



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

July 18, 2019

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

RE: **Notice of Exempt Modification for T-Mobile:  
806353 - T-Mobile Site ID: CT11119A  
128 Mather Street, Wilton, CT 06897  
Latitude: 41° 14' 18.34" / Longitude: -73° 25' 26.44"**

Dear Ms. Bachman:

T-Mobile currently maintains nine (9) total antennas at the 93-foot mount on the existing 180-foot Self Support Tower, located at 128 Mather Street in Wilton, CT. The tower is owned by Crown Castle and the property is owned by the Town of Wilton. T-Mobile now intends to replace six (6) existing antennas with three (3) new 1900/2100 MHz antennas and three (3) new 600/700 MHz antennas at the 93-foot mount.

**Planned Modifications:**

**Tower:**

Remove:

(6) 1 1/4" Coax

Remove and Replace:

(3) LNX 6515DS-A1M Antenna (**REMOVE**) - (3) RFS-APXVAARR24\_43-U-NA20 Antenna 600/700 MHz (**REPLACE**)

(3) AIR21 KRC118023-1\_B2P\_B4A Antenna (**REMOVE**) – (3) AIR32\_B66A\_B2A Antenna 1900/2100 MHz (**REPLACE**)

(3) RRUS11 B12 (**REMOVE**) – (3) Radio 4449 B71/B12 (**REPLACE**)

Install New:

(3) 1 5/8" Hybrid Fiber Line

Existing to Remain:

(1) 1 5/8" Hybrid

(6) 1 1/4" Coax

- (3) AIR21 KRC118023-1\_B2P\_B4A Antenna 1900/2100 MHz
- (3) TMA

**Ground:**

Upgrade: Internal upgrade to existing ground cabinet.

The facility was approved by the Connecticut Siting Council on May 3, 1988 via a Decision and Order.

Please accept this letter as notification pursuant to Regulations of Connecticut State Agencies §16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b)(2). In accordance with R.C.S.A. § 16-50j-73, a copy of this letter is being sent to Lynne Vanderslice, First Selectwoman, Town of Wilton, as the municipality and property owner, and Robert Nerney, Planning Director for the Town of Wilton. Crown Castle is the tower owner.

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

For the foregoing reasons, T-Mobile respectfully submits that the proposed modifications to the above-reference telecommunications facility constitutes an exempt modification under R.C.S.A. § 16-50j-72(b)(2). Please send approval/rejection letter to Attn: Anne Marie Zsamba.

Sincerely,

Anne Marie Zsamba  
Real Estate Specialist  
3 Corporate Park Drive, Suite 101  
Clifton Park, NY 12065  
(201) 236-9224

Melanie A. Bachman

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AnneMarie.Zsamba@crowncastle.com

Attachments

cc:

Lynne Vanderslice, First Selectwoman  
Town of Wilton  
Town Hall – Selectwoman’s Office  
238 Danbury Road  
Wilton, CT 06897  
203.563.0100

Robert Nerney, AICP, Planning Director  
Town of Wilton  
Town Hall – Planning Department  
238 Danbury Road  
Wilton, CT 06897  
203.563.0185

Crown Castle, Tower Owner

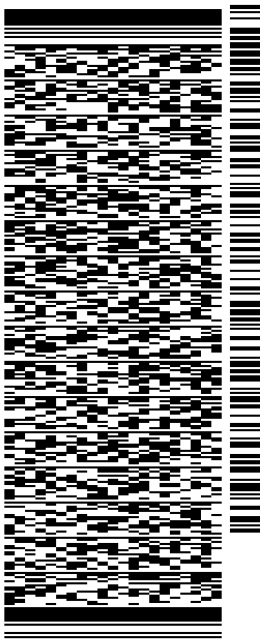
ORIGIN ID:GFLA (518) 373-3523  
ANNE MARIE ZSAMBRA  
CROMN CASTLE  
3 CORPORATE PARK DRIVE  
SUITE 101  
CLIFTON PARK, NY 12065  
UNITED STATES US

SHIP DATE: 15 JUL 19  
ACTWGT: 2.00 LB  
CAD: 104924194INNET4160

BILL SENDER

TO **ROBERT NERNEY, AICP**  
**TOWN OF WILTON**  
**PLANNING DEPARTMENT**  
**238 DANBURY ROAD**  
**WILTON CT 06897**  
REF: 1734.7890  
(203) 563-0185  
INV:  
PO: DEPT:

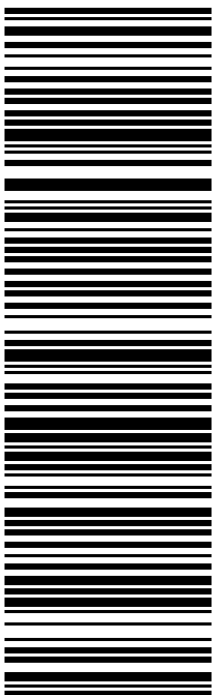
567J2/A6F9/05A2



J192019062401uv

TRK# 7757 4300 1451  
0201  
TUE - 16 JUL 10:30A  
PRIORITY OVERNIGHT

**EG DXRA**  
06897  
CT-US SWF



**After printing this label:**

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

**Warning:** Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

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

ORIGIN ID:GFLA (518) 373-3523  
ANNE MARIE ZSAMBA  
CROMN CASTLE  
3 CORPORATE PARK DRIVE  
SUITE 101  
CLIFTON PARK, NY 12065  
UNITED STATES US

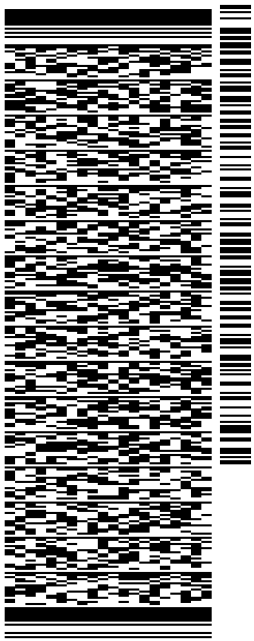
SHIP DATE: 15 JUL 19  
ACTWGT: 2.00 LB  
CAD: 104924194INNET4160

BILL SENDER

TO FIRST SELECTWOMANS OFFICE  
TOWN OF WILTON  
238 DANBURY ROAD

WILTON CT 06897

(203) 563-0100 REF: 1734.7890  
INV/ DEPT:  
PO:



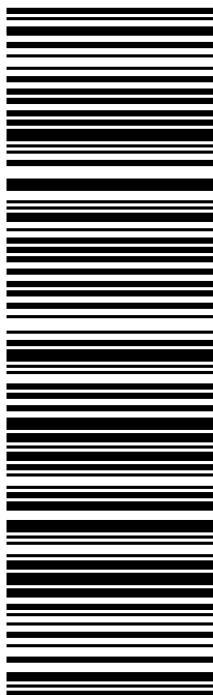
J192019062401uv

567 J2/A6F9/05A2

TRK# 7757 4297 9928 TUE - 16 JUL 10:30A  
0201 PRIORITY OVERNIGHT

EG DXRA

06897  
CT-US SWF



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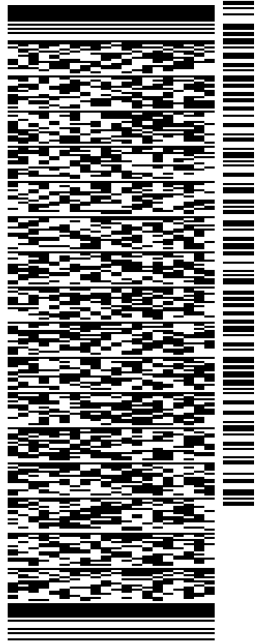
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ANNE MARIE ZSAMBA  
CROMN CASTLE  
3 CORPORATE PARK DRIVE  
SUITE 101  
CLIFTON PARK, NY 12065  
UNITED STATES US

SHIP DATE: 15 JUL 19  
ACTWGT: 4.00 LB  
CAD: 104924194INNET4160  
BILL SENDER

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

**NEW BRITAIN CT 06051**

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



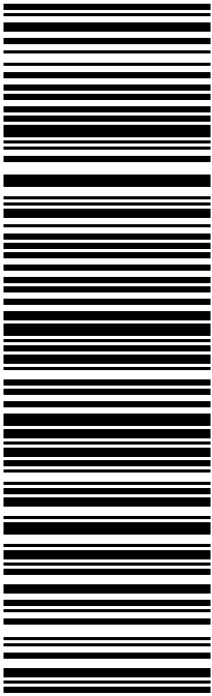
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TRK# 7757 4296 5428  
0201

TUE - 16 JUL 10:30A  
PRIORITY OVERNIGHT

**EB BDLA**  
06051  
CT-US BDL



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# Exhibit A

## **Original Facility Approval**

DOCKET NO. 94 - AN APPLICATION OF METRO : Connecticut  
MOBILE CTS OF FAIRFIELD COUNTY, INC., FOR :  
A CERTIFICATE OF ENVIRONMENTAL COMPATI- : Siting  
BILITY AND PUBLIC NEED FOR CELLULAR : Council  
TELEPHONE ANTENNAS AND ASSOCIATED EQUIP- :  
MENT IN THE TOWN OF WILTON, CONNECTICUT. May 3, 1988

DECISION AND ORDER

Pursuant to the foregoing opinion, the Connecticut Siting Council finds that the effects associated with the construction and operation of a cellular monopole structure at the alternative Mather Street site, including effects on the natural environment, ecological balance, public health and safety, scenic, historic and recreational values, forests and parks, air and water purity and fish and wildlife, are not significant either alone or cumulatively with other effects, are not in conflict with the policies of the state concerning such effects, and are not sufficient reason to deny the application, and therefore, directs that a Certificate of Environmental Compatibility and Public Need, as provided by Section 16-50k of the General Statutes of Connecticut (CGS) be issued to Metro Mobile CTS of Fairfield County, Inc. (Metro Mobile) for the construction, operation, and maintenance of a cellular telephone tower site and associated equipment at the "Wilton-D/AA" site on Mather Street in Wilton, Connecticut.

The proposed "D-Wilton" site on Richdale Drive and alternative "D/A Wilton" site on Quail Ridge Road are hereby denied.

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

1. The tower shall be constructed as a monopole or lattice tower, as determined by the Council in approving the development and management plan, and be no taller than necessary to provide the proposed service, and in no event shall exceed a total height of 193 feet, including antennas and associated equipment.
2. The facility shall be constructed in accordance with all applicable federal, state, and municipal laws and regulations.



3. Unless necessary to comply with condition number two, above, no lights shall be installed on this tower.
4. The Certificate Holder shall prepare a development and management (d&m) plan for this site in compliance with Sections 16-50j-75 through 16-50j-77 of the Regulations of State Agencies. The d&m plan shall provide monopole and lattice tower foundation design specifications and plans for permanent evergreen screening around the outside perimeter of the eight-foot chain link fence which will surround the site.
5. The Certificate Holder shall provide the Council with the results of additional subsurface reconnaissance at the proposed site prior to the commencement of any construction at this site.
6. The Certificate Holder or its successor shall notify the Council if and when directional antennas or any equipment other than that listed in this application are added to this facility.
7. The Certificate Holder or its successor shall permit public or private entities to share space on the tower for fair consideration, or shall provide any requesting entity with specific legal, technical, environmental, or economic reasons precluding such tower sharing.
8. If this facility does not provide, or permanently ceases to provide, cellular service following the completion of construction, this Decision and Order shall be void, and the tower and all associated equipment in this application shall be dismantled and removed or reapplication for any new use shall be made to the Council before any such new use is made.
9. The Certificate Holder shall comply with any future radio frequency (RF) standards promulgated by state or federal regulatory agencies. Upon the establishment of any new governmental RF standards, the facility granted in this Decision and Order shall be brought into compliance with such standards.

10. Unless otherwise approved by the Council, this Decision and Order shall be void if all construction authorized herein is not completed within three years of the issuance of this Decision and Order, or within three years of the completion of any appeal taken in this Decision and Order.

Pursuant to Section 16-50p, we hereby direct that a copy of the Decision and Order be served on each person listed below. A notice of issuance shall be published in the Norwalk Hour and the Wilton Bulletin.

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

The parties or intervenors to this proceeding are:

Metro Mobile CTS of Fairfield County, Inc. (Party)  
50 Rockland Road  
South Norwalk, CT 06854  
Attn: Michael Riley

Howard L. Slater, Esq. (Its Attorney)  
Jennifer Young Gaudet, Esq.  
Byrne, Slater, Sandler,  
Shulman & Rouse, P.C.  
330 Main Street  
Hartford, CT 06103

Fleischman and Walsh, P.C. (Representative)  
1725 N. Street, N.W.  
Washington, D.C. 20036  
Attn: Richard Rubin, Esq.

PEACE, Inc. (Party)

Ann Caggiano (Representative)  
President  
PEACE, Inc.  
33 Honey Hill Trail  
Wilton, CT 06897

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Decision and Order  
Page Four

Town of Wilton	(Party)
Edward C. Desmond First Selectman Town of Wilton Town Hall 238 Danbury Road Wilton, CT 06897	(Representative)
Joseph C. Lee, Esq. Alice A. Bruno, Esq. Tyler Cooper & Alcorn 205 Church Street P.O. Box 1936 New Haven, CT 06509	(Its Attorney)
Margaret Doheny 21 Richdale Drive Wilton, CT 06897	(Party)
SNET Cellular, Inc.	(Intervenor)
Donald R. Chapman, Vice President Operations SNET Cellular, Inc. 555 Long Wharf Drive New Haven, CT 06511	(Representative)
Peter J. Tyrrell Senior Attorney SNET Cellular, Inc. 227 Church Street Room 1021 New Haven, CT 06506	(Its Attorney)
Ogden Bigelow 25 Hidden Lake Road Wilton, CT 06897	(Intervenor)

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Decision and Order  
Page Five

John Jordon  
32 Mayapple Road  
Wilton, CT 06897

(Party)

Veronica Tella  
41 Honey Hill Trail  
Wilton, CT 06897

(Party)

Betsy Mitchell  
125 Catalpa Road  
Wilton, CT 06897  
(SERVICE WAIVED)


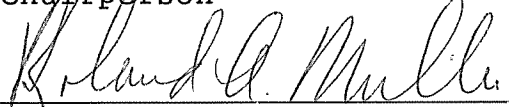
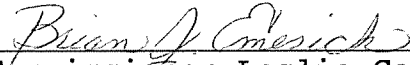
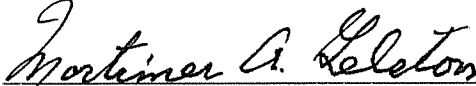
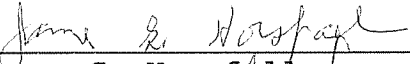
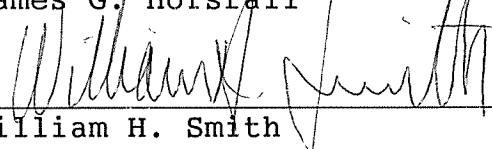
(Party)

1390E

CERTIFICATION

The undersigned members of the Connecticut Siting Council hereby certify that they have heard this case in Docket 94 or read the record thereof, and that we voted as follows:

Dated at New Britain, Connecticut the 3rd day of May, 1988.

<u>Council Members</u>	<u>Vote Cast</u>
 Gloria Dibble Pond Chairperson	Yes
 Commissioner Peter Boucher Designee: Roland Miller	Yes
 Commissioner Leslie Carothers Designee: Brian Emerick	Yes
 Mortimer A. Gelston	Yes
 James G. Horsfall	Yes
 William H. Smith	Yes
 Colin C. Tait	Absent

# Exhibit B

## **Property Card**

# MATHER ST

**Location** MATHER ST

**Mblu** 23 / / 23 / /

**Acct#** 5165,3335

**Owner** WILTON TOWN OF

**Assessment** \$6,999,790

**Appraisal** \$9,999,700

**PID** 1065

**Building Count** 2

## Current Value

Appraisal			
Valuation Year	Improvements	Land	Total
2016	\$45,500	\$9,954,200	\$9,999,700

Assessment			
Valuation Year	Improvements	Land	Total
2016	\$31,850	\$6,967,940	\$6,999,790

## Owner of Record

**Owner** WILTON TOWN OF  
**Co-Owner**  
**Address** 238 DANBURY RD  
WILTON, CT 06897

**Sale Price** \$0  
**Certificate**  
**Book & Page** 1151/0195  
**Sale Date** 02/02/1999  
**Instrument** 00

## Ownership History

Ownership History					
Owner	Sale Price	Certificate	Book & Page	Instrument	Sale Date
WILTON TOWN OF	\$0		1151/0195	00	02/02/1999
	\$0		0112/0179	00	05/01/1965

## Building Information

### Building 1 : Section 1

**Year Built:**  
**Living Area:** 0  
**Replacement Cost:** \$0  
**Building Percent Good:**  
**Replacement Cost Less Depreciation:** \$0

**Building Attributes**

Field	Description
Style	Vacant Land
Model	
Occupancy	
Exterior Wall 1	
Exterior Wall 2	
Roof Structure:	
Roof Cover	
Interior Wall 1	
Interior Wall 2	
Interior Flr 1	
Interior Flr 2	
Heat Fuel	
Heat Type:	
AC Type:	
Total Bedrooms:	
Total Bthrms:	
Total Half Baths:	
Total Rooms:	
Bath Style:	
Kitchen Style:	
Elevator	
Fireplaces	
Sauna	
Spa/Jet Tub	
Whirlpool Tub	
Cath. Ceil	

### Building Photo



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

### Building Layout

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

### Building 2 : Section 1

**Year Built:** 1988  
**Living Area:** 1,200  
**Replacement Cost:** \$62,291  
**Building Percent Good:** 73  
**Replacement Cost Less Depreciation:** \$45,500

Building Attributes : Bldg 2 of 2	
Field	Description
STYLE	Service Shop
MODEL	Commercial
Grade	Below Average
Occupancy	1

### Building Photo

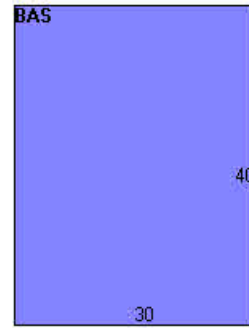


(<http://images.vgsi.com/photos/WiltonCTPhotos//\00\00\78\11.j>)



Exterior Wall 1	Pre-finish Metl
Exterior Wall 2	
Roof Structure	Gable/Hip
Roof Cover	Enam Mtl Shing
Interior Wall 1	Drywall
Interior Wall 2	
Interior Floor 1	Dirt/None
Interior Floor 2	
Heating Fuel	None
Heating Type	None
AC Type	None
Bldg Use	Ex Com MDL-96
Fireplace	
Elevator	
Cath Ceil	
Sauna	
1st Floor Use:	21I
Heat/AC	None
Frame Type	Steel
Baths/Plumbing	None
Ceiling/Wall	Sus Ceil Min W
Rooms/Prtns	Average
Wall Height	11
% Comn Wall	0

## Building Layout



Building Sub-Areas (sq ft)			<u>Legend</u>
Code	Description	Gross Area	Living Area
BAS	First Floor	1,200	1,200
		1,200	1,200

## Extra Features

Extra Features	<u>Legend</u>
No Data for Extra Features	

## Land

### Land Use

<b>Use Code</b>	21V
<b>Description</b>	Ex Com MDL-00
<b>Zone</b>	R-2
<b>Neighborhood</b>	4000
<b>Alt Land Appr Category</b>	No

### Land Line Valuation

<b>Size (Acres)</b>	74.12
<b>Frontage</b>	
<b>Depth</b>	
<b>Assessed Value</b>	\$6,967,940
<b>Appraised Value</b>	\$9,954,200

## Outbuildings

--

**Outbuildings****Legend**

No Data for Outbuildings

**Valuation History**

<b>Appraisal</b>			
<b>Valuation Year</b>	<b>Improvements</b>	<b>Land</b>	<b>Total</b>
2015	\$45,500	\$9,954,200	\$9,999,700
2014	\$45,500	\$9,954,200	\$9,999,700
2013	\$45,500	\$9,954,200	\$9,999,700

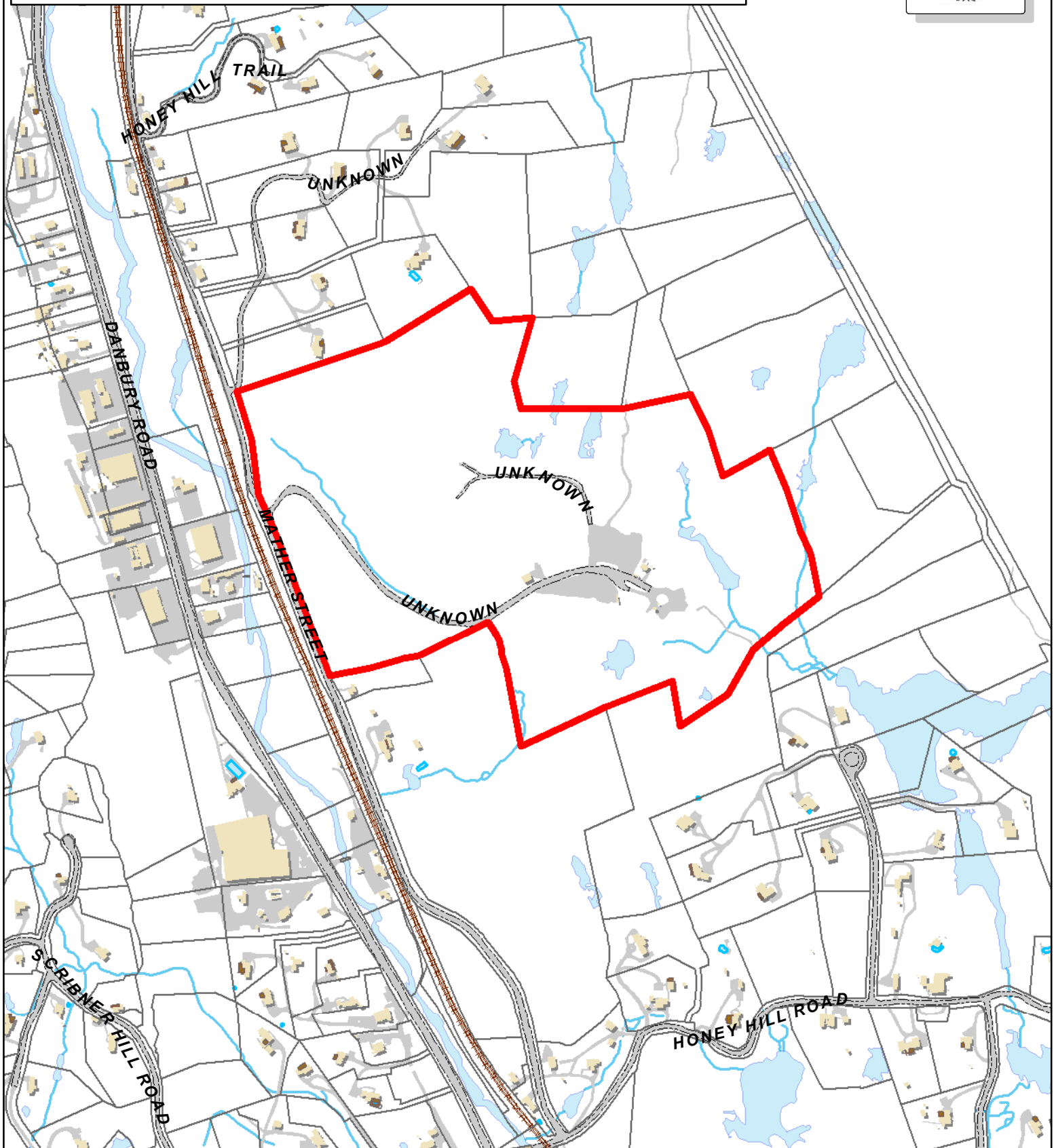
<b>Assessment</b>			
<b>Valuation Year</b>	<b>Improvements</b>	<b>Land</b>	<b>Total</b>
2015	\$31,850	\$6,967,940	\$6,999,790
2014	\$31,850	\$6,967,940	\$6,999,790
2013	\$31,850	\$6,967,940	\$6,999,790

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# Town of Wilton, Connecticut - Assessment Parcel Map

MBL: 23-23

Address: MATHER ST

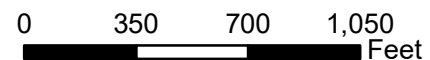


Approximate Scale:

1 inch = 600 feet

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

Map Grand List Date: Oct 2017



# Exhibit C

## **Construction Drawings**

# T-Mobile

T-MOBILE SITE NAME:  
**WILTON/MOUNTAIN RD.& BRA**

T-MOBILE SITE NUMBER:  
**CT11119A**

CROWN BU: 806353 / APP#: 479808  
**67D92DB CONFIGURATION**

128 MATHER ST  
WILTON, CT 06897

EXISTING 180'-0" SELF-SUPPORT TOWER



## PROJECT SUMMARY

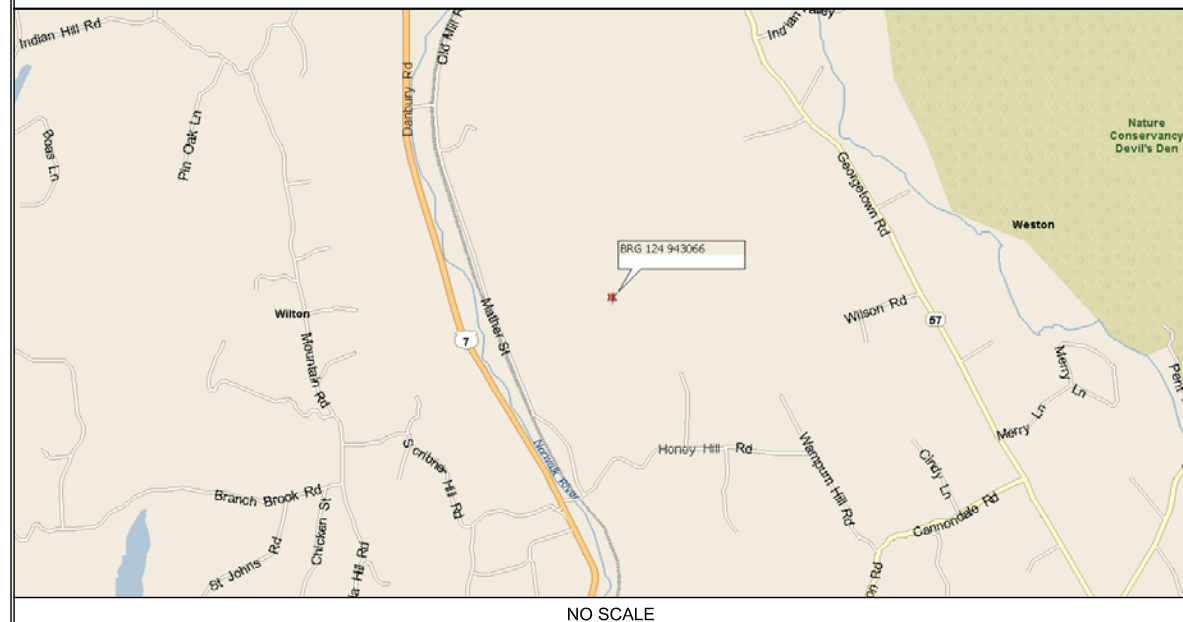
SITE TYPE: EXISTING EQUIPMENT UPGRADE  
SITE ADDRESS: 128 MATHER ST  
WILTON, CT 06897  
JURISDICTION: FAIRFIELD COUNTY

NAD83  
LATITUDE: 41.238458° N  
LONGITUDE: 73.424086° W  
TOWER OWNER: CROWN CASTLE  
3200 HORIZON DRIVE, SUITE 150  
KING OF PRUSSIA, PA 19406  
JASON SMITH  
(610) 635-3225

CUSTOMER/APPLICANT: T-MOBILE  
4 SYLVAN WAY  
PARSIPPANY, NJ 07054  
(973) 397-4800

OCCUPANCY TYPE: UNMANNED  
A.D.A. COMPLIANCE: FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION

## LOCATION MAP



NO SCALE

## DRAWING INDEX

SHEET #	SHEET DESCRIPTION	REV. #
T-1	TITLE SHEET	1
A-1	OVERALL SITE PLAN	1
A-2	ANTENNA/CABLE SCHEDULE AND AZIMUTH PLANS	1
A-3	TOWER ELEVATION	1
A-4	ANTENNA AND RRU DETAILS	1
E-1	PANEL SCHEDULE AND ONE-LINE DIAGRAM	1

CT11119A  
BU #: 806353  
WILTON/MOUNTAIN RD & BRA  
128 MATHER ST  
WILTON, CT 06897  
EXISTING 180'-0" SELF-SUPPORT TOWER

PROJECT NO: 102920.002.01  
CHECKED BY: GEH

ISSUED FOR:			
REV	DATE	DRWN	DESCRIPTION
0	6/24/19	RFC	CONSTRUCTION
1	7/17/19	RMC	CONSTRUCTION

## CONTACT INFORMATION

A&E FIRM: B+T GROUP  
1717 S. BOULDER, STE. 300  
TULSA, OK 74119  
CONTACT: MIKE OAKES  
PHONE: (918) 587-4630  
ELECTRIC PROVIDER: UNITED ILLUMINATING CO.  
203-499-2000  
TELCO PROVIDER: AT&T  
855-637-9527  
OPTIUM PHONE  
855-267-8468

## DRIVING DIRECTIONS

DEPART FROM BRADLEY INTERNATIONAL AIRPORT ON TERMINAL RD. ROAD NAME CHANGES TO BRADLEY FIELD CONNECTOR. ROAD NAME CHANGES TO CT-20 [BRADLEY FIELD CONNECTOR]. TAKE RAMP (RIGHT) ONTO I-91 [RICHARD P HORAN MEMORIAL HWY]. AT EXIT 17, TURN RIGHT ONTO RAMP. TAKE RAMP (LEFT) ONTO CT-15 [WILBUR CROSS PKWY]. AT EXIT 41, KEEP LEFT ONTO RAMP. TURN LEFT ONTO CT-33 [WILTON RD]. KEEP STRAIGHT ONTO US-7 [CT-33]. TURN RIGHT ONTO HONEY HILL RD. TURN LEFT ONTO QUAIL RIDGE RD. BEAR LEFT ONTO LOCAL ROAD(S) AND ARRIVE AT WILTON/MOUNTAIN RD & BRA.

## A/E DOCUMENT REVIEW STATUS

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

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



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



## CODE COMPLIANCE

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

CODE TYPE	CODE
BUILDING/DWELLING	2018 CT SBC
STRUCTURAL	2018 CT SBC
MECHANICAL	2018 CT SBC
ELECTRICAL	NEC 2017

## PROJECT DESCRIPTION

THE PROPOSED PROJECT INCLUDES:

- REMOVE (6) EXISTING ANTENNAS AT 93'-0".
- REMOVE (3) RRUS.
- REMOVE (1) XMU.
- REMOVE (6) 1 1/4" COAX CABLES.
- INSTALL (6) NEW ANTENNAS AT 93'-0".
- INSTALL (3) NEW RRUS AT 93'-0".
- INSTALL (3) NEW 6x12 HCS CABLES.
- REPLACE (1) DUS41 WITH (2) BB6630s.

## DO NOT SCALE DRAWINGS

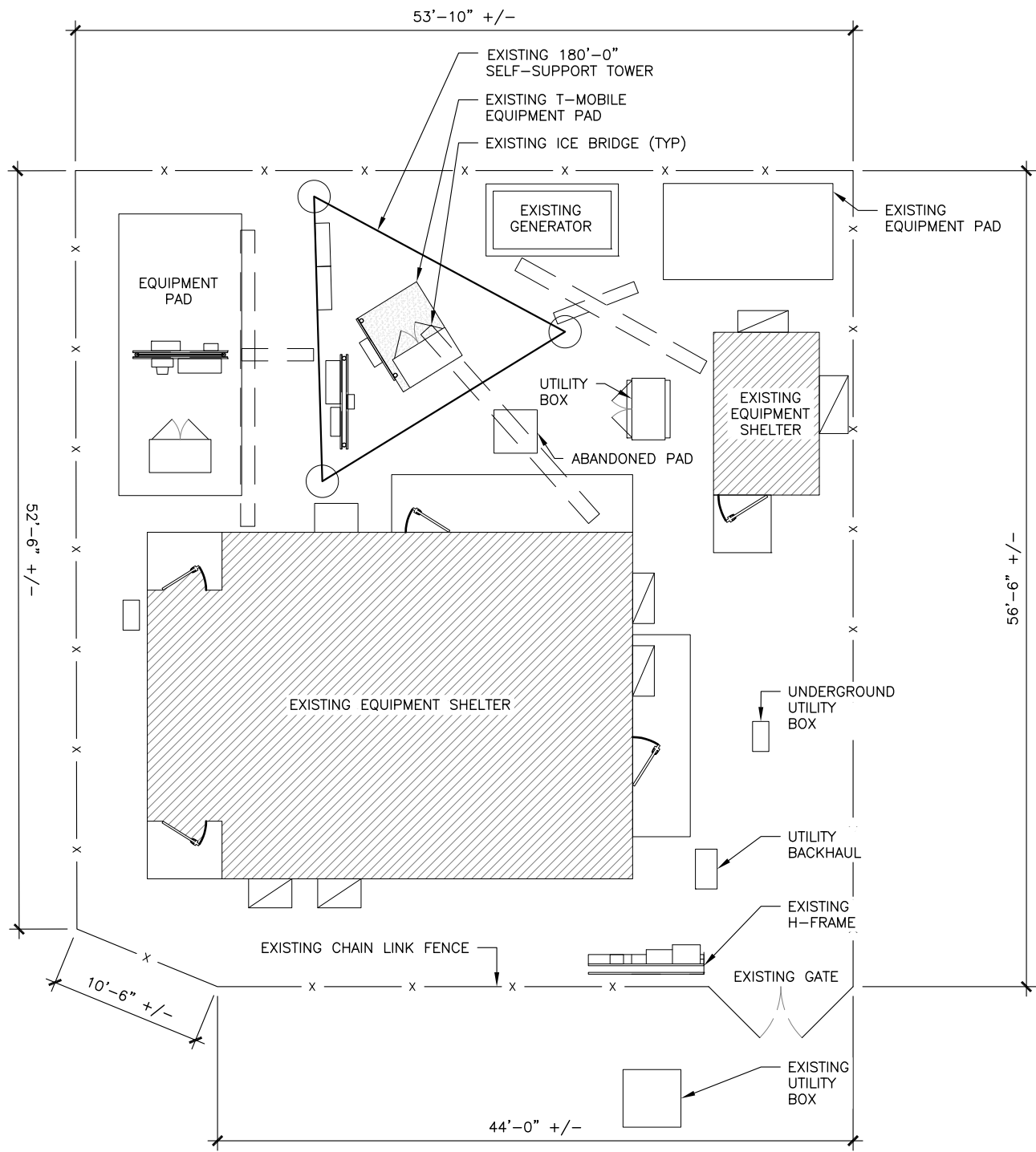
ALL DRAWINGS CONTAINED HEREIN ARE FORMATTED FOR 11X17. CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

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



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SHEET NUMBER: **T-1** REVISION: **1**



**1** OVERALL SITE PLAN

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



- GENERAL NOTES:**
- SUBJECT PROPERTY IS KNOWN AS BLOCK TBD LOT TBD AS SHOWN ON THE WILTON TOWNSHIP TAX MAP AND IS SITUATED AT 128 MATHER ST, WILTON, CT 06897.
  - APPLICANT: T-MOBILE  
A DELAWARE LIMITED LIABILITY COMPANY  
4 SYLVAN WAY  
PARSIPPANY, NEW JERSEY 07054  
(973) 397-4800  
  
TOWER OWNER: CROWN CASTLE INTERNATIONAL
  - THE APPLICANT IS TO UPDATE THEIR NETWORK BY INSTALLING SIX (6) NEW PANEL ANTENNAS, THREE (3) RRUS, AND THREE (3) ADDITIONAL 6X12 HCS HYBRID CABLES MOUNTED ON AN EXISTING SELF-SUPPORT TOWER.
  - THIS FACILITY SHALL BE VISITED ON THE AVERAGE OF ONCE A MONTH FOR MAINTENANCE AND SHALL BE MONITORED FROM A REMOTE FACILITY.
  - THE EXISTING SITE IS LOCATED AT LATITUDE OF 41.238458° N± AND LONGITUDE OF 73.424086° W±. THE HORIZONTAL DATUM ARE IN TERMS OF NORTH AMERICAN DATUM OF 1983 (NAD 83).
  - THIS SET OF PLANS HAS BEEN PREPARED FOR THE PURPOSES OF MUNICIPAL AND AGENCY REVIEW AND APPROVAL. THIS SET OF PLANS SHALL NOT BE UTILIZED AS CONSTRUCTION DOCUMENTS UNTIL ALL CONDITIONS OF APPROVAL HAVE BEEN SATISFIED AND EACH OF THE DRAWINGS HAVE BEEN REVISED TO INDICATED "ISSUED FOR CONSTRUCTION"
  - ALL MATERIALS, WORKMANSHIP, AND CONSTRUCTION FOR THE SITE IMPROVEMENTS SHOWN HEREON SHALL BE IN ACCORDANCE WITH:
    - CURRENT PREVAILING MUNICIPAL AND/OR COUNTY SPECIFICATIONS, STANDARDS, AND REQUIREMENTS.
    - CURRENT PREVAILING UTILITY COMPANY AUTHORITY SPECIFICATIONS, STANDARDS AND REQUIREMENTS.
  - THE CONTRACTOR SHALL NOTIFY B+T GROUP, P.A. IMMEDIATELY IF ANY FIELD-CONDITIONS ENCOUNTERED DIFFER FROM THOSE REPRESENTED HEREON, AND/OR IF SUCH CONDITIONS WOULD OR COULD RENDER THE DESIGNS SHOWN HEREON INAPPROPRIATE AND/OR INEFFECTIVE.
  - THE CONTRACTOR IS RESPONSIBLE TO PROTECT, REPAIR AND/OR REPLACE ANY DAMAGED STRUCTURES, UTILITIES OR LANDSCAPED AREA WHICH MAY BE DISTURBED DURING THE CONSTRUCTION OF THIS FACILITY.
  - THE CONSTRUCTION CONTRACTOR IS SOLELY RESPONSIBLE FOR DETERMINING ALL CONSTRUCTION MEANS AND METHODS. THE CONSTRUCTION CONTRACTOR IS ALSO RESPONSIBLE FOR ALL JOB SITE SAFETY.
  - SITE INFORMATION SHOWN TAKEN FROM CROWN CASTLE SITE PLANS AND FROM CROWN CASTLE INSPECTION PHOTOS.
  - NO GUARANTEE IS MADE NOR SHOULD BE ASSUMED AS TO THE COMPLETENESS OR ACCURACY OF THE HORIZONTAL OR VERTICAL LOCATIONS. ALL PARTIES UTILIZING THIS INFORMATION SHALL FIELD VERIFY THE ACCURACY AND COMPLETENESS OF THE INFORMATION SHOWN PRIOR TO CONSTRUCTION ACTIVITIES.
  - ALL IMPROVEMENTS SHALL BE SUBJECT TO INSPECTION AND APPROVAL BY THE TOWNSHIP ENGINEER WHO WILL BE GIVEN PROPER NOTIFICATION PRIOR TO THE START OF ANY CONSTRUCTION.



CT11119A  
BU #: 806353  
WILTON/MOUNTAIN RD & BRA  
128 MATHER ST  
WILTON, CT 06897  
EXISTING 180'-0" SELF-SUPPORT TOWER

PROJECT NO: 102920.002.01  
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SHEET NUMBER: A-1  
REVISION: 1



CT1119A  
 BU #: 806353  
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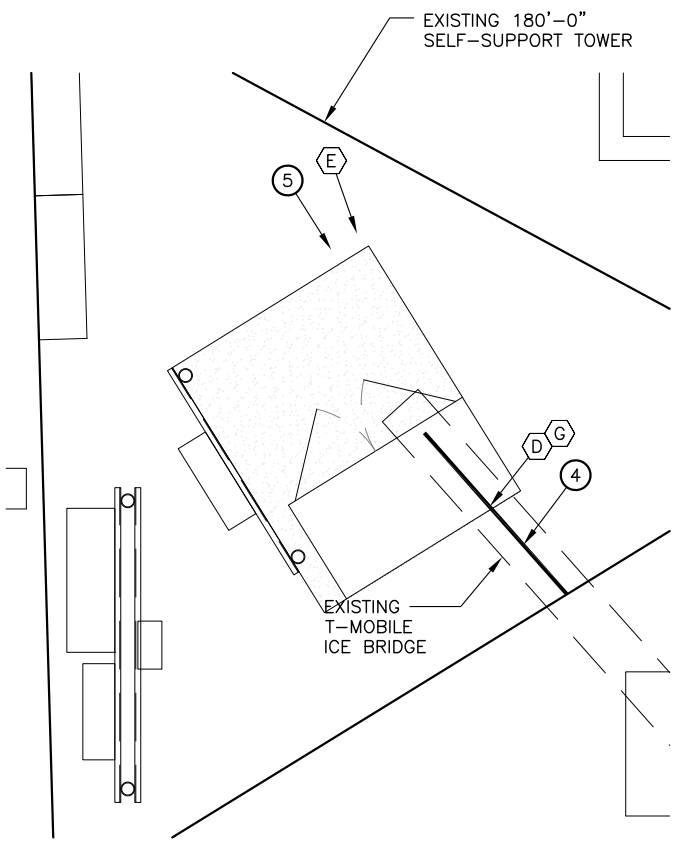


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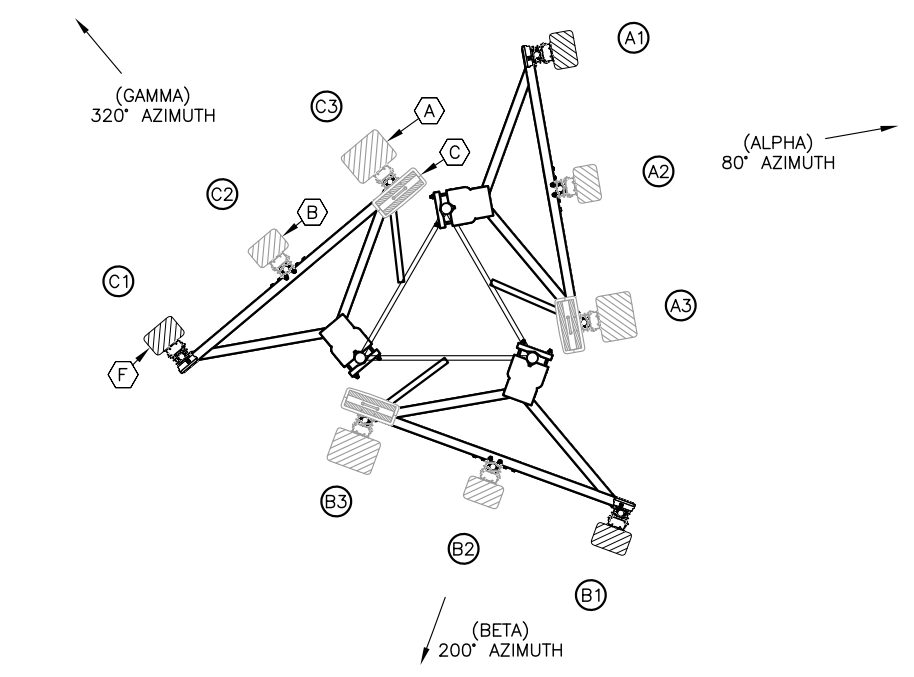
SHEET NUMBER: **A-2** REVISION: **1**

ANTENNA AND CABLE SCHEDULE											
SECTOR	POSITION	EXISTING ANTENNAS	PROPOSED ANTENNA CONFIGURATION		E-TILT	M-TILT	ANTENNA CENTERLINE	TMA/RRU	CABLES	JUMPER TYPE	CABLE LENGTH
80° - ALPHA	A1	ERICSSON-AIR21 KRC118023-1_B2A_B4P	G1900 U2100	-	2°/2°	-	93'-0"	1/0	(2) 1 1/4" COAX (1) 9x18 HYBRID FIBER CABLE	(2) COAX	200'-0"
	A2	<b>ERICSSON-AIR32 KRD901146-1_B66A_B2AP</b>	<b>L2100 L1900</b>	-	<b>2°/2° 2°/2°</b>	-		0/0	-	DC/FIBER	-
	A3	<b>RFS APXVAARR24_43-U-NA20</b>	<b>L700 L600</b>	<b>B71 + B12</b>	<b>2°/2°</b>	<b>0°</b>		0/1	<b>(1) 6X12 HYBRID FIBER CABLE</b>	<b>DC/FIBER &amp; (4) COAX</b>	<b>200'-0"</b>
200° - BETA	B1	ERICSSON-AIR21 KRC118023-1_B2A_B4P	G1900 U2100	-	2°/2°	-	93'-0"	1/0	(2) 1 1/4" COAX SHARED FIBER	(2) COAX	200'-0"
	B2	<b>ERICSSON-AIR32 KRD901146-1_B66A_B2AP</b>	<b>L2100 L1900</b>	-	<b>2°/2° 2°/2°</b>	-		0/0	-	DC/FIBER	-
	B3	<b>RFS APXVAARR24_43-U-NA20</b>	<b>L700 L600</b>	<b>B71 + B12</b>	<b>2°/2°</b>	<b>0°</b>		0/1	<b>(1) 6X12 HYBRID FIBER CABLE</b>	<b>DC/FIBER &amp; (4) COAX</b>	<b>200'-0"</b>
320° - GAMMA	G1	ERICSSON-AIR21 KRC118023-1_B2A_B4P	G1900 U2100	-	2°/2°	-	93'-0"	1/0	(2) 1 1/4" COAX SHARED FIBER	(2) COAX	200'-0"
	G2	<b>ERICSSON-AIR32 KRD901146-1_B66A_B2AP</b>	<b>L2100 L1900</b>	-	<b>2°/2° 2°/2°</b>	-		0/0	-	DC/FIBER	-
	G3	<b>RFS APXVAARR24_43-U-NA20</b>	<b>L700 L600</b>	<b>B71 + B12</b>	<b>2°/2°</b>	<b>0°</b>		0/1	<b>(1) 6X12 HYBRID FIBER CABLE</b>	<b>DC/FIBER &amp; (4) COAX</b>	<b>200'-0"</b>

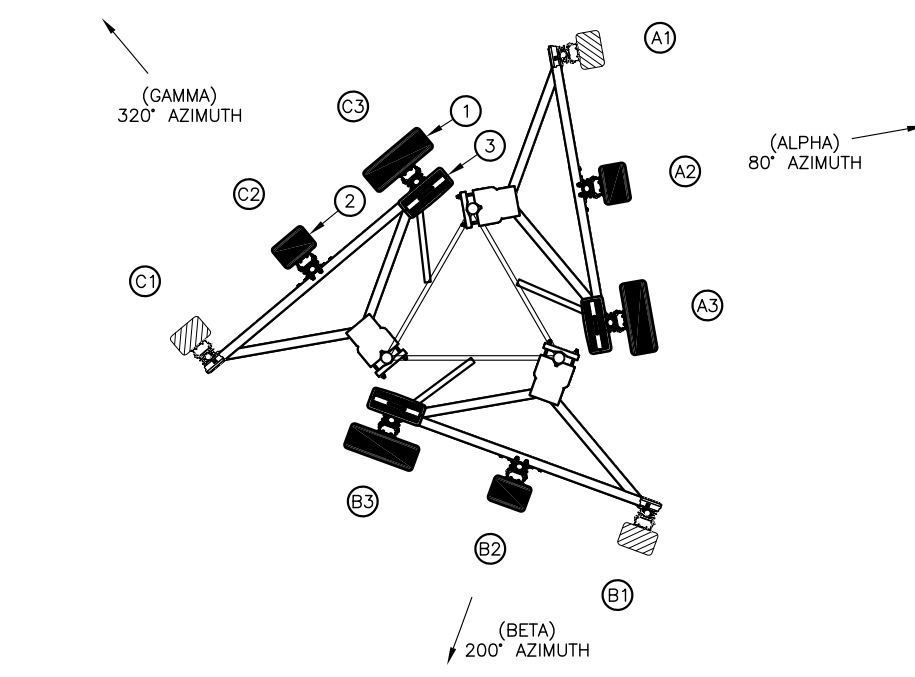
LEGEND	
EXISTING/DEMOLITION NOTES	INSTALLATION NOTES
(A) EXISTING ANDREW-LNX-6515DS-A1M ANTENNA TO BE REMOVED (TOTAL OF 3)	(1) INSTALL RFS APXVAARR24_43-U-NA20 (8 FT) ANTENNAS ON EXISTING MOUNT. PROVIDE NEW 2 7/8" OD SCH.40 PIPE MAST (LENGTH TO BE V.I.F) (TYP. OF 1 PER SECTOR, TOTAL OF 3)
(B) EXISTING ERICSSON-AIR21 KRC118023-1_B2A_B4P ANTENNA TO BE REMOVED (TOTAL OF 3)	(2) INSTALL ERICSSON-AIR32 KRD901146-1_B66A_B2AP ANTENNAS. (TYP. OF 1 PER SECTOR, TOTAL OF 3)
(C) REMOVE RRUS11 B12 (TOTAL OF 3)	(3) INSTALL RADIO 4449 B12/B71 (TYP. OF 1 PER SECTOR, TOTAL OF 3)
(D) REMOVE (6) 1 1/4" ANDREW LDF6-50A COAXIAL LINES	(4) INSTALL (3) HCS 6X12 4AWG 1 5/8" HYBRID FIBER TRUNK. FROM EQUIPMENT TO ANTENNAS FOLLOWING EXISTING ROUTING
(E) EXISTING (1) XMU & (1) DUS41 TO BE REMOVED	(5) INSTALL (2) NEW BB6630
(F) EXISTING ERICSSON-AIR21 KRC118023-1_B2A_B4P ANTENNA TO REMAIN (TOTAL OF 3)	
(G) EXISTING (1) HCS 9x18 1 5/8" HYBRID FIBER TRUNK TO REMAIN	



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



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



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

102920\_806353\_BRG 124 943066.dwg - Sheet: A-2 - User: rcarson - Jul 17, 2019 - 4:02pm



102920\_806353\_BRG 124 943066.dwg - Sheet:A-3 - User: rcarson - Jul 17, 2019 - 4:02pm

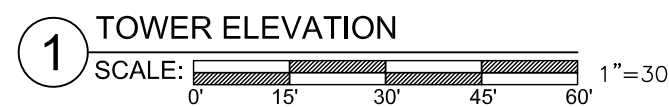
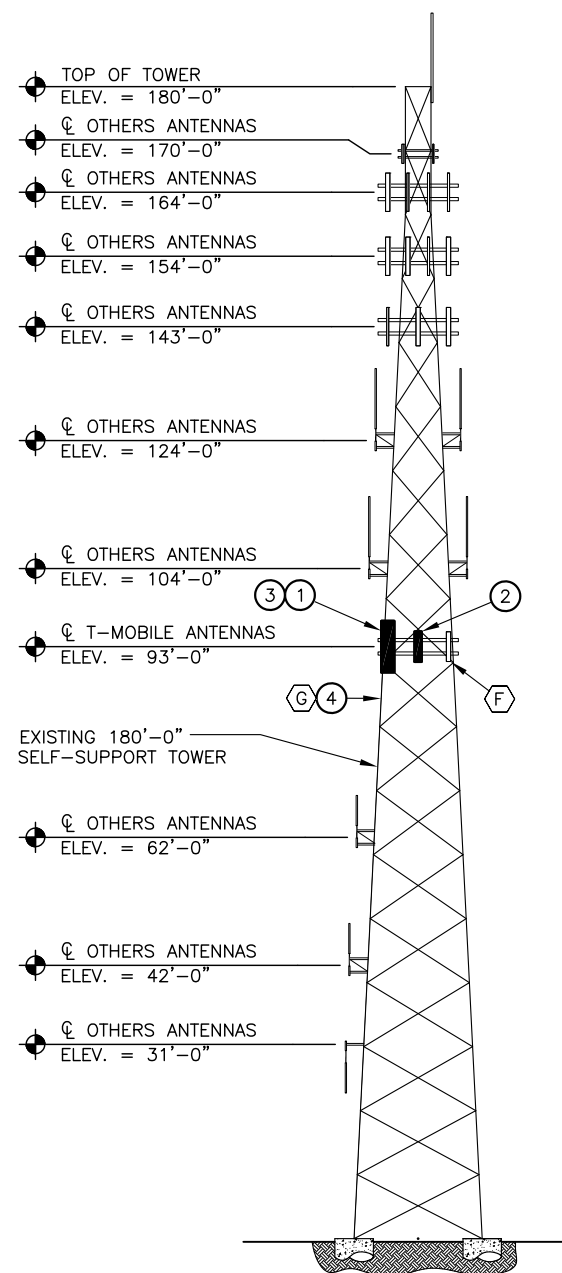
LEGEND	
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(B) EXISTING ERICSSON-AIR21 KRC118023-1_B2A_B4P ANTENNA TO BE REMOVED (TOTAL OF 3)	(2) INSTALL ERICSSON-AIR32 KRD901146-1_B66A_B2AP ANTENNAS. (TYP. OF 1 PER SECTOR, TOTAL OF 3)
(C) REMOVE RRS11 B12 (TOTAL OF 3)	(3) INSTALL RADIO 4449 B12/B71 (TYP. OF 1 PER SECTOR, TOTAL OF 3)
(D) REMOVE (6) 1 1/4" ANDREW LDF6-50A COAXIAL LINES	(4) INSTALL (3) HCS 6X12 4AWG 1 5/8" HYBRID FIBER TRUNK. FROM EQUIPMENT TO ANTENNAS FOLLOWING EXISTING ROUTING
(E) EXISTING (1) XMU & (1) DUS41 TO BE REMOVED	(5) INSTALL (2) NEW BB6630
(F) EXISTING ERICSSON-AIR21 KRC118023-1_B2A_B4P ANTENNA TO REMAIN (TOTAL OF 3)	
(G) EXISTING (1) HCS 9x18 1 5/8" HYBRID FIBER TRUNK TO REMAIN	

EXISTING TOWER IS SUFFICIENT PER STRUCTURAL ANALYSIS BY DESTEK ENGINEERING DATED 6/4/19.

EXISTING MOUNT IS SUFFICIENT PER MOUNT ANALYSIS BY FDH INFRASTRUCTURE SERVICES DATED 5/22/19.

LEGEND:

-  NEW
-  EXISTING
-  FUTURE



CT11119A  
 BU #: 806353  
 WILTON/MOUNTAIN RD & BRA  
 128 MATHER ST  
 WILTON, CT 06897  
 EXISTING 180'-0" SELF-SUPPORT TOWER

PROJECT NO: 102920.002.01  
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ISSUED FOR:			
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SHEET NUMBER: **A-3** REVISION: **1**



CT11119A  
 BU #: 806353  
 WILTON/MOUNTAIN RD & BRA  
 128 MATHER ST  
 WILTON, CT 06897  
 EXISTING 180'-0" SELF-SUPPORT TOWER

PROJECT NO: 102920.002.01  
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ISSUED FOR:

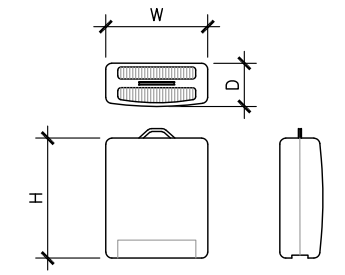
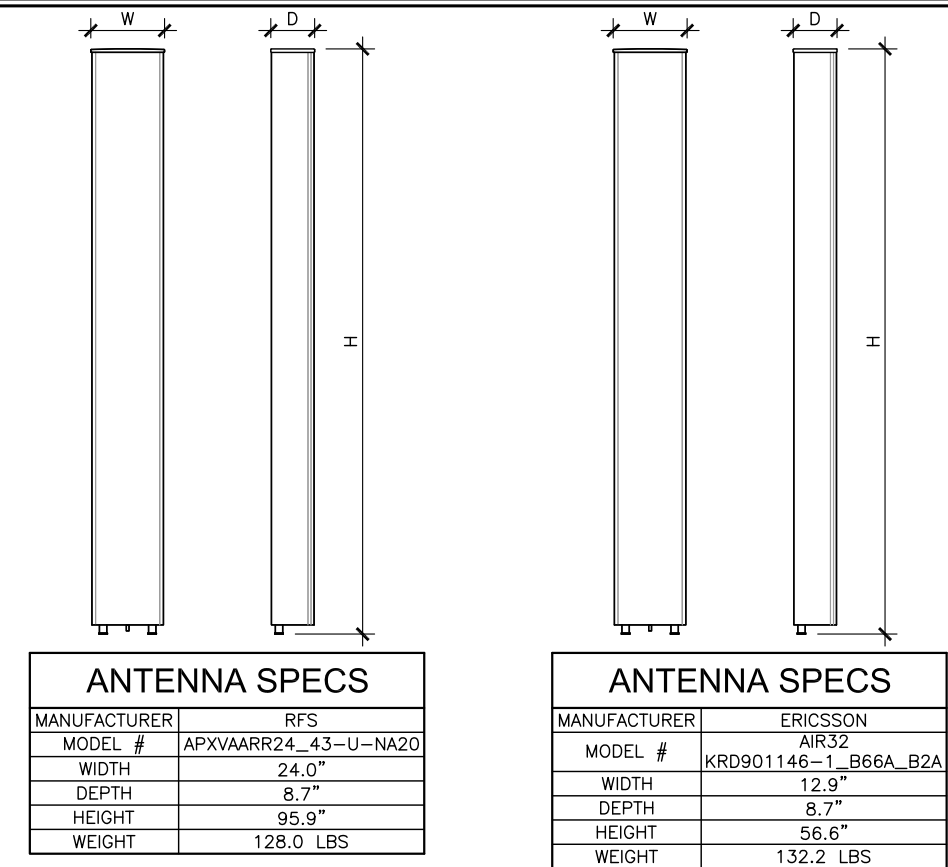
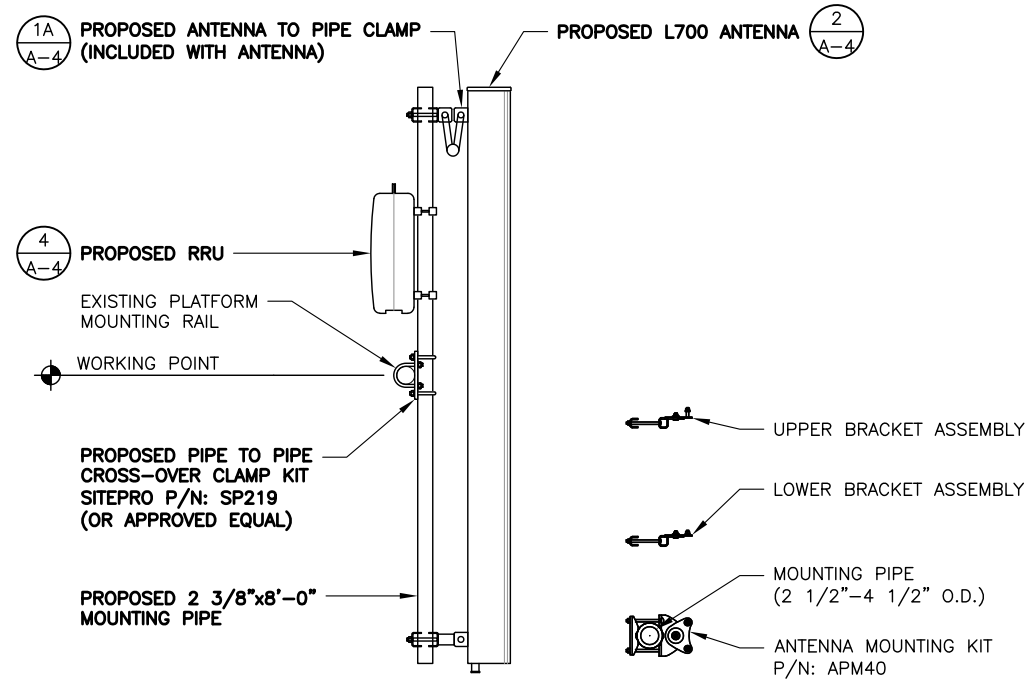
REV	DATE	DRWN	DESCRIPTION
0	6/24/19	RF	CONSTRUCTION
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SHEET NUMBER: **A-4** REVISION: **1**



ANTENNA SPECS

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

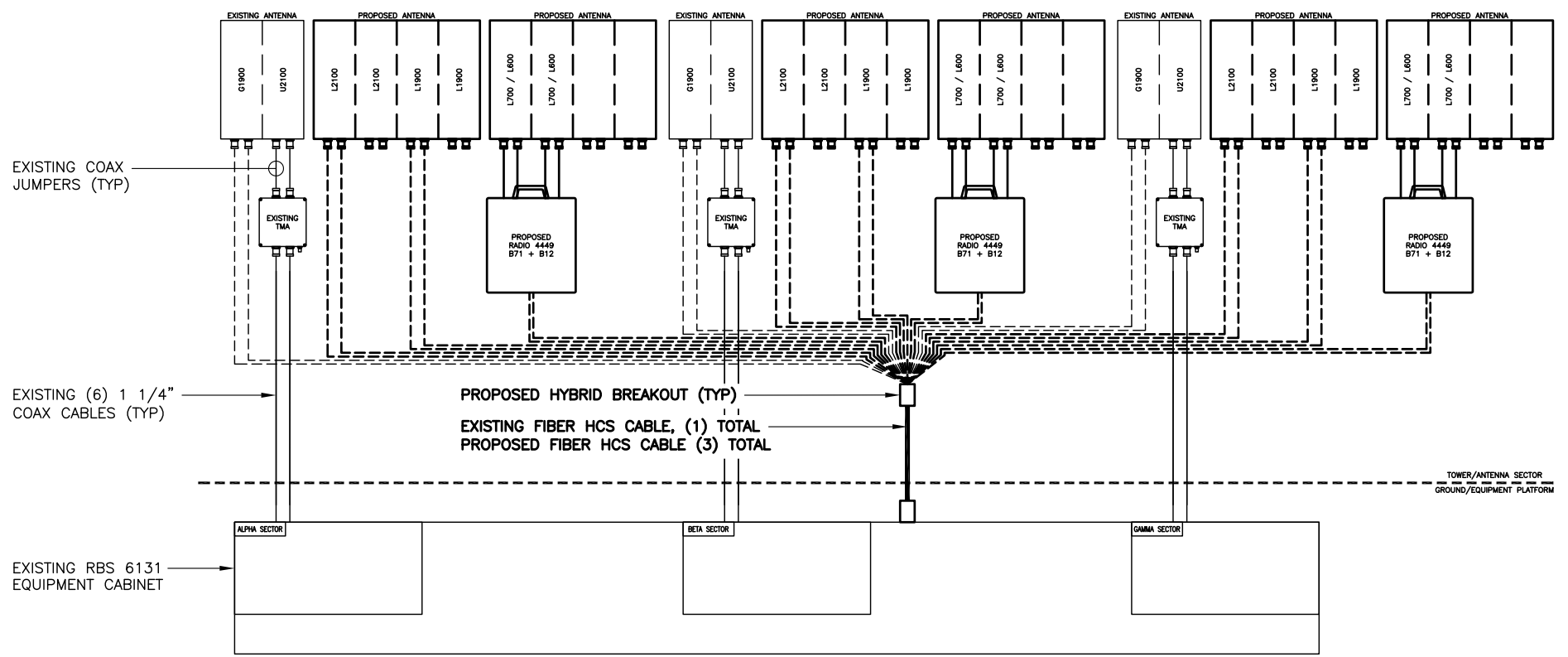
ANTENNA SPECS

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

RRU SPECIFICATIONS

MANUFACTURER	ERICSSON
MODEL #	4449
WIDTH	13.2"
DEPTH	9.3"
HEIGHT	14.9"
WEIGHT	75 LBS

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





FINAL PANEL SCHEDULE							
LOAD	POLES	AMPS	BUS		AMPS	POLES	LOAD
			L1	L2			
MBTS / 6131	2	100	1	2	60	2	AC.SURCE PRO
			3	4			
			5	6	20	1	EQUIPMENT
			7	8	20	1	EQUIPMENT
EQUIPMENT	1	20	9	10	20	1	TELCO.GFI
FAN	1	10	11	12			

RATED VOLTAGE:  120/240  \_\_\_\_\_ 1 PHASE, 3 WIRE  
 BRANCH POLES:  12  24  30  42 APPROVED MF'RS  
 RATED AMPS:  100  225  400  \_\_\_\_\_ CABINET:  SURFACE  FLUSH NEMA  1  3R  4X  
 MAIN LUGS ONLY  MAIN 200 AMPS  BREAKER  FUSED SWITCH  HINGED DOOR  KEYPED DOOR LATCH  
 FUSED  CIRCUIT BREAKER BRANCH DEVICES  \_\_\_\_\_ TO BE GFCI BREAKERS FULL NEUTRAL BUS GROUND BAR  
 ALL BREAKERS MUST BE RATED TO INTERRUPT A SHORT CIRCUIT ISC OF 10,000 AMPS SYMMETRICAL  
 FINAL PANEL DESIGN AND CALCULATIONS FOR WIRE SIZE WERE BASED OFF OF EXISTING PHOTOS

**1** FINAL T-MOBILE PANEL DETAIL  
SCALE: N.T.S.

CT11119A  
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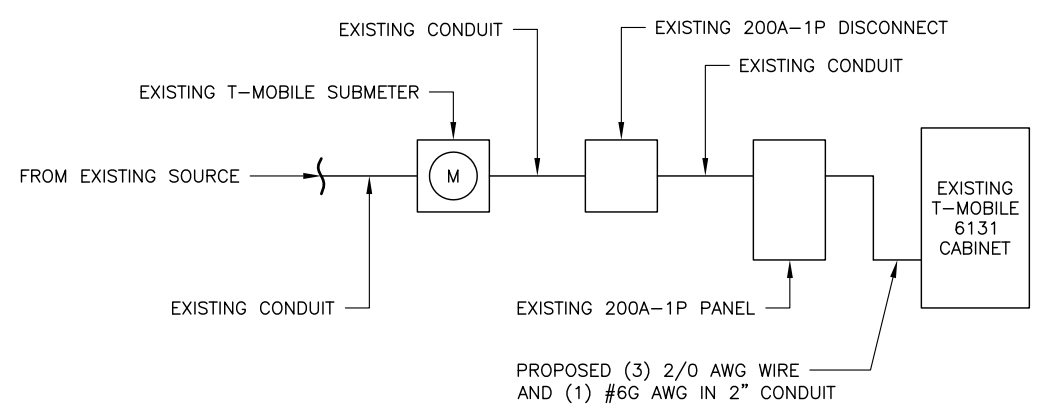
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**2** ONE-LINE DIAGRAM  
SCALE: N.T.S.

SHEET NUMBER: **E-1** REVISION: **1**

# Exhibit D

## **Structural Analysis Report**

Date: **June 04, 2019**

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



Destek Engineering, LLC  
1281 Kennestone Circle, Ste 100  
Marietta, GA  
(770) 693-0835

**Subject:** **Structural Analysis Report**

**Carrier Designation:** **T-Mobile Co-Locate**  
**Carrier Site Number:** CT11119A  
**Carrier Site Name:** Wilton/ Mountain Rd.&  
Bra

**Crown Castle Designation:** **Crown Castle BU Number:** 806353  
**Crown Castle Site Name:** BRG 124 943066  
**Crown Castle JDE Job Number:** 559168  
**Crown Castle Work Order Number:** 1749103  
**Crown Castle Order Number:** 479808 Rev. 0

**Engineering Firm Designation:** **Destek Engineering, LLC Project Number:** 1902177

**Site Data:** **128 MATHER STREET, WILTON, Fairfield County, CT**  
**Latitude 41° 14' 18.34", Longitude -73° 25' 26.44"**  
**180 Foot - Self Support Tower**

Dear Heather Simeone,

Destek Engineering, LLC 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; 94.6%**

This analysis utilizes an ultimate 3-second gust wind speed of 120 mph as required by the 2018 Connecticut State Building Code. Applicable Standard references and design criteria are listed in Section 2 – Analysis Criteria.

Structural analysis prepared by: Wade Baxter, EIT

Respectfully submitted by:

Ahmet Colakoglu, PE  
President



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### 2) ANALYSIS CRITERIA

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Table 2 - Other Considered Equipment

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3.1) Analysis Method

3.2) Assumptions

### 4) ANALYSIS RESULTS

Table 4 - Section Capacity (Summary)

Table 5 – Tower Component Stresses vs. Capacity

4.1) Recommendations

### 5) APPENDIX A

tnxTower Output

### 6) APPENDIX B

Base Level Drawing

### 7) APPENDIX C

Additional Calculations

## 1) INTRODUCTION

This tower is a 180 ft Self Support tower designed by FWT INC.

The tower has been modified multiple times in the past to accommodate additional loading.

## 2) ANALYSIS CRITERIA

<b>Building Code:</b>	2018 IBC
<b>TIA-222 Revision:</b>	TIA-222-H
<b>Risk Category:</b>	II
<b>Wind Speed:</b>	120 mph
<b>Exposure Category:</b>	B
<b>Topographic Factor:</b>	1
<b>Ice Thickness (Ultimate):</b>	1.5 in
<b>Wind Speed with Ice:</b>	50 mph
<b>Service Wind Speed:</b>	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)
93.0	93.0	3	ericsson	AIR 32 B2A/B66AA w/ Mount Pipe	6 4	1-1/4 1-5/8
		3	ericsson	ERICSSON AIR 21 B2A B4P		
		3	ericsson	KRY 112 144/1		
		3	ericsson	RADIO 4449 B12/B71		
		3	rfs celwave	APXVAARR24_43-U-NA20		
		1	tower mounts	Sector Mount [SM 402-3]		

**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)
178.0	184.0	1	rfs celwave	PD10017	2	7/8
170.0	171.0	3	kathrein	800 10504 w/ Mount Pipe	6 1	1-5/8 1/4
		3	kathrein	860 10025		
	170.0	1	tower mounts	Side Arm Mount [SO 103-3]		
164.0	166.0	3	alcatel lucent	B13 RRH 4X30	14	1-5/8
		6	commscope	JAHH-65B-R3B w/ Mount Pipe		
		3	nokia	B5 4T4R RRH4X40 AIRSCALE		
		6	rfs celwave	APL868013-42T0 w/ Mount Pipe		
		2	rfs celwave	DB-T1-6Z-8AB-0Z		
		6	rfs celwave	FD9R6004/2C-3L		

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
		3	samsung telecommunications	RFV01U-D2A		
	164.0	1	tower mounts	Sector Mount [SM 702-3]		
154.0	158.0	3	powerwave technologies	7770.00 w/ Mount Pipe	12 4 2	1-5/8 5/8 3/8
		3	powerwave technologies	P65-15-XLH-RR w/ Mount Pipe		
		3	quintel technology	QS66512-2 w/ Mount Pipe		
		3	ericsson	RRUS 11		
		3	ericsson	RRUS 32		
		3	ericsson	RRUS 32 B2		
		3	kaelus	DBC0061F1V51-2		
		6	powerwave technologies	LGP21401		
		3	powerwave technologies	TT19-08BP111-001		
	1	raycap	DC6-48-60-18-8F			
		154.0	1	tower mounts		
1	raycap		DC6-48-60-18-8F			
145.0	145.0	3	alcatel lucent	800 EXTERNAL NOTCH FILTER	-	-
		3	alcatel lucent	TME-800MHZ 2X50W RRH		
		1	tower mounts	Pipe Mount [PM 601-3]		
		3	alcatel lucent	PCS 1900 MHz 4x45W-65MHz		
143.0	143.0	3	alcatel lucent	TD-RRH8x20-25	3	1-1/4
		9	rfs celwave	ACU-A20-N		
		3	rfs celwave	APXVSP18-C-A20		
		3	rfs celwave	APXVTM14-C-120		
		1	tower mounts	Sector Mount [SM 701-3]		
124.0	131.0	2	rfs celwave	1142-2C	2	1/2
	124.0	2	tower mounts	Side Arm Mount [SO 302-1]		
104.0	111.0	1	rfs celwave	1142-2C	1 1	7/8 1/2
	108.0	1	rfs celwave	220-3BN		
	104.0	2	tower mounts	Side Arm Mount [SO 302-1]		
62.0	65.0	1	gps	GPS_A	1	1/2
	62.0	1	tower mounts	Side Arm Mount [SO 301-1]		
42.0	44.0	1	gps	GPS_A	1	1/2
	42.0	1	tower mounts	Side Arm Mount [SO 301-1]		

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
31.0	32.0	1	gps	GPS_A	1	1/2
	31.0	1	tower mounts	Side Arm Mount [SO 701-1]		

### 3) ANALYSIS PROCEDURE

**Table 3 - Documents Provided**

Document	Remarks	Reference	Source
Geotechnical Reports	FDH, Job#: 09-04219E G1, dated 04/29/2009	262283	CCISITES
Tower Foundation Drawings	FWT, Job#: 18888-81, dated 05/31/1988	262285	CCISITES
Foundation Mapping	FDH, Job#: 09-11077E N1, dated 08/07/2012	3290324	CCISITES
Tower Manufacturer Drawings	FWT, Job#: 18888-81, dated 05/06/1988	217757	CCISITES
Tower Reinforcement Drawings	HEB, Job#: 98124A, dated 01/07/2000	3290324	CCISITES
Tower Reinforcement Drawings	APT, Job#: CT105271, dated 12/20/2002	801524	CCISITES
Tower Reinforcement Drawings	Paul J. Ford, Job#: 37509-0801, dated 12/08/2009	2434484	CCISITES
Tower Reinforcement Drawings	Destek, Pro. # 1654003, date 1/13/2016	6061656	CCISITES
Post-Modification Inspection	Paul J. Ford, Job#: 37509-0801, dated 01/11/2010	2575710	CCISITES
Structural Analysis Report	PJF&Co, Job#: 37519-0980.001.8700, dated 03/18/2019	8289048	CCISITES

#### 3.1) Analysis Method

tnxTower (version 8.0.5.0), a commercially available analysis software package, was used to create a three-dimensional model of the tower and calculate member stresses for various loading cases. Selected output from the analysis is included in Appendix A.

#### 3.2) Assumptions

- 1) Tower and structures were built 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.

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



#### 4) ANALYSIS RESULTS

**Table 4 - Section Capacity (Summary)**

Section No.	Elevation (ft)	Component Type	Size	Critical Element	P (K)	SF*P_allow (K)	% Capacity	Pass / Fail
T1	180 - 168	Leg	P2x.154	2	-2.119	29.380	7.2	Pass
T2	168 - 160	Leg	P2x.154 (GR)	26	-10.927	40.351	27.1	Pass
T3	160 - 140	Leg	P3x.216 (GR)	41	-49.331	91.364	54.0	Pass
T4	140 - 120	Leg	P3.5x.318 (GR)	68	-84.616	128.240	66.0	Pass
T5	120 - 100	Leg	P4x.337 (GR)	89	-115.824	165.049	70.2 78.4 (b)	Pass
T6	100 - 80	Leg	P5x.375 (GR)	110	125.500	202.153	62.1 71.9 (b)	Pass
T7	80 - 60	Leg	P6x.432 (GR)	131	149.854	277.994	53.9 53.9 (b) <sup>1</sup>	Pass
T8	60 - 40	Leg	P6x.432 (GR)	145	175.055	277.994	63.0 76.5 (b)	Pass
T9	40 - 20	Leg	P6x.432 (GR)	160	199.005	277.994	71.6 71.6 (b) <sup>1</sup>	Pass
T10	20 - 0	Leg	P8x.5 (GR)	181	222.454	422.127	52.7 57.8 (b)	Pass
T1	180 - 168	Diagonal	L2x1 1/2x3/16	10	-0.595	15.935	3.7 6.5 (b)	Pass
T2	168 - 160	Diagonal	L2x1 1/2x3/16	30	-2.917	15.935	18.3 33.8 (b)	Pass
T3	160 - 140	Diagonal	L2x1 1/2x3/16	46	-4.342	10.157	42.7 51.3 (b)	Pass
T4	140 - 120	Diagonal	L2x2x3/16	73	-4.776	9.511	50.2 61.0 (b)	Pass
T5	120 - 100	Diagonal	L2 1/2x2x3/16	91	-4.967	9.472	52.4	Pass
T6	100 - 80	Diagonal	L2 1/2x2 1/2x3/16	112	-6.088	10.923	55.7 57.7 (b)	Pass
T7	80 - 60	Diagonal	L3x3x3/16	133	-7.219	11.950	60.4 61.2 (b)	Pass
T8	60 - 40	Diagonal	L3 1/2x3x1/4	148	-7.660	15.837	48.4 52.8 (b)	Pass
T9	40 - 20	Diagonal	L3 1/2x3x1/4	163	-8.647	12.837	67.4	Pass
T10	20 - 0	Diagonal	L3 1/2x3 1/2x1/4	184	-8.954	14.867	60.2 61.8 (b)	Pass
T9	40 - 20	Secondary Horizontal	L3 1/2x3 1/2x1/4	169	-4.107	23.697	17.3 44.3 (b)	Pass
T1	180 - 168	Top Girt	L1 1/2x2x3/16	6	-0.132	10.904	1.2 2.5 (b)	Pass
							Summary	
							Leg (T9)	78.4 Pass
							Diagonal (T9)	67.4 Pass
							Secondary Horizontal (T9)	44.3 Pass
							Top Girt (T1)	2.5 Pass
							Bolt Checks	78.4 Pass
							Rating =	78.4 Pass

**Table 5 - Tower Component Stresses vs. Capacity – LC7**

Notes	Component	Elevation (ft)	% Capacity	Pass / Fail
1	Anchor Rods	0	94.6	Pass
1	Base Foundation	0	41.5	Pass
1	Base Foundation Soil Interaction	0	56.9	Pass

<b>Structure Rating (max from all components) =</b>	<b>94.6%</b>
---	--------------

Notes:

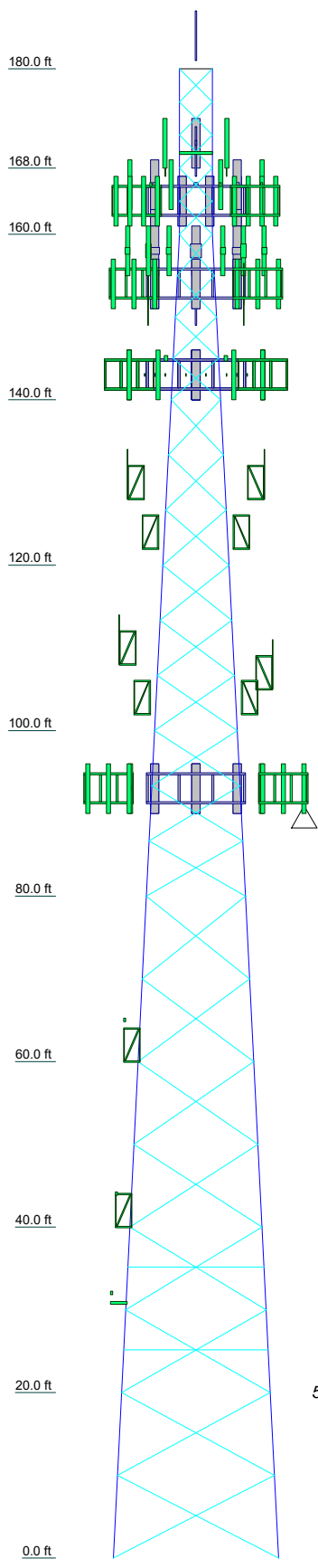
- 1) See additional documentation in "Appendix C – Additional Calculations" for calculations supporting the % capacity consumed.
- 2) %Capacity reported in accordance with TIA-222-H, Sec. 15.5.

