# **Robinson+Cole**

#### KENNETH C. BALDWIN

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Also admitted in Massachusetts and New York

October 14, 2022

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

#### Re: Notice of Exempt Modification – Facility Modification 880 Post Road East, Westport, Connecticut

Dear Attorney Bachman:

Cellco Partnership d/b/a Verizon Wireless ("Cellco") currently maintains an existing wireless telecommunications facility at the above-referenced property address (the "Property"). Cellco's facility consists of antennas and remote radio heads attached to a Connecticut State Police tower and associated equipment on the ground near the base of the tower. The tower and Cellco's use of the tower were approved by the Siting Council ("Council") in March of 1990 (Docket No 123). A copy of the Council's Docket No. 123 Decision and Order is included in <u>Attachment 1</u>.

On May 18, 2022, Cellco filed a notice of exempt modification seeking Council approval to modify its existing facility at the Property (*See* EM-VER-158-220518). The Council approved EM-VER-158-220518 on July 28, 2022. In addition to the modification approved in EM-VER-158-220518, Cellco now seeks approval to install six (6) interference mitigation filters behind certain antennas on the tower. Specifications for the interference filters are included in Attachment 2.

Please accept this letter as notification pursuant to R.C.S.A. § 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 Westport's Chief Elected Official and Land Use Officer.

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Melanie A. Bachman, Esq. October 14, 2022 Page 2

The planned modifications to the facility fall squarely within those activities explicitly provided for in R.C.S.A. § 16-50j-72(b)(2).

1. The proposed modifications will not result in an increase in the height of the existing tower. The filters will be installed on Cellco's existing antenna mounts.

2. The proposed modifications will not involve any change to ground-mounted equipment and, therefore, will not require the extension of the site boundary.

3. The proposed modifications will not increase noise levels at the facility by six decibels or more, or to levels that exceed state and local criteria.

4. The installation of Cellco's new interference filters will not change radio frequency (RF) emissions at the facility to a level at or above the Federal Communications Commission (FCC) safety standard. Therefore, no new power density information is included in this filing.

5. The proposed modifications will not cause a change or alteration in the physical or environmental characteristics of the site.

6. According to the attached Structural Analysis ("SA") and Mount Analysis ("MA"), the existing tower, tower foundation and antenna mounts, with certain modifications, can support Cellco's proposed modifications. Copies of the SA and MA are included in <u>Attachment 3</u>.

A copy of the parcel map and Property owner information is included in <u>Attachment 4</u>. A Certificate of Mailing verifying that this filing was sent to municipal officials and the property owner is included in <u>Attachment 5</u>.

For the foregoing reasons, Cellco respectfully submits that the proposed modifications to the above-referenced telecommunications facility constitutes an exempt modification under R.C.S.A. § 16-50j-72(b)(2).

Melanie A. Bachman, Esq. October 14, 2022 Page 3

Sincerely,

Kunig mm

Kenneth C. Baldwin

Enclosures

Copy to:

Jennifer Tooker, Westport First Selectwoman Mary Young, Planning and Zoning Director Connecticut State Police, Property Owner Alex Tyurin, Verizon Wireless

# **ATTACHMENT 1**

An application of the Department :	Docket 123
of Public Safety, Division of :	
State Police, for a Certificate of :	Connecticut
Environmental Compatibility and Public :	Siting
Need for the construction, operation, :	Council
and maintenance of a telecommunications :	
tower and associated equipment in the :	
Town of Westport, Connecticut. :	March 29, 1990

#### DECISION AND ORDER

Pursuant to the foregoing Findings of Fact and Opinion, the Connecticut Siting Council finds that the effects associated with the construction, operation, and maintenance of a telecommunications tower, building, and associated equipment at the proposed Westport, Connecticut, site including effects on the natural environment; ecological integrity and balance; public health and safety; scenic, historic, and recreational values; forests and parks; air and water purity; and fish and wildlife are not 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 Department of Public Safety, Division of State Police, for the construction, operation, and maintenance of a telecommunications tower, associated equipment, and building at the proposed Troop "G" site in Westport, Connecticut.

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

- 1. The self-supporting lattice tower shall be no taller than necessary to provide the proposed communications and in no event shall the Westport, Troop "G", tower exceed 180 feet above ground level, with antennas and all appurtenances.
- 2. The facility shall be constructed in accordance with the State of Connecticut Basic Building Code.
- 3. 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 include detailed plans for the site's preparation including the tower and building foundation, site access, and erosion and sedimentation controls.
- 4. 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 facilities granted in this Decision and Order shall be brought into compliance with such standards.

Docket 123 Decision & Order Page 2

- 5. The Certificate Holder shall provide the Council a recalculated report of power density if and when circumstances in operation cause a change in power density above the levels originally calculated and provided in the application.
- 6. The Certificate Holder shall permit public or private entities to share space on the proposed tower for fair consideration, or shall provide any requesting entity with specific legal, technical, environmental, or economic reasons precluding such tower sharing.
- 7. If the facility does not initially provide, or permanently ceases to provide telecommunications service following completion of construction, this Decision and Order shall be void, and the tower and all associated equipment shall be dismantled and removed or reapplication for any new use shall be made to the Council before any such new use is made.
- 8. 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 effective date of this Decision and Order.

Pursuant to Section 16-50p, we hereby direct that a copy of the Findings of Fact, Opinion, and Decision and Order be served on each person listed below. A notice of issuance shall be published in the Bridgeport Post, The Hour, and the Advocate.

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:

#### <u>Party</u>

#### Its Representatives

Department of Public Safety Division of State Police Division of State Police Division of State Police Police Support Services 294 Colony Street Building No. 5 Meriden, Connecticut 06450 L.D. McCallum and Robert F. Vachelli Assistant Attorneys General MacKenzie Hall 110 Sherman Street Hartford, Connecticut 06105 Docket 123 Decision & Order Page 3

#### <u>Party</u>

Metro Mobile CTS, of Fairfield County, Inc. 50 Rockland Road South Norwalk, Connecticut 06854

#### <u>Party</u>

Metro Mobile CTS, of 110 East 59th Street New York, New York 10022

#### <u>Party</u>

Town of Westport 110 Myrtle Avenue Westport, Connecticut 06880

4052E

#### Its Representative

Henry H. Sprague, Esq. Robinson & Cole One Commercial Plaza Hartford, Connecticut 06105

#### Its Representative

Henry H. Sprague, Esq. Robinson & Cole One Commercial Plaza Hartford, Connecticut 06105

#### Its Representative

Paul L. Brozdowski Office of Town Attorney 110 Myrtle Avenue Westport, Connecticut 06880

#### CERTIFICATION

The undersigned members of the Connecticut Siting Council hereby certify that they have heard this case in Docket No. 123 - An application of the Department of Public Safety, Division of State Police for a Certificate of Environmental Compatibility and Public Need for the construction, operation, and maintenance of a telecommunications tower and associated equipment in the Town of Westport, Connecticut or read the record thereof, and that we voted as follows:

Dated at New Britain, Connecticut the 26th day of March, 1990.

<u>Vote Cast</u>

Abstain

Yes

Yes

Yes

Yes

Gloria Dibble Pond Chairperson

Council Members

Commissioner Peter Boucher Designee: Mark Marcus

Commissioner Leslie Carothers Designee: Brian Emerick

Ε Harry Covev

Mortimer A. Gelston

Sheets

Daniel P. Lyngh, Jr.

н.

Yes

Abstain

Yes

Colin C. Tait

Absent

4235E-2

Paulann

William H.

# **ATTACHMENT 2**



# BSF0020F3V1-1

## TWIN BANDSTOP 900MHZ INTERFERENCE MITIGATION FILTER

The BSF0020 is ideal for co-located 700, 850 and 900 networks. Utilising a 2.6MHz guardband the BSF0020 provides rejection of the 900 UL band while passing 700/850 UL and DL bands. Capable of being used in an outdoor environment the BSF0020 contains two identical bandstop filters, suitable for 2x2 MIMO configuration, offering excellent insertion loss, group delay and rejection.

#### FEATURES

- Passes full 700 and 850 bands
- Low insertion loss
- Rejection of 900MHz uplink
- DC/AISG pass
- Twin unit
- Dual twin mounting available



#### **TECHNICAL SPECIFICATIONS**

BAND NAME	700 PATH / 850 UPLINK PATH	850 DOWNLINK PATH		
Passband	698 - 849MHz	869 - 891.5MHz		
Insertion loss	0.1dB typical / 0.3dB maximum	0.5dB typical, 1.45dB maximum		
Return loss	24dB typical, 2	18dB minimum		
Maximum input power (Per Port)	100W average	200W average and 66W per 5MHz		
Rejection	53dB minimum @	894.1 - 896.5MHz		
ELECTRICAL				
Impedance	500	hms		
Intermodulation products	-160dBc maximum in UL Band (assuming -153dBc maximur	20MHz Signal), with 2 x 43dBm carriers n with 2 x 43dBm		
DC / AISG				
Passband	0 - 13	3MHz		
Insertion loss	0.3dB m	naximum		
Return loss	15dB m	inimum		
Input voltage range	± 3	3V		
DC current rating	2A continuous, 4A peak			
Compliance	3GPP TS 25.461			
ENVIRONMENTAL				
For further details of environmental con	mpliance, please contact Kaelus.			
Temperature range	-20°C to +60°C	-4°F to +140°F		
Ingress protection	IP	67		
Altitude	2600m	8530ft		
Lightning protection	RF port: ±5kA maximum (8/20us), IEC 61000-4-5 – Unit n	nust be terminated with some lightning protection circuits.		
MTBF	>1,000,0	00 hours		
Compliance	ETSI EN 300 019 class 4.1H,	RoHS, NEBS GR-487-CORE		
MECHANICAL				
Dimensions H x D x W	269 x 277 x 80mm   10.60 x 10.90 x 3.1	5in (Excluding brackets and connectors)		
Weight	8.0 kg   17.6 lb	os (no bracket)		
Finish	Powder coated, lig	ht grey (RAL7035)		
Connectors	RF: 4.3-1	0 (F) x 4		
Mounting	Optional pole/wall bracket supplied with two metal clamps 4 inform	15-178mm diameter poles or custom bracket. See ordering ation.		



### **ORDERING INFORMATION**

PART NUMBER	CONFIGURATION	OPTIONAL FEATURES	CONNECTORS
BSF0020F3V1	TWIN, 2 in / 2 out	DC/AISG PASS NO BRACKET	4.3-10 (F)
BSF0020F3V1-1	TWIN, 2 in / 2 out	DC/AISG PASS	4.3-10 (F)
BSF0020F3V1-2	QUAD, 4 in / 4 out	DC/AISG PASS	4.3-10 (F)



## MECHANICAL BLOCK DIAGRAM



k/elus

# **ATTACHMENT 3**



Centered on Solutions<sup>™</sup>

## Structural Analysis Report

180' Existing Lattice Tower

Verizon Antenna Upgrade

CSP Tower Ref: #32

880 Post Road East Westport, CT

CENTEK Project No. 22027.01

<del>Date: April 5, 2022</del>

Rev 3: September 20, 2022

Max Stress Ratio = 91%



Prepared for:

Verizon Wireless 20 Alexander Drive Wallingford, CT 06492

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- PRIMARY ASSUMPTIONS USED IN THE ANALYSIS
- ANALYSIS
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- CONCLUSION

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- STANDARD ENGINEERING CONDITIONS
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- tnxTower DETAILED OUTPUT
- tnxTower INPUT/OUTPUT SUMMARY (REV.F FOR TWIST AND SWAY)
- tnxTower DETAILED OUTPUT (REV.F FOR TWIST AND SWAY)
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- FOUNDATION ANALYSIS

## <u>Introduction</u>

The purpose of this report is to summarize the results of the non-linear,  $P-\Delta$  structural analysis of the antenna upgrade by Verizon on the existing lattice tower located in Westport, Connecticut.

The host tower is a 180-ft, three legged, lattice tower originally designed and manufactured by Rohn Industries. File no. 26263DL dated February 1, 1991. The tower geometry, structure member sizes and foundation information were taken from a previous structural analysis report prepared by Centek job no. 22089.02 dated September 20, 2022. The tower has been previously reinforced. All previous reinforcements are assumed to be installed. See Primary Assumptions Section below for detailed reinforcement reference reports.

Antenna and appurtenance inventory was taken from the aforementioned structural analysis and information provided by Verizon.

The tower consists of nine (9) vertical sections consisting of steel pipe legs conforming to ASTM A572-50 and steel pipe lateral bracing. The vertical tower sections are connected by bolted flange plates with the diagonal and horizontal bracing to pipe legs consisting of bolted connections. The width of the tower face is 8.5-ft at the top and 27.7-ft at the bottom.

### <u>Antenna and Appurtenance Summary</u>

Antenna Type	Carrier	Carrier Mount Ce El		Cable
(1) Telewave ANT490Y10- WR Yagi	D&K-51 CSP-1 (existing)	Leg Mounted	187'	(1) LDF5-50A
(1) Telewave ANT490Y10- WR Yagi	CSP-22 (existing)	Leg Mounted	181'	(1) LDF5-50A
(1) Celwave PA6-65 Dish	D&K-52 CSP-42 (existing)	Pipe Mounted to to tower Leg	177'	(1) EW-63
(3) RFI BPA7496-180-14 Panel Antennas (1) Bird TTA unit	CSP-47,80- 82 (existing)	(1) USF12-396 Sector Frame	170'	(3) AVA7-50A (1) LDF4-50A
(1) 3-ft Yagi	CSP (existing)	Pipe Mounted to tower Leg	169'	(1) LDF5-50A
(2) BXA-70063-4CF (1) BXA-70080-4CF (2) JAHH-65B-R3B (1) CBC78T-DS-43	VZW (existing to remove)	See Below Mount	160'	NA

The existing and proposed loads considered in the analysis consist of the following:

Antenna Type	Carrier	Mount	Antenna Centerline Elevation	Cable
(4) MX06FRO640-02 (3) MT6407-77A (1) 4439d-25A RRH (1) 4440d-13A RRH (1) OVP Unit (6) BSF0020F3V1-1	VZW (Proposed)	See Below Mount	160'	(1) 12x24 Hybrid Cable
(4) JAHH-65B-R3B (3) XXDWMM-12.5-65-8T (3) B2/B66A RRHs (3) B5/B13 RRHs (3) RT4401-48A RRHs (2) CBC78T-DS-43 (1) OVP Units	VZW (existing to remain)	(3) 15-ft Gate Booms	160'	(6) 1 5/8" Coax Cables (1) 12x24 Hybrid Cable
<ul> <li>(3) QD6616-7</li> <li>(3) DMP65R-BU6DA</li> <li>(3) AIR6419</li> <li>(3) AIR6449</li> <li>(3) 4478 B14 RRH Units</li> <li>(3) 4449 B5/12 RRH Units</li> <li>(9) RRUS-32 RRH Units</li> <li>(2) DC6-48-60-18-8F</li> <li>(1) DC9</li> </ul>	AT&T (existing)	(3) 14-ft V Frames (p/n VFA14-H10- 2120)	133'	(6) 1 1/4" Coax Cables (3) Fiber Cables (7) DC Cables
(6) Ericsson AIR21 (3) Andrew LNX-6515DS (3) RRUS-11 (3) TMAs	T-Mobile (existing)	(3) 12-ft T-Frames	125'	(18) 1 5/8" Coax Cables (1) 6x12 Hybrid Cables
(1) Telewave ANT150D Dipole	CSP (existing)	Pipe Mounted to to tower Leg	113'	(1) LDF4-50A
(1) GPS Antenna	D&K-1 CSP-43 (existing)	Leg Mounted	61'	(1) LDF4-50A

## Primary Assumptions Used in the Analysis

- The tower structure's theoretical capacity not including any assessment of the condition of the tower.
- The tower carries the horizontal and vertical loads due to the weight of antennas, ice load and wind.
- Tower is properly installed and maintained.
- Tower is in plumb condition.
- Tower loading for antennas and mounts as listed in this report.
- All bolts are appropriately tightened providing the necessary connection continuity.
- All welds are fabricated with ER-70S-6 electrodes.
- All members are assumed to be as specified in the original tower design documents.
- All members are "hot dipped" galvanized in accordance with ASTM A123 and ASTM A153 Standards.
- All member protective coatings are in good condition.
- All tower members were properly designed, detailed, fabricated, installed and have been properly maintained since erection.
- Any deviation from the analyzed antenna loading will require a new analysis for verification of structural adequacy.
- All coax cables should be routed as specified in section 3 of this report.
- All previous reinforcements per the below listed structural analysis and modification reports are assumed to be installed.
  - Structural report prepared by AECOM Corp for AT&T project no. SMK-004 / 60581632 dated 7/13/18.
  - Structural report prepared by AECOM Corp for Verizon project no. VZ5-224 / 60620140 dated 7/10/20.
- The Verizon antenna mount information was taken from the mount analysis report and modification drawings prepared by Maser Consulting job no. 21777772A dated August 22, 2022

## <u>Analysis</u>

The existing tower was analyzed using a comprehensive computer program entitled tnxTower. The program analyzes the tower, considering the worst case loading condition. The tower is considered as loaded by concentric forces along the tower, and the model assumes that the tower members are subjected to bending, axial, and shear forces.

The existing tower was analyzed for the controlling basic wind speed with no ice and the applicable wind and ice combination to determine stresses in members as per guidelines of TIA-222-H entitled "Structural Standard for Antenna Support Structures, Antennas and Small Wind Turbine Support Structures", the American Institute of Steel Construction (AISC) and the Manual of Steel Construction; Load and Resistance Factor Design (LRFD).

The controlling wind speed is determined by evaluating the local available wind speed data as provided in Appendix N of the CSBC<sup>1</sup> and the wind speed data available in the TIA-222-H Standard.

## <u>Tower Loading</u>

Tower loading was determined by the basic wind speed as applied to projected surface areas with modification factors per TIA-222-H, gravity loads of the tower structure and its components, and the application of 1.0" radial ice on the tower structure and its components.

Load Cases:	Load Case 1; 130 mph (Risk Cat III) wind speed w/ no ice plus gravity load – used in calculation of tower stresses and rotation.	[Appendix N of the 2018 CT Building Code]
	Load Case 2; 50 mph wind speed w/ 1.00" radial ice plus gravity load – used in calculation of tower stresses.	[Annex B of TIA-222-H]
	Load Case 3; 90 mph wind speed w/ 0.5" radial ice plus gravity load – used in calculation of tower twist and sway.	[TIA-222-F used for calculation of tower twist and sway per the requirements of the CSP]

<sup>&</sup>lt;sup>1</sup> The 2015 International Building Code as amended by the 2018 Connecticut State Building Code (CSBC).

## <u>Tower Capacity</u>

Tower Section	Elevation	Stress Ratio (percentage of capacity)	Result
Leg (T12)	20.0' - 30.0'	62.3%	PASS
Diagonal (T12)	20.0' - 30.0'	90.6%	PASS
Horizontal (T11)	30.0' - 40.0'	83.8%	PASS

Calculated stresses were found to be within allowable limits.

• The tower combined deflection was found to be within allowable limits.

Deflection Criteria	Proposed (degrees)	Allowable (degrees)	Result
Sway (Tilt)	0.3973	n/a	n/a
Twist	0.3179	n/a	n/a
Combined	0.7152	0.75	PASS

TIA-222-F standard used for calculation of tower twist and sway per the requirements of the CSP.

## Foundation and Anchors

The existing foundation consists of three (3) 4.5-ft diameter x 27-ft long reinforced concrete caissons. The base of the tower is connected to the foundation by means of (10)  $1.00^{\circ}$  anchor bolts per leg embedded into the concrete foundation structure.

 The tower reactions developed from the governing Load Case were used in the verification of the foundation and anchor bolts:

Load Effect	Proposed Tower Reactions
Leg Shear	52 kips
Leg Compression	355 kips
Leg Tension	311 kips
Base Moment	8,004 ft-kips
Base Shear	89 kips

The anchor bolts were found to be within allowable limits.

Tower Section	Component	Stress Ratio (percentage of capacity)	Result
Anchor Bolts	Combined Compression and Shear	48.3%	PASS

• The foundation was found to be within allowable limits.

Foundation	Design Limit	(percentage of capacity)	Result
(3) Reinforced	Uplift	35%	PASS
Concrete Caisson	Bearing	46%	PASS

## <u>Conclusion</u>

This analysis shows that the subject tower **is adequate** to support the proposed antenna configuration.

The analysis is based, in part, on the information provided to this office by Verizon and the CSP. If the existing conditions are different than the information in this report, Centek Engineering, Inc. must be contacted for resolution of any potential issues.

Please feel free to call with any questions or comments.

Respectfully Submitted by:

Timothy J. Lynn, PE Structural Engineer



## <u>Standard Conditions for Furnishing of</u> <u>Professional Engineering Services on</u> <u>Existing Structures</u>

All engineering services are performed on the basis that the information used is current and correct. This information may consist of, but is not necessarily limited to:

- Information supplied by the client regarding the structure itself, its foundations, the soil
  conditions, the antenna and feed line loading on the structure and its components, or
  other relevant information.
- Information from the field and/or drawings in the possession of Centek Engineering, Inc. or generated by field inspections or measurements of the structure.
- It is the responsibility of the client to ensure that the information provided to Centek Engineering, Inc. and used in the performance of our engineering services is correct and complete. In the absence of information to the contrary, we assume that all structures were constructed in accordance with the drawings and specifications and are in an uncorroded condition and have not deteriorated. It is therefore assumed that its capacity has not significantly changed from the "as new" condition.
- All services will be performed to the codes specified by the client, and we do not imply to meet any other codes or requirements unless explicitly agreed in writing. If wind and ice loads or other relevant parameters are to be different from the minimum values recommended by the codes, the client shall specify the exact requirement. In the absence of information to the contrary, all work will be performed in accordance with the latest revision of ANSI/ASCE10 & ANSI/EIA-222
- All services performed, results obtained, and recommendations made are in accordance with generally accepted engineering principles and practices. Centek Engineering, Inc. is not responsible for the conclusions, opinions and recommendations made by others based on the information we supply.

## <u>GENERAL DESCRIPTION OF STRUCTURAL</u> <u>ANALYSIS PROGRAM</u>

tnxTower, is an integrated structural analysis and design software package for Designed specifically for the telecommunications industry, tnxTower, formerly RISA Tower, automates much of the tower analysis and design required by the TIA/EIA 222 Standard.

#### tnxTower Features:

- tnxTower can analyze and design 3- and 4-sided guyed towers, 3- and 4-sided selfsupporting towers and either round or tapered ground mounted poles with or without guys.
- The program analyzes towers using the TIA-222-G (2005) standard or any of the previous TIA/EIA standards back to RS-222 (1959). Steel design is checked using the AISC ASD 9th Edition or the AISC LRFD specifications.
- Linear and non-linear (P-delta) analyses can be used in determining displacements and forces in the structure. Wind pressures and forces are automatically calculated.
- Extensive graphics plots include material take-off, shear-moment, leg compression, displacement, twist, feed line, guy anchor and stress plots.
- tnxTower contains unique features such as True Cable behavior, hog rod take-up, foundation stiffness and much more.





73/05		7.05	E1 E1 / 4 E1 - 6
TYPE	ELEVATION	TYPE	ELEVATION
ANT940Y10-WR (CSP)	187	QD6616-7 (ATI)	133
ANT940Y10-WR (CSP - Yagi Antenna)	181	AIR6419 (AT <u>I</u> )	133
PA6-65AC (DNK-52 / CSP-42)	177	AIR6449 (ATI)	133
RFI BPS7496-180-14 Panel Antenna (CSP-80)	170	DMP65R-BU6D (ATT)	133
RFI BPS7496-180-14 Panel Antenna (CSP-81)	170	QD6616-7 (ATI)	133
RFI BPS7496-180-14 Panel Antenna (CSP-82)	170	AIR6419 (ATI)	133
SitePro1USF12-396-U Mount Assembly w/ (3) 96" Mount Disos (CSD 47, 90, 91, 92)	170	AIR6449 (ATI)	133
ADDE ONLOAT TTA LI-MORE LEASE ATMA (CODU	470	DMP65R-BU6D (ATI)	133
432E-631-011 TTA UNIL (Re-Localed TMA (GSP))	170	RRUS-32 B66 (ATI)	133
3 Yagi (CSP)	169	RRUS-32 (ATI)	133
B2B66A RRH (Venzon)	160	RRUS-32 (ATI)	133
B5/B13 RRH (Verizon)	160	RRUS-32 B66 (ATT)	133
CBRS RRH-RT4401-48A (Verizon)	160	RRUS-32 (ATI)	133
RF4439d-25A (B2/B66A RRH) (Verizon - Proposed)	160	RRUS-32 (ATI)	133
DE MARIA (DE DAS DELLA Mariana, Dava a anti-	400	RRUS-32 B66 (ATI)	133
KI-44400-13A (B5/B13 RRH) (Venzon - Proposed)	100	RRUS-32 (ATI)	133
JAHH-658-K38 Manel Antenna (Verizon)	160	RRUS-32 (ATI)	133
JAHH-65B-R3B Panel Antenna (Verizon)	160	4478 B14 (ATI)	133
XXDWMM-12.5-65-8T-CBRS Panel (Verizon)	160	4478 B14 (ATI)	133
MT6407-77A (Verizon - Proposed)	160	4478 B14 (ATI)	133
CBC78T-DS-43-2X Diplexer (Verizon)	160	4449 B5/B12 (ATT)	133
B2B66A RRH (Verizon)	160	4449 B5/B12 (ATT)	133
B5/B13 RRH (Verizon)	160	4449 B5/B12 (ATT)	133
CBRS RRH-RT4401-48A (Verizon)	160	DC6.48.60.18.8E (Souid) Suppressor (ATT)	133
JAHH-65B-R3B Panel Antenna (Verizon)	160	DC6 49 60 19 8E (Satid) Suppressor (ATT)	100
JAHH-65B-R3B Panel Antenna (Verizon)	160	DCB (ATT)	433
XXDWMM-12.5-65-8T-CBRS Panel (Verizon)	160	SimDro VEA14 10 (ATT)	492
MT6407-77A (Verizon - Proposed)	160	SilePro VEA 14-10 (ATT)	100
CBC78T-DS-43-2X Diplexer (Verizon)	160	SIEPTO VPA (4.10 (ATT)	133
B2/B66A RRH (Verizon)	160	ShePro VFA14-10 (ALL)	133
B5/B13 RRH (Verizon)	160	RRUS-11 (T-Mobile)	125
CBRS BRH-RT4401-48A (Verizon)	160	RRUS-11 (T-Mobile)	125
DB-T1-6Z-8AB-0Z Distribution Box (Verizon)	160	RRUS-11 (T-Mobile)	125
DB.T1.67.8AB.07 Distribution Box (Verizon)	160	AIR21 B2A/B4P (T-Mobile)	125
(2) BSE0020E3V1.1 (Verizon - Proposed)	160	AIR21 B2A/B4P (T-Mobile)	125
(2) BSE0020E3V1-1 (Verizon - Proposed)	160	AIR21 B2A/B4P (T-Mobile)	125
(2) BSE0020E3V1.1 (Verizon - Proposed)	160	LNX-6515DS (T-Mobile)	125
POHN 6x15 Boom Cate (1 (Verizon)	160	LNX-6515DS (T-Mobile)	125
POIN Ex15 Boom Gate (1) (Veizon)	160	LNX-6515DS (T-Mobile)	125
NORTH OARD DUURI GREE (1) (VERZUR)	100	LTF12=372 Sector Mount (1) (T-Mobile)	125
MAUGHROOGUUZ (Venzon - Proposed)	100	LTF12=372 Sector Mount (1) (T-Mobile)	125
MAUGHRUDOUUZ (Venzon - Proposed)	100	LTF12=372 Sector Mount (1) (T-Mobile)	125
XXDWMM-12:5-65-81-CBRS Panel (Verizon)	160	AIR21 B4A/B2P (T-Mobile)	125
MT6407-77A (Verizon - Proposed)	160	AIR21 B4A/B2P (T-Mobile)	125
MX06FRO640-02 (Verizon - Proposed)	160	AIR21 B4A/B2P (T-Mobile)	125
MX06FRO640-02 (Verizon - Proposed)	160	Generic Twin TMA unit (T-Mobile)	125
ROHN 6'x15' Boom Gate (1) (Verizon)	160	Generic Twin TMA unit (T-Mobile)	125
QD6616-7 (ATI)	133	Generic Twin TMA unit (T-Mobile)	125
AIR6419 (ATI)	133	ANT 150D (CSP - 1-Bay Dinole)	113
AIR6449 (ATI)	133	# Standoff (DNK-1/GPS)	60
DMP65R BU6D (ATT)	133	a common (construction of o)	

#### MATERIAL STRENGTH

Fu 60 ksi GRADE Fy A572-50 50 ksi 65 ksi GRADE Fy A572-42 42 ksi

#### TOWER DESIGN NOTES

Tower designed for Exposure C to the TIA-222-H Standard.
 Tower designed for a 130 mph basic wind in accordance with the TIA-222-H Standard.
 Tower is also designed for a 50 mph basic wind with 1.00 in ice. Ice is considered to increase in thickness with height.
 Deflections are based upon a 60 mph wind.
 Tower is also category 1 with Crest Height of 0.00 ft
 PoPata for analysis does not apply for this case - TIA-222-H Section 3.5
 TOWER RATING: 90.6%



TORQUE 156 kip-ft REACTIONS - 130 mph WIND

Centek Engineering Inc.	<sup>Job:</sup> 22027.01 - We	estport	
63-2 North Branford Rd.	Project: 180-ft Lattice T	ower (CSP #32)	
Branford CT 06405	Client: Verizon	Drawn by: TJL	App'd:
Phone: (203) 488-0580	Code: TIA-222-H	Date: 09/20/22	Scale: NTS
FAX: (203) 488-8587	Path:		Dwg No. E-1

#### Feed Line Plan



Centek Engineering Inc.	<sup>Job:</sup> 22027.01 - We	estport	
63-2 North Branford Rd.	Project: 180-ft Lattice 7	Tower (CSP #32)	
Branford CT 06405	Client: Verizon	Drawn by: TJL	App'd:
Phone: (203) 488-0580	<sup>Code:</sup> TIA-222-H	Date: 09/20/22	Scale: NTS
FAX: (203) 488-8587	Path:	A sector file CM relevant 200 BIT BIT 1/28 W20 Baston H. MOT 5/27 (1) a	Dwg No. E-7

#### Feed Line Distribution Chart 0' - 180'

Flat \_\_\_\_\_ App In Face \_\_\_\_\_ App Out Face \_\_\_\_\_ Truss Leg

Round



Centek Engineering Inc.	<sup>Job:</sup> 22027.01 - We	estport	
63-2 North Branford Rd.	Project: 180-ft Lattice 7	Fower (CSP #32)	
Branford CT 06405	<sup>Client:</sup> Verizon	Drawn by: TJL	App'd:
Phone: (203) 488-0580	<sup>Code:</sup> TIA-222-H	Date: 09/20/22	Scale: NTS
FAX: (203) 488-8587	Path:	entration/Rev CM relevant 200 BIT BIT 1/200 MCD Rank on H. MCC 5172 (1):e	Dwg No. E-7

tnxTower
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Centek Engineering Inc. 63-2 North Branford Rd. Branford, CT 06405 Phone: (203) 488-0580 FAX: (203) 488-8587

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Project	180-ft Lattice Tower (CSP #32)	Date 07:59:09 09/20/22
Client	Verizon	Designed by TJL

## **Tower Input Data**

The main tower is a 3x free standing tower with an overall height of 180.00 ft above the ground line.

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

The face width of the tower is 8.54 ft at the top and 27.68 ft at the base.

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

The following design criteria apply:

Tower base elevation above sea level: 0.00 ft.

Basic wind speed of 130 mph.

Risk Category IV.

Exposure Category C.

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

Topographic Category: 1.

Crest Height: 0.00 ft.

Nominal ice thickness of 1.0000 in.

Ice thickness is considered to increase with height.

Ice density of 56 pcf.

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

Deflections calculated using a wind speed of 60 mph.

P-Delta for analysis does not apply for this case - TIA-222-H Section 3.5.

Pressures are calculated at each section.

Stress ratio used in tower member design is 1.

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
- √ Include Bolts In Member Capacity
- √ Leg Bolts Are At Top Of Section
- ✓ Secondary Horizontal Braces Leg Use Diamond Inner Bracing (4 Sided)
- ✓ SR Members Have Cut Ends SR Members Are Concentric

Distribute Leg Loads As Uniform Assume Legs Pinned Assume Rigid Index Plate

- $\sqrt{}$  Use Clear Spans For Wind Area
- $\sqrt{\text{Use Clear Spans For KL/r}}$
- Retension Guys To Initial Tension
- Bypass Mast Stability Checks
- V Use Azimuth Dish Coefficients
- Project Wind Area of Appurt. Autocalc Torque Arm Areas Add IBC .6D+W Combination
- ✓ Sort Capacity Reports By Component Triangulate Diamond Inner Bracing Treat Feed Line Bundles As Cylinder Ignore KL/ry For 60 Deg. Angle Legs

Use ASCE 10 X-Brace Ly Rules

- $\sqrt{}$  Calculate Redundant Bracing Forces
- Ignore Redundant Members in FEA  $\sqrt{}$  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 Poles
- ✓ Include Shear-Torsion Interaction Always Use Sub-Critical Flow Use Top Mounted Sockets Pole Without Linear Attachments Pole With Shroud Or No Appurtenances Outside and Inside Corner Radii Are Known

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Branford, CT 06405 Phone: (203) 488-0580 FAX: (203) 488-8587	Client Verizon	Designed by TJL



<u>Triangular Tower</u>

# **Tower Section Geometry**

Tower	Tower	Assembly	Description	Section	Number	Section
Section	Elevation	Database		Width	of	Length
					Sections	
	ft			ft		ft
T1	180.00-160.00			8.54	1	20.00
T2	160.00-140.00			8.63	1	20.00
Т3	140.00-133.33			10.71	1	6.67
T4	133.33-126.67			11.40	1	6.67
T5	126.67-120.00			12.10	1	6.67
T6	120.00-100.00			12.79	1	20.00
<b>T</b> 7	100.00-90.00			15.04	1	10.00
T8	90.00-80.00			16.36	1	10.00
Т9	80.00-60.00			17.68	1	20.00
T10	60.00-40.00			20.18	1	20.00
T11	40.00-30.00			22.68	1	10.00
T12	30.00-20.00			23.93	1	10.00
T13	20.00-0.00			25.18	1	20.00

Tower Section	Tower Elevation	Diagonal Spacing	Bracing Type	Has K Brace End	Has Horizontals	Top Girt Offset	Bottom Girt Offset
	ft	ft		Panels		in	in
T1	180.00-160.00	6.67	K Brace Down	No	Yes	0.0000	0.0000
T2	160.00-140.00	6.67	K Brace Down	No	Yes	0.0000	0.0000

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<b>Centek Engineering Inc.</b> 63-2 North Branford Rd.	Project 180-ft Lattice Tower (CSP #32)	Date 07:59:09 09/20/22
Branford, CT 06405 Phone: (203) 488-0580 FAX: (203) 488-8587	Client Verizon	Designed by TJL

Tower	Tower	Diagonal	Bracing	Has	Has	Top Girt	Bottom Girt
Section	Elevation	Spacing	Туре	K Brace	Horizontals	Offset	Offset
				End			
	ft	ft		Panels		in	in
T3	140.00-133.33	6.67	K Brace Down	No	Yes	0.0000	0.0000
T4	133.33-126.67	6.67	K Brace Down	No	Yes	0.0000	0.0000
T5	126.67-120.00	6.67	K Brace Down	No	Yes	0.0000	0.0000
T6	120.00-100.00	10.00	K Brace Down	No	Yes	0.0000	0.0000
<b>T</b> 7	100.00-90.00	10.00	K Brace Down	No	Yes	0.0000	0.0000
Т8	90.00-80.00	10.00	K Brace Down	No	Yes	0.0000	0.0000
Т9	80.00-60.00	10.00	K Brace Down	No	Yes	0.0000	0.0000
T10	60.00-40.00	10.00	K Brace Down	No	Yes	0.0000	0.0000
T11	40.00-30.00	10.00	K Brace Down	No	Yes	0.0000	0.0000
T12	30.00-20.00	10.00	K Brace Down	No	Yes	0.0000	0.0000
T13	20.00-0.00	20.00	K1 Down	No	Yes	0.0000	0.0000

Tower	Leg	Leg	Leg	Diagonal	Diagonal	Diagonal
Elevation ft	Туре	Size	Grade	Type	Size	Grade
T1 180.00-160.00	Pipe	ROHN 3 STD	A572-50	Pipe	ROHN 2 STD	A572-50
	-		(50 ksi)	•		(50 ksi)
T2 160.00-140.00	Pipe	ROHN 4 STD	A572-50	Pipe	ROHN 2 STD	A572-50
			(50 ksi)	•		(50 ksi)
T3 140.00-133.33	Pipe	ROHN 5 EH	A572-50	Pipe	ROHN 2 EH	A572-50
	-		(50 ksi)	-		(50 ksi)
T4 133.33-126.67	Pipe	ROHN 5 EH	A572-50	Pipe	ROHN 2 EH	A572-50
	-		(50 ksi)	-		(50 ksi)
T5 126.67-120.00	Pipe	ROHN 5 EH	A572-50	Pipe	ROHN 2 XXS	A572-50
			(50 ksi)			(50 ksi)
T6 120.00-100.00	Pipe	ROHN 6 EHS	A572-50	Pipe	Pipe 2.5 XXS	A572-50
			(50 ksi)			(50 ksi)
T7 100.00-90.00	Pipe	ROHN 6 EH	A572-50	Pipe	ROHN 3 STD	A572-50
			(50 ksi)			(50 ksi)
T8 90.00-80.00	Pipe	ROHN 6 EH	A572-50	Pipe	ROHN 3 STD	A572-50
			(50 ksi)			(50 ksi)
T9 80.00-60.00	Arbitrary Shape	120deg_9.6250x0.375 BU on	A572-50	Pipe	ROHN 3 STD	A572-50
		ROHN 8 EHS	(50 ksi)			(50 ksi)
T10 60.00-40.00	Arbitrary Shape	1/3 9.6250x0.375 on ROHN 8	A572-42	Pipe	ROHN 3 EH	A572-50
		EHS Leg Pipe	(42 ksi)			(50 ksi)
T11 40.00-30.00	Arbitrary Shape	1/3 9.6250x0.375 on ROHN 8	A572-42	Pipe	ROHN 3 EH	A572-50
		EHS Leg Pipe	(42 ksi)			(50 ksi)
T12 30.00-20.00	Arbitrary Shape	1/3 9.6250x0.375 on ROHN 8	A572-42	Pipe	ROHN 3 EH	A572-50
		EHS Leg Pipe	(42 ksi)			(50 ksi)
T13 20.00-0.00	Arbitrary Shape	1/3 9.6250x0.375 on ROHN 8	A572-42	Pipe	ROHN 3 EH	A572-50
		EH Leg Pipe	(42 ksi)			(50 ksi)

Tower Section Geometry (cont'd)						
Tower Elevation A	Top Girt Type	Top Girt Size	Top Girt Grade	Bottom Girt Type	Bottom Girt Size	Bottom Girt Grade
T4 133.33-126.67	Pipe	ROHN 2 STD	A572-50 (50 ksi)	Solid Round		A36 (36 ksi)
T5 126.67-120.00	Pipe	ROHN 2 STD	A572-50	Solid Round		A36

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Centek Engineering Inc. 63-2 North Branford Rd.	Project	180-ft Lattice Tower (CSP #32)	Date 07:59:09 09/20/22
Branford, CT 06405 Phone: (203) 488-0580 FAX: (203) 488-8587	Client	Verizon	Designed by TJL

Tower Elevation ft	Top Girt Type	Top Girt Size	Top Girt Grade	Bottom Girt Type	Bottom Girt Size	Bottom Girt Grade
T8 90.00-80.00	Pipe	ROHN 2 STD	(50 ksi) A572-50	Single Angle		(36 ksi) A36
T12 30.00-20.00	Pipe	ROHN 2.5 EH	(50 ksi) A572-50	Single Angle		(36 ksi) A36
			(50 ksi)			(36 ksi)

# Tower Section Geometry (cont'd)

Tower	No.	Mid Girt	Mid Girt	Mid Girt	Horizontal	Horizontal	Horizontal
Elevation	of	Туре	Size	Grade	Туре	Size	Grade
	Mid						
ft	Girts						
T1 180.00-160.00	None	Flat Bar		A36	Pipe	ROHN 1.5 STD	A572-50
				(36 ksi)			(50 ksi)
T2 160.00-140.00	None	Flat Bar		A36	Pipe	ROHN 1.5 STD	A572-50
				(36 ksi)			(50 ksi)
T3 140.00-133.33	None	Flat Bar		A36	Pipe	ROHN 2 STD	A572-50
				(36 ksi)			(50 ksi)
T4 133.33-126.67	None	Flat Bar		A36	Pipe	ROHN 2 STD	A572-50
				(36 ksi)			(50 ksi)
T5 126.67-120.00	None	Flat Bar		A36	Pipe	ROHN 2 STD	A572-50
				(36 ksi)			(50 ksi)
T6 120.00-100.00	None	Single Angle		A36	Pipe	ROHN 2 STD	A572-50
				(36 ksi)			(50 ksi)
T7 100.00-90.00	None	Flat Bar		A36	Pipe	ROHN 2 STD	A572-50
				(36 ksi)			(50 ksi)
T8 90.00-80.00	None	Flat Bar		Δ36	Pipe	ROHN 2 STD	Λ572-50
				(36 ksi)			(50 ksi)
T9 80.00-60.00	None	Flat Bar		A36	Pipe	ROHN 2.5 STD	A572-50
				(36 ksi)			(50 ksi)
T10 60.00-40.00	None	Single Angle		A36	Pipe	ROHN 2.5 STD	A572-50
				(36 ksi)			(50 ksi)
T11 40.00-30.00	None	Flat Bar		A36	Pipe	ROHN 2.5 STD	A572-50
				(36 ksi)			(50 ksi)
T12 30.00-20.00	None	Flat Bar		A36	Pipe	ROHN 2.5 STD	A572-50
				(36 ksi)			(50 ksi)
T13 20.00-0.00	None	Flat Bar		A36	Pipe	P3.5x.226	A572-50
				(36 ksi)			(50 ksi)

Tower Elevation	Secondary Horizontal Type	Secondary Horizontal Size	Secondary Horizontal Grade	Inner Bracing Type	Inner Bracing Size	Inner Bracing Grade
ft						
T1 180.00-160.00	) Solid Round		A36	Single Angle	L2x2x1/8	A36
			(36 ksi)			(36 ksi)
T2 160.00-140.00	) Solid Round		A36	Single Angle	L2x2x1/8	A36
			(36 ksi)			(36 ksi)
T3 140.00-133.33	8 Solid Round		A36	Single Angle	L2x2x1/8	A36
			(36 ksi)			(36 ksi)

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**Centek Engineering Inc.** 63-2 North Branford Rd. Branford, CT 06405 Phone: (203) 488-0580 FAX: (203) 488-8587

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aring Inc	Project		Date				
nford Rd.		180-ft Lattice Tower (CSP #32)	07:59:09 09/20/22				
7 06405 188-0580	Client	Vorizon	Designed by				
88-8587		VENZOII	TJL				

Tower	Secondary	Secondary Horizontal	Secondary	Inner Bracing	Inner Bracing Size	Inner Bracing
Elevation	Horizontal Type	Size	Horizontal	Туре		Grade
			Grade			
ft						
T4 133.33-126.67	Solid Round		A36	Single Angle	L2x2x1/8	A36
			(36 ksi)			(36 ksi)
T5 126.67-120.00	Solid Round		A36	Single Angle	L2x2x1/8	A36
			(36 ksi)			(36 ksi)
T6 120.00-100.00	Single Angle		A36	Single Angle	L2 1/2x2 1/2x3/16	A36
			(36 ksi)			(36 ksi)
T7 100.00-90.00	Solid Round		A36	Single Angle	L2 1/2x2 1/2x3/16	A36
			(36 ksi)			(36 ksi)
T8 90.00-80.00	Solid Round		A36	Single Angle	L2 1/2x2 1/2x3/16	A36
			(36 ksi)			(36 ksi)
T9 80.00-60.00	Solid Round		A36	Single Angle	L3x3x3/16	A36
			(36 ksi)			(36 ksi)
T10 60.00-40.00	Single Angle		A36	Single Angle	L3 1/2x3 1/2x1/4	A572-50
			(36 ksi)			(50 ksi)
T11 40.00-30.00	Single Angle		A572-50	Single Angle	L3 1/2x3 1/2x1/4	A572-50
			(50 ksi)			(50 ksi)
T12 30.00-20.00	Single Angle		A572-50	Single Angle	L3 1/2x3 1/2x1/4	A572-50
			(50 ksi)			(50 ksi)
T13 20.00-0.00	Solid Round		A36	Pipe	ROHN 2 STD	A572-50
			(36 ksi)			(50 ksi)

## Tower Section Geometry (cont'd)

Tower Elevation ft	Redundant Bracing Grade		Redundant Type	Redundant Size	K Factor
T13	A572-50	Horizontal (1)	Pipe	ROHN 1.5 STD	1
20.00-0.00	(50 ksi)	Diagonal (1)	Pipe	ROHN 2 STD	1
		Hip (1)	Pipe	ROHN 2.5 STD	1

Tower	Gusset	Gusset	Gusset Grade	Adjust. Factor	Adjust.	Weight Mult.	Double Angle	Double Angle	Double Angle
Elevation	Area	Thickness		$A_f$	Factor		Stitch Bolt	Stitch Bolt	Stitch Bolt
	(per face)				$A_r$		Spacing	Spacing	Spacing
							Diagonals	Horizontals	Redundants
ft	$ft^2$	in					in	in	in
T1	0.00	0.0000	A36	1	1	1	36.0000	36.0000	36.0000
180.00-160.00			(36 ksi)						
T2	0.00	0.0000	A36	1	1	1	36.0000	36.0000	36.0000
160.00-140.00			(36 ksi)						
Т3	0.00	0.0000	A36	1	1	1	36.0000	36.0000	36.0000
140.00-133.33			(36 ksi)						
T4	0.00	0.0000	A36	1	1	1	36.0000	36.0000	36.0000
133.33-126.67			(36 ksi)						
T5	0.00	0.0000	A36	1	1	1	36.0000	36.0000	36.0000
126.67-120.00			(36 ksi)						
T6	0.00	0.0000	A36	1	1	1	36.0000	36.0000	36.0000
120.00-100.00			(36 ksi)						
<b>T</b> 7	0.00	0.0000	A36	1	1	1	36.0000	36.0000	36.0000
100.00-90.00			(36 ksi)						

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Contak Engineering Inc	Project		Date
63-2 North Branford Rd.		180-ft Lattice Tower (CSP #32)	07:59:09 09/20/22
Branford, CT 06405	Client		Designed by
Phone: (203) 488-0580 FAX: (203) 488-8587		Verizon	TJL

Tower	Gusset	Gusset	Gusset Grade	Adjust. Factor	Adjust.	Weight Mult.	Double Angle	Double Angle	Double Angle
Elevation	Area	Thickness		$A_{f}$	Factor		Stitch Bolt	Stitch Bolt	Stitch Bolt
	(per face)				$A_r$		Spacing	Spacing	Spacing
							Diagonals	Horizontals	Redundants
ft	$ft^2$	in					in	in	in
T8 90.00-80.00	0.00	0.0000	A36	1	1	1	36.0000	36.0000	36.0000
			(36 ksi)						
T9 80.00-60.00	0.00	0.0000	A36	1	1	1	36.0000	36.0000	36.0000
			(36 ksi)						
T10	0.00	0.0000	A36	1	1	1	36.0000	36.0000	36.0000
60.00-40.00			(36 ksi)						
T11	0.00	0.0000	A36	1	1	1	36.0000	36.0000	36.0000
40.00-30.00			(36 ksi)						
T12	0.00	0.0000	A36	1	1	1	36.0000	36.0000	36.0000
30.00-20.00			(36 ksi)						
T13 20.00-0.00	0.00	0.0000	A36	1	1	1	36.0000	36.0000	36.0000
			(36 ksi)						

# Tower Section Geometry (cont'd)

						K Fac	ctors <sup>1</sup>			
Tower	Calc	Calc	Legs	X	K	Single	Girts	Horiz.	Sec.	Inner
Elevation	Κ	K		Brace	Brace	Diags			Horiz.	Brace
	Single	Solid		Diags	Diags					
	Angles	Rounds		X	X	X	X	X	X	X
ft				Y	Y	Y	Y	Y	Y	<u>Y</u>
T1	Yes	Yes	1	1	1	1	1	1	1	1
180.00-160.00				1	1	1	1	1	1	1
T2	Yes	Yes	1	1	1	1	1	1	1	1
160.00-140.00				1	1	1	1	1	1	1
T3	Yes	Yes	1	1	1	1	1	1	1	1
140.00-133.33				1	1	1	1	1	1	1
T4	Yes	Yes	1	1	1	1	1	1	1	1
133.33-126.67				1	1	1	1	1	1	1
T5	Yes	Yes	1	1	1	1	1	1	1	1
126.67-120.00				1	1	1	1	1	1	1
T6	Yes	Yes	1	1	1	1	1	1	1	1
120.00-100.00				1	1	1	1	1	1	1
T7	Yes	Yes	1	1	1	1	1	1	1	1
100.00-90.00				1	1	1	1	1	1	1
T8	Yes	Yes	1	1	1	1	1	1	1	1
90.00-80.00				1	1	1	1	1	1	1
Т9	Yes	Yes	1	1	1	1	1	1	1	1
80.00-60.00				1	1	1	1	1	1	1
T10	Yes	Yes	1	1	1	1	1	1	1	1
60.00-40.00				1	1	1	1	1	1	1
T11	Yes	Yes	1	1	1	1	1	1	1	1
40.00-30.00				1	1	1	1	1	1	1
T12	Yes	Yes	1	1	1	1	1	1	1	1
30.00-20.00				1	1	1	1	1	1	1
T13	Yes	Yes	1	1	0.5	1	1	1	1	1
20.00-0.00				1	0.5	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.

# tnxTower

Centek Engineering Inc. 63-2 North Branford Rd. Branford, CT 06405 Phone: (203) 488-0580 FAX: (203) 488-8587

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ring Inc	Project		Date
ord Rd.		180-ft Lattice Tower (CSP #32)	07:59:09 09/20/22
6405 8-0580 -8587	Client	Verizon	Designed by TJL

Tower	Leg		Diago	ıal	Top G	Top Girt		Bottom Girt		Mid Girt		Long Horizontal		Short Horizontal	
Elevation															
ft															
	Net Width	U	Net Width	U	Net Width	U	Net	U	Net	U	Net	U	Net	U	
	Deduct		Deduct		Deduct		Width		Width		Width		Width		
	in		in		in		Deduct		Deduct		Deduct		Deduct		
							in		in		in		in		
T1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	
180.00-160.00															
T2	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	
160.00-140.00															
T3	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	
140.00-133.33															
T4	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	
133.33-126.67															
T5	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	
126.67-120.00															
T6	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	
120.00-100.00															
T7	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	
100.00-90.00															
T8 90.00-80.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	
T9 80.00-60.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	
T10	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	
60.00-40.00															
T11	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	
40.00-30.00															
T12	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	
30.00-20.00															
T13 20.00-0.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	

Tower	Redund	ant	Redund	Redundant		Redundant		Redundant		Redundant Vertical		nt Hip	Redundant Hip	
Elevation	Horizoi	ıtal	Diago	ıal	Sub-Diag	gonal	Sub-Hoi	rizontal					Diago	onal
ft														
	Net Width	U	Net Width	U	Net Width	U	Net	U	Net	U	Net	U	Net	U
	Deduct		Deduct		Deduct		Width		Width		Width		Width	
	in		in		in		Deduct		Deduct		Deduct		Deduct	
							in		in		in		in	
T1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
180.00-160.00														
T2	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
160.00-140.00														
T3	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
140.00-133.33														
T4	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
133.33-126.67														
T5	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
126.67-120.00														
Т6	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
120.00-100.00														
T7	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
100.00-90.00														
T8 90.00-80.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T9 80.00-60.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T10	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
60.00-40.00														
T11	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
40.00-30.00														
T12	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
30.00-20.00														
T13 20.00-0.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75

*tnxTower* 

**Centek Engineering Inc.** 63-2 North Branford Rd. Branford, CT 06405 Phone: (203) 488-0580 FAX: (203) 488-8587

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Project		Date
	180-ft Lattice Tower (CSP #32)	07:59:09 09/20/22
Client	Verizon	Designed by TJL

## Tower Section Geometry (cont'd)

Tower				Connectio	on Offsets			
Elevation		Diag	onal			K-Br	acing	
	Vert.	Horiz.	Vert.	Horiz.	Vert.	Horiz.	Vert.	Horiz.
	Тор	Тор	Bot.	Bot.	Тор	Тор	Bot.	Bot.
ft	in	in	in	in	in	in	in	in
T1	0.0000	3.0000	0.0000	3.0000	0.0000	0.0000	0.0000	0.0000
180.00-160.00								
T2	0.0000	3.0000	0.0000	3.0000	0.0000	0.0000	0.0000	0.0000
160.00-140.00								
T3	0.0000	3.0000	0.0000	3.0000	0.0000	0.0000	0.0000	0.0000
140.00-133.33								
T4	0.0000	3.0000	0.0000	3.0000	0.0000	0.0000	0.0000	0.0000
133.33-126.67								
T5	0.0000	3.0000	0.0000	3.0000	0.0000	0.0000	0.0000	0.0000
126.67-120.00								
T6	0.0000	3.0000	0.0000	3.0000	0.0000	0.0000	0.0000	0.0000
120.00-100.00								
T7	0.0000	3.0000	0.0000	3.0000	0.0000	0.0000	0.0000	0.0000
100.00-90.00								
T8 90.00-80.00	0.0000	3.0000	0.0000	3.0000	0.0000	0.0000	0.0000	0.0000
T9 80.00-60.00	0.0000	3.0000	0.0000	3.0000	0.0000	0.0000	0.0000	0.0000
T10	0.0000	3.0000	0.0000	3.0000	0.0000	0.0000	0.0000	0.0000
60.00-40.00								
T11	0.0000	3.0000	0.0000	3.0000	0.0000	0.0000	0.0000	0.0000
40.00-30.00								
T12	0.0000	3.0000	0.0000	3.0000	0.0000	0.0000	0.0000	0.0000
30.00-20.00								
T13 20.00-0.00	0.0000	3.0000	0.0000	3.0000	0.0000	0.0000	0.0000	0.0000

												-			
Tower	Leg	Leg		Diagor	Diagonal		irt	Bottom	Girt	Mid Gi	irt	Long Horizontal		Short Hori	izontal
Elevation	Connection														
ft	Type														
		Bolt Size	No.	Bolt Size	No.	Bolt Size	No.	Bolt Size	No.	Bolt Size	No.	Bolt Size	No.	Bolt Size	No.
		in		in		in		in		in		in		in	
T1	Flange	0.8750	0	0.6250	3	0.6250	2	0.6250	0	0.6250	0	0.6250	2	0.6250	0
180.00-160.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T2	Flange	0.8750	4	0.6250	3	0.6250	2	0.6250	0	0.6250	0	0.6250	2	0.6250	0
160.00-140.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
Т3	Flange	1.0000	4	0.6250	3	0.6250	2	0.0000	0	0.6250	0	0.6250	2	0.6250	0
140.00-133.33		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T4	Flange	0.7500	0	0.6250	3	0.6250	2	0.0000	0	0.6250	0	0.6250	2	0.6250	0
133.33-126.67		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T5	Flange	0.7500	0	0.6250	3	0.6250	2	0.6250	0	0.6250	0	0.6250	2	0.6250	0
126.67-120.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T6	Flange	1.0000	6	0.6250	3	0.6250	2	0.0000	0	0.6250	0	0.6250	2	0.6250	0
120.00-100.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
<b>T</b> 7	Flange	1.0000	6	0.6250	3	0.6250	2	0.0000	0	0.6250	0	0.6250	2	0.6250	0
100.00-90.00	-	A325N		A325N		A325N		A325N		A325N		A325N		A325N	

**Centek Eng** 63-2 North Branfor Phone: (2 FAX: (20

Tower	Job 22027 01 - Westport	Page 9 of 71
<b>igineering Inc.</b> th Branford Rd.	Project 180-ft Lattice Tower (CSP #32)	Date 07:59:09 09/20/22
rd, CT 06405 203) 488-0580 103) 488-8587	Client Verizon	Designed by TJL

Tower	Leg	Leg		Diagor	ıal	Top G	irt	Bottom	Girt	Mid Girt		Long Horizontal		Short Horizonta	
Elevation	Connection			_		-						-			
ft	Type														
		Bolt Size	No.	Bolt Size	No.	Bolt Size	No.	Bolt Size	No.						
		in		in		in		in		in		in		in	
T8 90.00-80.00	Flange	1.0000	0	0.6250	3	0.6250	2	0.6250	0	0.6250	0	0.6250	2	0.6250	0
		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T9 80.00-60.00	Flange	1.0000	8	0.6250	3	0.6250	2	0.6250	0	0.6250	0	0.6250	2	0.6250	0
		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T10	Flange	1.0000	8	0.6250	3	0.6250	2	0.6250	0	0.6250	0	0.6250	2	0.6250	0
60.00-40.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T11	Flange	1.0000	8	0.6250	3	0.6250	2	0.6250	0	0.6250	0	0.6250	2	0.6250	0
40.00-30.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T12	Flange	1.0000	0	0.6250	3	0.6250	2	0.6250	0	0.6250	0	0.6250	2	0.6250	0
30.00-20.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T13 20.00-0.00	Flange	1.0000	8	0.6250	3	0.6250	2	0.6250	0	0.6250	0	0.7500	2	0.6250	0
		A325N		A325X		A325N		A325N		A325N		A325N		A325N	

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

Description	Face or	Allow	Exclude	Component	Placament	Easa	T	#	44	Clean	Width on	Davimatar	117 + 1 /
	07	Shield	From	Сотронені Туре	1 iucemeni	r ace Offset	Offset	Ħ	# Per	Spacing	Diameter	renmeter	Weight
	Leg		Torque		ft	in	(Frac FW)		Row	in	in	in	plf
<u>ب</u>			Calculation										
* I DEC 504	р	Na	No	A = (C = A =)	122.00	0.0000	0.46	6	6	1 5500	1 5500		0.66
LDF0-30A	Б	INO	NO	Ar (CaAa)	133.00 -	0.0000	0.40	0	0	1.5500	1.5500		0.00
$(\Delta T \& T)$					0.00								
DC Cable	в	No	No	Ar (CaAa)	133.00 -	0 0000	0.43	4	4	0 4000	0 4000		0.25
WR-VG122S	D	110	110	ni (cunu)	0.00	0.0000	0.15	•	•	0.1000	0.1000		0.20
Т													
(AT&T)													
1 5/8"	В	No	No	Ar (CaAa)	133.00 -	0.0000	0.41	3	1	1.6250	1.6250		1.13
Hybriflex					0.00								
(AT&T)	D	N	N		122.00	0 0000	0.42	2	2	0.4000	0.4000		0.25
DC Cable	в	No	No	Ar (CaAa)	133.00 -	0.0000	0.42	3	3	0.4000	0.4000		0.25
WK-VG1225 T					0.00								
(AT&T)													
*													
LDF7-50A	в	No	No	Ar (CaAa)	125.00 -	0.0000	-0.41	18	9	1.9800	1.9800		0.82
(1-5/8 FOAM)					0.00								
(T-Mobile)													
Hubner-Suhne	В	No	No	Ar (CaAa)	125.00 -	0.0000	-0.385	1	1	0.7087	0.7087		0.48
r Hybrid Cable					0.00								
(T-Mobile)													
LDF7-50A	Δ	No	No	Ar (CaAa)	160.00 -	0.0000	-0.42	6	6	1 9800	1 9800		0.82
(1-5/8 FOAM)	11	110	110	ni (cunu)	0.00	0.0000	-0.12	0	0	1.9000	1.9000		0.02
(Verizon)													
HYBRIFLÉX	Α	No	No	Ar (CaAa)	160.00 -	0.0000	-0.48	2	2	1.9800	1.9800		1.90
1-5/8"					0.00								
(Verizon)													
*					100.00		0.40			1 0000			
LDF5-50A	А	No	No	Ar (CaAa)	180.00 -	0.0000	0.48	1	I	1.0900	1.0900		0.33
(7/8 FOAM)					0.00								
EW63	А	No	No	Af(CaAa)	177.00 -	0.0000	0.44	1	1	1 5742	1 5742		0.51
(CSP-42)		110	110	in (cura)	0.00	5.0000	0.11				1.5712		0.21
	Job		Page										
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Centek Engineering Inc. 63-2 North Branford Rd.	Project	180-ft Lattice Tower (CSP #32)	Date 07:59:09 09/20/22										
Branford, CT 06405 Phone: (203) 488-0580 FAX: (203) 488-8587	Client	Verizon	Designed by TJL										

Description	Face	Allow	Exclude	Component	Placement	Face	Lateral	#	#	Clear	Width or	Perimeter	Weight
	or	Shield	From	Type		Offset	Offset		Per	Spacing	Diameter		
	Leg		Torque		ft	in	(Frac FW)		Row	in	in	in	plf
			Calculation										
LDF5-50A	Α	No	No	Ar (CaAa)	170.00 -	0.0000	0.42	1	1	1.0900	1.0900		0.33
(7/8 FOAM)					0.00								
(CSP-22)													
AVA7-50	Α	No	No	Ar (CaAa)	170.00 -	0.0000	0.4	1	1	1.9800	1.9800		0.72
(1-5/8 LOW					0.00								
DENSI.													
FOAM)													
(CSP-80)													
AVA7-50	Α	No	No	Ar (CaAa)	170.00 -	0.0000	0.38	1	1	1.9800	1.9800		0.72
(1-5/8 LOW					0.00								
DENSI.													
FOAM)													
(CSP-81)													
AVA7-50	Α	No	No	Ar (CaAa)	170.00 -	0.0000	0.36	1	1	1.9800	1.9800		0.72
(1-5/8 LOW					0.00								
DENSI.													
FOAM)													
(CSP-82)					170.00	0.0000	0.04			0 (200	0 (200		0.15
LDF4-50A	А	No	No	Ar (CaAa)	170.00 -	0.0000	0.34	1	1	0.6300	0.6300		0.15
(1/2 FOAM)					0.00								
(CSP-47)		No	No	$A = (C \circ A \circ)$	160.00	0.0000	0.22	1	1	1.0000	1 0000		0.22
(7/8  FOAM)	A	INO	INO	AI (CaAa)	0.00	0.0000	0.52	1	1	1.0900	1.0900		0.55
(CSP - Vari)					0.00								
L DF4-50A	Δ	No	No	Ar (CaAa)	113.00 -	0.0000	0.3	1	1	0.6300	0.6300		0.15
(1/2  FOAM)	11	110	110	ni (cunu)	0.00	0.0000	0.5	1	1	0.0500	0.0500		0.15
(CSP - Dipole)					0.00								
LDF4-50A	А	No	No	Ar (CaAa)	61.00 - 0.00	0 0000	0.28	1	1	0.6300	0.6300		0.15
(1/2  FOAM)		110	110	in (curit)	01.00 0.00	0.0000	0.20			5.0200	5.0500		0.10
(CSP)													

# Feed Line/Linear Appurtenances Section Areas

Tower	Tower	Face	$A_R$	$A_F$	$C_A A_A$	$C_A A_A$	Weight
Section	Elevation				In Face	Out Face	
	ft		$ft^2$	$ft^2$	$ft^2$	$ft^2$	lb
T1	180.00-160.00	А	0.000	0.000	15.281	0.000	44.64
		в	0.000	0.000	0.000	0.000	0.00
		С	0.000	0.000	0.000	0.000	0.00
Т2	160.00-140.00	А	0.000	0.000	56.607	0.000	250.60
		в	0.000	0.000	0.000	0.000	0.00
		С	0.000	0.000	0.000	0.000	0.00
Т3	140.00-133.33	Α	0.000	0.000	18.869	0.000	83.53
		В	0.000	0.000	0.000	0.000	0.00
		С	0.000	0.000	0.000	0.000	0.00
Τ4	133.33-126.67	Α	0.000	0.000	18.869	0.000	83.53
		в	0.000	0.000	10.751	0.000	57.63
		С	0.000	0.000	0.000	0.000	0.00
Т5	126.67-120.00	Α	0.000	0.000	18.869	0.000	83.53
		В	0.000	0.000	29.491	0.000	136.87
		С	0.000	0.000	0.000	0.000	0.00
T6	120.00-100.00	Α	0.000	0.000	57.426	0.000	252.55
		в	0.000	0.000	106.647	0.000	486.82
		С	0.000	0.000	0.000	0.000	0.00
<b>T</b> 7	100.00-90.00	А	0.000	0.000	28.934	0.000	126.80
		в	0.000	0.000	53.324	0.000	243.41

*tns* 

**Centek E** 63-2 No Bran Phone FAX:

xTower	Job 22027.01 - Westport	Page 11 of 71
Engineering Inc. Jorth Branford Rd.	Project 180-ft Lattice Tower (CSP #32)	Date 07:59:09 09/20/22
nford, CT 06405 2: (203) 488-0580 • (203) 488-8587	Client Verizon	Designed by TJL

Tower	Tower	Face	$A_R$	$A_F$	$C_A A_A$	$C_A A_A$	Weight
Section	Elevation				In Face	Out Face	_
	ft		$ft^2$	$ft^2$	$ft^2$	$ft^2$	lb
		С	0.000	0.000	0.000	0.000	0.00
T8	90.00-80.00	Α	0.000	0.000	28.934	0.000	126.80
		в	0.000	0.000	53.324	0.000	243.41
		С	0.000	0.000	0.000	0.000	0.00
T9	80.00-60.00	Α	0.000	0.000	57.930	0.000	253.75
		В	0.000	0.000	106.647	0.000	486.82
		С	0.000	0.000	0.000	0.000	0.00
T10	60.00-40.00	А	0.000	0.000	59.127	0.000	256.60
		В	0.000	0.000	106.647	0.000	486.82
		С	0.000	0.000	0.000	0.000	0.00
T11	40.00-30.00	Α	0.000	0.000	29.564	0.000	128.30
		в	0.000	0.000	53.324	0.000	243.41
		С	0.000	0.000	0.000	0.000	0.00
T12	30.00-20.00	Α	0.000	0.000	29.564	0.000	128.30
		в	0.000	0.000	53.324	0.000	243.41
		С	0.000	0.000	0.000	0.000	0.00
T13	20.00-0.00	Α	0.000	0.000	59.127	0.000	256.60
		в	0.000	0.000	106.647	0.000	486.82
		С	0.000	0.000	0.000	0.000	0.00

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

Tower	Tower	Face	Ice	$A_R$	$A_F$	$C_A A_A$	$C_A A_A$	Weight
Section	Elevation	or	Thickness			In Face	Out Face	
	ft	Leg	in	$ft^2$	$ft^2$	$ft^2$	$ft^2$	lb
T1	180.00-160.00	А	1.473	0.000	0.000	43.556	0.000	552.25
		В		0.000	0.000	0.000	0.000	0.00
		С		0.000	0.000	0.000	0.000	0.00
T2	160.00-140.00	А	1.454	0.000	0.000	159.660	0.000	2085.47
		В		0.000	0.000	0.000	0.000	0.00
		С		0.000	0.000	0.000	0.000	0.00
Т3	140.00-133.33	Α	1.441	0.000	0.000	53.019	0.000	688.56
		В		0.000	0.000	0.000	0.000	0.00
		С		0.000	0.000	0.000	0.000	0.00
Τ4	133.33-126.67	А	1.434	0.000	0.000	52.912	0.000	685.06
		В		0.000	0.000	35.372	0.000	409.25
		С		0.000	0.000	0.000	0.000	0.00
T5	126.67-120.00	A	1.426	0.000	0.000	52.800	0.000	681.39
		В		0.000	0.000	62.421	0.000	1030.05
		С		0.000	0.000	0.000	0.000	0.00
T6	120.00-100.00	А	1.410	0.000	0.000	162.161	0.000	2068.23
		В		0.000	0.000	211.927	0.000	3664.81
		С		0.000	0.000	0.000	0.000	0.00
<b>T</b> 7	100.00-90.00	А	1.389	0.000	0.000	81.789	0.000	1031.26
		В		0.000	0.000	105.592	0.000	1815.50
		С		0.000	0.000	0.000	0.000	0.00
T8	90.00-80.00	А	1.374	0.000	0.000	81.415	0.000	1019.60
		В		0.000	0.000	105.313	0.000	1802.90
		С		0.000	0.000	0.000	0.000	0.00
T9	80.00-60.00	А	1.348	0.000	0.000	161.878	0.000	2002.79
		В		0.000	0.000	209.670	0.000	3562.69
		С		0.000	0.000	0.000	0.000	0.00
T10	60.00-40.00	А	1.303	0.000	0.000	165.850	0.000	1997.61
		В		0.000	0.000	208.057	0.000	3490.53
		Ċ		0.000	0.000	0.000	0.000	0.00
T11	40.00-30.00	A	1.257	0.000	0.000	81.724	0.000	963.64
		В		0.000	0.000	103.204	0.000	1708.73
		С		0.000	0.000	0.000	0.000	0.00

tress Tosm on	Job	Page
thx1ower	22027.01 - Westport	12 of 71
Centek Engineering Inc. 63-2 North Branford Rd.	Project 180-ft Lattice Tower (CSP #32)	Date 07:59:09 09/20/22
Branford, CT 06405 Phone: (203) 488-0580 FAX: (203) 488-8587	Client Verizon	Designed by TJL

Tower	Tower	Face	Ice	$A_R$	$A_F$	$C_A A_A$	$C_A A_A$	Weight
Section	Elevation	or	Thickness			In Face	Out Face	
	ft	Leg	in	$ft^2$	$ft^2$	$ft^2$	$ft^2$	lb
T12	30.00-20.00	А	1.216	0.000	0.000	80.630	0.000	932.13
		В		0.000	0.000	102.454	0.000	1675.79
		С		0.000	0.000	0.000	0.000	0.00
T13	20.00-0.00	А	1.109	0.000	0.000	155.667	0.000	1707.74
		В		0.000	0.000	201.077	0.000	3186.11
		С		0.000	0.000	0.000	0.000	0.00

#### Feed Line Center of Pressure

Section	Elevation	$CP_X$	$CP_Z$	$CP_X$	$CP_Z$
				Ice	Ice
	ft	in	in	in	in
T1	180.00-160.00	-1.5005	-14.6984	-2.0239	-19.4249
T2	160.00-140.00	-19.2261	-5.8802	-22.3942	-7.1105
Т3	140.00-133.33	-20.7297	-6.3241	-24.4956	-7.6882
T4	133.33-126.67	-0.9036	2.5057	1.9677	3.9670
T5	126.67-120.00	2.5174	-19.0690	4.1563	-9.2563
T6	120.00-100.00	3.2460	-26.5320	4.6460	-14.7005
<b>T</b> 7	100.00-90.00	3.4157	-29.1515	4.9461	-16.4661
T8	90.00-80.00	3.5982	-31.2503	5.2579	-17.6228
T9	80.00-60.00	3.0360	-28.2742	5.1605	-18.0447
T10	60.00-40.00	3.1578	-31.6009	5.2490	-20.8454
T11	40.00-30.00	3.3326	-33.8440	5.5575	-22.2257
T12	30.00-20.00	3.4480	-35.3197	5.7449	-23.0835
T13	20.00-0.00	3.6793	-38.1466	6.0416	-24.4884

# Shielding Factor Ka

			-		
Tower	Feed Line	Description	Feed Line	$K_a$	$K_a$
Section	Record No.		Segment Elev.	No Ice	Ice
T1	17	LDF5-50A (7/8 FOAM)	160.00 -	1.0000	1.0000
			180.00		
T1	19	EW63	160.00 -	1.0000	1.0000
			177.00		
T1	20	LDF5-50A (7/8 FOAM)	160.00 -	1.0000	1.0000
		( )	170.00		
T1	21	AVA7-50 (1-5/8 LOW	160.00 -	1.0000	1.0000
		DENSL FOAM)	170.00	1.0000	
Т1	22	AVA7-50 (1-5/8 LOW	160.00 -	1 0000	1 0000
	22	DENSI FOAM)	170.00	1.0000	1.0000
т1	23	AVA7-50 (1-5/8 LOW	160.00 -	1 0000	1.0000
	25	DENSL FOAM)	170.00	1.0000	1.0000
т1	24	I DE4-50A (1/2 EQAM)	160.00 -	1 0000	1.0000
11	24	LD14-50A (1/2 FOAM)	170.00	1.0000	1.0000
<b>T</b> 1	25	I DE5 504 (7/8 EO AM)	160.00	1 0000	1 0000
11	23	LDF5-50A (7/8 FOAM)	160.00 -	1.0000	1.0000
тэ	1.4	LDE7 504 (1 5/9 EQ 4 M)	140.00	1 0000	1 0000
12	14	LDF/-50A (1-5/8 FOAM)	140.00 -	1.0000	1.0000
			160.00	1 0000	1 0000
12	15	HYBRIFLEX 1-5/8"	140.00 -	1.0000	1.0000
			160.00		
T2	17	LDF5-50A (7/8 FOAM)	140.00 -	1.0000	1.0000

tnxTower

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•	Project		Date
		180-ft Lattice Tower (CSP #32)	07:59:09 09/20/22
	Client		Designed by
		Verizon	TJL

Tower	Feed Line	Description	Feed Line	$K_a$	$K_a$
Section	Record No.		Segment Elev.	No Ice	Ice
<b>T</b> 2	10	DIVICE	160.00	1 0000	1 0000
12	19	EW63	140.00 -	1.0000	1.0000
т2	20	L DE5-50A (7/8 EO A M)	140.00	1.0000	1 0000
12	20	LDF5-50A (#8 FOAM)	160.00	1.0000	1.0000
Т2	21	AVA7-50 (1-5/8 LOW	140.00 -	1.0000	1.0000
~-		DENSI. FOAM)	160.00	2.0000	1.0000
T2	22	AVA7-50 (1-5/8 LOW	140.00 -	1.0000	1.0000
		DENSI. FOAM)	160.00		
T2	23	AVA7-50 (1-5/8 LOW	140.00 -	1.0000	1.0000
		DENSI. FOAM)	160.00	1 0000	1 0000
12	24	LDF4-50A (1/2 FOAM)	140.00 -	1.0000	1.0000
т2	25	LDF5-50A (7/8 FOAM)	140.00 -	1.0000	1.0000
	20		160.00	110000	110000
Т3	14	LDF7-50A (1-5/8 FOAM)	133.33 -	1.0000	1.0000
			140.00		
Т3	15	HYBRIFLEX 1-5/8"	133.33 -	1.0000	1.0000
<b>T</b> 2	17		140.00	1 0000	1 0000
13	17	LDF5-50A (7/8 FOAM)	135.55 -	1.0000	1.0000
тз	19	FW63	133 33 -	1.0000	1 0000
15		2005	140.00	1.0000	1.0000
Т3	20	LDF5-50A (7/8 FOAM)	133.33 -	1.0000	1.0000
			140.00		
Т3	21	AVA7-50 (1-5/8 LOW	133.33 -	1.0000	1.0000
		DENSI. FOAM)	140.00	1 0000	1 0000
13	22	AVA/-50 (1-5/8 LOW DENSL EQAM)	133.33 -	1.0000	1.0000
тз	23	AVA7-50 (1-5/8 LOW	133.33 -	1 0000	1 0000
15	25	DENSI. FOAM)	140.00	1.0000	1.0000
Т3	24	LDF4-50A (1/2 FOAM)	133.33 -	1.0000	1.0000
			140.00		
Т3	25	LDF5-50A (7/8 FOAM)	133.33 -	1.0000	1.0000
			140.00	1 0000	1 0000
14	2	LDF6-30A (1-1/4 FOAM)	120.07 -	1.0000	1.0000
т4	3	DC Cable WR-VG122ST	126 67 -	1 0000	1 0000
	-		133.00	1.0000	110000
Τ4	4	1 5/8" Hybriflex	126.67 -	1.0000	1.0000
		-	133.00		
T4	6	DC Cable WR-VG122ST	126.67 -	1.0000	1.0000
<b>T</b> 4	14		133.00	1 0000	1 0000
14	14	LDF /-30A (1-5/8 FOAM)	120.07 -	1.0000	1.0000
Т4	15	HYBRIFLEX 1-5/8"	126.67 -	1 0000	1.0000
	10		133.33	1.0000	1.0000
T4	17	LDF5-50A (7/8 FOAM)	126.67 -	1.0000	1.0000
			133.33		
T4	19	EW63	126.67 -	1.0000	1.0000
т4	20	LDE5 504 (7/8 EO AM)	133.33	1.0000	1 0000
14	20	LDF5-50A (7/8 FOAM)	133 33	1.0000	1.0000
T4	21	AVA7-50 (1-5/8 LOW	126.67 -	1.0000	1.0000
		DENSI. FOAM)	133.33		
T4	22	AVA7-50 (1-5/8 LOW	126.67 -	1.0000	1.0000
		DENSI. FOAM)	133.33		1 000-
T4	23	AVA7-50 (1-5/8 LOW	126.67 -	1.0000	1.0000
т4	24	I DE4-50A (1/2 FOAM)	133.33	1 0000	1 0000
14	24	LD1 50A (1/2 FOAM)	133.33	1.0000	1.0000
T4	25	LDF5-50A (7/8 FOAM)	126.67 -	1.0000	1.0000

tnxTower

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Project		Date
	180-ft Lattice Tower (CSP #32)	07:59:09 09/20/22
Client		Designed by
	Verizon	TJL

Tower	Feed Line Description		Feed Line	$K_a$	$K_a$
Section	Record No.		Segment Elev.	No Ice	Ice
Т5	2	LDF6-50A (1-1/4 FOAM)	133.33 120.00 -	1.0000	1.0000
Т5	3	DC Cable WR-VG122ST	120.07	1.0000	1.0000
Т5	4	1 5/8" Hybriflex	120.00 -	1.0000	1.0000
Т5	6	DC Cable WR-VG122ST	120.00 -	1.0000	1.0000
Т5	10	LDF7-50A (1-5/8 FOAM)	120.00 - 125.00	1.0000	1.0000
Т5	11	Hubner-Suhner Hybrid Cable	120.00 - 125.00	1.0000	1.0000
Т5	14	LDF7-50A (1-5/8 FOAM)	120.00 - 126.67	1.0000	1.0000
Т5	15	HYBRIFLEX 1-5/8"	120.00 - 126.67	1.0000	1.0000
Т5	17	LDF5-50A (7/8 FOAM)	120.00 - 126.67	1.0000	1.0000
T5	19	EW63	120.00 - 126.67	1.0000	1.0000
15 T5	20	LDF5-50A (7/8 FOAM)	120.00 - 126.67	1.0000	1.0000
15	21	DENSL FOAM)	120.00 -	1.0000	1.0000
Т5	22	AVA7-50 (1-5/8 LOW DENSI FOAM)	120.00 -	1.0000	1.0000
Т5	23	AVA7-50 (1-5/8 LOW DENSI, FOAM)	120.00 - 126.67	1.0000	1.0000
Т5	24	LDF4-50A (1/2 FOAM)	120.00 - 126.67	1.0000	1.0000
Т5	25	LDF5-50A (7/8 FOAM)	120.00 - 126.67	1.0000	1.0000
Т6	2	LDF6-50A (1-1/4 FOAM)	100.00 - 120.00	1.0000	1.0000
T6	3	DC Cable WR-VG122ST	100.00 - 120.00	1.0000	1.0000
T6	4	1 5/8" Hybriflex	100.00 - 120.00	1.0000	1.0000
16 T(	6	DC Cable WR-VG122ST	120.00	1.0000	1.0000
10 T6	10	Hubner-Subner Hybrid Cable	120.00 -	1.0000	1.0000
T6	14	LDF7-50A (1-5/8 FOAM)	120.00 100.00 -	1.0000	1.0000
T6	15	HYBRIFLEX 1-5/8"	120.00 100.00 -	1.0000	1.0000
Т6	17	LDF5-50A (7/8 FOAM)	120.00 100.00 -	1.0000	1.0000
Т6	19	EW63	120.00 100.00 -	1.0000	1.0000
Т6	20	LDF5-50A (7/8 FOAM)	120.00 100.00 -	1.0000	1.0000
Т6	21	AVA7-50 (1-5/8 LOW	120.00 100.00 -	1.0000	1.0000
Т6	22	DENSI. FOAM) AVA7-50 (1-5/8 LOW DENSI. FOAM	120.00	1.0000	1.0000
Т6	23	AVA7-50 (1-5/8 LOW DENSI FOAM	120.00	1.0000	1.0000
Т6	24	LDF4-50A (1/2 FOAM)	100.00 -	1.0000	1.0000

tnxTower

Job

Project

Client

Centek Engineering Inc. 63-2 North Branford Rd. Branford, CT 06405 Phone: (203) 488-0580 FAX: (203) 488-8587

22027.01 - Westport

180-ft Lattice Tower (CSP #32)

Verizon

Date 07:59:09 09/20/22 Designed by TJL

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Tower	Feed Line	Description	Feed Line	$K_a$	$K_a$
Section	Record No.		Segment Elev.	No Ice	Ice
			120.00		
Т6	25	LDF5-50A (7/8 FOAM)	100.00 -	1.0000	1.0000
TC	20		120.00	1 0000	1 0000
16	26	LDF4-50A (1/2 FOAM)	100.00 -	1.0000	1.0000
т7	2	LDE6 504 (1.1/4 EO AM)	113.00	1 0000	1 0000
17 T7	23	DC Cable WR-VG122ST	90.00 - 100.00	1.0000	1.0000
17 T7	5	1.5/8" Hybrifley	90.00 - 100.00	1.0000	1.0000
17 T7	6	DC Cable WR-VG122ST	90.00 - 100.00	1,0000	1.0000
17 T7	10	LDF7-50A (1-5/8 FOAM)	90.00 - 100.00	1.0000	1.0000
T7	11	Hubner-Suhner Hybrid Cable	90.00 - 100.00	1.0000	1.0000
T7	14	LDF7-50A (1-5/8 FOAM)	90.00 - 100.00	1.0000	1.0000
T7	15	HYBRIFLEX 1-5/8"	90.00 - 100.00	1.0000	1.0000
T7	17	LDF5-50A (7/8 FOAM)	90.00 - 100.00	1.0000	1.0000
T7	19	EW63	90.00 - 100.00	1.0000	1.0000
T7	20	LDF5-50A (7/8 FOAM)	90.00 - 100.00	1.0000	1.0000
T7	21	AVA7-50 (1-5/8 LOW	90.00 - 100.00	1.0000	1.0000
		DENSI. FOAM)			
Τ7	22	AVA7-50 (1-5/8 LOW	90.00 - 100.00	1.0000	1.0000
		DENSI. FOAM)			
T7	23	AVA7-50 (1-5/8 LOW	90.00 - 100.00	1.0000	1.0000
		DENSI. FOAM)			
Τ7	24	LDF4-50A (1/2 FOAM)	90.00 - 100.00	1.0000	1.0000
T7	25	LDF5-50A (7/8 FOAM)	90.00 - 100.00	1.0000	1.0000
T7	26	LDF4-50A (1/2 FOAM)	90.00 - 100.00	1.0000	1.0000
18	2	LDF6-50A (1-1/4 FOAM)	80.00 - 90.00	1.0000	1.0000
18	3	DC Cable WR-VG122ST	80.00 - 90.00	1.0000	1.0000
18	4	I 5/8" Hybritlex	80.00 - 90.00	1.0000	1.0000
18	0	DC Cable WR-VG122S1	80.00 - 90.00	1.0000	1.0000
18	10	LDF /-SUA (1-S/8 FOAM)	80.00 - 90.00	1.0000	1.0000
18	11	L DE7 50A (1 5/8 EQAM)	80.00 - 90.00	1.0000	1.0000
10	14	LDF /-50A (1-5/8 FOAM) HVPDIELEY 1-5/8"	80.00 - 90.00	1.0000	1.0000
18 T8	17	I DE5-50A (7/8 FOAM)	80.00 - 90.00	1.0000	1.0000
10 T8	19	ED15-50/1 (7/01 O/Mil) FW63	80.00 - 90.00	1.0000	1.0000
T8	20	LDF5-50A (7/8 FOAM)	80.00 - 90.00	1.0000	1.0000
T8	21	AVA7-50 (1-5/8 LOW	80.00 - 90.00	1.0000	1.0000
10		DENSI. FOAM)	00100 90100	1.0000	1.0000
Т8	22	AVA7-50 (1-5/8 LOW	80.00 - 90.00	1.0000	1.0000
		DENSI. FOAM)			
Т8	23	AVA7-50 (1-5/8 LOW	80.00 - 90.00	1.0000	1.0000
		DENSI. FOAM)			
Т8	24	LDF4-50A (1/2 FOAM)	80.00 - 90.00	1.0000	1.0000
Т8	25	LDF5-50A (7/8 FOAM)	80.00 - 90.00	1.0000	1.0000
Т8	26	LDF4-50A (1/2 FOAM)	80.00 - 90.00	1.0000	1.0000
Т9	2	LDF6-50A (1-1/4 FOAM)	60.00 - 80.00	1.0000	1.0000
T9	3	DC Cable WR-VG122ST	60.00 - 80.00	1.0000	1.0000
T9	4	1 5/8" Hybriflex	60.00 - 80.00	1.0000	1.0000
T9	6	DC Cable WR-VG122ST	60.00 - 80.00	1.0000	1.0000
T9	10	LDF7-50A (1-5/8 FOAM)	60.00 - 80.00	1.0000	1.0000
19	11	Hubner-Suhner Hybrid Cable	60.00 - 80.00	1.0000	1.0000
19	14	LDF7-50A (1-5/8 FOAM)	60.00 - 80.00	1.0000	1.0000
19 T0	15	I DES 504 (7/2 EO ANO	60.00 - 80.00	1.0000	1.0000
19 T0	1/	LDF5-50A (7/8 FOAM)	60.00 - 80.00	1.0000	1.0000
19 T0	19	LDE5-50A (7/8 EO AM)	60.00 - 80.00	1.0000	1.0000
19 T0	20	AVA7-50 (1-5/8 LOW	60.00 - 80.00	1.0000	1 0000
19	21	DENSI FOAM	50.00 - 60.00	1.0000	1.0000
Т٩	22	AVA7-50 (1-5/8 LOW	60.00 - 80.00	1.0000	1.0000
.,	22	DENSL FOAM	30.00 00.00	10000	1.0000
Т9	23	AVA7-50 (1-5/8 LOW	60.00 - 80.00	1.0000	1.0000
	20	DENSI. FOAM)			
			•		

*tnxTo* 

Centek Engine 63-2 North Bra Branford, CT Phone: (203) FAX: (203) 4

wer	Job	22027.01 - Westport	Page 16 of 71
<b>eering Inc.</b> anford Rd.	Project	180-ft Lattice Tower (CSP #32)	Date 07:59:09 09/20/22
T 06405 488-0580 488-8587	Client	Verizon	Designed by TJL

Tower	Feed Line	Description	Feed Line	$K_a$	$K_a$
Section	Record No.	_	Segment Elev.	No Ice	Ice
Т9	24	LDF4-50A (1/2 FOAM)	60.00 - 80.00	1.0000	1.0000
Т9	25	LDF5-50A (7/8 FOAM)	60.00 - 80.00	1 0000	1 0000
T9	26	LDF4-50A(1/2 FOAM)	60.00 - 80.00	1 0000	1 0000
T9	20	LDF4-50A(1/2 FOAM)	60.00 - 61.00	1.0000	1.0000
T10	27	I DE6-50A (1-1/4 EOAM)	40.00 - 60.00	1.0000	1.0000
T10	2	DC Cable WB VC122ST	40.00 - 60.00	1.0000	1.0000
T10	5	DC Cable WR-VG122ST	40.00 - 60.00	1.0000	1.0000
110	4	I 5/8" Hybrillex	40.00 - 60.00	1.0000	1.0000
110	6	DC Cable WR-VG122S1	40.00 - 60.00	1.0000	1.0000
T10	10	LDF7-50A (1-5/8 FOAM)	40.00 - 60.00	1.0000	1.0000
T10	11	Hubner-Suhner Hybrid Cable	40.00 - 60.00	1.0000	1.0000
T10	14	LDF7-50A (1-5/8 FOAM)	40.00 - 60.00	1.0000	1.0000
T10	15	HYBRIFLEX 1-5/8"	40.00 - 60.00	1.0000	1.0000
T10	17	LDF5-50A (7/8 FOAM)	40.00 - 60.00	1.0000	1.0000
T10	19	EW63	40.00 - 60.00	1.0000	1.0000
T10	20	LDF5-50A (7/8 FOAM)	40.00 - 60.00	1.0000	1.0000
T10	21	AVA7-50 (1-5/8 LOW	40.00 - 60.00	1.0000	1.0000
		DENSI. FOAM)			
T10	22	AVA7-50 (1-5/8 LOW	40.00 - 60.00	1.0000	1.0000
		DENSL FOAM)			
T10	23	AVA7-50 (1-5/8 LOW	40.00 - 60.00	1.0000	1.0000
		DENSL FOAM)			
т10	24	LDF4-50A (1/2 FOAM)	40.00 - 60.00	1 0000	1 0000
T10	25	LDF5-50A (7/8 FOAM)	40.00 - 60.00	1.0000	1.0000
T10	25	LDF4-50A(1/2 FOAM)	40.00 - 60.00	1.0000	1.0000
T10	20	LDF4-50A(1/2 FOAM)	40.00 - 60.00	1.0000	1.0000
T11	27	LDE6 504 (1/2 FOAM)	20.00 - 40.00	1.0000	1.0000
T11	2	DC Cable WB VC122ST	20.00 - 40.00	1.0000	1.0000
T11 T11	3	DC Cable WR-VG122S1	30.00 - 40.00	1.0000	1.0000
111	4	I 5/8" Hydrifiex	30.00 - 40.00	1.0000	1.0000
TH	6	DC Cable WR-VG122ST	30.00 - 40.00	1.0000	1.0000
T11	10	LDF7-50A (1-5/8 FOAM)	30.00 - 40.00	1.0000	1.0000
T11	11	Hubner-Suhner Hybrid Cable	30.00 - 40.00	1.0000	1.0000
T11	14	LDF7-50A (1-5/8 FOAM)	30.00 - 40.00	1.0000	1.0000
T11	15	HYBRIFLEX 1-5/8"	30.00 - 40.00	1.0000	1.0000
T11	17	LDF5-50A (7/8 FOAM)	30.00 - 40.00	1.0000	1.0000
T11	19	EW63	30.00 - 40.00	1.0000	1.0000
T11	20	LDF5-50A (7/8 FOAM)	30.00 - 40.00	1.0000	1.0000
T11	21	AVA7-50 (1-5/8 LOW	30.00 - 40.00	1.0000	1.0000
		DENSI. FOAM)			
T11	22	AVA7-50 (1-5/8 LOW	30.00 - 40.00	1.0000	1.0000
		DENSI. FOAM)			
T11	23	AVA7-50 (1-5/8 LOW	30.00 - 40.00	1.0000	1.0000
		DENSL FOAM)			
тш	24	LDF4-50A (1/2 FOAM)	30.00 - 40.00	1.0000	1.0000
T11	25	LDF5-50A (7/8 FOAM)	30.00 - 40.00	1.0000	1.0000
T11	26	LDF4-50A (1/2 FOAM)	30.00 - 40.00	1.0000	1.0000
T11	27	LDF4-50A(1/2 FOAM)	30.00 - 40.00	1 0000	1 0000
T12	27	LDF6-50A (1-1/4 FOAM)	20.00 - 30.00	1 0000	1 0000
T12	23	DC Cable WR-VG122ST	20.00 - 30.00	1.0000	1.0000
T12	4	1 5/8" Hybrifley	20.00 - 30.00	1.0000	1.0000
T12		DC Cable WR-VG122ST	20.00 - 30.00	1.0000	1.0000
T12	10	DC Cable WK-V012231	20.00 - 30.00	1.0000	1.0000
T12	10	LDF/-50A (1-5/8 FOAM)	20.00 - 30.00	1.0000	1.0000
T12	11	LDE7 504 (1.5% EQAM)	20.00 - 30.00	1.0000	1.0000
112 T12	14	LDF/-JUA (1-5/8 FUAM)	20.00 - 30.00	1.0000	1.0000
112	15	I DES 50A (7/2 PO A) O	20.00 - 30.00	1.0000	1.0000
112	17	LDF5-50A (7/8 FOAM)	20.00 - 30.00	1.0000	1.0000
112	19	EW63	20.00 - 30.00	1.0000	1.0000
T12	20	LDF5-50A (7/8 FOAM)	20.00 - 30.00	1.0000	1.0000
T12	21	AVA7-50 (1-5/8 LOW	20.00 - 30.00	1.0000	1.0000
		DENSI. FOAM)			
T12	22	AVA7-50 (1-5/8 LOW	20.00 - 30.00	1.0000	1.0000
		DENSI. FOAM)			
T12	23	AVA7-50 (1-5/8 LOW	20.00 - 30.00	1.0000	1.0000

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**Centek** 63-2 N

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xTower	Job	22027.01 - Westport	Page 17 of 71
<b>Engineering Inc.</b> North Branford Rd.	Project	180-ft Lattice Tower (CSP #32)	Date 07:59:09 09/20/22
nnford, CT 06405 ne: (203) 488-0580 X: (203) 488-8587	Client	Verizon	Designed by TJL

Tower	Feed Line	Description	Feed Line	$K_a$	$K_a$
Section	Record No.		Segment Elev.	No Ice	Ice
		DENSI. FOAM)			
T12	24	LDF4-50A (1/2 FOAM)	20.00 - 30.00	1.0000	1.0000
T12	25	LDF5-50A (7/8 FOAM)	20.00 - 30.00	1.0000	1.0000
T12	26	LDF4-50A (1/2 FOAM)	20.00 - 30.00	1.0000	1.0000
T12	27	LDF4-50A (1/2 FOAM)	20.00 - 30.00	1.0000	1.0000
T13	2	LDF6-50A (1-1/4 FOAM)	0.00 - 20.00	1.0000	1.0000
T13	3	DC Cable WR-VG122ST	0.00 - 20.00	1.0000	1.0000
T13	4	1 5/8" Hybriflex	0.00 - 20.00	1.0000	1.0000
T13	6	DC Cable WR-VG122ST	0.00 - 20.00	1.0000	1.0000
T13	10	LDF7-50A (1-5/8 FOAM)	0.00 - 20.00	1.0000	1.0000
T13	11	Hubner-Suhner Hybrid Cable	0.00 - 20.00	1.0000	1.0000
T13	14	LDF7-50A (1-5/8 FOAM)	0.00 - 20.00	1.0000	1.0000
T13	15	HYBRIFLEX 1-5/8"	0.00 - 20.00	1.0000	1.0000
T13	17	LDF5-50A (7/8 FOAM)	0.00 - 20.00	1.0000	1.0000
T13	19	EW63	0.00 - 20.00	1.0000	1.0000
T13	20	LDF5-50A (7/8 FOAM)	0.00 - 20.00	1.0000	1.0000
T13	21	AVA7-50 (1-5/8 LOW	0.00 - 20.00	1.0000	1.0000
		DENSI. FOAM)			
T13	22	AVA7-50 (1-5/8 LOW	0.00 - 20.00	1.0000	1.0000
		DENSI. FOAM)			
T13	23	AVA7-50 (1-5/8 LOW	0.00 - 20.00	1.0000	1.0000
		DENSI. FOAM)			
T13	24	LDF4-50A (1/2 FOAM)	0.00 - 20.00	1.0000	1.0000
T13	25	LDF5-50A (7/8 FOAM)	0.00 - 20.00	1.0000	1.0000
T13	26	LDF4-50A (1/2 FOAM)	0.00 - 20.00	1.0000	1.0000
T13	27	LDF4-50A (1/2 FOAM)	0.00 - 20.00	1.0000	1.0000

### **Discrete Tower Loads**

Description	Face or Leg	Offset Type	Offsets: Horz Lateral	Azimuth Adjustment	Placement		$C_A A_A$ Front	$C_A A_A$ Side	Weight
			Vert ft ft ft	o	ft		ft <sup>2</sup>	ft <sup>2</sup>	lb
*									
ROHN 6'x15' Boom Gate (1)	А	None		0.0000	160.00	No Ice	17.75	17.75	600.00
(Verizon)						1/2" Ice	21.10	21.10	75.00
						1" Ice	24.50	24.50	890.00
ROHN 6'x15' Boom Gate (1)	в	None		0.0000	160.00	No Ice	17.75	17.75	600.00
(Verizon)						1/2" Ice	21.10	21.10	75.00
						1" Ice	24.50	24.50	890.00
ROHN 6'x15' Boom Gate (1)	С	None		0.0000	160.00	No Ice	17.75	17.75	600.00
(Verizon)						1/2" Ice	21.10	21.10	75.00
						1" Ice	24.50	24.50	890.00
MX06FRO640-02	А	From Leg	3.00	0.0000	160.00	No Ice	12.38	7.43	70.00
(Verizon - Proposed)		-	6.50			1/2" Ice	12.88	7.88	151.39
· · · ·			0.00			1" Ice	13.38	8.33	239.61
MX06FRO640-02	А	From Leg	3.00	0.0000	160.00	No Ice	12.38	7.43	70.00
(Verizon - Proposed)		Ū.	5.50			1/2" Ice	12.88	7.88	151.39
			0.00			1" Ice	13.38	8.33	239.61
XDWMM-12.5-65-8T-CBR	Α	From Leg	3.00	0.0000	160.00	No Ice	4.80	2.40	20.00
S Panel		5	1.00			1/2" Ice	5.07	2.60	59.31
(Verizon)			0.00			1" Ice	5.35	2.81	102.70

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**Centek** 63-2 N Bra Phone FAX

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Engineering Inc. North Branford Rd.ProjectDate 07:59:	09 09/20/22		
anford, CT 06405 ne: (203) 488-0580 X: (203) 488-8587	⊭d by TJL		

Description	Face	Offset	Offsets:	Azimuth	Placement		$C_A A_A$	$C_A A_A$	Weight
	or	Type	Horz	Adjustment			Front	Side	
	Leg		Lateral						
			Vert	0	0		$\alpha^2$	$\rho^2$	11.
			ji fi		Ji		Ji	ji	ib
			ft						
MT6407-77A	Α	From Leg	3.00	0.0000	160.00	No Ice	4.71	1.84	87.00
(Verizon - Proposed)		e	-2.00			1/2" Ice	5.00	2.06	116.31
			0.00			1" Ice	5.29	2.29	149.49
MX06FRO640-02	А	From Leg	3.00	0.0000	160.00	No Ice	12.38	7.43	70.00
(Verizon - Proposed)			-6.50			1/2" Ice	12.88	7.88	151.39
MYOGER OCAO 02		Energy Las	0.00	0.0000	160.00	I" Ice	13.38	8.33	239.61
(Verizon - Proposed)	А	From Leg	5.00	0.0000	160.00	1/2" Ice	12.58	7.45	151.30
(verizon - rioposed)			0.00			1" Ice	13.38	8.33	239.61
B2/B66A RRH	А	From Leg	3.00	0.0000	160.00	No Ice	2.54	1.61	60.00
(Verizon)			0.00			1/2" Ice	2.75	1.79	80.12
			0.00			1" Ice	2.97	1.98	103.35
B5/B13 RRH	Α	From Leg	3.00	0.0000	160.00	No Ice	1.87	1.02	70.00
(Verizon)			0.00			1/2" Ice	2.03	1.15	86.42
			0.00			1" Ice	2.21	1.29	105.50
CBRS RRH-RT4401-48A	А	From Leg	3.00	0.0000	160.00	No Ice	0.86	0.42	20.00
(Verizon)			0.00			1/2" Ice	0.98	0.51	26.90
RF44394-25A (B2/B66A	Δ	From Leg	3.00	0.0000	160.00	No Ice	1.10	1.25	75.00
RRH)	А	From Leg	0.00	0.0000	100.00	1/2" Ice	2.05	1.39	93.34
(Verizon - Proposed)			0.00			1" Ice	2.22	1.54	114.47
RF4440d-13A (B5/B13 RRH)	А	From Leg	3.00	0.0000	160.00	No Ice	1.88	1.13	75.00
(Verizon - Proposed)		e	0.00			1/2" Ice	2.05	1.26	92.34
			0.00			1" Ice	2.22	1.41	112.40
JAHH-65B-R3B Panel	в	From Leg	3.00	0.0000	160.00	No Ice	9.66	7.71	130.00
Antenna			6.50			1/2" Ice	10.22	8.53	204.15
(Verizon)	D	P. I.	0.00	0.0000	1 ( 0, 0 0	1" Ice	10.79	9.37	289.72
JAHH-65B-R3B Panel	в	From Leg	5.00	0.0000	160.00	No Ice	9.66	7.71 8.52	130.00
(Verizon)			0.00			172 100 1"Ice	10.22	0.35	204.13
XXDWMM-12 5-65-8T-CBR	в	From Leg	3.00	0.0000	160.00	No Ice	4 80	2.40	20.00
S Panel	D	110m Log	-1.00	0.0000	100.00	1/2" Ice	5.07	2.60	59.31
(Verizon)			0.00			1" Ice	5.35	2.81	102.70
MT6407-77A	В	From Leg	3.00	0.0000	160.00	No Ice	4.71	1.84	87.00
(Verizon - Proposed)			-6.00			1/2" Ice	5.00	2.06	116.31
			0.00			1" Ice	5.29	2.29	149.49
CBC78T-DS-43-2X Diplexer	В	From Leg	3.00	0.0000	160.00	No Ice	0.37	0.51	22.00
(Verizon)			0.00			1/2" Ice	0.45	0.60	28.34
D2/D66A DD1	D	From Log	2.00	0.0000	160.00	No Ice	0.55	0.70	50.57
(Verizon)	Б	From Leg	0.00	0.0000	100.00	1/2" Ice	2.34	1.01	80.12
(venzon)			0.00			1" Ice	2.97	1.98	103.35
B5/B13 RRH	в	From Leg	3.00	0.0000	160.00	No Ice	1.87	1.02	70.00
(Verizon)		e	0.00			1/2" Ice	2.03	1.15	86.42
			0.00			1" Ice	2.21	1.29	105.50
CBRS RRH-RT4401-48A	В	From Leg	3.00	0.0000	160.00	No Ice	0.86	0.42	20.00
(Verizon)			0.00			1/2" Ice	0.98	0.51	26.90
	ā	5 F	0.00	0.0000	1 (0.00	1" Ice	1.10	0.61	35.60
JAHH-65B-R3B Panel	С	From Leg	3.00	0.0000	160.00	No Ice	9.66	7.71	130.00
(Verizon)			0.50			1/2 ICe	10.22	0.35	204.15
IAHH-65B-R3B Panel	С	From Leg	3.00	0.0000	160.00	No Ice	9.66	7.71	130.00
Antenna	0	110m Log	5.50	0.0000	100.00	1/2" Ice	10.22	8.53	204.15
(Verizon)			0.00			1" Ice	10.79	9.37	289.72
XXDWMM-12.5-65-8T-CBR	С	From Leg	3.00	0.0000	160.00	No Ice	4.80	2.40	20.00
S Panel		_	-1.00			1/2" Ice	5.07	2.60	59.31
(Verizon)			0.00			1" Ice	5.35	2.81	102.70

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Centek En 63-2 North Branfor Phone: (2 FAX: (20

Tower	Јо <b>ь</b> 22027.01 - Wes	tport 19 of 71
<b>igineering Inc.</b> th Branford Rd.	Project 180-ft Lattice Tower	(CSP #32) Date 07:59:09 09/20/22
rd, CT 06405 203) 488-0580 203) 488-8587	Client Verizon	Designed by TJL

Description	Face	Offset	Offsets:	Azimuth	Placement		$C_A A_A$	$C_A A_A$	Weight
	or	Type	Horz	Adjustment			Front	Side	
	Leg		Lateral						
			Vert					22	
			ft	0	ft		ft	$ft^2$	lb
			ft A						
MT6407.77A	C	From Log	2.00	0.0000	160.00	No Ioo	4.71	1.94	87.00
(Verizon - Proposed)	C	FIOII Leg	-6.00	0.0000	100.00	1/2" Ice	5.00	2.06	116 31
(venzon - rioposed)			0.00			1" Ice	5.00	2.00	149 49
CBC78T-DS-43-2X Diplexer	С	From Leg	3.00	0.0000	160.00	No Ice	0.37	0.51	22.00
(Verizon)			0.00			1/2" Ice	0.45	0.60	28.34
			0.00			1" Ice	0.53	0.70	36.37
B2/B66A RRH	С	From Leg	3.00	0.0000	160.00	No Ice	2.54	1.61	60.00
(Verizon)			0.00			1/2" Ice	2.75	1.79	80.12
			0.00			1" Ice	2.97	1.98	103.35
B5/B13 RRH	С	From Leg	3.00	0.0000	160.00	No Ice	1.87	1.02	70.00
(Verizon)			0.00			1/2" Ice	2.03	1.15	86.42
CDDS DDU DT4401 484	C	Erom Log	2.00	0.0000	160.00	I" Ice	2.21	0.42	20.00
(Verizon)	C	From Leg	5.00	0.0000	160.00	1/2" Ice	0.80	0.42	20.00
(venzon)			0.00			1" Ice	1 10	0.51	20.90
DB-T1-67-8AB-07	А	From Leg	3.00	0.0000	160.00	No Ice	5.60	2.33	50.00
Distribution Box	11	riom Leg	0.00	0.0000	100.00	1/2" Ice	5.92	2.56	81.13
(Verizon)			0.00			1" Ice	6.24	2.79	121.22
DB-T1-6Z-8AB-0Z	В	From Leg	3.00	0.0000	160.00	No Ice	5.60	2.33	50.00
Distribution Box			0.00			1/2" Ice	5.92	2.56	81.13
(Verizon)			0.00			1" Ice	6.24	2.79	121.22
(2) BSF0020F3V1-1	А	From Leg	3.00	0.0000	160.00	No Ice	0.96	0.29	20.00
(Verizon - Proposed)			-6.00			1/2" Ice	1.09	0.36	26.77
	D	р I	0.00	0.0000	1 (0,00	1" Ice	1.22	0.45	35.33
(2) BSF0020F3V1-1	в	From Leg	3.00	0.0000	160.00	No Ice	0.96	0.29	20.00
(Verizon - Proposed)			-6.00			1/2" Ice	1.09	0.36	26.//
(2) BSE0020E2V1-1	C	From Leg	0.00	0.0000	160.00	No Ice	0.06	0.45	20.00
(Verizon - Pronosed)	C	From Leg	-6.00	0.0000	100.00	1/2" Ice	1.09	0.29	26.00
(venzon - rroposed)			0.00			1" Ice	1.22	0.45	35.33
LTF12=372 Sector Mount (1)	А	None	0100	0.0000	125.00	No Ice	13.60	13.60	465.00
(T-Mobile)						1/2" Ice	18.40	18.40	600.00
						1" Ice	23.20	23.20	735.00
LTF12=372 Sector Mount (1)	в	None		0.0000	125.00	No Ice	13.60	13.60	465.00
(T-Mobile)						1/2" Ice	18.40	18.40	600.00
						1" Ice	23.20	23.20	735.00
LTF12=372 Sector Mount (1)	С	None		0.0000	125.00	No Ice	13.60	13.60	465.00
(T-Mobile)						1/2" Ice	18.40	18.40	600.00
AIDOLDAA (DOD		г г	2.00	0.0000	125.00	I" Ice	23.20	23.20	735.00
(T Mobile)	А	From Face	3.00	0.0000	125.00	No Ice 1/2" Lee	6.05	4.36	83.00
(1-Moone)			-4.00			1/2 100 1" Ice	6.80	4.70	171.03
AIR21 B4A/B2P	в	From Face	3.00	0.0000	125.00	No Ice	6.05	4 36	83.00
(T-Mobile)	Ъ	11011111000	-4.00	0.0000	125.00	1/2" Ice	6.42	4.70	124.90
(1 1100110)			0.00			1" Ice	6.80	5.06	171.93
AIR21 B4A/B2P	С	From Face	3.00	0.0000	125.00	No Ice	6.05	4.36	83.00
(T-Mobile)			-4.00			1/2" Ice	6.42	4.70	124.90
			0.00			1" Ice	6.80	5.06	171.93
Generic Twin TMA unit	Α	From Face	3.00	0.0000	125.00	No Ice	0.37	0.96	25.00
(T-Mobile)			0.00			1/2" Ice	0.46	1.09	32.19
			0.00			1" Ice	0.55	1.22	41.21
Generic Twin TMA unit	В	From Face	3.00	0.0000	125.00	No Ice	0.37	0.96	25.00
(1-Mobile)			0.00			1/2" Ice	0.46	1.09	32.19
Generic Twin TMA unit	C	From Face	3.00	0.0000	125.00	i ice	0.35	0.06	41.21 25.00
(T-Mobile)	C	riom race	0.00	0.0000	123.00	1/2" Ice	0.57	1.90	25.00
(1-Moone)			0.00			1" Ice	0.55	1.22	41.21
			0.00			1 100	0.00		

