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

July 10, 2019

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

RE: **Notice of Exempt Modification for T-Mobile:**
876381 - T-Mobile Site ID: CT11393B
2365 Long Hill Road, Guilford, CT 06437
Latitude: 41° 20′ 47.34″ / Longitude: -72° 43′ 23.15″

Dear Ms. Bachman:

T-Mobile currently maintains nine (9) total antennas at the 155-foot mount on the existing 176-foot Monopole Tower, located at 2365 Long Hill Road in Guilford, CT. The tower is owned by Crown Castle and the property is owned by The James & Janice Ward Family Trust. T-Mobile now intends to replace three (3) existing antennas with three (3) new 1900/2100 MHz antennas. T-Mobile also intends to install three (3) new 600/700 MHz antennas. T-Mobile also intends to remove (3) coax lines and install (3) 1 5/8" fiber trunks, and remove and replace (3) remote radios. An upgrade in the cabinet breaker from 60A to 125A is proposed, as well as, (1) conduit from breaker cabinet to new BB6630.

Planned Modifications:
Tower:

Remove: (3) Coax Lines

Remove and Replace:
-(3) Air21 B4A/B12P Antenna **(REMOVE)** - (3) Air32 B66A/BB2A Antenna 1900/2100 MHz **(REPLACE)**
-(3) RRUS11 B12 **(REMOVE)** – (3) Radio B71/B12 **(REPLACE)**

Install New:
(3) APXVAARR24_43 – Antenna 600/700 MHz
(3) 1 5/8" Hybrid Lines

Existing to Remain:
(3) Air21B2A/B4P Antenna – 1900/2100 MHz
(3) TMA
(1) Hybrid Cable
(10) Coax Cables

Ground:

Upgrade: Cabinet breaker from 60A to 125A
Install New: (1) Conduit from breaker cabinet to new BB6630

The facility was approved by the Connecticut Siting Council in Docket No. 238 on May 3, 2009. This approval included the conditions that:

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 Sprint and other entities, both public and private, but such tower shall not exceed a height of 180 feet above ground level including all appurtenances.
2. The access road shall avoid Wetland 7 and minimize impact to other wetlands.

This modification complies with the aforementioned 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 Matthew T. Hoey, III, First Selectman for the Town of Guilford, Erin Mannix, Zoning Enforcement Officer, Crown Castle, the tower owner, and The Ward Family Trust, 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.

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
Real Estate Specialist
3 Corporate Park Drive, Suite 101
Clifton Park, NY 12065
(201) 236-9224
AnneMarie.Zsamba@crowncastle.com

Attachments

cc:

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

Erin Mannix, Zoning Enforcement Officer
Town of Guilford
50 Boston Street
Guilford, CT 06437
203-453-8039

James & Janice Ward Family Trust, Property Owner
2365 Long Hill Road
Guilford, CT 06437

Exhibit A

Original Facility Approval

Connecticut Siting Council
Decisions

DOCKET NO. 238 - Sprint Spectrum, L.P. d/b/a Sprint PCS application for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance and operation of a wireless telecommunications facility located at 2381 Long Hill Road, Guilford, Connecticut.	}	Connecticut
	}	Siting
	}	Council
	}	May 6, 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 wireless 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 Sprint Spectrum L. P. (Sprint) for the construction, maintenance and operation of a wireless telecommunications facility at 2381 Long Hill Road, Guilford, Connecticut with the tower relocated approximately 430 feet to the northwest to keep the tower radius within the property boundaries. The Council will not approve the proposed locations of the tower or access road as proposed in the application.

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 Sprint and other entities, both public and private, but such tower shall not exceed a height of 180 feet above ground level including all appurtenances.

2. The access road shall avoid Wetland 7 and minimize impacts to other wetlands.

3. The Certificate Holder shall prepare a 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 final site plan(s) for site development to include the location of the tower and the access road and specifications for the tower foundation, placement of carrier antennas, tower height, equipment buildings, security fence, access road, and utility line; construction plans for site clearing, tree trimming, water drainage, and erosion and sedimentation controls consistent with the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control, as amended; landscaping and provisions to protect the existing vegetative buffer that would extend around the facility compound; a tower finish that may include painting; and provisions for the prevention and containment of spills and/or other discharge into surface water and groundwater bodies.

4. 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.

5. 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.

6. 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.

7. If the facility does not initially provide, or permanently ceases to provide wireless services following completion of construction, this Decision and Order shall be void, and the Certificate Holder shall dismantle the tower and remove all associated equipment or reapply for any continued or new use to the Council before any such use is made.

8. Any antenna that becomes obsolete and ceases to function shall be removed within 60 days after such antenna becomes obsolete and ceases to function.

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

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

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

The parties and intervenors to this proceeding are:

Applicant	**Its Representative**
Sprint Spectrum, L.P. d/b/a Sprint PCS	Thomas J. Regan, Esquire Brown Rudnick Berlack Israels LLP CityPlace I, 38th Floor 185 Asylum Street Hartford, CT 06103-3402
Intervenor	**Its Representative**
AT&T Wireless PCS, LLC d/b/a AT&T Wireless	Daniel F. Leary, Esq. Cuddy & Feder & Worby 90 Maple Avenue White Plains, NY 10601

Content Last Modified on 6/2/2003 11:20:53 AM

Exhibit B

Property Card

Town of Guilford
Property Listing Report

Parcel ID 101023B

Account

Property Information

Owner	WARD JAMES J FAMILY & JANICE M FAMILY
Address	2365 LONG HILL RD
Mailing Address	2365 LONG HILL RD GUILFORD , CT 06437
Land Use	- SINGLE FAMILY
Land Class	Residential

Census Tract	1903
Neighborhood	N050
Zoning	R-5
Acreage	12.96
Utilities	
Lot Setting/ Desc	/

Photo

PARCEL VALUATIONS (Assessed value = 70% of Appraised Value)

	Appraised	Assessed
Buildings	231380	161970
Outbuildings	18775	13140
Improvements		
Extras		
Land	1106290	712270
Total	1356445	887380
Previous		

Construction Details

Year Built	2004
Stories	1.4
Building Style	1.4
Building Use	Residential
Building Condition	GOOD
Total Rooms	5
Bedrooms	1
Full Bathrooms	2
Half Bathrooms	
Bath Style	
Kitchen Style	
Roof Style	GABLE
Roof Cover	ARCH SHINGLES

EXTERIOR WALLS:	
Primary	VINYL
Secondary	
INTERIOR WALLS:	
Primary	DRYWALL
Secondary	OTHER
FLOORS:	
Primary	OTHER
Secondary	
HEATING/AC:	
Heating Type	HWBB
Heating Fuel	OIL
AC Type	CENTRAL

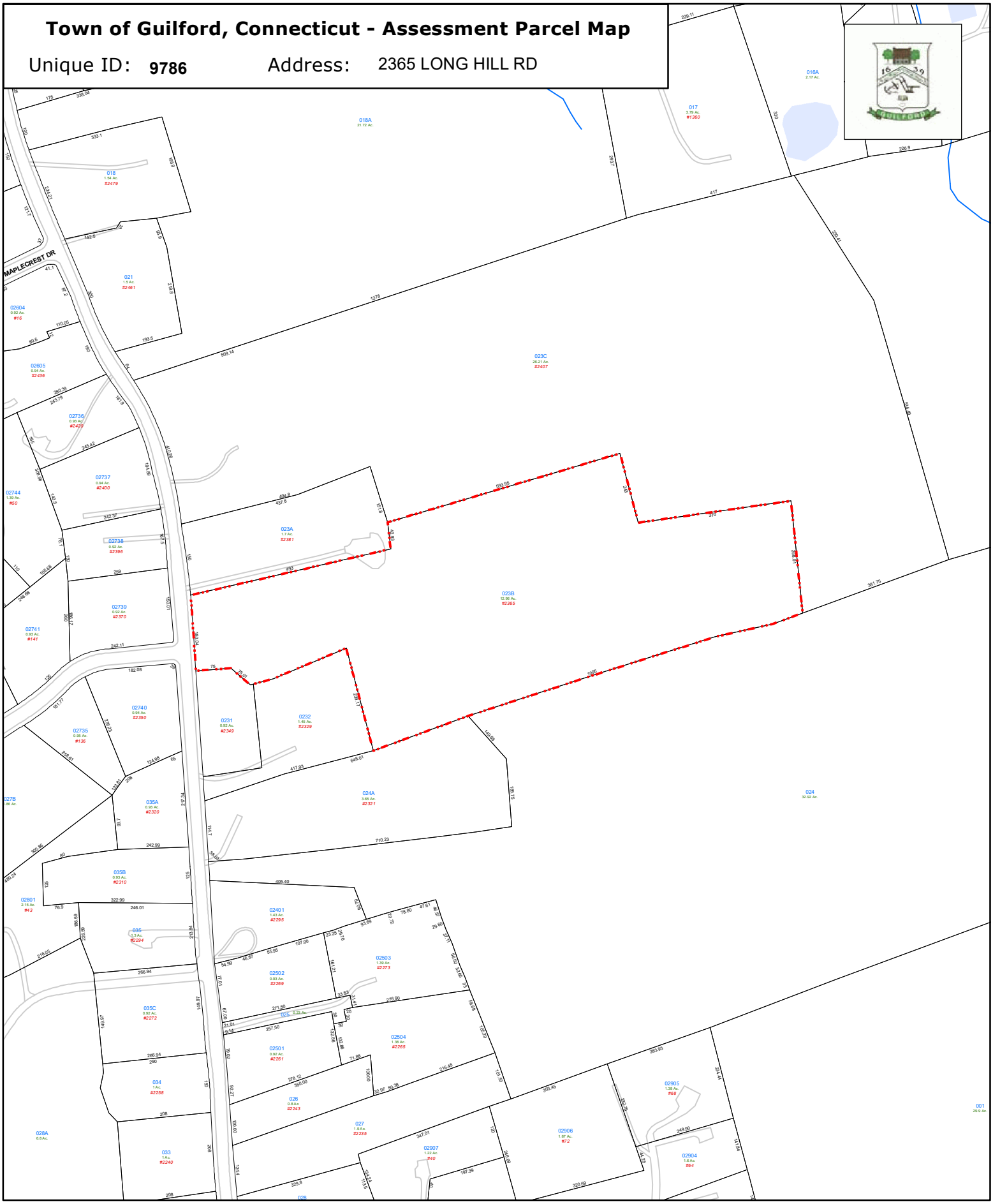
BUILDING AREA:	
Effective Building Area	
Gross Building Area	0
Total Living Area	2521

SALES HISTORY:	
Sale Date	3/17/2005
Sale Price	0
Book/ Page	0689/933+

Report Created On 6/13/2019

Town of Guilford, Connecticut - Assessment Parcel Map

Unique ID: **9786** Address: 2365 LONG HILL RD



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Approximate Scale: 1 inch = 300 feet

0 210 420 Feet

Map Produced: April 2019

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

Exhibit C

Construction Drawings

T-MOBILE SITE NAME:

CT393/GLOBAL GUILFORD_MP2

T-MOBILE SITE NUMBER:

CT11393B

CROWN BU: 876381 / APP#: 479832

67D92DB_2xAIR+1OP CONFIGURATION

2365 LONG HILL ROAD
GUILFORD, CT 06437

EXISTING 176'-0" MONOPOLE

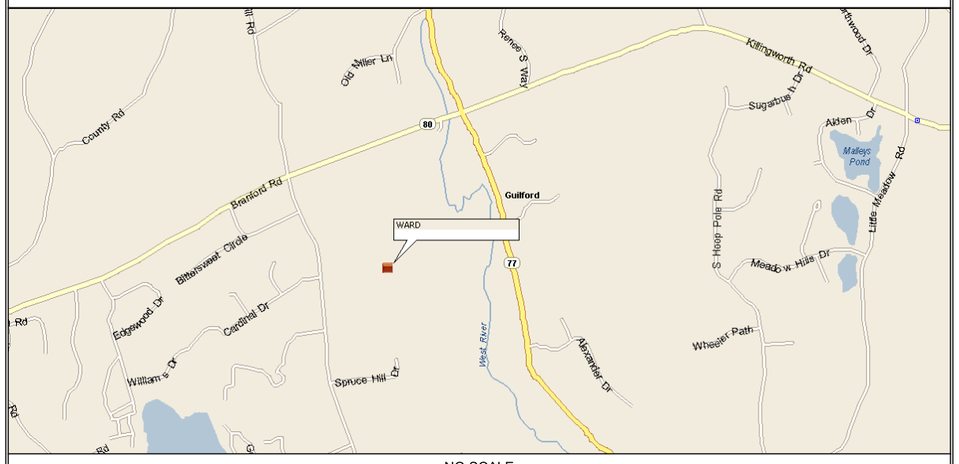
PROJECT SUMMARY

SITE TYPE:	EXISTING EQUIPMENT UPGRADE
SITE ADDRESS:	2365 LONG HILL ROAD GUILFORD, CT 06437
JURISDICTION:	NEW HAVEN COUNTY

NAD83

LATITUDE:	41.3465117° N
LONGITUDE:	72.7230397° W
TOWER OWNER:	CROWN CASTLE 3200 HORIZON DRIVE, SUITE 150 KING OF PRUSSIA, PA 19406 JASON SMITH (610) 635-3225
CUSTOMER/APPLICANT:	T-MOBILE 4 SYLVAN WAY PARSIPPANY, NJ 07054 (973) 397-4800
OCCUPANCY TYPE:	UNMANNED
A.D.A. COMPLIANCE:	FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION

LOCATION MAP



NO SCALE

DRIVING DIRECTIONS

DEPART LA GUARDIA AIRPORT ON LOCAL ROAD(S) (MARINE AIR TERMINAL/TERMINAL A/RENTAL CAR RETURNS). TAKE LOCAL ROAD(S) LEFT ONTO CENTRAL TERMINAL DR (TERMINAL A/MARINE AIR TERMINAL/PARKING LOTS 6-7). BEAR LEFT ONTO LOCAL ROAD(S) (AIRPORT EXIT). BEAR LEFT ONTO LOCAL ROAD(S) (LONG ISLAND/WHITESTONE BRIDGE/PARKWAY EAST). BEAR RIGHT ONTO 94TH ST. TAKE RAMP RIGHT ONTO GRAND CENTRAL PKWY (GRAND CENTRAL PKWY EAST/EASTERN LONG IS). AT EXIT 9E, KEEP RIGHT ONTO RAMP (I-678/RT-25A E/NORTHERN BLVD/WHITESTONE EXPWY). KEEP LEFT TO STAY ON RAMP (I-678/VAN WYCK EXPWY/WHITESTONE BR/KENNEDY AIRPORT). KEEP LEFT TO STAY ON RAMP (I-678 N/WHITESTONE BR). TAKE RAMP LEFT ONTO I-678 (WHITESTONE EXPY). *TOLL ROAD* STAY ON I-678 (WHITESTONE EXPY). STAY ON I-678 (HUTCHINSON RIVER PKWY). ROAD NAME CHANGES TO HUTCHINSON RIVER PKWY N. AT EXIT 6, TAKE RAMP ONTO I-95 (NEW ENGLAND THROUGHWAY) (I-95 N/NEW HAVEN). *TOLL ROAD* AT EXIT 16, STAY ON I-95 (NEW ENGLAND THROUGHWAY). STAY ON I-95 (NEW ENGLAND THROUGHWAY). ENTERING CONNECTICUT. AT EXIT 48, TAKE RAMP LEFT ONTO I-91 (I-91N/HARTFORD). AT EXIT 8, TURN RIGHT ONTO RAMP (CT-17/CT-80/MIDDLETOWN AVE/NORTH BRANFORD). KEEP RIGHT TO STAY ON RAMP (CT-80E). BEAR RIGHT ONTO CT-80 (FOXON BLVD). KEEP STRAIGHT ONTO CT-80 (FOXON RD). BEAR RIGHT ONTO CT-22 (CT-80). ROAD NAME CHANGES TO CT-80 (FOXON RD). KEEP STRAIGHT ONTO CT-80 (BRANFORD RD). TURN RIGHT ONTO LONG HILL RD. ARRIVE AT WARD.

DRAWING INDEX

SHEET #	SHEET DESCRIPTION	REV. #
T-1	TITLE SHEET	3
A-1	OVERALL SITE PLAN	3
A-2	ANTENNA, RRU AND TMA SCHEDULE	3
A-3	TOWER ELEVATION AND ANTENNA ORIENTATION	3
A-4	ANTENNA AND RRU DETAILS	3
E-1	PANEL SCEHDULE AND ONE-LINE DIAGRAM	3

CONTACT INFORMATION

A&E FIRM:	B+T GROUP 1717 S. BOULDER, STE. 300 TULSA, OK 74119	ELECTRIC PROVIDER:	N/A
CONTACT:	MIKE OAKES	TELCO PROVIDER:	N/A
PHONE:	(918) 587-4630		

CODE COMPLIANCE

ALL WORK SHALL BE PERFORMED AND MATERIALS INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES:

CODE TYPE	CODE
BUILDING/DWELLING	2018 CT STATE BUILDING CODE
STRUCTURAL	2018 CT STATE BUILDING CODE
MECHANICAL	2018 CT STATE BUILDING CODE
ELECTRICAL	2018 CT STATE BUILDING CODE

PROJECT DESCRIPTION

THE PROPOSED PROJECT INCLUDES:

- REMOVE (3) COAX LINES.
- REMOVE (1) XMU.
- REMOVE AND REPLACE (3) EXISTING ANTENNAS AT 155'-0".
- REMOVE AND REPLACE (3) RRUS AT 155'-0".
- REMOVE AND REPLACE (1) DUS41 WITH (1) BB6630.
- INSTALL (3) NEW ANTENNAS AT 155'-0".
- INSTALL (3) NEW 1 5/8" HYBRID CABLES.
- INSTALL (1) NEW BB6630.
- UPGRADE CABINET BREAKER FROM 60A TO 125A.

DO NOT SCALE DRAWINGS

ALL DRAWINGS CONTAINED HEREIN ARE FORMATTED FOR 11X17. CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

A/E DOCUMENT REVIEW STATUS

TITLE	SIGNATURE	DATE
T-MOBILE PROP:		
T-MOBILE R.F. MGR.:		
T-MOBILE NetOps:		
T-MOBILE CONST. MGR.:		
INTERCONNECT:		
T-MOBILE SITE DEV. MGR.:		
PROPERTY OWNER:		
PLANNING:		

THE FOLLOWING PARTIES HEREBY APPROVE AND ACCEPT THESE DOCUMENTS AND AUTHORIZE THE CONTRACTOR TO PROCEED WITH THE CONSTRUCTION DESCRIBED HEREIN. ALL DOCUMENTS ARE SUBJECT TO REVIEW BY THE LOCAL BUILDING DEPARTMENT AND MAY IMPOSE CHANGES OR MODIFICATIONS.

CALL CONNECTICUT ONE CALL
(800) 922-4455
CALL 3 WORKING DAYS
BEFORE YOU DIG!

811

B+T GRP

CROWN CASTLE

T-Mobile

CT11393B
BU #: 876381

CT393/GLOBAL GUILFORD_MP2
2365 LONG HILL ROAD
GUILFORD, CT 06437
EXISTING 176'-0" MONOPOLE

PROJECT NO:	85638.002.01
CHECKED BY:	FWP

ISSUED FOR:

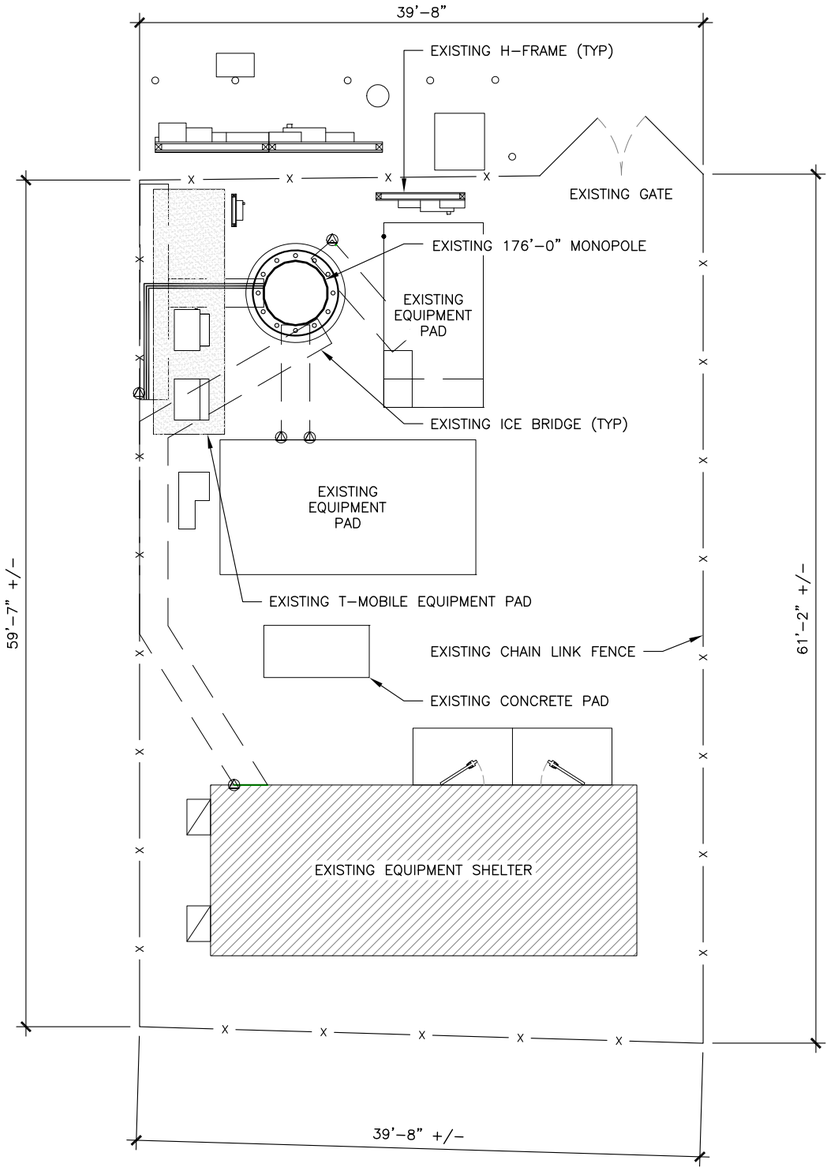
REV	DATE	DRWN	DESCRIPTION
0	5/8/19	BLB	CONSTRUCTION
1	6/7/19	JJD	CONSTRUCTION
2	6/18/19	GEH	CONSTRUCTION
3	6/24/19	JJD	CONSTRUCTION

B&T ENGINEERING, INC.
PEC.0001564
Expires 2/10/20

STATE OF CONNECTICUT
31627
LICENSED
PROFESSIONAL ENGINEER
6/24/19

SHEET NUMBER: T-1

REVISION: 3



1 OVERALL SITE PLAN

SCALE: 0' 4' 8' 16' 32'

N

GENERAL NOTES:

1. SUBJECT PROPERTY IS KNOWN AS BLOCK TBD LOT TBD AS SHOWN ON THE GUILFORD TOWNSHIP TAX MAP AND IS SITUATED AT 2365 LONG HILL ROAD, GUILFORD, CT 06437.

2. APPLICANT: T-MOBILE
A DELAWARE LIMITED LIABILITY COMPANY
4 SYLVAN WAY
PARSIPPANY, NEW JERSEY 07054
(973) 397-4800

   TOWER OWNER: CROWN CASTLE INTERNATIONAL

- THE APPLICANT IS TO UPDATE THEIR NETWORK BY REMOVING THREE (3) COAX LINES, REPLACING THREE (3) PANEL ANTENNAS AND THREE (3) RRUS AND INSTALLING THREE (3) NEW PANEL ANTENNAS AND THREE (3) NEW HYBRID LINES MOUNTED ON AN EXISTING MONOPOLE.

3. THIS FACILITY SHALL BE VISITED ON THE AVERAGE OF ONCE A MONTH FOR MAINTENANCE AND SHALL BE MONITORED FROM A REMOTE FACILITY.

4. THE EXISTING SITE IS LOCATED AT LATITUDE OF 41.3465117° N± AND LONGITUDE OF 72.7230397° W±. THE HORIZONTAL DATUM ARE IN TERMS OF NORTH AMERICAN DATUM OF 1983 (NAD 83).

5. THIS SET OF PLANS HAS BEEN PREPARED FOR THE PURPOSES OF MUNICIPAL AND AGENCY REVIEW AND APPROVAL. THIS SET OF PLANS SHALL NOT BE UTILIZED AS CONSTRUCTION DOCUMENTS UNTIL ALL CONDITIONS OF APPROVAL HAVE BEEN SATISFIED AND EACH OF THE DRAWINGS HAVE BEEN REVISED TO INDICATE "ISSUED FOR CONSTRUCTION"

6. ALL MATERIALS, WORKMANSHIP, AND CONSTRUCTION FOR THE SITE IMPROVEMENTS SHOWN HEREIN SHALL BE IN ACCORDANCE WITH:

   6.A. CURRENT PREVAILING MUNICIPAL AND/OR COUNTY SPECIFICATIONS, STANDARDS, AND REQUIREMENTS.
   6.B. CURRENT PREVAILING UTILITY COMPANY AUTHORITY SPECIFICATIONS, STANDARDS AND REQUIREMENTS.

7. THE CONTRACTOR SHALL NOTIFY B+T GROUP, P.A. IMMEDIATELY IF ANY FIELD-CONDITIONS ENCOUNTERED DIFFER FROM THOSE REPRESENTED HEREON, AND/OR IF SUCH CONDITIONS WOULD OR COULD RENDER THE DESIGNS SHOWN HEREON INAPPROPRIATE AND/OR INEFFECTIVE.

8. THE CONTRACTOR IS RESPONSIBLE TO PROTECT, REPAIR AND/OR REPLACE ANY DAMAGED STRUCTURES, UTILITIES OR LANDSCAPED AREA WHICH MAY BE DISTURBED DURING THE CONSTRUCTION OF THIS FACILITY.

9. THE CONSTRUCTION CONTRACTOR IS SOLELY RESPONSIBLE FOR DETERMINING ALL CONSTRUCTION MEANS AND METHODS. THE CONSTRUCTION CONTRACTOR IS ALSO RESPONSIBLE FOR ALL JOB SITE SAFETY.

10. SITE INFORMATION SHOWN TAKEN FROM CROWN CASTLE SITE PLANS AND FROM CROWN CASTLE INSPECTION PHOTOS.

11. NO GUARANTEE IS MADE NOR SHOULD BE ASSUMED AS TO THE COMPLETENESS OR ACCURACY OF THE HORIZONTAL OR VERTICAL LOCATIONS. ALL PARTIES UTILIZING THIS INFORMATION SHALL FIELD VERIFY THE ACCURACY AND COMPLETENESS OF THE INFORMATION SHOWN PRIOR TO CONSTRUCTION ACTIVITIES.

12. ALL IMPROVEMENTS SHALL BE SUBJECT TO INSPECTION AND APPROVAL BY THE TOWNSHIP ENGINEER WHO WILL BE GIVEN PROPER NOTIFICATION PRIOR TO THE START OF ANY CONSTRUCTION.

B+T GRP

CROWN CASTLE

T-Mobile

CT11393B
BU #: 876381
CT393/GLOBAL GUILFORD_MP2
2365 LONG HILL ROAD
GUILFORD, CT 06437
EXISTING 176'-0" MONOPOLE

PROJECT NO:	85638.002.01
CHECKED BY:	FWP

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION
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B&T ENGINEERING, INC.
PEC.0001564
Expires 2/10/20

STATE OF CONNECTICUT
31627
LICENSED PROFESSIONAL ENGINEER
6/24/19

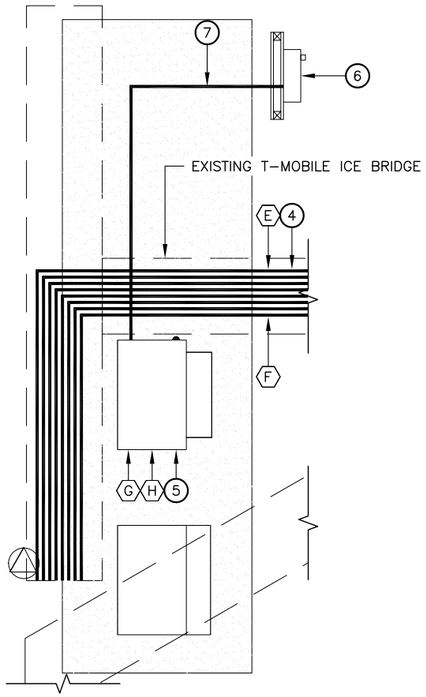
SHEET NUMBER:	REVISION:
A-1	3

LEGEND

EXISTING/DEMOLITION NOTES		INSTALLATION NOTES	
A	EXISTING ERICSSON AIR21 KRC118023-1_B2A_B4P ANTENNA TO REMAIN (TOTAL OF 3)	1	INSTALL RFS APXVAARR24_43-U-NA20 ON EXISTING MOUNT (TYP. OF 1 PER SECTOR, TOTAL OF 3)
B	EXISTING TMA TO REMAIN	2	INSTALL ERICSSON AIR32 KRD901146-1_B66A_B2A ON EXISTING MOUNT (TYP. OF 1 PER SECTOR, TOTAL OF 3)
C	EXISTING ERICSSON AIR21 B4A/B12P ANTENNA TO BE REMOVED (TOTAL OF 3)	3	INSTALL RADIO 4449 B71/B12 (TYP. OF 1 PER SECTOR, TOTAL OF 3)
D	EXISTING RRUS11 B12 TO BE REMOVED (TOTAL OF 3)	4	INSTALL (3) 1 5/8" HYBRID FIBER TRUNKS FROM EQUIPMENT TO ANTENNAS FOLLOWING EXISTING ROUTING
E	EXISTING HYBRID CABLE TO REMAIN (TOTAL OF 1)	5	INSTALL (1) BB6630 FOR FUTURE 5G N600
F	EXISTING (3) COAX CABLES TO BE REMOVED AND (10) COAX CABLES TO REMAIN	6	UPGRADE CABINET BREAKER FROM 60A TO 125A
G	REPLACE (1) DUS41 WITH (1) BB6630 FOR L2100, L1900, L700, AND L600	7	INSTALL (1) CONDUIT FROM BREAKER CABINET TO EXISTING 3106 (RAN ABOVE GRADE IF POSSIBLE)
H	EXISTING XMU TO BE REMOVED		

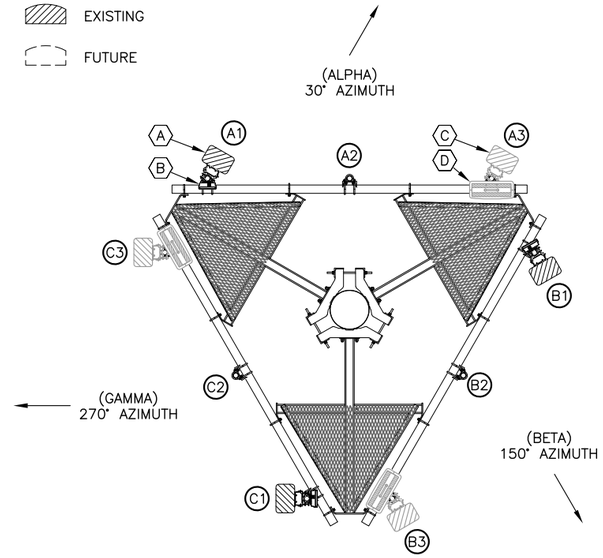
ANTENNA AND CABLE SCHEDULE

SECTOR	POSITION	EXISTING ANTENNAS	PROPOSED ANTENNA CONFIGURATION		E-TILT	M-TILT	ANTENNA CENTERLINE	TMA/RRU	CABLES	JUMPER TYPE	CABLE LENGTH
30° – ALPHA	A1	ERICSSON AIR21 KRC118023-1_B2A_B4P	–	–	2°	0°	155'-0"	1/0	(3) 1 5/8" COAX (1) 1/2" COAX	**DC/FIBER & 1/2" COAX**	**170'-0"**
	A2	**RFS APXVAARR24_43-U-NA20**	**–**	**B71 B12**	**2°**	**0°**		**0/1**	**–**	**DC/FIBER & 1/2" COAX**	**170'-0"**
	A3	**ERICSSON AIR32 KRD901146-1_B66A_B2A**	**–**	**–**	**2°**	**0°**		**0/0**	**(1) 1 5/8" HYBRID FIBER TRUNK**	**DC/FIBER**	**170'-0"**
150° – BETA	B1	ERICSSON AIR21 KRC118023-1_B2A_B4P	–	–	2°	0°	155'-0"	1/0	(3) 1 5/8" COAX	**DC/FIBER & 1/2" COAX**	**170'-0"**
	B2	**RFS APXVAARR24_43-U-NA20**	**–**	**B71 B12**	**2°**	**0°**		**0/1**	**–**	**DC/FIBER & 1/2" COAX**	**170'-0"**
	B3	**ERICSSON AIR32 KRD901146-1_B66A_B2A**	**–**	**–**	**2°**	**0°**		**0/0**	**(1) 1 5/8" HYBRID FIBER TRUNK**	**DC/FIBER**	**170'-0"**
270° – GAMMA	G1	ERICSSON AIR21 KRC118023-1_B2A_B4P	–	–	2°	0°	155'-0"	1/0	(3) 1 5/8" COAX	**DC/FIBER & 1/2" COAX**	**170'-0"**
	G2	**RFS APXVAARR24_43-U-NA20**	**–**	**B71 B12**	**2°**	**0°**		**0/1**	**–**	**DC/FIBER & 1/2" COAX**	**170'-0"**
	G3	**ERICSSON AIR32 KRD901146-1_B66A_B2A**	**–**	**–**	**2°**	**0°**		**0/0**	**(1) 1 5/8" HYBRID FIBER TRUNK**	**DC/FIBER**	**170'-0"**



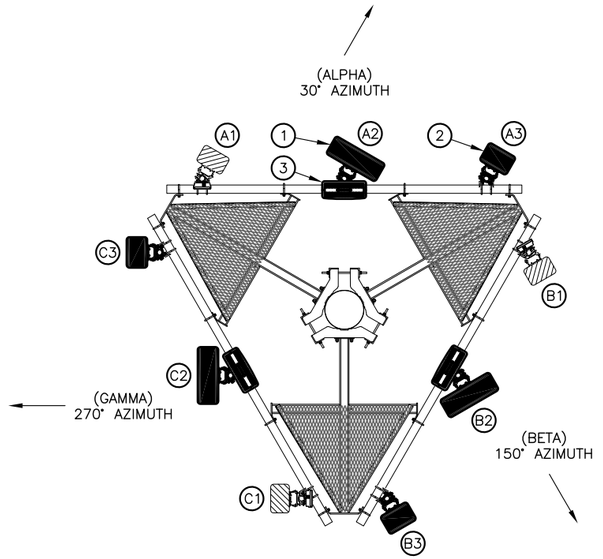
1 ENLARGED AREA PLAN
SCALE: 0' 1' 2' 4' 10'

LEGEND:
NEW
EXISTING
FUTURE



2 EXISTING ANTENNA ORIENTATION
SCALE: 0' 1' 4' 8' 16'

N



3 PROPOSED ANTENNA ORIENTATION
SCALE: 0' 1' 4' 8' 16'

N

B+T GRP

CROWN CASTLE

T-Mobile

CT11393B
BU #: 876381
CT393/GLOBAL GUILFORD_MP2
2365 LONG HILL ROAD
GUILFORD, CT 06437
EXISTING 176'-0" MONOPOLE

PROJECT NO:	85638.002.01
CHECKED BY:	FWP

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION
0	5/8/19	BLB	CONSTRUCTION
1	6/7/19	JJD	CONSTRUCTION
2	6/18/19	GEH	CONSTRUCTION
3	6/24/19	JJD	CONSTRUCTION

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6/24/19

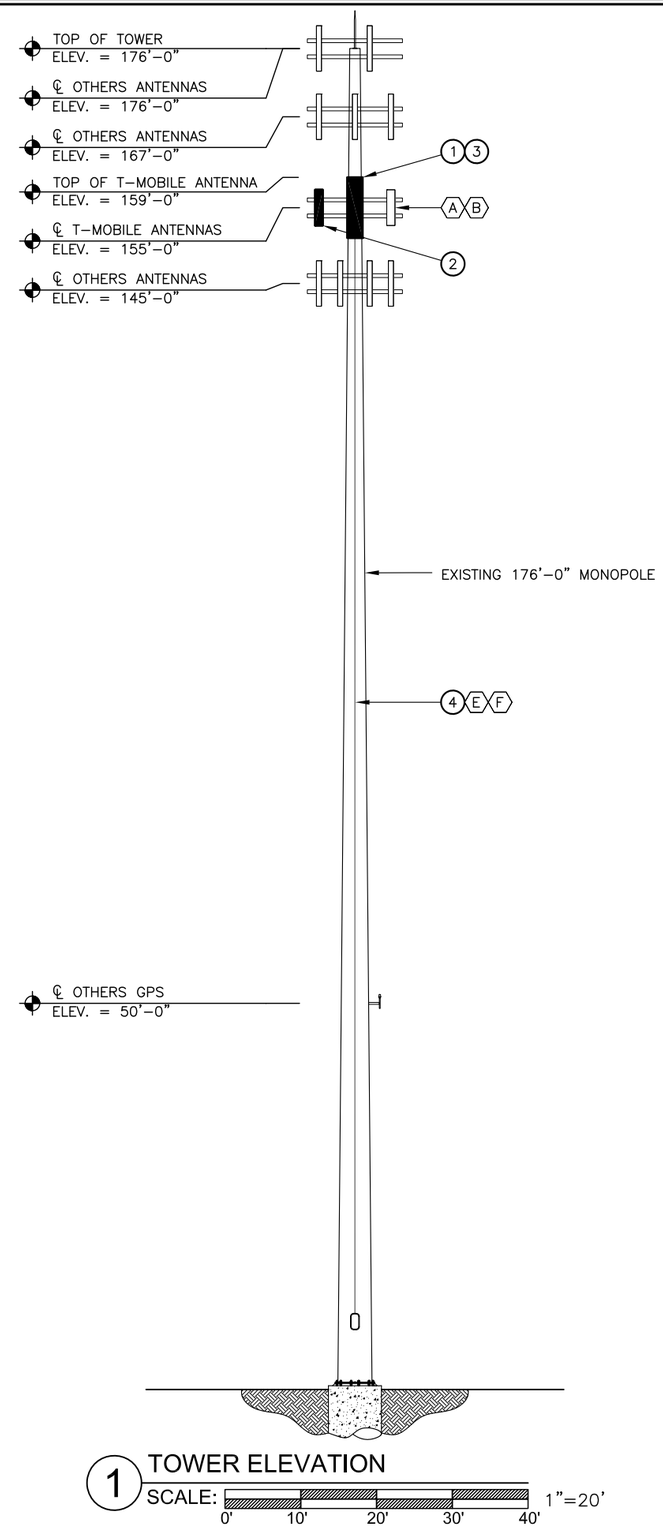
SHEET NUMBER:	REVISION:
A-2	3

LEGEND

EXISTING/DEMOLITION NOTES		INSTALLATION NOTES	
A	EXISTING ERICSSON AIR21 KRC118023-1_B2A_B4P ANTENNA TO REMAIN (TOTAL OF 3)	1	INSTALL RFS APXVAARR24_43-U-NA20 ON EXISTING MOUNT (TYP. OF 1 PER SECTOR, TOTAL OF 3)
B	EXISTING TMA TO REMAIN	2	INSTALL ERICSSON AIR32 KRD901146-1_B66A_B2A ON EXISTING MOUNT (TYP. OF 1 PER SECTOR, TOTAL OF 3)
C	EXISTING ERICSSON AIR21 B4A/B12P ANTENNA TO BE REMOVED (TOTAL OF 3)	3	INSTALL RADIO 4449 B71/B12 (TYP. OF 1 PER SECTOR, TOTAL OF 3)
D	EXISTING RRUS11 B12 TO BE REMOVED (TOTAL OF 3)	4	INSTALL (3) 1 5/8" HYBRID FIBER TRUNKS FROM EQUIPMENT TO ANTENNAS FOLLOWING EXISTING ROUTING
E	EXISTING HYBRID CABLE TO REMAIN (TOTAL OF 1)	5	INSTALL (1) BB6630 FOR FUTURE 5G N600
F	EXISTING (3) COAX CABLES TO BE REMOVED AND (10) COAX CABLES TO REMAIN	6	UPGRADE CABINET BREAKER FROM 60A TO 125A
G	REPLACE (1) DUS41 WITH (1) BB6630 FOR L2100, L1900, L700, AND L600	7	INSTALL (1) CONDUIT FROM BREAKER CABINET TO EXISTING 3106 (RAN ABOVE GRADE IF POSSIBLE)
H	EXISTING XMU TO BE REMOVED		

EXISTING MOUNT IS SUFFICIENT PER MOUNT ANALYSIS REPORT BY ENGINEERED TOWER SOLUTIONS, PLLC DATED 4/29/19.

EXISTING MONOPOLE IS SUFFICIENT PER STRUCTURAL ANALYSIS REPORT BY TOWER ENGINEERING PROFESSIONALS DATED 5/14/19.



1 TOWER ELEVATION

SCALE: 0' 10' 20' 30' 40' 1"=20'

B+T GRP

CROWN CASTLE

T-Mobile

CT11393B
BU #: 876381

CT393/GLOBAL GUILFORD_MP2

2365 LONG HILL ROAD
GUILFORD, CT 06437

EXISTING 176'-0" MONOPOLE

PROJECT NO:	85638.002.01
CHECKED BY:	FWP

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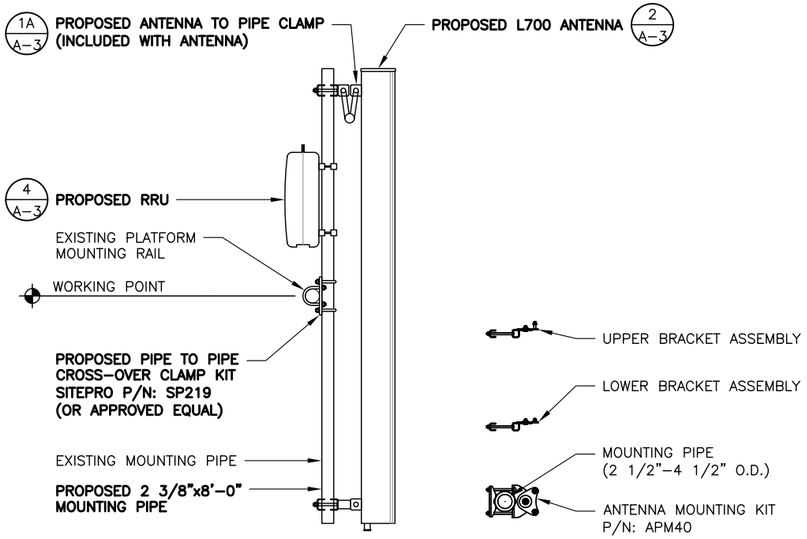
SHEET NUMBER:	REVISION:
A-3	3

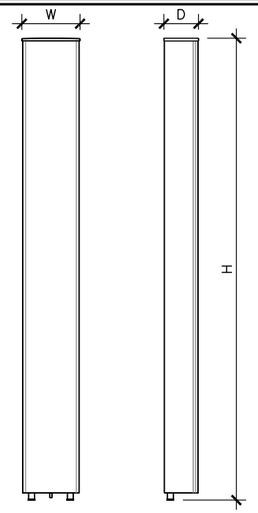


1 PROPOSED L1900 ANTENNA & RRU MOUNTING DETAIL

SCALE: N.T.S.

1A ANTENNA MOUNTING BRACKET

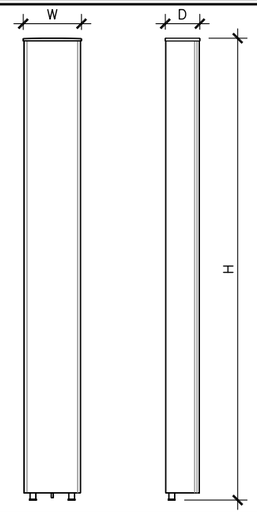
SCALE: N.T.S.



ANTENNA SPECS	
MANUFACTURER	RFS
MODEL #	APXVAARR24_43-U-NA20
WIDTH	24.0"
DEPTH	8.7"
HEIGHT	95.9"
WEIGHT	128.0 LBS

2 L700 ANTENNA DETAIL

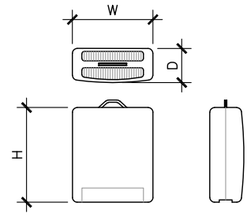
SCALE: N.T.S.



ANTENNA SPECS	
MANUFACTURER	ERICSSON
MODEL #	AIR32 KRD901146-1_B66A_B2A
WIDTH	12.9"
DEPTH	8.7"
HEIGHT	56.6"
WEIGHT	132.2 LBS

3 L1900 ANTENNA DETAIL

SCALE: N.T.S.

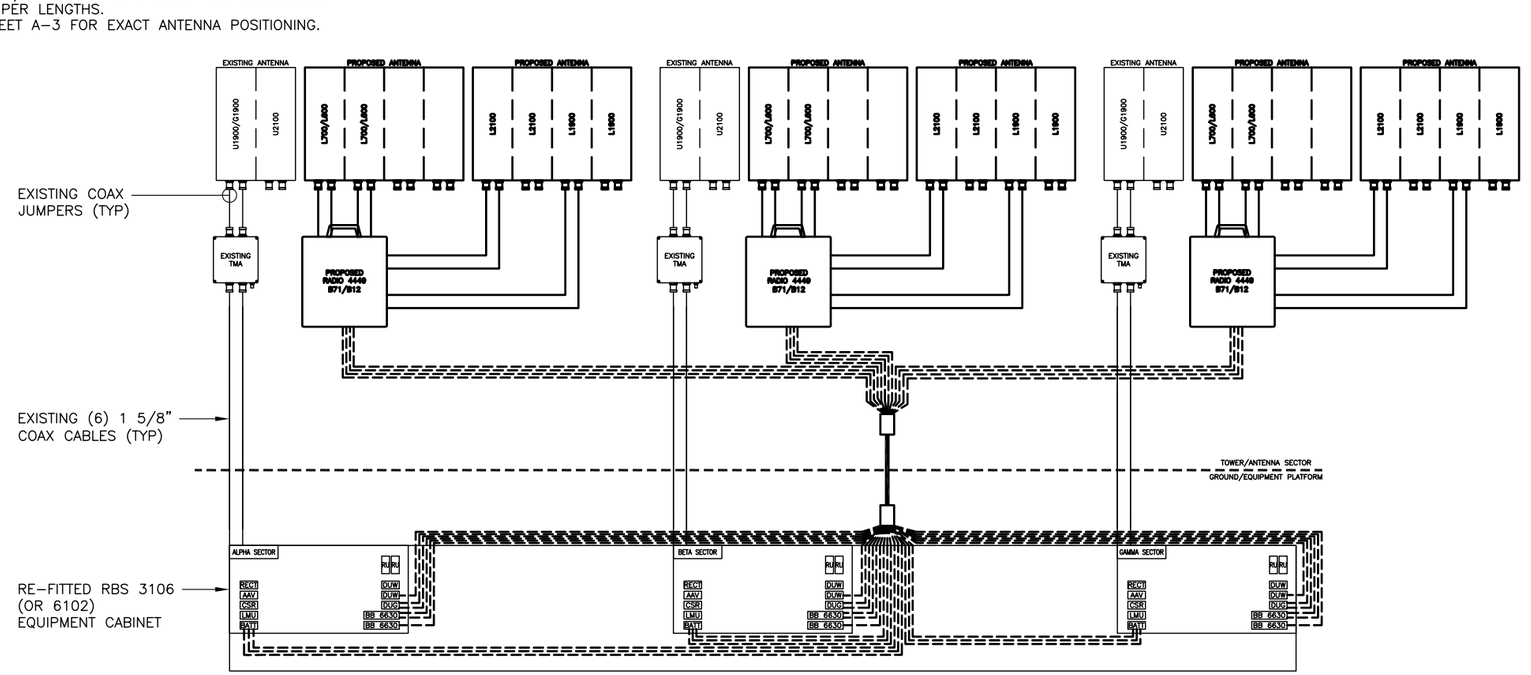


RRU SPECIFICATIONS	
MANUFACTURER	ERICSSON
MODEL #	4449
WIDTH	13.2"
DEPTH	10.4"
HEIGHT	14.9"
WEIGHT	74 LBS

4 REMOTE RADIO UNIT (RRU)

SCALE: N.T.S.

NOTES:
1. TAG ALL EXISTING AND PROPOSED CABLES/JUMPERS PER T-MOBILE SPECIFICATIONS.
2. SEE RF SCHEDULE FOR CABLE AND JUMPER LENGTHS.
3. REFER TO ANTENNA ORIENTATION ON SHEET A-3 FOR EXACT ANTENNA POSITIONING.



5 ANTENNA & CABLING SCHEMATIC

SCALE: N.T.S.

B+T GRP

CROWN CASTLE

T-Mobile

CT11393B
BU #: 876381
CT393/GLOBAL GUILFORD_MP2
2365 LONG HILL ROAD
GUILFORD, CT 06437
EXISTING 176'-0" MONOPOLE

PROJECT NO:	85638.002.01
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SHEET NUMBER: A-4

REVISION: 3

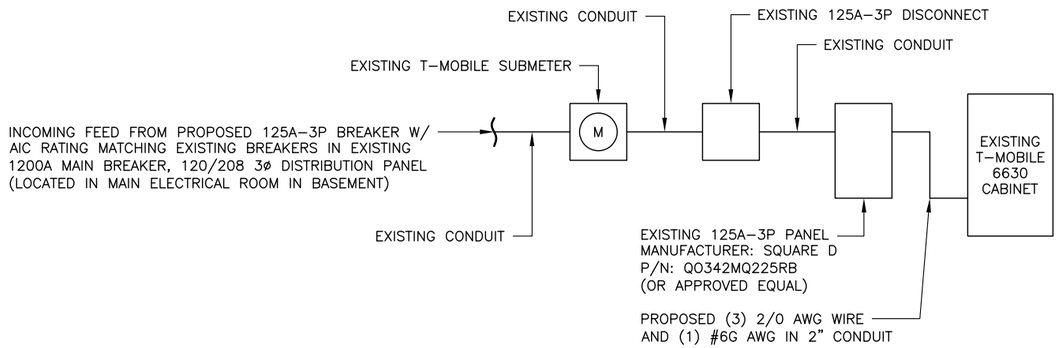
FINAL PANEL SCHEDULE								
LOAD	POLES	AMPS	BUS L1	BUS L2	BUS L3	AMPS	POLES	LOAD
SURGE PRO	2	60A	1		2	20A	1	GFI
			3		4	**125A**	2	**6630**
			5		6			
			7		8			
			9		10			
			11		12			
			13		14			
			15		16			
			17		18			
			19		20			
MAIN BTS	2	60A	21		22			
			23		24			

RATED VOLTAGE: ■120/240 ☐_____. 3 PHASE, 4 WIRE	BRANCH POLES: ☐12 ■24 ☐30 ☐42	APPROVED MF'RS	
RATED AMPS: ■100 ☐225 ☐400 ☐_____.	CABINET: ■SURFACE ☐FLUSH	NEMA ☐1 ■3R ☐4X	
☐MAIN LUGS ONLY MAIN 125 AMPS ■BREAKER ☐FUSED SWITCH	■HINGED DOOR	■KEYED DOOR LATCH	
☐FUSED ■CIRCUIT BREAKER BRANCH DEVICES	☐_____ TO BE GFCI BREAKERS	FULL NEUTRAL BUS	GROUND BAR
ALL BREAKERS MUST BE RATED TO INTERRUPT A SHORT CIRCUIT ISC OF 10,000 AMPS SYMMETRICAL			

EXISTING 125A BREAKER PANEL TO BE REPLACED W/ NEW 225A BREAKER PANEL. SQUARE D P/N: QO342MQ225RB (OR APPROVED EQUAL)
REPLACE EXISTING BREAKERS W/ NEW BREAKERS OF SAME AMPERAGE INSIDE NEW PANEL
REPLACE EXISTING WIRES FOR EXISTING 6630 CABINET WITH (3) 2/0 AWG THWN (COPPER) AND (1) #6G AWG. MINIMUM CONDUIT SIZE TO BE 2"
FINAL PANEL DESIGN AND CALCULATIONS FOR WIRE SIZE WERE BASED OFF OF EXISTING DOCUMENTS AND PHOTOS

1 FINAL T-MOBILE PANEL DETAIL

SCALE: N.T.S.



2 ONE-LINE DIAGRAM

SCALE: N.T.S.

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CROWN CASTLE

T···Mobile

CT11393B
BU #: 876381
CT393/GLOBAL GUILFORD_MP2
2365 LONG HILL ROAD
GUILFORD, CT 06437
EXISTING 176'-0" MONOPOLE

PROJECT NO:	85638.002.01
CHECKED BY:	FWP

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6/24/19

SHEET NUMBER:	REVISION:
E-1	3

Exhibit D

Structural Analysis Report

Date: **May 14, 2019**

Heather Simeone
Crown Castle
3530 Toringdon Way, Suite 300
Charlotte, NC 28277

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

Subject: Structural Analysis Report - Revision 1

Carrier Designation:	***T-Mobile* Co-Locate**	
	Carrier Site Number:	CT11393B
	Carrier Site Name:	CT393/Global Guilford_MP2
Crown Castle Designation:	**Crown Castle BU Number:**	876381
	Crown Castle Site Name:	Ward
	Crown Castle JDE Job Number:	559335
	Crown Castle Work Order Number:	1730429
	Crown Castle Order Number:	479832 Rev. 2
Engineering Firm Designation:	**TEP Project Number:**	51819.253731 Rev. 1
Site Data:	**2365 Long Hill Rd., Guilford, New Haven County, CT 06437** **Latitude *41° 20' 47.34"*, Longitude *-72° 43' 23.15"*** **176 Foot - Monopole Tower**	

Dear Heather Simeone,

Tower Engineering Professionals is pleased to submit this **"Structural Analysis Report"** to determine the structural integrity of the above-mentioned tower.

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

LC7: Proposed Equipment Configuration **Sufficient Capacity**

Structure Capacity	Foundation Capacity
92.4%	80.4%

This analysis utilizes an ultimate 3-second gust wind speed of 130 mph as required by the 2018 Connecticut State Building Code. Applicable Standard references and design criteria are listed in Section 2 - Analysis Criteria.

Structural analysis prepared by: Julie C. Ryland / MBB

Respectfully submitted by:

Aaron T. Rucker, P.E.

Electronic Copy

05/14/2019

Revision #	Date Issued	Description
0	April 26, 2019	Original structural analysis report
1	May 14, 2019	Revised loading

TABLE OF CONTENTS

1) INTRODUCTION

This tower is a 176-ft monopole tower designed by Engineered Endeavors, Inc. The tower has been modified multiple times in the past to accommodate additional loading. All information provided to TEP was assumed to be accurate and complete.