**4.1) Recommendations**

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

**APPENDIX A**  
**TNXTOWER OUTPUT**

Section	T10	T9	T8	T7	T6	T5	T4	T3	T2	T1
Legs	P8x.5 (GR)		P6x.432 (GR)		P5x.375 (GR)	P4x.337 (GR)	P3.5x.318 (GR)	P3x.216 (GR)	A	P2x.154
Leg Grade					A53-B-35					
Diagonals	L3 1/2x3 1/2x1/4	L3 1/2x3x1/4		L3x3x3/16	L2 1/2x2 1/2x3/16	L2 1/2x2x3/16	L2x2x3/16	L2x1 1/2x3/16		
Diagonal Grade					A36					
Top Girts					N.A.					L1 1/2x2x3/16
Sec. Horizontals	N.A.	L3 1/2x3 1/2x1/4				N.A.				
Face Width (ft)	20	18	16	14	12	10	8	6		
# Panels @ (ft)			8 @ 10			9 @ 6.66667		4 @ 5		5 @ 4
Weight (K)	31.2	7.3	5.5	4.7	3.3	2.3	1.8	1.3	0.3	0.4



**SYMBOL LIST**

MARK	SIZE	MARK	SIZE
A	P2x.154 (GR)		

**MATERIAL STRENGTH**

GRADE	Fy	Fu	GRADE	Fy	Fu
A53-B-35	35 ksi	63 ksi	A36	36 ksi	58 ksi

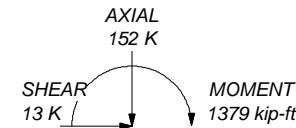
**TOWER DESIGN NOTES**

1. Tower is located in Fairfield County, Connecticut.
2. Tower designed for Exposure B to the TIA-222-H Standard.
3. Tower designed for a 120 mph basic wind in accordance with the TIA-222-H Standard.
4. Tower is also designed for a 50 mph basic wind with 1.50 in ice. Ice is considered to increase in thickness with height.
5. Deflections are based upon a 60 mph wind.
6. Tower Risk Category II.
7. Topographic Category 1 with Crest Height of 0.000 ft
8. Grouted pipe Fc is 7.000 ksi
9. TIA-222-H, Annex S.
10. TOWER RATING: 78.4%

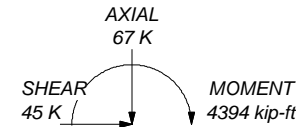
ALL REACTIONS  
ARE FACTORED

MAX. CORNER REACTIONS AT BASE:  
DOWN: 274 K  
SHEAR: 28 K

UPLIFT: -228 K  
SHEAR: 24 K



TORQUE 13 kip-ft  
50 mph WIND - 1.500 in ICE



TORQUE 43 kip-ft  
REACTIONS - 120 mph WIND

**Destek Engineering, LLC**  
1281 Kennestone Circle, Ste 100  
Marietta, GA  
Phone: (770) 693-0835  
FAX:

Job: 806353 - BRG 124 943066	Project: 1702063	
Client: Crown Castle	Drawn by: Ahmet Colakoglu	App'd:
Code: TIA-222-H	Date: 06/04/19	Scale: NTS
Path:		Dwg No. E-1

S:\Projects\2019\02 - Crown Castle\1902117 - 806353 BRG 124 943066 (8) WDW\DWG\12491031\TOWER\806353.dwg

## Tower Input Data

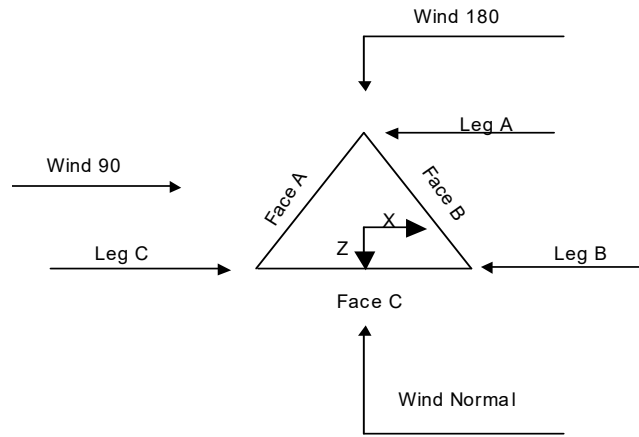
The main tower is a 3x free standing tower with an overall height of 180.000 ft above the ground line.  
 The base of the tower is set at an elevation of 0.000 ft above the ground line.  
 The face width of the tower is 4.000 ft at the top and 20.000 ft at the base.  
 This tower is designed using the TIA-222-H standard.

The following design criteria apply:

- 1) Tower is located in Fairfield County, Connecticut.
- 2) Tower base elevation above sea level: 426.000 ft.
- 3) Basic wind speed of 120 mph.
- 4) Risk Category II.
- 5) Exposure Category B.
- 6) Simplified Topographic Factor Procedure for wind speed-up calculations is used.
- 7) Topographic Category: 1.
- 8) Crest Height: 0.000 ft.
- 9) Nominal ice thickness of 1.500 in.
- 10) Ice thickness is considered to increase with height.
- 11) Ice density of 56.000 pcf.
- 12) A wind speed of 50 mph is used in combination with ice.
- 13) Temperature drop of 50.000 °F.
- 14) Deflections calculated using a wind speed of 60 mph.
- 15) A non-linear (P-delta) analysis was used.
- 16) Grouted pipe  $f'_c$  is 7.000 ksi.
- 17) Pressures are calculated at each section.
- 18) Tower analysis based on target reliabilities in accordance with Annex S.
- 19) Load Modification Factors used:  $K_{es}(F_w) = 0.95$ ,  $K_{es}(t_i) = 0.85$ .
- 20) Stress ratio used in tower member design is 1.05.
- 21) Local bending stresses due to climbing loads, feed line supports, and appurtenance mounts are not considered.

## Options

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



**Triangular Tower**

**Tower Section Geometry**

Tower Section	Tower Elevation	Assembly Database	Description	Section Width	Number of Sections	Section Length
	ft			ft		ft
T1	180.000-168.000			4.000	1	12.000
T2	168.000-160.000			4.000	1	8.000
T3	160.000-140.000			4.000	1	20.000
T4	140.000-120.000			6.000	1	20.000
T5	120.000-100.000			8.000	1	20.000
T6	100.000-80.000			10.000	1	20.000
T7	80.000-60.000			12.000	1	20.000
T8	60.000-40.000			14.000	1	20.000
T9	40.000-20.000			16.000	1	20.000
T10	20.000-0.000			18.000	1	20.000

**Tower Section Geometry (cont'd)**

Tower Section	Tower Elevation	Diagonal Spacing	Bracing Type	Has K Brace End Panels	Has Horizontals	Top Girt Offset	Bottom Girt Offset
	ft	ft				in	in
T1	180.000-168.000	4.000	X Brace	No	No	0.000	0.000
T2	168.000-160.000	4.000	X Brace	No	No	0.000	0.000
T3	160.000-140.000	5.000	X Brace	No	No	0.000	0.000
T4	140.000-120.000	6.667	X Brace	No	No	0.000	0.000

Tower Section	Tower Elevation ft	Diagonal Spacing ft	Bracing Type	Has K Brace End Panels	Has Horizontals	Top Girt Offset in	Bottom Girt Offset in
T5	120.000-100.000	6.667	X Brace	No	No	0.000	0.000
T6	100.000-80.000	6.667	X Brace	No	No	0.000	0.000
T7	80.000-60.000	10.000	X Brace	No	No	0.000	0.000
T8	60.000-40.000	10.000	X Brace	No	No	0.000	0.000
T9	40.000-20.000	10.000	X Brace	No	Yes	0.000	0.000
T10	20.000-0.000	10.000	X Brace	No	No	0.000	0.000

### Tower Section Geometry (cont'd)

Tower Elevation ft	Leg Type	Leg Size	Leg Grade	Diagonal Type	Diagonal Size	Diagonal Grade
T1 180.000-168.000	Pipe	P2x.154	A53-B-35 (35 ksi)	Single Angle	L2x1 1/2x3/16	A36 (36 ksi)
T2 168.000-160.000	Grouted Pipe	P2x.154	A53-B-35 (35 ksi)	Single Angle	L2x1 1/2x3/16	A36 (36 ksi)
T3 160.000-140.000	Grouted Pipe	P3x.216	A53-B-35 (35 ksi)	Single Angle	L2x1 1/2x3/16	A36 (36 ksi)
T4 140.000-120.000	Grouted Pipe	P3.5x.318	A53-B-35 (35 ksi)	Single Angle	L2x2x3/16	A36 (36 ksi)
T5 120.000-100.000	Grouted Pipe	P4x.337	A53-B-35 (35 ksi)	Single Angle	L2 1/2x2x3/16	A36 (36 ksi)
T6 100.000-80.000	Grouted Pipe	P5x.375	A53-B-35 (35 ksi)	Single Angle	L2 1/2x2 1/2x3/16	A36 (36 ksi)
T7 80.000-60.000	Grouted Pipe	P6x.432	A53-B-35 (35 ksi)	Single Angle	L3x3x3/16	A36 (36 ksi)
T8 60.000-40.000	Grouted Pipe	P6x.432	A53-B-35 (35 ksi)	Single Angle	L3 1/2x3x1/4	A36 (36 ksi)
T9 40.000-20.000	Grouted Pipe	P6x.432	A53-B-35 (35 ksi)	Single Angle	L3 1/2x3x1/4	A36 (36 ksi)
T10 20.000-0.000	Grouted Pipe	P8x.5	A53-B-35 (35 ksi)	Single Angle	L3 1/2x3 1/2x1/4	A36 (36 ksi)

### Tower Section Geometry (cont'd)

Tower Elevation ft	Top Girt Type	Top Girt Size	Top Girt Grade	Bottom Girt Type	Bottom Girt Size	Bottom Girt Grade
T1 180.000-168.000	Single Angle	L1 1/2x2x3/16	A36 (36 ksi)	Single Angle		A36 (36 ksi)

### Tower Section Geometry (cont'd)

Tower Elevation ft	Secondary Horizontal Type	Secondary Horizontal Size	Secondary Horizontal Grade	Inner Bracing Type	Inner Bracing Size	Inner Bracing Grade
T9 40.000-20.000	Single Angle	L3 1/2x3 1/2x1/4	A36 (36 ksi)	Single Angle		A36 (36 ksi)

### Tower Section Geometry (cont'd)

Tower Elevation	Gusset Area (per face)	Gusset Thickness	Gusset Grade	Adjust. Factor $A_r$	Adjust. Factor $A_r$	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals	Double Angle Stitch Bolt Spacing Horizontals	Double Angle Stitch Bolt Spacing Redundants
ft	ft <sup>2</sup>	in					in	in	in
T1 180.000-168.000	0.000	0.375	A36 (36 ksi)	1.03	1	1.05	0.000	0.000	36.000
T2 168.000-160.000	0.000	0.375	A36 (36 ksi)	1.03	1	1.05	0.000	0.000	36.000
T3 160.000-140.000	0.000	0.375	A36 (36 ksi)	1.03	1	1.05	0.000	0.000	36.000
T4 140.000-120.000	0.000	0.375	A36 (36 ksi)	1.03	1	1.05	0.000	0.000	36.000
T5 120.000-100.000	0.000	0.375	A36 (36 ksi)	1.03	1	1.05	0.000	0.000	36.000
T6 100.000-80.000	0.000	0.375	A36 (36 ksi)	1.03	1	1.05	0.000	0.000	36.000
T7 80.000-60.000	0.000	0.375	A36 (36 ksi)	1.03	1	1.05	0.000	0.000	36.000
T8 60.000-40.000	0.000	0.375	A36 (36 ksi)	1.03	1	1.05	0.000	0.000	36.000
T9 40.000-20.000	0.000	0.375	A36 (36 ksi)	1.03	1	1.05	0.000	0.000	36.000
T10 20.000-0.000	0.000	0.375	A36 (36 ksi)	1.03	1	1.05	0.000	0.000	36.000

### Tower Section Geometry (cont'd)

Tower Elevation	Calc K Single Angles	Calc K Solid Rounds	Legs	K Factors <sup>1</sup>						
				X Brace Diags	K Brace Diags	Single Diags	Girts	Horiz.	Sec. Horiz.	Inner Brace
				X Y	X Y	X Y	X Y	X Y	X Y	X Y
T1 180.000-168.000	Yes	No	1	1 1	1 1	1 1	1 1	1 1	1 1	1 1
T2 168.000-160.000	Yes	No	1	1 1	1 1	1 1	1 1	1 1	1 1	1 1
T3 160.000-140.000	Yes	No	1	1 1	1 1	1 1	1 1	1 1	1 1	1 1
T4 140.000-120.000	Yes	No	1	1 1	1 1	1 1	1 1	1 1	1 1	1 1
T5 120.000-100.000	Yes	No	1	1 1	1 1	1 1	1 1	1 1	1 1	1 1
T6 100.000-80.000	Yes	No	1	1 1	1 1	1 1	1 1	1 1	1 1	1 1
T7 80.000-60.000	Yes	No	1	1 1	1 1	1 1	1 1	1 1	1 1	1 1
T8 60.000-40.000	Yes	No	1	1 1	1 1	1 1	1 1	1 1	1 1	1 1
T9 40.000-20.000	No	No	1	1 1	1 1	1 1	1 1	1 1	1 0.5	1 1
T10 20.000-0.000	Yes	No	1	1 1	1 1	1 1	1 1	1 1	1 1	1 1

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

### Tower Section Geometry (cont'd)



Tower Elevation ft	Leg		Diagonal		Top Girt		Bottom Girt		Mid Girt		Long Horizontal		Short Horizontal	
	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U
T1 180.000-168.000	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T2 168.000-160.000	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T3 160.000-140.000	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T4 140.000-120.000	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T5 120.000-100.000	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T6 100.000-80.000	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T7 80.000-60.000	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T8 60.000-40.000	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T9 40.000-20.000	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T10 20.000-0.000	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75

### Tower Section Geometry (cont'd)

Tower Elevation ft	Leg Connection Type	Leg		Diagonal		Top Girt		Bottom Girt		Mid Girt		Long Horizontal		Short Horizontal	
		Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.
T1 180.000-168.000	Flange	0.000	0	0.625	1	0.625	1	0.000	0	0.625	0	0.000	0	0.000	0
T2 168.000-160.000	Flange	0.625	4	0.625	1	0.000	0	0.000	0	0.625	0	0.000	0	0.000	0
T3 160.000-140.000	Flange	0.625	4	0.625	1	0.000	0	0.000	0	0.625	0	0.000	0	0.000	0
T4 140.000-120.000	Flange	0.750	4	0.625	1	0.000	0	0.000	0	0.625	0	0.000	0	0.000	0
T5 120.000-100.000	Flange	0.750	4	0.625	1	0.000	0	0.000	0	0.625	0	0.000	0	0.000	0
T6 100.000-80.000	Flange	0.875	4	0.625	1	0.000	0	0.000	0	0.625	0	0.000	0	0.000	0
T7 80.000-60.000	Flange	0.875	4	0.625	1	0.000	0	0.000	0	0.625	0	0.000	0	0.000	0
T8 60.000-40.000	Flange	1.000	4	0.625	1	0.000	0	0.000	0	0.625	0	0.000	0	0.000	0
T9 40.000-20.000	Flange	1.000	4	0.625	1	0.000	0	0.000	0	0.625	0	0.000	0	0.500	1
T10 20.000-0.000	Flange	1.500	6	0.625	1	0.000	0	0.000	0	0.625	0	0.000	0	0.000	0

### Grouted Pipe Properties

Size	F <sub>y</sub> ksi	A <sub>s</sub> in <sup>2</sup>	A <sub>c</sub> in <sup>2</sup>	Wt plf	E <sub>c</sub> ksi	E <sub>m</sub> ksi	F <sub>ym</sub> ksi
P2x.154 (GR)	35.000	1.075	3.356	10.647	4768.962	40914.218	53.581
P3x.216 (GR)	35.000	2.228	7.393	22.984	4768.962	41656.327	54.738
P3.5x.318 (GR)	35.000	3.678	8.888	31.033	4768.962	38218.387	49.377
P4x.337 (GR)	35.000	4.407	11.497	38.949	4768.962	38951.934	50.521

Size	F <sub>y</sub> ksi	A <sub>s</sub> in <sup>2</sup>	A <sub>c</sub> in <sup>2</sup>	Wt plf	E <sub>c</sub> ksi	E <sub>m</sub> ksi	F <sub>ym</sub> ksi
P5x.375 (GR)	35.000	6.112	18.194	58.701	4768.962	40356.758	52.712
P6x.432 (GR)	35.000	8.405	26.067	82.906	4768.962	40832.181	53.453
P8x.5 (GR)	35.000	12.763	45.664	138.561	4768.962	42650.237	56.288

### Feed Line/Linear Appurtenances - Entered As Round Or Flat

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Face Offset in	Lateral Offset (Frac FW)	#	# Per Row	Clear Spacin g in	Width or Diameter in	Perimete r in	Weight klf
*** CR 50 1873PE(1- 5/8) LDF1- 50A(1/4") LDF4- 50A(1/2") Feedline Ladder (Af) ***	C	No	No	Ar (CaAa)	170.000 - 0.000	0.000	-0.35	6	4	1.000	1.980		0.001
LDF1- 50A(1/4") LDF4- 50A(1/2") Feedline Ladder (Af) ***	C	No	No	Ar (CaAa)	170.000 - 0.000	0.000	-0.325	1	1	0.345	0.345		0.000
LDF4- 50A(1/2") Feedline Ladder (Af) ***	C	No	No	Ar (CaAa)	31.000 - 0.000	0.000	-0.32	1	1	0.630	0.630		0.000
Safety Line 3/8 Climbing Ladder ( Flat) ***	C	No	No	Af (CaAa)	170.000 - 0.000	0.000	-0.36	1	1	3.000	3.000		0.008
Safety Line 3/8 Climbing Ladder ( Flat) ***	C	No	No	Ar (CaAa)	180.000 - 0.000	0.000	0	1	1	0.375	0.375		0.000
Climbing Ladder ( Flat) ***	C	No	No	Af (CaAa)	180.000 - 0.000	0.000	0	1	1	3.840	3.840		0.005
*** LDF6-50A(1- 1/4) HCS 6X12 4AWG(1-5/8) Feedline Ladder (Af) Feedline Ladder (Af) ***	B	No	No	Ar (CaAa)	93.000 - 0.000	0.000	0.025	6	6	1.000 1.550	1.550		0.001
HCS 6X12 4AWG(1-5/8) Feedline Ladder (Af) Feedline Ladder (Af) ***	B	No	No	Ar (CaAa)	93.000 - 0.000	0.000	-0.05	4	4	1.000 1.660	1.660		0.002
Feedline Ladder (Af) Feedline Ladder (Af) ***	B	No	No	Af (CaAa)	93.000 - 0.000	0.000	0	1	1	3.000	3.000		0.008
Feedline Ladder (Af) ***	B	No	No	Af (CaAa)	154.000 - 0.000	0.000	0.25	1	1	3.000	3.000		0.008
LDF4- 50A(1/2") LDF5- 50A(7/8) LCF158- 50JA-A0(1 5/8") FB-L98B- 002- 75000(3/8) WR- VG82ST- BRDA(5/8) FB-L98B- 002- 75000(3/8) WR- VG82ST- BRDA(5/8) ***	B	No	No	Ar (CaAa)	104.000 - 0.000	1.000	0.3	1	1	0.630	0.630		0.000
LDF5- 50A(7/8) LCF158- 50JA-A0(1 5/8") FB-L98B- 002- 75000(3/8) WR- VG82ST- BRDA(5/8) ***	B	No	No	Ar (CaAa)	104.000 - 0.000	0.000	0.3	1	1	1.030	1.030		0.000
LCF158- 50JA-A0(1 5/8") FB-L98B- 002- 75000(3/8) WR- VG82ST- BRDA(5/8) ***	B	No	No	Ar (CaAa)	154.000 - 0.000	0.000	0.25	12	6	1.000	1.980		0.000
FB-L98B- 002- 75000(3/8) WR- VG82ST- BRDA(5/8) ***	B	No	No	Ar (CaAa)	154.000 - 0.000	0.000	0.25	1	1	0.394	0.394		0.000
WR- VG82ST- BRDA(5/8) ***	B	No	No	Ar (CaAa)	154.000 - 0.000	0.000	0.25	2	2	0.645	0.645		0.000
FB-L98B- 002- 75000(3/8) WR- VG82ST- BRDA(5/8) ***	B	No	No	Ar (CaAa)	154.000 - 0.000	0.000	0.35	1	1	0.394	0.394		0.000
WR- VG82ST- BRDA(5/8) ***	B	No	No	Ar (CaAa)	154.000 - 0.000	0.000	0.35	2	2	0.645	0.645		0.000
HB114-1- 0813U4- M5J( 1 1/4") FSJ4- 50B(1/2) FSJ4- 50B(1/2) FSJ4- 50B(1/2) ***	A	No	No	Ar (CaAa)	143.000 - 0.000	0.000	0.09	1	1	1.540	1.540		0.001
FSJ4- 50B(1/2) FSJ4- 50B(1/2) FSJ4- 50B(1/2) ***	A	No	No	Ar (CaAa)	42.000 - 0.000	0.000	0.12	4	2	0.530	0.530		0.000
FSJ4- 50B(1/2) FSJ4- 50B(1/2) ***	A	No	No	Ar (CaAa)	62.000 - 42.000	0.000	0.12	3	3	0.530	0.530		0.000
FSJ4- 50B(1/2) ***	A	No	No	Ar (CaAa)	124.000 - 62.000	0.000	0.12	2	2	0.530	0.530		0.000

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Face Offset in	Lateral Offset (Frac FW)	#	# Per Row	Clear Spacing in	Width or Diameter in	Perimeter in	Weight klf
561(1-5/8")	A	No	No	Ar (CaAa)	164.000 - 0.000	0.000	0.075	14	8	1.625	1.625		0.001
Feedline Ladder (Af)	A	No	No	Af (CaAa)	164.000 - 0.000	0.000	0.05	1	1	3.000	3.000		0.008
LDF5-50A(7/8) ***	A	No	No	Ar (CaAa)	178.000 - 8.000	4.000	0	2	2	1.030	1.030		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	CAAA	Weight
							ft <sup>2</sup> /ft	klf
***								

**Feed Line/Linear Appurtenances Section Areas**

Tower Section	Tower Elevation ft	Face	A <sub>R</sub> ft <sup>2</sup>	A <sub>F</sub> ft <sup>2</sup>	CAAA In Face ft <sup>2</sup>	CAAA Out Face ft <sup>2</sup>	Weight K
T1	180.000-168.000	A	0.000	0.000	2.060	0.000	0.007
		B	0.000	0.000	0.000	0.000	0.000
		C	0.000	0.000	11.575	0.000	0.087
T2	168.000-160.000	A	0.000	0.000	12.748	0.000	0.114
		B	0.000	0.000	0.000	0.000	0.000
		C	0.000	0.000	19.200	0.000	0.148
T3	160.000-140.000	A	0.000	0.000	60.082	0.000	0.563
		B	0.000	0.000	44.978	0.000	0.150
		C	0.000	0.000	48.000	0.000	0.369
T4	140.000-120.000	A	0.000	0.000	63.124	0.000	0.584
		B	0.000	0.000	64.255	0.000	0.214
		C	0.000	0.000	48.000	0.000	0.369
T5	120.000-100.000	A	0.000	0.000	64.820	0.000	0.589
		B	0.000	0.000	64.919	0.000	0.216
		C	0.000	0.000	48.000	0.000	0.369
T6	100.000-80.000	A	0.000	0.000	64.820	0.000	0.589
		B	0.000	0.000	94.797	0.000	0.505
		C	0.000	0.000	48.000	0.000	0.369
T7	80.000-60.000	A	0.000	0.000	64.926	0.000	0.589
		B	0.000	0.000	109.455	0.000	0.656
		C	0.000	0.000	48.000	0.000	0.369
T8	60.000-40.000	A	0.000	0.000	65.986	0.000	0.592
		B	0.000	0.000	109.455	0.000	0.656
		C	0.000	0.000	48.000	0.000	0.369
T9	40.000-20.000	A	0.000	0.000	66.940	0.000	0.594
		B	0.000	0.000	109.455	0.000	0.656
		C	0.000	0.000	48.693	0.000	0.371
T10	20.000-0.000	A	0.000	0.000	65.292	0.000	0.589
		B	0.000	0.000	109.455	0.000	0.656
		C	0.000	0.000	49.260	0.000	0.372

**Feed Line/Linear Appurtenances Section Areas - With Ice**

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A <sub>R</sub> ft <sup>2</sup>	A <sub>F</sub> ft <sup>2</sup>	C <sub>A</sub> A <sub>A</sub> In Face ft <sup>2</sup>	C <sub>A</sub> A <sub>A</sub> Out Face ft <sup>2</sup>	Weight K
T1	180.000-168.000	A	1.506	0.000	0.000	9.148	0.000	0.082
		B		0.000	0.000	0.000	0.000	0.000
		C		0.000	0.000	21.643	0.000	0.357
T2	168.000-160.000	A	1.497	0.000	0.000	24.730	0.000	0.464
		B		0.000	0.000	0.000	0.000	0.000
		C		0.000	0.000	35.301	0.000	0.593
T3	160.000-140.000	A	1.483	0.000	0.000	106.538	0.000	2.165
		B		0.000	0.000	79.274	0.000	1.169
		C		0.000	0.000	87.950	0.000	1.472
T4	140.000-120.000	A	1.462	0.000	0.000	116.597	0.000	2.279
		B		0.000	0.000	112.564	0.000	1.650
		C		0.000	0.000	87.469	0.000	1.454
T5	120.000-100.000	A	1.438	0.000	0.000	127.286	0.000	2.337
		B		0.000	0.000	114.742	0.000	1.661
		C		0.000	0.000	86.916	0.000	1.433
T6	100.000-80.000	A	1.410	0.000	0.000	126.483	0.000	2.308
		B		0.000	0.000	185.836	0.000	2.685
		C		0.000	0.000	86.264	0.000	1.410
T7	80.000-60.000	A	1.375	0.000	0.000	125.720	0.000	2.276
		B		0.000	0.000	216.362	0.000	3.118
		C		0.000	0.000	85.466	0.000	1.381
T8	60.000-40.000	A	1.329	0.000	0.000	126.379	0.000	2.256
		B		0.000	0.000	213.775	0.000	3.036
		C		0.000	0.000	84.429	0.000	1.344
T9	40.000-20.000	A	1.263	0.000	0.000	124.103	0.000	2.199
		B		0.000	0.000	210.014	0.000	2.919
		C		0.000	0.000	86.391	0.000	1.325
T10	20.000-0.000	A	1.132	0.000	0.000	114.126	0.000	2.023
		B		0.000	0.000	202.559	0.000	2.694
		C		0.000	0.000	85.710	0.000	1.241

### Feed Line Center of Pressure

Section	Elevation ft	CP <sub>x</sub> in	CP <sub>z</sub> in	CP <sub>x</sub> Ice in	CP <sub>z</sub> Ice in
T1	180.000-168.000	0.478	2.537	0.044	2.328
T2	168.000-160.000	2.328	1.381	2.152	2.271
T3	160.000-140.000	4.264	-0.200	5.359	1.344
T4	140.000-120.000	6.620	-0.115	8.024	1.581
T5	120.000-100.000	7.545	-0.212	9.279	1.427
T6	100.000-80.000	11.747	-2.838	14.179	-1.386
T7	80.000-60.000	14.689	-4.502	17.426	-3.148
T8	60.000-40.000	15.546	-4.967	18.968	-3.645
T9	40.000-20.000	14.964	-4.906	19.175	-3.393
T10	20.000-0.000	18.419	-5.514	22.684	-3.556

### Shielding Factor Ka

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K <sub>a</sub> No Ice	K <sub>a</sub> Ice
T1	2	CR 50 1873PE(1-5/8)	168.00 - 170.00	0.6000	0.5158
T1	3	LDF1-50A(1/4")	168.00 - 170.00	0.6000	0.5158
T1	5	Feedline Ladder (Af)	168.00 - 170.00	0.6000	0.5158

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K <sub>a</sub> No Ice	K <sub>a</sub> Ice
T1	8	Safety Line 3/8	168.00 - 180.00	0.6000	0.5158
T1	9	Climbing Ladder ( Flat)	168.00 - 180.00	0.6000	0.5158
T1	45	LDF5-50A(7/8)	168.00 - 178.00	0.6000	0.5158
T2	2	CR 50 1873PE(1-5/8)	160.00 - 168.00	0.6000	0.5442
T2	3	LDF1-50A(1/4")	160.00 - 168.00	0.6000	0.5442
T2	5	Feedline Ladder (Af)	160.00 - 168.00	0.6000	0.5442
T2	8	Safety Line 3/8	160.00 - 168.00	0.6000	0.5442
T2	9	Climbing Ladder ( Flat)	160.00 - 168.00	0.6000	0.5442
T2	36	561(1-5/8")	160.00 - 164.00	0.6000	0.5442
T2	38	Feedline Ladder (Af)	160.00 - 164.00	0.6000	0.5442
T2	45	LDF5-50A(7/8)	160.00 - 168.00	0.6000	0.5442
T3	2	CR 50 1873PE(1-5/8)	140.00 - 160.00	0.6000	0.6000
T3	3	LDF1-50A(1/4")	140.00 - 160.00	0.6000	0.6000
T3	5	Feedline Ladder (Af)	140.00 - 160.00	0.6000	0.6000
T3	8	Safety Line 3/8	140.00 - 160.00	0.6000	0.6000
T3	9	Climbing Ladder ( Flat)	140.00 - 160.00	0.6000	0.6000
T3	18	Feedline Ladder (Af)	140.00 - 154.00	0.6000	0.6000
T3	24	LCF158-50JA-A0(1 5/8")	140.00 - 154.00	0.6000	0.6000
T3	25	FB-L98B-002-75000(3/8)	140.00 - 154.00	0.6000	0.6000
T3	26	WR-VG82ST-BRDA(5/8)	140.00 - 154.00	0.6000	0.6000
T3	27	FB-L98B-002-75000(3/8)	140.00 - 154.00	0.6000	0.6000
T3	28	WR-VG82ST-BRDA(5/8)	140.00 - 154.00	0.6000	0.6000
T3	31	HB114-1-0813U4-M5J( 1 1/4")	140.00 - 143.00	0.6000	0.6000
T3	36	561(1-5/8")	140.00 - 160.00	0.6000	0.6000
T3	38	Feedline Ladder (Af)	140.00 - 160.00	0.6000	0.6000
T3	45	LDF5-50A(7/8)	140.00 - 160.00	0.6000	0.6000
T4	2	CR 50 1873PE(1-5/8)	120.00 - 140.00	0.6000	0.6000
T4	3	LDF1-50A(1/4")	120.00 - 140.00	0.6000	0.6000
T4	5	Feedline Ladder (Af)	120.00 - 140.00	0.6000	0.6000
T4	8	Safety Line 3/8	120.00 - 140.00	0.6000	0.6000
T4	9	Climbing Ladder ( Flat)	120.00 - 140.00	0.6000	0.6000
T4	18	Feedline Ladder (Af)	120.00 - 140.00	0.6000	0.6000
T4	24	LCF158-50JA-A0(1 5/8")	120.00 - 140.00	0.6000	0.6000
T4	25	FB-L98B-002-75000(3/8)	120.00 - 140.00	0.6000	0.6000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K <sub>a</sub> No Ice	K <sub>a</sub> Ice
T4	26	WR-VG82ST-BRDA(5/8)	120.00 - 140.00	0.6000	0.6000
T4	27	FB-L98B-002-75000(3/8)	120.00 - 140.00	0.6000	0.6000
T4	28	WR-VG82ST-BRDA(5/8)	120.00 - 140.00	0.6000	0.6000
T4	31	HB114-1-0813U4-M5J( 1 1/4")	120.00 - 140.00	0.6000	0.6000
T4	34	FSJ4-50B(1/2)	120.00 - 124.00	0.6000	0.6000
T4	36	561(1-5/8")	120.00 - 140.00	0.6000	0.6000
T4	38	Feedline Ladder (Af)	120.00 - 140.00	0.6000	0.6000
T4	45	LDF5-50A(7/8)	120.00 - 140.00	0.6000	0.6000
T5	2	CR 50 1873PE(1-5/8)	100.00 - 120.00	0.6000	0.6000
T5	3	LDF1-50A(1/4")	100.00 - 120.00	0.6000	0.6000
T5	5	Feedline Ladder (Af)	100.00 - 120.00	0.6000	0.6000
T5	8	Safety Line 3/8	100.00 - 120.00	0.6000	0.6000
T5	9	Climbing Ladder ( Flat)	100.00 - 120.00	0.6000	0.6000
T5	18	Feedline Ladder (Af)	100.00 - 120.00	0.6000	0.6000
T5	22	LDF4-50A(1/2")	100.00 - 104.00	0.6000	0.6000
T5	23	LDF5-50A(7/8)	100.00 - 104.00	0.6000	0.6000
T5	24	LCF158-50JA-A0(1 5/8")	100.00 - 120.00	0.6000	0.6000
T5	25	FB-L98B-002-75000(3/8)	100.00 - 120.00	0.6000	0.6000
T5	26	WR-VG82ST-BRDA(5/8)	100.00 - 120.00	0.6000	0.6000
T5	27	FB-L98B-002-75000(3/8)	100.00 - 120.00	0.6000	0.6000
T5	28	WR-VG82ST-BRDA(5/8)	100.00 - 120.00	0.6000	0.6000
T5	31	HB114-1-0813U4-M5J( 1 1/4")	100.00 - 120.00	0.6000	0.6000
T5	34	FSJ4-50B(1/2)	100.00 - 120.00	0.6000	0.6000
T5	36	561(1-5/8")	100.00 - 120.00	0.6000	0.6000
T5	38	Feedline Ladder (Af)	100.00 - 120.00	0.6000	0.6000
T5	45	LDF5-50A(7/8)	100.00 - 120.00	0.6000	0.6000
T6	2	CR 50 1873PE(1-5/8)	80.00 - 100.00	0.6000	0.6000
T6	3	LDF1-50A(1/4")	80.00 - 100.00	0.6000	0.6000
T6	5	Feedline Ladder (Af)	80.00 - 100.00	0.6000	0.6000
T6	8	Safety Line 3/8	80.00 - 100.00	0.6000	0.6000
T6	9	Climbing Ladder ( Flat)	80.00 - 100.00	0.6000	0.6000
T6	15	LDF6-50A(1-1/4)	80.00 - 93.00	1.0000	1.0000
T6	16	HCS 6X12 4AWG(1-5/8)	80.00 - 93.00	1.0000	1.0000
T6	17	Feedline Ladder (Af)	80.00 - 93.00	0.6000	0.6000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K <sub>a</sub> No Ice	K <sub>a</sub> Ice
T6	18	Feedline Ladder (Af)	80.00 - 100.00	0.6000	0.6000
T6	22	LDF4-50A(1/2")	80.00 - 100.00	0.6000	0.6000
T6	23	LDF5-50A(7/8)	80.00 - 100.00	0.6000	0.6000
T6	24	LCF158-50JA-A0(1 5/8")	80.00 - 100.00	0.6000	0.6000
T6	25	FB-L98B-002-75000(3/8)	80.00 - 100.00	0.6000	0.6000
T6	26	WR-VG82ST-BRDA(5/8)	80.00 - 100.00	0.6000	0.6000
T6	27	FB-L98B-002-75000(3/8)	80.00 - 100.00	0.6000	0.6000
T6	28	WR-VG82ST-BRDA(5/8)	80.00 - 100.00	0.6000	0.6000
T6	31	HB114-1-0813U4-M5J( 1 1/4")	80.00 - 100.00	0.6000	0.6000
T6	34	FSJ4-50B(1/2)	80.00 - 100.00	0.6000	0.6000
T6	36	561(1-5/8")	80.00 - 100.00	0.6000	0.6000
T6	38	Feedline Ladder (Af)	80.00 - 100.00	0.6000	0.6000
T6	45	LDF5-50A(7/8)	80.00 - 100.00	0.6000	0.6000
T7	2	CR 50 1873PE(1-5/8)	60.00 - 80.00	0.6000	0.6000
T7	3	LDF1-50A(1/4")	60.00 - 80.00	0.6000	0.6000
T7	5	Feedline Ladder (Af)	60.00 - 80.00	0.6000	0.6000
T7	8	Safety Line 3/8	60.00 - 80.00	0.6000	0.6000
T7	9	Climbing Ladder ( Flat)	60.00 - 80.00	0.6000	0.6000
T7	15	LDF6-50A(1-1/4)	60.00 - 80.00	1.0000	1.0000
T7	16	HCS 6X12 4AWG(1-5/8)	60.00 - 80.00	1.0000	1.0000
T7	17	Feedline Ladder (Af)	60.00 - 80.00	0.6000	0.6000
T7	18	Feedline Ladder (Af)	60.00 - 80.00	0.6000	0.6000
T7	22	LDF4-50A(1/2")	60.00 - 80.00	0.6000	0.6000
T7	23	LDF5-50A(7/8)	60.00 - 80.00	0.6000	0.6000
T7	24	LCF158-50JA-A0(1 5/8")	60.00 - 80.00	0.6000	0.6000
T7	25	FB-L98B-002-75000(3/8)	60.00 - 80.00	0.6000	0.6000
T7	26	WR-VG82ST-BRDA(5/8)	60.00 - 80.00	0.6000	0.6000
T7	27	FB-L98B-002-75000(3/8)	60.00 - 80.00	0.6000	0.6000
T7	28	WR-VG82ST-BRDA(5/8)	60.00 - 80.00	0.6000	0.6000
T7	31	HB114-1-0813U4-M5J( 1 1/4")	60.00 - 80.00	0.6000	0.6000
T7	33	FSJ4-50B(1/2)	60.00 - 62.00	0.6000	0.6000
T7	34	FSJ4-50B(1/2)	62.00 - 80.00	0.6000	0.6000
T7	36	561(1-5/8")	60.00 - 80.00	0.6000	0.6000
T7	38	Feedline Ladder (Af)	60.00 - 80.00	0.6000	0.6000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K <sub>a</sub> No Ice	K <sub>a</sub> Ice
T7	45	LDF5-50A(7/8)	60.00 - 80.00	0.6000	0.6000
T8	2	CR 50 1873PE(1-5/8)	40.00 - 60.00	0.6000	0.6000
T8	3	LDF1-50A(1/4")	40.00 - 60.00	0.6000	0.6000
T8	5	Feedline Ladder (Af)	40.00 - 60.00	0.6000	0.6000
T8	8	Safety Line 3/8	40.00 - 60.00	0.6000	0.6000
T8	9	Climbing Ladder ( Flat)	40.00 - 60.00	0.6000	0.6000
T8	15	LDF6-50A(1-1/4)	40.00 - 60.00	1.0000	1.0000
T8	16	HCS 6X12 4AWG(1-5/8)	40.00 - 60.00	1.0000	1.0000
T8	17	Feedline Ladder (Af)	40.00 - 60.00	0.6000	0.6000
T8	18	Feedline Ladder (Af)	40.00 - 60.00	0.6000	0.6000
T8	22	LDF4-50A(1/2")	40.00 - 60.00	0.6000	0.6000
T8	23	LDF5-50A(7/8)	40.00 - 60.00	0.6000	0.6000
T8	24	LCF158-50JA-A0(1 5/8")	40.00 - 60.00	0.6000	0.6000
T8	25	FB-L98B-002-75000(3/8)	40.00 - 60.00	0.6000	0.6000
T8	26	WR-VG82ST-BRDA(5/8)	40.00 - 60.00	0.6000	0.6000
T8	27	FB-L98B-002-75000(3/8)	40.00 - 60.00	0.6000	0.6000
T8	28	WR-VG82ST-BRDA(5/8)	40.00 - 60.00	0.6000	0.6000
T8	31	HB114-1-0813U4-M5J( 1 1/4")	40.00 - 60.00	0.6000	0.6000
T8	32	FSJ4-50B(1/2)	40.00 - 42.00	0.6000	0.6000
T8	33	FSJ4-50B(1/2)	42.00 - 60.00	0.6000	0.6000
T8	36	561(1-5/8")	40.00 - 60.00	0.6000	0.6000
T8	38	Feedline Ladder (Af)	40.00 - 60.00	0.6000	0.6000
T8	45	LDF5-50A(7/8)	40.00 - 60.00	0.6000	0.6000
T9	2	CR 50 1873PE(1-5/8)	20.00 - 40.00	0.6000	0.6000
T9	3	LDF1-50A(1/4")	20.00 - 40.00	0.6000	0.6000
T9	4	LDF4-50A(1/2")	20.00 - 31.00	0.6000	0.6000
T9	5	Feedline Ladder (Af)	20.00 - 40.00	0.6000	0.6000
T9	8	Safety Line 3/8	20.00 - 40.00	0.6000	0.6000
T9	9	Climbing Ladder ( Flat)	20.00 - 40.00	0.6000	0.6000
T9	15	LDF6-50A(1-1/4)	20.00 - 40.00	1.0000	1.0000
T9	16	HCS 6X12 4AWG(1-5/8)	20.00 - 40.00	1.0000	1.0000
T9	17	Feedline Ladder (Af)	20.00 - 40.00	0.6000	0.6000
T9	18	Feedline Ladder (Af)	20.00 - 40.00	0.6000	0.6000
T9	22	LDF4-50A(1/2")	20.00 - 40.00	0.6000	0.6000



Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K <sub>a</sub> No Ice	K <sub>a</sub> Ice
T9	23	LDF5-50A(7/8)	20.00 - 40.00	0.6000	0.6000
T9	24	LCF158-50JA-A0(1 5/8")	20.00 - 40.00	0.6000	0.6000
T9	25	FB-L98B-002-75000(3/8)	20.00 - 40.00	0.6000	0.6000
T9	26	WR-VG82ST-BRDA(5/8)	20.00 - 40.00	0.6000	0.6000
T9	27	FB-L98B-002-75000(3/8)	20.00 - 40.00	0.6000	0.6000
T9	28	WR-VG82ST-BRDA(5/8)	20.00 - 40.00	0.6000	0.6000
T9	31	HB114-1-0813U4-M5J( 1 1/4")	20.00 - 40.00	0.6000	0.6000
T9	32	FSJ4-50B(1/2)	20.00 - 40.00	0.6000	0.6000
T9	36	561(1-5/8")	20.00 - 40.00	0.6000	0.6000
T9	38	Feedline Ladder (Af)	20.00 - 40.00	0.6000	0.6000
T9	45	LDF5-50A(7/8)	20.00 - 40.00	0.6000	0.6000
T10	2	CR 50 1873PE(1-5/8)	0.00 - 20.00	0.6000	0.6000
T10	3	LDF1-50A(1/4")	0.00 - 20.00	0.6000	0.6000
T10	4	LDF4-50A(1/2")	0.00 - 20.00	0.6000	0.6000
T10	5	Feedline Ladder (Af)	0.00 - 20.00	0.6000	0.6000
T10	8	Safety Line 3/8	0.00 - 20.00	0.6000	0.6000
T10	9	Climbing Ladder ( Flat)	0.00 - 20.00	0.6000	0.6000
T10	15	LDF6-50A(1-1/4)	0.00 - 20.00	1.0000	1.0000
T10	16	HCS 6X12 4AWG(1-5/8)	0.00 - 20.00	1.0000	1.0000
T10	17	Feedline Ladder (Af)	0.00 - 20.00	0.6000	0.6000
T10	18	Feedline Ladder (Af)	0.00 - 20.00	0.6000	0.6000
T10	22	LDF4-50A(1/2")	0.00 - 20.00	0.6000	0.6000
T10	23	LDF5-50A(7/8)	0.00 - 20.00	0.6000	0.6000
T10	24	LCF158-50JA-A0(1 5/8")	0.00 - 20.00	0.6000	0.6000
T10	25	FB-L98B-002-75000(3/8)	0.00 - 20.00	0.6000	0.6000
T10	26	WR-VG82ST-BRDA(5/8)	0.00 - 20.00	0.6000	0.6000
T10	27	FB-L98B-002-75000(3/8)	0.00 - 20.00	0.6000	0.6000
T10	28	WR-VG82ST-BRDA(5/8)	0.00 - 20.00	0.6000	0.6000
T10	31	HB114-1-0813U4-M5J( 1 1/4")	0.00 - 20.00	0.6000	0.6000
T10	32	FSJ4-50B(1/2)	0.00 - 20.00	0.6000	0.6000
T10	36	561(1-5/8")	0.00 - 20.00	0.6000	0.6000
T10	38	Feedline Ladder (Af)	0.00 - 20.00	0.6000	0.6000
T10	45	LDF5-50A(7/8)	8.00 - 20.00	0.6000	0.6000

### Discrete Tower Loads

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustmen t °	Placement ft	C <sub>AA</sub> Front ft <sup>2</sup>	C <sub>AA</sub> Side ft <sup>2</sup>	Weight K	
***									
PD10017	A	From Leg	0.500 0.000 6.000	0.000	178.000	No Ice 1/2" Ice 1" Ice 2" Ice	4.114 5.641 7.185 10.323	4.114 5.641 7.185 10.323	0.025 0.055 0.095 0.203
***170' Metro PCS***									
800 10504 w/ Mount Pipe	A	From Leg	2.000	0.000	170.000	No Ice	3.589	3.178	0.038

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment t °	Placement ft	C <sub>AA</sub> Front ft <sup>2</sup>	C <sub>AA</sub> Side ft <sup>2</sup>	Weight K	
			0.000			1/2"	4.007	3.905	0.070
			1.000			Ice	4.422	4.581	0.109
						1" Ice	5.258	5.982	0.207
						2" Ice			
800 10504 w/ Mount Pipe	B	From Leg	2.000	0.000	170.000	No Ice	3.589	3.178	0.038
			0.000			1/2"	4.007	3.905	0.070
			1.000			Ice	4.422	4.581	0.109
						1" Ice	5.258	5.982	0.207
						2" Ice			
800 10504 w/ Mount Pipe	C	From Leg	2.000	0.000	170.000	No Ice	3.589	3.178	0.038
			0.000			1/2"	4.007	3.905	0.070
			1.000			Ice	4.422	4.581	0.109
						1" Ice	5.258	5.982	0.207
						2" Ice			
860 10025	A	From Leg	2.000	0.000	170.000	No Ice	0.137	0.116	0.001
			0.000			1/2"	0.190	0.167	0.003
			1.000			Ice	0.252	0.225	0.005
						1" Ice	0.400	0.368	0.013
						2" Ice			
860 10025	B	From Leg	2.000	0.000	170.000	No Ice	0.137	0.116	0.001
			0.000			1/2"	0.190	0.167	0.003
			1.000			Ice	0.252	0.225	0.005
						1" Ice	0.400	0.368	0.013
						2" Ice			
860 10025	C	From Leg	2.000	0.000	170.000	No Ice	0.137	0.116	0.001
			0.000			1/2"	0.190	0.167	0.003
			1.000			Ice	0.252	0.225	0.005
						1" Ice	0.400	0.368	0.013
						2" Ice			
6' x 2" Mount Pipe	A	From Leg	2.000	0.000	170.000	No Ice	1.425	1.425	0.022
			0.000			1/2"	1.925	1.925	0.033
			0.000			Ice	2.294	2.294	0.048
						1" Ice	3.060	3.060	0.090
						2" Ice			
6' x 2" Mount Pipe	B	From Leg	2.000	0.000	170.000	No Ice	1.425	1.425	0.022
			0.000			1/2"	1.925	1.925	0.033
			0.000			Ice	2.294	2.294	0.048
						1" Ice	3.060	3.060	0.090
						2" Ice			
6' x 2" Mount Pipe	C	From Leg	2.000	0.000	170.000	No Ice	1.425	1.425	0.022
			0.000			1/2"	1.925	1.925	0.033
			0.000			Ice	2.294	2.294	0.048
						1" Ice	3.060	3.060	0.090
						2" Ice			
Side Arm Mount [SO 103-3]	C	None		0.000	170.000	No Ice	9.500	9.500	0.224
						1/2"	11.800	11.800	0.317
						Ice	14.100	14.100	0.410
						1" Ice	18.700	18.700	0.596
						2" Ice			
***163' Verizon***									
(2) APL868013-42T0 w/ Mount Pipe	A	From Leg	4.000	0.000	164.000	No Ice	3.104	4.802	0.025
			0.000			1/2"	3.476	5.416	0.063
			2.000			Ice	3.848	6.040	0.108
						1" Ice	4.604	7.337	0.216
						2" Ice			
(2) APL868013-42T0 w/ Mount Pipe	B	From Leg	4.000	0.000	164.000	No Ice	3.104	4.802	0.025
			0.000			1/2"	3.476	5.416	0.063
			2.000			Ice	3.848	6.040	0.108
						1" Ice	4.604	7.337	0.216
						2" Ice			
(2) APL868013-42T0 w/ Mount Pipe	C	From Leg	4.000	0.000	164.000	No Ice	3.104	4.802	0.025
			0.000			1/2"	3.476	5.416	0.063
			2.000			Ice	3.848	6.040	0.108
						1" Ice	4.604	7.337	0.216
						2" Ice			

Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement	C <sub>AA</sub>		Weight	
			Horz	Lateral			Front	Side		
			ft	ft	°	ft	ft <sup>2</sup>	ft <sup>2</sup>	K	
(3) FD9R6004/2C-3L	A	From Leg	4.000	0.000	0.000	164.000	No Ice	0.314	0.076	0.003
			0.000				1/2"	0.386	0.119	0.005
			2.000				Ice	0.466	0.169	0.009
							1" Ice	0.647	0.294	0.020
							2" Ice			
(2) FD9R6004/2C-3L	B	From Leg	4.000	0.000	0.000	164.000	No Ice	0.314	0.076	0.003
			0.000				1/2"	0.386	0.119	0.005
			2.000				Ice	0.466	0.169	0.009
							1" Ice	0.647	0.294	0.020
							2" Ice			
FD9R6004/2C-3L	C	From Leg	4.000	0.000	0.000	164.000	No Ice	0.314	0.076	0.003
			0.000				1/2"	0.386	0.119	0.005
			2.000				Ice	0.466	0.169	0.009
							1" Ice	0.647	0.294	0.020
							2" Ice			
(2) JAHH-65B-R3B w/ Mount Pipe	A	From Leg	4.000	0.000	0.000	164.000	No Ice	9.351	7.646	0.086
			0.000				1/2"	9.921	8.833	0.163
			2.000				Ice	10.455	9.734	0.247
							1" Ice	11.547	11.562	0.445
							2" Ice			
(2) JAHH-65B-R3B w/ Mount Pipe	B	From Leg	4.000	0.000	0.000	164.000	No Ice	9.351	7.646	0.086
			0.000				1/2"	9.921	8.833	0.163
			2.000				Ice	10.455	9.734	0.247
							1" Ice	11.547	11.562	0.445
							2" Ice			
(2) JAHH-65B-R3B w/ Mount Pipe	C	From Leg	4.000	0.000	0.000	164.000	No Ice	9.351	7.646	0.086
			0.000				1/2"	9.921	8.833	0.163
			2.000				Ice	10.455	9.734	0.247
							1" Ice	11.547	11.562	0.445
							2" Ice			
(3) B13 RRH 4X30	B	From Leg	4.000	0.000	0.000	164.000	No Ice	2.055	1.320	0.056
			0.000				1/2"	2.241	1.475	0.073
			2.000				Ice	2.433	1.638	0.093
							1" Ice	2.841	1.997	0.142
							2" Ice			
(3) B5 4T4R RRH4X40 AIRSCALE	A	From Leg	4.000	0.000	0.000	164.000	No Ice	1.322	0.748	0.049
			0.000				1/2"	1.465	0.862	0.060
			2.000				Ice	1.616	0.983	0.074
							1" Ice	1.941	1.249	0.110
							2" Ice			
(2) RFV01U-D2A	A	From Leg	4.000	0.000	0.000	164.000	No Ice	1.875	1.013	0.070
			0.000				1/2"	2.045	1.145	0.087
			2.000				Ice	2.223	1.284	0.106
							1" Ice	2.601	1.585	0.153
							2" Ice			
RFV01U-D2A	B	From Leg	4.000	0.000	0.000	164.000	No Ice	1.875	1.013	0.070
			0.000				1/2"	2.045	1.145	0.087
			2.000				Ice	2.223	1.284	0.106
							1" Ice	2.601	1.585	0.153
							2" Ice			
DB-T1-6Z-8AB-0Z	B	From Leg	4.000	0.000	0.000	164.000	No Ice	4.800	2.000	0.044
			0.000				1/2"	5.070	2.193	0.080
			2.000				Ice	5.348	2.393	0.120
							1" Ice	5.926	2.815	0.213
							2" Ice			
DB-T1-6Z-8AB-0Z	C	From Leg	4.000	0.000	0.000	164.000	No Ice	4.800	2.000	0.044
			0.000				1/2"	5.070	2.193	0.080
			2.000				Ice	5.348	2.393	0.120
							1" Ice	5.926	2.815	0.213
							2" Ice			
12'-P2x0.154H	A	From Leg	4.000	0.000	0.000	164.000	No Ice	2.850	0.015	0.044
			0.000				1/2"	4.078	0.021	0.065
			0.000				Ice	5.323	0.028	0.094
							1" Ice	7.603	0.040	0.176
							2" Ice			

Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement	C <sub>AA</sub> <sub>Front</sub>	C <sub>AA</sub> <sub>Side</sub>	Weight	
			Horz	Lateral						ft
							ft <sup>2</sup>	ft <sup>2</sup>	K	
12'-P2x0.154H	B	From Leg	4.000	0.000	0.000	164.000	No Ice	2.850	0.015	0.044
							1/2"	4.078	0.021	0.065
							Ice	5.323	0.028	0.094
							1" Ice	7.603	0.040	0.176
12'-P2x0.154H	C	From Leg	4.000	0.000	0.000	164.000	No Ice	2.850	0.015	0.044
							1/2"	4.078	0.021	0.065
							Ice	5.323	0.028	0.094
							1" Ice	7.603	0.040	0.176
Sector Mount [SM 702-3]	C	None			0.000	164.000	No Ice	46.031	46.031	1.909
							1/2"	66.708	66.708	2.895
							Ice	87.385	87.385	3.881
							1" Ice	128.739	128.739	5.853
***154' AT&T***										
7770.00 w/ Mount Pipe	A	From Leg	4.000	0.000	0.000	154.000	No Ice	5.746	4.254	0.055
							1/2"	6.179	5.014	0.103
							Ice	6.607	5.711	0.157
							1" Ice	7.488	7.155	0.287
7770.00 w/ Mount Pipe	B	From Leg	4.000	0.000	0.000	154.000	No Ice	5.746	4.254	0.055
							1/2"	6.179	5.014	0.103
							Ice	6.607	5.711	0.157
							1" Ice	7.488	7.155	0.287
7770.00 w/ Mount Pipe	C	From Leg	4.000	0.000	0.000	154.000	No Ice	5.746	4.254	0.055
							1/2"	6.179	5.014	0.103
							Ice	6.607	5.711	0.157
							1" Ice	7.488	7.155	0.287
P65-15-XLH-RR w/ Mount Pipe	A	From Leg	4.000	0.000	0.000	154.000	No Ice	5.668	4.328	0.059
							1/2"	6.077	5.007	0.107
							Ice	6.488	5.668	0.162
							1" Ice	7.337	7.010	0.292
P65-15-XLH-RR w/ Mount Pipe	B	From Leg	4.000	0.000	0.000	154.000	No Ice	5.668	4.328	0.059
							1/2"	6.077	5.007	0.107
							Ice	6.488	5.668	0.162
							1" Ice	7.337	7.010	0.292
P65-15-XLH-RR w/ Mount Pipe	C	From Leg	4.000	0.000	0.000	154.000	No Ice	5.668	4.328	0.059
							1/2"	6.077	5.007	0.107
							Ice	6.488	5.668	0.162
							1" Ice	7.337	7.010	0.292
(2) LGP21401	A	From Leg	4.000	0.000	0.000	154.000	No Ice	1.104	0.207	0.014
							1/2"	1.239	0.274	0.021
							Ice	1.381	0.348	0.030
							1" Ice	1.688	0.521	0.055
(2) LGP21401	B	From Leg	4.000	0.000	0.000	154.000	No Ice	1.104	0.207	0.014
							1/2"	1.239	0.274	0.021
							Ice	1.381	0.348	0.030
							1" Ice	1.688	0.521	0.055
(2) LGP21401	C	From Leg	4.000	0.000	0.000	154.000	No Ice	1.104	0.207	0.014
							1/2"	1.239	0.274	0.021
							Ice	1.381	0.348	0.030
							1" Ice	1.688	0.521	0.055
RRUS 11	A	From Leg	4.000	0.000	0.000	154.000	No Ice	2.784	1.187	0.051
							1/2"	2.992	1.334	0.071
							Ice	3.207	1.490	0.095
							1" Ice	3.658	1.833	0.153

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment t °	Placement ft		C <sub>AA</sub> Front ft <sup>2</sup>	C <sub>AA</sub> Side ft <sup>2</sup>	Weight K
RRUS 11	B	From Leg	4.000 0.000 4.000	0.000	154.000	2" Ice			
						No Ice	2.784	1.187	0.051
						1/2"	2.992	1.334	0.071
						Ice	3.207	1.490	0.095
RRUS 11	C	From Leg	4.000 0.000 4.000	0.000	154.000	1" Ice	3.658	1.833	0.153
						2" Ice			
						No Ice	2.784	1.187	0.051
						1/2"	2.992	1.334	0.071
DC6-48-60-18-8F	B	From Leg	4.000 0.000 0.000	0.000	154.000	Ice	3.207	1.490	0.095
						1" Ice	3.658	1.833	0.153
						2" Ice			
						No Ice	1.266	1.266	0.019
QS66512-2 w/ Mount Pipe	A	From Leg	4.000 0.000 4.000	0.000	154.000	1/2"	1.456	1.456	0.034
						Ice	1.658	1.658	0.051
						1" Ice	2.093	2.093	0.094
						2" Ice			
QS66512-2 w/ Mount Pipe	B	From Leg	4.000 0.000 4.000	0.000	154.000	No Ice	8.371	8.463	0.137
						1/2"	8.931	9.657	0.212
						Ice	9.457	10.548	0.296
						1" Ice	10.531	12.352	0.492
QS66512-2 w/ Mount Pipe	B	From Leg	4.000 0.000 4.000	0.000	154.000	2" Ice			
						No Ice	8.371	8.463	0.137
						1/2"	8.931	9.657	0.212
						Ice	9.457	10.548	0.296
QS66512-2 w/ Mount Pipe	C	From Leg	4.000 0.000 4.000	0.000	154.000	1" Ice	10.531	12.352	0.492
						2" Ice			
						No Ice	8.371	8.463	0.137
						1/2"	8.931	9.657	0.212
TT19-08BP111-001	A	From Leg	4.000 0.000 4.000	0.000	154.000	Ice	9.457	10.548	0.296
						1" Ice	10.531	12.352	0.492
						2" Ice			
						No Ice	0.553	0.446	0.016
TT19-08BP111-001	B	From Leg	4.000 0.000 4.000	0.000	154.000	1/2"	0.649	0.534	0.022
						Ice	0.752	0.630	0.029
						1" Ice	0.981	0.845	0.050
						2" Ice			
TT19-08BP111-001	C	From Leg	4.000 0.000 4.000	0.000	154.000	No Ice	0.553	0.446	0.016
						1/2"	0.649	0.534	0.022
						Ice	0.752	0.630	0.029
						1" Ice	0.981	0.845	0.050
RRUS 32	A	From Leg	4.000 0.000 4.000	0.000	154.000	2" Ice			
						No Ice	2.857	1.777	0.055
						1/2"	3.083	1.968	0.077
						Ice	3.316	2.166	0.103
RRUS 32	B	From Leg	4.000 0.000 4.000	0.000	154.000	1" Ice	3.805	2.583	0.165
						2" Ice			
						No Ice	2.857	1.777	0.055
						1/2"	3.083	1.968	0.077
RRUS 32	C	From Leg	4.000 0.000 4.000	0.000	154.000	Ice	3.316	2.166	0.103
						1" Ice	3.805	2.583	0.165
						2" Ice			
						No Ice	2.857	1.777	0.055
RRUS 32 B2	A	From Leg	4.000 0.000 4.000	0.000	154.000	1/2"	3.083	1.968	0.077
						Ice	3.316	2.166	0.103
						1" Ice	3.805	2.583	0.165
						2" Ice			
RRUS 32 B2	A	From Leg	4.000 0.000 4.000	0.000	154.000	No Ice	2.731	1.668	0.053
						1/2"	2.953	1.855	0.074
						Ice	3.182	2.049	0.098
						1" Ice	3.663	2.458	0.157

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment t °	Placement ft		C <sub>AA</sub> Front ft <sup>2</sup>	C <sub>AA</sub> Side ft <sup>2</sup>	Weight K
RRUS 32 B2	B	From Leg	4.000 0.000 4.000	0.000	154.000	2" Ice			
						No Ice	2.731	1.668	0.053
						1/2"	2.953	1.855	0.074
						Ice	3.182	2.049	0.098
						1" Ice	3.663	2.458	0.157
RRUS 32 B2	C	From Leg	4.000 0.000 4.000	0.000	154.000	2" Ice			
						No Ice	2.731	1.668	0.053
						1/2"	2.953	1.855	0.074
						Ice	3.182	2.049	0.098
						1" Ice	3.663	2.458	0.157
DC6-48-60-18-8F	A	From Leg	4.000 0.000 4.000	0.000	154.000	2" Ice			
						No Ice	0.791	0.791	0.019
						1/2"	1.274	1.274	0.034
						Ice	1.450	1.450	0.051
						1" Ice	1.831	1.831	0.094
DBC0061F1V51-2	A	From Leg	4.000 0.000 4.000	0.000	154.000	2" Ice			
						No Ice	0.430	0.413	0.026
						1/2"	0.514	0.496	0.031
						Ice	0.605	0.586	0.038
						1" Ice	0.810	0.788	0.057
DBC0061F1V51-2	B	From Leg	4.000 0.000 4.000	0.000	154.000	2" Ice			
						No Ice	0.430	0.413	0.026
						1/2"	0.514	0.496	0.031
						Ice	0.605	0.586	0.038
						1" Ice	0.810	0.788	0.057
DBC0061F1V51-2	C	From Leg	4.000 0.000 4.000	0.000	154.000	2" Ice			
						No Ice	0.430	0.413	0.026
						1/2"	0.514	0.496	0.031
						Ice	0.605	0.586	0.038
						1" Ice	0.810	0.788	0.057
5'-P2x0.154	A	From Leg	4.000 0.000 0.000	0.000	154.000	2" Ice			
						No Ice	1.188	1.188	0.018
						1/2"	1.496	1.496	0.027
						Ice	1.807	1.807	0.040
						1" Ice	2.458	2.458	0.076
5'-P2x0.154	B	From Leg	4.000 0.000 0.000	0.000	154.000	2" Ice			
						No Ice	1.188	1.188	0.018
						1/2"	1.496	1.496	0.027
						Ice	1.807	1.807	0.040
						1" Ice	2.458	2.458	0.076
5'-P2x0.154	C	From Leg	4.000 0.000 0.000	0.000	154.000	2" Ice			
						No Ice	1.188	1.188	0.018
						1/2"	1.496	1.496	0.027
						Ice	1.807	1.807	0.040
						1" Ice	2.458	2.458	0.076
10'-P2x0.154	A	From Leg	4.000 0.000 0.000	0.000	154.000	2" Ice			
						No Ice	2.375	2.375	0.037
						1/2"	3.403	3.403	0.054
						Ice	4.448	4.448	0.079
						1" Ice	5.911	5.911	0.148
10'-P2x0.154	B	From Leg	4.000 0.000 0.000	0.000	154.000	2" Ice			
						No Ice	2.375	2.375	0.037
						1/2"	3.403	3.403	0.054
						Ice	4.448	4.448	0.079
						1" Ice	5.911	5.911	0.148
10'-P2x0.154	C	From Leg	4.000 0.000 0.000	0.000	154.000	2" Ice			
						No Ice	2.375	2.375	0.037
						1/2"	3.403	3.403	0.054
						Ice	4.448	4.448	0.079
						1" Ice	5.911	5.911	0.148
Pipe Mount [PM 601-3]	C	None		0.000	154.000	2" Ice			
						No Ice	4.390	4.390	0.195
						1/2"	5.480	5.480	0.237
						Ice	6.570	6.570	0.280
						1" Ice	8.750	8.750	0.365

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment t °	Placement ft	C <sub>AA</sub> Front ft <sup>2</sup>	C <sub>AA</sub> Side ft <sup>2</sup>	Weight K	
Sector Mount [SM 602-3]	C	None		0.000	154.000	2" Ice No Ice 1/2" Ice 1" Ice 2" Ice	33.110 33.110 44.900 56.690 80.270 80.270	1.541 2.159 2.777 4.014	
***146' Sprint*** TME-800MHZ 2X50W RRH	A	From Leg	1.000 0.000 0.000	0.000	145.000	No Ice 1/2" Ice 1" Ice 2" Ice	2.490 2.706 2.931 3.407 3.407	2.068 2.271 2.481 2.928 2.928	0.053 0.074 0.098 0.157
TME-800MHZ 2X50W RRH	B	From Leg	1.000 0.000 0.000	0.000	145.000	No Ice 1/2" Ice 1" Ice 2" Ice	2.490 2.706 2.931 3.407 3.407	2.068 2.271 2.481 2.928 2.928	0.053 0.074 0.098 0.157
TME-800MHZ 2X50W RRH	C	From Leg	1.000 0.000 0.000	0.000	145.000	No Ice 1/2" Ice 1" Ice 2" Ice	2.490 2.706 2.931 3.407 3.407	2.068 2.271 2.481 2.928 2.928	0.053 0.074 0.098 0.157
PCS 1900 MHz 4x45W- 65MHz	A	From Leg	1.000 0.000 0.000	0.000	145.000	No Ice 1/2" Ice 1" Ice 2" Ice	2.709 2.948 3.195 3.716 3.716	2.611 2.847 3.092 3.608 3.608	0.060 0.083 0.110 0.173
PCS 1900 MHz 4x45W- 65MHz	B	From Leg	1.000 0.000 0.000	0.000	145.000	No Ice 1/2" Ice 1" Ice 2" Ice	2.709 2.948 3.195 3.716 3.716	2.611 2.847 3.092 3.608 3.608	0.060 0.083 0.110 0.173
PCS 1900 MHz 4x45W- 65MHz	C	From Leg	1.000 0.000 0.000	0.000	145.000	No Ice 1/2" Ice 1" Ice 2" Ice	2.709 2.948 3.195 3.716 3.716	2.611 2.847 3.092 3.608 3.608	0.060 0.083 0.110 0.173
800 EXTERNAL NOTCH FILTER	A	From Leg	1.000 0.000 0.000	0.000	145.000	No Ice 1/2" Ice 1" Ice 2" Ice	0.660 0.763 0.873 1.115 1.115	0.321 0.398 0.483 0.674 0.674	0.011 0.017 0.024 0.045
800 EXTERNAL NOTCH FILTER	B	From Leg	1.000 0.000 0.000	0.000	145.000	No Ice 1/2" Ice 1" Ice 2" Ice	0.660 0.763 0.873 1.115 1.115	0.321 0.398 0.483 0.674 0.674	0.011 0.017 0.024 0.045
800 EXTERNAL NOTCH FILTER	C	From Leg	1.000 0.000 0.000	0.000	145.000	No Ice 1/2" Ice 1" Ice 2" Ice	0.660 0.763 0.873 1.115 1.115	0.321 0.398 0.483 0.674 0.674	0.011 0.017 0.024 0.045
Pipe Mount [PM 601-3]	C	None		0.000	145.000	No Ice 1/2" Ice 1" Ice 2" Ice	4.390 5.480 6.570 8.750 8.750	4.390 5.480 6.570 8.750 8.750	0.195 0.237 0.280 0.365
***143' Sprint*** APXVSPP18-C-A20	A	From Leg	2.000 0.000 0.000	0.000	143.000	No Ice 1/2" Ice 1" Ice 2" Ice	4.660 5.120 5.600 6.580 6.580	3.110 3.550 4.000 4.940 4.940	0.062 0.114 0.172 0.308
APXVSPP18-C-A20	B	From Leg	2.000 0.000	0.000	143.000	No Ice	4.660 5.120	3.110 3.550	0.062 0.114

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment t °	Placement ft	C <sub>AA</sub> Front ft <sup>2</sup>	C <sub>AA</sub> Side ft <sup>2</sup>	Weight K
			0.000			1/2" Ice 6.580	4.000 4.940	0.172 0.308
APXVSPP18-C-A20	C	From Leg	2.000 0.000 0.000	0.000	143.000	No Ice 1/2" Ice 6.580	4.660 3.110 3.550 4.000 4.940	0.062 0.114 0.172 0.308
(3) ACU-A20-N	A	From Leg	1.000 0.000 0.000	0.000	143.000	No Ice 1/2" Ice 6.580	0.067 0.117 0.162 0.215 0.343	0.001 0.002 0.004 0.012
(3) ACU-A20-N	B	From Leg	1.000 0.000 0.000	0.000	143.000	No Ice 1/2" Ice 6.580	0.067 0.117 0.162 0.215 0.343	0.001 0.002 0.004 0.012
(3) ACU-A20-N	C	From Leg	1.000 0.000 0.000	0.000	143.000	No Ice 1/2" Ice 6.580	0.067 0.117 0.162 0.215 0.343	0.001 0.002 0.004 0.012
Pipe Mount [PM 601-3]	C	None		0.000	143.000	No Ice 1/2" Ice 6.570	4.390 4.390 5.480 6.570 8.750	0.195 0.237 0.280 0.365
Sector Mount [SM 701-3]	C	None		0.000	143.000	No Ice 1/2" Ice 35.090	19.730 19.730 27.410 27.410 35.090 35.090	0.825 1.166 1.507 2.189
APXVTM14-C-120	A	From Leg	4.000 0.000 0.000	0.000	143.000	No Ice 1/2" Ice 7.880	6.342 3.607 3.967 4.333 5.071	0.056 0.096 0.140 0.245
APXVTM14-C-120	B	From Leg	4.000 0.000 0.000	0.000	143.000	No Ice 1/2" Ice 7.880	6.342 3.607 3.967 4.333 5.071	0.056 0.096 0.140 0.245
APXVTM14-C-120	C	From Leg	4.000 0.000 0.000	0.000	143.000	No Ice 1/2" Ice 7.880	6.342 3.607 3.967 4.333 5.071	0.056 0.096 0.140 0.245
TD-RRH8x20-25	A	From Leg	4.000 0.000 0.000	0.000	143.000	No Ice 1/2" Ice 5.098	4.045 1.535 1.714 1.901 2.295	0.070 0.097 0.128 0.201
TD-RRH8x20-25	B	From Leg	4.000 0.000 0.000	0.000	143.000	No Ice 1/2" Ice 5.098	4.045 1.535 1.714 1.901 2.295	0.070 0.097 0.128 0.201
TD-RRH8x20-25	C	From Leg	4.000 0.000 0.000	0.000	143.000	No Ice 1/2" Ice 5.098	4.045 1.535 1.714 1.901 2.295	0.070 0.097 0.128 0.201



Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment t °	Placement ft		C <sub>AA</sub> Front ft <sup>2</sup>	C <sub>AA</sub> Side ft <sup>2</sup>	Weight K
12' horizontal x 2" Pipe Mount	A	From Leg	4.000 0.000 0.000	0.000	143.000	No Ice	1.000	1.000	0.100
						1/2"	2.115	2.115	0.650
						Ice	2.839	2.839	1.215
						1" Ice	4.317	4.317	2.390
						2" Ice			
12' horizontal x 2" Pipe Mount	B	From Leg	4.000 0.000 0.000	0.000	143.000	No Ice	1.000	1.000	0.100
						1/2"	2.115	2.115	0.650
						Ice	2.839	2.839	1.215
						1" Ice	4.317	4.317	2.390
						2" Ice			
12' horizontal x 2" Pipe Mount	C	From Leg	4.000 0.000 0.000	0.000	143.000	No Ice	1.000	1.000	0.100
						1/2"	2.115	2.115	0.650
						Ice	2.839	2.839	1.215
						1" Ice	4.317	4.317	2.390
						2" Ice			
***124' Wilton*** 1142-2C	B	From Leg	4.000 0.000 7.000	0.000	124.000	No Ice	2.092	2.092	0.024
						1/2"	3.374	3.374	0.041
						Ice	4.673	4.673	0.066
						1" Ice	7.320	7.320	0.140
						2" Ice			
1142-2C	C	From Leg	4.000 0.000 7.000	0.000	124.000	No Ice	2.092	2.092	0.024
						1/2"	3.374	3.374	0.041
						Ice	4.673	4.673	0.066
						1" Ice	7.320	7.320	0.140
						2" Ice			
Side Arm Mount [SO 302-1]	B	From Leg	2.000 0.000 0.000	0.000	124.000	No Ice	1.670	3.270	0.055
						1/2"	2.510	4.990	0.088
						Ice	3.350	6.710	0.121
						1" Ice	5.030	10.150	0.187
						2" Ice			
Side Arm Mount [SO 302-1]	C	From Leg	2.000 0.000 0.000	0.000	124.000	No Ice	1.670	3.270	0.055
						1/2"	2.510	4.990	0.088
						Ice	3.350	6.710	0.121
						1" Ice	5.030	10.150	0.187
						2" Ice			
***104' Wilton*** 220-3BN	B	From Leg	4.000 0.000 4.000	0.000	104.000	No Ice	5.720	5.720	0.024
						1/2"	7.831	7.831	0.066
						Ice	9.959	9.959	0.120
						1" Ice	14.265	14.265	0.270
						2" Ice			
1142-2C	C	From Leg	4.000 0.000 7.000	0.000	104.000	No Ice	2.092	2.092	0.024
						1/2"	3.374	3.374	0.041
						Ice	4.673	4.673	0.066
						1" Ice	7.320	7.320	0.140
						2" Ice			
Side Arm Mount [SO 302-1]	B	From Leg	2.000 0.000 0.000	0.000	104.000	No Ice	1.670	3.270	0.055
						1/2"	2.510	4.990	0.088
						Ice	3.350	6.710	0.121
						1" Ice	5.030	10.150	0.187
						2" Ice			
Side Arm Mount [SO 302-1]	C	From Leg	2.000 0.000 0.000	0.000	104.000	No Ice	1.670	3.270	0.055
						1/2"	2.510	4.990	0.088
						Ice	3.350	6.710	0.121
						1" Ice	5.030	10.150	0.187
						2" Ice			
***93' T-Mobile*** ERICSSON AIR 21 B2A B4P	A	From Leg	3.000 0.000 0.000	0.000	93.000	No Ice	6.092	4.297	0.092
						1/2"	6.462	4.649	0.133
						Ice	6.838	5.005	0.180
						1" Ice	7.613	5.737	0.290
						2" Ice			
ERICSSON AIR 21 B2A B4P	B	From Leg	3.000 0.000	0.000	93.000	No Ice	6.092	4.297	0.092
							6.462	4.649	0.133

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment t °	Placement ft	C <sub>AA</sub> Front ft <sup>2</sup>	C <sub>AA</sub> Side ft <sup>2</sup>	Weight K
			0.000			1/2" Ice 7.613	5.005 5.737	0.180 0.290
ERICSSON AIR 21 B2A B4P	C	From Leg	3.000 0.000 0.000	0.000	93.000	No Ice 1/2" Ice 7.613	4.297 4.649 5.005 5.737	0.092 0.133 0.180 0.290
KRY 112 144/1	A	From Leg	3.000 0.000 0.000	0.000	93.000	No Ice 1/2" Ice 7.613	0.175 0.234 0.301 0.456	0.011 0.014 0.019 0.032
KRY 112 144/1	B	From Leg	3.000 0.000 0.000	0.000	93.000	No Ice 1/2" Ice 7.613	0.175 0.234 0.301 0.456	0.011 0.014 0.019 0.032
KRY 112 144/1	C	From Leg	3.000 0.000 0.000	0.000	93.000	No Ice 1/2" Ice 7.613	0.175 0.234 0.301 0.456	0.011 0.014 0.019 0.032
AIR 32 B2A/B66AA w/ Mount Pipe	A	From Leg	4.000 0.000 0.000	0.000	93.000	No Ice 1/2" Ice 7.613	6.070 6.867 7.583 8.565	0.153 0.214 0.282 0.441
AIR 32 B2A/B66AA w/ Mount Pipe	B	From Leg	4.000 0.000 0.000	0.000	93.000	No Ice 1/2" Ice 7.613	6.070 6.867 7.583 8.565	0.153 0.214 0.282 0.441
AIR 32 B2A/B66AA w/ Mount Pipe	C	From Leg	4.000 0.000 0.000	0.000	93.000	No Ice 1/2" Ice 7.613	6.070 6.867 7.583 8.565	0.153 0.214 0.282 0.441
APXVAARR24_43-U-NA20	A	From Leg	4.000 0.000 0.000	0.000	93.000	No Ice 1/2" Ice 7.613	8.889 9.487 10.092 11.326	0.128 0.241 0.362 0.630
APXVAARR24_43-U-NA20	B	From Leg	4.000 0.000 0.000	0.000	93.000	No Ice 1/2" Ice 7.613	8.889 9.487 10.092 11.326	0.128 0.241 0.362 0.630
APXVAARR24_43-U-NA20	C	From Leg	4.000 0.000 0.000	0.000	93.000	No Ice 1/2" Ice 7.613	8.889 9.487 10.092 11.326	0.128 0.241 0.362 0.630
RADIO 4449 B12/B71	A	From Leg	4.000 0.000 0.000	0.000	93.000	No Ice 1/2" Ice 7.613	1.300 1.445 1.597 1.924	0.075 0.092 0.112 0.161
RADIO 4449 B12/B71	B	From Leg	4.000 0.000 0.000	0.000	93.000	No Ice 1/2" Ice 7.613	1.300 1.445 1.597 1.924	0.075 0.092 0.112 0.161
RADIO 4449 B12/B71	C	From Leg	4.000 0.000 0.000	0.000	93.000	No Ice 1/2" Ice 7.613	1.300 1.445 1.597 1.924	0.075 0.092 0.112 0.161

Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment °	Placement ft	C <sub>AA</sub>		Weight K
			Horz Lateral ft	Vert ft			Front ft <sup>2</sup>	Side ft <sup>2</sup>	
				0.000		1/2"	1.810	1.445	0.092
				0.000		Ice	1.978	1.597	0.112
						1" Ice	2.336	1.924	0.161
						2" Ice			
Sector Mount [SM 402-3]	C	None			0.000	No Ice	18.910	18.910	0.851
						1/2"	26.780	26.780	1.233
						Ice	34.650	34.650	1.616
						1" Ice	50.390	50.390	2.381
						2" Ice			
***62' Verizon*** GPS_A	C	From Leg	2.000		0.000	No Ice	0.255	0.255	0.001
			0.000			1/2"	0.320	0.320	0.005
			3.000			Ice	0.393	0.393	0.010
						1" Ice	0.561	0.561	0.025
						2" Ice			
Side Arm Mount [SO 301-1]	C	From Leg	1.000		0.000	No Ice	1.000	0.900	0.023
			0.000			1/2"	1.390	1.420	0.033
			0.000			Ice	1.780	1.940	0.042
						1" Ice	2.560	2.980	0.061
						2" Ice			
***42' Verizon*** GPS_A	C	From Leg	2.000		0.000	No Ice	0.255	0.255	0.001
			0.000			1/2"	0.320	0.320	0.005
			2.000			Ice	0.393	0.393	0.010
						1" Ice	0.561	0.561	0.025
						2" Ice			
Side Arm Mount [SO 301-1]	C	From Leg	1.000		0.000	No Ice	1.000	0.900	0.023
			0.000			1/2"	1.390	1.420	0.033
			0.000			Ice	1.780	1.940	0.042
						1" Ice	2.560	2.980	0.061
						2" Ice			
***31' Verizon*** GPS_A	C	From Leg	2.000		0.000	No Ice	0.255	0.255	0.001
			0.000			1/2"	0.320	0.320	0.005
			1.000			Ice	0.393	0.393	0.010
						1" Ice	0.561	0.561	0.025
						2" Ice			
Side Arm Mount [SO 701-1]	C	From Leg	1.000		0.000	No Ice	0.850	1.670	0.065
			0.000			1/2"	1.140	2.340	0.079
			0.000			Ice	1.430	3.010	0.093
						1" Ice	2.010	4.350	0.121
						2" Ice			
*C*									
*** Knife Plates ***									
(2) 3'x8" Knife Plate	A	From Leg	0.000		0.000	No Ice	2.333	0.250	0.048
			0.000			1/2"	2.625	0.500	0.054
			0.000			Ice	2.917	0.750	0.060
						1" Ice	3.501	1.250	0.072
						2" Ice			
(2) 3'x8" Knife Plate	B	From Leg	0.000		0.000	No Ice	2.333	0.250	0.048
			0.000			1/2"	2.625	0.500	0.054
			0.000			Ice	2.917	0.750	0.060
						1" Ice	3.501	1.250	0.072
						2" Ice			
(2) 3'x8" Knife Plate	C	From Leg	0.000		0.000	No Ice	2.333	0.250	0.048
			0.000			1/2"	2.625	0.500	0.054
			0.000			Ice	2.917	0.750	0.060
						1" Ice	3.501	1.250	0.072
						2" Ice			
(2) 3'x8" Knife Plate	A	From Leg	0.000		0.000	No Ice	2.333	0.250	0.048
			0.000			1/2"	2.625	0.500	0.054
			0.000			Ice	2.917	0.750	0.060
						1" Ice	3.501	1.250	0.072
						2" Ice			
(2) 3'x8" Knife Plate	B	From Leg	0.000		0.000	No Ice	2.333	0.250	0.048

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustmen t °	Placement  ft	C <sub>AA</sub> Front  ft <sup>2</sup>	C <sub>AA</sub> Side  ft <sup>2</sup>	Weight  K	
			0.000			1/2"	2.625	0.500	0.054
			0.000			Ice	2.917	0.750	0.060
						1" Ice	3.501	1.250	0.072
						2" Ice			
(2) 3'x8" Knife Plate	C	From Leg	0.000	0.000	60.000	No Ice	2.333	0.250	0.048
			0.000			1/2"	2.625	0.500	0.054
			0.000			Ice	2.917	0.750	0.060
						1" Ice	3.501	1.250	0.072
						2" Ice			

