK	THICKNESS		
CEC	CALIFORNIA ELECTRIC CODE	FAB	FABRICATION	IN	INCH	PSF	POUNDS PER SQUARE FOOT	TMA	TOWER MOUNTED AMPLIFIER		
CHG	CHARGING	FF	FINISH FLOOR	INT	INTERIOR	PSI	POUNDS PER SQUARE INCH	TN	TOE NAIL		
CLG	CEILING	FG	FINISH GRADE	LB(S)	POUND(S)	PT	PRESSURE TREATED	TOA	TOP OF ANTENNA		
CLR	CLEAR	FIF	FACILITY INTERFACE FRAME	LF	LINEAR FEET	PWR	POWER CABINET	TOC	TOP OF CURB		



NOTES:

1. PLAN BASED ON AS-BUILT DRAWINGS ISSUED BY ADVANCED ENGINEERING GROUP, P.C. ON 12/27/13. CONTRACTOR TO FIELD VERIFY ALL DIMENSIONS AND LOCATION/ORIENTATION OF EXISTING EQUIPMENT.



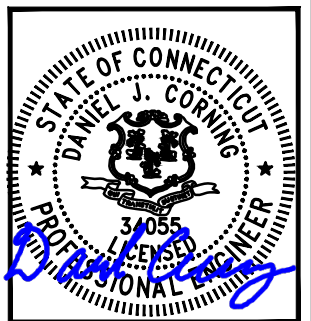
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EAST SYRACUSE, NY 13057



3 CORPORATE PARK DRIVE
SUITE 101
CLIFTON PARK, NY 12065



120 ST. JAMES AVENUE, 5TH FLOOR
BOSTON, MA 02116



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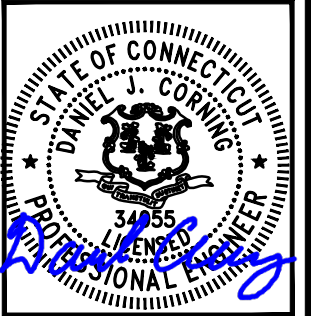
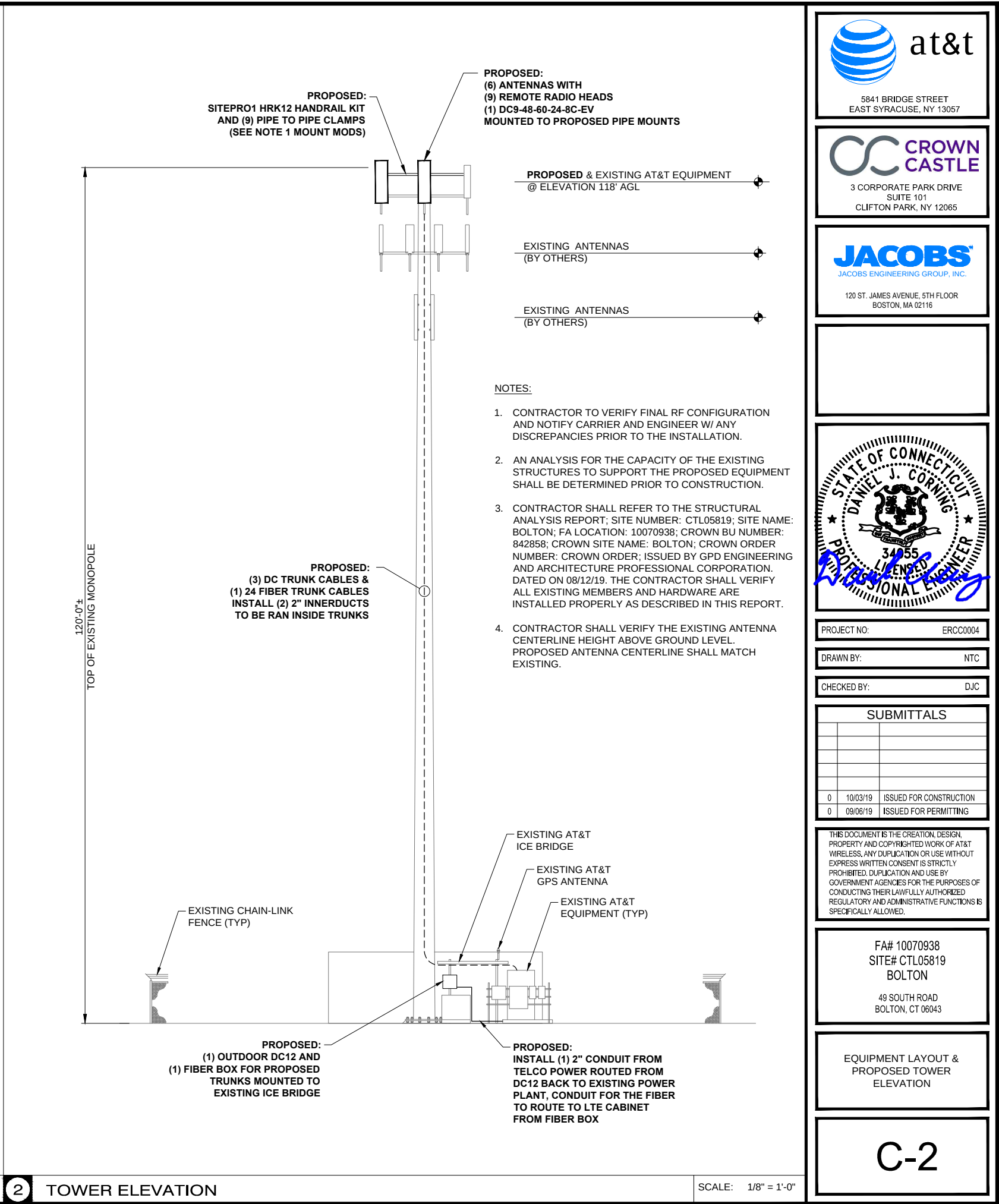
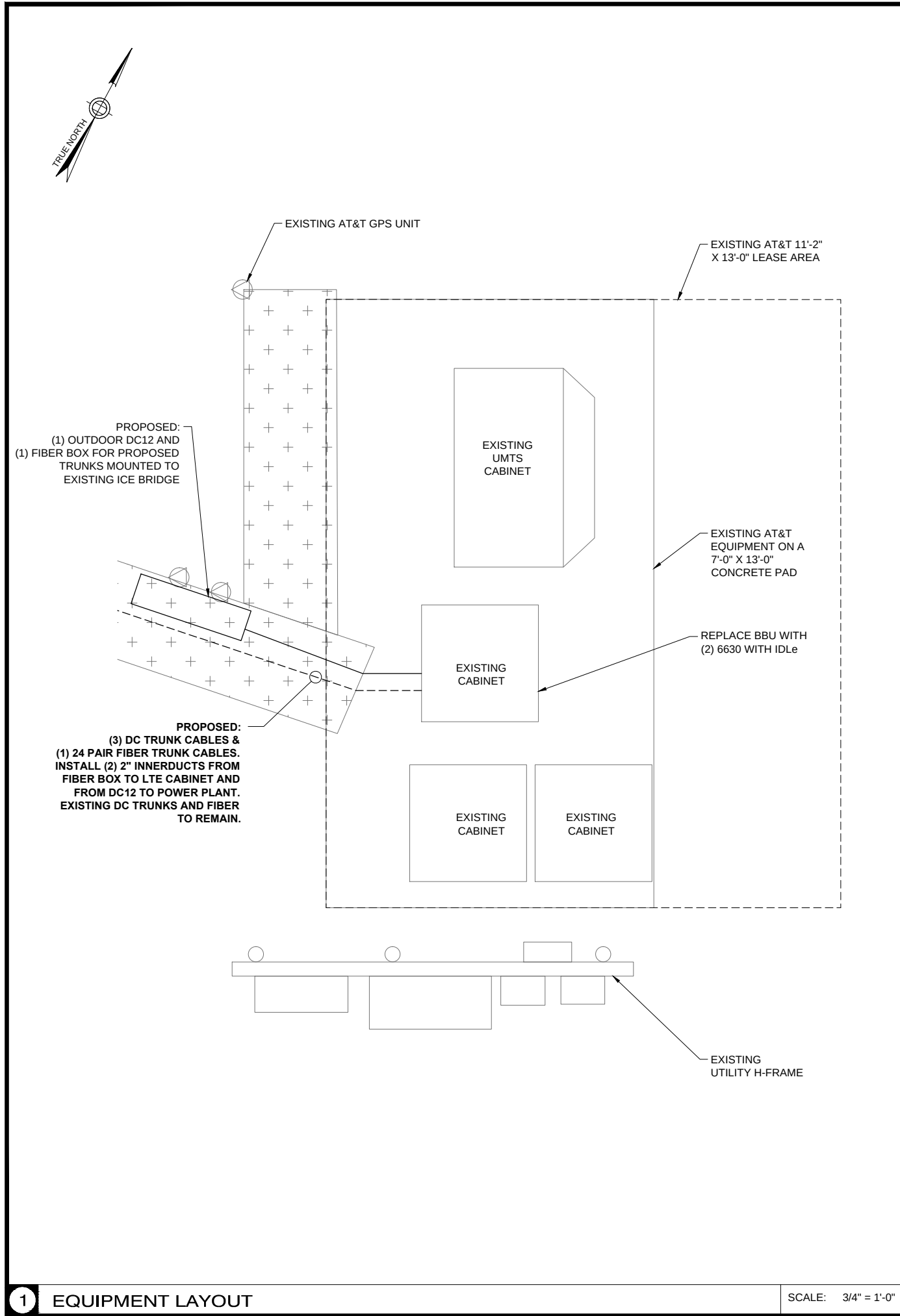
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SITE# CTL05819
BOLTON

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BOLTON, CT 06043

SITE PLAN

C-1



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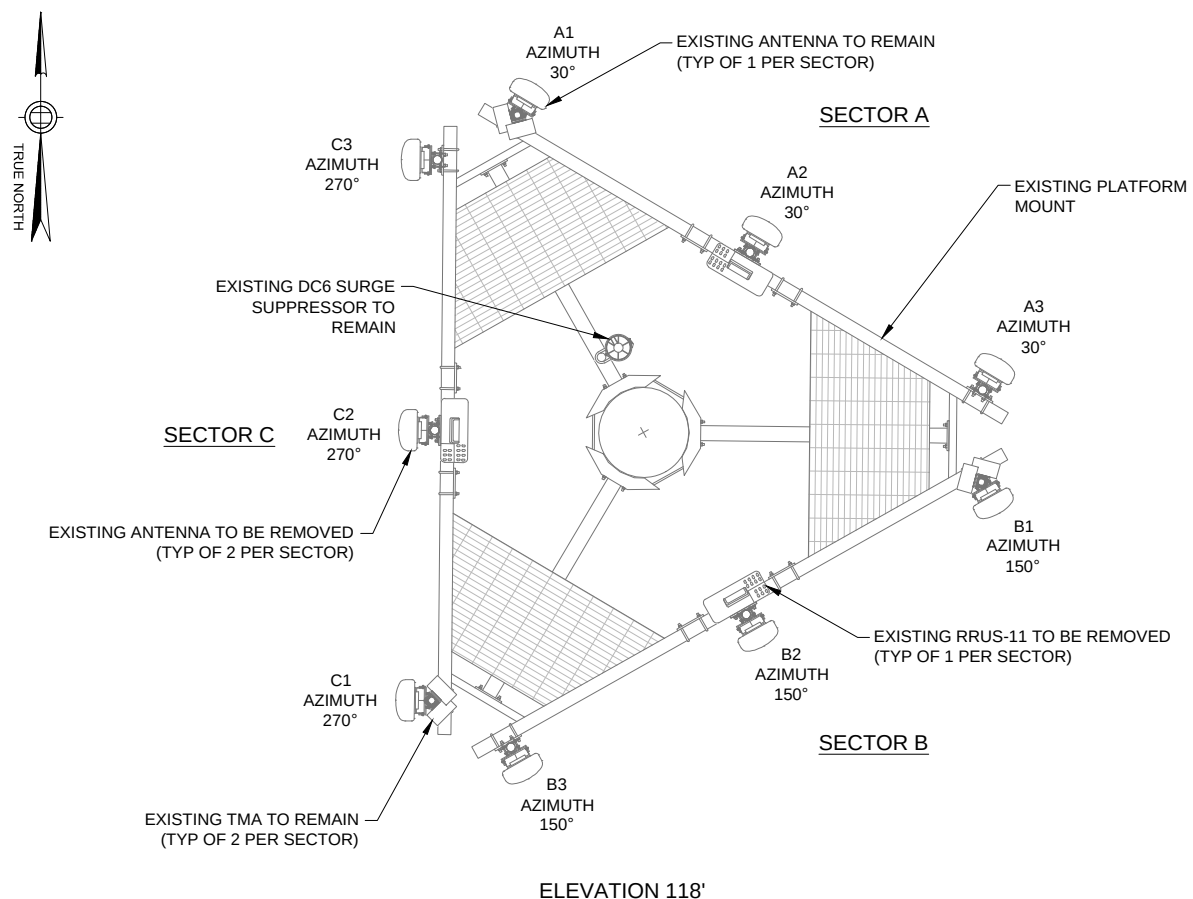
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EQUIPMENT LAYOUT & PROPOSED TOWER ELEVATION

C-2



- NOTES:
1. CONTRACTOR SHALL REFER TO THE MOUNT MODIFICATION ANALYSIS REPORT; SITE NUMBER: CTL05819; SITE NAME: BOLTON; CROWN BU NUMBER: 842858; CROWN SITE NAME: BOLTON; CROWN ORDER NUMBER: CROWN ORDER; ISSUED BY TOWER ENGINEERING PROFESSIONALS, DATED ON 07/29/19. THE MOUNT MODIFICATIONS MUST BE PERFORMED PRIOR TO THE INSTALLATION OF THE EQUIPMENT SHOWN ON THE DRAWINGS. CONTRACTOR SHALL REFER TO APPENDIX E - SHEETS 79 THROUGH 84 FOR DETAILS. THE CONTRACTOR SHALL VERIFY ALL EXISTING MEMBERS AND HARDWARE ARE INSTALLED PROPERLY AS DESCRIBED IN THIS REPORT.
 2. CONTRACTOR TO VERIFY FINAL RF CONFIGURATION AND NOTIFY CARRIER AND ENGINEER W/ ANY DISCREPANCIES PRIOR TO THE INSTALLATION.
 3. CONTRACTOR SHALL NOT EXCEED MOUNTING MORE THAN (2) RRHS PER ANTENNA MOUNTING PIPE - RELOCATE TO AN ADJACENT ANTENNA MOUNTING PIPE AS NEEDED.
 4. REMOVE THREE RRU'S FROM H-FRAME AT GRADE.

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JACOBS ENGINEERING GROUP, INC.
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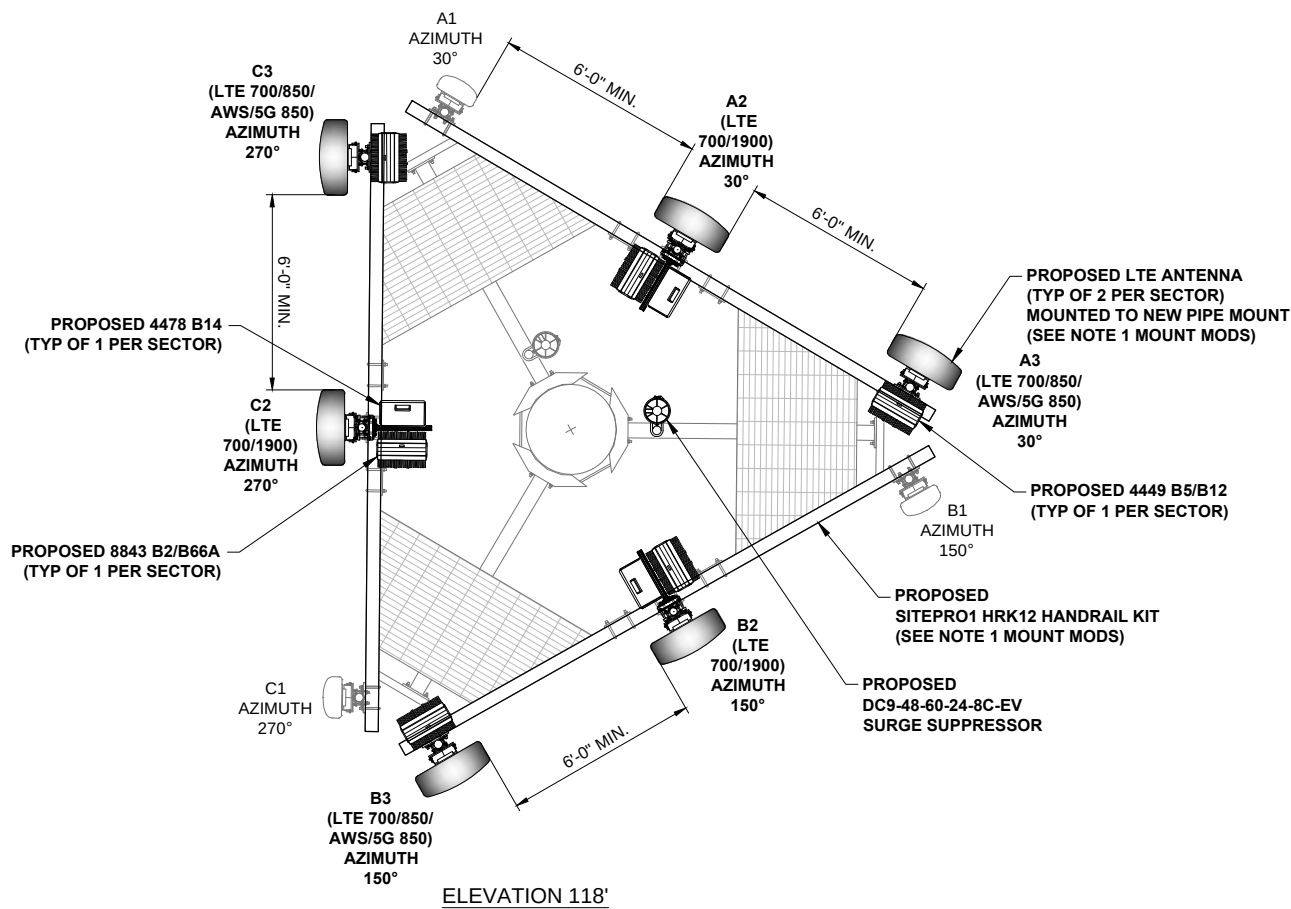
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FA# 10070938
SITE# CTL05819
BOLTON
49 SOUTH ROAD
BOLTON, CT 06043

EXISTING & PROPOSED
ANTENNA LAYOUT

C-3



1 EXISTING ANTENNA LAYOUT

SCALE: N.T.S.

2 PROPOSED ANTENNA LAYOUT

SCALE: N.T.S.

MANUFACTURER:

MODEL NO.:

COLOR:

DIMENSIONS (LxWxD):

WEIGHT (lbs):

CONNECTOR:

FRONT WIND LOAD:

SIDE WIND LOAD:

WIND SPEED MAX.:

CCI

DMP65R-BU6DA

LIGHT GRAY

71.2" x 20.7" x 7.7"
1808mm x 525mm x 197mm

79.4

8 x 4.3-10 FEMALE

325 LBS @ 100 MPH
1446 N @ 161 KPH

144 LBS @ 100 MPH
642 N @ 161 KPH

>150 MPH (>241 KPH)

MANUFACTURER:

MODEL NO.:

DIMENSIONS (HxWxD):

WEIGHT (lbs):

POWER SUPPLY:

TEMPERATURE:

ERICSSON

RRUS-8843

14.9" x 13.1" x 10.9"

71.8

-48V

-40 °C TO 55 °C

MANUFACTURER:

MODEL NO.:

TECHNOLOGY:

DIMENSIONS (HxWxD):

WEIGHT (lbs):

POWER SUPPLY:

TEMPERATURE:

ERICSSON

RRUS-4449 B5 & B12

DUAL BAND

14.96" x 13.19" x 10.43"

73.0

-48V

-40 °C TO 55 °C

1

ANTENNA SPECIFICATIONS

SCALE: N.T.S.

2

RRUS SPECIFICATIONS

SCALE: N.T.S.

3

RRUS SPECIFICATIONS

SCALE: N.T.S.

MANUFACTURER:

MODEL NO.:

TECHNOLOGY:

DIMENSIONS (HxWxD):

WEIGHT (lbs):

POWER SUPPLY:

ERICSSON

RRUS-4478 B14

LTE 700

18.1" x 13.4" x 8.26"

59.4

-48V

NOTE:
PENDING FINAL PRODUCT SPECIFICATION

RAYCAP DC9-48-60-24-8C-EV

DIMENSIONS (HxWxD):

TOTAL WEIGHT (lbs):

NOMINAL OPERATING VOLTAGE:

NOMINAL DISCHARGE VOLTAGE:

MAXIMUM DISCHARGE CURRENT:

MAX. CONT. OPERATING CURRENT:

VOLTAGE PROTECTION RATING:

WIND LOADING:

31.41" x 11.0" x 18.28"

26.2

48 VDC

20 kA 8/20µs

60 kA 8/20µs

60 VDC

330 V

150 MPH (SUSTAINED)
195 MPH (GUST)

PART #	PIPE SIZE	STAND-OFF ARM
BBPM-K1	2-3/8"	3-1/2" - 4-1/2"
BBPM-K2	2-7/8"	3-1/2" - 4-1/2"
BBPM-K3	2-3/8"	3-1/2" - 6"
BBPM-U	2-3/8" - 4-1/2"	2-3/8" - 4-1/2"

4

RRUS SPECIFICATIONS

SCALE: N.T.S.

5

DC SURGE PROTECTION SPECIFICATIONS

SCALE: N.T.S.

6

DC9 MOUNTING DETAIL

SCALE: N.T.S.

CUE DEE PART # 5335/5336 ERICSSON RRU MOUNTING KIT

SXK 107 2839/1: SINGLE RRU SUPPORT KIT (PART #5335) (OR ENGINEER APPROVED EQUIVALENT) SXK 107 2839/2: EXPANSION KIT (PART #5336) (OR ENGINEER APPROVED EQUIVALENT)

MOUNTING NOTES:

REFER TO PRODUCT SPECS FOR BOLT SIZE & PIPE DIAMETER TOLERANCES. THE PART NO. SXK107-2839/2 IS REQUIRED FOR (2) RRUS. ANTENNA NOT SHOWN FOR CLARITY.

NOTE

ANTENNA NOT SHOWN FOR CLARITY.

NOTE

MOUNTING OPTIONS ARE INCLUDED PRODUCTS WITH ANTENNA PURCHASE

7

RRU MOUNTING DETAIL

SCALE: N.T.S.

8

RRU MOUNTING DETAIL

SCALE: N.T.S.

9

ANTENNA & RRH MOUNTING DETAIL

SCALE: N.T.S.

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ERRC0004

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NTC

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DJC

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EQUIPMENT
DETAILS

C-4

EXISTING ANTENNA MOUNTING PIPE

PROPOSED RRUS

NOTE

MOUNTING OPTIONS ARE INCLUDED PRODUCTS WITH ANTENNA PURCHASE

PROPOSED ANTENNA MOUNTING BRACKET (CCI MBK-01)

PROPOSED ANTENNA ON EXISTING PIPE MOUNT

PROPOSED ANTENNA MOUNTING BRACKET (CCI MBK-01)

1

RRU MOUNTING DETAIL W/ ANTENNA

SCALE: N.T.S.

2

DETAIL NOT USED

SCALE: N.T.S.

3

DETAIL NOT USED

SCALE: N.T.S.

4

DETAIL NOT USED

SCALE: N.T.S.

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DETAIL NOT USED

SCALE: N.T.S.

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SCALE: N.T.S.

9

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SCALE: N.T.S.



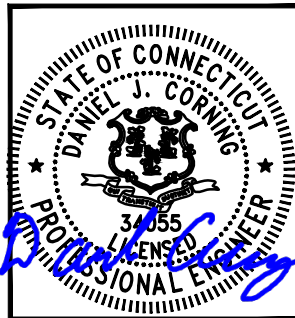
5841 BRIDGE STREET
EAST SYRACUSE, NY 13057



3 CORPORATE PARK DRIVE
SUITE 101
CLIFTON PARK, NY 12065



JACOBS ENGINEERING GROUP, INC.
120 ST. JAMES AVENUE, 5TH FLOOR
BOSTON, MA 02116



PROJECT NO: ERCC0004

DRAWN BY: NTC

CHECKED BY: DJC

SUBMITTALS

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FA# 10070938
SITE# CTL05819
BOLTON
49 SOUTH ROAD
BOLTON, CT 06043

EQUIPMENT
DETAILS

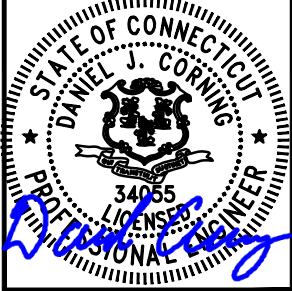
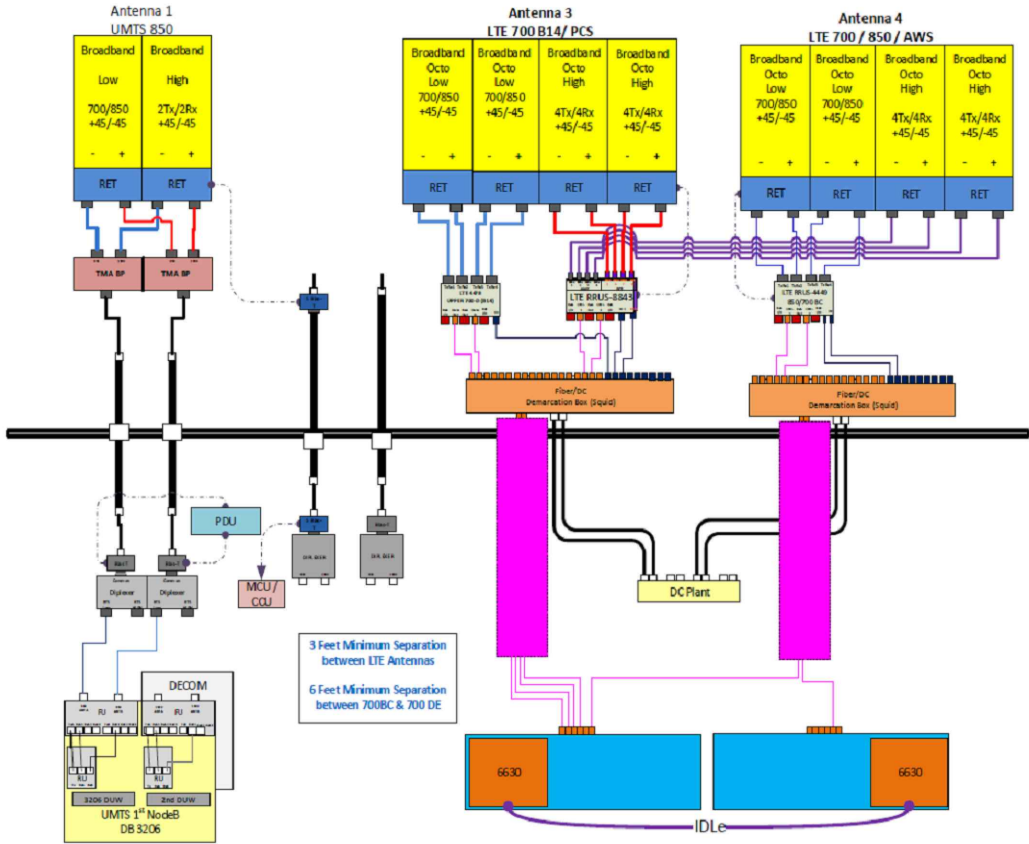
C-5

ANTENNA NUMBER	ANTENNA MODEL	ANTENNA BAND	AZIMUTH	ANTENNA CENTERLINE FROM GROUND	TMA's	RRH's	FEEDER	RAYCAP
A1	7770 (55"x11"x5")	UMTS 850 UMTS 1900	30°	118'	(2) LGP 17201	-	(1) 24 PAIR FIBER (3) DC TRUNKS (LENGTH @ 168')	(1) RAYCAP DC9-48-60-18-8C
A2	-	-	-	-	-	-	-	
A3	DMP65R-BU6DA (71.2"x20.7"x7.7")	LTE 700 LTE 1900	30°	118'	-	(1) 4478 B14 (700) (1) 8843 B2/B66A (1900,AWS)	-	(1) RAYCAP DC6-48-60-18-8F
A4	DMP65R-BU6DA (71.2"x20.7"x7.7")	LTE 700 LTE 850 LTE AWS 5G 850	30°	118'	-	(1) 4449 B5/B12 (700/850/AWS)	(4) 1-1/4" EXISTING COAX (LENGTH @ 168')	
B1	7770 (55"x11"x5")	UMTS 850 UMTS 1900	150°	118'	(2) LGP 17201	-	-	
B2	-	-	-	-	-	-	-	
B3	DMP65R-BU6DA (71.2"x20.7"x7.7")	LTE 700 LTE 1900	150°	118'	-	(1) 4478 B14 (700) (1) 8843 B2/B66A (1900,AWS)	-	
B4	DMP65R-BU6DA (71.2"x20.7"x7.7")	LTE 700 LTE 850 LTE AWS 5G 850	150°	118'	-	(1) 4449 B5/B12 (700/850/AWS)	(4) 1-1/4" EXISTING COAX (LENGTH @ 168')	
G1	7770 (55"x11"x5")	UMTS 850 UMTS 1900	270°	118'	(2) LGP 17201	-	-	
G2	-	-	-	-	-	-	-	
G3	DMP65R-BU6DA (71.2"x20.7"x7.7")	LTE 700 LTE 1900	270°	118'	-	(1) 4478 B14 (700) (1) 8843 B2/B66A (1900,AWS)	-	
G4	DMP65R-BU6DA (71.2"x20.7"x7.7")	LTE 700 LTE 850 LTE AWS 5G 850	270°	118'	-	(1) 4449 B5/B12 (700/850/AWS)	(4) 1-1/4" EXISTING COAX (LENGTH @ 168')	

NOTES:

- EQUIPMENT LISTED IN **BOLD**, DELINEATES THAT THE EQUIPMENT IS PROPOSED
- * DENOTES THAT EQUIPMENT IS TO BE GROUND MOUNTED
- ANTENNA DESIGN PER RFDS DATED: 05/20/2019 UPDATED: 05/22/2019

Diagram - Sector A Diagram File Name - FN_NRL05819_A-B-C_B14_850_PCS_AWS_700_BC_4T4R_R1.0.vsd Location Name - BOLTON Market - CONNECTICUT Market Cluster - NEW ENGLAND
Comments: *Important Note: For detailed radio to antenna wiring refer to the latest 4T4R Antenna radio Port connections Field Notice (RF-1W-2016-265)*



PROJECT NO: ERCC0004
DRAWN BY: NTC
CHECKED BY: DJC

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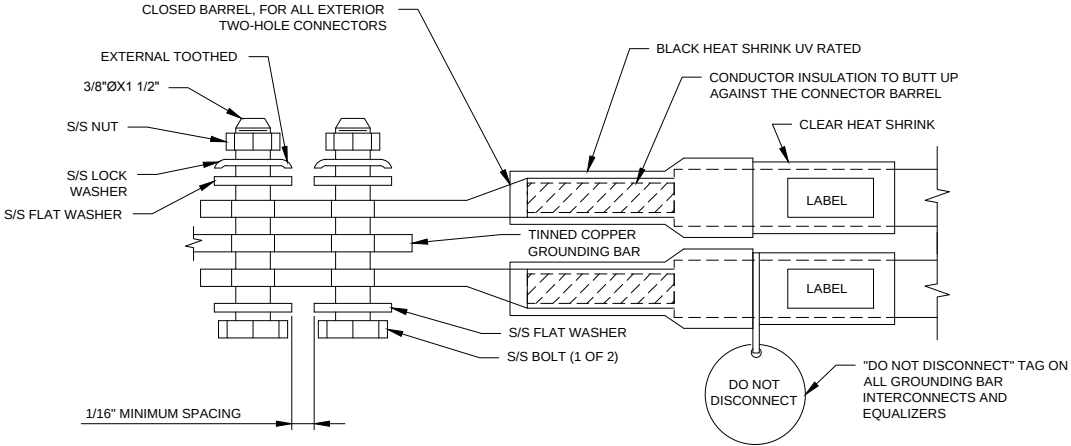
FA# 10070938
SITE# CTL05819
BOLTON
49 SOUTH ROAD
BOLTON, CT 06043

ANTENNA CHART &
RF EQUIPMENT
SCHEMATIC

RF-1

NOTES:

- EXOTHERMIC WELD (2) TWO, #2 AWG BARE TINNED SOLID COPPER CONDUCTORS TO GROUNDING BAR. ROUTE CONDUCTORS TO BURIED GROUNDING RING AND PROVIDE PARALLEL EXOTHERMIC WELD.
- ALL GROUNDING BARS SHALL BE STAMPED IN TO THE METAL "IF STOLEN DO NOT RECYCLE." THE CONTRACTOR SHALL USE PERMANENT MARKER TO DRAW THE LINES BETWEEN EACH SECTION AND LABEL EACH SECTION ("P", "A", "N", "I") WITH 1" HIGH LETTERS.
- ALL HARDWARE SHALL BE STAINLESS STEEL 3/8" DIAMETER OR LARGER. ALL HARDWARE 18-8 STAINLESS STEEL INCLUDING LOCK WASHERS, COAT ALL SURFACES WITH AN ANTI-OXIDANT COMPOUND BEFORE MATING.
- FOR GROUND BOND TO STEEL ONLY: INSERT A CADMIUM FLAT WASHER BETWEEN LUG AND STEEL, COAT ALL SURFACES WITH AN ANTI-OXIDANT COMPOUND BEFORE MATING.
- DO NOT INSTALL CABLE GROUNDING KIT AT A BEND AND ALWAYS DIRECT GROUNDING CONDUCTOR DOWN TO GROUNDING BUS.
- NUT & WASHER SHALL BE PLACED ON THE FRONT SIDE OF THE GROUNDING BAR AND BOLTED ON THE BACK SIDE. INSTALL BLACK HEAT-SHRINKING TUBE, 600 VOLT INSULATION, ON ALL GROUNDING TERMINATIONS. THE INTENT IS TO WEATHERPROOF THE COMPRESSION CONNECTION.
- SUPPLIED AND INSTALLED BY CONTRACTOR.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING ADDITIONAL GROUNDING BAR AS REQUIRED, PROVIDING 50% SPARE CONNECTION POINTS.
- ENSURE THE WIRE INSULATION TERMINATION IS WITHIN 1/8" OF THE BARREL (NO SHINERS).



GENERAL NOTES:

- CONTRACTOR SHALL HAVE A COMPLETE UNDERSTANDING OF THE CONTENTS OF AT&T STANDARD TP-76416.
- ALL INSTALLATIONS SHALL BE FIELD VERIFIED.
- ALL GROUND CONNECTIONS FOR ALL RELOCATED EQUIPMENT SHALL BE RE-ESTABLISHED BY THE CONTRACTOR. CONTRACTOR SHALL FURNISH ALL MATERIALS AS REQUIRED.

GROUNDING NOTES:

- TOWER GROUNDING BAR: EXTEND (2) #2 AWG TINNED CU WIRE FROM BURIED GROUND RING UP TO THE TOWER GROUND BAR AND MAKE A MECHANICAL CONNECTION. SECURE GROUND BAR DIRECTLY TO TOWER WITH STAINLESS STEEL MOUNTING MATERIAL.
- ANTENNA GROUNDING BAR: ANDREW CORPORATION PART #UGBKIT-0424-T MOUNT GROUND BAR DIRECTLY TO TOWER. SECURE TO TOWER WITH STAINLESS STEEL MOUNTING MATERIAL.
- GROUNDING BAR: LOCATED CLOSE TO GRADE LOCK BOX TESSCO PART #351546: INSTALL PER MANUFACTURER GUIDELINES.
- EXOTHERMIC OR COMPRESSION CONNECTION FOR PIPE MOUNT TO ANTENNA ROUTE CONDUCTOR TO NEAREST GROUNDING BAR SO THE GROUNDING CONDUCTORS PROVIDE A STRAIGHT DOWNWARD PATH TO GROUND. USE #2 AWG SOLID TINNED COPPER CONDUCTOR. GROUNDING CONNECTION SHALL BE LOCATED AT THE TOP 2" OF PIPE.
- ALL GROUNDING CONDUCTORS SHALL BE #2 AWG COPPER TINNED UNLESS NOTED OTHERWISE.
- ALL GROUNDING CONDUCTORS SHALL PROVIDE A STRAIGHT DOWNWARD PATH TO GROUND WITH GRADUAL BEND AS REQUIRED. GROUND WIRES SHALL NOT BE LOOPED OR SHARPLY BENT.
- KOPR-SHIELD ANTI-OXIDATION COMPOUND SHALL BE USED ON ALL COMPRESSION GROUNDING CONNECTIONS.
- ALL EXOTHERMIC CONNECTIONS SHALL BE INSTALLED UTILIZING THE PROPER CONNECTION/MOLD AND MATERIALS FOR THE PARTICULAR APPLICATION.
- ALL BOLTED GROUNDING CONNECTIONS SHALL BE INSTALLED WITH AN EXTERNAL TOOTHED LOCK WASHER. GROUNDING BUS BARS MAY HAVE PRE-PUNCHED HOLES OR TAPPED HOLES. ALL HARDWARE SHALL BE SECURITY TORQUE HARDWARE 3/8" STAINLESS STEEL.
- EXTERNAL GROUNDING CONDUCTOR SHALL NOT BE INSTALLED OR ROUTED THROUGH HOLES IN ANY METAL OBJECTS, CONDUITS, OR SUPPORTS TO PRECLUDE ESTABLISHING A MAGNETIC CHOKE POINT.
- PLASTIC CLIPS SHALL BE USED TO FASTEN AND SUPPORT GROUNDING CONDUCTORS. FERROUS METAL CLIPS WHICH COMPLETELY SURROUND THE GROUNDING CONDUCTOR SHALL NOT BE USED.
- IF COAX ON ICE BRIDGE IS MORE THAT 6' FROM THE GROUND BAR AT THE BASE OF THE TOWER, A SECOND GROUND BAR WILL BE NEEDED AT THE END OF THE ICE BRIDGE RUN TO GROUND THE COAX GROUND KIT AND THE IN-LINE SURGE ARRESTORS (SURGE ARRESTORS INSTALLED BY LUCENT ONLY HAVE 6' GROUND TAILS).
- CONTRACTOR SHALL REPAIR/PLACE EXISTING GROUNDING SYSTEM COMPONENTS DAMAGED DURING CONSTRUCTION AT THE CONTRACTORS EXPENSE.
- DO NOT ALLOW THE COPPER CONDUCTOR TO TOUCH THE GALVANIZED GUY WIRE AT THE CONNECTION POINT OR AT ANY OTHER POINT. NO EXOTHERMICALLY WELDED CONNECTION SHALL BE MADE TO THE GUY WIRE.
- CONTRACTOR SHALL VERIFY EXISTING SECTOR GROUNDING CONDITION AND GROUND THE PROPOSED EQUIPMENT IN THE SAME MANNER. A PROPOSED SECTOR GROUND BAR SHALL BE INSTALLED IF REQUIRED.

1 EXTERIOR TWO HOLE LUG DETAIL

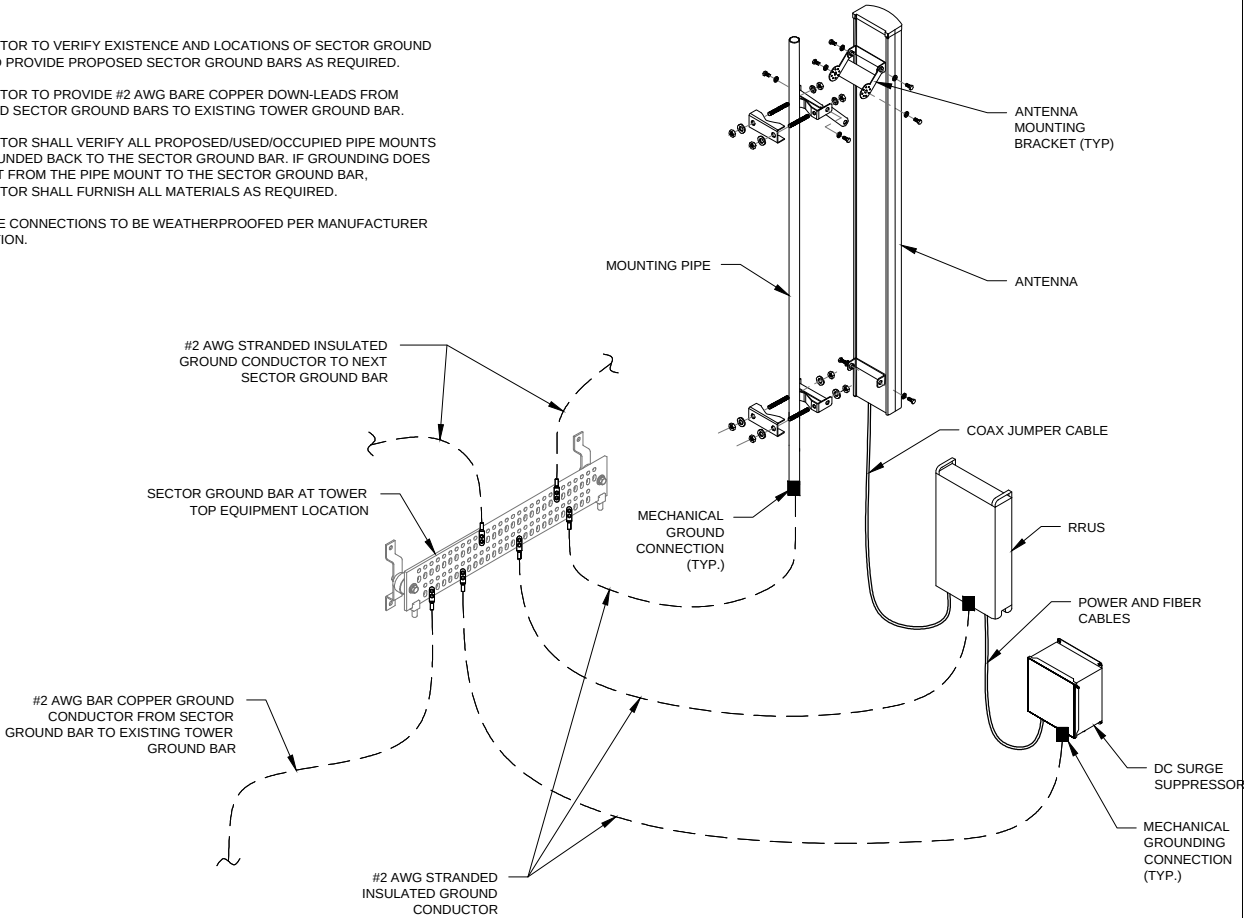
SCALE: N.T.S.

2 GROUNDING NOTES

SCALE: N.T.S.

NOTES:

- CONTRACTOR TO VERIFY EXISTENCE AND LOCATIONS OF SECTOR GROUND BARS AND PROVIDE PROPOSED SECTOR GROUND BARS AS REQUIRED.
- CONTRACTOR TO PROVIDE #2 AWG BARE COPPER DOWN-LEADS FROM PROPOSED SECTOR GROUND BARS TO EXISTING TOWER GROUND BAR.
- CONTRACTOR SHALL VERIFY ALL PROPOSED/USED/OCCUPIED PIPE MOUNTS ARE GROUNDED BACK TO THE SECTOR GROUND BAR. IF GROUNDING DOES NOT EXIST FROM THE PIPE MOUNT TO THE SECTOR GROUND BAR, CONTRACTOR SHALL FURNISH ALL MATERIALS AS REQUIRED.
- ALL CABLE CONNECTIONS TO BE WEATHERPROOFED PER MANUFACTURER INSTRUCTION.

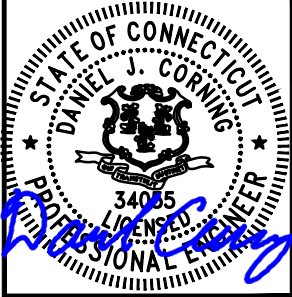


3 TYPICAL ANTENNA GROUNDING SCHEMATIC

SCALE: N.T.S.

4 DETAIL NOT USED

SCALE: N.T.S.



PROJECT NO: ERCC0004

DRAWN BY: NTC

CHECKED BY: DJC

SUBMITTALS		
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FA# 10070938
SITE# CTL05819
BOLTON
49 SOUTH ROAD
BOLTON, CT 06043

GROUNDING DETAILS

G-1

Exhibit D

Structural Analysis Report



Date: **August 12, 2019**

Denice Nicholson
Crown Castle
3 Corporate Dr
Clifton Park, NY 12065

520 South Main Street, Suite 2531
Akron, OH 44311
(216) 927-8663

Subject: **Structural Analysis Report**

Carrier Designation: **AT&T Mobility Co-Locate**
Carrier Site Name: BOLTON
Carrier Site Number: CT5819

Crown Castle Designation: **Crown Castle BU Number:** 842858
Crown Castle Site Name: BOLTON
Crown Castle JDE Job Number: 574644
Crown Castle Work Order Number: 1767701
Crown Castle Order Number: 492780 Rev. 0

Engineering Firm Designation: **GPD Group Project Number:** 2019777.842858.05

Site Data: **49 South Road, Bolton, Tolland County, CT 06043**
Latitude 41° 47' 20.55", Longitude -72° 25' 45.10"
120 Foot – Modified PennSummit Monopole Tower

Dear Denice Nicholson,

We are 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

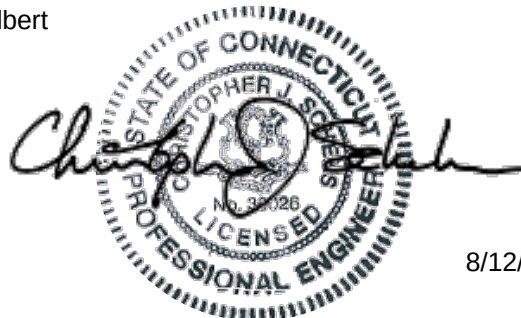
Sufficient Capacity – 99.8%

This analysis utilizes an ultimate 3-second gust wind speed of 125 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: Nicholas Colbert

Respectfully submitted by:

Christopher J. Scheks, P.E.
Connecticut #: 0030026



8/12/2019

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1) INTRODUCTION

The existing monopole has three major sections connected by slip joints. It has 18 sides and is evenly tapered from 36.13" (flat-flat) at the base to 19" (flat-flat) at the top. The structure is galvanized and has no tower lighting.

This tower is a 120 ft Monopole tower designed by PENNSUMMIT TUBULAR, LLC in August of 2003. The tower was originally designed for a wind speed of 85 mph per TIA/EIA-222-F.

Modifications designed by GPD (Project #: 2011712.28 Rev. A, dated 1/6/2012) were considered in this analysis. Modifications consist of installing modification plates from 0'-6" to 33'-0" and from 41'-4" to 59'-0" and installing anchor rods with brackets to the tower base.

Modifications designed by GPD (Project #: 2012768.47, dated 7/10/2012) were considered in this analysis. Modifications consist of installing modification plates from 30'-6" to 43'-9" and from 57'-3" to 62'-6".

2) ANALYSIS CRITERIA

TIA-222 Revision:	TIA-222-H
Risk Category:	II
Wind Speed:	125 mph
Exposure Category:	C
Topographic Factor:	1
Ice Thickness:	2.0 in
Wind Speed with Ice:	50 mph
Service Wind Speed:	60 mph

Table 1 - Proposed Equipment Configuration

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
116.0	119.5	1	Site Pro 1	HRK12 Handrail Kit	12 4 2	1-1/4 1 3/8
	118.0	6	CCI Antennas	DMP65R-BU4D		
		3	Powerwave Technologies	7770.00		
		3	Ericsson	RRUS 4478 B14		
		1	Raycap	DC6-48-60-18-8C		
		3	Powerwave Technologies	1001940		
		3	Ericsson	RRUS 8843 B2/B66A		
		3	Ericsson	RRUS 4449 B5/B12		
		6	Powerwave Technologies	LGP21401		
		1	Raycap	DC6-48-60-18-8F		
	116.0	1		Platform Mount [LP 303-1]		

Table 2 – Other Considered Equipment

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
108.0	108.0	1		Platform Mount [LP 303-1]	19	1-5/8
	107.0	3	Alcatel Lucent	RRH2X60-AWS		
		3	Alcatel Lucent	RRH2X60-PCS		
		6	Andrew	HBXX-6517DS-A2M		
		3	Antel	BXA-70063-6CF-2		
		3	Antel	BXA-70063/4CF		
		1	RFS Celwave	DB-T1-6Z-8AB-0Z		
99.0	99.0	3	Ericsson	AIR 32 B2A/B66AA	9	1-5/8
		3	RFS/Celwave	APXVAARR24_43-U-NA20		
		3	Ericsson	KRY 112 144/1		
		3	Ericsson	RADIO 4449 B12/B71		
		6		Pipe Mount		
		1	Site Pro 1	UWS6-NP Stand-Off Mount		

3) ANALYSIS PROCEDURE

Table 3 - Documents Provided

Document	Remarks	Reference	Source
Geotechnical Reports	VN Engineers Project #: 23-112, dated: 8/14/03	4291645	CCISITES
Tower Foundation Drawings	PennSummit Tubular Job #: 29203-0231, dated: 8/15/03	4291646	CCISITES
Tower Manufacturer Drawings	PennSummit Tubular Job #: 29203-0231, dated: 8/15/03	4291644	CCISITES
Tower Reinforcement Drawings	GPD Project #: 2012768.47, dated: 7/10/12	4492167	CCISITES
Tower Reinforcement Drawings	GPD Project #: 2011712.28, dated: 1/6/12	5096968	CCISITES
Post-Modification Inspection	GPD #: 2011536.00, dated: 2/27/12	5652677	CCISITES
Post-Modification Inspection	GPD # 2012530.00, dated: 11/10/12	4497609	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.

3.2) Assumptions

- 1) Tower and structures were built and maintained in accordance with the manufacturer's specifications.
- 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. GPD 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	% Capacity	Pass / Fail
L1	120 - 115	Pole	TP19.75x19x0.1875	Pole	3.9%	Pass
L2	115 - 110	Pole	TP20.501x19.75x0.1875	Pole	11.0%	Pass
L3	110 - 105	Pole	TP21.251x20.501x0.1875	Pole	20.6%	Pass
L4	105 - 100	Pole	TP22.001x21.251x0.1875	Pole	32.4%	Pass
L5	100 - 95	Pole	TP22.751x22.001x0.1875	Pole	46.1%	Pass
L6	95 - 90	Pole	TP23.502x22.751x0.1875	Pole	59.0%	Pass
L7	90 - 86.25	Pole	TP24.552x23.502x0.1875	Pole	68.1%	Pass
L8	86.25 - 81.25	Pole	TP24.44x23.689x0.25	Pole	56.5%	Pass
L9	81.25 - 76.25	Pole	TP25.19x24.44x0.25	Pole	63.8%	Pass
L10	76.25 - 71.25	Pole	TP25.94x25.19x0.25	Pole	70.5%	Pass
L11	71.25 - 66.25	Pole	TP26.69x25.94x0.25	Pole	76.7%	Pass
L12	66.25 - 61.25	Pole	TP27.44x26.69x0.25	Pole	82.5%	Pass
L13	61.25 - 61	Pole	TP27.478x27.44x0.25	Pole	82.8%	Pass
L14	61 - 60.75	Pole	TP27.515x27.478x0.25	Pole	83.0%	Pass
L15	60.75 - 59	Pole	TP27.778x27.515x0.25	Pole	84.9%	Pass
L16	59 - 58.75	Pole	TP27.815x27.778x0.25	Pole	85.2%	Pass
L17	58.75 - 53.75	Pole	TP28.566x27.815x0.25	Pole	90.4%	Pass
L18	53.75 - 48.75	Pole	TP29.316x28.566x0.25	Pole	95.3%	Pass
L19	48.75 - 45	Pole	TP30.441x29.316x0.25	Pole	98.7%	Pass
L20	45 - 40.25	Pole + Reinf.	TP30.091x29.378x0.55	Reinf. 3 Tension Rupture	79.4%	Pass
L21	40.25 - 35.25	Pole + Reinf.	TP30.841x30.091x0.5375	Reinf. 3 Tension Rupture	82.7%	Pass
L22	35.25 - 33	Pole + Reinf.	TP31.179x30.841x0.5375	Reinf. 3 Tension Rupture	84.2%	Pass
L23	33 - 32.75	Pole	TP31.216x31.179x0.3125	Pole	84.6%	Pass
L24	32.75 - 27.75	Pole	TP31.966x31.216x0.3125	Pole	87.3%	Pass
L25	27.75 - 22.75	Pole	TP32.717x31.966x0.3125	Pole	89.9%	Pass
L26	22.75 - 18.5	Pole	TP33.354x32.717x0.3125	Pole	92.0%	Pass
L27	18.5 - 18.25	Pole	TP33.392x33.354x0.3125	Pole	92.1%	Pass
L28	18.25 - 13.25	Pole	TP34.142x33.392x0.3125	Pole	94.4%	Pass
L29	13.25 - 8.25	Pole	TP34.892x34.142x0.3125	Pole	96.6%	Pass
L30	8.25 - 3.25	Pole	TP35.642x34.892x0.3125	Pole	98.6%	Pass
L31	3.25 - 0	Pole	TP36.13x35.642x0.3125	Pole	99.8%	Pass
					Summary	
				Pole	99.8%	Pass
				Reinforcement	84.2%	Pass
				Overall	99.8%	Pass

Table 5 - Tower Component Stresses vs. Capacity – LC7

Notes	Component	Elevation (ft)	% Capacity	Pass / Fail
1, 2	Anchor Rods	0	85.5	Pass
1, 2	Base Plate	0	65.2	Pass
1, 2	Base Foundation Reinforcement	0	55.1	Pass
1, 2	Base Foundation Soil Interaction	0	57.5	Pass

Structure Rating (max from all components) =	99.8%
---	--------------

Notes:

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

4.1) Recommendations

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

5) DISCLAIMER OF WARRANTIES

GPD has not performed a site visit to the tower to verify the member sizes or antenna/coax loading. If the existing conditions are not as represented on the tower elevation contained in this report, we should be contacted immediately to evaluate the significance of the discrepancy. This is not a condition assessment of the tower or foundation. This report does not replace a full tower inspection. The tower and foundations are assumed to have been properly fabricated, erected, maintained, in good condition, twist free, and plumb.

The engineering services rendered by GPD in connection with this Structural Analysis are limited to a computer analysis of the tower structure and theoretical capacity of its main structural members. No allowance was made for any damaged, bent, missing, loose, or rusted members (above and below ground). No allowance was made for loose bolts or cracked welds.

This analysis is limited to the designated maximum wind and seismic conditions per the governing tower standards and code. Wind forces resulting in tower vibrations near the structure's resonant frequencies were not considered in this analysis and are outside the scope of this analysis. Lateral loading from any dynamic response was not evaluated under a time-domain based fatigue analysis.

GPD does not analyze the fabrication of the structure (including welding). It is not possible to have all the very detailed information needed to perform a thorough analysis of every structural sub-component and connection of an existing tower. GPD provides a limited scope of service in that we cannot verify the adequacy of every weld, plate connection detail, etc. The purpose of this report is to assess the capability of adding appurtenances usually accompanied by transmission lines to the structure.

It is the owner's responsibility to determine the amount of ice accumulation in excess of the code specified amount, if any, that should be considered in the structural analysis.

The attached sketches are a schematic representation of the analyzed tower. If any material is fabricated from these sketches, the contractor shall be responsible for field verifying the existing conditions, proper fit, and clearance in the field. Any mentions of structural modifications are reasonable estimates and should not be used as a precise construction document. Precise modification drawings are obtainable from GPD, but are beyond the scope of this report.

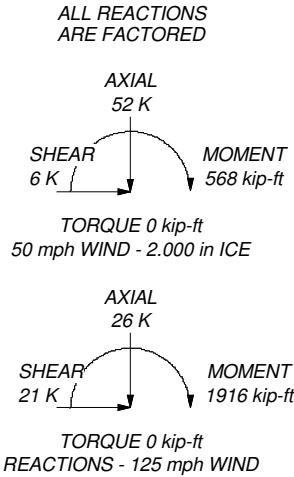
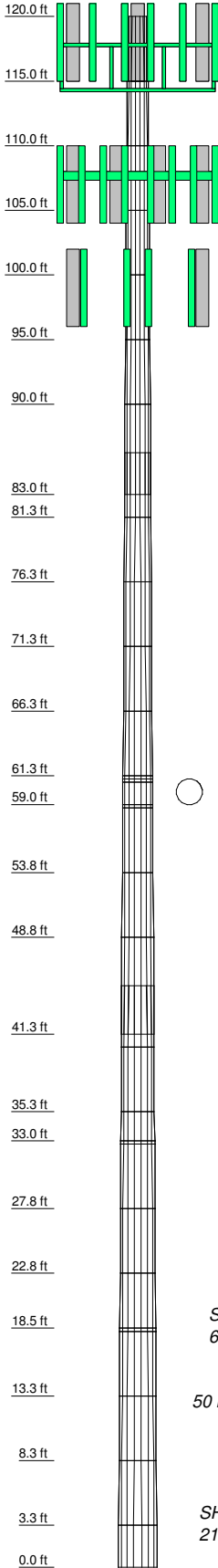
Miscellaneous items such as antenna mounts, etc., have not been designed or detailed as a part of our work. We recommend that material of adequate size and strength be purchased from a reputable tower manufacturer.

Towers are designed to carry gravity, wind, and ice loads. All members, legs, diagonals, struts, and redundant members provide structural stability to the tower with little redundancy. Absence or removal of a member can trigger catastrophic failure unless a substitute is provided before any removal. Legs carry axial loads and derive their strength from shorter unbraced lengths by the presence of redundant members and their connection to the diagonals with bolts or welds. If the bolts or welds are removed without providing any substitute to the frame, the leg is subjected to a higher unbraced length that immediately reduces its load carrying capacity. If a diagonal is also removed in addition to the connection, the unbraced length of the leg is greatly increased, jeopardizing its load carrying capacity. Failure of one leg can result in a tower collapse because there is no redundancy. Redundant members and diagonals are critical to the stability of the tower.

GPD makes no warranties, expressed and/or implied, in connection with this report and disclaims any liability arising from material, fabrication, and erection of this tower. GPD will not be responsible whatsoever for, or on account of, consequential or incidental damages sustained by any person, firm, or organization as a result of any data or conclusions contained in this report. The maximum liability of GPD pursuant to this report will be limited to the total fee received for preparation of this report.

APPENDIX A
TNXTOWER OUTPUT

Section	31	30	29	28	27	26	25	24	2322	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	
Length (ft)	3.25	5.00	5.00	5.00	0.25	4.25	5.00	5.00	0.2525	5.00	4.75	7.50	5.00	5.00	0.25	7.50	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	7.00	5.00	5.00	5.00	5.00	5.00	
Number of Sides	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	
Thickness (in)	0.313	0.313	0.313	0.313	0.313	0.313	0.313	0.313	0.313	0.537	0.537	0.537	0.250	0.250	0.250	0.250	0.250	0.250	0.250	0.250	0.250	0.250	0.250	0.188	0.188	0.188	0.188	0.188	0.188	0.188	
Socket Length (ft)											3.75										3.25										
Top Dia (in)	35.642	34.892	34.142	33.393	32.642	31.892	31.142	30.393	29.642	30.091	29.342	28.593	27.842	27.093	26.342	25.593	24.842	24.093	23.342	22.593	21.842	21.093	20.342	19.593	18.842	18.093	17.342	16.593	15.842	15.093	
Bot Dia (in)	36.130	35.642	34.892	34.142	33.393	32.642	31.892	31.142	30.393	29.642	28.892	28.142	27.393	26.642	25.892	25.142	24.393	23.642	22.892	22.142	21.393	20.642	19.892	19.142	18.393	17.642	16.892	16.142	15.393	14.642	
Grade	A607-65																														
Weight (K)	10.6	0.4	0.6	0.6	0.0	0.5	0.5	0.5	0.0	0.4	0.8	0.8	0.4	0.4	0.0	0.0	0.4	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	



MATERIAL STRENGTH

GRADE	Fy	Fu	GRADE	Fy	Fu
A607-65	65 ksi	80 ksi			

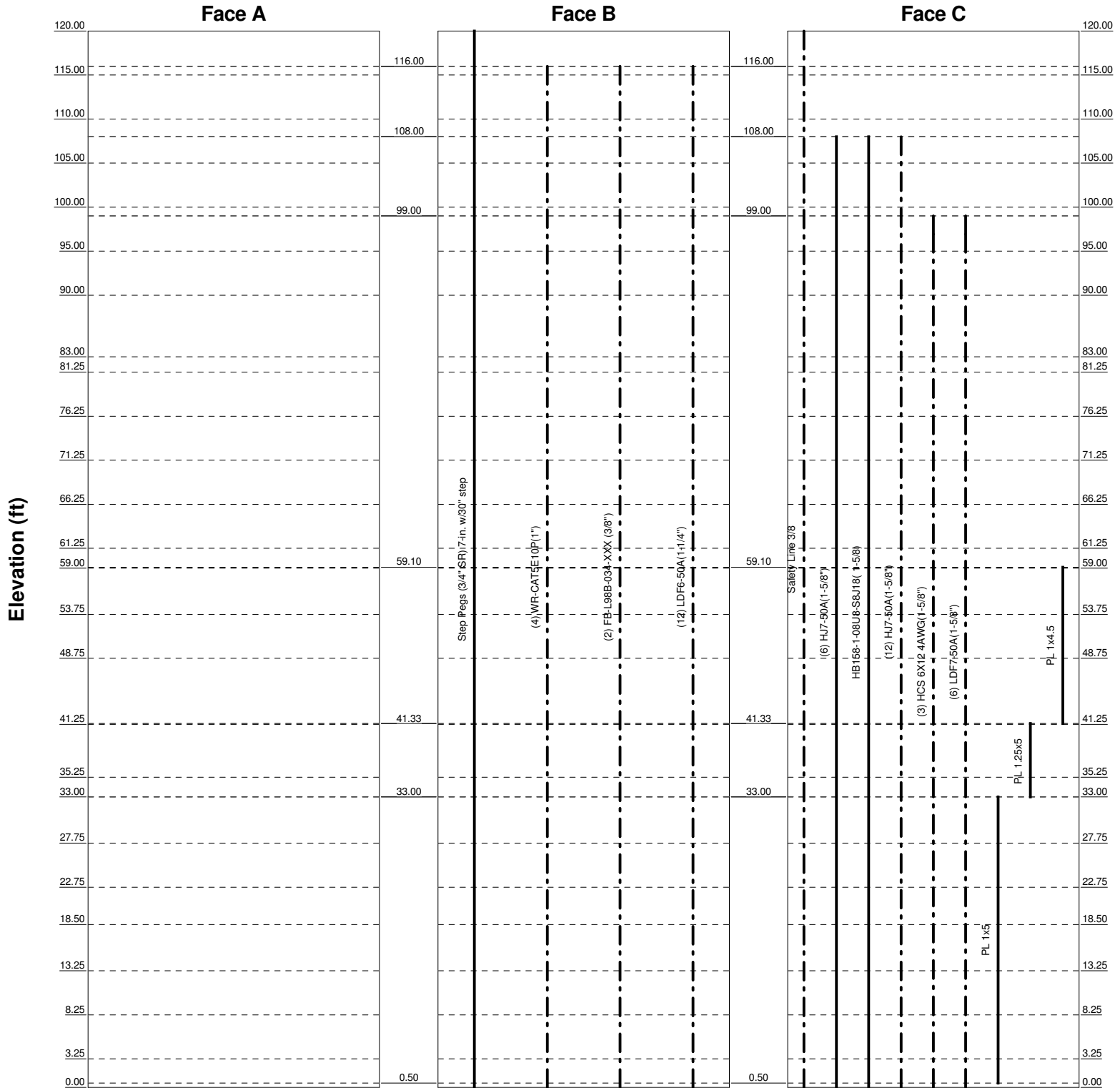
TOWER DESIGN NOTES

1. Tower is located in Tolland County, Connecticut.
2. Tower designed for Exposure C to the TIA-222-H Standard.
3. Tower designed for a 125 mph basic wind in accordance with the TIA-222-H Standard.
4. Tower is also designed for a 50 mph basic wind with 2.00 in ice. Ice is considered to increase in thickness with height.
5. Deflections are based upon a 60 mph wind.
6. Tower Risk Category II.
7. Topographic Category 1 with Crest Height of 0.00 ft

Feed Line Distribution Chart

0' - 120'

Round Flat App In Face App Out Face Truss Leg



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	Client	Crown Castle	Designed by	Nicholas Colbert

Tower Input Data

The tower is a monopole.

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

The following design criteria apply:

Tower is located in Tolland County, Connecticut.

Tower base elevation above sea level: 620.00 ft.

Basic wind speed of 125 mph.

Risk Category II.

Exposure Category C.

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

Topographic Category: 1.

Crest Height: 0.00 ft.

Nominal ice thickness of 2.000 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.

A non-linear (P-delta) analysis was used.

Pressures are calculated at each section.

Stress ratio used in pole design is 1.05.

