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

January 9, 2019

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

RE: **Notice of Exempt Modification for Verizon: 876332**
Verizon Site ID: 4187
36 Prospect Street, Newington, CT 06109
Latitude: 41° 41' 23.66"/ Longitude: -72° 42' 18.85"

Dear Ms. Bachman:

Verizon currently maintains fifteen (15) antennas at the 106-foot level of the existing 136-foot monopole tower 36 Prospect Street, Newington, CT. The tower is owned by Crown Castle. The property is owned by John Oldman. Verizon now intends to remove three (3) antennas and six (6) coax. These antennas and coax would be removed at the 106-foot level of the tower. Verizon also intends to replace three (9) RRH's with (6) new RRH's, add (1) Hybrid and one (1) OVP.

This facility was approved by the Town of Newington in petition No. 2-97 on April 11, 1997. This approval was given without 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.S.C.A. § 16-50j-73, a copy of this letter is being sent to The Honorable Roy Zartarian, Craig Minor – Town Planner, and the property owner John Oldman.

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, Verizon 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: Jeffrey Barbadora.

Sincerely,

Jeffrey Barbadora
Real Estate Specialist
12 Gill Street, Suite 5800, Woburn, MA 01801
781-729-0053
Jeff.Barbadora@crowncastle.com

Attachments:

Tab 1: Exhibit-1: Compound plan and elevation depicting the planned changes
Tab 2: Exhibit-2: Structural Modification Report
Tab 3: Exhibit-3: General Power Density Table Report (RF Emissions Analysis Report)

cc:

The Honorable Roy Zartarian
131 Cedar Street
Newington, CT 06111

Craig Minor – Town Planner
131 Cedar Street
Newington, CT 06111

John Oldman (Land Owner)
174 Fox Hill Road
Wethersfield, CT 06109

File

TOWN OF NEWINGTON

Town Hall • 131 Cedar Street, Newington, Connecticut 06111
FAX 665-8507 Telephone 665-8500

Certified Mail: P 917 666 630

CERTIFICATE OF ACTION

OFFICE OF: Town Planner

TO: Mr. Thomas F. Flynn III
300 Research Parkway
Meriden, CT 06450

DATE: April 11, 1997

SUBJECT: PETITION 2-97 36 Prospect Street, SBA, Inc. for Sprint PCS Limited Partnership applicant, Patricia Oldham property owner represented by Thomas F. Flynn III 300 Research Parkway Meriden, CT 06450 requests Special Exception Section 3.2.2 and Section 3.2.4 communications tower, B-BT Zone.

At a meeting held April 9, 1997 the Newington Town Plan and Zoning Commission voted to approve the above referenced PETITION subject to the following conditions:

A. Findings

1. The applicant has been granted a variance of the required minimum setback distance equal to the height of the tower (Section 3.2.4) by the Zoning Board of Appeals; December 12, 1996. At the Zoning Board of Appeals meeting, April 3, 1997, the Board accepted the applicant's professional engineer's letter prepared by Clough, Harbour & Associates, dated April 3, 1997, certifying that the design of the monopole will be such that it will collapse upon itself and will not have any impact on adjoining properties.

2. The tower will benefit the public by enhancing wireless communication services known as, Personal Communication Services (PCS).

3. Wireless communication services can improve emergency communication for Newington public safety services, businesses and residents traveling the Route I-91/5 & 15 corridor in Central Connecticut.

B. Conditions

1. The Sprint PCS tower and ground facilities at 36 Prospect Street shall be construction as shown on site plan entitled Lucent Technologies/Bechtel Alliance SSLP Project, sheet 1-3, Site Plan sheet 2, scale 1"=20'.

2. The Sprint PCS tower shall be a co-location site and may accommodate a maximum of two (2) additional FCC licensed carriers.

3. Provision shall be made on the tower for use by Newington emergency communication services.

4. Prior to the signing of the site plan mylar by the Chairman, Sprint PCS shall submit to the Newington Building Department written documentation from their structural engineer certifying that the design and construction of the tower at 36 Prospect Street will prevent its fall onto adjoining properties.

5. Telephone and electric utilities serving the tower compound area shall be located underground.

6. The west and north side of the tower compound area shall be screened with 6' to 8' evergreens planted seven feet on center.

7. Prior to the signing of the site plan mylar by the Chairman Sprint PCS shall submit a concise site location justification statement for 36 Prospect Street explaining the following:

   a) why 36 Prospect Street was chosen by Sprint PCS

   b) Sprint PCS network coverage area

   c) need for future Sprint PCS sites in Newington

8. Sprint PCS shall be responsible for removal of the tower and ground equipment, and restoration of the site to its previous condition, if the tower is not used by Sprint PCS or its co-location FCC licensed commercial wireless services for a period of six (6) months. Removal of the tower shall occur within 90 days of the end of such six (6) month period. Sprint PCS shall notify the Commission in writing that it is terminating the use of the tower.

9. Pursuant to Section 5.2.9 of the Zoning Regulations this Special Exception approval shall be void and of no effect unless construction of the tower begins within one year from the date of this approval. The term "construction of the tower" pertains to installation of the ground facilities and tower monopole. In addition, this Special Exception is not transferable to other FCC licensed commercial wireless companies without prior approval of the Commission.

Certified by:

Edmund J. Meehan
Town Planner

EJM:bjs

This Special Exception will not become effective until this Certificate of Action is filed by the applicant on the Land Records of the Town of Newington.

Ca4997-1/2

The Assessor's office is responsible for the maintenance of records on the ownership of properties. Assessments are computed at 70% of the estimated market value of real property at the time of the last revaluation which was 2015.

Information on the Property Records for the Municipality of Newington was last updated on 1/10/2019.

Parcel Information

Location:	36 PROSPECT ST	Property Use:	Industrial	Primary Use:	Warehouse
Unique ID:	O2219600	Map Block Lot:	18/051/000	Acres:	1.29
490 Acres:	0.00	Zone:	B-BT	Volume / Page:	2157/782
Developers Map / Lot:	N/E 472	Census:			

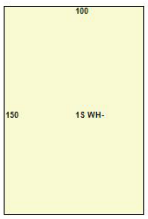
Value Information

	Appraised Value	Assessed Value
Land	100,000	70,000
Buildings	351,000	245,700
Detached Outbuildings	0	0
Total	451,000	315,700

Owner's Information

Owner's Data
OLDHAM JOHN W TRUSTEE 174 FOX HILL ROAD WETHERSFIELD CT 06109

Building 1



Category:	Industrial	Use:	Warehouse	GLA:	15,000
Stories:	1.00	Construction:	Masonry	Year Built:	1956
Heating:	Forced Hot Air	Fuel:	Natural Gas	Cooling Percent:	0
Siding:	Brick Veneer	Roof Material:	Other	Beds/Units:	0

Special Features

Attached Components

Owner History - Sales

Owner Name	Volume	Page	Sale Date	Deed Type	Valid Sale	Sale Price
OLDHAM JOHN W TRUSTEE	2157	782	10/23/2014	Warranty Deed	No	$0
OLDHAM JOHN W JR	329	282	12/12/1977		No	$0
THE 635 CORPORATION	93	275	04/06/1955		No	$0
HARRY E RUGAR	93	93	03/02/1955		No	$0
GUERRERA MICHAEL & MANCINI PASQUALE	93	86	03/02/1955		No	$0
CALLAHAN CLIFFORD J	65	385	10/09/1950		No	$0

Building Permits

Permit Number	Permit Type	Date Opened	Date Closed	Permit Status	Reason
E-18-300	Electrical	09/05/2018		Closed	TRENCH 12 FEET OF CONDUIT OVER TO LOCATION OF NEW EQUIPMENT INSTALL 100 AMP SERVICE
B-18-361	Comm Renovations	06/28/2018		Closed	Sigfox to install (1) Omni antenna, (1) line of coax, and (1) radio cabinet on h-frame at base of t

B-15-764	Comm Renovations	02/22/2016		Closed	9 ANTENNA PANELS
B-14-453	Remodel	07/29/2014		Closed	ADD 3 ANTENNAS, 3 REMOTE
B-13-156	Remodel	05/09/2013		Closed	3 ANTENNAS ON EXISTING MONOPOLE
62445	Building	08/16/2001		Closed	TELECOMM FACI

From: Barbadora, Jeff
To: Badawi, Nesmet (Contractor)
Subject: FW: FedEx Shipment 774155330480 Delivered
Date: Thursday, January 10, 2019 9:57:19 AM

Thanks,

Jeffrey Barbadora
781-970-0053
12 Gill Street, Suite 5800, Woburn, MA 01801
CrownCastle.com

From: TrackingUpdates@fedex.com <TrackingUpdates@fedex.com>
Sent: Thursday, January 10, 2019 9:54 AM
To: Barbadora, Jeff <Jeff.Barbadora@crowncastle.com>
Subject: FedEx Shipment 774155330480 Delivered

FedEx®

Your package has been delivered

Tracking # 774155330480

Ship date:
Wed, 1/9/2019

Jeff Barbadora
Crown Castle
WOBURN, MA 01801
US

Delivered

Delivery date:
Thu, 1/10/2019 9:50 am

The Honorable Roy Zartarian
Town of Newington
131 Cedar Street
NEWINGTON, CT 06111
US

Shipment Facts

Our records indicate that the following package has been delivered.

Tracking number:	774155330480
Status:	Delivered: 01/10/2019 09:50 AM Signed for By: J.SHANTI
Reference:	1766.6680
Signed for by:	J.SHANTI
Delivery location:	NEWINGTON, CT
Delivered to:	Receptionist/Front Desk
Service type:	FedEx Priority Overnight®
Packaging type:	FedEx® Envelope
Number of pieces:	1
Weight:	0.50 lb.
Special handling/Services:	Deliver Weekday
Standard transit:	1/10/2019 by 10:30 am

Standard transit is the date and time the package is scheduled to be delivered by, based on the selected service, destination and ship date. Limitations and exceptions may apply. Please see the FedEx Service Guide for terms and conditions of service, including the FedEx Money-Back Guarantee, or contact your FedEx Customer Support representative.

Thank you for your business.

From: Barbadora, Jeff
To: Badawi, Nesmet (Contractor)
Subject: FW: FedEx Shipment 774155359490 Delivered
Date: Thursday, January 10, 2019 9:57:39 AM

Thanks,

Jeffrey Barbadora
781-970-0053
12 Gill Street, Suite 5800, Woburn, MA 01801
CrownCastle.com

From: TrackingUpdates@fedex.com <TrackingUpdates@fedex.com>
Sent: Thursday, January 10, 2019 9:57 AM
To: Barbadora, Jeff <Jeff.Barbadora@crowncastle.com>
Subject: FedEx Shipment 774155359490 Delivered

FedEx®

Your package has been delivered

Tracking # 774155359490

Ship date:
Wed, 1/9/2019

Jeff Barbadora
Crown Castle
WOBURN, MA 01801
US

Delivered

Delivery date:
Thu, 1/10/2019 9:54 am

Town Planner Craig Minor
Town of Newington
131 Cedar Street
NEWINGTON, CT 06111
US

Shipment Facts

Our records indicate that the following package has been delivered.

Tracking number:	774155359490
Status:	Delivered: 01/10/2019 09:54 AM Signed for By: C.DIAFZ
Reference:	1766.6680
Signed for by:	C.DIAFZ
Delivery location:	NEWINGTON, CT
Delivered to:	Receptionist/Front Desk
Service type:	FedEx Priority Overnight®
Packaging type:	FedEx® Envelope
Number of pieces:	1
Weight:	0.50 lb.
Special handling/Services:	Deliver Weekday
Standard transit:	1/10/2019 by 10:30 am

Standard transit is the date and time the package is scheduled to be delivered by, based on the selected service, destination and ship date. Limitations and exceptions may apply. Please see the FedEx Service Guide for terms and conditions of service, including the FedEx Money-Back Guarantee, or contact your FedEx Customer Support representative.

Thank you for your business.

From: Barbadora, Jeff
To: Badawi, Nesmet (Contractor)
Subject: FW: FedEx Shipment 774155394252 Delivered
Date: Thursday, January 10, 2019 10:24:29 AM

Thanks,

Jeffrey Barbadora
781-970-0053
12 Gill Street, Suite 5800, Woburn, MA 01801
CrownCastle.com

From: TrackingUpdates@fedex.com <TrackingUpdates@fedex.com>
Sent: Thursday, January 10, 2019 10:23 AM
To: Barbadora, Jeff <Jeff.Barbadora@crowncastle.com>
Subject: FedEx Shipment 774155394252 Delivered

FedEx®

Your package has been delivered

Tracking # 774155394252

Ship date:
Wed, 1/9/2019

Jeff Barbadora
Crown Castle
WOBURN, MA 01801
US

Delivered

Delivery date:
Thu, 1/10/2019 10:19 am

John Oldman
John Oldman
174 Fox Hill Road
WETHERSFIELD, CT 06109
US

Shipment Facts

Our records indicate that the following package has been delivered.

Tracking number:	774155394252
Status:	Delivered: 01/10/2019 10:19 AM Signed for By: Signature not required
Reference:	1766.6680
Signed for by:	Signature not required
Delivery location:	WETHERSFIELD, CT
Delivered to:	Residence
Service type:	FedEx Priority Overnight®
Packaging type:	FedEx® Envelope
Number of pieces:	1
Weight:	0.50 lb.
Special handling/Services:	Deliver Weekday
	Residential Delivery
Standard transit:	1/10/2019 by 10:30 am

Please do not respond to this message. This email was sent from an unattended mailbox. This report was generated at approximately 9:22 AM CST on 01/10/2019.

All weights are estimated.

To track the latest status of your shipment, click on the tracking number above.

Standard transit is the date and time the package is scheduled to be delivered by, based on the selected service, destination and ship date. Limitations and exceptions may apply. Please see the FedEx Service Guide for terms and conditions of service, including the FedEx Money-Back Guarantee, or contact your FedEx Customer Support representative.

Thank you for your business.

verizon

CROWN CASTLE

VERIZON SITE NAME:	NEWINGTON CT
CROWN CASTLE SITE NAME:	36 PROSPECT STREET
CROWN CASTLE BU NUMBER:	876332
SITE ADDRESS:	36 PROSPECT STREET NEWINGTON, CT 06111
SITE TYPE:	MONOPOLE TOWER

SITE INFORMATION

APPLICANT:
STRUCTURE CONSULTING GROUP/ VERIZON WIRELESS
20 ALEXANDER DRIVE
WALLINGFORD, CT 06492

CONTACT:
JAMES O'DONNELL

PROPERTY OWNER:
TBD

TOWER OWNER:
CROWN CASTLE

CROWN CASTLE PM:
GRANT STEINHAUSER
(720) 450-3009

LATITUDE (NAD83):
41° 41' 23.34" N
41.689819

LONGITUDE (NAD83):
72° 42' 19.32" W
-72.705369

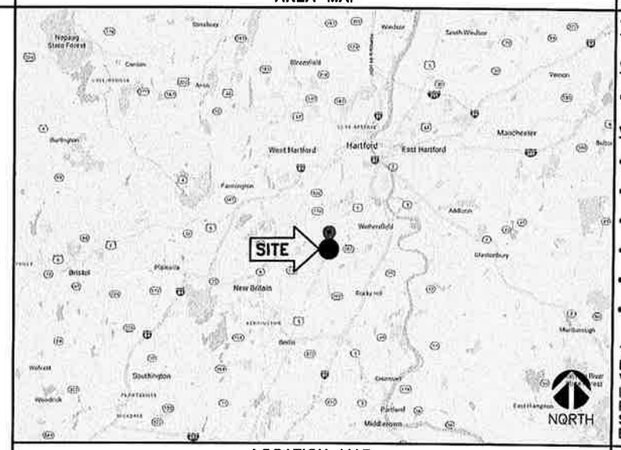
COUNTY:
HARTFORD

ZONING JURISDICTION:
CONNECTICUT SITING COUNCIL

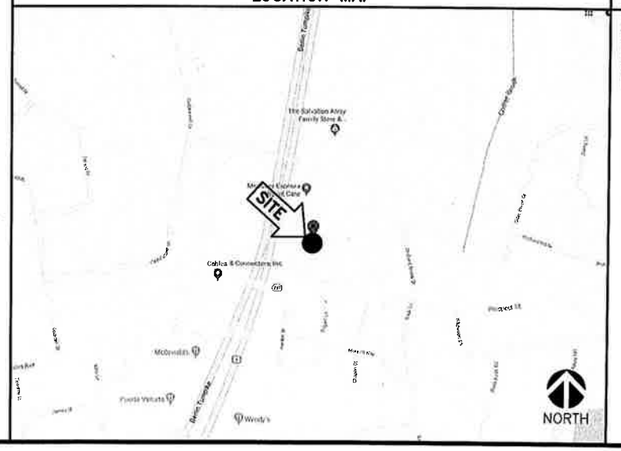
POWER COMPANY:
NORTHEAST UTILITIES
(800) 286-2000

TELCO PROVIDER:
FIBER APP

AREA MAP



LOCATION MAP



PROJECT DESCRIPTION

VERIZON PROPOSES TO MODIFY AN EXISTING UNMANNED TELECOMMUNICATION FACILITY:

VERIZON EQUIPMENT TO BE REMOVED:

- REMOVE (6) EXISTING RRH'S

VERIZON EQUIPMENT TO BE INSTALLED:

- INSTALL (3) SAMSUNG RRH'S P/N: B5/B13 RRH-BR04C
- INSTALL (3) SAMSUNG RRH'S P/N: B2/B66A RRH-BR049
- INSTALL (1) HYBRID CABLE P/N: HB114-U6S12
- INSTALL (1) COVP RAYCAP P/N: RVZDC-6627-PR-48
- INSTALL (3) SITE PRO 1 SIDE-BY-SIDE MOUNTS P/N: BSAMNT-SBS-2-2
- RELOCATE EXISTING (6) COMMSCOPE ANTENNAS ON NEW SIDE-BY-SIDE MOUNTS

THESE PLANS HAVE BEEN DEVELOPED FOR THE MODIFICATION OF AN EXISTING UNMANNED TELECOMMUNICATIONS FACILITY OWNED OR LEASED BY VERIZON IN ACCORDANCE WITH THE SCOPE OF WORK PROVIDED BY VERIZON. INFINIGY HAS INCORPORATED THIS SCOPE OF WORK IN THE PLANS. THESE PLANS ARE NOT FOR CONSTRUCTION UNLESS ACCOMPANIED BY A PASSING STRUCTURAL STABILITY ANALYSIS PREPARED BY A LICENSED STRUCTURAL ENGINEER. STRUCTURAL ANALYSIS MUST INCLUDE BOTH TOWER AND MOUNT.

APPLICABLE CODES

ALL WORK SHALL BE PERFORMED AND MATERIALS INSTALL 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.

1. INTERNATIONAL BUILDING CODE (2015 IBC)
2. TIA-EIA-222-G OR LATEST EDITION
3. NFPA 780 – LIGHTNING PROTECTION CODE
4. 2017 NATIONAL ELECTRIC CODE OR LATEST EDITION
5. ANY OTHER NATIONAL OR LOCAL APPLICABLE CODES, MOST RECENT EDITIONS
6. UT BUILDING CODE
7. LOCAL BUILDING CODE
8. CITY/COUNTY ORDINANCES

811 Know what's below. Call before you dig. www.call811.com

DRAWING INDEX

SHEET NO:	SHEET TITLE	REV
T-1	TITLE SHEET & PROJECT DATA	0
SP-1	VERIZON SPECIFICATIONS	0
A-1	OVERALL SITE PLAN	0
A-2	TOWER ELEVATION	0
A-3	ANTENNA LAYOUT & LOADING CHART	0
A-4	EQUIPMENT DETAILS	0
A-5	MOUNTING DETAILS	0
G-1	GROUNDING PLAN & DETAILS	0

DRIVING DIRECTIONS

FROM: HARTFORD, CT

1. HEAD SOUTHWEST ON MAIN ST TOWARD TOWER SQUARE
2. TURN RIGHT ONTO WELLS ST
3. AT THE TRAFFIC CIRCLE, TAKE THE 4TH EXIT ONTO WHITEHEAD HWY HEADING TO INTERSTATE 91/CT-15/SPRINGFIELD/NEW HAVE/NEW YORK
4. KEEP RIGHT AT THE FORK, FOLLOW SIGNS FOR I-91 S/NEW HAVEN AND MERGE ONTO I-91 S
5. MERGE ONTO I-91 S
6. TAKE EXIT 28 TO MERGE ONTO CT-15 S/US-5 S TOWARD BERLIN TURNPIKE/WETHERSFIELD/NEWINGTON
7. CONTINUE ONTO CT-15 S/US-5 S/BERLIN TURNPIKE
8. TURN LEFT ONTO PROSPECT ST

PLANS PREPARED FOR:
verizon
180 WASHINGTON VALLEY ROAD
BEDMINSTER, NJ 07921

PLANS PREPARED BY:
INFINIGY
FROM ZERO TO INFINIGY
the solutions are endless
1490 W. 121st. Ave., Suite 101
Westminster, CO 80234
Office # (303) 219-1178
Fax # (303) 242-8636
JOB NUMBER: TBD

MLA PARTNER:
CROWN CASTLE

ENGINEERING LICENSE:
STATE OF CONNECTICUT
JOHN S. STEVENS
No. 24705
LICENSED PROFESSIONAL ENGINEER
JAN 07 2019

DRAWING NOTICE:

REVISIONS:

DESCRIPTION	DATE	BY	REV
ISSUED FOR PERMIT	01/07/18	ETC	0

VERIZON SITE NAME:
NEWINGTON CT

CROWN CASTLE SITE NAME:
36 PROSPECT STREET

CROWN CASTLE BU #:
876332

SITE ADDRESS:
36 PROSPECT STREET
NEWINGTON, CT 06111

SHEET DESCRIPTION:
TITLE SHEET & PROJECT DATA

SHEET NUMBER:
T-1

ELECTRICAL NOTES:

WORK INCLUDED

1. INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, PLANT SERVICES AND ADMINISTRATIVE TASKS REQUIRED TO COMPLETE AND MAKE OPERABLE THE ELECTRICAL WORK SHOWN ON THE DRAWINGS AND SPECIFIED HEREIN, INCLUDING BUT NOT LIMITED TO THE FOLLOWING:
   A. PREPARE AND SUBMIT SHOP DRAWINGS, DIAGRAMS AND ILLUSTRATIONS.
   B. PROCURE ALL NECESSARY PERMITS AND APPROVALS AND PAY ALL REQUIRED FEES AND CHARGES IN CONNECTION WITH THE WORK OF THIS CONTRACT.
   C. SUBMIT AS-BUILT DRAWINGS, OPERATING AND MAINTENANCE INSTRUCTIONS AND MANUALS.
   D. EXECUTE ALL CUTTING, DRILLING, ROUGH AND FINISH PATCHING OF EXISTING OR NEWLY INSTALLED CONSTRUCTION REQUIRED FOR THE WORK OF THIS CONTRACT. FOR SLAB PENETRATIONS THROUGH POST TENSION SLABS, X-RAY EXACT AREA OF PENETRATION PRIOR TO PERFORMING WORK. COORDINATE ALL X-RAY WORK WITH BUILDING ENGINEER.
   E. PROVIDE HANGERS, SUPPORTS, FOUNDATIONS, STRUCTURAL FRAMING SUPPORTS, AND BASES FOR CONDUIT AND EQUIPMENT PROVIDED OR INSTALLED UNDER THE WORK OF HIS CONTRACT. PROVIDE COUNTER FLASHING, SLEEVES AND SEALS FOR FLOOR AND WALL PENETRATIONS.
   F. MAINTAIN ALL EXISTING ELECTRICAL SERVICES IN THE BUILDING AREAS NOT AFFECTED BY THE ALTERATION DURING THE PROGRESS OF THE WORK INCLUDING PROVIDING ALL TEMPORARY JUMPERS, CONDUITS, CAPS, PROTECTIVE DEVICES, CONNECTIONS AND EQUIPMENT REQUIRED. PROVIDE TEMPORARY LIGHT AND POWER FOR CONSTRUCTION PURPOSES.
2. IT IS THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS TO CALL FOR AN INSTALLATION THAT IS COMPLETE IN EVERY RESPECT. IT IS NOT THE INTENT TO GIVE EVERY DETAIL ON THE DRAWINGS AND IN THE SPECIFICATIONS. IF AN ITEM OF WORK IS INDICATED IN THE DRAWINGS, IT IS CONSIDERED SUFFICIENT FOR INCLUSION IN THE CONTRACT. FURNISH AND INSTALL ALL MATERIAL AND EQUIPMENT USUALLY FURNISHED OR NEEDED TO MAKE A COMPLETE INSTALLATION WHETHER OR NOT SPECIFICALLY MENTIONED IN THE CONTRACT DOCUMENTS.

GENERAL REQUIREMENTS

1. PROVIDE ALL WORK IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (NEC) AND LOCAL AND STATE ELECTRICAL CODES.
2. THE ELECTRICAL PLANS ARE DIAGRAMMATIC ONLY. REFER TO THE ARCHITECTURAL PLANS FOR THE EXACT DIMENSIONS OF THE BUILDING.
3. LOAD CALCULATIONS ARE BASED ON EXISTING BUILDING INFORMATION/DRAWINGS PROVIDED TO ENGINEERING. CONTRACTOR IS TO VERIFY ALL EXISTING RATINGS AND LOADS PRIOR TO PURCHASING OF SPECIFIED EQUIPMENT FOR COMPLIANCE TO NEC. CONTRACTOR TO NOTIFY ENGINEER OF ANY DISCREPANCIES AND REQUEST FURTHER DIRECTION BY ENGINEER.
4. EXISTING BUILDING EQUIPMENT IS NOTED ON THE DRAWINGS. NEW OR RELOCATED EQUIPMENT IS SHOWN WITH SOLID LINES. FUTURE EQUIPMENT (NOT IN THIS CONTRACT) IS DEPICTED WITH SHADED LINES. REQUEST CLARIFICATION OF DRAWINGS OR OF SPECIFICATIONS PRIOR TO PRICING OR INSTALLATION.
5. GENERAL
   A. AFTER CAREFULLY STUDYING THE DRAWINGS AND SPECIFICATIONS, AND BEFORE SUBMITTING THE PROPOSAL, MAKE A MANDATORY SITE VISIT TO ASCERTAIN CONDITIONS OF THE SITE, AND THE NATURE AND EXACT QUANTITY OF WORK TO BE PERFORMED. NO EXTRA COMPENSATION WILL BE ALLOWED FOR FAILURE TO NOTIFY THE OWNER, IN WRITING, OF ANY DISCREPANCIES THAT MAY HAVE BEEN NOTED BETWEEN THE EXISTING CONDITIONS AND THE DRAWINGS AND SPECIFICATIONS.
   B. VERIFY ALL MEASUREMENTS AT THE SITE AND BE RESPONSIBLE FOR CORRECTNESS OF SAME.
6. QUALITY, WORKMANSHIP, MATERIALS AND SAFETY
   A. PROVIDE NEW MATERIALS AND EQUIPMENT OF A DOMESTIC MANUFACTURER BY THOSE REGULARLY ENGAGED IN THE PRODUCTION AND MANUFACTURE OF SPECIFIED MATERIALS AND EQUIPMENT. WHERE UL, OR OTHER AGENCY, HAS ESTABLISHED STANDARDS FOR MATERIALS, PROVIDE MATERIALS WHICH ARE LISTED AND LABELED ACCORDINGLY. THE COMMERCIALLY STANDARD ITEMS OF EQUIPMENT AND THE SPECIFIC NAMES MENTIONED HEREIN ARE INTENDED FOR THE PROPER FUNCTIONING OF THE WORK.
   B. WORK SHALL BE PERFORMED BY WORKMEN SKILLED IN THE TRADE REQUIRED FOR THE WORK. INSTALL MATERIALS AND EQUIPMENT TO PRESENT A NEAT APPEARANCE WHEN COMPLETED AND IN ACCORDANCE WITH THE APPROVED RECOMMENDATIONS OF THE MANUFACTURER AND IN ACCORDANCE WITH CONTRACT DOCUMENTS.
   C. PROVIDE LABOR, MATERIALS, APPARATUS AND APPLIANCES ESSENTIAL TO THE FUNCTIONING OF THE SYSTEMS DESCRIBED OR INDICATED HEREIN, OR WHICH MAY BE REASONABLY IMPLIED AS ESSENTIAL WHENEVER MENTIONED IN THE CONTRACT DOCUMENT OR NOT.
   D. MAKE WRITTEN REQUESTS FOR SUPPLEMENTARY INSTRUCTIONS TO ARCHITECT/ENGINEER IN CASE OF DOUBT AS TO WORK INTENDED OR IN EVENT OF NEED FOR EXPLANATION THEREOF.
   E. PERFORMANCE AND MATERIAL REQUIREMENTS SCHEDULED OR SPECIFIED ARE MINIMUM STANDARD ACCEPTABLE. THE RIGHT TO JUDGE THE QUALITY OF EQUIPMENT THAT DEVIATES FROM THE CONTRACT DOCUMENT REMAINS SOLELY WITH ARCHITECT/ENGINEER. CONTRACT DOCUMENT OR NOT.

GUARANTEE

1. GUARANTEE MATERIALS, PARTS AND LABOR FOR WORK FOR ONE YEAR FROM THE DATE OF ISSUANCE OF OCCUPANCY PERMIT. DURING THAT PERIOD, MAKE GOOD FAULTS OR IMPERFECTIONS THAT MAY ARISE DUE TO DEFECTS OR OMISSIONS IN MATERIALS OR WORKMANSHIP WITH NO ADDITIONAL COMPENSATION AND AS DIRECTED BY ARCHITECT.

CLEANING

1. REMOVE ALL CONSTRUCTION DEBRIS RESULTING FROM THE WORK.
2. CLEAN EQUIPMENT AND SYSTEMS FOLLOWING THE COMPLETION OF THE PROJECT TO THE SATISFACTION OF THE ENGINEER.

COORDINATION AND SUPERVISION

1. CAREFULLY LAY OUT ALL WORK IN ADVANCE TO AVOID UNNECESSARY CUTTING, CHANNELING, CHASING OR DRILLING OF FLOORS, WALLS, PARTITIONS, CEILINGS OR OTHER SURFACES. WHERE SUCH WORK IS NECESSARY, HOWEVER, PATCH AND REPAIR THE WORK IN AN APPROVED MANNER BY SKILLED MECHANICS AT NO ADDITIONAL COST TO THE OWNER. RENDER FULL COOPERATION TO OTHER TRADES WHERE WORK WILL BE INSTALLED IN CLOSE PROXIMITY TO WORK OF OTHER TRADES. ASSIST IN WORKING OUT SPACE CONDITIONS. IF WORK IS INSTALLED BEFORE COORDINATION WITH OTHER TRADES, OR CAUSES INTERFERENCE, MAKE CHANGES NECESSARY TO CORRECT CONDITIONS WITHOUT EXTRA CHARGE.

SUBMITTALS

1. AS-BUILT DRAWINGS:
   A. UPON COMPLETION OF THE WORK, FURNISH TO THE OWNER "AS-BUILT" DRAWINGS.
2. SERVICE MANUALS:
   A. UPON COMPLETION OF THE WORK, FULLY INSTRUCT VERIZON AS TO THE OPERATION AND MAINTENANCE OF ALL MATERIAL, EQUIPMENT AND SYSTEMS.
   B. PROVIDE 3 COMPLETE BOUND SETS OF INSTRUCTIONS FOR OPERATING AND MAINTAINING ALL SYSTEMS AND EQUIPMENT.

CUTTING AND PATCHING

1. PROVIDE ALL CUTTING, DRILLING, ROUGH AND FINISH PATCHING REQUIRED TO COMPLETE THE WORK.
2. OBTAIN OWNER APPROVAL PRIOR TO CUTTING THROUGH FLOORS OR WALLS FOR PIPING OR CONDUIT.

TESTS, INSPECTION AND APPROVAL

1. BEFORE ENERGIZING ANY ELECTRICAL INSTALLATION, INSPECT EACH UNIT IN DETAIL. TIGHTEN ALL BOLTS AND CONNECTIONS (TORQUE-TIGHTEN WHERE REQUIRED) AND DETERMINE THAT ALL COMPONENTS ARE ALIGNED, AND THE EQUIPMENT IS IN SAFE, OPERATIONAL CONDITION.
2. PROVIDE THE COMPLETE ELECTRICAL SYSTEM FREE OF GROUND FAULTS AND SHORT CIRCUITS SUCH THAT THE SYSTEM WILL OPERATE SATISFACTORILY UNDER FULL LOAD CONDITIONS, WITHOUT EXCESSIVE HEATING AT ANY POINT IN THE SYSTEM.

SPECIAL REQUIREMENTS

1. DO NOT LEAVE ANY WORK INCOMPLETE NOR ANY HAZARDOUS SITUATIONS CREATED WHICH WILL AFFECT THE LIFE OR SAFETY OF THE PUBLIC AND/OR BUILDING OCCUPANTS. DO NOT INTERFERE WITH OR CUTOFF ANY OF THE EXISTING SERVICES WITHOUT THE OWNER'S WRITTEN PERMISSION.
2. WHEN NECESSARY TO TEMPORARILY DISCONNECT ANY EXISTING BUILDING UTILITIES AND SERVICE SYSTEMS, INCLUDING FEEDER OR BRANCH CIRCUITING SUPPLYING EXISTING FACILITIES, CONFER WITH THE OWNER AND ARRANGE THE PERIOD OF INTERRUPTION FOR A TIME MUTUALLY AGREED UPON. SHUTDOWN NOTE: SCHEDULE AND NOTIFY OWNER 48 HOURS PRIOR TO SHUTDOWN. ALL SHUTDOWN WORK TO BE SCHEDULED AT A TIME CONVENIENT TO OWNER.

GROUNDING

1. ROUTE ALL GROUNDING CONDUCTORS AS SHOWN ON CONDUIT/GROUNDING RISER.
2. ROUTE 500 KCMIL CU. THHN CONDUCTOR FROM THE MGB LOCATION TO BUILDING STEEL. VERIFY BUILDING STEEL IS EFFECTIVELY GROUNDED PER NEC TO THE MAIN SERVICE GROUNDING ELECTRODE CONDUCTOR (GEC).
3. MAKE ALL GROUND CONNECTIONS FROM MGB TO ELECTRICAL EQUIPMENT WITH 2 HOLE, CRIMP TYPE, BURNDY COMPRESSION TERMINATIONS, SIZED AS REQUIRED.
4. USE 1 HOLE, CRIMP TYPE, BURNDY COMPRESSIONS TERMINATIONS, SIZED AS REQUIRED, AT EQUIPMENT GROUND CONNECTIONS.
5. HIRE AN INDEPENDENT LAB TO PERFORM THE SPECIFIED OHMS TESTING. PROVIDE 4 SETS OF THE CERTIFIED DOCUMENTS TO THE OWNER FOR VERIFICATION PRIOR TO THE PROJECT COMPLETION.

RACEWAYS

1. ALL WIRING TO BE INSTALLED IN CONDUIT SYSTEMS IN ACCORDANCE WITH THE FOLLOWING:
   A. EXTERIOR FEEDERS AND CONTROL, WHERE UNDERGROUND, TO BE IN SCH 40 PVC.
   B. EXTERIOR, ABOVE GROUND POWER CONDUITS TO BE GALVANIZED RIGID STEEL (RGS).
   C. ALL TELECOMMUNICATION CONDUITS, INTERIOR/EXTERIOR, TO BE EMT.

   ON THIS PROJECT.
   E. ALL TELECOM CONDUITS AND PULL BOXES INSTALLED ON THIS PROJECT TO BE LABELED "VERIZON". OWNER WILL PROVIDE LABELS FOR CONTRACTOR TO INSTALL.
   F. INTERIOR FEEDERS TO BE INSTALLED IN E.M.T. WITH STEEL COMPRESSION FITTINGS
   G. MINIMUM SIZE CONDUIT TO BE ¾" TRADE SIZE UNLESS OTHERWISE INDICATED ON THE DRAWINGS.
   H. FINAL CONNECTIONS TO MOTORS AND VIBRATING EQUIPMENT TO BE INSTALLED IN LIQUID-TIGHT FLEXIBLE METAL CONDUIT.

   AREAS OR DRYWALL PARTITIONS, UNLESS OTHERWISE NOTED.
   J. THE ROUTING OF CONDUITS INDICATED ON THE DRAWINGS IS DIAGRAMMATIC. BEFORE INSTALLING ANY WORK, EXAMINE THE WORKING LAYOUTS AND SHOP DRAWINGS OF THE OTHER TRADES TO DETERMINE THE EXACT LOCATIONS AND CLEARANCES.
   K. ALL EXTERIOR MOUNTING HARDWARE TO BE GALVANIZED STEEL. COORDINATE WITH BUILDING ENGINEER PRIOR TO ATTACHING TO BUILDING STRUCTURE.

RACEWAYS CONT'D

   L. PENETRATIONS OF WALLS, FLOORS AND ROOFS, FOR THE PASSAGE OF ELECTRICAL RACEWAYS, TO BE PROPERLY SEALED AFTER INSTALLATION OF RACEWAYS SO AS TO MAINTAIN THE STRUCTURAL OR WATERPROOF INTEGRITY OF THE WALL, FLOOR OR ROOF SYSTEM TO BE PENETRATED. SEAL ALL CONDUIT PENETRATIONS THROUGH FIRE OR SMOKE RATED WALLS, CEILINGS OR SMOKE TIGHT CORRIDOR PARTITIONS TO MAINTAIN PROPER RATING OF WALL OR CEILING.
   M. PROVIDE ALL CONDUIT ENDS WITH INSULATED METALLIC GROUNDING BUSHINGS.
   N. CONDUIT TO BE SUPPORTED AT MAXIMUM DISTANCE OF 8'-0", OR AS REQUIRED BY NEC, IN HORIZONTAL AND VERTICAL DIRECTIONS.
   O. PROVIDE STAINLESS STEEL BLANK COVER PLATES FOR ALL JUNCTION BOXES AND/OR OUTLET BOXES NOT USED IN EXPOSED AREAS. PROVIDE ALL OTHER UNUSED BOXES WITH STANDARD STEEL COVER PLATES.
   P. WHERE APPLICABLE, PROVIDE ROOFTOP CONDUIT SUPPORT SYSTEM, CONFORMING TO ROOFTOP WARRANTY REQUIREMENTS, PER BUILDING.

WIRES AND CABLES

1. CONTRACTOR TO COORDINATE WITH EQUIPMENT SUPPLIER AND VENDOR FOR EXACT EQUIPMENT OVER-CURRENT PROTECTION VOLTAGE, WIRE SIZE AND PLUG CONFIGURATION, IF APPLICABLE, PRIOR TO BID.
2. ALL EQUIPMENT/DEVICES TO BE PROVIDED WITH INSULATED GROUND CONDUCTOR.
3. ALL WIRE AND CABLE TO BE 600VOLT, COPPER, WITH THWN/THHN INSULATION, EXCEPT AS NOTED.
4. WIRE FOR POWER AND LIGHTING WILL NOT BE LESS THAN NO. 12AWG. ALL WIRE NO. 8 AND LARGER TO BE STRANDED.
5. CONTROL WIRING IS NOT TO BE LESS THAN NO. 14AWG, FLEXIBLE IN SINGLE CONDUCTORS OR MULTI-CONDUCTOR CABLES. CONTROL WIRING WILL CONSIST OF MULTI-CONDUCTOR CABLES WHEREVER POSSIBLE. CABLES TO BE PROVIDED WITH AN OVERALL FLAME-RETARDANT, EXTRUDED JACKET AND RATED FOR PLENUM USE. ALL CONTROL WIRE TO BE 600VOLT RATED.
6. WIRE PREVIOUSLY PULLED INTO CONDUIT IS CONSIDERED USED AND IS NOT TO BE RE-PULLED.
7. HOME RUNS AND BRANCH CIRCUIT WIRING FOR 20A, 120V CIRCUITS:

LENGTH (FT.)	HOME RUN WIRE SIZE
0 TO 50	NO. 12
51 TO 100	NO. 10
101 TO 150	NO. 8

8. VOLTAGE DROP IS NOT TO EXCEED 3%.
9. MAKE ALL CONNECTIONS WITH UL APPROVED, SOLDERLESS, PRESSURE TYPE INSULATED CONNECTORS: SCOTCHLOK OR AND APPROVED EQUAL.

WIRING DEVICES

1. ALL RECEPTACLES INSTALLED IN THIS PROJECT TO BE GROUNDING TYPE, WITH GROUNDING PIN SLOT CONNECTED TO DEVICE GROUND SCREW FOR GROUND WIRE CONNECTION.

DISCONNECT SWITCHES AND FUSES

1. DISCONNECT SWITCHES TO BE VOLTAGE-RATED TO SUIT THE CHARACTERISTICS OF THE SYSTEM FROM WHICH THEY ARE SUPPLIED.
2. PROVIDE HEAVY-DUTY, METAL-ENCLOSED, EXTERNALLY-OPERATED DISCONNECT SWITCHES, FUSED OR UNFUSED, OF SUCH TYPE AND SIZE AS REQUIRED TO PROPERLY PROTECT OR DISCONNECT THE LOAD FOR WHICH THEY ARE INTENDED.
3. PROVIDE NEMA 1 DISCONNECT SWITCHES FOR INTERIOR INSTALLATION, NEMA 3R FOR EXTERIOR INSTALLATION.
4. DISCONNECT SWITCHES TO BE MANUFACTURED BY:
   A. GENERAL ELECTRIC COMPANY
   B. SQUARE-D
5. PROVIDE RK-1 TYPE FUSES, UNLESS NOTED OTHERWISE.

INSTALLATION

1. INSTALL DISCONNECT SWITCHES WHERE INDICATED ON DRAWINGS.
2. INSTALL FUSES IN FUSIBLE DISCONNECT SWITCHES. FUSES MUST MATCH IN TYPE AND RATING.
3. FUSES TO BE MOUNTED SO THAT THE LABELS SHOWING THEIR RATINGS CAN BE READ WITHOUT REQUIRING FUSE REMOVAL.
4. FURNISH AND DEPOSIT SPARE FUSES AT THE JOB SITE AS FOLLOWS:
   A. THREE SPARES FOR EACH TYPE AND SIZE, IN EXCESS OF 60A, USED FOR INITIAL FUSING.
   B. TEN PERCENT SPARES FOR EACH TYPE AND SIZE, UP TO AND INCLUDING 60A, USED FOR INITIAL FUSING. IN NO CASE WILL LESS THAN THREE FUSES OF ONE PARTICULAR TYPE AND SIZE BE FURNISHED.

CONFLICTS

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATIONS OF ALL MEASUREMENTS AT THE SITE BEFORE ORDERING ANY MATERIALS OR DOING ANY WORK. NO EXTRA CHARGE OR COMPENSATION SHALL BE ALLOWED DUE TO DIFFERENCE BETWEEN ACTUAL DIMENSIONS AND DIMENSIONS INDICATED ON THE CONSTRUCTION DRAWINGS. ANY SUCH DISCREPANCY IN DIMENSION WHICH MAY BE FOUND SHALL BE SUBMITTED TO THE OWNER FOR CONSIDERATION BEFORE THE CONTRACTOR PROCEEDS WITH THE WORK IN THE AFFECTED AREAS.
2. THE BIDDER, IF AWARDED THE CONTRACT, WILL NOT BE ALLOWED ANY EXTRA COMPENSATION BY REASON OF ANY MATTER OR THING CONCERNING SUCH BIDDER MIGHT HAVE FULLY INFORMED THEMSELVES PRIOR TO THE BIDDING.
3. NO PLEA OF IGNORANCE OF CONDITIONS THAT EXIST, OR OF DIFFICULTIES OR CONDITIONS THAT MAY BE ENCOUNTERED, OR OF ANY OTHER RELEVANT MATTER CONCERNING THE WORK TO BE PERFORMED IN THE EXECUTION OF THE WORK WILL BE ACCEPTED AS AN EXCUSE FOR ANY FAILURE OR OMISSION ON THE PART OF THE CONTRACTOR TO FULFILL EVERY DETAIL OF ALL THE REQUIREMENTS OF THE CONTRACT DOCUMENTS GOVERNING THE WORK.

CONTRACTS AND WARRANTIES

1. CONTRACTOR IS RESPONSIBLE FOR APPLICATION AND PAYMENT OF CONTRACTOR LICENSES AND BONDS.
2. SEE MASTER CONTRACTION SERVICES AGREEMENT FOR ADDITIONAL DETAILS.

STORAGE

1. ALL MATERIALS MUST BE STORED IN A LEVEL AND DRY FASHION AND IN A MANNER THAT DOES NOT NECESSARILY OBSTRUCT THE FLOW OF OTHER WORK. ANY STORAGE METHOD MUST MEET ALL RECOMMENDATIONS OF THE ASSOCIATED MANUFACTURER.

CLEANUP

1. THE CONTRACTORS SHALL, AT ALL TIMES, KEEP THE SITE FREE FROM ACCUMULATION OF WASTE MATERIALS OR RUBBISH CAUSED BY THEIR EMPLOYEES AT WORK AND AT THE COMPLETION OF THE WORK. THEY SHALL REMOVE ALL RUBBISH FROM AND ABOUT THE BUILDING AREA, INCLUDING ALL THEIR TOOLS, SCAFFOLDING AND SURPLUS MATERIALS AND SHALL LEAVE THEIR WORK CLEAN AND READY TO USE.
2. EXTERIOR
   A. VISUALLY INSPECT EXTERIOR SURFACES AND REMOVE ALL TRACES OF SOIL, WASTE MATERIALS, SMUDGES AND OTHER FOREIGN MATTER.
   B. REMOVE ALL TRACES OF SPLASHED MATERIALS FROM ADJACENT SURFACES.
   C. IF NECESSARY, TO ACHIEVE A UNIFORM DEGREE OF CLEANLINESS, HOSE DOWN THE EXTERIOR OF THE STRUCTURE.
3. INTERIOR
   A. VISUALLY INSPECT INTERIOR SURFACE AND REMOVE ALL TRACES OF SOIL, WASTE MATERIALS, SMUDGES AND OTHER FOREIGN MATTER FROM WALLS, FLOOR, AND CEILING.
   B. REMOVE ALL TRACES OF SPLASHED MATERIALS FROM ADJACENT SURFACES.
   C. REMOVE PAINT DROPPINGS, SPOTS, STAINS, AND DIRT FROM FINISHED SURFACES.

CHANGE ORDER PROCEDURE:

1. REFER TO SECTION 17 OF SIGNED MCSA: SEE PROFESSIONAL SERVICE AGREEMENT FOR MCSA.

RELATED DOCUMENTS AND COORDINATION

1. GENERAL CARPENTRY, ELECTRICAL AND ANTENNA DRAWINGS ARE INTERRELATED. IN PERFORMANCE OF THE WORK, THE CONTRACTOR MUST REFER TO ALL DRAWINGS. ALL COORDINATION TO BE THE RESPONSIBILITY OF THE CONTRACTOR.

SHOP DRAWINGS

1. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AS REQUIRED AND LISTED IN THESE SPECIFICATIONS TO THE OWNER FOR APPROVAL.
2. ALL SHOP DRAWINGS SHALL BE REVIEWED, CHECKED AND CORRECTED BY CONTRACTOR PRIOR TO SUBMITTAL TO THE OWNER.

PRODUCTS AND SUBSTITUTIONS

1. SUBMIT 3 COPIES OF EACH REQUEST FOR SUBSTITUTION. IN EACH REQUEST, IDENTIFY THE PRODUCT OR FABRICATION OR INSTALLATION METHOD TO BE REPLACED BY THE SUBSTITUTION. INCLUDE RELATED SPECIFICATION SECTION AND DRAWING NUMBERS AND COMPLETE DOCUMENTATION SHOWING COMPLIANCE WITH THE REQUIREMENTS FOR SUBSTITUTIONS.
2. SUBMIT ALL NECESSARY PRODUCT DATA AND CUT SHEETS WHICH PROPERLY INDICATE AND DESCRIBE THE ITEMS, PRODUCTS AND MATERIALS BEING INSTALLED. THE CONTRACTOR SHALL, IF DEEMED NECESSARY BY THE OWNER, SUBMIT ACTUAL SAMPLES TO THE OWNER FOR APPROVAL IN LIEU OF CUT SHEETS.

QUALITY ASSURANCE

1. ALL WORK SHALL BE IN ACCORDANCE WITH APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS. THESE SHALL INCLUDE, BUT NOT BE LIMITED TO THE APPLICABLE CODES SET FORTH BY THE LOCAL GOVERNING BODY. SEE "CODE COMPLIANCE" T-1.

