

May 3, 2024

Via Electronic and U.S. Mail

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
219 Nells Rock Road, Shelton, 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”). The facility consists of antennas and remote radio heads attached to a lattice telecommunications tower and associated equipment on the ground near the base of the tower. The existing lattice tower was approved by the Siting Council (“Council”) in September of 1984 (Docket No. 45). Cellco’s shared use of the tower was approved by the Council in July of 2009 (EM-VER-126-090612). Copies of the Council’s Docket No. 45 Decision and Order and EM-VER-126-090612 approval are included in Attachment 1.

Cellco’s proposed modification involves the installation of four (4) interference mitigation filters (“Filters”) on its existing antenna mounting assembly. The specification sheet for the new Filters is 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 Shelton’s Chief Elected Official and Land Use Officer and the owner of the Property.

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

29326535-v1

Melanie A. Bachman, Esq.
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Page 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 mounting structure.

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 Filters will not result in a change to radio frequency (RF) emissions from the facility. Therefore, no new RF emissions 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 Comprehensive Structural Analysis Report ("SA") and Antenna Mount Analysis Report ("MA"), the existing tower, foundation, antenna platform and mounting assembly, with certain modifications, can support Cellco's proposed modifications. A copy of the SA and MA are included in Attachment 3.

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

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).

Sincerely,



Kenneth C. Baldwin

Enclosures

Copy to:

Mark Lauretti, Mayor
Alexander Rosetti, Planning and Zoning Administrator
New Cingular Wireless PCS LLC, Property Owner
Aleksy Tyurin, Verizon Wireless.

ATTACHMENT 1

DOCKET NO. 45

AN APPLICATION SUBMITTED BY THE SOUTHERN NEW ENGLAND TELEPHONE COMPANY FOR A CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AND PUBLIC NEED FOR THE CONSTRUCTION, MAINTENANCE, AND OPERATION OF FACILITIES TO PROVIDE CELLULAR SERVICE IN FAIRFIELD COUNTY. : CONNECTICUT SITING COUNCIL : September 14, 1984

D E C I S I O N A N D O R D E R

Pursuant to the foregoing opinion, the Council hereby directs that a certificate of environmental compatibility and public need as required by section 16-50k of the General Statutes of Connecticut, revisions of 1958, revised to 1983, as amended, be issued to the Southern New England Telephone Company for the construction, operation, and maintenance of a telecommunications tower and associated equipment to provide cellular service at each of the following sites:

Kaechele Place, Bridgeport, Connecticut;
Connecticut Avenue, Norwalk, Connecticut;
Nells Rock Road, Shelton, Connecticut;
Newfield Avenue, Stamford, Connecticut; and
Bayberry Lane, (former Nike site), Westport, Connecticut.

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

1. The towers shall be no taller than necessary to provide the proposed service, and in no event shall exceed
 - a) 167' at the Bridgeport site,
 - b) 167' at the Norwalk site,
 - c) 189.5' at the Shelton site,
 - d) 167' at the Stamford site,
 - e) 117' at the Westport site;
2. A fence not lower than eight feet shall surround each tower and its associated equipment;
3. The applicant or its successor shall notify the Council if and when directional antennas or any other equipment is added to any of these facilities;

4. The applicant or its successor shall permit, in accordance with representations made by it during the proceeding, public or private entities to share space on the facilities, for due consideration received, or shall provide any requesting entity with specific legal, technical, environmental, or economic reasons precluding such tower sharing;
5. Unless necessary to comply with condition number six, below, no lights shall be installed on any of these towers;
6. The facilities shall be constructed in accordance with all applicable federal, state, and municipal laws and regulations;
7. The applicant shall submit a development and management plan (D&M) for the Bridgeport, Stamford, and Westport sites pursuant to sections 16-50j-85 through 16-50j-87 of the regulations of state agencies, except that irrelevant items in section 16-50j-86 need only be identified as such. The D&M plans shall include appropriate evergreen screening of the sites, erosion control measures, reseeding plans, and tree removal plans. The applicant shall consult with the Stamford Environmental Protection Board in the preparation of a drainage and erosion control plan for the Stamford tower. The applicant shall comply with the reporting requirements of section 16-50j-87 for all sites;
8. Construction activities shall take place during daylight working hours;
9. This decision and order shall be void and the towers and associated equipment approved herein shall be dismantled and

removed, or reapplication for any new use shall be made to the Connecticut Siting Council before any such new use is made, if the towers do not provide or permanently cease to provide cellular service following completion of construction;

10. This decision and order shall be void if all construction authorized is not completed within three years of the issuance of this decision.

Pursuant to section 16-50p of the General Statutes, we hereby direct that a copy of the opinion and decision and order be served on each person listed below. A notice of the issuance shall be published in the Bridgeport Post, the Norwalk Hour, the Stamford Advocate, and the Shelton Suburban News, and the Westport News.

The parties to this proceeding are

The Southern New England Telephone Company (Applicant)
Room 314
227 Church Street
New Haven, Connecticut 06506

Attention: Mr. Peter J. Tyrrell (its attorney)
Senior Attorney

Rolnick Observatory represented by:
52 Sawyer Road
Fairfield, Connecticut
Frederick H. Bump
Director

Mr. Adam Norton
40 Highland Road
Westport, Connecticut 06880

Representative John Wayne Fox (service waived)
13 Apple Tree Drive
Stamford, Connecticut 06906

Mr. George C. Lenfest
4 Highland Road
Westport, Connecticut

Mr. William Seiden
First Selectman
Town of Westport
110 Myrtle Avenue
P.O. Box 549
Westport, Connecticut 06881

Mr. Arthur L. Schimel
174 Bayberry Lane
Westport, Connecticut

Mr. Seymour Bendremer
11 Apache Trail
Westport, Connecticut

Ms. Gladys Floch
32 Woody Lane
Westport, Connecticut

Ms. Helen S. Cohen
15 Highland Road
Westport, Connecticut

(service waived)

Mr. Jack Braverman
226 Bayberry Lane
Westport, Connecticut

Mr. Kevin Gavin
191 Bayberry Lane
Westport, Connecticut

(service waived)

Mr. A.B. Beiser
12 Highland Road
Westport, Connecticut

Mr. Edward V. Polusky
4 Hooper Road
Westport, Connecticut

(service waived)

Ms. Lois Schine

represented by:

Mary D. Mix, Esquire
830 Post Road - East
Suite 100
Westport, Connecticut 06880

Mr. Allen Witt
3 Apache Trail
Westport, Connecticut

Ms. Gayle Shiller
5 Apache Trail
Westport, Connecticut

(service waived)

Mrs. Ronnie Hammer
3 Hooper Road
Westport, Connecticut

Mr. Paul Rosenblatt
7 Apache Trail
Westport, Connecticut

(service waived)

Mr. Henry J. Wolfson
179 Bayberry Lane
Westport, Connecticut

(service waived)

Mr. Melvin H. Barr
Planning Director
Town of Westport
110 Myrtle Avenue
P.O. Box 549
Westport, Connecticut 06881

(service waived)

Mr. Mark Infield
6 Apache Trail
Westport, Connecticut

(service waived)

Ms. Barbara Saipe
Representative Town
Meeting Member
District #8
Town Hall
P.O. Box 549
Westport, Connecticut 06881

(service waived)

Ms. Peggy Goldenberg
201 Bayberry Lane
Westport, Connecticut

(service waived)

Ms. Martha Hauhuth
Board of Selectman
Town Hall
P.O. Box 549
Westport, Connecticut 06881

(service waived)

Ms. Meg Coffee
32 Otter Trail
Westport, Connecticut

(service waived)

C E R T I F I C A T I O N

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

Dated at New Britain, Connecticut, this 14th day of September, 1984.

<u>Council Members</u>	<u>Vote Cast</u>
<u>Gloria Dibble Pond</u> Gloria Dibble Pond Chairperson	Yes
<u>Commissioner John Downey</u> Designee: Commissioner Peter G. Boucher	Absent
<u>Commissioner Stanley Pac</u>	Absent
<u>Owen L. Clark</u>	Yes
<u>Fred J. Doocy</u>	Yes
<u>Mortimer A. Gelston</u>	Yes
<u>James G. Horsfall</u>	Yes
<u>Janet Sitty</u>	Yes
<u>Colin C. Tait</u>	Absent

STATE OF CONNECTICUT

)

COUNTY OF HARTFORD


:

ss.

New Britain, September 14, 1984

I hereby certify that the foregoing is a true and correct copy of the decision and order issued by the Connecticut Siting Council, State of Connecticut.

ATTEST:



Christopher S. Wood, Executive Director
Connecticut Siting Council



Daniel F. Caruso
Chairman

STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051

Phone: (860) 827-2935 Fax: (860) 827-2950

E-Mail: siting.council@ct.gov

Internet: ct.gov/csc

July 20, 2009

Kenneth C. Baldwin, Esq.
Robinson & Cole LLP
280 Trumbull Street
Hartford, CT 06103-3597

RE: **EM-VER-126-090612** – Cellco Partnership d/b/a Verizon Wireless notice of intent to modify an existing telecommunications facility located at 219 Nell's Rock Road, Shelton, Connecticut.

Dear Attorney Baldwin:

The Connecticut Siting Council (Council) hereby acknowledges your notice to modify this existing telecommunications facility, pursuant to Section 16-50j-73 of the Regulations of Connecticut State Agencies with the following conditions:

- The 18 vertical runs of 2.25 inch dia. coaxial cable associated with Verizon Wireless' panel antennas shall be stacked in two rows with one row of nine cables directly in front of the second row of nine cables. The vertical cables must be installed on leg mounted brackets instead of on a cable ladder;
- The proposed Verizon Wireless antennas and transmission lines shall be installed in accordance with the structural analysis report dated June 6, 2009 and sealed by James Boltz, P.E.; and
- Not more than 45 days after completion of construction, the Council shall be notified in writing that the antennas and coax cables were installed as specified.

The proposed modifications are to be implemented as specified here and in your notice dated June 12, 2009, including the placement of all necessary equipment and shelters within the tower compound. The modifications are in compliance with the exception criteria in Section 16-50j-72 (b) of the Regulations of Connecticut State Agencies as changes to an existing facility site that would not increase tower height, extend the boundaries of the tower site, increase noise levels at the tower site boundary by six decibels, and increase the total radio frequencies electromagnetic radiation power density measured at the tower site boundary to or above the standard adopted by the State Department of Environmental Protection pursuant to General Statutes § 22a-162. This facility has also been carefully modeled to ensure that radio frequency emissions are conservatively below State and federal standards applicable to the frequencies now used on this tower.

This decision is under the exclusive jurisdiction of the Council. Please be advised that the validity of this action shall expire one year from the date of this letter. Any additional change to this facility will require explicit notice to this agency pursuant to Regulations of Connecticut State Agencies Section 16-50j-73. Such

notice shall include all relevant information regarding the proposed change with cumulative worst-case modeling of radio frequency exposure at the closest point of uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin 65. Any deviation from this format may result in the Council implementing enforcement proceedings pursuant to General Statutes § 16-50u including, without limitation, imposition of expenses resulting from such failure and of civil penalties in an amount not less than one thousand dollars per day for each day of construction or operation in material violation.

Thank you for your attention and cooperation.

Very truly yours,


S/ Derek Phelps
Executive Director

SDP/MP/laf

c: The Honorable Mark A. Lauretti, Mayor, City of Shelton
Richard Schultz, Planning Administrator, City of Shelton
Christopher B. Fisher, Esq., Cuddy & Feder LLP

ATTACHMENT 2

KA-6030

TWIN BANDSTOP 900MHZ INTERFERENCE MITIGATION FILTER

The KA-6030 is ideal for co-located 700, 850 and 900 networks. Utilising a 2.6MHz guardband the KA-6030 provides rejection of the 900 UL band while passing 700/850 UL and DL bands. Capable of being used in an outdoor environment the KA-6030 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

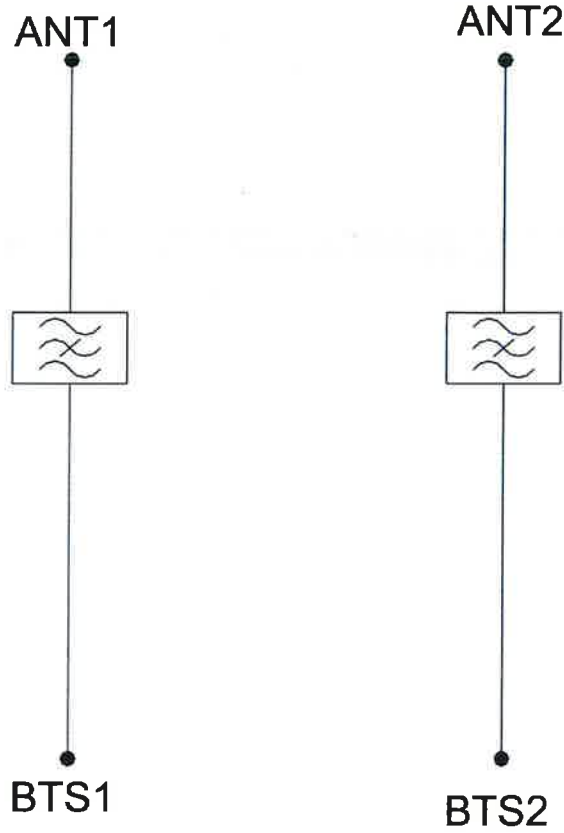
BAND NAME	700 PATH / 850 UPLINK PATH	850 DOWNLINK PATH
Passband	698 - 849MHz	869 - 891.5MHz
Insertion loss	0,1dB typical / 0,3dB maximum	0,5dB typical, 1,45dB maximum
Return loss	24dB typical, 18dB minimum	
Maximum input power (Per Port)	100W average	200W average and 66W per 5MHz
Rejection	53dB minimum @ 894.1 - 896.5MHz	
ELECTRICAL		
Impedance	50Ohms	
Intermodulation products	-160dBc maximum in UL Band (assuming 20MHz Signal), with 2 x 43dBm carriers -153dBc maximum with 2 x 43dBm	
DC / AISG		
Passband	0 - 13MHz	
Insertion loss	0,3dB maximum	
Return loss	15dB minimum	
Input voltage range	± 33V	
DC current rating	2A continuous, 4A peak	
Compliance	3GPP TS 25.461	
ENVIRONMENTAL		
For further details of environmental compliance, please contact Kaelus.		
Temperature range	-20°C to +60°C -4°F to +140°F	
Ingress protection	IP67	
Altitude	2600m 8530ft	
Lightning protection	RF port: ±5kA maximum (8/20us), IEC 61000-4-5 – Unit must be terminated with some lightning protection circuits,	
MTBF	>1,000,000 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 3.15in (Excluding brackets and connectors)
Weight	8.0 kg 17,6 lbs (no bracket)
Finish	Powder coated, light grey (RAL7035)
Connectors	RF: 4.3-10 (F) x 4
Mounting	Optional pole/wall bracket supplied with two metal clamps 45-178mm diameter poles or custom bracket. See ordering information.

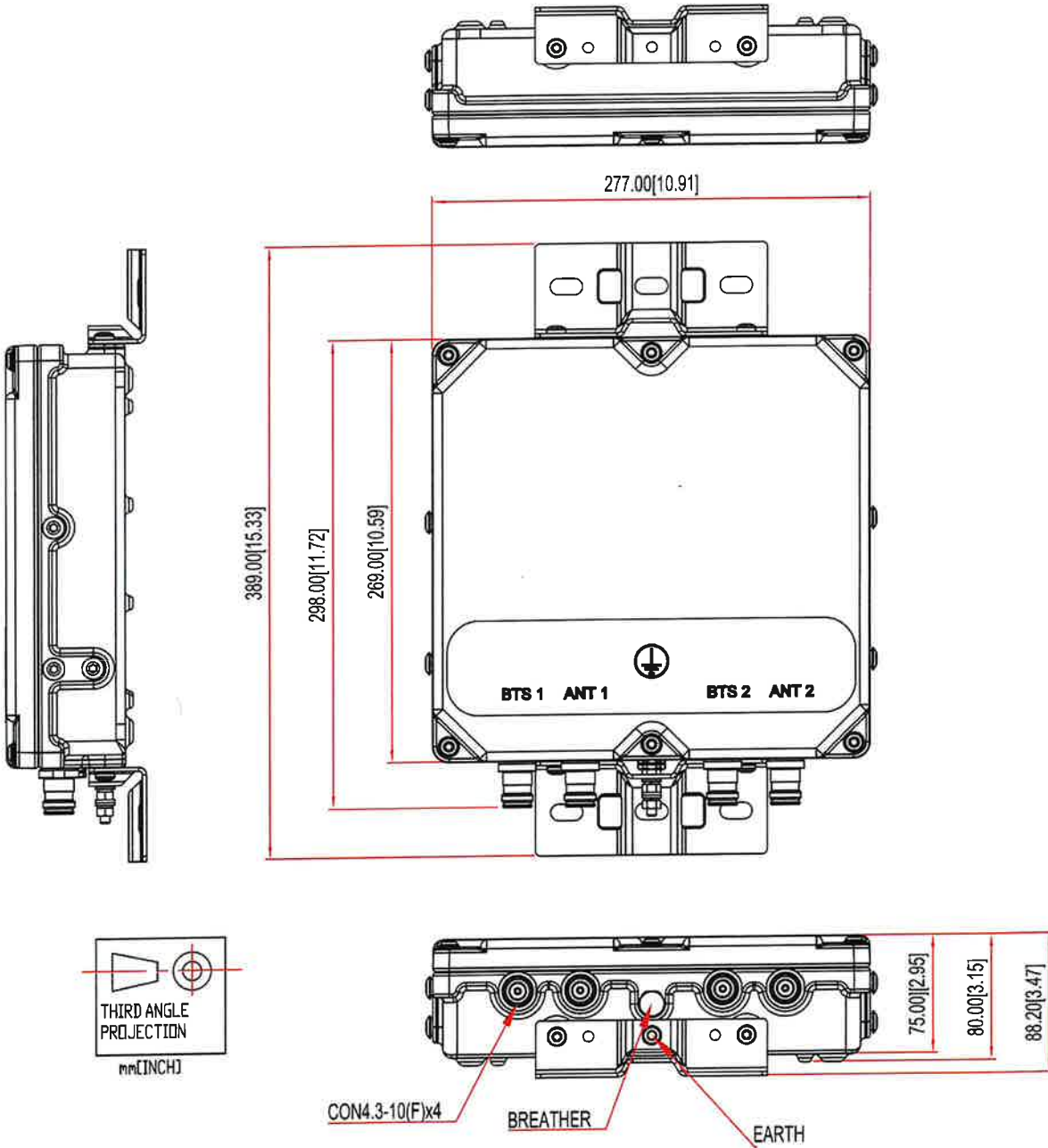
ORDERING INFORMATION

PART NUMBER	CONFIGURATION	OPTIONAL FEATURES	CONNECTORS
KA-6030-2032	TWIN, 2 in / 2 out	DC/AISG PASS	4.3-10 (F)

ELECTRICAL BLOCK DIAGRAM



MECHANICAL BLOCK DIAGRAM



ATTACHMENT 3



AT&T Towers
2180 Lake Blvd., NE 5B-14
Brookhaven, GA 30319
(470) 413-6770

Kevin Fraleigh, P.E.
3875 Embassy Pkwy #280
Akron, OH 44333
(216) 505-8256

Date: **April 17, 2024**
K-H Project #KHCL-55054

Comprehensive Structural Analysis Report

Carrier Designation: AT&T USID: 27016
TAG Number: SNET025
FA Number: 10034975
Verizon PSLC: 467793
AT&T Site Name: SHELTON EAST CENTRAL

Analysis Criteria: Code Requirements: TIA-222-H, 2021 IBC, 2022 CTSBC, ASCE 7-16, AISC 360
Ultimate Wind Speed: 119 mph w/o Ice
Wind Speed with Ice: 50 mph w/ 1" Ice

Site Data: 219 Nells Rock Road, Shelton, CT 06484, Fairfield County
Latitude 41.3041861° N, Longitude 73.118305° W
AT&T Market: NEW ENGLAND
162.5 ft – Modified AT&T TAG Self-Supporting Latticed Tower

Ms. Alison Skipper,

Kimley-Horn and Associates, Inc. is pleased to submit this “Comprehensive Structural Analysis Report” to determine the structural integrity of the above mentioned tower.

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

Existing+Proposed+Future:
Proposed Tower Rating: 68.4% **Pass**
Proposed Foundation Rating: 37.2% **Pass**

This analysis utilizes an ultimate 3-second gust wind speed of 119 mph as required by the 2021 International Building Code. Applicable Standard references and design criteria are listed on Page 2 - Analysis Criteria.

Structural analysis prepared by: Zachary A. Medoff, P.E.

Respectfully submitted by:
M. Ryan Doolittle, P.E.
Lic. #PEN.0036148, Exp. 01/31/2025
Kimley-Horn and Associates, Inc. COA #PEC.0000738



▪ INTRODUCTION

At the request of AT&T Towers, Kimley-Horn and Associates, Inc. performed a structural analysis of the modified self-supporting latticed tower located in Shelton, CT. The purpose of the analysis is to determine the adequacy of the tower to support the loading configuration outlined in Appendix A (Tower Analysis Summary Form), pursuant to the referenced standards.

▪ ANALYSIS CRITERIA

The analysis utilizes trnTower v. 8.2, an industry-standard finite element analysis program, to create an elastic three-dimensional model considering second-order effects per ANSI/TIA-222 requirements. The program calculates member stresses for various loading cases and selected output from the analysis is included in the appendices.

TIA-222 Revision:	ANSI/TIA-222-H
Risk Category:	II
Basic Wind Speed:	119 mph
Exposure Category:	B
Topographic Factor at Base:	1.00
Ice Thickness:	1.0 in
Wind Speed with Ice:	50 mph
Site Soil Class:	D (Default)
Seismic S_s:	0.204
Seismic S_1:	0.054

▪ SUPPORTING DOCUMENTATION

Information on the current tower geometry, member sizes, foundation dimensions, soil properties, and antenna loading was obtained from the sources listed below. It is assumed that all information provided to Kimley-Horn & Associates, Inc. is accurate. In the absence of information to the contrary, we assume the structure has been properly erected and maintained per the original design drawings and the capacity has not significantly changed from the "as new" condition.

Tower Mapping	GPD Project #2016713.69, dated October 14, 2016
Foundation Mapping	GPD Project #2016713.69, dated September 28, 2016
Geotechnical Report	GPD Project #2016713.69, dated September 28, 2016
Previous Analyses	GPD Project #2022702.64, dated 05/02/2022 Kimley-Horn Project #KHCL-4156, Rev. 1, dated 10/26/2020
AT&T Loading Data	AT&T RF Data Sheet ID #4814483, dated 09/06/2022
Verizon Loading Data	AT&T Colo App Site #467793, dated 12/05/2023

RESULTS

The tables below show a maximum usage summary for each group of components in the structure. The usage of a component is the ratio of force in the member compared to its calculated capacity. A more detailed report of member usages can be found in the appendix at the end of this report. Usages greater than 100% indicate where force in a member exceeds its capacity. Usages up to 105% are considered acceptable per industry standard practice.

Structure Usages:

Structure Component	Controlling Usage	Result
Legs	32.2%	Pass
Diagonals	68.4%	Pass
Horizontals/Girts	35.9%	Pass
Redundant Members	45.9%	Pass
Bolted Connections	40.6%	Pass
Anchor Rods	32.0%	Pass

Foundation Usages:

Foundation	Component	Controlling Usage	Result
Base Foundation ¹	Stability	37.2%	Pass
	Structure	14.9%	Pass

1 – Minimum steel reinforcement assumed per ACI 318, Chapter 10.9.1.

CONCLUSIONS AND RECOMMENDATIONS

Per our structural analysis, the structure has been found to pass. The tower and foundation can support the referenced loading in accordance with the structural strength requirements of ANSI/TIA-222-H and the 2021 International Building Code.