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

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

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

Options

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

Tapered Pole Section Geometry

Section	Elevation	Section Length	Splice Length	Number of Sides	Top Diameter	Bottom Diameter	Wall Thickness	Bend Radius	Pole Grade
	ft	ft	ft		in	in	in	in	
L1	120.00-115.00	5.00	0.00	18	19.000	19.750	0.188	0.750	A607-65 (65 ksi)
L2	115.00-110.00	5.00	0.00	18	19.750	20.501	0.188	0.750	A607-65 (65 ksi)
L3	110.00-105.00	5.00	0.00	18	20.501	21.251	0.188	0.750	A607-65 (65 ksi)

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Section	Elevation ft	Section Length ft	Splice Length ft	Number of Sides	Top Diameter in	Bottom Diameter in	Wall Thickness in	Bend Radius in	Pole Grade
L4	105.00-100.00	5.00	0.00	18	21.251	22.001	0.188	0.750	A607-65 (65 ksi)
L5	100.00-95.00	5.00	0.00	18	22.001	22.751	0.188	0.750	A607-65 (65 ksi)
L6	95.00-90.00	5.00	0.00	18	22.751	23.502	0.188	0.750	A607-65 (65 ksi)
L7	90.00-83.00	7.00	3.25	18	23.502	24.552	0.188	0.750	A607-65 (65 ksi)
L8	83.00-81.25	5.00	0.00	18	23.689	24.440	0.250	1.000	A607-65 (65 ksi)
L9	81.25-76.25	5.00	0.00	18	24.440	25.190	0.250	1.000	A607-65 (65 ksi)
L10	76.25-71.25	5.00	0.00	18	25.190	25.940	0.250	1.000	A607-65 (65 ksi)
L11	71.25-66.25	5.00	0.00	18	25.940	26.690	0.250	1.000	A607-65 (65 ksi)
L12	66.25-61.25	5.00	0.00	18	26.690	27.440	0.250	1.000	A607-65 (65 ksi)
L13	61.25-61.00	0.25	0.00	18	27.440	27.478	0.250	1.000	A607-65 (65 ksi)
L14	61.00-60.75	0.25	0.00	18	27.478	27.515	0.250	1.000	A607-65 (65 ksi)
L15	60.75-59.00	1.75	0.00	18	27.515	27.778	0.250	1.000	A607-65 (65 ksi)
L16	59.00-58.75	0.25	0.00	18	27.778	27.815	0.250	1.000	A607-65 (65 ksi)
L17	58.75-53.75	5.00	0.00	18	27.815	28.566	0.250	1.000	A607-65 (65 ksi)
L18	53.75-48.75	5.00	0.00	18	28.566	29.316	0.250	1.000	A607-65 (65 ksi)
L19	48.75-41.25	7.50	3.75	18	29.316	30.441	0.250	1.000	A607-65 (65 ksi)
L20	41.25-40.25	4.75	0.00	18	29.378	30.091	0.550	2.200	A607-65 (65 ksi)
L21	40.25-35.25	5.00	0.00	18	30.091	30.841	0.537	2.150	A607-65 (65 ksi)
L22	35.25-33.00	2.25	0.00	18	30.841	31.179	0.537	2.150	A607-65 (65 ksi)
L23	33.00-32.75	0.25	0.00	18	31.179	31.216	0.313	1.250	A607-65 (65 ksi)
L24	32.75-27.75	5.00	0.00	18	31.216	31.966	0.313	1.250	A607-65 (65 ksi)
L25	27.75-22.75	5.00	0.00	18	31.966	32.717	0.313	1.250	A607-65 (65 ksi)
L26	22.75-18.50	4.25	0.00	18	32.717	33.354	0.313	1.250	A607-65 (65 ksi)
L27	18.50-18.25	0.25	0.00	18	33.354	33.392	0.313	1.250	A607-65 (65 ksi)
L28	18.25-13.25	5.00	0.00	18	33.392	34.142	0.313	1.250	A607-65 (65 ksi)
L29	13.25-8.25	5.00	0.00	18	34.142	34.892	0.313	1.250	A607-65 (65 ksi)
L30	8.25-3.25	5.00	0.00	18	34.892	35.642	0.313	1.250	A607-65 (65 ksi)
L31	3.25-0.00	3.25		18	35.642	36.130	0.313	1.250	A607-65 (65 ksi)

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Tapered Pole Properties

Section	Tip Dia. in	Area in ²	I in ⁴	r in	C in	I/C in ³	J in ⁴	I/Q in ²	w in	w/t
L1	19.264	11.196	500.593	6.678	9.652	51.864	1001.846	5.599	3.014	16.075
	20.026	11.642	562.907	6.945	10.033	56.105	1126.555	5.822	3.146	16.779
L2	20.026	11.642	562.907	6.945	10.033	56.105	1126.555	5.822	3.146	16.779
	20.788	12.089	630.189	7.211	10.414	60.512	1261.206	6.046	3.278	17.483
L3	20.788	12.089	630.189	7.211	10.414	60.512	1261.206	6.046	3.278	17.483
	21.550	12.535	702.628	7.477	10.795	65.086	1406.181	6.269	3.410	18.187
L4	21.550	12.535	702.628	7.477	10.795	65.086	1406.181	6.269	3.410	18.187
	22.312	12.982	780.417	7.744	11.177	69.826	1561.860	6.492	3.542	18.892
L5	22.312	12.982	780.417	7.744	11.177	69.826	1561.860	6.492	3.542	18.892
	23.073	13.428	863.745	8.010	11.558	74.733	1728.626	6.715	3.674	19.596
L6	23.073	13.428	863.745	8.010	11.558	74.733	1728.626	6.715	3.674	19.596
	23.835	13.875	952.802	8.277	11.939	79.807	1906.859	6.939	3.806	20.3
L7	23.835	13.875	952.802	8.277	11.939	79.807	1906.859	6.939	3.806	20.3
	24.902	14.500	1087.472	8.649	12.472	87.190	2176.375	7.251	3.991	21.286
L8	24.511	18.599	1290.980	8.321	12.034	107.276	2583.659	9.301	3.729	14.917
	24.778	19.194	1418.945	8.587	12.415	114.290	2839.758	9.599	3.861	15.445
L9	24.778	19.194	1418.945	8.587	12.415	114.290	2839.758	9.599	3.861	15.445
	25.540	19.790	1555.098	8.854	12.796	121.527	3112.243	9.897	3.993	15.974
L10	25.540	19.790	1555.098	8.854	12.796	121.527	3112.243	9.897	3.993	15.974
	26.301	20.385	1699.694	9.120	13.177	128.985	3401.625	10.194	4.125	16.502
L11	26.301	20.385	1699.694	9.120	13.177	128.985	3401.625	10.194	4.125	16.502
	27.063	20.980	1852.986	9.386	13.559	136.665	3708.410	10.492	4.257	17.03
L12	27.063	20.980	1852.986	9.386	13.559	136.665	3708.410	10.492	4.257	17.03
	27.825	21.575	2015.228	9.653	13.940	144.568	4033.108	10.790	4.389	17.558
L13	27.825	21.575	2015.228	9.653	13.940	144.568	4033.108	10.790	4.389	17.558
	27.863	21.605	2023.580	9.666	13.959	144.969	4049.823	10.805	4.396	17.584
L14	27.863	21.605	2023.580	9.666	13.959	144.969	4049.823	10.805	4.396	17.584
	27.901	21.635	2031.955	9.679	13.978	145.371	4066.583	10.820	4.403	17.611
L15	27.901	21.635	2031.955	9.679	13.978	145.371	4066.583	10.820	4.403	17.611
	28.168	21.843	2091.225	9.772	14.111	148.197	4185.201	10.924	4.449	17.796
L16	28.168	21.843	2091.225	9.772	14.111	148.197	4185.201	10.924	4.449	17.796
	28.206	21.873	2099.785	9.786	14.130	148.603	4202.333	10.939	4.456	17.822
L17	28.206	21.873	2099.785	9.786	14.130	148.603	4202.333	10.939	4.456	17.822
	28.968	22.468	2275.929	10.052	14.511	156.838	4554.852	11.236	4.588	18.35
L18	28.968	22.468	2275.929	10.052	14.511	156.838	4554.852	11.236	4.588	18.35
	29.729	23.064	2461.658	10.318	14.892	165.296	4926.555	11.534	4.720	18.878
L19	29.729	23.064	2461.658	10.318	14.892	165.296	4926.555	11.534	4.720	18.878
	30.872	23.957	2758.779	10.718	15.464	178.400	5521.188	11.981	4.918	19.67
L20	30.318	50.326	5284.049	10.234	14.924	354.059	10575.052	25.168	4.203	7.641
	30.470	51.570	5685.702	10.487	15.286	371.949	11378.885	25.790	4.328	7.869
L21	30.472	50.419	5563.538	10.492	15.286	363.957	11134.397	25.214	4.350	8.093
	31.234	51.699	5998.056	10.758	15.667	382.838	12004.004	25.854	4.482	8.339
L22	31.234	51.699	5998.056	10.758	15.667	382.838	12004.004	25.854	4.482	8.339
	31.577	52.275	6200.751	10.878	15.839	391.491	12409.662	26.142	4.541	8.449
L23	31.612	30.616	3685.089	10.958	15.839	232.662	7375.028	15.311	4.937	15.8
	31.650	30.653	3698.540	10.971	15.858	233.230	7401.947	15.329	4.944	15.821
L24	31.650	30.653	3698.540	10.971	15.858	233.230	7401.947	15.329	4.944	15.821
	32.411	31.397	3974.475	11.237	16.239	244.749	7954.179	15.701	5.076	16.244
L25	32.411	31.397	3974.475	11.237	16.239	244.749	7954.179	15.701	5.076	16.244
	33.173	32.141	4263.803	11.503	16.620	256.545	8533.217	16.073	5.208	16.666
L26	33.173	32.141	4263.803	11.503	16.620	256.545	8533.217	16.073	5.208	16.666
	33.821	32.773	4520.500	11.730	16.944	266.791	9046.949	16.390	5.320	17.025
L27	33.821	32.773	4520.500	11.730	16.944	266.791	9046.949	16.390	5.320	17.025
	33.859	32.811	4535.913	11.743	16.963	267.400	9077.794	16.408	5.327	17.046
L28	33.859	32.811	4535.913	11.743	16.963	267.400	9077.794	16.408	5.327	17.046
	34.621	33.555	4851.564	12.009	17.344	279.723	9709.512	16.781	5.459	17.469
L29	34.621	33.555	4851.564	12.009	17.344	279.723	9709.512	16.781	5.459	17.469
	35.382	34.299	5181.530	12.276	17.725	292.325	10369.878	17.153	5.591	17.891
L30	35.382	34.299	5181.530	12.276	17.725	292.325	10369.878	17.153	5.591	17.891

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Section	Tip Dia. in	Area in ²	I in ⁴	r in	C in	I/C in ³	J in ⁴	It/Q in ²	w in	w/t
L31	36.144	35.043	5526.128	12.542	18.106	305.204	11059.528	17.525	5.723	18.314
	36.144	35.043	5526.128	12.542	18.106	305.204	11059.528	17.525	5.723	18.314
	36.639	35.526	5758.113	12.715	18.354	313.725	11523.803	17.767	5.809	18.588

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
L1 120.00-115.00				1	1	1			
L2 115.00-110.00				1	1	1			
L3 110.00-105.00				1	1	1			
L4 105.00-100.00				1	1	1			
L5 100.00-95.00				1	1	1			
L6 95.00-90.00				1	1	1			
L7 90.00-83.00				1	1	1			
L8 83.00-81.25				1	1	1			
L9 81.25-76.25				1	1	1			
L10 76.25-71.25				1	1	1			
L11 71.25-66.25				1	1	1			
L12 66.25-61.25				1	1	1			
L13 61.25-61.00				1	1	1			
L14 61.00-60.75				1	1	1			
L15 60.75-59.00				1	1	1			
L16 59.00-58.75				1	1	1			
L17 58.75-53.75				1	1	1			
L18 53.75-48.75				1	1	1			
L19 48.75-41.25				1	1	1			
L20 41.25-40.25				1	1	0.936348			
L21 40.25-35.25				1	1	0.948402			
L22 35.25-33.00				1	1	0.944359			
L23 33.00-32.75				1	1	1			
L24 32.75-27.75				1	1	1			
L25 27.75-22.75				1	1	1			
L26 22.75-18.50				1	1	1			
L27 18.50-18.25				1	1	1			
L28 18.25-13.25				1	1	1			
L29 13.25-8.25				1	1	1			
L30 8.25-3.25				1	1	1			
L31 3.25-0.00				1	1	1			

Feed Line/Linear Appurtenances - Entered As Round Or Flat

Description	Sector	Exclude From Torque Calculation	Component Type	Placement ft	Total Number	Number Per Row	Start/End Position	Width or Diameter in	Perimeter in	Weight plf
Step Pegs (3/4" SR) 7-in. w/30" step	B	No	Surface Ar (CaAa)	120.00 - 0.00	1	1	0.000 0.000	0.750		0.17
HJ7-50A(1-5/8")	C	No	Surface Ar (CaAa)	108.00 - 0.00	6	6	0.500 0.500	0.000		1.04
HB158-1-08U8-S8J18(1-5/8)	C	No	Surface Ar (CaAa)	108.00 - 0.00	1	1	0.500 0.500	1.980		1.30
PL 1x5	C	No	Surface Af (CaAa)	33.00 - 0.50	1	1	0.500 0.500	5.000	12.000	0.00
PL 1.25x5	C	No	Surface Af (CaAa)	41.33 - 33.00	1	1	0.500 0.500	5.000	12.500	0.00
PL 1x4.5	C	No	Surface Af (CaAa)	59.10 - 41.33	1	1	0.500 0.500	4.500	11.000	0.00

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Feed Line/Linear Appurtenances - Entered As Area

<i>Description</i>	<i>Face or Leg</i>	<i>Allow Shield</i>	<i>Exclude From Torque Calculation</i>	<i>Component Type</i>	<i>Placement ft</i>	<i>Total Number</i>		<i>C_AA_A ft²/ft</i>	<i>Weight plf</i>
Safety Line 3/8	C	No	No	CaAa (Out Of Face)	120.00 - 0.00	1	No Ice	0.04	0.22
							1/2" Ice	0.14	0.75
							1" Ice	0.24	1.28
							2" Ice	0.44	2.34
WR-CAT5E10P(1")	B	No	No	Inside Pole	116.00 - 0.00	4	No Ice	0.00	0.41
							1/2" Ice	0.00	0.41
							1" Ice	0.00	0.41
							2" Ice	0.00	0.41
FB-L98B-034-XXX (3/8")	B	No	No	Inside Pole	116.00 - 0.00	2	No Ice	0.00	0.06
							1/2" Ice	0.00	0.06
							1" Ice	0.00	0.06
							2" Ice	0.00	0.06
LDF6-50A(1-1/4")	B	No	No	Inside Pole	116.00 - 0.00	12	No Ice	0.00	0.66
							1/2" Ice	0.00	0.66
							1" Ice	0.00	0.66
							2" Ice	0.00	0.66
HJ7-50A(1-5/8")	C	No	No	Inside Pole	108.00 - 0.00	12	No Ice	0.00	1.04
							1/2" Ice	0.00	1.04
							1" Ice	0.00	1.04
							2" Ice	0.00	1.04
HCS 6X12 4AWG(1-5/8")	C	No	No	Inside Pole	99.00 - 0.00	3	No Ice	0.00	2.40
							1/2" Ice	0.00	2.40
							1" Ice	0.00	2.40
							2" Ice	0.00	2.40
LDF7-50A(1-5/8")	C	No	No	Inside Pole	99.00 - 0.00	6	No Ice	0.00	0.82
							1/2" Ice	0.00	0.82
							1" Ice	0.00	0.82
							2" Ice	0.00	0.82

Discrete Tower Loads

<i>Description</i>	<i>Face or Leg</i>	<i>Offset Type</i>	<i>Offsets: Horz Lateral Vert ft ft ft</i>	<i>Azimuth Adjustment °</i>	<i>Placement ft</i>		<i>C_AA_A Front ft²</i>	<i>C_AA_A Side ft²</i>	<i>Weight K</i>
Platform Mount [LP 303-1]	C	None		0.000	116.00	No Ice	14.69	14.69	1.25
						1/2" Ice	18.01	18.01	1.57
						1" Ice	21.34	21.34	1.94
						2" Ice	28.08	28.08	2.85
HRK12 Handrail Kit	C	None		0.000	19.50	No Ice	4.56	4.56	0.25
						1/2" Ice	6.39	6.39	0.31
						1" Ice	8.18	8.18	0.40
						2" Ice	11.66	11.66	0.66
(2) DMP65R-BU4D w/ Mount Pipe	A	From Centroid-Leg	4.00 0.00 2.00	0.000	116.00	No Ice	8.52	4.69	0.09
						1/2" Ice	8.96	5.31	0.15
						1" Ice	9.42	5.93	0.22
						2" Ice	10.36	7.22	0.39
(2) DMP65R-BU4D w/ Mount Pipe	B	From Centroid-Leg	4.00 0.00 2.00	0.000	116.00	No Ice	8.52	4.69	0.09
						1/2" Ice	8.96	5.31	0.15
						1" Ice	9.42	5.93	0.22
						2" Ice	10.36	7.22	0.39
(2) DMP65R-BU4D w/ Mount Pipe	C	From Centroid-Leg	4.00	0.000	116.00	No Ice	8.52	4.69	0.09

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<i>Description</i>	<i>Face or Leg</i>	<i>Offset Type</i>	<i>Offsets: Horz Lateral Vert ft ft ft</i>	<i>Azimuth Adjustment °</i>	<i>Placement ft</i>	<i>C_{AA} Front ft²</i>	<i>C_{AA} Side ft²</i>	<i>Weight K</i>
Mount Pipe			0.00 2.00			1/2" Ice 8.96 1" Ice 9.42 2" Ice 10.36	5.31 5.93 7.22	0.15 0.22 0.39
7770.00 w/ Mount Pipe	A	From Centroid-Leg	4.00 0.00 2.00	0.000	116.00	No Ice 5.84 1/2" Ice 6.32 1" Ice 6.77 2" Ice 7.71	4.35 5.20 5.92 7.41	0.06 0.11 0.16 0.29
7770.00 w/ Mount Pipe	B	From Centroid-Leg	4.00 0.00 2.00	0.000	116.00	No Ice 5.84 1/2" Ice 6.32 1" Ice 6.77 2" Ice 7.71	4.35 5.20 5.92 7.41	0.06 0.11 0.16 0.29
7770.00 w/ Mount Pipe	C	From Centroid-Leg	4.00 0.00 2.00	0.000	116.00	No Ice 5.84 1/2" Ice 6.32 1" Ice 6.77 2" Ice 7.71	4.35 5.20 5.92 7.41	0.06 0.11 0.16 0.29
(3) RRUS 4478 B14	A	From Centroid-Leg	4.00 0.00 2.00	0.000	116.00	No Ice 1.84 1/2" Ice 2.01 1" Ice 2.19 2" Ice 2.57	1.06 1.20 1.34 1.66	0.06 0.08 0.09 0.14
(3) RRUS 8843 B2/B66A	B	From Centroid-Leg	4.00 0.00 2.00	0.000	116.00	No Ice 1.64 1/2" Ice 1.80 1" Ice 1.97 2" Ice 2.32	1.35 1.50 1.65 1.99	0.07 0.09 0.11 0.16
(3) RRUS 4449 B5/B12	C	From Centroid-Leg	4.00 0.00 2.00	0.000	116.00	No Ice 1.97 1/2" Ice 2.14 1" Ice 2.33 2" Ice 2.72	1.41 1.56 1.73 2.07	0.07 0.09 0.11 0.16
(2) 1001940	A	From Centroid-Leg	4.00 0.00 2.00	0.000	116.00	No Ice 0.18 1/2" Ice 0.23 1" Ice 0.30 2" Ice 0.44	0.08 0.13 0.18 0.30	0.00 0.00 0.01 0.01
1001940	B	From Centroid-Leg	4.00 0.00 2.00	0.000	116.00	No Ice 0.18 1/2" Ice 0.23 1" Ice 0.30 2" Ice 0.44	0.08 0.13 0.18 0.30	0.00 0.00 0.01 0.01
DC6-48-60-18-8C Surge Suppression Unit	A	From Centroid-Leg	4.00 0.00 2.00	0.000	116.00	No Ice 1.14 1/2" Ice 1.79 1" Ice 2.00 2" Ice 2.45	1.14 1.79 2.00 2.45	0.03 0.05 0.07 0.13
(2) LGP21401	A	From Centroid-Leg	4.00 0.00 2.00	0.000	116.00	No Ice 1.10 1/2" Ice 1.24 1" Ice 1.38 2" Ice 1.69	0.35 0.44 0.54 0.77	0.01 0.02 0.03 0.05
(2) LGP21401	B	From Centroid-Leg	4.00 0.00 2.00	0.000	116.00	No Ice 1.10 1/2" Ice 1.24 1" Ice 1.38 2" Ice 1.69	0.35 0.44 0.54 0.77	0.01 0.02 0.03 0.05
(2) LGP21401	C	From Centroid-Leg	4.00 0.00 2.00	0.000	116.00	No Ice 1.10 1/2" Ice 1.24 1" Ice 1.38 2" Ice 1.69	0.35 0.44 0.54 0.77	0.01 0.02 0.03 0.05
DC6-48-60-18-8F Surge Suppression Unit	A	From Centroid-Leg	4.00 0.00 2.00	0.000	116.00	No Ice 0.92 1/2" Ice 1.46 1" Ice 1.64 2" Ice 2.04	0.92 1.46 1.64 2.04	0.02 0.04 0.06 0.11
6' x 2" Mount Pipe	A	From Centroid-Leg	4.00 0.00	0.000	116.00	No Ice 1.43 1/2" Ice 1.92	1.43 1.92	0.02 0.03

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<i>Description</i>	<i>Face or Leg</i>	<i>Offset Type</i>	<i>Offsets: Horz Lateral Vert ft ft ft</i>	<i>Azimuth Adjustment °</i>	<i>Placement ft</i>	<i>C_{AA} Front ft²</i>	<i>C_{AA} Side ft²</i>	<i>Weight K</i>
			0.00			1" Ice 2.29	2.29	0.05
						2" Ice 3.06	3.06	0.09
6' x 2" Mount Pipe	B	From Centroid-Leg	4.00	0.000	116.00	No Ice 1.43	1.43	0.02
			0.00			1/2" Ice 1.92	1.92	0.03
			0.00			1" Ice 2.29	2.29	0.05
						2" Ice 3.06	3.06	0.09
6' x 2" Mount Pipe	C	From Centroid-Leg	4.00	0.000	116.00	No Ice 1.43	1.43	0.02
			0.00			1/2" Ice 1.92	1.92	0.03
			0.00			1" Ice 2.29	2.29	0.05
						2" Ice 3.06	3.06	0.09
(2) 6' x 2" Mount Pipe	A	From Centroid-Leg	4.00	0.000	116.00	No Ice 0.00	1.43	0.02
			0.00			1/2" Ice 0.00	1.92	0.03
			0.00			1" Ice 0.00	2.29	0.05
						2" Ice 0.00	3.06	0.09
(2) 6' x 2" Mount Pipe	B	From Centroid-Leg	4.00	0.000	116.00	No Ice 0.00	1.43	0.02
			0.00			1/2" Ice 0.00	1.92	0.03
			0.00			1" Ice 0.00	2.29	0.05
						2" Ice 0.00	3.06	0.09
(2) 6' x 2" Mount Pipe	C	From Centroid-Leg	4.00	0.000	116.00	No Ice 0.00	1.43	0.02
			0.00			1/2" Ice 0.00	1.92	0.03
			0.00			1" Ice 0.00	2.29	0.05
						2" Ice 0.00	3.06	0.09
(2) HBXX-6517DS-A2M w/ Mount Pipe	A	From Centroid-Leg	4.00	0.000	108.00	No Ice 7.97	5.99	0.08
			0.00			1/2" Ice 8.73	6.72	0.14
			-1.00			1" Ice 9.51	7.47	0.21
						2" Ice 11.11	9.02	0.40
(2) HBXX-6517DS-A2M w/ Mount Pipe	B	From Centroid-Leg	4.00	0.000	108.00	No Ice 7.97	5.99	0.08
			0.00			1/2" Ice 8.73	6.72	0.14
			-1.00			1" Ice 9.51	7.47	0.21
						2" Ice 11.11	9.02	0.40
(2) HBXX-6517DS-A2M w/ Mount Pipe	C	From Centroid-Leg	4.00	0.000	108.00	No Ice 7.97	5.99	0.08
			0.00			1/2" Ice 8.73	6.72	0.14
			-1.00			1" Ice 9.51	7.47	0.21
						2" Ice 11.11	9.02	0.40
BXA-70063-6CF-2 w/ Mount Pipe	A	From Centroid-Leg	4.00	0.000	108.00	No Ice 7.81	5.80	0.04
			0.00			1/2" Ice 8.36	6.95	0.10
			-1.00			1" Ice 8.87	7.82	0.17
						2" Ice 9.93	9.60	0.34
BXA-70063-6CF-2 w/ Mount Pipe	B	From Centroid-Leg	4.00	0.000	108.00	No Ice 7.81	5.80	0.04
			0.00			1/2" Ice 8.36	6.95	0.10
			-1.00			1" Ice 8.87	7.82	0.17
						2" Ice 9.93	9.60	0.34
BXA-70063-6CF-2 w/ Mount Pipe	C	From Centroid-Leg	4.00	0.000	108.00	No Ice 7.81	5.80	0.04
			0.00			1/2" Ice 8.36	6.95	0.10
			-1.00			1" Ice 8.87	7.82	0.17
						2" Ice 9.93	9.60	0.34
BXA-70063/4CF w/ Mount Pipe	A	From Centroid-Leg	4.00	0.000	108.00	No Ice 5.19	3.87	0.03
			0.00			1/2" Ice 5.68	4.67	0.08
			-1.00			1" Ice 6.14	5.34	0.13
						2" Ice 7.07	6.74	0.25
BXA-70063/4CF w/ Mount Pipe	B	From Centroid-Leg	4.00	0.000	108.00	No Ice 5.19	3.87	0.03
			0.00			1/2" Ice 5.68	4.67	0.08
			-1.00			1" Ice 6.14	5.34	0.13
						2" Ice 7.07	6.74	0.25
BXA-70063/4CF w/ Mount Pipe	C	From Centroid-Leg	4.00	0.000	108.00	No Ice 5.19	3.87	0.03
			0.00			1/2" Ice 5.68	4.67	0.08
			-1.00			1" Ice 6.14	5.34	0.13

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<i>Description</i>	<i>Face or Leg</i>	<i>Offset Type</i>	<i>Offsets: Horz Lateral Vert ft ft ft</i>	<i>Azimuth Adjustment °</i>	<i>Placement ft</i>	<i>C_{AA} Front ft²</i>	<i>C_{AA} Side ft²</i>	<i>Weight K</i>	
RRH2X60-AWS	A	From Centroid-Leg	4.00	0.000	108.00	2" Ice	7.07	6.74	0.25
			0.00			No Ice	3.50	2.10	0.06
			-1.00			1/2" Ice	3.76	2.34	0.08
						1" Ice	4.03	2.58	0.11
RRH2X60-AWS	B	From Centroid-Leg	4.00	0.000	108.00	2" Ice	4.58	3.09	0.18
			0.00			No Ice	3.50	2.10	0.06
			-1.00			1/2" Ice	3.76	2.34	0.08
						1" Ice	4.03	2.58	0.11
RRH2X60-AWS	C	From Centroid-Leg	4.00	0.000	108.00	2" Ice	4.58	3.09	0.18
			0.00			No Ice	3.50	2.10	0.06
			-1.00			1/2" Ice	3.76	2.34	0.08
						1" Ice	4.03	2.58	0.11
RRH2X60-PCS	A	From Centroid-Leg	4.00	0.000	108.00	2" Ice	4.58	3.09	0.18
			0.00			No Ice	2.20	1.36	0.06
			-1.00			1/2" Ice	2.39	1.52	0.07
						1" Ice	2.59	1.68	0.09
RRH2X60-PCS	B	From Centroid-Leg	4.00	0.000	108.00	2" Ice	3.01	2.04	0.14
			0.00			No Ice	2.20	1.36	0.06
			-1.00			1/2" Ice	2.39	1.52	0.07
						1" Ice	2.59	1.68	0.09
RRH2X60-PCS	C	From Centroid-Leg	4.00	0.000	108.00	2" Ice	3.01	2.04	0.14
			0.00			No Ice	2.20	1.36	0.06
			-1.00			1/2" Ice	2.39	1.52	0.07
						1" Ice	2.59	1.68	0.09
DB-T1-6Z-8AB-0Z	B	From Centroid-Leg	4.00	0.000	108.00	2" Ice	3.01	2.04	0.14
			0.00			No Ice	4.80	2.00	0.04
			-1.00			1/2" Ice	5.07	2.19	0.08
						1" Ice	5.35	2.39	0.12
Platform Mount [LP 303-1]	C	None		0.000	108.00	2" Ice	5.93	2.81	0.21
						No Ice	14.69	14.69	1.25
						1/2" Ice	18.01	18.01	1.57
						1" Ice	21.34	21.34	1.94
AIR 32 B2A/B66AA w/ Mount Pipe	A	From Leg	1.00	0.000	99.00	2" Ice	28.08	28.08	2.85
			0.00			No Ice	6.75	6.07	0.15
			0.00			1/2" Ice	7.20	6.87	0.21
			0.00			1" Ice	7.65	7.58	0.28
AIR 32 B2A/B66AA w/ Mount Pipe	B	From Leg	1.00	0.000	99.00	2" Ice	8.57	9.06	0.44
			0.00			No Ice	6.75	6.07	0.15
			0.00			1/2" Ice	7.20	6.87	0.21
			0.00			1" Ice	7.65	7.58	0.28
AIR 32 B2A/B66AA w/ Mount Pipe	C	From Leg	1.00	0.000	99.00	2" Ice	8.57	9.06	0.44
			0.00			No Ice	6.75	6.07	0.15
			0.00			1/2" Ice	7.20	6.87	0.21
			0.00			1" Ice	7.65	7.58	0.28
APXVAARR24_43-U-NA20 w/ Mount Pipe	A	From Leg	1.00	0.000	99.00	2" Ice	8.57	9.06	0.44
			0.00			No Ice	14.69	6.87	0.19
			0.00			1/2" Ice	15.46	7.55	0.31
			0.00			1" Ice	16.23	8.25	0.46
APXVAARR24_43-U-NA20 w/ Mount Pipe	B	From Leg	1.00	0.000	99.00	2" Ice	17.82	9.67	0.79
			0.00			No Ice	14.69	6.87	0.19
			0.00			1/2" Ice	15.46	7.55	0.31
			0.00			1" Ice	16.23	8.25	0.46
APXVAARR24_43-U-NA20 w/ Mount Pipe	C	From Leg	1.00	0.000	99.00	2" Ice	17.82	9.67	0.79
			0.00			No Ice	14.69	6.87	0.19
			0.00			1/2" Ice	15.46	7.55	0.31
			0.00			1" Ice	16.23	8.25	0.46
						2" Ice	17.82	9.67	0.79

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<i>Description</i>	<i>Face or Leg</i>	<i>Offset Type</i>	<i>Offsets: Horz Lateral Vert ft ft ft</i>	<i>Azimuth Adjustment °</i>	<i>Placement ft</i>		<i>C_{AA} Front ft²</i>	<i>C_{AA} Side ft²</i>	<i>Weight K</i>
(2) KRY 112 144/1	A	From Leg	1.00 0.00 0.00	0.000	99.00	No Ice 1/2" Ice 1" Ice 2" Ice	0.35 0.43 0.51 0.70	0.17 0.23 0.30 0.46	0.01 0.01 0.02 0.03
KRY 112 144/1	B	From Leg	1.00 0.00 0.00	0.000	99.00	No Ice 1/2" Ice 1" Ice 2" Ice	0.35 0.43 0.51 0.70	0.17 0.23 0.30 0.46	0.01 0.01 0.02 0.03
RADIO 4449 B12/B71	B	From Leg	1.00 0.00 0.00	0.000	99.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.65 1.81 1.98 2.34	1.16 1.30 1.45 1.76	0.07 0.09 0.11 0.16
(2) RADIO 4449 B12/B71	C	From Leg	1.00 0.00 0.00	0.000	99.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.65 1.81 1.98 2.34	1.16 1.30 1.45 1.76	0.07 0.09 0.11 0.16
(2) Site Pro 1 UWS6-NP Stand-Off Mount	C	None		0.000	99.00	No Ice 1/2" Ice 1" Ice 2" Ice	3.60 4.18 4.75 5.90	3.60 4.18 4.75 5.90	0.07 0.11 0.14 0.20

Maximum Tower Deflections - Service Wind

<i>Section No.</i>	<i>Elevation ft</i>	<i>Horz. Deflection in</i>	<i>Gov. Load Comb.</i>	<i>Tilt °</i>	<i>Twist °</i>
L1	120 - 115	28.644	44	1.972	0.001
L2	115 - 110	26.579	44	1.971	0.001
L3	110 - 105	24.521	44	1.958	0.001
L4	105 - 100	22.484	44	1.932	0.001
L5	100 - 95	20.483	44	1.887	0.001
L6	95 - 90	18.539	44	1.824	0.001
L7	90 - 83	16.671	44	1.742	0.000
L8	86.25 - 81.25	15.332	44	1.670	0.000
L9	81.25 - 76.25	13.610	44	1.609	0.000
L10	76.25 - 71.25	11.973	44	1.516	0.000
L11	71.25 - 66.25	10.439	44	1.415	0.000
L12	66.25 - 61.25	9.012	44	1.309	0.000
L13	61.25 - 61	7.699	44	1.198	0.000
L14	61 - 60.75	7.637	44	1.192	0.000
L15	60.75 - 59	7.575	44	1.187	0.000
L16	59 - 58.75	7.147	44	1.147	0.000
L17	58.75 - 53.75	7.087	44	1.142	0.000
L18	53.75 - 48.75	5.952	44	1.026	0.000
L19	48.75 - 41.25	4.940	44	0.907	0.000
L20	45 - 40.25	4.262	44	0.817	0.000
L21	40.25 - 35.25	3.469	44	0.775	0.000
L22	35.25 - 33	2.690	44	0.713	0.000
L23	33 - 32.75	2.360	44	0.685	0.000
L24	32.75 - 27.75	2.325	44	0.680	0.000
L25	27.75 - 22.75	1.667	44	0.576	0.000
L26	22.75 - 18.5	1.119	44	0.471	0.000
L27	18.5 - 18.25	0.739	44	0.383	0.000
L28	18.25 - 13.25	0.719	44	0.377	0.000
L29	13.25 - 8.25	0.378	44	0.273	0.000

<i>tnxTower</i> GPD 520 South Main Street Suite 2531 Akron, Ohio 44311 Phone: (330) 572-2100 FAX: (330) 572-2101	Job	BU 842858 - BOLTON	Page	10 of 13
	Project	2019777.842858.05	Date	12:18:34 08/12/19
	Client	Crown Castle	Designed by	Nicholas Colbert

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L30	8.25 - 3.25	0.146	44	0.170	0.000
L31	3.25 - 0	0.023	44	0.067	0.000

Critical Deflections and Radius of Curvature - Service Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
116.00	Platform Mount [LP 303-1]	44	26.992	1.972	0.001	41678
108.00	(2) HBXX-6517DS-A2M w/ Mount Pipe	44	23.703	1.949	0.001	11193
99.00	AIR 32 B2A/B66AA w/ Mount Pipe	44	20.089	1.876	0.001	4987
19.50	HRK12 Handrail Kit	44	0.821	0.403	0.000	2747

Maximum Tower Deflections - Design Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	120 - 115	132.221	12	9.143	0.003
L2	115 - 110	122.718	12	9.137	0.004
L3	110 - 105	113.246	12	9.075	0.004
L4	105 - 100	103.867	12	8.954	0.004
L5	100 - 95	94.656	12	8.747	0.003
L6	95 - 90	85.700	12	8.454	0.003
L7	90 - 83	77.091	12	8.075	0.002
L8	86.25 - 81.25	70.912	12	7.743	0.002
L9	81.25 - 76.25	62.968	12	7.461	0.002
L10	76.25 - 71.25	55.414	12	7.028	0.002
L11	71.25 - 66.25	48.324	12	6.562	0.001
L12	66.25 - 61.25	41.731	12	6.070	0.001
L13	61.25 - 61	35.660	12	5.556	0.001
L14	61 - 60.75	35.371	12	5.530	0.001
L15	60.75 - 59	35.083	12	5.504	0.001
L16	59 - 58.75	33.104	12	5.322	0.001
L17	58.75 - 53.75	32.827	12	5.295	0.001
L18	53.75 - 48.75	27.574	12	4.757	0.001
L19	48.75 - 41.25	22.887	12	4.207	0.001
L20	45 - 40.25	19.751	12	3.789	0.001
L21	40.25 - 35.25	16.075	12	3.594	0.001
L22	35.25 - 33	12.465	12	3.308	0.001
L23	33 - 32.75	10.939	12	3.178	0.001
L24	32.75 - 27.75	10.773	12	3.154	0.001
L25	27.75 - 22.75	7.726	12	2.670	0.001
L26	22.75 - 18.5	5.185	12	2.185	0.000
L27	18.5 - 18.25	3.423	12	1.774	0.000
L28	18.25 - 13.25	3.331	12	1.749	0.000
L29	13.25 - 8.25	1.752	12	1.267	0.000
L30	8.25 - 3.25	0.678	12	0.786	0.000
L31	3.25 - 0	0.105	12	0.308	0.000

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	Project	2019777.842858.05	Date	12:18:34 08/12/19
	Client	Crown Castle	Designed by	Nicholas Colbert

Critical Deflections and Radius of Curvature - Design Wind

<i>Elevation</i>	<i>Appurtenance</i>	<i>Gov. Load</i>	<i>Deflection</i>	<i>Tilt</i>	<i>Twist</i>	<i>Radius of Curvature</i>
<i>ft</i>		<i>Comb.</i>	<i>in</i>	<i>°</i>	<i>°</i>	<i>ft</i>
116.00	Platform Mount [LP 303-1]	12	124.617	9.142	0.003	9589
108.00	(2) HBXX-6517DS-A2M w/ Mount Pipe	12	109.480	9.035	0.004	2537
99.00	AIR 32 B2A/B66AA w/ Mount Pipe	12	92.841	8.695	0.003	1127
19.50	HRK12 Handrail Kit	12	3.805	1.870	0.000	594

Compression Checks

Pole Design Data

<i>Section No.</i>	<i>Elevation</i>	<i>Size</i>	<i>L</i>	<i>L_u</i>	<i>Kl/r</i>	<i>A</i>	<i>P_u</i>
	<i>ft</i>		<i>ft</i>	<i>ft</i>		<i>in²</i>	<i>K</i>
L1	120 - 115 (1)	TP19.75x19x0.188	5.00	0.00	0.0	11.642	-2.88
L2	115 - 110 (2)	TP20.501x19.75x0.188	5.00	0.00	0.0	12.089	-3.13
L3	110 - 105 (3)	TP21.251x20.501x0.188	5.00	0.00	0.0	12.535	-5.53
L4	105 - 100 (4)	TP22.001x21.251x0.188	5.00	0.00	0.0	12.982	-5.93
L5	100 - 95 (5)	TP22.751x22.001x0.188	5.00	0.00	0.0	13.428	-7.72
L6	95 - 90 (6)	TP23.502x22.751x0.188	5.00	0.00	0.0	13.875	-8.28
L7	90 - 83 (7)	TP24.552x23.502x0.188	7.00	0.00	0.0	14.210	-8.73
L8	83 - 81.25 (8)	TP24.44x23.689x0.25	5.00	0.00	0.0	19.194	-9.57
L9	81.25 - 76.25 (9)	TP25.19x24.44x0.25	5.00	0.00	0.0	19.790	-10.30
L10	76.25 - 71.25 (10)	TP25.94x25.19x0.25	5.00	0.00	0.0	20.385	-11.04
L11	71.25 - 66.25 (11)	TP26.69x25.94x0.25	5.00	0.00	0.0	20.980	-11.81
L12	66.25 - 61.25 (12)	TP27.44x26.69x0.25	5.00	0.00	0.0	21.576	-12.61
L13	61.25 - 61 (13)	TP27.478x27.44x0.25	0.25	0.00	0.0	21.605	-12.66
L14	61 - 60.75 (14)	TP27.515x27.478x0.25	0.25	0.00	0.0	21.635	-12.70
L15	60.75 - 59 (15)	TP27.778x27.515x0.25	1.75	0.00	0.0	21.843	-12.96
L16	59 - 58.75 (16)	TP27.815x27.778x0.25	0.25	0.00	0.0	21.873	-13.03
L17	58.75 - 53.75 (17)	TP28.566x27.815x0.25	5.00	0.00	0.0	22.468	-13.85
L18	53.75 - 48.75 (18)	TP29.316x28.566x0.25	5.00	0.00	0.0	23.064	-14.70
L19	48.75 - 41.25 (19)	TP30.441x29.316x0.25	7.50	0.00	0.0	23.510	-15.35
L20	41.25 - 40.25 (20)	TP30.091x29.378x0.55	4.75	0.00	0.0	51.570	-16.92
L21	40.25 - 35.25 (21)	TP30.841x30.091x0.538	5.00	0.00	0.0	51.699	-18.23
L22	35.25 - 33 (22)	TP31.179x30.841x0.538	2.25	0.00	0.0	52.275	-18.83
L23	33 - 32.75 (23)	TP31.216x31.179x0.313	0.25	0.00	0.0	30.653	-18.89
L24	32.75 - 27.75 (24)	TP31.966x31.216x0.313	5.00	0.00	0.0	31.397	-19.90
L25	27.75 - 22.75 (25)	TP32.717x31.966x0.313	5.00	0.00	0.0	32.141	-20.95
L26	22.75 - 18.5 (26)	TP33.354x32.717x0.313	4.25	0.00	0.0	32.773	-22.15
L27	18.5 - 18.25 (27)	TP33.392x33.354x0.313	0.25	0.00	0.0	32.811	-22.22
L28	18.25 - 13.25 (28)	TP34.142x33.392x0.313	5.00	0.00	0.0	33.555	-23.30
L29	13.25 - 8.25 (29)	TP34.892x34.142x0.313	5.00	0.00	0.0	34.299	-24.41
L30	8.25 - 3.25 (30)	TP35.642x34.892x0.313	5.00	0.00	0.0	35.043	-25.54
L31	3.25 - 0 (31)	TP36.13x35.642x0.313	3.25	0.00	0.0	35.527	-26.28
		4.8.2 (1.05 CR) - 31					

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	Project	2019777.842858.05	Date	12:18:34 08/12/19
	Client	Crown Castle	Designed by	Nicholas Colbert

Pole Bending Design Data

Section No.	Elevation	Size	M_{ux}
	ft		kip-ft
L1	120 - 115 (1)	TP19.75x19x0.188	12.77
L2	115 - 110 (2)	TP20.501x19.75x0.188	40.54
L3	110 - 105 (3)	TP21.251x20.501x0.188	80.76
L4	105 - 100 (4)	TP22.001x21.251x0.188	136.48
L5	100 - 95 (5)	TP22.751x22.001x0.188	205.55
L6	95 - 90 (6)	TP23.502x22.751x0.188	279.26
L7	90 - 83 (7)	TP24.552x23.502x0.188	335.81
L8	83 - 81.25 (8)	TP24.44x23.689x0.25	413.06
L9	81.25 - 76.25 (9)	TP25.19x24.44x0.25	492.31
L10	76.25 - 71.25 (10)	TP25.94x25.19x0.25	573.42
L11	71.25 - 66.25 (11)	TP26.69x25.94x0.25	656.34
L12	66.25 - 61.25 (12)	TP27.44x26.69x0.25	740.99
L13	61.25 - 61 (13)	TP27.478x27.44x0.25	745.27
L14	61 - 60.75 (14)	TP27.515x27.478x0.25	749.55
L15	60.75 - 59 (15)	TP27.778x27.515x0.25	779.63
L16	59 - 58.75 (16)	TP27.815x27.778x0.25	783.95
L17	58.75 - 53.75 (17)	TP28.566x27.815x0.25	871.17
L18	53.75 - 48.75 (18)	TP29.316x28.566x0.25	960.14
L19	48.75 - 41.25 (19)	TP30.441x29.316x0.25	1027.94
L20	41.25 - 40.25 (20)	TP30.091x29.378x0.55	1115.46
L21	40.25 - 35.25 (21)	TP30.841x30.091x0.538	1209.67
L22	35.25 - 33 (22)	TP31.179x30.841x0.538	1252.72
L23	33 - 32.75 (23)	TP31.216x31.179x0.313	1257.52
L24	32.75 - 27.75 (24)	TP31.966x31.216x0.313	1354.38
L25	27.75 - 22.75 (25)	TP32.717x31.966x0.313	1452.58
L26	22.75 - 18.5 (26)	TP33.354x32.717x0.313	1537.16
L27	18.5 - 18.25 (27)	TP33.392x33.354x0.313	1542.19
L28	18.25 - 13.25 (28)	TP34.142x33.392x0.313	1643.38
L29	13.25 - 8.25 (29)	TP34.892x34.142x0.313	1745.50
L30	8.25 - 3.25 (30)	TP35.642x34.892x0.313	1848.50
L31	3.25 - 0 (31)	TP36.13x35.642x0.313	1915.90

Pole Shear Design Data

Section No.	Elevation	Size	Actual V_u K
	ft		
L1	120 - 115 (1)	TP19.75x19x0.188	5.37
L2	115 - 110 (2)	TP20.501x19.75x0.188	5.74
L3	110 - 105 (3)	TP21.251x20.501x0.188	10.91
L4	105 - 100 (4)	TP22.001x21.251x0.188	11.35
L5	100 - 95 (5)	TP22.751x22.001x0.188	14.55
L6	95 - 90 (6)	TP23.502x22.751x0.188	14.94
L7	90 - 83 (7)	TP24.552x23.502x0.188	15.22
L8	83 - 81.25 (8)	TP24.44x23.689x0.25	15.66
L9	81.25 - 76.25 (9)	TP25.19x24.44x0.25	16.04
L10	76.25 - 71.25 (10)	TP25.94x25.19x0.25	16.41
L11	71.25 - 66.25 (11)	TP26.69x25.94x0.25	16.76
L12	66.25 - 61.25 (12)	TP27.44x26.69x0.25	17.10
L13	61.25 - 61 (13)	TP27.478x27.44x0.25	17.11
L14	61 - 60.75 (14)	TP27.515x27.478x0.25	17.13
L15	60.75 - 59 (15)	TP27.778x27.515x0.25	17.26
L16	59 - 58.75 (16)	TP27.815x27.778x0.25	17.26
L17	58.75 - 53.75 (17)	TP28.566x27.815x0.25	17.63
L18	53.75 - 48.75 (18)	TP29.316x28.566x0.25	17.97

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	Client	Crown Castle	Designed by Nicholas Colbert

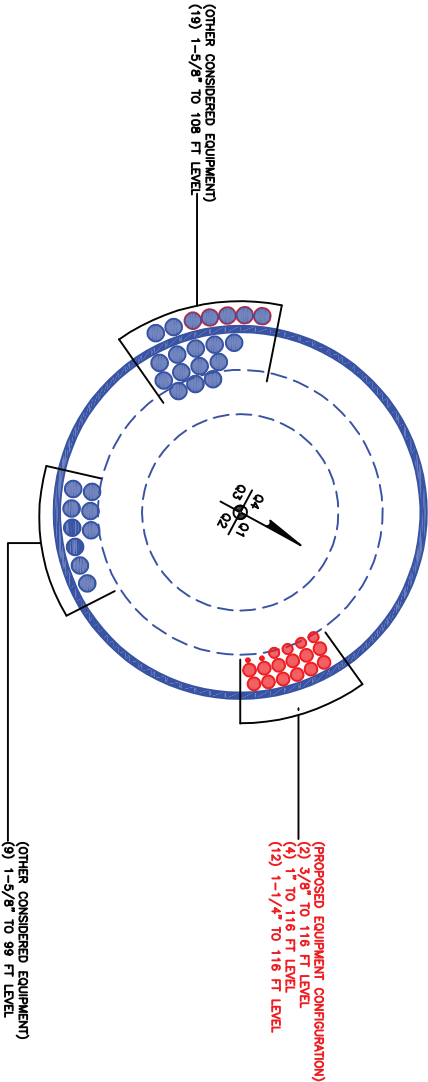
<i>Section No.</i>	<i>Elevation ft</i>	<i>Size</i>	<i>Actual V_u K</i>
L19	48.75 - 41.25 (19)	TP30.441x29.316x0.25	18.21
L20	41.25 - 40.25 (20)	TP30.091x29.378x0.55	18.64
L21	40.25 - 35.25 (21)	TP30.841x30.091x0.538	19.04
L22	35.25 - 33 (22)	TP31.179x30.841x0.538	19.22
L23	33 - 32.75 (23)	TP31.216x31.179x0.313	19.23
L24	32.75 - 27.75 (24)	TP31.966x31.216x0.313	19.52
L25	27.75 - 22.75 (25)	TP32.717x31.966x0.313	19.77
L26	22.75 - 18.5 (26)	TP33.354x32.717x0.313	20.14
L27	18.5 - 18.25 (27)	TP33.392x33.354x0.313	20.13
L28	18.25 - 13.25 (28)	TP34.142x33.392x0.313	20.34
L29	13.25 - 8.25 (29)	TP34.892x34.142x0.313	20.52
L30	8.25 - 3.25 (30)	TP35.642x34.892x0.313	20.69
L31	3.25 - 0 (31)	TP36.13x35.642x0.313	20.80

APPENDIX B
BASE LEVEL DRAWING



PLOT DATE: 7/5/2016

FILE NAME: 842858_BASELEVEL.DWG



BUSINESS UNIT: 842858 TOWER ID: C_BASELEVEL

CROWN REGION ADDRESS
USA

SLW
ARM
BOG
SAT
CRM
SLW
MS
WAW
LR

26/09/14 UPDATED PER WORK ORDER # 8374508
30/1/2015 UPDATED PER WORK ORDER 1001957
25/2/2015 UPDATED PER WORK ORDER 1015990
21/4/2015 UPDATED PER WORK ORDER 1047786
16/8/2015 UPDATED PER WORK ORDER 1118867
05/07/16 UPDATED PER WORK ORDER 1231808
10/08/18 UPDATED PER WORK ORDER 1740239
10/07/18 UPDATED PER WORK ORDER 1767686
04/06/19 UPDATED PER WORK ORDER 1778106

DRAWN BY: DNE
CHECKED BY: NJH
DRAWING DATE: 25/02/14

SITE NUMBER:

SITE NAME:

SITE NAME

BOLTON

BUSINESS UNIT NUMBER

842858

SITE ADDRESS

48 SOUTH ROAD
BOLTON, CT 06043
TOLLAND COUNTY
USA

SHEET TITLE

BASE LEVEL DRAWING

SHEET NUMBER

A1-0

N.T.S.

APPENDIX C

ADDITIONAL CALCULATIONS

Site BU: 842858
Work Order: 1740241

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Pole Geometry

	Pole Height Above Base (ft)	Section Length (ft)	Lap Splice Length (ft)	Number of Sides	Top Diameter (in)	Bottom Diameter (in)	Wall Thickness (in)	Bend Radius (in)	Pole Material
1	120	37	3.25	18	19	24.552	0.1875	Auto	A607-65
2	86.25	45	3.75	18	23.69	30.441	0.25	Auto	A607-65
3	45	45	0	18	29.38	36.13	0.3125	Auto	A607-65

Reinforcement Configuration

	Bottom Effective Elevation (ft)	Top Effective Elevation (ft)	Type	Model	Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	0	18.5	plate	5"x1"	4				x					x			x						x
2	18.5	33	plate	5"x1" Bottom Bolted	3	x						x						x					
3	33	41.33	plate	5"x1.25"	3						x						x						x
4	41.33	59	plate	4.5"x1"	3						x						x						x
5	59	61	plate	4"x1.25"	3				x						x						x		
6																							
7																							
8																							
9																							
10																							

Reinforcement Details

	B (in)	H (in)	Gross Area (in ²)	Pole Face to Centroid (in)	Bottom Termination Length (in)	Top Termination Length (in)	L _u (in)	Net Area (in ²)	Bolt Hole Size (in)	Reinforcement Material
1	5	1	5	0.5	n/a	24.000	18.000	3.750	1.1875	A572-65
2	5	1	5	0.5	21.000	21.000	18.000	3.750	1.1875	A572-65
3	5	1.25	6.25	0.625	27.000	27.000	15.000	4.688	1.1875	A572-65
4	4.5	1	4.5	0.5	18.000	18.000	18.000	3.250	1.1875	A572-65
5	4	1.25	5	0.625	18.000	18.000	13.500	3.438	1.1875	A572-65

TNX Geometry Input

Increment (ft): 5

	Section Height (ft)	Section Length (ft)	Lap Splice Length (ft)	Number of Sides	Top Diameter (in)	Bottom Diameter (in)	Wall Thickness (in)	Tapered Pole Grade	Weight Multiplier
1	120 - 115	5		18	19.000	19.750	0.1875	A607-65	1.000
2	115 - 110	5		18	19.750	20.501	0.1875	A607-65	1.000
3	110 - 105	5		18	20.501	21.251	0.1875	A607-65	1.000
4	105 - 100	5		18	21.251	22.001	0.1875	A607-65	1.000
5	100 - 95	5		18	22.001	22.751	0.1875	A607-65	1.000
6	95 - 90	5		18	22.751	23.502	0.1875	A607-65	1.000
7	90 - 86.25	7	3.25	18	23.502	24.552	0.1875	A607-65	1.000
8	86.25 - 81.25	5		18	23.689	24.440	0.25	A607-65	1.000
9	81.25 - 76.25	5		18	24.440	25.190	0.25	A607-65	1.000
10	76.25 - 71.25	5		18	25.190	25.940	0.25	A607-65	1.000
11	71.25 - 66.25	5		18	25.940	26.690	0.25	A607-65	1.000
12	66.25 - 61.25	5		18	26.690	27.440	0.25	A607-65	1.000
13	61.25 - 61	0.25		18	27.440	27.478	0.25	A607-65	1.000
14	61 - 60.75	0.25		18	27.478	27.515	0.25	A607-65	1.000
15	60.75 - 59	1.75		18	27.515	27.778	0.25	A607-65	1.000
16	59 - 58.75	0.25		18	27.778	27.815	0.25	A607-65	1.000
17	58.75 - 53.75	5		18	27.815	28.566	0.25	A607-65	1.000
18	53.75 - 48.75	5		18	28.566	29.316	0.25	A607-65	1.000
19	48.75 - 45	7.5	3.75	18	29.316	30.441	0.25	A607-65	1.000
20	45 - 40.25	4.75		18	29.378	30.091	0.55	A607-65	0.936
21	40.25 - 35.25	5		18	30.091	30.841	0.5375	A607-65	0.948
22	35.25 - 33	2.25		18	30.841	31.179	0.5375	A607-65	0.944
23	33 - 32.75	0.25		18	31.179	31.216	0.3125	A607-65	1.000
24	32.75 - 27.75	5		18	31.216	31.966	0.3125	A607-65	1.000
25	27.75 - 22.75	5		18	31.966	32.717	0.3125	A607-65	1.000
26	22.75 - 18.5	4.25		18	32.717	33.354	0.3125	A607-65	1.000
27	18.5 - 18.25	0.25		18	33.354	33.392	0.3125	A607-65	1.000
28	18.25 - 13.25	5		18	33.392	34.142	0.3125	A607-65	1.000
29	13.25 - 8.25	5		18	34.142	34.892	0.3125	A607-65	1.000
30	8.25 - 3.25	5		18	34.892	35.642	0.3125	A607-65	1.000
31	3.25 - 0	3.25		18	35.642	36.130	0.3125	A607-65	1.000

TNX Section Forces

Increment (ft): 5		TNX Output		
	Section Height (ft)	P _u (K)	M _{ux} (kip-ft)	V _u (K)
1	120 - 115	2.88	12.77	5.37
2	115 - 110	3.13	40.54	5.74
3	110 - 105	5.53	80.76	10.91
4	105 - 100	5.93	136.48	11.35
5	100 - 95	7.72	205.55	14.54
6	95 - 90	8.28	279.26	14.94
7	90 - 86.25	8.73	335.81	15.22
8	86.25 - 81.25	9.57	413.06	15.66
9	81.25 - 76.25	10.30	492.31	16.04
10	76.25 - 71.25	11.04	573.42	16.41
11	71.25 - 66.25	11.81	656.34	16.76
12	66.25 - 61.25	12.61	740.99	17.10
13	61.25 - 61	12.66	745.27	17.11
14	61 - 60.75	12.70	749.55	17.13
15	60.75 - 59	12.96	779.63	17.26
16	59 - 58.75	13.03	783.95	17.26
17	58.75 - 53.75	13.85	871.18	17.63
18	53.75 - 48.75	14.70	960.14	17.97
19	48.75 - 45	15.35	1027.94	18.21
20	45 - 40.25	16.92	1115.46	18.64
21	40.25 - 35.25	18.23	1209.67	19.04
22	35.25 - 33	18.83	1252.71	19.22
23	33 - 32.75	18.89	1257.52	19.23
24	32.75 - 27.75	19.90	1354.38	19.52
25	27.75 - 22.75	20.95	1452.58	19.77
26	22.75 - 18.5	22.15	1537.16	20.14
27	18.5 - 18.25	22.22	1542.19	20.13
28	18.25 - 13.25	23.30	1643.38	20.34
29	13.25 - 8.25	24.41	1745.50	20.52
30	8.25 - 3.25	25.54	1848.50	20.69
31	3.25 - 0	26.28	1915.90	20.80

Analysis Results

Elevation (ft)	Component Type	Size	Critical Element	% Capacity	Pass / Fail
120 - 115	Pole	TP19.75x19x0.1875	Pole	3.9%	Pass
115 - 110	Pole	TP20.501x19.75x0.1875	Pole	11.0%	Pass
110 - 105	Pole	TP21.251x20.501x0.1875	Pole	20.6%	Pass
105 - 100	Pole	TP22.001x21.251x0.1875	Pole	32.4%	Pass
100 - 95	Pole	TP22.751x22.001x0.1875	Pole	46.1%	Pass
95 - 90	Pole	TP23.502x22.751x0.1875	Pole	59.0%	Pass
90 - 86.25	Pole	TP24.552x23.502x0.1875	Pole	68.1%	Pass
86.25 - 81.25	Pole	TP24.44x23.689x0.25	Pole	56.5%	Pass
81.25 - 76.25	Pole	TP25.19x24.44x0.25	Pole	63.8%	Pass
76.25 - 71.25	Pole	TP25.94x25.19x0.25	Pole	70.5%	Pass
71.25 - 66.25	Pole	TP26.69x25.94x0.25	Pole	76.7%	Pass
66.25 - 61.25	Pole	TP27.44x26.69x0.25	Pole	82.5%	Pass
61.25 - 61	Pole	TP27.478x27.44x0.25	Pole	82.8%	Pass
61 - 60.75	Pole	TP27.515x27.478x0.25	Pole	83.0%	Pass
60.75 - 59	Pole	TP27.778x27.515x0.25	Pole	84.9%	Pass
59 - 58.75	Pole	TP27.815x27.778x0.25	Pole	85.2%	Pass
58.75 - 53.75	Pole	TP28.566x27.815x0.25	Pole	90.4%	Pass
53.75 - 48.75	Pole	TP29.316x28.566x0.25	Pole	95.3%	Pass
48.75 - 45	Pole	TP30.441x29.316x0.25	Pole	98.7%	Pass
45 - 40.25	Pole + Reinf.	TP30.091x29.378x0.55	Reinf. 3 Tension Rupture	79.4%	Pass
40.25 - 35.25	Pole + Reinf.	TP30.841x30.091x0.5375	Reinf. 3 Tension Rupture	82.7%	Pass
35.25 - 33	Pole + Reinf.	TP31.179x30.841x0.5375	Reinf. 3 Tension Rupture	84.2%	Pass
33 - 32.75	Pole	TP31.216x31.179x0.3125	Pole	84.6%	Pass
32.75 - 27.75	Pole	TP31.966x31.216x0.3125	Pole	87.3%	Pass
27.75 - 22.75	Pole	TP32.717x31.966x0.3125	Pole	89.9%	Pass
22.75 - 18.5	Pole	TP33.354x32.717x0.3125	Pole	92.0%	Pass
18.5 - 18.25	Pole	TP33.392x33.354x0.3125	Pole	92.1%	Pass
18.25 - 13.25	Pole	TP34.142x33.392x0.3125	Pole	94.4%	Pass
13.25 - 8.25	Pole	TP34.892x34.142x0.3125	Pole	96.6%	Pass
8.25 - 3.25	Pole	TP35.642x34.892x0.3125	Pole	98.6%	Pass
3.25 - 0	Pole	TP36.13x35.642x0.3125	Pole	99.8%	Pass
				Summary	
			Pole	99.8%	Pass
			Reinforcement	84.2%	Pass
			Overall	99.8%	Pass

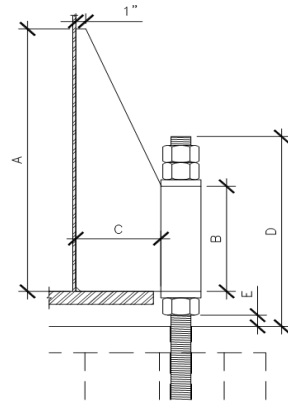
Additional Calculations

Section Elevation (ft)	Moment of Inertia (in ⁴)			Area (in ²)			% Capacity*					
	Pole	Reinf.	Total	Pole	Reinf.	Total	Pole	R1	R2	R3	R4	R5
120 - 115	563	n/a	563	11.64	n/a	11.64	3.9%					
115 - 110	630	n/a	630	12.09	n/a	12.09	11.0%					
110 - 105	702	n/a	702	12.53	n/a	12.53	20.6%					
105 - 100	780	n/a	780	12.98	n/a	12.98	32.4%					
100 - 95	863	n/a	863	13.43	n/a	13.43	46.1%					
95 - 90	952	n/a	952	13.87	n/a	13.87	59.0%					
90 - 86.25	1023	n/a	1023	14.21	n/a	14.21	68.1%					
86.25 - 81.25	1418	n/a	1418	19.19	n/a	19.19	56.5%					
81.25 - 76.25	1555	n/a	1555	19.79	n/a	19.79	63.8%					
76.25 - 71.25	1699	n/a	1699	20.38	n/a	20.38	70.5%					
71.25 - 66.25	1852	n/a	1852	20.98	n/a	20.98	76.7%					
66.25 - 61.25	2015	n/a	2015	21.57	n/a	21.57	82.5%					
61.25 - 61	2023	n/a	2023	21.60	n/a	21.60	82.8%					
61 - 60.75	2031	n/a	2031	21.63	n/a	21.63	83.0%					
60.75 - 59	2090	n/a	2090	21.84	n/a	21.84	84.9%					
59 - 58.75	2099	n/a	2099	21.87	n/a	21.87	85.2%					
58.75 - 53.75	2275	n/a	2275	22.47	n/a	22.47	90.4%					
53.75 - 48.75	2461	n/a	2461	23.06	n/a	23.06	95.3%					
48.75 - 45	2606	n/a	2606	23.51	n/a	23.51	98.7%					
45 - 40.25	3308	2323	5631	29.54	18.75	48.29	46.4%			79.4%		
40.25 - 35.25	3564	2434	5999	30.28	18.75	49.03	48.7%			82.7%		
35.25 - 33	3684	2486	6169	30.61	18.75	49.36	49.7%			84.2%		
33 - 32.75	3697	n/a	3697	30.65	n/a	30.65	84.6%					
32.75 - 27.75	3973	n/a	3973	31.40	n/a	31.40	87.3%					
27.75 - 22.75	4262	n/a	4262	32.14	n/a	32.14	89.9%					
22.75 - 18.5	4519	n/a	4519	32.77	n/a	32.77	92.0%					
18.5 - 18.25	4534	n/a	4534	32.81	n/a	32.81	92.1%					
18.25 - 13.25	4850	n/a	4850	33.55	n/a	33.55	94.4%					
13.25 - 8.25	5180	n/a	5180	34.30	n/a	34.30	96.6%					
8.25 - 3.25	5524	n/a	5524	35.04	n/a	35.04	98.6%					
3.25 - 0	5756	n/a	5756	35.53	n/a	35.53	99.8%					

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

ANCHOR ROD BRACKET CALCULATIONS - TIA-222-H

Site Name: BOLTON
GPD Project No: 2019777.842858.05
Sheet Application: Analysis
Max Capacity: 100%
Apply TIA-222-H Section 15.5? Yes



Anchor Rod Properties		
F_u =	155	ksi
F_y =	105	ksi
Diameter =	1.75	in
Rod Tension Force =	150.4	kips
Rod Compression Force =	150.4	kips

Bracket Plate Properties		
A =	24	in
B =	12	in
C =	5	in
Unbraced Length of Anchor Rod, E =	0.375	in
Bracket Thickness =	1.25	in
F_y =	65	ksi
F_u =	80	ksi
ARB connected to flat plate?	No	

Anchor Rod Buckling		
Buckling K Factor =	1.2	
Net Area =	1.9	in ²
Adjusted Diameter =	1.555	in
Moment of Inertia, I =	0.287	in ⁴
Radius of Gyration, r =	0.389	in
KL/r =	1.16	
F_e =	213705.9	ksi
F_{cr} =	105.0	ksi
$\phi_{buckling}$ =	1	
Capacity =	lar <= 4d	OK

Pipe Yielding		
Pipe Size =	P 3 XX-STR	
Outer Diameter =	3.5	in
Inner Diameter =	2.3	in
Area =	5.47	in ²
Yield Stress, F_y =	42	ksi
Ultimate Stress, F_u =	60	ksi
ϕ =	0.97	
ϕP_n =	206.63	kips
Capacity =	69.3%	OK

Flexure and Combined Flexure & Shear (Pipe-to-Bracket)		
Plastic Modulus, Z =	45.00	in ³
Elastic Modulus, S =	30.00	in ³
ϕM =	0.9	
ϕV =	1.0	
$\phi M_{n,yield,LTB}$ =	2626.2	kip-in
ϕV_n =	585.0	kips
M_u =	263.2	kip-in
V_u =	150.4	kips
Capacity =	9.5%	OK

Shear Strength (Pipe-to-Bracket)		
A_w =	15	in ²
F_y =	65	ksi
F_u =	80	ksi
ϕ_{yield} =	1.0	
$\phi_{rupture}$ =	0.75	
$\phi V_{n,yield}$ =	585.0	kips
$\phi V_{n,rupture}$ =	540.0	kips
V_u =	150.4	kips
Capacity =	26.5%	OK

Rupture Strength at Welds (Bracket-to-Tower)		
Pole Thickness =	0.3125	in
Pole F_y =	65	ksi
Pole F_u =	80	ksi
Applied Force =	4.66	k/in
Rupture Strength of Pole =	15	k/in
Capacity =	31.0%	OK

Flexure and Combined Flexure & Shear (Bracket-to-Tower)		
Plastic Modulus, Z =	180.00	in ³
Elastic Modulus, S =	120.00	in ³
ϕM =	0.9	
ϕV =	1.0	
$\phi M_{n,yield,LTB}$ =	10339.3	kip-in
ϕV_n =	1170	kips
M_u =	1015.2	kip-in
V_u =	150.4	kips
Capacity =	9.4%	OK

Shear Strength (Bracket-to-Tower)		
A_w =	30	in ²
F_y =	65	ksi
F_u =	80	ksi
ϕ_{yield} =	1.0	
$\phi_{rupture}$ =	0.75	
$\phi V_{n,yield}$ =	1170.0	kips
$\phi V_{n,rupture}$ =	1080.0	kips
V_u =	150.4	kips
Capacity =	13.3%	OK

Pipe Punching Shear		
Eccentricity, e =	1.75	in
Induced Moment, M =	263.20	k-in
ϕ =	0.75	
$\phi M_{n,punching}$ =	777.6	k-in
Capacity =	32.2%	OK

Pole Punching Shear (max per unit length)		
Eccentricity, e =	6.75	in
Induced Moment, M =	1015.20	k-in
Elastic Modulus, S =	120.00	in ³
Shear Force, f_v =	10.58	kips
ϕ_{yield} =	1.0	
$\phi_{rupture}$ =	0.75	
$\phi F_v, yield$ =	24.38	kips
$\phi F_v, rupture$ =	22.5	kips
Capacity =	44.8%	OK

Weld Check (Pipe-to-Bracket)		
Weld Length =	12	in
Fillet Weld Size =	0.354	in
Weld Strength =	70	ksi
e =	1.75	in
a =	0.146	
D =	5.664	
C1 =	1	
C =	3.67	
ϕ =	0.75	
ϕR_n =	187.29	kips
Capacity =	76.5%	OK

Weld Check (Bracket-to-Tower)		
Weld Length =	24	in
Fillet Weld Size =	0.3125	in
Weld Strength =	70	ksi
e =	6.75	in
a =	0.281	
D =	5	
C1 =	1	
C =	3.17	
ϕ =	0.75	
ϕR_n =	285.53	kips
Capacity =	50.2%	OK

Monopole Base Plate Connection

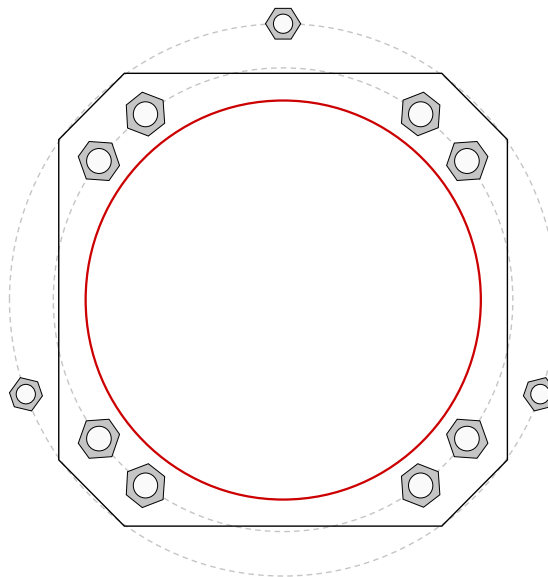


Site Info	
BU #	842858
Site Name	BOLTON
Order #	492780 Rev. 0

Analysis Considerations	
TIA-222 Revision	H
Grout Considered:	No
I_{ar} (in)	0.375

Applied Loads	
Moment (kip-ft)	1915.90
Axial Force (kips)	26.30
Shear Force (kips)	20.78

*TIA-222-H Section 15.5 Applied



Connection Properties

Anchor Rod Data

GROUP 1: (8) 2-1/4" ϕ bolts (A615-75 N; $F_y=75$ ksi, $F_u=100$ ksi) on 42" BC
Anchor Spacing: 6 in
GROUP 2: (3) 1-3/4" ϕ bolts (F1554-105 N; $F_y=105$ ksi, $F_u=125$ ksi) on 50" BC

Base Plate Data

41" OD x 2.5" Plate (A572-55; $F_y=55$ ksi, $F_u=70$ ksi)

Stiffener Data

N/A

Pole Data

36.13" x 0.3125" 18-sided pole (A607-65; $F_y=65$ ksi, $F_u=80$ ksi)

Analysis Results

Anchor Rod Summary

(units of kips, kip-in)

GROUP 1:

$P_{u_c} = 218.6$	$\phi P_{n_c} = 243.75$	Stress Rating
$V_u = 2.13$	$\phi V_n = 73.13$	85.5%
$M_u = n/a$	$\phi M_n = n/a$	Pass

GROUP 2:

$P_{u_c} = 150.4$	$\phi P_{n_c} = 199.5$	Stress Rating
$V_u = 1.25$	$\phi V_n = 59.85$	71.8%
$M_u = n/a$	$\phi M_n = n/a$	Pass

Base Plate Summary

Max Stress (ksi):	33.87	(Flexural)
Allowable Stress (ksi):	49.5	
Stress Rating:	65.2%	Pass

Drilled Pier Foundation

BU # : 842858
 Site Name: BOLTON
 Order Number: 492780 Rev. 0

TIA-222 Revision: H
 Tower Type: Monopole

Applied Loads		
	Comp.	Uplift
Moment (kip-ft)	1915.9	
Axial Force (kips)	26.3	
Shear Force (kips)	20.78	

Material Properties		
Concrete Strength, f'c:	3	ksi
Rebar Strength, Fy:	60	ksi

Pier Design Data		
Depth	19.5	ft
Ext. Above Grade	0.5	ft
Pier Section 1		
From 0.5' above grade to 19.5' below grade		
Pier Diameter	6	ft
Rebar Quantity	16	
Rebar Size	11	
Clear Cover to Ties	4	in
Tie Size	5	

Analysis Results		
Soil Lateral Capacity	Compression	Uplift
D _{cr0} (ft from TOC)	5.28	-
Soil Safety Factor	2.30	-
Max Moment (kip-ft)	2012.74	-
Rating*	55.1%	-
Soil Vertical Capacity	Compression	Uplift
Skin Friction (kips)	98.82	-
End Bearing (kips)	1121.55	-
Weight of Concrete (kips)	72.15	-
Total Capacity (kips)	1220.38	-
Axial (kips)	98.45	-
Rating*	7.7%	-
Reinforced Concrete Capacity	Compression	Uplift
Critical Depth (ft from TOC)	5.03	-
Critical Moment (kip-ft)	2012.26	-
Critical Moment Capacity	3332.02	-
Rating*	57.5%	-

Soil Interaction Rating*	55.1%
Structural Foundation Rating*	57.5%

*Rating per TIA-222-H Section 15.5

Check Limitation	
Apply TIA-222-H Section 15.5:	☒
N/A	☐

Soil Profile		
Groundwater Depth	5.5	ft
# of Layers	12	

Layer	Top (ft)	Bottom (ft)	Thickness (ft)	Y _{soil} (pcf)	Y _{concrete} (pcf)	Cohesion (ksf)	Angle of Friction (degrees)	Calculated Ultimate Skin Friction Comp (ksf)	Calculated Ultimate Skin Friction Uplift (ksf)	Ultimate Skin Friction Comp Override (ksf)	Ultimate Skin Friction Uplift Override (ksf)	Ult. Gross Bearing Capacity (ksf)	SPT Blow Count	Soil Type
1	0	0.5	0.5	100	150	0	0	0.000	0.000	0.00	0.00			Cohesionless
2	0.5	2	1.5	102	150	0	0	0.000	0.000	0.00	0.00			Cohesionless
3	2	3	1	115	150	0	0	0.000	0.000	0.00	0.00			Cohesionless
4	3	3.33	0.33	115	150	0	0	0.000	0.000	0.00	0.00			Cohesionless
5	3.33	4	0.67	115	150	0	40	0.000	0.000	0.12	0.12			Cohesionless
6	4	5.5	1.5	115	150	0	37	0.000	0.000	0.20	0.20			Cohesionless
7	5.5	6	0.5	53	87.6	0	37	0.00	0.00	0.24	0.24			Cohesionless
8	6	8	2	53	87.6	0	37	0.00	0.00	0.26	0.26			Cohesionless
9	8	10	2	53	87.6	0	41	0.00	0.00	0.34	0.34			Cohesionless
10	10	12	2	55	87.6	0	45	0.00	0.00	0.44	0.44			Cohesionless
11	12	14	2	58	87.6	0	45	0.00	0.00	0.50	0.50			Cohesionless
12	14	19.5	5.5	58	87.6	0	45	0.00	0.00	0.62	0.62	52.889		Cohesionless

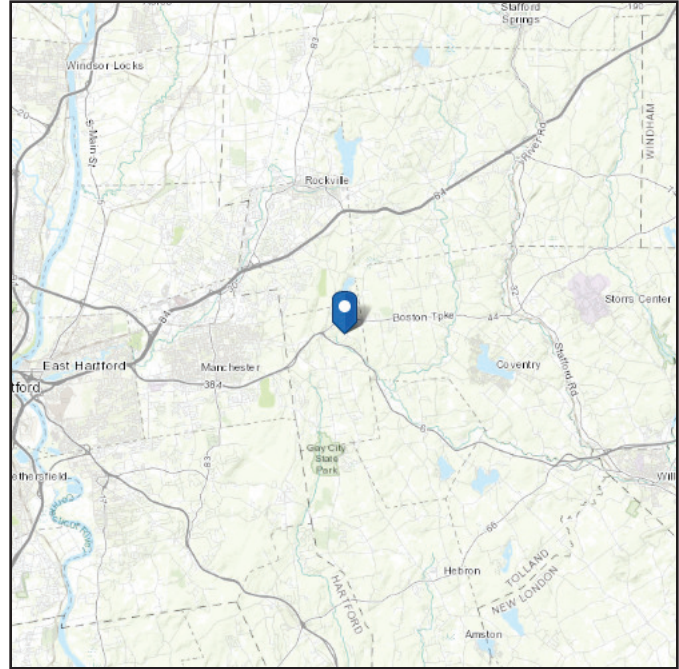
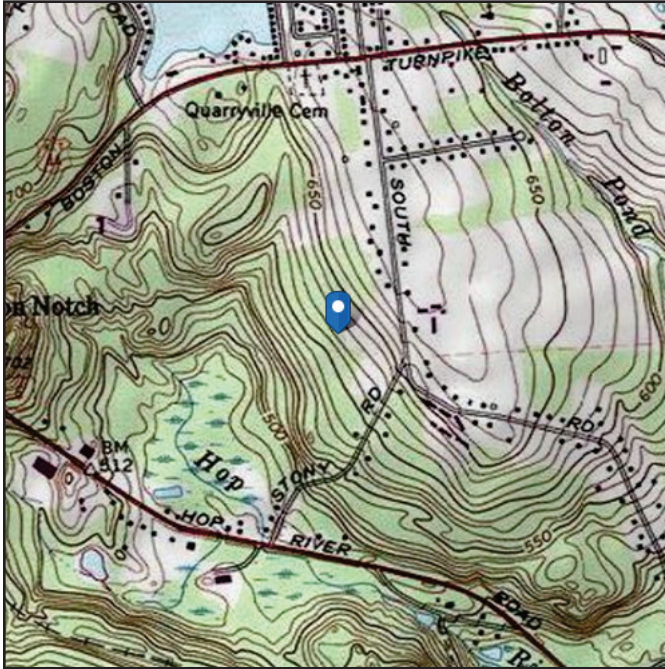


ASCE 7 Hazards Report

Address:
No Address at This
Location

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

Elevation: 620.1 ft (NAVD 88)
Latitude: 41.789042
Longitude: -72.429194



Wind

Results:

Wind Speed:	125 Vmph
10-year MRI	77 Vmph
25-year MRI	87 Vmph
50-year MRI	94 Vmph
100-year MRI	102 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 28 2019

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.