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**Centek** 1 63-2 N Bran Phone FAX:

xTower	Job	22027.01 - Westport	Page 20 of 71
Engineering Inc. North Branford Rd.	Project	180-ft Lattice Tower (CSP #32)	Date 07:59:09 09/20/22
nford, CT 06405 e: (203) 488-0580 : (203) 488-8587	Client	Verizon	Designed by TJL

Description	Face	Offset	Offsets:	Azimuth	Placement		$C_A A_A$	$C_A A_A$	Weight
	or	Type	Horz	Adjustment			Front	Side	
	Leg		Lateral						
			Vert	0	G		c2	<i>n</i> <sup>2</sup>	11.
			JI Ĥ	-	Л		JI	Л	lD
			ji fi						
AIR21 B2A/B4P	Δ	From Face	3.00	0.0000	125.00	No Ice	6.05	4 36	83.00
(T-Mobile)	11	1101111400	0.00	0.0000	125.00	1/2" Ice	6.42	4.70	124.90
(1 1100110)			0.00			1" Ice	6.80	5.06	171.93
AIR21 B2A/B4P	в	From Face	3.00	0.0000	125.00	No Ice	6.05	4.36	83.00
(T-Mobile)			0.00			1/2" Ice	6.42	4.70	124.90
			0.00			1" Ice	6.80	5.06	171.93
AIR21 B2A/B4P	С	From Face	3.00	0.0000	125.00	No Ice	6.05	4.36	83.00
(T-Mobile)			0.00			1/2" Ice	6.42	4.70	124.90
		<b>F F</b>	0.00	0.0000	125.00	I" Ice	6.80	5.06	171.93
LNX-6515DS	А	From Face	3.00	0.0000	125.00	No Ice	11.45	7.70	55.00
(1-Mobile)			4.00			1/2" Ice	12.00	8.29	120.87
LNX-6515DS	в	From Face	3.00	0.0000	125.00	No Ice	12.09	0.09 7.70	55.00
(T-Mobile)	Б	FIOITFace	4 00	0.0000	125.00	1/2" Ice	12.06	8 29	120.87
(1-Mobile)			0.00			1" Ice	12.69	8.89	194.41
LNX-6515DS	С	From Face	3.00	0.0000	125.00	No Ice	11.45	7.70	55.00
(T-Mobile)			4.00			1/2" Ice	12.06	8.29	120.87
			0.00			1" Ice	12.69	8.89	194.41
RRUS-11	Α	From Face	3.00	0.0000	125.00	No Ice	2.57	1.07	50.00
(T-Mobile)			0.00			1/2" Ice	2.76	1.21	69.57
			0.00			1" Ice	2.97	1.36	92.08
RRUS-11	в	From Face	3.00	0.0000	125.00	No Ice	2.57	1.07	50.00
(T-Mobile)			0.00			1/2" Ice	2.76	1.21	69.57
DDUG 11	C	F F	0.00	0.0000	125.00	1" Ice	2.97	1.36	92.08
RRUS-II	C	From Face	3.00	0.0000	125.00	No Ice	2.57	1.07	50.00
(1-Mobile)			0.00			1/2" Ice	2.76	1.21	09.57
OD6616-7	Δ	From Face	3.00	0.0000	133.00	No Ice	2.97	6.80	92.08
(AT&T)	A	FIOMFACE	-6.00	0.0000	155.00	1/2" Ice	13.38	7 27	213.97
(mar)			0.00			1" Ice	14.60	7.72	304.84
AIR6419	А	From Face	3.00	0.0000	133.00	No Ice	3.66	1.66	66.00
(AT&T)			0.00			1/2" Ice	3.91	1.85	91.40
			2.00			1" Ice	4.16	2.05	120.26
AIR6449	Α	From Face	3.00	0.0000	133.00	No Ice	5.65	2.42	103.00
(AT&T)			0.00			1/2" Ice	5.96	2.64	141.45
			-2.00			1" Ice	6.26	2.87	184.10
DMP65R-BU6D	Α	From Face	3.00	0.0000	133.00	No Ice	12.71	5.62	96.00
(AT&T)			6.00			1/2" Ice	13.21	6.07	169.96
000000	D	<b>F F</b>	0.00	0.0000	122.00	I" Ice	13.71	6.53	250.56
QD6616-7	В	From Face	5.00	0.0000	133.00	No Ice	13.58	6.80	130.00
(AI&I)			-0.00			1/2 Tee	14.08	7.27	215.97
AIR6419	в	From Face	3.00	0.0000	133.00	No Ice	3 66	1.66	66.00
(AT&T)	Ъ	1 Iom I acc	0.00	0.0000	155.00	1/2" Ice	3.91	1.85	91.40
(mar)			2.00			1" Ice	4.16	2.05	120.26
AIR6449	в	From Face	3.00	0.0000	133.00	No Ice	5.65	2.42	103.00
(AT&T)			0.00			1/2" Ice	5.96	2.64	141.45
			-2.00			1" Ice	6.26	2.87	184.10
DMP65R-BU6D	В	From Face	3.00	0.0000	133.00	No Ice	12.71	5.62	96.00
(AT&T)			6.00			1/2" Ice	13.21	6.07	169.96
			0.00			1" Ice	13.71	6.53	250.56
QD6616-7	С	From Face	3.00	0.0000	133.00	No Ice	13.58	6.80	130.00
(AT&T)			-6.00			1/2" Ice	14.08	7.27	213.97
AID ( 410	~	EE	0.00	0.0000	122.00	I" Ice	14.60	7.72	304.84
AIK6419 (AT&T)	С	From Face	5.00	0.0000	133.00	No Ice 1/2" Ior	5.00 3.01	1.66	00.00
(A1&1)			2.00			1/2 · 1ce	5.91 4.16	2.05	91.40
			2.00			i ice	4.10	2.05	120.20

tnxT

Centek Eng 63-2 North Branford, Phone: (20 FAX: (203

Fower	<b>Јо</b> в 22027.01 - Westport	Page 21 of 71
<b>gineering Inc.</b> Branford Rd.	Project 180-ft Lattice Tower (CSP #32)	Date 07:59:09 09/20/22
l, CT 06405 03) 488-0580 3) 488-8587	Client Verizon	Designed by TJL

Description	Face	Offset	Offsets:	Azimuth	Placement		$C_A A_A$	$C_A A_A$	Weight
	or	Туре	Horz	Adjustment			Front	Side	
	Leg		Lateral						
			Vert G	0	A		$G^2$	$G^2$	lh
			л ft		Ji		Ji	Л	10
			ft						
AIR6449	С	From Face	3.00	0.0000	133.00	No Ice	5.65	2.42	103.00
(AT&T)			0.00			1/2" Ice	5.96	2.64	141.45
			-2.00			1" Ice	6.26	2.87	184.10
DMP65R-BU6D	С	From Face	3.00	0.0000	133.00	No Ice	12.71	5.62	96.00
(AT&T)			6.00			1/2" Ice	13.21	6.07	169.96
DBUG 44 D//		<b>F F</b>	0.00	0.0000	122.00	1" Ice	13.71	6.53	250.56
KRUS-32 B66	А	From Face	5.00	0.0000	133.00	No Ice	3.20	1.85	60.00
(AI&I)			0.00			1/2 ICe	3.40	2.08	105.42
RRUS-32	А	From Face	3.00	0.0000	133.00	No Ice	3 31	2.31	77.00
(AT&T)	11	1101111400	-2.00	0.0000	155.00	1/2" Ice	3.56	2.64	104.93
()			0.00			1" Ice	3.81	2.86	136.47
RRUS-32	Α	From Face	3.00	0.0000	133.00	No Ice	3.31	2.42	77.00
(AT&T)			-2.00			1/2" Ice	3.56	2.64	104.93
			0.00			1" Ice	3.81	2.86	136.47
RRUS-32 B66	В	From Face	3.00	0.0000	133.00	No Ice	3.20	1.85	60.00
(AT&T)			6.00			1/2" Ice	3.46	2.08	81.11
DDUG 22	D	F F	0.00	0.0000	122.00	I" Ice	3.73	2.31	105.42
RRUS-32	в	From Face	3.00	0.0000	133.00	No Ice	3.31	2.42	77.00
(AI&I)			-2.00			1/2 Ice	3.20	2.04	104.95
RRUS-32	в	From Face	3.00	0.0000	133.00	No Ice	3.31	2.80	77.00
(AT&T)	Б	1101111 acc	-2.00	0.0000	155.00	1/2" Ice	3.56	2.64	104.93
(mar)			0.00			1" Ice	3.81	2.86	136.47
<b>RRUS-32 B66</b>	С	From Face	3.00	0.0000	133.00	No Ice	3.20	1.85	60.00
(AT&T)			6.00			1/2" Ice	3.46	2.08	81.11
			0.00			1" Ice	3.73	2.31	105.42
RRUS-32	С	From Face	3.00	0.0000	133.00	No Ice	3.31	2.42	77.00
(AT&T)			-2.00			1/2" Ice	3.56	2.64	104.93
DDUG AA	a		0.00	0.0000	122.00	l" Ice	3.81	2.86	136.47
RRUS-32	С	From Face	3.00	0.0000	133.00	No Ice	3.31	2.42	77.00
(AI&I)			-2.00			1/2" Ice	2.20	2.04	104.95
4478 B14	Δ	From Face	3.00	0.0000	133.00	No Ice	1.84	1.06	60.00
(AT&T)	$\mathbf{n}$	1101111400	-2.00	0.0000	155.00	1/2" Ice	2.01	1.00	75.88
(			0.00			1" Ice	2.19	1.34	94.39
4478 B14	в	From Face	3.00	0.0000	133.00	No Ice	1.84	1.06	60.00
(AT&T)			-2.00			1/2" Ice	2.01	1.20	75.88
			0.00			1" Ice	2.19	1.34	94.39
4478 B14	С	From Face	3.00	0.0000	133.00	No Ice	1.84	1.06	60.00
(AT&T)			-2.00			1/2" Ice	2.01	1.20	75.88
4440 D5/D12		Frank Frank	0.00	0.0000	122.00	I" Ice	2.19	1.34	94.39
4449 B5/B12	А	From Face	3.00	0.0000	133.00	No Ice	1.97	1.41	71.00
(AI&I)			-2.00			1/2 10e	2.14	1.30	110.84
4449 B5/B12	в	From Face	3.00	0.0000	133.00	No Ice	1.97	1.75	71.00
(AT&T)	Б	1 Iom I dee	-2.00	0.0000	155.00	1/2" Ice	2.14	1.56	89.51
((1100))			0.00			1" Ice	2.33	1.73	110.84
4449 B5/B12	С	From Face	3.00	0.0000	133.00	No Ice	1.97	1.41	71.00
(AT&T)			-2.00			1/2" Ice	2.14	1.56	89.51
			0.00			1" Ice	2.33	1.73	110.84
DC6-48-60-18-8F (Squid)	С	From Face	3.00	0.0000	133.00	No Ice	1.27	1.27	20.00
Suppressor			0.00			1/2" Ice	1.46	1.46	35.12
(AT&T)		F F	0.00	0.0000	122.00	I" Ice	1.66	1.66	52.57
DC0-48-00-18-8F (Squid)	А	From Face	3.00 0.00	0.0000	155.00	1/2" Loo	1.27	1.27	20.00
(AT&T)			0.00			172 100 1"Ice	1.40	1.40	52 57
(1101)			0.00			1 100	1.00	1.00	54,51

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<i>thx10wer</i>	22027.01 - Westport	22 of 71		
Centek Engineering Inc.	Project 180-ft Lattice Tower (CSP #32)	Date 07:59:09 09/20/22		
63-2 North Branjora Ka. Branford, CT 06405 Phone: (203) 488-0580	Client Verizon	Designed by		
FAX: (203) 488-8587		IJL		

Description	Face	Offset Type	Offsets: Horz	Azimuth Adjustment	Placement		C <sub>A</sub> A <sub>A</sub> Front	$C_A A_A$ Sida	Weight
	Leg	Type	Lateral	тијизитени			11011	Side	
			Vert ft	0	Ĥ		$\theta^2$	$G^2$	lh
			ft		Ji		Ji	ji	10
DC0	B	From Leg		0.0000	133.00	No Ice	1.01	1 01	20.00
(AT&T)	Б	From Log	-2.00	0.0000	155.00	1/2" Ice	2.10	2.10	39.36
			0.00			1" Ice	2.29	2.29	61.70
SitePro VFA14-10	А	None		0.0000	133.00	No Ice	30.00	30.00	950.00
(AT&T)						1/2" Ice	35.00	35.00	1400.00
	D			0.0000	122.00	1" Ice	40.00	40.00	1850.00
SitePro VFA14-10	в	None		0.0000	133.00	No Ice	30.00	30.00	950.00
(AI&I)						1/2" Ice	33.00 40.00	33.00 40.00	1400.00
SitePro VEA14-10	С	None		0.0000	133.00	No Ice	30.00	30.00	950.00
(AT&T)	C	rone		0.0000	155.00	1/2" Ice	35.00	35.00	1400.00
(mar)						1" Ice	40.00	40.00	1850.00
* CSP									1020100
ANT940Y10-WR	Α	From Leg	0.00	0.0000	187.00	No Ice	0.19	0.19	2.50
(CSP)			0.00			1/2" Ice	0.34	0.34	3.25
			0.00			1" Ice	0.49	0.49	4.00
ANT940Y10-WR	С	From Leg	0.50	0.0000	181.00	No Ice	0.19	0.19	2.50
(CSP - Yagi Antenna)			0.00			1/2" Ice	0.34	0.34	3.25
		<b>F F</b>	0.00	0.0000	170.00	1" Ice	0.49	0.49	4.00
RFI BPS/496-180-14 Panel	А	From Face	4.00	0.0000	170.00	No Ice	5.83	3.75	20.00
Antenna (CSD 80)			-6.00			1/2" Ice	6.21	4.13	56.42
(CSP-80) DEL DDS7406-180-14 Danel	٨	From Face	4.00	0.0000	170.00	No Ice	0.0U 5.83	4.51	97.99
Antenna	A	FIOIII Face	4.00	0.0000	170.00	1/2" Ice	6.21	4.13	20.00
(CSP-81)			0.00			1" Ice	6.60	4.51	97.99
RFI BPS7496-180-14 Panel	А	From Face	4.00	0.0000	170.00	No Ice	5.83	3.75	20.00
Antenna			6.00	0.0000		1/2" Ice	6.21	4.13	56.42
(CSP-82)			0.00			1" Ice	6.60	4.51	97.99
SitePro1 USF12-396-U	Α	From Leg	0.00	0.0000	170.00	No Ice	16.23	9.80	491.09
Mount Assembly w/ (3) 96"			0.00			1/2" Ice	22.18	13.27	630.09
Mount Pipes			0.00			1" Ice	28.15	16.68	815.09
(CSP 47, 80, 81, 82)									
432E-83I-01T TTA Unit	Α	From Leg	4.00	0.0000	170.00	No Ice	2.85	0.97	25.00
(Re-Located TMA (CSP))			0.00			1/2'' Ice	3.06	1.11	44.70
	C	Energy Lee	0.00	0.0000	160.00	I" Ice	3.28	1.26	67.39
5 Yagi	C	From Leg	0.50	0.0000	169.00	1/2" Loo	2.08	2.08	50.95
(CSP)			0.00			1/2 Ice	5.79	5.79	32.87
ANT150D	А	From Leg	0.00	0.0000	113.00	No Ice	0.80	0.80	5 50
(CSP - 1-Bay Dipole)		110m Leg	0.00	0.0000	115.00	1/2" Ice	1.44	1.44	7.15
(0.51 1 24) 24000)			0.00			1" Ice	2.08	2.08	8.80
GPS	С	From Leg	4.00	0.0000	60.00	No Ice	1.00	1.00	10.00
(DNK-1 / GPS)		Ū.	0.00			1/2" Ice	1.50	1.50	15.00
-			2.00			1" Ice	2.00	2.00	20.00
4' Standoff	С	From Leg	0.00	0.0000	60.00	No Ice	3.42	3.42	110.00
(DNK-1 / GPS)			0.00			1/2" Ice	3.67	3.67	147.19
			0.00			1" Ice	3.92	3.92	187.07

Dishes

turTower	Job	Page
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Contok Enginooring Inc	Project	Date
63-2 North Branford Rd.	180-ft Lattice Tower (CSP #32)	07:59:09 09/20/22
Branford, CT 06405 Phone: (203) 488-0580	Client Verizon	Designed by ד וו
FAX: (203) 488-8587		IJL

Description	Face	Dish	Offset	Offsets:	Azimuth	3 dB	Elevation	Outside		Aperture	Weight
	or	Туре	Туре	Horz	Adjustment	Beam		Diameter		Area	
	Leg			Lateral		Width					
				Vert							
				ft	0	D	ft	ft		$ft^2$	lb
PA6-65AC	С	Paraboloid	From	1.00	-55.0000		177.00	6.00	No Ice	28.27	90.00
(DNK-52 / CSP-42)		w/Radome	Leg	0.00					1/2" Ice	29.05	240.00
				0.00					1" Ice	29.83	390.00

### **222-H Verification Constants**

Constant	Value
K <sub>d</sub>	0.85
Ice Thickness Importance Factor	1.25
Zg	900
α	9.5
$\mathbf{K}_{zmin}$	0.85
$\mathbf{K}_{\mathbf{c}}$	n/a
K	1
f	1
K <sub>e</sub>	1

# 222-H Section Verification ArRr By Element

Section	Elem.	Size	С	С	F	е	е	$A_r$	$A_r$	$A_r R_r$	$A_r R_r$
Elevation	Num.			w/Ice	а		w/Ice		w/Ice		w/Ice
					с						
ft					е			$ft^2$	$ft^2$	$ft^2$	$ft^2$
T1	1	ROHN 3 STD	45.107	31.948	С	0.139	0.285	5.833	10.742	3.165	6.384
180.00-160.00											
	1	ROHN 3 STD	45.107	31.948	Α	0.139	0.285	5.833	10.742	3.165	6.384
	2	ROHN 3 STD	45.107	31.948	С	0.139	0.285	5.833	10.742	3.165	6.384
	2	ROHN 3 STD	45.107	31.948	В	0.139	0.285	5.833	10.742	3.165	6.384
	3	ROHN 3 STD	45.107	31.948	В	0.139	0.285	5.833	10.742	3.165	6.384
	3	ROHN 3 STD	45.107	31.948	Α	0.139	0.285	5.833	10.742	3.165	6.384
	4	ROHN 1.5 STD	24.486	24.017	С	0.139	0.285	1.306	3.331	0.740	1.980
	5	ROHN 1.5 STD	24.486	24.017	В	0.139	0.285	1.306	3.331	0.740	1.980
	6	ROHN 1.5 STD	24.486	24.017	Α	0.139	0.285	1.306	3.331	0.740	1.980
	7	ROHN 1.5 STD	24.486	24.017	С	0.139	0.285	1.315	3.354	0.745	1.993
	8	ROHN 2 STD	30.608	26.372	С	0.139	0.285	1.518	3.401	0.860	2.021
	9	ROHN 2 STD	30.608	26.372	С	0.139	0.285	1.518	3.401	0.860	2.021
	10	ROHN 1.5 STD	24.486	24.017	В	0.139	0.285	1.315	3.354	0.745	1.993
	11	ROHN 2 STD	30.608	26.372	В	0.139	0.285	1.518	3.401	0.860	2.021
	12	ROHN 2 STD	30.608	26.372	В	0.139	0.285	1.518	3.401	0.860	2.021
	13	ROHN 1.5 STD	24.486	24.017	Α	0.139	0.285	1.315	3.354	0.745	1.993
	14	ROHN 2 STD	30.608	26.372	Α	0.139	0.285	1.518	3.401	0.860	2.021
	15	ROHN 2 STD	30.608	26.372	Α	0.139	0.285	1.518	3.401	0.860	2.021
	19	ROHN 1.5 STD	24.486	24.017	С	0.139	0.285	1.311	3.342	0.743	1.986
	20	ROHN 2 STD	30.608	26.372	С	0.139	0.285	1.517	3.398	0.859	2.019
	21	ROHN 2 STD	30.608	26.372	С	0.139	0.285	1.517	3.398	0.859	2.019
	22	ROHN 1.5 STD	24.486	24.017	В	0.139	0.285	1.311	3.342	0.743	1.986
	23	ROHN 2 STD	30.608	26.372	В	0.139	0.285	1.517	3.398	0.859	2.019
	24	ROHN 2 STD	30.608	26.372	В	0.139	0.285	1.517	3.398	0.859	2.019
	25	ROHN 1.5 STD	24.486	24.017	Α	0.139	0.285	1.311	3.342	0.743	1.986
	26	ROHN 2 STD	30.608	26.372	Α	0.139	0.285	1.517	3.398	0.859	2.019
	27	ROHN 2 STD	30.608	26.372	Α	0.139	0.285	1.517	3.398	0.859	2.019
	31	ROHN 2 STD	30.608	26.372	С	0.139	0.285	1.515	3.394	0.858	2.017
	32	ROHN 2 STD	30.608	26.372	С	0.139	0.285	1.515	3.394	0.858	2.017

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**Centek** 1 63-2 N Bran Phone FAX:

T	Job	Job						
xIower		22027.01 - Westport	24 of 71					
Engineering Inc. North Branford Rd.	Project	180-ft Lattice Tower (CSP #32)	Date 07:59:09 09/20/22					
nford, CT 06405 e: (203) 488-0580 : (203) 488-8587	Client	Verizon	Designed by TJL					

Section	Elem.	Size	С	С	F	е	е	$A_r$	$A_r$	$A_r R_r$	$A_r R_r$
Elevation	Num.			w/Ice	а		w/Ice		w/Ice		w/Ice
C					с			c2	c2	c2	c2
ft	22	DOIDIÓCTD	20 (00	26.272	e	0.120	0.005	<i>ft</i> <sup>-</sup>	<i>ft</i> <sup>-</sup>	<i>ft</i>	<i>ft</i> <sup>2</sup>
	55 24	ROHN 2 STD	30.608	26.372	В	0.139	0.285	1.515	3.394	0.858	2.017
	25	ROHN 2 STD	30.608	26.372	В	0.139	0.285	1.515	2.294	0.838	2.017
	35	POHN 2 STD	30.000	20.372		0.139	0.285	1.515	3.394	0.858	2.017
	50	KOHN 2 STD	50.008	20.572	A	0.139	0.205 Sum:	24 699	51 808	13 713	2.017
					R		Sum.	24.699	51.898	13.713	30.840
					C			24.699	51.898	13 713	30.840
т2	40	ROHN 4 STD	57 235	36 242	č	0.143	0 276	7 514	12 370	3 727	7 320
160.00-140.00	-10	Rom(+51D	57.255	50.242	C	0.145	0.270	7.514	12.570	5.727	7.520
	40	ROHN 4 STD	57.235	36.242	Α	0.143	0.276	7.514	12.370	3.727	7.320
	41	ROHN 4 STD	57.235	36.242	С	0.143	0.276	7.514	12.370	3.727	7.320
	41	ROHN 4 STD	57.235	36.242	В	0.143	0.276	7.514	12.370	3.727	7.320
	42	ROHN 4 STD	57.235	36.242	В	0.143	0.276	7.514	12.370	3.727	7.320
	42	ROHN 4 STD	57.235	36.242	Α	0.143	0.276	7.514	12.370	3.727	7.320
	43	ROHN 1.5 STD	24.166	23.524	С	0.143	0.276	1.526	3.863	0.865	2.286
	44	ROHN 2 STD	30.207	25.847	С	0.143	0.276	1.634	3.634	0.926	2.150
	45	ROHN 2 STD	30.207	25.847	С	0.143	0.276	1.634	3.634	0.926	2.150
	46	ROHN 1.5 STD	24.166	23.524	В	0.143	0.276	1.526	3.863	0.865	2.286
	47	ROHN 2 STD	30.207	25.847	В	0.143	0.276	1.634	3.634	0.926	2.150
	48	ROHN 2 STD	30.207	25.847	В	0.143	0.276	1.634	3.634	0.926	2.150
	49	ROHN 1.5 STD	24.166	23.524	Α	0.143	0.276	1.526	3.863	0.865	2.286
	50	ROHN 2 STD	30.207	25.847	Α	0.143	0.276	1.634	3.634	0.926	2.150
	51	ROHN 2 STD	30.207	25.847	Α	0.143	0.276	1.634	3.634	0.926	2.150
	55	ROHN 1.5 STD	24.166	23.524	C	0.143	0.276	1.416	3.584	0.803	2.121
	56	ROHN 2 STD	30.207	25.847	С	0.143	0.276	1.589	3.535	0.901	2.092
	57	ROHN 2 STD	30.207	25.847	C	0.143	0.276	1.589	3.535	0.901	2.092
	58	ROHN 1.5 STD	24.166	23.524	В	0.143	0.276	1.416	3.584	0.803	2.121
	59	ROHN 2 STD	30.207	25.847	B	0.143	0.276	1.589	3.535	0.901	2.092
	60	ROHN 2 STD	30.207	25.847	В	0.143	0.276	1.589	3.535	0.901	2.092
	61	ROHN 1.5 STD	24.166	23.524	A	0.143	0.276	1.416	3.584	0.803	2.121
	62	ROHN 2 STD	20.207	25.847	A	0.143	0.276	1.589	3.333 2.525	0.901	2.092
	03 67	ROHN 2 STD	24 166	23.647	A	0.145	0.276	1.389	2.222	0.901	2.092
	69	ROHN LS STD	24.100	25.524	c	0.145	0.270	1.500	2.500	0.741	1.930
	60	POHN 2 STD	30.207	25.847	Ċ	0.143	0.270	1.540	2 4 2 8	0.870	2.035
	70	ROHN 1.5 STD	24 166	23.647	B	0.143	0.276	1.340	3 306	0.870	2.055
	70	ROHN 2 STD	30 207	25.847	B	0.143	0.276	1.500	3 438	0.741	2 035
	72	ROHN 2 STD	30 207	25.847	B	0.143	0.276	1.546	3 438	0.876	2.035
	73	ROHN 1 5 STD	24 166	23 524	A	0.143	0.276	1.306	3 306	0.878	1.956
	74	ROHN 2 STD	30 207	25.847	A	0.143	0.276	1.546	3 4 3 8	0.876	2.035
	75	ROHN 2 STD	30.207	25.847	A	0.143	0.276	1.546	3.438	0.876	2.035
					Α		Sum:	28.812	56.708	15.269	33.556
					В			28.812	56.708	15.269	33.556
					С			28.812	56.708	15.269	33.556
Т3	79	ROHN 5 EH	70.065	40.908	С	0.151	0.271	3.096	4.700	1.391	2.775
140.00-133.33											
	79	ROHN 5 EH	70.065	40.908	Α	0.151	0.271	3.096	4.700	1.391	2.775
	80	ROHN 5 EH	70.065	40.908	С	0.151	0.271	3.096	4.700	1.391	2.775
	80	ROHN 5 EH	70.065	40.908	В	0.151	0.271	3.096	4.700	1.391	2.775
	81	ROHN 5 EH	70.065	40.908	В	0.151	0.271	3.096	4.700	1.391	2.775
	81	ROHN 5 EH	70.065	40.908	А	0.151	0.271	3.096	4.700	1.391	2.775
	82	ROHN 2 STD	29.913	25.465	C	0.151	0.271	2.028	4.488	1.151	2.650
	83	ROHN 2 EH	29.976	25.489	C	0.151	0.271	1.670	3.691	0.948	2.180
	84	ROHN 2 EH	29.976	25.489	С	0.151	0.271	1.670	3.691	0.948	2.180
	85	ROHN 2 STD	29.913	25.465	В	0.151	0.271	2.028	4.488	1.151	2.650
	86	ROHN 2 EH	29.976	25.489	B	0.151	0.271	1.670	3.691	0.948	2.180
	87	ROHN 2 EH	29.976	25.489	B	0.151	0.271	1.670	3.691	0.948	2.180
	88	ROHN 2 STD	29.913	25.465	A	0.151	0.271	2.028	4.488	1.151	2.650
	89	ROHN 2 EH	29.976	25.489	A	0.151	0.271	1.670	3.691	0.948	2.180
	90	ROHN 2 EH	29.976	25.489	A	0.151	0.271	1.670	3.691	0.948	2.180

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lower	Job		Page
UNCI		22027.01 - Westport	25 OF 71
inaarina Ina	Project		Date
Branford Rd.		180-ft Lattice Tower (CSP #32)	07:59:09 09/20/22
l, CT 06405 93) 488-0580 3) 488-8587	Client	Verizon	Designed by TJL

Section	Elem.	Size	C	С	F	е	е	$A_r$	$A_r$	$A_r R_r$	$A_r R_r$
Elevation	Num.			w/Ice	а		w/Ice		w/Ice		w/Ice
ft					C P			ft <sup>2</sup>	fr <sup>2</sup>	fr <sup>2</sup>	fr <sup>2</sup>
Jı					A		Sum:	ير 11.559	ر 21.270	ر 5.828	ير 12.561
					B		O GILL	11.559	21.270	5.828	12.561
	1 1				Ċ			11.559	21.270	5.828	12.561
Τ4	94	ROHN 5 EH	69.697	40.624	С	0.145	0.262	3.096	4.692	1.388	2.759
133.33-126.67											
	94	ROHN 5 EH	69.697	40.624	Α	0.145	0.262	3.096	4.692	1.388	2.759
	95	ROHN 5 EH	69.697	40.624	С	0.145	0.262	3.096	4.692	1.388	2.759
	95	ROHN 5 EH	69.697	40.624	В	0.145	0.262	3.096	4.692	1.388	2.759
	96	ROHN 5 EH	69.697	40.624	В	0.145	0.262	3.096	4.692	1.388	2.759
	96	ROHN 5 EH	69.697	40.624	A	0.145	0.262	3.096	4.692	1.388	2.759
	9/	ROHN 2 STD	29.756	25.262		0.145	0.262	2.165	4.//9	1.228	2.810
	90	ROHN 2 STD	29.750	25.202	Б	0.145	0.202	2.165	4.//>	1.220	2.810
	100	DOUN 2 STD	29.750	25.202	A C	0.145	0.202	2.105	4.//5	1.220	2.010
	101	ROHN 2 EH	29.010	25.286	č	0.145	0.202	1.717	3 787	0.974	2.226
	102	ROHN 2 EH	29.818	25 286	B	0.145	0.262	1.717	3.787	0.974	2.226
	103	ROHN 2 EH	29.818	25.286	B	0.145	0.262	1.717	3.787	0.974	2.226
	104	ROHN 2 EH	29.818	25.286	Ā	0.145	0.262	1.717	3.787	0.974	2.226
	105	ROHN 2 EH	29.818	25.286	Α	0.145	0.262	1.717	3.787	0.974	2.226
	1 1				Α		Sum:	11.792	21.736	5.951	12.781
	1 1				В			11.792	21.736	5.951	12.781
	1 1				С			11.792	21.736	5.951	12.781
T5	109	ROHN 5 EH	69.312	40.327	С	0.14	0.253	3.096	4.684	1.386	2.744
126.67-120.00	100	DOIDLADU	60.210	10.207			0.050	2.000	1 (01	1.200	2 7 4 4
	109	ROHN 5 EH	69.312	40.327	A	0.14	0.253	3.096	4.684	1.380	2.744
	110	ROHN 5 EH	69.512	40.327		0.14	0.255	3.090	4.084	1.380	2.744
	111	POUN 5 EH	60 312	40.327	B	0.14	0.255	3.090	4 684	1.386	2.744
	111	ROHN 5 EH	69 312	40.327	A	0.14	0.255	3 096	4 684	1 386	2.744
	112	ROHN 2 STD	29.591	25.05	ĉ	0.14	0.253	2.303	5.068	1.305	2.969
	113	ROHN 2 STD	29.591	25.05	B	0.14	0.253	2.303	5.068	1.305	2.969
	114	ROHN 2 STD	29.591	25.05	Α	0.14	0.253	2.303	5.068	1.305	2.969
	115	ROHN 2 XXS	29.591	25.05	С	0.14	0.253	1.763	3.880	0.999	2.273
	116	ROHN 2 XXS	29.591	25.05	С	0.14	0.253	1.763	3.880	0.999	2.273
	117	ROHN 2 XXS	29.591	25.05	В	0.14	0.253	1.763	3.880	0.999	2.273
	118	ROHN 2 XXS	29.591	25.05	В	0.14	0.253	1.763	3.880	0.999	2.273
	119	ROHN 2 XXS	29.591	25.05	Α	0.14	0.253	1.763	3.880	0.999	2.273
	120	ROHN 2 XXS	29.591	25.05	A	0.14	0.253	1.763	3.880	0.999	2.273
	1 1				A		Sum:	12.020	22.194	6.074	13.001
	1 1				В			12.020	22.194	6.074	13.001
тб	124	POHN 6 FHS	81 556	44 719		0 133	0.222	12.020	15 775	4 541	9 1 2 7
120 00-100.00	12-	KOHIN Ü EHIŞ	01.550	44.715	Ŭ	0.155	0.222	11.005	13.775	T.J.T I	7.147
120.00 100.00	124	ROHN 6 EHS	81.556	44.719	А	0.133	0.222	11.065	15,775	4,541	9.127
	125	ROHN 6 EHS	81.556	44.719	Ċ	0.133	0.222	11.065	15.775	4.541	9.127
	125	ROHN 6 EHS	81.556	44.719	В	0.133	0.222	11.065	15.775	4.541	9.127
	126	ROHN 6 EHS	81.556	44.719	В	0.133	0.222	11.065	15.775	4.541	9.127
	126	ROHN 6 EHS	81.556	44.719	Α	0.133	0.222	11.065	15.775	4.541	9.127
	127	ROHN 2 STD	29.237	24.596	С	0.133	0.222	2.645	5.786	1.497	3.348
	128	Pipe 2.5 XXS	35.392	26.964	С	0.133	0.222	2.889	5.722	1.635	3.311
	129	Pipe 2.5 XXS	35.392	26.964	С	0.133	0.222	2.889	5.722	1.635	3.311
	130	ROHN 2 STD	29.237	24.596	В	0.133	0.222	2.645	5.786	1.497	3.348
	131	Pipe 2.5 XXS	35.392	26.964	B	0.133	0.222	2.889	5.722	1.635	3.311
	132	Pipe 2.5 XXS	35.392	26.964	в	0.135	0.222	2.889	5.722	1.655	5.511
	133	ROHN 2 STD	29.257	24.590	A	0.133	0.222	2.045	5./80	1.497	5.540 2.211
	134	Pipe 2.5 AAS	25 302	20.904	A A	0.133	0.222	2.007	5 722	1.055	3 3 1 1
	130	PIPE 2.5 AAS	20 237	20.904	A C	0.133	0.222	2.005	5 299	1.055	3.066
	140	Pine 2.5 XXS	35 392	24.550	č	0.133	0.222	2.804	5.554	1.571	3.214
	141	Pipe 2.5 XXS	35.392	26.964	č	0.133	0.222	2.804	5.554	1.587	3.214

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Tank an	Job		Page
nx1ower		22027.01 - Westport	26 of 71
<b>tek Engineering Inc.</b> 3-2 North Branford Rd.	Project	180-ft Lattice Tower (CSP #32)	Date 07:59:09 09/20/22
Branford, CT 06405 hone: (203) 488-0580 FAX: (203) 488-8587	Client	Verizon	Designed by TJL

Section	Elem.	Size	С	С	F	е	е	$A_r$	$A_r$	$A_r R_r$	$A_r R_r$
Elevation	Num.			w/Ice	а		w/Ice		w/Ice		w/Ice
ft					с е			$ft^2$	$ft^2$	$ft^2$	$ft^2$
- ل	142	ROHN 2 STD	29.237	24.596	В	0.133	0.222	2.422	5.299	1.371	3.066
	143	Pipe 2.5 XXS	35.392	26.964	В	0.133	0.222	2.804	5.554	1.587	3.214
	144	Pipe 2.5 XXS	35.392	26.964	В	0.133	0.222	2.804	5.554	1.587	3.214
	145	ROHN 2 STD	29.237	24.596	A	0.133	0.222	2.422	5.299	1.371	3.066
	146	Pipe 2.5 XXS	35.392	26.964	A	0.133	0.222	2.804	5.554	1.587	3.214
	14/	Pipe 2.5 XXS	35.392	26.964	A	0.155	0.222	2.804	5.554	1.38/	5.214
					A R		Sum.	38 583	65 187	18.390	37.718
					C			38.583	65.187	18.396	37.718
T7 100.00-90.00	151	ROHN 6 EH	80.307	43.843	č	0.131	0.212	5.537	7.859	2.265	4.533
	151	ROHN 6 EH	80.307	43.843	Ă	0.131	0.212	5.537	7.859	2.265	4.533
	152	ROHN 6 EH	80.307	43.843	С	0.131	0.212	5.537	7.859	2.265	4.533
	152	ROHN 6 EH	80.307	43.843	В	0.131	0.212	5.537	7.859	2.265	4.533
	153	ROHN 6 EH	80.307	43.843	В	0.131	0.212	5.537	7.859	2.265	4.533
	153	ROHN 6 EH	80.307	43.843	A	0.131	0.212	5.537	7.859	2.265	4.533
	154	ROHN 2 STD	28.789	24.028	C	0.131	0.212	2.868	6.223	1.623	3.589
	155	ROHN 3 STD	42.426	29.273	C	0.131	0.212	3.643	6.535	2.011	3.769
	150	ROHN 2 STD	42.420	29.275	В	0.131	0.212	2.042 2.868	6 2 2 3	2.011	3.709
	158	ROHN 3 STD	42 426	29 273	B	0.131	0.212	2.808	6 535	2 011	3 769
	150	ROHN 3 STD	42.426	29.273	B	0.131	0.212	3.643	6.535	2.011	3.769
	160	ROHN 2 STD	28.789	24.028	A	0.131	0.212	2.868	6.223	1.623	3.589
	161	ROHN 3 STD	42.426	29.273	Α	0.131	0.212	3.643	6.535	2.011	3.769
	162	ROHN 3 STD	42.426	29.273	А	0.131	0.212	3.643	6.535	2.011	3.769
					А		Sum:	21.227	35.011	10.175	20.193
					B			21.227	35.011	10.175	20.193
<b>TO OO OO OO OO</b>	1.00	DOIDL	70.070	12 101	C	0.101	0.000	21.227	35.011	10.175	20.193
T8 90.00-80.00	166	ROHN 6 EH	79.372	43.191	C	0.124	0.202	5.537	7.833	2.247	4.502
	160	ROHN 6 EH	79.372	43.191	A	0.124	0.202	5.53/	/.833	2.247	4.502
	167	ROHN 6 EH	79.372	43.191	B	0.124	0.202	5.537	7.033	2.247	4.502
	168	ROHN 6 EH	79.372	43.191	B	0.124	0.202	5.537	7.833	2.247	4.502
	168	ROHN 6 EH	79.372	43.191	Ă	0.124	0.202	5.537	7.833	2.247	4.502
	169	ROHN 2 STD	28.454	23.607	С	0.124	0.202	3.129	6.749	1.769	3.879
	170	ROHN 2 STD	28.454	23.607	В	0.124	0.202	3.129	6.749	1.769	3.879
	171	ROHN 2 STD	28.454	23.607	Α	0.124	0.202	3.129	6.749	1.769	3.879
	172	ROHN 3 STD	41.933	28.791	С	0.124	0.202	3.773	6.735	2.088	3.871
	173	ROHN 3 STD	41.933	28.791	С	0.124	0.202	3.773	6.735	2.088	3.871
	174	ROHN 3 STD	41.933	28.791	B	0.124	0.202	3.773	6.735	2.088	3.871
	175	ROHN 3 STD	41.933	28.791	B	0.124	0.202	3.773	6.735	2.088	3.871
	170	ROHN 3 STD	41.955	28.791	A	0.124	0.202	3.773 3.773	6.735	2.088	3.871
	1 / /	KOIIN 5 STD	41.955	20.791	A	0.124	0.202 Sum:	21 747	35 885	10.439	20.625
					B		oum.	21.747	35.885	10.439	20.625
					C			21.747	35.885	10.439	20.625
T9 80.00-60.00	184	ROHN 2.5 STD	33.748	25.148	С	0.14	0.204	4.360	8.447	2.470	4.859
	185	ROHN 3 STD	41.084	27.97	С	0.14	0.204	3.995	7.071	2.231	4.067
	186	ROHN 3 STD	41.084	27.97	С	0.14	0.204	3.995	7.071	2.231	4.067
	187	ROHN 2.5 STD	33.748	25.148	В	0.14	0.204	4.360	8.447	2.470	4.859
	188	ROHN 3 STD	41.084	27.97	B	0.14	0.204	3.995	7.071	2.231	4.067
	189	ROHN 3 SID	41.084	27.97	в	0.14	0.204	3.995	/.0/1	2.231	4.06/
	190	ROHN 2.5 STD	35.748	25.148	A	0.14	0.204	4.500	8.447 7.071	2.470	4.839
	191	ROHN 3 STD	41.084	27.97	Δ	0.14	0.204	3,995	7.071	2.231	4.007
	192	ROHN 2 5 STD	33 748	25 148	Ĉ	0.14	0.204	4 060	7.867	2.251	4 525
	197	ROHN 3 STD	41.084	27.97	č	0.14	0.204	3.862	6.837	2.157	3.932
	198	ROHN 3 STD	41.084	27.97	Č	0.14	0.204	3.862	6.837	2.157	3.932
	199	ROHN 2.5 STD	33.748	25.148	В	0.14	0.204	4.060	7.867	2.301	4.525
	200	ROHN 3 STD	41.084	27.97	В	0.14	0.204	3.862	6.837	2.157	3.932
	201	ROHN 3 STD	41.084	27.97	В	0.14	0.204	3.862	6.837	2.157	3.932

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**Cente** 63-2 B Pho FAX: (203) 488-8582

<b></b>	Job		Page
nx1ower		22027.01 - Westport	27 of 71
ak Fucinacrine Inc	Project		Date
2 North Branford Rd.		180-ft Lattice Tower (CSP #32)	07:59:09 09/20/22
Branford, CT 06405	Client		Designed by
one: (203) 488-0580 (4X: (203) 488-8587		Verizon	TJL

Section	Elem.	Size	С	С	F	е	е	$A_r$	$A_r$	$A_r R_r$	$A_r R_r$
Elevation	Num.			w/Ice	а		w/Ice		w/Ice		w/Ice
0					с			c2	c2	o2	c2
ft	202	DOIN 15 CTD	22 749	25 1 4 9	e	0.14	0.204	<i>ft</i> <sup>-</sup>		$ft^2$	ft~
	202	ROHN 2.5 STD	35.748	25.148		0.14	0.204	4.060	/.80/ 6.837	2.301	4.525
	203	ROHN 3 STD	41.084	27.97		0.14	0.204	3.802	6.837	2.157	3 932
	204	KOIII J SID	41.004	21.91		0.14	Sum:	24 135	44 130	13 546	25 382
					B		oum.	24.135	44.130	13.546	25.382
					Ē			24.135	44.130	13.546	25.382
T10 60.00-40.00	211	ROHN 2.5 STD	32.573	23.885	С	0.129	0.189	4.959	9.454	2.805	5.413
	212	ROHN 3 EH	39.655	26.608	С	0.129	0.189	4.269	7.448	2.404	4.264
	213	ROHN 3 EH	39.655	26.608	С	0.129	0.189	4.269	7.448	2.404	4.264
	214	ROHN 2.5 STD	32.573	23.885	В	0.129	0.189	4.959	9.454	2.805	5.413
	215	ROHN 3 EH	39.655	26.608	В	0.129	0.189	4.269	7.448	2.404	4.264
	216	ROHN 3 EH	39.655	26.608	В	0.129	0.189	4.269	7.448	2.404	4.264
	217	ROHN 2.5 STD	32.573	23.885	A	0.129	0.189	4.959	9.454	2.805	5.413
	218	ROHN 3 EH	39.655	26.608	A	0.129	0.189	4.269	7.448	2.404	4.264
	219	ROHN 3 EH	39.655	26.608	A	0.129	0.189	4.269	/.448	2.404	4.264
	223	ROHN 2.5 STD	32.373	25.885		0.129	0.189	4.039	8.883	2.030	5.086
	224	ROHN 3 EH	39.033	26.608		0.129	0.189	4.130	7.200	2.520	4.120
	223	POUN 25 STD	39.033	20.000	B	0.129	0.169	4.150	7.200	2.520	4.120
	220	ROHN 3 FH	39 655	25.665	B	0.129	0.189	4.039	7 206	2.030	4 1 2 6
	228	ROHN 3 EH	39.655	26.608	B	0.129	0.189	4.130	7.206	2.326	4.126
	229	ROHN 2.5 STD	32.573	23.885	Ā	0.129	0.189	4.659	8.883	2.636	5.086
	230	ROHN 3 EH	39.655	26.608	Â	0.129	0.189	4.130	7.206	2.326	4.126
	231	ROHN 3 EH	39.655	26.608	A	0.129	0.189	4.130	7.206	2.326	4.126
					А		Sum:	26.417	47.644	14.901	27.279
					В			26.417	47.644	14.901	27.279
					С			26.417	47.644	14.901	27.279
T11 40.00-30.00	238	ROHN 2.5 STD	31.373	22.621	С	0.123	0.178	5.258	9.858	2.973	5.629
	239	ROHN 3 EH	38.193	25.244	С	0.123	0.178	4.410	7.579	2.493	4.328
	240	ROHN 3 EH	38.193	25.244	С	0.123	0.178	4.410	7.579	2.493	4.328
	241	ROHN 2.5 STD	31.373	22.621	B	0.123	0.178	5.258	9.858	2.973	5.629
	242	ROHN 3 EH	38.193	25.244	B	0.123	0.178	4.410	7.579	2.493	4.328
	245	ROHN 5 EH	38.195	25.244	В	0.125	0.178	4.410	7.579	2.493	4.328
	244	ROHN 2.5 STD	31.373	22.621	A	0.125	0.178	5.258	9.858	2.975	5.029
	245	ROHN 3 EH	38.195	25.244	A	0.125	0.178	4.410	7.579	2.495	4.520
	240	KUHN J EH	30.175	23.244		0.125	0.176 Sum	14 079	25.017	2.455	14 285
					R		Sum.	14.079	25.017	7 9 5 9	14 285
					č			14.079	25.017	7.959	14.285
T12 30.00-20.00	253	ROHN 2.5 EH	30.281	21.497	č	0.119	0.172	5.558	10.258	3.141	5.849
	254	ROHN 2.5 EH	30.281	21.497	В	0.119	0.172	5.558	10.258	3.141	5.849
	255	ROHN 2.5 EH	30.281	21.497	А	0.119	0.172	5.558	10.258	3.141	5.849
	256	ROHN 3 EH	36.864	24.029	С	0.119	0.172	4.555	7.719	2.574	4.401
	257	ROHN 3 EH	36.864	24.029	С	0.119	0.172	4.555	7.719	2.574	4.401
	258	ROHN 3 EH	36.864	24.029	В	0.119	0.172	4.555	7.719	2.574	4.401
	259	ROHN 3 EH	36.864	24.029	В	0.119	0.172	4.555	7.719	2.574	4.401
	260	ROHN 3 EH	36.864	24.029	А	0.119	0.172	4.555	7.719	2.574	4.401
	261	ROHN 3 EH	36.864	24.029	А	0.119	0.172	4.555	7.719	2.574	4.401
					Α		Sum:	14.667	25.696	8.288	14.650
					B			14.667	25.696	8.288	14.650
T12 20 00 0 00	200	D2 5- 22(	20.051	22.000	C	0.100	0.152	14.66/	25.696	8.288	14.650
113 20.00-0.00	268	P3.5x.226	39.951	23.889	C	0.108	0.152	8.153	12.675	4.570	/.195
	269	ROHN 5 EH	34.957	21.968		0.108	0.152	0.915	2 027	5.905 0.521	0.412
	270	DOIN 2 STD	23 721	17.646	Č	0.108	0.152	0.940	2.037	0.331	2 3 4 1
	271	ROHN 2 STD	23.721	21.068	Č	0.108	0.152	2.132	4.124	3 003	6.412
	272	ROHN 1 5 STD	18 977	15 822	Ċ	0.108	0.152	0.915	2 037	0.531	1 1 1 5 6
	273	ROHN 2 STD	23 721	17 646	Ċ	0.108	0.152	2 132	4 124	1 204	2 341
	275	P3.5x.226	39.951	23.889	B	0.108	0.152	8.153	12.675	4.570	7.195
	276	ROHN 3 EH	34.957	21.968	В	0.108	0.152	6.913	11.295	3.903	6.412

**Centek** 63-21 Bra Phon FAX

xTower	<b>Јо</b> в 22027.01 - Westport	Page 28 of 71
<b>Engineering Inc.</b> North Branford Rd.	Project 180-ft Lattice Tower (CSP #32)	Date 07:59:09 09/20/22
anford, CT 06405 1e: (203) 488-0580 X: (203) 488-8587	Client Verizon	Designed by TJL

Section	Elem.	Size	С	С	F	е	е	$A_r$	$A_r$	$A_r R_r$	$A_r R_r$
Elevation	Num.			w/Ice	а		w/Ice		w/Ice		w/Ice
					c						
ft					е			$ft^2$	$ft^2$	$ft^2$	$ft^2$
	277	ROHN 1.5 STD	18.977	15.822	В	0.108	0.152	0.940	2.037	0.531	1.156
	278	ROHN 2 STD	23.721	17.646	В	0.108	0.152	2.132	4.124	1.204	2.341
	279	ROHN 3 EH	34.957	21.968	В	0.108	0.152	6.913	11.295	3.903	6.412
	280	ROHN 1.5 STD	18.977	15.822	В	0.108	0.152	0.940	2.037	0.531	1.156
	281	ROHN 2 STD	23.721	17.646	В	0.108	0.152	2.132	4.124	1.204	2.341
	283	P3.5x.226	39.951	23.889	Α	0.108	0.152	8.153	12.675	4.570	7.195
	284	ROHN 3 EH	34.957	21.968	Α	0.108	0.152	6.913	11.295	3.903	6.412
	285	ROHN 1.5 STD	18.977	15.822	Α	0.108	0.152	0.940	2.037	0.531	1.156
	286	ROHN 2 STD	23.721	17.646	Α	0.108	0.152	2.132	4.124	1.204	2.341
	287	ROHN 3 EH	34.957	21.968	Α	0.108	0.152	6.913	11.295	3.903	6.412
	288	ROHN 1.5 STD	18.977	15.822	Α	0.108	0.152	0.940	2.037	0.531	1.156
	289	ROHN 2 STD	23.721	17.646	Α	0.108	0.152	2.132	4.124	1.204	2.341
					Α		Sum:	28.122	47.586	15.844	27.015
					В			28.122	47.586	15.844	27.015
					С			28.122	47.586	15.844	27.015

222-H Section Verification	Tables - No Ice
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Section	Zurind	7:	K.	K,	K.,	t.	<i>a</i> .	F	P	A.R.
Elevation	Zwind	21ce	n <sub>z</sub>	1 n	I Szt	<sup>1</sup> 2	$q_z$	a	Č	21727
2								c		
ft	ft	ft				in	psf	e		$ft^2$
T1 180.00-160.00	170.00		1.415	1	1		52	Α	0.139	13.713
								В	0.139	13.713
								С	0.139	13.713
T2 160.00-140.00	150.00		1.378	1	1		51	A	0.143	15.269
								В	0.143	15.269
								С	0.143	15.269
T3 140.00-133.33	136.67		1.352	1	1		50	Α	0.151	5.828
								В	0.151	5.828
								С	0.151	5.828
T4 133.33-126.67	130.00		1.337	1	1		49	A	0.145	5.951
								В	0.145	5.951
								С	0.145	5.951
T5 126.67-120.00	123.33		1.323	1	1		49	Α	0.14	6.074
								В	0.14	6.074
								С	0.14	6.074
T6 120.00-100.00	110.00		1.291	1	1		47	Α	0.133	18.396
								В	0.133	18.396
								С	0.133	18.396
T7 100.00-90.00	95.00		1.252	1	1		46	A	0.131	10.175
								В	0.131	10.175
								С	0.131	10.175
T8 90.00-80.00	85.00		1.223	1	1		45	Α	0.124	10.439
								В	0.124	10.439
								С	0.124	10.439
T9 80.00-60.00	70.00		1.174	1	1		43	Α	0.14	13.546
								В	0.14	13.546
								С	0.14	13.546
T10 60.00-40.00	50.00		1.094	1	1		40	Α	0.129	14.901
								В	0.129	14.901
								С	0.129	14.901
T11 40.00-30.00	35.00		1.015	1	1		37	А	0.123	7.959

<i>tnxTower</i>
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Project	Date
180-ft Lattice Tower (CSP #32)	07:59:09 09/20/22
Client Verizon	Designed by TJL

Section	$Z_{wind}$	Zice	Kz	$K_h$	Kzt	tz	$q_z$	F	е	$A_r R_r$
Elevation								а		
								С		- 2
ft	ft	ft				in	psf	е		ft²
								В	0.123	7.959
								С	0.123	7.959
T12 30.00-20.00	25.00		0.945	1	1		35	Α	0.119	8.288
								В	0.119	8.288
								С	0.119	8.288
T13 20.00-0.00	10.00		0.85	1	1		31	Α	0.108	15.844
								в	0.108	15.844
								С	0.108	15.844

		222-l	H Sec	tion V	/erific	ation	Table	es - I	се	
Section Elevation	$Z_{wind}$	Z <sub>ice</sub>	Kz	$K_h$	K <sub>zt</sub>	tz	$q_z$	F a	е	$A_r R_r$
a	a	a				t.	f	С		<i>a</i> <sup>2</sup>
<i>JI</i> T1 190 00 1 (0 00	<i>JI</i> 170.00	<i>JI</i> 170.00	1 415	1	1	IN 1 4707	psj	e	0.295	<i>JI</i> 20.840
11 180.00-160.00	170.00	170.00	1.415	1	1	1.4/2/	8	A D	0.285	30.840
								Б С	0.265	30.840
T2 160 00-140 00	150.00	150.00	1 3 7 8	1	1	1 4543	7		0.285	33 556
12 100.00-140.00	150.00	150.00	1.570	1	1	1.4545	/	B	0.276	33,556
								C	0.276	33 556
T3 140 00-133 33	136.67	136.67	1 352	1	1	1 4409	7	A	0.270	12 561
19 140.00-199.99	150.07	150.07	1.552	1	1	1.7702	1	B	0.271	12.501
								C	0.271	12,561
T4 133 33-126 67	130.00	130.00	1 3 3 7	1	1	1 4337	7	Ă	0.262	12.501
11155.55 120.07	120.00	120.00	1.557	1	1	1.1557	,	B	0.262	12.781
								č	0.262	12.781
T5 126.67-120.00	123.33	123.33	1.323	1	1	1.4262	7	Ă	0.253	13.001
				-	_			В	0.253	13.001
								Ē	0.253	13.001
T6 120.00-100.00	110.00	110.00	1.291	1	1	1.4099	7	Ā	0.222	37.718
								в	0.222	37.718
								С	0.222	37.718
T7 100.00-90.00	95.00	95.00	1.252	1	1	1.3894	7	Α	0.212	20.193
								в	0.212	20.193
								С	0.212	20.193
T8 90.00-80.00	85.00	85.00	1.223	1	1	1.3740	7	Α	0.202	20.625
								в	0.202	20.625
								С	0.202	20.625
T9 80.00-60.00	70.00	70.00	1.174	1	1	1.3476	6	Α	0.204	25.382
								В	0.204	25.382
								С	0.204	25.382
T10 60.00-40.00	50.00	50.00	1.094	1	1	1.3030	6	Α	0.189	27.279
								В	0.189	27.279
								С	0.189	27.279
T11 40.00-30.00	35.00	35.00	1.015	1	1	1.2574	6	Α	0.178	14.285
								В	0.178	14.285
								С	0.178	14.285
T12 30.00-20.00	25.00	25.00	0.945	1	1	1.2158	5	Α	0.172	14.650
								В	0.172	14.650
								C	0.172	14.650
T13 20.00-0.00	10.00	10.00	0.85	1	1	1.1093	5	A	0.152	27.015
								B	0.152	27.015
								- C	I 0.152 I	27.015

tnxTov

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	Job		Page	
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anina Ina	Project		Date	
nford Rd.		180-ft Lattice Tower (CSP #32)	07:59:09 09/20/22	?
06405	Client		Designed by	
88-0580 88-8587		Verizon	TJL	
10 10 10 10 1				

#### 222-H Section Verification Tables - Service

Section	$Z_{wind}$	$Z_{ice}$	Kz	$K_h$	$K_{zt}$	$t_z$	$q_z$	F	е	$A_r R_r$
Elevation								а		
								С		22
ft	ft	ft				in	psf	е		ft^z
T1 180.00-160.00	170.00		1.415	1	1		11	А	0.139	13.993
								В	0.139	13.993
								С	0.139	13.993
T2 160.00-140.00	150.00		1.378	1	1		11	А	0.143	16.334
								В	0.143	16.334
								С	0.143	16.334
T3 140.00-133.33	136.67		1.352	1	1		11	Α	0.151	6.561
								В	0.151	6.561
								С	0.151	6.561
T4 133.33-126.67	130.00		1.337	1	1		10	А	0.145	6.687
								В	0.145	6.687
								С	0.145	6.687
T5 126.67-120.00	123.33		1.323	1	1		10	Α	0.14	6.810
								В	0.14	6.810
								С	0.14	6.810
T6 120.00-100.00	110.00		1.291	1	1		10	Α	0.133	21.840
								В	0.133	21.840
								С	0.133	21.840
T7 100.00-90.00	95.00		1.252	1	1		10	А	0.131	12.011
								В	0.131	12.011
								С	0.131	12.011
T8 90.00-80.00	85.00		1.223	1	1		10	Α	0.124	12.296
								В	0.124	12.296
								С	0.124	12.296
T9 80.00-60.00	70.00		1.174	1	1		9	Α	0.14	13.674
								В	0.14	13.674
								С	0.14	13.674
T10 60.00-40.00	50.00		1.094	1	1		9	А	0.129	14.945
								В	0.129	14.945
								С	0.129	14.945
T11 40.00-30.00	35.00		1.015	1	1		8	Α	0.123	7.959
								В	0.123	7.959
								С	0.123	7.959
T12 30.00-20.00	25.00		0.945	1	1		7	Α	0.119	8.288
								В	0.119	8.288
								С	0.119	8.288
T13 20.00-0.00	10.00		0.85	1	1		7	Α	0.108	15.877
								В	0.108	15.877
								С	0.108	15.877

#### **Tower Pressures - No Ice**

 $G_H = \theta.85\theta$ 

Section	Ζ	$K_Z$	$q_z$	$A_G$	F	$A_F$	$A_R$	$A_{leg}$	Leg	$C_A A_A$	$C_A A_A$
Elevation					а				%	In	Out
					с					Face	Face
ft	ft		psf	$ft^2$	е	$ft^2$	$ft^2$	$ft^2$		$ft^2$	$ft^2$
T1	170.00	1.415	52	177.503	Α	0.000	24.699	11.667	47.24	15.281	0.000
180.00-160.00					в	0.000	24.699		47.24	0.000	0.000
					С	0.000	24.699		47.24	0.000	0.000
T2	150.00	1.378	51	200.850	Α	0.000	28.812	15.027	52.16	56.607	0.000
160.00-140.00					В	0.000	28.812		52.16	0.000	0.000

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Job		Page
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Project		Date
	180-ft Lattice Tower (CSP #32)	07:59:09 09/20/22
Client	Verizon	Designed by TJL

Section	Ζ	Kz	$q_z$	$A_G$	F	$A_F$	$A_R$	$A_{leg}$	Leg	$C_A A_A$	$C_A A_A$
Elevation					а				%	In	Out
					С					Face	Face
ft	ft		psf	$ft^2$	е	ft²	ft²	ft²		ft²	ft²
					С	0.000	28.812		52.16	0.000	0.000
T3	136.67	1.352	50	76.803	Α	0.000	11.559	6.192	53.57	18.869	0.000
140.00-133.33					В	0.000	11.559		53.57	0.000	0.000
					C	0.000	11.559		53.57	0.000	0.000
T4	130.00	1.337	49	81.431	Α	0.000	11.792	6.192	52.51	18.869	0.000
133.33-126.67					В	0.000	11.792		52.51	10.751	0.000
					C	0.000	11.792		52.51	0.000	0.000
T5	123.33	1.323	49	86.060	Α	0.000	12.020	6.192	51.52	18.869	0.000
126.67-120.00					В	0.000	12.020		51.52	29.491	0.000
					С	0.000	12.020		51.52	0.000	0.000
T6	110.00	1.291	47	289.399	Α	0.000	38.583	22.130	57.36	57.426	0.000
120.00-100.00					В	0.000	38.583		57.36	106.647	0.000
					C	0.000	38.583		57.36	0.000	0.000
T7	95.00	1.252	46	162.540	Α	0.000	21.227	11.074	52.17	28.934	0.000
100.00-90.00					в	0.000	21.227		52.17	53.324	0.000
					С	0.000	21.227		52.17	0.000	0.000
T8 90.00-80.00	85.00	1.223	45	175.715	Α	0.000	21.747	11.074	50.92	28.934	0.000
					В	0.000	21.747		50.92	53.324	0.000
					С	0.000	21.747		50.92	0.000	0.000
T9 80.00-60.00	70.00	1.174	43	390.971	Α	30.496	24.135	30.496	55.82	57.930	0.000
					В	30.496	24.135		55.82	106.647	0.000
					C	30.496	24.135		55.82	0.000	0.000
T10	50.00	1.094	40	440.971	A	30.496	26.417	30.496	53.58	59.127	0.000
60.00-40.00					B	30.496	26.417		53.58	106.647	0.000
					C	30.496	26.417		53.58	0.000	0.000
T11	35.00	1.015	37	239.236	A	15.248	14.079	15.248	51.99	29.564	0.000
40.00-30.00					В	15.248	14.079		51.99	53.324	0.000
					C	15.248	14.079		51.99	0.000	0.000
T12	25.00	0.945	35	251.736	Α	15.248	14.667	15.248	50.97	29.564	0.000
30.00-20.00					В	15.248	14.667		50.97	53.324	0.000
					C	15.248	14.667		50.97	0.000	0.000
113 20.00-0.00	10.00	0.85	31	541.368	A	30.078	28.122	30.078	51.68	59.127	0.000
					B	30.078	28.122		51.68	106.647	0.000
					C	30.078	28.122		51.68	0.000	0.000

#### **Tower Pressure - With Ice**

 $G_H = 0.85\theta$ 

Section	Z	Kz	$q_z$	$t_Z$	$A_G$	F	$A_F$	$A_R$	$A_{leg}$	Leg	$C_A A_A$	$C_A A_A$
Elevation	( '	1 1	1 '	1 1	, J	a'	1 1	. 1	1 1	%	In	Out
	( '	1 1	1 '	1 1	, J	c'	1 1	. 1	1 1	1 1	Face	Face
ft	ft		psf	in	$ft^2$	e	$ft^2$	$ft^2$	$ft^2$		$ft^2$	$ft^2$
T1	170.00	1.415	8	1.4727	182.412	A	0.000	51.898	21.484	41.40	43.556	0.000
180.00-160.00	( '	1 1	1 '	1 1	, J	ιВ'	0.000	51.898	1 1	41.40	0.000	0.000
	1 '	1 1	1 '	1 1	, I	C	0.000	51.898	1 1	41.40	0.000	0.000
T2	150.00	1.378	7	1.4543	205.705	A	0.000	56.708	24.740	43.63	159.660	0.000
160.00-140.00	1 '	1 1	1 '	1 1	, I	B <sup> </sup>	0.000	56.708	1 1	43.63	0.000	0.000
	1 '	1 1	1 '	1 1	, J	$C^{+}$	0.000	56.708	1 1	43.63	0.000	0.000
Т3	136.67	1.352	7	1.4409	78.406	$\mathbf{A}^{\dagger}$	0.000	21.270	9.400	44.19	53.019	0.000
140.00-133.33	1 '	1 1	1 '	1 1	, I	B <sup> </sup>	0.000	21.270	1 1	44.19	0.000	0.000
	1 '	1 1	1 '	1 1	ı – )	$1 \text{ C}^{-1}$	0.000	21.270	1 1	44.19	0.000	0.000
Τ4	130.00	1.337	1 7'	1.4337	83.027	$A^{\prime}$	0.000	21.736	9.384	43.17	52.912	0.000
133.33-126.67	( '	1 1	1 '	1 1	, I	B <sup> </sup>	0.000	21.736	1 1	43.17	35.372	0.000
	( '	1 1	1 '	1 1	, I	C	0.000	21.736	1 1	43.17	0.000	0.000
Т5	123.33	1.323	1 7	1.4262	87.647	$\mathbf{A}'$	0.000	22.194	9.367	42.21	52.800	0.000

Job		Page
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Project		Date
	180-ft Lattice Tower (CSP #32)	07:59:09 09/20/22
Client	Verizon	Designed by
	V GHZGH	IJL
	Job Project Client	Job 22027.01 - Westport Project 180-ft Lattice Tower (CSP #32) Client Verizon

Section	Ζ	$K_Z$	$q_z$	$t_Z$	$A_G$	F	$A_F$	$A_R$	$A_{leg}$	Leg	$C_A A_A$	$C_A A_A$
Elevation						а				%	In	Out
						С					Face	Face
ft	ft		psf	in	$ft^2$	е	$ft^2$	$ft^2$	$ft^2$		$ft^2$	$ft^2$
126.67-120.00						в	0.000	22.194		42.21	62.421	0.000
						С	0.000	22.194		42.21	0.000	0.000
T6	110.00	1.291	7	1.4099	294.106	Α	0.000	65.187	31.549	48.40	162.161	0.000
120.00-100.00						в	0.000	65.187		48.40	211.927	0.000
						С	0.000	65.187		48.40	0.000	0.000
T7 100.00-90.00	95.00	1.252	7	1.3894	164.861	Α	0.000	35.011	15.718	44.90	81.789	0.000
						в	0.000	35.011		44.90	105.592	0.000
						С	0.000	35.011		44.90	0.000	0.000
T8 90.00-80.00	85.00	1.223	7	1.3740	178.010	Α	0.000	35.885	15.667	43.66	81.415	0.000
						в	0.000	35.885		43.66	105.313	0.000
						С	0.000	35.885		43.66	0.000	0.000
T9 80.00-60.00	70.00	1.174	6	1.3476	395.472	Α	36.501	44.130	36.501	45.27	161.878	0.000
						в	36.501	44.130		45.27	209.670	0.000
						С	36.501	44.130		45.27	0.000	0.000
T10 60.00-40.00	50.00	1.094	6	1.3030	445.323	Α	36.302	47.644	36.302	43.24	165.850	0.000
						в	36.302	47.644		43.24	208.057	0.000
						С	36.302	47.644		43.24	0.000	0.000
T11 40.00-30.00	35.00	1.015	6	1.2574	241.335	Α	18.049	25.017	18.049	41.91	81.724	0.000
						в	18.049	25.017		41.91	103.204	0.000
						С	18.049	25.017		41.91	0.000	0.000
T12 30.00-20.00	25.00	0.945	5	1.2158	253.766	Α	17.957	25.696	17.957	41.14	80.630	0.000
						в	17.957	25.696		41.14	102.454	0.000
						С	17.957	25.696		41.14	0.000	0.000
T13 20.00-0.00	10.00	0.85	5	1.1093	545.073	Α	35.021	47.586	35.021	42.39	155.667	0.000
						в	35.021	47.586		42.39	201.077	0.000
						С	35.021	47.586		42.39	0.000	0.000

#### **Tower Pressure - Service**

 $G_H = \theta.85\theta$ 

Section	Z	$K_Z$	$q_z$	$A_G$	F	$A_F$	$A_R$	$A_{leg}$	Leg	$C_A A_A$	$C_A A_A$
Elevation					а				%	In	Out
					с					Face	Face
ft	ft		psf	$ft^2$	е	$ft^2$	$ft^2$	$ft^2$		$ft^2$	$ft^2$
T1	170.00	1.415	11	177.503	Α	0.000	24.699	11.667	47.24	15.281	0.000
180.00-160.00					В	0.000	24.699		47.24	0.000	0.000
					С	0.000	24.699		47.24	0.000	0.000
T2	150.00	1.378	11	200.850	Α	0.000	28.812	15.027	52.16	56.607	0.000
160.00-140.00					в	0.000	28.812		52.16	0.000	0.000
					С	0.000	28.812		52.16	0.000	0.000
Т3	136.67	1.352	11	76.803	Α	0.000	11.559	6.192	53.57	18.869	0.000
140.00-133.33					В	0.000	11.559		53.57	0.000	0.000
					С	0.000	11.559		53.57	0.000	0.000
T4	130.00	1.337	10	81.431	Α	0.000	11.792	6.192	52.51	18.869	0.000
133.33-126.67					в	0.000	11.792		52.51	10.751	0.000
					С	0.000	11.792		52.51	0.000	0.000
T5	123.33	1.323	10	86.060	Α	0.000	12.020	6.192	51.52	18.869	0.000
126.67-120.00					В	0.000	12.020		51.52	29.491	0.000
					С	0.000	12.020		51.52	0.000	0.000
T6	110.00	1.291	10	289.399	Α	0.000	38.583	22.130	57.36	57.426	0.000
120.00-100.00					В	0.000	38.583		57.36	106.647	0.000
					С	0.000	38.583		57.36	0.000	0.000
Τ7	95.00	1.252	10	162.540	Α	0.000	21.227	11.074	52.17	28.934	0.000
100.00-90.00					В	0.000	21.227		52.17	53.324	0.000

r	Job	22027.01 - Westport	Page 33 of 71
<b>ıg Inc.</b> d Rd.	Project	180-ft Lattice Tower (CSP #32)	Date 07:59:09 09/20/22
05 1580 187	Client	Verizon	Designed by TJL

Section	Ζ	KZ	$q_z$	$A_G$	F	$A_F$	$A_R$	$A_{leg}$	Leg	$C_A A_A$	$C_A A_A$
Elevation					а			-	%	In	Out
					с					Face	Face
ft	ft		psf	$ft^2$	е	$ft^2$	$ft^2$	$ft^2$		$ft^2$	$ft^2$
					С	0.000	21.227		52.17	0.000	0.000
T8 90.00-80.00	85.00	1.223	10	175.715	Α	0.000	21.747	11.074	50.92	28.934	0.000
					В	0.000	21.747		50.92	53.324	0.000
					С	0.000	21.747		50.92	0.000	0.000
T9 80.00-60.00	70.00	1.174	9	390.971	Α	30.496	24.135	30.496	55.82	57.930	0.000
					В	30.496	24.135		55.82	106.647	0.000
					С	30.496	24.135		55.82	0.000	0.000
T10	50.00	1.094	9	440.971	Α	30.496	26.417	30.496	53.58	59.127	0.000
60.00-40.00					в	30.496	26.417		53.58	106.647	0.000
					С	30.496	26.417		53.58	0.000	0.000
T11	35.00	1.015	8	239.236	Α	15.248	14.079	15.248	51.99	29.564	0.000
40.00-30.00					В	15.248	14.079		51.99	53.324	0.000
					С	15.248	14.079		51.99	0.000	0.000
T12	25.00	0.945	7	251.736	Α	15.248	14.667	15.248	50.97	29.564	0.000
30.00-20.00					В	15.248	14.667		50.97	53.324	0.000
					С	15.248	14.667		50.97	0.000	0.000
T13 20.00-0.00	10.00	0.85	7	541.368	Α	30.078	28.122	30.078	51.68	59.127	0.000
					В	30.078	28.122		51.68	106.647	0.000
					С	30.078	28.122		51.68	0.000	0.000

#### Tower Forces - No Ice - Wind Normal To Face

Section	Add	Self	F	е	$C_F$	$q_z$	$D_F$	$D_R$	$A_E$	F	W	Ctrl.
Elevation	Weight	Weight	а									Face
			С			psf						
ft	lb	lb	е						$ft^2$	lb	plf	
T1	44.64	1250.43	Α	0.139	2.812	52	1	1	13.713	2381.65	119.08	С
180.00-160.00			в	0.139	2.812		1	1	13.713			
			С	0.139	2.812		1	1	13.713			
T2	250.60	1495.62	Α	0.143	2.796	51	1	1	15.269	4278.29	213.91	С
160.00-140.00			В	0.143	2.796		1	1	15.269			
			С	0.143	2.796		1	1	15.269			
T3	83.53	825.91	Α	0.151	2.77	50	1	1	5.828	1479.17	221.88	С
140.00-133.33			В	0.151	2.77		1	1	5.828			
			С	0.151	2.77		1	1	5.828			
T4	141.17	842.18	Α	0.145	2.791	49	1	1	5.951	1932.64	289.90	С
133.33-126.67			В	0.145	2.791		1	1	5.951			
			С	0.145	2.791		1	1	5.951			
T5	220.41	1080.40	Α	0.14	2.81	49	1	1	6.074	2705.17	405.78	С
126.67-120.00			В	0.14	2.81		1	1	6.074			
			С	0.14	2.81		1	1	6.074			
T6	739.37	3821.31	Α	0.133	2.834	47	1	1	18.396	8726.63	436.33	С
120.00-100.00			В	0.133	2.834		1	1	18.396			
			С	0.133	2.834		1	1	18.396			
<b>T</b> 7	370.21	1682.80	Α	0.131	2.844	46	1	1	10.175	4351.82	435.18	С
100.00-90.00			В	0.131	2.844		1	1	10.175			
			С	0.131	2.844		1	1	10.175			
T8	370.21	1722.73	Α	0.124	2.87	45	1	1	10.439	4290.21	429.02	С
90.00-80.00			В	0.124	2.87		1	1	10.439			
			С	0.124	2.87		1	1	10.439			
Т9	740.57	4897.54	Α	0.14	2.81	43	1	1	44.041	10581.06	529.05	С
80.00-60.00			В	0.14	2.81		1	1	44.041			
			С	0.14	2.81		1	1	44.041			
T10	743.42	5700.46	Α	0.129	2.85	40	1	1	45.397	10091.26	504.56	С
60.00-40.00			В	0.129	2.85		1	1	45.397			
			С	0.129	2.85		1	1	45.397			
T11	371.71	2942.46	Α	0.123	2.875	37	1	1	23.207	4744.96	474.50	С

**Centek 1** 63-2 No Bran Phone FAX:

Tanuar	Job	Page		
<i>clower</i>	22027.01 - Westport	34 of 71		
Engineering Inc. Jorth Branford Rd.	Project 180-ft Lattice Tower (CSP #32)	Date 07:59:09 09/20/22		
nford, CT 06405 2: (203) 488-0580 5 (203) 488-8587	Client Verizon	Designed by TJL		

Section	Add	Self	F	е	$C_F$	$q_z$	$D_F$	$D_R$	$A_E$	F	w	Ctrl.
Elevation	Weight	Weight	a									Face
			С			psf						
ft	lb	lb	е						$ft^2$	lb	plf	
40.00-30.00			В	0.123	2.875		1	1	23.207			
			С	0.123	2.875		1	1	23.207			
T12	371.71	3139.03	Α	0.119	2.889	35	1	1	23.536	4458.54	445.85	С
30.00-20.00			В	0.119	2.889		1	1	23.536			
			С	0.119	2.889		1	1	23.536			
T13	743.42	6187.56	Α	0.108	2.934	31	1	1	45.922	7984.45	399.22	С
20.00-0.00			В	0.108	2.934		1	1	45.922			
			С	0.108	2.934		1	1	45.922			
Sum Weight:	5190.97	35588.43						OTM	5174.30	68005.85		
									kip-ft			

	Tower Forces - No Ice - Wind 45 To Face													
Section	Add	Self	F	е	$C_F$	$q_z$	$D_F$	$D_R$	$A_E$	F	w	Ctrl.		
Elevation	Weight	Weight	а									Face		
c .			С			psf			c <sup>2</sup>		10			
ft	lb	lb	е						ft-	lb	plf			
T1	44.64	1250.43	A	0.139	2.812	52	0.825	1	13.713	2381.65	119.08	С		
180.00-160.00			В	0.139	2.812		0.825	1	13.713					
			C	0.139	2.812		0.825	1	13.713					
T2	250.60	1495.62	A	0.143	2.796	51	0.825	1	15.269	4278.29	213.91	С		
160.00-140.00			В	0.143	2.796		0.825	1	15.269					
			C	0.143	2.796		0.825	1	15.269					
T3	83.53	825.91	A	0.151	2.77	50	0.825	1	5.828	1479.17	221.88	С		
140.00-133.33			В	0.151	2.77		0.825	1	5.828					
			C	0.151	2.77		0.825	1	5.828					
T4	141.17	842.18	A	0.145	2.791	49	0.825	1	5.951	1932.64	289.90	С		
133.33-126.67			В	0.145	2.791		0.825	1	5.951					
			C	0.145	2.791		0.825	1	5.951					
T5	220.41	1080.40	Α	0.14	2.81	49	0.825	1	6.074	2705.17	405.78	С		
126.67-120.00			В	0.14	2.81		0.825	1	6.074					
			C	0.14	2.81		0.825	1	6.074					
Т6	739.37	3821.31	A	0.133	2.834	47	0.825	1	18.396	8726.63	436.33	С		
120.00-100.00			В	0.133	2.834		0.825	1	18.396					
			C	0.133	2.834		0.825	1	18.396					
T7	370.21	1682.80	Α	0.131	2.844	46	0.825	1	10.175	4351.82	435.18	С		
100.00-90.00			В	0.131	2.844		0.825	1	10.175					
			C	0.131	2.844		0.825	1	10.175					
T8	370.21	1722.73	Α	0.124	2.87	45	0.825	1	10.439	4290.21	429.02	С		
90.00-80.00			В	0.124	2.87		0.825	1	10.439					
			C	0.124	2.87		0.825	1	10.439					
Т9	740.57	4897.54	Α	0.14	2.81	43	0.825	1	38.705	10030.77	501.54	С		
80.00-60.00			В	0.14	2.81		0.825	1	38.705					
			C	0.14	2.81		0.825	1	38.705					
T10	743.42	5700.46	Α	0.129	2.85	40	0.825	1	40.060	9571.24	478.56	С		
60.00-40.00			В	0.129	2.85		0.825	1	40.060					
			C	0.129	2.85		0.825	1	40.060					
T11	371.71	2942.46	Α	0.123	2.875	37	0.825	1	20.539	4501.65	450.16	С		
40.00-30.00			В	0.123	2.875		0.825	1	20.539					
			С	0.123	2.875		0.825	1	20.539					
T12	371.71	3139.03	Α	0.119	2.889	35	0.825	1	20.868	4230.73	423.07	С		
30.00-20.00			В	0.119	2.889		0.825	1	20.868					
			С	0.119	2.889		0.825	1	20.868					
T13	743.42	6187.56	Α	0.108	2.934	31	0.825	1	40.659	7574.12	378.71	С		

*tnxTower* 

Job		Page
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Project		Date
	180-ft Lattice Tower (CSP #32)	07:59:09 09/20/22
Client	Verizon	Designed by TJL

Section	Add	Self	F	е	$C_F$	$q_z$	$D_F$	$D_R$	$A_E$	F	w	Ctrl.
Elevation	Weight	Weight	a									Face
			с			psf						
ft	lb	lb	е						$ft^2$	lb	plf	
20.00-0.00			В	0.108	2.934		0.825	1	40.659			
			C	0.108	2.934		0.825	1	40.659			
Sum Weight:	5190.97	35588.43						OTM	5091.46	66054.09		
									kip-ft			

#### Tower Forces - No Ice - Wind 60 To Face

Section	Add	Self	F	e	$C_{F}$	a.	$D_{F}$	$D_P$	A <sub>E</sub>	F	w	Ctrl
Elevation	Weight	Weight	a	, i	01	72	- T		<u>-</u> _	-		Face
			с			psf						
ft	lb	lb	е			1.2			$ft^2$	lb	plf	
T1	44.64	1250.43	Α	0.139	2.812	52	0.8	1	13.713	2381.65	119.08	С
180.00-160.00			В	0.139	2.812		0.8	1	13.713			
			С	0.139	2.812		0.8	1	13.713			
Т2	250.60	1495.62	Α	0.143	2.796	51	0.8	1	15.269	4278.29	213.91	С
160.00-140.00			В	0.143	2.796		0.8	1	15.269			
			С	0.143	2.796		0.8	1	15.269			
T3	83.53	825.91	Α	0.151	2.77	50	0.8	1	5.828	1479.17	221.88	С
140.00-133.33			В	0.151	2.77		0.8	1	5.828			
			С	0.151	2.77		0.8	1	5.828			
T4	141.17	842.18	Α	0.145	2.791	49	0.8	1	5.951	1932.64	289.90	С
133.33-126.67			В	0.145	2.791		0.8	1	5.951			
			С	0.145	2.791		0.8	1	5.951			
T5	220.41	1080.40	Α	0.14	2.81	49	0.8	1	6.074	2705.17	405.78	С
126.67-120.00			В	0.14	2.81		0.8	1	6.074			
			С	0.14	2.81		0.8	1	6.074			
Т6	739.37	3821.31	Α	0.133	2.834	47	0.8	1	18.396	8726.63	436.33	С
120.00-100.00			В	0.133	2.834		0.8	1	18.396			
			C	0.133	2.834		0.8	1	18.396			
T7	370.21	1682.80	Α	0.131	2.844	46	0.8	1	10.175	4351.82	435.18	С
100.00-90.00			В	0.131	2.844		0.8	1	10.175			
			C	0.131	2.844		0.8	1	10.175			
Т8	370.21	1722.73	A	0.124	2.87	45	0.8	1	10.439	4290.21	429.02	С
90.00-80.00			B	0.124	2.87		0.8	1	10.439			
<b>T</b> 0	740 57	1007.54	Ç	0.124	2.87	42	0.8		10.439	0052 16	407.61	C
19	/40.5/	4897.54	A	0.14	2.81	43	0.8	1	37.942	9952.16	497.61	C
80.00-60.00			в	0.14	2.81		0.8	1	37.942			
T10	742 40	5700.40	Č,	0.14	2.81	10	0.8		37.942	0.407.05	474.05	C
60.00.40.00	/45.42	5700.46	A D	0.129	2.85	40	0.8	1	39.297	9490.93	4/4.85	C
60.00-40.00			в	0.129	2.85		0.8		39.297			
T11	271 71	2042 46		0.129	2.03	27	0.0	1	39.297	1166 80	116 60	C
40.00.20.00	5/1./1	2942.40	D A	0.123	2.075	57	0.0	1	20.158	4400.89	440.09	C
40.00-50.00				0.125	2.075		0.0	1	20.158			
т12	371 71	3130.03	Å	0.125	2.075	35	0.0	1	20.138	4108.18	410.82	C
30.00-20.00	5/1./1	5159.05	R	0.119	2.889	55	0.8	1	20.487	4190.10	419.02	C
50.00-20.00			C	0.119	2.889		0.8	1	20.487			
т13	743 42	6187 56	Ă	0.119	2.007	31	0.8	1	39 907	7515 50	375 77	С
20.00-0.00	745.42	0107.50	B	0.108	2.934	51	0.8		39 907	1010.00	515.11	Č
20.00-0.00			Č	0.108	2.934		0.8		39 907			
Sum Weight <sup>.</sup>	5190.97	35588.43	Ĩ	5,100	2.757		0.0	ОТМ	5079.63	65775.27		
Sum norgini	2290197	22200.15						01.01	kin-ft			
									n wh-u			

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	Job		Page
ver		36 of 71	
orina Inc	Project		Date
ford Rd.		180-ft Lattice Tower (CSP #32)	07:59:09 09/20/22
06405	Client		Designed by
88-0580 8-8587		Verizon	TJL

$ \begin{array}{c c c c c c c c c c c c c c c c c c c $			-	Γο	ver Fo	orces	s - N(	o Ice	- W	ind 90 <sup>-</sup>	To Face		
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	G .:	4.1.7	G 16	Б		C		D	D		Б		Ct 1
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Section	Aaa Waight	Self Weight	F	е	$C_F$	$q_z$	$D_F$	$D_R$	$A_E$	Г	W	Ciri. Faca
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	Elevation	weigni	weigni	a			nef						race
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	ft	lh	lh	c e			psj			$ft^2$	lh	nlf	
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	<i>ji</i> T1	44.64	1250.43	Δ	0.130	2 812	52	0.85	1	<u>Ji</u> 13 713	2381.65	110.08	С
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	180 00-160 00	++.0+	1250.45	R	0.139	2.812	52	0.85	1	13 713	2561.05	119.00	C
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	100.00-100.00			Ċ	0.139	2.812		0.85	1	13 713			
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	Т2	250.60	1495.62	Ă	0.143	2.796	51	0.85	1	15.269	4278.29	213.91	С
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	160.00-140.00			в	0.143	2.796		0.85	1	15.269			
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$				С	0.143	2.796		0.85	1	15.269			
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Т3	83.53	825.91	Α	0.151	2.77	50	0.85	1	5.828	1479.17	221.88	С
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	140.00-133.33			В	0.151	2.77		0.85	1	5.828			
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $				С	0.151	2.77		0.85	1	5.828			
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	T4	141.17	842.18	Α	0.145	2.791	49	0.85	1	5.951	1932.64	289.90	С
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	133.33-126.67			В	0.145	2.791		0.85	1	5.951			
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $				C	0.145	2.791		0.85	1	5.951			-
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	T5	220.41	1080.40	A	0.14	2.81	49	0.85	1	6.074	2705.17	405.78	С
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	126.67-120.00			B	0.14	2.81		0.85	1	6.074			
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	тć	720.27	2021.21		0.14	2.81	47	0.85	1	6.074	8706 62	126.22	C
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	120.00.100.00	/39.3/	3821.31	A	0.133	2.834	4/	0.85	1	18.390	8/20.03	430.33	C
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	120.00-100.00			БС	0.133	2.834		0.85	1	18.390			
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	т7	370.21	1682.80	Ā	0.135	2.034	46	0.85	1	10.390	4351 82	435.18	С
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	100 00-90 00	570.21	1082.80	R	0.131	2.844	40	0.85	1	10.175	4551.62	455.10	C
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	100.00-90.00			Č	0.131	2.844		0.85	1	10.175			
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	тя	370.21	1722.73	Ă	0.124	2.87	45	0.85	1	10.439	4290.21	429.02	С
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	90.00-80.00			B	0.124	2.87		0.85	ĩ	10.439			
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$				C	0.124	2.87		0.85	1	10.439			
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Т9	740.57	4897.54	Α	0.14	2.81	43	0.85	1	39.467	10109.38	505.47	С
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	80.00-60.00			В	0.14	2.81		0.85	1	39.467			
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$				С	0.14	2.81		0.85	1	39.467			
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	T10	743.42	5700.46	Α	0.129	2.85	40	0.85	1	40.822	9645.53	482.28	С
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	60.00-40.00			В	0.129	2.85		0.85	1	40.822			
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$				C	0.129	2.85		0.85	1	40.822			
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	T11	371.71	2942.46	Α	0.123	2.875	37	0.85	1	20.920	4536.40	453.64	С
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	40.00-30.00			B	0.123	2.875		0.85	1	20.920			
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		051.51	2120.02	Ċ	0.123	2.875		0.85	1	20.920	12/2 25	10 < 0.0	G
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	T12	371.71	3139.03	A	0.119	2.889	35	0.85	1	21.249	4263.27	426.33	C
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	30.00-20.00			B	0.119	2.889		0.85	1	21.249			
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	T12	743 42	6187 56		0.119	2.889	21	0.85	1	21.249 41.411	7632 74	381 64	C
Sum Weight:         5190.97         35588.43         B $0.108$ $2.934$ $0.85$ 1 $41.411$ Sum Weight:         5190.97         35588.43         C         0.108         2.934         0.85         1 $41.411$	20.00.0.00	/43.42	010/.30	P	0.108	2.934	51	0.65	1	41.411	/032./4	301.04	C
Sum Weight:         5190.97         35588.43         C         0.100         2.554         0.05         T         41.411         5103.30         66332.91	20.00-0.00			C	0.108	2.934		0.85	1	41 41 1			
	Sum Weight	5190.97	35588.43		0.100	2.754		0.05	OTM	5103.30	66332.91		
	Sum worght.	5190.97	55500.45						0101	kin-ft	0000201		

#### **Tower Forces - With Ice - Wind Normal To Face**

Г	Section	Add	Self	F	е	$C_F$	$q_z$	$D_F$	$D_R$	$A_E$	F	w	Ctrl.
L	Elevation	Weight	Weight	а									Face
L				с			psf						
L	ft	lb	lb	е						$ft^2$	lb	plf	
Г	T1	552.25	3542.13	Α	0.285	2.338	8	1	1	30.840	756.88	37.84	С

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Centek En 63-2 Nort Branfor Phone: (2 FAX: (20

Tower	Job	22027.01 - Westport	Page 37 of 71
<b>igineering Inc.</b> th Branford Rd.	Project	180-ft Lattice Tower (CSP #32)	Date 07:59:09 09/20/22
rd, CT 06405 203) 488-0580 203) 488-8587	Client	Verizon	Designed by TJL

Section	Add	Self	F	е	$C_F$	$q_z$	$D_F$	$D_R$	$A_E$	F	W	Ctrl.
Elevation	Weight	Weight	а									Face
			С			psf						
ft	lb	lb	е						$ft^2$	lb	plf	
180.00-160.00			В	0.285	2.338		1	1	30.840			
			С	0.285	2.338		1	1	30.840			
T2	2085.47	3972.41	Α	0.276	2.363	7	1	1	33.556	1522.96	76.15	С
160.00-140.00			В	0.276	2.363		1	1	33.556			
			С	0.276	2.363		1	1	33.556			
T3	688.56	1763.59	Α	0.271	2.375	7	1	1	12.561	517.83	77.68	С
140.00-133.33			В	0.271	2.375		1	1	12.561			
			C	0.271	2.375		1	1	12.561			
T4	1094.31	1804.53	Α	0.262	2.403	7	1	1	12.781	735.90	110.39	С
133.33-126.67			В	0.262	2.403		1	1	12.781			
			C	0.262	2.403		1	1	12.781			
Т5	1711.44	2066.51	Α	0.253	2.428	7	1	1	13.001	897.80	134.67	С
126.67-120.00			В	0.253	2.428		1	1	13.001			
			С	0.253	2.428		1	1	13.001			
Т6	5733.04	6611.25	Α	0.222	2.525	7	1	1	37.718	2802.33	140.12	С
120.00-100.00			В	0.222	2.525		1	1	37.718			
			C	0.222	2.525		1	1	37.718			
Τ7	2846.77	3212.73	Α	0.212	2.555	7	1	1	20.193	1383.53	138.35	С
100.00-90.00			В	0.212	2.555		1	1	20.193			
			C	0.212	2.555	_	1		20.193			~
Т8	2822.50	3293.32	Α	0.202	2.591	7	1		20.625	1358.21	135.82	С
90.00-80.00			B	0.202	2.591		1		20.625			
			C	0.202	2.591		1		20.625			~
T9	5565.48	9216.41	A	0.204	2.583	6	1		61.883	2884.88	144.24	С
80.00-60.00			B	0.204	2.583		1		61.883			
	5 400 4 5	10151 (1	Ċ	0.204	2.583		1		61.883	2520.24	10(00	a
T10	5488.15	10171.64	A	0.189	2.635	6			63.581	2738.36	136.92	С
60.00-40.00			В	0.189	2.635				63.581			
			Ç	0.189	2.635		1		63.581	1050 (0	105.04	a
T11	2672.37	5180.35	A	0.178	2.67	6	1		32.335	1272.63	127.26	С
40.00-30.00			В	0.178	2.67		1		32.335			
71.2	2(07.02	5251 10	, C	0.178	2.67	-	1		32.335	1102.02	110.00	a
112	2607.93	5351.10	A	0.172	2.692	5	1		32.607	1183.93	118.39	C
30.00-20.00			B	0.172	2.692		1		32.607			
712	1002.00	0751.06	C .	0.172	2.692	-	1		32.607	2076 52	102.02	G
113	4893.86	9751.96	A	0.152	2.766	5	1		62.036	2076.52	103.83	C
20.00-0.00			В	0.152	2.766				62.036			
Course Westerland	207(2.12	(5027.02	C	0.152	2.766				62.036	20121 76		
Sum Weight:	38762.12	65937.92							1623.18	20131.76		
									kıp-ft			

	Tower Forces - With Ice - Wind 45 To Face													
С÷	Saction Add Salt E a C a D D A E w Cul													
Section	Ada	Self	ľ	е	$C_F$	$q_z$	$D_F$	$D_R$	$A_E$	ľ	W	Ctri.		
Elevation	Weight	Weight	a									Face		
			С			psf								
ft	lb	lb	е						$ft^2$	lb	plf			
T1	552.25	3542.13	Α	0.285	2.338	8	0.825	1	30.840	756.88	37.84	С		
180.00-160.00			В	0.285	2.338		0.825	1	30.840					
			С	0.285	2.338		0.825	1	30.840					
T2	2085.47	3972.41	Α	0.276	2.363	7	0.825	1	33.556	1522.96	76.15	С		
160.00-140.00			В	0.276	2.363		0.825	1	33.556					
			С	0.276	2.363		0.825	1	33.556					
T3	688.56	1763.59	Α	0.271	2.375	7	0.825	1	12.561	517.83	77.68	С		

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Centek Eng 63-2 North Branford, Phone: (20 FAX: (203

Tower	Job	Page	
01101		36 01 7 1	
ineering Inc.	Project		Date
Branford Rd.		180-ft Lattice Tower (CSP #32)	07:59:09 09/20/22
l, CT 06405 03) 488-0580 3) 488-8587	Client	Verizon	Designed by TJL

Section	Add	Self	F	е	$C_F$	$q_z$	$D_F$	$D_R$	$A_E$	F	W	Ctrl.
Elevation	Weight	Weight	а									Face
			С			psf						
ft	lb	lb	е						$ft^2$	lb	plf	
140.00-133.33			В	0.271	2.375		0.825	1	12.561			
			С	0.271	2.375		0.825	1	12.561			
Τ4	1094.31	1804.53	Α	0.262	2.403	7	0.825	1	12.781	735.90	110.39	С
133.33-126.67			В	0.262	2.403		0.825	1	12.781			
			С	0.262	2.403		0.825	1	12.781			
T5	1711.44	2066.51	Α	0.253	2.428	7	0.825	1	13.001	897.80	134.67	С
126.67-120.00			В	0.253	2.428		0.825	1	13.001			
			С	0.253	2.428		0.825	1	13.001			
Т6	5733.04	6611.25	Α	0.222	2.525	7	0.825	1	37.718	2802.33	140.12	С
120.00-100.00			В	0.222	2.525		0.825	1	37.718			
			С	0.222	2.525		0.825	1	37.718			
Τ7	2846.77	3212.73	Α	0.212	2.555	7	0.825	1	20.193	1383.53	138.35	С
100.00-90.00			В	0.212	2.555		0.825	1	20.193			
			С	0.212	2.555		0.825	1	20.193			
Т8	2822.50	3293.32	Α	0.202	2.591	7	0.825	1	20.625	1358.21	135.82	С
90.00-80.00			В	0.202	2.591		0.825	1	20.625			
			С	0.202	2.591		0.825	1	20.625			
Т9	5565.48	9216.41	Α	0.204	2.583	6	0.825	1	55.495	2795.31	139.77	С
80.00-60.00			В	0.204	2.583		0.825	1	55.495			
			С	0.204	2.583		0.825	1	55.495			
T10	5488.15	10171.64	Α	0.189	2.635	6	0.825	1	57.228	2653.70	132.68	С
60.00-40.00			В	0.189	2.635		0.825	1	57.228			
			С	0.189	2.635		0.825	1	57.228			
T11	2672.37	5180.35	Α	0.178	2.67	6	0.825	1	29.176	1233.06	123.31	С
40.00-30.00			В	0.178	2.67		0.825	1	29.176			
			С	0.178	2.67		0.825	1	29.176			
T12	2607.93	5351.10	Α	0.172	2.692	5	0.825	1	29.464	1146.95	114.70	С
30.00-20.00			В	0.172	2.692		0.825	1	29.464			
			С	0.172	2.692		0.825	1	29.464			
T13	4893.86	9751.96	Α	0.152	2.766	5	0.825	1	55.907	2009.90	100.49	С
20.00-0.00			В	0.152	2.766		0.825	1	55.907			
			С	0.152	2.766		0.825	1	55.907			
Sum Weight:	38762.12	65937.92						OTM	1609.71	19814.36		
									kip-ft			

	Tower Forces - With Ice - Wind 60 To Face													
Section	Add	Self	F	e	$C_F$	$q_z$	$D_F$	$D_R$	$A_E$	F	W	Ctrl.		
Elevation	Weight	Weight	а									Face		
			с			psf								
ft	lb	lb	е						$ft^2$	lb	plf			
T1	552.25	3542.13	Α	0.285	2.338	8	0.8	1	30.840	756.88	37.84	С		
180.00-160.00			в	0.285	2.338		0.8	1	30.840					
			С	0.285	2.338		0.8	1	30.840					
T2	2085.47	3972.41	Α	0.276	2.363	7	0.8	1	33.556	1522.96	76.15	С		
160.00-140.00			в	0.276	2.363		0.8	1	33.556					
			С	0.276	2.363		0.8	1	33.556					
Т3	688.56	1763.59	Α	0.271	2.375	7	0.8	1	12.561	517.83	77.68	С		
140.00-133.33			В	0.271	2.375		0.8	1	12.561					
			С	0.271	2.375		0.8	1	12.561					
T4	1094.31	1804.53	Α	0.262	2.403	7	0.8	1	12.781	735.90	110.39	С		
133.33-126.67			В	0.262	2.403		0.8	1	12.781					
			С	0.262	2.403		0.8	1	12.781					
Т5	1711.44	2066.51	А	0.253	2.428	7	0.8	1	13.001	897.80	134.67	С		

Centek E 63-2 No Branf Phone: FAX: (

cTower	Job	22027.01 - Westport	Page 39 of 71
Engineering Inc. orth Branford Rd.	Project	180-ft Lattice Tower (CSP #32)	Date 07:59:09 09/20/22
ford, CT 06405 : (203) 488-0580 (203) 488-8587	Client	Verizon	Designed by TJL

Section	Add	Self	F	е	$C_F$	$q_z$	$D_F$	$D_R$	$A_E$	F	W	Ctrl.
Elevation	Weight	Weight	а									Face
			с			psf						
ft	lb	lb	е						$ft^2$	lb	plf	
126.67-120.00			В	0.253	2.428		0.8	1	13.001			
			С	0.253	2.428		0.8	1	13.001			
T6	5733.04	6611.25	Α	0.222	2.525	7	0.8	1	37.718	2802.33	140.12	С
120.00-100.00			В	0.222	2.525		0.8	1	37.718			
			С	0.222	2.525		0.8	1	37.718			
T7	2846.77	3212.73	Α	0.212	2.555	7	0.8	1	20.193	1383.53	138.35	С
100.00-90.00			В	0.212	2.555		0.8	1	20.193			
			С	0.212	2.555		0.8	1	20.193			
Т8	2822.50	3293.32	Α	0.202	2.591	7	0.8	1	20.625	1358.21	135.82	С
90.00-80.00			В	0.202	2.591		0.8	1	20.625			
			С	0.202	2.591		0.8	1	20.625			
Т9	5565.48	9216.41	Α	0.204	2.583	6	0.8	1	54.583	2782.51	139.13	С
80.00-60.00			В	0.204	2.583		0.8	1	54.583			
			С	0.204	2.583		0.8	1	54.583			
T10	5488.15	10171.64	Α	0.189	2.635	6	0.8	1	56.321	2641.61	132.08	С
60.00-40.00			В	0.189	2.635		0.8	1	56.321			
			С	0.189	2.635		0.8	1	56.321			
T11	2672.37	5180.35	Α	0.178	2.67	6	0.8	1	28.725	1227.41	122.74	С
40.00-30.00			В	0.178	2.67		0.8	1	28.725			
			С	0.178	2.67		0.8	1	28.725			
T12	2607.93	5351.10	Α	0.172	2.692	5	0.8	1	29.016	1141.67	114.17	С
30.00-20.00			В	0.172	2.692		0.8	1	29.016			
			С	0.172	2.692		0.8	1	29.016			
T13	4893.86	9751.96	Α	0.152	2.766	5	0.8	1	55.032	2000.38	100.02	С
20.00-0.00			В	0.152	2.766		0.8	1	55.032			
			С	0.152	2.766		0.8	1	55.032			
Sum Weight:	38762.12	65937.92						OTM	1607.78	19769.02		
									kip-ft			

	Tower Forces - With Ice - Wind 90 To Face													
C ti	4.1.1	C - 14	F	-	C	-	D		4	E		Ctul		
Section	Add Weight	SelJ Weight	F	е	$C_F$	$q_z$	$D_F$	$D_R$	$A_E$	F	W	Cirl.		
Lievation	weigni	weigni	u									гисе		
ft	lb	lb	c e			psj			$ft^2$	lb	plf			
T1	552.25	3542.13	Α	0.285	2.338	8	0.85	1	30.840	756.88	37.84	С		
180.00-160.00			в	0.285	2.338		0.85	1	30.840					
			C	0.285	2.338		0.85	1	30.840					
Т2	2085.47	3972.41	Α	0.276	2.363	7	0.85	1	33.556	1522.96	76.15	С		
160.00-140.00			В	0.276	2.363		0.85	1	33.556					
			C	0.276	2.363		0.85	1	33.556					
Т3	688.56	1763.59	Α	0.271	2.375	7	0.85	1	12.561	517.83	77.68	С		
140.00-133.33			В	0.271	2.375		0.85	1	12.561					
			C	0.271	2.375		0.85	1	12.561					
T4	1094.31	1804.53	Α	0.262	2.403	7	0.85	1	12.781	735.90	110.39	С		
133.33-126.67			В	0.262	2.403		0.85	1	12.781					
			C	0.262	2.403		0.85	1	12.781					
T5	1711.44	2066.51	Α	0.253	2.428	7	0.85	1	13.001	897.80	134.67	С		
126.67-120.00			В	0.253	2.428		0.85	1	13.001					
			С	0.253	2.428		0.85	1	13.001					
Т6	5733.04	6611.25	Α	0.222	2.525	7	0.85	1	37.718	2802.33	140.12	С		
120.00-100.00			В	0.222	2.525		0.85	1	37.718					
			C	0.222	2.525		0.85	1	37.718					
T7	2846.77	3212.73	Α	0.212	2.555	7	0.85	1	20.193	1383.53	138.35	С		

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**Centek Eng** 63-2 North Branford Phone: (2 FAX: (20

Fower	Job	Page		
lower		40 of 71		
<b>gineering Inc.</b> h Branford Rd.	Project	180-ft Lattice Tower (CSP #32)	Date 07:59:09 09/20/22	
d, CT 06405 203) 488-0580 03) 488-8587	Client	Verizon	Designed by TJL	

Section	Add	Self	F	е	$C_F$	$q_z$	$D_F$	$D_R$	$A_E$	F	W	Ctrl.
Elevation	Weight	Weight	а									Face
			с			psf						
ft	lb	lb	е						$ft^2$	lb	plf	
100.00-90.00			В	0.212	2.555		0.85	1	20.193			
			С	0.212	2.555		0.85	1	20.193			
Т8	2822.50	3293.32	Α	0.202	2.591	7	0.85	1	20.625	1358.21	135.82	С
90.00-80.00			В	0.202	2.591		0.85	1	20.625			
			С	0.202	2.591		0.85	1	20.625			
Т9	5565.48	9216.41	А	0.204	2.583	6	0.85	1	56.408	2808.10	140.41	С
80.00-60.00			В	0.204	2.583		0.85	1	56.408			
			С	0.204	2.583		0.85	1	56.408			
T10	5488.15	10171.64	Α	0.189	2.635	6	0.85	1	58.136	2665.79	133.29	С
60.00-40.00			В	0.189	2.635		0.85	1	58.136			
			С	0.189	2.635		0.85	1	58.136			
T11	2672.37	5180.35	Α	0.178	2.67	6	0.85	1	29.627	1238.72	123.87	С
40.00-30.00			В	0.178	2.67		0.85	1	29.627			
			С	0.178	2.67		0.85	1	29.627			
T12	2607.93	5351.10	Α	0.172	2.692	5	0.85	1	29.913	1152.23	115.22	С
30.00-20.00			В	0.172	2.692		0.85	1	29.913			
			С	0.172	2.692		0.85	1	29.913			
T13	4893.86	9751.96	Α	0.152	2.766	5	0.85	1	56.783	2019.41	100.97	С
20.00-0.00			В	0.152	2.766		0.85	1	56.783			
			С	0.152	2.766		0.85	1	56.783			
Sum Weight:	38762.12	65937.92						OTM	1611.63	19859.71		
									kip-ft			

Tower Forces - Service - Wind Normal To Face													
Section	Add	Self	F	e	Cr	a.	$D_{F}$	$D_{P}$	Ar	F	w	Ctri	
Elevation	Weight	Weight	a	C	$\mathcal{O}_{\Gamma}$	9 <i>z</i>	$\mathcal{D}_{\Gamma}$	$L_{R}$	TTE .	1	,,	Fac	
			c			psf							
ft	lb	lb	e			F-5			$ft^2$	lb	plf		
	44.64	1250.43	Α	0.139	2.812	11	1	1	13.993	514.75	25.74	С	
180.00-160.00			В	0.139	2.812		1	1	13.993				
			С	0.139	2.812		1	1	13.993				
T2	250.60	1495.62	Α	0.143	2.796	11	1	1	16.334	938.67	46.93	С	
60.00-140.00			В	0.143	2.796		1	1	16.334				
			С	0.143	2.796		1	1	16.334				
Т3	83.53	825.91	Α	0.151	2.77	11	1	1	6.561	333.37	50.00	C	
40.00-133.33			В	0.151	2.77		1	1	6.561				
			С	0.151	2.77		1	1	6.561				
T4	141.17	842.18	Α	0.145	2.791	10	1	1	6.687	429.97	64.50	C	
33.33-126.67			В	0.145	2.791		1	1	6.687				
			С	0.145	2.791		1	1	6.687				
T5	220.41	1080.40	Α	0.14	2.81	10	1	1	6.810	594.48	89.17	C	
126.67-120.00			В	0.14	2.81		1	1	6.810				
			С	0.14	2.81		1	1	6.810				
T6	739.37	3821.31	Α	0.133	2.834	10	1	1	21.840	1942.85	97.14	С	
120.00-100.00			В	0.133	2.834		1	1	21.840				
			С	0.133	2.834		1	1	21.840				
T7	370.21	1682.80	Α	0.131	2.844	10	1	1	12.011	970.55	97.06	C	
100.00-90.00			В	0.131	2.844		1	1	12.011				
			С	0.131	2.844		1	1	12.011				
Т8	370.21	1722.73	Α	0.124	2.87	10	1	1	12.296	957.31	95.73	C	
90.00-80.00			В	0.124	2.87		1	1	12.296				
			С	0.124	2.87		1	1	12.296				
Т9	740.57	4897.54	Α	0.14	2.81	9	1	1	44.170	2256.78	112.84	С	