2) ANALYSIS CRITERIA

TIA-222 Revision:	TIA-222-H
Risk Category:	II
Wind Speed:	130 mph
Exposure Category:	B
Topographic Factor:	1.0
Ice Thickness:	1.5 in
Wind Speed with Ice:	50 mph
Service Wind Speed:	60 mph

Table 1 - Proposed Equipment Configuration

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
155.0	155.0	3	Ericsson	AIR 21 B2A B4P	13	1-5/8
		3	RFS/Celwave	APXVAARR24_43-U-NA20		
		3	Ericsson	AIR -32 B2A/B66AA		
		3	Ericsson	KRY 112 144/1		
		3	Ericsson	Radio 4449 B12/B71		
		1	Tower Mounts	Platform Mount [LP 301-1]		
10.0	12.0	1	Kathrein	OG-860/1920/GPS-A	1	1/4
	10.0	1	Tower Mounts	Side Arm Mount [SO 701-1]		

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)
176.0	178.0	3	Commscope	DT465B-2XR w/ Mount Pipe	3 1	1/2 1-1/4
		3	RFS/Celwave	APXVTM14-C-120 w/ Mount Pipe		
		3	Alcatel Lucent	RRH2X50-800		
	176.0	3	Alcatel Lucent	TD-RRH8x20-25		
		9	RFS/Celwave	ACU-A20-N		
		1	Tower Mounts	Platform Mount [LP 712-1]		
174.0	176.0	3	Alcatel Lucent	800 External Notch Filter	-	-
	175.0	3	Alcatel Lucent	800MHZ RRH		
	174.0	1	Tower Mounts	Side Arm Mount [SO 102-3]		
	173.0	3	Alcatel Lucent	PCS 1900MHz 4x45W-65MHz		

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
167.0	167.0	3	Powerwave Tech.	7770.00 w/ Mount Pipe	12 2 2 2	1-5/8 3/4 3/8 7/16
		3	CCI Antennas	HPA65R-BU6A w/ Mount Pipe		
		3	Kathrein	80010965 w/ Mount Pipe		
		6	Powerwave Tech.	LGP21401		
		3	Ericsson	RRUS 4449 B5/B12		
		2	Raycap	DC6-48-60-18-8F		
		3	Ericsson	RRUS 8843 B2/B66A		
		1	Tower Mounts	Platform Mount [LP 303-1]		
145.0	148.0	6	Amphenol	BXA-171063-12CF-EDIN-X w/ Mount Pipe	2	1-1/4
		6	Amphenol	BXA-70063-6CF-EDIN-X w/ Mount Pipe		
	145.0	3	Alcatel Lucent	RRH2X40-07-U		
		1	RFS/Celwave	DB-B1-6C-8AB-0Z		
		3	Alcatel Lucent	RRH2X40-AWS		
		1	Tower Mounts	Platform Mount [LP 303-1]		
50.0	51.0	1	Lucent	KS24019-L112A	1	1/2
	50.0	1	Tower Mounts	Side Arm Mount [SO 701-1]		

3) ANALYSIS PROCEDURE

Table 3 - Documents Provided

Document	Remarks	Reference	Source
Geotechnical Report	Jaworski Geotech, Inc.	1532993	CCISites
Tower Foundation Drawings	Engineered Endeavors, Inc.	1614617	CCISites
Tower Manufacturer Drawings	Engineered Endeavors, Inc.	1613550	CCISites
Tower Design Calculations	Engineered Endeavors, Inc.	1614660	CCISites
Tower Reinforcement Drawings	Tower Engineering Professionals	4318894	CCISites
Post Modification Inspection	Tower Engineering Professionals	5163807	CCISites
Tower Reinforcement Drawings	Tower Engineering Professionals	5650483	CCISites
Post Modification Inspection	FDH Velocitel, Inc.	5885207	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.

tnxTower was used to determine the loads on the modified structure. Additional calculations were performed to determine the stresses in the pole and in the reinforcing elements. These calculations are presented in Appendix C.

3.2) Assumptions

1) The tower and foundation were built and maintained in accordance with the manufacturer's specification.
2) The configuration of antennas, transmission cables, mounts and other appurtenances are as specified in Tables 1 and 2, and the referenced drawings.
3) All tower components are in sufficient condition to carry their full design capacity.
4) Serviceability with respect to antenna twist, tilt, roll, or lateral translation, is not checked and is left to the carrier or tower owner to ensure conformance.
5) All antenna mounts and mounting hardware are structurally sufficient to carry the full design capacity requirements of appurtenance wind area and weight as provided by the original manufacturer specifications. It is the carrier's responsibility to ensure compliance to the structural limitations of the existing and/or proposed antenna mounts. TEP did not perform a site visit to verify the size, condition or capacity of the antenna mounts and did not analyze antennas supporting mounts as part of this structural analysis report.

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

4) ANALYSIS RESULTS

Table 4 - Section Capacity (Summary)[1,2]

Elevation (ft)	Component Type	Size	Critical Element	% Capacity	Pass / Fail
176 - 171	Pole	TP17.626x16.5x0.1875	Pole	11.6%	Pass
171 - 166	Pole	TP18.752x17.626x0.1875	Pole	21.7%	Pass
166 - 161	Pole	TP19.878x18.752x0.1875	Pole	35.1%	Pass
161 - 156	Pole	TP21.004x19.878x0.1875	Pole	46.4%	Pass
156 - 151	Pole	TP22.13x21.004x0.1875	Pole	61.0%	Pass
151 - 147.75	Pole	TP23.65x22.13x0.1875	Pole	69.8%	Pass
147.75 - 142.75	Pole	TP23.601x22.487x0.3125	Pole	49.6%	Pass
142.75 - 137.75	Pole	TP24.714x23.601x0.3125	Pole	56.9%	Pass
137.75 - 132.75	Pole	TP25.828x24.714x0.3125	Pole	62.9%	Pass
132.75 - 127.75	Pole	TP26.942x25.828x0.3125	Pole	67.9%	Pass
127.75 - 127.5	Pole	TP26.997x26.942x0.3125	Pole	68.1%	Pass
127.5 - 122.5	Pole	TP28.111x26.997x0.3125	Pole	72.3%	Pass
122.5 - 120.75	Pole	TP28.501x28.111x0.3125	Pole	73.6%	Pass
120.75 - 120.5	Pole	TP28.557x28.501x0.3125	Pole	73.8%	Pass
120.5 - 117.25	Pole	TP29.28x28.557x0.3125	Pole	76.0%	Pass
117.25 - 117	Pole + Reinf.	TP29.336x29.28x0.5375	Reinf. 4 Tension Rupture	71.8%	Pass
117 - 112	Pole + Reinf.	TP30.45x29.336x0.525	Reinf. 4 Tension Rupture	75.9%	Pass
112 - 107	Pole + Reinf.	TP31.564x30.45x0.525	Reinf. 4 Tension Rupture	79.6%	Pass
107 - 102	Pole + Reinf.	TP32.677x31.564x0.5125	Reinf. 4 Tension Rupture	83.0%	Pass
102 - 99.41	Pole + Reinf.	TP34.33x32.677x0.5125	Reinf. 4 Tension Rupture	84.7%	Pass
99.41 - 94.41	Pole	TP33.741x32.628x0.375	Pole	75.9%	Pass
94.41 - 89.41	Pole	TP34.853x33.741x0.375	Pole	77.3%	Pass
89.41 - 87.25	Pole	TP35.335x34.853x0.375	Pole	77.9%	Pass
87.25 - 87	Pole	TP35.39x35.335x0.375	Pole	78.0%	Pass
87 - 82	Pole	TP36.503x35.39x0.375	Pole	79.4%	Pass

Elevation (ft)	Component Type	Size	Critical Element	% Capacity	Pass / Fail
82 - 77	Pole	TP37.615x36.503x0.375	Pole	81.0%	Pass
77 - 72	Pole	TP38.727x37.615x0.375	Pole	82.5%	Pass
72 - 67	Pole	TP39.84x38.727x0.375	Pole	83.9%	Pass
67 - 62	Pole	TP40.952x39.84x0.375	Pole	85.2%	Pass
62 - 61.5	Pole	TP41.064x40.952x0.375	Pole	85.4%	Pass
61.5 - 61.25	Pole + Reinf.	TP41.119x41.064x0.5875	Reinf. 2 Tension Rupture	83.0%	Pass
61.25 - 56.25	Pole + Reinf.	TP42.232x41.119x0.575	Reinf. 2 Tension Rupture	84.4%	Pass
56.25 - 53.04	Pole + Reinf.	TP44.3x42.232x0.575	Reinf. 2 Tension Rupture	85.2%	Pass
53.04 - 45.95	Pole + Reinf.	TP43.773x42.197x0.575	Reinf. 2 Tension Rupture	89.5%	Pass
45.95 - 40.95	Pole + Reinf.	TP44.886x43.773x0.5625	Reinf. 2 Tension Rupture	90.6%	Pass
40.95 - 35.95	Pole + Reinf.	TP45.999x44.886x0.5625	Reinf. 2 Tension Rupture	91.7%	Pass
35.95 - 32.25	Pole + Reinf.	TP46.823x45.999x0.5625	Reinf. 2 Tension Rupture	92.4%	Pass
32.25 - 32	Pole + Reinf.	TP46.878x46.823x0.775	Reinf. 2 Tension Rupture	66.8%	Pass
32 - 31.75	Pole + Reinf.	TP46.934x46.878x0.6125	Reinf. 1 Tension Rupture	83.3%	Pass
31.75 - 26.75	Pole + Reinf.	TP48.047x46.934x0.6125	Reinf. 1 Tension Rupture	84.3%	Pass
26.75 - 21.75	Pole + Reinf.	TP49.159x48.047x0.6125	Reinf. 1 Tension Rupture	85.2%	Pass
21.75 - 16.75	Pole + Reinf.	TP50.272x49.159x0.6	Reinf. 1 Tension Rupture	86.1%	Pass
16.75 - 11.75	Pole + Reinf.	TP51.385x50.272x0.6	Reinf. 1 Tension Rupture	86.9%	Pass
11.75 - 6.75	Pole + Reinf.	TP52.498x51.385x0.5875	Reinf. 1 Tension Rupture	87.7%	Pass
6.75 - 1.75	Pole + Reinf.	TP53.611x52.498x0.5875	Reinf. 1 Tension Rupture	88.4%	Pass
1.75 - 0	Pole + Reinf.	TP54x53.611x0.5875	Reinf. 1 Tension Rupture	88.6%	Pass
				Summary	
			Pole	85.4%	Pass
			Reinforcement	92.4%	Pass
			Overall	**92.4%**	**Pass**

Table 5 - Tower Component Stresses vs. Capacity - LC7

Notes	Component	Elevation (ft)	% Capacity	Pass / Fail
1,2	Anchor Rods	-	91.0	Pass
1,2	Base Plate	-	70.9	Pass
1,2	Base Foundation Soil Interaction	-	38.8	Pass
1,2	Base Foundation Structural	-	80.4	Pass

Structure Rating (max from all components) =	**92.4%**

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

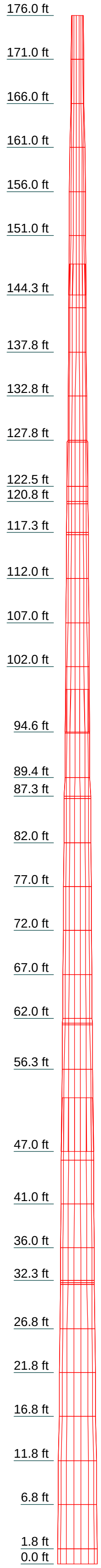
4.1) Recommendations

1) If the load differs from that described in Tables 1 and 2 of this report, the referenced drawings, or the provisions of this analysis are found to be invalid, another structural analysis should be performed.
2) The tower and its foundation have sufficient capacity to carry the proposed load configuration. No modifications are required at this time.

APPENDIX A

TNXTOWER OUTPUT

Section	Length (ft)	Number of Sides	Thickness (in)	Socket Length (ft)	Top Dia (in)	Bot Dia (in)	Grade	Weight (lb)
1	5.00	18	0.19		16.50	17.63	A572-65	170.9
2	5.00	18	0.19		17.63	18.75		182.3
3	5.00	18	0.19		18.75	19.88		193.7
4	5.00	18	0.19		19.88	21.00		205.1
5	5.00	18	0.19		21.00	22.13		216.5
6	6.75	18	0.19	3.50	22.13	23.65		310.3
7	[illegible]	18	0.31		22.49	23.60		[illegible]
8	5.00	18	0.31		23.60	24.71		402.4
9	5.00	18	0.31		24.71	25.83		421.2
10	5.00	18	0.31		25.83	26.94		440.0
11	[illegible]	18	[illegible]		[illegible]	[illegible]		[illegible]
12	5.00	18	[illegible]		[illegible]	[illegible]		[illegible]
13	[illegible]	18	[illegible]		[illegible]	[illegible]		[illegible]
14	[illegible]	18	[illegible]		[illegible]	[illegible]		[illegible]
15	[illegible]	18	[illegible]		[illegible]	[illegible]		[illegible]
16	[illegible]	18	[illegible]		[illegible]	[illegible]		[illegible]
17	5.00	18	0.53		[illegible]	30.45		799.7
18	5.00	18	0.53		30.45	31.56		818.7
19	5.00	18	0.51		31.56	32.68		837.7
20	[illegible]	18	0.51	4.83	32.68	34.33		1289.2
21	[illegible]	18	0.38		[illegible]	[illegible]		[illegible]
22	5.00	18	0.38		[illegible]	[illegible]		[illegible]
23	[illegible]	18	[illegible]		[illegible]	[illegible]		[illegible]
24	[illegible]	18	[illegible]		[illegible]	[illegible]		[illegible]
25	5.00	18	0.38		35.39	36.50		720.4
26	5.00	18	0.38		36.50	37.62		742.9
27	5.00	18	0.38		37.62	38.73		765.4
28	5.00	18	0.38		38.73	39.84		787.9
29	5.00	18	0.38		39.84	40.95		810.5
30	[illegible]	18	[illegible]		[illegible]	[illegible]		[illegible]
31	[illegible]	18	[illegible]		[illegible]	[illegible]		[illegible]
32	5.00	18	0.57		41.14	42.24		1245.6
33	9.30	18	0.57	6.08	42.23	44.30		2392.0
34	[illegible]	18	0.57		42.20	43.77		[illegible]
35	5.00	18	0.56		43.77	44.89		1299.6
36	5.00	18	0.56		44.89	46.00		1322.3
37	[illegible]	18	0.56		46.00	[illegible]		[illegible]
38	[illegible]	18	[illegible]		[illegible]	[illegible]		[illegible]
39	[illegible]	18	[illegible]		[illegible]	[illegible]		[illegible]
40	5.00	18	0.61		46.94	48.05		1500.5
41	5.00	18	0.61		48.05	49.16		1523.2
42	5.00	18	0.60		49.16	50.27		1545.9
43	5.00	18	0.60		50.27	51.38		1568.6
44	5.00	18	0.59		51.38	52.50		1591.3
45	5.00	18	0.59		52.50	53.61		1613.9
46	1.75	18	0.59		53.61	54.00		571.5
								32496.6



ALL REACTIONS ARE FACTORED

AXIAL 89356 lb

SHEAR 7745 lb

MOMENT 1054778 lb-ft

TORQUE 244 lb-ft
50 mph WIND - 1.50 in ICE

AXIAL 56600 lb

SHEAR 40407 lb

MOMENT 4814885 lb-ft

TORQUE 925 lb-ft
REACTIONS - 130 mph WIND

DESIGNED APPURTENANCE LOADING

TYPE	ELEVATION	TYPE	ELEVATION
DT465B-2XR w/ Mount Pipe	176	DC6-48-60-18-8F	167
DT465B-2XR w/ Mount Pipe	176	RRUS 8843 B2/B66A	167
DT465B-2XR w/ Mount Pipe	176	RRUS 8843 B2/B66A	167
APXVTM14-C-120 w/ Mount Pipe	176	RRUS 8843 B2/B66A	167
APXVTM14-C-120 w/ Mount Pipe	176	Platform Mount [LP 303-1]	167
APXVTM14-C-120 w/ Mount Pipe	176	ERICSSON AIR 21 B2A B4P	155
RRH2X50-800	176	ERICSSON AIR 21 B2A B4P	155
RRH2X50-800	176	ERICSSON AIR 21 B2A B4P	155
RRH2X50-800	176	APXVAARR24_43-U-NA20	155
TD-RRH8x20-25	176	APXVAARR24_43-U-NA20	155
TD-RRH8x20-25	176	APXVAARR24_43-U-NA20	155
TD-RRH8x20-25	176	AIR -32 B2A/B66AA	155
(6) ACU-A20-N	176	AIR -32 B2A/B66AA	155
(3) ACU-A20-N	176	AIR -32 B2A/B66AA	155
(2) 6' x 2" Mount Pipe	176	RADIO 4449 B12/B71	155
(2) 6' x 2" Mount Pipe	176	RADIO 4449 B12/B71	155
(2) 6' x 2" Mount Pipe	176	RADIO 4449 B12/B71	155
Platform Mount [LP 712-1]	176	KRY 112 144/1	155
800MHZ RRH	174	KRY 112 144/1	155
800MHZ RRH	174	KRY 112 144/1	155
800MHZ RRH	174	Platform Mount [LP 301-1]	155
PCS 1900MHz 4x45W-65MHz	174	(2) BXA-171063-12CF-EDIN-X w/ Mount Pipe	145
PCS 1900MHz 4x45W-65MHz	174	(2) BXA-171063-12CF-EDIN-X w/ Mount Pipe	145
PCS 1900MHz 4x45W-65MHz	174	(2) BXA-171063-12CF-EDIN-X w/ Mount Pipe	145
800 EXTERNAL NOTCH FILTER	174	(2) BXA-70063-6CF-EDIN-X w/ Mount Pipe	145
800 EXTERNAL NOTCH FILTER	174	(2) BXA-70063-6CF-EDIN-X w/ Mount Pipe	145
800 EXTERNAL NOTCH FILTER	174	(2) BXA-70063-6CF-EDIN-X w/ Mount Pipe	145
6' x 2" Mount Pipe	174	RRH2X40-07-U	145
6' x 2" Mount Pipe	174	RRH2X40-07-U	145
6' x 2" Mount Pipe	174	RRH2X40-07-U	145
Side Arm Mount [SO 102-3]	174	RRH2X40-AWS	145
7770.00 w/ Mount Pipe	167	RRH2X40-AWS	145
7770.00 w/ Mount Pipe	167	RRH2X40-AWS	145
7770.00 w/ Mount Pipe	167	DB-B1-6C-8AB-0Z	145
HPA65R-BU6A w/ Mount Pipe	167	Platform Mount [LP 303-1]	145
HPA65R-BU6A w/ Mount Pipe	167	KS24019-L112A	50
HPA65R-BU6A w/ Mount Pipe	167	3' x 2" Pipe Mount	50
80010965 w/ Mount Pipe	167	Side Arm Mount [SO 701-1]	50
80010965 w/ Mount Pipe	167	OG-860/1920/GPS-A	10
80010965 w/ Mount Pipe	167	3' x 2" Pipe Mount	10
(2) LGP21401	167	Side Arm Mount [SO 701-1]	10
(2) LGP21401	167		
(2) LGP21401	167		
RRUS 4449 B5/B12	167		
RRUS 4449 B5/B12	167		
RRUS 4449 B5/B12	167		
DC6-48-60-18-8F	167		

MATERIAL STRENGTH

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

TOWER DESIGN NOTES

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

Tower Engineering Professionals
326 Tryon Road
Raleigh, NC 27603
Phone: (919) 661-6351
FAX: (919) 661-6350
Tower Engineering Professionals

Job: **Ward (BU 876381)**			
Project: **TEP No. 51819.253731 - Rev. 1**			
Client: Crown Castle	Drawn by: Julie C. Ryland	App'd:	
Code: TIA-222-H	Date: 05/14/19	Scale: NTS	
Path: [illegible]		Dwg No. E-1	

Tower Input Data

The tower is a monopole.
This tower is designed using the TIA-222-H standard.
The following design criteria apply:

Tower is located in New Haven County, Connecticut.
Tower base elevation above sea level: 181.00 ft.
Basic wind speed of 130 mph.
Risk Category II.
Exposure Category B.
Simplified Topographic Factor Procedure for wind speed-up calculations is used.
Topographic Category: 1.
Crest Height: 0.00 ft.
Nominal ice thickness of 1.50 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	176.00-171.00	5.00	0.00	18	16.50	17.63	0.19	0.75	A572-65 (65 ksi)

Section	Elevation ft	Section Length ft	Splice Length ft	Number of Sides	Top Diameter in	Bottom Diameter in	Wall Thickness in	Bend Radius in	Pole Grade
L2	171.00-166.00	5.00	0.00	18	17.63	18.75	0.19	0.75	A572-65 (65 ksi)
L3	166.00-161.00	5.00	0.00	18	18.75	19.88	0.19	0.75	A572-65 (65 ksi)
L4	161.00-156.00	5.00	0.00	18	19.88	21.00	0.19	0.75	A572-65 (65 ksi)
L5	156.00-151.00	5.00	0.00	18	21.00	22.13	0.19	0.75	A572-65 (65 ksi)
L6	151.00-144.25	6.75	3.50	18	22.13	23.65	0.19	0.75	A572-65 (65 ksi)
L7	144.25-142.75	5.00	0.00	18	22.49	23.60	0.31	1.25	A572-65 (65 ksi)
L8	142.75-137.75	5.00	0.00	18	23.60	24.71	0.31	1.25	A572-65 (65 ksi)
L9	137.75-132.75	5.00	0.00	18	24.71	25.83	0.31	1.25	A572-65 (65 ksi)
L10	132.75-127.75	5.00	0.00	18	25.83	26.94	0.31	1.25	A572-65 (65 ksi)
L11	127.75-127.50	0.25	0.00	18	26.94	27.00	0.31	1.25	A572-65 (65 ksi)
L12	127.50-122.50	5.00	0.00	18	27.00	28.11	0.31	1.25	A572-65 (65 ksi)
L13	122.50-120.75	1.75	0.00	18	28.11	28.50	0.31	1.25	A572-65 (65 ksi)
L14	120.75-120.50	0.25	0.00	18	28.50	28.56	0.31	1.25	A572-65 (65 ksi)
L15	120.50-117.25	3.25	0.00	18	28.56	29.28	0.31	1.25	A572-65 (65 ksi)
L16	117.25-117.00	0.25	0.00	18	29.28	29.34	0.54	2.15	A572-65 (65 ksi)
L17	117.00-112.00	5.00	0.00	18	29.34	30.45	0.53	2.10	A572-65 (65 ksi)
L18	112.00-107.00	5.00	0.00	18	30.45	31.56	0.53	2.10	A572-65 (65 ksi)
L19	107.00-102.00	5.00	0.00	18	31.56	32.68	0.51	2.05	A572-65 (65 ksi)
L20	102.00-94.58	7.42	4.83	18	32.68	34.33	0.51	2.05	A572-65 (65 ksi)
L21	94.58-94.41	5.00	0.00	18	32.63	33.74	0.38	1.50	A572-65 (65 ksi)
L22	94.41-89.41	5.00	0.00	18	33.74	34.85	0.38	1.50	A572-65 (65 ksi)
L23	89.41-87.25	2.16	0.00	18	34.85	35.33	0.38	1.50	A572-65 (65 ksi)
L24	87.25-87.00	0.25	0.00	18	35.33	35.39	0.38	1.50	A572-65 (65 ksi)
L25	87.00-82.00	5.00	0.00	18	35.39	36.50	0.38	1.50	A572-65 (65 ksi)
L26	82.00-77.00	5.00	0.00	18	36.50	37.62	0.38	1.50	A572-65 (65 ksi)
L27	77.00-72.00	5.00	0.00	18	37.62	38.73	0.38	1.50	A572-65 (65 ksi)
L28	72.00-67.00	5.00	0.00	18	38.73	39.84	0.38	1.50	A572-65 (65 ksi)
L29	67.00-62.00	5.00	0.00	18	39.84	40.95	0.38	1.50	A572-65 (65 ksi)
L30	62.00-61.50	0.50	0.00	18	40.95	41.06	0.38	1.50	A572-65 (65 ksi)
L31	61.50-61.25	0.25	0.00	18	41.06	41.12	0.59	2.35	A572-65 (65 ksi)
L32	61.25-56.25	5.00	0.00	18	41.12	42.23	0.57	2.30	A572-65

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
									(65 ksi)
L33	56.25-46.95	9.30	6.08	18	42.23	44.30	0.57	2.30	A572-65 (65 ksi)
L34	46.95-45.95	7.08	0.00	18	42.20	43.77	0.57	2.30	A572-65 (65 ksi)
L35	45.95-40.95	5.00	0.00	18	43.77	44.89	0.56	2.25	A572-65 (65 ksi)
L36	40.95-35.95	5.00	0.00	18	44.89	46.00	0.56	2.25	A572-65 (65 ksi)
L37	35.95-32.25	3.70	0.00	18	46.00	46.82	0.56	2.25	A572-65 (65 ksi)
L38	32.25-32.00	0.25	0.00	18	46.82	46.88	0.78	3.10	A572-65 (65 ksi)
L39	32.00-31.75	0.25	0.00	18	46.88	46.93	0.61	2.45	A572-65 (65 ksi)
L40	31.75-26.75	5.00	0.00	18	46.93	48.05	0.61	2.45	A572-65 (65 ksi)
L41	26.75-21.75	5.00	0.00	18	48.05	49.16	0.61	2.45	A572-65 (65 ksi)
L42	21.75-16.75	5.00	0.00	18	49.16	50.27	0.60	2.40	A572-65 (65 ksi)
L43	16.75-11.75	5.00	0.00	18	50.27	51.38	0.60	2.40	A572-65 (65 ksi)
L44	11.75-6.75	5.00	0.00	18	51.38	52.50	0.59	2.35	A572-65 (65 ksi)
L45	6.75-1.75	5.00	0.00	18	52.50	53.61	0.59	2.35	A572-65 (65 ksi)
L46	1.75-0.00	1.75		18	53.61	54.00	0.59	2.35	A572-65 (65 ksi)

Tapered Pole Properties

Section	Tip Dia. in	Area in^2	I in^4	r in	C in	I/C in^3	J in^4	It/Q in^2	w in	w/t
L1	16.73	9.71	326.37	5.79	8.38	38.94	653.16	4.85	2.57	13.728
	17.87	10.38	398.72	6.19	8.95	44.53	797.97	5.19	2.77	14.785
L2	17.87	10.38	398.72	6.19	8.95	44.53	797.97	5.19	2.77	14.785
	19.01	11.05	481.05	6.59	9.53	50.50	962.74	5.53	2.97	15.842
L3	19.01	11.05	481.05	6.59	9.53	50.50	962.74	5.53	2.97	15.842
	20.16	11.72	574.00	6.99	10.10	56.84	1148.76	5.86	3.17	16.899
L4	20.16	11.72	574.00	6.99	10.10	56.84	1148.76	5.86	3.17	16.899
	21.30	12.39	678.21	7.39	10.67	63.56	1357.31	6.20	3.37	17.956
L5	21.30	12.39	678.21	7.39	10.67	63.56	1357.31	6.20	3.37	17.956
	22.44	13.06	794.33	7.79	11.24	70.66	1589.70	6.53	3.56	19.013
L6	22.44	13.06	794.33	7.79	11.24	70.66	1589.70	6.53	3.56	19.013
	23.99	13.96	971.11	8.33	12.01	80.83	1943.50	6.98	3.83	20.439
L7	23.58	21.99	1366.30	7.87	11.42	119.61	2734.39	11.00	3.41	10.905
	23.92	23.10	1582.68	8.27	11.99	132.01	3167.44	11.55	3.60	11.532
L8	23.92	23.10	1582.68	8.27	11.99	132.01	3167.44	11.55	3.60	11.532
	25.05	24.20	1820.77	8.66	12.55	145.03	3643.95	12.10	3.80	12.159
L9	25.05	24.20	1820.77	8.66	12.55	145.03	3643.95	12.10	3.80	12.159
	26.18	25.31	2081.63	9.06	13.12	158.65	4166.00	12.66	4.00	12.786
L10	26.18	25.31	2081.63	9.06	13.12	158.65	4166.00	12.66	4.00	12.786
	27.31	26.41	2366.28	9.45	13.69	172.89	4735.68	13.21	4.19	13.414
L11	27.31	26.41	2366.28	9.45	13.69	172.89	4735.68	13.21	4.19	13.414
	27.37	26.47	2381.16	9.47	13.71	173.62	4765.45	13.24	4.20	13.445
L12	27.37	26.47	2381.16	9.47	13.71	173.62	4765.45	13.24	4.20	13.445
	28.50	27.57	2691.91	9.87	14.28	188.50	5387.36	13.79	4.40	14.072
L13	28.50	27.57	2691.91	9.87	14.28	188.50	5387.36	13.79	4.40	14.072

Section	Tip Dia.	Area	I	r	C	I/C	J	It/Q	w	w/t
	in	in^2	in^4	in	in	in^3	in^4	in^2	in	
	28.89	27.96	2806.75	10.01	14.48	193.86	5617.18	13.98	4.47	14.292
L14	28.89	27.96	2806.75	10.01	14.48	193.86	5617.18	13.98	4.47	14.292
	28.95	28.01	2823.41	10.03	14.51	194.63	5650.54	14.01	4.48	14.323
L15	28.95	28.01	2823.41	10.03	14.51	194.63	5650.54	14.01	4.48	14.323
	29.68	28.73	3046.12	10.28	14.87	204.79	6096.25	14.37	4.60	14.731
L16	29.65	49.04	5118.19	10.20	14.87	344.09	10243.11	24.52	4.21	7.828
	29.71	49.13	5148.00	10.22	14.90	345.44	10302.76	24.57	4.22	7.846
L17	29.71	48.01	5034.82	10.23	14.90	337.85	10076.27	24.01	4.24	8.075
	30.84	49.87	5641.56	10.62	15.47	364.71	11290.54	24.94	4.44	8.448
L18	30.84	49.87	5641.56	10.62	15.47	364.71	11290.54	24.94	4.44	8.448
	31.97	51.72	6295.17	11.02	16.03	392.61	12598.63	25.87	4.63	8.821
L19	31.97	50.51	6152.72	11.02	16.03	383.72	12313.53	25.26	4.65	9.079
	33.10	52.32	6838.79	11.42	16.60	411.97	13686.57	26.17	4.85	9.462
L20	33.10	52.32	6838.79	11.42	16.60	411.97	13686.57	26.17	4.85	9.462
	34.78	55.01	7948.09	12.01	17.44	455.75	15906.64	27.51	5.14	10.029
L21	34.17	38.39	5045.52	11.45	16.58	304.40	10097.67	19.20	5.08	13.554
	34.20	39.71	5585.79	11.84	17.14	325.88	11178.93	19.86	5.28	14.076
L22	34.20	39.71	5585.79	11.84	17.14	325.88	11178.93	19.86	5.28	14.076
	35.33	41.04	6163.31	12.24	17.71	348.10	12334.74	20.52	5.47	14.598
L23	35.33	41.04	6163.31	12.24	17.71	348.10	12334.74	20.52	5.47	14.598
	35.82	41.61	6425.01	12.41	17.95	357.94	12858.47	20.81	5.56	14.824
L24	35.82	41.61	6425.01	12.41	17.95	357.94	12858.47	20.81	5.56	14.824
	35.88	41.68	6455.72	12.43	17.98	359.09	12919.94	20.84	5.57	14.85
L25	35.88	41.68	6455.72	12.43	17.98	359.09	12919.94	20.84	5.57	14.85
	37.01	43.00	7090.76	12.83	18.54	382.39	14190.86	21.50	5.76	15.372
L26	37.01	43.00	7090.76	12.83	18.54	382.39	14190.86	21.50	5.76	15.372
	38.14	44.32	7766.14	13.22	19.11	406.43	15542.51	22.17	5.96	15.894
L27	38.14	44.32	7766.14	13.22	19.11	406.43	15542.51	22.17	5.96	15.894
	39.27	45.65	8483.10	13.62	19.67	431.19	16977.37	22.83	6.16	16.416
L28	39.27	45.65	8483.10	13.62	19.67	431.19	16977.37	22.83	6.16	16.416
	40.40	46.97	9242.88	14.01	20.24	456.69	18497.93	23.49	6.35	16.938
L29	40.40	46.97	9242.88	14.01	20.24	456.69	18497.93	23.49	6.35	16.938
	41.53	48.30	10046.73	14.40	20.80	482.93	20106.67	24.15	6.55	17.46
L30	41.53	48.30	10046.73	14.40	20.80	482.93	20106.67	24.15	6.55	17.46
	41.64	48.43	10129.58	14.44	20.86	485.59	20272.49	24.22	6.57	17.512
L31	41.61	75.48	15622.33	14.37	20.86	748.90	31265.22	37.75	6.19	10.542
	41.66	75.58	15686.82	14.39	20.89	750.98	31394.28	37.80	6.20	10.558
L32	41.66	74.00	15367.27	14.39	20.89	735.68	30754.76	37.00	6.22	10.826
	42.79	76.03	16667.20	14.79	21.45	776.89	33356.33	38.02	6.42	11.167
L33	42.79	76.03	16667.20	14.79	21.45	776.89	33356.33	38.02	6.42	11.167
	44.89	79.80	19275.32	15.52	22.50	856.51	38576.01	39.91	6.78	11.8
L34	44.13	75.96	16625.30	14.78	21.44	775.58	33272.47	37.99	6.41	11.156
	44.36	78.84	18586.71	15.34	22.24	835.86	37197.88	39.43	6.69	11.638
L35	44.36	77.15	18198.44	15.34	22.24	818.40	36420.82	38.58	6.71	11.936
	45.49	79.13	19640.91	15.73	22.80	861.37	39307.67	39.57	6.91	12.284
L36	45.49	79.13	19640.91	15.73	22.80	861.37	39307.67	39.57	6.91	12.284
	46.62	81.12	21157.66	16.13	23.37	905.44	42343.17	40.57	7.11	12.632
L37	46.62	81.12	21157.66	16.13	23.37	905.44	42343.17	40.57	7.11	12.632
	47.46	82.59	22329.94	16.42	23.79	938.79	44689.27	41.30	7.25	12.89
L38	47.43	113.27	30343.67	16.35	23.79	1275.70	60727.27	56.65	6.88	8.873
	47.48	113.41	30453.79	16.37	23.81	1278.81	60947.66	56.71	6.89	8.886
L39	47.51	89.94	24323.72	16.42	23.81	1021.40	48679.44	44.98	7.17	11.71
	47.56	90.05	24411.58	16.44	23.84	1023.87	48855.28	45.03	7.18	11.726
L40	47.56	90.05	24411.58	16.44	23.84	1023.87	48855.28	45.03	7.18	11.726
	48.69	92.22	26213.48	16.84	24.41	1073.98	52461.46	46.12	7.38	12.046
L41	48.69	92.22	26213.48	16.84	24.41	1073.98	52461.46	46.12	7.38	12.046
	49.82	94.38	28101.94	17.23	24.97	1125.29	56240.87	47.20	7.57	12.366
L42	49.83	92.48	27549.71	17.24	24.97	1103.18	55135.66	46.25	7.60	12.66
	50.96	94.60	29487.39	17.63	25.54	1154.63	59013.59	47.31	7.79	12.987
L43	50.96	94.60	29487.39	17.63	25.54	1154.63	59013.59	47.31	7.79	12.987
	52.09	96.71	31513.87	18.03	26.10	1207.26	63069.21	48.37	7.99	13.313
L44	52.09	94.72	30880.12	18.03	26.10	1182.98	61800.88	47.37	8.01	13.634

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
	53.22	96.80	32954.28	18.43	26.67	1235.68	65951.93	48.41	8.21	13.967
L45	53.22	96.80	32954.28	18.43	26.67	1235.68	65951.93	48.41	8.21	13.967
	54.35	98.87	35119.30	18.82	27.23	1289.53	70284.82	49.45	8.40	14.3
L46	54.35	98.87	35119.30	18.82	27.23	1289.53	70284.82	49.45	8.40	14.3
	54.74	99.60	35898.89	18.96	27.43	1308.65	71845.01	49.81	8.47	14.417

Tower Elevation ft	Gusset Area (per face) ft^2	Gusset Thickness in	Gusset Grade	Adjust. Factor A_f	Adjust. Factor A_r	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals in	Double Angle Stitch Bolt Spacing Horizontals in	Double Angle Stitch Bolt Spacing Redundants in
L1 176.00-171.00				1	1	1			
L2 171.00-166.00				1	1	1			
L3 166.00-161.00				1	1	1			
L4 161.00-156.00				1	1	1			
L5 156.00-151.00				1	1	1			
L6 151.00-144.25				1	1	1			
L7 144.25-142.75				1	1	1			
L8 142.75-137.75				1	1	1			
L9 137.75-132.75				1	1	1			
L10 132.75-127.75				1	1	1			
L11 127.75-127.50				1	1	1			
L12 127.50-122.50				1	1	1			
L13 122.50-120.75				1	1	1			
L14 120.75-120.50				1	1	1			
L15 120.50-117.25				1	1	1			
L16 117.25-117.00				1	1	0.952317			
L17 117.00-112.00				1	1	0.960451			
L18 112.00-107.00				1	1	0.947346			
L19 107.00-102.00				1	1	0.957586			
L20 102.00-94.58				1	1	0.951464			
L21 94.58-94.41				1	1	1			
L22 94.41-89.41				1	1	1			
L23 89.41-87.25				1	1	1			
L24 87.25-87.00				1	1	1			
L25 87.00-82.00				1	1	1			
L26 82.00-77.00				1	1	1			
L27 77.00-72.00				1	1	1			
L28 72.00-67.00				1	1	1			
L29 67.00-62.00				1	1	1			
L30 62.00-61.50				1	1	1			
L31 61.50-61.25				1	1	0.96416			
L32 61.25-56.25				1	1	0.975934			
L33 56.25-46.95				1	1	0.97047			
L34 46.95-45.95				1	1	0.964381			
L35 45.95-40.95				1	1	0.977521			
L36 40.95-35.95				1	1	0.969908			
L37 35.95-32.25				1	1	0.964506			
L38 32.25-32.00				1	1	0.989599			
L39 32.00-31.75				1	1	0.976298			
L40 31.75-26.75				1	1	0.967758			
L41 26.75-21.75				1	1	0.959609			
L42 21.75-16.75				1	1	0.971411			
L43 16.75-11.75				1	1	0.96382			
L44 11.75-6.75				1	1	0.976672			
L45 6.75-1.75				1	1	0.969571			
L46 1.75-0.00				1	1	0.967156			

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
Safety Line 3/8	A	No	Surface Ar (CaAa)	176.00 - 0.00	1	1	-0.250 -0.250	0.38		0
155										
LDF7-50A(1-5/8")	C	No	Surface Ar (CaAa)	155.00 - 0.00	3	3	0.000 0.000	1.98		1
***Mods**										
(Area) CCI-65FP-065125 (H)	A	No	Surface Af (CaAa)	35.00 - 0.00	1	1	0.000 0.000	6.50	15.50	0
(Area) CCI-65FP-065125 (H)	B	No	Surface Af (CaAa)	35.00 - 0.00	1	1	0.000 0.000	6.50	15.50	0
(Area) CCI-65FP-065125 (H)	B	No	Surface Af (CaAa)	35.00 - 0.00	1	1	0.500 0.500	6.50	15.50	0
(Area) CCI-65FP-065125 (H)	C	No	Surface Af (CaAa)	35.00 - 0.00	1	1	0.500 0.500	6.50	15.50	0
*****										
(Area) CCI-65FP-065125 (H)	A	No	Surface Af (CaAa)	64.25 - 29.25	1	1	0.000 0.000	6.50	15.50	0
(Area) CCI-65FP-065125 (H)	B	No	Surface Af (CaAa)	64.25 - 29.25	1	1	0.000 0.000	6.50	15.50	0
(Area) CCI-65FP-065125 (H)	C	No	Surface Af (CaAa)	64.25 - 29.25	1	1	0.000 0.000	6.50	15.50	0
*****										
(Area) CCI-65FP-060100 (H)	A	No	Surface Af (CaAa)	89.25 - 64.25	1	1	0.000 0.000	6.00	14.00	0
(Area) CCI-65FP-060100 (H)	B	No	Surface Af (CaAa)	89.25 - 64.25	1	1	0.000 0.000	6.00	14.00	0
(Area) CCI-65FP-060100 (H)	C	No	Surface Af (CaAa)	89.25 - 64.25	1	1	0.000 0.000	6.00	14.00	0
*****										
(Area) CCI-65FP-060100 (H)	A	No	Surface Af (CaAa)	119.25 - 89.25	1	1	0.000 0.000	6.00	14.00	0
(Area) CCI-65FP-060100 (H)	B	No	Surface Af (CaAa)	119.25 - 89.25	1	1	0.000 0.000	6.00	14.00	0
(Area) CCI-65FP-060100 (H)	C	No	Surface Af (CaAa)	119.25 - 89.25	1	1	0.000 0.000	6.00	14.00	0
*****										
(Area) CCI-65FP-045100 (H)	A	No	Surface Af (CaAa)	129.25 - 119.25	1	1	0.000 0.000	4.50	11.00	0
(Area) CCI-65FP-045100 (H)	B	No	Surface Af (CaAa)	129.25 - 119.25	1	1	0.000 0.000	4.50	11.00	0
(Area) CCI-65FP-045100 (H)	C	No	Surface Af (CaAa)	129.25 - 119.25	1	1	0.000 0.000	4.50	11.00	0
*****										

Feed Line/Linear Appurtenances - Entered As Area

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Total Number		C_AA_A ft^2/ft	Weight plf
176									
HB114-21U3M12-XXXF(1-1/4)	C	No	No	Inside Pole	176.00 - 0.00	1	No Ice	0.00	1
							1/2" Ice	0.00	1
							1" Ice	0.00	1
							2" Ice	0.00	1
HYBRIFLEX RRH 1-SECTOR(1/2)	C	No	No	Inside Pole	176.00 - 0.00	3	No Ice	0.00	0
							1/2" Ice	0.00	0
							1" Ice	0.00	0
							2" Ice	0.00	0
174									

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Total Number		C_AA_A ft^2/ft	Weight plf
167									
WR-VG86ST-BRD(3/4)	B	No	No	Inside Pole	167.00 - 0.00	2	No Ice	0.00	1
							1/2" Ice	0.00	1
							1" Ice	0.00	1
							2" Ice	0.00	1
LDF7-50A(1-5/8")	B	No	No	Inside Pole	167.00 - 0.00	12	No Ice	0.00	1
							1/2" Ice	0.00	1
							1" Ice	0.00	1
							2" Ice	0.00	1
FB-L98B-002-75000 (3/8")	B	No	No	Inside Pole	167.00 - 0.00	2	No Ice	0.00	0
							1/2" Ice	0.00	0
							1" Ice	0.00	0
							2" Ice	0.00	0
WR-VG122ST-BRD A(7/16)	B	No	No	Inside Pole	167.00 - 0.00	2	No Ice	0.00	0
							1/2" Ice	0.00	0
							1" Ice	0.00	0
							2" Ice	0.00	0
2" Flexible Conduit	B	No	No	Inside Pole	167.00 - 0.00	1	No Ice	0.00	0
							1/2" Ice	0.00	0
							1" Ice	0.00	0
							2" Ice	0.00	0
LDF7-50A(1-5/8")	C	No	No	Inside Pole	155.00 - 0.00	10	No Ice	0.00	1
							1/2" Ice	0.00	1
							1" Ice	0.00	1
							2" Ice	0.00	1
145									
MLE Hybrid 3Power/6Fiber RL 2(1 1/4")	C	No	No	Inside Pole	145.00 - 0.00	2	No Ice	0.00	1
							1/2" Ice	0.00	1
							1" Ice	0.00	1
							2" Ice	0.00	1
50									
LDF4P-50A(1/2")	C	No	No	CaAa (Out Of Face)	50.00 - 0.00	1	No Ice	0.00	0
							1/2" Ice	0.00	1
							1" Ice	0.00	2
							2" Ice	0.00	7
10									
LDF1-50A(1/4)	C	No	No	Inside Pole	10.00 - 0.00	1	No Ice	0.00	0
							1/2" Ice	0.00	0
							1" Ice	0.00	0
							2" Ice	0.00	0
*****									

Feed Line/Linear Appurtenances Section Areas

Tower Section	Tower Elevation ft	Face	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight lb
L1	176.00-171.00	A	0.000	0.000	0.188	0.000	1
		B	0.000	0.000	0.000	0.000	0
		C	0.000	0.000	0.000	0.000	8
L2	171.00-166.00	A	0.000	0.000	0.188	0.000	1
		B	0.000	0.000	0.000	0.000	12
		C	0.000	0.000	0.000	0.000	8
L3	166.00-161.00	A	0.000	0.000	0.188	0.000	1
		B	0.000	0.000	0.000	0.000	59
		C	0.000	0.000	0.000	0.000	8
L4	161.00-156.00	A	0.000	0.000	0.188	0.000	1
		B	0.000	0.000	0.000	0.000	59
		C	0.000	0.000	0.000	0.000	8
L5	156.00-151.00	A	0.000	0.000	0.188	0.000	1
		B	0.000	0.000	0.000	0.000	59

Tower Section	Tower Elevation ft	Face	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight lb
		C	0.000	0.000	2.376	0.000	51
L6	151.00-144.25	A	0.000	0.000	0.253	0.000	1
		B	0.000	0.000	0.000	0.000	79
		C	0.000	0.000	4.010	0.000	84
L7	144.25-142.75	A	0.000	0.000	0.056	0.000	0
		B	0.000	0.000	0.000	0.000	18
		C	0.000	0.000	0.891	0.000	21
L8	142.75-137.75	A	0.000	0.000	0.188	0.000	1
		B	0.000	0.000	0.000	0.000	59
		C	0.000	0.000	2.970	0.000	68
L9	137.75-132.75	A	0.000	0.000	0.188	0.000	1
		B	0.000	0.000	0.000	0.000	59
		C	0.000	0.000	2.970	0.000	68
L10	132.75-127.75	A	0.000	0.000	1.313	0.000	1
		B	0.000	0.000	1.125	0.000	59
		C	0.000	0.000	4.095	0.000	68
L11	127.75-127.50	A	0.000	0.000	0.197	0.000	0
		B	0.000	0.000	0.188	0.000	3
		C	0.000	0.000	0.336	0.000	3
L12	127.50-122.50	A	0.000	0.000	3.938	0.000	1
		B	0.000	0.000	3.750	0.000	59
		C	0.000	0.000	6.720	0.000	68
L13	122.50-120.75	A	0.000	0.000	1.378	0.000	0
		B	0.000	0.000	1.313	0.000	21
		C	0.000	0.000	2.352	0.000	24
L14	120.75-120.50	A	0.000	0.000	0.197	0.000	0
		B	0.000	0.000	0.188	0.000	3
		C	0.000	0.000	0.336	0.000	3
L15	120.50-117.25	A	0.000	0.000	3.059	0.000	1
		B	0.000	0.000	2.938	0.000	38
		C	0.000	0.000	4.868	0.000	44
L16	117.25-117.00	A	0.000	0.000	0.259	0.000	0
		B	0.000	0.000	0.250	0.000	3
		C	0.000	0.000	0.399	0.000	3
L17	117.00-112.00	A	0.000	0.000	5.188	0.000	1
		B	0.000	0.000	5.000	0.000	59
		C	0.000	0.000	7.970	0.000	68
L18	112.00-107.00	A	0.000	0.000	5.188	0.000	1
		B	0.000	0.000	5.000	0.000	59
		C	0.000	0.000	7.970	0.000	68
L19	107.00-102.00	A	0.000	0.000	5.188	0.000	1
		B	0.000	0.000	5.000	0.000	59
		C	0.000	0.000	7.970	0.000	68
L20	102.00-94.58	A	0.000	0.000	7.698	0.000	2
		B	0.000	0.000	7.420	0.000	87
		C	0.000	0.000	11.827	0.000	102
L21	94.58-94.41	A	0.000	0.000	0.173	0.000	0
		B	0.000	0.000	0.167	0.000	2
		C	0.000	0.000	0.266	0.000	2
L22	94.41-89.41	A	0.000	0.000	5.188	0.000	1
		B	0.000	0.000	5.000	0.000	59
		C	0.000	0.000	7.970	0.000	68
L23	89.41-87.25	A	0.000	0.000	2.244	0.000	0
		B	0.000	0.000	2.163	0.000	25
		C	0.000	0.000	3.448	0.000	30
L24	87.25-87.00	A	0.000	0.000	0.259	0.000	0
		B	0.000	0.000	0.250	0.000	3
		C	0.000	0.000	0.399	0.000	3
L25	87.00-82.00	A	0.000	0.000	5.188	0.000	1
		B	0.000	0.000	5.000	0.000	59
		C	0.000	0.000	7.970	0.000	68
L26	82.00-77.00	A	0.000	0.000	5.188	0.000	1

Tower Section	Tower Elevation ft	Face	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight lb
		B	0.000	0.000	5.000	0.000	59
		C	0.000	0.000	7.970	0.000	68
L27	77.00-72.00	A	0.000	0.000	5.188	0.000	1
		B	0.000	0.000	5.000	0.000	59
		C	0.000	0.000	7.970	0.000	68
L28	72.00-67.00	A	0.000	0.000	5.188	0.000	1
		B	0.000	0.000	5.000	0.000	59
		C	0.000	0.000	7.970	0.000	68
L29	67.00-62.00	A	0.000	0.000	5.375	0.000	1
		B	0.000	0.000	5.188	0.000	59
		C	0.000	0.000	8.158	0.000	68
L30	62.00-61.50	A	0.000	0.000	0.560	0.000	0
		B	0.000	0.000	0.542	0.000	6
		C	0.000	0.000	0.839	0.000	7
L31	61.50-61.25	A	0.000	0.000	0.280	0.000	0
		B	0.000	0.000	0.271	0.000	3
		C	0.000	0.000	0.419	0.000	3
L32	61.25-56.25	A	0.000	0.000	5.604	0.000	1
		B	0.000	0.000	5.417	0.000	59
		C	0.000	0.000	8.387	0.000	68
L33	56.25-46.95	A	0.000	0.000	10.420	0.000	2
		B	0.000	0.000	10.072	0.000	109
		C	0.000	0.000	15.594	0.000	128
L34	46.95-45.95	A	0.000	0.000	1.121	0.000	0
		B	0.000	0.000	1.083	0.000	12
		C	0.000	0.000	1.677	0.000	14
L35	45.95-40.95	A	0.000	0.000	5.604	0.000	1
		B	0.000	0.000	5.417	0.000	59
		C	0.000	0.000	8.387	0.000	69
L36	40.95-35.95	A	0.000	0.000	5.604	0.000	1
		B	0.000	0.000	5.417	0.000	59
		C	0.000	0.000	8.387	0.000	69
L37	35.95-32.25	A	0.000	0.000	7.130	0.000	1
		B	0.000	0.000	9.970	0.000	43
		C	0.000	0.000	9.190	0.000	51
L38	32.25-32.00	A	0.000	0.000	0.551	0.000	0
		B	0.000	0.000	0.813	0.000	3
		C	0.000	0.000	0.690	0.000	3
L39	32.00-31.75	A	0.000	0.000	0.551	0.000	0
		B	0.000	0.000	0.813	0.000	3
		C	0.000	0.000	0.690	0.000	3
L40	31.75-26.75	A	0.000	0.000	8.313	0.000	1
		B	0.000	0.000	13.542	0.000	59
		C	0.000	0.000	11.095	0.000	69
L41	26.75-21.75	A	0.000	0.000	5.604	0.000	1
		B	0.000	0.000	10.833	0.000	59
		C	0.000	0.000	8.387	0.000	69
L42	21.75-16.75	A	0.000	0.000	5.604	0.000	1
		B	0.000	0.000	10.833	0.000	59
		C	0.000	0.000	8.387	0.000	69
L43	16.75-11.75	A	0.000	0.000	5.604	0.000	1
		B	0.000	0.000	10.833	0.000	59
		C	0.000	0.000	8.387	0.000	69
L44	11.75-6.75	A	0.000	0.000	5.604	0.000	1
		B	0.000	0.000	10.833	0.000	59
		C	0.000	0.000	8.387	0.000	69
L45	6.75-1.75	A	0.000	0.000	5.604	0.000	1
		B	0.000	0.000	10.833	0.000	59
		C	0.000	0.000	8.387	0.000	70
L46	1.75-0.00	A	0.000	0.000	1.961	0.000	0
		B	0.000	0.000	3.792	0.000	21
		C	0.000	0.000	2.935	0.000	24

Feed Line/Linear Appurtenances Section Areas - With Ice

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight lb
L1	176.00-171.00	A	1.505	0.000	0.000	1.693	0.000	18
		B		0.000	0.000	0.000	0.000	0
		C		0.000	0.000	0.000	0.000	8
L2	171.00-166.00	A	1.501	0.000	0.000	1.688	0.000	18
		B		0.000	0.000	0.000	0.000	12
		C		0.000	0.000	0.000	0.000	8
L3	166.00-161.00	A	1.496	0.000	0.000	1.684	0.000	18
		B		0.000	0.000	0.000	0.000	59
		C		0.000	0.000	0.000	0.000	8
L4	161.00-156.00	A	1.492	0.000	0.000	1.679	0.000	18
		B		0.000	0.000	0.000	0.000	59
		C		0.000	0.000	0.000	0.000	8
L5	156.00-151.00	A	1.487	0.000	0.000	1.674	0.000	18
		B		0.000	0.000	0.000	0.000	59
		C		0.000	0.000	4.457	0.000	97
L6	151.00-144.25	A	1.481	0.000	0.000	2.253	0.000	24
		B		0.000	0.000	0.000	0.000	79
		C		0.000	0.000	7.511	0.000	162
L7	144.25-142.75	A	1.477	0.000	0.000	0.501	0.000	5
		B		0.000	0.000	0.000	0.000	18
		C		0.000	0.000	1.669	0.000	38
L8	142.75-137.75	A	1.473	0.000	0.000	1.661	0.000	18
		B		0.000	0.000	0.000	0.000	59
		C		0.000	0.000	5.554	0.000	125
L9	137.75-132.75	A	1.468	0.000	0.000	1.656	0.000	18
		B		0.000	0.000	0.000	0.000	59
		C		0.000	0.000	5.548	0.000	125
L10	132.75-127.75	A	1.463	0.000	0.000	3.023	0.000	32
		B		0.000	0.000	1.373	0.000	73
		C		0.000	0.000	6.914	0.000	139
L11	127.75-127.50	A	1.460	0.000	0.000	0.311	0.000	3
		B		0.000	0.000	0.229	0.000	5
		C		0.000	0.000	0.506	0.000	9
L12	127.50-122.50	A	1.457	0.000	0.000	6.218	0.000	64
		B		0.000	0.000	4.574	0.000	106
		C		0.000	0.000	10.107	0.000	172
L13	122.50-120.75	A	1.453	0.000	0.000	2.174	0.000	22
		B		0.000	0.000	1.600	0.000	37
		C		0.000	0.000	3.535	0.000	60
L14	120.75-120.50	A	1.451	0.000	0.000	0.311	0.000	3
		B		0.000	0.000	0.229	0.000	5
		C		0.000	0.000	0.505	0.000	9
L15	120.50-117.25	A	1.449	0.000	0.000	4.786	0.000	45
		B		0.000	0.000	3.722	0.000	72
		C		0.000	0.000	7.313	0.000	114
L16	117.25-117.00	A	1.447	0.000	0.000	0.404	0.000	4
		B		0.000	0.000	0.322	0.000	6
		C		0.000	0.000	0.598	0.000	9
L17	117.00-112.00	A	1.444	0.000	0.000	8.075	0.000	72
		B		0.000	0.000	6.444	0.000	113
		C		0.000	0.000	11.961	0.000	179
L18	112.00-107.00	A	1.437	0.000	0.000	8.062	0.000	71
		B		0.000	0.000	6.437	0.000	113
		C		0.000	0.000	11.947	0.000	178
L19	107.00-102.00	A	1.431	0.000	0.000	8.049	0.000	71
		B		0.000	0.000	6.431	0.000	113
		C		0.000	0.000	11.932	0.000	178