▪ ASSUMPTIONS AND LIMITATIONS

This report is not a condition assessment of the tower and foundation; It is an engineering analysis based upon the theoretical capacity of the structure. Unless told otherwise, we assume the tower and foundation to be in "like new" condition. It is the responsibility of our client and the tower owner to verify that the tower modeled and loading considered is accurate. If these assumptions are not accurate, Kimley-Horn & Associates, Inc. should be notified immediately to perform a revised analysis. This analysis assumes all antenna mounts are adequate to support the existing and proposed loads. It is the carrier's responsibility to ensure antenna mount meets the structural requirements of ANSI/TIA-222. Kimley-Horn & Associates, Inc. did not analyze antenna supporting mounts as part of this structural analysis report.

All services are performed, results obtained, and recommendation made in accordance with generally accepted engineering principles and practices. Kimley-Horn & Associates, Inc. is not responsible for the conclusions, opinions and recommendations made by others based on the information in this report.

Kimley-Horn makes no warranties, expressed or implied in connection with this report and disclaims any liability arising from original design, material, fabrication, and section deficiencies or corrosion of the tower.

APPENDIX A
Tower Analysis Summary Form

Tower Analysis Summary Form

General Info

Site Name	SHELTON EAST CENTRAL
Site Number	27016
FA Number	1304075
Date of Analysis	4/4/2024
Company Performing Analysis	Kimley-Horn

The information contained in this summary report is not to be used independently from the PE stamped tower analysis.

Tower Info

Tower Type (GT, SST, MP)	Description	Date
Tower Height (top of steel AGL)	SST	
Tower Manufacturer	AT&T TAG	
Tower Model	Unknown	
Tower Design	Not Provided	
Foundation Design	Not Provided	
Geotech Report	GPD Project #2016713.69	9/28/2016
Tower Mapping	GPD Project #2016713.69	10/14/2016
Previous Structural Analysis	GPD Project #2022709.64	5/2/2022
Previous Modification Drawings	Not Provided	
Foundation Mapping	GPD Project #2016713.69	9/28/2016

Design Parameters

Design Code Used	IIA-222-H
Location of Tower (County, State)	2021 IBC & ASCE 7-16 Fairfield, CT
Ultimate Wind Speed (mph)	119
Ice Thickness (in)	1
Risk Category (I, II, III, IV)	II
Exposure Category (B, C, D)	B
Topographic Category (1 to 5)	1

Analysis Results (% Maximum Usage)

Existing/Reserved + Proposed Condition	
Tower (%)	68.0%
Tower Base (%)	32.0%
Foundation (%)	37.4%
Foundation Adequate?	Yes

Steel Grades / Yield Strength (ksi)

Legs	50
Member Bracing	36
Member Bolts	A307/A325
Anchor Rods	G1015

Note: Grades have been assumed based on experience with similar structures.

Existing / Reserved Loading

Antenna Owner	Mount Height (ft)	Antenna CL (ft)	Quantity	Antenna				Azimuth	Mount			Transmission Line			
				Type	Manufacturer	Model	Quantity		Manufacturer	Type	Quantity	Model	Size	Attachment Leg/Face	
Unknown	162.5	184	1	Dipole	Unknown	15' Dipole		2	Unknown	14' Post w/ (2) 2' Side Arms on the same mount	1	Unknown	3/4"	Face D	
Unknown	162.5	183	1	Omni	Unknown	10' Omni		1	Unknown	on the same mount	1	Unknown	7/8"	Face D	
Unknown	162.5	175	1	Light	Unknown	Beacon		1	Unknown	13' Wx13' Post	2	Unknown	7/8"	Face D	
Unknown	162.5	170	1	Dipole	Unknown	10' Dipole		1	Unknown	28' Sq Platform w/Rails on the same mount	1	Unknown	1 1/2"	Face D	
Unknown	162.5	156	1	Dipole	Unknown	15' Dipole		1	Unknown	on the same mount	1	Unknown	Conduit	Face D	
AT&T Mobility	163	165	3	Panel	Kathrein	88010856		2	Unknown	Wx19' Beams on the same mounts	6	Coax	1-5/8"	Face D	
AT&T Mobility	163	165	3	Panel	Quinn	QR8-16.7	30/210/340	2	Unknown	on the same mounts	6	Coax	1-5/8"	Face D	
AT&T Mobility	163	165	3	Panel	Ericsson	AR6449 B77D+AR6419 B77G	30/210/340	2	Unknown	on the same mounts	6	Coax	1-5/8"	Face D	
AT&T Mobility	163	165	2	Filter	CommScope	WCS-IMFG-AMT	30/210/340	2	Unknown	on the same mounts	2	Coax	1-5/8"	Face D	
AT&T Mobility	163	165	3	RRU	Ericsson	RRUS 1478 B14		1	Unknown	RRU Mount on the same mount	3	DC Power Probe	7/8"	Face D	
AT&T Mobility	163	165	3	RRU	Ericsson	RRUS 32 B12		1	Unknown	on the same mount	3	DC Power Probe	1 1/2"	Face D	
AT&T Mobility	163	165	3	RRU	Ericsson	RRUS 32 B66A		1	Unknown	on the same mount	3	DC Power Probe	1 1/2"	Face D	
AT&T Mobility	163	165	3	RRU	Ericsson	4449 BS/B12		1	Unknown	on the same mount	3	DC Power Probe	1 1/2"	Face D	
AT&T Mobility	163	165	6	CommScope	CommScope	AP1DC-IMPDM-DB		1	Unknown	on the same mount	6	DC Power Probe	1 1/2"	Face D	
AT&T Mobility	163	165	1	Surge	Roycap	DC-48-60-16-8F		1	Unknown	on the same mount	1	DC Power Probe	1 1/2"	Face D	
AT&T Mobility	163	167	3	Surge	Roycap	DC-48-60-16-8C-EV		1	Unknown	on the same mount	3	DC Power Probe	1 1/2"	Face D	
Sprint	153	152	3	RRU	Alcatel-Lucent	RRH2X50-800		3	Unknown	Dual Stand-Offs on the same mounts	3	Hybrid	1 1/4"	Face B	
Sprint	153	152	3	RRU	Alcatel-Lucent	RRH1900-4X40		3	Unknown	on the same mounts	3	Hybrid	1 1/4"	Face B	
Sprint	153	152	3	RRU	Alcatel-Lucent	TD-RRH8X20-25		3	Unknown	on the same mounts	3	Hybrid	1 1/4"	Face B	
Sprint	153	152	3	RRU	Alcatel-Lucent	RRH-2X50-800		3	Unknown	on the same mounts	3	Hybrid	1 1/4"	Face B	
Sprint	149	149	3	Panel	RES	AP-QS/P56	50/270/250	3	Unknown	14 Sector Frames on the same mounts	3	Hybrid	1 1/2"	Face B	
Sprint	149	149	3	Panel	Nokia	AAHC	50/270/250	3	Unknown	on the same mounts	3	RET	3/8"	Face B	
Misc	144		1					1	Unknown	50'x30' Cross Catwalk					
T-Mobile	135	135	3	Panel	Ericsson	AIR-32 KR0901146-1 B25A/B2A	60/150/300	3	Unknown	2' Stand Offs on the same mounts	6	Coax	1-5/8"	Face D	
T-Mobile	135	135	3	Panel	RFS	APXVAARR24-43-U-NA20	60/150/300	3	Unknown	on the same mounts	6	Hybrid	1-3/8"	Face D	
T-Mobile	135	135	3	Panel	Ericsson	AIR6449 B41	60/150/300	3	Unknown	on the same mounts	6	Hybrid	1-3/8"	Face D	
T-Mobile	135	135	3	RRU	Ericsson	RRU4449 B71+B12		3	Unknown	on the same mounts	3	DC Power Probe	1 1/2"	Face D	
T-Mobile	135	135	3	RRU	Ericsson	Radio 4415		3	Unknown	on the same mounts	3	DC Power Probe	1 1/2"	Face D	
T-Mobile	135	135	3	RRU	Ericsson	SDX		3	Unknown	on the same mounts	3	DC Power Probe	1 1/2"	Face D	
T-Mobile	135	135	3	IMA	Ericsson	KRY 112 1-1		3	Unknown	on the same mounts	3	DC Power Probe	1 1/2"	Face D	
Verizon	125	125	6	Panel	Andrew	DB846F6S ZAXY	20/100/270	3	Unknown	12' Sector Frames on the same mounts	6	Coax	1-5/8"	Face C	
Verizon	125	125	6	Panel	JMA	MXD6F30CGD-03	20/190/270	3	Unknown	on the same mounts	6	Coax	1-5/8"	Face C	
Verizon	125	127	3	Panel	Samsung	KX7WMM	20/190/270	3	Unknown	on the same mounts	3	Coax	1-5/8"	Face C	
Verizon	125	123	3	Panel	Samsung	N15A07	20/190/270	3	Unknown	on the same mounts	3	Coax	1-5/8"	Face C	
Verizon	125	124	3	RRU	Samsung	BS-B13 R6H (R6-440g-13A)		3	Unknown	on the same mounts	3	DC Power Probe	1 1/2"	Face C	
Verizon	125	125	3	RRU	Samsung	B2-B6A R6H (R6-438g-25A)		3	Unknown	on the same mounts	3	DC Power Probe	1 1/2"	Face C	
Verizon	125	125	2	Surge	Roycap	RNFDC 3315 PF-48		2	Unknown	on the same mounts	2	DC Power Probe	1 1/2"	Face C	
Misc	112.5		1					1	Unknown	4 75' x 7' Catwalk					
Misc	87.5		2					2	Unknown	23' x 7' Catwalks					
Sprint	65	65	1	GPS	PCTel	GPS-IMG-HR-26NCM		1	Unknown	Leg	1	Unknown	1/2"	Face D	
Misc	62.5		1					1	Unknown	13' x 4 25' Catwalk					
Misc	25		1					1	Unknown	13' x 4 25' Catwalk					

Note: Loading listed in red shall be removed prior to the installation of the proposed equipment and has not been considered in this analysis. All other existing/reserved loading shall be reused.

Proposed Loading

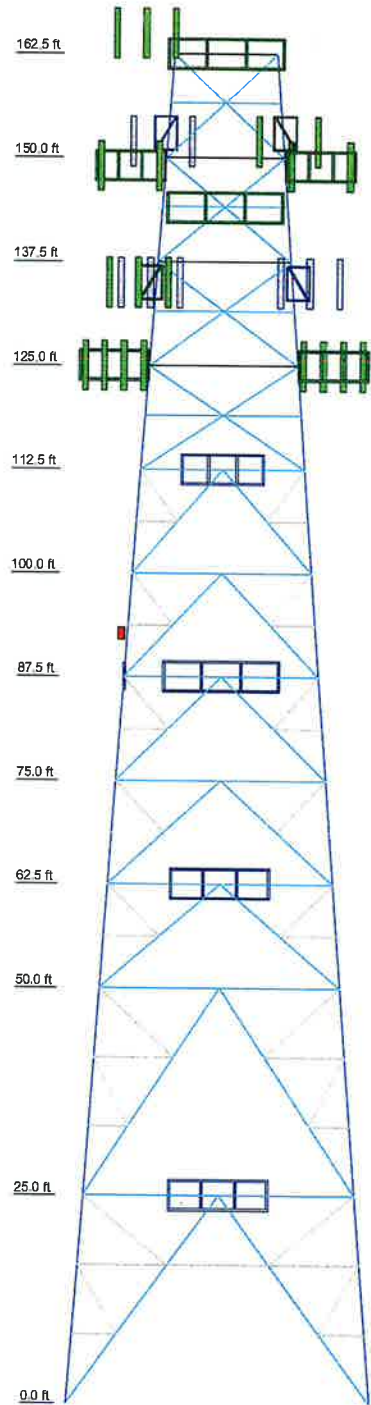
Antenna Owner	Mount Height (ft)	Antenna CL (ft)	Quantity	Antenna				Azimuth	Mount			Transmission Line			
				Type	Manufacturer	Model	Quantity		Manufacturer	Type	Quantity	Model	Size	Attachment Leg/Face	
Verizon	125	125	4	Filter	Kathrein	KA 8030		4	Unknown	on the existing mounts					

Note: The proposed loading shall be installed in addition to the remaining existing/reserved equipment at the same elevation.

APPENDIX B

tnxTower Output File

Section	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126
Legs	L8x8x1	L8x8x1	L8x8x3/4	L8x8x7/8	A36	A36	A36	L8x8x3/4	L8x8x3/4	L8x8x3/4	L8x8x5/8	L6x6x1/2				
Diagonals	2L3x3 1/2x3/8x3/8	2L3x3 1/2x3/8x3/8		2L2 1/2x2 1/2x1 1/4x3/8			2L2 1/2x2 1/2x1 1/4x3/8	2L3x2 1/2x1 1/4x3/8								
Diagonal Grade																
Top Chords																
Horizontals	2L3x3x3/8x3/8															
Sec. Horizontals	2L3x2 1/2x1 1/4x3/8															
Red. Horizontals	L2 1/2x2 1/2x1 1/4															
Red. Diagonals	2L2 1/2x3 1/2x1 1/4x3/8															
Inner Bracing	2L3x2 1/2x1 1/4x3/8															
Face Width (ft)	36.25															
# Panels @ (ft)	2 @ 25															
Weight (K)	62.1	19.2	3.4	14.9	4.1	4.1	14.9	11.9	3.4	14.9	4.1	4.1	14.9	3.4	14.9	3.4



SYMBOL LIST

MARK	SIZE	MARK	SIZE
A	L3 1/2x3 1/2x1/4	E	L2 1/2x2 1/2x1/4
B	2L3 1/2x3x1 1/4x3/8	F	2L2 1/2x2x3 1/16x3/8
C	2L3 1/2x3x5 1/16x3/8	G	2L2 1/2x2 1/2x3 1/16x3/8
D	2L3x2 1/2x1 1/4x3/8	H	2L2 1/2x2 1/2x1 1/4x3/8

MATERIAL STRENGTH

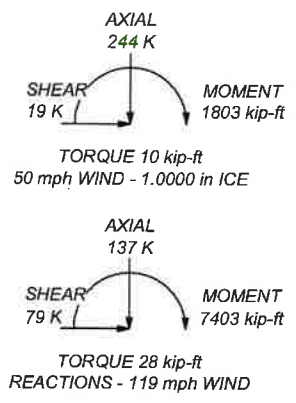
GRADE	Fy	Fu	GRADE	Fy	Fu
A36	36 ksi	58 ksi			

- ### TOWER DESIGN NOTES
1. Tower is located in Fairfield County, Connecticut.
 2. Tower designed for Exposure B to the TIA-222-H Standard.
 3. Tower designed for a 119 mph basic wind in accordance with the TIA-222-H Standard.
 4. Tower is also designed for a 50 mph basic wind with 1.00 in ice. Ice is considered to increase in thickness with height.
 5. Deflections are based upon a 60 mph wind.
 6. Tower Risk Category II.
 7. Topographic Category 1 with Crest Height of 0.00 ft
 8. TOWER RATING: 68.4%

ALL REACTIONS ARE FACTORED

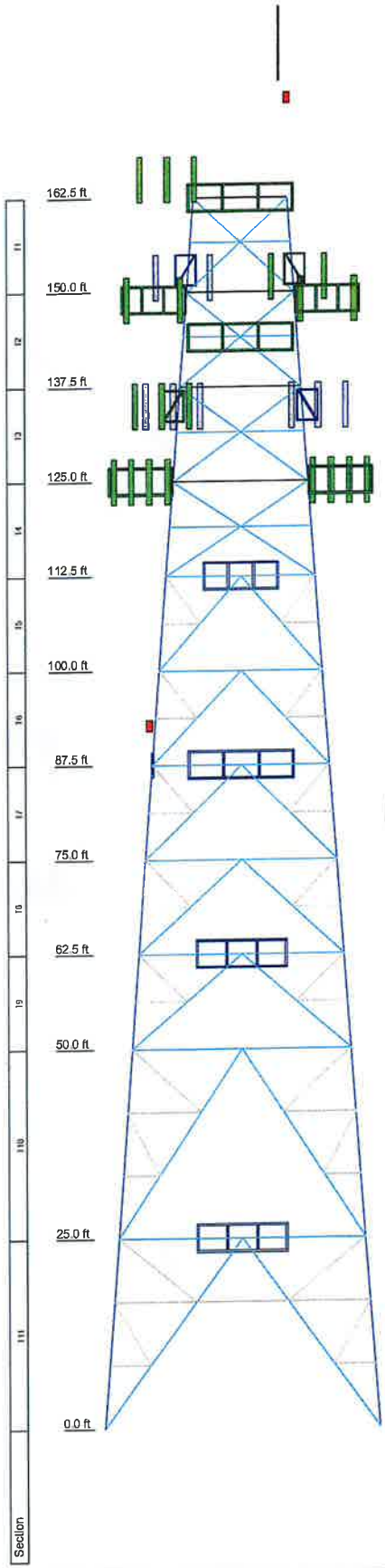
MAX. CORNER REACTIONS AT BASE:
 DOWN: 179 K
 SHEAR: 35 K

UPLIFT: -118 K
 SHEAR: 26 K



Kimley»Horn Kimley-Horn and Associates, Inc. 421 Fayetteville St., Suite 600 Raleigh, NC 27601 Phone: (919) 677-2000 FAX: [Redacted]

Job: **467793 - Shelton North 2 CT (FA #10034975)**
 Project: **KHCL-55054**
 Client: **AT&T / Verizon** Drawn by: **Zachary A. Medoff, P.E.** App'd:
 Code: **TIA-222-H** Date: **04/03/24** Scale: **NTS**
 Path: [Redacted] Dwg No. **E-1**



DESIGNED APPURTENANCE LOADING

TYPE	ELEVATION	TYPE	ELEVATION
(3) DC6-48-60-18-8C-EV	167	AIR 32 KRD901146-1 B66A/B2A w/ Mount Pipe	135
(3) RRRUS 4478 B14	165	AIR 32 KRD901146-1 B66A/B2A w/ Mount Pipe	135
(3) RRRUS 32 B30	165	AIR 32 KRD901146-1 B66A/B2A w/ Mount Pipe	135
(3) RRRUS 32 B2	165	AIR 32 KRD901146-1 B66A/B2A w/ Mount Pipe	135
(3) RRRUS 32 B66A	165	APXVAARR24_43-U-NA20 w/ Mount Pipe	135
(3) 4449 B5/B12	165	APXVAARR24_43-U-NA20 w/ Mount Pipe	135
DC6-48-60-18	165	APXVAARR24_43-U-NA20 w/ Mount Pipe	135
80010965 w/ Mount Pipe	163	APXVAARR24_43-U-NA20 w/ Mount Pipe	135
80010965 w/ Mount Pipe	163	APXVAARR24_43-U-NA20 w/ Mount Pipe	135
80010965 w/ Mount Pipe	163	APXVAARR24_43-U-NA20 w/ Mount Pipe	135
QD8616-7 w/ Mount Pipe	163	AIR6449 B41 w/ Mount Pipe	135
QD8616-7 w/ Mount Pipe	163	AIR6449 B41 w/ Mount Pipe	135
QD8616-7 w/ Mount Pipe	163	AIR6449 B41 w/ Mount Pipe	135
AIR6449 B77D+AIR6419 B77G (Stacked) w/ Mount Pipe	163	RRU4449 B71+B12	135
AIR6449 B77D+AIR6419 B77G (Stacked) w/ Mount Pipe	163	RRU4449 B71+B12	135
AIR6449 B77D+AIR6419 B77G (Stacked) w/ Mount Pipe	163	Radio 4415	135
WCS-IMFQ-AMT	163	Radio 4415	135
WCS-IMFQ-AMT	163	KRY 112 144/1	135
(2) APTDC-BDFDM-DB	163	KRY 112 144/1	135
(2) APTDC-BDFDM-DB	163	KRY 112 144/1	135
(2) APTDC-BDFDM-DB	163	SDX	135
15' Dipole	162.5	SDX	135
Pipe Mount 14"x2.875"	162.5	SDX	135
2' Standoff	162.5	2' Standoff	135
2' Standoff	162.5	2' Standoff	135
10' Omnl	162.5	2' Standoff	135
W5 x 13' Mount	162.5	(2) DB846F65ZAXY w/ MP	125
W8 x 19' Beams	162.5	(2) DB846F65ZAXY w/ MP	125
W8 x 19' Beams	162.5	(2) DB846F65ZAXY w/ MP	125
28' Square Platform w/ Rails	162.5	(2) MX06FRO860-03 w/ MP	125
15' Dipole	162.5	(2) MX06FRO860-03 w/ MP	125
10' Dipole	162.5	(2) MX06FRO860-03 w/ MP	125
Pipe Mount 14"x2.875"	162.5	XXDWM-12.5-65-8T-CBRS w/ MP	125
2' Standoff	162.5	XXDWM-12.5-65-8T-CBRS w/ MP	125
2' Standoff	162.5	XXDWM-12.5-65-8T-CBRS w/ MP	125
Flash Beacon Lighting	162.5	MT6407-77A	125
RRH2X50-800	153	MT6407-77A	125
RRH2X50-800	153	MT6407-77A	125
RRH2X50-800	153	RF4440d-13A	125
1900MHz 4X40W RRH	153	RF4440d-13A	125
1900MHz 4X40W RRH	153	RF4440d-13A	125
1900MHz 4X40W RRH	153	RF4439d-25A	125
TD-RRH8x20-25	153	RF4439d-25A	125
TD-RRH8x20-25	153	RF4439d-25A	125
TD-RRH8x20-25	153	(2) KA-6030	125
RRH 2x50 800 MHz	153	(2) KA-6030	125
RRH 2x50 800 MHz	153	RRFDC-3315-PF-48	125
RRH 2x50 800 MHz	153	RRFDC-3315-PF-48	125
(2) 2.5" x 3.5" Mount Pipe	153	Sector Mount [SM 302-1]	125
(2) 2.5" x 3.5" Mount Pipe	153	Sector Mount [SM 302-1]	125
(2) 2.5" x 3.5" Mount Pipe	153	Sector Mount [SM 302-1]	125
APXVSP18 w/ Mount Pipe	148	4 25' x 7' Catwalk	112.5
APXVSP18 w/ Mount Pipe	148	Side Light	92
APXVSP18 w/ Mount Pipe	148	Side Light	92
AAHC w/ Mount Pipe	148	23' x 3' Catwalk	87.5
AAHC w/ Mount Pipe	148	23' x 3' Catwalk	87.5
AAHC w/ Mount Pipe	148	GPS-TMG-HR-26N	65
14' Sector Frame	148	13' x 4 25' Catwalk	62.5
14' Sector Frame	148	13' x 4 25' Catwalk	25
14' Sector Frame	148	Feedline Raceway	8.33
Pipe Mount 6"x2.375"	148	Feedline Raceway	8.33
Pipe Mount 6"x2.375"	148	Feedline Raceway	8.33
Pipe Mount 6"x2.375"	148		
30' x 30' Cross Catwalk w/ Handrails	144		

Kimley >>> Horn Kimley-Horn and Associates, Inc. 421 Fayetteville St., Suite 600 Raleigh, NC 27601 Phone: (919) 677-2000 FAX: _____