**Centek** 63-2 BrPhor FA

Tana	Job	Page		
ix I ower	22027.01 - Westport	41 of 71		
<b>k Engineering Inc.</b> North Branford Rd.	Project 180-ft Lattice Tower (CSP #32)	Date 07:59:09 09/20/22		
anford, CT 06405 ne: (203) 488-0580 X: (203) 488-8587	Client Verizon	Designed by TJL		

Section	Add	Self	F	е	$C_F$	$q_z$	$D_F$	$D_R$	$A_E$	F	W	Ctrl.
Elevation	Weight	Weight	a			_						Face
			с			psf						
ft	lb	lb	е						$ft^2$	lb	plf	
80.00-60.00			В	0.14	2.81		1	1	44.170			
			С	0.14	2.81		1	1	44.170			
T10	743.42	5700.46	Α	0.129	2.85	9	1	1	45.441	2150.54	107.53	С
60.00-40.00			В	0.129	2.85		1	1	45.441			
			C	0.129	2.85		1	1	45.441			
T11	371.71	2942.46	Α	0.123	2.875	8	1	1	23.207	1010.76	101.08	С
40.00-30.00			В	0.123	2.875		1	1	23.207			
			С	0.123	2.875		1	1	23.207			
T12	371.71	3139.03	Α	0.119	2.889	7	1	1	23.536	949.75	94.97	С
30.00-20.00			В	0.119	2.889		1	1	23.536			
			С	0.119	2.889		1	1	23.536			
T13	743.42	6187.56	Α	0.108	2.934	7	1	1	45.955	1701.38	85.07	С
20.00-0.00			В	0.108	2.934		1	1	45.955			
			С	0.108	2.934		1	1	45.955			
Sum Weight:	5190.97	35588.43						OTM	1132.01	14751.14		
									kip-ft			

		Т	οw	ver Fo	rces	; - Se	rvic	e - N	/ind 45	To Fac	e	
<i>.</i>		~ 44			â			-				~ .
Section	Add	Self	F	е	$C_F$	$q_z$	$D_F$	$D_R$	$A_E$	F	w	Ctrl.
Elevation	Weight	Weight	а									Face
			С			psf						
ft	lb	lb	е						ft²	lb	plf	
T1	44.64	1250.43	A	0.139	2.812	11	0.825	1	13.993	514.75	25.74	С
180.00-160.00			В	0.139	2.812		0.825	1	13.993			
			C	0.139	2.812		0.825	1	13.993			
T2	250.60	1495.62	Α	0.143	2.796	11	0.825	1	16.334	938.67	46.93	С
160.00-140.00			В	0.143	2.796		0.825	1	16.334			
			C	0.143	2.796		0.825	1	16.334			
T3	83.53	825.91	Α	0.151	2.77	11	0.825	1	6.561	333.37	50.00	С
140.00-133.33			В	0.151	2.77		0.825	1	6.561			
			C	0.151	2.77		0.825	1	6.561			
T4	141.17	842.18	Α	0.145	2.791	10	0.825	1	6.687	429.97	64.50	С
133.33-126.67			В	0.145	2.791		0.825	1	6.687			
			C	0.145	2.791		0.825	1	6.687			
T5	220.41	1080.40	Α	0.14	2.81	10	0.825	1	6.810	594.48	89.17	С
126.67-120.00			В	0.14	2.81		0.825	1	6.810			
			C	0.14	2.81		0.825	1	6.810			
T6	739.37	3821.31	Α	0.133	2.834	10	0.825	1	21.840	1942.85	97.14	С
120.00-100.00			в	0.133	2.834		0.825	1 1	21.840			
			Ċ	0.133	2.834		0.825	1	21.840			
T7	370.21	1682.80	Á	0.131	2.844	10	0.825	1 1	12.011	970.55	97.06	С
100.00-90.00			В	0.131	2.844		0.825	1	12.011			-
100100 5 0100			Ē	0.131	2.844		0.825	Î	12.011			
Т8	370.21	1722.73	Ă	0.124	2.87	10	0.825	Î	12,296	957 31	95 73	С
90 00-80 00	570121	1,22.,2	B	0.124	2.87	10	0.825	1 1	12,296	201101	20110	Ũ
90.00 00.00			Ē	0.124	2.87		0.825	1	12,296			
Т9	740 57	4897 54	Ă	0.14	2.81	9	0.825	1 î	38 833	2139.56	106.98	С
80.00-60.00	, ,0.57	1097.04	B	0.14	2.81		0.825	1 î	38 833	2155.50	100.70	ž
20100 00100			Ē	0.14	2.81		0.825	1 î	38 833			
T10	743 42	5700 46	Ă	0.129	2.85	9	0.825		40 104	2039 76	101.99	С
60 00-40 00	7-15.72	5700.40	R	0.129	2.85		0.825		40 104	2037.70	101.77	č
00.00-40.00				0.129	2.85		0.825		40 104			
T11	371 71	2942 46	Ă	0.123	2 875	8	0.825		20 539	958 93	95.89	С
111	5/1./1	2272.40	$\overline{\Lambda}$	0.125	2.075	0	0.025	1 1	20.559	950.95	25.07	U U

**Centek** 1 63-2 N Bran Phone FAX:

Tana	Job	Page		
xIower	22027.01 - Westport	42 of 71		
Engineering Inc. North Branford Rd.	Project 180-ft Lattice Tower (CSP #32)	Date 07:59:09 09/20/22		
nford, CT 06405 e: (203) 488-0580 [: (203) 488-8587	Client Verizon	Designed by TJL		

Section	Add	Self	F	е	$C_F$	$q_z$	$D_F$	$D_R$	$A_E$	F	W	Ctrl.
Elevation	Weight	Weight	а									Face
			c			psf						
ft	lb	lb	е						$ft^2$	lb	plf	
40.00-30.00			В	0.123	2.875		0.825	1	20.539			
			С	0.123	2.875		0.825	1	20.539			
T12	371.71	3139.03	Α	0.119	2.889	7	0.825	1	20.868	901.22	90.12	С
30.00-20.00			В	0.119	2.889		0.825	1	20.868			
			С	0.119	2.889		0.825	1	20.868			
T13	743.42	6187.56	Α	0.108	2.934	7	0.825	1	40.692	1613.97	80.70	С
20.00-0.00			В	0.108	2.934		0.825	1	40.692			
			С	0.108	2.934		0.825	1	40.692			
Sum Weight:	5190.97	35588.43						OTM	1114.36	14335.38		
									kip-ft			

		Т	ov	ver Fo	rces	; - Se	ervice	e - W	/ind 60	To Face	Э	
Section	Add	Self	F	е	$C_F$	$q_z$	$D_F$	$D_R$	$A_E$	F	w	Ctrl.
Elevation	Weight	Weight	а									Face
G	11.	11	С			psf			$o^2$	11.	- 16	
<u>j</u> t	ID AA CA	10	e	0.120	0.010	11	0.0	1	<u>ji</u>	10	<i>py</i>	C
100.00.1(0.00	44.64	1250.43	A	0.139	2.812	11	0.8		13.993	514./5	25.74	C
180.00-160.00			B	0.139	2.812		0.8		13.993			
<b>T</b> 2	250.60	1405 (0	C C	0.139	2.812	1.1	0.8		13.993	020 (7	16.02	a
160.00.140.00	250.60	1495.62	A	0.143	2.796	11	0.8		16.334	938.67	46.93	C
160.00-140.00			В	0.143	2.796		0.8		16.334			
TT2	02.52	825.01		0.143	2./96	1.1	0.8		16.334	222.27	50.00	C
140.00.122.22	83.53	825.91	A	0.151	2.77	11	0.8		6.561	333.37	50.00	C
140.00-133.33			B	0.151	2.77		0.8		6.561			
<b>T</b> 4	141.17	040 10		0.151	2.77	10	0.8		0.501	100.07	(150	C
14	141.17	842.18	A	0.145	2.791	10	0.8		0.08/	429.97	64.50	C
133.33-126.67			B	0.145	2.791		0.8		6.68/			
<b>T</b> .5	220.41	1000 40	C C	0.145	2.791	10	0.8		6.687	50.4.40	00.17	a
15	220.41	1080.40	A	0.14	2.81	10	0.8		6.810	594.48	89.17	C
126.67-120.00			B	0.14	2.81		0.8		6.810			
-			C C	0.14	2.81		0.8		6.810	1010.05	0 - 4 4	~
T6	739.37	3821.31	A	0.133	2.834	10	0.8	1	21.840	1942.85	97.14	С
120.00-100.00			B	0.133	2.834		0.8		21.840			
	270.21	1 600 00	Ċ	0.133	2.834	10	0.8	1	21.840	070 55	07.04	a
T7	370.21	1682.80	A	0.131	2.844	10	0.8		12.011	9/0.55	97.06	С
100.00-90.00			B	0.131	2.844		0.8		12.011			
			C C	0.131	2.844		0.8		12.011	0.55.04		a
18	370.21	1722.73	A	0.124	2.87	10	0.8		12.296	957.31	95.73	С
90.00-80.00			B	0.124	2.87		0.8	1	12.296			
			C	0.124	2.87		0.8	1	12.296			
Т9	740.57	4897.54	A	0.14	2.81	9	0.8	1	38.071	2122.81	106.14	С
80.00-60.00			В	0.14	2.81		0.8	1	38.071			
			C	0.14	2.81		0.8	1	38.071			
T10	743.42	5700.46	A	0.129	2.85	9	0.8	1	39.342	2023.94	101.20	С
60.00-40.00			В	0.129	2.85		0.8	1	39.342			
	0.54.54	0010	C C	0.129	2.85		0.8		39.342		o = 1 -	~
T11	371.71	2942.46	A	0.123	2.875	8	0.8		20.158	951.53	95.15	С
40.00-30.00			В	0.123	2.875		0.8		20.158			
			C	0.123	2.875	_	0.8	1	20.158			
T12	371.71	3139.03	Α	0.119	2.889	7	0.8	1	20.487	894.29	89.43	С
30.00-20.00			В	0.119	2.889		0.8	1	20.487			
			C	0.119	2.889		0.8	1	20.487			
T13	743.42	6187.56	A	0.108	2.934	7	0.8	1	39.940	1601.48	80.07	С

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Job		Page
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Project		Date
	180-ft Lattice Tower (CSP #32)	07:59:09 09/20/22
Client		Designed by
	Verizon	TJL

Section	Add	Self	F	е	$C_F$	$q_z$	$D_F$	$D_R$	$A_E$	F	w	Ctrl.
Elevation	Weight	Weight	а									Face
			с			psf						
ft	lb	lb	е						$ft^2$	lb	plf	
20.00-0.00			В	0.108	2.934		0.8	1	39.940			
			С	0.108	2.934		0.8	1	39.940			
Sum Weight:	5190.97	35588.43						OTM	1111.84	14275.99		
									kip-ft			

#### **Tower Forces - Service - Wind 90 To Face**

Section	Add	Self	F	е	$C_{F}$	a.	$D_F$	$D_{P}$	A <sub>E</sub>	F	W	Ctrl.
Elevation	Weight	Weight	a	-	-1	74	- 1	- K	2	_		Face
	0	0	с			psf						
ft	lb	lb	е			1 5			$ft^2$	lb	plf	
T1	44.64	1250.43	Α	0.139	2.812	11	0.85	1	13.993	514.75	25.74	С
180.00-160.00			В	0.139	2.812		0.85	1	13.993			
			С	0.139	2.812		0.85	1	13.993			
Т2	250.60	1495.62	Α	0.143	2.796	11	0.85	1	16.334	938.67	46.93	С
160.00-140.00			В	0.143	2.796		0.85	1	16.334			
			С	0.143	2.796		0.85	1	16.334			
Т3	83.53	825.91	Α	0.151	2.77	11	0.85	1	6.561	333.37	50.00	С
140.00-133.33			В	0.151	2.77		0.85	1	6.561			
			C	0.151	2.77		0.85	1	6.561			
T4	141.17	842.18	Α	0.145	2.791	10	0.85	1	6.687	429.97	64.50	С
133.33-126.67			B	0.145	2.791		0.85	1	6.687			
		1000 10	Ċ	0.145	2.791	1.0	0.85	1	6.687		00.15	~
T5	220.41	1080.40	A	0.14	2.81	10	0.85	1	6.810	594.48	89.17	С
126.67-120.00			B	0.14	2.81		0.85		6.810			
TC	720.27	2921.21	, C	0.14	2.81	10	0.85		0.810	1042.95	07.14	C
100 00 100 00	/39.3/	3821.31	A	0.133	2.834	10	0.85		21.840	1942.85	97.14	C
120.00-100.00			в	0.133	2.834		0.85		21.840			
т7	270.21	1692 80		0.135	2.854	10	0.85		21.840	070 55	07.06	C
100.00.00.00	570.21	1062.60	D A	0.151	2.044	10	0.85	1	12.011	970.55	97.00	C
100.00-90.00				0.151	2.044		0.85		12.011			
тя	370.21	1722 73	Å	0.131	2.044	10	0.85	1	12.011	057 31	05 73	C
00 00-80 00	570.21	1/22.75	R	0.124	2.87	10	0.85	1	12.290	957.51	15.15	C
90.00-00.00			Ċ	0.124	2.87		0.85	1	12.296			
Т9	740.57	4897.54	Ă	0.14	2.81	9	0.85	1	39.595	2156.30	107.82	С
80.00-60.00	,,		В	0.14	2.81	-	0.85	1	39,595		10,101	Ť
			Ē	0.14	2.81		0.85	1	39,595			
T10	743.42	5700.46	A	0.129	2.85	9	0.85	1	40.867	2055.59	102.78	С
60.00-40.00			В	0.129	2.85		0.85	1	40.867			
			С	0.129	2.85		0.85	1	40.867			
T11	371.71	2942.46	Α	0.123	2.875	8	0.85	1	20.920	966.33	96.63	С
40.00-30.00			В	0.123	2.875		0.85	1	20.920			
			С	0.123	2.875		0.85	1	20.920			
T12	371.71	3139.03	Α	0.119	2.889	7	0.85	1	21.249	908.15	90.82	С
30.00-20.00			В	0.119	2.889		0.85	1	21.249			
			С	0.119	2.889		0.85	1	21.249			
T13	743.42	6187.56	Α	0.108	2.934	7	0.85	1	41.444	1626.46	81.32	С
20.00-0.00			В	0.108	2.934		0.85	1	41.444			
			С	0.108	2.934		0.85	1	41.444			
Sum Weight:	5190.97	35588.43						ОТМ	1116.88	14394.78		
									kip-ft			

*tnxTow* 

#### Centek Engineering Ind

63-2 North Branford Rd. Branford, CT 06405 Phone: (203) 488-0580 FAX: (203) 488-8587

Wind 315 deg - Service

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Project 180-ft Lattice Tower (CSP #32)	Date 07:59:09 09/20/22
	01.39.09 09/20/22
Client Verizon	Designed by TJL
	ob 22027.01 - Westport Project 180-ft Lattice Tower (CSP #32) Client Verizon

#### **Force Totals** Vertical Sum of Sum of Sum of Sum of Sum of Torques Load Case Forces Forces Forces Overturning Overturning X Ζ Moments, $M_x$ Moments, M<sub>z</sub> lb lb kip-ft lb kip-ft kip-ft 17198.81 Leg Weight Bracing Weight 18389.62 Total Member Self-Weight 35588.43 -16.58 2.25 2.25 Total Weight 52804.93 -16.58Wind 0 deg - No Ice -167.50 -89396.62 -8284.35 30.22 -6.43 43253.67 -75897.19 -7102.97 -3996.40 Wind 30 deg - No Ice -83.76 60995.58 -5785.96 Wind 45 deg - No Ice -61723.07 -5647.50 -114.56 Wind 60 deg - No Ice 74384.49 -43440.99 -4079.44 -6892.58 -137.65 -7953.24 -155.55 Wind 90 deg - No Ice 86287.49 -10.46 -20.11 Wind 120 deg - No Ice 76223.15 44483.71 4077.87 -6956.41 -132.13 61706.87 5759.39 Wind 135 deg - No Ice 62373.23 -5664.91 -106.16 Wind 150 deg - No Ice 43327.23 75726.94 7038.00 -4006.52 -73.01 86930.45 8114.82 -29.375.61 Wind 180 deg - No Ice 188.11Wind 210 deg - No Ice -43098.27 75619.00 7020.57 3973.40 81.67 -60736.99 5699.90 5606.24 Wind 225 deg - No Ice 61424.24 112 50 Wind 240 deg - No Ice -76060.10 44257.23 4040.69 6933.73 135.57 -86229.28 -315.80 -70.80 7947.44 153.80 Wind 270 deg - No Ice Wind 300 deg - No Ice -74416.07 -43695.84 -4121.65 6900.99 131.11 Wind 315 deg - No Ice -61926.81 105.08 -6115536 -5819.65 5677 92 Wind 330 deg - No Ice -43501.19 -76056.20 -7129.44 4041.81 72.05 Member Ice 30349.49 -145.19 Total Weight Ice 133427.90 3.40 Wind 0 deg - Ice -25.46 -24555.22 -2406.30 7.65 0.94 Wind 30 deg - Ice 12019.39 -21018.69 -2091.52 -1101.21 -13.74 Wind 45 deg - Ice 16969.04 -17122.10-1731.75-1557.82-19.83Wind 60 deg - Ice 20730.83 -12074.67 -1264.45 -1904.69 -24.58Wind 90 deg - Ice 24002.52 -2.59 -145.91 -2198.96 -28.98 12242.98 Wind 120 deg - Ice 21029.36 979.01 -1915.01 -25.67 Wind 135 deg - Ice 17083.77 17227.20 1442.34 -1560.50 -21.27 1795.96 Wind 150 deg - Ice 12029.36 20990.92 -1102.53 -15.43 Wind 180 deg - Ice 2093.94 -1.42 28.70 24155.36 -1.07-11994.91 1103.68 Wind 210 deg - Ice 20974.85 1793.37 13.41 Wind 225 deg - Ice -16928.29 17075.01 1433.02 1557.40 19.51 Wind 240 deg - Ice -21004.61 12208.92 973.42 1917.69 24.26 Wind 270 deg - Ice -23993.35 -48.83 -153.582204.14 28.70 Wind 300 deg - Ice -20734.87 -12113.21 -1270.82 1911.95 25.50 Wind 315 deg - Ice -16992.89 -17152.88 -1736.83 1568.47 21.10 Wind 330 deg - Ice -12056.77 -21042.81 -2095.53 1114.18 15.28 Total Weight 52804.93 -16.58 2.25 -1794.06 Wind 0 deg - Service -35.68 -19307.76 8.91 -1.37 9346.14 -16396.68 -1538.41 Wind 30 deg - Service -863.73 -17.8413180.31 -1253.13 -24.40 Wind 45 deg - Service -13335.27 -1221.61 Wind 60 deg - Service 16074.45 -9386.05 -883.44 -1491.57 -29.32 18645.46 -2.23 -33.13 Wind 90 deg - Service -3.84-1721.50Wind 120 deg - Service 16466.11 9608.17 884.00 -1505.16 -28.15 13473.77 1248.36 -1225.32 Wind 135 deg - Service 13331.82 -22.61Wind 150 deg - Service 9361.81 16360.41 1525.46 -865.88 -15.55 -3.78 1.20 18782.42 1758.83 Wind 180 deg - Service 40.07 Wind 210 deg - Service -9313.04 16337.42 1521.75 863.77 17.40 1217.76 13271.62 1235.69 23.96 Wind 225 deg - Service -13125.22 Wind 240 deg - Service -16431.38 9559.92 876.08 1505.28 28.88 Wind 270 deg - Service -18633.06 -67 27 -14.64 1725.21 32.76 Wind 300 deg - Service -16081.17 -9440.33 -892.43 1498.30 27.93

-13214.34

-13378.67

-1260.31

1233.03

22.38

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<b>Centek Engineering Inc.</b> 63-2 North Branford Rd.	Project	180-ft Lattice Tower (CSP #32)	Date 07:59:09 09/20/22
Branford, CT 06405 Phone: (203) 488-0580 FAX: (203) 488-8587	Client	Verizon	Designed by TJL

Load	Vertical	Sum of	Sum of	Sum of	Sum of	Sum of Torques
Case	Forces	Forces	Forces	Overturning	Overturning	5 1
		X	Ζ	Moments, $M_x$	Moments, $M_z$	
	lb	lb	lb	kip-ft	kip-ft	kip-ft
Wind 330 deg - Service		-9398.87	-16430.55	-1544.05	878.34	15.35

#### Load Combinations

Comh.	Description
No.	
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 Lee
6	1 2 Dead+1 0 Wind 45 deg - No Lee
7	0.9 Dead+1.0 Wind 45 deg - No Lee
8	1 2 Dead+1 0 Wind 60 deg - No Ice
9	1.2 Dead+1.0 Wind 60 deg - No Ice
10	1.2 Dead+1.0 Wind 90 deg - No Ice
11	1.2 Dead+1.0 Wind 90 deg - No Lee
12	1.2 Dead+1.0 Wind 120 deg = No Ice
12	0 0 Dead+1 0 Wind 120 deg - No Ice
14	1.2 Dead+1.0 wind 125 deg - No Ice
14	1.2 Dead+1.0 while 155 deg = No fee
15	1.2 Dead+1.0 wind 150 deg - No Lee
10	1.2 Deat+1.0 wind 150 deg - No tee
1 /	1.2 Dead+1.0 wind 150 deg - No Ice
10	1.2 Dead+1.0 wind 180 deg - No tee
19	1.2 Dead+1.0 wind 180 deg - No Ice
20	1.2 Dead+1.0 wind 210 deg - No fee
21	1.2 Dead+1.0 Wind 210 deg - No Ice
22	1.2 Dead+1.0 wind 225 deg - No Ice
23	1.2 Dead+1.0 wind 225 deg - No Ice
24	1.2 Dead+1.0 Wind 240 deg - No Ice
25	$0.9 \text{ Dead} \pm 1.0 \text{ wind } 240 \text{ deg} = N0 \text{ fce}$
20	1.2 Dead+1.0 wind 270 deg - No Ice
27	1.2 Dead+1.0 Wind 2/0 deg - No Lee
28	1.2  Dead + 1.0  wind 300 deg = No 1  Ce
29	1.2 Dead+1.0 wind 300 deg - No ICe
21	1.2 Dead+1.0 wind 315 deg - No Ice
22	1.2 Dead+1.0 wind 315 deg - No Lee
22	1.2 Dead+1.0 wind 330 deg - No tee
22	1.2 Dead+1.0 while 3.50 deg - 100 fee
25	1.2  Deduttione
33 26	1.2 Deautil.0 wind 0 degril.0 ice
27	1.2 Deautillo wind 30 degt 1.0 100
20	1.2 Deautillo wind 4.3 degt 1.0 ice
20	1.2 Dead+1.0 wind 00 deg+1.0 ice
39	1.2 Dead+1.0 Wind 90 deg+1.0 ice
40	1.2 Dead+1.0 Wind 120 deg+1.0 Ice
41	1.2 Dead+1.0 wind 155 deg+1.0 fee
42	1.2 Dead+1.0 Wind 150 degr1.0 ice
45	1.2 Dead+1.0 Wind 180 degr1.0 ice
44	1.2 Dead+1.0 wind 210 deg+1.0 ice
45	1.2 Dead+1.0 wind 225 deg+1.0 ice
40	1.2  Dead(1.0  wind  240  deg(1.0  loc))
4/	1.2  Dead(1.0  wind  2/0  deg(1.0  log))
48	1.2 DeadT1.0 Wind 300 degt1.0 ICC
49	1.2 Deautillo wind 313 degtillo lee
50	1.2 Deau 1.0 wind 550 deg 1.0 fee
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Project	Date
180-ft Lattice Tower (CSP #32)	07:59:09 09/20/22
Client Verizon	Designed by TJL

Comb	Description
No	Description
51	Dead+Wind 0 deg - Service
52	Dead+Wind 30 deg - Service
53	Dead+Wind 45 deg - Service
54	Dead+Wind 60 deg - Service
55	Dead+Wind 90 deg - Service
56	Dead+Wind 120 deg - Service
57	Dead+Wind 135 deg - Service
58	Dead+Wind 150 deg - Service
59	Dead+Wind 180 deg - Service
60	Dead+Wind 210 deg - Service
61	Dead+Wind 225 deg - Service
62	Dead+Wind 240 deg - Service
63	Dead+Wind 270 deg - Service
64	Dead+Wind 300 deg - Service
65	Dead+Wind 315 deg - Service
66	Dead+Wind 330 deg - Service

### Maximum Member Forces

Section	Elevation	Component	Condition	Gov.	Axial	Major Axis	Minor Axis
No.	ft	Туре		Load		Moment	Moment
				Comb.	lb	kip-ft	kip-ft
T1	180 - 160	Leg	Max Tension	31	2502.81	-0.27	-0.19
			Max. Compression	2	-4181.17	-0.08	0.02
			Max. Mx	12	-395.79	-0.52	-0.04
			Max. My	33	-144.55	-0.02	-0.92
			Max. Vy	3	327.13	0.52	0.30
			Max. Vx	32	-472.47	-0.02	0.75
		Diagonal	Max Tension	5	3947.57	0.00	0.00
		_	Max. Compression	4	-4014.91	0.00	0.00
			Max. Mx	34	-75.32	0.05	0.00
			Max. Vy	34	24.39	0.00	0.00
		Horizontal	Max Tension	4	2152.00	-0.01	-0.00
			Max. Compression	5	-2157.09	-0.01	-0.00
			Max. Mx	49	-148.67	-0.02	-0.00
			Max. My	3	-306.72	-0.00	0.00
			Max. Vy	49	25.79	-0.02	-0.00
			Max. Vx	3	-0.81	-0.00	0.00
		Top Girt	Max Tension	33	324.49	-0.01	0.00
			Max. Compression	2	-354.75	-0.01	-0.00
			Max. Mx	49	13.73	-0.02	-0.00
			Max. My	3	-50.61	-0.00	0.00
			Max. Vy	49	-24.91	-0.02	-0.00
			Max. Vx	3	-0.13	0.00	0.00
		Inner Bracing	Max Tension	3	1.85	0.00	0.00
			Max. Compression	18	-1.85	0.00	0.00
			Max. Mx	34	-0.11	-0.02	0.00
			Max. Vy	34	20.88	0.00	0.00
T2	160 - 140	Leg	Max Tension	19	22435.33	-0.10	-0.06
			Max. Compression	2	-29215.53	0.17	0.11
			Max. Mx	18	21519.45	-0.18	-0.11
			Max. My	2	9634.29	-0.09	0.32
			Max. Vy	18	-2441.71	0.09	-0.02
			Max. Vx	10	2450.77	0.02	-0.11
		Diagonal	Max Tension	5	8421.58	0.00	0.00
		-	Max. Compression	4	-8498.57	0.00	0.00
			Max. Mx	34	-209.60	0.06	0.00
			Max. Vy	34	-29.98	0.00	0.00
		Horizontal	Max Tension	4	5300.05	-0.01	-0.00

*tnxTower* 

Job

Project

Client

22027.01 - Westport

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**Centek Engineering Inc.** 63-2 North Branford Rd. Branford, CT 06405 Phone: (203) 488-0580 FAX: (203) 488-8587

Verizon

180-ft Lattice Tower (CSP #32)

Designed by TJL

Section	Elevation	Component	Condition	Gov	Axial	Major Axis	Minor Axis
No	ft	Type	conumon	Load	11.0000	Moment	Moment
110.	<i>Ji</i>	Type		Comh	lh	kin-ft	kin-ft
			Max Compression	5	-5271.06	-0.01	-0.00
			Max Mx	48	-76 38	-0.01	-0.00
			Max My	2	2354.00	-0.01	0.01
			Max Vy	48	-29.98	-0.03	-0.00
			Max. Vy Max. Vy	2	-2 43	-0.05	0.00
		Inner Bracing	Max. VA Max Tension	23	4 69	-0.01	0.01
		miler bracing	Max Compression	18	-6.57	0.00	0.00
			Max My	34	3.45	0.00	0.00
			Max Vy	24	24.00	-0.03	0.00
Т3	140 - 133 333	Lea	Max Tension	10	31226.84	-0.18	-0.11
15	140 - 155.555	Leg	Max Compression	2	38564 21	-0.16	-0.11
			Max My	18	30337 56	-0.18	-0.11
			Max My	2	13024.18	-0.00	-0.11
			Max. Wy	2	66.05	-0.09	0.52
			Max. Vy Max. Vy	18	-159.57	-0.17	-0.32
		Diagonal	Max Tension	5	-139.37	0.08	-0.52
		Diagonai	Max Compression	3	8025.20	0.00	0.00
			Max. Max		-8/33.13	0.00	0.00
			Max Wu	24	-252.00	0.08	0.00
		Uomizonto 1	Max. vy	54	-50.45	0.00	0.00
		nonzontai	Max Tension	4	5639.07	-0.02	-0.00
			Max. Compression	3	-3609.19	-0.01	-0.00
			Max. Mx	40	-37.44	-0.03	-0.00
			Max. My	10	-15/0.52	-0.03	-0.01
			Max. Vy	48	-36.47	-0.03	-0.00
		I	Max. VX	18	-2.15	0.00	0.00
		Inner Bracing	Max Tension	3	5.00	0.00	0.00
			Max. Compression	18	-0.41	0.00	0.00
			Max. Mx	34	-4.04	-0.03	0.00
<b>T</b> 4	122.222	т	Max. vy	34	-25.42	0.00	0.00
14	133.333 -	Leg	Max Tension	19	39/42.32	-0.1 /	-0.01
	120.007		Max Compression	2	-49914 02	1.11	0.05
			Max. Compression	18	36723.04	-1.18	-0.04
			Max My	32	-4614.02	-0.05	1 10
			Max Vy	28	2471.02	-0.05	0.01
			Max Vy	20 4	-2367.27	-0.02	-0.04
		Diagonal	Max Tension	5	11965.02	-0.02	0.04
		Diagonai	Max Compression	1	-12083.40	0.00	0.00
			Max My	34	220 06	0.00	0.00
			Max Vy	34	-38 51	0.09	0.00
		Ton Girt	Max Tension	7	-36.51 8107 54	-0.01	0.00
		TOPOIIT	Max Compression	4	-8003.01	-0.01	-0.00
			Max My	48	-422.65	-0.02	-0.00
			Max. My	10	460.54	-0.05	-0.00
			Max Vy	48	40.04	-0.01	0.02
			Max Vy	2	3.46	0.00	-0.00
		Inner Braging	Max Tension	2	6.55	0.00	0.00
		miler bracing	Max Compression	18	0.55	0.00	0.00
			Max. Compression	24	-9.52	0.00	0.00
			Max. Wix	24	-4.27	-0.04	0.00
т5	126 667 120	Lag	Max. Vy May Tangian	10	-20.92	0.00	0.00
13	120.007 - 120	Leg	Max Compression	19	-64495 09	-1.1/	-0.04
			May My	∠ 19	40506 40	-1.19	-0.02
			May My	22	-4678 54	-1.10	1 10
			Max Wy	18	-1128 77	-0.05	-0.04
			Max Vy	10	-1156.72	-1.10	-0.04
		Diagonal	Max Tancian	10	12010.23	-0.04	1.19
		Diagonal	Max Commence	3 4	12018.82	0.00	0.00
			Max. Compression	4	-14003.04	0.00	0.00
			Max. MX	54 24	-231.81	0.13	0.00
		Top Cint	Max. Vy	54	33.89	0.00	0.00
		1 op Girt	Max Tension	2	9393.63	-0.02	-0.00

*tnxTower* 

Job

Project

Client

22027.01 - Westport

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**Centek Engineering Inc.** 63-2 North Branford Rd. Branford, CT 06405 Phone: (203) 488-0580 FAX: (203) 488-8587

Verizon

180-ft Lattice Tower (CSP #32)

ned by TJL

Section	Elevation	Component	Condition	Gov.	Axial	Maior Axis	Minor Axis
No.	ft	Type		Load		Moment	Moment
	5	51		Comb.	lb	kip-ft	kip-ft
			Max. Compression	5	-9594.67	-0.02	-0.00
			Max. Mx	48	-308.75	-0.06	-0.01
			Max. My	3	2146.87	-0.00	0.02
			Max. Vy	48	43.21	-0.06	-0.01
			Max. Vx	3	-3.45	-0.00	0.02
		Inner Bracing	Max Tension	3	5.91	0.00	0.00
			Max. Compression	18	-10.34	0.00	0.00
			Max. Mx	34	-5.20	-0.04	0.00
			Max. Vy	34	-28.40	0.00	0.00
T6	120 - 100	Leg	Max Tension	19	87356.52	-0.53	0.04
			Max. Compression	2	-104216.63	0.27	-0.07
			Max. Mx	18	63511.29	-0.84	0.02
			Max. My	26	-9200.74	-0.02	-1.03
			Max. Vy	18	-144.87	-0.84	0.02
			Max. Vx	11	340.20	-0.01	0.86
		Diagonal	Max Tension	5	18370.94	0.00	0.00
			Max. Compression	4	-18683.90	0.00	0.00
			Max. Mx	34	-337.25	0.28	0.00
			Max. Vy	34	-89.70	0.00	0.00
		Horizontal	Max Tension	4	11131.26	-0.03	-0.00
			Max. Compression	5	-11031.19	-0.02	-0.00
			Max. Mx	48	-3/5.90	-0.08	-0.01
			Max. My	18	-16/6.75	-0.04	-0.02
			Max. Vy	48	-49.44	-0.08	-0.01
		In a Dan sin a	Max. vx Max Tanaian	18	-3.17	-0.04	-0.02
		Inner Bracing	Max Tension	3	5.45	0.00	0.00
			Max. Compression	18	-11.95	0.00	0.00
			Max. Wix	24	-0.94	-0.07	0.00
<b>T</b> 7	100 00	Lag	Max Tension	54 10	-42.45	0.00	0.00
1 /	100 - 90	Leg	Max Compression	19	109554.60	-0.29	0.07
			Max. Compression Max. Mx	18	106518 74	-0.66	-0.03
			Max My	10	-7741 50	-0.00	0.05
			Max Vy	18	150.96	-0.66	0.03
			Max. Vy Max. Vy	10	-331.86	-0.02	0.85
		Diagonal	Max Tension	5	17536 73	0.02	0.00
		Diagonar	Max Compression	4	-17754 57	0.00	0.00
			Max Mx	34	-373 85	0.23	0.00
			Max Vy	34	71.24	0.00	0.00
		Horizontal	Max Tension	7	11283.09	-0.02	0.00
			Max. Compression	22	-11172.67	0.00	0.00
			Max. Mx	48	-673.94	-0.09	-0.01
			Max. My	18	-502.92	-0.05	-0.02
			Max. Vy	48	-52.08	-0.09	-0.01
			Max. Vx	18	2.55	-0.05	-0.02
		Inner Bracing	Max Tension	3	2.59	0.00	0.00
		Ū.	Max. Compression	43	-10.85	0.00	0.00
			Max. Mx	34	-9.14	-0.09	0.00
			Max. Vy	34	-45.29	0.00	0.00
Т8	90 - 80	Leg	Max Tension	19	129518.54	-0.66	0.03
		C C	Max. Compression	2	-149787.44	0.58	-0.01
			Max. Mx	18	126892.07	-0.66	0.03
			Max. My	11	-8376.36	-0.02	0.99
			Max. Vy	18	-116.57	-0.66	0.03
			Max. Vx	10	-300.69	-0.03	0.99
		Diagonal	Max Tension	5	17872.19	0.00	0.00
		_	Max. Compression	4	-18108.10	0.00	0.00
			Max. Mx	34	-402.90	0.26	0.00
			Max. Vy	34	-76.44	0.00	0.00
		Top Girt	Max Tension	6	12027.43	-0.03	0.00
			Max. Compression	23	-11869.75	0.00	0.00

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Centek Eng 63-2 North Branford, Phone: (20 FAX: (203

Paru an	Job		Page			
ower		22027.01 - Westport	49 of 71			
<b>gineering Inc.</b> Branford Rd.	Project	180-ft Lattice Tower (CSP #32)	Date 07:59:09 09/20/22			
l, CT 06405 03) 488-0580 3) 488-8587	Client	Verizon	Designed by TJL			

Section	Elevation	Component	Condition	Gov.	Axial	Major Axis	Minor Axis
No.	ft	Type		Load		Moment	Moment
				Comb.	lb	kip-ft	kip-ft
			Max. Mx	48	-536.00	-0.10	-0.01
			Max. My	18	-243.63	-0.06	-0.02
			Max. Vy	48	-55.83	-0.10	-0.01
		I	Max. Vx	18	-2.22	-0.06	-0.02
		Inner Bracing	Max Tension	3	1.69	0.00	0.00
			Max. Compression	43	-11.10	0.00	0.00
			Max. Mx	24	-9.28	-0.10	0.00
TO	80 60	Lag	Max. vy May Tangian	54 10	48.//	0.00	0.00
19	80 - 80	Leg	Max Compression	2	102002 74	-1.12	0.03
			Max. Compression	18	-193903.74	-1.76	-0.02
			Max. MX Max. My	10	-10058 33	-0.02	1.87
			Max Vy	18	267.90	-0.02	0.02
			Max Vy	11	-453 12	-0.02	1.87
		Diagonal	Max Tension	5	19435 53	0.02	0.00
		Diagonai	Max Compression	4	-19757.09	0.00	0.00
			Max. Compression Max. My	34	-495 72	0.00	0.00
			Max Vy	34	-86.22	0.00	0.00
		Horizontal	Max Tension	6	14112.21	-0.07	0.00
		Homzontar	Max Compression	23	-13921 39	0.00	0.00
			Max Mx	48	-581 30	-0.17	-0.01
			Max. My	3	628.08	-0.04	0.03
			Max. Vy	48	-83.64	-0.17	-0.01
			Max. Vx	18	-2.96	-0.10	-0.03
		Inner Bracing	Max Tension	3	2.81	0.00	0.00
			Max. Compression	43	-13.04	0.00	0.00
			Max. Mx	34	-11.14	-0.15	0.00
			Max. Vy	34	64.61	0.00	0.00
T10	60 - 40	Leg	Max Tension	19	210895.06	-1.16	0.03
		0	Max. Compression	2	-240151.77	1.03	-0.03
			Max. Mx	18	186674.02	-1.76	0.02
			Max. My	11	-10465.38	-0.02	1.87
			Max. Vy	8	-310.13	-1.73	0.36
			Max. Vx	10	444.32	-0.03	1.87
		Diagonal	Max Tension	5	20984.15	0.00	0.00
		-	Max. Compression	4	-21461.91	0.00	0.00
			Max. Mx	34	-618.75	0.43	0.00
			Max. Vy	34	-113.22	0.00	0.00
		Horizontal	Max Tension	6	16154.66	-0.10	0.01
			Max. Compression	23	-15864.60	0.00	0.00
			Max. Mx	48	-567.35	-0.21	-0.01
			Max. My	3	1552.76	-0.04	0.03
			Max. Vy	48	-92.27	-0.21	-0.01
			Max. Vx	3	-2.73	-0.04	0.03
		Inner Bracing	Max Tension	3	0.85	0.00	0.00
			Max. Compression	43	-15.48	0.00	0.00
			Max. Mx	34	-13.80	-0.24	0.00
			Max. Vy	34	90.29	0.00	0.00
T11	40 - 30	Leg	Max Tension	19	231604.60	-1.10	0.03
			Max. Compression	2	-263727.46	2.45	-0.02
			Max. Mx	2	-263727.46	2.45	-0.02
			Max. My	11	-12458.86	-0.05	1.27
			Max. Vy	3	-303.07	2.43	-0.02
			Max. Vx	26	-346.53	-0.05	-1.27
		Diagonal	Max Tension	5	21541.51	0.00	0.00
			Max. Compression	4	-22054.68	0.00	0.00
			Max. Mx	34	-658.67	0.46	0.00
			Max. Vy	34	-117.43	0.00	0.00
		Horizontal	Max Tension	6	17001.68	-0.11	0.01
			Max. Compression	23	-16707.18	0.00	0.00
			Max. Mx	48	-634.77	-0.23	-0.01

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Centek Eng 63-2 North Branford Phone: (20 FAX: (20:

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ower		22027.01 - Westport	50 of 71	
<b>gineering Inc.</b> Branford Rd.	Project	180-ft Lattice Tower (CSP #32)	Date 07:59:09 09/20/22	
l, CT 06405 03) 488-0580 3) 488-8587	Client	Verizon	Designed by TJL	

Section	Elevation	Component	Condition	Gov.	Axial	Major Axis	Minor Axis
No.	ft	Туре		Load		Moment	Moment
				Comb.	lb	kip-ft	kip-ft
			Max. My	3	1412.51	-0.06	0.03
			Max. Vy	48	-95.30	-0.23	-0.01
			Max. Vx	3	-2.39	-0.06	0.03
		Inner Bracing	Max Tension	1	0.00	0.00	0.00
			Max. Compression	43	-15.72	0.00	0.00
			Max. Mx	34	-14.15	-0.26	0.00
			Max. Vy	34	-93.18	0.00	0.00
T12	30 - 20	Leg	Max Tension	19	252171.84	-2.26	0.02
			Max. Compression	2	-287313.38	-2.06	-0.01
			Max. Mx	2	-286657.88	2.45	-0.02
			Max. My	11	-13967.85	-0.39	4.71
			Max. Vy	2	596.89	2.45	-0.02
			Max. Vx	11	-668.21	-0.39	4.71
		Diagonal	Max Tension	5	22107.54	0.00	0.00
			Max. Compression	4	-22705.76	0.00	0.00
			Max. Mx	34	-/14.54	0.49	0.00
		<b>—</b> (1)	Max. Vy	34	-121.65	0.00	0.00
		Top Girt	Max Tension	6	17741.83	-0.16	0.01
			Max. Compression	23	-17329.14	0.00	0.00
			Max. Mx	48	-360.46	-0.29	-0.01
			Max. My	3	860.80	-0.10	0.02
			Max. Vy	48	-115.48	-0.29	-0.01
			Max. Vx	3	2.06	0.00	0.00
		Inner Bracing	Max Tension	1	0.00	0.00	0.00
			Max. Compression	43	-16.54	0.00	0.00
			Max. Mx	34	-15.19	-0.29	0.00
	20 0		Max. Vy	34	96.06	0.00	0.00
T13	20 - 0	Leg	Max Tension	19	271078.18	1.19	0.01
			Max. Compression	2	-310553.16	0.00	-0.00
			Max. Mx	2	-309777.68	7.02	-0.05
			Max. My	11	-14/48.37	-0.39	4./1
			Max. Vy	2	-1032.16	7.02	-0.05
		D' 1	Max. Vx	11	1138.05	-0.39	4.71
		Diagonal	Max Tension	1	32/64.25	-0.15	-0.03
			Max. Compression	14	-33658.23	0.00	0.00
			Max. Mx	6	16903.92	-0.23	0.03
			Max. My	2	-264/9.56	-0.03	-0.04
			Max. Vy	50	-80.71	-0.20	0.00
		II	Max. Vx	2	-3.50	0.00	0.00
		Horizontal	Max Tension	0	18806.18	-0.20	0.01
			Max. Compression	15	-18/90.40	-0.20	-0.01
			Max. Mx	48	407.00	-0.41	-0.01
			Max. My	3 49	1/50.04	-0.07	0.06
			Max. Vy May Vy	48	145.50	-0.41	-0.01
		Dodwod Horrs 1	Max Tension	3	4.39	0.00	0.00
		Drasing	Max Tension	4	1525.00	0.00	0.00
		Dracing	Max Comprossion	5	1180.26	0.00	0.00
			Max. Compression	24	-1180.50	0.00	0.00
			Max. Mix	24	195.54	0.04	0.00
		Detro IDies 1	Max. vy	54	23.11	0.00	0.00
		Bracing	Max Tension	4	1262.50	0.00	0.00
			Max. Compression	5	-1113.51	0.00	0.00
			Max. Mx	34	100.46	0.07	0.00
			Max. Vy	34	25.88	0.00	0.00
		Redund Hip 1 Bracing	Max Tension	3	1.52	0.00	0.00
			Max. Compression	18	-17.35	0.00	0.00
			Max. Mx	34	-14.27	0.06	0.00
			Max. Vy	34	38.89	0.00	0.00
		Inner Bracing	Max Tension	1	0.00	0.00	0.00

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Centek Engineering Inc.	Project	Date
63-2 North Branford Rd.	180-ft Lattice Tower (CSP #32)	07:59:09 09/20/22
Branford, CT 06405 Phone: (203) 488-0580	Client Verizon	Designed by
FAX: (203) 488-8587		١JL

No ft Type Load Ma	
international and the second sec	1ent Moment
Comb. lb k	-ft kip-ft
Max. Compression 43 -14.92 (	0.00
Max. Mx 34 -12.92 0	18 0.00
Max. Vy 34 -57.34 0	0.00 0(0

### **Maximum Reactions**

Location	Condition	Gov.	Vertical	Horizontal, X	Horizontal, Z
		Load	lb	lb	lb
		Comb.			
Leg C	Max. Vert	24	344051.28	42388.79	-27768.40
	Max. H <sub>x</sub>	24	344051.28	42388.79	-27768.40
	Max. H <sub>z</sub>	7	-297674.97	-36750.34	26841.56
	Min. Vert	9	-306700.29	-38927.48	25797.51
	Min. H <sub>x</sub>	9	-306700.29	-38927.48	25797.51
	Min. Hz	22	331325.91	39234.39	-28248.58
Leg B	Max. Vert	12	345613.77	-42558.42	-27786.39
-	Max. H <sub>x</sub>	29	-307868.53	39077.01	25737.06
	Max. Hz	31	-299460.36	36979.38	26751.80
	Min. Vert	29	-307868.53	39077.01	25737.06
	Min. H <sub>x</sub>	12	345613.77	-42558.42	-27786.39
	Min. Hz	14	334526.49	-39873.90	-28518.78
Leg A	Max. Vert	2	355057.22	-130.05	51494.93
0	Max. H <sub>x</sub>	27	18726.06	12771.09	1539.54
	Max. Hz	2	355057.22	-130.05	51494.93
	Min. Vert	19	-311216.38	108.46	-47091.84
	Min. H <sub>x</sub>	10	22099.23	-12813.26	1794.32
	Min. H <sub>z</sub>	19	-311216.38	108.46	-47091.84

# Tower Mast Reaction Summary

Load	Vertical	Shear <sub>x</sub>	Shearz	Overturning	Overturning	Torque
Combination				Moment, $M_x$	Moment, $M_z$	-
	lb	lb	lb	kip-ft	kip-ft	kip-ft
Dead Only	52804.93	-0.00	-0.00	-16.58	2.25	0.00
1.2 Dead+1.0 Wind 0 deg - No	63365.92	-167.50	-89396.62	-8004.09	30.67	-6.43
Ice						
0.9 Dead+1.0 Wind 0 deg - No	47524.44	-167.50	-89396.62	-7999.12	30.00	-6.43
Ice						
1.2 Dead+1.0 Wind 30 deg - No	63365.92	43253.67	-75897.19	-6864.82	-3856.54	-83.75
Ice						
0.9 Dead+1.0 Wind 30 deg - No	47524.44	43253.67	-75897.19	-6859.85	-3857.22	-83.75
Ice						
1.2 Dead+1.0 Wind 45 deg - No	63365.92	60995.58	-61723.07	-5592.68	-5450.46	-114.56
Ice						
0.9 Dead+1.0 Wind 45 deg - No	47524.44	60995.58	-61723.07	-5587.70	-5451.13	-114.56
Ice						
1.2 Dead+1.0 Wind 60 deg - No	63365.92	74384.49	-43440.99	-3944.14	-6652.03	-137.64
Ice						
0.9 Dead+1.0 Wind 60 deg - No	47524.44	74384.49	-43440.99	-3939.17	-6652.71	-137.64
Ice						
1.2 Dead+1.0 Wind 90 deg - No	63365.92	86287.49	-10.46	-23.42	-7673.97	-155.55
Ice						
0.9 Dead+1.0 Wind 90 deg - No	47524.44	86287.49	-10.46	-18.45	-7674.65	-155.55

### tnxTower

wer	Job	22027.01 - Westport	Page 52 of 71
<b>eering Inc.</b> nford Rd.	Project	180-ft Lattice Tower (CSP #32)	Date 07:59:09 09/20/22
7 06405 188-0580 88-8587	Client	Verizon	Designed by TJL

Load	Vertical	Shear <sub>x</sub>	$Shear_z$	Overturning	Overturning	Torque
Combination	IL	11	IL	Moment, $M_x$	Moment, $M_z$	hin A
Ice	lD	10	lD	кір-л	кір-л	кір-јі
1.2 Dead+1.0 Wind 120 deg - No Ice	63365.92	76223.15	44483.71	3932.77	-6710.38	-132.13
0.9 Dead+1.0 Wind 120 deg -	47524.44	76223.15	44483.71	3937.74	-6711.05	-132.13
1.2 Dead+1.0 Wind 135 deg - No Ice	63365.92	61706.87	62373.23	5557.24	-5465.63	-106.16
0.9 Dead+1.0 Wind 135 deg -	47524.44	61706.87	62373.23	5562.21	-5466.30	-106.16
1.2 Dead+1.0 Wind 150 deg -	63365.92	43327.23	75726.94	6793.22	-3866.66	-73.01
0.9 Dead+1.0 Wind 150 deg - No Ice	47524.44	43327.23	75726.94	6798.20	-3867.33	-73.01
1.2 Dead+1.0 Wind 180 deg - No Ice	63365.92	188.11	86930.45	7834.27	-28.92	5.61
0.9 Dead+1.0 Wind 180 deg - No Ice	47524.44	188.11	86930.45	7839.25	-29.59	5.61
1.2 Dead+1.0 Wind 210 deg - No Ice	63365.92	-43098.27	75619.00	6775.79	3834.44	81.67
0.9 Dead+1.0 Wind 210 deg - No Ice	47524.44	-43098.27	75619.00	6780.77	3833.77	81.67
1.2 Dead+1.0 Wind 225 deg - No Ice	63365.92	-60736.99	61424.24	5499.99	5410.09	112.49
0.9 Dead+1.0 Wind 225 deg - No Ice	47524.44	-60736.99	61424.24	5504.97	5409.42	112.49
1.2 Dead+1.0 Wind 240 deg - No Ice	63365.92	-76060.10	44257.23	3895.58	6688.60	135.57
0.9 Dead+1.0 Wind 240 deg - No Ice	47524.44	-76060.10	44257.23	3900.56	6687.92	135.57
1.2 Dead+1.0 Wind 270 deg - No Ice	63365.92	-86229.28	-315.80	-74.11	7669.07	153.80
0.9 Dead+1.0 Wind 270 deg - No Ice	47524.44	-86229.28	-315.80	-69.14	7668.40	153.80
1.2 Dead+1.0 Wind 300 deg -	63365.92	-74416.07	-43695.84	-3986.35	6661.35	131.11
0.9 Dead+1.0 Wind 300 deg - No Ice	47524.44	-74416.07	-43695.84	-3981.37	6660.68	131.11
1.2 Dead+1.0 Wind 315 deg - No Ice	63365.92	-61155.36	-61926.81	-5626.37	5481.77	105.08
0.9 Dead+1.0 Wind 315 deg - No Ice	47524.44	-61155.36	-61926.81	-5621.39	5481.10	105.08
1.2 Dead+1.0 Wind 330 deg - No Ice	63365.92	-43501.19	-76056.20	-6891.29	3902.85	72.05
0.9 Dead+1.0 Wind 330 deg - No Ice	47524.44	-43501.19	-76056.20	-6886.32	3902.18	72.05
1.2 Dead+1.0 Ice	143988.88	-0.00	-0.00	-148.51	3.85	0.00
1.2 Dead+1.0 Wind 0 deg+1.0	143988.88	-25.46	-24555.22	-2319.16	8.10	0.94
1.2 Dead+1.0 Wind 30 deg+1.0	143988.88	12019.39	-21018.69	-2017.31	-1056.01	-13.74
1.2 Dead+1.0 Wind 45 deg+1.0	143988.88	16969.04	-17122.10	-1671.87	-1494.18	-19.83
1.2 Dead+1.0 Wind 60 deg+1.0	143988.88	20730.83	-12074.67	-1223.16	-1826.99	-24.58
1.2 Dead+1.0 Wind 90 deg+1.0	143988.88	24002.52	-2.59	-149.22	-2109.00	-28.98
1.2 Dead+1.0 Wind 120	143988.88	21029.36	12242.98	930.47	-1836.23	-25.66
1.2 Dead+1.0 Wind 135	143988.88	17083.77	17227.20	1375.40	-1496.43	-21.27
1.2 Dead+1.0 Wind 150	143988.88	12029.36	20990.92	1715.12	-1057.32	-15.43

### tnxTower

**Centek Engineering Inc.** 63-2 North Branford Rd. Branford, CT 06405 Phone: (203) 488-0580 FAX: (203) 488-8587

wer	Job	22027.01 - Westport	Page 53 of 71
e <b>ering Inc.</b> nford Rd.	Project	180-ft Lattice Tower (CSP #32)	Date 07:59:09 09/20/22
7 06405 188-0580 88-8587	Client	Verizon	Designed by TJL

Load Combination	Vertical	Shear <sub>x</sub>	Shearz	Overturning Moment, M <sub>x</sub>	Overturning Moment, Mz	Torque
	lb	lb	lb	kip-ft	kip-ft	kip-ft
deg+1.0 Ice						
1.2 Dead+1.0 Wind 180	143988.88	28.70	24155.36	2001.42	-0.97	-1.07
deg+1.0 Ice						
1.2 Dead+1.0 Wind 210	143988.88	-11994.91	20974.85	1712.54	1059.37	13.41
deg+1.0 Ice						
1.2 Dead+1.0 Wind 225	143988.88	-16928.29	17075.01	1366.52	1494.67	19.51
deg+1.0 Ice						
1.2 Dead+1.0 Wind 240	143988.88	-21004.61	12208.92	924.89	1839.80	24.26
deg+1.0 Ice						
1.2 Dead+1.0 Wind 270	143988.88	-23993.35	-48.83	-156.89	2115.07	28.70
deg+1.0 Ice						
1.2 Dead+1.0 Wind 300	143988.88	-20734.87	-12113.21	-1229.54	1835.14	25.50
deg+1.0 Ice						
1.2 Dead+1.0 Wind 315	143988.88	-16992.89	-17152.88	-1676.95	1505.73	21.10
deg+1.0 Ice						
1.2 Dead+1.0 Wind 330	143988.88	-12056.77	-21042.81	-2021.32	1069.87	15.28
deg+1.0 Ice						
Dead+Wind 0 deg - Service	52804.93	-35.68	-19307.76	-1746.60	8.21	-1.37
Dead+Wind 30 deg - Service	52804.93	9346.14	-16396.68	-1500.00	-834.46	-17.84
Dead+Wind 45 deg - Service	52804.93	13180.31	-13335.27	-1224.36	-1180.05	-24.40
Dead+Wind 60 deg - Service	52804.93	16074.45	-9386.05	-867.14	-1440.65	-29.32
Dead+Wind 90 deg - Service	52804.93	18645.46	-2.23	-17.33	-1662.26	-33.13
Dead+Wind 120 deg - Service	52804.93	16466.11	9608.17	840.03	-1453.08	-28.15
Dead+Wind 135 deg - Service	52804.93	13331.82	13473.77	1192.13	-1183.28	-22.61
Dead+Wind 150 deg - Service	52804.93	9361.81	16360.41	1460.06	-836.61	-15.55
Dead+Wind 180 deg - Service	52804.93	40.07	18782.42	1685.74	-4.48	1.19
Dead+Wind 210 deg - Service	52804.93	-9313.04	16337.42	1456.35	833.10	17.40
Dead+Wind 225 deg - Service	52804.93	-13125.22	13271.62	1179.93	1174.80	23.96
Dead+Wind 240 deg - Service	52804.93	-16431.38	9559.92	832.11	1451.79	28.88
Dead+Wind 270 deg - Service	52804.93	-18633.06	-67.27	-28.13	1664.57	32.76
Dead+Wind 300 deg - Service	52804.93	-16081.17	-9440.33	-876.13	1445.99	27.93
Dead+Wind 315 deg - Service	52804.93	-13214.34	-13378.67	-1231.54	1190.07	22.38
Dead+Wind 330 deg - Service	52804.93	-9398.87	-16430.55	-1505.64	847.68	15.35

### **Solution Summary**

	Sui	n of Applied Force.	5		Sum of Reaction	IS	
Load	PX	PY	PZ	PX	PY	PZ	% Error
Comb.	lb	lb	lb	lb	lb	lb	
1	0.00	-52804.93	0.00	0.00	52804.93	0.00	0.000%
2	-167.50	-63365.92	-89396.62	167.50	63365.92	89396.62	0.000%
3	-167.50	-47524.44	-89396.62	167.50	47524.44	89396.62	0.000%
4	43253.67	-63365.92	-75897.19	-43253.67	63365.92	75897.19	0.000%
5	43253.67	-47524.44	-75897.19	-43253.67	47524.44	75897.19	0.000%
6	60995.58	-63365.92	-61723.07	-60995.58	63365.92	61723.07	0.000%
7	60995.58	-47524.44	-61723.07	-60995.58	47524.44	61723.07	0.000%
8	74384.49	-63365.92	-43440.99	-74384.49	63365.92	43440.99	0.000%
9	74384.49	-47524.44	-43440.99	-74384.49	47524.44	43440.99	0.000%
10	86287.49	-63365.92	-10.46	-86287.49	63365.92	10.46	0.000%
11	86287.49	-47524.44	-10.46	-86287.49	47524.44	10.46	0.000%
12	76223.15	-63365.92	44483.71	-76223.15	63365.92	-44483.71	0.000%
13	76223.15	-47524.44	44483.71	-76223.15	47524.44	-44483.71	0.000%
14	61706.87	-63365.92	62373.23	-61706.87	63365.92	-62373.23	0.000%
15	61706.87	-47524.44	62373.23	-61706.87	47524.44	-62373.23	0.000%
16	43327.23	-63365.92	75726.94	-43327.23	63365.92	-75726.94	0.000%
17	43327.23	-47524.44	75726.94	-43327.23	47524.44	-75726.94	0.000%
18	188.11	-63365.92	86930.45	-188.11	63365.92	-86930.45	0.000%
19	188.11	-47524.44	86930.45	-188.11	47524.44	-86930.45	0.000%

*tnxTower* 

Job

Project

Client

22027.01 - Westport

Page 54 of 71 Date 07:59:09 09/20/22 Designed by

**Centek Engineering Inc.** 63-2 North Branford Rd. Branford, CT 06405 Phone: (203) 488-0580 FAX: (203) 488-8587

Verizon

180-ft Lattice Tower (CSP #32)

Designed by TJL

	Sui	n of Applied Forces	1		Sum of Reaction	S	
Load	PX	PY	PZ	PX	PY	PZ	% Error
Comb.	lb	lb	lb	lb	lb	lb	
20	-43098.27	-63365.92	75619.00	43098.27	63365.92	-75619.00	0.000%
21	-43098.27	-47524.44	75619.00	43098.27	47524.44	-75619.00	0.000%
22	-60736.99	-63365.92	61424.24	60736.99	63365.92	-61424.24	0.000%
23	-60736.99	-47524.44	61424.24	60736.99	47524.44	-61424.24	0.000%
24	-76060.10	-63365.92	44257.23	76060.10	63365.92	-44257.23	0.000%
25	-76060.10	-47524.44	44257.23	76060.10	47524.44	-44257.23	0.000%
26	-86229.28	-63365.92	-315.80	86229.28	63365.92	315.80	0.000%
27	-86229.28	-47524 44	-315.80	86229.28	47524 44	315.80	0.000%
28	-74416.07	-63365.92	-43695.84	74416.07	63365.92	43695.84	0.000%
29	-74416.07	-47524.44	-43695.84	74416.07	47524.44	43695.84	0.000%
30	-61155.36	-63365.92	-61926.81	61155.36	63365.92	61926.81	0.000%
31	-61155.36	-47524 44	-61926.81	61155.36	47524 44	61926.81	0.000%
32	-43501.19	-63365.92	-76056.20	43501.19	63365.92	76056.20	0.000%
33	-43501.19	-47524 44	-76056.20	43501.19	47524 44	76056.20	0.000%
34	0.00	-143988 88	0.00	0.00	143988 88	0.00	0.000%
35	-25.46	-143988.88	-24555 22	25.46	143988 88	24555 22	0.000%
36	12019 39	-143988.88	-21018.69	-12019 39	143988 88	21018.69	0.000%
37	16969.04	-143988.88	-17122.10	-16969.04	143988 88	17122 10	0.000%
38	20730.83	-143988.88	-12074.67	-20730.83	143988 88	12074 67	0.000%
30	24002.52	-143988.88	-12074.07	-24002 52	143088 88	2 59	0.000%
40	21029.36	-143088.88	12242.08	-21020.32	143088 88	-12242.08	0.000%
40	17083 77	-143088.88	172272.98	-17083 77	143088 88	-17227 20	0.000%
42	12029.36	-143088.88	20000.02	-12029.36	143088 88	-20000.02	0.000%
43	28 70	-143088.88	24155.36	-12029.50	143088 88	-24155.36	0.000%
45	-11994 91	-143988.88	20074.85	11004 01	143988 88	-24155.50	0.000%
45	16028.20	1/3088.88	17075.01	16028.20	1/3088.88	17075.01	0.000%
45	21004.61	1/2088.88	12208.02	21004.61	142088 88	12208.02	0.00078
40	22002.25	1/2088 88	12200.92	22002.25	142088 88	-12200.92	0.00076
47	-23993.33	1/2088 88	12112 21	23993.33	142088 88	40.03	0.00076
40	-20/34.8/	-143900.00	-12115.21	20/34.8/	143900.00	12115.21	0.000%
49	12056 77	-143900.00	-1/152.00	10992.09	143900.00	21042.00	0.000%
50	-12030.77	-143900.00	-21042.81	25.49	52804.02	21042.81	0.000%
51	-55.08	-52804.95	-19307.70	55.00 0246.14	52804.95	19307.70	0.000%
52	9340.14	-52804.95	-10390.08	-9340.14	52804.95	10390.08	0.000%
55	15180.51	-52804.95	-15555.27	-15180.51	52804.95	13333.27	0.000%
54	100/4.45	-52804.95	-9380.05	-100/4.45	52804.95	9380.05	0.000%
33 57	18045.40	-52804.95	-2.23	-18045.40	52804.95	2.23	0.000%
50	10400.11	-52804.93	9608.17	-16466.11	52804.93	-9608.17	0.000%
57	13331.82	-52804.93	134/3.77	-13331.82	52804.93	-134/3.77	0.000%
58	9361.81	-52804.93	16360.41	-9361.81	52804.93	-16360.41	0.000%
59	40.07	-52804.93	18/82.42	-40.07	52804.93	-18/82.42	0.000%
60	-9313.04	-52804.93	16337.42	9313.04	52804.93	-16337.42	0.000%
61	-13125.22	-52804.93	13271.62	13125.22	52804.93	-13271.62	0.000%
62	-16431.38	-52804.93	9559.92	16431.38	52804.93	-9559.92	0.000%
63	-18633.06	-52804.93	-67.27	18633.06	52804.93	67.27	0.000%
64	-16081.17	-52804.93	-9440.33	16081.17	52804.93	9440.33	0.000%
65	-13214.34	-52804.93	-13378.67	13214.34	52804.93	13378.67	0.000%
66	-9398.87	-52804.93	-16430.55	9398.87	52804.93	16430.55	0.000%

### **Maximum Tower Deflections - Service Wind**

Section	Elevation	Horz.	Gov.	Tilt	Twist
No.		Deflection	Load		
	ft	in	Comb.	0	0
T1	180 - 160	1.966	51	0.0839	0.0576
T2	160 - 140	1.610	51	0.0824	0.0528
T3	140 - 133.333	1.254	51	0.0747	0.0396

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Centek Engineering Inc. 63-2 North Branford Rd.	Project	180-ft Lattice Tower (CSP #32)	Date 07:59:09 09/20/22
Branford, CT 06405 Phone: (203) 488-0580 FAX: (203) 488-8587	Client	Verizon	Designed by TJL

Section	Elevation	Horz.	Gov.	Tilt	Twist
No.		Deflection	Load		
	ft	in	Comb.	0	0
T4	133.333 - 126.667	1.146	51	0.0723	0.0367
T5	126.667 - 120	1.037	51	0.0696	0.0343
T6	120 - 100	0.935	51	0.0661	0.0332
<b>T</b> 7	100 - 90	0.672	51	0.0530	0.0296
T8	90 - 80	0.555	51	0.0468	0.0263
Т9	80 - 60	0.452	51	0.0399	0.0228
T10	60 - 40	0.273	51	0.0309	0.0165
T11	40 - 30	0.138	51	0.0206	0.0110
T12	30 - 20	0.085	51	0.0151	0.0082
T13	20 - 0	0.046	56	0.0094	0.0057

### **Critical Deflections and Radius of Curvature - Service Wind**

Elevation	Appurtenance	Gov.	Deflection	Tilt	Twist	Radius of
		Load				Curvature
ft		Comb.	in	0	0	ft
187.00	ANT940Y10-WR	51	1.966	0.0839	0.0576	458326
181.00	ANT940Y10-WR	51	1.966	0.0839	0.0576	458326
177.00	PA6-65AC	51	1.913	0.0839	0.0573	458326
170.00	RFI BPS7496-180-14 Panel	51	1.790	0.0838	0.0562	229162
	Antenna					
169.00	3' Yagi	51	1.772	0.0837	0.0560	208329
160.00	ROHN 6'x15' Boom Gate (1)	51	1.610	0.0824	0.0528	137188
133.00	QD6616-7	51	1.140	0.0722	0.0366	195315
125.00	LTF12=372 Sector Mount (1)	51	1.011	0.0688	0.0340	61627
113.00	ANT150D	51	0.837	0.0617	0.0323	81282
60.00	GPS	51	0.273	0.0309	0.0165	101235

### Maximum Tower Deflections - Design Wind

Section	Elevation	Horz.	Gov.	Tilt	Twist
No.		Deflection	Load		
	ft	in	Comb.	0	D
T1	180 - 160	8.972	2	0.3771	0.2704
T2	160 - 140	7.369	2	0.3723	0.2477
T3	140 - 133.333	5.743	2	0.3407	0.1858
T4	133.333 - 126.667	5.249	2	0.3301	0.1723
T5	126.667 - 120	4.751	2	0.3178	0.1608
T6	120 - 100	4.284	2	0.3019	0.1561
<b>T</b> 7	100 - 90	3.083	2	0.2423	0.1389
T8	90 - 80	2.548	2	0.2136	0.1235
T9	80 - 60	2.073	2	0.1822	0.1072
T10	60 - 40	1.257	2	0.1410	0.0776
T11	40 - 30	0.637	2	0.0941	0.0518
T12	30 - 20	0.394	3	0.0690	0.0385
T13	20 - 0	0.212	3	0.0429	0.0267

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

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Centek Engineering Inc.	Project		Date
63-2 North Branford Rd.		180-ft Lattice Tower (CSP #32)	07:59:09 09/20/22
Branford, CT 06405	Client		Designed by
FAX: (203) 488-8587		Verizon	TJL

Elevation	Appurtenance	Gov.	Deflection	Tilt	Twist	Radius of
		Load				Curvature
ft		Comb.	in	0	0	ft
187.00	ANT940Y10-WR	2	8.972	0.3771	0.2704	115833
181.00	ANT940Y10-WR	2	8.972	0.3771	0.2704	115833
177.00	PA6-65AC	2	8.735	0.3775	0.2689	115833
170.00	RFI BPS7496-180-14 Panel	2	8.179	0.3775	0.2639	57917
	Antenna					
169.00	3' Yagi	2	8.099	0.3773	0.2629	52652
160.00	ROHN 6'x15' Boom Gate (1)	2	7.369	0.3723	0.2477	35260
133.00	QD6616-7	2	5.224	0.3295	0.1717	43573
125.00	LTF12=372 Sector Mount (1)	2	4.630	0.3142	0.1595	13399
113.00	ANT150D	2	3.836	0.2818	0.1515	17744
60.00	GPS	2	1.257	0.1410	0.0776	22285

# Bolt Design Data

Section No.	Elevation ft	Component Type	Bolt Grade	Bolt Size in	Number Of Bolts	Maximum Load per Bolt	Allowable Load per Bolt	Ratio Load Allowable	Allowable Ratio	Criteria
T1	180	Diagonal	A325N	0.6250	3	<u>lb</u> 1338.30	<u>lb</u> 13805.80		1	Bolt Shear
	100	Horizontal	A325N	0.6250	2	1078 54	13805.80	0.097	1	Bolt Shear
		Top Girt	A325N	0.6250	2	177 38	13805.80	0.078	1	Bolt Shear
т2	160	Leg	A325N	0.8750	4	1492.37	41556.00	0.013	1	Bolt Tension
12	100	Diagonal	A325N	0.6250	3	2832.86	13805.80	0.036	1	Bolt Shear
		Horizontal	A325N	0.6250	2	2650.03	13805.80	0.205	1	Bolt Shear
Т3	140	Leg	A325N	1.0000	4	7806.71	54517.00	0.192	1	Bolt Tension
15	140	Diagonal	A325N	0.6250	3	2011 71	13805.80	0.143	1	Bolt Shear
		Horizontal	A325N	0.6250	2	2911.71	13805.80	0.211	1	Bolt Shear
т4	122 222	Diagonal	A225N	0.6250	2	4027.80	12805.80	0.204	1	Bolt Shear
14	155.555	Diagonai Ton Cint	A225N	0.6250	2	4027.80	12805.80	0.292	1	Bolt Shear
Τć	106.667	Discourt	A325N	0.0250	2	4055.77	12005.00	0.294 🖌	1	Bolt Shear
15	120.007	Diagonal	A325N	0.6250	3	4667.68	13805.80	0.338 🖌	1	Bolt Shear
		Top Girt	A325N	0.6250	2	4797.81	13805.80	0.348 🖌	1	Bolt Shear
T6	120	Leg	A325N	1.0000	6	10907.10	54517.00	0.200 🖌	1	Bolt Tension
		Diagonal	A325N	0.6250	3	6227.97	13805.80	0.451 🖌	1	Bolt Shear
		Horizontal	A325N	0.6250	2	5565.63	13805.80	0.403 🖌	1	Bolt Shear
<b>T</b> 7	100	Leg	A325N	1.0000	6	18222.50	54517.00	0.334 🖌	1	Bolt Tension
		Diagonal	A325N	0.6250	3	5918.19	13805.80	0.429	1	Bolt Shear
		Horizontal	A325N	0.6250	2	5641.55	13805.80	0.400	1	Bolt Shear
Т8	90	Diagonal	A325N	0.6250	3	6036.04	13805.80	0.437	1	Bolt Shear
		Top Girt	A325N	0.6250	2	6013.71	13805.80	0.436	1	Bolt Shear
Т9	80	Leg	A325N	1.0000	8	18680.50	54517.00	0.430	1	Bolt Tension
		Diagonal	A325N	0.6250	3	6585.70	13805.80	0.343	1	Bolt Shear
		Horizontal	A325N	0.6250	2	7056.11	13805.80	0.511	1	Bolt Shear
T10	60	Leg	A325N	1.0000	8	23763.40	54517.00	0.436	1	Bolt Tension

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Centek Engineering Inc. 63-2 North Branford Rd.	Project	180-ft Lattice Tower (CSP #32)	Date 07:59:09 09/20/22
Branford, CT 06405 Phone: (203) 488-0580 FAX: (203) 488-8587	Client	Verizon	Designed by TJL

Section	Elevation	Component	Bolt	Bolt Size	Number	Maximum	Allowable	Ratio	Allowable	Criteria
No.		Туре	Grade		Of	Load	Load	Load	Ratio	
	ft			in	Bolts	per Bolt	per Bolt	Allowable		
						lb	lb			
		Diagonal	A325N	0.6250	3	7153.97	13805.80	0.518 🖌	1	Bolt Shear
		Horizontal	A325N	0.6250	2	8077.33	13805.80	0.585 🖌	1	Bolt Shear
T11	40	Leg	A325N	1.0000	8	28950.60	54517.00	0.531 🖌	1	Bolt Tension
		Diagonal	A325N	0.6250	3	7351.56	13805.80	0.532 🖌	1	Bolt Shear
		Horizontal	A325N	0.6250	2	8500.84	13805.80	0.616 🖌	1	Bolt Shear
T12	30	Diagonal	A325N	0.6250	3	7568.59	13805.80	0.548 🖌	1	Bolt Shear
		Top Girt	A325N	0.6250	2	8870.92	13805.80	0.643 🖌	1	Bolt Shear
T13	20	Leg	A325N	1.0000	8	33884.80	54517.00	0.622 🗸	1	Bolt Tension
		Diagonal	A325X	0.6250	3	11219.40	17257.30	0.650 🖌	1	Bolt Shear
		Horizontal	A325N	0.7500	2	9403.09	19880.40	0.473 🖌	1	Bolt Shear

### **Compression Checks**

		Leg [	Desig	n Dat	a (Coi	mpres	ssion)		
Section	Elevation	Size	L	L <sub>u</sub>	Kl/r	A	P <sub>u</sub>	$\phi P_n$	Ratio
No.	ft		ft	ft		in <sup>2</sup>	lb	lb	$\frac{P_u}{\Phi P_n}$
<b>T</b> 1	180 - 160	ROHN 3 STD	20.00	6.67	68.8 K=1.00	2.2285	-4181.17	70976.40	0.059 1
T2	160 - 140	ROHN 4 STD	20.04	6.68	53.1 K=1.00	3.1741	-29215.50	116229.00	0.251 1
Т3	140 - 133.333	ROHN 5 EH	6.68	6.68	43.6 K=1.00	6.1120	-38564.20	239378.00	$0.161^{-1}$
T4	133.333 - 126.667	ROHN 5 EH	6.68	6.68	43.6 K=1.00	6.1120	-49914.00	239378.00	0.209 1
Т5	126.667 - 120	ROHN 5 EH	6.68	6.68	43.6 K=1.00	6.1120	-64486.00	239378.00	$0.269^{-1}$
T6	120 - 100	ROHN 6 EHS	20.04	10.02	54.0 K=1.00	6.7133	-104217.00	244017.00	$0.427^{-1}$
Τ7	100 - 90	ROHN 6 EH	10.03	10.03	54.8 K=1.00	8.4049	-128049.00	303585.00	$0.422^{-1}$
Т8	90 - 80	ROHN 6 EH	10.03	10.03	54.8 K=1.00	8.4049	-149787.00	303585.00	0.493 <sup>1</sup>
Т9	80 - 60	120deg_9.6250x0.375 BU on ROHN 8 EHS	20.05	10.03	42.2 K=1.00	13.6005	-193904.00	537270.00	0.361 1
T10	60 - 40	1/3 9.6250x0.375 on ROHN 8 EHS Leg Pipe	20.05	10.03	42.2 K=1.00	13.6005	-240152.00	460811.00	0.521 1
T11	40 - 30	1/3 9.6250x0.375 on ROHN 8 EHS Leg Pipe	10.03	10.03	42.2 K=1.00	13.6005	-263727.00	460811.00	$0.572^{-1}$
T12	30 - 20	1/3 9.6250x0.375 on ROHN 8 EHS Leg Pipe	10.03	10.03	42.2 K=1.00	13.6005	-287313.00	460811.00	0.623 <sup>1</sup>
T13	20 - 0	1/3 9.6250x0.375 on ROHN	20.05	10.03	42.9	16.6002	-310553.00	560408.00	0.554 <sup>1</sup>

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<b>Centek Engineering Inc.</b> 63-2 North Branford Rd.	Project 180-ft Lattice Tower (CSP #32)	Date 07:59:09 09/20/22
Branford, CT 06405 Phone: (203) 488-0580 FAX: (203) 488-8587	Client Verizon	Designed by TJL
111. (203) 400-0307	I	

Section	Elevation	Size	L	$L_u$	Kl/r	Α	$P_u$	$\phi P_n$	Ratio
No.									$P_u$
	ft		ft	ft		in²	lb	lb	$\phi P_n$
		8 EH Leg Pipe			K=1.00				<ul> <li>✓</li> </ul>

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

	Diagonal Design Data (Compression)									
Section No.	Elevation	Size	L	$L_u$	Kl/r	Α	$P_u$	$\phi P_n$	Ratio $P_u$	
	ft		ft	ft		$in^2$	lb	lb	$\phi P_n$	
T1	180 - 160	ROHN 2 STD	7.94	7.67	117.0 K=1.00	1.0745	-4014.91	17747.50	0.226 1	
T2	160 - 140	ROHN 2 STD	8.55	8.25	125.8 K=1.00	1.0745	-8498.57	15331.30	0.554 1	
Т3	140 - 133.333	ROHN 2 EH	8.77	8.42	131.5 K=1.00	1.4807	-8735.13	19347.50	0.451	
Τ4	133.333 - 126.667	ROHN 2 EH	9.00	8.66	135.3 K=1.00	1.4807	-12083.40	18285.10	0.661	
Т5	126.667 - 120	ROHN 2 XXS	9.24	8.91	152.1 K=1.00	2.6559	-14003.00	25935.80	0.540 <sup>1</sup>	
T6	120 - 100	Pipe 2.5 XXS	12.52	12.06	171.4 K=1.00	4.0285	-18683.90	30977.00	0.603 1	
T7	100 - 90	ROHN 3 STD	12.92	12.49	128.8 K=1.00	2.2285	-17754.60	30346.40	0.585 1	
Т8	90 - 80	ROHN 3 STD	13.35	12.93	133.4 K=1.00	2.2285	-18108.10	28290.90	0.640 <sup>1</sup>	
Т9	80 - 60	ROHN 3 STD	14.21	13.70	141.3 K=1.00	2.2285	-19757.10	25233.20	0.783 <sup>1</sup>	
T10	60 - 40	ROHN 3 EH	15.12	14.64	154.6 K=1.00	3.0159	-21461.90	28518.80	0.753 <sup>1</sup>	
T11	40 - 30	ROHN 3 EH	15.60	15.12	159.7 K=1.00	3.0159	-22054.70	26718.70	$0.825^{-1}$	
T12	30 - 20	ROHN 3 EH	16.08	15.62	164.9 K=1.00	3.0159	-22705.80	25055.10	0.906 <sup>1</sup>	
T13	20 - 0	ROHN 3 EH	24.33	23.70	125.1 K=0.50	3.0159	-33658.20	43506.30	0.774 <sup>1</sup>	

		Horizoi	ntal De	sign	Data (	Comp	ressior	ו)	
Section	Elevation	Size	L	L <sub>u</sub>	Kl/r	A	P <sub>u</sub>	$\phi P_n$	Ratio
140.	ft		ft	ft		$in^2$	lb	lb	$\frac{1}{\phi P_n}$
T1	180 - 160	ROHN 1.5 STD	8.60	4.15	80.0 K=1.00	0.7995	-2157.09	22519.90	0.096 1
T2	160 - 140	ROHN 1.5 STD	10.01	4.82	92.9 K=1.00	0.7995	-5271.06	19142.00	0.275 1

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Contak Engineering Inc	Project		Date
63-2 North Branford Rd.		180-ft Lattice Tower (CSP #32)	07:59:09 09/20/22
Branford, CT 06405	Client		Designed by
Phone: (203) 488-0580		Verizon	TJL
FAX: (203) 488-858/			

Section	Elevation	Size	L	$L_u$	Kl/r	Α	$P_u$	$\phi P_n$	Ratio
No.	ft		ft	ft		$in^2$	lb	lb	$\frac{P_u}{\phi P_n}$
									~
T3	140 - 133.333	ROHN 2 STD	10.71	5.12	78.1 K=1.00	1.0745	-5609.19	30956.80	0.181 <sup>1</sup>
T6	120 - 100	ROHN 2 STD	13.92	6.68	101.9 K=1.00	1.0745	-11031.20	22639.20	0.487 <sup>1</sup>
T7	100 - 90	ROHN 2 STD	15.04	7.24	110.5 K=1.00	1.0745	-11172.70	19817.20	0.564 <sup>1</sup>
Т9	80 - 60	ROHN 2.5 STD	18.93	9.10	115.2 K=1.00	1.7040	-13921.40	28984.30	0.480 <sup>1</sup>
T10	60 - 40	ROHN 2.5 STD	21.43	10.35	131.1 K=1.00	1.7040	-15864.60	22405.40	0.708 1
T11	40 - 30	ROHN 2.5 STD	22.68	10.97	139.0 K=1.00	1.7040	-16707.20	19925.90	0.838 <sup>1</sup>
T13	20 - 0	P3.5x.226	25.18	12.23	109.8 K=1.00	2.6795	-18790.40	49951.20	0.376 1

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

### Top Girt Design Data (Compression)

Section No.	Elevation	Size	L	$L_u$	Kl/r	A	$P_u$	$\phi P_n$	Ratio $P_u$
	ft		ft	ft		$in^2$	lb	lb	$\phi P_n$
T1	180 - 160	ROHN 1.5 STD	8.54	4.13	79.5 K=1.00	0.7995	-354.75	22660.50	0.016 1
T4	133.333 - 126.667	ROHN 2 STD	11.40	5.47	83.4 K=1.00	1.0745	-8093.91	29081.40	0.278 <sup>1</sup>
T5	126.667 - 120	ROHN 2 STD	12.10	5.82	88.7 K=1.00	1.0745	-9594.67	27207.90	0.353 1
Т8	90 - 80	ROHN 2 STD	16.36	7.90	120.5 K=1.00	1.0745	-11869.70	16719.60	0.710 1
T12	30 - 20	ROHN 2.5 EH	23.93	11.60	150.6 K=1.00	2.2535	-17329.10	22438.80	0.772 <sup>1</sup>

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

Section	Elevation	Size	L	$L_u$	Kl/r	A	$P_u$	$\phi P_n$	Ratio
No.									$P_u$
	ft		ft	ft		$in^2$	lb	lb	$\phi P_n$
T13	20 - 0	ROHN 1.5 STD	6.29	5.93	114.4	0.7995	-5389.42	13802.80	$0.390^{-1}$
					K=1.00				~

<i>tnx1ower</i>
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Project		Date
	180-ft Lattice Tower (CSP #32)	07:59:09 09/20/22
Client	Verizon	Designed by TJL

### Redundant Diagonal (1) Design Data (Compression)

Section	Elevation	Size	L	$L_u$	Kl/r	Α	$P_u$	$\phi P_n$	Ratio
No.	ft		ft	ft		in <sup>2</sup>	lb	lb	$\frac{P_u}{\phi P_n}$
T13	20 - 0	ROHN 2 STD	11.50	10.77	164.2 K=1.00	1.0745	-4923.79	8998.85	0.547 1

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

Redundant Hip (1) Design Data (Compression)									
Section	Elevation	Size	L	La	Kl/r	A	Pu	ф <i>Р.</i> ,	Ratio
No.				-u		. 2	- u	φ. η	$P_u$
	ft		ft	ft		in*	lb	lb	$\phi P_n$
T13	20 - 0	ROHN 2.5 STD	6.29	6.29	79.7 K=1.00	1.7040	-17.35	48180.50	0.000

		Inner Br	in Dat	Data (Compression)					
Section No.	Elevation	Size	L	$L_u$	Kl/r	A	$P_u$	$\phi P_n$	Ratio P <sub>u</sub>
	ft		ft	ft		$in^2$	lb	lb	$\phi P_n$
T1	180 - 160	L2x2x1/8	4.30	4.30	129.8 K=1.00	0.4844	-1.85	8234.10	0.000 1
Т2	160 - 140	L2x2x1/8	4.31	4.31	130.2 K=1.00	0.4844	-6.57	8181.36	0.001 1
Т3	140 - 133.333	L2x2x1/8	5.35	5.35	161.6 K=1.00	0.4844	-6.41	5306.96	0.001 1
Τ4	133.333 - 126.667	L2x2x1/8	5.70	5.70	172.1 K=1.00	0.4844	-9.52	4680.37	0.002 1
Т5	126.667 - 120	L2x2x1/8	6.05	6.05	182.6 K=1.00	0.4844	-10.34	4158.54	0.002 1
Т6	120 - 100	L2 1/2x2 1/2x3/16	6.96	6.96	168.7 K=1.00	0.9020	-11.47	9072.37	0.001 1
<b>T</b> 7	100 - 90	L2 1/2x2 1/2x3/16	7.52	7.52	182.3 K=1.00	0.9020	-10.85	7766.06	0.001 <sup>1</sup>
Т8	90 - 80	L2 1/2x2 1/2x3/16	8.18	8.18	198.3 K=1.00	0.9020	-11.10	6565.57	0.002 1
Т9	80 - 60	L3x3x3/16	9.46	9.46	190.5 K=1.00	1.0900	-13.04	8593.12	0.002 1
T10	60 - 40	L3 1/2x3 1/2x1/4	10.71	10.71	185.2 K=1.00	1.6900	-15.48	14095.40	0.001 1
<b>T</b> 11	40 - 30	L3 1/2x3 1/2x1/4	11.34	11.34	196.1 K=1.00	1.6900	-15.72	12584.30	0.001 1

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Centek Engineering Inc.	Project		Date			
63-2 North Branford Rd.		180-ft Lattice Tower (CSP #32)	07:59:09 09/20/22			
Branford, CT 06405 Phone: (203) 488-0580	Client	Verizon	Designed by			
FAX: (203) 488-8587			I IJL			

Section	Elevation	Size	L	$L_u$	Kl/r	A	$P_u$	$\phi P_n$	Ratio
No.	ft		ft	ft		in <sup>2</sup>	lb	lb	$\frac{P_u}{\phi P_n}$
T12	30 - 20	L3 1/2x3 1/2x1/4	11.96	11.96	206.9 K=1.00	1.6900	-16.54	11303.80	0.001 1
T13	20 - 0	ROHN 2 STD	12.59	12.59	191.9 K=1.00	1.0745	-14.92	6590.81	0.002 1

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

### **Tension Checks**

	Leg Design Data (Tension)										
Section No.	Elevation	Size	L	$L_u$	Kl/r	A	P <sub>u</sub>	$\phi P_n$	Ratio $P_{\mu}$		
	ft		ft	ft		$in^2$	lb	lb	$\phi P_n$		
T1	180 - 160	ROHN 3 STD	20.00	6.67	68.8	2.2285	2502.81	100281.00	0.025 1		
T2	160 - 140	ROHN 4 STD	20.04	6.68	53.1	3.1741	22435.30	142832.00	$0.157^{-1}$		
Т3	140 - 133.333	ROHN 5 EH	6.68	6.68	43.6	6.1120	31226.80	275039.00	$0.114^{-1}$		
T4	133.333 - 126.667	ROHN 5 EH	6.68	6.68	43.6	6.1120	39742.30	275039.00	0.144 <sup>1</sup>		
T5	126.667 - 120	ROHN 5 EH	6.68	6.68	43.6	6.1120	51166.50	275039.00	$0.186^{-1}$		
T6	120 - 100	ROHN 6 EHS	20.04	10.02	54.0	6.7133	87356.50	302097.00	$0.289^{-1}$		
T7	100 - 90	ROHN 6 EH	10.03	10.03	54.8	8.4049	109335.00	378222.00	0.289 <sup>1</sup>		
Т8	90 - 80	ROHN 6 EH	10.03	10.03	54.8	8.4049	129519.00	378222.00	0.342 <sup>1</sup>		
Т9	80 - 60	120deg_9.6250x0.375 BU on ROHN 8 EHS	20.05	10.03	42.2	13.6005	169690.00	612023.00	$0.277^{-1}$		
T10	60 - 40	1/3 9.6250x0.375 on ROHN 8 EHS Leg Pipe	20.05	10.03	42.2	13.6005	210895.00	514099.00	0.410 <sup>1</sup>		
T11	40 - 30	1/3 9.6250x0.375 on ROHN 8 EHS Leg Pipe	10.03	10.03	42.2	13.6005	231605.00	514099.00	0.451 <sup>1</sup>		
T12	30 - 20	1/3 9.6250x0.375 on ROHN 8 EHS Leg Pipe	10.03	10.03	42.2	13.6005	252172.00	514099.00	0.491 1		
T13	20 - 0	1/3 9.6250x0.375 on ROHN 8 EH Leg Pipe	20.05	10.03	42.9	16.6002	271078.00	627488.00	0.432 1		

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

Diagonal Design Data (Tension)

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Contok Engineering Ine	Project		Date
63-2 North Branford Rd.		180-ft Lattice Tower (CSP #32)	07:59:09 09/20/22
Branford, CT 06405	Client		Designed by
Phone: (203) 488-0580 FAX: (203) 488-8587		Verizon	TJL

Section	Elevation	Size	L	$L_u$	Kl/r	A	$P_u$	$\phi P_n$	Ratio
140.	ft		ft	ft		$in^2$	lb	lb	$\frac{1}{\Phi P_n}$
T1	180 - 160	ROHN 2 STD	7.94	7.67	117.0	1.0745	3947.57	48353.90	0.082 1
T2	160 - 140	ROHN 2 STD	8.55	8.25	125.8	1.0745	8421.58	48353.90	$0.174^{-1}$
T3	140 - 133.333	ROHN 2 EH	8.77	8.42	131.5	1.4807	8625.28	66630.70	0.129 <sup>1</sup>
T4	133.333 - 126.667	ROHN 2 EH	9.00	8.66	135.3	1.4807	11965.00	66630.70	0.180 <sup>1</sup>
Т5	126.667 - 120	ROHN 2 XXS	9.24	8.91	152.1	2.6559	13818.80	119516.00	$0.116^{-1}$
T6	120 - 100	Pipe 2.5 XXS	12.52	12.06	171.4	4.0285	18370.90	181280.00	$0.101^{-1}$
<b>T</b> 7	100 - 90	ROHN 3 STD	12.92	12.49	128.8	2.2285	17536.70	100281.00	$0.175^{-1}$
Т8	90 - 80	ROHN 3 STD	13.35	12.93	133.4	2.2285	17872.20	100281.00	$0.178^{-1}$
Т9	80 - 60	ROHN 3 STD	14.21	13.70	141.3	2.2285	19435.50	100281.00	0.194 <sup>1</sup>
T10	60 - 40	ROHN 3 EH	15.12	14.64	154.6	3.0159	20984.10	135717.00	$0.155^{-1}$
T11	40 - 30	ROHN 3 EH	15.60	15.12	159.7	3.0159	21541.50	135717.00	$0.159^{-1}$
T12	30 - 20	ROHN 3 EH	16.08	15.62	164.9	3.0159	22107.50	135717.00	0.163 <sup>1</sup>
T13	20 - 0	ROHN 3 EH	24.33	23.70	250.3	3.0159	32764.20	135717.00	0.241 <sup>1</sup>

		Hori	zontal	Desig	gn Dat	ta (Tei	nsion)		
Section No.	Elevation	Size	L	L <sub>u</sub>	Kl/r	A	P <sub>u</sub>	$\phi P_n$	Ratio Pu
	ft		ft	ft		$in^2$	lb	lb	$\phi P_n$
T1	180 - 160	ROHN 1.5 STD	8.60	4.15	80.0	0.7995	2152.00	35975.60	0.060 1
T2	160 - 140	ROHN 1.5 STD	10.01	4.82	92.9	0.7995	5300.05	35975.60	0.147 1
Т3	140 - 133.333	ROHN 2 STD	10.71	5.12	78.1	1.0745	5639.07	48353.90	0.117 1
T6	120 - 100	ROHN 2 STD	13.92	6.68	101.9	1.0745	11131.30	48353.90	0.230 1
Τ7	100 - 90	ROHN 2 STD	15.04	7.24	110.5	1.0745	11283.10	48353.90	0.233 1
Т9	80 - 60	ROHN 2.5 STD	18.93	9.10	115.2	1.7040	14112.20	76682.30	0.184 1
T10	60 - 40	ROHN 2.5 STD	21.43	10.35	131.1	1.7040	16154.70	76682.30	0.211
T11	40 - 30	ROHN 2.5 STD	22.68	10.97	139.0	1.7040	17001.70	76682.30	$0.222^{-1}$

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Centek Engineering Inc. 63-2 North Branford Rd.	Project 180-ft Lattice Tower (CSP #32)	Date 07:59:09 09/20/22
Branford, CT 06405 Phone: (203) 488-0580 FAX: (203) 488-8587	Client Verizon	Designed by TJL

Section	Elevation	Size	L	$L_u$	Kl/r	Α	$P_u$	$\phi P_n$	Ratio
No.									$P_u$
	ft		ft	ft		$in^2$	lb	lb	$\phi P_n$
									~
T13	20 - 0	P3.5x.226	25.18	12.23	109.8	2.6795	18806.20	120579.00	$0.156^{-1}$
									<ul> <li>V</li> </ul>

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

Section No.	Elevation	Size	L	$L_u$	Kl/r	A	$P_u$	$\phi P_n$	Ratio $P_u$
	ft		ft	ft		$in^2$	lb	lb	$\phi P_n$
T1	180 - 160	ROHN 1.5 STD	8.54	4.13	79.5	0.7995	324.49	35975.60	0.009 1
T4	133.333 - 126.667	ROHN 2 STD	11.40	5.47	83.4	1.0745	8107.54	48353.90	0.168 1
Т5	126.667 - 120	ROHN 2 STD	12.10	5.82	88.7	1.0745	9595.63	48353.90	0.198 1
T8	90 - 80	ROHN 2 STD	16.36	7.90	120.5	1.0745	12027.40	48353.90	0.249 1
T12	30 - 20	ROHN 2.5 EH	23.93	11.60	150.6	2.2535	17741.80	101409.00	0.175

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

	Redundant Horizontal (1) Design Data (Tension)											
Section	Elevation	Size	L	L <sub>u</sub>	Kl/r	A	$P_u$	$\phi P_n$	Ratio Pr			
1101	ft		ft	ft		$in^2$	lb	lb	$\frac{1}{\phi P_n}$			
T13	20 - 0	ROHN 1.5 STD	6.29	5.93	114.4	0.7995	5389.42	35975.60	0.150 1			

	Redundant Diagonal (1) Design Data (Tension)											
Section No.	Elevation	Size	L	L <sub>u</sub>	Kl/r	A	$P_u$	$\phi P_n$	Ratio P <sub>u</sub>			
	ft		ft	ft		$in^2$	lb	lb	$\phi P_n$			
T13	20 - 0	ROHN 2 STD	11.50	10.77	164.2	1.0745	4923.79	48353.90	0.102 1			

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180-ft Lattice Tower (CSP #32)	07:59:09 09/20/22
Client Verizon	Designed by TJL

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

### Redundant Hip (1) Design Data (Tension)

Section	Elevation	Size	L	$L_{\nu}$	Kl/r	A	$P_{u}$	$\phi P_n$	Ratio
No.						_		<b>T</b> - <i>n</i>	$P_u$
	ft		ft	ft		$in^2$	lb	lb	$\phi P_n$
T13	20 - 0	ROHN 2.5 STD	6.29	6.29	79.7	1.7040	1.52	76682.30	$0.000^{-1}$
									× .