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight lb
L20	102.00-94.58	A	1.422	0.000	0.000	11.919	0.000	104
		B		0.000	0.000	9.530	0.000	167
		C		0.000	0.000	17.677	0.000	262
L21	94.58-94.41	A	1.416	0.000	0.000	0.268	0.000	2
		B		0.000	0.000	0.214	0.000	4
		C		0.000	0.000	0.398	0.000	6
L22	94.41-89.41	A	1.413	0.000	0.000	8.013	0.000	70
		B		0.000	0.000	6.413	0.000	112
		C		0.000	0.000	11.891	0.000	176
L23	89.41-87.25	A	1.407	0.000	0.000	3.461	0.000	30
		B		0.000	0.000	2.772	0.000	48
		C		0.000	0.000	5.138	0.000	76
L24	87.25-87.00	A	1.405	0.000	0.000	0.400	0.000	3
		B		0.000	0.000	0.320	0.000	6
		C		0.000	0.000	0.594	0.000	9
L25	87.00-82.00	A	1.401	0.000	0.000	7.989	0.000	69
		B		0.000	0.000	6.401	0.000	111
		C		0.000	0.000	11.864	0.000	175
L26	82.00-77.00	A	1.392	0.000	0.000	7.972	0.000	68
		B		0.000	0.000	6.392	0.000	111
		C		0.000	0.000	11.845	0.000	174
L27	77.00-72.00	A	1.383	0.000	0.000	7.954	0.000	68
		B		0.000	0.000	6.383	0.000	110
		C		0.000	0.000	11.825	0.000	173
L28	72.00-67.00	A	1.374	0.000	0.000	7.935	0.000	67
		B		0.000	0.000	6.374	0.000	110
		C		0.000	0.000	11.803	0.000	172
L29	67.00-62.00	A	1.363	0.000	0.000	8.102	0.000	68
		B		0.000	0.000	6.551	0.000	111
		C		0.000	0.000	11.968	0.000	173
L30	62.00-61.50	A	1.357	0.000	0.000	0.832	0.000	7
		B		0.000	0.000	0.677	0.000	11
		C		0.000	0.000	1.218	0.000	17
L31	61.50-61.25	A	1.357	0.000	0.000	0.416	0.000	3
		B		0.000	0.000	0.339	0.000	6
		C		0.000	0.000	0.609	0.000	9
L32	61.25-56.25	A	1.351	0.000	0.000	8.306	0.000	69
		B		0.000	0.000	6.767	0.000	113
		C		0.000	0.000	12.168	0.000	174
L33	56.25-46.95	A	1.333	0.000	0.000	15.378	0.000	127
		B		0.000	0.000	12.551	0.000	208
		C		0.000	0.000	22.552	0.000	332
L34	46.95-45.95	A	1.319	0.000	0.000	1.654	0.000	14
		B		0.000	0.000	1.350	0.000	22
		C		0.000	0.000	2.426	0.000	38
L35	45.95-40.95	A	1.311	0.000	0.000	8.225	0.000	67
		B		0.000	0.000	6.727	0.000	111
		C		0.000	0.000	12.078	0.000	188
L36	40.95-35.95	A	1.295	0.000	0.000	8.193	0.000	66
		B		0.000	0.000	6.711	0.000	110
		C		0.000	0.000	12.042	0.000	186
L37	35.95-32.25	A	1.279	0.000	0.000	9.728	0.000	76
		B		0.000	0.000	12.324	0.000	137
		C		0.000	0.000	12.575	0.000	164
L38	32.25-32.00	A	1.272	0.000	0.000	0.742	0.000	6
		B		0.000	0.000	1.003	0.000	10
		C		0.000	0.000	0.934	0.000	12
L39	32.00-31.75	A	1.271	0.000	0.000	0.742	0.000	6
		B		0.000	0.000	1.003	0.000	10
		C		0.000	0.000	0.934	0.000	12
L40	31.75-26.75	A	1.260	0.000	0.000	11.462	0.000	88

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight lb
		B		0.000	0.000	16.691	0.000	183
		C		0.000	0.000	15.302	0.000	207
L41	26.75-21.75	A	1.236	0.000	0.000	8.077	0.000	62
		B		0.000	0.000	13.306	0.000	156
		C		0.000	0.000	11.911	0.000	180
L42	21.75-16.75	A	1.208	0.000	0.000	8.020	0.000	60
		B		0.000	0.000	13.249	0.000	153
		C		0.000	0.000	11.847	0.000	176
L43	16.75-11.75	A	1.172	0.000	0.000	7.949	0.000	58
		B		0.000	0.000	13.178	0.000	150
		C		0.000	0.000	11.767	0.000	172
L44	11.75-6.75	A	1.123	0.000	0.000	7.849	0.000	54
		B		0.000	0.000	13.079	0.000	145
		C		0.000	0.000	11.655	0.000	167
L45	6.75-1.75	A	1.039	0.000	0.000	7.681	0.000	49
		B		0.000	0.000	12.910	0.000	137
		C		0.000	0.000	11.466	0.000	158
L46	1.75-0.00	A	0.887	0.000	0.000	2.582	0.000	14
		B		0.000	0.000	4.412	0.000	43
		C		0.000	0.000	3.894	0.000	50

Feed Line Center of Pressure

Section	Elevation ft	CP_X in	CP_Z in	CP_X Ice in	CP_Z Ice in
L1	176.00-171.00	-0.30	0.00	-1.25	0.00
L2	171.00-166.00	-0.30	0.00	-1.26	0.00
L3	166.00-161.00	-0.30	0.00	-1.28	0.00
L4	161.00-156.00	-0.30	0.00	-1.29	0.00
L5	156.00-151.00	-0.22	3.05	-0.87	2.51
L6	151.00-144.25	-0.21	3.61	-0.83	2.96
L7	144.25-142.75	-0.22	3.64	-0.84	2.99
L8	142.75-137.75	-0.22	3.66	-0.85	3.02
L9	137.75-132.75	-0.22	3.70	-0.86	3.08
L10	132.75-127.75	-0.17	2.87	-0.76	2.69
L11	127.75-127.50	-0.11	1.89	-0.58	2.05
L12	127.50-122.50	-0.11	1.91	-0.58	2.07
L13	122.50-120.75	-0.12	1.94	-0.59	2.11
L14	120.75-120.50	-0.12	1.95	-0.59	2.12
L15	120.50-117.25	-0.11	1.79	-0.55	1.96
L16	117.25-117.00	-0.08	1.41	-0.53	1.88
L17	117.00-112.00	-0.10	1.73	-0.54	1.91
L18	112.00-107.00	-0.11	1.77	-0.55	1.95
L19	107.00-102.00	-0.11	1.81	-0.56	1.99
L20	102.00-94.58	-0.11	1.85	-0.57	2.04
L21	94.58-94.41	-0.11	1.86	-0.57	2.05
L22	94.41-89.41	-0.11	1.87	-0.58	2.07
L23	89.41-87.25	-0.11	1.90	-0.58	2.09
L24	87.25-87.00	-0.12	1.91	-0.59	2.10
L25	87.00-82.00	-0.12	1.93	-0.59	2.12
L26	82.00-77.00	-0.12	1.96	-0.60	2.16
L27	77.00-72.00	-0.12	1.99	-0.61	2.19
L28	72.00-67.00	-0.12	2.02	-0.61	2.22
L29	67.00-62.00	-0.12	2.02	-0.62	2.23
L30	62.00-61.50	-0.12	1.99	-0.61	2.22
L31	61.50-61.25	-0.12	1.99	-0.61	2.22
L32	61.25-56.25	-0.12	2.01	-0.61	2.24
L33	56.25-46.95	-0.12	2.05	-0.62	2.28
L34	46.95-45.95	-0.13	2.06	-0.63	2.29

Section	Elevation ft	CP_X in	CP_Z in	CP_X Ice in	CP_Z Ice in
L35	45.95-40.95	-0.13	2.08	-0.62	2.31
L36	40.95-35.95	-0.13	2.11	-0.63	2.34
L37	35.95-32.25	-1.63	1.20	-1.99	1.70
L38	32.25-32.00	-1.98	1.09	-2.30	1.56
L39	32.00-31.75	-1.98	1.09	-2.30	1.56
L40	31.75-26.75	-2.29	1.27	-2.66	1.80
L41	26.75-21.75	-2.73	1.50	-3.15	2.13
L42	21.75-16.75	-2.76	1.52	-3.18	2.15
L43	16.75-11.75	-2.79	1.54	-3.21	2.17
L44	11.75-6.75	-2.82	1.55	-3.24	2.19
L45	6.75-1.75	-2.86	1.57	-3.24	2.19
L46	1.75-0.00	-2.88	1.58	-3.21	2.17

Note: For pole sections, center of pressure calculations do not consider feed line shielding.

Shielding Factor Ka

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
L1	2	Safety Line 3/8	171.00 - 176.00	1.0000	1.0000
L2	2	Safety Line 3/8	166.00 - 171.00	1.0000	1.0000
L3	2	Safety Line 3/8	161.00 - 166.00	1.0000	1.0000
L4	2	Safety Line 3/8	156.00 - 161.00	1.0000	1.0000
L5	2	Safety Line 3/8	151.00 - 156.00	1.0000	1.0000
L5	15	LDF7-50A(1-5/8")	151.00 - 155.00	1.0000	1.0000
L6	2	Safety Line 3/8	144.25 - 151.00	1.0000	1.0000
L6	15	LDF7-50A(1-5/8")	144.25 - 151.00	1.0000	1.0000
L8	2	Safety Line 3/8	137.75 - 142.75	1.0000	1.0000
L8	15	LDF7-50A(1-5/8")	137.75 - 142.75	1.0000	1.0000
L9	2	Safety Line 3/8	132.75 - 137.75	1.0000	1.0000
L9	15	LDF7-50A(1-5/8")	132.75 - 137.75	1.0000	1.0000
L10	2	Safety Line 3/8	127.75 - 132.75	1.0000	1.0000
L10	15	LDF7-50A(1-5/8")	127.75 - 132.75	1.0000	1.0000
L10	41	(Area) CCI-65FP-045100 (H)	127.75 - 129.25	1.0000	1.0000
L10	42	(Area) CCI-65FP-045100 (H)	127.75 - 129.25	1.0000	1.0000
L10	43	(Area) CCI-65FP-045100 (H)	127.75 - 129.25	1.0000	1.0000
L11	2	Safety Line 3/8	127.50 - 127.75	1.0000	1.0000
L11	15	LDF7-50A(1-5/8")	127.50 - 127.75	1.0000	1.0000
L11	41	(Area) CCI-65FP-045100 (H)	127.50 - 127.75	1.0000	1.0000
L11	42	(Area) CCI-65FP-045100 (H)	127.50 - 127.75	1.0000	1.0000
L11	43	(Area) CCI-65FP-045100 (H)	127.50 - 127.75	1.0000	1.0000
L12	2	Safety Line 3/8	122.50 - 127.50	1.0000	1.0000
L12	15	LDF7-50A(1-5/8")	122.50 - 127.50	1.0000	1.0000
L12	41	(Area) CCI-65FP-045100 (H)	122.50 - 127.50	1.0000	1.0000
L12	42	(Area) CCI-65FP-045100 (H)	122.50 - 127.50	1.0000	1.0000
L12	43	(Area) CCI-65FP-045100 (H)	122.50 - 127.50	1.0000	1.0000
L13	2	Safety Line 3/8	120.75 - 122.50	1.0000	1.0000
L13	15	LDF7-50A(1-5/8")	120.75 - 122.50	1.0000	1.0000
L13	41	(Area) CCI-65FP-045100 (H)	120.75 - 122.50	1.0000	1.0000
L13	42	(Area) CCI-65FP-045100 (H)	120.75 - 122.50	1.0000	1.0000
L13	43	(Area) CCI-65FP-045100 (H)	120.75 - 122.50	1.0000	1.0000
L14	2	Safety Line 3/8	120.50 - 120.75	1.0000	1.0000
L14	15	LDF7-50A(1-5/8")	120.50 - 120.75	1.0000	1.0000
L14	41	(Area) CCI-65FP-045100 (H)	120.50 - 120.75	1.0000	1.0000
L14	42	(Area) CCI-65FP-045100 (H)	120.50 - 120.75	1.0000	1.0000
L14	43	(Area) CCI-65FP-045100 (H)	120.50 - 120.75	1.0000	1.0000
L15	2	Safety Line 3/8	117.25 - 120.50	1.0000	1.0000
L15	15	LDF7-50A(1-5/8")	117.25 - 120.50	1.0000	1.0000
L15	37	(Area) CCI-65FP-060100 (H)	117.25 - 119.25	1.0000	1.0000
L15	38	(Area) CCI-65FP-060100 (H)	117.25 - 119.25	1.0000	1.0000
L15	39	(Area) CCI-65FP-060100 (H)	117.25 - 119.25	1.0000	1.0000
L15	41	(Area) CCI-65FP-045100 (H)	119.25 - 120.50	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
L15	42	(Area) CCI-65FP-045100 (H)	119.25 - 120.50	1.0000	1.0000
L15	43	(Area) CCI-65FP-045100 (H)	119.25 - 120.50	1.0000	1.0000
L16	2	Safety Line 3/8	117.00 - 117.25	1.0000	1.0000
L16	15	LDF7-50A(1-5/8")	117.00 - 117.25	1.0000	1.0000
L16	37	(Area) CCI-65FP-060100 (H)	117.00 - 117.25	1.0000	1.0000
L16	38	(Area) CCI-65FP-060100 (H)	117.00 - 117.25	1.0000	1.0000
L16	39	(Area) CCI-65FP-060100 (H)	117.00 - 117.25	1.0000	1.0000
L17	2	Safety Line 3/8	112.00 - 117.00	1.0000	1.0000
L17	15	LDF7-50A(1-5/8")	112.00 - 117.00	1.0000	1.0000
L17	37	(Area) CCI-65FP-060100 (H)	112.00 - 117.00	1.0000	1.0000
L17	38	(Area) CCI-65FP-060100 (H)	112.00 - 117.00	1.0000	1.0000
L17	39	(Area) CCI-65FP-060100 (H)	112.00 - 117.00	1.0000	1.0000
L18	2	Safety Line 3/8	107.00 - 112.00	1.0000	1.0000
L18	15	LDF7-50A(1-5/8")	107.00 - 112.00	1.0000	1.0000
L18	37	(Area) CCI-65FP-060100 (H)	107.00 - 112.00	1.0000	1.0000
L18	38	(Area) CCI-65FP-060100 (H)	107.00 - 112.00	1.0000	1.0000
L18	39	(Area) CCI-65FP-060100 (H)	107.00 - 112.00	1.0000	1.0000
L19	2	Safety Line 3/8	102.00 - 107.00	1.0000	1.0000
L19	15	LDF7-50A(1-5/8")	102.00 - 107.00	1.0000	1.0000
L19	37	(Area) CCI-65FP-060100 (H)	102.00 - 107.00	1.0000	1.0000
L19	38	(Area) CCI-65FP-060100 (H)	102.00 - 107.00	1.0000	1.0000
L19	39	(Area) CCI-65FP-060100 (H)	102.00 - 107.00	1.0000	1.0000
L20	2	Safety Line 3/8	94.58 - 102.00	1.0000	1.0000
L20	15	LDF7-50A(1-5/8")	94.58 - 102.00	1.0000	1.0000
L20	37	(Area) CCI-65FP-060100 (H)	94.58 - 102.00	1.0000	1.0000
L20	38	(Area) CCI-65FP-060100 (H)	94.58 - 102.00	1.0000	1.0000
L20	39	(Area) CCI-65FP-060100 (H)	94.58 - 102.00	1.0000	1.0000
L22	2	Safety Line 3/8	89.41 - 94.41	1.0000	1.0000
L22	15	LDF7-50A(1-5/8")	89.41 - 94.41	1.0000	1.0000
L22	37	(Area) CCI-65FP-060100 (H)	89.41 - 94.41	1.0000	1.0000
L22	38	(Area) CCI-65FP-060100 (H)	89.41 - 94.41	1.0000	1.0000
L22	39	(Area) CCI-65FP-060100 (H)	89.41 - 94.41	1.0000	1.0000
L23	2	Safety Line 3/8	87.25 - 89.41	1.0000	1.0000
L23	15	LDF7-50A(1-5/8")	87.25 - 89.41	1.0000	1.0000
L23	33	(Area) CCI-65FP-060100 (H)	87.25 - 89.25	1.0000	1.0000
L23	34	(Area) CCI-65FP-060100 (H)	87.25 - 89.25	1.0000	1.0000
L23	35	(Area) CCI-65FP-060100 (H)	87.25 - 89.25	1.0000	1.0000
L23	37	(Area) CCI-65FP-060100 (H)	89.25 - 89.41	1.0000	1.0000
L23	38	(Area) CCI-65FP-060100 (H)	89.25 - 89.41	1.0000	1.0000
L23	39	(Area) CCI-65FP-060100 (H)	89.25 - 89.41	1.0000	1.0000
L24	2	Safety Line 3/8	87.00 - 87.25	1.0000	1.0000
L24	15	LDF7-50A(1-5/8")	87.00 - 87.25	1.0000	1.0000
L24	33	(Area) CCI-65FP-060100 (H)	87.00 - 87.25	1.0000	1.0000
L24	34	(Area) CCI-65FP-060100 (H)	87.00 - 87.25	1.0000	1.0000
L24	35	(Area) CCI-65FP-060100 (H)	87.00 - 87.25	1.0000	1.0000
L25	2	Safety Line 3/8	82.00 - 87.00	1.0000	1.0000
L25	15	LDF7-50A(1-5/8")	82.00 - 87.00	1.0000	1.0000
L25	33	(Area) CCI-65FP-060100 (H)	82.00 - 87.00	1.0000	1.0000
L25	34	(Area) CCI-65FP-060100 (H)	82.00 - 87.00	1.0000	1.0000
L25	35	(Area) CCI-65FP-060100 (H)	82.00 - 87.00	1.0000	1.0000
L26	2	Safety Line 3/8	77.00 - 82.00	1.0000	1.0000
L26	15	LDF7-50A(1-5/8")	77.00 - 82.00	1.0000	1.0000
L26	33	(Area) CCI-65FP-060100 (H)	77.00 - 82.00	1.0000	1.0000
L26	34	(Area) CCI-65FP-060100 (H)	77.00 - 82.00	1.0000	1.0000
L26	35	(Area) CCI-65FP-060100 (H)	77.00 - 82.00	1.0000	1.0000
L27	2	Safety Line 3/8	72.00 - 77.00	1.0000	1.0000
L27	15	LDF7-50A(1-5/8")	72.00 - 77.00	1.0000	1.0000
L27	33	(Area) CCI-65FP-060100 (H)	72.00 - 77.00	1.0000	1.0000
L27	34	(Area) CCI-65FP-060100 (H)	72.00 - 77.00	1.0000	1.0000
L27	35	(Area) CCI-65FP-060100 (H)	72.00 - 77.00	1.0000	1.0000
L28	2	Safety Line 3/8	67.00 - 72.00	1.0000	1.0000
L28	15	LDF7-50A(1-5/8")	67.00 - 72.00	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
L28	33	(Area) CCI-65FP-060100 (H)	67.00 - 72.00	1.0000	1.0000
L28	34	(Area) CCI-65FP-060100 (H)	67.00 - 72.00	1.0000	1.0000
L28	35	(Area) CCI-65FP-060100 (H)	67.00 - 72.00	1.0000	1.0000
L29	2	Safety Line 3/8	62.00 - 67.00	1.0000	1.0000
L29	15	LDF7-50A(1-5/8")	62.00 - 67.00	1.0000	1.0000
L29	29	(Area) CCI-65FP-065125 (H)	62.00 - 64.25	1.0000	1.0000
L29	30	(Area) CCI-65FP-065125 (H)	62.00 - 64.25	1.0000	1.0000
L29	31	(Area) CCI-65FP-065125 (H)	62.00 - 64.25	1.0000	1.0000
L29	33	(Area) CCI-65FP-060100 (H)	64.25 - 67.00	1.0000	1.0000
L29	34	(Area) CCI-65FP-060100 (H)	64.25 - 67.00	1.0000	1.0000
L29	35	(Area) CCI-65FP-060100 (H)	64.25 - 67.00	1.0000	1.0000
L30	2	Safety Line 3/8	61.50 - 62.00	1.0000	1.0000
L30	15	LDF7-50A(1-5/8")	61.50 - 62.00	1.0000	1.0000
L30	29	(Area) CCI-65FP-065125 (H)	61.50 - 62.00	1.0000	1.0000
L30	30	(Area) CCI-65FP-065125 (H)	61.50 - 62.00	1.0000	1.0000
L30	31	(Area) CCI-65FP-065125 (H)	61.50 - 62.00	1.0000	1.0000
L31	2	Safety Line 3/8	61.25 - 61.50	1.0000	1.0000
L31	15	LDF7-50A(1-5/8")	61.25 - 61.50	1.0000	1.0000
L31	29	(Area) CCI-65FP-065125 (H)	61.25 - 61.50	1.0000	1.0000
L31	30	(Area) CCI-65FP-065125 (H)	61.25 - 61.50	1.0000	1.0000
L31	31	(Area) CCI-65FP-065125 (H)	61.25 - 61.50	1.0000	1.0000
L32	2	Safety Line 3/8	56.25 - 61.25	1.0000	1.0000
L32	15	LDF7-50A(1-5/8")	56.25 - 61.25	1.0000	1.0000
L32	29	(Area) CCI-65FP-065125 (H)	56.25 - 61.25	1.0000	1.0000
L32	30	(Area) CCI-65FP-065125 (H)	56.25 - 61.25	1.0000	1.0000
L32	31	(Area) CCI-65FP-065125 (H)	56.25 - 61.25	1.0000	1.0000
L33	2	Safety Line 3/8	46.95 - 56.25	1.0000	1.0000
L33	15	LDF7-50A(1-5/8")	46.95 - 56.25	1.0000	1.0000
L33	29	(Area) CCI-65FP-065125 (H)	46.95 - 56.25	1.0000	1.0000
L33	30	(Area) CCI-65FP-065125 (H)	46.95 - 56.25	1.0000	1.0000
L33	31	(Area) CCI-65FP-065125 (H)	46.95 - 56.25	1.0000	1.0000
L35	2	Safety Line 3/8	40.95 - 45.95	1.0000	1.0000
L35	15	LDF7-50A(1-5/8")	40.95 - 45.95	1.0000	1.0000
L35	29	(Area) CCI-65FP-065125 (H)	40.95 - 45.95	1.0000	1.0000
L35	30	(Area) CCI-65FP-065125 (H)	40.95 - 45.95	1.0000	1.0000
L35	31	(Area) CCI-65FP-065125 (H)	40.95 - 45.95	1.0000	1.0000
L36	2	Safety Line 3/8	35.95 - 40.95	1.0000	1.0000
L36	15	LDF7-50A(1-5/8")	35.95 - 40.95	1.0000	1.0000
L36	29	(Area) CCI-65FP-065125 (H)	35.95 - 40.95	1.0000	1.0000
L36	30	(Area) CCI-65FP-065125 (H)	35.95 - 40.95	1.0000	1.0000
L36	31	(Area) CCI-65FP-065125 (H)	35.95 - 40.95	1.0000	1.0000
L37	2	Safety Line 3/8	32.25 - 35.95	1.0000	1.0000
L37	15	LDF7-50A(1-5/8")	32.25 - 35.95	1.0000	1.0000
L37	24	(Area) CCI-65FP-065125 (H)	32.25 - 35.00	1.0000	1.0000
L37	25	(Area) CCI-65FP-065125 (H)	32.25 - 35.00	1.0000	1.0000
L37	26	(Area) CCI-65FP-065125 (H)	32.25 - 35.00	1.0000	1.0000
L37	27	(Area) CCI-65FP-065125 (H)	32.25 - 35.00	1.0000	1.0000
L37	29	(Area) CCI-65FP-065125 (H)	32.25 - 35.95	1.0000	1.0000
L37	30	(Area) CCI-65FP-065125 (H)	32.25 - 35.95	1.0000	1.0000
L37	31	(Area) CCI-65FP-065125 (H)	32.25 - 35.95	1.0000	1.0000
L38	2	Safety Line 3/8	32.00 - 32.25	1.0000	1.0000
L38	15	LDF7-50A(1-5/8")	32.00 - 32.25	1.0000	1.0000
L38	24	(Area) CCI-65FP-065125 (H)	32.00 - 32.25	1.0000	1.0000
L38	25	(Area) CCI-65FP-065125 (H)	32.00 - 32.25	1.0000	1.0000
L38	26	(Area) CCI-65FP-065125 (H)	32.00 - 32.25	1.0000	1.0000
L38	27	(Area) CCI-65FP-065125 (H)	32.00 - 32.25	1.0000	1.0000
L38	29	(Area) CCI-65FP-065125 (H)	32.00 - 32.25	1.0000	1.0000
L38	30	(Area) CCI-65FP-065125 (H)	32.00 - 32.25	1.0000	1.0000
L38	31	(Area) CCI-65FP-065125 (H)	32.00 - 32.25	1.0000	1.0000
L39	2	Safety Line 3/8	31.75 - 32.00	1.0000	1.0000
L39	15	LDF7-50A(1-5/8")	31.75 - 32.00	1.0000	1.0000
L39	24	(Area) CCI-65FP-065125 (H)	31.75 - 32.00	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
L39	25	(Area) CCI-65FP-065125 (H)	31.75 - 32.00	1.0000	1.0000
L39	26	(Area) CCI-65FP-065125 (H)	31.75 - 32.00	1.0000	1.0000
L39	27	(Area) CCI-65FP-065125 (H)	31.75 - 32.00	1.0000	1.0000
L39	29	(Area) CCI-65FP-065125 (H)	31.75 - 32.00	1.0000	1.0000
L39	30	(Area) CCI-65FP-065125 (H)	31.75 - 32.00	1.0000	1.0000
L39	31	(Area) CCI-65FP-065125 (H)	31.75 - 32.00	1.0000	1.0000
L40	2	Safety Line 3/8	26.75 - 31.75	1.0000	1.0000
L40	15	LDF7-50A(1-5/8")	26.75 - 31.75	1.0000	1.0000
L40	24	(Area) CCI-65FP-065125 (H)	26.75 - 31.75	1.0000	1.0000
L40	25	(Area) CCI-65FP-065125 (H)	26.75 - 31.75	1.0000	1.0000
L40	26	(Area) CCI-65FP-065125 (H)	26.75 - 31.75	1.0000	1.0000
L40	27	(Area) CCI-65FP-065125 (H)	26.75 - 31.75	1.0000	1.0000
L40	29	(Area) CCI-65FP-065125 (H)	29.25 - 31.75	1.0000	1.0000
L40	30	(Area) CCI-65FP-065125 (H)	29.25 - 31.75	1.0000	1.0000
L40	31	(Area) CCI-65FP-065125 (H)	29.25 - 31.75	1.0000	1.0000
L41	2	Safety Line 3/8	21.75 - 26.75	1.0000	1.0000
L41	15	LDF7-50A(1-5/8")	21.75 - 26.75	1.0000	1.0000
L41	24	(Area) CCI-65FP-065125 (H)	21.75 - 26.75	1.0000	1.0000
L41	25	(Area) CCI-65FP-065125 (H)	21.75 - 26.75	1.0000	1.0000
L41	26	(Area) CCI-65FP-065125 (H)	21.75 - 26.75	1.0000	1.0000
L41	27	(Area) CCI-65FP-065125 (H)	21.75 - 26.75	1.0000	1.0000
L42	2	Safety Line 3/8	16.75 - 21.75	1.0000	1.0000
L42	15	LDF7-50A(1-5/8")	16.75 - 21.75	1.0000	1.0000
L42	24	(Area) CCI-65FP-065125 (H)	16.75 - 21.75	1.0000	1.0000
L42	25	(Area) CCI-65FP-065125 (H)	16.75 - 21.75	1.0000	1.0000
L42	26	(Area) CCI-65FP-065125 (H)	16.75 - 21.75	1.0000	1.0000
L42	27	(Area) CCI-65FP-065125 (H)	16.75 - 21.75	1.0000	1.0000
L43	2	Safety Line 3/8	11.75 - 16.75	1.0000	1.0000
L43	15	LDF7-50A(1-5/8")	11.75 - 16.75	1.0000	1.0000
L43	24	(Area) CCI-65FP-065125 (H)	11.75 - 16.75	1.0000	1.0000
L43	25	(Area) CCI-65FP-065125 (H)	11.75 - 16.75	1.0000	1.0000
L43	26	(Area) CCI-65FP-065125 (H)	11.75 - 16.75	1.0000	1.0000
L43	27	(Area) CCI-65FP-065125 (H)	11.75 - 16.75	1.0000	1.0000
L44	2	Safety Line 3/8	6.75 - 11.75	1.0000	1.0000
L44	15	LDF7-50A(1-5/8")	6.75 - 11.75	1.0000	1.0000
L44	24	(Area) CCI-65FP-065125 (H)	6.75 - 11.75	1.0000	1.0000
L44	25	(Area) CCI-65FP-065125 (H)	6.75 - 11.75	1.0000	1.0000
L44	26	(Area) CCI-65FP-065125 (H)	6.75 - 11.75	1.0000	1.0000
L44	27	(Area) CCI-65FP-065125 (H)	6.75 - 11.75	1.0000	1.0000
L45	2	Safety Line 3/8	1.75 - 6.75	1.0000	1.0000
L45	15	LDF7-50A(1-5/8")	1.75 - 6.75	1.0000	1.0000
L45	24	(Area) CCI-65FP-065125 (H)	1.75 - 6.75	1.0000	1.0000
L45	25	(Area) CCI-65FP-065125 (H)	1.75 - 6.75	1.0000	1.0000
L45	26	(Area) CCI-65FP-065125 (H)	1.75 - 6.75	1.0000	1.0000
L45	27	(Area) CCI-65FP-065125 (H)	1.75 - 6.75	1.0000	1.0000
L46	2	Safety Line 3/8	0.00 - 1.75	1.0000	1.0000
L46	15	LDF7-50A(1-5/8")	0.00 - 1.75	1.0000	1.0000
L46	24	(Area) CCI-65FP-065125 (H)	0.00 - 1.75	1.0000	1.0000
L46	25	(Area) CCI-65FP-065125 (H)	0.00 - 1.75	1.0000	1.0000
L46	26	(Area) CCI-65FP-065125 (H)	0.00 - 1.75	1.0000	1.0000
L46	27	(Area) CCI-65FP-065125 (H)	0.00 - 1.75	1.0000	1.0000

Discrete Tower Loads

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert	Azimuth Adjustment	Placement	C_AA_A Front	C_AA_A Side	Weight
			ft	°	ft	ft^2	ft^2	lb
176								

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft²	C_AA_A Side ft²	Weight lb
DT465B-2XR w/ Mount Pipe	A	From Centroid-Leg	4.00 0.00 2.00	0.00	176.00	No Ice 1/2" Ice 1" Ice 2" Ice	9.34 9.91 10.44 11.53	7.63 8.82 9.72 11.54	84 160 245 442
DT465B-2XR w/ Mount Pipe	B	From Centroid-Leg	4.00 0.00 2.00	0.00	176.00	No Ice 1/2" Ice 1" Ice 2" Ice	9.34 9.91 10.44 11.53	7.63 8.82 9.72 11.54	84 160 245 442
DT465B-2XR w/ Mount Pipe	C	From Centroid-Leg	4.00 0.00 2.00	0.00	176.00	No Ice 1/2" Ice 1" Ice 2" Ice	9.34 9.91 10.44 11.53	7.63 8.82 9.72 11.54	84 160 245 442
APXVTM14-C-120 w/ Mount Pipe	A	From Centroid-Leg	4.00 0.00 2.00	0.00	176.00	No Ice 1/2" Ice 1" Ice 2" Ice	6.58 7.03 7.47 8.38	4.96 5.75 6.47 7.94	77 132 193 339
APXVTM14-C-120 w/ Mount Pipe	B	From Centroid-Leg	4.00 0.00 2.00	0.00	176.00	No Ice 1/2" Ice 1" Ice 2" Ice	6.58 7.03 7.47 8.38	4.96 5.75 6.47 7.94	77 132 193 339
APXVTM14-C-120 w/ Mount Pipe	C	From Centroid-Leg	4.00 0.00 2.00	0.00	176.00	No Ice 1/2" Ice 1" Ice 2" Ice	6.58 7.03 7.47 8.38	4.96 5.75 6.47 7.94	77 132 193 339
RRH2X50-800	A	From Centroid-Leg	4.00 0.00 2.00	0.00	176.00	No Ice 1/2" Ice 1" Ice 2" Ice	2.13 2.32 2.51 2.92	1.77 1.95 2.13 2.51	53 74 98 157
RRH2X50-800	B	From Centroid-Leg	4.00 0.00 2.00	0.00	176.00	No Ice 1/2" Ice 1" Ice 2" Ice	2.13 2.32 2.51 2.92	1.77 1.95 2.13 2.51	53 74 98 157
RRH2X50-800	C	From Centroid-Leg	4.00 0.00 2.00	0.00	176.00	No Ice 1/2" Ice 1" Ice 2" Ice	2.13 2.32 2.51 2.92	1.77 1.95 2.13 2.51	53 74 98 157
TD-RRH8x20-25	A	From Centroid-Leg	4.00 0.00 0.00	0.00	176.00	No Ice 1/2" Ice 1" Ice 2" Ice	3.70 3.95 4.20 4.72	1.29 1.46 1.64 2.02	66 90 117 183
TD-RRH8x20-25	B	From Centroid-Leg	4.00 0.00 0.00	0.00	176.00	No Ice 1/2" Ice 1" Ice 2" Ice	3.70 3.95 4.20 4.72	1.29 1.46 1.64 2.02	66 90 117 183
TD-RRH8x20-25	C	From Centroid-Leg	4.00 0.00 0.00	0.00	176.00	No Ice 1/2" Ice 1" Ice 2" Ice	3.70 3.95 4.20 4.72	1.29 1.46 1.64 2.02	66 90 117 183
(6) ACU-A20-N	B	From Centroid-Leg	4.00 0.00 0.00	0.00	176.00	No Ice 1/2" Ice 1" Ice 2" Ice	0.07 0.10 0.15 0.26	0.12 0.16 0.21 0.34	1 2 4 12
(3) ACU-A20-N	C	From Centroid-Leg	4.00 0.00 0.00	0.00	176.00	No Ice 1/2" Ice 1" Ice 2" Ice	0.07 0.10 0.15 0.26	0.12 0.16 0.21 0.34	1 2 4 12
(2) 6' x 2" Mount Pipe	A	From Centroid-Leg	4.00 0.00 0.00	0.00	176.00	No Ice 1/2" Ice 1" Ice	1.43 1.92 2.29	1.43 1.92 2.29	20 33 48

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft²	C_AA_A Side ft²	Weight lb
						2" Ice	3.06	3.06	90
(2) 6' x 2" Mount Pipe	B	From Centroid-Leg	4.00 0.00 0.00	0.00	176.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.43 1.92 2.29 3.06	1.43 1.92 2.29 3.06	20 33 48 90
(2) 6' x 2" Mount Pipe	C	From Centroid-Leg	4.00 0.00 0.00	0.00	176.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.43 1.92 2.29 3.06	1.43 1.92 2.29 3.06	20 33 48 90
Platform Mount [LP 712-1]	C	None		0.00	176.00	No Ice 1/2" Ice 1" Ice 2" Ice	24.53 29.94 35.35 46.17	24.53 29.94 35.35 46.17	1335 1646 1956 2577
174									
800MHZ RRH	A	From Leg	1.50 0.00 1.00	0.00	174.00	No Ice 1/2" Ice 1" Ice 2" Ice	2.13 2.32 2.51 2.92	1.77 1.95 2.13 2.51	53 74 98 157
800MHZ RRH	B	From Leg	1.50 0.00 1.00	0.00	174.00	No Ice 1/2" Ice 1" Ice 2" Ice	2.13 2.32 2.51 2.92	1.77 1.95 2.13 2.51	53 74 98 157
800MHZ RRH	C	From Leg	1.50 0.00 1.00	0.00	174.00	No Ice 1/2" Ice 1" Ice 2" Ice	2.13 2.32 2.51 2.92	1.77 1.95 2.13 2.51	53 74 98 157
PCS 1900MHz 4x45W-65MHz	A	From Leg	1.50 0.00 -1.00	0.00	174.00	No Ice 1/2" Ice 1" Ice 2" Ice	2.32 2.53 2.74 3.19	2.24 2.44 2.65 3.09	60 83 110 173
PCS 1900MHz 4x45W-65MHz	B	From Leg	1.50 0.00 -1.00	0.00	174.00	No Ice 1/2" Ice 1" Ice 2" Ice	2.32 2.53 2.74 3.19	2.24 2.44 2.65 3.09	60 83 110 173
PCS 1900MHz 4x45W-65MHz	C	From Leg	1.50 0.00 -1.00	0.00	174.00	No Ice 1/2" Ice 1" Ice 2" Ice	2.32 2.53 2.74 3.19	2.24 2.44 2.65 3.09	60 83 110 173
800 EXTERNAL NOTCH FILTER	A	From Leg	1.50 0.00 2.00	0.00	174.00	No Ice 1/2" Ice 1" Ice 2" Ice	0.66 0.76 0.87 1.11	0.32 0.40 0.48 0.67	11 17 24 45
800 EXTERNAL NOTCH FILTER	B	From Leg	1.50 0.00 2.00	0.00	174.00	No Ice 1/2" Ice 1" Ice 2" Ice	0.66 0.76 0.87 1.11	0.32 0.40 0.48 0.67	11 17 24 45
800 EXTERNAL NOTCH FILTER	C	From Leg	1.50 0.00 2.00	0.00	174.00	No Ice 1/2" Ice 1" Ice 2" Ice	0.66 0.76 0.87 1.11	0.32 0.40 0.48 0.67	11 17 24 45
6' x 2" Mount Pipe	A	From Leg	1.50 0.00 0.00	0.00	174.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.43 1.92 2.29 3.06	1.43 1.92 2.29 3.06	20 33 48 90
6' x 2" Mount Pipe	B	From Leg	1.50 0.00 0.00	0.00	174.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.43 1.92 2.29 3.06	1.43 1.92 2.29 3.06	20 33 48 90
6' x 2" Mount Pipe	C	From Leg	1.50	0.00	174.00	No Ice	1.43	1.43	20

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft²	C_AA_A Side ft²	Weight lb
			0.00			1/2" Ice	1.92	1.92	33
			0.00			1" Ice	2.29	2.29	48
						2" Ice	3.06	3.06	90
Side Arm Mount [SO 102-3]	C	None		0.00	174.00	No Ice	3.00	3.00	81
						1/2" Ice	3.48	3.48	111
						1" Ice	3.96	3.96	141
						2" Ice	4.92	4.92	201
169									
167									
7770.00 w/ Mount Pipe	A	From Centroid-Leg	4.00	0.00	167.00	No Ice	5.75	4.25	55
			0.00			1/2" Ice	6.18	5.01	103
			0.00			1" Ice	6.61	5.71	157
						2" Ice	7.49	7.16	287
7770.00 w/ Mount Pipe	B	From Centroid-Leg	4.00	0.00	167.00	No Ice	5.75	4.25	55
			0.00			1/2" Ice	6.18	5.01	103
			0.00			1" Ice	6.61	5.71	157
						2" Ice	7.49	7.16	287
7770.00 w/ Mount Pipe	C	From Centroid-Leg	4.00	0.00	167.00	No Ice	5.75	4.25	55
			0.00			1/2" Ice	6.18	5.01	103
			0.00			1" Ice	6.61	5.71	157
						2" Ice	7.49	7.16	287
HPA65R-BU6A w/ Mount Pipe	A	From Centroid-Leg	4.00	0.00	167.00	No Ice	8.09	7.19	67
			0.00			1/2" Ice	8.64	8.36	136
			0.00			1" Ice	9.16	9.24	212
						2" Ice	10.22	11.05	393
HPA65R-BU6A w/ Mount Pipe	B	From Centroid-Leg	4.00	0.00	167.00	No Ice	8.09	7.19	67
			0.00			1/2" Ice	8.64	8.36	136
			0.00			1" Ice	9.16	9.24	212
						2" Ice	10.22	11.05	393
HPA65R-BU6A w/ Mount Pipe	C	From Centroid-Leg	4.00	0.00	167.00	No Ice	8.09	7.19	67
			0.00			1/2" Ice	8.64	8.36	136
			0.00			1" Ice	9.16	9.24	212
						2" Ice	10.22	11.05	393
80010965 w/ Mount Pipe	A	From Centroid-Leg	4.00	0.00	167.00	No Ice	14.05	7.63	125
			0.00			1/2" Ice	14.69	8.90	222
			0.00			1" Ice	15.30	9.96	327
						2" Ice	16.53	11.92	569
80010965 w/ Mount Pipe	B	From Centroid-Leg	4.00	0.00	167.00	No Ice	14.05	7.63	125
			0.00			1/2" Ice	14.69	8.90	222
			0.00			1" Ice	15.30	9.96	327
						2" Ice	16.53	11.92	569
80010965 w/ Mount Pipe	C	From Centroid-Leg	4.00	0.00	167.00	No Ice	14.05	7.63	125
			0.00			1/2" Ice	14.69	8.90	222
			0.00			1" Ice	15.30	9.96	327
						2" Ice	16.53	11.92	569
(2) LGP21401	A	From Centroid-Leg	4.00	0.00	167.00	No Ice	1.10	0.21	14
			0.00			1/2" Ice	1.24	0.27	21
			0.00			1" Ice	1.38	0.35	30
						2" Ice	1.69	0.52	55
(2) LGP21401	B	From Centroid-Leg	4.00	0.00	167.00	No Ice	1.10	0.21	14
			0.00			1/2" Ice	1.24	0.27	21
			0.00			1" Ice	1.38	0.35	30
						2" Ice	1.69	0.52	55
(2) LGP21401	C	From Centroid-Leg	4.00	0.00	167.00	No Ice	1.10	0.21	14
			0.00			1/2" Ice	1.24	0.27	21
			0.00			1" Ice	1.38	0.35	30
						2" Ice	1.69	0.52	55
RRUS 4449 B5/B12	A	From Centroid-Leg	4.00	0.00	167.00	No Ice	1.97	1.41	71
			0.00			1/2" Ice	2.14	1.56	90

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft²	C_AA_A Side ft²	Weight lb
			0.00			1" Ice	2.33	1.73	111
						2" Ice	2.72	2.07	163
RRUS 4449 B5/B12	B	From	4.00	0.00	167.00	No Ice	1.97	1.41	71
		Centroid-Leg	0.00			1/2" Ice	2.14	1.56	90
			0.00			1" Ice	2.33	1.73	111
						2" Ice	2.72	2.07	163
RRUS 4449 B5/B12	C	From	4.00	0.00	167.00	No Ice	1.97	1.41	71
		Centroid-Leg	0.00			1/2" Ice	2.14	1.56	90
			0.00			1" Ice	2.33	1.73	111
						2" Ice	2.72	2.07	163
DC6-48-60-18-8F	A	From	4.00	0.00	167.00	No Ice	1.21	1.21	33
		Centroid-Leg	0.00			1/2" Ice	1.89	1.89	55
			0.00			1" Ice	2.11	2.11	80
						2" Ice	2.57	2.57	138
DC6-48-60-18-8F	B	From	4.00	0.00	167.00	No Ice	1.21	1.21	33
		Centroid-Leg	0.00			1/2" Ice	1.89	1.89	55
			0.00			1" Ice	2.11	2.11	80
						2" Ice	2.57	2.57	138
RRUS 8843 B2/B66A	A	From	4.00	0.00	167.00	No Ice	1.64	1.35	72
		Centroid-Leg	0.00			1/2" Ice	1.80	1.50	90
			0.00			1" Ice	1.97	1.65	110
						2" Ice	2.32	1.99	159
RRUS 8843 B2/B66A	B	From	4.00	0.00	167.00	No Ice	1.64	1.35	72
		Centroid-Leg	0.00			1/2" Ice	1.80	1.50	90
			0.00			1" Ice	1.97	1.65	110
						2" Ice	2.32	1.99	159
RRUS 8843 B2/B66A	C	From	4.00	0.00	167.00	No Ice	1.64	1.35	72
		Centroid-Leg	0.00			1/2" Ice	1.80	1.50	90
			0.00			1" Ice	1.97	1.65	110
						2" Ice	2.32	1.99	159
Platform Mount [LP 303-1]	C	None		0.00	167.00	No Ice	14.66	14.66	1250
						1/2" Ice	18.87	18.87	1481
						1" Ice	23.08	23.08	1713
						2" Ice	31.50	31.50	2175
155									
ERICSSON AIR 21 B2A B4P	A	From	4.00	0.00	155.00	No Ice	6.09	4.30	92
		Centroid-Leg	0.00			1/2" Ice	6.46	4.65	133
			0.00			1" Ice	6.84	5.00	180
						2" Ice	7.61	5.74	290
ERICSSON AIR 21 B2A B4P	B	From	4.00	0.00	155.00	No Ice	6.09	4.30	92
		Centroid-Leg	0.00			1/2" Ice	6.46	4.65	133
			0.00			1" Ice	6.84	5.00	180
						2" Ice	7.61	5.74	290
ERICSSON AIR 21 B2A B4P	C	From	4.00	0.00	155.00	No Ice	6.09	4.30	92
		Centroid-Leg	0.00			1/2" Ice	6.46	4.65	133
			0.00			1" Ice	6.84	5.00	180
						2" Ice	7.61	5.74	290
APXVAARR24_43-U-NA20	A	From	4.00	0.00	155.00	No Ice	20.24	8.89	128
		Centroid-Leg	0.00			1/2" Ice	20.89	9.49	241
			0.00			1" Ice	21.54	10.09	362
						2" Ice	22.87	11.33	630
APXVAARR24_43-U-NA20	B	From	4.00	0.00	155.00	No Ice	20.24	8.89	128
		Centroid-Leg	0.00			1/2" Ice	20.89	9.49	241
			0.00			1" Ice	21.54	10.09	362
						2" Ice	22.87	11.33	630
APXVAARR24_43-U-NA20	C	From	4.00	0.00	155.00	No Ice	20.24	8.89	128
		Centroid-Leg	0.00			1/2" Ice	20.89	9.49	241
			0.00			1" Ice	21.54	10.09	362
						2" Ice	22.87	11.33	630

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft²	C_AA_A Side ft²	Weight lb
AIR -32 B2A/B66AA	A	From	4.00	0.00	155.00	No Ice	6.51	4.71	132
		Centroid-Leg	0.00			1/2" Ice	6.89	5.07	178
			0.00			1" Ice	7.27	5.43	229
						2" Ice	8.06	6.18	348
AIR -32 B2A/B66AA	B	From	4.00	0.00	155.00	No Ice	6.51	4.71	132
		Centroid-Leg	0.00			1/2" Ice	6.89	5.07	178
			0.00			1" Ice	7.27	5.43	229
						2" Ice	8.06	6.18	348
AIR -32 B2A/B66AA	C	From	4.00	0.00	155.00	No Ice	6.51	4.71	132
		Centroid-Leg	0.00			1/2" Ice	6.89	5.07	178
			0.00			1" Ice	7.27	5.43	229
						2" Ice	8.06	6.18	348
RADIO 4449 B12/B71	A	From	4.00	0.00	155.00	No Ice	1.65	1.16	74
		Centroid-Leg	0.00			1/2" Ice	1.81	1.30	90
			0.00			1" Ice	1.98	1.45	109
						2" Ice	2.34	1.76	155
RADIO 4449 B12/B71	B	From	4.00	0.00	155.00	No Ice	1.65	1.16	74
		Centroid-Leg	0.00			1/2" Ice	1.81	1.30	90
			0.00			1" Ice	1.98	1.45	109
						2" Ice	2.34	1.76	155
RADIO 4449 B12/B71	C	From	4.00	0.00	155.00	No Ice	1.65	1.16	74
		Centroid-Leg	0.00			1/2" Ice	1.81	1.30	90
			0.00			1" Ice	1.98	1.45	109
						2" Ice	2.34	1.76	155
KRY 112 144/1	A	From	4.00	0.00	155.00	No Ice	0.35	0.16	11
		Centroid-Leg	0.00			1/2" Ice	0.43	0.22	14
			0.00			1" Ice	0.51	0.28	18
						2" Ice	0.70	0.44	32
KRY 112 144/1	B	From	4.00	0.00	155.00	No Ice	0.35	0.16	11
		Centroid-Leg	0.00			1/2" Ice	0.43	0.22	14
			0.00			1" Ice	0.51	0.28	18
						2" Ice	0.70	0.44	32
KRY 112 144/1	C	From	4.00	0.00	155.00	No Ice	0.35	0.16	11
		Centroid-Leg	0.00			1/2" Ice	0.43	0.22	14
			0.00			1" Ice	0.51	0.28	18
						2" Ice	0.70	0.44	32
Platform Mount [LP 301-1]	C	None		0.00	155.00	No Ice	30.10	30.10	1589
						1/2" Ice	40.80	40.80	2029
						1" Ice	51.50	51.50	2470
						2" Ice	72.90	72.90	3351
145									
(2) BXA-171063-12CF-EDIN-X w/ Mount Pipe	A	From	4.00	0.00	145.00	No Ice	5.03	5.29	41
		Centroid-Leg	0.00			1/2" Ice	5.58	6.46	87
			3.00			1" Ice	6.10	7.35	140
						2" Ice	7.17	9.15	273
(2) BXA-171063-12CF-EDIN-X w/ Mount Pipe	B	From	4.00	0.00	145.00	No Ice	5.03	5.29	41
		Centroid-Leg	0.00			1/2" Ice	5.58	6.46	87
			3.00			1" Ice	6.10	7.35	140
						2" Ice	7.17	9.15	273
(2) BXA-171063-12CF-EDIN-X w/ Mount Pipe	C	From	4.00	0.00	145.00	No Ice	5.03	5.29	41
		Centroid-Leg	0.00			1/2" Ice	5.58	6.46	87
			3.00			1" Ice	6.10	7.35	140
						2" Ice	7.17	9.15	273
(2) BXA-70063-6CF-EDIN-X w/ Mount Pipe	A	From	4.00	0.00	145.00	No Ice	7.81	5.80	42
		Centroid-Leg	0.00			1/2" Ice	8.36	6.95	103
			3.00			1" Ice	8.87	7.82	171
						2" Ice	9.93	9.60	335
(2) BXA-70063-6CF-EDIN-X w/	B	From	4.00	0.00	145.00	No Ice	7.81	5.80	42
		Centroid-Leg	0.00			1/2" Ice	8.36	6.95	103

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft²	C_AA_A Side ft²	Weight lb
Mount Pipe			3.00			1" Ice	8.87	7.82	171
						2" Ice	9.93	9.60	335
(2)	C	From	4.00	0.00	145.00	No Ice	7.81	5.80	42
BXA-70063-6CF-EDIN-X w/		Centroid-Leg	0.00			1/2" Ice	8.36	6.95	103
Mount Pipe			3.00			1" Ice	8.87	7.82	171
						2" Ice	9.93	9.60	335
RRH2X40-07-U	A	From	4.00	0.00	145.00	No Ice	1.93	1.05	50
		Centroid-Leg	0.00			1/2" Ice	2.10	1.19	67
			0.00			1" Ice	2.28	1.33	86
						2" Ice	2.66	1.64	134
RRH2X40-07-U	B	From	4.00	0.00	145.00	No Ice	1.93	1.05	50
		Centroid-Leg	0.00			1/2" Ice	2.10	1.19	67
			0.00			1" Ice	2.28	1.33	86
						2" Ice	2.66	1.64	134
RRH2X40-07-U	C	From	4.00	0.00	145.00	No Ice	1.93	1.05	50
		Centroid-Leg	0.00			1/2" Ice	2.10	1.19	67
			0.00			1" Ice	2.28	1.33	86
						2" Ice	2.66	1.64	134
RRH2X40-AWS	A	From	4.00	0.00	145.00	No Ice	2.16	1.42	44
		Centroid-Leg	0.00			1/2" Ice	2.36	1.59	61
			0.00			1" Ice	2.57	1.77	82
						2" Ice	3.00	2.14	132
RRH2X40-AWS	B	From	4.00	0.00	145.00	No Ice	2.16	1.42	44
		Centroid-Leg	0.00			1/2" Ice	2.36	1.59	61
			0.00			1" Ice	2.57	1.77	82
						2" Ice	3.00	2.14	132
RRH2X40-AWS	C	From	4.00	0.00	145.00	No Ice	2.16	1.42	44
		Centroid-Leg	0.00			1/2" Ice	2.36	1.59	61
			0.00			1" Ice	2.57	1.77	82
						2" Ice	3.00	2.14	132
DB-B1-6C-8AB-0Z	A	From	4.00	0.00	145.00	No Ice	4.80	2.00	44
		Centroid-Leg	0.00			1/2" Ice	5.07	2.19	80
			0.00			1" Ice	5.35	2.39	120
						2" Ice	5.93	2.81	213
Platform Mount [LP 303-1]	C	None		0.00	145.00	No Ice	14.66	14.66	1250
						1/2" Ice	18.87	18.87	1481
						1" Ice	23.08	23.08	1713
						2" Ice	31.50	31.50	2175
50									
KS24019-L112A	A	From Leg	3.00	0.00	50.00	No Ice	0.08	0.08	5
			0.00			1/2" Ice	0.13	0.13	6
			1.00			1" Ice	0.19	0.19	8
						2" Ice	0.35	0.35	15
3' x 2" Pipe Mount	A	From Leg	3.00	0.00	50.00	No Ice	0.58	0.58	10
			0.00			1/2" Ice	0.77	0.77	17
			0.00			1" Ice	0.97	0.97	24
						2" Ice	1.42	1.42	47
Side Arm Mount [SO 701-1]	A	From Leg	1.50	0.00	50.00	No Ice	0.85	1.67	65
			0.00			1/2" Ice	1.14	2.34	79
			0.00			1" Ice	1.43	3.01	93
						2" Ice	2.01	4.35	121
10									
OG-860/1920/GPS-A	A	From Leg	3.00	0.00	10.00	No Ice	0.31	0.37	2
			0.00			1/2" Ice	0.40	0.46	5
			2.00			1" Ice	0.49	0.55	10
						2" Ice	0.70	0.77	24
3' x 2" Pipe Mount	A	From Leg	3.00	0.00	10.00	No Ice	0.58	0.58	10
			0.00			1/2" Ice	0.77	0.77	17
			0.00			1" Ice	0.97	0.97	24