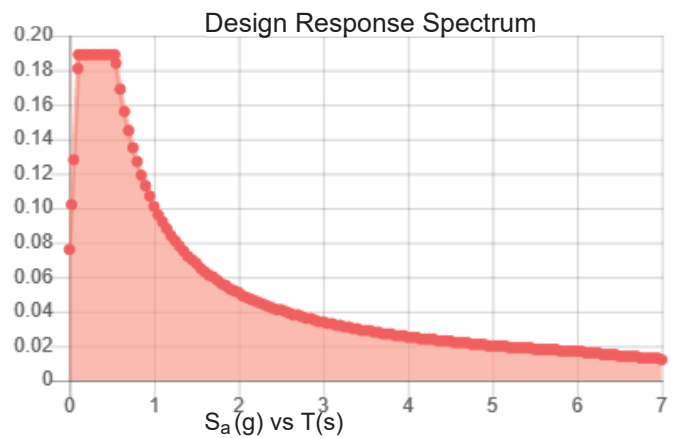
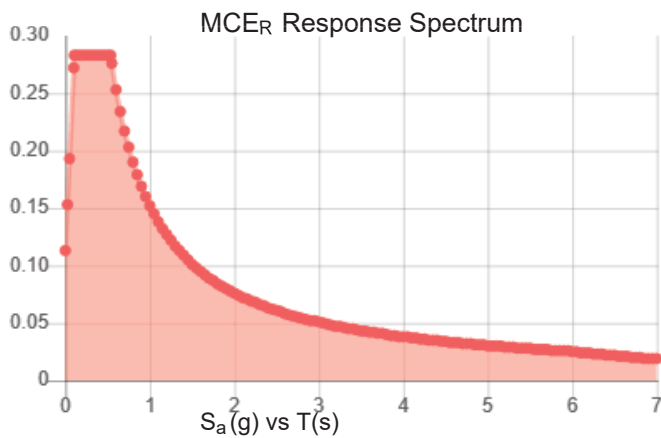
Mountainous terrain, gorges, ocean promontories, and special wind regions should be examined for unusual wind conditions.

Site Soil Class: D - Stiff Soil

Results:

S_S :	0.177	S_{DS} :	0.189
S_1 :	0.063	S_{D1} :	0.101
F_a :	1.6	T_L :	6
F_v :	2.4	PGA :	0.089
S_{MS} :	0.283	PGA_M :	0.142
S_{M1} :	0.152	F_{PGA} :	1.6
		I_e :	1

Seismic Design Category B



Data Accessed:

Tue May 28 2019

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.

Results:

Ice Thickness: 1.00 in.
Concurrent Temperature: 5 F
Gust Speed: 50 mph

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

Date Accessed: Tue May 28 2019

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

Values provided are equivalent radial ice thicknesses due to freezing rain with concurrent 3-second gust speeds, for a 50-year mean recurrence interval, and temperatures concurrent with ice thicknesses due to freezing rain. Thicknesses for ice accretions caused by other sources shall be obtained from local meteorological studies. Ice thicknesses in exposed locations at elevations higher than the surrounding terrain and in valleys and gorges may exceed the mapped values.

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

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Exhibit E

Mount Analysis

July 29, 2019

Charles McGuirt
Crown Castle
3530 Toringdon Way, Suite 300
Charlotte, NC 28277
(704) 405-6607



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

Subject: Mount Modification Analysis

Carrier Designation:

AT&T Mobility Reconfiguration

Client Site Number: CT5819

Client Site Name: Bolton

Crown Castle Designation:

Crown Castle BU Number: 842858

Crown Castle Site Name: Bolton

Crown Castle JDE Job Number: 574644

Crown Castle Order Number: 492780 Rev. 0

Engineering Firm Designation:

TEP Project Number: 55021.286047

Site Data:

49 South Road, Bolton, Tolland County, CT 06043

Latitude 41° 47' 20.55", Longitude -72° 25' 45.10"

Structure Information:

Tower Height & Type: 120.0± ft Monopole

Mount Elevation: 116.0 ft

Mount Width & Type: 12.5 ft Platform w/ Handrail

Dear Charles McGuirt,

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

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

Platform w/ Handrail Mount

Sufficient Capacity

The analysis has been performed in accordance with the 2018 International Building Code based upon an ultimate 3-second gust wind speed of 119 mph. Applicable Standard references and design criteria are listed in Section 2 - Analysis Criteria.

Structural analysis prepared by: G. Hunter Morrow, E.I.

Respectfully submitted by:

Aaron T. Rucker, P.E.
Structural Division Manager



Electronic Copy

07/29/2019

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1) INTRODUCTION

The mount is an existing 12.5-ft Platform w/ Handrail mount, mapped by Tower Engineering Professionals.

2) ANALYSIS CRITERIA

Building Code:	2018 IBC
TIA-222 Revision:	TIA-222-H
Risk Category:	II
Ultimate Wind Speed:	119 mph
Exposure Category:	C
Topographic Category at Base:	1.0
Topographic Category at Mount:	1.0
Ice Thickness:	1.5 in
Wind Speed with Ice:	50 mph
Seismic Design Category:	B
Seismic S_s:	0.189
Seismic S_1:	0.055
Live Loading Wind Speed:	30 mph
Live Loading at Mid/End-Points:	250 lb
Man Live Loading at Mount Pipes:	500 lb

Table 1 - Proposed Equipment Configuration

Mount Centerline (ft)	Antenna Centerline (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Mount / Modification Details
116.0	118.0	6	CCI	DMP65R-BU4D	Platform w/ Handrail Mount
		3	Powerwave	7770.00	
		3	Ericsson	RRUS 4449 B5/B12	
		3	Ericsson	RRUS 4478 B14	
		3	Ericsson	RRUS 8843 B2/B66A	
		3	Powerwave	1001940	
		6	Powerwave	LGP21401	
		1	Raycap	DC6-48-60-18-8C	
		1	Raycap	DC6-48-60-18-8F	

3) ANALYSIS PROCEDURE

Table 2 - Documents Provided

Document	Remarks	Reference	Source
Mount Mapping	Tower Engineering Professionals	8506709	CCIsites
Previous Mount Analysis	Tower Engineering Professionals	8538613	CCIsites
Loading Application	AT&T Mobility	Order 492780 Rev. 0	CCIsites

3.1) Analysis Method

RISA-3D (Version 17.0.1), a commercially available analysis software package, was used to create a three-dimensional model of the mount and calculate member stresses for various loading cases. Selected output from the analysis is included in Appendix A and Appendix C.

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

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

In addition, this analysis is in accordance with AT&T's *Mount Technical Directive – R13*.

3.2) Assumptions

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

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

4) ANALYSIS RESULTS

Table 3 - Mount Component Stresses vs. Capacity (Platform w/ Handrail Mount)

Notes	Component	Critical Member	Mount Centerline (ft)	% Capacity	Pass / Fail
1	Face Horizontals	SF1-TH	116.0	33.3	Pass
1	Handrail	SF1-HR	116.0	31.1	Pass
1	Grating Supports	GSIP-2B	116.0	28.9	Pass
1	Support Arms	SA-2	116.0	57.7	Pass
1	Threaded Rods	TR-2	116.0	48.0	Pass
1	Mount Pipes	MP-8	116.0	66.9	Pass
2	Connection Bolts	-	116.0	31.1	Pass
2	Connection Plate	-	116.0	59.6	Pass

Structure Rating (max from all components) =	66.9%
---	--------------

Notes:

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

Table 4 - Tieback Connection Data Table

Tower Connection Node No.	Existing/ Proposed	Resultant End Reaction (lb)	Connected Member Type	Connected Member Size	Member Compressive Capacity (lb) ³	Notes
-	-	-	-	-	-	-

Notes:

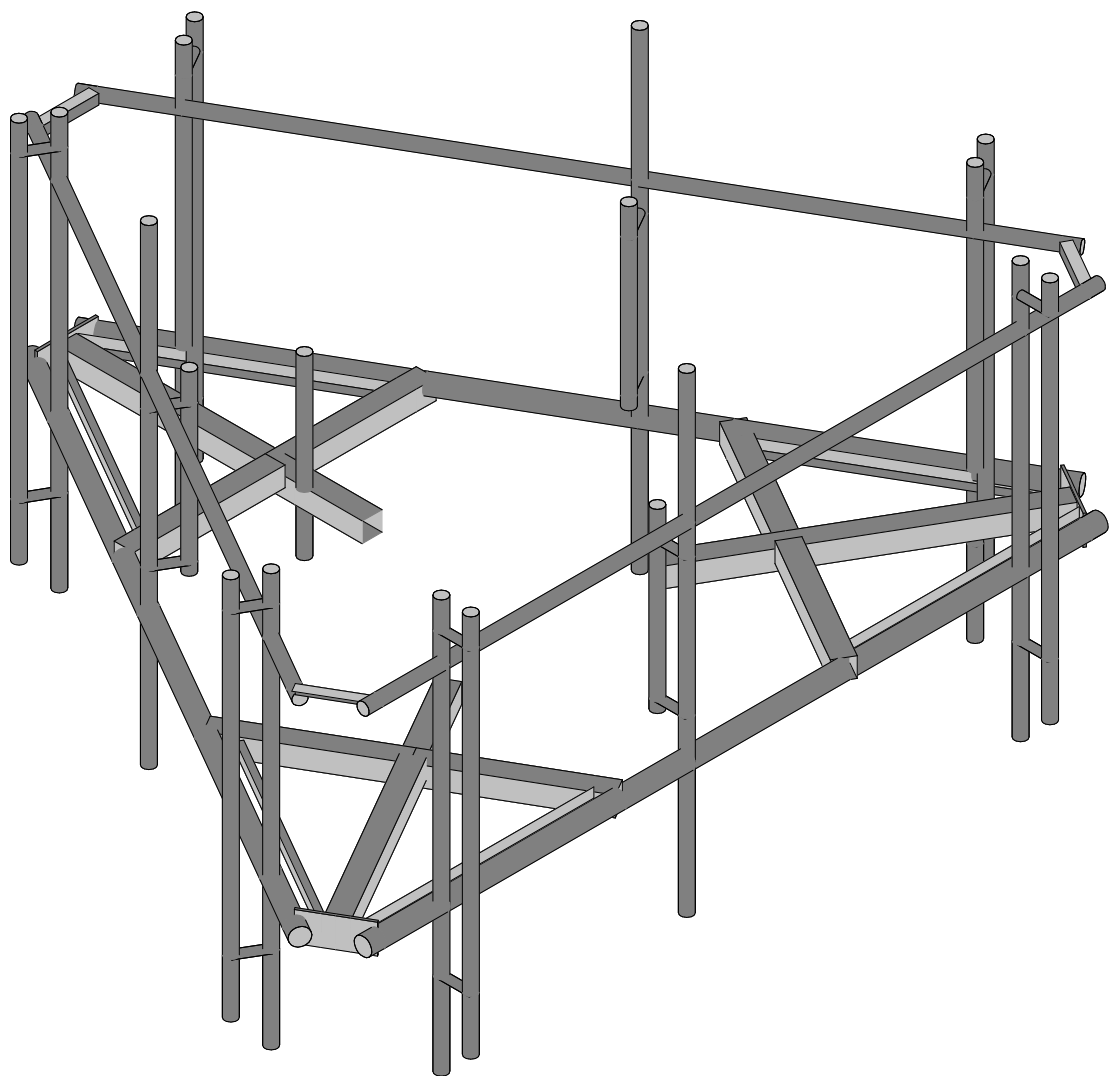
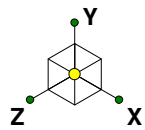
- 1) Tieback connection point is within 25% of either end of the connected tower member.
- 2) Tower connection point is NOT within 25% of either end of the connected tower member.
- 3) Reduced member compressive capacity according to CED-STD-10294 *Standard for Installation of Mounts and Appurtenances*.

4.1) Recommendations

- 1) If the load differs from that described in Table 1 of this report or the provisions of this analysis are found to be invalid, another structural analysis should be performed.
- 2) The modifications depicted in "Appendix E – Mount Modification Design Drawings" shall be installed and, upon completion, inspected. The mount has sufficient capacity to support the proposed loading configuration once the proposed modifications listed below are completed.
 - a) (9) Pipe to Pipe Clamp Kits, Commscope Part No. BC-35-14D
 - b) (1) Top-Rail Kit, SitePro Part No. HRK12

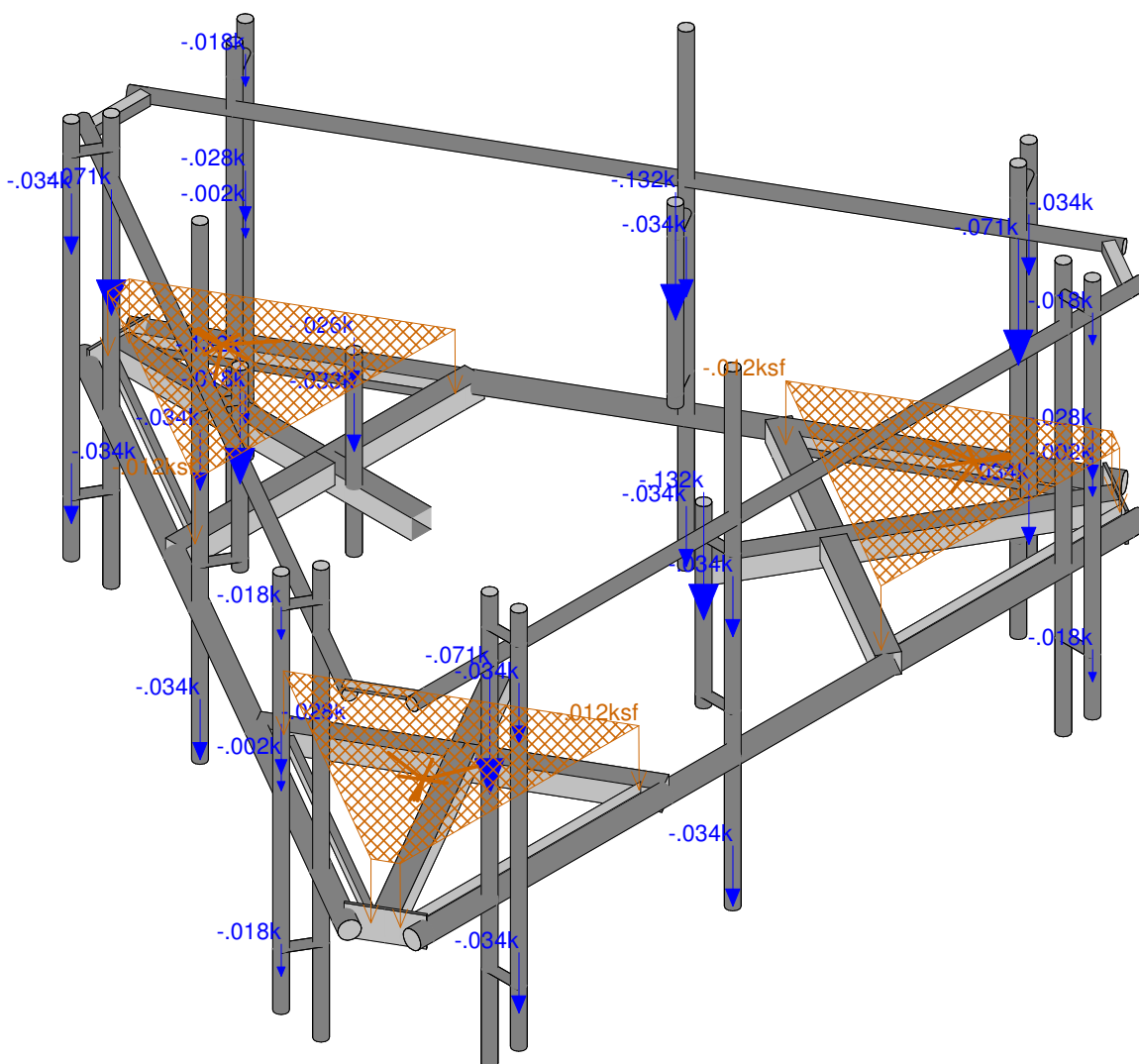
APPENDIX A

WIRE FRAME AND RENDERED MODELS

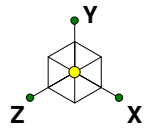


Envelope Only Solution

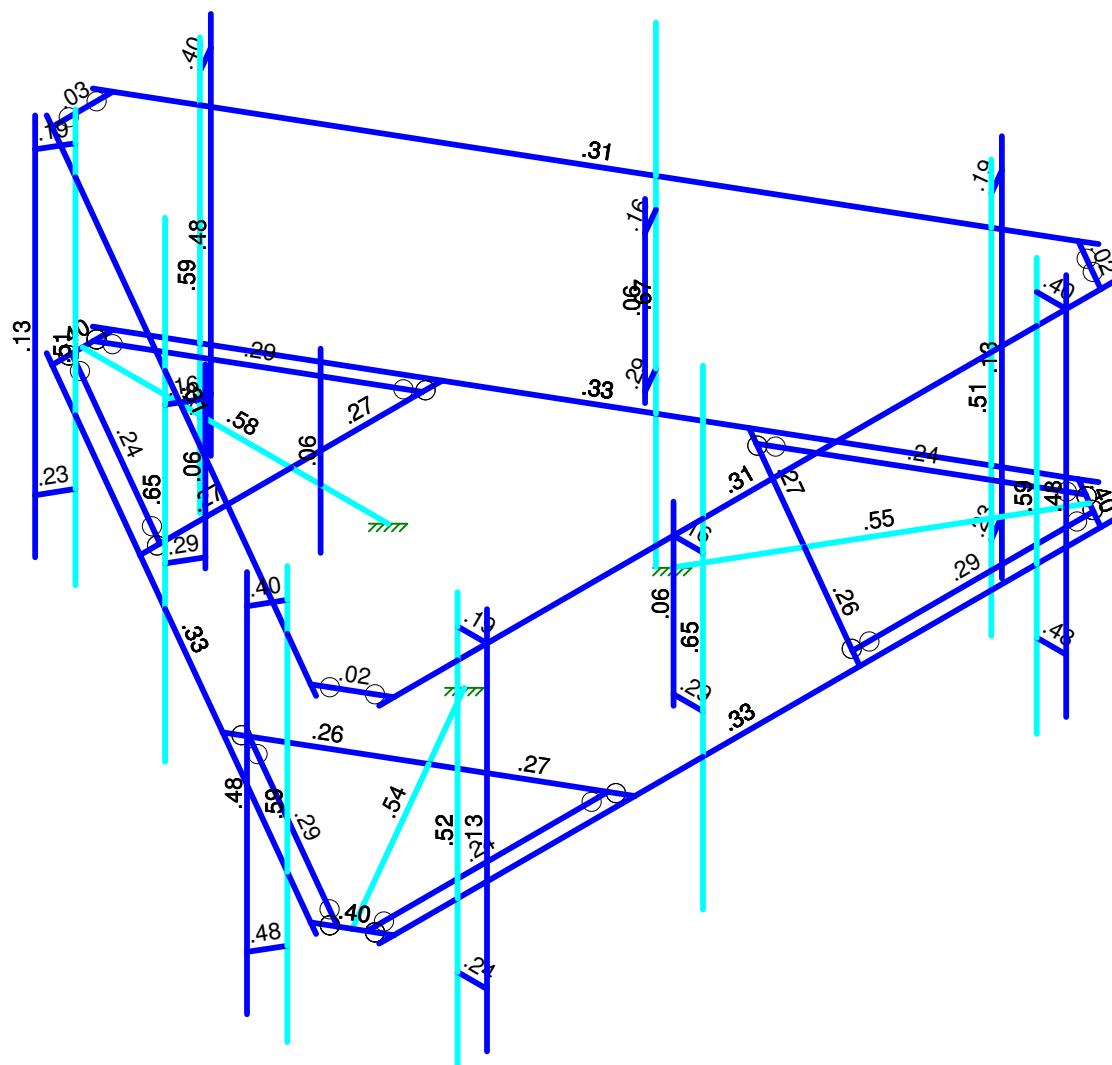
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GHM		July 29, 2019 at 10:17 AM
TEP No. 55021.286047		Mount Rev H.r3d



Tower Engineering Profes...	CCI BU No. 842858	SK - 2
GHM		July 29, 2019 at 10:17 AM
TEP No. 55021.286047		Mount Rev H.r3d

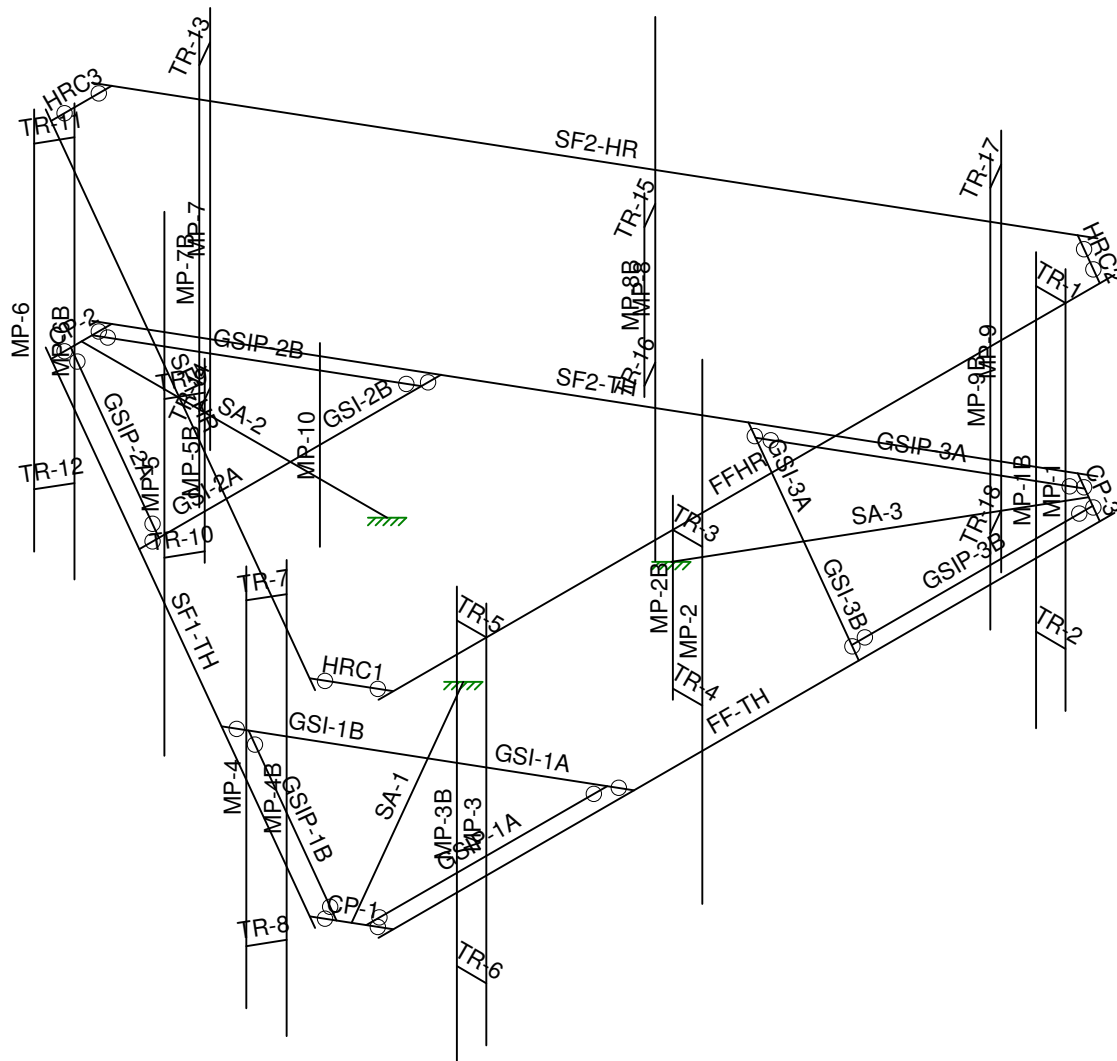
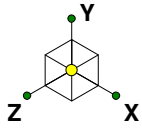


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█	> 1.0
█	.90-1.0
█	.75-.90
█	.50-.75
█	0-.50



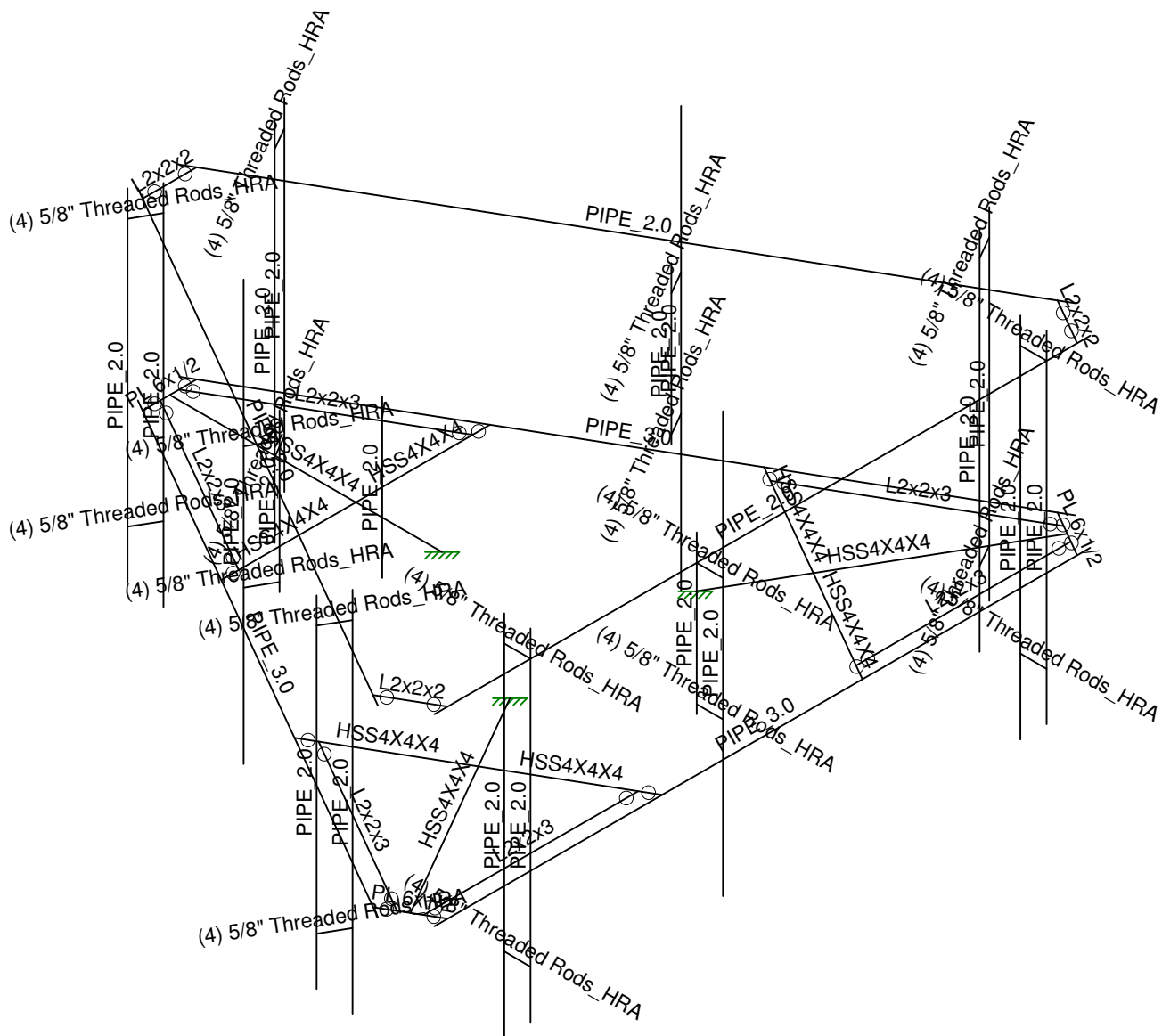
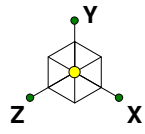
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Envelope Only Solution

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GHM		July 29, 2019 at 10:18 AM
TEP No. 55021.286047		Mount Rev H.r3d



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Tower Engineering Profes...	CCI BU No. 842858	SK - 4
GHM		July 29, 2019 at 10:18 AM
TEP No. 55021.286047		Mount Rev H.r3d



Envelope Only Solution

Tower Engineering Profes...	CCI BU No. 842858	SK - 5
GHM		July 29, 2019 at 10:19 AM
TEP No. 55021.286047		Mount Rev H.r3d

APPENDIX B

SOFTWARE INPUT CALCULATIONS



CCI BU No. 842858

TEP No. 55021.286047

Analysis By: GHM 7/29/2019

Checked By: JWS 7/29/2019

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

Wind Inputs:

Ult. Wind Velocity:	119.0	mph
Live Load Velocity:	30.0	mph
Ice Wind Velocity:	50.0	mph
Base Ice Thickness:	1.50	inches
Mount Centerline:	116.0	ft
Antenna Centerline:	118.0	ft
Exposure Category:	C	
Topo Category:	1	
Risk Category:	II	
Ground Elevation:	620	ft

Wind Calculations:

K_{zt} :	1.000	Section 2.6.6
K_d :	0.950	
$K_{z-Mount}$:	1.306	Section 2.6.5.2
$K_{z-Antenna}$:	1.310	Section 2.6.5.2
K_{iz} :	1.135	Section 2.6.10
Ice Thickness:	1.447	inches - Section 2.6.10
$K_{es-wind}$:	0.95	Annex S (Table S-1)
K_{es-ice} :	0.85	Annex S (Table S-1)

Without Ice - (psf)	With Ice - (psf)
$(q_z G_h)_{Mount}$: 41.77	$(q_z G_h)_{Mount}$: 7.76
$(q_z G_h)_{Antenna}$: 41.92	$(q_z G_h)_{Antenna}$: 7.79



CCI BU No. 842858

TEP No. 55021.286047
 Analysis By: GHM 7/29/2019
 Checked By: JWS 7/29/2019

Antenna Loads are Calculated in Accordance with TIA-222-H

Azimuth is the absolute angle measured clockwise from RISA-3D global X-axis.

MFR	Model	Height (in)	Width (in)	Depth (in)	Wt. (lbs)	Azimuth°	Qty	Shape	Member Label
POWERWAVE	7770.00	55.00	11.00	5.00	35.00	0.00	1	Flat	MP-1
POWERWAVE	LGP21401	144.00	9.20	2.60	14.10	0.00	2	Flat	MP-1
POWERWAVE	1001940	5.70	3.70	1.70	2.00	0.00	1	Flat	MP-1
CCI	DMP65R-BU4D	48.00	20.70	7.70	67.90	0.00	1	Flat	MP-2
ERICSSON	RRUS 4478 B14	16.50	13.40	7.70	59.90	90.00	1	Flat	MP-2B
ERICSSON	RRUS 8843 B2/B66A	14.90	13.20	10.90	72.00	90.00	1	Flat	MP-2B
CCI	DMP65R-BU4D	48.00	20.70	7.70	67.90	0.00	1	Flat	MP-3
ERICSSON	RRUS 4449 B5/B12	17.90	13.19	9.44	71.00	90.00	1	Flat	MP-3B
POWERWAVE	7770.00	55.00	11.00	5.00	35.00	120.00	1	Flat	MP-4
POWERWAVE	LGP21401	144.00	9.20	2.60	14.10	120.00	2	Flat	MP-4
POWERWAVE	1001940	5.70	3.70	1.70	2.00	120.00	1	Flat	MP-4
CCI	DMP65R-BU4D	48.00	20.70	7.70	67.90	120.00	1	Flat	MP-5
ERICSSON	RRUS 4478 B14	16.50	13.40	7.70	59.90	210.00	1	Flat	MP-5B
ERICSSON	RRUS 8843 B2/B66A	14.90	13.20	10.90	72.00	210.00	1	Flat	MP-5B
CCI	DMP65R-BU4D	48.00	20.70	7.70	67.90	120.00	1	Flat	MP-6
ERICSSON	RRUS 4449 B5/B12	17.90	13.19	9.44	71.00	210.00	1	Flat	MP-6B
POWERWAVE	7770.00	55.00	11.00	5.00	35.00	240.00	1	Flat	MP-7
POWERWAVE	LGP21401	144.00	9.20	2.60	14.10	240.00	2	Flat	MP-7
POWERWAVE	1001940	5.70	3.70	1.70	2.00	240.00	1	Flat	MP-7
CCI	DMP65R-BU4D	48.00	20.70	7.70	67.90	240.00	1	Flat	MP-8
ERICSSON	RRUS 4478 B14	16.50	13.40	7.70	59.90	330.00	1	Flat	MP-8B
ERICSSON	RRUS 8843 B2/B66A	14.90	13.20	10.90	72.00	330.00	1	Flat	MP-8B
CCI	DMP65R-BU4D	48.00	20.70	7.70	67.90	240.00	1	Flat	MP-9
ERICSSON	RRUS 4449 B5/B12	17.90	13.19	9.44	71.00	330.00	1	Flat	MP-9B
RAYCAP	DC6-48-60-18-8C	31.41	10.24	10.24	26.20	0.00	1	Round	MP-10
RAYCAP	DC6-48-60-18-8F	31.25	11.00	11.00	32.80	0.00	1	Round	MP-10



**TOWER
ENGINEERING
PROFESSIONALS**

CCI BU No. 842858

TEP No.

55021.286047

Analysis By:

GHM

7/29/2019

Checked By:

JWS

7/29/2019

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

Member Name	Wind Proj. (in)	Length (in)	Shape	θ (°)	Perimeter (in)
CP-1	6.000	12.41	Flat	30.00	24.00
CP-2	6.000	12.41	Flat	90.00	24.00
CP-3	6.000	12.41	Flat	-30.00	24.00
FF-TH	3.500	150.00	Round	90.00	11.00
GSI-1A	4.000	30.75	Flat	30.00	16.00
GSI-1B	4.000	30.75	Flat	30.00	16.00
GSI-2A	4.000	30.75	Flat	90.00	16.00
GSI-2B	4.000	30.75	Flat	90.00	16.00
GSI-3A	4.000	30.75	Flat	-30.00	16.00
GSI-3B	4.000	30.75	Flat	-30.00	16.00
GSIP-1A	2.000	49.09	Flat	90.00	8.00
GSIP-1B	2.000	49.09	Flat	-30.00	8.00
GSIP-2A	2.000	49.09	Flat	-30.00	8.00
GSIP-2B	2.000	49.09	Flat	30.00	8.00
GSIP-3A	2.000	49.09	Flat	30.00	8.00
GSIP-3B	2.000	49.09	Flat	90.00	8.00
MP-1	2.375	78.00	Round		7.46
MP-1B	2.375	84.00	Round		7.46
MP-2	2.375	96.00	Round		7.46
MP-2B	2.375	36.00	Round		7.46
MP-3	2.375	78.00	Round		7.46
MP-3B	2.375	84.00	Round		7.46
MP-4	2.375	78.00	Round		7.46
MP-4B	2.375	84.00	Round		7.46
MP-5	2.375	96.00	Round		7.46
MP-5B	2.375	36.00	Round		7.46
MP-6	2.375	78.00	Round		7.46
MP-6B	2.375	84.00	Round		7.46
MP-7	2.375	78.00	Round		7.46
MP-7B	2.375	84.00	Round		7.46
MP-8	2.375	96.00	Round		7.46
MP-8B	2.375	36.00	Round		7.46
MP-9	2.375	78.00	Round		7.46
MP-9B	2.375	84.00	Round		7.46
MP-10	2.375	36.00	Round		7.46
SA-1	4.000	62.25	Flat	-60.00	16.00
SA-2	4.000	62.25	Flat	0.00	16.00
SA-3	4.000	62.25	Flat	60.00	16.00

SF1-TH	3.500	150.00	Round	-30.00	11.00
SF2-TH	3.500	150.00	Round	30.00	11.00
TR-1	1.250	6.00	Round	0.00	3.93
TR-2	1.250	6.00	Round	0.00	3.93
TR-3	1.250	6.00	Round	0.00	3.93
TR-4	1.250	6.00	Round	0.00	3.93
TR-5	1.250	6.00	Round	0.00	3.93
TR-6	1.250	6.00	Round	0.00	3.93
TR-7	1.250	6.00	Round	60.00	3.93
TR-8	1.250	6.00	Round	60.00	3.93
TR-9	1.250	6.00	Round	60.00	3.93
TR-10	1.250	6.00	Round	60.00	3.93
TR-11	1.250	6.00	Round	60.00	3.93
TR-12	1.250	6.00	Round	60.00	3.93
TR-13	1.250	6.00	Round	-60.00	3.93
TR-14	1.250	6.00	Round	-60.00	3.93
TR-15	1.250	6.00	Round	-60.00	3.93
TR-16	1.250	6.00	Round	-60.00	3.93
TR-17	1.250	6.00	Round	-60.00	3.93
TR-18	1.250	6.00	Round	-60.00	3.93
FFHR	2.375	150.00	Round	90.00	7.46
SF2-HR	2.375	150.00	Round	30.00	7.46
SF1-HR	2.375	150.00	Round	-30.00	7.46
HRC1	2.000	12.41	Flat	30.00	8.00
HRC3	2.000	12.41	Flat	90.00	8.00
HRC2	2.000	12.41	Flat	-30.00	8.00

APPENDIX C

SOFTWARE ANALYSIS OUTPUT



Company : Tower Engineering Professionals, Inc.
Designer : GHM
Job Number : TEP No. 55021.286047
Model Name : CCI BU No. 842858

July 29, 2019
10:19 AM
Checked By: JWS

(Global) Model Settings

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

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

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



Company : Tower Engineering Professionals, Inc.
Designer : GHM
Job Number : TEP No. 55021.286047
Model Name : CCI BU No. 842858

July 29, 2019
10:19 AM
Checked By: JWS

(Global) Model Settings, Continued

Seismic Code	ASCE 7-10
Seismic Base Elevation (ft)	Not Entered
Add Base Weight?	Yes
Ct X	.02
Ct Z	.02
T X (sec)	Not Entered
T Z (sec)	Not Entered
R X	3
R Z	3
Ct Exp. X	.75
Ct Exp. Z	.75
SD1	1
SDS	1
S1	1
TL (sec)	5
Risk Cat	I or II
Drift Cat	Other
Om Z	1
Om X	1
Cd Z	1
Cd X	1
Rho Z	1
Rho X	1

Hot Rolled Steel Properties

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

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design R...	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	Face Horiz	PIPE 3.0	None	None	A53 Gr.B	Typical	2.07	2.85	2.85	5.69
2	Mount Pipes	PIPE 2.0	None	None	A53 Gr.B	Typical	1.02	.627	.627	1.25
3	Support Arm	HSS4X4X4	None	None	A53 Gr.B	Typical	3.37	7.8	7.8	12.8
4	Internal	HSS4X4X4	None	None	A53 Gr.B	Typical	3.37	7.8	7.8	12.8
5	Grating Support	L2x2x3	None	None	A53 Gr.B	Typical	.722	.271	.271	.009
6	Corner Plate	PL 6x1/2	None	None	A53 Gr.B	Typical	3	.063	9	.237
7	BC-35-14D	(4) 5/8" Threaded...	None	None	A36 Gr.36	Typical	1.815	.262	.262	.524
8	HRK12	PIPE 2.0	None	None	A53 Gr.B	Typical	1.02	.627	.627	1.25
9	HRC	L2x2x2	None	None	A36 Gr.36	Typical	.491	.189	.189	.003

Cold Formed Steel Section Sets

	Label	Shape	Type	Design List	Material	Design Rules	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	CF1A	8CU1.25X0...	Beam	None	A653 SS Gr...	Typical	.581	.057	4.41	.00063



Company : Tower Engineering Professionals, Inc.
Designer : GHM
Job Number : TEP No. 55021.286047
Model Name : CCI BU No. 842858

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Material Takeoff

	Material	Size	Pieces	Length[ft]	Weight[K]
1	Hot Rolled Steel				
2	A36 Gr.36	(4) 5/8" Threaded Rods_HRA	18	9	0
3	A36 Gr.36	L2x2x2	3	3.1	0
4	A53 Gr.B	HSS4X4X4	9	30.9	.4
5	A53 Gr.B	L2x2x3	6	24.5	0
6	A53 Gr.B	PIPE 2.0	22	154.5	.5
7	A53 Gr.B	PIPE 3.0	3	37.5	.3
8	A53 Gr.B	PL 6x1/2	3	3.1	0
9	Total HR Steel		64	262.7	1.3

Joint Boundary Conditions

	Joint Label	X [k/in]	Y [k/in]	Z [k/in]	X Rot.[k-ft/rad]	Y Rot.[k-ft/rad]	Z Rot.[k-ft/rad]
1	SA1	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
2	SA3	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
3	SA2	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction

Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotate(de...	Section/Shape	Type	Design List	Material	Design Rules
1	CP-1	CP1-A	CP1-B			Corner Plate	None	None	A53 Gr.B	Typical
2	CP-2	CP2-A	CP2-B			Corner Plate	None	None	A53 Gr.B	Typical
3	CP-3	CP3-A	CP3-B			Corner Plate	None	None	A53 Gr.B	Typical
4	FF-TH	FF1	FF-2			Face Horiz	None	None	A53 Gr.B	Typical
5	GSI-1A	GSI1-A	GSI1-B			Internal	None	None	A53 Gr.B	Typical
6	GSI-1B	GSI1-B	GSI1-C			Internal	None	None	A53 Gr.B	Typical
7	GSI-2A	GSI2-A	GSI2-B			Internal	None	None	A53 Gr.B	Typical
8	GSI-2B	GSI2-B	GSI2-C			Internal	None	None	A53 Gr.B	Typical
9	GSI-3A	GSI3-A	GSI3-B			Internal	None	None	A53 Gr.B	Typical
10	GSI-3B	GSI3-B	GSI3-C			Internal	None	None	A53 Gr.B	Typical
11	GSIP-1A	P1	P2			Grating Support	None	None	A53 Gr.B	Typical
12	GSIP-1B	P3	P4			Grating Support	None	None	A53 Gr.B	Typical
13	GSIP-2A	P5	P6			Grating Support	None	None	A53 Gr.B	Typical
14	GSIP-2B	P7	P8			Grating Support	None	None	A53 Gr.B	Typical
15	GSIP-3A	P9	P10			Grating Support	None	None	A53 Gr.B	Typical
16	GSIP-3B	P11	P12			Grating Support	None	None	A53 Gr.B	Typical
17	MP-1	N10	N11			Mount Pipes	None	None	A53 Gr.B	Typical
18	MP-1B	N1	N2			Mount Pipes	None	None	A53 Gr.B	Typical
19	MP-2	N12	N13			Mount Pipes	None	None	A53 Gr.B	Typical
20	MP-2B	N4	N89A			Mount Pipes	None	None	A53 Gr.B	Typical
21	MP-3	N14	N15			Mount Pipes	None	None	A53 Gr.B	Typical
22	MP-3B	N5	N6			Mount Pipes	None	None	A53 Gr.B	Typical
23	MP-4	N81	N82			Mount Pipes	None	None	A53 Gr.B	Typical
24	MP-4B	N72	N73			Mount Pipes	None	None	A53 Gr.B	Typical
25	MP-5	N83	N84			Mount Pipes	None	None	A53 Gr.B	Typical
26	MP-5B	N75	N76			Mount Pipes	None	None	A53 Gr.B	Typical
27	MP-6	N85	N86			Mount Pipes	None	None	A53 Gr.B	Typical
28	MP-6B	N78	N79			Mount Pipes	None	None	A53 Gr.B	Typical
29	MP-7	N108	N109			Mount Pipes	None	None	A53 Gr.B	Typical
30	MP-7B	N99	N100			Mount Pipes	None	None	A53 Gr.B	Typical
31	MP-8	N110	N111			Mount Pipes	None	None	A53 Gr.B	Typical
32	MP-8B	N102	N103			Mount Pipes	None	None	A53 Gr.B	Typical
33	MP-9	N112	N113			Mount Pipes	None	None	A53 Gr.B	Typical
34	MP-9B	N105A	N106A			Mount Pipes	None	None	A53 Gr.B	Typical
35	MP-10	N8	N7			Mount Pipes	None	None	A53 Gr.B	Typical

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Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(de...	Section/Shape	Type	Design List	Material	Design Rules
36	SA-1	SA1	SA-1B			Support Arm	None	None	A53 Gr.B	Typical
37	SA-2	SA2	SA-2B			Support Arm	None	None	A53 Gr.B	Typical
38	SA-3	SA3	SA-3B			Support Arm	None	None	A53 Gr.B	Typical
39	SF1-TH	FF-5	FF-6			Face Horiz	None	None	A53 Gr.B	Typical
40	SF2-TH	FF-9	FF-10			Face Horiz	None	None	A53 Gr.B	Typical
41	TR-1	N16	N19			BC-35-14D	None	None	A36 Gr.36	Typical
42	TR-2	N22	N24			BC-35-14D	None	None	A36 Gr.36	Typical
43	TR-3	N17	N20			BC-35-14D	None	None	A36 Gr.36	Typical
44	TR-4	N26	N27			BC-35-14D	None	None	A36 Gr.36	Typical
45	TR-5	N18	N21			BC-35-14D	None	None	A36 Gr.36	Typical
46	TR-6	N23	N25			BC-35-14D	None	None	A36 Gr.36	Typical
47	TR-7	N87	N90			BC-35-14D	None	None	A36 Gr.36	Typical
48	TR-8	N93	N95			BC-35-14D	None	None	A36 Gr.36	Typical
49	TR-9	N88	N91			BC-35-14D	None	None	A36 Gr.36	Typical
50	TR-10	N97	N98			BC-35-14D	None	None	A36 Gr.36	Typical
51	TR-11	N89	N92			BC-35-14D	None	None	A36 Gr.36	Typical
52	TR-12	N94	N96			BC-35-14D	None	None	A36 Gr.36	Typical
53	TR-13	N114	N117			BC-35-14D	None	None	A36 Gr.36	Typical
54	TR-14	N120	N122			BC-35-14D	None	None	A36 Gr.36	Typical
55	TR-15	N115	N118			BC-35-14D	None	None	A36 Gr.36	Typical
56	TR-16	N124	N125			BC-35-14D	None	None	A36 Gr.36	Typical
57	TR-17	N116	N119			BC-35-14D	None	None	A36 Gr.36	Typical
58	TR-18	N121	N123			BC-35-14D	None	None	A36 Gr.36	Typical
59	FFHR	N124A	N125A			HRK12	None	None	A53 Gr.B	Typical
60	SF2-HR	N129	N130			HRK12	None	None	A53 Gr.B	Typical
61	SF1-HR	N134	N135			HRK12	None	None	A53 Gr.B	Typical
62	HRC1	N143	N140		90	HRC	None	None	A36 Gr.36	Typical
63	HRC3	N141	N144		90	HRC	None	None	A36 Gr.36	Typical
64	HRC2	N139	N142		90	HRC	None	None	A36 Gr.36	Typical

Member Advanced Data

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical Defl	Ratio Options	Analysis ...	Inactive	Seismi...
1	CP-1	BenPIN	BenPIN				Yes	** NA **			None
2	CP-2	BenPIN	BenPIN				Yes	** NA **			None
3	CP-3	BenPIN	BenPIN				Yes	** NA **			None
4	FF-TH						Yes	** NA **			None
5	GSI-1A	BenPIN					Yes	** NA **			None
6	GSI-1B		BenPIN				Yes	** NA **			None
7	GSI-2A	BenPIN					Yes	** NA **			None
8	GSI-2B		BenPIN				Yes	** NA **			None
9	GSI-3A	BenPIN					Yes	** NA **			None
10	GSI-3B		BenPIN				Yes	** NA **			None
11	GSIP-1A	BenPIN	BenPIN				Yes	** NA **			None
12	GSIP-1B	BenPIN	BenPIN				Yes	** NA **			None
13	GSIP-2A	BenPIN	BenPIN				Yes	** NA **			None
14	GSIP-2B	BenPIN	BenPIN				Yes	** NA **			None
15	GSIP-3A	BenPIN	BenPIN				Yes	** NA **			None
16	GSIP-3B	BenPIN	BenPIN				Yes	** NA **			None
17	MP-1						Yes	** NA **			None
18	MP-1B						Yes	** NA **			None
19	MP-2						Yes	** NA **			None
20	MP-2B						Yes	** NA **			None
21	MP-3						Yes	** NA **			None
22	MP-3B						Yes	** NA **			None
23	MP-4						Yes	** NA **			None

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Designer : GHM
Job Number : TEP No. 55021.286047
Model Name : CCI BU No. 842858

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Member Advanced Data (Continued)

Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical Defl	Ratio Options	Analysis	Inactive	Seismi...
24 MP-4B						Yes	** NA **			None
25 MP-5						Yes	** NA **			None
26 MP-5B						Yes	** NA **			None
27 MP-6						Yes	** NA **			None
28 MP-6B						Yes	** NA **			None
29 MP-7						Yes	** NA **			None
30 MP-7B						Yes	** NA **			None
31 MP-8						Yes	** NA **			None
32 MP-8B						Yes	** NA **			None
33 MP-9						Yes	** NA **			None
34 MP-9B						Yes	** NA **			None
35 MP-10						Yes	** NA **			None
36 SA-1						Yes	** NA **			None
37 SA-2						Yes	** NA **			None
38 SA-3						Yes	** NA **			None
39 SF1-TH						Yes	** NA **			None
40 SF2-TH						Yes	** NA **			None
41 TR-1						Yes	** NA **			None
42 TR-2						Yes	** NA **			None
43 TR-3						Yes	** NA **			None
44 TR-4						Yes	** NA **			None
45 TR-5						Yes	** NA **			None
46 TR-6						Yes	** NA **			None
47 TR-7						Yes	** NA **			None
48 TR-8						Yes	** NA **			None
49 TR-9						Yes	** NA **			None
50 TR-10						Yes	** NA **			None
51 TR-11						Yes	** NA **			None
52 TR-12						Yes	** NA **			None
53 TR-13						Yes	** NA **			None
54 TR-14						Yes	** NA **			None
55 TR-15						Yes	** NA **			None
56 TR-16						Yes	** NA **			None
57 TR-17						Yes	** NA **			None
58 TR-18						Yes	** NA **			None
59 FFHR						Yes	** NA **			None
60 SF2-HR						Yes	** NA **			None
61 SF1-HR						Yes	** NA **			None
62 HRC1	BenPIN	BenPIN				Yes	** NA **			None
63 HRC3	BenPIN	BenPIN				Yes	** NA **			None
64 HRC2	BenPIN	BenPIN				Yes	** NA **			None

Hot Rolled Steel Design Parameters

Label	Shape	Length[ft]	Lbyy[ft]	Lbzz[ft]	Lcomp top[ft]	Lcomp bot[ft]	L-torque[ft]	Kyy	Kzz	Cb	Functi...
1 CP-1	Corner Plate	1.034	.5	.5				1	1		Lateral
2 CP-2	Corner Plate	1.034	.5	.5				1	1		Lateral
3 CP-3	Corner Plate	1.034	.5	.5				1	1		Lateral
4 FF-TH	Face Horiz	12.5	4.09					2.1	2.1		Lateral
5 GSI-1A	Internal	2.562						.8	.8		Lateral
6 GSI-1B	Internal	2.562						.8	.8		Lateral
7 GSI-2A	Internal	2.562						.8	.8		Lateral
8 GSI-2B	Internal	2.562						.8	.8		Lateral
9 GSI-3A	Internal	2.562						.8	.8		Lateral
10 GSI-3B	Internal	2.562						.8	.8		Lateral
11 GSIP-1A	Grating Support	4.091						1	1		Lateral



Company : Tower Engineering Professionals, Inc.
Designer : GHM
Job Number : TEP No. 55021.286047
Model Name : CCI BU No. 842858

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Hot Rolled Steel Design Parameters (Continued)

Label	Shape	Length[ft]	Lbyy[ft]	Lbzz[ft]	Lcomp top[ft]	Lcomp bot[ft]	L-torque[ft]	Kyy	Kzz	Cb	Functi...
12 GSIP-1B	Grating Support	4.091						1	1		Lateral
13 GSIP-2A	Grating Support	4.091						1	1		Lateral
14 GSIP-2B	Grating Support	4.091						1	1		Lateral
15 GSIP-3A	Grating Support	4.091						1	1		Lateral
16 GSIP-3B	Grating Support	4.091						1	1		Lateral
17 MP-1	Mount Pipes	6.5	Segment	Segment				2.1	2.1		Lateral
18 MP-1B	Mount Pipes	7	Segment	Segment				2.1	2.1		Lateral
19 MP-2	Mount Pipes	8	Segment	Segment				2.1	2.1		Lateral
20 MP-2B	Mount Pipes	3	Segment	Segment				2.1	2.1		Lateral
21 MP-3	Mount Pipes	6.5	Segment	Segment				2.1	2.1		Lateral
22 MP-3B	Mount Pipes	7	Segment	Segment				2.1	2.1		Lateral
23 MP-4	Mount Pipes	6.5	Segment	Segment				2.1	2.1		Lateral
24 MP-4B	Mount Pipes	7	Segment	Segment				2.1	2.1		Lateral
25 MP-5	Mount Pipes	8	Segment	Segment				2.1	2.1		Lateral
26 MP-5B	Mount Pipes	3	Segment	Segment				2.1	2.1		Lateral
27 MP-6	Mount Pipes	6.5	Segment	Segment				2.1	2.1		Lateral
28 MP-6B	Mount Pipes	7	Segment	Segment				2.1	2.1		Lateral
29 MP-7	Mount Pipes	6.5	Segment	Segment				2.1	2.1		Lateral
30 MP-7B	Mount Pipes	7	Segment	Segment				2.1	2.1		Lateral
31 MP-8	Mount Pipes	8	Segment	Segment				2.1	2.1		Lateral
32 MP-8B	Mount Pipes	3	Segment	Segment				2.1	2.1		Lateral
33 MP-9	Mount Pipes	6.5	Segment	Segment				2.1	2.1		Lateral
34 MP-9B	Mount Pipes	7	Segment	Segment				2.1	2.1		Lateral
35 MP-10	Mount Pipes	3	Segment	Segment				2.1	2.1		Lateral
36 SA-1	Support Arm	5.187	3.54					1	1		Lateral
37 SA-2	Support Arm	5.187	3.54					1	1		Lateral
38 SA-3	Support Arm	5.187	3.54					1	1		Lateral
39 SF1-TH	Face Horiz	12.5	4.09					2.1	2.1		Lateral
40 SF2-TH	Face Horiz	12.5	4.09					2.1	2.1		Lateral
41 TR-1	BC-35-14D	.5						1	1		Lateral
42 TR-2	BC-35-14D	.5						1	1		Lateral
43 TR-3	BC-35-14D	.5						1	1		Lateral
44 TR-4	BC-35-14D	.5						1	1		Lateral
45 TR-5	BC-35-14D	.5						1	1		Lateral
46 TR-6	BC-35-14D	.5						1	1		Lateral
47 TR-7	BC-35-14D	.5						1	1		Lateral
48 TR-8	BC-35-14D	.5						1	1		Lateral
49 TR-9	BC-35-14D	.5						1	1		Lateral
50 TR-10	BC-35-14D	.5						1	1		Lateral
51 TR-11	BC-35-14D	.5						1	1		Lateral
52 TR-12	BC-35-14D	.5						1	1		Lateral
53 TR-13	BC-35-14D	.5						1	1		Lateral
54 TR-14	BC-35-14D	.5						1	1		Lateral
55 TR-15	BC-35-14D	.5						1	1		Lateral
56 TR-16	BC-35-14D	.5						1	1		Lateral
57 TR-17	BC-35-14D	.5						1	1		Lateral
58 TR-18	BC-35-14D	.5						1	1		Lateral
59 FFHR	HRK12	12.5						2.1	2.1		Lateral
60 SF2-HR	HRK12	12.5						2.1	2.1		Lateral
61 SF1-HR	HRK12	12.5						2.1	2.1		Lateral
62 HRC1	HRC	1.034						1	1		Lateral
63 HRC3	HRC	1.034						1	1		Lateral
64 HRC2	HRC	1.034						1	1		Lateral

Cold Formed Steel Design Parameters

Label	Shape	Length	Lbyy[ft]	Lbzz[ft]	Lcomp to...	Lcomp b...	Kyy	Kzz	Cm-yyCm-zz	Cb	R	y swayz sway
No Data to Print ...												