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

		Inner I	Bracin	g Des	ign D	ata (Te	ension	)	
Section No.	Elevation	Size	L	Lu	Kl/r	A	Pu	$\phi P_n$	Ratio Pu
	ft		ft	ft		$in^2$	lb	lb	$\phi P_n$
T1	180 - 160	L2x2x1/8	4.30	4.30	82.4	0.4844	1.85	15693.80	0.000 1
T2	160 - 140	L2x2x1/8	4.31	4.31	82.6	0.4844	4.69	15693.80	$0.000^{-1}$
Т3	140 - 133.333	L2x2x1/8	5.35	5.35	102.6	0.4844	3.60	15693.80	$0.000^{-1}$
Τ4	133.333 - 126.667	L2x2x1/8	5.70	5.70	109.3	0.4844	6.55	15693.80	0.000 <sup>1</sup>
T5	126.667 - 120	L2x2x1/8	6.05	6.05	115.9	0.4844	5.91	15693.80	0.000 1
T6	120 - 100	L2 1/2x2 1/2x3/16	6.40	6.40	98.7	0.9020	3.43	29224.80	0.000 1
<b>T</b> 7	100 - 90	L2 1/2x2 1/2x3/16	7.52	7.52	116.0	0.9020	2.59	29224.80	0.000 1
Т8	90 - 80	L2 1/2x2 1/2x3/16	8.18	8.18	126.2	0.9020	1.69	29224.80	$0.000^{-1}$
Т9	80 - 60	L3x3x3/16	8.84	8.84	113.0	1.0900	2.81	35316.00	$0.000^{-1}$
T10	60 - 40	L3 1/2x3 1/2x1/4	10.09	10.09	111.1	1.6900	0.85	76050.00	0.000 1

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

### Section Capacity Table

Section No.	Elevation ft	Component Type	Size	Critical Element	P lb	${{{\mathscr O}P_{allow}}\ lb}$	% Capacity	Pass Fail
T1	180 - 160	Leg	ROHN 3 STD	1	-2844.41	70976.40	4.0	Pass
		Leg	ROHN 3 STD	2	-2532.28	70976.40	3.6	Pass
		Leg	ROHN 3 STD	3	-4181.17	70976.40	5.9	Pass
T2	160 - 140	Leg	ROHN 4 STD	40	-25087.70	116229.00	21.6	Pass

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<b>teering Inc.</b> ranford Rd.	Project	180-ft Lattice Tower (CSP #32)	Date 07:59:09 09/20/22
CT 06405 9488-0580 488-8587	Client	Verizon	Designed by TJL

Section	Elevation	Component	Size	Critical	P		%	Pass
No	ft	Type		Element	lb	lb	Canacity	Fail
NO.		-57-						
		Leg	ROHN 4 STD	41	-25008.30	116229.00	21.5	Pass
		Leg	ROHN 4 STD	42	-29215.50	116229.00	25.1	Pass
Т3	140 - 133.333	Leg	ROHN 5 EH	79	-33738.10	239378.00	14.1	Pass
		Leg	ROHN 5 FH	80	-33772.90	239378.00	14.1	Pass
		LUg	DOIN 5 EH	00	-55772.90	237378.00	14.1	1 035 Data
		Leg	KOHN 5 EH	81	-38564.20	2393/8.00	16.1	Pass
T4	133.333 -	Leg	ROHN 5 EH	94	-44486.00	239378.00	18.6	Pass
	126.667							
		Leg	ROHN 5 EH	95	-44701.60	239378.00	18.7	Pass
		Lea	ROHN 5 FH	96	-49914 00	239378.00	20.9	Pass
Τ.5	126 667 120	Log	BOIN 5 EU	100	58426.10	220278.00	20.9	Daga
15	120.00/ - 120	Leg	KOHN 5 EH	109	-38420.10	239378.00	24.4	Pass
		Leg	ROHN 5 EH	110	-58801.40	239378.00	24.6	Pass
		Leg	ROHN 5 EH	111	-64486.00	239378.00	26.9	Pass
T6	120 - 100	Leg	ROHN 6 EHS	124	-96759.40	244017.00	39.7	Pass
		Leg	ROHN 6 EHS	125	-97479.30	244017.00	39.9	Pass
		Leg	ROHN 6 FHS	126	-10421700	244017.00	42.7	Pass
<b>T</b> 7	100 00	Log	BOIN CEIL	151	110026.00	202595.00	20.5	Daga
1 /	100 - 90	Leg	KOHN 6 EH	151	-119936.00	303585.00	39.5	Pass
		Leg	ROHN 6 EH	152	-120820.00	303585.00	39.8	Pass
		Leg	ROHN 6 EH	153	-128049.00	303585.00	42.2	Pass
T8	90 - 80	Leg	ROHN 6 EH	166	-141212.00	303585.00	46.5	Pass
		Leg	ROHN 6 EH	167	-142225.00	303585.00	46.8	Pass
		Leg	POUN 6 EU	169	140787.00	303585.00	40.3	Page
-	00 (0	Leg		100	-149/07.00	505585.00	49.5	Fass D
19	80 - 60	Leg	$120 \text{deg}_{9.6250 \times 0.375}$ BU on	181	-184542.00	537270.00	34.3	Pass
			ROHN 8 EHS					
		Leg	120deg 9.6250x0.375 BU on	182	-185765.00	537270.00	34.6	Pass
			ROHN 8 EHS					
		Lea	120deg 9 6250x0 375 BU on	183	-103004.00	537270.00	36.1	Pase
		LUg		105	-175704.00	557270.00	50.1	1 455
-	60 10		KOHN 8 EHS					
T10	60 - 40	Leg	1/3 9.6250x0.375 on ROHN 8	208	-230263.00	460811.00	50.0	Pass
			EHS Leg Pipe					
		Leg	1/3 9.6250x0.375 on ROHN 8	209	-231516.00	460811.00	50.2	Pass
		0	FHS Leg Pipe					
		Lag	1/2 0 6250x0 275 on POHN 8	210	240152.00	460811.00	52.1	Daga
		Leg	1/3 9.0230X0.373 011 KOHN 8	210	-240152.00	400811.00	52.1	rass
			EHS Leg Pipe					
T11	40 - 30	Leg	1/3 9.6250x0.375 on ROHN 8	235	-253542.00	460811.00	55.0	Pass
			EHS Leg Pipe					
		Leg	1/3 9.6250x0.375 on ROHN 8	236	-254874.00	460811.00	55.3	Pass
		8	FHS Leg Pipe					
		Laz	1/2 0 6250 r0 275 cm DOUN 8	227	262727.00	460811.00	57.0	Daga
		Leg	1/3 9.0230X0.373 0II KOHN 8	237	-203/2/.00	400811.00	57.2	rass
			EHS Leg Pipe					
T12	30 - 20	Leg	1/3 9.6250x0.375 on ROHN 8	250	-276863.00	460811.00	60.1	Pass
			EHS Leg Pipe					
		Leg	1/3 9.6250x0.375 on ROHN 8	251	-278266.00	460811.00	60.4	Pass
		8	FHS Leg Pine					
		Lag	1/2 0 6250v0 275 on POHN 8	252	287212.00	460811.00	62.2	Dage
		Leg	1/5 9.0250X0.575 0II KOHN 8	232	-28/515.00	400811.00	02.5	rass
			EHS Leg Pipe					
T13	20 - 0	Leg	1/3 9.6250x0.375 on ROHN 8	265	-299790.00	560408.00	53.5	Pass
			EH Leg Pipe				61.1 (b)	
		Leg	1/3 9 6250x0 375 on ROHN 8	266	-301268.00	560408.00	53 8	Pass
		218	FH Leg Pipe	200	001200100		61.4 (b)	1 100
		T	1/2 0 (250-0 275 DOUDL9	267	210552.00	5(0409.00	55 4	Dura
		Leg	1/5 9.0250X0.5/5 00 KOHN 8	207	-510555.00	300408.00	55.4	Pass
			EH Leg Pipe				62.2 (b)	
T1	180 - 160	Diagonal	ROHN 2 STD	8	-2225.33	17747.50	12.5	Pass
		Diagonal	ROHN 2 STD	9	-1975.39	17747.50	11.1	Pass
		Diagonal	ROHN 2 STD	11	-2189.60	17747.50	12.3	Pass
		Diagonal	ROHN 2 STD	12	-2206 50	17747 50	12.0	Pass
		Diagonal	ROIN 2 STD	14	4014.01	17747.50	12.7	1 488
		Diagonal	KOHN 2 STD	14	-4014.91	1//4/.50	22.6	Pass
		Diagonal	ROHN 2 STD	15	-3580.06	17747.50	20.2	Pass
		Diagonal	ROHN 2 STD	20	-1748.22	17782.20	9.8	Pass
		Diagonal	ROHN 2 STD	21	-1437.37	17782.20	8.1	Pass
		Diagonal	ROHN 2 STD	23	-985 82	17782.20	5 5	Pass
		Diagonal	POUN 2 STD	23	-1115 52	17782.20	62	Dage
		Diagonal	KUHIN 2 STD	24	-1113.32	1//02.20	0.5	rass

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Date

**Centek Engineering Inc.** 63-2 North Branford Rd. Branford, CT 06405 Phone: (203) 488-0580 FAX: (203) 488-8587

Verizon	

180-ft Lattice Tower (CSP #32)

Designed by TJL

07:59:09 09/20/22

G		C t	<i>C</i> :	<i>G</i> ::: 1	D	D	0/	
Section	Elevation	Component	Size	Critical	P		<i>%</i>	Pass
No.	Jt	Туре		Element	lb	lD	Capacity	Fail
		Diagonal	ROHN 2 STD	26	-2751.30	17782.20	15.5	Pass
		Diagonal	ROHN 2 STD	27	-2254.67	17782.20	12.7	Pass
		Diagonal	ROHN 2 STD	31	-513.68	17817.00	2.9	Pass
		Diagonal	ROHN 2 STD	32	-387.62	17817.00	2.2	Pass
		Diagonal	ROHN 2 STD	33	-162.04	17817.00	0.9	Pass
		Diagonal	ROHN 2 STD	34	-154.98	17817.00	0.9	Pass
		Diagonal	ROHN 2 STD	35	-616.68	17817.00	3.5	Pass
		Diagonal	ROHN 2 STD	36	-509.39	17817.00	2.9	Pass
T2	160 - 140	Diagonal	ROHN 2 STD	44	-5283.07	15331.30	34.5	Pass
		Diagonal	ROHN 2 STD	45	-5178.65	15331.30	33.8	Pass
		Diagonal	ROHN 2 STD	47	-6027.25	15331.30	39.3	Pass
		Diagonal	ROHN 2 STD	48	-6017.61	15331.30	39.3	Pass
		Diagonal	ROHN 2 STD	50	-8498.57	15331.30	55.4	Pass
		Diagonal	ROHN 2 STD	51	-8220.74	15331.30	53.6	Pass
		Diagonal	ROHN 2 STD	56	-5156.55	16154.50	31.9	Pass
		Diagonal	ROHN 2 STD	57	-5034.95	16154.50	31.2	Pass
		Diagonal	ROHN 2 STD	59	-6082.95	16154.50	37.7	Pass
		Diagonal	ROHN 2 STD	60	-6072.11	16154.50	37.6	Pass
		Diagonal	ROHN 2 STD	62	-8485.34	16154.50	52.5	Pass
		Diagonal	ROHN 2 STD	63	-8176.46	16154.50	50.6	Pass
		Diagonal	ROHN 2 STD	68	-4924.58	17005.60	29.0	Pass
		Diagonal	ROHN 2 STD	69	-4778.21	17005.60	28.1	Pass
		Diagonal	ROHN 2 STD	71	-6061.25	17005.60	35.6	Pass
		Diagonal	ROHN 2 STD	72	-6052.75	17005.60	35.6	Pass
		Diagonal	ROHN 2 STD	74	-8328.68	17005.60	49.0	Pass
		Diagonal	ROHN 2 STD	75	-7975.49	17005.60	46.9	Pass
T3	140 - 133.333	Diagonal	ROHN 2 EH	83	-5520.75	19347.50	28.5	Pass
		Diagonal	ROHN 2 EH	84	-5431.89	19347.50	28.1	Pass
		Diagonal	ROHN 2 EH	86	-6119.45	19347.50	31.6	Pass
		Diagonal	ROHN 2 EH	87	-6104.25	19347.50	31.6	Pass
		Diagonal	ROHN 2 EH	89	-8735.13	19347.50	45.1	Pass
		Diagonal	ROHN 2 EH	90	-8481.41	19347.50	43.8	Pass
T4	133.333 -	Diagonal	ROHN 2 EH	100	-9097.64	18285.10	49.8	Pass
	126.667	U U						
		Diagonal	ROHN 2 EH	101	-9016.17	18285.10	49.3	Pass
		Diagonal	ROHN 2 EH	102	-9480.08	18285.10	51.8	Pass
		Diagonal	ROHN 2 EH	103	-9471.52	18285.10	51.8	Pass
		Diagonal	ROHN 2 EH	104	-12083.40	18285.10	66.1	Pass
		Diagonal	ROHN 2 EH	105	-11852.50	18285.10	64.8	Pass
T5	126.667 - 120	Diagonal	ROHN 2 XXS	115	-11117.40	25935.80	42.9	Pass
		Diagonal	ROHN 2 XXS	116	-11041.00	25935.80	42.6	Pass
		Diagonal	ROHN 2 XXS	117	-11599.60	25935.80	44.7	Pass
		Diagonal	ROHN 2 XXS	118	-11586.30	25935.80	44.7	Pass
		Diagonal	ROHN 2 XXS	119	-14003.00	25935.80	54.0	Pass
		Diagonal	ROHN 2 XXS	120	-13789.90	25935.80	53.2	Pass
T6	120 - 100	Diagonal	Pipe 2.5 XXS	128	-14137.70	30977.00	45.6	Pass
		Diagonal	Pipe 2.5 XXS	129	-14060.00	30977.00	45.4	Pass
		Diagonal	Pipe 2.5 XXS	131	-16579.40	30977.00	53.5	Pass
		Diagonal	Pipe 2.5 XXS	132	-16546.80	30977.00	53.4	Pass
		Diagonal	Pipe 2.5 XXS	134	-18683.90	30977.00	60.3	Pass
		Diagonal	Pipe 2.5 XXS	135	-18491.00	30977.00	59.7	Pass
		Diagonal	Pipe 2.5 XXS	140	-14179.00	32743.10	43.3	Pass
		Diagonal	Pipe 2.5 XXS	141	-14092.30	32743.10	43.0	Pass
		Diagonal	Pipe 2.5 XXS	143	-15628.20	32743.10	47.7	Pass
		Diagonal	Pipe 2.5 XXS	144	-15597.30	32743.10	47.6	Pass
		Diagonal	Pipe 2.5 XXS	146	-18235.70	32743.10	55.7	Pass
		Diagonal	Pipe 2.5 XXS	147	-18006.90	32743.10	55.0	Pass
<b>T</b> 7	100 - 90	Diagonal	ROHN 3 STD	155	-12997.90	30346.40	42.8	Pass
		Diagonal	ROHN 3 STD	156	-12930.80	30346.40	42.6	Pass
		Diagonal	ROHN 3 STD	158	-16158.90	30346.40	53.2	Pass
		Diagonal	ROHN 3 STD	159	-16091.80	30346.40	53.0	Pass
		-						

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**Centek Engineering Inc.** 63-2 North Branford Rd. Branford, CT 06405 Phone: (203) 488-0580 FAX: (203) 488-8587

180-ft Lattice Tower (CSP #32)

Designed by TJL

Section	Elevation	Component	Size	Critical	Р		%	Pass
No.	ft	Туре	~ * * * *	Element	lb	lb	Capacity	Fail
	_	Diagonal	ROHN 3 STD	161	-17754.60	30346.40	58.5	Pass
		Diagonal	ROHN 3 STD	162	-17617.80	30346.40	58.1	Pass
Т8	90 - 80	Diagonal	ROHN 3 STD	172	-13114.20	28290.90	46.4	Pass
		Diagonal	ROHN 3 STD	173	-13053.70	28290.90	46.1	Pass
		Diagonal	ROHN 3 STD	174	-16854.60	28290.90	59.6	Pass
		Diagonal	ROHN 3 STD	175	-16791.20	28290.90	59.4	Pass
		Diagonal	ROHN 3 STD	176	-18108.10	28290.90	64.0	Pass
		Diagonal	ROHN 3 STD	177	-17994.60	28290.90	63.6	Pass
Т9	80 - 60	Diagonal	ROHN 3 STD	185	-14369.60	25233.20	56.9	Pass
		Diagonal	ROHN 3 STD	186	-14319.40	25233.20	56.7	Pass
		Diagonal	ROHN 3 STD	188	-19038.00	25233.20	75.4	Pass
		Diagonal	ROHN 3 STD	189	-18893.80	25233.20	74.9	Pass
		Diagonal	ROHN 3 STD	191	-19757.10	25233.20	78.3	Pass
		Diagonal	ROHN 3 STD	192	-19672.60	25233.20	78.0	Pass
		Diagonal	ROHN 3 STD	197	-13773.50	26922.60	51.2	Pass
		Diagonal	ROHN 3 STD	198	-13717.60	26922.60	51.0	Pass
		Diagonal	ROHN 3 STD	200	-18061.50	26922.60	67.1	Pass
		Diagonal	ROHN 3 STD	201	-17984.50	26922.60	66.8	Pass
		Diagonal	ROHN 3 STD	203	-19042.80	26922.60	70.7	Pass
	(a) 10	Diagonal	ROHN 3 STD	204	-18943.00	26922.60	70.4	Pass
110	60 - 40	Diagonal	ROHN 3 EH	212	-15651.20	28518.80	54.9	Pass
		Diagonal	ROHN 3 EH	213	-15614.30	28518.80	54.8	Pass
		Diagonal	ROHN 3 EH	215	-21050.60	28518.80	/3.8	Pass
		Diagonal	ROHN 3 EH	210	-20/92.10	28518.80	72.9	Pass
		Diagonal	ROHN 5 EH	218	-21401.90	28518.80	/5.5	Pass
		Diagonal	ROHN 3 EH	219	-21390.00	20310.00	73.0	Pass
		Diagonal	ROHN 3 EH	224	-13200.80	30411.50	30.0	Pass
		Diagonal	ROHN 3 EH	223	-20289.30	30411.50	49.9	Pass
		Diagonal	ROHN 3 EH	227	-20289.30	30411.50	66.0	Pass
		Diagonal	ROHN 3 EH	220	-20897.80	30411.50	68.7	Pass
		Diagonal	ROHN 3 EH	230	-20819.00	30411.50	68.5	Pass
T11	40 - 30	Diagonal	ROHN 3 EH	239	-16072.10	26718.70	60.2	Pass
	10 20	Diagonal	ROHN 3 EH	240	-16036.90	26718.70	60.0	Pass
		Diagonal	ROHN 3 EH	242	-21822.20	26718.70	81.7	Pass
		Diagonal	ROHN 3 EH	243	-21515.10	26718.70	80.5	Pass
		Diagonal	ROHN 3 EH	245	-22054.70	26718.70	82.5	Pass
		Diagonal	ROHN 3 EH	246	-22002.30	26718.70	82.3	Pass
T12	30 - 20	Diagonal	ROHN 3 EH	256	-16724.20	25055.10	66.7	Pass
		Diagonal	ROHN 3 EH	257	-16691.40	25055.10	66.6	Pass
		Diagonal	ROHN 3 EH	258	-22589.00	25055.10	90.2	Pass
		Diagonal	ROHN 3 EH	259	-22251.50	25055.10	88.8	Pass
		Diagonal	ROHN 3 EH	260	-22705.80	25055.10	90.6	Pass
		Diagonal	ROHN 3 EH	261	-22659.70	25055.10	90.4	Pass
T13	20 - 0	Diagonal	ROHN 3 EH	269	-24153.00	43506.30	55.5	Pass
		Diagonal	ROHN 3 EH	272	-24115.70	43506.30	55.4	Pass
		Diagonal	ROHN 3 EH	276	-33658.20	43506.30	77.4	Pass
		Diagonal	ROHN 3 EH	279	-32765.50	43506.30	75.3	Pass
		Diagonal	ROHN 3 EH	284	-33226.80	43506.30	76.4	Pass
_		Diagonal	ROHN 3 EH	287	-33411.60	43506.30	76.8	Pass
T1	180 - 160	Horizontal	ROHN 1.5 STD	7	-1268.15	22519.90	5.6	Pass
		Horizontal	ROHN 1.5 STD	10	-1291.96	22519.90	5.7	Pass
		Horizontal	ROHN 1.5 STD	13	-2157.09	22519.90	9.6	Pass
		Horizontal	KOHN 1.5 STD	19	-1062.26	22590.20	4.7	Pass
		Horizontal	KOHN L5 STD	22	-/23.33	22590.20	5.2	Pass
ТĴ	160 140	Horizontal	ROHN 1.5 STD	25	-1555.96	22590.20	0.9	Pass
12	160 - 140	Horizontal	ROHN 1.5 STD	45	-2209.19	19142.00	17.5	Pass
		Horizontal	ROHN 1.5 STD	40	-3/80.83 5271.04	19142.00	19.8	Pass
		Horizontal	ROHN 1.5 STD	49	-32/1.00	20805.80	27.5	Pass
		Horizontal	ROHN 1.5 STD	33 59	-3131.91	20893.80	13.0	Pass
		nonzontar	KOHN 1.5 STD	20	-2001.17	20093.00	17.0	rass

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~ In a	Project		Date
l Rd.		180-ft Lattice Tower (CSP #32)	07:59:09 09/20/22
05 580	Client	Verizon	Designed by
87		Venzon	TJL

Section	Elevation	Component	Size	Critical	Р		%	Pass
No.	ft	Туре	2120	Element	lb	lb	Capacity	Fail
		Horizontal	ROHN 1.5 STD	61	-5054.61	20895.80	24.2	Pass
		Horizontal	ROHN 1.5 STD	67	-3592.12	22661.30	15.9	Pass
		Horizontal	ROHN 1.5 STD	70	-4030.47	22661.30	17.8	Pass
		Horizontal	ROHN 1.5 STD	73	-4909.96	22661.30	21.7	Pass
Т3	140 - 133.333	Horizontal	ROHN 2 STD	82	-3616.48	30956.80	11.7	Pass
							13.4 (b)	
		Horizontal	ROHN 2 STD	85	-3983.54	30956.80	12.9	Pass
							14.5 (b)	
		Horizontal	ROHN 2 STD	88	-5609.19	30956.80	18.1	Pass
							20.4 (b)	
T6	120 - 100	Horizontal	ROHN 2 STD	127	-8297.26	22639.20	36.6	Pass
		Horizontal	ROHN 2 STD	130	-9976.39	22639.20	44.1	Pass
		Horizontal	ROHN 2 STD	133	-11031.20	22639.20	48.7	Pass
		Horizontal	ROHN 2 STD	139	-7936.63	25586.40	31.0	Pass
		Horizontal	ROHN 2 STD	142	-8951.26	25586.40	35.0	Pass
		Horizontal	ROHN 2 STD	145	-10259.30	25586.40	40.1	Pass
<b>T</b> 7	100 - 90	Horizontal	ROHN 2 STD	154	-8105.97	19817.20	40.9	Pass
		Horizontal	ROHN 2 STD	157	-10403.30	19817.20	52.5	Pass
-		Horizontal	ROHN 2 STD	160	-11172.70	19817.20	56.4	Pass
Т9	80 - 60	Horizontal	ROHN 2.5 STD	184	-9986.73	28984.30	34.5	Pass
							36.6 (b)	_
		Horizontal	ROHN 2.5 STD	187	-13545.50	28984.30	46.7	Pass
		TT 1 1 1	DOIDIACOTD	100	12021 40	20004.20	49.1 (b)	D
		Horizontal	ROHN 2.5 STD	190	-13921.40	28984.30	48.0	Pass
		TT 1 . 1	DOIDIACOTD	107	00(100	22020 40	51.1 (b)	D
		Horizontal	ROHN 2.5 STD	196	-9264.98	33028.40	28.1	Pass
			DOIDIACOTO	100	100000		34.0 (b)	
		Horizontal	ROHN 2.5 STD	199	-12388.80	33028.40	37.5	Pass
		TT ' / 1	DOIDI & COTD	202	10017.00	22020 40	45.1 (b)	D
		Horizontal	ROHN 2.5 STD	202	-12917.20	33028.40	39.1	Pass
<b>T10</b>	60 40	TT ' ( 1	DOIDI 2 C CTD	211	11206.00	22405 40	47.5 (b)	D
110	60 - 40	Horizontal	ROHN 2.5 STD	211	-11386.90	22405.40	50.8	Pass
		Horizontal	ROHN 2.5 STD	214	-15664.80	22405.40	69.9	Pass
		Horizontal	ROHN 2.5 STD	217	-15804.00	22405.40	/0.8	Pass
		Horizontal	ROHN 2.5 STD	225	-10820.50	25378.10	42.0	Pass
		Horizontal	ROHN 2.5 STD	220	-14800.20	25578.10	50.5	Pass
<b>T11</b>	40 20	Horizontal	ROHN 2.5 STD	229	-15125.00	25578.10	39.0	Pass
111	40 - 50	Horizontal	ROHN 2.5 STD	258	-11952.20	19925.90	82.4	Pass
		Horizontal	ROHN 2.5 STD	241	-10014.20	19925.90	03.4	Pass
T12	20 0	Horizontal	ROHN 2.5 STD	244	-10/0/.20	19925.90	83.8 26.2	Pass
115	20-0	Horizontai	F5.5X.220	208	-15159.90	49951.20	20.5 22.4 (b)	Pass
		Horizontal	P3 5x 226	275	-18790-40	49951-20	37.6	Doce
		Homzontar	F5.5X.220	275	-10/90.40	49931.20	47.3 (b)	rass
		Horizontal	P3 5x 226	283	-18676 50	40051-20	37.4	Dace
		Homzontar	15.54.220	205	-18070.50	49951.20	47.2 (b)	1 455
Т1	180 - 160	Top Girt	POHN 1.5 STD	4	220 77	22660 50	47.5(0)	Doce
11	180 - 100	Top Ont	KOIIN 1.5 STD	4	-239.77	22000.50	1.1 1.2 (b)	1 455
		Top Girt	POHN 1.5 STD	5	-126.82	22660 50	1.2 (0)	Pass
		Top Girt	ROHN 1.5 STD	6	-354 75	22660.50	1.6	Pass
Т4	133 333 -	Top Girt	ROHN 2 STD	97	-6507.70	29081.40	22.4	Pass
14	126 667	TopOnt	KOIIN 2 STD	21	-0507.70	29081.40	22.4 23.6 (b)	1 455
	120.007	Top Girt	ROHN 2 STD	98	-6748 51	29081 40	23.0 (0)	Pass
		10p Ont	Rom 2 51D	20	-07-10.51	29001.40	244 (b)	1 455
		Ton Girt	ROHN 2 STD	99	-8093 91	29081-40	27.8	Pass
		TOP OIL	KOIN 2 DID	<u> </u>	-00/57/1	27001.40	29.4 (b)	1 435
Т5	126.667 - 120	Ton Girt	ROHN 2 STD	112	-7598 87	27207 90	27.9	Pass
10	120.007 - 120	Top Girt	ROHN 2 STD	113	-8181 32	27207.90	30.1	Pass
		Top Girt	ROHN 2 STD	114	-9594 67	27207.90	353	Pass
Т8	90 - 80	Top Girt	ROHN 2 STD	169	-8530.85	16719.60	51.0	Pass
10	20 00	Top Girt	ROHN 2 STD	170	-11219 10	16719.60	67.1	Pass
		TOP OIL	1011112010	1/0	11217.10	10/19:00	07.1	1 000

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eering Inc. Inford Rd.	Project	180-ft Lattice Tower (CSP #32)	Date 07:59:09 09/20/22
111574 Ka. T 06405 488-0580 88-8587	Client	Verizon	Designed by TJL

~		0	<i>a</i> :	<i>a</i> · · · ·	~		0.1	
Section	Elevation	Component	Size	Critical	P		%	Pass
No.	ft	Туре		Element	lb	lb	Capacity	Fail
		Top Girt	ROHN 2 STD	171	-11869.70	16719.60	71.0	Pass
T12	30 - 20	Top Girt	ROHN 2.5 EH	253	-12625.10	22438.80	56.3	Pass
		Top Girt	ROHN 2.5 EH	254	-17326.80	22438.80	77.2	Pass
		Top Girt	ROHN 2.5 EH	255	-17329.10	22438.80	77.2	Pass
T13	20 - 0	Redund Horz 1	ROHN 1.5 STD	270	-5202.63	13802.80	37.7	Pass
		Bracing				10002000	2	1 100
		Redund Horz 1	ROHN 1.5 STD	273	-5228.28	13802.80	37.9	Pass
		Bracing	Rome no orb	215	5220.20	19002.00	27.9	1 000
		Redund Horz 1	ROHN 1.5 STD	277	-5228.28	13802.80	37.9	Pass
		Bracing	Rome 1.5 STD	277	5220.20	15002.00	57.9	1 435
		Redund Horz 1	POHN 1.5 STD	280	-5380 42	13802.80	30.0	Pass
		Bracing	Rome 1.5 STD	200	-5569.42	15002.00	59.0	1 455
		Redund Horz 1	POHN 1.5 STD	285	-5380 42	13802.80	30.0	Pass
		Bracing	KOIIN 1.5 STD	285	-5505.42	15002.00	59.0	1 455
		Diacing Dedund Horra 1	DOUN 1.5 STD	100	5202 62	12802.80	277	Daga
		Proving	KOHN 1.5 STD	200	-5202.05	13002.00	57.7	F 855
T12	20 0	Bracing Bedwed Diese 1	DOIN 2 STD	271	4752 14	0000 05	52.0	Daga
115	20 - 0	Redund Diag I	ROHN 2 STD	271	-4/55.14	8998.85	52.8	Pass
		Bracing	DOUDLO GTD	074	1776 57	0000.05	52.1	D
		Redund Diag I	KOHN 2 SID	2/4	-4//6.5/	8998.85	53.1	Pass
		Bracing			100/ 00		<b>5</b> 0 1	
		Redund Diag I	ROHN 2 STD	278	-47/6.57	8998.85	53.1	Pass
		Bracing		• • •				
		Redund Diag 1	ROHN 2 STD	281	-4923.79	8998.85	54.7	Pass
		Bracing						
		Redund Diag 1	ROHN 2 STD	286	-4923.79	8998.85	54.7	Pass
		Bracing						
		Redund Diag 1	ROHN 2 STD	289	-4753.14	8998.85	52.8	Pass
		Bracing						
T13	20 - 0	Redund Hip 1	ROHN 2.5 STD	282	-17.24	48180.50	0.2	Pass
		Bracing						
		Redund Hip 1	ROHN 2.5 STD	290	-17.35	48180.50	0.2	Pass
		Bracing						
		Redund Hip 1	ROHN 2.5 STD	291	-17.18	48180.50	0.2	Pass
		Bracing						
T1	180 - 160	Inner Bracing	L2x2x1/8	16	-1.79	8234.10	0.4	Pass
		Inner Bracing	L2x2x1/8	17	-1.85	8234.10	0.4	Pass
		Inner Bracing	L2x2x1/8	18	-1.71	8234.10	0.4	Pass
		Inner Bracing	L2x2x1/8	28	-1.39	8287.35	0.4	Pass
		Inner Bracing	L2x2x1/8	29	-1.41	8287.35	0.4	Pass
		Inner Bracing	L2x2x1/8	30	-1.37	8287.35	0.4	Pass
		Inner Bracing	L2x2x1/8	37	-0.29	8341.12	0.4	Pass
		Inner Bracing	$L_{2x}^{2x}1/8$	38	-0.28	8341.12	0.4	Pass
		Inner Bracing	$L_{2x}^{2x1/8}$	39	-0.32	8341.12	0.4	Pass
Т2	160 - 140	Inner Bracing	$L_{2x}^{2x1/8}$	52	-4.27	6068.75	0.5	Pass
	100 100	Inner Bracing	$L_{2x}^{2x1/8}$	53	-4.40	6068.75	0.5	Pass
		Inner Bracing	L2x2x1/8	54	-4 32	6068 75	0.5	Pass
		Inner Bracing	1.2x2x1/8	64	-4.59	7007.17	0.5	Pass
		Inner Bracing	1.2x2x1/8	65	-4.79	7007.17	0.5	Pass
		Inner Bracing	L2x2x1/8	66	-4.56	7007.17	0.5	Pass
		Inner Bracing	L2A2A1/6	76	6.25	8181.36	0.5	Pass
		Inner Bracing	L2A2A1/8	70	-0.23	8181.30	0.4	Pass
		Inner Bracing	L2A2A1/0 I 2x2x1/8	78	-6.20	8181.20	0.4	Pass
Т?	140 - 133 333	Inner Bracing	L2A2A1/0 I 2x2x1/8	01	-6.20	5306.06	0.4	Pass
15	140 - 133.333	Inner Bracing	L2A2X1/0 L 2x2x1/9	91	-0.21 6.41	5306.90	0.5	Pass
		Inner Bracing	L2X2X1/8 L 2x21/9	92	-0.41	5306.96	0.5	Pass
T 4	122.222	Inner Bracing	L2X2X1/8	93	-0.19	3306.96	0.5	Pass
14	155.555 -	Inner Bracing	L2X2X1/8	106	-9.35	4680.37	0.6	Pass
	126.667	I D .		105	0.50	4600.07	0.5	D
		Inner Bracing	L2x2x1/8	107	-9.52	4680.37	0.6	Pass
<b>T 7</b>	100.000 100	Inner Bracing	L2x2x1/8	108	-9.34	4680.37	0.6	Pass
15	126.667 - 120	Inner Bracing	L2x2x1/8	121	-10.20	4158.54	0.6	Pass
		Inner Bracing	L2x2x1/8	122	-10.34	4158.54	0.6	Pass

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aaring Ino	Project		Date
anford Rd.		180-ft Lattice Tower (CSP #32)	07:59:09 09/20/22
T 06405	Client	Verizon	Designed by
488-8587		verizon	TJL

Section	Elevation	Component	Size	Critical	Р		%	Pass
No.	ft	Туре		Element	lb	lb	Capacity	Fail
		Inner Bracing	L2x2x1/8	123	-10.19	4158.54	0.6	Pass
Т6	120 - 100	Inner Bracing	L2 1/2x2 1/2x3/16	136	-11.38	9072.37	0.5	Pass
		Inner Bracing	L2 1/2x2 1/2x3/16	137	-11.47	9072.37	0.5	Pass
		Inner Bracing	L2 1/2x2 1/2x3/16	138	-11.37	9072.37	0.5	Pass
		Inner Bracing	L2 1/2x2 1/2x3/16	148	-11.84	10738.30	0.4	Pass
		Inner Bracing	L2 1/2x2 1/2x3/16	149	-11.95	10738.30	0.4	Pass
		Inner Bracing	L2 1/2x2 1/2x3/16	150	-11.83	10738.30	0.4	Pass
T7	100 - 90	Inner Bracing	L2 1/2x2 1/2x3/16	163	-10.74	7766.06	0.5	Pass
		Inner Bracing	L2 1/2x2 1/2x3/16	164	-10.85	7766.06	0.5	Pass
		Inner Bracing	L2 1/2x2 1/2x3/16	165	-10.77	7766.06	0.5	Pass
T8	90 - 80	Inner Bracing	L2 1/2x2 1/2x3/16	178	-11.00	6565.57	0.5	Pass
		Inner Bracing	L2 1/2x2 1/2x3/16	179	-11.10	6565.57	0.5	Pass
		Inner Bracing	L2 1/2x2 1/2x3/16	180	-11.02	6565.57	0.5	Pass
Т9	80 - 60	Inner Bracing	L3x3x3/16	193	-12.92	8593.12	0.6	Pass
		Inner Bracing	L3x3x3/16	194	-13.04	8593.12	0.6	Pass
		Inner Bracing	L3x3x3/16	195	-12.94	8593.12	0.6	Pass
		Inner Bracing	L3x3x3/16	205	-12.46	9851.38	0.6	Pass
		Inner Bracing	L3x3x3/16	206	-12.60	9851.38	0.6	Pass
		Inner Bracing	L3x3x3/16	207	-12.49	9851.38	0.6	Pass
T10	60 - 40	Inner Bracing	L3 1/2x3 1/2x1/4	220	-15.37	14095.40	0.4	Pass
		Inner Bracing	L3 1/2x3 1/2x1/4	221	-15.48	14095.40	0.4	Pass
		Inner Bracing	L3 1/2x3 1/2x1/4	222	-15.38	14095.40	0.4	Pass
		Inner Bracing	L3 1/2x3 1/2x1/4	232	-14.88	15896.00	0.4	Pass
		Inner Bracing	L3 1/2x3 1/2x1/4	233	-15.00	15896.00	0.4	Pass
		Inner Bracing	L3 1/2x3 1/2x1/4	234	-14.89	15896.00	0.4	Pass
T11	40 - 30	Inner Bracing	L3 1/2x3 1/2x1/4	247	-15.62	12584.30	0.4	Pass
		Inner Bracing	L3 1/2x3 1/2x1/4	248	-15.72	12584.30	0.4	Pass
-		Inner Bracing	L3 1/2x3 1/2x1/4	249	-15.63	12584.30	0.4	Pass
T12	30 - 20	Inner Bracing	L3 1/2x3 1/2x1/4	262	-16.45	11303.80	0.4	Pass
		Inner Bracing	L3 1/2x3 1/2x1/4	263	-16.54	11303.80	0.4	Pass
	• • •	Inner Bracing	L3 1/2x3 1/2x1/4	264	-16.45	11303.80	0.4	Pass
T13	20 - 0	Inner Bracing	ROHN 2 STD	292	-14.39	6590.81	0.4	Pass
		Inner Bracing	ROHN 2 STD	293	-14.92	6590.81	0.4	Pass
		Inner Bracing	ROHN 2 STD	294	-14.41	6590.81	0.4	Pass
						$\mathbf{L} = \mathbf{T} (\mathbf{T}   2)$	Summary	D
						$\operatorname{Leg}(112)$	02.5	Pass
						(T12)	90.0	Pass
						Horizontal	83.8	Pass
						(T11)		
						Top Girt (T12)	77.2	Pass
						Redund	39.0	Pass
						Horz 1		2 1100
						Bracing		
						(T13)		
						Redund	54.7	Pass
						Diag 1		
						Bracing		
						(T13)		
						Redund Hip	0.2	Pass
						1 Bracing		
						(T13)		
						Inner	0.6	Pass
						Bracing (T9)		
						Bolt Checks	65.0	Pass
						RATING =	90.6	Pass

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<b>Centek Engineering Inc.</b> 63-2 North Branford Rd.	Project 180-ft Lattice Tower (CSP #32)	Date 07:59:09 09/20/22
Branford, CT 06405 Phone: (203) 488-0580 FAX: (203) 488-8587	Client Verizon	Designed by TJL

Program Version 8.1.1.0 - 6/3/2021 File:J:/Jobs/2202700.WI/01\_Westport CT/05\_Structural/Backup Documentation/Rev (3)/Tnxtower/20200708\_VZW\_MODification\_H\_180' SST (1).eri



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#### DESIGNED APPURTENANCE LOADING

TYPE	ELEVATION	TYPE	ELEVATION
ANT940Y10-WR (CSP)	187	MT6407-77A (Verizon - Proposed)	160
ANT940Y10-WR (CSP - Yagi Antenna)	181	MX06FRO640-02 (Verizon - Proposed)	160
PA6-65AC (DNK-52 / CSP-42)	177	MX06FRO640-02 (Verizon - Proposed)	160
RFI BPS7496-180-14 Panel Antenna	170	ROHN 6'x15' Boom Gate (1) (Verizon)	160
(CSP-80)		QD6616-7 (ATI)	133
RFI BPS7496-180-14 Panel Antenna	170	AIR6419 (ATI)	133
(CSP-81)		AIR6449 (ATT)	133
RFI BPS7496-180-14 Panel Antenna	170	DMP65R-BU6D (ATI)	133
CiteDeed USE42 200 U Marret	470	QD6616-7 (ATI)	133
Assembly w/ (3) 96" Mount Pipes (CSP	170	AIR6419 (ATT)	133
47, 80, 81, 82)		AIR6449 (ATI)	133
432E-83I-01T TTA Unit (Re-Located	170	DMP65R-BU6D (ATI)	133
TMA (CSP))		QD6616-7 (ATI)	133
3' Yagi (CSP)	169	AIR6419 (ATT)	133
B2/B66A RRH (Verizon)	160	AIR6449 (ATI)	133
B5/B13 RRH (Verizon)	160	DMP65R-BU6D (ATI)	133
CBRS RRH-RT4401-48A (Verizon)	160	RRUS-32 B66 (ATT)	133
RF4439d-25A (B2/B66A RRH) (Verizon	160	RRUS-32 (ATI)	133
- Proposed)		RRUS-32 (ATI)	133
RF4440d-13A (B5/B13 RRH) (Verizon -	160	RRUS-32 B66 (ATT)	133
	400	RRUS-32 (ATI)	133
JAHH-65B-R3B Panel Antenna (Verizon)	160	RRUS-32 (ATT)	133
IAHH-65B-R3B Papel Antenna	160	RRUS-32 B66 (ATT)	133
(Verizon)	100	RRUS-32 (ATI)	133
XXDWMM-12.5-65-8T-CBRS Panel	160	RRUS-32 (ATT)	133
(Verizon)		4478 B14 (ATT)	133
MT6407-77A (Verizon - Proposed)	160	4478 B14 (ATI)	133
CBC78T-DS-43-2X Diplexer (Verizon)	160	4478 B14 (AT <u>T</u> )	133
B2/B66A RRH (Verizon)	160	4449 B5/B12 (ATI)	133
B5/B13 RRH (Verizon)	160	4449 B5/B12 (ATI)	133
CBRS RRH-RT4401-48A (Verizon)	160	4449 B5/B12 (ATI)	133
JAHH-65B-R3B Panel Antenna (Verizon)	160	DC6-48-60-18-8F (Squid) Suppressor (AT <u>I</u> )	133
JAHH-65B-R3B Panel Antenna (Verizon)	160	DC6-48-60-18-8F (Squid) Suppressor (AT <u>T</u> )	133
XXDWMM-12.5-65-8T-CBRS Panel	160	DC9 (ATI)	133
(Verizon)		SitePro VFA14-10 (ATI)	133
MT6407-77A (Verizon - Proposed)	160	SitePro VFA14-10 (ATI)	133
CBC78T-DS-43-2X Diplexer (Verizon)	160	SitePro VFA14-10 (ATT)	133
B2/B66A RRH (Verizon)	160	RRUS-11 (T-Mobile)	125
B5/B13 RRH (Verizon)	160	RRUS-11 (T-Mobile)	125
CBRS RRH-R14401-48A (Verizon)	160	RRUS-11 (T-Mobile)	125
DB-11-62-8AB-02 Distribution Box (Verizon)	160	AIR21 B4A/B2P (T-Mobile)	125
DB-T1-67-84B-07 Distribution Box	160	AIR21 B4A/B2P (T-Mobile)	125
(Verizon)	100	AIR21 B4A/B2P (T-Mobile)	125
(2) BSF0020F3V1-1 (Verizon -	160	LNX-6515DS (T-Mobile)	125
Proposed)		LNX-6515DS (T-Mobile)	125
(2) BSF0020F3V1-1 (Verizon -	160	LNX-6515DS (T-Mobile)	125
Proposed)		LTF12=372 Sector Mount (1) (T-Mobile)	125
(2) BSF0020F3V1-1 (Verizon -	160	LTF12=372 Sector Mount (1) (T-Mobile)	125
	100	LTF12=372 Sector Mount (1) (T-Mobile)	125
ROHN 6'x15' Boom Gate (1) (Venzon)	160	AIR21 B2A/B4P (T-Mobile)	125
RUNN 6X15 BOOM Gate (1) (Venzon)	100	AIR21 B2A/B4P (T-Mobile)	125
MIXU6FR0640-02 (Verizon - Proposed)	160	AIR21 B2A/B4P (T-Mobile)	125
WAUGHROOMU-U2 (Verizon - Proposed)	100	Generic Twin TMA unit (T-Mobile)	125
(Verizon)	עסו	Generic Twin TMA unit (T-Mobile)	125
		Generic Twin TMA unit (T-Mobile)	125
		ANT150D (CSP - 1-Bay Dipole)	113
		GPS (DNK-1 / GPS)	60
-	CVMD/		

#### SHEAR 73831 lb STIVIBUL LIST MARK SIZE MARK SIZE 120deg\_9.6250x0.375 BU on ROHN 8 EHS ROHN 2 STD 90 mp А D в 1/3 9.6250x0.375 on ROHN 8 EH Leg Pipe Е ROHN 2.5 EH С ROHN 2 XXS MATERIAL STRENGTH GRADE GRADE Fy Fu Fy Fu SHEAR A572-50 65 ksi 50 ksi A572-42 42 ksi 60 ksi 58730 lb

#### **TOWER DESIGN NOTES**

REA(1. Tower designed for a 90 mph basic wind in accordance with the TIA/EIA-222-F Standard.
2. Tower is also designed for a 90 mph basic wind with 0.50 in ice.
3. Deflections are based upon a 90 mph wind.

Centek Engineering Inc.	<sup>Job:</sup> 22027.01 - Westport			
63-2 North Branford Rd.	Project: 180-ft Lattice Tower	(CSP #32)		
Branford CT 06405	<sup>Client:</sup> Verizon	Drawn by: TJL	App'd:	
Phone: (203) 488-0580	<sup>Code:</sup> TIA/EIA-222-F	Date: 09/20/22	Scale: NTS	
FAX: (203) 488-8587	Path: Judo82202700.W101_Welport CT105_Btucture/Backup Dox.	mentation/Rev (3),TradowańTwist and Swavit 80' BST.ar	Dwg No. E-1	

*tnxTower* 

#### Centek Engineering Inc. 63-2 North Branford Rd.

63-2 North Branford Rd. Branford, CT 06405 Phone: (203) 488-0580 FAX: (203) 488-8587

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Project	Date
180-ft Lattice Tower (CSP #32)	07:56:03 09/20/22
Client Verizon	Designed by TJL

### Load Combinations

Comb.	Description
No.	<i>t</i>
1	Dead Only
2	Dead+Wind 0 deg - No Ice
3	Dead+Wind 30 deg - No Ice
4	Dead+Wind 45 deg - No Ice
5	Dead+Wind 60 deg - No Ice
6	Dead+Wind 90 deg - No Ice
7	Dead+Wind 120 deg - No Ice
8	Dead+Wind 135 deg - No Ice
9	Dead+Wind 150 deg - No Ice
10	Dead+Wind 180 deg - No Ice
11	Dead+Wind 210 deg - No Ice
12	Dead+Wind 225 deg - No Ice
13	Dead+Wind 240 deg - No Ice
14	Dead+Wind 270 deg - No Ice
15	Dead+Wind 300 deg - No Ice
16	Dead+Wind 315 deg - No Ice
17	Dead+Wind 330 deg - No Ice
18	Dead+Ice
19	Dead+Wind 0 deg+Ice
20	Dead+Wind 30 deg+Ice
21	Dead+Wind 45 deg+Ice
22	Dead+Wind 60 deg+Ice
23	Dead+Wind 90 deg+Ice
24	Dead+Wind 120 deg+Ice
25	Dead+Wind 135 deg+Ice
26	Dead+Wind 150 deg+Ice
27	Dead+Wind 180 deg+Ice
28	Dead+Wind 210 deg+Ice
29	Dead+Wind 225 deg+Ice
30	Dead+Wind 240 deg+Ice
31	Dead+Wind 270 deg+Ice
32	Dead+Wind 300 deg+Ice
33	Dead+Wind 315 deg+Ice
34	Dead+Wind 330 deg+Ice
35	Dead+Wind 0 deg - Service
36	Dead+Wind 30 deg - Service
37	Dead+Wind 45 deg - Service
38	Dead+Wind 60 deg - Service
39	Dead+Wind 90 deg - Service
40	Dead+Wind 120 deg - Service
41	Dead+Wind 135 deg - Service
42	Dead+Wind 150 deg - Service
43	Dead+Wind 180 deg - Service
44	Dead+Wind 210 deg - Service
45	Dead+Wind 225 deg - Service
46	Dead+Wind 240 deg - Service
47	Dead+Wind 270 deg - Service
48	Dead+Wind 300 deg - Service
49	Dead+Wind 315 deg - Service
50	Dead+Wind 330 deg - Service

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Centek Engineering Inc. 63-2 North Branford Rd.	Project	180-ft Lattice Tower (CSP #32)	Date 07:56:03 09/20/22
Branford, CT 06405 Phone: (203) 488-0580 F4X: (203) 488-8587	Client	Verizon	Designed by TJL

Section	Elevation	Horz.	Gov.	Tilt	Twist
No.		Deflection	Load		
	ft	in	Comb.	0	0
T1	180 - 160	7.451	35	0.3275	0.2247
T2	160 - 140	6.059	35	0.3234	0.2008
T3	140 - 133.333	4.636	35	0.2951	0.1358
T4	133.333 - 126.667	4.208	35	0.2852	0.1216
T5	126.667 - 120	3.774	35	0.2739	0.1098
T6	120 - 100	3.371	35	0.2590	0.1025
<b>T</b> 7	100 - 90	2.353	35	0.2038	0.0845
T8	90 - 80	1.914	35	0.1776	0.0720
Т9	80 - 60	1.533	35	0.1495	0.0600
T10	60 - 40	0.895	35	0.1136	0.0410
T11	40 - 30	0.429	35	0.0744	0.0267
T12	30 - 20	0.254	35	0.0542	0.0197
T13	20 - 0	0.128	35	0.0335	0.0136

# Critical Deflections and Radius of Curvature - Service Wind

Elevation	Appurtenance	Gov.	Deflection	Tilt	Twist	Radius of
		Load				Curvature
ft		Comb.	in	0	0	ft
187.00	ANT940Y10-WR	35	7.451	0.3275	0.2247	114642
181.00	ANT940Y10-WR	35	7.451	0.3275	0.2247	114642
177.00	PA6-65AC	35	7.246	0.3279	0.2231	114642
170.00	RFI BPS7496-180-14 Panel	35	6.764	0.3280	0.2178	57321
	Antenna					
169.00	3' Yagi	35	6.695	0.3278	0.2167	52110
160.00	ROHN 6'x15' Boom Gate (1)	35	6.059	0.3234	0.2008	34824
133.00	QD6616-7	35	4.186	0.2847	0.1210	41064
125.00	LTF12=372 Sector Mount (1)	35	3.670	0.2705	0.1076	13931
113.00	ANT150D	35	2.987	0.2404	0.0966	18051
60.00	GPS	35	0.895	0.1136	0.0410	25871

### **Maximum Tower Deflections - Design Wind**

Section	Elevation	Horz.	Gov.	Tilt	Twist
No.		Deflection	Load		
	ft	in	Comb.	0	0
T1	180 - 160	9.102	19	0.3973	0.3179
T2	160 - 140	7.414	19	0.3925	0.2893
Т3	140 - 133.333	5.692	19	0.3583	0.2127
T4	133.333 - 126.667	5.171	19	0.3465	0.1937
T5	126.667 - 120	4.646	19	0.3330	0.1769
T6	120 - 100	4.156	19	0.3152	0.1664
<b>T</b> 7	100 - 90	2.915	19	0.2490	0.1402
T8	90 - 80	2.376	19	0.2176	0.1227
Т9	80 - 60	1.906	19	0.1837	0.1045
T10	60 - 40	1.116	19	0.1400	0.0733
T11	40 - 30	0.537	19	0.0920	0.0480
T12	30 - 20	0.319	19	0.0670	0.0354
T13	20 - 0	0.161	19	0.0415	0.0245

tnxTowe

r	Job		Page
		22027.01 - Westport	3 of 3
a Inc	Project		Date
Rd.		180-ft Lattice Tower (CSP #32)	07:56:03 09/20/22
5	Client	Mariaan	Designed by
08U 07		Verizon	TJL

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

Elevation	Appurtenance	Gov.	Deflection	Tilt	Twist	Radius of
		Load				Curvature
ft		Comb.	in	0	0	ft
187.00	ANT940Y10-WR	19	9.102	0.3973	0.3179	97736
181.00	ANT940Y10-WR	19	9.102	0.3973	0.3179	97736
177.00	PA6-65AC	19	8.853	0.3978	0.3161	97736
170.00	RFI BPS7496-180-14 Panel	19	8.268	0.3980	0.3098	48868
	Antenna					
169.00	3' Yagi	19	8.184	0.3978	0.3085	44426
160.00	ROHN 6'x15' Boom Gate (1)	19	7.414	0.3925	0.2893	29587
133.00	QD6616-7	19	5.145	0.3459	0.1928	38989
125.00	LTF12=372 Sector Mount (1)	19	4.519	0.3289	0.1737	11855
113.00	ANT150D	19	3.689	0.2928	0.1578	15247
60.00	GPS	19	1.116	0.1400	0.0733	21044

Program Version 8.1.1.0 - 6/3/2021 File:J:/Jobs/2202700.WI/01\_Westport CT/05\_Structural/Backup Documentation/Rev (3)/Tnxtower/Twist and Sway/180' SST.eri



Location:

Rev. 3: 9/20/22

#### Anchor Bolt Analysis

180-ft Lattice Tower Westport, CT

Prepared by: T.J.L. Checked by: C.F.C. Job No. 22027.01

#### Anchor Bolt Analysis:

#### Input Data:

Tower Reactions:

Tension Force =	Tension := 311·kips	(Input From tnxTower)
Compression Force =	Compression := 355 kips	(Input From tnxTower)
Shear Force =	Shear := 52·kips	(Input From tnxTower)

#### Anchor Bolt Data:

ASTMA354 Grade BC		
Number of Anc hor Bolts =	N := 10	(User Input)
Bolt Ultimate Strength =	F <sub>u</sub> ≔ 125 ksi	(User Input)
Bolt Yield Strength =	F <sub>y</sub> := 109 ksi	(User Input)
Bolt Modulus =	E := 29000 ksi	(User Input)
Diameter of Anchor Bol ts =	D := 1.00 · in	(User Input)
Threads per Inch =	n:= 8	(User Input)
Length from Top of Pier to Bottom of Leveling Nut =	L <sub>ar</sub> := 0 in	(User Input)

Tower Anchor Bolts.xmcd.xmcd



Location:

Rev. 3: 9/20/22

Anchor Bolt Analysis

180-ft Lattice Tower Westport, CT

Prepared by: T.J.L. Checked by: C.F.C. Job No. 22027.01

#### Anchor Bolt Analysis:

Calculated Anchor Bolt Properties:

GrossArea of Bolt=

 $A_g := \frac{\pi}{4} \cdot D^2 = 0.785 \cdot in^2$  $A_n := \frac{\pi}{4} \cdot \left( D - \frac{0.9743 \cdot in}{n} \right)^2 = 0.606 \cdot in^2$  $D_n \coloneqq \frac{2 \cdot \sqrt{A_n}}{\sqrt{\pi}} = 0.878 \cdot in$ 

Net Diameter =

NetArea of Bdt =

Radius of Gyration of Bolt =

Elastic Section Modulus of Bolt =

$$r := \frac{D_n}{4} = 0.22 \cdot in$$
$$S_x := \frac{\pi \cdot D_n^3}{32} = 0.066 \cdot in^3$$

 $Z_{x} := \frac{D_{n}^{3}}{6} = 0.113 \cdot in^{3}$ 

Plastic Section Modulus of Bolt =

Anchor Bolt Design Strength:

Resistance Factor for Flexure =	$\phi_{f} \coloneqq 0.9$
Resistance Factor for Compression =	$\phi_{c} \coloneqq 0.9$
Resistance Factor for Tension =	$\phi_t \coloneqq 0.75$
Resistance Factor for Shear =	$\phi_V \coloneqq 0.75$
Design Tensile Strength =	$\Phi R_{nt} := \varphi_t \cdot F_u \cdot A_n = 56.8 \cdot k$
Design Compression Strength =	$\Phi R_{nc} := \varphi_c \cdot F_y \cdot A_g = 77 \cdot k$
Design Shear Strength (Tension) =	$\Phi R_{nv} \coloneqq \phi_v \cdot 0.5 F_u \cdot A_g = 36.8 \cdot k$
Design Shear Strength (Compression) =	$\Phi R_{nvc} := \varphi_c \cdot 0.6F_y \cdot A_g \cdot 0.75 = 34.7 \cdot k$



Branford, CT 06405 F: (203) 488-8587

Location:

Rev. 3: 9/20/22

Anchor Bolt Analysis

180-ft Lattice Tower Westport, CT

Prepared by: T.J.L. Checked by: C.F.C. Job No. 22027.01

Check Anc hor Bolt Tension Force:

Maximum Tensile Force =

$$P_{ut} := \frac{Tension}{N} = 31.1 \cdot kips$$

Maximum Compressive Force =

$$P_{uc} := \frac{Compression}{N} = 35.5 \cdot kips$$

Maximum Shear Force =

Condition1 =

$$\text{Condition1} := \text{ if} \left[ \left( \frac{\mathsf{P}_{ut}}{\Phi\mathsf{R}_{nt}} \right)^2 + \left( \frac{\mathsf{V}_u}{\Phi\mathsf{R}_{nv}} \right)^2 \right] \le 1.00, "\mathsf{OK"}, "\mathsf{Overstressed"} \right]$$

Condition1 = "OK"

 $V_u := \frac{Shear}{N} = 5.2 \cdot kips$ 

Condition2 =

Condition2 := if  $\left[ \left( \frac{P_{uc}}{\Phi R_{nc}} \right) + \left( \frac{V_u}{\Phi R_{nvc}} \right)^2 \right] \le 1.00, "OK", "Overstressed"$ 

Condition2 = "OK"

 $max \!\!\left[\!\left(\frac{\mathsf{P}_{ut}}{\Phi\mathsf{R}_{nt}}\!\right)^{2} + \left(\frac{\mathsf{V}_{u}}{\Phi\mathsf{R}_{nv}}\!\right)^{2}, \!\left(\frac{\mathsf{P}_{uc}}{\Phi\mathsf{R}_{nc}}\right) + \left(\frac{\mathsf{V}_{u}}{\Phi\mathsf{R}_{nvc}}\!\right)^{2}\!\right] = 48.3 \cdot \%$ 

Bolt % of Capacity =



Location:

Rev. 3: 9/20/22

#### FOUNDATION ANALYSIS

180-ft Lattice Tower Westport, CT

Prepared by: T.J.L Checked by: C.F.C. Job no. 22027.01

Caisson Foundation:		
Input Data:		
Tower Data		
Uplift =	Uplift := 311 kips	(User Input)
Compression =	Comp := 355 kips	(User Input)
Shear Force =	Shear := 52 kips	(User Input)
Tower Height =	H <sub>t</sub> := 180⋅ft	(User Input)
Footing Data:		
Length of Caisson =	$L_c := 27 \cdot ft$	(User Input)
Extension of Caisson Above Grade =	L <sub>cag</sub> := 1⋅ft	(User Input)
Diameter of Caisson =	$d_{c} := 4.5 \cdot ft$	(User Input)
Length of Caisson Above Wate Table =	L <sub>c.AWT</sub> ≔ 27·ft	(User Input)
Length of Caisson Below W ate Table =	$L_{c.BWT} := 0.ft$	(User Input)
Material Properties:		
Concrete Compressive Strength =	f <sub>C</sub> ≔ 4000 psi	(User Input)
Steel Reinforcment Yield Strength =	f <sub>y</sub> := 60000 psi	(User Input)
Ultimate Skin Friction (Above WaterTable) =	$\mu_1 \coloneqq 3.73 \cdot \text{ksf}$	(User Input)
Ultimate Skin Friction (Below Water Table) =	$\mu_2 \coloneqq 3.73 \cdot ksf$	(User Input)
Ultimate Soil Bearing Capacity =	$q_u \coloneqq 6000 \cdot psf$	(Assumed Conservative User Input)
Unit Weight of Soil =	$\gamma_{soil} := 120 \cdot pcf$	(User Input)
Unit Weight of Concrete =	$\gamma_{conc} \coloneqq 150 \cdot pcf$	(User Input)
Depth to Neglect =	n:= 5·ft	(User Input)
Resistance Factor for Bearing =	$\Phi_{sBearing} \coloneqq 0.75$	(TIA-222-H 9.7)
Resistance Factor for Friction =	$\Phi_{sFriction} \coloneqq 0.75$	(TIA-222-H 9.7)



Location:

Rev. 3: 9/20/22

#### FOUNDATION ANALYSIS

180-ft Lattice Tower Westport, CT

Prepared by: T.J.L Checked by: C.F.C. Job no. 22027.01

#### **Calculated Properties:**

Adjusted Concrete Unit Weight =

Weight of Concrete Caisson (no water) =

Weight of Concrete Caisson (water) =

$$WT_{c.comp} \coloneqq \frac{\pi}{4} \cdot \left( d_c^2 L_c \right) \cdot \gamma_{conc} = 64.412 \cdot kip$$
$$WT_{c.uplift} \coloneqq \frac{\pi}{4} \cdot \left[ \left( d_c^2 L_{c.AWT} \right) \cdot \gamma_{conc} + \left( d_c^2 L_{c.BWT} \right) \cdot \gamma_c \right] = 64.412 \cdot kip$$

 $\text{Uplift}_{SF} \coloneqq \Phi_{sFriction} \cdot \pi \cdot d_{c} \cdot \left[ \left( L_{c.AWT} - L_{cag} - n \right) \cdot \mu_{1} + L_{c.BWT} \cdot \mu_{2} \right] = 831 \cdot \text{kips}$ 

#### Check Uplift:

Uplift Check =

Uplift Resistance from Concrete Weight =

Uplift Resistance from Skin Friction =

Total Uplift Resistance =

Uplift Uplift<sub>R</sub> = 35⋅%

 $\gamma_{c} \coloneqq \gamma_{conc} - 62.4 pcf = 87.6 \cdot pcf$ 

$$\label{eq:uplift_check} \begin{split} \text{Uplift}\_\text{Check} \coloneqq \text{if} \Biggl( \frac{\text{Uplift}_R}{\text{Uplift}} \geq 1.0\,, \text{"Okay"}\,, \text{"No Good"} \Biggr) \end{split}$$

 $\text{Uplift}_{\text{conc}} := (WT_{c.uplift}) \cdot 0.9 - 57.971 \cdot \text{kips}$ 

 $\mathsf{Uplift}_R \coloneqq \mathsf{Uplift}_{conc} + \mathsf{Uplift}_{SF} = 888.494 \cdot \mathsf{kips}$ 

Uplift\_Check = "Okay"

#### Check Compression:

Total Compression Force =

Compression Resistance from Bearing =

Compression Resistance from Skin Friction =

Total Compression Resistance =

Compression Check =

 $Comp_{tot} := WT_{c.comp} + Comp = 419 kips$ 

$$\begin{split} & \text{Comp}_{\text{bearing}} \coloneqq \Phi_{\text{sBearing}} \cdot \left(\frac{\pi}{4} \cdot d_{\text{c}}^{2} \cdot q_{\text{u}}\right) = 72 \cdot \text{kips} \\ & \text{Comp}_{\text{SF}} \coloneqq \Phi_{\text{sFriction}} \cdot \pi \cdot d_{\text{c}} \cdot \left[\left(L_{\text{c},\text{AWT}} - L_{\text{cag}} - n\right) \cdot \mu_{1} + L_{\text{c},\text{BWT}} \cdot \mu_{2}\right] = 831 \cdot \text{kips} \end{split}$$

`

 $Comp_R := Comp_{bearing} + Comp_{SF} = 902 \cdot kips$ 

$$\frac{\text{Comp}_{\text{tot}}}{\text{Comp}_{\text{R}}} = 46.49 \cdot \%$$

 $Compression\_Check := if \left( \frac{Comp_{R}}{Comp_{tot}} \ge 1.0, "Okay", "No Good" \right)$  $Compression\_Check = "Okay"$ 





Maser Consulting Connecticut 1055 Washington Boulevard Stamford, CT 06901 203.324.0800 peter.albano@colliersengineering.com

### Post-Modification Antenna Mount Analysis Report and PMI Requirements

Mount Fix

SMART Tool Project #: 10115278 Maser Consulting Connecticut Project #: 21777772A (Rev.1)

August 22, 2022

Site Information

Site ID: Site Name: Carrier Name: Address: 469153-VZW / WESTPORT CT WESTPORT CT Verizon Wireless 880 Post Rd. East Unit 1 Westport, Connecticut 06880 Fairfield County 41.137475° -73.334364°

Latitude: Longitude:

Structure Information

*Tower Type: Mount Type:*  180-Ft Self Support 15.00-Ft Sector Frame

### FUZE ID # 16242132

### Analysis Results

Sector Frame: 74.4% Pass w/ Modifications\*

\*Antennas and equipment to be installed in compliance with PMI Requirements of this mount analysis.

<u>\*\*\*Contractor PMI Requirements:</u> Included at the end of this MA report Available & Submitted via portal at https://pmi.vzwsmart.com For additional questions and support, please reach out to: pmisupport@colliersengineering.com</u>

Report Prepared By: Selene Chen


## **Executive Summary:**

The objective of this report is to summarize the analysis results of the antenna support mount including the proposed modifications at the subject facility for the final wireless telecommunications configuration, per the applicable codes and standards.

This analysis is inclusive of the mount structure only and does not address the structural capacity of the supporting structure. This mounting frame was not analyzed as an anchor attachment point for fall protection. All climbing activities are required to have a fall protection plan completed by a competent person.

## **Sources of Information:**

Document Type	Remarks
Radio Frequency Data Sheet (RFDS)	Verizon RFDS Site ID: 325126, dated October 5, 2021
Mount Mapping Report	Structural Components, Site ID: 16242132, dated October 19, 2021
Previous Mount Analysis Report	Maser Consulting Connecticut Connecticut, Project #: 21777772A, dated November 2, 2021
Mount Modification Drawings	Maser Consulting Connecticut Connecticut, Project #: 21777772A, dated August 22, 2022

## Analysis Criteria:

Codes and Standards:	ANSI/TIA-222-H	
Wind Parameters:	Basic Wind Speed (Ultimate 3-sec. Gust), VULT: Ice Wind Speed (3-sec. Gust): Design Ice Thickness: Risk Category: Exposure Category: Topographic Category: Topographic Feature Considered: Topographic Method: Ground Elevation Factor, K <sub>e</sub> :	118 mph 50 mph 1.00 in II B 1 N/A N/A 0.998
Seismic Parameters:	Ss: S1:	0.228 g 0.056 g
Maintenance Parameters:	Wind Speed (3-sec. Gust): Maintenance Live Load, Lv: Maintenance Live Load, Lm:	30 mph 250 lbs. 500 lbs.
Analysis Software:	RISA-3D (V17)	

## Final Loading Configuration:

Mount Elevation (ft)	Equipment Elevation (ft)	Quantity	Manufacturer	Model	Status
		4	JMA Wireless	MX06FRO640-02	
		3	Samsung	MT6407-77A	
		1	Samsung	RF4439d-25A	Added
	160.00	1	Samsung	RF4440d-13A	
159.00		6	KAelus	BSF0020F3V1-1	
		4	Commscope	JAHH-65B-R3B	
		3	Samsung	XXDWMM-12.5-65-8T-CBRS	
		2	Commscope	CBC78T-DS-43-2X	Botainad
		3	Samsung	B2/B66A RRH-BR049	Retained
		3	Samsung	B5/B13 RRH-BR04C	
		1	Raycap	RHSDC-6627-PF-48*	

The following equipment has been considered for the analysis of the mounts:

\* Equipment to be flush mounted directly to the Self Support. It is not mounted on Sector Frame mounts and is not included in this mount analysis.

It is acceptable to install up to any three (3) of the OVP model numbers listed below as required at any location other than the mount face without affecting the structural capacity of the mount. If OVP units are installed on the mount face, a mount re-analysis may be required unless replacing an existing OVP.

Model Number	Ports	AKA
DB-B1-6C-12AB-0Z	6	OVP-6
RVZDC-6627-PF-48	12	OVP-12

## **Standard Conditions:**

- All engineering services are performed on the basis that the information provided to Maser Consulting Connecticut and used in this analysis is current and correct. The existing equipment loading has been applied at locations determined from the supplied documentation. Any deviation from the loading locations specified in this report shall be communicated to Maser Consulting Connecticut to verify deviation will not adversely impact the analysis.
- 2. Mounts are assumed to have been properly fabricated, installed and maintained in good condition, twist free and plumb in accordance with its original design and manufacturer's specifications.

Obvious safety and structural issues/deficiencies noticed at the time of the mount mapping and reported in the Mount Mapping Report are assumed to be corrected and documented as part of the PMI process and are not considered in the mount analysis.

The mount analysis and the mount mapping are not a condition assessment of the mount. Proper maintenance and condition assessments are still required post analysis.

3. For mount analyses completed from other data sources (including new replacement mounts) and not specifically mapped in accordance with the NSTD-446 Standard, the mounts are assumed to have been properly fabricated, installed and maintained in good condition, twist free and plumb in accordance with its original design and manufacturer's specifications.

- 4. All member connections are assumed to have been designed to meet or exceed the load carrying capacity of the connected member unless otherwise specified in this report.
- 5. The mount was checked up to, and including, the bolts that fasten it to the mount collar/attachment and threaded rod connections in collar members if applicable. Local deformation and interaction between the mount collar/attachment and the supporting tower structure are outside the scope of this analysis.
- 6. All services are performed, results obtained, and recommendations made in accordance with generally accepted engineering principles and practices. Maser Consulting Connecticut is not responsible for the conclusion, opinions, and recommendations made by others based on the information supplied.
- 7. Structural Steel Grades have been assumed as follows, if applicable, unless otherwise noted in this analysis:

0	Channel, Solid Round, Angle, Plate	ASTM A36 (Gr. 36)
0	HSS (Rectangular)	ASTM 500 (Gr. B-46)
0	Pipe	ASTM A53 (Gr. B-35)
0	Threaded Rod	F1554 (Gr. 36)
0	Bolts	ASTM A325

8. Any mount modifications listed under Sources of Information are assumed to have been installed per the design specifications.

Discrepancies between in-field conditions and the assumptions listed above may render this analysis invalid unless explicitly approved by Maser Consulting Connecticut.

## Analysis Results:

Component	Utilization %	Pass/Fail
Standoff Bar	74.4 %	Pass
Face Horizontal	47.9 %	Pass
Standoff Horizontal	44.1 %	Pass
Standoff Diagonal	32.4 %	Pass
Standoff Vertical	3.1 %	Pass
Antenna Pipe	42.6 %	Pass
Unistrut	22.7 %	Pass
Tie Back	6.5 %	Pass
Connection Check	57.8 %	Pass

Structure Rating – (Controlling Utilization of all Components) 74.4%

# Mount Steel (EPA)a per ANSI/TIA-222-H Section 2.6.11.2:

lce	Mount Pipes Excluded		Mount Pipes Included	
Thickness (In)	Front (EPA)a (Sq. Ft.)	Side (EPA)a (Sq. Ft.)	Front (EPA)a (Sq. Ft.)	Side (EPA)a (Sq. Ft.)
0	27.8	18.1	34.7	24.9
0.5	39.2	25.8	48.9	35.6
1	49.8	32.9	62.4	45.5

Notes:

- (EPA)a values listed above may be used in the absence of more precise information

- (EPA)a values in the table above include 1 sector(s).

- Ka factors included in (EPA)a calculations

## **Requirements:**

The existing mounts will be **SUFFICIENT** for the final loading configuration (attachment 2) after the modifications detailed in attachment 3 are successfully completed.

ANSI/ASSP rigging plan review services compliant with the requirements of ANSI/TIA 322 are available for a Construction Class IV site or other, if required. Separate review fees will apply.

## Attachments:

- 1. Contractor Required PMI Report Deliverables
- 2. Antenna Placement Diagrams
- 3. Mount Modification Drawings
- 4. Mount Photos
- 5. Mount Mapping Report (for reference only)
- 6. Analysis Calculations

# Mount Desktop – Post Modification Inspection (PMI) Report Requirements

## **Documents & Photos Required from Contractor – Mount Modification**

Electronic pdf version of this can be downloaded at <u>https://pmi.vzwsmart.com</u> For additional questions and support, please reach out to pmisupport@colliersengineering.com

PSLC #: 469153 SMART Project #: 10115278 Fuze Project ID: 16242132

<u>**Purpose**</u> – to upload the proper documentation to the SMART Tool in order to allow the SMART Tool engineering vendor to complete the required Mount Desktop review of the Post Modification Inspection Report.

- Contractor is responsible for making certain the photos provided as noted below provide confirmation that the modification was completed in accordance with the modification drawings.
- Contractor shall relay any data that can impact the performance of the mount or the mount modification, this includes safety issues.

## **Base Requirements:**

- If installation of the modification will cause damage to the structure, the climbing facility, or safety climb if present or any installed system, SMART Tool vendor to be notified prior to install. Any special photos outside of the standard requirements will be indicated on the drawings.
- Provide "as built drawings" showing contractor's name, preparer's signature, and date. Any deviations from the drawings (proposed modification) shall be shown. NOTE: If loading is different than what is conveyed in the post-modification passing mount analysis (MA) contact the SMART Tool vendor immediately.
- Each photo shall be time and date stamped.
- Photos should be high resolution.
- Contractor shall ensure that the safety climb wire rope is not adversely impacted by the install of the modification components. This may involve the install of wire rope guides, or other items to protect the wire rope. If there is conflict, contact the SMART Tool engineer for recommendations.
- The PMI can be accessed at the following portal: <a href="https://pmi.vzwsmart.com">https://pmi.vzwsmart.com</a>

## Photo Requirements:

- Photos taken at ground level
  - Photo of Gate Signs showing the tower owner, site name, and number.
  - Overall tower structure after installation of the modifications.
  - Photos of the mount after installation of the modifications; if the mounts are at different rad elevations, pictures must be provided for all elevations that the modifications were installed
- <u>Photos taken at Mount Elevation</u>
  - Photos showing the safety climb wire rope above and below the mount prior to modification.
  - Photos showing the climbing facility and safety climb if present.

- Photos showing each individual sector after installation of modifications. Each entire sector must be in one photo to show the interconnection of members.
  - These photos shall also certify that the placement and geometry of the equipment on the mount is as depicted in the antenna placement diagram in this form.
- Photos that show the model number of each antenna and piece of equipment installed per sector.
- Photos of each installed modification per the modification drawings; pictures shall also include connection hardware (U-bolts, bolts, nuts, all-threaded rods, etc.)
- Photos showing the distances (relative distance between collars) of the installed modifications from the appropriate reference locations shown in the modification drawings.
- Photos showing the installed modifications onto the tower (i.e. ring/collar mounts, tiebacks, V-bracing kits, etc.); if the existing mount elevation needs to be changed according to the modification drawings, an elevation measurement shall be provided before the elevation change.

## Material Certification:

- Materials utilized must be as per specification on the drawings or the equivalent as validated by the SMART Tool vendor.
  - o If the materials are as specified on the drawings
    - The contractor shall provide the packing list, or the materials certifications for the materials utilized to perform the mount modification
    - Commscope, Metrosite, Perfect Vision, Sabre, and Site Pro have all agreed to support Verizon vendors with the necessary material certifications
  - o If seeking permission to use an equivalent
    - It is required that the SMART Tool engineering vendor approval of such is included in the contractor submission package. There may be an additional charge for approval if the equivalent submission doesn't meet specifications as prescribed in the drawings.

 $\Box$  All hardware has been properly installed, and the existing hardware was inspected.

□ The material utilized was as specified on the SMART Tool engineering vendor Mount Modification Drawings and included in the material certification folder is a packing list or invoice for these materials.

OR

□ The material utilized was approved by a SMART Tool engineering vendor as an "equivalent" and this approval is included as part of the contractor submission.

## Antenna & Equipment Placement and Geometry Confirmation:

□ The contractor certifies that the photos support and the equipment on the mount is as depicted on the sketch and table included in this form and with the mount analysis provided.

□ The contractor notes that the equipment on the mount is not in accordance with the sketch and has noted the differences below and provided photo documentation of any alterations.

comments:
Vas the mount modification completed in conjunction with the equipment change / installation?

□ Yes □ No

## Special Instructions / Validation as required from the MA or Mod Drawings:

## lssue:

Contractor shall inspect climbing facilities and safety climb and ensure they are in good condition. Contractor shall install safety climb wire rope guides in locations where wire rope is rubbing against the mount or mount-to-tower connection steel. Wire brush clean any observed corrosion and protect with two (2) coats of cold galvanization (Zinga or Zinc Kote). Contractor shall provide photos of wire rope guide installation as part of PMI documents. Contact EOR if additional guidance is required.

## Response:

C.		I so a trave a tila so	Confirmention
2	oeciai	Instruction	Contirmation:
-	o a orar		

□ The contractor has read and acknowledges the above special instructions.

## **Comments:**

Contractor certifies that the climbing facility / safety climb was not damaged prior to starting work:

🗆 Yes	🗆 No
-------	------

Contractor certifies no new damage created during the current installation:

Contractor to certify the condition of the safety climb and verify no damage when leaving the site:

□ Safety Climb in Good Condition

□ Safety Climb Damaged

## Comments:

## Certifying Individual:

Company:	
Employee Name:	
Contact Phone:	
Email:	
Date:	



		Height	Width	H Dist	Pipe	Pipe	Ant	C. Ant	Ant		
Ref#	Model	(in)	(in)	Frm L.	#	Pos V	Pos	Frm T.	H Off	Status	Validation
A1	MX06FRO640-02	72	19.8	169	1	а	Front	24	-10	Added	
A1	MX06FRO640-02	72	19.8	169	1	b	Front	24	10	Added	
R3	RF4439d-25A	15	15	169	1	а	Behind	24	0	Added	
A6	CBRS RRH + Clip-on Ant	16.2	11.4	78	2	а	Front	24	0	Retained	10/19/2021
R4	RF4440d-13A	15	15	78	2	а	Behind	42	0	Added	
R2	MT6407-77A	35.1	16.1	47.5	3	а	Front	24	0	Added	
R10	B5/B13 RRH-BR04C (RFV01U-D2A)	15	15	47.5	3	а	Behind	42	0	Retained	10/19/2021
A1	MX06FRO640-02	72	19.8	3	4	а	Front	24	-10	Added	
A1	MX06FRO640-02	72	19.8	3	4	b	Front	24	10	Added	
A15	BSF0020F3V1-1	10.91	3.47	3	4	а	Behind	36	2	Added	
A15	BSF0020F3V1-1	10.91	3.47	3	4	b	Behind	36	-2	Added	
OVP	B2/B66A RRH-BR049 (RFV01U-D1A)	15	15		Memb	er				Retained	10/19/2021







		Height	Width	H Dist	Pipe	Pipe	Ant	C. Ant	Ant		
Ref#	Model	(in)	(in)	Frm L.	#	Pos V	Pos	Frm T.	H Off	Status	Validation
A5	JAHH-65B-R3B	72	13.8	169	1	а	Front	24	-7	Retained	10/19/2021
A5	JAHH-65B-R3B	72	13.8	169	1	b	Front	24	7	Retained	10/19/2021
R7	CBC78T-DS-43	6.4	6.9	169	1	а	Behind	24	0	Retained	10/19/2021
A15	BSF0020F3V1-1	10.91	3.47	169	1	а	Behind	36	2	Added	
A15	BSF0020F3V1-1	10.91	3.47	169	1	b	Behind	36	-2	Added	
A6	CBRS RRH + Clip-on Ant	16.2	11.4	78	2	а	Front	24	0	Retained	10/19/2021
R10	B5/B13 RRH-BR04C (RFV01U-D2A)	15	15	47.5	3	а	Behind	24	0	Retained	10/19/2021
R2	MT6407-77A	35.1	16.1	3	4	а	Front	24	0	Added	







		Height	Width	H Dist	Pipe	Pipe	Ant	C. Ant	Ant		
Ref#	Model	(in)	(in)	Frm L.	#	Pos V	Pos	Frm T.	H Off	Status	Validation
A5	JAHH-65B-R3B	72	13.8	169	1	а	Front	24	-7	Retained	10/19/2021
A5	JAHH-65B-R3B	72	13.8	169	1	b	Front	24	7	Retained	10/19/2021
R7	CBC78T-DS-43	6.4	6.9	169	1	а	Behind	24	0	Retained	10/19/2021
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A15	BSF0020F3V1-1	10.91	3.47	169	1	b	Behind	36	-2	Added	
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R10	B5/B13 RRH-BR04C (RFV01U-D2A)	15	15	47.5	3	а	Behind	24	0	Retained	10/19/2021
R2	MT6407-77A	35.1	16.1	3	4	а	Front	24	0	Added	

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	RAWINGS FRAME	ORATION IBER: N/A	TPORT CT : 469153	NIT 1 80 Y	5° N 4° W	PROJECT INFORMATION	APPLICANT/LESSEE Company: verizon wireles Client representative	COMPANY: VERZON WIRELESS PROJECT MANAGER	COMPANY: COLLERS PIGINERING & DESIGN CT, P.C. CONTACT: RETRA JLANNO PHONE 85-5797-0412 PHONE PETRA JLANNO@COLLIERS BNGINERING, COM		CONTRACTOR PMI REQUIREMENTS PMI LOCATION SMART TOOL PROJECT # 10115278	VLAY LOCATION CODE (1944): 199193 ANALYSIS DATE: 08/192022 PMI REQUIREMENTS EMBEDDED WITHIN MOUNT MODIFICATION REPORT	
verizon	MOUNT MODIFICATION D EXISTING 15.00' SECTOR	TOWER OWNER: CSP CORP TOWER OWNER SITE NUM	CARRIER SITE NAME: WES CARRIER SITE NUMBER FUZE ID: 16242132	880 POST RD. EAST UN WESTPORT, CT 068 FAIRFIELD COUNT	LATITUDE: 41.13747 LONGITUDE: 73.33436	DESIGN CRITERIA	WIND LOADS BASC WIND SFEED (5 SCOND GUST), V = 118 MPH PEOSURE CATEGORY 1 TOPOGRAPHIC CATEGORY 1	ICE LOADS ICE LOADS ICE WIND SPEED (3 SECOND GUST), V = 50 MPH	ICE THICKNESS = 1.00 IN SEISAIIC LOADS SEISAIC DESIGN CATEGORY B	SHORT TERM MCER GROUND MOTION, 5, = ,228 LONG TERM MCER GROUND MOTION, 5, = ,056			
										CONTIERS ENCINEERING & DESIGN (TT D.C.	ALL RIGHTS RESERVED THIS DRAWING AND RIGHTS RESERVED UTHORIZED FOR USE ONLY FILE REART FOR WORK WAS CONTRACTED ON DAVIDUATING CONTRACT THAN DRAWING	WY NOT RE COPIED REUED DISCOSED DISTRUENTE OR RELED UPON IOR ANY OTHER UNHOOSE WITHOUT THE EXERCISE WRITTEN CONSENT OF COLLIERS ENGINERATION & DESIGN CT P.C.	

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		UNIT WEIGHT (LBS.) WEIGHT (LBS.)	HE 84 84				-	UNIT WEIGHT (LBS.) WEIGHT (LBS.)						-	UNIT WEIGHT (LBS.) WEIGHT (LBS.)		TOTAL: 84				BETTER METAL, LLC	DAVID STANSBERY	(015) 005-0770 (01, (015) 051-2220 (11) DLS@BETTERMETAL COM	W.W.W.BETTERMETALCOM
MATERIALS	- VZWSMART KITS	NOTES	T OTHER END TO ADJACENT TOWER LEG. PROPOSED TIE-BACK SHALL EXTEND NO MORE THAN 1.2" BEYOND T EG. CONTRACTOR SHALL TRIM AS REQUIRED AND PROTECT CUT END WITH TWO COATS OF ZINGA OR ZING				HER REQUIRED PARTS	NOTES						RED SAFETY CLIMB PARTS	NOTES	OR EOR APPROVED EQUIVALENT	OR EON APPROVED EQUIVALEN I			APPROVED VENDORS	SITE PRO 1	CONTACT PAULA BOSWELL CONTACT CONTACT CONTACT CONTACT CONTACT	PHONE 1726/240-240-240-240-240-240-240-240-240-240-	WEBSITE WWW.SITEPROL.COM WEBSITE NEW AVF
BILL OF	SECTION I -	DESCRIPTION	TIE BACK ASSEMBLY CONNECT TOWER LE COTE.	CROSSOVER PLATE			SECTION 2 - OTH	DESCRIPTION						SECTION 3 - REQUIE	DESCRIPTION	CLAMP BRACKET	WINE KOPE GUIDE	MOUNT KITS. GH THE VZW OTE THAT THE A RART OF THE RED THAT THE		STED IN THIS VZWSMART KITS -	PERFECTVISION	WIRELESS SALES	(011) 00/-07.20 WWW.PERFECT-VISION.COM	WIRELESSALES@PERFECT-VISION.COM SARR FINDLISTRIES INC
		PART NUMBER	VZWSMART-SFK I	VZWSMART-MSKI				PART NUMBER						-	PART NUMBER	PV-CLAMP-LW-0106	PV-CMX-CG-SM	VENDORS FOR THE VZW O I KITS HAVE BEEN THE VZW O VED TO SELL. PLEASE N SINS WILL BE REVIEWED A: NDOR. IT WILL BE REVIE	ATIONS.	DIFICATIONS BUT NOT LI UTRACTOR.		CONTACT	M EMAIL	WEBSITE
		MANUFACTURER			VZWSMART	<u>   </u>		MANUFACTURER						-	MANUFACTURER	PERFECT VISON	PERFECT VISION	ISTED ARE THE APPROVED STED ARE THE APPROVED THLE RAWARE OF WHICH THEY ARE IN TURN APPR THE MOUNT MODIFICATIC D BY THE SMART TOOL VE	UTILIZED IN THE MODIFIC	D FOR THE DESIGNED MOI BE PROVIDED BY THE CON	MMSCOPE	DOR ANGUIANO	ORANGUIANO@COMMSCOPE.CC	COMMSCOPE COM FARRICATORS ITC
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	BOLT SCHEDULE (IN.)	BOLT STANDARD SHORT MIN.EDGE SPACING DIAMETER HOLE SLOT DISTANCE SPACING	1/2         9/16         9/16×11/16         7/8         1/2           cm         1/1/2         1/1/2         1/1/2         1/2	3/4  3/16  3/16  3/16×1  1/4 2 14	7/8         15/16         15/16×11/8         11/2         2.5/8	/16    /16×15/16   13/4 3	WORKABLE GAGES (IN.)	LEG GAGE	4 2 1/2	3   2 2 3   34 2   2   34	2 11/8	TOCK	WASHER BOTTER ALLOPHENSIONS REPRESENTED IN THE I. ALLOPHENSIONS REPRESENTED IN THE REQUIREMENTS CONTINUED IN REQUIREMENTS OF INFORMATION OF INFORMATION OF INFORMATION REQUIREMENTS OF INFORMATION OF INFORMATION OF INFORMATION OF INFORMATION REQUIREMENTS OF INFORMATION OF INFORMATION REQUIREMENTS OF INFORMATION REPRESENTATION REQUIREMENTS OF INFORMATION REPRESENTATION REPRESEN	AND NOTIFY ENGINEER IF DISTANCES AND NOTIFY ENGINEER IF DISTANCES ARE LESS THAN THOSE PROVIDED.	NUT THE DIMENSIONS FROVIDED ARE PINNEND REQUIREMENTS ACTUAL DIMENSIONS OF REPOSED MERRERS WITHEN THERE DAWNING FRAY VARY ROWTHE ARC MINNEND	REQUIREMENTS. 3. SHORT SLOT HOLES SHALL ONLY BE	OSEU MARTO DEVICED IN THE DAMINGS 4. MATCH BUSTING GAGE WHEN APPLICATE LUXES MANDEN BOGE DATAVENT A FOR AND AND MANDEN			ALLOWABLE COPING	GAGE					
DSTANCE AND SPACING. 12. ALL PROPOSED AND/OR REPLACED BOLTS SHALL BE OF SUFFICIENT LENGTH USULTITANT THE PROLOGY THE PROLOGY THE PROLY AND THO AND THE PACE OF THE ALTER THE ALCONTRADATION ON ALL PROLY THAN TO AND THAN THE PACE OF	OF THE VOLUTION OF TRAVILLEU FOR THE BOULD BUT TO BE BELOW THE FACE OF THE NUT AFTER TIGHTENING IS COMPLETED.	<ol> <li>OKLANDER AND TRADUCTS PARAGED VALUES ANA GED URING REHAB I. ALL EXISTING PAINTED/GALVANIZED SURFACES DAVAGED DIRING REHAB INCLUDING AREA UNDES STREFERE IN PLATES SHALL BE WIRE BEARSHED FIGURA DIR PARAGED PY COLD GALVANITING ATMING ATMING ATMING ATMING AND ADDREFERE PY COLD GALVANITING ATMING ATMING ATMING ATMING AND ADDREFERE PY COLD GALVANITING ATMIN</li></ol>	REPAINTED TO MATCH THE EXISTING FINISH (IF APPLICABLE) 15. ALL HOLES IN STEEL MEMBERS SHALL BE SIZED 1/16" LARGER THAN THE BOLT	dameter, standard holes shall be used unless noted otherwise. WELDING NOTES	<ol> <li>ALL WELDING SHALL BE DONE IN ACCORDANCE WITH AWS DI .0 (LATEST</li> </ol>	EDITION). THIS SHALL INCLUDE A CERTIFIED WELD INSPECTION (CWI) FOR ACCEPTANCE OR REPCTION OF ALL WELDING. PRELIMING, ALL AND DACT INFORMATION AND ALL WELDING OF ANALYSIS (CONTRACT)	AND YOJ INSTALLATION, USING THE ACCENTINGCE CATERIOR OF AND UTI. 2. CONTRACTOR REPONSIBLE FOR COMMISSIONING A THIRD PARTY CREPTED WELD INSPECTOR (CWI) THROUGHOUT THE BATTRETY OF THE PROJECT. A PASING CWI REPORT SHALL BE PROVIDED TO THE BAGINER	UPON COMPLETION OF THE PROJECT. 3. THE CERTIFIED WED INSPECTOR SHALL INDICATE, IN A WRITTEN CWI 3. FREEPORT. THAT ALL WELDING OFFICATIONS PRE. DURING, AND POST	INSTALLATION WERE CONDUCTED IN ACCORDANCE WITH AWS DI JI WITH PHOTOGRAPHS AND DOCUMENTATION SUPPORTING TH ACCEPTANCE OR REFECTION OF ALL WEI DING ALL CON WEID INSPECTION	DOCUMENTATION AND PHOTOS SHALL BE SUBMITTED DURING THE PMI 4. IN CASES WHERE A WELD IS SPECIFIED BETWORD RED ILTU-UP ANHICH THERE IS A CAN THE PRIVER IS A EQUAL TO THAT THE STEE OF WELD ON THE PRISER E EQUAL TO THAT THE	DAWINGS. 5. OXY THE GAS WAEDING OR BRAZING IS STRICTLY PROHIBITED 5. OXY THE GAS WAEDING OR BRAZING IS STRICTLY PROHIBITED 1. OXY THE GAS WAEDING OR THE GAS WAEDING IS STRICTLY PROHIBITED	BE CUT WITH A GRINDER. 6. CONTRACTOR SHALL EXERCISE CAUTION WHEN WELDING A GALVANIZED 10. SUBFACE	<ol> <li>CONTRACTOR SHALL HAVE A FIRE REOTECTION PLAN IN FLACE THAT CONFORMS WITH ALL OSHAL ANSI/ASSP A10-48, ANSI 2491, AND LOCAL JURSDICTIONAL REQUIREMENTS.</li> </ol>								EDGE SPACING	PAGE				
CONTRACTOR SHALL BE RESONGIBLE FOR THE STRENGTH AND STABILITY OF THE STRUCTURE DURING ERECTION CONTRACTOR SHALL PROVIDE TEMPORARY SUPPORT, JONNING, BEANDRA, AND ANY DATA THAT AND STABILITY SYSTEMS AS REQUIRED TO RESIST ALL FORGES THAT MAY OCCUR JUBRING	HANDLING AND ERECTION UNTIL THE STRUCTURE IS FULLY COMPLETED. TEMPORARY SUPPORTS, BRACING AND OTHER STRUCTURAL SYSTEMS PROVINEDE AN UNMACTONKTRUCTION SUM OT DEMAND THE CONSTRACTIONS	RECORD UNITING CONTRACTION STATES REFAINT THE CONTRACTIONS RECORD TATES THERE USE 9. ALL INSTALLATIONS REPROPRING IN THIS STATESTICENES SHALL BE COMMETED 9. ALL INSTALLATIONS REPROPRING REPORTED RECOVERING FOR A CONTRACTIONS IN ACCOUNTING THE THE CONTRAINED REPORTED RECOVERING FOR A CONTRACTIONS	FOR INSTALLATION, ALTERATION AND MAINTENANCE OF ANTENNA SUPPORTING STRUCTURES AND ANTENNAS, ANSUTIA-322	10. CONTRACTOR STALL SECURE SITE BACK TO EXISTING CONDITION UNDER SUPERVISION OF ONVER ALL FENCE, STONE, GEOFABRIC, GROUNDING, MD SURROUNDING GRADE SHALL BE REFLACED AND REPARED AS	REQUIRED TO ACHIEVE OWNER APPROVAL POSITIVE DRAINAGE AWAY FROM TOWER SITE SHALL BE MAINTAINED.	<ol> <li>CONNECTIONS BETWEEN ITEMS SUPPORTED BY THE STRUCTURE AND THE STRUCTURE NOT SPECIFICALLY DETAILED IN THE CONTRACT DOCUMENTS</li> </ol>	ARE THE REPONSIBILITY OF THE CONTRACTOR, SUCH CONNECTIONS SHALL BE DESIGNED. COORDINATED AND INSPECTED BY A PROFESSIONAL STRUCTURAL BROINER LEGASED IN THE STATE OF THE REQIECT SUBMIT SIGNED AND SEALED CALCULATIONS DURING SHOP DRAWING REVIEW.	<ol> <li>DO NOT SCALE DRAWINGS.</li> <li>DO NOT USE THESE DRAWINGS FOR ANY OTHER SITE.</li> </ol>	<ol> <li>ALL MATERIAL UTL/ZED FOR THIS RODIECT MUST BE NEW AND FREE OF ANY DEFECTS ANY MATERIAL SUBSTITUTIONS, INCLUDING BUT NOT LIMITED TO ALTERED SIZE AND/OR STRENGTHS, MUST BE APPROVED BY THE OWNER</li> </ol>	AND ENGINEER IN WRITING. 15. THE MOUNT UNDER NO CIRCUMSTANCES SHOULD BE USED AS A TIE OFF POINT. CETED 17/211 ID A1. CETED1	<ol> <li>DESIGN, DETALING, FABICATION AND RECTION OF STRUCTURAL STEEL</li> <li>DESIGN, DEFALUNG, FABICATION AND RECETTING, PARL CONFORM TO THE FOLLOWING PUBLICATIONS EXCEPT AS</li> </ol>	SPECIFICALLY NUDICATED IN THE CONTRACT DOCUMENTS. a. AMERICAN INSTITUTE OF STEELE CONSTRUCTION (AISC) MANUAL OF	<ul> <li>area: -covarious: row (1) and -covarious)</li> <li>b) series: -covarious: row (1) and -covarious)</li> <li>b) series: -covarious: -covarious)</li> <li>b) series: -covarious: -covarious: -covarious</li> <li>c) also code of standardo practice</li> <li>c) also code of standardo practice</li> </ul>	<ol> <li>STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING UNLESS OTHERWISE SHOWN:</li> </ol>	CHANNELS, PLATES, ETC. ASTM 436 (GR 36) STELE PPE BOLTS ASTM 4321 (GR 33) BOLTS ASTM 4325 NUTS	LOCK WASHERS LOCKING STRUCTURAL GRADE 3. ALL SUBSTITUTIONS PROPOSED BY THE CONTRACTOR SHALL BE APPROVED	IN WAITING BY THE RAVIABLE CONTRACT COS SAULT RAVIDE DOCUMENTATION TO BAGINEER POR YEBYING THE UBSTITUTE IS SUITING FOR USE SANO HETS ORIGINAL DESIGN CATERTAL DIFFERENCES FROM THE ORIGINAL DESIGN INCLUDING MAINTENANCE. REPARATION REPLACEMENT, SAULT DESIGN INCLUDING MAINTENANCE. REPARATION REPLACEMENT, SAULT DESIGN INCLUDING PROF. OF COSTON FOR SAUCHTED MAINTENANCE FROM THE ANALOR INFORMATION FOR SAUCHTED ANALOR FOR SAUCHTED MAINTENANCE FROM THE ANALOR INFORMATION FOR SAUCHTED ANALOR FOR SAUCHTED MAINTENANCE FROM THE ANALOR FOR SAUCHTED ANALOR FOR SAUCHTED ANALOR FOR SAUCHTED ANALOR FOR SAUCHTED ANALOR FOR SAUCHTED ANALOR FO	WITT THE SADITION TO THINK LOWAN TO THE SECTION TO SATURD STOLE SUBJECTIVE ACTORIS SHALL BE REVONDED TO THE BAGINER. CONTRACTOR SHALL REVOIRE ADDITIONAL DOCUMENTATION AND/OR SPECIFICATIONS TO THE ENGURER A REQUESTED. 4 REVOIRE FATURCTURAL STELE, SHOP DAMWINGS TO ENGINEER FOR	APROVAL PROPOSE PARACATION APPROVAL PROPOSE PREACATION a. SUBMIT SHOP DRAWINGS TO BETTHA ALBANO@COLLIFIESENGINERBING COM	b. PROVIDE MASER CONSULTING CONNECTICUT RROJECT # AND MASER CONUTING CONNUCTICUT PROJECT ENGINEER CONTACT IN THE BODY OF THE EARLY CONTACT IN THE BODY OF THE EARLY CONTACT IN THE CONTACT INT THE CONTACT IN THE CONTACT IN THE CONTACT INT THE CONTACT IN THE CONTACT IN THE CO	<ol> <li>DRILL NO HOLE IN ANY NEW OR EXISTING STRUCTURAL STEEL MEMBERS OTHER THAN THOORSHOWN ON STRUCTURAL DRAWINGS WITHOUT THE BABROWL OF THE BACINEE OF BECORD.</li> </ol>	<ol> <li>GLIVANIZED ASTM 4335 BOLTS SHALLOFT BE REUSED</li> <li>ALL NEW STEEL SHALL BE HOT BE DIPPED GAIVANIZED FOR FULL WEATHER</li> </ol>	ROTECTION IN JODITION ALLINEW STEELSHALL EE MANTED TO MICH BRATTING STEEL CONTRACTOR SHALL DISTIN WRITTEN REWRISSION TO PROTECT STEEL BY ANY OTHER MEANS. 8. CONTRACTOR SHALL PROTECT CUT PRUS OF ALL HER.CUT STEEL WITH 8. CONTRACTOR SHALL PROTECT CUT PRUS OF ALL HER.CUT STEEL WITH	IND (4) COMIN DY COLD GATAYILATION (JURGA OK ZINY COTIE) 9. ALL BOLT ASSEMLIES FOR STRUCTURAL MEMBERS REPRESENTED IN THIS DAAWING REQUIRE LOCKING DEVICES TO BE INSTALLED IN ACCORDANCE WITH TIA-222-H SECTION 4/92 REQUIREMENTS.	<ol> <li>WHERE CONNECTIONS ARE NOT PULLY DEFALLED ON THEES DAWNINGS. FABRICATOR SHALL DEGION CONNECTIONS TO REST LOADS AND FORCES WHERE SHOWN ON DRAWNINGS AND AS OUTLINED IN SREARCATIONS.</li> </ol>	<ol> <li>FOR MEMBERS BEING REPLACED, PROVIDE NEW BOLTS AND MATCH EXISTING SIZE AND GRADE MAINTAIN AISC REQUIREMENTS FOR MINIMUM BOLT</li> </ol>
PROJECT NOTES	2. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE CODES, CONNENTED 11100 FOOT IN ACCOUNT OF ALL MILLION FOOT IN THE FOOT	OKUPANICES, CAVES AND RESOLVICIONS OF ALL-POINCIPALITIES, UTILITT CORIPANIES OR OTHER PUBLICICATIONS OF ALL-POINCIPALITIES, UTILITT COPIERATION CALLET PUBLICICATIONS OF ALL-POINCIPALITIES, UTILITTE COPIERATION CALLET PUBLICICATIONS OF ALL-POINCIPALITIES, UTILITTE COPIERATIONS OF ALL-POINCIPALITIES OF ALL-POINCIPALITIES OF ALL-POINCIPALITIES OF ALL-POINCIPALITIES OF ALL-POINCIPALITIES COPIERATION CALLET PUBLICICATION COPIERATION COPIER	<ul> <li>THE CUT WAR UN START BE RECOURDE BY ANY FEDERAL, STATE, AND INSPECTIONS THAT MAY BE REQUIRED BY ANY FEDERAL, STATE, COUNTY OR MUNICIPAL AUTHORITIES.</li> </ul>	4. THE CONTRACTOR SHALL NOTEY THE CONSTRUCTION MANAGER, IN MANAGEMENT OF A DAMAGER IN CONSTRUCTION MANAGER, IN	WRITING, OF ANY COMPLICITS, ERRORS OR OMISSIONS FRIGK TO THE SUBMISSION OF BIDS OR PERFORMANCE OF WORK.	5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING SITELIMPROVEMENTS PRICING TO COMMENCING CONSTRUCTION THE	CONTRACTOR SHALL REAR ANY DAMAGE A A REJUT OF CONTRACTOR SHALL REAR ANY DAMAGE A A REJUT OF CONSTRUCTION OF THIS FACILITY AT THE CONTRACTORS EXPENSE TO THE SATISFACTION OF THE OWNER	<ol> <li>THE SCOPE OF WORK FOR THIS PROJECT SHALL INCLUDE PROVIDING ALL MATERIALS, EQUIPMENT AND LABOR REQUIRED TO COMPLETE THIS PROJECT.</li> </ol>	all equipment shall be instand in alcordance with manufacturer's recommendations.	<ol> <li>THE CONTRACTOR SHALL VISIT THE PROJECT SITE PRIOR TO SUBMITTING THE BID TO VERIFY THAT THE PROJECT CAN BE CONSTRUCTED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND CONSTRUCTION DRAWINGS.</li> </ol>	<ol> <li>THE CONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND CONDITONS RIPORT OF COMMENCING ANY VORK. ALL DIMENSIONS OF EXVENSE CONNETTING RELAVIANT ON THESE DRAMINES MILET REPRESENCE</li> </ol>	THE CONTRACTOR SHALL NOTE: THE CONTRUCTION MANAGER OF ANY DESCRETANCIES RIVEL NOTE: THE CONTRUCTION MANAGER OF ANY DISCRETANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH	CONSTRUCTION. 9. SINCE THE CELL SITE MAY BE ACTIVE ALL SAFETY PRECAUTIONS MUST BE TARKIN VIENNES AROUND HIGH THEALS OF ELECTROMAGNEENC RADATION. EQUIPMENT SHOULD BE SHUTTOWN PRIOR TO PERFORMING	ANY WORK THAT COULD EXPOSE THE WORKERS TO DANGER, PERSONAL RF EXPOSURE MONITORIS ARE REQUIRED TO BE WORN TO ALER'T OF ANY PTENTALLY DANGEROUS EXPOSURE LEVES.	(3) NO NOKE, SHOKE, DUST OR ODOR WILL REULT FROM THIS FACILITY AS TO CAUSE A NUSANCE.	II. THE FACULT IS DIVERSELY AND VOL TO A HOTANY PAGE A LON (NO HANDICAP ACCESS REQUIRED GENERAL NOTES	<ol> <li>THESE MODIFICATIONS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE GOVERNMC PROVISIONS OF THE TELECOMMUNICATIONS INDUSTRY STANDARD TH-2322-H IMTERIALS AND SERVICES PROVIDED BY THE CONTINUCTOR SHALL CONFORM TO THE ABOVE FINATIONED CODES.</li> </ol>	<ol> <li>CONTRACTOR SHALL TAKE ALL PRECAUTIONS INCESSARY TO PREVENT DAMAGE TO DESTING STRUCTURES AND TAMAGE TO TAKATIONS STRUCTURES AS A REQUIT OF THE CONTRACTORS WORK OF DAMAGE DETO OTHER CONTRACTORS WORK TO THE REPARED AT CONTRACTORS CONSESSMELT OF THE CANAGE TO THE CANAGE CONTRACTORS CONSESSMELT OF THE CANAGE TO THE CANAGE</li> </ol>	CUNIMACIONS EXPENSE TO THE AN IJSYNCHOW OF THE OWNER CONTRACTORS PALL VERIEY ALL DIMENSIONS AND EXISTING CONDITIONS 3. CONTRACTORS PALL VERIEY ALL DIMENSIONS AND EXISTING CONDITIONS PEROFERE REGINNING WORK, OPDERING MATERIAL, AND PEREARING OF SHOP DRAWINGS, ANT DISCREPANCIES BETWEEN FIELD CONDITIONS AND THE	CONTRACT DOCUMENTS SHALL BE BROUGHT TO THE IMPEDIATE ATTENTION OF THE BROILBRER. IF THE CONTRACTOR DISCOVERS ANY EXISTING CONDITIONS THAT ARE NOT REPRESENTED ON THESE DRAWINGS. OR ANY CONDITIONS THAT WOULD INTERERE WITH THE INISTILATION OF THE MONISTATIONS MOTING THE DRAWING TO THE DRAWINGS.	<ol> <li>IT SASUMED THAT ANY STRUCTURAL MODIFICATION WORK SPECIFIED ON THESE BALANS WILL BE ACCOMPLICIPLED BY KNOWLEDGEABLE WORKNEN WITH TOWER CONSTRUCTION EXPERIENCE.</li> </ol>	<ol> <li>THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLEN RESPONSIBLE FOR ALL CONTRUCTION METHODS, MEANS.</li> </ol>	ALL CONSTRUCTION PEARS AND FILE TO CARDING BUT NOT LIMITED ALL CONSTRUCTION PEARS AND FILE TOORS. INCLUDING BUT NOT LIMITED TO, RECTTON PLANS, RIGGING PLANS, CLIMBING PLANS, AND RECLE PLANS SHALL RE FRESHORESING PLANS, CONTAINED HERIN AND SHALL NEET FOR THE RECUTION OF THE WORK CONTAINED HERIN AND SHALL NEET.	ANITN-3212 (ATTET EDITION) SCHA. AND GENERAL INUSTRY STANDARDS. ALL RIGGING PLANS SHALL ADHERE TO ANSI'TH-322 (LATEST EDITION) INCLUDING THE REQUIRED INVOLVERENT OF A QUALIFIED ENGINEER FOR CLASS IV CONSTRUCTION.	<ol> <li>THE CONTRACTOR IS SOLET'R REPONSIBLE FOR INITIATING, MAINTAINING, SOUFEAVISING ALL SAFETY PROCRAMS IN ACCORDANCE WITH APPLICABLE SAFETY CODES.</li> </ol>	<ol> <li>WORK SHALL ONLY REPERPORED DUBING CAM DAY DAYS (WINDS LESS THAN 30 MPH). THE STRUCTURE SHOWN ON THE DRAWINGS IS STRUCTURALLY SOUND ONLY IN THE COMPLETED FORM. THE</li> </ol>

INSIG DH DRAWN CHECKED BY

# SGN-I DO NOT SCALE DRAWINGS FOR CONSTRUCTION







ED Tool® Verizon	LEG)			38	11 14 DRAWN BY: BT DHECKED BY: HMA/KW	6 REV DESCRIPTION BY DATE	2 A REWSED BT 04/10/21		0 SHEET TITLE:	VZWSMART—SFK1	TIE BACK ASSEMBLY	5 SHEET NUMBER: REV #:	84 VZWSMART-SFK1 1
Existing Tower Leg Tower Leg Attachment (Fit 1 1/2" To 8 5/8" 0.0. L	EXISTING ANGLE TOWER LEG EXISTING ANGLE TOWER LEG TOWER LEG ATTACHMENT TOWER LEG ATTACHMENT (FTT 1 1/2" TO 6" 90" ANGLE (FTT 1 1/2" TO 6" 90" ANGLE		SHFFT #	si sfk1-F1	SFK1-F2 SFK1-F3	SFK1-F4 SFK1-F4	RBC-1				SFK1-F1	SFK1-F5	GALVANIZED WT
		00000	VZWSMART-SFK1 (TIE BACK ASSEMBLY) DESCRIPTION	° PST (2.375" O.D. X 0.154" THK) X 10°−0" A53 GR-3 J5K	_ 3/8" X	_ 3/8" X 6" X 9 3/8" A36 BENT PLATE _ 1/4" X 2" X 8 3/4" A36 BENT PLATE	J-BOLT 5/8" X 3" I.W. X 5" I.L. A36 (OR EQUIV.) HPEADED ROD 5/8" DIA X 1"-6" F1554-36 HDG	DLT 5/8" X 2" A325	DLT 5/8" X 4 1/4" A325 /8" HDS USS FLAT WASHER	/8" HD3 LOCK WASHER	88" HD3 HEX NUT 3/8" X 4 1/2" X 11" A36	_ 1/2" X 4 1/4" X 8 5/8" A36 BEND PLATE	
FIELD CUT & TRIM TO MATCH THE REQUIRED LENGTH THE BMCK PIPE (2" PST 10"-0" LONG)		R PIPE	DART NO	1 PST2375-10 2"	1 BP825-12 PL 1 BP11125-12 PL	1 BP6-9375 PL 1 BP2-875 PL	2 MS02-625-300-500 RU	2 BG	1 BC 15 FW-625 5/	15 LW-625 5/	15 NUT-625 5/ 1 PL375-4511 PL	1 V-CLAMP PL	
OWER LEG	(4 1/2° 0.0. PIPE MAX.)	TIE BACK ASSEMBLY WITH ADAPTER FO		00. (8)(0)(1)(2) { 10. (1)(2) (1)(2) (1)(2) (1)(2)(2)(2)(2)(2)(2)(2)(2)(2)(2)(2)(2)(2)					APTER FOR PIPE CONNECTION		$\overline{\mathbb{A}}$	14	
SEE DEFML "A" FIELD CUT & TRIM TO MATCH THE REQUIRED LENGTH THE REQUIRED LENGTH (2" PST 10"-0" LONG)	FIELD DRILL 11/16* DM HOLES Mrtal ANGLE Mrtal ANGLE	TIE BACK ASSEMBLY		() () () () () () () () () () () () () (						DETAIL "A"			PER ASTM A123.
EXISTING TOWER LEG	HORIZ				EXISTING TOWER LEG /		The second se	(TVP)	3)				NOTES: 1. HOT-DIPPED GALVANIZED





Antenna Mount Mapping Form (PATENT PENDING) **AASER** Mapping Date: Tower Type: Tower Owner: CS Site Name: WESTPORT\_CT Site Number or ID: 16242132 Tower Height (Ft.): Mapping Contractor: Structural Components Mount Elevation (Ft.): This antenna mapping form is the property of TES and under PATENT PENDING. The formation contained herein is considered confidential in nature and is to be used only for the specific customer it was intended for. Reproduction, transmission, publication

 $Ant_{5c}$ 

Ant on

Standoff Ant on

Standoff

Ant on

Tower Ant on

Tower

RFV01U-D1A

16.00

12.00

16.00

jumper

160

rodification or disclosure by any method is prohibited except by express written permission of TES. All means and methods are the responsibility of the contractor and the work shall be compliant with ANSI/ASSE A 10.48, OSHA, FCC, FAA and other safety requirements that may apply. TES is not warrantying the usability of the safety climb as it must be assessed prior to each use in compliance with OSHA requirements.



SECTOR C

SECTOR B

			Mount Pip	e Configurat	tion and G	eometries	[Unit = Inches]					
Sector / Position	Mount Pipe Size & L	ength	Vertical Offset Dimension "u"	Horizontal Offset "C1, C2, C3, etc."	Sector / Position	N	Aount Pipe Size & Leni	gth	Vertical Offset Dimension "u"	Horizontal Offset "C1, C2, C3, etc."		
A1	2.375 x .154 x 72		56.00	3.00	C1	2.375 x .1	54 x 72		56.00	3.00		
A2	2.375 x .154 x 72		56.00	94.00	C2	2.375 x .1	54 x 72		56.00	94.00		
A3	2.375 x .154 x 72		56.00	148.50	C3	2.375 x .1	54 x 72		56.00	148.50		
A4	2.375 x .154 x 72		56.00	169.00	C4	2.375 x .1	54 x 72		56.00	169.00		
A5					C5							
A6					C6							
B1	2.375 x .154 x 72		56.00	3.00	D1				))			
B2	2.375 x .154 x 72		56.00	94.00	D2							
B3	2.375 x .154 x 72		56.00	148.50	D3							
B4	2.375 x .154 x 72		56.00	169.00	D4							
B5					D5							
B6					D6							
	Distance between bo	ttom rail	and mount	t CL elevatio	on (dim d)	. Unit is in	ches. See 'Mount Ele	ev Ref' tab	for details. :			
	Distance	from to	p of botton	n support ra	ail to lowe	st tip of a	nt./eqpt. of Carrier a	bove. (N/A	(if > 10 ft.) :	0.5		
	Distance from top of bottom support rail to lowest tip of ant./eqpt. of Carrier above. (N/A if > 10 ft.) Distance from top of bottom support rail to highest tip of ant./eqpt. of Carrier below. (N/A if > 10 ft.)											
			Please ente	er additiona	al infomat	ion or com	ments below.					
safety clin	nb on all 3 legs, all obstru	ucted										
Tower Fac	e Width at Mount Elev.	(ft.):	105	Tower Leg	Size or Pol	e Shaft Dia	meter at Mount Elev.	(in.):		4.5		
For T-Arm	s/Platforms on monopol	es, report	the weld si	ze from the	main stand	doff to the	plate bolting into the	collar moun	t.			
	Enter antenna	a model.	If not labe	led, enter "	Unknown	".	Mountin [Units are incl	g Location hes and de	s grees]	Photos of antennas		
Ants. Items	Antenna Models if Known	Width (in.)	Depth (in.)	Height (in.)	Coax Size and Qty	Antenna Center- line (Ft.)	Vertical Distances"b <sub>1a</sub> , b <sub>2a</sub> , b <sub>3a</sub> , b <sub>1b</sub> " (Inches)	Horiz. Offset "h" (Use "-" if Ant. is behind)	Antenna Azimuth (Degrees)	Photo Numbers		
					Sector A	1						
Ant <sub>1a</sub>												
Ant <sub>1b</sub>	(2) JAHH-65B-R3B	13.00	8.00	72.00	jumpers	161	20.00	14.00	30.00	63		
Ant <sub>1c</sub>	(2) CBC78TDS432X	6.50	9.75	8.00	jumpers	160.417	27.00	-7.00		63		
Antza												
Antzh	RT4408-48	8.50	5.50	16.00	jumpers	160.25	29.00	10.00	30.00			
Ant												

V4.0 Updated on 3-31

8.50

11.50

30.00

30.00

64

64

64

FCC #

10/19/2021

Self Support

180

158



	Enter antenna	a model. I	lf not label	led, enter '	'Unknown'	<b>'</b> .	Mount [Units are in
Ants. Items	Antenna Models if Known	Width (in.)	Depth (in.)	Height (in.)	Coax Size and Qty	Antenna Center- line (Ft.)	Vertical Distances"b <sub>1a</sub> , b <sub>2</sub> , b <sub>3a</sub> , b <sub>1b</sub> " (Inche
					Sector A		
Ant <sub>1a</sub>							
Ant <sub>1b</sub>	(2) JAHH-65B-R3B	13.00	8.00	72.00	jumpers	161	20.00
$Ant_{1c}$	(2) CBC78TDS432X	6.50	9.75	8.00	jumpers	160.417	27.00
Ant <sub>za</sub>							
Ant <sub>2b</sub>	RT4408-48	8.50	5.50	16.00	jumpers	160.25	29.00
Ant <sub>2c</sub>							
$\text{Ant}_{3a}$							
$\operatorname{Ant}_{3b}$	RFV01U-D2A	16.00	10.00	15.00	jumpers	160.25	29.00
$\operatorname{Ant}_{\operatorname{3c}}$							
$Ant_{4a}$							
$\operatorname{Ant}_{4b}$	BXA-70063/4CFEDIN	11.00	5.00	47.00	(2) 1 5/8"	160.25	29.00
$\operatorname{Ant}_{4c}$							
$Ant_{5a}$							
Ant <sub>5b</sub>							

Mou	nt Azimuth ( for Each Soci	Degree	)	Tower Leg Azin	nuth (Degree)	Ant					Sector B					
Contra A.	20.00		1	for Each	Sector	Ant <sub>1a</sub>		12.00	8.00	72.00	iumpore	161	20.00	14.00	150.00	71
Sector A:	20.00	Deg	Leg A:	90.00	Deg	Ant	(2) CRC79TDC422V	13.00	0.75	8.00	jumpers	160 /17	20.00	-7.00	150.00	71
Sector B:	260.00	Deg	Leg B:	210.00	Deg	Ant <sub>1c</sub>	(2) CBC/81D3432X	6.50	9.75	8.00	Jumpers	160.417	27.00	-7.00		/1
Sector C:	260.00	Deg	Leg C:	330.00	Deg	Ant	DT 4 4 0 0 4 9	9.50	E E0	16.00	iumpere	160.25	20.00	10.00	150.00	70
Sector D:		Deg	Leg D:		Deg	Ant	K14408-48	8.50	5.50	16.00	Jumpers	160.25	29.00	10.00	150.00	72
	220.00	Climbi	ng Fac	lity Information		Ant <sub>2c</sub>										
Location:	330.00	Deg		On Leg C		Ant <sub>3a</sub>										
Climbing	Corrosi	on Type	5:	Good condition.		Ant <sub>3b</sub>	RFV01U-D2A	16.00	10.00	15.00	jumpers	160.25	29.00	8.50	150.00	73
Facility	Acc	ess:		Climbing path was of	bstructed.	Ant <sub>3c</sub>										
	Conc	dition:		Loose hardware.		Ant <sub>4a</sub>										
						Ant <sub>4b</sub>	BXA-70063/4CFEDIN	11.00	5.00	47.00	(2) 1 5/8"	160.25	29.00	11.50	150.00	73
				_		Ant <sub>4c</sub>										
N	kom	E	ore	sti y Pro		Ant <sub>5a</sub>										
	-				1000	Ant <sub>5b</sub>										
					1	Ant <sub>5c</sub>										
					1.00	Ant on	RFV01U-D1A	16.00	12.00	16.00	jumpers	160				71, 72
			1	9.0		Ant on										
	15	B.O		3-14		Standoff										
	1		511			Ant on										
		WAT	EPP	ROOF 6x2160°	A CHE CHE	Tower										
	Name of Street, or other				1	Ant on Tower										
1. A. A.					A REAL PROPERTY.	. cwci					Sector C					
					State of the second	Ant <sub>1a</sub>										
and the second					- Carrier -	Ant <sub>1b</sub>	(2) JAHH-65B-R3B	13.00	8.00	72.00	jumpers	161	20.00	14.00	150.00	66
And a state of the second second		-	and the second s			Ant <sub>1c</sub>	(2) CBC78TDS432X	6.50	9.75	8.00	jumpers	160.417	27.00	-7.00		66
						Antza										
						Ant <sub>2b</sub>	RT4408-48	8.50	5.50	16.00	jumpers	160.25	29.00	10.00	150.00	67
						Ant <sub>2c</sub>										
		ണ	TI			Antaa										
4	ц д		LL.	Ē.		Ant <sub>3b</sub>	RFV01U-D2A	16.00	10.00	15.00	jumpers	160.25	29.00	8.50	150.00	68
						Ant <sub>ac</sub>					,,					
						Ant <sub>4a</sub>										
l,	Jeeee fi		ΠĻ	THP OF EQUIPMENT		Ant <sub>4h</sub>	BXA-70063/4CFEDIN	11.00	5.00	47.00	(2) 1 5/8"	160.25	29.00	11.50	150.00	68
						Ant <sub>4c</sub>					(-// -					
Г					DISTANCE FROM TOP OF MAIN PLATFORM MEMBER TO LOWEST TIP	Antsa										
-			+++++		OF ANT_/EDPT. OF CARRIER ABOVE. (N/A IF > 10 FT.)	Ant <sub>sh</sub>										
_						Ant <sub>5c</sub>										
٩,	F	T	ղեր		DISTANCE FROM TOP OF MAIN PLATFORM MENBER TO HICHEST TIP	Ant on		10.00	12.00	10.00		100				65
EXISTING PLATFORM-					OF ANL/EDPT. OF CARREN BELOW. (N/A IF > 10 FT.)	Standoff	REVUIU-DIA	16.00	12.00	16.00	Jumpers	160				65
Ľ	ч д		ШÆ			Ant on										
						Ant on										
				p		Tower	RHSDC-6627-PF-48	14.00	9.00	19.00	1)2" hybri	d				65
L						Ant on										
-		BU		L		Tower										
- <b></b> -		FOR PLATFO	RMS	<u> </u>							Sector D					
		Ĩ.		1		Ant <sub>1a</sub>										
c			4 H	<b>₩</b>		Ant <sub>1b</sub>										
d			-	<b></b> ,		Ant <sub>1c</sub>										
6	· 4		-47	TIP OF EQUIPMENT	Ŧ	Ant <sub>za</sub>										
						Ant <sub>2b</sub>										
Г		K			DISTANCE FROM TOP OF BOTTOM SUPPORT RAL TO LOWEST TIP OF	Ant <sub>2c</sub>										
_					AN(,/EQPT. OF CARRIER ABOVE. (N/A IF > 10 FT.)	Ant <sub>3a</sub>										
7			//			Ant <sub>3b</sub>										
c			- 12			Ant <sub>3c</sub>										
EXISTING SECTOR FRAM					SUPPORT RAL TO HIGHEST TIP OF ANT,/EQPT. OF CARREE BELOW.	Ant <sub>4a</sub>										
2001		K		TP OF EQUIPMENT	(N/A IF > 10 FT.)	Ant <sub>4b</sub>										
اللم ا	l L		Υ <u>β</u>		-	Ant <sub>4c</sub>										
c				·		Ant <sub>5a</sub>										
						Ant <sub>5b</sub>										
"				r l		Ant <sub>5c</sub>										
5		U		1 -		Ant on Standoff										
For T-Arms/	Platforms on	monopo	oles, rec	ord the weld size from	the main standoff	Ant on										
member to	the plate bolt	ing into	the coll	ar. See below for refer	ence.	Standoff										
//	>				11	Ant on										
					$\swarrow$	Tower										
T					5	Ant on Tower										
	6	- <u>F</u>			//	TOWER										



	Observed Safety and Structural Issues During the Mount Mapping	
Issue #	Description of Issue	Photo #
1		
2		
3		
4		
5		
6		
7		
8		

			Obser	ved Obstructions to Tower Lighting System	
If the tower lighting system is being obst	tructed by the carrier's equipment	(for exam	ple: a light i	nested by the antennas), please provide photos and fill in the information below.	Photo #
Description of Obstruction:					
Type of Light:		Photo #		Additional Comments:	
Lighting Technology:		Photo #			
Elevation (AGL) at base of light (Ft.):		Photo #			
Is a service loop available?		Photo #			
Is beacon installed on an extension?		Photo #			

### Mapping Notes

1. Please report any visible structural or safety issues observed on the antenna mounts (Damaged members, loose connections, tilting mounts, safety climb issues, etc.)