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft²	C_AA_A Side ft²	Weight lb
						2" Ice	1.42	1.42	47
Side Arm Mount [SO 701-1]	A	From Leg	1.50	0.00	10.00	No Ice	0.85	1.67	65
			0.00			1/2" Ice	1.14	2.34	79
			0.00			1" Ice	1.43	3.01	93
						2" Ice	2.01	4.35	121
***									

Load Combinations

Comb. No.	Description
1	Dead Only
2	1.2 Dead+1.0 Wind 0 deg - No Ice
3	0.9 Dead+1.0 Wind 0 deg - No Ice
4	1.2 Dead+1.0 Wind 30 deg - No Ice
5	0.9 Dead+1.0 Wind 30 deg - No Ice
6	1.2 Dead+1.0 Wind 60 deg - No Ice
7	0.9 Dead+1.0 Wind 60 deg - No Ice
8	1.2 Dead+1.0 Wind 90 deg - No Ice
9	0.9 Dead+1.0 Wind 90 deg - No Ice
10	1.2 Dead+1.0 Wind 120 deg - No Ice
11	0.9 Dead+1.0 Wind 120 deg - No Ice
12	1.2 Dead+1.0 Wind 150 deg - No Ice
13	0.9 Dead+1.0 Wind 150 deg - No Ice
14	1.2 Dead+1.0 Wind 180 deg - No Ice
15	0.9 Dead+1.0 Wind 180 deg - No Ice
16	1.2 Dead+1.0 Wind 210 deg - No Ice
17	0.9 Dead+1.0 Wind 210 deg - No Ice
18	1.2 Dead+1.0 Wind 240 deg - No Ice
19	0.9 Dead+1.0 Wind 240 deg - No Ice
20	1.2 Dead+1.0 Wind 270 deg - No Ice
21	0.9 Dead+1.0 Wind 270 deg - No Ice
22	1.2 Dead+1.0 Wind 300 deg - No Ice
23	0.9 Dead+1.0 Wind 300 deg - No Ice
24	1.2 Dead+1.0 Wind 330 deg - No Ice
25	0.9 Dead+1.0 Wind 330 deg - No Ice
26	1.2 Dead+1.0 Ice+1.0 Temp
27	1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp
28	1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp
29	1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp
30	1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp
31	1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp
32	1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp
33	1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp
34	1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp
35	1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp
36	1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp
37	1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp
38	1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp
39	Dead+Wind 0 deg - Service
40	Dead+Wind 30 deg - Service
41	Dead+Wind 60 deg - Service
42	Dead+Wind 90 deg - Service
43	Dead+Wind 120 deg - Service
44	Dead+Wind 150 deg - Service
45	Dead+Wind 180 deg - Service
46	Dead+Wind 210 deg - Service

Comb. No.	Description
47	Dead+Wind 240 deg - Service
48	Dead+Wind 270 deg - Service
49	Dead+Wind 300 deg - Service
50	Dead+Wind 330 deg - Service

Maximum Tower Deflections - Service Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	176 - 171	34.88	45	2.05	0.00
L2	171 - 166	32.73	45	2.04	0.00
L3	166 - 161	30.61	45	2.01	0.00
L4	161 - 156	28.53	45	1.96	0.00
L5	156 - 151	26.52	45	1.89	0.00
L6	151 - 144.25	24.58	45	1.81	0.00
L7	147.75 - 142.75	23.38	45	1.74	0.00
L8	142.75 - 137.75	21.58	45	1.69	0.00
L9	137.75 - 132.75	19.85	45	1.61	0.00
L10	132.75 - 127.75	18.20	45	1.53	0.00
L11	127.75 - 127.5	16.65	45	1.44	0.00
L12	127.5 - 122.5	16.58	45	1.43	0.00
L13	122.5 - 120.75	15.12	45	1.34	0.00
L14	120.75 - 120.5	14.64	45	1.31	0.00
L15	120.5 - 117.25	14.57	45	1.30	0.00
L16	117.25 - 117	13.70	45	1.24	0.00
L17	117 - 112	13.64	45	1.24	0.00
L18	112 - 107	12.37	45	1.18	0.00
L19	107 - 102	11.16	45	1.13	0.00
L20	102 - 94.58	10.01	45	1.07	0.00
L21	99.413 - 94.413	9.43	45	1.04	0.00
L22	94.413 - 89.413	8.36	45	1.01	0.00
L23	89.413 - 87.25	7.35	45	0.93	0.00
L24	87.25 - 87	6.94	45	0.89	0.00
L25	87 - 82	6.89	45	0.89	0.00
L26	82 - 77	6.00	45	0.81	0.00
L27	77 - 72	5.20	45	0.73	0.00
L28	72 - 67	4.47	45	0.66	0.00
L29	67 - 62	3.82	45	0.58	0.00
L30	62 - 61.5	3.25	45	0.51	0.00
L31	61.5 - 61.25	3.20	45	0.50	0.00
L32	61.25 - 56.25	3.17	45	0.50	0.00
L33	56.25 - 46.953	2.67	45	0.45	0.00
L34	53.036 - 45.953	2.38	45	0.42	0.00
L35	45.953 - 40.953	1.78	45	0.38	0.00
L36	40.953 - 35.953	1.40	45	0.34	0.00
L37	35.953 - 32.25	1.07	45	0.29	0.00
L38	32.25 - 32	0.86	45	0.26	0.00
L39	32 - 31.75	0.84	45	0.26	0.00
L40	31.75 - 26.75	0.83	45	0.25	0.00
L41	26.75 - 21.75	0.59	45	0.21	0.00
L42	21.75 - 16.75	0.39	45	0.17	0.00
L43	16.75 - 11.75	0.23	45	0.13	0.00
L44	11.75 - 6.75	0.11	45	0.09	0.00
L45	6.75 - 1.75	0.04	45	0.05	0.00
L46	1.75 - 0	0.00	45	0.01	0.00

Critical Deflections and Radius of Curvature - Service Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
176.00	DT465B-2XR w/ Mount Pipe	45	34.88	2.05	0.00	12535
174.00	800MHZ RRH	45	34.02	2.05	0.00	12535
167.00	7770.00 w/ Mount Pipe	45	31.03	2.02	0.00	7677
155.00	ERICSSON AIR 21 B2A B4P	45	26.13	1.87	0.00	3560
145.00	(2) BXA-171063-12CF-EDIN-X w/ Mount Pipe	45	22.38	1.71	0.00	4455
50.00	KS24019-L112A	45	2.11	0.41	0.00	9212
10.00	OG-860/1920/GPS-A	45	0.08	0.08	0.00	7326

Maximum Tower Deflections - Design Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	176 - 171	174.75	14	10.32	0.01
L2	171 - 166	164.03	14	10.25	0.01
L3	166 - 161	153.43	14	10.09	0.01
L4	161 - 156	143.04	14	9.84	0.00
L5	156 - 151	132.96	14	9.49	0.00
L6	151 - 144.25	123.28	14	9.07	0.00
L7	147.75 - 142.75	117.24	14	8.75	0.00
L8	142.75 - 137.75	108.22	14	8.49	0.00
L9	137.75 - 132.75	99.56	14	8.10	0.00
L10	132.75 - 127.75	91.33	14	7.67	0.00
L11	127.75 - 127.5	83.56	14	7.22	0.00
L12	127.5 - 122.5	83.18	14	7.20	0.00
L13	122.5 - 120.75	75.90	14	6.74	0.00
L14	120.75 - 120.5	73.46	14	6.58	0.00
L15	120.5 - 117.25	73.12	14	6.56	0.00
L16	117.25 - 117	68.77	14	6.25	0.00
L17	117 - 112	68.44	14	6.24	0.00
L18	112 - 107	62.07	14	5.95	0.00
L19	107 - 102	56.00	14	5.67	0.00
L20	102 - 94.58	50.22	14	5.38	0.00
L21	99.413 - 94.413	47.35	14	5.23	0.00
L22	94.413 - 89.413	41.97	14	5.05	0.00
L23	89.413 - 87.25	36.89	14	4.65	0.00
L24	87.25 - 87	34.83	14	4.48	0.00
L25	87 - 82	34.59	14	4.46	0.00
L26	82 - 77	30.13	14	4.06	0.00
L27	77 - 72	26.08	14	3.68	0.00
L28	72 - 67	22.44	14	3.30	0.00
L29	67 - 62	19.18	14	2.92	0.00
L30	62 - 61.5	16.31	14	2.56	0.00
L31	61.5 - 61.25	16.05	14	2.52	0.00
L32	61.25 - 56.25	15.92	14	2.51	0.00
L33	56.25 - 46.953	13.41	14	2.27	0.00
L34	53.036 - 45.953	11.93	14	2.12	0.00
L35	45.953 - 40.953	8.91	14	1.93	0.00
L36	40.953 - 35.953	7.01	14	1.69	0.00
L37	35.953 - 32.25	5.36	14	1.46	0.00
L38	32.25 - 32	4.30	14	1.29	0.00
L39	32 - 31.75	4.23	14	1.28	0.00
L40	31.75 - 26.75	4.16	14	1.27	0.00
L41	26.75 - 21.75	2.94	14	1.06	0.00
L42	21.75 - 16.75	1.94	14	0.86	0.00
L43	16.75 - 11.75	1.14	14	0.66	0.00
L44	11.75 - 6.75	0.56	14	0.46	0.00
L45	6.75 - 1.75	0.18	14	0.26	0.00
L46	1.75 - 0	0.01	14	0.07	0.00

Critical Deflections and Radius of Curvature - Design Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
176.00	DT465B-2XR w/ Mount Pipe	14	174.75	10.32	0.01	2666
174.00	800MHZ RRH	14	170.46	10.30	0.01	2666
167.00	7770.00 w/ Mount Pipe	14	155.54	10.13	0.01	1631
155.00	ERICSSON AIR 21 B2A B4P	14	130.99	9.41	0.00	748
145.00	(2) BXA-171063-12CF-EDIN-X w/ Mount Pipe	14	112.24	8.60	0.00	928
50.00	KS24019-L112A	14	10.60	2.04	0.00	1838
10.00	OG-860/1920/GPS-A	14	0.40	0.39	0.00	1460

Compression Checks

Pole Design Data

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
L1	176 - 171 (1)	TP17.63x16.5x0.19	5.00	0.00	0.0	10.38	-2553	607118	0.004
L2	171 - 166 (2)	TP18.75x17.63x0.19	5.00	0.00	0.0	11.05	-5084	646319	0.008
L3	166 - 161 (3)	TP19.88x18.75x0.19	5.00	0.00	0.0	11.72	-5391	685519	0.008
L4	161 - 156 (4)	TP21x19.88x0.19	5.00	0.00	0.0	12.39	-5731	724720	0.008
L5	156 - 151 (5)	TP22.13x21x0.19	5.00	0.00	0.0	13.06	-8864	763921	0.012
L6	151 - 144.25 (6)	TP23.65x22.13x0.19	6.75	0.00	0.0	13.49	-9191	789402	0.012
L7	144.25 - 142.75 (7)	TP23.6x22.49x0.31	5.00	0.00	0.0	23.10	-11889	1351280	0.009
L8	142.75 - 137.75 (8)	TP24.71x23.6x0.31	5.00	0.00	0.0	24.20	-12627	1415900	0.009
L9	137.75 - 132.75 (9)	TP25.83x24.71x0.31	5.00	0.00	0.0	25.31	-13397	1480530	0.009
L10	132.75 - 127.75 (10)	TP26.94x25.83x0.31	5.00	0.00	0.0	26.41	-14201	1545150	0.009
L11	127.75 - 127.5 (11)	TP27x26.94x0.31	0.25	0.00	0.0	26.47	-14254	1548380	0.009
L12	127.5 - 122.5 (12)	TP28.11x27x0.31	5.00	0.00	0.0	27.57	-15047	1613000	0.009
L13	122.5 - 120.75 (13)	TP28.5x28.11x0.31	1.75	0.00	0.0	27.96	-15322	1635620	0.009
L14	120.75 - 120.5 (14)	TP28.56x28.5x0.31	0.25	0.00	0.0	28.01	-15393	1638850	0.009
L15	120.5 - 117.25 (15)	TP29.28x28.56x0.31	3.25	0.00	0.0	28.73	-15927	1680860	0.009
L16	117.25 - 117 (16)	TP29.34x29.28x0.54	0.25	0.00	0.0	49.13	-16003	2874170	0.006
L17	117 - 112 (17)	TP30.45x29.34x0.53	5.00	0.00	0.0	49.87	-17148	2917120	0.006
L18	112 - 107 (18)	TP31.56x30.45x0.53	5.00	0.00	0.0	51.72	-18332	3025680	0.006
L19	107 - 102 (19)	TP32.68x31.56x0.51	5.00	0.00	0.0	52.32	-19547	3060810	0.006
L20	102 - 94.58 (20)	TP34.33x32.68x0.51	7.42	0.00	0.0	53.26	-20184	3115650	0.006
L21	94.58 - 94.413 (21)	TP33.74x32.63x0.38	5.00	0.00	0.0	39.71	-22175	2323260	0.010
L22	94.413 - 89.413 (22)	TP34.85x33.74x0.38	5.00	0.00	0.0	41.04	-23267	2400710	0.010
L23	89.413 - 87.25 (23)	TP35.33x34.85x0.38	2.16	0.00	0.0	41.61	-23755	2434220	0.010
L24	87.25 - 87 (24)	TP35.39x35.33x0.38	0.25	0.00	0.0	41.68	-23829	2438090	0.010
L25	87 - 82 (25)	TP36.5x35.39x0.38	5.00	0.00	0.0	43.00	-24972	2515550	0.010
L26	82 - 77 (26)	TP37.62x36.5x0.38	5.00	0.00	0.0	44.32	-26164	2593010	0.010
L27	77 - 72 (27)	TP38.73x37.62x0.38	5.00	0.00	0.0	45.65	-27388	2670470	0.010
L28	72 - 67 (28)	TP39.84x38.73x0.38	5.00	0.00	0.0	46.97	-28646	2747920	0.010
L29	67 - 62 (29)	TP40.95x39.84x0.38	5.00	0.00	0.0	48.30	-29936	2825380	0.011
L30	62 - 61.5 (30)	TP41.06x40.95x0.38	0.50	0.00	0.0	48.43	-30077	2833130	0.011
L31	61.5 - 61.25 (31)	TP41.12x41.06x0.59	0.25	0.00	0.0	75.58	-30170	4421450	0.007
L32	61.25 - 56.25 (32)	TP42.23x41.12x0.58	5.00	0.00	0.0	76.03	-31909	4447480	0.007
L33	56.25 - 46.953 (33)	TP44.3x42.23x0.58	9.30	0.00	0.0	77.33	-33050	4523830	0.007
L34	46.953 - 45.953 (34)	TP43.77x42.2x0.58	7.08	0.00	0.0	78.84	-37485	4612050	0.008
L35	45.953 - 40.953 (35)	TP44.89x43.77x0.56	5.00	0.00	0.0	79.13	-39320	4629320	0.008
L36	40.953 - 35.953 (36)	TP46x44.89x0.56	5.00	0.00	0.0	81.12	-41185	4745540	0.009
L37	35.953 - 32.25 (37)	TP46.82x46x0.56	3.70	0.00	0.0	82.59	-42582	4831610	0.009
L38	32.25 - 32 (38)	TP46.88x46.82x0.78	0.25	0.00	0.0	113.41	-42724	6634320	0.006
L39	32 - 31.75 (39)	TP46.93x46.88x0.61	0.25	0.00	0.0	90.05	-42827	5268060	0.008
L40	31.75 - 26.75 (40)	TP48.05x46.93x0.61	5.00	0.00	0.0	92.22	-44889	5394610	0.008
L41	26.75 - 21.75 (41)	TP49.16x48.05x0.61	5.00	0.00	0.0	94.38	-46991	5521170	0.009

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
L42	21.75 - 16.75 (42)	TP50.27x49.16x0.6	5.00	0.00	0.0	94.60	-49125	5533850	0.009
L43	16.75 - 11.75 (43)	TP51.38x50.27x0.6	5.00	0.00	0.0	96.71	-51288	5657820	0.009
L44	11.75 - 6.75 (44)	TP52.5x51.38x0.59	5.00	0.00	0.0	96.80	-53575	5662700	0.009
L45	6.75 - 1.75 (45)	TP53.61x52.5x0.59	5.00	0.00	0.0	98.87	-55799	5784090	0.010
L46	1.75 - 0 (46)	TP54x53.61x0.59	1.75	0.00	0.0	99.60	-56576	5826580	0.010

Pole Bending Design Data

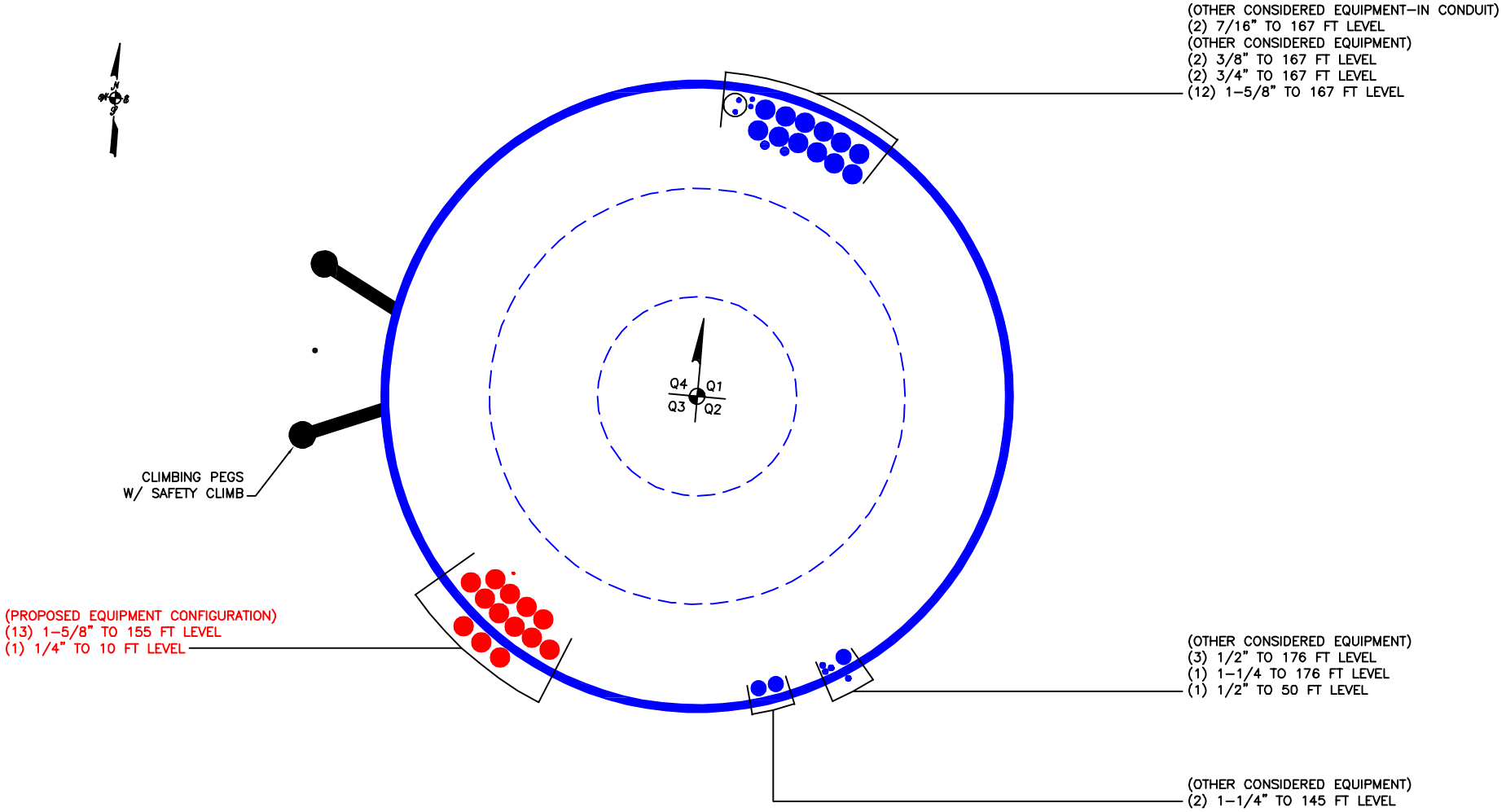
Section No.	Elevation ft	Size	M_{ux} lb-ft	ϕM_{nx} lb-ft	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	M_{uy} lb-ft	ϕM_{ny} lb-ft	Ratio $\frac{M_{uy}}{\phi M_{ny}}$
L1	176 - 171 (1)	TP17.63x16.5x0.19	32689	275698	0.119	0	275698	0.000
L2	171 - 166 (2)	TP18.75x17.63x0.19	68526	309556	0.221	0	309556	0.000
L3	166 - 161 (3)	TP19.88x18.75x0.19	124070	343145	0.362	0	343145	0.000
L4	161 - 156 (4)	TP21x19.88x0.19	181203	377783	0.480	0	377783	0.000
L5	156 - 151 (5)	TP22.13x21x0.19	260083	413362	0.629	0	413362	0.000
L6	151 - 144.25 (6)	TP23.65x22.13x0.19	315533	436944	0.722	0	436944	0.000
L7	144.25 - 142.75 (7)	TP23.6x22.49x0.31	419863	817307	0.514	0	817307	0.000
L8	142.75 - 137.75 (8)	TP24.71x23.6x0.31	529952	897892	0.590	0	897892	0.000
L9	137.75 - 132.75 (9)	TP25.83x24.71x0.31	641784	982267	0.653	0	982267	0.000
L10	132.75 - 127.75 (10)	TP26.94x25.83x0.31	755355	1070425	0.706	0	1070425	0.000
L11	127.75 - 127.5 (11)	TP27x26.94x0.31	761081	1074933	0.708	0	1074933	0.000
L12	127.5 - 122.5 (12)	TP28.11x27x0.31	877208	1167075	0.752	0	1167075	0.000
L13	122.5 - 120.75 (13)	TP28.5x28.11x0.31	918583	1200217	0.765	0	1200217	0.000
L14	120.75 - 120.5 (14)	TP28.56x28.5x0.31	924525	1204992	0.767	0	1204992	0.000
L15	120.5 - 117.25 (15)	TP29.28x28.56x0.31	1002483	1267900	0.791	0	1267900	0.000
L16	117.25 - 117 (16)	TP29.34x29.28x0.54	1008533	2138700	0.472	0	2138700	0.000
L17	117 - 112 (17)	TP30.45x29.34x0.53	1131525	2258025	0.501	0	2258025	0.000
L18	112 - 107 (18)	TP31.56x30.45x0.53	1258200	2430733	0.518	0	2430733	0.000
L19	107 - 102 (19)	TP32.68x31.56x0.51	1388592	2550633	0.544	0	2550633	0.000
L20	102 - 94.58 (20)	TP34.33x32.68x0.51	1457525	2643575	0.551	0	2643575	0.000
L21	94.58 - 94.413 (21)	TP33.74x32.63x0.38	1593858	2017633	0.790	0	2017633	0.000
L22	94.413 - 89.413 (22)	TP34.85x33.74x0.38	1734000	2155183	0.805	0	2155183	0.000
L23	89.413 - 87.25 (23)	TP35.33x34.85x0.38	1795667	2216092	0.810	0	2216092	0.000
L24	87.25 - 87 (24)	TP35.39x35.33x0.38	1802833	2223192	0.811	0	2223192	0.000
L25	87 - 82 (25)	TP36.5x35.39x0.38	1947933	2359875	0.825	0	2359875	0.000
L26	82 - 77 (26)	TP37.62x36.5x0.38	2096358	2489492	0.842	0	2489492	0.000
L27	77 - 72 (27)	TP38.73x37.62x0.38	2248108	2621350	0.858	0	2621350	0.000
L28	72 - 67 (28)	TP39.84x38.73x0.38	2403150	2755350	0.872	0	2755350	0.000
L29	67 - 62 (29)	TP40.95x39.84x0.38	2561467	2891383	0.886	0	2891383	0.000
L30	62 - 61.5 (30)	TP41.06x40.95x0.38	2577475	2905092	0.887	0	2905092	0.000
L31	61.5 - 61.25 (31)	TP41.12x41.06x0.59	2585500	4649492	0.556	0	4649492	0.000
L32	61.25 - 56.25 (32)	TP42.23x41.12x0.58	2747783	4809942	0.571	0	4809942	0.000
L33	56.25 - 46.953 (33)	TP44.3x42.23x0.58	2854008	4977633	0.573	0	4977633	0.000
L34	46.953 - 45.953 (34)	TP43.77x42.2x0.58	3093783	5175008	0.598	0	5175008	0.000
L35	45.953 - 40.953 (35)	TP44.89x43.77x0.56	3267875	5332950	0.613	0	5332950	0.000
L36	40.953 - 35.953 (36)	TP46x44.89x0.56	3445217	5605808	0.615	0	5605808	0.000
L37	35.953 - 32.25 (37)	TP46.82x46x0.56	3578658	5812275	0.616	0	5812275	0.000
L38	32.25 - 32 (38)	TP46.88x46.82x0.78	3587742	7917433	0.453	0	7917433	0.000
L39	32 - 31.75 (39)	TP46.93x46.88x0.61	3596825	6339041	0.567	0	6339041	0.000
L40	31.75 - 26.75 (40)	TP48.05x46.93x0.61	3780208	6649300	0.569	0	6649300	0.000
L41	26.75 - 21.75 (41)	TP49.16x48.05x0.61	3966767	6966967	0.569	0	6966967	0.000
L42	21.75 - 16.75 (42)	TP50.27x49.16x0.6	4156433	7148633	0.581	0	7148633	0.000
L43	16.75 - 11.75 (43)	TP51.38x50.27x0.6	4349225	7474467	0.582	0	7474467	0.000
L44	11.75 - 6.75 (44)	TP52.5x51.38x0.59	4545000	7650425	0.594	0	7650425	0.000
L45	6.75 - 1.75 (45)	TP53.61x52.5x0.59	4744358	7983817	0.594	0	7983817	0.000
L46	1.75 - 0 (46)	TP54x53.61x0.59	4814883	8102175	0.594	0	8102175	0.000

Pole Shear Design Data

Section No.	Elevation ft	Size	Actual V_u lb	ϕV_n lb	Ratio $\frac{V_u}{\phi V_n}$	Actual T_u lb-ft	ϕT_n lb-ft	Ratio $\frac{T_u}{\phi T_n}$
L1	176 - 171 (1)	TP17.63x16.5x0.19	6087	179783	0.034	56	278153	0.000
L2	171 - 166 (2)	TP18.75x17.63x0.19	10954	193896	0.056	112	315232	0.000
L3	166 - 161 (3)	TP19.88x18.75x0.19	11270	205656	0.055	112	354631	0.000
L4	161 - 156 (4)	TP21x19.88x0.19	11591	217416	0.053	112	396349	0.000
L5	156 - 151 (5)	TP22.13x21x0.19	16965	226824	0.075	240	440387	0.001
L6	151 - 144.25 (6)	TP23.65x22.13x0.19	17169	234273	0.073	240	470255	0.001
L7	144.25 - 142.75 (7)	TP23.6x22.49x0.31	21852	399568	0.055	240	826760	0.000
L8	142.75 - 137.75 (8)	TP24.71x23.6x0.31	22199	420893	0.053	240	907725	0.000
L9	137.75 - 132.75 (9)	TP25.83x24.71x0.31	22548	440280	0.051	239	992475	0.000
L10	132.75 - 127.75 (10)	TP26.94x25.83x0.31	22896	459667	0.050	239	1081008	0.000
L11	127.75 - 127.5 (11)	TP27x26.94x0.31	22923	464514	0.049	239	1085533	0.000
L12	127.5 - 122.5 (12)	TP28.11x27x0.31	23543	480023	0.049	239	1178033	0.000
L13	122.5 - 120.75 (13)	TP28.5x28.11x0.31	23769	483901	0.049	239	1211300	0.000
L14	120.75 - 120.5 (14)	TP28.56x28.5x0.31	23787	491655	0.048	238	1216092	0.000
L15	120.5 - 117.25 (15)	TP29.28x28.56x0.31	24205	500056	0.048	238	1279233	0.000
L16	117.25 - 117 (16)	TP29.34x29.28x0.54	24235	862252	0.028	238	2174633	0.000
L17	117 - 112 (17)	TP30.45x29.34x0.53	24972	875135	0.029	238	2293433	0.000
L18	112 - 107 (18)	TP31.56x30.45x0.53	25714	907705	0.028	238	2467325	0.000
L19	107 - 102 (19)	TP32.68x31.56x0.51	26458	918244	0.029	238	2586533	0.000
L20	102 - 94.58 (20)	TP34.33x32.68x0.51	26844	934695	0.029	238	2680042	0.000
L21	94.58 - 94.413 (21)	TP33.74x32.63x0.38	27712	696977	0.040	237	2036575	0.000
L22	94.413 - 89.413 (22)	TP34.85x33.74x0.38	28376	720214	0.039	237	2174642	0.000
L23	89.413 - 87.25 (23)	TP35.33x34.85x0.38	28667	730266	0.039	237	2235767	0.000
L24	87.25 - 87 (24)	TP35.39x35.33x0.38	28694	730266	0.039	237	2242892	0.000
L25	87 - 82 (25)	TP36.5x35.39x0.38	29367	754665	0.039	237	2387667	0.000
L26	82 - 77 (26)	TP37.62x36.5x0.38	30033	777903	0.039	237	2536967	0.000
L27	77 - 72 (27)	TP38.73x37.62x0.38	30695	801140	0.038	236	2690800	0.000
L28	72 - 67 (28)	TP39.84x38.73x0.38	31352	824377	0.038	236	2849158	0.000
L29	67 - 62 (29)	TP40.95x39.84x0.38	32005	847614	0.038	236	3012042	0.000
L30	62 - 61.5 (30)	TP41.06x40.95x0.38	32062	849938	0.038	236	3028583	0.000
L31	61.5 - 61.25 (31)	TP41.12x41.06x0.59	32097	1326440	0.024	236	4708258	0.000
L32	61.25 - 56.25 (32)	TP42.23x41.12x0.58	32831	1334240	0.025	236	4867417	0.000
L33	56.25 - 46.953 (33)	TP44.3x42.23x0.58	33287	1357150	0.025	236	5035958	0.000
L34	46.953 - 45.953 (34)	TP43.77x42.2x0.58	34499	1383620	0.025	236	5234300	0.000
L35	45.953 - 40.953 (35)	TP44.89x43.77x0.56	35160	1388800	0.025	236	5390758	0.000
L36	40.953 - 35.953 (36)	TP46x44.89x0.56	35801	1423660	0.025	236	5664833	0.000
L37	35.953 - 32.25 (37)	TP46.82x46x0.56	36300	1449480	0.025	236	5872191	0.000
L38	32.25 - 32 (38)	TP46.88x46.82x0.78	36324	1990300	0.018	236	8035800	0.000
L39	32 - 31.75 (39)	TP46.93x46.88x0.61	36359	1580420	0.023	236	6411117	0.000
L40	31.75 - 26.75 (40)	TP48.05x46.93x0.61	37012	1618380	0.023	236	6722841	0.000
L41	26.75 - 21.75 (41)	TP49.16x48.05x0.61	37633	1656350	0.023	236	7041967	0.000
L42	21.75 - 16.75 (42)	TP50.27x49.16x0.6	38256	1660160	0.023	236	7221750	0.000
L43	16.75 - 11.75 (43)	TP51.38x50.27x0.6	38885	1697350	0.023	236	7548941	0.000
L44	11.75 - 6.75 (44)	TP52.5x51.38x0.59	39567	1698810	0.023	236	7722867	0.000
L45	6.75 - 1.75 (45)	TP53.61x52.5x0.59	40202	1735230	0.023	236	8057517	0.000
L46	1.75 - 0 (46)	TP54x53.61x0.59	40440	1747970	0.023	236	8176317	0.000

APPENDIX B

BASE LEVEL DRAWING



BUSINESS UNIT: 876381 TOWER ID: C_BASELEVEL

APPENDIX C

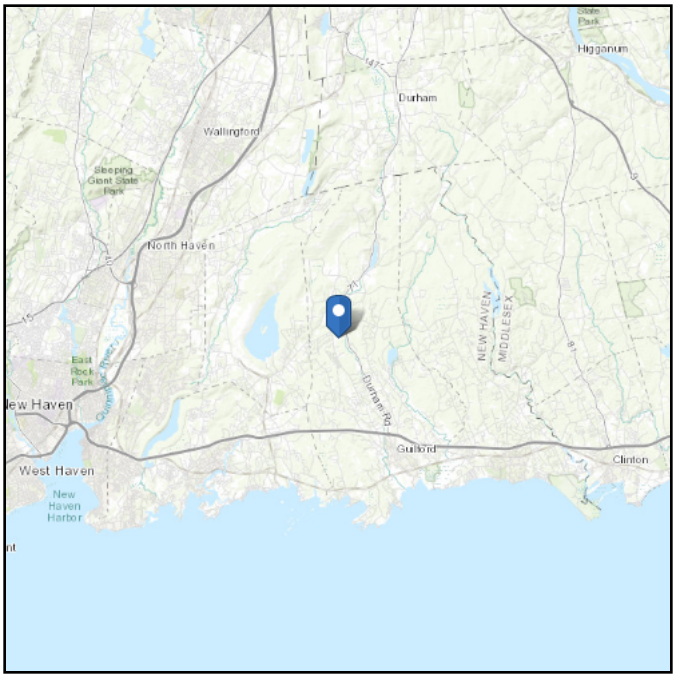
ADDITIONAL CALCULATIONS

ASCE 7 Hazards Report

Address:
No Address at This Location

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

Elevation: 181.21 ft (NAVD 88)
Latitude: 41.346483
Longitude: -72.723097



Wind

Results:	**78 Vmph**	
Wind Speed:	127 Vmph	Wind speed updated per local jurisdiction requirements
10-year MRI	78 Vmph	
25-year MRI	88 Vmph	
50-year MRI	95 Vmph	
100-year MRI	104 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:	Mon Dec 10 2018	

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.

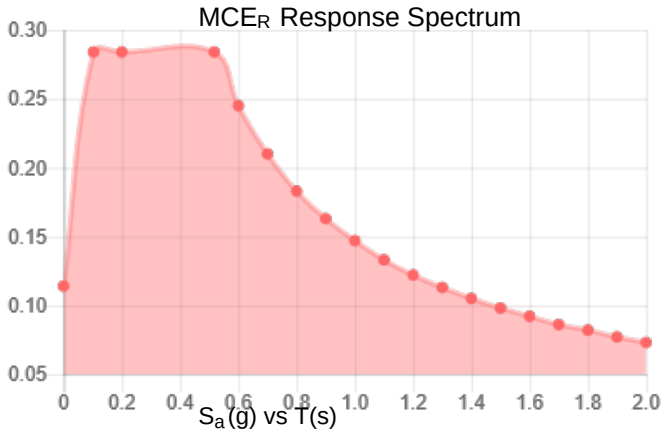
Seismic

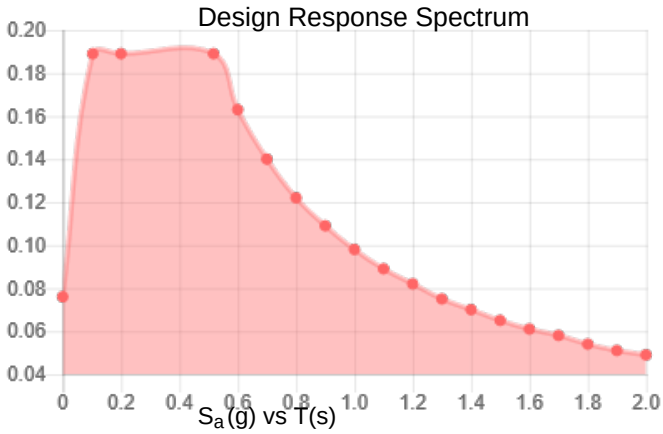
Site Soil Class: D - Stiff Soil

Results:

S_S :	0.178	S_{DS} :	0.189
S_1 :	0.061	S_{D1} :	0.098
F_a :	1.600	T_L :	6.000
F_v :	2.400	PGA :	0.091
S_{MS} :	0.284	PGA_M :	0.145
S_{M1} :	0.147	F_{PGA} :	1.600
		I_e :	1

Seismic Design Category B





Data Accessed: Mon Dec 10 2018

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

Ice

Results:

Ice Thickness:	0.75 in.
Concurrent Temperature:	15 F
Gust Speed:	50 mph
Data Source:	Standard ASCE/SEI 7-10, Figs. 10-2 through 10-8
Date Accessed:	Mon Dec 10 2018

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.

CCIpole

per TIA-222- H

Site BU: 876381

Work Order: 1730429

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	176	31.75	3.5	18	16.5	23.65	0.1875	Auto	A572-65
2	147.75	53.17	4.833	18	22.49	34.33	0.3125	Auto	A572-65
3	99.413	52.46	6.083	18	32.63	44.3	0.375	Auto	A572-65
4	53.036	53.036	0	18	42.20	54	0.375	Auto	A572-65

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	32.25	plate	CCI-WSFP-065125	4		x				x					x				x			
2	32	61.5	plate	CCI-SFP-065125	3	x						x						x					
3	61.5	87.25	plate	CCI-SFP-060100	3	x						x						x					
4	87.25	117.25	plate	CCI-SFP-060100	3	x						x						x					
5	120.75	127.75	plate	CCI-SFP-045100	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	6.5	1.25	8.125	0.625	n/a	33.000	19.000	6.563	1.1875	A572-65
2	6.5	1.25	8.125	0.625	33.000	33.000	19.000	6.563	1.1875	A572-65
3	6	1	6	0.5	24.000	24.000	16.000	4.750	1.1875	A572-65
4	6	1	6	0.5	24.000	24.000	16.000	4.750	1.1875	A572-65
5	4.5	1	4.5	0.5	18.000	18.000	20.000	3.250	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	176 - 171	5		18	16.500	17.626	0.1875	A572-65	1.000
2	171 - 166	5		18	17.626	18.752	0.1875	A572-65	1.000
3	166 - 161	5		18	18.752	19.878	0.1875	A572-65	1.000
4	161 - 156	5		18	19.878	21.004	0.1875	A572-65	1.000
5	156 - 151	5		18	21.004	22.130	0.1875	A572-65	1.000
6	151 - 147.75	6.75	3.5	18	22.130	23.650	0.1875	A572-65	1.000
7	147.75 - 142.75	5		18	22.487	23.601	0.3125	A572-65	1.000
8	142.75 - 137.75	5		18	23.601	24.714	0.3125	A572-65	1.000
9	137.75 - 132.75	5		18	24.714	25.828	0.3125	A572-65	1.000
10	132.75 - 127.75	5		18	25.828	26.942	0.3125	A572-65	1.000
11	127.75 - 127.5	0.25		18	26.942	26.997	0.3125	A572-65	1.000
12	127.5 - 122.5	5		18	26.997	28.111	0.3125	A572-65	1.000
13	122.5 - 120.75	1.75		18	28.111	28.501	0.3125	A572-65	1.000
14	120.75 - 120.5	0.25		18	28.501	28.557	0.3125	A572-65	1.000
15	120.5 - 117.25	3.25		18	28.557	29.280	0.3125	A572-65	1.000
16	117.25 - 117	0.25		18	29.280	29.336	0.5375	A572-65	0.952
17	117 - 112	5		18	29.336	30.450	0.525	A572-65	0.960
18	112 - 107	5		18	30.450	31.564	0.525	A572-65	0.947
19	107 - 102	5		18	31.564	32.677	0.5125	A572-65	0.958
20	102 - 99.413	7.42	4.833	18	32.677	34.330	0.5125	A572-65	0.951
21	99.413 - 94.413	5		18	32.628	33.741	0.375	A572-65	1.000
22	94.413 - 89.413	5		18	33.741	34.853	0.375	A572-65	1.000
23	89.413 - 87.25	2.163		18	34.853	35.335	0.375	A572-65	1.000
24	87.25 - 87	0.25		18	35.335	35.390	0.375	A572-65	1.000
25	87 - 82	5		18	35.390	36.503	0.375	A572-65	1.000
26	82 - 77	5		18	36.503	37.615	0.375	A572-65	1.000
27	77 - 72	5		18	37.615	38.727	0.375	A572-65	1.000
28	72 - 67	5		18	38.727	39.840	0.375	A572-65	1.000
29	67 - 62	5		18	39.840	40.952	0.375	A572-65	1.000
30	62 - 61.5	0.5		18	40.952	41.064	0.375	A572-65	1.000
31	61.5 - 61.25	0.25		18	41.064	41.119	0.5875	A572-65	0.964
32	61.25 - 56.25	5		18	41.119	42.232	0.575	A572-65	0.976
33	56.25 - 53.036	9.297	6.083	18	42.232	44.300	0.575	A572-65	0.970
34	53.036 - 45.953	7.083		18	42.197	43.773	0.575	A572-65	0.964
35	45.953 - 40.953	5		18	43.773	44.886	0.5625	A572-65	0.978
36	40.953 - 35.953	5		18	44.886	45.999	0.5625	A572-65	0.970
37	35.953 - 32.25	3.703		18	45.999	46.823	0.5625	A572-65	0.965
38	32.25 - 32	0.25		18	46.823	46.878	0.775	A572-65	0.990
39	32 - 31.75	0.25		18	46.878	46.934	0.6125	A572-65	0.976
40	31.75 - 26.75	5		18	46.934	48.047	0.6125	A572-65	0.968
41	26.75 - 21.75	5		18	48.047	49.159	0.6125	A572-65	0.960
42	21.75 - 16.75	5		18	49.159	50.272	0.6	A572-65	0.971
43	16.75 - 11.75	5		18	50.272	51.385	0.6	A572-65	0.964
44	11.75 - 6.75	5		18	51.385	52.498	0.5875	A572-65	0.977
45	6.75 - 1.75	5		18	52.498	53.611	0.5875	A572-65	0.970
46	1.75 - 0	1.75		18	53.611	54.000	0.5875	A572-65	0.967

TNX Section Forces

Increment (ft):	5	TNX Output		
	Section Height (ft)	P_u (K)	M_{ux} (kip-ft)	V_u (K)
1	176 - 171	2.55	32.69	6.09
2	171 - 166	5.08	68.53	10.95
3	166 - 161	5.39	124.07	11.27
4	161 - 156	5.73	181.20	11.59
5	156 - 151	8.87	260.12	16.96
6	151 - 147.75	9.19	315.53	17.17
7	147.75 - 142.75	11.91	419.93	21.77
8	142.75 - 137.75	12.63	529.95	22.20
9	137.75 - 132.75	13.40	641.78	22.55
10	132.75 - 127.75	14.20	755.35	22.90
11	127.75 - 127.5	14.25	761.08	22.92
12	127.5 - 122.5	15.05	877.21	23.54
13	122.5 - 120.75	15.32	918.58	23.77
14	120.75 - 120.5	15.39	924.52	23.79
15	120.5 - 117.25	15.93	1002.48	24.20
16	117.25 - 117	16.00	1008.54	24.23
17	117 - 112	17.15	1131.52	24.97
18	112 - 107	18.33	1258.20	25.71
19	107 - 102	19.55	1388.59	26.46
20	102 - 99.413	20.18	1457.52	26.84
21	99.413 - 94.413	22.17	1593.86	27.71
22	94.413 - 89.413	23.27	1734.00	28.38
23	89.413 - 87.25	23.75	1795.67	28.67
24	87.25 - 87	23.83	1802.83	28.69
25	87 - 82	24.97	1947.93	29.37
26	82 - 77	26.16	2096.36	30.03
27	77 - 72	27.39	2248.11	30.70
28	72 - 67	28.65	2403.15	31.35
29	67 - 62	29.94	2561.47	32.00
30	62 - 61.5	30.08	2577.48	32.06
31	61.5 - 61.25	30.17	2585.50	32.10
32	61.25 - 56.25	31.91	2747.78	32.83
33	56.25 - 53.036	33.05	2854.00	33.29
34	53.036 - 45.953	37.49	3093.78	34.50
35	45.953 - 40.953	39.32	3267.87	35.16
36	40.953 - 35.953	41.18	3445.22	35.80
37	35.953 - 32.25	42.58	3578.66	36.30
38	32.25 - 32	42.72	3587.74	36.32
39	32 - 31.75	42.83	3596.82	36.36
40	31.75 - 26.75	44.89	3780.21	37.01
41	26.75 - 21.75	46.99	3966.77	37.63
42	21.75 - 16.75	49.12	4156.44	38.26
43	16.75 - 11.75	51.29	4349.23	38.88
44	11.75 - 6.75	53.57	4545.00	39.57
45	6.75 - 1.75	55.80	4744.36	40.20
46	1.75 - 0	56.58	4814.88	40.44

Analysis Results

Elevation (ft)	Component Type	Size	Critical Element	% Capacity	Pass / Fail
176 - 171	Pole	TP17.626x16.5x0.1875	Pole	11.6%	Pass
171 - 166	Pole	TP18.752x17.626x0.1875	Pole	21.7%	Pass
166 - 161	Pole	TP19.878x18.752x0.1875	Pole	35.1%	Pass
161 - 156	Pole	TP21.004x19.878x0.1875	Pole	46.4%	Pass
156 - 151	Pole	TP22.13x21.004x0.1875	Pole	61.0%	Pass
151 - 147.75	Pole	TP23.65x22.13x0.1875	Pole	69.8%	Pass
147.75 - 142.75	Pole	TP23.601x22.487x0.3125	Pole	49.6%	Pass
142.75 - 137.75	Pole	TP24.714x23.601x0.3125	Pole	56.9%	Pass
137.75 - 132.75	Pole	TP25.828x24.714x0.3125	Pole	62.9%	Pass
132.75 - 127.75	Pole	TP26.942x25.828x0.3125	Pole	67.9%	Pass
127.75 - 127.5	Pole	TP26.997x26.942x0.3125	Pole	68.1%	Pass
127.5 - 122.5	Pole	TP28.111x26.997x0.3125	Pole	72.3%	Pass
122.5 - 120.75	Pole	TP28.501x28.111x0.3125	Pole	73.6%	Pass
120.75 - 120.5	Pole	TP28.557x28.501x0.3125	Pole	73.8%	Pass
120.5 - 117.25	Pole	TP29.28x28.557x0.3125	Pole	76.0%	Pass
117.25 - 117	Pole + Reinf.	TP29.336x29.28x0.5375	Reinf. 4 Tension Rupture	71.8%	Pass
117 - 112	Pole + Reinf.	TP30.45x29.336x0.525	Reinf. 4 Tension Rupture	75.9%	Pass
112 - 107	Pole + Reinf.	TP31.564x30.45x0.525	Reinf. 4 Tension Rupture	79.6%	Pass
107 - 102	Pole + Reinf.	TP32.677x31.564x0.5125	Reinf. 4 Tension Rupture	83.0%	Pass
102 - 99.41	Pole + Reinf.	TP34.33x32.677x0.5125	Reinf. 4 Tension Rupture	84.7%	Pass
99.41 - 94.41	Pole	TP33.741x32.628x0.375	Pole	75.9%	Pass
94.41 - 89.41	Pole	TP34.853x33.741x0.375	Pole	77.3%	Pass
89.41 - 87.25	Pole	TP35.335x34.853x0.375	Pole	77.9%	Pass
87.25 - 87	Pole	TP35.39x35.335x0.375	Pole	78.0%	Pass
87 - 82	Pole	TP36.503x35.39x0.375	Pole	79.4%	Pass
82 - 77	Pole	TP37.615x36.503x0.375	Pole	81.0%	Pass
77 - 72	Pole	TP38.727x37.615x0.375	Pole	82.5%	Pass
72 - 67	Pole	TP39.84x38.727x0.375	Pole	83.9%	Pass
67 - 62	Pole	TP40.952x39.84x0.375	Pole	85.2%	Pass
62 - 61.5	Pole	TP41.064x40.952x0.375	Pole	85.4%	Pass
61.5 - 61.25	Pole + Reinf.	TP41.119x41.064x0.5875	Reinf. 2 Tension Rupture	83.0%	Pass
61.25 - 56.25	Pole + Reinf.	TP42.232x41.119x0.575	Reinf. 2 Tension Rupture	84.4%	Pass
56.25 - 53.04	Pole + Reinf.	TP44.3x42.232x0.575	Reinf. 2 Tension Rupture	85.2%	Pass
53.04 - 45.95	Pole + Reinf.	TP43.773x42.197x0.575	Reinf. 2 Tension Rupture	89.5%	Pass
45.95 - 40.95	Pole + Reinf.	TP44.886x43.773x0.5625	Reinf. 2 Tension Rupture	90.6%	Pass
40.95 - 35.95	Pole + Reinf.	TP45.999x44.886x0.5625	Reinf. 2 Tension Rupture	91.7%	Pass
35.95 - 32.25	Pole + Reinf.	TP46.823x45.999x0.5625	Reinf. 2 Tension Rupture	92.4%	Pass
32.25 - 32	Pole + Reinf.	TP46.878x46.823x0.775	Reinf. 2 Tension Rupture	66.8%	Pass
32 - 31.75	Pole + Reinf.	TP46.934x46.878x0.6125	Reinf. 1 Tension Rupture	83.3%	Pass
31.75 - 26.75	Pole + Reinf.	TP48.047x46.934x0.6125	Reinf. 1 Tension Rupture	84.3%	Pass
26.75 - 21.75	Pole + Reinf.	TP49.159x48.047x0.6125	Reinf. 1 Tension Rupture	85.2%	Pass
21.75 - 16.75	Pole + Reinf.	TP50.272x49.159x0.6	Reinf. 1 Tension Rupture	86.1%	Pass
16.75 - 11.75	Pole + Reinf.	TP51.385x50.272x0.6	Reinf. 1 Tension Rupture	86.9%	Pass
11.75 - 6.75	Pole + Reinf.	TP52.498x51.385x0.5875	Reinf. 1 Tension Rupture	87.7%	Pass
6.75 - 1.75	Pole + Reinf.	TP53.611x52.498x0.5875	Reinf. 1 Tension Rupture	88.4%	Pass
1.75 - 0	Pole + Reinf.	TP54x53.611x0.5875	Reinf. 1 Tension Rupture	88.6%	Pass
				Summary	
			Pole	85.4%	Pass
			Reinforcement	92.4%	Pass
			Overall	92.4%	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
176 - 171	399	n/a	399	10.38	n/a	10.38	11.6%					
171 - 166	481	n/a	481	11.05	n/a	11.05	21.7%					
166 - 161	574	n/a	574	11.72	n/a	11.72	35.1%					
161 - 156	678	n/a	678	12.39	n/a	12.39	46.4%					
156 - 151	794	n/a	794	13.06	n/a	13.06	61.0%					
151 - 147.75	876	n/a	876	13.49	n/a	13.49	69.8%					
147.75 - 142.75	1582	n/a	1582	23.10	n/a	23.10	49.6%					
142.75 - 137.75	1820	n/a	1820	24.20	n/a	24.20	56.9%					
137.75 - 132.75	2081	n/a	2081	25.31	n/a	25.31	62.9%					
132.75 - 127.75	2365	n/a	2365	26.41	n/a	26.41	67.9%					
127.75 - 127.5	2380	n/a	2380	26.47	n/a	26.47	68.1%					
127.5 - 122.5	2691	n/a	2691	27.57	n/a	27.57	72.3%					
122.5 - 120.75	2806	n/a	2806	27.96	n/a	27.96	73.6%					
120.75 - 120.5	2822	n/a	2822	28.01	n/a	28.01	73.8%					
120.5 - 117.25	3045	n/a	3045	28.73	n/a	28.73	76.0%					
117.25 - 117	3063	2098	5161	28.79	18.00	46.79	44.6%				71.8%	
117 - 112	3429	2253	5682	29.89	18.00	47.89	47.4%				75.9%	
112 - 107	3823	2414	6237	31.00	18.00	49.00	50.2%				79.6%	
107 - 102	4247	2580	6826	32.10	18.00	50.10	52.9%				83.0%	
102 - 99.41	4478	2668	7145	32.67	18.00	50.67	54.2%				84.7%	
99.41 - 94.41	5584	n/a	5584	39.71	n/a	39.71	75.9%					
94.41 - 89.41	6161	n/a	6161	41.04	n/a	41.04	77.3%					
89.41 - 87.25	6423	n/a	6423	41.61	n/a	41.61	77.9%					
87.25 - 87	6454	n/a	6454	41.68	n/a	41.68	78.0%					
87 - 82	7088	n/a	7088	43.00	n/a	43.00	79.4%					
82 - 77	7763	n/a	7763	44.32	n/a	44.32	81.0%					
77 - 72	8480	n/a	8480	45.65	n/a	45.65	82.5%					
72 - 67	9240	n/a	9240	46.97	n/a	46.97	83.9%					
67 - 62	10043	n/a	10043	48.30	n/a	48.30	85.2%					
62 - 61.5	10126	n/a	10126	48.43	n/a	48.43	85.4%					
61.5 - 61.25	10168	5514	15682	48.49	24.38	72.87	54.6%		83.0%			
61.25 - 56.25	11023	5805	16828	49.82	24.38	74.19	56.0%		84.4%			
56.25 - 53.04	11598	5996	17594	50.67	24.38	75.04	56.9%		85.2%			
53.04 - 45.95	12287	6221	18507	51.65	24.38	76.03	60.1%		89.5%			
45.95 - 40.95	13256	6530	19786	52.98	24.38	77.35	61.4%		90.6%			
40.95 - 35.95	14275	6846	21122	54.30	24.38	78.68	62.7%		91.7%			
35.95 - 32.25	15063	7086	22149	55.28	24.38	79.66	63.6%		92.4%			
32.25 - 32	15117	15527	30644	55.35	56.88	112.22	46.7%	64.6%	66.8%			
32 - 31.75	15171	9208	24380	55.41	32.50	87.91	59.1%	83.3%				
31.75 - 26.75	16285	9932	26217	56.74	32.50	89.24	59.4%	84.3%				
26.75 - 21.75	17453	10383	27835	58.06	32.50	90.56	60.6%	85.2%				
21.75 - 16.75	18674	10843	29518	59.39	32.50	91.89	61.8%	86.1%				
16.75 - 11.75	19952	11314	31266	60.71	32.50	93.21	62.9%	86.9%				
11.75 - 6.75	21286	11795	33081	62.04	32.50	94.54	64.0%	87.7%				
6.75 - 1.75	22679	12286	34965	63.36	32.50	95.86	65.1%	88.4%				
1.75 - 0	23180	12460	35641	63.82	32.50	96.32	65.5%	88.6%				

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

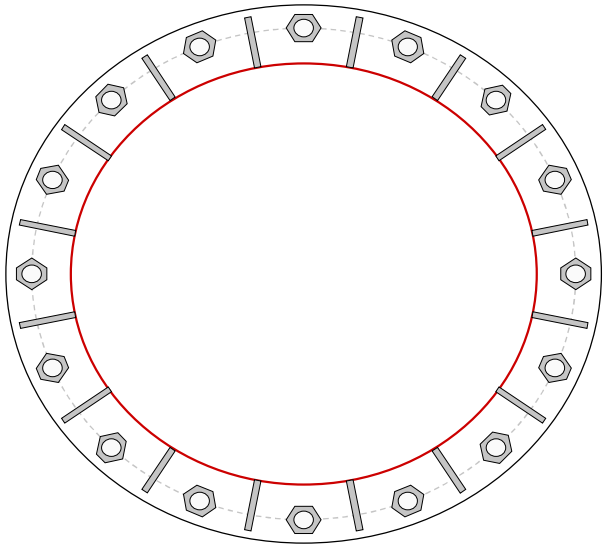
Monopole Base Plate Connection

Site Info	
BU #	876381
Site Name	Ward
Order #	479832 Rev. 2

Analysis Considerations	
TIA-222 Revision	H
Grout Considered:	No
l_{ar} (in)	1

Applied Loads	
Moment (kip-ft)	4814.89
Axial Force (kips)	56.60
Shear Force (kips)	40.41

*TIA-222-H Section 15.5 Applied



Connection Properties

Anchor Rod Data

(16) 2-1/4" ø bolts (A615-75 N; Fy=75 ksi, Fu=100 ksi) on 63" BC

Base Plate Data

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

Stiffener Data

(16) 15"H x 6.5"W x 0.75"T, Notch: 0.75"
plate: Fy= 65 ksi ; weld: Fy= 80 ksi
horiz. weld: 0.375" groove, 45° dbl bevel, 0.3125" fillet
vert. weld: 0.3125" fillet

Pole Data

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

Analysis Results

Anchor Rod Summary		(units of kips, kip-in)
Pu_c = 232.7	ϕPn_c = 243.75	Stress Rating
Vu = 2.53	ϕVn = 73.13	91.0%
Mu = n/a	ϕMn = n/a	Pass

Base Plate Summary		
Max Stress (ksi):	38.15	(Roark's Flexural)
Allowable Stress (ksi):	54	
Stress Rating:	67.3%	Pass

Stiffener Summary		
Horizontal Weld:	62.5%	Pass
Vertical Weld:	70.9%	Pass
Plate Flexure+Shear:	25.2%	Pass
Plate Tension+Shear:	61.0%	Pass
Plate Compression:	70.9%	Pass

Pole Summary		
Punching Shear:	21.9%	Pass

Drilled Pier Foundation

BU # :	876381
Site Name:	Ward
Order Number:	479832 Rev. 2

TIA-222 Revison:	H
Tower Type:	Monopole

Applied Loads	Comp.	Uplift
Moment (kip-ft)	4814.885	
Axial Force (kips)	56.6	
Shear Force (kips)	40.407	

Material Properties		
Concrete Strength, f'c:	4	ksi
Rebar Strength, Fy:	60	ksi

Pier Design Data		
Depth	29	ft
Ext. Above Grade	1	ft
Pier Section 1		
From 1' above grade to 29' below grade		
Pier Diameter	7	ft
Rebar Quantity	24	
Rebar Size	11	
Rebar Cage Diameter	73	in
Tie Size	5	

Analysis Results		
Soil Lateral Capacity	*Compression*	*Uplift*
$D_{v=0}$ (ft from TOC)	7.20	-
Soil Safety Factor	3.26	-
Max Moment (kip-ft)	5081.49	-
Rating*	*38.8%*	-
Soil Vertical Capacity	*Compression*	*Uplift*
Skin Friction (kips)	841.16	-
End Bearing (kips)	650.06	-
Weight of Concrete (kips)	150.18	-
Total Capacity (kips)	1491.22	-
Axial (kips)	206.78	-
Rating*	*13.2%*	-
Reinforced Concrete Capacity	*Compression*	*Uplift*
Critical Depth (ft from TOC)	7.14	-
Critical Moment (kip-ft)	5081.46	-
Critical Moment Capacity	6021.03	-
Rating*	*80.4%*	-

Soil Interaction Rating*	**38.8%**
Structural Foundation Rating*	**80.4%**

*Rating per TIA-222-H Section 15.5

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

Soil Profile

Groundwater Depth	9	ft	# of Layers: 3

Layer	Top (ft)	Bottom (ft)	Thickness (ft)	γ_{soil} (pcf)	$\gamma_{concrete}$ (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	3.5	3.5	130	150	0		0.000	0.000	0.00	0.00			Cohesionless
2	3.5	9	5.5	130	150		35	0.000	0.000	2.00	2.00			Cohesionless
3	9	29	20	67.6	87.6		35	0.000	0.000	2.00	2.00	22.522		Cohesionless

Exhibit E

Mount Analysis

Date: **April 29, 2019**

Charles McGuirt
Crown Castle
3530 Toringdon Way, Suite 300
Charlotte, NC 28277
(704) 406-6607

Engineered Tower Solutions, PLLC
8120 Sheridan Blvd, Suite A-311
Westminster, CO 80003
(919) 782-2710
Bach.Tran@ets-pllc.com

Subject:	**Mount Analysis Report**	
Carrier Designation:	**T-Mobile Equipment Change-Out**	
	Carrier Site Number:	CT11393B
	Carrier Site Name:	CT393/Global Guilford_MP2
Crown Castle Designation:	**Crown Castle BU Number:**	876381
	Crown Castle Site Name:	WARD
	Crown Castle JDE Job Number:	559335
	Crown Castle Order Number:	479832 Rev. 2
Engineering Firm Designation:	**ETS, PLLC Report Designation:**	192564.14
Site Data:	**2365 Long Hill Rd, Guilford, New Haven County, CT 06437** **Latitude: 41° 20' 47.34" Longitude: -72° 43' 23.15"**	
Structure Information:	**Tower Height & Type:**	176.0 ft Monopole
	Mount Elevation:	155.0 ft
	Mount Type:	12.5 ft Platform Mount

Dear Charles McGuirt,

Engineered Tower Solutions, PLLC is pleased to submit this **"Mount Analysis Report"** to determine the structural integrity of T-Mobile's antenna mounting system with the proposed appurtenance and equipment addition on the abovementioned supporting tower structure. Analysis of the existing supporting tower structure is to be completed by others and therefore is not part of this analysis. Analysis of the antenna mounting system as a tie-off point for fall protection or rigging is not part of this document.