ADMINISTRATION

1. BEFORE THE COMMENCEMENT OF ANY WORK, THE CONTRACTOR WILL ASSIGN A PROJECT MANAGER WHO WILL ACT AS A SINGLE POINT OF CONTACT FOR ALL PERSONNEL INVOLVED IN THIS PROJECT. THIS PROJECT MANAGER WILL DEVELOP A MASTER SCHEDULE FOR THE PROJECT WHICH WILL BE SUBMITTED TO THE OWNER PRIOR TO THE COMMENCEMENT OF ANY WORK.
2. SUBMIT A BAR TYPE PROGRESS CHART, NOT MORE THAN 3 DAYS AFTER THE DATE ESTABLISHED FOR COMMENCEMENT OF THE WORK ON THE SCHEDULE, INDICATING A TIME BAR FOR EACH MAJOR CATEGORY OR UNIT OF WORK TO BE PERFORMED AT THE SITE, PROPERLY SEQUENCED AND COORDINATED WITH OTHER ELEMENTS OF WORK AND SHOWING COMPLETION OF THE WORK SUFFICIENTLY IN ADVANCE OF THE DATE ESTABLISHED FOR SUBSTANTIAL COMPLETION OF THE WORK.
3. PRIOR TO COMMENCING CONSTRUCTION, THE OWNER SHALL SCHEDULE AN ON-SITE MEETING WITH ALL MAJOR PARTIES. THIS WOULD INCLUDE, BUT NOT LIMITED TO, THE OWNER, PROJECT MANAGER, CONTRACTOR, LAND OWNER REPRESENTATIVE, LOCAL TELEPHONE COMPANY, TOWER ERECTION FOREMAN (IF SUBCONTRACTED).
4. CONTRACTOR SHALL BE EQUIPPED WITH SOME MEANS OF CONSTANT COMMUNICATIONS, SUCH AS A MOBILE PHONE OR A BEEPER. THIS EQUIPMENT WILL NOT BE SUPPLIED BY THE OWNER, NOR WILL WIRELESS SERVICE BE ARRANGED.
5. DURING CONSTRUCTION, CONTRACTOR MUST ENSURE THAT EMPLOYEES AND SUBCONTRACTORS WEAR HARD HATS AT ALL TIMES. CONTRACTOR WILL COMPLY WITH ALL WPCS SAFETY REQUIREMENTS IN THEIR AGREEMENT.
6. PROVIDE WRITTEN DAILY UPDATES ON SITE PROGRESS TO THE OWNER.
7. COMPLETE INVENTORY OF CONSTRUCTION MATERIALS AND EQUIPMENT IS REQUIRED PRIOR TO START OF CONSTRUCTION.
8. NOTIFY THE OWNER/PROJECT MANAGER IN WRITING NO LESS THAN 48 HOURS IN ADVANCE OF CONCRETE POURS, TOWER ERECTIONS, AND EQUIPMENT CABINET PLACEMENTS.

INSURANCE AND BONDS

1. CONTRACTOR, AT THEIR OWN EXPENSE, SHALL CARRY AND MAINTAIN, FOR THE DURATION OF THE PROJECT, ALL INSURANCE, AS REQUIRED AND LISTED, AND SHALL NOT COMMENCE WITH THEIR WORK UNTIL THEY HAVE PRESENTED AN ORIGINAL CERTIFICATE OF INSURANCE STATING ALL COVERAGES TO THE OWNER. REFER TO THE MASTER AGREEMENT FOR REQUIRED INSURANCE LIMITS.
2. THE OWNER SHALL BE NAMED AS AN ADDITIONAL INSURED ON ALL POLICIES.
3. CONTRACTOR MUST PROVIDE PROOF OF INSURANCE.

GENERAL NOTES:

INTENT

1. THESE SPECIFICATIONS AND CONSTRUCTION DRAWINGS ACCOMPANYING THEM DESCRIBE THE WORK TO BE DONE AND THE MATERIALS TO BE FURNISHED FOR CONSTRUCTION.
2. THE DRAWINGS AND SPECIFICATIONS ARE INTENDED TO BE FULLY EXPLANATORY AND SUPPLEMENTARY. HOWEVER, SHOULD ANYTHING BE SHOWN, INDICATED, OR SPECIFIED ON ONE AND NOT THE OTHER, IT SHALL BE DONE THE SAME AS IF SHOWN,INDICATED OR SPECIFIED IN BOTH
3. THE INTENTION OF THE DOCUMENTS IS TO INCLUDE ALL LABOR AND MATERIALS REASONABLY NECESSARY FOR THE PROPER EXECUTION AND COMPLETION OF THE WORK AS STIPULATED IN THE CONTRACT.
4. THE PURPOSE OF THE SPECIFICATIONS IS TO INTERPRET THE INTENT OF THE DRAWINGS AND TO DESIGNATE THE METHOD OF THE PROCEDURE, TYPE AND QUALITY OF MATERIALS REQUIRED TO COMPLETE THE WORK.
5. MINOR DEVIATIONS FROM THE DESIGN LAYOUT ARE ANTICIPATED AND SHALL BE CONSIDERED AS PART OF THE WORK. NO CHANGES THAT ALTER THE CHARACTER OF THE WORK WILL BE MADE OR PERMITTED BY THE OWNER WITHOUT ISSUING A CHANGE ORDER.

ABBREVIATIONS	
ADJ	ADJUSTABLE
AGL	ABOVE GROUND LINE
&	AND
APPROX	APPROXIMATE
@	AT
BTS	BASE TRANSMISSION STATION
CAB	CABINET
CLG	CEILING
CONC	CONCRETE
CONT	CONTINUOUS
DIA OR ø	DIAMETER
DWG	DRAWING
EA	EACH
ELEC	ELECTRICAL
ELEV	ELEVATION
EQ	EQUAL
EQUIP	EQUIPMENT
EGB	EQUIPMENT GROUND BAR
(E)	EXISTING
EXT	EXTERIOR
FF	FINISHED FLOOR
GA	GAUGE
GALV	GALVANIZED
GC	GENERAL CONTRACTOR
GRND	GROUND
LG	LONG
MAX	MAXIMUM
MECH	MECHANICAL
MW	MICROWAVE DISH
MFR	MANUFACTURER
MGB	MASTER GROUND BAR
MIN	MINIMUM
MTL	METAL
(N)	NEW
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
OC	ON CENTER
OPP	OPPOSITE
(P)	PROPOSED
PCS	PERSONAL COMMUNICATION SYSTEM
PPC	POWER PROTECTION CABINET
SF	SQUARE FOOT
SHT	SHEET
SIM	SIMILAR
SS	STAINLESS STEEL
STL	STEEL
TOC	TOP OF CONCRETE
TOM	TOP OF MASONRY
TYP	TYPICAL
VIF	VERIFY IN FIELD
UON	UNLESS OTHERWISE NOTED
WWF	WELDED WIRE FABRIC
W/	WITH

PLANS PREPARED FOR:

verizon

180 WASHINGTON VALLEY ROAD
BEDMINSTER, NJ 07921

PLANS PREPARED BY:

INFINIGY
FROM ZERO TO INFINIGY
the solutions are endless
1490 W. 121st. Ave., Suite 101
Westminster, CO 80234
Office # (303) 219-1178
Fax # (303) 242-8636
JOB NUMBER: TBD

MLA PARTNER:

CROWN CASTLE

ENGINEERING LICENSE:

REVISIONS:

DESCRIPTION	DATE	BY	REV
ISSUED FOR PERMIT	01/07/19	ETC	0

VERIZON SITE NAME:

NEWINGTON CT

CROWN CASTLE SITE NAME:

36 PROSPECT STREET

CROWN CASTLE BU #:

876332

SITE ADDRESS:

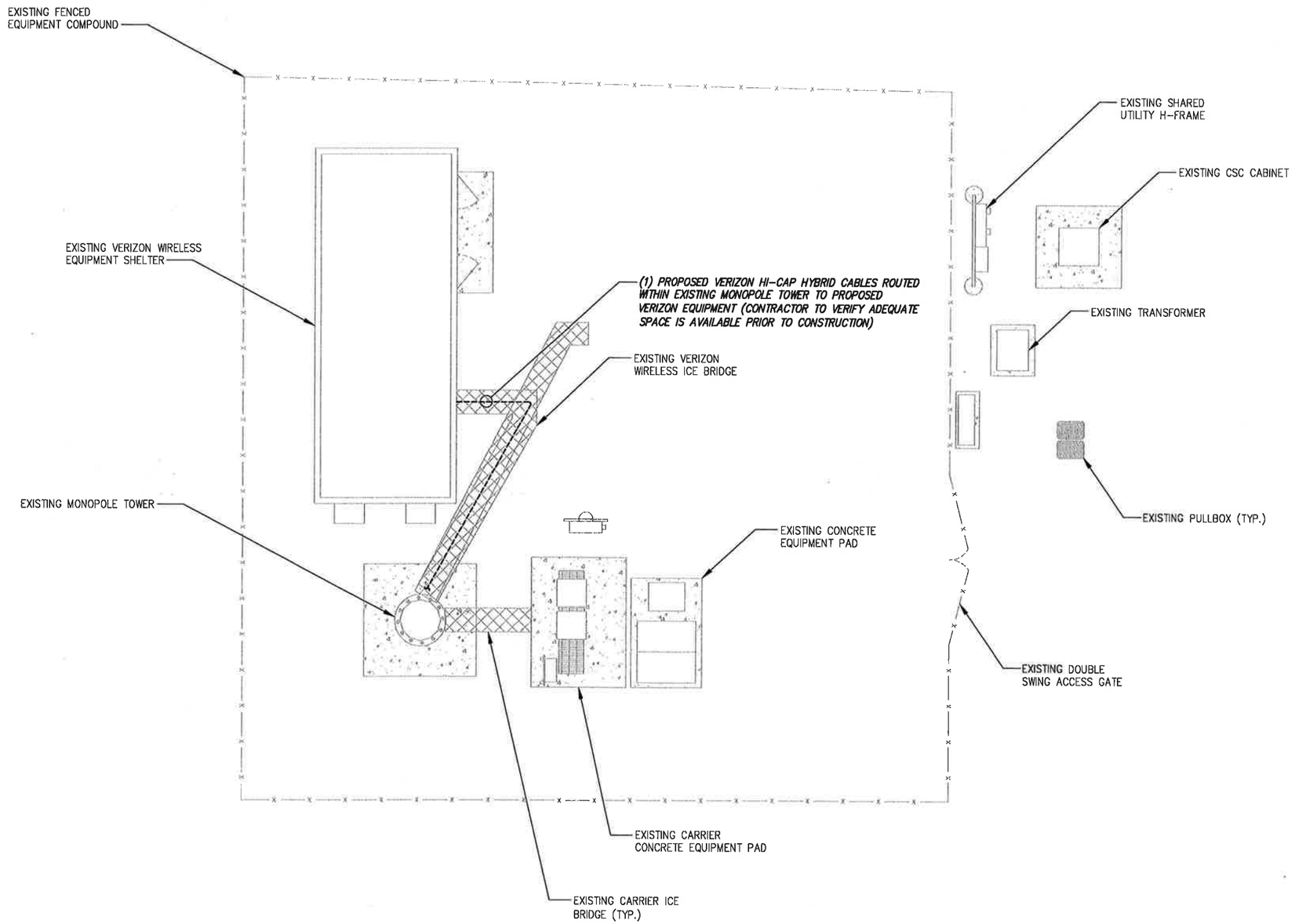
36 PROSPECT STREET
NEWINGTON, CT 06111

SHEET DESCRIPTION:

VERIZON SPECIFICATIONS

SHEET NUMBER:

SP-1



INFORMATION CONTAINED WITHIN DRAWINGS IS BASED ON PROVIDED INFORMATION AND IS NOT THE RESULT OF A FIELD SURVEY. CONTRACTOR TO VERIFY EXISTING FIELD CONDITIONS PRIOR TO ANY CONSTRUCTION

GRAPHIC SCALE

10' 5' 0 5' 10'

NORTH

SCALE: 22"x34" SHEET 1"= 5'
SCALE: 11"x17" SHEET 1"= 10'

OVERALL SITE PLAN | SCALE: AS NOTED | 1

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verizon

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JOB NUMBER: TBD

MLA PARTNER:

CROWN CASTLE

ENGINEERING LICENSE:

STATE OF CONNECTICUT
JOHN S. STEVENS
JAN 07 2019
No. 24003
LICENSED PROFESSIONAL ENGINEER

DRAWING NOTICE:

REVISIONS:

DESCRIPTION	DATE	BY	REV
ISSUED FOR PERMIT	01/07/19	ETC	0

VERIZON SITE NAME:

NEWINGTON CT

CROWN CASTLE SITE NAME:

36 PROSPECT STREET

CROWN CASTLE BU #:

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SITE ADDRESS:

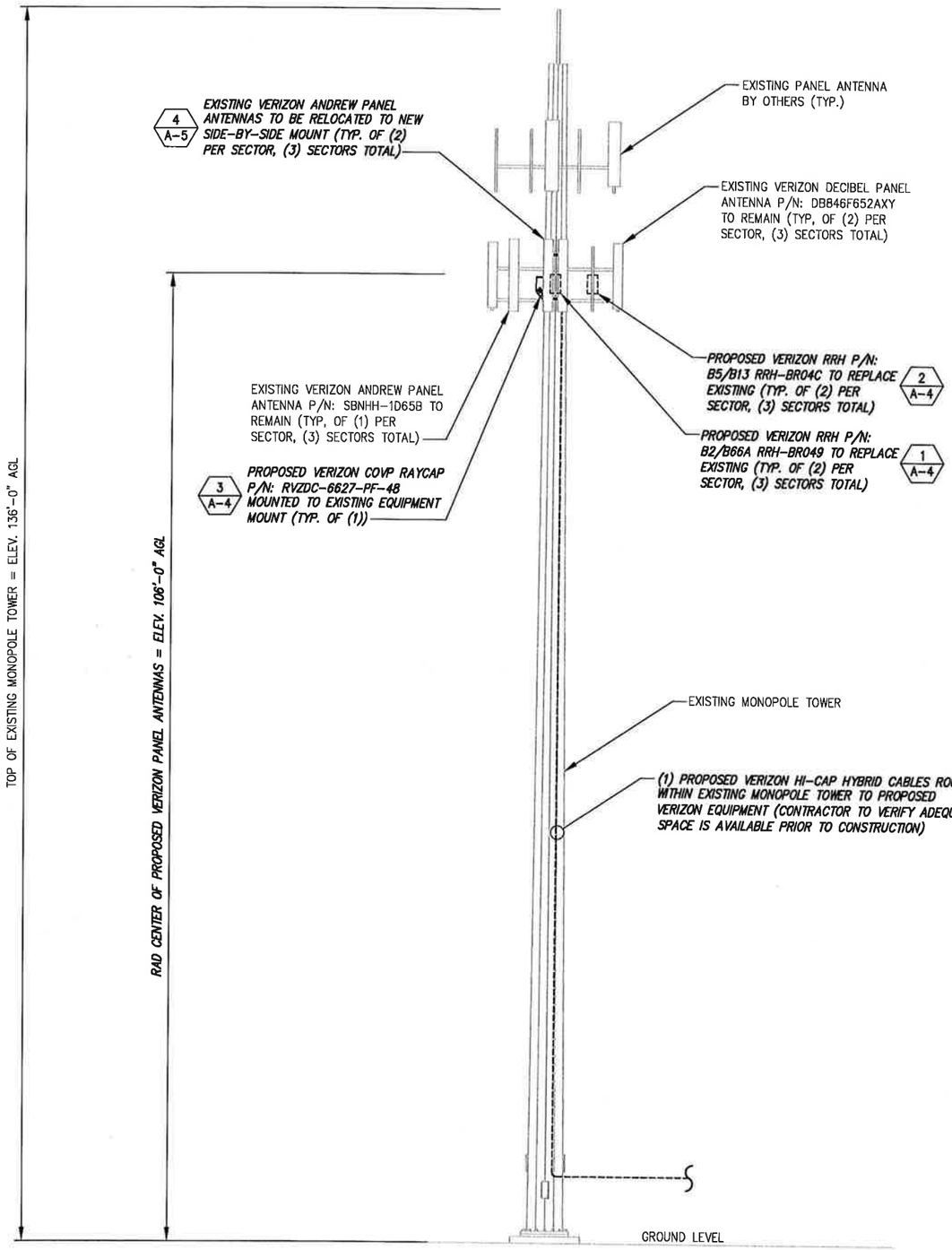
36 PROSPECT STREET
NEWINGTON, CT 06111

SHEET DESCRIPTION:

OVERALL SITE PLAN

SHEET NUMBER:

A-1



PROPOSED TOWER ELEVATION | NO SCALE | 1

INFINIGY ENGINEERING HAS NOT EVALUATED THE TOWER OR MOUNT FOR THIS SITE AND ASSUMES NO RESPONSIBILITY FOR ITS STRUCTURAL INTEGRITY. REFER TO STRUCTURAL ANALYSIS BY OTHERS PRIOR TO ANY CONSTRUCTION.

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verizon

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JOB NUMBER: TBD

MLA PARTNER:

CROWN CASTLE

ENGINEERING LICENSE:

STATE OF CONNECTICUT
JOHN S. STEVENS
JANUARY 8, 2019
No. 24705
LICENSED PROFESSIONAL ENGINEER

DRAWING NOTICE:

REVISIONS:

DESCRIPTION	DATE	BY	REV
ISSUED FOR PERMIT	01/07/18	ETC	0

VERIZON SITE NAME:
NEWINGTON CT

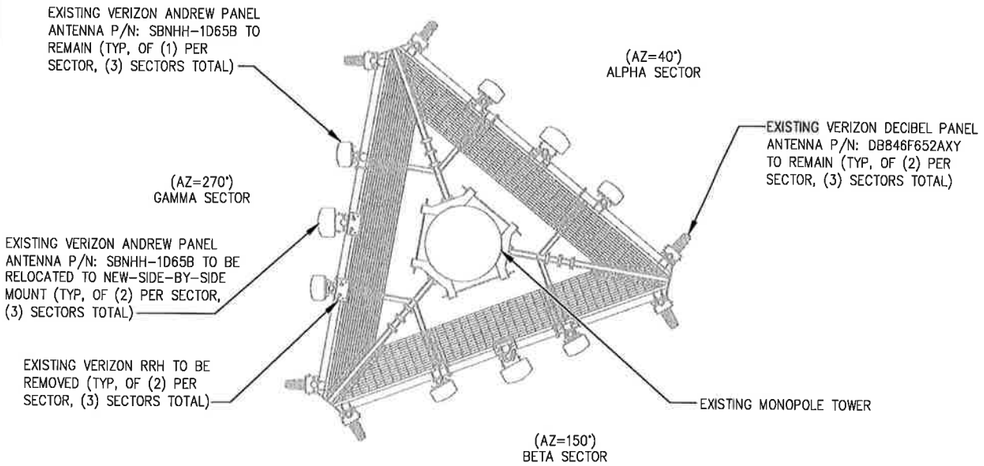
CROWN CASTLE SITE NAME:
36 PROSPECT STREET

CROWN CASTLE BU #:
876332

SITE ADDRESS:
36 PROSPECT STREET
NEWINGTON, CT 06111

SHEET DESCRIPTION:
TOWER ELEVATION

SHEET NUMBER:
A-2

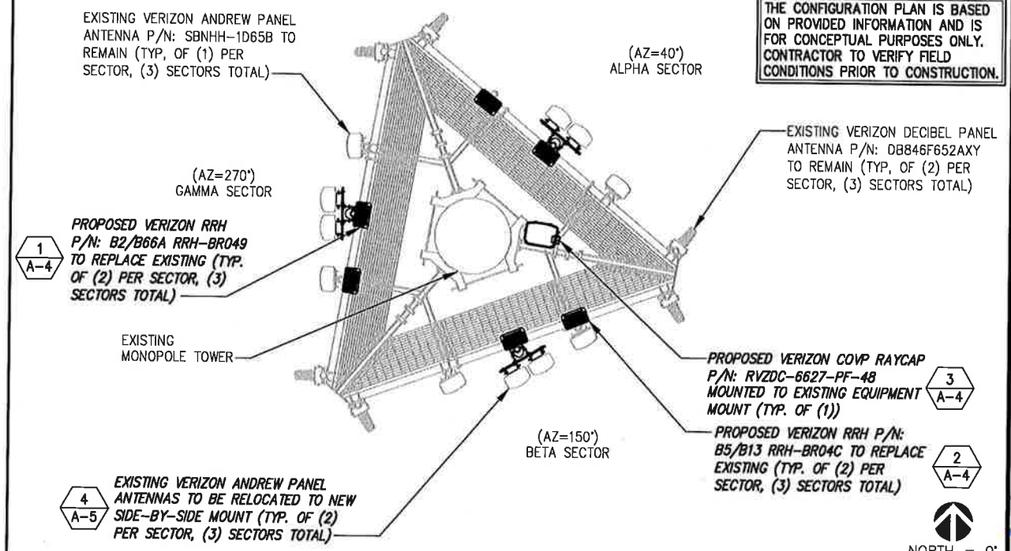


NOTE:
CONTRACTOR TO VERIFY EQUIPMENT & MOUNTING HARDWARE DOES NOT TRAP OR INTERFERE WITH SAFETY CLIMB

EXISTING ANTENNA LAYOUT | NO SCALE | 2

INFINIGY ENGINEERING HAS NOT EVALUATED THE TOWER OR MOUNT FOR THIS SITE AND ASSUMES NO RESPONSIBILITY FOR ITS STRUCTURAL INTEGRITY. REFER TO STRUCTURAL ANALYSIS BY OTHERS PRIOR TO ANY CONSTRUCTION.

THE CONFIGURATION PLAN IS BASED ON PROVIDED INFORMATION AND IS FOR CONCEPTUAL PURPOSES ONLY. CONTRACTOR TO VERIFY FIELD CONDITIONS PRIOR TO CONSTRUCTION.



PROPOSED ANTENNA LAYOUT | NO SCALE | 2

SITE LOADING CHART

SECTOR	POSITION	SECTOR COLOR	TECHNOLOGY	ANTENNA MODEL #	VENDOR	QTY. (REMOVED)	QTY. (NEW)	RRH (QTY/MODEL)	AZIMUTH	DOWNTILT MECHANICAL	DOWNTILT ELECTRICAL	RAD CENTER	FEED LINE TYPE/LENGTH (FEET + 20%)
ALPHA	A1	RED	CDMA	DB844G65ZAXY_H	DB PRODUCTS	--	--	--	40°	9°	0°	±106' AGL	EXISTING COAX
ALPHA	A2	RED	700	SBNHH-1D65B	ANDREW	--	--	*(1) B5/B13 RRHBR04C*	40°	0°	7°	±106' AGL	*(1) PROPOSED HI-CAP HYBRID CABLE LENGTH = ±90' (TYP.)*
ALPHA	A3	RED	2100	SBNHH-1D65B	ANDREW	--	--	*(1) B2/B66A RRHBR049*	40°	0°	4°	±106' AGL	*HYBRID SHARED WITH ABOVE (ALPHA)*
ALPHA	A4	RED	700	SBNHH-1D65B	ANDREW	--	--	--	40°	0°	7°	±106' AGL	EXISTING HYBRID
ALPHA	A5	RED	CDMA	DB844G65ZAXY_H	DB PRODUCTS	--	--	--	40°	9°	0°	±106' AGL	EXISTING COAX
BETA	B1	BLUE	CDMA	DB844G65ZAXY_H	DB PRODUCTS	--	--	--	150°	9°	0°	±106' AGL	EXISTING COAX
BETA	B2	BLUE	700	SBNHH-1D65B	ANDREW	--	--	*(1) B5/B13 RRHBR04C*	150°	0°	7°	±106' AGL	*HYBRID SHARED WITH ABOVE (ALPHA)*
BETA	B3	BLUE	2100	SBNHH-1D65B	ANDREW	--	--	*(1) B2/B66A RRHBR049*	150°	0°	5°	±106' AGL	*HYBRID SHARED WITH ABOVE (ALPHA)*
BETA	B4	BLUE	700	SBNHH-1D65B	ANDREW	--	--	--	150°	0°	7°	±106' AGL	EXISTING HYBRID
BETA	B5	BLUE	CDMA	DB844G65ZAXY_H	DB PRODUCTS	--	--	--	150°	9°	0°	±106' AGL	EXISTING COAX
GAMMA	G1	WHITE	CDMA	DB844G65ZAXY_H	DB PRODUCTS	--	--	--	270°	7°	0°	±106' AGL	EXISTING COAX
GAMMA	G2	WHITE	700	SBNHH-1D65B	ANDREW	--	--	*(1) B5/B13 RRHBR04C*	270°	0°	9°	±106' AGL	*HYBRID SHARED WITH ABOVE (BETA)*
GAMMA	G3	WHITE	2100	SBNHH-1D65B	ANDREW	--	--	*(1) B2/B66A RRHBR049*	270°	0°	5°	±106' AGL	*HYBRID SHARED WITH ABOVE (BETA)*
GAMMA	G4	WHITE	700	SBNHH-1D65B	ANDREW	--	--	--	270°	0°	9°	±106' AGL	EXISTING HYBRID
GAMMA	G5	WHITE	CDMA	DB844G65ZAXY_H	DB PRODUCTS	--	--	--	270°	7°	0°	±106' AGL	EXISTING COAX

NOTE:
CABLE LENGTHS ARE BASED ON PROVIDED INFORMATION. CONTRACTOR TO VERIFY REQUIRED CABLE LENGTHS PRIOR TO CONSTRUCTION.

SITE LOADING CHART | NO SCALE | 3

PLANS PREPARED FOR:
verizon
180 WASHINGTON VALLEY ROAD
BEDMINSTER, NJ 07921

PLANS PREPARED BY:

INFINIGY
FROM ZERO TO INFINIGY
the solutions are endless
1490 W. 121st. Ave., Suite 101
Westminster, CO 80234
Office # (303) 219-1178
Fax # (303) 242-8636
JOB NUMBER: TBD

MLA PARTNER:
CROWN CASTLE

ENGINEERING LICENSE:
STATE OF CONNECTICUT
JOHN S. PARSONS
JAN 02 2019
No. 24705
LICENSED PROFESSIONAL ENGINEER

DRAWING NOTICE:

REVISIONS:

DESCRIPTION	DATE	BY	REV
ISSUED FOR PERMIT	01/07/19	ETC	0

VERIZON SITE NAME:
NEWINGTON CT

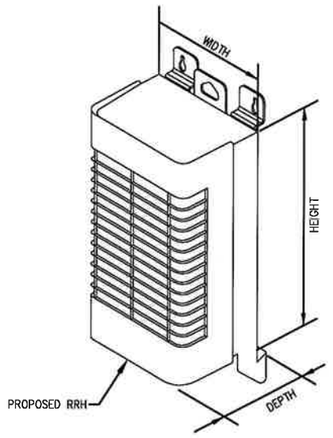
CROWN CASTLE SITE NAME:
36 PROSPECT STREET

CROWN CASTLE BU #:
876332

SITE ADDRESS:
36 PROSPECT STREET
NEWINGTON, CT 06111

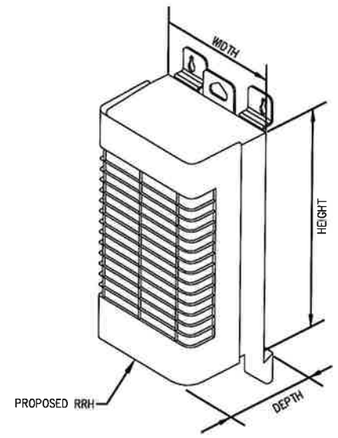
SHEET DESCRIPTION:
ANTENNA LAYOUT & LOADING CHART

SHEET NUMBER:
A-3



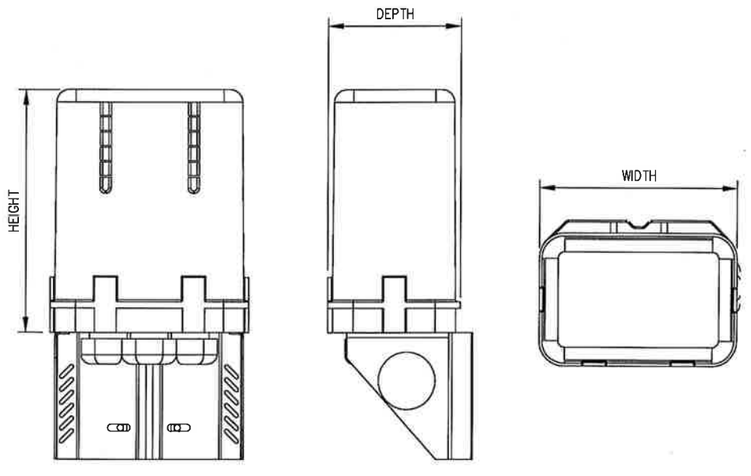
SIZE AND WEIGHT TABLE				
RRH	WIDTH	DEPTH	HEIGHT	WEIGHT WO BRACKET
B66A-RRH4X45	11.9"	7.2"	25.8"	52.9 LBS

REMOTE RADIO HEAD SPECIFICATIONS | NO SCALE | 1



SIZE AND WEIGHT TABLE				
RRH	WIDTH	DEPTH	HEIGHT	WEIGHT WO BRACKET
B13-RRH4X30-R4	12.0"	9.0"	21.6"	57.2 LBS

REMOTE RADIO HEAD SPECIFICATIONS | NO SCALE | 2



SIZE AND WEIGHT TABLE				
COVP	WIDTH	DEPTH	HEIGHT	WEIGHT WO BRACKET
RCMDC-6627-PF-48	16.5"	12.6"	29.5"	32.0 LBS

COVP DETAIL | NO SCALE | 3

DETAIL NOT USED | NO SCALE | 4

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MLA PARTNER:

CROWN CASTLE

ENGINEERING LICENSE:

STATE OF CONNECTICUT
JOHN S. STEVENS
No. 24702
LICENSED
PROFESSIONAL ENGINEER
JAN 07 2019

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VERIZON SITE NAME:
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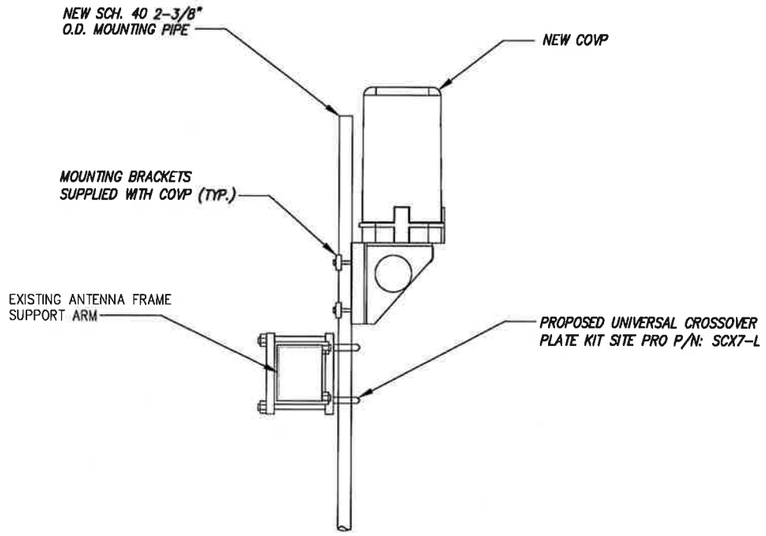
CROWN CASTLE SITE NAME:
36 PROSPECT STREET

CROWN CASTLE BU #:
876332

SITE ADDRESS:
36 PROSPECT STREET
NEWINGTON, CT 06111

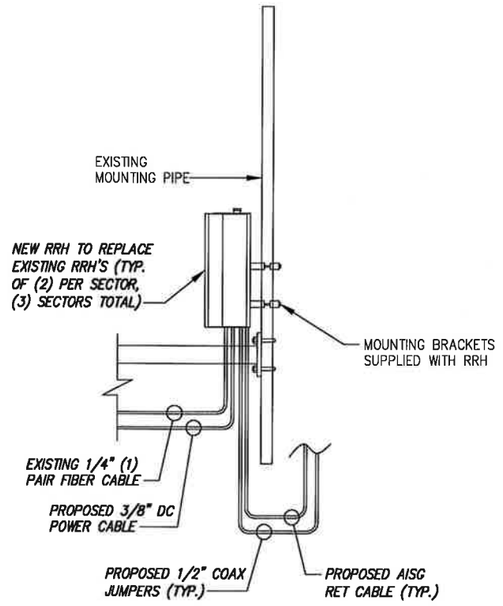
SHEET DESCRIPTION:
EQUIPMENT & DETAILS

SHEET NUMBER:
A-4

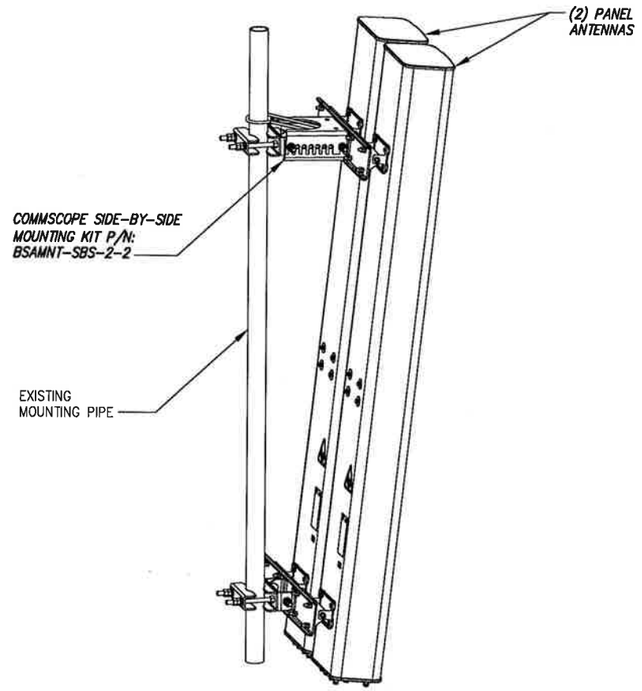


COVP MOUNTING DETAIL | NO SCALE | 1

DETAIL NOT USED | NO SCALE | 2



RRH MOUNTING DETAIL | NO SCALE | 3



SIDE-BY-SIDE MOUNTING BRACKET | NO SCALE | 4

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JOB NUMBER: TBD

MLA PARTNER:

CROWN CASTLE

ENGINEERING LICENSE:

STATE OF CONNECTICUT
JOHN S. STEVENS
No. 21009
LICENSED PROFESSIONAL ENGINEER
JAN 07 2019

DRAWING NOTICE:

REVISIONS:

DESCRIPTION	DATE	BY	REV
ISSUED FOR PERMIT	01/07/19	ETC	0

VERIZON SITE NAME:
NEWINGTON CT

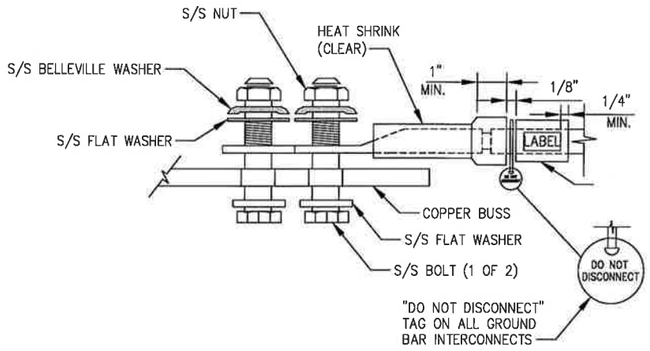
CROWN CASTLE SITE NAME:
36 PROSPECT STREET

CROWN CASTLE BU #:
876332

SITE ADDRESS:
36 PROSPECT STREET
NEWINGTON, CT 06111

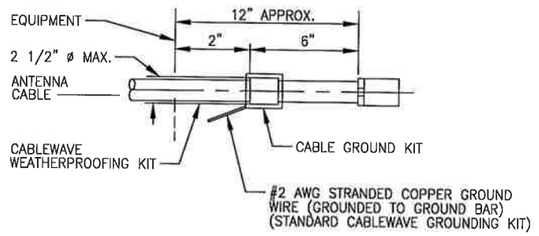
SHEET DESCRIPTION:
MOUNTING DETAILS

SHEET NUMBER:
A-5



NOTE:
ALL MECHANICAL EXTERNAL TERMINATION SURFACES SHALL BE TREATED WITH T&B KOPR-SHIELD CP8 ANTI-OXIDATION COMPOUND.

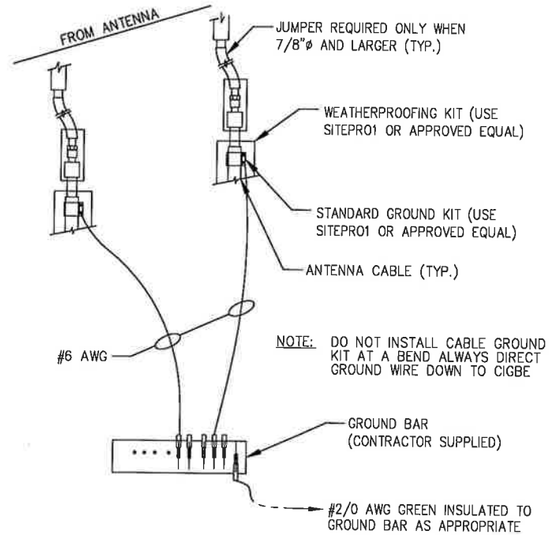
TYPICAL EQUIPMENT GROUND CONNECTION | NO SCALE | 1



TO ANTENNA CABLE

NOTE:
DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.

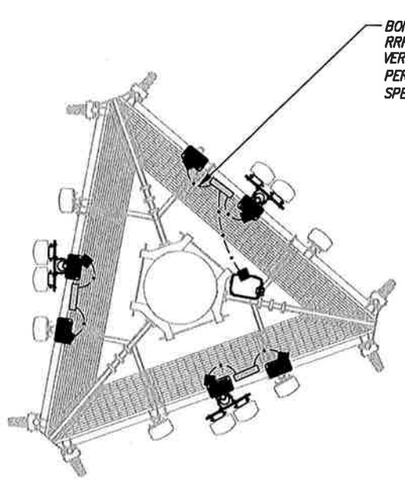
TYPICAL CABLE GROUND KIT CONNECTION | NO SCALE | 2



TYPICAL CONNECTION OF GROUND WIRES TO GROUNDING BARS @ ANTENNAS | NO SCALE | 3

GENERAL GROUNDING NOTES:

1. TO ENSURE PROPER BONDING, ALL CONNECTIONS SHALL BE AS FOLLOWS:
   – #2 BARE TINNED SOLID COPPER CONDUCTOR: EXOTHERMIC WELD TO RODS OR GROUND RING
   – LUGS AND BUS BAR (UNLESS NOTED OTHERWISE): SANDED CLEAN, COATED WITH OXIDE INHIBITOR AND BOLTED FOR MAXIMUM SURFACE CONTACT. ALL LUGS SHALL BE COPPER (NO ALUMINUM SHALL BE PERMITTED). PROVIDE LOCK WASHERS FOR ALL MECHANICAL CONNECTIONS FOR GROUND CONDUCTORS. USE STAINLESS STEEL HARDWARE THROUGHOUT.
2. ALL GROUNDING CABLE IN CONCRETE OR THROUGH WALLS SHALL BE IN 3/4" PVC CONDUIT. SEAL AROUND CONDUIT THROUGH WALLS. NO METALLIC CONDUIT SHALL BE USED FOR GROUNDING CONDUCTORS.
3. OWNER'S REPRESENTATIVE WILL INSPECT EXOTHERMIC WELD AND CONDUCT MEGGER TEST PRIOR TO BURIAL. MAXIMUM 5 OHMS RESISTANCE IS REQUIRED.
4. CONTRACTOR TO INSTALL GROUNDING IN CLOSE PROXIMITY TO EQUIPMENT PLATFORM OR PAD.
5. MAKE ALL GROUND CONNECTIONS AS SHORT AND DIRECT AS POSSIBLE. AVOID SHARP BENDS. ALL BENDS SHALL BE A MINIMUM 8" RADIUS AND NO GREATER THAN 90 DEGREES.
6. ALL CADWELDS TO BURIED GROUND RING SHALL BE THE PARALLEL TYPE, EXCEPT FOR THE GROUND RODS WHICH SHALL BE THE TEE TYPE.
7. BOND SERVICE CONDUITS TO GROUND RING AS THEY CROSS. DO NOT EXOTHERMICALLY WELD TO CONDUITS.
8. THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION MANAGER WHEN THE GROUNDING SYSTEM IS COMPLETE. THE CONSTRUCTION MANAGER SHALL INSPECT THE GROUNDING SYSTEM PRIOR TO BACKFILLING.
9. THE MINIMUM SPACING BETWEEN GROUND RODS SHALL BE 10'-0" (MAX. 15'-0").
10. BOND CIGBE TO EXTERNAL GROUND RING WITH 2 RUNS OF #2 BARE, TINNED, SOLID COPPER CONDUCTOR IN PVC. CONNECT BAR END WITH 2 HOLE LUG, AND "CADWELD" THE OTHER END TO THE EXTERNAL GROUND ROD.
11. THE PREFERRED LOCATION FOR COAX GROUNDING IS AT THE BASE OF THE TOWER PRIOR TO THE COAX BEND.
12. BONDING OF THE GROUNDED CONDUCTOR (NEUTRAL) AND THE GROUNDING CONDUCTOR SHALL BE AT THE SERVICE DISCONNECTING MEANS. BONDING JUMPER SHALL BE INSTALLED PER N.E.C. ARTICLE 250-30.



NORTH = 0°

TYPICAL ANTENNA GROUNDING PLAN | NO SCALE | 1

GROUNDING SYMBOLS:

⊗	GROUND ROD
▢	ACCESS WELL
⊠	GROUND ROD WITH ACCESS
■	COMPRESSION TYPE CONNECTION
●	EXOTHERMIC WELD TYPE CONNECTION
—G—	#2/0 BTS COPPER CONDUCTOR BURIED GROUND CABLE
⬠ #	INDICATES CODED NOTE

PLANS PREPARED FOR:
verizon
180 WASHINGTON VALLEY ROAD
BEDMINSTER, NJ 07921

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CROWN CASTLE

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STATE OF CONNECTICUT
JOHN S. STEVENS
No. 24705
LICENSED PROFESSIONAL ENGINEER
JAN 07 2019

DRAWING NOTICE:

REVISIONS:

DESCRIPTION	DATE	BY	REV
ISSUED FOR PERMIT	01/07/19	ETC	0

VERIZON SITE NAME:
NEWINGTON CT

CROWN CASTLE SITE NAME:
36 PROSPECT STREET

CROWN CASTLE BU #:
876332

SITE ADDRESS:
36 PROSPECT STREET
NEWINGTON, CT 06111

SHEET DESCRIPTION:
GROUNDING PLANS

SHEET NUMBER:
G-1

Site Name: Newington, CT
Cumulative Power Density

Operator	Operating Frequency	Number of Trans.	ERP Per Trans.	Total ERP	Distance to Target	Calculated Power Density	Maximum Permissable Exposure*	Fraction of MPE
	(MHz)		(watts)	(watts)	(feet)	(mW/cm^2)	(mW/cm^2)	(%)
VZW PCS	1970	1	5000	5000	106	0.1600	1.0	16.00%
VZW Cellular LTE	869	1	2400	2400	106	0.0768	0.579333333	13.26%
VZW Cellular	869	3	389	1167	106	0.0374	0.579333333	6.45%
VZW AWS	2145	1	5500	5500	106	0.1760	1.0	17.60%
VZW 700	746	1	2200	2200	106	0.0704	0.497333333	14.16%

Total Percentage of Maximum Permissible Exposure 67.47%

*Guidelines adopted by the FCC on August 1, 1996, 47 CFR Section 1.13101 based on NCRP Report 86, 1986 and generally on ANSI/IEEE C95.1

MHz = Megahertz
mW/cm^2 = milliwatts per square centimeter
ERP = Effective Radiated Power

Absolute worst case maximum values used, including the following assumptions:
1. closest accessible point is distance from antenna to base of pole;
2. continuous transmission from all available channels at full power for indefinite time period; and,
3. all RF energy is assumed to be directed solely to the base of the pole.

-1992

Date: **September 11, 2018**

Holly Haas
Crown Castle
3530 Toringdon Way Suite 300
Charlotte, NC 28277

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

Subject:	**Structural Analysis Report**	
Carrier Designation:	***Verizon Wireless* Co-Locate**	
	Carrier Site Number:	4187
	Carrier Site Name:	Newington CT
Crown Castle Designation:	**Crown Castle BU Number:**	876332
	Crown Castle Site Name:	36 Prospect Street
	Crown Castle JDE Job Number:	528166
	Crown Castle Work Order Number:	1626015
	Crown Castle Order Number:	457591 Rev. 0
Engineering Firm Designation:	**B+T Group Project Number:**	128548.001.01
Site Data:	**36 Prospect Street, NEWINGTON, Hartford County, CT** **Latitude *41° 41' 23.66"*, Longitude *-72° 42' 18.85"*** **136 Foot - Monopole Tower**	

Dear Holly Haas,

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

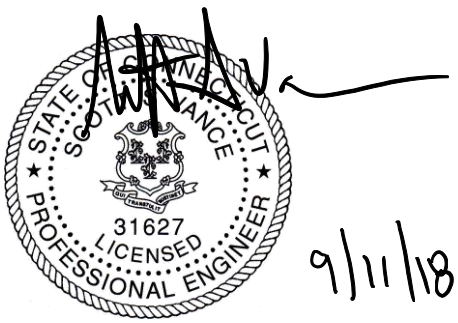
The purpose of the analysis is to determine acceptability of the tower stress level. Based on our analysis we have determined the tower stress level for the structure and foundation, under the following load case, to be:

LC7: Proposed Equipment Configuration **Sufficient Capacity**

The analysis has been performed in accordance with the TIA-222-H Standard. This analysis utilizes an ultimate 3-second gust wind speed of 125 mph as required by the 2016 Connecticut State Building Code. Exposure Category B and Risk Category II were used in this analysis.

Structural analysis prepared by: Brandon Sevier, P.E.

Respectfully submitted by: B+T Engineering, Inc.
COA: PEC.0001564; Expires: 2/10/2019



Scott S. Vance, P.E.

TABLE OF CONTENTS

1) INTRODUCTION

This tower is a 120 ft Monopole tower designed by SUMMIT in May of 1997. The tower was originally designed for a wind speed of 90 mph per TIA/EIA-222-F. The tower has a 16' extension that was mapped by TEP in March of 2018, bringing the total tower height to 136'.

2) ANALYSIS CRITERIA

Building Code:	2012 IBC
TIA-222 Revision:	TIA-222-H
Risk Category:	II
Wind Speed:	125 mph
Exposure Category:	B
Topographic Factor:	1
Ice Thickness:	1.7 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)
106.0	106.0	6	Andrew	SBNHH-1D65B	17	1-5/8 1-1/4
		6	Decibel	DB846F65ZAXY		
		1	Raycap	RVZDC-6627-PF-48		
		1	Rfs Celwave	DB-T1-6Z-8AB-0Z		
		3	Samsung Telecom	RFV01U-D1A		
		3	Samsung Telecom	RFV01U-D2A		
		1	--	Platform Mount [LP 713-1]		

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)
131.0	132.0	1	Sigfox	CAVITY FILTER	1	1/2
		1	Sigfox	CXL 900-3LW		
		1	Sigfox	LNA		
	131.0	1	--	Side Arm Mount [SO 306-1]		
120.0	121.0	3	Alcatel Lucent	TD-RRH8X20-25	13	1-5/8 1-1/4
		3	Rfs Celwave	APXVSPP18-C-A20		
		3	Rfs Celwave	APXVTM14-C-120		
	120.0	1	--	Platform Mount [LP 1201-1]		
116.0	118.0	3	Alcatel Lucent	PCS 1900MHZ 4X45W 65MHZ	--	--
	116.0	1	--	Side Arm Mount [SO 102-3]		
	114.0	3	Alcatel Lucent	800MHz 2X50W RRH W/Filter		
65.0	66.0	1	Lucent	KS24019-L112A	1	1/2
	65.0	1	--	Side Arm Mount [SO 701-1]		

3) ANALYSIS PROCEDURE

Table 3 - Documents Provided

Document	Remarks	Reference	Source
Online Order Information	Verizon Wireless Co-Locate, Rev# 0	457591	CCI Sites
Tower Manufacturer Drawing	Summit, Job# 2379	1440581	CCI Sites
Tower Extension Mapping	TEP, Project No: 132546.163136	1440581	CCI Sites
Foundation Drawings	Summit, Job# 2379	1615432	CCI Sites
Geotech Report	Geotechnical Engineering, Date: 09/15/1996	1529724	CCI Sites
Antenna Configuration	Crown CAD Package	Date: 08/30/2018	CCI Sites

3.1) Analysis Method

tnxTower (version 8.0.4.0), a commercially available analysis software package, was used to create a three-dimensional model of the tower and calculate member stresses for various loading cases. Selected output from the analysis is included in Appendix A.

3.2) Assumptions

1) Tower and structures were built in accordance with the manufacturer's specifications.
2) The tower and structures have been maintained in accordance with the manufacturer's specification.
3) The configuration of antennas, transmission cables, mounts and other appurtenances are as specified in Tables 1 and 2 and the referenced drawings.
4) Mount areas and weights are assumed based on photographs provided.