## Load Combinations

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

Comb. No.	Description
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

Sectio n No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft	
T1	180 - 168	Leg	Max Tension	15	1.590	-0.000	-0.085	
			Max. Compression	10	-2.119	-0.062	-0.036	
			Max. Mx	20	-0.278	0.152	0.006	
			Max. My	2	-1.867	-0.001	-0.149	
			Max. Vy	20	-0.147	0.152	0.006	
			Max. Vx	14	0.143	0.036	-0.137	
		Diagonal	Max Tension	19	0.533	0.000	0.000	0.000
			Max. Compression	22	-0.595	0.000	0.000	0.000
			Max. Mx	18	-0.236	0.015	-0.000	-0.000
			Max. My	16	-0.545	0.000	-0.003	-0.003
			Max. Vy	36	-0.015	0.013	-0.000	-0.000
			Max. Vx	16	-0.001	0.000	0.000	0.000
		Top Girt	Max Tension	18	0.153	0.000	0.000	0.000
			Max. Compression	23	-0.132	0.000	0.000	0.000
			Max. Mx	26	0.042	-0.020	0.000	0.000
			Max. My	4	0.021	0.000	0.000	0.000
			Max. Vy	26	0.020	0.000	0.000	0.000
			Max. Vx	4	-0.000	0.000	0.000	0.000
T2	168 - 160	Leg	Max Tension	7	7.400	0.022	-0.033	
			Max. Compression	10	-10.927	0.015	0.008	
			Max. Mx	8	-2.002	-0.155	0.005	
			Max. My	16	-2.129	0.086	-0.159	
		Diagonal	Max. Vy	8	-1.238	0.014	-0.054	
			Max. Vx	14	-1.265	-0.056	0.083	
			Max Tension	25	2.792	0.000	0.000	
			Max. Compression	12	-2.917	0.000	0.000	
			Max. Mx	8	1.682	0.025	0.002	
			Max. My	24	-2.888	-0.005	-0.007	
			Max. Vy	29	-0.017	0.021	-0.001	
			Max. Vx	24	0.003	-0.005	-0.007	
T3	160 - 140	Leg	Max Tension	23	39.689	-0.323	-0.002	
			Max. Compression	10	-49.331	0.326	0.001	
			Max. Mx	6	20.545	-0.488	-0.012	
		Diagonal	Max. My	16	-3.991	-0.024	-0.656	
			Max. Vy	22	-0.902	-0.487	-0.007	
			Max. Vx	4	-0.869	-0.020	-0.207	
			Max Tension	24	4.246	0.000	0.000	
			Max. Compression	24	-4.342	0.000	0.000	
			Max. Mx	10	3.387	0.024	-0.001	
			Max. My	24	-3.831	-0.007	-0.006	
T4	140 - 120	Leg	Max. Vy	31	-0.020	0.022	0.002	
			Max. Vx	24	0.002	0.000	0.000	
			Max Tension	23	71.337	-0.273	0.023	
			Max. Compression	10	-84.616	0.317	-0.026	
		Diagonal	Max. Mx	22	48.529	-0.383	-0.003	
			Max. My	4	-5.601	-0.034	-0.488	
			Max. Vy	22	-0.081	-0.277	0.023	
			Max. Vx	4	-0.145	-0.017	-0.348	
T5	120 - 100	Leg	Max Tension	24	5.048	0.000	0.000	
			Max. Compression	24	-5.128	0.000	0.000	
		Diagonal	Max. Mx	31	1.162	0.034	-0.004	
			Max. My	28	-0.755	0.023	-0.005	
			Max. Vy	29	0.027	0.030	-0.005	
			Max. Vx	28	0.002	0.000	0.000	
			Max Tension	23	99.118	-0.348	0.020	
			Max. Compression	10	-115.824	0.420	-0.020	

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
T6	100 - 80	Diagonal	Max. Mx	22	97.243	-0.427	0.020
			Max. My	16	-8.416	-0.008	0.598
			Max. Vy	22	0.099	-0.427	0.020
			Max. Vx	16	-0.181	-0.008	0.598
			Max Tension	20	4.832	0.000	0.000
			Max. Compression	20	-4.967	0.000	0.000
			Max. Mx	31	1.179	0.053	-0.006
		Leg	Max. My	28	-0.810	0.037	-0.007
			Max. Vy	29	0.037	0.047	-0.007
			Max. Vx	28	0.002	0.000	0.000
			Max Tension	23	125.500	-0.442	-0.009
			Max. Compression	10	-148.002	0.811	0.031
			Max. Mx	10	-148.002	0.811	0.031
			Max. My	4	-10.899	0.012	-0.683
T7	80 - 60	Diagonal	Max. Vy	22	-0.785	-0.586	-0.022
			Max. Vx	16	0.714	0.001	0.321
			Max Tension	20	6.007	0.000	0.000
			Max. Compression	20	-6.089	0.000	0.000
			Max. Mx	31	1.601	0.066	0.008
			Max. My	28	-0.901	0.055	-0.010
			Max. Vy	29	0.047	0.065	-0.009
		Leg	Max. Vx	28	0.003	0.000	0.000
			Max Tension	23	149.854	-0.698	-0.040
			Max. Compression	10	-176.993	1.094	0.049
			Max. Mx	18	-174.924	1.097	0.088
			Max. My	4	-11.959	-0.099	-1.027
			Max. Vy	22	0.128	-0.997	-0.049
			Max. Vx	4	0.179	-0.099	-1.027
T8	60 - 40	Diagonal	Max Tension	20	7.027	0.000	0.000
			Max. Compression	20	-7.219	0.000	0.000
			Max. Mx	29	1.519	0.109	-0.016
			Max. My	28	-1.048	0.089	-0.017
			Max. Vy	29	0.062	0.109	-0.016
			Max. Vx	28	-0.004	0.000	0.000
			Max Tension	7	175.055	-0.914	-0.034
		Leg	Max. Compression	10	-207.735	-0.125	0.026
			Max. Mx	18	-189.846	1.097	0.088
			Max. My	4	-15.789	-0.062	-0.982
			Max. Vy	22	-0.183	-0.944	-0.040
			Max. Vx	16	0.170	0.034	0.878
			Max Tension	20	7.471	0.000	0.000
			Max. Compression	20	-7.660	0.000	0.000
T9	40 - 20	Diagonal	Max. Mx	31	2.032	0.157	0.020
			Max. My	28	-1.387	0.123	-0.022
			Max. Vy	29	0.081	0.152	-0.021
			Max. Vx	28	0.005	0.000	0.000
			Max Tension	21	7.868	0.093	-0.003
			Max. Compression	18	-8.647	0.000	0.000
			Max. Mx	31	1.341	0.186	-0.014
		Leg	Max. My	28	-1.830	0.144	-0.017
			Max. Vy	29	0.087	0.167	-0.013
			Max. Vx	28	-0.004	0.000	0.000
			Max Tension	10	4.107	0.065	0.008
			Max. Compression	10	-4.107	0.000	0.000
			Max. Mx	35	-0.254	0.161	0.033
			Max. My	28	-0.162	0.160	0.036
T10	20 - 0	Diagonal	Max. Vy	35	-0.089	0.139	0.032
			Max. Vx	30	-0.006	0.000	0.000
			Max Tension	7	222.454	-1.702	-0.028
			Max. Compression	10	-266.909	0.000	0.000
			Max. Mx	31	-119.143	4.833	-0.014
			Max. My	8	-20.182	-0.180	2.397
			Max. Vy	35	-0.089	0.139	0.032
		Secondary Horizontal	Max. Vx	30	-0.006	0.000	0.000
			Max Tension	10	4.107	0.065	0.008
			Max. Compression	10	-4.107	0.000	0.000
			Max. Mx	35	-0.254	0.161	0.033
			Max. My	28	-0.162	0.160	0.036
			Max. Vy	35	-0.089	0.139	0.032
			Max. Vx	30	-0.006	0.000	0.000

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
		Diagonal	Max. Vy	31	-0.867	-3.565	0.000
			Max. Vx	4	-0.361	-0.178	-2.320
			Max Tension	21	8.353	0.000	0.000
			Max. Compression	18	-8.954	0.000	0.000
			Max. Mx	29	0.049	0.239	-0.030
			Max. My	28	-2.657	0.211	-0.032
			Max. Vy	29	0.096	0.239	-0.030
			Max. Vx	28	0.005	0.000	0.000

### Maximum Reactions

Location	Condition	Gov. Load Comb.	Vertical K	Horizontal, X K	Horizontal, Z K
Leg C	Max. Vert	18	273.767	24.631	-13.477
	Max. H <sub>x</sub>	18	273.767	24.631	-13.477
	Max. H <sub>z</sub>	7	-227.820	-21.491	11.642
	Min. Vert	7	-227.820	-21.491	11.642
	Min. H <sub>x</sub>	7	-227.820	-21.491	11.642
	Min. H <sub>z</sub>	18	273.767	24.631	-13.477
Leg B	Max. Vert	10	273.936	-23.755	-14.127
	Max. H <sub>x</sub>	23	-225.356	20.562	12.277
	Max. H <sub>z</sub>	23	-225.356	20.562	12.277
	Min. Vert	23	-225.356	20.562	12.277
	Min. H <sub>x</sub>	10	273.936	-23.755	-14.127
	Min. H <sub>z</sub>	10	273.936	-23.755	-14.127
Leg A	Max. Vert	2	265.900	0.849	26.763
	Max. H <sub>x</sub>	21	17.227	3.234	1.206
	Max. H <sub>z</sub>	2	265.900	0.849	26.763
	Min. Vert	15	-217.991	-0.855	-23.070
	Min. H <sub>x</sub>	9	16.587	-3.211	1.157
	Min. H <sub>z</sub>	15	-217.991	-0.855	-23.070

### Tower Mast Reaction Summary

Load Combination	Vertical K	Shear <sub>x</sub> K	Shear <sub>z</sub> K	Overturing Moment, M <sub>x</sub> kip-ft	Overturing Moment, M <sub>z</sub> kip-ft	Torque kip-ft
Dead Only	55.733	-0.000	0.000	-3.588	-12.479	-0.000
1.2 Dead+1.0 Wind 0 deg - No Ice	66.879	-0.037	-42.154	-4219.403	-9.537	29.460
0.9 Dead+1.0 Wind 0 deg - No Ice	50.160	-0.037	-42.154	-4212.510	-5.767	29.440
1.2 Dead+1.0 Wind 30 deg - No Ice	66.879	20.827	-36.176	-3595.255	-2081.381	42.775
0.9 Dead+1.0 Wind 30 deg - No Ice	50.159	20.827	-36.176	-3589.245	-2074.778	42.762
1.2 Dead+1.0 Wind 60 deg - No Ice	66.879	36.984	-21.369	-2119.681	-3678.081	22.700
0.9 Dead+1.0 Wind 60 deg - No Ice	50.159	36.984	-21.369	-2115.706	-3669.297	22.696
1.2 Dead+1.0 Wind 90 deg - No Ice	66.879	44.380	0.037	1.225	-4394.079	-5.001
0.9 Dead+1.0 Wind 90 deg - No Ice	50.159	44.380	0.037	2.299	-4384.335	-5.001
1.2 Dead+1.0 Wind 120 deg - No Ice	66.879	37.770	21.865	2174.736	-3777.271	-12.144
0.9 Dead+1.0 Wind 120 deg - No Ice	50.159	37.770	21.865	2172.826	-3768.330	-12.132
1.2 Dead+1.0 Wind 150 deg - No Ice	66.879	20.512	35.556	3622.221	-2108.304	-11.360

Load Combination	Vertical	Shear <sub>x</sub>	Shear <sub>z</sub>	Overturing Moment, M <sub>x</sub>	Overturing Moment, M <sub>z</sub>	Torque
	K	K	K	kip-ft	kip-ft	kip-ft
0.9 Dead+1.0 Wind 150 deg - No Ice	50.159	20.512	35.556	3618.263	-2101.617	-11.344
1.2 Dead+1.0 Wind 180 deg - No Ice	66.879	0.037	40.337	4069.870	-20.637	-29.453
0.9 Dead+1.0 Wind 180 deg - No Ice	50.159	0.037	40.337	4065.309	-16.850	-29.439
1.2 Dead+1.0 Wind 210 deg - No Ice	66.879	-20.827	36.176	3586.672	2051.190	-42.775
0.9 Dead+1.0 Wind 210 deg - No Ice	50.159	-20.827	36.176	3582.832	2052.131	-42.762
1.2 Dead+1.0 Wind 240 deg - No Ice	66.879	-38.557	22.277	2181.547	3769.964	-22.703
0.9 Dead+1.0 Wind 240 deg - No Ice	50.159	-38.557	22.277	2179.654	3768.587	-22.697
1.2 Dead+1.0 Wind 270 deg - No Ice	66.879	-44.380	-0.037	-9.879	4363.982	5.002
0.9 Dead+1.0 Wind 270 deg - No Ice	50.159	-44.380	-0.037	-8.785	4361.791	5.002
1.2 Dead+1.0 Wind 300 deg - No Ice	66.879	-36.197	-20.957	-2112.950	3625.148	12.140
0.9 Dead+1.0 Wind 300 deg - No Ice	50.159	-36.197	-20.957	-2108.959	3623.903	12.129
1.2 Dead+1.0 Wind 330 deg - No Ice	66.879	-20.512	-35.556	-3630.868	2078.192	11.359
0.9 Dead+1.0 Wind 330 deg - No Ice	50.159	-20.512	-35.556	-3624.746	2079.056	11.343
1.2 Dead+1.0 Ice+1.0 Temp	152.243	-0.000	-0.000	-4.376	-74.124	-0.000
1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp	152.243	-0.010	-12.232	-1258.959	-73.219	10.204
1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp	152.243	6.184	-10.755	-1091.745	-699.427	13.212
1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp	152.243	11.087	-6.415	-646.407	-1184.048	8.077
1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp	152.243	12.970	0.010	-3.169	-1379.463	0.084
1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp	152.243	11.071	6.417	650.428	-1203.741	-3.329
1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp	152.243	6.049	10.501	1084.805	-701.855	-5.155
1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp	152.243	0.010	11.957	1229.544	-75.628	-10.203
1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp	152.243	-6.184	10.755	1083.012	550.591	-13.212
1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp	152.243	-11.325	6.552	648.020	1053.111	-8.078
1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp	152.243	-12.970	-0.010	-5.576	1230.641	-0.084
1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp	152.243	-10.833	-6.280	-648.845	1037.027	3.328
1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp	152.243	-6.049	-10.501	-1093.544	553.034	5.155
Dead+Wind 0 deg - Service	55.733	-0.010	-11.093	-1111.829	-11.073	7.749
Dead+Wind 30 deg - Service	55.733	5.481	-9.520	-947.736	-555.806	11.256
Dead+Wind 60 deg - Service	55.733	9.733	-5.623	-559.778	-975.619	5.973
Dead+Wind 90 deg - Service	55.733	11.679	0.010	-2.139	-1163.879	-1.315
Dead+Wind 120 deg - Service	55.733	9.939	5.754	569.326	-1001.700	-3.194
Dead+Wind 150 deg - Service	55.733	5.398	9.357	949.888	-562.883	-2.987
Dead+Wind 180 deg - Service	55.733	0.010	10.615	1067.584	-13.992	-7.749
Dead+Wind 210 deg - Service	55.733	-5.481	9.520	940.547	530.737	-11.256
Dead+Wind 240 deg - Service	55.733	-10.147	5.862	571.113	982.643	-5.974
Dead+Wind 270 deg - Service	55.733	-11.679	-0.010	-5.057	1138.818	1.315
Dead+Wind 300 deg - Service	55.733	-9.525	-5.515	-557.996	944.551	3.193



Load Combination	Vertical K	Shear <sub>x</sub> K	Shear <sub>z</sub> K	Overturing Moment, M <sub>x</sub> kip-ft	Overturing Moment, M <sub>z</sub> kip-ft	Torque kip-ft
Dead+Wind 330 deg - Service	55.733	-5.398	-9.357	-957.082	537.822	2.987

## Solution Summary

Load Comb.	Sum of Applied Forces			Sum of Reactions			% Error
	PX K	PY K	PZ K	PX K	PY K	PZ K	
1	0.000	-55.733	0.000	0.000	55.733	-0.000	0.000%
2	-0.037	-66.879	-42.154	0.037	66.879	42.154	0.001%
3	-0.037	-50.159	-42.154	0.037	50.160	42.154	0.001%
4	20.828	-66.879	-36.176	-20.827	66.879	36.176	0.001%
5	20.828	-50.159	-36.176	-20.827	50.159	36.176	0.001%
6	36.985	-66.879	-21.369	-36.984	66.879	21.369	0.001%
7	36.985	-50.159	-21.369	-36.984	50.159	21.369	0.001%
8	44.381	-66.879	0.037	-44.380	66.879	-0.037	0.001%
9	44.381	-50.159	0.037	-44.380	50.159	-0.037	0.001%
10	37.770	-66.879	21.866	-37.770	66.879	-21.865	0.001%
11	37.770	-50.159	21.866	-37.770	50.159	-21.865	0.001%
12	20.512	-66.879	35.556	-20.512	66.879	-35.556	0.001%
13	20.512	-50.159	35.556	-20.512	50.159	-35.556	0.001%
14	0.037	-66.879	40.338	-0.037	66.879	-40.337	0.001%
15	0.037	-50.159	40.338	-0.037	50.159	-40.337	0.001%
16	-20.828	-66.879	36.176	20.827	66.879	-36.176	0.001%
17	-20.828	-50.159	36.176	20.827	50.159	-36.176	0.001%
18	-38.558	-66.879	22.277	38.557	66.879	-22.277	0.001%
19	-38.558	-50.159	22.277	38.557	50.159	-22.277	0.001%
20	-44.381	-66.879	-0.037	44.380	66.879	0.037	0.001%
21	-44.381	-50.159	-0.037	44.380	50.159	0.037	0.001%
22	-36.197	-66.879	-20.957	36.197	66.879	20.957	0.001%
23	-36.197	-50.159	-20.957	36.197	50.159	20.957	0.001%
24	-20.512	-66.879	-35.556	20.512	66.879	35.556	0.001%
25	-20.512	-50.159	-35.556	20.512	50.159	35.556	0.001%
26	0.000	-152.243	0.000	0.000	152.243	0.000	0.000%
27	-0.010	-152.243	-12.232	0.010	152.243	12.232	0.000%
28	6.184	-152.243	-10.755	-6.184	152.243	10.755	0.000%
29	11.087	-152.243	-6.415	-11.087	152.243	6.415	0.000%
30	12.970	-152.243	0.010	-12.970	152.243	-0.010	0.000%
31	11.071	-152.243	6.417	-11.071	152.243	-6.417	0.000%
32	6.049	-152.243	10.501	-6.049	152.243	-10.501	0.000%
33	0.010	-152.243	11.957	-0.010	152.243	-11.957	0.000%
34	-6.184	-152.243	10.755	6.184	152.243	-10.755	0.000%
35	-11.325	-152.243	6.552	11.325	152.243	-6.552	0.000%
36	-12.970	-152.243	-0.010	12.970	152.243	0.010	0.000%
37	-10.833	-152.243	-6.280	10.833	152.243	6.280	0.000%
38	-6.049	-152.243	-10.501	6.049	152.243	10.501	0.000%
39	-0.010	-55.733	-11.093	0.010	55.733	11.093	0.000%
40	5.481	-55.733	-9.520	-5.481	55.733	9.520	0.000%
41	9.733	-55.733	-5.623	-9.733	55.733	5.623	0.000%
42	11.679	-55.733	0.010	-11.679	55.733	-0.010	0.000%
43	9.940	-55.733	5.754	-9.939	55.733	-5.754	0.000%
44	5.398	-55.733	9.357	-5.398	55.733	-9.357	0.000%
45	0.010	-55.733	10.615	-0.010	55.733	-10.615	0.000%
46	-5.481	-55.733	9.520	5.481	55.733	-9.520	0.000%
47	-10.147	-55.733	5.862	10.147	55.733	-5.862	0.000%
48	-11.679	-55.733	-0.010	11.679	55.733	0.010	0.000%
49	-9.526	-55.733	-5.515	9.525	55.733	5.515	0.000%
50	-5.398	-55.733	-9.357	5.398	55.733	9.357	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	6	0.00000001	0.00005344
3	Yes	6	0.00000001	0.00003884
4	Yes	6	0.00000001	0.00005588
5	Yes	6	0.00000001	0.00004123
6	Yes	6	0.00000001	0.00005810
7	Yes	6	0.00000001	0.00004339
8	Yes	6	0.00000001	0.00005559
9	Yes	6	0.00000001	0.00004100
10	Yes	6	0.00000001	0.00005323
11	Yes	6	0.00000001	0.00003865
12	Yes	6	0.00000001	0.00005611
13	Yes	6	0.00000001	0.00004139
14	Yes	6	0.00000001	0.00005848
15	Yes	6	0.00000001	0.00004367
16	Yes	6	0.00000001	0.00005588
17	Yes	6	0.00000001	0.00004124
18	Yes	6	0.00000001	0.00005301
19	Yes	6	0.00000001	0.00003851
20	Yes	6	0.00000001	0.00005558
21	Yes	6	0.00000001	0.00004101
22	Yes	6	0.00000001	0.00005834
23	Yes	6	0.00000001	0.00004358
24	Yes	6	0.00000001	0.00005611
25	Yes	6	0.00000001	0.00004140
26	Yes	4	0.00000001	0.00008181
27	Yes	7	0.00000001	0.00004098
28	Yes	7	0.00000001	0.00004155
29	Yes	7	0.00000001	0.00004233
30	Yes	7	0.00000001	0.00004262
31	Yes	7	0.00000001	0.00004254
32	Yes	7	0.00000001	0.00004212
33	Yes	7	0.00000001	0.00004147
34	Yes	7	0.00000001	0.00004059
35	Yes	7	0.00000001	0.00004021
36	Yes	7	0.00000001	0.00004041
37	Yes	7	0.00000001	0.00004082
38	Yes	7	0.00000001	0.00004079
39	Yes	6	0.00000001	0.00004319
40	Yes	6	0.00000001	0.00004364
41	Yes	6	0.00000001	0.00004421
42	Yes	6	0.00000001	0.00004370
43	Yes	6	0.00000001	0.00004324
44	Yes	6	0.00000001	0.00004392
45	Yes	6	0.00000001	0.00004428
46	Yes	6	0.00000001	0.00004351
47	Yes	6	0.00000001	0.00004288
48	Yes	6	0.00000001	0.00004350
49	Yes	6	0.00000001	0.00004425
50	Yes	6	0.00000001	0.00004385

### Maximum Tower Deflections - Service Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
T1	180 - 168	4.196	43	0.229	0.046
T2	168 - 160	3.620	43	0.227	0.046
T3	160 - 140	3.239	42	0.218	0.046
T4	140 - 120	2.371	42	0.181	0.039
T5	120 - 100	1.666	42	0.142	0.032
T6	100 - 80	1.123	42	0.105	0.025
T7	80 - 60	0.709	42	0.078	0.018
T8	60 - 40	0.398	42	0.057	0.012
T9	40 - 20	0.181	42	0.036	0.008
T10	20 - 0	0.053	42	0.014	0.004

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
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### Critical Deflections and Radius of Curvature - Service Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
178.000	PD10017	43	4.100	0.230	0.046	Inf
170.000	800 10504 w/ Mount Pipe	43	3.716	0.228	0.047	630767
164.000	(2) APL868013-42T0 w/ Mount Pipe	43	3.428	0.224	0.046	82485
154.000	7770.00 w/ Mount Pipe	42	2.964	0.208	0.044	36888
145.000	TME-800MHZ 2X50W RRH	42	2.574	0.191	0.041	30114
143.000	APXVSPP18-C-A20	42	2.492	0.187	0.040	28940
124.000	1142-2C	42	1.793	0.150	0.033	28174
104.000	220-3BN	42	1.220	0.112	0.026	34743
93.000	ERICSSON AIR 21 B2A B4P	42	0.965	0.094	0.022	40417
62.000	GPS_A	42	0.425	0.059	0.012	49783
60.000	(2) 3'x8" Knife Plate	42	0.398	0.057	0.012	49953
42.000	GPS_A	42	0.199	0.038	0.008	54787
31.000	GPS_A	42	0.113	0.025	0.006	54378
20.000	(2) 3'x8" Knife Plate	42	0.053	0.014	0.004	55476

### Maximum Tower Deflections - Design Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
T1	180 - 168	15.857	10	0.864	0.176
T2	168 - 160	13.685	10	0.855	0.177
T3	160 - 140	12.251	10	0.823	0.173
T4	140 - 120	8.965	8	0.683	0.147
T5	120 - 100	6.299	8	0.537	0.120
T6	100 - 80	4.245	8	0.397	0.094
T7	80 - 60	2.683	8	0.294	0.067
T8	60 - 40	1.505	8	0.216	0.045
T9	40 - 20	0.686	8	0.135	0.029
T10	20 - 0	0.202	18	0.053	0.014

### Critical Deflections and Radius of Curvature - Design Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
178.000	PD10017	10	15.494	0.864	0.176	449449
170.000	800 10504 w/ Mount Pipe	10	14.047	0.859	0.177	169922
164.000	(2) APL868013-42T0 w/ Mount Pipe	10	12.964	0.842	0.176	23320
154.000	7770.00 w/ Mount Pipe	10	11.210	0.787	0.167	10171
145.000	TME-800MHZ 2X50W RRH	8	9.732	0.721	0.155	8047
143.000	APXVSPP18-C-A20	8	9.421	0.706	0.152	7700
124.000	1142-2C	8	6.781	0.566	0.125	7458
104.000	220-3BN	8	4.612	0.423	0.099	9190
93.000	ERICSSON AIR 21 B2A B4P	8	3.649	0.357	0.084	10687
62.000	GPS_A	8	1.607	0.224	0.046	13155
60.000	(2) 3'x8" Knife Plate	8	1.505	0.216	0.045	13206
42.000	GPS_A	8	0.753	0.144	0.031	14516
31.000	GPS_A	8	0.427	0.096	0.022	14408

Elevation	Appurtenance	Gov. Load Comb.	Deflection	Tilt	Twist	Radius of Curvature
ft			in	°	°	ft
20.000	(2) 3'x8" Knife Plate	18	0.202	0.053	0.014	14695

### Bolt Design Data

Section No.	Elevation	Component Type	Bolt Grade	Bolt Size	Number Of Bolts	Maximum Load per Bolt	Allowable Load per Bolt	Ratio Load Allowable	Allowable Ratio	Criteria
	ft			in		K	K			
T1	180	Diagonal	A325N	0.625	1	0.533	7.875	0.068	1.05	Member Block Shear
		Top Girt	A325N	0.625	1	0.153	5.836	0.026	1.05	Member Block Shear
T2	168	Leg	A325N	0.625	4	1.857	20.340	0.091	1.05	Bolt Tension
		Diagonal	A325N	0.625	1	2.792	7.875	0.355	1.05	Member Block Shear
T3	160	Leg	A325N	0.625	4	9.883	20.340	0.486	1.05	Bolt Tension
		Diagonal	A325N	0.625	1	4.246	7.875	0.539	1.05	Member Block Shear
T4	140	Leg	A325N	0.750	4	17.834	30.101	0.592	1.05	Bolt Tension
		Diagonal	A325N	0.625	1	5.048	7.875	0.641	1.05	Member Block Shear
T5	120	Leg	A325N	0.750	4	24.780	30.101	0.823	1.05	Bolt Tension
		Diagonal	A325N	0.625	1	4.832	9.914	0.487	1.05	Member Block Shear
T6	100	Leg	A325N	0.875	4	31.375	41.556	0.755	1.05	Bolt Tension
		Diagonal	A325N	0.625	1	6.007	9.914	0.606	1.05	Member Block Shear
T7	80	Leg	A325N	0.875	4	37.464	41.556	0.902	1.05	Bolt Tension
		Diagonal	A325N	0.625	1	7.027	10.934	0.643	1.05	Member Block Shear
T8	60	Leg	A325N	1.000	4	43.764	54.517	0.803	1.05	Bolt Tension
		Diagonal	A325N	0.625	1	7.660	13.806	0.555	1.05	Bolt Shear
T9	40	Leg	A325N	1.000	4	49.667	54.517	0.911	1.05	Bolt Tension
		Diagonal	A325N	0.625	1	8.647	13.806	0.626	1.05	Bolt Shear
		Secondary Horizontal	A325N	0.500	1	4.107	8.836	0.465	1.05	Bolt Shear
T10	20	Leg	A36	1.500	6	37.076	61.128	0.607	1.05	Bolt Tension
		Diagonal	A325N	0.625	1	8.954	13.806	0.649	1.05	Bolt Shear

### Compression Checks

### Leg Design Data (Compression)

Section No.	Elevation	Size	L	L <sub>u</sub>	KI/r	A	P <sub>u</sub>	φP <sub>n</sub>	Ratio P <sub>u</sub> / φP <sub>n</sub>
	ft		ft	ft		in <sup>2</sup>	K	K	
T1	180 - 168	P2x.154	12.000	4.000	61.0 K=1.00	1.075	-2.119	27.981	0.076 <sup>1</sup>
T2	168 - 160	P2x.154 (GR)	8.000	4.000	61.0 K=1.00	1.075	-10.927	38.430	0.284 <sup>1</sup>
T3	160 - 140	P3x.216 (GR)	20.033	5.008	51.7 K=1.00	2.228	-49.331	87.013	0.567 <sup>1</sup>
T4	140 - 120	P3.5x.318 (GR)	20.033	6.678	61.3 K=1.00	3.678	-84.616	122.133	0.693 <sup>1</sup>
T5	120 - 100	P4x.337 (GR)	20.033	6.678	54.3 K=1.00	4.407	-115.824	157.190	0.737 <sup>1</sup>
T6	100 - 80	P5x.375 (GR)	20.033	6.678	43.6	6.112	-148.002	242.300	0.611 <sup>1</sup>

Section No.	Elevation ft	Size	L ft	L <sub>u</sub> ft	Kl/r	A in <sup>2</sup>	P <sub>u</sub> K	φP <sub>n</sub> K	Ratio $\frac{P_u}{\phi P_n}$
T7	80 - 60	P6x.432 (GR)	20.033	10.017	K=1.00 54.8	8.405	-176.993	314.315	0.563 <sup>1</sup>
T8	60 - 40	P6x.432 (GR)	20.033	10.017	K=1.00 54.8	8.405	-207.735	314.315	0.661 <sup>1</sup>
T9	40 - 20	P6x.432 (GR)	20.033	5.151	K=1.00 28.2	8.405	-236.806	362.711	0.653 <sup>1</sup>
T10	20 - 0	P8x.5 (GR)	20.033	10.017	K=1.00 41.8 K=1.00	12.763	-266.909	543.634	0.491 <sup>1</sup>

<sup>1</sup> P<sub>u</sub> / φP<sub>n</sub> controls

### Diagonal Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L <sub>u</sub> ft	Kl/r	A in <sup>2</sup>	P <sub>u</sub> K	φP <sub>n</sub> K	Ratio $\frac{P_u}{\phi P_n}$
T1	180 - 168	L2x1 1/2x3/16	5.657	2.543	101.1 K=1.07	0.621	-0.595	15.177	0.039 <sup>1</sup>
T2	168 - 160	L2x1 1/2x3/16	5.657	2.543	101.1 K=1.07	0.621	-2.917	15.177	0.192 <sup>1</sup>
T3	160 - 140	L2x1 1/2x3/16	7.621	3.637	135.6 K=1.00	0.621	-4.342	9.673	0.449 <sup>1</sup>
T4	140 - 120	L2x2x3/16	10.162	4.935	150.3 K=1.00	0.715	-4.776	9.058	0.527 <sup>1</sup>
T5	120 - 100	L2 1/2x2x3/16	11.744	5.701	160.2 K=1.00	0.809	-4.967	9.021	0.551 <sup>1</sup>
T6	100 - 80	L2 1/2x2 1/2x3/16	13.438	6.498	157.5 K=1.00	0.902	-6.088	10.403	0.585 <sup>1</sup>
T7	80 - 60	L3x3x3/16	16.803	8.223	165.6 K=1.00	1.090	-7.219	11.381	0.634 <sup>1</sup>
T8	60 - 40	L3 1/2x3x1/4	18.448	9.047	172.1 K=1.00	1.560	-7.660	15.083	0.508 <sup>1</sup>
T9	40 - 20	L3 1/2x3x1/4	20.158	10.049	191.1 K=1.00	1.560	-8.647	12.226	0.707 <sup>1</sup>
T10	20 - 0	L3 1/2x3 1/2x1/4	21.916	10.690	184.8 K=1.00	1.690	-8.954	14.159	0.632 <sup>1</sup>

<sup>1</sup> P<sub>u</sub> / φP<sub>n</sub> controls

### Secondary Horizontal Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L <sub>u</sub> ft	Kl/r	A in <sup>2</sup>	P <sub>u</sub> K	φP <sub>n</sub> K	Ratio $\frac{P_u}{\phi P_n}$
T9	40 - 20	L3 1/2x3 1/2x1/4	17.486	8.467	146.4 K=1.00	1.690	-4.107	22.568	0.182 <sup>1</sup>

<sup>1</sup> P<sub>u</sub> / φP<sub>n</sub> controls

### Top Girt Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L <sub>u</sub> ft	KI/r	A in <sup>2</sup>	P <sub>u</sub> K	φP <sub>n</sub> K	Ratio $\frac{P_u}{\phi P_n}$
T1	180 - 168	L1 1/2x2x3/16	4.000	3.510	130.8 K=1.00	0.621	-0.132	10.385	0.013 <sup>1</sup>

<sup>1</sup> P<sub>u</sub> / φP<sub>n</sub> controls

### Tension Checks

### Leg Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L <sub>u</sub> ft	KI/r	A in <sup>2</sup>	P <sub>u</sub> K	φP <sub>n</sub> K	Ratio $\frac{P_u}{\phi P_n}$
T1	180 - 168	P2x.154	12.000	4.000	61.0	1.075	1.590	33.848	0.047 <sup>1</sup>
T2	168 - 160	P2x.154 (GR)	8.000	4.000	61.0	1.075	7.428	33.848	0.219 <sup>1</sup>
T3	160 - 140	P3x.216 (GR)	20.033	5.008	51.7	2.228	39.530	70.197	0.563 <sup>1</sup>
T4	140 - 120	P3.5x.318 (GR)	20.033	6.678	61.3	3.678	71.337	115.870	0.616 <sup>1</sup>
T5	120 - 100	P4x.337 (GR)	20.033	6.678	54.3	4.407	99.118	138.834	0.714 <sup>1</sup>
T6	100 - 80	P5x.375 (GR)	20.033	6.678	43.6	6.112	125.500	192.527	0.652 <sup>1</sup>
T7	80 - 60	P6x.432 (GR)	20.033	10.017	54.8	8.405	149.854	264.756	0.566 <sup>1</sup>
T8	60 - 40	P6x.432 (GR)	20.033	10.017	54.8	8.405	175.055	264.756	0.661 <sup>1</sup>
T9	40 - 20	P6x.432 (GR)	20.033	4.865	26.6	8.405	199.005	264.756	0.752 <sup>1</sup>
T10	20 - 0	P8x.5 (GR)	20.033	10.017	41.8	12.763	222.454	402.026	0.553 <sup>1</sup>

<sup>1</sup> P<sub>u</sub> / φP<sub>n</sub> controls

### Diagonal Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L <sub>u</sub> ft	KI/r	A in <sup>2</sup>	P <sub>u</sub> K	φP <sub>n</sub> K	Ratio $\frac{P_u}{\phi P_n}$
T1	180 - 168	L2x1 1/2x3/16	5.657	2.543	73.4	0.360	0.533	15.675	0.034 <sup>1</sup>
T2	168 - 160	L2x1 1/2x3/16	5.657	2.543	73.4	0.360	2.792	15.675	0.178 <sup>1</sup>
T3	160 - 140	L2x1 1/2x3/16	7.621	3.637	103.3	0.360	4.246	15.675	0.271 <sup>1</sup>
T4	140 - 120	L2x2x3/16	9.197	4.474	89.9	0.431	5.048	18.739	0.269 <sup>1</sup>
T5	120 - 100	L2 1/2x2x3/16	11.744	5.701	117.0	0.501	4.832	21.806	0.222 <sup>1</sup>
T6	100 - 80	L2 1/2x2 1/2x3/16	13.438	6.498	102.5	0.571	6.007	24.840	0.242 <sup>1</sup>
T7	80 - 60	L3x3x3/16	16.803	8.223	107.0	0.712	7.027	30.973	0.227 <sup>1</sup>
T8	60 - 40	L3 1/2x3x1/4	18.448	9.047	120.8	1.029	7.471	44.778	0.167 <sup>1</sup>
T9	40 - 20	L3 1/2x3x1/4	20.158	10.049	132.1	1.029	7.868	44.778	0.176 <sup>1</sup>
T10	20 - 0	L3 1/2x3 1/2x1/4	21.916	10.690	119.3	1.127	8.353	49.019	0.170 <sup>1</sup>

<sup>1</sup> P<sub>u</sub> / φP<sub>n</sub> controls

### Secondary Horizontal Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L <sub>u</sub> ft	KI/r	A in <sup>2</sup>	P <sub>u</sub> K	φP <sub>n</sub> K	Ratio $\frac{P_u}{\phi P_n}$
T9	40 - 20	L3 1/2x3 1/2x1/4	17.486	8.467	186.4	1.150	4.107	50.039	0.082 <sup>1</sup>

<sup>1</sup> P<sub>u</sub> / φP<sub>n</sub> controls

### Top Girt Design Data (Tension)

Section No.	Elevation ft	Size	L ft	$L_u$ ft	Kl/r	A in <sup>2</sup>	$P_u$ K	$\phi P_n$ K	Ratio $\frac{P_u}{\phi P_n}$
T1	180 - 168	L1 1/2x2x3/16	4.000	3.510	103.8	0.360	0.153	15.675	0.010 <sup>1</sup>

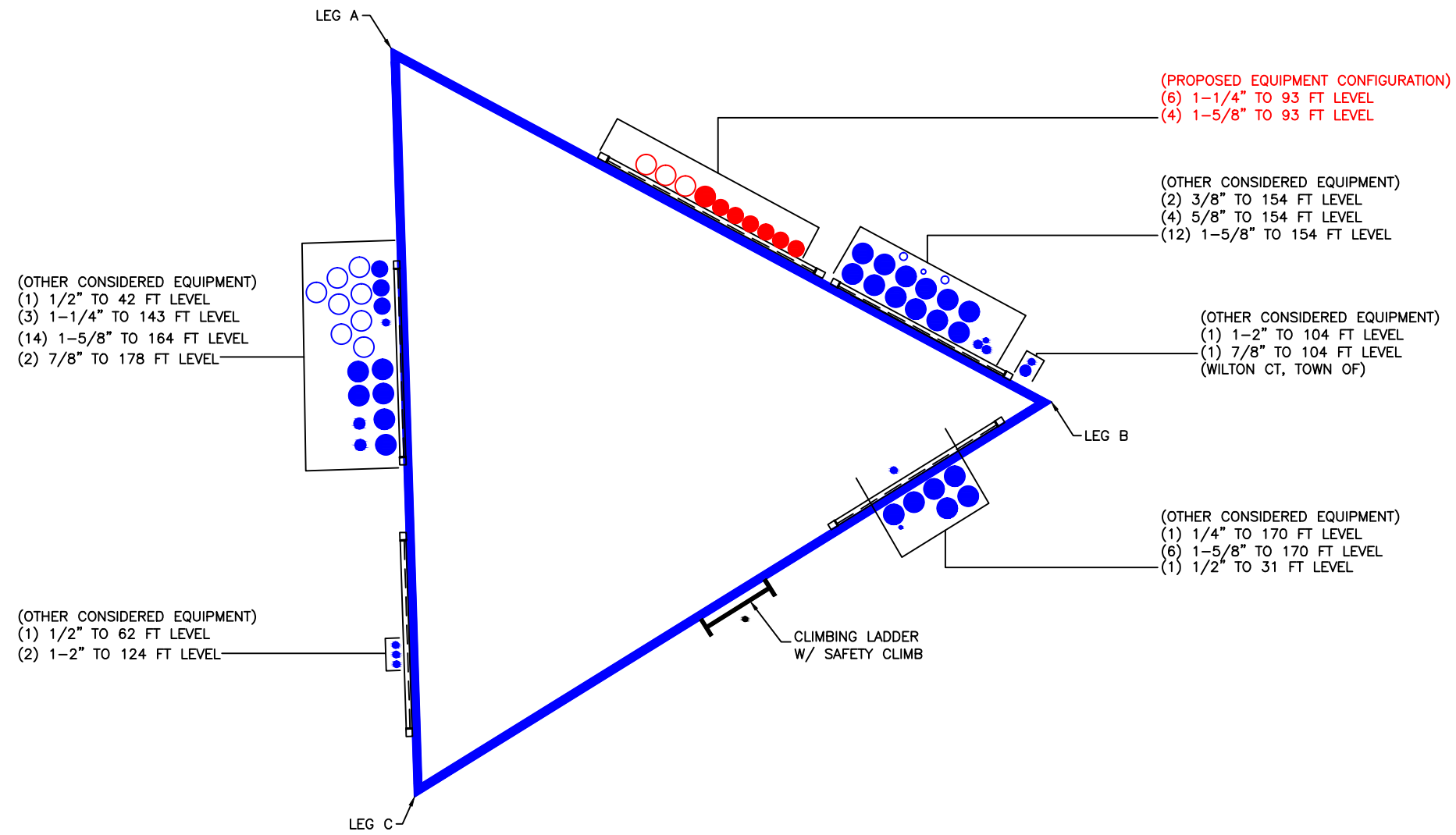
<sup>1</sup>  $P_u / \phi P_n$  controls

### Section Capacity Table

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	$\phi P_{allow}$ K	% Capacity	Pass Fail
T1	180 - 168	Leg	P2x.154	2	-2.119	29.380	7.2	Pass
T2	168 - 160	Leg	P2x.154 (GR)	26	-10.927	40.351	27.1	Pass
T3	160 - 140	Leg	P3x.216 (GR)	41	-49.331	91.364	54.0	Pass
T4	140 - 120	Leg	P3.5x.318 (GR)	68	-84.616	128.240	66.0	Pass
T5	120 - 100	Leg	P4x.337 (GR)	89	-115.824	165.049	70.2	Pass
							78.4 (b)	
T6	100 - 80	Leg	P5x.375 (GR)	110	125.500	202.153	62.1	Pass
							71.9 (b)	
T7	80 - 60	Leg	P6x.432 (GR)	131	149.854	277.994	53.9	Pass
							85.9 (b)	
T8	60 - 40	Leg	P6x.432 (GR)	145	175.055	277.994	63.0	Pass
							76.5 (b)	
T9	40 - 20	Leg	P6x.432 (GR)	160	199.005	277.994	71.6	Pass
							86.8 (b)	
T10	20 - 0	Leg	P8x.5 (GR)	181	222.454	422.127	52.7	Pass
							57.8 (b)	
T1	180 - 168	Diagonal	L2x1 1/2x3/16	10	-0.595	15.935	3.7	Pass
							6.5 (b)	
T2	168 - 160	Diagonal	L2x1 1/2x3/16	30	-2.917	15.935	18.3	Pass
							33.8 (b)	
T3	160 - 140	Diagonal	L2x1 1/2x3/16	46	-4.342	10.157	42.7	Pass
							51.3 (b)	
T4	140 - 120	Diagonal	L2x2x3/16	73	-4.776	9.511	50.2	Pass
							61.0 (b)	
T5	120 - 100	Diagonal	L2 1/2x2x3/16	91	-4.967	9.472	52.4	Pass
T6	100 - 80	Diagonal	L2 1/2x2 1/2x3/16	112	-6.088	10.923	55.7	Pass
							57.7 (b)	
T7	80 - 60	Diagonal	L3x3x3/16	133	-7.219	11.950	60.4	Pass
							61.2 (b)	
T8	60 - 40	Diagonal	L3 1/2x3x1/4	148	-7.660	15.837	48.4	Pass
							52.8 (b)	
T9	40 - 20	Diagonal	L3 1/2x3x1/4	163	-8.647	12.837	67.4	Pass
T10	20 - 0	Diagonal	L3 1/2x3 1/2x1/4	184	-8.954	14.867	60.2	Pass
							61.8 (b)	
T9	40 - 20	Secondary Horizontal	L3 1/2x3 1/2x1/4	169	-4.107	23.697	17.3	Pass
							44.3 (b)	
T1	180 - 168	Top Girt	L1 1/2x2x3/16	6	-0.132	10.904	1.2	Pass
							2.5 (b)	
							Summary	
							Leg (T9)	86.8 Pass
							Diagonal (T9)	67.4 Pass
							Secondary Horizontal (T9)	44.3 Pass
							Top Girt (T1)	2.5 Pass
							Bolt Checks	86.8 Pass
							<b>RATING =</b>	<b>86.8 Pass</b>

**APPENDIX B**  
**BASE LEVEL DRAWING**





**APPENDIX C**  
**ADDITIONAL CALCULATIONS**

**Leg Splice Connection Check - 60'**

**Input Properties:**

$E := 60\text{ft}$  Elevation of leg splice connection  
 $F_y := 35\text{ksi}$  Yield stress of leg  
 $F_u := 60\text{ksi}$  Tensile stress of leg  
  
 $b := 3\cdot\text{in}$  Knife Plate Width  
 $t := 1.0\cdot\text{in}$  Knife Plate thickness  
 $F_{ukp} := 65\text{ksi}$  Ultimate strength of Knife plate steel  
 $F_{ykp} := 50\text{ksi}$  Yield Strength of Knife plate Steel  
 $n_{pl} := 2$  Number of Knife Plates  
  
 $\phi_{bo} := 0.875\cdot\text{in}$  Diameter of flange bolts  
 $n_b := 4$  Number of flange bolts

**Input Loads:**

Code := "TIA-H" Version of the TIA  
 $T_u := 149.85\text{kip}$  Maximum leg tension load  
 $P_u := 176.99\text{kip}$  Maximum leg compression load  
  
 $U := 1.00$  Shear lag coefficient  
 $\phi_t := 0.90$  Tension Yielding  
 $\phi_{tr} := 0.75$  Tension Rupture  
 $\phi_b := 0.75$  Bolt Shear

**Leg Capacity:**

**leg above splice**

$$A_{gt} := 8.405 \text{ in}^2 \quad \text{Gross area of top leg (P6x0.432)}$$

$$\text{GrossAllowableTension}_{tm} := \phi_t \cdot F_y \cdot A_{gt} = 264.7575 \cdot \text{kip}$$

$$A_{gtnm} := 8.405 \cdot \text{in}^2 \quad \text{Gross area of top leg (P6x0.432)}$$

$$\text{GrossAllowableTension}_{tnm} := \phi_t \cdot F_y \cdot A_{gtnm} = 264.7575 \cdot \text{kip}$$

**Leg below splice**

$$A_{gb} := 8.405 \text{ in}^2 \quad \text{Gross area of top leg (P6x0.432)}$$

$$\text{GrossAllowableTension}_{bm} := \phi_t \cdot F_y \cdot A_{gb} = 264.7575 \cdot \text{kip}$$

$$A_{gbnm} := 8.405 \text{ in}^2 \quad \text{Gross area of top leg (P6x0.432)}$$

$$\text{GrossAllowableTension}_{bnm} := \phi_t \cdot F_y \cdot A_{gbnm} = 264.7575 \cdot \text{kip}$$

**Knife Plate Capacity:**

COMPRESSION CHECK

$$A_{kcp} := b \cdot t = 3 \cdot \text{in}^2 \quad \text{Area of the knife plate}$$

$$K := 1$$

$$L_{kcp} := 2 \text{ft} \quad \text{Unbraced length of the knife plate}$$

$$I_{kcp} := \frac{(b \cdot t^3)}{12} = 0.25 \cdot \text{in}^4$$

$$r_{kcp} := \sqrt{\frac{I_{kcp}}{A_{kcp}}} = 0.2887 \cdot \text{in}$$

$$E := 29000 \text{ksi}$$

$$\frac{K \cdot L_{kcp}}{r_{kcp}} = 83.1384$$

$$F_e := \frac{(\pi^2 \cdot E)}{\left(\frac{K \cdot L_{kcp}}{r_{kcp}}\right)^2} = 41.4089 \cdot \text{ksi}$$

$$F_{cr} := \begin{cases} 0.658 \cdot \frac{F_{ykp}}{F_e} \cdot F_{ykp} & \text{if } \frac{K \cdot L_{kcp}}{r_{kcp}} \leq 4.71 \cdot \sqrt{\frac{E}{F_{ykp}}} \\ 0.877 \cdot F_e & \text{otherwise} \end{cases} = 30.1636 \cdot \text{ksi}$$

$$\phi_c := 0.9$$

$$KP_{ultimateComp} := \phi_c \cdot F_{cr} \cdot n_{p1} \cdot A_{kcp} = 162.8835 \cdot \text{kip}$$

TENSILE CHECK

$$\phi := 0.9$$

$$R_{tkp} := F_{ykp} \cdot n_{p1} \cdot A_{kcp} = 300 \cdot \text{kip} \quad \text{Nominal Tensile strength of Knife Plates}$$

$$KP_{ultimateTen} := \phi \cdot R_{tkp} = 270 \cdot \text{kip}$$

$$R_{kpc} := \frac{n_{p1} A_{kcp}}{(A_{gtm} + n_{p1} A_{kcp})} = 41.6522 \cdot \% \quad \text{Percent of compressive load in knife plates}$$

$$R_{lc} := 1 - R_{kpc} = 58.3478 \cdot \% \quad \text{Percent of compressive load in tower legs}$$

$$R_{kpt} := \frac{n_{p1} A_{kcp}}{(A_{gtm} + n_{p1} A_{kcp})} = 41.6522 \cdot \% \quad \text{Percent of tensile load in knife plates}$$

$$R_{lt} := 1 - R_{kpt} = 58.3478 \cdot \% \quad \text{Percent of tensile load in tower legs}$$

**Flange Bolt Capacity:**

$$F_u := 120 \cdot \text{ksi}$$

Specified Minimum Tensile strength of A325 bolts between 0.5" & 1" Diameter.

$$A_{gb} := \frac{\phi_{bo}^2 \cdot \pi}{4} = 0.6013 \cdot \text{in}^2$$

Nominal area of one flange bolt.

$$A_{nb} := 0.75 \cdot A_{gb}$$

Net are of one flange bolt.

$$\text{BoltUltimateTen} := \phi_b \cdot A_{nb} \cdot F_u \cdot n_b = 162.3565 \cdot \text{kip}$$

Ultimate resistance of flange bolt grouping.

Summary:

LegAboveTension :=  $T_u = 149.85 \cdot \text{kip}$

Test := | "Pass" if LegAboveTension < GrossAllowableTension<sub>tm</sub>  
| "Fail " otherwise

Test = "Pass" StressRatio :=  $\frac{\text{LegAboveTension}}{1.05\text{GrossAllowableTension}_{tm}} = 53.9\%$

Test := | "Pass" if LegAboveTension · R<sub>1t</sub> < GrossAllowableTension<sub>tnm</sub>  
| "Fail " otherwise

Test = "Pass" StressRatio :=  $\frac{\text{LegAboveTension} \cdot R_{1t}}{1.05\text{GrossAllowableTension}_{tnm}} = 31.45\%$

Test := | "Pass" if LegAboveTension · R<sub>kpt</sub> < KPUltimateTen  
| "Fail " otherwise

Test = "Pass" StressRatio :=  $\frac{\text{LegAboveTension} \cdot R_{kpt}}{1.05\text{KPUltimateTen}} = 22.02\%$

Test := | "Pass" if LegAboveTension · R<sub>1t</sub> < BoltUltimateTen  
| "Fail " otherwise

Test = "Pass" StressRatio :=  $\frac{\text{LegAboveTension} \cdot R_{1t}}{1.05\text{BoltUltimateTen}} = 51.29\%$

Test := | "Pass" if LegAboveTension · R<sub>1t</sub> < GrossAllowableTension<sub>bnm</sub>  
| "Fail " otherwise

Test = "Pass" StressRatio :=  $\frac{\text{LegAboveTension} \cdot R_{1t}}{1.05\text{GrossAllowableTension}_{bnm}} = 31.45\%$

Test := | "Pass" if LegAboveTension < GrossAllowableTension<sub>bm</sub>  
| "Fail " otherwise

Test = "Pass" StressRatio :=  $\frac{\text{LegAboveTension}}{1.05\text{GrossAllowableTension}_{bm}} = 53.9\%$

LegAboveCompression :=  $P_u = 176.99 \cdot \text{kip}$

Test :=  $\begin{cases} \text{"Pass"} & \text{if LegAboveCompression} \cdot R_{kpc} < KP_{\text{UltimateComp}} \\ \text{"Fail"} & \text{otherwise} \end{cases}$

Test = "Pass"

$$\text{StressRatio} := \frac{\text{LegAboveCompression} \cdot R_{kpc}}{1.05 KP_{\text{UltimateComp}}} = 43.1\%$$

StressRatio Values reported in accordance with TIA-222-H, Sec. 15.5.



### Leg Splice Connection Check - 20'

#### Input Properties:

$E := 20 \text{ ft}$	Elevation of leg splice connection
$F_y := 35 \text{ ksi}$	Yield stress of leg
$F_u := 60 \text{ ksi}$	Tensile stress of leg
$b := 3 \cdot \text{in}$	Knife Plate Width
$t := 1 \cdot \text{in}$	Knife Plate thickness
$F_{ukp} := 65 \text{ ksi}$	Ultimate strength of Knife plate steel
$F_{ykp} := 50 \text{ ksi}$	Yield Strength of Knife plate Steel
$n_{pl} := 2$	Number of Knife Plates
$\phi_{bo} := 1.0 \cdot \text{in}$	Diameter of flange bolts
$n_b := 4$	Number of flange bolts

#### Input Loads:

Code := "TIA-H"	Version of the TIA
$T_u := 199.01 \text{ kip}$	Maximum leg tension load
$P_u := 236.81 \text{ kip}$	Maximum leg compression load
$U := 1.00$	Shear lag coefficient
$\phi_t := 0.90$	Tension Yielding
$\phi_{tr} := 0.75$	Tension Rupture
$\phi_b := 0.75$	Bolt Shear

**Leg Capacity:**

**leg above splice**

$$A_{gt} := 8.405 \text{ in}^2 \quad \text{Gross area of top leg (P6x0.432)}$$

$$\text{GrossAllowableTension}_{tm} := \phi_t \cdot F_y \cdot A_{gt} = 264.7575 \cdot \text{kip}$$

$$A_{gtnm} := 8.405 \cdot \text{in}^2 \quad \text{Gross area of top leg (P6x0.432)}$$

$$\text{GrossAllowableTension}_{tnm} := \phi_t \cdot F_y \cdot A_{gtnm} = 264.7575 \cdot \text{kip}$$

**Leg below splice**

$$A_{gb} := 12.762 \text{ in}^2 \quad \text{Gross area of bottom leg (P8x0.5)}$$

$$\text{GrossAllowableTension}_{bm} := \phi_t \cdot F_y \cdot A_{gb} = 402.003 \cdot \text{kip}$$

$$A_{gbnm} := 12.762 \text{ in}^2 \quad \text{Gross area of bottom leg (P8x0.5)}$$

$$\text{GrossAllowableTension}_{bnm} := \phi_t \cdot F_y \cdot A_{gbnm} = 402.003 \cdot \text{kip}$$

**Knife Plate Capacity:**

COMPRESSION CHECK

$$A_{kcp} := b \cdot t = 3 \cdot \text{in}^2 \quad \text{Area of the knife plate}$$

$$K := 1$$

$$L_{kcp} := 2 \text{ft} \quad \text{Unbraced length of the knife plate}$$

$$I_{kcp} := \frac{(b \cdot t^3)}{12} = 0.25 \cdot \text{in}^4$$

$$r_{kcp} := \sqrt{\frac{I_{kcp}}{A_{kcp}}} = 0.2887 \cdot \text{in}$$

$$E := 29000 \text{ksi}$$

$$\frac{K \cdot L_{kcp}}{r_{kcp}} = 83.1384$$

$$F_e := \frac{(\pi^2 \cdot E)}{\left(\frac{K \cdot L_{kcp}}{r_{kcp}}\right)^2} = 41.4089 \cdot \text{ksi}$$

$$F_{cr} := \begin{cases} 0.658 \cdot \frac{F_{ykp}}{F_e} \cdot F_{ykp} & \text{if } \frac{K \cdot L_{kcp}}{r_{kcp}} \leq 4.71 \cdot \sqrt{\frac{E}{F_{ykp}}} \\ 0.877 \cdot F_e & \text{otherwise} \end{cases} = 30.1636 \cdot \text{ksi}$$

$$\phi_c := 0.9$$

$$KP_{ultimateComp} := \phi_c \cdot F_{cr} \cdot n_{p1} \cdot A_{kcp} = 162.8835 \cdot \text{kip}$$

TENSILE CHECK

$$\phi := 0.9$$

$$R_{tkp} := F_{ykp} \cdot n_{p1} \cdot A_{kcp} = 300 \cdot \text{kip} \quad \text{Nominal Tensile strength of Knife Plates}$$

$$KP_{ultimateTen} := \phi_c \cdot R_{tkp} = 270 \cdot \text{kip}$$

$$R_{kpc} := \frac{n_{p1} A_{kcp}}{(A_{gtm} + n_{p1} A_{kcp})} = 41.6522 \cdot \% \quad \text{Percent of compressive load in knife plates}$$

$$R_{lc} := 1 - R_{kpc} = 58.3478 \cdot \% \quad \text{Percent of compressive load in tower legs}$$

$$R_{kpt} := \frac{n_{p1} A_{kcp}}{(A_{gtm} + n_{p1} A_{kcp})} = 41.6522 \cdot \% \quad \text{Percent of tensile load in knife plates}$$

$$R_{lt} := 1 - R_{kpt} = 58.3478 \cdot \% \quad \text{Percent of tensile load in tower legs}$$

**Flange Bolt Capacity:**

$$F_u := 120 \cdot \text{ksi}$$

Specified Minimum Tensile strength of A325 bolts between 0.5" & 1" Diameter.

$$A_{gb} := \frac{\phi_{bo}^2 \cdot \pi}{4} = 0.7854 \cdot \text{in}^2$$

Nominal area of one flange bolt.

$$A_{nb} := 0.75 \cdot A_{gb}$$

Net are of one flange bolt.

$$\text{BoltUltimateTen} := \phi_b \cdot A_{nb} \cdot F_u \cdot n_b = 212.0575 \cdot \text{kip}$$

Ultimate resistance of flange bolt grouping.

Summary:

LegAboveTension :=  $T_u = 199.01 \cdot \text{kip}$

Test := | "Pass" if LegAboveTension < GrossAllowableTension<sub>tm</sub>  
| "Fail " otherwise

Test = "Pass" StressRatio :=  $\frac{\text{LegAboveTension}}{1.05\text{GrossAllowableTension}_{tm}} = 71.59\%$

Test := | "Pass" if LegAboveTension · R<sub>1t</sub> < GrossAllowableTension<sub>tnm</sub>  
| "Fail " otherwise

Test = "Pass" StressRatio :=  $\frac{\text{LegAboveTension} \cdot R_{1t}}{1.05\text{GrossAllowableTension}_{tnm}} = 41.77\%$

Test := | "Pass" if LegAboveTension · R<sub>kpt</sub> < KPUltimateTen  
| "Fail " otherwise

Test = "Pass" StressRatio :=  $\frac{\text{LegAboveTension} \cdot R_{kpt}}{1.05\text{KPUltimateTen}} = 29.24\%$

Test := | "Pass" if LegAboveTension · R<sub>1t</sub> < BoltUltimateTen  
| "Fail " otherwise

Test = "Pass" StressRatio :=  $\frac{\text{LegAboveTension} \cdot R_{1t}}{1.05\text{BoltUltimateTen}} = 52.15\%$

Test := | "Pass" if LegAboveTension · R<sub>1t</sub> < GrossAllowableTension<sub>bnm</sub>  
| "Fail " otherwise

Test = "Pass" StressRatio :=  $\frac{\text{LegAboveTension} \cdot R_{1t}}{1.05\text{GrossAllowableTension}_{bnm}} = 27.51\%$

Test := | "Pass" if LegAboveTension < GrossAllowableTension<sub>bm</sub>  
| "Fail " otherwise

Test = "Pass" StressRatio :=  $\frac{\text{LegAboveTension}}{1.05\text{GrossAllowableTension}_{bm}} = 47.15\%$

LegAboveCompression :=  $P_u = 236.81 \cdot \text{kip}$

Test :=  $\begin{cases} \text{"Pass"} & \text{if LegAboveCompression} \cdot R_{kpc} < KP_{\text{UltimateComp}} \\ \text{"Fail"} & \text{otherwise} \end{cases}$

Test = "Pass"

$$\text{StressRatio} := \frac{\text{LegAboveCompression} \cdot R_{kpc}}{1.05 KP_{\text{UltimateComp}}} = 57.67\%$$

Stressratio values reported in accordance with TIA-222-H, Sec. 15.5.

# CClplate

Project Information	
BU #	806353
Site Name	BRG 124 943066
Order #	479808 Rev.0

Tower Information	
Tower Type	Self Support
TIA-222 Rev	H

Apply TIA-222-H Section 15.5

Applied Loads		
	Comp.	Uplift
Axial (k)	274.00	228.00
Shear (k)	28.00	24.00

Anchor Rod Data	
Quantity:	6
Diameter (in):	1.5
<a href="#">Material Grade:</a>	A36
Grout Considered:	Yes
$l_{ar}$ (in):	2
Eta Factor, $\eta$ :	
Thread Type:	N-Included
Configuration:	Symmetrical

Fy=36 ksi Fu=58 ksi

Anchor Rod Results	
Axial, $Pu_c$ (kips)	45.67
Shear, $Vu$ (kips)	4.67
Moment, $Mu$ (kip-in)	-
Axial Cap., $\phi Pn_c$ (kips)	50.76
Shear Cap., $\phi Vn$ (kips)	15.23
Moment Cap., $\phi Mn$ (kip-in)	-
Stress Rating	94.6%

Pass

## Drilled Pier Foundation

BU # :	806353
Site Name:	BRG 124 943066
Order Number:	479808 Rev.0

TIA-222 Revison:	H
Tower Type:	Self Support



Applied Loads		
	Comp.	Uplift
Moment (kip-ft)	0	0
Axial Force (kips)	274	228
Shear Force (kips)	28	24

Material Properties	
Concrete Strength, f <sub>c</sub> :	3 ksi
Rebar Strength, F <sub>y</sub> :	60 ksi

Pier Design Data	
Depth	13.25 ft
Ext. Above Grade	0.25 ft
Pier Section 1	
<i>From 0.25' above grade to 13.25' below grade</i>	
Pier Diameter	2.5 ft
Rebar Quantity	14
Rebar Size	8
Clear Cover to Ties	3 in
Tie Size	4

Analysis Results		
Soil Lateral Capacity	Compression	Uplift
D <sub>v=0</sub> (ft from TOC)	7.49	7.49
Soil Safety Factor	7.62	8.89
Max Moment (kip-ft)	189.43	162.37
Rating*	16.6%	14.2%

Soil Vertical Capacity	Compression	Uplift
Skin Friction (kips)	192.44	192.44
End Bearing (kips)	206.28	-
Weight of Concrete (kips)	11.93	8.95
Total Capacity (kips)	578.72	381.39
Axial (kips)	285.93	228.00
Rating*	47.1%	56.9%

Reinforced Concrete Capacity	Compression	Uplift
Critical Depth (ft from TOC)	7.49	7.10
Critical Moment (kip-ft)	189.43	160.99
Critical Moment Capacity	558.54	369.67
Rating*	32.3%	41.5%

Soil Interaction Rating*	56.9%
Structural Foundation Rating*	41.5%

\*Rating per TIA-222-H Section 15.5

Check Limitation	
Apply TIA-222-H Section 15.5:	<input checked="" type="checkbox"/>
N/A	<input type="checkbox"/>

Uplift and bearing capacities have been adjusted to account for the existing foundation modification.

Soil Profile			
Groundwater Depth	n/a	ft	# of Layers
			3

Layer	Top (ft)	Bottom (ft)	Thickness (ft)	γ <sub>soil</sub> (pcf)	γ <sub>concrete</sub> (pcf)	Cohesion (ksf)	Angle of Friction (degrees)	Calculated Ultimate Skin Friction Comp (ksf)	Calculated Ultimate Skin Friction Uplift (ksf)	Ultimate Skin Friction Comp Override (ksf)	Ultimate Skin Friction Uplift Override (ksf)	Ult. Gross Bearing Capacity (ksf)	SPT Blow Count	Soil Type
1	0	5	5	110	150	0	0	0.000	0.000					Cohesionless
2	5	6	1	110	150	0	30	0.000	0.000	0.77	0.77			Cohesionless
3	6	13.25	7.25	140	150	8	0	3.600	3.600	4.40	4.40	56.03		Cohesive

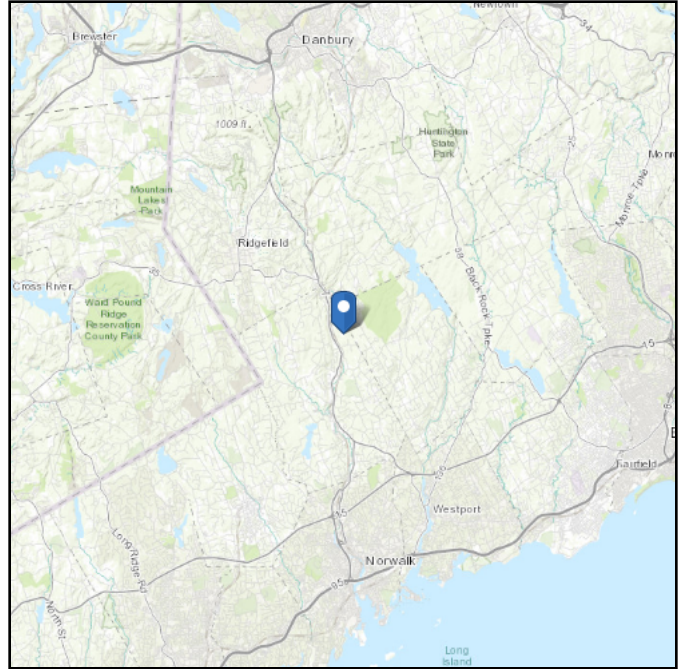


# ASCE 7 Hazards Report

**Address:**  
No Address at This  
Location

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

**Elevation:** 426.37 ft (NAVD 88)  
**Latitude:** 41.238428  
**Longitude:** -73.424011

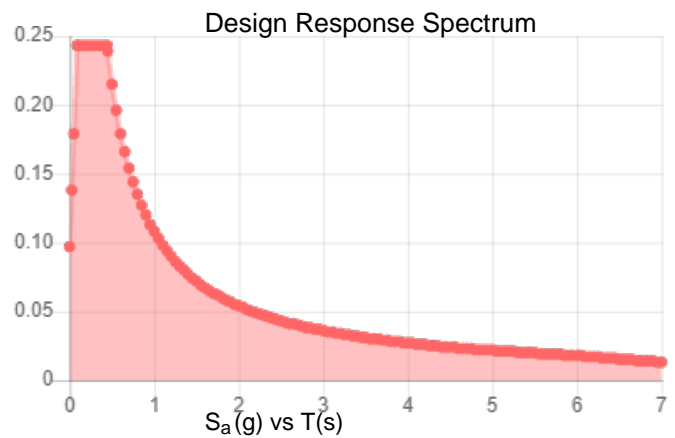
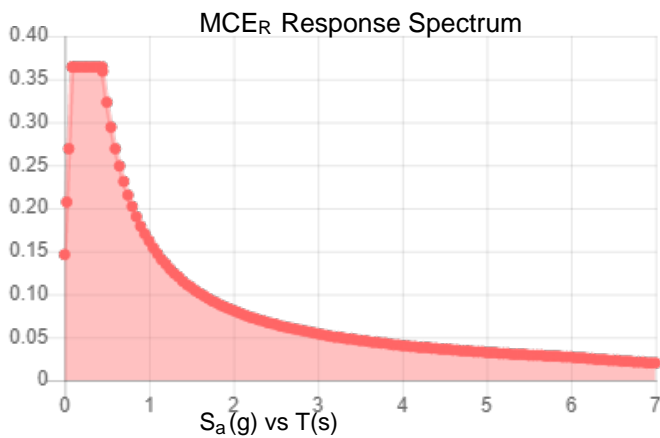


**Site Soil Class:** D - Stiff Soil

**Results:**

$S_s$ :	0.227	$S_{DS}$ :	0.243
$S_1$ :	0.067	$S_{D1}$ :	0.108
$F_a$ :	1.6	$T_L$ :	6
$F_v$ :	2.4	PGA :	0.127
$S_{MS}$ :	0.364	PGA <sub>M</sub> :	0.197
$S_{M1}$ :	0.162	F <sub>PGA</sub> :	1.546
		$I_e$ :	1

**Seismic Design Category** B



**Data Accessed:**

Tue Jun 04 2019

**Date Source:**

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

## Ice

---

**Results:**

Ice Thickness: 0.75 in.  
Concurrent Temperature: 15 F  
Gust Speed: 50 mph

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

**Date Accessed:** Tue Jun 04 2019

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

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

---

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

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# Exhibit E

## **Mount Analysis**

Date: **May 22, 2019**



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

FDH Infrastructure Services, LLC  
6521 Meriden Drive Suite 107  
Raleigh, NC 27616  
(919) 755-1012  
Structural@fdh-is.com

**Subject:** **Mount Analysis Report**

**Carrier Designation:** **T-Mobile Co-Locate**  
**Carrier Site Number:** CT11119A  
**Carrier Site Name:** Wilton/ Mountain Rd.& Bra

**Crown Castle Designation:** **Crown Castle BU Number:** 806353  
**Crown Castle Site Name:** BRG 124 943066  
**Crown Castle JDE Job Number:** 559168  
**Crown Castle Order Number:** 479808 Rev. 0

**Engineering Firm Designation:** **FDH Infrastructure Services, LLC Report Designation:** 19BLAP1400

**Site Data:** **128 MATHER STREET, WILTON, Fairfield County, CT, 06897**  
**Latitude 41 14'18.34" Longitude -73 25'26.44"**

**Structure Information:** **Tower Height & Type:** **180 ft Self Support Tower**  
**Mount Elevation:** **93 ft**  
**Mount Type:** **14.5 ft Sector Frame**

Dear Charles McGuirt,

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

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

**Sector Frame**

**Sufficient – 78.8%**

This analysis utilizes an ultimate 3-second gust wind speed of 120 mph as required by the 2018 Connecticut State Building Code and Appendix N. Applicable Standard references and design criteria are listed in Section 2 - Analysis Criteria.

Respectfully submitted by:

Michael Brennan, PE  
Project Engineer

Reviewed by:

Dennis D. Abel, PE  
Chief Engineer  
CT PE License No. 23247



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Table 4 - Tieback End Reactions

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Wire Frame and Rendered Models

### 6) APPENDIX B

Software Input Calculations

### 7) APPENDIX C

Software Analysis Output

### 1) INTRODUCTION

These are 14.5' Sector Frame Mounts mapped by Pier Structural Engineering Corp.

### 2) ANALYSIS CRITERIA

<b>TIA-222 Revision:</b>	TIA-222-H
<b>Risk Category:</b>	II
<b>Ultimate Wind Speed:</b>	120 mph
<b>Exposure Category:</b>	B
<b>Topographic Factor at Base:</b>	1
<b>Topographic Factor at Mount:</b>	1
<b>Ice Thickness:</b>	1.5 in
<b>Wind Speed with Ice:</b>	50 mph
<b>Live Loading Wind Speed:</b>	30 mph
<b>Man Live Load at Mid/End-Points:</b>	250 lb
<b>Man Live Load at Mount Pipes:</b>	500 lb

**Table 1 - Proposed Equipment Configuration**

Mount Centerline (ft)	Antenna Centerline (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Mount / Modification Details
93.0	93.0	3	ericsson	Ericsson AIR 21 B2A B4P	(3) 14.5" Sector Frames
		3	ericsson	AIR 32 B2A/B66AA	
		3	rfs celwave	APXVAARR24_43-U-NA20	
		3	ericsson	KRY 112 144/1	
		3	ericsson	RADIO 4449 B12/B71	

### 3) ANALYSIS PROCEDURE

**Table 2 - Documents Provided**

Document	Remarks	Reference	Source
4 – MOUNT MAPPING	P-SEC	Job No. 19651-11	ON FILE
LOADING ORDER	T-Mobile	Order 479808 Rev. 0	CCISITES

#### 3.1) Analysis Method

RISA-3D (version 17.0.2), a commercially available analysis software package, was used to create a three-dimensional model of the antenna mounting system and calculate member stresses for various loading cases.

FDH Infrastructure Services, LLC Mount Analysis Tool v5.1.3, a tool internally developed by FDH Infrastructure Services, LLC, was used to calculate member loading for various load cases. Selected output from the analysis is included in Appendix B.

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

### 3.2) Assumptions

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

Channel, Solid Round, Angle, Plate	ASTM A36 (GR 36)
HSS (Rectangular)	ASTM 500 (GR B-46)
Pipe	ASTM A53 (GR 35)
Connection Bolts	ASTM A325

This analysis may be affected if any assumptions are not valid or have been made in error. FDH Infrastructure Services, LLC should be notified to determine the effect on the structural integrity of the antenna mounting system.

### 4) ANALYSIS RESULTS

**Table 3(a) - Mount Component Stresses vs. Capacity (Sector Frame, Alpha Sector)**

Notes	Component	Critical Member	Centerline (ft)	% Capacity <sup>2</sup>	Pass / Fail
1	Face Horizontal(s)	H2	93	57.0	Pass
1	Standoff Member(s)	SO1	93	26.9	Pass
1	Bracing Member(s)	VB2	93	18.0	Pass
1	Mount Pipes	PM3	93	77.4	Pass
1	Tieback to Tower Connection	N33A	93	8.5	Pass
1, 3	Mount to Tower Connection	N2	93	40.0	Pass

**Table 3(b) - Mount Component Stresses vs. Capacity (Sector Frame, Beta Sector)**

Notes	Component	Critical Member	Centerline (ft)	% Capacity <sup>2</sup>	Pass / Fail
1	Face Horizontal(s)	H2	93	60.0	Pass
1	Standoff Member(s)	SO1	93	28.8	Pass
1	Bracing Member(s)	VB2	93	17.8	Pass
1	Mount Pipes	PM3	93	78.8	Pass
1	Tieback to Tower Connection	N34	93	3.7	Pass
1, 3	Mount to Tower Connection	N2	93	39.8	Pass

**Table 3(c) - Mount Component Stresses vs. Capacity (Sector Frame, Gamma Sector)**

Notes	Component	Critical Member	Centerline (ft)	% Capacity <sup>2</sup>	Pass / Fail
1	Face Horizontal(s)	H2	93	60.0	Pass
1	Standoff Member(s)	SO1	93	28.8	Pass
1	Bracing Member(s)	VB2	93	17.8	Pass
1	Mount Pipes	PM3	93	78.8	Pass
1	Tieback to Tower Connection	N34	93	3.7	Pass
1, 3	Mount to Tower Connection	N2	93	39.8	Pass



<b>Structure Rating (max from all components) =</b>	<b>78.8%<sup>2</sup></b>
---	--------------------------

Notes:

- 1) See additional documentation in "Appendix C - Software Analysis Output" for calculations supporting the % capacity.
- 2) Rating per TIA-222-H Section 15.5
- 3) See additional documentation in "Appendix B – Software Input Calculations" for calculations supporting the % capacity.

**Table 4 - Tieback Connection Data Table**

Tower Connection No.	Existing / Proposed	Resultant End Reaction (lb)	Connected Member Type	Connected Member Size	Member Compressive Capacity (lb) <sup>3</sup>	Notes
N33A	Existing (Alpha Sector)	786.6	Diagonal	L2 ½ x 2 ½ x 3/16	566	1
N34	Existing (Alpha Sector)	508.3	Leg	Pipe 5.563" x 0.375"	12115	1
N33A	Existing (Beta Sector)	802.0	Leg	Pipe 5.563" x 0.375"	12115	1
N34	Existing (Beta Sector)	341.6	Diagonal	L2 ½ x 2 ½ x 3/16	566	1
N33A	Existing (Gamma Sector)	802.0	Leg	Pipe 5.563" x 0.375"	12115	1
N34	Existing (Gamma Sector)	341.6	Diagonal	L2 ½ x 2 ½ x 3/16	566	1

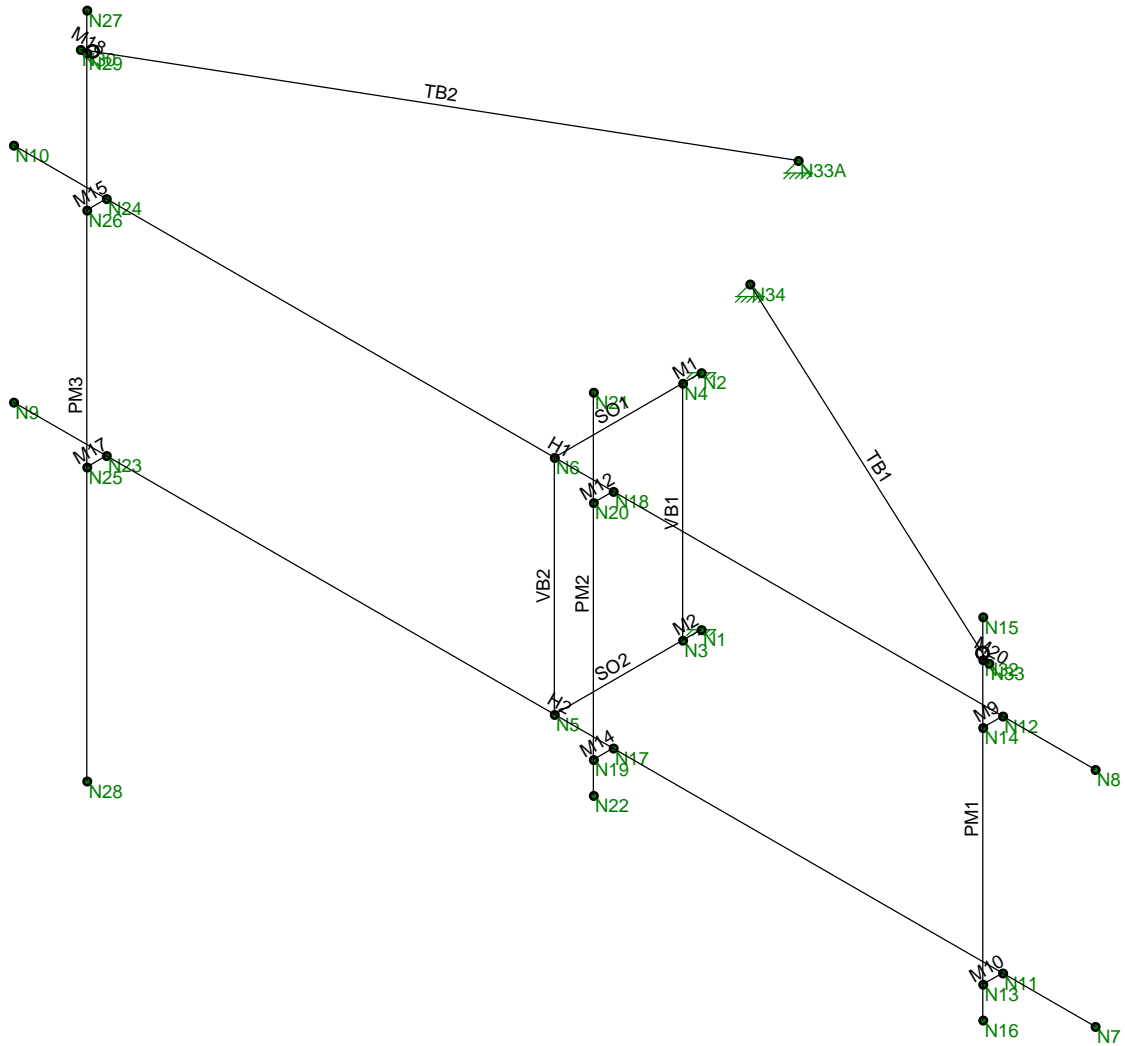
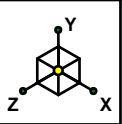
Notes:

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

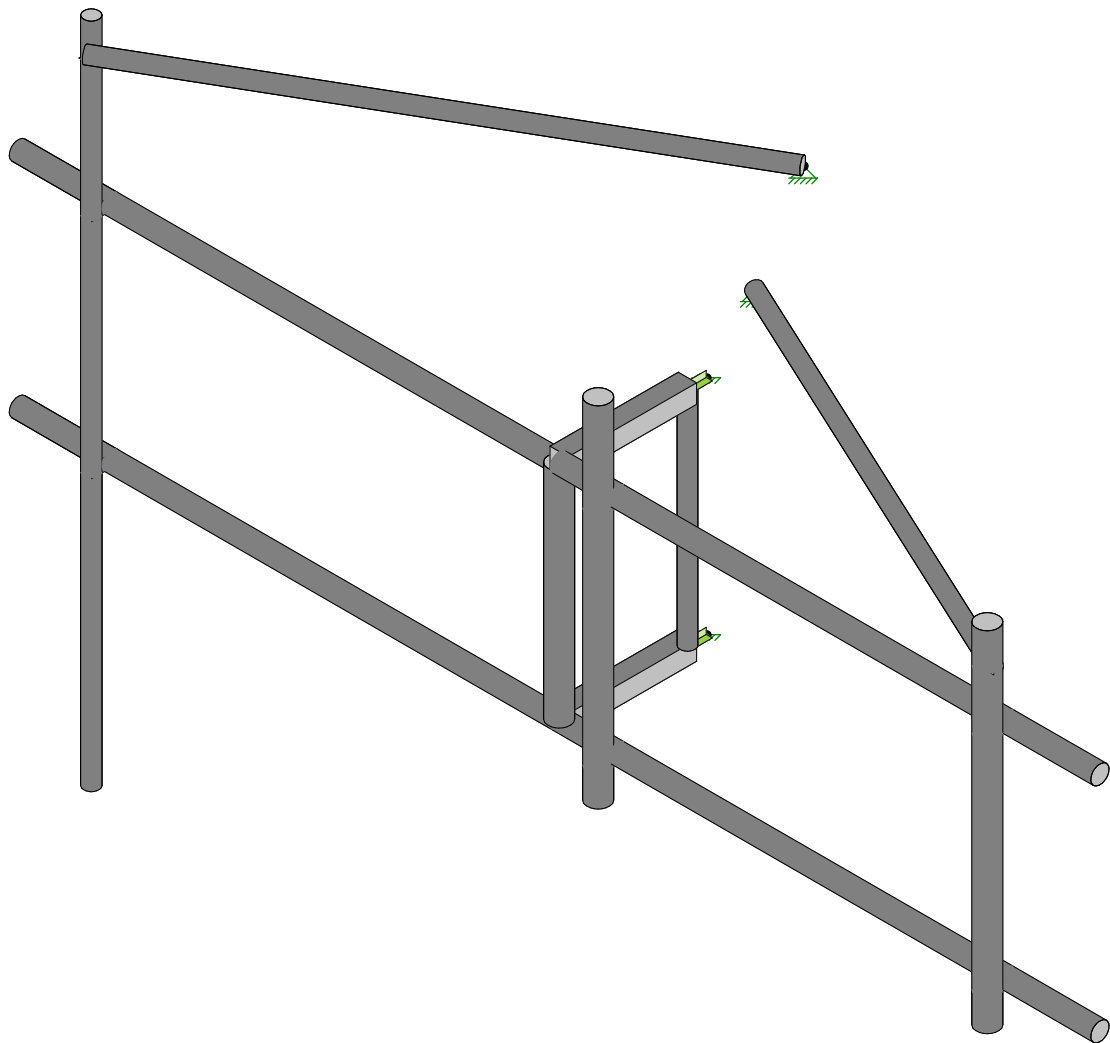
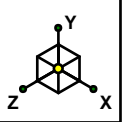
#### 4.1) Recommendations

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

**APPENDIX A**  
**WIRE FRAME AND RENDERED MODELS**



FDH-IS	806353_BRG_124_943066	Existing Mount - Alpha
MTB		May 22, 2019 at 9:26 AM
19BLAP1400		806353_BRG_124_943066 (Alpha...