Job: **467793 - Shelton North 2 CT (FA #10034975)**

Project: **KHCL-55054**

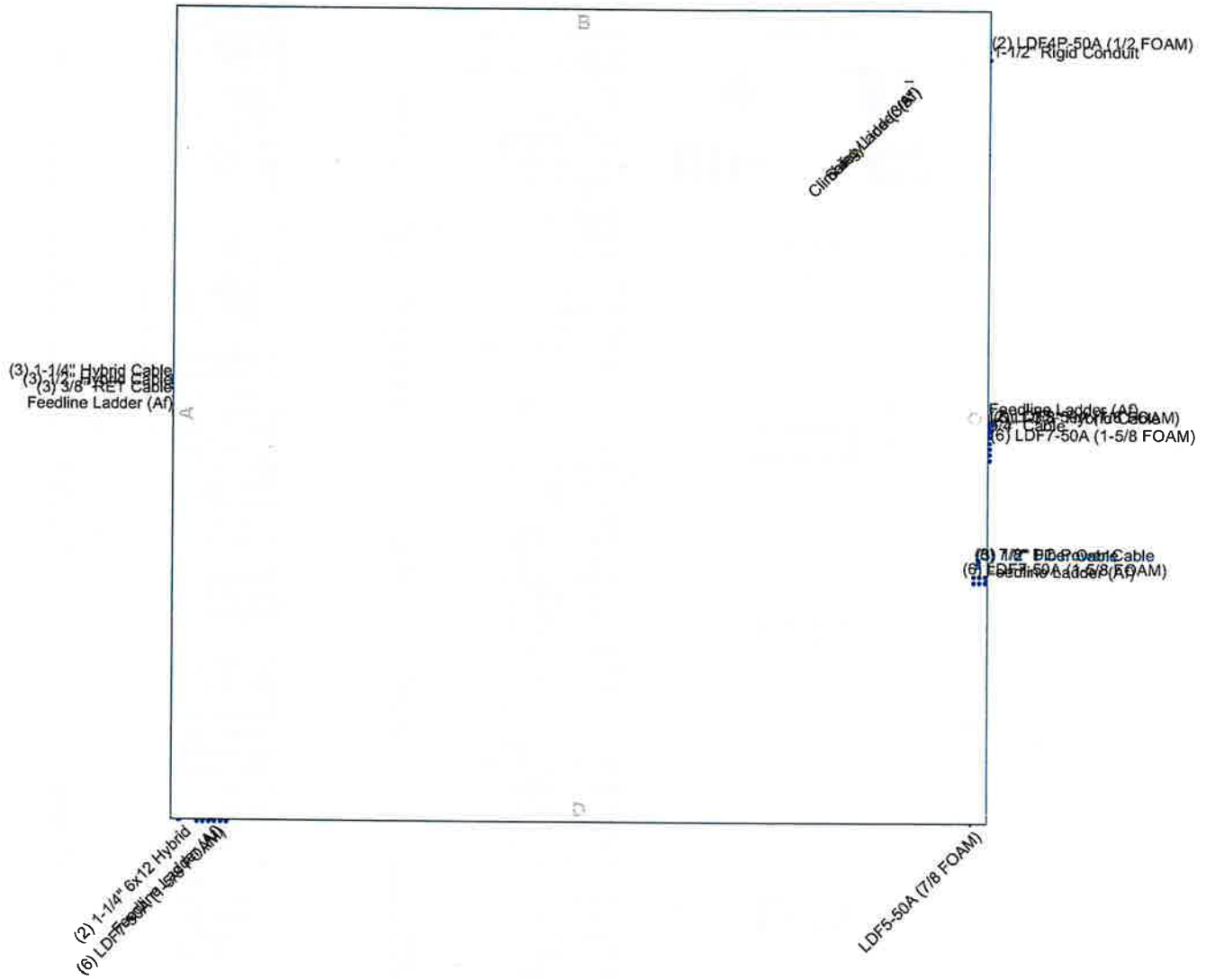
Client: **AT&T / Verizon** Drawn by: **Zachary A. Medoff, P.E.** App'd: _____

Code: **TIA-222-H** Date: **04/03/24** Scale: **NTS**

Path: _____ Dwg No. **E-1**

Feed Line Plan

— Round
 — Flat
 — App In Face
 — App Out Face



	Kimley-Horn and Associates, Inc.		Job: 467793 - Shelton North 2 CT (FA #10034975)		
	421 Fayetteville St., Suite 600		Project: KHCLE-55054		
	Raleigh, NC 27601		Client: AT&T / Verizon	Drawn by: Zachary A. Medoff, P.E.	App'd:
	Phone: (919) 677-2000		Code: TIA-222-H	Date: 04/03/24	Scale: NTS
	FAX:		Path:	Dwg No. E-7	

tnxTower Kimley-Horn and Associates, Inc. 421 Fayetteville St., Suite 600 Raleigh, NC 27601 Phone: (919) 677-2000 FAX:	Job 467793 - Shelton North 2 CT (FA #10034975)	Page 1 of 30
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	Client AT&T / Verizon	Designed by Zachary A. Medoff, P.E.

Tower Input Data

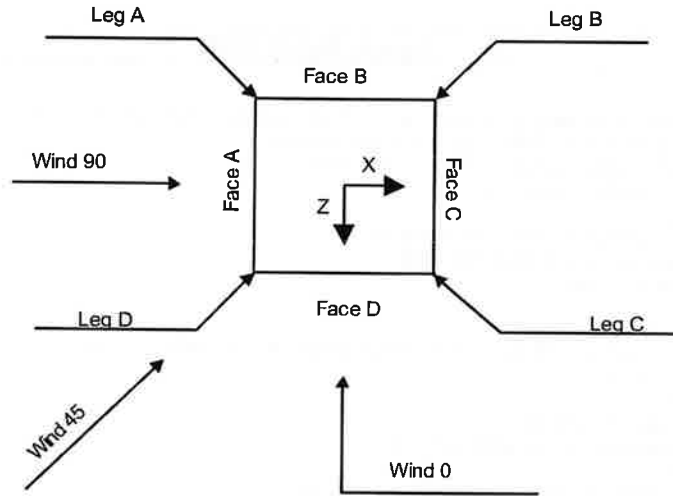
The main tower is a 4x free standing tower with an overall height of 162.50 ft above the ground line.
The base of the tower is set at an elevation of 0.00 ft above the ground line.
The face width of the tower is 12.25 ft at the top and 36.25 ft at the base.
This tower is designed using the TIA-222-H standard.
The following design criteria apply:

- Tower is located in Fairfield County, Connecticut.
- Tower base elevation above sea level: 456.55 ft.
- Basic wind speed of 119 mph.
- Risk Category II.
- Exposure Category B.
- Simplified Topographic Factor Procedure for wind speed-up calculations is used.
- Topographic Category: 1.
- Crest Height: 0.00 ft.
- Nominal ice thickness of 1.0000 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.
- Temperature drop of 50 °F.
- Deflections calculated using a wind speed of 60 mph.
- 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

- | | | |
|---|---|--|
| <ul style="list-style-type: none"> 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 | <ul style="list-style-type: none"> Assume Legs Pinned √ Assume Rigid Index Plate √ Use Clear Spans For Wind Area √ Use Clear Spans For KL/r Retention Guys To Initial Tension √ Bypass Mast Stability Checks √ Use Azimuth Dish Coefficients √ Project Wind Area of Appurtenances Alternative Appurt. EPA Calculation 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 | <ul style="list-style-type: none"> √ Calculate Redundant Bracing Forces Ignore Redundant Members in FEA SR Leg Bolts Resist Compression All Leg Panels Have Same Allowable Offset Girt At Foundation √ Consider Feed Line Torque √ Include Angle Block Shear Check Use TIA-222-H Bracing Resist. Exemption Use TIA-222-H Tension Splice Exemption <li style="padding-left: 20px;">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 |
|---|---|--|

tnxTower Kimley-Horn and Associates, Inc. 421 Fayetteville St., Suite 600 Raleigh, NC 27601 Phone: (919) 677-2000 FAX:	Job 467793 - Shelton North 2 CT (FA #10034975)	Page 2 of 30
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	Client AT&T / Verizon	Designed by Zachary A. Medoff, P.E.



Square Tower

Tower Section Geometry

Tower Section	Tower Elevation	Assembly Database	Description	Section Width	Number of Sections	Section Length
	ft			ft		ft
T1	162.50-150.00			12.25	1	12.50
T2	150.00-137.50			14.10	1	12.50
T3	137.50-125.00			15.94	1	12.50
T4	125.00-112.50			17.79	1	12.50
T5	112.50-100.00			19.63	1	12.50
T6	100.00-87.50			21.48	1	12.50
T7	87.50-75.00			23.33	1	12.50
T8	75.00-62.50			25.17	1	12.50
T9	62.50-50.00			27.02	1	12.50
T10	50.00-25.00			28.87	1	25.00
T11	25.00-0.00			32.56	1	25.00

Tower Section Geometry (cont'd)

Tower Section	Tower Elevation	Diagonal Spacing	Bracing Type	Has K Brace End Panels	Has Horizontals	Top Girt Offset	Bottom Girt Offset
	ft	ft				in	in
T1	162.50-150.00	12.50	X Brace	No	Yes	0.0000	0.0000
T2	150.00-137.50	12.50	X Brace	No	Yes	0.0000	0.0000
T3	137.50-125.00	12.50	X Brace	No	Yes	0.0000	0.0000
T4	125.00-112.50	12.50	X Brace	No	Yes	0.0000	0.0000
T5	112.50-100.00	12.50	K1 Down	No	Yes	0.0000	0.0000
T6	100.00-87.50	12.50	K1 Down	No	Yes	0.0000	0.0000
T7	87.50-75.00	12.50	K1 Down	No	Yes	0.0000	0.0000
T8	75.00-62.50	12.50	K1 Down	No	Yes	0.0000	0.0000
T9	62.50-50.00	12.50	K1 Down	No	Yes	0.0000	0.0000
T10	50.00-25.00	25.00	K2 Down	No	Yes	0.0000	0.0000
T11	25.00-0.00	25.00	K2 Down	No	Yes	0.0000	0.0000

Tower Section Geometry (cont'd)

tnxTower Kimley-Horn and Associates, Inc. 421 Fayetteville St., Suite 600 Raleigh, NC 27601 Phone: (919) 677-2000 FAX:	Job 467793 - Shelton North 2 CT (FA #10034975)	Page 3 of 30
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	Client AT&T / Verizon	Designed by Zachary A. Medoff, P.E.

Tower Elevation ft	Leg Type	Leg Size	Leg Grade	Diagonal Type	Diagonal Size	Diagonal Grade
T1 162.50-150.00	Equal Angle	L6x6x1/2	A36 (36 ksi)	Equal Angle	L3 1/2x3 1/2x1/4	A36 (36 ksi)
T2 150.00-137.50	Equal Angle	L6x6x1/2	A36 (36 ksi)	Single Angle	L3 1/2x3x1/4	A36 (36 ksi)
T3 137.50-125.00	Equal Angle	L6x6x5/8	A36 (36 ksi)	Single Angle	L4x3x1/4	A36 (36 ksi)
T4 125.00-112.50	Equal Angle	L6x6x5/8	A36 (36 ksi)	Double Angle	2L3x2x1/4x3/8	A36 (36 ksi)
T5 112.50-100.00	Equal Angle	L6x6x3/4	A36 (36 ksi)	Double Equal Angle	2L2 1/2x2 1/2x1/4x3/8	A36 (36 ksi)
T6 100.00-87.50	Equal Angle	L6x6x3/4	A36 (36 ksi)	Double Equal Angle	2L2 1/2x2 1/2x1/4x3/8	A36 (36 ksi)
T7 87.50-75.00	Equal Angle	L6x6x7/8	A36 (36 ksi)	Double Equal Angle	2L2 1/2x2 1/2x1/4x3/8	A36 (36 ksi)
T8 75.00-62.50	Equal Angle	L6x6x7/8	A36 (36 ksi)	Double Equal Angle	2L2 1/2x2 1/2x1/4x3/8	A36 (36 ksi)
T9 62.50-50.00	Equal Angle	L8x8x3/4	A36 (36 ksi)	Double Equal Angle	2L2 1/2x2 1/2x1/4x3/8	A36 (36 ksi)
T10 50.00-25.00	Equal Angle	L8x8x7/8	A36 (36 ksi)	Double Equal Angle	2L3x3x3/8x3/8	A36 (36 ksi)
T11 25.00-0.00	Equal Angle	L8x8x1	A36 (36 ksi)	Double Angle	2L3x3 1/2x3/8x3/8	A36 (36 ksi)

Tower Section Geometry (cont'd)

Tower Elevation ft	Top Girt Type	Top Girt Size	Top Girt Grade	Bottom Girt Type	Bottom Girt Size	Bottom Girt Grade
T1 162.50-150.00	Double Angle	2L3 1/2x3x1/4x3/8	A36 (36 ksi)	Equal Angle		A36 (36 ksi)
T2 150.00-137.50	Double Angle	2L3 1/2x3x5/16x3/8	A36 (36 ksi)	Equal Angle		A36 (36 ksi)
T3 137.50-125.00	Double Angle	2L3x2 1/2x1/4x3/8	A36 (36 ksi)	Equal Angle		A36 (36 ksi)
T4 125.00-112.50	Double Angle	2L3x2 1/2x1/4x3/8	A36 (36 ksi)	Equal Angle		A36 (36 ksi)

Tower Section Geometry (cont'd)

Tower Elevation ft	No. of Mid Girts	Mid Girt Type	Mid Girt Size	Mid Girt Grade	Horizontal Type	Horizontal Size	Horizontal Grade
T5 112.50-100.00	None	Flat Bar		A36 (36 ksi)	Double Angle	2L3x2 1/2x1/4x3/8	A36 (36 ksi)
T6 100.00-87.50	None	Flat Bar		A36 (36 ksi)	Double Equal Angle	2L2 1/2x2 1/2x1/4x3/8	A36 (36 ksi)
T7 87.50-75.00	None	Flat Bar		A36 (36 ksi)	Double Equal Angle	2L2 1/2x2 1/2x1/4x3/8	A36 (36 ksi)
T8 75.00-62.50	None	Flat Bar		A36 (36 ksi)	Double Equal Angle	2L2 1/2x2 1/2x1/4x3/8	A36 (36 ksi)
T9 62.50-50.00	None	Flat Bar		A36 (36 ksi)	Double Angle	2L3x2 1/2x1/4x3/8	A36 (36 ksi)
T10 50.00-25.00	None	Flat Bar		A36 (36 ksi)	Double Angle	2L3x2 1/2x1/4x3/8	A36 (36 ksi)
T11 25.00-0.00	None	Flat Bar		A36 (36 ksi)	Double Equal Angle	2L3x3x3/8x3/8	A36 (36 ksi)

Tower Section Geometry (cont'd)

Tower Elevation ft	Secondary Horizontal Type	Secondary Horizontal Size	Secondary Horizontal Grade	Inner Bracing Type	Inner Bracing Size	Inner Bracing Grade
T1 162.50-150.00	Single Angle	L3x2 1/2x1/4	A36 (36 ksi)	Equal Angle		A36 (36 ksi)

tnxTower Kimley-Horn and Associates, Inc. 421 Fayetteville St., Suite 600 Raleigh, NC 27601 Phone: (919) 677-2000 FAX:	Job 467793 - Shelton North 2 CT (FA #10034975)	Page 4 of 30
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	Client AT&T / Verizon	Designed by Zachary A. Medoff, P.E.

Tower Elevation ft	Secondary Horizontal Type	Secondary Horizontal Size	Secondary Horizontal Grade	Inner Bracing Type	Inner Bracing Size	Inner Bracing Grade
T2 150.00-137.50	Channel	C6x8.2	A36 (36 ksi)	Equal Angle		A36 (36 ksi)
T3 137.50-125.00	Single Angle	L3x2 1/2x1/4	A36 (36 ksi)	Equal Angle		A36 (36 ksi)
T4 125.00-112.50	Single Angle	L3x2 1/2x1/4	A36 (36 ksi)	Equal Angle		A36 (36 ksi)
T5 112.50-100.00	Equal Angle		A36 (36 ksi)	Double Angle	2L2 1/2x2x3/16x3/8	A36 (36 ksi)
T6 100.00-87.50	Equal Angle		A36 (36 ksi)	Double Equal Angle	2L2 1/2x2 1/2x3/16x3/8	A36 (36 ksi)
T7 87.50-75.00	Equal Angle		A36 (36 ksi)	Double Angle	2L3x2 1/2x1/4x3/8	A36 (36 ksi)
T8 75.00-62.50	Equal Angle		A36 (36 ksi)	Double Equal Angle	2L2 1/2x2 1/2x3/16x3/8	A36 (36 ksi)
T9 62.50-50.00	Equal Angle		A36 (36 ksi)	Double Equal Angle	2L2 1/2x2 1/2x1/4x3/8	A36 (36 ksi)
T10 50.00-25.00	Equal Angle		A36 (36 ksi)	Equal Angle	L3x3x1/4	A36 (36 ksi)
T11 25.00-0.00	Equal Angle		A36 (36 ksi)	Double Angle	2L3x2 1/2x1/4x3/8	A36 (36 ksi)

Tower Section Geometry (cont'd)

Tower Elevation ft	Redundant Bracing Grade	Redundant Type	Redundant Size	K Factor
T5 112.50-100.00	A36 (36 ksi)	Horizontal (1)	Single Angle L2 1/2x2x3/16	1
	A36 (36 ksi)	Diagonal (1)	Equal Angle L2 1/2x2 1/2x3/16	1
T6 100.00-87.50	A36 (36 ksi)	Horizontal (1)	Single Angle L2 1/2x2x3/16	1
	A36 (36 ksi)	Diagonal (1)	Equal Angle L2 1/2x2 1/2x3/16	1
T7 87.50-75.00	A36 (36 ksi)	Horizontal (1)	Single Angle L2 1/2x2x3/16	1
	A36 (36 ksi)	Diagonal (1)	Equal Angle L2 1/2x2 1/2x3/16	1
T8 75.00-62.50	A36 (36 ksi)	Horizontal (1)	Single Angle L2 1/2x2 1/2x3/16	1
	A36 (36 ksi)	Diagonal (1)	Equal Angle L2 1/2x2 1/2x3/16	1
T9 62.50-50.00	A36 (36 ksi)	Horizontal (1)	Equal Angle L2 1/2x2 1/2x1/4	1
	A36 (36 ksi)	Diagonal (1)	Equal Angle L2 1/2x2 1/2x3/16	1
T10 50.00-25.00	A36 (36 ksi)	Horizontal (1)	Single Angle L2 1/2x2x3/16	1
	A36 (36 ksi)	Horizontal (2)	Equal Angle L2 1/2x2 1/2x1/4	1
	A36 (36 ksi)	Diagonal (1)	Equal Angle L2 1/2x2 1/2x3/16	1
	A36 (36 ksi)	Diagonal (2)	Single Angle L3x3 1/2x1/4	1
T11 25.00-0.00	A36 (36 ksi)	Horizontal (1)	Equal Angle L2 1/2x2 1/2x3/16	1
	A36 (36 ksi)	Horizontal (2)	Equal Angle L2 1/2x2 1/2x1/4	1
	A36 (36 ksi)	Diagonal (1)	Equal Angle L2 1/2x2 1/2x3/16	1
	A36 (36 ksi)	Diagonal (2)	Double Angle 2L2 1/2x2x1/4x3/8	1
	A36 (36 ksi)	Sub-Horizontal	Double Angle 2L2 1/2x3 1/2x1/4x3/8	1
	A36 (36 ksi)	Vertical	Equal Angle L3x3x1/4	1

Tower Section Geometry (cont'd)

Tower Elevation ft	Gusset Area (per face) ft ²	Gusset Thickness in	Gusset Grade	Adjust. Factor A _t	Adjust. Factor A _r	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals in	Double Angle Stitch Bolt Spacing Horizontals in	Double Angle Stitch Bolt Spacing Redundants in
T1 162.50-150.00	0.00	0.0000	A36	1	1	1	36.0000	36.0000	36.0000
T2 150.00-137.50	0.00	0.0000	(36 ksi) A36	1	1	1	36.0000	36.0000	36.0000
T3 137.50-125.00	0.00	0.0000	(36 ksi) A36	1	1	1	36.0000	36.0000	36.0000
T4 125.00-112.50	0.00	0.0000	(36 ksi) A36	1	1	1	36.0000	36.0000	36.0000
T5 112.50-100.00	0.00	0.0000	(36 ksi) A36	1	1	1	36.0000	36.0000	36.0000
T6 100.00-87.50	0.00	0.0000	(36 ksi) A36	1	1	1	36.0000	36.0000	36.0000
T7 87.50-75.00	0.00	0.0000	(36 ksi) A36	1	1	1	36.0000	36.0000	36.0000
T8 75.00-62.50	0.00	0.0000	(36 ksi) A36	1	1	1	36.0000	36.0000	36.0000
T9 62.50-50.00	0.00	0.0000	(36 ksi) A36	1	1	1	36.0000	36.0000	36.0000

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Tower Elevation	Gusset Area (per face)	Gusset Thickness	Gusset Grade	Adjust. Factor A _r	Adjust. Factor A _r	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals in	Double Angle Stitch Bolt Spacing Horizontals in	Double Angle Stitch Bolt Spacing Redundants in
ft	ft ²	in	(36 ksi) A36 (36 ksi) A36 (36 ksi)						
T10 50.00-25.00	0.00	0.0000		1	1	1	36.0000	36.0000	36.0000
T11 25.00-0.00	0.00	0.0000		1	1	1	36.0000	36.0000	36.0000

Tower Section Geometry (cont'd)

Tower Elevation	Calc K Single Angles	Calc K Solid Rounds	Legs	K Factors ¹																	
				X Brace Diags	K Brace Diags	Single Diags	Girts	Horiz.		Sec. Horiz.	Inner Brace										
								X	Y			X	Y	X	Y						
ft				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
T1 162.50-150.00	Yes	Yes	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
T2 150.00-137.50	Yes	Yes	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
T3 137.50-125.00	Yes	Yes	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
T4 125.00-112.50	Yes	Yes	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
T5 112.50-100.00	Yes	Yes	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
T6 100.00-87.50	Yes	Yes	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
T7 87.50-75.00	Yes	Yes	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
T8 75.00-62.50	Yes	Yes	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
T9 62.50-50.00	Yes	Yes	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
T10 50.00-25.00	Yes	Yes	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
T11 25.00-0.00	Yes	Yes	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

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

Tower Section Geometry (cont'd)

Tower Elevation ft	Leg		Diagonal		Top Girt		Bottom Girt		Mid Girt		Long Horizontal		Short Horizontal	
	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U
T1 162.50-150.00	0.0000	1	0.8125	0.75	0.0000	1	0.0000	1	0.0000	0.75	0.0000	1	0.0000	0.75
T2 150.00-137.50	2.0312	1	0.8125	0.75	0.0000	1	0.0000	1	0.0000	0.75	0.0000	1	0.0000	0.75
T3 137.50-125.00	0.0000	1	0.8125	0.75	0.0000	1	0.0000	1	0.0000	0.75	0.0000	1	0.0000	0.75
T4 125.00-112.50	2.0312	1	0.8125	0.75	0.0000	1	0.0000	1	0.0000	0.75	0.0000	1	0.0000	0.75
T5 112.50-100.00	0.0000	1	0.8125	0.75	0.0000	1	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	1
T6 100.00-87.50	2.0312	1	0.8125	0.75	0.0000	1	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	1
T7 87.50-75.00	0.0000	1	0.8125	0.75	0.0000	1	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	1
T8 75.00-62.50	2.0312	1	0.8125	0.75	0.0000	1	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	1
T9 62.50-50.00	2.0312	1	0.8125	0.75	0.0000	1	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	1
T10 50.00-25.00	2.0312	1	0.8125	0.75	0.0000	1	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	1
T11 25.00-0.00	2.0312	1	0.8125	0.75	0.0000	1	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	1

Tower Elevation ft	Redundant Horizontal		Redundant Diagonal		Redundant Sub-Diagonal		Redundant Sub-Horizontal		Redundant Vertical		Redundant Hip		Redundant Hip Diagonal	
	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U
T1 162.50-150.00	0.0000	1 (1)	0.0000	1 (1)	0.0000	1	0.0000	1	0.0000	1	0.0000	1 (1)	0.0000	1 (1)
	0.0000	1 (2)	0.0000	1 (2)							0.0000	1 (2)	0.0000	1 (2)
	0.0000	0.75 (3)	0.0000	0.75 (3)							0.0000	0.75 (3)	0.0000	0.75 (3)
	0.0000	0.75 (4)	0.0000	0.75 (4)							0.0000	0.75 (4)	0.0000	0.75 (4)
T2 150.00-137.50	0.0000	1 (1)	0.0000	1 (1)	0.0000	1	0.0000	1	0.0000	1	0.0000	1 (1)	0.0000	1 (1)