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

4) ANALYSIS RESULTS

Table 5 - Section Capacity (Summary)

Section No.	Elevation (ft)	Component Type	Size	Critical Element	P (K)	SF*P_allow (K)	% Capacity	Pass / Fail
L1	136 - 130	Pole	TP4.5x4.5x0.216	1	-0.118	96.151	4.1	Pass
L2	130 - 129.5	Pole	TP10.75x4.5x0.216	2	-0.118	96.151	4.1	Pass
L3	129.5 - 120.5	Pole	TP10.75x10.75x0.322	3	-0.509	348.904	3.8	Pass
L4	120.5 - 120	Pole	TP22x10.75x0.322	4	-0.525	348.904	3.8	Pass
L5	120 - 87.5	Pole	TP29.476x22x0.188	5	-9.636	947.092	43.5	Pass
L6	87.5 - 58.75	Pole	TP35.715x28.238x0.25	6	-13.379	1623.783	52.6	Pass
L7	58.75 - 32.25	Pole	TP41.311x34.18x0.375	7	-19.074	3396.277	36.5	Pass
L8	32.25 - 0	Pole	TP47.98x39.353x0.438	8	-30.250	4691.232	37.5	Pass
							Summary	
						Pole (L6)	52.6	Pass
						Rating =	52.6	Pass

Table 6 - Tower Component Stresses vs. Capacity – LC7

Notes	Component	Elevation (ft)	% Capacity	Pass / Fail
1	Flange Connection	130	7.5	Pass
1	Flange Connection	120	30.7	Pass
1	Anchor Rods	Base	35.6	Pass
1	Base Plate	Base	34.4	Pass
1,3	Base Foundation (Structure)	Base	68.3	Pass

Structure Rating (max from all components) =	68.3%

Notes:
1) See additional documentation in "Appendix C – Additional Calculations" for calculations supporting the % capacity consumed.
2) Rating per TIA-222-H Section 15.5
3) Foundation capacity determined by comparing analysis reactions to original design reactions.

4.1) Recommendations

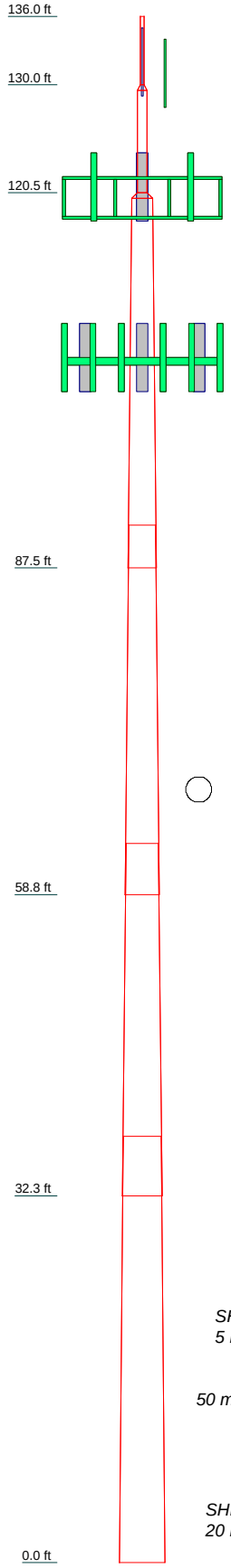
The tower and its base and anchor foundations have sufficient capacity to carry the proposed load configuration. No modifications are required at this time.

APPENDIX A

TNXTOWER OUTPUT

Section	1	2	3	4	5	6	7	8
Length (ft)	6.000	0.500	9.000	0.500	32.500	32.500	31.000	37.500
Number of Sides	1	1	1	1	12	12	12	12
Thickness (in)	0.216	0.216	0.322	0.322	0.188	0.250	0.375	0.438
Socket Length (ft)					3.750	4.500	5.250	
Top Dia (in)	4.500	4.500	10.750	10.750	22.000	28.238	34.180	39.353
Bot Dia (in)	4.500	10.750	10.750	22.000	29.476	35.715	41.311	47.980
Grade	A53-B-35					A572-60		A572-65
Weight (K)	0.1	0.0	0.3	0.0	1.7	2.8	4.8	7.8

17.5



ALL REACTIONS ARE FACTORED

AXIAL 54 K

SHEAR 5 K

MOMENT 427 kip-ft

TORQUE 0 kip-ft
50 mph WIND - 1.700 in ICE

AXIAL 30 K

SHEAR 20 K

MOMENT 1667 kip-ft

TORQUE 0 kip-ft
REACTIONS - 125 mph WIND

DESIGNED APPURTENANCE LOADING

TYPE	ELEVATION	TYPE	ELEVATION
CXL 900-3LW (R)	131	6' x 2" Mount Pipe (E)	116
CAVITY FILTER (R)	131	Side Arm Mount [SO 102-3] (E)	116
LNA (R)	131	(2) DB846F65ZAXY w/ Mount Pipe (Existing)	106
Side Arm Mount [SO 306-1] (R)	131	(2) DB846F65ZAXY w/ Mount Pipe (Existing)	106
APXVTM14-C-120 w/ Mount Pipe (E)	120	(2) DB846F65ZAXY w/ Mount Pipe (Existing)	106
APXVTM14-C-120 w/ Mount Pipe (E)	120	(2) SBNHH-1D65B w/ Mount Pipe (Existing)	106
APXVTM14-C-120 w/ Mount Pipe (E)	120	(2) SBNHH-1D65B w/ Mount Pipe (Existing)	106
APXVSPP18-C-A20 w/ Mount Pipe (E)	120	(2) SBNHH-1D65B w/ Mount Pipe (Existing)	106
APXVSPP18-C-A20 w/ Mount Pipe (E)	120	DB-T1-6Z-8AB-0Z (Existing)	106
APXVSPP18-C-A20 w/ Mount Pipe (E)	120	RVZDC-6627-PF-48 (P)	106
TD-RRH8X20-25 (E)	120	(2) RFV01U-D2A (P)	106
TD-RRH8X20-25 (E)	120	RFV01U-D2A (P)	106
TD-RRH8X20-25 (E)	120	RFV01U-D1A (P)	106
(3) 6' x 2" Mount Pipe (E)	120	(2) RFV01U-D1A (P)	106
(3) 6' x 2" Mount Pipe (E)	120	Platform Mount [LP 713-1] (Existing)	106
(3) 6' x 2" Mount Pipe (E)	120	KS24019-L112A (E)	65
Platform Mount [LP 1201-1] (E)	120	2' x 2" Pipe Mount (E)	65
PCS 1900MHZ 4X45W 65MHZ (E)	116	Side Arm Mount [SO 701-1] (E)	65
PCS 1900MHZ 4X45W 65MHZ (E)	116		
PCS 1900MHZ 4X45W 65MHZ (E)	116		
800MHz 2X50W RRH W/FILTER (E)	116		
800MHz 2X50W RRH W/FILTER (E)	116		
800MHz 2X50W RRH W/FILTER (E)	116		
6' x 2" Mount Pipe (E)	116		
6' x 2" Mount Pipe (E)	116		

MATERIAL STRENGTH

GRADE	Fy	Fu	GRADE	Fy	Fu
A53-B-35	35 ksi	63 ksi	A572-65	65 ksi	80 ksi
A572-60	60 ksi	75 ksi			

TOWER DESIGN NOTES

1. Tower is located in Hartford County, Connecticut.
2. Tower designed for Exposure B to the TIA-222-H Standard.
3. Tower designed for a 125 mph basic wind in accordance with the TIA-222-H Standard.
4. Tower is also designed for a 50 mph basic wind with 1.70 in ice. Ice is considered to increase in thickness with height.
5. Deflections are based upon a 60 mph wind.
6. Tower Risk Category II.
7. Topographic Category 1 with Crest Height of 0.000 ft
8. TIA-222-H Annesx S
9. TOWER RATING: 52.6%

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

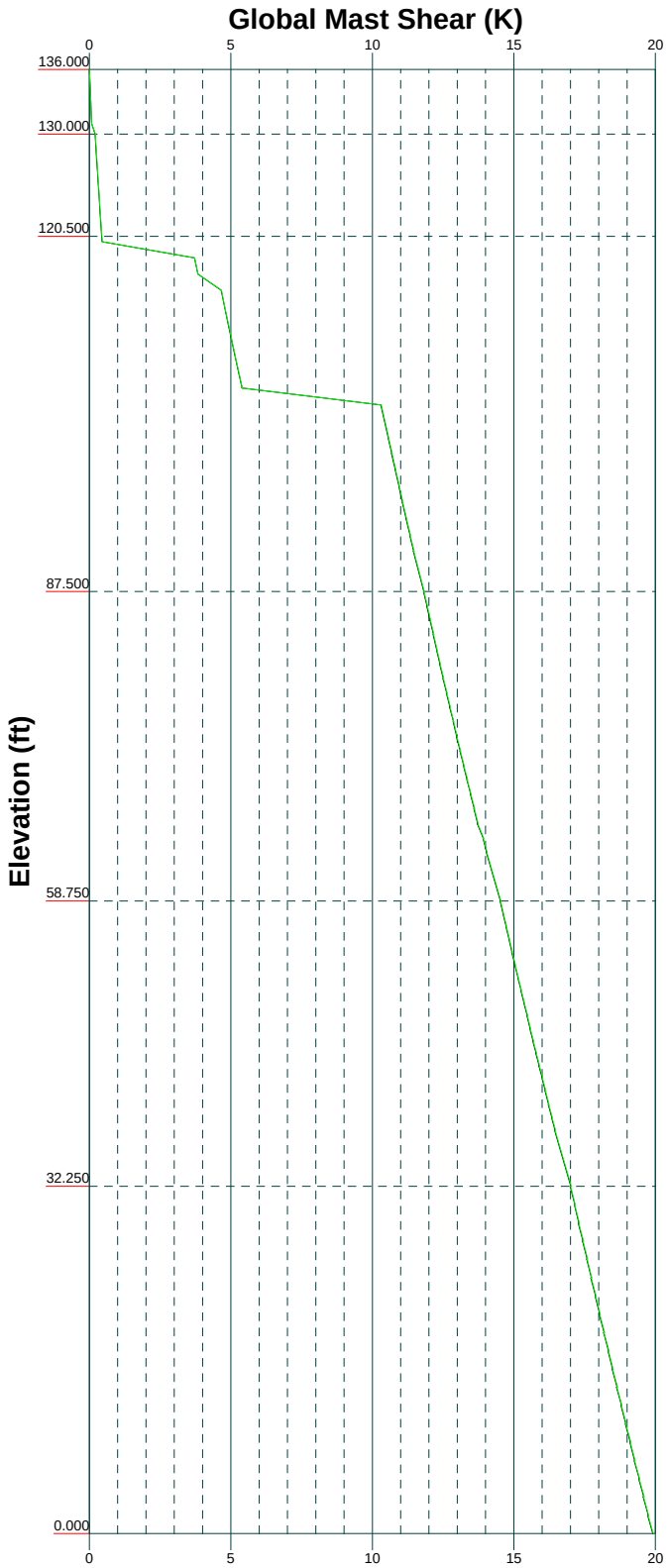
Job: 128548.001.01 - 36 PROSPECT STREET, CT (BU# 87633			
Project:			
Client: CCI Sites	Drawn by: Rakshak	App'd:	
Code: TIA-222-H	Date: 09/11/18	Scale: NTS	
Path:		Dwg No. E-1	

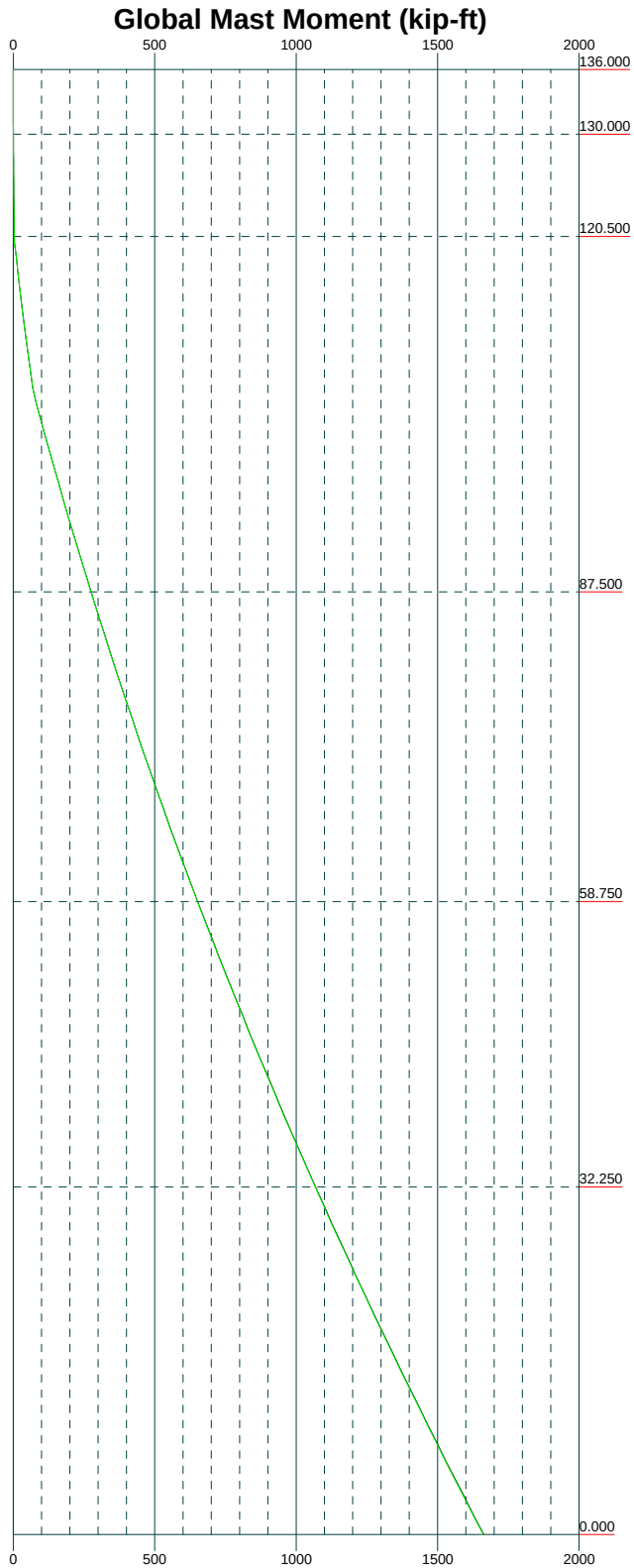
TIA-222-H - 125 mph/50 mph 1.700 in Ice Exposure B

Vx Vz

Maximum Values

Mx Mz





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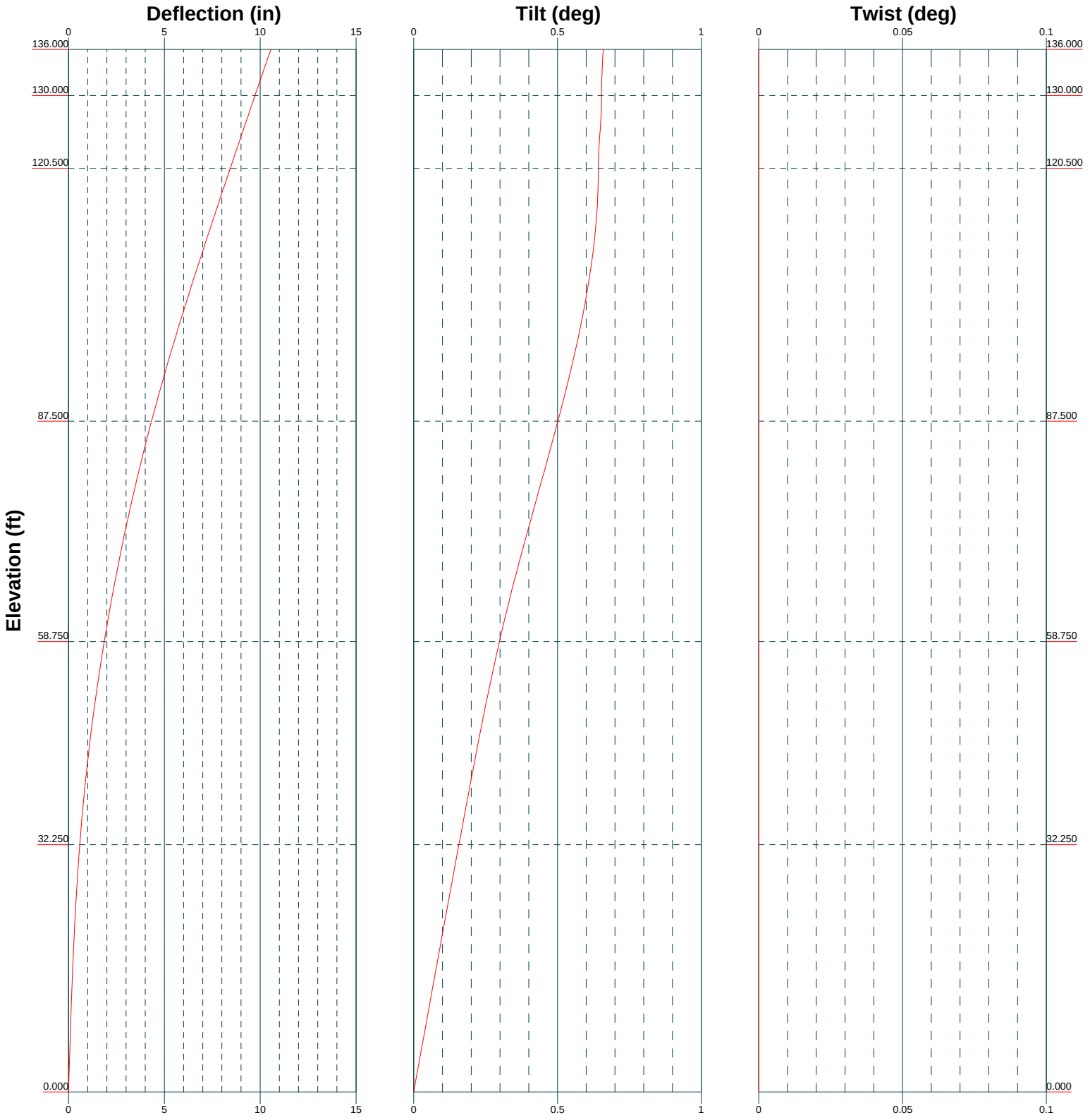
Job: ***128548.001.01 - 36 PROSPECT STREET, CT (BU# 87633***		
Project:		
Client: CCI Sites	Drawn by: Rakshak	App'd:
Code: TIA-222-H	Date: 09/11/18	Scale: NTS
Path:		Dwg No. E-4

TIA-222-H - Service - 60 mph

Maximum Values



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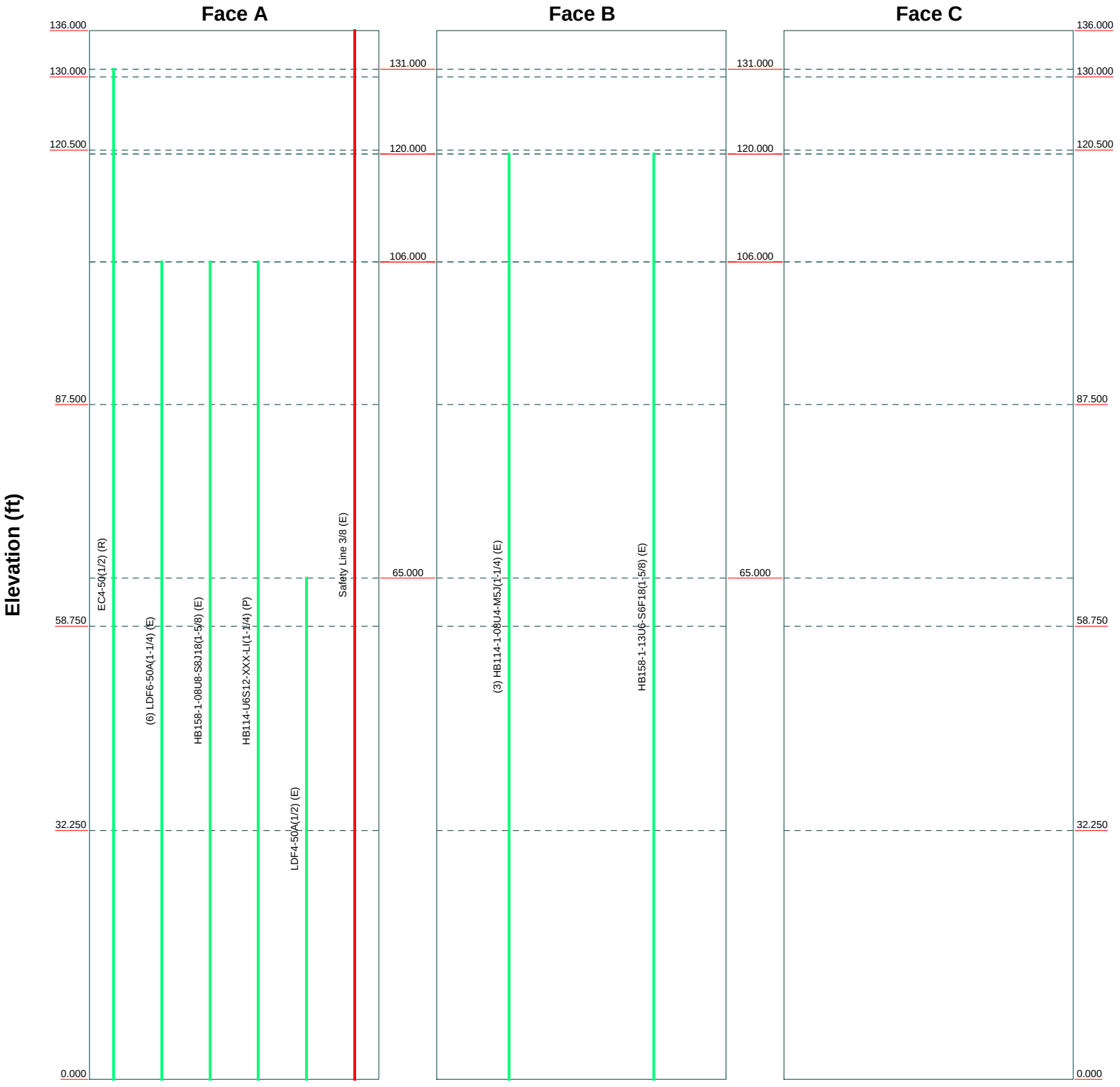
Job: 128548.001.01 - 36 PROSPECT STREET, CT (BU# 87633		
Project:		
Client: CCI Sites	Drawn by: Rakshak	App'd:
Code: TIA-222-H	Date: 09/11/18	Scale: NTS
Path:		Dwg No. E-5

Feed Line Distribution Chart
0' - 136'

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



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Job: 128548.001.01 - 36 PROSPECT STREET, CT (BU# 87633		
Project:		
Client: CCI Sites	Drawn by: Rakshak	App'd:
Code: TIA-222-H	Date: 09/11/18	Scale: NTS
Path:		Dwg No. E-7

Tower Input Data

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

Tower is located in Hartford County, Connecticut.
Tower base elevation above sea level: 260.000 ft.
Basic wind speed of 125 mph.
Risk Category II.
Exposure Category B.
Simplified Topographic Factor Procedure for wind speed-up calculations is used.
Topographic Category: 1.
Crest Height 0.000 ft.
Nominal ice thickness of 1.700 in.
Ice thickness is considered to increase with height.
Ice density of 56.000 pcf.
A wind speed of 50 mph is used in combination with ice.
Temperature drop of 50.000 °F.
Deflections calculated using a wind speed of 60 mph.
TIA-222-H Annesx S.
A non-linear (P-delta) analysis was used.
Pressures are calculated at each section.
Stress ratio used in pole design is 1.05.
Local bending stresses due to climbing loads, feed line supports, and appurtenance mounts are not considered.

Options

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

Tapered Pole Section Geometry

Section	Elevation ft	Section Length ft	Splice Length ft	Number of Sides	Top Diameter in	Bottom Diameter in	Wall Thickness in	Bend Radius in	Pole Grade
L1	136.000-130.000	6.000	0.000	Round	4.500	4.500	0.216		A53-B-35 (35 ksi)
L2	130.000-129.500	0.500	0.000	Round	4.500	10.750	0.216		A53-B-35 (35 ksi)
L3	129.500-120.500	9.000	0.000	Round	10.750	10.750	0.322		A53-B-35 (35 ksi)
L4	120.500-120.000	0.500	0.000	Round	10.750	22.000	0.322		A53-B-35 (35 ksi)
L5	120.000-87.500	32.500	3.750	12	22.000	29.476	0.188	0.750	A572-60 (60 ksi)
L6	87.500-58.750	32.500	4.500	12	28.238	35.715	0.250	1.000	A572-60 (60 ksi)
L7	58.750-32.250	31.000	5.250	12	34.180	41.311	0.375	1.500	A572-65 (65 ksi)
L8	32.250-0.000	37.500		12	39.353	47.980	0.438	1.750	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	4.500	2.907	6.686	1.517	2.250	2.972	13.372	1.453	0.000	0
	4.500	2.907	6.686	1.517	2.250	2.972	13.372	1.453	0.000	0
L2	4.500	2.907	6.686	1.517	2.250	2.972	13.372	1.453	0.000	0
	10.750	7.148	99.192	3.725	5.375	18.454	198.384	3.572	0.000	0
L3	10.750	10.549	143.527	3.689	5.375	26.703	287.053	5.271	0.000	0
	10.750	10.549	143.527	3.689	5.375	26.703	287.053	5.271	0.000	0
L4	10.750	10.549	143.527	3.689	5.375	26.703	287.053	5.271	0.000	0
	22.000	21.929	1288.455	7.665	11.000	117.132	2576.910	10.958	0.000	0
L5	22.710	13.169	799.760	7.809	11.396	70.179	1620.530	6.482	5.394	28.765
	30.450	17.683	1936.130	10.485	15.269	126.805	3923.124	8.703	7.397	39.451
L6	30.039	22.531	2252.762	10.020	14.627	154.009	4564.707	11.089	6.898	27.592
	36.887	28.549	4583.336	12.696	18.500	247.743	9287.082	14.051	8.902	35.606
L7	36.325	40.819	5953.979	12.102	17.705	336.286	12064.375	20.090	8.155	21.747
	42.636	49.430	10572.783	14.655	21.399	494.076	21423.324	24.328	10.066	26.844
L8	41.838	54.823	10597.356	13.932	20.385	519.860	21473.117	26.982	9.374	21.427
	49.518	66.975	19322.616	17.020	24.854	777.456	39152.859	32.963	11.686	26.711

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 136.000-130.000				1	1	1			
L2 130.000-129.500				1	1	1			
L3 129.500-120.500				1	1	1			
L4 120.500-120.000				1	1	1			

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
L5 120.000-87.500				1	1	1			
L6 87.500-58.750				1	1	1			
L7 58.750-32.250				1	1	1			
L8 32.250-0.000				1	1	1			

Feed Line/Linear Appurtenances - Entered As Round Or Flat

Description	Sector	Exclude From Torque Calculation	Component Type	Placement ft	Total Number	Number Per Row	Start/End Position	Width or Diameter in	Perimeter in	Weight klf
*** Safety Line 3/8 (E) ***	A	No	Surface Ar (CaAa)	136.000 - 0.000	1	1	0.000 0.000	0.375		0.000

Feed Line/Linear Appurtenances - Entered As Area

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Total Number		C_AA_A ft^2/ft	Weight klf
***									
EC4-50(1/2) (R)	A	No	No	Inside Pole	131.000 - 0.000	1	No Ice 1/2" Ice 1" Ice 2" Ice	0.000 0.000 0.000 0.000	0.000 0.000 0.000 0.000
***									
HB114-1-08U4-M5J (1-1/4) (E)	B	No	No	Inside Pole	120.000 - 0.000	3	No Ice 1/2" Ice 1" Ice 2" Ice	0.000 0.000 0.000 0.000	0.001 0.001 0.001 0.001
HB158-1-13U6-S6F 18(1-5/8) (E)	B	No	No	Inside Pole	120.000 - 0.000	1	No Ice 1/2" Ice 1" Ice 2" Ice	0.000 0.000 0.000 0.000	0.002 0.002 0.002 0.002
***									
LDF6-50A(1-1/4) (E)	A	No	No	Inside Pole	106.000 - 0.000	6	No Ice 1/2" Ice 1" Ice 2" Ice	0.000 0.000 0.000 0.000	0.001 0.001 0.001 0.001
HB158-1-08U8-S8J 18(1-5/8) (E)	A	No	No	Inside Pole	106.000 - 0.000	1	No Ice 1/2" Ice 1" Ice 2" Ice	0.000 0.000 0.000 0.000	0.001 0.001 0.001 0.001
HB114-U6S12-XXX -LI(1-1/4)	A	No	No	Inside Pole	106.000 - 0.000	1	No Ice 1/2" Ice	0.000 0.000	0.002 0.002

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Total Number		C_AA_A ft^2/ft	Weight klf
(P)							1" Ice	0.000	0.002
							2" Ice	0.000	0.002
***									
LDF4-50A(1/2)	A	No	No	Inside Pole	65.000 - 0.000	1	No Ice	0.000	0.000
(E)							1/2" Ice	0.000	0.000
							1" Ice	0.000	0.000
							2" Ice	0.000	0.000
***									

Feed Line/Linear Appurtenances Section Areas

Tower Section	Tower Elevation ft	Face	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight K
L1	136.000-130.000	A	0.000	0.000	0.225	0.000	0.001
		B	0.000	0.000	0.000	0.000	0.000
		C	0.000	0.000	0.000	0.000	0.000
L2	130.000-129.500	A	0.000	0.000	0.019	0.000	0.000
		B	0.000	0.000	0.000	0.000	0.000
		C	0.000	0.000	0.000	0.000	0.000
L3	129.500-120.500	A	0.000	0.000	0.338	0.000	0.003
		B	0.000	0.000	0.000	0.000	0.000
		C	0.000	0.000	0.000	0.000	0.000
L4	120.500-120.000	A	0.000	0.000	0.019	0.000	0.000
		B	0.000	0.000	0.000	0.000	0.000
		C	0.000	0.000	0.000	0.000	0.000
L5	120.000-87.500	A	0.000	0.000	1.219	0.000	0.134
		B	0.000	0.000	0.000	0.000	0.167
		C	0.000	0.000	0.000	0.000	0.000
L6	87.500-58.750	A	0.000	0.000	1.078	0.000	0.202
		B	0.000	0.000	0.000	0.000	0.148
		C	0.000	0.000	0.000	0.000	0.000
L7	58.750-32.250	A	0.000	0.000	0.994	0.000	0.189
		B	0.000	0.000	0.000	0.000	0.136
		C	0.000	0.000	0.000	0.000	0.000
L8	32.250-0.000	A	0.000	0.000	1.209	0.000	0.230
		B	0.000	0.000	0.000	0.000	0.166
		C	0.000	0.000	0.000	0.000	0.000

Feed Line/Linear Appurtenances Section Areas - With Ice

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight K
L1	136.000-130.000	A	1.954	0.000	0.000	2.570	0.000	0.035
		B		0.000	0.000	0.000	0.000	0.000
		C		0.000	0.000	0.000	0.000	0.000
L2	130.000-129.500	A	1.949	0.000	0.000	0.214	0.000	0.003
		B		0.000	0.000	0.000	0.000	0.000
		C		0.000	0.000	0.000	0.000	0.000
L3	129.500-120.500	A	1.942	0.000	0.000	3.833	0.000	0.053

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight K
		B		0.000	0.000	0.000	0.000	0.000
		C		0.000	0.000	0.000	0.000	0.000
L4	120.500-120.000	A	1.935	0.000	0.000	0.212	0.000	0.003
		B		0.000	0.000	0.000	0.000	0.000
		C		0.000	0.000	0.000	0.000	0.000
L5	120.000-87.500	A	1.905	0.000	0.000	13.603	0.000	0.307
		B		0.000	0.000	0.000	0.000	0.167
		C		0.000	0.000	0.000	0.000	0.000
L6	87.500-58.750	A	1.840	0.000	0.000	12.033	0.000	0.354
		B		0.000	0.000	0.000	0.000	0.148
		C		0.000	0.000	0.000	0.000	0.000
L7	58.750-32.250	A	1.754	0.000	0.000	10.743	0.000	0.321
		B		0.000	0.000	0.000	0.000	0.136
		C		0.000	0.000	0.000	0.000	0.000
L8	32.250-0.000	A	1.578	0.000	0.000	12.524	0.000	0.377
		B		0.000	0.000	0.000	0.000	0.166
		C		0.000	0.000	0.000	0.000	0.000

Feed Line Center of Pressure

Section	Elevation ft	CP_X in	CP_Z in	CP_X Ice in	CP_Z Ice in
L1	136.000-130.000	-0.198	-0.114	-0.712	-0.411
L2	130.000-129.500	-0.310	-0.179	-0.937	-0.541
L3	129.500-120.500	-0.314	-0.181	-1.086	-0.627
L4	120.500-120.000	-0.318	-0.183	-1.257	-0.726
L5	120.000-87.500	-0.198	-0.114	-1.369	-0.790
L6	87.500-58.750	-0.198	-0.114	-1.433	-0.827
L7	58.750-32.250	-0.198	-0.115	-1.437	-0.829
L8	32.250-0.000	-0.198	-0.115	-1.415	-0.817

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	17	Safety Line 3/8	130.00 - 136.00	1.0000	1.0000
L2	17	Safety Line 3/8	129.50 - 130.00	1.0000	1.0000
L3	17	Safety Line 3/8	120.50 - 129.50	1.0000	1.0000
L4	17	Safety Line 3/8	120.00 - 120.50	1.0000	1.0000
L5	17	Safety Line 3/8	87.50 - 120.00	1.0000	1.0000
L6	17	Safety Line 3/8	58.75 - 87.50	1.0000	1.0000
L7	17	Safety Line 3/8	32.25 - 58.75	1.0000	1.0000

Discrete Tower Loads

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
CXL 900-3LW	A	From Leg	2.000	0.000	131.000	No Ice	0.145	0.145	0.001
(R)			0.000			1/2" Ice	0.334	0.334	0.003
			1.000			1" Ice	0.483	0.483	0.006
						2" Ice	0.808	0.808	0.018
CAVITY FILTER	A	From Leg	2.000	0.000	131.000	No Ice	0.195	0.084	0.002
(R)			0.000			1/2" Ice	0.253	0.124	0.004
			1.000			1" Ice	0.319	0.171	0.007
						2" Ice	0.473	0.287	0.016
LNA	A	From Leg	2.000	0.000	131.000	No Ice	0.142	0.054	0.002
(R)			0.000			1/2" Ice	0.192	0.090	0.003
			1.000			1" Ice	0.250	0.133	0.005
						2" Ice	0.386	0.244	0.012
Side Arm Mount [SO 306-1]	A	None		0.000	131.000	No Ice	0.980	2.180	0.042
(R)						1/2" Ice	1.700	3.800	0.062
						1" Ice	2.420	5.420	0.083
						2" Ice	3.860	8.660	0.123
***									
APXVTM14-C-120 w/ Mount Pipe	A	From Leg	4.000	0.000	120.000	No Ice	6.580	4.959	0.077
(E)			0.000			1/2" Ice	7.031	5.754	0.131
			1.000			1" Ice	7.473	6.472	0.193
						2" Ice	8.385	7.941	0.338
APXVTM14-C-120 w/ Mount Pipe	B	From Leg	4.000	0.000	120.000	No Ice	6.580	4.959	0.077
(E)			0.000			1/2" Ice	7.031	5.754	0.131
			1.000			1" Ice	7.473	6.472	0.193
						2" Ice	8.385	7.941	0.338
APXVTM14-C-120 w/ Mount Pipe	C	From Leg	4.000	0.000	120.000	No Ice	6.580	4.959	0.077
(E)			0.000			1/2" Ice	7.031	5.754	0.131
			1.000			1" Ice	7.473	6.472	0.193
						2" Ice	8.385	7.941	0.338
APXVSPP18-C-A20 w/ Mount Pipe	A	From Leg	4.000	0.000	120.000	No Ice	8.262	6.946	0.083
(E)			0.000			1/2" Ice	8.822	8.127	0.151
			1.000			1" Ice	9.346	9.021	0.227
						2" Ice	10.418	10.844	0.406
APXVSPP18-C-A20 w/ Mount Pipe	B	From Leg	4.000	0.000	120.000	No Ice	8.262	6.946	0.083
(E)			0.000			1/2" Ice	8.822	8.127	0.151
			1.000			1" Ice	9.346	9.021	0.227
						2" Ice	10.418	10.844	0.406
APXVSPP18-C-A20 w/ Mount Pipe	C	From Leg	4.000	0.000	120.000	No Ice	8.262	6.946	0.083
(E)			0.000			1/2" Ice	8.822	8.127	0.151
			1.000			1" Ice	9.346	9.021	0.227
						2" Ice	10.418	10.844	0.406
TD-RRH8X20-25	A	From Leg	4.000	0.000	120.000	No Ice	4.045	1.535	0.070
(E)			0.000			1/2" Ice	4.298	1.714	0.097
			1.000			1" Ice	4.557	1.901	0.128
						2" Ice	5.098	2.295	0.201
TD-RRH8X20-25	B	From Leg	4.000	0.000	120.000	No Ice	4.045	1.535	0.070
(E)			0.000			1/2" Ice	4.298	1.714	0.097

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft / Vert ft / ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
			1.000			1" Ice	4.557	1.901	0.128
						2" Ice	5.098	2.295	0.201
TD-RRH8X20-25	C	From Leg	4.000	0.000	120.000	No Ice	4.045	1.535	0.070
(E)			0.000			1/2" Ice	4.298	1.714	0.097
			1.000			1" Ice	4.557	1.901	0.128
						2" Ice	5.098	2.295	0.201
(3) 6' x 2" Mount Pipe	A	From Leg	4.000	0.000	120.000	No Ice	1.425	1.425	0.022
(E)			0.000			1/2" Ice	1.925	1.925	0.033
			1.000			1" Ice	2.294	2.294	0.048
						2" Ice	3.060	3.060	0.090
(3) 6' x 2" Mount Pipe	B	From Leg	4.000	0.000	120.000	No Ice	1.425	1.425	0.022
(E)			0.000			1/2" Ice	1.925	1.925	0.033
			1.000			1" Ice	2.294	2.294	0.048
						2" Ice	3.060	3.060	0.090
(3) 6' x 2" Mount Pipe	C	From Leg	4.000	0.000	120.000	No Ice	1.425	1.425	0.022
(E)			0.000			1/2" Ice	1.925	1.925	0.033
			1.000			1" Ice	2.294	2.294	0.048
						2" Ice	3.060	3.060	0.090
Platform Mount [LP 1201-1]	C	None		0.000	120.000	No Ice	23.100	23.100	2.100
(E)						1/2" Ice	26.800	26.800	2.500
						1" Ice	30.500	30.500	2.900
						2" Ice	37.900	37.900	3.700
***									
PCS 1900MHZ 4X45W 65MHZ	A	From Leg	1.000	0.000	116.000	No Ice	2.313	2.229	0.060
			0.000			1/2" Ice	2.517	2.431	0.083
(E)			2.000			1" Ice	2.728	2.641	0.109
						2" Ice	3.174	3.082	0.172
PCS 1900MHZ 4X45W 65MHZ	B	From Leg	1.000	0.000	116.000	No Ice	2.313	2.229	0.060
			0.000			1/2" Ice	2.517	2.431	0.083
(E)			2.000			1" Ice	2.728	2.641	0.109
						2" Ice	3.174	3.082	0.172
PCS 1900MHZ 4X45W 65MHZ	C	From Leg	1.000	0.000	116.000	No Ice	2.313	2.229	0.060
			0.000			1/2" Ice	2.517	2.431	0.083
(E)			2.000			1" Ice	2.728	2.641	0.109
						2" Ice	3.174	3.082	0.172
800MHz 2X50W RRH W/FILTER	A	From Leg	1.000	0.000	116.000	No Ice	2.058	1.932	0.064
			0.000			1/2" Ice	2.240	2.109	0.086
(E)			-2.000			1" Ice	2.429	2.293	0.111
						2" Ice	2.829	2.684	0.172
800MHz 2X50W RRH W/FILTER	B	From Leg	1.000	0.000	116.000	No Ice	2.058	1.932	0.064
			0.000			1/2" Ice	2.240	2.109	0.086
(E)			-2.000			1" Ice	2.429	2.293	0.111
						2" Ice	2.829	2.684	0.172
800MHz 2X50W RRH W/FILTER	C	From Leg	1.000	0.000	116.000	No Ice	2.058	1.932	0.064
			0.000			1/2" Ice	2.240	2.109	0.086
(E)			-2.000			1" Ice	2.429	2.293	0.111
						2" Ice	2.829	2.684	0.172
6' x 2" Mount Pipe	A	From Leg	1.000	0.000	116.000	No Ice	1.425	1.425	0.022
(E)			0.000			1/2" Ice	1.925	1.925	0.033
			1.000			1" Ice	2.294	2.294	0.048
						2" Ice	3.060	3.060	0.090
6' x 2" Mount Pipe	B	From Leg	1.000	0.000	116.000	No Ice	1.425	1.425	0.022
(E)			0.000			1/2" Ice	1.925	1.925	0.033
			1.000			1" Ice	2.294	2.294	0.048
						2" Ice	3.060	3.060	0.090
6' x 2" Mount Pipe	C	From Leg	1.000	0.000	116.000	No Ice	1.425	1.425	0.022
(E)			0.000			1/2" Ice	1.925	1.925	0.033

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft Vert ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
			1.000			1" Ice	2.294	2.294	0.048
						2" Ice	3.060	3.060	0.090
Side Arm Mount [SO 102-3] (E)	C	None		0.000	116.000	No Ice	3.000	3.000	0.081
						1/2" Ice	3.480	3.480	0.111
						1" Ice	3.960	3.960	0.141
						2" Ice	4.920	4.920	0.201
***									
(2) DB846F65ZAXY w/ Mount Pipe (Existing)	A	From Leg	4.000 0.000 0.000	0.000	106.000	No Ice 1/2" Ice 1" Ice 2" Ice	7.271 7.832 8.348 9.402	7.821 9.010 9.912 11.731	0.047 0.114 0.189 0.367
(2) DB846F65ZAXY w/ Mount Pipe (Existing)	B	From Leg	4.000 0.000 0.000	0.000	106.000	No Ice 1/2" Ice 1" Ice 2" Ice	7.271 7.832 8.348 9.402	7.821 9.010 9.912 11.731	0.047 0.114 0.189 0.367
(2) DB846F65ZAXY w/ Mount Pipe (Existing)	C	From Leg	4.000 0.000 0.000	0.000	106.000	No Ice 1/2" Ice 1" Ice 2" Ice	7.271 7.832 8.348 9.402	7.821 9.010 9.912 11.731	0.047 0.114 0.189 0.367
(2) SBNHH-1D65B w/ Mount Pipe (Existing)	A	From Leg	4.000 0.000 0.000	0.000	106.000	No Ice 1/2" Ice 1" Ice 2" Ice	8.397 8.960 9.490 10.569	7.071 8.260 9.170 11.006	0.066 0.135 0.212 0.394
(2) SBNHH-1D65B w/ Mount Pipe (Existing)	B	From Leg	4.000 0.000 0.000	0.000	106.000	No Ice 1/2" Ice 1" Ice 2" Ice	8.397 8.960 9.490 10.569	7.071 8.260 9.170 11.006	0.066 0.135 0.212 0.394
(2) SBNHH-1D65B w/ Mount Pipe (Existing)	C	From Leg	4.000 0.000 0.000	0.000	106.000	No Ice 1/2" Ice 1" Ice 2" Ice	8.397 8.960 9.490 10.569	7.071 8.260 9.170 11.006	0.066 0.135 0.212 0.394
DB-T1-6Z-8AB-0Z (Existing)	B	From Leg	4.000 0.000 0.000	0.000	106.000	No Ice 1/2" Ice 1" Ice 2" Ice	4.800 5.070 5.348 5.926	2.000 2.193 2.393 2.815	0.044 0.080 0.120 0.213
RVZDC-6627-PF-48 (P)	A	From Leg	4.000 0.000 0.000	0.000	106.000	No Ice 1/2" Ice 1" Ice 2" Ice	3.792 4.044 4.303 4.844	2.514 2.727 2.947 3.417	0.032 0.063 0.099 0.181
(2) RFV01U-D2A (P)	A	From Leg	4.000 0.000 0.000	0.000	106.000	No Ice 1/2" Ice 1" Ice 2" Ice	1.875 2.045 2.223 2.601	1.013 1.145 1.284 1.585	0.070 0.087 0.106 0.153
RFV01U-D2A (P)	B	From Leg	4.000 0.000 0.000	0.000	106.000	No Ice 1/2" Ice 1" Ice 2" Ice	1.875 2.045 2.223 2.601	1.013 1.145 1.284 1.585	0.070 0.087 0.106 0.153
RFV01U-D1A (P)	B	From Leg	4.000 0.000 0.000	0.000	106.000	No Ice 1/2" Ice 1" Ice 2" Ice	1.875 2.045 2.223 2.601	1.250 1.393 1.543 1.865	0.084 0.103 0.124 0.175
(2) RFV01U-D1A (P)	C	From Leg	4.000 0.000 0.000	0.000	106.000	No Ice 1/2" Ice 1" Ice 2" Ice	1.875 2.045 2.223 2.601	1.250 1.393 1.543 1.865	0.084 0.103 0.124 0.175
Platform Mount [LP 713-1] (Existing)	C	None		0.000	106.000	No Ice 1/2" Ice	31.270 39.680	31.270 39.680	1.510 1.929

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft / Vert ft / ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
						1" Ice	48.090	48.090	2.348
						2" Ice	64.910	64.910	3.186
***									
KS24019-L112A (E)	C	From Leg	3.000 0.000 1.000	0.000	65.000	No Ice 1/2" Ice 1" Ice 2" Ice	0.141 0.198 0.262 0.415	0.141 0.198 0.262 0.415	0.005 0.007 0.009 0.018
2' x 2" Pipe Mount (E)	C	From Leg	3.000 0.000 1.000	0.000	65.000	No Ice 1/2" Ice 1" Ice 2" Ice	0.023 0.049 0.085 0.186	0.023 0.049 0.085 0.186	0.007 0.008 0.009 0.013
Side Arm Mount [SO 701-1] (E)	C	None		0.000	65.000	No Ice 1/2" Ice 1" Ice 2" Ice	0.850 1.140 1.430 2.010	1.670 2.340 3.010 4.350	0.065 0.079 0.093 0.121
***									

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

Comb. No.	Description
31	1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp
32	1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp
33	1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp
34	1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp
35	1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp
36	1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp
37	1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp
38	1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp
39	Dead+Wind 0 deg - Service
40	Dead+Wind 30 deg - Service
41	Dead+Wind 60 deg - Service
42	Dead+Wind 90 deg - Service
43	Dead+Wind 120 deg - Service
44	Dead+Wind 150 deg - Service
45	Dead+Wind 180 deg - Service
46	Dead+Wind 210 deg - Service
47	Dead+Wind 240 deg - Service
48	Dead+Wind 270 deg - Service
49	Dead+Wind 300 deg - Service
50	Dead+Wind 330 deg - Service

Maximum Member Forces

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L1	136 - 130	Pole	Max Tension	14	0.000	0.000	0.000
			Max. Compression	26	-0.375	0.006	0.106
			Max. Mx	20	-0.119	0.406	0.012
			Max. My	2	-0.118	0.000	0.436
			Max. Vy	8	0.202	-0.405	0.012
			Max. Vx	2	-0.211	0.000	0.436
			Max. Torque	8			0.027
L2	130 - 129.5	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-0.400	0.007	0.106
			Max. Mx	20	-0.129	0.509	0.012
			Max. My	2	-0.128	0.000	0.543
			Max. Vy	8	0.211	-0.508	0.012
			Max. Vx	2	-0.219	0.000	0.543
			Max. Torque	8			0.027
L3	129.5 - 120.5	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-1.112	0.028	0.119
			Max. Mx	20	-0.509	3.401	0.013
			Max. My	2	-0.509	0.002	3.510
			Max. Vy	8	0.432	-3.399	0.012
			Max. Vx	14	0.440	0.001	-3.483
			Max. Torque	8			0.027
L4	120.5 - 120	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-1.170	0.029	0.120
			Max. Mx	20	-0.542	3.621	0.013
			Max. My	2	-0.541	0.001	3.735
			Max. Vy	8	0.450	-3.619	0.012
			Max. Vx	14	0.459	0.000	-3.707
			Max. Torque	8			0.027
L5	120 - 87.5	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-24.044	-0.645	0.389
			Max. Mx	8	-9.644	-230.865	-0.699
			Max. My	14	-9.642	-0.789	-231.230
			Max. Vy	8	11.461	-230.865	-0.699

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Vx	14	11.477	-0.789	-231.230
			Max. Torque	25			-0.316
L6	87.5 - 58.75	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-30.344	-0.345	0.424
			Max. Mx	8	-13.384	-586.653	-1.924
			Max. My	14	-13.383	-1.931	-587.567
			Max. Vy	8	14.045	-586.653	-1.924
			Max. Vx	14	14.062	-1.931	-587.567
			Max. Torque	25			-0.316
L7	58.75 - 32.25	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-38.655	-0.161	0.531
			Max. Mx	8	-19.077	-979.565	-3.016
			Max. My	14	-19.077	-3.022	-980.901
			Max. Vy	8	16.454	-979.565	-3.016
			Max. Vx	14	16.470	-3.022	-980.901
			Max. Torque	24			-0.291
L8	32.25 - 0	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-53.609	0.129	0.698
			Max. Mx	8	-30.250	-1661.469	-4.586
			Max. My	14	-30.250	-4.586	-1663.413
			Max. Vy	8	19.913	-1661.469	-4.586
			Max. Vx	14	19.928	-4.586	-1663.413
			Max. Torque	24			-0.291