FDH-IS

MTB

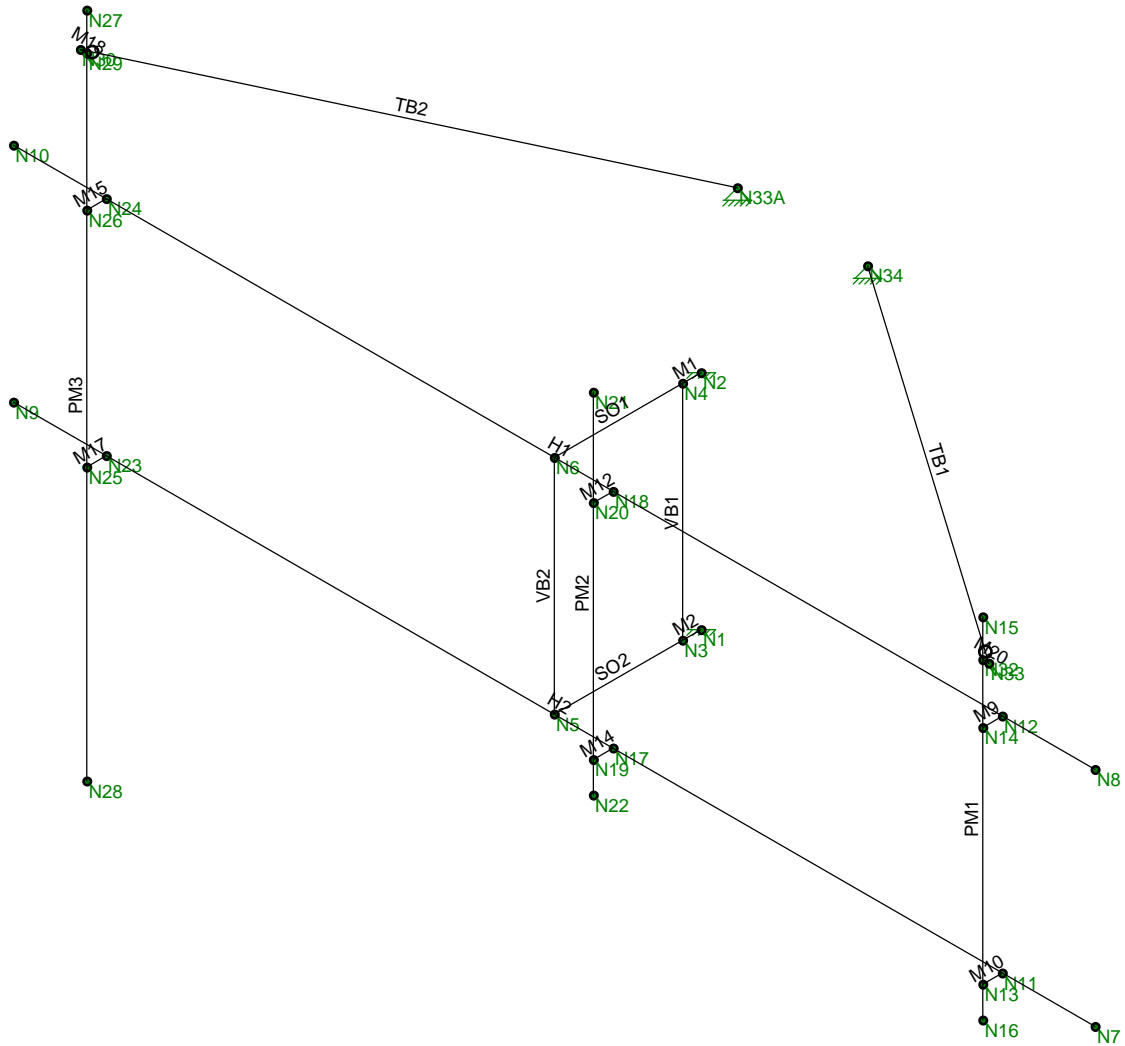
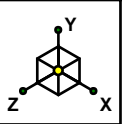
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806353\_BRG\_124\_943066

Existing Mount - Alpha

May 22, 2019 at 9:27 AM

806353\_BRG\_124\_943066 (Alpha...



FDH-IS

MTB

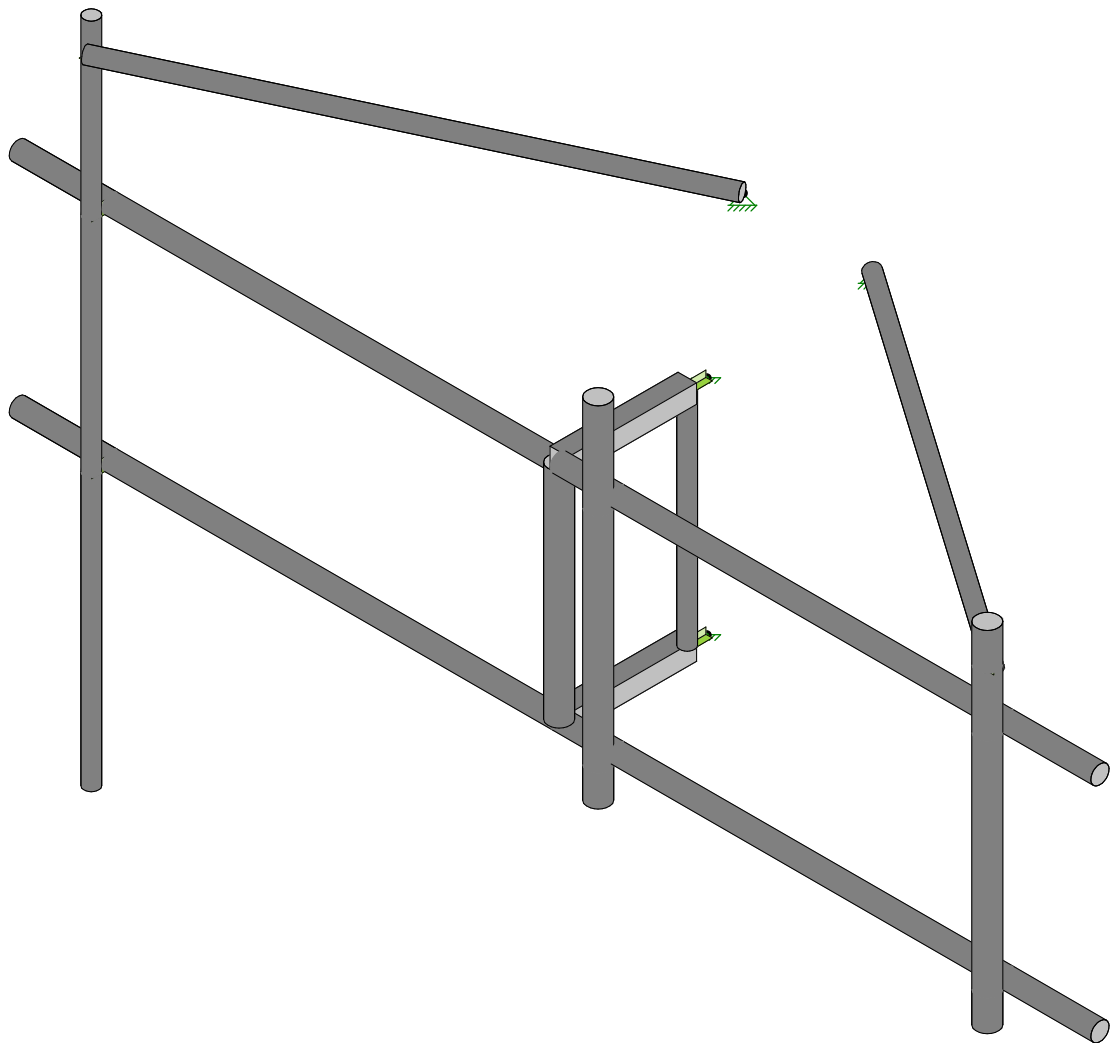
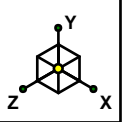
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806353\_BRG\_124\_943066

Existing Mount - Beta

May 22, 2019 at 9:46 AM

806353\_BRG\_124\_943066 (Beta) ...



FDH-IS

MTB

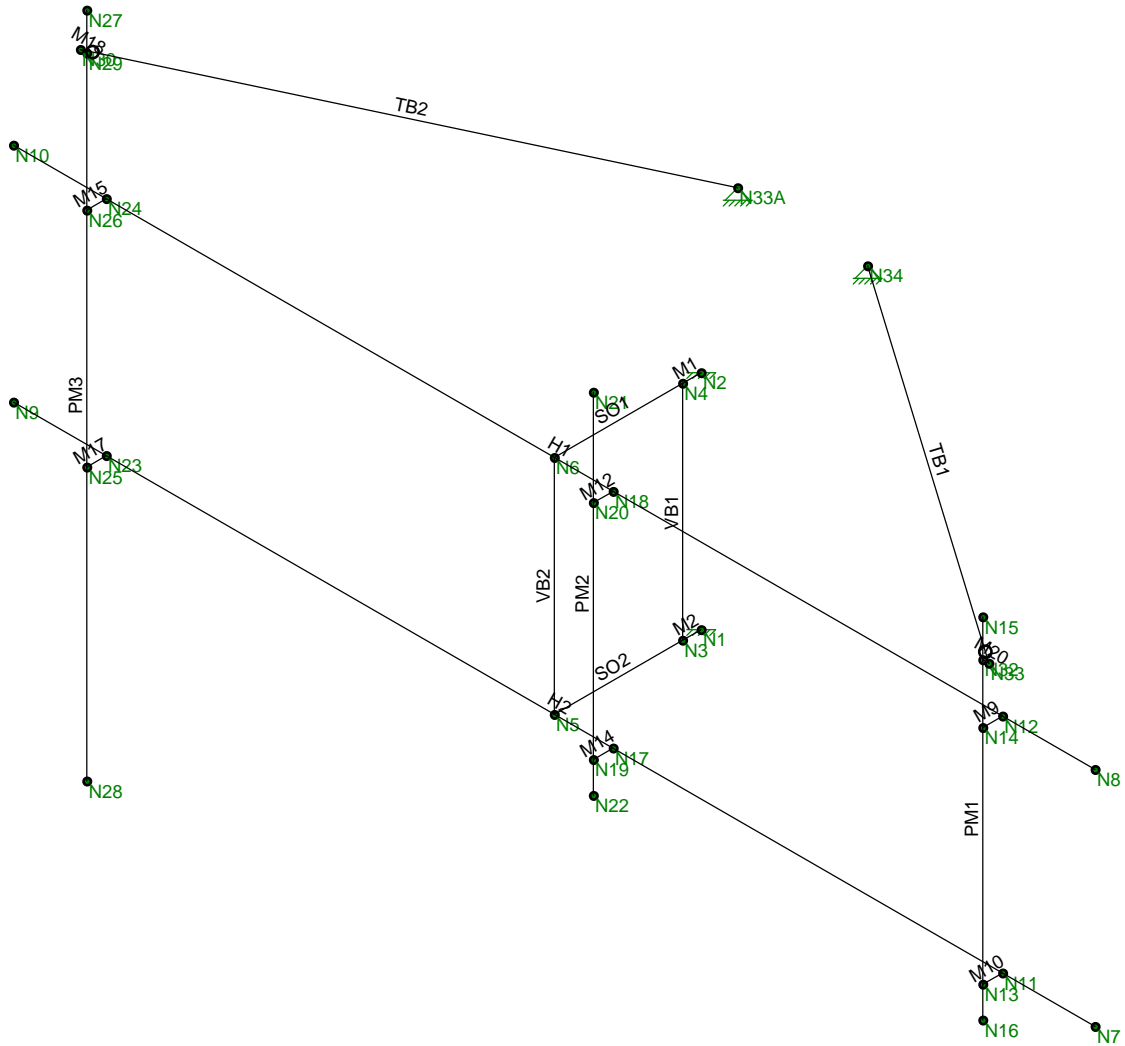
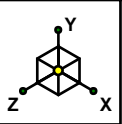
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Existing Mount - Beta

May 22, 2019 at 9:47 AM

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FDH-IS

MTB

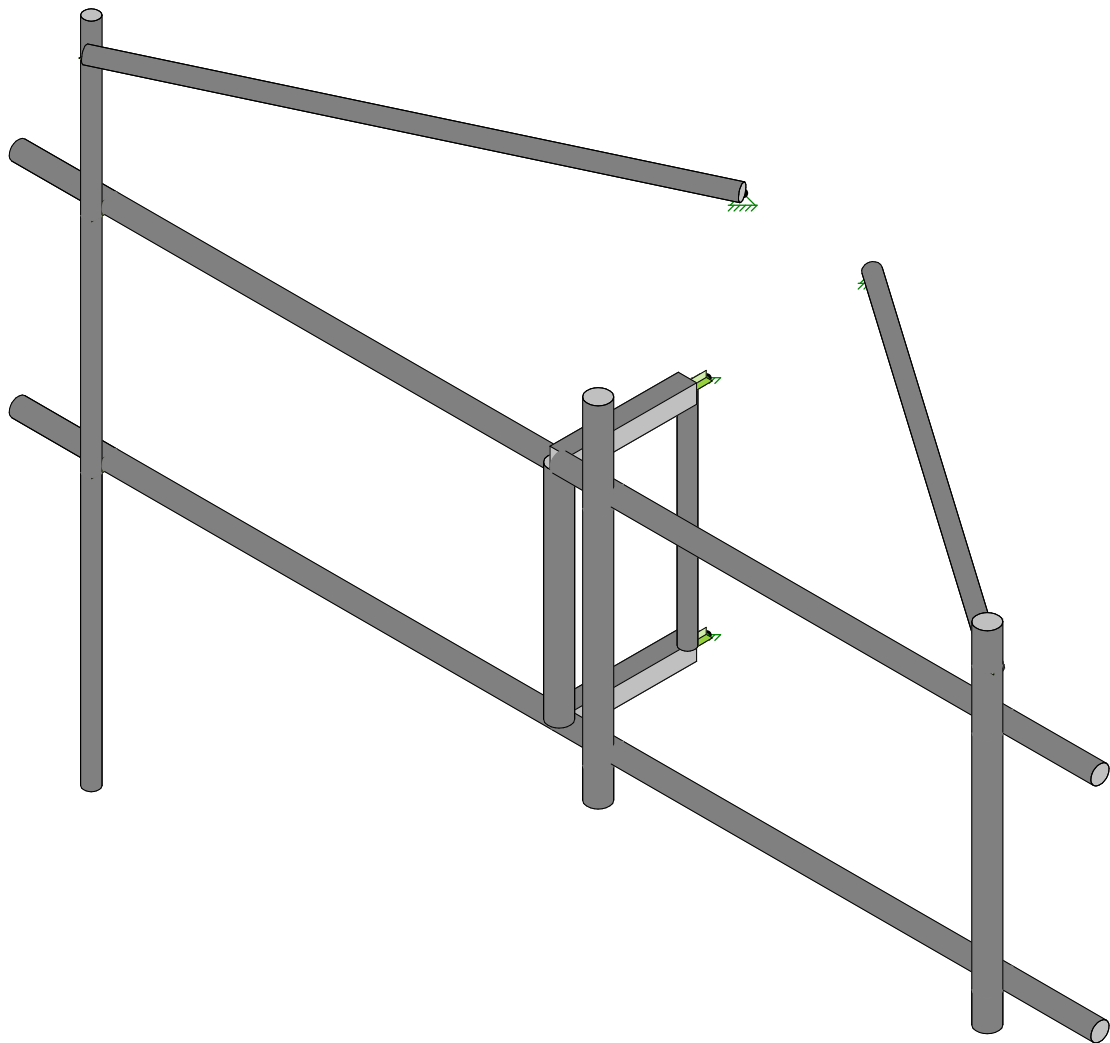
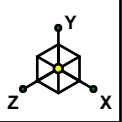
19BLAP1400

806353\_BRG\_124\_943066

Existing Mount - Gamma

May 22, 2019 at 10:03 AM

806353\_BRG\_124\_943066 (Gam...



FDH-IS

MTB

19BLAP1400

806353\_BRG\_124\_943066

Existing Mount - Gamma

May 22, 2019 at 10:04 AM

806353\_BRG\_124\_943066 (Gam...



**APPENDIX B**  
**SOFTWARE INPUT CALCULATIONS**

## Mount Analysis

Project Information	
Project Number:	19BLAP1400
Site Name:	BRG 124 943066 (Alpha)
Site Number:	806353

Analysis Parameters			
Tower Type:	<i>TowerType</i>	Self Support	-
Mount Status:	<i>MountStatus</i>	Existing	-
Mount Type:	<i>MountType</i>	T-Frame	-
Analysis Code:	<i>Code</i>	TIA-222-H	-
IBC Code:	<i>IbcCode</i>	2015 IBC	-
Max Stress Ratio:	<i>MaxStressRatio</i>	100%	-
Tower Height:	<i>TwrHeight</i>	180	ft
Effective Mount Centerline Height:	<i>MntHeight</i>	93	ft
RISA Y-Coordinate of Mount CL:	<i>MountY</i>	0	in
Ultimate Wind Speed:	<i>WindSpeed</i>	120	mph
Maintenance Wind Speed:	<i>MaintWind</i>	30	mph
Design Ice Wind Speed:	<i>IceWind</i>	50	mph
Ultimate Ice Thickness:	<i>IceThickness</i>	1.5	in
Risk Category:	<i>RiskCat</i>	II	-
Exposure Category:	<i>Exposure</i>	B	-
Topographic Factor $K_{zt}$ :	<i>Kzt</i>	1	-
$S_s$ :	<i>Ss</i>	0.227	-
$S_1$ :	<i>S_1</i>	0.067	-
Site Class:	<i>SiteClass</i>	D	-
Ground Elevation at Base of Structure:	<i>zs</i>	426	ft
Roof Speed Up Factor:	<i>Ks</i>		-

Wind Parameters			
Wind Speed:			
Shielding Factor $K_d$ :	<i>Kd</i>	0.90	-
Gust Factor $G_H$ :	<i>Gh</i>	1.00	-
Wind Pressure $q_z$ :	<i>qz</i>	33.38	psf
Maint. Wind Pressure $q_{mz}$ :	<i>qmz</i>	2.09	psf
Ice Wind Speed:			
Design Ice Thickness $t_{iz}$ :	<i>tiz</i>	1.66	in
Ice Wind Pressure $q_{iz}$ :	<i>qiz</i>	5.80	psf

Seismic Parameters			
Seismic Response Coefficient $C_s$ :	<i>Cs</i>	0.121	-
Total Wt. of Mount and Appurt. W:	<i>W</i>	0.797	kips
Total Seismic Shear Force $V_s$ :	<i>Vs</i>	0.096	kips

Load Combinations
1.2D + 1.0Wo
1.2D + 1.0Di + 1.0Wi
1.4D
1.2D + 1.5Lm + 1.0Wm
1.2D + 1.5Lv
1.2D + 1.0Eh

Maximum Deflections		
Vertical (in)	Tilt (deg)	Twist (deg)
1.111	0.787	0.354

Considered Wind Directions
0°, 30°, 60°, 90°, 120°, 150°, 180°, 210°, 240°, 270°, 300°, 330°

Maintenance Loads	
Pipe Mounts, $L_M$ (lbs):	500
Horizontals, $L_V$ (lbs):	250

Overall Max Stress Ratio	
<b>77.4%</b>	<b>Pass</b>

Tie-Back End Reactions		
Member Label	Joint Label at BC	Resultant (lbs)
TB2	N33A	786.6
TB1	N34	508.3

Connection Summary										
Node Label	Bolt Quantity	Bolt Diameter (in)	Bolt Type	Tu (kips)	$\Phi T_n$ (kips)	Vu (kips)	$\Phi V_n$ (kips)	Controlling LC	Stress Ratio	Pass/Fail
N2	4	0.5	A325N	5.37	12.78	0.64	8.82	24	40.0%	Pass

Section Sets Summary						
Section Set	Member	Member Label	Controlling	LC	Stress Ratio	Pass/Fail
Standoff	HSS3X3X4	SO1	Bending	61	26.9%	Pass
Horizontals	PIPE_2.5	H2	Bending	1	57.0%	Pass
Pipe Mounts 3.5"	PIPE_3.0	PM1	Bending	26	20.8%	Pass
Pipe Mount HSS 2.375 x 0.125	HSS2.375X0.125	PM3	Bending	51	77.4%	Pass
Tie Back	PIPE_2.0	TB2	Bending	18	4.5%	Pass
Vertical Standoff Bracing 2.375"	PIPE_2.0	VB1	Bending	1	0.2%	Pass
Vertical Standoff Bracing 3.5"	PIPE_3.0	VB2	Bending	13	18.0%	Pass

## Mount Analysis

Project Information	
Project Number:	19BLAP1400
Site Name:	BRG 124 943066 (Beta)
Site Number:	806353

Analysis Parameters			
Tower Type:	<i>TowerType</i>	Self Support	-
Mount Status:	<i>MountStatus</i>	Existing	-
Mount Type:	<i>MountType</i>	T-Frame	-
Analysis Code:	<i>Code</i>	TIA-222-H	-
IBC Code:	<i>IbcCode</i>	2015 IBC	-
Max Stress Ratio:	<i>MaxStressRatio</i>	100%	-
Tower Height:	<i>TwrHeight</i>	180	ft
Effective Mount Centerline Height:	<i>MntHeight</i>	93	ft
RISA Y-Coordinate of Mount CL:	<i>MountY</i>	0	in
Ultimate Wind Speed:	<i>WindSpeed</i>	120	mph
Maintenance Wind Speed:	<i>MaintWind</i>	30	mph
Design Ice Wind Speed:	<i>IceWind</i>	50	mph
Ultimate Ice Thickness:	<i>IceThickness</i>	1.5	in
Risk Category:	<i>RiskCat</i>	II	-
Exposure Category:	<i>Exposure</i>	B	-
Topographic Factor $K_{zt}$ :	<i>Kzt</i>	1	-
$S_s$ :	<i>Ss</i>	0.227	-
$S_1$ :	<i>S_1</i>	0.067	-
Site Class:	<i>SiteClass</i>	D	-
Ground Elevation at Base of Structure:	<i>zs</i>	426	ft
Roof Speed Up Factor:	<i>Ks</i>	-	-

Wind Parameters			
Wind Speed:			
Shielding Factor $K_d$ :	<i>Kd</i>	0.90	-
Gust Factor $G_H$ :	<i>Gh</i>	1.00	-
Wind Pressure $q_z$ :	<i>qz</i>	33.38	psf
Maint. Wind Pressure $q_{mz}$ :	<i>q_mz</i>	2.09	psf
Ice Wind Speed:			
Design Ice Thickness $t_{iz}$ :	<i>tiz</i>	1.66	in
Ice Wind Pressure $q_{iz}$ :	<i>qiz</i>	5.80	psf

Seismic Parameters			
Seismic Response Coefficient $C_s$ :	<i>Cs</i>	0.121	-
Total Wt. of Mount and Appurt. $W$ :	<i>W</i>	0.796	kips
Total Seismic Shear Force $V_s$ :	<i>Vs</i>	0.096	kips

Load Combinations
1.2D + 1.0Wo
1.2D + 1.0Di + 1.0Wi
1.4D
1.2D + 1.5Lm + 1.0Wm
1.2D + 1.5Lv
1.2D + 1.0Eh

Maximum Deflections		
Vertical (in)	Tilt (deg)	Twist (deg)
1.098	0.796	0.368

Considered Wind Directions
0°, 30°, 60°, 90°, 120°, 150°, 180°, 210°, 240°, 270°, 300°, 330°

Maintenance Loads	
Pipe Mounts, $L_M$ (lbs):	500
Horizontals, $L_V$ (lbs):	250

Overall Max Stress Ratio	
<b>78.8%</b>	<b>Pass</b>

Tie-Back End Reactions		
Member Label	Joint Label at BC	Resultant (lbs)
TB2	N33A	802.0
TB1	N34	341.6

Connection Summary										
Node Label	Bolt Quantity	Bolt Diameter (in)	Bolt Type	Tu (kips)	$\Phi T_n$ (kips)	Vu (kips)	$\Phi V_n$ (kips)	Controlling LC	Stress Ratio	Pass/Fail
N2	4	0.5	A325N	5.34	12.78	0.64	8.82	24	39.8%	Pass

Section Sets Summary						
Section Set	Member	Member Label	Controlling	LC	Stress Ratio	Pass/Fail
Standoff	HSS3X3X4	SO1	Bending	12	28.8%	Pass
Horizontals	PIPE_2.5	H2	Bending	1	60.0%	Pass
Pipe Mounts 3.5"	PIPE_3.0	PM1	Bending	26	20.9%	Pass
Pipe Mounts HSS 2.375 x 0.125	HSS2.375X0.125	PM3	Bending	6	78.8%	Pass
Tie Back	PIPE_2.0	TB2	Bending	18	4.1%	Pass
Vertical Standoff Bracing 2.375"	PIPE_2.0	VB1	Bending	1	0.2%	Pass
Vertical Standoff Bracing 3.5"	PIPE_3.0	VB2	Bending	51	17.8%	Pass

## Mount Analysis

Project Information	
Project Number:	19BLAP1400
Site Name:	BRG 124 943066 (Gamma)
Site Number:	806353

Analysis Parameters			
Tower Type:	<i>TowerType</i>	Self Support	-
Mount Status:	<i>MountStatus</i>	Existing	-
Mount Type:	<i>MountType</i>	T-Frame	-
Analysis Code:	<i>Code</i>	TIA-222-H	-
IBC Code:	<i>IbcCode</i>	2015 IBC	-
Max Stress Ratio:	<i>MaxStressRatio</i>	100%	-
Tower Height:	<i>TwrHeight</i>	180	ft
Effective Mount Centerline Height:	<i>MntHeight</i>	93	ft
RISA Y-Coordinate of Mount CL:	<i>MountY</i>	0	in
Ultimate Wind Speed:	<i>WindSpeed</i>	120	mph
Maintenance Wind Speed:	<i>MaintWind</i>	30	mph
Design Ice Wind Speed:	<i>IceWind</i>	50	mph
Ultimate Ice Thickness:	<i>IceThickness</i>	1.5	in
Risk Category:	<i>RiskCat</i>	II	-
Exposure Category:	<i>Exposure</i>	B	-
Topographic Factor $K_{zt}$ :	<i>Kzt</i>	1	-
$S_s$ :	<i>Ss</i>	0.227	-
$S_1$ :	<i>S_1</i>	0.067	-
Site Class:	<i>SiteClass</i>	D	-
Ground Elevation at Base of Structure:	<i>zs</i>	426	ft
Roof Speed Up Factor:	<i>Ks</i>		-

Wind Parameters			
Wind Speed:			
Shielding Factor $K_d$ :	<i>Kd</i>	0.90	-
Gust Factor $G_H$ :	<i>Gh</i>	1.00	-
Wind Pressure $q_z$ :	<i>qz</i>	33.38	psf
Maint. Wind Pressure $q_{mz}$ :	<i>q_mz</i>	2.09	psf
Ice Wind Speed:			
Design Ice Thickness $t_{iz}$ :	<i>tiz</i>	1.66	in
Ice Wind Pressure $q_{iz}$ :	<i>qiz</i>	5.80	psf

Seismic Parameters			
Seismic Response Coefficient $C_s$ :	<i>Cs</i>	0.121	-
Total Wt. of Mount and Appurt. W:	<i>W</i>	0.796	kips
Total Seismic Shear Force $V_s$ :	<i>Vs</i>	0.096	kips

Tie-Back End Reactions		
Member Label	Joint Label at BC	Resultant (lbs)
TB2	N33A	802.0
TB1	N34	341.6

Load Combinations
1.2D + 1.0Wo
1.2D + 1.0Di + 1.0Wi
1.4D
1.2D + 1.5Lm + 1.0Wm
1.2D + 1.5Lv
1.2D + 1.0Eh

Maximum Deflections		
Vertical (in)	Tilt (deg)	Twist (deg)
1.098	0.796	0.368

Considered Wind Directions
0°, 30°, 60°, 90°, 120°, 150°, 180°, 210°, 240°, 270°, 300°, 330°

Maintenance Loads	
Pipe Mounts, $L_M$ (lbs):	500
Horizontals, $L_V$ (lbs):	250

Overall Max Stress Ratio	
<b>78.8%</b>	<b>Pass</b>

Connection Summary										
Node Label	Bolt Quantity	Bolt Diameter (in)	Bolt Type	Tu (kips)	$\Phi T_n$ (kips)	Vu (kips)	$\Phi V_n$ (kips)	Controlling LC	Stress Ratio	Pass/Fail
N2	4	0.5	A325N	5.34	12.78	0.64	8.82	24	39.8%	Pass

Section Sets Summary						
Section Set	Member	Member Label	Controlling	LC	Stress Ratio	Pass/Fail
Standoff	HSS3X3X4	SO1	Bending	12	28.8%	Pass
Horizontals	PIPE_2.5	H2	Bending	1	60.0%	Pass
Pipe Mounts 3.5"	PIPE_3.0	PM1	Bending	26	20.9%	Pass
Pipe Mounts HSS 2.375 x 0.125	HSS2.375X0.125	PM3	Bending	6	78.8%	Pass
Tie Back	PIPE_2.0	TB2	Bending	18	4.1%	Pass
Vertical Standoff Bracing 2.375"	PIPE_2.0	VB1	Bending	1	0.2%	Pass
Vertical Standoff Bracing 3.5"	PIPE_3.0	VB2	Bending	51	17.8%	Pass

**APPENDIX C**  
**SOFTWARE ANALYSIS OUTPUT**



Company : FDH-IS  
 Designer : MTB  
 Job Number : 19BLAP1400 (Alpha)  
 Model Name : 806353\_BRG\_124\_943066

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**(Global) Model Settings**

Display Sections for Member Calcs	5
Max Internal Sections for Member Calcs	97
Include Shear Deformation?	Yes
Increase Nailing Capacity for Wind?	Yes
Include Warping?	Yes
Trans Load Btwn Intersecting Wood Wall?	Yes
Area Load Mesh (in^2)	144
Merge Tolerance (in)	.12
P-Delta Analysis Tolerance	0.50%
Include P-Delta for Walls?	Yes
Automatically Iterate Stiffness for Walls?	Yes
Max Iterations for Wall Stiffness	3
Gravity Acceleration (in/sec^2)	386.4
Wall Mesh Size (in)	12
Eigensolution Convergence Tol. (1.E-)	4
Vertical Axis	Y
Global Member Orientation Plane	XZ
Static Solver	Sparse Accelerated
Dynamic Solver	Accelerated Solver

Hot Rolled Steel Code	AISC 15th(360-16): LRFD
Adjust Stiffness?	Yes(Iterative)
RISAConnection Code	AISC 14th(360-10): LRFD
Cold Formed Steel Code	AISI S100-12: LRFD
Wood Code	AWC NDS-12: ASD
Wood Temperature	< 100F
Concrete Code	ACI 318-11
Masonry Code	ACI 530-11: ASD
Aluminum Code	AA ADM1-10: ASD - Building
Stainless Steel Code	AISC 14th(360-10): ASD
Adjust Stiffness?	Yes(Iterative)

Number of Shear Regions	4
Region Spacing Increment (in)	4
Biaxial Column Method	Exact Integration
Parme Beta Factor (PCA)	.65
Concrete Stress Block	Rectangular
Use Cracked Sections?	Yes
Use Cracked Sections Slab?	No
Bad Framing Warnings?	No
Unused Force Warnings?	Yes
Min 1 Bar Diam. Spacing?	No
Concrete Rebar Set	REBAR SET ASTMA615
Min % Steel for Column	1
Max % Steel for Column	8

**(Global) Model Settings, Continued**

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

**Hot Rolled Steel Properties**

	Label	F [ksi]	G [ksi]	Nu	Therm (1E5 F)	Density[k/ft^3]	Yield[ksi]	Ry	Fu[ksi]	Rt
1	A36 Gr.36	29000	11154	.3	.65	.49	36	1.5	58	1.2
2	A572 Gr.50	29000	11154	.3	.65	.49	50	1.1	65	1.1
3	A992	29000	11154	.3	.65	.49	50	1.1	65	1.1
4	A500 Gr.B RND	29000	11154	.3	.65	.527	42	1.4	58	1.3
5	A500 Gr.B Rect	29000	11154	.3	.65	.527	46	1.4	58	1.3
6	A53 Gr.B	29000	11154	.3	.65	.49	35	1.6	60	1.2
7	A1085	29000	11154	.3	.65	.49	50	1.4	65	1.3

**General Material Properties**

	Label	F [ksi]	G [ksi]	Nu	Therm (1E5 F)	Density[k/ft^3]
1	gen_Conc3NW	3155	1372	.15	.6	.145
2	gen_Conc4NW	3644	1584	.15	.6	.145
3	gen_Conc3LW	2085	906	.15	.6	.11
4	gen_Conc4LW	2408	1047	.15	.6	.11
5	gen_Alum	10600	4077	.3	1.29	.173
6	gen_Steel	29000	11154	.3	.65	.49
7	RIGID	1e+6		.3	0	0

**Material Takeoff**

	Material	Size	Pieces	Length[in]	Weight[K]
1	General				
2	RIGID		10	27.1	0
3	Total General		10	27.1	0
4					
5	Hot Rolled Steel				
6	A500 Gr.B Rect	HSS3X3X4	2	41.5	0
7	A53 Gr.B	HSS2.375X0.125	1	108	0



Company : FDH-IS  
 Designer : MTB  
 Job Number : 19BLAP1400 (Alpha)  
 Model Name : 806353\_BRG\_124\_943066

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### Material Takeoff (Continued)

	Material	Size	Pieces	Length[in]	Weight[K]
8	A53 Gr.B	PIPE 2.0	3	201	0
9	A53 Gr.B	PIPE 2.5	2	350	2
10	A53 Gr.B	PIPE 3.0	3	149	0
11	Total HR Steel		11	849.5	4

### Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotate	Section/Shape	Type	Design List	Material	Design
1	M1	N2	N4			RIGID	None	None	RIGID	Typical
2	M2	N1	N3			RIGID	None	None	RIGID	Typical
3	VB1	N4	N3			Vertical Standoff Bracing 2.375"	Colu...	Pipe	A53 Gr.B	Typical
4	VB2	N6	N5			Vertical Standoff Bracing 3.5"	Colu...	Pipe	A53 Gr.B	Typical
5	SO1	N4	N6			Standoff	Beam	SquareT...	A500 Gr.B Rect	Typical
6	SO2	N3	N5			Standoff	Beam	SquareT...	A500 Gr.B Rect	Typical
7	H1	N10	N8			Horizontals	Beam	Pipe	A53 Gr.B	Typical
8	H2	N9	N7			Horizontals	Beam	Pipe	A53 Gr.B	Typical
9	M9	N12	N14			RIGID	None	None	RIGID	Typical
10	M10	N11	N13			RIGID	None	None	RIGID	Typical
11	PM1	N15	N16			Pipe Mounts 3.5"	Colu...	Pipe	A53 Gr.B	Typical
12	M12	N18	N20			RIGID	None	None	RIGID	Typical
13	PM2	N21	N22			Pipe Mounts 3.5"	Colu...	Pipe	A53 Gr.B	Typical
14	M14	N17	N19			RIGID	None	None	RIGID	Typical
15	M15	N24	N26			RIGID	None	None	RIGID	Typical
16	PM3	N27	N28			Pipe Mount HSS 2.375 x 0.125	Colu...	Pipe	A53 Gr.B	Typical
17	M17	N23	N25			RIGID	None	None	RIGID	Typical
18	M18	N29	N30			RIGID	None	None	RIGID	Typical
19	M20	N32	N33			RIGID	None	None	RIGID	Typical
20	TB2	N30	N33A			Tie Back	Beam	Pipe	A53 Gr.B	Typical
21	TB1	N33	N34			Tie Back	Beam	Pipe	A53 Gr.B	Typical

### Hot Rolled Steel Design Parameters

	Label	Shape	Length[in]	I byy[in]	I bzz[in]	I comp top	I comp bot	I-torq	Kyy	Kzz	Cb	Funct
1	VB1	Vertical Standoff Bracing...	36									Lateral
2	VB2	Vertical Standoff Bracin...	36									Lateral
3	SO1	Standoff	20.75			I bvv						Lateral
4	SO2	Standoff	20.75			I byy						Lateral
5	H1	Horizontals	175			I bvv						Lateral
6	H2	Horizontals	175			I byy						Lateral
7	PM1	Pipe Mounts 3.5"	56.5	36	36				1	1		Lateral
8	PM2	Pipe Mounts 3.5"	56.5	36	36				1	1		Lateral
9	PM3	Pipe Mount HSS 2.375 x...	108	44	44				2.1	2.1		Lateral
10	TB2	Tie Back	85			I byy						Lateral
11	TB1	Tie Back	80			I byy						Lateral

### Member Advanced Data

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rat	Analysis	Inactive	Seismic
1	M1						Yes	** NA **			None
2	M2						Yes	** NA **			None
3	VB1						Yes	** NA **			None
4	VB2						Yes	** NA **			None
5	SO1						Yes				None
6	SO2						Yes				None
7	H1						Yes				None



### Member Advanced Data (Continued)

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rat	Analysis	Inactive	Seismic
8	H2						Yes				None
9	M9						Yes	** NA **			None
10	M10						Yes	** NA **			None
11	PM1						Yes	** NA **			None
12	M12						Yes	** NA **			None
13	PM2						Yes	** NA **			None
14	M14						Yes	** NA **			None
15	M15						Yes	** NA **			None
16	PM3						Yes	** NA **			None
17	M17						Yes	** NA **			None
18	M18						Yes	** NA **			None
19	M20						Yes	** NA **			None
20	TB2	BenPIN					Yes	Default			None
21	TB1	BenPIN					Yes	Default			None

### Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design Ru	A [in <sup>2</sup> ]	I <sub>yy</sub> [in <sup>4</sup> ]	I <sub>zz</sub> [in <sup>4</sup> ]	J [in <sup>4</sup> ]
1	Standoff	HSS3X3X4	Beam	SquareTube	A500 Gr.B R...	Typical	2.44	3.02	3.02	5.08
2	Horizontals	PIPE 2.5	Beam	Pipe	A53 Gr.B	Typical	1.61	1.45	1.45	2.89
3	Pipe Mounts 3.5"	PIPE 3.0	Column	Pipe	A53 Gr.B	Typical	2.07	2.85	2.85	5.69
4	Pipe Mount HSS 2.375 x 0.125	HSS2.375X0.125	Column	Pipe	A53 Gr.B	Typical	.823	.527	.527	1.05
5	Tie Back	PIPE 2.0	Beam	Pipe	A53 Gr.B	Typical	1.02	.627	.627	1.25
6	Vertical Standoff Bracing 2.375"	PIPE 2.0	Column	Pipe	A53 Gr.B	Typical	1.02	.627	.627	1.25
7	Vertical Standoff Bracing 3.5"	PIPE 3.0	Column	Pipe	A53 Gr.B	Typical	2.07	2.85	2.85	5.69

### Joint Coordinates and Temperatures

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Diap
1	N1	0	-18	0	0	
2	N2	0	18	0	0	
3	N3	0	-18	3	0	
4	N4	0	18	3	0	
5	N5	0	-18	23.75	0	
6	N6	0	18	23.75	0	
7	N7	87.5	-18	23.75	0	
8	N8	87.5	18	23.75	0	
9	N9	-87.5	-18	23.75	0	
10	N10	-87.5	18	23.75	0	
11	N11	72.5	-18	23.75	0	
12	N12	72.5	18	23.75	0	
13	N13	72.5	-18	26.9375	0	
14	N14	72.5	18	26.9375	0	
15	N15	72.5	33.5	26.9375	0	
16	N16	72.5	-23	26.9375	0	
17	N17	9.5	-18	23.75	0	
18	N18	9.5	18	23.75	0	
19	N19	9.5	-18	26.9375	0	
20	N20	9.5	18	26.9375	0	
21	N21	9.5	33.5	26.9375	0	
22	N22	9.5	-23	26.9375	0	
23	N23	-72.5	-18	23.75	0	
24	N24	-72.5	18	23.75	0	
25	N25	-72.5	-18	26.9375	0	
26	N26	-72.5	18	26.9375	0	
27	N27	-72.5	46	26.9375	0	



Company : FDH-IS  
 Designer : MTB  
 Job Number : 19BLAP1400 (Alpha)  
 Model Name : 806353\_BRG\_124\_943066

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**Joint Coordinates and Temperatures (Continued)**

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Diap
28	N28	-72.5	-62	26.9375	0	
29	N29	-72.5	40	26.9375	0	
30	N30	-73.5	40	26.9375	0	
31	N32	72.5	27.5	26.9375	0	
32	N33	73.5	27.5	26.9375	0	
33	N33A	0.112159	40	-15.5625	0	
34	N34	0.995377	27.5	-6.871961	0	

**Joint Boundary Conditions**

	Joint Label	X [k/in]	Y [k/in]	Z [k/in]	X Rot [k-ft/rad]	Y Rot [k-ft/rad]	Z Rot [k-ft/rad]
1	N1	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
2	N2	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
3	N3						
4	N4						
5	N5						
6	N6						
7	N7						
8	N8						
9	N9						
10	N10						
11	N11						
12	N12						
13	N13						
14	N14						
15	N15						
16	N16						
17	N17						
18	N18						
19	N19						
20	N20						
21	N21						
22	N22						
23	N23						
24	N24						
25	N25						
26	N26						
27	N27						
28	N28						
29	N29						
30	N30						
31	N32						
32	N33						
33	N33A	Reaction	Reaction	Reaction			
34	N34	Reaction	Reaction	Reaction			

**Joint Loads and Enforced Displacements**

Joint Label	I, D, M	Direction	Magnitude[(k, k-ft), (in, rad), (k*s^2/i)]
No Data to Print ...			

**Member Point Loads (BLC 1 : Wind 0 Deg - No Ice)**

Member Label	Direction	Magnitude[k, k-ft]	Location[in, %]
1 PM1	Z	-0.92	%9.735



Company : FDH-IS  
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**Member Point Loads (BLC 1 : Wind 0 Deg - No Ice) (Continued)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
2	PM1	Z	-0.92	%100
3	PM1	Z	-0.11	%59.292
4	PM2	Z	-0.98	%9.204
5	PM2	Z	-0.98	%100
6	PM3	Z	-3.04	0
7	PM3	Z	-3.04	%86.991
8	PM3	Z	-0.49	%42.593

**Member Point Loads (BLC 2 : Wind 30 Deg - No Ice)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	.042	%9.735
2	PM1	Z	-0.73	%9.735
3	PM1	X	.042	%100
4	PM1	Z	-0.73	%100
5	PM1	X	.005	%59.292
6	PM1	Z	-0.08	%59.292
7	PM2	X	.046	%9.204
8	PM2	Z	-0.79	%9.204
9	PM2	X	.046	%100
10	PM2	Z	-0.79	%100
11	PM3	X	.131	0
12	PM3	Z	-2.26	0
13	PM3	X	.131	%86.991
14	PM3	Z	-2.26	%86.991
15	PM3	X	.023	%42.593
16	PM3	Z	-0.4	%42.593

**Member Point Loads (BLC 3 : Wind 60 Deg - No Ice)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	.062	%9.735
2	PM1	Z	-0.36	%9.735
3	PM1	X	.062	%100
4	PM1	Z	-0.36	%100
5	PM1	X	.006	%59.292
6	PM1	Z	-0.03	%59.292
7	PM2	X	.067	%9.204
8	PM2	Z	-0.39	%9.204
9	PM2	X	.067	%100
10	PM2	Z	-0.39	%100
11	PM3	X	.153	0
12	PM3	Z	-0.88	0
13	PM3	X	.153	%86.991
14	PM3	Z	-0.88	%86.991
15	PM3	X	.033	%42.593
16	PM3	Z	-0.19	%42.593

**Member Point Loads (BLC 4 : Wind 90 Deg - No Ice)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	.065	%9.735
2	PM1	X	.065	%100
3	PM1	X	.005	%59.292
4	PM2	X	.071	%9.204
5	PM2	X	.071	%100
6	PM3	X	.134	0
7	PM3	X	.134	%86.991



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**Member Point Loads (BLC 4 : Wind 90 Deg - No Ice) (Continued)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
8	PM3	X	.035	%42.593

**Member Point Loads (BLC 5 : Wind 120 Deg - No Ice)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	.062	%9.735
2	PM1	Z	.036	%9.735
3	PM1	X	.062	%100
4	PM1	Z	.036	%100
5	PM1	X	.006	%59.292
6	PM1	Z	.003	%59.292
7	PM2	X	.067	%9.204
8	PM2	Z	.039	%9.204
9	PM2	X	.067	%100
10	PM2	Z	.039	%100
11	PM3	X	.153	0
12	PM3	Z	.088	0
13	PM3	X	.153	%86.991
14	PM3	Z	.088	%86.991
15	PM3	X	.033	%42.593
16	PM3	Z	.019	%42.593

**Member Point Loads (BLC 6 : Wind 150 Deg - No Ice)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	.042	%9.735
2	PM1	Z	.073	%9.735
3	PM1	X	.042	%100
4	PM1	Z	.073	%100
5	PM1	X	.005	%59.292
6	PM1	Z	.008	%59.292
7	PM2	X	.046	%9.204
8	PM2	Z	.079	%9.204
9	PM2	X	.046	%100
10	PM2	Z	.079	%100
11	PM3	X	.131	0
12	PM3	Z	.226	0
13	PM3	X	.131	%86.991
14	PM3	Z	.226	%86.991
15	PM3	X	.023	%42.593
16	PM3	Z	.04	%42.593

**Member Point Loads (BLC 7 : Wind 180 Deg - No Ice)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	Z	.092	%9.735
2	PM1	Z	.092	%100
3	PM1	Z	.011	%59.292
4	PM2	Z	.098	%9.204
5	PM2	Z	.098	%100
6	PM3	Z	.304	0
7	PM3	Z	.304	%86.991
8	PM3	Z	.049	%42.593

**Member Point Loads (BLC 8 : Wind 210 Deg - No Ice)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	-.042	%9.735
2	PM1	Z	.073	%9.735



**Member Point Loads (BLC 8 : Wind 210 Deg - No Ice) (Continued)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in. %]
3	PM1	X	- .042	%100
4	PM1	Z	.073	%100
5	PM1	X	-.005	%59.292
6	PM1	Z	.008	%59.292
7	PM2	X	-.046	%9.204
8	PM2	Z	.079	%9.204
9	PM2	X	-.046	%100
10	PM2	Z	.079	%100
11	PM3	X	-.131	0
12	PM3	Z	.226	0
13	PM3	X	-.131	%86.991
14	PM3	Z	.226	%86.991
15	PM3	X	-.023	%42.593
16	PM3	Z	.04	%42.593

**Member Point Loads (BLC 9 : Wind 240 Deg - No Ice)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in. %]
1	PM1	X	-.062	%9.735
2	PM1	Z	.036	%9.735
3	PM1	X	-.062	%100
4	PM1	Z	.036	%100
5	PM1	X	-.006	%59.292
6	PM1	Z	.003	%59.292
7	PM2	X	-.067	%9.204
8	PM2	Z	.039	%9.204
9	PM2	X	-.067	%100
10	PM2	Z	.039	%100
11	PM3	X	-.153	0
12	PM3	Z	.088	0
13	PM3	X	-.153	%86.991
14	PM3	Z	.088	%86.991
15	PM3	X	-.033	%42.593
16	PM3	Z	.019	%42.593

**Member Point Loads (BLC 10 : Wind 270 Deg - No Ice)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in. %]
1	PM1	X	-.065	%9.735
2	PM1	X	-.065	%100
3	PM1	X	-.005	%59.292
4	PM2	X	-.071	%9.204
5	PM2	X	-.071	%100
6	PM3	X	-.134	0
7	PM3	X	-.134	%86.991
8	PM3	X	-.035	%42.593

**Member Point Loads (BLC 11 : Wind 300 Deg - No Ice)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in. %]
1	PM1	X	-.062	%9.735
2	PM1	Z	-.036	%9.735
3	PM1	X	-.062	%100
4	PM1	Z	-.036	%100
5	PM1	X	-.006	%59.292
6	PM1	Z	-.003	%59.292
7	PM2	X	-.067	%9.204
8	PM2	Z	-.039	%9.204



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**Member Point Loads (BLC 11 : Wind 300 Deg - No Ice) (Continued)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
9	PM2	X	-067	%100
10	PM2	Z	-039	%100
11	PM3	X	-153	0
12	PM3	Z	-088	0
13	PM3	X	-153	%86.991
14	PM3	Z	-088	%86.991
15	PM3	X	-033	%42.593
16	PM3	Z	-019	%42.593

**Member Point Loads (BLC 12 : Wind 330 Deg - No Ice)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	-042	%9.735
2	PM1	Z	-073	%9.735
3	PM1	X	-042	%100
4	PM1	Z	-073	%100
5	PM1	X	-005	%59.292
6	PM1	Z	-008	%59.292
7	PM2	X	-046	%9.204
8	PM2	Z	-079	%9.204
9	PM2	X	-046	%100
10	PM2	Z	-079	%100
11	PM3	X	-131	0
12	PM3	Z	-226	0
13	PM3	X	-131	%86.991
14	PM3	Z	-226	%86.991
15	PM3	X	-023	%42.593
16	PM3	Z	-04	%42.593

**Member Point Loads (BLC 13 : Wind 0 Deg - Ice)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	Z	-021	%9.735
2	PM1	Z	-021	%100
3	PM1	Z	-004	%59.292
4	PM2	Z	-022	%9.204
5	PM2	Z	-022	%100
6	PM3	Z	-061	0
7	PM3	Z	-061	%86.991
8	PM3	Z	-013	%42.593

**Member Point Loads (BLC 14 : Wind 30 Deg - Ice)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	.01	%9.735
2	PM1	Z	-017	%9.735
3	PM1	X	.01	%100
4	PM1	Z	-017	%100
5	PM1	X	.002	%59.292
6	PM1	Z	-003	%59.292
7	PM2	X	.01	%9.204
8	PM2	Z	-018	%9.204
9	PM2	X	.01	%100
10	PM2	Z	-018	%100
11	PM3	X	.027	0
12	PM3	Z	-047	0
13	PM3	X	.027	%86.991
14	PM3	Z	-047	%86.991



**Member Point Loads (BLC 14 : Wind 30 Deg - Ice) (Continued)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
15	PM3	X	.006	%42.593
16	PM3	Z	-.011	%42.593

**Member Point Loads (BLC 15 : Wind 60 Deg - Ice)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	.015	%9.735
2	PM1	Z	-.009	%9.735
3	PM1	X	.015	%100
4	PM1	Z	-.009	%100
5	PM1	X	.003	%59.292
6	PM1	Z	-.002	%59.292
7	PM2	X	.016	%9.204
8	PM2	Z	-.009	%9.204
9	PM2	X	.016	%100
10	PM2	Z	-.009	%100
11	PM3	X	.034	0
12	PM3	Z	-.019	0
13	PM3	X	.034	%86.991
14	PM3	Z	-.019	%86.991
15	PM3	X	.009	%42.593
16	PM3	Z	-.005	%42.593

**Member Point Loads (BLC 16 : Wind 90 Deg - Ice)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	.016	%9.735
2	PM1	X	.016	%100
3	PM1	X	.003	%59.292
4	PM2	X	.017	%9.204
5	PM2	X	.017	%100
6	PM3	X	.031	0
7	PM3	X	.031	%86.991
8	PM3	X	.01	%42.593

**Member Point Loads (BLC 17 : Wind 120 Deg - Ice)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	.015	%9.735
2	PM1	Z	.009	%9.735
3	PM1	X	.015	%100
4	PM1	Z	.009	%100
5	PM1	X	.003	%59.292
6	PM1	Z	.002	%59.292
7	PM2	X	.016	%9.204
8	PM2	Z	.009	%9.204
9	PM2	X	.016	%100
10	PM2	Z	.009	%100
11	PM3	X	.034	0
12	PM3	Z	.019	0
13	PM3	X	.034	%86.991
14	PM3	Z	.019	%86.991
15	PM3	X	.009	%42.593
16	PM3	Z	.005	%42.593

**Member Point Loads (BLC 18 : Wind 150 Deg - Ice)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	.01	%9.735



**Member Point Loads (BLC 18 : Wind 150 Deg - Ice) (Continued)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
2	PM1	Z	.017	%9.735
3	PM1	X	.01	%100
4	PM1	Z	.017	%100
5	PM1	X	.002	%59.292
6	PM1	Z	.003	%59.292
7	PM2	X	.01	%9.204
8	PM2	Z	.018	%9.204
9	PM2	X	.01	%100
10	PM2	Z	.018	%100
11	PM3	X	.027	0
12	PM3	Z	.047	0
13	PM3	X	.027	%86.991
14	PM3	Z	.047	%86.991
15	PM3	X	.006	%42.593
16	PM3	Z	.011	%42.593

**Member Point Loads (BLC 19 : Wind 180 Deg - Ice)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	Z	.021	%9.735
2	PM1	Z	.021	%100
3	PM1	Z	.004	%59.292
4	PM2	Z	.022	%9.204
5	PM2	Z	.022	%100
6	PM3	Z	.061	0
7	PM3	Z	.061	%86.991
8	PM3	Z	.013	%42.593

**Member Point Loads (BLC 20 : Wind 210 Deg - Ice)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	-.01	%9.735
2	PM1	Z	.017	%9.735
3	PM1	X	-.01	%100
4	PM1	Z	.017	%100
5	PM1	X	-.002	%59.292
6	PM1	Z	.003	%59.292
7	PM2	X	-.01	%9.204
8	PM2	Z	.018	%9.204
9	PM2	X	-.01	%100
10	PM2	Z	.018	%100
11	PM3	X	-.027	0
12	PM3	Z	.047	0
13	PM3	X	-.027	%86.991
14	PM3	Z	.047	%86.991
15	PM3	X	-.006	%42.593
16	PM3	Z	.011	%42.593

**Member Point Loads (BLC 21 : Wind 240 Deg - Ice)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	-.015	%9.735
2	PM1	Z	.009	%9.735
3	PM1	X	-.015	%100
4	PM1	Z	.009	%100
5	PM1	X	-.003	%59.292
6	PM1	Z	.002	%59.292
7	PM2	X	-.016	%9.204





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**Member Point Loads (BLC 21 : Wind 240 Deg - Ice) (Continued)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
8	PM2	Z	.009	%9.204
9	PM2	X	-.016	%100
10	PM2	Z	.009	%100
11	PM3	X	-.034	0
12	PM3	Z	.019	0
13	PM3	X	-.034	%86.991
14	PM3	Z	.019	%86.991
15	PM3	X	-.009	%42.593
16	PM3	Z	.005	%42.593

**Member Point Loads (BLC 22 : Wind 270 Deg - Ice)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	-.016	%9.735
2	PM1	X	-.016	%100
3	PM1	X	-.003	%59.292
4	PM2	X	-.017	%9.204
5	PM2	X	-.017	%100
6	PM3	X	-.031	0
7	PM3	X	-.031	%86.991
8	PM3	X	-.01	%42.593

**Member Point Loads (BLC 23 : Wind 300 Deg - Ice)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	-.015	%9.735
2	PM1	Z	-.009	%9.735
3	PM1	X	-.015	%100
4	PM1	Z	-.009	%100
5	PM1	X	-.003	%59.292
6	PM1	Z	-.002	%59.292
7	PM2	X	-.016	%9.204
8	PM2	Z	-.009	%9.204
9	PM2	X	-.016	%100
10	PM2	Z	-.009	%100
11	PM3	X	-.034	0
12	PM3	Z	-.019	0
13	PM3	X	-.034	%86.991
14	PM3	Z	-.019	%86.991
15	PM3	X	-.009	%42.593
16	PM3	Z	-.005	%42.593

**Member Point Loads (BLC 24 : Wind 330 Deg - Ice)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	-.01	%9.735
2	PM1	Z	-.017	%9.735
3	PM1	X	-.01	%100
4	PM1	Z	-.017	%100
5	PM1	X	-.002	%59.292
6	PM1	Z	-.003	%59.292
7	PM2	X	-.01	%9.204
8	PM2	Z	-.018	%9.204
9	PM2	X	-.01	%100
10	PM2	Z	-.018	%100
11	PM3	X	-.027	0
12	PM3	Z	-.047	0
13	PM3	X	-.027	%86.991



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**Member Point Loads (BLC 24 : Wind 330 Deg - Ice) (Continued)**

	Member Label	Direction	Magnitude[k,k-ft]	Location[in,%]
14	PM3	Z	-047	%86.991
15	PM3	X	-006	%42.593
16	PM3	Z	-011	%42.593

**Member Point Loads (BLC 25 : Wind 0 Deg - Maintenance)**

	Member Label	Direction	Magnitude[k,k-ft]	Location[in,%]
1	PM1	Z	-006	%9.735
2	PM1	Z	-006	%100
3	PM1	Z	-000657	%59.292
4	PM2	Z	-006	%9.204
5	PM2	Z	-006	%100
6	PM3	Z	-019	0
7	PM3	Z	-019	%86.991
8	PM3	Z	-003	%42.593

**Member Point Loads (BLC 26 : Wind 30 Deg - Maintenance)**

	Member Label	Direction	Magnitude[k,k-ft]	Location[in,%]
1	PM1	X	.003	%9.735
2	PM1	Z	-005	%9.735
3	PM1	X	.003	%100
4	PM1	Z	-005	%100
5	PM1	X	.000288	%59.292
6	PM1	Z	-000498	%59.292
7	PM2	X	.003	%9.204
8	PM2	Z	-005	%9.204
9	PM2	X	.003	%100
10	PM2	Z	-005	%100
11	PM3	X	.008	0
12	PM3	Z	-014	0
13	PM3	X	.008	%86.991
14	PM3	Z	-014	%86.991
15	PM3	X	.001	%42.593
16	PM3	Z	-002	%42.593

**Member Point Loads (BLC 27 : Wind 60 Deg - Maintenance)**

	Member Label	Direction	Magnitude[k,k-ft]	Location[in,%]
1	PM1	X	.004	%9.735
2	PM1	Z	-002	%9.735
3	PM1	X	.004	%100
4	PM1	Z	-002	%100
5	PM1	X	.000356	%59.292
6	PM1	Z	-000205	%59.292
7	PM2	X	.004	%9.204
8	PM2	Z	-002	%9.204
9	PM2	X	.004	%100
10	PM2	Z	-002	%100
11	PM3	X	.01	0
12	PM3	Z	-006	0
13	PM3	X	.01	%86.991
14	PM3	Z	-006	%86.991
15	PM3	X	.002	%42.593
16	PM3	Z	-001	%42.593

**Member Point Loads (BLC 28 : Wind 90 Deg - Maintenance)**

	Member Label	Direction	Magnitude[k,k-ft]	Location[in,%]
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**Member Point Loads (BLC 28 : Wind 90 Deg - Maintenance) (Continued)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	.004	%9.735
2	PM1	X	.004	%100
3	PM1	X	.000329	%59.292
4	PM2	X	.004	%9.204
5	PM2	X	.004	%100
6	PM3	X	.008	0
7	PM3	X	.008	%86.991
8	PM3	X	.002	%42.593

**Member Point Loads (BLC 29 : Wind 120 Deg - Maintenance)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	.004	%9.735
2	PM1	Z	.002	%9.735
3	PM1	X	.004	%100
4	PM1	Z	.002	%100
5	PM1	X	.000356	%59.292
6	PM1	Z	.000205	%59.292
7	PM2	X	.004	%9.204
8	PM2	Z	.002	%9.204
9	PM2	X	.004	%100
10	PM2	Z	.002	%100
11	PM3	X	.01	0
12	PM3	Z	.006	0
13	PM3	X	.01	%86.991
14	PM3	Z	.006	%86.991
15	PM3	X	.002	%42.593
16	PM3	Z	.001	%42.593

**Member Point Loads (BLC 30 : Wind 150 Deg - Maintenance)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	.003	%9.735
2	PM1	Z	.005	%9.735
3	PM1	X	.003	%100
4	PM1	Z	.005	%100
5	PM1	X	.000288	%59.292
6	PM1	Z	.000498	%59.292
7	PM2	X	.003	%9.204
8	PM2	Z	.005	%9.204
9	PM2	X	.003	%100
10	PM2	Z	.005	%100
11	PM3	X	.008	0
12	PM3	Z	.014	0
13	PM3	X	.008	%86.991
14	PM3	Z	.014	%86.991
15	PM3	X	.001	%42.593
16	PM3	Z	.002	%42.593

**Member Point Loads (BLC 31 : Wind 180 Deg - Maintenance)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	Z	.006	%9.735
2	PM1	Z	.006	%100
3	PM1	Z	.000657	%59.292
4	PM2	Z	.006	%9.204
5	PM2	Z	.006	%100
6	PM3	Z	.019	0



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**Member Point Loads (BLC 31 : Wind 180 Deg - Maintenance) (Continued)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
7	PM3	Z	.019	%86.991
8	PM3	Z	.003	%42.593

**Member Point Loads (BLC 32 : Wind 210 Deg - Maintenance)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	-.003	%9.735
2	PM1	Z	.005	%9.735
3	PM1	X	-.003	%100
4	PM1	Z	.005	%100
5	PM1	X	-.000288	%59.292
6	PM1	Z	.000498	%59.292
7	PM2	X	-.003	%9.204
8	PM2	Z	.005	%9.204
9	PM2	X	-.003	%100
10	PM2	Z	.005	%100
11	PM3	X	-.008	0
12	PM3	Z	.014	0
13	PM3	X	-.008	%86.991
14	PM3	Z	.014	%86.991
15	PM3	X	-.001	%42.593
16	PM3	Z	.002	%42.593

**Member Point Loads (BLC 33 : Wind 240 Deg - Maintenance)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	-.004	%9.735
2	PM1	Z	.002	%9.735
3	PM1	X	-.004	%100
4	PM1	Z	.002	%100
5	PM1	X	-.000356	%59.292
6	PM1	Z	.000205	%59.292
7	PM2	X	-.004	%9.204
8	PM2	Z	.002	%9.204
9	PM2	X	-.004	%100
10	PM2	Z	.002	%100
11	PM3	X	-.01	0
12	PM3	Z	.006	0
13	PM3	X	-.01	%86.991
14	PM3	Z	.006	%86.991
15	PM3	X	-.002	%42.593
16	PM3	Z	.001	%42.593

**Member Point Loads (BLC 34 : Wind 270 Deg - Maintenance)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	-.004	%9.735
2	PM1	X	-.004	%100
3	PM1	X	-.000329	%59.292
4	PM2	X	-.004	%9.204
5	PM2	X	-.004	%100
6	PM3	X	-.008	0
7	PM3	X	-.008	%86.991
8	PM3	X	-.002	%42.593

**Member Point Loads (BLC 35 : Wind 300 Deg - Maintenance)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	-.004	%9.735



**Member Point Loads (BLC 35 : Wind 300 Deg - Maintenance) (Continued)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
2	PM1	Z	- .002	%9.735
3	PM1	X	- .004	%100
4	PM1	Z	- .002	%100
5	PM1	X	- .000356	%59.292
6	PM1	Z	- .000205	%59.292
7	PM2	X	- .004	%9.204
8	PM2	Z	- .002	%9.204
9	PM2	X	- .004	%100
10	PM2	Z	- .002	%100
11	PM3	X	- .01	0
12	PM3	Z	- .006	0
13	PM3	X	- .01	%86.991
14	PM3	Z	- .006	%86.991
15	PM3	X	- .002	%42.593
16	PM3	Z	- .001	%42.593

**Member Point Loads (BLC 36 : Wind 330 Deg - Maintenance)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	- .003	%9.735
2	PM1	Z	- .005	%9.735
3	PM1	X	- .003	%100
4	PM1	Z	- .005	%100
5	PM1	X	- .000288	%59.292
6	PM1	Z	- .000498	%59.292
7	PM2	X	- .003	%9.204
8	PM2	Z	- .005	%9.204
9	PM2	X	- .003	%100
10	PM2	Z	- .005	%100
11	PM3	X	- .008	0
12	PM3	Z	- .014	0
13	PM3	X	- .008	%86.991
14	PM3	Z	- .014	%86.991
15	PM3	X	- .001	%42.593
16	PM3	Z	- .002	%42.593

**Member Point Loads (BLC 37 : Dead)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	Y	- .046	%9.735
2	PM1	Y	- .046	%100
3	PM1	Y	- .011	%59.292
4	PM2	Y	- .066	%9.204
5	PM2	Y	- .066	%100
6	PM3	Y	- .064	0
7	PM3	Y	- .064	%86.991
8	PM3	Y	- .075	%42.593

**Member Point Loads (BLC 38 : Dead - Ice)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	Y	- .076	%9.735
2	PM1	Y	- .076	%100
3	PM1	Y	- .01	%59.292
4	PM2	Y	- .083	%9.204
5	PM2	Y	- .083	%100
6	PM3	Y	- .221	0
7	PM3	Y	- .221	%86.991



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**Member Point Loads (BLC 38 : Dead - Ice) (Continued)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
8	PM3	Y	-045	%42.593

**Member Point Loads (BLC 39 : Maint. Pipe Load 1)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	Y	-5	%50

**Member Point Loads (BLC 40 : Maint. Pipe Load 2)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM2	Y	-5	%50

**Member Point Loads (BLC 41 : Maint. Pipe Load 3)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM3	Y	-5	%50

**Member Point Loads (BLC 42 : Maint. Horz. Load 1)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	SO1	Y	-25	%50

**Member Point Loads (BLC 43 : Maint. Horz. Load 2)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	SO1	Y	-25	0

**Member Point Loads (BLC 44 : Maint. Horz. Load 3)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	SO1	Y	-25	%100

**Member Point Loads (BLC 45 : Maint. Horz. Load 4)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	SO2	Y	-25	%50

**Member Point Loads (BLC 46 : Maint. Horz. Load 5)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	SO2	Y	-25	0

**Member Point Loads (BLC 47 : Maint. Horz. Load 6)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	SO2	Y	-25	%100

**Member Point Loads (BLC 48 : Maint. Horz. Load 7)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	H1	Y	-25	%50

**Member Point Loads (BLC 49 : Maint. Horz. Load 8)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	H1	Y	-25	0

**Member Point Loads (BLC 50 : Maint. Horz. Load 9)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	H1	Y	-25	%100



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**Member Point Loads (BLC 51 : Maint. Horz. Load 10)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	H2	Y	-25	%50

**Member Point Loads (BLC 52 : Maint. Horz. Load 11)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	H2	Y	-25	0

**Member Point Loads (BLC 53 : Maint. Horz. Load 12)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	H2	Y	-25	%100

**Member Point Loads (BLC 54 : Earthquake 0 Deg)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	Z	-006	%9.735
2	PM1	Z	-006	%100
3	PM1	Z	-001	%59.292
4	PM2	Z	-008	%9.204
5	PM2	Z	-008	%100
6	PM3	Z	-008	0
7	PM3	Z	-008	%86.991
8	PM3	Z	-009	%42.593

**Member Point Loads (BLC 55 : Earthquake 30 Deg)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	.003	%9.735
2	PM1	Z	-005	%9.735
3	PM1	X	.003	%100
4	PM1	Z	-005	%100
5	PM1	X	.000667	%59.292
6	PM1	Z	-001	%59.292
7	PM2	X	.004	%9.204
8	PM2	Z	-007	%9.204
9	PM2	X	.004	%100
10	PM2	Z	-007	%100
11	PM3	X	.004	0
12	PM3	Z	-007	0
13	PM3	X	.004	%86.991
14	PM3	Z	-007	%86.991
15	PM3	X	.005	%42.593
16	PM3	Z	-008	%42.593

**Member Point Loads (BLC 56 : Earthquake 60 Deg)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	.005	%9.735
2	PM1	Z	-003	%9.735
3	PM1	X	.005	%100
4	PM1	Z	-003	%100
5	PM1	X	.001	%59.292
6	PM1	Z	-000667	%59.292
7	PM2	X	.007	%9.204
8	PM2	Z	-004	%9.204
9	PM2	X	.007	%100
10	PM2	Z	-004	%100
11	PM3	X	.007	0
12	PM3	Z	-004	0



**Member Point Loads (BLC 56 : Earthquake 60 Deg) (Continued)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
13	PM3	X	.007	%86.991
14	PM3	Z	-.004	%86.991
15	PM3	X	.008	%42.593
16	PM3	Z	-.005	%42.593

**Member Point Loads (BLC 57 : Earthquake 90 Deg)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	.006	%9.735
2	PM1	X	.006	%100
3	PM1	X	.001	%59.292
4	PM2	X	.008	%9.204
5	PM2	X	.008	%100
6	PM3	X	.008	0
7	PM3	X	.008	%86.991
8	PM3	X	.009	%42.593

**Member Point Loads (BLC 58 : Earthquake 120 Deg)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	.005	%9.735
2	PM1	Z	.003	%9.735
3	PM1	X	.005	%100
4	PM1	Z	.003	%100
5	PM1	X	.001	%59.292
6	PM1	Z	.000667	%59.292
7	PM2	X	.007	%9.204
8	PM2	Z	.004	%9.204
9	PM2	X	.007	%100
10	PM2	Z	.004	%100
11	PM3	X	.007	0
12	PM3	Z	.004	0
13	PM3	X	.007	%86.991
14	PM3	Z	.004	%86.991
15	PM3	X	.008	%42.593
16	PM3	Z	.005	%42.593

**Member Point Loads (BLC 59 : Earthquake 150 Deg)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	.003	%9.735
2	PM1	Z	.005	%9.735
3	PM1	X	.003	%100
4	PM1	Z	.005	%100
5	PM1	X	.000667	%59.292
6	PM1	Z	.001	%59.292
7	PM2	X	.004	%9.204
8	PM2	Z	.007	%9.204
9	PM2	X	.004	%100
10	PM2	Z	.007	%100
11	PM3	X	.004	0
12	PM3	Z	.007	0
13	PM3	X	.004	%86.991
14	PM3	Z	.007	%86.991
15	PM3	X	.005	%42.593
16	PM3	Z	.008	%42.593





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**Member Point Loads (BLC 60 : Earthquake 180 Deg)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in. %]
1	PM1	Z	.006	%9.735
2	PM1	Z	.006	%100
3	PM1	Z	.001	%59.292
4	PM2	Z	.008	%9.204
5	PM2	Z	.008	%100
6	PM3	Z	.008	0
7	PM3	Z	.008	%86.991
8	PM3	Z	.009	%42.593

**Member Point Loads (BLC 61 : Earthquake 210 Deg)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in. %]
1	PM1	X	-.003	%9.735
2	PM1	Z	.005	%9.735
3	PM1	X	-.003	%100
4	PM1	Z	.005	%100
5	PM1	X	-.000667	%59.292
6	PM1	Z	.001	%59.292
7	PM2	X	-.004	%9.204
8	PM2	Z	.007	%9.204
9	PM2	X	-.004	%100
10	PM2	Z	.007	%100
11	PM3	X	-.004	0
12	PM3	Z	.007	0
13	PM3	X	-.004	%86.991
14	PM3	Z	.007	%86.991
15	PM3	X	-.005	%42.593
16	PM3	Z	.008	%42.593

**Member Point Loads (BLC 62 : Earthquake 240 Deg)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in. %]
1	PM1	X	-.005	%9.735
2	PM1	Z	.003	%9.735
3	PM1	X	-.005	%100
4	PM1	Z	.003	%100
5	PM1	X	-.001	%59.292
6	PM1	Z	.000667	%59.292
7	PM2	X	-.007	%9.204
8	PM2	Z	.004	%9.204
9	PM2	X	-.007	%100
10	PM2	Z	.004	%100
11	PM3	X	-.007	0
12	PM3	Z	.004	0
13	PM3	X	-.007	%86.991
14	PM3	Z	.004	%86.991
15	PM3	X	-.008	%42.593
16	PM3	Z	.005	%42.593

**Member Point Loads (BLC 63 : Earthquake 270 Deg)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in. %]
1	PM1	X	-.006	%9.735
2	PM1	X	-.006	%100
3	PM1	X	-.001	%59.292
4	PM2	X	-.008	%9.204
5	PM2	X	-.008	%100
6	PM3	X	-.008	0



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**Member Point Loads (BLC 63 : Earthquake 270 Deg) (Continued)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
7	PM3	X	-008	%86.991
8	PM3	X	-009	%42.593

**Member Point Loads (BLC 64 : Earthquake 300 Deg)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	-005	%9.735
2	PM1	Z	-003	%9.735
3	PM1	X	-005	%100
4	PM1	Z	-003	%100
5	PM1	X	-001	%59.292
6	PM1	Z	-000667	%59.292
7	PM2	X	-007	%9.204
8	PM2	Z	-004	%9.204
9	PM2	X	-007	%100
10	PM2	Z	-004	%100
11	PM3	X	-007	0
12	PM3	Z	-004	0
13	PM3	X	-007	%86.991
14	PM3	Z	-004	%86.991
15	PM3	X	-008	%42.593
16	PM3	Z	-005	%42.593

**Member Point Loads (BLC 65 : Earthquake 330 Deg)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	-003	%9.735
2	PM1	Z	-005	%9.735
3	PM1	X	-003	%100
4	PM1	Z	-005	%100
5	PM1	X	-000667	%59.292
6	PM1	Z	-001	%59.292
7	PM2	X	-004	%9.204
8	PM2	Z	-007	%9.204
9	PM2	X	-004	%100
10	PM2	Z	-007	%100
11	PM3	X	-004	0
12	PM3	Z	-007	0
13	PM3	X	-004	%86.991
14	PM3	Z	-007	%86.991
15	PM3	X	-005	%42.593
16	PM3	Z	-008	%42.593

**Member Distributed Loads (BLC 1 : Wind 0 Deg - No Ice)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft.F]	Start Location[in.%]	End Location[in.%]
1	PM1	Z	-009	-009	0	%9.735
2	PM2	Z	-009	-009	0	%9.204
3	PM3	Z	-006	-006	%86.991	%100
4	VB1	PZ	-006	-006	0	%100
5	VB2	PZ	-008	-008	0	%100
6	SO1	PZ	-009	-009	0	%100
7	SO2	PZ	-009	-009	0	%100
8	H1	PZ	-009	-009	0	%100
9	H2	PZ	-009	-009	0	%100
10	TB2	PZ	-007	-007	0	%100
11	TB1	PZ	-007	-007	0	%100



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**Member Distributed Loads (BLC 2 : Wind 30 Deg - No Ice)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in, %]	End Location[in, %]
1	PM1	X	.004	.004	0	%100
2	PM1	Z	-.008	-.008	0	%100
3	PM2	X	.004	.004	0	%100
4	PM2	Z	-.008	-.008	0	%100
5	PM3	X	.004	.004	0	%100
6	PM3	Z	-.006	-.006	0	%100
7	VB1	PX	.003	.003	0	%100
8	VB1	PZ	-.005	-.005	0	%100
9	VB2	PX	.004	.004	0	%100
10	VB2	PZ	-.007	-.007	0	%100
11	SO1	PX	.005	.005	0	%100
12	SO1	PZ	-.008	-.008	0	%100
13	SO2	PX	.005	.005	0	%100
14	SO2	PZ	-.008	-.008	0	%100
15	H1	PX	.004	.004	0	%100
16	H1	PZ	-.007	-.007	0	%100
17	H2	PX	.004	.004	0	%100
18	H2	PZ	-.007	-.007	0	%100
19	TB2	PX	.003	.003	0	%100
20	TB2	PZ	-.005	-.005	0	%100
21	TB1	PX	.004	.004	0	%100
22	TB1	PZ	-.006	-.006	0	%100

**Member Distributed Loads (BLC 3 : Wind 60 Deg - No Ice)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in, %]	End Location[in, %]
1	PM1	X	.008	.008	0	%100
2	PM1	Z	-.004	-.004	0	%100
3	PM2	X	.008	.008	0	%100
4	PM2	Z	-.004	-.004	0	%100
5	PM3	X	.006	.006	0	%100
6	PM3	Z	-.004	-.004	0	%100
7	VB1	PX	.005	.005	0	%100
8	VB1	PZ	-.003	-.003	0	%100
9	VB2	PX	.007	.007	0	%100
10	VB2	PZ	-.004	-.004	0	%100
11	SO1	PX	.009	.009	0	%100
12	SO1	PZ	-.005	-.005	0	%100
13	SO2	PX	.009	.009	0	%100
14	SO2	PZ	-.005	-.005	0	%100
15	H1	PX	.007	.007	0	%100
16	H1	PZ	-.004	-.004	0	%100
17	H2	PX	.007	.007	0	%100
18	H2	PZ	-.004	-.004	0	%100
19	TB2	PX	.004	.004	0	%100
20	TB2	PZ	-.002	-.002	0	%100
21	TB1	PX	.006	.006	0	%100
22	TB1	PZ	-.004	-.004	0	%100

**Member Distributed Loads (BLC 4 : Wind 90 Deg - No Ice)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in, %]	End Location[in, %]
1	PM1	X	.009	.009	0	%100
2	PM2	X	.009	.009	0	%100
3	PM3	X	.007	.007	0	%100
4	VB1	PX	.006	.006	0	%100
5	VB2	PX	.008	.008	0	%100
6	SO1	PX	.01	.01	0	%100



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**Member Distributed Loads (BLC 4 : Wind 90 Deg - No Ice) (Continued)**

Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in.%]	End Location[in.%]	
7	SO2	PX	.01	.01	0	%100
8	H1	PX	.005	.005	0	%100
9	H2	PX	.005	.005	0	%100
10	TB2	PX	.006	.006	0	%100
11	TB1	PX	.006	.006	0	%100