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Tower Elevation ft	Redundant Horizontal		Redundant Diagonal		Redundant Sub-Diagonal		Redundant Sub-Horizontal		Redundant Vertical		Redundant Hip		Redundant Hip Diagonal	
	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U
T3 137.50-125.00	0.0000	1 (2)	0.0000	1 (2)	0.0000	1 (2)	0.0000	1 (2)	0.0000	1 (2)	0.0000	1 (2)	0.0000	1 (2)
T4 125.00-112.50	0.0000	0.75 (3)	0.0000	0.75 (3)	0.0000	0.75 (3)	0.0000	0.75 (3)	0.0000	0.75 (3)	0.0000	0.75 (3)	0.0000	0.75 (3)
T5 112.50-100.00	0.0000	0.75 (4)	0.0000	0.75 (4)	0.0000	0.75 (4)	0.0000	0.75 (4)	0.0000	0.75 (4)	0.0000	0.75 (4)	0.0000	0.75 (4)
T6 100.00-87.50	0.0000	1 (1)	0.0000	1 (1)	0.0000	1 (1)	0.0000	1 (1)	0.0000	1 (1)	0.0000	1 (1)	0.0000	1 (1)
T7 87.50-75.00	0.0000	1 (2)	0.0000	1 (2)	0.0000	1 (2)	0.0000	1 (2)	0.0000	1 (2)	0.0000	1 (2)	0.0000	1 (2)
T8 75.00-62.50	0.0000	0.75 (3)	0.0000	0.75 (3)	0.0000	0.75 (3)	0.0000	0.75 (3)	0.0000	0.75 (3)	0.0000	0.75 (3)	0.0000	0.75 (3)
T9 62.50-50.00	0.0000	0.75 (4)	0.0000	0.75 (4)	0.0000	0.75 (4)	0.0000	0.75 (4)	0.0000	0.75 (4)	0.0000	0.75 (4)	0.0000	0.75 (4)
T10 50.00-25.00	0.0000	1 (1)	0.0000	1 (1)	0.0000	1 (1)	0.0000	1 (1)	0.0000	1 (1)	0.0000	1 (1)	0.0000	1 (1)
T11 25.00-0.00	0.0000	1 (2)	0.0000	1 (2)	0.0000	1 (2)	0.0000	1 (2)	0.0000	1 (2)	0.0000	1 (2)	0.0000	1 (2)
	0.0000	0.75 (3)	0.0000	0.75 (3)					0.0000	0.75 (3)	0.0000	0.75 (3)	0.0000	0.75 (3)
	0.0000	0.75 (4)	0.0000	0.75 (4)					0.0000	0.75 (4)	0.0000	0.75 (4)	0.0000	0.75 (4)

Tower Section Geometry (cont'd)

Tower Elevation ft	Leg Connection Type	Leg		Diagonal		Top Girt		Bottom Girt		Mid Girt		Long Horizontal		Short Horizontal	
		Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.
T1 162.50-150.00	Sleeve DS	0.0000	0	0.7500	5	0.0000	0	0.0000	0	0.6250	0	0.0000	0	0.7500	2
T2 150.00-137.50	Sleeve DS	0.7500	16	0.7500	4	0.0000	0	0.0000	0	0.6250	0	0.0000	0	0.7500	3
T3 137.50-125.00	Sleeve DS	0.0000	0	0.7500	5	0.0000	0	0.0000	0	0.6250	0	0.0000	0	0.7500	2
T4 125.00-112.50	Sleeve DS	0.7500	16	0.7500	4	0.0000	0	0.0000	0	0.6250	0	0.0000	0	0.7500	2
T5 112.50-100.00	Sleeve DS	0.0000	0	0.7500	2	0.0000	0	0.0000	0	0.6250	0	0.7500	2	0.0000	0
T6 100.00-87.50	Sleeve DS	0.7500	20	0.7500	2	0.0000	0	0.0000	0	0.6250	0	0.7500	2	0.0000	0
T7 87.50-75.00	Sleeve DS	0.0000	0	0.7500	2	0.0000	0	0.0000	0	0.6250	0	0.7500	2	0.0000	0
T8 75.00-62.50	Sleeve DS	0.7500	28	0.7500	2	0.0000	0	0.0000	0	0.6250	0	0.7500	2	0.0000	0
T9 62.50-50.00	Sleeve DS	0.7500	28	0.7500	3	0.0000	0	0.0000	0	0.6250	0	0.7500	2	0.0000	0

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Tower Elevation ft	Leg Connection Type	Leg		Diagonal		Top Girt		Bottom Girt		Mid Girt		Long Horizontal		Short Horizontal	
		Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.
T10 50.00-25.00	Sleeve DS	0.7500 A307	32	0.7500 A325N	3	0.0000 A307	0	0.0000 A307	0	0.6250 A325N	0	0.7500 A307	3	0.0000 A307	0
T11 25.00-0.00	Sleeve DS	0.7500 A307	36	0.7500 A307	5	0.0000 A307	0	0.0000 A307	0	0.6250 A325N	0	0.7500 A307	3	0.0000 A307	0

Feed Line/Linear Appurtenances - Entered As Round Or Flat

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Face Offset in	Lateral Offset (Frac FW)	#	# Per Row	Clear Spacing in	Width or Diameter in	Perimeter in	Weight plf
Climbing Ladder (Af)	B	No	No	Af (CaAa)	10.00 - 162.50	-38.0000	0.4	1	1	0.0000	3.8400		4.81
Safely Line (3/8")	B	No	No	Ar (CaAa)	10.00 - 162.50	-38.0000	0.4	1	1	0.0000	0.3750		0.22
Feedline Ladder (Af)	C	No	No	Af (CaAa)	10.00 - 162.50	-1.0000	0.2	1	1	0.0000	3.0000		8.40
Feedline Ladder (Af)	A	No	No	Af (CaAa)	10.00 - 153.00	0.0000	0	1	1	0.0000	3.0000		8.40
Feedline Ladder (Af)	C	No	No	Af (CaAa)	10.00 - 135.00	0.0000	0	1	1	0.0000	3.0000		8.40
Feedline Ladder (Af)	D	No	No	Af (CaAa)	10.00 - 125.00	0.0000	0.45	1	1	0.0000	3.0000		8.40
Coax Cage (40.5' Semi-Circle)	C	No	No	Af (CaAa)	12.50 - 35.00	0.0000	0.35	1	1	0.0000	18.0000		20.00
Coax Cage (40.5' Semi-Circle)	C	No	No	Af (CaAa)	12.50 - 35.00	0.0000	-0.35	1	1	0.0000	18.0000		20.00
Coax Cage (40.5' Semi-Circle)	A	No	No	Af (CaAa)	12.50 - 35.00	0.0000	0.35	1	1	0.0000	18.0000		20.00
LDF4P-50A (1/2 FOAM)	C	No	No	Ar (CaAa)	65.00 - 162.50	0.0000	-0.45	1	1	0.0000	0.6300		0.15
LDF4P-50A (1/2 FOAM)	C	No	No	Ar (CaAa)	10.00 - 65.00	0.0000	-0.45	2	2	0.0000	0.6300		0.15
1-1/2" Rigid Conduit	C	No	No	Ar (CaAa)	10.00 - 162.50	0.0000	-0.44	1	1	0.0000	1.5000		1.00
LDF5-50A (7/8 FOAM)	C	No	No	Ar (CaAa)	10.00 - 162.50	0.0000	0.01	2	2	0.0000	1.0900		0.33
3/4" Cable	C	No	No	Ar (CaAa)	10.00 - 162.50	0.0000	0.02	1	1	0.0000	0.7500		0.35
LDF5-50A (7/8 FOAM)	D	No	No	Ar (CaAa)	10.00 - 162.50	0.0000	-0.48	1	1	0.0000	1.0900		0.33
LDF7-50A (1-5/8 FOAM)	C	No	No	Ar (CaAa)	10.00 - 162.50	-6.0000	0.2	6	2	1.0000	1.9800		0.82
7/8" DC Power Cable	C	No	No	Ar (CaAa)	10.00 - 162.50	-5.0000	0.18	8	4	0.5000	0.8750		0.60
1/2" Fiber Cable	C	No	No	Ar (CaAa)	10.00 - 162.50	-5.0000	0.18	3	2	0.0000	0.6300		0.15
1-1/4" Hybrid Cable	A	No	No	Ar (CaAa)	10.00 - 153.00	0.0000	0.04	3	3	0.5000 0.0000	1.2500		1.00
1/2" Hybrid Cable	A	No	No	Ar (CaAa)	10.00 - 149.00	0.0000	0.03	3	2	0.0000	0.5000		3.00
3/8" RET Cable	A	No	No	Ar (CaAa)	10.00 - 149.00	0.0000	0.02	3	2	0.0000	0.3750		0.10
LDF7-50A (1-5/8 FOAM)	C	No	No	Ar (CaAa)	10.00 - 135.00	0.0000	0.035	6	6	1.0000 0.0000	1.9800		0.82
1-3/8" Hybrid Cable	C	No	No	Ar (CaAa)	10.00 - 135.00	0.0000	0.01	6	3	0.5000	1.3750		0.65
LDF7-50A (1-5/8 FOAM)	D	No	No	Ar (CaAa)	10.00 - 125.00	0.0000	0.45	6	6	1.0000 0.0000	1.9800		0.82
1-1/4" 6x12 Hybrid	D	No	No	Ar (CaAa)	10.00 - 125.00	0.0000	0.49	2	2	0.0000	1.2500		0.68

Feed Line/Linear Appurtenances - Entered As Area

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Total Number	C _A	Weight
							ft ² /ft	plf

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Feed Line/Linear Appurtenances Section Areas

Tower Section	Tower Elevation ft	Face	A _R ft ²	A _F ft ²	C _A A _A In Face ft ²	C _A A _A Out Face ft ²	Weight K
T1	162.50-150.00	A	0.000	0.000	2.625	0.000	0.03
		B	0.000	0.000	8.469	0.000	0.06
		C	0.000	0.000	38.538	0.000	0.26
		D	0.000	0.000	1.363	0.000	0.00
T2	150.00-137.50	A	0.000	0.000	13.956	0.000	0.25
		B	0.000	0.000	8.469	0.000	0.06
		C	0.000	0.000	38.538	0.000	0.26
		D	0.000	0.000	1.363	0.000	0.00
T3	137.50-125.00	A	0.000	0.000	14.219	0.000	0.26
		B	0.000	0.000	8.469	0.000	0.06
		C	0.000	0.000	63.667	0.000	0.43
		D	0.000	0.000	1.363	0.000	0.00
T4	125.00-112.50	A	0.000	0.000	14.219	0.000	0.26
		B	0.000	0.000	8.469	0.000	0.06
		C	0.000	0.000	69.950	0.000	0.47
		D	0.000	0.000	25.587	0.000	0.19
T5	112.50-100.00	A	0.000	0.000	14.219	0.000	0.26
		B	0.000	0.000	8.469	0.000	0.06
		C	0.000	0.000	69.950	0.000	0.47
		D	0.000	0.000	25.587	0.000	0.19
T6	100.00-87.50	A	0.000	0.000	14.219	0.000	0.26
		B	0.000	0.000	8.469	0.000	0.06
		C	0.000	0.000	69.950	0.000	0.47
		D	0.000	0.000	25.587	0.000	0.19
T7	87.50-75.00	A	0.000	0.000	14.219	0.000	0.26
		B	0.000	0.000	8.469	0.000	0.06
		C	0.000	0.000	69.950	0.000	0.47
		D	0.000	0.000	25.587	0.000	0.19
T8	75.00-62.50	A	0.000	0.000	14.219	0.000	0.26
		B	0.000	0.000	8.469	0.000	0.06
		C	0.000	0.000	70.108	0.000	0.47
		D	0.000	0.000	25.587	0.000	0.19
T9	62.50-50.00	A	0.000	0.000	14.219	0.000	0.26
		B	0.000	0.000	8.469	0.000	0.06
		C	0.000	0.000	70.737	0.000	0.48
		D	0.000	0.000	25.587	0.000	0.19
T10	50.00-25.00	A	0.000	0.000	53.437	0.000	0.72
		B	0.000	0.000	16.938	0.000	0.13
		C	0.000	0.000	191.474	0.000	1.35
		D	0.000	0.000	51.175	0.000	0.38
T11	25.00-0.00	A	0.000	0.000	48.312	0.000	0.56
		B	0.000	0.000	10.162	0.000	0.08
		C	0.000	0.000	147.383	0.000	1.07
		D	0.000	0.000	30.705	0.000	0.23

Feed Line/Linear Appurtenances Section Areas - With Ice

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A _R ft ²	A _F ft ²	C _A A _A In Face ft ²	C _A A _A Out Face ft ²	Weight K
T1	162.50-150.00	A	1.168	0.000	0.000	5.179	0.000	0.07
		B		0.000	0.000	14.310	0.000	0.16
		C		0.000	0.000	71.549	0.000	0.92
		D		0.000	0.000	4.283	0.000	0.04
T2	150.00-137.50	A	1.159	0.000	0.000	34.494	0.000	0.47
		B		0.000	0.000	14.261	0.000	0.16
		C		0.000	0.000	71.283	0.000	0.91
		D		0.000	0.000	4.259	0.000	0.04
T3	137.50-125.00	A	1.148	0.000	0.000	35.460	0.000	0.48
		B		0.000	0.000	14.209	0.000	0.16
		C		0.000	0.000	114.430	0.000	1.47
		D		0.000	0.000	4.233	0.000	0.04
T4	125.00-112.50	A	1.137	0.000	0.000	35.282	0.000	0.48
		B		0.000	0.000	14.152	0.000	0.16
		C		0.000	0.000	124.854	0.000	1.60
		D		0.000	0.000	53.221	0.000	0.63
T5	112.50-100.00	A	1.124	0.000	0.000	35.087	0.000	0.48
		B		0.000	0.000	14.089	0.000	0.16
		C		0.000	0.000	124.376	0.000	1.59
		D		0.000	0.000	53.057	0.000	0.63
T6	100.00-87.50	A	1.110	0.000	0.000	34.870	0.000	0.47

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Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A _R ft ²	A _F ft ²	C _x A _i In Face ft ²	C _x A _i Out Face ft ²	Weight K
T7	87.50-75.00	B	1.094	0.000	0.000	14.019	0.000	0.15
		C		0.000	0.000	123.844	0.000	1.58
		D		0.000	0.000	52.874	0.000	0.62
		A		0.000	0.000	34.625	0.000	0.47
T8	75.00-62.50	B	1.076	0.000	0.000	13.940	0.000	0.15
		C		0.000	0.000	123.244	0.000	1.56
		D		0.000	0.000	52.667	0.000	0.61
		A		0.000	0.000	34.343	0.000	0.46
T9	62.50-50.00	B	1.055	0.000	0.000	13.850	0.000	0.15
		C		0.000	0.000	123.234	0.000	1.55
		D		0.000	0.000	52.430	0.000	0.61
		A		0.000	0.000	34.011	0.000	0.46
T10	50.00-25.00	B	1.013	0.000	0.000	13.743	0.000	0.15
		C		0.000	0.000	125.102	0.000	1.53
		D		0.000	0.000	52.150	0.000	0.60
		A		0.000	0.000	92.830	0.000	1.26
T11	25.00-0.00	B	0.907	0.000	0.000	27.066	0.000	0.29
		C		0.000	0.000	299.074	0.000	3.70
		D		0.000	0.000	103.204	0.000	1.16
		A		0.000	0.000	70.566	0.000	0.94
		B		0.000	0.000	15.607	0.000	0.16
		C		0.000	0.000	208.057	0.000	2.53
		D		0.000	0.000	60.272	0.000	0.65
		A		0.000	0.000			

Feed Line Center of Pressure

Section	Elevation ft	CP _x in	CP _z in	CP _x Ice in	CP _z Ice in
T1	162.50-150.00	12.3088	3.0196	19.6260	2.1744
T2	150.00-137.50	10.2692	2.6948	13.8888	1.5957
T3	137.50-125.00	14.1740	3.1026	19.3235	1.9950
T4	125.00-112.50	5.6664	5.8613	6.6464	6.9675
T5	112.50-100.00	6.5850	6.7564	7.4647	7.7603
T6	100.00-87.50	7.1086	7.2580	7.9493	8.2306
T7	87.50-75.00	7.5004	7.6307	8.3245	8.6095
T8	75.00-62.50	7.8959	7.8907	8.7283	8.8199
T9	62.50-50.00	7.5936	7.1593	8.7937	8.1061
T10	50.00-25.00	8.6917	2.4408	10.2559	4.4478
T11	25.00-0.00	6.0902	-1.5726	7.3815	0.2684

Shielding Factor Ka

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
T11	1	Climbing Ladder (Af)	150.00 - 162.50	0.6000	0.6000
T11	2	Safety Line (3/8")	150.00 - 162.50	0.6000	0.6000
T11	3	Feedline Ladder (Af)	150.00 - 162.50	0.6000	0.6000
T11	4	Feedline Ladder (Af)	150.00 - 153.00	0.6000	0.6000
T11	11	LDF4P-50A (1/2 FOAM)	150.00 - 162.50	0.6000	0.6000
T11	13	1-1/2" Rigid Conduit	150.00 - 162.50	0.6000	0.6000
T11	14	LDF5-50A (7/8 FOAM)	150.00 - 162.50	0.6000	0.6000
T11	15	3/4" Cable	150.00 - 162.50	0.6000	0.6000
T11	16	LDF5-50A (7/8 FOAM)	150.00 - 162.50	0.6000	0.6000
T11	18	LDF7-50A (1-5/8 FOAM)	150.00 - 162.50	0.6000	0.6000
T11	19	7/8" DC Power Cable	150.00 - 162.50	0.6000	0.6000
T11	20	1/2" Fiber Cable	150.00 - 162.50	0.6000	0.6000
T11	22	1-1/4" Hybrid Cable	150.00 - 153.00	0.6000	0.6000
T2	1	Climbing Ladder (Af)	137.50 - 150.00	0.6000	0.6000
T2	2	Safety Line (3/8")	137.50 - 150.00	0.6000	0.6000
T2	3	Feedline Ladder (Af)	137.50 - 150.00	0.6000	0.6000
T2	4	Feedline Ladder (Af)	137.50 - 150.00	0.6000	0.6000
T2	11	LDF4P-50A (1/2 FOAM)	137.50 - 150.00	0.6000	0.6000
T2	13	1-1/2" Rigid Conduit	137.50 - 150.00	0.6000	0.6000
T2	14	LDF5-50A (7/8 FOAM)	137.50 - 150.00	0.6000	0.6000
T2	15	3/4" Cable	137.50 - 150.00	0.6000	0.6000
T2	16	LDF5-50A (7/8 FOAM)	137.50 - 150.00	0.6000	0.6000
T2	18	LDF7-50A (1-5/8 FOAM)	137.50 - 150.00	0.6000	0.6000
T2	19	7/8" DC Power Cable	137.50 - 150.00	0.6000	0.6000
T2	20	1/2" Fiber Cable	137.50 - 150.00	0.6000	0.6000
T2	22	1-1/4" Hybrid Cable	137.50 - 150.00	0.6000	0.6000

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Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
T2	24	1/2" Hybrid Cable	137.50 - 149.00	0.6000	0.6000
T2	25	3/8" RET Cable	137.50 - 149.00	0.6000	0.6000
T3	1	Climbing Ladder (Af)	125.00 - 137.50	0.6000	0.6000
T3	2	Safety Line (3/8")	125.00 - 137.50	0.6000	0.6000
T3	3	Feedline Ladder (Af)	125.00 - 137.50	0.6000	0.6000
T3	4	Feedline Ladder (Af)	125.00 - 137.50	0.6000	0.6000
T3	5	Feedline Ladder (Af)	125.00 - 135.00	0.6000	0.6000
T3	11	LDF4P-50A (1/2 FOAM)	125.00 - 137.50	0.6000	0.6000
T3	13	1-1/2" Rigid Conduit	125.00 - 137.50	0.6000	0.6000
T3	14	LDF5-50A (7/8 FOAM)	125.00 - 137.50	0.6000	0.6000
T3	15	3/4" Cable	125.00 - 137.50	0.6000	0.6000
T3	16	LDF5-50A (7/8 FOAM)	125.00 - 137.50	0.6000	0.6000
T3	18	LDF7-50A (1-5/8 FOAM)	125.00 - 137.50	0.6000	0.6000
T3	19	7/8" DC Power Cable	125.00 - 137.50	0.6000	0.6000
T3	20	1/2" Fiber Cable	125.00 - 137.50	0.6000	0.6000
T3	22	1-1/4" Hybrid Cable	125.00 - 137.50	0.6000	0.6000
T3	24	1/2" Hybrid Cable	125.00 - 137.50	0.6000	0.6000
T3	25	3/8" RET Cable	125.00 - 137.50	0.6000	0.6000
T3	27	LDF7-50A (1-5/8 FOAM)	125.00 - 135.00	0.6000	0.6000
T3	28	1-3/8" Hybrid Cable	125.00 - 135.00	0.6000	0.6000
T4	1	Climbing Ladder (Af)	112.50 - 125.00	0.6000	0.6000
T4	2	Safety Line (3/8")	112.50 - 125.00	0.6000	0.6000
T4	3	Feedline Ladder (Af)	112.50 - 125.00	0.6000	0.6000
T4	4	Feedline Ladder (Af)	112.50 - 125.00	0.6000	0.6000
T4	5	Feedline Ladder (Af)	112.50 - 125.00	0.6000	0.6000
T4	6	Feedline Ladder (Af)	112.50 - 125.00	0.6000	0.6000
T4	11	LDF4P-50A (1/2 FOAM)	112.50 - 125.00	0.6000	0.6000
T4	13	1-1/2" Rigid Conduit	112.50 - 125.00	0.6000	0.6000
T4	14	LDF5-50A (7/8 FOAM)	112.50 - 125.00	0.6000	0.6000
T4	15	3/4" Cable	112.50 - 125.00	0.6000	0.6000
T4	16	LDF5-50A (7/8 FOAM)	112.50 - 125.00	0.6000	0.6000
T4	18	LDF7-50A (1-5/8 FOAM)	112.50 - 125.00	0.6000	0.6000
T4	19	7/8" DC Power Cable	112.50 - 125.00	0.6000	0.6000
T4	20	1/2" Fiber Cable	112.50 - 125.00	0.6000	0.6000
T4	22	1-1/4" Hybrid Cable	112.50 - 125.00	0.6000	0.6000
T4	24	1/2" Hybrid Cable	112.50 - 125.00	0.6000	0.6000
T4	25	3/8" RET Cable	112.50 - 125.00	0.6000	0.6000
T4	27	LDF7-50A (1-5/8 FOAM)	112.50 - 125.00	0.6000	0.6000
T4	28	1-3/8" Hybrid Cable	112.50 - 125.00	0.6000	0.6000
T4	31	LDF7-50A (1-5/8 FOAM)	112.50 - 125.00	0.6000	0.6000
T4	32	1-1/4" 6x12 Hybrid	112.50 - 125.00	0.6000	0.6000
T5	1	Climbing Ladder (Af)	100.00 - 112.50	0.6000	0.6000
T5	2	Safety Line (3/8")	100.00 - 112.50	0.6000	0.6000
T5	3	Feedline Ladder (Af)	100.00 - 112.50	0.6000	0.6000
T5	4	Feedline Ladder (Af)	100.00 - 112.50	0.6000	0.6000
T5	5	Feedline Ladder (Af)	100.00 - 112.50	0.6000	0.6000
T5	6	Feedline Ladder (Af)	100.00 - 112.50	0.6000	0.6000
T5	11	LDF4P-50A (1/2 FOAM)	100.00 - 112.50	0.6000	0.6000
T5	13	1-1/2" Rigid Conduit	100.00 - 112.50	0.6000	0.6000
T5	14	LDF5-50A (7/8 FOAM)	100.00 - 112.50	0.6000	0.6000
T5	15	3/4" Cable	100.00 - 112.50	0.6000	0.6000
T5	16	LDF5-50A (7/8 FOAM)	100.00 - 112.50	0.6000	0.6000
T5	18	LDF7-50A (1-5/8 FOAM)	100.00 - 112.50	0.6000	0.6000
T5	19	7/8" DC Power Cable	100.00 - 112.50	0.6000	0.6000
T5	20	1/2" Fiber Cable	100.00 - 112.50	0.6000	0.6000
T5	22	1-1/4" Hybrid Cable	100.00 - 112.50	0.6000	0.6000
T5	24	1/2" Hybrid Cable	100.00 - 112.50	0.6000	0.6000
T5	25	3/8" RET Cable	100.00 - 112.50	0.6000	0.6000
T5	27	LDF7-50A (1-5/8 FOAM)	100.00 - 112.50	0.6000	0.6000
T5	28	1-3/8" Hybrid Cable	100.00 - 112.50	0.6000	0.6000
T5	31	LDF7-50A (1-5/8 FOAM)	100.00 - 112.50	0.6000	0.6000
T5	32	1-1/4" 6x12 Hybrid	100.00 - 112.50	0.6000	0.6000
T6	1	Climbing Ladder (Af)	87.50 - 100.00	0.6000	0.6000
T6	2	Safety Line (3/8")	87.50 - 100.00	0.6000	0.6000
T6	3	Feedline Ladder (Af)	87.50 - 100.00	0.6000	0.6000
T6	4	Feedline Ladder (Af)	87.50 - 100.00	0.6000	0.6000
T6	5	Feedline Ladder (Af)	87.50 - 100.00	0.6000	0.6000
T6	6	Feedline Ladder (Af)	87.50 - 100.00	0.6000	0.6000
T6	11	LDF4P-50A (1/2 FOAM)	87.50 - 100.00	0.6000	0.6000
T6	13	1-1/2" Rigid Conduit	87.50 - 100.00	0.6000	0.6000
T6	14	LDF5-50A (7/8 FOAM)	87.50 - 100.00	0.6000	0.6000
T6	15	3/4" Cable	87.50 - 100.00	0.6000	0.6000
T6	16	LDF5-50A (7/8 FOAM)	87.50 - 100.00	0.6000	0.6000
T6	18	LDF7-50A (1-5/8 FOAM)	87.50 - 100.00	0.6000	0.6000
T6	19	7/8" DC Power Cable	87.50 - 100.00	0.6000	0.6000
T6	20	1/2" Fiber Cable	87.50 - 100.00	0.6000	0.6000
T6	22	1-1/4" Hybrid Cable	87.50 - 100.00	0.6000	0.6000
T6	24	1/2" Hybrid Cable	87.50 - 100.00	0.6000	0.6000
T6	25	3/8" RET Cable	87.50 - 100.00	0.6000	0.6000
T6	27	LDF7-50A (1-5/8 FOAM)	87.50 - 100.00	0.6000	0.6000
T6	28	1-3/8" Hybrid Cable	87.50 - 100.00	0.6000	0.6000
T6	31	LDF7-50A (1-5/8 FOAM)	87.50 - 100.00	0.6000	0.6000
T6	32	1-1/4" 6x12 Hybrid	87.50 - 100.00	0.6000	0.6000