Maximum Reactions

Location	Condition	Gov. Load Comb.	Vertical K	Horizontal, X K	Horizontal, Z K
Pole	Max. Vert	26	53.609	0.000	0.000
	Max. H_x	20	30.257	19.902	0.042
	Max. H_z	2	30.257	0.042	19.917
	Max. M_x	2	1663.285	0.042	19.917
	Max. M_z	8	1661.469	-19.902	-0.042
	Max. Torsion	12	0.290	-9.987	-17.270
	Min. Vert	19	22.693	17.214	-9.923
	Min. H_x	8	30.257	-19.902	-0.042
	Min. H_z	14	30.257	-0.042	-19.917
	Min. M_x	14	-1663.413	-0.042	-19.917
	Min. M_z	20	-1661.338	19.902	0.042
	Min. Torsion	24	-0.291	9.987	17.270

Tower Mast Reaction Summary

Load Combination	Vertical K	$Shear_x$ K	$Shear_z$ K	Overturning Moment, M_x kip-ft	Overturning Moment, M_z kip-ft	Torque kip-ft
Dead Only	25.214	0.000	0.000	0.051	-0.050	0.000
1.2 Dead+1.0 Wind 0 deg - No Ice	30.257	-0.042	-19.917	-1663.285	4.457	0.221
0.9 Dead+1.0 Wind 0 deg - No Ice	22.693	-0.042	-19.917	-1653.222	4.445	0.221
1.2 Dead+1.0 Wind 30 deg - No	30.257	9.915	-17.228	-1438.182	-826.853	0.092

Load Combination	Vertical K	$Shear_x$ K	$Shear_z$ K	Overturning Moment, M_x kip-ft	Overturning Moment, M_z kip-ft	Torque kip-ft
Ice 0.9 Dead+1.0 Wind 30 deg - No Ice	22.693	9.915	-17.228	-1429.484	-821.828	0.092
1.2 Dead+1.0 Wind 60 deg - No Ice	30.257	17.214	-9.923	-827.697	-1436.626	-0.062
0.9 Dead+1.0 Wind 60 deg - No Ice	22.693	17.214	-9.923	-822.699	-1427.906	-0.062
1.2 Dead+1.0 Wind 90 deg - No Ice	30.257	19.902	0.042	4.587	-1661.469	-0.200
0.9 Dead+1.0 Wind 90 deg - No Ice	22.693	19.902	0.042	4.540	-1651.387	-0.199
1.2 Dead+1.0 Wind 120 deg - No Ice	30.257	17.256	9.995	835.655	-1441.141	-0.283
0.9 Dead+1.0 Wind 120 deg - No Ice	22.693	17.256	9.995	830.573	-1432.392	-0.283
1.2 Dead+1.0 Wind 150 deg - No Ice	30.257	9.987	17.270	1442.826	-834.681	-0.290
0.9 Dead+1.0 Wind 150 deg - No Ice	22.693	9.987	17.270	1434.065	-829.605	-0.290
1.2 Dead+1.0 Wind 180 deg - No Ice	30.257	0.042	19.917	1663.413	-4.586	-0.220
0.9 Dead+1.0 Wind 180 deg - No Ice	22.693	0.042	19.917	1653.317	-4.540	-0.220
1.2 Dead+1.0 Wind 210 deg - No Ice	30.257	-9.915	17.228	1438.310	826.722	-0.091
0.9 Dead+1.0 Wind 210 deg - No Ice	22.693	-9.915	17.228	1429.578	821.732	-0.092
1.2 Dead+1.0 Wind 240 deg - No Ice	30.257	-17.214	9.923	827.826	1436.495	0.062
0.9 Dead+1.0 Wind 240 deg - No Ice	22.693	-17.214	9.923	822.795	1427.810	0.061
1.2 Dead+1.0 Wind 270 deg - No Ice	30.257	-19.902	-0.042	-4.457	1661.338	0.199
0.9 Dead+1.0 Wind 270 deg - No Ice	22.693	-19.902	-0.042	-4.444	1651.291	0.198
1.2 Dead+1.0 Wind 300 deg - No Ice	30.257	-17.256	-9.995	-835.525	1441.012	0.283
0.9 Dead+1.0 Wind 300 deg - No Ice	22.693	-17.256	-9.995	-830.476	1432.297	0.282
1.2 Dead+1.0 Wind 330 deg - No Ice	30.257	-9.987	-17.270	-1442.697	834.551	0.291
0.9 Dead+1.0 Wind 330 deg - No Ice	22.693	-9.987	-17.270	-1433.970	829.510	0.291
1.2 Dead+1.0 Ice+1.0 Temp	53.609	0.000	0.000	-0.698	0.129	0.000
1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp	53.609	-0.007	-4.776	-425.987	0.919	0.042
1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp	53.609	2.380	-4.133	-368.602	-211.569	0.010
1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp	53.609	4.130	-2.382	-212.654	-367.344	-0.026
1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp	53.609	4.773	0.007	0.071	-424.665	-0.054
1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp	53.609	4.137	2.395	212.573	-368.174	-0.068
1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp	53.609	2.393	4.140	367.913	-213.007	-0.064
1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp	53.609	0.007	4.776	424.468	-0.742	-0.042
1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp	53.609	-2.380	4.133	367.083	211.746	-0.010
1.2 Dead+1.0 Wind 240	53.609	-4.130	2.382	211.135	367.520	0.026

Load Combination	Vertical K	$Shear_x$ K	$Shear_z$ K	Overturning Moment, M_x kip-ft	Overturning Moment, M_z kip-ft	Torque kip-ft
deg+1.0 Ice+1.0 Temp						
1.2 Dead+1.0 Wind 270	53.609	-4.773	-0.007	-1.590	424.841	0.054
deg+1.0 Ice+1.0 Temp						
1.2 Dead+1.0 Wind 300	53.609	-4.137	-2.395	-214.092	368.350	0.068
deg+1.0 Ice+1.0 Temp						
1.2 Dead+1.0 Wind 330	53.609	-2.393	-4.140	-369.432	213.184	0.064
deg+1.0 Ice+1.0 Temp						
Dead+Wind 0 deg - Service	25.214	-0.009	-4.129	-344.639	0.874	0.046
Dead+Wind 30 deg - Service	25.214	2.056	-3.572	-297.995	-171.396	0.019
Dead+Wind 60 deg - Service	25.214	3.569	-2.057	-171.489	-297.756	-0.013
Dead+Wind 90 deg - Service	25.214	4.126	0.009	0.982	-344.347	-0.041
Dead+Wind 120 deg - Service	25.214	3.578	2.072	173.203	-298.684	-0.058
Dead+Wind 150 deg - Service	25.214	2.071	3.580	299.030	-173.004	-0.060
Dead+Wind 180 deg - Service	25.214	0.009	4.129	344.745	-0.982	-0.046
Dead+Wind 210 deg - Service	25.214	-2.056	3.572	298.101	171.288	-0.019
Dead+Wind 240 deg - Service	25.214	-3.569	2.057	171.595	297.648	0.013
Dead+Wind 270 deg - Service	25.214	-4.126	-0.009	-0.875	344.238	0.041
Dead+Wind 300 deg - Service	25.214	-3.578	-2.072	-173.097	298.576	0.058
Dead+Wind 330 deg - Service	25.214	-2.071	-3.580	-298.923	172.896	0.060

Solution Summary

	Sum of Applied Forces			Sum of Reactions			
Load Comb.	PX K	PY K	PZ K	PX K	PY K	PZ K	% Error
1	0.000	-25.214	0.000	0.000	25.214	0.000	0.000%
2	-0.042	-30.257	-19.917	0.042	30.257	19.917	0.000%
3	-0.042	-22.693	-19.917	0.042	22.693	19.917	0.000%
4	9.915	-30.257	-17.228	-9.915	30.257	17.228	0.000%
5	9.915	-22.693	-17.228	-9.915	22.693	17.228	0.000%
6	17.214	-30.257	-9.923	-17.214	30.257	9.923	0.000%
7	17.214	-22.693	-9.923	-17.214	22.693	9.923	0.000%
8	19.902	-30.257	0.042	-19.902	30.257	-0.042	0.000%
9	19.902	-22.693	0.042	-19.902	22.693	-0.042	0.000%
10	17.256	-30.257	9.995	-17.256	30.257	-9.995	0.000%
11	17.256	-22.693	9.995	-17.256	22.693	-9.995	0.000%
12	9.987	-30.257	17.270	-9.987	30.257	-17.270	0.000%
13	9.987	-22.693	17.270	-9.987	22.693	-17.270	0.000%
14	0.042	-30.257	19.917	-0.042	30.257	-19.917	0.000%
15	0.042	-22.693	19.917	-0.042	22.693	-19.917	0.000%
16	-9.915	-30.257	17.228	9.915	30.257	-17.228	0.000%
17	-9.915	-22.693	17.228	9.915	22.693	-17.228	0.000%
18	-17.214	-30.257	9.923	17.214	30.257	-9.923	0.000%
19	-17.214	-22.693	9.923	17.214	22.693	-9.923	0.000%
20	-19.902	-30.257	-0.042	19.902	30.257	0.042	0.000%
21	-19.902	-22.693	-0.042	19.902	22.693	0.042	0.000%
22	-17.256	-30.257	-9.995	17.256	30.257	9.995	0.000%
23	-17.256	-22.693	-9.995	17.256	22.693	9.995	0.000%
24	-9.987	-30.257	-17.270	9.987	30.257	17.270	0.000%
25	-9.987	-22.693	-17.270	9.987	22.693	17.270	0.000%
26	0.000	-53.609	0.000	0.000	53.609	0.000	0.000%
27	-0.007	-53.609	-4.776	0.007	53.609	4.776	0.000%
28	2.380	-53.609	-4.133	-2.380	53.609	4.133	0.000%
29	4.129	-53.609	-2.382	-4.130	53.609	2.382	0.000%
30	4.773	-53.609	0.007	-4.773	53.609	-0.007	0.000%
31	4.137	-53.609	2.395	-4.137	53.609	-2.395	0.000%
32	2.393	-53.609	4.140	-2.393	53.609	-4.140	0.000%
33	0.007	-53.609	4.776	-0.007	53.609	-4.776	0.000%

	Sum of Applied Forces			Sum of Reactions			
Load Comb.	PX K	PY K	PZ K	PX K	PY K	PZ K	% Error
34	-2.380	-53.609	4.133	2.380	53.609	-4.133	0.000%
35	-4.129	-53.609	2.382	4.130	53.609	-2.382	0.000%
36	-4.773	-53.609	-0.007	4.773	53.609	0.007	0.000%
37	-4.137	-53.609	-2.395	4.137	53.609	2.395	0.000%
38	-2.393	-53.609	-4.140	2.393	53.609	4.140	0.000%
39	-0.009	-25.214	-4.129	0.009	25.214	4.129	0.000%
40	2.056	-25.214	-3.572	-2.056	25.214	3.572	0.000%
41	3.569	-25.214	-2.057	-3.569	25.214	2.057	0.000%
42	4.126	-25.214	0.009	-4.126	25.214	-0.009	0.000%
43	3.578	-25.214	2.072	-3.578	25.214	-2.072	0.000%
44	2.071	-25.214	3.580	-2.071	25.214	-3.580	0.000%
45	0.009	-25.214	4.129	-0.009	25.214	-4.129	0.000%
46	-2.056	-25.214	3.572	2.056	25.214	-3.572	0.000%
47	-3.569	-25.214	2.057	3.569	25.214	-2.057	0.000%
48	-4.126	-25.214	-0.009	4.126	25.214	0.009	0.000%
49	-3.578	-25.214	-2.072	3.578	25.214	2.072	0.000%
50	-2.071	-25.214	-3.580	2.071	25.214	3.580	0.000%

Non-Linear Convergence Results

Load Combination	Converged?	Number of Cycles	Displacement Tolerance	Force Tolerance
1	Yes	4	0.00000001	0.00000001
2	Yes	4	0.00000001	0.00015854
3	Yes	4	0.00000001	0.00009640
4	Yes	5	0.00000001	0.00019338
5	Yes	5	0.00000001	0.00008959
6	Yes	5	0.00000001	0.00019298
7	Yes	5	0.00000001	0.00008940
8	Yes	4	0.00000001	0.00014732
9	Yes	4	0.00000001	0.00008876
10	Yes	5	0.00000001	0.00019108
11	Yes	5	0.00000001	0.00008827
12	Yes	5	0.00000001	0.00019916
13	Yes	5	0.00000001	0.00009222
14	Yes	4	0.00000001	0.00023133
15	Yes	4	0.00000001	0.00014514
16	Yes	5	0.00000001	0.00019088
17	Yes	5	0.00000001	0.00008837
18	Yes	5	0.00000001	0.00019099
19	Yes	5	0.00000001	0.00008844
20	Yes	4	0.00000001	0.00021839
21	Yes	4	0.00000001	0.00013672
22	Yes	5	0.00000001	0.00019868
23	Yes	5	0.00000001	0.00009204
24	Yes	5	0.00000001	0.00019089
25	Yes	5	0.00000001	0.00008820
26	Yes	4	0.00000001	0.00000001
27	Yes	5	0.00000001	0.00018209
28	Yes	5	0.00000001	0.00020226
29	Yes	5	0.00000001	0.00020223
30	Yes	5	0.00000001	0.00018176
31	Yes	5	0.00000001	0.00020174
32	Yes	5	0.00000001	0.00020225
33	Yes	5	0.00000001	0.00018097
34	Yes	5	0.00000001	0.00020011

35	Yes	5	0.00000001	0.00019993
36	Yes	5	0.00000001	0.00018084
37	Yes	5	0.00000001	0.00020236
38	Yes	5	0.00000001	0.00020207
39	Yes	4	0.00000001	0.00001829
40	Yes	4	0.00000001	0.00006948
41	Yes	4	0.00000001	0.00006909
42	Yes	4	0.00000001	0.00001802
43	Yes	4	0.00000001	0.00006510
44	Yes	4	0.00000001	0.00007470
45	Yes	4	0.00000001	0.00001866
46	Yes	4	0.00000001	0.00006642
47	Yes	4	0.00000001	0.00006668
48	Yes	4	0.00000001	0.00001833
49	Yes	4	0.00000001	0.00007415
50	Yes	4	0.00000001	0.00006471

Maximum Tower Deflections - Service Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	136 - 130	10.554	44	0.658	0.001
L2	130 - 129.5	9.729	44	0.652	0.001
L3	129.5 - 120.5	9.661	44	0.652	0.001
L4	120.5 - 120	8.438	44	0.644	0.001
L5	120 - 87.5	8.371	44	0.644	0.001
L6	91.25 - 58.75	4.737	44	0.527	0.000
L7	63.25 - 32.25	2.174	44	0.328	0.000
L8	37.5 - 0	0.764	44	0.185	0.000

Critical Deflections and Radius of Curvature - Service Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
131.000	CXL 900-3LW	44	9.866	0.652	0.001	41765
120.000	APXVTM14-C-120 w/ Mount Pipe	44	8.371	0.644	0.001	49303
116.000	PCS 1900MHZ 4X45W 65MHZ	44	7.833	0.640	0.001	36641
106.000	(2) DB846F65ZAXY w/ Mount Pipe	44	6.519	0.610	0.000	15200
65.000	KS24019-L112A	44	2.303	0.340	0.000	8881

Maximum Tower Deflections - Design Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	136 - 130	50.759	12	3.153	0.005
L2	130 - 129.5	46.809	12	3.126	0.003
L3	129.5 - 120.5	46.482	12	3.125	0.003
L4	120.5 - 120	40.619	12	3.092	0.003

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L5	120 - 87.5	40.295	12	3.092	0.003
L6	91.25 - 58.75	22.832	12	2.538	0.002
L7	63.25 - 32.25	10.487	12	1.582	0.001
L8	37.5 - 0	3.686	12	0.893	0.000

Critical Deflections and Radius of Curvature - Design Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
131.000	CXL 900-3LW	12	47.464	3.128	0.003	10847
120.000	APXVTM14-C-120 w/ Mount Pipe	12	40.295	3.092	0.003	11702
116.000	PCS 1900MHZ 4X45W 65MHZ	12	37.715	3.075	0.003	8005
106.000	(2) DB846F65ZAXY w/ Mount Pipe	12	31.399	2.934	0.002	3221
65.000	KS24019-L112A	12	11.105	1.638	0.001	1848

Compression Checks

Pole Design Data

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
L1	136 - 130 (1)	TP4.5x4.5x0.216	6.000	0.000	0.0	2.907	-0.118	91.572	0.001
L2	130 - 129.5 (2)	TP10.75x4.5x0.216	0.500	0.000	0.0	2.907	-0.118	91.572	0.001
L3	129.5 - 120.5 (3)	TP10.75x10.75x0.322	9.000	0.000	0.0	10.549	-0.509	332.290	0.002
L4	120.5 - 120 (4)	TP22x10.75x0.322	0.500	0.000	0.0	10.549	-0.525	332.290	0.002
L5	120 - 87.5 (5)	TP29.476x22x0.188	32.500	0.000	0.0	17.162	-9.639	901.992	0.011
L6	87.5 - 58.75 (6)	TP35.715x28.238x0.25	32.500	0.000	0.0	27.716	-13.382	1546.460	0.009
L7	58.75 - 32.25 (7)	TP41.311x34.18x0.375	31.000	0.000	0.0	47.972	-19.076	3234.550	0.006
L8	32.25 - 0 (8)	TP47.98x39.353x0.438	37.500	0.000	0.0	66.976	-30.250	4467.840	0.007

Pole Bending Design Data

Section No.	Elevation ft	Size	M_{ux} kip-ft	ϕM_{nx} kip-ft	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	M_{uy} kip-ft	ϕM_{ny} kip-ft	Ratio $\frac{M_{uy}}{\phi M_{ny}}$
L1	136 - 130 (1)	TP4.5x4.5x0.216	0.436	10.415	0.042	0.000	10.415	0.000
L2	130 - 129.5 (2)	TP10.75x4.5x0.216	0.436	10.415	0.042	0.000	10.415	0.000
L3	129.5 - 120.5 (3)	TP10.75x10.75x0.322	3.510	91.944	0.038	0.000	91.944	0.000
L4	120.5 - 120 (4)	TP22x10.75x0.322	3.510	91.944	0.038	0.000	91.944	0.000
L5	120 - 87.5 (5)	TP29.476x22x0.188	231.739	523.042	0.443	0.000	523.042	0.000
L6	87.5 - 58.75 (6)	TP35.715x28.238x0.25	588.965	1085.442	0.543	0.000	1085.442	0.000

Section No.	Elevation ft	Size	M_{ux} kip-ft	ϕM_{nx} kip-ft	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	M_{uy} kip-ft	ϕM_{ny} kip-ft	Ratio $\frac{M_{uy}}{\phi M_{ny}}$
L7	58.75 - 32.25 (7)	TP41.311x34.18x0.375	983.142	2614.017	0.376	0.000	2614.017	0.000
L8	32.25 - 0 (8)	TP47.98x39.353x0.438	1666.867	4321.917	0.386	0.000	4321.917	0.000

Pole Shear Design Data

Section No.	Elevation ft	Size	Actual V_u K	ϕV_n K	Ratio $\frac{V_u}{\phi V_n}$	Actual T_u kip-ft	ϕT_n kip-ft	Ratio $\frac{T_u}{\phi T_n}$
L1	136 - 130 (1)	TP4.5x4.5x0.216	0.211	27.472	0.008	0.000	10.347	0.000
L2	130 - 129.5 (2)	TP10.75x4.5x0.216	0.219	27.472	0.008	0.000	10.347	0.000
L3	129.5 - 120.5 (3)	TP10.75x10.75x0.322	0.440	99.687	0.004	0.000	91.394	0.000
L4	120.5 - 120 (4)	TP22x10.75x0.322	0.459	99.687	0.005	0.000	91.394	0.000
L5	120 - 87.5 (5)	TP29.476x22x0.188	11.511	278.026	0.041	0.315	686.043	0.000
L6	87.5 - 58.75 (6)	TP35.715x28.238x0.25	14.095	448.999	0.031	0.290	1340.133	0.000
L7	58.75 - 32.25 (7)	TP41.311x34.18x0.375	16.503	841.907	0.020	0.290	2886.867	0.000
L8	32.25 - 0 (8)	TP47.98x39.353x0.438	19.961	1175.420	0.017	0.290	4825.525	0.000

Pole Interaction Design Data

Section No.	Elevation ft	Ratio $\frac{P_u}{\phi P_n}$	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	Ratio $\frac{M_{uy}}{\phi M_{ny}}$	Ratio $\frac{V_u}{\phi V_n}$	Ratio $\frac{T_u}{\phi T_n}$	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
L1	136 - 130 (1)	0.001	0.042	0.000	0.008	0.000	0.043 ✔	1.050	4.8.2 ✔
L2	130 - 129.5 (2)	0.001	0.042	0.000	0.008	0.000	0.043 ✔	1.050	4.8.2 ✔
L3	129.5 - 120.5 (3)	0.002	0.038	0.000	0.004	0.000	0.040 ✔	1.050	4.8.2 ✔
L4	120.5 - 120 (4)	0.002	0.038	0.000	0.005	0.000	0.040 ✔	1.050	4.8.2 ✔
L5	120 - 87.5 (5)	0.011	0.443	0.000	0.041	0.000	0.456 ✔	1.050	4.8.2 ✔
L6	87.5 - 58.75 (6)	0.009	0.543	0.000	0.031	0.000	0.552 ✔	1.050	4.8.2 ✔
L7	58.75 - 32.25 (7)	0.006	0.376	0.000	0.020	0.000	0.382 ✔	1.050	4.8.2 ✔
L8	32.25 - 0 (8)	0.007	0.386	0.000	0.017	0.000	0.393 ✔	1.050	4.8.2 ✔

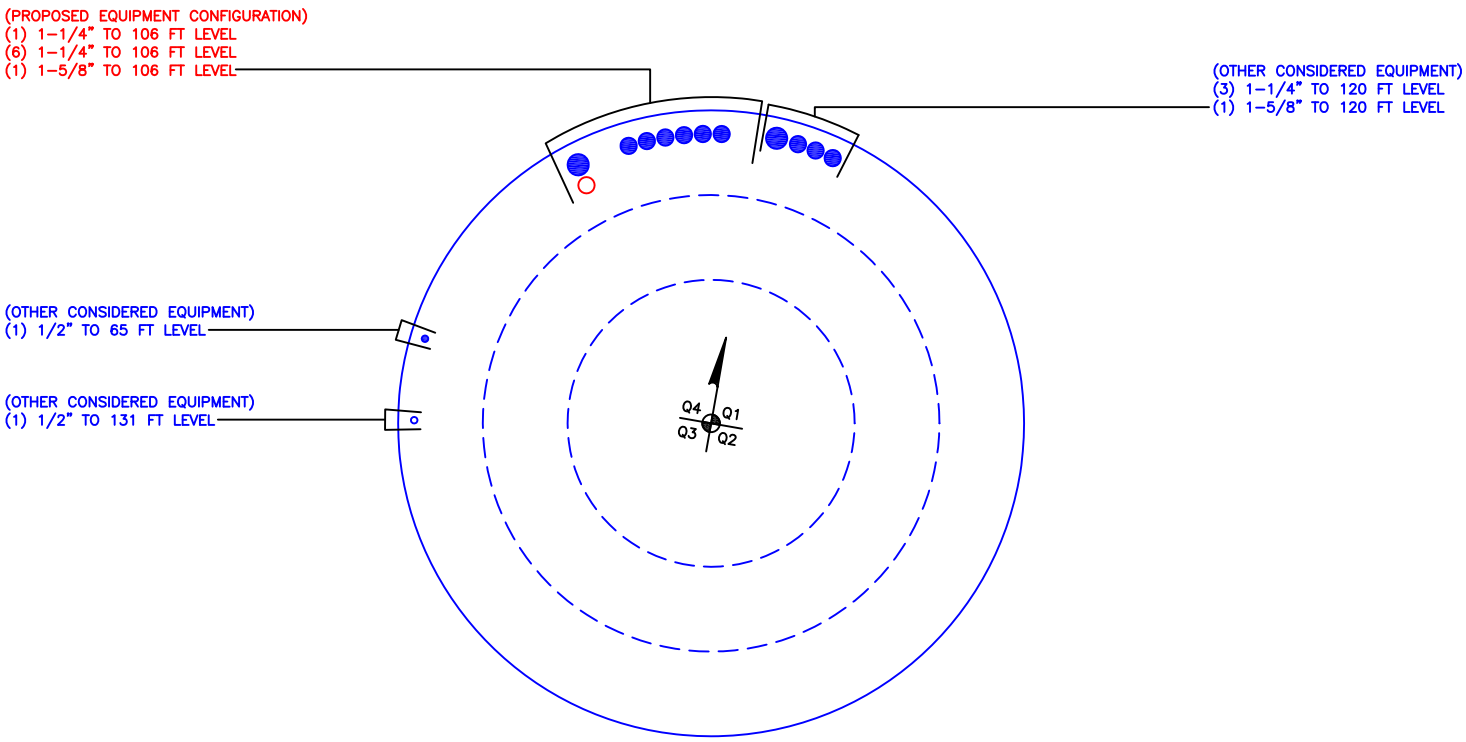
Section Capacity Table

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	ϕP_{allow} K	% Capacity	Pass Fail
L1	136 - 130	Pole	TP4.5x4.5x0.216	1	-0.118	96.151	4.1	Pass
L2	130 - 129.5	Pole	TP10.75x4.5x0.216	2	-0.118	96.151	4.1	Pass
L3	129.5 - 120.5	Pole	TP10.75x10.75x0.322	3	-0.509	348.904	3.8	Pass
L4	120.5 - 120	Pole	TP22x10.75x0.322	4	-0.525	348.904	3.8	Pass
L5	120 - 87.5	Pole	TP29.476x22x0.188	5	-9.639	947.092	43.4	Pass
L6	87.5 - 58.75	Pole	TP35.715x28.238x0.25	6	-13.382	1623.783	52.6	Pass
L7	58.75 - 32.25	Pole	TP41.311x34.18x0.375	7	-19.076	3396.277	36.4	Pass
L8	32.25 - 0	Pole	TP47.98x39.353x0.438	8	-30.250	4691.232	37.4	Pass
							Summary	
						Pole (L6)	52.6	Pass
						RATING =	**52.6**	**Pass**

Program Version 8.0.4.0

APPENDIX B

BASE LEVEL DRAWING



BUSINESS UNIT:876332

APPENDIX C

ADDITIONAL CALCULATIONS

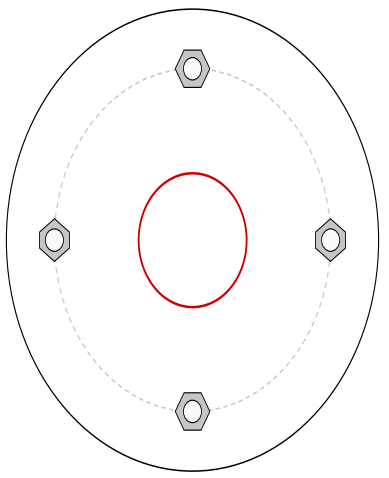
Monopole Flange Plate Connection

Elevation = 130 ft.

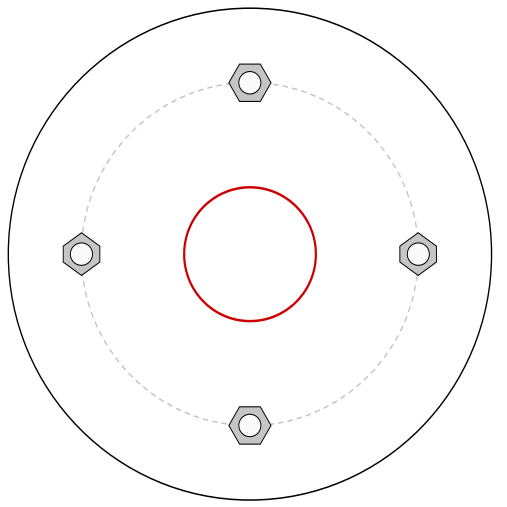
BU #	876332
Site Name	6 PROSPECT STREET, C
Order #	457591; Rev.0
TIA-222 Revision	H

Applied Loads	
Moment (kip-ft)	0.44
Axial Force (kips)	0.12
Shear Force (kips)	0.21

Top Plate - External



Bottom Plate - External



Connection Properties

Bolt Data

(4) 3/4" ø bolts (A325 N; Fy=92 ksi, Fu=120 ksi) on 11.5" BC

Top Plate Data

15.5" OD x 0.5" Plate (A36; Fy=36 ksi, Fu=58 ksi)

Top Stiffener Data

N/A

Top Pole Data

4.5" x 0.216" round pole (A53-B-35; Fy=35 ksi, Fu=60 ksi)

Bottom Plate Data

16.5" OD x 0.75" Plate (A36; Fy=36 ksi, Fu=58 ksi)

Bottom Stiffener Data

N/A

Bottom Pole Data

4.5" x 0.216" round pole (A53-B-35; Fy=35 ksi, Fu=60 ksi)

Analysis Results

Bolt Capacity

Max Load (kips)	0.42	
Allowable (kips)	30.06	
Stress Rating:	**1.3%**	**Pass**

Top Plate Capacity

Max Stress (ksi):	2.56	(Flexural)
Allowable Stress (ksi):	32.40	
Stress Rating:	**7.5%**	**Pass**
Tension Side Stress Rating:	**6.2%**	**Pass**

Bottom Plate Capacity

Max Stress (ksi):	1.14	(Flexural)
Allowable Stress (ksi):	32.40	
Stress Rating:	**3.3%**	**Pass**
Tension Side Stress Rating:	**2.7%**	**Pass**

Monopole Flange Plate Connection

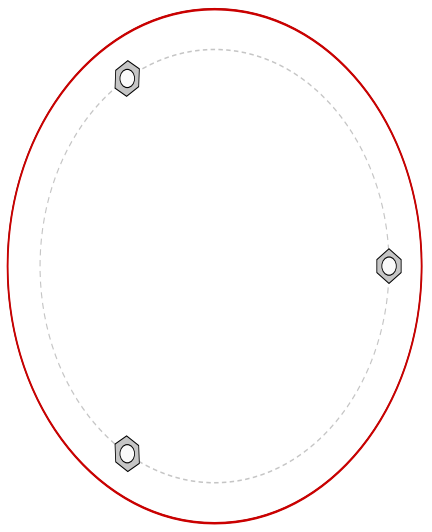
Elevation = 120 ft.

BU #	876332
Site Name	6 PROSPECT STREET, C
Order #	457591; Rev.0

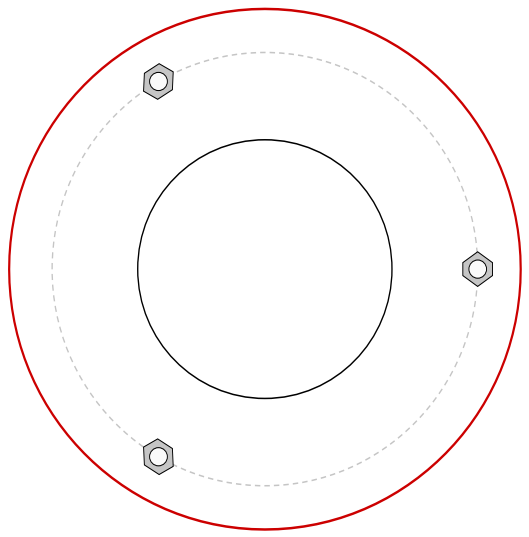
TIA-222 Revision	H

Applied Loads	
Moment (kip-ft)	5.75
Axial Force (kips)	4.13
Shear Force (kips)	3.42

Top Plate - Internal



Bottom Plate - Internal



Connection Properties

Bolt Data

(3) 3/4" ø bolts (A325 N; Fy=92 ksi, Fu=120 ksi) on 18" BC

Top Plate Data

21.356" ID x 0.75" Plate (A36; Fy=36 ksi, Fu=58 ksi)

Bottom Plate Data

10.75" ID x 0.75" Plate (A36; Fy=36 ksi, Fu=58 ksi)

Top Stiffener Data

N/A

Bottom Stiffener Data

N/A

Top Pole Data

22" x 0.322" round pole (A53-B-35; Fy=35 ksi, Fu=60 ksi)

Bottom Pole Data

22" x 0.1875" 12-sided pole (A572-60; Fy=60 ksi, Fu=75 ksi)

Analysis Results

Bolt Capacity

Max Load (kips)	3.73	
Allowable (kips)	30.01	
Stress Rating:	**11.8%**	**Pass**

Top Plate Capacity

Max Stress (ksi):	10.36	(Flexural)
Allowable Stress (ksi):	32.40	
Stress Rating:	**30.5%**	**Pass**
Tension Side Stress Rating:	**8.4%**	**Pass**

Bottom Plate Capacity

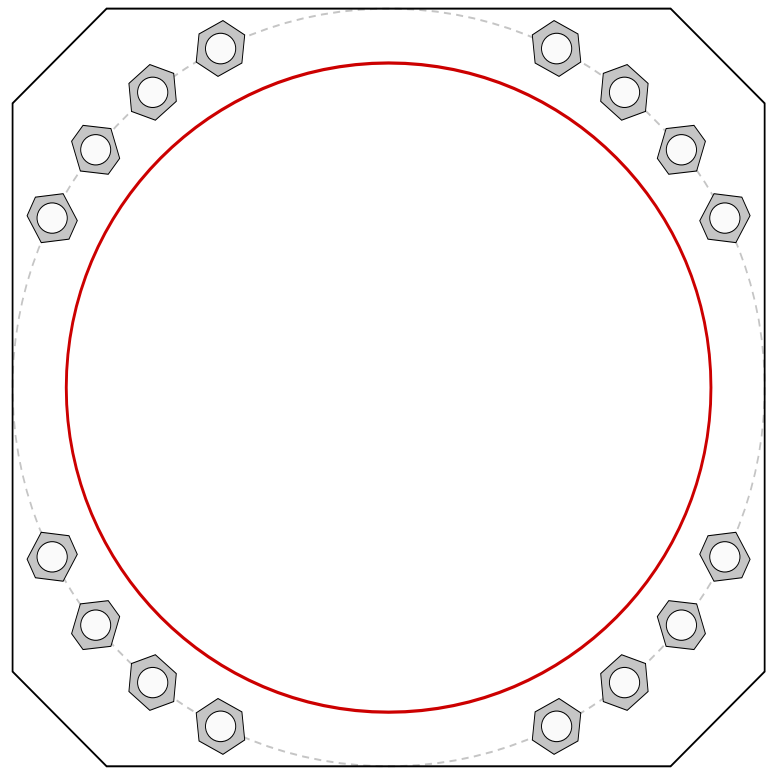
Max Stress (ksi):	10.44	(Flexural)
Allowable Stress (ksi):	32.40	
Stress Rating:	**30.7%**	**Pass**
Tension Side Stress Rating:	**4.6%**	**Pass**

Monopole Base Plate Connection

Site Info	
BU #	876332
Site Name	6 PROSPECT STREET, C
Order #	457591; Rev.0

Analysis Considerations	
TIA-222 Revision	H
Grout Considered:	No
l_{ar} (in)	0

Applied Loads	
Moment (kip-ft)	1666.87
Axial Force (kips)	30.25
Shear Force (kips)	19.96



Connection Properties

Anchor Rod Data

(16) 2-1/4" ø bolts (A615-75 N; Fy=75 ksi, Fu=100 ksi) on 56" BC

Base Plate Data

56" OD x 3" Plate (A572-50; Fy=50 ksi, Fu=65 ksi)

Stiffener Data

N/A

Pole Data

47.98" x 0.4375" 12-sided pole (A572-65; Fy=65 ksi, Fu=80 ksi)

Analysis Results

Anchor Rod Summary *(units of kips, kip-in)*

Pu = 91.13	ϕPn = 243.75	**Stress Rating**
Vu = 1.25	ϕVn = 73.13	**35.6%**
Mu = n/a	ϕMn = n/a	**Pass**

Base Plate Summary

Max Stress (ksi):	16.27	(Flexural)
Allowable Stress (ksi):	45	
Stress Rating:	**34.4%**	**Pass**

PROJECT	**128548.001.01 - 36 PROSPECT STREET,**				
SUBJECT	**Foundation Comparison**				
DATE	**09/11/18**	PAGE	1	OF	1

B+T GRP
1717 S. Boulder, Suite 300
Tulsa, OK 74119
(918) 587-4630

Initials

Rev. G - MP

Factored TnxTowers Reactions

Down	=	30	k
Shear	=	20	k
Moment	=	1667	k-ft

Un-Factored Original Design Reactions

Down	=	31	k
Shear	=	31	k
Moment	=	3250	k-ft

Percent Capacity

Down	=	**68.3%**	Pass
Shear	=	**45.5%**	Pass
Moment	=	**36.2%**	Pass

Rev. H: Final Result/1.05

Date: **October 03, 2018**

Charles McGuirt
Crown Castle
3530 Toringdon Way, Suite 300
Charlotte, NC 28277
Charles.McGuirt@crowncastle.com

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

Subject:	**Mount Structural Analysis**	
Contractor Designation:	**Verizon Wireless**	
	Carrier Site Number:	4187
	Carrier Site Name:	Newington CT
Crown Castle Designation:	**Crown Castle BU Number:**	876332
	Crown Castle Site Name:	36 Prospect Street
	Crown Castle JDE Number:	528166
	Crown Castle PO Number:	1263813
	Crown Castle Application Number:	457591 Rev. 0
Engineering Firm Designation:	**ETS Project No.:**	184421.14
Site Data:	**36 Prospect Street, Newington, Hartford County, CT 06109** **Latitude: 41° 41' 23.66" Longitude: -72° 42' 18.85"**	
Structure Information:	**Tower Height & Type:**	136.0-ft Monopole
	Mount Elevation:	106.0-ft
	Mount Width & Type:	12.0-ft Platform Mount

Dear Charles McGuirt,

Engineered Tower Solutions, PLLC is pleased to submit this **"Mount Structural Analysis Report"** to determine the structural integrity of *Verizon Wireless* 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.

Based upon our analysis, we have determined the adequacy of the antenna mounting system that will support the existing and proposed loading to be for the following Load Case:

Platform Mount **Sufficient Capacity**

The analysis has been performed in accordance with the TIA-222-H Standard. This analysis utilizes an ultimate 3-second gust wind speed of 125 mph from the ***2012 International Building Code***. Exposure Category B with a maximum topographic factor, Kzt, of 1.000 and Risk Category II were used in this analysis.

We at Engineered Tower Solutions, PLLC appreciate the opportunity of providing our continuing professional services to you and Crown Castle. If you have any questions or need further assistance on this or any other projects, please give us a call.

Mount structural analysis prepared by:

Helen Tesfaye, EI
Structural Engineer I

Respectfully Submitted by:

Frederic G. Bost, PE
Owner/President

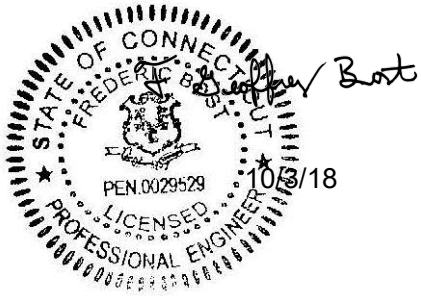


TABLE OF CONTENTS

1) INTRODUCTION

This mount is a 12.0 ft Platform mount installed at the 106.0 ft elevation of the 136.0 ft Monopole. Engineered Tower Solutions, PLLC, did not visit the site. A mapping and/or mount manufacturer drawings were not provided. Therefore, per direction of Crown Castle, photos of the tower were compared with other mounts within our database and a similar and comparable mount was used to perform this mount analysis

2) ANALYSIS CRITERIA

Building Code:	2012 IBC
TIA-222 Revision:	TIA-222-H
Risk Category:	II
Wind Speed:	125 mph
Exposure Category:	B
Topographic Factor:	1
Ice Thickness:	2.00 in
Wind Speed with Ice:	50 mph
Seismic Ss:	0.182
Seismic S1:	0.064
Service Wind Speed:	30 mph

Table 1 – Proposed Equipment Configuration

Mount Centerline (ft)	Antenna Centerline (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Mount / Modification Details
106.0	106.0	6	ANDREW	SBNHH-1D65B	12.0 ft Platform Mount
		6	DECIBEL	DB846F65ZAXY	
		1	RAYCAP	RVZDC-6627-PF-48	
		1	RFS/CELWAVE	DB-T1-6Z-8AB-0Z	
		3	SAMSUNG TELECOMMUNICATIONS	RFV01U-D1A	
		3	SAMSUNG TELECOMMUNICATIONS	RFV01U-D2A	

3) ANALYSIS PROCEDURE

Table 2 – Documents Provided

Document	Remarks	Reference	Source
Structural Level Drawings (Installed)	Crown Castle	08/30/2018	CCI Sites
Structural Level Drawing (Proposed)	Crown Castle	08/30/2018	CCI Sites
Carrier Application	App # 457591 Rev. 0	08/21/2018	CCI Sites
4-Structural Analysis Report	B+T Group	7813397	CCI Sites

3.1) Analysis Method

RISA-3D (version 16.0), 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 C.

3.2) Assumptions

1) Engineered Tower Solutions, PLLC, did not visit the site. A mapping and/or mount manufacturer drawings were not provided. Therefore, per direction of Crown Castle, photos of the tower were compared with other mounts within our database and a similar and comparable mount was used to perform this mount analysis
2) The antenna mounting system was properly fabricated, installed and maintained in good condition in accordance with its original design and manufacturer's specification.
3) The configuration of antennas, mounts and other appurtenances are as specified in Tables 1 and 2 and the referenced drawings.
4) 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.
5) This Structural Analysis is not a condition assessment of the mount and is an evaluation of the theoretical structural capacity.
6) This analysis is based from the information supplied, and therefore, this report's results are as accurate as the supplied data.
7) 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.
8) It is the tower owner's responsibility to verify that the mount modeled and analyzed is the correct structure modeled.
9) 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.
10) Member connections are assumed to have been designed to meet or exceed the theoretical capacity of the connected member.
11) Steel grades have been assumed as follows:

a)	Channel, Solid Round, Angle, Plate	ASTM A36 (Gr 36)
b)	HSS (Rectangular)	ASTM 500 (Gr B-46)
c)	HSS (Round)	ASTM 500 (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)

Mount Centerline (ft)	Component	% Capacity	Pass/Fail	Notes
106.0	Face Mount – Horizontal	79.2	PASS	1
	Mount Pipe – Vertical	53.8	PASS	1
	Sidearm – Horizontal	46.6	PASS	1

Notes:

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

Tower Mount Rating (max from all components) =	79.2%

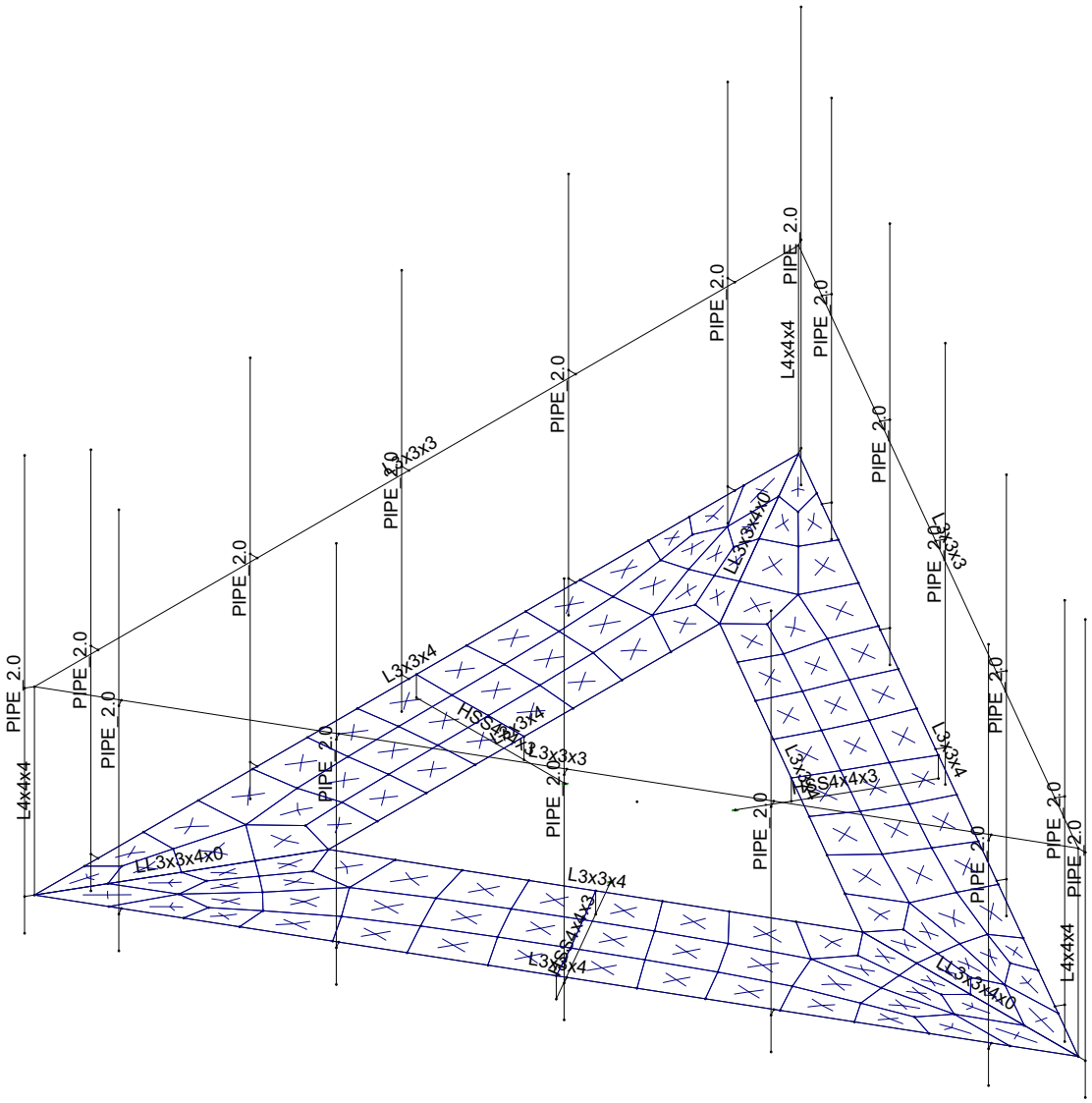
Verizon Mount Classification	M1300R(500)-5[18]

4.1) Recommendations

The tower mount has sufficient capacity to carry the existing and proposed load configuration. No modifications are required at this time.