**Member Distributed Loads (BLC 5 : Wind 120 Deg - No Ice)**

Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in.%]	End Location[in.%]	
1	PM1	X	.008	.008	0	%100
2	PM1	Z	.004	.004	0	%100
3	PM2	X	.008	.008	0	%100
4	PM2	Z	.004	.004	0	%100
5	PM3	X	.006	.006	0	%100
6	PM3	Z	.004	.004	0	%100
7	VB1	PX	.005	.005	0	%100
8	VB1	PZ	.003	.003	0	%100
9	VB2	PX	.007	.007	0	%100
10	VB2	PZ	.004	.004	0	%100
11	SO1	PX	.009	.009	0	%100
12	SO1	PZ	.005	.005	0	%100
13	SO2	PX	.009	.009	0	%100
14	SO2	PZ	.005	.005	0	%100
15	H1	PX	.007	.007	0	%100
16	H1	PZ	.004	.004	0	%100
17	H2	PX	.007	.007	0	%100
18	H2	PZ	.004	.004	0	%100
19	TB2	PX	.006	.006	0	%100
20	TB2	PZ	.004	.004	0	%100
21	TB1	PX	.004	.004	0	%100
22	TB1	PZ	.002	.002	0	%100

**Member Distributed Loads (BLC 6 : Wind 150 Deg - No Ice)**

Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in.%]	End Location[in.%]	
1	PM1	X	.004	.004	0	%100
2	PM1	Z	.008	.008	0	%100
3	PM2	X	.004	.004	0	%100
4	PM2	Z	.008	.008	0	%100
5	PM3	X	.004	.004	0	%100
6	PM3	Z	.006	.006	0	%100
7	VB1	PX	.003	.003	0	%100
8	VB1	PZ	.005	.005	0	%100
9	VB2	PX	.004	.004	0	%100
10	VB2	PZ	.007	.007	0	%100
11	SO1	PX	.005	.005	0	%100
12	SO1	PZ	.008	.008	0	%100
13	SO2	PX	.005	.005	0	%100
14	SO2	PZ	.008	.008	0	%100
15	H1	PX	.004	.004	0	%100
16	H1	PZ	.007	.007	0	%100
17	H2	PX	.004	.004	0	%100
18	H2	PZ	.007	.007	0	%100
19	TB2	PX	.004	.004	0	%100
20	TB2	PZ	.006	.006	0	%100
21	TB1	PX	.003	.003	0	%100
22	TB1	PZ	.006	.006	0	%100



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**Member Distributed Loads (BLC 7 : Wind 180 Deg - No Ice)**

Member Label	Direction	Start Magnitude[k/ft	End Magnitude[k/ft F	Start Location[in, %]	End Location[in, %]
1	PM1	Z	.009	.009	0 %9.735
2	PM2	Z	.009	.009	0 %9.204
3	PM3	Z	.006	.006	%86.991 %100
4	VB1	PZ	.006	.006	0 %100
5	VB2	PZ	.008	.008	0 %100
6	SO1	PZ	.009	.009	0 %100
7	SO2	PZ	.009	.009	0 %100
8	H1	PZ	.009	.009	0 %100
9	H2	PZ	.009	.009	0 %100
10	TB2	PZ	.007	.007	0 %100
11	TB1	PZ	.007	.007	0 %100

**Member Distributed Loads (BLC 8 : Wind 210 Deg - No Ice)**

Member Label	Direction	Start Magnitude[k/ft	End Magnitude[k/ft F	Start Location[in, %]	End Location[in, %]
1	PM1	X	-.004	-.004	0 %100
2	PM1	Z	.008	.008	0 %100
3	PM2	X	-.004	-.004	0 %100
4	PM2	Z	.008	.008	0 %100
5	PM3	X	-.004	-.004	0 %100
6	PM3	Z	.006	.006	0 %100
7	VB1	PX	-.003	-.003	0 %100
8	VB1	PZ	.005	.005	0 %100
9	VB2	PX	-.004	-.004	0 %100
10	VB2	PZ	.007	.007	0 %100
11	SO1	PX	-.005	-.005	0 %100
12	SO1	PZ	.008	.008	0 %100
13	SO2	PX	-.005	-.005	0 %100
14	SO2	PZ	.008	.008	0 %100
15	H1	PX	-.004	-.004	0 %100
16	H1	PZ	.007	.007	0 %100
17	H2	PX	-.004	-.004	0 %100
18	H2	PZ	.007	.007	0 %100
19	TB2	PX	-.003	-.003	0 %100
20	TB2	PZ	.005	.005	0 %100
21	TB1	PX	-.004	-.004	0 %100
22	TB1	PZ	.006	.006	0 %100

**Member Distributed Loads (BLC 9 : Wind 240 Deg - No Ice)**

Member Label	Direction	Start Magnitude[k/ft	End Magnitude[k/ft F	Start Location[in, %]	End Location[in, %]
1	PM1	X	-.008	-.008	0 %100
2	PM1	Z	.004	.004	0 %100
3	PM2	X	-.008	-.008	0 %100
4	PM2	Z	.004	.004	0 %100
5	PM3	X	-.006	-.006	0 %100
6	PM3	Z	.004	.004	0 %100
7	VB1	PX	-.005	-.005	0 %100
8	VB1	PZ	.003	.003	0 %100
9	VB2	PX	-.007	-.007	0 %100
10	VB2	PZ	.004	.004	0 %100
11	SO1	PX	-.009	-.009	0 %100
12	SO1	PZ	.005	.005	0 %100
13	SO2	PX	-.009	-.009	0 %100
14	SO2	PZ	.005	.005	0 %100
15	H1	PX	-.007	-.007	0 %100
16	H1	PZ	.004	.004	0 %100
17	H2	PX	-.007	-.007	0 %100



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**Member Distributed Loads (BLC 9 : Wind 240 Deg - No Ice) (Continued)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in.%]	End Location[in.%]
18	H2	PZ	.004	.004	0	%100
19	TB2	PX	-.004	-.004	0	%100
20	TB2	PZ	.002	.002	0	%100
21	TB1	PX	-.006	-.006	0	%100
22	TB1	PZ	.004	.004	0	%100

**Member Distributed Loads (BLC 10 : Wind 270 Deg - No Ice)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in.%]	End Location[in.%]
1	PM1	X	-.009	-.009	0	%100
2	PM2	X	-.009	-.009	0	%100
3	PM3	X	-.007	-.007	0	%100
4	VB1	PX	-.006	-.006	0	%100
5	VB2	PX	-.008	-.008	0	%100
6	SO1	PX	-.01	-.01	0	%100
7	SO2	PX	-.01	-.01	0	%100
8	H1	PX	-.005	-.005	0	%100
9	H2	PX	-.005	-.005	0	%100
10	TB2	PX	-.006	-.006	0	%100
11	TB1	PX	-.006	-.006	0	%100

**Member Distributed Loads (BLC 11 : Wind 300 Deg - No Ice)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in.%]	End Location[in.%]
1	PM1	X	-.008	-.008	0	%100
2	PM1	Z	-.004	-.004	0	%100
3	PM2	X	-.008	-.008	0	%100
4	PM2	Z	-.004	-.004	0	%100
5	PM3	X	-.006	-.006	0	%100
6	PM3	Z	-.004	-.004	0	%100
7	VB1	PX	-.005	-.005	0	%100
8	VB1	PZ	-.003	-.003	0	%100
9	VB2	PX	-.007	-.007	0	%100
10	VB2	PZ	-.004	-.004	0	%100
11	SO1	PX	-.009	-.009	0	%100
12	SO1	PZ	-.005	-.005	0	%100
13	SO2	PX	-.009	-.009	0	%100
14	SO2	PZ	-.005	-.005	0	%100
15	H1	PX	-.007	-.007	0	%100
16	H1	PZ	-.004	-.004	0	%100
17	H2	PX	-.007	-.007	0	%100
18	H2	PZ	-.004	-.004	0	%100
19	TB2	PX	-.006	-.006	0	%100
20	TB2	PZ	-.004	-.004	0	%100
21	TB1	PX	-.004	-.004	0	%100
22	TB1	PZ	-.002	-.002	0	%100

**Member Distributed Loads (BLC 12 : Wind 330 Deg - No Ice)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in.%]	End Location[in.%]
1	PM1	X	-.004	-.004	0	%100
2	PM1	Z	-.008	-.008	0	%100
3	PM2	X	-.004	-.004	0	%100
4	PM2	Z	-.008	-.008	0	%100
5	PM3	X	-.004	-.004	0	%100
6	PM3	Z	-.006	-.006	0	%100
7	VB1	PX	-.003	-.003	0	%100
8	VB1	PZ	-.005	-.005	0	%100



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**Member Distributed Loads (BLC 12 : Wind 330 Deg - No Ice) (Continued)**

Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft.F]	Start Location[in.%]	End Location[in.%]	
9	VB2	PX	- .004	- .004	0	%100
10	VB2	PZ	- .007	- .007	0	%100
11	SO1	PX	- .005	- .005	0	%100
12	SO1	PZ	- .008	- .008	0	%100
13	SO2	PX	- .005	- .005	0	%100
14	SO2	PZ	- .008	- .008	0	%100
15	H1	PX	- .004	- .004	0	%100
16	H1	PZ	- .007	- .007	0	%100
17	H2	PX	- .004	- .004	0	%100
18	H2	PZ	- .007	- .007	0	%100
19	TB2	PX	- .004	- .004	0	%100
20	TB2	PZ	- .006	- .006	0	%100
21	TB1	PX	- .003	- .003	0	%100
22	TB1	PZ	- .006	- .006	0	%100

**Member Distributed Loads (BLC 13 : Wind 0 Deg - Ice)**

Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft.F]	Start Location[in.%]	End Location[in.%]	
1	PM1	Z	- .003	- .003	0	%9.735
2	PM2	Z	- .003	- .003	0	%9.204
3	PM3	Z	- .002	- .002	%86.991	%100
4	VB1	PZ	- .002	- .002	0	%100
5	VB2	PZ	- .003	- .003	0	%100
6	SO1	PZ	- .003	- .003	0	%100
7	SO2	PZ	- .003	- .003	0	%100
8	H1	PZ	- .003	- .003	0	%100
9	H2	PZ	- .003	- .003	0	%100
10	TB2	PZ	- .003	- .003	0	%100
11	TB1	PZ	- .003	- .003	0	%100

**Member Distributed Loads (BLC 14 : Wind 30 Deg - Ice)**

Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft.F]	Start Location[in.%]	End Location[in.%]	
1	PM1	X	.001	.001	0	%100
2	PM1	Z	- .003	- .003	0	%100
3	PM2	X	.001	.001	0	%100
4	PM2	Z	- .003	- .003	0	%100
5	PM3	X	.001	.001	0	%100
6	PM3	Z	- .003	- .003	0	%100
7	VB1	PX	.001	.001	0	%100
8	VB1	PZ	- .002	- .002	0	%100
9	VB2	PX	.001	.001	0	%100
10	VB2	PZ	- .002	- .002	0	%100
11	SO1	PX	.002	.002	0	%100
12	SO1	PZ	- .003	- .003	0	%100
13	SO2	PX	.002	.002	0	%100
14	SO2	PZ	- .003	- .003	0	%100
15	H1	PX	.002	.002	0	%100
16	H1	PZ	- .003	- .003	0	%100
17	H2	PX	.002	.002	0	%100
18	H2	PZ	- .003	- .003	0	%100
19	TB2	PX	.001	.001	0	%100
20	TB2	PZ	- .002	- .002	0	%100
21	TB1	PX	.001	.001	0	%100
22	TB1	PZ	- .003	- .003	0	%100

**Member Distributed Loads (BLC 15 : Wind 60 Deg - Ice)**

Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft.F]	Start Location[in.%]	End Location[in.%]
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**Member Distributed Loads (BLC 15 : Wind 60 Deg - Ice) (Continued)**

Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in, %]	End Location[in, %]
1	PM1	X	.003	.003	0 %100
2	PM1	Z	-.001	-.001	0 %100
3	PM2	X	.003	.003	0 %100
4	PM2	Z	-.001	-.001	0 %100
5	PM3	X	.003	.003	0 %100
6	PM3	Z	-.001	-.001	0 %100
7	VB1	PX	.002	.002	0 %100
8	VB1	PZ	-.001	-.001	0 %100
9	VB2	PX	.002	.002	0 %100
10	VB2	PZ	-.001	-.001	0 %100
11	SO1	PX	.003	.003	0 %100
12	SO1	PZ	-.002	-.002	0 %100
13	SO2	PX	.003	.003	0 %100
14	SO2	PZ	-.002	-.002	0 %100
15	H1	PX	.003	.003	0 %100
16	H1	PZ	-.002	-.002	0 %100
17	H2	PX	.003	.003	0 %100
18	H2	PZ	-.002	-.002	0 %100
19	TB2	PX	.002	.002	0 %100
20	TB2	PZ	-.000867	-.000867	0 %100
21	TB1	PX	.003	.003	0 %100
22	TB1	PZ	-.001	-.001	0 %100

**Member Distributed Loads (BLC 16 : Wind 90 Deg - Ice)**

Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in, %]	End Location[in, %]
1	PM1	X	.003	.003	0 %100
2	PM2	X	.003	.003	0 %100
3	PM3	X	.003	.003	0 %100
4	VB1	PX	.002	.002	0 %100
5	VB2	PX	.003	.003	0 %100
6	SO1	PX	.004	.004	0 %100
7	SO2	PX	.004	.004	0 %100
8	H1	PX	.002	.002	0 %100
9	H2	PX	.002	.002	0 %100
10	TB2	PX	.003	.003	0 %100
11	TB1	PX	.002	.002	0 %100

**Member Distributed Loads (BLC 17 : Wind 120 Deg - Ice)**

Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in, %]	End Location[in, %]
1	PM1	X	.003	.003	0 %100
2	PM1	Z	.001	.001	0 %100
3	PM2	X	.003	.003	0 %100
4	PM2	Z	.001	.001	0 %100
5	PM3	X	.003	.003	0 %100
6	PM3	Z	.001	.001	0 %100
7	VB1	PX	.002	.002	0 %100
8	VB1	PZ	.001	.001	0 %100
9	VB2	PX	.002	.002	0 %100
10	VB2	PZ	.001	.001	0 %100
11	SO1	PX	.003	.003	0 %100
12	SO1	PZ	.002	.002	0 %100
13	SO2	PX	.003	.003	0 %100
14	SO2	PZ	.002	.002	0 %100
15	H1	PX	.003	.003	0 %100
16	H1	PZ	.002	.002	0 %100
17	H2	PX	.003	.003	0 %100





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**Member Distributed Loads (BLC 17 : Wind 120 Deg - Ice) (Continued)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in.%]	End Location[in.%]
18	H2	PZ	.002	.002	0	%100
19	TB2	PX	.003	.003	0	%100
20	TB2	PZ	.001	.001	0	%100
21	TB1	PX	.002	.002	0	%100
22	TB1	PZ	.000879	.000879	0	%100

**Member Distributed Loads (BLC 18 : Wind 150 Deg - Ice)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in.%]	End Location[in.%]
1	PM1	X	.001	.001	0	%100
2	PM1	Z	.003	.003	0	%100
3	PM2	X	.001	.001	0	%100
4	PM2	Z	.003	.003	0	%100
5	PM3	X	.001	.001	0	%100
6	PM3	Z	.003	.003	0	%100
7	VB1	PX	.001	.001	0	%100
8	VB1	PZ	.002	.002	0	%100
9	VB2	PX	.001	.001	0	%100
10	VB2	PZ	.002	.002	0	%100
11	SO1	PX	.002	.002	0	%100
12	SO1	PZ	.003	.003	0	%100
13	SO2	PX	.002	.002	0	%100
14	SO2	PZ	.003	.003	0	%100
15	H1	PX	.002	.002	0	%100
16	H1	PZ	.003	.003	0	%100
17	H2	PX	.002	.002	0	%100
18	H2	PZ	.003	.003	0	%100
19	TB2	PX	.001	.001	0	%100
20	TB2	PZ	.003	.003	0	%100
21	TB1	PX	.001	.001	0	%100
22	TB1	PZ	.002	.002	0	%100

**Member Distributed Loads (BLC 19 : Wind 180 Deg - Ice)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in.%]	End Location[in.%]
1	PM1	Z	.003	.003	0	%9.735
2	PM2	Z	.003	.003	0	%9.204
3	PM3	Z	.002	.002	%86.991	%100
4	VB1	PZ	.002	.002	0	%100
5	VB2	PZ	.003	.003	0	%100
6	SO1	PZ	.003	.003	0	%100
7	SO2	PZ	.003	.003	0	%100
8	H1	PZ	.003	.003	0	%100
9	H2	PZ	.003	.003	0	%100
10	TB2	PZ	.003	.003	0	%100
11	TB1	PZ	.003	.003	0	%100

**Member Distributed Loads (BLC 20 : Wind 210 Deg - Ice)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in.%]	End Location[in.%]
1	PM1	X	-.001	-.001	0	%100
2	PM1	Z	.003	.003	0	%100
3	PM2	X	-.001	-.001	0	%100
4	PM2	Z	.003	.003	0	%100
5	PM3	X	-.001	-.001	0	%100
6	PM3	Z	.003	.003	0	%100
7	VB1	PX	-.001	-.001	0	%100
8	VB1	PZ	.002	.002	0	%100



**Member Distributed Loads (BLC 20 : Wind 210 Deg - Ice) (Continued)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in.%]	End Location[in.%]
9	VB2	PX	- .001	- .001	0	%100
10	VB2	PZ	.002	.002	0	%100
11	SO1	PX	- .002	- .002	0	%100
12	SO1	PZ	.003	.003	0	%100
13	SO2	PX	- .002	- .002	0	%100
14	SO2	PZ	.003	.003	0	%100
15	H1	PX	- .002	- .002	0	%100
16	H1	PZ	.003	.003	0	%100
17	H2	PX	- .002	- .002	0	%100
18	H2	PZ	.003	.003	0	%100
19	TB2	PX	- .001	- .001	0	%100
20	TB2	PZ	.002	.002	0	%100
21	TB1	PX	- .001	- .001	0	%100
22	TB1	PZ	.003	.003	0	%100

**Member Distributed Loads (BLC 21 : Wind 240 Deg - Ice)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in.%]	End Location[in.%]
1	PM1	X	- .003	- .003	0	%100
2	PM1	Z	.001	.001	0	%100
3	PM2	X	- .003	- .003	0	%100
4	PM2	Z	.001	.001	0	%100
5	PM3	X	- .003	- .003	0	%100
6	PM3	Z	.001	.001	0	%100
7	VB1	PX	- .002	- .002	0	%100
8	VB1	PZ	.001	.001	0	%100
9	VB2	PX	- .002	- .002	0	%100
10	VB2	PZ	.001	.001	0	%100
11	SO1	PX	- .003	- .003	0	%100
12	SO1	PZ	.002	.002	0	%100
13	SO2	PX	- .003	- .003	0	%100
14	SO2	PZ	.002	.002	0	%100
15	H1	PX	- .003	- .003	0	%100
16	H1	PZ	.002	.002	0	%100
17	H2	PX	- .003	- .003	0	%100
18	H2	PZ	.002	.002	0	%100
19	TB2	PX	- .002	- .002	0	%100
20	TB2	PZ	.000867	.000867	0	%100
21	TB1	PX	- .003	- .003	0	%100
22	TB1	PZ	.001	.001	0	%100

**Member Distributed Loads (BLC 22 : Wind 270 Deg - Ice)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in.%]	End Location[in.%]
1	PM1	X	- .003	- .003	0	%100
2	PM2	X	- .003	- .003	0	%100
3	PM3	X	- .003	- .003	0	%100
4	VB1	PX	- .002	- .002	0	%100
5	VB2	PX	- .003	- .003	0	%100
6	SO1	PX	- .004	- .004	0	%100
7	SO2	PX	- .004	- .004	0	%100
8	H1	PX	- .002	- .002	0	%100
9	H2	PX	- .002	- .002	0	%100
10	TB2	PX	- .003	- .003	0	%100
11	TB1	PX	- .002	- .002	0	%100

**Member Distributed Loads (BLC 23 : Wind 300 Deg - Ice)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in.%]	End Location[in.%]
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**Member Distributed Loads (BLC 23 : Wind 300 Deg - Ice) (Continued)**

Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in, %]	End Location[in, %]
1	PM1	X	- .003	- .003	0 %100
2	PM1	Z	- .001	- .001	0 %100
3	PM2	X	- .003	- .003	0 %100
4	PM2	Z	- .001	- .001	0 %100
5	PM3	X	- .003	- .003	0 %100
6	PM3	Z	- .001	- .001	0 %100
7	VB1	PX	- .002	- .002	0 %100
8	VB1	PZ	- .001	- .001	0 %100
9	VB2	PX	- .002	- .002	0 %100
10	VB2	PZ	- .001	- .001	0 %100
11	SO1	PX	- .003	- .003	0 %100
12	SO1	PZ	- .002	- .002	0 %100
13	SO2	PX	- .003	- .003	0 %100
14	SO2	PZ	- .002	- .002	0 %100
15	H1	PX	- .003	- .003	0 %100
16	H1	PZ	- .002	- .002	0 %100
17	H2	PX	- .003	- .003	0 %100
18	H2	PZ	- .002	- .002	0 %100
19	TB2	PX	- .003	- .003	0 %100
20	TB2	PZ	- .001	- .001	0 %100
21	TB1	PX	- .002	- .002	0 %100
22	TB1	PZ	- .000879	- .000879	0 %100

**Member Distributed Loads (BLC 24 : Wind 330 Deg - Ice)**

Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in, %]	End Location[in, %]
1	PM1	X	- .001	- .001	0 %100
2	PM1	Z	- .003	- .003	0 %100
3	PM2	X	- .001	- .001	0 %100
4	PM2	Z	- .003	- .003	0 %100
5	PM3	X	- .001	- .001	0 %100
6	PM3	Z	- .003	- .003	0 %100
7	VB1	PX	- .001	- .001	0 %100
8	VB1	PZ	- .002	- .002	0 %100
9	VB2	PX	- .001	- .001	0 %100
10	VB2	PZ	- .002	- .002	0 %100
11	SO1	PX	- .002	- .002	0 %100
12	SO1	PZ	- .003	- .003	0 %100
13	SO2	PX	- .002	- .002	0 %100
14	SO2	PZ	- .003	- .003	0 %100
15	H1	PX	- .002	- .002	0 %100
16	H1	PZ	- .003	- .003	0 %100
17	H2	PX	- .002	- .002	0 %100
18	H2	PZ	- .003	- .003	0 %100
19	TB2	PX	- .001	- .001	0 %100
20	TB2	PZ	- .003	- .003	0 %100
21	TB1	PX	- .001	- .001	0 %100
22	TB1	PZ	- .002	- .002	0 %100

**Member Distributed Loads (BLC 25 : Wind 0 Deg - Maintenance)**

Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in, %]	End Location[in, %]
1	PM1	Z	- .000548	- .000548	0 %9.735
2	PM2	Z	- .000548	- .000548	0 %9.204
3	PM3	Z	- .000372	- .000372	%86.991 %100
4	VB1	PZ	- .000365	- .000365	0 %100
5	VB2	PZ	- .000478	- .000478	0 %100
6	SO1	PZ	- .000563	- .000563	0 %100



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**Member Distributed Loads (BLC 25 : Wind 0 Deg - Maintenance) (Continued)**

Member Label	Direction	Start Magnitude[k/ft	End Magnitude[k/ft F	Start Location[in.%]	End Location[in.%]	
7	SO2	PZ	- .000563	- .000563	0	%100
8	H1	PZ	- .00054	- .00054	0	%100
9	H2	PZ	- .00054	- .00054	0	%100
10	TB2	PZ	- .000446	- .000446	0	%100
11	TB1	PZ	- .000446	- .000446	0	%100

**Member Distributed Loads (BLC 26 : Wind 30 Deg - Maintenance)**

Member Label	Direction	Start Magnitude[k/ft	End Magnitude[k/ft F	Start Location[in.%]	End Location[in.%]	
1	PM1	X	.000275	.000275	0	%100
2	PM1	Z	- .000476	- .000476	0	%100
3	PM2	X	.000275	.000275	0	%100
4	PM2	Z	- .000476	- .000476	0	%100
5	PM3	X	.000223	.000223	0	%100
6	PM3	Z	- .000387	- .000387	0	%100
7	VB1	PX	.000182	.000182	0	%100
8	VB1	PZ	- .000316	- .000316	0	%100
9	VB2	PX	.000239	.000239	0	%100
10	VB2	PZ	- .000414	- .000414	0	%100
11	SO1	PX	.000292	.000292	0	%100
12	SO1	PZ	- .000505	- .000505	0	%100
13	SO2	PX	.000292	.000292	0	%100
14	SO2	PZ	- .000505	- .000505	0	%100
15	H1	PX	.00027	.00027	0	%100
16	H1	PZ	- .000467	- .000467	0	%100
17	H2	PX	.00027	.00027	0	%100
18	H2	PZ	- .000467	- .000467	0	%100
19	TB2	PX	.000194	.000194	0	%100
20	TB2	PZ	- .000335	- .000335	0	%100
21	TB1	PX	.000223	.000223	0	%100
22	TB1	PZ	- .000386	- .000386	0	%100

**Member Distributed Loads (BLC 27 : Wind 60 Deg - Maintenance)**

Member Label	Direction	Start Magnitude[k/ft	End Magnitude[k/ft F	Start Location[in.%]	End Location[in.%]	
1	PM1	X	.000476	.000476	0	%100
2	PM1	Z	- .000275	- .000275	0	%100
3	PM2	X	.000476	.000476	0	%100
4	PM2	Z	- .000275	- .000275	0	%100
5	PM3	X	.000387	.000387	0	%100
6	PM3	Z	- .000223	- .000223	0	%100
7	VB1	PX	.000316	.000316	0	%100
8	VB1	PZ	- .000182	- .000182	0	%100
9	VB2	PX	.000414	.000414	0	%100
10	VB2	PZ	- .000239	- .000239	0	%100
11	SO1	PX	.000551	.000551	0	%100
12	SO1	PZ	- .000318	- .000318	0	%100
13	SO2	PX	.000551	.000551	0	%100
14	SO2	PZ	- .000318	- .000318	0	%100
15	H1	PX	.000467	.000467	0	%100
16	H1	PZ	- .00027	- .00027	0	%100
17	H2	PX	.000467	.000467	0	%100
18	H2	PZ	- .00027	- .00027	0	%100
19	TB2	PX	.000225	.000225	0	%100
20	TB2	PZ	- .00013	- .00013	0	%100
21	TB1	PX	.000386	.000386	0	%100
22	TB1	PZ	- .000223	- .000223	0	%100



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**Member Distributed Loads (BLC 28 : Wind 90 Deg - Maintenance)**

Member Label	Direction	Start Magnitude[k/ft	End Magnitude[k/ft F	Start Location[in, %]	End Location[in, %]
1	PM1	X	.000549	.000549	0 %100
2	PM2	X	.000549	.000549	0 %100
3	PM3	X	.000447	.000447	0 %100
4	VB1	PX	.000365	.000365	0 %100
5	VB2	PX	.000478	.000478	0 %100
6	SO1	PX	.000655	.000655	0 %100
7	SO2	PX	.000655	.000655	0 %100
8	H1	PX	.000315	.000315	0 %100
9	H2	PX	.000315	.000315	0 %100
10	TB2	PX	.000387	.000387	0 %100
11	TB1	PX	.000357	.000357	0 %100

**Member Distributed Loads (BLC 29 : Wind 120 Deg - Maintenance)**

Member Label	Direction	Start Magnitude[k/ft	End Magnitude[k/ft F	Start Location[in, %]	End Location[in, %]
1	PM1	X	.000476	.000476	0 %100
2	PM1	Z	.000275	.000275	0 %100
3	PM2	X	.000476	.000476	0 %100
4	PM2	Z	.000275	.000275	0 %100
5	PM3	X	.000387	.000387	0 %100
6	PM3	Z	.000223	.000223	0 %100
7	VB1	PX	.000316	.000316	0 %100
8	VB1	PZ	.000182	.000182	0 %100
9	VB2	PX	.000414	.000414	0 %100
10	VB2	PZ	.000239	.000239	0 %100
11	SO1	PX	.000551	.000551	0 %100
12	SO1	PZ	.000318	.000318	0 %100
13	SO2	PX	.000551	.000551	0 %100
14	SO2	PZ	.000318	.000318	0 %100
15	H1	PX	.000467	.000467	0 %100
16	H1	PZ	.00027	.00027	0 %100
17	H2	PX	.000467	.000467	0 %100
18	H2	PZ	.00027	.00027	0 %100
19	TB2	PX	.000386	.000386	0 %100
20	TB2	PZ	.000223	.000223	0 %100
21	TB1	PX	.000228	.000228	0 %100
22	TB1	PZ	.000132	.000132	0 %100

**Member Distributed Loads (BLC 30 : Wind 150 Deg - Maintenance)**

Member Label	Direction	Start Magnitude[k/ft	End Magnitude[k/ft F	Start Location[in, %]	End Location[in, %]
1	PM1	X	.000275	.000275	0 %100
2	PM1	Z	.000476	.000476	0 %100
3	PM2	X	.000275	.000275	0 %100
4	PM2	Z	.000476	.000476	0 %100
5	PM3	X	.000223	.000223	0 %100
6	PM3	Z	.000387	.000387	0 %100
7	VB1	PX	.000182	.000182	0 %100
8	VB1	PZ	.000316	.000316	0 %100
9	VB2	PX	.000239	.000239	0 %100
10	VB2	PZ	.000414	.000414	0 %100
11	SO1	PX	.000292	.000292	0 %100
12	SO1	PZ	.000505	.000505	0 %100
13	SO2	PX	.000292	.000292	0 %100
14	SO2	PZ	.000505	.000505	0 %100
15	H1	PX	.00027	.00027	0 %100
16	H1	PZ	.000467	.000467	0 %100
17	H2	PX	.00027	.00027	0 %100



**Member Distributed Loads (BLC 30 : Wind 150 Deg - Maintenance) (Continued)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in.%]	End Location[in.%]
18	H2	PZ	.000467	.000467	0	%100
19	TB2	PX	.000223	.000223	0	%100
20	TB2	PZ	.000386	.000386	0	%100
21	TB1	PX	.0002	.0002	0	%100
22	TB1	PZ	.000346	.000346	0	%100

**Member Distributed Loads (BLC 31 : Wind 180 Deg - Maintenance)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in.%]	End Location[in.%]
1	PM1	Z	.000548	.000548	0	%9.735
2	PM2	Z	.000548	.000548	0	%9.204
3	PM3	Z	.000372	.000372	%86.991	%100
4	VB1	PZ	.000365	.000365	0	%100
5	VB2	PZ	.000478	.000478	0	%100
6	SO1	PZ	.000563	.000563	0	%100
7	SO2	PZ	.000563	.000563	0	%100
8	H1	PZ	.00054	.00054	0	%100
9	H2	PZ	.00054	.00054	0	%100
10	TB2	PZ	.000446	.000446	0	%100
11	TB1	PZ	.000446	.000446	0	%100

**Member Distributed Loads (BLC 32 : Wind 210 Deg - Maintenance)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in.%]	End Location[in.%]
1	PM1	X	-.000275	-.000275	0	%100
2	PM1	Z	.000476	.000476	0	%100
3	PM2	X	-.000275	-.000275	0	%100
4	PM2	Z	.000476	.000476	0	%100
5	PM3	X	-.000223	-.000223	0	%100
6	PM3	Z	.000387	.000387	0	%100
7	VB1	PX	-.000182	-.000182	0	%100
8	VB1	PZ	.000316	.000316	0	%100
9	VB2	PX	-.000239	-.000239	0	%100
10	VB2	PZ	.000414	.000414	0	%100
11	SO1	PX	-.000292	-.000292	0	%100
12	SO1	PZ	.000505	.000505	0	%100
13	SO2	PX	-.000292	-.000292	0	%100
14	SO2	PZ	.000505	.000505	0	%100
15	H1	PX	-.00027	-.00027	0	%100
16	H1	PZ	.000467	.000467	0	%100
17	H2	PX	-.00027	-.00027	0	%100
18	H2	PZ	.000467	.000467	0	%100
19	TB2	PX	-.000194	-.000194	0	%100
20	TB2	PZ	.000335	.000335	0	%100
21	TB1	PX	-.000223	-.000223	0	%100
22	TB1	PZ	.000386	.000386	0	%100

**Member Distributed Loads (BLC 33 : Wind 240 Deg - Maintenance)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in.%]	End Location[in.%]
1	PM1	X	-.000476	-.000476	0	%100
2	PM1	Z	.000275	.000275	0	%100
3	PM2	X	-.000476	-.000476	0	%100
4	PM2	Z	.000275	.000275	0	%100
5	PM3	X	-.000387	-.000387	0	%100
6	PM3	Z	.000223	.000223	0	%100
7	VB1	PX	-.000316	-.000316	0	%100
8	VB1	PZ	.000182	.000182	0	%100



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**Member Distributed Loads (BLC 33 : Wind 240 Deg - Maintenance) (Continued)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft.F]	Start Location[in.%]	End Location[in.%]
9	VB2	PX	-0.00414	-0.00414	0	%100
10	VB2	PZ	0.00239	0.00239	0	%100
11	SO1	PX	-0.00551	-0.00551	0	%100
12	SO1	PZ	0.00318	0.00318	0	%100
13	SO2	PX	-0.00551	-0.00551	0	%100
14	SO2	PZ	0.00318	0.00318	0	%100
15	H1	PX	-0.00467	-0.00467	0	%100
16	H1	PZ	0.0027	0.0027	0	%100
17	H2	PX	-0.00467	-0.00467	0	%100
18	H2	PZ	0.0027	0.0027	0	%100
19	TB2	PX	-0.00225	-0.00225	0	%100
20	TB2	PZ	0.0013	0.0013	0	%100
21	TB1	PX	-0.00386	-0.00386	0	%100
22	TB1	PZ	0.00223	0.00223	0	%100

**Member Distributed Loads (BLC 34 : Wind 270 Deg - Maintenance)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft.F]	Start Location[in.%]	End Location[in.%]
1	PM1	X	-0.00549	-0.00549	0	%100
2	PM2	X	-0.00549	-0.00549	0	%100
3	PM3	X	-0.00447	-0.00447	0	%100
4	VB1	PX	-0.00365	-0.00365	0	%100
5	VB2	PX	-0.00478	-0.00478	0	%100
6	SO1	PX	-0.00655	-0.00655	0	%100
7	SO2	PX	-0.00655	-0.00655	0	%100
8	H1	PX	-0.00315	-0.00315	0	%100
9	H2	PX	-0.00315	-0.00315	0	%100
10	TB2	PX	-0.00387	-0.00387	0	%100
11	TB1	PX	-0.00357	-0.00357	0	%100

**Member Distributed Loads (BLC 35 : Wind 300 Deg - Maintenance)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft.F]	Start Location[in.%]	End Location[in.%]
1	PM1	X	-0.00476	-0.00476	0	%100
2	PM1	Z	-0.00275	-0.00275	0	%100
3	PM2	X	-0.00476	-0.00476	0	%100
4	PM2	Z	-0.00275	-0.00275	0	%100
5	PM3	X	-0.00387	-0.00387	0	%100
6	PM3	Z	-0.00223	-0.00223	0	%100
7	VB1	PX	-0.00316	-0.00316	0	%100
8	VB1	PZ	-0.00182	-0.00182	0	%100
9	VB2	PX	-0.00414	-0.00414	0	%100
10	VB2	PZ	-0.00239	-0.00239	0	%100
11	SO1	PX	-0.00551	-0.00551	0	%100
12	SO1	PZ	-0.00318	-0.00318	0	%100
13	SO2	PX	-0.00551	-0.00551	0	%100
14	SO2	PZ	-0.00318	-0.00318	0	%100
15	H1	PX	-0.00467	-0.00467	0	%100
16	H1	PZ	-0.0027	-0.0027	0	%100
17	H2	PX	-0.00467	-0.00467	0	%100
18	H2	PZ	-0.0027	-0.0027	0	%100
19	TB2	PX	-0.00386	-0.00386	0	%100
20	TB2	PZ	-0.00223	-0.00223	0	%100
21	TB1	PX	-0.00228	-0.00228	0	%100
22	TB1	PZ	-0.00132	-0.00132	0	%100

**Member Distributed Loads (BLC 36 : Wind 330 Deg - Maintenance)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft.F]	Start Location[in.%]	End Location[in.%]
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**Member Distributed Loads (BLC 36 : Wind 330 Deg - Maintenance) (Continued)**

Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in, %]	End Location[in, %]
1	PM1	X	- .000275	- .000275	0 %100
2	PM1	Z	- .000476	- .000476	0 %100
3	PM2	X	- .000275	- .000275	0 %100
4	PM2	Z	- .000476	- .000476	0 %100
5	PM3	X	- .000223	- .000223	0 %100
6	PM3	Z	- .000387	- .000387	0 %100
7	VB1	PX	- .000182	- .000182	0 %100
8	VB1	PZ	- .000316	- .000316	0 %100
9	VB2	PX	- .000239	- .000239	0 %100
10	VB2	PZ	- .000414	- .000414	0 %100
11	SO1	PX	- .000292	- .000292	0 %100
12	SO1	PZ	- .000505	- .000505	0 %100
13	SO2	PX	- .000292	- .000292	0 %100
14	SO2	PZ	- .000505	- .000505	0 %100
15	H1	PX	- .00027	- .00027	0 %100
16	H1	PZ	- .000467	- .000467	0 %100
17	H2	PX	- .00027	- .00027	0 %100
18	H2	PZ	- .000467	- .000467	0 %100
19	TB2	PX	- .000223	- .000223	0 %100
20	TB2	PZ	- .000386	- .000386	0 %100
21	TB1	PX	- .0002	- .0002	0 %100
22	TB1	PZ	- .000346	- .000346	0 %100

**Member Distributed Loads (BLC 38 : Dead - Ice)**

Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in, %]	End Location[in, %]
1	VB1	Y	- .008	- .008	0 %100
2	VB2	Y	- .01	- .01	0 %100
3	SO1	Y	- .012	- .012	0 %100
4	SO2	Y	- .012	- .012	0 %100
5	H1	Y	- .009	- .009	0 %100
6	H2	Y	- .009	- .009	0 %100
7	PM1	Y	- .01	- .01	0 %100
8	PM2	Y	- .01	- .01	0 %100
9	PM3	Y	- .008	- .008	0 %100
10	TB2	Y	- .008	- .008	0 %100
11	TB1	Y	- .008	- .008	0 %100

**Member Distributed Loads (BLC 54 : Earthquake 0 Deg)**

Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in, %]	End Location[in, %]
1	VB1	Z	- .00042	- .00042	0 %100
2	VB2	Z	- .000853	- .000853	0 %100
3	SO1	Z	- .001	- .001	0 %100
4	SO2	Z	- .001	- .001	0 %100
5	H1	Z	- .000663	- .000663	0 %100
6	H2	Z	- .000663	- .000663	0 %100
7	PM1	Z	- .000853	- .000853	0 %100
8	PM2	Z	- .000853	- .000853	0 %100
9	PM3	Z	- .000339	- .000339	0 %100
10	TB2	Z	- .00042	- .00042	0 %100
11	TB1	Z	- .00042	- .00042	0 %100

**Member Distributed Loads (BLC 55 : Earthquake 30 Deg)**

Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in, %]	End Location[in, %]
1	VB1	X	.00021	.00021	0 %100
2	VB1	Z	- .000364	- .000364	0 %100





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**Member Distributed Loads (BLC 55 : Earthquake 30 Deg) (Continued)**

Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in.%]	End Location[in.%]
3	VB2	X	.000426	.000426	0 %100
4	VB2	Z	-.000739	-.000739	0 %100
5	SO1	X	.000503	.000503	0 %100
6	SO1	Z	-.000871	-.000871	0 %100
7	SO2	X	.000503	.000503	0 %100
8	SO2	Z	-.000871	-.000871	0 %100
9	H1	X	.000332	.000332	0 %100
10	H1	Z	-.000574	-.000574	0 %100
11	H2	X	.000332	.000332	0 %100
12	H2	Z	-.000574	-.000574	0 %100
13	PM1	X	.000426	.000426	0 %100
14	PM1	Z	-.000739	-.000739	0 %100
15	PM2	X	.000426	.000426	0 %100
16	PM2	Z	-.000739	-.000739	0 %100
17	PM3	X	.00017	.00017	0 %100
18	PM3	Z	-.000294	-.000294	0 %100
19	TB2	X	.00021	.00021	0 %100
20	TB2	Z	-.000364	-.000364	0 %100
21	TB1	X	.00021	.00021	0 %100
22	TB1	Z	-.000364	-.000364	0 %100

**Member Distributed Loads (BLC 56 : Earthquake 60 Deg)**

Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in.%]	End Location[in.%]
1	VB1	X	.000364	.000364	0 %100
2	VB1	Z	-.00021	-.00021	0 %100
3	VB2	X	.000739	.000739	0 %100
4	VB2	Z	-.000426	-.000426	0 %100
5	SO1	X	.000871	.000871	0 %100
6	SO1	Z	-.000503	-.000503	0 %100
7	SO2	X	.000871	.000871	0 %100
8	SO2	Z	-.000503	-.000503	0 %100
9	H1	X	.000574	.000574	0 %100
10	H1	Z	-.000332	-.000332	0 %100
11	H2	X	.000574	.000574	0 %100
12	H2	Z	-.000332	-.000332	0 %100
13	PM1	X	.000739	.000739	0 %100
14	PM1	Z	-.000426	-.000426	0 %100
15	PM2	X	.000739	.000739	0 %100
16	PM2	Z	-.000426	-.000426	0 %100
17	PM3	X	.000294	.000294	0 %100
18	PM3	Z	-.00017	-.00017	0 %100
19	TB2	X	.000364	.000364	0 %100
20	TB2	Z	-.00021	-.00021	0 %100
21	TB1	X	.000364	.000364	0 %100
22	TB1	Z	-.00021	-.00021	0 %100

**Member Distributed Loads (BLC 57 : Earthquake 90 Deg)**

Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in.%]	End Location[in.%]
1	VB1	X	.00042	.00042	0 %100
2	VB2	X	.000853	.000853	0 %100
3	SO1	X	.001	.001	0 %100
4	SO2	X	.001	.001	0 %100
5	H1	X	.000663	.000663	0 %100
6	H2	X	.000663	.000663	0 %100
7	PM1	X	.000853	.000853	0 %100
8	PM2	X	.000853	.000853	0 %100



Company : FDH-IS  
 Designer : MTB  
 Job Number : 19BLAP1400 (Alpha)  
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**Member Distributed Loads (BLC 57 : Earthquake 90 Deg) (Continued)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in.%]	End Location[in.%]
9	PM3	X	.000339	.000339	0	%100
10	TB2	X	.00042	.00042	0	%100
11	TB1	X	.00042	.00042	0	%100

**Member Distributed Loads (BLC 58 : Earthquake 120 Deg)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in.%]	End Location[in.%]
1	VB1	X	.000364	.000364	0	%100
2	VB1	Z	.00021	.00021	0	%100
3	VB2	X	.000739	.000739	0	%100
4	VB2	Z	.000426	.000426	0	%100
5	SO1	X	.000871	.000871	0	%100
6	SO1	Z	.000503	.000503	0	%100
7	SO2	X	.000871	.000871	0	%100
8	SO2	Z	.000503	.000503	0	%100
9	H1	X	.000574	.000574	0	%100
10	H1	Z	.000332	.000332	0	%100
11	H2	X	.000574	.000574	0	%100
12	H2	Z	.000332	.000332	0	%100
13	PM1	X	.000739	.000739	0	%100
14	PM1	Z	.000426	.000426	0	%100
15	PM2	X	.000739	.000739	0	%100
16	PM2	Z	.000426	.000426	0	%100
17	PM3	X	.000294	.000294	0	%100
18	PM3	Z	.00017	.00017	0	%100
19	TB2	X	.000364	.000364	0	%100
20	TB2	Z	.00021	.00021	0	%100
21	TB1	X	.000364	.000364	0	%100
22	TB1	Z	.00021	.00021	0	%100

**Member Distributed Loads (BLC 59 : Earthquake 150 Deg)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in.%]	End Location[in.%]
1	VB1	X	.00021	.00021	0	%100
2	VB1	Z	.000364	.000364	0	%100
3	VB2	X	.000426	.000426	0	%100
4	VB2	Z	.000739	.000739	0	%100
5	SO1	X	.000503	.000503	0	%100
6	SO1	Z	.000871	.000871	0	%100
7	SO2	X	.000503	.000503	0	%100
8	SO2	Z	.000871	.000871	0	%100
9	H1	X	.000332	.000332	0	%100
10	H1	Z	.000574	.000574	0	%100
11	H2	X	.000332	.000332	0	%100
12	H2	Z	.000574	.000574	0	%100
13	PM1	X	.000426	.000426	0	%100
14	PM1	Z	.000739	.000739	0	%100
15	PM2	X	.000426	.000426	0	%100
16	PM2	Z	.000739	.000739	0	%100
17	PM3	X	.00017	.00017	0	%100
18	PM3	Z	.000294	.000294	0	%100
19	TB2	X	.00021	.00021	0	%100
20	TB2	Z	.000364	.000364	0	%100
21	TB1	X	.00021	.00021	0	%100
22	TB1	Z	.000364	.000364	0	%100

**Member Distributed Loads (BLC 60 : Earthquake 180 Deg)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in.%]	End Location[in.%]
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**Member Distributed Loads (BLC 60 : Earthquake 180 Deg) (Continued)**

Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in.%]	End Location[in.%]	
1	VB1	Z	.00042	.00042	0	%100
2	VB2	Z	.000853	.000853	0	%100
3	SO1	Z	.001	.001	0	%100
4	SO2	Z	.001	.001	0	%100
5	H1	Z	.000663	.000663	0	%100
6	H2	Z	.000663	.000663	0	%100
7	PM1	Z	.000853	.000853	0	%100
8	PM2	Z	.000853	.000853	0	%100
9	PM3	Z	.000339	.000339	0	%100
10	TB2	Z	.00042	.00042	0	%100
11	TB1	Z	.00042	.00042	0	%100

**Member Distributed Loads (BLC 61 : Earthquake 210 Deg)**

Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in.%]	End Location[in.%]	
1	VB1	X	-.00021	-.00021	0	%100
2	VB1	Z	.000364	.000364	0	%100
3	VB2	X	-.000426	-.000426	0	%100
4	VB2	Z	.000739	.000739	0	%100
5	SO1	X	-.000503	-.000503	0	%100
6	SO1	Z	.000871	.000871	0	%100
7	SO2	X	-.000503	-.000503	0	%100
8	SO2	Z	.000871	.000871	0	%100
9	H1	X	-.000332	-.000332	0	%100
10	H1	Z	.000574	.000574	0	%100
11	H2	X	-.000332	-.000332	0	%100
12	H2	Z	.000574	.000574	0	%100
13	PM1	X	-.000426	-.000426	0	%100
14	PM1	Z	.000739	.000739	0	%100
15	PM2	X	-.000426	-.000426	0	%100
16	PM2	Z	.000739	.000739	0	%100
17	PM3	X	-.00017	-.00017	0	%100
18	PM3	Z	.000294	.000294	0	%100
19	TB2	X	-.00021	-.00021	0	%100
20	TB2	Z	.000364	.000364	0	%100
21	TB1	X	-.00021	-.00021	0	%100
22	TB1	Z	.000364	.000364	0	%100

**Member Distributed Loads (BLC 62 : Earthquake 240 Deg)**

Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in.%]	End Location[in.%]	
1	VB1	X	-.000364	-.000364	0	%100
2	VB1	Z	.00021	.00021	0	%100
3	VB2	X	-.000739	-.000739	0	%100
4	VB2	Z	.000426	.000426	0	%100
5	SO1	X	-.000871	-.000871	0	%100
6	SO1	Z	.000503	.000503	0	%100
7	SO2	X	-.000871	-.000871	0	%100
8	SO2	Z	.000503	.000503	0	%100
9	H1	X	-.000574	-.000574	0	%100
10	H1	Z	.000332	.000332	0	%100
11	H2	X	-.000574	-.000574	0	%100
12	H2	Z	.000332	.000332	0	%100
13	PM1	X	-.000739	-.000739	0	%100
14	PM1	Z	.000426	.000426	0	%100
15	PM2	X	-.000739	-.000739	0	%100
16	PM2	Z	.000426	.000426	0	%100
17	PM3	X	-.000294	-.000294	0	%100



**Member Distributed Loads (BLC 62 : Earthquake 240 Deg) (Continued)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in.%]	End Location[in.%]
18	PM3	Z	.00017	.00017	0	%100
19	TB2	X	-.000364	-.000364	0	%100
20	TB2	Z	.00021	.00021	0	%100
21	TB1	X	-.000364	-.000364	0	%100
22	TB1	Z	.00021	.00021	0	%100

**Member Distributed Loads (BLC 63 : Earthquake 270 Deg)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in.%]	End Location[in.%]
1	VB1	X	-.00042	-.00042	0	%100
2	VB2	X	-.000853	-.000853	0	%100
3	SO1	X	-.001	-.001	0	%100
4	SO2	X	-.001	-.001	0	%100
5	H1	X	-.000663	-.000663	0	%100
6	H2	X	-.000663	-.000663	0	%100
7	PM1	X	-.000853	-.000853	0	%100
8	PM2	X	-.000853	-.000853	0	%100
9	PM3	X	-.000339	-.000339	0	%100
10	TB2	X	-.00042	-.00042	0	%100
11	TB1	X	-.00042	-.00042	0	%100

**Member Distributed Loads (BLC 64 : Earthquake 300 Deg)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in.%]	End Location[in.%]
1	VB1	X	-.000364	-.000364	0	%100
2	VB1	Z	-.00021	-.00021	0	%100
3	VB2	X	-.000739	-.000739	0	%100
4	VB2	Z	-.000426	-.000426	0	%100
5	SO1	X	-.000871	-.000871	0	%100
6	SO1	Z	-.000503	-.000503	0	%100
7	SO2	X	-.000871	-.000871	0	%100
8	SO2	Z	-.000503	-.000503	0	%100
9	H1	X	-.000574	-.000574	0	%100
10	H1	Z	-.000332	-.000332	0	%100
11	H2	X	-.000574	-.000574	0	%100
12	H2	Z	-.000332	-.000332	0	%100
13	PM1	X	-.000739	-.000739	0	%100
14	PM1	Z	-.000426	-.000426	0	%100
15	PM2	X	-.000739	-.000739	0	%100
16	PM2	Z	-.000426	-.000426	0	%100
17	PM3	X	-.000294	-.000294	0	%100
18	PM3	Z	-.00017	-.00017	0	%100
19	TB2	X	-.000364	-.000364	0	%100
20	TB2	Z	-.00021	-.00021	0	%100
21	TB1	X	-.000364	-.000364	0	%100
22	TB1	Z	-.00021	-.00021	0	%100

**Member Distributed Loads (BLC 65 : Earthquake 330 Deg)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in.%]	End Location[in.%]
1	VB1	X	-.00021	-.00021	0	%100
2	VB1	Z	-.000364	-.000364	0	%100
3	VB2	X	-.000426	-.000426	0	%100
4	VB2	Z	-.000739	-.000739	0	%100
5	SO1	X	-.000503	-.000503	0	%100
6	SO1	Z	-.000871	-.000871	0	%100
7	SO2	X	-.000503	-.000503	0	%100
8	SO2	Z	-.000871	-.000871	0	%100



**Member Distributed Loads (BLC 65 : Earthquake 330 Deg) (Continued)**

Member Label	Direction	Start Magnitude[k/ft	End Magnitude[k/ft F	Start Location[in.%]	End Location[in.%]
9	H1	X	- .000332	- .000332	0 %100
10	H1	Z	- .000574	- .000574	0 %100
11	H2	X	- .000332	- .000332	0 %100
12	H2	Z	- .000574	- .000574	0 %100
13	PM1	X	- .000426	- .000426	0 %100
14	PM1	Z	- .000739	- .000739	0 %100
15	PM2	X	- .000426	- .000426	0 %100
16	PM2	Z	- .000739	- .000739	0 %100
17	PM3	X	- .00017	- .00017	0 %100
18	PM3	Z	- .000294	- .000294	0 %100
19	TB2	X	- .00021	- .00021	0 %100
20	TB2	Z	- .000364	- .000364	0 %100
21	TB1	X	- .00021	- .00021	0 %100
22	TB1	Z	- .000364	- .000364	0 %100

**Basic Load Cases**

BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distribut	Area(M	Surface
1	Wind 0 Deg - No Ice	None				8	11		
2	Wind 30 Deg - No Ice	None				16	22		
3	Wind 60 Deg - No Ice	None				16	22		
4	Wind 90 Deg - No Ice	None				8	11		
5	Wind 120 Deg - No Ice	None				16	22		
6	Wind 150 Deg - No Ice	None				16	22		
7	Wind 180 Deg - No Ice	None				8	11		
8	Wind 210 Deg - No Ice	None				16	22		
9	Wind 240 Deg - No Ice	None				16	22		
10	Wind 270 Deg - No Ice	None				8	11		
11	Wind 300 Deg - No Ice	None				16	22		
12	Wind 330 Deg - No Ice	None				16	22		
13	Wind 0 Deg - Ice	None				8	11		
14	Wind 30 Deg - Ice	None				16	22		
15	Wind 60 Deg - Ice	None				16	22		
16	Wind 90 Deg - Ice	None				8	11		
17	Wind 120 Deg - Ice	None				16	22		
18	Wind 150 Deg - Ice	None				16	22		
19	Wind 180 Deg - Ice	None				8	11		
20	Wind 210 Deg - Ice	None				16	22		
21	Wind 240 Deg - Ice	None				16	22		
22	Wind 270 Deg - Ice	None				8	11		
23	Wind 300 Deg - Ice	None				16	22		
24	Wind 330 Deg - Ice	None				16	22		
25	Wind 0 Deg - Maintenance	None				8	11		
26	Wind 30 Deg - Maintenance	None				16	22		
27	Wind 60 Deg - Maintenance	None				16	22		
28	Wind 90 Deg - Maintenance	None				8	11		
29	Wind 120 Deg - Maintenance	None				16	22		
30	Wind 150 Deg - Maintenance	None				16	22		
31	Wind 180 Deg - Maintenance	None				8	11		
32	Wind 210 Deg - Maintenance	None				16	22		
33	Wind 240 Deg - Maintenance	None				16	22		
34	Wind 270 Deg - Maintenance	None				8	11		
35	Wind 300 Deg - Maintenance	None				16	22		
36	Wind 330 Deg - Maintenance	None				16	22		
37	Dead	None		-1		8			
38	Dead - Ice	None				8	11		



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**Basic Load Cases (Continued)**

BI C.	Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distribut	Area(M	Surface
39	Maint. Pipe Load 1	None					1			
40	Maint. Pipe Load 2	None					1			
41	Maint. Pipe Load 3	None					1			
42	Maint. Horz. Load 1	None					1			
43	Maint. Horz. Load 2	None					1			
44	Maint. Horz. Load 3	None					1			
45	Maint. Horz. Load 4	None					1			
46	Maint. Horz. Load 5	None					1			
47	Maint. Horz. Load 6	None					1			
48	Maint. Horz. Load 7	None					1			
49	Maint. Horz. Load 8	None					1			
50	Maint. Horz. Load 9	None					1			
51	Maint. Horz. Load 10	None					1			
52	Maint. Horz. Load 11	None					1			
53	Maint. Horz. Load 12	None					1			
54	Earthquake 0 Deg	None					8	11		
55	Earthquake 30 Deg	None					16	22		
56	Earthquake 60 Deg	None					16	22		
57	Earthquake 90 Deg	None					8	11		
58	Earthquake 120 Deg	None					16	22		
59	Earthquake 150 Deg	None					16	22		
60	Earthquake 180 Deg	None					8	11		
61	Earthquake 210 Deg	None					16	22		
62	Earthquake 240 Deg	None					16	22		
63	Earthquake 270 Deg	None					8	11		
64	Earthquake 300 Deg	None					16	22		
65	Earthquake 330 Deg	None					16	22		

**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	1.2 Dead ...	Yes	Y		37	1.2	1	1						
2	1.2 Dead ...	Yes	Y		37	1.2	2	1						
3	1.2 Dead ...	Yes	Y		37	1.2	3	1						
4	1.2 Dead ...	Yes	Y		37	1.2	4	1						
5	1.2 Dead ...	Yes	Y		37	1.2	5	1						
6	1.2 Dead ...	Yes	Y		37	1.2	6	1						
7	1.2 Dead ...	Yes	Y		37	1.2	7	1						
8	1.2 Dead ...	Yes	Y		37	1.2	8	1						
9	1.2 Dead ...	Yes	Y		37	1.2	9	1						
10	1.2 Dead ...	Yes	Y		37	1.2	10	1						
11	1.2 Dead ...	Yes	Y		37	1.2	11	1						
12	1.2 Dead ...	Yes	Y		37	1.2	12	1						
13	1.2 Dead ...	Yes	Y		37	1.2	38	1	13	1				
14	1.2 Dead ...	Yes	Y		37	1.2	38	1	14	1				
15	1.2 Dead ...	Yes	Y		37	1.2	38	1	15	1				
16	1.2 Dead ...	Yes	Y		37	1.2	38	1	16	1				
17	1.2 Dead ...	Yes	Y		37	1.2	38	1	17	1				
18	1.2 Dead ...	Yes	Y		37	1.2	38	1	18	1				
19	1.2 Dead ...	Yes	Y		37	1.2	38	1	19	1				
20	1.2 Dead ...	Yes	Y		37	1.2	38	1	20	1				
21	1.2 Dead ...	Yes	Y		37	1.2	38	1	21	1				
22	1.2 Dead ...	Yes	Y		37	1.2	38	1	22	1				
23	1.2 Dead ...	Yes	Y		37	1.2	38	1	23	1				
24	1.2 Dead ...	Yes	Y		37	1.2	38	1	24	1				
25	1.4 Dead ...	Yes	Y		37	1.4								



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**Load Combinations (Continued)**

Description	Sol	PD	SR	Bl C Fact	Bl C Fact	Bl C Fact	Bl C Fact	Bl C Fact	Bl C Fact	Bl C Fact	Bl C Fact	Bl C Fact	Bl C Fact	Bl C Fact
26	1.2 Dead ...	Yes	Y	37	1.2	39	1.5	25	1					
27	1.2 Dead ...	Yes	Y	37	1.2	39	1.5	26	1					
28	1.2 Dead ...	Yes	Y	37	1.2	39	1.5	27	1					
29	1.2 Dead ...	Yes	Y	37	1.2	39	1.5	28	1					
30	1.2 Dead ...	Yes	Y	37	1.2	39	1.5	29	1					
31	1.2 Dead ...	Yes	Y	37	1.2	39	1.5	30	1					
32	1.2 Dead ...	Yes	Y	37	1.2	39	1.5	31	1					
33	1.2 Dead ...	Yes	Y	37	1.2	39	1.5	32	1					
34	1.2 Dead ...	Yes	Y	37	1.2	39	1.5	33	1					
35	1.2 Dead ...	Yes	Y	37	1.2	39	1.5	34	1					
36	1.2 Dead ...	Yes	Y	37	1.2	39	1.5	35	1					
37	1.2 Dead ...	Yes	Y	37	1.2	39	1.5	36	1					
38	1.2 Dead ...	Yes	Y	37	1.2	40	1.5	25	1					
39	1.2 Dead ...	Yes	Y	37	1.2	40	1.5	26	1					
40	1.2 Dead ...	Yes	Y	37	1.2	40	1.5	27	1					
41	1.2 Dead ...	Yes	Y	37	1.2	40	1.5	28	1					
42	1.2 Dead ...	Yes	Y	37	1.2	40	1.5	29	1					
43	1.2 Dead ...	Yes	Y	37	1.2	40	1.5	30	1					
44	1.2 Dead ...	Yes	Y	37	1.2	40	1.5	31	1					
45	1.2 Dead ...	Yes	Y	37	1.2	40	1.5	32	1					
46	1.2 Dead ...	Yes	Y	37	1.2	40	1.5	33	1					
47	1.2 Dead ...	Yes	Y	37	1.2	40	1.5	34	1					
48	1.2 Dead ...	Yes	Y	37	1.2	40	1.5	35	1					
49	1.2 Dead ...	Yes	Y	37	1.2	40	1.5	36	1					
50	1.2 Dead ...	Yes	Y	37	1.2	41	1.5	25	1					
51	1.2 Dead ...	Yes	Y	37	1.2	41	1.5	26	1					
52	1.2 Dead ...	Yes	Y	37	1.2	41	1.5	27	1					
53	1.2 Dead ...	Yes	Y	37	1.2	41	1.5	28	1					
54	1.2 Dead ...	Yes	Y	37	1.2	41	1.5	29	1					
55	1.2 Dead ...	Yes	Y	37	1.2	41	1.5	30	1					
56	1.2 Dead ...	Yes	Y	37	1.2	41	1.5	31	1					
57	1.2 Dead ...	Yes	Y	37	1.2	41	1.5	32	1					
58	1.2 Dead ...	Yes	Y	37	1.2	41	1.5	33	1					
59	1.2 Dead ...	Yes	Y	37	1.2	41	1.5	34	1					
60	1.2 Dead ...	Yes	Y	37	1.2	41	1.5	35	1					
61	1.2 Dead ...	Yes	Y	37	1.2	41	1.5	36	1					
62	1.2 Dead ...	Yes	Y	37	1.2	42	1.5							
63	1.2 Dead ...	Yes	Y	37	1.2	43	1.5							
64	1.2 Dead ...	Yes	Y	37	1.2	44	1.5							
65	1.2 Dead ...	Yes	Y	37	1.2	45	1.5							
66	1.2 Dead ...	Yes	Y	37	1.2	46	1.5							
67	1.2 Dead ...	Yes	Y	37	1.2	47	1.5							
68	1.2 Dead ...	Yes	Y	37	1.2	48	1.5							
69	1.2 Dead ...	Yes	Y	37	1.2	49	1.5							
70	1.2 Dead ...	Yes	Y	37	1.2	50	1.5							
71	1.2 Dead ...	Yes	Y	37	1.2	51	1.5							
72	1.2 Dead ...	Yes	Y	37	1.2	52	1.5							
73	1.2 Dead ...	Yes	Y	37	1.2	53	1.5							
74	1.2 Dead ...	Yes	Y	37	1.2	54	1							
75	1.2 Dead ...	Yes	Y	37	1.2	55	1							
76	1.2 Dead ...	Yes	Y	37	1.2	56	1							
77	1.2 Dead ...	Yes	Y	37	1.2	57	1							
78	1.2 Dead ...	Yes	Y	37	1.2	58	1							
79	1.2 Dead ...	Yes	Y	37	1.2	59	1							
80	1.2 Dead ...	Yes	Y	37	1.2	60	1							
81	1.2 Dead ...	Yes	Y	37	1.2	61	1							
82	1.2 Dead ...	Yes	Y	37	1.2	62	1							



### Load Combinations (Continued)

Description	Sol	PD	SR	BI	C	Fact	BI	C	Fact	BI	C	Fact	BI	C	Fact	BI	C	Fact	BI	C	Fact	
83	1.2 Dead ...	Yes	Y		37	1.2	63	1														
84	1.2 Dead ...	Yes	Y		37	1.2	64	1														
85	1.2 Dead ...	Yes	Y		37	1.2	65	1														

### Envelope Joint Reactions

	Joint		X [k]	LC	Y [k]	LC	Z [k]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
1	N1	max	1.175	33	1.176	19	1.1	1	-558	8	1.586	37	272	31
2		min	-1.234	51	.352	1	-614	7	-1.478	14	-1.545	55	-566	50
3	N2	max	1.075	61	1.206	13	-126	11	-41	7	1.856	12	.265	33
4		min	-1.087	31	.361	7	-541	17	-1.531	13	-1.657	31	-581	51
5	N33A	max	.668	7	.047	19	.352	1	0	85	0	85	0	85
6		min	-586	1	.011	1	-415	7	0	1	0	1	0	1
7	N34	max	.41	2	.042	20	.212	2	0	85	0	85	0	85
8		min	-452	8	.013	2	-232	8	0	1	0	1	0	1
9	Totals:	max	.839	10	2.426	20	1.441	1						
10		min	-839	4	.959	1	-1.441	7						

### Envelope Joint Displacements

	Joint		X [in]	LC	Y [in]	LC	Z [in]	LC	X Rotation	LC	Y Rotation	LC	Z Rotation [	LC
1	N1	max	0	85	0	85	0	85	0	85	0	85	0	85
2		min	0	1	0	1	0	1	0	1	0	1	0	1
3	N2	max	0	85	0	85	0	85	0	85	0	85	0	85
4		min	0	1	0	1	0	1	0	1	0	1	0	1
5	N3	max	0	85	0	85	0	85	0	85	0	85	0	85
6		min	0	1	0	1	0	1	0	1	0	1	0	1
7	N4	max	0	85	0	85	0	85	0	85	0	85	0	85
8		min	0	1	0	1	0	1	0	1	0	1	0	1
9	N5	max	.04	6	-.005	7	0	7	8.37e-04	13	3.677e-03	6	2.487e-03	50
10		min	-.039	12	-.022	13	0	1	-1.81e-04	7	-3.727e-03	12	-1.197e-03	32
11	N6	max	.042	6	-.005	7	0	17	7.626e-04	14	3.397e-03	6	2.553e-03	51
12		min	-.048	12	-.022	13	0	11	6.957e-05	8	-3.8e-03	12	-1.163e-03	33
13	N7	max	.04	6	.026	50	.169	8	2.878e-03	2	2.982e-03	2	1.092e-03	50
14		min	-.039	12	-.566	32	-.186	2	-2.456e-03	8	-2.855e-03	8	-3.894e-03	73
15	N8	max	.042	6	.025	58	.099	58	2.988e-03	2	2.725e-03	2	1.081e-03	57
16		min	-.047	12	-.563	28	-.171	28	-2.608e-03	8	-2.265e-03	8	-3.773e-03	70
17	N9	max	.041	6	-.188	33	1.536	7	1.649e-02	1	2.201e-02	7	1.009e-02	72
18		min	-.038	12	-1.111	51	-1.662	1	-1.62e-02	7	-2.348e-02	1	6.299e-04	11
19	N10	max	.044	6	-.103	7	1.024	6	6.53e-03	2	1.62e-02	7	9.147e-03	69
20		min	-.05	12	-1.103	50	-1.175	12	-7.361e-03	7	-1.909e-02	1	-3.632e-03	6
21	N11	max	.04	6	.009	58	.13	9	2.878e-03	2	2.971e-03	2	1.102e-03	50
22		min	-.039	12	-.52	32	-.146	3	-2.456e-03	8	-2.844e-03	8	-3.044e-03	32
23	N12	max	.042	6	.009	50	.086	58	2.988e-03	2	2.714e-03	2	1.09e-03	57
24		min	-.047	12	-.52	32	-.131	28	-2.608e-03	8	-2.254e-03	8	-2.845e-03	27
25	N13	max	.036	6	.006	58	.13	9	2.878e-03	2	2.971e-03	2	1.102e-03	50
26		min	-.035	12	-.519	28	-.146	3	-2.456e-03	8	-2.844e-03	8	-3.044e-03	32
27	N14	max	.039	6	.006	58	.086	58	2.988e-03	2	2.714e-03	2	1.09e-03	57
28		min	-.043	12	-.519	28	-.131	28	-2.608e-03	8	-2.254e-03	8	-2.845e-03	27
29	N15	max	.081	31	.006	58	.106	61	3.046e-03	2	2.714e-03	27	1.101e-03	57
30		min	-.052	61	-.519	28	-.139	31	-2.679e-03	8	-2.225e-03	8	-2.781e-03	27
31	N16	max	.033	6	.006	58	.139	8	2.892e-03	2	2.971e-03	2	1.102e-03	50
32		min	-.036	37	-.519	28	-.156	3	-2.47e-03	8	-2.844e-03	8	-3.044e-03	32
33	N17	max	.04	6	.002	57	.027	12	5.434e-04	50	2.144e-03	6	1.422e-03	50
34		min	-.039	12	-.036	27	-.027	6	-2.445e-04	7	-2.159e-03	12	-2.739e-03	32
35	N18	max	.042	6	.002	57	.03	12	5.47e-04	51	2.477e-03	6	1.416e-03	50





**Envelope Joint Displacements (Continued)**

Joint		X [in]	I.C.	Y [in]	I.C.	Z [in]	I.C.	X Rotation	I.C.	Y Rotation	I.C.	Z Rotation	I.C.	
36		min	-048	12	-036	27	-027	6	-1.827e-04	33	-2.617e-03	12	-2.762e-03	32
37	N19	max	047	6	0	57	027	12	5.434e-04	50	2.144e-03	6	1.422e-03	50
38		min	-046	12	-035	27	-027	6	-2.445e-04	7	-2.159e-03	12	-2.739e-03	32
39	N20	max	05	6	0	57	03	12	5.47e-04	51	2.477e-03	6	1.416e-03	50
40		min	-056	12	-035	27	-027	6	-1.827e-04	33	-2.617e-03	12	-2.762e-03	32
41	N21	max	078	31	0	57	031	12	5.451e-04	55	2.477e-03	6	1.417e-03	61
42		min	-061	61	-035	27	-024	6	-1.806e-04	37	-2.617e-03	12	-2.763e-03	31
43	N22	max	045	6	0	57	024	12	5.445e-04	50	2.144e-03	6	1.422e-03	50
44		min	-046	12	-035	27	-026	6	-2.63e-04	7	-2.159e-03	12	-2.739e-03	32
45	N23	max	041	6	-17	32	1.206	7	1.649e-02	1	2.2e-02	7	9.957e-03	54
46		min	-038	12	-963	50	-1.31	1	-1.62e-02	7	-2.346e-02	1	6.208e-04	11
47	N24	max	044	6	-154	7	781	6	6.53e-03	2	1.619e-02	7	8.881e-03	61
48		min	-05	12	-97	50	-893	12	-7.361e-03	7	-1.908e-02	1	-3.641e-03	6
49	N25	max	107	6	-131	7	1.206	7	1.649e-02	1	2.2e-02	7	9.957e-03	54
50		min	-108	12	-964	50	-1.31	1	-1.62e-02	7	-2.346e-02	1	6.208e-04	11
51	N26	max	095	6	-13	7	781	6	6.53e-03	2	1.619e-02	7	8.881e-03	61
52		min	-11	12	-964	50	-893	12	-7.361e-03	7	-1.908e-02	1	-3.641e-03	6
53	N27	max	5	6	-13	7	636	6	4.369e-03	2	1.564e-02	6	2.146e-02	12
54		min	-609	12	-964	50	-805	12	-6.21e-03	8	-1.848e-02	1	-1.854e-02	6
55	N28	max	485	5	-131	7	2.31	7	2.795e-02	1	2.2e-02	7	1.093e-02	5
56		min	-25	11	-964	50	-2.427	1	-2.766e-02	7	-2.346e-02	1	-5.56e-03	11
57	N29	max	389	6	-13	7	662	6	4.703e-03	2	1.564e-02	6	2.127e-02	12
58		min	-48	12	-964	50	-817	12	-6.544e-03	8	-1.848e-02	1	-1.835e-02	6
59	N30	max	389	6	-114	7	678	6	4.703e-03	2	1.564e-02	6	2.127e-02	12
60		min	-48	12	-971	50	-835	12	-6.544e-03	8	-1.848e-02	1	-1.835e-02	6
61	N32	max	065	31	006	58	098	61	3.047e-03	2	2.714e-03	27	1.101e-03	57
62		min	-046	61	-519	28	-136	31	-2.68e-03	8	-2.225e-03	8	-2.781e-03	27
63	N33	max	065	31	007	58	099	61	3.047e-03	2	2.714e-03	27	1.101e-03	57
64		min	-046	61	-522	28	-138	31	-2.68e-03	8	-2.225e-03	8	-2.781e-03	27
65	N33A	max	0	85	0	85	0	85	5.698e-03	6	1e-02	6	1.374e-02	61
66		min	0	1	0	1	0	1	-4.841e-03	12	-1.214e-02	12	-5.814e-04	6
67	N34	max	0	85	0	85	0	85	2.86e-03	2	1.917e-03	28	3.194e-04	51
68		min	0	1	0	1	0	1	-1.311e-03	8	-1.373e-03	58	-7.076e-03	33

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

Mem	Shape	Code Check	Loc[in]	I.C.	Shear	Loc[in]	Dir	I.C.	phi*Pnc	phi*Pnt [k]	phi*Mn	phi*Mn	ChEqn	
1	VB1	PIPE 2.0	002	36	12	001	36		12	28.843	32.13	1.872	1.872	2...H...
2	VB2	PIPE 3.0	189	36	13	102	0		58	62.138	65.205	5.749	5.749	2...H...
3	SO1	HSS3X3X4	282	0	61	119	0	z	61	98.68	101.016	8.556	8.556	2...H...
4	SO2	HSS3X3X4	254	0	37	123	0	z	51	98.68	101.016	8.556	8.556	2...H...
5	H1	PIPE 2.5	562	87.5	54	108	87.5		7	10.696	50.715	3.596	3.596	1...H...
6	H2	PIPE 2.5	599	87.5	1	215	87.5		1	10.696	50.715	3.596	3.596	1...H...
7	PM1	PIPE 3.0	218	51.203	37	061	51.203		33	62.138	65.205	5.749	5.749	2...H...
8	PM2	PIPE 3.0	189	51.203	37	070	51.203		33	62.138	65.205	5.749	5.749	2...H...
9	PM3	HSS2.375X0.125	813	63	51	159	28.125		1	13.102	25.925	1.554	1.554	2...H...
10	TB2	PIPE 2.0	047	42.5	19	005	85		24	17.606	32.13	1.872	1.872	1...H...
11	TB1	PIPE 2.0	040	40	20	004	0		19	18.857	32.13	1.872	1.872	1...H...



Company : FDH-IS  
 Designer : MTB  
 Job Number : 19BLAP1400 (Beta)  
 Model Name : 806353\_BRG\_124\_943066

May 22, 2019  
 10:35 AM  
 Checked By: \_\_\_\_\_

**(Global) Model Settings**

Display Sections for Member Calcs	5
Max Internal Sections for Member Calcs	97
Include Shear Deformation?	Yes
Increase Nailing Capacity for Wind?	Yes
Include Warping?	Yes
Trans Load Btwn Intersecting Wood Wall?	Yes
Area Load Mesh (in^2)	144
Merge Tolerance (in)	.12
P-Delta Analysis Tolerance	0.50%
Include P-Delta for Walls?	Yes
Automatically Iterate Stiffness for Walls?	Yes
Max Iterations for Wall Stiffness	3
Gravity Acceleration (in/sec^2)	386.4
Wall Mesh Size (in)	12
Eigensolution Convergence Tol. (1.E-)	4
Vertical Axis	Y
Global Member Orientation Plane	XZ
Static Solver	Sparse Accelerated
Dynamic Solver	Accelerated Solver

Hot Rolled Steel Code	AISC 15th(360-16): LRFD
Adjust Stiffness?	Yes(Iterative)
RISAConnection Code	AISC 14th(360-10): LRFD
Cold Formed Steel Code	AISI S100-12: LRFD
Wood Code	AWC NDS-12: ASD
Wood Temperature	< 100F
Concrete Code	ACI 318-11
Masonry Code	ACI 530-11: ASD
Aluminum Code	AA ADM1-10: ASD - Building
Stainless Steel Code	AISC 14th(360-10): ASD
Adjust Stiffness?	Yes(Iterative)

Number of Shear Regions	4
Region Spacing Increment (in)	4
Biaxial Column Method	Exact Integration
Parme Beta Factor (PCA)	.65
Concrete Stress Block	Rectangular
Use Cracked Sections?	Yes
Use Cracked Sections Slab?	No
Bad Framing Warnings?	No
Unused Force Warnings?	Yes
Min 1 Bar Diam. Spacing?	No
Concrete Rebar Set	REBAR SET ASTMA615
Min % Steel for Column	1
Max % Steel for Column	8



**(Global) Model Settings, Continued**

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

**Hot Rolled Steel Properties**

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

**General Material Properties**

	Label	F [ksi]	G [ksi]	Nu	Therm (1E5 F)	Density[k/ft^3]
1	gen_Conc3NW	3155	1372	.15	.6	.145
2	gen_Conc4NW	3644	1584	.15	.6	.145
3	gen_Conc3LW	2085	906	.15	.6	.11
4	gen_Conc4LW	2408	1047	.15	.6	.11
5	gen_Alum	10600	4077	.3	1.29	.173
6	gen_Steel	29000	11154	.3	.65	.49
7	RIGID	1e+6		.3	0	0

**Material Takeoff**

	Material	Size	Pieces	Length[in]	Weight[K]
1	General				
2	RIGID		10	27.1	0
3	Total General		10	27.1	0
4					
5	Hot Rolled Steel				
6	A500 Gr.B Rect	HSS3X3X4	2	41.5	0
7	A53 Gr.B	HSS2.375X0.125	1	108	0



Company : FDH-IS  
 Designer : MTB  
 Job Number : 19BLAP1400 (Beta)  
 Model Name : 806353\_BRG\_124\_943066

May 22, 2019  
 10:35 AM  
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### Material Takeoff (Continued)

	Material	Size	Pieces	Length[in]	Weight[K]
8	A53 Gr.B	PIPE 2.0	3	196	0
9	A53 Gr.B	PIPE 2.5	2	350	2
10	A53 Gr.B	PIPE 3.0	3	149	0
11	Total HR Steel		11	844.5	4

### Member Primary Data

	Label	I.Joint	J.Joint	K.Joint	Rotate	Section/Shape	Type	Design List	Material	Design
1	M1	N2	N4			RIGID	None	None	RIGID	Typical
2	M2	N1	N3			RIGID	None	None	RIGID	Typical
3	VB1	N4	N3			Vertical Standoff Bracing 2.375"	Colu...	Pipe	A53 Gr.B	Typical
4	VB2	N6	N5			Vertical Standoff Bracing 3.5"	Colu...	Pipe	A53 Gr.B	Typical
5	SO1	N4	N6			Standoff	Beam	SquareT...	A500 Gr.B Rect	Typical
6	SO2	N3	N5			Standoff	Beam	SquareT...	A500 Gr.B Rect	Typical
7	H1	N10	N8			Horizontals	Beam	Pipe	A53 Gr.B	Typical
8	H2	N9	N7			Horizontals	Beam	Pipe	A53 Gr.B	Typical
9	M9	N12	N14			RIGID	None	None	RIGID	Typical
10	M10	N11	N13			RIGID	None	None	RIGID	Typical
11	PM1	N15	N16			Pipe Mounts 3.5"	Colu...	Pipe	A53 Gr.B	Typical
12	M12	N18	N20			RIGID	None	None	RIGID	Typical
13	PM2	N21	N22			Pipe Mounts 3.5"	Colu...	Pipe	A53 Gr.B	Typical
14	M14	N17	N19			RIGID	None	None	RIGID	Typical
15	M15	N24	N26			RIGID	None	None	RIGID	Typical
16	PM3	N27	N28			Pipe Mounts HSS 2.375 x 0.125	Colu...	Pipe	A53 Gr.B	Typical
17	M17	N23	N25			RIGID	None	None	RIGID	Typical
18	M18	N29	N30			RIGID	None	None	RIGID	Typical
19	M20	N32	N33			RIGID	None	None	RIGID	Typical
20	TB2	N30	N33A			Tie Back	Beam	Pipe	A53 Gr.B	Typical
21	TB1	N33	N34			Tie Back	Beam	Pipe	A53 Gr.B	Typical

### Hot Rolled Steel Design Parameters

	Label	Shape	Length[in]	I byy[in]	I bzz[in]	I comp top	I comp bot	I-torq	Kyy	Kzz	Cb	Funct
1	VB1	Vertical Standoff Bracing...	36									Lateral
2	VB2	Vertical Standoff Bracin...	36									Lateral
3	SO1	Standoff	20.75			I bvv						Lateral
4	SO2	Standoff	20.75			I byy						Lateral
5	H1	Horizontals	175			I bvv						Lateral
6	H2	Horizontals	175			I byy						Lateral
7	PM1	Pipe Mounts 3.5"	56.5	36	36				1	1		Lateral
8	PM2	Pipe Mounts 3.5"	56.5	36	36				1	1		Lateral
9	PM3	Pipe Mounts HSS 2.375 ..	108	44	44				2.1	2.1		Lateral
10	TB2	Tie Back	80			I byy						Lateral
11	TB1	Tie Back	80			I byy						Lateral

### Member Advanced Data

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rat	Analysis	Inactive	Seismic
1	M1						Yes	** NA **			None
2	M2						Yes	** NA **			None
3	VB1						Yes	** NA **			None
4	VB2						Yes	** NA **			None
5	SO1						Yes				None
6	SO2						Yes				None
7	H1						Yes				None

### Member Advanced Data (Continued)

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rat	Analysis	Inactive	Seismic
8	H2						Yes				None
9	M9						Yes	** NA **			None
10	M10						Yes	** NA **			None
11	PM1						Yes	** NA **			None
12	M12						Yes	** NA **			None
13	PM2						Yes	** NA **			None
14	M14						Yes	** NA **			None
15	M15						Yes	** NA **			None
16	PM3						Yes	** NA **			None
17	M17						Yes	** NA **			None
18	M18						Yes	** NA **			None
19	M20						Yes	** NA **			None
20	TB2	BenPIN					Yes	Default			None
21	TB1	BenPIN					Yes	Default			None

### Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design Ru	A [in <sup>2</sup> ]	I <sub>yy</sub> [in <sup>4</sup> ]	I <sub>zz</sub> [in <sup>4</sup> ]	J [in <sup>4</sup> ]
1	Standoff	HSS3X3X4	Beam	SquareTube	A500 Gr.B R...	Typical	2.44	3.02	3.02	5.08
2	Horizontals	PIPE 2.5	Beam	Pipe	A53 Gr.B	Typical	1.61	1.45	1.45	2.89
3	Pipe Mounts 3.5"	PIPE 3.0	Column	Pipe	A53 Gr.B	Typical	2.07	2.85	2.85	5.69
4	Pipe Mounts HSS 2.375 x 0.125	HSS2.375X0.125	Column	Pipe	A53 Gr.B	Typical	.823	.527	.527	1.05
5	Tie Back	PIPE 2.0	Beam	Pipe	A53 Gr.B	Typical	1.02	.627	.627	1.25
6	Vertical Standoff Bracing 2.375"	PIPE 2.0	Column	Pipe	A53 Gr.B	Typical	1.02	.627	.627	1.25
7	Vertical Standoff Bracing 3.5"	PIPE 3.0	Column	Pipe	A53 Gr.B	Typical	2.07	2.85	2.85	5.69

### Joint Coordinates and Temperatures

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Diap
1	N1	0	-18	0	0	
2	N2	0	18	0	0	
3	N3	0	-18	3	0	
4	N4	0	18	3	0	
5	N5	0	-18	23.75	0	
6	N6	0	18	23.75	0	
7	N7	87.5	-18	23.75	0	
8	N8	87.5	18	23.75	0	
9	N9	-87.5	-18	23.75	0	
10	N10	-87.5	18	23.75	0	
11	N11	72.5	-18	23.75	0	
12	N12	72.5	18	23.75	0	
13	N13	72.5	-18	26.9375	0	
14	N14	72.5	18	26.9375	0	
15	N15	72.5	33.5	26.9375	0	
16	N16	72.5	-23	26.9375	0	
17	N17	9.5	-18	23.75	0	
18	N18	9.5	18	23.75	0	
19	N19	9.5	-18	26.9375	0	
20	N20	9.5	18	26.9375	0	
21	N21	9.5	33.5	26.9375	0	
22	N22	9.5	-23	26.9375	0	
23	N23	-72.5	-18	23.75	0	
24	N24	-72.5	18	23.75	0	
25	N25	-72.5	-18	26.9375	0	
26	N26	-72.5	18	26.9375	0	
27	N27	-72.5	46	26.9375	0	



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### Joint Coordinates and Temperatures (Continued)

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Diap
28	N28	-72.5	-62	26.9375	0	
29	N29	-72.5	40	26.9375	0	
30	N30	-73.5	40	26.9375	0	
31	N32	72.5	27.5	26.9375	0	
32	N33	73.5	27.5	26.9375	0	
33	N33A	-0.995377	40	-6.871961	0	
34	N34	7.967836	27.5	-18.948615	0	

### Joint Boundary Conditions

	Joint Label	X [k/in]	Y [k/in]	Z [k/in]	X Rot [k-ft/rad]	Y Rot [k-ft/rad]	Z Rot [k-ft/rad]
1	N1	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
2	N2	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
3	N3						
4	N4						
5	N5						
6	N6						
7	N7						
8	N8						
9	N9						
10	N10						
11	N11						
12	N12						
13	N13						
14	N14						
15	N15						
16	N16						
17	N17						
18	N18						
19	N19						
20	N20						
21	N21						
22	N22						
23	N23						
24	N24						
25	N25						
26	N26						
27	N27						
28	N28						
29	N29						
30	N30						
31	N32						
32	N33						
33	N33A	Reaction	Reaction	Reaction			
34	N34	Reaction	Reaction	Reaction			

### Joint Loads and Enforced Displacements

Joint Label	I, D, M	Direction	Magnitude[(k, k-ft), (in, rad), (k*s^2/i)]
No Data to Print ...			