Basic Load Cases

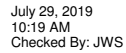
	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed Area(Me...	Surface(P...
1	Dead	None		-1			35		3
2	0 Wind - No Ice	None					35	64	
3	30 Wind - No Ice	None					70	128	
4	45 Wind - No Ice	None					70	128	
5	60 Wind - No Ice	None					70	128	
6	90 Wind - No Ice	None					35	64	
7	120 Wind - No Ice	None					70	128	
8	135 Wind - No Ice	None					70	128	
9	150 Wind - No Ice	None					70	128	
10	180 Wind - No Ice	None					35	64	
11	210 Wind - No Ice	None					70	128	
12	225 Wind - No Ice	None					70	128	
13	240 Wind - No Ice	None					70	128	
14	270 Wind - No Ice	None					35	64	
15	300 Wind - No Ice	None					70	128	
16	315 Wind - No Ice	None					70	128	
17	330 Wind - No Ice	None					70	128	
18	Ice Weight	None					35	64	3
19	0 Wind - Ice	None					35	64	
20	30 Wind - Ice	None					70	128	
21	45 Wind - Ice	None					70	128	
22	60 Wind - Ice	None					70	128	
23	90 Wind - Ice	None					35	64	
24	120 Wind - Ice	None					70	128	
25	135 Wind - Ice	None					70	128	
26	150 Wind - Ice	None					70	128	
27	180 Wind - Ice	None					35	64	
28	210 Wind - Ice	None					70	128	
29	225 Wind - Ice	None					70	128	
30	240 Wind - Ice	None					70	128	
31	270 Wind - Ice	None					35	64	
32	300 Wind - Ice	None					70	128	
33	315 Wind - Ice	None					70	128	
34	330 Wind - Ice	None					70	128	
35	Lm	None				1			
36	Lv	None				1			
37	BLC 1 Transient Area...	None						54	
38	BLC 18 Transient Are...	None						54	

Load Combinations

[illegible]

Load Combinations (Continued)

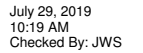
[illegible]

[illegible]

	Joint Label	L.D.M	Direction	Magnitude (k.k-ft), (in.rad), (k*s^2/ft..
1	X1	L	Y	-5

	Joint Label	L.D.M	Direction	Magnitude[(k,k-ft), (in.rad), (k''s^2/ft..
1	FF1	L	Y	- 25

	Member Label	Direction	Magnitude[$[K, k\text{-ft}]$	Location[$[ft, \text{ft}]$
1	MP-1	Y	-.018	1
2	MP-1	Y	-.028	3
3	MP-1	Y	-.002	3.25
4	MP-2	Y	-.034	4
5	MP-2B	Y	-.06	1.75
6	MP-2B	Y	-.072	1.75
7	MP-3	Y	-.034	2
8	MP-3B	Y	-.071	3
9	MP-4	Y	-.018	1



	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
10	MP-4	Y	-.028	3
11	MP-4	Y	-.002	3.25
12	MP-5	Y	-.034	4
13	MP-5B	Y		1.75
14	MP-5B	Y	-.072	1.75
15	MP-6	Y	-.034	2
16	MP-6B	Y	-.071	3
17	MP-7	Y	-.018	1
18	MP-7	Y	-.028	3
19	MP-7	Y	-.002	3.25
20	MP-8	Y	-.034	4
21	MP-8B	Y	-.06	1.75
22	MP-8B	Y	-.072	1.75
23	MP-9	Y	-.034	2
24	MP-9B	Y	-.071	3
25	MP-10	Y	-.026	.5
26	MP-10	Y	-.033	1.5
27	MP-1	Y	-.018	6
28	MP-2	Y	-.034	8
29	MP-3	Y	-.034	6
30	MP-4	Y	-.018	6
31	MP-5	Y	-.034	8
32	MP-6	Y	-.034	6
33	MP-7	Y	-.018	6
34	MP-8	Y	-.034	8
35	MP-9	Y	-.034	6

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
1	MP-1	X	-1.104	1
2	MP-1	X	-1.172	3
3	MP-1	X	-.007	3.25
4	MP-2	X	-.156	4
5	MP-2B	X	-.04	1.75
6	MP-2B	X	-.051	1.75
7	MP-3	X	-.156	2
8	MP-3B	X	-.053	3
9	MP-4	X	-.067	1
10	MP-4	X	-.587	3
11	MP-4	X	-.004	3.25
12	MP-5	X	-.089	4
13	MP-5B	X	-.062	1.75
14	MP-5B	X	-.059	1.75
15	MP-6	X	-.089	2
16	MP-6B	X	-.069	3
17	MP-7	X	-.067	1
18	MP-7	X	-.587	3
19	MP-7	X	-.004	3.25
20	MP-8	X	-.089	4
21	MP-8B	X	-.062	1.75
22	MP-8B	X	-.059	1.75
23	MP-9	X	-.089	2
24	MP-9B	X	-.069	3
25	MP-10	X	-.043	.5
26	MP-10	X	-.046	1.5
27	MP-1	X	-1.104	6



Company : Tower Engineering Professionals, Inc.
Designer : GHM
Job Number : TEP No. 55021.286047
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Member Point Loads (BLC 2 : 0 Wind - No Ice) (Continued)

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
28	MP-2	X	-156	8
29	MP-3	X	-156	6
30	MP-4	X	-067	6
31	MP-5	X	-089	8
32	MP-6	X	-089	6
33	MP-7	X	-067	6
34	MP-8	X	-089	8
35	MP-9	X	-089	6

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

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
1	MP-1	X	-079	1
2	MP-1	X	-846	3
3	MP-1	X	-005	3.25
4	MP-2	X	-116	4
5	MP-2B	X	-041	1.75
6	MP-2B	X	-047	1.75
7	MP-3	X	-116	2
8	MP-3B	X	-051	3
9	MP-4	X	-048	1
10	MP-4	X	-34	3
11	MP-4	X	-003	3.25
12	MP-5	X	-057	4
13	MP-5B	X	-06	1.75
14	MP-5B	X	-054	1.75
15	MP-6	X	-057	2
16	MP-6B	X	-064	3
17	MP-7	X	-079	1
18	MP-7	X	-846	3
19	MP-7	X	-005	3.25
20	MP-8	X	-116	4
21	MP-8B	X	-041	1.75
22	MP-8B	X	-047	1.75
23	MP-9	X	-116	2
24	MP-9B	X	-051	3
25	MP-10	X	-037	.5
26	MP-10	X	-04	1.5
27	MP-1	X	-079	6
28	MP-2	X	-116	8
29	MP-3	X	-116	6
30	MP-4	X	-048	6
31	MP-5	X	-057	8
32	MP-6	X	-057	6
33	MP-7	X	-079	6
34	MP-8	X	-116	8
35	MP-9	X	-116	6
36	MP-1	Z	-046	1
37	MP-1	Z	-489	3
38	MP-1	Z	-003	3.25
39	MP-2	Z	-067	4
40	MP-2B	Z	-024	1.75
41	MP-2B	Z	-027	1.75
42	MP-3	Z	-067	2
43	MP-3B	Z	-029	3
44	MP-4	Z	-028	1
45	MP-4	Z	-196	3



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

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
46	MP-4	Z	-002	3.25
47	MP-5	Z	-033	4
48	MP-5B	Z	-035	1.75
49	MP-5B	Z	-031	1.75
50	MP-6	Z	-033	2
51	MP-6B	Z	-037	3
52	MP-7	Z	-046	1
53	MP-7	Z	-489	3
54	MP-7	Z	-003	3.25
55	MP-8	Z	-067	4
56	MP-8B	Z	-024	1.75
57	MP-8B	Z	-027	1.75
58	MP-9	Z	-067	2
59	MP-9B	Z	-029	3
60	MP-10	Z	-022	.5
61	MP-10	Z	-023	1.5
62	MP-1	Z	-046	6
63	MP-2	Z	-067	8
64	MP-3	Z	-067	6
65	MP-4	Z	-028	6
66	MP-5	Z	-033	8
67	MP-6	Z	-033	6
68	MP-7	Z	-046	6
69	MP-8	Z	-067	8
70	MP-9	Z	-067	6

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

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
1	MP-1	X	-056	1
2	MP-1	X	-553	3
3	MP-1	X	-003	3.25
4	MP-2	X	-079	4
5	MP-2B	X	-039	1.75
6	MP-2B	X	-04	1.75
7	MP-3	X	-079	2
8	MP-3B	X	-045	3
9	MP-4	X	-041	1
10	MP-4	X	-314	3
11	MP-4	X	-002	3.25
12	MP-5	X	-051	4
13	MP-5B	X	-048	1.75
14	MP-5B	X	-043	1.75
15	MP-6	X	-051	2
16	MP-6B	X	-051	3
17	MP-7	X	-071	1
18	MP-7	X	-792	3
19	MP-7	X	-005	3.25
20	MP-8	X	-106	4
21	MP-8B	X	-03	1.75
22	MP-8B	X	-037	1.75
23	MP-9	X	-106	2
24	MP-9B	X	-039	3
25	MP-10	X	-031	.5
26	MP-10	X	-032	1.5
27	MP-1	X	-056	6
28	MP-2	X	-079	8



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

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
29	MP-3	X	-0.79	6
30	MP-4	X	-0.41	6
31	MP-5	X	-0.51	8
32	MP-6	X	-0.51	6
33	MP-7	X	-0.71	6
34	MP-8	X	-1.06	8
35	MP-9	X	-1.06	6
36	MP-1	Z	-0.56	1
37	MP-1	Z	-5.53	3
38	MP-1	Z	-0.03	3.25
39	MP-2	Z	-0.79	4
40	MP-2B	Z	-0.39	1.75
41	MP-2B	Z	-0.4	1.75
42	MP-3	Z	-0.79	2
43	MP-3B	Z	-0.45	3
44	MP-4	Z	-0.41	1
45	MP-4	Z	-3.14	3
46	MP-4	Z	-0.02	3.25
47	MP-5	Z	-0.51	4
48	MP-5B	Z	-0.48	1.75
49	MP-5B	Z	-0.43	1.75
50	MP-6	Z	-0.51	2
51	MP-6B	Z	-0.51	3
52	MP-7	Z	-0.71	1
53	MP-7	Z	-7.92	3
54	MP-7	Z	-0.05	3.25
55	MP-8	Z	-1.06	4
56	MP-8B	Z	-0.3	1.75
57	MP-8B	Z	-0.37	1.75
58	MP-9	Z	-1.06	2
59	MP-9B	Z	-0.39	3
60	MP-10	Z	-0.31	.5
61	MP-10	Z	-0.32	1.5
62	MP-1	Z	-0.56	6
63	MP-2	Z	-0.79	8
64	MP-3	Z	-0.79	6
65	MP-4	Z	-0.41	6
66	MP-5	Z	-0.51	8
67	MP-6	Z	-0.51	6
68	MP-7	Z	-0.71	6
69	MP-8	Z	-1.06	8
70	MP-9	Z	-1.06	6

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

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
1	MP-1	X	-0.34	1
2	MP-1	X	-2.94	3
3	MP-1	X	-0.02	3.25
4	MP-2	X	-0.44	4
5	MP-2B	X	-0.31	1.75
6	MP-2B	X	-0.3	1.75
7	MP-3	X	-0.44	2
8	MP-3B	X	-0.34	3
9	MP-4	X	-0.34	1
10	MP-4	X	-2.94	3
11	MP-4	X	-0.02	3.25



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

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
12	MP-5	X	-0.44	4
13	MP-5B	X	-0.31	1.75
14	MP-5B	X	-0.3	1.75
15	MP-6	X	-0.44	2
16	MP-6B	X	-0.34	3
17	MP-7	X	-0.52	1
18	MP-7	X	-5.86	3
19	MP-7	X	-0.03	3.25
20	MP-8	X	-0.78	4
21	MP-8B	X	-0.2	1.75
22	MP-8B	X	-0.26	1.75
23	MP-9	X	-0.78	2
24	MP-9B	X	-0.27	3
25	MP-10	X	-0.22	.5
26	MP-10	X	-0.23	1.5
27	MP-1	X	-0.34	6
28	MP-2	X	-0.44	8
29	MP-3	X	-0.44	6
30	MP-4	X	-0.34	6
31	MP-5	X	-0.44	8
32	MP-6	X	-0.44	6
33	MP-7	X	-0.52	6
34	MP-8	X	-0.78	8
35	MP-9	X	-0.78	6
36	MP-1	Z	-0.58	1
37	MP-1	Z	-5.09	3
38	MP-1	Z	-0.03	3.25
39	MP-2	Z	-0.77	4
40	MP-2B	Z	-0.54	1.75
41	MP-2B	Z	-0.51	1.75
42	MP-3	Z	-0.77	2
43	MP-3B	Z	-0.6	3
44	MP-4	Z	-0.58	1
45	MP-4	Z	-5.09	3
46	MP-4	Z	-0.03	3.25
47	MP-5	Z	-0.77	4
48	MP-5B	Z	-0.54	1.75
49	MP-5B	Z	-0.51	1.75
50	MP-6	Z	-0.77	2
51	MP-6B	Z	-0.6	3
52	MP-7	Z	-0.9	1
53	MP-7	Z	-1.015	3
54	MP-7	Z	-0.06	3.25
55	MP-8	Z	-1.35	4
56	MP-8B	Z	-0.35	1.75
57	MP-8B	Z	-0.44	1.75
58	MP-9	Z	-1.35	2
59	MP-9B	Z	-0.46	3
60	MP-10	Z	-0.37	.5
61	MP-10	Z	-0.4	1.5
62	MP-1	Z	-0.58	6
63	MP-2	Z	-0.77	8
64	MP-3	Z	-0.77	6
65	MP-4	Z	-0.58	6
66	MP-5	Z	-0.77	8
67	MP-6	Z	-0.77	6
68	MP-7	Z	-0.9	6



Company : Tower Engineering Professionals, Inc.
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Member Point Loads (BLC 5 : 60 Wind - No Ice) (Continued)

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
69	MP-8	Z	-.135	8
70	MP-9	Z	-.135	6

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

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
1	MP-1	Z	-.055	1
2	MP-1	Z	-.392	3
3	MP-1	Z	-.003	3.25
4	MP-2	Z	-.066	4
5	MP-2B	Z	-.07	1.75
6	MP-2B	Z	-.062	1.75
7	MP-3	Z	-.066	2
8	MP-3B	Z	-.074	3
9	MP-4	Z	-.092	1
10	MP-4	Z	-.977	3
11	MP-4	Z	-.006	3.25
12	MP-5	Z	-.134	4
13	MP-5B	Z	-.047	1.75
14	MP-5B	Z	-.054	1.75
15	MP-6	Z	-.134	2
16	MP-6B	Z	-.058	3
17	MP-7	Z	-.092	1
18	MP-7	Z	-.977	3
19	MP-7	Z	-.006	3.25
20	MP-8	Z	-.134	4
21	MP-8B	Z	-.047	1.75
22	MP-8B	Z	-.054	1.75
23	MP-9	Z	-.134	2
24	MP-9B	Z	-.058	3
25	MP-10	Z	-.043	.5
26	MP-10	Z	-.046	1.5
27	MP-1	Z	-.055	6
28	MP-2	Z	-.066	8
29	MP-3	Z	-.066	6
30	MP-4	Z	-.092	6
31	MP-5	Z	-.134	8
32	MP-6	Z	-.134	6
33	MP-7	Z	-.092	6
34	MP-8	Z	-.134	8
35	MP-9	Z	-.134	6

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

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
1	MP-1	X	.034	1
2	MP-1	X	.294	3
3	MP-1	X	.002	3.25
4	MP-2	X	.044	4
5	MP-2B	X	.031	1.75
6	MP-2B	X	.03	1.75
7	MP-3	X	.044	2
8	MP-3B	X	.034	3
9	MP-4	X	.052	1
10	MP-4	X	.586	3
11	MP-4	X	.003	3.25
12	MP-5	X	.078	4
13	MP-5B	X	.02	1.75



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

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
14	MP-5B	X	.026	1.75
15	MP-6	X	.078	2
16	MP-6B	X	.027	3
17	MP-7	X	.034	1
18	MP-7	X	.294	3
19	MP-7	X	.002	3.25
20	MP-8	X	.044	4
21	MP-8B	X	.031	1.75
22	MP-8B	X	.03	1.75
23	MP-9	X	.044	2
24	MP-9B	X	.034	3
25	MP-10	X	.022	.5
26	MP-10	X	.023	1.5
27	MP-1	X	.034	6
28	MP-2	X	.044	8
29	MP-3	X	.044	6
30	MP-4	X	.052	6
31	MP-5	X	.078	8
32	MP-6	X	.078	6
33	MP-7	X	.034	6
34	MP-8	X	.044	8
35	MP-9	X	.044	6
36	MP-1	Z	-.058	1
37	MP-1	Z	-.509	3
38	MP-1	Z	-.003	3.25
39	MP-2	Z	-.077	4
40	MP-2B	Z	-.054	1.75
41	MP-2B	Z	-.051	1.75
42	MP-3	Z	-.077	2
43	MP-3B	Z	-.06	3
44	MP-4	Z	-.09	1
45	MP-4	Z	-1.015	3
46	MP-4	Z	-.006	3.25
47	MP-5	Z	-.135	4
48	MP-5B	Z	-.035	1.75
49	MP-5B	Z	-.044	1.75
50	MP-6	Z	-.135	2
51	MP-6B	Z	-.046	3
52	MP-7	Z	-.058	1
53	MP-7	Z	-.509	3
54	MP-7	Z	-.003	3.25
55	MP-8	Z	-.077	4
56	MP-8B	Z	-.054	1.75
57	MP-8B	Z	-.051	1.75
58	MP-9	Z	-.077	2
59	MP-9B	Z	-.06	3
60	MP-10	Z	-.037	.5
61	MP-10	Z	-.04	1.5
62	MP-1	Z	-.058	6
63	MP-2	Z	-.077	8
64	MP-3	Z	-.077	6
65	MP-4	Z	-.09	6
66	MP-5	Z	-.135	8
67	MP-6	Z	-.135	6
68	MP-7	Z	-.058	6
69	MP-8	Z	-.077	8
70	MP-9	Z	-.077	6



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

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
1	MP-1	X	.056	1
2	MP-1	X	.553	3
3	MP-1	X	.003	3.25
4	MP-2	X	.079	4
5	MP-2B	X	.039	1.75
6	MP-2B	X	.04	1.75
7	MP-3	X	.079	2
8	MP-3B	X	.045	3
9	MP-4	X	.071	1
10	MP-4	X	.792	3
11	MP-4	X	.005	3.25
12	MP-5	X	.106	4
13	MP-5B	X	.03	1.75
14	MP-5B	X	.037	1.75
15	MP-6	X	.106	2
16	MP-6B	X	.039	3
17	MP-7	X	.041	1
18	MP-7	X	.314	3
19	MP-7	X	.002	3.25
20	MP-8	X	.051	4
21	MP-8B	X	.048	1.75
22	MP-8B	X	.043	1.75
23	MP-9	X	.051	2
24	MP-9B	X	.051	3
25	MP-10	X	.031	.5
26	MP-10	X	.032	1.5
27	MP-1	X	.056	6
28	MP-2	X	.079	8
29	MP-3	X	.079	6
30	MP-4	X	.071	6
31	MP-5	X	.106	8
32	MP-6	X	.106	6
33	MP-7	X	.041	6
34	MP-8	X	.051	8
35	MP-9	X	.051	6
36	MP-1	Z	-.056	1
37	MP-1	Z	-.553	3
38	MP-1	Z	-.003	3.25
39	MP-2	Z	-.079	4
40	MP-2B	Z	-.039	1.75
41	MP-2B	Z	-.04	1.75
42	MP-3	Z	-.079	2
43	MP-3B	Z	-.045	3
44	MP-4	Z	-.071	1
45	MP-4	Z	-.792	3
46	MP-4	Z	-.005	3.25
47	MP-5	Z	-.106	4
48	MP-5B	Z	-.03	1.75
49	MP-5B	Z	-.037	1.75
50	MP-6	Z	-.106	2
51	MP-6B	Z	-.039	3
52	MP-7	Z	-.041	1
53	MP-7	Z	-.314	3
54	MP-7	Z	-.002	3.25
55	MP-8	Z	-.051	4
56	MP-8B	Z	-.048	1.75
57	MP-8B	Z	-.043	1.75



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

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
58	MP-9	Z	-.051	2
59	MP-9B	Z	-.051	3
60	MP-10	Z	-.031	.5
61	MP-10	Z	-.032	1.5
62	MP-1	Z	-.056	6
63	MP-2	Z	-.079	8
64	MP-3	Z	-.079	6
65	MP-4	Z	-.071	6
66	MP-5	Z	-.106	8
67	MP-6	Z	-.106	6
68	MP-7	Z	-.041	6
69	MP-8	Z	-.051	8
70	MP-9	Z	-.051	6

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

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
1	MP-1	X	.079	1
2	MP-1	X	.846	3
3	MP-1	X	.005	3.25
4	MP-2	X	.116	4
5	MP-2B	X	.041	1.75
6	MP-2B	X	.047	1.75
7	MP-3	X	.116	2
8	MP-3B	X	.051	3
9	MP-4	X	.079	1
10	MP-4	X	.846	3
11	MP-4	X	.005	3.25
12	MP-5	X	.116	4
13	MP-5B	X	.041	1.75
14	MP-5B	X	.047	1.75
15	MP-6	X	.116	2
16	MP-6B	X	.051	3
17	MP-7	X	.048	1
18	MP-7	X	.34	3
19	MP-7	X	.003	3.25
20	MP-8	X	.057	4
21	MP-8B	X	.06	1.75
22	MP-8B	X	.054	1.75
23	MP-9	X	.057	2
24	MP-9B	X	.064	3
25	MP-10	X	.037	.5
26	MP-10	X	.04	1.5
27	MP-1	X	.079	6
28	MP-2	X	.116	8
29	MP-3	X	.116	6
30	MP-4	X	.079	6
31	MP-5	X	.116	8
32	MP-6	X	.116	6
33	MP-7	X	.048	6
34	MP-8	X	.057	8
35	MP-9	X	.057	6
36	MP-1	Z	-.046	1
37	MP-1	Z	-.489	3
38	MP-1	Z	-.003	3.25
39	MP-2	Z	-.067	4
40	MP-2B	Z	-.024	1.75



Company : Tower Engineering Professionals, Inc.
Designer : GHM
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Member Point Loads (BLC 9 : 150 Wind - No Ice) (Continued)

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
41	MP-2B	Z	-.027	1.75
42	MP-3	Z	-.067	2
43	MP-3B	Z	-.029	3
44	MP-4	Z	-.046	1
45	MP-4	Z	-.489	3
46	MP-4	Z	-.003	3.25
47	MP-5	Z	-.067	4
48	MP-5B	Z	-.024	1.75
49	MP-5B	Z	-.027	1.75
50	MP-6	Z	-.067	2
51	MP-6B	Z	-.029	3
52	MP-7	Z	-.028	1
53	MP-7	Z	-.196	3
54	MP-7	Z	-.002	3.25
55	MP-8	Z	-.033	4
56	MP-8B	Z	-.035	1.75
57	MP-8B	Z	-.031	1.75
58	MP-9	Z	-.033	2
59	MP-9B	Z	-.037	3
60	MP-10	Z	-.022	.5
61	MP-10	Z	-.023	1.5
62	MP-1	Z	-.046	6
63	MP-2	Z	-.067	8
64	MP-3	Z	-.067	6
65	MP-4	Z	-.046	6
66	MP-5	Z	-.067	8
67	MP-6	Z	-.067	6
68	MP-7	Z	-.028	6
69	MP-8	Z	-.033	8
70	MP-9	Z	-.033	6

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

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
1	MP-1	X	.104	1
2	MP-1	X	1.172	3
3	MP-1	X	.007	3.25
4	MP-2	X	.156	4
5	MP-2B	X	.04	1.75
6	MP-2B	X	.051	1.75
7	MP-3	X	.156	2
8	MP-3B	X	.053	3
9	MP-4	X	.067	1
10	MP-4	X	.587	3
11	MP-4	X	.004	3.25
12	MP-5	X	.089	4
13	MP-5B	X	.062	1.75
14	MP-5B	X	.059	1.75
15	MP-6	X	.089	2
16	MP-6B	X	.069	3
17	MP-7	X	.067	1
18	MP-7	X	.587	3
19	MP-7	X	.004	3.25
20	MP-8	X	.089	4
21	MP-8B	X	.062	1.75
22	MP-8B	X	.059	1.75
23	MP-9	X	.089	2



Company : Tower Engineering Professionals, Inc.
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Member Point Loads (BLC 10 : 180 Wind - No Ice) (Continued)

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
24	MP-9B	X	.069	3
25	MP-10	X	.043	.5
26	MP-10	X	.046	1.5
27	MP-1	X	.104	6
28	MP-2	X	.156	8
29	MP-3	X	.156	6
30	MP-4	X	.067	6
31	MP-5	X	.089	8
32	MP-6	X	.089	6
33	MP-7	X	.067	6
34	MP-8	X	.089	8
35	MP-9	X	.089	6

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

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
1	MP-1	X	.079	1
2	MP-1	X	.846	3
3	MP-1	X	.005	3.25
4	MP-2	X	.116	4
5	MP-2B	X	.041	1.75
6	MP-2B	X	.047	1.75
7	MP-3	X	.116	2
8	MP-3B	X	.051	3
9	MP-4	X	.048	1
10	MP-4	X	.34	3
11	MP-4	X	.003	3.25
12	MP-5	X	.057	4
13	MP-5B	X	.06	1.75
14	MP-5B	X	.054	1.75
15	MP-6	X	.057	2
16	MP-6B	X	.064	3
17	MP-7	X	.079	1
18	MP-7	X	.846	3
19	MP-7	X	.005	3.25
20	MP-8	X	.116	4
21	MP-8B	X	.041	1.75
22	MP-8B	X	.047	1.75
23	MP-9	X	.116	2
24	MP-9B	X	.051	3
25	MP-10	X	.037	.5
26	MP-10	X	.04	1.5
27	MP-1	X	.079	6
28	MP-2	X	.116	8
29	MP-3	X	.116	6
30	MP-4	X	.048	6
31	MP-5	X	.057	8
32	MP-6	X	.057	6
33	MP-7	X	.079	6
34	MP-8	X	.116	8
35	MP-9	X	.116	6
36	MP-1	Z	.046	1
37	MP-1	Z	.489	3
38	MP-1	Z	.003	3.25
39	MP-2	Z	.067	4
40	MP-2B	Z	.024	1.75
41	MP-2B	Z	.027	1.75



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

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
42	MP-3	Z	.067	2
43	MP-3B	Z	.029	3
44	MP-4	Z	.028	1
45	MP-4	Z	.196	3
46	MP-4	Z	.002	3.25
47	MP-5	Z	.033	4
48	MP-5B	Z	.035	1.75
49	MP-5B	Z	.031	1.75
50	MP-6	Z	.033	2
51	MP-6B	Z	.037	3
52	MP-7	Z	.046	1
53	MP-7	Z	.489	3
54	MP-7	Z	.003	3.25
55	MP-8	Z	.067	4
56	MP-8B	Z	.024	1.75
57	MP-8B	Z	.027	1.75
58	MP-9	Z	.067	2
59	MP-9B	Z	.029	3
60	MP-10	Z	.022	.5
61	MP-10	Z	.023	1.5
62	MP-1	Z	.046	6
63	MP-2	Z	.067	8
64	MP-3	Z	.067	6
65	MP-4	Z	.028	6
66	MP-5	Z	.033	8
67	MP-6	Z	.033	6
68	MP-7	Z	.046	6
69	MP-8	Z	.067	8
70	MP-9	Z	.067	6

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

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
1	MP-1	X	.056	1
2	MP-1	X	.553	3
3	MP-1	X	.003	3.25
4	MP-2	X	.079	4
5	MP-2B	X	.039	1.75
6	MP-2B	X	.04	1.75
7	MP-3	X	.079	2
8	MP-3B	X	.045	3
9	MP-4	X	.041	1
10	MP-4	X	.314	3
11	MP-4	X	.002	3.25
12	MP-5	X	.051	4
13	MP-5B	X	.048	1.75
14	MP-5B	X	.043	1.75
15	MP-6	X	.051	2
16	MP-6B	X	.051	3
17	MP-7	X	.071	1
18	MP-7	X	.792	3
19	MP-7	X	.005	3.25
20	MP-8	X	.106	4
21	MP-8B	X	.03	1.75
22	MP-8B	X	.037	1.75
23	MP-9	X	.106	2
24	MP-9B	X	.039	3



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

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
25	MP-10	X	.031	.5
26	MP-10	X	.032	1.5
27	MP-1	X	.056	6
28	MP-2	X	.079	8
29	MP-3	X	.079	6
30	MP-4	X	.041	6
31	MP-5	X	.051	8
32	MP-6	X	.051	6
33	MP-7	X	.071	6
34	MP-8	X	.106	8
35	MP-9	X	.106	6
36	MP-1	Z	.056	1
37	MP-1	Z	.553	3
38	MP-1	Z	.003	3.25
39	MP-2	Z	.079	4
40	MP-2B	Z	.039	1.75
41	MP-2B	Z	.04	1.75
42	MP-3	Z	.079	2
43	MP-3B	Z	.045	3
44	MP-4	Z	.041	1
45	MP-4	Z	.314	3
46	MP-4	Z	.002	3.25
47	MP-5	Z	.051	4
48	MP-5B	Z	.048	1.75
49	MP-5B	Z	.043	1.75
50	MP-6	Z	.051	2
51	MP-6B	Z	.051	3
52	MP-7	Z	.071	1
53	MP-7	Z	.792	3
54	MP-7	Z	.005	3.25
55	MP-8	Z	.106	4
56	MP-8B	Z	.03	1.75
57	MP-8B	Z	.037	1.75
58	MP-9	Z	.106	2
59	MP-9B	Z	.039	3
60	MP-10	Z	.031	.5
61	MP-10	Z	.032	1.5
62	MP-1	Z	.056	6
63	MP-2	Z	.079	8
64	MP-3	Z	.079	6
65	MP-4	Z	.041	6
66	MP-5	Z	.051	8
67	MP-6	Z	.051	6
68	MP-7	Z	.071	6
69	MP-8	Z	.106	8
70	MP-9	Z	.106	6

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

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
1	MP-1	X	.034	1
2	MP-1	X	.294	3
3	MP-1	X	.002	3.25
4	MP-2	X	.044	4
5	MP-2B	X	.031	1.75
6	MP-2B	X	.03	1.75
7	MP-3	X	.044	2



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

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
8	MP-3B	X	.034	3
9	MP-4	X	.034	1
10	MP-4	X	.294	3
11	MP-4	X	.002	3.25
12	MP-5	X	.044	4
13	MP-5B	X	.031	1.75
14	MP-5B	X	.03	1.75
15	MP-6	X	.044	2
16	MP-6B	X	.034	3
17	MP-7	X	.052	1
18	MP-7	X	.586	3
19	MP-7	X	.003	3.25
20	MP-8	X	.078	4
21	MP-8B	X	.02	1.75
22	MP-8B	X	.026	1.75
23	MP-9	X	.078	2
24	MP-9B	X	.027	3
25	MP-10	X	.022	.5
26	MP-10	X	.023	1.5
27	MP-1	X	.034	6
28	MP-2	X	.044	8
29	MP-3	X	.044	6
30	MP-4	X	.034	6
31	MP-5	X	.044	8
32	MP-6	X	.044	6
33	MP-7	X	.052	6
34	MP-8	X	.078	8
35	MP-9	X	.078	6
36	MP-1	Z	.058	1
37	MP-1	Z	.509	3
38	MP-1	Z	.003	3.25
39	MP-2	Z	.077	4
40	MP-2B	Z	.054	1.75
41	MP-2B	Z	.051	1.75
42	MP-3	Z	.077	2
43	MP-3B	Z	.06	3
44	MP-4	Z	.058	1
45	MP-4	Z	.509	3
46	MP-4	Z	.003	3.25
47	MP-5	Z	.077	4
48	MP-5B	Z	.054	1.75
49	MP-5B	Z	.051	1.75
50	MP-6	Z	.077	2
51	MP-6B	Z	.06	3
52	MP-7	Z	.09	1
53	MP-7	Z	1.015	3
54	MP-7	Z	.006	3.25
55	MP-8	Z	.135	4
56	MP-8B	Z	.035	1.75
57	MP-8B	Z	.044	1.75
58	MP-9	Z	.135	2
59	MP-9B	Z	.046	3
60	MP-10	Z	.037	.5
61	MP-10	Z	.04	1.5
62	MP-1	Z	.058	6
63	MP-2	Z	.077	8
64	MP-3	Z	.077	6



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

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
65	MP-4	Z	.058	6
66	MP-5	Z	.077	8
67	MP-6	Z	.077	6
68	MP-7	Z	.09	6
69	MP-8	Z	.135	8
70	MP-9	Z	.135	6

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

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
1	MP-1	Z	.055	1
2	MP-1	Z	.392	3
3	MP-1	Z	.003	3.25
4	MP-2	Z	.066	4
5	MP-2B	Z	.07	1.75
6	MP-2B	Z	.062	1.75
7	MP-3	Z	.066	2
8	MP-3B	Z	.074	3
9	MP-4	Z	.092	1
10	MP-4	Z	.977	3
11	MP-4	Z	.006	3.25
12	MP-5	Z	.134	4
13	MP-5B	Z	.047	1.75
14	MP-5B	Z	.054	1.75
15	MP-6	Z	.134	2
16	MP-6B	Z	.058	3
17	MP-7	Z	.092	1
18	MP-7	Z	.977	3
19	MP-7	Z	.006	3.25
20	MP-8	Z	.134	4
21	MP-8B	Z	.047	1.75
22	MP-8B	Z	.054	1.75
23	MP-9	Z	.134	2
24	MP-9B	Z	.058	3
25	MP-10	Z	.043	.5
26	MP-10	Z	.046	1.5
27	MP-1	Z	.055	6
28	MP-2	Z	.066	8
29	MP-3	Z	.066	6
30	MP-4	Z	.092	6
31	MP-5	Z	.134	8
32	MP-6	Z	.134	6
33	MP-7	Z	.092	6
34	MP-8	Z	.134	8
35	MP-9	Z	.134	6

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

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
1	MP-1	X	-.034	1
2	MP-1	X	-.294	3
3	MP-1	X	-.002	3.25
4	MP-2	X	-.044	4
5	MP-2B	X	-.031	1.75
6	MP-2B	X	-.03	1.75
7	MP-3	X	-.044	2
8	MP-3B	X	-.034	3
9	MP-4	X	-.052	1



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

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
10	MP-4	X	-.586	3
11	MP-4	X	-.003	3.25
12	MP-5	X	-.078	4
13	MP-5B	X	-.02	1.75
14	MP-5B	X	-.026	1.75
15	MP-6	X	-.078	2
16	MP-6B	X	-.027	3
17	MP-7	X	-.034	1
18	MP-7	X	-.294	3
19	MP-7	X	-.002	3.25
20	MP-8	X	-.044	4
21	MP-8B	X	-.031	1.75
22	MP-8B	X	-.03	1.75
23	MP-9	X	-.044	2
24	MP-9B	X	-.034	3
25	MP-10	X	-.022	.5
26	MP-10	X	-.023	1.5
27	MP-1	X	-.034	6
28	MP-2	X	-.044	8
29	MP-3	X	-.044	6
30	MP-4	X	-.052	6
31	MP-5	X	-.078	8
32	MP-6	X	-.078	6
33	MP-7	X	-.034	6
34	MP-8	X	-.044	8
35	MP-9	X	-.044	6
36	MP-1	Z	.058	1
37	MP-1	Z	.509	3
38	MP-1	Z	.003	3.25
39	MP-2	Z	.077	4
40	MP-2B	Z	.054	1.75
41	MP-2B	Z	.051	1.75
42	MP-3	Z	.077	2
43	MP-3B	Z	.06	3
44	MP-4	Z	.09	1
45	MP-4	Z	1.015	3
46	MP-4	Z	.006	3.25
47	MP-5	Z	.135	4
48	MP-5B	Z	.035	1.75
49	MP-5B	Z	.044	1.75
50	MP-6	Z	.135	2
51	MP-6B	Z	.046	3
52	MP-7	Z	.058	1
53	MP-7	Z	.509	3
54	MP-7	Z	.003	3.25
55	MP-8	Z	.077	4
56	MP-8B	Z	.054	1.75
57	MP-8B	Z	.051	1.75
58	MP-9	Z	.077	2
59	MP-9B	Z	.06	3
60	MP-10	Z	.037	.5
61	MP-10	Z	.04	1.5
62	MP-1	Z	.058	6
63	MP-2	Z	.077	8
64	MP-3	Z	.077	6
65	MP-4	Z	.09	6
66	MP-5	Z	.135	8



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

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
67	MP-6	Z	.135	6
68	MP-7	Z	.058	6
69	MP-8	Z	.077	8
70	MP-9	Z	.077	6

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

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
1	MP-1	X	-.056	1
2	MP-1	X	-.553	3
3	MP-1	X	-.003	3.25
4	MP-2	X	-.079	4
5	MP-2B	X	-.039	1.75
6	MP-2B	X	-.04	1.75
7	MP-3	X	-.079	2
8	MP-3B	X	-.045	3
9	MP-4	X	-.071	1
10	MP-4	X	-.792	3
11	MP-4	X	-.005	3.25
12	MP-5	X	-.106	4
13	MP-5B	X	-.03	1.75
14	MP-5B	X	-.037	1.75
15	MP-6	X	-.106	2
16	MP-6B	X	-.039	3
17	MP-7	X	-.041	1
18	MP-7	X	-.314	3
19	MP-7	X	-.002	3.25
20	MP-8	X	-.051	4
21	MP-8B	X	-.048	1.75
22	MP-8B	X	-.043	1.75
23	MP-9	X	-.051	2
24	MP-9B	X	-.051	3
25	MP-10	X	-.031	.5
26	MP-10	X	-.032	1.5
27	MP-1	X	-.056	6
28	MP-2	X	-.079	8
29	MP-3	X	-.079	6
30	MP-4	X	-.071	6
31	MP-5	X	-.106	8
32	MP-6	X	-.106	6
33	MP-7	X	-.041	6
34	MP-8	X	-.051	8
35	MP-9	X	-.051	6
36	MP-1	Z	.056	1
37	MP-1	Z	.553	3
38	MP-1	Z	.003	3.25
39	MP-2	Z	.079	4
40	MP-2B	Z	.039	1.75
41	MP-2B	Z	.04	1.75
42	MP-3	Z	.079	2
43	MP-3B	Z	.045	3
44	MP-4	Z	.071	1
45	MP-4	Z	.792	3
46	MP-4	Z	.005	3.25
47	MP-5	Z	.106	4
48	MP-5B	Z	.03	1.75
49	MP-5B	Z	.037	1.75



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

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
50	MP-6	Z	.106	2
51	MP-6B	Z	.039	3
52	MP-7	Z	.041	1
53	MP-7	Z	.314	3
54	MP-7	Z	.002	3.25
55	MP-8	Z	.051	4
56	MP-8B	Z	.048	1.75
57	MP-8B	Z	.043	1.75
58	MP-9	Z	.051	2
59	MP-9B	Z	.051	3
60	MP-10	Z	.031	.5
61	MP-10	Z	.032	1.5
62	MP-1	Z	.056	6
63	MP-2	Z	.079	8
64	MP-3	Z	.079	6
65	MP-4	Z	.071	6
66	MP-5	Z	.106	8
67	MP-6	Z	.106	6
68	MP-7	Z	.041	6
69	MP-8	Z	.051	8
70	MP-9	Z	.051	6

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

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
1	MP-1	X	-.079	1
2	MP-1	X	-.846	3
3	MP-1	X	-.005	3.25
4	MP-2	X	-.116	4
5	MP-2B	X	-.041	1.75
6	MP-2B	X	-.047	1.75
7	MP-3	X	-.116	2
8	MP-3B	X	-.051	3
9	MP-4	X	-.079	1
10	MP-4	X	-.846	3
11	MP-4	X	-.005	3.25
12	MP-5	X	-.116	4
13	MP-5B	X	-.041	1.75
14	MP-5B	X	-.047	1.75
15	MP-6	X	-.116	2
16	MP-6B	X	-.051	3
17	MP-7	X	-.048	1
18	MP-7	X	-.34	3
19	MP-7	X	-.003	3.25
20	MP-8	X	-.057	4
21	MP-8B	X	-.06	1.75
22	MP-8B	X	-.054	1.75
23	MP-9	X	-.057	2
24	MP-9B	X	-.064	3
25	MP-10	X	-.037	.5
26	MP-10	X	-.04	1.5
27	MP-1	X	-.079	6
28	MP-2	X	-.116	8
29	MP-3	X	-.116	6
30	MP-4	X	-.079	6
31	MP-5	X	-.116	8
32	MP-6	X	-.116	6



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

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
33	MP-7	X	-.048	6
34	MP-8	X	-.057	8
35	MP-9	X	-.057	6
36	MP-1	Z	.046	1
37	MP-1	Z	.489	3
38	MP-1	Z	.003	3.25
39	MP-2	Z	.067	4
40	MP-2B	Z	.024	1.75
41	MP-2B	Z	.027	1.75
42	MP-3	Z	.067	2
43	MP-3B	Z	.029	3
44	MP-4	Z	.046	1
45	MP-4	Z	.489	3
46	MP-4	Z	.003	3.25
47	MP-5	Z	.067	4
48	MP-5B	Z	.024	1.75
49	MP-5B	Z	.027	1.75
50	MP-6	Z	.067	2
51	MP-6B	Z	.029	3
52	MP-7	Z	.028	1
53	MP-7	Z	.196	3
54	MP-7	Z	.002	3.25
55	MP-8	Z	.033	4
56	MP-8B	Z	.035	1.75
57	MP-8B	Z	.031	1.75
58	MP-9	Z	.033	2
59	MP-9B	Z	.037	3
60	MP-10	Z	.022	.5
61	MP-10	Z	.023	1.5
62	MP-1	Z	.046	6
63	MP-2	Z	.067	8
64	MP-3	Z	.067	6
65	MP-4	Z	.046	6
66	MP-5	Z	.067	8
67	MP-6	Z	.067	6
68	MP-7	Z	.028	6
69	MP-8	Z	.033	8
70	MP-9	Z	.033	6

Member Point Loads (BLC 18 : Ice Weight)

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
1	MP-1	Y	-.054	1
2	MP-1	Y	-.409	3
3	MP-1	Y	-.007	3.25
4	MP-2	Y	-.082	4
5	MP-2B	Y	-.053	1.75
6	MP-2B	Y	-.059	1.75
7	MP-3	Y	-.082	2
8	MP-3B	Y	-.061	3
9	MP-4	Y	-.054	1
10	MP-4	Y	-.409	3
11	MP-4	Y	-.007	3.25
12	MP-5	Y	-.082	4
13	MP-5B	Y	-.053	1.75
14	MP-5B	Y	-.059	1.75
15	MP-6	Y	-.082	2



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

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
16	MP-6B	Y	-.061	3
17	MP-7	Y	-.054	1
18	MP-7	Y	-.409	3
19	MP-7	Y	-.007	3.25
20	MP-8	Y	-.082	4
21	MP-8B	Y	-.053	1.75
22	MP-8B	Y	-.059	1.75
23	MP-9	Y	-.082	2
24	MP-9B	Y	-.061	3
25	MP-10	Y	-.059	.5
26	MP-10	Y	-.063	1.5
27	MP-1	Y	-.054	6
28	MP-2	Y	-.082	8
29	MP-3	Y	-.082	6
30	MP-4	Y	-.054	6
31	MP-5	Y	-.082	8
32	MP-6	Y	-.082	6
33	MP-7	Y	-.054	6
34	MP-8	Y	-.082	8
35	MP-9	Y	-.082	6

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

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
1	MP-1	X	-.025	1
2	MP-1	X	-.272	3
3	MP-1	X	-.003	3.25
4	MP-2	X	-.035	4
5	MP-2B	X	-.018	1.75
6	MP-2B	X	-.017	1.75
7	MP-3	X	-.035	2
8	MP-3B	X	-.02	3
9	MP-4	X	-.025	1
10	MP-4	X	-.272	3
11	MP-4	X	-.003	3.25
12	MP-5	X	-.035	4
13	MP-5B	X	-.018	1.75
14	MP-5B	X	-.017	1.75
15	MP-6	X	-.035	2
16	MP-6B	X	-.02	3
17	MP-7	X	-.025	1
18	MP-7	X	-.272	3
19	MP-7	X	-.003	3.25
20	MP-8	X	-.035	4
21	MP-8B	X	-.018	1.75
22	MP-8B	X	-.017	1.75
23	MP-9	X	-.035	2
24	MP-9B	X	-.02	3
25	MP-10	X	-.011	.5
26	MP-10	X	-.012	1.5
27	MP-1	X	-.025	6
28	MP-2	X	-.035	8
29	MP-3	X	-.035	6
30	MP-4	X	-.025	6
31	MP-5	X	-.035	8
32	MP-6	X	-.035	6
33	MP-7	X	-.025	6



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

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
34	MP-8	X	-.035	8
35	MP-9	X	-.035	6

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

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
1	MP-1	X	-.02	1
2	MP-1	X	-.211	3
3	MP-1	X	-.003	3.25
4	MP-2	X	-.026	4
5	MP-2B	X	-.012	1.75
6	MP-2B	X	-.013	1.75
7	MP-3	X	-.026	2
8	MP-3B	X	-.014	3
9	MP-4	X	-.014	1
10	MP-4	X	-.136	3
11	MP-4	X	-.002	3.25
12	MP-5	X	-.015	4
13	MP-5B	X	-.016	1.75
14	MP-5B	X	-.014	1.75
15	MP-6	X	-.015	2
16	MP-6B	X	-.017	3
17	MP-7	X	-.02	1
18	MP-7	X	-.211	3
19	MP-7	X	-.003	3.25
20	MP-8	X	-.026	4
21	MP-8B	X	-.012	1.75
22	MP-8B	X	-.013	1.75
23	MP-9	X	-.026	2
24	MP-9B	X	-.014	3
25	MP-10	X	-.01	.5
26	MP-10	X	-.01	1.5
27	MP-1	X	-.02	6
28	MP-2	X	-.026	8
29	MP-3	X	-.026	6
30	MP-4	X	-.014	6
31	MP-5	X	-.015	8
32	MP-6	X	-.015	6
33	MP-7	X	-.02	6
34	MP-8	X	-.026	8
35	MP-9	X	-.026	6
36	MP-1	Z	-.011	1
37	MP-1	Z	-.122	3
38	MP-1	Z	-.002	3.25
39	MP-2	Z	-.015	4
40	MP-2B	Z	-.007	1.75
41	MP-2B	Z	-.007	1.75
42	MP-3	Z	-.015	2
43	MP-3B	Z	-.008	3
44	MP-4	Z	-.008	1
45	MP-4	Z	-.079	3
46	MP-4	Z	-.001	3.25
47	MP-5	Z	-.009	4
48	MP-5B	Z	-.009	1.75
49	MP-5B	Z	-.008	1.75
50	MP-6	Z	-.009	2
51	MP-6B	Z	-.01	3



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

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
52	MP-7	Z	-0.11	1
53	MP-7	Z	-0.122	3
54	MP-7	Z	-0.002	3.25
55	MP-8	Z	-0.015	4
56	MP-8B	Z	-0.007	1.75
57	MP-8B	Z	-0.007	1.75
58	MP-9	Z	-0.015	2
59	MP-9B	Z	-0.008	3
60	MP-10	Z	-0.006	.5
61	MP-10	Z	-0.006	1.5
62	MP-1	Z	-0.011	6
63	MP-2	Z	-0.015	8
64	MP-3	Z	-0.015	6
65	MP-4	Z	-0.008	6
66	MP-5	Z	-0.009	8
67	MP-6	Z	-0.009	6
68	MP-7	Z	-0.011	6
69	MP-8	Z	-0.015	8
70	MP-9	Z	-0.015	6

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

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
1	MP-1	X	-0.014	1
2	MP-1	X	-0.152	3
3	MP-1	X	-0.002	3.25
4	MP-2	X	-0.018	4
5	MP-2B	X	-0.011	1.75
6	MP-2B	X	-0.011	1.75
7	MP-3	X	-0.018	2
8	MP-3B	X	-0.012	3
9	MP-4	X	-0.012	1
10	MP-4	X	-0.117	3
11	MP-4	X	-0.002	3.25
12	MP-5	X	-0.013	4
13	MP-5B	X	-0.013	1.75
14	MP-5B	X	-0.012	1.75
15	MP-6	X	-0.013	2
16	MP-6B	X	-0.014	3
17	MP-7	X	-0.017	1
18	MP-7	X	-0.187	3
19	MP-7	X	-0.002	3.25
20	MP-8	X	-0.024	4
21	MP-8B	X	-0.009	1.75
22	MP-8B	X	-0.01	1.75
23	MP-9	X	-0.024	2
24	MP-9B	X	-0.011	3
25	MP-10	X	-0.008	.5
26	MP-10	X	-0.008	1.5
27	MP-1	X	-0.014	6
28	MP-2	X	-0.018	8
29	MP-3	X	-0.018	6
30	MP-4	X	-0.012	6
31	MP-5	X	-0.013	8
32	MP-6	X	-0.013	6
33	MP-7	X	-0.017	6
34	MP-8	X	-0.024	8



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

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
35	MP-9	X	-0.024	6
36	MP-1	Z	-0.014	1
37	MP-1	Z	-0.152	3
38	MP-1	Z	-0.002	3.25
39	MP-2	Z	-0.018	4
40	MP-2B	Z	-0.011	1.75
41	MP-2B	Z	-0.011	1.75
42	MP-3	Z	-0.018	2
43	MP-3B	Z	-0.012	3
44	MP-4	Z	-0.012	1
45	MP-4	Z	-0.117	3
46	MP-4	Z	-0.002	3.25
47	MP-5	Z	-0.013	4
48	MP-5B	Z	-0.013	1.75
49	MP-5B	Z	-0.012	1.75
50	MP-6	Z	-0.013	2
51	MP-6B	Z	-0.014	3
52	MP-7	Z	-0.017	1
53	MP-7	Z	-0.187	3
54	MP-7	Z	-0.002	3.25
55	MP-8	Z	-0.024	4
56	MP-8B	Z	-0.009	1.75
57	MP-8B	Z	-0.01	1.75
58	MP-9	Z	-0.024	2
59	MP-9B	Z	-0.011	3
60	MP-10	Z	-0.008	.5
61	MP-10	Z	-0.008	1.5
62	MP-1	Z	-0.014	6
63	MP-2	Z	-0.018	8
64	MP-3	Z	-0.018	6
65	MP-4	Z	-0.012	6
66	MP-5	Z	-0.013	8
67	MP-6	Z	-0.013	6
68	MP-7	Z	-0.017	6
69	MP-8	Z	-0.024	8
70	MP-9	Z	-0.024	6

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

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
1	MP-1	X	-0.009	1
2	MP-1	X	-0.093	3
3	MP-1	X	-0.001	3.25
4	MP-2	X	-0.011	4
5	MP-2B	X	-0.008	1.75
6	MP-2B	X	-0.008	1.75
7	MP-3	X	-0.011	2
8	MP-3B	X	-0.009	3
9	MP-4	X	-0.009	1
10	MP-4	X	-0.093	3
11	MP-4	X	-0.001	3.25
12	MP-5	X	-0.011	4
13	MP-5B	X	-0.008	1.75
14	MP-5B	X	-0.008	1.75
15	MP-6	X	-0.011	2
16	MP-6B	X	-0.009	3
17	MP-7	X	-0.012	1



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

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
18	MP-7	X	-136	3
19	MP-7	X	-.002	3.25
20	MP-8	X	-.018	4
21	MP-8B	X	-.006	1.75
22	MP-8B	X	-.007	1.75
23	MP-9	X	-.018	2
24	MP-9B	X	-.007	3
25	MP-10	X	-.006	.5
26	MP-10	X	-.006	1.5
27	MP-1	X	-.009	6
28	MP-2	X	-.011	8
29	MP-3	X	-.011	6
30	MP-4	X	-.009	6
31	MP-5	X	-.011	8
32	MP-6	X	-.011	6
33	MP-7	X	-.012	6
34	MP-8	X	-.018	8
35	MP-9	X	-.018	6
36	MP-1	Z	-.016	1
37	MP-1	Z	-.161	3
38	MP-1	Z	-.002	3.25
39	MP-2	Z	-.019	4
40	MP-2B	Z	-.015	1.75
41	MP-2B	Z	-.014	1.75
42	MP-3	Z	-.019	2
43	MP-3B	Z	-.016	3
44	MP-4	Z	-.016	1
45	MP-4	Z	-.161	3
46	MP-4	Z	-.002	3.25
47	MP-5	Z	-.019	4
48	MP-5B	Z	-.015	1.75
49	MP-5B	Z	-.014	1.75
50	MP-6	Z	-.019	2
51	MP-6B	Z	-.016	3
52	MP-7	Z	-.022	1
53	MP-7	Z	-.235	3
54	MP-7	Z	-.003	3.25
55	MP-8	Z	-.03	4
56	MP-8B	Z	-.01	1.75
57	MP-8B	Z	-.012	1.75
58	MP-9	Z	-.03	2
59	MP-9B	Z	-.013	3
60	MP-10	Z	-.01	.5
61	MP-10	Z	-.01	1.5
62	MP-1	Z	-.016	6
63	MP-2	Z	-.019	8
64	MP-3	Z	-.019	6
65	MP-4	Z	-.016	6
66	MP-5	Z	-.019	8
67	MP-6	Z	-.019	6
68	MP-7	Z	-.022	6
69	MP-8	Z	-.03	8
70	MP-9	Z	-.03	6

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

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
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Member Point Loads (BLC 23 : 90 Wind - Ice) (Continued)

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
1	MP-1	Z	-.016	1
2	MP-1	Z	-.157	3
3	MP-1	Z	-.002	3.25
4	MP-2	Z	-.017	4
5	MP-2B	Z	-.012	1.75
6	MP-2B	Z	-.014	1.75
7	MP-3	Z	-.017	2
8	MP-3B	Z	-.015	3
9	MP-4	Z	-.016	1
10	MP-4	Z	-.157	3
11	MP-4	Z	-.002	3.25
12	MP-5	Z	-.017	4
13	MP-5B	Z	-.012	1.75
14	MP-5B	Z	-.014	1.75
15	MP-6	Z	-.017	2
16	MP-6B	Z	-.015	3
17	MP-7	Z	-.016	1
18	MP-7	Z	-.157	3
19	MP-7	Z	-.002	3.25
20	MP-8	Z	-.017	4
21	MP-8B	Z	-.012	1.75
22	MP-8B	Z	-.014	1.75
23	MP-9	Z	-.017	2
24	MP-9B	Z	-.015	3
25	MP-10	Z	-.011	.5
26	MP-10	Z	-.012	1.5
27	MP-1	Z	-.016	6
28	MP-2	Z	-.017	8
29	MP-3	Z	-.017	6
30	MP-4	Z	-.016	6
31	MP-5	Z	-.017	8
32	MP-6	Z	-.017	6
33	MP-7	Z	-.016	6
34	MP-8	Z	-.017	8
35	MP-9	Z	-.017	6

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

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
1	MP-1	X	.009	1
2	MP-1	X	.093	3
3	MP-1	X	.001	3.25
4	MP-2	X	.011	4
5	MP-2B	X	.008	1.75
6	MP-2B	X	.008	1.75
7	MP-3	X	.011	2
8	MP-3B	X	.009	3
9	MP-4	X	.012	1
10	MP-4	X	.136	3
11	MP-4	X	.002	3.25
12	MP-5	X	.018	4
13	MP-5B	X	.006	1.75
14	MP-5B	X	.007	1.75
15	MP-6	X	.018	2
16	MP-6B	X	.007	3
17	MP-7	X	.009	1
18	MP-7	X	.093	3



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

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
19	MP-7	X	.001	3.25
20	MP-8	X	.011	4
21	MP-8B	X	.008	1.75
22	MP-8B	X	.008	1.75
23	MP-9	X	.011	2
24	MP-9B	X	.009	3
25	MP-10	X	.006	.5
26	MP-10	X	.006	1.5
27	MP-1	X	.009	6
28	MP-2	X	.011	8
29	MP-3	X	.011	6
30	MP-4	X	.012	6
31	MP-5	X	.018	8
32	MP-6	X	.018	6
33	MP-7	X	.009	6
34	MP-8	X	.011	8
35	MP-9	X	.011	6
36	MP-1	Z	-.016	1
37	MP-1	Z	-.161	3
38	MP-1	Z	-.002	3.25
39	MP-2	Z	-.019	4
40	MP-2B	Z	-.015	1.75
41	MP-2B	Z	-.014	1.75
42	MP-3	Z	-.019	2
43	MP-3B	Z	-.016	3
44	MP-4	Z	-.022	1
45	MP-4	Z	-.235	3
46	MP-4	Z	-.003	3.25
47	MP-5	Z	-.03	4
48	MP-5B	Z	-.01	1.75
49	MP-5B	Z	-.012	1.75
50	MP-6	Z	-.03	2
51	MP-6B	Z	-.013	3
52	MP-7	Z	-.016	1
53	MP-7	Z	-.161	3
54	MP-7	Z	-.002	3.25
55	MP-8	Z	-.019	4
56	MP-8B	Z	-.015	1.75
57	MP-8B	Z	-.014	1.75
58	MP-9	Z	-.019	2
59	MP-9B	Z	-.016	3
60	MP-10	Z	-.01	.5
61	MP-10	Z	-.01	1.5
62	MP-1	Z	-.016	6
63	MP-2	Z	-.019	8
64	MP-3	Z	-.019	6
65	MP-4	Z	-.022	6
66	MP-5	Z	-.03	8
67	MP-6	Z	-.03	6
68	MP-7	Z	-.016	6
69	MP-8	Z	-.019	8
70	MP-9	Z	-.019	6

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

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
1	MP-1	X	.014	1



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

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
2	MP-1	X	.152	3
3	MP-1	X	.002	3.25
4	MP-2	X	.018	4
5	MP-2B	X	.011	1.75
6	MP-2B	X	.011	1.75
7	MP-3	X	.018	2
8	MP-3B	X	.012	3
9	MP-4	X	.017	1
10	MP-4	X	.187	3
11	MP-4	X	.002	3.25
12	MP-5	X	.024	4
13	MP-5B	X	.009	1.75
14	MP-5B	X	.01	1.75
15	MP-6	X	.024	2
16	MP-6B	X	.011	3
17	MP-7	X	.012	1
18	MP-7	X	.117	3
19	MP-7	X	.002	3.25
20	MP-8	X	.013	4
21	MP-8B	X	.013	1.75
22	MP-8B	X	.012	1.75
23	MP-9	X	.013	2
24	MP-9B	X	.014	3
25	MP-10	X	.008	.5
26	MP-10	X	.008	1.5
27	MP-1	X	.014	6
28	MP-2	X	.018	8
29	MP-3	X	.018	6
30	MP-4	X	.017	6
31	MP-5	X	.024	8
32	MP-6	X	.024	6
33	MP-7	X	.012	6
34	MP-8	X	.013	8
35	MP-9	X	.013	6
36	MP-1	Z	-.014	1
37	MP-1	Z	-.152	3
38	MP-1	Z	-.002	3.25
39	MP-2	Z	-.018	4
40	MP-2B	Z	-.011	1.75
41	MP-2B	Z	-.011	1.75
42	MP-3	Z	-.018	2
43	MP-3B	Z	-.012	3
44	MP-4	Z	-.017	1
45	MP-4	Z	-.187	3
46	MP-4	Z	-.002	3.25
47	MP-5	Z	-.024	4
48	MP-5B	Z	-.009	1.75
49	MP-5B	Z	-.01	1.75
50	MP-6	Z	-.024	2
51	MP-6B	Z	-.011	3
52	MP-7	Z	-.012	1
53	MP-7	Z	-.117	3
54	MP-7	Z	-.002	3.25
55	MP-8	Z	-.013	4
56	MP-8B	Z	-.013	1.75
57	MP-8B	Z	-.012	1.75
58	MP-9	Z	-.013	2



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

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
59	MP-9B	Z	-.014	3
60	MP-10	Z	-.008	.5
61	MP-10	Z	-.008	1.5
62	MP-1	Z	-.014	6
63	MP-2	Z	-.018	8
64	MP-3	Z	-.018	6
65	MP-4	Z	-.017	6
66	MP-5	Z	-.024	8
67	MP-6	Z	-.024	6
68	MP-7	Z	-.012	6
69	MP-8	Z	-.013	8
70	MP-9	Z	-.013	6

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

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
1	MP-1	X	.02	1
2	MP-1	X	.211	3
3	MP-1	X	.003	3.25
4	MP-2	X	.026	4
5	MP-2B	X	.012	1.75
6	MP-2B	X	.013	1.75
7	MP-3	X	.026	2
8	MP-3B	X	.014	3
9	MP-4	X	.02	1
10	MP-4	X	.211	3
11	MP-4	X	.003	3.25
12	MP-5	X	.026	4
13	MP-5B	X	.012	1.75
14	MP-5B	X	.013	1.75
15	MP-6	X	.026	2
16	MP-6B	X	.014	3
17	MP-7	X	.014	1
18	MP-7	X	.136	3
19	MP-7	X	.002	3.25
20	MP-8	X	.015	4
21	MP-8B	X	.016	1.75
22	MP-8B	X	.014	1.75
23	MP-9	X	.015	2
24	MP-9B	X	.017	3
25	MP-10	X	.01	.5
26	MP-10	X	.01	1.5
27	MP-1	X	.02	6
28	MP-2	X	.026	8
29	MP-3	X	.026	6
30	MP-4	X	.02	6
31	MP-5	X	.026	8
32	MP-6	X	.026	6
33	MP-7	X	.014	6
34	MP-8	X	.015	8
35	MP-9	X	.015	6
36	MP-1	Z	-.011	1
37	MP-1	Z	-.122	3
38	MP-1	Z	-.002	3.25
39	MP-2	Z	-.015	4
40	MP-2B	Z	-.007	1.75
41	MP-2B	Z	-.007	1.75



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

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
42	MP-3	Z	-.015	2
43	MP-3B	Z	-.008	3
44	MP-4	Z	-.011	1
45	MP-4	Z	-.122	3
46	MP-4	Z	-.002	3.25
47	MP-5	Z	-.015	4
48	MP-5B	Z	-.007	1.75
49	MP-5B	Z	-.007	1.75
50	MP-6	Z	-.015	2
51	MP-6B	Z	-.008	3
52	MP-7	Z	-.008	1
53	MP-7	Z	-.079	3
54	MP-7	Z	-.001	3.25
55	MP-8	Z	-.009	4
56	MP-8B	Z	-.009	1.75
57	MP-8B	Z	-.008	1.75
58	MP-9	Z	-.009	2
59	MP-9B	Z	-.01	3
60	MP-10	Z	-.006	.5
61	MP-10	Z	-.006	1.5
62	MP-1	Z	-.011	6
63	MP-2	Z	-.015	8
64	MP-3	Z	-.015	6
65	MP-4	Z	-.011	6
66	MP-5	Z	-.015	8
67	MP-6	Z	-.015	6
68	MP-7	Z	-.008	6
69	MP-8	Z	-.009	8
70	MP-9	Z	-.009	6

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

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
1	MP-1	X	.025	1
2	MP-1	X	.272	3
3	MP-1	X	.003	3.25
4	MP-2	X	.035	4
5	MP-2B	X	.018	1.75
6	MP-2B	X	.017	1.75
7	MP-3	X	.035	2
8	MP-3B	X	.02	3
9	MP-4	X	.025	1
10	MP-4	X	.272	3
11	MP-4	X	.003	3.25
12	MP-5	X	.035	4
13	MP-5B	X	.018	1.75
14	MP-5B	X	.017	1.75
15	MP-6	X	.035	2
16	MP-6B	X	.02	3
17	MP-7	X	.025	1
18	MP-7	X	.272	3
19	MP-7	X	.003	3.25
20	MP-8	X	.035	4
21	MP-8B	X	.018	1.75
22	MP-8B	X	.017	1.75
23	MP-9	X	.035	2
24	MP-9B	X	.02	3



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

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
25	MP-10	X	.011	.5
26	MP-10	X	.012	1.5
27	MP-1	X	.025	6
28	MP-2	X	.035	8
29	MP-3	X	.035	6
30	MP-4	X	.025	6
31	MP-5	X	.035	8
32	MP-6	X	.035	6
33	MP-7	X	.025	6
34	MP-8	X	.035	8
35	MP-9	X	.035	6

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

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
1	MP-1	X	.02	1
2	MP-1	X	.211	3
3	MP-1	X	.003	3.25
4	MP-2	X	.026	4
5	MP-2B	X	.012	1.75
6	MP-2B	X	.013	1.75
7	MP-3	X	.026	2
8	MP-3B	X	.014	3
9	MP-4	X	.014	1
10	MP-4	X	.136	3
11	MP-4	X	.002	3.25
12	MP-5	X	.015	4
13	MP-5B	X	.016	1.75
14	MP-5B	X	.014	1.75
15	MP-6	X	.015	2
16	MP-6B	X	.017	3
17	MP-7	X	.02	1
18	MP-7	X	.211	3
19	MP-7	X	.003	3.25
20	MP-8	X	.026	4
21	MP-8B	X	.012	1.75
22	MP-8B	X	.013	1.75
23	MP-9	X	.026	2
24	MP-9B	X	.014	3
25	MP-10	X	.01	.5
26	MP-10	X	.01	1.5
27	MP-1	X	.02	6
28	MP-2	X	.026	8
29	MP-3	X	.026	6
30	MP-4	X	.014	6
31	MP-5	X	.015	8
32	MP-6	X	.015	6
33	MP-7	X	.02	6
34	MP-8	X	.026	8
35	MP-9	X	.026	6
36	MP-1	Z	.011	1
37	MP-1	Z	.122	3
38	MP-1	Z	.002	3.25
39	MP-2	Z	.015	4
40	MP-2B	Z	.007	1.75
41	MP-2B	Z	.007	1.75
42	MP-3	Z	.015	2



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

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
43	MP-3B	Z	.008	3
44	MP-4	Z	.008	1
45	MP-4	Z	.079	3
46	MP-4	Z	.001	3.25
47	MP-5	Z	.009	4
48	MP-5B	Z	.009	1.75
49	MP-5B	Z	.008	1.75
50	MP-6	Z	.009	2
51	MP-6B	Z	.01	3
52	MP-7	Z	.011	1
53	MP-7	Z	.122	3
54	MP-7	Z	.002	3.25
55	MP-8	Z	.015	4
56	MP-8B	Z	.007	1.75
57	MP-8B	Z	.007	1.75
58	MP-9	Z	.015	2
59	MP-9B	Z	.008	3
60	MP-10	Z	.006	.5
61	MP-10	Z	.006	1.5
62	MP-1	Z	.011	6
63	MP-2	Z	.015	8
64	MP-3	Z	.015	6
65	MP-4	Z	.008	6
66	MP-5	Z	.009	8
67	MP-6	Z	.009	6
68	MP-7	Z	.011	6
69	MP-8	Z	.015	8
70	MP-9	Z	.015	6

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

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
1	MP-1	X	.014	1
2	MP-1	X	.152	3
3	MP-1	X	.002	3.25
4	MP-2	X	.018	4
5	MP-2B	X	.011	1.75
6	MP-2B	X	.011	1.75
7	MP-3	X	.018	2
8	MP-3B	X	.012	3
9	MP-4	X	.012	1
10	MP-4	X	.117	3
11	MP-4	X	.002	3.25
12	MP-5	X	.013	4
13	MP-5B	X	.013	1.75
14	MP-5B	X	.012	1.75
15	MP-6	X	.013	2
16	MP-6B	X	.014	3
17	MP-7	X	.017	1
18	MP-7	X	.187	3
19	MP-7	X	.002	3.25
20	MP-8	X	.024	4
21	MP-8B	X	.009	1.75
22	MP-8B	X	.01	1.75
23	MP-9	X	.024	2
24	MP-9B	X	.011	3
25	MP-10	X	.008	.5



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

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
26	MP-10	X	.008	1.5
27	MP-1	X	.014	6
28	MP-2	X	.018	8
29	MP-3	X	.018	6
30	MP-4	X	.012	6
31	MP-5	X	.013	8
32	MP-6	X	.013	6
33	MP-7	X	.017	6
34	MP-8	X	.024	8
35	MP-9	X	.024	6
36	MP-1	Z	.014	1
37	MP-1	Z	.152	3
38	MP-1	Z	.002	3.25
39	MP-2	Z	.018	4
40	MP-2B	Z	.011	1.75
41	MP-2B	Z	.011	1.75
42	MP-3	Z	.018	2
43	MP-3B	Z	.012	3
44	MP-4	Z	.012	1
45	MP-4	Z	.117	3
46	MP-4	Z	.002	3.25
47	MP-5	Z	.013	4
48	MP-5B	Z	.013	1.75
49	MP-5B	Z	.012	1.75
50	MP-6	Z	.013	2
51	MP-6B	Z	.014	3
52	MP-7	Z	.017	1
53	MP-7	Z	.187	3
54	MP-7	Z	.002	3.25
55	MP-8	Z	.024	4
56	MP-8B	Z	.009	1.75
57	MP-8B	Z	.01	1.75
58	MP-9	Z	.024	2
59	MP-9B	Z	.011	3
60	MP-10	Z	.008	.5
61	MP-10	Z	.008	1.5
62	MP-1	Z	.014	6
63	MP-2	Z	.018	8
64	MP-3	Z	.018	6
65	MP-4	Z	.012	6
66	MP-5	Z	.013	8
67	MP-6	Z	.013	6
68	MP-7	Z	.017	6
69	MP-8	Z	.024	8
70	MP-9	Z	.024	6

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

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
1	MP-1	X	.009	1
2	MP-1	X	.093	3
3	MP-1	X	.001	3.25
4	MP-2	X	.011	4
5	MP-2B	X	.008	1.75
6	MP-2B	X	.008	1.75
7	MP-3	X	.011	2
8	MP-3B	X	.009	3



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

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
9	MP-4	X	.009	1
10	MP-4	X	.093	3
11	MP-4	X	.001	3.25
12	MP-5	X	.011	4
13	MP-5B	X	.008	1.75
14	MP-5B	X	.008	1.75
15	MP-6	X	.011	2
16	MP-6B	X	.009	3
17	MP-7	X	.012	1
18	MP-7	X	.136	3
19	MP-7	X	.002	3.25
20	MP-8	X	.018	4
21	MP-8B	X	.006	1.75
22	MP-8B	X	.007	1.75
23	MP-9	X	.018	2
24	MP-9B	X	.007	3
25	MP-10	X	.006	.5
26	MP-10	X	.006	1.5
27	MP-1	X	.009	6
28	MP-2	X	.011	8
29	MP-3	X	.011	6
30	MP-4	X	.009	6
31	MP-5	X	.011	8
32	MP-6	X	.011	6
33	MP-7	X	.012	6
34	MP-8	X	.018	8
35	MP-9	X	.018	6
36	MP-1	Z	.016	1
37	MP-1	Z	.161	3
38	MP-1	Z	.002	3.25
39	MP-2	Z	.019	4
40	MP-2B	Z	.015	1.75
41	MP-2B	Z	.014	1.75
42	MP-3	Z	.019	2
43	MP-3B	Z	.016	3
44	MP-4	Z	.016	1
45	MP-4	Z	.161	3
46	MP-4	Z	.002	3.25
47	MP-5	Z	.019	4
48	MP-5B	Z	.015	1.75
49	MP-5B	Z	.014	1.75
50	MP-6	Z	.019	2
51	MP-6B	Z	.016	3
52	MP-7	Z	.022	1
53	MP-7	Z	.235	3
54	MP-7	Z	.003	3.25
55	MP-8	Z	.03	4
56	MP-8B	Z	.01	1.75
57	MP-8B	Z	.012	1.75
58	MP-9	Z	.03	2
59	MP-9B	Z	.013	3
60	MP-10	Z	.01	.5
61	MP-10	Z	.01	1.5
62	MP-1	Z	.016	6
63	MP-2	Z	.019	8
64	MP-3	Z	.019	6
65	MP-4	Z	.016	6