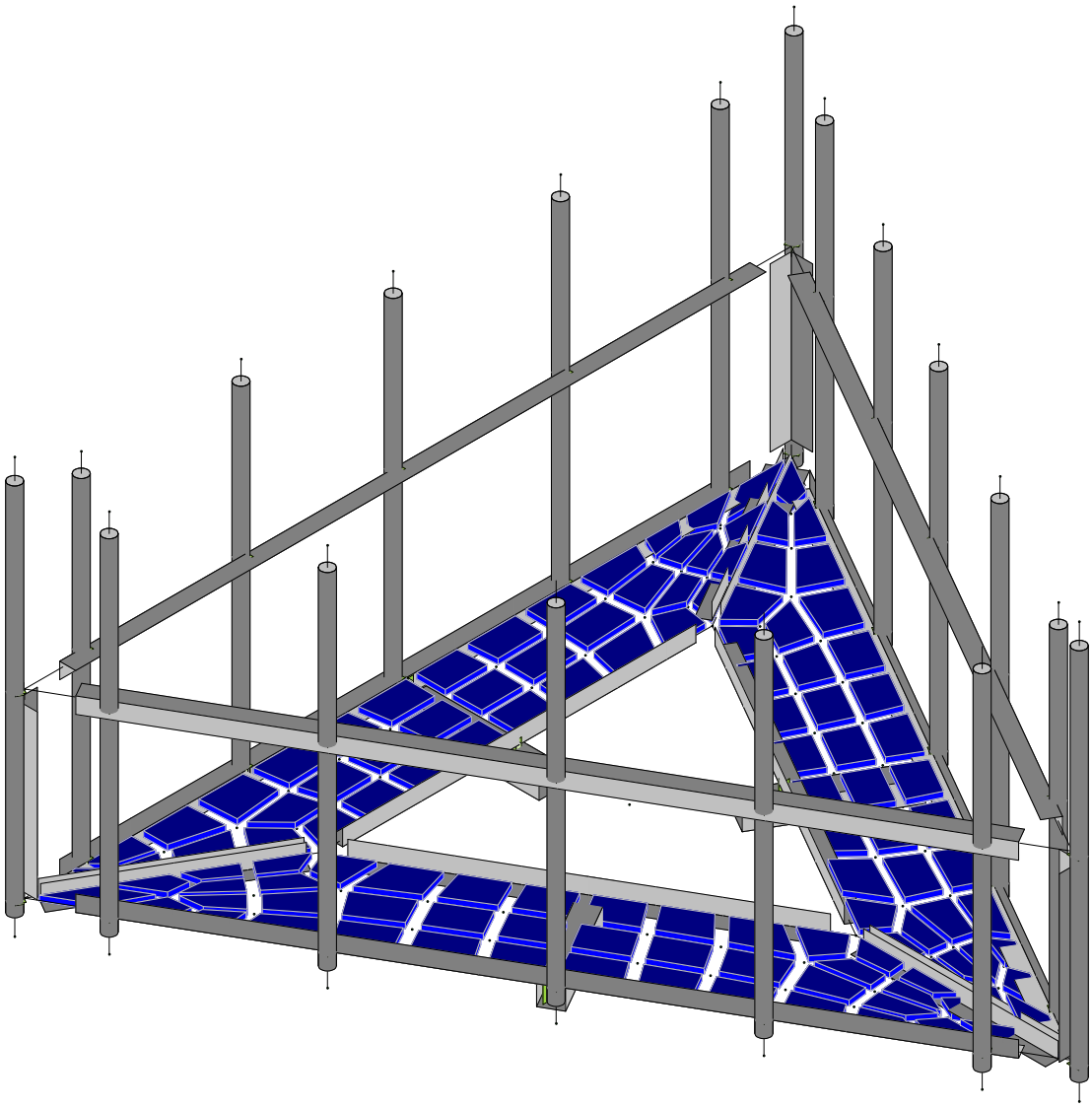
APPENDIX A

WIRE FRAME AND RENDERED MODELS



Loads: BLC 68, Maintenance Load, Lv (Pos. 12)

Engineered Tower Solutio...	876332-36 Prospect Street	SK - 2
HHT		Oct 1, 2018 at 11:47 AM
18.14		36 Prospect Street_Loaded.r3d



Loads: BLC 68, Maintenance Load, Lv (Pos. 12)

Engineered Tower Solutio...	876332-36 Prospect Street	SK - 3
HHT		Oct 1, 2018 at 11:47 AM
18.14		36 Prospect Street_Loaded.r3d

APPENDIX B

SOFTWARE INPUT CALCULATIONS

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	125 mph
Basic Wind Speed with Ice, V_i	50 mph
Design of Ice, δ_{ice}	56 pcf
Design Ice Thickness, t_i	2.00 in
Basic Wind Speed (Maintenance)	30 mph
Maintenance Load, L_m	500 lb
Maintenance Load, L_v	250 lb
Height of Structure, h	136.0 ft
Mount Centerline, h_m	106.0 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	00 ft
Ground Elevation Factor, K_e	1.00
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	
0.182	Spectral response acceleration parameter at short periods, S_S
0.064	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
0.194	Design spectral response acceleration parameter at short periods, S_{DS}
0.102	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
0.0971	Seismic Response Coefficient, C_s
Eh = 0.097 W	Total Seismic Shear Force, $E_h = \rho Q_E$ ($Q_E = \rho C_s W A_s$ & $\rho = 1.0$)
Ev = 0.039 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: 36 Prospect Street_Loaded | Include MW: No

Mounting Pipe Properties and Forces

Mount Pipe Information							Force Coefficients - No Ice				Wind Force - No Ice (Front)								Wind Force - No Ice (Side)					Force Coefficients - Ice					Wind Force - Ice (Front)				Wind Force - Ice (Side)				
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	Antenna Offset (ft)	Antenna Length (in)	Top Protrusion (in)	Base Protrusion (in)	C_A	A_A (ft^2)	C_AA_A (ft^2)	Design Wind Force (lbf), F_A	Aspect Ratio	C_A	A_A (ft^2)	C_AA_A (ft^2)	Design Wind Force (lbf), F_A	Height Escalation Factor, K_Z	Design Ice Thickness (in), t_{iz}	Flow Pattern	Velocity Pressure (psf), q_z	Ice Weight (lbs)	C_A	A_A (ft^2)	C_AA_A (ft^2)	Design Wind Force (lbf), F_A	Aspect Ratio	C_A	A_A (ft^2)	C_AA_A (ft^2)	Design Wind Force (lbf), F_A
P 2 SCH 40 x 72	MP1	1.08 ft	72.00 in	2.38 in	21.94 lb	Round	1.0077	24.8	Subcritical	38.29 psf	0.00 ft	72.00 in	12.96 in	0.00 in	1.00	0.214	0.214	8.19 lb	30.3	1.20	1.188	1.425	54.57 lb	1.12	2.250 in	Subcritical	6.13 psf	76.27 lbs	1.00	0.834	0.834	5.11 lb	11.1	0.89	3.652	3.257	19.95 lb
P 2 SCH 40 x 72	MP2	1.08 ft	72.00 in	2.38 in	21.94 lb	Round	1.0077	24.8	Subcritical	38.29 psf	0.00 ft	72.00 in	12.96 in	0.00 in	1.00	0.214	0.214	8.19 lb	30.3	1.20	1.188	1.425	54.57 lb	1.12	2.250 in	Subcritical	6.13 psf	76.27 lbs	1.00	0.834	0.834	5.11 lb	11.1	0.89	3.652	3.257	19.95 lb
P 2 SCH 40 x 72	MP3	1.08 ft	72.00 in	2.38 in	21.94 lb	Round	1.0077	24.8	Subcritical	38.29 psf	0.00 ft	0.00 in	48.96 in	23.04 in	1.00	1.188	1.188	45.47 lb	30.3	1.20	1.188	1.425	54.57 lb	1.12	2.250 in	Subcritical	6.13 psf	76.27 lbs	1.00	3.652	3.652	22.38 lb	11.1	0.89	3.652	3.257	19.95 lb
P 2 SCH 40 x 72	MP4	1.08 ft	72.00 in	2.38 in	21.94 lb	Round	1.0077	24.8	Subcritical	38.29 psf	0.00 ft	72.00 in	12.96 in	0.00 in	1.00	0.214	0.214	8.19 lb	30.3	1.20	1.188	1.425	54.57 lb	1.12	2.250 in	Subcritical	6.13 psf	76.27 lbs	1.00	0.834	0.834	5.11 lb	11.1	0.89	3.652	3.257	19.95 lb
P 2 SCH 40 x 72	MP5	1.08 ft	72.00 in	2.38 in	21.94 lb	Round	1.0077	24.8	Subcritical	38.29 psf	0.00 ft	72.00 in	12.96 in	0.00 in	1.00	0.214	0.214	8.19 lb	30.3	1.20	1.188	1.425	54.57 lb	1.12	2.250 in	Subcritical	6.13 psf	76.27 lbs	1.00	0.834	0.834	5.11 lb	11.1	0.89	3.652	3.257	19.95 lb
P 2 SCH 40 x 72	MP6	1.08 ft	72.00 in	2.38 in	21.94 lb	Round	1.0077	24.8	Subcritical	38.29 psf	0.00 ft	72.00 in	12.96 in	0.00 in	1.00	0.214	0.214	8.19 lb	30.3	1.20	1.188	1.425	54.57 lb	1.12	2.250 in	Subcritical	6.13 psf	76.27 lbs	1.00	0.834	0.834	5.11 lb	11.1	0.89	3.652	3.257	19.95 lb
P 2 SCH 40 x 72	MP7	1.08 ft	72.00 in	2.38 in	21.94 lb	Round	1.0077	24.8	Subcritical	38.29 psf	0.00 ft	72.00 in	12.96 in	0.00 in	1.00	0.214	0.214	8.19 lb	30.3	1.20	1.188	1.425	54.57 lb	1.12	2.250 in	Subcritical	6.13 psf	76.27 lbs	1.00	0.834	0.834	5.11 lb	11.1	0.89	3.652	3.257	19.95 lb
P 2 SCH 40 x 72	MP8	1.08 ft	72.00 in	2.38 in	21.94 lb	Round	1.0077	24.8	Subcritical	38.29 psf	0.00 ft	0.00 in	48.96 in	23.04 in	1.00	1.188	1.188	45.47 lb	30.3	1.20	1.188	1.425	54.57 lb	1.12	2.250 in	Subcritical	6.13 psf	76.27 lbs	1.00	3.652	3.652	22.38 lb	11.1	0.89	3.652	3.257	19.95 lb
P 2 SCH 40 x 72	MP9	1.08 ft	72.00 in	2.38 in	21.94 lb	Round	1.0077	24.8	Subcritical	38.29 psf	0.00 ft	72.00 in	12.96 in	0.00 in	1.00	0.214	0.214	8.19 lb	30.3	1.20	1.188	1.425	54.57 lb	1.12	2.250 in	Subcritical	6.13 psf	76.27 lbs	1.00	0.834	0.834	5.11 lb	11.1	0.89	3.652	3.257	19.95 lb
P 2 SCH 40 x 72	MP10	1.08 ft	72.00 in	2.38 in	21.94 lb	Round	1.0077	24.8	Subcritical	38.29 psf	0.00 ft	72.00 in	12.96 in	0.00 in	1.00	0.214	0.214	8.19 lb	30.3	1.20	1.188	1.425	54.57 lb	1.12	2.250 in	Subcritical	6.13 psf	76.27 lbs	1.00	0.834	0.834	5.11 lb	11.1	0.89	3.652	3.257	19.95 lb
P 2 SCH 40 x 72	MP11	1.08 ft	72.00 in	2.38 in	21.94 lb	Round	1.0077	24.8	Subcritical	38.29 psf	0.00 ft	72.00 in	12.96 in	0.00 in	1.00	0.214	0.214	8.19 lb	30.3	1.20	1.188	1.425	54.57 lb	1.12	2.250 in	Subcritical	6.13 psf	76.27 lbs	1.00	0.834	0.834	5.11 lb	11.1	0.89	3.652	3.257	19.95 lb
P 2 SCH 40 x 72	MP12	1.08 ft	72.00 in	2.38 in	21.94 lb	Round	1.0077	24.8	Subcritical	38.29 psf	0.00 ft	72.00 in	12.96 in	0.00 in	1.00	0.214	0.214	8.19 lb	30.3	1.20	1.188	1.425	54.57 lb	1.12	2.250 in	Subcritical	6.13 psf	76.27 lbs	1.00	0.834	0.834	5.11 lb	11.1	0.89	3.652	3.257	19.95 lb
P 2 SCH 40 x 72	MP13	1.08 ft	72.00 in	2.38 in	21.94 lb	Round	1.0077	24.8	Subcritical	38.29 psf	0.00 ft	72.00 in	12.96 in	0.00 in	1.00	0.214	0.214	8.19 lb	30.3	1.20	1.188	1.425	54.57 lb	1.12	2.250 in	Subcritical	6.13 psf	76.27 lbs	1.00	0.834	0.834	5.11 lb	11.1	0.89	3.652	3.257	19.95 lb
P 2 SCH 40 x 72	MP14	1.08 ft	72.00 in	2.38 in	21.94 lb	Round	1.0077	24.8	Subcritical	38.29 psf	0.00 ft	0.00 in	48.96 in	23.04 in	1.00	1.188	1.188	45.47 lb	30.3	1.20	1.188	1.425	54.57 lb	1.12	2.250 in	Subcritical	6.13 psf	76.27 lbs	1.00	3.652	3.652	22.38 lb	11.1	0.89	3.652	3.257	19.95 lb
P 2 SCH 40 x 72	MP15	1.08 ft	72.00 in	2.38 in	21.94 lb	Round	1.0077	24.8	Subcritical	38.29 psf	0.00 ft	72.00 in	12.96 in	0.00 in	1.00	0.214	0.214	8.19 lb	30.3	1.20	1.188	1.425	54.57 lb	1.12	2.250 in	Subcritical	6.13 psf	76.27 lbs	1.00	0.834	0.834	5.11 lb	11.1	0.89	3.652	3.257	19.95 lb
P 2 SCH 40 x 78	MP16	1.08 ft	78.00 in	2.38 in	23.77 lb	Round	1.0077	24.8	Subcritical	38.29 psf	0.00 ft	0.00 in	51.96 in	26.04 in	1.00	1.286	1.286	49.26 lb	32.8	1.20	1.286	1.544	59.12 lb	1.12	2.250 in	Subcritical	6.13 psf	82.63 lbs	1.00	3.939	3.939	24.13 lb	12.0	0.91	3.939	3.589	21.99 lb
P 2 SCH 40 x 78	MP17	1.08 ft	78.00 in	2.38 in	23.77 lb	Round	1.0077	24.8	Subcritical	38.29 psf	0.00 ft	0.00 in	51.96 in	26.04 in	1.00	1.286	1.286	49.26 lb	32.8	1.20	1.286	1.544	59.12 lb	1.12	2.250 in	Subcritical	6.13 psf	82.63 lbs	1.00	3.939	3.939	24.13 lb	12.0	0.91	3.939	3.589	21.99 lb
P 2 SCH 40 x 78	MP18	1.08 ft	78.00 in	2.38 in	23.77 lb	Round	1.0077	24.8	Subcritical	38.29 psf	0.00 ft	0.00 in	51.96 in	26.04 in	1.00	1.286	1.286	49.26 lb	32.8	1.20	1.286	1.544	59.12 lb	1.12	2.250 in	Subcritical	6.13 psf	82.63 lbs	1.00	3.939	3.939	24.13 lb	12.0	0.91	3.939	3.589	21.99 lb

Appurtenance Properties and Forces

Antenna Information											Force Coefficients - No Ice							Wind Force - No Ice (Front)					Wind Force - No Ice (Side)					Force Coefficients - Ice						Wind Force - Ice (Front)							Wind Force - Ice (Side)					
Appurtenance	Appurtenance Type	Mount Location	Quantity	Vertical Offset (ft)	Allow Shielding	Length (in)	Width (in)	Depth (in)	Weight (lbs)	Shape	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 (ft^2)	C_AA_A (ft^2)	Design Wind Force (lbf), F_A	Aspect Ratio	C_A	A_A (ft^2)	C_AA_A (ft^2)	Design Wind Force (lbf), F_A	Height Escalation Factor, K_Z	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 (ft^2)	Ice A_A (ft^2)	C_AA_A (ft^2)	Design Wind Force (lbf), F_A	Aspect Ratio	Apprt. C_A	Ice C_A	A_A (ft^2)	C_AA_A (ft^2)	Design Wind Force (lbf), F_A
DECIBEL // DB846F65ZAXY	Antenna	MP1	1	0.00 ft	No	72.00 in	10.00 in	8.50 in	21.00 lb	Flat	1.0048	104.4	Subcritical	38.18 psf	10.00 in	0.00 in	0.0%	7.2	1.41	5.000	7.033	268.56 lb	8.5	1.45	4.250	6.158	235.14 lb	1.12	2.248 in	Subcritical	6.109 psf	0.00 in	253.26 lb	5.3	1.32	0.76	5.00	2.388	8.436	51.54 lb	5.9	1.4	0.78	2.653	7.797	47.63 lb
RFS/CELWAVE // DB-T1-6Z-8AB-0Z	TME	MP1	1	0.00 ft	Yes	24.00 in	24.00 in	10.00 in	44.00 lb	Flat	1.0048	250.6	Subcritical	38.18 psf	10.00 in	14.00 in	41.7%	1.0	1.20	2.333	2.800	106.91 lb	2.4	1.20	1.667	2.000	76.37 lb	1.12	2.248 in	Subcritical	6.109 psf	9.50 in	155.13 lb	1.0	1.20	0.70	1.58	1.186	2.731	16.69 lb	2.0	1.2	0.70	1.202	2.841	17.36 lb
SAMSUNG TELECOMMUNICATIONS // RFV01U-D2A	TME	MP1	2	0.00 ft	No	15.00 in	15.00 in	8.10 in	70.30 lb	Flat	1.0048	156.6	Subcritical	38.18 psf	10.00 in	5.00 in	0.0%	1.0	1.20	1.563	1.875	143.19 lb	1.9	1.20	0.844	1.013	77.32 lb	1.12	2.248 in	Subcritical	6.109 psf	0.50 in	66.23 lb	1.0	1.20	0.70	1.56	0.624	2.312	28.25 lb	1.5	1.2	0.70	0.861	1.615	19.74 lb
RAYCAP // RVZDC-6627-PF-48	TME	MP1	1	0.00 ft	No	28.93 in	15.73 in	10.31 in	32.00 lb	Flat	1.0048	164.2	Subcritical	38.18 psf	10.00 in	5.73 in	0.0%	1.8	1.20	3.160	3.792	144.80 lb	2.8	1.21	2.071	2.514	95.98 lb	1.12	2.248 in	Subcritical	6.109 psf	1.23 in	139.38 lb	1.7	1.20	0.70	3.16	1.082	4.550	27.79 lb	2.3	1.2	0.70	1.365	3.441	21.02 lb
ANDREW // SBNHH-1D65B	Antenna	MP2	1	0.00 ft	No	72.00 in	11.90 in	7.10 in	40.60 lb	Flat	1.0048	124.3	Subcritical	38.18 psf	11.90 in	0.00 in	0.0%	6.1	1.36	5.950	8.079	308.48 lb	10.1	1.50	3.550	5.342	203.96 lb	1.12	2.248 in	Subcritical	6.109 psf	0.00 in	265.33 lb	4.7	1.30	0.75	5.95	2.388	9.499	58.03 lb	6.6	1.4	0.79	2.610	6.971	42.59 lb
ANDREW // SBNHH-1D65B	Antenna	MP4	1	0.00 ft	No	72.00 in	11.90 in	7.10 in	40.60 lb	Flat	1.0048	124.3	Subcritical	38.18 psf	11.90 in	0.00 in	0.0%	6.1	1.36	5.950	8.079	308.48 lb	10.1	1.50	3.550	5.342	203.96 lb	1.12	2.248 in	Subcritical	6.109 psf	0.00 in	265.33 lb	4.7	1.30	0.75	5.95	2.388	9.499	58.03 lb	6.6	1.4	0.79	2.610	6.971	42.59 lb
DECIBEL // DB846F65ZAXY	Antenna	MP5	1	0.00 ft	No	72.00 in	10.00 in	8.50 in	21.00 lb	Flat	1.0048	104.4	Subcritical	38.18 psf	10.00 in	0.00 in	0.0%	7.2	1.41	5.000	7.033	268.56 lb	8.5	1.45	4.250	6.158	235.14 lb	1.12	2.248 in	Subcritical	6.109 psf	0.00 in	253.26 lb	5.3	1.32	0.76	5.00	2.388	8.436	51.54 lb	5.9	1.4	0.78	2.653	7.797	47.63 lb
DECIBEL // DB846F65ZAXY	Antenna	MP6	1	0.00 ft	No	72.00 in	10.00 in	8.50 in	21.00 lb	Flat	1.0048	104.4	Subcritical	38.18 psf	10.00 in	0.00 in	0.0%	7.2	1.41	5.000	7.033	268.56 lb	8.5	1.45	4.250	6.158	235.14 lb	1.12	2.248 in	Subcritical	6.109 psf	0.00 in	253.26 lb	5.3	1.32	0.76	5.00	2.388	8.436	51.54 lb	5.9	1.4	0.78	2.653	7.797	47.63 lb
SAMSUNG TELECOMMUNICATIONS // RFV01U-D2A	TME	MP6	1	0.00 ft	No	15.00 in	15.00 in	8.10 in	70.30 lb	Flat	1.0048	156.6	Subcritical	38.18 psf	10.00 in	5.00 in	0.0%	1.0	1.20	1.563	1.875	71.59 lb	1.9	1.20	0.844	1.013	38.66 lb	1.12	2.248 in	Subcritical	6.109 psf	0.50 in	66.23 lb	1.0	1.20	0.70	1.56	0.624	2.312	14.12 lb	1.5	1.2	0.70	0.861	1.615	9.87 lb
SAMSUNG TELECOMMUNICATIONS // RFV01U-D1A	TME	MP6	1	0.00 ft	No	15.00 in	15.00 in	10.00 in	84.40 lb	Flat	1.0048	156.6	Subcritical	38.18 psf	10.00 in	5.00 in	0.0%	1.0	1.20	1.563	1.875	71.59 lb	1.5	1.20	1.042	1.250	47.73 lb	1.12	2.248 in	Subcritical	6.109 psf	0.50 in	69.59 lb	1.0	1.20	0.70	1.56	0.624	2.312	14.12 lb	1.3	1.2	0.70	0.921	1.895	11.57 lb
ANDREW // SBNHH-1D65B	Antenna	MP7	1	0.00 ft	No	72.00 in	11.90 in	7.10 in	40.60 lb	Flat	1.0048	124.3	Subcritical	38.18 psf	11.90 in	0.00 in	0.0%	6.1	1.36	5.950	8.079	308.48 lb	10.1	1.50	3.550	5.342	203.96 lb	1.12	2.248 in	Subcritical	6.109 psf	0.00 in	265.33 lb	4.7	1.30	0.75	5.95	2.388	9.499	58.03 lb	6.6	1.4	0.79	2.610	6.971	42.59 lb
ANDREW // SBNHH-1D65B	Antenna	MP9	1	0.00 ft	No	72.00 in	11.90 in	7.10 in	40.60 lb	Flat	1.0048	124.3	Subcritical	38.18 psf	11.90 in	0.00 in	0.0%	6.1	1.36	5.950	8.079	308.48 lb	10.1	1.50	3.550	5.342	203.96 lb	1.12	2.248 in	Subcritical	6.109 psf	0.00 in	265.33 lb	4.7	1.30	0.75	5.95	2.388	9.499	58.03 lb	6.6	1.4	0.79	2.610	6.971	42.59 lb
DECIBEL // DB846F65ZAXY	Antenna	MP10	1	0.00 ft	No	72.00 in	10.00 in	8.50 in	21.00 lb	Flat	1.0048	104.4	Subcritical	38.18 psf	10.00 in	0.00 in	0.0%	7.2	1.41	5.000	7.033	268.56 lb	8.5	1.45	4.250	6.158	235.14 lb	1.12	2.248 in	Subcritical	6.109 psf	0.00 in	253.26 lb	5.3	1.32	0.76	5.00	2.388	8.436	51.54 lb	5.9	1.4	0.78	2.653	7.797	47.63 lb
DECIBEL // DB846F65ZAXY	Antenna	MP11	1	0.00 ft	No	72.00 in	10.00 in	8.50 in	21.00 lb	Flat	1.0048	104.4	Subcritical	38.18 psf	10.00 in	0.00 in	0.0%	7.2	1.41	5.000	7.033	268.56 lb	8.5	1.45	4.250	6.158	235.14 lb	1.12	2.248 in	Subcritical	6.109 psf	0.00 in	253.26 lb	5.3	1.32	0.76	5.00	2.388	8.436	51.54 lb	5.9	1.4	0.78	2.653	7.797	47.63 lb
SAMSUNG TELECOMMUNICATIONS // RFV01U-D1A	TME	MP11	2	0.00 ft	No	15.00 in	15.00 in	10.00 in	84.40 lb	Flat	1.0048	156.6	Subcritical	38.18 psf	10.00 in	5.00 in	0.0%	1.0	1.20	1.563	1.875	143.19 lb	1.5	1.20	1.042	1.250	95.46 lb	1.12	2.248 in	Subcritical	6.109 psf	0.50 in	69.59 lb	1.0	1.20	0.70	1.56	0.624	2.312	28.25 lb	1.3	1.2	0.70	0.921	1.895	23.15 lb
ANDREW // SBNHH-1D65B	Antenna	MP12	1	0.00 ft	No	72.00 in	11.90 in	7.10 in	40.60 lb	Flat	1.0048	124.3	Subcritical	38.18 psf	11.90 in	0.00 in	0.0%	6.1	1.36	5.950	8.079	308.48 lb	10.1	1.50	3.550	5.342	203.96 lb	1.12	2.248 in	Subcritical	6.109 psf	0.00 in	265.33 lb	4.7	1.30	0.75	5.95	2.388	9.499	58.03 lb	6.6	1.4	0.79	2.610	6.971	42.59 lb
ANDREW // SBNHH-1D65B	Antenna	MP13	1	0.00 ft	No	72.00 in	11.90 in	7.10 in	40.60 lb	Flat	1.0048	124.3	Subcritical	38.18 psf	11.90 in	0.00 in	0.0%	6.1	1.36	5.950	8.079	308.48 lb	10.1	1.50	3.550	5.342	203.96 lb	1.12	2.248 in	Subcritical	6.109 psf	0.00 in	265.33 lb	4.7	1.30	0.75	5.95	2.388	9.499	58.03 lb	6.6	1.4	0.79	2.610	6.971	42.59 lb
DECIBEL // DB846F65ZAXY	Antenna	MP15	1	0.00 ft	No	72.00 in	10.00 in	8.50 in	21.00 lb	Flat	1.0048	104.4	Subcritical	38.18 psf	10.00 in	0.00 in	0.0%	7.2	1.41	5.000	7.033	268.56 lb	8.5	1.45	4.250	6.158	235.14 lb	1.12	2.248 in	Subcritical	6.109 psf	0.00 in	253.26 lb	5.3	1.32	0.76	5.00	2.388	8.436	51.54 lb	5.9	1.4	0.78	2.653	7.797	47.63 lb

Mount Pipe Point Loads		No Ice - TME & Mount		Ice - TME & Mount			No Ice - Antenna		Ice - Antenna	
Mount Location	Dead Load	Normal K_aEPA_N	Transverse K_aEPA_T	Ice Load	Normal $K_aEPA_{N,ice}$	Transverse $K_aEPA_{T,ice}$	Normal K_aEPA_N	Transverse K_aEPA_T	Normal $K_aEPA_{N,ice}$	Transverse $K_aEPA_{T,ice}$
MP1	237.6 lb	362.8 lb	273.8 lb	756.5 lb	70.1 lb	70.3 lb	49.1 lb/ft	43.0 lb/ft	9.4 lb/ft	8.7 lb/ft
MP2	40.6 lb	7.4 lb	49.1 lb	341.6 lb	4.6 lb	18.0 lb	56.4 lb/ft	37.3 lb/ft	10.6 lb/ft	7.8 lb/ft
MP3	0.0 lb	40.9 lb	49.1 lb	76.3 lb	20.1 lb	18.0 lb	0.0 lb/ft	0.0 lb/ft	0.0 lb/ft	0.0 lb/ft
MP4	40.6 lb	7.4 lb	49.1 lb	341.6 lb	4.6 lb	18.0 lb	56.4 lb/ft	37.3 lb/ft	10.6 lb/ft	7.8 lb/ft
MP5	21.0 lb	7.4 lb	49.1 lb	329.5 lb	4.6 lb	18.0 lb	49.1 lb/ft	43.0 lb/ft	9.4 lb/ft	8.7 lb/ft
MP6	175.7 lb	136.2 lb	126.9 lb	465.4 lb	30.0 lb	37.3 lb	49.1 lb/ft	43.0 lb/ft	9.4 lb/ft	8.7 lb/ft
MP7	40.6 lb	7.4 lb	49.1 lb	341.6 lb	4.6 lb	18.0 lb	56.4 lb/ft	37.3 lb/ft	10.6 lb/ft	7.8 lb/ft
MP8	0.0 lb	40.9 lb	49.1 lb	76.3 lb	20.1 lb	18.0 lb	0.0 lb/ft	0.0 lb/ft	0.0 lb/ft	0.0 lb/ft
MP9	40.6 lb	7.4 lb	49.1 lb	341.6 lb	4.6 lb	18.0 lb	56.4 lb/ft	37.3 lb/ft	10.6 lb/ft	7.8 lb/ft
MP10	21.0 lb	7.4 lb	49.1 lb	329.5 lb	4.6 lb	18.0 lb	49.1 lb/ft	43.0 lb/ft	9.4 lb/ft	8.7 lb/ft
MP11	189.8 lb	136.2 lb	135.0 lb	468.7 lb	30.0 lb	38.8 lb	49.1 lb/ft	43.0 lb/ft	9.4 lb/ft	8.7 lb/ft
MP12	40.6 lb	7.4 lb	49.1 lb	341.6 lb	4.6 lb	18.0 lb	56.4 lb/ft	37.3 lb/ft	10.6 lb/ft	7.8 lb/ft
MP13	40.6 lb	7.4 lb	49.1 lb	341.6 lb	4.6 lb	18.0 lb	56.4 lb/ft	37.3 lb/ft	10.6 lb/ft	7.8 lb/ft
MP14	0.0 lb	40.9 lb	49.1 lb	76.3 lb	20.1 lb	18.0 lb	0.0 lb/ft	0.0 lb/ft	0.0 lb/ft	0.0 lb/ft
MP15	21.0 lb	7.4 lb	49.1 lb	329.5 lb	4.6 lb	18.0 lb	49.1 lb/ft	43.0 lb/ft	9.4 lb/ft	8.7 lb/ft
MP16	0.0 lb	44.3 lb	53.2 lb	82.6 lb	21.7 lb	19.8 lb	0.0 lb/ft	0.0 lb/ft	0.0 lb/ft	0.0 lb/ft
MP17	0.0 lb	44.3 lb	53.2 lb	82.6 lb	21.7 lb	19.8 lb	0.0 lb/ft	0.0 lb/ft	0.0 lb/ft	0.0 lb/ft
MP18	0.0 lb	44.3 lb	53.2 lb	82.6 lb	21.7 lb	19.8 lb	0.0 lb/ft	0.0 lb/ft	0.0 lb/ft	0.0 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	Ka * Force/Length, No Ice	Height Escalation Factor, K_Z	Design Ice Thickness (in), t_{iz}	Ice C_A	Velocity Pressure (psf), q_z	Ice Weight (plf)	Ka * Force/Length, Ice
L3X3X4	0.0 ft	3.000 in	3.000 in	Flat	1.00	2.00	38.18 psf	17.2 lb/ft	1.124	2.248 in	1.20	6.109	17.8 lb/ft	5.2 lb/ft
HSS4X4X3	0.0 ft	4.000 in	4.000 in	Flat	1.00	2.00	38.18 psf	22.9 lb/ft	1.124	2.248 in	1.20	6.109	21.7 lb/ft	6.1 lb/ft
L3X3X4	0.0 ft	6.000 in	3.000 in	Flat	1.00	2.00	38.18 psf	34.4 lb/ft	1.124	2.248 in	1.20	6.109	24.6 lb/ft	8.0 lb/ft
L3X3X3	2.8 ft	3.000 in	3.000 in	Flat	1.01	2.00	38.47 psf	17.3 lb/ft	1.127	2.253 in	1.20	6.155	17.9 lb/ft	5.3 lb/ft
L4X4X4	0.0 ft	4.000 in	4.000 in	Flat	1.00	2.00	38.18 psf	22.9 lb/ft	1.124	2.248 in	1.20	6.109	21.7 lb/ft	6.1 lb/ft

APPENDIX C

SOFTWARE ANALYSIS OUTPUT

Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotate(de...	Section/Shape	Type	Design List	Material	Design Rules
1	FM1	N6	N2		270	L3x3x4	None	None	A36 Gr.36	Typical
2	FM2	N4	N6		270	L3x3x4	None	None	A36 Gr.36	Typical
3	FM3	N2	N4		270	L3x3x4	None	None	A36 Gr.36	Typical
4	HORIZ1	N5	N1			L3x3x4	None	None	A36 Gr.36	Typical
5	HORIZ2	N3	N5			L3x3x4	None	None	A36 Gr.36	Typical
6	HORIZ3	N1	N3			L3x3x4	None	None	A36 Gr.36	Typical
7	HR1	N170A	N173A		180	L3x3x3	None	None	A53 Gr.B	Typical
8	HR2	N176B	N170A		180	L3x3x3	None	None	A53 Gr.B	Typical
9	HR3	N173A	N176B		180	L3x3x3	None	None	A53 Gr.B	Typical
10	RL1	N96	N11			RIGID	None	None	RIGID	Typical
11	RL2	N95	N10			RIGID	None	None	RIGID	Typical
12	RL3	N93	N8			RIGID	None	None	RIGID	Typical
13	RL4	N92	N7			RIGID	None	None	RIGID	Typical
14	RL5	N99	N14			RIGID	None	None	RIGID	Typical
15	RL6	N98	N13			RIGID	None	None	RIGID	Typical
16	SA-1	N97	N95			HSS4x4x3	None	None	A500 Gr....	Typical
17	SA-2	N94	N92			HSS4x4x3	None	None	A500 Gr....	Typical
18	SA-3	N100	N98			HSS4x4x3	None	None	A500 Gr....	Typical
19	GRATE1	N3	N4		180	LL3x3x4x0	None	None	A36 Gr.36	Typical
20	GRATE2	N1	N2		180	LL3x3x4x0	None	None	A36 Gr.36	Typical
21	GRATE3	N5	N6		180	LL3x3x4x0	None	None	A36 Gr.36	Typical
22	HR-V1	N2	N173A		180	L4x4x4	Beam	Single Angle	A36 Gr.36	Typical
23	HR-V3	N4	N176B			L4x4x4	Beam	Single Angle	A36 Gr.36	Typical
24	HR-V2	N6	N170A		90	L4x4x4	Beam	Single Angle	A36 Gr.36	Typical
25	M25	N171A	N178A			RIGID	None	None	RIGID	Typical
26	M26	N170B	N177A			RIGID	None	None	RIGID	Typical
27	M27	N167A	N174A			RIGID	None	None	RIGID	Typical
28	M28	N169A	N176A			RIGID	None	None	RIGID	Typical
29	M29	N168A	N175A			RIGID	None	None	RIGID	Typical
30	M30	N181A	N186A			RIGID	None	None	RIGID	Typical
31	M31	N180A	N185A			RIGID	None	None	RIGID	Typical
32	M32	N177B	N182A			RIGID	None	None	RIGID	Typical
33	M33	N179A	N184A			RIGID	None	None	RIGID	Typical
34	M34	N178B	N183A			RIGID	None	None	RIGID	Typical
35	MP1	N196A	N191A			PIPE_2.0	Column	Pipe	A53 Gr.B	Typical
36	MP2	N195A	N190A			PIPE_2.0	Column	Pipe	A53 Gr.B	Typical
37	MP3	N192A	N187A			PIPE_2.0	Column	Pipe	A53 Gr.B	Typical
38	MP4	N194A	N189A			PIPE_2.0	Column	Pipe	A53 Gr.B	Typical
39	MP5	N193A	N188A			PIPE_2.0	Column	Pipe	A53 Gr.B	Typical
40	M40	N202A	N207A			RIGID	None	None	RIGID	Typical
41	M41	N201A	N206A			RIGID	None	None	RIGID	Typical
42	M42	N198A	N203A			RIGID	None	None	RIGID	Typical
43	M43	N200A	N205A			RIGID	None	None	RIGID	Typical
44	M44	N199A	N204A			RIGID	None	None	RIGID	Typical
45	M45	N212A	N217A			RIGID	None	None	RIGID	Typical
46	M46	N211A	N216A			RIGID	None	None	RIGID	Typical
47	M47	N208A	N213A			RIGID	None	None	RIGID	Typical
48	M48	N210A	N215A			RIGID	None	None	RIGID	Typical
49	M49	N209A	N214A			RIGID	None	None	RIGID	Typical
50	MP11	N227	N222A			PIPE_2.0	Column	Pipe	A53 Gr.B	Typical
51	MP12	N226A	N221A			PIPE_2.0	Column	Pipe	A53 Gr.B	Typical
52	MP13	N223A	N218A			PIPE_2.0	Column	Pipe	A53 Gr.B	Typical
53	MP14	N225A	N220A			PIPE_2.0	Column	Pipe	A53 Gr.B	Typical
54	MP15	N224A	N219A			PIPE_2.0	Column	Pipe	A53 Gr.B	Typical
55	M55	N233	N238			RIGID	None	None	RIGID	Typical
56	M56	N232	N237			RIGID	None	None	RIGID	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(de...	Section/Shape	Type	Design List	Material	Design Rules
57	M57	N229	N234			RIGID	None	None	RIGID	Typical
58	M58	N231	N236			RIGID	None	None	RIGID	Typical
59	M59	N230	N235			RIGID	None	None	RIGID	Typical
60	M60	N243	N248			RIGID	None	None	RIGID	Typical
61	M61	N242	N247			RIGID	None	None	RIGID	Typical
62	M62	N239	N244			RIGID	None	None	RIGID	Typical
63	M63	N241	N246			RIGID	None	None	RIGID	Typical
64	M64	N240	N245			RIGID	None	None	RIGID	Typical
65	MP6	N258	N253			PIPE_2.0	Column	Pipe	A53 Gr.B	Typical
66	MP7	N257	N252			PIPE_2.0	Column	Pipe	A53 Gr.B	Typical
67	MP8	N254	N249			PIPE_2.0	Column	Pipe	A53 Gr.B	Typical
68	MP9	N256	N251			PIPE_2.0	Column	Pipe	A53 Gr.B	Typical
69	MP10	N255	N250			PIPE_2.0	Column	Pipe	A53 Gr.B	Typical
70	M70	N4	N257A			RIGID	None	None	RIGID	Typical
71	M71	N6	N259			RIGID	None	None	RIGID	Typical
72	M72	N2	N261			RIGID	None	None	RIGID	Typical
73	M73	N176B	N263			RIGID	None	None	RIGID	Typical
74	M74	N170A	N264			RIGID	None	None	RIGID	Typical
75	M75	N173A	N265			RIGID	None	None	RIGID	Typical
76	MP16	N268	N265A			PIPE_2.0	Column	Pipe	A53 Gr.B	Typical
77	MP17	N267	N264A			PIPE_2.0	Column	Pipe	A53 Gr.B	Typical
78	MP18	N266	N263A			PIPE_2.0	Column	Pipe	A53 Gr.B	Typical

Material Takeoff

	Material	Size	Pieces	Length[in]	Weight[K]
1	General				
2	RIGID		42	71.4	0
3	Total General		42	71.4	0
4					
5	Hot Rolled Steel				
6	A36 Gr.36	L3x3x4	6	653.1	.3
7	A36 Gr.36	LL3x3x4x0	3	121.7	0
8	A36 Gr.36	L4x4x4	3	102	0
9	A500 Gr.B Rect	HSS4x4x3	3	84	0
10	A53 Gr.B	L3x3x3	3	432	.1
11	A53 Gr.B	PIPE_2.0	18	1314	.4
12	Total HR Steel		36	2706.9	1
13					
14	Plate Elements	Thickness (in)		Volume (yds^3)	
15	gen_Conc3NW	1	120	.1	.6
16	Total Plates		120	.1	.6

Member Point Loads (BLC 1 : Dead Load)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	Y	-245.441	%49
2	MP2	Y	-41.94	%49
3	MP3	Y	0	%49
4	MP4	Y	-41.94	%49
5	MP5	Y	-21.693	%49
6	MP6	Y	-181.498	%49
7	MP7	Y	-41.94	%49
8	MP8	Y	0	%49
9	MP9	Y	-41.94	%49
10	MP10	Y	-21.693	%49

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
11	MP11	Y	-196.063	%49
12	MP12	Y	-41.94	%49
13	MP13	Y	-41.94	%49
14	MP14	Y	0	%49
15	MP15	Y	-21.693	%49

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	351.3	%49
2	MP2	X	7.1	%49
3	MP3	X	39.6	%49
4	MP4	X	7.1	%49
5	MP5	X	7.1	%49
6	MP6	X	125.1	%49
7	MP7	X	37.4	%49
8	MP8	X	45.6	%49
9	MP9	X	37.4	%49
10	MP10	X	37.4	%49
11	MP11	X	131	%49
12	MP12	X	37.4	%49
13	MP13	X	37.4	%49
14	MP14	X	45.6	%49
15	MP15	X	37.4	%49
16	MP1	Z	0	%49
17	MP2	Z	0	%49
18	MP3	Z	0	%49
19	MP4	Z	0	%49
20	MP5	Z	0	%49
21	MP6	Z	0	%49
22	MP7	Z	0	%49
23	MP8	Z	0	%49
24	MP9	Z	0	%49
25	MP10	Z	0	%49
26	MP11	Z	0	%49
27	MP12	Z	0	%49
28	MP13	Z	0	%49
29	MP14	Z	0	%49
30	MP15	Z	0	%49

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	295.025	%49
2	MP2	X	15.392	%49
3	MP3	X	37.188	%49
4	MP4	X	15.392	%49
5	MP5	X	15.392	%49
6	MP6	X	109.911	%49
7	MP7	X	42.56	%49
8	MP8	X	42.56	%49
9	MP9	X	42.56	%49
10	MP10	X	42.56	%49
11	MP11	X	117.762	%49
12	MP12	X	15.392	%49
13	MP13	X	15.392	%49
14	MP14	X	37.188	%49
15	MP15	X	15.392	%49

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
16	MP1	Z	170.342	%49
17	MP2	Z	8.884	%49
18	MP3	Z	21.486	%49
19	MP4	Z	8.884	%49
20	MP5	Z	8.884	%49
21	MP6	Z	63.426	%49
22	MP7	Z	24.585	%49
23	MP8	Z	24.585	%49
24	MP9	Z	24.585	%49
25	MP10	Z	24.585	%49
26	MP11	Z	67.971	%49
27	MP12	Z	8.884	%49
28	MP13	Z	8.884	%49
29	MP14	Z	21.486	%49
30	MP15	Z	8.884	%49

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	143.3	%49
2	MP2	X	18.7	%49
3	MP3	X	22.8	%49
4	MP4	X	18.7	%49
5	MP5	X	18.7	%49
6	MP6	X	62.6	%49
7	MP7	X	18.7	%49
8	MP8	X	22.8	%49
9	MP9	X	18.7	%49
10	MP10	X	18.7	%49
11	MP11	X	66	%49
12	MP12	X	3.6	%49
13	MP13	X	3.6	%49
14	MP14	X	19.8	%49
15	MP15	X	3.6	%49
16	MP1	Z	248.3	%49
17	MP2	Z	32.4	%49
18	MP3	Z	39.5	%49
19	MP4	Z	32.4	%49
20	MP5	Z	32.4	%49
21	MP6	Z	108.3	%49
22	MP7	Z	32.4	%49
23	MP8	Z	39.5	%49
24	MP9	Z	32.4	%49
25	MP10	Z	32.4	%49
26	MP11	Z	114.2	%49
27	MP12	Z	6.2	%49
28	MP13	Z	6.2	%49
29	MP14	Z	34.3	%49
30	MP15	Z	6.2	%49

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	0	%49
2	MP2	X	0	%49
3	MP3	X	0	%49
4	MP4	X	0	%49
5	MP5	X	0	%49

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
6	MP6	X	0	%49
7	MP7	X	0	%49
8	MP8	X	0	%49
9	MP9	X	0	%49
10	MP10	X	0	%49
11	MP11	X	0	%49
12	MP12	X	0	%49
13	MP13	X	0	%49
14	MP14	X	0	%49
15	MP15	X	0	%49
16	MP1	Z	265.1	%49
17	MP2	Z	47.6	%49
18	MP3	Z	47.6	%49
19	MP4	Z	47.6	%49
20	MP5	Z	47.6	%49
21	MP6	Z	129.6	%49
22	MP7	Z	17.2	%49
23	MP8	Z	41.6	%49
24	MP9	Z	17.2	%49
25	MP10	Z	17.2	%49
26	MP11	Z	131.6	%49
27	MP12	Z	17.2	%49
28	MP13	Z	17.2	%49
29	MP14	Z	41.6	%49
30	MP15	Z	17.2	%49

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-143.3	%49
2	MP2	X	-18.7	%49
3	MP3	X	-22.8	%49
4	MP4	X	-18.7	%49
5	MP5	X	-18.7	%49
6	MP6	X	-66	%49
7	MP7	X	-3.6	%49
8	MP8	X	-19.8	%49
9	MP9	X	-3.6	%49
10	MP10	X	-3.6	%49
11	MP11	X	-65.5	%49
12	MP12	X	-18.7	%49
13	MP13	X	-18.7	%49
14	MP14	X	-22.8	%49
15	MP15	X	-18.7	%49
16	MP1	Z	248.3	%49
17	MP2	Z	32.4	%49
18	MP3	Z	39.5	%49
19	MP4	Z	32.4	%49
20	MP5	Z	32.4	%49
21	MP6	Z	114.2	%49
22	MP7	Z	6.2	%49
23	MP8	Z	34.3	%49
24	MP9	Z	6.2	%49
25	MP10	Z	6.2	%49
26	MP11	Z	113.5	%49
27	MP12	Z	32.4	%49
28	MP13	Z	32.4	%49

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
29	MP14	Z	39.5	%49
30	MP15	Z	32.4	%49

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-285.6	%49
2	MP2	X	-14.9	%49
3	MP3	X	-36	%49
4	MP4	X	-14.9	%49
5	MP5	X	-14.9	%49
6	MP6	X	-112.3	%49
7	MP7	X	-14.9	%49
8	MP8	X	-36	%49
9	MP9	X	-14.9	%49
10	MP10	X	-14.9	%49
11	MP11	X	-113.2	%49
12	MP12	X	-41.2	%49
13	MP13	X	-41.2	%49
14	MP14	X	-41.2	%49
15	MP15	X	-41.2	%49
16	MP1	Z	164.9	%49
17	MP2	Z	8.6	%49
18	MP3	Z	20.8	%49
19	MP4	Z	8.6	%49
20	MP5	Z	8.6	%49
21	MP6	Z	64.8	%49
22	MP7	Z	8.6	%49
23	MP8	Z	20.8	%49
24	MP9	Z	8.6	%49
25	MP10	Z	8.6	%49
26	MP11	Z	65.4	%49
27	MP12	Z	23.8	%49
28	MP13	Z	23.8	%49
29	MP14	Z	23.8	%49
30	MP15	Z	23.8	%49

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-351.3	%49
2	MP2	X	-7.1	%49
3	MP3	X	-39.6	%49
4	MP4	X	-7.1	%49
5	MP5	X	-7.1	%49
6	MP6	X	-125.1	%49
7	MP7	X	-37.4	%49
8	MP8	X	-45.6	%49
9	MP9	X	-37.4	%49
10	MP10	X	-37.4	%49
11	MP11	X	-131	%49
12	MP12	X	-37.4	%49
13	MP13	X	-37.4	%49
14	MP14	X	-45.6	%49
15	MP15	X	-37.4	%49
16	MP1	Z	0	%49
17	MP2	Z	0	%49
18	MP3	Z	0	%49

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
19	MP4	Z	0	%49
20	MP5	Z	0	%49
21	MP6	Z	0	%49
22	MP7	Z	0	%49
23	MP8	Z	0	%49
24	MP9	Z	0	%49
25	MP10	Z	0	%49
26	MP11	Z	0	%49
27	MP12	Z	0	%49
28	MP13	Z	0	%49
29	MP14	Z	0	%49
30	MP15	Z	0	%49

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-285.6	%49
2	MP2	X	-14.9	%49
3	MP3	X	-36	%49
4	MP4	X	-14.9	%49
5	MP5	X	-14.9	%49
6	MP6	X	-106.4	%49
7	MP7	X	-41.2	%49
8	MP8	X	-41.2	%49
9	MP9	X	-41.2	%49
10	MP10	X	-41.2	%49
11	MP11	X	-114	%49
12	MP12	X	-14.9	%49
13	MP13	X	-14.9	%49
14	MP14	X	-36	%49
15	MP15	X	-14.9	%49
16	MP1	Z	-164.9	%49
17	MP2	Z	-8.6	%49
18	MP3	Z	-20.8	%49
19	MP4	Z	-8.6	%49
20	MP5	Z	-8.6	%49
21	MP6	Z	-61.4	%49
22	MP7	Z	-23.8	%49
23	MP8	Z	-23.8	%49
24	MP9	Z	-23.8	%49
25	MP10	Z	-23.8	%49
26	MP11	Z	-65.8	%49
27	MP12	Z	-8.6	%49
28	MP13	Z	-8.6	%49
29	MP14	Z	-20.8	%49
30	MP15	Z	-8.6	%49

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-143.3	%49
2	MP2	X	-18.7	%49
3	MP3	X	-22.8	%49
4	MP4	X	-18.7	%49
5	MP5	X	-18.7	%49
6	MP6	X	-62.6	%49
7	MP7	X	-18.7	%49
8	MP8	X	-22.8	%49

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
9	MP9	X	-18.7	%49
10	MP10	X	-18.7	%49
11	MP11	X	-66	%49
12	MP12	X	-3.6	%49
13	MP13	X	-3.6	%49
14	MP14	X	-19.8	%49
15	MP15	X	-3.6	%49
16	MP1	Z	-248.3	%49
17	MP2	Z	-32.4	%49
18	MP3	Z	-39.5	%49
19	MP4	Z	-32.4	%49
20	MP5	Z	-32.4	%49
21	MP6	Z	-108.3	%49
22	MP7	Z	-32.4	%49
23	MP8	Z	-39.5	%49
24	MP9	Z	-32.4	%49
25	MP10	Z	-32.4	%49
26	MP11	Z	-114.2	%49
27	MP12	Z	-6.2	%49
28	MP13	Z	-6.2	%49
29	MP14	Z	-34.3	%49
30	MP15	Z	-6.2	%49

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	0	%49
2	MP2	X	0	%49
3	MP3	X	0	%49
4	MP4	X	0	%49
5	MP5	X	0	%49
6	MP6	X	0	%49
7	MP7	X	0	%49
8	MP8	X	0	%49
9	MP9	X	0	%49
10	MP10	X	0	%49
11	MP11	X	0	%49
12	MP12	X	0	%49
13	MP13	X	0	%49
14	MP14	X	0	%49
15	MP15	X	0	%49
16	MP1	Z	-265.1	%49
17	MP2	Z	-47.6	%49
18	MP3	Z	-47.6	%49
19	MP4	Z	-47.6	%49
20	MP5	Z	-47.6	%49
21	MP6	Z	-129.6	%49
22	MP7	Z	-17.2	%49
23	MP8	Z	-41.6	%49
24	MP9	Z	-17.2	%49
25	MP10	Z	-17.2	%49
26	MP11	Z	-131.6	%49
27	MP12	Z	-17.2	%49
28	MP13	Z	-17.2	%49
29	MP14	Z	-41.6	%49
30	MP15	Z	-17.2	%49