### Member Point Loads (BLC 1 : Wind 0 Deg - No Ice)

Member Label	Direction	Magnitude[k, k-ft]	Location[in, %]
1 PM1	Z	-0.92	%9.735



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**Member Point Loads (BLC 1 : Wind 0 Deg - No Ice) (Continued)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
2	PM1	Z	-0.92	%100
3	PM1	Z	-0.11	%59.292
4	PM2	Z	-0.98	%9.204
5	PM2	Z	-0.98	%100
6	PM3	Z	-3.04	0
7	PM3	Z	-3.04	%86.991
8	PM3	Z	-0.05	%42.593

**Member Point Loads (BLC 2 : Wind 30 Deg - No Ice)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	.042	%9.735
2	PM1	Z	-0.73	%9.735
3	PM1	X	.042	%100
4	PM1	Z	-0.73	%100
5	PM1	X	.005	%59.292
6	PM1	Z	-0.08	%59.292
7	PM2	X	.046	%9.204
8	PM2	Z	-0.79	%9.204
9	PM2	X	.046	%100
10	PM2	Z	-0.79	%100
11	PM3	X	.131	0
12	PM3	Z	-2.26	0
13	PM3	X	.131	%86.991
14	PM3	Z	-2.26	%86.991
15	PM3	X	.023	%42.593
16	PM3	Z	-0.04	%42.593

**Member Point Loads (BLC 3 : Wind 60 Deg - No Ice)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	.062	%9.735
2	PM1	Z	-0.36	%9.735
3	PM1	X	.062	%100
4	PM1	Z	-0.36	%100
5	PM1	X	.006	%59.292
6	PM1	Z	-0.03	%59.292
7	PM2	X	.067	%9.204
8	PM2	Z	-0.39	%9.204
9	PM2	X	.067	%100
10	PM2	Z	-0.39	%100
11	PM3	X	.153	0
12	PM3	Z	-0.88	0
13	PM3	X	.153	%86.991
14	PM3	Z	-0.88	%86.991
15	PM3	X	.033	%42.593
16	PM3	Z	-0.19	%42.593

**Member Point Loads (BLC 4 : Wind 90 Deg - No Ice)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	.065	%9.735
2	PM1	X	.065	%100
3	PM1	X	.005	%59.292
4	PM2	X	.071	%9.204
5	PM2	X	.071	%100
6	PM3	X	.134	0
7	PM3	X	.134	%86.991



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**Member Point Loads (BLC 4 : Wind 90 Deg - No Ice) (Continued)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
8	PM3	X	.035	%42.593

**Member Point Loads (BLC 5 : Wind 120 Deg - No Ice)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	.062	%9.735
2	PM1	Z	.036	%9.735
3	PM1	X	.062	%100
4	PM1	Z	.036	%100
5	PM1	X	.006	%59.292
6	PM1	Z	.003	%59.292
7	PM2	X	.067	%9.204
8	PM2	Z	.039	%9.204
9	PM2	X	.067	%100
10	PM2	Z	.039	%100
11	PM3	X	.153	0
12	PM3	Z	.088	0
13	PM3	X	.153	%86.991
14	PM3	Z	.088	%86.991
15	PM3	X	.033	%42.593
16	PM3	Z	.019	%42.593

**Member Point Loads (BLC 6 : Wind 150 Deg - No Ice)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	.042	%9.735
2	PM1	Z	.073	%9.735
3	PM1	X	.042	%100
4	PM1	Z	.073	%100
5	PM1	X	.005	%59.292
6	PM1	Z	.008	%59.292
7	PM2	X	.046	%9.204
8	PM2	Z	.079	%9.204
9	PM2	X	.046	%100
10	PM2	Z	.079	%100
11	PM3	X	.131	0
12	PM3	Z	.226	0
13	PM3	X	.131	%86.991
14	PM3	Z	.226	%86.991
15	PM3	X	.023	%42.593
16	PM3	Z	.04	%42.593

**Member Point Loads (BLC 7 : Wind 180 Deg - No Ice)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	Z	.092	%9.735
2	PM1	Z	.092	%100
3	PM1	Z	.011	%59.292
4	PM2	Z	.098	%9.204
5	PM2	Z	.098	%100
6	PM3	Z	.304	0
7	PM3	Z	.304	%86.991
8	PM3	Z	.05	%42.593

**Member Point Loads (BLC 8 : Wind 210 Deg - No Ice)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	-.042	%9.735
2	PM1	Z	.073	%9.735





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**Member Point Loads (BLC 8 : Wind 210 Deg - No Ice) (Continued)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in. %]
3	PM1	X	-.042	%100
4	PM1	Z	.073	%100
5	PM1	X	-.005	%59.292
6	PM1	Z	.008	%59.292
7	PM2	X	-.046	%9.204
8	PM2	Z	.079	%9.204
9	PM2	X	-.046	%100
10	PM2	Z	.079	%100
11	PM3	X	-.131	0
12	PM3	Z	.226	0
13	PM3	X	-.131	%86.991
14	PM3	Z	.226	%86.991
15	PM3	X	-.023	%42.593
16	PM3	Z	.04	%42.593

**Member Point Loads (BLC 9 : Wind 240 Deg - No Ice)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in. %]
1	PM1	X	-.062	%9.735
2	PM1	Z	.036	%9.735
3	PM1	X	-.062	%100
4	PM1	Z	.036	%100
5	PM1	X	-.006	%59.292
6	PM1	Z	.003	%59.292
7	PM2	X	-.067	%9.204
8	PM2	Z	.039	%9.204
9	PM2	X	-.067	%100
10	PM2	Z	.039	%100
11	PM3	X	-.153	0
12	PM3	Z	.088	0
13	PM3	X	-.153	%86.991
14	PM3	Z	.088	%86.991
15	PM3	X	-.033	%42.593
16	PM3	Z	.019	%42.593

**Member Point Loads (BLC 10 : Wind 270 Deg - No Ice)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in. %]
1	PM1	X	-.065	%9.735
2	PM1	X	-.065	%100
3	PM1	X	-.005	%59.292
4	PM2	X	-.071	%9.204
5	PM2	X	-.071	%100
6	PM3	X	-.134	0
7	PM3	X	-.134	%86.991
8	PM3	X	-.035	%42.593

**Member Point Loads (BLC 11 : Wind 300 Deg - No Ice)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in. %]
1	PM1	X	-.062	%9.735
2	PM1	Z	-.036	%9.735
3	PM1	X	-.062	%100
4	PM1	Z	-.036	%100
5	PM1	X	-.006	%59.292
6	PM1	Z	-.003	%59.292
7	PM2	X	-.067	%9.204
8	PM2	Z	-.039	%9.204



**Member Point Loads (BLC 11 : Wind 300 Deg - No Ice) (Continued)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
9	PM2	X	-067	%100
10	PM2	Z	-039	%100
11	PM3	X	-153	0
12	PM3	Z	-088	0
13	PM3	X	-153	%86.991
14	PM3	Z	-088	%86.991
15	PM3	X	-033	%42.593
16	PM3	Z	-019	%42.593

**Member Point Loads (BLC 12 : Wind 330 Deg - No Ice)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	-042	%9.735
2	PM1	Z	-073	%9.735
3	PM1	X	-042	%100
4	PM1	Z	-073	%100
5	PM1	X	-005	%59.292
6	PM1	Z	-008	%59.292
7	PM2	X	-046	%9.204
8	PM2	Z	-079	%9.204
9	PM2	X	-046	%100
10	PM2	Z	-079	%100
11	PM3	X	-131	0
12	PM3	Z	-226	0
13	PM3	X	-131	%86.991
14	PM3	Z	-226	%86.991
15	PM3	X	-023	%42.593
16	PM3	Z	-04	%42.593

**Member Point Loads (BLC 13 : Wind 0 Deg - Ice)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	Z	-021	%9.735
2	PM1	Z	-021	%100
3	PM1	Z	-004	%59.292
4	PM2	Z	-022	%9.204
5	PM2	Z	-022	%100
6	PM3	Z	-061	0
7	PM3	Z	-061	%86.991
8	PM3	Z	-013	%42.593

**Member Point Loads (BLC 14 : Wind 30 Deg - Ice)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	.01	%9.735
2	PM1	Z	-017	%9.735
3	PM1	X	.01	%100
4	PM1	Z	-017	%100
5	PM1	X	.002	%59.292
6	PM1	Z	-003	%59.292
7	PM2	X	.01	%9.204
8	PM2	Z	-018	%9.204
9	PM2	X	.01	%100
10	PM2	Z	-018	%100
11	PM3	X	.027	0
12	PM3	Z	-047	0
13	PM3	X	.027	%86.991
14	PM3	Z	-047	%86.991



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**Member Point Loads (BLC 14 : Wind 30 Deg - Ice) (Continued)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
15	PM3	X	.006	%42.593
16	PM3	Z	-.011	%42.593

**Member Point Loads (BLC 15 : Wind 60 Deg - Ice)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	.015	%9.735
2	PM1	Z	-.009	%9.735
3	PM1	X	.015	%100
4	PM1	Z	-.009	%100
5	PM1	X	.003	%59.292
6	PM1	Z	-.002	%59.292
7	PM2	X	.016	%9.204
8	PM2	Z	-.009	%9.204
9	PM2	X	.016	%100
10	PM2	Z	-.009	%100
11	PM3	X	.034	0
12	PM3	Z	-.019	0
13	PM3	X	.034	%86.991
14	PM3	Z	-.019	%86.991
15	PM3	X	.009	%42.593
16	PM3	Z	-.005	%42.593

**Member Point Loads (BLC 16 : Wind 90 Deg - Ice)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	.016	%9.735
2	PM1	X	.016	%100
3	PM1	X	.003	%59.292
4	PM2	X	.017	%9.204
5	PM2	X	.017	%100
6	PM3	X	.031	0
7	PM3	X	.031	%86.991
8	PM3	X	.01	%42.593

**Member Point Loads (BLC 17 : Wind 120 Deg - Ice)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	.015	%9.735
2	PM1	Z	.009	%9.735
3	PM1	X	.015	%100
4	PM1	Z	.009	%100
5	PM1	X	.003	%59.292
6	PM1	Z	.002	%59.292
7	PM2	X	.016	%9.204
8	PM2	Z	.009	%9.204
9	PM2	X	.016	%100
10	PM2	Z	.009	%100
11	PM3	X	.034	0
12	PM3	Z	.019	0
13	PM3	X	.034	%86.991
14	PM3	Z	.019	%86.991
15	PM3	X	.009	%42.593
16	PM3	Z	.005	%42.593

**Member Point Loads (BLC 18 : Wind 150 Deg - Ice)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	.01	%9.735



**Member Point Loads (BLC 18 : Wind 150 Deg - Ice) (Continued)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
2	PM1	Z	.017	%9.735
3	PM1	X	.01	%100
4	PM1	Z	.017	%100
5	PM1	X	.002	%59.292
6	PM1	Z	.003	%59.292
7	PM2	X	.01	%9.204
8	PM2	Z	.018	%9.204
9	PM2	X	.01	%100
10	PM2	Z	.018	%100
11	PM3	X	.027	0
12	PM3	Z	.047	0
13	PM3	X	.027	%86.991
14	PM3	Z	.047	%86.991
15	PM3	X	.006	%42.593
16	PM3	Z	.011	%42.593

**Member Point Loads (BLC 19 : Wind 180 Deg - Ice)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	Z	.021	%9.735
2	PM1	Z	.021	%100
3	PM1	Z	.004	%59.292
4	PM2	Z	.022	%9.204
5	PM2	Z	.022	%100
6	PM3	Z	.061	0
7	PM3	Z	.061	%86.991
8	PM3	Z	.013	%42.593

**Member Point Loads (BLC 20 : Wind 210 Deg - Ice)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	-.01	%9.735
2	PM1	Z	.017	%9.735
3	PM1	X	-.01	%100
4	PM1	Z	.017	%100
5	PM1	X	-.002	%59.292
6	PM1	Z	.003	%59.292
7	PM2	X	-.01	%9.204
8	PM2	Z	.018	%9.204
9	PM2	X	-.01	%100
10	PM2	Z	.018	%100
11	PM3	X	-.027	0
12	PM3	Z	.047	0
13	PM3	X	-.027	%86.991
14	PM3	Z	.047	%86.991
15	PM3	X	-.006	%42.593
16	PM3	Z	.011	%42.593

**Member Point Loads (BLC 21 : Wind 240 Deg - Ice)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	-.015	%9.735
2	PM1	Z	.009	%9.735
3	PM1	X	-.015	%100
4	PM1	Z	.009	%100
5	PM1	X	-.003	%59.292
6	PM1	Z	.002	%59.292
7	PM2	X	-.016	%9.204



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**Member Point Loads (BLC 21 : Wind 240 Deg - Ice) (Continued)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
8	PM2	Z	.009	%9.204
9	PM2	X	-.016	%100
10	PM2	Z	.009	%100
11	PM3	X	-.034	0
12	PM3	Z	.019	0
13	PM3	X	-.034	%86.991
14	PM3	Z	.019	%86.991
15	PM3	X	-.009	%42.593
16	PM3	Z	.005	%42.593

**Member Point Loads (BLC 22 : Wind 270 Deg - Ice)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	-.016	%9.735
2	PM1	X	-.016	%100
3	PM1	X	-.003	%59.292
4	PM2	X	-.017	%9.204
5	PM2	X	-.017	%100
6	PM3	X	-.031	0
7	PM3	X	-.031	%86.991
8	PM3	X	-.01	%42.593

**Member Point Loads (BLC 23 : Wind 300 Deg - Ice)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	-.015	%9.735
2	PM1	Z	-.009	%9.735
3	PM1	X	-.015	%100
4	PM1	Z	-.009	%100
5	PM1	X	-.003	%59.292
6	PM1	Z	-.002	%59.292
7	PM2	X	-.016	%9.204
8	PM2	Z	-.009	%9.204
9	PM2	X	-.016	%100
10	PM2	Z	-.009	%100
11	PM3	X	-.034	0
12	PM3	Z	-.019	0
13	PM3	X	-.034	%86.991
14	PM3	Z	-.019	%86.991
15	PM3	X	-.009	%42.593
16	PM3	Z	-.005	%42.593

**Member Point Loads (BLC 24 : Wind 330 Deg - Ice)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	-.01	%9.735
2	PM1	Z	-.017	%9.735
3	PM1	X	-.01	%100
4	PM1	Z	-.017	%100
5	PM1	X	-.002	%59.292
6	PM1	Z	-.003	%59.292
7	PM2	X	-.01	%9.204
8	PM2	Z	-.018	%9.204
9	PM2	X	-.01	%100
10	PM2	Z	-.018	%100
11	PM3	X	-.027	0
12	PM3	Z	-.047	0
13	PM3	X	-.027	%86.991



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**Member Point Loads (BLC 24 : Wind 330 Deg - Ice) (Continued)**

	Member Label	Direction	Magnitude[k,k-ft]	Location[in,%]
14	PM3	Z	-047	%86.991
15	PM3	X	-006	%42.593
16	PM3	Z	-011	%42.593

**Member Point Loads (BLC 25 : Wind 0 Deg - Maintenance)**

	Member Label	Direction	Magnitude[k,k-ft]	Location[in,%]
1	PM1	Z	-006	%9.735
2	PM1	Z	-006	%100
3	PM1	Z	-000657	%59.292
4	PM2	Z	-006	%9.204
5	PM2	Z	-006	%100
6	PM3	Z	-019	0
7	PM3	Z	-019	%86.991
8	PM3	Z	-003	%42.593

**Member Point Loads (BLC 26 : Wind 30 Deg - Maintenance)**

	Member Label	Direction	Magnitude[k,k-ft]	Location[in,%]
1	PM1	X	.003	%9.735
2	PM1	Z	-005	%9.735
3	PM1	X	.003	%100
4	PM1	Z	-005	%100
5	PM1	X	.000288	%59.292
6	PM1	Z	-000498	%59.292
7	PM2	X	.003	%9.204
8	PM2	Z	-005	%9.204
9	PM2	X	.003	%100
10	PM2	Z	-005	%100
11	PM3	X	.008	0
12	PM3	Z	-014	0
13	PM3	X	.008	%86.991
14	PM3	Z	-014	%86.991
15	PM3	X	.001	%42.593
16	PM3	Z	-002	%42.593

**Member Point Loads (BLC 27 : Wind 60 Deg - Maintenance)**

	Member Label	Direction	Magnitude[k,k-ft]	Location[in,%]
1	PM1	X	.004	%9.735
2	PM1	Z	-002	%9.735
3	PM1	X	.004	%100
4	PM1	Z	-002	%100
5	PM1	X	.000356	%59.292
6	PM1	Z	-000205	%59.292
7	PM2	X	.004	%9.204
8	PM2	Z	-002	%9.204
9	PM2	X	.004	%100
10	PM2	Z	-002	%100
11	PM3	X	.01	0
12	PM3	Z	-006	0
13	PM3	X	.01	%86.991
14	PM3	Z	-006	%86.991
15	PM3	X	.002	%42.593
16	PM3	Z	-001	%42.593

**Member Point Loads (BLC 28 : Wind 90 Deg - Maintenance)**

	Member Label	Direction	Magnitude[k,k-ft]	Location[in,%]
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**Member Point Loads (BLC 28 : Wind 90 Deg - Maintenance) (Continued)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	.004	%9.735
2	PM1	X	.004	%100
3	PM1	X	.000329	%59.292
4	PM2	X	.004	%9.204
5	PM2	X	.004	%100
6	PM3	X	.008	0
7	PM3	X	.008	%86.991
8	PM3	X	.002	%42.593

**Member Point Loads (BLC 29 : Wind 120 Deg - Maintenance)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	.004	%9.735
2	PM1	Z	.002	%9.735
3	PM1	X	.004	%100
4	PM1	Z	.002	%100
5	PM1	X	.000356	%59.292
6	PM1	Z	.000205	%59.292
7	PM2	X	.004	%9.204
8	PM2	Z	.002	%9.204
9	PM2	X	.004	%100
10	PM2	Z	.002	%100
11	PM3	X	.01	0
12	PM3	Z	.006	0
13	PM3	X	.01	%86.991
14	PM3	Z	.006	%86.991
15	PM3	X	.002	%42.593
16	PM3	Z	.001	%42.593

**Member Point Loads (BLC 30 : Wind 150 Deg - Maintenance)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	.003	%9.735
2	PM1	Z	.005	%9.735
3	PM1	X	.003	%100
4	PM1	Z	.005	%100
5	PM1	X	.000288	%59.292
6	PM1	Z	.000498	%59.292
7	PM2	X	.003	%9.204
8	PM2	Z	.005	%9.204
9	PM2	X	.003	%100
10	PM2	Z	.005	%100
11	PM3	X	.008	0
12	PM3	Z	.014	0
13	PM3	X	.008	%86.991
14	PM3	Z	.014	%86.991
15	PM3	X	.001	%42.593
16	PM3	Z	.002	%42.593

**Member Point Loads (BLC 31 : Wind 180 Deg - Maintenance)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	Z	.006	%9.735
2	PM1	Z	.006	%100
3	PM1	Z	.000657	%59.292
4	PM2	Z	.006	%9.204
5	PM2	Z	.006	%100
6	PM3	Z	.019	0



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**Member Point Loads (BLC 31 : Wind 180 Deg - Maintenance) (Continued)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
7	PM3	Z	.019	%86.991
8	PM3	Z	.003	%42.593

**Member Point Loads (BLC 32 : Wind 210 Deg - Maintenance)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	-.003	%9.735
2	PM1	Z	.005	%9.735
3	PM1	X	-.003	%100
4	PM1	Z	.005	%100
5	PM1	X	-.000288	%59.292
6	PM1	Z	.000498	%59.292
7	PM2	X	-.003	%9.204
8	PM2	Z	.005	%9.204
9	PM2	X	-.003	%100
10	PM2	Z	.005	%100
11	PM3	X	-.008	0
12	PM3	Z	.014	0
13	PM3	X	-.008	%86.991
14	PM3	Z	.014	%86.991
15	PM3	X	-.001	%42.593
16	PM3	Z	.002	%42.593

**Member Point Loads (BLC 33 : Wind 240 Deg - Maintenance)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	-.004	%9.735
2	PM1	Z	.002	%9.735
3	PM1	X	-.004	%100
4	PM1	Z	.002	%100
5	PM1	X	-.000356	%59.292
6	PM1	Z	.000205	%59.292
7	PM2	X	-.004	%9.204
8	PM2	Z	.002	%9.204
9	PM2	X	-.004	%100
10	PM2	Z	.002	%100
11	PM3	X	-.01	0
12	PM3	Z	.006	0
13	PM3	X	-.01	%86.991
14	PM3	Z	.006	%86.991
15	PM3	X	-.002	%42.593
16	PM3	Z	.001	%42.593

**Member Point Loads (BLC 34 : Wind 270 Deg - Maintenance)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	-.004	%9.735
2	PM1	X	-.004	%100
3	PM1	X	-.000329	%59.292
4	PM2	X	-.004	%9.204
5	PM2	X	-.004	%100
6	PM3	X	-.008	0
7	PM3	X	-.008	%86.991
8	PM3	X	-.002	%42.593

**Member Point Loads (BLC 35 : Wind 300 Deg - Maintenance)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	-.004	%9.735





**Member Point Loads (BLC 35 : Wind 300 Deg - Maintenance) (Continued)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
2	PM1	Z	- .002	%9.735
3	PM1	X	- .004	%100
4	PM1	Z	- .002	%100
5	PM1	X	- .000356	%59.292
6	PM1	Z	- .000205	%59.292
7	PM2	X	- .004	%9.204
8	PM2	Z	- .002	%9.204
9	PM2	X	- .004	%100
10	PM2	Z	- .002	%100
11	PM3	X	- .01	0
12	PM3	Z	- .006	0
13	PM3	X	- .01	%86.991
14	PM3	Z	- .006	%86.991
15	PM3	X	- .002	%42.593
16	PM3	Z	- .001	%42.593

**Member Point Loads (BLC 36 : Wind 330 Deg - Maintenance)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	- .003	%9.735
2	PM1	Z	- .005	%9.735
3	PM1	X	- .003	%100
4	PM1	Z	- .005	%100
5	PM1	X	- .000288	%59.292
6	PM1	Z	- .000498	%59.292
7	PM2	X	- .003	%9.204
8	PM2	Z	- .005	%9.204
9	PM2	X	- .003	%100
10	PM2	Z	- .005	%100
11	PM3	X	- .008	0
12	PM3	Z	- .014	0
13	PM3	X	- .008	%86.991
14	PM3	Z	- .014	%86.991
15	PM3	X	- .001	%42.593
16	PM3	Z	- .002	%42.593

**Member Point Loads (BLC 37 : Dead)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	Y	- .046	%9.735
2	PM1	Y	- .046	%100
3	PM1	Y	- .011	%59.292
4	PM2	Y	- .066	%9.204
5	PM2	Y	- .066	%100
6	PM3	Y	- .064	0
7	PM3	Y	- .064	%86.991
8	PM3	Y	- .075	%42.593

**Member Point Loads (BLC 38 : Dead - Ice)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	Y	- .076	%9.735
2	PM1	Y	- .076	%100
3	PM1	Y	- .01	%59.292
4	PM2	Y	- .083	%9.204
5	PM2	Y	- .083	%100
6	PM3	Y	- .221	0
7	PM3	Y	- .221	%86.991



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**Member Point Loads (BLC 38 : Dead - Ice) (Continued)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
8	PM3	Y	-045	%42.593

**Member Point Loads (BLC 39 : Maint. Pipe Load 1)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	Y	-5	%50

**Member Point Loads (BLC 40 : Maint. Pipe Load 2)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM2	Y	-5	%50

**Member Point Loads (BLC 41 : Maint. Pipe Load 3)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM3	Y	-5	%50

**Member Point Loads (BLC 42 : Maint. Horz. Load 1)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	SO1	Y	-25	%50

**Member Point Loads (BLC 43 : Maint. Horz. Load 2)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	SO1	Y	-25	0

**Member Point Loads (BLC 44 : Maint. Horz. Load 3)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	SO1	Y	-25	%100

**Member Point Loads (BLC 45 : Maint. Horz. Load 4)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	SO2	Y	-25	%50

**Member Point Loads (BLC 46 : Maint. Horz. Load 5)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	SO2	Y	-25	0

**Member Point Loads (BLC 47 : Maint. Horz. Load 6)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	SO2	Y	-25	%100

**Member Point Loads (BLC 48 : Maint. Horz. Load 7)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	H1	Y	-25	%50

**Member Point Loads (BLC 49 : Maint. Horz. Load 8)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	H1	Y	-25	0

**Member Point Loads (BLC 50 : Maint. Horz. Load 9)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	H1	Y	-25	%100



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**Member Point Loads (BLC 51 : Maint. Horz. Load 10)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	H2	Y	-25	%50

**Member Point Loads (BLC 52 : Maint. Horz. Load 11)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	H2	Y	-25	0

**Member Point Loads (BLC 53 : Maint. Horz. Load 12)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	H2	Y	-25	%100

**Member Point Loads (BLC 54 : Earthquake 0 Deg)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	Z	-006	%9.735
2	PM1	Z	-006	%100
3	PM1	Z	-001	%59.292
4	PM2	Z	-008	%9.204
5	PM2	Z	-008	%100
6	PM3	Z	-008	0
7	PM3	Z	-008	%86.991
8	PM3	Z	-009	%42.593

**Member Point Loads (BLC 55 : Earthquake 30 Deg)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	.003	%9.735
2	PM1	Z	-005	%9.735
3	PM1	X	.003	%100
4	PM1	Z	-005	%100
5	PM1	X	.000667	%59.292
6	PM1	Z	-001	%59.292
7	PM2	X	.004	%9.204
8	PM2	Z	-007	%9.204
9	PM2	X	.004	%100
10	PM2	Z	-007	%100
11	PM3	X	.004	0
12	PM3	Z	-007	0
13	PM3	X	.004	%86.991
14	PM3	Z	-007	%86.991
15	PM3	X	.005	%42.593
16	PM3	Z	-008	%42.593

**Member Point Loads (BLC 56 : Earthquake 60 Deg)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	.005	%9.735
2	PM1	Z	-003	%9.735
3	PM1	X	.005	%100
4	PM1	Z	-003	%100
5	PM1	X	.001	%59.292
6	PM1	Z	-000667	%59.292
7	PM2	X	.007	%9.204
8	PM2	Z	-004	%9.204
9	PM2	X	.007	%100
10	PM2	Z	-004	%100
11	PM3	X	.007	0
12	PM3	Z	-004	0



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**Member Point Loads (BLC 56 : Earthquake 60 Deg) (Continued)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
13	PM3	X	.007	%86.991
14	PM3	Z	-.004	%86.991
15	PM3	X	.008	%42.593
16	PM3	Z	-.005	%42.593

**Member Point Loads (BLC 57 : Earthquake 90 Deg)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	.006	%9.735
2	PM1	X	.006	%100
3	PM1	X	.001	%59.292
4	PM2	X	.008	%9.204
5	PM2	X	.008	%100
6	PM3	X	.008	0
7	PM3	X	.008	%86.991
8	PM3	X	.009	%42.593

**Member Point Loads (BLC 58 : Earthquake 120 Deg)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	.005	%9.735
2	PM1	Z	.003	%9.735
3	PM1	X	.005	%100
4	PM1	Z	.003	%100
5	PM1	X	.001	%59.292
6	PM1	Z	.000667	%59.292
7	PM2	X	.007	%9.204
8	PM2	Z	.004	%9.204
9	PM2	X	.007	%100
10	PM2	Z	.004	%100
11	PM3	X	.007	0
12	PM3	Z	.004	0
13	PM3	X	.007	%86.991
14	PM3	Z	.004	%86.991
15	PM3	X	.008	%42.593
16	PM3	Z	.005	%42.593

**Member Point Loads (BLC 59 : Earthquake 150 Deg)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	.003	%9.735
2	PM1	Z	.005	%9.735
3	PM1	X	.003	%100
4	PM1	Z	.005	%100
5	PM1	X	.000667	%59.292
6	PM1	Z	.001	%59.292
7	PM2	X	.004	%9.204
8	PM2	Z	.007	%9.204
9	PM2	X	.004	%100
10	PM2	Z	.007	%100
11	PM3	X	.004	0
12	PM3	Z	.007	0
13	PM3	X	.004	%86.991
14	PM3	Z	.007	%86.991
15	PM3	X	.005	%42.593
16	PM3	Z	.008	%42.593



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**Member Point Loads (BLC 60 : Earthquake 180 Deg)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	Z	.006	%9.735
2	PM1	Z	.006	%100
3	PM1	Z	.001	%59.292
4	PM2	Z	.008	%9.204
5	PM2	Z	.008	%100
6	PM3	Z	.008	0
7	PM3	Z	.008	%86.991
8	PM3	Z	.009	%42.593

**Member Point Loads (BLC 61 : Earthquake 210 Deg)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	-.003	%9.735
2	PM1	Z	.005	%9.735
3	PM1	X	-.003	%100
4	PM1	Z	.005	%100
5	PM1	X	-.000667	%59.292
6	PM1	Z	.001	%59.292
7	PM2	X	-.004	%9.204
8	PM2	Z	.007	%9.204
9	PM2	X	-.004	%100
10	PM2	Z	.007	%100
11	PM3	X	-.004	0
12	PM3	Z	.007	0
13	PM3	X	-.004	%86.991
14	PM3	Z	.007	%86.991
15	PM3	X	-.005	%42.593
16	PM3	Z	.008	%42.593

**Member Point Loads (BLC 62 : Earthquake 240 Deg)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	-.005	%9.735
2	PM1	Z	.003	%9.735
3	PM1	X	-.005	%100
4	PM1	Z	.003	%100
5	PM1	X	-.001	%59.292
6	PM1	Z	.000667	%59.292
7	PM2	X	-.007	%9.204
8	PM2	Z	.004	%9.204
9	PM2	X	-.007	%100
10	PM2	Z	.004	%100
11	PM3	X	-.007	0
12	PM3	Z	.004	0
13	PM3	X	-.007	%86.991
14	PM3	Z	.004	%86.991
15	PM3	X	-.008	%42.593
16	PM3	Z	.005	%42.593

**Member Point Loads (BLC 63 : Earthquake 270 Deg)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	-.006	%9.735
2	PM1	X	-.006	%100
3	PM1	X	-.001	%59.292
4	PM2	X	-.008	%9.204
5	PM2	X	-.008	%100
6	PM3	X	-.008	0



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**Member Point Loads (BLC 63 : Earthquake 270 Deg) (Continued)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
7	PM3	X	-008	%86.991
8	PM3	X	-009	%42.593

**Member Point Loads (BLC 64 : Earthquake 300 Deg)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	-005	%9.735
2	PM1	Z	-003	%9.735
3	PM1	X	-005	%100
4	PM1	Z	-003	%100
5	PM1	X	-001	%59.292
6	PM1	Z	-000667	%59.292
7	PM2	X	-007	%9.204
8	PM2	Z	-004	%9.204
9	PM2	X	-007	%100
10	PM2	Z	-004	%100
11	PM3	X	-007	0
12	PM3	Z	-004	0
13	PM3	X	-007	%86.991
14	PM3	Z	-004	%86.991
15	PM3	X	-008	%42.593
16	PM3	Z	-005	%42.593

**Member Point Loads (BLC 65 : Earthquake 330 Deg)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	-003	%9.735
2	PM1	Z	-005	%9.735
3	PM1	X	-003	%100
4	PM1	Z	-005	%100
5	PM1	X	-000667	%59.292
6	PM1	Z	-001	%59.292
7	PM2	X	-004	%9.204
8	PM2	Z	-007	%9.204
9	PM2	X	-004	%100
10	PM2	Z	-007	%100
11	PM3	X	-004	0
12	PM3	Z	-007	0
13	PM3	X	-004	%86.991
14	PM3	Z	-007	%86.991
15	PM3	X	-005	%42.593
16	PM3	Z	-008	%42.593

**Member Distributed Loads (BLC 1 : Wind 0 Deg - No Ice)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft.F]	Start Location[in.%]	End Location[in.%]
1	PM1	Z	-009	-009	0	%9.735
2	PM2	Z	-009	-009	0	%9.204
3	PM3	Z	-006	-006	%86.991	%100
4	VB1	PZ	-006	-006	0	%100
5	VB2	PZ	-008	-008	0	%100
6	SO1	PZ	-009	-009	0	%100
7	SO2	PZ	-009	-009	0	%100
8	H1	PZ	-009	-009	0	%100
9	H2	PZ	-009	-009	0	%100
10	TB2	PZ	-007	-007	0	%100
11	TB1	PZ	-007	-007	0	%100



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**Member Distributed Loads (BLC 2 : Wind 30 Deg - No Ice)**

Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in, %]	End Location[in, %]
1	PM1	X	.004	.004	0 %100
2	PM1	Z	-.008	-.008	0 %100
3	PM2	X	.004	.004	0 %100
4	PM2	Z	-.008	-.008	0 %100
5	PM3	X	.004	.004	0 %100
6	PM3	Z	-.006	-.006	0 %100
7	VB1	PX	.003	.003	0 %100
8	VB1	PZ	-.005	-.005	0 %100
9	VB2	PX	.004	.004	0 %100
10	VB2	PZ	-.007	-.007	0 %100
11	SO1	PX	.005	.005	0 %100
12	SO1	PZ	-.008	-.008	0 %100
13	SO2	PX	.005	.005	0 %100
14	SO2	PZ	-.008	-.008	0 %100
15	H1	PX	.004	.004	0 %100
16	H1	PZ	-.007	-.007	0 %100
17	H2	PX	.004	.004	0 %100
18	H2	PZ	-.007	-.007	0 %100
19	TB2	PX	.003	.003	0 %100
20	TB2	PZ	-.006	-.006	0 %100
21	TB1	PX	.004	.004	0 %100
22	TB1	PZ	-.006	-.006	0 %100

**Member Distributed Loads (BLC 3 : Wind 60 Deg - No Ice)**

Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in, %]	End Location[in, %]
1	PM1	X	.008	.008	0 %100
2	PM1	Z	-.004	-.004	0 %100
3	PM2	X	.008	.008	0 %100
4	PM2	Z	-.004	-.004	0 %100
5	PM3	X	.006	.006	0 %100
6	PM3	Z	-.004	-.004	0 %100
7	VB1	PX	.005	.005	0 %100
8	VB1	PZ	-.003	-.003	0 %100
9	VB2	PX	.007	.007	0 %100
10	VB2	PZ	-.004	-.004	0 %100
11	SO1	PX	.009	.009	0 %100
12	SO1	PZ	-.005	-.005	0 %100
13	SO2	PX	.009	.009	0 %100
14	SO2	PZ	-.005	-.005	0 %100
15	H1	PX	.007	.007	0 %100
16	H1	PZ	-.004	-.004	0 %100
17	H2	PX	.007	.007	0 %100
18	H2	PZ	-.004	-.004	0 %100
19	TB2	PX	.004	.004	0 %100
20	TB2	PZ	-.002	-.002	0 %100
21	TB1	PX	.006	.006	0 %100
22	TB1	PZ	-.004	-.004	0 %100

**Member Distributed Loads (BLC 4 : Wind 90 Deg - No Ice)**

Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in, %]	End Location[in, %]
1	PM1	X	.009	.009	0 %100
2	PM2	X	.009	.009	0 %100
3	PM3	X	.007	.007	0 %100
4	VB1	PX	.006	.006	0 %100
5	VB2	PX	.008	.008	0 %100
6	SO1	PX	.01	.01	0 %100



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**Member Distributed Loads (BLC 4 : Wind 90 Deg - No Ice) (Continued)**

Member Label	Direction	Start Magnitude[k/ft	End Magnitude[k/ft F	Start Location[in.%]	End Location[in.%]	
7	SO2	PX	.01	.01	0	%100
8	H1	PX	.005	.005	0	%100
9	H2	PX	.005	.005	0	%100
10	TB2	PX	.006	.006	0	%100
11	TB1	PX	.006	.006	0	%100

**Member Distributed Loads (BLC 5 : Wind 120 Deg - No Ice)**

Member Label	Direction	Start Magnitude[k/ft	End Magnitude[k/ft F	Start Location[in.%]	End Location[in.%]	
1	PM1	X	.008	.008	0	%100
2	PM1	Z	.004	.004	0	%100
3	PM2	X	.008	.008	0	%100
4	PM2	Z	.004	.004	0	%100
5	PM3	X	.006	.006	0	%100
6	PM3	Z	.004	.004	0	%100
7	VB1	PX	.005	.005	0	%100
8	VB1	PZ	.003	.003	0	%100
9	VB2	PX	.007	.007	0	%100
10	VB2	PZ	.004	.004	0	%100
11	SO1	PX	.009	.009	0	%100
12	SO1	PZ	.005	.005	0	%100
13	SO2	PX	.009	.009	0	%100
14	SO2	PZ	.005	.005	0	%100
15	H1	PX	.007	.007	0	%100
16	H1	PZ	.004	.004	0	%100
17	H2	PX	.007	.007	0	%100
18	H2	PZ	.004	.004	0	%100
19	TB2	PX	.006	.006	0	%100
20	TB2	PZ	.004	.004	0	%100
21	TB1	PX	.004	.004	0	%100
22	TB1	PZ	.002	.002	0	%100

**Member Distributed Loads (BLC 6 : Wind 150 Deg - No Ice)**

Member Label	Direction	Start Magnitude[k/ft	End Magnitude[k/ft F	Start Location[in.%]	End Location[in.%]	
1	PM1	X	.004	.004	0	%100
2	PM1	Z	.008	.008	0	%100
3	PM2	X	.004	.004	0	%100
4	PM2	Z	.008	.008	0	%100
5	PM3	X	.004	.004	0	%100
6	PM3	Z	.006	.006	0	%100
7	VB1	PX	.003	.003	0	%100
8	VB1	PZ	.005	.005	0	%100
9	VB2	PX	.004	.004	0	%100
10	VB2	PZ	.007	.007	0	%100
11	SO1	PX	.005	.005	0	%100
12	SO1	PZ	.008	.008	0	%100
13	SO2	PX	.005	.005	0	%100
14	SO2	PZ	.008	.008	0	%100
15	H1	PX	.004	.004	0	%100
16	H1	PZ	.007	.007	0	%100
17	H2	PX	.004	.004	0	%100
18	H2	PZ	.007	.007	0	%100
19	TB2	PX	.004	.004	0	%100
20	TB2	PZ	.006	.006	0	%100
21	TB1	PX	.003	.003	0	%100
22	TB1	PZ	.005	.005	0	%100





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**Member Distributed Loads (BLC 7 : Wind 180 Deg - No Ice)**

Member Label	Direction	Start Magnitude[k/ft	End Magnitude[k/ft F	Start Location[in, %]	End Location[in, %]
1	PM1	Z	.009	.009	0 %9.735
2	PM2	Z	.009	.009	0 %9.204
3	PM3	Z	.006	.006	%86.991 %100
4	VB1	PZ	.006	.006	0 %100
5	VB2	PZ	.008	.008	0 %100
6	SO1	PZ	.009	.009	0 %100
7	SO2	PZ	.009	.009	0 %100
8	H1	PZ	.009	.009	0 %100
9	H2	PZ	.009	.009	0 %100
10	TB2	PZ	.007	.007	0 %100
11	TB1	PZ	.007	.007	0 %100

**Member Distributed Loads (BLC 8 : Wind 210 Deg - No Ice)**

Member Label	Direction	Start Magnitude[k/ft	End Magnitude[k/ft F	Start Location[in, %]	End Location[in, %]
1	PM1	X	-.004	-.004	0 %100
2	PM1	Z	.008	.008	0 %100
3	PM2	X	-.004	-.004	0 %100
4	PM2	Z	.008	.008	0 %100
5	PM3	X	-.004	-.004	0 %100
6	PM3	Z	.006	.006	0 %100
7	VB1	PX	-.003	-.003	0 %100
8	VB1	PZ	.005	.005	0 %100
9	VB2	PX	-.004	-.004	0 %100
10	VB2	PZ	.007	.007	0 %100
11	SO1	PX	-.005	-.005	0 %100
12	SO1	PZ	.008	.008	0 %100
13	SO2	PX	-.005	-.005	0 %100
14	SO2	PZ	.008	.008	0 %100
15	H1	PX	-.004	-.004	0 %100
16	H1	PZ	.007	.007	0 %100
17	H2	PX	-.004	-.004	0 %100
18	H2	PZ	.007	.007	0 %100
19	TB2	PX	-.003	-.003	0 %100
20	TB2	PZ	.006	.006	0 %100
21	TB1	PX	-.004	-.004	0 %100
22	TB1	PZ	.006	.006	0 %100

**Member Distributed Loads (BLC 9 : Wind 240 Deg - No Ice)**

Member Label	Direction	Start Magnitude[k/ft	End Magnitude[k/ft F	Start Location[in, %]	End Location[in, %]
1	PM1	X	-.008	-.008	0 %100
2	PM1	Z	.004	.004	0 %100
3	PM2	X	-.008	-.008	0 %100
4	PM2	Z	.004	.004	0 %100
5	PM3	X	-.006	-.006	0 %100
6	PM3	Z	.004	.004	0 %100
7	VB1	PX	-.005	-.005	0 %100
8	VB1	PZ	.003	.003	0 %100
9	VB2	PX	-.007	-.007	0 %100
10	VB2	PZ	.004	.004	0 %100
11	SO1	PX	-.009	-.009	0 %100
12	SO1	PZ	.005	.005	0 %100
13	SO2	PX	-.009	-.009	0 %100
14	SO2	PZ	.005	.005	0 %100
15	H1	PX	-.007	-.007	0 %100
16	H1	PZ	.004	.004	0 %100
17	H2	PX	-.007	-.007	0 %100



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**Member Distributed Loads (BLC 9 : Wind 240 Deg - No Ice) (Continued)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in.%]	End Location[in.%]
18	H2	PZ	.004	.004	0	%100
19	TB2	PX	-.004	-.004	0	%100
20	TB2	PZ	.002	.002	0	%100
21	TB1	PX	-.006	-.006	0	%100
22	TB1	PZ	.004	.004	0	%100

**Member Distributed Loads (BLC 10 : Wind 270 Deg - No Ice)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in.%]	End Location[in.%]
1	PM1	X	-.009	-.009	0	%100
2	PM2	X	-.009	-.009	0	%100
3	PM3	X	-.007	-.007	0	%100
4	VB1	PX	-.006	-.006	0	%100
5	VB2	PX	-.008	-.008	0	%100
6	SO1	PX	-.01	-.01	0	%100
7	SO2	PX	-.01	-.01	0	%100
8	H1	PX	-.005	-.005	0	%100
9	H2	PX	-.005	-.005	0	%100
10	TB2	PX	-.006	-.006	0	%100
11	TB1	PX	-.006	-.006	0	%100

**Member Distributed Loads (BLC 11 : Wind 300 Deg - No Ice)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in.%]	End Location[in.%]
1	PM1	X	-.008	-.008	0	%100
2	PM1	Z	-.004	-.004	0	%100
3	PM2	X	-.008	-.008	0	%100
4	PM2	Z	-.004	-.004	0	%100
5	PM3	X	-.006	-.006	0	%100
6	PM3	Z	-.004	-.004	0	%100
7	VB1	PX	-.005	-.005	0	%100
8	VB1	PZ	-.003	-.003	0	%100
9	VB2	PX	-.007	-.007	0	%100
10	VB2	PZ	-.004	-.004	0	%100
11	SO1	PX	-.009	-.009	0	%100
12	SO1	PZ	-.005	-.005	0	%100
13	SO2	PX	-.009	-.009	0	%100
14	SO2	PZ	-.005	-.005	0	%100
15	H1	PX	-.007	-.007	0	%100
16	H1	PZ	-.004	-.004	0	%100
17	H2	PX	-.007	-.007	0	%100
18	H2	PZ	-.004	-.004	0	%100
19	TB2	PX	-.006	-.006	0	%100
20	TB2	PZ	-.004	-.004	0	%100
21	TB1	PX	-.004	-.004	0	%100
22	TB1	PZ	-.002	-.002	0	%100

**Member Distributed Loads (BLC 12 : Wind 330 Deg - No Ice)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in.%]	End Location[in.%]
1	PM1	X	-.004	-.004	0	%100
2	PM1	Z	-.008	-.008	0	%100
3	PM2	X	-.004	-.004	0	%100
4	PM2	Z	-.008	-.008	0	%100
5	PM3	X	-.004	-.004	0	%100
6	PM3	Z	-.006	-.006	0	%100
7	VB1	PX	-.003	-.003	0	%100
8	VB1	PZ	-.005	-.005	0	%100



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**Member Distributed Loads (BLC 12 : Wind 330 Deg - No Ice) (Continued)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft.F]	Start Location[in.%]	End Location[in.%]
9	VB2	PX	-004	-004	0	%100
10	VB2	PZ	-007	-007	0	%100
11	SO1	PX	-005	-005	0	%100
12	SO1	PZ	-008	-008	0	%100
13	SO2	PX	-005	-005	0	%100
14	SO2	PZ	-008	-008	0	%100
15	H1	PX	-004	-004	0	%100
16	H1	PZ	-007	-007	0	%100
17	H2	PX	-004	-004	0	%100
18	H2	PZ	-007	-007	0	%100
19	TB2	PX	-004	-004	0	%100
20	TB2	PZ	-006	-006	0	%100
21	TB1	PX	-003	-003	0	%100
22	TB1	PZ	-005	-005	0	%100

**Member Distributed Loads (BLC 13 : Wind 0 Deg - Ice)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft.F]	Start Location[in.%]	End Location[in.%]
1	PM1	Z	-003	-003	0	%9.735
2	PM2	Z	-003	-003	0	%9.204
3	PM3	Z	-002	-002	%86.991	%100
4	VB1	PZ	-002	-002	0	%100
5	VB2	PZ	-003	-003	0	%100
6	SO1	PZ	-003	-003	0	%100
7	SO2	PZ	-003	-003	0	%100
8	H1	PZ	-003	-003	0	%100
9	H2	PZ	-003	-003	0	%100
10	TB2	PZ	-003	-003	0	%100
11	TB1	PZ	-003	-003	0	%100

**Member Distributed Loads (BLC 14 : Wind 30 Deg - Ice)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft.F]	Start Location[in.%]	End Location[in.%]
1	PM1	X	.001	.001	0	%100
2	PM1	Z	-003	-003	0	%100
3	PM2	X	.001	.001	0	%100
4	PM2	Z	-003	-003	0	%100
5	PM3	X	.001	.001	0	%100
6	PM3	Z	-003	-003	0	%100
7	VB1	PX	.001	.001	0	%100
8	VB1	PZ	-002	-002	0	%100
9	VB2	PX	.001	.001	0	%100
10	VB2	PZ	-002	-002	0	%100
11	SO1	PX	.002	.002	0	%100
12	SO1	PZ	-003	-003	0	%100
13	SO2	PX	.002	.002	0	%100
14	SO2	PZ	-003	-003	0	%100
15	H1	PX	.002	.002	0	%100
16	H1	PZ	-003	-003	0	%100
17	H2	PX	.002	.002	0	%100
18	H2	PZ	-003	-003	0	%100
19	TB2	PX	.001	.001	0	%100
20	TB2	PZ	-002	-002	0	%100
21	TB1	PX	.001	.001	0	%100
22	TB1	PZ	-003	-003	0	%100

**Member Distributed Loads (BLC 15 : Wind 60 Deg - Ice)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft.F]	Start Location[in.%]	End Location[in.%]
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**Member Distributed Loads (BLC 15 : Wind 60 Deg - Ice) (Continued)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in, %]	End Location[in, %]
1	PM1	X	.003	.003	0	%100
2	PM1	Z	-.001	-.001	0	%100
3	PM2	X	.003	.003	0	%100
4	PM2	Z	-.001	-.001	0	%100
5	PM3	X	.003	.003	0	%100
6	PM3	Z	-.001	-.001	0	%100
7	VB1	PX	.002	.002	0	%100
8	VB1	PZ	-.001	-.001	0	%100
9	VB2	PX	.002	.002	0	%100
10	VB2	PZ	-.001	-.001	0	%100
11	SO1	PX	.003	.003	0	%100
12	SO1	PZ	-.002	-.002	0	%100
13	SO2	PX	.003	.003	0	%100
14	SO2	PZ	-.002	-.002	0	%100
15	H1	PX	.003	.003	0	%100
16	H1	PZ	-.002	-.002	0	%100
17	H2	PX	.003	.003	0	%100
18	H2	PZ	-.002	-.002	0	%100
19	TB2	PX	.002	.002	0	%100
20	TB2	PZ	-.000879	-.000879	0	%100
21	TB1	PX	.003	.003	0	%100
22	TB1	PZ	-.001	-.001	0	%100

**Member Distributed Loads (BLC 16 : Wind 90 Deg - Ice)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in, %]	End Location[in, %]
1	PM1	X	.003	.003	0	%100
2	PM2	X	.003	.003	0	%100
3	PM3	X	.003	.003	0	%100
4	VB1	PX	.002	.002	0	%100
5	VB2	PX	.003	.003	0	%100
6	SO1	PX	.004	.004	0	%100
7	SO2	PX	.004	.004	0	%100
8	H1	PX	.002	.002	0	%100
9	H2	PX	.002	.002	0	%100
10	TB2	PX	.002	.002	0	%100
11	TB1	PX	.003	.003	0	%100

**Member Distributed Loads (BLC 17 : Wind 120 Deg - Ice)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in, %]	End Location[in, %]
1	PM1	X	.003	.003	0	%100
2	PM1	Z	.001	.001	0	%100
3	PM2	X	.003	.003	0	%100
4	PM2	Z	.001	.001	0	%100
5	PM3	X	.003	.003	0	%100
6	PM3	Z	.001	.001	0	%100
7	VB1	PX	.002	.002	0	%100
8	VB1	PZ	.001	.001	0	%100
9	VB2	PX	.002	.002	0	%100
10	VB2	PZ	.001	.001	0	%100
11	SO1	PX	.003	.003	0	%100
12	SO1	PZ	.002	.002	0	%100
13	SO2	PX	.003	.003	0	%100
14	SO2	PZ	.002	.002	0	%100
15	H1	PX	.003	.003	0	%100
16	H1	PZ	.002	.002	0	%100
17	H2	PX	.003	.003	0	%100



**Member Distributed Loads (BLC 17 : Wind 120 Deg - Ice) (Continued)**

	Member Label	Direction	Start Magnitude[k/ft	End Magnitude[k/ft F	Start Location[in.%]	End Location[in.%]
18	H2	PZ	.002	.002	0	%100
19	TB2	PX	.003	.003	0	%100
20	TB2	PZ	.001	.001	0	%100
21	TB1	PX	.002	.002	0	%100
22	TB1	PZ	.000879	.000879	0	%100

**Member Distributed Loads (BLC 18 : Wind 150 Deg - Ice)**

	Member Label	Direction	Start Magnitude[k/ft	End Magnitude[k/ft F	Start Location[in.%]	End Location[in.%]
1	PM1	X	.001	.001	0	%100
2	PM1	Z	.003	.003	0	%100
3	PM2	X	.001	.001	0	%100
4	PM2	Z	.003	.003	0	%100
5	PM3	X	.001	.001	0	%100
6	PM3	Z	.003	.003	0	%100
7	VB1	PX	.001	.001	0	%100
8	VB1	PZ	.002	.002	0	%100
9	VB2	PX	.001	.001	0	%100
10	VB2	PZ	.002	.002	0	%100
11	SO1	PX	.002	.002	0	%100
12	SO1	PZ	.003	.003	0	%100
13	SO2	PX	.002	.002	0	%100
14	SO2	PZ	.003	.003	0	%100
15	H1	PX	.002	.002	0	%100
16	H1	PZ	.003	.003	0	%100
17	H2	PX	.002	.002	0	%100
18	H2	PZ	.003	.003	0	%100
19	TB2	PX	.001	.001	0	%100
20	TB2	PZ	.003	.003	0	%100
21	TB1	PX	.001	.001	0	%100
22	TB1	PZ	.002	.002	0	%100

**Member Distributed Loads (BLC 19 : Wind 180 Deg - Ice)**

	Member Label	Direction	Start Magnitude[k/ft	End Magnitude[k/ft F	Start Location[in.%]	End Location[in.%]
1	PM1	Z	.003	.003	0	%9.735
2	PM2	Z	.003	.003	0	%9.204
3	PM3	Z	.002	.002	%86.991	%100
4	VB1	PZ	.002	.002	0	%100
5	VB2	PZ	.003	.003	0	%100
6	SO1	PZ	.003	.003	0	%100
7	SO2	PZ	.003	.003	0	%100
8	H1	PZ	.003	.003	0	%100
9	H2	PZ	.003	.003	0	%100
10	TB2	PZ	.003	.003	0	%100
11	TB1	PZ	.003	.003	0	%100

**Member Distributed Loads (BLC 20 : Wind 210 Deg - Ice)**

	Member Label	Direction	Start Magnitude[k/ft	End Magnitude[k/ft F	Start Location[in.%]	End Location[in.%]
1	PM1	X	-.001	-.001	0	%100
2	PM1	Z	.003	.003	0	%100
3	PM2	X	-.001	-.001	0	%100
4	PM2	Z	.003	.003	0	%100
5	PM3	X	-.001	-.001	0	%100
6	PM3	Z	.003	.003	0	%100
7	VB1	PX	-.001	-.001	0	%100
8	VB1	PZ	.002	.002	0	%100



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**Member Distributed Loads (BLC 20 : Wind 210 Deg - Ice) (Continued)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in.%]	End Location[in.%]
9	VB2	PX	- .001	- .001	0	%100
10	VB2	PZ	.002	.002	0	%100
11	SO1	PX	- .002	- .002	0	%100
12	SO1	PZ	.003	.003	0	%100
13	SO2	PX	- .002	- .002	0	%100
14	SO2	PZ	.003	.003	0	%100
15	H1	PX	- .002	- .002	0	%100
16	H1	PZ	.003	.003	0	%100
17	H2	PX	- .002	- .002	0	%100
18	H2	PZ	.003	.003	0	%100
19	TB2	PX	- .001	- .001	0	%100
20	TB2	PZ	.002	.002	0	%100
21	TB1	PX	- .001	- .001	0	%100
22	TB1	PZ	.003	.003	0	%100

**Member Distributed Loads (BLC 21 : Wind 240 Deg - Ice)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in.%]	End Location[in.%]
1	PM1	X	- .003	- .003	0	%100
2	PM1	Z	.001	.001	0	%100
3	PM2	X	- .003	- .003	0	%100
4	PM2	Z	.001	.001	0	%100
5	PM3	X	- .003	- .003	0	%100
6	PM3	Z	.001	.001	0	%100
7	VB1	PX	- .002	- .002	0	%100
8	VB1	PZ	.001	.001	0	%100
9	VB2	PX	- .002	- .002	0	%100
10	VB2	PZ	.001	.001	0	%100
11	SO1	PX	- .003	- .003	0	%100
12	SO1	PZ	.002	.002	0	%100
13	SO2	PX	- .003	- .003	0	%100
14	SO2	PZ	.002	.002	0	%100
15	H1	PX	- .003	- .003	0	%100
16	H1	PZ	.002	.002	0	%100
17	H2	PX	- .003	- .003	0	%100
18	H2	PZ	.002	.002	0	%100
19	TB2	PX	- .002	- .002	0	%100
20	TB2	PZ	.000879	.000879	0	%100
21	TB1	PX	- .003	- .003	0	%100
22	TB1	PZ	.001	.001	0	%100

**Member Distributed Loads (BLC 22 : Wind 270 Deg - Ice)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in.%]	End Location[in.%]
1	PM1	X	- .003	- .003	0	%100
2	PM2	X	- .003	- .003	0	%100
3	PM3	X	- .003	- .003	0	%100
4	VB1	PX	- .002	- .002	0	%100
5	VB2	PX	- .003	- .003	0	%100
6	SO1	PX	- .004	- .004	0	%100
7	SO2	PX	- .004	- .004	0	%100
8	H1	PX	- .002	- .002	0	%100
9	H2	PX	- .002	- .002	0	%100
10	TB2	PX	- .002	- .002	0	%100
11	TB1	PX	- .003	- .003	0	%100

**Member Distributed Loads (BLC 23 : Wind 300 Deg - Ice)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in.%]	End Location[in.%]
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**Member Distributed Loads (BLC 23 : Wind 300 Deg - Ice) (Continued)**

Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in, %]	End Location[in, %]
1	PM1	X	- .003	- .003	0 %100
2	PM1	Z	- .001	- .001	0 %100
3	PM2	X	- .003	- .003	0 %100
4	PM2	Z	- .001	- .001	0 %100
5	PM3	X	- .003	- .003	0 %100
6	PM3	Z	- .001	- .001	0 %100
7	VB1	PX	- .002	- .002	0 %100
8	VB1	PZ	- .001	- .001	0 %100
9	VB2	PX	- .002	- .002	0 %100
10	VB2	PZ	- .001	- .001	0 %100
11	SO1	PX	- .003	- .003	0 %100
12	SO1	PZ	- .002	- .002	0 %100
13	SO2	PX	- .003	- .003	0 %100
14	SO2	PZ	- .002	- .002	0 %100
15	H1	PX	- .003	- .003	0 %100
16	H1	PZ	- .002	- .002	0 %100
17	H2	PX	- .003	- .003	0 %100
18	H2	PZ	- .002	- .002	0 %100
19	TB2	PX	- .003	- .003	0 %100
20	TB2	PZ	- .001	- .001	0 %100
21	TB1	PX	- .002	- .002	0 %100
22	TB1	PZ	- .000879	- .000879	0 %100

**Member Distributed Loads (BLC 24 : Wind 330 Deg - Ice)**

Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in, %]	End Location[in, %]
1	PM1	X	- .001	- .001	0 %100
2	PM1	Z	- .003	- .003	0 %100
3	PM2	X	- .001	- .001	0 %100
4	PM2	Z	- .003	- .003	0 %100
5	PM3	X	- .001	- .001	0 %100
6	PM3	Z	- .003	- .003	0 %100
7	VB1	PX	- .001	- .001	0 %100
8	VB1	PZ	- .002	- .002	0 %100
9	VB2	PX	- .001	- .001	0 %100
10	VB2	PZ	- .002	- .002	0 %100
11	SO1	PX	- .002	- .002	0 %100
12	SO1	PZ	- .003	- .003	0 %100
13	SO2	PX	- .002	- .002	0 %100
14	SO2	PZ	- .003	- .003	0 %100
15	H1	PX	- .002	- .002	0 %100
16	H1	PZ	- .003	- .003	0 %100
17	H2	PX	- .002	- .002	0 %100
18	H2	PZ	- .003	- .003	0 %100
19	TB2	PX	- .001	- .001	0 %100
20	TB2	PZ	- .003	- .003	0 %100
21	TB1	PX	- .001	- .001	0 %100
22	TB1	PZ	- .002	- .002	0 %100

**Member Distributed Loads (BLC 25 : Wind 0 Deg - Maintenance)**

Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in, %]	End Location[in, %]
1	PM1	Z	- .000548	- .000548	0 %9.735
2	PM2	Z	- .000548	- .000548	0 %9.204
3	PM3	Z	- .000372	- .000372	%86.991 %100
4	VB1	PZ	- .000365	- .000365	0 %100
5	VB2	PZ	- .000478	- .000478	0 %100
6	SO1	PZ	- .000563	- .000563	0 %100



**Member Distributed Loads (BLC 25 : Wind 0 Deg - Maintenance) (Continued)**

Member Label	Direction	Start Magnitude[k/ft	End Magnitude[k/ft F	Start Location[in.%]	End Location[in.%]	
7	SO2	PZ	- .000563	- .000563	0	%100
8	H1	PZ	- .00054	- .00054	0	%100
9	H2	PZ	- .00054	- .00054	0	%100
10	TB2	PZ	- .000446	- .000446	0	%100
11	TB1	PZ	- .000446	- .000446	0	%100

**Member Distributed Loads (BLC 26 : Wind 30 Deg - Maintenance)**

Member Label	Direction	Start Magnitude[k/ft	End Magnitude[k/ft F	Start Location[in.%]	End Location[in.%]	
1	PM1	X	.000275	.000275	0	%100
2	PM1	Z	- .000476	- .000476	0	%100
3	PM2	X	.000275	.000275	0	%100
4	PM2	Z	- .000476	- .000476	0	%100
5	PM3	X	.000223	.000223	0	%100
6	PM3	Z	- .000387	- .000387	0	%100
7	VB1	PX	.000182	.000182	0	%100
8	VB1	PZ	- .000316	- .000316	0	%100
9	VB2	PX	.000239	.000239	0	%100
10	VB2	PZ	- .000414	- .000414	0	%100
11	SO1	PX	.000292	.000292	0	%100
12	SO1	PZ	- .000505	- .000505	0	%100
13	SO2	PX	.000292	.000292	0	%100
14	SO2	PZ	- .000505	- .000505	0	%100
15	H1	PX	.00027	.00027	0	%100
16	H1	PZ	- .000467	- .000467	0	%100
17	H2	PX	.00027	.00027	0	%100
18	H2	PZ	- .000467	- .000467	0	%100
19	TB2	PX	.0002	.0002	0	%100
20	TB2	PZ	- .000346	- .000346	0	%100
21	TB1	PX	.000223	.000223	0	%100
22	TB1	PZ	- .000386	- .000386	0	%100

**Member Distributed Loads (BLC 27 : Wind 60 Deg - Maintenance)**

Member Label	Direction	Start Magnitude[k/ft	End Magnitude[k/ft F	Start Location[in.%]	End Location[in.%]	
1	PM1	X	.000476	.000476	0	%100
2	PM1	Z	- .000275	- .000275	0	%100
3	PM2	X	.000476	.000476	0	%100
4	PM2	Z	- .000275	- .000275	0	%100
5	PM3	X	.000387	.000387	0	%100
6	PM3	Z	- .000223	- .000223	0	%100
7	VB1	PX	.000316	.000316	0	%100
8	VB1	PZ	- .000182	- .000182	0	%100
9	VB2	PX	.000414	.000414	0	%100
10	VB2	PZ	- .000239	- .000239	0	%100
11	SO1	PX	.000551	.000551	0	%100
12	SO1	PZ	- .000318	- .000318	0	%100
13	SO2	PX	.000551	.000551	0	%100
14	SO2	PZ	- .000318	- .000318	0	%100
15	H1	PX	.000467	.000467	0	%100
16	H1	PZ	- .00027	- .00027	0	%100
17	H2	PX	.000467	.000467	0	%100
18	H2	PZ	- .00027	- .00027	0	%100
19	TB2	PX	.000228	.000228	0	%100
20	TB2	PZ	- .000132	- .000132	0	%100
21	TB1	PX	.000386	.000386	0	%100
22	TB1	PZ	- .000223	- .000223	0	%100





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**Member Distributed Loads (BLC 28 : Wind 90 Deg - Maintenance)**

Member Label	Direction	Start Magnitude[k/ft	End Magnitude[k/ft F	Start Location[in, %]	End Location[in, %]
1	PM1	X	.000549	.000549	0 %100
2	PM2	X	.000549	.000549	0 %100
3	PM3	X	.000447	.000447	0 %100
4	VB1	PX	.000365	.000365	0 %100
5	VB2	PX	.000478	.000478	0 %100
6	SO1	PX	.000655	.000655	0 %100
7	SO2	PX	.000655	.000655	0 %100
8	H1	PX	.000315	.000315	0 %100
9	H2	PX	.000315	.000315	0 %100
10	TB2	PX	.000357	.000357	0 %100
11	TB1	PX	.000399	.000399	0 %100

**Member Distributed Loads (BLC 29 : Wind 120 Deg - Maintenance)**

Member Label	Direction	Start Magnitude[k/ft	End Magnitude[k/ft F	Start Location[in, %]	End Location[in, %]
1	PM1	X	.000476	.000476	0 %100
2	PM1	Z	.000275	.000275	0 %100
3	PM2	X	.000476	.000476	0 %100
4	PM2	Z	.000275	.000275	0 %100
5	PM3	X	.000387	.000387	0 %100
6	PM3	Z	.000223	.000223	0 %100
7	VB1	PX	.000316	.000316	0 %100
8	VB1	PZ	.000182	.000182	0 %100
9	VB2	PX	.000414	.000414	0 %100
10	VB2	PZ	.000239	.000239	0 %100
11	SO1	PX	.000551	.000551	0 %100
12	SO1	PZ	.000318	.000318	0 %100
13	SO2	PX	.000551	.000551	0 %100
14	SO2	PZ	.000318	.000318	0 %100
15	H1	PX	.000467	.000467	0 %100
16	H1	PZ	.00027	.00027	0 %100
17	H2	PX	.000467	.000467	0 %100
18	H2	PZ	.00027	.00027	0 %100
19	TB2	PX	.000386	.000386	0 %100
20	TB2	PZ	.000223	.000223	0 %100
21	TB1	PX	.000228	.000228	0 %100
22	TB1	PZ	.000132	.000132	0 %100

**Member Distributed Loads (BLC 30 : Wind 150 Deg - Maintenance)**

Member Label	Direction	Start Magnitude[k/ft	End Magnitude[k/ft F	Start Location[in, %]	End Location[in, %]
1	PM1	X	.000275	.000275	0 %100
2	PM1	Z	.000476	.000476	0 %100
3	PM2	X	.000275	.000275	0 %100
4	PM2	Z	.000476	.000476	0 %100
5	PM3	X	.000223	.000223	0 %100
6	PM3	Z	.000387	.000387	0 %100
7	VB1	PX	.000182	.000182	0 %100
8	VB1	PZ	.000316	.000316	0 %100
9	VB2	PX	.000239	.000239	0 %100
10	VB2	PZ	.000414	.000414	0 %100
11	SO1	PX	.000292	.000292	0 %100
12	SO1	PZ	.000505	.000505	0 %100
13	SO2	PX	.000292	.000292	0 %100
14	SO2	PZ	.000505	.000505	0 %100
15	H1	PX	.00027	.00027	0 %100
16	H1	PZ	.000467	.000467	0 %100
17	H2	PX	.00027	.00027	0 %100



**Member Distributed Loads (BLC 30 : Wind 150 Deg - Maintenance) (Continued)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in.%]	End Location[in.%]
18	H2	PZ	.000467	.000467	0	%100
19	TB2	PX	.000223	.000223	0	%100
20	TB2	PZ	.000386	.000386	0	%100
21	TB1	PX	.000179	.000179	0	%100
22	TB1	PZ	.000309	.000309	0	%100

**Member Distributed Loads (BLC 31 : Wind 180 Deg - Maintenance)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in.%]	End Location[in.%]
1	PM1	Z	.000548	.000548	0	%9.735
2	PM2	Z	.000548	.000548	0	%9.204
3	PM3	Z	.000372	.000372	%86.991	%100
4	VB1	PZ	.000365	.000365	0	%100
5	VB2	PZ	.000478	.000478	0	%100
6	SO1	PZ	.000563	.000563	0	%100
7	SO2	PZ	.000563	.000563	0	%100
8	H1	PZ	.00054	.00054	0	%100
9	H2	PZ	.00054	.00054	0	%100
10	TB2	PZ	.000446	.000446	0	%100
11	TB1	PZ	.000446	.000446	0	%100

**Member Distributed Loads (BLC 32 : Wind 210 Deg - Maintenance)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in.%]	End Location[in.%]
1	PM1	X	-.000275	-.000275	0	%100
2	PM1	Z	.000476	.000476	0	%100
3	PM2	X	-.000275	-.000275	0	%100
4	PM2	Z	.000476	.000476	0	%100
5	PM3	X	-.000223	-.000223	0	%100
6	PM3	Z	.000387	.000387	0	%100
7	VB1	PX	-.000182	-.000182	0	%100
8	VB1	PZ	.000316	.000316	0	%100
9	VB2	PX	-.000239	-.000239	0	%100
10	VB2	PZ	.000414	.000414	0	%100
11	SO1	PX	-.000292	-.000292	0	%100
12	SO1	PZ	.000505	.000505	0	%100
13	SO2	PX	-.000292	-.000292	0	%100
14	SO2	PZ	.000505	.000505	0	%100
15	H1	PX	-.00027	-.00027	0	%100
16	H1	PZ	.000467	.000467	0	%100
17	H2	PX	-.00027	-.00027	0	%100
18	H2	PZ	.000467	.000467	0	%100
19	TB2	PX	-.0002	-.0002	0	%100
20	TB2	PZ	.000346	.000346	0	%100
21	TB1	PX	-.000223	-.000223	0	%100
22	TB1	PZ	.000386	.000386	0	%100

**Member Distributed Loads (BLC 33 : Wind 240 Deg - Maintenance)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in.%]	End Location[in.%]
1	PM1	X	-.000476	-.000476	0	%100
2	PM1	Z	.000275	.000275	0	%100
3	PM2	X	-.000476	-.000476	0	%100
4	PM2	Z	.000275	.000275	0	%100
5	PM3	X	-.000387	-.000387	0	%100
6	PM3	Z	.000223	.000223	0	%100
7	VB1	PX	-.000316	-.000316	0	%100
8	VB1	PZ	.000182	.000182	0	%100



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**Member Distributed Loads (BLC 33 : Wind 240 Deg - Maintenance) (Continued)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft.F]	Start Location[in.%]	End Location[in.%]
9	VB2	PX	-0.00414	-0.00414	0	%100
10	VB2	PZ	0.00239	0.00239	0	%100
11	SO1	PX	-0.00551	-0.00551	0	%100
12	SO1	PZ	0.00318	0.00318	0	%100
13	SO2	PX	-0.00551	-0.00551	0	%100
14	SO2	PZ	0.00318	0.00318	0	%100
15	H1	PX	-0.00467	-0.00467	0	%100
16	H1	PZ	0.0027	0.0027	0	%100
17	H2	PX	-0.00467	-0.00467	0	%100
18	H2	PZ	0.0027	0.0027	0	%100
19	TB2	PX	-0.00228	-0.00228	0	%100
20	TB2	PZ	0.00132	0.00132	0	%100
21	TB1	PX	-0.00386	-0.00386	0	%100
22	TB1	PZ	0.00223	0.00223	0	%100

**Member Distributed Loads (BLC 34 : Wind 270 Deg - Maintenance)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft.F]	Start Location[in.%]	End Location[in.%]
1	PM1	X	-0.00549	-0.00549	0	%100
2	PM2	X	-0.00549	-0.00549	0	%100
3	PM3	X	-0.00447	-0.00447	0	%100
4	VB1	PX	-0.00365	-0.00365	0	%100
5	VB2	PX	-0.00478	-0.00478	0	%100
6	SO1	PX	-0.00655	-0.00655	0	%100
7	SO2	PX	-0.00655	-0.00655	0	%100
8	H1	PX	-0.00315	-0.00315	0	%100
9	H2	PX	-0.00315	-0.00315	0	%100
10	TB2	PX	-0.00357	-0.00357	0	%100
11	TB1	PX	-0.00399	-0.00399	0	%100

**Member Distributed Loads (BLC 35 : Wind 300 Deg - Maintenance)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft.F]	Start Location[in.%]	End Location[in.%]
1	PM1	X	-0.00476	-0.00476	0	%100
2	PM1	Z	-0.00275	-0.00275	0	%100
3	PM2	X	-0.00476	-0.00476	0	%100
4	PM2	Z	-0.00275	-0.00275	0	%100
5	PM3	X	-0.00387	-0.00387	0	%100
6	PM3	Z	-0.00223	-0.00223	0	%100
7	VB1	PX	-0.00316	-0.00316	0	%100
8	VB1	PZ	-0.00182	-0.00182	0	%100
9	VB2	PX	-0.00414	-0.00414	0	%100
10	VB2	PZ	-0.00239	-0.00239	0	%100
11	SO1	PX	-0.00551	-0.00551	0	%100
12	SO1	PZ	-0.00318	-0.00318	0	%100
13	SO2	PX	-0.00551	-0.00551	0	%100
14	SO2	PZ	-0.00318	-0.00318	0	%100
15	H1	PX	-0.00467	-0.00467	0	%100
16	H1	PZ	-0.0027	-0.0027	0	%100
17	H2	PX	-0.00467	-0.00467	0	%100
18	H2	PZ	-0.0027	-0.0027	0	%100
19	TB2	PX	-0.00386	-0.00386	0	%100
20	TB2	PZ	-0.00223	-0.00223	0	%100
21	TB1	PX	-0.00228	-0.00228	0	%100
22	TB1	PZ	-0.00132	-0.00132	0	%100

**Member Distributed Loads (BLC 36 : Wind 330 Deg - Maintenance)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft.F]	Start Location[in.%]	End Location[in.%]
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**Member Distributed Loads (BLC 36 : Wind 330 Deg - Maintenance) (Continued)**

Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in, %]	End Location[in, %]
1	PM1	X	- .000275	- .000275	0 %100
2	PM1	Z	- .000476	- .000476	0 %100
3	PM2	X	- .000275	- .000275	0 %100
4	PM2	Z	- .000476	- .000476	0 %100
5	PM3	X	- .000223	- .000223	0 %100
6	PM3	Z	- .000387	- .000387	0 %100
7	VB1	PX	- .000182	- .000182	0 %100
8	VB1	PZ	- .000316	- .000316	0 %100
9	VB2	PX	- .000239	- .000239	0 %100
10	VB2	PZ	- .000414	- .000414	0 %100
11	SO1	PX	- .000292	- .000292	0 %100
12	SO1	PZ	- .000505	- .000505	0 %100
13	SO2	PX	- .000292	- .000292	0 %100
14	SO2	PZ	- .000505	- .000505	0 %100
15	H1	PX	- .00027	- .00027	0 %100
16	H1	PZ	- .000467	- .000467	0 %100
17	H2	PX	- .00027	- .00027	0 %100
18	H2	PZ	- .000467	- .000467	0 %100
19	TB2	PX	- .000223	- .000223	0 %100
20	TB2	PZ	- .000386	- .000386	0 %100
21	TB1	PX	- .000179	- .000179	0 %100
22	TB1	PZ	- .000309	- .000309	0 %100

**Member Distributed Loads (BLC 38 : Dead - Ice)**

Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in, %]	End Location[in, %]
1	VB1	Y	- .008	- .008	0 %100
2	VB2	Y	- .01	- .01	0 %100
3	SO1	Y	- .012	- .012	0 %100
4	SO2	Y	- .012	- .012	0 %100
5	H1	Y	- .009	- .009	0 %100
6	H2	Y	- .009	- .009	0 %100
7	PM1	Y	- .01	- .01	0 %100
8	PM2	Y	- .01	- .01	0 %100
9	PM3	Y	- .008	- .008	0 %100
10	TB2	Y	- .008	- .008	0 %100
11	TB1	Y	- .008	- .008	0 %100

**Member Distributed Loads (BLC 54 : Earthquake 0 Deg)**

Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in, %]	End Location[in, %]
1	VB1	Z	- .00042	- .00042	0 %100
2	VB2	Z	- .000853	- .000853	0 %100
3	SO1	Z	- .001	- .001	0 %100
4	SO2	Z	- .001	- .001	0 %100
5	H1	Z	- .000663	- .000663	0 %100
6	H2	Z	- .000663	- .000663	0 %100
7	PM1	Z	- .000853	- .000853	0 %100
8	PM2	Z	- .000853	- .000853	0 %100
9	PM3	Z	- .000339	- .000339	0 %100
10	TB2	Z	- .00042	- .00042	0 %100
11	TB1	Z	- .00042	- .00042	0 %100

**Member Distributed Loads (BLC 55 : Earthquake 30 Deg)**

Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in, %]	End Location[in, %]
1	VB1	X	.00021	.00021	0 %100
2	VB1	Z	- .000364	- .000364	0 %100



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**Member Distributed Loads (BLC 55 : Earthquake 30 Deg) (Continued)**

Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in.%]	End Location[in.%]
3	VB2	X	.000426	.000426	0 %100
4	VB2	Z	-.000739	-.000739	0 %100
5	SO1	X	.000503	.000503	0 %100
6	SO1	Z	-.000871	-.000871	0 %100
7	SO2	X	.000503	.000503	0 %100
8	SO2	Z	-.000871	-.000871	0 %100
9	H1	X	.000332	.000332	0 %100
10	H1	Z	-.000574	-.000574	0 %100
11	H2	X	.000332	.000332	0 %100
12	H2	Z	-.000574	-.000574	0 %100
13	PM1	X	.000426	.000426	0 %100
14	PM1	Z	-.000739	-.000739	0 %100
15	PM2	X	.000426	.000426	0 %100
16	PM2	Z	-.000739	-.000739	0 %100
17	PM3	X	.00017	.00017	0 %100
18	PM3	Z	-.000294	-.000294	0 %100
19	TB2	X	.00021	.00021	0 %100
20	TB2	Z	-.000364	-.000364	0 %100
21	TB1	X	.00021	.00021	0 %100
22	TB1	Z	-.000364	-.000364	0 %100