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

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
66	MP-5	Z	.019	8
67	MP-6	Z	.019	6
68	MP-7	Z	.022	6
69	MP-8	Z	.03	8
70	MP-9	Z	.03	6

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

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
1	MP-1	Z	.016	1
2	MP-1	Z	.157	3
3	MP-1	Z	.002	3.25
4	MP-2	Z	.017	4
5	MP-2B	Z	.012	1.75
6	MP-2B	Z	.014	1.75
7	MP-3	Z	.017	2
8	MP-3B	Z	.015	3
9	MP-4	Z	.016	1
10	MP-4	Z	.157	3
11	MP-4	Z	.002	3.25
12	MP-5	Z	.017	4
13	MP-5B	Z	.012	1.75
14	MP-5B	Z	.014	1.75
15	MP-6	Z	.017	2
16	MP-6B	Z	.015	3
17	MP-7	Z	.016	1
18	MP-7	Z	.157	3
19	MP-7	Z	.002	3.25
20	MP-8	Z	.017	4
21	MP-8B	Z	.012	1.75
22	MP-8B	Z	.014	1.75
23	MP-9	Z	.017	2
24	MP-9B	Z	.015	3
25	MP-10	Z	.011	.5
26	MP-10	Z	.012	1.5
27	MP-1	Z	.016	6
28	MP-2	Z	.017	8
29	MP-3	Z	.017	6
30	MP-4	Z	.016	6
31	MP-5	Z	.017	8
32	MP-6	Z	.017	6
33	MP-7	Z	.016	6
34	MP-8	Z	.017	8
35	MP-9	Z	.017	6

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

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
1	MP-1	X	-.009	1
2	MP-1	X	-.093	3
3	MP-1	X	-.001	3.25
4	MP-2	X	-.011	4
5	MP-2B	X	-.008	1.75
6	MP-2B	X	-.008	1.75
7	MP-3	X	-.011	2
8	MP-3B	X	-.009	3
9	MP-4	X	-.012	1
10	MP-4	X	-.136	3



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

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
11	MP-4	X	-.002	3.25
12	MP-5	X	-.018	4
13	MP-5B	X	-.006	1.75
14	MP-5B	X	-.007	1.75
15	MP-6	X	-.018	2
16	MP-6B	X	-.007	3
17	MP-7	X	-.009	1
18	MP-7	X	-.093	3
19	MP-7	X	-.001	3.25
20	MP-8	X	-.011	4
21	MP-8B	X	-.008	1.75
22	MP-8B	X	-.008	1.75
23	MP-9	X	-.011	2
24	MP-9B	X	-.009	3
25	MP-10	X	-.006	.5
26	MP-10	X	-.006	1.5
27	MP-1	X	-.009	6
28	MP-2	X	-.011	8
29	MP-3	X	-.011	6
30	MP-4	X	-.012	6
31	MP-5	X	-.018	8
32	MP-6	X	-.018	6
33	MP-7	X	-.009	6
34	MP-8	X	-.011	8
35	MP-9	X	-.011	6
36	MP-1	Z	.016	1
37	MP-1	Z	.161	3
38	MP-1	Z	.002	3.25
39	MP-2	Z	.019	4
40	MP-2B	Z	.015	1.75
41	MP-2B	Z	.014	1.75
42	MP-3	Z	.019	2
43	MP-3B	Z	.016	3
44	MP-4	Z	.022	1
45	MP-4	Z	.235	3
46	MP-4	Z	.003	3.25
47	MP-5	Z	.03	4
48	MP-5B	Z	.01	1.75
49	MP-5B	Z	.012	1.75
50	MP-6	Z	.03	2
51	MP-6B	Z	.013	3
52	MP-7	Z	.016	1
53	MP-7	Z	.161	3
54	MP-7	Z	.002	3.25
55	MP-8	Z	.019	4
56	MP-8B	Z	.015	1.75
57	MP-8B	Z	.014	1.75
58	MP-9	Z	.019	2
59	MP-9B	Z	.016	3
60	MP-10	Z	.01	.5
61	MP-10	Z	.01	1.5
62	MP-1	Z	.016	6
63	MP-2	Z	.019	8
64	MP-3	Z	.019	6
65	MP-4	Z	.022	6
66	MP-5	Z	.03	8
67	MP-6	Z	.03	6



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

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
68	MP-7	Z	.016	6
69	MP-8	Z	.019	8
70	MP-9	Z	.019	6

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

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
1	MP-1	X	-.014	1
2	MP-1	X	-.152	3
3	MP-1	X	-.002	3.25
4	MP-2	X	-.018	4
5	MP-2B	X	-.011	1.75
6	MP-2B	X	-.011	1.75
7	MP-3	X	-.018	2
8	MP-3B	X	-.012	3
9	MP-4	X	-.017	1
10	MP-4	X	-.187	3
11	MP-4	X	-.002	3.25
12	MP-5	X	-.024	4
13	MP-5B	X	-.009	1.75
14	MP-5B	X	-.01	1.75
15	MP-6	X	-.024	2
16	MP-6B	X	-.011	3
17	MP-7	X	-.012	1
18	MP-7	X	-.117	3
19	MP-7	X	-.002	3.25
20	MP-8	X	-.013	4
21	MP-8B	X	-.013	1.75
22	MP-8B	X	-.012	1.75
23	MP-9	X	-.013	2
24	MP-9B	X	-.014	3
25	MP-10	X	-.008	.5
26	MP-10	X	-.008	1.5
27	MP-1	X	-.014	6
28	MP-2	X	-.018	8
29	MP-3	X	-.018	6
30	MP-4	X	-.017	6
31	MP-5	X	-.024	8
32	MP-6	X	-.024	6
33	MP-7	X	-.012	6
34	MP-8	X	-.013	8
35	MP-9	X	-.013	6
36	MP-1	Z	.014	1
37	MP-1	Z	.152	3
38	MP-1	Z	.002	3.25
39	MP-2	Z	.018	4
40	MP-2B	Z	.011	1.75
41	MP-2B	Z	.011	1.75
42	MP-3	Z	.018	2
43	MP-3B	Z	.012	3
44	MP-4	Z	.017	1
45	MP-4	Z	.187	3
46	MP-4	Z	.002	3.25
47	MP-5	Z	.024	4
48	MP-5B	Z	.009	1.75
49	MP-5B	Z	.01	1.75
50	MP-6	Z	.024	2



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

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
51	MP-6B	Z	.011	3
52	MP-7	Z	.012	1
53	MP-7	Z	.117	3
54	MP-7	Z	.002	3.25
55	MP-8	Z	.013	4
56	MP-8B	Z	.013	1.75
57	MP-8B	Z	.012	1.75
58	MP-9	Z	.013	2
59	MP-9B	Z	.014	3
60	MP-10	Z	.008	.5
61	MP-10	Z	.008	1.5
62	MP-1	Z	.014	6
63	MP-2	Z	.018	8
64	MP-3	Z	.018	6
65	MP-4	Z	.017	6
66	MP-5	Z	.024	8
67	MP-6	Z	.024	6
68	MP-7	Z	.012	6
69	MP-8	Z	.013	8
70	MP-9	Z	.013	6

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

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
1	MP-1	X	-.02	1
2	MP-1	X	-.211	3
3	MP-1	X	-.003	3.25
4	MP-2	X	-.026	4
5	MP-2B	X	-.012	1.75
6	MP-2B	X	-.013	1.75
7	MP-3	X	-.026	2
8	MP-3B	X	-.014	3
9	MP-4	X	-.02	1
10	MP-4	X	-.211	3
11	MP-4	X	-.003	3.25
12	MP-5	X	-.026	4
13	MP-5B	X	-.012	1.75
14	MP-5B	X	-.013	1.75
15	MP-6	X	-.026	2
16	MP-6B	X	-.014	3
17	MP-7	X	-.014	1
18	MP-7	X	-.136	3
19	MP-7	X	-.002	3.25
20	MP-8	X	-.015	4
21	MP-8B	X	-.016	1.75
22	MP-8B	X	-.014	1.75
23	MP-9	X	-.015	2
24	MP-9B	X	-.017	3
25	MP-10	X	-.01	.5
26	MP-10	X	-.01	1.5
27	MP-1	X	-.02	6
28	MP-2	X	-.026	8
29	MP-3	X	-.026	6
30	MP-4	X	-.02	6
31	MP-5	X	-.026	8
32	MP-6	X	-.026	6
33	MP-7	X	-.014	6



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

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
34	MP-8	X	-.015	8
35	MP-9	X	-.015	6
36	MP-1	Z	.011	1
37	MP-1	Z	.122	3
38	MP-1	Z	.002	3.25
39	MP-2	Z	.015	4
40	MP-2B	Z	.007	1.75
41	MP-2B	Z	.007	1.75
42	MP-3	Z	.015	2
43	MP-3B	Z	.008	3
44	MP-4	Z	.011	1
45	MP-4	Z	.122	3
46	MP-4	Z	.002	3.25
47	MP-5	Z	.015	4
48	MP-5B	Z	.007	1.75
49	MP-5B	Z	.007	1.75
50	MP-6	Z	.015	2
51	MP-6B	Z	.008	3
52	MP-7	Z	.008	1
53	MP-7	Z	.079	3
54	MP-7	Z	.001	3.25
55	MP-8	Z	.009	4
56	MP-8B	Z	.009	1.75
57	MP-8B	Z	.008	1.75
58	MP-9	Z	.009	2
59	MP-9B	Z	.01	3
60	MP-10	Z	.006	.5
61	MP-10	Z	.006	1.5
62	MP-1	Z	.011	6
63	MP-2	Z	.015	8
64	MP-3	Z	.015	6
65	MP-4	Z	.011	6
66	MP-5	Z	.015	8
67	MP-6	Z	.015	6
68	MP-7	Z	.008	6
69	MP-8	Z	.009	8
70	MP-9	Z	.009	6

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

	Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
1	CP-1	X	-.011	-.011	0	%100
2	CP-2	X	-.023	-.023	0	%100
3	CP-3	X	-.011	-.011	0	%100
4	FF-TH	X	-.011	-.011	0	%100
5	GSI-1A	X	-.008	-.008	0	%100
6	GSI-1B	X	-.008	-.008	0	%100
7	GSI-2A	X	-.018	-.018	0	%100
8	GSI-2B	X	-.018	-.018	0	%100
9	GSI-3A	X	-.008	-.008	0	%100
10	GSI-3B	X	-.008	-.008	0	%100
11	GSIP-1A	X	-.012	-.012	0	%100
12	GSIP-1B	X	-.005	-.005	0	%100
13	GSIP-2A	X	-.005	-.005	0	%100
14	GSIP-2B	X	-.005	-.005	0	%100
15	GSIP-3A	X	-.005	-.005	0	%100



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

	Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
16	GSIP-3B	X	-.012	-.012	0	%100
17	MP-1	X	-.009	-.009	0	%100
18	MP-1B	X	-.009	-.009	0	%100
19	MP-2	X	-.009	-.009	0	%100
20	MP-2B	X	-.007	-.007	0	%100
21	MP-3	X	-.009	-.009	0	%100
22	MP-3B	X	-.009	-.009	0	%100
23	MP-4	X	-.009	-.009	0	%100
24	MP-4B	X	-.009	-.009	0	%100
25	MP-5	X	-.009	-.009	0	%100
26	MP-5B	X	-.007	-.007	0	%100
27	MP-6	X	-.009	-.009	0	%100
28	MP-6B	X	-.009	-.009	0	%100
29	MP-7	X	-.009	-.009	0	%100
30	MP-7B	X	-.009	-.009	0	%100
31	MP-8	X	-.009	-.009	0	%100
32	MP-8B	X	-.007	-.007	0	%100
33	MP-9	X	-.009	-.009	0	%100
34	MP-9B	X	-.009	-.009	0	%100
35	MP-10	X	-.007	-.007	0	%100
36	SA-1	X	-.018	-.018	0	%100
37	SA-2	X	0	0	0	%100
38	SA-3	X	-.018	-.018	0	%100
39	SF1-TH	X	-.005	-.005	0	%100
40	SF2-TH	X	-.005	-.005	0	%100
41	TR-1	X	0	0	0	%100
42	TR-2	X	0	0	0	%100
43	TR-3	X	0	0	0	%100
44	TR-4	X	0	0	0	%100
45	TR-5	X	0	0	0	%100
46	TR-6	X	0	0	0	%100
47	TR-7	X	-.002	-.002	0	%100
48	TR-8	X	-.002	-.002	0	%100
49	TR-9	X	-.002	-.002	0	%100
50	TR-10	X	-.002	-.002	0	%100
51	TR-11	X	-.002	-.002	0	%100
52	TR-12	X	-.002	-.002	0	%100
53	TR-13	X	-.002	-.002	0	%100
54	TR-14	X	-.002	-.002	0	%100
55	TR-15	X	-.002	-.002	0	%100
56	TR-16	X	-.002	-.002	0	%100
57	TR-17	X	-.002	-.002	0	%100
58	TR-18	X	-.002	-.002	0	%100
59	FFHR	X	-.009	-.009	0	%100
60	SF2-HR	X	-.004	-.004	0	%100
61	SF1-HR	X	-.004	-.004	0	%100
62	HRC1	X	-.004	-.004	0	%100
63	HRC3	X	-.009	-.009	0	%100
64	HRC2	X	-.004	-.004	0	%100

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

	Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
1	CP-1	X	-.017	-.017	0	%100
2	CP-2	X	-.017	-.017	0	%100
3	CP-3	X	0	0	0	%100
4	FF-TH	X	-.008	-.008	0	%100



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

	Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
5	GSI-1A	X	-0.12	-0.12	0	%100
6	GSI-1B	X	-0.12	-0.12	0	%100
7	GSI-2A	X	-0.13	-0.13	0	%100
8	GSI-2B	X	-0.13	-0.13	0	%100
9	GSI-3A	X	0	0	0	%100
10	GSI-3B	X	0	0	0	%100
11	GSIP-1A	X	-0.09	-0.09	0	%100
12	GSIP-1B	X	-1e-6	-1e-6	0	%100
13	GSIP-2A	X	0	0	0	%100
14	GSIP-2B	X	-0.07	-0.07	0	%100
15	GSIP-3A	X	-0.07	-0.07	0	%100
16	GSIP-3B	X	-0.09	-0.09	0	%100
17	MP-1	X	-0.08	-0.08	0	%100
18	MP-1B	X	-0.08	-0.08	0	%100
19	MP-2	X	-0.08	-0.08	0	%100
20	MP-2B	X	-0.06	-0.06	0	%100
21	MP-3	X	-0.08	-0.08	0	%100
22	MP-3B	X	-0.08	-0.08	0	%100
23	MP-4	X	-0.08	-0.08	0	%100
24	MP-4B	X	-0.08	-0.08	0	%100
25	MP-5	X	-0.08	-0.08	0	%100
26	MP-5B	X	-0.06	-0.06	0	%100
27	MP-6	X	-0.08	-0.08	0	%100
28	MP-6B	X	-0.08	-0.08	0	%100
29	MP-7	X	-0.08	-0.08	0	%100
30	MP-7B	X	-0.08	-0.08	0	%100
31	MP-8	X	-0.08	-0.08	0	%100
32	MP-8B	X	-0.06	-0.06	0	%100
33	MP-9	X	-0.08	-0.08	0	%100
34	MP-9B	X	-0.08	-0.08	0	%100
35	MP-10	X	-0.06	-0.06	0	%100
36	SA-1	X	-0.09	-0.09	0	%100
37	SA-2	X	-0.07	-0.07	0	%100
38	SA-3	X	-0.18	-0.18	0	%100
39	SF1-TH	X	0	0	0	%100
40	SF2-TH	X	-0.07	-0.07	0	%100
41	TR-1	X	-0.01	-0.01	0	%100
42	TR-2	X	-0.01	-0.01	0	%100
43	TR-3	X	-0.01	-0.01	0	%100
44	TR-4	X	-0.01	-0.01	0	%100
45	TR-5	X	-0.01	-0.01	0	%100
46	TR-6	X	-0.01	-0.01	0	%100
47	TR-7	X	-0.02	-0.02	0	%100
48	TR-8	X	-0.02	-0.02	0	%100
49	TR-9	X	-0.02	-0.02	0	%100
50	TR-10	X	-0.02	-0.02	0	%100
51	TR-11	X	-0.02	-0.02	0	%100
52	TR-12	X	-0.02	-0.02	0	%100
53	TR-13	X	-0.01	-0.01	0	%100
54	TR-14	X	-0.01	-0.01	0	%100
55	TR-15	X	-0.01	-0.01	0	%100
56	TR-16	X	-0.01	-0.01	0	%100
57	TR-17	X	-0.01	-0.01	0	%100
58	TR-18	X	-0.01	-0.01	0	%100
59	FFHR	X	-0.07	-0.07	0	%100
60	SF2-HR	X	-0.07	-0.07	0	%100
61	SF1-HR	X	0	0	0	%100



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

	Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
62	HRC1	X	-0.06	-0.06	0	%100
63	HRC3	X	-0.06	-0.06	0	%100
64	HRC2	X	0	0	0	%100
65	CP-1	Z	-0.1	-0.1	0	%100
66	CP-2	Z	-0.1	-0.1	0	%100
67	CP-3	Z	0	0	0	%100
68	FF-TH	Z	-0.05	-0.05	0	%100
69	GSI-1A	Z	-0.08	-0.08	0	%100
70	GSI-1B	Z	-0.08	-0.08	0	%100
71	GSI-2A	Z	-0.08	-0.08	0	%100
72	GSI-2B	Z	-0.08	-0.08	0	%100
73	GSI-3A	Z	0	0	0	%100
74	GSI-3B	Z	0	0	0	%100
75	GSIP-1A	Z	-0.05	-0.05	0	%100
76	GSIP-1B	Z	0	0	0	%100
77	GSIP-2A	Z	0	0	0	%100
78	GSIP-2B	Z	-0.05	-0.05	0	%100
79	GSIP-3A	Z	-0.05	-0.05	0	%100
80	GSIP-3B	Z	-0.05	-0.05	0	%100
81	MP-1	Z	-0.04	-0.04	0	%100
82	MP-1B	Z	-0.04	-0.04	0	%100
83	MP-2	Z	-0.04	-0.04	0	%100
84	MP-2B	Z	-0.04	-0.04	0	%100
85	MP-3	Z	-0.04	-0.04	0	%100
86	MP-3B	Z	-0.04	-0.04	0	%100
87	MP-4	Z	-0.04	-0.04	0	%100
88	MP-4B	Z	-0.04	-0.04	0	%100
89	MP-5	Z	-0.04	-0.04	0	%100
90	MP-5B	Z	-0.04	-0.04	0	%100
91	MP-6	Z	-0.04	-0.04	0	%100
92	MP-6B	Z	-0.04	-0.04	0	%100
93	MP-7	Z	-0.04	-0.04	0	%100
94	MP-7B	Z	-0.04	-0.04	0	%100
95	MP-8	Z	-0.04	-0.04	0	%100
96	MP-8B	Z	-0.04	-0.04	0	%100
97	MP-9	Z	-0.04	-0.04	0	%100
98	MP-9B	Z	-0.04	-0.04	0	%100
99	MP-10	Z	-0.04	-0.04	0	%100
100	SA-1	Z	-0.04	-0.04	0	%100
101	SA-2	Z	-0.05	-0.05	0	%100
102	SA-3	Z	-0.09	-0.09	0	%100
103	SF1-TH	Z	0	0	0	%100
104	SF2-TH	Z	-0.05	-0.05	0	%100
105	TR-1	Z	-0.00735	-0.00735	0	%100
106	TR-2	Z	-0.00735	-0.00735	0	%100
107	TR-3	Z	-0.00735	-0.00735	0	%100
108	TR-4	Z	-0.00735	-0.00735	0	%100
109	TR-5	Z	-0.00735	-0.00735	0	%100
110	TR-6	Z	-0.00735	-0.00735	0	%100
111	TR-7	Z	-0.01	-0.01	0	%100
112	TR-8	Z	-0.01	-0.01	0	%100
113	TR-9	Z	-0.01	-0.01	0	%100
114	TR-10	Z	-0.01	-0.01	0	%100
115	TR-11	Z	-0.01	-0.01	0	%100
116	TR-12	Z	-0.01	-0.01	0	%100
117	TR-13	Z	-0.00685	-0.00685	0	%100
118	TR-14	Z	-0.00685	-0.00685	0	%100



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

	Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
119	TR-15	Z	-0.00685	-0.00685	0	%100
120	TR-16	Z	-0.00685	-0.00685	0	%100
121	TR-17	Z	-0.00685	-0.00685	0	%100
122	TR-18	Z	-0.00685	-0.00685	0	%100
123	FFHR	Z	-0.004	-0.004	0	%100
124	SF2-HR	Z	-0.004	-0.004	0	%100
125	SF1-HR	Z	0	0	0	%100
126	HRC1	Z	-0.004	-0.004	0	%100
127	HRC3	Z	-0.004	-0.004	0	%100
128	HRC2	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
1	CP-1	X	-0.015	-0.015	0	%100
2	CP-2	X	-0.011	-0.011	0	%100
3	CP-3	X	-0.004	-0.004	0	%100
4	FF-TH	X	-0.005	-0.005	0	%100
5	GSI-1A	X	-0.011	-0.011	0	%100
6	GSI-1B	X	-0.011	-0.011	0	%100
7	GSI-2A	X	-0.009	-0.009	0	%100
8	GSI-2B	X	-0.009	-0.009	0	%100
9	GSI-3A	X	-0.003	-0.003	0	%100
10	GSI-3B	X	-0.003	-0.003	0	%100
11	GSIP-1A	X	-0.006	-0.006	0	%100
12	GSIP-1B	X	-0.002	-0.002	0	%100
13	GSIP-2A	X	-0.002	-0.002	0	%100
14	GSIP-2B	X	-0.007	-0.007	0	%100
15	GSIP-3A	X	-0.007	-0.007	0	%100
16	GSIP-3B	X	-0.006	-0.006	0	%100
17	MP-1	X	-0.006	-0.006	0	%100
18	MP-1B	X	-0.006	-0.006	0	%100
19	MP-2	X	-0.006	-0.006	0	%100
20	MP-2B	X	-0.005	-0.005	0	%100
21	MP-3	X	-0.006	-0.006	0	%100
22	MP-3B	X	-0.006	-0.006	0	%100
23	MP-4	X	-0.006	-0.006	0	%100
24	MP-4B	X	-0.006	-0.006	0	%100
25	MP-5	X	-0.006	-0.006	0	%100
26	MP-5B	X	-0.005	-0.005	0	%100
27	MP-6	X	-0.006	-0.006	0	%100
28	MP-6B	X	-0.006	-0.006	0	%100
29	MP-7	X	-0.006	-0.006	0	%100
30	MP-7B	X	-0.006	-0.006	0	%100
31	MP-8	X	-0.006	-0.006	0	%100
32	MP-8B	X	-0.005	-0.005	0	%100
33	MP-9	X	-0.006	-0.006	0	%100
34	MP-9B	X	-0.006	-0.006	0	%100
35	MP-10	X	-0.005	-0.005	0	%100
36	SA-1	X	-0.004	-0.004	0	%100
37	SA-2	X	-0.008	-0.008	0	%100
38	SA-3	X	-0.014	-0.014	0	%100
39	SF1-TH	X	-0.002	-0.002	0	%100
40	SF2-TH	X	-0.007	-0.007	0	%100
41	TR-1	X	-0.001	-0.001	0	%100
42	TR-2	X	-0.001	-0.001	0	%100
43	TR-3	X	-0.001	-0.001	0	%100



Company : Tower Engineering Professionals, Inc.
Designer : GHM
Job Number : TEP No. 55021.286047
Model Name : CCI BU No. 842858

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

	Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
44	TR-4	X	-0.001	-0.001	0	%100
45	TR-5	X	-0.001	-0.001	0	%100
46	TR-6	X	-0.001	-0.001	0	%100
47	TR-7	X	-0.002	-0.002	0	%100
48	TR-8	X	-0.002	-0.002	0	%100
49	TR-9	X	-0.002	-0.002	0	%100
50	TR-10	X	-0.002	-0.002	0	%100
51	TR-11	X	-0.002	-0.002	0	%100
52	TR-12	X	-0.002	-0.002	0	%100
53	TR-13	X	-0.00528	-0.00528	0	%100
54	TR-14	X	-0.00528	-0.00528	0	%100
55	TR-15	X	-0.00528	-0.00528	0	%100
56	TR-16	X	-0.00528	-0.00528	0	%100
57	TR-17	X	-0.00528	-0.00528	0	%100
58	TR-18	X	-0.00528	-0.00528	0	%100
59	FFHR	X	-0.004	-0.004	0	%100
60	SF2-HR	X	-0.006	-0.006	0	%100
61	SF1-HR	X	-0.002	-0.002	0	%100
62	HRC1	X	-0.005	-0.005	0	%100
63	HRC3	X	-0.004	-0.004	0	%100
64	HRC2	X	-0.001	-0.001	0	%100
65	CP-1	Z	-0.015	-0.015	0	%100
66	CP-2	Z	-0.011	-0.011	0	%100
67	CP-3	Z	-0.004	-0.004	0	%100
68	FF-TH	Z	-0.005	-0.005	0	%100
69	GSI-1A	Z	-0.012	-0.012	0	%100
70	GSI-1B	Z	-0.012	-0.012	0	%100
71	GSI-2A	Z	-0.009	-0.009	0	%100
72	GSI-2B	Z	-0.009	-0.009	0	%100
73	GSI-3A	Z	-0.003	-0.003	0	%100
74	GSI-3B	Z	-0.003	-0.003	0	%100
75	GSIP-1A	Z	-0.006	-0.006	0	%100
76	GSIP-1B	Z	-0.002	-0.002	0	%100
77	GSIP-2A	Z	-0.002	-0.002	0	%100
78	GSIP-2B	Z	-0.008	-0.008	0	%100
79	GSIP-3A	Z	-0.008	-0.008	0	%100
80	GSIP-3B	Z	-0.006	-0.006	0	%100
81	MP-1	Z	-0.006	-0.006	0	%100
82	MP-1B	Z	-0.006	-0.006	0	%100
83	MP-2	Z	-0.006	-0.006	0	%100
84	MP-2B	Z	-0.005	-0.005	0	%100
85	MP-3	Z	-0.006	-0.006	0	%100
86	MP-3B	Z	-0.006	-0.006	0	%100
87	MP-4	Z	-0.006	-0.006	0	%100
88	MP-4B	Z	-0.006	-0.006	0	%100
89	MP-5	Z	-0.006	-0.006	0	%100
90	MP-5B	Z	-0.005	-0.005	0	%100
91	MP-6	Z	-0.006	-0.006	0	%100
92	MP-6B	Z	-0.006	-0.006	0	%100
93	MP-7	Z	-0.006	-0.006	0	%100
94	MP-7B	Z	-0.006	-0.006	0	%100
95	MP-8	Z	-0.006	-0.006	0	%100
96	MP-8B	Z	-0.005	-0.005	0	%100
97	MP-9	Z	-0.006	-0.006	0	%100
98	MP-9B	Z	-0.006	-0.006	0	%100
99	MP-10	Z	-0.005	-0.005	0	%100
100	SA-1	Z	-0.003	-0.003	0	%100



Company : Tower Engineering Professionals, Inc.
Designer : GHM
Job Number : TEP No. 55021.286047
Model Name : CCI BU No. 842858

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Checked By: JWS

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

	Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
101	SA-2	Z	-0.11	-0.11	0	%100
102	SA-3	Z	-0.12	-0.12	0	%100
103	SF1-TH	Z	-0.002	-0.002	0	%100
104	SF2-TH	Z	-0.007	-0.007	0	%100
105	TR-1	Z	-0.001	-0.001	0	%100
106	TR-2	Z	-0.001	-0.001	0	%100
107	TR-3	Z	-0.001	-0.001	0	%100
108	TR-4	Z	-0.001	-0.001	0	%100
109	TR-5	Z	-0.001	-0.001	0	%100
110	TR-6	Z	-0.001	-0.001	0	%100
111	TR-7	Z	-0.002	-0.002	0	%100
112	TR-8	Z	-0.002	-0.002	0	%100
113	TR-9	Z	-0.002	-0.002	0	%100
114	TR-10	Z	-0.002	-0.002	0	%100
115	TR-11	Z	-0.002	-0.002	0	%100
116	TR-12	Z	-0.002	-0.002	0	%100
117	TR-13	Z	-0.000502	-0.000502	0	%100
118	TR-14	Z	-0.000502	-0.000502	0	%100
119	TR-15	Z	-0.000502	-0.000502	0	%100
120	TR-16	Z	-0.000502	-0.000502	0	%100
121	TR-17	Z	-0.000502	-0.000502	0	%100
122	TR-18	Z	-0.000502	-0.000502	0	%100
123	FFHR	Z	-0.004	-0.004	0	%100
124	SF2-HR	Z	-0.006	-0.006	0	%100
125	SF1-HR	Z	-0.002	-0.002	0	%100
126	HRC1	Z	-0.006	-0.006	0	%100
127	HRC3	Z	-0.004	-0.004	0	%100
128	HRC2	Z	-0.002	-0.002	0	%100

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

	Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
1	CP-1	X	-0.11	-0.11	0	%100
2	CP-2	X	-0.006	-0.006	0	%100
3	CP-3	X	-0.006	-0.006	0	%100
4	FF-TH	X	-0.003	-0.003	0	%100
5	GSI-1A	X	-0.008	-0.008	0	%100
6	GSI-1B	X	-0.008	-0.008	0	%100
7	GSI-2A	X	-0.004	-0.004	0	%100
8	GSI-2B	X	-0.004	-0.004	0	%100
9	GSI-3A	X	-0.004	-0.004	0	%100
10	GSI-3B	X	-0.004	-0.004	0	%100
11	GSIP-1A	X	-0.003	-0.003	0	%100
12	GSIP-1B	X	-0.002	-0.002	0	%100
13	GSIP-2A	X	-0.002	-0.002	0	%100
14	GSIP-2B	X	-0.005	-0.005	0	%100
15	GSIP-3A	X	-0.005	-0.005	0	%100
16	GSIP-3B	X	-0.003	-0.003	0	%100
17	MP-1	X	-0.004	-0.004	0	%100
18	MP-1B	X	-0.004	-0.004	0	%100
19	MP-2	X	-0.004	-0.004	0	%100
20	MP-2B	X	-0.004	-0.004	0	%100
21	MP-3	X	-0.004	-0.004	0	%100
22	MP-3B	X	-0.004	-0.004	0	%100
23	MP-4	X	-0.004	-0.004	0	%100
24	MP-4B	X	-0.004	-0.004	0	%100
25	MP-5	X	-0.004	-0.004	0	%100



Company : Tower Engineering Professionals, Inc.
Designer : GHM
Job Number : TEP No. 55021.286047
Model Name : CCI BU No. 842858

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

	Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
26	MP-5B	X	-0.004	-0.004	0	%100
27	MP-6	X	-0.004	-0.004	0	%100
28	MP-6B	X	-0.004	-0.004	0	%100
29	MP-7	X	-0.004	-0.004	0	%100
30	MP-7B	X	-0.004	-0.004	0	%100
31	MP-8	X	-0.004	-0.004	0	%100
32	MP-8B	X	-0.004	-0.004	0	%100
33	MP-9	X	-0.004	-0.004	0	%100
34	MP-9B	X	-0.004	-0.004	0	%100
35	MP-10	X	-0.004	-0.004	0	%100
36	SA-1	X	0	0	0	%100
37	SA-2	X	-0.007	-0.007	0	%100
38	SA-3	X	-0.009	-0.009	0	%100
39	SF1-TH	X	-0.002	-0.002	0	%100
40	SF2-TH	X	-0.005	-0.005	0	%100
41	TR-1	X	-0.001	-0.001	0	%100
42	TR-2	X	-0.001	-0.001	0	%100
43	TR-3	X	-0.001	-0.001	0	%100
44	TR-4	X	-0.001	-0.001	0	%100
45	TR-5	X	-0.001	-0.001	0	%100
46	TR-6	X	-0.001	-0.001	0	%100
47	TR-7	X	-0.001	-0.001	0	%100
48	TR-8	X	-0.001	-0.001	0	%100
49	TR-9	X	-0.001	-0.001	0	%100
50	TR-10	X	-0.001	-0.001	0	%100
51	TR-11	X	-0.001	-0.001	0	%100
52	TR-12	X	-0.001	-0.001	0	%100
53	TR-13	X	0	0	0	%100
54	TR-14	X	0	0	0	%100
55	TR-15	X	0	0	0	%100
56	TR-16	X	0	0	0	%100
57	TR-17	X	0	0	0	%100
58	TR-18	X	0	0	0	%100
59	FFHR	X	-0.002	-0.002	0	%100
60	SF2-HR	X	-0.004	-0.004	0	%100
61	SF1-HR	X	-0.002	-0.002	0	%100
62	HRC1	X	-0.004	-0.004	0	%100
63	HRC3	X	-0.002	-0.002	0	%100
64	HRC2	X	-0.002	-0.002	0	%100
65	CP-1	Z	-0.02	-0.02	0	%100
66	CP-2	Z	-0.01	-0.01	0	%100
67	CP-3	Z	-0.01	-0.01	0	%100
68	FF-TH	Z	-0.005	-0.005	0	%100
69	GSI-1A	Z	-0.015	-0.015	0	%100
70	GSI-1B	Z	-0.015	-0.015	0	%100
71	GSI-2A	Z	-0.008	-0.008	0	%100
72	GSI-2B	Z	-0.008	-0.008	0	%100
73	GSI-3A	Z	-0.008	-0.008	0	%100
74	GSI-3B	Z	-0.008	-0.008	0	%100
75	GSIP-1A	Z	-0.005	-0.005	0	%100
76	GSIP-1B	Z	-0.005	-0.005	0	%100
77	GSIP-2A	Z	-0.005	-0.005	0	%100
78	GSIP-2B	Z	-0.01	-0.01	0	%100
79	GSIP-3A	Z	-0.01	-0.01	0	%100
80	GSIP-3B	Z	-0.005	-0.005	0	%100
81	MP-1	Z	-0.008	-0.008	0	%100
82	MP-1B	Z	-0.008	-0.008	0	%100



Company : Tower Engineering Professionals, Inc.
Designer : GHM
Job Number : TEP No. 55021.286047
Model Name : CCI BU No. 842858

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Checked By: JWS

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

	Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
83	MP-2	Z	-0.008	-0.008	0	%100
84	MP-2B	Z	-0.006	-0.006	0	%100
85	MP-3	Z	-0.008	-0.008	0	%100
86	MP-3B	Z	-0.008	-0.008	0	%100
87	MP-4	Z	-0.008	-0.008	0	%100
88	MP-4B	Z	-0.008	-0.008	0	%100
89	MP-5	Z	-0.008	-0.008	0	%100
90	MP-5B	Z	-0.006	-0.006	0	%100
91	MP-6	Z	-0.008	-0.008	0	%100
92	MP-6B	Z	-0.008	-0.008	0	%100
93	MP-7	Z	-0.008	-0.008	0	%100
94	MP-7B	Z	-0.008	-0.008	0	%100
95	MP-8	Z	-0.008	-0.008	0	%100
96	MP-8B	Z	-0.006	-0.006	0	%100
97	MP-9	Z	-0.008	-0.008	0	%100
98	MP-9B	Z	-0.008	-0.008	0	%100
99	MP-10	Z	-0.006	-0.006	0	%100
100	SA-1	Z	0	0	0	%100
101	SA-2	Z	-0.016	-0.016	0	%100
102	SA-3	Z	-0.013	-0.013	0	%100
103	SF1-TH	Z	-0.005	-0.005	0	%100
104	SF2-TH	Z	-0.009	-0.009	0	%100
105	TR-1	Z	-0.002	-0.002	0	%100
106	TR-2	Z	-0.002	-0.002	0	%100
107	TR-3	Z	-0.002	-0.002	0	%100
108	TR-4	Z	-0.002	-0.002	0	%100
109	TR-5	Z	-0.002	-0.002	0	%100
110	TR-6	Z	-0.002	-0.002	0	%100
111	TR-7	Z	-0.002	-0.002	0	%100
112	TR-8	Z	-0.002	-0.002	0	%100
113	TR-9	Z	-0.002	-0.002	0	%100
114	TR-10	Z	-0.002	-0.002	0	%100
115	TR-11	Z	-0.002	-0.002	0	%100
116	TR-12	Z	-0.002	-0.002	0	%100
117	TR-13	Z	0	0	0	%100
118	TR-14	Z	0	0	0	%100
119	TR-15	Z	0	0	0	%100
120	TR-16	Z	0	0	0	%100
121	TR-17	Z	0	0	0	%100
122	TR-18	Z	0	0	0	%100
123	FFHR	Z	-0.004	-0.004	0	%100
124	SF2-HR	Z	-0.008	-0.008	0	%100
125	SF1-HR	Z	-0.004	-0.004	0	%100
126	HRC1	Z	-0.007	-0.007	0	%100
127	HRC3	Z	-0.004	-0.004	0	%100
128	HRC2	Z	-0.004	-0.004	0	%100

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

	Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
1	CP-1	Z	-0.02	-0.02	0	%100
2	CP-2	Z	0	0	0	%100
3	CP-3	Z	-0.02	-0.02	0	%100
4	FF-TH	Z	0	0	0	%100
5	GSI-1A	Z	-0.015	-0.015	0	%100
6	GSI-1B	Z	-0.015	-0.015	0	%100
7	GSI-2A	Z	0	0	0	%100



Company : Tower Engineering Professionals, Inc.
Designer : GHM
Job Number : TEP No. 55021.286047
Model Name : CCI BU No. 842858

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

	Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
8	GSI-2B	Z	0	0	0	%100
9	GSI-3A	Z	-0.015	-0.015	0	%100
10	GSI-3B	Z	-0.015	-0.015	0	%100
11	GSIP-1A	Z	0	0	0	%100
12	GSIP-1B	Z	-0.01	-0.01	0	%100
13	GSIP-2A	Z	-0.01	-0.01	0	%100
14	GSIP-2B	Z	-0.01	-0.01	0	%100
15	GSIP-3A	Z	-0.01	-0.01	0	%100
16	GSIP-3B	Z	0	0	0	%100
17	MP-1	Z	-0.009	-0.009	0	%100
18	MP-1B	Z	-0.009	-0.009	0	%100
19	MP-2	Z	-0.009	-0.009	0	%100
20	MP-2B	Z	-0.007	-0.007	0	%100
21	MP-3	Z	-0.009	-0.009	0	%100
22	MP-3B	Z	-0.009	-0.009	0	%100
23	MP-4	Z	-0.009	-0.009	0	%100
24	MP-4B	Z	-0.009	-0.009	0	%100
25	MP-5	Z	-0.009	-0.009	0	%100
26	MP-5B	Z	-0.007	-0.007	0	%100
27	MP-6	Z	-0.009	-0.009	0	%100
28	MP-6B	Z	-0.009	-0.009	0	%100
29	MP-7	Z	-0.009	-0.009	0	%100
30	MP-7B	Z	-0.009	-0.009	0	%100
31	MP-8	Z	-0.009	-0.009	0	%100
32	MP-8B	Z	-0.007	-0.007	0	%100
33	MP-9	Z	-0.009	-0.009	0	%100
34	MP-9B	Z	-0.009	-0.009	0	%100
35	MP-10	Z	-0.007	-0.007	0	%100
36	SA-1	Z	-0.009	-0.009	0	%100
37	SA-2	Z	-0.021	-0.021	0	%100
38	SA-3	Z	-0.009	-0.009	0	%100
39	SF1-TH	Z	-0.009	-0.009	0	%100
40	SF2-TH	Z	-0.009	-0.009	0	%100
41	TR-1	Z	-0.003	-0.003	0	%100
42	TR-2	Z	-0.003	-0.003	0	%100
43	TR-3	Z	-0.003	-0.003	0	%100
44	TR-4	Z	-0.003	-0.003	0	%100
45	TR-5	Z	-0.003	-0.003	0	%100
46	TR-6	Z	-0.003	-0.003	0	%100
47	TR-7	Z	-0.001	-0.001	0	%100
48	TR-8	Z	-0.001	-0.001	0	%100
49	TR-9	Z	-0.001	-0.001	0	%100
50	TR-10	Z	-0.001	-0.001	0	%100
51	TR-11	Z	-0.001	-0.001	0	%100
52	TR-12	Z	-0.001	-0.001	0	%100
53	TR-13	Z	-0.001	-0.001	0	%100
54	TR-14	Z	-0.001	-0.001	0	%100
55	TR-15	Z	-0.001	-0.001	0	%100
56	TR-16	Z	-0.001	-0.001	0	%100
57	TR-17	Z	-0.001	-0.001	0	%100
58	TR-18	Z	-0.001	-0.001	0	%100
59	FFHR	Z	0	0	0	%100
60	SF2-HR	Z	-0.008	-0.008	0	%100
61	SF1-HR	Z	-0.008	-0.008	0	%100
62	HRC1	Z	-0.007	-0.007	0	%100
63	HRC3	Z	0	0	0	%100
64	HRC2	Z	-0.007	-0.007	0	%100



Company : Tower Engineering Professionals, Inc.
Designer : GHM
Job Number : TEP No. 55021.286047
Model Name : CCI BU No. 842858

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

	Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
1	CP-1	X	.006	.006	0	%100
2	CP-2	X	.006	.006	0	%100
3	CP-3	X	.011	.011	0	%100
4	FF-TH	X	.003	.003	0	%100
5	GSI-1A	X	.004	.004	0	%100
6	GSI-1B	X	.004	.004	0	%100
7	GSI-2A	X	.004	.004	0	%100
8	GSI-2B	X	.004	.004	0	%100
9	GSI-3A	X	.008	.008	0	%100
10	GSI-3B	X	.008	.008	0	%100
11	GSIP-1A	X	.003	.003	0	%100
12	GSIP-1B	X	.005	.005	0	%100
13	GSIP-2A	X	.005	.005	0	%100
14	GSIP-2B	X	.002	.002	0	%100
15	GSIP-3A	X	.002	.002	0	%100
16	GSIP-3B	X	.003	.003	0	%100
17	MP-1	X	.004	.004	0	%100
18	MP-1B	X	.004	.004	0	%100
19	MP-2	X	.004	.004	0	%100
20	MP-2B	X	.004	.004	0	%100
21	MP-3	X	.004	.004	0	%100
22	MP-3B	X	.004	.004	0	%100
23	MP-4	X	.004	.004	0	%100
24	MP-4B	X	.004	.004	0	%100
25	MP-5	X	.004	.004	0	%100
26	MP-5B	X	.004	.004	0	%100
27	MP-6	X	.004	.004	0	%100
28	MP-6B	X	.004	.004	0	%100
29	MP-7	X	.004	.004	0	%100
30	MP-7B	X	.004	.004	0	%100
31	MP-8	X	.004	.004	0	%100
32	MP-8B	X	.004	.004	0	%100
33	MP-9	X	.004	.004	0	%100
34	MP-9B	X	.004	.004	0	%100
35	MP-10	X	.004	.004	0	%100
36	SA-1	X	.009	.009	0	%100
37	SA-2	X	.007	.007	0	%100
38	SA-3	X	0	0	0	%100
39	SF1-TH	X	.005	.005	0	%100
40	SF2-TH	X	.002	.002	0	%100
41	TR-1	X	.001	.001	0	%100
42	TR-2	X	.001	.001	0	%100
43	TR-3	X	.001	.001	0	%100
44	TR-4	X	.001	.001	0	%100
45	TR-5	X	.001	.001	0	%100
46	TR-6	X	.001	.001	0	%100
47	TR-7	X	0	0	0	%100
48	TR-8	X	0	0	0	%100
49	TR-9	X	0	0	0	%100
50	TR-10	X	0	0	0	%100
51	TR-11	X	0	0	0	%100
52	TR-12	X	0	0	0	%100
53	TR-13	X	.001	.001	0	%100
54	TR-14	X	.001	.001	0	%100
55	TR-15	X	.001	.001	0	%100
56	TR-16	X	.001	.001	0	%100
57	TR-17	X	.001	.001	0	%100



Company : Tower Engineering Professionals, Inc.
Designer : GHM
Job Number : TEP No. 55021.286047
Model Name : CCI BU No. 842858

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

	Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
58	TR-18	X	.001	.001	0	%100
59	FFHR	X	.002	.002	0	%100
60	SF2-HR	X	.002	.002	0	%100
61	SF1-HR	X	.004	.004	0	%100
62	HRC1	X	.002	.002	0	%100
63	HRC3	X	.002	.002	0	%100
64	HRC2	X	.004	.004	0	%100
65	CP-1	Z	-.01	-.01	0	%100
66	CP-2	Z	-.01	-.01	0	%100
67	CP-3	Z	-.02	-.02	0	%100
68	FF-TH	Z	-.005	-.005	0	%100
69	GSI-1A	Z	-.008	-.008	0	%100
70	GSI-1B	Z	-.008	-.008	0	%100
71	GSI-2A	Z	-.008	-.008	0	%100
72	GSI-2B	Z	-.008	-.008	0	%100
73	GSI-3A	Z	-.015	-.015	0	%100
74	GSI-3B	Z	-.015	-.015	0	%100
75	GSIP-1A	Z	-.005	-.005	0	%100
76	GSIP-1B	Z	-.01	-.01	0	%100
77	GSIP-2A	Z	-.01	-.01	0	%100
78	GSIP-2B	Z	-.005	-.005	0	%100
79	GSIP-3A	Z	-.005	-.005	0	%100
80	GSIP-3B	Z	-.005	-.005	0	%100
81	MP-1	Z	-.008	-.008	0	%100
82	MP-1B	Z	-.008	-.008	0	%100
83	MP-2	Z	-.008	-.008	0	%100
84	MP-2B	Z	-.006	-.006	0	%100
85	MP-3	Z	-.008	-.008	0	%100
86	MP-3B	Z	-.008	-.008	0	%100
87	MP-4	Z	-.008	-.008	0	%100
88	MP-4B	Z	-.008	-.008	0	%100
89	MP-5	Z	-.008	-.008	0	%100
90	MP-5B	Z	-.006	-.006	0	%100
91	MP-6	Z	-.008	-.008	0	%100
92	MP-6B	Z	-.008	-.008	0	%100
93	MP-7	Z	-.008	-.008	0	%100
94	MP-7B	Z	-.008	-.008	0	%100
95	MP-8	Z	-.008	-.008	0	%100
96	MP-8B	Z	-.006	-.006	0	%100
97	MP-9	Z	-.008	-.008	0	%100
98	MP-9B	Z	-.008	-.008	0	%100
99	MP-10	Z	-.006	-.006	0	%100
100	SA-1	Z	-.013	-.013	0	%100
101	SA-2	Z	-.016	-.016	0	%100
102	SA-3	Z	0	0	0	%100
103	SF1-TH	Z	-.009	-.009	0	%100
104	SF2-TH	Z	-.005	-.005	0	%100
105	TR-1	Z	-.002	-.002	0	%100
106	TR-2	Z	-.002	-.002	0	%100
107	TR-3	Z	-.002	-.002	0	%100
108	TR-4	Z	-.002	-.002	0	%100
109	TR-5	Z	-.002	-.002	0	%100
110	TR-6	Z	-.002	-.002	0	%100
111	TR-7	Z	0	0	0	%100
112	TR-8	Z	0	0	0	%100
113	TR-9	Z	0	0	0	%100
114	TR-10	Z	0	0	0	%100



Company : Tower Engineering Professionals, Inc.
Designer : GHM
Job Number : TEP No. 55021.286047
Model Name : CCI BU No. 842858

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

	Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
115	TR-11	Z	0	0	0	%100
116	TR-12	Z	0	0	0	%100
117	TR-13	Z	-.002	-.002	0	%100
118	TR-14	Z	-.002	-.002	0	%100
119	TR-15	Z	-.002	-.002	0	%100
120	TR-16	Z	-.002	-.002	0	%100
121	TR-17	Z	-.002	-.002	0	%100
122	TR-18	Z	-.002	-.002	0	%100
123	FFHR	Z	-.004	-.004	0	%100
124	SF2-HR	Z	-.004	-.004	0	%100
125	SF1-HR	Z	-.008	-.008	0	%100
126	HRC1	Z	-.004	-.004	0	%100
127	HRC3	Z	-.004	-.004	0	%100
128	HRC2	Z	-.007	-.007	0	%100

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

	Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
1	CP-1	X	.004	.004	0	%100
2	CP-2	X	.011	.011	0	%100
3	CP-3	X	.015	.015	0	%100
4	FF-TH	X	.005	.005	0	%100
5	GSI-1A	X	.003	.003	0	%100
6	GSI-1B	X	.003	.003	0	%100
7	GSI-2A	X	.009	.009	0	%100
8	GSI-2B	X	.009	.009	0	%100
9	GSI-3A	X	.011	.011	0	%100
10	GSI-3B	X	.011	.011	0	%100
11	GSIP-1A	X	.006	.006	0	%100
12	GSIP-1B	X	.007	.007	0	%100
13	GSIP-2A	X	.007	.007	0	%100
14	GSIP-2B	X	.002	.002	0	%100
15	GSIP-3A	X	.002	.002	0	%100
16	GSIP-3B	X	.006	.006	0	%100
17	MP-1	X	.006	.006	0	%100
18	MP-1B	X	.006	.006	0	%100
19	MP-2	X	.006	.006	0	%100
20	MP-2B	X	.005	.005	0	%100
21	MP-3	X	.006	.006	0	%100
22	MP-3B	X	.006	.006	0	%100
23	MP-4	X	.006	.006	0	%100
24	MP-4B	X	.006	.006	0	%100
25	MP-5	X	.006	.006	0	%100
26	MP-5B	X	.005	.005	0	%100
27	MP-6	X	.006	.006	0	%100
28	MP-6B	X	.006	.006	0	%100
29	MP-7	X	.006	.006	0	%100
30	MP-7B	X	.006	.006	0	%100
31	MP-8	X	.006	.006	0	%100
32	MP-8B	X	.005	.005	0	%100
33	MP-9	X	.006	.006	0	%100
34	MP-9B	X	.006	.006	0	%100
35	MP-10	X	.005	.005	0	%100
36	SA-1	X	.014	.014	0	%100
37	SA-2	X	.008	.008	0	%100
38	SA-3	X	.004	.004	0	%100
39	SF1-TH	X	.007	.007	0	%100



Company : Tower Engineering Professionals, Inc.
Designer : GHM
Job Number : TEP No. 55021.286047
Model Name : CCI BU No. 842858

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

	Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
40	SF2-TH	X	.002	.002	0	%100
41	TR-1	X	.001	.001	0	%100
42	TR-2	X	.001	.001	0	%100
43	TR-3	X	.001	.001	0	%100
44	TR-4	X	.001	.001	0	%100
45	TR-5	X	.001	.001	0	%100
46	TR-6	X	.001	.001	0	%100
47	TR-7	X	.000528	.000528	0	%100
48	TR-8	X	.000528	.000528	0	%100
49	TR-9	X	.000528	.000528	0	%100
50	TR-10	X	.000528	.000528	0	%100
51	TR-11	X	.000528	.000528	0	%100
52	TR-12	X	.000528	.000528	0	%100
53	TR-13	X	.002	.002	0	%100
54	TR-14	X	.002	.002	0	%100
55	TR-15	X	.002	.002	0	%100
56	TR-16	X	.002	.002	0	%100
57	TR-17	X	.002	.002	0	%100
58	TR-18	X	.002	.002	0	%100
59	FFHR	X	.004	.004	0	%100
60	SF2-HR	X	.002	.002	0	%100
61	SF1-HR	X	.006	.006	0	%100
62	HRC1	X	.001	.001	0	%100
63	HRC3	X	.004	.004	0	%100
64	HRC2	X	.005	.005	0	%100
65	CP-1	Z	-.004	-.004	0	%100
66	CP-2	Z	-.011	-.011	0	%100
67	CP-3	Z	-.015	-.015	0	%100
68	FF-TH	Z	-.005	-.005	0	%100
69	GSI-1A	Z	-.003	-.003	0	%100
70	GSI-1B	Z	-.003	-.003	0	%100
71	GSI-2A	Z	-.009	-.009	0	%100
72	GSI-2B	Z	-.009	-.009	0	%100
73	GSI-3A	Z	-.012	-.012	0	%100
74	GSI-3B	Z	-.012	-.012	0	%100
75	GSIP-1A	Z	-.006	-.006	0	%100
76	GSIP-1B	Z	-.008	-.008	0	%100
77	GSIP-2A	Z	-.008	-.008	0	%100
78	GSIP-2B	Z	-.002	-.002	0	%100
79	GSIP-3A	Z	-.002	-.002	0	%100
80	GSIP-3B	Z	-.006	-.006	0	%100
81	MP-1	Z	-.006	-.006	0	%100
82	MP-1B	Z	-.006	-.006	0	%100
83	MP-2	Z	-.006	-.006	0	%100
84	MP-2B	Z	-.005	-.005	0	%100
85	MP-3	Z	-.006	-.006	0	%100
86	MP-3B	Z	-.006	-.006	0	%100
87	MP-4	Z	-.006	-.006	0	%100
88	MP-4B	Z	-.006	-.006	0	%100
89	MP-5	Z	-.006	-.006	0	%100
90	MP-5B	Z	-.005	-.005	0	%100
91	MP-6	Z	-.006	-.006	0	%100
92	MP-6B	Z	-.006	-.006	0	%100
93	MP-7	Z	-.006	-.006	0	%100
94	MP-7B	Z	-.006	-.006	0	%100
95	MP-8	Z	-.006	-.006	0	%100
96	MP-8B	Z	-.005	-.005	0	%100



Company : Tower Engineering Professionals, Inc.
Designer : GHM
Job Number : TEP No. 55021.286047
Model Name : CCI BU No. 842858

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

	Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
97	MP-9	Z	-.006	-.006	0	%100
98	MP-9B	Z	-.006	-.006	0	%100
99	MP-10	Z	-.005	-.005	0	%100
100	SA-1	Z	-.012	-.012	0	%100
101	SA-2	Z	-.011	-.011	0	%100
102	SA-3	Z	-.003	-.003	0	%100
103	SF1-TH	Z	-.007	-.007	0	%100
104	SF2-TH	Z	-.002	-.002	0	%100
105	TR-1	Z	-.001	-.001	0	%100
106	TR-2	Z	-.001	-.001	0	%100
107	TR-3	Z	-.001	-.001	0	%100
108	TR-4	Z	-.001	-.001	0	%100
109	TR-5	Z	-.001	-.001	0	%100
110	TR-6	Z	-.001	-.001	0	%100
111	TR-7	Z	-.000502	-.000502	0	%100
112	TR-8	Z	-.000502	-.000502	0	%100
113	TR-9	Z	-.000502	-.000502	0	%100
114	TR-10	Z	-.000502	-.000502	0	%100
115	TR-11	Z	-.000502	-.000502	0	%100
116	TR-12	Z	-.000502	-.000502	0	%100
117	TR-13	Z	-.002	-.002	0	%100
118	TR-14	Z	-.002	-.002	0	%100
119	TR-15	Z	-.002	-.002	0	%100
120	TR-16	Z	-.002	-.002	0	%100
121	TR-17	Z	-.002	-.002	0	%100
122	TR-18	Z	-.002	-.002	0	%100
123	FFHR	Z	-.004	-.004	0	%100
124	SF2-HR	Z	-.002	-.002	0	%100
125	SF1-HR	Z	-.006	-.006	0	%100
126	HRC1	Z	-.002	-.002	0	%100
127	HRC3	Z	-.004	-.004	0	%100
128	HRC2	Z	-.006	-.006	0	%100

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

	Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
1	CP-1	X	0	0	0	%100
2	CP-2	X	.017	.017	0	%100
3	CP-3	X	.017	.017	0	%100
4	FF-TH	X	.008	.008	0	%100
5	GSI-1A	X	0	0	0	%100
6	GSI-1B	X	0	0	0	%100
7	GSI-2A	X	.013	.013	0	%100
8	GSI-2B	X	.013	.013	0	%100
9	GSI-3A	X	.012	.012	0	%100
10	GSI-3B	X	.012	.012	0	%100
11	GSIP-1A	X	.009	.009	0	%100
12	GSIP-1B	X	.007	.007	0	%100
13	GSIP-2A	X	.007	.007	0	%100
14	GSIP-2B	X	1e-6	1e-6	0	%100
15	GSIP-3A	X	0	0	0	%100
16	GSIP-3B	X	.009	.009	0	%100
17	MP-1	X	.008	.008	0	%100
18	MP-1B	X	.008	.008	0	%100
19	MP-2	X	.008	.008	0	%100
20	MP-2B	X	.006	.006	0	%100
21	MP-3	X	.008	.008	0	%100



Company : Tower Engineering Professionals, Inc.
Designer : GHM
Job Number : TEP No. 55021.286047
Model Name : CCI BU No. 842858

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

	Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
22	MP-3B	X	.008	.008	0	%100
23	MP-4	X	.008	.008	0	%100
24	MP-4B	X	.008	.008	0	%100
25	MP-5	X	.008	.008	0	%100
26	MP-5B	X	.006	.006	0	%100
27	MP-6	X	.008	.008	0	%100
28	MP-6B	X	.008	.008	0	%100
29	MP-7	X	.008	.008	0	%100
30	MP-7B	X	.008	.008	0	%100
31	MP-8	X	.008	.008	0	%100
32	MP-8B	X	.006	.006	0	%100
33	MP-9	X	.008	.008	0	%100
34	MP-9B	X	.008	.008	0	%100
35	MP-10	X	.006	.006	0	%100
36	SA-1	X	.018	.018	0	%100
37	SA-2	X	.007	.007	0	%100
38	SA-3	X	.009	.009	0	%100
39	SF1-TH	X	.007	.007	0	%100
40	SF2-TH	X	0	0	0	%100
41	TR-1	X	.001	.001	0	%100
42	TR-2	X	.001	.001	0	%100
43	TR-3	X	.001	.001	0	%100
44	TR-4	X	.001	.001	0	%100
45	TR-5	X	.001	.001	0	%100
46	TR-6	X	.001	.001	0	%100
47	TR-7	X	.001	.001	0	%100
48	TR-8	X	.001	.001	0	%100
49	TR-9	X	.001	.001	0	%100
50	TR-10	X	.001	.001	0	%100
51	TR-11	X	.001	.001	0	%100
52	TR-12	X	.001	.001	0	%100
53	TR-13	X	.002	.002	0	%100
54	TR-14	X	.002	.002	0	%100
55	TR-15	X	.002	.002	0	%100
56	TR-16	X	.002	.002	0	%100
57	TR-17	X	.002	.002	0	%100
58	TR-18	X	.002	.002	0	%100
59	FFHR	X	.007	.007	0	%100
60	SF2-HR	X	0	0	0	%100
61	SF1-HR	X	.007	.007	0	%100
62	HRC1	X	0	0	0	%100
63	HRC3	X	.006	.006	0	%100
64	HRC2	X	.006	.006	0	%100
65	CP-1	Z	0	0	0	%100
66	CP-2	Z	-.01	-.01	0	%100
67	CP-3	Z	-.01	-.01	0	%100
68	FF-TH	Z	-.005	-.005	0	%100
69	GSI-1A	Z	0	0	0	%100
70	GSI-1B	Z	0	0	0	%100
71	GSI-2A	Z	-.008	-.008	0	%100
72	GSI-2B	Z	-.008	-.008	0	%100
73	GSI-3A	Z	-.008	-.008	0	%100
74	GSI-3B	Z	-.008	-.008	0	%100
75	GSIP-1A	Z	-.005	-.005	0	%100
76	GSIP-1B	Z	-.005	-.005	0	%100
77	GSIP-2A	Z	-.005	-.005	0	%100
78	GSIP-2B	Z	0	0	0	%100



Company : Tower Engineering Professionals, Inc.
Designer : GHM
Job Number : TEP No. 55021.286047
Model Name : CCI BU No. 842858

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

	Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
79	GSIP-3A	Z	0	0	0	%100
80	GSIP-3B	Z	-.005	-.005	0	%100
81	MP-1	Z	-.004	-.004	0	%100
82	MP-1B	Z	-.004	-.004	0	%100
83	MP-2	Z	-.004	-.004	0	%100
84	MP-2B	Z	-.004	-.004	0	%100
85	MP-3	Z	-.004	-.004	0	%100
86	MP-3B	Z	-.004	-.004	0	%100
87	MP-4	Z	-.004	-.004	0	%100
88	MP-4B	Z	-.004	-.004	0	%100
89	MP-5	Z	-.004	-.004	0	%100
90	MP-5B	Z	-.004	-.004	0	%100
91	MP-6	Z	-.004	-.004	0	%100
92	MP-6B	Z	-.004	-.004	0	%100
93	MP-7	Z	-.004	-.004	0	%100
94	MP-7B	Z	-.004	-.004	0	%100
95	MP-8	Z	-.004	-.004	0	%100
96	MP-8B	Z	-.004	-.004	0	%100
97	MP-9	Z	-.004	-.004	0	%100
98	MP-9B	Z	-.004	-.004	0	%100
99	MP-10	Z	-.004	-.004	0	%100
100	SA-1	Z	-.009	-.009	0	%100
101	SA-2	Z	-.005	-.005	0	%100
102	SA-3	Z	-.004	-.004	0	%100
103	SF1-TH	Z	-.005	-.005	0	%100
104	SF2-TH	Z	0	0	0	%100
105	TR-1	Z	-.000735	-.000735	0	%100
106	TR-2	Z	-.000735	-.000735	0	%100
107	TR-3	Z	-.000735	-.000735	0	%100
108	TR-4	Z	-.000735	-.000735	0	%100
109	TR-5	Z	-.000735	-.000735	0	%100
110	TR-6	Z	-.000735	-.000735	0	%100
111	TR-7	Z	-.000685	-.000685	0	%100
112	TR-8	Z	-.000685	-.000685	0	%100
113	TR-9	Z	-.000685	-.000685	0	%100
114	TR-10	Z	-.000685	-.000685	0	%100
115	TR-11	Z	-.000685	-.000685	0	%100
116	TR-12	Z	-.000685	-.000685	0	%100
117	TR-13	Z	-.001	-.001	0	%100
118	TR-14	Z	-.001	-.001	0	%100
119	TR-15	Z	-.001	-.001	0	%100
120	TR-16	Z	-.001	-.001	0	%100
121	TR-17	Z	-.001	-.001	0	%100
122	TR-18	Z	-.001	-.001	0	%100
123	FFHR	Z	-.004	-.004	0	%100
124	SF2-HR	Z	0	0	0	%100
125	SF1-HR	Z	-.004	-.004	0	%100
126	HRC1	Z	0	0	0	%100
127	HRC3	Z	-.004	-.004	0	%100
128	HRC2	Z	-.004	-.004	0	%100

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

	Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
1	CP-1	X	.011	.011	0	%100
2	CP-2	X	.023	.023	0	%100
3	CP-3	X	.011	.011	0	%100



Company : Tower Engineering Professionals, Inc.
Designer : GHM
Job Number : TEP No. 55021.286047
Model Name : CCI BU No. 842858

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

	Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
4	FF-TH	X	.011	.011	0	%100
5	GSI-1A	X	.008	.008	0	%100
6	GSI-1B	X	.008	.008	0	%100
7	GSI-2A	X	.018	.018	0	%100
8	GSI-2B	X	.018	.018	0	%100
9	GSI-3A	X	.008	.008	0	%100
10	GSI-3B	X	.008	.008	0	%100
11	GSIP-1A	X	.012	.012	0	%100
12	GSIP-1B	X	.005	.005	0	%100
13	GSIP-2A	X	.005	.005	0	%100
14	GSIP-2B	X	.005	.005	0	%100
15	GSIP-3A	X	.005	.005	0	%100
16	GSIP-3B	X	.012	.012	0	%100
17	MP-1	X	.009	.009	0	%100
18	MP-1B	X	.009	.009	0	%100
19	MP-2	X	.009	.009	0	%100
20	MP-2B	X	.007	.007	0	%100
21	MP-3	X	.009	.009	0	%100
22	MP-3B	X	.009	.009	0	%100
23	MP-4	X	.009	.009	0	%100
24	MP-4B	X	.009	.009	0	%100
25	MP-5	X	.009	.009	0	%100
26	MP-5B	X	.007	.007	0	%100
27	MP-6	X	.009	.009	0	%100
28	MP-6B	X	.009	.009	0	%100
29	MP-7	X	.009	.009	0	%100
30	MP-7B	X	.009	.009	0	%100
31	MP-8	X	.009	.009	0	%100
32	MP-8B	X	.007	.007	0	%100
33	MP-9	X	.009	.009	0	%100
34	MP-9B	X	.009	.009	0	%100
35	MP-10	X	.007	.007	0	%100
36	SA-1	X	.018	.018	0	%100
37	SA-2	X	0	0	0	%100
38	SA-3	X	.018	.018	0	%100
39	SF1-TH	X	.005	.005	0	%100
40	SF2-TH	X	.005	.005	0	%100
41	TR-1	X	0	0	0	%100
42	TR-2	X	0	0	0	%100
43	TR-3	X	0	0	0	%100
44	TR-4	X	0	0	0	%100
45	TR-5	X	0	0	0	%100
46	TR-6	X	0	0	0	%100
47	TR-7	X	.002	.002	0	%100
48	TR-8	X	.002	.002	0	%100
49	TR-9	X	.002	.002	0	%100
50	TR-10	X	.002	.002	0	%100
51	TR-11	X	.002	.002	0	%100
52	TR-12	X	.002	.002	0	%100
53	TR-13	X	.002	.002	0	%100
54	TR-14	X	.002	.002	0	%100
55	TR-15	X	.002	.002	0	%100
56	TR-16	X	.002	.002	0	%100
57	TR-17	X	.002	.002	0	%100
58	TR-18	X	.002	.002	0	%100
59	FFHR	X	.009	.009	0	%100
60	SF2-HR	X	.004	.004	0	%100



Company : Tower Engineering Professionals, Inc.
Designer : GHM
Job Number : TEP No. 55021.286047
Model Name : CCI BU No. 842858

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

	Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
61	SF1-HR	X	.004	.004	0	%100
62	HRC1	X	.004	.004	0	%100
63	HRC3	X	.009	.009	0	%100
64	HRC2	X	.004	.004	0	%100

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

	Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
1	CP-1	X	.017	.017	0	%100
2	CP-2	X	.017	.017	0	%100
3	CP-3	X	0	0	0	%100
4	FF-TH	X	.008	.008	0	%100
5	GSI-1A	X	.012	.012	0	%100
6	GSI-1B	X	.012	.012	0	%100
7	GSI-2A	X	.013	.013	0	%100
8	GSI-2B	X	.013	.013	0	%100
9	GSI-3A	X	0	0	0	%100
10	GSI-3B	X	0	0	0	%100
11	GSIP-1A	X	.009	.009	0	%100
12	GSIP-1B	X	1e-6	1e-6	0	%100
13	GSIP-2A	X	0	0	0	%100
14	GSIP-2B	X	.007	.007	0	%100
15	GSIP-3A	X	.007	.007	0	%100
16	GSIP-3B	X	.009	.009	0	%100
17	MP-1	X	.008	.008	0	%100
18	MP-1B	X	.008	.008	0	%100
19	MP-2	X	.008	.008	0	%100
20	MP-2B	X	.006	.006	0	%100
21	MP-3	X	.008	.008	0	%100
22	MP-3B	X	.008	.008	0	%100
23	MP-4	X	.008	.008	0	%100
24	MP-4B	X	.008	.008	0	%100
25	MP-5	X	.008	.008	0	%100
26	MP-5B	X	.006	.006	0	%100
27	MP-6	X	.008	.008	0	%100
28	MP-6B	X	.008	.008	0	%100
29	MP-7	X	.008	.008	0	%100
30	MP-7B	X	.008	.008	0	%100
31	MP-8	X	.008	.008	0	%100
32	MP-8B	X	.006	.006	0	%100
33	MP-9	X	.008	.008	0	%100
34	MP-9B	X	.008	.008	0	%100
35	MP-10	X	.006	.006	0	%100
36	SA-1	X	.009	.009	0	%100
37	SA-2	X	.007	.007	0	%100
38	SA-3	X	.018	.018	0	%100
39	SF1-TH	X	0	0	0	%100
40	SF2-TH	X	.007	.007	0	%100
41	TR-1	X	.001	.001	0	%100
42	TR-2	X	.001	.001	0	%100
43	TR-3	X	.001	.001	0	%100
44	TR-4	X	.001	.001	0	%100
45	TR-5	X	.001	.001	0	%100
46	TR-6	X	.001	.001	0	%100
47	TR-7	X	.002	.002	0	%100
48	TR-8	X	.002	.002	0	%100
49	TR-9	X	.002	.002	0	%100