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

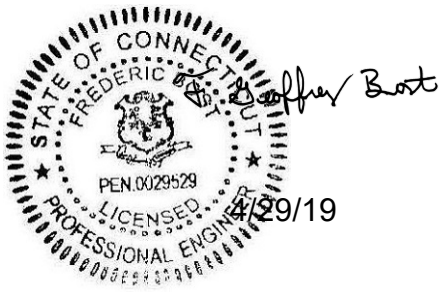
Platform Mount **Sufficient**

This analysis utilizes an ultimate 3-second gust wind speed of 130 mph as required by the 2018 Connecticut State Building Code. Applicable Standard references and design criteria are listed in Section 2 - Analysis Criteria.

Mount structural analysis prepared by: Bach S. Tran, EI

Respectfully Submitted by:

Frederic G. Bost, PE, CWI, GC
President/Owner
(919) 332-4618
Geoff.Bost@ets-pllc.com



4/29/19

TABLE OF CONTENTS

1) INTRODUCTION

This mount is an existing 12.5 ft Platform mount mapped by Pier Structural Engineering Corp. This mount is installed at the 155.0 ft elevation of the 176.0 ft Monopole.

2) ANALYSIS CRITERIA

Building Code:	2015 IBC
TIA-222 Revision:	TIA-222-H
Risk Category:	II
Ultimate Wind Speed:	130 mph
Exposure Category:	B
Topographic Factor at Base:	1.00
Topographic Factor at Mount:	1.00
Ice Thickness:	1.50 in
Wind Speed with Ice:	50 mph
Seismic S_s:	0.176
Seismic S_1:	0.061
Service Wind Speed:	30 mph
Man Live Load at Mid/End-Point:	250 lb
Man Live Load At Mount Pipes:	500 lb

Table 1 – Proposed Equipment Configuration

Mount Centerline (ft)	Antenna Centerline (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Mount / Modification Details
155.0	155.0	3	Ericsson	AIR -32 B2A/B66AA	12.5 ft Platform Mount
		3	Ericsson	AIR 21 B2A B4P	
		3	RFS/Celwave	APXVAARR24_43-U-NA20	
		3	Ericsson	KRY 112 144/1	
		3	Ericsson	RADIO 4449 B12/B71	

3) ANALYSIS PROCEDURE

Table 2 – Documents Provided

Document	Remarks	Reference	Source
Carrier Application	T-Mobile	04/18/2019	CCI Sites
Structural Level Drawings (Proposed)	T-Mobile Northeast LLC	04/25/2019	CCI Sites
4-Structural Analysis Report	Tower Engineering Professionals	8364847	CCI Sites
4-Mount Mapping Report	Pier Structural Engineering Corp	04/17/2019	CCI Sites

3.1) Analysis Method

RISA-3D (version 17.0.2), 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.

A tool internally developed, using Microsoft Excel, by ETS, PLLC was used to calculate wind loading on all appurtenances, dishes, and mount members for various load cases. Selected output from the analysis is included in Appendix B.

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

3.2) Assumptions

1) The antenna mounting system was properly fabricated, installed and maintained in good condition in accordance with its original design and manufacturer's specification.
2) The configuration of antennas, mounts and other appurtenances are as specified in Table 1 and the referenced drawings.
3) All member connections are assumed to have been designed to meet or exceed the load carrying capacity of the connected member unless otherwise specified in this report.
4) This Structural Analysis is not a condition assessment of the mount and is an evaluation of the theoretical structural capacity.
5) This analysis is based from the information supplied, and therefore, this report's results are as accurate as the supplied data.
6) Engineered Tower Solutions, PLLC makes no warranties, expressed and/or implied, in connection with this report, and disclaims any liability associated with material, fabrication, or erection of the mount. Engineered Tower Solutions, PLLC will not be held responsible from any consequential or incidental damages sustained by any person, firm, or organization as a result of the contents of this report. The maximum liability of Engineered Tower Solutions, PLLC pursuant to this report will be limited to the total fee received for compilation of this report.
7) It is the tower owner's responsibility to verify that the mount modeled and analyzed is the correct structure modeled.
8) The use of this report shall be limited to the purpose for which it was commissioned and may not be used for any other purposes without the written consent of Engineered Tower Solutions, PLLC.
9) Steel grades have been assumed as follows:

a)	Channel, Solid Round, Angle, Plate	ASTM A36 (Gr 36)
b)	HSS (Rectangular)	ASTM A500 (Gr B-46)
c)	HSS (Round)	ASTM A500 (Gr B-42)
d)	Pipe	ASTM A53 (Gr 35)
e)	Connection Bolts	ASTM A325
f)	U-Bolts	SAE 429 Gr.2

This analysis may be affected if any assumptions are not valid or have been made in error. Engineered Tower Solutions, PLLC should be notified to determine the effect on the structural integrity of the tower.

4) ANALYSIS RESULTS

Table 3 – Mount Component Stresses vs. Capacity (Platform Mount)

Notes	Component	Critical Member	Centerline (ft)	% Capacity	Pass/Fail
1	Face Mount – Horizontal	FM2	155.0	15.9	PASS
1	Handrail – Horizontal	HR1		23.5	PASS
1	Mount Pipe – Vertical	MP2		58.6	PASS
1	Sidearm – Horizontal	SA1		35.2	PASS
1	Brace – Horizontal	BRACE2		17.5	PASS
2	Mount to Tower Connection	-		52.1	PASS

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

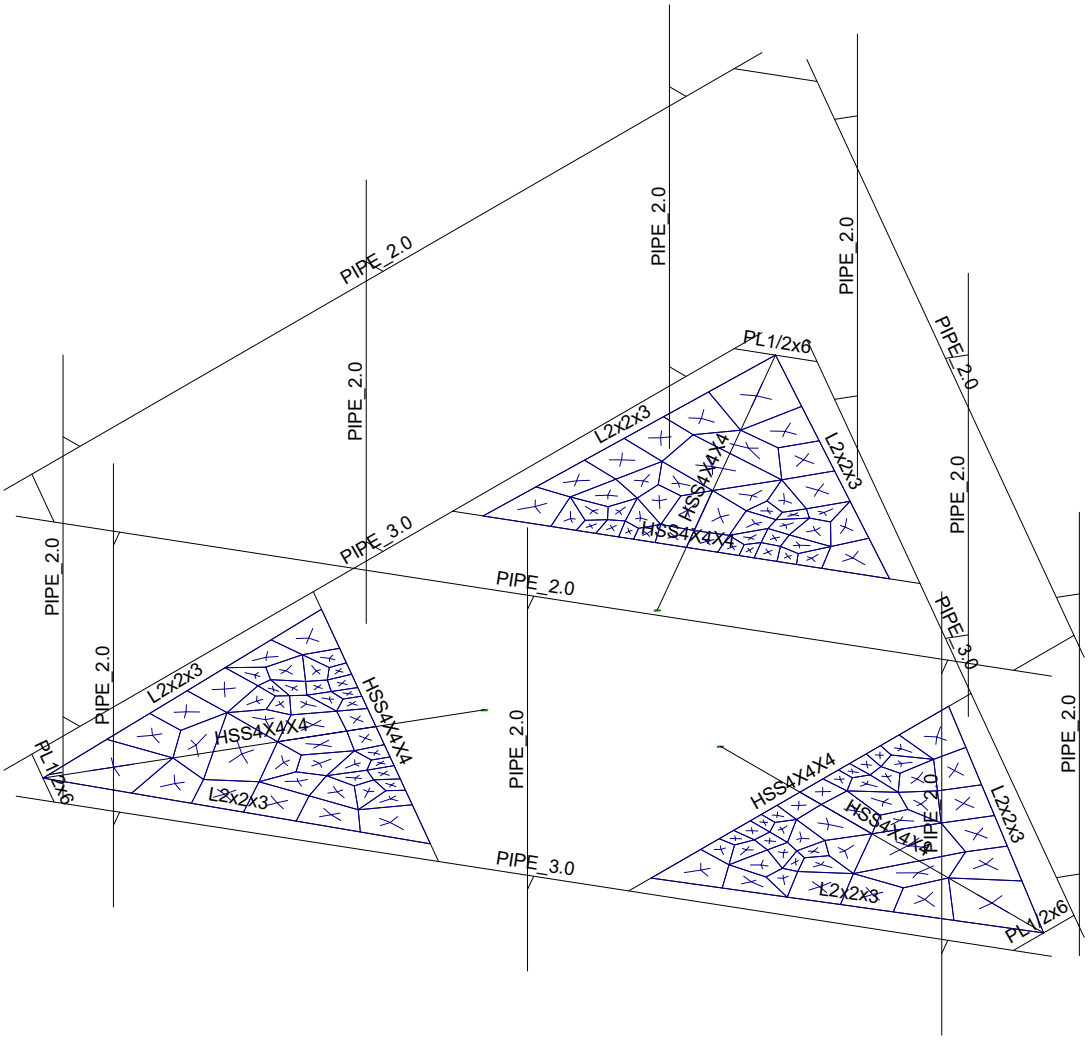
Tower Mount Rating (max from all components) =	**58.6%**

4.1) Recommendations

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

APPENDIX A

WIRE FRAME AND RENDERED MODELS



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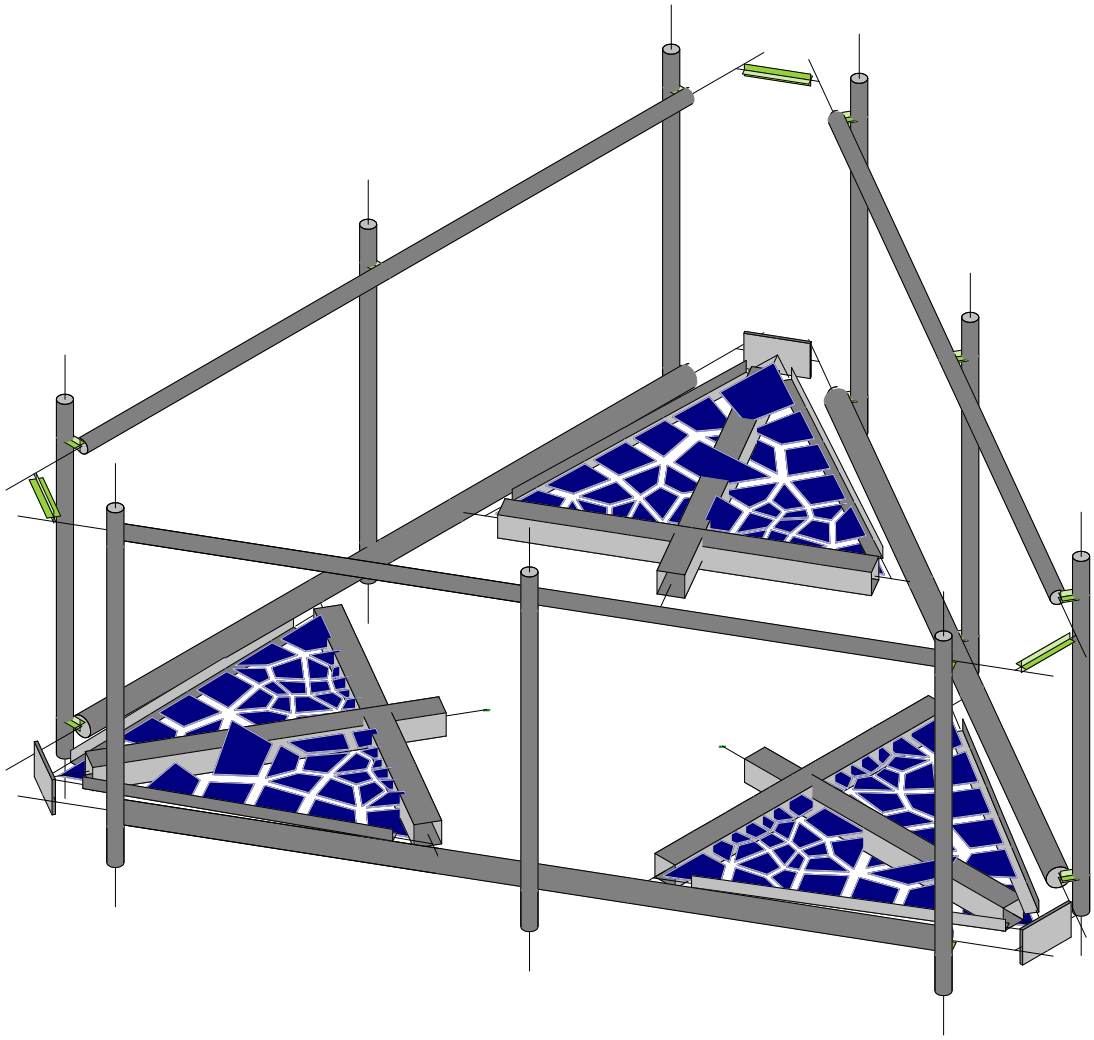


ETS, PLLC	876381 - WARD_Mount Analysis	SK - 2
TSB		Apr 29, 2019 at 2:44 PM
192564.14		876381 - WARD_Loaded.r3d

APPENDIX B

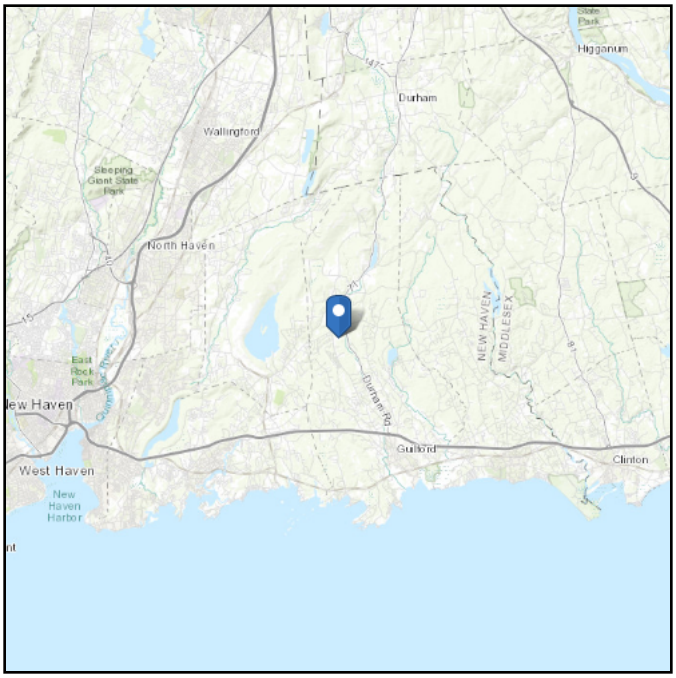
SOFTWARE INPUT CALCULATIONS

ASCE 7 Hazards Report

Address:
No Address at This Location

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

Elevation: 181.21 ft (NAVD 88)
Latitude: 41.346483
Longitude: -72.723097



Wind

Results:

Wind Speed:	- Vmph	Guilford City : 130 Vmph
10-year MRI	78 Vmph	
25-year MRI	88 Vmph	
50-year MRI	95 Vmph	
100-year MRI	104 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: Sun Apr 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.

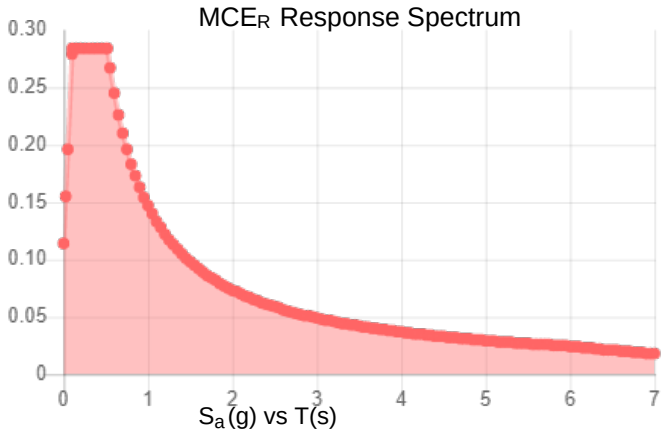
Seismic

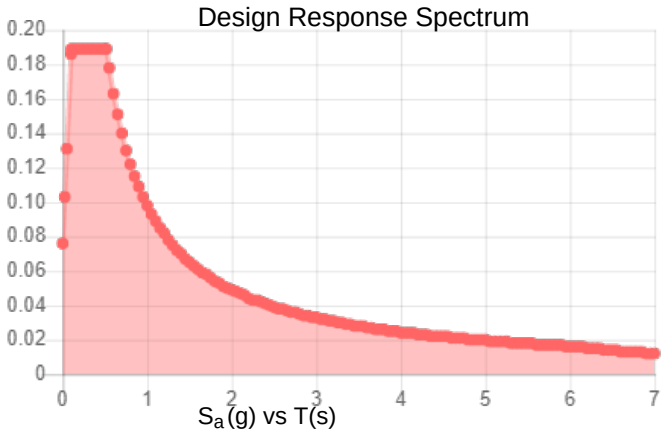
Site Soil Class: D - Stiff Soil

Results:

S_S :	0.176	S_{DS} :	0.189
S_1 :	0.061	S_{D1} :	0.098
F_a :	1.6	T_L :	6
F_v :	2.4	PGA :	0.091
S_{MS} :	0.284	PGA_M :	0.145
S_{M1} :	0.147	F_{PGA} :	1.6
		I_e :	1

Seismic Design Category B





Data Accessed: Sun Apr 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.

Ice

Results:

Ice Thickness:	0.75 in.
Concurrent Temperature:	15 F
Gust Speed:	50 mph
Data Source:	Standard ASCE/SEI 7-10, Figs. 10-2 through 10-8
Date Accessed:	Sun Apr 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.

ETS

ENGINEERED TOWER SOLUTIONS, PLLC

Site Inputs	
Mount Support (Tower, or Building Support)?	Tower
Risk Category (TIA Table 2-1)	II
Exposure Category	B
Basic Wind Speed without Ice, V	130 mph
Basic Wind Speed with Ice, V_i	50 mph
Design of Ice, δ_{ice}	56 pcf
Design Ice Thickness, t_i	1.50 in
Basic Wind Speed (Maintenance)	30 mph
Maintenance Load, L_m	500 lb
Maintenance Load, L_v	250 lb
Height of Structure, h	176.0 ft
Mount Centerline, h_m	155.0 ft
Topographic Factor, K_{zt}	1.00
Rooftop Wind Speed-Up Factor, K_s	1.00
Mean Elevation of base of structure above sea level, z_s	181 ft
Ground Elevation Factor, K_e	0.99
Wind Direction Probability Factor, K_d	0.95
Gust Response Factor, G_h	1.00
Shielding Factor for Appurtenances, K_a	0.90
Interpolation	Linear

Seismic Design Input/Output	
0.176	Spectral response acceleration parameter at short periods, S_S
0.061	Spectral response acceleration parameter at a period of 1 second, S_1
D	Soil Site Class
1.600	Short-period site coefficient, F_a
2.400	Long-period site coefficient, F_v
0.188	Design spectral response acceleration parameter at short periods, S_{DS}
0.098	Design spectral response acceleration parameter at a period of 1 second, S_{D1}
2.00	Response modification coefficient, R
1.00	Earthquake amplification factor, A_s
1.00	Importance Factor
0.0939	Seismic Response Coefficient, C_s
Eh = 0.094 W	Total Seismic Shear Force, $E_h = \rho Q_E$ ($Q_E = \rho C_s W A_s$ & $\rho = 1.0$)
Ev = 0.038 D	Vertical Seismic Load Effect, $E_v = 0.2 S_{DS} D A_s$

Select Input File And Run | Hide Cells | Unhide Cells

Output File Name: 876381 - WARD_Loaded | Include MW: No

Mounting Pipe Properties and Forces

Mount Pipe Information							Force Coefficients - No Ice			
Mount Pipe	Mount Location	Vertical Offset (ft)	Length (in)	Diameter (in)	Weight (lbs)	Shape	Velocity Pressure Coefficient, K_z	C	Flow Pattern	Velocity Pressure (psf), q_z
P 2 SCH 40 x 76	MP1	0.00 ft	76.00 in	2.38 in	23.16 lb	Round	1.1201	27.1	Subcritical	45.73 psf
P 2 SCH 40 x 76	MP2	0.00 ft	76.00 in	2.38 in	23.16 lb	Round	1.1201	27.1	Subcritical	45.73 psf
P 2 SCH 40 x 76	MP3	0.00 ft	76.00 in	2.38 in	23.16 lb	Round	1.1201	27.1	Subcritical	45.73 psf
P 2 SCH 40 x 76	MP4	0.00 ft	76.00 in	2.38 in	23.16 lb	Round	1.1201	27.1	Subcritical	45.73 psf
P 2 SCH 40 x 76	MP5	0.00 ft	76.00 in	2.38 in	23.16 lb	Round	1.1201	27.1	Subcritical	45.73 psf
P 2 SCH 40 x 76	MP6	0.00 ft	76.00 in	2.38 in	23.16 lb	Round	1.1201	27.1	Subcritical	45.73 psf
P 2 SCH 40 x 76	MP7	0.00 ft	76.00 in	2.38 in	23.16 lb	Round	1.1201	27.1	Subcritical	45.73 psf
P 2 SCH 40 x 76	MP8	0.00 ft	76.00 in	2.38 in	23.16 lb	Round	1.1201	27.1	Subcritical	45.73 psf
P 2 SCH 40 x 76	MP9	0.00 ft	76.00 in	2.38 in	23.16 lb	Round	1.1201	27.1	Subcritical	45.73 psf

	Wind Force - No Ice (Front)								Wind Force - No Ice (Side)				
Mount Location	Antenna Offset (ft)	Antenna Length (in)	Top Protrusion (in)	Base Protrusion (in)	C_A	A_A (ft²)	C_AA_A (ft²)	Design Wind Force (lbf), F_A	Aspect Ratio	C_A	A_A (ft²)	C_AA_A (ft²)	Design Wind Force (lbf), F_A
MP1	0.00 ft	56.00 in	10.00 in	10.00 in	1.00	0.330	0.330	15.09 lb	32.0	1.20	1.253	1.504	68.79 lb
MP2	0.00 ft	95.90 in	0.00 in	0.00 in	1.00	0.000	0.000	0.00 lb	32.0	1.20	1.253	1.504	68.79 lb
MP3	0.00 ft	56.60 in	9.70 in	9.70 in	1.00	0.320	0.320	14.63 lb	32.0	1.20	1.253	1.504	68.79 lb
MP4	0.00 ft	56.00 in	10.00 in	10.00 in	1.00	0.330	0.330	15.09 lb	32.0	1.20	1.253	1.504	68.79 lb
MP5	0.00 ft	95.90 in	0.00 in	0.00 in	1.00	0.000	0.000	0.00 lb	32.0	1.20	1.253	1.504	68.79 lb
MP6	0.00 ft	56.60 in	9.70 in	9.70 in	1.00	0.320	0.320	14.63 lb	32.0	1.20	1.253	1.504	68.79 lb
MP7	0.00 ft	56.00 in	10.00 in	10.00 in	1.00	0.330	0.330	15.09 lb	32.0	1.20	1.253	1.504	68.79 lb
MP8	0.00 ft	95.90 in	0.00 in	0.00 in	1.00	0.000	0.000	0.00 lb	32.0	1.20	1.253	1.504	68.79 lb
MP9	0.00 ft	56.60 in	9.70 in	9.70 in	1.00	0.320	0.320	14.63 lb	32.0	1.20	1.253	1.504	68.79 lb

	Force Coefficients - Ice					Wind Force - Ice (Front)				Wind Force - Ice (Side)				
Mount Location	Height Escalation Factor, K_{iz}	Design Ice Thickness (in), t_{iz}	Flow Pattern	Velocity Pressure (psf), q_z	Ice Weight (lbs)	C_A	A_A (ft²)	C_AA_A (ft²)	Design Wind Force (lbf), F_A	Aspect Ratio	C_A	A_A (ft²)	C_AA_A (ft²)	Design Wind Force (lbf), F_A
MP1	1.17	1.751 in	Subcritical	6.77 psf	55.90 lbs	1.00	0.959	0.959	6.49 lb	13.5	0.95	3.245	3.066	20.75 lb
MP2	1.17	1.751 in	Subcritical	6.77 psf	55.90 lbs	1.00	0.143	0.143	0.97 lb	13.5	0.95	3.245	3.066	20.75 lb
MP3	1.17	1.751 in	Subcritical	6.77 psf	55.90 lbs	1.00	0.935	0.935	6.32 lb	13.5	0.95	3.245	3.066	20.75 lb
MP4	1.17	1.751 in	Subcritical	6.77 psf	55.90 lbs	1.00	0.959	0.959	6.49 lb	13.5	0.95	3.245	3.066	20.75 lb
MP5	1.17	1.751 in	Subcritical	6.77 psf	55.90 lbs	1.00	0.143	0.143	0.97 lb	13.5	0.95	3.245	3.066	20.75 lb
MP6	1.17	1.751 in	Subcritical	6.77 psf	55.90 lbs	1.00	0.935	0.935	6.32 lb	13.5	0.95	3.245	3.066	20.75 lb
MP7	1.17	1.751 in	Subcritical	6.77 psf	55.90 lbs	1.00	0.959	0.959	6.49 lb	13.5	0.95	3.245	3.066	20.75 lb
MP8	1.17	1.751 in	Subcritical	6.77 psf	55.90 lbs	1.00	0.143	0.143	0.97 lb	13.5	0.95	3.245	3.066	20.75 lb
MP9	1.17	1.751 in	Subcritical	6.77 psf	55.90 lbs	1.00	0.935	0.935	6.32 lb	13.5	0.95	3.245	3.066	20.75 lb

Appurtenance Properties and Forces

Antenna Information											
Appurtenance	Appurtenance Type	Mount Location	Quantity	Vertical Offset (ft)	Allow Shielding	Length (in)	Rotate Width/Depth	Width (in)	Depth (in)	Weight (lbs)	Shape
ERICSSON / ERICSSON AIR 21 B2A B4P	Antenna	MP1	1	0.00 ft	No	56.00 in	No	12.10 in	7.87 in	91.50 lb	Flat
ERICSSON / KRY 112 144/1	TME	MP1	1	0.00 ft	Yes	7.00 in	No	6.00 in	3.00 in	11.00 lb	Flat
RFS/CELWAVE / APXVAARR24_43-U-NA20	Antenna	MP2	1	0.00 ft	No	95.90 in	No	24.00 in	8.70 in	128.00 lb	Flat
ERICSSON / AIR -32 B2A/B66AA	Antenna	MP3	1	0.00 ft	No	56.60 in	No	12.90 in	8.70 in	132.20 lb	Flat
ERICSSON / RADIO 4449 B12/B71	TME	MP3	1	0.00 ft	No	14.95 in	No	13.19 in	9.25 in	75.00 lb	Flat
ERICSSON / ERICSSON AIR 21 B2A B4P	Antenna	MP4	1	0.00 ft	No	56.00 in	No	12.10 in	7.87 in	91.50 lb	Flat
ERICSSON / KRY 112 144/1	TME	MP4	1	0.00 ft	Yes	7.00 in	No	6.00 in	3.00 in	11.00 lb	Flat
RFS/CELWAVE / APXVAARR24_43-U-NA20	Antenna	MP5	1	0.00 ft	No	95.90 in	No	24.00 in	8.70 in	128.00 lb	Flat
ERICSSON / AIR -32 B2A/B66AA	Antenna	MP6	1	0.00 ft	No	56.60 in	No	12.90 in	8.70 in	132.20 lb	Flat
ERICSSON / RADIO 4449 B12/B71	TME	MP6	1	0.00 ft	No	14.95 in	No	13.19 in	9.25 in	75.00 lb	Flat
ERICSSON / ERICSSON AIR 21 B2A B4P	Antenna	MP7	1	0.00 ft	No	56.00 in	No	12.10 in	7.87 in	91.50 lb	Flat
ERICSSON / KRY 112 144/1	TME	MP7	1	0.00 ft	Yes	7.00 in	No	6.00 in	3.00 in	11.00 lb	Flat
RFS/CELWAVE / APXVAARR24_43-U-NA20	Antenna	MP8	1	0.00 ft	No	95.90 in	No	24.00 in	8.70 in	128.00 lb	Flat
ERICSSON / AIR -32 B2A/B66AA	Antenna	MP9	1	0.00 ft	No	56.60 in	No	12.90 in	8.70 in	132.20 lb	Flat
ERICSSON / RADIO 4449 B12/B71	TME	MP9	1	0.00 ft	No	14.95 in	No	13.19 in	9.25 in	75.00 lb	Flat

	Force Coefficients - No Ice							Wind Force - No Ice (Front)					Wind Force - No Ice (Side)				
Appurtenance	Velocity Pressure Coefficient, K_z	C	Flow Pattern	Velocity Pressure (psf), q_z	Antenna Width (in)	Side Protrusion (in)	% Shielded	Aspect Ratio	C_A	A_A (ft²)	C_AA_A (ft²)	Design Wind Force (lbf), F_A	Aspect Ratio	C_A	A_A (ft²)	C_AA_A (ft²)	Design Wind Force (lbf), F_A
ERICSSON / ERICSSON AIR 21 B2A B4P	1.1201	138.3	Subcritical	45.73 psf	12.10 in	0.00 in	0.0%	4.6	1.29	4.706	6.092	278.60 lb	7.1	1.40	3.061	4.297	196.50 lb
ERICSSON / KRY 112 144/1	1.1201	68.6	Subcritical	45.73 psf	12.10 in	0.00 in	100.0%	1.2	1.20	0.000	0.000	0.00 lb	2.3	1.20	0.146	0.175	8.00 lb
RFS/CELWAVE / APXVAARR24_43-U-NA20	1.1201	274.3	Subcritical	45.73 psf	24.00 in	0.00 in	0.0%	4.0	1.27	15.983	20.243	925.78 lb	11.0	1.53	5.794	8.889	406.51 lb
ERICSSON / AIR -32 B2A/B66AA	1.1201	147.4	Subcritical	45.73 psf	12.90 in	0.00 in	0.0%	4.4	1.28	5.070	6.510	297.72 lb	6.5	1.38	3.420	4.712	215.51 lb
ERICSSON / RADIO 4449 B12/B71	1.1201	150.7	Subcritical	45.73 psf	12.90 in	0.29 in	0.0%	1.1	1.20	1.369	1.643	75.15 lb	1.6	1.20	0.960	1.152	52.70 lb
ERICSSON / ERICSSON AIR 21 B2A B4P	1.1201	138.3	Subcritical	45.73 psf	12.10 in	0.00 in	0.0%	4.6	1.29	4.706	6.092	278.60 lb	7.1	1.40	3.061	4.297	196.50 lb
ERICSSON / KRY 112 144/1	1.1201	68.6	Subcritical	45.73 psf	12.10 in	0.00 in	100.0%	1.2	1.20	0.000	0.000	0.00 lb	2.3	1.20	0.146	0.175	8.00 lb
RFS/CELWAVE / APXVAARR24_43-U-NA20	1.1201	274.3	Subcritical	45.73 psf	24.00 in	0.00 in	0.0%	4.0	1.27	15.983	20.243	925.78 lb	11.0	1.53	5.794	8.889	406.51 lb
ERICSSON / AIR -32 B2A/B66AA	1.1201	147.4	Subcritical	45.73 psf	12.90 in	0.00 in	0.0%	4.4	1.28	5.070	6.510	297.72 lb	6.5	1.38	3.420	4.712	215.51 lb
ERICSSON / RADIO 4449 B12/B71	1.1201	150.7	Subcritical	45.73 psf	12.90 in	0.29 in	0.0%	1.1	1.20	1.369	1.643	75.15 lb	1.6	1.20	0.960	1.152	52.70 lb
ERICSSON / ERICSSON AIR 21 B2A B4P	1.1201	138.3	Subcritical	45.73 psf	12.10 in	0.00 in	0.0%	4.6	1.29	4.706	6.092	278.60 lb	7.1	1.40	3.061	4.297	196.50 lb
ERICSSON / KRY 112 144/1	1.1201	68.6	Subcritical	45.73 psf	12.10 in	0.00 in	100.0%	1.2	1.20	0.000	0.000	0.00 lb	2.3	1.20	0.146	0.175	8.00 lb
RFS/CELWAVE / APXVAARR24_43-U-NA20	1.1201	274.3	Subcritical	45.73 psf	24.00 in	0.00 in	0.0%	4.0	1.27	15.983	20.243	925.78 lb	11.0	1.53	5.794	8.889	406.51 lb
ERICSSON / AIR -32 B2A/B66AA	1.1201	147.4	Subcritical	45.73 psf	12.90 in	0.00 in	0.0%	4.4	1.28	5.070	6.510	297.72 lb	6.5	1.38	3.420	4.712	215.51 lb
ERICSSON / RADIO 4449 B12/B71	1.1201	150.7	Subcritical	45.73 psf	12.90 in	0.29 in	0.0%	1.1	1.20	1.369	1.643	75.15 lb	1.6	1.20	0.960	1.152	52.70 lb

	Force Coefficients - Ice						Wind Force - Ice (Front)						
Appurtenance	Height Escalation Factor, K_{iz}	Design Ice Thickness (in), t_{iz}	Flow Pattern	Velocity Pressure (psf), q_z	Side Protrusion Ice (in)	Ice Weight (lbs)	Aspect Ratio	Apprt. C_A	Ice C_A	Apprt. A_A (ft²)	Ice A_A (ft²)	C_AA_A (ft²)	Design Wind Force (lbf), F_A
ERICSSON / ERICSSON AIR 21 B2A B4P	1.17	1.751 in	Subcritical	6.765 psf	0.00 in	161.57 lb	3.8	1.26	0.73	4.71	1.447	6.977	47.20 lb
ERICSSON / KRY 112 144/1	1.17	1.751 in	Subcritical	6.765 psf	0.00 in	10.56 lb	1.1	1.20	0.70	0.00	0.000	0.000	0.00 lb
RFS/CELWAVE / APXVAARR24_43-U-NA20	1.17	1.751 in	Subcritical	6.765 psf	0.00 in	466.36 lb	3.6	1.25	0.72	15.98	2.417	21.724	146.97 lb
ERICSSON / AIR -32 B2A/B66AA	1.17	1.751 in	Subcritical	6.765 psf	0.00 in	174.66 lb	3.7	1.25	0.73	5.07	1.462	7.408	50.12 lb
ERICSSON / RADIO 4449 B12/B71	1.17	1.751 in	Subcritical	6.765 psf	0.00 in	47.60 lb	1.1	1.20	0.70	1.37	0.449	1.957	13.24 lb
ERICSSON / ERICSSON AIR 21 B2A B4P	1.17	1.751 in	Subcritical	6.765 psf	0.00 in	161.57 lb	3.8	1.26	0.73	4.71	1.447	6.977	47.20 lb
ERICSSON / KRY 112 144/1	1.17	1.751 in	Subcritical	6.765 psf	0.00 in	10.56 lb	1.1	1.20	0.70	0.00	0.000	0.000	0.00 lb
RFS/CELWAVE / APXVAARR24_43-U-NA20	1.17	1.751 in	Subcritical	6.765 psf	0.00 in	466.36 lb	3.6	1.25	0.72	15.98	2.417	21.724	146.97 lb
ERICSSON / AIR -32 B2A/B66AA	1.17	1.751 in	Subcritical	6.765 psf	0.00 in	174.66 lb	3.7	1.25	0.73	5.07	1.462	7.408	50.12 lb
ERICSSON / RADIO 4449 B12/B71	1.17	1.751 in	Subcritical	6.765 psf	0.00 in	47.60 lb	1.1	1.20	0.70	1.37	0.449	1.957	13.24 lb
ERICSSON / ERICSSON AIR 21 B2A B4P	1.17	1.751 in	Subcritical	6.765 psf	0.00 in	161.57 lb	3.8	1.26	0.73	4.71	1.447	6.977	47.20 lb
ERICSSON / KRY 112 144/1	1.17	1.751 in	Subcritical	6.765 psf	0.00 in	10.56 lb	1.1	1.20	0.70	0.00	0.000	0.000	0.00 lb
RFS/CELWAVE / APXVAARR24_43-U-NA20	1.17	1.751 in	Subcritical	6.765 psf	0.00 in	466.36 lb	3.6	1.25	0.72	15.98	2.417	21.724	146.97 lb
ERICSSON / AIR -32 B2A/B66AA	1.17	1.751 in	Subcritical	6.765 psf	0.00 in	174.66 lb	3.7	1.25	0.73	5.07	1.462	7.408	50.12 lb
ERICSSON / RADIO 4449 B12/B71	1.17	1.751 in	Subcritical	6.765 psf	0.00 in	47.60 lb	1.1	1.20	0.70	1.37	0.449	1.957	13.24 lb

Mount Pipe Point Loads	No Ice - TME & Mount			Ice - TME & Mount			No Ice - Antenna		Ice - Antenna	
		Normal	Transverse		Normal	Transverse	Normal	Transverse	Normal	Transverse
Mount Location	Dead Load	$K_a EPA_N$	$K_a EPA_T$	Ice Load	$K_a EPA_{N,ice}$	$K_a EPA_{T,ice}$	$K_a EPA_N$	$K_a EPA_T$	$K_a EPA_{N,ice}$	$K_a EPA_{T,ice}$
MP1	102.5 lb	13.6 lb	69.1 lb	228.0 lb	5.8 lb	21.1 lb	53.7 lb/ft	37.9 lb/ft	9.1 lb/ft	6.9 lb/ft
MP2	128.0 lb	0.0 lb	61.9 lb	522.3 lb	0.9 lb	18.7 lb	131.6 lb/ft	57.8 lb/ft	20.9 lb/ft	10.1 lb/ft
MP3	207.2 lb	80.8 lb	109.3 lb	278.2 lb	17.6 lb	28.6 lb	56.8 lb/ft	41.1 lb/ft	9.6 lb/ft	7.4 lb/ft
MP4	102.5 lb	13.6 lb	69.1 lb	228.0 lb	5.8 lb	21.1 lb	53.7 lb/ft	37.9 lb/ft	9.1 lb/ft	6.9 lb/ft
MP5	128.0 lb	0.0 lb	61.9 lb	522.3 lb	0.9 lb	18.7 lb	131.6 lb/ft	57.8 lb/ft	20.9 lb/ft	10.1 lb/ft
MP6	207.2 lb	80.8 lb	109.3 lb	278.2 lb	17.6 lb	28.6 lb	56.8 lb/ft	41.1 lb/ft	9.6 lb/ft	7.4 lb/ft
MP7	102.5 lb	13.6 lb	69.1 lb	228.0 lb	5.8 lb	21.1 lb	53.7 lb/ft	37.9 lb/ft	9.1 lb/ft	6.9 lb/ft
MP8	128.0 lb	0.0 lb	61.9 lb	522.3 lb	0.9 lb	18.7 lb	131.6 lb/ft	57.8 lb/ft	20.9 lb/ft	10.1 lb/ft
MP9	207.2 lb	80.8 lb	109.3 lb	278.2 lb	17.6 lb	28.6 lb	56.8 lb/ft	41.1 lb/ft	9.6 lb/ft	7.4 lb/ft

Member Distributed Loads	Mount Information				Force Coefficients - No Ice				Force Coefficients - Ice					
Mount Members	Vertical Offset (ft)	Width/Diameter (in)	Depth/Diameter (in)	Shape	Velocity Pressure Coefficient, K_z	C_A	Velocity Pressure (psf), q_z	K_a * Force / Length, No Ice	Height Escalation Factor, K_{iz}	Design Ice Thickness (in), t_{iz}	Ice C_A	Velocity Pressure (psf), q_z	Ice Weight (plf)	K_a * Force / Length, Ice
HSS4X4X1/4	0.0 ft	4.000 in	4.000 in	Flat	1.12	2.00	45.73 psf	27.4 lb/ft	1.167	1.751 in	1.20	6.765	15.8 lb/ft	6.2 lb/ft
3.0 SCH 40	0.0 ft	3.500 in	3.500 in	Round	1.12	1.20	45.73 psf	14.4 lb/ft	1.167	1.751 in	1.20	6.765	11.2 lb/ft	4.3 lb/ft
L2X2X3/16	0.0 ft	2.000 in	2.000 in	Flat	1.12	2.00	45.73 psf	13.7 lb/ft	1.167	1.751 in	1.20	6.765	9.8 lb/ft	4.2 lb/ft
2.0 SCH 40	0.0 ft	2.375 in	2.375 in	Round	1.12	1.20	45.73 psf	9.8 lb/ft	1.167	1.751 in	1.20	6.765	8.8 lb/ft	3.6 lb/ft

APPENDIX C

SOFTWARE ANALYSIS OUTPUT

Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
1	BRACE1	N15	N16		180	HSS4X4X4	Beam	Tube	A500 Gr.B...	Typical
2	CORNER-PL-1	N7	N8			PL1/2x6	None	None	A36 Gr.36	Typical
3	CORNER-PL-2	N3	N4			PL1/2x6	None	None	A36 Gr.36	Typical
4	CORNER-PL-3	N9	N10			PL1/2x6	None	None	A36 Gr.36	Typical
5	FM1	N1	N2			PIPE_3.0	Beam	Pipe	A53 Gr.B	Typical
6	FM2	N5	N6			PIPE_3.0	Beam	Pipe	A53 Gr.B	Typical
7	FM3	N11	N12			PIPE_3.0	Beam	Pipe	A53 Gr.B	Typical
8	GRATE4	N17	N13		270	L2x2x3	None	None	A36 Gr.36	Typical
9	GRATE5	N17	N18			L2x2x3	None	None	A36 Gr.36	Typical
10	SA1	N17	N14			HSS4X4X4	Beam	Tube	A500 Gr.B...	Typical
11	MP1	N42	N41			PIPE_2.0	Column	Pipe	A53 Gr.B	Typical
12	M26	N39	N40			RIGID	None	None	RIGID	Typical
13	MP3	N46	N45			PIPE_2.0	Column	Pipe	A53 Gr.B	Typical
14	M22	N43	N44			RIGID	None	None	RIGID	Typical
15	MP2	N50	N49			PIPE_2.0	Column	Pipe	A53 Gr.B	Typical
16	M24	N47	N48			RIGID	None	None	RIGID	Typical
17	CORN2	N57	N58		180	RIGID	None	None	RIGID	Typical
18	CORN3	N53	N54		90	RIGID	None	None	RIGID	Typical
19	CORN1	N59	N60		180	RIGID	None	None	RIGID	Typical
20	HR1	N51	N52			PIPE_2.0	Beam	Pipe	A53 Gr.B	Typical
21	HR2	N55	N56			PIPE_2.0	Beam	Pipe	A53 Gr.B	Typical
22	HR3	N61	N62			PIPE_2.0	Beam	Pipe	A53 Gr.B	Typical
23	M31	N63	N64			RIGID	None	None	RIGID	Typical
24	M32	N65	N66			RIGID	None	None	RIGID	Typical
25	M33	N67	N68			RIGID	None	None	RIGID	Typical
26	BRACE3	N108	N109		180	HSS4X4X4	Beam	Tube	A500 Gr.B...	Typical
27	GRATE2	N110	N107		270	L2x2x3	None	None	A36 Gr.36	Typical
28	GRATE3	N110	N111			L2x2x3	None	None	A36 Gr.36	Typical
29	SA3	N110	N264			HSS4X4X4	Beam	Tube	A500 Gr.B...	Typical
30	BRACE2	N169	N170		180	HSS4X4X4	Beam	Tube	A500 Gr.B...	Typical
31	GRATE6	N19	N168		270	L2x2x3	None	None	A36 Gr.36	Typical
32	GRATE1	N19	N171			L2x2x3	None	None	A36 Gr.36	Typical
33	SA2	N19	N265			HSS4X4X4	Beam	Tube	A500 Gr.B...	Typical
34	MP7	N231	N230			PIPE_2.0	Column	Pipe	A53 Gr.B	Typical
35	M35	N228	N229			RIGID	None	None	RIGID	Typical
36	MP9	N235	N234			PIPE_2.0	Column	Pipe	A53 Gr.B	Typical
37	M37	N232	N233			RIGID	None	None	RIGID	Typical
38	MP8	N239	N238			PIPE_2.0	Column	Pipe	A53 Gr.B	Typical
39	M39	N236	N237			RIGID	None	None	RIGID	Typical
40	M40	N240	N241			RIGID	None	None	RIGID	Typical
41	M41	N242	N243			RIGID	None	None	RIGID	Typical
42	M42	N244	N245			RIGID	None	None	RIGID	Typical
43	MP4	N249	N248			PIPE_2.0	Column	Pipe	A53 Gr.B	Typical
44	M44	N246	N247			RIGID	None	None	RIGID	Typical
45	MP6	N253	N252			PIPE_2.0	Column	Pipe	A53 Gr.B	Typical
46	M46	N250	N251			RIGID	None	None	RIGID	Typical
47	MP5	N257	N256			PIPE_2.0	Column	Pipe	A53 Gr.B	Typical
48	M48	N254	N255			RIGID	None	None	RIGID	Typical
49	M49	N258	N259			RIGID	None	None	RIGID	Typical
50	M50	N260	N261			RIGID	None	None	RIGID	Typical
51	M51	N262	N263			RIGID	None	None	RIGID	Typical

Material Takeoff

	Material	Size	Pieces	Length[in]	Weight[K]
1	General				
2	RIGID		21	95.7	0
3	Total General		21	95.7	0
4					
5	Hot Rolled Steel				
6	A36 Gr.36	PL1/2x6	3	36	0
7	A36 Gr.36	L2x2x3	6	339.1	0
8	A500 Gr.B Rect	HSS4X4X4	6	395.1	.4
9	A53 Gr.B	PIPE_2.0	12	1134	.3
10	A53 Gr.B	PIPE_3.0	3	450	.3
11	Total HR Steel		30	2354.3	1.1
12					
13	Plate Elements	Thickness (in)		Volume (yds^3)	
14	GRATE	.1	135	0	.1
15	Total Plates		135	0	.1

Member Point Loads (BLC 1 : Dead Load)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	Y	-102.5	%50
2	MP2	Y	-128	%50
3	MP3	Y	-207.2	%50
4	MP4	Y	-102.5	%50
5	MP5	Y	-128	%50
6	MP6	Y	-207.2	%50
7	MP7	Y	-102.5	%50
8	MP8	Y	-128	%50
9	MP9	Y	-207.2	%50

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	13.6	%50
2	MP2	X	0	%50
3	MP3	X	80.8	%50
4	MP4	X	55.2	%50
5	MP5	X	46.4	%50
6	MP6	X	102.2	%50
7	MP7	X	55.2	%50
8	MP8	X	46.4	%50
9	MP9	X	102.2	%50
10	MP1	Z	0	%50
11	MP2	Z	0	%50
12	MP3	Z	0	%50
13	MP4	Z	0	%50
14	MP5	Z	0	%50
15	MP6	Z	0	%50
16	MP7	Z	0	%50
17	MP8	Z	0	%50
18	MP9	Z	0	%50

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	23.8	%50
2	MP2	X	13.4	%50

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
3	MP3	X	76.2	%50
4	MP4	X	59.9	%50
5	MP5	X	53.6	%50
6	MP6	X	94.7	%50
7	MP7	X	23.8	%50
8	MP8	X	13.4	%50
9	MP9	X	76.2	%50
10	MP1	Z	13.7	%50
11	MP2	Z	7.7	%50
12	MP3	Z	44	%50
13	MP4	Z	34.6	%50
14	MP5	Z	31	%50
15	MP6	Z	54.7	%50
16	MP7	Z	13.7	%50
17	MP8	Z	7.7	%50
18	MP9	Z	44	%50

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	27.6	%50
2	MP2	X	23.2	%50
3	MP3	X	51.1	%50
4	MP4	X	27.6	%50
5	MP5	X	23.2	%50
6	MP6	X	51.1	%50
7	MP7	X	6.8	%50
8	MP8	X	0	%50
9	MP9	X	40.4	%50
10	MP1	Z	47.8	%50
11	MP2	Z	40.2	%50
12	MP3	Z	88.5	%50
13	MP4	Z	47.8	%50
14	MP5	Z	40.2	%50
15	MP6	Z	88.5	%50
16	MP7	Z	11.8	%50
17	MP8	Z	0	%50
18	MP9	Z	70	%50

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	0	%50
2	MP2	X	0	%50
3	MP3	X	0	%50
4	MP4	X	0	%50
5	MP5	X	0	%50
6	MP6	X	0	%50
7	MP7	X	0	%50
8	MP8	X	0	%50
9	MP9	X	0	%50
10	MP1	Z	69.1	%50
11	MP2	Z	61.9	%50
12	MP3	Z	109.3	%50
13	MP4	Z	27.5	%50
14	MP5	Z	15.5	%50
15	MP6	Z	87.9	%50
16	MP7	Z	27.5	%50

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
17	MP8	Z	15.5	%50
18	MP9	Z	87.9	%50

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-27.6	%50
2	MP2	X	-23.2	%50
3	MP3	X	-51.1	%50
4	MP4	X	-6.8	%50
5	MP5	X	0	%50
6	MP6	X	-40.4	%50
7	MP7	X	-27.6	%50
8	MP8	X	-23.2	%50
9	MP9	X	-51.1	%50
10	MP1	Z	47.8	%50
11	MP2	Z	40.2	%50
12	MP3	Z	88.5	%50
13	MP4	Z	11.8	%50
14	MP5	Z	0	%50
15	MP6	Z	70	%50
16	MP7	Z	47.8	%50
17	MP8	Z	40.2	%50
18	MP9	Z	88.5	%50