**Member Distributed Loads (BLC 56 : Earthquake 60 Deg)**

Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in.%]	End Location[in.%]
1	VB1	X	.000364	.000364	0 %100
2	VB1	Z	-.00021	-.00021	0 %100
3	VB2	X	.000739	.000739	0 %100
4	VB2	Z	-.000426	-.000426	0 %100
5	SO1	X	.000871	.000871	0 %100
6	SO1	Z	-.000503	-.000503	0 %100
7	SO2	X	.000871	.000871	0 %100
8	SO2	Z	-.000503	-.000503	0 %100
9	H1	X	.000574	.000574	0 %100
10	H1	Z	-.000332	-.000332	0 %100
11	H2	X	.000574	.000574	0 %100
12	H2	Z	-.000332	-.000332	0 %100
13	PM1	X	.000739	.000739	0 %100
14	PM1	Z	-.000426	-.000426	0 %100
15	PM2	X	.000739	.000739	0 %100
16	PM2	Z	-.000426	-.000426	0 %100
17	PM3	X	.000294	.000294	0 %100
18	PM3	Z	-.00017	-.00017	0 %100
19	TB2	X	.000364	.000364	0 %100
20	TB2	Z	-.00021	-.00021	0 %100
21	TB1	X	.000364	.000364	0 %100
22	TB1	Z	-.00021	-.00021	0 %100

**Member Distributed Loads (BLC 57 : Earthquake 90 Deg)**

Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in.%]	End Location[in.%]
1	VB1	X	.00042	.00042	0 %100
2	VB2	X	.000853	.000853	0 %100
3	SO1	X	.001	.001	0 %100
4	SO2	X	.001	.001	0 %100
5	H1	X	.000663	.000663	0 %100
6	H2	X	.000663	.000663	0 %100
7	PM1	X	.000853	.000853	0 %100
8	PM2	X	.000853	.000853	0 %100



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**Member Distributed Loads (BLC 57 : Earthquake 90 Deg) (Continued)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in.%]	End Location[in.%]
9	PM3	X	.000339	.000339	0	%100
10	TB2	X	.00042	.00042	0	%100
11	TB1	X	.00042	.00042	0	%100

**Member Distributed Loads (BLC 58 : Earthquake 120 Deg)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in.%]	End Location[in.%]
1	VB1	X	.000364	.000364	0	%100
2	VB1	Z	.00021	.00021	0	%100
3	VB2	X	.000739	.000739	0	%100
4	VB2	Z	.000426	.000426	0	%100
5	SO1	X	.000871	.000871	0	%100
6	SO1	Z	.000503	.000503	0	%100
7	SO2	X	.000871	.000871	0	%100
8	SO2	Z	.000503	.000503	0	%100
9	H1	X	.000574	.000574	0	%100
10	H1	Z	.000332	.000332	0	%100
11	H2	X	.000574	.000574	0	%100
12	H2	Z	.000332	.000332	0	%100
13	PM1	X	.000739	.000739	0	%100
14	PM1	Z	.000426	.000426	0	%100
15	PM2	X	.000739	.000739	0	%100
16	PM2	Z	.000426	.000426	0	%100
17	PM3	X	.000294	.000294	0	%100
18	PM3	Z	.00017	.00017	0	%100
19	TB2	X	.000364	.000364	0	%100
20	TB2	Z	.00021	.00021	0	%100
21	TB1	X	.000364	.000364	0	%100
22	TB1	Z	.00021	.00021	0	%100

**Member Distributed Loads (BLC 59 : Earthquake 150 Deg)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in.%]	End Location[in.%]
1	VB1	X	.00021	.00021	0	%100
2	VB1	Z	.000364	.000364	0	%100
3	VB2	X	.000426	.000426	0	%100
4	VB2	Z	.000739	.000739	0	%100
5	SO1	X	.000503	.000503	0	%100
6	SO1	Z	.000871	.000871	0	%100
7	SO2	X	.000503	.000503	0	%100
8	SO2	Z	.000871	.000871	0	%100
9	H1	X	.000332	.000332	0	%100
10	H1	Z	.000574	.000574	0	%100
11	H2	X	.000332	.000332	0	%100
12	H2	Z	.000574	.000574	0	%100
13	PM1	X	.000426	.000426	0	%100
14	PM1	Z	.000739	.000739	0	%100
15	PM2	X	.000426	.000426	0	%100
16	PM2	Z	.000739	.000739	0	%100
17	PM3	X	.00017	.00017	0	%100
18	PM3	Z	.000294	.000294	0	%100
19	TB2	X	.00021	.00021	0	%100
20	TB2	Z	.000364	.000364	0	%100
21	TB1	X	.00021	.00021	0	%100
22	TB1	Z	.000364	.000364	0	%100

**Member Distributed Loads (BLC 60 : Earthquake 180 Deg)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in.%]	End Location[in.%]
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 Designer : MTB  
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**Member Distributed Loads (BLC 60 : Earthquake 180 Deg) (Continued)**

Member Label	Direction	Start Magnitude[k/ft	End Magnitude[k/ft F	Start Location[in, %]	End Location[in, %]
1	VB1	Z	.00042	.00042	0 %100
2	VB2	Z	.000853	.000853	0 %100
3	SO1	Z	.001	.001	0 %100
4	SO2	Z	.001	.001	0 %100
5	H1	Z	.000663	.000663	0 %100
6	H2	Z	.000663	.000663	0 %100
7	PM1	Z	.000853	.000853	0 %100
8	PM2	Z	.000853	.000853	0 %100
9	PM3	Z	.000339	.000339	0 %100
10	TB2	Z	.00042	.00042	0 %100
11	TB1	Z	.00042	.00042	0 %100

**Member Distributed Loads (BLC 61 : Earthquake 210 Deg)**

Member Label	Direction	Start Magnitude[k/ft	End Magnitude[k/ft F	Start Location[in, %]	End Location[in, %]
1	VB1	X	-.00021	-.00021	0 %100
2	VB1	Z	.000364	.000364	0 %100
3	VB2	X	-.000426	-.000426	0 %100
4	VB2	Z	.000739	.000739	0 %100
5	SO1	X	-.000503	-.000503	0 %100
6	SO1	Z	.000871	.000871	0 %100
7	SO2	X	-.000503	-.000503	0 %100
8	SO2	Z	.000871	.000871	0 %100
9	H1	X	-.000332	-.000332	0 %100
10	H1	Z	.000574	.000574	0 %100
11	H2	X	-.000332	-.000332	0 %100
12	H2	Z	.000574	.000574	0 %100
13	PM1	X	-.000426	-.000426	0 %100
14	PM1	Z	.000739	.000739	0 %100
15	PM2	X	-.000426	-.000426	0 %100
16	PM2	Z	.000739	.000739	0 %100
17	PM3	X	-.00017	-.00017	0 %100
18	PM3	Z	.000294	.000294	0 %100
19	TB2	X	-.00021	-.00021	0 %100
20	TB2	Z	.000364	.000364	0 %100
21	TB1	X	-.00021	-.00021	0 %100
22	TB1	Z	.000364	.000364	0 %100

**Member Distributed Loads (BLC 62 : Earthquake 240 Deg)**

Member Label	Direction	Start Magnitude[k/ft	End Magnitude[k/ft F	Start Location[in, %]	End Location[in, %]
1	VB1	X	-.000364	-.000364	0 %100
2	VB1	Z	.00021	.00021	0 %100
3	VB2	X	-.000739	-.000739	0 %100
4	VB2	Z	.000426	.000426	0 %100
5	SO1	X	-.000871	-.000871	0 %100
6	SO1	Z	.000503	.000503	0 %100
7	SO2	X	-.000871	-.000871	0 %100
8	SO2	Z	.000503	.000503	0 %100
9	H1	X	-.000574	-.000574	0 %100
10	H1	Z	.000332	.000332	0 %100
11	H2	X	-.000574	-.000574	0 %100
12	H2	Z	.000332	.000332	0 %100
13	PM1	X	-.000739	-.000739	0 %100
14	PM1	Z	.000426	.000426	0 %100
15	PM2	X	-.000739	-.000739	0 %100
16	PM2	Z	.000426	.000426	0 %100
17	PM3	X	-.000294	-.000294	0 %100



**Member Distributed Loads (BLC 62 : Earthquake 240 Deg) (Continued)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in.%]	End Location[in.%]
18	PM3	Z	.00017	.00017	0	%100
19	TB2	X	-.000364	-.000364	0	%100
20	TB2	Z	.00021	.00021	0	%100
21	TB1	X	-.000364	-.000364	0	%100
22	TB1	Z	.00021	.00021	0	%100

**Member Distributed Loads (BLC 63 : Earthquake 270 Deg)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in.%]	End Location[in.%]
1	VB1	X	-.00042	-.00042	0	%100
2	VB2	X	-.000853	-.000853	0	%100
3	SO1	X	-.001	-.001	0	%100
4	SO2	X	-.001	-.001	0	%100
5	H1	X	-.000663	-.000663	0	%100
6	H2	X	-.000663	-.000663	0	%100
7	PM1	X	-.000853	-.000853	0	%100
8	PM2	X	-.000853	-.000853	0	%100
9	PM3	X	-.000339	-.000339	0	%100
10	TB2	X	-.00042	-.00042	0	%100
11	TB1	X	-.00042	-.00042	0	%100

**Member Distributed Loads (BLC 64 : Earthquake 300 Deg)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in.%]	End Location[in.%]
1	VB1	X	-.000364	-.000364	0	%100
2	VB1	Z	-.00021	-.00021	0	%100
3	VB2	X	-.000739	-.000739	0	%100
4	VB2	Z	-.000426	-.000426	0	%100
5	SO1	X	-.000871	-.000871	0	%100
6	SO1	Z	-.000503	-.000503	0	%100
7	SO2	X	-.000871	-.000871	0	%100
8	SO2	Z	-.000503	-.000503	0	%100
9	H1	X	-.000574	-.000574	0	%100
10	H1	Z	-.000332	-.000332	0	%100
11	H2	X	-.000574	-.000574	0	%100
12	H2	Z	-.000332	-.000332	0	%100
13	PM1	X	-.000739	-.000739	0	%100
14	PM1	Z	-.000426	-.000426	0	%100
15	PM2	X	-.000739	-.000739	0	%100
16	PM2	Z	-.000426	-.000426	0	%100
17	PM3	X	-.000294	-.000294	0	%100
18	PM3	Z	-.00017	-.00017	0	%100
19	TB2	X	-.000364	-.000364	0	%100
20	TB2	Z	-.00021	-.00021	0	%100
21	TB1	X	-.000364	-.000364	0	%100
22	TB1	Z	-.00021	-.00021	0	%100

**Member Distributed Loads (BLC 65 : Earthquake 330 Deg)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in.%]	End Location[in.%]
1	VB1	X	-.00021	-.00021	0	%100
2	VB1	Z	-.000364	-.000364	0	%100
3	VB2	X	-.000426	-.000426	0	%100
4	VB2	Z	-.000739	-.000739	0	%100
5	SO1	X	-.000503	-.000503	0	%100
6	SO1	Z	-.000871	-.000871	0	%100
7	SO2	X	-.000503	-.000503	0	%100
8	SO2	Z	-.000871	-.000871	0	%100





**Member Distributed Loads (BLC 65 : Earthquake 330 Deg) (Continued)**

Member Label	Direction	Start Magnitude[k/ft	End Magnitude[k/ft F	Start Location[in.%]	End Location[in.%]
9	H1	X	- .000332	- .000332	0 %100
10	H1	Z	- .000574	- .000574	0 %100
11	H2	X	- .000332	- .000332	0 %100
12	H2	Z	- .000574	- .000574	0 %100
13	PM1	X	- .000426	- .000426	0 %100
14	PM1	Z	- .000739	- .000739	0 %100
15	PM2	X	- .000426	- .000426	0 %100
16	PM2	Z	- .000739	- .000739	0 %100
17	PM3	X	- .00017	- .00017	0 %100
18	PM3	Z	- .000294	- .000294	0 %100
19	TB2	X	- .00021	- .00021	0 %100
20	TB2	Z	- .000364	- .000364	0 %100
21	TB1	X	- .00021	- .00021	0 %100
22	TB1	Z	- .000364	- .000364	0 %100

**Basic Load Cases**

BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distribut	Area(M	Surface
1	Wind 0 Deg - No Ice	None				8	11		
2	Wind 30 Deg - No Ice	None				16	22		
3	Wind 60 Deg - No Ice	None				16	22		
4	Wind 90 Deg - No Ice	None				8	11		
5	Wind 120 Deg - No Ice	None				16	22		
6	Wind 150 Deg - No Ice	None				16	22		
7	Wind 180 Deg - No Ice	None				8	11		
8	Wind 210 Deg - No Ice	None				16	22		
9	Wind 240 Deg - No Ice	None				16	22		
10	Wind 270 Deg - No Ice	None				8	11		
11	Wind 300 Deg - No Ice	None				16	22		
12	Wind 330 Deg - No Ice	None				16	22		
13	Wind 0 Deg - Ice	None				8	11		
14	Wind 30 Deg - Ice	None				16	22		
15	Wind 60 Deg - Ice	None				16	22		
16	Wind 90 Deg - Ice	None				8	11		
17	Wind 120 Deg - Ice	None				16	22		
18	Wind 150 Deg - Ice	None				16	22		
19	Wind 180 Deg - Ice	None				8	11		
20	Wind 210 Deg - Ice	None				16	22		
21	Wind 240 Deg - Ice	None				16	22		
22	Wind 270 Deg - Ice	None				8	11		
23	Wind 300 Deg - Ice	None				16	22		
24	Wind 330 Deg - Ice	None				16	22		
25	Wind 0 Deg - Maintenance	None				8	11		
26	Wind 30 Deg - Maintenance	None				16	22		
27	Wind 60 Deg - Maintenance	None				16	22		
28	Wind 90 Deg - Maintenance	None				8	11		
29	Wind 120 Deg - Maintenance	None				16	22		
30	Wind 150 Deg - Maintenance	None				16	22		
31	Wind 180 Deg - Maintenance	None				8	11		
32	Wind 210 Deg - Maintenance	None				16	22		
33	Wind 240 Deg - Maintenance	None				16	22		
34	Wind 270 Deg - Maintenance	None				8	11		
35	Wind 300 Deg - Maintenance	None				16	22		
36	Wind 330 Deg - Maintenance	None				16	22		
37	Dead	None		-1		8			
38	Dead - Ice	None				8	11		



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**Basic Load Cases (Continued)**

BI C.	Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distribut	Area(M	Surface
39	Maint. Pipe Load 1	None					1			
40	Maint. Pipe Load 2	None					1			
41	Maint. Pipe Load 3	None					1			
42	Maint. Horz. Load 1	None					1			
43	Maint. Horz. Load 2	None					1			
44	Maint. Horz. Load 3	None					1			
45	Maint. Horz. Load 4	None					1			
46	Maint. Horz. Load 5	None					1			
47	Maint. Horz. Load 6	None					1			
48	Maint. Horz. Load 7	None					1			
49	Maint. Horz. Load 8	None					1			
50	Maint. Horz. Load 9	None					1			
51	Maint. Horz. Load 10	None					1			
52	Maint. Horz. Load 11	None					1			
53	Maint. Horz. Load 12	None					1			
54	Earthquake 0 Deg	None					8	11		
55	Earthquake 30 Deg	None					16	22		
56	Earthquake 60 Deg	None					16	22		
57	Earthquake 90 Deg	None					8	11		
58	Earthquake 120 Deg	None					16	22		
59	Earthquake 150 Deg	None					16	22		
60	Earthquake 180 Deg	None					8	11		
61	Earthquake 210 Deg	None					16	22		
62	Earthquake 240 Deg	None					16	22		
63	Earthquake 270 Deg	None					8	11		
64	Earthquake 300 Deg	None					16	22		
65	Earthquake 330 Deg	None					16	22		

**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	1.2 Dead ...	Yes	Y		37	1.2	1	1						
2	1.2 Dead ...	Yes	Y		37	1.2	2	1						
3	1.2 Dead ...	Yes	Y		37	1.2	3	1						
4	1.2 Dead ...	Yes	Y		37	1.2	4	1						
5	1.2 Dead ...	Yes	Y		37	1.2	5	1						
6	1.2 Dead ...	Yes	Y		37	1.2	6	1						
7	1.2 Dead ...	Yes	Y		37	1.2	7	1						
8	1.2 Dead ...	Yes	Y		37	1.2	8	1						
9	1.2 Dead ...	Yes	Y		37	1.2	9	1						
10	1.2 Dead ...	Yes	Y		37	1.2	10	1						
11	1.2 Dead ...	Yes	Y		37	1.2	11	1						
12	1.2 Dead ...	Yes	Y		37	1.2	12	1						
13	1.2 Dead ...	Yes	Y		37	1.2	38	1	13	1				
14	1.2 Dead ...	Yes	Y		37	1.2	38	1	14	1				
15	1.2 Dead ...	Yes	Y		37	1.2	38	1	15	1				
16	1.2 Dead ...	Yes	Y		37	1.2	38	1	16	1				
17	1.2 Dead ...	Yes	Y		37	1.2	38	1	17	1				
18	1.2 Dead ...	Yes	Y		37	1.2	38	1	18	1				
19	1.2 Dead ...	Yes	Y		37	1.2	38	1	19	1				
20	1.2 Dead ...	Yes	Y		37	1.2	38	1	20	1				
21	1.2 Dead ...	Yes	Y		37	1.2	38	1	21	1				
22	1.2 Dead ...	Yes	Y		37	1.2	38	1	22	1				
23	1.2 Dead ...	Yes	Y		37	1.2	38	1	23	1				
24	1.2 Dead ...	Yes	Y		37	1.2	38	1	24	1				
25	1.4 Dead ...	Yes	Y		37	1.4								



Company : FDH-IS  
 Designer : MTB  
 Job Number : 19BLAP1400 (Beta)  
 Model Name : 806353\_BRG\_124\_943066

May 22, 2019  
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**Load Combinations (Continued)**

Description	Sol	PD	SR	Bl C	Fact	Bl C	Fact	Bl C	Fact	Bl C	Fact	Bl C	Fact	Bl C	Fact	Bl C	Fact
26	1.2 Dead ...	Yes	Y	37	1.2	39	1.5	25	1								
27	1.2 Dead ...	Yes	Y	37	1.2	39	1.5	26	1								
28	1.2 Dead ...	Yes	Y	37	1.2	39	1.5	27	1								
29	1.2 Dead ...	Yes	Y	37	1.2	39	1.5	28	1								
30	1.2 Dead ...	Yes	Y	37	1.2	39	1.5	29	1								
31	1.2 Dead ...	Yes	Y	37	1.2	39	1.5	30	1								
32	1.2 Dead ...	Yes	Y	37	1.2	39	1.5	31	1								
33	1.2 Dead ...	Yes	Y	37	1.2	39	1.5	32	1								
34	1.2 Dead ...	Yes	Y	37	1.2	39	1.5	33	1								
35	1.2 Dead ...	Yes	Y	37	1.2	39	1.5	34	1								
36	1.2 Dead ...	Yes	Y	37	1.2	39	1.5	35	1								
37	1.2 Dead ...	Yes	Y	37	1.2	39	1.5	36	1								
38	1.2 Dead ...	Yes	Y	37	1.2	40	1.5	25	1								
39	1.2 Dead ...	Yes	Y	37	1.2	40	1.5	26	1								
40	1.2 Dead ...	Yes	Y	37	1.2	40	1.5	27	1								
41	1.2 Dead ...	Yes	Y	37	1.2	40	1.5	28	1								
42	1.2 Dead ...	Yes	Y	37	1.2	40	1.5	29	1								
43	1.2 Dead ...	Yes	Y	37	1.2	40	1.5	30	1								
44	1.2 Dead ...	Yes	Y	37	1.2	40	1.5	31	1								
45	1.2 Dead ...	Yes	Y	37	1.2	40	1.5	32	1								
46	1.2 Dead ...	Yes	Y	37	1.2	40	1.5	33	1								
47	1.2 Dead ...	Yes	Y	37	1.2	40	1.5	34	1								
48	1.2 Dead ...	Yes	Y	37	1.2	40	1.5	35	1								
49	1.2 Dead ...	Yes	Y	37	1.2	40	1.5	36	1								
50	1.2 Dead ...	Yes	Y	37	1.2	41	1.5	25	1								
51	1.2 Dead ...	Yes	Y	37	1.2	41	1.5	26	1								
52	1.2 Dead ...	Yes	Y	37	1.2	41	1.5	27	1								
53	1.2 Dead ...	Yes	Y	37	1.2	41	1.5	28	1								
54	1.2 Dead ...	Yes	Y	37	1.2	41	1.5	29	1								
55	1.2 Dead ...	Yes	Y	37	1.2	41	1.5	30	1								
56	1.2 Dead ...	Yes	Y	37	1.2	41	1.5	31	1								
57	1.2 Dead ...	Yes	Y	37	1.2	41	1.5	32	1								
58	1.2 Dead ...	Yes	Y	37	1.2	41	1.5	33	1								
59	1.2 Dead ...	Yes	Y	37	1.2	41	1.5	34	1								
60	1.2 Dead ...	Yes	Y	37	1.2	41	1.5	35	1								
61	1.2 Dead ...	Yes	Y	37	1.2	41	1.5	36	1								
62	1.2 Dead ...	Yes	Y	37	1.2	42	1.5										
63	1.2 Dead ...	Yes	Y	37	1.2	43	1.5										
64	1.2 Dead ...	Yes	Y	37	1.2	44	1.5										
65	1.2 Dead ...	Yes	Y	37	1.2	45	1.5										
66	1.2 Dead ...	Yes	Y	37	1.2	46	1.5										
67	1.2 Dead ...	Yes	Y	37	1.2	47	1.5										
68	1.2 Dead ...	Yes	Y	37	1.2	48	1.5										
69	1.2 Dead ...	Yes	Y	37	1.2	49	1.5										
70	1.2 Dead ...	Yes	Y	37	1.2	50	1.5										
71	1.2 Dead ...	Yes	Y	37	1.2	51	1.5										
72	1.2 Dead ...	Yes	Y	37	1.2	52	1.5										
73	1.2 Dead ...	Yes	Y	37	1.2	53	1.5										
74	1.2 Dead ...	Yes	Y	37	1.2	54	1										
75	1.2 Dead ...	Yes	Y	37	1.2	55	1										
76	1.2 Dead ...	Yes	Y	37	1.2	56	1										
77	1.2 Dead ...	Yes	Y	37	1.2	57	1										
78	1.2 Dead ...	Yes	Y	37	1.2	58	1										
79	1.2 Dead ...	Yes	Y	37	1.2	59	1										
80	1.2 Dead ...	Yes	Y	37	1.2	60	1										
81	1.2 Dead ...	Yes	Y	37	1.2	61	1										
82	1.2 Dead ...	Yes	Y	37	1.2	62	1										



### Load Combinations (Continued)

Description	Sol	PD	SR	BI	C	Fact	BI	C	Fact	BI	C	Fact	BI	C	Fact	BI	C	Fact	BI	C	Fact	
83	1.2 Dead ...	Yes	Y		37	1.2	63	1														
84	1.2 Dead ...	Yes	Y		37	1.2	64	1														
85	1.2 Dead ...	Yes	Y		37	1.2	65	1														

### Envelope Joint Reactions

	Joint		X [k]	LC	Y [k]	LC	Z [k]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
1	N1	max	1.191	33	1.177	19	1.067	1	-565	9	1.629	37	286	32
2		min	-1.214	51	.339	1	-586	7	-1.47	15	-1.548	55	-554	50
3	N2	max	1.03	61	1.207	13	-.031	12	-.414	7	2.216	12	.278	33
4		min	-1.185	31	.349	7	-.554	18	-1.527	13	-2.049	6	-.576	51
5	N33A	max	.714	7	.045	19	.294	1	0	85	0	85	0	85
6		min	-.608	1	.01	1	-.365	7	0	1	0	1	0	1
7	N34	max	.242	2	.042	20	.191	2	0	85	0	85	0	85
8		min	-.269	8	.014	2	-.21	8	0	1	0	1	0	1
9	Totals:	max	.842	10	2.421	19	1.436	1						
10		min	-.842	4	.957	1	-1.436	7						

### Envelope Joint Displacements

	Joint		X [in]	LC	Y [in]	LC	Z [in]	LC	X Rotation	LC	Y Rotation	LC	Z Rotation [	LC
1	N1	max	0	85	0	85	0	85	0	85	0	85	0	85
2		min	0	1	0	1	0	1	0	1	0	1	0	1
3	N2	max	0	85	0	85	0	85	0	85	0	85	0	85
4		min	0	1	0	1	0	1	0	1	0	1	0	1
5	N3	max	0	85	0	85	0	85	0	85	0	85	0	85
6		min	0	1	0	1	0	1	0	1	0	1	0	1
7	N4	max	0	85	0	85	0	85	0	85	0	85	0	85
8		min	0	1	0	1	0	1	0	1	0	1	0	1
9	N5	max	.044	6	-.005	7	0	7	8.234e-04	13	4.094e-03	6	2.436e-03	50
10		min	-.043	12	-.022	13	0	1	-1.502e-04	7	-4.127e-03	12	-1.255e-03	32
11	N6	max	.053	6	-.006	7	0	18	7.458e-04	14	4.137e-03	6	2.529e-03	51
12		min	-.057	12	-.022	14	0	12	1.104e-04	8	-4.464e-03	12	-1.221e-03	33
13	N7	max	.044	6	.023	50	.123	8	2.749e-03	2	2.508e-03	2	1.044e-03	50
14		min	-.043	12	-.572	32	-.144	3	-2.35e-03	8	-2.326e-03	8	-3.914e-03	73
15	N8	max	.053	6	.023	50	.054	58	2.826e-03	2	2.19e-03	2	1.04e-03	58
16		min	-.056	12	-.571	32	-.12	28	-2.466e-03	8	-1.662e-03	8	-3.871e-03	70
17	N9	max	.045	6	-.181	33	1.691	7	1.504e-02	1	2.439e-02	7	1.005e-02	72
18		min	-.042	12	-1.098	51	-1.817	1	-1.479e-02	7	-2.587e-02	1	6.673e-04	11
19	N10	max	.054	6	-.064	7	1.25	7	4.651e-03	2	1.97e-02	7	8.69e-03	69
20		min	-.059	12	-1.083	50	-1.421	1	-5.534e-03	8	-2.26e-02	1	-4.127e-03	7
21	N11	max	.044	6	.007	50	.097	9	2.749e-03	2	2.498e-03	2	1.053e-03	50
22		min	-.043	12	-.526	32	-.116	3	-2.35e-03	8	-2.316e-03	8	-3.082e-03	32
23	N12	max	.053	6	.007	50	.055	12	2.826e-03	2	2.179e-03	2	1.05e-03	58
24		min	-.056	12	-.526	32	-.091	31	-2.466e-03	8	-1.652e-03	8	-2.975e-03	28
25	N13	max	.04	6	.004	50	.097	9	2.749e-03	2	2.498e-03	2	1.053e-03	50
26		min	-.038	12	-.525	32	-.116	3	-2.35e-03	8	-2.316e-03	8	-3.082e-03	32
27	N14	max	.05	6	.004	50	.055	12	2.826e-03	2	2.179e-03	2	1.05e-03	58
28		min	-.052	12	-.526	32	-.091	31	-2.466e-03	8	-1.652e-03	8	-2.975e-03	28
29	N15	max	.084	31	.003	50	.082	12	2.872e-03	2	2.156e-03	2	1.066e-03	58
30		min	-.049	61	-.526	32	-.094	31	-2.525e-03	8	-1.626e-03	8	-2.951e-03	28
31	N16	max	.036	6	.004	50	.105	9	2.763e-03	2	2.498e-03	2	1.053e-03	50
32		min	-.039	37	-.525	32	-.126	3	-2.364e-03	8	-2.316e-03	8	-3.082e-03	32
33	N17	max	.044	6	.002	50	.03	12	5.251e-04	1	2.509e-03	6	1.386e-03	50
34		min	-.043	12	-.036	32	-.031	6	-2.777e-04	7	-2.493e-03	12	-2.81e-03	32
35	N18	max	.053	6	.002	58	.035	12	5.254e-04	52	2.854e-03	6	1.374e-03	50



**Envelope Joint Displacements (Continued)**

Joint		X [in]	I.C.	Y [in]	I.C.	Z [in]	I.C.	X Rotation	I.C.	Y Rotation	I.C.	Z Rotation	I.C.	
36		min	-057	12	-036	32	-033	6	-1.675e-04	34	-2.944e-03	12	-2.82e-03	32
37	N19	max	052	6	0	58	03	12	5.251e-04	1	2.509e-03	6	1.386e-03	50
38		min	-051	12	-036	28	-031	6	-2.777e-04	7	-2.493e-03	12	-2.81e-03	32
39	N20	max	062	6	0	58	035	12	5.254e-04	52	2.854e-03	6	1.374e-03	50
40		min	-066	12	-036	28	-033	6	-1.675e-04	34	-2.944e-03	12	-2.82e-03	32
41	N21	max	079	31	0	58	036	12	5.234e-04	55	2.854e-03	6	1.374e-03	50
42		min	-069	12	-036	28	-029	6	-1.653e-04	34	-2.944e-03	12	-2.82e-03	32
43	N22	max	05	6	0	58	028	12	5.436e-04	1	2.509e-03	6	1.386e-03	50
44		min	-05	12	-036	28	-029	6	-2.961e-04	7	-2.493e-03	12	-2.81e-03	32
45	N23	max	045	6	-158	7	1.326	7	1.504e-02	1	2.438e-02	7	9.889e-03	54
46		min	-042	12	-951	50	-1.429	1	-1.479e-02	7	-2.586e-02	1	6.581e-04	11
47	N24	max	054	6	-126	7	954	7	4.651e-03	2	1.968e-02	7	8.587e-03	1
48		min	-059	12	-958	50	-1.082	1	-5.534e-03	8	-2.259e-02	1	-4.136e-03	7
49	N25	max	118	6	-111	7	1.326	7	1.504e-02	1	2.438e-02	7	9.889e-03	54
50		min	-119	12	-951	50	-1.429	1	-1.479e-02	7	-2.586e-02	1	6.581e-04	11
51	N26	max	115	6	-11	7	954	7	4.651e-03	2	1.968e-02	7	8.587e-03	1
52		min	-128	12	-951	50	-1.082	1	-5.534e-03	8	-2.259e-02	1	-4.136e-03	7
53	N27	max	541	6	-111	7	89	6	1.696e-03	2	1.911e-02	7	2.148e-02	12
54		min	-628	12	-951	50	-1.063	12	-5.425e-03	69	-2.209e-02	1	-1.939e-02	6
55	N28	max	486	5	-111	7	2.368	7	2.651e-02	1	2.438e-02	7	1.083e-02	5
56		min	-253	11	-951	50	-2.482	1	-2.626e-02	7	-2.586e-02	1	-5.522e-03	11
57	N29	max	425	6	-111	7	897	6	2.03e-03	2	1.911e-02	7	2.128e-02	12
58		min	-5	12	-951	50	-1.054	12	-5.425e-03	69	-2.209e-02	1	-1.919e-02	6
59	N30	max	425	6	-092	7	916	6	2.03e-03	2	1.911e-02	7	2.128e-02	12
60		min	-5	12	-956	50	-1.076	12	-5.425e-03	69	-2.209e-02	1	-1.919e-02	6
61	N32	max	067	31	003	50	072	12	2.873e-03	2	2.156e-03	2	1.066e-03	58
62		min	-05	12	-526	32	-093	31	-2.526e-03	8	-1.626e-03	8	-2.95e-03	28
63	N33	max	067	31	005	50	07	12	2.873e-03	2	2.156e-03	2	1.066e-03	58
64		min	-05	12	-528	32	-095	31	-2.526e-03	8	-1.626e-03	8	-2.95e-03	28
65	N33A	max	0	85	0	85	0	85	7.115e-03	6	1.332e-02	6	1.388e-02	50
66		min	0	1	0	1	0	1	-6.73e-03	12	-1.552e-02	12	-9.91e-04	7
67	N34	max	0	85	0	85	0	85	3.086e-03	14	1.433e-03	31	5.01e-04	51
68		min	0	1	0	1	0	1	-6.48e-04	8	-9.194e-04	61	-6.907e-03	33

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

Mem	Shape	Code Check	Loc[in]	I.C.	Shear	Loc[in]	Dir	I.C.	phi*Pnc	phi*Pnt [k]	phi*Mn	phi*Mn	ChEqn	
1	VB1	PIPE 2.0	002	36	12	001	36		12	28.843	32.13	1.872	1.872	2...H...
2	VB2	PIPE 3.0	187	0	51	101	36		50	62.138	65.205	5.749	5.749	2...H...
3	SO1	HSS3X3X4	302	0	12	116	0	z	50	98.68	101.016	8.556	8.556	2...H...
4	SO2	HSS3X3X4	259	0	37	120	0	z	51	98.68	101.016	8.556	8.556	2...H...
5	H1	PIPE 2.5	563	87.5	52	100	87.5		26	10.696	50.715	3.596	3.596	1...H...
6	H2	PIPE 2.5	630	87.5	1	199	87.5		1	10.696	50.715	3.596	3.596	1...H...
7	PM1	PIPE 3.0	219	51.203	37	061	51.203		33	62.138	65.205	5.749	5.749	2...H...
8	PM2	PIPE 3.0	189	51.203	37	069	51.203		33	62.138	65.205	5.749	5.749	2...H...
9	PM3	HSS2.375X0.125	827	27	6	151	28.125		56	13.102	25.925	1.554	1.554	1...H...
10	TB2	PIPE 2.0	043	40	19	004	80		19	18.857	32.13	1.872	1.872	1...H...
11	TB1	PIPE 2.0	039	40	20	004	0		20	18.857	32.13	1.872	1.872	1...H...



Company : FDH-IS  
 Designer : MTB  
 Job Number : 19BLAP1400 (Gamma)  
 Model Name : 806353\_BRG\_124\_943066

May 22, 2019  
 10:32 AM  
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**(Global) Model Settings**

Display Sections for Member Calcs	5
Max Internal Sections for Member Calcs	97
Include Shear Deformation?	Yes
Increase Nailing Capacity for Wind?	Yes
Include Warping?	Yes
Trans Load Btwn Intersecting Wood Wall?	Yes
Area Load Mesh (in^2)	144
Merge Tolerance (in)	.12
P-Delta Analysis Tolerance	0.50%
Include P-Delta for Walls?	Yes
Automatically Iterate Stiffness for Walls?	Yes
Max Iterations for Wall Stiffness	3
Gravity Acceleration (in/sec^2)	386.4
Wall Mesh Size (in)	12
Eigensolution Convergence Tol. (1.E-)	4
Vertical Axis	Y
Global Member Orientation Plane	XZ
Static Solver	Sparse Accelerated
Dynamic Solver	Accelerated Solver

Hot Rolled Steel Code	AISC 15th(360-16): LRFD
Adjust Stiffness?	Yes(Iterative)
RISAConnection Code	AISC 14th(360-10): LRFD
Cold Formed Steel Code	AISI S100-12: LRFD
Wood Code	AWC NDS-12: ASD
Wood Temperature	< 100F
Concrete Code	ACI 318-11
Masonry Code	ACI 530-11: ASD
Aluminum Code	AA ADM1-10: ASD - Building
Stainless Steel Code	AISC 14th(360-10): ASD
Adjust Stiffness?	Yes(Iterative)

Number of Shear Regions	4
Region Spacing Increment (in)	4
Biaxial Column Method	Exact Integration
Parme Beta Factor (PCA)	.65
Concrete Stress Block	Rectangular
Use Cracked Sections?	Yes
Use Cracked Sections Slab?	No
Bad Framing Warnings?	No
Unused Force Warnings?	Yes
Min 1 Bar Diam. Spacing?	No
Concrete Rebar Set	REBAR SET ASTMA615
Min % Steel for Column	1
Max % Steel for Column	8

**(Global) Model Settings, Continued**

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

**Hot Rolled Steel Properties**

	Label	F [ksi]	G [ksi]	Nu	Therm (1E5 F)	Density[k/ft^3]	Yield[ksi]	Ry	Fu[ksi]	Rt
1	A36 Gr.36	29000	11154	.3	.65	.49	36	1.5	58	1.2
2	A572 Gr.50	29000	11154	.3	.65	.49	50	1.1	65	1.1
3	A992	29000	11154	.3	.65	.49	50	1.1	65	1.1
4	A500 Gr.B RND	29000	11154	.3	.65	.527	42	1.4	58	1.3
5	A500 Gr.B Rect	29000	11154	.3	.65	.527	46	1.4	58	1.3
6	A53 Gr.B	29000	11154	.3	.65	.49	35	1.6	60	1.2
7	A1085	29000	11154	.3	.65	.49	50	1.4	65	1.3

**General Material Properties**

	Label	F [ksi]	G [ksi]	Nu	Therm (1E5 F)	Density[k/ft^3]
1	gen_Conc3NW	3155	1372	.15	.6	.145
2	gen_Conc4NW	3644	1584	.15	.6	.145
3	gen_Conc3LW	2085	906	.15	.6	.11
4	gen_Conc4LW	2408	1047	.15	.6	.11
5	gen_Alum	10600	4077	.3	1.29	.173
6	gen_Steel	29000	11154	.3	.65	.49
7	RIGID	1e+6		.3	0	0

**Material Takeoff**

	Material	Size	Pieces	Length[in]	Weight[K]
1	General				
2	RIGID		10	27.1	0
3	Total General		10	27.1	0
4					
5	Hot Rolled Steel				
6	A500 Gr.B Rect	HSS3X3X4	2	41.5	0
7	A53 Gr.B	HSS2.375X0.125	1	108	0



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### Material Takeoff (Continued)

	Material	Size	Pieces	Length[in]	Weight[K]
8	A53 Gr.B	PIPE 2.0	3	196	0
9	A53 Gr.B	PIPE 2.5	2	350	2
10	A53 Gr.B	PIPE 3.0	3	149	0
11	Total HR Steel		11	844.5	4

### Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotate	Section/Shape	Type	Design List	Material	Design
1	M1	N2	N4			RIGID	None	None	RIGID	Typical
2	M2	N1	N3			RIGID	None	None	RIGID	Typical
3	VB1	N4	N3			Vertical Standoff Bracing 2.375"	Colu...	Pipe	A53 Gr.B	Typical
4	VB2	N6	N5			Vertical Standoff Bracing 3.5"	Colu...	Pipe	A53 Gr.B	Typical
5	SO1	N4	N6			Standoff	Beam	SquareT...	A500 Gr.B Rect	Typical
6	SO2	N3	N5			Standoff	Beam	SquareT...	A500 Gr.B Rect	Typical
7	H1	N10	N8			Horizontals	Beam	Pipe	A53 Gr.B	Typical
8	H2	N9	N7			Horizontals	Beam	Pipe	A53 Gr.B	Typical
9	M9	N12	N14			RIGID	None	None	RIGID	Typical
10	M10	N11	N13			RIGID	None	None	RIGID	Typical
11	PM1	N15	N16			Pipe Mounts 3.5"	Colu...	Pipe	A53 Gr.B	Typical
12	M12	N18	N20			RIGID	None	None	RIGID	Typical
13	PM2	N21	N22			Pipe Mounts 3.5"	Colu...	Pipe	A53 Gr.B	Typical
14	M14	N17	N19			RIGID	None	None	RIGID	Typical
15	M15	N24	N26			RIGID	None	None	RIGID	Typical
16	PM3	N27	N28			Pipe Mounts HSS 2.375 x 0.125	Colu...	Pipe	A53 Gr.B	Typical
17	M17	N23	N25			RIGID	None	None	RIGID	Typical
18	M18	N29	N30			RIGID	None	None	RIGID	Typical
19	M20	N32	N33			RIGID	None	None	RIGID	Typical
20	TB2	N30	N33A			Tie Back	Beam	Pipe	A53 Gr.B	Typical
21	TB1	N33	N34			Tie Back	Beam	Pipe	A53 Gr.B	Typical

### Hot Rolled Steel Design Parameters

	Label	Shape	Length[in]	I byy[in]	I bzz[in]	I comp top	I comp bot	I-torq	Kyy	Kzz	Cb	Funct
1	VB1	Vertical Standoff Bracing...	36									Lateral
2	VB2	Vertical Standoff Bracin...	36									Lateral
3	SO1	Standoff	20.75			I bvv						Lateral
4	SO2	Standoff	20.75			I byy						Lateral
5	H1	Horizontals	175			I bvv						Lateral
6	H2	Horizontals	175			I byy						Lateral
7	PM1	Pipe Mounts 3.5"	56.5	36	36				1	1		Lateral
8	PM2	Pipe Mounts 3.5"	56.5	36	36				1	1		Lateral
9	PM3	Pipe Mounts HSS 2.375 ..	108	44	44				2.1	2.1		Lateral
10	TB2	Tie Back	80			I byy						Lateral
11	TB1	Tie Back	80			I byy						Lateral

### Member Advanced Data

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rat	Analysis	Inactive	Seismic
1	M1						Yes	** NA **			None
2	M2						Yes	** NA **			None
3	VB1						Yes	** NA **			None
4	VB2						Yes	** NA **			None
5	SO1						Yes				None
6	SO2						Yes				None
7	H1						Yes				None





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### Member Advanced Data (Continued)

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rat	Analysis	Inactive	Seismic
8	H2						Yes				None
9	M9						Yes	** NA **			None
10	M10						Yes	** NA **			None
11	PM1						Yes	** NA **			None
12	M12						Yes	** NA **			None
13	PM2						Yes	** NA **			None
14	M14						Yes	** NA **			None
15	M15						Yes	** NA **			None
16	PM3						Yes	** NA **			None
17	M17						Yes	** NA **			None
18	M18						Yes	** NA **			None
19	M20						Yes	** NA **			None
20	TB2	BenPIN					Yes	Default			None
21	TB1	BenPIN					Yes	Default			None

### Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design Ru	A [in <sup>2</sup> ]	I <sub>yy</sub> [in <sup>4</sup> ]	I <sub>zz</sub> [in <sup>4</sup> ]	J [in <sup>4</sup> ]
1	Standoff	HSS3X3X4	Beam	SquareTube	A500 Gr.B R...	Typical	2.44	3.02	3.02	5.08
2	Horizontals	PIPE 2.5	Beam	Pipe	A53 Gr.B	Typical	1.61	1.45	1.45	2.89
3	Pipe Mounts 3.5"	PIPE 3.0	Column	Pipe	A53 Gr.B	Typical	2.07	2.85	2.85	5.69
4	Pipe Mounts HSS 2.375 x 0.125	HSS2.375X0.125	Column	Pipe	A53 Gr.B	Typical	.823	.527	.527	1.05
5	Tie Back	PIPE 2.0	Beam	Pipe	A53 Gr.B	Typical	1.02	.627	.627	1.25
6	Vertical Standoff Bracing 2.375"	PIPE 2.0	Column	Pipe	A53 Gr.B	Typical	1.02	.627	.627	1.25
7	Vertical Standoff Bracing 3.5"	PIPE 3.0	Column	Pipe	A53 Gr.B	Typical	2.07	2.85	2.85	5.69

### Joint Coordinates and Temperatures

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Diap
1	N1	0	-18	0	0	
2	N2	0	18	0	0	
3	N3	0	-18	3	0	
4	N4	0	18	3	0	
5	N5	0	-18	23.75	0	
6	N6	0	18	23.75	0	
7	N7	87.5	-18	23.75	0	
8	N8	87.5	18	23.75	0	
9	N9	-87.5	-18	23.75	0	
10	N10	-87.5	18	23.75	0	
11	N11	72.5	-18	23.75	0	
12	N12	72.5	18	23.75	0	
13	N13	72.5	-18	26.9375	0	
14	N14	72.5	18	26.9375	0	
15	N15	72.5	33.5	26.9375	0	
16	N16	72.5	-23	26.9375	0	
17	N17	9.5	-18	23.75	0	
18	N18	9.5	18	23.75	0	
19	N19	9.5	-18	26.9375	0	
20	N20	9.5	18	26.9375	0	
21	N21	9.5	33.5	26.9375	0	
22	N22	9.5	-23	26.9375	0	
23	N23	-72.5	-18	23.75	0	
24	N24	-72.5	18	23.75	0	
25	N25	-72.5	-18	26.9375	0	
26	N26	-72.5	18	26.9375	0	
27	N27	-72.5	46	26.9375	0	



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**Joint Coordinates and Temperatures (Continued)**

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Diap
28	N28	-72.5	-62	26.9375	0	
29	N29	-72.5	40	26.9375	0	
30	N30	-73.5	40	26.9375	0	
31	N32	72.5	27.5	26.9375	0	
32	N33	73.5	27.5	26.9375	0	
33	N33A	-0.995377	40	-6.871961	0	
34	N34	7.967836	27.5	-18.948615	0	

**Joint Boundary Conditions**

	Joint Label	X [k/in]	Y [k/in]	Z [k/in]	X Rot [k-ft/rad]	Y Rot [k-ft/rad]	Z Rot [k-ft/rad]
1	N1	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
2	N2	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
3	N3						
4	N4						
5	N5						
6	N6						
7	N7						
8	N8						
9	N9						
10	N10						
11	N11						
12	N12						
13	N13						
14	N14						
15	N15						
16	N16						
17	N17						
18	N18						
19	N19						
20	N20						
21	N21						
22	N22						
23	N23						
24	N24						
25	N25						
26	N26						
27	N27						
28	N28						
29	N29						
30	N30						
31	N32						
32	N33						
33	N33A	Reaction	Reaction	Reaction			
34	N34	Reaction	Reaction	Reaction			

**Joint Loads and Enforced Displacements**

Joint Label	I, D, M	Direction	Magnitude[(k, k-ft), (in, rad), (k*s^2/i)]
No Data to Print ...			

**Member Point Loads (BLC 1 : Wind 0 Deg - No Ice)**

Member Label	Direction	Magnitude[k, k-ft]	Location[in, %]
1 PM1	Z	-0.92	%9.735



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**Member Point Loads (BLC 1 : Wind 0 Deg - No Ice) (Continued)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
2	PM1	Z	-0.92	%100
3	PM1	Z	-0.11	%59.292
4	PM2	Z	-0.98	%9.204
5	PM2	Z	-0.98	%100
6	PM3	Z	-3.04	0
7	PM3	Z	-3.04	%86.991
8	PM3	Z	-0.5	%42.593

**Member Point Loads (BLC 2 : Wind 30 Deg - No Ice)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	.042	%9.735
2	PM1	Z	-0.73	%9.735
3	PM1	X	.042	%100
4	PM1	Z	-0.73	%100
5	PM1	X	.005	%59.292
6	PM1	Z	-0.08	%59.292
7	PM2	X	.046	%9.204
8	PM2	Z	-0.79	%9.204
9	PM2	X	.046	%100
10	PM2	Z	-0.79	%100
11	PM3	X	.131	0
12	PM3	Z	-2.26	0
13	PM3	X	.131	%86.991
14	PM3	Z	-2.26	%86.991
15	PM3	X	.023	%42.593
16	PM3	Z	-0.4	%42.593

**Member Point Loads (BLC 3 : Wind 60 Deg - No Ice)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	.062	%9.735
2	PM1	Z	-0.36	%9.735
3	PM1	X	.062	%100
4	PM1	Z	-0.36	%100
5	PM1	X	.006	%59.292
6	PM1	Z	-0.03	%59.292
7	PM2	X	.067	%9.204
8	PM2	Z	-0.39	%9.204
9	PM2	X	.067	%100
10	PM2	Z	-0.39	%100
11	PM3	X	.153	0
12	PM3	Z	-0.88	0
13	PM3	X	.153	%86.991
14	PM3	Z	-0.88	%86.991
15	PM3	X	.033	%42.593
16	PM3	Z	-0.19	%42.593

**Member Point Loads (BLC 4 : Wind 90 Deg - No Ice)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	.065	%9.735
2	PM1	X	.065	%100
3	PM1	X	.005	%59.292
4	PM2	X	.071	%9.204
5	PM2	X	.071	%100
6	PM3	X	.134	0
7	PM3	X	.134	%86.991



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**Member Point Loads (BLC 4 : Wind 90 Deg - No Ice) (Continued)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
8	PM3	X	.035	%42.593

**Member Point Loads (BLC 5 : Wind 120 Deg - No Ice)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	.062	%9.735
2	PM1	Z	.036	%9.735
3	PM1	X	.062	%100
4	PM1	Z	.036	%100
5	PM1	X	.006	%59.292
6	PM1	Z	.003	%59.292
7	PM2	X	.067	%9.204
8	PM2	Z	.039	%9.204
9	PM2	X	.067	%100
10	PM2	Z	.039	%100
11	PM3	X	.153	0
12	PM3	Z	.088	0
13	PM3	X	.153	%86.991
14	PM3	Z	.088	%86.991
15	PM3	X	.033	%42.593
16	PM3	Z	.019	%42.593

**Member Point Loads (BLC 6 : Wind 150 Deg - No Ice)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	.042	%9.735
2	PM1	Z	.073	%9.735
3	PM1	X	.042	%100
4	PM1	Z	.073	%100
5	PM1	X	.005	%59.292
6	PM1	Z	.008	%59.292
7	PM2	X	.046	%9.204
8	PM2	Z	.079	%9.204
9	PM2	X	.046	%100
10	PM2	Z	.079	%100
11	PM3	X	.131	0
12	PM3	Z	.226	0
13	PM3	X	.131	%86.991
14	PM3	Z	.226	%86.991
15	PM3	X	.023	%42.593
16	PM3	Z	.04	%42.593

**Member Point Loads (BLC 7 : Wind 180 Deg - No Ice)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	Z	.092	%9.735
2	PM1	Z	.092	%100
3	PM1	Z	.011	%59.292
4	PM2	Z	.098	%9.204
5	PM2	Z	.098	%100
6	PM3	Z	.304	0
7	PM3	Z	.304	%86.991
8	PM3	Z	.05	%42.593

**Member Point Loads (BLC 8 : Wind 210 Deg - No Ice)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	-.042	%9.735
2	PM1	Z	.073	%9.735



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**Member Point Loads (BLC 8 : Wind 210 Deg - No Ice) (Continued)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in. %]
3	PM1	X	- .042	%100
4	PM1	Z	.073	%100
5	PM1	X	-.005	%59.292
6	PM1	Z	.008	%59.292
7	PM2	X	-.046	%9.204
8	PM2	Z	.079	%9.204
9	PM2	X	-.046	%100
10	PM2	Z	.079	%100
11	PM3	X	- .131	0
12	PM3	Z	.226	0
13	PM3	X	- .131	%86.991
14	PM3	Z	.226	%86.991
15	PM3	X	-.023	%42.593
16	PM3	Z	.04	%42.593

**Member Point Loads (BLC 9 : Wind 240 Deg - No Ice)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in. %]
1	PM1	X	- .062	%9.735
2	PM1	Z	.036	%9.735
3	PM1	X	- .062	%100
4	PM1	Z	.036	%100
5	PM1	X	-.006	%59.292
6	PM1	Z	.003	%59.292
7	PM2	X	-.067	%9.204
8	PM2	Z	.039	%9.204
9	PM2	X	-.067	%100
10	PM2	Z	.039	%100
11	PM3	X	- .153	0
12	PM3	Z	.088	0
13	PM3	X	- .153	%86.991
14	PM3	Z	.088	%86.991
15	PM3	X	-.033	%42.593
16	PM3	Z	.019	%42.593

**Member Point Loads (BLC 10 : Wind 270 Deg - No Ice)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in. %]
1	PM1	X	- .065	%9.735
2	PM1	X	- .065	%100
3	PM1	X	- .005	%59.292
4	PM2	X	-.071	%9.204
5	PM2	X	-.071	%100
6	PM3	X	- .134	0
7	PM3	X	- .134	%86.991
8	PM3	X	- .035	%42.593

**Member Point Loads (BLC 11 : Wind 300 Deg - No Ice)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in. %]
1	PM1	X	- .062	%9.735
2	PM1	Z	- .036	%9.735
3	PM1	X	- .062	%100
4	PM1	Z	- .036	%100
5	PM1	X	-.006	%59.292
6	PM1	Z	-.003	%59.292
7	PM2	X	-.067	%9.204
8	PM2	Z	-.039	%9.204



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**Member Point Loads (BLC 11 : Wind 300 Deg - No Ice) (Continued)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
9	PM2	X	-067	%100
10	PM2	Z	-039	%100
11	PM3	X	-153	0
12	PM3	Z	-088	0
13	PM3	X	-153	%86.991
14	PM3	Z	-088	%86.991
15	PM3	X	-033	%42.593
16	PM3	Z	-019	%42.593

**Member Point Loads (BLC 12 : Wind 330 Deg - No Ice)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	-042	%9.735
2	PM1	Z	-073	%9.735
3	PM1	X	-042	%100
4	PM1	Z	-073	%100
5	PM1	X	-005	%59.292
6	PM1	Z	-008	%59.292
7	PM2	X	-046	%9.204
8	PM2	Z	-079	%9.204
9	PM2	X	-046	%100
10	PM2	Z	-079	%100
11	PM3	X	-131	0
12	PM3	Z	-226	0
13	PM3	X	-131	%86.991
14	PM3	Z	-226	%86.991
15	PM3	X	-023	%42.593
16	PM3	Z	-04	%42.593

**Member Point Loads (BLC 13 : Wind 0 Deg - Ice)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	Z	-021	%9.735
2	PM1	Z	-021	%100
3	PM1	Z	-004	%59.292
4	PM2	Z	-022	%9.204
5	PM2	Z	-022	%100
6	PM3	Z	-061	0
7	PM3	Z	-061	%86.991
8	PM3	Z	-013	%42.593

**Member Point Loads (BLC 14 : Wind 30 Deg - Ice)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	.01	%9.735
2	PM1	Z	-017	%9.735
3	PM1	X	.01	%100
4	PM1	Z	-017	%100
5	PM1	X	.002	%59.292
6	PM1	Z	-003	%59.292
7	PM2	X	.01	%9.204
8	PM2	Z	-018	%9.204
9	PM2	X	.01	%100
10	PM2	Z	-018	%100
11	PM3	X	.027	0
12	PM3	Z	-047	0
13	PM3	X	.027	%86.991
14	PM3	Z	-047	%86.991



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**Member Point Loads (BLC 14 : Wind 30 Deg - Ice) (Continued)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in. %]
15	PM3	X	.006	%42.593
16	PM3	Z	-.011	%42.593

**Member Point Loads (BLC 15 : Wind 60 Deg - Ice)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in. %]
1	PM1	X	.015	%9.735
2	PM1	Z	-.009	%9.735
3	PM1	X	.015	%100
4	PM1	Z	-.009	%100
5	PM1	X	.003	%59.292
6	PM1	Z	-.002	%59.292
7	PM2	X	.016	%9.204
8	PM2	Z	-.009	%9.204
9	PM2	X	.016	%100
10	PM2	Z	-.009	%100
11	PM3	X	.034	0
12	PM3	Z	-.019	0
13	PM3	X	.034	%86.991
14	PM3	Z	-.019	%86.991
15	PM3	X	.009	%42.593
16	PM3	Z	-.005	%42.593

**Member Point Loads (BLC 16 : Wind 90 Deg - Ice)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in. %]
1	PM1	X	.016	%9.735
2	PM1	X	.016	%100
3	PM1	X	.003	%59.292
4	PM2	X	.017	%9.204
5	PM2	X	.017	%100
6	PM3	X	.031	0
7	PM3	X	.031	%86.991
8	PM3	X	.01	%42.593

**Member Point Loads (BLC 17 : Wind 120 Deg - Ice)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in. %]
1	PM1	X	.015	%9.735
2	PM1	Z	.009	%9.735
3	PM1	X	.015	%100
4	PM1	Z	.009	%100
5	PM1	X	.003	%59.292
6	PM1	Z	.002	%59.292
7	PM2	X	.016	%9.204
8	PM2	Z	.009	%9.204
9	PM2	X	.016	%100
10	PM2	Z	.009	%100
11	PM3	X	.034	0
12	PM3	Z	.019	0
13	PM3	X	.034	%86.991
14	PM3	Z	.019	%86.991
15	PM3	X	.009	%42.593
16	PM3	Z	.005	%42.593

**Member Point Loads (BLC 18 : Wind 150 Deg - Ice)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in. %]
1	PM1	X	.01	%9.735



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**Member Point Loads (BLC 18 : Wind 150 Deg - Ice) (Continued)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
2	PM1	Z	.017	%9.735
3	PM1	X	.01	%100
4	PM1	Z	.017	%100
5	PM1	X	.002	%59.292
6	PM1	Z	.003	%59.292
7	PM2	X	.01	%9.204
8	PM2	Z	.018	%9.204
9	PM2	X	.01	%100
10	PM2	Z	.018	%100
11	PM3	X	.027	0
12	PM3	Z	.047	0
13	PM3	X	.027	%86.991
14	PM3	Z	.047	%86.991
15	PM3	X	.006	%42.593
16	PM3	Z	.011	%42.593

**Member Point Loads (BLC 19 : Wind 180 Deg - Ice)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	Z	.021	%9.735
2	PM1	Z	.021	%100
3	PM1	Z	.004	%59.292
4	PM2	Z	.022	%9.204
5	PM2	Z	.022	%100
6	PM3	Z	.061	0
7	PM3	Z	.061	%86.991
8	PM3	Z	.013	%42.593

**Member Point Loads (BLC 20 : Wind 210 Deg - Ice)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	-.01	%9.735
2	PM1	Z	.017	%9.735
3	PM1	X	-.01	%100
4	PM1	Z	.017	%100
5	PM1	X	-.002	%59.292
6	PM1	Z	.003	%59.292
7	PM2	X	-.01	%9.204
8	PM2	Z	.018	%9.204
9	PM2	X	-.01	%100
10	PM2	Z	.018	%100
11	PM3	X	-.027	0
12	PM3	Z	.047	0
13	PM3	X	-.027	%86.991
14	PM3	Z	.047	%86.991
15	PM3	X	-.006	%42.593
16	PM3	Z	.011	%42.593

**Member Point Loads (BLC 21 : Wind 240 Deg - Ice)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	-.015	%9.735
2	PM1	Z	.009	%9.735
3	PM1	X	-.015	%100
4	PM1	Z	.009	%100
5	PM1	X	-.003	%59.292
6	PM1	Z	.002	%59.292
7	PM2	X	-.016	%9.204





**Member Point Loads (BLC 21 : Wind 240 Deg - Ice) (Continued)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
8	PM2	Z	.009	%9.204
9	PM2	X	-.016	%100
10	PM2	Z	.009	%100
11	PM3	X	-.034	0
12	PM3	Z	.019	0
13	PM3	X	-.034	%86.991
14	PM3	Z	.019	%86.991
15	PM3	X	-.009	%42.593
16	PM3	Z	.005	%42.593

**Member Point Loads (BLC 22 : Wind 270 Deg - Ice)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	-.016	%9.735
2	PM1	X	-.016	%100
3	PM1	X	-.003	%59.292
4	PM2	X	-.017	%9.204
5	PM2	X	-.017	%100
6	PM3	X	-.031	0
7	PM3	X	-.031	%86.991
8	PM3	X	-.01	%42.593

**Member Point Loads (BLC 23 : Wind 300 Deg - Ice)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	-.015	%9.735
2	PM1	Z	-.009	%9.735
3	PM1	X	-.015	%100
4	PM1	Z	-.009	%100
5	PM1	X	-.003	%59.292
6	PM1	Z	-.002	%59.292
7	PM2	X	-.016	%9.204
8	PM2	Z	-.009	%9.204
9	PM2	X	-.016	%100
10	PM2	Z	-.009	%100
11	PM3	X	-.034	0
12	PM3	Z	-.019	0
13	PM3	X	-.034	%86.991
14	PM3	Z	-.019	%86.991
15	PM3	X	-.009	%42.593
16	PM3	Z	-.005	%42.593

**Member Point Loads (BLC 24 : Wind 330 Deg - Ice)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	-.01	%9.735
2	PM1	Z	-.017	%9.735
3	PM1	X	-.01	%100
4	PM1	Z	-.017	%100
5	PM1	X	-.002	%59.292
6	PM1	Z	-.003	%59.292
7	PM2	X	-.01	%9.204
8	PM2	Z	-.018	%9.204
9	PM2	X	-.01	%100
10	PM2	Z	-.018	%100
11	PM3	X	-.027	0
12	PM3	Z	-.047	0
13	PM3	X	-.027	%86.991



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**Member Point Loads (BLC 24 : Wind 330 Deg - Ice) (Continued)**

	Member Label	Direction	Magnitude[k,k-ft]	Location[in,%]
14	PM3	Z	-0.47	%86.991
15	PM3	X	-0.06	%42.593
16	PM3	Z	-0.11	%42.593

**Member Point Loads (BLC 25 : Wind 0 Deg - Maintenance)**

	Member Label	Direction	Magnitude[k,k-ft]	Location[in,%]
1	PM1	Z	-0.06	%9.735
2	PM1	Z	-0.06	%100
3	PM1	Z	-0.00657	%59.292
4	PM2	Z	-0.06	%9.204
5	PM2	Z	-0.06	%100
6	PM3	Z	-0.19	0
7	PM3	Z	-0.19	%86.991
8	PM3	Z	-0.03	%42.593

**Member Point Loads (BLC 26 : Wind 30 Deg - Maintenance)**

	Member Label	Direction	Magnitude[k,k-ft]	Location[in,%]
1	PM1	X	.003	%9.735
2	PM1	Z	-0.05	%9.735
3	PM1	X	.003	%100
4	PM1	Z	-0.05	%100
5	PM1	X	.000288	%59.292
6	PM1	Z	-0.00498	%59.292
7	PM2	X	.003	%9.204
8	PM2	Z	-0.05	%9.204
9	PM2	X	.003	%100
10	PM2	Z	-0.05	%100
11	PM3	X	.008	0
12	PM3	Z	-0.14	0
13	PM3	X	.008	%86.991
14	PM3	Z	-0.14	%86.991
15	PM3	X	.001	%42.593
16	PM3	Z	-0.02	%42.593

**Member Point Loads (BLC 27 : Wind 60 Deg - Maintenance)**

	Member Label	Direction	Magnitude[k,k-ft]	Location[in,%]
1	PM1	X	.004	%9.735
2	PM1	Z	-0.02	%9.735
3	PM1	X	.004	%100
4	PM1	Z	-0.02	%100
5	PM1	X	.000356	%59.292
6	PM1	Z	-0.00205	%59.292
7	PM2	X	.004	%9.204
8	PM2	Z	-0.02	%9.204
9	PM2	X	.004	%100
10	PM2	Z	-0.02	%100
11	PM3	X	.01	0
12	PM3	Z	-0.06	0
13	PM3	X	.01	%86.991
14	PM3	Z	-0.06	%86.991
15	PM3	X	.002	%42.593
16	PM3	Z	-0.01	%42.593

**Member Point Loads (BLC 28 : Wind 90 Deg - Maintenance)**

	Member Label	Direction	Magnitude[k,k-ft]	Location[in,%]
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**Member Point Loads (BLC 28 : Wind 90 Deg - Maintenance) (Continued)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	.004	%9.735
2	PM1	X	.004	%100
3	PM1	X	.000329	%59.292
4	PM2	X	.004	%9.204
5	PM2	X	.004	%100
6	PM3	X	.008	0
7	PM3	X	.008	%86.991
8	PM3	X	.002	%42.593

**Member Point Loads (BLC 29 : Wind 120 Deg - Maintenance)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	.004	%9.735
2	PM1	Z	.002	%9.735
3	PM1	X	.004	%100
4	PM1	Z	.002	%100
5	PM1	X	.000356	%59.292
6	PM1	Z	.000205	%59.292
7	PM2	X	.004	%9.204
8	PM2	Z	.002	%9.204
9	PM2	X	.004	%100
10	PM2	Z	.002	%100
11	PM3	X	.01	0
12	PM3	Z	.006	0
13	PM3	X	.01	%86.991
14	PM3	Z	.006	%86.991
15	PM3	X	.002	%42.593
16	PM3	Z	.001	%42.593

**Member Point Loads (BLC 30 : Wind 150 Deg - Maintenance)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	.003	%9.735
2	PM1	Z	.005	%9.735
3	PM1	X	.003	%100
4	PM1	Z	.005	%100
5	PM1	X	.000288	%59.292
6	PM1	Z	.000498	%59.292
7	PM2	X	.003	%9.204
8	PM2	Z	.005	%9.204
9	PM2	X	.003	%100
10	PM2	Z	.005	%100
11	PM3	X	.008	0
12	PM3	Z	.014	0
13	PM3	X	.008	%86.991
14	PM3	Z	.014	%86.991
15	PM3	X	.001	%42.593
16	PM3	Z	.002	%42.593

**Member Point Loads (BLC 31 : Wind 180 Deg - Maintenance)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	Z	.006	%9.735
2	PM1	Z	.006	%100
3	PM1	Z	.000657	%59.292
4	PM2	Z	.006	%9.204
5	PM2	Z	.006	%100
6	PM3	Z	.019	0



**Member Point Loads (BLC 31 : Wind 180 Deg - Maintenance) (Continued)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
7	PM3	Z	.019	%86.991
8	PM3	Z	.003	%42.593

**Member Point Loads (BLC 32 : Wind 210 Deg - Maintenance)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	-.003	%9.735
2	PM1	Z	.005	%9.735
3	PM1	X	-.003	%100
4	PM1	Z	.005	%100
5	PM1	X	-.000288	%59.292
6	PM1	Z	.000498	%59.292
7	PM2	X	-.003	%9.204
8	PM2	Z	.005	%9.204
9	PM2	X	-.003	%100
10	PM2	Z	.005	%100
11	PM3	X	-.008	0
12	PM3	Z	.014	0
13	PM3	X	-.008	%86.991
14	PM3	Z	.014	%86.991
15	PM3	X	-.001	%42.593
16	PM3	Z	.002	%42.593

**Member Point Loads (BLC 33 : Wind 240 Deg - Maintenance)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	-.004	%9.735
2	PM1	Z	.002	%9.735
3	PM1	X	-.004	%100
4	PM1	Z	.002	%100
5	PM1	X	-.000356	%59.292
6	PM1	Z	.000205	%59.292
7	PM2	X	-.004	%9.204
8	PM2	Z	.002	%9.204
9	PM2	X	-.004	%100
10	PM2	Z	.002	%100
11	PM3	X	-.01	0
12	PM3	Z	.006	0
13	PM3	X	-.01	%86.991
14	PM3	Z	.006	%86.991
15	PM3	X	-.002	%42.593
16	PM3	Z	.001	%42.593

**Member Point Loads (BLC 34 : Wind 270 Deg - Maintenance)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	-.004	%9.735
2	PM1	X	-.004	%100
3	PM1	X	-.000329	%59.292
4	PM2	X	-.004	%9.204
5	PM2	X	-.004	%100
6	PM3	X	-.008	0
7	PM3	X	-.008	%86.991
8	PM3	X	-.002	%42.593

**Member Point Loads (BLC 35 : Wind 300 Deg - Maintenance)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	-.004	%9.735



**Member Point Loads (BLC 35 : Wind 300 Deg - Maintenance) (Continued)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
2	PM1	Z	- .002	%9.735
3	PM1	X	- .004	%100
4	PM1	Z	- .002	%100
5	PM1	X	- .000356	%59.292
6	PM1	Z	- .000205	%59.292
7	PM2	X	- .004	%9.204
8	PM2	Z	- .002	%9.204
9	PM2	X	- .004	%100
10	PM2	Z	- .002	%100
11	PM3	X	- .01	0
12	PM3	Z	- .006	0
13	PM3	X	- .01	%86.991
14	PM3	Z	- .006	%86.991
15	PM3	X	- .002	%42.593
16	PM3	Z	- .001	%42.593

**Member Point Loads (BLC 36 : Wind 330 Deg - Maintenance)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	- .003	%9.735
2	PM1	Z	- .005	%9.735
3	PM1	X	- .003	%100
4	PM1	Z	- .005	%100
5	PM1	X	- .000288	%59.292
6	PM1	Z	- .000498	%59.292
7	PM2	X	- .003	%9.204
8	PM2	Z	- .005	%9.204
9	PM2	X	- .003	%100
10	PM2	Z	- .005	%100
11	PM3	X	- .008	0
12	PM3	Z	- .014	0
13	PM3	X	- .008	%86.991
14	PM3	Z	- .014	%86.991
15	PM3	X	- .001	%42.593
16	PM3	Z	- .002	%42.593

**Member Point Loads (BLC 37 : Dead)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	Y	- .046	%9.735
2	PM1	Y	- .046	%100
3	PM1	Y	- .011	%59.292
4	PM2	Y	- .066	%9.204
5	PM2	Y	- .066	%100
6	PM3	Y	- .064	0
7	PM3	Y	- .064	%86.991
8	PM3	Y	- .075	%42.593

**Member Point Loads (BLC 38 : Dead - Ice)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	Y	- .076	%9.735
2	PM1	Y	- .076	%100
3	PM1	Y	- .01	%59.292
4	PM2	Y	- .083	%9.204
5	PM2	Y	- .083	%100
6	PM3	Y	- .221	0
7	PM3	Y	- .221	%86.991



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**Member Point Loads (BLC 38 : Dead - Ice) (Continued)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
8	PM3	Y	-045	%42.593

**Member Point Loads (BLC 39 : Maint. Pipe Load 1)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	Y	-5	%50

**Member Point Loads (BLC 40 : Maint. Pipe Load 2)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM2	Y	-5	%50

**Member Point Loads (BLC 41 : Maint. Pipe Load 3)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM3	Y	-5	%50

**Member Point Loads (BLC 42 : Maint. Horz. Load 1)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	SO1	Y	-25	%50

**Member Point Loads (BLC 43 : Maint. Horz. Load 2)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	SO1	Y	-25	0

**Member Point Loads (BLC 44 : Maint. Horz. Load 3)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	SO1	Y	-25	%100

**Member Point Loads (BLC 45 : Maint. Horz. Load 4)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	SO2	Y	-25	%50

**Member Point Loads (BLC 46 : Maint. Horz. Load 5)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	SO2	Y	-25	0

**Member Point Loads (BLC 47 : Maint. Horz. Load 6)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	SO2	Y	-25	%100

**Member Point Loads (BLC 48 : Maint. Horz. Load 7)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	H1	Y	-25	%50

**Member Point Loads (BLC 49 : Maint. Horz. Load 8)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	H1	Y	-25	0

**Member Point Loads (BLC 50 : Maint. Horz. Load 9)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	H1	Y	-25	%100



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**Member Point Loads (BLC 51 : Maint. Horz. Load 10)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	H2	Y	-25	%50

**Member Point Loads (BLC 52 : Maint. Horz. Load 11)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	H2	Y	-25	0

**Member Point Loads (BLC 53 : Maint. Horz. Load 12)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	H2	Y	-25	%100

**Member Point Loads (BLC 54 : Earthquake 0 Deg)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	Z	-006	%9.735
2	PM1	Z	-006	%100
3	PM1	Z	-001	%59.292
4	PM2	Z	-008	%9.204
5	PM2	Z	-008	%100
6	PM3	Z	-008	0
7	PM3	Z	-008	%86.991
8	PM3	Z	-009	%42.593

**Member Point Loads (BLC 55 : Earthquake 30 Deg)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	.003	%9.735
2	PM1	Z	-005	%9.735
3	PM1	X	.003	%100
4	PM1	Z	-005	%100
5	PM1	X	.000667	%59.292
6	PM1	Z	-001	%59.292
7	PM2	X	.004	%9.204
8	PM2	Z	-007	%9.204
9	PM2	X	.004	%100
10	PM2	Z	-007	%100
11	PM3	X	.004	0
12	PM3	Z	-007	0
13	PM3	X	.004	%86.991
14	PM3	Z	-007	%86.991
15	PM3	X	.005	%42.593
16	PM3	Z	-008	%42.593

**Member Point Loads (BLC 56 : Earthquake 60 Deg)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	.005	%9.735
2	PM1	Z	-003	%9.735
3	PM1	X	.005	%100
4	PM1	Z	-003	%100
5	PM1	X	.001	%59.292
6	PM1	Z	-000667	%59.292
7	PM2	X	.007	%9.204
8	PM2	Z	-004	%9.204
9	PM2	X	.007	%100
10	PM2	Z	-004	%100
11	PM3	X	.007	0
12	PM3	Z	-004	0



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**Member Point Loads (BLC 56 : Earthquake 60 Deg) (Continued)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
13	PM3	X	.007	%86.991
14	PM3	Z	-.004	%86.991
15	PM3	X	.008	%42.593
16	PM3	Z	-.005	%42.593

**Member Point Loads (BLC 57 : Earthquake 90 Deg)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	.006	%9.735
2	PM1	X	.006	%100
3	PM1	X	.001	%59.292
4	PM2	X	.008	%9.204
5	PM2	X	.008	%100
6	PM3	X	.008	0
7	PM3	X	.008	%86.991
8	PM3	X	.009	%42.593

**Member Point Loads (BLC 58 : Earthquake 120 Deg)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	.005	%9.735
2	PM1	Z	.003	%9.735
3	PM1	X	.005	%100
4	PM1	Z	.003	%100
5	PM1	X	.001	%59.292
6	PM1	Z	.000667	%59.292
7	PM2	X	.007	%9.204
8	PM2	Z	.004	%9.204
9	PM2	X	.007	%100
10	PM2	Z	.004	%100
11	PM3	X	.007	0
12	PM3	Z	.004	0
13	PM3	X	.007	%86.991
14	PM3	Z	.004	%86.991
15	PM3	X	.008	%42.593
16	PM3	Z	.005	%42.593

**Member Point Loads (BLC 59 : Earthquake 150 Deg)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	.003	%9.735
2	PM1	Z	.005	%9.735
3	PM1	X	.003	%100
4	PM1	Z	.005	%100
5	PM1	X	.000667	%59.292
6	PM1	Z	.001	%59.292
7	PM2	X	.004	%9.204
8	PM2	Z	.007	%9.204
9	PM2	X	.004	%100
10	PM2	Z	.007	%100
11	PM3	X	.004	0
12	PM3	Z	.007	0
13	PM3	X	.004	%86.991
14	PM3	Z	.007	%86.991
15	PM3	X	.005	%42.593
16	PM3	Z	.008	%42.593





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**Member Point Loads (BLC 60 : Earthquake 180 Deg)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	Z	.006	%9.735
2	PM1	Z	.006	%100
3	PM1	Z	.001	%59.292
4	PM2	Z	.008	%9.204
5	PM2	Z	.008	%100
6	PM3	Z	.008	0
7	PM3	Z	.008	%86.991
8	PM3	Z	.009	%42.593

**Member Point Loads (BLC 61 : Earthquake 210 Deg)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	-.003	%9.735
2	PM1	Z	.005	%9.735
3	PM1	X	-.003	%100
4	PM1	Z	.005	%100
5	PM1	X	-.000667	%59.292
6	PM1	Z	.001	%59.292
7	PM2	X	-.004	%9.204
8	PM2	Z	.007	%9.204
9	PM2	X	-.004	%100
10	PM2	Z	.007	%100
11	PM3	X	-.004	0
12	PM3	Z	.007	0
13	PM3	X	-.004	%86.991
14	PM3	Z	.007	%86.991
15	PM3	X	-.005	%42.593
16	PM3	Z	.008	%42.593

**Member Point Loads (BLC 62 : Earthquake 240 Deg)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	-.005	%9.735
2	PM1	Z	.003	%9.735
3	PM1	X	-.005	%100
4	PM1	Z	.003	%100
5	PM1	X	-.001	%59.292
6	PM1	Z	.000667	%59.292
7	PM2	X	-.007	%9.204
8	PM2	Z	.004	%9.204
9	PM2	X	-.007	%100
10	PM2	Z	.004	%100
11	PM3	X	-.007	0
12	PM3	Z	.004	0
13	PM3	X	-.007	%86.991
14	PM3	Z	.004	%86.991
15	PM3	X	-.008	%42.593
16	PM3	Z	.005	%42.593

**Member Point Loads (BLC 63 : Earthquake 270 Deg)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	-.006	%9.735
2	PM1	X	-.006	%100
3	PM1	X	-.001	%59.292
4	PM2	X	-.008	%9.204
5	PM2	X	-.008	%100
6	PM3	X	-.008	0



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**Member Point Loads (BLC 63 : Earthquake 270 Deg) (Continued)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
7	PM3	X	-008	%86.991
8	PM3	X	-009	%42.593

**Member Point Loads (BLC 64 : Earthquake 300 Deg)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	-005	%9.735
2	PM1	Z	-003	%9.735
3	PM1	X	-005	%100
4	PM1	Z	-003	%100
5	PM1	X	-001	%59.292
6	PM1	Z	-000667	%59.292
7	PM2	X	-007	%9.204
8	PM2	Z	-004	%9.204
9	PM2	X	-007	%100
10	PM2	Z	-004	%100
11	PM3	X	-007	0
12	PM3	Z	-004	0
13	PM3	X	-007	%86.991
14	PM3	Z	-004	%86.991
15	PM3	X	-008	%42.593
16	PM3	Z	-005	%42.593

**Member Point Loads (BLC 65 : Earthquake 330 Deg)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[in.%]
1	PM1	X	-003	%9.735
2	PM1	Z	-005	%9.735
3	PM1	X	-003	%100
4	PM1	Z	-005	%100
5	PM1	X	-000667	%59.292
6	PM1	Z	-001	%59.292
7	PM2	X	-004	%9.204
8	PM2	Z	-007	%9.204
9	PM2	X	-004	%100
10	PM2	Z	-007	%100
11	PM3	X	-004	0
12	PM3	Z	-007	0
13	PM3	X	-004	%86.991
14	PM3	Z	-007	%86.991
15	PM3	X	-005	%42.593
16	PM3	Z	-008	%42.593

**Member Distributed Loads (BLC 1 : Wind 0 Deg - No Ice)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft.F]	Start Location[in.%]	End Location[in.%]
1	PM1	Z	-009	-009	0	%9.735
2	PM2	Z	-009	-009	0	%9.204
3	PM3	Z	-006	-006	%86.991	%100
4	VB1	PZ	-006	-006	0	%100
5	VB2	PZ	-008	-008	0	%100
6	SO1	PZ	-009	-009	0	%100
7	SO2	PZ	-009	-009	0	%100
8	H1	PZ	-009	-009	0	%100
9	H2	PZ	-009	-009	0	%100
10	TB2	PZ	-007	-007	0	%100
11	TB1	PZ	-007	-007	0	%100



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**Member Distributed Loads (BLC 2 : Wind 30 Deg - No Ice)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in, %]	End Location[in, %]
1	PM1	X	.004	.004	0	%100
2	PM1	Z	-.008	-.008	0	%100
3	PM2	X	.004	.004	0	%100
4	PM2	Z	-.008	-.008	0	%100
5	PM3	X	.004	.004	0	%100
6	PM3	Z	-.006	-.006	0	%100
7	VB1	PX	.003	.003	0	%100
8	VB1	PZ	-.005	-.005	0	%100
9	VB2	PX	.004	.004	0	%100
10	VB2	PZ	-.007	-.007	0	%100
11	SO1	PX	.005	.005	0	%100
12	SO1	PZ	-.008	-.008	0	%100
13	SO2	PX	.005	.005	0	%100
14	SO2	PZ	-.008	-.008	0	%100
15	H1	PX	.004	.004	0	%100
16	H1	PZ	-.007	-.007	0	%100
17	H2	PX	.004	.004	0	%100
18	H2	PZ	-.007	-.007	0	%100
19	TB2	PX	.003	.003	0	%100
20	TB2	PZ	-.006	-.006	0	%100
21	TB1	PX	.004	.004	0	%100
22	TB1	PZ	-.006	-.006	0	%100

**Member Distributed Loads (BLC 3 : Wind 60 Deg - No Ice)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in, %]	End Location[in, %]
1	PM1	X	.008	.008	0	%100
2	PM1	Z	-.004	-.004	0	%100
3	PM2	X	.008	.008	0	%100
4	PM2	Z	-.004	-.004	0	%100
5	PM3	X	.006	.006	0	%100
6	PM3	Z	-.004	-.004	0	%100
7	VB1	PX	.005	.005	0	%100
8	VB1	PZ	-.003	-.003	0	%100
9	VB2	PX	.007	.007	0	%100
10	VB2	PZ	-.004	-.004	0	%100
11	SO1	PX	.009	.009	0	%100
12	SO1	PZ	-.005	-.005	0	%100
13	SO2	PX	.009	.009	0	%100
14	SO2	PZ	-.005	-.005	0	%100
15	H1	PX	.007	.007	0	%100
16	H1	PZ	-.004	-.004	0	%100
17	H2	PX	.007	.007	0	%100
18	H2	PZ	-.004	-.004	0	%100
19	TB2	PX	.004	.004	0	%100
20	TB2	PZ	-.002	-.002	0	%100
21	TB1	PX	.006	.006	0	%100
22	TB1	PZ	-.004	-.004	0	%100

**Member Distributed Loads (BLC 4 : Wind 90 Deg - No Ice)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in, %]	End Location[in, %]
1	PM1	X	.009	.009	0	%100
2	PM2	X	.009	.009	0	%100
3	PM3	X	.007	.007	0	%100
4	VB1	PX	.006	.006	0	%100
5	VB2	PX	.008	.008	0	%100
6	SO1	PX	.01	.01	0	%100



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**Member Distributed Loads (BLC 4 : Wind 90 Deg - No Ice) (Continued)**

Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in.%]	End Location[in.%]	
7	SO2	PX	.01	.01	0	%100
8	H1	PX	.005	.005	0	%100
9	H2	PX	.005	.005	0	%100
10	TB2	PX	.006	.006	0	%100
11	TB1	PX	.006	.006	0	%100