Company : Tower Engineering Professionals, Inc.
Designer : GHM
Job Number : TEP No. 55021.286047
Model Name : CCI BU No. 842858

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

	Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
50	TR-10	X	.002	.002	0	%100
51	TR-11	X	.002	.002	0	%100
52	TR-12	X	.002	.002	0	%100
53	TR-13	X	.001	.001	0	%100
54	TR-14	X	.001	.001	0	%100
55	TR-15	X	.001	.001	0	%100
56	TR-16	X	.001	.001	0	%100
57	TR-17	X	.001	.001	0	%100
58	TR-18	X	.001	.001	0	%100
59	FFHR	X	.007	.007	0	%100
60	SF2-HR	X	.007	.007	0	%100
61	SF1-HR	X	0	0	0	%100
62	HRC1	X	.006	.006	0	%100
63	HRC3	X	.006	.006	0	%100
64	HRC2	X	0	0	0	%100
65	CP-1	Z	.01	.01	0	%100
66	CP-2	Z	.01	.01	0	%100
67	CP-3	Z	0	0	0	%100
68	FF-TH	Z	.005	.005	0	%100
69	GSI-1A	Z	.008	.008	0	%100
70	GSI-1B	Z	.008	.008	0	%100
71	GSI-2A	Z	.008	.008	0	%100
72	GSI-2B	Z	.008	.008	0	%100
73	GSI-3A	Z	0	0	0	%100
74	GSI-3B	Z	0	0	0	%100
75	GSIP-1A	Z	.005	.005	0	%100
76	GSIP-1B	Z	0	0	0	%100
77	GSIP-2A	Z	0	0	0	%100
78	GSIP-2B	Z	.005	.005	0	%100
79	GSIP-3A	Z	.005	.005	0	%100
80	GSIP-3B	Z	.005	.005	0	%100
81	MP-1	Z	.004	.004	0	%100
82	MP-1B	Z	.004	.004	0	%100
83	MP-2	Z	.004	.004	0	%100
84	MP-2B	Z	.004	.004	0	%100
85	MP-3	Z	.004	.004	0	%100
86	MP-3B	Z	.004	.004	0	%100
87	MP-4	Z	.004	.004	0	%100
88	MP-4B	Z	.004	.004	0	%100
89	MP-5	Z	.004	.004	0	%100
90	MP-5B	Z	.004	.004	0	%100
91	MP-6	Z	.004	.004	0	%100
92	MP-6B	Z	.004	.004	0	%100
93	MP-7	Z	.004	.004	0	%100
94	MP-7B	Z	.004	.004	0	%100
95	MP-8	Z	.004	.004	0	%100
96	MP-8B	Z	.004	.004	0	%100
97	MP-9	Z	.004	.004	0	%100
98	MP-9B	Z	.004	.004	0	%100
99	MP-10	Z	.004	.004	0	%100
100	SA-1	Z	.004	.004	0	%100
101	SA-2	Z	.005	.005	0	%100
102	SA-3	Z	.009	.009	0	%100
103	SF1-TH	Z	0	0	0	%100
104	SF2-TH	Z	.005	.005	0	%100
105	TR-1	Z	.000735	.000735	0	%100
106	TR-2	Z	.000735	.000735	0	%100



Company : Tower Engineering Professionals, Inc.
Designer : GHM
Job Number : TEP No. 55021.286047
Model Name : CCI BU No. 842858

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

	Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
107	TR-3	Z	.000735	.000735	0	%100
108	TR-4	Z	.000735	.000735	0	%100
109	TR-5	Z	.000735	.000735	0	%100
110	TR-6	Z	.000735	.000735	0	%100
111	TR-7	Z	.001	.001	0	%100
112	TR-8	Z	.001	.001	0	%100
113	TR-9	Z	.001	.001	0	%100
114	TR-10	Z	.001	.001	0	%100
115	TR-11	Z	.001	.001	0	%100
116	TR-12	Z	.001	.001	0	%100
117	TR-13	Z	.000685	.000685	0	%100
118	TR-14	Z	.000685	.000685	0	%100
119	TR-15	Z	.000685	.000685	0	%100
120	TR-16	Z	.000685	.000685	0	%100
121	TR-17	Z	.000685	.000685	0	%100
122	TR-18	Z	.000685	.000685	0	%100
123	FFHR	Z	.004	.004	0	%100
124	SF2-HR	Z	.004	.004	0	%100
125	SF1-HR	Z	0	0	0	%100
126	HRC1	Z	.004	.004	0	%100
127	HRC3	Z	.004	.004	0	%100
128	HRC2	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
1	CP-1	X	.015	.015	0	%100
2	CP-2	X	.011	.011	0	%100
3	CP-3	X	.004	.004	0	%100
4	FF-TH	X	.005	.005	0	%100
5	GSI-1A	X	.011	.011	0	%100
6	GSI-1B	X	.011	.011	0	%100
7	GSI-2A	X	.009	.009	0	%100
8	GSI-2B	X	.009	.009	0	%100
9	GSI-3A	X	.003	.003	0	%100
10	GSI-3B	X	.003	.003	0	%100
11	GSIP-1A	X	.006	.006	0	%100
12	GSIP-1B	X	.002	.002	0	%100
13	GSIP-2A	X	.002	.002	0	%100
14	GSIP-2B	X	.007	.007	0	%100
15	GSIP-3A	X	.007	.007	0	%100
16	GSIP-3B	X	.006	.006	0	%100
17	MP-1	X	.006	.006	0	%100
18	MP-1B	X	.006	.006	0	%100
19	MP-2	X	.006	.006	0	%100
20	MP-2B	X	.005	.005	0	%100
21	MP-3	X	.006	.006	0	%100
22	MP-3B	X	.006	.006	0	%100
23	MP-4	X	.006	.006	0	%100
24	MP-4B	X	.006	.006	0	%100
25	MP-5	X	.006	.006	0	%100
26	MP-5B	X	.005	.005	0	%100
27	MP-6	X	.006	.006	0	%100
28	MP-6B	X	.006	.006	0	%100
29	MP-7	X	.006	.006	0	%100
30	MP-7B	X	.006	.006	0	%100
31	MP-8	X	.006	.006	0	%100



Company : Tower Engineering Professionals, Inc.
Designer : GHM
Job Number : TEP No. 55021.286047
Model Name : CCI BU No. 842858

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

	Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
32	MP-8B	X	.005	.005	0	%100
33	MP-9	X	.006	.006	0	%100
34	MP-9B	X	.006	.006	0	%100
35	MP-10	X	.005	.005	0	%100
36	SA-1	X	.004	.004	0	%100
37	SA-2	X	.008	.008	0	%100
38	SA-3	X	.014	.014	0	%100
39	SF1-TH	X	.002	.002	0	%100
40	SF2-TH	X	.007	.007	0	%100
41	TR-1	X	.001	.001	0	%100
42	TR-2	X	.001	.001	0	%100
43	TR-3	X	.001	.001	0	%100
44	TR-4	X	.001	.001	0	%100
45	TR-5	X	.001	.001	0	%100
46	TR-6	X	.001	.001	0	%100
47	TR-7	X	.002	.002	0	%100
48	TR-8	X	.002	.002	0	%100
49	TR-9	X	.002	.002	0	%100
50	TR-10	X	.002	.002	0	%100
51	TR-11	X	.002	.002	0	%100
52	TR-12	X	.002	.002	0	%100
53	TR-13	X	.000528	.000528	0	%100
54	TR-14	X	.000528	.000528	0	%100
55	TR-15	X	.000528	.000528	0	%100
56	TR-16	X	.000528	.000528	0	%100
57	TR-17	X	.000528	.000528	0	%100
58	TR-18	X	.000528	.000528	0	%100
59	FFHR	X	.004	.004	0	%100
60	SF2-HR	X	.006	.006	0	%100
61	SF1-HR	X	.002	.002	0	%100
62	HRC1	X	.005	.005	0	%100
63	HRC3	X	.004	.004	0	%100
64	HRC2	X	.001	.001	0	%100
65	CP-1	Z	.015	.015	0	%100
66	CP-2	Z	.011	.011	0	%100
67	CP-3	Z	.004	.004	0	%100
68	FF-TH	Z	.005	.005	0	%100
69	GSI-1A	Z	.012	.012	0	%100
70	GSI-1B	Z	.012	.012	0	%100
71	GSI-2A	Z	.009	.009	0	%100
72	GSI-2B	Z	.009	.009	0	%100
73	GSI-3A	Z	.003	.003	0	%100
74	GSI-3B	Z	.003	.003	0	%100
75	GSIP-1A	Z	.006	.006	0	%100
76	GSIP-1B	Z	.002	.002	0	%100
77	GSIP-2A	Z	.002	.002	0	%100
78	GSIP-2B	Z	.008	.008	0	%100
79	GSIP-3A	Z	.008	.008	0	%100
80	GSIP-3B	Z	.006	.006	0	%100
81	MP-1	Z	.006	.006	0	%100
82	MP-1B	Z	.006	.006	0	%100
83	MP-2	Z	.006	.006	0	%100
84	MP-2B	Z	.005	.005	0	%100
85	MP-3	Z	.006	.006	0	%100
86	MP-3B	Z	.006	.006	0	%100
87	MP-4	Z	.006	.006	0	%100
88	MP-4B	Z	.006	.006	0	%100



Company : Tower Engineering Professionals, Inc.
Designer : GHM
Job Number : TEP No. 55021.286047
Model Name : CCI BU No. 842858

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

Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
89	MP-5	.006	.006	0	%100
90	MP-5B	.005	.005	0	%100
91	MP-6	.006	.006	0	%100
92	MP-6B	.006	.006	0	%100
93	MP-7	.006	.006	0	%100
94	MP-7B	.006	.006	0	%100
95	MP-8	.006	.006	0	%100
96	MP-8B	.005	.005	0	%100
97	MP-9	.006	.006	0	%100
98	MP-9B	.006	.006	0	%100
99	MP-10	.005	.005	0	%100
100	SA-1	.003	.003	0	%100
101	SA-2	.011	.011	0	%100
102	SA-3	.012	.012	0	%100
103	SF1-TH	.002	.002	0	%100
104	SF2-TH	.007	.007	0	%100
105	TR-1	.001	.001	0	%100
106	TR-2	.001	.001	0	%100
107	TR-3	.001	.001	0	%100
108	TR-4	.001	.001	0	%100
109	TR-5	.001	.001	0	%100
110	TR-6	.001	.001	0	%100
111	TR-7	.002	.002	0	%100
112	TR-8	.002	.002	0	%100
113	TR-9	.002	.002	0	%100
114	TR-10	.002	.002	0	%100
115	TR-11	.002	.002	0	%100
116	TR-12	.002	.002	0	%100
117	TR-13	.000502	.000502	0	%100
118	TR-14	.000502	.000502	0	%100
119	TR-15	.000502	.000502	0	%100
120	TR-16	.000502	.000502	0	%100
121	TR-17	.000502	.000502	0	%100
122	TR-18	.000502	.000502	0	%100
123	FFHR	.004	.004	0	%100
124	SF2-HR	.006	.006	0	%100
125	SF1-HR	.002	.002	0	%100
126	HRC1	.006	.006	0	%100
127	HRC3	.004	.004	0	%100
128	HRC2	.002	.002	0	%100

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

Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
1	CP-1	.011	.011	0	%100
2	CP-2	.006	.006	0	%100
3	CP-3	.006	.006	0	%100
4	FF-TH	.003	.003	0	%100
5	GSI-1A	.008	.008	0	%100
6	GSI-1B	.008	.008	0	%100
7	GSI-2A	.004	.004	0	%100
8	GSI-2B	.004	.004	0	%100
9	GSI-3A	.004	.004	0	%100
10	GSI-3B	.004	.004	0	%100
11	GSIP-1A	.003	.003	0	%100
12	GSIP-1B	.002	.002	0	%100
13	GSIP-2A	.002	.002	0	%100



Company : Tower Engineering Professionals, Inc.
Designer : GHM
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Member Distributed Loads (BLC 13 : 240 Wind - No Ice) (Continued)

Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
14	GSIP-2B	.005	.005	0	%100
15	GSIP-3A	.005	.005	0	%100
16	GSIP-3B	.003	.003	0	%100
17	MP-1	.004	.004	0	%100
18	MP-1B	.004	.004	0	%100
19	MP-2	.004	.004	0	%100
20	MP-2B	.004	.004	0	%100
21	MP-3	.004	.004	0	%100
22	MP-3B	.004	.004	0	%100
23	MP-4	.004	.004	0	%100
24	MP-4B	.004	.004	0	%100
25	MP-5	.004	.004	0	%100
26	MP-5B	.004	.004	0	%100
27	MP-6	.004	.004	0	%100
28	MP-6B	.004	.004	0	%100
29	MP-7	.004	.004	0	%100
30	MP-7B	.004	.004	0	%100
31	MP-8	.004	.004	0	%100
32	MP-8B	.004	.004	0	%100
33	MP-9	.004	.004	0	%100
34	MP-9B	.004	.004	0	%100
35	MP-10	.004	.004	0	%100
36	SA-1	0	0	0	%100
37	SA-2	.007	.007	0	%100
38	SA-3	.009	.009	0	%100
39	SF1-TH	.002	.002	0	%100
40	SF2-TH	.005	.005	0	%100
41	TR-1	.001	.001	0	%100
42	TR-2	.001	.001	0	%100
43	TR-3	.001	.001	0	%100
44	TR-4	.001	.001	0	%100
45	TR-5	.001	.001	0	%100
46	TR-6	.001	.001	0	%100
47	TR-7	.001	.001	0	%100
48	TR-8	.001	.001	0	%100
49	TR-9	.001	.001	0	%100
50	TR-10	.001	.001	0	%100
51	TR-11	.001	.001	0	%100
52	TR-12	.001	.001	0	%100
53	TR-13	0	0	0	%100
54	TR-14	0	0	0	%100
55	TR-15	0	0	0	%100
56	TR-16	0	0	0	%100
57	TR-17	0	0	0	%100
58	TR-18	0	0	0	%100
59	FFHR	.002	.002	0	%100
60	SF2-HR	.004	.004	0	%100
61	SF1-HR	.002	.002	0	%100
62	HRC1	.004	.004	0	%100
63	HRC3	.002	.002	0	%100
64	HRC2	.002	.002	0	%100
65	CP-1	.02	.02	0	%100
66	CP-2	.01	.01	0	%100
67	CP-3	.01	.01	0	%100
68	FF-TH	.005	.005	0	%100
69	GSI-1A	.015	.015	0	%100
70	GSI-1B	.015	.015	0	%100



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

	Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
71	GSI-2A	Z	.008	.008	0	%100
72	GSI-2B	Z	.008	.008	0	%100
73	GSI-3A	Z	.008	.008	0	%100
74	GSI-3B	Z	.008	.008	0	%100
75	GSIP-1A	Z	.005	.005	0	%100
76	GSIP-1B	Z	.005	.005	0	%100
77	GSIP-2A	Z	.005	.005	0	%100
78	GSIP-2B	Z	.01	.01	0	%100
79	GSIP-3A	Z	.01	.01	0	%100
80	GSIP-3B	Z	.005	.005	0	%100
81	MP-1	Z	.008	.008	0	%100
82	MP-1B	Z	.008	.008	0	%100
83	MP-2	Z	.008	.008	0	%100
84	MP-2B	Z	.006	.006	0	%100
85	MP-3	Z	.008	.008	0	%100
86	MP-3B	Z	.008	.008	0	%100
87	MP-4	Z	.008	.008	0	%100
88	MP-4B	Z	.008	.008	0	%100
89	MP-5	Z	.008	.008	0	%100
90	MP-5B	Z	.006	.006	0	%100
91	MP-6	Z	.008	.008	0	%100
92	MP-6B	Z	.008	.008	0	%100
93	MP-7	Z	.008	.008	0	%100
94	MP-7B	Z	.008	.008	0	%100
95	MP-8	Z	.008	.008	0	%100
96	MP-8B	Z	.006	.006	0	%100
97	MP-9	Z	.008	.008	0	%100
98	MP-9B	Z	.008	.008	0	%100
99	MP-10	Z	.006	.006	0	%100
100	SA-1	Z	0	0	0	%100
101	SA-2	Z	.016	.016	0	%100
102	SA-3	Z	.013	.013	0	%100
103	SF1-TH	Z	.005	.005	0	%100
104	SF2-TH	Z	.009	.009	0	%100
105	TR-1	Z	.002	.002	0	%100
106	TR-2	Z	.002	.002	0	%100
107	TR-3	Z	.002	.002	0	%100
108	TR-4	Z	.002	.002	0	%100
109	TR-5	Z	.002	.002	0	%100
110	TR-6	Z	.002	.002	0	%100
111	TR-7	Z	.002	.002	0	%100
112	TR-8	Z	.002	.002	0	%100
113	TR-9	Z	.002	.002	0	%100
114	TR-10	Z	.002	.002	0	%100
115	TR-11	Z	.002	.002	0	%100
116	TR-12	Z	.002	.002	0	%100
117	TR-13	Z	0	0	0	%100
118	TR-14	Z	0	0	0	%100
119	TR-15	Z	0	0	0	%100
120	TR-16	Z	0	0	0	%100
121	TR-17	Z	0	0	0	%100
122	TR-18	Z	0	0	0	%100
123	FFHR	Z	.004	.004	0	%100
124	SF2-HR	Z	.008	.008	0	%100
125	SF1-HR	Z	.004	.004	0	%100
126	HRC1	Z	.007	.007	0	%100
127	HRC3	Z	.004	.004	0	%100



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

	Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
128	HRC2	Z	.004	.004	0	%100

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

	Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
1	CP-1	Z	.02	.02	0	%100
2	CP-2	Z	0	0	0	%100
3	CP-3	Z	.02	.02	0	%100
4	FF-TH	Z	0	0	0	%100
5	GSI-1A	Z	.015	.015	0	%100
6	GSI-1B	Z	.015	.015	0	%100
7	GSI-2A	Z	0	0	0	%100
8	GSI-2B	Z	0	0	0	%100
9	GSI-3A	Z	.015	.015	0	%100
10	GSI-3B	Z	.015	.015	0	%100
11	GSIP-1A	Z	0	0	0	%100
12	GSIP-1B	Z	.01	.01	0	%100
13	GSIP-2A	Z	.01	.01	0	%100
14	GSIP-2B	Z	.01	.01	0	%100
15	GSIP-3A	Z	.01	.01	0	%100
16	GSIP-3B	Z	0	0	0	%100
17	MP-1	Z	.009	.009	0	%100
18	MP-1B	Z	.009	.009	0	%100
19	MP-2	Z	.009	.009	0	%100
20	MP-2B	Z	.007	.007	0	%100
21	MP-3	Z	.009	.009	0	%100
22	MP-3B	Z	.009	.009	0	%100
23	MP-4	Z	.009	.009	0	%100
24	MP-4B	Z	.009	.009	0	%100
25	MP-5	Z	.009	.009	0	%100
26	MP-5B	Z	.007	.007	0	%100
27	MP-6	Z	.009	.009	0	%100
28	MP-6B	Z	.009	.009	0	%100
29	MP-7	Z	.009	.009	0	%100
30	MP-7B	Z	.009	.009	0	%100
31	MP-8	Z	.009	.009	0	%100
32	MP-8B	Z	.007	.007	0	%100
33	MP-9	Z	.009	.009	0	%100
34	MP-9B	Z	.009	.009	0	%100
35	MP-10	Z	.007	.007	0	%100
36	SA-1	Z	.009	.009	0	%100
37	SA-2	Z	.021	.021	0	%100
38	SA-3	Z	.009	.009	0	%100
39	SF1-TH	Z	.009	.009	0	%100
40	SF2-TH	Z	.009	.009	0	%100
41	TR-1	Z	.003	.003	0	%100
42	TR-2	Z	.003	.003	0	%100
43	TR-3	Z	.003	.003	0	%100
44	TR-4	Z	.003	.003	0	%100
45	TR-5	Z	.003	.003	0	%100
46	TR-6	Z	.003	.003	0	%100
47	TR-7	Z	.001	.001	0	%100
48	TR-8	Z	.001	.001	0	%100
49	TR-9	Z	.001	.001	0	%100
50	TR-10	Z	.001	.001	0	%100
51	TR-11	Z	.001	.001	0	%100
52	TR-12	Z	.001	.001	0	%100



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

	Member Label	Direction	Start Magnitude[k/ft,....]	End Magnitude[k/ft,F,....]	Start Location[ft.%]	End Location[ft.%]
53	TR-13	Z	.001	.001	0	%100
54	TR-14	Z	.001	.001	0	%100
55	TR-15	Z	.001	.001	0	%100
56	TR-16	Z	.001	.001	0	%100
57	TR-17	Z	.001	.001	0	%100
58	TR-18	Z	.001	.001	0	%100
59	FFHR	Z	0	0	0	%100
60	SF2-HR	Z	.008	.008	0	%100
61	SF1-HR	Z	.008	.008	0	%100
62	HRC1	Z	.007	.007	0	%100
63	HRC3	Z	0	0	0	%100
64	HRC2	Z	.007	.007	0	%100

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

	Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
1	CP-1	X	-0.006	-0.006	0	%100
2	CP-2	X	-0.006	-0.006	0	%100
3	CP-3	X	-0.011	-0.011	0	%100
4	FF-TH	X	-0.003	-0.003	0	%100
5	GSI-1A	X	-0.004	-0.004	0	%100
6	GSI-1B	X	-0.004	-0.004	0	%100
7	GSI-2A	X	-0.004	-0.004	0	%100
8	GSI-2B	X	-0.004	-0.004	0	%100
9	GSI-3A	X	-0.008	-0.008	0	%100
10	GSI-3B	X	-0.008	-0.008	0	%100
11	GSIP-1A	X	-0.003	-0.003	0	%100
12	GSIP-1B	X	-0.005	-0.005	0	%100
13	GSIP-2A	X	-0.005	-0.005	0	%100
14	GSIP-2B	X	-0.002	-0.002	0	%100
15	GSIP-3A	X	-0.002	-0.002	0	%100
16	GSIP-3B	X	-0.003	-0.003	0	%100
17	MP-1	X	-0.004	-0.004	0	%100
18	MP-1B	X	-0.004	-0.004	0	%100
19	MP-2	X	-0.004	-0.004	0	%100
20	MP-2B	X	-0.004	-0.004	0	%100
21	MP-3	X	-0.004	-0.004	0	%100
22	MP-3B	X	-0.004	-0.004	0	%100
23	MP-4	X	-0.004	-0.004	0	%100
24	MP-4B	X	-0.004	-0.004	0	%100
25	MP-5	X	-0.004	-0.004	0	%100
26	MP-5B	X	-0.004	-0.004	0	%100
27	MP-6	X	-0.004	-0.004	0	%100
28	MP-6B	X	-0.004	-0.004	0	%100
29	MP-7	X	-0.004	-0.004	0	%100
30	MP-7B	X	-0.004	-0.004	0	%100
31	MP-8	X	-0.004	-0.004	0	%100
32	MP-8B	X	-0.004	-0.004	0	%100
33	MP-9	X	-0.004	-0.004	0	%100
34	MP-9B	X	-0.004	-0.004	0	%100
35	MP-10	X	-0.004	-0.004	0	%100
36	SA-1	X	-0.009	-0.009	0	%100
37	SA-2	X	-0.007	-0.007	0	%100
38	SA-3	X	0	0	0	%100
39	SF1-TH	X	-0.005	-0.005	0	%100
40	SF2-TH	X	-0.002	-0.002	0	%100
41	TR-1	X	-0.001	-0.001	0	%100



Company : Tower Engineering Professionals, Inc.
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Member Distributed Loads (BLC 15 : 300 Wind - No Ice) (Continued)

	Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
42	TR-2	X	-.001	-.001	0	%100
43	TR-3	X	-.001	-.001	0	%100
44	TR-4	X	-.001	-.001	0	%100
45	TR-5	X	-.001	-.001	0	%100
46	TR-6	X	-.001	-.001	0	%100
47	TR-7	X	0	0	0	%100
48	TR-8	X	0	0	0	%100
49	TR-9	X	0	0	0	%100
50	TR-10	X	0	0	0	%100
51	TR-11	X	0	0	0	%100
52	TR-12	X	0	0	0	%100
53	TR-13	X	-.001	-.001	0	%100
54	TR-14	X	-.001	-.001	0	%100
55	TR-15	X	-.001	-.001	0	%100
56	TR-16	X	-.001	-.001	0	%100
57	TR-17	X	-.001	-.001	0	%100
58	TR-18	X	-.001	-.001	0	%100
59	FFHR	X	-.002	-.002	0	%100
60	SF2-HR	X	-.002	-.002	0	%100
61	SF1-HR	X	-.004	-.004	0	%100
62	HRC1	X	-.002	-.002	0	%100
63	HRC3	X	-.002	-.002	0	%100
64	HRC2	X	-.004	-.004	0	%100
65	CP-1	Z	.01	.01	0	%100
66	CP-2	Z	.01	.01	0	%100
67	CP-3	Z	.02	.02	0	%100
68	FF-TH	Z	.005	.005	0	%100
69	GSI-1A	Z	.008	.008	0	%100
70	GSI-1B	Z	.008	.008	0	%100
71	GSI-2A	Z	.008	.008	0	%100
72	GSI-2B	Z	.008	.008	0	%100
73	GSI-3A	Z	.015	.015	0	%100
74	GSI-3B	Z	.015	.015	0	%100
75	GSIP-1A	Z	.005	.005	0	%100
76	GSIP-1B	Z	.01	.01	0	%100
77	GSIP-2A	Z	.01	.01	0	%100
78	GSIP-2B	Z	.005	.005	0	%100
79	GSIP-3A	Z	.005	.005	0	%100
80	GSIP-3B	Z	.005	.005	0	%100
81	MP-1	Z	.008	.008	0	%100
82	MP-1B	Z	.008	.008	0	%100
83	MP-2	Z	.008	.008	0	%100
84	MP-2B	Z	.006	.006	0	%100
85	MP-3	Z	.008	.008	0	%100
86	MP-3B	Z	.008	.008	0	%100
87	MP-4	Z	.008	.008	0	%100
88	MP-4B	Z	.008	.008	0	%100
89	MP-5	Z	.008	.008	0	%100
90	MP-5B	Z	.006	.006	0	%100
91	MP-6	Z	.008	.008	0	%100
92	MP-6B	Z	.008	.008	0	%100
93	MP-7	Z	.008	.008	0	%100
94	MP-7B	Z	.008	.008	0	%100
95	MP-8	Z	.008	.008	0	%100
96	MP-8B	Z	.006	.006	0	%100
97	MP-9	Z	.008	.008	0	%100
98	MP-9B	Z	.008	.008	0	%100



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

	Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
99	MP-10	Z	.006	.006	0	%100
100	SA-1	Z	.013	.013	0	%100
101	SA-2	Z	.016	.016	0	%100
102	SA-3	Z	0	0	0	%100
103	SF1-TH	Z	.009	.009	0	%100
104	SF2-TH	Z	.005	.005	0	%100
105	TR-1	Z	.002	.002	0	%100
106	TR-2	Z	.002	.002	0	%100
107	TR-3	Z	.002	.002	0	%100
108	TR-4	Z	.002	.002	0	%100
109	TR-5	Z	.002	.002	0	%100
110	TR-6	Z	.002	.002	0	%100
111	TR-7	Z	0	0	0	%100
112	TR-8	Z	0	0	0	%100
113	TR-9	Z	0	0	0	%100
114	TR-10	Z	0	0	0	%100
115	TR-11	Z	0	0	0	%100
116	TR-12	Z	0	0	0	%100
117	TR-13	Z	.002	.002	0	%100
118	TR-14	Z	.002	.002	0	%100
119	TR-15	Z	.002	.002	0	%100
120	TR-16	Z	.002	.002	0	%100
121	TR-17	Z	.002	.002	0	%100
122	TR-18	Z	.002	.002	0	%100
123	FFHR	Z	.004	.004	0	%100
124	SF2-HR	Z	.004	.004	0	%100
125	SF1-HR	Z	.008	.008	0	%100
126	HRC1	Z	.004	.004	0	%100
127	HRC3	Z	.004	.004	0	%100
128	HRC2	Z	.007	.007	0	%100

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

	Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
1	CP-1	X	-.004	-.004	0	%100
2	CP-2	X	-.011	-.011	0	%100
3	CP-3	X	-.015	-.015	0	%100
4	FF-TH	X	-.005	-.005	0	%100
5	GSI-1A	X	-.003	-.003	0	%100
6	GSI-1B	X	-.003	-.003	0	%100
7	GSI-2A	X	-.009	-.009	0	%100
8	GSI-2B	X	-.009	-.009	0	%100
9	GSI-3A	X	-.011	-.011	0	%100
10	GSI-3B	X	-.011	-.011	0	%100
11	GSIP-1A	X	-.006	-.006	0	%100
12	GSIP-1B	X	-.007	-.007	0	%100
13	GSIP-2A	X	-.007	-.007	0	%100
14	GSIP-2B	X	-.002	-.002	0	%100
15	GSIP-3A	X	-.002	-.002	0	%100
16	GSIP-3B	X	-.006	-.006	0	%100
17	MP-1	X	-.006	-.006	0	%100
18	MP-1B	X	-.006	-.006	0	%100
19	MP-2	X	-.006	-.006	0	%100
20	MP-2B	X	-.005	-.005	0	%100
21	MP-3	X	-.006	-.006	0	%100
22	MP-3B	X	-.006	-.006	0	%100
23	MP-4	X	-.006	-.006	0	%100



Company : Tower Engineering Professionals, Inc.
Designer : GHM
Job Number : TEP No. 55021.286047
Model Name : CCI BU No. 842858

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

	Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
24	MP-4B	X	-.006	-.006	0	%100
25	MP-5	X	-.006	-.006	0	%100
26	MP-5B	X	-.005	-.005	0	%100
27	MP-6	X	-.006	-.006	0	%100
28	MP-6B	X	-.006	-.006	0	%100
29	MP-7	X	-.006	-.006	0	%100
30	MP-7B	X	-.006	-.006	0	%100
31	MP-8	X	-.006	-.006	0	%100
32	MP-8B	X	-.005	-.005	0	%100
33	MP-9	X	-.006	-.006	0	%100
34	MP-9B	X	-.006	-.006	0	%100
35	MP-10	X	-.005	-.005	0	%100
36	SA-1	X	-.014	-.014	0	%100
37	SA-2	X	-.008	-.008	0	%100
38	SA-3	X	-.004	-.004	0	%100
39	SF1-TH	X	-.007	-.007	0	%100
40	SF2-TH	X	-.002	-.002	0	%100
41	TR-1	X	-.001	-.001	0	%100
42	TR-2	X	-.001	-.001	0	%100
43	TR-3	X	-.001	-.001	0	%100
44	TR-4	X	-.001	-.001	0	%100
45	TR-5	X	-.001	-.001	0	%100
46	TR-6	X	-.001	-.001	0	%100
47	TR-7	X	-.000528	-.000528	0	%100
48	TR-8	X	-.000528	-.000528	0	%100
49	TR-9	X	-.000528	-.000528	0	%100
50	TR-10	X	-.000528	-.000528	0	%100
51	TR-11	X	-.000528	-.000528	0	%100
52	TR-12	X	-.000528	-.000528	0	%100
53	TR-13	X	-.002	-.002	0	%100
54	TR-14	X	-.002	-.002	0	%100
55	TR-15	X	-.002	-.002	0	%100
56	TR-16	X	-.002	-.002	0	%100
57	TR-17	X	-.002	-.002	0	%100
58	TR-18	X	-.002	-.002	0	%100
59	FFHR	X	-.004	-.004	0	%100
60	SF2-HR	X	-.002	-.002	0	%100
61	SF1-HR	X	-.006	-.006	0	%100
62	HRC1	X	-.001	-.001	0	%100
63	HRC3	X	-.004	-.004	0	%100
64	HRC2	X	-.005	-.005	0	%100
65	CP-1	Z	.004	.004	0	%100
66	CP-2	Z	.011	.011	0	%100
67	CP-3	Z	.015	.015	0	%100
68	FF-TH	Z	.005	.005	0	%100
69	GSI-1A	Z	.003	.003	0	%100
70	GSI-1B	Z	.003	.003	0	%100
71	GSI-2A	Z	.009	.009	0	%100
72	GSI-2B	Z	.009	.009	0	%100
73	GSI-3A	Z	.012	.012	0	%100
74	GSI-3B	Z	.012	.012	0	%100
75	GSIP-1A	Z	.006	.006	0	%100
76	GSIP-1B	Z	.008	.008	0	%100
77	GSIP-2A	Z	.008	.008	0	%100
78	GSIP-2B	Z	.002	.002	0	%100
79	GSIP-3A	Z	.002	.002	0	%100
80	GSIP-3B	Z	.006	.006	0	%100



Company : Tower Engineering Professionals, Inc.
Designer : GHM
Job Number : TEP No. 55021.286047
Model Name : CCI BU No. 842858

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

	Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
81	MP-1	Z	.006	.006	0	%100
82	MP-1B	Z	.006	.006	0	%100
83	MP-2	Z	.006	.006	0	%100
84	MP-2B	Z	.005	.005	0	%100
85	MP-3	Z	.006	.006	0	%100
86	MP-3B	Z	.006	.006	0	%100
87	MP-4	Z	.006	.006	0	%100
88	MP-4B	Z	.006	.006	0	%100
89	MP-5	Z	.006	.006	0	%100
90	MP-5B	Z	.005	.005	0	%100
91	MP-6	Z	.006	.006	0	%100
92	MP-6B	Z	.006	.006	0	%100
93	MP-7	Z	.006	.006	0	%100
94	MP-7B	Z	.006	.006	0	%100
95	MP-8	Z	.006	.006	0	%100
96	MP-8B	Z	.005	.005	0	%100
97	MP-9	Z	.006	.006	0	%100
98	MP-9B	Z	.006	.006	0	%100
99	MP-10	Z	.005	.005	0	%100
100	SA-1	Z	.012	.012	0	%100
101	SA-2	Z	.011	.011	0	%100
102	SA-3	Z	.003	.003	0	%100
103	SF1-TH	Z	.007	.007	0	%100
104	SF2-TH	Z	.002	.002	0	%100
105	TR-1	Z	.001	.001	0	%100
106	TR-2	Z	.001	.001	0	%100
107	TR-3	Z	.001	.001	0	%100
108	TR-4	Z	.001	.001	0	%100
109	TR-5	Z	.001	.001	0	%100
110	TR-6	Z	.001	.001	0	%100
111	TR-7	Z	.000502	.000502	0	%100
112	TR-8	Z	.000502	.000502	0	%100
113	TR-9	Z	.000502	.000502	0	%100
114	TR-10	Z	.000502	.000502	0	%100
115	TR-11	Z	.000502	.000502	0	%100
116	TR-12	Z	.000502	.000502	0	%100
117	TR-13	Z	.002	.002	0	%100
118	TR-14	Z	.002	.002	0	%100
119	TR-15	Z	.002	.002	0	%100
120	TR-16	Z	.002	.002	0	%100
121	TR-17	Z	.002	.002	0	%100
122	TR-18	Z	.002	.002	0	%100
123	FFHR	Z	.004	.004	0	%100
124	SF2-HR	Z	.002	.002	0	%100
125	SF1-HR	Z	.006	.006	0	%100
126	HRC1	Z	.002	.002	0	%100
127	HRC3	Z	.004	.004	0	%100
128	HRC2	Z	.006	.006	0	%100

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

	Member Label	Direction	Start Magnitude[k/ft....	End Magnitude[k/ft.F....	Start Location[ft.%]	End Location[ft.%]
1	CP-1	X	0	0	0	%100
2	CP-2	X	-.017	-.017	0	%100
3	CP-3	X	-.017	-.017	0	%100
4	FF-TH	X	-.008	-.008	0	%100
5	GSI-1A	X	0	0	0	%100



Company : Tower Engineering Professionals, Inc.
Designer : GHM
Job Number : TEP No. 55021.286047
Model Name : CCI BU No. 842858

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

Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]	
6	GSI-1B	X	0	0	%100	
7	GSI-2A	X	-.013	-.013	0	%100
8	GSI-2B	X	-.013	-.013	0	%100
9	GSI-3A	X	-.012	-.012	0	%100
10	GSI-3B	X	-.012	-.012	0	%100
11	GSIP-1A	X	-.009	-.009	0	%100
12	GSIP-1B	X	-.007	-.007	0	%100
13	GSIP-2A	X	-.007	-.007	0	%100
14	GSIP-2B	X	-1e-6	-1e-6	0	%100
15	GSIP-3A	X	0	0	0	%100
16	GSIP-3B	X	-.009	-.009	0	%100
17	MP-1	X	-.008	-.008	0	%100
18	MP-1B	X	-.008	-.008	0	%100
19	MP-2	X	-.008	-.008	0	%100
20	MP-2B	X	-.006	-.006	0	%100
21	MP-3	X	-.008	-.008	0	%100
22	MP-3B	X	-.008	-.008	0	%100
23	MP-4	X	-.008	-.008	0	%100
24	MP-4B	X	-.008	-.008	0	%100
25	MP-5	X	-.008	-.008	0	%100
26	MP-5B	X	-.006	-.006	0	%100
27	MP-6	X	-.008	-.008	0	%100
28	MP-6B	X	-.008	-.008	0	%100
29	MP-7	X	-.008	-.008	0	%100
30	MP-7B	X	-.008	-.008	0	%100
31	MP-8	X	-.008	-.008	0	%100
32	MP-8B	X	-.006	-.006	0	%100
33	MP-9	X	-.008	-.008	0	%100
34	MP-9B	X	-.008	-.008	0	%100
35	MP-10	X	-.006	-.006	0	%100
36	SA-1	X	-.018	-.018	0	%100
37	SA-2	X	-.007	-.007	0	%100
38	SA-3	X	-.009	-.009	0	%100
39	SF1-TH	X	-.007	-.007	0	%100
40	SF2-TH	X	0	0	0	%100
41	TR-1	X	-.001	-.001	0	%100
42	TR-2	X	-.001	-.001	0	%100
43	TR-3	X	-.001	-.001	0	%100
44	TR-4	X	-.001	-.001	0	%100
45	TR-5	X	-.001	-.001	0	%100
46	TR-6	X	-.001	-.001	0	%100
47	TR-7	X	-.001	-.001	0	%100
48	TR-8	X	-.001	-.001	0	%100
49	TR-9	X	-.001	-.001	0	%100
50	TR-10	X	-.001	-.001	0	%100
51	TR-11	X	-.001	-.001	0	%100
52	TR-12	X	-.001	-.001	0	%100
53	TR-13	X	-.002	-.002	0	%100
54	TR-14	X	-.002	-.002	0	%100
55	TR-15	X	-.002	-.002	0	%100
56	TR-16	X	-.002	-.002	0	%100
57	TR-17	X	-.002	-.002	0	%100
58	TR-18	X	-.002	-.002	0	%100
59	FFHR	X	-.007	-.007	0	%100
60	SF2-HR	X	0	0	0	%100
61	SF1-HR	X	-.007	-.007	0	%100
62	HRC1	X	0	0	0	%100



Company : Tower Engineering Professionals, Inc.
Designer : GHM
Job Number : TEP No. 55021.286047
Model Name : CCI BU No. 842858

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

Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
63	HRC3	X	-.006	0	%100
64	HRC2	X	-.006	0	%100
65	CP-1	Z	0	0	%100
66	CP-2	Z	.01	.01	%100
67	CP-3	Z	.01	.01	%100
68	FF-TH	Z	.005	.005	%100
69	GSI-1A	Z	0	0	%100
70	GSI-1B	Z	0	0	%100
71	GSI-2A	Z	.008	.008	%100
72	GSI-2B	Z	.008	.008	%100
73	GSI-3A	Z	.008	.008	%100
74	GSI-3B	Z	.008	.008	%100
75	GSIP-1A	Z	.005	.005	%100
76	GSIP-1B	Z	.005	.005	%100
77	GSIP-2A	Z	.005	.005	%100
78	GSIP-2B	Z	0	0	%100
79	GSIP-3A	Z	0	0	%100
80	GSIP-3B	Z	.005	.005	%100
81	MP-1	Z	.004	.004	%100
82	MP-1B	Z	.004	.004	%100
83	MP-2	Z	.004	.004	%100
84	MP-2B	Z	.004	.004	%100
85	MP-3	Z	.004	.004	%100
86	MP-3B	Z	.004	.004	%100
87	MP-4	Z	.004	.004	%100
88	MP-4B	Z	.004	.004	%100
89	MP-5	Z	.004	.004	%100
90	MP-5B	Z	.004	.004	%100
91	MP-6	Z	.004	.004	%100
92	MP-6B	Z	.004	.004	%100
93	MP-7	Z	.004	.004	%100
94	MP-7B	Z	.004	.004	%100
95	MP-8	Z	.004	.004	%100
96	MP-8B	Z	.004	.004	%100
97	MP-9	Z	.004	.004	%100
98	MP-9B	Z	.004	.004	%100
99	MP-10	Z	.004	.004	%100
100	SA-1	Z	.009	.009	%100
101	SA-2	Z	.005	.005	%100
102	SA-3	Z	.004	.004	%100
103	SF1-TH	Z	.005	.005	%100
104	SF2-TH	Z	0	0	%100
105	TR-1	Z	.000735	.000735	%100
106	TR-2	Z	.000735	.000735	%100
107	TR-3	Z	.000735	.000735	%100
108	TR-4	Z	.000735	.000735	%100
109	TR-5	Z	.000735	.000735	%100
110	TR-6	Z	.000735	.000735	%100
111	TR-7	Z	.000685	.000685	%100
112	TR-8	Z	.000685	.000685	%100
113	TR-9	Z	.000685	.000685	%100
114	TR-10	Z	.000685	.000685	%100
115	TR-11	Z	.000685	.000685	%100
116	TR-12	Z	.000685	.000685	%100
117	TR-13	Z	.001	.001	%100
118	TR-14	Z	.001	.001	%100
119	TR-15	Z	.001	.001	%100



Company : Tower Engineering Professionals, Inc.
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Job Number : TEP No. 55021.286047
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Member Distributed Loads (BLC 17 : 330 Wind - No Ice) (Continued)

	Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
120	TR-16	Z	.001	.001	0	%100
121	TR-17	Z	.001	.001	0	%100
122	TR-18	Z	.001	.001	0	%100
123	FFHR	Z	.004	.004	0	%100
124	SF2-HR	Z	0	0	0	%100
125	SF1-HR	Z	.004	.004	0	%100
126	HRC1	Z	0	0	0	%100
127	HRC3	Z	.004	.004	0	%100
128	HRC2	Z	.004	.004	0	%100

Member Distributed Loads (BLC 18 : Ice Weight)

	Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
1	CP-1	Y	-.017	-.017	0	%100
2	CP-2	Y	-.017	-.017	0	%100
3	CP-3	Y	-.017	-.017	0	%100
4	FF-TH	Y	-.009	-.009	0	%100
5	GSI-1A	Y	-.01	-.01	0	%100
6	GSI-1B	Y	-.01	-.01	0	%100
7	GSI-2A	Y	-.01	-.01	0	%100
8	GSI-2B	Y	-.01	-.01	0	%100
9	GSI-3A	Y	-.01	-.01	0	%100
10	GSI-3B	Y	-.01	-.01	0	%100
11	GSIP-1A	Y	-.005	-.005	0	%100
12	GSIP-1B	Y	-.005	-.005	0	%100
13	GSIP-2A	Y	-.005	-.005	0	%100
14	GSIP-2B	Y	-.005	-.005	0	%100
15	GSIP-3A	Y	-.005	-.005	0	%100
16	GSIP-3B	Y	-.005	-.005	0	%100
17	MP-1	Y	-.007	-.007	0	%100
18	MP-1B	Y	-.007	-.007	0	%100
19	MP-2	Y	-.007	-.007	0	%100
20	MP-2B	Y	-.007	-.007	0	%100
21	MP-3	Y	-.007	-.007	0	%100
22	MP-3B	Y	-.007	-.007	0	%100
23	MP-4	Y	-.007	-.007	0	%100
24	MP-4B	Y	-.007	-.007	0	%100
25	MP-5	Y	-.007	-.007	0	%100
26	MP-5B	Y	-.007	-.007	0	%100
27	MP-6	Y	-.007	-.007	0	%100
28	MP-6B	Y	-.007	-.007	0	%100
29	MP-7	Y	-.007	-.007	0	%100
30	MP-7B	Y	-.007	-.007	0	%100
31	MP-8	Y	-.007	-.007	0	%100
32	MP-8B	Y	-.007	-.007	0	%100
33	MP-9	Y	-.007	-.007	0	%100
34	MP-9B	Y	-.007	-.007	0	%100
35	MP-10	Y	-.007	-.007	0	%100
36	SA-1	Y	-.009	-.009	0	%100
37	SA-2	Y	-.009	-.009	0	%100
38	SA-3	Y	-.009	-.009	0	%100
39	SF1-TH	Y	-.009	-.009	0	%100
40	SF2-TH	Y	-.009	-.009	0	%100
41	TR-1	Y	-.007	-.007	0	%100
42	TR-2	Y	-.007	-.007	0	%100
43	TR-3	Y	-.007	-.007	0	%100
44	TR-4	Y	-.007	-.007	0	%100



Company : Tower Engineering Professionals, Inc.
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Job Number : TEP No. 55021.286047
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Member Distributed Loads (BLC 18 : Ice Weight) (Continued)

Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
45	TR-5	Y	-0.07	0	%100
46	TR-6	Y	-0.07	0	%100
47	TR-7	Y	-0.07	0	%100
48	TR-8	Y	-0.07	0	%100
49	TR-9	Y	-0.07	0	%100
50	TR-10	Y	-0.07	0	%100
51	TR-11	Y	-0.07	0	%100
52	TR-12	Y	-0.07	0	%100
53	TR-13	Y	-0.07	0	%100
54	TR-14	Y	-0.07	0	%100
55	TR-15	Y	-0.07	0	%100
56	TR-16	Y	-0.07	0	%100
57	TR-17	Y	-0.07	0	%100
58	TR-18	Y	-0.07	0	%100
59	FFHR	Y	-0.07	0	%100
60	SF2-HR	Y	-0.07	0	%100
61	SF1-HR	Y	-0.07	0	%100
62	HRC1	Y	-0.06	0	%100
63	HRC3	Y	-0.06	0	%100
64	HRC2	Y	-0.06	0	%100

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

Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
1	CP-1	X	-0.08	0	%100
2	CP-2	X	-0.08	0	%100
3	CP-3	X	-0.08	0	%100
4	FF-TH	X	-0.04	0	%100
5	GSI-1A	X	-0.05	0	%100
6	GSI-1B	X	-0.05	0	%100
7	GSI-2A	X	-0.06	0	%100
8	GSI-2B	X	-0.06	0	%100
9	GSI-3A	X	-0.05	0	%100
10	GSI-3B	X	-0.05	0	%100
11	GSIP-1A	X	-0.05	0	%100
12	GSIP-1B	X	-0.04	0	%100
13	GSIP-2A	X	-0.04	0	%100
14	GSIP-2B	X	-0.04	0	%100
15	GSIP-3A	X	-0.04	0	%100
16	GSIP-3B	X	-0.05	0	%100
17	MP-1	X	-0.03	0	%100
18	MP-1B	X	-0.03	0	%100
19	MP-2	X	-0.03	0	%100
20	MP-2B	X	-0.02	0	%100
21	MP-3	X	-0.03	0	%100
22	MP-3B	X	-0.03	0	%100
23	MP-4	X	-0.03	0	%100
24	MP-4B	X	-0.03	0	%100
25	MP-5	X	-0.03	0	%100
26	MP-5B	X	-0.02	0	%100
27	MP-6	X	-0.03	0	%100
28	MP-6B	X	-0.03	0	%100
29	MP-7	X	-0.03	0	%100
30	MP-7B	X	-0.03	0	%100
31	MP-8	X	-0.03	0	%100
32	MP-8B	X	-0.02	0	%100
33	MP-9	X	-0.03	0	%100



Company : Tower Engineering Professionals, Inc.
Designer : GHM
Job Number : TEP No. 55021.286047
Model Name : CCI BU No. 842858

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

Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
34	MP-9B	X	-0.03	0	%100
35	MP-10	X	-0.02	0	%100
36	SA-1	X	-0.06	0	%100
37	SA-2	X	-0.05	0	%100
38	SA-3	X	-0.06	0	%100
39	SF1-TH	X	-0.03	0	%100
40	SF2-TH	X	-0.03	0	%100
41	TR-1	X	-0.03	0	%100
42	TR-2	X	-0.03	0	%100
43	TR-3	X	-0.03	0	%100
44	TR-4	X	-0.03	0	%100
45	TR-5	X	-0.03	0	%100
46	TR-6	X	-0.03	0	%100
47	TR-7	X	-0.03	0	%100
48	TR-8	X	-0.03	0	%100
49	TR-9	X	-0.03	0	%100
50	TR-10	X	-0.03	0	%100
51	TR-11	X	-0.03	0	%100
52	TR-12	X	-0.03	0	%100
53	TR-13	X	-0.03	0	%100
54	TR-14	X	-0.03	0	%100
55	TR-15	X	-0.03	0	%100
56	TR-16	X	-0.03	0	%100
57	TR-17	X	-0.03	0	%100
58	TR-18	X	-0.03	0	%100
59	FFHR	X	-0.04	0	%100
60	SF2-HR	X	-0.03	0	%100
61	SF1-HR	X	-0.03	0	%100
62	HRC1	X	-0.04	0	%100
63	HRC3	X	-0.04	0	%100
64	HRC2	X	-0.04	0	%100

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

Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
1	CP-1	X	-0.06	0	%100
2	CP-2	X	-0.06	0	%100
3	CP-3	X	0	0	%100
4	FF-TH	X	-0.03	0	%100
5	GSI-1A	X	-0.04	0	%100
6	GSI-1B	X	-0.04	0	%100
7	GSI-2A	X	-0.04	0	%100
8	GSI-2B	X	-0.04	0	%100
9	GSI-3A	X	0	0	%100
10	GSI-3B	X	0	0	%100
11	GSIP-1A	X	-0.03	0	%100
12	GSIP-1B	X	0	0	%100
13	GSIP-2A	X	0	0	%100
14	GSIP-2B	X	-0.03	0	%100
15	GSIP-3A	X	-0.03	0	%100
16	GSIP-3B	X	-0.03	0	%100
17	MP-1	X	-0.02	0	%100
18	MP-1B	X	-0.03	0	%100
19	MP-2	X	-0.03	0	%100
20	MP-2B	X	-0.02	0	%100
21	MP-3	X	-0.02	0	%100
22	MP-3B	X	-0.03	0	%100



Company : Tower Engineering Professionals, Inc.
Designer : GHM
Job Number : TEP No. 55021.286047
Model Name : CCI BU No. 842858

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

	Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
23	MP-4	X	-0.002	-0.002	0	%100
24	MP-4B	X	-0.003	-0.003	0	%100
25	MP-5	X	-0.003	-0.003	0	%100
26	MP-5B	X	-0.002	-0.002	0	%100
27	MP-6	X	-0.002	-0.002	0	%100
28	MP-6B	X	-0.003	-0.003	0	%100
29	MP-7	X	-0.002	-0.002	0	%100
30	MP-7B	X	-0.003	-0.003	0	%100
31	MP-8	X	-0.003	-0.003	0	%100
32	MP-8B	X	-0.002	-0.002	0	%100
33	MP-9	X	-0.002	-0.002	0	%100
34	MP-9B	X	-0.003	-0.003	0	%100
35	MP-10	X	-0.002	-0.002	0	%100
36	SA-1	X	-0.003	-0.003	0	%100
37	SA-2	X	-0.002	-0.002	0	%100
38	SA-3	X	-0.005	-0.005	0	%100
39	SF1-TH	X	0	0	0	%100
40	SF2-TH	X	-0.003	-0.003	0	%100
41	TR-1	X	-0.001	-0.001	0	%100
42	TR-2	X	-0.001	-0.001	0	%100
43	TR-3	X	-0.001	-0.001	0	%100
44	TR-4	X	-0.001	-0.001	0	%100
45	TR-5	X	-0.001	-0.001	0	%100
46	TR-6	X	-0.001	-0.001	0	%100
47	TR-7	X	-0.002	-0.002	0	%100
48	TR-8	X	-0.002	-0.002	0	%100
49	TR-9	X	-0.002	-0.002	0	%100
50	TR-10	X	-0.002	-0.002	0	%100
51	TR-11	X	-0.002	-0.002	0	%100
52	TR-12	X	-0.002	-0.002	0	%100
53	TR-13	X	-0.001	-0.001	0	%100
54	TR-14	X	-0.001	-0.001	0	%100
55	TR-15	X	-0.001	-0.001	0	%100
56	TR-16	X	-0.001	-0.001	0	%100
57	TR-17	X	-0.001	-0.001	0	%100
58	TR-18	X	-0.001	-0.001	0	%100
59	FFHR	X	-0.003	-0.003	0	%100
60	SF2-HR	X	-0.002	-0.002	0	%100
61	SF1-HR	X	0	0	0	%100
62	HRC1	X	-0.003	-0.003	0	%100
63	HRC3	X	-0.003	-0.003	0	%100
64	HRC2	X	0	0	0	%100
65	CP-1	Z	-0.003	-0.003	0	%100
66	CP-2	Z	-0.003	-0.003	0	%100
67	CP-3	Z	0	0	0	%100
68	FF-TH	Z	-0.002	-0.002	0	%100
69	GSI-1A	Z	-0.002	-0.002	0	%100
70	GSI-1B	Z	-0.002	-0.002	0	%100
71	GSI-2A	Z	-0.002	-0.002	0	%100
72	GSI-2B	Z	-0.002	-0.002	0	%100
73	GSI-3A	Z	0	0	0	%100
74	GSI-3B	Z	0	0	0	%100
75	GSIP-1A	Z	-0.002	-0.002	0	%100
76	GSIP-1B	Z	0	0	0	%100
77	GSIP-2A	Z	0	0	0	%100
78	GSIP-2B	Z	-0.002	-0.002	0	%100
79	GSIP-3A	Z	-0.002	-0.002	0	%100



Company : Tower Engineering Professionals, Inc.
Designer : GHM
Job Number : TEP No. 55021.286047
Model Name : CCI BU No. 842858

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

	Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
80	GSIP-3B	Z	-0.002	-0.002	0	%100
81	MP-1	Z	-0.002	-0.002	0	%100
82	MP-1B	Z	-0.002	-0.002	0	%100
83	MP-2	Z	-0.002	-0.002	0	%100
84	MP-2B	Z	-0.001	-0.001	0	%100
85	MP-3	Z	-0.002	-0.002	0	%100
86	MP-3B	Z	-0.002	-0.002	0	%100
87	MP-4	Z	-0.002	-0.002	0	%100
88	MP-4B	Z	-0.002	-0.002	0	%100
89	MP-5	Z	-0.002	-0.002	0	%100
90	MP-5B	Z	-0.001	-0.001	0	%100
91	MP-6	Z	-0.002	-0.002	0	%100
92	MP-6B	Z	-0.002	-0.002	0	%100
93	MP-7	Z	-0.002	-0.002	0	%100
94	MP-7B	Z	-0.002	-0.002	0	%100
95	MP-8	Z	-0.002	-0.002	0	%100
96	MP-8B	Z	-0.001	-0.001	0	%100
97	MP-9	Z	-0.002	-0.002	0	%100
98	MP-9B	Z	-0.002	-0.002	0	%100
99	MP-10	Z	-0.001	-0.001	0	%100
100	SA-1	Z	-0.001	-0.001	0	%100
101	SA-2	Z	-0.002	-0.002	0	%100
102	SA-3	Z	-0.003	-0.003	0	%100
103	SF1-TH	Z	0	0	0	%100
104	SF2-TH	Z	-0.002	-0.002	0	%100
105	TR-1	Z	-0.000626	-0.000626	0	%100
106	TR-2	Z	-0.000626	-0.000626	0	%100
107	TR-3	Z	-0.000626	-0.000626	0	%100
108	TR-4	Z	-0.000626	-0.000626	0	%100
109	TR-5	Z	-0.000626	-0.000626	0	%100
110	TR-6	Z	-0.000626	-0.000626	0	%100
111	TR-7	Z	-0.001	-0.001	0	%100
112	TR-8	Z	-0.001	-0.001	0	%100
113	TR-9	Z	-0.001	-0.001	0	%100
114	TR-10	Z	-0.001	-0.001	0	%100
115	TR-11	Z	-0.001	-0.001	0	%100
116	TR-12	Z	-0.001	-0.001	0	%100
117	TR-13	Z	-0.000626	-0.000626	0	%100
118	TR-14	Z	-0.000626	-0.000626	0	%100
119	TR-15	Z	-0.000626	-0.000626	0	%100
120	TR-16	Z	-0.000626	-0.000626	0	%100
121	TR-17	Z	-0.000626	-0.000626	0	%100
122	TR-18	Z	-0.000626	-0.000626	0	%100
123	FFHR	Z	-0.001	-0.001	0	%100
124	SF2-HR	Z	-0.002	-0.002	0	%100
125	SF1-HR	Z	0	0	0	%100
126	HRC1	Z	-0.002	-0.002	0	%100
127	HRC3	Z	-0.002	-0.002	0	%100
128	HRC2	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
1	CP-1	X	-0.005	-0.005	0	%100
2	CP-2	X	-0.004	-0.004	0	%100
3	CP-3	X	-0.001	-0.001	0	%100
4	FF-TH	X	-0.002	-0.002	0	%100



Company : Tower Engineering Professionals, Inc.
Designer : GHM
Job Number : TEP No. 55021.286047
Model Name : CCI BU No. 842858

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

	Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
5	GSI-1A	X	-0.004	-0.004	0	%100
6	GSI-1B	X	-0.004	-0.004	0	%100
7	GSI-2A	X	-0.003	-0.003	0	%100
8	GSI-2B	X	-0.003	-0.003	0	%100
9	GSI-3A	X	-0.00097	-0.00097	0	%100
10	GSI-3B	X	-0.00097	-0.00097	0	%100
11	GSIP-1A	X	-0.002	-0.002	0	%100
12	GSIP-1B	X	-0.000739	-0.000739	0	%100
13	GSIP-2A	X	-0.000739	-0.000739	0	%100
14	GSIP-2B	X	-0.003	-0.003	0	%100
15	GSIP-3A	X	-0.003	-0.003	0	%100
16	GSIP-3B	X	-0.002	-0.002	0	%100
17	MP-1	X	-0.002	-0.002	0	%100
18	MP-1B	X	-0.002	-0.002	0	%100
19	MP-2	X	-0.002	-0.002	0	%100
20	MP-2B	X	-0.002	-0.002	0	%100
21	MP-3	X	-0.002	-0.002	0	%100
22	MP-3B	X	-0.002	-0.002	0	%100
23	MP-4	X	-0.002	-0.002	0	%100
24	MP-4B	X	-0.002	-0.002	0	%100
25	MP-5	X	-0.002	-0.002	0	%100
26	MP-5B	X	-0.002	-0.002	0	%100
27	MP-6	X	-0.002	-0.002	0	%100
28	MP-6B	X	-0.002	-0.002	0	%100
29	MP-7	X	-0.002	-0.002	0	%100
30	MP-7B	X	-0.002	-0.002	0	%100
31	MP-8	X	-0.002	-0.002	0	%100
32	MP-8B	X	-0.002	-0.002	0	%100
33	MP-9	X	-0.002	-0.002	0	%100
34	MP-9B	X	-0.002	-0.002	0	%100
35	MP-10	X	-0.002	-0.002	0	%100
36	SA-1	X	-0.001	-0.001	0	%100
37	SA-2	X	-0.003	-0.003	0	%100
38	SA-3	X	-0.004	-0.004	0	%100
39	SF1-TH	X	-0.000636	-0.000636	0	%100
40	SF2-TH	X	-0.002	-0.002	0	%100
41	TR-1	X	-0.001	-0.001	0	%100
42	TR-2	X	-0.001	-0.001	0	%100
43	TR-3	X	-0.001	-0.001	0	%100
44	TR-4	X	-0.001	-0.001	0	%100
45	TR-5	X	-0.001	-0.001	0	%100
46	TR-6	X	-0.001	-0.001	0	%100
47	TR-7	X	-0.002	-0.002	0	%100
48	TR-8	X	-0.002	-0.002	0	%100
49	TR-9	X	-0.002	-0.002	0	%100
50	TR-10	X	-0.002	-0.002	0	%100
51	TR-11	X	-0.002	-0.002	0	%100
52	TR-12	X	-0.002	-0.002	0	%100
53	TR-13	X	-0.000458	-0.000458	0	%100
54	TR-14	X	-0.000458	-0.000458	0	%100
55	TR-15	X	-0.000458	-0.000458	0	%100
56	TR-16	X	-0.000458	-0.000458	0	%100
57	TR-17	X	-0.000458	-0.000458	0	%100
58	TR-18	X	-0.000458	-0.000458	0	%100
59	FFHR	X	-0.002	-0.002	0	%100
60	SF2-HR	X	-0.002	-0.002	0	%100
61	SF1-HR	X	-0.000557	-0.000557	0	%100



Company : Tower Engineering Professionals, Inc.
Designer : GHM
Job Number : TEP No. 55021.286047
Model Name : CCI BU No. 842858

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

	Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
62	HRC1	X	-0.003	-0.003	0	%100
63	HRC3	X	-0.002	-0.002	0	%100
64	HRC2	X	-0.000772	-0.000772	0	%100
65	CP-1	Z	-0.005	-0.005	0	%100
66	CP-2	Z	-0.003	-0.003	0	%100
67	CP-3	Z	-0.001	-0.001	0	%100
68	FF-TH	Z	-0.002	-0.002	0	%100
69	GSI-1A	Z	-0.004	-0.004	0	%100
70	GSI-1B	Z	-0.004	-0.004	0	%100
71	GSI-2A	Z	-0.003	-0.003	0	%100
72	GSI-2B	Z	-0.003	-0.003	0	%100
73	GSI-3A	Z	-0.001	-0.001	0	%100
74	GSI-3B	Z	-0.001	-0.001	0	%100
75	GSIP-1A	Z	-0.002	-0.002	0	%100
76	GSIP-1B	Z	-0.000815	-0.000815	0	%100
77	GSIP-2A	Z	-0.000815	-0.000815	0	%100
78	GSIP-2B	Z	-0.003	-0.003	0	%100
79	GSIP-3A	Z	-0.003	-0.003	0	%100
80	GSIP-3B	Z	-0.002	-0.002	0	%100
81	MP-1	Z	-0.002	-0.002	0	%100
82	MP-1B	Z	-0.002	-0.002	0	%100
83	MP-2	Z	-0.002	-0.002	0	%100
84	MP-2B	Z	-0.002	-0.002	0	%100
85	MP-3	Z	-0.002	-0.002	0	%100
86	MP-3B	Z	-0.002	-0.002	0	%100
87	MP-4	Z	-0.002	-0.002	0	%100
88	MP-4B	Z	-0.002	-0.002	0	%100
89	MP-5	Z	-0.002	-0.002	0	%100
90	MP-5B	Z	-0.002	-0.002	0	%100
91	MP-6	Z	-0.002	-0.002	0	%100
92	MP-6B	Z	-0.002	-0.002	0	%100
93	MP-7	Z	-0.002	-0.002	0	%100
94	MP-7B	Z	-0.002	-0.002	0	%100
95	MP-8	Z	-0.002	-0.002	0	%100
96	MP-8B	Z	-0.002	-0.002	0	%100
97	MP-9	Z	-0.002	-0.002	0	%100
98	MP-9B	Z	-0.002	-0.002	0	%100
99	MP-10	Z	-0.002	-0.002	0	%100
100	SA-1	Z	-0.001	-0.001	0	%100
101	SA-2	Z	-0.003	-0.003	0	%100
102	SA-3	Z	-0.004	-0.004	0	%100
103	SF1-TH	Z	-0.000768	-0.000768	0	%100
104	SF2-TH	Z	-0.003	-0.003	0	%100
105	TR-1	Z	-0.001	-0.001	0	%100
106	TR-2	Z	-0.001	-0.001	0	%100
107	TR-3	Z	-0.001	-0.001	0	%100
108	TR-4	Z	-0.001	-0.001	0	%100
109	TR-5	Z	-0.001	-0.001	0	%100
110	TR-6	Z	-0.001	-0.001	0	%100
111	TR-7	Z	-0.002	-0.002	0	%100
112	TR-8	Z	-0.002	-0.002	0	%100
113	TR-9	Z	-0.002	-0.002	0	%100
114	TR-10	Z	-0.002	-0.002	0	%100
115	TR-11	Z	-0.002	-0.002	0	%100
116	TR-12	Z	-0.002	-0.002	0	%100
117	TR-13	Z	-0.000458	-0.000458	0	%100
118	TR-14	Z	-0.000458	-0.000458	0	%100



Company : Tower Engineering Professionals, Inc.
Designer : GHM
Job Number : TEP No. 55021.286047
Model Name : CCI BU No. 842858

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

	Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
119	TR-15	Z	-0.00458	-0.00458	0	%100
120	TR-16	Z	-0.00458	-0.00458	0	%100
121	TR-17	Z	-0.00458	-0.00458	0	%100
122	TR-18	Z	-0.00458	-0.00458	0	%100
123	FFHR	Z	-0.002	-0.002	0	%100
124	SF2-HR	Z	-0.003	-0.003	0	%100
125	SF1-HR	Z	-0.00687	-0.00687	0	%100
126	HRC1	Z	-0.003	-0.003	0	%100
127	HRC3	Z	-0.002	-0.002	0	%100
128	HRC2	Z	-0.00078	-0.00078	0	%100

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

	Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
1	CP-1	X	-0.004	-0.004	0	%100
2	CP-2	X	-0.002	-0.002	0	%100
3	CP-3	X	-0.002	-0.002	0	%100
4	FF-TH	X	-0.001	-0.001	0	%100
5	GSI-1A	X	-0.003	-0.003	0	%100
6	GSI-1B	X	-0.003	-0.003	0	%100
7	GSI-2A	X	-0.001	-0.001	0	%100
8	GSI-2B	X	-0.001	-0.001	0	%100
9	GSI-3A	X	-0.001	-0.001	0	%100
10	GSI-3B	X	-0.001	-0.001	0	%100
11	GSIP-1A	X	-0.001	-0.001	0	%100
12	GSIP-1B	X	-0.001	-0.001	0	%100
13	GSIP-2A	X	-0.001	-0.001	0	%100
14	GSIP-2B	X	-0.002	-0.002	0	%100
15	GSIP-3A	X	-0.002	-0.002	0	%100
16	GSIP-3B	X	-0.001	-0.001	0	%100
17	MP-1	X	-0.001	-0.001	0	%100
18	MP-1B	X	-0.001	-0.001	0	%100
19	MP-2	X	-0.002	-0.002	0	%100
20	MP-2B	X	-0.001	-0.001	0	%100
21	MP-3	X	-0.001	-0.001	0	%100
22	MP-3B	X	-0.001	-0.001	0	%100
23	MP-4	X	-0.001	-0.001	0	%100
24	MP-4B	X	-0.001	-0.001	0	%100
25	MP-5	X	-0.002	-0.002	0	%100
26	MP-5B	X	-0.001	-0.001	0	%100
27	MP-6	X	-0.001	-0.001	0	%100
28	MP-6B	X	-0.001	-0.001	0	%100
29	MP-7	X	-0.001	-0.001	0	%100
30	MP-7B	X	-0.001	-0.001	0	%100
31	MP-8	X	-0.002	-0.002	0	%100
32	MP-8B	X	-0.001	-0.001	0	%100
33	MP-9	X	-0.001	-0.001	0	%100
34	MP-9B	X	-0.001	-0.001	0	%100
35	MP-10	X	-0.001	-0.001	0	%100
36	SA-1	X	0	0	0	%100
37	SA-2	X	-0.002	-0.002	0	%100
38	SA-3	X	-0.003	-0.003	0	%100
39	SF1-TH	X	-0.000868	-0.000868	0	%100
40	SF2-TH	X	-0.002	-0.002	0	%100
41	TR-1	X	-0.001	-0.001	0	%100
42	TR-2	X	-0.001	-0.001	0	%100
43	TR-3	X	-0.001	-0.001	0	%100