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Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ics	K _a Ics
T7	1	Climbing Ladder (Af)	75.00 - 87.50	0.6000	0.6000
T7	2	Safety Line (3/8")	75.00 - 87.50	0.6000	0.6000
T7	3	Feedline Ladder (Af)	75.00 - 87.50	0.6000	0.6000
T7	4	Feedline Ladder (Af)	75.00 - 87.50	0.6000	0.6000
T7	5	Feedline Ladder (Af)	75.00 - 87.50	0.6000	0.6000
T7	6	Feedline Ladder (Af)	75.00 - 87.50	0.6000	0.6000
T7	11	LDF4P-50A (1/2 FOAM)	75.00 - 87.50	0.6000	0.6000
T7	13	1-1/2" Rigid Conduit	75.00 - 87.50	0.6000	0.6000
T7	14	LDF5-50A (7/8 FOAM)	75.00 - 87.50	0.6000	0.6000
T7	15	3/4" Cable	75.00 - 87.50	0.6000	0.6000
T7	16	LDF5-50A (7/8 FOAM)	75.00 - 87.50	0.6000	0.6000
T7	18	LDF7-50A (1-5/8 FOAM)	75.00 - 87.50	0.6000	0.6000
T7	19	7/8" DC Power Cable	75.00 - 87.50	0.6000	0.6000
T7	20	1/2" Fiber Cable	75.00 - 87.50	0.6000	0.6000
T7	22	1-1/4" Hybrid Cable	75.00 - 87.50	0.6000	0.6000
T7	24	1/2" Hybrid Cable	75.00 - 87.50	0.6000	0.6000
T7	25	3/8" RET Cable	75.00 - 87.50	0.6000	0.6000
T7	27	LDF7-50A (1-5/8 FOAM)	75.00 - 87.50	0.6000	0.6000
T7	28	1-3/8" Hybrid Cable	75.00 - 87.50	0.6000	0.6000
T7	31	LDF7-50A (1-5/8 FOAM)	75.00 - 87.50	0.6000	0.6000
T7	32	1-1/4" 6x12 Hybrid	75.00 - 87.50	0.6000	0.6000
T8	1	Climbing Ladder (Af)	62.50 - 75.00	0.6000	0.6000
T8	2	Safety Line (3/8")	62.50 - 75.00	0.6000	0.6000
T8	3	Feedline Ladder (Af)	62.50 - 75.00	0.6000	0.6000
T8	4	Feedline Ladder (Af)	62.50 - 75.00	0.6000	0.6000
T8	5	Feedline Ladder (Af)	62.50 - 75.00	0.6000	0.6000
T8	6	Feedline Ladder (Af)	62.50 - 75.00	0.6000	0.6000
T8	11	LDF4P-50A (1/2 FOAM)	65.00 - 75.00	0.6000	0.6000
T8	12	LDF4P-50A (1/2 FOAM)	62.50 - 65.00	0.6000	0.6000
T8	13	1-1/2" Rigid Conduit	62.50 - 75.00	0.6000	0.6000
T8	14	LDF5-50A (7/8 FOAM)	62.50 - 75.00	0.6000	0.6000
T8	15	3/4" Cable	62.50 - 75.00	0.6000	0.6000
T8	16	LDF5-50A (7/8 FOAM)	62.50 - 75.00	0.6000	0.6000
T8	18	LDF7-50A (1-5/8 FOAM)	62.50 - 75.00	0.6000	0.6000
T8	19	7/8" DC Power Cable	62.50 - 75.00	0.6000	0.6000
T8	20	1/2" Fiber Cable	62.50 - 75.00	0.6000	0.6000
T8	22	1-1/4" Hybrid Cable	62.50 - 75.00	0.6000	0.6000
T8	24	1/2" Hybrid Cable	62.50 - 75.00	0.6000	0.6000
T8	25	3/8" RET Cable	62.50 - 75.00	0.6000	0.6000
T8	27	LDF7-50A (1-5/8 FOAM)	62.50 - 75.00	0.6000	0.6000
T8	28	1-3/8" Hybrid Cable	62.50 - 75.00	0.6000	0.6000
T8	31	LDF7-50A (1-5/8 FOAM)	62.50 - 75.00	0.6000	0.6000
T8	32	1-1/4" 6x12 Hybrid	62.50 - 75.00	0.6000	0.6000
T9	1	Climbing Ladder (Af)	50.00 - 62.50	0.6000	0.6000
T9	2	Safety Line (3/8")	50.00 - 62.50	0.6000	0.6000
T9	3	Feedline Ladder (Af)	50.00 - 62.50	0.6000	0.6000
T9	4	Feedline Ladder (Af)	50.00 - 62.50	0.6000	0.6000
T9	5	Feedline Ladder (Af)	50.00 - 62.50	0.6000	0.6000
T9	6	Feedline Ladder (Af)	50.00 - 62.50	0.6000	0.6000
T9	12	LDF4P-50A (1/2 FOAM)	50.00 - 62.50	0.6000	0.6000
T9	13	1-1/2" Rigid Conduit	50.00 - 62.50	0.6000	0.6000
T9	14	LDF5-50A (7/8 FOAM)	50.00 - 62.50	0.6000	0.6000
T9	15	3/4" Cable	50.00 - 62.50	0.6000	0.6000
T9	16	LDF5-50A (7/8 FOAM)	50.00 - 62.50	0.6000	0.6000
T9	18	LDF7-50A (1-5/8 FOAM)	50.00 - 62.50	0.6000	0.6000
T9	19	7/8" DC Power Cable	50.00 - 62.50	0.6000	0.6000
T9	20	1/2" Fiber Cable	50.00 - 62.50	0.6000	0.6000
T9	22	1-1/4" Hybrid Cable	50.00 - 62.50	0.6000	0.6000
T9	24	1/2" Hybrid Cable	50.00 - 62.50	0.6000	0.6000
T9	25	3/8" RET Cable	50.00 - 62.50	0.6000	0.6000
T9	27	LDF7-50A (1-5/8 FOAM)	50.00 - 62.50	0.6000	0.6000
T9	28	1-3/8" Hybrid Cable	50.00 - 62.50	0.6000	0.6000
T9	31	LDF7-50A (1-5/8 FOAM)	50.00 - 62.50	0.6000	0.6000
T9	32	1-1/4" 6x12 Hybrid	50.00 - 62.50	0.6000	0.6000
T10	1	Climbing Ladder (Af)	25.00 - 50.00	0.6000	0.6000
T10	2	Safety Line (3/8")	25.00 - 50.00	0.6000	0.6000
T10	3	Feedline Ladder (Af)	25.00 - 50.00	0.6000	0.6000
T10	4	Feedline Ladder (Af)	25.00 - 50.00	0.6000	0.6000
T10	5	Feedline Ladder (Af)	25.00 - 50.00	0.6000	0.6000
T10	6	Feedline Ladder (Af)	25.00 - 50.00	0.6000	0.6000
T10	7	Coax Cage (40.5" Semi-Circle)	25.00 - 35.00	0.6000	0.6000
T10	8	Coax Cage (40.5" Semi-Circle)	25.00 - 35.00	0.6000	0.6000
T10	9	Coax Cage (40.5" Semi-Circle)	25.00 - 35.00	0.6000	0.6000
T10	12	LDF4P-50A (1/2 FOAM)	25.00 - 50.00	0.6000	0.6000
T10	13	1-1/2" Rigid Conduit	25.00 - 50.00	0.6000	0.6000
T10	14	LDF5-50A (7/8 FOAM)	25.00 - 50.00	0.6000	0.6000
T10	15	3/4" Cable	25.00 - 50.00	0.6000	0.6000
T10	16	LDF5-50A (7/8 FOAM)	25.00 - 50.00	0.6000	0.6000
T10	18	LDF7-50A (1-5/8 FOAM)	25.00 - 50.00	0.6000	0.6000
T10	19	7/8" DC Power Cable	25.00 - 50.00	0.6000	0.6000
T10	20	1/2" Fiber Cable	25.00 - 50.00	0.6000	0.6000
T10	22	1-1/4" Hybrid Cable	25.00 - 50.00	0.6000	0.6000
T10	24	1/2" Hybrid Cable	25.00 - 50.00	0.6000	0.6000

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Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _{No Ice}	K _{Ice}
T10	25	3/8" RET Cable	25.00 - 50.00	0.6000	0.6000
T10	27	LDF7-50A (1-5/8 FOAM)	25.00 - 50.00	0.6000	0.6000
T10	28	1-3/8" Hybrid Cable	25.00 - 50.00	0.6000	0.6000
T10	31	LDF7-50A (1-5/8 FOAM)	25.00 - 50.00	0.6000	0.6000
T10	32	1-1/4" 6x12 Hybrid	25.00 - 50.00	0.6000	0.6000
T11	1	Climbing Ladder (Af)	10.00 - 25.00	0.6000	0.6000
T11	2	Safety Line (3/8")	10.00 - 25.00	0.6000	0.6000
T11	3	Feedline Ladder (Af)	10.00 - 25.00	0.6000	0.6000
T11	4	Feedline Ladder (Af)	10.00 - 25.00	0.6000	0.6000
T11	5	Feedline Ladder (Af)	10.00 - 25.00	0.6000	0.6000
T11	6	Feedline Ladder (Af)	10.00 - 25.00	0.6000	0.6000
T11	7	Coax Cage (40.5" Semi-Circle)	12.50 - 25.00	0.6000	0.6000
T11	8	Coax Cage (40.5" Semi-Circle)	12.50 - 25.00	0.6000	0.6000
T11	9	Coax Cage (40.5" Semi-Circle)	12.50 - 25.00	0.6000	0.6000
T11	12	LDF4P-50A (1/2 FOAM)	10.00 - 25.00	0.6000	0.6000
T11	13	1-1/2" Rigid Conduit	10.00 - 25.00	0.6000	0.6000
T11	14	LDF5-50A (7/8 FOAM)	10.00 - 25.00	0.6000	0.6000
T11	15	3/4" Cable	10.00 - 25.00	0.6000	0.6000
T11	16	LDF5-50A (7/8 FOAM)	10.00 - 25.00	0.6000	0.6000
T11	18	LDF7-50A (1-5/8 FOAM)	10.00 - 25.00	0.6000	0.6000
T11	19	7/8" DC Power Cable	10.00 - 25.00	0.6000	0.6000
T11	20	1/2" Fiber Cable	10.00 - 25.00	0.6000	0.6000
T11	22	1-1/4" Hybrid Cable	10.00 - 25.00	0.6000	0.6000
T11	24	1/2" Hybrid Cable	10.00 - 25.00	0.6000	0.6000
T11	25	3/8" RET Cable	10.00 - 25.00	0.6000	0.6000
T11	27	LDF7-50A (1-5/8 FOAM)	10.00 - 25.00	0.6000	0.6000
T11	28	1-3/8" Hybrid Cable	10.00 - 25.00	0.6000	0.6000
T11	31	LDF7-50A (1-5/8 FOAM)	10.00 - 25.00	0.6000	0.6000
T11	32	1-1/4" 6x12 Hybrid	10.00 - 25.00	0.6000	0.6000

Discrete Tower Loads

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment	Placement ft	C _A A _A Front ft ²	C _A A _A Side ft ²	Weight K
Flash Beacon Lighting	C	From Leg	0.00	0.0000	162.50	No Ice	2.70	0.05
			0.00			1/2" Ice	3.10	0.07
			12.50			1" Ice	3.50	0.09
W5 x 13' Mount	C	From Leg	0.00	0.0000	162.50	No Ice	5.42	0.21
			0.00			1/2" Ice	7.00	0.28
			6.25			1" Ice	8.58	0.35
W8 x 19' Beams	A	From Leg	5.00	0.0000	162.50	No Ice	17.00	0.29
			0.00			1/2" Ice	19.00	0.34
			0.50			1" Ice	21.00	0.33
W8 x 19' Beams	D	From Leg	5.00	0.0000	162.50	No Ice	17.00	0.29
			0.00			1/2" Ice	19.00	0.34
			0.50			1" Ice	21.00	0.33
28' Square Platform w/Rails	C	None	0.0000	0.0000	162.50	No Ice	106.70	12.17
						1/2" Ice	117.80	15.92
						1" Ice	122.40	19.38
30' x 30' Cross Catwalk w/ Handrails	C	None	0.0000	0.0000	144.00	No Ice	78.00	5.66
						1/2" Ice	84.00	7.61
						1" Ice	90.00	9.95
4.25' x 7' Catwalk	B	From Face	0.00	0.0000	112.50	No Ice	11.50	0.75
			0.00			1/2" Ice	13.40	1.00
			0.00			1" Ice	15.30	1.25
Side Light	A	From Leg	1.00	0.0000	92.00	No Ice	0.33	0.01
			0.00			1/2" Ice	0.47	0.01
			0.00			1" Ice	0.60	0.01
Side Light	D	From Leg	1.00	0.0000	92.00	No Ice	0.33	0.01
			0.00			1/2" Ice	0.47	0.01
			0.00			1" Ice	0.60	0.01
23' x 3' Catwalk	A	From Face	0.00	0.0000	87.50	No Ice	31.40	1.78
			0.00			1/2" Ice	36.80	2.51
			0.00			1" Ice	42.20	3.24
23' x 3' Catwalk	B	From Face	0.00	0.0000	87.50	No Ice	31.40	1.78
			0.00			1/2" Ice	36.80	2.51
			0.00			1" Ice	42.20	3.24
13' x 4.25' Catwalk	B	From Face	0.00	0.0000	62.50	No Ice	18.85	1.25
			0.00			1/2" Ice	26.00	1.75
			0.00			1" Ice	33.15	2.25
13' x 4.25' Catwalk	B	From Face	0.00	0.0000	25.00	No Ice	18.85	1.25
						1" Ice	7.00	1.25

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Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement		C ₂ A ₁	C ₂ A ₂	Weight
			Horz	Lateral				Front	Side	
			Vert				ft	ft		K
			ft	ft			ft	ft		
Feedline Raceway	B	From Face	0.00		0.0000	8.33	1/2" Ice	26.00	8.00	1.75
			0.00				1" Ice	33.15	9.00	2.25
			1.00				No Ice	93.50	11.05	1.28
			0.00				1/2" Ice	112.20	13.26	1.54
			0.00				1" Ice	130.90	15.47	1.80
Feedline Raceway	D	From Face	1.00		0.0000	8.33	No Ice	93.50	11.05	1.28
			0.00				1/2" Ice	112.20	13.26	1.54
			0.00				1" Ice	130.90	15.47	1.80
			0.00				No Ice	93.50	11.05	1.28
			0.00				1/2" Ice	112.20	13.26	1.54
Feedline Raceway	A	None	0.00		0.0000	8.33	1" Ice	130.90	15.47	1.80
			0.00				No Ice	93.50	11.05	1.28
			0.00				1/2" Ice	112.20	13.26	1.54
			0.00				1" Ice	130.90	15.47	1.80
			0.00				No Ice	93.50	11.05	1.28
15' Dipole	B	From Face	7.00		0.0000	162.50	No Ice	3.00	3.00	0.04
			-3.00				1/2" Ice	4.53	4.53	0.06
			-6.50				1" Ice	6.07	6.07	0.10
			7.00				No Ice	2.00	2.00	0.02
			5.00				1/2" Ice	3.02	3.02	0.04
10' Dipole	D	From Face	7.00		0.0000	162.50	1" Ice	4.07	4.07	0.06
			5.00				No Ice	4.03	4.03	0.09
			7.50				1/2" Ice	5.46	5.46	0.12
			7.00				1" Ice	6.91	6.91	0.16
			5.00				No Ice	1.14	1.62	0.04
Pipe Mount 14'x2.875'	B	From Face	7.00		0.0000	162.50	1/2" Ice	1.79	2.41	0.06
			-5.00				1" Ice	2.44	3.20	0.07
			5.00				No Ice	1.14	1.62	0.04
			7.50				1/2" Ice	1.79	2.41	0.06
			9.50				1" Ice	2.44	3.20	0.07
2' Standoff	B	From Face	6.50		0.0000	162.50	No Ice	1.14	1.62	0.04
			-5.00				1/2" Ice	1.79	2.41	0.06
			9.50				1" Ice	2.44	3.20	0.07
			7.50				No Ice	1.14	1.62	0.04
			-5.00				1/2" Ice	1.79	2.41	0.06
15' Dipole	B	From Face	9.50		0.0000	162.50	1" Ice	2.44	3.20	0.07
			7.00				No Ice	3.00	3.00	0.04
			5.00				1/2" Ice	4.53	4.53	0.06
			21.50				1" Ice	6.07	6.07	0.10
			7.00				No Ice	4.03	4.03	0.09
Pipe Mount 14'x2.875'	D	From Face	7.00		0.0000	162.50	1/2" Ice	5.46	5.46	0.12
			-5.00				1" Ice	6.91	6.91	0.16
			5.00				No Ice	1.14	1.62	0.04
			6.50				1/2" Ice	1.79	2.41	0.06
			-5.00				1" Ice	2.44	3.20	0.07
2' Standoff	D	From Face	9.50		0.0000	162.50	No Ice	1.14	1.62	0.04
			7.50				1/2" Ice	1.79	2.41	0.06
			-5.00				1" Ice	2.44	3.20	0.07
			9.50				No Ice	2.44	3.20	0.07
			9.50				1/2" Ice	1.79	2.41	0.06
10' Omni	D	From Face	8.00		0.0000	162.50	1" Ice	2.44	3.20	0.07
			-5.00				No Ice	2.00	2.00	0.03
			20.50				1/2" Ice	3.02	3.02	0.04
			0.00				1" Ice	4.07	4.07	0.06
			0.00				No Ice	14.05	7.63	0.12
80010965 w/ Mount Pipe	A	From Leg	5.00		70.0000	163.00	1/2" Ice	14.69	8.90	0.22
			0.00				1" Ice	15.30	9.96	0.33
			2.00				No Ice	14.05	7.63	0.12
			5.00				1/2" Ice	14.69	8.90	0.22
			0.00				1" Ice	15.30	9.96	0.33
80010965 w/ Mount Pipe	D	From Leg	2.00		50.0000	163.00	No Ice	14.05	7.63	0.12
			7.00				1/2" Ice	14.69	8.90	0.22
			0.00				1" Ice	15.30	9.96	0.33
			0.00				No Ice	14.05	7.63	0.12
			2.00				1/2" Ice	14.69	8.90	0.22
80010965 w/ Mount Pipe	C	From Face	7.00		55.0000	163.00	1" Ice	15.30	9.96	0.33
			0.00				No Ice	14.05	7.63	0.12
			2.00				1/2" Ice	14.69	8.90	0.22
			0.00				1" Ice	15.30	9.96	0.33
			2.00				No Ice	14.05	7.63	0.12
QD8616-7 w/ Mount Pipe	A	From Leg	5.00		70.0000	163.00	1" Ice	18.81	11.50	0.16
			0.00				1/2" Ice	19.45	12.93	0.16
			2.00				1" Ice	20.10	14.22	0.30
			5.00				No Ice	18.81	11.50	0.16
			0.00				1/2" Ice	19.45	12.93	0.16
QD8616-7 w/ Mount Pipe	D	From Leg	5.00		50.0000	163.00	1" Ice	18.81	11.50	0.16
			0.00				1/2" Ice	19.45	12.93	0.16
			2.00				1" Ice	20.10	14.22	0.30
			5.00				No Ice	18.81	11.50	0.16
			0.00				1/2" Ice	19.45	12.93	0.16
QD8616-7 w/ Mount Pipe	C	From Face	7.00		55.0000	163.00	1" Ice	18.81	11.50	0.16
			0.00				1/2" Ice	19.45	12.93	0.16
			2.00				1" Ice	20.10	14.22	0.30
			2.00				No Ice	18.81	11.50	0.16
			5.00				1/2" Ice	19.45	12.93	0.16
AIR6449 B77D+AIR6419 B77G (Stacked) w/ Mount Pipe	A	From Leg	5.00		70.0000	163.00	1" Ice	8.81	6.13	0.15
			0.00				1/2" Ice	9.30	7.02	0.22
			2.00				1" Ice	9.78	7.79	0.29
			5.00				No Ice	8.81	6.13	0.15
			0.00				1/2" Ice	9.30	7.02	0.22
AIR6449 B77D+AIR6419 B77G (Stacked) w/ Mount Pipe	D	From Leg	5.00		50.0000	163.00	1" Ice	9.78	7.79	0.29
			0.00				No Ice	8.81	6.13	0.15
			2.00				1/2" Ice	9.30	7.02	0.22
			0.00				1" Ice	9.78	7.79	0.29
			2.00				No Ice	8.81	6.13	0.15
AIR6449 B77D+AIR6419 B77G (Stacked) w/ Mount Pipe	C	From Face	7.00		55.0000	163.00	1/2" Ice	9.30	7.02	0.22
			0.00				1" Ice	9.78	7.79	0.29
			2.00				No Ice	1.84	1.06	0.06
			5.00				1/2" Ice	2.01	1.20	0.08
			0.00				1" Ice	2.19	1.34	0.09
(3) RRUS 4478 B14	A	From Leg	5.00		0.0000	165.00	No Ice	3.31	2.42	0.08
			0.00				1/2" Ice	3.56	2.64	0.10
			2.00				1" Ice	3.81	2.86	0.14
			5.00				No Ice	2.73	1.67	0.05
			0.00				1/2" Ice	2.95	1.86	0.07
(3) RRUS 32 B30	A	From Leg	5.00		0.0000	165.00	No Ice	3.31	2.42	0.08
			0.00				1/2" Ice	3.56	2.64	0.10
			2.00				1" Ice	3.81	2.86	0.14
			5.00				No Ice	2.73	1.67	0.05
			0.00				1/2" Ice	2.95	1.86	0.07
(3) RRUS 32 B2	A	From Leg	5.00		0.0000	165.00	No Ice	3.31	2.42	0.08
			0.00				1/2" Ice	3.56	2.64	0.10
			2.00				1" Ice	3.81	2.86	0.14
			5.00				No Ice	2.73	1.67	0.05
			0.00				1/2" Ice	2.95	1.86	0.07

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	Client AT&T / Verizon	Designed by Zachary A. Medoff, P.E.

Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement	CMAA		Weight	
			Horz Lateral	Vert			Front	Side		
			ft	ft	*	ft	ft ²	ft ²	K	
(3) RRUS 32 B66A	A	From Leg	2.00		0.0000	165.00	1" Ice	3.18	2.05	0.10
			5.00				No Ice	2.86	1.78	0.06
			0.00				1/2" Ice	3.09	1.97	0.08
(3) 4449 B5/B12	A	From Leg	2.00		0.0000	165.00	1" Ice	3.32	2.17	0.10
			5.00				No Ice	1.97	1.41	0.07
			0.00				1/2" Ice	2.14	1.56	0.09
WCS-IMFQ-AMT	A	None	2.00		0.0000	163.00	1" Ice	2.33	1.73	0.11
							No Ice	0.99	0.64	0.03
							1/2" Ice	1.11	0.75	0.04
WCS-IMFQ-AMT	D	None			0.0000	163.00	1" Ice	1.25	0.86	0.05
							No Ice	0.99	0.64	0.03
							1/2" Ice	1.11	0.75	0.04
(2) APTDC-BDFDM-DB	A	From Leg	5.00		0.0000	163.00	1" Ice	1.25	0.86	0.05
			0.00				No Ice	0.05	0.10	0.00
			2.00				1/2" Ice	0.08	0.14	0.00
(2) APTDC-BDFDM-DB	D	From Leg	5.00		0.0000	163.00	1" Ice	0.12	0.19	0.00
			0.00				No Ice	0.05	0.10	0.00
			2.00				1/2" Ice	0.08	0.14	0.00
(2) APTDC-BDFDM-DB	C	From Face	7.00		0.0000	163.00	1" Ice	0.12	0.19	0.00
			0.00				No Ice	0.05	0.10	0.00
			2.00				1/2" Ice	0.08	0.14	0.00
DC6-48-60-18	A	None			0.0000	165.00	1" Ice	0.12	0.19	0.00
							No Ice	3.81	1.37	0.05
							1/2" Ice	4.06	1.55	0.07
(3) DC6-48-60-18-8C-EV	A	None			0.0000	167.00	1" Ice	4.32	1.74	0.10
							No Ice	1.14	1.14	0.03
							1/2" Ice	1.79	1.79	0.05
RRH2X50-800	A	From Leg	1.00		0.0000	153.00	1" Ice	2.00	2.00	0.07
			0.00				No Ice	1.70	1.28	0.05
			-1.00				1/2" Ice	1.86	1.43	0.07
RRH2X50-800	B	From Leg	1.00		0.0000	153.00	1" Ice	2.03	1.58	0.09
			0.00				No Ice	1.70	1.28	0.05
			-1.00				1/2" Ice	1.86	1.43	0.07
RRH2X50-800	C	From Leg	1.00		0.0000	153.00	1" Ice	2.03	1.58	0.09
			0.00				No Ice	1.70	1.28	0.05
			-1.00				1/2" Ice	1.86	1.43	0.07
1900MHz 4X40W RRH	A	From Leg	1.00		0.0000	153.00	1" Ice	2.03	1.58	0.09
			0.00				No Ice	2.32	2.24	0.06
			-1.00				1/2" Ice	2.53	2.44	0.08
1900MHz 4X40W RRH	B	From Leg	1.00		0.0000	153.00	1" Ice	2.74	2.65	0.11
			0.00				No Ice	2.32	2.24	0.06
			-1.00				1/2" Ice	2.53	2.44	0.08
1900MHz 4X40W RRH	C	From Leg	1.00		0.0000	153.00	1" Ice	2.74	2.65	0.11
			0.00				No Ice	2.32	2.24	0.06
			-1.00				1/2" Ice	2.53	2.44	0.08
TD-RRH8x20-25	A	From Leg	1.00		0.0000	153.00	1" Ice	2.74	2.65	0.11
			0.00				No Ice	3.70	1.29	0.07
			-1.00				1/2" Ice	3.95	1.46	0.09
TD-RRH8x20-25	B	From Leg	1.00		0.0000	153.00	1" Ice	4.20	1.64	0.12
			0.00				No Ice	3.70	1.29	0.07
			-1.00				1/2" Ice	3.95	1.46	0.09
TD-RRH8x20-25	C	From Leg	1.00		0.0000	153.00	1" Ice	4.20	1.64	0.12
			0.00				No Ice	3.70	1.29	0.07
			-1.00				1/2" Ice	3.95	1.46	0.09
RRH 2x50 800 MHz	A	From Leg	1.00		0.0000	153.00	1" Ice	4.20	1.64	0.12
			0.00				No Ice	1.73	1.33	0.05
			-1.00				1/2" Ice	1.90	1.48	0.07
RRH 2x50 800 MHz	B	From Leg	1.00		0.0000	153.00	1" Ice	2.07	1.64	0.09
			0.00				No Ice	1.73	1.33	0.05
			-1.00				1/2" Ice	1.90	1.48	0.07
RRH 2x50 800 MHz	C	From Leg	1.00		0.0000	153.00	1" Ice	2.07	1.64	0.09
			0.00				No Ice	1.73	1.33	0.05
			-1.00				1/2" Ice	1.90	1.48	0.07
(2) 2.5" x 3.5" Mount Pipe	A	From Leg	0.50		0.0000	153.00	1" Ice	2.07	1.64	0.09
			0.00				No Ice	0.74	0.74	0.02
			0.00				1/2" Ice	0.96	0.96	0.03
(2) 2.5" x 3.5" Mount Pipe	B	From Leg	0.50		0.0000	153.00	1" Ice	1.18	1.18	0.04
			0.00				No Ice	0.74	0.74	0.02
			0.00				1/2" Ice	0.96	0.96	0.03
(2) 2.5" x 3.5" Mount Pipe	C	From Leg	0.50		0.0000	153.00	1" Ice	1.18	1.18	0.04
			0.00				No Ice	0.74	0.74	0.02
			0.00				1/2" Ice	0.96	0.96	0.03
APXVSP18 w/ Mount Pipe	A	From Leg	4.00		-2.0000	148.00	1" Ice	1.18	1.18	0.04
			0.00				No Ice	8.02	6.71	0.08
			1.00				1/2" Ice	8.48	7.66	0.14
						1" Ice	8.94	8.49	0.22	

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	Project KHCLE-55054	Date 10:33:38 04/03/24
	Client AT&T / Verizon	Designed by Zachary A. Medoff, P.E.

Description	Face or Leg	Offset Type	Offsets: Horz Lateral	Azimuth Adjustment	Placement ft	C ₁ A ₁ Front ft ²	C ₂ A ₂ Side ft ²	Weight K	
									Vert ft ft ft
APXVSP18 w/ Mount Pipe	B	From Leg	3.80	18.0000	148.00	No Ice	8.02	6.71	0.08
			1.24			1/2" Ice	8.48	7.66	0.14
			1.00			1" Ice	8.94	8.49	0.22
APXVSP18 w/ Mount Pipe	C	From Leg	2.82	58.0000	148.00	No Ice	8.02	6.71	0.08
			2.82			1/2" Ice	8.48	7.66	0.14
			1.00			1" Ice	8.94	8.49	0.22
AAHC w/ Mount Pipe	A	From Leg	4.00	-2.0000	148.00	No Ice	4.89	3.26	0.12
			0.00			1/2" Ice	5.32	3.76	0.17
			1.00			1" Ice	5.77	4.28	0.22
AAHC w/ Mount Pipe	B	From Leg	3.80	18.0000	148.00	No Ice	4.89	3.26	0.12
			1.24			1/2" Ice	5.32	3.76	0.17
			1.00			1" Ice	5.77	4.28	0.22
AAHC w/ Mount Pipe	C	From Leg	2.82	58.0000	148.00	No Ice	4.89	3.26	0.12
			2.82			1/2" Ice	5.32	3.76	0.17
			1.00			1" Ice	5.77	4.28	0.22
14' Sector Frame	A	From Leg	2.00	-2.0000	148.00	No Ice	23.00	13.66	0.38
			0.00			1/2" Ice	29.50	18.25	0.56
			0.00			1" Ice	36.00	22.84	0.73
14' Sector Frame	B	From Leg	1.90	18.0000	148.00	No Ice	23.00	13.66	0.38
			0.62			1/2" Ice	29.50	18.25	0.56
			0.00			1" Ice	36.00	22.84	0.73
14' Sector Frame	C	From Leg	1.41	45.0000	148.00	No Ice	23.00	13.66	0.38
			1.41			1/2" Ice	29.50	18.25	0.56
			0.00			1" Ice	36.00	22.84	0.73
Pipe Mount 6'x2.375'	A	From Leg	4.00	-2.0000	148.00	No Ice	1.43	1.43	0.03
			0.00			1/2" Ice	1.92	1.92	0.04
			1.00			1" Ice	2.29	2.29	0.05
Pipe Mount 6'x2.375'	B	From Leg	3.80	18.0000	148.00	No Ice	1.43	1.43	0.03
			1.24			1/2" Ice	1.92	1.92	0.04
			1.00			1" Ice	2.29	2.29	0.05
Pipe Mount 6'x2.375'	C	From Leg	2.82	45.0000	148.00	No Ice	1.43	1.43	0.03
			2.82			1/2" Ice	1.92	1.92	0.04
			1.00			1" Ice	2.29	2.29	0.05
AIR 32 KRD901146-1 B66A/B2A w/ Mount Pipe	A	From Leg	2.00	40.0000	135.00	No Ice	6.58	5.90	0.15
			1.00			1/2" Ice	6.97	6.56	0.21
			0.00			1" Ice	7.37	7.24	0.28
AIR 32 KRD901146-1 B66A/B2A w/ Mount Pipe	B	From Leg	2.00	70.0000	135.00	No Ice	6.58	5.90	0.15
			1.00			1/2" Ice	6.97	6.56	0.21
			0.00			1" Ice	7.37	7.24	0.28
AIR 32 KRD901146-1 B66A/B2A w/ Mount Pipe	D	From Leg	2.00	10.0000	135.00	No Ice	6.58	5.90	0.15
			1.00			1/2" Ice	6.97	6.56	0.21
			0.00			1" Ice	7.37	7.24	0.28
APXVAARR24_43-U-NA20 w/ Mount Pipe	A	From Leg	2.00	-80.0000	135.00	No Ice	20.24	10.79	0.16
			-1.00			1/2" Ice	20.89	12.21	0.29
			0.00			1" Ice	21.55	13.49	0.44
APXVAARR24_43-U-NA20 w/ Mount Pipe	B	From Leg	2.00	-50.0000	135.00	No Ice	20.24	10.79	0.16
			-1.00			1/2" Ice	20.89	12.21	0.29
			0.00			1" Ice	21.55	13.49	0.44
APXVAARR24_43-U-NA20 w/ Mount Pipe	D	From Leg	2.00	-90.0000	135.00	No Ice	20.24	10.79	0.16
			-1.00			1/2" Ice	20.89	12.21	0.29
			0.00			1" Ice	21.55	13.49	0.44
AIR6449 B41 w/ Mount Pipe	A	From Leg	2.00	40.0000	135.00	No Ice	6.45	3.92	0.13
			0.00			1/2" Ice	7.02	4.64	0.18
			0.00			1" Ice	7.53	3.92	0.24
AIR6449 B41 w/ Mount Pipe	B	From Leg	2.00	70.0000	135.00	No Ice	6.45	3.92	0.13
			0.00			1/2" Ice	7.02	4.64	0.18
			0.00			1" Ice	7.53	3.92	0.24
AIR6449 B41 w/ Mount Pipe	D	From Leg	2.00	10.0000	135.00	No Ice	6.45	3.92	0.13
			0.00			1/2" Ice	7.02	4.64	0.18
			0.00			1" Ice	7.53	3.92	0.24
RRU4449 B71+B12	A	From Leg	2.00	0.0000	135.00	No Ice	1.65	1.16	0.07
			0.00			1/2" Ice	1.81	1.30	0.09
			0.00			1" Ice	1.98	1.45	0.10
RRU4449 B71+B12	B	From Leg	2.00	0.0000	135.00	No Ice	1.65	1.16	0.07
			0.00			1/2" Ice	1.81	1.30	0.09
			0.00			1" Ice	1.98	1.45	0.10
RRU4449 B71+B12	D	From Leg	2.00	0.0000	135.00	No Ice	1.65	1.16	0.07
			0.00			1/2" Ice	1.81	1.30	0.09
			0.00			1" Ice	1.98	1.45	0.10
Radio 4415	A	From Leg	2.00	0.0000	135.00	No Ice	1.86	0.87	0.05
			0.00			1/2" Ice	2.03	1.00	0.06
			0.00			1" Ice	2.20	1.14	0.08
Radio 4415	B	From Leg	2.00	0.0000	135.00	No Ice	1.86	0.87	0.05
			0.00			1/2" Ice	2.03	1.00	0.06
			0.00			1" Ice	2.20	1.14	0.08
Radio 4415	D	From Leg	2.00	0.0000	135.00	No Ice	1.86	0.87	0.05
			0.00			1/2" Ice	2.03	1.00	0.06

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	Project	KHCL-55054		Date	10:33:38 04/03/24
	Client	AT&T / Verizon		Designed by	Zachary A. Medoff, P.E.

Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement	C _A A _{Front}	C _A A _{Side}	Weight
			Horz	Lateral					
			0.00						
KRY 112 144/1	A	From Leg	2.00		0.0000	135.00	1" Ice 2.20	1.14	0.08
			0.00				No Ice 0.35	0.17	0.01
			0.00				1/2" Ice 0.43	0.23	0.01
KRY 112 144/1	B	From Leg	2.00		0.0000	135.00	1" Ice 0.51	0.30	0.02
			0.00				No Ice 0.35	0.17	0.01
			0.00				1/2" Ice 0.43	0.23	0.01
KRY 112 144/1	D	From Leg	2.00		0.0000	135.00	1" Ice 0.51	0.30	0.02
			0.00				No Ice 0.35	0.17	0.01
			0.00				1/2" Ice 0.43	0.23	0.01
SDX	A	From Leg	2.00		0.0000	135.00	1" Ice 0.51	0.30	0.02
			0.00				No Ice 0.24	0.10	0.01
			0.00				1/2" Ice 0.31	0.14	0.01
SDX	B	From Leg	2.00		0.0000	135.00	1" Ice 0.38	0.19	0.01
			0.00				No Ice 0.24	0.10	0.01
			0.00				1/2" Ice 0.31	0.14	0.01
SDX	D	From Leg	2.00		0.0000	135.00	1" Ice 0.38	0.19	0.01
			0.00				No Ice 0.24	0.10	0.01
			0.00				1/2" Ice 0.31	0.14	0.01
2' Standoff	A	From Leg	1.00		0.0000	135.00	1" Ice 0.38	0.19	0.01
			0.00				No Ice 2.78	2.23	0.11
			0.00				1/2" Ice 3.39	2.43	0.14
2' Standoff	B	From Leg	1.00		0.0000	135.00	1" Ice 4.00	2.63	0.17
			0.00				No Ice 2.78	2.23	0.11
			0.00				1/2" Ice 3.39	2.43	0.14
2' Standoff	D	From Leg	1.00		0.0000	135.00	1" Ice 4.00	2.63	0.17
			0.00				No Ice 2.78	2.23	0.11
			0.00				1/2" Ice 3.39	2.43	0.14
			0.00				1" Ice 4.00	2.63	0.17
(2) DB846F65ZAXY w/ MP	A	From Leg	2.00		0.0000	125.00	No Ice 7.51	8.06	0.06
			0.00				1/2" Ice 8.17	9.35	0.13
			0.00				1" Ice 8.79	10.49	0.21
(2) DB846F65ZAXY w/ MP	C	From Leg	1.97		-10.0000	125.00	No Ice 7.51	8.06	0.06
			-0.35				1/2" Ice 8.17	9.35	0.13
			0.00				1" Ice 8.79	10.49	0.21
(2) DB846F65ZAXY w/ MP	D	From Leg	1.88		-20.0000	125.00	No Ice 7.51	8.06	0.06
			-0.68				1/2" Ice 8.17	9.35	0.13
			0.00				1" Ice 8.79	10.49	0.21
(2) MX06FRO660-03 w/MP	A	From Leg	2.00		0.0000	125.00	No Ice 10.36	9.24	0.11
			0.00				1/2" Ice 11.04	10.51	0.20
			0.00				1" Ice 11.69	11.64	0.30
(2) MX06FRO660-03 w/MP	C	From Leg	1.97		-10.0000	125.00	No Ice 10.36	9.24	0.11
			-0.35				1/2" Ice 11.04	10.51	0.20
			0.00				1" Ice 11.69	11.64	0.30
(2) MX06FRO660-03 w/MP	D	From Leg	1.88		-20.0000	125.00	No Ice 10.36	9.24	0.11
			-0.68				1/2" Ice 11.04	10.51	0.20
			0.00				1" Ice 11.69	11.64	0.30
XXDWMM-12.5-65-8T-CBRS w/ MP	A	From Leg	2.00		0.0000	125.00	No Ice 2.63	2.55	0.05
			0.00				1/2" Ice 3.47	3.49	0.08
XXDWMM-12.5-65-8T-CBRS w/ MP	C	From Leg	1.97		-10.0000	125.00	No Ice 4.18	4.28	0.12
			-0.35				1/2" Ice 2.63	2.55	0.05
			2.00				1" Ice 3.47	3.49	0.08
XXDWMM-12.5-65-8T-CBRS w/ MP	D	From Leg	1.88		-20.0000	125.00	No Ice 4.18	4.28	0.12
			-0.68				1/2" Ice 2.63	2.55	0.05
			2.00				1" Ice 3.47	3.49	0.08
MT6407-77A	A	From Leg	2.00		0.0000	125.00	No Ice 4.69	1.84	0.08
			0.00				1/2" Ice 4.98	2.06	0.11
			-2.00				1" Ice 5.28	2.29	0.14
MT6407-77A	C	From Leg	1.97		-10.0000	125.00	No Ice 4.69	1.84	0.08
			-0.35				1/2" Ice 4.98	2.06	0.11
			-2.00				1" Ice 5.28	2.29	0.14
MT6407-77A	D	From Leg	1.88		-20.0000	125.00	No Ice 4.69	1.84	0.08
			-0.68				1/2" Ice 4.98	2.06	0.11
			-2.00				1" Ice 5.28	2.29	0.14
RF4440d-13A	A	From Leg	2.00		0.0000	125.00	No Ice 1.87	1.13	0.07
			0.00				1/2" Ice 2.03	1.27	0.09
			0.00				1" Ice 2.21	1.41	0.11
RF4440d-13A	C	From Leg	2.00		0.0000	125.00	No Ice 1.87	1.13	0.07
			0.00				1/2" Ice 2.03	1.27	0.09
			0.00				1" Ice 2.21	1.41	0.11
RF4440d-13A	D	From Leg	2.00		0.0000	125.00	No Ice 1.87	1.13	0.07
			0.00				1/2" Ice 2.03	1.27	0.09
			0.00				1" Ice 2.21	1.41	0.11
RF4439d-25A	A	From Leg	2.00		0.0000	125.00	No Ice 2.33	1.56	0.07
			0.00				1/2" Ice 2.52	1.72	0.10
			0.00				1" Ice 2.71	1.89	0.12
RF4439d-25A	C	From Leg	2.00		0.0000	125.00	No Ice 2.33	1.56	0.07

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	Project KHCLC-55054	Date 10:33:38 04/03/24
	Client AT&T / Verizon	Designed by Zachary A. Medoff, P.E.

Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement ft	C ₁ A ₁ Front ft ²	C ₂ A ₁ Side ft ²	Weight K
			Horz Lateral ft	Vert ft					
RF4439d-25A	D	From Leg	0.00		0.0000	125.00	1/2" Ice	1.72	0.10
			0.00				1" Ice	1.89	0.12
			2.00				No Ice	1.56	0.07
			0.00				1/2" Ice	1.72	0.10
(2) KA-6030	A	From Leg	0.00		0.0000	125.00	1" Ice	1.89	0.12
			2.00				No Ice	0.96	0.02
			0.00				1/2" Ice	1.09	0.06
			0.00				1" Ice	1.22	0.03
(2) KA-6030	D	From Leg	2.00		0.0000	125.00	No Ice	0.96	0.02
			0.00				1/2" Ice	1.09	0.06
			0.00				1" Ice	1.22	0.03
			0.00				1" Ice	1.22	0.03
RRFDC-3315-PF-48	C	From Leg	2.00		0.0000	125.00	No Ice	3.36	0.03
			0.00				1/2" Ice	3.60	0.06
			0.00				1" Ice	3.84	0.09
			0.00				No Ice	3.36	0.03
RRFDC-3315-PF-48	D	From Leg	2.00		0.0000	125.00	No Ice	3.36	0.03
			0.00				1/2" Ice	3.60	0.06
			0.00				1" Ice	3.84	0.09
			0.00				1" Ice	3.84	0.09
Sector Mount [SM 302-1]	A	From Leg	1.00		0.0000	125.00	No Ice	18.13	0.49
			0.00				1/2" Ice	21.75	0.68
			0.00				1" Ice	25.54	0.92
			0.00				1" Ice	25.54	0.92
Sector Mount [SM 302-1]	C	From Leg	1.00		-10.0000	125.00	No Ice	18.13	0.49
			0.00				1/2" Ice	21.75	0.68
			0.00				1" Ice	25.54	0.92
			0.00				1" Ice	25.54	0.92
Sector Mount [SM 302-1]	D	From Leg	1.00		-20.0000	125.00	No Ice	18.13	0.49
			0.00				1/2" Ice	21.75	0.68
			0.00				1" Ice	25.54	0.92
			0.00				1" Ice	25.54	0.92
GPS-TMG-HR-28N	B	From Leg	0.50		0.0000	65.00	No Ice	0.13	0.00
			0.00				1/2" Ice	0.18	0.00
			0.00				1" Ice	0.24	0.01

Load Combinations

Comb. No.	Description
1	Dead Only
2	1.2 Dead+1.0 Wind 0 deg - No Ice
3	0.9 Dead+1.0 Wind 0 deg - No Ice
4	1.2 Dead+1.0 Wind 45 deg - No Ice
5	0.9 Dead+1.0 Wind 45 deg - No Ice
6	1.2 Dead+1.0 Wind 90 deg - No Ice
7	0.9 Dead+1.0 Wind 90 deg - No Ice
8	1.2 Dead+1.0 Wind 135 deg - No Ice
9	0.9 Dead+1.0 Wind 135 deg - No Ice
10	1.2 Dead+1.0 Wind 180 deg - No Ice
11	0.9 Dead+1.0 Wind 180 deg - No Ice
12	1.2 Dead+1.0 Wind 225 deg - No Ice
13	0.9 Dead+1.0 Wind 225 deg - No Ice
14	1.2 Dead+1.0 Wind 270 deg - No Ice
15	0.9 Dead+1.0 Wind 270 deg - No Ice
16	1.2 Dead+1.0 Wind 315 deg - No Ice
17	0.9 Dead+1.0 Wind 315 deg - No Ice
18	1.2 Dead+1.0 Ice+1.0 Temp
19	1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp
20	1.2 Dead+1.0 Wind 45 deg+1.0 Ice+1.0 Temp
21	1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp
22	1.2 Dead+1.0 Wind 135 deg+1.0 Ice+1.0 Temp
23	1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp
24	1.2 Dead+1.0 Wind 225 deg+1.0 Ice+1.0 Temp
25	1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp
26	1.2 Dead+1.0 Wind 315 deg+1.0 Ice+1.0 Temp
27	Dead+Wind 0 deg - Service
28	Dead+Wind 45 deg - Service
29	Dead+Wind 90 deg - Service
30	Dead+Wind 135 deg - Service
31	Dead+Wind 180 deg - Service
32	Dead+Wind 225 deg - Service
33	Dead+Wind 270 deg - Service
34	Dead+Wind 315 deg - Service