**Member Distributed Loads (BLC 5 : Wind 120 Deg - No Ice)**

Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in.%]	End Location[in.%]	
1	PM1	X	.008	.008	0	%100
2	PM1	Z	.004	.004	0	%100
3	PM2	X	.008	.008	0	%100
4	PM2	Z	.004	.004	0	%100
5	PM3	X	.006	.006	0	%100
6	PM3	Z	.004	.004	0	%100
7	VB1	PX	.005	.005	0	%100
8	VB1	PZ	.003	.003	0	%100
9	VB2	PX	.007	.007	0	%100
10	VB2	PZ	.004	.004	0	%100
11	SO1	PX	.009	.009	0	%100
12	SO1	PZ	.005	.005	0	%100
13	SO2	PX	.009	.009	0	%100
14	SO2	PZ	.005	.005	0	%100
15	H1	PX	.007	.007	0	%100
16	H1	PZ	.004	.004	0	%100
17	H2	PX	.007	.007	0	%100
18	H2	PZ	.004	.004	0	%100
19	TB2	PX	.006	.006	0	%100
20	TB2	PZ	.004	.004	0	%100
21	TB1	PX	.004	.004	0	%100
22	TB1	PZ	.002	.002	0	%100

**Member Distributed Loads (BLC 6 : Wind 150 Deg - No Ice)**

Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in.%]	End Location[in.%]	
1	PM1	X	.004	.004	0	%100
2	PM1	Z	.008	.008	0	%100
3	PM2	X	.004	.004	0	%100
4	PM2	Z	.008	.008	0	%100
5	PM3	X	.004	.004	0	%100
6	PM3	Z	.006	.006	0	%100
7	VB1	PX	.003	.003	0	%100
8	VB1	PZ	.005	.005	0	%100
9	VB2	PX	.004	.004	0	%100
10	VB2	PZ	.007	.007	0	%100
11	SO1	PX	.005	.005	0	%100
12	SO1	PZ	.008	.008	0	%100
13	SO2	PX	.005	.005	0	%100
14	SO2	PZ	.008	.008	0	%100
15	H1	PX	.004	.004	0	%100
16	H1	PZ	.007	.007	0	%100
17	H2	PX	.004	.004	0	%100
18	H2	PZ	.007	.007	0	%100
19	TB2	PX	.004	.004	0	%100
20	TB2	PZ	.006	.006	0	%100
21	TB1	PX	.003	.003	0	%100
22	TB1	PZ	.005	.005	0	%100



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**Member Distributed Loads (BLC 7 : Wind 180 Deg - No Ice)**

Member Label	Direction	Start Magnitude[k/ft	End Magnitude[k/ft F	Start Location[in, %]	End Location[in, %]
1	PM1	Z	.009	.009	0 %9.735
2	PM2	Z	.009	.009	0 %9.204
3	PM3	Z	.006	.006	%86.991 %100
4	VB1	PZ	.006	.006	0 %100
5	VB2	PZ	.008	.008	0 %100
6	SO1	PZ	.009	.009	0 %100
7	SO2	PZ	.009	.009	0 %100
8	H1	PZ	.009	.009	0 %100
9	H2	PZ	.009	.009	0 %100
10	TB2	PZ	.007	.007	0 %100
11	TB1	PZ	.007	.007	0 %100

**Member Distributed Loads (BLC 8 : Wind 210 Deg - No Ice)**

Member Label	Direction	Start Magnitude[k/ft	End Magnitude[k/ft F	Start Location[in, %]	End Location[in, %]
1	PM1	X	-.004	-.004	0 %100
2	PM1	Z	.008	.008	0 %100
3	PM2	X	-.004	-.004	0 %100
4	PM2	Z	.008	.008	0 %100
5	PM3	X	-.004	-.004	0 %100
6	PM3	Z	.006	.006	0 %100
7	VB1	PX	-.003	-.003	0 %100
8	VB1	PZ	.005	.005	0 %100
9	VB2	PX	-.004	-.004	0 %100
10	VB2	PZ	.007	.007	0 %100
11	SO1	PX	-.005	-.005	0 %100
12	SO1	PZ	.008	.008	0 %100
13	SO2	PX	-.005	-.005	0 %100
14	SO2	PZ	.008	.008	0 %100
15	H1	PX	-.004	-.004	0 %100
16	H1	PZ	.007	.007	0 %100
17	H2	PX	-.004	-.004	0 %100
18	H2	PZ	.007	.007	0 %100
19	TB2	PX	-.003	-.003	0 %100
20	TB2	PZ	.006	.006	0 %100
21	TB1	PX	-.004	-.004	0 %100
22	TB1	PZ	.006	.006	0 %100

**Member Distributed Loads (BLC 9 : Wind 240 Deg - No Ice)**

Member Label	Direction	Start Magnitude[k/ft	End Magnitude[k/ft F	Start Location[in, %]	End Location[in, %]
1	PM1	X	-.008	-.008	0 %100
2	PM1	Z	.004	.004	0 %100
3	PM2	X	-.008	-.008	0 %100
4	PM2	Z	.004	.004	0 %100
5	PM3	X	-.006	-.006	0 %100
6	PM3	Z	.004	.004	0 %100
7	VB1	PX	-.005	-.005	0 %100
8	VB1	PZ	.003	.003	0 %100
9	VB2	PX	-.007	-.007	0 %100
10	VB2	PZ	.004	.004	0 %100
11	SO1	PX	-.009	-.009	0 %100
12	SO1	PZ	.005	.005	0 %100
13	SO2	PX	-.009	-.009	0 %100
14	SO2	PZ	.005	.005	0 %100
15	H1	PX	-.007	-.007	0 %100
16	H1	PZ	.004	.004	0 %100
17	H2	PX	-.007	-.007	0 %100



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**Member Distributed Loads (BLC 9 : Wind 240 Deg - No Ice) (Continued)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in.%]	End Location[in.%]
18	H2	PZ	.004	.004	0	%100
19	TB2	PX	-.004	-.004	0	%100
20	TB2	PZ	.002	.002	0	%100
21	TB1	PX	-.006	-.006	0	%100
22	TB1	PZ	.004	.004	0	%100

**Member Distributed Loads (BLC 10 : Wind 270 Deg - No Ice)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in.%]	End Location[in.%]
1	PM1	X	-.009	-.009	0	%100
2	PM2	X	-.009	-.009	0	%100
3	PM3	X	-.007	-.007	0	%100
4	VB1	PX	-.006	-.006	0	%100
5	VB2	PX	-.008	-.008	0	%100
6	SO1	PX	-.01	-.01	0	%100
7	SO2	PX	-.01	-.01	0	%100
8	H1	PX	-.005	-.005	0	%100
9	H2	PX	-.005	-.005	0	%100
10	TB2	PX	-.006	-.006	0	%100
11	TB1	PX	-.006	-.006	0	%100

**Member Distributed Loads (BLC 11 : Wind 300 Deg - No Ice)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in.%]	End Location[in.%]
1	PM1	X	-.008	-.008	0	%100
2	PM1	Z	-.004	-.004	0	%100
3	PM2	X	-.008	-.008	0	%100
4	PM2	Z	-.004	-.004	0	%100
5	PM3	X	-.006	-.006	0	%100
6	PM3	Z	-.004	-.004	0	%100
7	VB1	PX	-.005	-.005	0	%100
8	VB1	PZ	-.003	-.003	0	%100
9	VB2	PX	-.007	-.007	0	%100
10	VB2	PZ	-.004	-.004	0	%100
11	SO1	PX	-.009	-.009	0	%100
12	SO1	PZ	-.005	-.005	0	%100
13	SO2	PX	-.009	-.009	0	%100
14	SO2	PZ	-.005	-.005	0	%100
15	H1	PX	-.007	-.007	0	%100
16	H1	PZ	-.004	-.004	0	%100
17	H2	PX	-.007	-.007	0	%100
18	H2	PZ	-.004	-.004	0	%100
19	TB2	PX	-.006	-.006	0	%100
20	TB2	PZ	-.004	-.004	0	%100
21	TB1	PX	-.004	-.004	0	%100
22	TB1	PZ	-.002	-.002	0	%100

**Member Distributed Loads (BLC 12 : Wind 330 Deg - No Ice)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in.%]	End Location[in.%]
1	PM1	X	-.004	-.004	0	%100
2	PM1	Z	-.008	-.008	0	%100
3	PM2	X	-.004	-.004	0	%100
4	PM2	Z	-.008	-.008	0	%100
5	PM3	X	-.004	-.004	0	%100
6	PM3	Z	-.006	-.006	0	%100
7	VB1	PX	-.003	-.003	0	%100
8	VB1	PZ	-.005	-.005	0	%100



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**Member Distributed Loads (BLC 12 : Wind 330 Deg - No Ice) (Continued)**

Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft.F]	Start Location[in.%]	End Location[in.%]	
9	VB2	PX	-004	-004	0	%100
10	VB2	PZ	-007	-007	0	%100
11	SO1	PX	-005	-005	0	%100
12	SO1	PZ	-008	-008	0	%100
13	SO2	PX	-005	-005	0	%100
14	SO2	PZ	-008	-008	0	%100
15	H1	PX	-004	-004	0	%100
16	H1	PZ	-007	-007	0	%100
17	H2	PX	-004	-004	0	%100
18	H2	PZ	-007	-007	0	%100
19	TB2	PX	-004	-004	0	%100
20	TB2	PZ	-006	-006	0	%100
21	TB1	PX	-003	-003	0	%100
22	TB1	PZ	-005	-005	0	%100

**Member Distributed Loads (BLC 13 : Wind 0 Deg - Ice)**

Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft.F]	Start Location[in.%]	End Location[in.%]	
1	PM1	Z	-003	-003	0	%9.735
2	PM2	Z	-003	-003	0	%9.204
3	PM3	Z	-002	-002	%86.991	%100
4	VB1	PZ	-002	-002	0	%100
5	VB2	PZ	-003	-003	0	%100
6	SO1	PZ	-003	-003	0	%100
7	SO2	PZ	-003	-003	0	%100
8	H1	PZ	-003	-003	0	%100
9	H2	PZ	-003	-003	0	%100
10	TB2	PZ	-003	-003	0	%100
11	TB1	PZ	-003	-003	0	%100

**Member Distributed Loads (BLC 14 : Wind 30 Deg - Ice)**

Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft.F]	Start Location[in.%]	End Location[in.%]	
1	PM1	X	.001	.001	0	%100
2	PM1	Z	-003	-003	0	%100
3	PM2	X	.001	.001	0	%100
4	PM2	Z	-003	-003	0	%100
5	PM3	X	.001	.001	0	%100
6	PM3	Z	-003	-003	0	%100
7	VB1	PX	.001	.001	0	%100
8	VB1	PZ	-002	-002	0	%100
9	VB2	PX	.001	.001	0	%100
10	VB2	PZ	-002	-002	0	%100
11	SO1	PX	.002	.002	0	%100
12	SO1	PZ	-003	-003	0	%100
13	SO2	PX	.002	.002	0	%100
14	SO2	PZ	-003	-003	0	%100
15	H1	PX	.002	.002	0	%100
16	H1	PZ	-003	-003	0	%100
17	H2	PX	.002	.002	0	%100
18	H2	PZ	-003	-003	0	%100
19	TB2	PX	.001	.001	0	%100
20	TB2	PZ	-002	-002	0	%100
21	TB1	PX	.001	.001	0	%100
22	TB1	PZ	-003	-003	0	%100

**Member Distributed Loads (BLC 15 : Wind 60 Deg - Ice)**

Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft.F]	Start Location[in.%]	End Location[in.%]
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**Member Distributed Loads (BLC 15 : Wind 60 Deg - Ice) (Continued)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in, %]	End Location[in, %]
1	PM1	X	.003	.003	0	%100
2	PM1	Z	-.001	-.001	0	%100
3	PM2	X	.003	.003	0	%100
4	PM2	Z	-.001	-.001	0	%100
5	PM3	X	.003	.003	0	%100
6	PM3	Z	-.001	-.001	0	%100
7	VB1	PX	.002	.002	0	%100
8	VB1	PZ	-.001	-.001	0	%100
9	VB2	PX	.002	.002	0	%100
10	VB2	PZ	-.001	-.001	0	%100
11	SO1	PX	.003	.003	0	%100
12	SO1	PZ	-.002	-.002	0	%100
13	SO2	PX	.003	.003	0	%100
14	SO2	PZ	-.002	-.002	0	%100
15	H1	PX	.003	.003	0	%100
16	H1	PZ	-.002	-.002	0	%100
17	H2	PX	.003	.003	0	%100
18	H2	PZ	-.002	-.002	0	%100
19	TB2	PX	.002	.002	0	%100
20	TB2	PZ	-.000879	-.000879	0	%100
21	TB1	PX	.003	.003	0	%100
22	TB1	PZ	-.001	-.001	0	%100

**Member Distributed Loads (BLC 16 : Wind 90 Deg - Ice)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in, %]	End Location[in, %]
1	PM1	X	.003	.003	0	%100
2	PM2	X	.003	.003	0	%100
3	PM3	X	.003	.003	0	%100
4	VB1	PX	.002	.002	0	%100
5	VB2	PX	.003	.003	0	%100
6	SO1	PX	.004	.004	0	%100
7	SO2	PX	.004	.004	0	%100
8	H1	PX	.002	.002	0	%100
9	H2	PX	.002	.002	0	%100
10	TB2	PX	.002	.002	0	%100
11	TB1	PX	.003	.003	0	%100

**Member Distributed Loads (BLC 17 : Wind 120 Deg - Ice)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in, %]	End Location[in, %]
1	PM1	X	.003	.003	0	%100
2	PM1	Z	.001	.001	0	%100
3	PM2	X	.003	.003	0	%100
4	PM2	Z	.001	.001	0	%100
5	PM3	X	.003	.003	0	%100
6	PM3	Z	.001	.001	0	%100
7	VB1	PX	.002	.002	0	%100
8	VB1	PZ	.001	.001	0	%100
9	VB2	PX	.002	.002	0	%100
10	VB2	PZ	.001	.001	0	%100
11	SO1	PX	.003	.003	0	%100
12	SO1	PZ	.002	.002	0	%100
13	SO2	PX	.003	.003	0	%100
14	SO2	PZ	.002	.002	0	%100
15	H1	PX	.003	.003	0	%100
16	H1	PZ	.002	.002	0	%100
17	H2	PX	.003	.003	0	%100





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**Member Distributed Loads (BLC 17 : Wind 120 Deg - Ice) (Continued)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in.%]	End Location[in.%]
18	H2	PZ	.002	.002	0	%100
19	TB2	PX	.003	.003	0	%100
20	TB2	PZ	.001	.001	0	%100
21	TB1	PX	.002	.002	0	%100
22	TB1	PZ	.000879	.000879	0	%100

**Member Distributed Loads (BLC 18 : Wind 150 Deg - Ice)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in.%]	End Location[in.%]
1	PM1	X	.001	.001	0	%100
2	PM1	Z	.003	.003	0	%100
3	PM2	X	.001	.001	0	%100
4	PM2	Z	.003	.003	0	%100
5	PM3	X	.001	.001	0	%100
6	PM3	Z	.003	.003	0	%100
7	VB1	PX	.001	.001	0	%100
8	VB1	PZ	.002	.002	0	%100
9	VB2	PX	.001	.001	0	%100
10	VB2	PZ	.002	.002	0	%100
11	SO1	PX	.002	.002	0	%100
12	SO1	PZ	.003	.003	0	%100
13	SO2	PX	.002	.002	0	%100
14	SO2	PZ	.003	.003	0	%100
15	H1	PX	.002	.002	0	%100
16	H1	PZ	.003	.003	0	%100
17	H2	PX	.002	.002	0	%100
18	H2	PZ	.003	.003	0	%100
19	TB2	PX	.001	.001	0	%100
20	TB2	PZ	.003	.003	0	%100
21	TB1	PX	.001	.001	0	%100
22	TB1	PZ	.002	.002	0	%100

**Member Distributed Loads (BLC 19 : Wind 180 Deg - Ice)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in.%]	End Location[in.%]
1	PM1	Z	.003	.003	0	%9.735
2	PM2	Z	.003	.003	0	%9.204
3	PM3	Z	.002	.002	%86.991	%100
4	VB1	PZ	.002	.002	0	%100
5	VB2	PZ	.003	.003	0	%100
6	SO1	PZ	.003	.003	0	%100
7	SO2	PZ	.003	.003	0	%100
8	H1	PZ	.003	.003	0	%100
9	H2	PZ	.003	.003	0	%100
10	TB2	PZ	.003	.003	0	%100
11	TB1	PZ	.003	.003	0	%100

**Member Distributed Loads (BLC 20 : Wind 210 Deg - Ice)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in.%]	End Location[in.%]
1	PM1	X	-.001	-.001	0	%100
2	PM1	Z	.003	.003	0	%100
3	PM2	X	-.001	-.001	0	%100
4	PM2	Z	.003	.003	0	%100
5	PM3	X	-.001	-.001	0	%100
6	PM3	Z	.003	.003	0	%100
7	VB1	PX	-.001	-.001	0	%100
8	VB1	PZ	.002	.002	0	%100



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**Member Distributed Loads (BLC 20 : Wind 210 Deg - Ice) (Continued)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in.%]	End Location[in.%]
9	VB2	PX	- .001	- .001	0	%100
10	VB2	PZ	.002	.002	0	%100
11	SO1	PX	- .002	- .002	0	%100
12	SO1	PZ	.003	.003	0	%100
13	SO2	PX	- .002	- .002	0	%100
14	SO2	PZ	.003	.003	0	%100
15	H1	PX	- .002	- .002	0	%100
16	H1	PZ	.003	.003	0	%100
17	H2	PX	- .002	- .002	0	%100
18	H2	PZ	.003	.003	0	%100
19	TB2	PX	- .001	- .001	0	%100
20	TB2	PZ	.002	.002	0	%100
21	TB1	PX	- .001	- .001	0	%100
22	TB1	PZ	.003	.003	0	%100

**Member Distributed Loads (BLC 21 : Wind 240 Deg - Ice)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in.%]	End Location[in.%]
1	PM1	X	- .003	- .003	0	%100
2	PM1	Z	.001	.001	0	%100
3	PM2	X	- .003	- .003	0	%100
4	PM2	Z	.001	.001	0	%100
5	PM3	X	- .003	- .003	0	%100
6	PM3	Z	.001	.001	0	%100
7	VB1	PX	- .002	- .002	0	%100
8	VB1	PZ	.001	.001	0	%100
9	VB2	PX	- .002	- .002	0	%100
10	VB2	PZ	.001	.001	0	%100
11	SO1	PX	- .003	- .003	0	%100
12	SO1	PZ	.002	.002	0	%100
13	SO2	PX	- .003	- .003	0	%100
14	SO2	PZ	.002	.002	0	%100
15	H1	PX	- .003	- .003	0	%100
16	H1	PZ	.002	.002	0	%100
17	H2	PX	- .003	- .003	0	%100
18	H2	PZ	.002	.002	0	%100
19	TB2	PX	- .002	- .002	0	%100
20	TB2	PZ	.000879	.000879	0	%100
21	TB1	PX	- .003	- .003	0	%100
22	TB1	PZ	.001	.001	0	%100

**Member Distributed Loads (BLC 22 : Wind 270 Deg - Ice)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in.%]	End Location[in.%]
1	PM1	X	- .003	- .003	0	%100
2	PM2	X	- .003	- .003	0	%100
3	PM3	X	- .003	- .003	0	%100
4	VB1	PX	- .002	- .002	0	%100
5	VB2	PX	- .003	- .003	0	%100
6	SO1	PX	- .004	- .004	0	%100
7	SO2	PX	- .004	- .004	0	%100
8	H1	PX	- .002	- .002	0	%100
9	H2	PX	- .002	- .002	0	%100
10	TB2	PX	- .002	- .002	0	%100
11	TB1	PX	- .003	- .003	0	%100

**Member Distributed Loads (BLC 23 : Wind 300 Deg - Ice)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in.%]	End Location[in.%]
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**Member Distributed Loads (BLC 23 : Wind 300 Deg - Ice) (Continued)**

Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in, %]	End Location[in, %]
1	PM1	X	- .003	- .003	0 %100
2	PM1	Z	- .001	- .001	0 %100
3	PM2	X	- .003	- .003	0 %100
4	PM2	Z	- .001	- .001	0 %100
5	PM3	X	- .003	- .003	0 %100
6	PM3	Z	- .001	- .001	0 %100
7	VB1	PX	- .002	- .002	0 %100
8	VB1	PZ	- .001	- .001	0 %100
9	VB2	PX	- .002	- .002	0 %100
10	VB2	PZ	- .001	- .001	0 %100
11	SO1	PX	- .003	- .003	0 %100
12	SO1	PZ	- .002	- .002	0 %100
13	SO2	PX	- .003	- .003	0 %100
14	SO2	PZ	- .002	- .002	0 %100
15	H1	PX	- .003	- .003	0 %100
16	H1	PZ	- .002	- .002	0 %100
17	H2	PX	- .003	- .003	0 %100
18	H2	PZ	- .002	- .002	0 %100
19	TB2	PX	- .003	- .003	0 %100
20	TB2	PZ	- .001	- .001	0 %100
21	TB1	PX	- .002	- .002	0 %100
22	TB1	PZ	- .000879	- .000879	0 %100

**Member Distributed Loads (BLC 24 : Wind 330 Deg - Ice)**

Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in, %]	End Location[in, %]
1	PM1	X	- .001	- .001	0 %100
2	PM1	Z	- .003	- .003	0 %100
3	PM2	X	- .001	- .001	0 %100
4	PM2	Z	- .003	- .003	0 %100
5	PM3	X	- .001	- .001	0 %100
6	PM3	Z	- .003	- .003	0 %100
7	VB1	PX	- .001	- .001	0 %100
8	VB1	PZ	- .002	- .002	0 %100
9	VB2	PX	- .001	- .001	0 %100
10	VB2	PZ	- .002	- .002	0 %100
11	SO1	PX	- .002	- .002	0 %100
12	SO1	PZ	- .003	- .003	0 %100
13	SO2	PX	- .002	- .002	0 %100
14	SO2	PZ	- .003	- .003	0 %100
15	H1	PX	- .002	- .002	0 %100
16	H1	PZ	- .003	- .003	0 %100
17	H2	PX	- .002	- .002	0 %100
18	H2	PZ	- .003	- .003	0 %100
19	TB2	PX	- .001	- .001	0 %100
20	TB2	PZ	- .003	- .003	0 %100
21	TB1	PX	- .001	- .001	0 %100
22	TB1	PZ	- .002	- .002	0 %100

**Member Distributed Loads (BLC 25 : Wind 0 Deg - Maintenance)**

Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in, %]	End Location[in, %]
1	PM1	Z	- .000548	- .000548	0 %9.735
2	PM2	Z	- .000548	- .000548	0 %9.204
3	PM3	Z	- .000372	- .000372	%86.991 %100
4	VB1	PZ	- .000365	- .000365	0 %100
5	VB2	PZ	- .000478	- .000478	0 %100
6	SO1	PZ	- .000563	- .000563	0 %100



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**Member Distributed Loads (BLC 25 : Wind 0 Deg - Maintenance) (Continued)**

Member Label	Direction	Start Magnitude[k/ft	End Magnitude[k/ft F	Start Location[in.%]	End Location[in.%]	
7	SO2	PZ	- .000563	- .000563	0	%100
8	H1	PZ	- .00054	- .00054	0	%100
9	H2	PZ	- .00054	- .00054	0	%100
10	TB2	PZ	- .000446	- .000446	0	%100
11	TB1	PZ	- .000446	- .000446	0	%100

**Member Distributed Loads (BLC 26 : Wind 30 Deg - Maintenance)**

Member Label	Direction	Start Magnitude[k/ft	End Magnitude[k/ft F	Start Location[in.%]	End Location[in.%]	
1	PM1	X	.000275	.000275	0	%100
2	PM1	Z	- .000476	- .000476	0	%100
3	PM2	X	.000275	.000275	0	%100
4	PM2	Z	- .000476	- .000476	0	%100
5	PM3	X	.000223	.000223	0	%100
6	PM3	Z	- .000387	- .000387	0	%100
7	VB1	PX	.000182	.000182	0	%100
8	VB1	PZ	- .000316	- .000316	0	%100
9	VB2	PX	.000239	.000239	0	%100
10	VB2	PZ	- .000414	- .000414	0	%100
11	SO1	PX	.000292	.000292	0	%100
12	SO1	PZ	- .000505	- .000505	0	%100
13	SO2	PX	.000292	.000292	0	%100
14	SO2	PZ	- .000505	- .000505	0	%100
15	H1	PX	.00027	.00027	0	%100
16	H1	PZ	- .000467	- .000467	0	%100
17	H2	PX	.00027	.00027	0	%100
18	H2	PZ	- .000467	- .000467	0	%100
19	TB2	PX	.0002	.0002	0	%100
20	TB2	PZ	- .000346	- .000346	0	%100
21	TB1	PX	.000223	.000223	0	%100
22	TB1	PZ	- .000386	- .000386	0	%100

**Member Distributed Loads (BLC 27 : Wind 60 Deg - Maintenance)**

Member Label	Direction	Start Magnitude[k/ft	End Magnitude[k/ft F	Start Location[in.%]	End Location[in.%]	
1	PM1	X	.000476	.000476	0	%100
2	PM1	Z	- .000275	- .000275	0	%100
3	PM2	X	.000476	.000476	0	%100
4	PM2	Z	- .000275	- .000275	0	%100
5	PM3	X	.000387	.000387	0	%100
6	PM3	Z	- .000223	- .000223	0	%100
7	VB1	PX	.000316	.000316	0	%100
8	VB1	PZ	- .000182	- .000182	0	%100
9	VB2	PX	.000414	.000414	0	%100
10	VB2	PZ	- .000239	- .000239	0	%100
11	SO1	PX	.000551	.000551	0	%100
12	SO1	PZ	- .000318	- .000318	0	%100
13	SO2	PX	.000551	.000551	0	%100
14	SO2	PZ	- .000318	- .000318	0	%100
15	H1	PX	.000467	.000467	0	%100
16	H1	PZ	- .00027	- .00027	0	%100
17	H2	PX	.000467	.000467	0	%100
18	H2	PZ	- .00027	- .00027	0	%100
19	TB2	PX	.000228	.000228	0	%100
20	TB2	PZ	- .000132	- .000132	0	%100
21	TB1	PX	.000386	.000386	0	%100
22	TB1	PZ	- .000223	- .000223	0	%100



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**Member Distributed Loads (BLC 28 : Wind 90 Deg - Maintenance)**

Member Label	Direction	Start Magnitude[k/ft	End Magnitude[k/ft F	Start Location[in, %]	End Location[in, %]
1	PM1	X	.000549	.000549	0 %100
2	PM2	X	.000549	.000549	0 %100
3	PM3	X	.000447	.000447	0 %100
4	VB1	PX	.000365	.000365	0 %100
5	VB2	PX	.000478	.000478	0 %100
6	SO1	PX	.000655	.000655	0 %100
7	SO2	PX	.000655	.000655	0 %100
8	H1	PX	.000315	.000315	0 %100
9	H2	PX	.000315	.000315	0 %100
10	TB2	PX	.000357	.000357	0 %100
11	TB1	PX	.000399	.000399	0 %100

**Member Distributed Loads (BLC 29 : Wind 120 Deg - Maintenance)**

Member Label	Direction	Start Magnitude[k/ft	End Magnitude[k/ft F	Start Location[in, %]	End Location[in, %]
1	PM1	X	.000476	.000476	0 %100
2	PM1	Z	.000275	.000275	0 %100
3	PM2	X	.000476	.000476	0 %100
4	PM2	Z	.000275	.000275	0 %100
5	PM3	X	.000387	.000387	0 %100
6	PM3	Z	.000223	.000223	0 %100
7	VB1	PX	.000316	.000316	0 %100
8	VB1	PZ	.000182	.000182	0 %100
9	VB2	PX	.000414	.000414	0 %100
10	VB2	PZ	.000239	.000239	0 %100
11	SO1	PX	.000551	.000551	0 %100
12	SO1	PZ	.000318	.000318	0 %100
13	SO2	PX	.000551	.000551	0 %100
14	SO2	PZ	.000318	.000318	0 %100
15	H1	PX	.000467	.000467	0 %100
16	H1	PZ	.00027	.00027	0 %100
17	H2	PX	.000467	.000467	0 %100
18	H2	PZ	.00027	.00027	0 %100
19	TB2	PX	.000386	.000386	0 %100
20	TB2	PZ	.000223	.000223	0 %100
21	TB1	PX	.000228	.000228	0 %100
22	TB1	PZ	.000132	.000132	0 %100

**Member Distributed Loads (BLC 30 : Wind 150 Deg - Maintenance)**

Member Label	Direction	Start Magnitude[k/ft	End Magnitude[k/ft F	Start Location[in, %]	End Location[in, %]
1	PM1	X	.000275	.000275	0 %100
2	PM1	Z	.000476	.000476	0 %100
3	PM2	X	.000275	.000275	0 %100
4	PM2	Z	.000476	.000476	0 %100
5	PM3	X	.000223	.000223	0 %100
6	PM3	Z	.000387	.000387	0 %100
7	VB1	PX	.000182	.000182	0 %100
8	VB1	PZ	.000316	.000316	0 %100
9	VB2	PX	.000239	.000239	0 %100
10	VB2	PZ	.000414	.000414	0 %100
11	SO1	PX	.000292	.000292	0 %100
12	SO1	PZ	.000505	.000505	0 %100
13	SO2	PX	.000292	.000292	0 %100
14	SO2	PZ	.000505	.000505	0 %100
15	H1	PX	.00027	.00027	0 %100
16	H1	PZ	.000467	.000467	0 %100
17	H2	PX	.00027	.00027	0 %100



**Member Distributed Loads (BLC 30 : Wind 150 Deg - Maintenance) (Continued)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in.%]	End Location[in.%]
18	H2	PZ	.000467	.000467	0	%100
19	TB2	PX	.000223	.000223	0	%100
20	TB2	PZ	.000386	.000386	0	%100
21	TB1	PX	.000179	.000179	0	%100
22	TB1	PZ	.000309	.000309	0	%100

**Member Distributed Loads (BLC 31 : Wind 180 Deg - Maintenance)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in.%]	End Location[in.%]
1	PM1	Z	.000548	.000548	0	%9.735
2	PM2	Z	.000548	.000548	0	%9.204
3	PM3	Z	.000372	.000372	%86.991	%100
4	VB1	PZ	.000365	.000365	0	%100
5	VB2	PZ	.000478	.000478	0	%100
6	SO1	PZ	.000563	.000563	0	%100
7	SO2	PZ	.000563	.000563	0	%100
8	H1	PZ	.00054	.00054	0	%100
9	H2	PZ	.00054	.00054	0	%100
10	TB2	PZ	.000446	.000446	0	%100
11	TB1	PZ	.000446	.000446	0	%100

**Member Distributed Loads (BLC 32 : Wind 210 Deg - Maintenance)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in.%]	End Location[in.%]
1	PM1	X	-.000275	-.000275	0	%100
2	PM1	Z	.000476	.000476	0	%100
3	PM2	X	-.000275	-.000275	0	%100
4	PM2	Z	.000476	.000476	0	%100
5	PM3	X	-.000223	-.000223	0	%100
6	PM3	Z	.000387	.000387	0	%100
7	VB1	PX	-.000182	-.000182	0	%100
8	VB1	PZ	.000316	.000316	0	%100
9	VB2	PX	-.000239	-.000239	0	%100
10	VB2	PZ	.000414	.000414	0	%100
11	SO1	PX	-.000292	-.000292	0	%100
12	SO1	PZ	.000505	.000505	0	%100
13	SO2	PX	-.000292	-.000292	0	%100
14	SO2	PZ	.000505	.000505	0	%100
15	H1	PX	-.00027	-.00027	0	%100
16	H1	PZ	.000467	.000467	0	%100
17	H2	PX	-.00027	-.00027	0	%100
18	H2	PZ	.000467	.000467	0	%100
19	TB2	PX	-.0002	-.0002	0	%100
20	TB2	PZ	.000346	.000346	0	%100
21	TB1	PX	-.000223	-.000223	0	%100
22	TB1	PZ	.000386	.000386	0	%100

**Member Distributed Loads (BLC 33 : Wind 240 Deg - Maintenance)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in.%]	End Location[in.%]
1	PM1	X	-.000476	-.000476	0	%100
2	PM1	Z	.000275	.000275	0	%100
3	PM2	X	-.000476	-.000476	0	%100
4	PM2	Z	.000275	.000275	0	%100
5	PM3	X	-.000387	-.000387	0	%100
6	PM3	Z	.000223	.000223	0	%100
7	VB1	PX	-.000316	-.000316	0	%100
8	VB1	PZ	.000182	.000182	0	%100



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**Member Distributed Loads (BLC 33 : Wind 240 Deg - Maintenance) (Continued)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft.F]	Start Location[in.%]	End Location[in.%]
9	VB2	PX	-0.00414	-0.00414	0	%100
10	VB2	PZ	0.00239	0.00239	0	%100
11	SO1	PX	-0.00551	-0.00551	0	%100
12	SO1	PZ	0.00318	0.00318	0	%100
13	SO2	PX	-0.00551	-0.00551	0	%100
14	SO2	PZ	0.00318	0.00318	0	%100
15	H1	PX	-0.00467	-0.00467	0	%100
16	H1	PZ	0.0027	0.0027	0	%100
17	H2	PX	-0.00467	-0.00467	0	%100
18	H2	PZ	0.0027	0.0027	0	%100
19	TB2	PX	-0.00228	-0.00228	0	%100
20	TB2	PZ	0.00132	0.00132	0	%100
21	TB1	PX	-0.00386	-0.00386	0	%100
22	TB1	PZ	0.00223	0.00223	0	%100

**Member Distributed Loads (BLC 34 : Wind 270 Deg - Maintenance)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft.F]	Start Location[in.%]	End Location[in.%]
1	PM1	X	-0.00549	-0.00549	0	%100
2	PM2	X	-0.00549	-0.00549	0	%100
3	PM3	X	-0.00447	-0.00447	0	%100
4	VB1	PX	-0.00365	-0.00365	0	%100
5	VB2	PX	-0.00478	-0.00478	0	%100
6	SO1	PX	-0.00655	-0.00655	0	%100
7	SO2	PX	-0.00655	-0.00655	0	%100
8	H1	PX	-0.00315	-0.00315	0	%100
9	H2	PX	-0.00315	-0.00315	0	%100
10	TB2	PX	-0.00357	-0.00357	0	%100
11	TB1	PX	-0.00399	-0.00399	0	%100

**Member Distributed Loads (BLC 35 : Wind 300 Deg - Maintenance)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft.F]	Start Location[in.%]	End Location[in.%]
1	PM1	X	-0.00476	-0.00476	0	%100
2	PM1	Z	-0.00275	-0.00275	0	%100
3	PM2	X	-0.00476	-0.00476	0	%100
4	PM2	Z	-0.00275	-0.00275	0	%100
5	PM3	X	-0.00387	-0.00387	0	%100
6	PM3	Z	-0.00223	-0.00223	0	%100
7	VB1	PX	-0.00316	-0.00316	0	%100
8	VB1	PZ	-0.00182	-0.00182	0	%100
9	VB2	PX	-0.00414	-0.00414	0	%100
10	VB2	PZ	-0.00239	-0.00239	0	%100
11	SO1	PX	-0.00551	-0.00551	0	%100
12	SO1	PZ	-0.00318	-0.00318	0	%100
13	SO2	PX	-0.00551	-0.00551	0	%100
14	SO2	PZ	-0.00318	-0.00318	0	%100
15	H1	PX	-0.00467	-0.00467	0	%100
16	H1	PZ	-0.0027	-0.0027	0	%100
17	H2	PX	-0.00467	-0.00467	0	%100
18	H2	PZ	-0.0027	-0.0027	0	%100
19	TB2	PX	-0.00386	-0.00386	0	%100
20	TB2	PZ	-0.00223	-0.00223	0	%100
21	TB1	PX	-0.00228	-0.00228	0	%100
22	TB1	PZ	-0.00132	-0.00132	0	%100

**Member Distributed Loads (BLC 36 : Wind 330 Deg - Maintenance)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft.F]	Start Location[in.%]	End Location[in.%]
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**Member Distributed Loads (BLC 36 : Wind 330 Deg - Maintenance) (Continued)**

Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in, %]	End Location[in, %]
1	PM1	X	- .000275	- .000275	0 %100
2	PM1	Z	- .000476	- .000476	0 %100
3	PM2	X	- .000275	- .000275	0 %100
4	PM2	Z	- .000476	- .000476	0 %100
5	PM3	X	- .000223	- .000223	0 %100
6	PM3	Z	- .000387	- .000387	0 %100
7	VB1	PX	- .000182	- .000182	0 %100
8	VB1	PZ	- .000316	- .000316	0 %100
9	VB2	PX	- .000239	- .000239	0 %100
10	VB2	PZ	- .000414	- .000414	0 %100
11	SO1	PX	- .000292	- .000292	0 %100
12	SO1	PZ	- .000505	- .000505	0 %100
13	SO2	PX	- .000292	- .000292	0 %100
14	SO2	PZ	- .000505	- .000505	0 %100
15	H1	PX	- .00027	- .00027	0 %100
16	H1	PZ	- .000467	- .000467	0 %100
17	H2	PX	- .00027	- .00027	0 %100
18	H2	PZ	- .000467	- .000467	0 %100
19	TB2	PX	- .000223	- .000223	0 %100
20	TB2	PZ	- .000386	- .000386	0 %100
21	TB1	PX	- .000179	- .000179	0 %100
22	TB1	PZ	- .000309	- .000309	0 %100

**Member Distributed Loads (BLC 38 : Dead - Ice)**

Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in, %]	End Location[in, %]
1	VB1	Y	- .008	- .008	0 %100
2	VB2	Y	- .01	- .01	0 %100
3	SO1	Y	- .012	- .012	0 %100
4	SO2	Y	- .012	- .012	0 %100
5	H1	Y	- .009	- .009	0 %100
6	H2	Y	- .009	- .009	0 %100
7	PM1	Y	- .01	- .01	0 %100
8	PM2	Y	- .01	- .01	0 %100
9	PM3	Y	- .008	- .008	0 %100
10	TB2	Y	- .008	- .008	0 %100
11	TB1	Y	- .008	- .008	0 %100

**Member Distributed Loads (BLC 54 : Earthquake 0 Deg)**

Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in, %]	End Location[in, %]
1	VB1	Z	- .00042	- .00042	0 %100
2	VB2	Z	- .000853	- .000853	0 %100
3	SO1	Z	- .001	- .001	0 %100
4	SO2	Z	- .001	- .001	0 %100
5	H1	Z	- .000663	- .000663	0 %100
6	H2	Z	- .000663	- .000663	0 %100
7	PM1	Z	- .000853	- .000853	0 %100
8	PM2	Z	- .000853	- .000853	0 %100
9	PM3	Z	- .000339	- .000339	0 %100
10	TB2	Z	- .00042	- .00042	0 %100
11	TB1	Z	- .00042	- .00042	0 %100

**Member Distributed Loads (BLC 55 : Earthquake 30 Deg)**

Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in, %]	End Location[in, %]
1	VB1	X	.00021	.00021	0 %100
2	VB1	Z	- .000364	- .000364	0 %100





**Member Distributed Loads (BLC 55 : Earthquake 30 Deg) (Continued)**

Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in.%]	End Location[in.%]
3	VB2	X	.000426	.000426	0 %100
4	VB2	Z	-.000739	-.000739	0 %100
5	SO1	X	.000503	.000503	0 %100
6	SO1	Z	-.000871	-.000871	0 %100
7	SO2	X	.000503	.000503	0 %100
8	SO2	Z	-.000871	-.000871	0 %100
9	H1	X	.000332	.000332	0 %100
10	H1	Z	-.000574	-.000574	0 %100
11	H2	X	.000332	.000332	0 %100
12	H2	Z	-.000574	-.000574	0 %100
13	PM1	X	.000426	.000426	0 %100
14	PM1	Z	-.000739	-.000739	0 %100
15	PM2	X	.000426	.000426	0 %100
16	PM2	Z	-.000739	-.000739	0 %100
17	PM3	X	.00017	.00017	0 %100
18	PM3	Z	-.000294	-.000294	0 %100
19	TB2	X	.00021	.00021	0 %100
20	TB2	Z	-.000364	-.000364	0 %100
21	TB1	X	.00021	.00021	0 %100
22	TB1	Z	-.000364	-.000364	0 %100

**Member Distributed Loads (BLC 56 : Earthquake 60 Deg)**

Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in.%]	End Location[in.%]
1	VB1	X	.000364	.000364	0 %100
2	VB1	Z	-.00021	-.00021	0 %100
3	VB2	X	.000739	.000739	0 %100
4	VB2	Z	-.000426	-.000426	0 %100
5	SO1	X	.000871	.000871	0 %100
6	SO1	Z	-.000503	-.000503	0 %100
7	SO2	X	.000871	.000871	0 %100
8	SO2	Z	-.000503	-.000503	0 %100
9	H1	X	.000574	.000574	0 %100
10	H1	Z	-.000332	-.000332	0 %100
11	H2	X	.000574	.000574	0 %100
12	H2	Z	-.000332	-.000332	0 %100
13	PM1	X	.000739	.000739	0 %100
14	PM1	Z	-.000426	-.000426	0 %100
15	PM2	X	.000739	.000739	0 %100
16	PM2	Z	-.000426	-.000426	0 %100
17	PM3	X	.000294	.000294	0 %100
18	PM3	Z	-.00017	-.00017	0 %100
19	TB2	X	.000364	.000364	0 %100
20	TB2	Z	-.00021	-.00021	0 %100
21	TB1	X	.000364	.000364	0 %100
22	TB1	Z	-.00021	-.00021	0 %100

**Member Distributed Loads (BLC 57 : Earthquake 90 Deg)**

Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in.%]	End Location[in.%]
1	VB1	X	.00042	.00042	0 %100
2	VB2	X	.000853	.000853	0 %100
3	SO1	X	.001	.001	0 %100
4	SO2	X	.001	.001	0 %100
5	H1	X	.000663	.000663	0 %100
6	H2	X	.000663	.000663	0 %100
7	PM1	X	.000853	.000853	0 %100
8	PM2	X	.000853	.000853	0 %100



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**Member Distributed Loads (BLC 57 : Earthquake 90 Deg) (Continued)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in.%]	End Location[in.%]
9	PM3	X	.000339	.000339	0	%100
10	TB2	X	.00042	.00042	0	%100
11	TB1	X	.00042	.00042	0	%100

**Member Distributed Loads (BLC 58 : Earthquake 120 Deg)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in.%]	End Location[in.%]
1	VB1	X	.000364	.000364	0	%100
2	VB1	Z	.00021	.00021	0	%100
3	VB2	X	.000739	.000739	0	%100
4	VB2	Z	.000426	.000426	0	%100
5	SO1	X	.000871	.000871	0	%100
6	SO1	Z	.000503	.000503	0	%100
7	SO2	X	.000871	.000871	0	%100
8	SO2	Z	.000503	.000503	0	%100
9	H1	X	.000574	.000574	0	%100
10	H1	Z	.000332	.000332	0	%100
11	H2	X	.000574	.000574	0	%100
12	H2	Z	.000332	.000332	0	%100
13	PM1	X	.000739	.000739	0	%100
14	PM1	Z	.000426	.000426	0	%100
15	PM2	X	.000739	.000739	0	%100
16	PM2	Z	.000426	.000426	0	%100
17	PM3	X	.000294	.000294	0	%100
18	PM3	Z	.00017	.00017	0	%100
19	TB2	X	.000364	.000364	0	%100
20	TB2	Z	.00021	.00021	0	%100
21	TB1	X	.000364	.000364	0	%100
22	TB1	Z	.00021	.00021	0	%100

**Member Distributed Loads (BLC 59 : Earthquake 150 Deg)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in.%]	End Location[in.%]
1	VB1	X	.00021	.00021	0	%100
2	VB1	Z	.000364	.000364	0	%100
3	VB2	X	.000426	.000426	0	%100
4	VB2	Z	.000739	.000739	0	%100
5	SO1	X	.000503	.000503	0	%100
6	SO1	Z	.000871	.000871	0	%100
7	SO2	X	.000503	.000503	0	%100
8	SO2	Z	.000871	.000871	0	%100
9	H1	X	.000332	.000332	0	%100
10	H1	Z	.000574	.000574	0	%100
11	H2	X	.000332	.000332	0	%100
12	H2	Z	.000574	.000574	0	%100
13	PM1	X	.000426	.000426	0	%100
14	PM1	Z	.000739	.000739	0	%100
15	PM2	X	.000426	.000426	0	%100
16	PM2	Z	.000739	.000739	0	%100
17	PM3	X	.00017	.00017	0	%100
18	PM3	Z	.000294	.000294	0	%100
19	TB2	X	.00021	.00021	0	%100
20	TB2	Z	.000364	.000364	0	%100
21	TB1	X	.00021	.00021	0	%100
22	TB1	Z	.000364	.000364	0	%100

**Member Distributed Loads (BLC 60 : Earthquake 180 Deg)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in.%]	End Location[in.%]
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**Member Distributed Loads (BLC 60 : Earthquake 180 Deg) (Continued)**

Member Label	Direction	Start Magnitude[k/ft	End Magnitude[k/ft F	Start Location[in, %]	End Location[in, %]
1	VB1	Z	.00042	.00042	0 %100
2	VB2	Z	.000853	.000853	0 %100
3	SO1	Z	.001	.001	0 %100
4	SO2	Z	.001	.001	0 %100
5	H1	Z	.000663	.000663	0 %100
6	H2	Z	.000663	.000663	0 %100
7	PM1	Z	.000853	.000853	0 %100
8	PM2	Z	.000853	.000853	0 %100
9	PM3	Z	.000339	.000339	0 %100
10	TB2	Z	.00042	.00042	0 %100
11	TB1	Z	.00042	.00042	0 %100

**Member Distributed Loads (BLC 61 : Earthquake 210 Deg)**

Member Label	Direction	Start Magnitude[k/ft	End Magnitude[k/ft F	Start Location[in, %]	End Location[in, %]
1	VB1	X	-.00021	-.00021	0 %100
2	VB1	Z	.000364	.000364	0 %100
3	VB2	X	-.000426	-.000426	0 %100
4	VB2	Z	.000739	.000739	0 %100
5	SO1	X	-.000503	-.000503	0 %100
6	SO1	Z	.000871	.000871	0 %100
7	SO2	X	-.000503	-.000503	0 %100
8	SO2	Z	.000871	.000871	0 %100
9	H1	X	-.000332	-.000332	0 %100
10	H1	Z	.000574	.000574	0 %100
11	H2	X	-.000332	-.000332	0 %100
12	H2	Z	.000574	.000574	0 %100
13	PM1	X	-.000426	-.000426	0 %100
14	PM1	Z	.000739	.000739	0 %100
15	PM2	X	-.000426	-.000426	0 %100
16	PM2	Z	.000739	.000739	0 %100
17	PM3	X	-.00017	-.00017	0 %100
18	PM3	Z	.000294	.000294	0 %100
19	TB2	X	-.00021	-.00021	0 %100
20	TB2	Z	.000364	.000364	0 %100
21	TB1	X	-.00021	-.00021	0 %100
22	TB1	Z	.000364	.000364	0 %100

**Member Distributed Loads (BLC 62 : Earthquake 240 Deg)**

Member Label	Direction	Start Magnitude[k/ft	End Magnitude[k/ft F	Start Location[in, %]	End Location[in, %]
1	VB1	X	-.000364	-.000364	0 %100
2	VB1	Z	.00021	.00021	0 %100
3	VB2	X	-.000739	-.000739	0 %100
4	VB2	Z	.000426	.000426	0 %100
5	SO1	X	-.000871	-.000871	0 %100
6	SO1	Z	.000503	.000503	0 %100
7	SO2	X	-.000871	-.000871	0 %100
8	SO2	Z	.000503	.000503	0 %100
9	H1	X	-.000574	-.000574	0 %100
10	H1	Z	.000332	.000332	0 %100
11	H2	X	-.000574	-.000574	0 %100
12	H2	Z	.000332	.000332	0 %100
13	PM1	X	-.000739	-.000739	0 %100
14	PM1	Z	.000426	.000426	0 %100
15	PM2	X	-.000739	-.000739	0 %100
16	PM2	Z	.000426	.000426	0 %100
17	PM3	X	-.000294	-.000294	0 %100

**Member Distributed Loads (BLC 62 : Earthquake 240 Deg) (Continued)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in.%]	End Location[in.%]
18	PM3	Z	.00017	.00017	0	%100
19	TB2	X	-.000364	-.000364	0	%100
20	TB2	Z	.00021	.00021	0	%100
21	TB1	X	-.000364	-.000364	0	%100
22	TB1	Z	.00021	.00021	0	%100

**Member Distributed Loads (BLC 63 : Earthquake 270 Deg)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in.%]	End Location[in.%]
1	VB1	X	-.00042	-.00042	0	%100
2	VB2	X	-.000853	-.000853	0	%100
3	SO1	X	-.001	-.001	0	%100
4	SO2	X	-.001	-.001	0	%100
5	H1	X	-.000663	-.000663	0	%100
6	H2	X	-.000663	-.000663	0	%100
7	PM1	X	-.000853	-.000853	0	%100
8	PM2	X	-.000853	-.000853	0	%100
9	PM3	X	-.000339	-.000339	0	%100
10	TB2	X	-.00042	-.00042	0	%100
11	TB1	X	-.00042	-.00042	0	%100

**Member Distributed Loads (BLC 64 : Earthquake 300 Deg)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in.%]	End Location[in.%]
1	VB1	X	-.000364	-.000364	0	%100
2	VB1	Z	-.00021	-.00021	0	%100
3	VB2	X	-.000739	-.000739	0	%100
4	VB2	Z	-.000426	-.000426	0	%100
5	SO1	X	-.000871	-.000871	0	%100
6	SO1	Z	-.000503	-.000503	0	%100
7	SO2	X	-.000871	-.000871	0	%100
8	SO2	Z	-.000503	-.000503	0	%100
9	H1	X	-.000574	-.000574	0	%100
10	H1	Z	-.000332	-.000332	0	%100
11	H2	X	-.000574	-.000574	0	%100
12	H2	Z	-.000332	-.000332	0	%100
13	PM1	X	-.000739	-.000739	0	%100
14	PM1	Z	-.000426	-.000426	0	%100
15	PM2	X	-.000739	-.000739	0	%100
16	PM2	Z	-.000426	-.000426	0	%100
17	PM3	X	-.000294	-.000294	0	%100
18	PM3	Z	-.00017	-.00017	0	%100
19	TB2	X	-.000364	-.000364	0	%100
20	TB2	Z	-.00021	-.00021	0	%100
21	TB1	X	-.000364	-.000364	0	%100
22	TB1	Z	-.00021	-.00021	0	%100

**Member Distributed Loads (BLC 65 : Earthquake 330 Deg)**

	Member Label	Direction	Start Magnitude[k/ft]	End Magnitude[k/ft F]	Start Location[in.%]	End Location[in.%]
1	VB1	X	-.00021	-.00021	0	%100
2	VB1	Z	-.000364	-.000364	0	%100
3	VB2	X	-.000426	-.000426	0	%100
4	VB2	Z	-.000739	-.000739	0	%100
5	SO1	X	-.000503	-.000503	0	%100
6	SO1	Z	-.000871	-.000871	0	%100
7	SO2	X	-.000503	-.000503	0	%100
8	SO2	Z	-.000871	-.000871	0	%100



**Member Distributed Loads (BLC 65 : Earthquake 330 Deg) (Continued)**

Member Label	Direction	Start Magnitude[k/ft	End Magnitude[k/ft F	Start Location[in.%]	End Location[in.%]
9	H1	X	- .000332	- .000332	0 %100
10	H1	Z	- .000574	- .000574	0 %100
11	H2	X	- .000332	- .000332	0 %100
12	H2	Z	- .000574	- .000574	0 %100
13	PM1	X	- .000426	- .000426	0 %100
14	PM1	Z	- .000739	- .000739	0 %100
15	PM2	X	- .000426	- .000426	0 %100
16	PM2	Z	- .000739	- .000739	0 %100
17	PM3	X	- .00017	- .00017	0 %100
18	PM3	Z	- .000294	- .000294	0 %100
19	TB2	X	- .00021	- .00021	0 %100
20	TB2	Z	- .000364	- .000364	0 %100
21	TB1	X	- .00021	- .00021	0 %100
22	TB1	Z	- .000364	- .000364	0 %100

**Basic Load Cases**

BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distribut	Area(M	Surface
1	Wind 0 Deg - No Ice	None				8	11		
2	Wind 30 Deg - No Ice	None				16	22		
3	Wind 60 Deg - No Ice	None				16	22		
4	Wind 90 Deg - No Ice	None				8	11		
5	Wind 120 Deg - No Ice	None				16	22		
6	Wind 150 Deg - No Ice	None				16	22		
7	Wind 180 Deg - No Ice	None				8	11		
8	Wind 210 Deg - No Ice	None				16	22		
9	Wind 240 Deg - No Ice	None				16	22		
10	Wind 270 Deg - No Ice	None				8	11		
11	Wind 300 Deg - No Ice	None				16	22		
12	Wind 330 Deg - No Ice	None				16	22		
13	Wind 0 Deg - Ice	None				8	11		
14	Wind 30 Deg - Ice	None				16	22		
15	Wind 60 Deg - Ice	None				16	22		
16	Wind 90 Deg - Ice	None				8	11		
17	Wind 120 Deg - Ice	None				16	22		
18	Wind 150 Deg - Ice	None				16	22		
19	Wind 180 Deg - Ice	None				8	11		
20	Wind 210 Deg - Ice	None				16	22		
21	Wind 240 Deg - Ice	None				16	22		
22	Wind 270 Deg - Ice	None				8	11		
23	Wind 300 Deg - Ice	None				16	22		
24	Wind 330 Deg - Ice	None				16	22		
25	Wind 0 Deg - Maintenance	None				8	11		
26	Wind 30 Deg - Maintenance	None				16	22		
27	Wind 60 Deg - Maintenance	None				16	22		
28	Wind 90 Deg - Maintenance	None				8	11		
29	Wind 120 Deg - Maintenance	None				16	22		
30	Wind 150 Deg - Maintenance	None				16	22		
31	Wind 180 Deg - Maintenance	None				8	11		
32	Wind 210 Deg - Maintenance	None				16	22		
33	Wind 240 Deg - Maintenance	None				16	22		
34	Wind 270 Deg - Maintenance	None				8	11		
35	Wind 300 Deg - Maintenance	None				16	22		
36	Wind 330 Deg - Maintenance	None				16	22		
37	Dead	None		-1		8			
38	Dead - Ice	None				8	11		



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 Designer : MTB  
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### Basic Load Cases (Continued)

BI C.	Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distribut	Area(M	Surface
39	Maint. Pipe Load 1	None					1			
40	Maint. Pipe Load 2	None					1			
41	Maint. Pipe Load 3	None					1			
42	Maint. Horz. Load 1	None					1			
43	Maint. Horz. Load 2	None					1			
44	Maint. Horz. Load 3	None					1			
45	Maint. Horz. Load 4	None					1			
46	Maint. Horz. Load 5	None					1			
47	Maint. Horz. Load 6	None					1			
48	Maint. Horz. Load 7	None					1			
49	Maint. Horz. Load 8	None					1			
50	Maint. Horz. Load 9	None					1			
51	Maint. Horz. Load 10	None					1			
52	Maint. Horz. Load 11	None					1			
53	Maint. Horz. Load 12	None					1			
54	Earthquake 0 Deg	None					8	11		
55	Earthquake 30 Deg	None					16	22		
56	Earthquake 60 Deg	None					16	22		
57	Earthquake 90 Deg	None					8	11		
58	Earthquake 120 Deg	None					16	22		
59	Earthquake 150 Deg	None					16	22		
60	Earthquake 180 Deg	None					8	11		
61	Earthquake 210 Deg	None					16	22		
62	Earthquake 240 Deg	None					16	22		
63	Earthquake 270 Deg	None					8	11		
64	Earthquake 300 Deg	None					16	22		
65	Earthquake 330 Deg	None					16	22		

### 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	1.2 Dead ...	Yes	Y		37	1.2	1	1						
2	1.2 Dead ...	Yes	Y		37	1.2	2	1						
3	1.2 Dead ...	Yes	Y		37	1.2	3	1						
4	1.2 Dead ...	Yes	Y		37	1.2	4	1						
5	1.2 Dead ...	Yes	Y		37	1.2	5	1						
6	1.2 Dead ...	Yes	Y		37	1.2	6	1						
7	1.2 Dead ...	Yes	Y		37	1.2	7	1						
8	1.2 Dead ...	Yes	Y		37	1.2	8	1						
9	1.2 Dead ...	Yes	Y		37	1.2	9	1						
10	1.2 Dead ...	Yes	Y		37	1.2	10	1						
11	1.2 Dead ...	Yes	Y		37	1.2	11	1						
12	1.2 Dead ...	Yes	Y		37	1.2	12	1						
13	1.2 Dead ...	Yes	Y		37	1.2	38	1	13	1				
14	1.2 Dead ...	Yes	Y		37	1.2	38	1	14	1				
15	1.2 Dead ...	Yes	Y		37	1.2	38	1	15	1				
16	1.2 Dead ...	Yes	Y		37	1.2	38	1	16	1				
17	1.2 Dead ...	Yes	Y		37	1.2	38	1	17	1				
18	1.2 Dead ...	Yes	Y		37	1.2	38	1	18	1				
19	1.2 Dead ...	Yes	Y		37	1.2	38	1	19	1				
20	1.2 Dead ...	Yes	Y		37	1.2	38	1	20	1				
21	1.2 Dead ...	Yes	Y		37	1.2	38	1	21	1				
22	1.2 Dead ...	Yes	Y		37	1.2	38	1	22	1				
23	1.2 Dead ...	Yes	Y		37	1.2	38	1	23	1				
24	1.2 Dead ...	Yes	Y		37	1.2	38	1	24	1				
25	1.4 Dead ...	Yes	Y		37	1.4								



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**Load Combinations (Continued)**

Description	Sol	PD	SR	Bl C	Fact	Bl C	Fact	Bl C	Fact	Bl C	Fact	Bl C	Fact	Bl C	Fact	Bl C	Fact
26	1.2 Dead ...	Yes	Y	37	1.2	39	1.5	25	1								
27	1.2 Dead ...	Yes	Y	37	1.2	39	1.5	26	1								
28	1.2 Dead ...	Yes	Y	37	1.2	39	1.5	27	1								
29	1.2 Dead ...	Yes	Y	37	1.2	39	1.5	28	1								
30	1.2 Dead ...	Yes	Y	37	1.2	39	1.5	29	1								
31	1.2 Dead ...	Yes	Y	37	1.2	39	1.5	30	1								
32	1.2 Dead ...	Yes	Y	37	1.2	39	1.5	31	1								
33	1.2 Dead ...	Yes	Y	37	1.2	39	1.5	32	1								
34	1.2 Dead ...	Yes	Y	37	1.2	39	1.5	33	1								
35	1.2 Dead ...	Yes	Y	37	1.2	39	1.5	34	1								
36	1.2 Dead ...	Yes	Y	37	1.2	39	1.5	35	1								
37	1.2 Dead ...	Yes	Y	37	1.2	39	1.5	36	1								
38	1.2 Dead ...	Yes	Y	37	1.2	40	1.5	25	1								
39	1.2 Dead ...	Yes	Y	37	1.2	40	1.5	26	1								
40	1.2 Dead ...	Yes	Y	37	1.2	40	1.5	27	1								
41	1.2 Dead ...	Yes	Y	37	1.2	40	1.5	28	1								
42	1.2 Dead ...	Yes	Y	37	1.2	40	1.5	29	1								
43	1.2 Dead ...	Yes	Y	37	1.2	40	1.5	30	1								
44	1.2 Dead ...	Yes	Y	37	1.2	40	1.5	31	1								
45	1.2 Dead ...	Yes	Y	37	1.2	40	1.5	32	1								
46	1.2 Dead ...	Yes	Y	37	1.2	40	1.5	33	1								
47	1.2 Dead ...	Yes	Y	37	1.2	40	1.5	34	1								
48	1.2 Dead ...	Yes	Y	37	1.2	40	1.5	35	1								
49	1.2 Dead ...	Yes	Y	37	1.2	40	1.5	36	1								
50	1.2 Dead ...	Yes	Y	37	1.2	41	1.5	25	1								
51	1.2 Dead ...	Yes	Y	37	1.2	41	1.5	26	1								
52	1.2 Dead ...	Yes	Y	37	1.2	41	1.5	27	1								
53	1.2 Dead ...	Yes	Y	37	1.2	41	1.5	28	1								
54	1.2 Dead ...	Yes	Y	37	1.2	41	1.5	29	1								
55	1.2 Dead ...	Yes	Y	37	1.2	41	1.5	30	1								
56	1.2 Dead ...	Yes	Y	37	1.2	41	1.5	31	1								
57	1.2 Dead ...	Yes	Y	37	1.2	41	1.5	32	1								
58	1.2 Dead ...	Yes	Y	37	1.2	41	1.5	33	1								
59	1.2 Dead ...	Yes	Y	37	1.2	41	1.5	34	1								
60	1.2 Dead ...	Yes	Y	37	1.2	41	1.5	35	1								
61	1.2 Dead ...	Yes	Y	37	1.2	41	1.5	36	1								
62	1.2 Dead ...	Yes	Y	37	1.2	42	1.5										
63	1.2 Dead ...	Yes	Y	37	1.2	43	1.5										
64	1.2 Dead ...	Yes	Y	37	1.2	44	1.5										
65	1.2 Dead ...	Yes	Y	37	1.2	45	1.5										
66	1.2 Dead ...	Yes	Y	37	1.2	46	1.5										
67	1.2 Dead ...	Yes	Y	37	1.2	47	1.5										
68	1.2 Dead ...	Yes	Y	37	1.2	48	1.5										
69	1.2 Dead ...	Yes	Y	37	1.2	49	1.5										
70	1.2 Dead ...	Yes	Y	37	1.2	50	1.5										
71	1.2 Dead ...	Yes	Y	37	1.2	51	1.5										
72	1.2 Dead ...	Yes	Y	37	1.2	52	1.5										
73	1.2 Dead ...	Yes	Y	37	1.2	53	1.5										
74	1.2 Dead ...	Yes	Y	37	1.2	54	1										
75	1.2 Dead ...	Yes	Y	37	1.2	55	1										
76	1.2 Dead ...	Yes	Y	37	1.2	56	1										
77	1.2 Dead ...	Yes	Y	37	1.2	57	1										
78	1.2 Dead ...	Yes	Y	37	1.2	58	1										
79	1.2 Dead ...	Yes	Y	37	1.2	59	1										
80	1.2 Dead ...	Yes	Y	37	1.2	60	1										
81	1.2 Dead ...	Yes	Y	37	1.2	61	1										
82	1.2 Dead ...	Yes	Y	37	1.2	62	1										



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### Load Combinations (Continued)

	Description	Sol	PD	SR	BI	C	Fact	BI	C	Fact	BI	C	Fact	BI	C	Fact	BI	C	Fact	BI	C	Fact	
83	1.2 Dead ...	Yes	Y		37	1.2	63	1															
84	1.2 Dead ...	Yes	Y		37	1.2	64	1															
85	1.2 Dead ...	Yes	Y		37	1.2	65	1															

### Envelope Joint Reactions

	Joint		X [k]	LC	Y [k]	LC	Z [k]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
1	N1	max	1.191	33	1.177	19	1.067	1	-565	9	1.629	37	286	32
2		min	-1.214	51	.339	1	-586	7	-1.47	15	-1.548	55	-554	50
3	N2	max	1.03	61	1.207	13	-.031	12	-.414	7	2.216	12	.278	33
4		min	-1.185	31	.349	7	-.554	18	-1.527	13	-2.049	6	-.576	51
5	N33A	max	.714	7	.045	19	.294	1	0	85	0	85	0	85
6		min	-.608	1	.01	1	-.365	7	0	1	0	1	0	1
7	N34	max	.242	2	.042	20	.191	2	0	85	0	85	0	85
8		min	-.269	8	.014	2	-.21	8	0	1	0	1	0	1
9	Totals:	max	.842	10	2.421	19	1.436	1						
10		min	-.842	4	.957	1	-1.436	7						

### Envelope Joint Displacements

	Joint		X [in]	LC	Y [in]	LC	Z [in]	LC	X Rotation	LC	Y Rotation	LC	Z Rotation [	LC
1	N1	max	0	85	0	85	0	85	0	85	0	85	0	85
2		min	0	1	0	1	0	1	0	1	0	1	0	1
3	N2	max	0	85	0	85	0	85	0	85	0	85	0	85
4		min	0	1	0	1	0	1	0	1	0	1	0	1
5	N3	max	0	85	0	85	0	85	0	85	0	85	0	85
6		min	0	1	0	1	0	1	0	1	0	1	0	1
7	N4	max	0	85	0	85	0	85	0	85	0	85	0	85
8		min	0	1	0	1	0	1	0	1	0	1	0	1
9	N5	max	.044	6	-.005	7	0	7	8.234e-04	13	4.094e-03	6	2.436e-03	50
10		min	-.043	12	-.022	13	0	1	-1.502e-04	7	-4.127e-03	12	-1.255e-03	32
11	N6	max	.053	6	-.006	7	0	18	7.458e-04	14	4.137e-03	6	2.529e-03	51
12		min	-.057	12	-.022	14	0	12	1.104e-04	8	-4.464e-03	12	-1.221e-03	33
13	N7	max	.044	6	.023	50	.123	8	2.749e-03	2	2.508e-03	2	1.044e-03	50
14		min	-.043	12	-.572	32	-.144	3	-2.35e-03	8	-2.326e-03	8	-3.914e-03	73
15	N8	max	.053	6	.023	50	.054	58	2.826e-03	2	2.19e-03	2	1.04e-03	58
16		min	-.056	12	-.571	32	-.12	28	-2.466e-03	8	-1.662e-03	8	-3.871e-03	70
17	N9	max	.045	6	-.181	33	1.691	7	1.504e-02	1	2.439e-02	7	1.005e-02	72
18		min	-.042	12	-1.098	51	-1.817	1	-1.479e-02	7	-2.587e-02	1	6.673e-04	11
19	N10	max	.054	6	-.064	7	1.25	7	4.651e-03	2	1.97e-02	7	8.69e-03	69
20		min	-.059	12	-1.083	50	-1.421	1	-5.534e-03	8	-2.26e-02	1	-4.127e-03	7
21	N11	max	.044	6	.007	50	.097	9	2.749e-03	2	2.498e-03	2	1.053e-03	50
22		min	-.043	12	-.526	32	-.116	3	-2.35e-03	8	-2.316e-03	8	-3.082e-03	32
23	N12	max	.053	6	.007	50	.055	12	2.826e-03	2	2.179e-03	2	1.05e-03	58
24		min	-.056	12	-.526	32	-.091	31	-2.466e-03	8	-1.652e-03	8	-2.975e-03	28
25	N13	max	.04	6	.004	50	.097	9	2.749e-03	2	2.498e-03	2	1.053e-03	50
26		min	-.038	12	-.525	32	-.116	3	-2.35e-03	8	-2.316e-03	8	-3.082e-03	32
27	N14	max	.05	6	.004	50	.055	12	2.826e-03	2	2.179e-03	2	1.05e-03	58
28		min	-.052	12	-.526	32	-.091	31	-2.466e-03	8	-1.652e-03	8	-2.975e-03	28
29	N15	max	.084	31	.003	50	.082	12	2.872e-03	2	2.156e-03	2	1.066e-03	58
30		min	-.049	61	-.526	32	-.094	31	-2.525e-03	8	-1.626e-03	8	-2.951e-03	28
31	N16	max	.036	6	.004	50	.105	9	2.763e-03	2	2.498e-03	2	1.053e-03	50
32		min	-.039	37	-.525	32	-.126	3	-2.364e-03	8	-2.316e-03	8	-3.082e-03	32
33	N17	max	.044	6	.002	50	.03	12	5.251e-04	1	2.509e-03	6	1.386e-03	50
34		min	-.043	12	-.036	32	-.031	6	-2.777e-04	7	-2.493e-03	12	-2.81e-03	32
35	N18	max	.053	6	.002	58	.035	12	5.254e-04	52	2.854e-03	6	1.374e-03	50





**Envelope Joint Displacements (Continued)**

Joint		X [in]	I.C.	Y [in]	I.C.	Z [in]	I.C.	X Rotation	I.C.	Y Rotation	I.C.	Z Rotation	I.C.	
36		min	-0.57	12	-0.36	32	-0.33	6	-1.675e-04	34	-2.944e-03	12	-2.82e-03	32
37	N19	max	0.52	6	0	58	0.3	12	5.251e-04	1	2.509e-03	6	1.386e-03	50
38		min	-0.51	12	-0.36	28	-0.31	6	-2.777e-04	7	-2.493e-03	12	-2.81e-03	32
39	N20	max	0.62	6	0	58	0.35	12	5.254e-04	52	2.854e-03	6	1.374e-03	50
40		min	-0.66	12	-0.36	28	-0.33	6	-1.675e-04	34	-2.944e-03	12	-2.82e-03	32
41	N21	max	0.79	31	0	58	0.36	12	5.234e-04	55	2.854e-03	6	1.374e-03	50
42		min	-0.69	12	-0.36	28	-0.29	6	-1.653e-04	34	-2.944e-03	12	-2.82e-03	32
43	N22	max	0.5	6	0	58	0.28	12	5.436e-04	1	2.509e-03	6	1.386e-03	50
44		min	-0.5	12	-0.36	28	-0.29	6	-2.961e-04	7	-2.493e-03	12	-2.81e-03	32
45	N23	max	0.45	6	-1.58	7	1.326	7	1.504e-02	1	2.438e-02	7	9.889e-03	54
46		min	-0.42	12	-0.951	50	-1.429	1	-1.479e-02	7	-2.586e-02	1	6.581e-04	11
47	N24	max	0.54	6	-1.26	7	0.954	7	4.651e-03	2	1.968e-02	7	8.587e-03	1
48		min	-0.59	12	-0.958	50	-1.082	1	-5.534e-03	8	-2.259e-02	1	-4.136e-03	7
49	N25	max	1.18	6	-1.11	7	1.326	7	1.504e-02	1	2.438e-02	7	9.889e-03	54
50		min	-1.19	12	-0.951	50	-1.429	1	-1.479e-02	7	-2.586e-02	1	6.581e-04	11
51	N26	max	1.15	6	-1.1	7	0.954	7	4.651e-03	2	1.968e-02	7	8.587e-03	1
52		min	-1.28	12	-0.951	50	-1.082	1	-5.534e-03	8	-2.259e-02	1	-4.136e-03	7
53	N27	max	0.541	6	-1.11	7	0.89	6	1.696e-03	2	1.911e-02	7	2.148e-02	12
54		min	-0.628	12	-0.951	50	-1.063	12	-5.425e-03	69	-2.209e-02	1	-1.939e-02	6
55	N28	max	0.486	5	-1.11	7	2.368	7	2.651e-02	1	2.438e-02	7	1.083e-02	5
56		min	-0.253	11	-0.951	50	-2.482	1	-2.626e-02	7	-2.586e-02	1	-5.522e-03	11
57	N29	max	0.425	6	-1.11	7	0.897	6	2.03e-03	2	1.911e-02	7	2.128e-02	12
58		min	-0.5	12	-0.951	50	-1.054	12	-5.425e-03	69	-2.209e-02	1	-1.919e-02	6
59	N30	max	0.425	6	-0.92	7	0.916	6	2.03e-03	2	1.911e-02	7	2.128e-02	12
60		min	-0.5	12	-0.956	50	-1.076	12	-5.425e-03	69	-2.209e-02	1	-1.919e-02	6
61	N32	max	0.67	31	0.03	50	0.72	12	2.873e-03	2	2.156e-03	2	1.066e-03	58
62		min	-0.5	12	-0.526	32	-0.93	31	-2.526e-03	8	-1.626e-03	8	-2.95e-03	28
63	N33	max	0.67	31	0.05	50	0.7	12	2.873e-03	2	2.156e-03	2	1.066e-03	58
64		min	-0.5	12	-0.528	32	-0.95	31	-2.526e-03	8	-1.626e-03	8	-2.95e-03	28
65	N33A	max	0	85	0	85	0	85	7.115e-03	6	1.332e-02	6	1.388e-02	50
66		min	0	1	0	1	0	1	-6.73e-03	12	-1.552e-02	12	-9.91e-04	7
67	N34	max	0	85	0	85	0	85	3.086e-03	14	1.433e-03	31	5.01e-04	51
68		min	0	1	0	1	0	1	-6.48e-04	8	-9.194e-04	61	-6.907e-03	33

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

Mem	Shape	Code Check	Loc[in]	I.C.	Shear	Loc[in]	Dir	I.C.	phi*Pnc	phi*Pnt [k]	phi*Mn	phi*Mn	ChEqn	
1	VB1	PIPE 2.0	002	36	12	001	36		12	28.843	32.13	1.872	1.872	2...H...
2	VB2	PIPE 3.0	187	0	51	101	36		50	62.138	65.205	5.749	5.749	2...H...
3	SO1	HSS3X3X4	302	0	12	116	0	z	50	98.68	101.016	8.556	8.556	2...H...
4	SO2	HSS3X3X4	259	0	37	120	0	z	51	98.68	101.016	8.556	8.556	2...H...
5	H1	PIPE 2.5	563	87.5	52	100	87.5		26	10.696	50.715	3.596	3.596	1...H...
6	H2	PIPE 2.5	630	87.5	1	199	87.5		1	10.696	50.715	3.596	3.596	1...H...
7	PM1	PIPE 3.0	219	51.203	37	061	51.203		33	62.138	65.205	5.749	5.749	2...H...
8	PM2	PIPE 3.0	189	51.203	37	069	51.203		33	62.138	65.205	5.749	5.749	2...H...
9	PM3	HSS2.375X0.125	827	27	6	151	28.125		56	13.102	25.925	1.554	1.554	1...H...
10	TB2	PIPE 2.0	043	40	19	004	80		19	18.857	32.13	1.872	1.872	1...H...
11	TB1	PIPE 2.0	039	40	20	004	0		20	18.857	32.13	1.872	1.872	1...H...

# Exhibit F

## **Power Density/RF Emissions Report**

# Transcom Engineering, Inc.

Wireless Network Design and Deployment

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## Radio Frequency Emissions Analysis Report

**T-MOBILE** Existing Facility

**Site ID: CT11119A**

Wilton/ Mountain Rd.& Bra  
128 Mather St (Recycle Center)  
Wilton, CT 06897

**June 1, 2019**

**Transcom Engineering Project Number: 737001-0105**

<b>Site Compliance Summary</b>	
Compliance Status:	<b>COMPLIANT</b>
Site total MPE% of FCC general population allowable limit:	<b>22.34 %</b>

# Transcom Engineering, Inc.

Wireless Network Design and Deployment

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June 1, 2019

T-MOBILE

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

## Emissions Analysis for Site: **CT11119A – Wilton/ Mountain Rd.& Bra**

Transcom Engineering, Inc (“Transcom”) was directed to analyze the proposed upgrades to the T-MOBILE facility located at **128 Mather St (Recycle Center), Wilton, CT**, for the purpose of determining whether the emissions from the Proposed T-MOBILE Antenna Installation located on this property are within specified federal limits.

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

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

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

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

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

Additional details can be found in FCC OET 65.

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## CALCULATIONS

Calculations were performed for the proposed upgrades to the T-MOBILE antenna facility located at **128 Mather St (Recycle Center), Wilton, CT**, using the equipment information listed below. All calculations were performed per the specifications under FCC OET 65. Since T-MOBILE is proposing highly focused directional panel antennas, which project most of the emitted energy out toward the horizon, all calculations were performed assuming a lobe representing the maximum gain of the antenna per the antenna manufactures supplied specifications, minus 10 dB for directional panel antennas, was focused at the base of the tower. For this report the sample point is the top of a 6-foot person standing at the base of the tower.

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

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

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

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

*Table 1: Channel Data Table*

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

Sector	Antenna Number	Antenna Make / Model	Antenna Centerline (ft)
A	1	Ericsson AIR32 B66A / B2A	93
A	2	Ericsson AIR21 B2A/B4P	93
A	3	RFS APXVAARR24_43-U-NA20	93
B	1	Ericsson AIR32 B66A / B2A	93
B	2	Ericsson AIR21 B2A/B4P	93
B	3	RFS APXVAARR24_43-U-NA20	93
C	1	Ericsson AIR32 B66A / B2A	93
C	2	Ericsson AIR21 B2A/B4P	93
C	3	RFS APXVAARR24_43-U-NA20	93

*Table 2: Antenna Data*

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

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## RESULTS

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

Antenna ID	Antenna Make / Model	Frequency Bands	Antenna Gain (dBd)	Channel Count	Total TX Power (W)	ERP (W)	MPE %
Antenna A1	Ericsson AIR32 B66A / B2A	1900 MHz (PCS) / 2100 MHz (AWS)	15.85 / 15.85	6	280	10,768.57	5.11
Antenna A2	Ericsson AIR21 B2A/B4P	1900 MHz (PCS) / 2100 MHz (AWS)	15.9 / 15.9	2	55	2,139.75	1.02
Antenna A3	RFS APXVAARR24_43-U-NA20	600 MHz / 700 MHz	12.95 / 13.35	4	120	2,443.03	2.75
Sector A Composite MPE%							<b>8.88</b>
Antenna B1	Ericsson AIR32 B66A / B2A	1900 MHz (PCS) / 2100 MHz (AWS)	15.85 / 15.85	6	280	10,768.57	5.11
Antenna B2	Ericsson AIR21 B2A/B4P	1900 MHz (PCS) / 2100 MHz (AWS)	15.9 / 15.9	2	55	2,139.75	1.02
Antenna B3	RFS APXVAARR24_43-U-NA20	600 MHz / 700 MHz	12.95 / 13.35	4	120	2,443.03	2.75
Sector B Composite MPE%							<b>8.88</b>
Antenna C1	Ericsson AIR32 B66A / B2A	1900 MHz (PCS) / 2100 MHz (AWS)	15.85 / 15.85	6	280	10,768.57	5.11
Antenna C2	Ericsson AIR21 B2A/B4P	1900 MHz (PCS) / 2100 MHz (AWS)	15.9 / 15.9	2	55	2,139.75	1.02
Antenna C3	RFS APXVAARR24_43-U-NA20	600 MHz / 700 MHz	12.95 / 13.35	4	120	2,443.03	2.75
Sector C Composite MPE%							<b>8.88</b>

*Table 3: T-MOBILE Emissions Levels*



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

Site Composite MPE%	
Carrier	MPE%
T-MOBILE – Max Per Sector Value	<b>8.88 %</b>
Verizon Wireless	4.01 %
AT&T	1.63 %
MetroPCS	0.18 %
Sprint	2.83 %
Nextel	0.19 %
Town	4.62 %
<b>Site Total MPE %:</b>	<b>22.34 %</b>

*Table 4: All Carrier MPE Contributions*

T-MOBILE Sector A Total:	8.88 %
T-MOBILE Sector B Total:	8.88 %
T-MOBILE Sector C Total:	8.88 %
Site Total:	22.34 %

*Table 5: Site MPE Summary*

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

T-MOBILE _ Frequency Band / Technology Max Power Values (Per Sector)	# Channels	Watts ERP (Per Channel)	Height (feet)	Total Power Density ( $\mu\text{W}/\text{cm}^2$ )	Frequency (MHz)	Allowable MPE ( $\mu\text{W}/\text{cm}^2$ )	Calculated % MPE
T-Mobile 1900 MHz (PCS) LTE	4	1,538.37	93	29.23	1900 MHz (PCS)	1000	2.92%
T-Mobile 2100 MHz (AWS) LTE	2	2,307.55	93	21.92	2100 MHz (AWS)	1000	2.19%
T-Mobile 1900 MHz (PCS) GSM	1	583.57	93	2.77	1900 MHz (PCS)	1000	0.28%
T-Mobile 2100 MHz (AWS) UMTS	1	1,556.18	93	7.39	2100 MHz (AWS)	1000	0.74%
T-Mobile 600 MHz LTE / 5G NR	2	788.97	93	7.49	600 MHz	400	1.87%
T-Mobile 700 MHz LTE	2	432.54	93	4.11	700 MHz	467	0.88%
						<b>Total:</b>	<b>8.88%</b>

*Table 6: T-MOBILE Maximum Sector MPE Power Values*

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## Summary

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

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

T-MOBILE Sector	Power Density Value (%)
Sector A:	8.88 %
Sector B:	8.88 %
Sector C:	8.88 %
T-MOBILE Maximum Total (per sector):	8.88 %
Site Total:	22.34 %
Site Compliance Status:	<b>COMPLIANT</b>

The anticipated composite MPE value for this site assuming all carriers present is **22.34 %** of the allowable FCC established general population limit sampled at the ground level. This is based upon values listed in the Connecticut Siting Council database for existing carrier emissions.

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



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