2. If the thickness of the existing pipes or tubing can't be obtained from a general tool (such as Calipor), please use an ultrasonic measurement tool (thickness gauge) to measure the thickness. 3. Please create all required detail sketches of the mounts and insert them into the "Sketches" tab.

4. Please measure and enter the bolt sizes and types under the Members Box in the spreadsheet of the mount type.

5. Take and label the photos of the tower, mounts, connections, antennas and all measurements. Minimum 50 photos are required.

Please measure and report the size and length of all existing antenna mounting pipes.
 Please measure and report the antenna information for all sectors.

8. Don't delete or rearrange any sheet or contents of any sheet from this mapping form.

Standard Conditions

1. Obvious safety and structural issues/deficiencies noticed at the time of the mount mapping are to be reported in this mapping. However, this mount mapping is not a condition assessment of the mount.

FCC # Antenna Mount Mapping Form (PATENT PENDING) MASER Tower Owner: Mapping Date: 10/19/2021 Site Name: WESTPORT\_CT Tower Type: Self Support Site Number or ID: 16242132 Tower Height (Ft.): 180 Mapping Contractor Structural Components Mount Elevation (Ft.): 158 This antenna mapping form is the property of TES and under PATENT PENDING. The formation contained herein is considered confidential in nature and is to be used only for the specific customer it was intended for. Reproduction, transmission, publication odification or disclosure by any method is prohibited except by express written permission of TES. All means and methods are the responsibility of the contractor and the work shall be compliant with ANSI/ASSE A 10.48, OSHA, FCC, FAA and other safety equirements that may apply. TES is not warrantying the usability of the safety climb as it must be assessed prior to each use in compliance with OSHA requirements Please Insert Sketches of the Antenna Mount Maser Todd ( Kevin wather 55 ( song ( 15mph su) 10(17) 15:5( mounts not of point out & love ver 5,80 K A B Hentle 270 150 Ant 30 260 140 20 Mount 330 210 90 les SC 2 d 7 Cl 158 Towar FR NA 8 180 elevatin 10g 4/2 105 FW 5/8 TY cables (6) 2º Hyb



	Please Insert Sketches of the Antenna Mount, cont'd	i de la constanción d
10(17/2)		
	TEBORIES Sector Frank to tourer A NA B 207 leg A C 127 leg B	freme to be VI B NA NA
		10/19/2021 15:57

z x		
Maser Consulting	469153-VZW_MT_LOT_SectorA_H	SK - 1 Aug 19, 2022 at 11:09 AM LOADED_469153-VZW_MT_LOT







## **Basic Load Cases**

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed	Area(Me	Surface(
1	Antenna D	None					54			
2	Antenna Di	None					54			
3	Antenna Wo (0 Deg)	None					54			
4	Antenna Wo (30 Deg)	None					54			
5	Antenna Wo (60 Deg)	None					54			<u> </u>
6	Antenna Wo (90 Deg)	None					54			
7	Antenna Wo (120 Deg)	Nono					54			-
0	Antenna Wo (120 Deg)	None					54			
0	Antenna We (180 Deg)	None					54			
9	Antenna Wo (180 Deg)	None					54			
10	Antenna Wo (210 Deg)	None					54			
11	Antenna Wo (240 Deg)	None					54			
12	Antenna Wo (270 Deg)	None					54			
13	Antenna Wo (300 Deg)	None					54			
14	Antenna Wo (330 Deg)	None					54			
15	Antenna Wi (0 Deg)	None					54			
16	Antenna Wi (30 Deg)	None					54			
17	Antenna Wi (60 Deg)	None					54			
18	Antenna Wi (90 Deg)	None					54			
19	Antenna Wi (120 Deg)	None					54			
20	Antenna Wi (150 Deg)	None					54			
20	Antenna Wi (180 Deg)	None					54			
21	Antenna Wi (210 Deg)	None					54			
22	Antenna Wi (210 Deg)	None					54			
23	Antenna VVI (240 Deg)	None					54			
24	Antenna WI (270 Deg)	None					54			
25	Antenna Wi (300 Deg)	None					54			
26	Antenna Wi (330 Deg)	None					54			
27	Antenna Wm (0 Deg)	None					54			
28	Antenna Wm (30 Deg)	None					54			
29	Antenna Wm (60 Deg)	None					54			
30	Antenna Wm (90 Deg)	None					54			
31	Antenna Wm (120 Deg)	None					54			
32	Antenna Wm (150 Deg)	None					54			
33	Antenna Wm (180 Deg)	None					54			
34	Antenna Wm (210 Deg)	None					54			
34	Antenna Wm (210 Deg)	None					54			
35	Antenna Wm (240 Deg)	None					54			
36	Antenna Wm (270 Deg)	None					54			
37	Antenna Wm (300 Deg)	None					54			
38	Antenna Wm (330 Deg)	None					54			
39	Structure D	None		-1						
40	Structure Di	None						41		
41	Structure Wo (0 Deg)	None						82		
42	Structure Wo (30 Deg)	None						82		
43	Structure Wo (60 Deg)	None						82		
44	Structure Wo (90 Dea)	None						82		
45	Structure Wo (120 Deg)	None						82		
46	Structure Wo. (150 Deg)	None						82		
40	Structure Wo (180 Deg)	None						02		1
4/	Structure Wo (100 Deg)	None						02		
48	Structure Wo (210 Deg)	None						82		
49	Structure vvo (240 Deg)	None						82		
50	Structure Wo (270 Deg)	None						82		
51	Structure Wo (300 Deg)	None						82		
52	Structure Wo (330 Deg)	None						82		
53	Structure Wi (0 Dea)	None						82		
54	Structure Wi (30 Deg)	None						82		
55	Structure Wi (60 Deg)	None						82		
56	Structure Wi (90 Dea)	None						82		
57	Structure Wi (120 Deg)	None						82		
59	Structure Wi (150 Deg)	None						82		
00	Olidetale Wi (150 Deg)	None						02		



## Basic Load Cases (Continued)

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed Area(Me.	Surface(
59	Structure Wi (180 Deg)	None	-					82	
60	Structure Wi (210 Deg)	None						82	
61	Structure Wi (240 Deg)	None						82	
62	Structure Wi (270 Deg)	None						82	
63	Structure Wi (300 Deg)	None						82	
64	Structure Wi (330 Deg)	None						82	
65	Structure Wm (0 Deg)	None						82	
66	Structure Wm (30 Deg)	None						82	
67	Structure Wm (60 Deg)	None						82	
68	Structure Wm (90 Deg)	None						82	
69	Structure Wm (120 Deg)	None						82	
70	Structure Wm (150 Deg)	None						82	
71	Structure Wm (180 Deg)	None						82	
72	Structure Wm (210 Deg)	None						82	
73	Structure Wm (240 Deg)	None						82	
74	Structure Wm (270 Deg)	None						82	
75	Structure Wm (300 Deg)	None						82	
76	Structure Wm (330 Deg)	None						82	
77	Lm1	None					1		
78	Lm2	None					1		
79	Lv1	None					1		
80	Lv2	None					1		
81	Antenna Ev	None					54		
82	Antenna Eh (0 Deg)	None					36		
83	Antenna Eh (90 Deg)	None					36		
84	Structure Ev	ELY		049					
85	Structure Eh (0 Deg)	ELZ			122				
86	Structure Eh (90 Deg)	ELX	.122						

## Load Combinations

	Description	Solve	PDelta	S	В	Fa	В	Fa	В	Fa	В	Fa	В	Fa	В	Fa	В	Fa	В	Fa	В	Fa	В	Fa
1	1.2D+1.0Wo (0 Deg)	Yes	Y		1	1.2	39	1.2	3	1	41	1												
2	1.2D+1.0Wo (30 Deg)	Yes	Y		1	1.2	39	1.2	4	1	42	1												
3	1.2D+1.0Wo (60 Deg)	Yes	Y		1	1.2	39	1.2	5	1	43	1												
4	1.2D+1.0Wo (90 Deg)	Yes	Y		1	1.2	39	1.2	6	1	44	1												
5	1.2D+1.0Wo (120 D	Yes	Y		1	1.2	39	1.2	7	1	45	1												
6	1.2D+1.0Wo (150 D	Yes	Y		1	1.2	39	1.2	8	1	46	1												
7	1.2D+1.0Wo (180 D	Yes	Y		1	1.2	39	1.2	9	1	47	1												
8	1.2D+1.0Wo (210 D	Yes	Y		1	1.2	39	1.2	10	1	48	1												
9	1.2D+1.0Wo (240 D	Yes	Y		1	1.2	39	1.2	11	1	49	1												
10	1.2D+1.0Wo (270 D	Yes	Y		1	1.2	39	1.2	12	1	50	1												
11	1.2D+1.0Wo (300 D	Yes	Y		1	1.2	39	1.2	13	1	51	1												
12	1.2D+1.0Wo (330 D	Yes	Y		1	1.2	39	1.2	14	1	52	1												
13	1.2D + 1.0Di + 1.0Wi	Yes	Y		1	1.2	39	1.2	2	1	40	1	15	1	53	1								
14	1.2D + 1.0Di + 1.0Wi	Yes	Y		1	1.2	39	1.2	2	1	40	1	16	1	54	1								
15	1.2D + 1.0Di + 1.0Wi	Yes	Y		1	1.2	39	1.2	2	1	40	1	17	1	55	1								
16	1.2D + 1.0Di + 1.0Wi	Yes	Y		1	1.2	39	1.2	2	1	40	1	18	1	56	1								
17	1.2D + 1.0Di + 1.0Wi	Yes	Y		1	1.2	39	1.2	2	1	40	1	19	1	57	1								
18	1.2D + 1.0Di + 1.0Wi	Yes	Y		1	1.2	39	1.2	2	1	40	1	20	1	58	1								
19	1.2D + 1.0Di + 1.0Wi	Yes	Y		1	1.2	39	1.2	2	1	40	1	21	1	59	1								
20	1.2D + 1.0Di + 1.0Wi	Yes	Y		1	1.2	39	1.2	2	1	40	1	22	1	60	1								
21	1.2D + 1.0Di + 1.0Wi	Yes	Y		1	1.2	39	1.2	2	1	40	1	23	1	61	1								
22	1.2D + 1.0Di + 1.0Wi	Yes	Y		1	1.2	39	1.2	2	1	40	1	24	1	62	1								
23	1.2D + 1.0Di + 1.0Wi	Yes	Y		1	1.2	39	1.2	2	1	40	1	25	1	63	1								
24	1.2D + 1.0Di + 1.0Wi	Yes	Y		1	1.2	39	1.2	2	1	40	1	26	1	64	1								
25	1.2D + 1.5Lm1 + 1.0	Yes	Y		1	1.2	39	1.2	77	1.5	27	1	65	1										
26	1.2D + 1.5Lm1 + 1.0	Yes	Y		1	1.2	39	1.2	77	1.5	28	1	66	1										



## Load Combinations (Continued)

	Description	Solve	PDelta	<u>S</u>	B	Fa	B	Fa	<u>B</u>	Fa	B	Fa	B	Fa	B	Fa	В	Fa	B	Fa	B	Fa	B	Fa
27	1.2D + 1.5Lm1 + 1.0	Yes	Y		1	1.2	39	1.2	77	1.5	29	1	67	1										
28	1.2D + 1.5Lm1 + 1.0	Yes	Y		1	1.2	39	1.2	77	1.5	30	1	68	1										
29	1.2D + 1.5Lm1 + 1.0	Yes	Y		1	1.2	39	1.2	77	1.5	31	1	69	1										
30	1.2D + 1.5Lm1 + 1.0	Yes	Y		1	1.2	39	1.2	77	1.5	32	1	70	1										
31	1.2D + 1.5Lm1 + 1.0	Yes	Y		1	1.2	39	1.2	77	1.5	33	1	71	1										
32	1.2D + 1.5Lm1 + 1.0	Yes	Y		1	1.2	39	1.2	77	1.5	34	1	72	1										
33	1.2D + 1.5Lm1 + 1.0	Yes	Y		1	1.2	39	1.2	77	1.5	35	1	73	1										
34	1.2D + 1.5Lm1 + 1.0	Yes	Y		1	1.2	39	1.2	77	1.5	36	1	74	1										
35	1.2D + 1.5Lm1 + 1.0	Yes	Y		1	1.2	39	1.2	77	1.5	37	1	75	1										
36	1.2D + 1.5Lm1 + 1.0	Yes	Y		1	1.2	39	1.2	77	1.5	38	1	76	1										
37	1.2D + 1.5Lm2 + 1.0	Yes	Y		1	1.2	39	1.2	78	1.5	27	1	65	1										
38	1.2D + 1.5Lm2 + 1.0	Yes	Ý		1	1.2	39	1.2	78	1.5	28	1	66	1										
39	1.2D + 1.5Lm2 + 1.0	Yes	Ý		1	1.2	39	1.2	78	1.5	29	1	67	1										
40	1.2D + 1.5Lm2 + 1.0	Yes	Y		1	12	39	12	78	1.5	30	1	68	1										
41	1.2D + 1.5Lm2 + 1.0	Yes	Ý		1	12	39	12	78	1.5	31	1	69	1										
42	1.2D + 1.5Lm2 + 1.0	Yes	Y		1	12	39	12	78	1.5	32	1	70	1										
43	1.2D + 1.5Lm2 + 1.0	Yes	Ý		1	12	39	1.2	78	1.5	33	1	71	1										
44	1.2D + 1.5Lm2 + 1.0	Yes	Y		1	12	39	12	78	1.5	34	1	72	1										
45	1.2D + 1.5Lm2 + 1.0	Yes	Ý		1	1.2	39	1.2	78	1.5	35	1	73	1				_						
46	1.2D + 1.5Lm2 + 1.0	Yes	Y		1	12	39	1.2	78	1.5	36	1	74	1										
40	1.2D + 1.5Lm2 + 1.0	Yes	Ý		1	1.2	39	1.2	78	1.5	37	1	75	1										
48	1.2D + 1.5Lm2 + 1.0	Yes	Y		1	12	39	1.2	78	1.5	38	1	76	1										
40	1.2D + 1.51 v1	Vas	V		1	1.2	30	1.2	70	1.5	00	-	10											
50	1.2D + 1.5Lv1	Yes	Y		1	1.2	30	1.2	80	1.5														
51	1 4D	Ves	× ·		1	1.2	30	1.2		1.0														
52	1.2D + 1.0Ev + 1.0E	Vas	V		1	1.7	30	1.7	81	1	E	1	82	1	83		FL Z	1	E					
53	1.2D + 1.0Ev + 1.0E	Vas	V		1	1.2	30	1.2	81	1	F	1	82	866	83	5	FI Z	866	F	5				
54	1.2D + 1.0Ev + 1.0E	Vee	V		1	1.2	30	1.2	81	1	F	1	82	5	83	866	FI 7	5	F	866				
55	1.2D + 1.0Ev + 1.0E	Vac	V		1	1.2	30	1.2	81	1	F	1	82	.0	83	1	FI Z	.0	F	1				
56	1.2D + 1.0Ev + 1.0E	Vac	V		1	1.2	30	1.2	81	1	F	1	82	- 5	83	866	FI 7	- 5	F	866				
57	1.2D + 1.0Ev + 1.0E	Voc			1	1.2	30	1.2	81	1	F	1	82	- 866	83	5	FI 7	- 866	F	5				
50	1.2D + 1.0Ev + 1.0E	Vac			1	1.2	20	1.2	01	1	F	1	02	1	00	.5	FI 7	1	F	.5				
50	1.2D + 1.0Ev + 1.0E	Voc			1	1.2	30	1.2	01 Q1	1	F	1	82	- 866	83	- 5	FI 7	- 866	F	- 5				
60	1.2D + 1.0Ev + 1.0E	Voc			1	1.2	30	1.2	Q1	1	F	1	82	.000	83	- 866	FI 7	5	F	- 866				
61	1.2D + 1.0Ev + 1.0E	Voc			1	1.2	30	1.2	01	1	F	1	02	0	00	.000	FI 7	0	F	1				
62	1.2D + 1.0Ev + 1.0E	Vac			1	1.2	39	1.2	01	1	F	1	02	5	00	- 866	FI 7	5	F	- 1				
63	1.2D + 1.0Ev + 1.0E	Vos			1	1.2	30	1.2	01 81	1	F	1	82	.0	83	- 5	FI 7	.0	F	- 5				
64	0.9D - 1.0Ev + 1.0Eh	Voc			1	0	30	0	Q1	_1	F	_1	82	1	83	5	FI 7	1	F	5				
65	0.9D - 1.0Ev + 1.0Eh.	Vee			1	.9	29	.9	01	-1	F	- 1	02	866	00	5	FI 7	866	F	5				
60	0.9D = 1.0Ev + 1.0Eh	Vec	T		1	.9	39	.9	01	-1	E	-1	02	.000	00	.0 866	ELZ	.000	E	C.				
67	0.9D - 1.0Ev + 1.0Eh.	Vee	I V		1	.9	20	.9	01	-1	E	- 1	02	.5	00	.000		.5	E	.000				
60	$0.9D = 1.0EV \pm 1.0Eh$	Vec	T V		1	.9	20	.9	01	-1	с Е	- 1	02	E	03	866	ELZ	E	E	866				
00	0.00 = 1.000 + 1.001.	Vec	Y		1	.9	29	.9	01	-1	E	-	02	0	03	.000		0 866	E	.000				
09	0.0D - 1.0EV + 1.0EN.	Vec	Y		1	.9	29	.9	01	-1	E	-1	02	000	03	.o		000	E	.၁				
70	0.9D - 1.0EV + 1.0Eh.	Yes	Y		1	.9	39	.9	01	-1	C	-1	82	-1	03	5		-1	C	5				
71	0.0D 1.0EV + 1.0Eh.	res	Y		1	.9	39	.9	01	-1	с с	-1	02 00	000	03	5		000	E	5				
72	0.9D - 1.0EV + 1.0Eh.	Vec	Y		1	.9	39	.9	01	-1	с Е	-1	02	5	03	000		5	E	000				
13	0.9D - 1.0EV + 1.0EN.	· r es	Y		1	.9	39	.9	01	-1	C	-1	02	E	03	-1	сц2 EI 7	E	E	-1				
74	0.0D - 1.0EV + 1.0EN.	res	Y			.9	39	.9	01	-1	с	-1	02	.5 999	03	000		.5	E	000				
15	0.50 - 1.0EV + 1.0EN	r es	Y			1.9	139	.9	101	-1	<b>⊃</b> ا	1-1	102	.000	03	5	CL2	.000	<b> </b> ⊑…	5		1 '	1	i

## Joint Coordinates and Temperatures

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diap
1	N1	-0.166667	0	0.166667	0	
2	N2	-0.447917	0	0.166667	0	
3	N3	0.114583	0	0.166667	0	
4	N4	-0.166667	0	0	0	
5	N5	-0.209803	-3.416667	0.160988	0	



## Joint Coordinates and Temperatures (Continued)

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diap
6	N6	-0.447917	-3.416667	0.166667	0	
7	N7	0.114583	-3.416667	0.166667	0	
8	N10	-4.5	0	4.583333	0	
9	N11	4.166667	0	4.583333	0	
10	N11A	-7.666667	0	4.583333	0	
11	N12	7.333333	0	4.583333	0	
12	N14	-4.5	-3.416667	4.583333	0	
13	N15	4.166667	-3.416667	4.583333	0	
14	N16	-7.666667	-3.416667	4.583333	0	
15	N17	7.333333	-3.416667	4.583333	0	
16	N17A	-0.341752	0	0.345119	0	
17	N18	0.008419	0	0.345119	0	
18	N19	-0.341752	-3,416667	0.345119	0	
19	N20	0.008419	-3.416667	0.345119	0	
20	N21	0.38777	0	0.731765	0	
21	N22	0.38777	-3 416667	0.731765	0	
22	N23	2.08026	0	2 456803	0	
23	N24	2.08026	-3.416667	2.456803	0	
24	N25	3 77275	0	4 181841	0	
24	N26	3 77075	-3 416667	4 1819/1	0	
20	N20	0.39777	3 201667	0.731765	0	
20	N27	0.30777	-3.291007	0.731703	0	
21	N20	2.00020	-3.291007	2.40000	0	
28	N29	0.38777	120	0.731765	0	
29	N3U	2.08026	125	2.450803	0	
30	N31	3.77275	-2.916667	4.181841	0	
31	N32	3.77275	5	4.181841	0	
32	N33	-0.721103	0	0.731765	0	
33	N34	-0.721103	-3.416667	0.731765	0	
34	N35	-2.413593	0	2.456803	0	
35	N36	-2.413593	-3.416667	2.456803	0	
36	N37	-4.106083	0	4.181841	0	
37	N38	-4.106083	-3.416667	4.181841	0	
38	N39	-0.721103	-3.291667	0.731765	0	
39	N40	-2.413593	-3.291667	2.456803	0	
40	N41	-0.721103	125	0.731765	0	
41	N42	-2.413593	125	2.456803	0	
42	N43	-4.106083	-2.916667	4.181841	0	
43	N44	-4.106083	5	4.181841	0	
44	N45	-7.083333	0	4.583333	0	
45	N46	-7.083333	-3.416667	4.583333	0	
46	N47	-7.083333	0	4.833333	0	
47	N48	-7.083333	-3.416667	4.833333	0	
48	N49	-7.083333	1.25	4.833333	0	
49	N50	-7.083333	-4.75	4.833333	0	
50	N51	-3.375	0	4.583333	0	
51	N52	-3.375	-3.416667	4.583333	0	
52	N53	-3.375	0	4.833333	0	
53	N54	-3.375	-3,416667	4.833333	0	
54	N55	-3.375	1.25	4.833333	0	
55	N56	-3 375	-4 75	4,833333	0	
56	N57	-0.833333	0	4 583333	0	
57	N58	-0.833333	-3 416667	4 583333	0	
58	N59	-0.833333	0.410007	4.833333	0	
50	NEO	-0.0000000	-3 /16667	4.000000	0	
60	NG1	-0.0000000	1.05	4.000000	0	
61	NEO	-0.000000	1.20	4.000000	0	
60		-0.000000	-4.70	4.000000	0	
62		-0.100007	-3.410007	1 500000	0	
03	ACON	0.75	2 440007	4.003333	0	
64	NOD	0.75	-3.416667	4.083333	U	



## Joint Coordinates and Temperatures (Continued)

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diap
65	N67	6.75	0	4.833333	0	
66	N68	6.75	-3.416667	4.833333	0	
67	N69	6.75	1.25	4.833333	0	
68	N70	6.75	-4.75	4.833333	0	
69	N71	8.550037	-3.416667	-0.762613	0	
70	N80	1.671718	0	2.040405	0	
71	N81	1.87963	0	2.252315	0	
72	N98	1.671718	-3.416667	2.040405	0	
73	N99	1.87963	-3.416667	2.252315	0	
74	N77	1.494941	0	2.217181	0	
75	N78	1.702853	0	2.429092	0	
76	N79	1.494941	-3.416667	2.217181	0	
77	N80A	1.702853	-3.416667	2.429092	0	
78	N81A	1.494941	-3.666667	2.217181	0	
79	N82	1.702853	-3.666667	2.429092	0	
80	N83	1.494941	.25	2.217181	0	
81	N84	1.702853	.25	2.429092	0	
82	N85	1.494941	-1.708333	2.217181	0	
83	N86	1.702853	-1.708333	2.429092	0	
84	N85A	5.5	-3.416667	4.583333	0	

## Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design R	A [in2]	lyy [in4]	lzz [in4]	J [in4]
1	Antenna Pipe	PIPE 2.0	Column	Pipe	A53 Gr. B	Typical	1.02	.627	.627	1.25
2	Standoff Horizontal	PIPE_2.0	Beam	Pipe	A53 Gr. B	Typical	1.02	.627	.627	1.25
3	Standoff Vertical	PIPE_2.0	Beam	Pipe	A53 Gr. B	Typical	1.02	.627	.627	1.25
4	Standoff Diagonal	1.5 w 0.06 th	Beam	Pipe	A53 Gr. B	Typical	.271	.07	.07	.141
5	TES Standoff Dia	PIPE_1.5	Beam	Pipe	A53 Gr. B	Typical	.749	.293	.293	.586
6	Face Horizontal	PIPE_2.5	Beam	Pipe	A53 Gr. B	Typical	1.61	1.45	1.45	2.89
7	Tie Back	PIPE_2.0	Beam	Pipe	A53 Gr. B	Typical	1.02	.627	.627	1.25
8	Standoff Bar	PL3/8X3_HRA	Beam	RECT	A36 Gr.36	Typical	1.125	.013	.844	.049
9	Mount Angle	L4X3X6	Beam	Single Angle	A36 Gr.36	Typical	2.49	1.89	3.94	.123
10	TES Unistrut	L2.5x2.5x3	Beam	Single Angle	A36 Gr.36	Typical	.901	.535	.535	.011

## Hot Rolled Steel Properties

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

## **Cold Formed Steel Section Sets**

	Label	Shape	Type	Design List	Material	Design Rul	A [in2]	lyy [in4]	Izz [in4]	J [in4]
1	Unistrut	P1000_CFB	Beam	None	A570 Gr.33	Typical	.483	.13	.212	.002

## **Cold Formed Steel Properties**

	Label	E [ksi]	G [ksi]	Nu	Therm (/1E5 F)	Density[k/ft^3]	Yield[ksi]	Fu[ksi]
1	A570 Gr.33	29500	11346	.3	.65	.49	33	52
2	A607 C1 Gr.55	29500	11346	.3	.65	.49	55	70



## Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Туре	Design List	Material	Design Rules
1	M1	N2	N3		90	Mount Angle	Beam	Single Angle	A36 Gr.36	Typical
2	M2	N1	N4			RIGID	None	None	RIGID	Typical
3	M3	N6	N7		90	Mount Angle	Beam	Single Angle	A36 Gr.36	Typical
4	M5	N1	N17A		90	Standoff Bar	Beam	RECT	A36 Gr.36	Typical
5	M6	N1	N18		90	Standoff Bar	Beam	RECT	A36 Gr.36	Typical
6	M7	N11A	N12			Face Horizontal	Beam	Pipe	A53 Gr. B	Typical
7	<u>M8</u>	N5	N19		90	Standoff Bar	Beam	RECT	A36 Gr.36	Typical
8	M9	N5	N20		90	Standoff Bar	Beam	RECT	A36 Gr.36	Typical
9	M10	N16	N17			Face Horizontal	Beam	Pipe	A53 Gr. B	Typical
10	<u>M11</u>	N17A	N10			Standoff Horiz	Beam	Pipe	A53 Gr. B	Typical
11	M12	N18	N11			Standoff Horiz	Beam	Pipe	A53 Gr. B	Typical
12	M13	N19	N14			Standoff Horiz	Beam	Pipe	A53 Gr. B	Typical
13	M14	N20	N15			Standoff Horiz	Beam	Pipe	A53 Gr. B	Typical
14	M15	N21	N29	N1		Standoff Bar	Beam	RECT	A36 Gr.36	Typical
15	M16	N21	N24		90	Standoff Diago	Beam	Pipe	A53 Gr. B	Typical
16	<u>M17</u>	N23	N30	N1		Standoff Bar	Beam	RECT	A36 Gr.36	Typical
17	<u>M18</u>	N23	N26		90	Standoff Diago	Beam	Pipe	A53 Gr. B	Typical
18	M19	N26	N31	N1		Standoff Bar	Beam	RECT	A36 Gr.36	Typical
19	M20	N27	N22	N1		Standoff Bar	Beam	RECT	A36 Gr.36	Typical
20	M21	N28	N24	N1		Standoff Bar	Beam	RECT	A36 Gr.36	Typical
21	M22	N29	N27	N1		Standoff Diago	Beam	Pipe	A53 Gr. B	Typical
22	M23	N30	N28	N1		Standoff Diago	Beam	Pipe	A53 Gr. B	Typical
23	M24	N31	N32	N1		Standoff Vertica	Beam	Pipe	A53 Gr. B	Typical
24	M25	N32	N25	N1		Standoff Bar	Beam	RECT	A36 Gr.36	Typical
25	M26	N33	N41	N1		Standoff Bar	Beam	RECT	A36 Gr.36	Typical
26	M27	N33	N36		90	Standoff Diago	Beam	Pipe	A53 Gr. B	Typical
27	M28	N35	N42	N1		Standoff Bar	Beam	RECT	A36 Gr.36	Typical
28	M29	N35	N38		90	Standoff Diago	Beam	Pipe	A53 Gr. B	Typical
29	M30	N38	N43	N1		Standoff Bar	Beam	RECT	A36 Gr.36	Typical
30	M31	N39	N34	N1		Standoff Bar	Beam	RECT	A36 Gr.36	Typical
31	<u>M32</u>	N40	N36	<u>N1</u>		Standoff Bar	Beam	RECT	A36 Gr.36	Typical
32	M33	N41	N39	N1		Standoff Diago	Beam	Pipe	A53 Gr. B	Typical
33	M34	N42	N40	<u>N1</u>		Standoff Diago	Beam	Pipe	A53 Gr. B	Typical
34	M35	N43	N44	N1		Standoff Vertica	Beam	Pipe	A53 Gr. B	Typical
35	M36	N44	N37	N1		Standoff Bar	Beam	RECT	A36 Gr.36	Typical
36	M37	N45	N47			RIGID	None	None	RIGID	Typical
37	M38	N46	N48			RIGID	None	None	RIGID	Typical
38	MP4A	N49	N50			Antenna Pipe	Column	Pipe	A53 Gr. B	Typical
39	M40	N51	N53			RIGID	None	None	RIGID	Typical
40	IVI41	NO2	ND4			Antenna Bina	Column	None	KIGID	Typical
41	MP3A		0CM				Name	Pipe	ADJ Gr. B	Typical
42	IVI43	NC/	NGO			RIGID	None	None		Typical
43	IVI44		NOU			Antonno Pino	Column	Dice	KIGID	Typical
44			NOZ				Column	Pipe	ADJ GL B	Typical
45	1VI46A					RIGID	None	None	RIGID	Typical
40	IVI47	NCON	NO/			RIGID	None	None	RIGID	Typical
4/		NGO	NIZO			Antenna Pinc	Column	Dinc		Typical
40	FOUR	Neo			E0	Lipictrut	Boom	Pipe	A570 Gr 22	Typical
49		NO3	NOTA		50	Unistrut	Beam	None	A570 Gr.33	Typical
50	IVID I	N04	N82		50		Deam	None		Typical
50	IVID2	N98	N/9			RIGID	None	None	RIGID	Typical
52	IVID3	N99	NOUA NIZO			RIGID	None	None	RIGID	Typical
53	ND4	N81	N/8			RIGID	None	None	RIGID	Typical
54	IVI55	NOC A	N//				Dearer	Ding	KIGID	Typical
55	ACCIVI	ACON	N/T				Ner	Pipe	ADJ Gr. B	Typical
56	OVP	185	NSP			RIGID	None	None	RIGID	i ypical



## Hot Rolled Steel Design Parameters

	Label	Shape	Length[ft]	Lbyy[ft]	Lbzz[ft]	Lcomp top[ft]	Lcomp bot[ft]	L-torqu	. Kyy	Kzz	Cb	Function
1	M1	Mount Angle	.563			Lbyy						Lateral
2	M3	Mount Angle	.563			Lbyy						Lateral
3	M5	Standoff Bar	.25			Lbyy						Lateral
4	M6	Standoff Bar	.25			Lbyy						Lateral
5	M7	Face Horizo	15			Lbyy						Lateral
6	M8	Standoff Bar	.227			Lbyy						Lateral
7	M9	Standoff Bar	.286			Lbyy						Lateral
8	M10	Face Horizo	15			Lbyy						Lateral
9	M11	Standoff Ho	5.937			Lbyy						Lateral
10	M12	Standoff Ho	5.937			Lbyy						Lateral
11	M13	Standoff Ho	5.937			Lbyy						Lateral
12	M14	Standoff Ho	5.937			Lbyy						Lateral
13	M15	Standoff Bar	.125			Lbyy						Lateral
14	M16	Standoff Di	4.185			Lbyy						Lateral
15	M17	Standoff Bar	.125			Lbyy						Lateral
16	M18	Standoff Di	4.185			Lbyy						Lateral
17	M19	Standoff Bar	.5			Lbyy						Lateral
18	M20	Standoff Bar	.125			Lbyy						Lateral
19	M21	Standoff Bar	.125			Lbyy						Lateral
20	M22	Standoff Di	3.167			Lbyy						Lateral
21	M23	Standoff Di	3.167			Lbyy						Lateral
22	M24	Standoff Ve	2.417			Lbyy						Lateral
23	M25	Standoff Bar	.5			Lbyy						Lateral
24	M26	Standoff Bar	.125			Lbyy						Lateral
25	M27	Standoff Di	4.185			Lbyy						Lateral
26	M28	Standoff Bar	.125			Lbyy						Lateral
27	M29	Standoff Di	4.185			Lbyy						Lateral
28	M30	Standoff Bar	.5			Lbyy						Lateral
29	M31	Standoff Bar	.125			Lbyy						Lateral
30	M32	Standoff Bar	.125			Lbyy						Lateral
31	M33	Standoff Di	3.167			Lbyy						Lateral
32	M34	Standoff Di	3.167			Lbyy						Lateral
33	M35	Standoff Ve	2.417			Lbyy						Lateral
34	M36	Standoff Bar	.5			Lbyy						Lateral
35	MP4A	Antenna Pipe	6									Lateral
36	MP3A	Antenna Pipe	6									Lateral
37	MP2A	Antenna Pipe	6									Lateral
38	MP1A	Antenna Pipe	6									Lateral
39	M55A	Tie Back	6.155			Lbyy						Lateral

## **Cold Formed Steel Design Parameters**

	Label	Shape	Length	Lbyy[ft]	Lbzz[ft]	Lcomp to	Lcomp bo.	L-torque[ft]	Kyy	Kzz	Cb	R	a[ft]	Funct
1	EQUIP	Unistrut	3.917			Lbyy								Lateral
2	M51	Unistrut	3.917			Lbyy								Lateral

## Member Point Loads (BLC 1 : Antenna D)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	Y	-43.5	.5
2	MP1A	My	035	.5
3	MP1A	Mz	024	.5
4	MP1A	Y	-43.5	3.5
5	MP1A	My	035	3.5
6	MP1A	Mz	024	3.5
7	MP1A	Y	-43.5	.5
8	MP1A	My	004	.5


#### Member Point Loads (BLC 1 : Antenna D) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
9	MP1A	Mz	.042	.5
10	MP1A	Y	-43.5	3.5
11	MP1A	My	004	3.5
12	MP1A	Mz	.042	3.5
13	MP4A	Y	-43.5	.5
14	MP4A	My	004	.5
15	MP4A	Mz	042	.5
16	MP4A	Y	-43.5	3.5
17	MP4A	My	004	3.5
18	MP4A	Mz	042	3.5
19	MP4A	Y	-43.5	.5
20	MP4A	My	035	.5
21	MP4A	Mz	.024	.5
22	MP4A	Y	-43.5	3.5
23	MP4A	My	035	3.5
24	MP4A	Mz	.024	3.5
25	MP3A	Y	-43.55	1
26	MP3A	My	022	1
27	MP3A	Mz	0	1
28	MP3A	Y	-43.55	3
29	MP3A	My	022	3
30	MP3A	Mz	0	3
31	MP1A	Y	-74.7	2
32	MP1A	My	.034	2
33	MP1A	Mz	016	2
34	MP2A	Y	-70.3	3.5
35	MP2A	My	.035	3.5
36	MP2A	Mz	0	3.5
37	MP2A	Y	-11.6	.5
38	MP2A	My	006	.5
39	MP2A	Mz	0	.5
40	MP2A	Y	-11.6	3.5
41	MP2A	My	006	3.5
42	MP2A	Mz	0	3.5
43	OVP	Y	-84.4	.15
44	OVP	My	0	.15
45	OVP	MZ	0	.15
46	MP3A	Y	-70.3	3.5
4/	MP3A	My	.035	3.5
48	MP3A	Mz	0	3.5
49	MP4A	Y	-1/.6	3
50	MP4A	My	.009	3
51	MP4A	Mz	.003	3
52	MP4A	Y	-1/.6	3
53	MP4A	My	.009	3
54	MP4A	Mz	003	3

#### Member Point Loads (BLC 2 : Antenna Di)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	Y	-98.574	.5
2	MP1A	My	079	.5
3	MP1A	Mz	054	.5
4	MP1A	Y	-98.574	3.5
5	MP1A	My	079	3.5
6	MP1A	Mz	054	3.5
7	MP1A	Y	-98.574	.5
8	MP1A	My	01	.5
9	MP1A	Mz	.095	.5



#### Member Point Loads (BLC 2 : Antenna Di) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
10	MP1A	Y	-98.574	3.5
11	MP1A	My	01	3.5
12	MP1A	Mz	.095	3.5
13	MP4A	Y	-98.574	.5
14	MP4A	My	01	.5
15	MP4A	Mz	095	.5
16	MP4A	Y	-98.574	3.5
17	MP4A	My	01	3.5
18	MP4A	Mz	095	3.5
19	MP4A	Y	-98.574	.5
20	MP4A	My	079	.5
21	MP4A	Mz	.054	.5
22	MP4A	Y	-98.574	3.5
23	MP4A	My	079	3.5
24	MP4A	Mz	.054	3.5
25	MP3A	Y	-36.174	1
26	MP3A	My	018	1
27	MP3A	Mz	0	1
28	MP3A	Y	-36.174	3
29	MP3A	My	018	3
30	MP3A	Mz	0	3
31	MP1A	Y	-45.617	2
32	MP1A	My	.021	2
33	MP1A	Mz	01	2
34	MP2A	Y	-43.443	3.5
35	MP2A	My	.022	3.5
36	MP2A	Mz	0	3.5
37	MP2A	Y	-15.178	.5
38	MP2A	My	008	.5
39	MP2A	Mz	0	.5
40	MP2A	Y	-15.178	3.5
41	MP2A	My	008	3.5
42	MP2A	Mz	0	3.5
43	OVP	Y	-45.617	.15
44	OVP	Му	0	.15
45	OVP	Mz	0	.15
46	MP3A	Y	-41.028	3.5
47	MP3A	My	.021	3.5
48	MP3A	Mz	0	3.5
49	MP4A	Y	-18.122	3
50	MP4A	My	.009	3
51	MP4A	Mz	.003	3
52	MP4A	Y	-18.122	3
53	MP4A	My	.009	3
54	MP4A	Mz	003	3

## Member Point Loads (BLC 3 : Antenna Wo (0 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	Х	0	.5
2	MP1A	Z	-197.178	.5
3	MP1A	Mx	.107	.5
4	MP1A	Х	0	3.5
5	MP1A	Z	-197.178	3.5
6	MP1A	Mx	.107	3.5
7	MP1A	Х	0	.5
8	MP1A	Z	-197.178	.5
9	MP1A	Mx	191	.5
10	MP1A	Х	0	3.5



## Member Point Loads (BLC 3 : Antenna Wo (0 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
11	MP1A	Z	-197.178	3.5
12	MP1A	Mx	191	3.5
13	MP4A	X	0	.5
14	MP4A	Z	-197.178	.5
15	MP4A	Mx	.191	.5
16	MP4A	X	0	3.5
17	MP4A	Z	-197.178	3.5
18	MP4A	Mx	.191	3.5
19	MP4A	X	0	.5
20	MP4A	Z	-197.178	.5
21	MP4A	Mx	107	.5
22	MP4A	X	0	3.5
23	MP4A	Z	-197.178	3.5
24	MP4A	Mx	107	3.5
25	MP3A	X	0	1
26	MP3A	Z	-80.62	1
27	MP3A	Mx	0	1
28	MP3A	X	0	3
29	MP3A	Z	-80.62	3
30	MP3A	Mx	0	3
31	MP1A	X	0	2
32	MP1A	Z	-60.354	2
33	MP1A	Mx	.013	2
34	MP2A	X	0	3.5
35	MP2A	Z	-64.153	3.5
36	MP2A	Mx	0	3.5
37	MP2A	X	0	.5
38	MP2A	Z	-26.244	.5
39	MP2A	Mx	0	.5
40	MP2A	X	0	3.5
41	MP2A	Z	-26.244	3.5
42	MP2A	Mx	0	3.5
43	OVP	X	0	.15
44	OVP	Z	-58.836	.15
45	OVP	Mx	0	.15
46	MP3A	X	0	3.5
47	MP3A	Z	-64.153	3.5
48	MP3A	Mx	0	3.5
49	MP4A	Х	0	3
50	MP4A	Z	-32.934	3
51	MP4A	Mx	005	3
52	MP4A	Х	0	3
53	MP4A	Z	-32.934	3
54	MP4A	Mx	.005	3

## Member Point Loads (BLC 4 : Antenna Wo (30 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	Х	77.666	.5
2	MP1A	Z	-134.521	.5
3	MP1A	Mx	.011	.5
4	MP1A	Х	77.666	3.5
5	MP1A	Z	-134.521	3.5
6	MP1A	Mx	.011	3.5
7	MP1A	Х	77.666	.5
8	MP1A	Z	-134.521	.5
9	MP1A	Mx	138	.5
10	MP1A	X	77.666	3.5
11	MP1A	Z	-134.521	3.5



### Member Point Loads (BLC 4 : Antenna Wo (30 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
12	MP1A	Mx	138	3.5
13	MP4A	Х	105.856	.5
14	MP4A	Z	-183.348	.5
15	MP4A	Mx	.167	.5
16	MP4A	X	105.856	3.5
17	MP4A	Z	-183.348	3.5
18	MP4A	Mx	.167	3.5
19	MP4A	X	105.856	.5
20	MP4A	Z	-183.348	.5
21	MP4A	Mx	185	.5
22	MP4A	X	105.856	3.5
23	MP4A	Z	-183.348	3.5
24	MP4A	Mx	185	3.5
25	MP3A	X	34.178	1
26	MP3A	Z	-59.198	1
27	MP3A	Mx	017	1
28	MP3A	X	34.178	3
29	MP3A	Z	-59.198	3
30	MP3A	Mx	017	3
31	MP1A	X	24.94	2
32	MP1A	Z	-43.198	2
33	MP1A	Mx	.02	2
34	MP2A	X	28.935	3.5
35	MP2A	Z	-50.118	3.5
36	MP2A	Mx	.014	3.5
37	MP2A	X	11.46	.5
38	MP2A	Z	-19.849	.5
39	MP2A	Mx	006	.5
40	MP2A	X	11.46	3.5
41	MP2A	Z	-19.849	3.5
42	MP2A	Mx	006	3.5
43	OVP	X	24.1	.15
44	OVP	Z	-41.743	.15
45	OVP	Mx	0	.15
46	MP3A	X	28.399	3.5
47	MP3A	Z	-49.189	3.5
48	MP3A	Mx	.014	3.5
49	MP4A	X	16.479	3
50	MP4A	Z	-28.543	3
51	MP4A	Mx	.003	3
52	MP4A	X	16.479	3
53	MP4A	Z	-28.543	3
54	MP4A	Mx	.013	3

# Member Point Loads (BLC 5 : Antenna Wo (60 Deg))

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP1A	Х	110.867	.5
2	MP1A	Z	-64.009	.5
3	MP1A	Mx	054	.5
4	MP1A	Х	110.867	3.5
5	MP1A	Z	-64.009	3.5
6	MP1A	Mx	054	3.5
7	MP1A	Х	110.867	.5
8	MP1A	Z	-64.009	.5
9	MP1A	Mx	073	.5
10	MP1A	Х	110.867	3.5
11	MP1A	Z	-64.009	3.5
12	MP1A	Mx	073	3.5



### Member Point Loads (BLC 5 : Antenna Wo (60 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
13	MP4A	X	159.693	.5
14	MP4A	Z	-92.199	.5
15	MP4A	Mx	.073	.5
16	MP4A	X	159.693	3.5
17	MP4A	Z	-92.199	3.5
18	MP4A	Mx	.073	3.5
19	MP4A	X	159.693	.5
20	MP4A	Z	-92.199	.5
21	MP4A	Mx	179	.5
22	MP4A	X	159.693	3.5
23	MP4A	Z	-92.199	3.5
24	MP4A	Mx	179	3.5
25	MP3A	X	37.955	1
26	MP3A	Z	-21.914	1
27	MP3A	Mx	019	1
28	MP3A	X	37.955	3
29	MP3A	Z	-21.914	3
30	MP3A	Mx	019	3
31	MP1A	X	37.278	2
32	MP1A	Z	-21.522	2
33	MP1A	Mx	.021	2
34	MP2A	X	39.236	3.5
35	MP2A	Z	-22.653	3.5
36	MP2A	Mx	.02	3.5
37	MP2A	X	14.091	.5
38	MP2A	Z	-8.135	.5
39	MP2A	Mx	007	.5
40	MP2A	X	14.091	3.5
41	MP2A	Z	-8.135	3.5
42	MP2A	Mx	007	3.5
43	OVP	X	37.138	.15
44	OVP	Z	-21.442	.15
45	OVP	Mx	0	.15
46	MP3A	X	36.451	3.5
47	MP3A	Z	-21.045	3.5
48	MP3A	Mx	.018	3.5
49	MP4A	X	28.584	3
50	MP4A	Z	-16.503	3
51	MP4A	Mx	.012	3
52	MP4A	X	28.584	3
53	MP4A	Z	-16.503	3
54	MP4A	Mx	.017	3

## Member Point Loads (BLC 6 : Antenna Wo (90 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	Х	142.551	.5
2	MP1A	Z	0	.5
3	MP1A	Mx	115	.5
4	MP1A	Х	142.551	3.5
5	MP1A	Z	0	3.5
6	MP1A	Mx	115	3.5
7	MP1A	Х	142.551	.5
8	MP1A	Z	0	.5
9	MP1A	Mx	014	.5
10	MP1A	Х	142.551	3.5
11	MP1A	Z	0	3.5
12	MP1A	Mx	014	3.5
13	MP4A	Х	142.551	.5



### Member Point Loads (BLC 6 : Antenna Wo (90 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
14	MP4A	Z	0	.5
15	MP4A	Mx	014	.5
16	MP4A	X	142.551	3.5
17	MP4A	Z	0	3.5
18	MP4A	Mx	014	3.5
19	MP4A	X	142.551	.5
20	MP4A	Z	0	.5
21	MP4A	Mx	115	.5
22	MP4A	X	142.551	3.5
23	MP4A	Z	0	3.5
24	MP4A	Mx	115	3.5
25	MP3A	X	31.563	1
26	MP3A	Z	0	1
27	MP3A	Mx	016	1
28	MP3A	X	31.563	3
29	MP3A	Z	0	3
30	MP3A	Mx	016	3
31	MP1A	X	46.682	2
32	MP1A	Z	0	2
33	MP1A	Mx	.021	2
34	MP2A	X	39.024	3.5
35	MP2A	Z	0	3.5
36	MP2A	Mx	.02	3.5
37	MP2A	X	12.946	.5
38	MP2A	Z	0	.5
39	MP2A	Mx	006	.5
40	MP2A	X	12.946	3.5
41	MP2A	Z	0	3.5
42	MP2A	Mx	006	3.5
43	OVP	X	48.201	.15
44	OVP	Z	0	.15
45	OVP	Mx	0	.15
46	MP3A	Х	34.735	3.5
47	MP3A	Z	0	3.5
48	MP3A	Mx	.017	3.5
49	MP4A	X	33.031	3
50	MP4A	Z	0	3
51	MP4A	Mx	.017	3
52	MP4A	X	33.031	3
53	MP4A	Z	0	3
54	MP4A	Mx	.017	3

# Member Point Loads (BLC 7 : Antenna Wo (120 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	Х	159.693	.5
2	MP1A	Z	92.199	.5
3	MP1A	Mx	179	.5
4	MP1A	Х	159.693	3.5
5	MP1A	Z	92.199	3.5
6	MP1A	Mx	179	3.5
7	MP1A	Х	159.693	.5
8	MP1A	Z	92.199	.5
9	MP1A	Mx	.073	.5
10	MP1A	Х	159.693	3.5
11	MP1A	Z	92.199	3.5
12	MP1A	Mx	.073	3.5
13	MP4A	Х	110.867	.5
14	MP4A	Z	64.009	.5



## Member Point Loads (BLC 7 : Antenna Wo (120 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
15	MP4A	Mx	073	.5
16	MP4A	X	110.867	3.5
17	MP4A	Z	64.009	3.5
18	MP4A	Mx	073	3.5
19	MP4A	X	110.867	.5
20	MP4A	Z	64.009	.5
21	MP4A	Mx	054	.5
22	MP4A	Х	110.867	3.5
23	MP4A	Z	64.009	3.5
24	MP4A	Mx	054	3.5
25	MP3A	Х	37.955	1
26	MP3A	Z	21.914	1
27	MP3A	Mx	019	1
28	MP3A	X	37.955	3
29	MP3A	Z	21.914	3
30	MP3A	Mx	019	3
31	MP1A	Х	49.498	2
32	MP1A	Z	28.578	2
33	MP1A	Mx	.016	2
34	MP2A	X	39.236	3.5
35	MP2A	Z	22.653	3.5
36	MP2A	Mx	.02	3.5
37	MP2A	X	14.091	.5
38	MP2A	Z	8.135	.5
39	MP2A	Mx	007	.5
40	MP2A	X	14.091	3.5
41	MP2A	Z	8.135	3.5
42	MP2A	Mx	007	3.5
43	OVP	X	50.953	.15
44	OVP	Z	29.418	.15
45	OVP	Mx	0	.15
46	MP3A	X	36.451	3.5
47	MP3A	Z	21.045	3.5
48	MP3A	Mx	.018	3.5
49	MP4A	X	28.584	3
50	MP4A	Z	16.503	3
51	MP4A	Mx	.017	3
52	MP4A	X	28.584	3
53	MP4A	Z	16.503	3
54	MP4A	Mx	.012	3

# Member Point Loads (BLC 8 : Antenna Wo (150 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	Х	105.856	.5
2	MP1A	Z	183.348	.5
3	MP1A	Mx	185	.5
4	MP1A	Х	105.856	3.5
5	MP1A	Z	183.348	3.5
6	MP1A	Mx	185	3.5
7	MP1A	Х	105.856	.5
8	MP1A	Z	183.348	.5
9	MP1A	Mx	.167	.5
10	MP1A	Х	105.856	3.5
11	MP1A	Z	183.348	3.5
12	MP1A	Mx	.167	3.5
13	MP4A	Х	77.666	.5
14	MP4A	Z	134.521	.5
15	MP4A	Mx	138	.5



## Member Point Loads (BLC 8 : Antenna Wo (150 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
16	MP4A	X	77.666	3.5
17	MP4A	Z	134.521	3.5
18	MP4A	Mx	138	3.5
19	MP4A	X	77.666	.5
20	MP4A	Z	134.521	.5
21	MP4A	Mx	.011	.5
22	MP4A	X	77.666	3.5
23	MP4A	Z	134.521	3.5
24	MP4A	Mx	.011	3.5
25	MP3A	X	34.178	1
26	MP3A	Z	59.198	1
27	MP3A	Mx	017	1
28	MP3A	X	34.178	3
29	MP3A	Z	59.198	3
30	MP3A	Mx	017	3
31	MP1A	X	31.996	2
32	MP1A	Z	55.418	2
33	MP1A	Mx	.003	2
34	MP2A	X	28.935	3.5
35	MP2A	Z	50.118	3.5
36	MP2A	Mx	.014	3.5
37	MP2A	Х	11.46	.5
38	MP2A	Z	19.849	.5
39	MP2A	Mx	006	.5
40	MP2A	X	11.46	3.5
41	MP2A	Z	19.849	3.5
42	MP2A	Mx	006	3.5
43	OVP	X	32.077	.15
44	OVP	Z	55.558	.15
45	OVP	Mx	0	.15
46	MP3A	X	28.399	3.5
47	MP3A	Z	49.189	3.5
48	MP3A	Mx	.014	3.5
49	MP4A	X	16.479	3
50	MP4A	Z	28.543	3
51	MP4A	Mx	.013	3
52	MP4A	X	16.479	3
53	MP4A	Z	28.543	3
54	MP4A	Mx	.003	3

## Member Point Loads (BLC 9 : Antenna Wo (180 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	Х	0	.5
2	MP1A	Z	197.178	.5
3	MP1A	Mx	107	.5
4	MP1A	Х	0	3.5
5	MP1A	Z	197.178	3.5
6	MP1A	Mx	107	3.5
7	MP1A	Х	0	.5
8	MP1A	Z	197.178	.5
9	MP1A	Mx	.191	.5
10	MP1A	Х	0	3.5
11	MP1A	Z	197.178	3.5
12	MP1A	Mx	.191	3.5
13	MP4A	Х	0	.5
14	MP4A	Z	197.178	.5
15	MP4A	Mx	191	.5
16	MP4A	Х	0	3.5



## Member Point Loads (BLC 9 : Antenna Wo (180 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
17	MP4A	Z	197.178	3.5
18	MP4A	Mx	191	3.5
19	MP4A	X	0	.5
20	MP4A	Z	197.178	.5
21	MP4A	Mx	.107	.5
22	MP4A	X	0	3.5
23	MP4A	Z	197.178	3.5
24	MP4A	Mx	.107	3.5
25	MP3A	X	0	1
26	MP3A	Z	80.62	1
27	MP3A	Mx	0	1
28	MP3A	X	0	3
29	MP3A	Z	80.62	3
30	MP3A	Mx	0	3
31	MP1A	X	0	2
32	MP1A	Z	60.354	2
33	MP1A	Mx	013	2
34	MP2A	Х	0	3.5
35	MP2A	Z	64.153	3.5
36	MP2A	Mx	0	3.5
37	MP2A	X	0	.5
38	MP2A	Z	26.244	.5
39	MP2A	Mx	0	.5
40	MP2A	X	0	3.5
41	MP2A	Z	26.244	3.5
42	MP2A	Mx	0	3.5
43	OVP	X	0	.15
44	OVP	Z	58.836	.15
45	OVP	Mx	0	.15
46	MP3A	X	0	3.5
47	MP3A	Z	64.153	3.5
48	MP3A	Mx	0	3.5
49	MP4A	X	0	3
50	MP4A	Z	32.934	3
51	MP4A	Mx	.005	3
52	MP4A	X	0	3
53	MP4A	Z	32.934	3
54	MP4A	Mx	005	3

## Member Point Loads (BLC 10 : Antenna Wo (210 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	Х	-77.666	.5
2	MP1A	Z	134.521	.5
3	MP1A	Mx	011	.5
4	MP1A	X	-77.666	3.5
5	MP1A	Z	134.521	3.5
6	MP1A	Mx	011	3.5
7	MP1A	Х	-77.666	.5
8	MP1A	Z	134.521	.5
9	MP1A	Mx	.138	.5
10	MP1A	X	-77.666	3.5
11	MP1A	Z	134.521	3.5
12	MP1A	Mx	.138	3.5
13	MP4A	Х	-105.856	.5
14	MP4A	Z	183.348	.5
15	MP4A	Mx	167	.5
16	MP4A	X	-105.856	3.5
17	MP4A	Z	183.348	3.5



## Member Point Loads (BLC 10 : Antenna Wo (210 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
18	MP4A	Mx	167	3.5
19	MP4A	X	-105.856	.5
20	MP4A	Z	183.348	.5
21	MP4A	Mx	.185	.5
22	MP4A	X	-105.856	3.5
23	MP4A	Z	183.348	3.5
24	MP4A	Mx	.185	3.5
25	MP3A	X	-34.178	1
26	MP3A	Z	59.198	1
27	MP3A	Mx	.017	1
28	MP3A	X	-34.178	3
29	MP3A	Z	59.198	3
30	MP3A	Mx	.017	3
31	MP1A	X	-24.94	2
32	MP1A	Z	43.198	2
33	MP1A	Mx	02	2
34	MP2A	X	-28.935	3.5
35	MP2A	Z	50.118	3.5
36	MP2A	Mx	014	3.5
37	MP2A	X	-11.46	.5
38	MP2A	Z	19.849	.5
39	MP2A	Mx	.006	.5
40	MP2A	X	-11.46	3.5
41	MP2A	Z	19.849	3.5
42	MP2A	Mx	.006	3.5
43	OVP	X	-24.1	.15
44	OVP	Z	41.743	.15
45	OVP	Mx	0	.15
46	MP3A	X	-28.399	3.5
47	MP3A	Z	49.189	3.5
48	MP3A	Mx	014	3.5
49	MP4A	Х	-16.479	3
50	MP4A	Z	28.543	3
51	MP4A	Mx	003	3
52	MP4A	Х	-16.479	3
53	MP4A	Z	28.543	3
54	MP4A	Mx	013	3

#### Member Point Loads (BLC 11 : Antenna Wo (240 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	Х	-110.867	.5
2	MP1A	Z	64.009	.5
3	MP1A	Mx	.054	.5
4	MP1A	Х	-110.867	3.5
5	MP1A	Z	64.009	3.5
6	MP1A	Mx	.054	3.5
7	MP1A	Х	-110.867	.5
8	MP1A	Z	64.009	.5
9	MP1A	Mx	.073	.5
10	MP1A	Х	-110.867	3.5
11	MP1A	Z	64.009	3.5
12	MP1A	Mx	.073	3.5
13	MP4A	Х	-159.693	.5
14	MP4A	Z	92.199	.5
15	MP4A	Mx	073	.5
16	MP4A	Х	-159.693	3.5
17	MP4A	Z	92.199	3.5
18	MP4A	Mx	073	3.5



## Member Point Loads (BLC 11 : Antenna Wo (240 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
19	MP4A	Х	-159.693	.5
20	MP4A	Z	92.199	.5
21	MP4A	Mx	.179	.5
22	MP4A	Х	-159.693	3.5
23	MP4A	Z	92.199	3.5
24	MP4A	Mx	.179	3.5
25	MP3A	Х	-37.955	1
26	MP3A	Z	21.914	1
27	MP3A	Mx	.019	1
28	MP3A	Х	-37.955	3
29	MP3A	Z	21.914	3
30	MP3A	Mx	.019	3
31	MP1A	Х	-37.278	2
32	MP1A	Z	21.522	2
33	MP1A	Mx	021	2
34	MP2A	Х	-39.236	3.5
35	MP2A	Z	22.653	3.5
36	MP2A	Mx	02	3.5
37	MP2A	Х	-14.091	.5
38	MP2A	Z	8.135	.5
39	MP2A	Mx	.007	.5
40	MP2A	Х	-14.091	3.5
41	MP2A	Z	8.135	3.5
42	MP2A	Mx	.007	3.5
43	OVP	Х	-37.138	.15
44	OVP	Z	21.442	.15
45	OVP	Mx	0	.15
46	MP3A	Х	-36.451	3.5
47	MP3A	Z	21.045	3.5
48	MP3A	Mx	018	3.5
49	MP4A	Х	-28.584	3
50	MP4A	Z	16.503	3
51	MP4A	Mx	012	3
52	MP4A	Х	-28.584	3
53	MP4A	Z	16.503	3
54	MP4A	Mx	017	3

#### Member Point Loads (BLC 12 : Antenna Wo (270 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	Х	-142.551	.5
2	MP1A	Z	0	.5
3	MP1A	Mx	.115	.5
4	MP1A	Х	-142.551	3.5
5	MP1A	Z	0	3.5
6	MP1A	Mx	.115	3.5
7	MP1A	Х	-142.551	.5
8	MP1A	Z	0	.5
9	MP1A	Mx	.014	.5
10	MP1A	Х	-142.551	3.5
11	MP1A	Z	0	3.5
12	MP1A	Mx	.014	3.5
13	MP4A	Х	-142.551	.5
14	MP4A	Z	0	.5
15	MP4A	Mx	.014	.5
16	MP4A	X	-142.551	3.5
17	MP4A	Z	0	3.5
18	MP4A	Mx	.014	3.5
19	MP4A	X	-142.551	.5



## Member Point Loads (BLC 12 : Antenna Wo (270 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
20	MP4A	Z	0	.5
21	MP4A	Mx	.115	.5
22	MP4A	X	-142.551	3.5
23	MP4A	Z	0	3.5
24	MP4A	Mx	.115	3.5
25	MP3A	X	-31.563	1
26	MP3A	Z	0	1
27	MP3A	Mx	.016	1
28	MP3A	X	-31.563	3
29	MP3A	Z	0	3
30	MP3A	Mx	.016	3
31	MP1A	X	-46.682	2
32	MP1A	Z	0	2
33	MP1A	Mx	021	2
34	MP2A	X	-39.024	3.5
35	MP2A	Z	0	3.5
36	MP2A	Mx	02	3.5
37	MP2A	Х	-12.946	.5
38	MP2A	Z	0	.5
39	MP2A	Mx	.006	.5
40	MP2A	X	-12.946	3.5
41	MP2A	Z	0	3.5
42	MP2A	Mx	.006	3.5
43	OVP	Х	-48.201	.15
44	OVP	Z	0	.15
45	OVP	Mx	0	.15
46	MP3A	X	-34.735	3.5
47	MP3A	Z	0	3.5
48	MP3A	Mx	017	3.5
49	MP4A	X	-33.031	3
50	MP4A	Z	0	3
51	MP4A	Mx	017	3
52	MP4A	X	-33.031	3
53	MP4A	Z	0	3
54	MP4A	Mx	017	3

#### Member Point Loads (BLC 13 : Antenna Wo (300 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	Х	-159.693	.5
2	MP1A	Z	-92.199	.5
3	MP1A	Mx	.179	.5
4	MP1A	Х	-159.693	3.5
5	MP1A	Z	-92.199	3.5
6	MP1A	Mx	.179	3.5
7	MP1A	Х	-159.693	.5
8	MP1A	Z	-92.199	.5
9	MP1A	Mx	073	.5
10	MP1A	Х	-159.693	3.5
11	MP1A	Z	-92.199	3.5
12	MP1A	Mx	073	3.5
13	MP4A	Х	-110.867	.5
14	MP4A	Z	-64.009	.5
15	MP4A	Mx	.073	.5
16	MP4A	Х	-110.867	3.5
17	MP4A	Z	-64.009	3.5
18	MP4A	Mx	.073	3.5
19	MP4A	X	-110.867	.5
20	MP4A	Z	-64.009	.5



## Member Point Loads (BLC 13 : Antenna Wo (300 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
21	MP4A	Mx	.054	.5
22	MP4A	Х	-110.867	3.5
23	MP4A	Z	-64.009	3.5
24	MP4A	Mx	.054	3.5
25	MP3A	Х	-37.955	1
26	MP3A	Z	-21.914	1
27	MP3A	Mx	.019	1
28	MP3A	Х	-37.955	3
29	MP3A	Z	-21.914	3
30	MP3A	Мх	.019	3
31	MP1A	Х	-49.498	2
32	MP1A	Z	-28.578	2
33	MP1A	Mx	016	2
34	MP2A	Х	-39.236	3.5
35	MP2A	Z	-22.653	3.5
36	MP2A	Mx	02	3.5
37	MP2A	Х	-14.091	.5
38	MP2A	Z	-8.135	.5
39	MP2A	Mx	.007	.5
40	MP2A	Х	-14.091	3.5
41	MP2A	Z	-8.135	3.5
42	MP2A	Mx	.007	3.5
43	OVP	Х	-50.953	.15
44	OVP	Z	-29.418	.15
45	OVP	Mx	0	.15
46	MP3A	Х	-36.451	3.5
47	MP3A	Z	-21.045	3.5
48	MP3A	Mx	018	3.5
49	MP4A	Х	-28.584	3
50	MP4A	Z	-16.503	3
51	MP4A	Mx	017	3
52	MP4A	Х	-28.584	3
53	MP4A	Z	-16.503	3
54	MP4A	Mx	012	3

#### Member Point Loads (BLC 14 : Antenna Wo (330 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	Х	-105.856	.5
2	MP1A	Z	-183.348	.5
3	MP1A	Mx	.185	.5
4	MP1A	Х	-105.856	3.5
5	MP1A	Z	-183.348	3.5
6	MP1A	Mx	.185	3.5
7	MP1A	Х	-105.856	.5
8	MP1A	Z	-183.348	.5
9	MP1A	Mx	167	.5
10	MP1A	Х	-105.856	3.5
11	MP1A	Z	-183.348	3.5
12	MP1A	Mx	167	3.5
13	MP4A	Х	-77.666	.5
14	MP4A	Z	-134.521	.5
15	MP4A	Mx	.138	.5
16	MP4A	Х	-77.666	3.5
17	MP4A	Z	-134.521	3.5
18	MP4A	Mx	.138	3.5
19	MP4A	Х	-77.666	.5
20	MP4A	Z	-134.521	.5
21	MP4A	Mx	011	.5



## Member Point Loads (BLC 14 : Antenna Wo (330 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
22	MP4A	Х	-77.666	3.5
23	MP4A	Z	-134.521	3.5
24	MP4A	Mx	011	3.5
25	MP3A	Х	-34.178	1
26	MP3A	Z	-59.198	1
27	MP3A	Mx	.017	1
28	MP3A	Х	-34.178	3
29	MP3A	Z	-59.198	3
30	MP3A	Mx	.017	3
31	MP1A	Х	-31.996	2
32	MP1A	Z	-55.418	2
33	MP1A	Mx	003	2
34	MP2A	Х	-28.935	3.5
35	MP2A	Z	-50.118	3.5
36	MP2A	Mx	014	3.5
37	MP2A	Х	-11.46	.5
38	MP2A	Z	-19.849	.5
39	MP2A	Mx	.006	.5
40	MP2A	Х	-11.46	3.5
41	MP2A	Z	-19.849	3.5
42	MP2A	Mx	.006	3.5
43	OVP	Х	-32.077	.15
44	OVP	Z	-55.558	.15
45	OVP	Mx	0	.15
46	MP3A	Х	-28.399	3.5
47	MP3A	Z	-49.189	3.5
48	MP3A	Mx	014	3.5
49	MP4A	Х	-16.479	3
50	MP4A	Z	-28.543	3
51	MP4A	Mx	013	3
52	MP4A	X	-16.479	3
53	MP4A	Z	-28.543	3
54	MP4A	Mx	003	3

#### Member Point Loads (BLC 15 : Antenna Wi (0 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	Х	0	.5
2	MP1A	Z	-38.328	.5
3	MP1A	Mx	.021	.5
4	MP1A	Х	0	3.5
5	MP1A	Z	-38.328	3.5
6	MP1A	Mx	.021	3.5
7	MP1A	Х	0	.5
8	MP1A	Z	-38.328	.5
9	MP1A	Mx	037	.5
10	MP1A	Х	0	3.5
11	MP1A	Z	-38.328	3.5
12	MP1A	Mx	037	3.5
13	MP4A	Х	0	.5
14	MP4A	Z	-38.328	.5
15	MP4A	Mx	.037	.5
16	MP4A	Х	0	3.5
17	MP4A	Z	-38.328	3.5
18	MP4A	Mx	.037	3.5
19	MP4A	Х	0	.5
20	MP4A	Z	-38.328	.5
21	MP4A	Mx	021	.5
22	MP4A	Х	0	3.5



### Member Point Loads (BLC 15 : Antenna Wi (0 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
23	MP4A	Z	-38.328	3.5
24	MP4A	Mx	021	3.5
25	MP3A	Х	0	1
26	MP3A	Z	-16.38	1
27	MP3A	Mx	0	1
28	MP3A	Х	0	3
29	MP3A	Z	-16.38	3
30	MP3A	Mx	0	3
31	MP1A	Х	0	2
32	MP1A	Z	-13.066	2
33	MP1A	Mx	.003	2
34	MP2A	Х	0	3.5
35	MP2A	Z	-13.816	3.5
36	MP2A	Mx	0	3.5
37	MP2A	Х	0	.5
38	MP2A	Z	-5.789	.5
39	MP2A	Mx	0	.5
40	MP2A	Х	0	3.5
41	MP2A	Z	-5.789	3.5
42	MP2A	Mx	0	3.5
43	OVP	Х	0	.15
44	OVP	Z	-12.766	.15
45	OVP	Mx	0	.15
46	MP3A	Х	0	3.5
47	MP3A	Z	-13.816	3.5
48	MP3A	Mx	0	3.5
49	MP4A	Х	0	3
50	MP4A	Z	-3.115	3
51	MP4A	Mx	000519	3
52	MP4A	Х	0	3
53	MP4A	Z	-3.115	3
54	MP4A	Mx	.000519	3

### Member Point Loads (BLC 16 : Antenna Wi (30 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	Х	15.289	.5
2	MP1A	Z	-26.481	.5
3	MP1A	Mx	.002	.5
4	MP1A	Х	15.289	3.5
5	MP1A	Z	-26.481	3.5
6	MP1A	Mx	.002	3.5
7	MP1A	Х	15.289	.5
8	MP1A	Z	-26.481	.5
9	MP1A	Mx	027	.5
10	MP1A	Х	15.289	3.5
11	MP1A	Z	-26.481	3.5
12	MP1A	Mx	027	3.5
13	MP4A	Х	20.51	.5
14	MP4A	Z	-35.524	.5
15	MP4A	Mx	.032	.5
16	MP4A	Х	20.51	3.5
17	MP4A	Z	-35.524	3.5
18	MP4A	Mx	.032	3.5
19	MP4A	Х	20.51	.5
20	MP4A	Z	-35.524	.5
21	MP4A	Mx	036	.5
22	MP4A	X	20.51	3.5
23	MP4A	Z	-35.524	3.5



## Member Point Loads (BLC 16 : Antenna Wi (30 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
24	MP4A	Mx	036	3.5
25	MP3A	Х	7.016	1
26	MP3A	Z	-12.151	1
27	MP3A	Mx	004	1
28	MP3A	Х	7.016	3
29	MP3A	Z	-12.151	3
30	MP3A	Mx	004	3
31	MP1A	Х	5.499	2
32	MP1A	Z	-9.524	2
33	MP1A	Mx	.005	2
34	MP2A	Х	6.288	3.5
35	MP2A	Z	-10.892	3.5
36	MP2A	Mx	.003	3.5
37	MP2A	Х	2.562	.5
38	MP2A	Z	-4.438	.5
39	MP2A	Mx	001	.5
40	MP2A	Х	2.562	3.5
41	MP2A	Z	-4.438	3.5
42	MP2A	Mx	001	3.5
43	OVP	Х	5.333	.15
44	OVP	Z	-9.237	.15
45	OVP	Mx	0	.15
46	MP3A	Х	6.183	3.5
47	MP3A	Z	-10.71	3.5
48	MP3A	Mx	.003	3.5
49	MP4A	Х	2.118	3
50	MP4A	Z	-3.669	3
51	MP4A	Mx	.000447	3
52	MP4A	X	2.118	3
53	MP4A	Z	-3.669	3
54	MP4A	Mx	.002	3

## Member Point Loads (BLC 17 : Antenna Wi (60 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	Х	22.1	.5
2	MP1A	Z	-12.759	.5
3	MP1A	Mx	011	.5
4	MP1A	Х	22.1	3.5
5	MP1A	Z	-12.759	3.5
6	MP1A	Mx	011	3.5
7	MP1A	Х	22.1	.5
8	MP1A	Z	-12.759	.5
9	MP1A	Mx	015	.5
10	MP1A	Х	22.1	3.5
11	MP1A	Z	-12.759	3.5
12	MP1A	Mx	015	3.5
13	MP4A	Х	31.143	.5
14	MP4A	Z	-17.98	.5
15	MP4A	Mx	.014	.5
16	MP4A	X	31.143	3.5
17	MP4A	Z	-17.98	3.5
18	MP4A	Mx	.014	3.5
19	MP4A	Х	31.143	.5
20	MP4A	Z	-17.98	.5
21	MP4A	Mx	035	.5
22	MP4A	X	31.143	3.5
23	MP4A	Z	-17.98	3.5
24	MP4A	Mx	035	3.5



## Member Point Loads (BLC 17 : Antenna Wi (60 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
25	MP3A	Х	8.084	1
26	MP3A	Z	-4.667	1
27	MP3A	Mx	004	1
28	MP3A	Х	8.084	3
29	MP3A	Z	-4.667	3
30	MP3A	Mx	004	3
31	MP1A	Х	8.355	2
32	MP1A	Z	-4.824	2
33	MP1A	Mx	.005	2
34	MP2A	X	8.746	3.5
35	MP2A	Z	-5.049	3.5
36	MP2A	Mx	.004	3.5
37	MP2A	Х	3.286	.5
38	MP2A	Z	-1.897	.5
39	MP2A	Mx	002	.5
40	MP2A	Х	3.286	3.5
41	MP2A	Z	-1.897	3.5
42	MP2A	Mx	002	3.5
43	OVP	Х	8.327	.15
44	OVP	Z	-4.808	.15
45	OVP	Mx	0	.15
46	MP3A	X	8.2	3.5
47	MP3A	Z	-4.734	3.5
48	MP3A	Mx	.004	3.5
49	MP4A	Х	5.612	3
50	MP4A	Z	-3.24	3
51	MP4A	Mx	.002	3
52	MP4A	X	5.612	3
53	MP4A	Z	-3.24	3
54	MP4A	Mx	.003	3

## Member Point Loads (BLC 18 : Antenna Wi (90 Deg))

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP1A	Х	28.21	.5
2	MP1A	Z	0	.5
3	MP1A	Mx	023	.5
4	MP1A	Х	28.21	3.5
5	MP1A	Z	0	3.5
6	MP1A	Mx	023	3.5
7	MP1A	Х	28.21	.5
8	MP1A	Z	0	.5
9	MP1A	Mx	003	.5
10	MP1A	Х	28.21	3.5
11	MP1A	Z	0	3.5
12	MP1A	Mx	003	3.5
13	MP4A	Х	28.21	.5
14	MP4A	Z	0	.5
15	MP4A	Mx	003	.5
16	MP4A	Х	28.21	3.5
17	MP4A	Z	0	3.5
18	MP4A	Mx	003	3.5
19	MP4A	Х	28.21	.5
20	MP4A	Z	0	.5
21	MP4A	Mx	023	.5
22	MP4A	Х	28.21	3.5
23	MP4A	Z	0	3.5
24	MP4A	Mx	023	3.5
25	MP3A	Х	6.986	1



## Member Point Loads (BLC 18 : Antenna Wi (90 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
26	MP3A	Z	0	1
27	MP3A	Mx	003	1
28	MP3A	Х	6.986	3
29	MP3A	Z	0	3
30	MP3A	Mx	003	3
31	MP1A	Х	10.366	2
32	MP1A	Z	0	2
33	MP1A	Mx	.005	2
34	MP2A	Х	8.86	3.5
35	MP2A	Z	0	3.5
36	MP2A	Mx	.004	3.5
37	MP2A	Х	3.129	.5
38	MP2A	Z	0	.5
39	MP2A	Mx	002	.5
40	MP2A	Х	3.129	3.5
41	MP2A	Z	0	3.5
42	MP2A	Mx	002	3.5
43	OVP	Х	10.666	.15
44	OVP	Z	0	.15
45	OVP	Mx	0	.15
46	MP3A	Х	8.02	3.5
47	MP3A	Z	0	3.5
48	MP3A	Mx	.004	3.5
49	MP4A	Х	7.601	3
50	MP4A	Z	0	3
51	MP4A	Mx	.004	3
52	MP4A	X	7.601	3
53	MP4A	Z	0	3
54	MP4A	Mx	.004	3

#### Member Point Loads (BLC 19 : Antenna Wi (120 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	Х	31.143	.5
2	MP1A	Z	17.98	.5
3	MP1A	Mx	035	.5
4	MP1A	Х	31.143	3.5
5	MP1A	Z	17.98	3.5
6	MP1A	Mx	035	3.5
7	MP1A	Х	31.143	.5
8	MP1A	Z	17.98	.5
9	MP1A	Mx	.014	.5
10	MP1A	Х	31.143	3.5
11	MP1A	Z	17.98	3.5
12	MP1A	Mx	.014	3.5
13	MP4A	Х	22.1	.5
14	MP4A	Z	12.759	.5
15	MP4A	Mx	015	.5
16	MP4A	Х	22.1	3.5
17	MP4A	Z	12.759	3.5
18	MP4A	Mx	015	3.5
19	MP4A	Х	22.1	.5
20	MP4A	Z	12.759	.5
21	MP4A	Mx	011	.5
22	MP4A	X	22.1	3.5
23	MP4A	Z	12.759	3.5
24	MP4A	Mx	011	3.5
25	MP3A	Х	8.084	1
26	MP3A	Z	4.667	1



## Member Point Loads (BLC 19 : Antenna Wi (120 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
27	MP3A	Mx	004	1
28	MP3A	X	8.084	3
29	MP3A	Z	4.667	3
30	MP3A	Mx	004	3
31	MP1A	Х	10.768	2
32	MP1A	Z	6.217	2
33	MP1A	Mx	.004	2
34	MP2A	Х	8.746	3.5
35	MP2A	Z	5.049	3.5
36	MP2A	Mx	.004	3.5
37	MP2A	Х	3.286	.5
38	MP2A	Z	1.897	.5
39	MP2A	Mx	002	.5
40	MP2A	X	3.286	3.5
41	MP2A	Z	1.897	3.5
42	MP2A	Mx	002	3.5
43	OVP	Х	11.055	.15
44	OVP	Z	6.383	.15
45	OVP	Mx	0	.15
46	MP3A	Х	8.2	3.5
47	MP3A	Z	4.734	3.5
48	MP3A	Mx	.004	3.5
49	MP4A	Х	5.612	3
50	MP4A	Z	3.24	3
51	MP4A	Mx	.003	3
52	MP4A	X	5.612	3
53	MP4A	Z	3.24	3
54	MP4A	Mx	002	3

## Member Point Loads (BLC 20 : Antenna Wi (150 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	Х	20.51	.5
2	MP1A	Z	35.524	.5
3	MP1A	Mx	036	.5
4	MP1A	Х	20.51	3.5
5	MP1A	Z	35.524	3.5
6	MP1A	Mx	036	3.5
7	MP1A	Х	20.51	.5
8	MP1A	Z	35.524	.5
9	MP1A	Mx	.032	.5
10	MP1A	Х	20.51	3.5
11	MP1A	Z	35.524	3.5
12	MP1A	Mx	.032	3.5
13	MP4A	Х	15.289	.5
14	MP4A	Z	26.481	.5
15	MP4A	Mx	027	.5
16	MP4A	Х	15.289	3.5
17	MP4A	Z	26.481	3.5
18	MP4A	Mx	027	3.5
19	MP4A	Х	15.289	.5
20	MP4A	Z	26.481	.5
21	MP4A	Mx	.002	.5
22	MP4A	Х	15.289	3.5
23	MP4A	Z	26.481	3.5
24	MP4A	Mx	.002	3.5
25	MP3A	Х	7.016	1
26	MP3A	Z	12.151	1
27	MP3A	Mx	004	1



## Member Point Loads (BLC 20 : Antenna Wi (150 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
28	MP3A	Х	7.016	3
29	MP3A	Z	12.151	3
30	MP3A	Mx	004	3
31	MP1A	Х	6.892	2
32	MP1A	Z	11.937	2
33	MP1A	Mx	.000601	2
34	MP2A	Х	6.288	3.5
35	MP2A	Z	10.892	3.5
36	MP2A	Mx	.003	3.5
37	MP2A	Х	2.562	.5
38	MP2A	Z	4.438	.5
39	MP2A	Mx	001	.5
40	MP2A	Х	2.562	3.5
41	MP2A	Z	4.438	3.5
42	MP2A	Mx	001	3.5
43	OVP	Х	6.908	.15
44	OVP	Z	11.965	.15
45	OVP	Mx	0	.15
46	MP3A	Х	6.183	3.5
47	MP3A	Z	10.71	3.5
48	MP3A	Mx	.003	3.5
49	MP4A	Х	2.118	3
50	MP4A	Z	3.669	3
51	MP4A	Mx	.002	3
52	MP4A	Х	2.118	3
53	MP4A	Z	3.669	3
54	MP4A	Mx	.000447	3

#### Member Point Loads (BLC 21 : Antenna Wi (180 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	Х	0	.5
2	MP1A	Z	38.328	.5
3	MP1A	Mx	021	.5
4	MP1A	Х	0	3.5
5	MP1A	Z	38.328	3.5
6	MP1A	Mx	021	3.5
7	MP1A	Х	0	.5
8	MP1A	Z	38.328	.5
9	MP1A	Mx	.037	.5
10	MP1A	Х	0	3.5
11	MP1A	Z	38.328	3.5
12	MP1A	Mx	.037	3.5
13	MP4A	Х	0	.5
14	MP4A	Z	38.328	.5
15	MP4A	Mx	037	.5
16	MP4A	Х	0	3.5
17	MP4A	Z	38.328	3.5
18	MP4A	Mx	037	3.5
19	MP4A	Х	0	.5
20	MP4A	Z	38.328	.5
21	MP4A	Mx	.021	.5
22	MP4A	Х	0	3.5
23	MP4A	Z	38.328	3.5
24	MP4A	Mx	.021	3.5
25	MP3A	Х	0	1
26	MP3A	Z	16.38	1
27	MP3A	Mx	0	1
28	MP3A	Х	0	3



## Member Point Loads (BLC 21 : Antenna Wi (180 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
29	MP3A	Z	16.38	3
30	MP3A	Mx	0	3
31	MP1A	Х	0	2
32	MP1A	Z	13.066	2
33	MP1A	Mx	003	2
34	MP2A	Х	0	3.5
35	MP2A	Z	13.816	3.5
36	MP2A	Mx	0	3.5
37	MP2A	Х	0	.5
38	MP2A	Z	5.789	.5
39	MP2A	Mx	0	.5
40	MP2A	Х	0	3.5
41	MP2A	Z	5.789	3.5
42	MP2A	Mx	0	3.5
43	OVP	Х	0	.15
44	OVP	Z	12.766	.15
45	OVP	Mx	0	.15
46	MP3A	Х	0	3.5
47	MP3A	Z	13.816	3.5
48	MP3A	Mx	0	3.5
49	MP4A	Х	0	3
50	MP4A	Z	3.115	3
51	MP4A	Mx	.000519	3
52	MP4A	X	0	3
53	MP4A	Z	3.115	3
54	MP4A	Mx	000519	3

# Member Point Loads (BLC 22 : Antenna Wi (210 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	Х	-15.289	.5
2	MP1A	Z	26.481	.5
3	MP1A	Mx	002	.5
4	MP1A	Х	-15.289	3.5
5	MP1A	Z	26.481	3.5
6	MP1A	Mx	002	3.5
7	MP1A	Х	-15.289	.5
8	MP1A	Z	26.481	.5
9	MP1A	Mx	.027	.5
10	MP1A	Х	-15.289	3.5
11	MP1A	Z	26.481	3.5
12	MP1A	Mx	.027	3.5
13	MP4A	Х	-20.51	.5
14	MP4A	Z	35.524	.5
15	MP4A	Mx	032	.5
16	MP4A	Х	-20.51	3.5
17	MP4A	Z	35.524	3.5
18	MP4A	Mx	032	3.5
19	MP4A	Х	-20.51	.5
20	MP4A	Z	35.524	.5
21	MP4A	Mx	.036	.5
22	MP4A	Х	-20.51	3.5
23	MP4A	Z	35.524	3.5
24	MP4A	Mx	.036	3.5
25	MP3A	X	-7.016	1
26	MP3A	Z	12.151	1
27	MP3A	Mx	.004	1
28	MP3A	X	-7.016	3
29	MP3A	Z	12.151	3



## Member Point Loads (BLC 22 : Antenna Wi (210 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
30	MP3A	Mx	.004	3
31	MP1A	Х	-5.499	2
32	MP1A	Z	9.524	2
33	MP1A	Mx	005	2
34	MP2A	Х	-6.288	3.5
35	MP2A	Z	10.892	3.5
36	MP2A	Mx	003	3.5
37	MP2A	Х	-2.562	.5
38	MP2A	Z	4.438	.5
39	MP2A	Mx	.001	.5
40	MP2A	Х	-2.562	3.5
41	MP2A	Z	4.438	3.5
42	MP2A	Mx	.001	3.5
43	OVP	Х	-5.333	.15
44	OVP	Z	9.237	.15
45	OVP	Mx	0	.15
46	MP3A	Х	-6.183	3.5
47	MP3A	Z	10.71	3.5
48	MP3A	Mx	003	3.5
49	MP4A	Х	-2.118	3
50	MP4A	Z	3.669	3
51	MP4A	Mx	000447	3
52	MP4A	X	-2.118	3
53	MP4A	Z	3.669	3
54	MP4A	Mx	002	3

#### Member Point Loads (BLC 23 : Antenna Wi (240 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	Х	-22.1	.5
2	MP1A	Z	12.759	.5
3	MP1A	Mx	.011	.5
4	MP1A	Х	-22.1	3.5
5	MP1A	Z	12.759	3.5
6	MP1A	Mx	.011	3.5
7	MP1A	Х	-22.1	.5
8	MP1A	Z	12.759	.5
9	MP1A	Mx	.015	.5
10	MP1A	X	-22.1	3.5
11	MP1A	Z	12.759	3.5
12	MP1A	Mx	.015	3.5
13	MP4A	Х	-31.143	.5
14	MP4A	Z	17.98	.5
15	MP4A	Mx	014	.5
16	MP4A	X	-31.143	3.5
17	MP4A	Z	17.98	3.5
18	MP4A	Mx	014	3.5
19	MP4A	Х	-31.143	.5
20	MP4A	Z	17.98	.5
21	MP4A	Mx	.035	.5
22	MP4A	X	-31.143	3.5
23	MP4A	Z	17.98	3.5
24	MP4A	Mx	.035	3.5
25	MP3A	Х	-8.084	1
26	MP3A	Z	4.667	1
27	MP3A	Mx	.004	1
28	MP3A	X	-8.084	3
29	MP3A	Z	4.667	3
30	MP3A	Mx	.004	3



## Member Point Loads (BLC 23 : Antenna Wi (240 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
31	MP1A	Х	-8.355	2
32	MP1A	Z	4.824	2
33	MP1A	Mx	005	2
34	MP2A	Х	-8.746	3.5
35	MP2A	Z	5.049	3.5
36	MP2A	Mx	004	3.5
37	MP2A	Х	-3.286	.5
38	MP2A	Z	1.897	.5
39	MP2A	Mx	.002	.5
40	MP2A	Х	-3.286	3.5
41	MP2A	Z	1.897	3.5
42	MP2A	Mx	.002	3.5
43	OVP	Х	-8.327	.15
44	OVP	Z	4.808	.15
45	OVP	Mx	0	.15
46	MP3A	Х	-8.2	3.5
47	MP3A	Z	4.734	3.5
48	MP3A	Mx	004	3.5
49	MP4A	Х	-5.612	3
50	MP4A	Z	3.24	3
51	MP4A	Mx	002	3
52	MP4A	Х	-5.612	3
53	MP4A	Z	3.24	3
54	MP4A	Mx	003	3

## Member Point Loads (BLC 24 : Antenna Wi (270 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	Х	-28.21	.5
2	MP1A	Z	0	.5
3	MP1A	Mx	.023	.5
4	MP1A	Х	-28.21	3.5
5	MP1A	Z	0	3.5
6	MP1A	Mx	.023	3.5
7	MP1A	Х	-28.21	.5
8	MP1A	Z	0	.5
9	MP1A	Mx	.003	.5
10	MP1A	Х	-28.21	3.5
11	MP1A	Z	0	3.5
12	MP1A	Mx	.003	3.5
13	MP4A	Х	-28.21	.5
14	MP4A	Z	0	.5
15	MP4A	Mx	.003	.5
16	MP4A	Х	-28.21	3.5
17	MP4A	Z	0	3.5
18	MP4A	Mx	.003	3.5
19	MP4A	Х	-28.21	.5
20	MP4A	Z	0	.5
21	MP4A	Mx	.023	.5
22	MP4A	X	-28.21	3.5
23	MP4A	Z	0	3.5
24	MP4A	Mx	.023	3.5
25	MP3A	Х	-6.986	1
26	MP3A	Z	0	1
27	MP3A	Mx	.003	1
28	MP3A	Х	-6.986	3
29	MP3A	Z	0	3
30	MP3A	Mx	.003	3
31	MP1A	X	-10.366	2



## Member Point Loads (BLC 24 : Antenna Wi (270 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
32	MP1A	Z	0	2
33	MP1A	Mx	005	2
34	MP2A	Х	-8.86	3.5
35	MP2A	Z	0	3.5
36	MP2A	Mx	004	3.5
37	MP2A	Х	-3.129	.5
38	MP2A	Z	0	.5
39	MP2A	Mx	.002	.5
40	MP2A	Х	-3.129	3.5
41	MP2A	Z	0	3.5
42	MP2A	Mx	.002	3.5
43	OVP	Х	-10.666	.15
44	OVP	Z	0	.15
45	OVP	Mx	0	.15
46	MP3A	Х	-8.02	3.5
47	MP3A	Z	0	3.5
48	MP3A	Mx	004	3.5
49	MP4A	Х	-7.601	3
50	MP4A	Z	0	3
51	MP4A	Mx	004	3
52	MP4A	X	-7.601	3
53	MP4A	Z	0	3
54	MP4A	Mx	004	3

#### Member Point Loads (BLC 25 : Antenna Wi (300 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-31.143	.5
2	MP1A	Z	-17.98	.5
3	MP1A	Mx	.035	.5
4	MP1A	Х	-31.143	3.5
5	MP1A	Z	-17.98	3.5
6	MP1A	Mx	.035	3.5
7	MP1A	Х	-31.143	.5
8	MP1A	Z	-17.98	.5
9	MP1A	Mx	014	.5
10	MP1A	Х	-31.143	3.5
11	MP1A	Z	-17.98	3.5
12	MP1A	Mx	014	3.5
13	MP4A	Х	-22.1	.5
14	MP4A	Z	-12.759	.5
15	MP4A	Mx	.015	.5
16	MP4A	Х	-22.1	3.5
17	MP4A	Z	-12.759	3.5
18	MP4A	Mx	.015	3.5
19	MP4A	Х	-22.1	.5
20	MP4A	Z	-12.759	.5
21	MP4A	Mx	.011	.5
22	MP4A	X	-22.1	3.5
23	MP4A	Z	-12.759	3.5
24	MP4A	Mx	.011	3.5
25	MP3A	Х	-8.084	1
26	MP3A	Z	-4.667	1
27	MP3A	Mx	.004	1
28	MP3A	Х	-8.084	3
29	MP3A	Z	-4.667	3
30	MP3A	Mx	.004	3
31	MP1A	X	-10.768	2
32	MP1A	Z	-6.217	2

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## Member Point Loads (BLC 25 : Antenna Wi (300 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
33	MP1A	Mx	004	2
34	MP2A	Х	-8.746	3.5
35	MP2A	Z	-5.049	3.5
36	MP2A	Mx	004	3.5
37	MP2A	Х	-3.286	.5
38	MP2A	Z	-1.897	.5
39	MP2A	Mx	.002	.5
40	MP2A	Х	-3.286	3.5
41	MP2A	Z	-1.897	3.5
42	MP2A	Mx	.002	3.5
43	OVP	Х	-11.055	.15
44	OVP	Z	-6.383	.15
45	OVP	Mx	0	.15
46	MP3A	Х	-8.2	3.5
47	MP3A	Z	-4.734	3.5
48	MP3A	Mx	004	3.5
49	MP4A	Х	-5.612	3
50	MP4A	Z	-3.24	3
51	MP4A	Mx	003	3
52	MP4A	Х	-5.612	3
53	MP4A	Z	-3.24	3
54	MP4A	Mx	002	3

## Member Point Loads (BLC 26 : Antenna Wi (330 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	Х	-20.51	.5
2	MP1A	Z	-35.524	.5
3	MP1A	Mx	.036	.5
4	MP1A	Х	-20.51	3.5
5	MP1A	Z	-35.524	3.5
6	MP1A	Mx	.036	3.5
7	MP1A	Х	-20.51	.5
8	MP1A	Z	-35.524	.5
9	MP1A	Mx	032	.5
10	MP1A	Х	-20.51	3.5
11	MP1A	Z	-35.524	3.5
12	MP1A	Mx	032	3.5
13	MP4A	Х	-15.289	.5
14	MP4A	Z	-26.481	.5
15	MP4A	Mx	.027	.5
16	MP4A	Х	-15.289	3.5
17	MP4A	Z	-26.481	3.5
18	MP4A	Mx	.027	3.5
19	MP4A	Х	-15.289	.5
20	MP4A	Z	-26.481	.5
21	MP4A	Mx	002	.5
22	MP4A	Х	-15.289	3.5
23	MP4A	Z	-26.481	3.5
24	MP4A	Mx	002	3.5
25	MP3A	Х	-7.016	1
26	MP3A	Z	-12.151	1
27	MP3A	Mx	.004	1
28	MP3A	Х	-7.016	3
29	MP3A	Z	-12.151	3
30	MP3A	Mx	.004	3
31	MP1A	X	-6.892	2
32	MP1A	Z	-11.937	2
33	MP1A	Mx	000601	2



## Member Point Loads (BLC 26 : Antenna Wi (330 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
34	MP2A	Х	-6.288	3.5
35	MP2A	Z	-10.892	3.5
36	MP2A	Mx	003	3.5
37	MP2A	Х	-2.562	.5
38	MP2A	Z	-4.438	.5
39	MP2A	Mx	.001	.5
40	MP2A	Х	-2.562	3.5
41	MP2A	Z	-4.438	3.5
42	MP2A	Mx	.001	3.5
43	OVP	Х	-6.908	.15
44	OVP	Z	-11.965	.15
45	OVP	Mx	0	.15
46	MP3A	Х	-6.183	3.5
47	MP3A	Z	-10.71	3.5
48	MP3A	Mx	003	3.5
49	MP4A	Х	-2.118	3
50	MP4A	Z	-3.669	3
51	MP4A	Mx	002	3
52	MP4A	Х	-2.118	3
53	MP4A	Z	-3.669	3
54	MP4A	Mx	000447	3

### Member Point Loads (BLC 27 : Antenna Wm (0 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	0	.5
2	MP1A	Z	-12.745	.5
3	MP1A	Mx	.007	.5
4	MP1A	X	0	3.5
5	MP1A	Z	-12.745	3.5
6	MP1A	Mx	.007	3.5
7	MP1A	Х	0	.5
8	MP1A	Z	-12.745	.5
9	MP1A	Mx	012	.5
10	MP1A	X	0	3.5
11	MP1A	Z	-12.745	3.5
12	MP1A	Mx	012	3.5
13	MP4A	X	0	.5
14	MP4A	Z	-12.745	.5
15	MP4A	Mx	.012	.5
16	MP4A	X	0	3.5
17	MP4A	Z	-12.745	3.5
18	MP4A	Mx	.012	3.5
19	MP4A	Х	0	.5
20	MP4A	Z	-12.745	.5
21	MP4A	Mx	007	.5
22	MP4A	Х	0	3.5
23	MP4A	Z	-12.745	3.5
24	MP4A	Mx	007	3.5
25	MP3A	Х	0	1
26	MP3A	Z	-5.211	1
27	MP3A	Mx	0	1
28	MP3A	Х	0	3
29	MP3A	Z	-5.211	3
30	MP3A	Mx	0	3
31	MP1A	X	0	2
32	MP1A	Z	-3.901	2
33	MP1A	Mx	.000824	2
34	MP2A	X	0	3.5



## Member Point Loads (BLC 27 : Antenna Wm (0 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
35	MP2A	Z	-4.147	3.5
36	MP2A	Mx	0	3.5
37	MP2A	Х	0	.5
38	MP2A	Z	-1.696	.5
39	MP2A	Mx	0	.5
40	MP2A	Х	0	3.5
41	MP2A	Z	-1.696	3.5
42	MP2A	Mx	0	3.5
43	OVP	Х	0	.15
44	OVP	Z	-3.803	.15
45	OVP	Mx	0	.15
46	MP3A	Х	0	3.5
47	MP3A	Z	-4.147	3.5
48	MP3A	Mx	0	3.5
49	MP4A	Х	0	3
50	MP4A	Z	-2.129	3
51	MP4A	Mx	000355	3
52	MP4A	X	0	3
53	MP4A	Z	-2.129	3
54	MP4A	Mx	.000355	3

## Member Point Loads (BLC 28 : Antenna Wm (30 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	5.02	.5
2	MP1A	Z	-8.695	.5
3	MP1A	Mx	.000687	.5
4	MP1A	X	5.02	3.5
5	MP1A	Z	-8.695	3.5
6	MP1A	Mx	.000687	3.5
7	MP1A	X	5.02	.5
8	MP1A	Z	-8.695	.5
9	MP1A	Mx	009	.5
10	MP1A	Х	5.02	3.5
11	MP1A	Z	-8.695	3.5
12	MP1A	Mx	009	3.5
13	MP4A	X	6.842	.5
14	MP4A	Z	-11.851	.5
15	MP4A	Mx	.011	.5
16	MP4A	X	6.842	3.5
17	MP4A	Z	-11.851	3.5
18	MP4A	Mx	.011	3.5
19	MP4A	X	6.842	.5
20	MP4A	Z	-11.851	.5
21	MP4A	Mx	012	.5
22	MP4A	X	6.842	3.5
23	MP4A	Z	-11.851	3.5
24	MP4A	Mx	012	3.5
25	MP3A	X	2.209	1
26	MP3A	Z	-3.826	1
27	MP3A	Mx	001	1
28	MP3A	X	2.209	3
29	MP3A	Z	-3.826	3
30	MP3A	Mx	001	3
31	MP1A	X	1.612	2
32	MP1A	Z	-2.792	2
33	MP1A	Mx	.001	2
34	MP2A	X	1.87	3.5
35	MP2A	Z	-3.239	3.5



## Member Point Loads (BLC 28 : Antenna Wm (30 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
36	MP2A	Mx	.000935	3.5
37	MP2A	Х	.741	.5
38	MP2A	Z	-1.283	.5
39	MP2A	Mx	00037	.5
40	MP2A	Х	.741	3.5
41	MP2A	Z	-1.283	3.5
42	MP2A	Mx	00037	3.5
43	OVP	Х	1.558	.15
44	OVP	Z	-2.698	.15
45	OVP	Mx	0	.15
46	MP3A	Х	1.836	3.5
47	MP3A	Z	-3.179	3.5
48	MP3A	Mx	.000918	3.5
49	MP4A	Х	1.065	3
50	MP4A	Z	-1.845	3
51	MP4A	Mx	.000225	3
52	MP4A	X	1.065	3
53	MP4A	Z	-1.845	3
54	MP4A	Mx	.00084	3

## Member Point Loads (BLC 29 : Antenna Wm (60 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	Х	7.166	.5
2	MP1A	Z	-4.137	.5
3	MP1A	Mx	004	.5
4	MP1A	X	7.166	3.5
5	MP1A	Z	-4.137	3.5
6	MP1A	Mx	004	3.5
7	MP1A	Х	7.166	.5
8	MP1A	Z	-4.137	.5
9	MP1A	Mx	005	.5
10	MP1A	X	7.166	3.5
11	MP1A	Z	-4.137	3.5
12	MP1A	Mx	005	3.5
13	MP4A	Х	10.322	.5
14	MP4A	Z	-5.959	.5
15	MP4A	Mx	.005	.5
16	MP4A	Х	10.322	3.5
17	MP4A	Z	-5.959	3.5
18	MP4A	Mx	.005	3.5
19	MP4A	Х	10.322	.5
20	MP4A	Z	-5.959	.5
21	MP4A	Mx	012	.5
22	MP4A	X	10.322	3.5
23	MP4A	Z	-5.959	3.5
24	MP4A	Mx	012	3.5
25	MP3A	Х	2.453	1
26	MP3A	Z	-1.416	1
27	MP3A	Mx	001	1
28	MP3A	X	2.453	3
29	MP3A	Z	-1.416	3
30	MP3A	Mx	001	3
31	MP1A	Х	2.41	2
32	MP1A	Z	-1.391	2
33	MP1A	Mx	.001	2
34	MP2A	X	2.536	3.5
35	MP2A	Z	-1.464	3.5
36	MP2A	Mx	.001	3.5



## Member Point Loads (BLC 29 : Antenna Wm (60 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
37	MP2A	Х	.911	.5
38	MP2A	Z	526	.5
39	MP2A	Mx	000456	.5
40	MP2A	Х	.911	3.5
41	MP2A	Z	526	3.5
42	MP2A	Mx	000456	3.5
43	OVP	Х	2.4	.15
44	OVP	Z	-1.386	.15
45	OVP	Mx	0	.15
46	MP3A	Х	2.356	3.5
47	MP3A	Z	-1.36	3.5
48	MP3A	Mx	.001	3.5
49	MP4A	Х	1.848	3
50	MP4A	Z	-1.067	3
51	MP4A	Mx	.000746	3
52	MP4A	X	1.848	3
53	MP4A	Z	-1.067	3
54	MP4A	Mx	.001	3

## Member Point Loads (BLC 30 : Antenna Wm (90 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft.%]
1	MP1A	Х	9.214	.5
2	MP1A	Z	0	.5
3	MP1A	Mx	007	.5
4	MP1A	Х	9.214	3.5
5	MP1A	Z	0	3.5
6	MP1A	Mx	007	3.5
7	MP1A	Х	9.214	.5
8	MP1A	Z	0	.5
9	MP1A	Mx	00093	.5
10	MP1A	Х	9.214	3.5
11	MP1A	Z	0	3.5
12	MP1A	Mx	00093	3.5
13	MP4A	Х	9.214	.5
14	MP4A	Z	0	.5
15	MP4A	Mx	00093	.5
16	MP4A	Х	9.214	3.5
17	MP4A	Z	0	3.5
18	MP4A	Mx	00093	3.5
19	MP4A	Х	9.214	.5
20	MP4A	Z	0	.5
21	MP4A	Mx	007	.5
22	MP4A	Х	9.214	3.5
23	MP4A	Z	0	3.5
24	MP4A	Mx	007	3.5
25	MP3A	Х	2.04	1
26	MP3A	Z	0	1
27	MP3A	Mx	001	1
28	MP3A	Х	2.04	3
29	MP3A	Z	0	3
30	MP3A	Mx	001	3
31	MP1A	X	3.017	2
32	MP1A	Z	0	2
33	MP1A	Mx	.001	2
34	MP2A	X	2.522	3.5
35	MP2A	Z	0	3.5
36	MP2A	Mx	.001	3.5
37	MP2A	X	.837	.5



## Member Point Loads (BLC 30 : Antenna Wm (90 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
38	MP2A	Z	0	.5
39	MP2A	Mx	000419	.5
40	MP2A	Х	.837	3.5
41	MP2A	Z	0	3.5
42	MP2A	Mx	000419	3.5
43	OVP	Х	3.116	.15
44	OVP	Z	0	.15
45	OVP	Mx	0	.15
46	MP3A	Х	2.245	3.5
47	MP3A	Z	0	3.5
48	MP3A	Mx	.001	3.5
49	MP4A	Х	2.135	3
50	MP4A	Z	0	3
51	MP4A	Mx	.001	3
52	MP4A	Х	2.135	3
53	MP4A	Z	0	3
54	MP4A	Mx	.001	3

# Member Point Loads (BLC 31 : Antenna Wm (120 Deg))

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP1A	X	10.322	.5
2	MP1A	Z	5.959	.5
3	MP1A	Mx	012	.5
4	MP1A	X	10.322	3.5
5	MP1A	Z	5.959	3.5
6	MP1A	Mx	012	3.5
7	MP1A	Х	10.322	.5
8	MP1A	Z	5.959	.5
9	MP1A	Mx	.005	.5
10	MP1A	Х	10.322	3.5
11	MP1A	Z	5.959	3.5
12	MP1A	Mx	.005	3.5
13	MP4A	Х	7.166	.5
14	MP4A	Z	4.137	.5
15	MP4A	Mx	005	.5
16	MP4A	Х	7.166	3.5
17	MP4A	Z	4.137	3.5
18	MP4A	Mx	005	3.5
19	MP4A	Х	7.166	.5
20	MP4A	Z	4.137	.5
21	MP4A	Mx	004	.5
22	MP4A	X	7.166	3.5
23	MP4A	Z	4.137	3.5
24	MP4A	Mx	004	3.5
25	MP3A	Х	2.453	1
26	MP3A	Z	1.416	1
27	MP3A	Mx	001	1
28	MP3A	X	2.453	3
29	MP3A	Z	1.416	3
30	MP3A	Mx	001	3
31	MP1A	X	3.199	2
32	MP1A	Z	1.847	2
33	MP1A	Mx	.001	2
34	MP2A	X	2.536	3.5
35	MP2A	Z	1.464	3.5
36	MP2A	Mx	.001	3.5
37	MP2A	Х	.911	.5
38	MP2A	Z	.526	.5