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-23.8	%50
2	MP2	X	-13.4	%50
3	MP3	X	-76.2	%50
4	MP4	X	-23.8	%50
5	MP5	X	-13.4	%50
6	MP6	X	-76.2	%50
7	MP7	X	-59.9	%50
8	MP8	X	-53.6	%50
9	MP9	X	-94.7	%50
10	MP1	Z	13.7	%50
11	MP2	Z	7.7	%50
12	MP3	Z	44	%50
13	MP4	Z	13.7	%50
14	MP5	Z	7.7	%50
15	MP6	Z	44	%50
16	MP7	Z	34.6	%50
17	MP8	Z	31	%50
18	MP9	Z	54.7	%50

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-13.6	%50
2	MP2	X	0	%50
3	MP3	X	-80.8	%50
4	MP4	X	-55.2	%50
5	MP5	X	-46.4	%50
6	MP6	X	-102.2	%50
7	MP7	X	-55.2	%50
8	MP8	X	-46.4	%50

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
9	MP9	X	-102.2	%50
10	MP1	Z	0	%50
11	MP2	Z	0	%50
12	MP3	Z	0	%50
13	MP4	Z	0	%50
14	MP5	Z	0	%50
15	MP6	Z	0	%50
16	MP7	Z	0	%50
17	MP8	Z	0	%50
18	MP9	Z	0	%50

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-23.8	%50
2	MP2	X	-13.4	%50
3	MP3	X	-76.2	%50
4	MP4	X	-59.9	%50
5	MP5	X	-53.6	%50
6	MP6	X	-94.7	%50
7	MP7	X	-23.8	%50
8	MP8	X	-13.4	%50
9	MP9	X	-76.2	%50
10	MP1	Z	-13.7	%50
11	MP2	Z	-7.7	%50
12	MP3	Z	-44	%50
13	MP4	Z	-34.6	%50
14	MP5	Z	-31	%50
15	MP6	Z	-54.7	%50
16	MP7	Z	-13.7	%50
17	MP8	Z	-7.7	%50
18	MP9	Z	-44	%50

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-27.6	%50
2	MP2	X	-23.2	%50
3	MP3	X	-51.1	%50
4	MP4	X	-27.6	%50
5	MP5	X	-23.2	%50
6	MP6	X	-51.1	%50
7	MP7	X	-6.8	%50
8	MP8	X	0	%50
9	MP9	X	-40.4	%50
10	MP1	Z	-47.8	%50
11	MP2	Z	-40.2	%50
12	MP3	Z	-88.5	%50
13	MP4	Z	-47.8	%50
14	MP5	Z	-40.2	%50
15	MP6	Z	-88.5	%50
16	MP7	Z	-11.8	%50
17	MP8	Z	0	%50
18	MP9	Z	-70	%50

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	0	%50
2	MP2	X	0	%50
3	MP3	X	0	%50
4	MP4	X	0	%50
5	MP5	X	0	%50
6	MP6	X	0	%50
7	MP7	X	0	%50
8	MP8	X	0	%50
9	MP9	X	0	%50
10	MP1	Z	-69.1	%50
11	MP2	Z	-61.9	%50
12	MP3	Z	-109.3	%50
13	MP4	Z	-27.5	%50
14	MP5	Z	-15.5	%50
15	MP6	Z	-87.9	%50
16	MP7	Z	-27.5	%50
17	MP8	Z	-15.5	%50
18	MP9	Z	-87.9	%50

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	27.6	%50
2	MP2	X	23.2	%50
3	MP3	X	51.1	%50
4	MP4	X	6.8	%50
5	MP5	X	0	%50
6	MP6	X	40.4	%50
7	MP7	X	27.6	%50
8	MP8	X	23.2	%50
9	MP9	X	51.1	%50
10	MP1	Z	-47.8	%50
11	MP2	Z	-40.2	%50
12	MP3	Z	-88.5	%50
13	MP4	Z	-11.8	%50
14	MP5	Z	0	%50
15	MP6	Z	-70	%50
16	MP7	Z	-47.8	%50
17	MP8	Z	-40.2	%50
18	MP9	Z	-88.5	%50

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	23.8	%50
2	MP2	X	13.4	%50
3	MP3	X	76.2	%50
4	MP4	X	23.8	%50
5	MP5	X	13.4	%50
6	MP6	X	76.2	%50
7	MP7	X	59.9	%50
8	MP8	X	53.6	%50
9	MP9	X	94.7	%50
10	MP1	Z	-13.7	%50
11	MP2	Z	-7.7	%50
12	MP3	Z	-44	%50
13	MP4	Z	-13.7	%50
14	MP5	Z	-7.7	%50

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
15	MP6	Z	-44	%50
16	MP7	Z	-34.6	%50
17	MP8	Z	-31	%50
18	MP9	Z	-54.7	%50

Member Point Loads (BLC 14 : Ice Load)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	Y	-228	%50
2	MP2	Y	-522.3	%50
3	MP3	Y	-278.2	%50
4	MP4	Y	-228	%50
5	MP5	Y	-522.3	%50
6	MP6	Y	-278.2	%50
7	MP7	Y	-228	%50
8	MP8	Y	-522.3	%50
9	MP9	Y	-278.2	%50

Member Point Loads (BLC 15 : Wind on Ice (0 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	5.8	%50
2	MP2	X	.9	%50
3	MP3	X	17.6	%50
4	MP4	X	17.3	%50
5	MP5	X	14.2	%50
6	MP6	X	25.8	%50
7	MP7	X	17.3	%50
8	MP8	X	14.2	%50
9	MP9	X	25.8	%50
10	MP1	Z	0	%50
11	MP2	Z	0	%50
12	MP3	Z	0	%50
13	MP4	Z	0	%50
14	MP5	Z	0	%50
15	MP6	Z	0	%50
16	MP7	Z	0	%50
17	MP8	Z	0	%50
18	MP9	Z	0	%50

Member Point Loads (BLC 16 : Wind on Ice (30 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	8.4	%50
2	MP2	X	4.6	%50
3	MP3	X	17.6	%50
4	MP4	X	18.3	%50
5	MP5	X	16.2	%50
6	MP6	X	24.7	%50
7	MP7	X	8.4	%50
8	MP8	X	4.6	%50
9	MP9	X	17.6	%50
10	MP1	Z	4.8	%50
11	MP2	Z	2.7	%50
12	MP3	Z	10.2	%50
13	MP4	Z	10.6	%50
14	MP5	Z	9.3	%50
15	MP6	Z	14.3	%50

Member Point Loads (BLC 16 : Wind on Ice (30 deg)) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
16	MP7	Z	4.8	%50
17	MP8	Z	2.7	%50
18	MP9	Z	10.2	%50

Member Point Loads (BLC 17 : Wind on Ice (60 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	8.7	%50
2	MP2	X	7.1	%50
3	MP3	X	12.9	%50
4	MP4	X	8.7	%50
5	MP5	X	7.1	%50
6	MP6	X	12.9	%50
7	MP7	X	2.9	%50
8	MP8	X	.4	%50
9	MP9	X	8.8	%50
10	MP1	Z	15	%50
11	MP2	Z	12.3	%50
12	MP3	Z	22.4	%50
13	MP4	Z	15	%50
14	MP5	Z	12.3	%50
15	MP6	Z	22.4	%50
16	MP7	Z	5.1	%50
17	MP8	Z	.8	%50
18	MP9	Z	15.2	%50

Member Point Loads (BLC 18 : Wind on Ice (90 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	0	%50
2	MP2	X	0	%50
3	MP3	X	0	%50
4	MP4	X	0	%50
5	MP5	X	0	%50
6	MP6	X	0	%50
7	MP7	X	0	%50
8	MP8	X	0	%50
9	MP9	X	0	%50
10	MP1	Z	21.1	%50
11	MP2	Z	18.7	%50
12	MP3	Z	28.6	%50
13	MP4	Z	9.7	%50
14	MP5	Z	5.3	%50
15	MP6	Z	20.3	%50
16	MP7	Z	9.7	%50
17	MP8	Z	5.3	%50
18	MP9	Z	20.3	%50

Member Point Loads (BLC 19 : Wind on Ice (120 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-8.7	%50
2	MP2	X	-7.1	%50
3	MP3	X	-12.9	%50
4	MP4	X	-2.9	%50
5	MP5	X	-.4	%50
6	MP6	X	-8.8	%50
7	MP7	X	-8.7	%50

Member Point Loads (BLC 19 : Wind on Ice (120 deg)) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
8	MP8	X	-7.1	%50
9	MP9	X	-12.9	%50
10	MP1	Z	15	%50
11	MP2	Z	12.3	%50
12	MP3	Z	22.4	%50
13	MP4	Z	5.1	%50
14	MP5	Z	.8	%50
15	MP6	Z	15.2	%50
16	MP7	Z	15	%50
17	MP8	Z	12.3	%50
18	MP9	Z	22.4	%50

Member Point Loads (BLC 20 : Wind on Ice (150 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-8.4	%50
2	MP2	X	-4.6	%50
3	MP3	X	-17.6	%50
4	MP4	X	-8.4	%50
5	MP5	X	-4.6	%50
6	MP6	X	-17.6	%50
7	MP7	X	-18.3	%50
8	MP8	X	-16.2	%50
9	MP9	X	-24.7	%50
10	MP1	Z	4.8	%50
11	MP2	Z	2.7	%50
12	MP3	Z	10.2	%50
13	MP4	Z	4.8	%50
14	MP5	Z	2.7	%50
15	MP6	Z	10.2	%50
16	MP7	Z	10.6	%50
17	MP8	Z	9.3	%50
18	MP9	Z	14.3	%50

Member Point Loads (BLC 21 : Wind on Ice (180 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-5.8	%50
2	MP2	X	-.9	%50
3	MP3	X	-17.6	%50
4	MP4	X	-17.3	%50
5	MP5	X	-14.2	%50
6	MP6	X	-25.8	%50
7	MP7	X	-17.3	%50
8	MP8	X	-14.2	%50
9	MP9	X	-25.8	%50
10	MP1	Z	0	%50
11	MP2	Z	0	%50
12	MP3	Z	0	%50
13	MP4	Z	0	%50
14	MP5	Z	0	%50
15	MP6	Z	0	%50
16	MP7	Z	0	%50
17	MP8	Z	0	%50
18	MP9	Z	0	%50

Member Point Loads (BLC 22 : Wind on Ice (210 deg))

Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]

Member Point Loads (BLC 22 : Wind on Ice (210 deg)) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-8.4	%50
2	MP2	X	-4.6	%50
3	MP3	X	-17.6	%50
4	MP4	X	-18.3	%50
5	MP5	X	-16.2	%50
6	MP6	X	-24.7	%50
7	MP7	X	-8.4	%50
8	MP8	X	-4.6	%50
9	MP9	X	-17.6	%50
10	MP1	Z	-4.8	%50
11	MP2	Z	-2.7	%50
12	MP3	Z	-10.2	%50
13	MP4	Z	-10.6	%50
14	MP5	Z	-9.3	%50
15	MP6	Z	-14.3	%50
16	MP7	Z	-4.8	%50
17	MP8	Z	-2.7	%50
18	MP9	Z	-10.2	%50

Member Point Loads (BLC 23 : Wind on Ice (240 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-8.7	%50
2	MP2	X	-7.1	%50
3	MP3	X	-12.9	%50
4	MP4	X	-8.7	%50
5	MP5	X	-7.1	%50
6	MP6	X	-12.9	%50
7	MP7	X	-2.9	%50
8	MP8	X	-.4	%50
9	MP9	X	-8.8	%50
10	MP1	Z	-15	%50
11	MP2	Z	-12.3	%50
12	MP3	Z	-22.4	%50
13	MP4	Z	-15	%50
14	MP5	Z	-12.3	%50
15	MP6	Z	-22.4	%50
16	MP7	Z	-5.1	%50
17	MP8	Z	-.8	%50
18	MP9	Z	-15.2	%50

Member Point Loads (BLC 24 : Wind on Ice (270 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	0	%50
2	MP2	X	0	%50
3	MP3	X	0	%50
4	MP4	X	0	%50
5	MP5	X	0	%50
6	MP6	X	0	%50
7	MP7	X	0	%50
8	MP8	X	0	%50
9	MP9	X	0	%50
10	MP1	Z	-21.1	%50
11	MP2	Z	-18.7	%50
12	MP3	Z	-28.6	%50
13	MP4	Z	-9.7	%50
14	MP5	Z	-5.3	%50

Member Point Loads (BLC 24 : Wind on Ice (270 deg)) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
15	MP6	Z	-20.3	%50
16	MP7	Z	-9.7	%50
17	MP8	Z	-5.3	%50
18	MP9	Z	-20.3	%50

Member Point Loads (BLC 25 : Wind on Ice (300 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	8.7	%50
2	MP2	X	7.1	%50
3	MP3	X	12.9	%50
4	MP4	X	2.9	%50
5	MP5	X	.4	%50
6	MP6	X	8.8	%50
7	MP7	X	8.7	%50
8	MP8	X	7.1	%50
9	MP9	X	12.9	%50
10	MP1	Z	-15	%50
11	MP2	Z	-12.3	%50
12	MP3	Z	-22.4	%50
13	MP4	Z	-5.1	%50
14	MP5	Z	-.8	%50
15	MP6	Z	-15.2	%50
16	MP7	Z	-15	%50
17	MP8	Z	-12.3	%50
18	MP9	Z	-22.4	%50

Member Point Loads (BLC 26 : Wind on Ice (330 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	8.4	%50
2	MP2	X	4.6	%50
3	MP3	X	17.6	%50
4	MP4	X	8.4	%50
5	MP5	X	4.6	%50
6	MP6	X	17.6	%50
7	MP7	X	18.3	%50
8	MP8	X	16.2	%50
9	MP9	X	24.7	%50
10	MP1	Z	-4.8	%50
11	MP2	Z	-2.7	%50
12	MP3	Z	-10.2	%50
13	MP4	Z	-4.8	%50
14	MP5	Z	-2.7	%50
15	MP6	Z	-10.2	%50
16	MP7	Z	-10.6	%50
17	MP8	Z	-9.3	%50
18	MP9	Z	-14.3	%50

Member Point Loads (BLC 27 : Horizontal Seismic, Eh (0))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	102.5	%50
2	MP2	X	128	%50
3	MP3	X	207.2	%50
4	MP4	X	102.5	%50
5	MP5	X	128	%50
6	MP6	X	207.2	%50

Member Point Loads (BLC 27 : Horizontal Seismic, Eh (0)) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
7	MP7	X	102.5	%50
8	MP8	X	128	%50
9	MP9	X	207.2	%50
10	MP1	Z	0	%50
11	MP2	Z	0	%50
12	MP3	Z	0	%50
13	MP4	Z	0	%50
14	MP5	Z	0	%50
15	MP6	Z	0	%50
16	MP7	Z	0	%50
17	MP8	Z	0	%50
18	MP9	Z	0	%50

Member Point Loads (BLC 28 : Horizontal Seismic, Eh (30))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	88.8	%50
2	MP2	X	110.9	%50
3	MP3	X	179.4	%50
4	MP4	X	88.8	%50
5	MP5	X	110.9	%50
6	MP6	X	179.4	%50
7	MP7	X	88.8	%50
8	MP8	X	110.9	%50
9	MP9	X	179.4	%50
10	MP1	Z	51.2	%50
11	MP2	Z	64	%50
12	MP3	Z	103.6	%50
13	MP4	Z	51.2	%50
14	MP5	Z	64	%50
15	MP6	Z	103.6	%50
16	MP7	Z	51.2	%50
17	MP8	Z	64	%50
18	MP9	Z	103.6	%50

Member Point Loads (BLC 29 : Horizontal Seismic, Eh (60))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	51.3	%50
2	MP2	X	64	%50
3	MP3	X	103.6	%50
4	MP4	X	51.3	%50
5	MP5	X	64	%50
6	MP6	X	103.6	%50
7	MP7	X	51.3	%50
8	MP8	X	64	%50
9	MP9	X	103.6	%50
10	MP1	Z	88.8	%50
11	MP2	Z	110.9	%50
12	MP3	Z	179.4	%50
13	MP4	Z	88.8	%50
14	MP5	Z	110.9	%50
15	MP6	Z	179.4	%50
16	MP7	Z	88.8	%50
17	MP8	Z	110.9	%50
18	MP9	Z	179.4	%50

Member Point Loads (BLC 30 : Horizontal Seismic, Eh (90))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	0	%50
2	MP2	X	0	%50
3	MP3	X	0	%50
4	MP4	X	0	%50
5	MP5	X	0	%50
6	MP6	X	0	%50
7	MP7	X	0	%50
8	MP8	X	0	%50
9	MP9	X	0	%50
10	MP1	Z	102.5	%50
11	MP2	Z	128	%50
12	MP3	Z	207.2	%50
13	MP4	Z	102.5	%50
14	MP5	Z	128	%50
15	MP6	Z	207.2	%50
16	MP7	Z	102.5	%50
17	MP8	Z	128	%50
18	MP9	Z	207.2	%50

Member Point Loads (BLC 31 : Horizontal Seismic, Eh (120))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-51.2	%50
2	MP2	X	-64	%50
3	MP3	X	-103.6	%50
4	MP4	X	-51.2	%50
5	MP5	X	-64	%50
6	MP6	X	-103.6	%50
7	MP7	X	-51.2	%50
8	MP8	X	-64	%50
9	MP9	X	-103.6	%50
10	MP1	Z	88.8	%50
11	MP2	Z	110.9	%50
12	MP3	Z	179.4	%50
13	MP4	Z	88.8	%50
14	MP5	Z	110.9	%50
15	MP6	Z	179.4	%50
16	MP7	Z	88.8	%50
17	MP8	Z	110.9	%50
18	MP9	Z	179.4	%50

Member Point Loads (BLC 32 : Horizontal Seismic, Eh (150))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-88.8	%50
2	MP2	X	-110.9	%50
3	MP3	X	-179.4	%50
4	MP4	X	-88.8	%50
5	MP5	X	-110.9	%50
6	MP6	X	-179.4	%50
7	MP7	X	-88.8	%50
8	MP8	X	-110.9	%50
9	MP9	X	-179.4	%50
10	MP1	Z	51.2	%50
11	MP2	Z	64	%50
12	MP3	Z	103.6	%50
13	MP4	Z	51.2	%50
14	MP5	Z	64	%50

Member Point Loads (BLC 32 : Horizontal Seismic, Eh (150)) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
15	MP6	Z	103.6	%50
16	MP7	Z	51.2	%50
17	MP8	Z	64	%50
18	MP9	Z	103.6	%50

Member Point Loads (BLC 33 : Horizontal Seismic, Eh (180))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-102.5	%50
2	MP2	X	-128	%50
3	MP3	X	-207.2	%50
4	MP4	X	-102.5	%50
5	MP5	X	-128	%50
6	MP6	X	-207.2	%50
7	MP7	X	-102.5	%50
8	MP8	X	-128	%50
9	MP9	X	-207.2	%50
10	MP1	Z	0	%50
11	MP2	Z	0	%50
12	MP3	Z	0	%50
13	MP4	Z	0	%50
14	MP5	Z	0	%50
15	MP6	Z	0	%50
16	MP7	Z	0	%50
17	MP8	Z	0	%50
18	MP9	Z	0	%50

Member Point Loads (BLC 34 : Horizontal Seismic, Eh (210))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-88.8	%50
2	MP2	X	-110.9	%50
3	MP3	X	-179.4	%50
4	MP4	X	-88.8	%50
5	MP5	X	-110.9	%50
6	MP6	X	-179.4	%50
7	MP7	X	-88.8	%50
8	MP8	X	-110.9	%50
9	MP9	X	-179.4	%50
10	MP1	Z	-51.3	%50
11	MP2	Z	-64	%50
12	MP3	Z	-103.6	%50
13	MP4	Z	-51.3	%50
14	MP5	Z	-64	%50
15	MP6	Z	-103.6	%50
16	MP7	Z	-51.3	%50
17	MP8	Z	-64	%50
18	MP9	Z	-103.6	%50

Member Point Loads (BLC 35 : Horizontal Seismic, Eh (240))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-51.3	%50
2	MP2	X	-64	%50
3	MP3	X	-103.6	%50
4	MP4	X	-51.3	%50
5	MP5	X	-64	%50
6	MP6	X	-103.6	%50

Member Point Loads (BLC 35 : Horizontal Seismic, Eh (240)) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
7	MP7	X	-51.3	%50
8	MP8	X	-64	%50
9	MP9	X	-103.6	%50
10	MP1	Z	-88.8	%50
11	MP2	Z	-110.9	%50
12	MP3	Z	-179.4	%50
13	MP4	Z	-88.8	%50
14	MP5	Z	-110.9	%50
15	MP6	Z	-179.4	%50
16	MP7	Z	-88.8	%50
17	MP8	Z	-110.9	%50
18	MP9	Z	-179.4	%50

Member Point Loads (BLC 36 : Horizontal Seismic, Eh (270))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	0	%50
2	MP2	X	0	%50
3	MP3	X	0	%50
4	MP4	X	0	%50
5	MP5	X	0	%50
6	MP6	X	0	%50
7	MP7	X	0	%50
8	MP8	X	0	%50
9	MP9	X	0	%50
10	MP1	Z	-102.5	%50
11	MP2	Z	-128	%50
12	MP3	Z	-207.2	%50
13	MP4	Z	-102.5	%50
14	MP5	Z	-128	%50
15	MP6	Z	-207.2	%50
16	MP7	Z	-102.5	%50
17	MP8	Z	-128	%50
18	MP9	Z	-207.2	%50

Member Point Loads (BLC 37 : Horizontal Seismic, Eh (300))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	51.3	%50
2	MP2	X	64	%50
3	MP3	X	103.6	%50
4	MP4	X	51.3	%50
5	MP5	X	64	%50
6	MP6	X	103.6	%50
7	MP7	X	51.3	%50
8	MP8	X	64	%50
9	MP9	X	103.6	%50
10	MP1	Z	-88.8	%50
11	MP2	Z	-110.9	%50
12	MP3	Z	-179.4	%50
13	MP4	Z	-88.8	%50
14	MP5	Z	-110.9	%50
15	MP6	Z	-179.4	%50
16	MP7	Z	-88.8	%50
17	MP8	Z	-110.9	%50
18	MP9	Z	-179.4	%50

Member Point Loads (BLC 38 : Horizontal Seismic, Eh (330))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	88.8	%50
2	MP2	X	110.9	%50
3	MP3	X	179.4	%50
4	MP4	X	88.8	%50
5	MP5	X	110.9	%50
6	MP6	X	179.4	%50
7	MP7	X	88.8	%50
8	MP8	X	110.9	%50
9	MP9	X	179.4	%50
10	MP1	Z	-51.3	%50
11	MP2	Z	-64	%50
12	MP3	Z	-103.6	%50
13	MP4	Z	-51.3	%50
14	MP5	Z	-64	%50
15	MP6	Z	-103.6	%50
16	MP7	Z	-51.3	%50
17	MP8	Z	-64	%50
18	MP9	Z	-103.6	%50

Member Point Loads (BLC 39 : Maintenance Load, Lm (MP1))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	Y	-500	%50

Member Point Loads (BLC 40 : Maintenance Load, Lm (MP2))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP2	Y	-500	%50

Member Point Loads (BLC 41 : Maintenance Load, Lm (MP3))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP3	Y	-500	%50

Member Point Loads (BLC 42 : Maintenance Load, Lm (MP4))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP4	Y	-500	%50

Member Point Loads (BLC 43 : Maintenance Load, Lm (MP5))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP5	Y	-500	%50

Member Point Loads (BLC 44 : Maintenance Load, Lm (MP6))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP6	Y	-500	%50

Member Point Loads (BLC 45 : Maintenance Load, Lm (MP7))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP7	Y	-500	%50

Member Point Loads (BLC 46 : Maintenance Load, Lm (MP8))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP8	Y	-500	%50

Member Point Loads (BLC 47 : Maintenance Load, Lm (MP9))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]

Member Point Loads (BLC 47 : Maintenance Load, Lm (MP9)) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP9	Y	-500	%50

Member Point Loads (BLC 75 : Maintenance Load, Lv (Pos. 1))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	FM1	Y	-250	0

Member Point Loads (BLC 76 : Maintenance Load, Lv (Pos. 2))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	FM1	Y	-250	%50

Member Point Loads (BLC 77 : Maintenance Load, Lv (Pos. 3))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	FM1	Y	-250	%100

Member Point Loads (BLC 78 : Maintenance Load, Lv (Pos. 4))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	FM2	Y	-250	0

Member Point Loads (BLC 79 : Maintenance Load, Lv (Pos. 5))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	FM2	Y	-250	%50

Member Point Loads (BLC 80 : Maintenance Load, Lv (Pos. 6))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	FM2	Y	-250	%100

Member Point Loads (BLC 81 : Maintenance Load, Lv (Pos. 7))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	FM3	Y	-250	0

Member Point Loads (BLC 82 : Maintenance Load, Lv (Pos. 8))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	FM3	Y	-250	%50

Member Point Loads (BLC 83 : Maintenance Load, Lv (Pos. 9))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	FM3	Y	-250	%100

Member Point Loads (BLC 84 : Maintenance Load, Lv (Pos. 10))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	BRACE1	Y	-250	%50

Member Point Loads (BLC 85 : Maintenance Load, Lv (Pos. 11))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	BRACE2	Y	-250	%50

Member Point Loads (BLC 86 : Maintenance Load, Lv (Pos. 12))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	BRACE3	Y	-250	%50

Member Point Loads (BLC 87 : Maintenance Load, Lv (Pos. 13))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	SA1	Y	-250	0

Member Point Loads (BLC 88 : Maintenance Load, Lv (Pos. 14))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	SA2	Y	-250	0

Member Point Loads (BLC 89 : Maintenance Load, Lv (Pos. 15))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	SA3	Y	-250	0

Member Point Loads (BLC 90 : Maintenance Load, Lv (Pos. 16))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	HR1	Y	-250	0

Member Point Loads (BLC 91 : Maintenance Load, Lv (Pos. 17))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	HR1	Y	-250	%50

Member Point Loads (BLC 92 : Maintenance Load, Lv (Pos. 18))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	HR1	Y	-250	%100

Member Point Loads (BLC 93 : Maintenance Load, Lv (Pos. 19))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	HR2	Y	-250	0

Member Point Loads (BLC 94 : Maintenance Load, Lv (Pos. 20))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	HR2	Y	-250	%50

Member Point Loads (BLC 95 : Maintenance Load, Lv (Pos. 21))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	HR2	Y	-250	%100

Member Point Loads (BLC 96 : Maintenance Load, Lv (Pos. 22))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	HR3	Y	-250	0

Member Point Loads (BLC 97 : Maintenance Load, Lv (Pos. 23))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	HR3	Y	-250	%50

Member Point Loads (BLC 98 : Maintenance Load, Lv (Pos. 24))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	HR3	Y	-250	%100

Member Distributed Loads (BLC 2 : Wind Load (0 deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
1	FM1	X	14.4	14.4	0	0
2	FM2	X	14.4	14.4	0	0

Member Distributed Loads (BLC 2 : Wind Load (0 deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
3	FM3	X	14.4	14.4	0	0
4	BRACE1	X	27.4	27.4	0	0
5	BRACE2	X	27.4	27.4	0	0
6	BRACE3	X	27.4	27.4	0	0
7	SA1	X	0	0	0	0
8	SA2	X	27.4	27.4	0	0
9	SA3	X	27.4	27.4	0	0
10	GRATE1	X	13.7	13.7	0	0
11	GRATE2	X	13.7	13.7	0	0
12	GRATE3	X	13.7	13.7	0	0
13	GRATE4	X	13.7	13.7	0	0
14	GRATE5	X	13.7	13.7	0	0
15	GRATE6	X	13.7	13.7	0	0
16	HR1	X	9.8	9.8	0	0
17	HR2	X	9.8	9.8	0	0
18	HR3	X	9.8	9.8	0	0
19	FM1	Z	0	0	0	0
20	FM2	Z	0	0	0	0
21	FM3	Z	0	0	0	0
22	BRACE1	Z	0	0	0	0
23	BRACE2	Z	0	0	0	0
24	BRACE3	Z	0	0	0	0
25	SA1	Z	0	0	0	0
26	SA2	Z	0	0	0	0
27	SA3	Z	0	0	0	0
28	GRATE1	Z	0	0	0	0
29	GRATE2	Z	0	0	0	0
30	GRATE3	Z	0	0	0	0
31	GRATE4	Z	0	0	0	0
32	GRATE5	Z	0	0	0	0
33	GRATE6	Z	0	0	0	0
34	HR1	Z	0	0	0	0
35	HR2	Z	0	0	0	0
36	HR3	Z	0	0	0	0
37	MP1	X	53.7	53.7	%13.158	%86.842
38	MP2	X	131.6	131.6	0	%100
39	MP3	X	56.8	56.8	%12.763	%87.237
40	MP4	X	41.9	41.9	%13.158	%86.842
41	MP5	X	76.2	76.2	0	%100
42	MP6	X	45	45	%12.763	%87.237
43	MP7	X	41.9	41.9	%13.158	%86.842
44	MP8	X	76.2	76.2	0	%100
45	MP9	X	45	45	%12.763	%87.237
46	MP1	Z	0	0	0	0
47	MP2	Z	0	0	0	0
48	MP3	Z	0	0	0	0
49	MP4	Z	0	0	0	0
50	MP5	Z	0	0	0	0
51	MP6	Z	0	0	0	0
52	MP7	Z	0	0	0	0
53	MP8	Z	0	0	0	0
54	MP9	Z	0	0	0	0

Member Distributed Loads (BLC 3 : Wind Load (30 deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
1	FM1	X	12.5	12.5	0	0

Member Distributed Loads (BLC 3 : Wind Load (30 deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
2	FM2	X	0	0	0	0
3	FM3	X	12.5	12.5	0	0
4	BRACE1	X	23.8	23.8	0	0
5	BRACE2	X	0	0	0	0
6	BRACE3	X	23.8	23.8	0	0
7	SA1	X	23.8	23.8	0	0
8	SA2	X	23.8	23.8	0	0
9	SA3	X	23.8	23.8	0	0
10	GRATE1	X	11.9	11.9	0	0
11	GRATE2	X	11.9	11.9	0	0
12	GRATE3	X	0	0	0	0
13	GRATE4	X	0	0	0	0
14	GRATE5	X	11.9	11.9	0	0
15	GRATE6	X	11.9	11.9	0	0
16	HR1	X	8.5	8.5	0	0
17	HR2	X	0	0	0	0
18	HR3	X	8.5	8.5	0	0
19	FM1	Z	7.2	7.2	0	0
20	FM2	Z	0	0	0	0
21	FM3	Z	7.2	7.2	0	0
22	BRACE1	Z	13.7	13.7	0	0
23	BRACE2	Z	0	0	0	0
24	BRACE3	Z	13.7	13.7	0	0
25	SA1	Z	13.7	13.7	0	0
26	SA2	Z	13.7	13.7	0	0
27	SA3	Z	13.7	13.7	0	0
28	GRATE1	Z	6.9	6.9	0	0
29	GRATE2	Z	6.9	6.9	0	0
30	GRATE3	Z	0	0	0	0
31	GRATE4	Z	0	0	0	0
32	GRATE5	Z	6.9	6.9	0	0
33	GRATE6	Z	6.9	6.9	0	0
34	HR1	Z	4.9	4.9	0	0
35	HR2	Z	0	0	0	0
36	HR3	Z	4.9	4.9	0	0
37	MP1	X	43.1	43.1	%13.158	%86.842
38	MP2	X	98	98	0	%100
39	MP3	X	45.8	45.8	%12.763	%87.237
40	MP4	X	32.8	32.8	%13.158	%86.842
41	MP5	X	50	50	0	%100
42	MP6	X	35.6	35.6	%12.763	%87.237
43	MP7	X	43.1	43.1	%13.158	%86.842
44	MP8	X	98	98	0	%100
45	MP9	X	45.8	45.8	%12.763	%87.237
46	MP1	Z	24.9	24.9	%13.158	%86.842
47	MP2	Z	56.6	56.6	0	%100
48	MP3	Z	26.4	26.4	%12.763	%87.237
49	MP4	Z	18.9	18.9	%13.158	%86.842
50	MP5	Z	28.9	28.9	0	%100
51	MP6	Z	20.6	20.6	%12.763	%87.237
52	MP7	Z	24.9	24.9	%13.158	%86.842
53	MP8	Z	56.6	56.6	0	%100
54	MP9	Z	26.4	26.4	%12.763	%87.237

Member Distributed Loads (BLC 4 : Wind Load (60 deg))

Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]

Member Distributed Loads (BLC 4 : Wind Load (60 deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
1	FM1	X	7.2	7.2	0	0
2	FM2	X	7.2	7.2	0	0
3	FM3	X	7.2	7.2	0	0
4	BRACE1	X	13.7	13.7	0	0
5	BRACE2	X	13.7	13.7	0	0
6	BRACE3	X	13.7	13.7	0	0
7	SA1	X	13.7	13.7	0	0
8	SA2	X	13.7	13.7	0	0
9	SA3	X	0	0	0	0
10	GRATE1	X	6.9	6.9	0	0
11	GRATE2	X	6.9	6.9	0	0
12	GRATE3	X	6.9	6.9	0	0
13	GRATE4	X	6.9	6.9	0	0
14	GRATE5	X	6.9	6.9	0	0
15	GRATE6	X	6.9	6.9	0	0
16	HR1	X	4.9	4.9	0	0
17	HR2	X	4.9	4.9	0	0
18	HR3	X	4.9	4.9	0	0
19	FM1	Z	12.5	12.5	0	0
20	FM2	Z	12.5	12.5	0	0
21	FM3	Z	12.5	12.5	0	0
22	BRACE1	Z	23.8	23.8	0	0
23	BRACE2	Z	23.8	23.8	0	0
24	BRACE3	Z	23.8	23.8	0	0
25	SA1	Z	23.8	23.8	0	0
26	SA2	Z	23.8	23.8	0	0
27	SA3	Z	0	0	0	0
28	GRATE1	Z	11.9	11.9	0	0
29	GRATE2	Z	11.9	11.9	0	0
30	GRATE3	Z	11.9	11.9	0	0
31	GRATE4	Z	11.9	11.9	0	0
32	GRATE5	Z	11.9	11.9	0	0
33	GRATE6	Z	11.9	11.9	0	0
34	HR1	Z	8.5	8.5	0	0
35	HR2	Z	8.5	8.5	0	0
36	HR3	Z	8.5	8.5	0	0
37	MP1	X	20.9	20.9	%13.158	%86.842
38	MP2	X	38.1	38.1	0	%100
39	MP3	X	22.5	22.5	%12.763	%87.237
40	MP4	X	20.9	20.9	%13.158	%86.842
41	MP5	X	38.1	38.1	0	%100
42	MP6	X	22.5	22.5	%12.763	%87.237
43	MP7	X	26.9	26.9	%13.158	%86.842
44	MP8	X	65.8	65.8	0	%100
45	MP9	X	28.4	28.4	%12.763	%87.237
46	MP1	Z	36.2	36.2	%13.158	%86.842
47	MP2	Z	66	66	0	%100
48	MP3	Z	39	39	%12.763	%87.237
49	MP4	Z	36.2	36.2	%13.158	%86.842
50	MP5	Z	66	66	0	%100
51	MP6	Z	39	39	%12.763	%87.237
52	MP7	Z	46.5	46.5	%13.158	%86.842
53	MP8	Z	113.9	113.9	0	%100
54	MP9	Z	49.2	49.2	%12.763	%87.237

Member Distributed Loads (BLC 5 : Wind Load (90 deg))

Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]

Member Distributed Loads (BLC 5 : Wind Load (90 deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
1	FM1	X	0	0	0	0
2	FM2	X	0	0	0	0
3	FM3	X	0	0	0	0
4	BRACE1	X	0	0	0	0
5	BRACE2	X	0	0	0	0
6	BRACE3	X	0	0	0	0
7	SA1	X	0	0	0	0
8	SA2	X	0	0	0	0
9	SA3	X	0	0	0	0
10	GRATE1	X	0	0	0	0
11	GRATE2	X	0	0	0	0
12	GRATE3	X	0	0	0	0
13	GRATE4	X	0	0	0	0
14	GRATE5	X	0	0	0	0
15	GRATE6	X	0	0	0	0
16	HR1	X	0	0	0	0
17	HR2	X	0	0	0	0
18	HR3	X	0	0	0	0
19	FM1	Z	0	0	0	0
20	FM2	Z	14.4	14.4	0	0
21	FM3	Z	14.4	14.4	0	0
22	BRACE1	Z	0	0	0	0
23	BRACE2	Z	27.4	27.4	0	0
24	BRACE3	Z	27.4	27.4	0	0
25	SA1	Z	27.4	27.4	0	0
26	SA2	Z	27.4	27.4	0	0
27	SA3	Z	27.4	27.4	0	0
28	GRATE1	Z	0	0	0	0
29	GRATE2	Z	0	0	0	0
30	GRATE3	Z	13.7	13.7	0	0
31	GRATE4	Z	13.7	13.7	0	0
32	GRATE5	Z	13.7	13.7	0	0
33	GRATE6	Z	13.7	13.7	0	0
34	HR1	Z	0	0	0	0
35	HR2	Z	9.8	9.8	0	0
36	HR3	Z	9.8	9.8	0	0
37	MP1	X	0	0	0	0
38	MP2	X	0	0	0	0
39	MP3	X	0	0	0	0
40	MP4	X	0	0	0	0
41	MP5	X	0	0	0	0
42	MP6	X	0	0	0	0
43	MP7	X	0	0	0	0
44	MP8	X	0	0	0	0
45	MP9	X	0	0	0	0
46	MP1	Z	37.9	37.9	%13.158	%86.842
47	MP2	Z	57.8	57.8	0	%100
48	MP3	Z	41.1	41.1	%12.763	%87.237
49	MP4	Z	49.8	49.8	%13.158	%86.842
50	MP5	Z	113.1	113.1	0	%100
51	MP6	Z	52.9	52.9	%12.763	%87.237
52	MP7	Z	49.8	49.8	%13.158	%86.842
53	MP8	Z	113.1	113.1	0	%100
54	MP9	Z	52.9	52.9	%12.763	%87.237

Member Distributed Loads (BLC 6 : Wind Load (120 deg))

Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]

Member Distributed Loads (BLC 6 : Wind Load (120 deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
1	FM1	X	-7.2	-7.2	0	0
2	FM2	X	-7.2	-7.2	0	0
3	FM3	X	-7.2	-7.2	0	0
4	BRACE1	X	-13.7	-13.7	0	0
5	BRACE2	X	-13.7	-13.7	0	0
6	BRACE3	X	-13.7	-13.7	0	0
7	SA1	X	-13.7	-13.7	0	0
8	SA2	X	0	0	0	0
9	SA3	X	-13.7	-13.7	0	0
10	GRATE1	X	-6.9	-6.9	0	0
11	GRATE2	X	-6.9	-6.9	0	0
12	GRATE3	X	-6.9	-6.9	0	0
13	GRATE4	X	-6.9	-6.9	0	0
14	GRATE5	X	-6.9	-6.9	0	0
15	GRATE6	X	-6.9	-6.9	0	0
16	HR1	X	-4.9	-4.9	0	0
17	HR2	X	-4.9	-4.9	0	0
18	HR3	X	-4.9	-4.9	0	0
19	FM1	Z	12.5	12.5	0	0
20	FM2	Z	12.5	12.5	0	0
21	FM3	Z	12.5	12.5	0	0
22	BRACE1	Z	23.8	23.8	0	0
23	BRACE2	Z	23.8	23.8	0	0
24	BRACE3	Z	23.8	23.8	0	0
25	SA1	Z	23.8	23.8	0	0
26	SA2	Z	0	0	0	0
27	SA3	Z	23.8	23.8	0	0
28	GRATE1	Z	11.9	11.9	0	0
29	GRATE2	Z	11.9	11.9	0	0
30	GRATE3	Z	11.9	11.9	0	0
31	GRATE4	Z	11.9	11.9	0	0
32	GRATE5	Z	11.9	11.9	0	0
33	GRATE6	Z	11.9	11.9	0	0
34	HR1	Z	8.5	8.5	0	0
35	HR2	Z	8.5	8.5	0	0
36	HR3	Z	8.5	8.5	0	0
37	MP1	X	-20.9	-20.9	%13.158	%86.842
38	MP2	X	-38.1	-38.1	0	%100
39	MP3	X	-22.5	-22.5	%12.763	%87.237
40	MP4	X	-26.9	-26.9	%13.158	%86.842
41	MP5	X	-65.8	-65.8	0	%100
42	MP6	X	-28.4	-28.4	%12.763	%87.237
43	MP7	X	-20.9	-20.9	%13.158	%86.842
44	MP8	X	-38.1	-38.1	0	%100
45	MP9	X	-22.5	-22.5	%12.763	%87.237
46	MP1	Z	36.2	36.2	%13.158	%86.842
47	MP2	Z	66	66	0	%100
48	MP3	Z	39	39	%12.763	%87.237
49	MP4	Z	46.5	46.5	%13.158	%86.842
50	MP5	Z	113.9	113.9	0	%100
51	MP6	Z	49.2	49.2	%12.763	%87.237
52	MP7	Z	36.2	36.2	%13.158	%86.842
53	MP8	Z	66	66	0	%100
54	MP9	Z	39	39	%12.763	%87.237

Member Distributed Loads (BLC 7 : Wind Load (150 deg))

Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]

Member Distributed Loads (BLC 7 : Wind Load (150 deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
1	FM1	X	-12.5	-12.5	0	0
2	FM2	X	-12.5	-12.5	0	0
3	FM3	X	0	0	0	0
4	BRACE1	X	-23.8	-23.8	0	0
5	BRACE2	X	-23.8	-23.8	0	0
6	BRACE3	X	0	0	0	0
7	SA1	X	-23.8	-23.8	0	0
8	SA2	X	-23.8	-23.8	0	0
9	SA3	X	-23.8	-23.8	0	0
10	GRATE1	X	-11.9	-11.9	0	0
11	GRATE2	X	-11.9	-11.9	0	0
12	GRATE3	X	-11.9	-11.9	0	0
13	GRATE4	X	-11.9	-11.9	0	0
14	GRATE5	X	0	0	0	0
15	GRATE6	X	0	0	0	0
16	HR1	X	-8.5	-8.5	0	0
17	HR2	X	-8.5	-8.5	0	0
18	HR3	X	0	0	0	0
19	FM1	Z	7.2	7.2	0	0
20	FM2	Z	7.2	7.2	0	0
21	FM3	Z	0	0	0	0
22	BRACE1	Z	13.7	13.7	0	0
23	BRACE2	Z	13.7	13.7	0	0
24	BRACE3	Z	0	0	0	0
25	SA1	Z	13.7	13.7	0	0
26	SA2	Z	13.7	13.7	0	0
27	SA3	Z	13.7	13.7	0	0
28	GRATE1	Z	6.9	6.9	0	0
29	GRATE2	Z	6.9	6.9	0	0
30	GRATE3	Z	6.9	6.9	0	0
31	GRATE4	Z	6.9	6.9	0	0
32	GRATE5	Z	0	0	0	0
33	GRATE6	Z	0	0	0	0
34	HR1	Z	4.9	4.9	0	0
35	HR2	Z	4.9	4.9	0	0
36	HR3	Z	0	0	0	0
37	MP1	X	-43.1	-43.1	%13.158	%86.842
38	MP2	X	-98	-98	0	%100
39	MP3	X	-45.8	-45.8	%12.763	%87.237
40	MP4	X	-43.1	-43.1	%13.158	%86.842
41	MP5	X	-98	-98	0	%100
42	MP6	X	-45.8	-45.8	%12.763	%87.237
43	MP7	X	-32.8	-32.8	%13.158	%86.842
44	MP8	X	-50	-50	0	%100
45	MP9	X	-35.6	-35.6	%12.763	%87.237
46	MP1	Z	24.9	24.9	%13.158	%86.842
47	MP2	Z	56.6	56.6	0	%100
48	MP3	Z	26.4	26.4	%12.763	%87.237
49	MP4	Z	24.9	24.9	%13.158	%86.842
50	MP5	Z	56.6	56.6	0	%100
51	MP6	Z	26.4	26.4	%12.763	%87.237
52	MP7	Z	18.9	18.9	%13.158	%86.842
53	MP8	Z	28.9	28.9	0	%100
54	MP9	Z	20.6	20.6	%12.763	%87.237

Member Distributed Loads (BLC 8 : Wind Load (180 deg))

Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]

Member Distributed Loads (BLC 8 : Wind Load (180 deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
1	FM1	X	-14.4	-14.4	0	0
2	FM2	X	-14.4	-14.4	0	0
3	FM3	X	-14.4	-14.4	0	0
4	BRACE1	X	-27.4	-27.4	0	0
5	BRACE2	X	-27.4	-27.4	0	0
6	BRACE3	X	-27.4	-27.4	0	0
7	SA1	X	0	0	0	0
8	SA2	X	-27.4	-27.4	0	0
9	SA3	X	-27.4	-27.4	0	0
10	GRATE1	X	-13.7	-13.7	0	0
11	GRATE2	X	-13.7	-13.7	0	0
12	GRATE3	X	-13.7	-13.7	0	0
13	GRATE4	X	-13.7	-13.7	0	0
14	GRATE5	X	-13.7	-13.7	0	0
15	GRATE6	X	-13.7	-13.7	0	0
16	HR1	X	-9.8	-9.8	0	0
17	HR2	X	-9.8	-9.8	0	0
18	HR3	X	-9.8	-9.8	0	0
19	FM1	Z	0	0	0	0
20	FM2	Z	0	0	0	0
21	FM3	Z	0	0	0	0
22	BRACE1	Z	0	0	0	0
23	BRACE2	Z	0	0	0	0
24	BRACE3	Z	0	0	0	0
25	SA1	Z	0	0	0	0
26	SA2	Z	0	0	0	0
27	SA3	Z	0	0	0	0
28	GRATE1	Z	0	0	0	0
29	GRATE2	Z	0	0	0	0
30	GRATE3	Z	0	0	0	0
31	GRATE4	Z	0	0	0	0
32	GRATE5	Z	0	0	0	0
33	GRATE6	Z	0	0	0	0
34	HR1	Z	0	0	0	0
35	HR2	Z	0	0	0	0
36	HR3	Z	0	0	0	0
37	MP1	X	-53.7	-53.7	%13.158	%86.842
38	MP2	X	-131.6	-131.6	0	%100
39	MP3	X	-56.8	-56.8	%12.763	%87.237
40	MP4	X	-41.9	-41.9	%13.158	%86.842
41	MP5	X	-76.2	-76.2	0	%100
42	MP6	X	-45	-45	%12.763	%87.237
43	MP7	X	-41.9	-41.9	%13.158	%86.842
44	MP8	X	-76.2	-76.2	0	%100
45	MP9	X	-45	-45	%12.763	%87.237
46	MP1	Z	0	0	0	0
47	MP2	Z	0	0	0	0
48	MP3	Z	0	0	0	0
49	MP4	Z	0	0	0	0
50	MP5	Z	0	0	0	0
51	MP6	Z	0	0	0	0
52	MP7	Z	0	0	0	0
53	MP8	Z	0	0	0	0
54	MP9	Z	0	0	0	0

Member Distributed Loads (BLC 9 : Wind Load (210 deg))

Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]

Member Distributed Loads (BLC 9 : Wind Load (210 deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
1	FM1	X	-12.5	-12.5	0	0
2	FM2	X	0	0	0	0
3	FM3	X	-12.5	-12.5	0	0
4	BRACE1	X	-23.8	-23.8	0	0
5	BRACE2	X	0	0	0	0
6	BRACE3	X	-23.8	-23.8	0	0
7	SA1	X	-23.8	-23.8	0	0
8	SA2	X	-23.8	-23.8	0	0
9	SA3	X	-23.8	-23.8	0	0
10	GRATE1	X	-11.9	-11.9	0	0
11	GRATE2	X	-11.9	-11.9	0	0
12	GRATE3	X	0	0	0	0
13	GRATE4	X	0	0	0	0
14	GRATE5	X	-11.9	-11.9	0	0
15	GRATE6	X	-11.9	-11.9	0	0
16	HR1	X	-8.5	-8.5	0	0
17	HR2	X	0	0	0	0
18	HR3	X	-8.5	-8.5	0	0
19	FM1	Z	-7.2	-7.2	0	0
20	FM2	Z	0	0	0	0
21	FM3	Z	-7.2	-7.2	0	0
22	BRACE1	Z	-13.7	-13.7	0	0
23	BRACE2	Z	0	0	0	0
24	BRACE3	Z	-13.7	-13.7	0	0
25	SA1	Z	-13.7	-13.7	0	0
26	SA2	Z	-13.7	-13.7	0	0
27	SA3	Z	-13.7	-13.7	0	0
28	GRATE1	Z	-6.9	-6.9	0	0
29	GRATE2	Z	-6.9	-6.9	0	0
30	GRATE3	Z	0	0	0	0
31	GRATE4	Z	0	0	0	0
32	GRATE5	Z	-6.9	-6.9	0	0
33	GRATE6	Z	-6.9	-6.9	0	0
34	HR1	Z	-4.9	-4.9	0	0
35	HR2	Z	0	0	0	0
36	HR3	Z	-4.9	-4.9	0	0
37	MP1	X	-43.1	-43.1	%13.158	%86.842
38	MP2	X	-98	-98	0	%100
39	MP3	X	-45.8	-45.8	%12.763	%87.237
40	MP4	X	-32.8	-32.8	%13.158	%86.842
41	MP5	X	-50	-50	0	%100
42	MP6	X	-35.6	-35.6	%12.763	%87.237
43	MP7	X	-43.1	-43.1	%13.158	%86.842
44	MP8	X	-98	-98	0	%100
45	MP9	X	-45.8	-45.8	%12.763	%87.237
46	MP1	Z	-24.9	-24.9	%13.158	%86.842
47	MP2	Z	-56.6	-56.6	0	%100
48	MP3	Z	-26.4	-26.4	%12.763	%87.237
49	MP4	Z	-18.9	-18.9	%13.158	%86.842
50	MP5	Z	-28.9	-28.9	0	%100
51	MP6	Z	-20.6	-20.6	%12.763	%87.237
52	MP7	Z	-24.9	-24.9	%13.158	%86.842
53	MP8	Z	-56.6	-56.6	0	%100
54	MP9	Z	-26.4	-26.4	%12.763	%87.237

Member Distributed Loads (BLC 10 : Wind Load (240 deg))

Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]

Member Distributed Loads (BLC 10 : Wind Load (240 deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
1	FM1	X	-7.2	-7.2	0	0
2	FM2	X	-7.2	-7.2	0	0
3	FM3	X	-7.2	-7.2	0	0
4	BRACE1	X	-13.7	-13.7	0	0
5	BRACE2	X	-13.7	-13.7	0	0
6	BRACE3	X	-13.7	-13.7	0	0
7	SA1	X	-13.7	-13.7	0	0
8	SA2	X	-13.7	-13.7	0	0
9	SA3	X	0	0	0	0
10	GRATE1	X	-6.9	-6.9	0	0
11	GRATE2	X	-6.9	-6.9	0	0
12	GRATE3	X	-6.9	-6.9	0	0
13	GRATE4	X	-6.9	-6.9	0	0
14	GRATE5	X	-6.9	-6.9	0	0
15	GRATE6	X	-6.9	-6.9	0	0
16	HR1	X	-4.9	-4.9	0	0
17	HR2	X	-4.9	-4.9	0	0
18	HR3	X	-4.9	-4.9	0	0
19	FM1	Z	-12.5	-12.5	0	0
20	FM2	Z	-12.5	-12.5	0	0
21	FM3	Z	-12.5	-12.5	0	0
22	BRACE1	Z	-23.8	-23.8	0	0
23	BRACE2	Z	-23.8	-23.8	0	0
24	BRACE3	Z	-23.8	-23.8	0	0
25	SA1	Z	-23.8	-23.8	0	0
26	SA2	Z	-23.8	-23.8	0	0
27	SA3	Z	0	0	0	0
28	GRATE1	Z	-11.9	-11.9	0	0
29	GRATE2	Z	-11.9	-11.9	0	0
30	GRATE3	Z	-11.9	-11.9	0	0
31	GRATE4	Z	-11.9	-11.9	0	0
32	GRATE5	Z	-11.9	-11.9	0	0
33	GRATE6	Z	-11.9	-11.9	0	0
34	HR1	Z	-8.5	-8.5	0	0
35	HR2	Z	-8.5	-8.5	0	0
36	HR3	Z	-8.5	-8.5	0	0
37	MP1	X	-20.9	-20.9	%13.158	%86.842
38	MP2	X	-38.1	-38.1	0	%100
39	MP3	X	-22.5	-22.5	%12.763	%87.237
40	MP4	X	-20.9	-20.9	%13.158	%86.842
41	MP5	X	-38.1	-38.1	0	%100
42	MP6	X	-22.5	-22.5	%12.763	%87.237
43	MP7	X	-26.9	-26.9	%13.158	%86.842
44	MP8	X	-65.8	-65.8	0	%100
45	MP9	X	-28.4	-28.4	%12.763	%87.237
46	MP1	Z	-36.2	-36.2	%13.158	%86.842
47	MP2	Z	-66	-66	0	%100
48	MP3	Z	-39	-39	%12.763	%87.237
49	MP4	Z	-36.2	-36.2	%13.158	%86.842
50	MP5	Z	-66	-66	0	%100
51	MP6	Z	-39	-39	%12.763	%87.237
52	MP7	Z	-46.5	-46.5	%13.158	%86.842
53	MP8	Z	-113.9	-113.9	0	%100
54	MP9	Z	-49.2	-49.2	%12.763	%87.237

Member Distributed Loads (BLC 11 : Wind Load (270 deg))

Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]

Member Distributed Loads (BLC 11 : Wind Load (270 deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
1	FM1	X	0	0	0	0
2	FM2	X	0	0	0	0
3	FM3	X	0	0	0	0
4	BRACE1	X	0	0	0	0
5	BRACE2	X	0	0	0	0
6	BRACE3	X	0	0	0	0
7	SA1	X	0	0	0	0
8	SA2	X	0	0	0	0
9	SA3	X	0	0	0	0
10	GRATE1	X	0	0	0	0
11	GRATE2	X	0	0	0	0
12	GRATE3	X	0	0	0	0
13	GRATE4	X	0	0	0	0
14	GRATE5	X	0	0	0	0
15	GRATE6	X	0	0	0	0
16	HR1	X	0	0	0	0
17	HR2	X	0	0	0	0
18	HR3	X	0	0	0	0
19	FM1	Z	0	0	0	0
20	FM2	Z	-14.4	-14.4	0	0
21	FM3	Z	-14.4	-14.4	0	0
22	BRACE1	Z	0	0	0	0
23	BRACE2	Z	-27.4	-27.4	0	0
24	BRACE3	Z	-27.4	-27.4	0	0
25	SA1	Z	-27.4	-27.4	0	0
26	SA2	Z	-27.4	-27.4	0	0
27	SA3	Z	-27.4	-27.4	0	0
28	GRATE1	Z	0	0	0	0
29	GRATE2	Z	0	0	0	0
30	GRATE3	Z	-13.7	-13.7	0	0
31	GRATE4	Z	-13.7	-13.7	0	0
32	GRATE5	Z	-13.7	-13.7	0	0
33	GRATE6	Z	-13.7	-13.7	0	0
34	HR1	Z	0	0	0	0
35	HR2	Z	-9.8	-9.8	0	0
36	HR3	Z	-9.8	-9.8	0	0
37	MP1	X	0	0	0	0
38	MP2	X	0	0	0	0
39	MP3	X	0	0	0	0
40	MP4	X	0	0	0	0
41	MP5	X	0	0	0	0
42	MP6	X	0	0	0	0
43	MP7	X	0	0	0	0
44	MP8	X	0	0	0	0
45	MP9	X	0	0	0	0
46	MP1	Z	-37.9	-37.9	%13.158	%86.842
47	MP2	Z	-57.8	-57.8	0	%100
48	MP3	Z	-41.1	-41.1	%12.763	%87.237
49	MP4	Z	-49.8	-49.8	%13.158	%86.842
50	MP5	Z	-113.1	-113.1	0	%100
51	MP6	Z	-52.9	-52.9	%12.763	%87.237
52	MP7	Z	-49.8	-49.8	%13.158	%86.842
53	MP8	Z	-113.1	-113.1	0	%100
54	MP9	Z	-52.9	-52.9	%12.763	%87.237