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	143.3	%49
2	MP2	X	18.7	%49
3	MP3	X	22.8	%49
4	MP4	X	18.7	%49
5	MP5	X	18.7	%49
6	MP6	X	66	%49
7	MP7	X	3.6	%49
8	MP8	X	19.8	%49
9	MP9	X	3.6	%49
10	MP10	X	3.6	%49
11	MP11	X	65.5	%49
12	MP12	X	18.7	%49
13	MP13	X	18.7	%49
14	MP14	X	22.8	%49
15	MP15	X	18.7	%49
16	MP1	Z	-248.3	%49
17	MP2	Z	-32.4	%49
18	MP3	Z	-39.5	%49
19	MP4	Z	-32.4	%49
20	MP5	Z	-32.4	%49
21	MP6	Z	-114.2	%49
22	MP7	Z	-6.2	%49
23	MP8	Z	-34.3	%49
24	MP9	Z	-6.2	%49
25	MP10	Z	-6.2	%49
26	MP11	Z	-113.5	%49
27	MP12	Z	-32.4	%49
28	MP13	Z	-32.4	%49
29	MP14	Z	-39.5	%49
30	MP15	Z	-32.4	%49

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	285.6	%49
2	MP2	X	14.9	%49
3	MP3	X	36	%49
4	MP4	X	14.9	%49
5	MP5	X	14.9	%49
6	MP6	X	112.3	%49
7	MP7	X	14.9	%49
8	MP8	X	36	%49
9	MP9	X	14.9	%49
10	MP10	X	14.9	%49
11	MP11	X	113.2	%49
12	MP12	X	41.2	%49
13	MP13	X	41.2	%49
14	MP14	X	41.2	%49
15	MP15	X	41.2	%49
16	MP1	Z	-164.9	%49
17	MP2	Z	-8.6	%49
18	MP3	Z	-20.8	%49
19	MP4	Z	-8.6	%49
20	MP5	Z	-8.6	%49
21	MP6	Z	-64.8	%49
22	MP7	Z	-8.6	%49
23	MP8	Z	-20.8	%49

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
24	MP9	Z	-8.6	%49
25	MP10	Z	-8.6	%49
26	MP11	Z	-65.4	%49
27	MP12	Z	-23.8	%49
28	MP13	Z	-23.8	%49
29	MP14	Z	-23.8	%49
30	MP15	Z	-23.8	%49

Member Point Loads (BLC 14 : Ice Load)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	Y	-756.5	%49
2	MP2	Y	-341.6	%49
3	MP3	Y	-76.3	%49
4	MP4	Y	-341.6	%49
5	MP5	Y	-329.5	%49
6	MP6	Y	-465.4	%49
7	MP7	Y	-341.6	%49
8	MP8	Y	-76.3	%49
9	MP9	Y	-341.6	%49
10	MP10	Y	-329.5	%49
11	MP11	Y	-468.7	%49
12	MP12	Y	-341.6	%49
13	MP13	Y	-341.6	%49
14	MP14	Y	-76.3	%49
15	MP15	Y	-329.5	%49

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	70.1	%49
2	MP2	X	4.6	%49
3	MP3	X	20.1	%49
4	MP4	X	4.6	%49
5	MP5	X	4.6	%49
6	MP6	X	35.4	%49
7	MP7	X	14.6	%49
8	MP8	X	18.5	%49
9	MP9	X	14.6	%49
10	MP10	X	14.6	%49
11	MP11	X	36.6	%49
12	MP12	X	14.6	%49
13	MP13	X	14.6	%49
14	MP14	X	18.5	%49
15	MP15	X	14.6	%49
16	MP1	Z	0	%49
17	MP2	Z	0	%49
18	MP3	Z	0	%49
19	MP4	Z	0	%49
20	MP5	Z	0	%49
21	MP6	Z	0	%49
22	MP7	Z	0	%49
23	MP8	Z	0	%49
24	MP9	Z	0	%49
25	MP10	Z	0	%49
26	MP11	Z	0	%49
27	MP12	Z	0	%49
28	MP13	Z	0	%49

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
29	MP14	Z	0	%49
30	MP15	Z	0	%49

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	60.7	%49
2	MP2	X	6.9	%49
3	MP3	X	17	%49
4	MP4	X	6.9	%49
5	MP5	X	6.9	%49
6	MP6	X	32.3	%49
7	MP7	X	15.6	%49
8	MP8	X	15.6	%49
9	MP9	X	15.6	%49
10	MP10	X	15.6	%49
11	MP11	X	27.9	%49
12	MP12	X	6.9	%49
13	MP13	X	6.9	%49
14	MP14	X	17	%49
15	MP15	X	6.9	%49
16	MP1	Z	35.1	%49
17	MP2	Z	4	%49
18	MP3	Z	9.8	%49
19	MP4	Z	4	%49
20	MP5	Z	4	%49
21	MP6	Z	18.6	%49
22	MP7	Z	9	%49
23	MP8	Z	9	%49
24	MP9	Z	9	%49
25	MP10	Z	9	%49
26	MP11	Z	16.1	%49
27	MP12	Z	4	%49
28	MP13	Z	4	%49
29	MP14	Z	9.8	%49
30	MP15	Z	4	%49

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	35.1	%49
2	MP2	X	7.3	%49
3	MP3	X	9.3	%49
4	MP4	X	7.3	%49
5	MP5	X	7.3	%49
6	MP6	X	17.7	%49
7	MP7	X	7.3	%49
8	MP8	X	9.3	%49
9	MP9	X	7.3	%49
10	MP10	X	7.3	%49
11	MP11	X	15	%49
12	MP12	X	2.3	%49
13	MP13	X	2.3	%49
14	MP14	X	10.1	%49
15	MP15	X	2.3	%49
16	MP1	Z	60.8	%49
17	MP2	Z	12.7	%49
18	MP3	Z	16	%49

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
19	MP4	Z	12.7	%49
20	MP5	Z	12.7	%49
21	MP6	Z	30.7	%49
22	MP7	Z	12.7	%49
23	MP8	Z	16	%49
24	MP9	Z	12.7	%49
25	MP10	Z	12.7	%49
26	MP11	Z	26	%49
27	MP12	Z	4	%49
28	MP13	Z	4	%49
29	MP14	Z	17.4	%49
30	MP15	Z	4	%49

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	0	%49
2	MP2	X	0	%49
3	MP3	X	0	%49
4	MP4	X	0	%49
5	MP5	X	0	%49
6	MP6	X	0	%49
7	MP7	X	0	%49
8	MP8	X	0	%49
9	MP9	X	0	%49
10	MP10	X	0	%49
11	MP11	X	0	%49
12	MP12	X	0	%49
13	MP13	X	0	%49
14	MP14	X	0	%49
15	MP15	X	0	%49
16	MP1	Z	70.3	%49
17	MP2	Z	18	%49
18	MP3	Z	18	%49
19	MP4	Z	18	%49
20	MP5	Z	18	%49
21	MP6	Z	31.8	%49
22	MP7	Z	7.9	%49
23	MP8	Z	19.6	%49
24	MP9	Z	7.9	%49
25	MP10	Z	7.9	%49
26	MP11	Z	32.2	%49
27	MP12	Z	7.9	%49
28	MP13	Z	7.9	%49
29	MP14	Z	19.6	%49
30	MP15	Z	7.9	%49

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-35.1	%49
2	MP2	X	-7.3	%49
3	MP3	X	-9.3	%49
4	MP4	X	-7.3	%49
5	MP5	X	-7.3	%49
6	MP6	X	-15	%49
7	MP7	X	-2.3	%49
8	MP8	X	-10.1	%49

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
9	MP9	X	-2.3	%49
10	MP10	X	-2.3	%49
11	MP11	X	-18.3	%49
12	MP12	X	-7.3	%49
13	MP13	X	-7.3	%49
14	MP14	X	-9.3	%49
15	MP15	X	-7.3	%49
16	MP1	Z	60.8	%49
17	MP2	Z	12.7	%49
18	MP3	Z	16	%49
19	MP4	Z	12.7	%49
20	MP5	Z	12.7	%49
21	MP6	Z	26	%49
22	MP7	Z	4	%49
23	MP8	Z	17.4	%49
24	MP9	Z	4	%49
25	MP10	Z	4	%49
26	MP11	Z	31.7	%49
27	MP12	Z	12.7	%49
28	MP13	Z	12.7	%49
29	MP14	Z	16	%49
30	MP15	Z	12.7	%49

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-60.7	%49
2	MP2	X	-6.9	%49
3	MP3	X	-17	%49
4	MP4	X	-6.9	%49
5	MP5	X	-6.9	%49
6	MP6	X	-27.6	%49
7	MP7	X	-6.9	%49
8	MP8	X	-17	%49
9	MP9	X	-6.9	%49
10	MP10	X	-6.9	%49
11	MP11	X	-33.6	%49
12	MP12	X	-15.6	%49
13	MP13	X	-15.6	%49
14	MP14	X	-15.6	%49
15	MP15	X	-15.6	%49
16	MP1	Z	35.1	%49
17	MP2	Z	4	%49
18	MP3	Z	9.8	%49
19	MP4	Z	4	%49
20	MP5	Z	4	%49
21	MP6	Z	15.9	%49
22	MP7	Z	4	%49
23	MP8	Z	9.8	%49
24	MP9	Z	4	%49
25	MP10	Z	4	%49
26	MP11	Z	19.4	%49
27	MP12	Z	9	%49
28	MP13	Z	9	%49
29	MP14	Z	9	%49
30	MP15	Z	9	%49

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-70.1	%49
2	MP2	X	-4.6	%49
3	MP3	X	-20.1	%49
4	MP4	X	-4.6	%49
5	MP5	X	-4.6	%49
6	MP6	X	-35.4	%49
7	MP7	X	-14.6	%49
8	MP8	X	-18.5	%49
9	MP9	X	-14.6	%49
10	MP10	X	-14.6	%49
11	MP11	X	-36.6	%49
12	MP12	X	-14.6	%49
13	MP13	X	-14.6	%49
14	MP14	X	-18.5	%49
15	MP15	X	-14.6	%49
16	MP1	Z	0	%49
17	MP2	Z	0	%49
18	MP3	Z	0	%49
19	MP4	Z	0	%49
20	MP5	Z	0	%49
21	MP6	Z	0	%49
22	MP7	Z	0	%49
23	MP8	Z	0	%49
24	MP9	Z	0	%49
25	MP10	Z	0	%49
26	MP11	Z	0	%49
27	MP12	Z	0	%49
28	MP13	Z	0	%49
29	MP14	Z	0	%49
30	MP15	Z	0	%49

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-60.7	%49
2	MP2	X	-6.9	%49
3	MP3	X	-17	%49
4	MP4	X	-6.9	%49
5	MP5	X	-6.9	%49
6	MP6	X	-32.3	%49
7	MP7	X	-15.6	%49
8	MP8	X	-15.6	%49
9	MP9	X	-15.6	%49
10	MP10	X	-15.6	%49
11	MP11	X	-27.9	%49
12	MP12	X	-6.9	%49
13	MP13	X	-6.9	%49
14	MP14	X	-17	%49
15	MP15	X	-6.9	%49
16	MP1	Z	-35.1	%49
17	MP2	Z	-4	%49
18	MP3	Z	-9.8	%49
19	MP4	Z	-4	%49
20	MP5	Z	-4	%49
21	MP6	Z	-18.6	%49
22	MP7	Z	-9	%49
23	MP8	Z	-9	%49

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
24	MP9	Z	-9	%49
25	MP10	Z	-9	%49
26	MP11	Z	-16.1	%49
27	MP12	Z	-4	%49
28	MP13	Z	-4	%49
29	MP14	Z	-9.8	%49
30	MP15	Z	-4	%49

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-35.1	%49
2	MP2	X	-7.3	%49
3	MP3	X	-9.3	%49
4	MP4	X	-7.3	%49
5	MP5	X	-7.3	%49
6	MP6	X	-17.7	%49
7	MP7	X	-7.3	%49
8	MP8	X	-9.3	%49
9	MP9	X	-7.3	%49
10	MP10	X	-7.3	%49
11	MP11	X	-15	%49
12	MP12	X	-2.3	%49
13	MP13	X	-2.3	%49
14	MP14	X	-10.1	%49
15	MP15	X	-2.3	%49
16	MP1	Z	-60.8	%49
17	MP2	Z	-12.7	%49
18	MP3	Z	-16	%49
19	MP4	Z	-12.7	%49
20	MP5	Z	-12.7	%49
21	MP6	Z	-30.7	%49
22	MP7	Z	-12.7	%49
23	MP8	Z	-16	%49
24	MP9	Z	-12.7	%49
25	MP10	Z	-12.7	%49
26	MP11	Z	-26	%49
27	MP12	Z	-4	%49
28	MP13	Z	-4	%49
29	MP14	Z	-17.4	%49
30	MP15	Z	-4	%49

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	0	%49
2	MP2	X	0	%49
3	MP3	X	0	%49
4	MP4	X	0	%49
5	MP5	X	0	%49
6	MP6	X	0	%49
7	MP7	X	0	%49
8	MP8	X	0	%49
9	MP9	X	0	%49
10	MP10	X	0	%49
11	MP11	X	0	%49
12	MP12	X	0	%49
13	MP13	X	0	%49

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
14	MP14	X	0	%49
15	MP15	X	0	%49
16	MP1	Z	-70.3	%49
17	MP2	Z	-18	%49
18	MP3	Z	-18	%49
19	MP4	Z	-18	%49
20	MP5	Z	-18	%49
21	MP6	Z	-31.8	%49
22	MP7	Z	-7.9	%49
23	MP8	Z	-19.6	%49
24	MP9	Z	-7.9	%49
25	MP10	Z	-7.9	%49
26	MP11	Z	-32.2	%49
27	MP12	Z	-7.9	%49
28	MP13	Z	-7.9	%49
29	MP14	Z	-19.6	%49
30	MP15	Z	-7.9	%49

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	35.1	%49
2	MP2	X	7.3	%49
3	MP3	X	9.3	%49
4	MP4	X	7.3	%49
5	MP5	X	7.3	%49
6	MP6	X	15	%49
7	MP7	X	2.3	%49
8	MP8	X	10.1	%49
9	MP9	X	2.3	%49
10	MP10	X	2.3	%49
11	MP11	X	18.3	%49
12	MP12	X	7.3	%49
13	MP13	X	7.3	%49
14	MP14	X	9.3	%49
15	MP15	X	7.3	%49
16	MP1	Z	-60.8	%49
17	MP2	Z	-12.7	%49
18	MP3	Z	-16	%49
19	MP4	Z	-12.7	%49
20	MP5	Z	-12.7	%49
21	MP6	Z	-26	%49
22	MP7	Z	-4	%49
23	MP8	Z	-17.4	%49
24	MP9	Z	-4	%49
25	MP10	Z	-4	%49
26	MP11	Z	-31.7	%49
27	MP12	Z	-12.7	%49
28	MP13	Z	-12.7	%49
29	MP14	Z	-16	%49
30	MP15	Z	-12.7	%49

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	60.7	%49
2	MP2	X	6.9	%49
3	MP3	X	17	%49

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
4	MP4	X	6.9	%49
5	MP5	X	6.9	%49
6	MP6	X	27.6	%49
7	MP7	X	6.9	%49
8	MP8	X	17	%49
9	MP9	X	6.9	%49
10	MP10	X	6.9	%49
11	MP11	X	33.6	%49
12	MP12	X	15.6	%49
13	MP13	X	15.6	%49
14	MP14	X	15.6	%49
15	MP15	X	15.6	%49
16	MP1	Z	-35.1	%49
17	MP2	Z	-4	%49
18	MP3	Z	-9.8	%49
19	MP4	Z	-4	%49
20	MP5	Z	-4	%49
21	MP6	Z	-15.9	%49
22	MP7	Z	-4	%49
23	MP8	Z	-9.8	%49
24	MP9	Z	-4	%49
25	MP10	Z	-4	%49
26	MP11	Z	-19.4	%49
27	MP12	Z	-9	%49
28	MP13	Z	-9	%49
29	MP14	Z	-9	%49
30	MP15	Z	-9	%49

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	237.6	%49
2	MP2	X	40.6	%49
3	MP3	X	0	%49
4	MP4	X	40.6	%49
5	MP5	X	21	%49
6	MP6	X	175.7	%49
7	MP7	X	40.6	%49
8	MP8	X	0	%49
9	MP9	X	40.6	%49
10	MP10	X	21	%49
11	MP11	X	189.8	%49
12	MP12	X	40.6	%49
13	MP13	X	40.6	%49
14	MP14	X	0	%49
15	MP15	X	21	%49
16	MP1	Z	0	%49
17	MP2	Z	0	%49
18	MP3	Z	0	%49
19	MP4	Z	0	%49
20	MP5	Z	0	%49
21	MP6	Z	0	%49
22	MP7	Z	0	%49
23	MP8	Z	0	%49
24	MP9	Z	0	%49
25	MP10	Z	0	%49
26	MP11	Z	0	%49

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
27	MP12	Z	0	%49
28	MP13	Z	0	%49
29	MP14	Z	0	%49
30	MP15	Z	0	%49

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	205.8	%49
2	MP2	X	35.2	%49
3	MP3	X	0	%49
4	MP4	X	35.2	%49
5	MP5	X	18.2	%49
6	MP6	X	152.2	%49
7	MP7	X	35.2	%49
8	MP8	X	0	%49
9	MP9	X	35.2	%49
10	MP10	X	18.2	%49
11	MP11	X	164.4	%49
12	MP12	X	35.2	%49
13	MP13	X	35.2	%49
14	MP14	X	0	%49
15	MP15	X	18.2	%49
16	MP1	Z	118.8	%49
17	MP2	Z	20.3	%49
18	MP3	Z	0	%49
19	MP4	Z	20.3	%49
20	MP5	Z	10.5	%49
21	MP6	Z	87.8	%49
22	MP7	Z	20.3	%49
23	MP8	Z	0	%49
24	MP9	Z	20.3	%49
25	MP10	Z	10.5	%49
26	MP11	Z	94.9	%49
27	MP12	Z	20.3	%49
28	MP13	Z	20.3	%49
29	MP14	Z	0	%49
30	MP15	Z	10.5	%49

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	118.8	%49
2	MP2	X	20.3	%49
3	MP3	X	0	%49
4	MP4	X	20.3	%49
5	MP5	X	10.5	%49
6	MP6	X	87.9	%49
7	MP7	X	20.3	%49
8	MP8	X	0	%49
9	MP9	X	20.3	%49
10	MP10	X	10.5	%49
11	MP11	X	94.9	%49
12	MP12	X	20.3	%49
13	MP13	X	20.3	%49
14	MP14	X	0	%49
15	MP15	X	10.5	%49
16	MP1	Z	205.8	%49

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
17	MP2	Z	35.2	%49
18	MP3	Z	0	%49
19	MP4	Z	35.2	%49
20	MP5	Z	18.2	%49
21	MP6	Z	152.2	%49
22	MP7	Z	35.2	%49
23	MP8	Z	0	%49
24	MP9	Z	35.2	%49
25	MP10	Z	18.2	%49
26	MP11	Z	164.4	%49
27	MP12	Z	35.2	%49
28	MP13	Z	35.2	%49
29	MP14	Z	0	%49
30	MP15	Z	18.2	%49

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	0	%49
2	MP2	X	0	%49
3	MP3	X	0	%49
4	MP4	X	0	%49
5	MP5	X	0	%49
6	MP6	X	0	%49
7	MP7	X	0	%49
8	MP8	X	0	%49
9	MP9	X	0	%49
10	MP10	X	0	%49
11	MP11	X	0	%49
12	MP12	X	0	%49
13	MP13	X	0	%49
14	MP14	X	0	%49
15	MP15	X	0	%49
16	MP1	Z	237.6	%49
17	MP2	Z	40.6	%49
18	MP3	Z	0	%49
19	MP4	Z	40.6	%49
20	MP5	Z	21	%49
21	MP6	Z	175.7	%49
22	MP7	Z	40.6	%49
23	MP8	Z	0	%49
24	MP9	Z	40.6	%49
25	MP10	Z	21	%49
26	MP11	Z	189.8	%49
27	MP12	Z	40.6	%49
28	MP13	Z	40.6	%49
29	MP14	Z	0	%49
30	MP15	Z	21	%49

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-118.8	%49
2	MP2	X	-20.3	%49
3	MP3	X	0	%49
4	MP4	X	-20.3	%49
5	MP5	X	-10.5	%49
6	MP6	X	-87.8	%49

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
7	MP7	X	-20.3	%49
8	MP8	X	0	%49
9	MP9	X	-20.3	%49
10	MP10	X	-10.5	%49
11	MP11	X	-94.9	%49
12	MP12	X	-20.3	%49
13	MP13	X	-20.3	%49
14	MP14	X	0	%49
15	MP15	X	-10.5	%49
16	MP1	Z	205.8	%49
17	MP2	Z	35.2	%49
18	MP3	Z	0	%49
19	MP4	Z	35.2	%49
20	MP5	Z	18.2	%49
21	MP6	Z	152.2	%49
22	MP7	Z	35.2	%49
23	MP8	Z	0	%49
24	MP9	Z	35.2	%49
25	MP10	Z	18.2	%49
26	MP11	Z	164.4	%49
27	MP12	Z	35.2	%49
28	MP13	Z	35.2	%49
29	MP14	Z	0	%49
30	MP15	Z	18.2	%49

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-205.8	%49
2	MP2	X	-35.2	%49
3	MP3	X	0	%49
4	MP4	X	-35.2	%49
5	MP5	X	-18.2	%49
6	MP6	X	-152.2	%49
7	MP7	X	-35.2	%49
8	MP8	X	0	%49
9	MP9	X	-35.2	%49
10	MP10	X	-18.2	%49
11	MP11	X	-164.4	%49
12	MP12	X	-35.2	%49
13	MP13	X	-35.2	%49
14	MP14	X	0	%49
15	MP15	X	-18.2	%49
16	MP1	Z	118.8	%49
17	MP2	Z	20.3	%49
18	MP3	Z	0	%49
19	MP4	Z	20.3	%49
20	MP5	Z	10.5	%49
21	MP6	Z	87.8	%49
22	MP7	Z	20.3	%49
23	MP8	Z	0	%49
24	MP9	Z	20.3	%49
25	MP10	Z	10.5	%49
26	MP11	Z	94.9	%49
27	MP12	Z	20.3	%49
28	MP13	Z	20.3	%49
29	MP14	Z	0	%49

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
30	MP15	Z	10.5	%49

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-237.6	%49
2	MP2	X	-40.6	%49
3	MP3	X	0	%49
4	MP4	X	-40.6	%49
5	MP5	X	-21	%49
6	MP6	X	-175.7	%49
7	MP7	X	-40.6	%49
8	MP8	X	0	%49
9	MP9	X	-40.6	%49
10	MP10	X	-21	%49
11	MP11	X	-189.8	%49
12	MP12	X	-40.6	%49
13	MP13	X	-40.6	%49
14	MP14	X	0	%49
15	MP15	X	-21	%49
16	MP1	Z	0	%49
17	MP2	Z	0	%49
18	MP3	Z	0	%49
19	MP4	Z	0	%49
20	MP5	Z	0	%49
21	MP6	Z	0	%49
22	MP7	Z	0	%49
23	MP8	Z	0	%49
24	MP9	Z	0	%49
25	MP10	Z	0	%49
26	MP11	Z	0	%49
27	MP12	Z	0	%49
28	MP13	Z	0	%49
29	MP14	Z	0	%49
30	MP15	Z	0	%49

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-205.8	%49
2	MP2	X	-35.2	%49
3	MP3	X	0	%49
4	MP4	X	-35.2	%49
5	MP5	X	-18.2	%49
6	MP6	X	-152.2	%49
7	MP7	X	-35.2	%49
8	MP8	X	0	%49
9	MP9	X	-35.2	%49
10	MP10	X	-18.2	%49
11	MP11	X	-164.4	%49
12	MP12	X	-35.2	%49
13	MP13	X	-35.2	%49
14	MP14	X	0	%49
15	MP15	X	-18.2	%49
16	MP1	Z	-118.8	%49
17	MP2	Z	-20.3	%49
18	MP3	Z	0	%49
19	MP4	Z	-20.3	%49

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
20	MP5	Z	-10.5	%49
21	MP6	Z	-87.9	%49
22	MP7	Z	-20.3	%49
23	MP8	Z	0	%49
24	MP9	Z	-20.3	%49
25	MP10	Z	-10.5	%49
26	MP11	Z	-94.9	%49
27	MP12	Z	-20.3	%49
28	MP13	Z	-20.3	%49
29	MP14	Z	0	%49
30	MP15	Z	-10.5	%49

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-118.8	%49
2	MP2	X	-20.3	%49
3	MP3	X	0	%49
4	MP4	X	-20.3	%49
5	MP5	X	-10.5	%49
6	MP6	X	-87.9	%49
7	MP7	X	-20.3	%49
8	MP8	X	0	%49
9	MP9	X	-20.3	%49
10	MP10	X	-10.5	%49
11	MP11	X	-94.9	%49
12	MP12	X	-20.3	%49
13	MP13	X	-20.3	%49
14	MP14	X	0	%49
15	MP15	X	-10.5	%49
16	MP1	Z	-205.8	%49
17	MP2	Z	-35.2	%49
18	MP3	Z	0	%49
19	MP4	Z	-35.2	%49
20	MP5	Z	-18.2	%49
21	MP6	Z	-152.2	%49
22	MP7	Z	-35.2	%49
23	MP8	Z	0	%49
24	MP9	Z	-35.2	%49
25	MP10	Z	-18.2	%49
26	MP11	Z	-164.4	%49
27	MP12	Z	-35.2	%49
28	MP13	Z	-35.2	%49
29	MP14	Z	0	%49
30	MP15	Z	-18.2	%49

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	0	%49
2	MP2	X	0	%49
3	MP3	X	0	%49
4	MP4	X	0	%49
5	MP5	X	0	%49
6	MP6	X	0	%49
7	MP7	X	0	%49
8	MP8	X	0	%49
9	MP9	X	0	%49

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
10	MP10	X	0	%49
11	MP11	X	0	%49
12	MP12	X	0	%49
13	MP13	X	0	%49
14	MP14	X	0	%49
15	MP15	X	0	%49
16	MP1	Z	-237.6	%49
17	MP2	Z	-40.6	%49
18	MP3	Z	0	%49
19	MP4	Z	-40.6	%49
20	MP5	Z	-21	%49
21	MP6	Z	-175.7	%49
22	MP7	Z	-40.6	%49
23	MP8	Z	0	%49
24	MP9	Z	-40.6	%49
25	MP10	Z	-21	%49
26	MP11	Z	-189.8	%49
27	MP12	Z	-40.6	%49
28	MP13	Z	-40.6	%49
29	MP14	Z	0	%49
30	MP15	Z	-21	%49

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	118.8	%49
2	MP2	X	20.3	%49
3	MP3	X	0	%49
4	MP4	X	20.3	%49
5	MP5	X	10.5	%49
6	MP6	X	87.9	%49
7	MP7	X	20.3	%49
8	MP8	X	0	%49
9	MP9	X	20.3	%49
10	MP10	X	10.5	%49
11	MP11	X	94.9	%49
12	MP12	X	20.3	%49
13	MP13	X	20.3	%49
14	MP14	X	0	%49
15	MP15	X	10.5	%49
16	MP1	Z	-205.8	%49
17	MP2	Z	-35.2	%49
18	MP3	Z	0	%49
19	MP4	Z	-35.2	%49
20	MP5	Z	-18.2	%49
21	MP6	Z	-152.2	%49
22	MP7	Z	-35.2	%49
23	MP8	Z	0	%49
24	MP9	Z	-35.2	%49
25	MP10	Z	-18.2	%49
26	MP11	Z	-164.4	%49
27	MP12	Z	-35.2	%49
28	MP13	Z	-35.2	%49
29	MP14	Z	0	%49
30	MP15	Z	-18.2	%49

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	205.8	%49
2	MP2	X	35.2	%49
3	MP3	X	0	%49
4	MP4	X	35.2	%49
5	MP5	X	18.2	%49
6	MP6	X	152.2	%49
7	MP7	X	35.2	%49
8	MP8	X	0	%49
9	MP9	X	35.2	%49
10	MP10	X	18.2	%49
11	MP11	X	164.4	%49
12	MP12	X	35.2	%49
13	MP13	X	35.2	%49
14	MP14	X	0	%49
15	MP15	X	18.2	%49
16	MP1	Z	-118.8	%49
17	MP2	Z	-20.3	%49
18	MP3	Z	0	%49
19	MP4	Z	-20.3	%49
20	MP5	Z	-10.5	%49
21	MP6	Z	-87.9	%49
22	MP7	Z	-20.3	%49
23	MP8	Z	0	%49
24	MP9	Z	-20.3	%49
25	MP10	Z	-10.5	%49
26	MP11	Z	-94.9	%49
27	MP12	Z	-20.3	%49
28	MP13	Z	-20.3	%49
29	MP14	Z	0	%49
30	MP15	Z	-10.5	%49

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,%]
1	MP9	Y	-500	%50

Member Point Loads (BLC 48 : Maintenance Load, Lm (MP10))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP10	Y	-500	%50

Member Point Loads (BLC 49 : Maintenance Load, Lm (MP11))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP11	Y	-500	%50

Member Point Loads (BLC 50 : Maintenance Load, Lm (MP12))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP12	Y	-500	%50

Member Point Loads (BLC 51 : Maintenance Load, Lm (MP13))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP13	Y	-500	%50

Member Point Loads (BLC 52 : Maintenance Load, Lm (MP14))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP14	Y	-500	%50

Member Point Loads (BLC 53 : Maintenance Load, Lm (MP15))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP15	Y	-500	%50

Member Point Loads (BLC 57 : Maintenance Load, Lv (Pos. 1))

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

Member Point Loads (BLC 58 : Maintenance Load, Lv (Pos. 2))

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

Member Point Loads (BLC 59 : Maintenance Load, Lv (Pos. 3))

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

Member Point Loads (BLC 60 : Maintenance Load, Lv (Pos. 4))

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

Member Point Loads (BLC 61 : Maintenance Load, Lv (Pos. 5))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	SA-2	Y	-250	%100

Member Point Loads (BLC 62 : Maintenance Load, Lv (Pos. 6))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	SA-3	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	16.6	16.6	0	0
2	FM2	X	16.6	16.6	0	0
3	FM3	X	16.6	16.6	0	0
4	HORIZ1	X	16.6	16.6	0	0
5	HORIZ2	X	16.6	16.6	0	0
6	HORIZ3	X	16.6	16.6	0	0
7	HR1	X	16.8	16.8	0	0
8	HR2	X	16.8	16.8	0	0
9	HR3	X	16.8	16.8	0	0
10	SA-1	X	0	0	0	0
11	SA-2	X	22.2	22.2	0	0
12	SA-3	X	22.2	22.2	0	0
13	GRATE1	X	0	0	0	0
14	GRATE2	X	16.6	16.6	0	0
15	GRATE3	X	16.6	16.6	0	0
16	HR-V1	X	22.2	22.2	0	0
17	HR-V2	X	22.2	22.2	0	0
18	HR-V3	X	22.2	22.2	0	0
19	FM1	Z	0	0	0	0
20	FM2	Z	0	0	0	0
21	FM3	Z	0	0	0	0
22	HORIZ1	Z	0	0	0	0
23	HORIZ2	Z	0	0	0	0
24	HORIZ3	Z	0	0	0	0
25	HR1	Z	0	0	0	0
26	HR2	Z	0	0	0	0
27	HR3	Z	0	0	0	0
28	SA-1	Z	0	0	0	0
29	SA-2	Z	0	0	0	0
30	SA-3	Z	0	0	0	0
31	GRATE1	Z	0	0	0	0
32	GRATE2	Z	0	0	0	0
33	GRATE3	Z	0	0	0	0
34	HR-V1	Z	0	0	0	0
35	HR-V2	Z	0	0	0	0
36	HR-V3	Z	0	0	0	0
37	MP1	X	47.6	47.6	0	%82
38	MP2	X	54.6	54.6	0	%82
39	MP3	X	0	0	0	0
40	MP4	X	54.6	54.6	0	%82
41	MP5	X	47.6	47.6	0	%82
42	MP6	X	43.1	43.1	0	%82
43	MP7	X	40.8	40.8	0	%82
44	MP8	X	0	0	0	0
45	MP9	X	40.8	40.8	0	%82
46	MP10	X	43.1	43.1	0	%82
47	MP11	X	43.1	43.1	0	%82

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,%]
48	MP12	X	40.8	40.8	0	%82
49	MP13	X	40.8	40.8	0	%82
50	MP14	X	0	0	0	0
51	MP14	X	0	0	0	0
52	MP16	X	0	0	0	0
53	MP17	X	0	0	0	0
54	MP18	X	0	0	0	0
55	MP1	Z	0	0	0	0
56	MP2	Z	0	0	0	0
57	MP3	Z	0	0	0	0
58	MP4	Z	0	0	0	0
59	MP5	Z	0	0	0	0
60	MP6	Z	0	0	0	0
61	MP7	Z	0	0	0	0
62	MP8	Z	0	0	0	0
63	MP9	Z	0	0	0	0
64	MP10	Z	0	0	0	0
65	MP11	Z	0	0	0	0
66	MP12	Z	0	0	0	0
67	MP13	Z	0	0	0	0
68	MP14	Z	0	0	0	0
69	MP14	Z	0	0	0	0
70	MP16	Z	0	0	0	0
71	MP17	Z	0	0	0	0
72	MP18	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	14.4	14.4	0	0
2	FM2	X	0	0	0	0
3	FM3	X	14.4	14.4	0	0
4	HORIZ1	X	14.4	14.4	0	0
5	HORIZ2	X	0	0	0	0
6	HORIZ3	X	14.4	14.4	0	0
7	HR1	X	14.5	14.5	0	0
8	HR2	X	0	0	0	0
9	HR3	X	14.5	14.5	0	0
10	SA-1	X	19.2	19.2	0	0
11	SA-2	X	19.2	19.2	0	0
12	SA-3	X	19.2	19.2	0	0
13	GRATE1	X	14.4	14.4	0	0
14	GRATE2	X	14.4	14.4	0	0
15	GRATE3	X	14.4	14.4	0	0
16	HR-V1	X	19.2	19.2	0	0
17	HR-V2	X	19.2	19.2	0	0
18	HR-V3	X	19.2	19.2	0	0
19	FM1	Z	8.3	8.3	0	0
20	FM2	Z	0	0	0	0
21	FM3	Z	8.3	8.3	0	0
22	HORIZ1	Z	8.3	8.3	0	0
23	HORIZ2	Z	0	0	0	0
24	HORIZ3	Z	8.3	8.3	0	0
25	HR1	Z	8.4	8.4	0	0
26	HR2	Z	0	0	0	0
27	HR3	Z	8.4	8.4	0	0
28	SA-1	Z	11.1	11.1	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,%]
29	SA-2	Z	11.1	11.1	0	0
30	SA-3	Z	11.1	11.1	0	0
31	GRATE1	Z	8.3	8.3	0	0
32	GRATE2	Z	8.3	8.3	0	0
33	GRATE3	Z	8.3	8.3	0	0
34	HR-V1	Z	11.1	11.1	0	0
35	HR-V2	Z	11.1	11.1	0	0
36	HR-V3	Z	11.1	11.1	0	0
37	MP1	X	39.9	39.9	0	%82
38	MP2	X	43.3	43.3	0	%82
39	MP3	X	0	0	0	0
40	MP4	X	43.3	43.3	0	%82
41	MP5	X	39.9	39.9	0	%82
42	MP6	X	36.1	36.1	0	%82
43	MP7	X	31.3	31.3	0	%82
44	MP8	X	0	0	0	0
45	MP9	X	31.3	31.3	0	%82
46	MP10	X	36.1	36.1	0	%82
47	MP11	X	39.9	39.9	0	%82
48	MP12	X	43.3	43.3	0	%82
49	MP13	X	43.3	43.3	0	%82
50	MP14	X	0	0	0	0
51	MP14	X	0	0	0	0
52	MP16	X	0	0	0	0
53	MP17	X	0	0	0	0
54	MP18	X	0	0	0	0
55	MP1	Z	23	23	0	%82
56	MP2	Z	25	25	0	%82
57	MP3	Z	0	0	0	0
58	MP4	Z	25	25	0	%82
59	MP5	Z	23	23	0	%82
60	MP6	Z	20.8	20.8	0	%82
61	MP7	Z	18.1	18.1	0	%82
62	MP8	Z	0	0	0	0
63	MP9	Z	18.1	18.1	0	%82
64	MP10	Z	20.8	20.8	0	%82
65	MP11	Z	23	23	0	%82
66	MP12	Z	25	25	0	%82
67	MP13	Z	25	25	0	%82
68	MP14	Z	0	0	0	0
69	MP14	Z	0	0	0	0
70	MP16	Z	0	0	0	0
71	MP17	Z	0	0	0	0
72	MP18	Z	0	0	0	0

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,%]
1	FM1	X	8.3	8.3	0	0
2	FM2	X	8.3	8.3	0	0
3	FM3	X	8.3	8.3	0	0
4	HORIZ1	X	8.3	8.3	0	0
5	HORIZ2	X	8.3	8.3	0	0
6	HORIZ3	X	8.3	8.3	0	0
7	HR1	X	8.4	8.4	0	0
8	HR2	X	8.4	8.4	0	0
9	HR3	X	8.4	8.4	0	0

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,%]
10	SA-1	X	11.1	11.1	0	0
11	SA-2	X	11.1	11.1	0	0
12	SA-3	X	0	0	0	0
13	GRATE1	X	8.3	8.3	0	0
14	GRATE2	X	8.3	8.3	0	0
15	GRATE3	X	0	0	0	0
16	HR-V1	X	11.1	11.1	0	0
17	HR-V2	X	11.1	11.1	0	0
18	HR-V3	X	11.1	11.1	0	0
19	FM1	Z	14.4	14.4	0	0
20	FM2	Z	14.4	14.4	0	0
21	FM3	Z	14.4	14.4	0	0
22	HORIZ1	Z	14.4	14.4	0	0
23	HORIZ2	Z	14.4	14.4	0	0
24	HORIZ3	Z	14.4	14.4	0	0
25	HR1	Z	14.5	14.5	0	0
26	HR2	Z	14.5	14.5	0	0
27	HR3	Z	14.5	14.5	0	0
28	SA-1	Z	19.2	19.2	0	0
29	SA-2	Z	19.2	19.2	0	0
30	SA-3	Z	0	0	0	0
31	GRATE1	Z	14.4	14.4	0	0
32	GRATE2	Z	14.4	14.4	0	0
33	GRATE3	Z	0	0	0	0
34	HR-V1	Z	19.2	19.2	0	0
35	HR-V2	Z	19.2	19.2	0	0
36	HR-V3	Z	19.2	19.2	0	0
37	MP1	X	21.6	21.6	0	%82
38	MP2	X	20.4	20.4	0	%82
39	MP3	X	0	0	0	0
40	MP4	X	20.4	20.4	0	%82
41	MP5	X	21.6	21.6	0	%82
42	MP6	X	21.6	21.6	0	%82
43	MP7	X	20.4	20.4	0	%82
44	MP8	X	0	0	0	0
45	MP9	X	20.4	20.4	0	%82
46	MP10	X	21.6	21.6	0	%82
47	MP11	X	23.8	23.8	0	%82
48	MP12	X	27.3	27.3	0	%82
49	MP13	X	27.3	27.3	0	%82
50	MP14	X	0	0	0	0
51	MP14	X	0	0	0	0
52	MP16	X	0	0	0	0
53	MP17	X	0	0	0	0
54	MP18	X	0	0	0	0
55	MP1	Z	37.4	37.4	0	%82
56	MP2	Z	35.3	35.3	0	%82
57	MP3	Z	0	0	0	0
58	MP4	Z	35.3	35.3	0	%82
59	MP5	Z	37.4	37.4	0	%82
60	MP6	Z	37.4	37.4	0	%82
61	MP7	Z	35.3	35.3	0	%82
62	MP8	Z	0	0	0	0
63	MP9	Z	35.3	35.3	0	%82
64	MP10	Z	37.4	37.4	0	%82
65	MP11	Z	41.2	41.2	0	%82
66	MP12	Z	47.3	47.3	0	%82

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,%]
67	MP13	Z	47.3	47.3	0	%82
68	MP14	Z	0	0	0	0
69	MP14	Z	0	0	0	0
70	MP16	Z	0	0	0	0
71	MP17	Z	0	0	0	0
72	MP18	Z	0	0	0	0

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,%]
1	FM1	X	0	0	0	0
2	FM2	X	0	0	0	0
3	FM3	X	0	0	0	0
4	HORIZ1	X	0	0	0	0
5	HORIZ2	X	0	0	0	0
6	HORIZ3	X	0	0	0	0
7	HR1	X	0	0	0	0
8	HR2	X	0	0	0	0
9	HR3	X	0	0	0	0
10	SA-1	X	0	0	0	0
11	SA-2	X	0	0	0	0
12	SA-3	X	0	0	0	0
13	GRATE1	X	0	0	0	0
14	GRATE2	X	0	0	0	0
15	GRATE3	X	0	0	0	0
16	HR-V1	X	0	0	0	0
17	HR-V2	X	0	0	0	0
18	HR-V3	X	0	0	0	0
19	FM1	Z	0	0	0	0
20	FM2	Z	16.6	16.6	0	0
21	FM3	Z	16.6	16.6	0	0
22	HORIZ1	Z	0	0	0	0
23	HORIZ2	Z	16.6	16.6	0	0
24	HORIZ3	Z	16.6	16.6	0	0
25	HR1	Z	0	0	0	0
26	HR2	Z	16.8	16.8	0	0
27	HR3	Z	16.8	16.8	0	0
28	SA-1	Z	22.2	22.2	0	0
29	SA-2	Z	22.2	22.2	0	0
30	SA-3	Z	22.2	22.2	0	0
31	GRATE1	Z	16.6	16.6	0	0
32	GRATE2	Z	16.6	16.6	0	0
33	GRATE3	Z	16.6	16.6	0	0
34	HR-V1	Z	22.2	22.2	0	0
35	HR-V2	Z	22.2	22.2	0	0
36	HR-V3	Z	22.2	22.2	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	MP10	X	0	0	0	0
47	MP11	X	0	0	0	0

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,%]
48	MP12	X	0	0	0	0
49	MP13	X	0	0	0	0
50	MP14	X	0	0	0	0
51	MP14	X	0	0	0	0
52	MP16	X	0	0	0	0
53	MP17	X	0	0	0	0
54	MP18	X	0	0	0	0
55	MP1	Z	41.6	41.6	0	%82
56	MP2	Z	36.1	36.1	0	%82
57	MP3	Z	0	0	0	0
58	MP4	Z	36.1	36.1	0	%82
59	MP5	Z	41.6	41.6	0	%82
60	MP6	Z	46.1	46.1	0	%82
61	MP7	Z	50	50	0	%82
62	MP8	Z	0	0	0	0
63	MP9	Z	50	50	0	%82
64	MP10	Z	46.1	46.1	0	%82
65	MP11	Z	46.1	46.1	0	%82
66	MP12	Z	50	50	0	%82
67	MP13	Z	50	50	0	%82
68	MP14	Z	0	0	0	0
69	MP14	Z	0	0	0	0
70	MP16	Z	0	0	0	0
71	MP17	Z	0	0	0	0
72	MP18	Z	0	0	0	0

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,%]
1	FM1	X	-8.3	-8.3	0	0
2	FM2	X	-8.3	-8.3	0	0
3	FM3	X	-8.3	-8.3	0	0
4	HORIZ1	X	-8.3	-8.3	0	0
5	HORIZ2	X	-8.3	-8.3	0	0
6	HORIZ3	X	-8.3	-8.3	0	0
7	HR1	X	-8.4	-8.4	0	0
8	HR2	X	-8.4	-8.4	0	0
9	HR3	X	-8.4	-8.4	0	0
10	SA-1	X	-11.1	-11.1	0	0
11	SA-2	X	0	0	0	0
12	SA-3	X	-11.1	-11.1	0	0
13	GRATE1	X	-8.3	-8.3	0	0
14	GRATE2	X	0	0	0	0
15	GRATE3	X	-8.3	-8.3	0	0
16	HR-V1	X	-11.1	-11.1	0	0
17	HR-V2	X	-11.1	-11.1	0	0
18	HR-V3	X	-11.1	-11.1	0	0
19	FM1	Z	14.4	14.4	0	0
20	FM2	Z	14.4	14.4	0	0
21	FM3	Z	14.4	14.4	0	0
22	HORIZ1	Z	14.4	14.4	0	0
23	HORIZ2	Z	14.4	14.4	0	0
24	HORIZ3	Z	14.4	14.4	0	0
25	HR1	Z	14.5	14.5	0	0
26	HR2	Z	14.5	14.5	0	0
27	HR3	Z	14.5	14.5	0	0
28	SA-1	Z	19.2	19.2	0	0

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,%]
29	SA-2	Z	0	0	0	0
30	SA-3	Z	19.2	19.2	0	0
31	GRATE1	Z	14.4	14.4	0	0
32	GRATE2	Z	0	0	0	0
33	GRATE3	Z	14.4	14.4	0	0
34	HR-V1	Z	19.2	19.2	0	0
35	HR-V2	Z	19.2	19.2	0	0
36	HR-V3	Z	19.2	19.2	0	0
37	MP1	X	-21.6	-21.6	0	%82
38	MP2	X	-20.4	-20.4	0	%82
39	MP3	X	0	0	0	0
40	MP4	X	-20.4	-20.4	0	%82
41	MP5	X	-21.6	-21.6	0	%82
42	MP6	X	-23.8	-23.8	0	%82
43	MP7	X	-27.3	-27.3	0	%82
44	MP8	X	0	0	0	0
45	MP9	X	-27.3	-27.3	0	%82
46	MP10	X	-23.8	-23.8	0	%82
47	MP11	X	-21.6	-21.6	0	%82
48	MP12	X	-20.4	-20.4	0	%82
49	MP13	X	-20.4	-20.4	0	%82
50	MP14	X	0	0	0	0
51	MP14	X	0	0	0	0
52	MP16	X	0	0	0	0
53	MP17	X	0	0	0	0
54	MP18	X	0	0	0	0
55	MP1	Z	37.4	37.4	0	%82
56	MP2	Z	35.3	35.3	0	%82
57	MP3	Z	0	0	0	0
58	MP4	Z	35.3	35.3	0	%82
59	MP5	Z	37.4	37.4	0	%82
60	MP6	Z	41.2	41.2	0	%82
61	MP7	Z	47.3	47.3	0	%82
62	MP8	Z	0	0	0	0
63	MP9	Z	47.3	47.3	0	%82
64	MP10	Z	41.2	41.2	0	%82
65	MP11	Z	37.4	37.4	0	%82
66	MP12	Z	35.3	35.3	0	%82
67	MP13	Z	35.3	35.3	0	%82
68	MP14	Z	0	0	0	0
69	MP14	Z	0	0	0	0
70	MP16	Z	0	0	0	0
71	MP17	Z	0	0	0	0
72	MP18	Z	0	0	0	0

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,%]
1	FM1	X	-14.4	-14.4	0	0
2	FM2	X	-14.4	-14.4	0	0
3	FM3	X	0	0	0	0
4	HORIZ1	X	-14.4	-14.4	0	0
5	HORIZ2	X	-14.4	-14.4	0	0
6	HORIZ3	X	0	0	0	0
7	HR1	X	-14.5	-14.5	0	0
8	HR2	X	-14.5	-14.5	0	0
9	HR3	X	0	0	0	0

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,%]
10	SA-1	X	-19.2	-19.2	0	0
11	SA-2	X	-19.2	-19.2	0	0
12	SA-3	X	-19.2	-19.2	0	0
13	GRATE1	X	-14.4	-14.4	0	0
14	GRATE2	X	-14.4	-14.4	0	0
15	GRATE3	X	-14.4	-14.4	0	0
16	HR-V1	X	-19.2	-19.2	0	0
17	HR-V2	X	-19.2	-19.2	0	0
18	HR-V3	X	-19.2	-19.2	0	0
19	FM1	Z	8.3	8.3	0	0
20	FM2	Z	8.3	8.3	0	0
21	FM3	Z	0	0	0	0
22	HORIZ1	Z	8.3	8.3	0	0
23	HORIZ2	Z	8.3	8.3	0	0
24	HORIZ3	Z	0	0	0	0
25	HR1	Z	8.4	8.4	0	0
26	HR2	Z	8.4	8.4	0	0
27	HR3	Z	0	0	0	0
28	SA-1	Z	11.1	11.1	0	0
29	SA-2	Z	11.1	11.1	0	0
30	SA-3	Z	11.1	11.1	0	0
31	GRATE1	Z	8.3	8.3	0	0
32	GRATE2	Z	8.3	8.3	0	0
33	GRATE3	Z	8.3	8.3	0	0
34	HR-V1	Z	11.1	11.1	0	0
35	HR-V2	Z	11.1	11.1	0	0
36	HR-V3	Z	11.1	11.1	0	0
37	MP1	X	-39.9	-39.9	0	%82
38	MP2	X	-43.3	-43.3	0	%82
39	MP3	X	0	0	0	0
40	MP4	X	-43.3	-43.3	0	%82
41	MP5	X	-39.9	-39.9	0	%82
42	MP6	X	-39.9	-39.9	0	%82
43	MP7	X	-43.3	-43.3	0	%82
44	MP8	X	0	0	0	0
45	MP9	X	-43.3	-43.3	0	%82
46	MP10	X	-39.9	-39.9	0	%82
47	MP11	X	-36.1	-36.1	0	%82
48	MP12	X	-31.3	-31.3	0	%82
49	MP13	X	-31.3	-31.3	0	%82
50	MP14	X	0	0	0	0
51	MP14	X	0	0	0	0
52	MP16	X	0	0	0	0
53	MP17	X	0	0	0	0
54	MP18	X	0	0	0	0
55	MP1	Z	23	23	0	%82
56	MP2	Z	25	25	0	%82
57	MP3	Z	0	0	0	0
58	MP4	Z	25	25	0	%82
59	MP5	Z	23	23	0	%82
60	MP6	Z	23	23	0	%82
61	MP7	Z	25	25	0	%82
62	MP8	Z	0	0	0	0
63	MP9	Z	25	25	0	%82
64	MP10	Z	23	23	0	%82
65	MP11	Z	20.8	20.8	0	%82
66	MP12	Z	18.1	18.1	0	%82