## Member Point Loads (BLC 31 : Antenna Wm (120 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
39	MP2A	Mx	000456	.5
40	MP2A	Х	.911	3.5
41	MP2A	Z	.526	3.5
42	MP2A	Mx	000456	3.5
43	OVP	Х	3.293	.15
44	OVP	Z	1.901	.15
45	OVP	Mx	0	.15
46	MP3A	Х	2.356	3.5
47	MP3A	Z	1.36	3.5
48	MP3A	Mx	.001	3.5
49	MP4A	Х	1.848	3
50	MP4A	Z	1.067	3
51	MP4A	Mx	.001	3
52	MP4A	X	1.848	3
53	MP4A	Z	1.067	3
54	MP4A	Mx	.000746	3

## Member Point Loads (BLC 32 : Antenna Wm (150 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	Х	6.842	.5
2	MP1A	Z	11.851	.5
3	MP1A	Mx	012	.5
4	MP1A	X	6.842	3.5
5	MP1A	Z	11.851	3.5
6	MP1A	Mx	012	3.5
7	MP1A	X	6.842	.5
8	MP1A	Z	11.851	.5
9	MP1A	Mx	.011	.5
10	MP1A	X	6.842	3.5
11	MP1A	Z	11.851	3.5
12	MP1A	Mx	.011	3.5
13	MP4A	Х	5.02	.5
14	MP4A	Z	8.695	.5
15	MP4A	Mx	009	.5
16	MP4A	X	5.02	3.5
17	MP4A	Z	8.695	3.5
18	MP4A	Mx	009	3.5
19	MP4A	X	5.02	.5
20	MP4A	Z	8.695	.5
21	MP4A	Mx	.000687	.5
22	MP4A	X	5.02	3.5
23	MP4A	Z	8.695	3.5
24	MP4A	Mx	.000687	3.5
25	MP3A	Х	2.209	1
26	MP3A	Z	3.826	1
27	MP3A	Mx	001	1
28	MP3A	X	2.209	3
29	MP3A	Z	3.826	3
30	MP3A	Mx	001	3
31	MP1A	Х	2.068	2
32	MP1A	Z	3.582	2
33	MP1A	Mx	.00018	2
34	MP2A	X	1.87	3.5
35	MP2A	Z	3.239	3.5
36	MP2A	Mx	.000935	3.5
37	MP2A	X	.741	.5
38	MP2A	Z	1.283	.5
39	MP2A	Mx	00037	.5



## Member Point Loads (BLC 32 : Antenna Wm (150 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
40	MP2A	Х	.741	3.5
41	MP2A	Z	1.283	3.5
42	MP2A	Mx	00037	3.5
43	OVP	Х	2.073	.15
44	OVP	Z	3.591	.15
45	OVP	Mx	0	.15
46	MP3A	Х	1.836	3.5
47	MP3A	Z	3.179	3.5
48	MP3A	Mx	.000918	3.5
49	MP4A	Х	1.065	3
50	MP4A	Z	1.845	3
51	MP4A	Mx	.00084	3
52	MP4A	Х	1.065	3
53	MP4A	Z	1.845	3
54	MP4A	Мх	.000225	3

# Member Point Loads (BLC 33 : Antenna Wm (180 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	0	.5
2	MP1A	Z	12.745	.5
3	MP1A	Mx	007	.5
4	MP1A	X	0	3.5
5	MP1A	Z	12.745	3.5
6	MP1A	Mx	007	3.5
7	MP1A	X	0	.5
8	MP1A	Z	12.745	.5
9	MP1A	Mx	.012	.5
10	MP1A	X	0	3.5
11	MP1A	Z	12.745	3.5
12	MP1A	Mx	.012	3.5
13	MP4A	X	0	.5
14	MP4A	Z	12.745	.5
15	MP4A	Mx	012	.5
16	MP4A	X	0	3.5
17	MP4A	Z	12.745	3.5
18	MP4A	Mx	012	3.5
19	MP4A	X	0	.5
20	MP4A	Z	12.745	.5
21	MP4A	Mx	.007	.5
22	MP4A	X	0	3.5
23	MP4A	Z	12.745	3.5
24	MP4A	Mx	.007	3.5
25	MP3A	X	0	1
26	MP3A	Z	5.211	1
27	MP3A	Mx	0	1
28	MP3A	X	0	3
29	MP3A	Z	5.211	3
30	MP3A	Mx	0	3
31	MP1A	X	0	2
32	MP1A	Z	3.901	2
33	MP1A	Mx	000824	2
34	MP2A	X	0	3.5
35	MP2A	Z	4.147	3.5
36	MP2A	Mx	0	3.5
37	MP2A	X	0	.5
38	MP2A	Z	1.696	.5
39	MP2A	Mx	0	.5
40	MP2A	X	0	3.5



## Member Point Loads (BLC 33 : Antenna Wm (180 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
41	MP2A	Z	1.696	3.5
42	MP2A	Mx	0	3.5
43	OVP	Х	0	.15
44	OVP	Z	3.803	.15
45	OVP	Mx	0	.15
46	MP3A	Х	0	3.5
47	MP3A	Z	4.147	3.5
48	MP3A	Mx	0	3.5
49	MP4A	Х	0	3
50	MP4A	Z	2.129	3
51	MP4A	Mx	.000355	3
52	MP4A	Х	0	3
53	MP4A	Z	2.129	3
54	MP4A	Mx	000355	3

## Member Point Loads (BLC 34 : Antenna Wm (210 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	Х	-5.02	.5
2	MP1A	Z	8.695	.5
3	MP1A	Mx	000687	.5
4	MP1A	Х	-5.02	3.5
5	MP1A	Z	8.695	3.5
6	MP1A	Mx	000687	3.5
7	MP1A	Х	-5.02	.5
8	MP1A	Z	8.695	.5
9	MP1A	Mx	.009	.5
10	MP1A	Х	-5.02	3.5
11	MP1A	Z	8.695	3.5
12	MP1A	Mx	.009	3.5
13	MP4A	Х	-6.842	.5
14	MP4A	Z	11.851	.5
15	MP4A	Mx	011	.5
16	MP4A	Х	-6.842	3.5
17	MP4A	Z	11.851	3.5
18	MP4A	Mx	011	3.5
19	MP4A	Х	-6.842	.5
20	MP4A	Z	11.851	.5
21	MP4A	Mx	.012	.5
22	MP4A	Х	-6.842	3.5
23	MP4A	Z	11.851	3.5
24	MP4A	Mx	.012	3.5
25	MP3A	Х	-2.209	1
26	MP3A	Z	3.826	1
27	MP3A	Mx	.001	1
28	MP3A	Х	-2.209	3
29	MP3A	Z	3.826	3
30	MP3A	Mx	.001	3
31	MP1A	Х	-1.612	2
32	MP1A	Z	2.792	2
33	MP1A	Mx	001	2
34	MP2A	Х	-1.87	3.5
35	MP2A	Z	3.239	3.5
36	MP2A	Mx	000935	3.5
37	MP2A	X	741	.5
38	MP2A	Z	1.283	.5
39	MP2A	Mx	.00037	.5
40	MP2A	X	741	3.5
41	MP2A	Z	1.283	3.5



## Member Point Loads (BLC 34 : Antenna Wm (210 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
42	MP2A	Mx	.00037	3.5
43	OVP	Х	-1.558	.15
44	OVP	Z	2.698	.15
45	OVP	Mx	0	.15
46	MP3A	Х	-1.836	3.5
47	MP3A	Z	3.179	3.5
48	MP3A	Mx	000918	3.5
49	MP4A	Х	-1.065	3
50	MP4A	Z	1.845	3
51	MP4A	Mx	000225	3
52	MP4A	Х	-1.065	3
53	MP4A	Z	1.845	3
54	MP4A	Mx	00084	3

#### Member Point Loads (BLC 35 : Antenna Wm (240 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-7.166	.5
2	MP1A	Z	4.137	.5
3	MP1A	Mx	.004	.5
4	MP1A	X	-7.166	3.5
5	MP1A	Z	4.137	3.5
6	MP1A	Mx	.004	3.5
7	MP1A	X	-7.166	.5
8	MP1A	Z	4.137	.5
9	MP1A	Mx	.005	.5
10	MP1A	X	-7.166	3.5
11	MP1A	Z	4.137	3.5
12	MP1A	Mx	.005	3.5
13	MP4A	X	-10.322	.5
14	MP4A	Z	5.959	.5
15	MP4A	Mx	005	.5
16	MP4A	X	-10.322	3.5
17	MP4A	Z	5.959	3.5
18	MP4A	Mx	005	3.5
19	MP4A	X	-10.322	.5
20	MP4A	Z	5.959	.5
21	MP4A	Mx	.012	.5
22	MP4A	X	-10.322	3.5
23	MP4A	Z	5.959	3.5
24	MP4A	Mx	.012	3.5
25	MP3A	X	-2.453	1
26	MP3A	Z	1.416	1
27	MP3A	Mx	.001	1
28	MP3A	Х	-2.453	3
29	MP3A	Z	1.416	3
30	MP3A	Mx	.001	3
31	MP1A	Х	-2.41	2
32	MP1A	Z	1.391	2
33	MP1A	Mx	001	2
34	MP2A	X	-2.536	3.5
35	MP2A	Z	1.464	3.5
36	MP2A	Mx	001	3.5
37	MP2A	Х	911	.5
38	MP2A	Z	.526	.5
39	MP2A	Mx	.000456	.5
40	MP2A	Х	911	3.5
41	MP2A	Z	.526	3.5
42	MP2A	Mx	.000456	3.5

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## Member Point Loads (BLC 35 : Antenna Wm (240 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
43	OVP	Х	-2.4	.15
44	OVP	Z	1.386	.15
45	OVP	Mx	0	.15
46	MP3A	Х	-2.356	3.5
47	MP3A	Z	1.36	3.5
48	MP3A	Mx	001	3.5
49	MP4A	Х	-1.848	3
50	MP4A	Z	1.067	3
51	MP4A	Mx	000746	3
52	MP4A	Х	-1.848	3
53	MP4A	Z	1.067	3
54	MP4A	Mx	001	3

## Member Point Loads (BLC 36 : Antenna Wm (270 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	Х	-9.214	.5
2	MP1A	Z	0	.5
3	MP1A	Mx	.007	.5
4	MP1A	Х	-9.214	3.5
5	MP1A	Z	0	3.5
6	MP1A	Mx	.007	3.5
7	MP1A	Х	-9.214	.5
8	MP1A	Z	0	.5
9	MP1A	Mx	.00093	.5
10	MP1A	X	-9.214	3.5
11	MP1A	Z	0	3.5
12	MP1A	Mx	.00093	3.5
13	MP4A	X	-9.214	.5
14	MP4A	Z	0	.5
15	MP4A	Mx	.00093	.5
16	MP4A	X	-9.214	3.5
17	MP4A	Z	0	3.5
18	MP4A	Mx	.00093	3.5
19	MP4A	Х	-9.214	.5
20	MP4A	Z	0	.5
21	MP4A	Mx	.007	.5
22	MP4A	Х	-9.214	3.5
23	MP4A	Z	0	3.5
24	MP4A	Mx	.007	3.5
25	MP3A	Х	-2.04	1
26	MP3A	Z	0	1
27	MP3A	Mx	.001	1
28	MP3A	Х	-2.04	3
29	MP3A	Z	0	3
30	MP3A	Mx	.001	3
31	MP1A	Х	-3.017	2
32	MP1A	Z	0	2
33	MP1A	Mx	001	2
34	MP2A	X	-2.522	3.5
35	MP2A	Z	0	3.5
36	MP2A	Mx	001	3.5
37	MP2A	Х	837	.5
38	MP2A	Z	0	.5
39	MP2A	Mx	.000419	.5
40	MP2A	X	837	3.5
41	MP2A	Z	0	3.5
42	MP2A	Mx	.000419	3.5
43	OVP	X	-3.116	.15



## Member Point Loads (BLC 36 : Antenna Wm (270 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
44	OVP	Z	0	.15
45	OVP	Mx	0	.15
46	MP3A	Х	-2.245	3.5
47	MP3A	Z	0	3.5
48	MP3A	Mx	001	3.5
49	MP4A	Х	-2.135	3
50	MP4A	Z	0	3
51	MP4A	Mx	001	3
52	MP4A	Х	-2.135	3
53	MP4A	Z	0	3
54	MP4A	Mx	001	3

## Member Point Loads (BLC 37 : Antenna Wm (300 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-10.322	.5
2	MP1A	Z	-5.959	.5
3	MP1A	Mx	.012	.5
4	MP1A	X	-10.322	3.5
5	MP1A	Z	-5.959	3.5
6	MP1A	Mx	.012	3.5
7	MP1A	X	-10.322	.5
8	MP1A	Z	-5.959	.5
9	MP1A	Mx	005	.5
10	MP1A	Х	-10.322	3.5
11	MP1A	Z	-5.959	3.5
12	MP1A	Mx	005	3.5
13	MP4A	X	-7.166	.5
14	MP4A	Z	-4.137	.5
15	MP4A	Mx	.005	.5
16	MP4A	X	-7.166	3.5
17	MP4A	Z	-4.137	3.5
18	MP4A	Mx	.005	3.5
19	MP4A	X	-7.166	.5
20	MP4A	Z	-4.137	.5
21	MP4A	Mx	.004	.5
22	MP4A	X	-7.166	3.5
23	MP4A	Z	-4.137	3.5
24	MP4A	Mx	.004	3.5
25	MP3A	X	-2.453	1
26	MP3A	Z	-1.416	1
27	MP3A	Mx	.001	1
28	MP3A	X	-2.453	3
29	MP3A	Z	-1.416	3
30	MP3A	Mx	.001	3
31	MP1A	X	-3.199	2
32	MP1A	Z	-1.847	2
33	MP1A	Mx	001	2
34	MP2A	X	-2.536	3.5
35	MP2A	Z	-1.464	3.5
36	MP2A	Mx	001	3.5
37	MP2A	X	911	.5
38	MP2A	Z	526	.5
39	MP2A	Mx	.000456	.5
40	MP2A	X	911	3.5
41	MP2A	Z	526	3.5
42	MP2A	Mx	.000456	3.5
43	OVP	X	-3.293	.15
44	OVP	Z	-1.901	.15


## Member Point Loads (BLC 37 : Antenna Wm (300 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
45	OVP	Mx	0	.15
46	MP3A	Х	-2.356	3.5
47	MP3A	Z	-1.36	3.5
48	MP3A	Mx	001	3.5
49	MP4A	Х	-1.848	3
50	MP4A	Z	-1.067	3
51	MP4A	Mx	001	3
52	MP4A	Х	-1.848	3
53	MP4A	Z	-1.067	3
54	MP4A	Mx	000746	3

# Member Point Loads (BLC 38 : Antenna Wm (330 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	Х	-6.842	.5
2	MP1A	Z	-11.851	.5
3	MP1A	Mx	.012	.5
4	MP1A	X	-6.842	3.5
5	MP1A	Z	-11.851	3.5
6	MP1A	Mx	.012	3.5
7	MP1A	X	-6.842	.5
8	MP1A	Z	-11.851	.5
9	MP1A	Mx	011	.5
10	MP1A	Х	-6.842	3.5
11	MP1A	Z	-11.851	3.5
12	MP1A	Mx	011	3.5
13	MP4A	Х	-5.02	.5
14	MP4A	Z	-8.695	.5
15	MP4A	Mx	.009	.5
16	MP4A	X	-5.02	3.5
17	MP4A	Z	-8.695	3.5
18	MP4A	Mx	.009	3.5
19	MP4A	X	-5.02	.5
20	MP4A	Z	-8.695	.5
21	MP4A	Mx	000687	.5
22	MP4A	X	-5.02	3.5
23	MP4A	Z	-8.695	3.5
24	MP4A	Mx	000687	3.5
25	MP3A	X	-2.209	1
26	MP3A	Z	-3.826	1
27	MP3A	Mx	.001	1
28	MP3A	X	-2.209	3
29	MP3A	Z	-3.826	3
30	MP3A	Mx	.001	3
31	MP1A	X	-2.068	2
32	MP1A	Z	-3.582	2
33	MP1A	Mx	00018	2
34	MP2A	X	-1.87	3.5
35	MP2A	Z	-3.239	3.5
36	MP2A	Mx	000935	3.5
37	MP2A	X	741	.5
38	MP2A	Z	-1.283	.5
39	MP2A	Mx	.00037	.5
40	MP2A	X	741	3.5
41	MP2A	Z	-1.283	3.5
42	MP2A	Mx	.00037	3.5
43	OVP	Х	-2.073	.15
44	OVP	Z	-3.591	.15
45	OVP	Mx	0	.15



#### Member Point Loads (BLC 38 : Antenna Wm (330 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
46	MP3A	Х	-1.836	3.5
47	MP3A	Z	-3.179	3.5
48	MP3A	Mx	000918	3.5
49	MP4A	Х	-1.065	3
50	MP4A	Z	-1.845	3
51	MP4A	Mx	00084	3
52	MP4A	Х	-1.065	3
53	MP4A	Z	-1.845	3
54	MP4A	Mx	000225	3

#### Member Point Loads (BLC 77 : Lm1)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	M10	Y	-500	%96

#### Member Point Loads (BLC 78 : Lm2)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	M10	Y	-500	%4

#### Member Point Loads (BLC 79 : Lv1)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	M10	Y	-250	%50

#### Member Point Loads (BLC 80 : Lv2)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	M10	Y	-250	0

#### Member Point Loads (BLC 81 : Antenna Ev)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	Y	-2.116	.5
2	MP1A	My	002	.5
3	MP1A	Mz	001	.5
4	MP1A	Y	-2.116	3.5
5	MP1A	My	002	3.5
6	MP1A	Mz	001	3.5
7	MP1A	Y	-2.116	.5
8	MP1A	My	000214	.5
9	MP1A	Mz	.002	.5
10	MP1A	Y	-2.116	3.5
11	MP1A	My	000214	3.5
12	MP1A	Mz	.002	3.5
13	MP4A	Y	-2.116	.5
14	MP4A	My	000214	.5
15	MP4A	Mz	002	.5
16	MP4A	Y	-2.116	3.5
17	MP4A	My	000214	3.5
18	MP4A	Mz	002	3.5
19	MP4A	Y	-2.116	.5
20	MP4A	My	002	.5
21	MP4A	Mz	.001	.5
22	MP4A	Y	-2.116	3.5
23	MP4A	My	002	3.5
24	MP4A	Mz	.001	3.5
25	MP3A	Y	-2.118	1
26	MP3A	My	001	1
27	MP3A	Mz	0	1
28	MP3A	Y	-2.118	3



# Member Point Loads (BLC 81 : Antenna Ev) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
29	MP3A	My	001	3
30	MP3A	Mz	0	3
31	MP1A	Y	-3.633	2
32	MP1A	My	.002	2
33	MP1A	Mz	000768	2
34	MP2A	Y	-3.419	3.5
35	MP2A	My	.002	3.5
36	MP2A	Mz	0	3.5
37	MP2A	Y	564	.5
38	MP2A	My	000282	.5
39	MP2A	Mz	0	.5
40	MP2A	Y	564	3.5
41	MP2A	My	000282	3.5
42	MP2A	Mz	0	3.5
43	OVP	Y	-4.105	.15
44	OVP	My	0	.15
45	OVP	Mz	0	.15
46	MP3A	Y	-3.419	3.5
47	MP3A	My	.002	3.5
48	MP3A	Mz	0	3.5
49	MP4A	Y	856	3
50	MP4A	My	.000428	3
51	MP4A	Mz	.000143	3
52	MP4A	Y	856	3
53	MP4A	My	.000428	3
54	MP4A	Mz	000143	3

# Member Point Loads (BLC 82 : Antenna Eh (0 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	Z	-5.29	.5
2	MP1A	Mx	.003	.5
3	MP1A	Z	-5.29	3.5
4	MP1A	Mx	.003	3.5
5	MP1A	Z	-5.29	.5
6	MP1A	Mx	005	.5
7	MP1A	Z	-5.29	3.5
8	MP1A	Mx	005	3.5
9	MP4A	Z	-5.29	.5
10	MP4A	Mx	.005	.5
11	MP4A	Z	-5.29	3.5
12	MP4A	Mx	.005	3.5
13	MP4A	Z	-5.29	.5
14	MP4A	Mx	003	.5
15	MP4A	Z	-5.29	3.5
16	MP4A	Mx	003	3.5
17	MP3A	Z	-5.296	1
18	MP3A	Mx	0	1
19	MP3A	Z	-5.296	3
20	MP3A	Mx	0	3
21	MP1A	Z	-9.084	2
22	MP1A	Mx	.002	2
23	MP2A	Z	-8.548	3.5
24	MP2A	Mx	0	3.5
25	MP2A	Z	-1.411	.5
26	MP2A	Mx	0	.5
27	MP2A	Z	-1.411	3.5
28	MP2A	Mx	0	3.5
29	OVP	Z	-10.263	.15



## Member Point Loads (BLC 82 : Antenna Eh (0 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
30	OVP	Mx	0	.15
31	MP3A	Z	-8.548	3.5
32	MP3A	Mx	0	3.5
33	MP4A	Z	-2.14	3
34	MP4A	Mx	000357	3
35	MP4A	Z	-2.14	3
36	MP4A	Mx	.000357	3

#### Member Point Loads (BLC 83 : Antenna Eh (90 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	Х	5.29	.5
2	MP1A	Mx	004	.5
3	MP1A	Х	5.29	3.5
4	MP1A	Mx	004	3.5
5	MP1A	Х	5.29	.5
6	MP1A	Mx	000534	.5
7	MP1A	Х	5.29	3.5
8	MP1A	Mx	000534	3.5
9	MP4A	Х	5.29	.5
10	MP4A	Mx	000534	.5
11	MP4A	Х	5.29	3.5
12	MP4A	Mx	000534	3.5
13	MP4A	Х	5.29	.5
14	MP4A	Mx	004	.5
15	MP4A	Х	5.29	3.5
16	MP4A	Mx	004	3.5
17	MP3A	Х	5.296	1
18	MP3A	Mx	003	1
19	MP3A	Х	5.296	3
20	MP3A	Mx	003	3
21	MP1A	Х	9.084	2
22	MP1A	Mx	.004	2
23	MP2A	Х	8.548	3.5
24	MP2A	Mx	.004	3.5
25	MP2A	Х	1.411	.5
26	MP2A	Mx	000705	.5
27	MP2A	Х	1.411	3.5
28	MP2A	Mx	000705	3.5
29	OVP	Х	10.263	.15
30	OVP	Mx	0	.15
31	MP3A	Х	8.548	3.5
32	MP3A	Mx	.004	3.5
33	MP4A	Х	2.14	3
34	MP4A	Mx	.001	3
35	MP4A	Х	2.14	3
36	MP4A	Mx	.001	3

#### Member Distributed Loads (BLC 40 : Structure Di)

	Member Label	Direction	Start Magnitude[lb/ft,	.End Magnitude[lb/ft,	Start Location[ft,%]	End Location[ft,%]
1	M1	Y	-8.822	-8.822	0	%100
2	M3	Y	-8.822	-8.822	0	%100
3	M5	Y	-5.996	-5.996	0	%100
4	M6	Y	-5.996	-5.996	0	%100
5	M7	Y	-5.784	-5.784	0	%100
6	M8	Y	-5.996	-5.996	0	%100
7	M9	Y	-5.996	-5.996	0	%100
8	M10	Y	-5.784	-5.784	0	%100



#### Member Distributed Loads (BLC 40 : Structure Di) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,	.End Magnitude[lb/ft,	Start Location[ft,%]	End Location[ft,%]
9	M11	Y	-5.069	-5.069	0	%100
10	M12	Y	-5.069	-5.069	0	%100
11	M13	Y	-5.069	-5.069	0	%100
12	M14	Y	-5.069	-5.069	0	%100
13	M15	Y	-5.996	-5.996	0	%100
14	M16	Y	-4.39	-4.39	0	%100
15	M17	Y	-5.996	-5.996	0	%100
16	M18	Y	-4.39	-4.39	0	%100
17	M19	Y	-5.996	-5.996	0	%100
18	M20	Y	-5.996	-5.996	0	%100
19	M21	Y	-5.996	-5.996	0	%100
20	M22	Y	-4.39	-4.39	0	%100
21	M23	Y	-4.39	-4.39	0	%100
22	M24	Y	-5.069	-5.069	0	%100
23	M25	Y	-5.996	-5.996	0	%100
24	M26	Y	-5.996	-5.996	0	%100
25	M27	Y	-4.39	-4.39	0	%100
26	M28	Y	-5.996	-5.996	0	%100
27	M29	Y	-4.39	-4.39	0	%100
28	M30	Y	-5.996	-5.996	0	%100
29	M31	Y	-5.996	-5.996	0	%100
30	M32	Y	-5.996	-5.996	0	%100
31	M33	Y	-4.39	-4.39	0	%100
32	M34	Y	-4.39	-4.39	0	%100
33	M35	Y	-5.069	-5.069	0	%100
34	M36	Y	-5.996	-5.996	0	%100
35	MP4A	Y	-5.069	-5.069	0	%100
36	MP3A	Y	-5.069	-5.069	0	%100
37	MP2A	Y	-5.069	-5.069	0	%100
38	MP1A	Y	-5.069	-5.069	0	%100
39	EQUIP	Y	-6.728	-6.728	0	%100
40	M51	Y	-6.728	-6.728	0	%100
41	M55A	Y	-5.069	-5.069	0	%100

#### Member Distributed Loads (BLC 41 : Structure Wo (0 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,	.End Magnitude[lb/ft,	Start Location[ft,%]	End Location[ft,%]
1	M1	Х	0	0	0	%100
2	M1	Z	-10.292	-10.292	0	%100
3	M3	Х	0	0	0	%100
4	M3	Z	-10.292	-10.292	0	%100
5	M5	Х	0	0	0	%100
6	M5	Z	631	631	0	%100
7	M6	Х	0	0	0	%100
8	M6	Z	631	631	0	%100
9	M7	Х	0	0	0	%100
10	M7	Z	-9.863	-9.863	0	%100
11	M8	Х	0	0	0	%100
12	M8	Z	436	436	0	%100
13	M9	Х	0	0	0	%100
14	M9	Z	751	751	0	%100
15	M10	Х	0	0	0	%100
16	M10	Z	-9.863	-9.863	0	%100
17	M11	Х	0	0	0	%100
18	M11	Z	-3.996	-3.996	0	%100
19	M12	Х	0	0	0	%100
20	M12	Z	-3.996	-3.996	0	%100
21	M13	X	0	0	0	%100
22	M13	Z	-3.996	-3.996	0	%100

# Member Distributed Loads (BLC 41 : Structure Wo (0 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,	End Magnitude[lb/ft,	Start Location[ft,%]	End Location[ft,%]
23	<u>M14</u>	X	0	0	0	%100
24	IVI14		-3.996	-3.996	0	%100
20		~ 7	1 259	1 259	0	%100
20	M16	Z X	-1.556	-1.330	0	%100
21	M16	~ 7	5 /11	5 / 1 1	0	%100
20	M17	X	-5.411	-5.411	0	%100
30	M17	7	_1 358	_1 358	0	%100
31	M18	X	-1.556	-1.330	0	%100
32	M18	7	-5 411	-5 411	0	%100
33	M10	X	0	0	0	%100
34	M19	7	-1.823	-1 823	0	%100
35	M10	X	0	0	0	%100
36	M20	Z	-1.358	-1.358	0	%100
37	M21	X	0	0	0	%100
38	M21	Z	-1.358	-1.358	0	%100
39	M22	X	0	0	0	%100
40	M22	Z	-5.915	-5.915	0	%100
41	M23	X	0	0	0	%100
42	M23	Z	-5.915	-5.915	0	%100
43	M24	Х	0	0	0	%100
44	M24	Z	-6.218	-6.218	0	%100
45	M25	Х	0	0	0	%100
46	M25	Z	-1.823	-1.823	0	%100
47	M26	Х	0	0	0	%100
48	M26	Z	-1.358	-1.358	0	%100
49	M27	Х	0	0	0	%100
50	M27	Z	-5.411	-5.411	0	%100
51	M28	Х	0	0	0	%100
52	M28	Z	-1.358	-1.358	0	%100
53	M29	X	0	0	0	%100
54	M29	Z	-5.411	-5.411	0	%100
55	M30	X	0	0	0	%100
56	M30	Z	-1.823	-1.823	0	%100
57	M31	X	0	0	0	%100
58	M31	Z	-1.358	-1.358	0	%100
59	M32	X	0	0	0	%100
60	M32	Z	-1.358	-1.358	0	%100
61	M33	X	0	0	0	%100
62	M33	<u> </u>	-5.915	-5.915	0	%100
63	M34	X	0	0	0	%100
64	M34	<u> </u>	-5.915	-5.915	0	%100
05	IVI35	X 7	0	0	0	%100
67	IVI3D Mag		-0.218	-0.218	0	%100
69	IVI30	7	1 0 2 2	1 0 2 2	0	%100
60			-1.823	-1.823	0	%100
70		~ 7	0	_9.149	0	%100 %100
70	MD2A		-0.140	-0.140	0	%100
70	MD2A	~ 7	0	_9.149	0	%100 %100
72	MD2A		-0.140	-0.140	0	%100
73		~ 7	Q 1/Q	_9.149	0	%100 %100
74			-0.140	-0.140	0	%100
75		~ 7	Q 1/Q	_9.149	0	%100
70		2 V	-0.140	-0.140	0	%100
70	EQUIP	~ 7	_12.917	_12.917	0	%100
70	M51	Z V	-12.017	-12.017	0	%100
80	M51	7	-12.817	_12.817	0	%100
81	M55A	Z Y	-12.017	-12.017	0	%100
01	WOOA	^	U	U	V	/0100



#### Member Distributed Loads (BLC 41 : Structure Wo (0 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,	.End Magnitude[lb/ft,	Start Location[ft,%]	End Location[ft,%]
82	M55A	Z	-2.001	-2.001	0	%100

# Member Distributed Loads (BLC 42 : Structure Wo (30 Deg))

	Member Label	Direction	Start Magnitude[lb/ft	.End Magnitude[lb/ft	Start Location[ft.%]	End Location[ft.%]
1	M1	X	3.859	3.859	0	%100
2	M1	Z	-6.685	-6.685	0	%100
3	M3	Х	3.859	3.859	0	%100
4	M3	Z	-6.685	-6.685	0	%100
5	M5	X	.04	.04	0	%100
6	M5	Z	069	069	0	%100
7	M6	X	.597	.597	0	%100
8	M6	Z	-1.034	-1.034	0	%100
9	M7	Х	3.699	3.699	0	%100
10	M7	Z	-6.406	-6.406	0	%100
11	M8	Х	.006	.006	0	%100
12	M8	Z	011	011	0	%100
13	M9	Х	.623	.623	0	%100
14	M9	Z	-1.079	-1.079	0	%100
15	M10	Х	3.699	3.699	0	%100
16	M10	Z	-6.406	-6.406	0	%100
17	M11	X	.254	.254	0	%100
18	M11	Z	44	44	0	%100
19	M12	X	3.781	3.781	0	%100
20	M12	Z	-6.549	-6.549	0	%100
21	M13	Х	.254	.254	0	%100
22	M13	Z	44	44	0	%100
23	M14	Х	3.781	3.781	0	%100
24	M14	Z	-6.549	-6.549	0	%100
25	M15	Х	1.796	1.796	0	%100
26	M15	Z	-3.11	-3.11	0	%100
27	M16	Х	3.181	3.181	0	%100
28	M16	Z	-5.51	-5.51	0	%100
29	M17	Х	1.796	1.796	0	%100
30	M17	Z	-3.11	-3.11	0	%100
31	M18	Х	3.181	3.181	0	%100
32	M18	Z	-5.51	-5.51	0	%100
33	M19	Х	1.97	1.97	0	%100
34	M19	Z	-3.412	-3.412	0	%100
35	M20	Х	1.796	1.796	0	%100
36	M20	Z	-3.11	-3.11	0	%100
37	M21	Х	1.796	1.796	0	%100
38	M21	Z	-3.11	-3.11	0	%100
39	M22	Х	2.957	2.957	0	%100
40	M22	Z	-5.122	-5.122	0	%100
41	M23	X	2.957	2.957	0	%100
42	M23	Z	-5.122	-5.122	0	%100
43	M24	X	3.109	3.109	0	%100
44	M24	Z	-5.385	-5.385	0	%100
45	M25	X	1.97	1.97	0	%100
46	M25	Z	-3.412	-3.412	0	%100
47	M26	X	1.796	1.796	0	%100
48	M26	Z	-3.11	-3.11	0	%100
49	M27	X	2.24	2.24	0	%100
50	M27	Z	-3.88	-3.88	0	%100
51	M28	Х	1.796	1.796	0	%100
52	M28	Z	-3.11	-3.11	0	%100
53	M29	X	2.24	2.24	0	%100
54	M29	Z	-3.88	-3.88	0	%100



### Member Distributed Loads (BLC 42 : Structure Wo (30 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,	.End Magnitude[lb/ft,	Start Location[ft,%]	End Location[ft,%]
55	M30	Х	1.97	1.97	0	%100
56	M30	Z	-3.412	-3.412	0	%100
57	M31	X	1.796	1.796	0	%100
58	M31	Z	-3.11	-3.11	0	%100
59	M32	X	1.796	1.796	0	%100
60	M32	Z	-3.11	-3.11	0	%100
61	M33	Х	2.957	2.957	0	%100
62	M33	Z	-5.122	-5.122	0	%100
63	M34	X	2.957	2.957	0	%100
64	M34	Z	-5.122	-5.122	0	%100
65	M35	Х	3.109	3.109	0	%100
66	M35	Z	-5.385	-5.385	0	%100
67	M36	X	1.97	1.97	0	%100
68	M36	Z	-3.412	-3.412	0	%100
69	MP4A	X	4.074	4.074	0	%100
70	MP4A	Z	-7.056	-7.056	0	%100
71	MP3A	Х	4.074	4.074	0	%100
72	MP3A	Z	-7.056	-7.056	0	%100
73	MP2A	X	4.074	4.074	0	%100
74	MP2A	Z	-7.056	-7.056	0	%100
75	MP1A	Х	4.074	4.074	0	%100
76	MP1A	Z	-7.056	-7.056	0	%100
77	EQUIP	Х	6.409	6.409	0	%100
78	EQUIP	Z	-11.1	-11.1	0	%100
79	M51	X	6.409	6.409	0	%100
80	M51	Z	-11.1	-11.1	0	%100
81	M55A	X	.000107	.000107	0	%100
82	M55A	Z	000186	000186	0	%100

# Member Distributed Loads (BLC 43 : Structure Wo (60 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,	.End Magnitude[lb/ft,	Start Location[ft,%]	End Location[ft,%]
1	M1	Х	2.228	2.228	0	%100
2	M1	Z	-1.286	-1.286	0	%100
3	M3	Х	2.228	2.228	0	%100
4	M3	Z	-1.286	-1.286	0	%100
5	M5	Х	.08	.08	0	%100
6	M5	Z	046	046	0	%100
7	M6	Х	1.045	1.045	0	%100
8	M6	Z	603	603	0	%100
9	M7	Х	2.135	2.135	0	%100
10	M7	Z	-1.233	-1.233	0	%100
11	M8	Х	.19	.19	0	%100
12	M8	Z	11	11	0	%100
13	M9	Х	.986	.986	0	%100
14	M9	Z	569	569	0	%100
15	M10	Х	2.135	2.135	0	%100
16	M10	Z	-1.233	-1.233	0	%100
17	M11	Х	.507	.507	0	%100
18	M11	Z	293	293	0	%100
19	M12	Х	6.617	6.617	0	%100
20	M12	Z	-3.82	-3.82	0	%100
21	M13	Х	.507	.507	0	%100
22	M13	Z	293	293	0	%100
23	M14	X	6.617	6.617	0	%100
24	M14	Z	-3.82	-3.82	0	%100
25	M15	Х	6.979	6.979	0	%100
26	M15	Z	-4.029	-4.029	0	%100
27	M16	Х	5.528	5.528	0	%100



## Member Distributed Loads (BLC 43 : Structure Wo (60 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,	End Magnitude[lb/ft,	Start Location[ft,%]	End Location[ft,%]
28	M16	Z	-3.191	-3.191	0	%100
29	M17	X	6.979	6.979	0	%100
30	M17	Z	-4.029	-4.029	0	%100
31	M18	X	5.528	5.528	0	%100
32	M18	Z	-3.191	-3.191	0	%100
33	M19	X	7.079	7.079	0	%100
34	M19	Z	-4.087	-4.087	0	%100
35	M20	X	6.979	6.979	0	%100
36	M20	Z	-4.029	-4.029	0	%100
37	M21	X	6.979	6.979	0	%100
38	M21	Z	-4.029	-4.029	0	%100
39	M22	X	5.122	5.122	0	%100
40	M22	Z	-2.957	-2.957	0	%100
41	M23	Х	5.122	5.122	0	%100
42	M23	Z	-2.957	-2.957	0	%100
43	M24	Х	5.385	5.385	0	%100
44	M24	Z	-3.109	-3.109	0	%100
45	M25	Х	7.079	7.079	0	%100
46	M25	Z	-4.087	-4.087	0	%100
47	M26	Х	6.979	6.979	0	%100
48	M26	Z	-4.029	-4.029	0	%100
49	M27	Х	3.898	3.898	0	%100
50	M27	Z	-2.25	-2.25	0	%100
51	M28	X	6.979	6.979	0	%100
52	M28	Z	-4.029	-4.029	0	%100
53	M29	Х	3.898	3.898	0	%100
54	M29	Z	-2.25	-2.25	0	%100
55	M30	Х	7.079	7.079	0	%100
56	M30	Z	-4.087	-4.087	0	%100
57	M31	Х	6.979	6.979	0	%100
58	M31	Z	-4.029	-4.029	0	%100
59	M32	Х	6.979	6.979	0	%100
60	M32	Z	-4.029	-4.029	0	%100
61	M33	Х	5.122	5.122	0	%100
62	M33	Z	-2.957	-2.957	0	%100
63	M34	Х	5.122	5.122	0	%100
64	M34	Z	-2.957	-2.957	0	%100
65	M35	Х	5.385	5.385	0	%100
66	M35	Z	-3.109	-3.109	0	%100
67	M36	Х	7.079	7.079	0	%100
68	M36	Z	-4.087	-4.087	0	%100
69	MP4A	Х	7.056	7.056	0	%100
70	MP4A	Z	-4.074	-4.074	0	%100
71	MP3A	Х	7.056	7.056	0	%100
72	MP3A	Z	-4.074	-4.074	0	%100
73	MP2A	Х	7.056	7.056	0	%100
74	MP2A	Z	-4.074	-4.074	0	%100
75	MP1A	Х	7.056	7.056	0	%100
76	MP1A	Z	-4.074	-4.074	0	%100
77	EQUIP	Х	11.1	11.1	0	%100
78	EQUIP	Z	-6.409	-6.409	0	%100
79	M51	Х	11.1	11.1	0	%100
80	M51	Z	-6.409	-6.409	0	%100
81	M55A	Х	1.795	1.795	0	%100
82	M55A	Z	-1.037	-1.037	0	%100

# Member Distributed Loads (BLC 44 : Structure Wo (90 Deg))

Member Label	Direction	Start Magnitude[lb/ft,End Magnitude[lb/ft,	Start Location[ft,%]	End Location[ft,%]
Horribor Eabor	Bilootion	otart magnitudo[ib/rt,ind magnitudo[ib/rt,	otart Looation[11,70]	Ena Eooadon(n, 70



# Member Distributed Loads (BLC 44 : Structure Wo (90 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,	End Magnitude[lb/ft,	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M3	X	0	0	0	%100
4	M3	Z	0	0	0	%100
5	M5	Х	.655	.655	0	%100
6	M5	Z	0	0	0	%100
7	M6	Х	.655	.655	0	%100
8	M6	Z	0	0	0	%100
9	M7	Х	0	0	0	%100
10	M7	Z	0	0	0	%100
11	M8	×	.85	.85	0	%100
12	M8	Z	0	0	0	%100
13	M9	x	535	535	0	%100
14	M9	7	0	0	0	%100
15	M10	X	0	0	0	%100
16	M10	7	0	0	0	%100
17	M10	<u> </u>	4 151	1 151	0	%100
10	N411	7	4.131	4.101	0	%100
10	M12		4 151	1 151	0	%100
19	N12	~ 7	4.151	4.151	0	70100
20			0	1 1 5 1	0	%100
21	IVI13	7	4.151	4.151	0	%100
22	IVI13		0	0	0	%100
23	M14	× 7	4.151	4.151	0	%100
24	M14		0	0	0	%100
25	M15	X	10.292	10.292	0	%100
26	M15	Ζ	0	0	0	%100
27	M16	<u> </u>	5.452	5.452	0	%100
28	M16	Z	0	0	0	%100
29	<u>M17</u>	X	10.292	10.292	0	%100
30	<u>M17</u>	Z	0	0	0	%100
31	M18	X	5.452	5.452	0	%100
32	M18	Z	0	0	0	%100
33	M19	X	10.292	10.292	0	%100
34	M19	Z	0	0	0	%100
35	M20	X	10.292	10.292	0	%100
36	M20	Z	0	0	0	%100
37	M21	X	10.292	10.292	0	%100
38	M21	Z	0	0	0	%100
39	M22	Х	5.915	5.915	0	%100
40	M22	Z	0	0	0	%100
41	M23	X	5.915	5.915	0	%100
42	M23	Z	0	0	0	%100
43	M24	X	6.218	6.218	0	%100
44	M24	Z	0	0	0	%100
45	M25	Х	10.292	10.292	0	%100
46	M25	Z	0	0	0	%100
47	M26	X	10.292	10.292	0	%100
48	M26	Z	0	0	0	%100
49	M27	x	5.452	5.452	0	%100
50	M27	7	0	0	0	%100
51	M28	×	10 292	10 292	0	%100
52	M28	7	0	0	0	%100
53	M29	×	5 4 5 2	5 4 5 2	0	%100
54	M20	7	0.402	0.402	0	%100
55	M20	Z V	10.202	10.202	0	%100
55	M20	~ 7	10.292	10.292	0	%100
50	M24	<u> </u>	10,000	10,202	0	%100
57	IVI3 I	~ 7	10.292	10.292	0	%100
50	IVI3 I	<u> </u>	10,000	10,000	0	%100
59	IVI3Z	λ	10.292	10.292	U	<u>%100</u>

### Member Distributed Loads (BLC 44 : Structure Wo (90 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,	.End Magnitude[lb/ft,	Start Location[ft,%]	End Location[ft,%]
60	M32	Z	0	0	0	%100
61	M33	Х	5.915	5.915	0	%100
62	M33	Z	0	0	0	%100
63	M34	Х	5.915	5.915	0	%100
64	M34	Z	0	0	0	%100
65	M35	Х	6.218	6.218	0	%100
66	M35	Z	0	0	0	%100
67	M36	Х	10.292	10.292	0	%100
68	M36	Z	0	0	0	%100
69	MP4A	Х	8.148	8.148	0	%100
70	MP4A	Z	0	0	0	%100
71	MP3A	Х	8.148	8.148	0	%100
72	MP3A	Z	0	0	0	%100
73	MP2A	Х	8.148	8.148	0	%100
74	MP2A	Z	0	0	0	%100
75	MP1A	Х	8.148	8.148	0	%100
76	MP1A	Z	0	0	0	%100
77	EQUIP	Х	12.817	12.817	0	%100
78	EQUIP	Z	0	0	0	%100
79	M51	Х	12.817	12.817	0	%100
80	M51	Z	0	0	0	%100
81	M55A	Х	6.147	6.147	0	%100
82	M55A	Z	0	0	0	%100

#### Member Distributed Loads (BLC 45 : Structure Wo (120 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,	.End Magnitude[lb/ft,	Start Location[ft,%]	End Location[ft,%]
1	M1	Х	2.228	2.228	0	%100
2	M1	Z	1.286	1.286	0	%100
3	M3	Х	2.228	2.228	0	%100
4	M3	Z	1.286	1.286	0	%100
5	M5	Х	1.045	1.045	0	%100
6	M5	Z	.603	.603	0	%100
7	M6	Х	.08	.08	0	%100
8	M6	Z	.046	.046	0	%100
9	M7	Х	2.135	2.135	0	%100
10	M7	Z	1.233	1.233	0	%100
11	M8	Х	1.103	1.103	0	%100
12	M8	Z	.637	.637	0	%100
13	M9	Х	.035	.035	0	%100
14	M9	Z	.02	.02	0	%100
15	M10	Х	2.135	2.135	0	%100
16	M10	Z	1.233	1.233	0	%100
17	M11	Х	6.617	6.617	0	%100
18	M11	Z	3.82	3.82	0	%100
19	M12	Х	.507	.507	0	%100
20	M12	Z	.293	.293	0	%100
21	M13	Х	6.617	6.617	0	%100
22	M13	Z	3.82	3.82	0	%100
23	M14	Х	.507	.507	0	%100
24	M14	Z	.293	.293	0	%100
25	M15	Х	6.979	6.979	0	%100
26	M15	Z	4.029	4.029	0	%100
27	M16	Х	3.898	3.898	0	%100
28	M16	Z	2.25	2.25	0	%100
29	M17	Х	6.979	6.979	0	%100
30	M17	Z	4.029	4.029	0	%100
31	M18	Х	3.898	3.898	0	%100
32	M18	Z	2.25	2.25	0	%100



### Member Distributed Loads (BLC 45 : Structure Wo (120 Deg)) (Continued)

33         M19 $\chi$ $7.079$ $7.079$ $0.0$ $\%100$ 34         M19         Z $4.087$ $4.087$ $0.087$ $0.077$ 35         M20         X $6.979$ $6.979$ $0.57100$ $\%100$ 36         M21         Z $4.029$ $4.029$ $0.57100$ $\%100$ 38         M21         Z $4.029$ $4.029$ $0.57100$ $\%100$ 39         M22         X $5.122$ $5.122$ $0.57100$ $\%100$ 40         M22         Z $2.957$ $2.957$ $0.57100$ $\%100$ 41         M23         Z $2.957$ $0.57120$ $\%100$ $\%100$ 43         M24         X $5.385$ $5.335$ $0.531500$ $\%100$ 44         M24         Z $3.109$ $0.57100$ $\%100$ 45         M25         Z $4.087$ $4.087$ $0.57100$ 46         M27         X $5.528$ $5.28$ <th></th> <th>Member Label</th> <th>Direction</th> <th>Start Magnitude[lb/ft</th> <th>.End Magnitude[lb/ft</th> <th>Start Location[ft,%]</th> <th>End Location[ft,%]</th>		Member Label	Direction	Start Magnitude[lb/ft	.End Magnitude[lb/ft	Start Location[ft,%]	End Location[ft,%]
34         M19         Z         4.087         4.087         0         %100           35         M20         X         6.979         6.979         0         %100           36         M20         Z         4.029         4.029         0         %100           37         M21         X         6.979         0         %100           38         M21         Z         4.029         4.029         0         %100           39         M22         X         5.122         5.122         0         %100           40         M22         Z         2.957         2.957         0         %100           41         M23         X         5.122         5.122         0         %100           43         M24         X         5.385         0         %100         4.087         0         %100           44         M24         Z         3.109         0         %100         4.087         0         %100           45         M25         Z         4.087         4.087         0         %100           46         M25         Z         4.029         0         %100         5.00	33	M19	Х	7.079	7.079	0	%100
35         M20         X $6.979$ $6.979$ $0$ $\% 100$ 36         M20         Z $4.029$ $4.029$ $0$ $\% 100$ 38         M21         Z $4.029$ $4.029$ $0$ $\% 100$ 38         M21         Z $4.029$ $4.029$ $0$ $\% 100$ 40         M22         Z $2.957$ $2.957$ $0$ $\% 100$ 40         M23         Z $2.957$ $2.957$ $0$ $\% 100$ 41         M23         Z $2.957$ $2.957$ $0$ $\% 100$ 42         M23         Z $2.957$ $2.957$ $0$ $\% 100$ 43         M24         X $5.385$ $0$ $\% 100$ $\% 100$ 45         M25         X $7.079$ $0$ $\% 100$ $\% 100$ 46         M26         Z $4.029$ $4.029$ $0$ $\% 100$ 47         M26         Z $4.029$ $4.029$	34	M19	Z	4.087	4.087	0	%100
	35	M20	Х	6.979	6.979	0	%100
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	36	M20	Z	4.029	4.029	0	%100
	37	M21	X	6.979	6.979	0	%100
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	38	M21	Z	4.029	4.029	0	%100
40         M22         Z         2.957         2.957         0         %100           41         M33         X         5.122         5.122         0         %100           43         M24         X         5.385         5.385         0         %100           43         M24         X         5.385         5.385         0         %100           44         M24         Z         3.109         0         %100         %100           45         M25         X         7.079         7.079         0         %100           46         M25         Z         4.087         4.087         0         %100           48         M26         Z         4.029         4.029         0         %100           49         M27         X         5.528         5.528         0         %100           51         M28         X         6.979         6.979         0         %100           52         M28         Z         4.029         4.029         0         %100           53         M29         X         5.528         5.528         0         %100           54         M29	39	M22	X	5.122	5.122	0	%100
41         M23         X         5.122         5.122         0         %100           42         M23         Z         2.957         2.957         0         %100           43         M24         X         5.385         5.385         0         %100           44         M24         Z         3.109         3.109         0         %100           44         M24         Z         3.109         3.109         0         %100           45         M25         X         7.079         7.079         0         %100           46         M25         Z         4.087         4.087         0         %100           47         M26         X         6.979         6.979         0         %100           49         M27         X         5.528         5.528         0         %100           50         M27         Z         3.191         3.191         0         %100           51         M28         Z         6.979         6.979         0         %100           52         M28         Z         3.191         3.191         0         %100           54         M29	40	M22	7	2 957	2 957	0	%100
42         M23         Z         2.957         2.957         0         %100           43         M24         X         5.385         5.385         0         %100           44         M24         Z         3.109         3.109         0         %100           45         M25         X         7.079         7.079         0         %100           46         M25         Z         4.087         4.087         0         %100           47         M26         X         6.979         0         %100           48         M26         Z         4.029         4.029         0         %100           50         M27         Z         3.191         3.191         0         %100           51         M28         Z         4.029         4.029         0         %100           52         M28         Z         4.029         0         %100         5           53         M29         X         5.528         5.528         0         %100           54         M29         Z         3.191         3.191         0         %100           55         M30         Z         <	41	M23	X	5 122	5 122	0	%100
43         M24         X         5.385         5.385         0         %100           44         M24         Z         3.109         3.109         0         %100           45         M25         X         7.079         7.079         0         %100           46         M25         Z         4.087         4.087         0         %100           47         M26         X         6.979         0         %100         4           48         M26         Z         4.029         4.029         0         %100           49         M27         X         5.528         5.528         0         %100           50         M27         Z         3.191         3.191         0         %100           51         M28         X         6.979         0         %100         5           53         M29         X         5.528         0         %100         5           54         M29         Z         3.191         3.191         0         %100           55         M30         X         7.079         7.079         0         %100           56         M31         X	42	M23	7	2 957	2 957	0	%100
44         M24         Z         3.109         3.109         0         %100           45         M25         X         7.079         7.079         0         %100           46         M25         Z         4.087         4.087         0         %100           47         M26         X         6.979         6.979         0         %100           48         M26         Z         4.029         4.029         0         %100           49         M27         X         5.528         5.528         0         %100           50         M27         Z         3.191         3.191         0         %100           51         M28         X         6.979         0         %100         5           53         M29         X         5.528         5.528         0         %100           55         M30         X         7.079         7.079         0         %100           56         M30         Z         4.087         4.087         0         %100           57         M31         X         6.979         0         %100         5           58         M31         <	43	M24	X	5 385	5.385	0	%100
16         M25         X         7.079         7.079         0 $\frac{3}{100}$ 46         M25         Z         4.087         4.087         0 $\frac{3}{100}$ 46         M26         X         6.979         0 $\frac{9}{100}$ $\frac{9}{100}$ 48         M26         Z         4.029         4.029         0 $\frac{9}{100}$ 49         M27         X         5.528         5.528         0 $\frac{9}{100}$ 50         M27         Z         3.191         3.191         0 $\frac{9}{100}$ 51         M28         X         6.979         6.979         0 $\frac{9}{100}$ 52         M28         Z         4.029         4.029         0 $\frac{9}{100}$ 53         M29         X         5.528         5.528         0 $\frac{9}{100}$ 54         M29         Z         3.191         3.191         0 $\frac{9}{100}$ 56         M30         Z         4.087         4.087         0 $\frac{9}{100}$ 57         M31         X         6.979         6.979         0	44	M24	7	3 109	3 109	0	%100
16         M25         Z         4.087         4.087         0         %100           47         M26         X         6.979         6.979         0         %100           48         M26         Z         4.029         4.029         0         %100           49         M27         X         5.528         5.528         0         %100           50         M27         Z         3.191         3.191         0         %100           51         M28         X         6.979         0         %100           52         M28         Z         4.029         4.029         0         %100           53         M29         X         5.528         5.528         0         %100           54         M29         Z         3.191         3.191         0         %100           56         M30         X         7.079         7.079         0         %100           57         M31         X         6.979         0         %100         6           59         M32         Z         4.029         4.029         0         %100           60         M32         Z         <	45	M25	X	7 079	7 079	0	%100
10         100         2         100         100         0         100           47         M26         X         6.979         6.979         0         %100           48         M26         Z         4.029         4.029         0         %100           50         M27         Z         3.191         3.191         0         %100           50         M27         Z         3.191         3.191         0         %100           51         M28         Z         4.029         4.029         0         %100           52         M28         Z         4.029         4.029         0         %100           53         M29         X         5.528         5.528         0         %100           54         M29         Z         3.191         3.191         0         %100           55         M30         Z         4.087         4.087         0         %100           56         M30         Z         4.029         4.029         0         %100           58         M31         Z         4.029         4.029         0         %100           59         M32	46	M25	7	4 087	4 087	0	%100
18 $M20$ $Z$ $4.029$ $4.029$ $0$ $%100$ $49$ $M27$ $X$ $5.528$ $5.528$ $0$ $%100$ $50$ $M27$ $Z$ $3.191$ $0$ $%100$ $51$ $M28$ $X$ $6.979$ $0.979$ $0$ $%100$ $52$ $M28$ $Z$ $4.029$ $4.029$ $0$ $%100$ $53$ $M29$ $X$ $5.528$ $5.528$ $0$ $%100$ $54$ $M29$ $Z$ $3.191$ $3.191$ $0$ $%100$ $56$ $M30$ $X$ $7.079$ $7.079$ $0$ $%100$ $56$ $M30$ $Z$ $4.087$ $0.0979$ $0$ $%100$ $57$ $M31$ $X$ $6.979$ $6.979$ $0$ $%100$ $61$ $M33$ $X$ $5.122$ $5.122$ $0$ $%100$ $62$ $M33$ $Z$	47	M26	X	6.979	6 979	0	%100
The         The <td>48</td> <td>M26</td> <td>7</td> <td>4 029</td> <td>4 029</td> <td>0</td> <td>%100</td>	48	M26	7	4 029	4 029	0	%100
To         M2         X         0.020         0.020         0.010           50         M27         Z         3.191         3.191         0 $\%100$ 51         M28         X         6.979         6.979         0 $\%100$ 52         M28         Z         4.029         4.029         0 $\%100$ 53         M29         X         5.528         5.528         0 $\%100$ 54         M29         Z         3.191         3.191         0 $\%100$ 56         M30         X         7.079         7.079         0 $\%100$ 56         M30         Z         4.087         4.087         0 $\%100$ 58         M31         X         6.979         6.979         0 $\%100$ 59         M32         X         6.979         6.979         0 $\%100$ 61         M33         X         5.122         5.122         0 $\%100$ 62         M33         Z         2.957         2.957         0 $\%100$ 63         M34 <td>49</td> <td>M23</td> <td>×</td> <td>5 528</td> <td>5 528</td> <td>0</td> <td>%100</td>	49	M23	×	5 528	5 528	0	%100
30 $312$ $2$ $3.131$ $3.131$ $3.130$ $3.100$ $51$ M28         X $6.979$ $6.979$ $0$ $%100$ $53$ M29         X $5.528$ $5.528$ $0$ $%100$ $54$ M29         Z $3.191$ $3.191$ $0$ $%100$ $55$ M30         X $7.079$ $7.079$ $0$ $%100$ $56$ M30         Z $4.087$ $4.087$ $0$ $%100$ $57$ M31         X $6.979$ $6.979$ $0$ $%100$ $58$ M31         Z $4.029$ $4.029$ $0$ $%100$ $60$ M32         X $6.979$ $6.979$ $0$ $%100$ $61$ M33         X $5.122$ $5.122$ $0$ $%100$ $63$ M34         X $5.122$ $5.122$ $0$ $%100$ $64$ M34         Z $2.957$	50	M27	7	3 101	3 101	0	%100
31 $M22$ $X$ $3.573$ $3.6373$ $0$ $%100$ $52$ $M28$ $Z$ $4.029$ $4.029$ $0$ $%100$ $54$ $M29$ $X$ $5.528$ $5.528$ $0$ $%100$ $54$ $M29$ $Z$ $3.191$ $3.191$ $0$ $%100$ $55$ $M30$ $X$ $7.079$ $7.079$ $0$ $%100$ $56$ $M30$ $Z$ $4.087$ $4.087$ $0$ $%100$ $58$ $M31$ $Z$ $4.029$ $4.029$ $0$ $%100$ $59$ $M32$ $X$ $6.979$ $6.979$ $0$ $%100$ $61$ $M33$ $X$ $5.122$ $5.122$ $0$ $%100$ $61$ $M33$ $Z$ $2.957$ $2.957$ $0$ $%100$ $64$ $M34$ $X$ $5.122$ $5.122$ $0$ $%100$ $64$ $M34$	51	M28	X	6 979	6 979	0	%100
Jz.         M2D         Z $4.023$ $4.023$ O $8.100$ 53         M29         X         5.528         5.528         0 $8.100$ 54         M29         Z         3.191         3.191         0 $9.100$ 55         M30         X         7.079         7.079         0 $9.100$ 56         M30         Z         4.087         4.087         0 $9.100$ 56         M31         X         6.979         6.979         0 $9.100$ 59         M32         X         6.979         6.979         0 $9.100$ 60         M32         Z         4.029         4.029         0 $9.100$ 61         M33         Z         2.957         2.957         0 $9.100$ 62         M33         Z         2.957         2.957         0 $9.100$ 63         M34         X         5.122         5.122         0 $9.100$ 64         M35         Z         3.109         3.109         0 $9.100$	52	M28	7	4.029	4 029	0	%100
35         M23         X         3.220         3.191         0 $\%100$ 54         M29         Z         3.191         3.191         0 $\%100$ 55         M30         X         7.079         7.079         0 $\%100$ 56         M30         Z         4.087         4.087         0 $\%100$ 57         M31         X         6.979         6.979         0 $\%100$ 58         M31         Z         4.029         4.029         0 $\%100$ 60         M32         Z         4.029         4.029         0 $\%100$ 61         M33         X         5.122         0 $\%100$ 62         M33         Z         2.957         2.957         0 $\%100$ 63         M34         X         5.122         0 $\%100$ 6           64         M35         X         5.385         0 $\%100$ 6           66         M35         Z         3.109         3.109         0 $\%100$ 67         M36	53	M20	X	5.528	5 528	0	%100
37         M23         Z         3.131         3.131         0         %100           55         M30         X         7.079         7.079         0         %100           56         M30         Z         4.087         4.087         0         %100           57         M31         X         6.979         6.979         0         %100           58         M31         Z         4.029         4.029         0         %100           59         M32         X         6.979         6.979         0         %100           60         M32         Z         4.029         4.029         0         %100           61         M33         X         5.122         5.122         0         %100           62         M33         Z         2.957         2.957         0         %100           63         M34         X         5.122         0         %100         6           64         M34         Z         2.957         2.957         0         %100           65         M35         X         5.385         5.385         0         %100           66         M35	54	M29	7	3 101	3 101	0	%100
35         M30         Z         4.087         4.087         0         %100           56         M30         Z         4.087         4.087         0         %100           57         M31         X         6.979         6.979         0         %100           58         M31         Z         4.029         4.029         0         %100           59         M32         X         6.979         6.979         0         %100           60         M32         Z         4.029         4.029         0         %100           61         M33         X         5.122         5.122         0         %100           62         M33         Z         2.957         2.957         0         %100           64         M34         X         5.122         5.122         0         %100           65         M35         X         5.385         5.385         0         %100           66         M36         Z         4.087         4.087         0         %100           68         M36         Z         4.087         4.087         0         %100           70         MP4A	55	M20	X	7 079	7 079	0	%100
30         M30 $Z$ 4.007         4.007         0         %100           57         M31         X         6.979         6.979         0         %100           58         M31         Z         4.029         4.029         0         %100           59         M32         X         6.979         6.979         0         %100           60         M32         Z         4.029         4.029         0         %100           61         M33         X         5.122         5.122         0         %100           62         M33         Z         2.957         2.957         0         %100           63         M34         X         5.122         0         %100           64         M34         Z         2.957         2.957         0         %100           65         M35         X         5.385         5.385         0         %100           66         M35         Z         3.109         3.109         0         %100           67         M36         X         7.079         7.079         0         %100           68         M36         Z	56	M30	7	1.013	1.073	0	%100
37 $M31$ $Z$ $4.029$ $4.029$ $0$ $%100$ $59$ M32         X $6.979$ $6.979$ $0$ $%100$ $60$ M32         Z $4.029$ $4.029$ $0$ $%100$ $61$ M33         X $5.122$ $5.122$ $0$ $%100$ $62$ M33         Z $2.957$ $2.957$ $0$ $%100$ $63$ M34         X $5.122$ $0$ $%100$ $63$ M34         X $5.122$ $0$ $%100$ $64$ M34         Z $2.957$ $2.957$ $0$ $%100$ $65$ M35         X $5.385$ $5.385$ $0$ $%100$ $66$ M35         Z $3.109$ $0$ $%100$ $%100$ $67$ M36         X $7.079$ $7.079$ $0$ $%100$ $68$ M36         Z $4.0674$ $4.074$ $0$ <td< td=""><td>57</td><td>M31</td><td>X</td><td>6.070</td><td>6.079</td><td>0</td><td>%100</td></td<>	57	M31	X	6.070	6.079	0	%100
Job         MOT         Z $4.023$ $4.023$ $0$ $7.010$ 59         M32         X $6.979$ $6.979$ $0$ $\%100$ 60         M32         Z $4.029$ $4.029$ $0$ $\%100$ 61         M33         X $5.122$ $5.122$ $0$ $\%100$ 62         M33         Z $2.957$ $2.957$ $0$ $\%100$ 63         M34         X $5.122$ $0$ $\%100$ 64         M34         Z $2.957$ $2.957$ $0$ $\%100$ 64         M34         Z $2.957$ $0$ $\%100$ $66$ 64         M35         X $5.385$ $5.385$ $0$ $\%100$ 65         M35         X $5.385$ $5.385$ $0$ $\%100$ 66         M36         Z $4.087$ $4.087$ $0$ $\%100$ 67         M36         X $7.056$ $7.056$ $0$ $\%1$	58	M31	7	4.020	4.029	0	%100
30         M02         X         6.373         6.373         0         76100           60         M32         Z         4.029         4.029         0         %100           61         M33         X         5.122         5.122         0         %100           62         M33         Z         2.957         2.957         0         %100           63         M34         X         5.122         0         %100           64         M34         Z         2.957         0         %100           65         M35         X         5.385         5.385         0         %100           66         M35         Z         3.109         3.109         0         %100           66         M35         Z         4.087         4.087         0         %100           67         M36         X         7.079         7.079         0         %100           68         M36         Z         4.087         4.087         0         %100           70         MP4A         Z         4.074         4.074         0         %100           71         MP3A         Z         4.074	59	M32	X	6.070	6.979	0	%100
00         M32         2         4.023         4.023         0         7000           61         M33         X         5.122         5.122         0         %100           62         M33         Z         2.957         2.957         0         %100           63         M34         X         5.122         5.122         0         %100           64         M34         Z         2.957         2.957         0         %100           65         M35         X         5.385         5.385         0         %100           66         M35         Z         3.109         3.109         0         %100           67         M36         X         7.079         7.079         0         %100           68         M36         Z         4.087         4.087         0         %100           69         MP4A         X         7.056         7.056         0         %100           71         MP3A         Z         4.074         4.074         0         %100           73         MP2A         Z         4.074         4.074         0         %100           74         MP3A <td>60</td> <td>M32</td> <td>7</td> <td>4.020</td> <td>4 029</td> <td>0</td> <td>%100</td>	60	M32	7	4.020	4 029	0	%100
off         MB3         X $3.122$ $3.122$ $0.100$ 62         M33         Z $2.957$ $2.957$ $0$ $\%100$ 63         M34         X $5.122$ $5.122$ $0$ $\%100$ 64         M34         Z $2.957$ $2.957$ $0$ $\%100$ 65         M35         X $5.385$ $5.385$ $0$ $\%100$ 66         M35         Z $3.109$ $0$ $\%100$ 67         M36         X $7.079$ $0$ $\%100$ 68         M36         Z $4.087$ $0$ $\%100$ 69         MP4A         X $7.056$ $7.056$ $0$ $\%100$ 70         MP4A         Z $4.074$ $4.074$ $0$ $\%100$ 71         MP3A         Z $4.074$ $4.074$ $0$ $\%100$ 72         MP3A         Z $4.074$ $4.074$ $0$ $\%100$ 73         MP2A	61	M33	X	5 122	5 122	0	%100
02         M30         Z         2.001         2.001         0         70100           63         M34         X         5.122         0         %100           64         M34         Z         2.957         2.957         0         %100           65         M35         X         5.385         5.385         0         %100           66         M35         Z         3.109         3.109         0         %100           67         M36         X         7.079         7.079         0         %100           68         M36         Z         4.087         4.087         0         %100           69         MP4A         X         7.056         7.056         0         %100           70         MP4A         Z         4.074         4.074         0         %100           71         MP3A         X         7.056         7.056         0         %100           72         MP3A         Z         4.074         4.074         0         %100           73         MP2A         X         7.056         7.056         0         %100           75         MP1A         Z	62	M33	7	2 957	2 957	0	%100
00         M34         Z         0.122         0.122         0         70100           64         M34         Z         2.957         2.957         0         %100           65         M35         X         5.385         5.385         0         %100           66         M35         Z         3.109         0         %100           67         M36         X         7.079         7.079         0         %100           68         M36         Z         4.087         4.087         0         %100           69         MP4A         X         7.056         7.056         0         %100           70         MP4A         Z         4.074         4.074         0         %100           71         MP3A         X         7.056         7.056         0         %100           72         MP3A         Z         4.074         4.074         0         %100           73         MP2A         X         7.056         7.056         0         %100           75         MP1A         X         7.056         7.056         0         %100           76         MP1A         Z <td>63</td> <td>M34</td> <td>X</td> <td>5 122</td> <td>5 122</td> <td>0</td> <td>%100</td>	63	M34	X	5 122	5 122	0	%100
64         M34         Z         Z.337         0         78100           65         M35         X         5.385         5.385         0         %100           66         M35         Z         3.109         3.109         0         %100           67         M36         X         7.079         7.079         0         %100           68         M36         Z         4.087         4.087         0         %100           69         MP4A         X         7.056         7.056         0         %100           70         MP4A         Z         4.074         4.074         0         %100           71         MP3A         X         7.056         7.056         0         %100           72         MP3A         Z         4.074         4.074         0         %100           73         MP2A         X         7.056         7.056         0         %100           74         MP2A         Z         4.074         4.074         0         %100           76         MP1A         Z         4.074         4.074         0         %100           78         EQUIP         X </td <td>64</td> <td>M34</td> <td>7</td> <td>2.957</td> <td>2 957</td> <td>0</td> <td>%100</td>	64	M34	7	2.957	2 957	0	%100
66         M35         Z         3.109         3.109         0         %100           67         M36         X         7.079         7.079         0         %100           68         M36         Z         4.087         4.087         0         %100           69         MP4A         X         7.056         7.056         0         %100           70         MP4A         Z         4.074         4.074         0         %100           71         MP3A         Z         4.074         4.074         0         %100           72         MP3A         Z         4.074         4.074         0         %100           73         MP2A         X         7.056         7.056         0         %100           74         MP2A         Z         4.074         4.074         0         %100           75         MP1A         X         7.056         7.056         0         %100           76         MP1A         Z         4.074         4.074         0         %100           77         EQUIP         X         11.1         11.1         0         %100           79         M51	65	M35	X	5 385	5 385	0	%100
66         M36         Z         5.165         5.165         0         7.160           67         M36         X         7.079         7.079         0         %100           68         M36         Z         4.087         4.087         0         %100           69         MP4A         X         7.056         7.056         0         %100           70         MP4A         Z         4.074         4.074         0         %100           71         MP3A         X         7.056         7.056         0         %100           72         MP3A         Z         4.074         4.074         0         %100           73         MP2A         X         7.056         7.056         0         %100           74         MP2A         Z         4.074         0         %100         %100           75         MP1A         X         7.056         7.056         0         %100           76         MP1A         Z         4.074         4.074         0         %100           76         MP1A         Z         6.409         6.409         0         %100           79         M5	66	M35	7	3 109	3 109	0	%100
67         M30         X         1.073         1.073         0         %100           68         M36         Z         4.087         0         %100           69         MP4A         X         7.056         7.056         0         %100           70         MP4A         Z         4.074         4.074         0         %100           71         MP3A         X         7.056         7.056         0         %100           72         MP3A         Z         4.074         4.074         0         %100           73         MP2A         X         7.056         7.056         0         %100           74         MP2A         Z         4.074         4.074         0         %100           75         MP1A         X         7.056         7.056         0         %100           76         MP1A         Z         4.074         4.074         0         %100           76         MP1A         Z         4.074         0.0         %100           77         EQUIP         X         11.1         11.1         0         %100           79         M51         X         11.1 </td <td>67</td> <td>M36</td> <td>X</td> <td>7 079</td> <td>7 079</td> <td>0</td> <td>%100</td>	67	M36	X	7 079	7 079	0	%100
00         M00         Z         4.007         4.007         0         70100           69         MP4A         X         7.056         7.056         0         %100           70         MP4A         Z         4.074         4.074         0         %100           71         MP3A         X         7.056         7.056         0         %100           72         MP3A         Z         4.074         4.074         0         %100           73         MP2A         X         7.056         7.056         0         %100           74         MP2A         Z         4.074         4.074         0         %100           75         MP1A         X         7.056         7.056         0         %100           76         MP1A         Z         4.074         4.074         0         %100           76         MP1A         Z         4.074         4.074         0         %100           77         EQUIP         X         11.1         11.1         0         %100           79         M51         X         11.1         11.1         0         %100           80         M51	68	M36	7	1.073	1.073	0	%100
30         MILTA         X         1.000         1.000         0         70100           70         MP4A         Z         4.074         4.074         0         %100           71         MP3A         X         7.056         7.056         0         %100           72         MP3A         Z         4.074         4.074         0         %100           73         MP2A         X         7.056         7.056         0         %100           74         MP2A         Z         4.074         4.074         0         %100           75         MP1A         X         7.056         7.056         0         %100           76         MP1A         Z         4.074         4.074         0         %100           76         MP1A         Z         4.074         4.074         0         %100           77         EQUIP         X         11.1         11.1         0         %100           79         M51         X         11.1         11.1         0         %100           80         M51         Z         6.409         6.409         0         %100           81         M5	60	MP/A	×	7.056	7.056	0	%100
71         MP3A         X         7.056         7.056         0         %100           72         MP3A         Z         4.074         4.074         0         %100           73         MP2A         X         7.056         7.056         0         %100           74         MP2A         X         7.056         7.056         0         %100           75         MP1A         Z         4.074         4.074         0         %100           76         MP1A         Z         4.074         4.074         0         %100           76         MP1A         Z         4.074         4.074         0         %100           77         EQUIP         X         11.1         11.1         0         %100           78         EQUIP         Z         6.409         6.409         0         %100           79         M51         X         11.1         11.1         0         %100           80         M51         Z         6.409         6.409         0         %100           81         M55A         X         7.056         7.056         0         %100           82         M55	70	MP4A	7	4 074	4 074	0	%100
T1       MI 0A       X       T.000       T.000       0       76100         72       MP3A       Z       4.074       4.074       0       %100         73       MP2A       X       7.056       7.056       0       %100         74       MP2A       Z       4.074       4.074       0       %100         75       MP1A       X       7.056       7.056       0       %100         76       MP1A       Z       4.074       4.074       0       %100         77       EQUIP       X       11.1       11.1       0       %100         78       EQUIP       Z       6.409       6.409       0       %100         79       M51       X       11.1       11.1       0       %100         80       M51       Z       6.409       6.409       0       %100         81       M55A       X       7.056       7.056       0       %100         82       M55A       Z       4.074       4.074       0       %100	71	MP3A	X	7.056	7.056	0	%100
T2     T0     T2     T0     T0     T00       73     MP2A     X     7.056     7.056     0     %100       74     MP2A     Z     4.074     4.074     0     %100       75     MP1A     X     7.056     7.056     0     %100       76     MP1A     Z     4.074     4.074     0     %100       77     EQUIP     X     11.1     11.1     0     %100       78     EQUIP     Z     6.409     6.409     0     %100       79     M51     X     11.1     11.1     0     %100       80     M51     Z     6.409     6.409     0     %100       81     M55A     X     7.056     7.056     0     %100	72	MP3A	7	4 074	4 074	0	%100
TO         MILLA         X         T.000         T.000         With LA           74         MP2A         Z         4.074         4.074         0         %100           75         MP1A         X         7.056         7.056         0         %100           76         MP1A         Z         4.074         4.074         0         %100           77         EQUIP         X         11.1         11.1         0         %100           78         EQUIP         Z         6.409         6.409         0         %100           79         M51         X         11.1         11.1         0         %100           80         M51         Z         6.409         6.409         0         %100           81         M55A         X         7.056         7.056         0         %100           82         M55A         Z         4.074         4.074         0         9/100	73	MP2A	×	7.056	7.056	0	%100
75         MP1A         X         7.056         7.056         0         %100           76         MP1A         Z         4.074         0         %100           76         MP1A         Z         4.074         0         %100           77         EQUIP         X         11.1         11.1         0         %100           78         EQUIP         Z         6.409         6.409         0         %100           79         M51         X         11.1         11.1         0         %100           80         M51         Z         6.409         6.409         0         %100           81         M55A         X         7.056         7.056         0         %100           82         M55A         Z         4.074         4.074         0         %100	74	MP2A	7	4.074	4.074	0	%100
7.5         Mi FA         X         7.030         7.030         0         76100           76         MP1A         Z         4.074         4.074         0         %100           77         EQUIP         X         11.1         11.1         0         %100           78         EQUIP         Z         6.409         6.409         0         %100           79         M51         X         11.1         11.1         0         %100           80         M51         Z         6.409         6.409         0         %100           81         M55A         X         7.056         7.056         0         %100           82         M55A         Z         4.074         4.074         0         %100	75	MP1A	<u> </u>	7.056	7.056	0	%100
10         11         1.074         0         %100           77         EQUIP         X         11.1         11.1         0         %100           78         EQUIP         Z         6.409         6.409         0         %100           79         M51         X         11.1         11.1         0         %100           80         M51         Z         6.409         6.409         0         %100           81         M55A         X         7.056         7.056         0         %100           82         M55A         Z         4.074         4.074         0         %100	76	MP1A	7	4 074	4 074	0	%100
The EQUID         X         The first         The first         0         %100           78         EQUIP         Z         6.409         6.409         0         %100           79         M51         X         11.1         11.1         0         %100           80         M51         Z         6.409         6.409         0         %100           81         M55A         X         7.056         7.056         0         %100           82         M55A         Z         4.074         4.074         0         %100	77	FOUR	×	11 1	11 1	0	%100
79         M51         X         11.1         11.1         0         %100           80         M51         Z         6.409         6.409         0         %100           81         M55A         X         7.056         7.056         0         %100           82         M55A         Z         4.074         4.074         0         %100	78	FOUR	7	6.409	6.409	0	%100
No.1         X         11.1         0         %100           80         M51         Z         6.409         6.409         0         %100           81         M55A         X         7.056         7.056         0         %100           82         M55A         Z         4.074         4.074         0         %100	70	M51	X	11 1	11 1	0	%100
81         M55A         X         7.056         7.056         0         %100           82         M55A         Z         4.074         0         %100	80	M51	7	6 4 0 9	6.409	0	%100
82 M55A 7 4.074 4.074 0 9/100	81	M554	×	7.056	7 056	0	%100
	82	M55A	7	4 074	4 074	0	%100

#### Member Distributed Loads (BLC 46 : Structure Wo (150 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,	.End Magnitude[lb/ft,	Start Location[ft,%]	End Location[ft,%]
1	M1	Х	3.859	3.859	0	%100
2	M1	Z	6.685	6.685	0	%100
3	M3	Х	3.859	3.859	0	%100
4	M3	Z	6.685	6.685	0	%100
5	M5	X	.597	.597	0	%100



# Member Distributed Loads (BLC 46 : Structure Wo (150 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,	.End Magnitude[lb/ft,	Start Location[ft,%]	End Location[ft,%]
6	<u>M5</u>	Z	1.034	1.034	0	%100
7	<u>M6</u>	X	.04	.04	0	%100
8	<u>M6</u>	Z	.069	.069	0	%100
9	M7	X	3.699	3.699	0	%100
10	M7	Z	6.406	6.406	0	%100
11	M8	X	.534	.534	0	%100
12	M8	Z	.924	.924	0	%100
13	M9	X	.074	.074	0	%100
14	M9	Z	.128	.128	0	%100
15	M10	X	3.699	3.699	0	%100
16	M10	Z	6.406	6.406	0	%100
17	M11	X	3.781	3.781	0	%100
18	M11	Z	6.549	6.549	0	%100
19	M12	X	.254	.254	0	%100
20	M12	Z	.44	.44	0	%100
21	M13	X	3.781	3.781	0	%100
22	M13	Z	6.549	6.549	0	%100
23	M14	Х	.254	.254	0	%100
24	M14	Z	.44	.44	0	%100
25	M15	Х	1.796	1.796	0	%100
26	M15	Z	3.11	3.11	0	%100
27	M16	Х	2.24	2.24	0	%100
28	M16	Z	3.88	3.88	0	%100
29	M17	Х	1.796	1.796	0	%100
30	M17	Z	3.11	3.11	0	%100
31	M18	Х	2.24	2.24	0	%100
32	M18	Z	3.88	3.88	0	%100
33	M19	Х	1.97	1.97	0	%100
34	M19	Z	3.412	3.412	0	%100
35	M20	Х	1,796	1.796	0	%100
36	M20	Z	3.11	3.11	0	%100
37	M21	Х	1.796	1.796	0	%100
38	M21	Z	3.11	3.11	0	%100
39	M22	X	2.957	2.957	0	%100
40	M22	Z	5.122	5.122	0	%100
41	M23	Х	2.957	2.957	0	%100
42	M23	Z	5.122	5.122	0	%100
43	M24	X	3.109	3,109	0	%100
44	M24	Z	5,385	5.385	0	%100
45	M25	X	1.97	1.97	0	%100
46	M25	Z	3.412	3.412	0	%100
47	M26	×	1,796	1,796	0	%100
48	M26	Z	3.11	3.11	0	%100
49	M27	x	3.181	3.181	0	%100
50	M27	7	5.51	5.51	0	%100
51	M28	x	1,796	1.796	0	%100
52	M28	Z	3.11	3,11	0	%100
53	M29	×	3,181	3,181	0	%100
54	M29	7	5.51	5.101	0	%100
55	M30	x	1.97	1.97	0	%100
56	M30	7	3 412	3 412	0	%100
57	M31	×	1 796	1 796	0	%100
58	M31	7	3 11	3 11	0	%100
59	M32	X	1 796	1 796	0	%100
60	M32	7	3 11	3 11	0	%100
61	Maa	X	2 957	2 057	0	%100
62	Maa	7	5 122	5 122	0	%100
63	M24	×	2 957	2 057	0	%100
64	MQA	7	5 122	5 122	0	%100
04	WI04	4	0.122	0.122	U	/0100

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### Member Distributed Loads (BLC 46 : Structure Wo (150 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,	.End Magnitude[lb/ft,	Start Location[ft,%]	End Location[ft,%]
65	M35	Х	3.109	3.109	0	%100
66	M35	Z	5.385	5.385	0	%100
67	M36	Х	1.97	1.97	0	%100
68	M36	Z	3.412	3.412	0	%100
69	MP4A	Х	4.074	4.074	0	%100
70	MP4A	Z	7.056	7.056	0	%100
71	MP3A	Х	4.074	4.074	0	%100
72	MP3A	Z	7.056	7.056	0	%100
73	MP2A	Х	4.074	4.074	0	%100
74	MP2A	Z	7.056	7.056	0	%100
75	MP1A	Х	4.074	4.074	0	%100
76	MP1A	Z	7.056	7.056	0	%100
77	EQUIP	Х	6.409	6.409	0	%100
78	EQUIP	Z	11.1	11.1	0	%100
79	M51	Х	6.409	6.409	0	%100
80	M51	Z	11.1	11.1	0	%100
81	M55A	Х	3.037	3.037	0	%100
82	M55A	Z	5.261	5.261	0	%100

## Member Distributed Loads (BLC 47 : Structure Wo (180 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,	End Magnitude[lb/ft,	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	10.292	10.292	0	%100
3	M3	X	0	0	0	%100
4	M3	Z	10.292	10.292	0	%100
5	M5	Х	0	0	0	%100
6	M5	Z	.631	.631	0	%100
7	M6	Х	0	0	0	%100
8	M6	Z	.631	.631	0	%100
9	M7	Х	0	0	0	%100
10	M7	Z	9.863	9.863	0	%100
11	M8	Х	0	0	0	%100
12	M8	Z	.436	.436	0	%100
13	M9	Х	0	0	0	%100
14	M9	Z	.751	.751	0	%100
15	M10	Х	0	0	0	%100
16	M10	Z	9.863	9.863	0	%100
17	M11	Х	0	0	0	%100
18	M11	Z	3.996	3.996	0	%100
19	M12	Х	0	0	0	%100
20	M12	Z	3.996	3.996	0	%100
21	M13	Х	0	0	0	%100
22	M13	Z	3.996	3.996	0	%100
23	M14	Х	0	0	0	%100
24	M14	Z	3.996	3.996	0	%100
25	M15	Х	0	0	0	%100
26	M15	Z	1.358	1.358	0	%100
27	M16	Х	0	0	0	%100
28	M16	Z	5.411	5.411	0	%100
29	M17	Х	0	0	0	%100
30	M17	Z	1.358	1.358	0	%100
31	M18	Х	0	0	0	%100
32	M18	Z	5.411	5.411	0	%100
33	M19	Х	0	0	0	%100
34	M19	Z	1.823	1.823	0	%100
35	M20	X	0	0	0	%100
36	M20	Z	1.358	1.358	0	%100
37	M21	Х	0	0	0	%100



### Member Distributed Loads (BLC 47 : Structure Wo (180 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,	.End Magnitude[lb/ft,	Start Location[ft,%]	End Location[ft,%]
38	M21	Z	1.358	1.358	0	%100
39	M22	Х	0	0	0	%100
40	M22	Z	5.915	5.915	0	%100
41	M23	X	0	0	0	%100
42	M23	Z	5.915	5.915	0	%100
43	M24	Х	0	0	0	%100
44	M24	Z	6.218	6.218	0	%100
45	M25	Х	0	0	0	%100
46	M25	Z	1.823	1.823	0	%100
47	M26	X	0	0	0	%100
48	M26	Z	1.358	1.358	0	%100
49	M27	X	0	0	0	%100
50	M27	Z	5.411	5.411	0	%100
51	M28	X	0	0	0	%100
52	M28	Z	1.358	1.358	0	%100
53	M29	X	0	0	0	%100
54	M29	Z	5.411	5.411	0	%100
55	M30	X	0	0	0	%100
56	M30	Z	1.823	1.823	0	%100
57	M31	Х	0	0	0	%100
58	M31	Z	1.358	1.358	0	%100
59	M32	X	0	0	0	%100
60	M32	Z	1.358	1.358	0	%100
61	M33	X	0	0	0	%100
62	M33	Z	5.915	5.915	0	%100
63	M34	Х	0	0	0	%100
64	M34	Z	5.915	5.915	0	%100
65	M35	X	0	0	0	%100
66	M35	Z	6.218	6.218	0	%100
67	M36	X	0	0	0	%100
68	M36	Z	1.823	1.823	0	%100
69	MP4A	X	0	0	0	%100
70	MP4A	Z	8.148	8.148	0	%100
71	MP3A	X	0	0	0	%100
72	MP3A	Z	8.148	8.148	0	%100
73	MP2A	X	0	0	0	%100
74	MP2A	Z	8.148	8.148	0	%100
75	MP1A	X	0	0	0	%100
76	MP1A	Z	8.148	8.148	0	%100
77	EQUIP	X	0	0	0	%100
78	EQUIP	Z	12.817	12.817	0	%100
79	M51	X	0	0	0	%100
80	M51	Z	12.817	12.817	0	%100
81	M55A	X	0	0	0	%100
82	M55A	Z	2.001	2.001	0	%100

## Member Distributed Loads (BLC 48 : Structure Wo (210 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,	.End Magnitude[lb/ft,	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-3.859	-3.859	0	%100
2	M1	Z	6.685	6.685	0	%100
3	M3	X	-3.859	-3.859	0	%100
4	M3	Z	6.685	6.685	0	%100
5	M5	Х	04	04	0	%100
6	M5	Z	.069	.069	0	%100
7	M6	X	597	597	0	%100
8	M6	Z	1.034	1.034	0	%100
9	M7	X	-3.699	-3.699	0	%100
10	M7	Z	6.406	6.406	0	%100



# Member Distributed Loads (BLC 48 : Structure Wo (210 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,	End Magnitude[lb/ft,	Start Location[ft,%]	End Location[ft,%]
11	<u>M8</u>	<u> </u>	006	006	0	%100
12	<u>M8</u>	Z	.011	.011	0	%100
13	M9	X	623	623	0	%100
14	<u>M9</u>	<u> </u>	1.079	1.079	0	%100
15	M10	X	-3.699	-3.699	0	%100
16	M10	Z	6.406	6.406	0	%100
1/	M11	X	254	254	0	%100
18	M11	<u> </u>	.44	.44	0	%100
19	M12	X	-3.781	-3.781	0	%100
20	M12		6.549	6.549	0	%100
21	M13	X 7	254	254	0	%100
22	IVI 13		.44	.44	0	%100
23	IVI 14	<u> </u>	-3.761	-3.781	0	%100
24	IVI 14 M15		0.049	0.049	0	%100
20	M15	~ 7	-1.790	-1.790	0	%100
20	M16	Z V	3 191	2 121	0	%100
21	M16	7	5.101	5.101	0	%100
20	M17	Z V	1 706	1 706	0	%100
29	N17	7	-1.790	-1.790	0	%100
30	M18	Z V	3 191	3.11	0	%100
32	M18	7	5.101	5.101	0	%100
32	M10	X	_1.97	-1.07	0	%100
34	M19	7	3 / 12	3 /12	0	%100
35	M20	X	-1 796	-1 706	0	%100
36	M20	7	3 11	3 11	0	%100
37	M20	X	_1 796	_1 796	0	%100
38	M21	7	3 11	3 11	0	%100
30	M22	X	-2.957	-2.957	0	%100
40	M22	7	5 122	5 122	0	%100
41	M23	X	-2.957	-2 957	0	%100
42	M23	7	5.122	5.122	0	%100
43	M24	X	-3,109	-3.109	0	%100
44	M24	Z	5.385	5.385	0	%100
45	M25	X	-1.97	-1.97	0	%100
46	M25	Z	3.412	3.412	0	%100
47	M26	X	-1.796	-1.796	0	%100
48	M26	Z	3.11	3.11	0	%100
49	M27	Х	-2.24	-2.24	0	%100
50	M27	Z	3.88	3.88	0	%100
51	M28	Х	-1.796	-1.796	0	%100
52	M28	Z	3.11	3.11	0	%100
53	M29	X	-2.24	-2.24	0	%100
54	M29	Z	3.88	3.88	0	%100
55	M30	X	-1.97	-1.97	0	%100
56	M30	Z	3.412	3.412	0	%100
57	M31	Х	-1.796	-1.796	0	%100
58	M31	Z	3.11	3.11	0	%100
59	M32	X	-1.796	-1.796	0	%100
60	M32	Z	3.11	3.11	0	%100
61	M33	X	-2.957	-2.957	0	%100
62	M33	Z	5.122	5.122	0	%100
63	M34	X	-2.957	-2.957	0	%100
64	M34	Z	5.122	5.122	0	%100
65	M35	X	-3.109	-3.109	0	%100
66	M35	Z	5.385	5.385	0	%100
67	M36	X	-1.97	-1.97	0	%100
68	M36	Z	3.412	3.412	0	%100
69	MP4A	<u> </u>	-4.074	-4.074	0	%100

## Member Distributed Loads (BLC 48 : Structure Wo (210 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,	.End Magnitude[lb/ft,	Start Location[ft,%]	End Location[ft,%]
70	MP4A	Z	7.056	7.056	0	%100
71	MP3A	X	-4.074	-4.074	0	%100
72	MP3A	Z	7.056	7.056	0	%100
73	MP2A	X	-4.074	-4.074	0	%100
74	MP2A	Z	7.056	7.056	0	%100
75	MP1A	Х	-4.074	-4.074	0	%100
76	MP1A	Z	7.056	7.056	0	%100
77	EQUIP	X	-6.409	-6.409	0	%100
78	EQUIP	Z	11.1	11.1	0	%100
79	M51	X	-6.409	-6.409	0	%100
80	M51	Z	11.1	11.1	0	%100
81	M55A	X	000107	000107	0	%100
82	M55A	Z	.000186	.000186	0	%100

# Member Distributed Loads (BLC 49 : Structure Wo (240 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,.	End Magnitude[lb/ft,	Start Location[ft,%]	End Location[ft,%]
1	M1	Х	-2.228	-2.228	0	%100
2	M1	Z	1.286	1.286	0	%100
3	M3	Х	-2.228	-2.228	0	%100
4	M3	Z	1.286	1.286	0	%100
5	M5	Х	08	08	0	%100
6	M5	Z	.046	.046	0	%100
7	M6	Х	-1.045	-1.045	0	%100
8	M6	Z	.603	.603	0	%100
9	M7	Х	-2.135	-2.135	0	%100
10	M7	Z	1.233	1.233	0	%100
11	M8	Х	19	19	0	%100
12	M8	Z	.11	.11	0	%100
13	M9	Х	986	986	0	%100
14	M9	Z	.569	.569	0	%100
15	M10	Х	-2.135	-2.135	0	%100
16	M10	Z	1.233	1.233	0	%100
17	M11	Х	507	507	0	%100
18	M11	Z	.293	.293	0	%100
19	M12	Х	-6.617	-6.617	0	%100
20	M12	Z	3.82	3.82	0	%100
21	M13	Х	507	507	0	%100
22	M13	Z	.293	.293	0	%100
23	M14	Х	-6.617	-6.617	0	%100
24	M14	Z	3.82	3.82	0	%100
25	M15	Х	-6.979	-6.979	0	%100
26	M15	Z	4.029	4.029	0	%100
27	M16	Х	-5.528	-5.528	0	%100
28	M16	Z	3.191	3.191	0	%100
29	M17	Х	-6.979	-6.979	0	%100
30	M17	Z	4.029	4.029	0	%100
31	M18	Х	-5.528	-5.528	0	%100
32	M18	Z	3.191	3.191	0	%100
33	M19	Х	-7.079	-7.079	0	%100
34	M19	Z	4.087	4.087	0	%100
35	M20	X	-6.979	-6.979	0	%100
36	M20	Z	4.029	4.029	0	%100
37	M21	X	-6.979	-6.979	0	%100
38	M21	Z	4.029	4.029	0	%100
39	M22	Х	-5.122	-5.122	0	%100
40	M22	Z	2.957	2.957	0	%100
41	M23	Х	-5.122	-5.122	0	%100
42	M23	Z	2.957	2.957	0	%100

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#### Member Distributed Loads (BLC 49 : Structure Wo (240 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,.	End Magnitude[lb/ft,	Start Location[ft,%]	End Location[ft,%]
43	M24	Х	-5.385	-5.385	0	%100
44	M24	Z	3.109	3.109	0	%100
45	M25	Х	-7.079	-7.079	0	%100
46	M25	Z	4.087	4.087	0	%100
47	M26	Х	-6.979	-6.979	0	%100
48	M26	Z	4.029	4.029	0	%100
49	M27	Х	-3.898	-3.898	0	%100
50	M27	Z	2.25	2.25	0	%100
51	M28	Х	-6.979	-6.979	0	%100
52	M28	Z	4.029	4.029	0	%100
53	M29	Х	-3.898	-3.898	0	%100
54	M29	Z	2.25	2.25	0	%100
55	M30	Х	-7.079	-7.079	0	%100
56	M30	Z	4.087	4.087	0	%100
57	M31	Х	-6.979	-6.979	0	%100
58	M31	Z	4.029	4.029	0	%100
59	M32	Х	-6.979	-6.979	0	%100
60	M32	Z	4.029	4.029	0	%100
61	M33	Х	-5.122	-5.122	0	%100
62	M33	Z	2.957	2.957	0	%100
63	M34	Х	-5.122	-5.122	0	%100
64	M34	Z	2.957	2.957	0	%100
65	M35	Х	-5.385	-5.385	0	%100
66	M35	Z	3.109	3.109	0	%100
67	M36	Х	-7.079	-7.079	0	%100
68	M36	Z	4.087	4.087	0	%100
69	MP4A	Х	-7.056	-7.056	0	%100
70	MP4A	Z	4.074	4.074	0	%100
71	MP3A	Х	-7.056	-7.056	0	%100
72	MP3A	Z	4.074	4.074	0	%100
73	MP2A	Х	-7.056	-7.056	0	%100
74	MP2A	Z	4.074	4.074	0	%100
75	MP1A	Х	-7.056	-7.056	0	%100
76	MP1A	Z	4.074	4.074	0	%100
77	EQUIP	Х	-11.1	-11.1	0	%100
78	EQUIP	Z	6.409	6.409	0	%100
79	M51	Х	-11.1	-11.1	0	%100
80	M51	Z	6.409	6.409	0	%100
81	M55A	X	-1.795	-1.795	0	%100
82	M55A	Z	1.037	1.037	0	%100

## Member Distributed Loads (BLC 50 : Structure Wo (270 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,	.End Magnitude[lb/ft,	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M3	X	0	0	0	%100
4	M3	Z	0	0	0	%100
5	M5	Х	655	655	0	%100
6	M5	Z	0	0	0	%100
7	M6	Х	655	655	0	%100
8	M6	Z	0	0	0	%100
9	M7	Х	0	0	0	%100
10	M7	Z	0	0	0	%100
11	M8	Х	85	85	0	%100
12	M8	Z	0	0	0	%100
13	M9	Х	535	535	0	%100
14	M9	Z	0	0	0	%100
15	M10	Х	0	0	0	%100

# Member Distributed Loads (BLC 50 : Structure Wo (270 Deg)) (Continued)

16         M10         Z         0		Member Label	Direction	Start Magnitude[lb/ft,	End Magnitude[lb/ft,	Start Location[ft,%]	End Location[ft,%]
	16	<u>M10</u>	<u> </u>	0	0	0	%100
18         M1         Z         0         0         0         0         0         %         %           20         M12         Z         0         0         0         0         % </td <td>1/</td> <td><u>M11</u></td> <td>X</td> <td>-4.151</td> <td>-4.151</td> <td>0</td> <td>%100</td>	1/	<u>M11</u>	X	-4.151	-4.151	0	%100
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	18	M11	Ζ	0	0	0	%100
	19	M12	X	-4.151	-4.151	0	%100
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	20	<u>M12</u>		0	0	0	%100
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	21	M13	X	-4.151	-4.151	0	%100
23         M14 $\chi$ -4, 151         0 $\frac{1}{8}$ 100           25         M15 $\chi$ -10, 292         -10, 292         0 $\frac{1}{8}$ 100           26         M15 $\chi$ -10, 292         -10, 292         0 $\frac{1}{8}$ 100           27         M16 $\chi$ -5, 452         0         0         0 $\frac{1}{8}$ 100           28         M17 $\chi$ -10, 292         -10, 292         0 $\frac{1}{8}$ 100           30         M17 $\chi$ -10, 292         -10, 292         0 $\frac{1}{8}$ 100           31         M18 $\chi$ -5, 452         0 $\frac{1}{8}$ 100         3           33         M19 $\chi$ -10, 292         -10, 292         0 $\frac{1}{8}$ 100           34         M19 $Z$ 0         0         0 $\frac{1}{8}$ 100         3           35         M20 $Z$ 0         0         0 $\frac{1}{8}$ 100         3           36         M21 $Z$ 0         0         0 $\frac{1}{8}$ 100         3           37 <t< td=""><td>22</td><td><u>M13</u></td><td>Ζ</td><td>0</td><td>0</td><td>0</td><td>%100</td></t<>	22	<u>M13</u>	Ζ	0	0	0	%100
23         M14 $2$ $0$ $0$ $0$ $3$ $3$ $3$ $25$ M15         Z         0         0         0         0 $3$ $3$ $0$ 0 $3$ $0$ 0 $3$ $0$ 0 $3$ $0$ 0 $3$ $0$ $0$ $3$ $3$ $0$ 0 $3$ $3$ $0$ 0 $3$ $0$ $0$ $3$ $3$ $0$ $0$ $3$ $0$ $0$ $3$ $3$ $0$ $0$ $0$ $3$ $3$ $0$ $0$ $0$ $3$ $3$ $0$ $0$ $0$ $0$ $3$ $3$ $0$ $0$ $0$ $3$ $3$ $0$ $0$ $0$ $3$ $3$ $0$ $0$ $0$ $3$ $3$ $0$ $0$ $0$ $3$ $3$ $0$ $0$ $0$ $3$ $3$ $0$ $0$ $0$ $3$ <td>23</td> <td><u>N14</u></td> <td></td> <td>-4.151</td> <td>-4.151</td> <td>0</td> <td>%100</td>	23	<u>N14</u>		-4.151	-4.151	0	%100
25         M15 $\lambda$ $-10.292$ $-10.292$ $0$ $\sqrt{8}$ 100           27         M16 $\chi$ $-5.452$ $0$ $\sqrt{8}$ 100           28         M16 $\chi$ $-5.452$ $0$ $\sqrt{8}$ 100           29         M17 $\chi$ $-10.292$ $0$ $\sqrt{8}$ 100           30         M17 $\chi$ $-10.292$ $0$ $\sqrt{8}$ 100           31         M18 $\chi$ $-5.452$ $0$ $\sqrt{8}$ 100           33         M19 $\chi$ $-10.292$ $0$ $\sqrt{8}$ 100           34         M19 $\chi$ $-10.292$ $0$ $\sqrt{8}$ 100           36         M20 $\chi$ $-10.292$ $0$ $\sqrt{8}$ 100           36         M21 $\chi$ $0$ $0$ $\sqrt{8}$ 100           38         M21 $\chi$ $0$ $0$ $\sqrt{8}$ 100           39         M22 $\chi$ $0$ $0$ $\sqrt{8}$ 100           41         M23 $\chi$ $0$ $0$ $\sqrt{8}$ 100	24	IVI 14		10,000	10,000	0	%100
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	25			-10.292	-10.292	0	%100
	20	N10		5 450	U 5 450	0	%100
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	27	N16	<u>^</u>	-0.402	-0.402	0	%100
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	20	N17		10.202	10.202	0	%100
	29	N117	~ 7	-10.292	-10.292	0	<sup>76</sup> 100
J         MID         X         J-N2         J-N2 <t></t> J-N2          36         M21         Z         0         0         0         -5.915         0         9.4100         M4         M2         Z         0         0         0         9.4100         M4         M2         X         -5.452         0         9.4100         46         M25 <td>30</td> <td>M18</td> <td>Z X</td> <td>5 452</td> <td>5 452</td> <td>0</td> <td>%100</td>	30	M18	Z X	5 452	5 452	0	%100
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	32	M19	7	-5.452	-3.432	0	%100
Job         M19         X         10.222         10.222         0         0         0           34         M19         Z         0         0         0         %100           36         M20         X         -10.292         -10.292         0         %100           37         M21         X         -10.292         -10.292         0         %100           38         M21         Z         0         0         0         %100           39         M22         X         -5.915         -5.915         0         %100           40         M22         Z         0         0         0         %100           41         M23         X         -5.915         0         %100           42         M23         Z         0         0         0         %100           44         M24         Z         0         0         0         %100           46         M25         X         -10.292         -10.292         0         %100           48         M26         Z         0         0         0         %100           51         M28         X         -10.292	32	M10	Z V	10 202	10.202	0	%100
Ja         M10         Z         0         0         0         0         0         0           36         M20         Z         0         0         0         0         %100           37         M21         X         -10.292         0         %100           38         M21         Z         0         0         0         %100           39         M22         X         -5.915         -5.915         0         %100           40         M22         Z         0         0         0         %100           41         M23         X         -5.915         -5.915         0         %100           42         M23         Z         0         0         0         %100           44         M24         X         -6.218         -6.218         0         %100           45         M25         X         -10.292         0         %100         4           44         M24         Z         0         0         0         %100           45         M25         Z         0         0         %100         5           46         M27         X	34	M19	7	-10.232	-10.292	0	%100
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	35	M20		_10.202	-10.202	0	%100
	36	M20	7	-10.232	-10.232	0	%100
bit $n_{1}$	37	M21		_10.202	_10.292	0	%100
39         M21         Z $-5.915$ $-5.915$ $0$ $%100$ 40         M22         Z $0$ $0$ $0$ $0$ $%100$ 41         M23         X $-5.915$ $-5.915$ $0$ $%100$ 42         M23         Z $0$ $0$ $0$ $%100$ 43         M24         X $-6.218$ $-6.218$ $0$ $%100$ 44         M25         X $-10.292$ $0$ $%100$ $%100$ 46         M25         Z $0$ $0$ $0$ $%100$ 48         M26         Z $0$ $0$ $0$ $%100$ 49         M27         X $-5.452$ $-5.452$ $0$ $%100$ 51         M28         X $-10.292$ $-10.292$ $0$ $%100$ 52         M28         Z $0$ $0$ $0$ $%100$ 53         M29         X $-5.452$ $-5.452$	38	M21	7	-10.232	-10.232	0	%100
bb         M12         X         5.915         0.515         0 $\%100$ 41         M23         X         -5.915         -5.915         0         0         %100           42         M23         Z         0         0         0         %100           43         M24         X         -6.218         -6.218         0         0         %100           44         M24         Z         0         0         0         %100         %100           44         M24         Z         0         0         0         %100         %100           45         M25         X         -10.292         -10.292         0         %100           46         M25         Z         0         0         0         %100           47         M26         X         -10.292         -10.292         0         %100           50         M27         Z         0         0         0         %100           51         M28         X         -10.292         -10.292         0         %100           53         M29         X         -5.452         -5.452         0         %100	30	M22	X	-5 915	-5 915	0	%100
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	40	M22	7	-0.010	-0.910	0	%100
42         M23         Z         0 </td <td>40</td> <td>M23</td> <td>X</td> <td>-5.915</td> <td>-5.915</td> <td>0</td> <td>%100</td>	40	M23	X	-5.915	-5.915	0	%100
$H_3$ $M25$ $L$ $0$ $0$ $0$ $0$ $0$ 44 $M24$ $X$ $-6.218$ $-6.218$ $0$ $0$ $0$ $\%100$ 45 $M25$ $X$ $-10.292$ $0$ $0$ $\%100$ 46 $M25$ $Z$ $0$ $0$ $0$ $\%100$ 48 $M26$ $X$ $-10.292$ $-10.292$ $0$ $\%100$ 48 $M26$ $Z$ $0$ $0$ $0$ $\%100$ 50 $M27$ $X$ $-5.452$ $-5.452$ $0$ $\%100$ 51 $M28$ $Z$ $0$ $0$ $0$ $\%100$ 52 $M28$ $Z$ $0$ $0$ $0$ $\%100$ 54 $M29$ $Z$ $0$ $0$ $0$ $\%100$ 55 $M30$ $X$ $-10.292$ $-10.292$ $0$ $\%100$ 58 $M31$	42	M23	7	0.010	-0.010	0	%100
10 $M21$ $Z$ $0$	43	M24	X	-6 218	-6 218	0	%100
1         1	44	M24	7	0	0	0	%100
46         M25         Z         0 </td <td>45</td> <td>M25</td> <td>X</td> <td>-10,292</td> <td>-10 292</td> <td>0</td> <td>%100</td>	45	M25	X	-10,292	-10 292	0	%100
$10^{\circ}$ $M26$ $X$ $-10.292$ $-10.292$ $0$ <td>46</td> <td>M25</td> <td>7</td> <td>0</td> <td>0</td> <td>0</td> <td>%100</td>	46	M25	7	0	0	0	%100
18         M26         2         0	47	M26	X	-10.292	-10.292	0	%100
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	48	M26	Z	0	0	0	%100
50         M27         Z         0	49	M27	X	-5.452	-5.452	0	%100
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	50	M27	Z	0	0	0	%100
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	51	M28	Х	-10.292	-10.292	0	%100
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	52	M28	Z	0	0	0	%100
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	53	M29	X	-5.452	-5.452	0	%100
55         M30         X         -10.292         -10.292         0         %100           56         M30         Z         0         0         0         %100           57         M31         X         -10.292         -10.292         0         %100           58         M31         Z         0         0         0         %100           59         M32         X         -10.292         -10.292         0         %100           60         M32         Z         0         0         0         %100           61         M33         X         -5.915         0         %100           62         M33         Z         0         0         0         %100           63         M34         X         -5.915         0         %100         %100           64         M34         Z         0         0         0         %100           65         M35         X         -6.218         -6.218         0         %100           66         M35         Z         0         0         0         %100           68         M36         Z         0         0	54	M29	Z	0	0	0	%100
56         M30         Z         0         0         0         %100           57         M31         X         -10.292         -10.292         0         %100           58         M31         Z         0         0         0         %100           59         M32         X         -10.292         -10.292         0         %100           60         M32         Z         0         0         0         %100           61         M33         X         -5.915         -5.915         0         %100           62         M33         Z         0         0         0         %100           63         M34         X         -5.915         0         %100           64         M34         Z         0         0         0         %100           65         M35         X         -6.218         -6.218         0         %100           66         M35         Z         0         0         0         %100           67         M36         X         -10.292         -10.292         0         %100           68         M36         Z         0         0	55	M30	X	-10.292	-10.292	0	%100
57         M31         X         -10.292         -10.292         0         %100           58         M31         Z         0         0         0         %100           59         M32         X         -10.292         -10.292         0         %100           60         M32         Z         0         0         0         %100           61         M33         X         -5.915         -5.915         0         %100           62         M33         Z         0         0         0         %100           63         M34         X         -5.915         -5.915         0         %100           63         M34         Z         0         0         0         %100           64         M34         Z         0         0         0         %100           65         M35         X         -6.218         -6.218         0         %100           66         M35         Z         0         0         0         %100           68         M36         Z         0         0         %100           69         MP4A         X         -8.148         -8.148<	56	M30	Z	0	0	0	%100
58         M31         Z         0         0         0         %100           59         M32         X         -10.292         -10.292         0         %100           60         M32         Z         0         0         0         %100           61         M33         X         -5.915         -5.915         0         %100           62         M33         Z         0         0         0         %100           63         M34         X         -5.915         -5.915         0         %100           64         M34         Z         0         0         0         %100           65         M35         X         -6.218         -6.218         0         %100           66         M35         Z         0         0         0         %100           67         M36         X         -10.292         -10.292         0         %100           68         M36         Z         0         0         0         %100           69         MP4A         X         -8.148         -8.148         0         %100           71         MP3A         Z         0	57	M31	X	-10.292	-10.292	0	%100
59         M32         X         -10.292         -10.292         0         %100           60         M32         Z         0         0         0         %100           61         M33         X         -5.915         -5.915         0         %100           62         M33         Z         0         0         0         %100           63         M34         X         -5.915         -5.915         0         %100           64         M34         Z         0         0         0         %100           65         M35         X         -6.218         -6.218         0         %100           66         M35         Z         0         0         0         %100           67         M36         X         -10.292         -10.292         0         %100           68         M36         Z         0         0         0         %100           69         MP4A         X         -8.148         -8.148         0         %100           70         MP4A         Z         0         0         0         %100           71         MP3A         Z	58	M31	Z	0	0	0	%100
60         M32         Z         0         0         0         %100           61         M33         X         -5.915         -5.915         0         %100           62         M33         Z         0         0         0         %100           63         M34         X         -5.915         -5.915         0         %100           64         M34         Z         0         0         0         %100           65         M35         X         -6.218         -6.218         0         %100           66         M35         Z         0         0         0         %100           67         M36         X         -10.292         -10.292         0         %100           68         M36         Z         0         0         0         %100           69         MP4A         X         -8.148         -8.148         0         %100           71         MP3A         X         -8.148         -8.148         0         %100           72         MP3A         Z         0         0         0         %100           73         MP2A         Z         0	59	M32	X	-10.292	-10.292	0	%100
61         M33         X         -5.915         -5.915         0         %100           62         M33         Z         0         0         0         %100           63         M34         X         -5.915         -5.915         0         %100           64         M34         Z         0         0         0         %100           64         M34         Z         0         0         0         %100           65         M35         X         -6.218         -6.218         0         %100           66         M35         Z         0         0         0         %100           67         M36         X         -10.292         -10.292         0         %100           68         M36         Z         0         0         0         %100           69         MP4A         X         -8.148         -8.148         0         %100           70         MP4A         Z         0         0         0         %100           71         MP3A         Z         0         0         %100         %100           72         MP3A         Z         0	60	M32	Z	0	0	0	%100
62         M33         Z         0         0         0         %100           63         M34         X         -5.915         -5.915         0         %100           64         M34         Z         0         0         0         %100           64         M34         Z         0         0         0         %100           65         M35         X         -6.218         -6.218         0         %100           66         M35         Z         0         0         0         %100           67         M36         X         -10.292         -10.292         0         %100           68         M36         Z         0         0         0         %100           69         MP4A         X         -8.148         -8.148         0         %100           70         MP4A         Z         0         0         0         %100           71         MP3A         X         -8.148         -8.148         0         %100           72         MP3A         Z         0         0         0         %100           73         MP2A         X         -8.148 <td>61</td> <td>M33</td> <td>X</td> <td>-5.915</td> <td>-5.915</td> <td>0</td> <td>%100</td>	61	M33	X	-5.915	-5.915	0	%100
63         M34         X         -5.915         -5.915         0         %100           64         M34         Z         0         0         0         %100           65         M35         X         -6.218         -6.218         0         %100           66         M35         Z         0         0         0         %100           67         M36         X         -10.292         -10.292         0         %100           68         M36         Z         0         0         0         %100           69         MP4A         X         -8.148         -8.148         0         %100           70         MP4A         Z         0         0         0         %100           71         MP3A         X         -8.148         -8.148         0         %100           72         MP3A         Z         0         0         0         %100           73         MP2A         X         -8.148         -8.148         0         %100           74         MP2A         Z         0         0         0         %100	62	M33	Z	0	0	0	%100
64         M34         Z         0         0         0         %100           65         M35         X         -6.218         -6.218         0         %100           66         M35         Z         0         0         0         %100           67         M36         X         -10.292         -10.292         0         %100           68         M36         Z         0         0         0         %100           69         MP4A         X         -8.148         -8.148         0         %100           70         MP4A         Z         0         0         0         %100           71         MP3A         X         -8.148         -8.148         0         %100           72         MP3A         Z         0         0         0         %100           73         MP2A         X         -8.148         -8.148         0         %100           74         MP2A         Z         0         0         0         %100	63	M34	X	-5.915	-5.915	0	%100
65         M35         X         -6.218         -6.218         0         %100           66         M35         Z         0         0         0         %100           67         M36         X         -10.292         -10.292         0         %100           68         M36         Z         0         0         0         %100           69         MP4A         X         -8.148         -8.148         0         %100           70         MP4A         Z         0         0         0         %100           71         MP3A         X         -8.148         -8.148         0         %100           72         MP3A         Z         0         0         0         %100           73         MP2A         X         -8.148         -8.148         0         %100           74         MP2A         Z         0         0         0         %100	64	M34	Z	0	0	0	%100
66         M35         Z         0         0         0         %100           67         M36         X         -10.292         -10.292         0         %100           68         M36         Z         0         0         0         %100           69         MP4A         X         -8.148         -8.148         0         %100           70         MP4A         Z         0         0         0         %100           71         MP3A         X         -8.148         -8.148         0         %100           72         MP3A         Z         0         0         0         %100           73         MP2A         X         -8.148         -8.148         0         %100           74         MP2A         Z         0         0         0         %100	65	M35	X	-6.218	-6.218	0	%100
67         M36         X         -10.292         -10.292         0         %100           68         M36         Z         0         0         0         %100           69         MP4A         X         -8.148         -8.148         0         %100           70         MP4A         Z         0         0         0         %100           71         MP3A         X         -8.148         -8.148         0         %100           72         MP3A         Z         0         0         0         %100           73         MP2A         X         -8.148         -8.148         0         %100           74         MP2A         Z         0         0         %100         %100	66	M35	Z	0	0	0	%100
68         M36         Z         0         0         0         %100           69         MP4A         X         -8.148         -8.148         0         %100           70         MP4A         Z         0         0         0         %100           71         MP3A         X         -8.148         -8.148         0         %100           72         MP3A         Z         0         0         0         %100           73         MP2A         X         -8.148         -8.148         0         %100           74         MP2A         Z         0         0         0         %100	67	M36	X	-10.292	-10.292	0	%100
69         MP4A         X         -8.148         -8.148         0         %100           70         MP4A         Z         0         0         0         %100           71         MP3A         X         -8.148         -8.148         0         %100           72         MP3A         Z         0         0         0         %100           73         MP2A         X         -8.148         -8.148         0         %100           74         MP2A         Z         0         0         0         %100	68	M36	Z	0	0	0	%100
70         MP4A         Z         0         0         %100           71         MP3A         X         -8.148         -8.148         0         %100           72         MP3A         Z         0         0         0         %100           73         MP2A         X         -8.148         -8.148         0         %100           74         MP2A         Z         0         0         0         %100	69	MP4A	X	-8.148	-8.148	0	%100
71         MP3A         X         -8.148         -8.148         0         %100           72         MP3A         Z         0         0         0         %100           73         MP2A         X         -8.148         -8.148         0         %100           74         MP2A         Z         0         0         0         %100	70	MP4A	Z	0	0	0	%100
72         MP3A         Z         0         0         %100           73         MP2A         X         -8.148         -8.148         0         %100           74         MP2A         Z         0         0         0         %100	71	MP3A	X	-8.148	-8.148	0	%100
73         MP2A         X         -8.148         -8.148         0         %100           74         MP2A         Z         0         0         %100	72	MP3A	Z	0	0	0	%100
74         MP2A         Z         0         0         %100	73	MP2A	X	-8.148	-8.148	0	%100
	74	MP2A	Z	0	0	0	%100