Member Distributed Loads (BLC 12 : Wind Load (300 deg))

Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]

Member Distributed Loads (BLC 12 : Wind Load (300 deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
1	FM1	X	7.2	7.2	0	0
2	FM2	X	7.2	7.2	0	0
3	FM3	X	7.2	7.2	0	0
4	BRACE1	X	13.7	13.7	0	0
5	BRACE2	X	13.7	13.7	0	0
6	BRACE3	X	13.7	13.7	0	0
7	SA1	X	13.7	13.7	0	0
8	SA2	X	0	0	0	0
9	SA3	X	13.7	13.7	0	0
10	GRATE1	X	6.9	6.9	0	0
11	GRATE2	X	6.9	6.9	0	0
12	GRATE3	X	6.9	6.9	0	0
13	GRATE4	X	6.9	6.9	0	0
14	GRATE5	X	6.9	6.9	0	0
15	GRATE6	X	6.9	6.9	0	0
16	HR1	X	4.9	4.9	0	0
17	HR2	X	4.9	4.9	0	0
18	HR3	X	4.9	4.9	0	0
19	FM1	Z	-12.5	-12.5	0	0
20	FM2	Z	-12.5	-12.5	0	0
21	FM3	Z	-12.5	-12.5	0	0
22	BRACE1	Z	-23.8	-23.8	0	0
23	BRACE2	Z	-23.8	-23.8	0	0
24	BRACE3	Z	-23.8	-23.8	0	0
25	SA1	Z	-23.8	-23.8	0	0
26	SA2	Z	0	0	0	0
27	SA3	Z	-23.8	-23.8	0	0
28	GRATE1	Z	-11.9	-11.9	0	0
29	GRATE2	Z	-11.9	-11.9	0	0
30	GRATE3	Z	-11.9	-11.9	0	0
31	GRATE4	Z	-11.9	-11.9	0	0
32	GRATE5	Z	-11.9	-11.9	0	0
33	GRATE6	Z	-11.9	-11.9	0	0
34	HR1	Z	-8.5	-8.5	0	0
35	HR2	Z	-8.5	-8.5	0	0
36	HR3	Z	-8.5	-8.5	0	0
37	MP1	X	20.9	20.9	%13.158	%86.842
38	MP2	X	38.1	38.1	0	%100
39	MP3	X	22.5	22.5	%12.763	%87.237
40	MP4	X	26.9	26.9	%13.158	%86.842
41	MP5	X	65.8	65.8	0	%100
42	MP6	X	28.4	28.4	%12.763	%87.237
43	MP7	X	20.9	20.9	%13.158	%86.842
44	MP8	X	38.1	38.1	0	%100
45	MP9	X	22.5	22.5	%12.763	%87.237
46	MP1	Z	-36.2	-36.2	%13.158	%86.842
47	MP2	Z	-66	-66	0	%100
48	MP3	Z	-39	-39	%12.763	%87.237
49	MP4	Z	-46.5	-46.5	%13.158	%86.842
50	MP5	Z	-113.9	-113.9	0	%100
51	MP6	Z	-49.2	-49.2	%12.763	%87.237
52	MP7	Z	-36.2	-36.2	%13.158	%86.842
53	MP8	Z	-66	-66	0	%100
54	MP9	Z	-39	-39	%12.763	%87.237

Member Distributed Loads (BLC 13 : Wind Load (330 deg))

Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]

Member Distributed Loads (BLC 13 : Wind Load (330 deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
1	FM1	X	12.5	12.5	0	0
2	FM2	X	12.5	12.5	0	0
3	FM3	X	0	0	0	0
4	BRACE1	X	23.8	23.8	0	0
5	BRACE2	X	23.8	23.8	0	0
6	BRACE3	X	0	0	0	0
7	SA1	X	23.8	23.8	0	0
8	SA2	X	23.8	23.8	0	0
9	SA3	X	23.8	23.8	0	0
10	GRATE1	X	11.9	11.9	0	0
11	GRATE2	X	11.9	11.9	0	0
12	GRATE3	X	11.9	11.9	0	0
13	GRATE4	X	11.9	11.9	0	0
14	GRATE5	X	0	0	0	0
15	GRATE6	X	0	0	0	0
16	HR1	X	8.5	8.5	0	0
17	HR2	X	8.5	8.5	0	0
18	HR3	X	0	0	0	0
19	FM1	Z	-7.2	-7.2	0	0
20	FM2	Z	-7.2	-7.2	0	0
21	FM3	Z	0	0	0	0
22	BRACE1	Z	-13.7	-13.7	0	0
23	BRACE2	Z	-13.7	-13.7	0	0
24	BRACE3	Z	0	0	0	0
25	SA1	Z	-13.7	-13.7	0	0
26	SA2	Z	-13.7	-13.7	0	0
27	SA3	Z	-13.7	-13.7	0	0
28	GRATE1	Z	-6.9	-6.9	0	0
29	GRATE2	Z	-6.9	-6.9	0	0
30	GRATE3	Z	-6.9	-6.9	0	0
31	GRATE4	Z	-6.9	-6.9	0	0
32	GRATE5	Z	0	0	0	0
33	GRATE6	Z	0	0	0	0
34	HR1	Z	-4.9	-4.9	0	0
35	HR2	Z	-4.9	-4.9	0	0
36	HR3	Z	0	0	0	0
37	MP1	X	43.1	43.1	%13.158	%86.842
38	MP2	X	98	98	0	%100
39	MP3	X	45.8	45.8	%12.763	%87.237
40	MP4	X	43.1	43.1	%13.158	%86.842
41	MP5	X	98	98	0	%100
42	MP6	X	45.8	45.8	%12.763	%87.237
43	MP7	X	32.8	32.8	%13.158	%86.842
44	MP8	X	50	50	0	%100
45	MP9	X	35.6	35.6	%12.763	%87.237
46	MP1	Z	-24.9	-24.9	%13.158	%86.842
47	MP2	Z	-56.6	-56.6	0	%100
48	MP3	Z	-26.4	-26.4	%12.763	%87.237
49	MP4	Z	-24.9	-24.9	%13.158	%86.842
50	MP5	Z	-56.6	-56.6	0	%100
51	MP6	Z	-26.4	-26.4	%12.763	%87.237
52	MP7	Z	-18.9	-18.9	%13.158	%86.842
53	MP8	Z	-28.9	-28.9	0	%100
54	MP9	Z	-20.6	-20.6	%12.763	%87.237

Member Distributed Loads (BLC 14 : Ice Load)

Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]

Member Distributed Loads (BLC 14 : Ice Load) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
1	FM1	Y	-11.2	-11.2	0	0
2	FM2	Y	-11.2	-11.2	0	0
3	FM3	Y	-11.2	-11.2	0	0
4	BRACE1	Y	-15.8	-15.8	0	0
5	BRACE2	Y	-15.8	-15.8	0	0
6	BRACE3	Y	-15.8	-15.8	0	0
7	SA1	Y	-15.8	-15.8	0	0
8	SA2	Y	-15.8	-15.8	0	0
9	SA3	Y	-15.8	-15.8	0	0
10	GRATE1	Y	-9.8	-9.8	0	0
11	GRATE2	Y	-9.8	-9.8	0	0
12	GRATE3	Y	-9.8	-9.8	0	0
13	GRATE4	Y	-9.8	-9.8	0	0
14	GRATE5	Y	-9.8	-9.8	0	0
15	GRATE6	Y	-9.8	-9.8	0	0
16	HR1	Y	-8.8	-8.8	0	0
17	HR2	Y	-8.8	-8.8	0	0
18	HR3	Y	-8.8	-8.8	0	0

Member Distributed Loads (BLC 15 : Wind on Ice (0 deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
1	FM1	X	4.3	4.3	0	0
2	FM2	X	4.3	4.3	0	0
3	FM3	X	4.3	4.3	0	0
4	BRACE1	X	6.2	6.2	0	0
5	BRACE2	X	6.2	6.2	0	0
6	BRACE3	X	6.2	6.2	0	0
7	SA1	X	0	0	0	0
8	SA2	X	6.2	6.2	0	0
9	SA3	X	6.2	6.2	0	0
10	GRATE1	X	4.2	4.2	0	0
11	GRATE2	X	4.2	4.2	0	0
12	GRATE3	X	4.2	4.2	0	0
13	GRATE4	X	4.2	4.2	0	0
14	GRATE5	X	4.2	4.2	0	0
15	GRATE6	X	4.2	4.2	0	0
16	HR1	X	3.6	3.6	0	0
17	HR2	X	3.6	3.6	0	0
18	HR3	X	3.6	3.6	0	0
19	FM1	Z	0	0	0	0
20	FM2	Z	0	0	0	0
21	FM3	Z	0	0	0	0
22	BRACE1	Z	0	0	0	0
23	BRACE2	Z	0	0	0	0
24	BRACE3	Z	0	0	0	0
25	SA1	Z	0	0	0	0
26	SA2	Z	0	0	0	0
27	SA3	Z	0	0	0	0
28	GRATE1	Z	0	0	0	0
29	GRATE2	Z	0	0	0	0
30	GRATE3	Z	0	0	0	0
31	GRATE4	Z	0	0	0	0
32	GRATE5	Z	0	0	0	0
33	GRATE6	Z	0	0	0	0
34	HR1	Z	0	0	0	0
35	HR2	Z	0	0	0	0

Member Distributed Loads (BLC 15 : Wind on Ice (0 deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
36	HR3	Z	0	0	0	0
37	MP1	X	9.1	9.1	%13.158	%86.842
38	MP2	X	20.9	20.9	0	%100
39	MP3	X	9.6	9.6	%12.763	%87.237
40	MP4	X	7.5	7.5	%13.158	%86.842
41	MP5	X	12.8	12.8	0	%100
42	MP6	X	7.9	7.9	%12.763	%87.237
43	MP7	X	7.5	7.5	%13.158	%86.842
44	MP8	X	12.8	12.8	0	%100
45	MP9	X	7.9	7.9	%12.763	%87.237
46	MP1	Z	0	0	0	0
47	MP2	Z	0	0	0	0
48	MP3	Z	0	0	0	0
49	MP4	Z	0	0	0	0
50	MP5	Z	0	0	0	0
51	MP6	Z	0	0	0	0
52	MP7	Z	0	0	0	0
53	MP8	Z	0	0	0	0
54	MP9	Z	0	0	0	0

Member Distributed Loads (BLC 16 : Wind on Ice (30 deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
1	FM1	X	3.7	3.7	0	0
2	FM2	X	0	0	0	0
3	FM3	X	3.7	3.7	0	0
4	BRACE1	X	5.4	5.4	0	0
5	BRACE2	X	0	0	0	0
6	BRACE3	X	5.4	5.4	0	0
7	SA1	X	5.4	5.4	0	0
8	SA2	X	5.4	5.4	0	0
9	SA3	X	5.4	5.4	0	0
10	GRATE1	X	3.6	3.6	0	0
11	GRATE2	X	3.6	3.6	0	0
12	GRATE3	X	0	0	0	0
13	GRATE4	X	0	0	0	0
14	GRATE5	X	3.6	3.6	0	0
15	GRATE6	X	3.6	3.6	0	0
16	HR1	X	3.1	3.1	0	0
17	HR2	X	0	0	0	0
18	HR3	X	3.1	3.1	0	0
19	FM1	Z	2.1	2.1	0	0
20	FM2	Z	0	0	0	0
21	FM3	Z	2.1	2.1	0	0
22	BRACE1	Z	3.1	3.1	0	0
23	BRACE2	Z	0	0	0	0
24	BRACE3	Z	3.1	3.1	0	0
25	SA1	Z	3.1	3.1	0	0
26	SA2	Z	3.1	3.1	0	0
27	SA3	Z	3.1	3.1	0	0
28	GRATE1	Z	2.1	2.1	0	0
29	GRATE2	Z	2.1	2.1	0	0
30	GRATE3	Z	0	0	0	0
31	GRATE4	Z	0	0	0	0
32	GRATE5	Z	2.1	2.1	0	0
33	GRATE6	Z	2.1	2.1	0	0
34	HR1	Z	1.8	1.8	0	0

Member Distributed Loads (BLC 16 : Wind on Ice (30 deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
35	HR2	Z	0	0	0	0
36	HR3	Z	1.8	1.8	0	0
37	MP1	X	7.4	7.4	%13.158	%86.842
38	MP2	X	15.8	15.8	0	%100
39	MP3	X	7.8	7.8	%12.763	%87.237
40	MP4	X	6	6	%13.158	%86.842
41	MP5	X	8.7	8.7	0	%100
42	MP6	X	6.4	6.4	%12.763	%87.237
43	MP7	X	7.4	7.4	%13.158	%86.842
44	MP8	X	15.8	15.8	0	%100
45	MP9	X	7.8	7.8	%12.763	%87.237
46	MP1	Z	4.3	4.3	%13.158	%86.842
47	MP2	Z	9.1	9.1	0	%100
48	MP3	Z	4.5	4.5	%12.763	%87.237
49	MP4	Z	3.5	3.5	%13.158	%86.842
50	MP5	Z	5	5	0	%100
51	MP6	Z	3.7	3.7	%12.763	%87.237
52	MP7	Z	4.3	4.3	%13.158	%86.842
53	MP8	Z	9.1	9.1	0	%100
54	MP9	Z	4.5	4.5	%12.763	%87.237

Member Distributed Loads (BLC 17 : Wind on Ice (60 deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
1	FM1	X	2.1	2.1	0	0
2	FM2	X	2.1	2.1	0	0
3	FM3	X	2.1	2.1	0	0
4	BRACE1	X	3.1	3.1	0	0
5	BRACE2	X	3.1	3.1	0	0
6	BRACE3	X	3.1	3.1	0	0
7	SA1	X	3.1	3.1	0	0
8	SA2	X	3.1	3.1	0	0
9	SA3	X	0	0	0	0
10	GRATE1	X	2.1	2.1	0	0
11	GRATE2	X	2.1	2.1	0	0
12	GRATE3	X	2.1	2.1	0	0
13	GRATE4	X	2.1	2.1	0	0
14	GRATE5	X	2.1	2.1	0	0
15	GRATE6	X	2.1	2.1	0	0
16	HR1	X	1.8	1.8	0	0
17	HR2	X	1.8	1.8	0	0
18	HR3	X	1.8	1.8	0	0
19	FM1	Z	3.7	3.7	0	0
20	FM2	Z	3.7	3.7	0	0
21	FM3	Z	3.7	3.7	0	0
22	BRACE1	Z	5.4	5.4	0	0
23	BRACE2	Z	5.4	5.4	0	0
24	BRACE3	Z	5.4	5.4	0	0
25	SA1	Z	5.4	5.4	0	0
26	SA2	Z	5.4	5.4	0	0
27	SA3	Z	0	0	0	0
28	GRATE1	Z	3.6	3.6	0	0
29	GRATE2	Z	3.6	3.6	0	0
30	GRATE3	Z	3.6	3.6	0	0
31	GRATE4	Z	3.6	3.6	0	0
32	GRATE5	Z	3.6	3.6	0	0
33	GRATE6	Z	3.6	3.6	0	0

Member Distributed Loads (BLC 17 : Wind on Ice (60 deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
34	HR1	Z	3.1	3.1	0	0
35	HR2	Z	3.1	3.1	0	0
36	HR3	Z	3.1	3.1	0	0
37	MP1	X	3.7	3.7	%13.158	%86.842
38	MP2	X	6.4	6.4	0	%100
39	MP3	X	4	4	%12.763	%87.237
40	MP4	X	3.7	3.7	%13.158	%86.842
41	MP5	X	6.4	6.4	0	%100
42	MP6	X	4	4	%12.763	%87.237
43	MP7	X	4.6	4.6	%13.158	%86.842
44	MP8	X	10.4	10.4	0	%100
45	MP9	X	4.8	4.8	%12.763	%87.237
46	MP1	Z	6.5	6.5	%13.158	%86.842
47	MP2	Z	11.1	11.1	0	%100
48	MP3	Z	6.9	6.9	%12.763	%87.237
49	MP4	Z	6.5	6.5	%13.158	%86.842
50	MP5	Z	11.1	11.1	0	%100
51	MP6	Z	6.9	6.9	%12.763	%87.237
52	MP7	Z	7.9	7.9	%13.158	%86.842
53	MP8	Z	18.1	18.1	0	%100
54	MP9	Z	8.3	8.3	%12.763	%87.237

Member Distributed Loads (BLC 18 : Wind on Ice (90 deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
1	FM1	X	0	0	0	0
2	FM2	X	0	0	0	0
3	FM3	X	0	0	0	0
4	BRACE1	X	0	0	0	0
5	BRACE2	X	0	0	0	0
6	BRACE3	X	0	0	0	0
7	SA1	X	0	0	0	0
8	SA2	X	0	0	0	0
9	SA3	X	0	0	0	0
10	GRATE1	X	0	0	0	0
11	GRATE2	X	0	0	0	0
12	GRATE3	X	0	0	0	0
13	GRATE4	X	0	0	0	0
14	GRATE5	X	0	0	0	0
15	GRATE6	X	0	0	0	0
16	HR1	X	0	0	0	0
17	HR2	X	0	0	0	0
18	HR3	X	0	0	0	0
19	FM1	Z	0	0	0	0
20	FM2	Z	4.3	4.3	0	0
21	FM3	Z	4.3	4.3	0	0
22	BRACE1	Z	0	0	0	0
23	BRACE2	Z	6.2	6.2	0	0
24	BRACE3	Z	6.2	6.2	0	0
25	SA1	Z	6.2	6.2	0	0
26	SA2	Z	6.2	6.2	0	0
27	SA3	Z	6.2	6.2	0	0
28	GRATE1	Z	0	0	0	0
29	GRATE2	Z	0	0	0	0
30	GRATE3	Z	4.2	4.2	0	0
31	GRATE4	Z	4.2	4.2	0	0
32	GRATE5	Z	4.2	4.2	0	0

Member Distributed Loads (BLC 18 : Wind on Ice (90 deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
33	GRATE6	Z	4.2	4.2	0	0
34	HR1	Z	0	0	0	0
35	HR2	Z	3.6	3.6	0	0
36	HR3	Z	3.6	3.6	0	0
37	MP1	X	0	0	0	0
38	MP2	X	0	0	0	0
39	MP3	X	0	0	0	0
40	MP4	X	0	0	0	0
41	MP5	X	0	0	0	0
42	MP6	X	0	0	0	0
43	MP7	X	0	0	0	0
44	MP8	X	0	0	0	0
45	MP9	X	0	0	0	0
46	MP1	Z	6.9	6.9	%13.158	%86.842
47	MP2	Z	10.1	10.1	0	%100
48	MP3	Z	7.4	7.4	%12.763	%87.237
49	MP4	Z	8.6	8.6	%13.158	%86.842
50	MP5	Z	18.2	18.2	0	%100
51	MP6	Z	9	9	%12.763	%87.237
52	MP7	Z	8.6	8.6	%13.158	%86.842
53	MP8	Z	18.2	18.2	0	%100
54	MP9	Z	9	9	%12.763	%87.237

Member Distributed Loads (BLC 19 : Wind on Ice (120 deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
1	FM1	X	-2.1	-2.1	0	0
2	FM2	X	-2.1	-2.1	0	0
3	FM3	X	-2.1	-2.1	0	0
4	BRACE1	X	-3.1	-3.1	0	0
5	BRACE2	X	-3.1	-3.1	0	0
6	BRACE3	X	-3.1	-3.1	0	0
7	SA1	X	-3.1	-3.1	0	0
8	SA2	X	0	0	0	0
9	SA3	X	-3.1	-3.1	0	0
10	GRATE1	X	-2.1	-2.1	0	0
11	GRATE2	X	-2.1	-2.1	0	0
12	GRATE3	X	-2.1	-2.1	0	0
13	GRATE4	X	-2.1	-2.1	0	0
14	GRATE5	X	-2.1	-2.1	0	0
15	GRATE6	X	-2.1	-2.1	0	0
16	HR1	X	-1.8	-1.8	0	0
17	HR2	X	-1.8	-1.8	0	0
18	HR3	X	-1.8	-1.8	0	0
19	FM1	Z	3.7	3.7	0	0
20	FM2	Z	3.7	3.7	0	0
21	FM3	Z	3.7	3.7	0	0
22	BRACE1	Z	5.4	5.4	0	0
23	BRACE2	Z	5.4	5.4	0	0
24	BRACE3	Z	5.4	5.4	0	0
25	SA1	Z	5.4	5.4	0	0
26	SA2	Z	0	0	0	0
27	SA3	Z	5.4	5.4	0	0
28	GRATE1	Z	3.6	3.6	0	0
29	GRATE2	Z	3.6	3.6	0	0
30	GRATE3	Z	3.6	3.6	0	0
31	GRATE4	Z	3.6	3.6	0	0

Member Distributed Loads (BLC 19 : Wind on Ice (120 deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
32	GRATE5	Z	3.6	3.6	0	0
33	GRATE6	Z	3.6	3.6	0	0
34	HR1	Z	3.1	3.1	0	0
35	HR2	Z	3.1	3.1	0	0
36	HR3	Z	3.1	3.1	0	0
37	MP1	X	-3.7	-3.7	%13.158	%86.842
38	MP2	X	-6.4	-6.4	0	%100
39	MP3	X	-4	-4	%12.763	%87.237
40	MP4	X	-4.6	-4.6	%13.158	%86.842
41	MP5	X	-10.4	-10.4	0	%100
42	MP6	X	-4.8	-4.8	%12.763	%87.237
43	MP7	X	-3.7	-3.7	%13.158	%86.842
44	MP8	X	-6.4	-6.4	0	%100
45	MP9	X	-4	-4	%12.763	%87.237
46	MP1	Z	6.5	6.5	%13.158	%86.842
47	MP2	Z	11.1	11.1	0	%100
48	MP3	Z	6.9	6.9	%12.763	%87.237
49	MP4	Z	7.9	7.9	%13.158	%86.842
50	MP5	Z	18.1	18.1	0	%100
51	MP6	Z	8.3	8.3	%12.763	%87.237
52	MP7	Z	6.5	6.5	%13.158	%86.842
53	MP8	Z	11.1	11.1	0	%100
54	MP9	Z	6.9	6.9	%12.763	%87.237

Member Distributed Loads (BLC 20 : Wind on Ice (150 deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
1	FM1	X	-3.7	-3.7	0	0
2	FM2	X	-3.7	-3.7	0	0
3	FM3	X	0	0	0	0
4	BRACE1	X	-5.4	-5.4	0	0
5	BRACE2	X	-5.4	-5.4	0	0
6	BRACE3	X	0	0	0	0
7	SA1	X	-5.4	-5.4	0	0
8	SA2	X	-5.4	-5.4	0	0
9	SA3	X	-5.4	-5.4	0	0
10	GRATE1	X	-3.6	-3.6	0	0
11	GRATE2	X	-3.6	-3.6	0	0
12	GRATE3	X	-3.6	-3.6	0	0
13	GRATE4	X	-3.6	-3.6	0	0
14	GRATE5	X	0	0	0	0
15	GRATE6	X	0	0	0	0
16	HR1	X	-3.1	-3.1	0	0
17	HR2	X	-3.1	-3.1	0	0
18	HR3	X	0	0	0	0
19	FM1	Z	2.1	2.1	0	0
20	FM2	Z	2.1	2.1	0	0
21	FM3	Z	0	0	0	0
22	BRACE1	Z	3.1	3.1	0	0
23	BRACE2	Z	3.1	3.1	0	0
24	BRACE3	Z	0	0	0	0
25	SA1	Z	3.1	3.1	0	0
26	SA2	Z	3.1	3.1	0	0
27	SA3	Z	3.1	3.1	0	0
28	GRATE1	Z	2.1	2.1	0	0
29	GRATE2	Z	2.1	2.1	0	0
30	GRATE3	Z	2.1	2.1	0	0

Member Distributed Loads (BLC 20 : Wind on Ice (150 deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
31	GRATE4	Z	2.1	2.1	0	0
32	GRATE5	Z	0	0	0	0
33	GRATE6	Z	0	0	0	0
34	HR1	Z	1.8	1.8	0	0
35	HR2	Z	1.8	1.8	0	0
36	HR3	Z	0	0	0	0
37	MP1	X	-7.4	-7.4	%13.158	%86.842
38	MP2	X	-15.8	-15.8	0	%100
39	MP3	X	-7.8	-7.8	%12.763	%87.237
40	MP4	X	-7.4	-7.4	%13.158	%86.842
41	MP5	X	-15.8	-15.8	0	%100
42	MP6	X	-7.8	-7.8	%12.763	%87.237
43	MP7	X	-6	-6	%13.158	%86.842
44	MP8	X	-8.7	-8.7	0	%100
45	MP9	X	-6.4	-6.4	%12.763	%87.237
46	MP1	Z	4.3	4.3	%13.158	%86.842
47	MP2	Z	9.1	9.1	0	%100
48	MP3	Z	4.5	4.5	%12.763	%87.237
49	MP4	Z	4.3	4.3	%13.158	%86.842
50	MP5	Z	9.1	9.1	0	%100
51	MP6	Z	4.5	4.5	%12.763	%87.237
52	MP7	Z	3.5	3.5	%13.158	%86.842
53	MP8	Z	5	5	0	%100
54	MP9	Z	3.7	3.7	%12.763	%87.237

Member Distributed Loads (BLC 21 : Wind on Ice (180 deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
1	FM1	X	-4.3	-4.3	0	0
2	FM2	X	-4.3	-4.3	0	0
3	FM3	X	-4.3	-4.3	0	0
4	BRACE1	X	-6.2	-6.2	0	0
5	BRACE2	X	-6.2	-6.2	0	0
6	BRACE3	X	-6.2	-6.2	0	0
7	SA1	X	0	0	0	0
8	SA2	X	-6.2	-6.2	0	0
9	SA3	X	-6.2	-6.2	0	0
10	GRATE1	X	-4.2	-4.2	0	0
11	GRATE2	X	-4.2	-4.2	0	0
12	GRATE3	X	-4.2	-4.2	0	0
13	GRATE4	X	-4.2	-4.2	0	0
14	GRATE5	X	-4.2	-4.2	0	0
15	GRATE6	X	-4.2	-4.2	0	0
16	HR1	X	-3.6	-3.6	0	0
17	HR2	X	-3.6	-3.6	0	0
18	HR3	X	-3.6	-3.6	0	0
19	FM1	Z	0	0	0	0
20	FM2	Z	0	0	0	0
21	FM3	Z	0	0	0	0
22	BRACE1	Z	0	0	0	0
23	BRACE2	Z	0	0	0	0
24	BRACE3	Z	0	0	0	0
25	SA1	Z	0	0	0	0
26	SA2	Z	0	0	0	0
27	SA3	Z	0	0	0	0
28	GRATE1	Z	0	0	0	0
29	GRATE2	Z	0	0	0	0

Member Distributed Loads (BLC 21 : Wind on Ice (180 deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
30	GRATE3	Z	0	0	0	0
31	GRATE4	Z	0	0	0	0
32	GRATE5	Z	0	0	0	0
33	GRATE6	Z	0	0	0	0
34	HR1	Z	0	0	0	0
35	HR2	Z	0	0	0	0
36	HR3	Z	0	0	0	0
37	MP1	X	-9.1	-9.1	%13.158	%86.842
38	MP2	X	-20.9	-20.9	0	%100
39	MP3	X	-9.6	-9.6	%12.763	%87.237
40	MP4	X	-7.5	-7.5	%13.158	%86.842
41	MP5	X	-12.8	-12.8	0	%100
42	MP6	X	-7.9	-7.9	%12.763	%87.237
43	MP7	X	-7.5	-7.5	%13.158	%86.842
44	MP8	X	-12.8	-12.8	0	%100
45	MP9	X	-7.9	-7.9	%12.763	%87.237
46	MP1	Z	0	0	0	0
47	MP2	Z	0	0	0	0
48	MP3	Z	0	0	0	0
49	MP4	Z	0	0	0	0
50	MP5	Z	0	0	0	0
51	MP6	Z	0	0	0	0
52	MP7	Z	0	0	0	0
53	MP8	Z	0	0	0	0
54	MP9	Z	0	0	0	0

Member Distributed Loads (BLC 22 : Wind on Ice (210 deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
1	FM1	X	-3.7	-3.7	0	0
2	FM2	X	0	0	0	0
3	FM3	X	-3.7	-3.7	0	0
4	BRACE1	X	-5.4	-5.4	0	0
5	BRACE2	X	0	0	0	0
6	BRACE3	X	-5.4	-5.4	0	0
7	SA1	X	-5.4	-5.4	0	0
8	SA2	X	-5.4	-5.4	0	0
9	SA3	X	-5.4	-5.4	0	0
10	GRATE1	X	-3.6	-3.6	0	0
11	GRATE2	X	-3.6	-3.6	0	0
12	GRATE3	X	0	0	0	0
13	GRATE4	X	0	0	0	0
14	GRATE5	X	-3.6	-3.6	0	0
15	GRATE6	X	-3.6	-3.6	0	0
16	HR1	X	-3.1	-3.1	0	0
17	HR2	X	0	0	0	0
18	HR3	X	-3.1	-3.1	0	0
19	FM1	Z	-2.1	-2.1	0	0
20	FM2	Z	0	0	0	0
21	FM3	Z	-2.1	-2.1	0	0
22	BRACE1	Z	-3.1	-3.1	0	0
23	BRACE2	Z	0	0	0	0
24	BRACE3	Z	-3.1	-3.1	0	0
25	SA1	Z	-3.1	-3.1	0	0
26	SA2	Z	-3.1	-3.1	0	0
27	SA3	Z	-3.1	-3.1	0	0
28	GRATE1	Z	-2.1	-2.1	0	0

Member Distributed Loads (BLC 22 : Wind on Ice (210 deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
29	GRATE2	Z	-2.1	-2.1	0	0
30	GRATE3	Z	0	0	0	0
31	GRATE4	Z	0	0	0	0
32	GRATE5	Z	-2.1	-2.1	0	0
33	GRATE6	Z	-2.1	-2.1	0	0
34	HR1	Z	-1.8	-1.8	0	0
35	HR2	Z	0	0	0	0
36	HR3	Z	-1.8	-1.8	0	0
37	MP1	X	-7.4	-7.4	%13.158	%86.842
38	MP2	X	-15.8	-15.8	0	%100
39	MP3	X	-7.8	-7.8	%12.763	%87.237
40	MP4	X	-6	-6	%13.158	%86.842
41	MP5	X	-8.7	-8.7	0	%100
42	MP6	X	-6.4	-6.4	%12.763	%87.237
43	MP7	X	-7.4	-7.4	%13.158	%86.842
44	MP8	X	-15.8	-15.8	0	%100
45	MP9	X	-7.8	-7.8	%12.763	%87.237
46	MP1	Z	-4.3	-4.3	%13.158	%86.842
47	MP2	Z	-9.1	-9.1	0	%100
48	MP3	Z	-4.5	-4.5	%12.763	%87.237
49	MP4	Z	-3.5	-3.5	%13.158	%86.842
50	MP5	Z	-5	-5	0	%100
51	MP6	Z	-3.7	-3.7	%12.763	%87.237
52	MP7	Z	-4.3	-4.3	%13.158	%86.842
53	MP8	Z	-9.1	-9.1	0	%100
54	MP9	Z	-4.5	-4.5	%12.763	%87.237

Member Distributed Loads (BLC 23 : Wind on Ice (240 deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
1	FM1	X	-2.1	-2.1	0	0
2	FM2	X	-2.1	-2.1	0	0
3	FM3	X	-2.1	-2.1	0	0
4	BRACE1	X	-3.1	-3.1	0	0
5	BRACE2	X	-3.1	-3.1	0	0
6	BRACE3	X	-3.1	-3.1	0	0
7	SA1	X	-3.1	-3.1	0	0
8	SA2	X	-3.1	-3.1	0	0
9	SA3	X	0	0	0	0
10	GRATE1	X	-2.1	-2.1	0	0
11	GRATE2	X	-2.1	-2.1	0	0
12	GRATE3	X	-2.1	-2.1	0	0
13	GRATE4	X	-2.1	-2.1	0	0
14	GRATE5	X	-2.1	-2.1	0	0
15	GRATE6	X	-2.1	-2.1	0	0
16	HR1	X	-1.8	-1.8	0	0
17	HR2	X	-1.8	-1.8	0	0
18	HR3	X	-1.8	-1.8	0	0
19	FM1	Z	-3.7	-3.7	0	0
20	FM2	Z	-3.7	-3.7	0	0
21	FM3	Z	-3.7	-3.7	0	0
22	BRACE1	Z	-5.4	-5.4	0	0
23	BRACE2	Z	-5.4	-5.4	0	0
24	BRACE3	Z	-5.4	-5.4	0	0
25	SA1	Z	-5.4	-5.4	0	0
26	SA2	Z	-5.4	-5.4	0	0
27	SA3	Z	0	0	0	0

Member Distributed Loads (BLC 23 : Wind on Ice (240 deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
28	GRATE1	Z	-3.6	-3.6	0	0
29	GRATE2	Z	-3.6	-3.6	0	0
30	GRATE3	Z	-3.6	-3.6	0	0
31	GRATE4	Z	-3.6	-3.6	0	0
32	GRATE5	Z	-3.6	-3.6	0	0
33	GRATE6	Z	-3.6	-3.6	0	0
34	HR1	Z	-3.1	-3.1	0	0
35	HR2	Z	-3.1	-3.1	0	0
36	HR3	Z	-3.1	-3.1	0	0
37	MP1	X	-3.7	-3.7	%13.158	%86.842
38	MP2	X	-6.4	-6.4	0	%100
39	MP3	X	-4	-4	%12.763	%87.237
40	MP4	X	-3.7	-3.7	%13.158	%86.842
41	MP5	X	-6.4	-6.4	0	%100
42	MP6	X	-4	-4	%12.763	%87.237
43	MP7	X	-4.6	-4.6	%13.158	%86.842
44	MP8	X	-10.4	-10.4	0	%100
45	MP9	X	-4.8	-4.8	%12.763	%87.237
46	MP1	Z	-6.5	-6.5	%13.158	%86.842
47	MP2	Z	-11.1	-11.1	0	%100
48	MP3	Z	-6.9	-6.9	%12.763	%87.237
49	MP4	Z	-6.5	-6.5	%13.158	%86.842
50	MP5	Z	-11.1	-11.1	0	%100
51	MP6	Z	-6.9	-6.9	%12.763	%87.237
52	MP7	Z	-7.9	-7.9	%13.158	%86.842
53	MP8	Z	-18.1	-18.1	0	%100
54	MP9	Z	-8.3	-8.3	%12.763	%87.237

Member Distributed Loads (BLC 24 : Wind on Ice (270 deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
1	FM1	X	0	0	0	0
2	FM2	X	0	0	0	0
3	FM3	X	0	0	0	0
4	BRACE1	X	0	0	0	0
5	BRACE2	X	0	0	0	0
6	BRACE3	X	0	0	0	0
7	SA1	X	0	0	0	0
8	SA2	X	0	0	0	0
9	SA3	X	0	0	0	0
10	GRATE1	X	0	0	0	0
11	GRATE2	X	0	0	0	0
12	GRATE3	X	0	0	0	0
13	GRATE4	X	0	0	0	0
14	GRATE5	X	0	0	0	0
15	GRATE6	X	0	0	0	0
16	HR1	X	0	0	0	0
17	HR2	X	0	0	0	0
18	HR3	X	0	0	0	0
19	FM1	Z	0	0	0	0
20	FM2	Z	-4.3	-4.3	0	0
21	FM3	Z	-4.3	-4.3	0	0
22	BRACE1	Z	0	0	0	0
23	BRACE2	Z	-6.2	-6.2	0	0
24	BRACE3	Z	-6.2	-6.2	0	0
25	SA1	Z	-6.2	-6.2	0	0
26	SA2	Z	-6.2	-6.2	0	0

Member Distributed Loads (BLC 24 : Wind on Ice (270 deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
27	SA3	Z	-6.2	-6.2	0	0
28	GRATE1	Z	0	0	0	0
29	GRATE2	Z	0	0	0	0
30	GRATE3	Z	-4.2	-4.2	0	0
31	GRATE4	Z	-4.2	-4.2	0	0
32	GRATE5	Z	-4.2	-4.2	0	0
33	GRATE6	Z	-4.2	-4.2	0	0
34	HR1	Z	0	0	0	0
35	HR2	Z	-3.6	-3.6	0	0
36	HR3	Z	-3.6	-3.6	0	0
37	MP1	X	0	0	0	0
38	MP2	X	0	0	0	0
39	MP3	X	0	0	0	0
40	MP4	X	0	0	0	0
41	MP5	X	0	0	0	0
42	MP6	X	0	0	0	0
43	MP7	X	0	0	0	0
44	MP8	X	0	0	0	0
45	MP9	X	0	0	0	0
46	MP1	Z	-6.9	-6.9	%13.158	%86.842
47	MP2	Z	-10.1	-10.1	0	%100
48	MP3	Z	-7.4	-7.4	%12.763	%87.237
49	MP4	Z	-8.6	-8.6	%13.158	%86.842
50	MP5	Z	-18.2	-18.2	0	%100
51	MP6	Z	-9	-9	%12.763	%87.237
52	MP7	Z	-8.6	-8.6	%13.158	%86.842
53	MP8	Z	-18.2	-18.2	0	%100
54	MP9	Z	-9	-9	%12.763	%87.237

Member Distributed Loads (BLC 25 : Wind on Ice (300 deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
1	FM1	X	2.1	2.1	0	0
2	FM2	X	2.1	2.1	0	0
3	FM3	X	2.1	2.1	0	0
4	BRACE1	X	3.1	3.1	0	0
5	BRACE2	X	3.1	3.1	0	0
6	BRACE3	X	3.1	3.1	0	0
7	SA1	X	3.1	3.1	0	0
8	SA2	X	0	0	0	0
9	SA3	X	3.1	3.1	0	0
10	GRATE1	X	2.1	2.1	0	0
11	GRATE2	X	2.1	2.1	0	0
12	GRATE3	X	2.1	2.1	0	0
13	GRATE4	X	2.1	2.1	0	0
14	GRATE5	X	2.1	2.1	0	0
15	GRATE6	X	2.1	2.1	0	0
16	HR1	X	1.8	1.8	0	0
17	HR2	X	1.8	1.8	0	0
18	HR3	X	1.8	1.8	0	0
19	FM1	Z	-3.7	-3.7	0	0
20	FM2	Z	-3.7	-3.7	0	0
21	FM3	Z	-3.7	-3.7	0	0
22	BRACE1	Z	-5.4	-5.4	0	0
23	BRACE2	Z	-5.4	-5.4	0	0
24	BRACE3	Z	-5.4	-5.4	0	0
25	SA1	Z	-5.4	-5.4	0	0

Member Distributed Loads (BLC 25 : Wind on Ice (300 deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
26	SA2	Z	0	0	0	0
27	SA3	Z	-5.4	-5.4	0	0
28	GRATE1	Z	-3.6	-3.6	0	0
29	GRATE2	Z	-3.6	-3.6	0	0
30	GRATE3	Z	-3.6	-3.6	0	0
31	GRATE4	Z	-3.6	-3.6	0	0
32	GRATE5	Z	-3.6	-3.6	0	0
33	GRATE6	Z	-3.6	-3.6	0	0
34	HR1	Z	-3.1	-3.1	0	0
35	HR2	Z	-3.1	-3.1	0	0
36	HR3	Z	-3.1	-3.1	0	0
37	MP1	X	3.7	3.7	%13.158	%86.842
38	MP2	X	6.4	6.4	0	%100
39	MP3	X	4	4	%12.763	%87.237
40	MP4	X	4.6	4.6	%13.158	%86.842
41	MP5	X	10.4	10.4	0	%100
42	MP6	X	4.8	4.8	%12.763	%87.237
43	MP7	X	3.7	3.7	%13.158	%86.842
44	MP8	X	6.4	6.4	0	%100
45	MP9	X	4	4	%12.763	%87.237
46	MP1	Z	-6.5	-6.5	%13.158	%86.842
47	MP2	Z	-11.1	-11.1	0	%100
48	MP3	Z	-6.9	-6.9	%12.763	%87.237
49	MP4	Z	-7.9	-7.9	%13.158	%86.842
50	MP5	Z	-18.1	-18.1	0	%100
51	MP6	Z	-8.3	-8.3	%12.763	%87.237
52	MP7	Z	-6.5	-6.5	%13.158	%86.842
53	MP8	Z	-11.1	-11.1	0	%100
54	MP9	Z	-6.9	-6.9	%12.763	%87.237

Member Distributed Loads (BLC 26 : Wind on Ice (330 deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
1	FM1	X	3.7	3.7	0	0
2	FM2	X	3.7	3.7	0	0
3	FM3	X	0	0	0	0
4	BRACE1	X	5.4	5.4	0	0
5	BRACE2	X	5.4	5.4	0	0
6	BRACE3	X	0	0	0	0
7	SA1	X	5.4	5.4	0	0
8	SA2	X	5.4	5.4	0	0
9	SA3	X	5.4	5.4	0	0
10	GRATE1	X	3.6	3.6	0	0
11	GRATE2	X	3.6	3.6	0	0
12	GRATE3	X	3.6	3.6	0	0
13	GRATE4	X	3.6	3.6	0	0
14	GRATE5	X	0	0	0	0
15	GRATE6	X	0	0	0	0
16	HR1	X	3.1	3.1	0	0
17	HR2	X	3.1	3.1	0	0
18	HR3	X	0	0	0	0
19	FM1	Z	-2.1	-2.1	0	0
20	FM2	Z	-2.1	-2.1	0	0
21	FM3	Z	0	0	0	0
22	BRACE1	Z	-3.1	-3.1	0	0
23	BRACE2	Z	-3.1	-3.1	0	0
24	BRACE3	Z	0	0	0	0

Member Distributed Loads (BLC 26 : Wind on Ice (330 deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
25	SA1	Z	-3.1	-3.1	0	0
26	SA2	Z	-3.1	-3.1	0	0
27	SA3	Z	-3.1	-3.1	0	0
28	GRATE1	Z	-2.1	-2.1	0	0
29	GRATE2	Z	-2.1	-2.1	0	0
30	GRATE3	Z	-2.1	-2.1	0	0
31	GRATE4	Z	-2.1	-2.1	0	0
32	GRATE5	Z	0	0	0	0
33	GRATE6	Z	0	0	0	0
34	HR1	Z	-1.8	-1.8	0	0
35	HR2	Z	-1.8	-1.8	0	0
36	HR3	Z	0	0	0	0
37	MP1	X	7.4	7.4	%13.158	%86.842
38	MP2	X	15.8	15.8	0	%100
39	MP3	X	7.8	7.8	%12.763	%87.237
40	MP4	X	7.4	7.4	%13.158	%86.842
41	MP5	X	15.8	15.8	0	%100
42	MP6	X	7.8	7.8	%12.763	%87.237
43	MP7	X	6	6	%13.158	%86.842
44	MP8	X	8.7	8.7	0	%100
45	MP9	X	6.4	6.4	%12.763	%87.237
46	MP1	Z	-4.3	-4.3	%13.158	%86.842
47	MP2	Z	-9.1	-9.1	0	%100
48	MP3	Z	-4.5	-4.5	%12.763	%87.237
49	MP4	Z	-4.3	-4.3	%13.158	%86.842
50	MP5	Z	-9.1	-9.1	0	%100
51	MP6	Z	-4.5	-4.5	%12.763	%87.237
52	MP7	Z	-3.5	-3.5	%13.158	%86.842
53	MP8	Z	-5	-5	0	%100
54	MP9	Z	-3.7	-3.7	%12.763	%87.237

Load Combinations

	Description	Sol..	PD..	SR..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact..
1	1.4D	Yes	Y		1	1.4																				
2	1.2D + 1.0..	Yes	Y		1	1.2	2	1																		
3	1.2D + 1.0..	Yes	Y		1	1.2	3	1																		
4	1.2D + 1.0..	Yes	Y		1	1.2	4	1																		
5	1.2D + 1.0..	Yes	Y		1	1.2	5	1																		
6	1.2D + 1.0..	Yes	Y		1	1.2	6	1																		
7	1.2D + 1.0..	Yes	Y		1	1.2	7	1																		
8	1.2D + 1.0..	Yes	Y		1	1.2	8	1																		
9	1.2D + 1.0..	Yes	Y		1	1.2	9	1																		
10	1.2D + 1.0..	Yes	Y		1	1.2	10	1																		
11	1.2D + 1.0..	Yes	Y		1	1.2	11	1																		
12	1.2D + 1.0..	Yes	Y		1	1.2	12	1																		
13	1.2D + 1.0..	Yes	Y		1	1.2	13	1																		
14	1.2D + Di ...	Yes	Y		1	1.2	14	1	15	1																
15	1.2D + Di ...	Yes	Y		1	1.2	14	1	16	1																
16	1.2D + Di ...	Yes	Y		1	1.2	14	1	17	1																
17	1.2D + Di ...	Yes	Y		1	1.2	14	1	18	1																
18	1.2D + Di ...	Yes	Y		1	1.2	14	1	19	1																
19	1.2D + Di ...	Yes	Y		1	1.2	14	1	20	1																
20	1.2D + Di ...	Yes	Y		1	1.2	14	1	21	1																
21	1.2D + Di ...	Yes	Y		1	1.2	14	1	22	1																
22	1.2D + Di ...	Yes	Y		1	1.2	14	1	23	1																

Load Combinations (Continued)

	Description	Sol..	PD..	SR..	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...
23	1.2D + Di ...	Yes	Y		1	1.2	14	1	24	1																
24	1.2D + Di ...	Yes	Y		1	1.2	14	1	25	1																
25	1.2D + Di ...	Yes	Y		1	1.2	14	1	26	1																
26	1.2D + 1.0..	Yes	Y		1	1.2	1	.038	27	.094																
27	1.2D + 1.0..	Yes	Y		1	1.2	1	.038	28	.094																
28	1.2D + 1.0..	Yes	Y		1	1.2	1	.038	29	.094																
29	1.2D + 1.0..	Yes	Y		1	1.2	1	.038	30	.094																
30	1.2D + 1.0..	Yes	Y		1	1.2	1	.038	31	.094																
31	1.2D + 1.0..	Yes	Y		1	1.2	1	.038	32	.094																
32	1.2D + 1.0..	Yes	Y		1	1.2	1	.038	33	.094																
33	1.2D + 1.0..	Yes	Y		1	1.2	1	.038	34	.094																
34	1.2D + 1.0..	Yes	Y		1	1.2	1	.038	35	.094																
35	1.2D + 1.0..	Yes	Y		1	1.2	1	.038	36	.094																
36	1.2D + 1.0..	Yes	Y		1	1.2	1	.038	37	.094																
37	1.2D + 1.0..	Yes	Y		1	1.2	1	.038	38	.094																
38	1.2D + 1.5..	Yes	Y		1	1.2	39	1.5	2	.053																
39	1.2D + 1.5..	Yes	Y		1	1.2	39	1.5	3	.053																
40	1.2D + 1.5..	Yes	Y		1	1.2	39	1.5	4	.053																
41	1.2D + 1.5..	Yes	Y		1	1.2	39	1.5	5	.053																
42	1.2D + 1.5..	Yes	Y		1	1.2	39	1.5	6	.053																
43	1.2D + 1.5..	Yes	Y		1	1.2	39	1.5	7	.053																
44	1.2D + 1.5..	Yes	Y		1	1.2	39	1.5	8	.053																
45	1.2D + 1.5..	Yes	Y		1	1.2	39	1.5	9	.053																
46	1.2D + 1.5..	Yes	Y		1	1.2	39	1.5	10	.053																
47	1.2D + 1.5..	Yes	Y		1	1.2	39	1.5	11	.053																
48	1.2D + 1.5..	Yes	Y		1	1.2	39	1.5	12	.053																
49	1.2D + 1.5..	Yes	Y		1	1.2	39	1.5	13	.053																
50	1.2D + 1.5..	Yes	Y		1	1.2	40	1.5	2	.053																
51	1.2D + 1.5..	Yes	Y		1	1.2	40	1.5	3	.053																
52	1.2D + 1.5..	Yes	Y		1	1.2	40	1.5	4	.053																
53	1.2D + 1.5..	Yes	Y		1	1.2	40	1.5	5	.053																
54	1.2D + 1.5..	Yes	Y		1	1.2	40	1.5	6	.053																
55	1.2D + 1.5..	Yes	Y		1	1.2	40	1.5	7	.053																
56	1.2D + 1.5..	Yes	Y		1	1.2	40	1.5	8	.053																
57	1.2D + 1.5..	Yes	Y		1	1.2	40	1.5	9	.053																
58	1.2D + 1.5..	Yes	Y		1	1.2	40	1.5	10	.053																
59	1.2D + 1.5..	Yes	Y		1	1.2	40	1.5	11	.053																
60	1.2D + 1.5..	Yes	Y		1	1.2	40	1.5	12	.053																
61	1.2D + 1.5..	Yes	Y		1	1.2	40	1.5	13	.053																
62	1.2D + 1.5..	Yes	Y		1	1.2	41	1.5	2	.053																
63	1.2D + 1.5..	Yes	Y		1	1.2	41	1.5	3	.053																
64	1.2D + 1.5..	Yes	Y		1	1.2	41	1.5	4	.053																
65	1.2D + 1.5..	Yes	Y		1	1.2	41	1.5	5	.053																
66	1.2D + 1.5..	Yes	Y		1	1.2	41	1.5	6	.053																
67	1.2D + 1.5..	Yes	Y		1	1.2	41	1.5	7	.053																
68	1.2D + 1.5..	Yes	Y		1	1.2	41	1.5	8	.053																
69	1.2D + 1.5..	Yes	Y		1	1.2	41	1.5	9	.053																
70	1.2D + 1.5..	Yes	Y		1	1.2	41	1.5	10	.053																
71	1.2D + 1.5..	Yes	Y		1	1.2	41	1.5	11	.053																
72	1.2D + 1.5..	Yes	Y		1	1.2	41	1.5	12	.053																
73	1.2D + 1.5..	Yes	Y		1	1.2	41	1.5	13	.053																
74	1.2D + 1.5..	Yes	Y		1	1.2	42	1.5	2	.053																
75	1.2D + 1.5..	Yes	Y		1	1.2	42	1.5	3	.053																
76	1.2D + 1.5..	Yes	Y		1	1.2	42	1.5	4	.053																
77	1.2D + 1.5..	Yes	Y		1	1.2	42	1.5	5	.053																
78	1.2D + 1.5..	Yes	Y		1	1.2	42	1.5	6	.053																
79	1.2D + 1.5..	Yes	Y		1	1.2	42	1.5	7	.053																

Load Combinations (Continued)

	Description	Sol..	PD..	SR..	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...
80	1.2D + 1.5..	Yes	Y		1	1.2	42	1.5	8	.053																
81	1.2D + 1.5..	Yes	Y		1	1.2	42	1.5	9	.053																
82	1.2D + 1.5..	Yes	Y		1	1.2	42	1.5	10	.053																
83	1.2D + 1.5..	Yes	Y		1	1.2	42	1.5	11	.053																
84	1.2D + 1.5..	Yes	Y		1	1.2	42	1.5	12	.053																
85	1.2D + 1.5..	Yes	Y		1	1.2	42	1.5	13	.053																
86	1.2D + 1.5..	Yes	Y		1	1.2	43	1.5	2	.053																
87	1.2D + 1.5..	Yes	Y		1	1.2	43	1.5	3	.053																
88	1.2D + 1.5..	Yes	Y		1	1.2	43	1.5	4	.053																
89	1.2D + 1.5..	Yes	Y		1	1.2	43	1.5	5	.053																
90	1.2D + 1.5..	Yes	Y		1	1.2	43	1.5	6	.053																
91	1.2D + 1.5..	Yes	Y		1	1.2	43	1.5	7	.053																
92	1.2D + 1.5..	Yes	Y		1	1.2	43	1.5	8	.053																
93	1.2D + 1.5..	Yes	Y		1	1.2	43	1.5	9	.053																
94	1.2D + 1.5..	Yes	Y		1	1.2	43	1.5	10	.053																
95	1.2D + 1.5..	Yes	Y		1	1.2	43	1.5	11	.053																
96	1.2D + 1.5..	Yes	Y		1	1.2	43	1.5	12	.053																
97	1.2D + 1.5..	Yes	Y		1	1.2	43	1.5	13	.053																
98	1.2D + 1.5..	Yes	Y		1	1.2	44	1.5	2	.053																
99	1.2D + 1.5..	Yes	Y		1	1.2	44	1.5	3	.053																
100	1.2D + 1.5..	Yes	Y		1	1.2	44	1.5	4	.053																
101	1.2D + 1.5..	Yes	Y		1	1.2	44	1.5	5	.053																
102	1.2D + 1.5..	Yes	Y		1	1.2	44	1.5	6	.053																
103	1.2D + 1.5..	Yes	Y		1	1.2	44	1.5	7	.053																
104	1.2D + 1.5..	Yes	Y		1	1.2	44	1.5	8	.053																
105	1.2D + 1.5..	Yes	Y		1	1.2	44	1.5	9	.053																
106	1.2D + 1.5..	Yes	Y		1	1.2	44	1.5	10	.053																
107	1.2D + 1.5..	Yes	Y		1	1.2	44	1.5	11	.053																
108	1.2D + 1.5..	Yes	Y		1	1.2	44	1.5	12	.053																
109	1.2D + 1.5..	Yes	Y		1	1.2	44	1.5	13	.053																
110	1.2D + 1.5..	Yes	Y		1	1.2	45	1.5	2	.053																
111	1.2D + 1.5..	Yes	Y		1	1.2	45	1.5	3	.053																
112	1.2D + 1.5..	Yes	Y		1	1.2	45	1.5	4	.053																
113	1.2D + 1.5..	Yes	Y		1	1.2	45	1.5	5	.053																
114	1.2D + 1.5..	Yes	Y		1	1.2	45	1.5	6	.053																
115	1.2D + 1.5..	Yes	Y		1	1.2	45	1.5	7	.053																
116	1.2D + 1.5..	Yes	Y		1	1.2	45	1.5	8	.053																
117	1.2D + 1.5..	Yes	Y		1	1.2	45	1.5	9	.053																
118	1.2D + 1.5..	Yes	Y		1	1.2	45	1.5	10	.053																
119	1.2D + 1.5..	Yes	Y		1	1.2	45	1.5	11	.053																
120	1.2D + 1.5..	Yes	Y		1	1.2	45	1.5	12	.053																
121	1.2D + 1.5..	Yes	Y		1	1.2	45	1.5	13	.053																
122	1.2D + 1.5..	Yes	Y		1	1.2	46	1.5	2	.053																
123	1.2D + 1.5..	Yes	Y		1	1.2	46	1.5	3	.053																
124	1.2D + 1.5..	Yes	Y		1	1.2	46	1.5	4	.053																
125	1.2D + 1.5..	Yes	Y		1	1.2	46	1.5	5	.053																
126	1.2D + 1.5..	Yes	Y		1	1.2	46	1.5	6	.053																
127	1.2D + 1.5..	Yes	Y		1	1.2	46	1.5	7	.053																
128	1.2D + 1.5..	Yes	Y		1	1.2	46	1.5	8	.053																
129	1.2D + 1.5..	Yes	Y		1	1.2	46	1.5	9	.053																
130	1.2D + 1.5..	Yes	Y		1	1.2	46	1.5	10	.053																
131	1.2D + 1.5..	Yes	Y		1	1.2	46	1.5	11	.053																
132	1.2D + 1.5..	Yes	Y		1	1.2	46	1.5	12	.053																
133	1.2D + 1.5..	Yes	Y		1	1.2	46	1.5	13	.053																
134	1.2D + 1.5..	Yes	Y		1	1.2	47	1.5	2	.053																
135	1.2D + 1.5..	Yes	Y		1	1.2	47	1.5	3	.053																
136	1.2D + 1.5..	Yes	Y		1	1.2	47	1.5	4	.053																