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,%]
67	MP13	Z	18.1	18.1	0	%82
68	MP14	Z	0	0	0	0
69	MP14	Z	0	0	0	0
70	MP16	Z	0	0	0	0
71	MP17	Z	0	0	0	0
72	MP18	Z	0	0	0	0

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,%]
1	FM1	X	-16.6	-16.6	0	0
2	FM2	X	-16.6	-16.6	0	0
3	FM3	X	-16.6	-16.6	0	0
4	HORIZ1	X	-16.6	-16.6	0	0
5	HORIZ2	X	-16.6	-16.6	0	0
6	HORIZ3	X	-16.6	-16.6	0	0
7	HR1	X	-16.8	-16.8	0	0
8	HR2	X	-16.8	-16.8	0	0
9	HR3	X	-16.8	-16.8	0	0
10	SA-1	X	0	0	0	0
11	SA-2	X	-22.2	-22.2	0	0
12	SA-3	X	-22.2	-22.2	0	0
13	GRATE1	X	0	0	0	0
14	GRATE2	X	-16.6	-16.6	0	0
15	GRATE3	X	-16.6	-16.6	0	0
16	HR-V1	X	-22.2	-22.2	0	0
17	HR-V2	X	-22.2	-22.2	0	0
18	HR-V3	X	-22.2	-22.2	0	0
19	FM1	Z	0	0	0	0
20	FM2	Z	0	0	0	0
21	FM3	Z	0	0	0	0
22	HORIZ1	Z	0	0	0	0
23	HORIZ2	Z	0	0	0	0
24	HORIZ3	Z	0	0	0	0
25	HR1	Z	0	0	0	0
26	HR2	Z	0	0	0	0
27	HR3	Z	0	0	0	0
28	SA-1	Z	0	0	0	0
29	SA-2	Z	0	0	0	0
30	SA-3	Z	0	0	0	0
31	GRATE1	Z	0	0	0	0
32	GRATE2	Z	0	0	0	0
33	GRATE3	Z	0	0	0	0
34	HR-V1	Z	0	0	0	0
35	HR-V2	Z	0	0	0	0
36	HR-V3	Z	0	0	0	0
37	MP1	X	-47.6	-47.6	0	%82
38	MP2	X	-54.6	-54.6	0	%82
39	MP3	X	0	0	0	0
40	MP4	X	-54.6	-54.6	0	%82
41	MP5	X	-47.6	-47.6	0	%82
42	MP6	X	-43.1	-43.1	0	%82
43	MP7	X	-40.8	-40.8	0	%82
44	MP8	X	0	0	0	0
45	MP9	X	-40.8	-40.8	0	%82
46	MP10	X	-43.1	-43.1	0	%82
47	MP11	X	-43.1	-43.1	0	%82

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,%]
48	MP12	X	-40.8	-40.8	0	%82
49	MP13	X	-40.8	-40.8	0	%82
50	MP14	X	0	0	0	0
51	MP14	X	0	0	0	0
52	MP16	X	0	0	0	0
53	MP17	X	0	0	0	0
54	MP18	X	0	0	0	0
55	MP1	Z	0	0	0	0
56	MP2	Z	0	0	0	0
57	MP3	Z	0	0	0	0
58	MP4	Z	0	0	0	0
59	MP5	Z	0	0	0	0
60	MP6	Z	0	0	0	0
61	MP7	Z	0	0	0	0
62	MP8	Z	0	0	0	0
63	MP9	Z	0	0	0	0
64	MP10	Z	0	0	0	0
65	MP11	Z	0	0	0	0
66	MP12	Z	0	0	0	0
67	MP13	Z	0	0	0	0
68	MP14	Z	0	0	0	0
69	MP14	Z	0	0	0	0
70	MP16	Z	0	0	0	0
71	MP17	Z	0	0	0	0
72	MP18	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,%]
1	FM1	X	-14.4	-14.4	0	0
2	FM2	X	0	0	0	0
3	FM3	X	-14.4	-14.4	0	0
4	HORIZ1	X	-14.4	-14.4	0	0
5	HORIZ2	X	0	0	0	0
6	HORIZ3	X	-14.4	-14.4	0	0
7	HR1	X	-14.5	-14.5	0	0
8	HR2	X	0	0	0	0
9	HR3	X	-14.5	-14.5	0	0
10	SA-1	X	-19.2	-19.2	0	0
11	SA-2	X	-19.2	-19.2	0	0
12	SA-3	X	-19.2	-19.2	0	0
13	GRATE1	X	-14.4	-14.4	0	0
14	GRATE2	X	-14.4	-14.4	0	0
15	GRATE3	X	-14.4	-14.4	0	0
16	HR-V1	X	-19.2	-19.2	0	0
17	HR-V2	X	-19.2	-19.2	0	0
18	HR-V3	X	-19.2	-19.2	0	0
19	FM1	Z	-8.3	-8.3	0	0
20	FM2	Z	0	0	0	0
21	FM3	Z	-8.3	-8.3	0	0
22	HORIZ1	Z	-8.3	-8.3	0	0
23	HORIZ2	Z	0	0	0	0
24	HORIZ3	Z	-8.3	-8.3	0	0
25	HR1	Z	-8.4	-8.4	0	0
26	HR2	Z	0	0	0	0
27	HR3	Z	-8.4	-8.4	0	0
28	SA-1	Z	-11.1	-11.1	0	0

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,%]
29	SA-2	Z	-11.1	-11.1	0	0
30	SA-3	Z	-11.1	-11.1	0	0
31	GRATE1	Z	-8.3	-8.3	0	0
32	GRATE2	Z	-8.3	-8.3	0	0
33	GRATE3	Z	-8.3	-8.3	0	0
34	HR-V1	Z	-11.1	-11.1	0	0
35	HR-V2	Z	-11.1	-11.1	0	0
36	HR-V3	Z	-11.1	-11.1	0	0
37	MP1	X	-39.9	-39.9	0	%82
38	MP2	X	-43.3	-43.3	0	%82
39	MP3	X	0	0	0	0
40	MP4	X	-43.3	-43.3	0	%82
41	MP5	X	-39.9	-39.9	0	%82
42	MP6	X	-36.1	-36.1	0	%82
43	MP7	X	-31.3	-31.3	0	%82
44	MP8	X	0	0	0	0
45	MP9	X	-31.3	-31.3	0	%82
46	MP10	X	-36.1	-36.1	0	%82
47	MP11	X	-39.9	-39.9	0	%82
48	MP12	X	-43.3	-43.3	0	%82
49	MP13	X	-43.3	-43.3	0	%82
50	MP14	X	0	0	0	0
51	MP14	X	0	0	0	0
52	MP16	X	0	0	0	0
53	MP17	X	0	0	0	0
54	MP18	X	0	0	0	0
55	MP1	Z	-23	-23	0	%82
56	MP2	Z	-25	-25	0	%82
57	MP3	Z	0	0	0	0
58	MP4	Z	-25	-25	0	%82
59	MP5	Z	-23	-23	0	%82
60	MP6	Z	-20.8	-20.8	0	%82
61	MP7	Z	-18.1	-18.1	0	%82
62	MP8	Z	0	0	0	0
63	MP9	Z	-18.1	-18.1	0	%82
64	MP10	Z	-20.8	-20.8	0	%82
65	MP11	Z	-23	-23	0	%82
66	MP12	Z	-25	-25	0	%82
67	MP13	Z	-25	-25	0	%82
68	MP14	Z	0	0	0	0
69	MP14	Z	0	0	0	0
70	MP16	Z	0	0	0	0
71	MP17	Z	0	0	0	0
72	MP18	Z	0	0	0	0

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,%]
1	FM1	X	-8.3	-8.3	0	0
2	FM2	X	-8.3	-8.3	0	0
3	FM3	X	-8.3	-8.3	0	0
4	HORIZ1	X	-8.3	-8.3	0	0
5	HORIZ2	X	-8.3	-8.3	0	0
6	HORIZ3	X	-8.3	-8.3	0	0
7	HR1	X	-8.4	-8.4	0	0
8	HR2	X	-8.4	-8.4	0	0
9	HR3	X	-8.4	-8.4	0	0

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,%]
10	SA-1	X	-11.1	-11.1	0	0
11	SA-2	X	-11.1	-11.1	0	0
12	SA-3	X	0	0	0	0
13	GRATE1	X	-8.3	-8.3	0	0
14	GRATE2	X	-8.3	-8.3	0	0
15	GRATE3	X	0	0	0	0
16	HR-V1	X	-11.1	-11.1	0	0
17	HR-V2	X	-11.1	-11.1	0	0
18	HR-V3	X	-11.1	-11.1	0	0
19	FM1	Z	-14.4	-14.4	0	0
20	FM2	Z	-14.4	-14.4	0	0
21	FM3	Z	-14.4	-14.4	0	0
22	HORIZ1	Z	-14.4	-14.4	0	0
23	HORIZ2	Z	-14.4	-14.4	0	0
24	HORIZ3	Z	-14.4	-14.4	0	0
25	HR1	Z	-14.5	-14.5	0	0
26	HR2	Z	-14.5	-14.5	0	0
27	HR3	Z	-14.5	-14.5	0	0
28	SA-1	Z	-19.2	-19.2	0	0
29	SA-2	Z	-19.2	-19.2	0	0
30	SA-3	Z	0	0	0	0
31	GRATE1	Z	-14.4	-14.4	0	0
32	GRATE2	Z	-14.4	-14.4	0	0
33	GRATE3	Z	0	0	0	0
34	HR-V1	Z	-19.2	-19.2	0	0
35	HR-V2	Z	-19.2	-19.2	0	0
36	HR-V3	Z	-19.2	-19.2	0	0
37	MP1	X	-21.6	-21.6	0	%82
38	MP2	X	-20.4	-20.4	0	%82
39	MP3	X	0	0	0	0
40	MP4	X	-20.4	-20.4	0	%82
41	MP5	X	-21.6	-21.6	0	%82
42	MP6	X	-21.6	-21.6	0	%82
43	MP7	X	-20.4	-20.4	0	%82
44	MP8	X	0	0	0	0
45	MP9	X	-20.4	-20.4	0	%82
46	MP10	X	-21.6	-21.6	0	%82
47	MP11	X	-23.8	-23.8	0	%82
48	MP12	X	-27.3	-27.3	0	%82
49	MP13	X	-27.3	-27.3	0	%82
50	MP14	X	0	0	0	0
51	MP14	X	0	0	0	0
52	MP16	X	0	0	0	0
53	MP17	X	0	0	0	0
54	MP18	X	0	0	0	0
55	MP1	Z	-37.4	-37.4	0	%82
56	MP2	Z	-35.3	-35.3	0	%82
57	MP3	Z	0	0	0	0
58	MP4	Z	-35.3	-35.3	0	%82
59	MP5	Z	-37.4	-37.4	0	%82
60	MP6	Z	-37.4	-37.4	0	%82
61	MP7	Z	-35.3	-35.3	0	%82
62	MP8	Z	0	0	0	0
63	MP9	Z	-35.3	-35.3	0	%82
64	MP10	Z	-37.4	-37.4	0	%82
65	MP11	Z	-41.2	-41.2	0	%82
66	MP12	Z	-47.3	-47.3	0	%82

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,%]
67	MP13	Z	-47.3	-47.3	0	%82
68	MP14	Z	0	0	0	0
69	MP14	Z	0	0	0	0
70	MP16	Z	0	0	0	0
71	MP17	Z	0	0	0	0
72	MP18	Z	0	0	0	0

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,%]
1	FM1	X	0	0	0	0
2	FM2	X	0	0	0	0
3	FM3	X	0	0	0	0
4	HORIZ1	X	0	0	0	0
5	HORIZ2	X	0	0	0	0
6	HORIZ3	X	0	0	0	0
7	HR1	X	0	0	0	0
8	HR2	X	0	0	0	0
9	HR3	X	0	0	0	0
10	SA-1	X	0	0	0	0
11	SA-2	X	0	0	0	0
12	SA-3	X	0	0	0	0
13	GRATE1	X	0	0	0	0
14	GRATE2	X	0	0	0	0
15	GRATE3	X	0	0	0	0
16	HR-V1	X	0	0	0	0
17	HR-V2	X	0	0	0	0
18	HR-V3	X	0	0	0	0
19	FM1	Z	0	0	0	0
20	FM2	Z	-16.6	-16.6	0	0
21	FM3	Z	-16.6	-16.6	0	0
22	HORIZ1	Z	0	0	0	0
23	HORIZ2	Z	-16.6	-16.6	0	0
24	HORIZ3	Z	-16.6	-16.6	0	0
25	HR1	Z	0	0	0	0
26	HR2	Z	-16.8	-16.8	0	0
27	HR3	Z	-16.8	-16.8	0	0
28	SA-1	Z	-22.2	-22.2	0	0
29	SA-2	Z	-22.2	-22.2	0	0
30	SA-3	Z	-22.2	-22.2	0	0
31	GRATE1	Z	-16.6	-16.6	0	0
32	GRATE2	Z	-16.6	-16.6	0	0
33	GRATE3	Z	-16.6	-16.6	0	0
34	HR-V1	Z	-22.2	-22.2	0	0
35	HR-V2	Z	-22.2	-22.2	0	0
36	HR-V3	Z	-22.2	-22.2	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	MP10	X	0	0	0	0
47	MP11	X	0	0	0	0

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,%]
48	MP12	X	0	0	0	0
49	MP13	X	0	0	0	0
50	MP14	X	0	0	0	0
51	MP14	X	0	0	0	0
52	MP16	X	0	0	0	0
53	MP17	X	0	0	0	0
54	MP18	X	0	0	0	0
55	MP1	Z	-41.6	-41.6	0	%82
56	MP2	Z	-36.1	-36.1	0	%82
57	MP3	Z	0	0	0	0
58	MP4	Z	-36.1	-36.1	0	%82
59	MP5	Z	-41.6	-41.6	0	%82
60	MP6	Z	-46.1	-46.1	0	%82
61	MP7	Z	-50	-50	0	%82
62	MP8	Z	0	0	0	0
63	MP9	Z	-50	-50	0	%82
64	MP10	Z	-46.1	-46.1	0	%82
65	MP11	Z	-46.1	-46.1	0	%82
66	MP12	Z	-50	-50	0	%82
67	MP13	Z	-50	-50	0	%82
68	MP14	Z	0	0	0	0
69	MP14	Z	0	0	0	0
70	MP16	Z	0	0	0	0
71	MP17	Z	0	0	0	0
72	MP18	Z	0	0	0	0

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,%]
1	FM1	X	8.3	8.3	0	0
2	FM2	X	8.3	8.3	0	0
3	FM3	X	8.3	8.3	0	0
4	HORIZ1	X	8.3	8.3	0	0
5	HORIZ2	X	8.3	8.3	0	0
6	HORIZ3	X	8.3	8.3	0	0
7	HR1	X	8.4	8.4	0	0
8	HR2	X	8.4	8.4	0	0
9	HR3	X	8.4	8.4	0	0
10	SA-1	X	11.1	11.1	0	0
11	SA-2	X	0	0	0	0
12	SA-3	X	11.1	11.1	0	0
13	GRATE1	X	8.3	8.3	0	0
14	GRATE2	X	0	0	0	0
15	GRATE3	X	8.3	8.3	0	0
16	HR-V1	X	11.1	11.1	0	0
17	HR-V2	X	11.1	11.1	0	0
18	HR-V3	X	11.1	11.1	0	0
19	FM1	Z	-14.4	-14.4	0	0
20	FM2	Z	-14.4	-14.4	0	0
21	FM3	Z	-14.4	-14.4	0	0
22	HORIZ1	Z	-14.4	-14.4	0	0
23	HORIZ2	Z	-14.4	-14.4	0	0
24	HORIZ3	Z	-14.4	-14.4	0	0
25	HR1	Z	-14.5	-14.5	0	0
26	HR2	Z	-14.5	-14.5	0	0
27	HR3	Z	-14.5	-14.5	0	0
28	SA-1	Z	-19.2	-19.2	0	0

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,%]
29	SA-2	Z	0	0	0	0
30	SA-3	Z	-19.2	-19.2	0	0
31	GRATE1	Z	-14.4	-14.4	0	0
32	GRATE2	Z	0	0	0	0
33	GRATE3	Z	-14.4	-14.4	0	0
34	HR-V1	Z	-19.2	-19.2	0	0
35	HR-V2	Z	-19.2	-19.2	0	0
36	HR-V3	Z	-19.2	-19.2	0	0
37	MP1	X	21.6	21.6	0	%82
38	MP2	X	20.4	20.4	0	%82
39	MP3	X	0	0	0	0
40	MP4	X	20.4	20.4	0	%82
41	MP5	X	21.6	21.6	0	%82
42	MP6	X	23.8	23.8	0	%82
43	MP7	X	27.3	27.3	0	%82
44	MP8	X	0	0	0	0
45	MP9	X	27.3	27.3	0	%82
46	MP10	X	23.8	23.8	0	%82
47	MP11	X	21.6	21.6	0	%82
48	MP12	X	20.4	20.4	0	%82
49	MP13	X	20.4	20.4	0	%82
50	MP14	X	0	0	0	0
51	MP14	X	0	0	0	0
52	MP16	X	0	0	0	0
53	MP17	X	0	0	0	0
54	MP18	X	0	0	0	0
55	MP1	Z	-37.4	-37.4	0	%82
56	MP2	Z	-35.3	-35.3	0	%82
57	MP3	Z	0	0	0	0
58	MP4	Z	-35.3	-35.3	0	%82
59	MP5	Z	-37.4	-37.4	0	%82
60	MP6	Z	-41.2	-41.2	0	%82
61	MP7	Z	-47.3	-47.3	0	%82
62	MP8	Z	0	0	0	0
63	MP9	Z	-47.3	-47.3	0	%82
64	MP10	Z	-41.2	-41.2	0	%82
65	MP11	Z	-37.4	-37.4	0	%82
66	MP12	Z	-35.3	-35.3	0	%82
67	MP13	Z	-35.3	-35.3	0	%82
68	MP14	Z	0	0	0	0
69	MP14	Z	0	0	0	0
70	MP16	Z	0	0	0	0
71	MP17	Z	0	0	0	0
72	MP18	Z	0	0	0	0

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,%]
1	FM1	X	14.4	14.4	0	0
2	FM2	X	14.4	14.4	0	0
3	FM3	X	0	0	0	0
4	HORIZ1	X	14.4	14.4	0	0
5	HORIZ2	X	14.4	14.4	0	0
6	HORIZ3	X	0	0	0	0
7	HR1	X	14.5	14.5	0	0
8	HR2	X	14.5	14.5	0	0
9	HR3	X	0	0	0	0

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,%]
10	SA-1	X	19.2	19.2	0	0
11	SA-2	X	19.2	19.2	0	0
12	SA-3	X	19.2	19.2	0	0
13	GRATE1	X	14.4	14.4	0	0
14	GRATE2	X	14.4	14.4	0	0
15	GRATE3	X	14.4	14.4	0	0
16	HR-V1	X	19.2	19.2	0	0
17	HR-V2	X	19.2	19.2	0	0
18	HR-V3	X	19.2	19.2	0	0
19	FM1	Z	-8.3	-8.3	0	0
20	FM2	Z	-8.3	-8.3	0	0
21	FM3	Z	0	0	0	0
22	HORIZ1	Z	-8.3	-8.3	0	0
23	HORIZ2	Z	-8.3	-8.3	0	0
24	HORIZ3	Z	0	0	0	0
25	HR1	Z	-8.4	-8.4	0	0
26	HR2	Z	-8.4	-8.4	0	0
27	HR3	Z	0	0	0	0
28	SA-1	Z	-11.1	-11.1	0	0
29	SA-2	Z	-11.1	-11.1	0	0
30	SA-3	Z	-11.1	-11.1	0	0
31	GRATE1	Z	-8.3	-8.3	0	0
32	GRATE2	Z	-8.3	-8.3	0	0
33	GRATE3	Z	-8.3	-8.3	0	0
34	HR-V1	Z	-11.1	-11.1	0	0
35	HR-V2	Z	-11.1	-11.1	0	0
36	HR-V3	Z	-11.1	-11.1	0	0
37	MP1	X	39.9	39.9	0	%82
38	MP2	X	43.3	43.3	0	%82
39	MP3	X	0	0	0	0
40	MP4	X	43.3	43.3	0	%82
41	MP5	X	39.9	39.9	0	%82
42	MP6	X	39.9	39.9	0	%82
43	MP7	X	43.3	43.3	0	%82
44	MP8	X	0	0	0	0
45	MP9	X	43.3	43.3	0	%82
46	MP10	X	39.9	39.9	0	%82
47	MP11	X	36.1	36.1	0	%82
48	MP12	X	31.3	31.3	0	%82
49	MP13	X	31.3	31.3	0	%82
50	MP14	X	0	0	0	0
51	MP14	X	0	0	0	0
52	MP16	X	0	0	0	0
53	MP17	X	0	0	0	0
54	MP18	X	0	0	0	0
55	MP1	Z	-23	-23	0	%82
56	MP2	Z	-25	-25	0	%82
57	MP3	Z	0	0	0	0
58	MP4	Z	-25	-25	0	%82
59	MP5	Z	-23	-23	0	%82
60	MP6	Z	-23	-23	0	%82
61	MP7	Z	-25	-25	0	%82
62	MP8	Z	0	0	0	0
63	MP9	Z	-25	-25	0	%82
64	MP10	Z	-23	-23	0	%82
65	MP11	Z	-20.8	-20.8	0	%82
66	MP12	Z	-18.1	-18.1	0	%82

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,%]
67	MP13	Z	-18.1	-18.1	0	%82
68	MP14	Z	0	0	0	0
69	MP14	Z	0	0	0	0
70	MP16	Z	0	0	0	0
71	MP17	Z	0	0	0	0
72	MP18	Z	0	0	0	0

Member Distributed Loads (BLC 14 : Ice Load)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
1	FM1	Y	-17.8	-17.8	0	0
2	FM2	Y	-17.8	-17.8	0	0
3	FM3	Y	-17.8	-17.8	0	0
4	HORIZ1	Y	-17.8	-17.8	0	0
5	HORIZ2	Y	-17.8	-17.8	0	0
6	HORIZ3	Y	-17.8	-17.8	0	0
7	HR1	Y	-17.9	-17.9	0	0
8	HR2	Y	-17.9	-17.9	0	0
9	HR3	Y	-17.9	-17.9	0	0
10	SA-1	Y	-21.7	-21.7	0	0
11	SA-2	Y	-21.7	-21.7	0	0
12	SA-3	Y	-21.7	-21.7	0	0
13	GRATE1	Y	-17.8	-17.8	0	0
14	GRATE2	Y	-17.8	-17.8	0	0
15	GRATE3	Y	-17.8	-17.8	0	0
16	HR-V1	Y	-21.7	-21.7	0	0
17	HR-V2	Y	-21.7	-21.7	0	0
18	HR-V3	Y	-21.7	-21.7	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	5.2	5.2	0	0
2	FM2	X	5.2	5.2	0	0
3	FM3	X	5.2	5.2	0	0
4	HORIZ1	X	5.2	5.2	0	0
5	HORIZ2	X	5.2	5.2	0	0
6	HORIZ3	X	5.2	5.2	0	0
7	HR1	X	5.3	5.3	0	0
8	HR2	X	5.3	5.3	0	0
9	HR3	X	5.3	5.3	0	0
10	SA-1	X	0	0	0	0
11	SA-2	X	6.1	6.1	0	0
12	SA-3	X	6.1	6.1	0	0
13	GRATE1	X	0	0	0	0
14	GRATE2	X	5.2	5.2	0	0
15	GRATE3	X	5.2	5.2	0	0
16	HR-V1	X	6.1	6.1	0	0
17	HR-V2	X	6.1	6.1	0	0
18	HR-V3	X	6.1	6.1	0	0
19	FM1	Z	0	0	0	0
20	FM2	Z	0	0	0	0
21	FM3	Z	0	0	0	0
22	HORIZ1	Z	0	0	0	0
23	HORIZ2	Z	0	0	0	0
24	HORIZ3	Z	0	0	0	0
25	HR1	Z	0	0	0	0
26	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,%]
27	HR3	Z	0	0	0	0
28	SA-1	Z	0	0	0	0
29	SA-2	Z	0	0	0	0
30	SA-3	Z	0	0	0	0
31	GRATE1	Z	0	0	0	0
32	GRATE2	Z	0	0	0	0
33	GRATE3	Z	0	0	0	0
34	HR-V1	Z	0	0	0	0
35	HR-V2	Z	0	0	0	0
36	HR-V3	Z	0	0	0	0
37	MP1	X	9.4	9.4	0	%82
38	MP2	X	10.6	10.6	0	%82
39	MP3	X	0	0	0	0
40	MP4	X	10.6	10.6	0	%82
41	MP5	X	9.4	9.4	0	%82
42	MP6	X	8.9	8.9	0	%82
43	MP7	X	8.5	8.5	0	%82
44	MP8	X	0	0	0	0
45	MP9	X	8.5	8.5	0	%82
46	MP10	X	8.9	8.9	0	%82
47	MP11	X	8.9	8.9	0	%82
48	MP12	X	8.5	8.5	0	%82
49	MP13	X	8.5	8.5	0	%82
50	MP14	X	0	0	0	0
51	MP14	X	0	0	0	0
52	MP16	X	0	0	0	0
53	MP17	X	0	0	0	0
54	MP18	X	0	0	0	0
55	MP1	Z	0	0	0	0
56	MP2	Z	0	0	0	0
57	MP3	Z	0	0	0	0
58	MP4	Z	0	0	0	0
59	MP5	Z	0	0	0	0
60	MP6	Z	0	0	0	0
61	MP7	Z	0	0	0	0
62	MP8	Z	0	0	0	0
63	MP9	Z	0	0	0	0
64	MP10	Z	0	0	0	0
65	MP11	Z	0	0	0	0
66	MP12	Z	0	0	0	0
67	MP13	Z	0	0	0	0
68	MP14	Z	0	0	0	0
69	MP14	Z	0	0	0	0
70	MP16	Z	0	0	0	0
71	MP17	Z	0	0	0	0
72	MP18	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	4.5	4.5	0	0
2	FM2	X	0	0	0	0
3	FM3	X	4.5	4.5	0	0
4	HORIZ1	X	4.5	4.5	0	0
5	HORIZ2	X	0	0	0	0
6	HORIZ3	X	4.5	4.5	0	0
7	HR1	X	4.6	4.6	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,%]
8	HR2	X	0	0	0	0
9	HR3	X	4.6	4.6	0	0
10	SA-1	X	5.3	5.3	0	0
11	SA-2	X	5.3	5.3	0	0
12	SA-3	X	5.3	5.3	0	0
13	GRATE1	X	4.5	4.5	0	0
14	GRATE2	X	4.5	4.5	0	0
15	GRATE3	X	4.5	4.5	0	0
16	HR-V1	X	5.3	5.3	0	0
17	HR-V2	X	5.3	5.3	0	0
18	HR-V3	X	5.3	5.3	0	0
19	FM1	Z	2.6	2.6	0	0
20	FM2	Z	0	0	0	0
21	FM3	Z	2.6	2.6	0	0
22	HORIZ1	Z	2.6	2.6	0	0
23	HORIZ2	Z	0	0	0	0
24	HORIZ3	Z	2.6	2.6	0	0
25	HR1	Z	2.6	2.6	0	0
26	HR2	Z	0	0	0	0
27	HR3	Z	2.6	2.6	0	0
28	SA-1	Z	3.1	3.1	0	0
29	SA-2	Z	3.1	3.1	0	0
30	SA-3	Z	3.1	3.1	0	0
31	GRATE1	Z	2.6	2.6	0	0
32	GRATE2	Z	2.6	2.6	0	0
33	GRATE3	Z	2.6	2.6	0	0
34	HR-V1	Z	3.1	3.1	0	0
35	HR-V2	Z	3.1	3.1	0	0
36	HR-V3	Z	3.1	3.1	0	0
37	MP1	X	8	8	0	%82
38	MP2	X	8.6	8.6	0	%82
39	MP3	X	0	0	0	0
40	MP4	X	8.6	8.6	0	%82
41	MP5	X	8	8	0	%82
42	MP6	X	7.5	7.5	0	%82
43	MP7	X	6.7	6.7	0	%82
44	MP8	X	0	0	0	0
45	MP9	X	6.7	6.7	0	%82
46	MP10	X	7.5	7.5	0	%82
47	MP11	X	8	8	0	%82
48	MP12	X	8.6	8.6	0	%82
49	MP13	X	8.6	8.6	0	%82
50	MP14	X	0	0	0	0
51	MP14	X	0	0	0	0
52	MP16	X	0	0	0	0
53	MP17	X	0	0	0	0
54	MP18	X	0	0	0	0
55	MP1	Z	4.6	4.6	0	%82
56	MP2	Z	5	5	0	%82
57	MP3	Z	0	0	0	0
58	MP4	Z	5	5	0	%82
59	MP5	Z	4.6	4.6	0	%82
60	MP6	Z	4.4	4.4	0	%82
61	MP7	Z	3.9	3.9	0	%82
62	MP8	Z	0	0	0	0
63	MP9	Z	3.9	3.9	0	%82
64	MP10	Z	4.4	4.4	0	%82

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,%]
65	MP11	Z	4.6	4.6	0	%82
66	MP12	Z	5	5	0	%82
67	MP13	Z	5	5	0	%82
68	MP14	Z	0	0	0	0
69	MP14	Z	0	0	0	0
70	MP16	Z	0	0	0	0
71	MP17	Z	0	0	0	0
72	MP18	Z	0	0	0	0

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	2.6	2.6	0	0
2	FM2	X	2.6	2.6	0	0
3	FM3	X	2.6	2.6	0	0
4	HORIZ1	X	2.6	2.6	0	0
5	HORIZ2	X	2.6	2.6	0	0
6	HORIZ3	X	2.6	2.6	0	0
7	HR1	X	2.6	2.6	0	0
8	HR2	X	2.6	2.6	0	0
9	HR3	X	2.6	2.6	0	0
10	SA-1	X	3.1	3.1	0	0
11	SA-2	X	3.1	3.1	0	0
12	SA-3	X	0	0	0	0
13	GRATE1	X	2.6	2.6	0	0
14	GRATE2	X	2.6	2.6	0	0
15	GRATE3	X	0	0	0	0
16	HR-V1	X	3.1	3.1	0	0
17	HR-V2	X	3.1	3.1	0	0
18	HR-V3	X	3.1	3.1	0	0
19	FM1	Z	4.5	4.5	0	0
20	FM2	Z	4.5	4.5	0	0
21	FM3	Z	4.5	4.5	0	0
22	HORIZ1	Z	4.5	4.5	0	0
23	HORIZ2	Z	4.5	4.5	0	0
24	HORIZ3	Z	4.5	4.5	0	0
25	HR1	Z	4.6	4.6	0	0
26	HR2	Z	4.6	4.6	0	0
27	HR3	Z	4.6	4.6	0	0
28	SA-1	Z	5.3	5.3	0	0
29	SA-2	Z	5.3	5.3	0	0
30	SA-3	Z	0	0	0	0
31	GRATE1	Z	4.5	4.5	0	0
32	GRATE2	Z	4.5	4.5	0	0
33	GRATE3	Z	0	0	0	0
34	HR-V1	Z	5.3	5.3	0	0
35	HR-V2	Z	5.3	5.3	0	0
36	HR-V3	Z	5.3	5.3	0	0
37	MP1	X	4.4	4.4	0	%82
38	MP2	X	4.2	4.2	0	%82
39	MP3	X	0	0	0	0
40	MP4	X	4.2	4.2	0	%82
41	MP5	X	4.4	4.4	0	%82
42	MP6	X	4.4	4.4	0	%82
43	MP7	X	4.2	4.2	0	%82
44	MP8	X	0	0	0	0
45	MP9	X	4.2	4.2	0	%82

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,%]
46	MP10	X	4.4	4.4	0	%82
47	MP11	X	4.7	4.7	0	%82
48	MP12	X	5.3	5.3	0	%82
49	MP13	X	5.3	5.3	0	%82
50	MP14	X	0	0	0	0
51	MP14	X	0	0	0	0
52	MP16	X	0	0	0	0
53	MP17	X	0	0	0	0
54	MP18	X	0	0	0	0
55	MP1	Z	7.7	7.7	0	%82
56	MP2	Z	7.4	7.4	0	%82
57	MP3	Z	0	0	0	0
58	MP4	Z	7.4	7.4	0	%82
59	MP5	Z	7.7	7.7	0	%82
60	MP6	Z	7.7	7.7	0	%82
61	MP7	Z	7.4	7.4	0	%82
62	MP8	Z	0	0	0	0
63	MP9	Z	7.4	7.4	0	%82
64	MP10	Z	7.7	7.7	0	%82
65	MP11	Z	8.2	8.2	0	%82
66	MP12	Z	9.2	9.2	0	%82
67	MP13	Z	9.2	9.2	0	%82
68	MP14	Z	0	0	0	0
69	MP14	Z	0	0	0	0
70	MP16	Z	0	0	0	0
71	MP17	Z	0	0	0	0
72	MP18	Z	0	0	0	0

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	HORIZ1	X	0	0	0	0
5	HORIZ2	X	0	0	0	0
6	HORIZ3	X	0	0	0	0
7	HR1	X	0	0	0	0
8	HR2	X	0	0	0	0
9	HR3	X	0	0	0	0
10	SA-1	X	0	0	0	0
11	SA-2	X	0	0	0	0
12	SA-3	X	0	0	0	0
13	GRATE1	X	0	0	0	0
14	GRATE2	X	0	0	0	0
15	GRATE3	X	0	0	0	0
16	HR-V1	X	0	0	0	0
17	HR-V2	X	0	0	0	0
18	HR-V3	X	0	0	0	0
19	FM1	Z	0	0	0	0
20	FM2	Z	5.2	5.2	0	0
21	FM3	Z	5.2	5.2	0	0
22	HORIZ1	Z	0	0	0	0
23	HORIZ2	Z	5.2	5.2	0	0
24	HORIZ3	Z	5.2	5.2	0	0
25	HR1	Z	0	0	0	0
26	HR2	Z	5.3	5.3	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,%]
27	HR3	Z	5.3	5.3	0	0
28	SA-1	Z	6.1	6.1	0	0
29	SA-2	Z	6.1	6.1	0	0
30	SA-3	Z	6.1	6.1	0	0
31	GRATE1	Z	5.2	5.2	0	0
32	GRATE2	Z	5.2	5.2	0	0
33	GRATE3	Z	5.2	5.2	0	0
34	HR-V1	Z	6.1	6.1	0	0
35	HR-V2	Z	6.1	6.1	0	0
36	HR-V3	Z	6.1	6.1	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	MP10	X	0	0	0	0
47	MP11	X	0	0	0	0
48	MP12	X	0	0	0	0
49	MP13	X	0	0	0	0
50	MP14	X	0	0	0	0
51	MP14	X	0	0	0	0
52	MP16	X	0	0	0	0
53	MP17	X	0	0	0	0
54	MP18	X	0	0	0	0
55	MP1	Z	8.7	8.7	0	%82
56	MP2	Z	7.8	7.8	0	%82
57	MP3	Z	0	0	0	0
58	MP4	Z	7.8	7.8	0	%82
59	MP5	Z	8.7	8.7	0	%82
60	MP6	Z	9.2	9.2	0	%82
61	MP7	Z	9.9	9.9	0	%82
62	MP8	Z	0	0	0	0
63	MP9	Z	9.9	9.9	0	%82
64	MP10	Z	9.2	9.2	0	%82
65	MP11	Z	9.2	9.2	0	%82
66	MP12	Z	9.9	9.9	0	%82
67	MP13	Z	9.9	9.9	0	%82
68	MP14	Z	0	0	0	0
69	MP14	Z	0	0	0	0
70	MP16	Z	0	0	0	0
71	MP17	Z	0	0	0	0
72	MP18	Z	0	0	0	0

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	-2.6	-2.6	0	0
2	FM2	X	-2.6	-2.6	0	0
3	FM3	X	-2.6	-2.6	0	0
4	HORIZ1	X	-2.6	-2.6	0	0
5	HORIZ2	X	-2.6	-2.6	0	0
6	HORIZ3	X	-2.6	-2.6	0	0
7	HR1	X	-2.6	-2.6	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,%]
8	HR2	X	-2.6	-2.6	0	0
9	HR3	X	-2.6	-2.6	0	0
10	SA-1	X	-3.1	-3.1	0	0
11	SA-2	X	0	0	0	0
12	SA-3	X	-3.1	-3.1	0	0
13	GRATE1	X	-2.6	-2.6	0	0
14	GRATE2	X	0	0	0	0
15	GRATE3	X	-2.6	-2.6	0	0
16	HR-V1	X	-3.1	-3.1	0	0
17	HR-V2	X	-3.1	-3.1	0	0
18	HR-V3	X	-3.1	-3.1	0	0
19	FM1	Z	4.5	4.5	0	0
20	FM2	Z	4.5	4.5	0	0
21	FM3	Z	4.5	4.5	0	0
22	HORIZ1	Z	4.5	4.5	0	0
23	HORIZ2	Z	4.5	4.5	0	0
24	HORIZ3	Z	4.5	4.5	0	0
25	HR1	Z	4.6	4.6	0	0
26	HR2	Z	4.6	4.6	0	0
27	HR3	Z	4.6	4.6	0	0
28	SA-1	Z	5.3	5.3	0	0
29	SA-2	Z	0	0	0	0
30	SA-3	Z	5.3	5.3	0	0
31	GRATE1	Z	4.5	4.5	0	0
32	GRATE2	Z	0	0	0	0
33	GRATE3	Z	4.5	4.5	0	0
34	HR-V1	Z	5.3	5.3	0	0
35	HR-V2	Z	5.3	5.3	0	0
36	HR-V3	Z	5.3	5.3	0	0
37	MP1	X	-4.4	-4.4	0	%82
38	MP2	X	-4.2	-4.2	0	%82
39	MP3	X	0	0	0	0
40	MP4	X	-4.2	-4.2	0	%82
41	MP5	X	-4.4	-4.4	0	%82
42	MP6	X	-4.7	-4.7	0	%82
43	MP7	X	-5.3	-5.3	0	%82
44	MP8	X	0	0	0	0
45	MP9	X	-5.3	-5.3	0	%82
46	MP10	X	-4.7	-4.7	0	%82
47	MP11	X	-4.4	-4.4	0	%82
48	MP12	X	-4.2	-4.2	0	%82
49	MP13	X	-4.2	-4.2	0	%82
50	MP14	X	0	0	0	0
51	MP14	X	0	0	0	0
52	MP16	X	0	0	0	0
53	MP17	X	0	0	0	0
54	MP18	X	0	0	0	0
55	MP1	Z	7.7	7.7	0	%82
56	MP2	Z	7.4	7.4	0	%82
57	MP3	Z	0	0	0	0
58	MP4	Z	7.4	7.4	0	%82
59	MP5	Z	7.7	7.7	0	%82
60	MP6	Z	8.2	8.2	0	%82
61	MP7	Z	9.2	9.2	0	%82
62	MP8	Z	0	0	0	0
63	MP9	Z	9.2	9.2	0	%82
64	MP10	Z	8.2	8.2	0	%82

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,%]
65	MP11	Z	7.7	7.7	0	%82
66	MP12	Z	7.4	7.4	0	%82
67	MP13	Z	7.4	7.4	0	%82
68	MP14	Z	0	0	0	0
69	MP14	Z	0	0	0	0
70	MP16	Z	0	0	0	0
71	MP17	Z	0	0	0	0
72	MP18	Z	0	0	0	0

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	-4.5	-4.5	0	0
2	FM2	X	-4.5	-4.5	0	0
3	FM3	X	0	0	0	0
4	HORIZ1	X	-4.5	-4.5	0	0
5	HORIZ2	X	-4.5	-4.5	0	0
6	HORIZ3	X	0	0	0	0
7	HR1	X	-4.6	-4.6	0	0
8	HR2	X	-4.6	-4.6	0	0
9	HR3	X	0	0	0	0
10	SA-1	X	-5.3	-5.3	0	0
11	SA-2	X	-5.3	-5.3	0	0
12	SA-3	X	-5.3	-5.3	0	0
13	GRATE1	X	-4.5	-4.5	0	0
14	GRATE2	X	-4.5	-4.5	0	0
15	GRATE3	X	-4.5	-4.5	0	0
16	HR-V1	X	-5.3	-5.3	0	0
17	HR-V2	X	-5.3	-5.3	0	0
18	HR-V3	X	-5.3	-5.3	0	0
19	FM1	Z	2.6	2.6	0	0
20	FM2	Z	2.6	2.6	0	0
21	FM3	Z	0	0	0	0
22	HORIZ1	Z	2.6	2.6	0	0
23	HORIZ2	Z	2.6	2.6	0	0
24	HORIZ3	Z	0	0	0	0
25	HR1	Z	2.6	2.6	0	0
26	HR2	Z	2.6	2.6	0	0
27	HR3	Z	0	0	0	0
28	SA-1	Z	3.1	3.1	0	0
29	SA-2	Z	3.1	3.1	0	0
30	SA-3	Z	3.1	3.1	0	0
31	GRATE1	Z	2.6	2.6	0	0
32	GRATE2	Z	2.6	2.6	0	0
33	GRATE3	Z	2.6	2.6	0	0
34	HR-V1	Z	3.1	3.1	0	0
35	HR-V2	Z	3.1	3.1	0	0
36	HR-V3	Z	3.1	3.1	0	0
37	MP1	X	-8	-8	0	%82
38	MP2	X	-8.6	-8.6	0	%82
39	MP3	X	0	0	0	0
40	MP4	X	-8.6	-8.6	0	%82
41	MP5	X	-8	-8	0	%82
42	MP6	X	-8	-8	0	%82
43	MP7	X	-8.6	-8.6	0	%82
44	MP8	X	0	0	0	0
45	MP9	X	-8.6	-8.6	0	%82

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,%]
46	MP10	X	-8	-8	0	%82
47	MP11	X	-7.5	-7.5	0	%82
48	MP12	X	-6.7	-6.7	0	%82
49	MP13	X	-6.7	-6.7	0	%82
50	MP14	X	0	0	0	0
51	MP14	X	0	0	0	0
52	MP16	X	0	0	0	0
53	MP17	X	0	0	0	0
54	MP18	X	0	0	0	0
55	MP1	Z	4.6	4.6	0	%82
56	MP2	Z	5	5	0	%82
57	MP3	Z	0	0	0	0
58	MP4	Z	5	5	0	%82
59	MP5	Z	4.6	4.6	0	%82
60	MP6	Z	4.6	4.6	0	%82
61	MP7	Z	5	5	0	%82
62	MP8	Z	0	0	0	0
63	MP9	Z	5	5	0	%82
64	MP10	Z	4.6	4.6	0	%82
65	MP11	Z	4.4	4.4	0	%82
66	MP12	Z	3.9	3.9	0	%82
67	MP13	Z	3.9	3.9	0	%82
68	MP14	Z	0	0	0	0
69	MP14	Z	0	0	0	0
70	MP16	Z	0	0	0	0
71	MP17	Z	0	0	0	0
72	MP18	Z	0	0	0	0

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	-5.2	-5.2	0	0
2	FM2	X	-5.2	-5.2	0	0
3	FM3	X	-5.2	-5.2	0	0
4	HORIZ1	X	-5.2	-5.2	0	0
5	HORIZ2	X	-5.2	-5.2	0	0
6	HORIZ3	X	-5.2	-5.2	0	0
7	HR1	X	-5.3	-5.3	0	0
8	HR2	X	-5.3	-5.3	0	0
9	HR3	X	-5.3	-5.3	0	0
10	SA-1	X	0	0	0	0
11	SA-2	X	-6.1	-6.1	0	0
12	SA-3	X	-6.1	-6.1	0	0
13	GRATE1	X	0	0	0	0
14	GRATE2	X	-5.2	-5.2	0	0
15	GRATE3	X	-5.2	-5.2	0	0
16	HR-V1	X	-6.1	-6.1	0	0
17	HR-V2	X	-6.1	-6.1	0	0
18	HR-V3	X	-6.1	-6.1	0	0
19	FM1	Z	0	0	0	0
20	FM2	Z	0	0	0	0
21	FM3	Z	0	0	0	0
22	HORIZ1	Z	0	0	0	0
23	HORIZ2	Z	0	0	0	0
24	HORIZ3	Z	0	0	0	0
25	HR1	Z	0	0	0	0
26	HR2	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,%]
27	HR3	Z	0	0	0	0
28	SA-1	Z	0	0	0	0
29	SA-2	Z	0	0	0	0
30	SA-3	Z	0	0	0	0
31	GRATE1	Z	0	0	0	0
32	GRATE2	Z	0	0	0	0
33	GRATE3	Z	0	0	0	0
34	HR-V1	Z	0	0	0	0
35	HR-V2	Z	0	0	0	0
36	HR-V3	Z	0	0	0	0
37	MP1	X	-9.4	-9.4	0	%82
38	MP2	X	-10.6	-10.6	0	%82
39	MP3	X	0	0	0	0
40	MP4	X	-10.6	-10.6	0	%82
41	MP5	X	-9.4	-9.4	0	%82
42	MP6	X	-8.9	-8.9	0	%82
43	MP7	X	-8.5	-8.5	0	%82
44	MP8	X	0	0	0	0
45	MP9	X	-8.5	-8.5	0	%82
46	MP10	X	-8.9	-8.9	0	%82
47	MP11	X	-8.9	-8.9	0	%82
48	MP12	X	-8.5	-8.5	0	%82
49	MP13	X	-8.5	-8.5	0	%82
50	MP14	X	0	0	0	0
51	MP14	X	0	0	0	0
52	MP16	X	0	0	0	0
53	MP17	X	0	0	0	0
54	MP18	X	0	0	0	0
55	MP1	Z	0	0	0	0
56	MP2	Z	0	0	0	0
57	MP3	Z	0	0	0	0
58	MP4	Z	0	0	0	0
59	MP5	Z	0	0	0	0
60	MP6	Z	0	0	0	0
61	MP7	Z	0	0	0	0
62	MP8	Z	0	0	0	0
63	MP9	Z	0	0	0	0
64	MP10	Z	0	0	0	0
65	MP11	Z	0	0	0	0
66	MP12	Z	0	0	0	0
67	MP13	Z	0	0	0	0
68	MP14	Z	0	0	0	0
69	MP14	Z	0	0	0	0
70	MP16	Z	0	0	0	0
71	MP17	Z	0	0	0	0
72	MP18	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	-4.5	-4.5	0	0
2	FM2	X	0	0	0	0
3	FM3	X	-4.5	-4.5	0	0
4	HORIZ1	X	-4.5	-4.5	0	0
5	HORIZ2	X	0	0	0	0
6	HORIZ3	X	-4.5	-4.5	0	0
7	HR1	X	-4.6	-4.6	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,%]
8	HR2	X	0	0	0	0
9	HR3	X	-4.6	-4.6	0	0
10	SA-1	X	-5.3	-5.3	0	0
11	SA-2	X	-5.3	-5.3	0	0
12	SA-3	X	-5.3	-5.3	0	0
13	GRATE1	X	-4.5	-4.5	0	0
14	GRATE2	X	-4.5	-4.5	0	0
15	GRATE3	X	-4.5	-4.5	0	0
16	HR-V1	X	-5.3	-5.3	0	0
17	HR-V2	X	-5.3	-5.3	0	0
18	HR-V3	X	-5.3	-5.3	0	0
19	FM1	Z	-2.6	-2.6	0	0
20	FM2	Z	0	0	0	0
21	FM3	Z	-2.6	-2.6	0	0
22	HORIZ1	Z	-2.6	-2.6	0	0
23	HORIZ2	Z	0	0	0	0
24	HORIZ3	Z	-2.6	-2.6	0	0
25	HR1	Z	-2.6	-2.6	0	0
26	HR2	Z	0	0	0	0
27	HR3	Z	-2.6	-2.6	0	0
28	SA-1	Z	-3.1	-3.1	0	0
29	SA-2	Z	-3.1	-3.1	0	0
30	SA-3	Z	-3.1	-3.1	0	0
31	GRATE1	Z	-2.6	-2.6	0	0
32	GRATE2	Z	-2.6	-2.6	0	0
33	GRATE3	Z	-2.6	-2.6	0	0
34	HR-V1	Z	-3.1	-3.1	0	0
35	HR-V2	Z	-3.1	-3.1	0	0
36	HR-V3	Z	-3.1	-3.1	0	0
37	MP1	X	-8	-8	0	%82
38	MP2	X	-8.6	-8.6	0	%82
39	MP3	X	0	0	0	0
40	MP4	X	-8.6	-8.6	0	%82
41	MP5	X	-8	-8	0	%82
42	MP6	X	-7.5	-7.5	0	%82
43	MP7	X	-6.7	-6.7	0	%82
44	MP8	X	0	0	0	0
45	MP9	X	-6.7	-6.7	0	%82
46	MP10	X	-7.5	-7.5	0	%82
47	MP11	X	-8	-8	0	%82
48	MP12	X	-8.6	-8.6	0	%82
49	MP13	X	-8.6	-8.6	0	%82
50	MP14	X	0	0	0	0
51	MP14	X	0	0	0	0
52	MP16	X	0	0	0	0
53	MP17	X	0	0	0	0
54	MP18	X	0	0	0	0
55	MP1	Z	-4.6	-4.6	0	%82
56	MP2	Z	-5	-5	0	%82
57	MP3	Z	0	0	0	0
58	MP4	Z	-5	-5	0	%82
59	MP5	Z	-4.6	-4.6	0	%82
60	MP6	Z	-4.4	-4.4	0	%82
61	MP7	Z	-3.9	-3.9	0	%82
62	MP8	Z	0	0	0	0
63	MP9	Z	-3.9	-3.9	0	%82
64	MP10	Z	-4.4	-4.4	0	%82