Company : Tower Engineering Professionals, Inc.
Designer : GHM
Job Number : TEP No. 55021.286047
Model Name : CCI BU No. 842858

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

	Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
44	TR-4	X	-0.001	-0.001	0	%100
45	TR-5	X	-0.001	-0.001	0	%100
46	TR-6	X	-0.001	-0.001	0	%100
47	TR-7	X	-0.001	-0.001	0	%100
48	TR-8	X	-0.001	-0.001	0	%100
49	TR-9	X	-0.001	-0.001	0	%100
50	TR-10	X	-0.001	-0.001	0	%100
51	TR-11	X	-0.001	-0.001	0	%100
52	TR-12	X	-0.001	-0.001	0	%100
53	TR-13	X	0	0	0	%100
54	TR-14	X	0	0	0	%100
55	TR-15	X	0	0	0	%100
56	TR-16	X	0	0	0	%100
57	TR-17	X	0	0	0	%100
58	TR-18	X	0	0	0	%100
59	FFHR	X	-0.000938	-0.000938	0	%100
60	SF2-HR	X	-0.002	-0.002	0	%100
61	SF1-HR	X	-0.000761	-0.000761	0	%100
62	HRC1	X	-0.002	-0.002	0	%100
63	HRC3	X	-0.001	-0.001	0	%100
64	HRC2	X	-0.001	-0.001	0	%100
65	CP-1	Z	-0.007	-0.007	0	%100
66	CP-2	Z	-0.003	-0.003	0	%100
67	CP-3	Z	-0.003	-0.003	0	%100
68	FF-TH	Z	-0.002	-0.002	0	%100
69	GSI-1A	Z	-0.005	-0.005	0	%100
70	GSI-1B	Z	-0.005	-0.005	0	%100
71	GSI-2A	Z	-0.002	-0.002	0	%100
72	GSI-2B	Z	-0.002	-0.002	0	%100
73	GSI-3A	Z	-0.002	-0.002	0	%100
74	GSI-3B	Z	-0.002	-0.002	0	%100
75	GSIP-1A	Z	-0.002	-0.002	0	%100
76	GSIP-1B	Z	-0.002	-0.002	0	%100
77	GSIP-2A	Z	-0.002	-0.002	0	%100
78	GSIP-2B	Z	-0.004	-0.004	0	%100
79	GSIP-3A	Z	-0.004	-0.004	0	%100
80	GSIP-3B	Z	-0.002	-0.002	0	%100
81	MP-1	Z	-0.003	-0.003	0	%100
82	MP-1B	Z	-0.003	-0.003	0	%100
83	MP-2	Z	-0.003	-0.003	0	%100
84	MP-2B	Z	-0.002	-0.002	0	%100
85	MP-3	Z	-0.003	-0.003	0	%100
86	MP-3B	Z	-0.003	-0.003	0	%100
87	MP-4	Z	-0.003	-0.003	0	%100
88	MP-4B	Z	-0.003	-0.003	0	%100
89	MP-5	Z	-0.003	-0.003	0	%100
90	MP-5B	Z	-0.002	-0.002	0	%100
91	MP-6	Z	-0.003	-0.003	0	%100
92	MP-6B	Z	-0.003	-0.003	0	%100
93	MP-7	Z	-0.003	-0.003	0	%100
94	MP-7B	Z	-0.003	-0.003	0	%100
95	MP-8	Z	-0.003	-0.003	0	%100
96	MP-8B	Z	-0.002	-0.002	0	%100
97	MP-9	Z	-0.003	-0.003	0	%100
98	MP-9B	Z	-0.003	-0.003	0	%100
99	MP-10	Z	-0.002	-0.002	0	%100
100	SA-1	Z	0	0	0	%100



Company : Tower Engineering Professionals, Inc.
Designer : GHM
Job Number : TEP No. 55021.286047
Model Name : CCI BU No. 842858

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

	Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
101	SA-2	Z	-0.005	-0.005	0	%100
102	SA-3	Z	-0.004	-0.004	0	%100
103	SF1-TH	Z	-0.002	-0.002	0	%100
104	SF2-TH	Z	-0.004	-0.004	0	%100
105	TR-1	Z	-0.002	-0.002	0	%100
106	TR-2	Z	-0.002	-0.002	0	%100
107	TR-3	Z	-0.002	-0.002	0	%100
108	TR-4	Z	-0.002	-0.002	0	%100
109	TR-5	Z	-0.002	-0.002	0	%100
110	TR-6	Z	-0.002	-0.002	0	%100
111	TR-7	Z	-0.002	-0.002	0	%100
112	TR-8	Z	-0.002	-0.002	0	%100
113	TR-9	Z	-0.002	-0.002	0	%100
114	TR-10	Z	-0.002	-0.002	0	%100
115	TR-11	Z	-0.002	-0.002	0	%100
116	TR-12	Z	-0.002	-0.002	0	%100
117	TR-13	Z	0	0	0	%100
118	TR-14	Z	0	0	0	%100
119	TR-15	Z	0	0	0	%100
120	TR-16	Z	0	0	0	%100
121	TR-17	Z	0	0	0	%100
122	TR-18	Z	0	0	0	%100
123	FFHR	Z	-0.001	-0.001	0	%100
124	SF2-HR	Z	-0.003	-0.003	0	%100
125	SF1-HR	Z	-0.002	-0.002	0	%100
126	HRC1	Z	-0.004	-0.004	0	%100
127	HRC3	Z	-0.002	-0.002	0	%100
128	HRC2	Z	-0.002	-0.002	0	%100

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

	Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
1	CP-1	Z	-0.007	-0.007	0	%100
2	CP-2	Z	0	0	0	%100
3	CP-3	Z	-0.007	-0.007	0	%100
4	FF-TH	Z	0	0	0	%100
5	GSI-1A	Z	-0.005	-0.005	0	%100
6	GSI-1B	Z	-0.005	-0.005	0	%100
7	GSI-2A	Z	0	0	0	%100
8	GSI-2B	Z	0	0	0	%100
9	GSI-3A	Z	-0.005	-0.005	0	%100
10	GSI-3B	Z	-0.005	-0.005	0	%100
11	GSIP-1A	Z	0	0	0	%100
12	GSIP-1B	Z	-0.004	-0.004	0	%100
13	GSIP-2A	Z	-0.004	-0.004	0	%100
14	GSIP-2B	Z	-0.004	-0.004	0	%100
15	GSIP-3A	Z	-0.004	-0.004	0	%100
16	GSIP-3B	Z	0	0	0	%100
17	MP-1	Z	-0.003	-0.003	0	%100
18	MP-1B	Z	-0.003	-0.003	0	%100
19	MP-2	Z	-0.003	-0.003	0	%100
20	MP-2B	Z	-0.003	-0.003	0	%100
21	MP-3	Z	-0.003	-0.003	0	%100
22	MP-3B	Z	-0.003	-0.003	0	%100
23	MP-4	Z	-0.003	-0.003	0	%100
24	MP-4B	Z	-0.003	-0.003	0	%100
25	MP-5	Z	-0.003	-0.003	0	%100



Company : Tower Engineering Professionals, Inc.
Designer : GHM
Job Number : TEP No. 55021.286047
Model Name : CCI BU No. 842858

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

	Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
26	MP-5B	Z	-0.003	-0.003	0	%100
27	MP-6	Z	-0.003	-0.003	0	%100
28	MP-6B	Z	-0.003	-0.003	0	%100
29	MP-7	Z	-0.003	-0.003	0	%100
30	MP-7B	Z	-0.003	-0.003	0	%100
31	MP-8	Z	-0.003	-0.003	0	%100
32	MP-8B	Z	-0.003	-0.003	0	%100
33	MP-9	Z	-0.003	-0.003	0	%100
34	MP-9B	Z	-0.003	-0.003	0	%100
35	MP-10	Z	-0.003	-0.003	0	%100
36	SA-1	Z	-0.003	-0.003	0	%100
37	SA-2	Z	-0.006	-0.006	0	%100
38	SA-3	Z	-0.003	-0.003	0	%100
39	SF1-TH	Z	-0.004	-0.004	0	%100
40	SF2-TH	Z	-0.004	-0.004	0	%100
41	TR-1	Z	-0.003	-0.003	0	%100
42	TR-2	Z	-0.003	-0.003	0	%100
43	TR-3	Z	-0.003	-0.003	0	%100
44	TR-4	Z	-0.003	-0.003	0	%100
45	TR-5	Z	-0.003	-0.003	0	%100
46	TR-6	Z	-0.003	-0.003	0	%100
47	TR-7	Z	-0.001	-0.001	0	%100
48	TR-8	Z	-0.001	-0.001	0	%100
49	TR-9	Z	-0.001	-0.001	0	%100
50	TR-10	Z	-0.001	-0.001	0	%100
51	TR-11	Z	-0.001	-0.001	0	%100
52	TR-12	Z	-0.001	-0.001	0	%100
53	TR-13	Z	-0.001	-0.001	0	%100
54	TR-14	Z	-0.001	-0.001	0	%100
55	TR-15	Z	-0.001	-0.001	0	%100
56	TR-16	Z	-0.001	-0.001	0	%100
57	TR-17	Z	-0.001	-0.001	0	%100
58	TR-18	Z	-0.001	-0.001	0	%100
59	FFHR	Z	0	0	0	%100
60	SF2-HR	Z	-0.003	-0.003	0	%100
61	SF1-HR	Z	-0.003	-0.003	0	%100
62	HRC1	Z	-0.004	-0.004	0	%100
63	HRC3	Z	0	0	0	%100
64	HRC2	Z	-0.004	-0.004	0	%100

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

	Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
1	CP-1	X	.002	.002	0	%100
2	CP-2	X	.002	.002	0	%100
3	CP-3	X	.004	.004	0	%100
4	FF-TH	X	.001	.001	0	%100
5	GSI-1A	X	.001	.001	0	%100
6	GSI-1B	X	.001	.001	0	%100
7	GSI-2A	X	.001	.001	0	%100
8	GSI-2B	X	.001	.001	0	%100
9	GSI-3A	X	.003	.003	0	%100
10	GSI-3B	X	.003	.003	0	%100
11	GSIP-1A	X	.001	.001	0	%100
12	GSIP-1B	X	.002	.002	0	%100
13	GSIP-2A	X	.002	.002	0	%100
14	GSIP-2B	X	.001	.001	0	%100



Company : Tower Engineering Professionals, Inc.
Designer : GHM
Job Number : TEP No. 55021.286047
Model Name : CCI BU No. 842858

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

Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
15 GSIP-3A	X	.001	.001	0	%100
16 GSIP-3B	X	.001	.001	0	%100
17 MP-1	X	.001	.001	0	%100
18 MP-1B	X	.001	.001	0	%100
19 MP-2	X	.002	.002	0	%100
20 MP-2B	X	.001	.001	0	%100
21 MP-3	X	.001	.001	0	%100
22 MP-3B	X	.001	.001	0	%100
23 MP-4	X	.001	.001	0	%100
24 MP-4B	X	.001	.001	0	%100
25 MP-5	X	.002	.002	0	%100
26 MP-5B	X	.001	.001	0	%100
27 MP-6	X	.001	.001	0	%100
28 MP-6B	X	.001	.001	0	%100
29 MP-7	X	.001	.001	0	%100
30 MP-7B	X	.001	.001	0	%100
31 MP-8	X	.002	.002	0	%100
32 MP-8B	X	.001	.001	0	%100
33 MP-9	X	.001	.001	0	%100
34 MP-9B	X	.001	.001	0	%100
35 MP-10	X	.001	.001	0	%100
36 SA-1	X	.003	.003	0	%100
37 SA-2	X	.002	.002	0	%100
38 SA-3	X	0	0	0	%100
39 SF1-TH	X	.002	.002	0	%100
40 SF2-TH	X	.000868	.000868	0	%100
41 TR-1	X	.001	.001	0	%100
42 TR-2	X	.001	.001	0	%100
43 TR-3	X	.001	.001	0	%100
44 TR-4	X	.001	.001	0	%100
45 TR-5	X	.001	.001	0	%100
46 TR-6	X	.001	.001	0	%100
47 TR-7	X	0	0	0	%100
48 TR-8	X	0	0	0	%100
49 TR-9	X	0	0	0	%100
50 TR-10	X	0	0	0	%100
51 TR-11	X	0	0	0	%100
52 TR-12	X	0	0	0	%100
53 TR-13	X	.001	.001	0	%100
54 TR-14	X	.001	.001	0	%100
55 TR-15	X	.001	.001	0	%100
56 TR-16	X	.001	.001	0	%100
57 TR-17	X	.001	.001	0	%100
58 TR-18	X	.001	.001	0	%100
59 FFHR	X	.000938	.000938	0	%100
60 SF2-HR	X	.000761	.000761	0	%100
61 SF1-HR	X	.002	.002	0	%100
62 HRC1	X	.001	.001	0	%100
63 HRC3	X	.001	.001	0	%100
64 HRC2	X	.002	.002	0	%100
65 CP-1	Z	-.003	-.003	0	%100
66 CP-2	Z	-.003	-.003	0	%100
67 CP-3	Z	-.007	-.007	0	%100
68 FF-TH	Z	-.002	-.002	0	%100
69 GSI-1A	Z	-.002	-.002	0	%100
70 GSI-1B	Z	-.002	-.002	0	%100
71 GSI-2A	Z	-.002	-.002	0	%100



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

Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
72 GSI-2B	Z	-.002	-.002	0	%100
73 GSI-3A	Z	-.005	-.005	0	%100
74 GSI-3B	Z	-.005	-.005	0	%100
75 GSIP-1A	Z	-.002	-.002	0	%100
76 GSIP-1B	Z	-.004	-.004	0	%100
77 GSIP-2A	Z	-.004	-.004	0	%100
78 GSIP-2B	Z	-.002	-.002	0	%100
79 GSIP-3A	Z	-.002	-.002	0	%100
80 GSIP-3B	Z	-.002	-.002	0	%100
81 MP-1	Z	-.003	-.003	0	%100
82 MP-1B	Z	-.003	-.003	0	%100
83 MP-2	Z	-.003	-.003	0	%100
84 MP-2B	Z	-.002	-.002	0	%100
85 MP-3	Z	-.003	-.003	0	%100
86 MP-3B	Z	-.003	-.003	0	%100
87 MP-4	Z	-.003	-.003	0	%100
88 MP-4B	Z	-.003	-.003	0	%100
89 MP-5	Z	-.003	-.003	0	%100
90 MP-5B	Z	-.002	-.002	0	%100
91 MP-6	Z	-.003	-.003	0	%100
92 MP-6B	Z	-.003	-.003	0	%100
93 MP-7	Z	-.003	-.003	0	%100
94 MP-7B	Z	-.003	-.003	0	%100
95 MP-8	Z	-.003	-.003	0	%100
96 MP-8B	Z	-.002	-.002	0	%100
97 MP-9	Z	-.003	-.003	0	%100
98 MP-9B	Z	-.003	-.003	0	%100
99 MP-10	Z	-.002	-.002	0	%100
100 SA-1	Z	-.004	-.004	0	%100
101 SA-2	Z	-.005	-.005	0	%100
102 SA-3	Z	0	0	0	%100
103 SF1-TH	Z	-.004	-.004	0	%100
104 SF2-TH	Z	-.002	-.002	0	%100
105 TR-1	Z	-.002	-.002	0	%100
106 TR-2	Z	-.002	-.002	0	%100
107 TR-3	Z	-.002	-.002	0	%100
108 TR-4	Z	-.002	-.002	0	%100
109 TR-5	Z	-.002	-.002	0	%100
110 TR-6	Z	-.002	-.002	0	%100
111 TR-7	Z	0	0	0	%100
112 TR-8	Z	0	0	0	%100
113 TR-9	Z	0	0	0	%100
114 TR-10	Z	0	0	0	%100
115 TR-11	Z	0	0	0	%100
116 TR-12	Z	0	0	0	%100
117 TR-13	Z	-.002	-.002	0	%100
118 TR-14	Z	-.002	-.002	0	%100
119 TR-15	Z	-.002	-.002	0	%100
120 TR-16	Z	-.002	-.002	0	%100
121 TR-17	Z	-.002	-.002	0	%100
122 TR-18	Z	-.002	-.002	0	%100
123 FFHR	Z	-.001	-.001	0	%100
124 SF2-HR	Z	-.002	-.002	0	%100
125 SF1-HR	Z	-.003	-.003	0	%100
126 HRC1	Z	-.002	-.002	0	%100
127 HRC3	Z	-.002	-.002	0	%100
128 HRC2	Z	-.004	-.004	0	%100



Company : Tower Engineering Professionals, Inc.
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Job Number : TEP No. 55021.286047
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Member Distributed Loads (BLC 25 : 135 Wind - Ice)

	Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
1	CP-1	X	.001	.001	0	%100
2	CP-2	X	.004	.004	0	%100
3	CP-3	X	.005	.005	0	%100
4	FF-TH	X	.002	.002	0	%100
5	GSI-1A	X	.00097	.00097	0	%100
6	GSI-1B	X	.00097	.00097	0	%100
7	GSI-2A	X	.003	.003	0	%100
8	GSI-2B	X	.003	.003	0	%100
9	GSI-3A	X	.004	.004	0	%100
10	GSI-3B	X	.004	.004	0	%100
11	GSIP-1A	X	.002	.002	0	%100
12	GSIP-1B	X	.003	.003	0	%100
13	GSIP-2A	X	.003	.003	0	%100
14	GSIP-2B	X	.000739	.000739	0	%100
15	GSIP-3A	X	.000739	.000739	0	%100
16	GSIP-3B	X	.002	.002	0	%100
17	MP-1	X	.002	.002	0	%100
18	MP-1B	X	.002	.002	0	%100
19	MP-2	X	.002	.002	0	%100
20	MP-2B	X	.002	.002	0	%100
21	MP-3	X	.002	.002	0	%100
22	MP-3B	X	.002	.002	0	%100
23	MP-4	X	.002	.002	0	%100
24	MP-4B	X	.002	.002	0	%100
25	MP-5	X	.002	.002	0	%100
26	MP-5B	X	.002	.002	0	%100
27	MP-6	X	.002	.002	0	%100
28	MP-6B	X	.002	.002	0	%100
29	MP-7	X	.002	.002	0	%100
30	MP-7B	X	.002	.002	0	%100
31	MP-8	X	.002	.002	0	%100
32	MP-8B	X	.002	.002	0	%100
33	MP-9	X	.002	.002	0	%100
34	MP-9B	X	.002	.002	0	%100
35	MP-10	X	.002	.002	0	%100
36	SA-1	X	.004	.004	0	%100
37	SA-2	X	.003	.003	0	%100
38	SA-3	X	.001	.001	0	%100
39	SF1-TH	X	.002	.002	0	%100
40	SF2-TH	X	.000636	.000636	0	%100
41	TR-1	X	.001	.001	0	%100
42	TR-2	X	.001	.001	0	%100
43	TR-3	X	.001	.001	0	%100
44	TR-4	X	.001	.001	0	%100
45	TR-5	X	.001	.001	0	%100
46	TR-6	X	.001	.001	0	%100
47	TR-7	X	.000458	.000458	0	%100
48	TR-8	X	.000458	.000458	0	%100
49	TR-9	X	.000458	.000458	0	%100
50	TR-10	X	.000458	.000458	0	%100
51	TR-11	X	.000458	.000458	0	%100
52	TR-12	X	.000458	.000458	0	%100
53	TR-13	X	.002	.002	0	%100
54	TR-14	X	.002	.002	0	%100
55	TR-15	X	.002	.002	0	%100
56	TR-16	X	.002	.002	0	%100
57	TR-17	X	.002	.002	0	%100



Company : Tower Engineering Professionals, Inc.
Designer : GHM
Job Number : TEP No. 55021.286047
Model Name : CCI BU No. 842858

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

	Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
58	TR-18	X	.002	.002	0	%100
59	FFHR	X	.002	.002	0	%100
60	SF2-HR	X	.000557	.000557	0	%100
61	SF1-HR	X	.002	.002	0	%100
62	HRC1	X	.000772	.000772	0	%100
63	HRC3	X	.002	.002	0	%100
64	HRC2	X	.003	.003	0	%100
65	CP-1	Z	-.001	-.001	0	%100
66	CP-2	Z	-.003	-.003	0	%100
67	CP-3	Z	-.005	-.005	0	%100
68	FF-TH	Z	-.002	-.002	0	%100
69	GSI-1A	Z	-.001	-.001	0	%100
70	GSI-1B	Z	-.001	-.001	0	%100
71	GSI-2A	Z	-.003	-.003	0	%100
72	GSI-2B	Z	-.003	-.003	0	%100
73	GSI-3A	Z	-.004	-.004	0	%100
74	GSI-3B	Z	-.004	-.004	0	%100
75	GSIP-1A	Z	-.002	-.002	0	%100
76	GSIP-1B	Z	-.003	-.003	0	%100
77	GSIP-2A	Z	-.003	-.003	0	%100
78	GSIP-2B	Z	-.000815	-.000815	0	%100
79	GSIP-3A	Z	-.000815	-.000815	0	%100
80	GSIP-3B	Z	-.002	-.002	0	%100
81	MP-1	Z	-.002	-.002	0	%100
82	MP-1B	Z	-.002	-.002	0	%100
83	MP-2	Z	-.002	-.002	0	%100
84	MP-2B	Z	-.002	-.002	0	%100
85	MP-3	Z	-.002	-.002	0	%100
86	MP-3B	Z	-.002	-.002	0	%100
87	MP-4	Z	-.002	-.002	0	%100
88	MP-4B	Z	-.002	-.002	0	%100
89	MP-5	Z	-.002	-.002	0	%100
90	MP-5B	Z	-.002	-.002	0	%100
91	MP-6	Z	-.002	-.002	0	%100
92	MP-6B	Z	-.002	-.002	0	%100
93	MP-7	Z	-.002	-.002	0	%100
94	MP-7B	Z	-.002	-.002	0	%100
95	MP-8	Z	-.002	-.002	0	%100
96	MP-8B	Z	-.002	-.002	0	%100
97	MP-9	Z	-.002	-.002	0	%100
98	MP-9B	Z	-.002	-.002	0	%100
99	MP-10	Z	-.002	-.002	0	%100
100	SA-1	Z	-.004	-.004	0	%100
101	SA-2	Z	-.003	-.003	0	%100
102	SA-3	Z	-.001	-.001	0	%100
103	SF1-TH	Z	-.003	-.003	0	%100
104	SF2-TH	Z	-.000768	-.000768	0	%100
105	TR-1	Z	-.001	-.001	0	%100
106	TR-2	Z	-.001	-.001	0	%100
107	TR-3	Z	-.001	-.001	0	%100
108	TR-4	Z	-.001	-.001	0	%100
109	TR-5	Z	-.001	-.001	0	%100
110	TR-6	Z	-.001	-.001	0	%100
111	TR-7	Z	-.000458	-.000458	0	%100
112	TR-8	Z	-.000458	-.000458	0	%100
113	TR-9	Z	-.000458	-.000458	0	%100
114	TR-10	Z	-.000458	-.000458	0	%100



Company : Tower Engineering Professionals, Inc.
Designer : GHM
Job Number : TEP No. 55021.286047
Model Name : CCI BU No. 842858

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

Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
115	TR-11	Z	-0.00458	0	%100
116	TR-12	Z	-0.00458	0	%100
117	TR-13	Z	-0.002	0	%100
118	TR-14	Z	-0.002	0	%100
119	TR-15	Z	-0.002	0	%100
120	TR-16	Z	-0.002	0	%100
121	TR-17	Z	-0.002	0	%100
122	TR-18	Z	-0.002	0	%100
123	FFHR	Z	-0.002	0	%100
124	SF2-HR	Z	-0.00687	0	%100
125	SF1-HR	Z	-0.003	0	%100
126	HRC1	Z	-0.00078	0	%100
127	HRC3	Z	-0.002	0	%100
128	HRC2	Z	-0.003	0	%100

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

	Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
1	CP-1	X	0	0	0	%100
2	CP-2	X	.006	.006	0	%100
3	CP-3	X	.006	.006	0	%100
4	FF-TH	X	.003	.003	0	%100
5	GSI-1A	X	0	0	0	%100
6	GSI-1B	X	0	0	0	%100
7	GSI-2A	X	.004	.004	0	%100
8	GSI-2B	X	.004	.004	0	%100
9	GSI-3A	X	.004	.004	0	%100
10	GSI-3B	X	.004	.004	0	%100
11	GSIP-1A	X	.003	.003	0	%100
12	GSIP-1B	X	.003	.003	0	%100
13	GSIP-2A	X	.003	.003	0	%100
14	GSIP-2B	X	0	0	0	%100
15	GSIP-3A	X	0	0	0	%100
16	GSIP-3B	X	.003	.003	0	%100
17	MP-1	X	.002	.002	0	%100
18	MP-1B	X	.003	.003	0	%100
19	MP-2	X	.003	.003	0	%100
20	MP-2B	X	.002	.002	0	%100
21	MP-3	X	.002	.002	0	%100
22	MP-3B	X	.003	.003	0	%100
23	MP-4	X	.002	.002	0	%100
24	MP-4B	X	.003	.003	0	%100
25	MP-5	X	.003	.003	0	%100
26	MP-5B	X	.002	.002	0	%100
27	MP-6	X	.002	.002	0	%100
28	MP-6B	X	.003	.003	0	%100
29	MP-7	X	.002	.002	0	%100
30	MP-7B	X	.003	.003	0	%100
31	MP-8	X	.003	.003	0	%100
32	MP-8B	X	.002	.002	0	%100
33	MP-9	X	.002	.002	0	%100
34	MP-9B	X	.003	.003	0	%100
35	MP-10	X	.002	.002	0	%100
36	SA-1	X	.005	.005	0	%100
37	SA-2	X	.002	.002	0	%100
38	SA-3	X	.003	.003	0	%100
39	SF1-TH	X	.003	.003	0	%100



Company : Tower Engineering Professionals, Inc.
Designer : GHM
Job Number : TEP No. 55021.286047
Model Name : CCI BU No. 842858

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

	Member Label	Direction	Start Magnitude[k/ft.....]	End Magnitude[k/ft.F.....]	Start Location[ft.%]	End Location[ft.%]
40	SF2-TH	X	0	0	0	%100
41	TR-1	X	.001	.001	0	%100
42	TR-2	X	.001	.001	0	%100
43	TR-3	X	.001	.001	0	%100
44	TR-4	X	.001	.001	0	%100
45	TR-5	X	.001	.001	0	%100
46	TR-6	X	.001	.001	0	%100
47	TR-7	X	.001	.001	0	%100
48	TR-8	X	.001	.001	0	%100
49	TR-9	X	.001	.001	0	%100
50	TR-10	X	.001	.001	0	%100
51	TR-11	X	.001	.001	0	%100
52	TR-12	X	.001	.001	0	%100
53	TR-13	X	.002	.002	0	%100
54	TR-14	X	.002	.002	0	%100
55	TR-15	X	.002	.002	0	%100
56	TR-16	X	.002	.002	0	%100
57	TR-17	X	.002	.002	0	%100
58	TR-18	X	.002	.002	0	%100
59	FFHR	X	.003	.003	0	%100
60	SF2-HR	X	0	0	0	%100
61	SF1-HR	X	.002	.002	0	%100
62	HRC1	X	0	0	0	%100
63	HRC3	X	.003	.003	0	%100
64	HRC2	X	.003	.003	0	%100
65	CP-1	Z	0	0	0	%100
66	CP-2	Z	-.003	-.003	0	%100
67	CP-3	Z	-.003	-.003	0	%100
68	FF-TH	Z	-.002	-.002	0	%100
69	GSI-1A	Z	0	0	0	%100
70	GSI-1B	Z	0	0	0	%100
71	GSI-2A	Z	-.002	-.002	0	%100
72	GSI-2B	Z	-.002	-.002	0	%100
73	GSI-3A	Z	-.002	-.002	0	%100
74	GSI-3B	Z	-.002	-.002	0	%100
75	GSIP-1A	Z	-.002	-.002	0	%100
76	GSIP-1B	Z	-.002	-.002	0	%100
77	GSIP-2A	Z	-.002	-.002	0	%100
78	GSIP-2B	Z	0	0	0	%100
79	GSIP-3A	Z	0	0	0	%100
80	GSIP-3B	Z	-.002	-.002	0	%100
81	MP-1	Z	-.002	-.002	0	%100
82	MP-1B	Z	-.002	-.002	0	%100
83	MP-2	Z	-.002	-.002	0	%100
84	MP-2B	Z	-.001	-.001	0	%100
85	MP-3	Z	-.002	-.002	0	%100
86	MP-3B	Z	-.002	-.002	0	%100
87	MP-4	Z	-.002	-.002	0	%100
88	MP-4B	Z	-.002	-.002	0	%100
89	MP-5	Z	-.002	-.002	0	%100
90	MP-5B	Z	-.001	-.001	0	%100
91	MP-6	Z	-.002	-.002	0	%100
92	MP-6B	Z	-.002	-.002	0	%100
93	MP-7	Z	-.002	-.002	0	%100
94	MP-7B	Z	-.002	-.002	0	%100
95	MP-8	Z	-.002	-.002	0	%100
96	MP-8B	Z	-.001	-.001	0	%100



Company : Tower Engineering Professionals, Inc.
Designer : GHM
Job Number : TEP No. 55021.286047
Model Name : CCI BU No. 842858

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

	Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
97	MP-9	Z	-.002	-.002	0	%100
98	MP-9B	Z	-.002	-.002	0	%100
99	MP-10	Z	-.001	-.001	0	%100
100	SA-1	Z	-.003	-.003	0	%100
101	SA-2	Z	-.002	-.002	0	%100
102	SA-3	Z	-.001	-.001	0	%100
103	SF1-TH	Z	-.002	-.002	0	%100
104	SF2-TH	Z	0	0	0	%100
105	TR-1	Z	-.000626	-.000626	0	%100
106	TR-2	Z	-.000626	-.000626	0	%100
107	TR-3	Z	-.000626	-.000626	0	%100
108	TR-4	Z	-.000626	-.000626	0	%100
109	TR-5	Z	-.000626	-.000626	0	%100
110	TR-6	Z	-.000626	-.000626	0	%100
111	TR-7	Z	-.000626	-.000626	0	%100
112	TR-8	Z	-.000626	-.000626	0	%100
113	TR-9	Z	-.000626	-.000626	0	%100
114	TR-10	Z	-.000626	-.000626	0	%100
115	TR-11	Z	-.000626	-.000626	0	%100
116	TR-12	Z	-.000626	-.000626	0	%100
117	TR-13	Z	-.001	-.001	0	%100
118	TR-14	Z	-.001	-.001	0	%100
119	TR-15	Z	-.001	-.001	0	%100
120	TR-16	Z	-.001	-.001	0	%100
121	TR-17	Z	-.001	-.001	0	%100
122	TR-18	Z	-.001	-.001	0	%100
123	FFHR	Z	-.001	-.001	0	%100
124	SF2-HR	Z	0	0	0	%100
125	SF1-HR	Z	-.002	-.002	0	%100
126	HRC1	Z	0	0	0	%100
127	HRC3	Z	-.002	-.002	0	%100
128	HRC2	Z	-.002	-.002	0	%100

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

	Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
1	CP-1	X	.008	.008	0	%100
2	CP-2	X	.008	.008	0	%100
3	CP-3	X	.008	.008	0	%100
4	FF-TH	X	.004	.004	0	%100
5	GSI-1A	X	.005	.005	0	%100
6	GSI-1B	X	.005	.005	0	%100
7	GSI-2A	X	.006	.006	0	%100
8	GSI-2B	X	.006	.006	0	%100
9	GSI-3A	X	.005	.005	0	%100
10	GSI-3B	X	.005	.005	0	%100
11	GSIP-1A	X	.005	.005	0	%100
12	GSIP-1B	X	.004	.004	0	%100
13	GSIP-2A	X	.004	.004	0	%100
14	GSIP-2B	X	.004	.004	0	%100
15	GSIP-3A	X	.004	.004	0	%100
16	GSIP-3B	X	.005	.005	0	%100
17	MP-1	X	.003	.003	0	%100
18	MP-1B	X	.003	.003	0	%100
19	MP-2	X	.003	.003	0	%100
20	MP-2B	X	.002	.002	0	%100
21	MP-3	X	.003	.003	0	%100



Company : Tower Engineering Professionals, Inc.
Designer : GHM
Job Number : TEP No. 55021.286047
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Member Distributed Loads (BLC 27 : 180 Wind - Ice) (Continued)

	Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
22	MP-3B	X	.003	.003	0	%100
23	MP-4	X	.003	.003	0	%100
24	MP-4B	X	.003	.003	0	%100
25	MP-5	X	.003	.003	0	%100
26	MP-5B	X	.002	.002	0	%100
27	MP-6	X	.003	.003	0	%100
28	MP-6B	X	.003	.003	0	%100
29	MP-7	X	.003	.003	0	%100
30	MP-7B	X	.003	.003	0	%100
31	MP-8	X	.003	.003	0	%100
32	MP-8B	X	.002	.002	0	%100
33	MP-9	X	.003	.003	0	%100
34	MP-9B	X	.003	.003	0	%100
35	MP-10	X	.002	.002	0	%100
36	SA-1	X	.006	.006	0	%100
37	SA-2	X	.005	.005	0	%100
38	SA-3	X	.006	.006	0	%100
39	SF1-TH	X	.003	.003	0	%100
40	SF2-TH	X	.003	.003	0	%100
41	TR-1	X	.003	.003	0	%100
42	TR-2	X	.003	.003	0	%100
43	TR-3	X	.003	.003	0	%100
44	TR-4	X	.003	.003	0	%100
45	TR-5	X	.003	.003	0	%100
46	TR-6	X	.003	.003	0	%100
47	TR-7	X	.003	.003	0	%100
48	TR-8	X	.003	.003	0	%100
49	TR-9	X	.003	.003	0	%100
50	TR-10	X	.003	.003	0	%100
51	TR-11	X	.003	.003	0	%100
52	TR-12	X	.003	.003	0	%100
53	TR-13	X	.003	.003	0	%100
54	TR-14	X	.003	.003	0	%100
55	TR-15	X	.003	.003	0	%100
56	TR-16	X	.003	.003	0	%100
57	TR-17	X	.003	.003	0	%100
58	TR-18	X	.003	.003	0	%100
59	FFHR	X	.004	.004	0	%100
60	SF2-HR	X	.003	.003	0	%100
61	SF1-HR	X	.003	.003	0	%100
62	HRC1	X	.004	.004	0	%100
63	HRC3	X	.004	.004	0	%100
64	HRC2	X	.004	.004	0	%100

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

	Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
1	CP-1	X	.006	.006	0	%100
2	CP-2	X	.006	.006	0	%100
3	CP-3	X	0	0	0	%100
4	FF-TH	X	.003	.003	0	%100
5	GSI-1A	X	.004	.004	0	%100
6	GSI-1B	X	.004	.004	0	%100
7	GSI-2A	X	.004	.004	0	%100
8	GSI-2B	X	.004	.004	0	%100
9	GSI-3A	X	0	0	0	%100
10	GSI-3B	X	0	0	0	%100



Company : Tower Engineering Professionals, Inc.
Designer : GHM
Job Number : TEP No. 55021.286047
Model Name : CCI BU No. 842858

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

	Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
11	GSIP-1A	X	.003	.003	0	%100
12	GSIP-1B	X	0	0	0	%100
13	GSIP-2A	X	0	0	0	%100
14	GSIP-2B	X	.003	.003	0	%100
15	GSIP-3A	X	.003	.003	0	%100
16	GSIP-3B	X	.003	.003	0	%100
17	MP-1	X	.002	.002	0	%100
18	MP-1B	X	.003	.003	0	%100
19	MP-2	X	.003	.003	0	%100
20	MP-2B	X	.002	.002	0	%100
21	MP-3	X	.002	.002	0	%100
22	MP-3B	X	.003	.003	0	%100
23	MP-4	X	.002	.002	0	%100
24	MP-4B	X	.003	.003	0	%100
25	MP-5	X	.003	.003	0	%100
26	MP-5B	X	.002	.002	0	%100
27	MP-6	X	.002	.002	0	%100
28	MP-6B	X	.003	.003	0	%100
29	MP-7	X	.002	.002	0	%100
30	MP-7B	X	.003	.003	0	%100
31	MP-8	X	.003	.003	0	%100
32	MP-8B	X	.002	.002	0	%100
33	MP-9	X	.002	.002	0	%100
34	MP-9B	X	.003	.003	0	%100
35	MP-10	X	.002	.002	0	%100
36	SA-1	X	.003	.003	0	%100
37	SA-2	X	.002	.002	0	%100
38	SA-3	X	.005	.005	0	%100
39	SF1-TH	X	0	0	0	%100
40	SF2-TH	X	.003	.003	0	%100
41	TR-1	X	.001	.001	0	%100
42	TR-2	X	.001	.001	0	%100
43	TR-3	X	.001	.001	0	%100
44	TR-4	X	.001	.001	0	%100
45	TR-5	X	.001	.001	0	%100
46	TR-6	X	.001	.001	0	%100
47	TR-7	X	.002	.002	0	%100
48	TR-8	X	.002	.002	0	%100
49	TR-9	X	.002	.002	0	%100
50	TR-10	X	.002	.002	0	%100
51	TR-11	X	.002	.002	0	%100
52	TR-12	X	.002	.002	0	%100
53	TR-13	X	.001	.001	0	%100
54	TR-14	X	.001	.001	0	%100
55	TR-15	X	.001	.001	0	%100
56	TR-16	X	.001	.001	0	%100
57	TR-17	X	.001	.001	0	%100
58	TR-18	X	.001	.001	0	%100
59	FFHR	X	.003	.003	0	%100
60	SF2-HR	X	.002	.002	0	%100
61	SF1-HR	X	0	0	0	%100
62	HRC1	X	.003	.003	0	%100
63	HRC3	X	.003	.003	0	%100
64	HRC2	X	0	0	0	%100
65	CP-1	Z	.003	.003	0	%100
66	CP-2	Z	.003	.003	0	%100
67	CP-3	Z	0	0	0	%100



Company : Tower Engineering Professionals, Inc.
Designer : GHM
Job Number : TEP No. 55021.286047
Model Name : CCI BU No. 842858

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

	Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
68	FF-TH	Z	.002	.002	0	%100
69	GSI-1A	Z	.002	.002	0	%100
70	GSI-1B	Z	.002	.002	0	%100
71	GSI-2A	Z	.002	.002	0	%100
72	GSI-2B	Z	.002	.002	0	%100
73	GSI-3A	Z	0	0	0	%100
74	GSI-3B	Z	0	0	0	%100
75	GSIP-1A	Z	.002	.002	0	%100
76	GSIP-1B	Z	0	0	0	%100
77	GSIP-2A	Z	0	0	0	%100
78	GSIP-2B	Z	.002	.002	0	%100
79	GSIP-3A	Z	.002	.002	0	%100
80	GSIP-3B	Z	.002	.002	0	%100
81	MP-1	Z	.002	.002	0	%100
82	MP-1B	Z	.002	.002	0	%100
83	MP-2	Z	.002	.002	0	%100
84	MP-2B	Z	.001	.001	0	%100
85	MP-3	Z	.002	.002	0	%100
86	MP-3B	Z	.002	.002	0	%100
87	MP-4	Z	.002	.002	0	%100
88	MP-4B	Z	.002	.002	0	%100
89	MP-5	Z	.002	.002	0	%100
90	MP-5B	Z	.001	.001	0	%100
91	MP-6	Z	.002	.002	0	%100
92	MP-6B	Z	.002	.002	0	%100
93	MP-7	Z	.002	.002	0	%100
94	MP-7B	Z	.002	.002	0	%100
95	MP-8	Z	.002	.002	0	%100
96	MP-8B	Z	.001	.001	0	%100
97	MP-9	Z	.002	.002	0	%100
98	MP-9B	Z	.002	.002	0	%100
99	MP-10	Z	.001	.001	0	%100
100	SA-1	Z	.001	.001	0	%100
101	SA-2	Z	.002	.002	0	%100
102	SA-3	Z	.003	.003	0	%100
103	SF1-TH	Z	0	0	0	%100
104	SF2-TH	Z	.002	.002	0	%100
105	TR-1	Z	.000626	.000626	0	%100
106	TR-2	Z	.000626	.000626	0	%100
107	TR-3	Z	.000626	.000626	0	%100
108	TR-4	Z	.000626	.000626	0	%100
109	TR-5	Z	.000626	.000626	0	%100
110	TR-6	Z	.000626	.000626	0	%100
111	TR-7	Z	.001	.001	0	%100
112	TR-8	Z	.001	.001	0	%100
113	TR-9	Z	.001	.001	0	%100
114	TR-10	Z	.001	.001	0	%100
115	TR-11	Z	.001	.001	0	%100
116	TR-12	Z	.001	.001	0	%100
117	TR-13	Z	.000626	.000626	0	%100
118	TR-14	Z	.000626	.000626	0	%100
119	TR-15	Z	.000626	.000626	0	%100
120	TR-16	Z	.000626	.000626	0	%100
121	TR-17	Z	.000626	.000626	0	%100
122	TR-18	Z	.000626	.000626	0	%100
123	FFHR	Z	.001	.001	0	%100
124	SF2-HR	Z	.002	.002	0	%100



Company : Tower Engineering Professionals, Inc.
Designer : GHM
Job Number : TEP No. 55021.286047
Model Name : CCI BU No. 842858

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

	Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
125	SF1-HR	Z	0	0	0	%100
126	HRC1	Z	.002	.002	0	%100
127	HRC3	Z	.002	.002	0	%100
128	HRC2	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
1	CP-1	X	.005	.005	0	%100
2	CP-2	X	.004	.004	0	%100
3	CP-3	X	.001	.001	0	%100
4	FF-TH	X	.002	.002	0	%100
5	GSI-1A	X	.004	.004	0	%100
6	GSI-1B	X	.004	.004	0	%100
7	GSI-2A	X	.003	.003	0	%100
8	GSI-2B	X	.003	.003	0	%100
9	GSI-3A	X	.00097	.00097	0	%100
10	GSI-3B	X	.00097	.00097	0	%100
11	GSIP-1A	X	.002	.002	0	%100
12	GSIP-1B	X	.000739	.000739	0	%100
13	GSIP-2A	X	.000739	.000739	0	%100
14	GSIP-2B	X	.003	.003	0	%100
15	GSIP-3A	X	.003	.003	0	%100
16	GSIP-3B	X	.002	.002	0	%100
17	MP-1	X	.002	.002	0	%100
18	MP-1B	X	.002	.002	0	%100
19	MP-2	X	.002	.002	0	%100
20	MP-2B	X	.002	.002	0	%100
21	MP-3	X	.002	.002	0	%100
22	MP-3B	X	.002	.002	0	%100
23	MP-4	X	.002	.002	0	%100
24	MP-4B	X	.002	.002	0	%100
25	MP-5	X	.002	.002	0	%100
26	MP-5B	X	.002	.002	0	%100
27	MP-6	X	.002	.002	0	%100
28	MP-6B	X	.002	.002	0	%100
29	MP-7	X	.002	.002	0	%100
30	MP-7B	X	.002	.002	0	%100
31	MP-8	X	.002	.002	0	%100
32	MP-8B	X	.002	.002	0	%100
33	MP-9	X	.002	.002	0	%100
34	MP-9B	X	.002	.002	0	%100
35	MP-10	X	.002	.002	0	%100
36	SA-1	X	.001	.001	0	%100
37	SA-2	X	.003	.003	0	%100
38	SA-3	X	.004	.004	0	%100
39	SF1-TH	X	.000636	.000636	0	%100
40	SF2-TH	X	.002	.002	0	%100
41	TR-1	X	.001	.001	0	%100
42	TR-2	X	.001	.001	0	%100
43	TR-3	X	.001	.001	0	%100
44	TR-4	X	.001	.001	0	%100
45	TR-5	X	.001	.001	0	%100
46	TR-6	X	.001	.001	0	%100
47	TR-7	X	.002	.002	0	%100
48	TR-8	X	.002	.002	0	%100
49	TR-9	X	.002	.002	0	%100



Company : Tower Engineering Professionals, Inc.
Designer : GHM
Job Number : TEP No. 55021.286047
Model Name : CCI BU No. 842858

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

	Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
50	TR-10	X	.002	.002	0	%100
51	TR-11	X	.002	.002	0	%100
52	TR-12	X	.002	.002	0	%100
53	TR-13	X	.000458	.000458	0	%100
54	TR-14	X	.000458	.000458	0	%100
55	TR-15	X	.000458	.000458	0	%100
56	TR-16	X	.000458	.000458	0	%100
57	TR-17	X	.000458	.000458	0	%100
58	TR-18	X	.000458	.000458	0	%100
59	FFHR	X	.002	.002	0	%100
60	SF2-HR	X	.002	.002	0	%100
61	SF1-HR	X	.000557	.000557	0	%100
62	HRC1	X	.003	.003	0	%100
63	HRC3	X	.002	.002	0	%100
64	HRC2	X	.000772	.000772	0	%100
65	CP-1	Z	.005	.005	0	%100
66	CP-2	Z	.003	.003	0	%100
67	CP-3	Z	.001	.001	0	%100
68	FF-TH	Z	.002	.002	0	%100
69	GSI-1A	Z	.004	.004	0	%100
70	GSI-1B	Z	.004	.004	0	%100
71	GSI-2A	Z	.003	.003	0	%100
72	GSI-2B	Z	.003	.003	0	%100
73	GSI-3A	Z	.001	.001	0	%100
74	GSI-3B	Z	.001	.001	0	%100
75	GSIP-1A	Z	.002	.002	0	%100
76	GSIP-1B	Z	.000815	.000815	0	%100
77	GSIP-2A	Z	.000815	.000815	0	%100
78	GSIP-2B	Z	.003	.003	0	%100
79	GSIP-3A	Z	.003	.003	0	%100
80	GSIP-3B	Z	.002	.002	0	%100
81	MP-1	Z	.002	.002	0	%100
82	MP-1B	Z	.002	.002	0	%100
83	MP-2	Z	.002	.002	0	%100
84	MP-2B	Z	.002	.002	0	%100
85	MP-3	Z	.002	.002	0	%100
86	MP-3B	Z	.002	.002	0	%100
87	MP-4	Z	.002	.002	0	%100
88	MP-4B	Z	.002	.002	0	%100
89	MP-5	Z	.002	.002	0	%100
90	MP-5B	Z	.002	.002	0	%100
91	MP-6	Z	.002	.002	0	%100
92	MP-6B	Z	.002	.002	0	%100
93	MP-7	Z	.002	.002	0	%100
94	MP-7B	Z	.002	.002	0	%100
95	MP-8	Z	.002	.002	0	%100
96	MP-8B	Z	.002	.002	0	%100
97	MP-9	Z	.002	.002	0	%100
98	MP-9B	Z	.002	.002	0	%100
99	MP-10	Z	.002	.002	0	%100
100	SA-1	Z	.001	.001	0	%100
101	SA-2	Z	.003	.003	0	%100
102	SA-3	Z	.004	.004	0	%100
103	SF1-TH	Z	.000768	.000768	0	%100
104	SF2-TH	Z	.003	.003	0	%100
105	TR-1	Z	.001	.001	0	%100
106	TR-2	Z	.001	.001	0	%100



Company : Tower Engineering Professionals, Inc.
Designer : GHM
Job Number : TEP No. 55021.286047
Model Name : CCI BU No. 842858

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

	Member Label	Direction	Start Magnitude[k/ft.,...	End Magnitude[k/ft.F.,...	Start Location[ft.%]	End Location[ft.%]
107	TR-3	Z	.001	.001	0	%100
108	TR-4	Z	.001	.001	0	%100
109	TR-5	Z	.001	.001	0	%100
110	TR-6	Z	.001	.001	0	%100
111	TR-7	Z	.002	.002	0	%100
112	TR-8	Z	.002	.002	0	%100
113	TR-9	Z	.002	.002	0	%100
114	TR-10	Z	.002	.002	0	%100
115	TR-11	Z	.002	.002	0	%100
116	TR-12	Z	.002	.002	0	%100
117	TR-13	Z	.000458	.000458	0	%100
118	TR-14	Z	.000458	.000458	0	%100
119	TR-15	Z	.000458	.000458	0	%100
120	TR-16	Z	.000458	.000458	0	%100
121	TR-17	Z	.000458	.000458	0	%100
122	TR-18	Z	.000458	.000458	0	%100
123	FFHR	Z	.002	.002	0	%100
124	SF2-HR	Z	.003	.003	0	%100
125	SF1-HR	Z	.000687	.000687	0	%100
126	HRC1	Z	.003	.003	0	%100
127	HRC3	Z	.002	.002	0	%100
128	HRC2	Z	.00078	.00078	0	%100

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

	Member Label	Direction	Start Magnitude[k/ft.....]	End Magnitude[k/ft.F.....]	Start Location[ft.%]	End Location[ft.%]
1	CP-1	X	.004	.004	0	%100
2	CP-2	X	.002	.002	0	%100
3	CP-3	X	.002	.002	0	%100
4	FF-TH	X	.001	.001	0	%100
5	GSI-1A	X	.003	.003	0	%100
6	GSI-1B	X	.003	.003	0	%100
7	GSI-2A	X	.001	.001	0	%100
8	GSI-2B	X	.001	.001	0	%100
9	GSI-3A	X	.001	.001	0	%100
10	GSI-3B	X	.001	.001	0	%100
11	GSIP-1A	X	.001	.001	0	%100
12	GSIP-1B	X	.001	.001	0	%100
13	GSIP-2A	X	.001	.001	0	%100
14	GSIP-2B	X	.002	.002	0	%100
15	GSIP-3A	X	.002	.002	0	%100
16	GSIP-3B	X	.001	.001	0	%100
17	MP-1	X	.001	.001	0	%100
18	MP-1B	X	.001	.001	0	%100
19	MP-2	X	.002	.002	0	%100
20	MP-2B	X	.001	.001	0	%100
21	MP-3	X	.001	.001	0	%100
22	MP-3B	X	.001	.001	0	%100
23	MP-4	X	.001	.001	0	%100
24	MP-4B	X	.001	.001	0	%100
25	MP-5	X	.002	.002	0	%100
26	MP-5B	X	.001	.001	0	%100
27	MP-6	X	.001	.001	0	%100
28	MP-6B	X	.001	.001	0	%100
29	MP-7	X	.001	.001	0	%100
30	MP-7B	X	.001	.001	0	%100
31	MP-8	X	.002	.002	0	%100



Company : Tower Engineering Professionals, Inc.
Designer : GHM
Job Number : TEP No. 55021.286047
Model Name : CCI BU No. 842858

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

Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
32 MP-8B	X	.001	.001	0	%100
33 MP-9	X	.001	.001	0	%100
34 MP-9B	X	.001	.001	0	%100
35 MP-10	X	.001	.001	0	%100
36 SA-1	X	0	0	0	%100
37 SA-2	X	.002	.002	0	%100
38 SA-3	X	.003	.003	0	%100
39 SF1-TH	X	.000868	.000868	0	%100
40 SF2-TH	X	.002	.002	0	%100
41 TR-1	X	.001	.001	0	%100
42 TR-2	X	.001	.001	0	%100
43 TR-3	X	.001	.001	0	%100
44 TR-4	X	.001	.001	0	%100
45 TR-5	X	.001	.001	0	%100
46 TR-6	X	.001	.001	0	%100
47 TR-7	X	.001	.001	0	%100
48 TR-8	X	.001	.001	0	%100
49 TR-9	X	.001	.001	0	%100
50 TR-10	X	.001	.001	0	%100
51 TR-11	X	.001	.001	0	%100
52 TR-12	X	.001	.001	0	%100
53 TR-13	X	0	0	0	%100
54 TR-14	X	0	0	0	%100
55 TR-15	X	0	0	0	%100
56 TR-16	X	0	0	0	%100
57 TR-17	X	0	0	0	%100
58 TR-18	X	0	0	0	%100
59 FFHR	X	.000938	.000938	0	%100
60 SF2-HR	X	.002	.002	0	%100
61 SF1-HR	X	.000761	.000761	0	%100
62 HRC1	X	.002	.002	0	%100
63 HRC3	X	.001	.001	0	%100
64 HRC2	X	.001	.001	0	%100
65 CP-1	Z	.007	.007	0	%100
66 CP-2	Z	.003	.003	0	%100
67 CP-3	Z	.003	.003	0	%100
68 FF-TH	Z	.002	.002	0	%100
69 GSI-1A	Z	.005	.005	0	%100
70 GSI-1B	Z	.005	.005	0	%100
71 GSI-2A	Z	.002	.002	0	%100
72 GSI-2B	Z	.002	.002	0	%100
73 GSI-3A	Z	.002	.002	0	%100
74 GSI-3B	Z	.002	.002	0	%100
75 GSIP-1A	Z	.002	.002	0	%100
76 GSIP-1B	Z	.002	.002	0	%100
77 GSIP-2A	Z	.002	.002	0	%100
78 GSIP-2B	Z	.004	.004	0	%100
79 GSIP-3A	Z	.004	.004	0	%100
80 GSIP-3B	Z	.002	.002	0	%100
81 MP-1	Z	.003	.003	0	%100
82 MP-1B	Z	.003	.003	0	%100
83 MP-2	Z	.003	.003	0	%100
84 MP-2B	Z	.002	.002	0	%100
85 MP-3	Z	.003	.003	0	%100
86 MP-3B	Z	.003	.003	0	%100
87 MP-4	Z	.003	.003	0	%100
88 MP-4B	Z	.003	.003	0	%100



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

	Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
89	MP-5	Z	.003	.003	0	%100
90	MP-5B	Z	.002	.002	0	%100
91	MP-6	Z	.003	.003	0	%100
92	MP-6B	Z	.003	.003	0	%100
93	MP-7	Z	.003	.003	0	%100
94	MP-7B	Z	.003	.003	0	%100
95	MP-8	Z	.003	.003	0	%100
96	MP-8B	Z	.002	.002	0	%100
97	MP-9	Z	.003	.003	0	%100
98	MP-9B	Z	.003	.003	0	%100
99	MP-10	Z	.002	.002	0	%100
100	SA-1	Z	0	0	0	%100
101	SA-2	Z	.005	.005	0	%100
102	SA-3	Z	.004	.004	0	%100
103	SF1-TH	Z	.002	.002	0	%100
104	SF2-TH	Z	.004	.004	0	%100
105	TR-1	Z	.002	.002	0	%100
106	TR-2	Z	.002	.002	0	%100
107	TR-3	Z	.002	.002	0	%100
108	TR-4	Z	.002	.002	0	%100
109	TR-5	Z	.002	.002	0	%100
110	TR-6	Z	.002	.002	0	%100
111	TR-7	Z	.002	.002	0	%100
112	TR-8	Z	.002	.002	0	%100
113	TR-9	Z	.002	.002	0	%100
114	TR-10	Z	.002	.002	0	%100
115	TR-11	Z	.002	.002	0	%100
116	TR-12	Z	.002	.002	0	%100
117	TR-13	Z	0	0	0	%100
118	TR-14	Z	0	0	0	%100
119	TR-15	Z	0	0	0	%100
120	TR-16	Z	0	0	0	%100
121	TR-17	Z	0	0	0	%100
122	TR-18	Z	0	0	0	%100
123	FFHR	Z	.001	.001	0	%100
124	SF2-HR	Z	.003	.003	0	%100
125	SF1-HR	Z	.002	.002	0	%100
126	HRC1	Z	.004	.004	0	%100
127	HRC3	Z	.002	.002	0	%100
128	HRC2	Z	.002	.002	0	%100

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

	Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
1	CP-1	Z	.007	.007	0	%100
2	CP-2	Z	0	0	0	%100
3	CP-3	Z	.007	.007	0	%100
4	FF-TH	Z	0	0	0	%100
5	GSI-1A	Z	.005	.005	0	%100
6	GSI-1B	Z	.005	.005	0	%100
7	GSI-2A	Z	0	0	0	%100
8	GSI-2B	Z	0	0	0	%100
9	GSI-3A	Z	.005	.005	0	%100
10	GSI-3B	Z	.005	.005	0	%100
11	GSIP-1A	Z	0	0	0	%100
12	GSIP-1B	Z	.004	.004	0	%100
13	GSIP-2A	Z	.004	.004	0	%100



Company : Tower Engineering Professionals, Inc.
Designer : GHM
Job Number : TEP No. 55021.286047
Model Name : CCI BU No. 842858

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

	Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
14	GSIP-2B	Z	.004	.004	0	%100
15	GSIP-3A	Z	.004	.004	0	%100
16	GSIP-3B	Z	0	0	0	%100
17	MP-1	Z	.003	.003	0	%100
18	MP-1B	Z	.003	.003	0	%100
19	MP-2	Z	.003	.003	0	%100
20	MP-2B	Z	.003	.003	0	%100
21	MP-3	Z	.003	.003	0	%100
22	MP-3B	Z	.003	.003	0	%100
23	MP-4	Z	.003	.003	0	%100
24	MP-4B	Z	.003	.003	0	%100
25	MP-5	Z	.003	.003	0	%100
26	MP-5B	Z	.003	.003	0	%100
27	MP-6	Z	.003	.003	0	%100
28	MP-6B	Z	.003	.003	0	%100
29	MP-7	Z	.003	.003	0	%100
30	MP-7B	Z	.003	.003	0	%100
31	MP-8	Z	.003	.003	0	%100
32	MP-8B	Z	.003	.003	0	%100
33	MP-9	Z	.003	.003	0	%100
34	MP-9B	Z	.003	.003	0	%100
35	MP-10	Z	.003	.003	0	%100
36	SA-1	Z	.003	.003	0	%100
37	SA-2	Z	.006	.006	0	%100
38	SA-3	Z	.003	.003	0	%100
39	SF1-TH	Z	.004	.004	0	%100
40	SF2-TH	Z	.004	.004	0	%100
41	TR-1	Z	.003	.003	0	%100
42	TR-2	Z	.003	.003	0	%100
43	TR-3	Z	.003	.003	0	%100
44	TR-4	Z	.003	.003	0	%100
45	TR-5	Z	.003	.003	0	%100
46	TR-6	Z	.003	.003	0	%100
47	TR-7	Z	.001	.001	0	%100
48	TR-8	Z	.001	.001	0	%100
49	TR-9	Z	.001	.001	0	%100
50	TR-10	Z	.001	.001	0	%100
51	TR-11	Z	.001	.001	0	%100
52	TR-12	Z	.001	.001	0	%100
53	TR-13	Z	.001	.001	0	%100
54	TR-14	Z	.001	.001	0	%100
55	TR-15	Z	.001	.001	0	%100
56	TR-16	Z	.001	.001	0	%100
57	TR-17	Z	.001	.001	0	%100
58	TR-18	Z	.001	.001	0	%100
59	FFHR	Z	0	0	0	%100
60	SF2-HR	Z	.003	.003	0	%100
61	SF1-HR	Z	.003	.003	0	%100
62	HRC1	Z	.004	.004	0	%100
63	HRC3	Z	0	0	0	%100
64	HRC2	Z	.004	.004	0	%100

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

	Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
1	CP-1	X	-.002	-.002	0	%100
2	CP-2	X	-.002	-.002	0	%100



Company : Tower Engineering Professionals, Inc.
Designer : GHM
Job Number : TEP No. 55021.286047
Model Name : CCI BU No. 842858

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

Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
3 CP-3	X	-0.004	-0.004	0	%100
4 FF-TH	X	-0.001	-0.001	0	%100
5 GSI-1A	X	-0.001	-0.001	0	%100
6 GSI-1B	X	-0.001	-0.001	0	%100
7 GSI-2A	X	-0.001	-0.001	0	%100
8 GSI-2B	X	-0.001	-0.001	0	%100
9 GSI-3A	X	-0.003	-0.003	0	%100
10 GSI-3B	X	-0.003	-0.003	0	%100
11 GSIP-1A	X	-0.001	-0.001	0	%100
12 GSIP-1B	X	-0.002	-0.002	0	%100
13 GSIP-2A	X	-0.002	-0.002	0	%100
14 GSIP-2B	X	-0.001	-0.001	0	%100
15 GSIP-3A	X	-0.001	-0.001	0	%100
16 GSIP-3B	X	-0.001	-0.001	0	%100
17 MP-1	X	-0.001	-0.001	0	%100
18 MP-1B	X	-0.001	-0.001	0	%100
19 MP-2	X	-0.002	-0.002	0	%100
20 MP-2B	X	-0.001	-0.001	0	%100
21 MP-3	X	-0.001	-0.001	0	%100
22 MP-3B	X	-0.001	-0.001	0	%100
23 MP-4	X	-0.001	-0.001	0	%100
24 MP-4B	X	-0.001	-0.001	0	%100
25 MP-5	X	-0.002	-0.002	0	%100
26 MP-5B	X	-0.001	-0.001	0	%100
27 MP-6	X	-0.001	-0.001	0	%100
28 MP-6B	X	-0.001	-0.001	0	%100
29 MP-7	X	-0.001	-0.001	0	%100
30 MP-7B	X	-0.001	-0.001	0	%100
31 MP-8	X	-0.002	-0.002	0	%100
32 MP-8B	X	-0.001	-0.001	0	%100
33 MP-9	X	-0.001	-0.001	0	%100
34 MP-9B	X	-0.001	-0.001	0	%100
35 MP-10	X	-0.001	-0.001	0	%100
36 SA-1	X	-0.003	-0.003	0	%100
37 SA-2	X	-0.002	-0.002	0	%100
38 SA-3	X	0	0	0	%100
39 SF1-TH	X	-0.002	-0.002	0	%100
40 SF2-TH	X	-0.000868	-0.000868	0	%100
41 TR-1	X	-0.001	-0.001	0	%100
42 TR-2	X	-0.001	-0.001	0	%100
43 TR-3	X	-0.001	-0.001	0	%100
44 TR-4	X	-0.001	-0.001	0	%100
45 TR-5	X	-0.001	-0.001	0	%100
46 TR-6	X	-0.001	-0.001	0	%100
47 TR-7	X	0	0	0	%100
48 TR-8	X	0	0	0	%100
49 TR-9	X	0	0	0	%100
50 TR-10	X	0	0	0	%100
51 TR-11	X	0	0	0	%100
52 TR-12	X	0	0	0	%100
53 TR-13	X	-0.001	-0.001	0	%100
54 TR-14	X	-0.001	-0.001	0	%100
55 TR-15	X	-0.001	-0.001	0	%100
56 TR-16	X	-0.001	-0.001	0	%100
57 TR-17	X	-0.001	-0.001	0	%100
58 TR-18	X	-0.001	-0.001	0	%100
59 FFHR	X	-0.000938	-0.000938	0	%100



Company : Tower Engineering Professionals, Inc.
Designer : GHM
Job Number : TEP No. 55021.286047
Model Name : CCI BU No. 842858

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

Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
60 SF2-HR	X	-0.000761	-0.000761	0	%100
61 SF1-HR	X	-0.002	-0.002	0	%100
62 HRC1	X	-0.001	-0.001	0	%100
63 HRC3	X	-0.001	-0.001	0	%100
64 HRC2	X	-0.002	-0.002	0	%100
65 CP-1	Z	.003	.003	0	%100
66 CP-2	Z	.003	.003	0	%100
67 CP-3	Z	.007	.007	0	%100
68 FF-TH	Z	.002	.002	0	%100
69 GSI-1A	Z	.002	.002	0	%100
70 GSI-1B	Z	.002	.002	0	%100
71 GSI-2A	Z	.002	.002	0	%100
72 GSI-2B	Z	.002	.002	0	%100
73 GSI-3A	Z	.005	.005	0	%100
74 GSI-3B	Z	.005	.005	0	%100
75 GSIP-1A	Z	.002	.002	0	%100
76 GSIP-1B	Z	.004	.004	0	%100
77 GSIP-2A	Z	.004	.004	0	%100
78 GSIP-2B	Z	.002	.002	0	%100
79 GSIP-3A	Z	.002	.002	0	%100
80 GSIP-3B	Z	.002	.002	0	%100
81 MP-1	Z	.003	.003	0	%100
82 MP-1B	Z	.003	.003	0	%100
83 MP-2	Z	.003	.003	0	%100
84 MP-2B	Z	.002	.002	0	%100
85 MP-3	Z	.003	.003	0	%100
86 MP-3B	Z	.003	.003	0	%100
87 MP-4	Z	.003	.003	0	%100
88 MP-4B	Z	.003	.003	0	%100
89 MP-5	Z	.003	.003	0	%100
90 MP-5B	Z	.002	.002	0	%100
91 MP-6	Z	.003	.003	0	%100
92 MP-6B	Z	.003	.003	0	%100
93 MP-7	Z	.003	.003	0	%100
94 MP-7B	Z	.003	.003	0	%100
95 MP-8	Z	.003	.003	0	%100
96 MP-8B	Z	.002	.002	0	%100
97 MP-9	Z	.003	.003	0	%100
98 MP-9B	Z	.003	.003	0	%100
99 MP-10	Z	.002	.002	0	%100
100 SA-1	Z	.004	.004	0	%100
101 SA-2	Z	.005	.005	0	%100
102 SA-3	Z	0	0	0	%100
103 SF1-TH	Z	.004	.004	0	%100
104 SF2-TH	Z	.002	.002	0	%100
105 TR-1	Z	.002	.002	0	%100
106 TR-2	Z	.002	.002	0	%100
107 TR-3	Z	.002	.002	0	%100
108 TR-4	Z	.002	.002	0	%100
109 TR-5	Z	.002	.002	0	%100
110 TR-6	Z	.002	.002	0	%100
111 TR-7	Z	0	0	0	%100
112 TR-8	Z	0	0	0	%100
113 TR-9	Z	0	0	0	%100
114 TR-10	Z	0	0	0	%100
115 TR-11	Z	0	0	0	%100
116 TR-12	Z	0	0	0	%100



Company : Tower Engineering Professionals, Inc.
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Job Number : TEP No. 55021.286047
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Member Distributed Loads (BLC 32 : 300 Wind - Ice) (Continued)

	Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
117	TR-13	Z	.002	.002	0	%100
118	TR-14	Z	.002	.002	0	%100
119	TR-15	Z	.002	.002	0	%100
120	TR-16	Z	.002	.002	0	%100
121	TR-17	Z	.002	.002	0	%100
122	TR-18	Z	.002	.002	0	%100
123	FFHR	Z	.001	.001	0	%100
124	SF2-HR	Z	.002	.002	0	%100
125	SF1-HR	Z	.003	.003	0	%100
126	HRC1	Z	.002	.002	0	%100
127	HRC3	Z	.002	.002	0	%100
128	HRC2	Z	.004	.004	0	%100