Load Combinations (Continued)

	Description	Sol..	PD..	SR..	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...
137	1.2D + 1.5..	Yes	Y		1	1.2	47	1.5	5	.053																
138	1.2D + 1.5..	Yes	Y		1	1.2	47	1.5	6	.053																
139	1.2D + 1.5..	Yes	Y		1	1.2	47	1.5	7	.053																
140	1.2D + 1.5..	Yes	Y		1	1.2	47	1.5	8	.053																
141	1.2D + 1.5..	Yes	Y		1	1.2	47	1.5	9	.053																
142	1.2D + 1.5..	Yes	Y		1	1.2	47	1.5	10	.053																
143	1.2D + 1.5..	Yes	Y		1	1.2	47	1.5	11	.053																
144	1.2D + 1.5..	Yes	Y		1	1.2	47	1.5	12	.053																
145	1.2D + 1.5..	Yes	Y		1	1.2	47	1.5	13	.053																
146	1.2D + 1.5..		Y		1	1.2	48	1.5	2	.053																
147	1.2D + 1.5..		Y		1	1.2	48	1.5	3	.053																
148	1.2D + 1.5..		Y		1	1.2	48	1.5	4	.053																
149	1.2D + 1.5..		Y		1	1.2	48	1.5	5	.053																
150	1.2D + 1.5..		Y		1	1.2	48	1.5	6	.053																
151	1.2D + 1.5..		Y		1	1.2	48	1.5	7	.053																
152	1.2D + 1.5..		Y		1	1.2	48	1.5	8	.053																
153	1.2D + 1.5..		Y		1	1.2	48	1.5	9	.053																
154	1.2D + 1.5..		Y		1	1.2	48	1.5	10	.053																
155	1.2D + 1.5..		Y		1	1.2	48	1.5	11	.053																
156	1.2D + 1.5..		Y		1	1.2	48	1.5	12	.053																
157	1.2D + 1.5..		Y		1	1.2	48	1.5	13	.053																
158	1.2D + 1.5..		Y		1	1.2	49	1.5	2	.053																
159	1.2D + 1.5..		Y		1	1.2	49	1.5	3	.053																
160	1.2D + 1.5..		Y		1	1.2	49	1.5	4	.053																
161	1.2D + 1.5..		Y		1	1.2	49	1.5	5	.053																
162	1.2D + 1.5..		Y		1	1.2	49	1.5	6	.053																
163	1.2D + 1.5..		Y		1	1.2	49	1.5	7	.053																
164	1.2D + 1.5..		Y		1	1.2	49	1.5	8	.053																
165	1.2D + 1.5..		Y		1	1.2	49	1.5	9	.053																
166	1.2D + 1.5..		Y		1	1.2	49	1.5	10	.053																
167	1.2D + 1.5..		Y		1	1.2	49	1.5	11	.053																
168	1.2D + 1.5..		Y		1	1.2	49	1.5	12	.053																
169	1.2D + 1.5..		Y		1	1.2	49	1.5	13	.053																
170	1.2D + 1.5..		Y		1	1.2	50	1.5	2	.053																
171	1.2D + 1.5..		Y		1	1.2	50	1.5	3	.053																
172	1.2D + 1.5..		Y		1	1.2	50	1.5	4	.053																
173	1.2D + 1.5..		Y		1	1.2	50	1.5	5	.053																
174	1.2D + 1.5..		Y		1	1.2	50	1.5	6	.053																
175	1.2D + 1.5..		Y		1	1.2	50	1.5	7	.053																
176	1.2D + 1.5..		Y		1	1.2	50	1.5	8	.053																
177	1.2D + 1.5..		Y		1	1.2	50	1.5	9	.053																
178	1.2D + 1.5..		Y		1	1.2	50	1.5	10	.053																
179	1.2D + 1.5..		Y		1	1.2	50	1.5	11	.053																
180	1.2D + 1.5..		Y		1	1.2	50	1.5	12	.053																
181	1.2D + 1.5..		Y		1	1.2	50	1.5	13	.053																
182	1.2D + 1.5..		Y		1	1.2	51	1.5	2	.053																
183	1.2D + 1.5..		Y		1	1.2	51	1.5	3	.053																
184	1.2D + 1.5..		Y		1	1.2	51	1.5	4	.053																
185	1.2D + 1.5..		Y		1	1.2	51	1.5	5	.053																
186	1.2D + 1.5..		Y		1	1.2	51	1.5	6	.053																
187	1.2D + 1.5..		Y		1	1.2	51	1.5	7	.053																
188	1.2D + 1.5..		Y		1	1.2	51	1.5	8	.053																
189	1.2D + 1.5..		Y		1	1.2	51	1.5	9	.053																
190	1.2D + 1.5..		Y		1	1.2	51	1.5	10	.053																
191	1.2D + 1.5..		Y		1	1.2	51	1.5	11	.053																
192	1.2D + 1.5..		Y		1	1.2	51	1.5	12	.053																
193	1.2D + 1.5..		Y		1	1.2	51	1.5	13	.053																

Load Combinations (Continued)

	Description	Sol..	PD..	SR..	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...
194	1.2D + 1.5..		Y		1	1.2	52	1.5	2	.053																
195	1.2D + 1.5..		Y		1	1.2	52	1.5	3	.053																
196	1.2D + 1.5..		Y		1	1.2	52	1.5	4	.053																
197	1.2D + 1.5..		Y		1	1.2	52	1.5	5	.053																
198	1.2D + 1.5..		Y		1	1.2	52	1.5	6	.053																
199	1.2D + 1.5..		Y		1	1.2	52	1.5	7	.053																
200	1.2D + 1.5..		Y		1	1.2	52	1.5	8	.053																
201	1.2D + 1.5..		Y		1	1.2	52	1.5	9	.053																
202	1.2D + 1.5..		Y		1	1.2	52	1.5	10	.053																
203	1.2D + 1.5..		Y		1	1.2	52	1.5	11	.053																
204	1.2D + 1.5..		Y		1	1.2	52	1.5	12	.053																
205	1.2D + 1.5..		Y		1	1.2	52	1.5	13	.053																
206	1.2D + 1.5..		Y		1	1.2	53	1.5	2	.053																
207	1.2D + 1.5..		Y		1	1.2	53	1.5	3	.053																
208	1.2D + 1.5..		Y		1	1.2	53	1.5	4	.053																
209	1.2D + 1.5..		Y		1	1.2	53	1.5	5	.053																
210	1.2D + 1.5..		Y		1	1.2	53	1.5	6	.053																
211	1.2D + 1.5..		Y		1	1.2	53	1.5	7	.053																
212	1.2D + 1.5..		Y		1	1.2	53	1.5	8	.053																
213	1.2D + 1.5..		Y		1	1.2	53	1.5	9	.053																
214	1.2D + 1.5..		Y		1	1.2	53	1.5	10	.053																
215	1.2D + 1.5..		Y		1	1.2	53	1.5	11	.053																
216	1.2D + 1.5..		Y		1	1.2	53	1.5	12	.053																
217	1.2D + 1.5..		Y		1	1.2	53	1.5	13	.053																
218	1.2D + 1.5..		Y		1	1.2	54	1.5	2	.053																
219	1.2D + 1.5..		Y		1	1.2	54	1.5	3	.053																
220	1.2D + 1.5..		Y		1	1.2	54	1.5	4	.053																
221	1.2D + 1.5..		Y		1	1.2	54	1.5	5	.053																
222	1.2D + 1.5..		Y		1	1.2	54	1.5	6	.053																
223	1.2D + 1.5..		Y		1	1.2	54	1.5	7	.053																
224	1.2D + 1.5..		Y		1	1.2	54	1.5	8	.053																
225	1.2D + 1.5..		Y		1	1.2	54	1.5	9	.053																
226	1.2D + 1.5..		Y		1	1.2	54	1.5	10	.053																
227	1.2D + 1.5..		Y		1	1.2	54	1.5	11	.053																
228	1.2D + 1.5..		Y		1	1.2	54	1.5	12	.053																
229	1.2D + 1.5..		Y		1	1.2	54	1.5	13	.053																
230	1.2D + 1.5..		Y		1	1.2	55	1.5	2	.053																
231	1.2D + 1.5..		Y		1	1.2	55	1.5	3	.053																
232	1.2D + 1.5..		Y		1	1.2	55	1.5	4	.053																
233	1.2D + 1.5..		Y		1	1.2	55	1.5	5	.053																
234	1.2D + 1.5..		Y		1	1.2	55	1.5	6	.053																
235	1.2D + 1.5..		Y		1	1.2	55	1.5	7	.053																
236	1.2D + 1.5..		Y		1	1.2	55	1.5	8	.053																
237	1.2D + 1.5..		Y		1	1.2	55	1.5	9	.053																
238	1.2D + 1.5..		Y		1	1.2	55	1.5	10	.053																
239	1.2D + 1.5..		Y		1	1.2	55	1.5	11	.053																
240	1.2D + 1.5..		Y		1	1.2	55	1.5	12	.053																
241	1.2D + 1.5..		Y		1	1.2	55	1.5	13	.053																
242	1.2D + 1.5..		Y		1	1.2	56	1.5	2	.053																
243	1.2D + 1.5..		Y		1	1.2	56	1.5	3	.053																
244	1.2D + 1.5..		Y		1	1.2	56	1.5	4	.053																
245	1.2D + 1.5..		Y		1	1.2	56	1.5	5	.053																
246	1.2D + 1.5..		Y		1	1.2	56	1.5	6	.053																
247	1.2D + 1.5..		Y		1	1.2	56	1.5	7	.053																
248	1.2D + 1.5..		Y		1	1.2	56	1.5	8	.053																
249	1.2D + 1.5..		Y		1	1.2	56	1.5	9	.053																
250	1.2D + 1.5..		Y		1	1.2	56	1.5	10	.053																

Load Combinations (Continued)

	Description	Sol..	PD..	SR..	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...
251	1.2D + 1.5..		Y		1	1.2	56	1.5	11	.053																
252	1.2D + 1.5..		Y		1	1.2	56	1.5	12	.053																
253	1.2D + 1.5..		Y		1	1.2	56	1.5	13	.053																
254	1.2D + 1.5..		Y		1	1.2	57	1.5	2	.053																
255	1.2D + 1.5..		Y		1	1.2	57	1.5	3	.053																
256	1.2D + 1.5..		Y		1	1.2	57	1.5	4	.053																
257	1.2D + 1.5..		Y		1	1.2	57	1.5	5	.053																
258	1.2D + 1.5..		Y		1	1.2	57	1.5	6	.053																
259	1.2D + 1.5..		Y		1	1.2	57	1.5	7	.053																
260	1.2D + 1.5..		Y		1	1.2	57	1.5	8	.053																
261	1.2D + 1.5..		Y		1	1.2	57	1.5	9	.053																
262	1.2D + 1.5..		Y		1	1.2	57	1.5	10	.053																
263	1.2D + 1.5..		Y		1	1.2	57	1.5	11	.053																
264	1.2D + 1.5..		Y		1	1.2	57	1.5	12	.053																
265	1.2D + 1.5..		Y		1	1.2	57	1.5	13	.053																
266	1.2D + 1.5..		Y		1	1.2	58	1.5	2	.053																
267	1.2D + 1.5..		Y		1	1.2	58	1.5	3	.053																
268	1.2D + 1.5..		Y		1	1.2	58	1.5	4	.053																
269	1.2D + 1.5..		Y		1	1.2	58	1.5	5	.053																
270	1.2D + 1.5..		Y		1	1.2	58	1.5	6	.053																
271	1.2D + 1.5..		Y		1	1.2	58	1.5	7	.053																
272	1.2D + 1.5..		Y		1	1.2	58	1.5	8	.053																
273	1.2D + 1.5..		Y		1	1.2	58	1.5	9	.053																
274	1.2D + 1.5..		Y		1	1.2	58	1.5	10	.053																
275	1.2D + 1.5..		Y		1	1.2	58	1.5	11	.053																
276	1.2D + 1.5..		Y		1	1.2	58	1.5	12	.053																
277	1.2D + 1.5..		Y		1	1.2	58	1.5	13	.053																
278	1.2D + 1.5..		Y		1	1.2	59	1.5	2	.053																
279	1.2D + 1.5..		Y		1	1.2	59	1.5	3	.053																
280	1.2D + 1.5..		Y		1	1.2	59	1.5	4	.053																
281	1.2D + 1.5..		Y		1	1.2	59	1.5	5	.053																
282	1.2D + 1.5..		Y		1	1.2	59	1.5	6	.053																
283	1.2D + 1.5..		Y		1	1.2	59	1.5	7	.053																
284	1.2D + 1.5..		Y		1	1.2	59	1.5	8	.053																
285	1.2D + 1.5..		Y		1	1.2	59	1.5	9	.053																
286	1.2D + 1.5..		Y		1	1.2	59	1.5	10	.053																
287	1.2D + 1.5..		Y		1	1.2	59	1.5	11	.053																
288	1.2D + 1.5..		Y		1	1.2	59	1.5	12	.053																
289	1.2D + 1.5..		Y		1	1.2	59	1.5	13	.053																
290	1.2D + 1.5..		Y		1	1.2	60	1.5	2	.053																
291	1.2D + 1.5..		Y		1	1.2	60	1.5	3	.053																
292	1.2D + 1.5..		Y		1	1.2	60	1.5	4	.053																
293	1.2D + 1.5..		Y		1	1.2	60	1.5	5	.053																
294	1.2D + 1.5..		Y		1	1.2	60	1.5	6	.053																
295	1.2D + 1.5..		Y		1	1.2	60	1.5	7	.053																
296	1.2D + 1.5..		Y		1	1.2	60	1.5	8	.053																
297	1.2D + 1.5..		Y		1	1.2	60	1.5	9	.053																
298	1.2D + 1.5..		Y		1	1.2	60	1.5	10	.053																
299	1.2D + 1.5..		Y		1	1.2	60	1.5	11	.053																
300	1.2D + 1.5..		Y		1	1.2	60	1.5	12	.053																
301	1.2D + 1.5..		Y		1	1.2	60	1.5	13	.053																
302	1.2D + 1.5..		Y		1	1.2	61	1.5	2	.053																
303	1.2D + 1.5..		Y		1	1.2	61	1.5	3	.053																
304	1.2D + 1.5..		Y		1	1.2	61	1.5	4	.053																
305	1.2D + 1.5..		Y		1	1.2	61	1.5	5	.053																
306	1.2D + 1.5..		Y		1	1.2	61	1.5	6	.053																
307	1.2D + 1.5..		Y		1	1.2	61	1.5	7	.053																

Load Combinations (Continued)

	Description	Sol..	PD..	SR..	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...
308	1.2D + 1.5..		Y		1	1.2	61	1.5	8	.053																
309	1.2D + 1.5..		Y		1	1.2	61	1.5	9	.053																
310	1.2D + 1.5..		Y		1	1.2	61	1.5	10	.053																
311	1.2D + 1.5..		Y		1	1.2	61	1.5	11	.053																
312	1.2D + 1.5..		Y		1	1.2	61	1.5	12	.053																
313	1.2D + 1.5..		Y		1	1.2	61	1.5	13	.053																
314	1.2D + 1.5..		Y		1	1.2	62	1.5	2	.053																
315	1.2D + 1.5..		Y		1	1.2	62	1.5	3	.053																
316	1.2D + 1.5..		Y		1	1.2	62	1.5	4	.053																
317	1.2D + 1.5..		Y		1	1.2	62	1.5	5	.053																
318	1.2D + 1.5..		Y		1	1.2	62	1.5	6	.053																
319	1.2D + 1.5..		Y		1	1.2	62	1.5	7	.053																
320	1.2D + 1.5..		Y		1	1.2	62	1.5	8	.053																
321	1.2D + 1.5..		Y		1	1.2	62	1.5	9	.053																
322	1.2D + 1.5..		Y		1	1.2	62	1.5	10	.053																
323	1.2D + 1.5..		Y		1	1.2	62	1.5	11	.053																
324	1.2D + 1.5..		Y		1	1.2	62	1.5	12	.053																
325	1.2D + 1.5..		Y		1	1.2	62	1.5	13	.053																
326	1.2D + 1.5..		Y		1	1.2	63	1.5	2	.053																
327	1.2D + 1.5..		Y		1	1.2	63	1.5	3	.053																
328	1.2D + 1.5..		Y		1	1.2	63	1.5	4	.053																
329	1.2D + 1.5..		Y		1	1.2	63	1.5	5	.053																
330	1.2D + 1.5..		Y		1	1.2	63	1.5	6	.053																
331	1.2D + 1.5..		Y		1	1.2	63	1.5	7	.053																
332	1.2D + 1.5..		Y		1	1.2	63	1.5	8	.053																
333	1.2D + 1.5..		Y		1	1.2	63	1.5	9	.053																
334	1.2D + 1.5..		Y		1	1.2	63	1.5	10	.053																
335	1.2D + 1.5..		Y		1	1.2	63	1.5	11	.053																
336	1.2D + 1.5..		Y		1	1.2	63	1.5	12	.053																
337	1.2D + 1.5..		Y		1	1.2	63	1.5	13	.053																
338	1.2D + 1.5..		Y		1	1.2	64	1.5	2	.053																
339	1.2D + 1.5..		Y		1	1.2	64	1.5	3	.053																
340	1.2D + 1.5..		Y		1	1.2	64	1.5	4	.053																
341	1.2D + 1.5..		Y		1	1.2	64	1.5	5	.053																
342	1.2D + 1.5..		Y		1	1.2	64	1.5	6	.053																
343	1.2D + 1.5..		Y		1	1.2	64	1.5	7	.053																
344	1.2D + 1.5..		Y		1	1.2	64	1.5	8	.053																
345	1.2D + 1.5..		Y		1	1.2	64	1.5	9	.053																
346	1.2D + 1.5..		Y		1	1.2	64	1.5	10	.053																
347	1.2D + 1.5..		Y		1	1.2	64	1.5	11	.053																
348	1.2D + 1.5..		Y		1	1.2	64	1.5	12	.053																
349	1.2D + 1.5..		Y		1	1.2	64	1.5	13	.053																
350	1.2D + 1.5..		Y		1	1.2	65	1.5	2	.053																
351	1.2D + 1.5..		Y		1	1.2	65	1.5	3	.053																
352	1.2D + 1.5..		Y		1	1.2	65	1.5	4	.053																
353	1.2D + 1.5..		Y		1	1.2	65	1.5	5	.053																
354	1.2D + 1.5..		Y		1	1.2	65	1.5	6	.053																
355	1.2D + 1.5..		Y		1	1.2	65	1.5	7	.053																
356	1.2D + 1.5..		Y		1	1.2	65	1.5	8	.053																
357	1.2D + 1.5..		Y		1	1.2	65	1.5	9	.053																
358	1.2D + 1.5..		Y		1	1.2	65	1.5	10	.053																
359	1.2D + 1.5..		Y		1	1.2	65	1.5	11	.053																
360	1.2D + 1.5..		Y		1	1.2	65	1.5	12	.053																
361	1.2D + 1.5..		Y		1	1.2	65	1.5	13	.053																
362	1.2D + 1.5..		Y		1	1.2	66	1.5	2	.053																
363	1.2D + 1.5..		Y		1	1.2	66	1.5	3	.053																
364	1.2D + 1.5..		Y		1	1.2	66	1.5	4	.053																

Load Combinations (Continued)

	Description	Sol..	PD..	SR..	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...
365	1.2D + 1.5..		Y		1	1.2	66	1.5	5	.053																
366	1.2D + 1.5..		Y		1	1.2	66	1.5	6	.053																
367	1.2D + 1.5..		Y		1	1.2	66	1.5	7	.053																
368	1.2D + 1.5..		Y		1	1.2	66	1.5	8	.053																
369	1.2D + 1.5..		Y		1	1.2	66	1.5	9	.053																
370	1.2D + 1.5..		Y		1	1.2	66	1.5	10	.053																
371	1.2D + 1.5..		Y		1	1.2	66	1.5	11	.053																
372	1.2D + 1.5..		Y		1	1.2	66	1.5	12	.053																
373	1.2D + 1.5..		Y		1	1.2	66	1.5	13	.053																
374	1.2D + 1.5..		Y		1	1.2	67	1.5	2	.053																
375	1.2D + 1.5..		Y		1	1.2	67	1.5	3	.053																
376	1.2D + 1.5..		Y		1	1.2	67	1.5	4	.053																
377	1.2D + 1.5..		Y		1	1.2	67	1.5	5	.053																
378	1.2D + 1.5..		Y		1	1.2	67	1.5	6	.053																
379	1.2D + 1.5..		Y		1	1.2	67	1.5	7	.053																
380	1.2D + 1.5..		Y		1	1.2	67	1.5	8	.053																
381	1.2D + 1.5..		Y		1	1.2	67	1.5	9	.053																
382	1.2D + 1.5..		Y		1	1.2	67	1.5	10	.053																
383	1.2D + 1.5..		Y		1	1.2	67	1.5	11	.053																
384	1.2D + 1.5..		Y		1	1.2	67	1.5	12	.053																
385	1.2D + 1.5..		Y		1	1.2	67	1.5	13	.053																
386	1.2D + 1.5..		Y		1	1.2	68	1.5	2	.053																
387	1.2D + 1.5..		Y		1	1.2	68	1.5	3	.053																
388	1.2D + 1.5..		Y		1	1.2	68	1.5	4	.053																
389	1.2D + 1.5..		Y		1	1.2	68	1.5	5	.053																
390	1.2D + 1.5..		Y		1	1.2	68	1.5	6	.053																
391	1.2D + 1.5..		Y		1	1.2	68	1.5	7	.053																
392	1.2D + 1.5..		Y		1	1.2	68	1.5	8	.053																
393	1.2D + 1.5..		Y		1	1.2	68	1.5	9	.053																
394	1.2D + 1.5..		Y		1	1.2	68	1.5	10	.053																
395	1.2D + 1.5..		Y		1	1.2	68	1.5	11	.053																
396	1.2D + 1.5..		Y		1	1.2	68	1.5	12	.053																
397	1.2D + 1.5..		Y		1	1.2	68	1.5	13	.053																
398	1.2D + 1.5..		Y		1	1.2	69	1.5	2	.053																
399	1.2D + 1.5..		Y		1	1.2	69	1.5	3	.053																
400	1.2D + 1.5..		Y		1	1.2	69	1.5	4	.053																
401	1.2D + 1.5..		Y		1	1.2	69	1.5	5	.053																
402	1.2D + 1.5..		Y		1	1.2	69	1.5	6	.053																
403	1.2D + 1.5..		Y		1	1.2	69	1.5	7	.053																
404	1.2D + 1.5..		Y		1	1.2	69	1.5	8	.053																
405	1.2D + 1.5..		Y		1	1.2	69	1.5	9	.053																
406	1.2D + 1.5..		Y		1	1.2	69	1.5	10	.053																
407	1.2D + 1.5..		Y		1	1.2	69	1.5	11	.053																
408	1.2D + 1.5..		Y		1	1.2	69	1.5	12	.053																
409	1.2D + 1.5..		Y		1	1.2	69	1.5	13	.053																
410	1.2D + 1.5..		Y		1	1.2	70	1.5	2	.053																
411	1.2D + 1.5..		Y		1	1.2	70	1.5	3	.053																
412	1.2D + 1.5..		Y		1	1.2	70	1.5	4	.053																
413	1.2D + 1.5..		Y		1	1.2	70	1.5	5	.053																
414	1.2D + 1.5..		Y		1	1.2	70	1.5	6	.053																
415	1.2D + 1.5..		Y		1	1.2	70	1.5	7	.053																
416	1.2D + 1.5..		Y		1	1.2	70	1.5	8	.053																
417	1.2D + 1.5..		Y		1	1.2	70	1.5	9	.053																
418	1.2D + 1.5..		Y		1	1.2	70	1.5	10	.053																
419	1.2D + 1.5..		Y		1	1.2	70	1.5	11	.053																
420	1.2D + 1.5..		Y		1	1.2	70	1.5	12	.053																
421	1.2D + 1.5..		Y		1	1.2	70	1.5	13	.053																

Load Combinations (Continued)

	Description	Sol..	PD..	SR..	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...
422	1.2D + 1.5..		Y		1	1.2	71	1.5	2	.053																
423	1.2D + 1.5..		Y		1	1.2	71	1.5	3	.053																
424	1.2D + 1.5..		Y		1	1.2	71	1.5	4	.053																
425	1.2D + 1.5..		Y		1	1.2	71	1.5	5	.053																
426	1.2D + 1.5..		Y		1	1.2	71	1.5	6	.053																
427	1.2D + 1.5..		Y		1	1.2	71	1.5	7	.053																
428	1.2D + 1.5..		Y		1	1.2	71	1.5	8	.053																
429	1.2D + 1.5..		Y		1	1.2	71	1.5	9	.053																
430	1.2D + 1.5..		Y		1	1.2	71	1.5	10	.053																
431	1.2D + 1.5..		Y		1	1.2	71	1.5	11	.053																
432	1.2D + 1.5..		Y		1	1.2	71	1.5	12	.053																
433	1.2D + 1.5..		Y		1	1.2	71	1.5	13	.053																
434	1.2D + 1.5..		Y		1	1.2	72	1.5	2	.053																
435	1.2D + 1.5..		Y		1	1.2	72	1.5	3	.053																
436	1.2D + 1.5..		Y		1	1.2	72	1.5	4	.053																
437	1.2D + 1.5..		Y		1	1.2	72	1.5	5	.053																
438	1.2D + 1.5..		Y		1	1.2	72	1.5	6	.053																
439	1.2D + 1.5..		Y		1	1.2	72	1.5	7	.053																
440	1.2D + 1.5..		Y		1	1.2	72	1.5	8	.053																
441	1.2D + 1.5..		Y		1	1.2	72	1.5	9	.053																
442	1.2D + 1.5..		Y		1	1.2	72	1.5	10	.053																
443	1.2D + 1.5..		Y		1	1.2	72	1.5	11	.053																
444	1.2D + 1.5..		Y		1	1.2	72	1.5	12	.053																
445	1.2D + 1.5..		Y		1	1.2	72	1.5	13	.053																
446	1.2D + 1.5..		Y		1	1.2	73	1.5	2	.053																
447	1.2D + 1.5..		Y		1	1.2	73	1.5	3	.053																
448	1.2D + 1.5..		Y		1	1.2	73	1.5	4	.053																
449	1.2D + 1.5..		Y		1	1.2	73	1.5	5	.053																
450	1.2D + 1.5..		Y		1	1.2	73	1.5	6	.053																
451	1.2D + 1.5..		Y		1	1.2	73	1.5	7	.053																
452	1.2D + 1.5..		Y		1	1.2	73	1.5	8	.053																
453	1.2D + 1.5..		Y		1	1.2	73	1.5	9	.053																
454	1.2D + 1.5..		Y		1	1.2	73	1.5	10	.053																
455	1.2D + 1.5..		Y		1	1.2	73	1.5	11	.053																
456	1.2D + 1.5..		Y		1	1.2	73	1.5	12	.053																
457	1.2D + 1.5..		Y		1	1.2	73	1.5	13	.053																
458	1.2D + 1.5..		Y		1	1.2	74	1.5	2	.053																
459	1.2D + 1.5..		Y		1	1.2	74	1.5	3	.053																
460	1.2D + 1.5..		Y		1	1.2	74	1.5	4	.053																
461	1.2D + 1.5..		Y		1	1.2	74	1.5	5	.053																
462	1.2D + 1.5..		Y		1	1.2	74	1.5	6	.053																
463	1.2D + 1.5..		Y		1	1.2	74	1.5	7	.053																
464	1.2D + 1.5..		Y		1	1.2	74	1.5	8	.053																
465	1.2D + 1.5..		Y		1	1.2	74	1.5	9	.053																
466	1.2D + 1.5..		Y		1	1.2	74	1.5	10	.053																
467	1.2D + 1.5..		Y		1	1.2	74	1.5	11	.053																
468	1.2D + 1.5..		Y		1	1.2	74	1.5	12	.053																
469	1.2D + 1.5..		Y		1	1.2	74	1.5	13	.053																
470	1.2D + 1.5..	Yes	Y		1	1.2	75	1.5																		
471	1.2D + 1.5..	Yes	Y		1	1.2	76	1.5																		
472	1.2D + 1.5..	Yes	Y		1	1.2	77	1.5																		
473	1.2D + 1.5..	Yes	Y		1	1.2	78	1.5																		
474	1.2D + 1.5..	Yes	Y		1	1.2	79	1.5																		
475	1.2D + 1.5..	Yes	Y		1	1.2	80	1.5																		
476	1.2D + 1.5..	Yes	Y		1	1.2	81	1.5																		
477	1.2D + 1.5..	Yes	Y		1	1.2	82	1.5																		
478	1.2D + 1.5..	Yes	Y		1	1.2	83	1.5																		

Load Combinations (Continued)

	Description	Sol..	PD..	SR..	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...
479	1.2D + 1.5..	Yes	Y		1	1.2	84	1.5																
480	1.2D + 1.5..	Yes	Y		1	1.2	85	1.5																
481	1.2D + 1.5..	Yes	Y		1	1.2	86	1.5																
482	1.2D + 1.5..	Yes	Y		1	1.2	87	1.5																
483	1.2D + 1.5..	Yes	Y		1	1.2	88	1.5																
484	1.2D + 1.5..	Yes	Y		1	1.2	89	1.5																
485	1.2D + 1.5..	Yes	Y		1	1.2	90	1.5																
486	1.2D + 1.5..	Yes	Y		1	1.2	91	1.5																
487	1.2D + 1.5..	Yes	Y		1	1.2	92	1.5																
488	1.2D + 1.5..	Yes	Y		1	1.2	93	1.5																
489	1.2D + 1.5..	Yes	Y		1	1.2	94	1.5																
490	1.2D + 1.5..	Yes	Y		1	1.2	95	1.5																
491	1.2D + 1.5..	Yes	Y		1	1.2	96	1.5																
492	1.2D + 1.5..	Yes	Y		1	1.2	97	1.5																
493	1.2D + 1.5..	Yes	Y		1	1.2	98	1.5																
494	1.2D + 1.5..		Y		1	1.2	99	1.5																
495	1.2D + 1.5..		Y		1	1.2	100	1.5																
496	1.2D + 1.5..		Y		1	1.2	101	1.5																
497	1.2D + 1.5..		Y		1	1.2	102	1.5																
498	1.2D + 1.5..		Y		1	1.2	103	1.5																
499	1.2D + 1.5..		Y		1	1.2	104	1.5																
500	1.2D + 1.5..		Y		1	1.2	105	1.5																
501	1.2D + 1.5..		Y		1	1.2	106	1.5																
502	1.2D + 1.5..		Y		1	1.2	107	1.5																
503	1.2D + 1.5..		Y		1	1.2	108	1.5																
504	1.2D + 1.5..		Y		1	1.2	109	1.5																
505	1.2D + 1.5..		Y		1	1.2	110	1.5																
506	1.2D + 1.5..		Y		1	1.2	111	1.5																
507	1.2D + 1.5..		Y		1	1.2	112	1.5																
508	1.2D + 1.5..		Y		1	1.2	113	1.5																
509	1.2D + 1.5..		Y		1	1.2	114	1.5																
510	1.2D + 1.5..		Y		1	1.2	115	1.5																
511	1.2D + 1.5..		Y		1	1.2	116	1.5																
512	1.2D + 1.5..		Y		1	1.2	117	1.5																
513	1.2D + 1.5..		Y		1	1.2	118	1.5																
514	1.2D + 1.5..		Y		1	1.2	119	1.5																
515	1.2D + 1.5..		Y		1	1.2	120	1.5																
516	1.2D + 1.5..		Y		1	1.2	121	1.5																
517	1.2D + 1.5..		Y		1	1.2	122	1.5																
518	1.2D + 1.5..		Y		1	1.2	123	1.5																
519	1.2D + 1.5..		Y		1	1.2	124	1.5																
520	1.2D + 1.5..		Y		1	1.2	125	1.5																
521	1.2D + 1.5..		Y		1	1.2	126	1.5																
522	1.2D + 1.5..		Y		1	1.2	127	1.5																
523	1.2D + 1.5..		Y		1	1.2	128	1.5																
524	1.2D + 1.5..		Y		1	1.2	129	1.5																
525	1.2D + 1.5..		Y		1	1.2	130	1.5																
526	1.2D + 1.5..		Y		1	1.2	131	1.5																
527	1.2D + 1.5..		Y		1	1.2	132	1.5																
528	1.2D + 1.5..		Y		1	1.2	133	1.5																
529	1.2D + 1.5..		Y		1	1.2	134	1.5																
530	1.2D + 1.5..		Y		1	1.2	135	1.5																
531	1.2D + 1.5..		Y		1	1.2	136	1.5																
532	1.2D + 1.5..		Y		1	1.2	137	1.5																
533	1.2D + 1.5..		Y		1	1.2	138	1.5																
534	1.2D + 1.5..		Y		1	1.2	139	1.5																
535	1.2D + 1.5..		Y		1	1.2	140	1.5																

Load Combinations (Continued)

	Description	Sol..	PD..	SR..	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...
536	1.2D + 1.5..		Y		1	1.2	141	1.5																
537	1.2D + 1.5..		Y		1	1.2	142	1.5																
538	1.2D + 1.5..		Y		1	1.2	143	1.5																
539	1.2D + 1.5..		Y		1	1.2	144	1.5																
540	1.2D + 1.5..		Y		1	1.2	145	1.5																
541	1.2D + 1.5..		Y		1	1.2	146	1.5																
542	1.2D + 1.5..		Y		1	1.2	147	1.5																
543	1.2D + 1.5..		Y		1	1.2	148	1.5																
544	1.2D + 1.5..		Y		1	1.2	149	1.5																
545	1.2D + 1.5..		Y		1	1.2	150	1.5																
546	1.2D + 1.5..		Y		1	1.2	151	1.5																
547	1.2D + 1.5..		Y		1	1.2	152	1.5																
548	1.2D + 1.5..		Y		1	1.2	153	1.5																
549	1.2D + 1.5..		Y		1	1.2	154	1.5																
550	1.2D + 1.5..		Y		1	1.2	155	1.5																
551	1.2D + 1.5..		Y		1	1.2	156	1.5																
552	1.2D + 1.5..		Y		1	1.2	157	1.5																
553	1.2D + 1.5..		Y		1	1.2	158	1.5																
554	1.2D + 1.5..		Y		1	1.2	159	1.5																
555	1.2D + 1.5..		Y		1	1.2	160	1.5																
556	1.2D + 1.5..		Y		1	1.2	161	1.5																
557	1.2D + 1.5..		Y		1	1.2	162	1.5																
558	1.2D + 1.5..		Y		1	1.2	163	1.5																
559	1.2D + 1.5..		Y		1	1.2	164	1.5																
560	1.2D + 1.5..		Y		1	1.2	165	1.5																
561	1.2D + 1.5..		Y		1	1.2	166	1.5																
562	1.2D + 1.5..		Y		1	1.2	167	1.5																
563	1.2D + 1.5..		Y		1	1.2	168	1.5																
564	1.2D + 1.5..		Y		1	1.2	169	1.5																
565	1.2D + 1.5..		Y		1	1.2	170	1.5																
566	1.2D + 1.5..		Y		1	1.2	171	1.5																
567	1.2D + 1.5..		Y		1	1.2	172	1.5																
568	1.2D + 1.5..		Y		1	1.2	173	1.5																
569	1.2D + 1.5..		Y		1	1.2	174	1.5																

Envelope Joint Reactions

	Joint		X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [lb-ft]	LC	MY [lb-ft]	LC	MZ [lb-ft]	LC
1	N14	max	2408.082	8	2901.992	14	1609.43	11	1144.079	11	1303.194	5	5671.746	14
2		min	-2328.992	2	-147.414	8	-1608.934	5	-1106.682	5	-1302.514	11	-689.253	8
3	N264	max	1661.658	8	2901.952	22	2017.776	10	4898.223	22	1304.848	13	558.046	3
4		min	-1700.803	2	-147.494	4	-2086.508	4	-604.059	4	-1304.168	7	-2894.625	20
5	N265	max	1615.729	8	2901.943	18	2087.65	12	590.196	12	1304.146	9	578.208	13
6		min	-1655.671	2	-147.472	12	-2019.396	6	-4925.452	18	-1303.465	3	-2846.929	20
7	Totals:	max	5685.469	8	7945.918	20	5246.104	11						
8		min	-5685.467	2	3071.288	2	-5246.104	5						

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

	Member	Shape	Code C...	Loc[in]	LC	Shear ...	Loc[in]	Dir	LC	phi*Pnc [lb]	phi*Pnt [lb]	phi*Mn y-...	phi*Mn z-...	Cb	Eqn
1	MP2	PIPE_2.0	.586	14.25	2	.072	14.25		3	19863.118	32130	1871.625	1871.625	2....	H1-1b
2	MP8	PIPE_2.0	.586	14.25	10	.072	14.25		11	19863.118	32130	1871.625	1871.625	2....	H1-1b
3	MP5	PIPE_2.0	.586	14.25	6	.072	14.25		7	19863.118	32130	1871.625	1871.625	2....	H1-1b
4	MP3	PIPE_2.0	.397	14.25	6	.097	14.25		7	19863.118	32130	1871.625	1871.625	1....	H1-1b
5	MP6	PIPE_2.0	.397	14.25	10	.097	14.25		11	19863.118	32130	1871.625	1871.625	1....	H1-1b
6	MP9	PIPE_2.0	.397	14.25	2	.097	14.25		3	19863.118	32130	1871.625	1871.625	1....	H1-1b

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

	Member	Shape	Code C...	Loc[in]	LC	Shear ...	Loc[in]	Dir	LC	phi*Pnc [lb]	phi*Pnt [lb]	phi*Mn y-...	phi*Mn z-...	Cb	Eqn
7	MP4	PIPE_2.0	.383	14.25	2	.095	14.25		13	19863.118	32130	1871.625	1871.625	1....	H1-1b
8	MP1	PIPE_2.0	.383	14.25	10	.095	14.25		9	19863.118	32130	1871.625	1871.625	1....	H1-1b
9	MP7	PIPE_2.0	.383	14.25	6	.095	14.25		5	19863.118	32130	1871.625	1871.625	1....	H1-1b
10	SA1	HSS4X4X4	.352	64	14	.126	64	z	11	130390.3...	139518	16180.5	16180.5	2....	H1-1b
11	SA3	HSS4X4X4	.352	64	22	.126	64	z	7	130390.3...	139518	16180.5	16180.5	2....	H1-1b
12	SA2	HSS4X4X4	.352	64	18	.126	64	z	3	130390.3...	139518	16180.5	16180.5	2....	H1-1b
13	HR1	PIPE_2.0	.235	75	6	.239	6.25		3	6295.422	32130	1871.625	1871.625	1....	H1-1b
14	HR2	PIPE_2.0	.235	75	10	.239	143.75		7	6295.422	32130	1871.625	1871.625	1....	H1-1b
15	HR3	PIPE_2.0	.235	75	2	.238	6.25		11	6295.422	32130	1871.625	1871.625	1....	H1-1b
16	BRACE2	HSS4X4X4	.175	33.857	18	.056	4.232	z	2	134946.5...	139518	16180.5	16180.5	1....	H1-1b
17	BRACE1	HSS4X4X4	.175	33.857	14	.056	4.232	z	10	134946.5...	139518	16180.5	16180.5	1....	H1-1b
18	BRACE3	HSS4X4X4	.175	33.857	22	.056	4.232	z	6	134946.5...	139518	16180.5	16180.5	1....	H1-1b
19	GRATE3	L2x2x3	.175	46.515	10	.014	0	y	20	7724.972	23392.8	557.717	1097.726	1....	H2-1
20	GRATE1	L2x2x3	.175	46.515	6	.014	0	y	16	7724.972	23392.8	557.717	1097.694	1....	H2-1
21	GRATE5	L2x2x3	.175	46.515	2	.014	0	y	24	7724.972	23392.8	557.717	1097.733	1....	H2-1
22	GRATE6	L2x2x3	.174	46.515	6	.013	0	z	20	7724.972	23392.8	557.717	1111.26	1....	H2-1
23	GRATE2	L2x2x3	.174	46.515	10	.013	0	z	24	7724.972	23392.8	557.717	1111.227	1....	H2-1
24	GRATE4	L2x2x3	.174	46.515	2	.013	0	z	16	7724.972	23392.8	557.717	1111.227	1....	H2-1
25	FM2	PIPE_3.0	.159	87.5	22	.128	62.5		5	58098.732	65205	5748.75	5748.75	2....	H1-1b
26	FM3	PIPE_3.0	.159	62.5	14	.128	87.5		9	58098.732	65205	5748.75	5748.75	2....	H1-1b
27	FM1	PIPE_3.0	.159	62.5	18	.128	87.5		13	58098.732	65205	5748.75	5748.75	2....	H1-1b
28	CORNER-PL-1	PL1/2x6	.085	6	4	.095	6	y	15	67551.643	97200	1012.5	12150	1....	H1-1b
29	CORNER-PL-3	PL1/2x6	.085	6	12	.095	6	y	23	67551.643	97200	1012.5	12150	1....	H1-1b
30	CORNER-PL-2	PL1/2x6	.085	6	8	.095	6	y	19	67551.643	97200	1012.5	12150	1....	H1-1b

APPENDIX D

ADDITIONAL CALCULATIONS

Connection Check

Max Reactions	
F_x =	-445.1 lb
F_y =	2,902.0 lb
F_z =	.2 lb
M_x =	27.2 lb-ft
M_y =	1.6 lb-ft
M_z =	5,671.7 lb-ft

Connection Details		
$Ø_{bolt}$ =	0.63 in	Nominal Bolt Diameter
# of Bolts =	4	Bolt Quantity
# of Threads/Inch, n =	11	Number of threads per inch (per AISC Table 7-17)
F_{ub} =	120 ksi	Specified Minimum Tensile Strength of the Bolt (A325 Assumed)
F_y =	36 ksi	Yield Strength of the Plate (A36 Assumed)
Plate Width =	10.00 in	Connection Plate Width
Plate Thickness =	0.625 in	Connection Plate Thickness
HSS Member Width =	4.00 in	HSS Supporting Member Width
Bolt Spacing, y_i =	7.00 in	Horizontal Distance of Bolts along Vertical Flange

CONNECTION RESISTANCE		
Ø =	0.75	Connection Resistance Factor
$Ø_b$ =	0.90	Plate Bending Resistance Factor
A_n =	0.226 in^2	Net Area, A_n, through the threaded portion of the bolt
A_b =	0.307 in^2	Nominal untreaded area of bolt or threaded part
$ØR_{nt}$ =	20.34 kip	Design Tensile Strength of a Single Bolt or threaded part
$ØR_{nv}$ =	13.81 kip	Design Shear Strength of a Single Bolt. Theads assumed included in the shear plane

4.9.6.4 "COMBINED SHEAR AND TENSION"			
V_{ub} =	0.75 kip		Total Shear Force
T_{ub} =	4.97 kip		Total Tension Force
% Capacity =	24.4%	OK	$(V_{ub}/ØR_{nv})^2 + (T_{ub}/ØR_{nt})^2$
CONNECTION PLATE CAPACITY			
M_{MAX} =	14,918.22 lb-in		Moment across the plate
Yield Line =	9.0554 in		Yield Line across the plate
Plate Stress, f_b =	16,869.8 psi		Bending Plate Stress across the yield line
Plate Capacity, F_b =	32,400. psi		Bending Capacity of the Plate
% Capacity =	52.1%	OK	

Exhibit F

Power Density/RF Emissions Report

Radio Frequency Emissions Analysis Report

T-MOBILE Existing Facility

Site ID: CT11393B

CT393/Global Guilford_MP2
2381 Long Hill Road
Guilford, CT 06437

May 21, 2019

Transcom Engineering Project Number: 737001-0033

Site Compliance Summary	
Compliance Status:	**COMPLIANT**
Site total MPE% of FCC general population allowable limit:	**10.29 %**

May 21, 2019

T-MOBILE
Attn: Jason Overbey, RF Manager
35 Griffin Road South
Bloomfield, CT 6009

Emissions Analysis for Site: **CT11393B – CT393/Global Guilford_MP2**

Transcom Engineering, Inc ("Transcom") was directed to analyze the proposed upgrades to the T-MOBILE facility located at **2381 Long Hill Road, Guilford, CT**, for the purpose of determining whether the emissions from the Proposed T-MOBILE Antenna Installation located on this property are within specified federal limits.

All information used in this report was analyzed as a percentage of current Maximum Permissible Exposure (% MPE) as listed in the FCC OET Bulletin 65 Edition 97-01and ANSI/IEEE Std C95.1. The FCC regulates Maximum Permissible Exposure in units of microwatts per square centimeter (μW/cm2). The number of $\mu W/cm^2$ calculated at each sample point is called the power density. The exposure limit for power density varies depending upon the frequencies being utilized. Wireless Carriers and Paging Services use different frequency bands each with different exposure limits, therefore it is necessary to report results and limits in terms of percent MPE rather than power density.

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

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

Population exposure to radio frequencies is regulated and enforced in units of microwatts per square centimeter ($\mu W/cm^2$). The general population exposure limits for the 600 & 700 MHz bands are approximately 400 $\mu W/cm^2$ and 467 $\mu W/cm^2$ respectively. The general population exposure limit for the 1900 MHz (PCS) and 2100 MHz (AWS) bands is 1000 $\mu W/cm^2$. Because each carrier will be using different frequency bands, and each frequency band has different exposure limits, it is necessary to report percent of MPE rather than power density.

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

Additional details can be found in FCC OET 65.

CALCULATIONS

Calculations were performed for the proposed upgrades to the T-MOBILE antenna facility located at **2381 Long Hill Road, Guilford, CT**, using the equipment information listed below. All calculations were performed per the specifications under FCC OET 65. Since T-MOBILE is proposing highly focused directional panel antennas, which project most of the emitted energy out toward the horizon, all calculations were performed assuming a lobe representing the maximum gain of the antenna per the antenna manufactures supplied specifications, minus 10 dB for directional panel antennas, was focused at the base of the tower. For this report the sample point is the top of a 6-foot person standing at the base of the tower.

Per FCC OET Bulletin No. 65 - Edition 97-01 recommendations to achieve the maximum anticipated value at each sample point, all power levels emitting from the proposed antenna installation are increased by a factor of 2.56 to account for possible in-phase reflections from the surrounding environment. All power values expressed and analyzed are maximum power levels expected to be used on all radios.

All emissions values for additional carriers were taken from the Connecticut Siting Council (CSC) active MPE database. Values in this database are provided by the individual carriers themselves

For each sector the following channel counts, frequency bands and power levels were utilized as shown in *Table 1*:

Technology	Frequency Band	Channel Count	Transmit Power per Channel (W)
LTE	1900 MHz (PCS)	4	40
LTE	2100 MHz (AWS)	2	60
UMTS	1900 MHz (PCS)	1	40
GSM	1900 MHz (PCS)	1	15
UMTS	2100 MHz (AWS)	1	40
LTE / 5G NR	600 MHz	2	40
LTE	700 MHz	2	20

Table 1: Channel Data Table

The following antennas listed in *Table 2* were used in the modeling for transmission in the 600, 700 MHz, 1900 MHz (PCS) and 2100 MHz (AWS) frequency bands. This is based on feedback from the carrier with regards to anticipated antenna selection. Maximum gain values for all antennas are listed in the Inventory and Power Data table below. The maximum gain of the antenna per the antenna manufactures supplied specifications, minus 10 dB for directional panel antennas, was used for all calculations. This value is a very conservative estimate as gain reductions for these particular antennas are typically much higher in this direction.

Sector	Antenna Number	Antenna Make / Model	Antenna Centerline (ft)
A	1	Ericsson AIR32 B66A / B2A	155
A	2	Ericsson AIR21 B2A/B4P	155
A	3	RFS APXVAARR24_43-U-NA20	155
B	1	Ericsson AIR32 B66A / B2A	155
B	2	Ericsson AIR21 B2A/B4P	155
B	3	RFS APXVAARR24_43-U-NA20	155
C	1	Ericsson AIR32 B66A / B2A	155
C	2	Ericsson AIR21 B2A/B4P	155
C	3	RFS APXVAARR24_43-U-NA20	155

Table 2: Antenna Data

All calculations were done with respect to uncontrolled / general population threshold limits.

Cable losses were factored in the calculations for this site. Since all **2100 MHz (AWS) UMTS** radios are ground mounted the following cable loss values were used. For each ground mounted **2100 MHz (AWS) UMTS** radio there was **1.80 dB** of cable loss calculated into the system gains / losses for this site. These values were calculated based upon the manufacturers specifications for **170 feet** of **1-5/8"** coax.

RESULTS

Per the calculations completed for the proposed T-MOBILE configurations *Table 3* shows resulting emissions power levels and percentages of the FCC's allowable general population limit.

Antenna ID	Antenna Make / Model	Frequency Bands	Antenna Gain (dBd)	Channel Count	Total TX Power (W)	ERP (W)	MPE %
Antenna A1	Ericsson AIR32 B66A / B2A	1900 MHz (PCS) / 2100 MHz (AWS)	15.85	6	280	10,768.57	1.75
Antenna A2	Ericsson AIR21 B2A/B4P	1900 MHz (PCS) / 2100 MHz (AWS)	15.9	3	95	3,167.91	0.51
Antenna A3	RFS APXVAARR24_43-U-NA20	600 MHz / 700 MHz	12.95 / 13.35	4	120	2,443.03	0.94
						Sector A Composite MPE%	**3.20**
Antenna B1	Ericsson AIR32 B66A / B2A	1900 MHz (PCS) / 2100 MHz (AWS)	15.85	6	280	10,768.57	1.75
Antenna B2	Ericsson AIR21 B2A/B4P	1900 MHz (PCS) / 2100 MHz (AWS)	15.9	3	95	3,167.91	0.51
Antenna B3	RFS APXVAARR24_43-U-NA20	600 MHz / 700 MHz	12.95 / 13.35	4	120	2,443.03	0.94
						Sector B Composite MPE%	**3.20**
Antenna C1	Ericsson AIR32 B66A / B2A	1900 MHz (PCS) / 2100 MHz (AWS)	15.85	6	280	10,768.57	1.75
Antenna C2	Ericsson AIR21 B2A/B4P	1900 MHz (PCS) / 2100 MHz (AWS)	15.9	3	95	3,167.91	0.51
Antenna C3	RFS APXVAARR24_43-U-NA20	600 MHz / 700 MHz	12.95 / 13.35	4	120	2,443.03	0.94
						Sector C Composite MPE%	**3.20**

Table 3: T-MOBILE Emissions Levels

The Following table (*table 4*) shows all additional carriers on site and their MPE% as recorded in the CSC active MPE database for this facility along with the newly calculated maximum T-MOBILE MPE contributions per this report. FCC OET 65 specifies that for carriers utilizing directional antennas that the highest recorded sector value be used for composite site MPE values due to their greatly reduced emissions contributions in the directions of the adjacent sectors. For this site, all three sectors have the same configuration yielding the same results on all three sectors. *Table 5* below shows a summary for each T-MOBILE Sector as well as the composite MPE value for the site.

Site Composite MPE%	
Carrier	**MPE%**
T-MOBILE – Max Per Sector Value	**3.20 %**
Sprint	1.80 %
AT&T	2.96 %
Verizon Wireless	2.33 %
Site Total MPE %:	**10.29 %**

Table 4: All Carrier MPE Contributions

T-MOBILE Sector A Total:	3.20 %
T-MOBILE Sector B Total:	3.20 %
T-MOBILE Sector C Total:	3.20 %
Site Total:	10.29 %

Table 5: Site MPE Summary

FCC OET 65 specifies that for carriers utilizing directional antennas that the highest recorded sector value be used for composite site MPE values due to their greatly reduced emissions contributions in the directions of the adjacent sectors. *Table 6* below details a breakdown by frequency band and technology for the MPE power values for the maximum calculated T-MOBILE sector(s). For this site, all three sectors have the same configuration yielding the same results on all three sectors.

T-MOBILE _ Frequency Band / Technology Max Power Values (Per Sector)	# Channels	Watts ERP (Per Channel)	Height (feet)	Total Power Density ($\mu W/cm^2$)	Frequency (MHz)	Allowable MPE ($\mu W/cm^2$)	Calculated % MPE
T-Mobile 1900 MHz (PCS) LTE	4	1,538.37	155	9.96	1900 MHz (PCS)	1000	1.00%
T-Mobile 2100 MHz (AWS) LTE	2	2,307.55	155	7.47	2100 MHz (AWS)	1000	0.75%
T-Mobile 1900 MHz (PCS) UMTS	1	1,556.18	155	2.52	1900 MHz (PCS)	1000	0.25%
T-Mobile 1900 MHz (PCS) GSM	1	583.57	155	0.94	1900 MHz (PCS)	1000	0.09%
T-Mobile 2100 MHz (AWS) UMTS	1	1,028.16	155	1.66	2100 MHz (AWS)	1000	0.17%
T-Mobile 600 MHz LTE / 5G NR	2	788.97	155	2.56	600 MHz	400	0.64%
T-Mobile 700 MHz LTE	2	432.54	155	1.40	700 MHz	467	0.30%
						Total:	**3.20%**

Table 6: T-MOBILE Maximum Sector MPE Power Values

Summary

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

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

T-MOBILE Sector	Power Density Value (%)
Sector A:	3.20 %
Sector B:	3.20 %
Sector C:	3.20 %
T-MOBILE Maximum Total (per sector):	3.20 %
Site Total:	10.29 %
Site Compliance Status:	**COMPLIANT**

The anticipated composite MPE value for this site assuming all carriers present is **10.29 %** of the allowable FCC established general population limit sampled at the ground level. This is based upon values listed in the Connecticut Siting Council database for existing carrier emissions.

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

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UNITED STATES US

SHIP DATE: 13JUN19
ACTWGT: 4.50 LB
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