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,%]
65	MP11	Z	-4.6	-4.6	0	%82
66	MP12	Z	-5	-5	0	%82
67	MP13	Z	-5	-5	0	%82
68	MP14	Z	0	0	0	0
69	MP14	Z	0	0	0	0
70	MP16	Z	0	0	0	0
71	MP17	Z	0	0	0	0
72	MP18	Z	0	0	0	0

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	-2.6	-2.6	0	0
2	FM2	X	-2.6	-2.6	0	0
3	FM3	X	-2.6	-2.6	0	0
4	HORIZ1	X	-2.6	-2.6	0	0
5	HORIZ2	X	-2.6	-2.6	0	0
6	HORIZ3	X	-2.6	-2.6	0	0
7	HR1	X	-2.6	-2.6	0	0
8	HR2	X	-2.6	-2.6	0	0
9	HR3	X	-2.6	-2.6	0	0
10	SA-1	X	-3.1	-3.1	0	0
11	SA-2	X	-3.1	-3.1	0	0
12	SA-3	X	0	0	0	0
13	GRATE1	X	-2.6	-2.6	0	0
14	GRATE2	X	-2.6	-2.6	0	0
15	GRATE3	X	0	0	0	0
16	HR-V1	X	-3.1	-3.1	0	0
17	HR-V2	X	-3.1	-3.1	0	0
18	HR-V3	X	-3.1	-3.1	0	0
19	FM1	Z	-4.5	-4.5	0	0
20	FM2	Z	-4.5	-4.5	0	0
21	FM3	Z	-4.5	-4.5	0	0
22	HORIZ1	Z	-4.5	-4.5	0	0
23	HORIZ2	Z	-4.5	-4.5	0	0
24	HORIZ3	Z	-4.5	-4.5	0	0
25	HR1	Z	-4.6	-4.6	0	0
26	HR2	Z	-4.6	-4.6	0	0
27	HR3	Z	-4.6	-4.6	0	0
28	SA-1	Z	-5.3	-5.3	0	0
29	SA-2	Z	-5.3	-5.3	0	0
30	SA-3	Z	0	0	0	0
31	GRATE1	Z	-4.5	-4.5	0	0
32	GRATE2	Z	-4.5	-4.5	0	0
33	GRATE3	Z	0	0	0	0
34	HR-V1	Z	-5.3	-5.3	0	0
35	HR-V2	Z	-5.3	-5.3	0	0
36	HR-V3	Z	-5.3	-5.3	0	0
37	MP1	X	-4.4	-4.4	0	%82
38	MP2	X	-4.2	-4.2	0	%82
39	MP3	X	0	0	0	0
40	MP4	X	-4.2	-4.2	0	%82
41	MP5	X	-4.4	-4.4	0	%82
42	MP6	X	-4.4	-4.4	0	%82
43	MP7	X	-4.2	-4.2	0	%82
44	MP8	X	0	0	0	0
45	MP9	X	-4.2	-4.2	0	%82

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,%]
46	MP10	X	-4.4	-4.4	0	%82
47	MP11	X	-4.7	-4.7	0	%82
48	MP12	X	-5.3	-5.3	0	%82
49	MP13	X	-5.3	-5.3	0	%82
50	MP14	X	0	0	0	0
51	MP14	X	0	0	0	0
52	MP16	X	0	0	0	0
53	MP17	X	0	0	0	0
54	MP18	X	0	0	0	0
55	MP1	Z	-7.7	-7.7	0	%82
56	MP2	Z	-7.4	-7.4	0	%82
57	MP3	Z	0	0	0	0
58	MP4	Z	-7.4	-7.4	0	%82
59	MP5	Z	-7.7	-7.7	0	%82
60	MP6	Z	-7.7	-7.7	0	%82
61	MP7	Z	-7.4	-7.4	0	%82
62	MP8	Z	0	0	0	0
63	MP9	Z	-7.4	-7.4	0	%82
64	MP10	Z	-7.7	-7.7	0	%82
65	MP11	Z	-8.2	-8.2	0	%82
66	MP12	Z	-9.2	-9.2	0	%82
67	MP13	Z	-9.2	-9.2	0	%82
68	MP14	Z	0	0	0	0
69	MP14	Z	0	0	0	0
70	MP16	Z	0	0	0	0
71	MP17	Z	0	0	0	0
72	MP18	Z	0	0	0	0

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	HORIZ1	X	0	0	0	0
5	HORIZ2	X	0	0	0	0
6	HORIZ3	X	0	0	0	0
7	HR1	X	0	0	0	0
8	HR2	X	0	0	0	0
9	HR3	X	0	0	0	0
10	SA-1	X	0	0	0	0
11	SA-2	X	0	0	0	0
12	SA-3	X	0	0	0	0
13	GRATE1	X	0	0	0	0
14	GRATE2	X	0	0	0	0
15	GRATE3	X	0	0	0	0
16	HR-V1	X	0	0	0	0
17	HR-V2	X	0	0	0	0
18	HR-V3	X	0	0	0	0
19	FM1	Z	0	0	0	0
20	FM2	Z	-5.2	-5.2	0	0
21	FM3	Z	-5.2	-5.2	0	0
22	HORIZ1	Z	0	0	0	0
23	HORIZ2	Z	-5.2	-5.2	0	0
24	HORIZ3	Z	-5.2	-5.2	0	0
25	HR1	Z	0	0	0	0
26	HR2	Z	-5.3	-5.3	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	HR3	Z	-5.3	-5.3	0	0
28	SA-1	Z	-6.1	-6.1	0	0
29	SA-2	Z	-6.1	-6.1	0	0
30	SA-3	Z	-6.1	-6.1	0	0
31	GRATE1	Z	-5.2	-5.2	0	0
32	GRATE2	Z	-5.2	-5.2	0	0
33	GRATE3	Z	-5.2	-5.2	0	0
34	HR-V1	Z	-6.1	-6.1	0	0
35	HR-V2	Z	-6.1	-6.1	0	0
36	HR-V3	Z	-6.1	-6.1	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	MP10	X	0	0	0	0
47	MP11	X	0	0	0	0
48	MP12	X	0	0	0	0
49	MP13	X	0	0	0	0
50	MP14	X	0	0	0	0
51	MP14	X	0	0	0	0
52	MP16	X	0	0	0	0
53	MP17	X	0	0	0	0
54	MP18	X	0	0	0	0
55	MP1	Z	-8.7	-8.7	0	%82
56	MP2	Z	-7.8	-7.8	0	%82
57	MP3	Z	0	0	0	0
58	MP4	Z	-7.8	-7.8	0	%82
59	MP5	Z	-8.7	-8.7	0	%82
60	MP6	Z	-9.2	-9.2	0	%82
61	MP7	Z	-9.9	-9.9	0	%82
62	MP8	Z	0	0	0	0
63	MP9	Z	-9.9	-9.9	0	%82
64	MP10	Z	-9.2	-9.2	0	%82
65	MP11	Z	-9.2	-9.2	0	%82
66	MP12	Z	-9.9	-9.9	0	%82
67	MP13	Z	-9.9	-9.9	0	%82
68	MP14	Z	0	0	0	0
69	MP14	Z	0	0	0	0
70	MP16	Z	0	0	0	0
71	MP17	Z	0	0	0	0
72	MP18	Z	0	0	0	0

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	2.6	2.6	0	0
2	FM2	X	2.6	2.6	0	0
3	FM3	X	2.6	2.6	0	0
4	HORIZ1	X	2.6	2.6	0	0
5	HORIZ2	X	2.6	2.6	0	0
6	HORIZ3	X	2.6	2.6	0	0
7	HR1	X	2.6	2.6	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,%]
8	HR2	X	2.6	2.6	0	0
9	HR3	X	2.6	2.6	0	0
10	SA-1	X	3.1	3.1	0	0
11	SA-2	X	0	0	0	0
12	SA-3	X	3.1	3.1	0	0
13	GRATE1	X	2.6	2.6	0	0
14	GRATE2	X	0	0	0	0
15	GRATE3	X	2.6	2.6	0	0
16	HR-V1	X	3.1	3.1	0	0
17	HR-V2	X	3.1	3.1	0	0
18	HR-V3	X	3.1	3.1	0	0
19	FM1	Z	-4.5	-4.5	0	0
20	FM2	Z	-4.5	-4.5	0	0
21	FM3	Z	-4.5	-4.5	0	0
22	HORIZ1	Z	-4.5	-4.5	0	0
23	HORIZ2	Z	-4.5	-4.5	0	0
24	HORIZ3	Z	-4.5	-4.5	0	0
25	HR1	Z	-4.6	-4.6	0	0
26	HR2	Z	-4.6	-4.6	0	0
27	HR3	Z	-4.6	-4.6	0	0
28	SA-1	Z	-5.3	-5.3	0	0
29	SA-2	Z	0	0	0	0
30	SA-3	Z	-5.3	-5.3	0	0
31	GRATE1	Z	-4.5	-4.5	0	0
32	GRATE2	Z	0	0	0	0
33	GRATE3	Z	-4.5	-4.5	0	0
34	HR-V1	Z	-5.3	-5.3	0	0
35	HR-V2	Z	-5.3	-5.3	0	0
36	HR-V3	Z	-5.3	-5.3	0	0
37	MP1	X	4.4	4.4	0	%82
38	MP2	X	4.2	4.2	0	%82
39	MP3	X	0	0	0	0
40	MP4	X	4.2	4.2	0	%82
41	MP5	X	4.4	4.4	0	%82
42	MP6	X	4.7	4.7	0	%82
43	MP7	X	5.3	5.3	0	%82
44	MP8	X	0	0	0	0
45	MP9	X	5.3	5.3	0	%82
46	MP10	X	4.7	4.7	0	%82
47	MP11	X	4.4	4.4	0	%82
48	MP12	X	4.2	4.2	0	%82
49	MP13	X	4.2	4.2	0	%82
50	MP14	X	0	0	0	0
51	MP14	X	0	0	0	0
52	MP16	X	0	0	0	0
53	MP17	X	0	0	0	0
54	MP18	X	0	0	0	0
55	MP1	Z	-7.7	-7.7	0	%82
56	MP2	Z	-7.4	-7.4	0	%82
57	MP3	Z	0	0	0	0
58	MP4	Z	-7.4	-7.4	0	%82
59	MP5	Z	-7.7	-7.7	0	%82
60	MP6	Z	-8.2	-8.2	0	%82
61	MP7	Z	-9.2	-9.2	0	%82
62	MP8	Z	0	0	0	0
63	MP9	Z	-9.2	-9.2	0	%82
64	MP10	Z	-8.2	-8.2	0	%82

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,%]
65	MP11	Z	-7.7	-7.7	0	%82
66	MP12	Z	-7.4	-7.4	0	%82
67	MP13	Z	-7.4	-7.4	0	%82
68	MP14	Z	0	0	0	0
69	MP14	Z	0	0	0	0
70	MP16	Z	0	0	0	0
71	MP17	Z	0	0	0	0
72	MP18	Z	0	0	0	0

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	4.5	4.5	0	0
2	FM2	X	4.5	4.5	0	0
3	FM3	X	0	0	0	0
4	HORIZ1	X	4.5	4.5	0	0
5	HORIZ2	X	4.5	4.5	0	0
6	HORIZ3	X	0	0	0	0
7	HR1	X	4.6	4.6	0	0
8	HR2	X	4.6	4.6	0	0
9	HR3	X	0	0	0	0
10	SA-1	X	5.3	5.3	0	0
11	SA-2	X	5.3	5.3	0	0
12	SA-3	X	5.3	5.3	0	0
13	GRATE1	X	4.5	4.5	0	0
14	GRATE2	X	4.5	4.5	0	0
15	GRATE3	X	4.5	4.5	0	0
16	HR-V1	X	5.3	5.3	0	0
17	HR-V2	X	5.3	5.3	0	0
18	HR-V3	X	5.3	5.3	0	0
19	FM1	Z	-2.6	-2.6	0	0
20	FM2	Z	-2.6	-2.6	0	0
21	FM3	Z	0	0	0	0
22	HORIZ1	Z	-2.6	-2.6	0	0
23	HORIZ2	Z	-2.6	-2.6	0	0
24	HORIZ3	Z	0	0	0	0
25	HR1	Z	-2.6	-2.6	0	0
26	HR2	Z	-2.6	-2.6	0	0
27	HR3	Z	0	0	0	0
28	SA-1	Z	-3.1	-3.1	0	0
29	SA-2	Z	-3.1	-3.1	0	0
30	SA-3	Z	-3.1	-3.1	0	0
31	GRATE1	Z	-2.6	-2.6	0	0
32	GRATE2	Z	-2.6	-2.6	0	0
33	GRATE3	Z	-2.6	-2.6	0	0
34	HR-V1	Z	-3.1	-3.1	0	0
35	HR-V2	Z	-3.1	-3.1	0	0
36	HR-V3	Z	-3.1	-3.1	0	0
37	MP1	X	8	8	0	%82
38	MP2	X	8.6	8.6	0	%82
39	MP3	X	0	0	0	0
40	MP4	X	8.6	8.6	0	%82
41	MP5	X	8	8	0	%82
42	MP6	X	8	8	0	%82
43	MP7	X	8.6	8.6	0	%82
44	MP8	X	0	0	0	0
45	MP9	X	8.6	8.6	0	%82

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,%]
46	MP10	X	8	8	0	%82
47	MP11	X	7.5	7.5	0	%82
48	MP12	X	6.7	6.7	0	%82
49	MP13	X	6.7	6.7	0	%82
50	MP14	X	0	0	0	0
51	MP14	X	0	0	0	0
52	MP16	X	0	0	0	0
53	MP17	X	0	0	0	0
54	MP18	X	0	0	0	0
55	MP1	Z	-4.6	-4.6	0	%82
56	MP2	Z	-5	-5	0	%82
57	MP3	Z	0	0	0	0
58	MP4	Z	-5	-5	0	%82
59	MP5	Z	-4.6	-4.6	0	%82
60	MP6	Z	-4.6	-4.6	0	%82
61	MP7	Z	-5	-5	0	%82
62	MP8	Z	0	0	0	0
63	MP9	Z	-5	-5	0	%82
64	MP10	Z	-4.6	-4.6	0	%82
65	MP11	Z	-4.4	-4.4	0	%82
66	MP12	Z	-3.9	-3.9	0	%82
67	MP13	Z	-3.9	-3.9	0	%82
68	MP14	Z	0	0	0	0
69	MP14	Z	0	0	0	0
70	MP16	Z	0	0	0	0
71	MP17	Z	0	0	0	0
72	MP18	Z	0	0	0	0

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...
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														
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														

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...
26	1.2D + 1.0..	Yes	Y		1	1.2	1	.039	27	.097																
27	1.2D + 1.0..	Yes	Y		1	1.2	1	.039	28	.097																
28	1.2D + 1.0..	Yes	Y		1	1.2	1	.039	29	.097																
29	1.2D + 1.0..	Yes	Y		1	1.2	1	.039	30	.097																
30	1.2D + 1.0..	Yes	Y		1	1.2	1	.039	31	.097																
31	1.2D + 1.0..	Yes	Y		1	1.2	1	.039	32	.097																
32	1.2D + 1.0..	Yes	Y		1	1.2	1	.039	33	.097																
33	1.2D + 1.0..	Yes	Y		1	1.2	1	.039	34	.097																
34	1.2D + 1.0..	Yes	Y		1	1.2	1	.039	35	.097																
35	1.2D + 1.0..	Yes	Y		1	1.2	1	.039	36	.097																
36	1.2D + 1.0..	Yes	Y		1	1.2	1	.039	37	.097																
37	1.2D + 1.0..	Yes	Y		1	1.2	1	.039	38	.097																
38	1.2D + 1.5..	Yes	Y		1	1.2	39	1.5	2	.059																
39	1.2D + 1.5..	Yes	Y		1	1.2	39	1.5	3	.059																
40	1.2D + 1.5..	Yes	Y		1	1.2	39	1.5	4	.059																
41	1.2D + 1.5..	Yes	Y		1	1.2	39	1.5	5	.059																
42	1.2D + 1.5..	Yes	Y		1	1.2	39	1.5	6	.059																
43	1.2D + 1.5..	Yes	Y		1	1.2	39	1.5	7	.059																
44	1.2D + 1.5..	Yes	Y		1	1.2	39	1.5	8	.059																
45	1.2D + 1.5..	Yes	Y		1	1.2	39	1.5	9	.059																
46	1.2D + 1.5..	Yes	Y		1	1.2	39	1.5	10	.059																
47	1.2D + 1.5..	Yes	Y		1	1.2	39	1.5	11	.059																
48	1.2D + 1.5..	Yes	Y		1	1.2	39	1.5	12	.059																
49	1.2D + 1.5..	Yes	Y		1	1.2	39	1.5	13	.059																
50	1.2D + 1.5..	Yes	Y		1	1.2	40	1.5	2	.059																
51	1.2D + 1.5..	Yes	Y		1	1.2	40	1.5	3	.059																
52	1.2D + 1.5..	Yes	Y		1	1.2	40	1.5	4	.059																
53	1.2D + 1.5..	Yes	Y		1	1.2	40	1.5	5	.059																
54	1.2D + 1.5..	Yes	Y		1	1.2	40	1.5	6	.059																
55	1.2D + 1.5..	Yes	Y		1	1.2	40	1.5	7	.059																
56	1.2D + 1.5..	Yes	Y		1	1.2	40	1.5	8	.059																
57	1.2D + 1.5..	Yes	Y		1	1.2	40	1.5	9	.059																
58	1.2D + 1.5..	Yes	Y		1	1.2	40	1.5	10	.059																
59	1.2D + 1.5..	Yes	Y		1	1.2	40	1.5	11	.059																
60	1.2D + 1.5..	Yes	Y		1	1.2	40	1.5	12	.059																
61	1.2D + 1.5..	Yes	Y		1	1.2	40	1.5	13	.059																
62	1.2D + 1.5..	Yes	Y		1	1.2	41	1.5	2	.059																
63	1.2D + 1.5..	Yes	Y		1	1.2	41	1.5	3	.059																
64	1.2D + 1.5..	Yes	Y		1	1.2	41	1.5	4	.059																
65	1.2D + 1.5..	Yes	Y		1	1.2	41	1.5	5	.059																
66	1.2D + 1.5..	Yes	Y		1	1.2	41	1.5	6	.059																
67	1.2D + 1.5..	Yes	Y		1	1.2	41	1.5	7	.059																
68	1.2D + 1.5..	Yes	Y		1	1.2	41	1.5	8	.059																
69	1.2D + 1.5..	Yes	Y		1	1.2	41	1.5	9	.059																
70	1.2D + 1.5..	Yes	Y		1	1.2	41	1.5	10	.059																
71	1.2D + 1.5..	Yes	Y		1	1.2	41	1.5	11	.059																
72	1.2D + 1.5..	Yes	Y		1	1.2	41	1.5	12	.059																
73	1.2D + 1.5..	Yes	Y		1	1.2	41	1.5	13	.059																
74	1.2D + 1.5..	Yes	Y		1	1.2	42	1.5	2	.059																
75	1.2D + 1.5..	Yes	Y		1	1.2	42	1.5	3	.059																
76	1.2D + 1.5..	Yes	Y		1	1.2	42	1.5	4	.059																
77	1.2D + 1.5..	Yes	Y		1	1.2	42	1.5	5	.059																
78	1.2D + 1.5..	Yes	Y		1	1.2	42	1.5	6	.059																
79	1.2D + 1.5..	Yes	Y		1	1.2	42	1.5	7	.059																
80	1.2D + 1.5..	Yes	Y		1	1.2	42	1.5	8	.059																
81	1.2D + 1.5..	Yes	Y		1	1.2	42	1.5	9	.059																
82	1.2D + 1.5..	Yes	Y		1	1.2	42	1.5	10	.059																

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...
83	1.2D + 1.5..	Yes	Y		1	1.2	42	1.5	11	.059																
84	1.2D + 1.5..	Yes	Y		1	1.2	42	1.5	12	.059																
85	1.2D + 1.5..	Yes	Y		1	1.2	42	1.5	13	.059																
86	1.2D + 1.5..	Yes	Y		1	1.2	43	1.5	2	.059																
87	1.2D + 1.5..	Yes	Y		1	1.2	43	1.5	3	.059																
88	1.2D + 1.5..	Yes	Y		1	1.2	43	1.5	4	.059																
89	1.2D + 1.5..	Yes	Y		1	1.2	43	1.5	5	.059																
90	1.2D + 1.5..	Yes	Y		1	1.2	43	1.5	6	.059																
91	1.2D + 1.5..	Yes	Y		1	1.2	43	1.5	7	.059																
92	1.2D + 1.5..	Yes	Y		1	1.2	43	1.5	8	.059																
93	1.2D + 1.5..	Yes	Y		1	1.2	43	1.5	9	.059																
94	1.2D + 1.5..	Yes	Y		1	1.2	43	1.5	10	.059																
95	1.2D + 1.5..	Yes	Y		1	1.2	43	1.5	11	.059																
96	1.2D + 1.5..	Yes	Y		1	1.2	43	1.5	12	.059																
97	1.2D + 1.5..	Yes	Y		1	1.2	43	1.5	13	.059																
98	1.2D + 1.5..	Yes	Y		1	1.2	44	1.5	2	.059																
99	1.2D + 1.5..	Yes	Y		1	1.2	44	1.5	3	.059																
100	1.2D + 1.5..	Yes	Y		1	1.2	44	1.5	4	.059																
101	1.2D + 1.5..	Yes	Y		1	1.2	44	1.5	5	.059																
102	1.2D + 1.5..	Yes	Y		1	1.2	44	1.5	6	.059																
103	1.2D + 1.5..	Yes	Y		1	1.2	44	1.5	7	.059																
104	1.2D + 1.5..	Yes	Y		1	1.2	44	1.5	8	.059																
105	1.2D + 1.5..	Yes	Y		1	1.2	44	1.5	9	.059																
106	1.2D + 1.5..	Yes	Y		1	1.2	44	1.5	10	.059																
107	1.2D + 1.5..	Yes	Y		1	1.2	44	1.5	11	.059																
108	1.2D + 1.5..	Yes	Y		1	1.2	44	1.5	12	.059																
109	1.2D + 1.5..	Yes	Y		1	1.2	44	1.5	13	.059																
110	1.2D + 1.5..	Yes	Y		1	1.2	45	1.5	2	.059																
111	1.2D + 1.5..	Yes	Y		1	1.2	45	1.5	3	.059																
112	1.2D + 1.5..	Yes	Y		1	1.2	45	1.5	4	.059																
113	1.2D + 1.5..	Yes	Y		1	1.2	45	1.5	5	.059																
114	1.2D + 1.5..	Yes	Y		1	1.2	45	1.5	6	.059																
115	1.2D + 1.5..	Yes	Y		1	1.2	45	1.5	7	.059																
116	1.2D + 1.5..	Yes	Y		1	1.2	45	1.5	8	.059																
117	1.2D + 1.5..	Yes	Y		1	1.2	45	1.5	9	.059																
118	1.2D + 1.5..	Yes	Y		1	1.2	45	1.5	10	.059																
119	1.2D + 1.5..	Yes	Y		1	1.2	45	1.5	11	.059																
120	1.2D + 1.5..	Yes	Y		1	1.2	45	1.5	12	.059																
121	1.2D + 1.5..	Yes	Y		1	1.2	45	1.5	13	.059																
122	1.2D + 1.5..	Yes	Y		1	1.2	46	1.5	2	.059																
123	1.2D + 1.5..	Yes	Y		1	1.2	46	1.5	3	.059																
124	1.2D + 1.5..	Yes	Y		1	1.2	46	1.5	4	.059																
125	1.2D + 1.5..	Yes	Y		1	1.2	46	1.5	5	.059																
126	1.2D + 1.5..	Yes	Y		1	1.2	46	1.5	6	.059																
127	1.2D + 1.5..	Yes	Y		1	1.2	46	1.5	7	.059																
128	1.2D + 1.5..	Yes	Y		1	1.2	46	1.5	8	.059																
129	1.2D + 1.5..	Yes	Y		1	1.2	46	1.5	9	.059																
130	1.2D + 1.5..	Yes	Y		1	1.2	46	1.5	10	.059																
131	1.2D + 1.5..	Yes	Y		1	1.2	46	1.5	11	.059																
132	1.2D + 1.5..	Yes	Y		1	1.2	46	1.5	12	.059																
133	1.2D + 1.5..	Yes	Y		1	1.2	46	1.5	13	.059																
134	1.2D + 1.5..	Yes	Y		1	1.2	47	1.5	2	.059																
135	1.2D + 1.5..	Yes	Y		1	1.2	47	1.5	3	.059																
136	1.2D + 1.5..	Yes	Y		1	1.2	47	1.5	4	.059																
137	1.2D + 1.5..	Yes	Y		1	1.2	47	1.5	5	.059																
138	1.2D + 1.5..	Yes	Y		1	1.2	47	1.5	6	.059																
139	1.2D + 1.5..	Yes	Y		1	1.2	47	1.5	7	.059																

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...
140	1.2D + 1.5..	Yes	Y		1	1.2	47	1.5	8	.059																
141	1.2D + 1.5..	Yes	Y		1	1.2	47	1.5	9	.059																
142	1.2D + 1.5..	Yes	Y		1	1.2	47	1.5	10	.059																
143	1.2D + 1.5..	Yes	Y		1	1.2	47	1.5	11	.059																
144	1.2D + 1.5..	Yes	Y		1	1.2	47	1.5	12	.059																
145	1.2D + 1.5..	Yes	Y		1	1.2	47	1.5	13	.059																
146	1.2D + 1.5..	Yes	Y		1	1.2	48	1.5	2	.059																
147	1.2D + 1.5..	Yes	Y		1	1.2	48	1.5	3	.059																
148	1.2D + 1.5..	Yes	Y		1	1.2	48	1.5	4	.059																
149	1.2D + 1.5..	Yes	Y		1	1.2	48	1.5	5	.059																
150	1.2D + 1.5..	Yes	Y		1	1.2	48	1.5	6	.059																
151	1.2D + 1.5..	Yes	Y		1	1.2	48	1.5	7	.059																
152	1.2D + 1.5..	Yes	Y		1	1.2	48	1.5	8	.059																
153	1.2D + 1.5..	Yes	Y		1	1.2	48	1.5	9	.059																
154	1.2D + 1.5..	Yes	Y		1	1.2	48	1.5	10	.059																
155	1.2D + 1.5..	Yes	Y		1	1.2	48	1.5	11	.059																
156	1.2D + 1.5..	Yes	Y		1	1.2	48	1.5	12	.059																
157	1.2D + 1.5..	Yes	Y		1	1.2	48	1.5	13	.059																
158	1.2D + 1.5..	Yes	Y		1	1.2	49	1.5	2	.059																
159	1.2D + 1.5..	Yes	Y		1	1.2	49	1.5	3	.059																
160	1.2D + 1.5..	Yes	Y		1	1.2	49	1.5	4	.059																
161	1.2D + 1.5..	Yes	Y		1	1.2	49	1.5	5	.059																
162	1.2D + 1.5..	Yes	Y		1	1.2	49	1.5	6	.059																
163	1.2D + 1.5..	Yes	Y		1	1.2	49	1.5	7	.059																
164	1.2D + 1.5..	Yes	Y		1	1.2	49	1.5	8	.059																
165	1.2D + 1.5..	Yes	Y		1	1.2	49	1.5	9	.059																
166	1.2D + 1.5..	Yes	Y		1	1.2	49	1.5	10	.059																
167	1.2D + 1.5..	Yes	Y		1	1.2	49	1.5	11	.059																
168	1.2D + 1.5..	Yes	Y		1	1.2	49	1.5	12	.059																
169	1.2D + 1.5..	Yes	Y		1	1.2	49	1.5	13	.059																
170	1.2D + 1.5..	Yes	Y		1	1.2	50	1.5	2	.059																
171	1.2D + 1.5..	Yes	Y		1	1.2	50	1.5	3	.059																
172	1.2D + 1.5..	Yes	Y		1	1.2	50	1.5	4	.059																
173	1.2D + 1.5..	Yes	Y		1	1.2	50	1.5	5	.059																
174	1.2D + 1.5..	Yes	Y		1	1.2	50	1.5	6	.059																
175	1.2D + 1.5..	Yes	Y		1	1.2	50	1.5	7	.059																
176	1.2D + 1.5..	Yes	Y		1	1.2	50	1.5	8	.059																
177	1.2D + 1.5..	Yes	Y		1	1.2	50	1.5	9	.059																
178	1.2D + 1.5..	Yes	Y		1	1.2	50	1.5	10	.059																
179	1.2D + 1.5..	Yes	Y		1	1.2	50	1.5	11	.059																
180	1.2D + 1.5..	Yes	Y		1	1.2	50	1.5	12	.059																
181	1.2D + 1.5..	Yes	Y		1	1.2	50	1.5	13	.059																
182	1.2D + 1.5..	Yes	Y		1	1.2	51	1.5	2	.059																
183	1.2D + 1.5..	Yes	Y		1	1.2	51	1.5	3	.059																
184	1.2D + 1.5..	Yes	Y		1	1.2	51	1.5	4	.059																
185	1.2D + 1.5..	Yes	Y		1	1.2	51	1.5	5	.059																
186	1.2D + 1.5..	Yes	Y		1	1.2	51	1.5	6	.059																
187	1.2D + 1.5..	Yes	Y		1	1.2	51	1.5	7	.059																
188	1.2D + 1.5..	Yes	Y		1	1.2	51	1.5	8	.059																
189	1.2D + 1.5..	Yes	Y		1	1.2	51	1.5	9	.059																
190	1.2D + 1.5..	Yes	Y		1	1.2	51	1.5	10	.059																
191	1.2D + 1.5..	Yes	Y		1	1.2	51	1.5	11	.059																
192	1.2D + 1.5..	Yes	Y		1	1.2	51	1.5	12	.059																
193	1.2D + 1.5..	Yes	Y		1	1.2	51	1.5	13	.059																
194	1.2D + 1.5..	Yes	Y		1	1.2	52	1.5	2	.059																
195	1.2D + 1.5..	Yes	Y		1	1.2	52	1.5	3	.059																
196	1.2D + 1.5..	Yes	Y		1	1.2	52	1.5	4	.059																

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...
197	1.2D + 1.5..	Yes	Y		1	1.2	52	1.5	5	.059																
198	1.2D + 1.5..	Yes	Y		1	1.2	52	1.5	6	.059																
199	1.2D + 1.5..	Yes	Y		1	1.2	52	1.5	7	.059																
200	1.2D + 1.5..	Yes	Y		1	1.2	52	1.5	8	.059																
201	1.2D + 1.5..	Yes	Y		1	1.2	52	1.5	9	.059																
202	1.2D + 1.5..	Yes	Y		1	1.2	52	1.5	10	.059																
203	1.2D + 1.5..	Yes	Y		1	1.2	52	1.5	11	.059																
204	1.2D + 1.5..	Yes	Y		1	1.2	52	1.5	12	.059																
205	1.2D + 1.5..	Yes	Y		1	1.2	52	1.5	13	.059																
206	1.2D + 1.5..	Yes	Y		1	1.2	53	1.5	2	.059																
207	1.2D + 1.5..	Yes	Y		1	1.2	53	1.5	3	.059																
208	1.2D + 1.5..	Yes	Y		1	1.2	53	1.5	4	.059																
209	1.2D + 1.5..	Yes	Y		1	1.2	53	1.5	5	.059																
210	1.2D + 1.5..	Yes	Y		1	1.2	53	1.5	6	.059																
211	1.2D + 1.5..	Yes	Y		1	1.2	53	1.5	7	.059																
212	1.2D + 1.5..	Yes	Y		1	1.2	53	1.5	8	.059																
213	1.2D + 1.5..	Yes	Y		1	1.2	53	1.5	9	.059																
214	1.2D + 1.5..	Yes	Y		1	1.2	53	1.5	10	.059																
215	1.2D + 1.5..	Yes	Y		1	1.2	53	1.5	11	.059																
216	1.2D + 1.5..	Yes	Y		1	1.2	53	1.5	12	.059																
217	1.2D + 1.5..	Yes	Y		1	1.2	53	1.5	13	.059																
218	1.2D + 1.5..	Yes	Y		1	1.2	54	1.5	2	.059																
219	1.2D + 1.5..	Yes	Y		1	1.2	54	1.5	3	.059																
220	1.2D + 1.5..	Yes	Y		1	1.2	54	1.5	4	.059																
221	1.2D + 1.5..	Yes	Y		1	1.2	54	1.5	5	.059																
222	1.2D + 1.5..	Yes	Y		1	1.2	54	1.5	6	.059																
223	1.2D + 1.5..	Yes	Y		1	1.2	54	1.5	7	.059																
224	1.2D + 1.5..	Yes	Y		1	1.2	54	1.5	8	.059																
225	1.2D + 1.5..	Yes	Y		1	1.2	54	1.5	9	.059																
226	1.2D + 1.5..	Yes	Y		1	1.2	54	1.5	10	.059																
227	1.2D + 1.5..	Yes	Y		1	1.2	54	1.5	11	.059																
228	1.2D + 1.5..	Yes	Y		1	1.2	54	1.5	12	.059																
229	1.2D + 1.5..	Yes	Y		1	1.2	54	1.5	13	.059																
230	1.2D + 1.5..	Yes	Y		1	1.2	55	1.5	2	.059																
231	1.2D + 1.5..	Yes	Y		1	1.2	55	1.5	3	.059																
232	1.2D + 1.5..	Yes	Y		1	1.2	55	1.5	4	.059																
233	1.2D + 1.5..	Yes	Y		1	1.2	55	1.5	5	.059																
234	1.2D + 1.5..	Yes	Y		1	1.2	55	1.5	6	.059																
235	1.2D + 1.5..	Yes	Y		1	1.2	55	1.5	7	.059																
236	1.2D + 1.5..	Yes	Y		1	1.2	55	1.5	8	.059																
237	1.2D + 1.5..	Yes	Y		1	1.2	55	1.5	9	.059																
238	1.2D + 1.5..	Yes	Y		1	1.2	55	1.5	10	.059																
239	1.2D + 1.5..	Yes	Y		1	1.2	55	1.5	11	.059																
240	1.2D + 1.5..	Yes	Y		1	1.2	55	1.5	12	.059																
241	1.2D + 1.5..	Yes	Y		1	1.2	55	1.5	13	.059																
242	1.2D + 1.5..	Yes	Y		1	1.2	56	1.5	2	.059																
243	1.2D + 1.5..	Yes	Y		1	1.2	56	1.5	3	.059																
244	1.2D + 1.5..	Yes	Y		1	1.2	56	1.5	4	.059																
245	1.2D + 1.5..	Yes	Y		1	1.2	56	1.5	5	.059																
246	1.2D + 1.5..	Yes	Y		1	1.2	56	1.5	6	.059																
247	1.2D + 1.5..	Yes	Y		1	1.2	56	1.5	7	.059																
248	1.2D + 1.5..	Yes	Y		1	1.2	56	1.5	8	.059																
249	1.2D + 1.5..	Yes	Y		1	1.2	56	1.5	9	.059																
250	1.2D + 1.5..	Yes	Y		1	1.2	56	1.5	10	.059																
251	1.2D + 1.5..	Yes	Y		1	1.2	56	1.5	11	.059																
252	1.2D + 1.5..	Yes	Y		1	1.2	56	1.5	12	.059																
253	1.2D + 1.5..	Yes	Y		1	1.2	56	1.5	13	.059																

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...
254	1.2D + 1.5..	Yes	Y		1	1.2	57	1.5																
255	1.2D + 1.5..	Yes	Y		1	1.2	58	1.5																
256	1.2D + 1.5..	Yes	Y		1	1.2	59	1.5																
257	1.2D + 1.5..	Yes	Y		1	1.2	60	1.5																
258	1.2D + 1.5..	Yes	Y		1	1.2	61	1.5																
259	1.2D + 1.5..	Yes	Y		1	1.2	62	1.5																
260	1.2D + 1.5..	Yes	Y		1	1.2	63	1.5																
261	1.2D + 1.5..	Yes	Y		1	1.2	64	1.5																
262	1.2D + 1.5..	Yes	Y		1	1.2	65	1.5																
263	1.2D + 1.5..	Yes	Y		1	1.2	66	1.5																
264	1.2D + 1.5..	Yes	Y		1	1.2	67	1.5																
265	1.2D + 1.5..	Yes	Y		1	1.2	68	1.5																
266	1.2D + 1.5..	Yes	Y		1	1.2	69	1.5																
267	1.2D + 1.5..	Yes	Y		1	1.2	70	1.5																
268	1.2D + 1.5..	Yes	Y		1	1.2	71	1.5																
269	1.2D + 1.5..	Yes	Y		1	1.2	72	1.5																
270	1.2D + 1.5..	Yes	Y		1	1.2	73	1.5																
271	1.2D + 1.5..	Yes	Y		1	1.2	74	1.5																
272	1.2D + 1.5..	Yes	Y		1	1.2	75	1.5																
273	1.2D + 1.5..	Yes	Y		1	1.2	76	1.5																
274	1.2D + 1.5..	Yes	Y		1	1.2	77	1.5																
275	1.2D + 1.5..	Yes	Y		1	1.2	78	1.5																
276	1.2D + 1.5..	Yes	Y		1	1.2	79	1.5																
277	1.2D + 1.5..	Yes	Y		1	1.2	80	1.5																
278																								

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	N94	max	3876.236	20	3296.824	24	-21.956	10	4022.174	24	828.035	4	3178.568	2
2		min	-1191.97	2	-356.309	6	-6193.653	16	-1958.727	6	-833.216	10	-1982.109	8
3	N97	max	-1035.032	8	3615.275	20	2215.73	12	1871.353	11	731.241	12	2200.57	2
4		min	-7069.829	14	-318.469	2	-2258.91	6	-2005.159	5	-725.961	6	-5319.624	20
5	N100	max	4071.184	20	3690.076	16	6277.369	24	1817.517	10	713.067	8	3181.904	2
6		min	-1186.431	2	-255.995	10	242.317	6	-4826.993	16	-709.317	2	-1878.784	8
7	Totals:	max	5341.337	8	9601.505	20	4850.438	11						
8		min	-5341.352	2	2996.82	2	-4850.435	5						

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

	Member	Shape	Code Check	Loc[i...	LC	Shear...	Loc[in]	Dir	LC	phi*Pnc...	phi*Pnt ...	phi*Mn ...	phi*Mn ...	Cb	Eqn
1	FM1	L3x3x4	.792	72	18	1.266	72	z	8	15778....	46656	1688.138	3101.984	1...	H2-1
2	HR1	L3x3x3	.713	73.5	22	.083	132	z	8	4077.901	34335	1283.427	2170.202	1...	H2-1
3	FM3	L3x3x4	.708	72	2	1.281	72	z	4	15778....	46656	1688.138	3093.819	1...	H2-1
4	HR3	L3x3x3	.694	73.5	18	.069	132	z	4	4077.901	34335	1283.427	2182.956	2...	H2-1
5	FM2	L3x3x4	.684	72	22	1.219	72	z	12	15778....	46656	1688.138	3100.166	1...	H2-1
6	HR2	L3x3x3	.631	73.5	14	.064	132	z	12	4077.901	34335	1283.427	2213.299	2...	H2-1
7	MP2	PIPE_2.0	.538	6	22	.137	6		8	20866....	32130	1871.625	1871.625	1...	H1-1b
8	MP12	PIPE_2.0	.521	6	18	.145	6		4	20866....	32130	1871.625	1871.625	1...	H1-1b
9	MP4	PIPE_2.0	.498	6	18	.142	6		8	20866....	32130	1871.625	1871.625	1...	H1-1b
10	HORIZ3	L3x3x4	.495	36.8...	18	.034	27.643	y	18	35105.93	46656	1688.138	3344.834	1...	H2-1
11	HORIZ1	L3x3x4	.491	36.8...	18	.036	46.071	y	18	35105.93	46656	1688.138	3344.168	1...	H2-1
12	MP14	PIPE_2.0	.486	6	14	.151	6		4	20866....	32130	1871.625	1871.625	2...	H1-1b
13	MP7	PIPE_2.0	.472	6	2	.135	6		12	20866....	32130	1871.625	1871.625	2...	H1-1b
14	SA-3	HSS4x4x3	.466	0	16	.259	0	z	8	104496...	106812	12661.5	12661.5	2...	H1-1b
15	MP9	PIPE_2.0	.461	6	10	.136	6		12	20866....	32130	1871.625	1871.625	1...	H1-1b

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

	Member	Shape	Code Check	Loc[i...	LC	Shear...	Loc[in]	Dir	LC	phi*Pnc...	phi*Pnt ...	phi*Mn ...	phi*Mn ...	Cb	Eqn
16	SA-1	HSS4x4x3	.453	0	20	.262	0	z	6	104496...	106812	12661.5	12661.5	2...	H1-1b
17	HORIZ2	L3x3x4	.439	36.8...	14	.032	27.643	z	14	35105.93	46656	1688.138	3341.215	1...	H2-1
18	MP13	PIPE_2.0	.428	6	7	.090	6		6	20866....	32130	1871.625	1871.625	2...	H1-1b
19	MP8	PIPE_2.0	.415	6	3	.081	6		3	20866....	32130	1871.625	1871.625	2...	H1-1b
20	SA-2	HSS4x4x3	.400	0	24	.267	0	z	4	104496...	106812	12661.5	12661.5	2...	H1-1b
21	MP3	PIPE_2.0	.396	6	11	.073	6		11	20866....	32130	1871.625	1871.625	1...	H1-1b
22	MP15	PIPE_2.0	.323	6	15	.130	6		3	20866....	32130	1871.625	1871.625	1...	H1-1b
23	MP1	PIPE_2.0	.293	6	22	.179	39.75		8	20866....	32130	1871.625	1871.625	2...	H1-1b
24	MP11	PIPE_2.0	.288	6	18	.165	39.75		4	20866....	32130	1871.625	1871.625	2...	H1-1b
25	GRATE1	LL3x3x4x0	.284	30.4...	20	.039	30.435	z	11	80058....	93312	6480	3069.316	4...	H1-1b
26	GRATE2	LL3x3x4x0	.283	30.4...	24	.041	30.435	z	3	80058....	93312	6480	3069.316	3...	H1-1b
27	MP5	PIPE_2.0	.279	6	19	.147	39.75		8	20866....	32130	1871.625	1871.625	2...	H1-1b
28	GRATE3	LL3x3x4x0	.263	30.4...	16	.041	30.435	z	7	80058....	93312	6480	3069.316	4...	H1-1b
29	MP6	PIPE_2.0	.259	6	14	.154	39.75		12	20866....	32130	1871.625	1871.625	1...	H1-1b
30	MP10	PIPE_2.0	.237	6	22	.145	39.75		12	20866....	32130	1871.625	1871.625	2...	H1-1b
31	HR-V3	L4x4x4	.215	0	18	.032	0	z	11	52070....	62532	3137.597	6714.886	2...	H2-1
32	HR-V1	L4x4x4	.213	0	22	.031	0	y	2	52070....	62532	3137.597	6714.886	2...	H2-1
33	HR-V2	L4x4x4	.203	0	18	.029	0	z	13	52070....	62532	3137.597	6714.886	2...	H2-1
34	MP16	PIPE_2.0	.169	6.5	14	.096	6.5		2	19360....	32130	1871.625	1871.625	2...	H1-1b
35	MP17	PIPE_2.0	.143	6.5	14	.096	6.5		13	19360....	32130	1871.625	1871.625	2...	H1-1b
36	MP18	PIPE_2.0	.131	6.5	18	.103	6.5		5	19360....	32130	1871.625	1871.625	2...	H1-1b

APPENDIX D

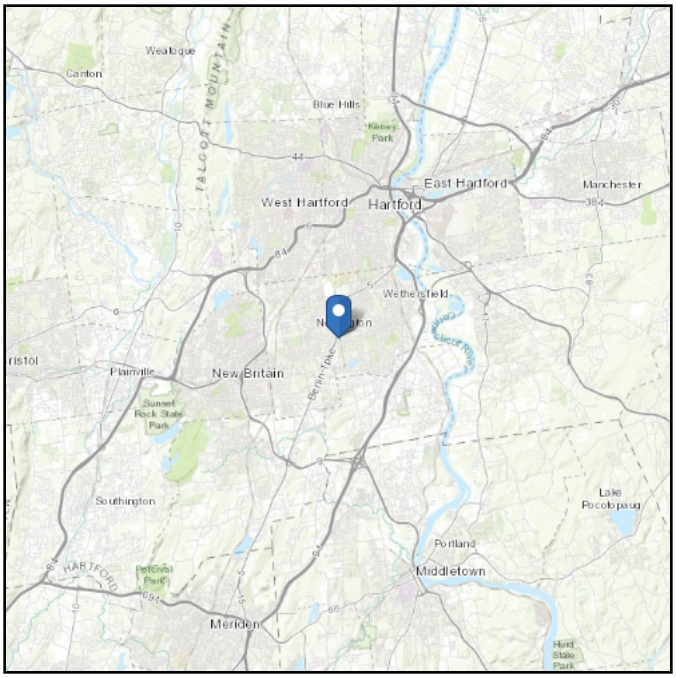
ASCE 7 HAZARDS REPORT

ASCE 7 Hazards Report

Address:
No Address at This Location

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

Elevation: 0 ft (NAVD 88)
Latitude: 41.689906
Longitude: -72.705236



Wind

Results:

Wind Speed:	123 Vmph
10-year MRI	77 Vmph
25-year MRI	86 Vmph
50-year MRI	93 Vmph
100-year MRI	100 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 Oct 01 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).

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

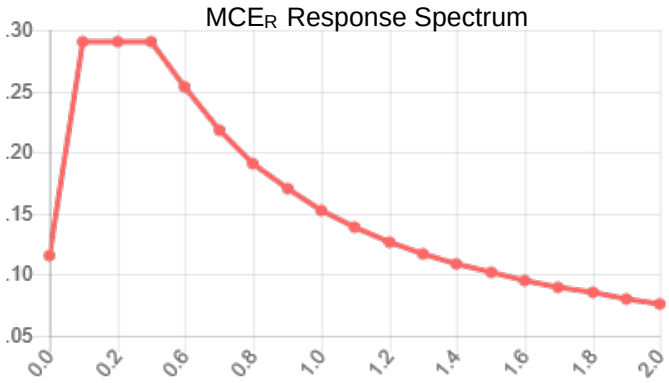
Seismic

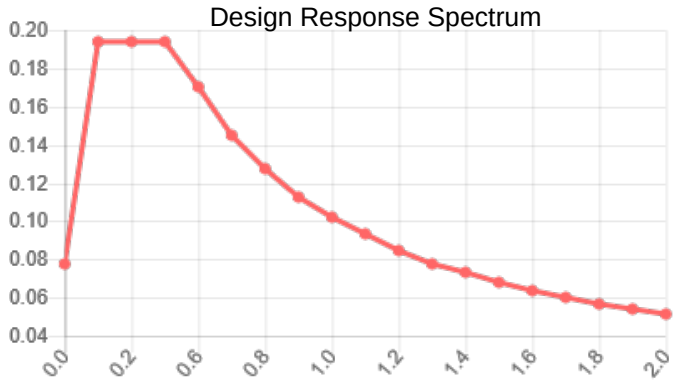
Site Soil Class: D - Stiff Soil

Results:

S_S :	0.182	S_{DS} :	0.194
S_1 :	0.064	S_{D1} :	0.102
F_a :	1.600	T_L :	6.000
F_v :	2.400	PGA :	0.092
S_{MS} :	0.291	PGA_M :	0.147
S_{M1} :	0.153	F_{PGA} :	1.600
		I_e :	1

Seismic Design Category B





Data Accessed: Mon Oct 01 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:	1.00 in.
Concurrent Temperature:	5 F
Gust Speed:	50 mph
Data Source:	Standard ASCE/SEI 7-10, Figs. 10-2 through 10-8
Date Accessed:	Mon Oct 01 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.

ORIGIN ID:GMVA (201) 514-7374
NESMET BADAWI
CROWN CASTLE
1200 MACARTHUR BLVD
SUITE 200
MAHWAH, NJ 07430
UNITED STATES US

SHIP DATE: 10JAN19
ACTWGT: 6.50 LB
CAD: 104924192/INET4040

BILL SENDER

TO **EXECUTIVE DIRECTOR: MELANIE BACHAM**
CONNECTICUT SITTING COUNCIL
10 FRANKLIN SQUARE

NEW BRITAIN CT 06051
(860) 827-2935

REF: 1766.6680
INV:
PO:
DEPT:

552J2/D74C/DCA5

FedEx Express

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PRIORITY OVERNIGHT

TRK# 0201 **7741 6564 4842**

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CT-US **BDL**

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