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Maximum Reactions

Location	Condition	Gov. Load Comb.	Vertical K	Horizontal, X K	Horizontal, Z K
Leg D	Max. Vert	12	174.06	24.55	-24.25
	Max. H _x	12	174.06	24.55	-24.25
	Max. H _z	5	-114.97	-18.11	17.64
	Min. Vert	5	-114.97	-18.11	17.64
	Min. H _x	5	-114.97	-18.11	17.64
	Min. H _z	12	174.06	24.55	-24.25
Leg C	Max. Vert	8	176.11	-24.59	-24.74
	Max. H _x	17	-118.38	18.15	18.29
	Max. H _z	17	-118.38	18.15	18.29
	Min. Vert	17	-118.38	18.15	18.29
	Min. H _x	8	176.11	-24.59	-24.74
	Min. H _z	8	176.11	-24.59	-24.74
Leg B	Max. Vert	4	175.05	-24.35	24.55
	Max. H _x	13	-114.22	17.57	-18.10
	Max. H _z	4	175.05	-24.35	24.55
	Min. Vert	13	-114.22	17.57	-18.10
	Min. H _x	4	175.05	-24.35	24.55
	Min. H _z	13	-114.22	17.57	-18.10
Leg A	Max. Vert	16	178.66	24.93	24.69
	Max. H _x	16	178.66	24.93	24.69
	Max. H _z	16	178.66	24.93	24.69
	Min. Vert	9	-116.47	-18.15	-18.08
	Min. H _x	9	-116.47	-18.15	-18.08
	Min. H _z	9	-116.47	-18.15	-18.08

Tower Mast Reaction Summary

Load Combination	Vertical K	Shear _x K	Shear _z K	Overturning Moment, M _x kip-ft	Overturning Moment, M _z kip-ft	Torque kip-ft
Dead Only	114.22	0.00	0.00	-53.43	23.49	-0.00
1.2 Dead+1.0 Wind 0 deg - No Ice	137.06	0.00	-73.85	-6876.67	28.19	-1.34
0.9 Dead+1.0 Wind 0 deg - No Ice	102.80	0.00	-73.85	-6860.64	21.14	-1.34
1.2 Dead+1.0 Wind 45 deg - No Ice	137.06	55.22	-55.22	-5149.78	-5057.47	28.28
0.9 Dead+1.0 Wind 45 deg - No Ice	102.80	55.22	-55.22	-5133.75	-5064.52	28.28
1.2 Dead+1.0 Wind 90 deg - No Ice	137.06	73.18	0.00	-64.12	-6849.95	1.03
0.9 Dead+1.0 Wind 90 deg - No Ice	102.80	73.18	0.00	-48.09	-6857.00	1.03
1.2 Dead+1.0 Wind 135 deg - No Ice	137.06	55.90	55.90	5124.09	-5160.02	-10.10
0.9 Dead+1.0 Wind 135 deg - No Ice	102.80	55.90	55.90	5140.12	-5167.06	-10.10
1.2 Dead+1.0 Wind 180 deg - No Ice	137.06	0.00	73.85	6748.43	28.19	1.34
0.9 Dead+1.0 Wind 180 deg - No Ice	102.80	0.00	73.85	6764.46	21.14	1.34
1.2 Dead+1.0 Wind 225 deg - No Ice	137.06	-55.22	55.22	5021.54	5113.85	-28.28
0.9 Dead+1.0 Wind 225 deg - No Ice	102.80	-55.22	55.22	5037.57	5106.81	-28.28
1.2 Dead+1.0 Wind 270 deg - No Ice	137.06	-73.18	0.00	-64.12	6906.33	-1.03
0.9 Dead+1.0 Wind 270 deg - No Ice	102.80	-73.18	0.00	-48.09	6899.29	-1.03
1.2 Dead+1.0 Wind 315 deg - No Ice	137.06	-55.90	-55.90	-5252.33	5216.40	10.10
0.9 Dead+1.0 Wind 315 deg - No Ice	102.80	-55.90	-55.90	-5236.30	5209.35	10.10
1.2 Dead+1.0 Ice+1.0 Temp	243.50	0.00	0.00	-68.01	-20.10	0.00
1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp	243.50	0.00	-18.20	-1718.41	-20.10	2.72
1.2 Dead+1.0 Wind 45 deg+1.0 Ice+1.0 Temp	243.50	13.44	-13.44	-1298.89	-1250.97	9.97
1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp	243.50	17.91	0.00	-68.01	-1688.13	1.18
1.2 Dead+1.0 Wind 135 deg+1.0 Ice+1.0 Temp	243.50	13.54	13.54	1179.16	-1267.27	-5.96
1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp	243.50	0.00	18.20	1582.39	-20.10	-2.72
1.2 Dead+1.0 Wind 225 deg+1.0 Ice+1.0 Temp	243.50	-13.44	13.44	1162.86	1210.78	-9.97
1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp	243.50	-17.91	0.00	-68.01	1647.94	-1.18
1.2 Dead+1.0 Wind 315 deg+1.0 Ice+1.0 Temp	243.50	-13.54	-13.54	-1315.19	1227.08	5.96
Dead+Wind 0 deg - Service	114.22	0.00	-18.77	-1785.31	23.49	-0.34
Dead+Wind 45 deg - Service	114.22	14.04	-14.04	-1346.31	-1269.38	7.19
Dead+Wind 90 deg - Service	114.22	18.60	0.00	-53.43	-1725.06	0.26
Dead+Wind 135 deg - Service	114.22	14.21	14.21	1265.51	-1295.45	-2.57
Dead+Wind 180 deg - Service	114.22	0.00	18.77	1678.45	23.49	0.34
Dead+Wind 225 deg - Service	114.22	-14.04	14.04	1239.44	1316.37	-7.19
Dead+Wind 270 deg - Service	114.22	-18.60	0.00	-53.43	1772.05	-0.26
Dead+Wind 315 deg - Service	114.22	-14.21	-14.21	-1372.38	1342.44	2.57

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Solution Summary

Load Comb.	Sum of Applied Forces			Sum of Reactions			% Error
	PX K	PY K	PZ K	PX K	PY K	PZ K	
1	0.00	-114.22	0.00	-0.00	114.22	-0.00	0.000%
2	0.00	-137.06	-73.85	-0.00	137.06	73.85	0.000%
3	0.00	-102.80	-73.85	-0.00	102.80	73.85	0.000%
4	55.22	-137.06	-55.22	-55.22	137.06	55.22	0.000%
5	55.22	-102.80	-55.22	-55.22	102.80	55.22	0.000%
6	73.18	-137.06	0.00	-73.18	137.06	-0.00	0.000%
7	73.18	-102.80	0.00	-73.18	102.80	-0.00	0.000%
8	55.90	-137.06	55.90	-55.90	137.06	-55.90	0.000%
9	55.90	-102.80	55.90	-55.90	102.80	-55.90	0.000%
10	0.00	-137.06	73.85	-0.00	137.06	-73.85	0.000%
11	0.00	-102.80	73.85	0.00	102.80	-73.85	0.000%
12	-55.22	-137.06	55.22	55.22	137.06	-55.22	0.000%
13	-55.22	-102.80	55.22	55.22	102.80	-55.22	0.000%
14	-73.18	-137.06	0.00	73.18	137.06	-0.00	0.000%
15	-73.18	-102.80	0.00	73.18	102.80	0.00	0.000%
16	-55.90	-137.06	-55.90	55.90	137.06	55.90	0.000%
17	-55.90	-102.80	-55.90	55.90	102.80	55.90	0.000%
18	0.00	-243.50	0.00	-0.00	243.50	-0.00	0.000%
19	0.00	-243.50	-18.20	-0.00	243.50	18.20	0.000%
20	13.44	-243.50	-13.44	-13.44	243.50	13.44	0.000%
21	17.91	-243.50	0.00	-17.91	243.50	-0.00	0.000%
22	13.54	-243.50	13.54	-13.54	243.50	-13.54	0.000%
23	0.00	-243.50	18.20	-0.00	243.50	-18.20	0.000%
24	-13.44	-243.50	13.44	13.44	243.50	-13.44	0.000%
25	-17.91	-243.50	0.00	17.91	243.50	-0.00	0.000%
26	-13.54	-243.50	-13.54	13.54	243.50	13.54	0.000%
27	0.00	-114.22	-18.77	-0.00	114.22	18.77	0.000%
28	14.04	-114.22	-14.04	-14.04	114.22	14.04	0.000%
29	18.60	-114.22	0.00	-18.60	114.22	-0.00	0.000%
30	14.21	-114.22	14.21	-14.21	114.22	-14.21	0.000%
31	0.00	-114.22	18.77	-0.00	114.22	-18.77	0.000%
32	-14.04	-114.22	14.04	14.04	114.22	-14.04	0.000%
33	-18.60	-114.22	0.00	18.60	114.22	-0.00	0.000%
34	-14.21	-114.22	-14.21	14.21	114.22	14.21	0.000%

Maximum Tower Deflections - Service Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt	Twist
T1	162.5 - 150	0.592	34	0.0243	0.0016
T2	150 - 137.5	0.525	34	0.0237	0.0012
T3	137.5 - 125	0.456	34	0.0226	0.0011
T4	125 - 112.5	0.388	34	0.0211	0.0010
T5	112.5 - 100	0.326	34	0.0190	0.0008
T6	100 - 87.5	0.266	34	0.0172	0.0006
T7	87.5 - 75	0.211	34	0.0150	0.0004
T8	75 - 62.5	0.161	34	0.0127	0.0004
T9	62.5 - 50	0.117	34	0.0102	0.0004
T10	50 - 25	0.079	30	0.0079	0.0003
T11	25 - 0	0.029	30	0.0037	0.0002

Critical Deflections and Radius of Curvature - Service Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt	Twist	Radius of Curvature ft
167.00	(3) DC6-48-60-18-8C-EV	34	0.592	0.0243	0.0016	Inf
165.00	(3) RRUS 4478 B14	34	0.592	0.0243	0.0016	Inf
163.00	80010965 w/ Mount Pipe	34	0.592	0.0243	0.0016	Inf
162.50	Flash Beacon Lighting	34	0.592	0.0243	0.0016	Inf
153.00	RRH2X50-800	34	0.541	0.0238	0.0013	602733
148.00	APXVSP18 w/ Mount Pipe	34	0.514	0.0235	0.0011	535012
144.00	30' x 30' Cross Catwalk w/ Handrails	34	0.492	0.0232	0.0011	731209
135.00	AIR 32 KRD901146-1 B66A/B2A w/ Mount Pipe	34	0.442	0.0223	0.0010	805314

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Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt *	Twist *	Radius of Curvature ft
125.00	(2) DB846F65ZAXY w/ MP	34	0.388	0.0211	0.0010	272982
112.50	4.25' x 7' Catwalk	34	0.326	0.0190	0.0008	Inf
92.00	Side Light	34	0.230	0.0158	0.0005	373113
87.50	23' x 3' Catwalk	34	0.211	0.0150	0.0004	409473
65.00	GPS-TMG-HR-26N	34	0.125	0.0107	0.0004	410582
62.50	13' x 4.25' Catwalk	34	0.117	0.0102	0.0004	404286
25.00	13' x 4.25' Catwalk	30	0.029	0.0037	0.0002	347779
8.33	Feedline Raceway	30	0.009	0.0012	0.0001	Inf

Maximum Tower Deflections - Design Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt *	Twist *
T1	162.5 - 150	2.258	16	0.0885	0.0063
T2	150 - 137.5	2.007	16	0.0872	0.0045
T3	137.5 - 125	1.749	16	0.0838	0.0040
T4	125 - 112.5	1.495	16	0.0787	0.0036
T5	112.5 - 100	1.261	16	0.0711	0.0029
T6	100 - 87.5	1.033	16	0.0644	0.0021
T7	87.5 - 75	0.823	16	0.0560	0.0015
T8	75 - 62.5	0.631	16	0.0477	0.0013
T9	62.5 - 50	0.459	16	0.0384	0.0013
T10	50 - 25	0.309	8	0.0300	0.0012
T11	25 - 0	0.114	8	0.0142	0.0006

Critical Deflections and Radius of Curvature - Design Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt *	Twist *	Radius of Curvature ft
167.00	(3) DC6-48-60-18-80-EV	16	2.258	0.0885	0.0063	344837
165.00	(3) RRUS 4478 B14	16	2.258	0.0885	0.0063	344837
163.00	80010965 w/ Mount Pipe	16	2.258	0.0885	0.0063	344837
162.50	Flash Beacon Lighting	16	2.258	0.0885	0.0063	344837
153.00	RRH2X50-800	16	2.068	0.0877	0.0048	163479
148.00	APXVSP18 w/ Mount Pipe	16	1.966	0.0868	0.0043	167422
144.00	30' x 30' Cross Catwalk w/ Handrails	16	1.884	0.0858	0.0042	248579
135.00	AIR 32 KRD901146-1 B66A/B2A w/ Mount Pipe	16	1.697	0.0829	0.0040	262035
125.00	(2) DB846F65ZAXY w/ MP	16	1.495	0.0787	0.0036	71486
112.50	4.25' x 7' Catwalk	16	1.261	0.0711	0.0029	552571
92.00	Side Light	16	0.897	0.0591	0.0017	107479
87.50	23' x 3' Catwalk	16	0.823	0.0560	0.0015	128539
65.00	GPS-TMG-HR-26N	16	0.492	0.0403	0.0013	114086
62.50	13' x 4.25' Catwalk	16	0.459	0.0384	0.0013	113122
25.00	13' x 4.25' Catwalk	8	0.114	0.0142	0.0006	91427
8.33	Feedline Raceway	8	0.034	0.0046	0.0002	275701

Bolt Design Data

Section No.	Elevation ft	Component Type	Bolt Grade	Bolt Size in	Number Of Bolts	Maximum Load per Bolt K	Allowable Load per Bolt K	Ratio Load/Allowable	Allowable Ratio	Criteria
T1	162.5	Diagonal	A307	0.7500	5	0.90	9.94	✓	1	Bolt Shear
		Secondary Horizontal	A307	0.7500	2	0.12	9.94	✓	1	Bolt Shear
T2	150	Leg	A307	0.7500	16	2.55	19.88	✓	1	Bolt DS
		Diagonal	A307	0.7500	4	1.59	9.94	✓	1	Bolt Shear
		Secondary Horizontal	A307	0.7500	3	0.33	9.94	✓	1	Bolt Shear
T3	137.5	Diagonal	A307	0.7500	5	1.48	9.94	✓	1	Bolt Shear

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Section No.	Elevation ft	Component Type	Bolt Grade	Bolt Size in	Number Of Bolts	Maximum Load per Bolt K	Allowable Load per Bolt K	Ratio Load	Allowable Ratio	Criteria
								Allowable		
T4	125	Secondary Horizontal Leg	A307	0.7500	2	0.25	9.94	0.025 ✓	1	Bolt Shear
		Horizontal	A307	0.7500	16	5.79	19.88	0.291 ✓	1	Bolt DS
		Diagonal	A307	0.7500	4	2.26	19.88	0.114 ✓	1	Bolt Shear
T5	112.5	Secondary Horizontal Diagonal	A307	0.7500	2	0.35	9.94	0.035 ✓	1	Bolt Shear
		Horizontal	A307	0.7500	2	5.48	19.88	0.276 ✓	1	Bolt Shear
T6	100	Horizontal Leg	A307	0.7500	2	3.81	19.88	0.192 ✓	1	Bolt Shear
		Diagonal	A307	0.7500	20	6.93	19.88	0.349 ✓	1	Bolt DS
		Horizontal	A307	0.7500	2	5.50	19.88	0.277 ✓	1	Bolt Shear
T7	87.5	Diagonal	A307	0.7500	2	3.68	19.88	0.185 ✓	1	Bolt Shear
		Horizontal	A307	0.7500	2	5.83	19.88	0.293 ✓	1	Bolt Shear
T8	75	Horizontal Leg	A307	0.7500	2	4.04	19.88	0.203 ✓	1	Bolt Shear
		Diagonal	A307	0.7500	28	7.00	19.88	0.352 ✓	1	Bolt DS
		Horizontal	A307	0.7500	2	5.86	19.88	0.295 ✓	1	Bolt Shear
T9	62.5	Horizontal Leg	A307	0.7500	2	4.23	19.88	0.213 ✓	1	Bolt Shear
		Diagonal	A307	0.7500	28	8.00	19.88	0.402 ✓	1	Bolt DS
		Horizontal	A307	0.7500	3	4.00	19.88	0.201 ✓	1	Bolt Shear
T10	50	Horizontal Leg	A307	0.7500	2	4.40	19.88	0.222 ✓	1	Bolt Shear
		Diagonal	A307	0.7500	32	7.84	19.88	0.395 ✓	1	Bolt DS
		Horizontal	A307	0.7500	3	5.66	31.27	0.181 ✓	1	Member Block Shear
T11	25	Horizontal Leg	A307	0.7500	3	3.14	19.88	0.158 ✓	1	Bolt Shear
		Diagonal	A307	0.7500	36	8.07	19.88	0.406 ✓	1	Bolt DS
		Horizontal	A307	0.7500	5	4.49	19.88	0.226 ✓	1	Bolt Shear
		Horizontal	A307	0.7500	3	4.25	19.88	0.214 ✓	1	Bolt Shear

Compression Checks

Leg Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L _c ft	K/lr K=1.00	A in ²	P _u K	φP _n K	Ratio P _u / φP _n
T1	162.5 - 150	L6x6x1/2	12.57	6.72	68.4 K=1.00	5.7500	-10.62	176.56	0.060 ✓
T2	150 - 137.5	L6x6x1/2	12.57	6.67	67.8 K=1.00	5.7500	-20.43	177.05	0.115 ✓
T3	137.5 - 125	L6x6x5/8	12.57	6.63	67.4 K=1.00	7.1100	-32.96	219.40	0.150 ✓
T4	125 - 112.5	L6x6x5/8	12.57	6.59	67.1 K=1.00	7.1100	-46.31	219.77	0.211 ✓
T5	112.5 - 100	L6x6x3/4	12.57	6.28	64.5 K=1.00	8.4400	-56.01	264.15	0.212 ✓
T6	100 - 87.5	L6x6x3/4	12.57	6.28	64.5 K=1.00	8.4400	-69.29	264.15	0.262 ✓
T7	87.5 - 75	L6x6x7/8	12.57	6.28	64.5 K=1.00	9.7300	-84.66	304.53	0.278 ✓

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Section No.	Elevation ft	Size	L ft	L _w ft	Kl/r	A in ²	P _u K	φP _n K	Ratio $\frac{P_u}{\phi P_n}$
T8	75 - 62.5	L6x6x7/8	12.57	6.28	64.5 K=1.00	9.7300	-98.07	304.53	0.322 ¹
T9	62.5 - 50	L8x8x3/4	12.57	6.28	47.7 K=1.00	11.4000	-111.99	381.00	0.294 ¹
T10	50 - 25	L8x8x7/8	25.14	8.38	64.0 K=1.00	13.2000	-125.50	413.92	0.303 ¹
T11	25 - 0	L8x8x1	25.14	8.38	64.5 K=1.00	15.0000	-145.28	469.47	0.309 ¹

¹ P_u / φP_n controls

Diagonal Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L _w ft	Kl/r	A in ²	P _u K	φP _n K	Ratio $\frac{P_u}{\phi P_n}$
T1	162.5 - 150	L3 1/2x3 1/2x1/4	18.18	8.87	145.5 K=0.95	1.6900	-4.49	22.84	0.197 ¹
T2	150 - 137.5	L3 1/2x3x1/4	19.56	9.64	168.3 K=0.92	1.5600	-6.35	15.76	0.403 ¹
T3	137.5 - 125	L4x3x1/4	21.01	10.26	172.7 K=0.91	1.6900	-7.41	16.22	0.457 ¹
T4	125 - 112.5	2L3x2x1/4x3/8	22.52	11.10	170.9 K=1.00	2.3800	-9.04	22.56	0.401 ¹
T5	112.5 - 100	2L2 1/2x2 1/2x1/4x3/8	16.51	15.67	174.2 K=1.00	2.3800	-10.96	22.12	0.496 ¹
T6	100 - 87.5	2L2 1/2x2 1/2x1/4x3/8	17.12	16.30	180.0 K=1.00	2.3800	-11.01	20.74	0.531 ¹
T7	87.5 - 75	2L2 1/2x2 1/2x1/4x3/8	17.76	16.95	186.0 K=1.00	2.3800	-11.67	19.43	0.601 ¹
T8	75 - 62.5	2L2 1/2x2 1/2x1/4x3/8	18.43	17.63	192.3 K=1.00	2.3800	-11.73	18.19	0.645 ¹
T9	62.5 - 50	2L2 1/2x2 1/2x1/4x3/8	19.12	18.03	196.0 K=1.00	2.3800	-11.99	17.52	0.684 ¹
T10	50 - 25	2L3x3x3/8x3/8	29.89	19.00	172.9 K=1.00	4.2200	-18.05	40.02	0.451 ¹
T11	25 - 0	2L3x3 1/2x3/8x3/8	30.93	19.55	151.8 K=1.00	4.5900	-22.47	56.41	0.398 ¹

¹ P_u / φP_n controls

Horizontal Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L _w ft	Kl/r	A in ²	P _u K	φP _n K	Ratio $\frac{P_u}{\phi P_n}$
T5	112.5 - 100	2L3x2 1/2x1/4x3/8	19.63	9.34	120.3 K=1.00	2.6300	-6.49	48.83	0.133 ¹
T6	100 - 87.5	2L2 1/2x2 1/2x1/4x3/8	21.48	10.26	150.6 K=0.94	2.3800	-7.30	30.03	0.243 ¹
T7	87.5 - 75	2L2 1/2x2 1/2x1/4x3/8	23.33	11.18	161.6 K=0.93	2.3800	-8.08	26.09	0.310 ¹
T8	75 - 62.5	2L2 1/2x2 1/2x1/4x3/8	25.17	12.11	172.6 K=0.91	2.3800	-8.21	22.88	0.359 ¹
T9	62.5 - 50	2L3x2 1/2x1/4x3/8	27.02	12.95	153.9 K=0.94	2.6300	-8.64	30.85	0.280 ¹

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Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r K=	A in ²	P _u K	φP _n K	Ratio P _u / φP _n
T10	50 - 25	2L3x2 1/2x14x3/8	28.87	13.78	161.9 K=0.93	2.6300	-9.38	27.99	0.335 ¹ ✓
T11	25 - 0	2L3x3x3/8x3/8	32.56	15.62	185.1 K=0.90	4.2200	-10.33	35.27	0.293 ¹ ✓

¹ P_u / φP_n controls

Secondary Horizontal Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r K=	A in ²	P _u K	φP _n K	Ratio P _u / φP _n
T1	162.5 - 150	L3x2 1/2x1/4	13.11	12.15	194.0 K=1.00	1.3100	-0.25	9.96	0.025 ¹ ✓
T2	150 - 137.5	C6x8.2	14.96	14.46	323.2 K=1.00	2.4000	-0.99	5.19	0.192 ¹ ✓
T3	137.5 - 125	KL/R > 250 (C) - 38 L3x2 1/2x1/4	16.81	15.86	253.2 K=1.00	1.3100	-0.50	5.85	0.085 ¹ ✓
T4	125 - 112.5	KL/R > 250 (C) - 59 L3x2 1/2x1/4 KL/R > 250 (C) - 79	18.67	17.71	282.7 K=1.00	1.3100	-0.70	4.69	0.149 ¹ ✓