## Member Distributed Loads (BLC 50 : Structure Wo (270 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,	.End Magnitude[lb/ft,	Start Location[ft,%]	End Location[ft,%]
75	MP1A	X	-8.148	-8.148	0	%100
76	MP1A	Z	0	0	0	%100
77	EQUIP	Х	-12.817	-12.817	0	%100
78	EQUIP	Z	0	0	0	%100
79	M51	X	-12.817	-12.817	0	%100
80	M51	Z	0	0	0	%100
81	M55A	Х	-6.147	-6.147	0	%100
82	M55A	Z	0	0	0	%100

# Member Distributed Loads (BLC 51 : Structure Wo (300 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,	End Magnitude[lb/ft,	Start Location[ft,%]	End Location[ft,%]
1	M1	Х	-2.228	-2.228	0	%100
2	M1	Z	-1.286	-1.286	0	%100
3	M3	Х	-2.228	-2.228	0	%100
4	M3	Z	-1.286	-1.286	0	%100
5	M5	Х	-1.045	-1.045	0	%100
6	M5	Z	603	603	0	%100
7	M6	Х	08	08	0	%100
8	M6	Z	046	046	0	%100
9	M7	Х	-2.135	-2.135	0	%100
10	M7	Z	-1.233	-1.233	0	%100
11	M8	Х	-1.103	-1.103	0	%100
12	M8	Z	637	637	0	%100
13	M9	X	035	035	0	%100
14	M9	Z	02	02	0	%100
15	M10	X	-2.135	-2.135	0	%100
16	M10	Z	-1.233	-1.233	0	%100
17	M11	X	-6.617	-6.617	0	%100
18	M11	Z	-3.82	-3.82	0	%100
19	M12	X	507	507	0	%100
20	M12	Z	293	293	0	%100
21	M13	X	-6.617	-6.617	0	%100
22	M13	Z	-3.82	-3.82	0	%100
23	M14	 X	507	507	0	%100
24	M14	Z	293	293	0	%100
25	M15	 X	-6.979	-6.979	0	%100
26	M15	Z	-4.029	-4.029	0	%100
27	M16	X	-3.898	-3.898	0	%100
28	M16	Z	-2.25	-2.25	0	%100
29	M17	X	-6.979	-6.979	0	%100
30	M17	Z	-4.029	-4.029	0	%100
31	M18	X	-3.898	-3.898	0	%100
32	M18	Z	-2.25	-2.25	0	%100
33	M19	X	-7.079	-7.079	0	%100
34	M19	Z	-4.087	-4.087	0	%100
35	M20	Х	-6.979	-6.979	0	%100
36	M20	Z	-4.029	-4.029	0	%100
37	M21	X	-6.979	-6.979	0	%100
38	M21	Z	-4.029	-4.029	0	%100
39	M22	X	-5.122	-5.122	0	%100
40	M22	Z	-2.957	-2.957	0	%100
41	M23	X	-5.122	-5.122	0	%100
42	M23	Z	-2.957	-2.957	0	%100
43	M24	×	-5,385	-5,385	0	%100
44	M24	Z	-3,109	-3,109	0	%100
45	M25	×	-7.079	-7.079	0	%100
46	M25	Z	-4.087	-4.087	0	%100
47	M26	X	-6.979	-6.979	0	%100



### Member Distributed Loads (BLC 51 : Structure Wo (300 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,	.End Magnitude[lb/ft,	Start Location[ft,%]	End Location[ft,%]
48	M26	Z	-4.029	-4.029	0	%100
49	M27	Х	-5.528	-5.528	0	%100
50	M27	Z	-3.191	-3.191	0	%100
51	M28	Х	-6.979	-6.979	0	%100
52	M28	Z	-4.029	-4.029	0	%100
53	M29	Х	-5.528	-5.528	0	%100
54	M29	Z	-3.191	-3.191	0	%100
55	M30	Х	-7.079	-7.079	0	%100
56	M30	Z	-4.087	-4.087	0	%100
57	M31	Х	-6.979	-6.979	0	%100
58	M31	Z	-4.029	-4.029	0	%100
59	M32	Х	-6.979	-6.979	0	%100
60	M32	Z	-4.029	-4.029	0	%100
61	M33	Х	-5.122	-5.122	0	%100
62	M33	Z	-2.957	-2.957	0	%100
63	M34	Х	-5.122	-5.122	0	%100
64	M34	Z	-2.957	-2.957	0	%100
65	M35	Х	-5.385	-5.385	0	%100
66	M35	Z	-3.109	-3.109	0	%100
67	M36	Х	-7.079	-7.079	0	%100
68	M36	Z	-4.087	-4.087	0	%100
69	MP4A	Х	-7.056	-7.056	0	%100
70	MP4A	Z	-4.074	-4.074	0	%100
71	MP3A	Х	-7.056	-7.056	0	%100
72	MP3A	Z	-4.074	-4.074	0	%100
73	MP2A	Х	-7.056	-7.056	0	%100
74	MP2A	Z	-4.074	-4.074	0	%100
75	MP1A	Х	-7.056	-7.056	0	%100
76	MP1A	Z	-4.074	-4.074	0	%100
77	EQUIP	X	-11.1	-11.1	0	%100
78	EQUIP	Z	-6.409	-6.409	0	%100
79	M51	X	-11.1	-11.1	0	%100
80	M51	Z	-6.409	-6.409	0	%100
81	M55A	X	-7.056	-7.056	0	%100
82	M55A	Z	-4.074	-4.074	0	%100

#### Member Distributed Loads (BLC 52 : Structure Wo (330 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,	End Magnitude[lb/ft,	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-3.859	-3.859	0	%100
2	M1	Z	-6.685	-6.685	0	%100
3	M3	Х	-3.859	-3.859	0	%100
4	M3	Z	-6.685	-6.685	0	%100
5	M5	Х	597	597	0	%100
6	M5	Z	-1.034	-1.034	0	%100
7	M6	Х	04	04	0	%100
8	M6	Z	069	069	0	%100
9	M7	Х	-3.699	-3.699	0	%100
10	M7	Z	-6.406	-6.406	0	%100
11	M8	Х	534	534	0	%100
12	M8	Z	924	924	0	%100
13	M9	Х	074	074	0	%100
14	M9	Z	128	128	0	%100
15	M10	Х	-3.699	-3.699	0	%100
16	M10	Z	-6.406	-6.406	0	%100
17	M11	Х	-3.781	-3.781	0	%100
18	M11	Z	-6.549	-6.549	0	%100
19	M12	X	254	254	0	%100
20	M12	Z	44	44	0	%100



# Member Distributed Loads (BLC 52 : Structure Wo (330 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,	.End Magnitude[lb/ft,	Start Location[ft,%]	End Location[ft,%]
21	M13	X	-3.781	-3.781	0	%100
22	M13	Ζ	-6.549	-6.549	0	%100
23	M14	X 7	254	254	0	%100
24	N14	<u> </u>	44	44	0	%100
20		7	-1.790	-1.790	0	%100
20	M16		-3.11	-3.11	0	%100
21	M16	~ 7	-2.24	-2.24	0	%100
20	N17		-3.00	-3.00	0	%100
30	M17	7	-1.790	-1.750	0	%100
31	M18	X	-2.24	-2.24	0	%100
32	M18	7	-3.88	-2.24	0	%100
33	M10	X	-0.00	-0.00	0	%100
34	M19	7	-3 412	-3 412	0	%100
35	M10	X	-1 796	-1 796	0	%100
36	M20	7	-3.11	-3.11	0	%100
37	M21	X	-1.796	-1.796	0	%100
38	M21	7	-3.11	-3.11	0	%100
39	M22	X	-2.957	-2.957	0	%100
40	M22	Z	-5,122	-5,122	0	%100
41	M23	X	-2.957	-2.957	0	%100
42	M23	Z	-5.122	-5.122	0	%100
43	M24	Х	-3.109	-3.109	0	%100
44	M24	Z	-5.385	-5.385	0	%100
45	M25	Х	-1.97	-1.97	0	%100
46	M25	Z	-3.412	-3.412	0	%100
47	M26	Х	-1.796	-1.796	0	%100
48	M26	Z	-3.11	-3.11	0	%100
49	M27	Х	-3.181	-3.181	0	%100
50	M27	Z	-5.51	-5.51	0	%100
51	M28	X	-1.796	-1.796	0	%100
52	M28	Z	-3.11	-3.11	0	%100
53	M29	X	-3.181	-3.181	0	%100
54	M29	Z	-5.51	-5.51	0	%100
55	M30	X	-1.97	-1.97	0	%100
56	M30	Z	-3.412	-3.412	0	%100
57	M31	X	-1.796	-1.796	0	%100
58	M31	Z	-3.11	-3.11	0	%100
59	M32	X	-1.796	-1.796	0	%100
60	M32	<u> </u>	-3.11	-3.11	0	%100
61	M33	X	-2.957	-2.957	0	%100
62	M33	<u> </u>	-5.122	-5.122	0	%100
63	WI34	X 7	-2.957	-2.957	0	%100
04	IVI34		-0.122	-0.122	0	%100
60	IVI35	X 7	-3.109	-3.109	0	%100
67	IVI30 M26		-0.380	-0.380	0	%100
69	Mae	∧ 	-1.97	-1.97	0	%100
60	MD/A	X	-3.412	-3.412	0	%100
70	MP4A	7	-7.074	-4.074	0	%100
70	MD30	X	-1.030	-1.030	0	%100
72	MP3A	7	-7.074	-7.074	0	%100
72	MP2A	X	-1.030	-1.030	0	%100
74	MD2A	7	-4.074	-4.074	0	%100
75	MP1A	X	-1.030	-1.030	0	%100
75	MP1A	7	-7.074	-7.074	0	%100
70	FOLIP	X	-6 400	-6.400	0	%100
78	FOUIP	7	-0.403	-0.403	0	%100
70	M51	X	-6 409	-6 409	0	%100
19	I GIVI	<u>^</u>	-0.409	-0.409	U	/0100



#### Member Distributed Loads (BLC 52 : Structure Wo (330 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,	End Magnitude[lb/ft,	Start Location[ft,%]	End Location[ft,%]
80	M51	Z	-11.1	-11.1	0	%100
81	M55A	X	-3.037	-3.037	0	%100
82	M55A	Z	-5.261	-5.261	0	%100

# Member Distributed Loads (BLC 53 : Structure Wi (0 Deg))

	Member Label	Direction	Start Magnitude[lb/ft	.End Magnitude[lb/ft	Start Location[ft.%]	End Location[ft.%]
1	M1	Х	0	0	0	%100
2	M1	Z	-2.699	-2.699	0	%100
3	M3	X	0	0	0	%100
4	M3	7	-2 699	-2 699	0	%100
5	M5	X	0	0	0	%100
6	M5	7	- 526	- 526	0	%100
7	M6	X	0	0	0	%100
8	M6	7	- 526	- 526	0	%100
a	MZ	<u> </u>	020	020	0	%100
10	N17	7	-3.213	-2.212	0	%100
10		<u> </u>	-3.213	-3.213	0	%100
10		~ 7	264	264	0	%100
12	IVI8	<u> </u>	304	304	0	%100
13	M9	~ ~	0	0	0	%100
14	M9	Ζ	626	626	0	%100
15	M10	X	0	0	0	%100
16	M10	<u> </u>	-3.213	-3.213	0	%100
17	M11	<u> </u>	0	0	0	%100
18	M11	Z	-1.425	-1.425	0	%100
19	M12	X	0	0	0	%100
20	M12	Z	-1.425	-1.425	0	%100
21	M13	X	0	0	0	%100
22	M13	Z	-1.425	-1.425	0	%100
23	M14	X	0	0	0	%100
24	M14	Z	-1.425	-1.425	0	%100
25	M15	X	0	0	0	%100
26	M15	Z	-1.085	-1.085	0	%100
27	M16	Х	0	0	0	%100
28	M16	Z	-2.09	-2.09	0	%100
29	M17	Х	0	0	0	%100
30	M17	Z	-1.085	-1.085	0	%100
31	M18	Х	0	0	0	%100
32	M18	Z	-2.09	-2.09	0	%100
33	M19	Х	0	0	0	%100
34	M19	Z	-1.17	-1.17	0	%100
35	M20	X	0	0	0	%100
36	M20	Z	-1.085	-1.085	0	%100
37	M21	X	0	0	0	%100
38	M21	7	-1.085	-1.085	0	%100
39	M22	×	0	0	0	%100
40	M22	7	-2.27	-2.27	0	%100
41	M23	×	0	0	0	%100
42	M23	7	-2.27	-2.27	0	%100
43	M24	X	0	0	0	%100
44	M24	7	_2 221	_2 221	0	%100
44	M25	×	-2.221	-2.221	0	%100
40	M05	~ 7	1 17	1 17	0	0/100
40	MOG	~	-1.17	-1.17	0	//////
4/	IVI20	7	1.095	1 095	0	%100
48	IVI20	<u> </u>	-1.085	-1.085	0	%100
49	WI27	× 7	0	0	0	%100
50	M27	<u> </u>	-2.09	-2.09	0	%100
51	M28	X	0	0	0	%100
52	M28		-1.085	-1.085	0	%100

## Member Distributed Loads (BLC 53 : Structure Wi (0 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,	End Magnitude[lb/ft,	Start Location[ft,%]	End Location[ft,%]
53	M29	X	0	0	0	%100
54	M29	Z	-2.09	-2.09	0	%100
55	M30	X	0	0	0	%100
56	M30	Z	-1.17	-1.17	0	%100
57	M31	X	0	0	0	%100
58	M31	Z	-1.085	-1.085	0	%100
59	M32	Х	0	0	0	%100
60	M32	Z	-1.085	-1.085	0	%100
61	M33	X	0	0	0	%100
62	M33	Z	-2.27	-2.27	0	%100
63	M34	X	0	0	0	%100
64	M34	Z	-2.27	-2.27	0	%100
65	M35	X	0	0	0	%100
66	M35	Z	-2.221	-2.221	0	%100
67	M36	X	0	0	0	%100
68	M36	Z	-1.17	-1.17	0	%100
69	MP4A	Х	0	0	0	%100
70	MP4A	Z	-2.905	-2.905	0	%100
71	MP3A	X	0	0	0	%100
72	MP3A	Z	-2.905	-2.905	0	%100
73	MP2A	X	0	0	0	%100
74	MP2A	Z	-2.905	-2.905	0	%100
75	MP1A	X	0	0	0	%100
76	MP1A	Z	-2.905	-2.905	0	%100
77	EQUIP	X	0	0	0	%100
78	EQUIP	Z	-3.612	-3.612	0	%100
79	M51	X	0	0	0	%100
80	M51	Z	-3.612	-3.612	0	%100
81	M55A	Х	0	0	0	%100
82	M55A	Z	713	713	0	%100

#### Member Distributed Loads (BLC 54 : Structure Wi (30 Deg))

	Member Label	Direction	Start Magnitude[lb/ft	.End Magnitude[lb/ft	Start Location[ft,%]	End Location[ft,%]
1	M1	X	1.012	1.012	0	%100
2	M1	Z	-1.753	-1.753	0	%100
3	M3	Х	1.012	1.012	0	%100
4	M3	Z	-1.753	-1.753	0	%100
5	M5	Х	.033	.033	0	%100
6	M5	Z	058	058	0	%100
7	M6	Х	.497	.497	0	%100
8	M6	Z	862	862	0	%100
9	M7	Х	1.205	1.205	0	%100
10	M7	Z	-2.087	-2.087	0	%100
11	M8	Х	.005	.005	0	%100
12	M8	Z	009	009	0	%100
13	M9	Х	.519	.519	0	%100
14	M9	Z	899	899	0	%100
15	M10	Х	1.205	1.205	0	%100
16	M10	Z	-2.087	-2.087	0	%100
17	M11	Х	.09	.09	0	%100
18	M11	Z	157	157	0	%100
19	M12	Х	1.348	1.348	0	%100
20	M12	Z	-2.335	-2.335	0	%100
21	M13	Х	.09	.09	0	%100
22	M13	Z	157	157	0	%100
23	M14	Х	1.348	1.348	0	%100
24	M14	Z	-2.335	-2.335	0	%100
25	M15	X	.743	.743	0	%100



# Member Distributed Loads (BLC 54 : Structure Wi (30 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,	End Magnitude[lb/ft,	Start Location[ft,%]	End Location[ft,%]
26	M15	Z	-1.287	-1.287	0	%100
27	M16	X	1.229	1.229	0	%100
28	M16	Z	-2.128	-2.128	0	%100
29	M17	X	.743	.743	0	%100
30	M17	Z	-1.287	-1.287	0	%100
31	M18	X	1.229	1.229	0	%100
32	M18	Z	-2.128	-2.128	0	%100
33	M19	Х	.775	.775	0	%100
34	M19	Z	-1.342	-1.342	0	%100
35	M20	Х	.743	.743	0	%100
36	M20	Z	-1.287	-1.287	0	%100
37	M21	X	.743	.743	0	%100
38	M21	7	-1 287	-1 287	0	%100
30	M22	X	1 135	1 135	0	%100
40	M22	7	-1.966	-1.966	0	%100
40	M23	×	1 135	1 135	0	%100
42	M23	7	1.100	1.105	0	%100
42	M24	2 	-1.900	-1.900	0	%100
43	N24	~ 7	1.111	1.111	0	<sup>7</sup> / <sub>0</sub> 100
44	M25	<u> </u>	-1.924	-1.924	0	%100
45	M25	× 7	.//5	.//5	0	%100
46	M25	Ζ	-1.342	-1.342	0	%100
47	M26	X	./43	.743	0	%100
48	M26	<u> </u>	-1.287	-1.287	0	%100
49	M27	X	.865	.865	0	%100
50	M27	Z	-1.498	-1.498	0	%100
51	M28	X	.743	.743	0	%100
52	M28	Z	-1.287	-1.287	0	%100
53	M29	X	.865	.865	0	%100
54	M29	Z	-1.498	-1.498	0	%100
55	M30	X	.775	.775	0	%100
56	M30	Z	-1.342	-1.342	0	%100
57	M31	X	.743	.743	0	%100
58	M31	Z	-1.287	-1.287	0	%100
59	M32	X	.743	.743	0	%100
60	M32	Z	-1.287	-1.287	0	%100
61	M33	X	1.135	1.135	0	%100
62	M33	Z	-1.966	-1.966	0	%100
63	M34	X	1.135	1.135	0	%100
64	M34	Z	-1.966	-1.966	0	%100
65	M35	X	1.111	1.111	0	%100
66	M35	Z	-1.924	-1.924	0	%100
67	M36	X	.775	.775	0	%100
68	M36	Z	-1.342	-1.342	0	%100
69	MP4A	X	1.452	1.452	0	%100
70	MP4A	Z	-2.515	-2.515	0	%100
71	MP3A	x	1,452	1.452	0	%100
72	MP3A	Z	-2.515	-2.515	0	%100
73	MP2A	×	1.452	1.452	0	%100
74	MP2A	7	-2 515	-2 515	0	%100
75	MP1A	×	1 452	1 452	0	%100
76	MP1A	7	_2.515	-2.515	0	%100
70		2 V	-2.010	1 206	0	%100
79	EQUIP	~ 7	2 4 2 0	2 1 2 0	0	%100 %100
10	EQUIP	<u> </u>	-3.128	-3.128	0	%100
19	IVI01		1.806	1.806	0	%100
80	IVI51	Ζ	-3.128	-3.128	0	%100
81	M55A		3.86-5	3.86-5	0	%100
82	M55A	Z	-6.6e-5	-6.6e-5	0	%100



# Member Distributed Loads (BLC 55 : Structure Wi (60 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,	.End Magnitude[lb/ft,	Start Location[ft,%]	End Location[ft,%]
1	<u>M1</u>	X	.584	.584	0	%100
2	<u>M1</u>	Ζ	337	337	0	%100
3	M3	X	.584	.584	0	%100
4	<u>M3</u>	Ζ	337	337	0	%100
5	M5	X	.067	.067	0	%100
6	N5	<u> </u>	038	038	0	%100
	IVI6	X	.871	.8/1	0	%100
0			503	503	0	%100
9	IVI /		.090	.090	0	%100
11	IVI7		402	402	0	%100
12	M8	7	. 130	_ 001	0	%100
13	MQ	X	821	821	0	%100
14	M9	7	- 474	- 474	0	%100
15	M10	X	696	696	0	%100
16	M10	7	- 402	- 402	0	%100
17	M10	X	.181	.181	0	%100
18	M11	7	- 104	- 104	0	%100
19	M12	X	2.359	2.359	0	%100
20	M12	Z	-1.362	-1.362	0	%100
21	M13	X	.181	.181	0	%100
22	M13	Z	104	104	0	%100
23	M14	Х	2.359	2.359	0	%100
24	M14	Z	-1.362	-1.362	0	%100
25	M15	Х	1.981	1.981	0	%100
26	M15	Z	-1.144	-1.144	0	%100
27	M16	Х	2.135	2.135	0	%100
28	M16	Z	-1.233	-1.233	0	%100
29	M17	X	1.981	1.981	0	%100
30	M17	Z	-1.144	-1.144	0	%100
31	M18	X	2.135	2.135	0	%100
32	<u>M18</u>	Z	-1.233	-1.233	0	%100
33	M19	X	2.001	2.001	0	%100
34	M19	Z	-1.155	-1.155	0	%100
35	M20	X	1.981	1.981	0	%100
36	M20	<u> </u>	-1.144	-1.144	0	%100
37	M21	X 7	1.981	1.981	0	%100
30			-1.144	-1.144	0	%100
40	N22	7	1.900	1.900	0	%100
40	M23	X	1 966	1,066	0	%100
42	M23	7	-1 135	-1 135	0	%100
43	M24	X	1 924	1 924	0	%100
44	M24	7	-1,111	-1,111	0	%100
45	M25	X	2.001	2.001	0	%100
46	M25	Z	-1.155	-1.155	0	%100
47	M26	X	1.981	1.981	0	%100
48	M26	Z	-1.144	-1.144	0	%100
49	M27	Х	1.505	1.505	0	%100
50	M27	Z	869	869	0	%100
51	M28	Х	1.981	1.981	0	%100
52	M28	Z	-1.144	-1.144	0	%100
53	M29	X	1.505	1.505	0	%100
54	M29	Z	869	869	0	%100
55	M30	X	2.001	2.001	0	%100
56	M30	Z	-1.155	-1.155	0	%100
57	M31	Х	1.981	1.981	0	%100
58	M31	Z	-1.144	-1.144	0	%100
59	M32	<u> </u>	1.981	1.981	0	%100



#### Member Distributed Loads (BLC 55 : Structure Wi (60 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,	.End Magnitude[lb/ft,	Start Location[ft,%]	End Location[ft,%]
60	M32	Z	-1.144	-1.144	0	%100
61	M33	Х	1.966	1.966	0	%100
62	M33	Z	-1.135	-1.135	0	%100
63	M34	Х	1.966	1.966	0	%100
64	M34	Z	-1.135	-1.135	0	%100
65	M35	Х	1.924	1.924	0	%100
66	M35	Z	-1.111	-1.111	0	%100
67	M36	Х	2.001	2.001	0	%100
68	M36	Z	-1.155	-1.155	0	%100
69	MP4A	Х	2.515	2.515	0	%100
70	MP4A	Z	-1.452	-1.452	0	%100
71	MP3A	Х	2.515	2.515	0	%100
72	MP3A	Z	-1.452	-1.452	0	%100
73	MP2A	Х	2.515	2.515	0	%100
74	MP2A	Z	-1.452	-1.452	0	%100
75	MP1A	Х	2.515	2.515	0	%100
76	MP1A	Z	-1.452	-1.452	0	%100
77	EQUIP	Х	3.128	3.128	0	%100
78	EQUIP	Z	-1.806	-1.806	0	%100
79	M51	X	3.128	3.128	0	%100
80	M51	Z	-1.806	-1.806	0	%100
81	M55A	Х	.64	.64	0	%100
82	M55A	Z	37	37	0	%100

#### Member Distributed Loads (BLC 56 : Structure Wi (90 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,	.End Magnitude[lb/ft,	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M3	Х	0	0	0	%100
4	M3	Z	0	0	0	%100
5	M5	X	.546	.546	0	%100
6	M5	Z	0	0	0	%100
7	M6	Х	.546	.546	0	%100
8	M6	Z	0	0	0	%100
9	M7	Х	0	0	0	%100
10	M7	Z	0	0	0	%100
11	M8	Х	.708	.708	0	%100
12	M8	Z	0	0	0	%100
13	M9	Х	.446	.446	0	%100
14	M9	Z	0	0	0	%100
15	M10	Х	0	0	0	%100
16	M10	Z	0	0	0	%100
17	M11	Х	1.48	1.48	0	%100
18	M11	Z	0	0	0	%100
19	M12	Х	1.48	1.48	0	%100
20	M12	Z	0	0	0	%100
21	M13	Х	1.48	1.48	0	%100
22	M13	Z	0	0	0	%100
23	M14	Х	1.48	1.48	0	%100
24	M14	Z	0	0	0	%100
25	M15	Х	2.689	2.689	0	%100
26	M15	Z	0	0	0	%100
27	M16	Х	2.106	2.106	0	%100
28	M16	Z	0	0	0	%100
29	M17	Х	2.689	2.689	0	%100
30	M17	Z	0	0	0	%100
31	M18	Х	2.106	2.106	0	%100
32	M18	Z	0	0	0	%100



## Member Distributed Loads (BLC 56 : Structure Wi (90 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,	.End Magnitude[lb/ft,	Start Location[ft,%]	End Location[ft,%]
33	M19	Х	2.691	2.691	0	%100
34	M19	Z	0	0	0	%100
35	M20	Х	2.689	2.689	0	%100
36	M20	Z	0	0	0	%100
37	M21	Х	2.689	2.689	0	%100
38	M21	Z	0	0	0	%100
39	M22	Х	2.27	2.27	0	%100
40	M22	Z	0	0	0	%100
41	M23	X	2.27	2.27	0	%100
42	M23	Z	0	0	0	%100
43	M24	X	2.221	2.221	0	%100
44	M24	Z	0	0	0	%100
45	M25	X	2.691	2.691	0	%100
46	M25	Z	0	0	0	%100
47	M26	X	2,689	2,689	0	%100
48	M26	7	0	0	0	%100
49	M27	X	2,106	2.106	0	%100
50	M27	7	0	0	0	%100
51	M28	×	2 689	2 689	0	%100
52	M28	7	0	0	0	%100
53	M29	X	2 106	2 106	0	%100
54	M29	7	2.100	2.100	0	%100
55	M20	X	2 691	2 691	0	%100
56	M30	7	0	0	0	%100
57	M31	X	2 689	2 689	0	%100
58	M31	7	0	0	0	%100
59	M32	X	2 689	2 689	0	%100
60	M32	7	2.003	2.003	0	%100
61	M33	X	2 27	2.27	0	%100
62	M33	7	0	0	0	%100
63	M34	X	2.27	2.27	0	%100
64	M34	7	0	0	0	%100
65	M35	X	2 221	2 221	0	%100
66	M35	7	0	0	0	%100
67	M36	X	2 601	2 691	0	%100
68	M36	7	2.001	2.001	0	%100
60	MP4A	X	2 905	2 905	0	%100
70	MP4A	7	2.303	2.303	0	%100
71	MP3A	×	2 905	2 905	0	%100
72	MP3A	7	2.300	2.303	0	%100
72	MP2A	×	2 905	2 905	0	%100
74	MP2A	7	2.303	2.303	0	%100
74	MP1A	2 V	2,005	2,005	0	%100
76	MD1A	7	2.300	2.300	0	%100
70	FOUR	Z V	3 612	3,612	0	%100
79	EQUIP	~ 7	0.012	0.012	0	%100
70	M51	×	3,612	3,612	0	%100
80	M51	~ 7	0.012	0.012	0	%100
81	M55A	×	2 101	2 101	0	%100
82	MSSA	~ 7	2.191	2.191	0	%100
02	WJJA	<u> </u>	0		0	/0100

#### Member Distributed Loads (BLC 57 : Structure Wi (120 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,	.End Magnitude[lb/ft,	Start Location[ft,%]	End Location[ft,%]
1	M1	Х	.584	.584	0	%100
2	M1	Z	.337	.337	0	%100
3	M3	Х	.584	.584	0	%100
4	M3	Z	.337	.337	0	%100
5	M5	X	.871	.871	0	%100

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# Member Distributed Loads (BLC 57 : Structure Wi (120 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,	End Magnitude[lb/ft,	Start Location[ft,%]	End Location[ft,%]
6	M5	Z	.503	.503	0	%100
7	M6	X	.067	.067	0	%100
8	M6		.038	.038	0	%100
9	M7	X	.696	.696	0	%100
10	M7	Z	.402	.402	0	%100
11	M8	X	.919	.919	0	%100
12	M8	Z	.531	.531	0	%100
13	M9	X	.029	.029	0	%100
14	M9	Z	.017	.017	0	%100
15	M10	X	.696	.696	0	%100
16	M10	Z	.402	.402	0	%100
1/	M11	X	2.359	2.359	0	%100
18	M11	Ζ	1.362	1.362	0	%100
19	M12	X	.181	.181	0	%100
20	M12	Ζ	.104	.104	0	%100
21	M13	X	2.359	2.359	0	%100
22	M13	Ζ	1.362	1.362	0	%100
23	M14	X	.181	.181	0	%100
24	M14		.104	.104	0	%100
25	M15	X	1.981	1.981	0	%100
26	M15	<u>∠</u>	1.144	1.144	0	%100
27	M16	X	1.505	1.505	0	%100
28	M16	<u> </u>	.869	.809	0	%100
29	N117		1.981	1.981	0	%100
30	M17		1.144	1.144	0	%100
31	IVI 18		1.000	1.000	0	%100
32	M10		2.009	.009	0	%100
24	M10	~ 7	2.001	2.001	0	% 100
34	M20		1.100	1.100	0	%100
36	M20	7	1 144	1 144	0	%100
37	M20	X	1 981	1 981	0	%100
38	M21	7	1 144	1 144	0	%100
39	M22	X	1.966	1,966	0	%100
40	M22	7	1 135	1 135	0	%100
41	M23	X	1.966	1.966	0	%100
42	M23	Z	1.135	1,135	0	%100
43	M24	X	1,924	1.924	0	%100
44	M24	Z	1.111	1.111	0	%100
45	M25	X	2.001	2.001	0	%100
46	M25	Z	1.155	1.155	0	%100
47	M26	Х	1.981	1.981	0	%100
48	M26	Z	1.144	1.144	0	%100
49	M27	X	2.135	2.135	0	%100
50	M27	Z	1.233	1.233	0	%100
51	M28	X	1.981	1.981	0	%100
52	M28	Z	1.144	1.144	0	%100
53	M29	X	2.135	2.135	0	%100
54	M29	Z	1.233	1.233	0	%100
55	M30	Х	2.001	2.001	0	%100
56	M30	Z	1.155	1.155	0	%100
57	M31	X	1.981	1.981	0	%100
58	M31	Z	1.144	1.144	0	%100
59	M32	X	1.981	1.981	0	%100
60	M32	Z	1.144	1.144	0	%100
61	M33	X	1.966	1.966	0	%100
62	M33	Z	1.135	1.135	0	%100
63	M34	X	1.966	1.966	0	%100
64	M34	Ζ	1.135	1.135	0	%100



### Member Distributed Loads (BLC 57 : Structure Wi (120 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,	.End Magnitude[lb/ft,	Start Location[ft,%]	End Location[ft,%]
65	M35	Х	1.924	1.924	0	%100
66	M35	Z	1.111	1.111	0	%100
67	M36	Х	2.001	2.001	0	%100
68	M36	Z	1.155	1.155	0	%100
69	MP4A	Х	2.515	2.515	0	%100
70	MP4A	Z	1.452	1.452	0	%100
71	MP3A	Х	2.515	2.515	0	%100
72	MP3A	Z	1.452	1.452	0	%100
73	MP2A	Х	2.515	2.515	0	%100
74	MP2A	Z	1.452	1.452	0	%100
75	MP1A	Х	2.515	2.515	0	%100
76	MP1A	Z	1.452	1.452	0	%100
77	EQUIP	Х	3.128	3.128	0	%100
78	EQUIP	Z	1.806	1.806	0	%100
79	M51	Х	3.128	3.128	0	%100
80	M51	Z	1.806	1.806	0	%100
81	M55A	X	2.515	2.515	0	%100
82	M55A	Z	1.452	1.452	0	%100

## Member Distributed Loads (BLC 58 : Structure Wi (150 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,	.End Magnitude[lb/ft,	Start Location[ft,%]	End Location[ft,%]
1	M1	X	1.012	1.012	0	%100
2	M1	Z	1.753	1.753	0	%100
3	M3	X	1.012	1.012	0	%100
4	M3	Z	1.753	1.753	0	%100
5	M5	X	.497	.497	0	%100
6	M5	Z	.862	.862	0	%100
7	M6	X	.033	.033	0	%100
8	M6	Z	.058	.058	0	%100
9	M7	X	1.205	1.205	0	%100
10	M7	Z	2.087	2.087	0	%100
11	M8	X	.445	.445	0	%100
12	M8	Z	.77	.77	0	%100
13	M9	X	.062	.062	0	%100
14	M9	Z	.107	.107	0	%100
15	M10	Х	1.205	1.205	0	%100
16	M10	Z	2.087	2.087	0	%100
17	M11	X	1.348	1.348	0	%100
18	M11	Z	2.335	2.335	0	%100
19	M12	Х	.09	.09	0	%100
20	M12	Z	.157	.157	0	%100
21	M13	X	1.348	1.348	0	%100
22	M13	Z	2.335	2.335	0	%100
23	M14	Х	.09	.09	0	%100
24	M14	Z	.157	.157	0	%100
25	M15	X	.743	.743	0	%100
26	M15	Z	1.287	1.287	0	%100
27	M16	X	.865	.865	0	%100
28	M16	Z	1.498	1.498	0	%100
29	M17	X	.743	.743	0	%100
30	M17	Z	1.287	1.287	0	%100
31	M18	X	.865	.865	0	%100
32	M18	Z	1.498	1.498	0	%100
33	M19	Х	.775	.775	0	%100
34	M19	Z	1.342	1.342	0	%100
35	M20	Х	.743	.743	0	%100
36	M20	Z	1.287	1.287	0	%100
37	M21	X	.743	.743	0	%100



## Member Distributed Loads (BLC 58 : Structure Wi (150 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,	End Magnitude[lb/ft,	Start Location[ft,%]	End Location[ft,%]
38	M21	Z	1.287	1.287	0	%100
39	M22	Х	1.135	1.135	0	%100
40	M22	Z	1.966	1.966	0	%100
41	M23	Х	1.135	1.135	0	%100
42	M23	Z	1.966	1.966	0	%100
43	M24	Х	1.111	1.111	0	%100
44	M24	Z	1.924	1.924	0	%100
45	M25	Х	.775	.775	0	%100
46	M25	Z	1.342	1.342	0	%100
47	M26	Х	.743	.743	0	%100
48	M26	Z	1.287	1.287	0	%100
49	M27	Х	1.229	1.229	0	%100
50	M27	Z	2.128	2.128	0	%100
51	M28	Х	.743	.743	0	%100
52	M28	Z	1.287	1.287	0	%100
53	M29	Х	1.229	1.229	0	%100
54	M29	Z	2.128	2.128	0	%100
55	M30	Х	.775	.775	0	%100
56	M30	Z	1.342	1.342	0	%100
57	M31	Х	.743	.743	0	%100
58	M31	Z	1.287	1.287	0	%100
59	M32	Х	.743	.743	0	%100
60	M32	Z	1.287	1.287	0	%100
61	M33	Х	1.135	1.135	0	%100
62	M33	Z	1.966	1.966	0	%100
63	M34	Х	1.135	1.135	0	%100
64	M34	Z	1.966	1.966	0	%100
65	M35	Х	1.111	1.111	0	%100
66	M35	Z	1.924	1.924	0	%100
67	M36	X	.775	.775	0	%100
68	M36	Z	1.342	1.342	0	%100
69	MP4A	Х	1.452	1.452	0	%100
70	MP4A	Z	2.515	2.515	0	%100
71	MP3A	Х	1.452	1.452	0	%100
72	MP3A	Z	2.515	2.515	0	%100
73	MP2A	Х	1.452	1.452	0	%100
74	MP2A	Z	2.515	2.515	0	%100
75	MP1A	X	1.452	1.452	0	%100
76	MP1A	Z	2.515	2.515	0	%100
77	EQUIP	X	1.806	1.806	0	%100
78	EQUIP	Z	3.128	3.128	0	%100
79	M51	X	1.806	1.806	0	%100
80	M51	Z	3.128	3.128	0	%100
81	M55A	X	1.083	1.083	0	%100
82	M55A	Z	1.875	1.875	0	%100

## Member Distributed Loads (BLC 59 : Structure Wi (180 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,	.End Magnitude[lb/ft,	Start Location[ft,%]	End Location[ft,%]
1	M1	Х	0	0	0	%100
2	M1	Z	2.699	2.699	0	%100
3	M3	Х	0	0	0	%100
4	M3	Z	2.699	2.699	0	%100
5	M5	Х	0	0	0	%100
6	M5	Z	.526	.526	0	%100
7	M6	Х	0	0	0	%100
8	M6	Z	.526	.526	0	%100
9	M7	X	0	0	0	%100
10	M7	Z	3.213	3.213	0	%100



# Member Distributed Loads (BLC 59 : Structure Wi (180 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,	.End Magnitude[lb/ft,	Start Location[ft,%]	End Location[ft,%]
11	<u>M8</u>	X	0	0	0	%100
12	<u></u>	<u> </u>	.364	.364	0	%100
13	N9	7	626	626	0	%100
14	N10		.020	.020	0	%100
10	M10	~ 7	2 212	2 212	0	%100
17	M11		0.213	0	0	%100
12	M11	7	1 425	1 425	0	%100
10	M12	<u> </u>	0	0	0	%100
20	M12	7	1 4 2 5	1 425	0	%100
21	M12	X	0	0	0	%100
22	M13	7	1 4 2 5	1 425	0	%100
23	M10	X	0	0	0	%100
24	M14	7	1 425	1 425	0	%100
25	M15	X	0	0	0	%100
26	M15	7	1 085	1 085	0	%100
27	M16	x	0	0	0	%100
28	M16	Z	2.09	2.09	0	%100
29	M17	X	0	0	0	%100
30	M17	Z	1.085	1.085	0	%100
31	M18	Х	0	0	0	%100
32	M18	Z	2.09	2.09	0	%100
33	M19	Х	0	0	0	%100
34	M19	Z	1.17	1.17	0	%100
35	M20	Х	0	0	0	%100
36	M20	Z	1.085	1.085	0	%100
37	M21	Х	0	0	0	%100
38	M21	Z	1.085	1.085	0	%100
39	M22	Х	0	0	0	%100
40	M22	Z	2.27	2.27	0	%100
41	M23	X	0	0	0	%100
42	M23	Z	2.27	2.27	0	%100
43	M24	X	0	0	0	%100
44	M24	Z	2.221	2.221	0	%100
45	M25	X	0	0	0	%100
46	M25	Z	1.17	1.17	0	%100
47	M26	X	0	0	0	%100
48	M26	Z	1.085	1.085	0	%100
49	<u>M27</u>	X	0	0	0	%100
50	<u>M27</u>	Z	2.09	2.09	0	%100
51	M28	X	0	0	0	%100
52	M20	<u> </u>	1.085	1.085	0	%100
53	M29	X 7	0	2.00	0	%100
54	M29		2.09	2.09	0	%100
55	Mao	7	1 17	1 17	0	%100
57	M30	Z Y	0	0	0	%100
58	M21	7	1.085	1.085	0	%100
50	M32	X	0	0	0	%100
60	M32	7	1.085	1.085	0	%100
61	M33	X	0	0	0	%100
62	M33	7	2 27	2 27	0	%100
63	M34	×	0	0	0	%100
64	M34	7	2 27	2.27	0	%100
65	M35	×	0	0	0	%100
66	M35	7	2 221	2 221	0	%100
67	M36	x	0	0	0	%100
68	M36	7	1 17	1 17	0	%100
69	MP4A	x	0	0	0	%100
00		<u> </u>				/0100

## Member Distributed Loads (BLC 59 : Structure Wi (180 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,	.End Magnitude[lb/ft,	Start Location[ft,%]	End Location[ft,%]
70	MP4A	Z	2.905	2.905	0	%100
71	MP3A	X	0	0	0	%100
72	MP3A	Z	2.905	2.905	0	%100
73	MP2A	X	0	0	0	%100
74	MP2A	Z	2.905	2.905	0	%100
75	MP1A	Х	0	0	0	%100
76	MP1A	Z	2.905	2.905	0	%100
77	EQUIP	X	0	0	0	%100
78	EQUIP	Z	3.612	3.612	0	%100
79	M51	X	0	0	0	%100
80	M51	Z	3.612	3.612	0	%100
81	M55A	X	0	0	0	%100
82	M55A	Z	.713	.713	0	%100

# Member Distributed Loads (BLC 60 : Structure Wi (210 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,	.End Magnitude[lb/ft,	Start Location[ft,%]	End Location[ft,%]
1	M1	Х	-1.012	-1.012	0	%100
2	M1	Z	1.753	1.753	0	%100
3	M3	Х	-1.012	-1.012	0	%100
4	M3	Z	1.753	1.753	0	%100
5	M5	Х	033	033	0	%100
6	M5	Z	.058	.058	0	%100
7	M6	Х	497	497	0	%100
8	M6	Z	.862	.862	0	%100
9	M7	Х	-1.205	-1.205	0	%100
10	M7	Z	2.087	2.087	0	%100
11	M8	Х	005	005	0	%100
12	M8	Z	.009	.009	0	%100
13	M9	Х	519	519	0	%100
14	M9	Z	.899	.899	0	%100
15	M10	Х	-1.205	-1.205	0	%100
16	M10	Z	2.087	2.087	0	%100
17	M11	Х	09	09	0	%100
18	M11	Z	.157	.157	0	%100
19	M12	Х	-1.348	-1.348	0	%100
20	M12	Z	2.335	2.335	0	%100
21	M13	Х	09	09	0	%100
22	M13	Z	.157	.157	0	%100
23	M14	Х	-1.348	-1.348	0	%100
24	M14	Z	2.335	2.335	0	%100
25	M15	Х	743	743	0	%100
26	M15	Z	1.287	1.287	0	%100
27	M16	Х	-1.229	-1.229	0	%100
28	M16	Z	2.128	2.128	0	%100
29	M17	Х	743	743	0	%100
30	M17	Z	1.287	1.287	0	%100
31	M18	Х	-1.229	-1.229	0	%100
32	M18	Z	2.128	2.128	0	%100
33	M19	Х	775	775	0	%100
34	M19	Z	1.342	1.342	0	%100
35	M20	Х	743	743	0	%100
36	M20	Z	1.287	1.287	0	%100
37	M21	X	743	743	0	%100
38	M21	Z	1.287	1.287	0	%100
39	M22	Х	-1.135	-1.135	0	%100
40	M22	Z	1.966	1.966	0	%100
41	M23	Х	-1.135	-1.135	0	%100
42	M23	Z	1.966	1.966	0	%100

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## Member Distributed Loads (BLC 60 : Structure Wi (210 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,.	End Magnitude[lb/ft,	Start Location[ft,%]	End Location[ft,%]
43	M24	Х	-1.111	-1.111	0	%100
44	M24	Z	1.924	1.924	0	%100
45	M25	Х	775	775	0	%100
46	M25	Z	1.342	1.342	0	%100
47	M26	Х	743	743	0	%100
48	M26	Z	1.287	1.287	0	%100
49	M27	Х	865	865	0	%100
50	M27	Z	1.498	1.498	0	%100
51	M28	Х	743	743	0	%100
52	M28	Z	1.287	1.287	0	%100
53	M29	Х	865	865	0	%100
54	M29	Z	1.498	1.498	0	%100
55	M30	Х	775	775	0	%100
56	M30	Z	1.342	1.342	0	%100
57	M31	Х	743	743	0	%100
58	M31	Z	1.287	1.287	0	%100
59	M32	Х	743	743	0	%100
60	M32	Z	1.287	1.287	0	%100
61	M33	Х	-1.135	-1.135	0	%100
62	M33	Z	1.966	1.966	0	%100
63	M34	Х	-1.135	-1.135	0	%100
64	M34	Z	1.966	1.966	0	%100
65	M35	Х	-1.111	-1.111	0	%100
66	M35	Z	1.924	1.924	0	%100
67	M36	Х	775	775	0	%100
68	M36	Z	1.342	1.342	0	%100
69	MP4A	Х	-1.452	-1.452	0	%100
70	MP4A	Z	2.515	2.515	0	%100
71	MP3A	Х	-1.452	-1.452	0	%100
72	MP3A	Z	2.515	2.515	0	%100
73	MP2A	Х	-1.452	-1.452	0	%100
74	MP2A	Z	2.515	2.515	0	%100
75	MP1A	Х	-1.452	-1.452	0	%100
76	MP1A	Z	2.515	2.515	0	%100
77	EQUIP	Х	-1.806	-1.806	0	%100
78	EQUIP	Z	3.128	3.128	0	%100
79	M51	X	-1.806	-1.806	0	%100
80	M51	Z	3.128	3.128	0	%100
81	M55A	X	-3.8e-5	-3.8e-5	0	%100
82	M55A	7	6.6e-5	6.6e-5	0	%100

## Member Distributed Loads (BLC 61 : Structure Wi (240 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,	.End Magnitude[lb/ft,	Start Location[ft,%]	End Location[ft,%]
1	M1	X	584	584	0	%100
2	M1	Z	.337	.337	0	%100
3	M3	Х	584	584	0	%100
4	M3	Z	.337	.337	0	%100
5	M5	Х	067	067	0	%100
6	M5	Z	.038	.038	0	%100
7	M6	Х	871	871	0	%100
8	M6	Z	.503	.503	0	%100
9	M7	Х	696	696	0	%100
10	M7	Z	.402	.402	0	%100
11	M8	Х	158	158	0	%100
12	M8	Z	.091	.091	0	%100
13	M9	X	821	821	0	%100
14	M9	Z	.474	.474	0	%100
15	M10	X	696	696	0	%100



# Member Distributed Loads (BLC 61 : Structure Wi (240 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,	End Magnitude[lb/ft,	Start Location[ft,%]	End Location[ft,%]
16	M10	Z	.402	.402	0	%100
17	<u>M11</u>	X	181	181	0	%100
18	M11	Z	.104	.104	0	%100
19	M12	X	-2.359	-2.359	0	%100
20	M12	Z	1.362	1.362	0	%100
21	M13	X	181	181	0	%100
22	M13	Z	.104	.104	0	%100
23	M14	X	-2.359	-2.359	0	%100
24	M14	Z	1.362	1.362	0	%100
25	M15	X	-1.981	-1.981	0	%100
26	M15	Z	1.144	1.144	0	%100
27	M16	X	-2.135	-2.135	0	%100
28	M16	Z	1.233	1.233	0	%100
29	M17	X	-1.981	-1.981	0	%100
30	M17	Z	1.144	1.144	0	%100
31	M18	X	-2.135	-2.135	0	%100
32	M18	Z	1.233	1.233	0	%100
33	M19	Х	-2.001	-2.001	0	%100
34	M19	Z	1.155	1.155	0	%100
35	M20	X	-1.981	-1.981	0	%100
36	M20	Z	1.144	1.144	0	%100
37	M21	Х	-1.981	-1.981	0	%100
38	M21	Z	1.144	1.144	0	%100
39	M22	Х	-1.966	-1.966	0	%100
40	M22	Z	1.135	1.135	0	%100
41	M23	Х	-1.966	-1.966	0	%100
42	M23	Z	1.135	1.135	0	%100
43	M24	Х	-1.924	-1.924	0	%100
44	M24	Z	1.111	1.111	0	%100
45	M25	X	-2.001	-2.001	0	%100
46	M25	Z	1.155	1.155	0	%100
47	M26	Х	-1.981	-1.981	0	%100
48	M26	Z	1,144	1.144	0	%100
49	M27	X	-1.505	-1.505	0	%100
50	M27	7	.869	.869	0	%100
51	M28	x	-1.981	-1.981	0	%100
52	M28	Z	1.144	1.144	0	%100
53	M29	x	-1.505	-1.505	0	%100
54	M29	7	869	869	0	%100
55	M30	x	-2 001	-2 001	0	%100
56	M30	7	1 155	1 155	0	%100
57	M31	x	-1.981	-1.981	0	%100
58	M31	7	1.144	1.144	0	%100
59	M32	x	-1.981	-1.981	0	%100
60	M32	7	1 144	1 144	0	%100
61	M33	X	-1.966	-1.966	0	%100
62	M33	7	1 135	1 135	0	%100
63	M34	×	-1 966	-1 966	0	%100
64	M34	7	1 135	1 135	0	%100
65	M35	X	-1 924	-1 924	0	%100
66	M35	7	1 111	1 111	0	%100
67	M36	Z X	-2.001	-2 001	0	%100
68	M36	7	1 155	1 155	0	%100
60	MD4A	2 V	2.515	2.515	0	%100
70	MD4A	~ 7	-2.010	-2.010	0	%100
70			0.515	0.515	0	0/ 100
70	MD2A	~ ~	-2.010	-2.010	0	% 100
72	MD2A		1.402	0.645	0	%100
73	MP2A	~ ~	-2.010	-2.010	0	%100
74	MPZA	2	1.452	1.452	U	%100

## Member Distributed Loads (BLC 61 : Structure Wi (240 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,	.End Magnitude[lb/ft,	Start Location[ft,%]	End Location[ft,%]
75	MP1A	Х	-2.515	-2.515	0	%100
76	MP1A	Z	1.452	1.452	0	%100
77	EQUIP	X	-3.128	-3.128	0	%100
78	EQUIP	Z	1.806	1.806	0	%100
79	M51	X	-3.128	-3.128	0	%100
80	M51	Z	1.806	1.806	0	%100
81	M55A	Х	64	64	0	%100
82	M55A	Z	.37	.37	0	%100

# Member Distributed Loads (BLC 62 : Structure Wi (270 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,	End Magnitude[lb/ft,	Start Location[ft,%]	End Location[ft,%]
1	M1	Х	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M3	Х	0	0	0	%100
4	M3	Z	0	0	0	%100
5	M5	Х	546	546	0	%100
6	M5	Z	0	0	0	%100
7	M6	Х	546	546	0	%100
8	M6	Z	0	0	0	%100
9	M7	Х	0	0	0	%100
10	M7	Z	0	0	0	%100
11	M8	Х	708	708	0	%100
12	M8	Z	0	0	0	%100
13	M9	Х	446	446	0	%100
14	M9	Z	0	0	0	%100
15	M10	Х	0	0	0	%100
16	M10	Z	0	0	0	%100
17	M11	X	-1.48	-1.48	0	%100
18	M11	Z	0	0	0	%100
19	M12	X	-1.48	-1.48	0	%100
20	M12	7	0	0	0	%100
21	M13	X	-1 48	-1 48	0	%100
22	M13	7	0	0	0	%100
23	M14	×	-1 48	-1 48	0	%100
24	M14	7	0	0	0	%100
25	M15	×	-2.689	-2.689	0	%100
26	M15	7	0	0	0	%100
27	M16	×	-2 106	-2 106	0	%100
28	M16	7	0	0	0	%100
29	M17	×	-2 689	-2 689	0	%100
30	M17	7	0	0	0	%100
31	M18	×	-2 106	-2 106	0	%100
32	M18	7	0	0	0	%100
33	M19	×	-2 691	-2 691	0	%100
34	M19	7	0	0	0	%100
35	M20	X	-2 689	-2 689	0	%100
36	M20	7	0	0	0	%100
37	M21	×	-2 689	-2 689	0	%100
38	M21	7	0	0	0	%100
39	M22	×	-2.27	-2.27	0	%100
40	M22	7	0	0	0	%100
41	M23	×	-2.27	-2.27	0	%100
42	M23	7	-2.21	-2.21	0	%100
42	M24	×	_2 221	_2 221	0	%100
40	M24	7	-2.221	-2.221	0	%100
44	M25	X	-2 601	-2 601	0	%100
40	M25	~ 7	-2.091	-2.091	0	%100
40	M26	 	2,690	2 690	0	%100
47	IVIZO	~	-2.009	-2.009	U	70100
# Member Distributed Loads (BLC 62 : Structure Wi (270 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,	.End Magnitude[lb/ft,	Start Location[ft,%]	End Location[ft,%]
48	M26	Z	0	0	0	%100
49	M27	X	-2.106	-2.106	0	%100
50	M27	Z	0	0	0	%100
51	M28	X	-2.689	-2.689	0	%100
52	M28	Z	0	0	0	%100
53	M29	X	-2.106	-2.106	0	%100
54	M29	Z	0	0	0	%100
55	M30	Х	-2.691	-2.691	0	%100
56	M30	Z	0	0	0	%100
57	M31	X	-2.689	-2.689	0	%100
58	M31	Z	0	0	0	%100
59	M32	X	-2.689	-2.689	0	%100
60	M32	Z	0	0	0	%100
61	M33	X	-2.27	-2.27	0	%100
62	M33	Z	0	0	0	%100
63	M34	X	-2.27	-2.27	0	%100
64	M34	Z	0	0	0	%100
65	M35	X	-2.221	-2.221	0	%100
66	M35	Z	0	0	0	%100
67	M36	X	-2.691	-2.691	0	%100
68	M36	Z	0	0	0	%100
69	MP4A	X	-2.905	-2.905	0	%100
70	MP4A	Z	0	0	0	%100
71	MP3A	X	-2.905	-2.905	0	%100
72	MP3A	Z	0	0	0	%100
73	MP2A	X	-2.905	-2.905	0	%100
74	MP2A	Z	0	0	0	%100
75	MP1A	X	-2.905	-2.905	0	%100
76	MP1A	Z	0	0	0	%100
77	EQUIP	X	-3.612	-3.612	0	%100
78	EQUIP	Z	0	0	0	%100
79	M51	X	-3.612	-3.612	0	%100
80	M51	Z	0	0	0	%100
81	M55A	X	-2.191	-2.191	0	%100
82	M55A	7	0	0	0	%100

#### Member Distributed Loads (BLC 63 : Structure Wi (300 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,	End Magnitude[lb/ft,	Start Location[ft,%]	End Location[ft,%]
1	M1	Х	584	584	0	%100
2	M1	Z	337	337	0	%100
3	M3	Х	584	584	0	%100
4	M3	Z	337	337	0	%100
5	M5	Х	871	871	0	%100
6	M5	Z	503	503	0	%100
7	M6	Х	067	067	0	%100
8	M6	Z	038	038	0	%100
9	M7	Х	696	696	0	%100
10	M7	Z	402	402	0	%100
11	M8	Х	919	919	0	%100
12	M8	Z	531	531	0	%100
13	M9	Х	029	029	0	%100
14	M9	Z	017	017	0	%100
15	M10	Х	696	696	0	%100
16	M10	Z	402	402	0	%100
17	M11	Х	-2.359	-2.359	0	%100
18	M11	Z	-1.362	-1.362	0	%100
19	M12	Х	181	181	0	%100
20	M12	Z	104	104	0	%100



# Member Distributed Loads (BLC 63 : Structure Wi (300 Deg)) (Continued)

$ \begin{array}{c c c c c c c c c c c c c c c c c c c $		Member Label	Direction	Start Magnitude[lb/ft,	.End Magnitude[lb/ft,	Start Location[ft,%]	End Location[ft,%]
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	21	<u>M13</u>	X	-2.359	-2.359	0	%100
	22	M13	Ζ	-1.362	-1.362	0	%100
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	23	<u>M14</u>	X 7	181	181	0	%100
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	24	IVI 14		104	104	0	%100
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	20		7	-1.981	-1.981	0	%100
	20	O		-1.144	-1.144	0	%100
	21		7	-1.000	-1.000	0	%100
	20	N17		009	009	0	%100
31         M12         2         1.144         1.156         0 $\frac{3}{6}$ 100           32         M18         Z        869         0 $\frac{3}{6}$ 100           33         M19         Z        155         0 $\frac{3}{6}$ 100           34         M19         Z        155         0 $\frac{3}{6}$ 100           35         M20         X        1981        1981         0 $\frac{3}{6}$ 100           36         M20         Z        1144        1441         0 $\frac{3}{6}$ 100           37         M21         Z        1135        1986         0 $\frac{3}{6}$ 100           39         M22         Z        1135         0 $\frac{3}{6}$ 100 $\frac{3}{6}$ 100           41         M23         X        1966        1966         0 $\frac{3}{6}$ 100           42         M23         X        1966        1966         0 $\frac{3}{6}$ 100           43         M24         X        1924         0 $\frac{3}{6}$ 100 $\frac{3}{6}$ 100           43         M24         X        1924         0 $\frac{3}{6}$ 100 $\frac{3}{6}$ 100	29		~ 7	-1.901	-1.901	0	%100
31         M10 $X$ (1.00)         (1.00)         (1.00)         (1.00)           33         M19         X         (2.001)         (2.001)         (0.00)         (%100)           34         M19         Z         (1.155)         (1.155)         (0.00)         (%100)           35         M20         X         (1.981)         (1.981)         (0.00)         (%100)           36         M20         Z         (1.144)         (1.144)         (0.00)         (%100)           38         M21         Z         (1.144)         (1.144)         (0.00)         (%100)           39         M22         X         (1.966)         (1.966)         (0.00)         (%100)           40         M22         Z         (1.135)         (1.155)         (0.00)         (%100)           41         M23         X         (1.966)         (1.966)         (0.00)         (%100)           42         M23         Z         (1.111)         (1.111)         (0.00)         (%100)           44         M24         Z         (1.111)         (1.155)         (0.00)         (%100)           47         M26         X         (1.981)	21	N19		-1.144	-1.144	0	%100
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	22	N19	~ 7	-1.505	-1.505	0	%100
	32	M10	Z X	009	-2.009	0	%100
35         M10         2         11.00         1.193         0 $\%100$ 36         M20         Z         -1.144         -1.981         0 $\%100$ 37         M21         X         -1.981         -1.981         0 $\%100$ 38         M21         Z         -1.144         -1.981         0 $\%100$ 39         M22         X         -1.966         -1.966         0 $\%100$ 40         M22         Z         -1.135         -1.135         0 $\%100$ 41         M23         X         -1.966         -1.966         0 $\%100$ 42         M23         Z         -1.135         -1.135         0 $\%100$ 43         M24         X         -1.924         0 $\%100$ $\%100$ 44         M24         Z         -1.155         0 $\%100$ $\%100$ 46         M25         Z         -1.144         -1.144         0 $\%100$ 47         M26         X         -1.981         -0 $\%100$ 51<	34	M19	7	-2.001	-2.001	0	%100
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	35	M20	X	-1.133	-1.133	0	%100
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	36	M20	7	-1.301	1 144	0	%100
bit         M21         X         1.201         1.301         0 $3100$ 38         M21         Z         -1.144         -1.144         0         %100           39         M22         X         -1.966         -1.966         0         %100           41         M23         X         -1.966         -1.966         0         %100           42         M23         Z         -1.135         -1.135         0         %100           44         M24         X         -1.924         0         %100           44         M24         X         -1.924         0         %100           44         M24         Z         -1.111         -1.111         0         %100           45         M25         Z         -1.155         0         %100         %100           46         M25         Z         -1.155         -1.155         0         %100           48         M26         Z         -1.144         -1.144         0         %100           50         M27         Z         -2.233         -2.233         0         %100           51         M28         Z	37	M20	X	-1.144	-1.081	0	%100
	32	M21	7	-1.301	-1.301	0	%100
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	30	M22	Z V	1.066	-1.144	0	%100
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	40	M22	7	-1.300	-1.300	0	%100
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	40	M22	Z V	-1.155	-1.066	0	%100
43 $M23$ $Z$ $1.193$ $1.193$ $0$ $2010$ $44$ $M24$ $Z$ $-1.111$ $-1.1924$ $0$ $%100$ $45$ $M25$ $Z$ $-1.111$ $-1.111$ $0$ $%100$ $46$ $M25$ $Z$ $-1.155$ $-1.155$ $0$ $%100$ $47$ $M26$ $X$ $-1.981$ $-1.981$ $0$ $%100$ $48$ $M26$ $Z$ $-1.144$ $-1.981$ $0$ $%100$ $50$ $M27$ $Z$ $-2.135$ $-2.135$ $0$ $%100$ $51$ $M28$ $X$ $-1.981$ $0$ $%100$ $52$ $M28$ $Z$ $-1.144$ $-1.444$ $0$ $%100$ $54$ $M29$ $X$ $-2.135$ $-2.001$ $0$ $%100$ $56$ $M30$ $X$ $-2.001$ $-2.001$ $0$ $%100$ $57$ $M31$ $X$	41	M23	7	-1.300	-1.300	0	%100
44         M21         X         1.227         1.224         0 $\%100$ 45         M25         X         -2.001         -2.001         0 $\%100$ 46         M25         Z         -1.155         -1.155         0 $\%100$ 47         M26         X         -1.981         -1.981         0 $\%100$ 48         M26         Z         -1.144         -1.444         0 $\%100$ 49         M27         X         -2.135         -2.135         0 $\%100$ 50         M27         Z         -1.233         -1.233         0 $\%100$ 51         M28         X         -1.981         -1.981         0 $\%100$ 52         M28         Z         -1.144         -1.144         0 $\%100$ 53         M29         X         -2.010         -2.001         0 $\%100$ 54         M29         Z         -1.155         -1.155         0 $\%100$ 56         M30         Z         -1.144         -1.981         0 $\%100$ <	42	M24	X	-1.133	-1.133	0	%100
H         H	43	M24	7	-1.324	-1.324	0	%100
Ho         M20         X $2.001$ $2.001$ $0$ $0100$ 47         M26         X $-1.155$ $1.155$ $0$ $\%100$ 48         M26         Z $-1.181$ $-1.981$ $0$ $\%100$ 49         M27         X $-2.135$ $-2.135$ $0$ $\%100$ 50         M27         Z $-1.233$ $-1.233$ $0$ $\%100$ 51         M28         X $-1.981$ $-1.981$ $0$ $\%100$ 52         M28         Z $-1.144$ $-1.144$ $0$ $\%100$ 54         M29         Z $-1.233$ $-1.233$ $0$ $\%100$ 55         M30         X $-2.001$ $-2.001$ $0$ $\%100$ 56         M30         Z $-1.155$ $-1.155$ $0$ $\%100$ 57         M31         X $-1.981$ $-1.981$ $0$ $\%100$ 58         M31         Z $-1.144$ $-1$	45	M25	X	-2.001	-2.001	0	%100
Ho         Histo         L         Histo         Histo         Histo         Histo         Histo           47         M26         X         -1.981         -1.981         0         %100           48         M26         Z         -1.144         -1.444         0         %100           50         M27         Z         -1.233         -1.233         0         %100           51         M28         X         -1.981         -1.981         0         %100           52         M28         Z         -1.144         -1.144         0         %100           53         M29         X         -2.135         -2.135         0         %100           54         M29         Z         -1.233         -1.233         0         %100           56         M30         Z         -1.155         -1.155         0         %100           57         M31         X         -1.981         -1.981         0         %100           58         M31         Z         -1.144         -1.144         0         %100           61         M33         X         -1.986         -1.986         0         %100	46	M25	7	-2.001	-1 155	0	%100
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	40	M26	X	-1.133	-1.100	0	%100
10         11.11         11.11         0         1010           49         M27         X         -2.135         0         %100           50         M27         Z         -1.233         -1.233         0         %100           51         M28         X         -1.981         -1.981         0         %100           52         M28         Z         -1.144         -1.144         0         %100           53         M29         X         -2.135         -2.135         0         %100           54         M29         Z         -1.233         -1.233         0         %100           56         M30         X         -2.001         -2.001         0         %100           56         M30         Z         -1.155         -1.155         0         %100           57         M31         X         -1.981         -1.981         0         %100           58         M31         Z         -1.144         -1.144         0         %100           60         M32         X         -1.981         -1.981         0         %100           61         M33         Z         -1.135	48	M26	7	-1.301	-1 144	0	%100
10         M27         Z         -1.233         -1.233         0         %100           51         M28         X         -1.981         -1.981         0         %100           52         M28         Z         -1.144         -1.981         0         %100           53         M29         X         -2.135         -2.135         0         %100           54         M29         Z         -1.233         -1.233         0         %100           56         M30         Z         -1.155         -1.155         0         %100           56         M30         Z         -1.185         -1.181         0         %100           57         M31         X         -1.981         -1.981         0         %100           58         M31         Z         -1.144         -1.144         0         %100           59         M32         Z         -1.144         -1.144         0         %100           61         M33         X         -1.966         -1.966         0         %100           63         M34         X         -1.966         -1.966         0         %100          65	40	M27	X	-2 135	-2 135	0	%100
bot         max         z         max         max <thmax< th="">         max         <thmax< th=""> <thmax< th=""></thmax<></thmax<></thmax<>	50	M27	7	-1 233	-1 233	0	%100
51         M20         A         1.301         1.301         0 $\%100$ 52         M28         Z         -1.144         -1.144         0 $\%100$ 53         M29         X         -2.135         -2.135         0 $\%100$ 54         M29         Z         -1.233         -1.233         0 $\%100$ 55         M30         X         -2.001         -2.001         0 $\%100$ 56         M30         Z         -1.155         -1.155         0 $\%100$ 57         M31         X         -1.981         -1.981         0 $\%100$ 59         M32         X         -1.981         0 $\%100$ 60         M32         Z         -1.144         -1.144         0 $\%100$ 61         M33         X         -1.966         -1.966         0 $\%100$ 62         M33         Z         -1.135         -1.135         0 $\%100$ 63         M34         X         -1.966         0 $\%100$ 64         M34	51	M28	×	_1.200	-1.200	0	%100
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	52	M28	7	-1 144	-1 144	0	%100
54         M29         Z         -1.233         -1.233         0         %100           55         M30         X         -2.001         -2.001         0         %100           56         M30         Z         -1.155         -1.155         0         %100           57         M31         X         -1.981         -1.981         0         %100           58         M31         Z         -1.144         -1.144         0         %100           59         M32         X         -1.981         -1.981         0         %100           60         M32         Z         -1.144         -1.144         0         %100           61         M33         X         -1.986         -1.986         0         %100           62         M33         Z         -1.135         -1.135         0         %100           63         M34         X         -1.966         -1.966         0         %100           64         M34         Z         -1.135         -1.135         0         %100           65         M35         Z         -1.111         -1.111         0         %100           67 <td>53</td> <td>M29</td> <td>X</td> <td>-2 135</td> <td>-2 135</td> <td>0</td> <td>%100</td>	53	M29	X	-2 135	-2 135	0	%100
55         M30         X         -2.001         -2.001         0         %100           56         M30         Z         -1.155         -1.155         0         %100           57         M31         X         -1.981         -1.981         0         %100           58         M31         Z         -1.144         -1.144         0         %100           59         M32         X         -1.981         -1.981         0         %100           60         M32         Z         -1.144         -1.144         0         %100           61         M33         X         -1.986         -1.966         0         %100           62         M33         Z         -1.135         -1.135         0         %100           63         M34         X         -1.966         -1.966         0         %100           64         M34         Z         -1.135         -1.135         0         %100           65         M35         X         -1.924         -1.924         0         %100           66         M35         Z         -1.155         -1.155         0         %100           69 <td>54</td> <td>M29</td> <td>7</td> <td>-1 233</td> <td>-1 233</td> <td>0</td> <td>%100</td>	54	M29	7	-1 233	-1 233	0	%100
56         M30         Z         -1.155         -1.155         0         %100           57         M31         X         -1.981         -1.981         0         %100           58         M31         Z         -1.144         -1.981         0         %100           59         M32         X         -1.981         -1.981         0         %100           60         M32         Z         -1.144         -1.981         0         %100           61         M33         X         -1.966         -1.966         0         %100           62         M33         Z         -1.135         -1.135         0         %100           63         M34         X         -1.966         -1.966         0         %100           64         M34         Z         -1.135         -1.135         0         %100           65         M35         X         -1.924         -1.924         0         %100           66         M36         Z         -1.155         -2.515         0         %100           68         M36         Z         -1.155         -2.515         0         %100           70 <td>55</td> <td>M30</td> <td>X</td> <td>-2.001</td> <td>-2.001</td> <td>0</td> <td>%100</td>	55	M30	X	-2.001	-2.001	0	%100
57M31X-1.981-1.981000.10058M31Z-1.144-1.1440%10059M32X-1.981-1.9810%10060M32Z-1.144-1.1440%10061M33X-1.966-1.9660%10062M33Z-1.135-1.1350%10063M34X-1.966-1.9660%10064M34Z-1.135-1.1350%10065M35X-1.924-1.9240%10066M35Z-1.111-1.1110%10067M36X-2.001-2.0010%10068M36Z-1.155-1.1550%10070MP4AX-2.515-2.5150%10071MP3AZ-1.452-1.4520%10073MP2AX-2.515-2.5150%10074MP2AZ-1.452-1.4520%10075MP1AX-2.515-2.5150%10076MP1AZ-1.452-1.4520%10078EQUIPX-3.128-3.1280%10079M51X-3.128-3.1280%100	56	M30	7	-1.155	-1.155	0	%100
58         M31         Z         -1.144         -1.144         0         %100           59         M32         X         -1.981         0         %100           60         M32         Z         -1.144         -1.981         0         %100           61         M33         X         -1.966         -1.966         0         %100           61         M33         Z         -1.135         -1.135         0         %100           63         M34         X         -1.966         -1.966         0         %100           63         M34         X         -1.966         -1.966         0         %100           64         M34         Z         -1.135         -1.135         0         %100           65         M35         X         -1.924         0         %100           66         M35         Z         -1.111         -1.111         0         %100           68         M36         Z         -1.155         -1.155         0         %100           70         MP4A         X         -2.515         -2.515         0         %100           71         MP3A         Z	57	M31	×	-1.981	-1.981	0	%100
59         M32         X         -1.981         -1.981         0         %100           60         M32         Z         -1.144         -1.981         0         %100           61         M33         X         -1.966         -1.966         0         %100           62         M33         Z         -1.135         -1.135         0         %100           63         M34         X         -1.966         -1.966         0         %100           64         M34         Z         -1.135         -1.135         0         %100           64         M34         Z         -1.135         -1.135         0         %100           65         M35         X         -1.924         -1.924         0         %100           66         M35         Z         -1.111         -1.111         0         %100           67         M36         X         -2.001         -2.001         0         %100           68         M36         Z         -1.155         -1.155         0         %100           70         MP4A         Z         -1.452         0         %100           71         MP3A	58	M31	Z	-1.144	-1.144	0	%100
60         M32         Z         -1.144         -1.144         0         %100           61         M33         X         -1.966         -1.966         0         %100           62         M33         Z         -1.135         -1.135         0         %100           63         M34         X         -1.966         -1.966         0         %100           64         M34         Z         -1.135         -1.135         0         %100           65         M35         X         -1.924         -1.924         0         %100           66         M35         Z         -1.111         -1.111         0         %100           66         M35         Z         -1.111         -1.111         0         %100           68         M36         Z         -1.155         -0.01         0         %100           68         M36         Z         -1.155         0         %100           70         MP4A         X         -2.515         -2.515         0         %100           71         MP3A         X         -2.515         -2.515         0         %100           73         MP2A	59	M32	X	-1.981	-1.981	0	%100
61         M33         X         -1.966         -1.966         0         %100           62         M33         Z         -1.135         -1.135         0         %100           63         M34         X         -1.966         -1.966         0         %100           64         M34         Z         -1.135         -1.135         0         %100           64         M34         Z         -1.135         -1.135         0         %100           65         M35         X         -1.924         -1.924         0         %100           66         M35         Z         -1.111         -1.111         0         %100           67         M36         X         -2.001         -2.001         0         %100           68         M36         Z         -1.155         0         %100           69         MP4A         X         -2.515         -2.515         0         %100           70         MP4A         Z         -1.452         -1.452         0         %100           71         MP3A         Z         -1.452         -1.452         0         %100           73         MP2A <td>60</td> <td>M32</td> <td>Z</td> <td>-1.144</td> <td>-1.144</td> <td>0</td> <td>%100</td>	60	M32	Z	-1.144	-1.144	0	%100
62         M33         Z         -1.135         -1.135         0         %100           63         M34         X         -1.966         -1.966         0         %100           64         M34         Z         -1.135         -1.135         0         %100           64         M34         Z         -1.135         -1.135         0         %100           65         M35         X         -1.924         -1.924         0         %100           66         M35         Z         -1.111         -1.111         0         %100           67         M36         X         -2.001         -2.001         0         %100           68         M36         Z         -1.155         -1.155         0         %100           69         MP4A         X         -2.515         -2.515         0         %100           70         MP4A         Z         -1.452         -1.452         0         %100           71         MP3A         X         -2.515         -2.515         0         %100           73         MP2A         X         -2.515         -2.515         0         %100           74<	61	M33	X	-1.966	-1.966	0	%100
63         M34         X         -1.966         -1.966         0         %100           64         M34         Z         -1.135         -1.135         0         %100           65         M35         X         -1.924         -1.924         0         %100           66         M35         Z         -1.111         -1.111         0         %100           67         M36         X         -2.001         -2.001         0         %100           68         M36         Z         -1.155         0         %100           69         MP4A         X         -2.515         0         %100           70         MP4A         Z         -1.452         -1.452         0         %100           71         MP3A         X         -2.515         0         %100         73         %100           73         MP2A         Z         -1.452         -1.452         0         %100           75         MP3A         Z         -1.452         0         %100         74           74         MP2A         Z         -1.452         0         %100         75           76         MP1A         <	62	M33	Z	-1.135	-1.135	0	%100
64         M34         Z         -1.135         -1.135         0         %100           65         M35         X         -1.924         -1.924         0         %100           66         M35         Z         -1.111         -1.111         0         %100           67         M36         X         -2.001         -2.001         0         %100           68         M36         Z         -1.155         -1.155         0         %100           69         MP4A         X         -2.515         -2.515         0         %100           70         MP4A         Z         -1.452         -1.452         0         %100           71         MP3A         Z         -1.452         -1.452         0         %100           71         MP3A         Z         -1.452         -1.452         0         %100           72         MP3A         Z         -1.452         -1.452         0         %100           73         MP2A         X         -2.515         -2.515         0         %100           74         MP2A         Z         -1.452         -1.452         0         %100	63	M34	X	-1.966	-1.966	0	%100
65         M35         X         -1.924         -1.924         0         %100           66         M35         Z         -1.111         -1.111         0         %100           67         M36         X         -2.001         -2.001         0         %100           68         M36         Z         -1.155         -1.155         0         %100           69         MP4A         X         -2.515         -2.515         0         %100           70         MP4A         Z         -1.452         -1.452         0         %100           71         MP3A         X         -2.515         -2.515         0         %100           71         MP3A         Z         -1.452         -1.452         0         %100           73         MP2A         X         -2.515         -2.515         0         %100           74         MP2A         Z         -1.452         -1.452         0         %100           76         MP1A         X         -2.515         -2.515         0         %100           76         MP1A         Z         -1.452         -1.452         0         %100 <td< td=""><td>64</td><td>M34</td><td>Z</td><td>-1.135</td><td>-1.135</td><td>0</td><td>%100</td></td<>	64	M34	Z	-1.135	-1.135	0	%100
66         M35         Z         -1.111         -1.111         0         %100           67         M36         X         -2.001         -2.001         0         %100           68         M36         Z         -1.155         -1.155         0         %100           69         MP4A         X         -2.515         -2.515         0         %100           70         MP4A         Z         -1.452         -1.452         0         %100           71         MP3A         Z         -1.452         -1.452         0         %100           72         MP3A         Z         -1.452         -1.452         0         %100           73         MP2A         Z         -1.452         -1.452         0         %100           74         MP2A         Z         -1.452         -1.452         0         %100           75         MP1A         X         -2.515         -2.515         0         %100           76         MP1A         Z         -1.452         -1.452         0         %100           77         EQUIP         X         -3.128         -3.128         0         %100           <	65	M35	X	-1.924	-1.924	0	%100
67         M36         X         -2.001         -2.001         0         %100           68         M36         Z         -1.155         -1.155         0         %100           69         MP4A         X         -2.515         -2.515         0         %100           70         MP4A         Z         -1.452         -1.452         0         %100           71         MP3A         X         -2.515         -2.515         0         %100           72         MP3A         Z         -1.452         -1.452         0         %100           73         MP2A         Z         -1.452         -1.452         0         %100           74         MP2A         Z         -1.452         -1.452         0         %100           75         MP1A         X         -2.515         -2.515         0         %100           76         MP1A         Z         -1.452         -1.452         0         %100           77         EQUIP         X         -2.515         -2.515         0         %100           77         EQUIP         X         -3.128         -3.128         0         %100	66	M35	Z	-1.111	-1.111	0	%100
68         M36         Z         -1.155         -1.155         0         %100           69         MP4A         X         -2.515         -2.515         0         %100           70         MP4A         Z         -1.452         -1.452         0         %100           71         MP3A         X         -2.515         -2.515         0         %100           72         MP3A         Z         -1.452         -1.452         0         %100           73         MP2A         Z         -1.452         -1.452         0         %100           74         MP2A         Z         -1.452         -1.452         0         %100           74         MP2A         Z         -1.452         -1.452         0         %100           75         MP1A         X         -2.515         -2.515         0         %100           76         MP1A         Z         -1.452         -1.452         0         %100           77         EQUIP         X         -3.128         -3.128         0         %100           78         EQUIP         Z         -1.806         -1.806         0         %100	67	M36	Х	-2.001	-2.001	0	%100
69         MP4A         X         -2.515         -2.515         0         %100           70         MP4A         Z         -1.452         -1.452         0         %100           71         MP3A         X         -2.515         -2.515         0         %100           72         MP3A         Z         -1.452         -1.452         0         %100           73         MP2A         Z         -1.452         -1.452         0         %100           74         MP2A         Z         -1.452         -1.452         0         %100           74         MP2A         Z         -1.452         -1.452         0         %100           75         MP1A         X         -2.515         -2.515         0         %100           76         MP1A         Z         -1.452         -1.452         0         %100           77         EQUIP         X         -3.128         -3.128         0         %100           78         EQUIP         Z         -1.806         -1.806         0         %100           79         M51         X         -3.128         -3.128         0         %100	68	M36	Z	-1.155	-1.155	0	%100
70         MP4A         Z         -1.452         -1.452         0         %100           71         MP3A         X         -2.515         -2.515         0         %100           72         MP3A         Z         -1.452         -1.452         0         %100           73         MP2A         X         -2.515         -2.515         0         %100           74         MP2A         X         -2.515         -2.515         0         %100           74         MP2A         Z         -1.452         -1.452         0         %100           75         MP1A         X         -2.515         -2.515         0         %100           76         MP1A         Z         -1.452         -1.452         0         %100           77         EQUIP         X         -3.128         -3.128         0         %100           78         EQUIP         Z         -1.806         -1.806         0         %100           79         M51         X         -3.128         -3.128         0         %100	69	MP4A	Х	-2.515	-2.515	0	%100
71         MP3A         X         -2.515         -2.515         0         %100           72         MP3A         Z         -1.452         -1.452         0         %100           73         MP2A         X         -2.515         -2.515         0         %100           74         MP2A         Z         -1.452         -1.452         0         %100           75         MP1A         Z         -1.452         -2.515         0         %100           76         MP1A         Z         -1.452         -1.452         0         %100           77         EQUIP         X         -3.128         -3.128         0         %100           78         EQUIP         Z         -1.806         -1.806         0         %100           79         M51         X         -3.128         -3.128         0         %100	70	MP4A	Z	-1.452	-1.452	0	%100
72         MP3A         Z         -1.452         -1.452         0         %100           73         MP2A         X         -2.515         -2.515         0         %100           74         MP2A         Z         -1.452         -1.452         0         %100           75         MP1A         X         -2.515         -2.515         0         %100           76         MP1A         Z         -1.452         -1.452         0         %100           77         EQUIP         X         -3.128         -3.128         0         %100           78         EQUIP         Z         -1.806         -1.806         0         %100           79         M51         X         -3.128         -3.128         0         %100	71	MP3A	X	-2.515	-2.515	0	%100
73         MP2A         X         -2.515         -2.515         0         %100           74         MP2A         Z         -1.452         -1.452         0         %100           75         MP1A         X         -2.515         -2.515         0         %100           76         MP1A         Z         -1.452         -1.452         0         %100           77         EQUIP         X         -3.128         -3.128         0         %100           78         EQUIP         Z         -1.806         -1.806         0         %100           79         M51         X         -3.128         -3.128         0         %100	72	MP3A	Z	-1.452	-1.452	0	%100
74         MP2A         Z         -1.452         -1.452         0         %100           75         MP1A         X         -2.515         -2.515         0         %100           76         MP1A         Z         -1.452         -1.452         0         %100           76         MP1A         Z         -1.452         -1.452         0         %100           77         EQUIP         X         -3.128         -3.128         0         %100           78         EQUIP         Z         -1.806         -1.806         0         %100           79         M51         X         -3.128         -3.128         0         %100	73	MP2A	X	-2.515	-2.515	0	%100
75         MP1A         X         -2.515         -2.515         0         %100           76         MP1A         Z         -1.452         -1.452         0         %100           77         EQUIP         X         -3.128         -3.128         0         %100           78         EQUIP         Z         -1.806         -1.806         0         %100           79         M51         X         -3.128         -3.128         0         %100	74	MP2A	Z	-1.452	-1.452	0	%100
76         MP1A         Z         -1.452         -1.452         0         %100           77         EQUIP         X         -3.128         -3.128         0         %100           78         EQUIP         Z         -1.806         -1.806         0         %100           79         M51         X         -3.128         -3.128         0         %100	75	MP1A	Х	-2.515	-2.515	0	%100
77         EQUIP         X         -3.128         -3.128         0         %100           78         EQUIP         Z         -1.806         -1.806         0         %100           79         M51         X         -3.128         -3.128         0         %100	76	MP1A	Z	-1.452	-1.452	0	%100
78         EQUIP         Z         -1.806         -1.806         0         %100           79         M51         X         -3.128         -3.128         0         %100	77	EQUIP	X	-3.128	-3.128	0	%100
79 M51 X -3.128 -3.128 0 %100	78	EQUIP	Z	-1.806	-1.806	0	%100
	79	M51	X	-3.128	-3.128	0	%100

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#### Member Distributed Loads (BLC 63 : Structure Wi (300 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,	.End Magnitude[lb/ft,	Start Location[ft,%]	End Location[ft,%]
80	M51	Z	-1.806	-1.806	0	%100
81	M55A	X	-2.515	-2.515	0	%100
82	M55A	Z	-1.452	-1.452	0	%100

# Member Distributed Loads (BLC 64 : Structure Wi (330 Deg))

	Member Label	Direction	Start Magnitude[lb/ft	End Magnitude[lb/ft	Start Location[ft.%]	End Location[ft.%]
1	M1	X	-1.012	-1.012	0	%100
2	M1	Z	-1.753	-1.753	0	%100
3	M3	X	-1.012	-1.012	0	%100
4	M3	7	-1 753	-1 753	0	%100
5	M5	X	- 497	- 497	0	%100
6	M5	7	- 862	- 862	0	%100
7	M6	×	002	002	0	%100
8	M6	7	058	058	0	%100
0	MZ	×	-1.205	000	0	%100
10	N/7	7	2.097	-1.203	0	%100
11	N17	<u> </u>	-2.007	-2.007	0	%100
10	IVIO NAO	~ 7	440	440	0	%100
12	IVI8	<u> </u>	//	//	0	%100
13	M9	X 7	062	062	0	%100
14	M9	Ζ	107	107	0	%100
15	M10	X	-1.205	-1.205	0	%100
16	M10		-2.087	-2.087	0	%100
17	<u>M11</u>	X	-1.348	-1.348	0	%100
18	M11	Z	-2.335	-2.335	0	%100
19	M12	X	09	09	0	%100
20	M12	Z	157	157	0	%100
21	M13	X	-1.348	-1.348	0	%100
22	M13	Z	-2.335	-2.335	0	%100
23	M14	X	09	09	0	%100
24	M14	Z	157	157	0	%100
25	M15	Х	743	743	0	%100
26	M15	Z	-1.287	-1.287	0	%100
27	M16	Х	865	865	0	%100
28	M16	Z	-1.498	-1.498	0	%100
29	M17	Х	743	743	0	%100
30	M17	Z	-1.287	-1.287	0	%100
31	M18	Х	865	865	0	%100
32	M18	Z	-1.498	-1.498	0	%100
33	M19	X	775	775	0	%100
34	M19	Z	-1.342	-1.342	0	%100
35	M20	×	- 743	- 743	0	%100
36	M20	7	-1 287	-1 287	0	%100
37	M21	×	- 743	- 743	0	%100
38	M21	7	-1 287	-1 287	0	%100
30	M22	×	-1 135	-1 135	0	%100
40	M22	7	_1.066	-1 966	0	%100
<u>40</u>	M23	×	_1 135	-1 135	0	%100
42	M23	7	-1.066	-1.066	0	%100
42	M24	Z V	-1.300	-1.300	0	%100
43	N24	~ 7	-1.111	-1.111	0	%100
44	MO5	2 V	-1.324	-1.324	0	0/100
40	IVI25	<u> </u>	//5	175	0	%100
40	M25	<u> </u>	-1.342	-1.342	0	%100
4/	M26	X	/43	/43	0	%100
48	M26		-1.287	-1.287	0	%100
49	M27	X	-1.229	-1.229	0	%100
50	M27		-2.128	-2.128	0	%100
51	M28	X	743	743	0	%100
52	M28	Z	-1.287	-1.287	0	%100



## Member Distributed Loads (BLC 64 : Structure Wi (330 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,	.End Magnitude[lb/ft,	Start Location[ft,%]	End Location[ft,%]
53	M29	Х	-1.229	-1.229	0	%100
54	M29	Z	-2.128	-2.128	0	%100
55	M30	Х	775	775	0	%100
56	M30	Z	-1.342	-1.342	0	%100
57	M31	Х	743	743	0	%100
58	M31	Z	-1.287	-1.287	0	%100
59	M32	Х	743	743	0	%100
60	M32	Z	-1.287	-1.287	0	%100
61	M33	Х	-1.135	-1.135	0	%100
62	M33	Z	-1.966	-1.966	0	%100
63	M34	Х	-1.135	-1.135	0	%100
64	M34	Z	-1.966	-1.966	0	%100
65	M35	Х	-1.111	-1.111	0	%100
66	M35	Z	-1.924	-1.924	0	%100
67	M36	Х	775	775	0	%100
68	M36	Z	-1.342	-1.342	0	%100
69	MP4A	Х	-1.452	-1.452	0	%100
70	MP4A	Z	-2.515	-2.515	0	%100
71	MP3A	Х	-1.452	-1.452	0	%100
72	MP3A	Z	-2.515	-2.515	0	%100
73	MP2A	Х	-1.452	-1.452	0	%100
74	MP2A	Z	-2.515	-2.515	0	%100
75	MP1A	Х	-1.452	-1.452	0	%100
76	MP1A	Z	-2.515	-2.515	0	%100
77	EQUIP	Х	-1.806	-1.806	0	%100
78	EQUIP	Z	-3.128	-3.128	0	%100
79	M51	Х	-1.806	-1.806	0	%100
80	M51	Z	-3.128	-3.128	0	%100
81	M55A	Х	-1.083	-1.083	0	%100
82	M55A	Z	-1.875	-1.875	0	%100

#### Member Distributed Loads (BLC 65 : Structure Wm (0 Deg))

	Member Label	Direction	Start Magnitude[lb/ft	End Magnitude[lb/ft	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	665	665	0	%100
3	M3	X	0	0	0	%100
4	M3	Z	665	665	0	%100
5	M5	X	0	0	0	%100
6	M5	Z	041	041	0	%100
7	M6	X	0	0	0	%100
8	M6	Z	041	041	0	%100
9	M7	X	0	0	0	%100
10	M7	Z	638	638	0	%100
11	M8	X	0	0	0	%100
12	M8	Z	028	028	0	%100
13	M9	X	0	0	0	%100
14	M9	Z	049	049	0	%100
15	M10	X	0	0	0	%100
16	M10	Z	638	638	0	%100
17	M11	X	0	0	0	%100
18	M11	Z	258	258	0	%100
19	M12	X	0	0	0	%100
20	M12	Z	258	258	0	%100
21	M13	X	0	0	0	%100
22	M13	Z	258	258	0	%100
23	M14	X	0	0	0	%100
24	M14	Z	258	258	0	%100
25	M15	X	0	0	0	%100



# Member Distributed Loads (BLC 65 : Structure Wm (0 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,	End Magnitude[lb/ft,	Start Location[ft,%]	End Location[ft,%]
26	M15	Z	088	088	0	%100
27	M16	X	0	0	0	%100
28	M16	Z	35	35	0	%100
29	M17	Х	0	0	0	%100
30	M17	Z	088	088	0	%100
31	M18	X	0	0	0	%100
32	M18	7	- 35	- 35	0	%100
33	M19	×	0	0	0	%100
34	M19	7	_ 118	- 118	0	%100
35	M10	X	0	0	0	%100
26	M20	7	000	000	0	<sup>70</sup> 100
30	M21		000	000	0	<sup>7</sup> / <sub>0</sub> 100
37	IVIZ I	~ ~	000	000	0	%100
38	M21	Ζ	088	088	0	%100
39	M22	X	0	0	0	%100
40	M22	<u> </u>	382	382	0	%100
41	M23	X	0	0	0	%100
42	M23	Z	382	382	0	%100
43	M24	X	0	0	0	%100
44	M24	Z	402	402	0	%100
45	M25	X	0	0	0	%100
46	M25	Z	118	118	0	%100
47	M26	X	0	0	0	%100
48	M26	Z	088	088	0	%100
49	M27	Х	0	0	0	%100
50	M27	Z	35	35	0	%100
51	M28	x	0	0	0	%100
52	M28	7	- 088	- 088	0	%100
53	M29	X	0	0	0	%100
54	M29	7	- 35	- 35	0	%100
55	M30	<u> </u>	00	00	0	%100
56	M30	7	_ 118	_ 118	0	%100
57	M21	2 V	110	110	0	%100
57	M21	7	000	000	0	%100
50	Maa	<u> </u>	088	066	0	%100
59	M32	~ ~	0	0	0	%100
60	M32	Ζ	088	088	0	%100
61	M33	X	0	0	0	%100
62	M33	<u> </u>	382	382	0	%100
63	M34	X	0	0	0	%100
64	M34	Z	382	382	0	%100
65	M35	X	0	0	0	%100
66	M35	Z	402	402	0	%100
67	M36	X	0	0	0	%100
68	M36	Z	118	118	0	%100
69	MP4A	X	0	0	0	%100
70	MP4A	Z	527	527	0	%100
71	MP3A	X	0	0	0	%100
72	MP3A	Z	527	527	0	%100
73	MP2A	X	0	0	0	%100
74	MP2A	Z	527	527	0	%100
75	MP1A	Х	0	0	0	%100
76	MP1A	Z	527	527	0	%100
77	EQUIP	X	0	0	0	%100
78	FOUIP	7	- 828	- 828	0	%100
79	M51	×	0	0	0	%100
80	M51	7	- 828	- 828	0	%100
81	M55A	×	0	.020	0	%100
82	M55A	7	- 129	- 120	0	%100
02	MOUR	2	123	123	U	/0100



# Member Distributed Loads (BLC 66 : Structure Wm (30 Deg))

		Member Label	Direction	Start Magnitude[lb/ft,	.End Magnitude[lb/ft,	Start Location[ft,%]	End Location[ft,%]
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	1	<u>M1</u>	X	.249	.249	0	%100
$  \begin{array}{c c c c c c c c c c c c c c c c c c c $	2	<u>M1</u>		432	432	0	%100
	3	M3	X	.249	.249	0	%100
5         M5         X         .003         .003         .004         0         %*100           7         M6         X         .039         .039         0         %*100           8         M6         Z         .067         0         %*100           9         M7         X         .239         .239         0         %*100           10         M7         Z         .414         .414         0         %*100           11         M8         X         .0004         .0004         0         %*100           12         M8         Z         .00692         .000692         0         %*100           13         M9         X         .04         .04         .0         %*100           16         M10         X         .239         .239         .0         %*100           16         M11         X         .016         .018         .0         %*100           17         M11         X         .016         .018         .0         %*100           20         M12         X         .244         .244         .0         %*100           21         M13         Z </td <td>4</td> <td><u>M3</u></td> <td>Z</td> <td>432</td> <td>432</td> <td>0</td> <td>%100</td>	4	<u>M3</u>	Z	432	432	0	%100
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	5	<u>M5</u>	X	.003	.003	0	%100
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	6	M5	Z	004	004	0	%100
8         M6         Z        067         .067         0 $\%$ 100           10         M7         Z        414        414         0 $\%$ 100           11         M8         X         .0004         .0004         0 $\%$ 100           12         M8         Z        000692         .0 $\%$ 100           13         M9         X         .04         .04         0 $\%$ 100           14         M9         Z         .07         .07         0 $\%$ 100           15         M10         Z         .414         .444         0 $\%$ 100           16         M10         Z         .414         .444         0 $\%$ 100           18         M11         Z         .028         .028         0 $\%$ 100           20         M12         X         .244         .2423         0 $\%$ 100           21         M13         X         .016         .016         0 $\%$ 100           23         M14         X         .244         .2423         .423         .0 $\%$ 100           24         M14	7	<u>M6</u>	X	.039	.039	0	%100
9         M7         X         2.239         0 $\%100$ 10         M7         Z         -414         -0 $\%100$ 11         M8         X         .0004         .0 $\%100$ 12         M8         X         .000692         .00692         .0 $\%100$ 13         M9         X         .04         .04         .0 $\%100$ 14         M9         Z         .07         .07         .0 $\%100$ 15         M10         Z         .414         .414         .0 $\%100$ 16         M11         Z         .028         .0 $\%100$ 17         M11         X         .016         .016         .0 $\%100$ 18         M12         Z         .423         .423         .0 $\%100$ 21         M13         Z         .028         .028         .0 $\%100$ 23         M14         Z         .423         .423         .0 $\%100$ 24         M14         Z         .423         .423         .0	8	M6	Z	067	067	0	%100
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	9	M7	X	.239	.239	0	%100
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	10	M7	Z	414	414	0	%100
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	11	M8	X	.0004	.0004	0	%100
13         M9         X         .04         04         0 $\%_{100}$ 14         M9         Z        07        07         0 $\%_{100}$ 15         M10         X         .239         .239         0 $\%_{100}$ 16         M10         Z         .414         .414         0 $\%_{100}$ 17         M11         X         .016         .016         0 $\%_{100}$ 19         M12         X         .244         .244         0 $\%_{100}$ 20         M12         Z         .423         .423         0 $\%_{100}$ 21         M13         X         .016         .016         0 $\%_{100}$ 23         M14         X         .244         .244         0 $\%_{100}$ 24         M14         Z         .423         .423         0 $\%_{100}$ 26         M15         X         .116         .116         0 $\%_{100}$ 27         M16         X         .206         .206         0 $\%_{100}$ <td< td=""><td>12</td><td>M8</td><td>Z</td><td>000692</td><td>000692</td><td>0</td><td>%100</td></td<>	12	M8	Z	000692	000692	0	%100
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	13	M9	X	.04	.04	0	%100
15         M10         X         .239         .239         0 $\%100$ 16         M10         Z         .414         .414         0 $\%100$ 17         M11         X         .016         .016         0 $\%100$ 18         M11         Z         .028         .028         0 $\%100$ 20         M12         Z         .423         .423         0 $\%100$ 21         M13         X         .016         .016         0 $\%100$ 23         M14         X         .244         .244         .0 $\%100$ 24         M14         Z         .423         .423         .0 $\%100$ 25         M15         X         .116         .116         0 $\%100$ 26         M15         Z         .201         .201         0 $\%100$ 28         M16         Z         .356         .356         0 $\%100$ 30         M17         X         .116         .116         0 $\%100$ 31         M18	14	M9	Z	07	07	0	%100
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	15	M10	X	.239	.239	0	%100
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	16	M10	Z	414	414	0	%100
18         M11         Z $028$ $028$ $0$ $\%100$ 19         M12         X $243$ $423$ $0$ $\%100$ 20         M12         Z $423$ $423$ $0$ $\%100$ 21         M13         X $016$ $0.16$ $0$ $\%100$ 22         M13         Z $028$ $0.28$ $0$ $\%100$ 23         M14         X $.244$ $2.423$ $0$ $\%100$ 24         M14         Z $423$ $423$ $423$ $0$ $\%100$ 25         M15         X         .116         .116 $0$ $\%100$ 26         M15         Z $201$ $201$ $0$ $\%100$ 28         M16         Z $356$ $356$ $0$ $\%100$ 30         M17         Z $201$ $201$ $0$ $\%100$ 31         M18         X         .206         .206	17	M11	X	.016	.016	0	%100
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	18	M11	Z	028	028	0	%100
	19	M12	X	.244	.244	0	%100
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	20	M12	Z	423	423	0	%100
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	21	M13	X	.016	.016	0	%100
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	22	M13	Z	028	028	0	%100
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	23	M14	X	.244	.244	0	%100
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	24	M14	Z	423	423	0	%100
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	25	M15	X	.116	.116	0	%100
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	26	M15	Z	201	201	0	%100
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	27	M16	X	.206	.206	0	%100
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	28	M16	Z	356	356	0	%100
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	29	M17	X	.116	.116	0	%100
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	30	M17	Z	201	201	0	%100
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	31	M18	X	.206	.206	0	%100
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	32	M18	Z	356	356	0	%100
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	33	M19	X	.127	.127	0	%100
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	34	M19	Z	221	221	0	%100
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	35	M20	X	.116	.116	0	%100
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	36	M20	Z	201	201	0	%100
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	37	M21	X	.116	.116	0	%100
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	38	M21	Z	201	201	0	%100
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	39	M22	X	.191	.191	0	%100
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	40	M22	Z	331	331	0	%100
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	41	M23	X	.191	.191	0	%100
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	42	M23	Z	331	331	0	%100
44M24Z3483480 $\%100$ 45M25X.127.1270 $\%100$ 46M25Z2212210 $\%100$ 47M26X.116.1160 $\%100$ 48M26Z2012010 $\%100$ 49M27X.145.1450 $\%100$ 50M27Z2512510 $\%100$ 51M28X.116.1160 $\%100$ 52M28Z2012010 $\%100$ 53M29X.145.1450 $\%100$ 54M29Z2512510 $\%100$ 55M30X.127.1270 $\%100$ 56M30Z2212210 $\%100$ 58M31Z2012010 $\%100$ 59M32X.116.1160 $\%100$	43	M24	X	.201	.201	0	%100
45M25X.127.1270 $%100$ 46M25Z2212210 $%100$ 47M26X.116.1160 $%100$ 48M26Z2012010 $%100$ 49M27X.145.1450 $%100$ 50M27Z2512510 $%100$ 51M28X.116.1160 $%100$ 52M28Z2012010 $%100$ 53M29X.145.1450 $%100$ 54M29Z2512510 $%100$ 55M30X.127.1270 $%100$ 56M30Z2212210 $%100$ 57M31X.116.1160 $%100$ 58M31Z2012010 $%100$ 59M32X.116.1160 $%100$	44	M24	Z	348	348	0	%100
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	45	M25	X	.127	.127	0	%100
47         M26         X         .116         .116         0         %100           48         M26         Z        201        201         0         %100           49         M27         X         .145         .145         0         %100           50         M27         Z        251         .145         0         %100           51         M28         X         .116         .116         0         %100           52         M28         Z        201        201         0         %100           53         M29         X         .145         .145         0         %100           54         M29         Z        251        251         0         %100           55         M30         X         .145         .145         0         %100           56         M30         Z        221         .221         0         %100           57         M31         X         .116         .116         0         %100           58         M31         Z        201         .201         0         %100           59         M32         X <td>46</td> <td>M25</td> <td>Z</td> <td>221</td> <td>221</td> <td>0</td> <td>%100</td>	46	M25	Z	221	221	0	%100
48         M26         Z        201        201         0         %100           49         M27         X         .145         .145         0         %100           50         M27         Z        251         .251         0         %100           51         M28         X         .116         .116         0         %100           52         M28         Z        201         .201         0         %100           53         M29         X         .145         .145         0         %100           54         M29         Z        251        251         0         %100           55         M30         X         .145         .145         0         %100           56         M30         Z        251         0         %100           57         M31         X         .116         .116         0         %100           58         M31         Z        201        201         0         %100           59         M32         X         .116         .116         0         %100	47	M26	X	.116	.116	0	%100
49         M27         X         .145         .145         0         %100           50         M27         Z        251        251         0         %100           51         M28         X         .116         .116         0         %100           52         M28         Z        201        201         0         %100           53         M29         X         .145         .145         0         %100           54         M29         Z        251        251         0         %100           55         M30         X         .145         .145         0         %100           56         M30         Z        221         .221         0         %100           57         M31         X         .116         .116         0         %100           58         M31         Z        201         .201         0         %100           59         M32         X         .116         .116         0         %100	48	M26	Z	201	201	0	%100
50         M27         Z        251        251         0         %100           51         M28         X         .116         .116         0         %100           52         M28         Z        201        201         0         %100           53         M29         X         .145         .145         0         %100           54         M29         Z        251        251         0         %100           55         M30         X         .127         .127         0         %100           56         M30         Z        221        221         0         %100           57         M31         X         .116         .116         0         %100           58         M31         Z        201        201         0         %100           59         M32         X         .116         .116         0         %100	49	M27	X	.145	.145	0	%100
51         M28         X         .116         .116         0         %100           52         M28         Z        201        201         0         %100           53         M29         X         .145         .145         0         %100           54         M29         Z        251        251         0         %100           55         M30         X         .127         .127         0         %100           56         M30         Z        221         0         %100           57         M31         X         .116         .116         0         %100           58         M31         Z        201        201         0         %100           59         M32         X         .116         .116         0         %100	50	M27	Z	251	251	0	%100
52         M28         Z        201        201         0         %100           53         M29         X         .145         .145         0         %100           54         M29         Z        251         .145         0         %100           55         M30         X         .127         .127         0         %100           56         M30         Z        221        221         0         %100           57         M31         X         .116         .116         0         %100           58         M31         Z        201         0         %100           59         M32         X         .116         .116         0         %100	51	M28	X	.116	.116	0	%100
53         M29         X         .145         .145         0         %100           54         M29         Z        251        251         0         %100           55         M30         X         .127         .127         0         %100           56         M30         Z        221        221         0         %100           57         M31         X         .116         .116         0         %100           58         M31         Z        201         0         %100           59         M32         X         .116         .116         0         %100	52	M28	Z	201	201	0	%100
54         M29         Z        251        251         0         %100           55         M30         X         .127         .127         0         %100           56         M30         Z        221         .221         0         %100           57         M31         X         .116         .116         0         %100           58         M31         Z        201         0         %100           59         M32         X         .116         .116         0         %100	53	M29	X	.145	.145	0	%100
55         M30         X         .127         .127         0         %100           56         M30         Z        221        221         0         %100           57         M31         X         .116         .116         0         %100           58         M31         Z        201         0         %100           59         M32         X         .116         .116         0         %100	54	M29	Z	251	251	0	%100
56         M30         Z        221        221         0         %100           57         M31         X         .116         .116         0         %100           58         M31         Z        201        201         0         %100           59         M32         X         .116         .116         0         %100	55	M30	X	.127	.127	0	%100
57         M31         X         .116         .116         0         %100           58         M31         Z        201        201         0         %100           59         M32         X         .116         .116         0         %100	56	M30	Z	221	221	0	%100
58         M31         Z        201        201         0         %100           59         M32         X         .116         .116         0         %100	57	M31	X	.116	.116	0	%100
59 M32 X .116 .116 0 %100	58	M31	Z	201	201	0	%100
	59	M32	X	.116	.116	0	%100