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

	Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
1	CP-1	X	-.001	-.001	0	%100
2	CP-2	X	-.004	-.004	0	%100
3	CP-3	X	-.005	-.005	0	%100
4	FF-TH	X	-.002	-.002	0	%100
5	GSI-1A	X	-.00097	-.00097	0	%100
6	GSI-1B	X	-.00097	-.00097	0	%100
7	GSI-2A	X	-.003	-.003	0	%100
8	GSI-2B	X	-.003	-.003	0	%100
9	GSI-3A	X	-.004	-.004	0	%100
10	GSI-3B	X	-.004	-.004	0	%100
11	GSIP-1A	X	-.002	-.002	0	%100
12	GSIP-1B	X	-.003	-.003	0	%100
13	GSIP-2A	X	-.003	-.003	0	%100
14	GSIP-2B	X	-.000739	-.000739	0	%100
15	GSIP-3A	X	-.000739	-.000739	0	%100
16	GSIP-3B	X	-.002	-.002	0	%100
17	MP-1	X	-.002	-.002	0	%100
18	MP-1B	X	-.002	-.002	0	%100
19	MP-2	X	-.002	-.002	0	%100
20	MP-2B	X	-.002	-.002	0	%100
21	MP-3	X	-.002	-.002	0	%100
22	MP-3B	X	-.002	-.002	0	%100
23	MP-4	X	-.002	-.002	0	%100
24	MP-4B	X	-.002	-.002	0	%100
25	MP-5	X	-.002	-.002	0	%100
26	MP-5B	X	-.002	-.002	0	%100
27	MP-6	X	-.002	-.002	0	%100
28	MP-6B	X	-.002	-.002	0	%100
29	MP-7	X	-.002	-.002	0	%100
30	MP-7B	X	-.002	-.002	0	%100
31	MP-8	X	-.002	-.002	0	%100
32	MP-8B	X	-.002	-.002	0	%100
33	MP-9	X	-.002	-.002	0	%100
34	MP-9B	X	-.002	-.002	0	%100
35	MP-10	X	-.002	-.002	0	%100
36	SA-1	X	-.004	-.004	0	%100
37	SA-2	X	-.003	-.003	0	%100
38	SA-3	X	-.001	-.001	0	%100
39	SF1-TH	X	-.002	-.002	0	%100
40	SF2-TH	X	-.000636	-.000636	0	%100
41	TR-1	X	-.001	-.001	0	%100



Company : Tower Engineering Professionals, Inc.
Designer : GHM
Job Number : TEP No. 55021.286047
Model Name : CCI BU No. 842858

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

	Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
42	TR-2	X	-.001	-.001	0	%100
43	TR-3	X	-.001	-.001	0	%100
44	TR-4	X	-.001	-.001	0	%100
45	TR-5	X	-.001	-.001	0	%100
46	TR-6	X	-.001	-.001	0	%100
47	TR-7	X	-.000458	-.000458	0	%100
48	TR-8	X	-.000458	-.000458	0	%100
49	TR-9	X	-.000458	-.000458	0	%100
50	TR-10	X	-.000458	-.000458	0	%100
51	TR-11	X	-.000458	-.000458	0	%100
52	TR-12	X	-.000458	-.000458	0	%100
53	TR-13	X	-.002	-.002	0	%100
54	TR-14	X	-.002	-.002	0	%100
55	TR-15	X	-.002	-.002	0	%100
56	TR-16	X	-.002	-.002	0	%100
57	TR-17	X	-.002	-.002	0	%100
58	TR-18	X	-.002	-.002	0	%100
59	FFHR	X	-.002	-.002	0	%100
60	SF2-HR	X	-.000557	-.000557	0	%100
61	SF1-HR	X	-.002	-.002	0	%100
62	HRC1	X	-.000772	-.000772	0	%100
63	HRC3	X	-.002	-.002	0	%100
64	HRC2	X	-.003	-.003	0	%100
65	CP-1	Z	.001	.001	0	%100
66	CP-2	Z	.003	.003	0	%100
67	CP-3	Z	.005	.005	0	%100
68	FF-TH	Z	.002	.002	0	%100
69	GSI-1A	Z	.001	.001	0	%100
70	GSI-1B	Z	.001	.001	0	%100
71	GSI-2A	Z	.003	.003	0	%100
72	GSI-2B	Z	.003	.003	0	%100
73	GSI-3A	Z	.004	.004	0	%100
74	GSI-3B	Z	.004	.004	0	%100
75	GSIP-1A	Z	.002	.002	0	%100
76	GSIP-1B	Z	.003	.003	0	%100
77	GSIP-2A	Z	.003	.003	0	%100
78	GSIP-2B	Z	.000815	.000815	0	%100
79	GSIP-3A	Z	.000815	.000815	0	%100
80	GSIP-3B	Z	.002	.002	0	%100
81	MP-1	Z	.002	.002	0	%100
82	MP-1B	Z	.002	.002	0	%100
83	MP-2	Z	.002	.002	0	%100
84	MP-2B	Z	.002	.002	0	%100
85	MP-3	Z	.002	.002	0	%100
86	MP-3B	Z	.002	.002	0	%100
87	MP-4	Z	.002	.002	0	%100
88	MP-4B	Z	.002	.002	0	%100
89	MP-5	Z	.002	.002	0	%100
90	MP-5B	Z	.002	.002	0	%100
91	MP-6	Z	.002	.002	0	%100
92	MP-6B	Z	.002	.002	0	%100
93	MP-7	Z	.002	.002	0	%100
94	MP-7B	Z	.002	.002	0	%100
95	MP-8	Z	.002	.002	0	%100
96	MP-8B	Z	.002	.002	0	%100
97	MP-9	Z	.002	.002	0	%100
98	MP-9B	Z	.002	.002	0	%100



Company : Tower Engineering Professionals, Inc.
Designer : GHM
Job Number : TEP No. 55021.286047
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Member Distributed Loads (BLC 33 : 315 Wind - Ice) (Continued)

	Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
99	MP-10	Z	.002	.002	0	%100
100	SA-1	Z	.004	.004	0	%100
101	SA-2	Z	.003	.003	0	%100
102	SA-3	Z	.001	.001	0	%100
103	SF1-TH	Z	.003	.003	0	%100
104	SF2-TH	Z	.000768	.000768	0	%100
105	TR-1	Z	.001	.001	0	%100
106	TR-2	Z	.001	.001	0	%100
107	TR-3	Z	.001	.001	0	%100
108	TR-4	Z	.001	.001	0	%100
109	TR-5	Z	.001	.001	0	%100
110	TR-6	Z	.001	.001	0	%100
111	TR-7	Z	.000458	.000458	0	%100
112	TR-8	Z	.000458	.000458	0	%100
113	TR-9	Z	.000458	.000458	0	%100
114	TR-10	Z	.000458	.000458	0	%100
115	TR-11	Z	.000458	.000458	0	%100
116	TR-12	Z	.000458	.000458	0	%100
117	TR-13	Z	.002	.002	0	%100
118	TR-14	Z	.002	.002	0	%100
119	TR-15	Z	.002	.002	0	%100
120	TR-16	Z	.002	.002	0	%100
121	TR-17	Z	.002	.002	0	%100
122	TR-18	Z	.002	.002	0	%100
123	FFHR	Z	.002	.002	0	%100
124	SF2-HR	Z	.000687	.000687	0	%100
125	SF1-HR	Z	.003	.003	0	%100
126	HRC1	Z	.00078	.00078	0	%100
127	HRC3	Z	.002	.002	0	%100
128	HRC2	Z	.003	.003	0	%100

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

	Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
1	CP-1	X	0	0	0	%100
2	CP-2	X	-.006	-.006	0	%100
3	CP-3	X	-.006	-.006	0	%100
4	FF-TH	X	-.003	-.003	0	%100
5	GSI-1A	X	0	0	0	%100
6	GSI-1B	X	0	0	0	%100
7	GSI-2A	X	-.004	-.004	0	%100
8	GSI-2B	X	-.004	-.004	0	%100
9	GSI-3A	X	-.004	-.004	0	%100
10	GSI-3B	X	-.004	-.004	0	%100
11	GSIP-1A	X	-.003	-.003	0	%100
12	GSIP-1B	X	-.003	-.003	0	%100
13	GSIP-2A	X	-.003	-.003	0	%100
14	GSIP-2B	X	0	0	0	%100
15	GSIP-3A	X	0	0	0	%100
16	GSIP-3B	X	-.003	-.003	0	%100
17	MP-1	X	-.002	-.002	0	%100
18	MP-1B	X	-.003	-.003	0	%100
19	MP-2	X	-.003	-.003	0	%100
20	MP-2B	X	-.002	-.002	0	%100
21	MP-3	X	-.002	-.002	0	%100
22	MP-3B	X	-.003	-.003	0	%100
23	MP-4	X	-.002	-.002	0	%100



Company : Tower Engineering Professionals, Inc.
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Member Distributed Loads (BLC 34 : 330 Wind - Ice) (Continued)

	Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
24	MP-4B	X	-.003	-.003	0	%100
25	MP-5	X	-.003	-.003	0	%100
26	MP-5B	X	-.002	-.002	0	%100
27	MP-6	X	-.002	-.002	0	%100
28	MP-6B	X	-.003	-.003	0	%100
29	MP-7	X	-.002	-.002	0	%100
30	MP-7B	X	-.003	-.003	0	%100
31	MP-8	X	-.003	-.003	0	%100
32	MP-8B	X	-.002	-.002	0	%100
33	MP-9	X	-.002	-.002	0	%100
34	MP-9B	X	-.003	-.003	0	%100
35	MP-10	X	-.002	-.002	0	%100
36	SA-1	X	-.005	-.005	0	%100
37	SA-2	X	-.002	-.002	0	%100
38	SA-3	X	-.003	-.003	0	%100
39	SF1-TH	X	-.003	-.003	0	%100
40	SF2-TH	X	0	0	0	%100
41	TR-1	X	-.001	-.001	0	%100
42	TR-2	X	-.001	-.001	0	%100
43	TR-3	X	-.001	-.001	0	%100
44	TR-4	X	-.001	-.001	0	%100
45	TR-5	X	-.001	-.001	0	%100
46	TR-6	X	-.001	-.001	0	%100
47	TR-7	X	-.001	-.001	0	%100
48	TR-8	X	-.001	-.001	0	%100
49	TR-9	X	-.001	-.001	0	%100
50	TR-10	X	-.001	-.001	0	%100
51	TR-11	X	-.001	-.001	0	%100
52	TR-12	X	-.001	-.001	0	%100
53	TR-13	X	-.002	-.002	0	%100
54	TR-14	X	-.002	-.002	0	%100
55	TR-15	X	-.002	-.002	0	%100
56	TR-16	X	-.002	-.002	0	%100
57	TR-17	X	-.002	-.002	0	%100
58	TR-18	X	-.002	-.002	0	%100
59	FFHR	X	-.003	-.003	0	%100
60	SF2-HR	X	0	0	0	%100
61	SF1-HR	X	-.002	-.002	0	%100
62	HRC1	X	0	0	0	%100
63	HRC3	X	-.003	-.003	0	%100
64	HRC2	X	-.003	-.003	0	%100
65	CP-1	Z	0	0	0	%100
66	CP-2	Z	.003	.003	0	%100
67	CP-3	Z	.003	.003	0	%100
68	FF-TH	Z	.002	.002	0	%100
69	GSI-1A	Z	0	0	0	%100
70	GSI-1B	Z	0	0	0	%100
71	GSI-2A	Z	.002	.002	0	%100
72	GSI-2B	Z	.002	.002	0	%100
73	GSI-3A	Z	.002	.002	0	%100
74	GSI-3B	Z	.002	.002	0	%100
75	GSIP-1A	Z	.002	.002	0	%100
76	GSIP-1B	Z	.002	.002	0	%100
77	GSIP-2A	Z	.002	.002	0	%100
78	GSIP-2B	Z	0	0	0	%100
79	GSIP-3A	Z	0	0	0	%100
80	GSIP-3B	Z	.002	.002	0	%100



Company : Tower Engineering Professionals, Inc.
Designer : GHM
Job Number : TEP No. 55021.286047
Model Name : CCI BU No. 842858

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

	Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
81	MP-1	Z	.002	.002	0	%100
82	MP-1B	Z	.002	.002	0	%100
83	MP-2	Z	.002	.002	0	%100
84	MP-2B	Z	.001	.001	0	%100
85	MP-3	Z	.002	.002	0	%100
86	MP-3B	Z	.002	.002	0	%100
87	MP-4	Z	.002	.002	0	%100
88	MP-4B	Z	.002	.002	0	%100
89	MP-5	Z	.002	.002	0	%100
90	MP-5B	Z	.001	.001	0	%100
91	MP-6	Z	.002	.002	0	%100
92	MP-6B	Z	.002	.002	0	%100
93	MP-7	Z	.002	.002	0	%100
94	MP-7B	Z	.002	.002	0	%100
95	MP-8	Z	.002	.002	0	%100
96	MP-8B	Z	.001	.001	0	%100
97	MP-9	Z	.002	.002	0	%100
98	MP-9B	Z	.002	.002	0	%100
99	MP-10	Z	.001	.001	0	%100
100	SA-1	Z	.003	.003	0	%100
101	SA-2	Z	.002	.002	0	%100
102	SA-3	Z	.001	.001	0	%100
103	SF1-TH	Z	.002	.002	0	%100
104	SF2-TH	Z	0	0	0	%100
105	TR-1	Z	.000626	.000626	0	%100
106	TR-2	Z	.000626	.000626	0	%100
107	TR-3	Z	.000626	.000626	0	%100
108	TR-4	Z	.000626	.000626	0	%100
109	TR-5	Z	.000626	.000626	0	%100
110	TR-6	Z	.000626	.000626	0	%100
111	TR-7	Z	.000626	.000626	0	%100
112	TR-8	Z	.000626	.000626	0	%100
113	TR-9	Z	.000626	.000626	0	%100
114	TR-10	Z	.000626	.000626	0	%100
115	TR-11	Z	.000626	.000626	0	%100
116	TR-12	Z	.000626	.000626	0	%100
117	TR-13	Z	.001	.001	0	%100
118	TR-14	Z	.001	.001	0	%100
119	TR-15	Z	.001	.001	0	%100
120	TR-16	Z	.001	.001	0	%100
121	TR-17	Z	.001	.001	0	%100
122	TR-18	Z	.001	.001	0	%100
123	FFHR	Z	.001	.001	0	%100
124	SF2-HR	Z	0	0	0	%100
125	SF1-HR	Z	.002	.002	0	%100
126	HRC1	Z	0	0	0	%100
127	HRC3	Z	.002	.002	0	%100
128	HRC2	Z	.002	.002	0	%100

Member Distributed Loads (BLC 37 : BLC 1 Transient Area Loads)

	Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
1	CP-3	Y	-.001	-.001	.411	.623
2	GSI-3A	Y	-.008	-.008	.536	2.562
3	GSI-3B	Y	-.008	-.008	0	2.027
4	GSIP-3A	Y	-.00017	-.007	.409	1.146
5	GSIP-3A	Y	-.007	-.009	1.146	1.882



Company : Tower Engineering Professionals, Inc.
Designer : GHM
Job Number : TEP No. 55021.286047
Model Name : CCI BU No. 842858

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Member Distributed Loads (BLC 37 : BLC 1 Transient Area Loads) (Continued)

	Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F....]	Start Location[ft.%]	End Location[ft.%]
6	GSIP-3A	Y	-.009	-.005	1.882	2.618
7	GSIP-3A	Y	-.005	-.004	2.618	3.355
8	GSIP-3A	Y	-.004	-.0007068	3.355	4.091
9	GSIP-3B	Y	-.0007068	-.004	0	.736
10	GSIP-3B	Y	-.004	-.005	.736	1.473
11	GSIP-3B	Y	-.005	-.009	1.473	2.209
12	GSIP-3B	Y	-.009	-.007	2.209	2.946
13	GSIP-3B	Y	-.007	-.00017	2.946	3.682
14	SA-3	Y	-.0003559	-.008	1.556	2.282
15	SA-3	Y	-.008	-.017	2.282	3.009
16	SA-3	Y	-.017	-.015	3.009	3.735
17	SA-3	Y	-.015	-.008	3.735	4.461
18	SA-3	Y	-.008	-.001	4.461	5.187
19	CP-1	Y	-.001	-.001	.41	.623
20	GSI-1A	Y	-.008	-.008	.536	2.562
21	GSI-1B	Y	-.008	-.008	0	2.027
22	GSIP-1A	Y	-.00017	-.007	.409	1.146
23	GSIP-1A	Y	-.007	-.009	1.146	1.882
24	GSIP-1A	Y	-.009	-.005	1.882	2.618
25	GSIP-1A	Y	-.005	-.004	2.618	3.355
26	GSIP-1A	Y	-.004	-.0007068	3.355	4.091
27	GSIP-1B	Y	-.0007093	-.004	0	.736
28	GSIP-1B	Y	-.004	-.005	.736	1.473
29	GSIP-1B	Y	-.005	-.009	1.473	2.209
30	GSIP-1B	Y	-.009	-.007	2.209	2.946
31	GSIP-1B	Y	-.007	-.00017	2.946	3.682
32	SA-1	Y	-.0003559	-.008	1.556	2.282
33	SA-1	Y	-.008	-.017	2.282	3.009
34	SA-1	Y	-.017	-.015	3.009	3.735
35	SA-1	Y	-.015	-.008	3.735	4.461
36	SA-1	Y	-.008	-.001	4.461	5.187
37	CP-2	Y	-.001	-.001	.41	.623
38	GSI-2A	Y	-.008	-.008	.536	2.562
39	GSI-2B	Y	-.008	-.008	0	2.027
40	GSIP-2A	Y	-.00017	-.007	.409	1.146
41	GSIP-2A	Y	-.007	-.009	1.146	1.882
42	GSIP-2A	Y	-.009	-.005	1.882	2.618
43	GSIP-2A	Y	-.005	-.004	2.618	3.355
44	GSIP-2A	Y	-.004	-.0007068	3.355	4.091
45	GSIP-2B	Y	-.0007093	-.004	0	.736
46	GSIP-2B	Y	-.004	-.005	.736	1.473
47	GSIP-2B	Y	-.005	-.009	1.473	2.209
48	GSIP-2B	Y	-.009	-.007	2.209	2.946
49	GSIP-2B	Y	-.007	-.00017	2.946	3.682
50	SA-2	Y	-.0003559	-.008	1.556	2.282
51	SA-2	Y	-.008	-.017	2.282	3.009
52	SA-2	Y	-.017	-.015	3.009	3.735
53	SA-2	Y	-.015	-.008	3.735	4.461
54	SA-2	Y	-.008	-.001	4.461	5.187

Member Distributed Loads (BLC 38 : BLC 18 Transient Area Loads)

	Member Label	Direction	Start Magnitude[k/ft....	End Magnitude[k/ft.F....	Start Location[ft.%]	End Location[ft.%]
1	CP-3	Y	-.0007147	-.0007147	.411	.623
2	GSI-3A	Y	-.004	-.004	.536	2.562
3	GSI-3B	Y	-.004	-.004	0	2.027
4	GSIP-3A	Y	-9.919e-5	-.004	.409	1.146



Company : Tower Engineering Professionals, Inc.
Designer : GHM
Job Number : TEP No. 55021.286047
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Member Distributed Loads (BLC 38 : BLC 18 Transient Area Loads) (Continued)

Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft]	Start Location[ft.%]	End Location[ft.%]
5 GSIP-3A	Y	-0.004	-0.005	1.146	1.882
6 GSIP-3A	Y	-0.005	-0.003	1.882	2.618
7 GSIP-3A	Y	-0.003	-0.002	2.618	3.355
8 GSIP-3A	Y	-0.002	-0.0004123	3.355	4.091
9 GSIP-3B	Y	-0.0004123	-0.002	0	.736
10 GSIP-3B	Y	-0.002	-0.003	.736	1.473
11 GSIP-3B	Y	-0.003	-0.005	1.473	2.209
12 GSIP-3B	Y	-0.005	-0.004	2.209	2.946
13 GSIP-3B	Y	-0.004	-9.919e-5	2.946	3.682
14 SA-3	Y	-0.0002076	-0.005	1.556	2.282
15 SA-3	Y	-0.005	-0.01	2.282	3.009
16 SA-3	Y	-0.01	-0.009	3.009	3.735
17 SA-3	Y	-0.009	-0.005	3.735	4.461
18 SA-3	Y	-0.005	-0.0005934	4.461	5.187
19 CP-1	Y	-0.0007148	-0.0007148	.41	.623
20 GSI-1A	Y	-0.004	-0.004	.536	2.562
21 GSI-1B	Y	-0.004	-0.004	0	2.027
22 GSIP-1A	Y	-9.919e-5	-0.004	.409	1.146
23 GSIP-1A	Y	-0.004	-0.005	1.146	1.882
24 GSIP-1A	Y	-0.005	-0.003	1.882	2.618
25 GSIP-1A	Y	-0.003	-0.002	2.618	3.355
26 GSIP-1A	Y	-0.002	-0.0004123	3.355	4.091
27 GSIP-1B	Y	-0.0004137	-0.002	0	.736
28 GSIP-1B	Y	-0.002	-0.003	.736	1.473
29 GSIP-1B	Y	-0.003	-0.005	1.473	2.209
30 GSIP-1B	Y	-0.005	-0.004	2.209	2.946
31 GSIP-1B	Y	-0.004	-9.918e-5	2.946	3.682
32 SA-1	Y	-0.0002076	-0.005	1.556	2.282
33 SA-1	Y	-0.005	-0.01	2.282	3.009
34 SA-1	Y	-0.01	-0.009	3.009	3.735
35 SA-1	Y	-0.009	-0.005	3.735	4.461
36 SA-1	Y	-0.005	-0.0005944	4.461	5.187
37 CP-2	Y	-0.0007148	-0.0007148	.41	.623
38 GSI-2A	Y	-0.004	-0.004	.536	2.562
39 GSI-2B	Y	-0.004	-0.004	0	2.027
40 GSIP-2A	Y	-9.919e-5	-0.004	.409	1.146
41 GSIP-2A	Y	-0.004	-0.005	1.146	1.882
42 GSIP-2A	Y	-0.005	-0.003	1.882	2.618
43 GSIP-2A	Y	-0.003	-0.002	2.618	3.355
44 GSIP-2A	Y	-0.002	-0.0004123	3.355	4.091
45 GSIP-2B	Y	-0.0004137	-0.002	0	.736
46 GSIP-2B	Y	-0.002	-0.003	.736	1.473
47 GSIP-2B	Y	-0.003	-0.005	1.473	2.209
48 GSIP-2B	Y	-0.005	-0.004	2.209	2.946
49 GSIP-2B	Y	-0.004	-9.918e-5	2.946	3.682
50 SA-2	Y	-0.0002076	-0.005	1.556	2.282
51 SA-2	Y	-0.005	-0.01	2.282	3.009
52 SA-2	Y	-0.01	-0.009	3.009	3.735
53 SA-2	Y	-0.009	-0.005	3.735	4.461
54 SA-2	Y	-0.005	-0.0005944	4.461	5.187

Member Area Loads (BLC 1 : Dead)

Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
1 P9	P10	P11	P12	Y	Two Way	-.012
2 P1	P2	P3	P4	Y	Two Way	-.012



Company : Tower Engineering Professionals, Inc.
Designer : GHM
Job Number : TEP No. 55021.286047
Model Name : CCI BU No. 842858

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

Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
3 P5	P6	P7	P8	Y	Two Way	-.012

Member Area Loads (BLC 18 : Ice Weight)

Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
1 P9	P10	P11	P12	Y	Two Way	-.007
2 P1	P2	P3	P4	Y	Two Way	-.007
3 P5	P6	P7	P8	Y	Two Way	-.007

Envelope Joint Reactions

Joint	X [k]	LC	Y [k]	LC	Z [k]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
1 SA1	max 1.598	21	3.129	45	2.606	21	1.12	5	2.437	32	3.303	44
2	min -1.582	13	-.036	5	-2.584	13	-5.657	45	-2.433	8	-.347	4
3 SA3	max 2.219	18	3.129	39	2.66	7	5.69	39	2.433	27	3.249	40
4	min -2.205	10	-.036	15	-2.685	31	-.834	15	-2.419	3	-.855	16
5 SA2	max 3.125	2	3.415	34	1.96	6	-.364	5	2.552	22	1.134	10
6	min -3.151	26	.031	10	-1.958	14	-.561	29	-2.538	14	-6.989	34
7 Totals:	max 6.905	18	8.806	49	6.83	22						
8	min -6.905	10	2.598	2	-6.83	14						

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

Member	Shape	Code Check	Loc[ft]	LC	Shear	Che.	Loc[ft]	Dir	LC	phi*Pnc	phi*Pnt	phi*Mn	phi*Mn	Cb	Eqn
1 MP-8	PIPE 2.0	.669	5.75	28	.133	5.75	22	31.384	32.13	1.872	1.872	3	1.872	3	H1-1b
2 MP-5	PIPE 2.0	.655	5.75	22	.141	5.75	8	31.384	32.13	1.872	1.872	3	1.872	3	H1-1b
3 MP-2	PIPE 2.0	.655	5.75	33	.133	5.75	27	31.384	32.13	1.872	1.872	3	1.872	3	H1-1b
4 MP-4B	PIPE 2.0	.594	4.448	24	.187	4.521	25	16.812	32.13	1.872	1.872	1	1.872	1	H1-1b
5 MP-7B	PIPE 2.0	.589	4.448	29	.187	4.521	30	16.812	32.13	1.872	1.872	1	1.872	1	H1-1b
6 MP-1B	PIPE 2.0	.589	4.448	18	.198	4.521	20	16.812	32.13	1.872	1.872	1	1.872	1	H1-1b
7 SA-2	HSS4X4X4	.577	0	34	.126	0	y 47	97.439	106.155	12.311	12.311	2	12.311	2	H1-1b
8 SA-3	HSS4X4X4	.551	0	42	.118	0	y 37	97.439	106.155	12.311	12.311	2	12.311	2	H1-1b
9 SA-1	HSS4X4X4	.542	0	47	.118	0	y 42	97.439	106.155	12.311	12.311	2	12.311	2	H1-1b
10 MP-3B	PIPE 2.0	.516	4.448	24	.165	4.448	7	16.812	32.13	1.872	1.872	1	1.872	1	H1-1b
11 MP-9B	PIPE 2.0	.512	4.448	18	.165	4.448	2	16.812	32.13	1.872	1.872	2	1.872	2	H1-1b
12 MP-6B	PIPE 2.0	.510	4.448	29	.172	4.448	12	16.812	32.13	1.872	1.872	1	1.872	1	H1-1b
13 MP-1	PIPE 2.0	.481	2.979	18	.078	.542	19	8.632	32.13	1.872	1.872	1	1.872	1	H1-1b
14 MP-7	PIPE 2.0	.481	2.979	29	.077	.542	30	8.632	32.13	1.872	1.872	1	1.872	1	H1-1b
15 MP-4	PIPE 2.0	.481	2.979	23	.080	.542	24	8.632	32.13	1.872	1.872	1	1.872	1	H1-1b
16 TR-2	(4) 5/8" Threde...	.480	0	18	.317	0	28	58.039	58.806	1.491	1.491	1	1.491	1	H1-1b
17 TR-14	(4) 5/8" Threde...	.480	0	29	.309	0	23	58.039	58.806	1.491	1.491	1	1.491	1	H1-1b
18 TR-8	(4) 5/8" Threde...	.480	0	23	.310	0	18	58.039	58.806	1.491	1.491	1	1.491	1	H1-1b
19 TR-1	(4) 5/8" Threde...	.404	0	18	.190	0	20	58.039	58.806	1.491	1.491	1	1.491	1	H1-1b
20 TR-13	(4) 5/8" Threde...	.404	0	29	.172	0	30	58.039	58.806	1.491	1.491	1	1.491	1	H1-1b
21 TR-7	(4) 5/8" Threde...	.404	0	23	.173	0	25	58.039	58.806	1.491	1.491	1	1.491	1	H1-1b
22 CP-2	PL 6x1/2	.400	.517	12	.473	.506	y 22	86.501	94.5	.984	11.813	1	11.813	1	H1-1b
23 CP-1	PL 6x1/2	.399	.517	30	.474	.506	y 33	86.501	94.5	.984	11.813	1	11.813	1	H1-1b
24 CP-3	PL 6x1/2	.398	.517	25	.474	.517	y 27	86.501	94.5	.984	11.813	1	11.813	1	H1-1b
25 SF1-TH	PIPE 3.0	.333	6.901	30	.190	4.297	24	6.489	65.205	5.749	5.749	1	5.749	1	H1-1a
26 SF2-TH	PIPE 3.0	.331	6.901	19	.180	4.297	29	6.489	65.205	5.749	5.749	1	5.749	1	H1-1a
27 FF-TH	PIPE 3.0	.331	6.901	25	.180	4.297	18	6.489	65.205	5.749	5.749	1	5.749	1	H1-1a
28 SF1-HR	PIPE 2.0	.311	1.432	6	.114	7.031	28	1.428	32.13	1.872	1.872	1	1.872	1	H1-1b
29 SF2-HR	PIPE 2.0	.311	1.432	11	.110	7.031	33	1.428	32.13	1.872	1.872	1	1.872	1	H1-1b
30 FFHR	PIPE 2.0	.311	1.432	17	.110	7.031	22	1.428	32.13	1.872	1.872	1	1.872	1	H1-1b
31 TR-16	(4) 5/8" Threde...	.295	.5	28	.072	.5	31	58.039	58.806	1.491	1.491	1	1.491	1	H1-1b
32 TR-4	(4) 5/8" Threde...	.293	.5	18	.072	.5	21	58.039	58.806	1.491	1.491	1	1.491	1	H1-1b



Company : Tower Engineering Professionals, Inc.
Designer : GHM
Job Number : TEP No. 55021.286047
Model Name : CCI BU No. 842858

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

	Member	Shape	Code Check	Loc[ft]	LC	Shear	Che...	Loc[ft]	Dir	LC	phi*Pnc	phi*Pnt	phi*Mn	phi*Mn	Cb	Eqn
33	TR-10	(4) 5/8" Threade...	.293	.5	23	.072	.5	26	58.039	58.806	1.491	1.491	1.491	1.491	1.491	H1-1b
34	GSIP-2B	L2x2x3	.289	2.046	20	.008	4.091	z	21	10.065	22.743	.542	1.083	1.083	1.083	H2-1
35	GSIP-3B	L2x2x3	.286	2.088	25	.008	4.091	z	26	10.065	22.743	.542	1.149	1.149	1.149	H2-1
36	GSIP-1B	L2x2x3	.286	2.088	30	.008	4.091	z	31	10.065	22.743	.542	1.105	1.105	1.105	H2-1
37	GSI-1A	HSS4X4X4	.273	2.562	42	.221	0	z	33	104.744	106.155	12.311	12.311	12.311	12.311	H1-1b
38	GSI-2A	HSS4X4X4	.272	2.562	34	.222	0	z	22	104.744	106.155	12.311	12.311	12.311	12.311	H1-1b
39	GSI-2B	HSS4X4X4	.270	0	34	.254	2.242	z	29	104.744	106.155	12.311	12.311	12.311	12.311	H1-1b
40	GSI-3A	HSS4X4X4	.268	2.562	37	.227	.32	z	28	104.744	106.155	12.311	12.311	12.311	12.311	H1-1b
41	GSI-3B	HSS4X4X4	.264	0	40	.254	2.242	z	18	104.744	106.155	12.311	12.311	12.311	12.311	H1-1b
42	GSI-1B	HSS4X4X4	.261	0	45	.253	2.242	z	23	104.744	106.155	12.311	12.311	12.311	12.311	H1-1b
43	GSIP-1A	L2x2x3	.239	2.003	27	.009	4.091	y	42	10.065	22.743	.542	1.149	1.149	1.149	H2-1
44	GSIP-3A	L2x2x3	.239	2.003	22	.009	4.091	y	36	10.065	22.743	.542	1.105	1.105	1.105	H2-1
45	GSIP-2A	L2x2x3	.237	2.003	33	.008	4.091	y	47	10.065	22.743	.542	1.085	1.085	1.085	H2-1
46	TR-6	(4) 5/8" Threade...	.237	0	8	.152	0	23	58.039	58.806	1.491	1.491	1.491	1.491	1.491	H1-1b
47	TR-12	(4) 5/8" Threade...	.230	0	13	.152	0	29	58.039	58.806	1.491	1.491	1.491	1.491	1.491	H1-1b
48	TR-18	(4) 5/8" Threade...	.230	0	2	.152	0	18	58.039	58.806	1.491	1.491	1.491	1.491	1.491	H1-1b
49	TR-17	(4) 5/8" Threade...	.190	0	28	.040	0	28	58.039	58.806	1.491	1.491	1.491	1.491	1.491	H1-1b
50	TR-5	(4) 5/8" Threade...	.189	0	33	.039	0	33	58.039	58.806	1.491	1.491	1.491	1.491	1.491	H1-1b
51	TR-11	(4) 5/8" Threade...	.189	0	22	.039	0	22	58.039	58.806	1.491	1.491	1.491	1.491	1.491	H1-1b
52	TR-15	(4) 5/8" Threade...	.163	.5	20	.073	0	11	58.039	58.806	1.491	1.491	1.491	1.491	2.111	H1-1b
53	TR-3	(4) 5/8" Threade...	.162	.5	26	.073	0	17	58.039	58.806	1.491	1.491	1.491	1.491	2.111	H1-1b
54	TR-9	(4) 5/8" Threade...	.162	.5	31	.073	0	6	58.039	58.806	1.491	1.491	1.491	1.491	2.111	H1-1b
55	MP-3	PIPE 2.0	.134	5.552	24	.051	5.552	30	8.632	32.13	1.872	1.872	1.872	1.872	1.872	H1-1b
56	MP-9	PIPE 2.0	.129	5.552	18	.051	5.552	25	8.632	32.13	1.872	1.872	1.872	1.872	2.111	H1-1b
57	MP-6	PIPE 2.0	.129	5.552	29	.054	5.552	12	8.632	32.13	1.872	1.872	1.872	1.872	2.111	H1-1b
58	MP-8B	PIPE 2.0	.064	.5	20	.049	2.813	22	31.708	32.13	1.872	1.872	1.872	1.872	1.872	H1-1b
59	MP-2B	PIPE 2.0	.062	.5	25	.049	2.813	27	31.708	32.13	1.872	1.872	1.872	1.872	1.872	H1-1b
60	MP-5B	PIPE 2.0	.062	.5	30	.049	2.813	33	31.708	32.13	1.872	1.872	1.872	1.872	2.111	H1-1b
61	MP-10	PIPE 2.0	.056	2	18	.011	2	18	26.005	32.13	1.872	1.872	1.872	1.872	2.111	H1-1b
62	HRC3	L2x2x2	.026	.549	12	.108	0	y	29	12.585	15.908	.396	.845	1.149	1.149	H2-1
63	HRC1	L2x2x2	.024	.581	7	.108	0	y	23	12.585	15.908	.396	.845	1.149	1.149	H2-1
64	HRC2	L2x2x2	.024	.592	2	.108	1.034	z	18	12.585	15.908	.396	.845	1.149	1.149	H2-1

Envelope None Cold Formed Steel Code Checks

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

APPENDIX D

ADDITIONAL CALCULATIONS

Moment Bolt Group - Support Arm

Bolt Size: 0.625 in
 # Bolts: 4
 Plate Width: 10 in
 Plate Height: 10 in
 Bolt H Gap: 7 in
 Bolt V Gap: 7 in
 Plate T: 0.625 in
 Slip Member Ø: N/A in
 Bolt Grade: A325N
 $F_{u\text{bolt}}$: 120 ksi
 r : 4.9497 in
 J : 98.00 in⁴/in²
 $Bolt_{Area}$: 0.307 in²
 $Bolt_{Area, Net Tensile}$: 0.226 in²
 Pretension: 19 kips
 Slotted Holes: No

Code Checks Per ANSI/TIA-222-H:		
Bolt Capacity =	31.1%	PASS
Plate Capacity =	59.6%	PASS

Plate Bending

Horizontal Member height: 4 in
 Horizontal Member width: 4 in

Plate F_y : 36 ksi

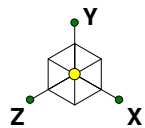
M_y = 6.9828 k - in
 M_z = 18.8560 k - in

Z_y = 0.977 in³
 Z_z = 0.977 in³

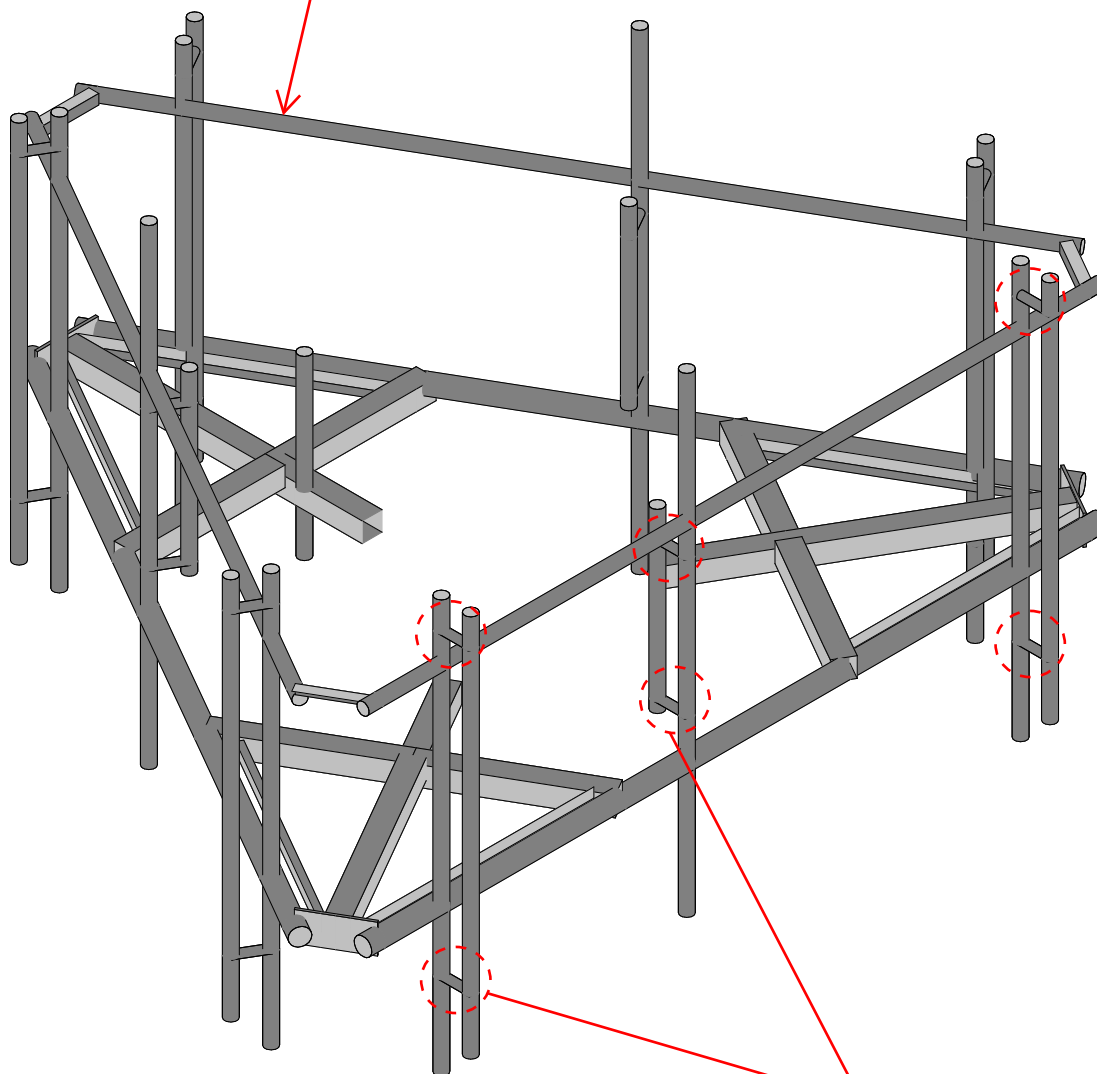
S_y = 0.651 in³
 S_z = 0.651 in³

$\emptyset Mp_y (Z)$: 31.641 k - in
 $\emptyset Mp_y (S)$: 33.750 k - in
 $\emptyset Mp_z (Z)$: 31.641 k - in
 $\emptyset Mp_z (S)$: 33.750 k - in

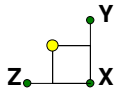
APPENDIX E
MOUNT MODIFICAION DESIGN DRAWINGS



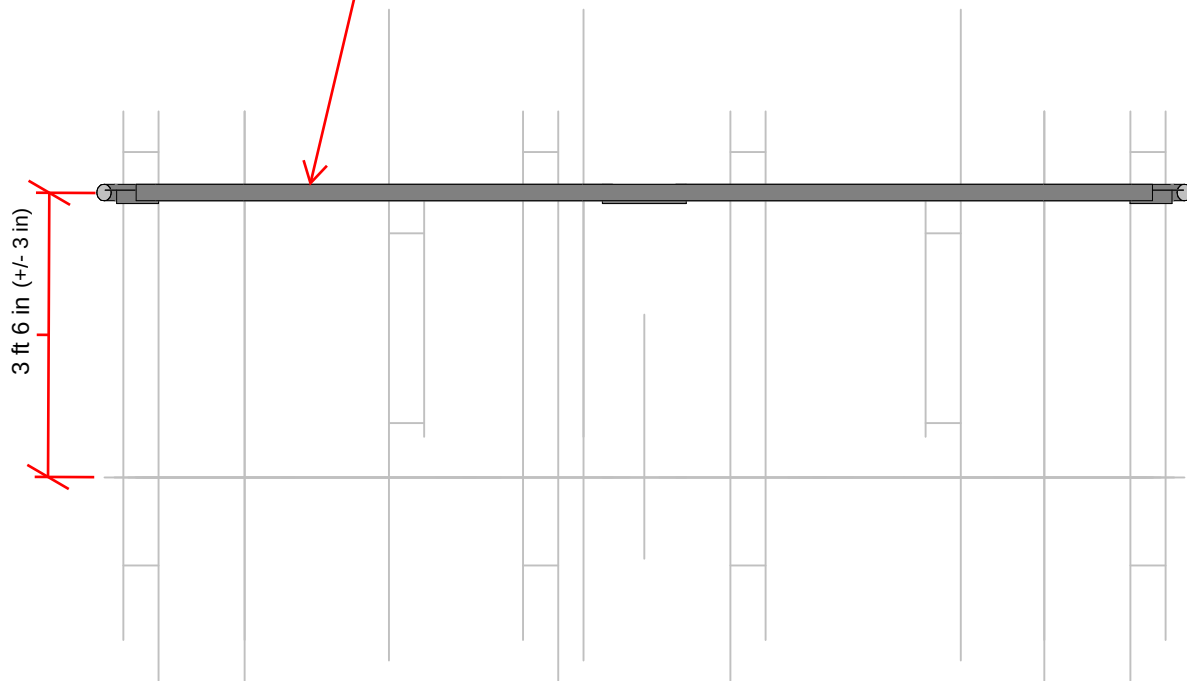
Proposed SitePro HRK12 Handrail Kit, or approved equivalent. Typical of (1) total. Connect to existing mount pipes. Connection hardware included in kit.

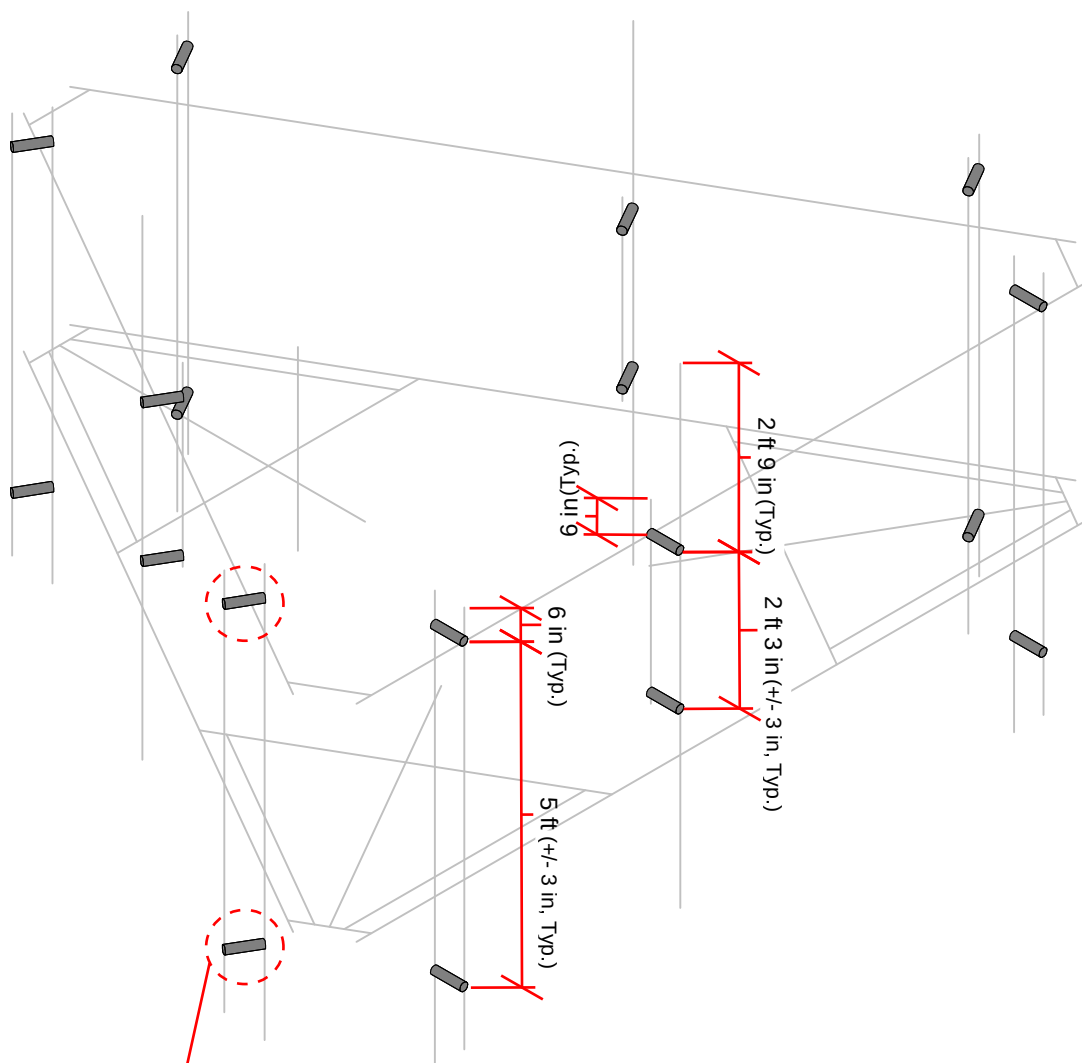
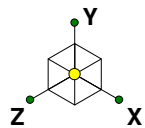


Proposed Commscope BC-35-14D Pipe to Pipe Clamp Kit, or approved equivalent, to replace existing threaded rod connection. Typical of (3) per sector, (9) total. Match existing threaded rod configuration.



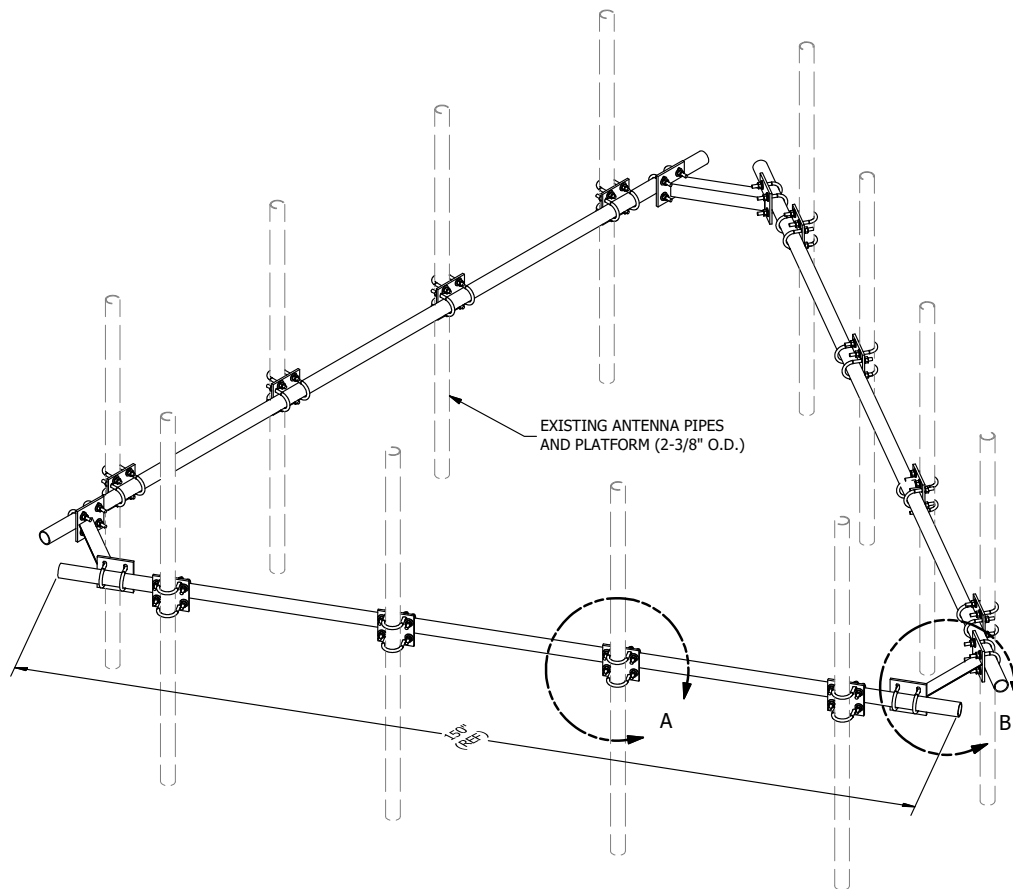
Proposed SitePro HRK12 Handrail Kit, or approved equivalent. Typical of (1) total. Connect to existing mount pipes. Connection hardware included in kit.



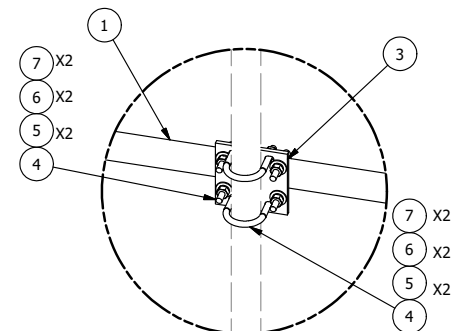


Proposed Commscope BC-35-14D Pipe to Pipe Clamp Kit, or approved equivalent, to replace existing threaded rod connection. Typical of (3) per sector, (9) total. Match existing threaded rod configuration.

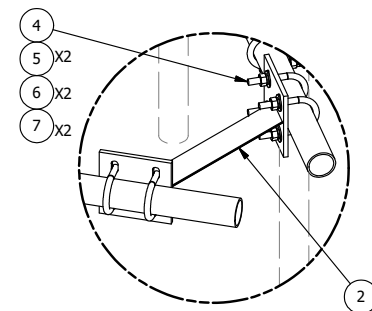
Tower Engineering Profes...	CCI BU No. 842858	SK - 3
GHM		July 29, 2019 at 10:28 AM
TEP No. 55021.286047		Mount Rev H.r3d



PARTS LIST						
ITEM	QTY	PART NO.	PART DESCRIPTION	LENGTH	UNIT WT.	NET WT.
1	3	P2150	2-3/8" O.D. X 150" SCH 40 GALVANIZED PIPE	150 in	45.77	137.31
2	3	X-AHCP	ANGLE HANDRAIL CORNER PLATE		12.92	38.76
3	12	SCX1	CROSSOVER PLATE 2-3/8" X 2-3/8"	6 in	3.71	44.50
4	60	X-UB1212	1/2" X 2-1/2" X 4-1/2" X 2" U-BOLT (HDG.)		0.63	37.51
5	120	G12FW	1/2" HDG USS FLATWASHER	3/32 in	0.03	4.09
6	120	G12LW	1/2" HDG LOCKWASHER	1/8 in	0.01	1.67
7	120	G12NUT	1/2" HDG HEAVY 2H HEX NUT		0.07	8.60
TOTAL WT. #						272.43



DETAIL A



DETAIL B

TOLERANCE NOTES

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

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

DESCRIPTION

**HANDRAIL KIT
 FOR 12'-6" FACE**

CPD NO.	DRAWN BY	ENG. APPROVAL
81	KC8 5/30/2012	BMC 7/13/2014
CLASS	SUB	DRAWING USAGE
81	01	CUSTOMER



Engineering
 Support Team:
 1-888-753-7446

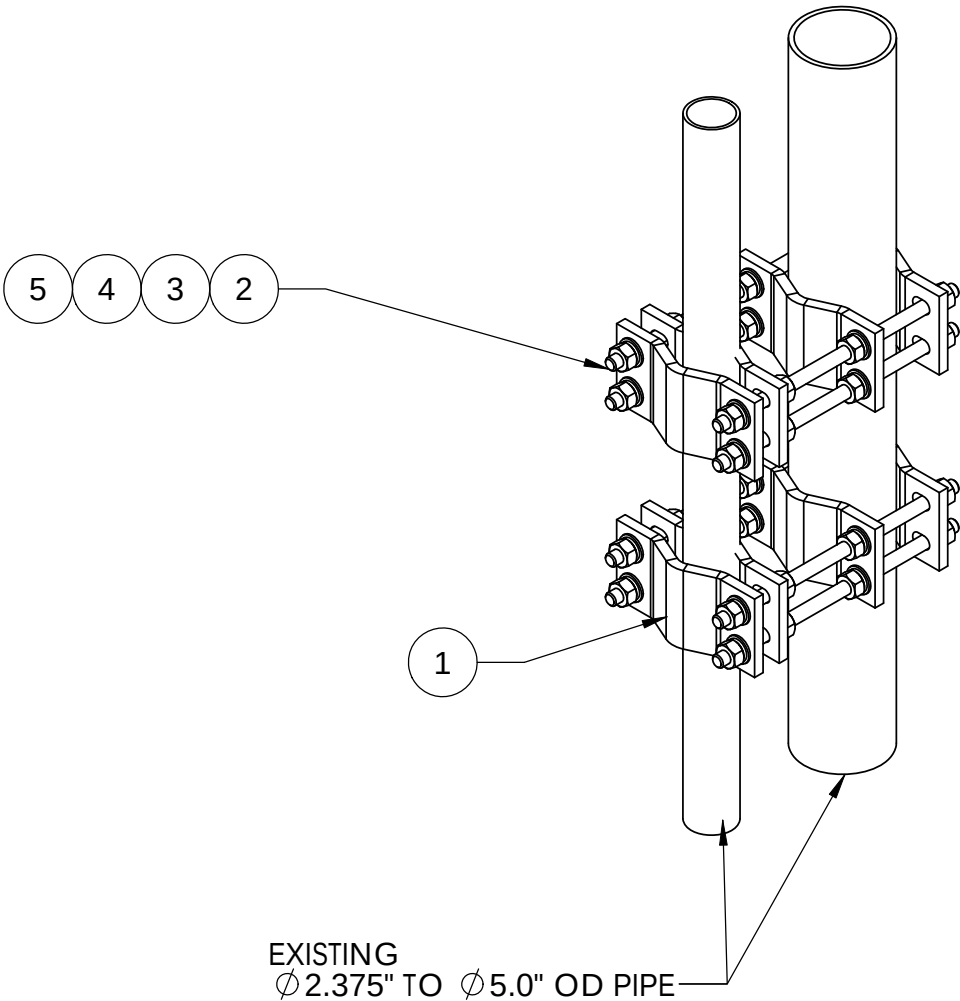
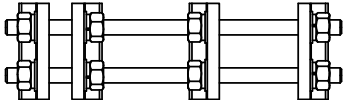
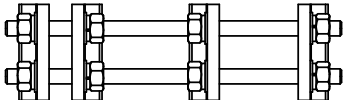
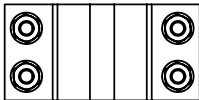
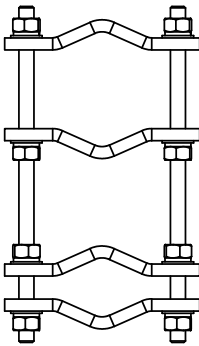
Locations:
 New York, NY
 Atlanta, GA
 Los Angeles, CA
 Plymouth, IN
 Salem, OR
 Dallas, TX

PART NO.	HRK12	PAGE
DWG. NO.	HRK12	1 OF 1

REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
A	REPLACED HCP WITH X-AHCP		CEK	7/10/2014
REVISION HISTORY				

ITEM	PART NO.	DESCRIPTION	QTY.	WEIGHT
1	DC-P10D	Dual Half Clamp, 2-3/8" to 5"	8	4.42 LBS
2	MT-382-14	5/8" X 14" GALV THREADED ROD	8	1.21 LBS
3	GWF05A	5/8" GALV FLAT WASHER (A325)	32	0.03 LBS
4	GWL-05	5/8" GALV LOCK WASHER	32	0.03 LBS
5	GN05A	5/8" GALV HEX NUT (A194 2H)	32	0.12 LBS

REVISIONS				
REV.	ZONE	DESCRIPTION	BY	DATE
A		INITIAL RELEASE	MSM	06/15/12



NOTES:
1. ALL METRIC DIMENSIONS ARE IN BRACKETS.

These drawings and specifications are the proprietary property of CommScope Inc. and may be used only for the specific purpose authorized in writing by CommScope Inc.	DRAWN BY: MSM	SHEET: 1 of 1	PART NUMBER: BC-35-14D
	CHECKED BY: TP	SCALE: NTS	DESCRIPTION: Pipe To Pipe Dual Clamp, 2-3/8" to 5"
	DATE: 06/15/12	MATERIAL: A36	DRAWING TYPE: ASSEMBLY DRAWING
	REVISION: A	FINISH: GALV A123	COMMScope® Hickory, NC 28602 U.S.A.
DO NOT SCALE THIS PRINT		WEIGHT: 50.42 LBS	

Exhibit F

Power Density/RF Emissions Report



RF EMISSIONS COMPLIANCE REPORT

Crown Castle on behalf of AT&T Mobility, LLC

Crown Castle Site Name: BOLTON
Crown Castle Site BU: 842858
AT&T Mobility, LLC Site FA #: 10070938
49 South Road
Bolton, CT
10/4/2019

Report Status:

AT&T Mobility, LLC Is Compliant



Michael Fischer, P.E.
Registered Professional Engineer (Electrical)
Connecticut License Number 33928
Expires January 31, 2020

Signed 04 October 2019

Prepared By:

Site Safe, LLC

Engineering Statement in Re:
Electromagnetic Energy Analysis
Crown Castle
BOLTON, 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 (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 "BOLTON" ("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 2.768% 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 7.787% 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
BOLTON
Site Summary**

Carrier	Area Maximum Percentage MPE
AT&T Mobility, LLC	0.123 %
AT&T Mobility, LLC (Proposed)	0.621 %
AT&T Mobility, LLC (Proposed)	0.281 %
AT&T Mobility, LLC (Proposed)	0.311 %
AT&T Mobility, LLC (Proposed)	0.413 %
AT&T Mobility, LLC (Proposed)	0.698 %
AT&T Mobility, LLC (Proposed)	0.321 %
T-Mobile	1.084 %
T-Mobile	0.4 %
T-Mobile	0.626 %
T-Mobile	0.51 %
Verizon Wireless	0.68 %
Verizon Wireless	0.735 %
Verizon Wireless	0.494 %
Verizon Wireless	0.49 %
Composite Site MPE:	7.787 %

**AT&T Mobility, LLC
BOLTON
Carrier Summary**

Frequency:	850	MHz
Maximum Permissible Exposure (MPE):	566.67	μW/cm^2
Maximum power density at ground level:	0.69742	μW/cm^2
Highest percentage of Maximum Permissible Exposure:	0.12307	%

					On Axis		Area	
Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	Max Power Density (μW/cm^2)	Percent of MPE	Max Power Density (μW/cm^2)	Percent of MPE
Powerwave	7770	118	30	547	0.388127	0.068493	0.59767	0.105471
Powerwave	7770	118	150	547	0.388127	0.068493	0.59767	0.105471
Powerwave	7770	118	270	547	0.388127	0.068493	0.59767	0.105471

AT&T Mobility, LLC (Proposed)
BOLTON
Carrier Summary

Frequency:	2100	MHz
Maximum Permissible Exposure (MPE):	1000	μW/cm^2
Maximum power density at ground level:	6.2058	μW/cm^2
Highest percentage of Maximum Permissible Exposure:	0.62058	%

					On Axis		Area	
Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	Max Power Density (μW/cm^2)	Percent of MPE	Max Power Density (μW/cm^2)	Percent of MPE
CCI Antennas	DMP65R-BU4D	118	30	4066	4.556484	0.455648	6.128716	0.612872
CCI Antennas	DMP65R-BU4D	118	150	4066	4.556484	0.455648	6.128716	0.612872
CCI Antennas	DMP65R-BU4D	118	270	4066	4.556484	0.455648	6.128716	0.612872

AT&T Mobility, LLC (Proposed)
BOLTON
Carrier Summary

Frequency: 850 MHz
Maximum Permissible Exposure (MPE): 566.67 $\mu\text{W}/\text{cm}^2$
Maximum power density at ground level: 1.5938 $\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure: 0.28126 %

					On Axis		Area	
Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	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	118	30	1695	1.501101	0.2649	1.583185	0.279386
CCI Antennas	DMP65R-BU4D	118	150	1695	1.501101	0.2649	1.583185	0.279386
CCI Antennas	DMP65R-BU4D	118	270	1695	1.501101	0.2649	1.583185	0.279386

AT&T Mobility, LLC (Proposed)
BOLTON
Carrier Summary

Frequency: 763 MHz
Maximum Permissible Exposure (MPE): 508.67 $\mu\text{W}/\text{cm}^2$
Maximum power density at ground level: 1.57949 $\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure: 0.31052 %

					On Axis		Area	
Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	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	118	30	1582	1.494052	0.293719	1.562617	0.307199
CCI Antennas	DMP65R-BU4D	118	150	1582	1.494052	0.293719	1.562617	0.307199
CCI Antennas	DMP65R-BU4D	118	270	1582	1.494052	0.293719	1.562617	0.307199

AT&T Mobility, LLC (Proposed)
BOLTON
Carrier Summary

Frequency: 2300 MHz
Maximum Permissible Exposure (MPE): 1000 $\mu\text{W}/\text{cm}^2$
Maximum power density at ground level: 4.13225 $\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure: 0.41322 %

					On Axis		Area	
Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	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	118	30	2917	3.312651	0.331265	4.101285	0.410129
CCI Antennas	DMP65R-BU4D	118	150	2917	3.312651	0.331265	4.101285	0.410129
CCI Antennas	DMP65R-BU4D	118	270	2917	3.312651	0.331265	4.101285	0.410129

AT&T Mobility, LLC (Proposed)
BOLTON
Carrier Summary

Frequency: 1900 MHz
Maximum Permissible Exposure (MPE): 1000 $\mu\text{W}/\text{cm}^2$
Maximum power density at ground level: 6.98229 $\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure: 0.69823 %

					On Axis		Area	
Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	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	118	30	3541	5.442389	0.544239	6.894976	0.689498
CCI Antennas	DMP65R-BU4D	118	150	3541	5.442389	0.544239	6.894976	0.689498
CCI Antennas	DMP65R-BU4D	118	270	3541	5.442389	0.544239	6.894976	0.689498

AT&T Mobility, LLC (Proposed)
BOLTON
Carrier Summary

Frequency: 737 MHz
Maximum Permissible Exposure (MPE): 491.33 $\mu\text{W}/\text{cm}^2$
Maximum power density at ground level: 1.57949 $\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure: 0.32147 %

					On Axis		Area	
Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	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	118	30	1582	1.494052	0.304081	1.562617	0.318036
CCI Antennas	DMP65R-BU4D	118	150	1582	1.494052	0.304081	1.562617	0.318036
CCI Antennas	DMP65R-BU4D	118	270	1582	1.494052	0.304081	1.562617	0.318036

T-Mobile BOLTON Carrier Summary

Frequency:	2100	MHz
Maximum Permissible Exposure (MPE):	1000	$\mu\text{W}/\text{cm}^2$
Maximum power density at ground level:	10.8449	$\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure:	1.08449	%

					On Axis		Area	
Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
Ericsson	AIR 32 B2A B66AA	99	30	4626	10.288483	1.028848	10.288483	1.028848
Ericsson	AIR 32 B2A B66AA	99	150	4626	10.288483	1.028848	10.288483	1.028848
Ericsson	AIR 32 B2A B66AA	99	270	4626	10.288483	1.028848	10.288483	1.028848

T-Mobile BOLTON Carrier Summary

Frequency: 1900 MHz
Maximum Permissible Exposure (MPE): 1000 $\mu\text{W}/\text{cm}^2$
Maximum power density at ground level: 4.00358 $\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure: 0.40036 %

					On Axis		Area	
Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
Ericsson	AIR 32 B2A B66AA	99	30	4626	2.382145	0.238215	2.732722	0.273272
Ericsson	AIR 32 B2A B66AA	99	150	4626	2.382145	0.238215	2.732722	0.273272
Ericsson	AIR 32 B2A B66AA	99	270	4626	2.382145	0.238215	2.732722	0.273272

T-Mobile BOLTON Carrier Summary

Frequency: 700 MHz
Maximum Permissible Exposure (MPE): 466.67 $\mu\text{W}/\text{cm}^2$
Maximum power density at ground level: 2.9197 $\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure: 0.62565 %

					On Axis		Area	
Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	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	99	30	3484	2.306632	0.494278	2.507212	0.53726
RFS	APXVAARR24_43-U-NA20	99	150	3484	2.306632	0.494278	2.507212	0.53726
RFS	APXVAARR24_43-U-NA20	99	270	3484	2.306632	0.494278	2.507212	0.53726

T-Mobile BOLTON Carrier Summary

Frequency: 600 MHz
Maximum Permissible Exposure (MPE): 400 $\mu\text{W}/\text{cm}^2$
Maximum power density at ground level: 2.04081 $\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure: 0.5102 %

					On Axis		Area	
Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	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	99	30	2501	1.850048	0.462512	1.867061	0.466765
RFS	APXVAARR24_43-U-NA20	99	150	2501	1.850048	0.462512	1.867061	0.466765
RFS	APXVAARR24_43-U-NA20	99	270	2501	1.850048	0.462512	1.867061	0.466765

Verizon Wireless BOLTON Carrier Summary

Frequency: 850 MHz
Maximum Permissible Exposure (MPE): 566.67 $\mu\text{W}/\text{cm}^2$
Maximum power density at ground level: 3.85593 $\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure: 0.68046 %

					On Axis		Area	
Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	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-2	107	30	4019	3.833539	0.676507	3.83354	0.676507
Antel	BXA-70063-6CF-2	107	150	4019	3.833539	0.676507	3.83354	0.676507
Antel	BXA-70063-6CF-2	107	270	4019	3.833539	0.676507	3.83354	0.676507

**Verizon Wireless
BOLTON
Carrier Summary**

Frequency: 751 MHz
Maximum Permissible Exposure (MPE): 500.67 $\mu\text{W}/\text{cm}^2$
Maximum power density at ground level: 3.68206 $\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure: 0.73543 %

					On Axis		Area	
Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	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-70063-4CF	107	30	2845	3.128875	0.624942	3.561754	0.711402
Antel	BXA-70063-4CF	107	150	2845	3.128875	0.624942	3.561754	0.711402
Antel	BXA-70063-4CF	107	270	2845	3.128875	0.624942	3.561754	0.711402

**Verizon Wireless
BOLTON
Carrier Summary**

Frequency: 2100 MHz
Maximum Permissible Exposure (MPE): 1000 $\mu\text{W}/\text{cm}^2$
Maximum power density at ground level: 4.94102 $\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure: 0.4941 %

					On Axis		Area	
Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	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	HBXX-6517DS-VTM	107	30	5621	2.294064	0.229406	4.517088	0.451709
ANDREW	HBXX-6517DS-VTM	107	150	5621	2.294064	0.229406	4.517088	0.451709
ANDREW	HBXX-6517DS-VTM	107	270	5621	2.294064	0.229406	4.517088	0.451709

**Verizon Wireless
BOLTON
Carrier Summary**

Frequency: 1900 MHz
Maximum Permissible Exposure (MPE): 1000 $\mu\text{W}/\text{cm}^2$
Maximum power density at ground level: 4.90001 $\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure: 0.49 %

					On Axis		Area	
Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	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	HBXX-6517DS-VTM	107	30	5130	2.454855	0.245486	4.566083	0.456608
ANDREW	HBXX-6517DS-VTM	107	150	5130	2.454855	0.245486	4.566083	0.456608
ANDREW	HBXX-6517DS-VTM	107	270	5130	2.454855	0.245486	4.566083	0.456608