# Member Distributed Loads (BLC 66 : Structure Wm (30 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,	.End Magnitude[lb/ft,	Start Location[ft,%]	End Location[ft,%]
60	M32	Z	201	201	0	%100
61	M33	Х	.191	.191	0	%100
62	M33	Z	331	331	0	%100
63	M34	Х	.191	.191	0	%100
64	M34	Z	331	331	0	%100
65	M35	Х	.201	.201	0	%100
66	M35	Z	348	348	0	%100
67	M36	Х	.127	.127	0	%100
68	M36	Z	221	221	0	%100
69	MP4A	Х	.263	.263	0	%100
70	MP4A	Z	456	456	0	%100
71	MP3A	Х	.263	.263	0	%100
72	MP3A	Z	456	456	0	%100
73	MP2A	Х	.263	.263	0	%100
74	MP2A	Z	456	456	0	%100
75	MP1A	Х	.263	.263	0	%100
76	MP1A	Z	456	456	0	%100
77	EQUIP	Х	.414	.414	0	%100
78	EQUIP	Z	717	717	0	%100
79	M51	Х	.414	.414	0	%100
80	M51	Z	717	717	0	%100
81	M55A	Х	7e-6	7e-6	0	%100
82	M55A	Z	-1.2e-5	-1.2e-5	0	%100

## Member Distributed Loads (BLC 67 : Structure Wm (60 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,	End Magnitude[lb/ft,	Start Location[ft,%]	End Location[ft,%]
1	M1	X	.144	.144	0	%100
2	M1	Z	083	083	0	%100
3	M3	X	.144	.144	0	%100
4	M3	Z	083	083	0	%100
5	M5	Х	.005	.005	0	%100
6	M5	Z	003	003	0	%100
7	M6	X	.068	.068	0	%100
8	M6	Z	039	039	0	%100
9	M7	X	.138	.138	0	%100
10	M7	Z	08	08	0	%100
11	M8	Х	.012	.012	0	%100
12	M8	Z	007	007	0	%100
13	M9	X	.064	.064	0	%100
14	M9	Z	037	037	0	%100
15	M10	X	.138	.138	0	%100
16	M10	Z	08	08	0	%100
17	M11	X	.033	.033	0	%100
18	M11	Z	019	019	0	%100
19	M12	X	.428	.428	0	%100
20	M12	Z	247	247	0	%100
21	M13	X	.033	.033	0	%100
22	M13	Z	019	019	0	%100
23	M14	X	.428	.428	0	%100
24	M14	Z	247	247	0	%100
25	M15	X	.451	.451	0	%100
26	M15	Z	26	26	0	%100
27	M16	X	.357	.357	0	%100
28	M16	Z	206	206	0	%100
29	M17	Х	.451	.451	0	%100
30	M17	Z	26	26	0	%100
31	M18	X	.357	.357	0	%100
32	M18	Z	206	206	0	%100



## Member Distributed Loads (BLC 67 : Structure Wm (60 Deg)) (Continued)

$\begin{array}{c c c c c c c c c c c c c c c c c c c $		Member Label	Direction	Start Magnitude[lb/ft,	.End Magnitude[lb/ft,	Start Location[ft,%]	End Location[ft,%]
34         M19         Z $264$ $264$ 0 $\%100$ 35         M20         X         .451         .451         0 $\%100$ 36         M20         Z $26$ $26$ 0 $\%100$ 37         M21         X         .451         .451         0 $\%100$ 38         M21         Z $26$ $26$ 0 $\%100$ 39         M22         X         .331         .331         0 $\%100$ 40         M22         Z         .191         .191         0 $\%100$ 41         M23         X         .331         .331         0 $\%100$ 43         M24         X         .348         .348         0 $\%100$ 43         M24         X         .348         .348         0 $\%100$ 44         M26         Z         .201         .201         0 $\%100$ 45         M25         X         .451         .451         .451         .0 $\%100$	33	M19	Х	.458	.458	0	%100
35         M20         X         451         451         0 $\%100$ 37         M21         X         451         .451         0 $\%100$ 38         M21         Z        26        26         0 $\%100$ 39         M22         X         .331         .331         0 $\%100$ 40         M22         Z        191        191         0 $\%100$ 41         M23         Z        191        191         0 $\%100$ 42         M23         Z        191        191         0 $\%100$ 43         M24         X         .348         .348         0 $\%100$ 44         M25         X         .456         .456         0 $\%100$ 45         M25         X         .451         .451         0 $\%100$ 46         M27         X         .252         .252         0 $\%100$ 50         M27         Z         .4451         .451         0 $\%100$ 51         M28 <td>34</td> <td>M19</td> <td>Z</td> <td>264</td> <td>264</td> <td>0</td> <td>%100</td>	34	M19	Z	264	264	0	%100
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	35	M20	Х	.451	.451	0	%100
37         M21         X         451         451         0 $$100$ 38         M21         Z        26        26         0 $$100$ 40         M22         X         .331         .331         0 $$100$ 40         M22         Z        191        191         0 $$100$ 41         M23         Z        191        191         0 $$100$ 42         M23         Z        191        191         0 $$100$ 44         M24         X         .348         .348         0 $$100$ 44         M24         Z        201         0 $$100$ 45         M25         X         .456         .458         0 $$100$ 46         M25         Z        264         .264         0 $$100$ 47         M26         X         .451         .451         0 $$100$ 50         M27         Z         .145         .145         0 $$100$ 51         M28         Z </td <td>36</td> <td>M20</td> <td>Z</td> <td>26</td> <td>26</td> <td>0</td> <td>%100</td>	36	M20	Z	26	26	0	%100
	37	M21	Х	.451	.451	0	%100
39         M22         X         331         331         0         %100           40         M22         Z        191        191         0         %100           41         M23         X         .331         .331         0         %100           42         M23         Z        191        191         0         %100           44         M24         X         .348         .348         0         %100           44         M24         Z        201        201         0         %100           45         M25         X         .458         .458         0         %100           46         M25         Z        264         .264         0         %100           47         M26         X         .451         .451         .0         %100           50         M27         Z        145         .1455         0         %100           51         M28         Z        262         .252         0         %100           53         M29         Z        145         .1451         0         %100           56         M30         Z<	38	M21	Z	26	26	0	%100
40         M22         Z $\cdot \cdot 191$ $\cdot \cdot 191$ $\cdot 1011$ 0 $\% 100$ 41         M23         X $\cdot .331$ $\cdot .331$ $\cdot .331$ $\cdot .031$ $\cdot .031$ 42         M23         Z $\cdot .191$ $191$ $01$ $0$ $\% 100$ 43         M24         X $\cdot .348$ $\cdot .348$ $0$ $\% 100$ 44         M24         Z $201$ $201$ $0$ $\% 100$ 45         M25         X $458$ $264$ $0$ $\% 100$ 46         M25         Z $264$ $264$ $0$ $\% 100$ 48         M26         Z $262$ $262$ $0$ $\% 100$ 50         M27         Z $145$ $145$ $0$ $\% 100$ 52         M28         Z $264$ $264$ $0$ $\% 100$ 54         M29         X $264$ $264$ $0$ $\% 100$	39	M22	X	.331	.331	0	%100
41         M23         X         .331         .331         0         %100           42         M23         Z        191        191         0         %100           43         M24         X         .348         .348         0         %100           44         M24         Z        201        201         0         %100           44         M24         Z        201        201         0         %100           45         M25         X         .458         .458         0         %100           46         M25         Z        26        26         0         %100           47         M26         X         .451         .451         0         %100           50         M27         Z         .145         .145         0         %100           51         M28         X         .451         .451         0         %100           52         M29         Z         .252         .252         0         %100           54         M29         Z         .4458         .458         0         %100           55         M30         Z	40	M22	Z	- 191	191	0	%100
42         M23         Z $191$ $191$ 0         %100           43         M24         X         .348         .348         0         %100           44         M24         Z        201         0         %100           45         M25         X         .458         .458         0         %100           46         M25         Z         .264         .264         0         %100           47         M26         X         .451         .451         0         %100           48         M26         Z        26         .262         0         %100           50         M27         Z        145         .145         0         %100           51         M28         X         .451         .451         0         %100           52         M28         Z        26        26         0         %100           54         M29         X         .458         .458         0         %100           55         M30         X         .458         .458         0         %100           56         M30         Z         .264 <td>41</td> <td>M23</td> <td>X</td> <td>.331</td> <td>.331</td> <td>0</td> <td>%100</td>	41	M23	X	.331	.331	0	%100
43         M24         X         .348         .348         0         %100           44         M24         Z        201        201         0         %100           45         M25         X         .458         .458         0         %100           46         M25         Z        264        264         0         %100           47         M26         X         .451         .451         0         %100           48         M26         Z        26        26         0         %100           50         M27         X         .252         .252         0         %100           51         M28         X         .451         .451         0         %100           52         M28         Z        26        26         0         %100           53         M29         X         .252         .252         0         %100           54         M29         Z        145         .145         0         %100           56         M30         X         .451         .451         0         %100           58         M31         Z	42	M23	Z	- 191	- 191	0	%100
44         M24         Z         -201         -201         0 $\%100$ 45         M25         X         .458         .458         0 $\%100$ 46         M25         Z        264         .264         0 $\%100$ 47         M26         X         .451         0 $\%100$ 48         M26         Z        26         .26         0 $\%100$ 49         M27         X         .252         .252         0 $\%100$ 50         M27         Z        145        145         0 $\%100$ 51         M28         X         .451         .451         0 $\%100$ 53         M29         Z        145         .145         0 $\%100$ 54         M29         Z        145         .0 $\%100$ $\%100$ 55         M30         X         .458         .458         0 $\%100$ 56         M30         Z         .266         .264         0 $\%100$ 56         M31         Z <td>43</td> <td>M24</td> <td>X</td> <td>.348</td> <td>.348</td> <td>0</td> <td>%100</td>	43	M24	X	.348	.348	0	%100
45         M25         X         .458         .458         .458         0 $\%100$ 46         M25         Z        264        264         0 $\%100$ 47         M26         X         .451         451         0 $\%100$ 48         M26         Z        26         .252         0 $\%100$ 49         M27         X         .252         0 $\%100$ 50         M27         Z        145        145         0 $\%100$ 51         M28         X         .451         .451         0 $\%100$ 52         M28         Z        26         .262         0 $\%100$ 53         M29         X         .252         .252         0 $\%100$ 54         M29         Z        145         .4458         0 $\%100$ 56         M30         Z        264         .264         0 $\%100$ 57         M31         X         .331         .331         0 $\%100$ 58         M31<	44	M24	Z	201	201	0	%100
46         M25         Z $-264$ $-224$ 0 $%100$ 47         M26         X         .451         .451         0 $%100$ 48         M26         Z $-266$ .26         0 $%100$ 49         M27         X         .252         .252         0 $%100$ 50         M27         Z        145        145         0 $%100$ 51         M28         X         .451         451         0 $%100$ 52         M28         Z        26         .262         0 $%100$ 53         M29         X         .252         .252         0 $%100$ 54         M29         Z        145         .145         0 $%100$ 56         M30         Z         .266         .264         0 $%100$ 57         M31         X         .451         .451         0 $%100$ 58         M31         Z        26         .26         0 $%100$ 60         M3	45	M25	×	458	458	0	%100
10         100         2         100         100         100           47         M26         Z         -26         -26         0 $\%100$ 48         M27         X         252         .252         0 $\%100$ 50         M27         Z        145        145         0 $\%100$ 51         M28         X         .451         .451         0 $\%100$ 52         M28         Z        26         .26         0 $\%100$ 53         M29         X         .252         .252         0 $\%100$ 54         M29         Z        145        145         0 $\%100$ 55         M30         X         .458         .458         0 $\%100$ 56         M30         Z        264         .264         0 $\%100$ 58         M31         Z        26         .26         0 $\%100$ 60         M32         Z        26         .26         0 $\%100$ 61         M33         X	46	M25	7	- 264	- 264	0	%100
In         Integer         Integer <thinteger< th=""> <thinteger< th=""> <thinteg< td=""><td>47</td><td>M26</td><td>×</td><td>451</td><td>451</td><td>0</td><td>%100</td></thinteg<></thinteger<></thinteger<>	47	M26	×	451	451	0	%100
10         110         120 <th120< th=""> <th120< th=""> <th120< th=""></th120<></th120<></th120<>	48	M26	7	- 26	- 26	0	%100
10         M27         Z $145$ $145$ $0$ $7000$ 51         M28         X $.451$ $.445$ $0$ $\%100$ 52         M28         Z $26$ $26$ $0$ $\%100$ 53         M29         X $.252$ $.252$ $0$ $\%100$ 54         M29         Z $145$ $145$ $0$ $\%100$ 56         M30         X $.458$ $.458$ $0$ $\%100$ 56         M30         Z $264$ $264$ $0$ $\%100$ 58         M31         Z $26$ $26$ $0$ $\%100$ 59         M32         X $.451$ $.451$ $0$ $\%100$ 61         M33         Z $191$ $191$ $0$ $\%100$ 62         M33         Z $191$ $0$ $\%100$ 63         M34         X $.331$ $.331$ $0$ $\%100$	49	M27	×	252	252	0	%100
30 $M2$ $2$ $1100$ $1100$	50	M27	7	- 145	- 145	0	%100
J         M2D         X         -131         -141         0 $\%100$ 52         M28         Z        26        26         0 $\%100$ 53         M29         X         .252         .252         0 $\%100$ 54         M29         Z        145        145         0 $\%100$ 55         M30         X         .458         .458         0 $\%100$ 56         M30         Z        264        264         0 $\%100$ 58         M31         Z        26        26         0 $\%100$ 59         M32         X         .451         .451         0 $\%100$ 60         M32         Z        26        26         0 $\%100$ 61         M33         Z        191        191         0 $\%100$ 62         M33         Z        191        191         0 $\%100$ 63         M34         X         .331         .331         0 $\%100$ 64         M34	51	M28	×	451	451	0	%100
33 $M29$ $X$ $252$ $252$ $0$ $%100$ $54$ $M29$ $Z$ $145$ $145$ $0$ $%100$ $56$ $M30$ $X$ $.458$ $.458$ $0$ $%100$ $56$ $M30$ $Z$ $264$ $264$ $0$ $%100$ $57$ $M31$ $X$ $.451$ $.451$ $0$ $%100$ $59$ $M32$ $X$ $.451$ $.451$ $0$ $%100$ $60$ $M32$ $Z$ $26$ $26$ $0$ $%100$ $61$ $M33$ $Z$ $191$ $191$ $0$ $%100$ $62$ $M33$ $Z$ $191$ $191$ $0$ $%100$ $63$ $M34$ $X$ $.331$ $.331$ $0$ $%100$ $64$ $M34$ $Z$ $191$ $191$ $0$ $%100$ $65$ $M35$ $Z$	52	M28	7	- 26	- 26	0	%100
35         M29         Z        145        145         0         %100           55         M30         X         .458         .458         0         %100           56         M30         Z        264        264         0         %100           57         M31         X         .451         .451         0         %100           58         M31         Z        26        26         0         %100           59         M32         X         .451         .451         0         %100           60         M32         Z        26        26         0         %100           61         M33         X         .331         .331         0         %100           62         M33         Z        191        191         0         %100           63         M34         X         .331         .331         0         %100           64         M34         Z        191        191         0         %100           65         M35         X         .348         .348         0         %100           66         M35         Z <td>53</td> <td>M20</td> <td>X</td> <td>252</td> <td>252</td> <td>0</td> <td>%100</td>	53	M20	X	252	252	0	%100
37 $M23$ $Z$ $-143$ $-264$ $-264$ $-264$ $-264$ $-264$ $-264$ $-264$ $-264$ $-264$ $-266$ $-266$ $-266$ $-266$ $-266$ $-266$ $-266$ $-266$ $-266$ $-266$ $-266$ $-266$ $-266$ $-266$ $-266$ $-266$ $-266$ $-2661$ $-266$ $-2661$ $-191$ $-191$ $-9191$ $-9191$ $-9191$ $-9191$ $-9191$ $-9191$ $-9191$ $-9191$ $-9191$ $-9191$ $-9191$ $-9191$ $-9191$ $-9191$ $-9100$ $-9100$	54	M29	7	- 145	- 145	0	%100
35         M30         Z         -7264         -766         0         %100           56         M30         Z         -264         -264         0         %100           57         M31         X         .451         .451         0         %100           58         M31         Z        26        26         0         %100           59         M32         X         .451         .451         0         %100           60         M32         Z        26         0         %100         %100           61         M33         X         .331         .331         0         %100           62         M33         Z        191        191         0         %100           63         M34         X         .331         .331         0         %100           64         M34         Z        191        191         0         %100           65         M35         X         .348         .348         0         %100           66         M35         Z        264         .264         0         %100           67         M36         Z	55	M20	X	458	458	0	%100
30         M30         Z         1204         1204         0         1000           57         M31         X         451         451         0         9(100)           58         M31         Z        26        26         0         9(100)           60         M32         Z        26        26         0         9(100)           61         M33         X         .331         .331         0         9(100)           62         M33         Z        191        191         0         9(100)           63         M34         X         .331         .331         0         9(100)           64         M34         Z        191        191         0         9(100)           65         M35         X         .348         .348         0         9(100)           66         M35         Z        201         0         9(100)         0           67         M36         X         .458         .458         0         9(100)           67         M36         X         .456         .456         0         9(100)           68         M36	56	M30	7	- 264	- 264	0	%100
37 $373$ $373$ $373$ $373$ $373$ $58$ M31         Z $26$ $26$ $0$ $%100$ $59$ M32         X $.451$ $.451$ $0$ $%100$ $60$ M32         Z $26$ $26$ $0$ $%100$ $61$ M33         X $.331$ $.331$ $0$ $%100$ $62$ M33         Z $191$ $191$ $0$ $%100$ $63$ M34         X $.331$ $.331$ $0$ $%100$ $64$ M34         Z $191$ $191$ $0$ $%100$ $65$ M35         X $.348$ $.348$ $0$ $%100$ $66$ M35         Z $201$ $0$ $%100$ $67$ M36         X $.458$ $0$ $%100$ $68$ M36         Z $264$ $.264$ $0$ $%100$	57	M31	<u> </u>	451	451	0	%100
30         MS1 $Z$ $A50$ $A20$ $O$ $A100$ 60         M32         X $A51$ $A51$ $0$ $\%100$ 61         M33         X $.331$ $.331$ $0$ $\%100$ 62         M33         Z $191$ $191$ $0$ $\%100$ 63         M34         X $.331$ $.331$ $0$ $\%100$ 64         M34         Z $191$ $191$ $0$ $\%100$ 65         M35         X $.348$ $.348$ $0$ $\%100$ 66         M35         Z $201$ $201$ $0$ $\%100$ 67         M36         X $.458$ $.458$ $0$ $\%100$ 68         M36         Z $264$ $264$ $0$ $\%100$ 70         MP4A         X $.456$ $.456$ $0$ $\%100$ 71         MP3A         Z $263$ $263$ $0$	58	M31	7	- 26	- 26	0	%100
35         M32         X         .401         .401         .401         .401         .401         .401         .401         .401         .401         .401         .401         .401         .401         .401         .401         .401         .401         .401         .4010 <th.2010< th="">         .4100         .410</th.2010<>	59	M32	X	451	451	0	%100
100 $1100$ $1100$ $1100$ $1100$ 61       M33       X       .331       .331       0 $1000$ 62       M33       Z      191      191       0 $1000$ 63       M34       X       .331       .331       0 $1000$ 64       M34       Z      191      191       0 $1000$ 65       M35       X       .348       .348       0 $1000$ 66       M35       Z      201       .201       0 $1000$ 67       M36       X       .458       .458       0 $1000$ 68       M36       Z      264      264       0 $1000$ 69       MP4A       X       .456       .456       0 $1000$ 70       MP4A       Z      263      263       0 $1000$ 71       MP3A       X       .456       .456       0 $1000$ 71       MP3A       Z      263      263       0 $1000$ 74       MP2A       Z	60	M32	7	- 26	- 26	0	%100
61         M63         X	61	M33	×	331	331	0	%100
02         M03         Z         -1131         -1131         0         //1100           63         M34         X         .331         .331         0         %100           64         M34         Z        191        191         0         %100           65         M35         X         .348         .348         0         %100           66         M35         Z        201        201         0         %100           67         M36         X         .458         .458         0         %100           68         M36         Z        264        264         0         %100           69         MP4A         X         .456         .456         0         %100           70         MP4A         Z        263        263         0         %100           71         MP3A         Z        263         0         %100         7           71         MP3A         Z        263         0         %100         7           72         MP3A         Z        263         0         %100         7           73         MP2A         Z<	62	M33	7	_ 101	_ 101	0	%100
64         M34         Z        191         .301         0         %100           65         M35         X         .348         .348         0         %100           66         M35         Z        201        201         0         %100           66         M35         Z        201        201         0         %100           67         M36         X         .458         .458         0         %100           68         M36         Z        264        264         0         %100           69         MP4A         X         .456         .456         0         %100           70         MP4A         Z        263         .263         0         %100           71         MP3A         Z        263         .263         0         %100           73         MP2A         Z        263        263         0         %100           74         MP2A         Z        263        263         0         %100           75         MP1A         X         .456         .456         0         %100           76         MP1A	63	M34	×	331	331	0	%100
04         M34 $2$ $-1.131$ $-1.131$ $0$ $7.100$ $65$ M35         X         .348         .348         0         %100 $66$ M35         Z         .201         .201         0         %100 $67$ M36         X         .458         .458         0         %100 $67$ M36         Z         .264         .264         0         %100 $68$ M36         Z         .263         .456         0         %100 $69$ MP4A         X         .456         .456         0         %100 $70$ MP4A         Z        263         .263         0         %100 $71$ MP3A         Z        263         .263         0         %100 $72$ MP3A         Z        263         .263         0         %100 $74$ MP2A         Z        263         .263         0         %100 $75$ MP1A         X         .456         .456         0         %100 $76$ <	64	M34	7	_ 101	_ 101	0	%100
66         M35         Z        201         .040         %100           67         M36         X         .458         .458         0         %100           68         M36         Z        264         .264         0         %100           69         MP4A         X         .456         .456         0         %100           70         MP4A         Z        263         .263         0         %100           71         MP3A         Z        263         .263         0         %100           71         MP3A         Z        263         .263         0         %100           72         MP3A         Z        263         .263         0         %100           73         MP2A         X         .456         .456         0         %100           74         MP2A         Z        263         .263         0         %100           75         MP1A         X         .456         .456         0         %100           76         MP1A         Z        263         .263         0         %100           78         EQUIP         Z	65	M35	×	348	348	0	%100
00         M35         Z         -201         -201         0         7100           67         M36         X         .458         .458         0         %100           68         M36         Z         -264         -264         0         %100           69         MP4A         X         .456         .456         0         %100           70         MP4A         Z         -263         -263         0         %100           71         MP3A         X         .456         .456         0         %100           72         MP3A         Z         -263         -263         0         %100           73         MP2A         X         .456         .456         0         %100           74         MP2A         Z         -263         -263         0         %100           75         MP1A         X         .456         .456         0         %100           76         MP1A         Z         -263         -263         0         %100           76         MP1A         Z         -263         -263         0         %100           78         EQUIP         X </td <td>66</td> <td>M35</td> <td>7</td> <td>- 201</td> <td>- 201</td> <td>0</td> <td>%100</td>	66	M35	7	- 201	- 201	0	%100
of         M30         X         .400         .400         .400         .600           68         M36         Z        264        264         0         %100           69         MP4A         X         .456         .456         0         %100           70         MP4A         Z        263        263         0         %100           71         MP3A         X         .456         .456         0         %100           72         MP3A         Z        263        263         0         %100           73         MP2A         X         .456         .456         0         %100           74         MP2A         Z        263        263         0         %100           75         MP1A         X         .456         .456         0         %100           76         MP1A         Z        263        263         0         %100           77         EQUIP         X         .717         .717         0         %100           78         EQUIP         Z        414         .414         0         %100           80         M51	67	M36	X	458	458	0	%100
OC         MBO         Z         -204         -204         O         700         700         MP4A         X         .456         .456         0         %100	68	M36	7	- 264	- 264	0	%100
OS         MI 4A         X         .400         .400         0         700         700         MP4A         Z         .263         .263         0         %100	69	MP4A	×	456	456	0	%100
10         MILTY         Z         -203         -203         0         %100           71         MP3A         X         .456         .456         0         %100           72         MP3A         Z        263        263         0         %100           73         MP2A         X         .456         .456         0         %100           74         MP2A         Z        263        263         0         %100           75         MP1A         X         .456         .456         0         %100           76         MP1A         Z        263        263         0         %100           76         MP1A         Z        263        263         0         %100           77         EQUIP         X         .717         .717         0         %100           78         EQUIP         Z        414        414         0         %100           79         M51         X         .717         .717         0         %100           80         M51         Z        414         .414         0         %100           81         M55A	70	MP4A	7	- 263	- 263	0	%100
T1       MI 07A       X       .450       .450       0       %100         72       MP3A       Z      263      263       0       %100         73       MP2A       X       .456       .456       0       %100         74       MP2A       Z      263      263       0       %100         75       MP1A       X       .456       .456       0       %100         76       MP1A       Z      263      263       0       %100         76       MP1A       Z      263      263       0       %100         77       EQUIP       X       .717       .717       0       %100         78       EQUIP       Z      414      414       0       %100         79       M51       X       .717       .717       0       %100         80       M51       Z      414      414       0       %100         81       M55A       X       .116       .116       .027       .027	71	MP3A	×	456	456	0	%100
T2         Inflor         Z        203        203         0         %100           73         MP2A         X         .456         .456         0         %100           74         MP2A         Z        263        263         0         %100           75         MP1A         X         .456         .456         0         %100           76         MP1A         Z        263        263         0         %100           77         EQUIP         X         .717         .717         0         %100           78         EQUIP         Z        414        414         0         %100           79         M51         X         .717         .717         0         %100           80         M51         Z        414         .414         0         %100           81         M55A         X         .116         .116         0         %100	72	MP3A	7	- 263	- 263	0	%100
74         MP2A         Z        263        263         0         %100           75         MP1A         X         .456         .456         0         %100           76         MP1A         Z        263         .263         0         %100           76         MP1A         Z        263         .263         0         %100           77         EQUIP         X         .717         .717         0         %100           78         EQUIP         Z        414        414         0         %100           79         M51         X         .717         .717         0         %100           80         M51         Z        414        414         0         %100           81         M55A         X         .717         .717         0         %100	73	MP2A	×	456	456	0	%100
Triangle	74	MP2A	7	- 263	- 263	0	%100
13         MILTA         X         .430         .430         0         %100           76         MP1A         Z        263        263         0         %100           77         EQUIP         X         .717         .717         0         %100           78         EQUIP         Z        414        414         0         %100           79         M51         X         .717         .717         0         %100           80         M51         Z        414        414         0         %100           81         M55A         X         .116         .116         0         %100	75	MP1A	X	456	456	0	%100
TO         Imit FA         Z        203        203         0         %100           77         EQUIP         X         .717         .717         0         %100           78         EQUIP         Z        414        414         0         %100           79         M51         X         .717         .717         0         %100           80         M51         Z        414        414         0         %100           81         M55A         X         .116         .116         0         %100	76	MP1A	7	- 263	- 263	0	%100
78         EQUIP         Z        414        414         0         %100           79         M51         X         .717         .717         0         %100           80         M51         Z        414        414         0         %100           81         M55A         X         .116         .116         0         %100	77	FOLIP	×	717	717	0	%100
79         M51         X         .717         .717         0         %100           80         M51         Z        414        414         0         %100           81         M55A         X         .116         .116         0         %100	78	FOUR	7	_ 414	_ 414	0	%100
NS1         X            0         %100           80         M51         Z        414        414         0         %100           81         M55A         X         .116         .116         0         %100	70	M51	X	717	717	0	%100
81         M55A         X         .116         0         %100           00         M55A         X         .116         0         %100	80	M51	7	- 414	- 414	0	%100
	81	M554	×	116	116	0	%100
187 M55A Z - 067 - 067 0 %100	82	M55A	7	- 067	- 067	0	%100

#### Member Distributed Loads (BLC 68 : Structure Wm (90 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,	.End Magnitude[lb/ft,	Start Location[ft,%]	End Location[ft,%]
1	M1	Х	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M3	Х	0	0	0	%100
4	M3	Z	0	0	0	%100
5	M5	X	.042	.042	0	%100



# Member Distributed Loads (BLC 68 : Structure Wm (90 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,	End Magnitude[lb/ft,	Start Location[ft,%]	End Location[ft,%]
6	<u>M5</u>	Ζ	0	0	0	%100
/	IVI0	<u> </u>	.042	.042	0	%100
0			0	0	0	%100
9	N17	~ 7	0	0	0	%100
10	IVI /		055	055	0	%100
12	Mg	7	.033	.033	0	%100
12	MQ	Z V	035	035	0	%100
14	MQ	7	0.000	.035	0	%100
15	M10	X	0	0	0	%100
16	M10	7	0	0	0	%100
17	M10	X	268	268	0	%100
18	M11	7	0	0	0	%100
19	M12	x	.268	.268	0	%100
20	M12	7	0	0	0	%100
21	M13	x	.268	.268	0	%100
22	M13	Z	0	0	0	%100
23	M14	X	.268	.268	0	%100
24	M14	Z	0	0	0	%100
25	M15	x	.665	.665	0	%100
26	M15	Z	0	0	0	%100
27	M16	X	.352	.352	0	%100
28	M16	Z	0	0	0	%100
29	M17	Х	.665	.665	0	%100
30	M17	Z	0	0	0	%100
31	M18	Х	.352	.352	0	%100
32	M18	Z	0	0	0	%100
33	M19	X	.665	.665	0	%100
34	M19	Z	0	0	0	%100
35	M20	X	.665	.665	0	%100
36	M20	Z	0	0	0	%100
37	M21	X	.665	.665	0	%100
38	M21	Z	0	0	0	%100
39	M22	X	.382	.382	0	%100
40	M22	Z	0	0	0	%100
41	M23	X	.382	.382	0	%100
42	M23	Z	0	0	0	%100
43	<u>M24</u>	X	.402	.402	0	%100
44	M24	<u> </u>	0	0	0	%100
45	M25	X	.665	.665	0	%100
46	M25	<u> </u>	0	0	0	%100
47	IVI20	X 7	.000.	.000	0	%100
48			250	0	0	%100
49		X 7	.352	.352	0	% 100
50			665	665	0	%100
51	IVIZO M29	7	.000	.005	0	%100
52	M20	Z Y	352	352	0	%100
54	M20	7	0		0	%100
55	M30	X	665	665	0	%100
56	M30	7			0	%100
57	M31	X	665	665	0	%100
58	M31	7	0	0	0	%100
59	M32	x	665	665	0	%100
60	M32	7	0	0	0	%100
61	M33	x	.382	.382	0	%100
62	M33	Z	0	0	0	%100
63	M34	x	.382	.382	0	%100
64	M34	7	0	0	0	%100
V-1		-		<b>v</b>	<b>v</b>	70100

# Member Distributed Loads (BLC 68 : Structure Wm (90 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,	.End Magnitude[lb/ft,	Start Location[ft,%]	End Location[ft,%]
65	M35	Х	.402	.402	0	%100
66	M35	Z	0	0	0	%100
67	M36	Х	.665	.665	0	%100
68	M36	Z	0	0	0	%100
69	MP4A	Х	.527	.527	0	%100
70	MP4A	Z	0	0	0	%100
71	MP3A	Х	.527	.527	0	%100
72	MP3A	Z	0	0	0	%100
73	MP2A	Х	.527	.527	0	%100
74	MP2A	Z	0	0	0	%100
75	MP1A	Х	.527	.527	0	%100
76	MP1A	Z	0	0	0	%100
77	EQUIP	Х	.828	.828	0	%100
78	EQUIP	Z	0	0	0	%100
79	M51	Х	.828	.828	0	%100
80	M51	Z	0	0	0	%100
81	M55A	X	.397	.397	0	%100
82	M55A	Z	0	0	0	%100

# Member Distributed Loads (BLC 69 : Structure Wm (120 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,	End Magnitude[lb/ft	Start Location[ft,%]	End Location[ft,%]
1	M1	X	.144	.144	0	%100
2	M1	Z	.083	.083	0	%100
3	M3	Х	.144	.144	0	%100
4	M3	Z	.083	.083	0	%100
5	M5	Х	.068	.068	0	%100
6	M5	Z	.039	.039	0	%100
7	M6	X	.005	.005	0	%100
8	M6	Z	.003	.003	0	%100
9	M7	Х	.138	.138	0	%100
10	M7	Z	.08	.08	0	%100
11	M8	X	.071	.071	0	%100
12	M8	Z	.041	.041	0	%100
13	M9	X	.002	.002	0	%100
14	M9	Z	.001	.001	0	%100
15	M10	X	.138	.138	0	%100
16	M10	Z	.08	.08	0	%100
17	M11	X	.428	.428	0	%100
18	M11	Z	.247	.247	0	%100
19	M12	Х	.033	.033	0	%100
20	M12	Z	.019	.019	0	%100
21	M13	Х	.428	.428	0	%100
22	M13	Z	.247	.247	0	%100
23	M14	X	.033	.033	0	%100
24	M14	Z	.019	.019	0	%100
25	M15	Х	.451	.451	0	%100
26	M15	Z	.26	.26	0	%100
27	M16	X	.252	.252	0	%100
28	M16	Z	.145	.145	0	%100
29	M17	X	.451	.451	0	%100
30	M17	Z	.26	.26	0	%100
31	M18	Х	.252	.252	0	%100
32	M18	Z	.145	.145	0	%100
33	M19	X	.458	.458	0	%100
34	M19	Z	.264	.264	0	%100
35	M20	Х	.451	.451	0	%100
36	M20	Z	.26	.26	0	%100
37	M21	X	.451	.451	0	%100



## Member Distributed Loads (BLC 69 : Structure Wm (120 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,	.End Magnitude[lb/ft,	Start Location[ft,%]	End Location[ft,%]
38	M21	Z	.26	.26	0	%100
39	M22	Х	.331	.331	0	%100
40	M22	Z	.191	.191	0	%100
41	M23	Х	.331	.331	0	%100
42	M23	Z	.191	.191	0	%100
43	M24	Х	.348	.348	0	%100
44	M24	Z	.201	.201	0	%100
45	M25	Х	.458	.458	0	%100
46	M25	Z	.264	.264	0	%100
47	M26	Х	.451	.451	0	%100
48	M26	Z	.26	.26	0	%100
49	M27	Х	.357	.357	0	%100
50	M27	Z	.206	.206	0	%100
51	M28	Х	.451	.451	0	%100
52	M28	Z	.26	.26	0	%100
53	M29	Х	.357	.357	0	%100
54	M29	Z	.206	.206	0	%100
55	M30	Х	.458	.458	0	%100
56	M30	Z	.264	.264	0	%100
57	M31	Х	.451	.451	0	%100
58	M31	Z	.26	.26	0	%100
59	M32	Х	.451	.451	0	%100
60	M32	Z	.26	.26	0	%100
61	M33	Х	.331	.331	0	%100
62	M33	Z	.191	.191	0	%100
63	M34	Х	.331	.331	0	%100
64	M34	Z	.191	.191	0	%100
65	M35	Х	.348	.348	0	%100
66	M35	Z	.201	.201	0	%100
67	M36	Х	.458	.458	0	%100
68	M36	Z	.264	.264	0	%100
69	MP4A	Х	.456	.456	0	%100
70	MP4A	Z	.263	.263	0	%100
71	MP3A	Х	.456	.456	0	%100
72	MP3A	Z	.263	.263	0	%100
73	MP2A	X	.456	.456	0	%100
74	MP2A	Z	.263	.263	0	%100
75	MP1A	X	.456	.456	0	%100
76	MP1A	Z	.263	.263	0	%100
77	EQUIP	Х	.717	.717	0	%100
78	EQUIP	Z	.414	.414	0	%100
79	M51	X	.717	.717	0	%100
80	M51	Z	.414	.414	0	%100
81	M55A	Х	.456	.456	0	%100
82	M55A	Z	.263	.263	0	%100

# Member Distributed Loads (BLC 70 : Structure Wm (150 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,	.End Magnitude[lb/ft,	Start Location[ft,%]	End Location[ft,%]
1	M1	Х	.249	.249	0	%100
2	M1	Z	.432	.432	0	%100
3	M3	Х	.249	.249	0	%100
4	M3	Z	.432	.432	0	%100
5	M5	Х	.039	.039	0	%100
6	M5	Z	.067	.067	0	%100
7	M6	Х	.003	.003	0	%100
8	M6	Z	.004	.004	0	%100
9	M7	Х	.239	.239	0	%100
10	M7	Z	.414	.414	0	%100



# Member Distributed Loads (BLC 70 : Structure Wm (150 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,	End Magnitude[lb/ft,	Start Location[ft,%]	End Location[ft,%]
11	<u>M8</u>	X	.034	.034	0	%100
12	<u>M8</u>	<u> </u>	.06	.06	0	%100
13	M9	X	.005	.005	0	%100
14	M9	<u> </u>	.008	.008	0	%100
15	M10	X	.239	.239	0	%100
16	M10		.414	.414	0	%100
17	<u>M11</u>	X	.244	.244	0	%100
18	M11	Z	.423	.423	0	%100
19	M12	X	.016	.016	0	%100
20	M12	<u> </u>	.028	.028	0	%100
21	M13	X	.244	.244	0	%100
22	M13	Ζ	.423	.423	0	%100
23	M14	X	.016	.016	0	%100
24	M14	Ζ	.028	.028	0	%100
25	M15	X	.116	.116	0	%100
26	M15	Ζ	.201	.201	0	%100
27	M16	X	.145	.145	0	%100
28	M16	<u> </u>	.251	.251	0	%100
29	M17	X	.116	.116	0	%100
30	M17	<u> </u>	.201	.201	0	%100
31	IVI18	X 7	.145	.145	0	%100
32	M18	<u> </u>	.251	.251	0	%100
33	M19	7	.127	.127	0	%100
34	M19		.221	.221	0	%100
30	M20	7	.110	.110	0	%100
27	M21		.201	.201	0	%100
20	M21	~ 7	201	201	0	%100
30	M22	X	101	.201	0	%100
40	M22	7	231	331	0	%100
40	M23	×	191	101	0	%100
42	M23	7	331	331	0	%100
43	M20	X	201	201	0	%100
44	M24	7	348	348	0	%100
45	M25	X	.127	.127	0	%100
46	M25	Z	.221	.221	0	%100
47	M26	×	.116	.116	0	%100
48	M26	Z	.201	.201	0	%100
49	M27	Х	.206	.206	0	%100
50	M27	Z	.356	.356	0	%100
51	M28	Х	.116	.116	0	%100
52	M28	Z	.201	.201	0	%100
53	M29	X	.206	.206	0	%100
54	M29	Z	.356	.356	0	%100
55	M30	X	.127	.127	0	%100
56	M30	Z	.221	.221	0	%100
57	M31	X	.116	.116	0	%100
58	M31	Z	.201	.201	0	%100
59	M32	X	.116	.116	0	%100
60	M32	Z	.201	.201	0	%100
61	M33	X	.191	.191	0	%100
62	M33	Z	.331	.331	0	%100
63	M34	X	.191	.191	0	%100
64	M34	Z	.331	.331	0	%100
65	M35	X	.201	.201	0	%100
66	M35	Z	.348	.348	0	%100
67	M36	X	.127	.127	0	%100
68	M36	Z	.221	.221	0	%100
69	MP4A	<u> </u>	.263	.263	0	<u> </u>

# Member Distributed Loads (BLC 70 : Structure Wm (150 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,	.End Magnitude[lb/ft,	Start Location[ft,%]	End Location[ft,%]
70	MP4A	Z	.456	.456	0	%100
71	MP3A	X	.263	.263	0	%100
72	MP3A	Z	.456	.456	0	%100
73	MP2A	X	.263	.263	0	%100
74	MP2A	Z	.456	.456	0	%100
75	MP1A	X	.263	.263	0	%100
76	MP1A	Z	.456	.456	0	%100
77	EQUIP	X	.414	.414	0	%100
78	EQUIP	Z	.717	.717	0	%100
79	M51	X	.414	.414	0	%100
80	M51	Z	.717	.717	0	%100
81	M55A	X	.196	.196	0	%100
82	M55A	Z	.34	.34	0	%100

# Member Distributed Loads (BLC 71 : Structure Wm (180 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,	.End Magnitude[lb/ft,	Start Location[ft,%]	End Location[ft,%]
1	M1	Х	0	0	0	%100
2	M1	Z	.665	.665	0	%100
3	M3	Х	0	0	0	%100
4	M3	Z	.665	.665	0	%100
5	M5	Х	0	0	0	%100
6	M5	Z	.041	.041	0	%100
7	M6	Х	0	0	0	%100
8	M6	Z	.041	.041	0	%100
9	M7	Х	0	0	0	%100
10	M7	Z	.638	.638	0	%100
11	M8	Х	0	0	0	%100
12	M8	Z	.028	.028	0	%100
13	M9	Х	0	0	0	%100
14	M9	Z	.049	.049	0	%100
15	M10	Х	0	0	0	%100
16	M10	Z	.638	.638	0	%100
17	M11	Х	0	0	0	%100
18	M11	Z	.258	.258	0	%100
19	M12	Х	0	0	0	%100
20	M12	Z	.258	.258	0	%100
21	M13	Х	0	0	0	%100
22	M13	Z	.258	.258	0	%100
23	M14	Х	0	0	0	%100
24	M14	Z	.258	.258	0	%100
25	M15	Х	0	0	0	%100
26	M15	Z	.088	.088	0	%100
27	M16	Х	0	0	0	%100
28	M16	Z	.35	.35	0	%100
29	M17	Х	0	0	0	%100
30	M17	Z	.088	.088	0	%100
31	M18	Х	0	0	0	%100
32	M18	Z	.35	.35	0	%100
33	M19	Х	0	0	0	%100
34	M19	Z	.118	.118	0	%100
35	M20	X	0	0	0	%100
36	M20	Z	.088	.088	0	%100
37	M21	X	0	0	0	%100
38	M21	Z	.088	.088	0	%100
39	M22	Х	0	0	0	%100
40	M22	Z	.382	.382	0	%100
41	M23	Х	0	0	0	%100
42	M23	Z	.382	.382	0	%100

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# Member Distributed Loads (BLC 71 : Structure Wm (180 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,.	End Magnitude[lb/ft,	Start Location[ft,%]	End Location[ft,%]
43	M24	Х	0	0	0	%100
44	M24	Z	.402	.402	0	%100
45	M25	Х	0	0	0	%100
46	M25	Z	.118	.118	0	%100
47	M26	Х	0	0	0	%100
48	M26	Z	.088	.088	0	%100
49	M27	Х	0	0	0	%100
50	M27	Z	.35	.35	0	%100
51	M28	Х	0	0	0	%100
52	M28	Z	.088	.088	0	%100
53	M29	Х	0	0	0	%100
54	M29	Z	.35	.35	0	%100
55	M30	Х	0	0	0	%100
56	M30	Z	.118	.118	0	%100
57	M31	Х	0	0	0	%100
58	M31	Z	.088	.088	0	%100
59	M32	Х	0	0	0	%100
60	M32	Z	.088	.088	0	%100
61	M33	Х	0	0	0	%100
62	M33	Z	.382	.382	0	%100
63	M34	Х	0	0	0	%100
64	M34	Z	.382	.382	0	%100
65	M35	Х	0	0	0	%100
66	M35	Z	.402	.402	0	%100
67	M36	Х	0	0	0	%100
68	M36	Z	.118	.118	0	%100
69	MP4A	Х	0	0	0	%100
70	MP4A	Z	.527	.527	0	%100
71	MP3A	Х	0	0	0	%100
72	MP3A	Z	.527	.527	0	%100
73	MP2A	Х	0	0	0	%100
74	MP2A	Z	.527	.527	0	%100
75	MP1A	Х	0	0	0	%100
76	MP1A	Z	.527	.527	0	%100
77	EQUIP	Х	0	0	0	%100
78	EQUIP	Z	.828	.828	0	%100
79	M51	X	0	0	0	%100
80	M51	Z	.828	.828	0	%100
81	M55A	X	0	0	0	%100
82	M55A	Z	.129	.129	0	%100

# Member Distributed Loads (BLC 72 : Structure Wm (210 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,	.End Magnitude[lb/ft,	Start Location[ft,%]	End Location[ft,%]
1	M1	X	249	249	0	%100
2	M1	Z	.432	.432	0	%100
3	M3	Х	249	249	0	%100
4	M3	Z	.432	.432	0	%100
5	M5	X	003	003	0	%100
6	M5	Z	.004	.004	0	%100
7	M6	Х	039	039	0	%100
8	M6	Z	.067	.067	0	%100
9	M7	Х	239	239	0	%100
10	M7	Z	.414	.414	0	%100
11	M8	Х	0004	0004	0	%100
12	M8	Z	.000692	.000692	0	%100
13	M9	Х	04	04	0	%100
14	M9	Z	.07	.07	0	%100
15	M10	Х	239	239	0	%100



# Member Distributed Loads (BLC 72 : Structure Wm (210 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,	End Magnitude[lb/ft,	Start Location[ft,%]	End Location[ft,%]
16	<u>M10</u>	Ζ	.414	.414	0	<u>%100</u>
1/	<u>M11</u>	X	016	016	0	%100
18	M11 M40	<u> </u>	.028	.028	0	%100
19	<u>M12</u>	<u> </u>	244	244	0	%100
20	M12	<u> </u>	.423	.423	0	%100
21	M13	X 7	016	016	0	%100
22	M13	Ζ	.028	.028	0	%100
23	<u>M14</u>	X	244	244	0	%100
24	M14	Ζ	.423	.423	0	%100
25	M15	X 7	116	116	0	%100
26	M15	<u> </u>	.201	.201	0	%100
27	M16	X	206	206	0	%100
28	M16	Ζ	.356	.356	0	%100
29	<u>M17</u>	X	116	116	0	%100
30	<u>M17</u>	<u> </u>	.201	.201	0	%100
31	<u>M18</u>	X	206	206	0	%100
32	<u>M18</u>	<u> </u>	.356	.356	0	%100
33	<u>M19</u>	X	127	127	0	%100
34	<u>M19</u>	Z	.221	.221	0	%100
35	<u>M20</u>	X	116	116	0	%100
36	M20	Z	.201	.201	0	%100
37	<u>M21</u>	X	116	116	0	%100
38	M21	Z	.201	.201	0	%100
39	M22	X	191	191	0	%100
40	M22	Z	.331	.331	0	%100
41	M23	X	191	191	0	%100
42	M23	Z	.331	.331	0	%100
43	M24	X	201	201	0	%100
44	M24	Z	.348	.348	0	%100
45	M25	X	127	127	0	%100
46	M25	Z	.221	.221	0	%100
47	M26	X	116	116	0	%100
48	M26	Z	.201	.201	0	%100
49	M27	X	145	145	0	%100
50	M27	Z	.251	.251	0	%100
51	M28	X	116	116	0	%100
52	M28	Z	.201	.201	0	%100
53	M29	X	145	145	0	%100
54	M29	Z	.251	.251	0	%100
55	M30	X	127	127	0	%100
56	M30	Z	.221	.221	0	%100
57	M31	<u> </u>	116	116	0	%100
58	M31	Z	.201	.201	0	%100
59	M32	<u> </u>	116	116	0	%100
60	M32	Z	.201	.201	0	%100
61	M33	X	191	191	0	%100
62	M33	Z	.331	.331	0	%100
63	M34	X	191	191	0	%100
64	M34	Z	.331	.331	0	%100
65	M35	X	201	201	0	%100
66	M35	Z	.348	.348	0	%100
67	M36	X	127	127	0	%100
68	M36	Z	.221	.221	0	%100
69	MP4A	X	263	263	0	%100
70	MP4A	Z	.456	.456	0	%100
71	MP3A	X	263	263	0	%100
72	MP3A	Z	.456	.456	0	%100
73	MP2A	X	263	263	0	%100
74	MP2A	Z	.456	.456	0	%100

# Member Distributed Loads (BLC 72 : Structure Wm (210 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,	.End Magnitude[lb/ft,	Start Location[ft,%]	End Location[ft,%]
75	MP1A	X	263	263	0	%100
76	MP1A	Z	.456	.456	0	%100
77	EQUIP	X	414	414	0	%100
78	EQUIP	Z	.717	.717	0	%100
79	M51	X	414	414	0	%100
80	M51	Z	.717	.717	0	%100
81	M55A	X	-7e-6	-7e-6	0	%100
82	M55A	Z	1.2e-5	1.2e-5	0	%100

# Member Distributed Loads (BLC 73 : Structure Wm (240 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,.	End Magnitude[lb/ft,	Start Location[ft,%]	End Location[ft,%]
1	M1	Х	144	144	0	%100
2	M1	Z	.083	.083	0	%100
3	M3	Х	144	144	0	%100
4	M3	Z	.083	.083	0	%100
5	M5	Х	005	005	0	%100
6	M5	Z	.003	.003	0	%100
7	M6	Х	068	068	0	%100
8	M6	7	.039	.039	0	%100
9	M7	×	- 138	- 138	0	%100
10	M7	7	.08	.08	0	%100
11	M8	X	- 012	- 012	0	%100
12	M8	7	007	007	0	%100
13	M9	×	- 064	- 064	0	%100
14	M9	7	037	037	0	%100
15	M10	×	- 138	- 138	0	%100
16	M10	7	08	08	0	%100
17	M10	×	- 033	- 033	0	%100
18	M11	7	019	019	0	%100
10	M12	<u> </u>	.013	- 428	0	%100
20	M12	7	420	420	0	%100
20	M12	2 V	.247	.247	0	%100
21	M12	~ 7	035	035	0	%100
22	N113	 	.019	.019	0	%100
23	N14	~ 7	420	420	0	%100
24	N14	<u> </u>	.247	.247	0	%100
20	IVI ID	~ 7	451	401	0	%100
20	M15	<u> </u>	.20	.20	0	%100
21	MIG	× 7	357	357	0	%100
28	M16	Ζ	.206	.206	0	%100
29	M17	X	451	451	0	%100
30	M17		.26	.26	0	%100
31	M18	X	357	357	0	%100
32	M18		.206	.206	0	%100
33	M19	X	458	458	0	%100
34	M19	Z	.264	.264	0	%100
35	M20	X	451	451	0	%100
36	M20	Z	.26	.26	0	%100
37	M21	X	451	451	0	%100
38	M21	Z	.26	.26	0	%100
39	M22	X	331	331	0	%100
40	M22	Z	.191	.191	0	%100
41	M23	X	331	331	0	%100
42	M23	Z	.191	.191	0	%100
43	M24	X	348	348	0	%100
44	M24	Z	.201	.201	0	%100
45	M25	Х	458	458	0	%100
46	M25	Z	.264	.264	0	%100
47	M26	Х	451	451	0	%100

# Member Distributed Loads (BLC 73 : Structure Wm (240 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,	End Magnitude[lb/ft,	Start Location[ft,%]	End Location[ft,%]
48	M26	Z	.26	.26	0	%100
49	M27	Х	252	252	0	%100
50	M27	Z	.145	.145	0	%100
51	M28	Х	451	451	0	%100
52	M28	Z	.26	.26	0	%100
53	M29	Х	252	252	0	%100
54	M29	Z	.145	.145	0	%100
55	M30	Х	458	458	0	%100
56	M30	Z	.264	.264	0	%100
57	M31	Х	451	451	0	%100
58	M31	Z	.26	.26	0	%100
59	M32	Х	451	451	0	%100
60	M32	Z	.26	.26	0	%100
61	M33	Х	331	331	0	%100
62	M33	Z	.191	.191	0	%100
63	M34	Х	331	331	0	%100
64	M34	Z	.191	.191	0	%100
65	M35	Х	348	348	0	%100
66	M35	Z	.201	.201	0	%100
67	M36	Х	458	458	0	%100
68	M36	Z	.264	.264	0	%100
69	MP4A	Х	456	456	0	%100
70	MP4A	Z	.263	.263	0	%100
71	MP3A	Х	456	456	0	%100
72	MP3A	Z	.263	.263	0	%100
73	MP2A	Х	456	456	0	%100
74	MP2A	Z	.263	.263	0	%100
75	MP1A	Х	456	456	0	%100
76	MP1A	Z	.263	.263	0	%100
77	EQUIP	Х	717	717	0	%100
78	EQUIP	Z	.414	.414	0	%100
79	M51	Х	717	717	0	%100
80	M51	Z	.414	.414	0	%100
81	M55A	Х	116	116	0	%100
82	M55A	Z	.067	.067	0	%100

#### Member Distributed Loads (BLC 74 : Structure Wm (270 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,	End Magnitude[lb/ft,	Start Location[ft,%]	End Location[ft,%]
1	M1	Х	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M3	Х	0	0	0	%100
4	M3	Z	0	0	0	%100
5	M5	Х	042	042	0	%100
6	M5	Z	0	0	0	%100
7	M6	Х	042	042	0	%100
8	M6	Z	0	0	0	%100
9	M7	X	0	0	0	%100
10	M7	Z	0	0	0	%100
11	M8	Х	055	055	0	%100
12	M8	Z	0	0	0	%100
13	M9	Х	035	035	0	%100
14	M9	Z	0	0	0	%100
15	M10	Х	0	0	0	%100
16	M10	Z	0	0	0	%100
17	M11	X	268	268	0	%100
18	M11	Z	0	0	0	%100
19	M12	X	268	268	0	%100
20	M12	Ż	0	0	0	%100

# Member Distributed Loads (BLC 74 : Structure Wm (270 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,	.End Magnitude[lb/ft,	Start Location[ft,%]	End Location[ft,%]
21	M13	X	268	268	0	%100
22	M13	Z	0	0	0	%100
23	M14	X 7	268	268	0	%100
24	M14	Ζ	0	0	0	%100
25	M15	X	665	665	0	%100
26	M15	Ζ	0	0	0	%100
27	M16	X 7	352	352	0	%100
28	N10	<u> </u>	0	0	0	%100
29		7	000	000	0	%100
30	IVI 17		250	252	0	%100
31		~ 7	352	352	0	%100
32	M10		665	665	0	<sup>76100</sup>
24	M10	~ 7	005	005	0	%100
34	M20		665	665	0	%100
30	M20	~ 7	000	000	0	%100
27	M21		0	665	0	<sup>76</sup> 100
37	IVIZ I	~ 7	000	000	0	%100
30	M22		0	202	0	<sup>7</sup> / <sub>0</sub> 100
39	M22	7	302	302	0	%100
40	M22		0	0	0	%100
41	M23	X 7	382	382	0	%100
42	IVIZ3		402	102	0	%100
43	N24	~ 7	402	402	0	<sup>7</sup> 0100
44	IVIZ4		0	665	0	%100
40	IVIZO MOS	<u> </u>	000	000	0	%100
40	M26		665	665	0	%100 9/ 100
47	M26	~ 7	005	005	0	%100
40	M27	Z V	252	252	0	%100
49		~ 7	352	352	0	%100
50	M29	Z X	665	665	0	%100
52	M28	7	003	005	0	%100
53	M20	X	- 352	- 352	0	%100
54	M29	7	332	352	0	%100
55	M20	×	- 665	- 665	0	%100
56	M30	7	003	003	0	%100
57	M30	X	- 665	- 665	0	%100
58	M31	7	.000	0.000	0	%100
59	M32	X	- 665	- 665	0	%100
60	M32	7	.000	0.000	0	%100
61	M33	X	- 382	- 382	0	%100
62	M33	7	0	0	0	%100
63	M34	×	- 382	- 382	0	%100
64	M34	7	0	0	0	%100
65	M35	x	- 402	- 402	0	%100
66	M35	7	0	0	0	%100
67	M36	x	- 665	- 665	0	%100
68	M36	7	0	0	0	%100
69	MP4A	x	- 527	- 527	0	%100
70	MP4A	7	0	0	0	%100
71	MP3A	x	- 527	- 527	0	%100
72	MP3A	7	0	0	0	%100
73	MP2A	x	- 527	- 527	0	%100
74	MP2A	7	0	0	0	%100
75	MP1A	x	- 527	- 527	0	%100
76	MP1A	7	0	0	0	%100
77	EQUIP	x	828	828	0	%100
78	EQUIP	Z	0	0	0	%100
79	M51	x	- 828	- 828	0	%100
10		~ ~	.020		~	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,



#### Member Distributed Loads (BLC 74 : Structure Wm (270 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,	.End Magnitude[lb/ft,	Start Location[ft,%]	End Location[ft,%]
80	M51	Z	0	0	0	%100
81	M55A	Х	397	397	0	%100
82	M55A	Z	0	0	0	%100

# Member Distributed Loads (BLC 75 : Structure Wm (300 Deg))

	Member Label	Direction	Start Magnitude[lb/ft	.End Magnitude[lb/ft	Start Location[ft.%]	End Location[ft.%]
1	M1	Х	144	144	0	%100
2	M1	Z	083	083	0	%100
3	M3	X	- 144	- 144	0	%100
4	M3	7	- 083	- 083	0	%100
5	M5	X	- 068	- 068	0	%100
6	M5	7	- 039	- 039	0	%100
7	M6	X	005	005	0	%100
8	M6	7	003	003	0	%100
a	MZ	<u> </u>	000	000	0	%100
10	N17	7	130	130	0	%100
10		<u> </u>	00	00	0	%100
10		~ 7	071	071	0	9/ 100
12	IVI8	<u> </u>	041	041	0	%100
13	M9	~ ~	002	002	0	%100
14	M9	Ζ	001	001	0	%100
15	M10	X	138	138	0	%100
16	M10	<u> </u>	08	08	0	%100
17	M11	<u> </u>	428	428	0	%100
18	M11	Z	247	247	0	%100
19	M12	X	033	033	0	%100
20	M12	Z	019	019	0	%100
21	M13	X	428	428	0	%100
22	M13	Z	247	247	0	%100
23	M14	X	033	033	0	%100
24	M14	Z	019	019	0	%100
25	M15	Х	451	451	0	%100
26	M15	Z	26	26	0	%100
27	M16	Х	252	252	0	%100
28	M16	Z	145	145	0	%100
29	M17	Х	451	451	0	%100
30	M17	Z	26	26	0	%100
31	M18	Х	252	252	0	%100
32	M18	Z	145	145	0	%100
33	M19	Х	458	458	0	%100
34	M19	Z	264	264	0	%100
35	M20	Х	451	451	0	%100
36	M20	Z	26	26	0	%100
37	M21	Х	451	451	0	%100
38	M21	Z	26	26	0	%100
39	M22	Х	331	331	0	%100
40	M22	Z	191	191	0	%100
41	M23	X	331	331	0	%100
42	M23	Z	191	191	0	%100
43	M24	×	- 348	- 348	0	%100
44	M24	7	- 201	- 201	0	%100
45	M25	×	- 458	- 458	0	%100
46	M25	7	- 264	- 264	0	%100
47	M26	×	_ 451	_ 451	0	%100
48	M26	7	_ 26	_ 26	0	%100
40	M20	×	20	20	0	%100
49	M07	~ 7	007	307	0	%100
51	M29	2 V	200	200	0	%100
51	IVIZO MOO	~ 7	401	401	0	9/100
52	IVIZ8		20	20	U	<u>%</u> 100

# Member Distributed Loads (BLC 75 : Structure Wm (300 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,	.End Magnitude[lb/ft,	Start Location[ft,%]	End Location[ft,%]
53	M29	X	357	357	0	%100
54	M29	Z	206	206	0	%100
55	M30	Х	458	458	0	%100
56	M30	Z	264	264	0	%100
57	M31	Х	451	451	0	%100
58	M31	Z	26	26	0	%100
59	M32	Х	451	451	0	%100
60	M32	Z	26	26	0	%100
61	M33	Х	331	331	0	%100
62	M33	Z	191	191	0	%100
63	M34	Х	331	331	0	%100
64	M34	Z	191	191	0	%100
65	M35	Х	348	348	0	%100
66	M35	Z	201	201	0	%100
67	M36	Х	458	458	0	%100
68	M36	Z	264	264	0	%100
69	MP4A	Х	456	456	0	%100
70	MP4A	Z	263	263	0	%100
71	MP3A	Х	456	456	0	%100
72	MP3A	Z	263	263	0	%100
73	MP2A	Х	456	456	0	%100
74	MP2A	Z	263	263	0	%100
75	MP1A	Х	456	456	0	%100
76	MP1A	Z	263	263	0	%100
77	EQUIP	Х	717	717	0	%100
78	EQUIP	Z	414	414	0	%100
79	M51	Х	717	717	0	%100
80	M51	Z	414	414	0	%100
81	M55A	Х	456	456	0	%100
82	M55A	Z	263	263	0	%100

#### Member Distributed Loads (BLC 76 : Structure Wm (330 Deg))

	Member Label	Direction	Start Magnitude[lb/ft	End Magnitude[lb/ft	Start Location[ft,%]	End Location[ft,%]
1	M1	X	249	249	0	%100
2	M1	Z	432	432	0	%100
3	M3	Х	249	249	0	%100
4	M3	Z	432	432	0	%100
5	M5	Х	039	039	0	%100
6	M5	Z	067	067	0	%100
7	M6	Х	003	003	0	%100
8	M6	Z	004	004	0	%100
9	M7	Х	239	239	0	%100
10	M7	Z	414	414	0	%100
11	M8	Х	034	034	0	%100
12	M8	Z	06	06	0	%100
13	M9	Х	005	005	0	%100
14	M9	Z	008	008	0	%100
15	M10	Х	239	239	0	%100
16	M10	Z	414	414	0	%100
17	M11	Х	244	244	0	%100
18	M11	Z	423	423	0	%100
19	M12	Х	016	016	0	%100
20	M12	Z	028	028	0	%100
21	M13	Х	244	244	0	%100
22	M13	Z	423	423	0	%100
23	M14	X	016	016	0	%100
24	M14	Z	028	028	0	%100
25	M15	Х	116	116	0	%100



## Member Distributed Loads (BLC 76 : Structure Wm (330 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,	End Magnitude[lb/ft,	Start Location[ft,%]	End Location[ft,%]
26	M15	Z	201	201	0	%100
27	M16	X	145	145	0	%100
28	M16	Z	251	251	0	%100
29	M17	X	116	116	0	%100
30	M17	Z	201	201	0	%100
31	M18	X	145	145	0	%100
32	M18	Z	251	251	0	%100
33	M19	Х	127	127	0	%100
34	M19	Z	221	221	0	%100
35	M20	X	116	116	0	%100
36	M20	Z	201	201	0	%100
37	M21	x	- 116	- 116	0	%100
38	M21	7	- 201	- 201	0	%100
30	M22	X	_ 191	_ 101	0	%100
40	M22	7	- 331	_ 331	0	%100
40	M23	<u> </u>	551	101	0	%100
41	M22	7	131	131	0	%100
42	M24	<u> </u>	331	331	0	%100
43	N24	~ ~	201	201	0	<sup>7</sup> 0100
44	IVI24		348	348	0	%100
45	M25	X 7	127	127	0	%100
46	M25		221	221	0	%100
47	M26	X	116	116	0	%100
48	M26		201	201	0	%100
49	M27	X	206	206	0	%100
50	M27	Z	356	356	0	%100
51	M28	X	116	116	0	%100
52	M28	Z	201	201	0	%100
53	M29	X	206	206	0	%100
54	M29	Z	356	356	0	%100
55	M30	X	127	127	0	%100
56	M30	Z	221	221	0	%100
57	M31	X	116	116	0	%100
58	M31	Z	201	201	0	%100
59	M32	X	116	116	0	%100
60	M32	Z	201	201	0	%100
61	M33	X	191	191	0	%100
62	M33	Z	331	331	0	%100
63	M34	X	191	191	0	%100
64	M34	Z	331	331	0	%100
65	M35	X	201	201	0	%100
66	M35	Z	348	348	0	%100
67	M36	X	127	127	0	%100
68	M36	Z	221	221	0	%100
69	MP4A	X	263	263	0	%100
70	MP4A	Z	456	456	0	%100
71	MP3A	x	263	263	0	%100
72	MP3A	7	- 456	456	0	%100
73	MP2A	×	- 263	- 263	0	%100
74	MP2A	7	- 456	- 456	0	%100
75	MP1A	×	- 263	- 263	0	%100
76	MP1A	7	205	205	0	%100
77	FOUR	Z V	400	430	0	%100
79	EQUIP	~ 7	414	747	0	% 100 % 100
70			/   /	/ 1/	0	%100
19		~ ~	414	414	0	%100
80	IVI51		/1/	/1/	0	%100
81	M55A	X	196	196	0	%100
82	M55A	Z	34	34	0	%100



#### Member Area Loads

Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
		N	o Data to Prin	t		

# Envelope Joint Reactions

	Joint		X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
1	N4	max	1588.249	46	1763.096	16	248.966	1	164	73	0	75	.136	28
2		min	-1490.767	28	553.334	73	-4338.8	19	515	16	0	1	104	46
3	N65	max	1414.643	32	1485.928	22	4272.427	24	147	65	0	75	.067	28
4		min	-1513.104	38	477.328	67	211.819	6	453	19	0	1	146	46
5	N71	max	674.286	10	29.331	22	1147.81	4	0	75	0	75	0	75
6		min	-672.274	4	9.005	67	-1145.598	10	0	1	0	1	0	1
7	Totals:	max	2124.308	10	3261.903	22	3016.37	1						
8		min	-2124.309	4	1044.069	67	-3016.372	7						

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

	Member	Shape	Code C	. Loc[ft]	LC	Shear	Loc[ft]	Dir	LC	phi*Pnc [lb]	phi*Pnt [lb]	phi*Mn y	.phi*Mn z	Cb	Egn
1	M1	L4X3X6	.000	.281	18	.000	.281	z	24	80199.017	80676	2.686	7.063	1	H2-1
2	M3	L4X3X6	.000	.24	20	.000	.24	z	24	80199.017	80676	2.686	7.063	1	H2-1
3	M5	PL3/8X3_HR	.671	0	47	.154	.25	У	46	34985.705	36450	.284	2.279	1	H1-1b
4	M6	PL3/8X3_HR	.744	0	27	.188	.25	у	28	34985.705	36450	.284	2.279	1	H1-1b
5	M7	PIPE 2.5	.479	11.875	6	.129	11.875		4	10110.272	50715	3.596	3.596	1	H1-1b
6	M8	PL3/8X3_HR	.642	0	23	.240	.227	У	46	35243.369	36450	.284	2.279	1	H1-1b
7	M9	PL3/8X3_HR	.668	0	29	.125	.286	У	10	34551.762	36450	.284	2.279	1	H1-1b
8	M10	PIPE 2.5	.390	11.875	12	.175	11.875		4	10110.272	50715	3.596	3.596	1	H1-1b
9	M11	PIPE 2.0	.375	5.937	7	.105	0		46	21054.34	32130	1.872	1.872	2	H1-1b
10	M12	PIPE_2.0	.441	5.937	7	.124	0		28	21054.34	32130	1.872	1.872	2	H1-1b
11	M13	PIPE_2.0	.346	5.937	12	.129	5.381		47	21054.34	32130	1.872	1.872	2	H1-1b
12	M14	PIPE_2.0	.381	5.937	12	.137	5.381		26	21054.34	32130	1.872	1.872	1	H1-1b
13	M15	PL3/8X3_HR	.056	0	27	.054	0	У	47	36078.278	36450	.284	2.279	1	H1-1b
14	M16	1.5 w 0.06 th	.324	2.049	15	.044	0		3	5200.823	8550.171	.327	.327	1	H1-1a
15	M17	PL3/8X3_HR	.078	0	12	.037	0	У	5	36078.278	36450	.284	2.279	1	H1-1b
16	M18	1.5 w 0.06 th	.263	2.049	27	.084	0		6	5200.823	8550.171	.327	.327	1	H1-1a
17	M19	PL3/8X3_HR	.078	0	5	.090	0	У	10	30936.41	36450	.284	2.279	1	H1-1b
18	M20	PL3/8X3_HR	.027	.125	49	.054	.125	У	47	36078.278	36450	.284	2.279	1	H1-1b
19	M21	PL3/8X3_HR	.088	.125	6	.037	.125	У	5	36078.278	36450	.284	2.279	1	H1-1b
20	M22	1.5 w 0.06 th	.140	3.167	28	.040	0		4	6432.166	8550.171	.327	.327	1	H1-1b*
21	M23	1.5 w 0.06 th	.286	0	26	.032	3.167		4	6432.166	8550.171	.327	.327	1	H1-1a
22	M24	PIPE_2.0	.031	0	29	.013	0		10	29957.096	32130	1.872	1.872	1	H1-1b*
23	M25	PL3/8X3_HR	.074	.5	12	.090	.5	У	10	30936.41	36450	.284	2.279	1	H1-1b
24	M26	PL3/8X3_HR	.055	0	11	.061	0	у	4	36078.278	36450	.284	2.279	1	H1-1b
25	M27	1.5 w 0.06 th	.313	2.049	24	.040	4.185		4	5200.823	8550.171	.327	.327	1	H1-1a
26	M28	PL3/8X3_HR	.053	.125	46	.049	0	У	4	36078.278	36450	.284	2.279	1	H1-1b*
27	M29	1.5 w 0.06 th	.264	2.049	47	.057	0		1	5200.823	8550.171	.327	.327	1	H1-1a
28	M30	PL3/8X3_HR	.048	0	4	.044	0	У	5	30936.41	36450	.284	2.279	1	H1-1b
29	M31	PL3/8X3_HR	.037	0	4	.061	.125	у	4	36078.278	36450	.284	2.279	1	H1-1b
30	M32	PL3/8X3_HR	.054	.125	46	.049	.125	У	4	36078.278	36450	.284	2.279	1	H1-1b*
31	M33	1.5 w 0.06 th	.162	3.167	46	.048	0		4	6432.166	8550.171	.327	.327	1	H1-1b*
32	M34	1.5 w 0.06 th	.307	0	47	.039	3.167		4	6432.166	8550.171	.327	.327	1	H1-1a
33	M35	PIPE 2.0	.028	0	45	.007	0		5	29957.096	32130	1.872	1.872	1	H1-1b*
34	M36	PL3/8X3_HR	.040	.5	39	.044	.5	у	5	30936.41	36450	.284	2.279	1	H1-1b
35	MP4A	PIPE 2.0	.388	1.25	45	.139	4.625		6	20866.733	32130	1.872	1.872	1	H1-1b
36	MP3A	PIPE_2.0	.231	4.625	4	.069	3.438		5	20866.733	32130	1.872	1.872	1	H1-1b
37	MP2A	PIPE_2.0	.349	4.625	4	.082	3.438		4	20866.733	32130	1.872	1.872	1	H1-1b
38	MP1A	PIPE_2.0	.426	1.25	29	.182	4.625		8	20866.733	32130	1.872	1.872	1	H1-1b
39	M55A	PIPE_2.0	.065	6.155	4	.003	0		23	20401.184	32130	1.872	1.872	1	H1-1b*



# Envelope AISI S100-16: LRFD Cold Formed Steel Code Checks

	Member	Shape	Code	Loc[ft]	LC	Shear	.Loc[ft]	Dir	LC	phi*Pn[lb]	phi*Tn[lb]	phi*Mny.	phi*Mnz	.phi*V	.phi*V	. Cb	Egn
1	EQUIP	P1000_C	.186	1.958	4	.025	3.631	y	6	6880.609	14345.1	.32	.646	2129	5491	1.494	H1.2-1
2	M51	P1000_C	.227	1.958	4	.026	3.631	У	6	6880.609	14345.1	.32	.646	2129	.5491	1.476	H1.2-1

¥7_¥¥7	Client:	Verizon Wireless	Date:	8/19/2022
VZW	Site Name:	WESTPORT CT		
SMART Tool <sup>©</sup>	PSLC #:	469153		
Vendor	Fuze ID #:	16242132	Page:	1
				Version 1.01

#### I. Mount-to-Tower Connection Check

Custom Orientation Required

!	Yes
Nodes	Orientation
(labeled per Risa)	(per graphic of typical platform)
N4	0
N65	0



Tower Connection Bolt Checks

#### Bolt Orientation

Bolt Quantity per Reaction: d<sub>x</sub> (in) (Delta X of typ. bolt config. sketch) : d<sub>y</sub> (in) (Delta Y of typ. bolt config. sketch) : Bolt Type: Bolt Diameter (in): Required Tensile Strength / bolt (kips): Required Shear Strength / bolt (kips): Tensile Capacity / bolt (kips): Shear Capacity / bolt (kips): Bolt Overall Utilization:

Tower Connection Baseplate Checks

2 (Horizontal)	
6.5	
2	
A36	
0.5	
3.7	
0.9	
6.4	
3.8	
57.8%	
No	

Yes

Parallel





Colliers Engineering & Design	www.colliersen gineering.com	Constraint and Account and a constraint or account or account of the second or account of the constraint of the const	Doing Business as		Vacrian				ALIBRILOY TOTIC RAMANY Reserves to second se	SUPPORT ANYWHERE IN ANY STATE Coll Machine Construction Coll Machine FOR STATE POCK.	All	1 1 08/22/22 10(44/00 PG) 1 108/22/22 10(44/00 PG) 1 11/10/27 10(44/00 PG) 2 00(128/4/27 PG) 2 00(128/	PARTE DESCRIPTION SET IN THE PROVIDENT OF THE PROVIDENT O	CUIV DUE AUX MARK AUX MARK AUX		もしと	A STORE OF CONTRACT OF CONTRACT.	Churstehuterstend a restor of no. CriftCom0131 (TIS A YOUATTOR OF LAW DRAW RESCOND	UNLESS FRAME. IN LOSS FRAME AND LOSS	469153 880 POST RD. EAST UNIT 1 WESTPORT. CT 06880	FAIRFIELD COUNTY	STAMPORD	Colition 1000 Washing On Boulevero Ramford, CT 0000 Exembandon	Frighter Ing counter thratteness to be a from the control into the control	BILL OF MATERIALS		Set Tuveto
		IT (LBS.) WEIGHT (LBS.)	8					TT (LBS.) WEIGHT (LBS.)						IT (LBS.) WEIGHT (LBS.)	C						METAL, LLC	NSBERRY 940 (O), (615) 631-2520 (M)	ERMETALCOM	TTERMETALCOM			
		UNIT WEIGH	4 12" BEYOND THE INGA OR ZINC 84											UNIT WEIGH							BETTER	DNTACT DAVID STA	AAIL DLS@BETT	EBSITE WWW.BE'			
TERIALS	JSMART KITS	NOTES	R END TO ADJACENT TOWER LEG. PROPOSED TIE BACK SHALL EXTEND NO MORE THAN VITACTOR SHALL TRIM AS REQUIRED AND PROTECT CUT END WITH TWO COATS OF 2				REQUIRED PARTS	NOTES					AFETY CLIMB PARTS	NOTES	OR EOR APPROVED EQUIVALENT	OR EOR APPROVED EQUIVALENT				PROVED VENDORS	SITE PRO 1	ONTACT PAULA BOSWELL CC ADAUE (972) 236-9843 CC	MAIL PAULABOSWELL@VALMONT.COM EP	VEBSITE WWW.SITEPROI.COM LEXX/AUF	IND W AV ID ONTACT NEWAVE SALES TEAM	HONE (971) 239-4762 Addition Commence Comme	
BILL OF MA	SECTION I - VZV	DESCRIPTION	TIE BACK ASSEMBLY CONNECT OTHE COVER LEG. CO	CROSSOVER PLATE			SECTION 2 - OTHER	DESCRIPTION					SECTION 3 - REQUIRED	DESCRIPTION	CLAMP BRACKET	WIRE ROPE GUIDE			DTE THAT THE DTE THAT THE A PART OF THE RED THAT THE	TED IN THIS VZWSMART KITS - AP	PERFECTVISION	WIRELESS SALES (844) 887-6723	WWW.PERFECT-VISION.COM		SADRE UNUCOLNES, UNC. ANGEWECH	(866) 428-6937 A V WEL CLARK & AD EINLIN ISTRIES COM	
		PART NUMBER	VZWSMART-SFK I	/ZWSMART-MSKI				PART NUMBER						ART NUMBER	V-CLAMP-LW-0106	PV-CMX-CG-SM		NDORS FOR THE VZW	ITIS FLAVE BEEN THROUT FED TO SELL. PLEASE N S WILL BE REVIEWED AS DOR. IT WILL BE REQUI	ICATIONS BUT NOT LIS RACTOR.		CONTACT	EMAIL	WEBSITE	CONTACT	PHONE	WERKITE
		MANUFACTURER				VZWSHART		MANUFACTURER						MANUFACTURER	PERFECT VISON	PERFECT VISION			K WILL BE AWARE OF WAILCH K MD THEY ARE IN TURN APPRON N THE MOUNT MODIFICATION TED BY THE SMART TOOL VENU RE UTILIZED IN THE MODIFICAT	RED FOR THE DESIGNED MODIF "O BE PROVIDED BY THE CONTI-	XOMMSCOPE	VADOR ANGUIANO 1 304-7492	VADORANGUANO@COMMSCOPE.COM	VW.COMMSCOPE.COM	IT RAMEY	() 335-7045 (O), (706) 982-9788 (M)	
		QUANTITY	-	v				QUANTITY						QUANTITY		-		THE MANUFACTURER	APPCONTAL PROCESS A MATERIAL UTILIZED O DESKTOP PMI COMPLE VZW KITS SPECIFIED A	ALL MATERIALS REQUI		ONTACT SAL UDME (817	MAIL SAL	VEBSITE METROSIT	INTELLING	HONE (700	VAIL Net Net

Colline Engineering	& Design	www.colliersengineering.com overtice.nc.oden ingenergi bog of tyte bared. Neilwerg of dit intradecutations instant in an infrite party words wareau enough a viven to order the baret on vite input, ward altitud.	distants a still ger third, the properties of the upper, when the properties of the			verizon				d control transmission and source		1     1	Detect R. Hartzah	10-150	CENSE ONAL CONAL Cripconoli	IT IS A VIDIATION OF LAW FOR ANY PERCIN, UNLESS THE ARE-MINE JUNEST THE DIRECTION OF THE RESPONSIBLE LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT,	SITE NAME: WE STREAD OF	WESTFORT CT 0480 469153 880 POST RD: EAST UNIT 1 WESTPORT CT 04880	FAIRFIELD COUNTY	Approximation in the second se	MODIFICATION NOTES	Set tunte SGN-1
	3 (IN.)	MIN. EDGE DISTANCE	7/8 1 1/2	1 1/8 1 7/8	1 1/2 2 5/8	6   3/4 3	is (IN.)	AGE	2 3/4 3/8	8/1	L DIMENSIONS REPRESENTED IN THE BOVE TRADES ARE ASCONTINUMUN LOUBENENTS CONTINUMUN UNDURENENTS CONTINUMUS IN FIELD ON ONTIFY ENGINEER IF DISTANCES ELESS THAN THACE ROVIDED.	IE DIMENSIONS FROVIDED ARE NIMUM REGUISTENENTS A CTUAL MENSIONS OF PROPOSED MEMBERS THIN THESE DRAWINGS MAY VARY ON THE ARC MINIMUM	INT SLOT HOLES SHALL ONLY BE ED WHEN DEPICTED IN THE AMVINGS ATCH EXISTING GAGES WHEN	PLICABLE UNLES MININUL (BOST STANCES ARE COMPROMISED	anna.		GAGE					
	BOLT SCHEDULE	STANDARD SHORT R HOLE SLOT	9/16 9/16×11/16	1/1/1 91/11 1×31/51 31/51	15/16 15/16×11/8	1 1/16 1 1/16×1 5/16	WORKABLE GAGE	LEG G	3 1/2 3 1/2 1 2 1/2 1	7			ы SU DR M	84 20		E COPING						
E AND SPACING. POSED ANDOR REPACED BOLTS SHALL BE OF SUFFICIENT LENGTH	AN THE END OF THE BOUT BALT FLOOT WITH THE FACE OF TO IS NOT PRIMITED PORTHE BOUT FLOUT O BE BELOW THE FACE WUT AFTER TIGHTENING IS COMPLETED.	IZED ASTM A328 BOLTS SHALL NOT ER RAUSED. TING PARITED/GALVANIZES DARAGED DURING REHAB NG AREAS UNDER STIFFEMER PLATES SHALL EE WITE BRUSHED. DIAMET	BEARED BY COLD GALVANIZING (ZINGA OR ZINC COTE), AND ED TO MATCH THE ERSTRING FINISH (FA PPULSUE). SIN STERF MERRERS SHALL FIE STSTD ////*_MAGGE REAL).	R. STANDARD HOLES SHALL BE USED UNLESS NOTED OTHERWISE 5/8 WFILDING NOTES 3/4	DING SHALL BE DONE IN ACCORDANCE WITH AWS DI 0 (LATEST 7/8	THIS SHALL MELLIDE A CRETTER WELL SHORE CTION OF NEETCON OF AN	CTOR IS REPORTISE FOR COMMISSIONING A THIRD PARTY D VELD INSECTOR (CW) THROUGHOUT THE BYTIRETY OF THE A PASING CW REPORT SHALL BE PROVIDED TO THE BYGINEER MAIR FITON OF THE PROFILE.	THER WED INSPECTOR SHALL INDICATE, IN A WRITTEN CAVI THAT ALL WEDNOK OPBATIONS BRE DURKIN, AND DOST TTON WEBE CONDUCTED IN ACCORDANCE WITH ANS D.1. WITH RAPES AND DOCUMENTATION SUPPORTING THE ACCEPTARCE OR	И ПО РАТ. ИКЦИКА А.С. ИМ ИКИ ИЛИВЕСТОИ ВИАТООН АКОНОРОГОЗ БАНЦ ВЕ ЗИВИПТЕР ОЛИКА ТНЕ РИЦ ИНЕКЕ А ИЕЛО IS SPECIFICA ВЕТИЧЕИ ТИО МЕНВИS IN ИНИСН И ИНИ ВИАТОРИ ПО ТЕ ВИЛИТИРА И ОСН ТВИЛИТИРА ФЕДО ОН ТНЕ НЕНВИК В БОДИТ ОТ НАТ УЗОЙИЛ ИТ ПЕ	GAS WELDING OR BAAZING IS STRICTLY ROHBINED GAS WELDING OR BAAZING IS STRICTLY ROHBINED WITH A GRINDER VITH A GRINDER CTOR SHALL DERECIE CAUTION WHEN WELDING A GALVANIZED	CTOS SHALL HAVE A FIRE PROTECTION PLAN IN PLACE THAT LOADS SHALL HAVE A FIRE PROTECTION PLAN IN PLACE THAT WASHER - THEN THAT ALL OSHAL ANSI/ASSP A10-48, ANSI Z491, AND LOCAL THAT PLACE THAT THAT A PLACE THAT A PLACE THAT THAT A PLACE THAT THAT THAT A PLACE THAT THAT A PLACE THAT THAT A PLACE THAT THAT THAT THAT A PLACE THAT THAT THAT THAT THAT THAT THAT THA					ALLOWAB	EDGE SPACING			VITHOUT PRIOR EOR APPROVAL		
CONTRACTOR SHALL BE REPONSIBLE FOR THE STRENGTH AND STABILITY D6TA OF THE STRUCTURE DURING ERECTION CONTRACTOR SHALL PROVIDE 12 ALL IR TEHPROLARY SUPPORT, SHORING, BRACING AND ANY OTHER FISTUCTURAL 2012	SYSTERS AS REQUIRED TO RESIST ALL FORCES THAT MAY OCCUR DURING THE N HANDLING AND ERECTION UNIT. THE STRUCTURE IS ALLY COMPLETED THE N TEMPORANY SUPPORTS, REACINE AND OTHER STRUCTURAL IS STERS	REQUIRED DURING CONSTRUCTION SHALL REMAIN THE CONTRACTOR'S 13. GAI/A ReOPENT MATER THER USE 9. ALL INSTALLATIONS PERFORMED ON THIS STRUCTURE SHALL BE COMPLETED INCLU	IN ACCORDANCE WITH THE GOVENUS FROVISIONS OF THE STANDARD CLENN ROAD INSTALLATION, ALTERATION AND MAINTERANCE OF ANTENNA SUPPORTING STRUCTURES AND ANTENNAS, ANSITIA-322. 15 AUL 44	<ol> <li>CONTRACTOR SHALL SECURE SITE BACK TO EXISTING CONDITION UNDER SUPERVISION OF OWNER ALL FENCE, SET YONE, GEORBRIC, GROUNDING, AND TERPOLIMINE CEARE SELIAL THE PERGENDARY OF AND PERGED AS</li> </ol>	REQUISION OF A DATE OF A D	<ol> <li>CONVECTORS BETWEEN ITTHS SUPPORTED BY THE STRUCTURE AND THE STRUCTURE KONT SPECIALLY DESILIATOR IN THE CONVEXCT DOCUMENTS ARE THE REPORTBULLY OF THE CONVEX VEX VEX VEX OF ORDER AND FUEL REPORTED TO THE CONVEX VEX VEX VEX OF ORDER TO VEX AND FUEL REPORTED TO THE CONVEX VEX VEX VEX OF ORDER TO VEX OF AND FUEL REPORTED TO THE CONVEX VEX VEX VEX OF ORDER TO VEX OF AND FUEL REPORTED TO THE CONVEX VEX VEX VEX OF ORDER TO VEX OF AND FUEL REPORTED TO THE CONVEX VEX VEX VEX OF ORDER TO VEX OF AND FUEL REPORTED TO VEX VEX VEX VEX VEX OF ORDER TO VEX OF AND FUEL REPORTED TO VEX VEX VEX VEX VEX VEX OF OUT OF OUT OF AND FUEL REPORTED TO VEX VEX VEX VEX VEX VEX VEX VEX VEX VEX</li></ol>	SPAL RE DEVEK, COLONINA LE VAUN SPECE LED Y R. PROFESSIONAL 2. CONT STRUCTUAL REGIMER LEGRED IN THE STATE OF THE ROJECT, SUBMT SIGNED AND SALED CALCULATIONS DURING SHOP DRAWING REVIEW. CRITI DE DATATENT FAUNT SALED CALUATIONS DURING SHOP DRAWING REVIEW. IPONU	<ol> <li>DO NOT USE THE DRAWINGS.</li> <li>DO NOT USE THE REAMINGS FOR ANY OTHER SITE ALL MATERIAL UTLIZED FOR THE PROJECT MAST BE NEW AND FREE OF ANY NETCR. TALL MATERIAL USETTIONER INCLUDING BUT YOU THINTED TO HETCRS. ANY MATERIAL USETTIONS. INCLUDING BUT YOU THINTED TO PHOTO</li> </ol>	ALL REAL 2012 AND LOT DIA TO DIA PROVIDE IN THE UNIVERSITY AND RECT. ALL REAL DIA PROVIDER IN WATTING. DOOL 15. THE MOUNT UNDER NO CIRCUMSTANCES SHOULD BE USED AS A TE OFF 4. IN CLAS POINT. STATE OFF 4. IN CLAS POINT. STATE OFF 4. IN CLAS POINT.	<ul> <li>DEGIGN DETAILING, FABRICATION AND BRECTON OF STRUCTURAL STEEL</li> <li>DEGIGN DETAILING, FABRICATION AND BRECTON OF STRUCTURAL STEEL</li> <li>SCHOOL STEELL, NIDICATED NI THE CONTRACT DO CUMBRITS.</li> <li>A MEBICANI INSTITUTE OF STEEL CONSTRUCTION (MSC) PANUAL OF</li> <li>CONTRACT DO CUMBRITS.</li> </ul>	STEEL CONSTITUCTION (1/51 HE IDTION) b SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 1 CONST BOLTS C AGC CODE OF STANUARD PRACTICE 2 STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING UNLESS OTHERWISESHOWN	CHANNELS, ANGLES, PLATES, ETC. ASTM A36 (GR 36) STEEL PIC ASTM A33 (GR 35) BOLTS ASTM A323 NUTS ASTM A323 LOCK WASHERS LOCKING STRUCTURAL GRADE	<ol> <li>ALL SUBSTITUTIONS PROPOSED BY THE CONTRACTOR SHALL BE APPROVED INVANINGS IN THE GUINERE. CONTRACTOR SHALL DR APPROVED DOCUMENTATION TO BUGINER FOR YREPTINGS THE SUBSTITUTE IS SUTABLE FOULD US NON PEETS ORGINAL DESIGN CHERLAL DIFFERENCES FROM THE ORGINAL DESIGN LINGUIDING MAINTENANCE, REMAIL AND FROM THE ORGINAL DESIGN LINGUIDING VARITENANCE, REMAIL AND DOCUMENTATION OF DESIGN LINGUIDING VARITENANCE, REMAIL AND FROM THE ORGINAL DESIGN LINGUIDING VARITENANCE, REMAIL AND FROM THE ORGINAL DESIGN LINGUIDING VARITENANCE REMAIL AND DOCUMENTATION OF DESIGN LINGUIDING VARITENANCE REMAIL AND FROM THE ORGINAL DESIGN REMAILENANCE REMAIL AND THE ORGINAL DESIGN LINGUIDING VARITENANCE REMAILENCE FROM THE ORGINAL DESIGN LINGUIDING VARITENANCE REVER FROM THE ORGINAL DESIGN LINGUIDING VARITENANCE REVER FROM THE ORGINAL DESIGN CONTRUCTOR REVER FROM THE ORGINAL DESIGN LINGUIDING VARITENANCE REVER REVER FROM THE ORGINAL DESIGN REVER FROM THE ORGINAL DESIGN CONTRUCTOR REVER REVER FROM THE ORGINAL DESIGN REVER FROM THE ORGINAL DESIGN CONTRUCTOR REVER REVER REVER FROM THE ORGINAL DESIGN REVER REVER FROM THE ORGINAL DESIGN REVER REVER REVER REVER REVER REVER REVER REVER FROM THE ORGINAL DESIGN REVER REVER REVER REVER REVER REVER R</li></ol>	REVICEMENT; SHALL REINOTED REINATES OF COSTICABITIS ASSOCIATED WITH THE SUBTITUTION (INCLUDING RE-DESIGN COSTS AND COSTS TO SUB-CONTRACTORS) SHALL REFORDED TO THE BRIGHERE, CONTRACTOR SHALL REVOUCE ADDITIONAL DOCUMENTATION AND/OS REFEICATIONS TO THE BRIGHERE REQUERTS.	APROVAL PRIOR TO FABRICATION a SUBMITS HOP DARWINGS TO bETER ALBANO@COLLIERSBNGINERING COM	b. PROVIDE PASER CONSULTING CONNECTICUT PROJECT # AND MASER CONSULTING CONNECTEDUT PROJECT ENGINEER CONTACT IN THE BODY OF THE EVAL.	<ol> <li>DRILL NO HOLE IN ANY NEW OR EXISTING STRUCTURAL STEEL MEMBERS OTHER THAN THOSESINGNING ON STRUCTURAL DRAWINGS WITHOUT THE APPONAL OF THERGINEER OF RECORD.</li> </ol>	<ol> <li>GAUVANIZED ASTM A325 BOLTS SHALL NOT BE REUSED.</li> <li>ALL NEW STEEL SHALL BE HOT BE DIPPED GALVANIZED FOR RULL WEATHER PROFETORIN IN ADDITON ALL UNEN STEEL SHALL E ARAINED TO TO EXISTING STEEL CONTRACTORS MALL OFFINIW WRITTEN REMAISION TO</li> </ol>	PROTECT STEEL BY ANY OTHER MEANS. 6. CONTRACTORS SHALL RROTECT CLIT FRUDS OF ALL RELD-CUT STEEL WITH 7. ON 20 COSTS OF COLD GALVINALIZATION (ZINGA OR ZINC COTE). 7. ALL BOLT ASSEMBLIES FOR STRUCTURAL INTEREES REPRESENTED IN THIS	DARWING REQUIRE LOCKING DEVICES TO BE INSTALLED IN ACCORDANCE WITH TRA-222+1 BECTION 4/92 REQUIREMENTS. 10 WHERE CONNECTIONS ARE NOT PULLY DETALLED ON THESE DARWINGS. FABRENTOR SHALL DESIGN CONNECTIONS TO REST LOADS AND FORCES	WHERE SHOWN ON DRAWINGS AND AS OLITURED IN FECIFICATIONS. I. FOR MEMBERS BEING REPLACINGS AND AS OLITURED IN PATCH EXETING SIZE AND GRADE MANITAN NACK REQUIREMENTS FOR MINITUM BOLT	
PROJECT NOTES	3	ORDINANCES, LAWS AND REGULATIONS OF ALL MUNICIPALITIES, UTILITY COMPANIES OR OTHER PUBLICGOVERNING AUTHORITIES	<ol> <li>THE CONTRACTOR SHALL BE REPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS THAT MAY BE REQUIRED BY ANY FEDERAL, STATE. COUNT OR MUNICIPAL AUTHORITIES.</li> </ol>	4. THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION MANAGER, IN	WRITING, OF ANY CONFLICTS, ERRORS OR OMISSIONS PRIOR TO THE SUBMISSION OF BIDS OR PERFORMANCE OF WORK.	<ol> <li>THE CONTRACTOR SHALL BE REPONSIBLE FOR PROTECTING ALL EXISTING SITE IMPROVEMENTS PRICIA TO COMMENCING CONSTRUCTION THE CONTRACTOR SHALL REPORT ANY DAMAGERS A RESULT OF</li> </ol>	CONSTRUCTION OF THIS FACILITY AT THE CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER	6 THE SCOFE OF VORK ROST MER ROPICT STALLINCLUDE REOVIDING ALL MATERIALS, EQUIMENT AND LABOR REQUIRED TO COMPLETE THIS RODIECT. ALL SQUPMENT SHALL BEINSTALLED IN ACCORDANCE WITH MANUFACTURENS RECOMMENDATIONS.	<ol> <li>THE CONTRACTOR SHALL VISIT THE REGIST STE RILOR TO SUBMITTING THE BID TO VERIFY THAT THE REGIST CAN BE CONSTRUCTED IN COCROBANCE WITH THE CONTRACT DOCUMENTS AND CONSTRUCTION DRAWINGS.</li> </ol>	<ol> <li>THE CONTRACTOR SHALL VERTY ALL EXISTING DIMENSIONS AND CONDITIONS RIGHT OF CONTRENCING ANY WORK, LALIEREBUSING OF EXISTING CONSTRUCTION SHOWN ON THEE DRAWINGS WHALF BE VERHED. THE CONTRACTOR SHALL NOTITY THE CONSTRUCTION WANGED OF ANY DISCREPANCIES RIROR TO ORDERING MATTRAL, OR REACCEDING WITH DISCREPANCIES RIROR TO ORDERING MATTRAL, OR REACCEDING WITH</li> </ol>	CONSTRUCTION 5. INCE THE RELATE MAY BE ACTIVE ALL SAFTY RECAUTIONS MUST BE TAREN WHEN WORKING AMOUND HIGH LIFELS OF BELETTOPMARENTE RADARYON E CUURENT SACULUE BE STUTTOWN RANCE DEBRORMING ANY WORK THAT COULD BEYOST THE WORKER'S TO DANGE RESONAL RE PROVUSE FONDUNGS REQUIRED FOR DANGE TO DANGE RESONAL REPROVALLY DANGEROUS REVOLUED E STUTO DE WORK TO ANY POTENTIALLY DANGEROUS REVOLUEE FOR DO SACULATION DA SACULATION DE STUTO DE SACULATION DE	<ol> <li>NO NOISE, SMOKE, DUST OR ODOR WILL REAULT FROM THIS FACILITY AS TO CAUSE A NUISANCE.</li> <li>THE FACILITY SUMMANNED AND NOT FOR HUMAN HABITATION (NO 11. THE FACTOR SECTIONED.</li> </ol>	GENERAL NOTES THERE PODIFICATIONS HAVE BEEN DIAL SCORDANCE WITH THE COORDINATION POSICIONS OF THE TELECOMMUNICATION NUMBERY CONTRAINED TRUTCH AND SERVICE BEAD REQUIRED IN 71-02-02	CONTRACTOR SIALL CONFORM TO THE ADOVE MENTIONED CODES. 2 CONTRACTOR SIALL TAKEN RECUTTORS NECESSARY TO PREPARA 2 MANGET DE RENTRACTURES ANY DAMAGET DE REGTOR EVENT OF MENU DAMAGET DE RENTRACTOR STREAT DE REGTORE ANY TO PREPARA DAMAGET DE REGTORE STOT ATER ANY SAFETTON DE PARA DAMAGET	<ol> <li>CONTRACT ON SUBJECT OF TRACTIVIDUATING TO THE OWNER.</li> <li>CONTRACT ON SUBJECT OF TRACTIVIDUATING CONTINUES BEFORE BEFORE BEFORE SANG COBRENK AND FIFTERLIA. JUN DEARMING OF SHOP PARAMINES. ANY TORCEPARACIES RETWEEN FIFTLO. CONDITIONS. AND THE CONTRACT DOCUMENTS SHALL BE ROUGHT TO THE IMPEDIATE CONTRACT DOCUMENTS SHALL BE ROUGHT TO THE IMPEDIATE</li> </ol>	A REVIOUN OF THE VOIVER THE CURRENT ON OUCHES AND A REVIOUND THAT ARE NOT REPRESENTED ON THESE DRAWINGS, OR ANY CONDITIONS THAT WOULD INTEREME WITH THE INSTALLATION OF THE MODIFICATIONS, NOTIFY THE REVIEWER IMMEDIATELY.	4. IT IS ASUMED THAT ANY STRUCTURAL MODIFICATION WORK SPECIFIED ON THESE PLANS WILL BE ACCOMPLISHED BY KNOWLEDGEABLE WORKMEN WITH TOWER CONSTRUCTION EXPERIENCE.	<ol> <li>THE CONTRACTOR SHALL SUFFIXE AND DRECT THE WORK AND SHALL BE SOLEY REPORSIBLE FOR ALL CONSTRUCTION METHODS, MEANS, TECHNIQUES, SEQUENCE, AND PROCEDURE.</li> <li>ALL CONSTRUCTION MEANS AND METHODS; INCLUDING BUT NOT UMITED</li> </ol>	TO, RECTON TAVAS, RIGORS PAYS, CLUBRIOS DAVS, AND RECUE PAVS SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR RESPONSIBLE FOR THE EXECUTION OF THE WORK CONTAINED HEREN AND SHALL MET ANSTIMATSJUCKTSTEIDTION), OSH, AND GENERAL INDUSTRY STANDARDS ALL REGIRNE TAVAS SHALL ADHERE TO ANSTIMAT23 (LITEST STANDARDS ALL REGIRNE TAVAS SHALL ADHERE TO ANSTIMAT23 (LITEST	EDITION, INCLUDING THE REQUIRED INVOLVEMENT OF A QUALIFIED ENGINEER FOC LASS IN CONSTRUCTION IN THE CONTRACTOR IS SOLIEN'S REPONSIBLE FOR INITIATING, AMINTANING, AND SUPERVISING ALL SAFETY PROGRAMS IN ACCORDANCE WITH AND SUPERVISING ALL SAFETY PROGRAMS IN ACCORDANCE WITH	APLCABLE MARCH CODES WORK SHALL ONLY BE PREPARED DURING CALM DRY DAYS, WINDS LESS THAN JORMH9, THE STRUCTURE SHOWN ON THE DRAWINGS B	STRUCTURALLY SOUND ONLY IN THE COMPLETED FORM. THE







ED Tool® Verizon	LEG)			38	11 14 DRAWN BY: BT DHECKED BY: HMA/KW	6 REV DESCRIPTION BY DATE	2 A REWSED BT 04/10/21		0 SHEET TITLE:	VZWSMART—SFK1	TIE BACK ASSEMBLY	5 SHEET NUMBER: REV #:	84 VZWSMART-SFK1 1
Existing Tower Leg Tower Leg Attachment (Fit 1 1/2" To 8 5/8" 0.0. L	EXISTING ANGLE TOWER LEG EXISTING ANGLE TOWER LEG TOWER LEG ATTACHMENT (FT 1 1/2" TO 6" 90" ANGLE (FT 1 1/2" TO 6" 90" ANGLE		SHFFT #	si sfk1-F1	SFK1-F2 SFK1-F3	SFK1-F4 SFK1-F4	RBC-1				SFK1-F1	SFK1-F5	GALVANIZED WT
		00000	VZWSMART-SFK1 (TIE BACK ASSEMBLY) DESCRIPTION	° PST (2.375" O.D. X 0.154" THK) X 10°−0" A53 GR-3 J5K	_ 3/8" X	_ 3/8" X 6" X 9 3/8" A36 BENT PLATE _ 1/4" X 2" X 8 3/4" A36 BENT PLATE	J-BOLT 5/8" X 3" I.W. X 5" I.L. A36 (OR EQUIV.) HPEADED ROD 5/8" DIA X 1"-6" F1554-36 HDG	DLT 5/8" X 2" A325	DLT 5/8" X 4 1/4" A325 /8" HDS USS FLAT WASHER	/8" HD3 LOCK WASHER	88" HD3 HEX NUT 3/8" X 4 1/2" X 11" A36	_ 1/2" X 4 1/4" X 8 5/8" A36 BEND PLATE	
FIELD CUT & TRIM TO MATCH THE REQUIRED LENGTH THE BMCK PIPE (2" PST 10"-0" LONG)		R PIPE	DART NO	1 PST2375-10 2"	1 BP825-12 PL 1 BP11125-12 PL	1 BP6-9375 PL 1 BP2-875 PL	2 MS02-625-300-500 RU	2 BG	1 BC 15 FW-625 5/	15 LW-625 5/	15 NUT-625 5/ 1 PL375-4511 PL	1 V-CLAMP PL	
OWER LEG	(4 1/2° 0.0. PIPE MAX.)	TIE BACK ASSEMBLY WITH ADAPTER FO		00. (8)(0)(1)(2) { 10. (1)(2) (1)(2) (1)(2) (1)(2)(2)(2)(2)(2)(2)(2)(2)(2)(2)(2)(2)(2)					APTER FOR PIPE CONNECTION		$\overline{\mathbb{A}}$	14	
SEE DEFML "A" SEE DEFML "A" FIELD CUT & TRIM TO MATCH THE REQUIRED LENGTH THE REQUIRED LENGTH	FIELD DRILL 11/16* DM HOLES Mrtal ANGLE Mrtal ANGLE	TIE BACK ASSEMBLY		(1) (1) (1) (1) (1) (1) (1) (1) (1) (1)						DETAIL "A"			PER ASTM A123.
EXISTING TOWER LEG	HORIZ				EXISTING TOWER LEG /	2	The second se	(TVP)	3)				NOTES: 1. HOT-DIPPED GALVANIZED



# **ATTACHMENT 4**



Location	880 POST RD E	Mblu	F09/ / 064/000 /
Acct#	14500	Owner	WESTPORT DRUG ASSOC LLC
Assessment	\$6,899,800	Appraisal	\$9,856,900
PID	10252	Building Count	2

# **Current Value**

Appraisal													
Valuation Year	Valuation Year Improvements Land Total												
2020	\$5,476,150	\$4,380,750	\$9,856,900										
	Assessment												
Valuation Year	Improvements	Land	Total										
2020	\$3,833,300	\$3,066,500	\$6,899,800										

# **Owner of Record**

Owner	WESTPORT DRUG ASSOC LLC	Sale Price	\$12,750,000
Co-Owner		Certificate	
Address	18 EAST 50TH STREET 10TH FL	Book & Page	2662/0036
	NEW YORK, NY 10022	Sale Date	03/28/2006
		Instrument	00

# **Ownership History**

Ownership History											
Owner	Sale Price	Certificate	Book & Page	Instrument	Sale Date						
WESTPORT DRUG ASSOC LLC	\$12,750,000		2662/0036	00	03/28/2006						
880 POST RD EAST LLC	\$0	1	1747/0159	29	12/29/1999						
CONNECTICUT STATE OF	\$0	2	1611/0315	29	07/10/1998						

# **ATTACHMENT 5**