¹ P_u / φP_n controls

Top Girt Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r K=	A in ²	P _u K	φP _n K	Ratio P _u / φP _n
T1	162.5 - 150	2L3 1/2x3x14x3/8	12.25	11.75	124.3 K=0.98	3.1300	-0.17	56.57	0.003 ¹ ✓
T2	150 - 137.5	2L3 1/2x3x5/16x3/8	14.10	13.60	137.4 K=0.93	3.8700	-0.31	58.66	0.005 ¹ ✓
T3	137.5 - 125	2L3x2 1/2x14x3/8	15.94	15.44	177.6 K=1.00	2.6300	-0.50	23.26	0.021 ¹ ✓
T4	125 - 112.5	2L3x2 1/2x14x3/8	17.79	17.29	195.8 K=1.00	2.6300	-1.12	19.22	0.058 ¹ ✓

¹ P_u / φP_n controls

Redundant Horizontal (1) Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r K=	A in ²	P _u K	φP _n K	Ratio P _u / φP _n
T5	112.5 - 100	L2 1/2x2x3/16	4.91	4.66	130.9 K=1.00	0.8090	-0.84	13.51	0.062 ¹ ✓
T6	100 - 87.5	L2 1/2x2x3/16	5.37	5.12	143.9 K=1.00	0.8090	-1.04	11.18	0.093 ¹ ✓
T7	87.5 - 75	L2 1/2x2x3/16	5.83	5.58	156.9 K=1.00	0.8090	-1.27	9.41	0.135 ¹ ✓
T8	75 - 62.5	L2 1/2x2x3/16	6.29	6.04	169.8 K=1.00	0.8090	-1.48	8.03	0.184 ¹ ✓

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Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _n K	Ratio $\frac{P_u}{\phi P_n}$
T9	62.5 - 50	L2 1/2x2 1/2x1/4	6.75	6.42	156.9 K=1.00	1.1900	-1.68	13.83	0.122 ¹
T10	50 - 25	L2 1/2x2x3/16	4.81	4.48	125.8 K=1.00	0.8090	-1.89	14.62	0.129 ¹
T11	25 - 0	L2 1/2x2 1/2x3/16	5.43	5.09	123.5 K=1.00	0.9020	-2.19	16.91	0.129 ¹

¹ P_u / φP_n controls

Redundant Horizontal (2) Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _n K	Ratio $\frac{P_u}{\phi P_n}$
T10	50 - 25	L2 1/2x2 1/2x1/4	9.62	9.29	227.0 K=1.00	1.1900	-1.89	6.61	0.286 ¹
T11	25 - 0	L2 1/2x2 1/2x1/4	10.85	10.52	257.1 K=1.00	1.1900	-2.19	5.15	0.424 ¹

KLR > 250 (C) - 365

¹ P_u / φP_n controls

Redundant Diagonal (1) Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _n K	Ratio $\frac{P_u}{\phi P_n}$
T5	112.5 - 100	L2 1/2x2 1/2x3/16	7.68	7.25	175.9 K=1.00	0.9020	-0.66	8.35	0.079 ¹
T6	100 - 87.5	L2 1/2x2 1/2x3/16	7.96	7.56	183.2 K=1.00	0.9020	-0.77	7.69	0.100 ¹
T7	87.5 - 75	L2 1/2x2 1/2x3/16	8.25	7.87	190.8 K=1.00	0.9020	-0.90	7.09	0.127 ¹
T8	75 - 62.5	L2 1/2x2 1/2x3/16	8.56	8.19	198.7 K=1.00	0.9020	-1.00	6.54	0.153 ¹
T9	62.5 - 50	L2 1/2x2 1/2x3/16	8.88	8.41	203.9 K=1.00	0.9020	-1.11	6.21	0.178 ¹
T10	50 - 25	L2 1/2x2 1/2x3/16	9.35	8.62	208.9 K=1.00	0.9020	-1.83	5.92	0.310 ¹
T11	25 - 0	L2 1/2x2 1/2x3/16	9.64	8.98	217.7 K=1.00	0.9020	-1.94	5.45	0.356 ¹

¹ P_u / φP_n controls

Redundant Diagonal (2) Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _n K	Ratio $\frac{P_u}{\phi P_n}$
T10	50 - 25	L3x3 1/2x1/4	12.29	11.83	225.0 K=1.00	1.5600	-1.21	8.82	0.137 ¹
T11	25 - 0	2L2 1/2x2x1/4x3/8	13.21	12.78	195.7 K=1.00	2.1300	-7.31	15.92	0.469 ¹

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¹ P_u / φP_n controls

Redundant Hip (2) Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L _v ft	Kl/r K=1.00	A in ²	P _u K	φP _n K	Ratio P _u / φP _n
T10	50 - 25	L4x4x3/8	13.61	13.61	207.2 K=1.00	2.8600	-0.08	19.06	0.004 ¹ ✓
T11	25 - 0	L4x4x3/8	15.35	15.35	233.7 K=1.00	2.8600	-0.10	14.99	0.006 ¹ ✓

¹ P_u / φP_n controls

Redundant Hip Diagonal (2) Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L _v ft	Kl/r K=1.00	A in ²	P _u K	φP _n K	Ratio P _u / φP _n
T10	50 - 25	2L2 1/2x2 1/2x1/4x3/8	19.42	19.42	303.0 K=1.00	2.3800	-0.09	7.42	0.013 ¹ ✓
T11	25 - 0	KL/R > 250 (C) - 293 2L2 1/2x2 1/2x1/4x3/8 KL/R > 250 (C) - 356	21.44	21.44	334.6 K=1.00	2.3800	-0.09	6.09	0.016 ¹ ✓

¹ P_u / φP_n controls

Redundant Sub-Horizontal Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L _v ft	Kl/r K=1.00	A in ²	P _u K	φP _n K	Ratio P _u / φP _n
T11	25 - 0	2L2 1/2x3 1/2x1/4x3/8	12.08	12.08	197.3 K=1.00	2.8800	-9.24	21.18	0.436 ¹ ✓

¹ P_u / φP_n controls

Inner Bracing Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L _v ft	Kl/r K=1.00	A in ²	P _u K	φP _n K	Ratio P _u / φP _n
T5	112.5 - 100	2L2 1/2x2x3/16x3/8	13.88	13.88	210.1 K=1.00	1.6200	-0.04	10.50	0.004 ¹ ✓
T6	100 - 87.5	2L2 1/2x2 1/2x3/16x3/8	15.19	15.19	234.3 K=1.00	1.8000	-0.05	9.39	0.005 ¹ ✓
T7	87.5 - 75	2L3x2 1/2x1/4x3/8	16.49	16.49	209.5 K=1.00	2.6300	-0.05	17.16	0.003 ¹ ✓
T8	75 - 62.5	2L2 1/2x2 1/2x3/16x3/8	17.80	17.80	274.6 K=1.00	1.8000	-0.05	6.83	0.008 ¹ ✓
T9	62.5 - 50	KL/R > 250 (C) - 226 2L2 1/2x2 1/2x1/4x3/8	19.11	19.11	298.1 K=1.00	2.3800	-0.06	7.66	0.008 ¹ ✓
T10	50 - 25	KL/R > 250 (C) - 263 L3x3x1/4	20.41	20.41	413.7	1.4400	-0.04	2.41	0.018 ¹

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Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _n K	Ratio $\frac{P_u}{\phi P_n}$
					K=1.00				✓
T11	25 - 0	KL/R > 250 (C) - 323 2L3x2 1/2x1/4x3/8	23.02	23.02	292.3 K=1.00	2.6300	-0.07	8.81	0.008 ¹ ✓
		KL/R > 250 (C) - 388							✓

¹ P_u / φP_n controls

Tension Checks

Leg Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _n K	Ratio $\frac{P_u}{\phi P_n}$
T1	162.5 - 150	L6x6x1/2	12.57	5.84	37.7	5.7500	1.66	186.30	0.009 ¹ ✓
T2	150 - 137.5	L6x6x1/2	12.57	5.90	38.1	3.7188	7.84	161.77	0.048 ¹ ✓
T3	137.5 - 125	L6x6x5/8	12.57	5.94	38.7	7.1100	15.55	230.36	0.067 ¹ ✓
T4	125 - 112.5	L6x6x5/8	12.57	5.97	39.0	4.5709	25.32	198.84	0.127 ¹ ✓
T5	112.5 - 100	L6x6x3/4	12.57	6.28	41.2	8.4400	31.33	273.46	0.115 ¹ ✓
T6	100 - 87.5	L6x6x3/4	12.57	6.28	41.2	5.3931	42.06	234.60	0.179 ¹ ✓
T7	87.5 - 75	L6x6x7/8	12.57	6.28	41.7	9.7300	52.57	315.25	0.167 ¹ ✓
T8	75 - 62.5	L6x6x7/8	12.57	6.28	41.7	6.1753	63.02	266.63	0.235 ¹ ✓
T9	62.5 - 50	L8x8x3/4	12.57	6.28	30.5	8.3531	73.19	363.36	0.201 ¹ ✓
T10	50 - 25	L8x8x7/8	25.14	8.38	41.0	9.6453	82.63	419.57	0.197 ¹ ✓
T11	25 - 0	L8x8x1	25.14	8.38	41.2	10.9375	97.19	475.78	0.204 ¹ ✓

¹ P_u / φP_n controls

Diagonal Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _n K	Ratio $\frac{P_u}{\phi P_n}$
T1	162.5 - 150	L3 1/2x3 1/2x1/4	18.18	8.87	103.3	1.1034	3.28	48.00	0.088 ¹ ✓
T2	150 - 137.5	L3 1/2x3x1/4	19.56	9.64	132.2	1.0059	5.09	43.76	0.116 ¹ ✓
T3	137.5 - 125	L4x3x1/4	21.01	10.26	144.1	1.1034	6.30	48.00	0.131 ¹ ✓
T4	125 - 112.5	2L3x2x1/4x3/8	22.52	11.10	155.1	1.4569	7.41	63.37	0.117 ¹ ✓
T5	112.5 - 100	2L2 1/2x2 1/2x1/4x3/8	16.51	15.67	162.6	1.4569	10.59	63.37	0.167 ¹ ✓

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Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _n K	Ratio P _u / φP _n
T6	100 - 87.5	2L2 1/2x2 1/2x1/4x3/8	17.12	16.30	169.0	1.4569	10.61	63.37	0.167 ¹
T7	87.5 - 75	2L2 1/2x2 1/2x1/4x3/8	17.76	16.95	175.6	1.4569	11.09	63.37	0.175 ¹
T8	75 - 62.5	2L2 1/2x2 1/2x1/4x3/8	18.43	17.63	182.4	1.4569	11.12	63.37	0.175 ¹
T9	62.5 - 50	2L2 1/2x2 1/2x1/4x3/8	19.12	18.03	188.3	1.4569	11.26	63.37	0.178 ¹
T10	50 - 25	2L3x3x3/8x3/8	29.89	19.00	164.4	2.6728	16.98	116.27	0.146 ¹
T11	25 - 0	2L3x3 1/2x3/8x3/8	30.93	19.55	144.1	2.9503	18.05	128.34	0.141 ¹

¹ P_u / φP_n controls

Horizontal Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _n K	Ratio P _u / φP _n
T5	112.5 - 100	2L3x2 1/2x1/4x3/8	19.63	9.34	121.5	1.6444	7.62	71.53	0.107 ¹
T6	100 - 87.5	2L2 1/2x2 1/2x1/4x3/8	21.48	10.26	163.7	1.4569	7.35	63.37	0.116 ¹
T7	87.5 - 75	2L2 1/2x2 1/2x1/4x3/8	23.33	11.18	178.1	1.4569	7.99	63.37	0.126 ¹
T8	75 - 62.5	2L2 1/2x2 1/2x1/4x3/8	25.17	12.11	192.5	1.4569	8.47	63.37	0.134 ¹
T9	62.5 - 50	2L3x2 1/2x1/4x3/8	27.02	12.95	167.3	1.6444	8.81	71.53	0.123 ¹
T10	50 - 25	2L3x2 1/2x1/4x3/8	28.87	13.78	179.0	1.6444	9.41	71.53	0.132 ¹
T11	25 - 0	2L3x3x3/8x3/8	32.56	15.62	209.6	2.6728	12.75	116.27	0.110 ¹

¹ P_u / φP_n controls

Secondary Horizontal Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _n K	Ratio P _u / φP _n
T1	162.5 - 150	L3x2 1/2x1/4	13.11	12.15	201.3	0.8184	0.21	35.60	0.006 ¹
T2	150 - 137.5	C6x8.2	14.96	14.46	323.2	1.6688	0.74	72.59	0.010 ¹
T3	137.5 - 125	L3x2 1/2x1/4	16.81	15.86	260.5	0.8184	0.50	35.60	0.014 ¹
T4	125 - 112.5	L3x2 1/2x1/4	18.67	17.71	290.0	0.8184	0.70	35.60	0.020 ¹

¹ P_u / φP_n controls

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Top Girt Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L _w ft	Kl/r	A in ²	P _u K	φP _n K	Ratio $\frac{P_u}{\phi P_n}$
T1	162.5 - 150	2L3 1/2x3x1/4x3/8	12.25	11.75	127.0	3.1300	0.17	101.41	0.002 ¹
T2	150 - 137.5	2L3 1/2x3x5/16x3/8	14.10	13.60	148.3	3.8700	1.49	125.39	0.012 ¹
T3	137.5 - 125	2L3x2 1/2x1/4x3/8	15.94	15.44	196.1	2.6300	1.75	85.21	0.021 ¹
T4	125 - 112.5	2L3x2 1/2x1/4x3/8	17.79	17.29	219.5	2.6300	2.62	85.21	0.031 ¹

¹ P_u / φP_n controls

Redundant Horizontal (1) Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L _w ft	Kl/r	A in ²	P _u K	φP _n K	Ratio $\frac{P_u}{\phi P_n}$
T5	112.5 - 100	L2 1/2x2x3/16	4.91	4.66	93.2	0.8090	0.84	26.21	0.032 ¹
T6	100 - 87.5	L2 1/2x2x3/16	5.37	5.12	102.4	0.8090	1.04	26.21	0.040 ¹
T7	87.5 - 75	L2 1/2x2x3/16	5.83	5.58	111.7	0.8090	1.27	26.21	0.049 ¹
T8	75 - 62.5	L2 1/2x2x3/16	6.29	6.04	120.9	0.8090	1.48	26.21	0.056 ¹
T9	62.5 - 50	L2 1/2x2 1/2x1/4	6.75	6.42	100.2	1.1900	1.68	38.56	0.044 ¹
T10	50 - 25	L2 1/2x2x3/16	4.81	4.48	89.6	0.8090	1.89	26.21	0.072 ¹
T11	25 - 0	L2 1/2x2 1/2x3/16	5.43	5.09	78.6	0.9020	2.19	29.22	0.075 ¹

¹ P_u / φP_n controls

Redundant Horizontal (2) Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L _w ft	Kl/r	A in ²	P _u K	φP _n K	Ratio $\frac{P_u}{\phi P_n}$
T10	50 - 25	L2 1/2x2 1/2x1/4	9.62	9.29	144.9	1.1900	1.89	38.56	0.049 ¹
T11	25 - 0	L2 1/2x2 1/2x1/4	10.85	10.52	164.1	1.1900	2.19	38.56	0.057 ¹

¹ P_u / φP_n controls

Redundant Diagonal (1) Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L _w ft	Kl/r	A in ²	P _u K	φP _n K	Ratio $\frac{P_u}{\phi P_n}$
T5	112.5 - 100	L2 1/2x2 1/2x3/16	7.68	7.25	111.9	0.9020	0.66	29.22	0.023 ¹

tnxTower Kimley-Horn and Associates, Inc. 421 Fayetteville St., Suite 600 Raleigh, NC 27601 Phone: (919) 677-2000 FAX:	Job 467793 - Shelton North 2 CT (FA #10034975)	Page 29 of 30
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	Client AT&T / Verizon	Designed by Zachary A. Medoff, P.E.

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _n K	Ratio P _u / φP _n
T6	100 - 87.5	L2 1/2x2 1/2x3/16	7.96	7.56	116.6	0.9020	0.77	29.22	0.026 ¹
T7	87.5 - 75	L2 1/2x2 1/2x3/16	8.25	7.87	121.4	0.9020	0.90	29.22	0.031 ¹
T8	75 - 62.5	L2 1/2x2 1/2x3/16	8.56	8.19	126.4	0.9020	1.00	29.22	0.034 ¹
T9	62.5 - 50	L2 1/2x2 1/2x3/16	8.88	8.41	129.8	0.9020	1.11	29.22	0.038 ¹
T10	50 - 25	L2 1/2x2 1/2x3/16	9.35	8.62	132.9	0.9020	1.83	29.22	0.063 ¹
T11	25 - 0	L2 1/2x2 1/2x3/16	9.64	8.98	138.5	0.9020	1.94	29.22	0.066 ¹

¹ P_u / φP_n controls

Redundant Diagonal (2) Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _n K	Ratio P _u / φP _n
T10	50 - 25	L3x3 1/2x1/4	12.29	11.83	155.5	1.5600	1.21	50.54	0.024 ¹
T11	25 - 0	2L2 1/2x2x1/4x3/8	13.21	12.78	195.7	2.1300	4.46	69.01	0.065 ¹

¹ P_u / φP_n controls

Redundant Hip Diagonal (2) Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _n K	Ratio P _u / φP _n
T10	50 - 25	2L2 1/2x2 1/2x1/4x3/8	19.42	19.42	303.0	2.3800	0.06	77.11	0.001 ¹
T11	25 - 0	2L2 1/2x2 1/2x1/4x3/8	21.44	21.44	334.6	2.3800	0.06	77.11	0.001 ¹

¹ P_u / φP_n controls

Redundant Sub-Horizontal Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _n K	Ratio P _u / φP _n
T11	25 - 0	2L2 1/2x3 1/2x1/4x3/8	12.08	12.08	197.3	2.8800	4.74	93.31	0.051 ¹

¹ P_u / φP_n controls

Section Capacity Table

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	φP _{allow} K	% Capacity	Pass Fail
T1	162.5 - 150	Leg	L6x6x1/2	4	-10.62	176.56	6.0	Pass
T2	150 - 137.5	Leg	L6x6x1/2	24	-20.43	177.05	11.5	Pass
T3	137.5 - 125	Leg	L6x6x5/8	44	-32.96	219.40	15.0	Pass
T4	125 - 112.5	Leg	L6x6x5/8	64	-46.31	219.77	21.1	Pass

tnxTower Kimley-Horn and Associates, Inc. 421 Fayetteville St., Suite 600 Raleigh, NC 27601 Phone: (919) 677-2000 FAX:	Job 467793 - Shelton North 2 CT (FA #10034975)	Page 30 of 30
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	Client AT&T / Verizon	Designed by Zachary A. Medoff, P.E.

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	ϕP_{allow} K	% Capacity	Pass Fail	
T5	112.5 - 100	Leg	L6x6x3/4	84	-56.01	264.15	21.2	Pass	
T6	100 - 87.5	Leg	L6x6x3/4	121	-69.29	264.15	26.2	Pass	
T7	87.5 - 75	Leg	L6x6x7/8	158	-84.66	304.53	27.8	Pass	
T8	75 - 62.5	Leg	L6x6x7/8	195	-98.07	304.53	32.2	Pass	
T9	62.5 - 50	Leg	L8x8x3/4	232	-111.99	381.00	29.4	Pass	
T10	50 - 25	Leg	L8x8x7/8	269	-125.50	413.92	30.3	Pass	
T11	25 - 0	Leg	L8x8x1	330	-145.28	469.47	30.9	Pass	
T1	162.5 - 150	Diagonal	L3 1/2x3 1/2x1/4	16	-4.49	22.84	19.7	Pass	
T2	150 - 137.5	Diagonal	L3 1/2x3x1/4	33	-6.35	15.76	40.3	Pass	
T3	137.5 - 125	Diagonal	L4x3x1/4	53	-7.41	16.22	45.7	Pass	
T4	125 - 112.5	Diagonal	2L3x2x1/4x3/8	76	-9.04	22.66	40.1	Pass	
T5	112.5 - 100	Diagonal	2L2 1/2x2 1/2x1/4x3/8	110	-10.96	22.12	49.6	Pass	
T6	100 - 87.5	Diagonal	2L2 1/2x2 1/2x1/4x3/8	147	-11.01	20.74	53.1	Pass	
T7	87.5 - 75	Diagonal	2L2 1/2x2 1/2x1/4x3/8	174	-11.67	19.43	60.1	Pass	
T8	75 - 62.5	Diagonal	2L2 1/2x2 1/2x1/4x3/8	200	-11.73	18.19	64.5	Pass	
T9	62.5 - 50	Diagonal	2L2 1/2x2 1/2x1/4x3/8	237	-11.99	17.52	68.4	Pass	
T10	50 - 25	Diagonal	2L3x3x3/8x3/8	276	-18.05	40.02	45.1	Pass	
T11	25 - 0	Diagonal	2L3x3 1/2x3/8x3/8	377	-22.47	56.41	39.8	Pass	
T5	112.5 - 100	Horizontal	2L3x2 1/2x1/4x3/8	106	-6.49	48.83	13.3	Pass	
T6	100 - 87.5	Horizontal	2L2 1/2x2 1/2x1/4x3/8	143	-7.30	30.03	24.3	Pass	
T7	87.5 - 75	Horizontal	2L2 1/2x2 1/2x1/4x3/8	180	-8.08	26.09	31.0	Pass	
T8	75 - 62.5	Horizontal	2L2 1/2x2 1/2x1/4x3/8	217	-8.21	22.88	35.9	Pass	
T9	62.5 - 50	Horizontal	2L3x2 1/2x1/4x3/8	254	-8.64	30.85	28.0	Pass	
T10	50 - 25	Horizontal	2L3x2 1/2x1/4x3/8	270	-9.38	27.99	33.5	Pass	
T11	25 - 0	Horizontal	2L3x3x3/8x3/8	331	-10.33	35.27	29.3	Pass	
T1	162.5 - 150	Secondary Horizontal	L3x2 1/2x1/4	18	-0.25	9.96	2.5	Pass	
T2	150 - 137.5	Secondary Horizontal	C6x8.2	38	-0.99	5.19	19.2	Pass	
T3	137.5 - 125	Secondary Horizontal	L3x2 1/2x1/4	59	-0.50	5.85	8.5	Pass	
T4	125 - 112.5	Secondary Horizontal	L3x2 1/2x1/4	79	-0.70	4.69	14.9	Pass	
T1	162.5 - 150	Top Girt	2L3 1/2x3x1/4x3/8	5	-0.17	56.57	0.4	Pass	
T2	150 - 137.5	Top Girt	2L3 1/2x3x5/16x3/8	28	1.49	126.39	1.2	Pass	
T3	137.5 - 125	Top Girt	2L3x2 1/2x1/4x3/8	47	-0.50	23.26	2.1	Pass	
T4	125 - 112.5	Top Girt	2L3x2 1/2x1/4x3/8	65	-1.12	19.22	5.8	Pass	
T5	112.5 - 100	Redund Horz 1 Bracing	L2 1/2x2x3/16	104	-0.84	13.51	6.2	Pass	
T6	100 - 87.5	Redund Horz 1 Bracing	L2 1/2x2x3/16	145	-1.04	11.18	9.3	Pass	
T7	87.5 - 75	Redund Horz 1 Bracing	L2 1/2x2x3/16	182	-1.27	9.41	13.5	Pass	
T8	75 - 62.5	Redund Horz 1 Bracing	L2 1/2x2x3/16	215	-1.48	8.03	18.4	Pass	
T9	62.5 - 50	Redund Horz 1 Bracing	L2 1/2x2 1/2x1/4	252	-1.68	13.83	12.2	Pass	
T10	50 - 25	Redund Horz 1 Bracing	L2 1/2x2x3/16	301	-1.89	14.62	12.9	Pass	
T11	25 - 0	Redund Horz 1 Bracing	L2 1/2x2 1/2x3/16	364	-2.19	16.91	12.9	Pass	
T10	50 - 25	Redund Horz 2 Bracing	L2 1/2x2 1/2x1/4	302	-1.89	6.61	28.6	Pass	
T11	25 - 0	Redund Horz 2 Bracing	L2 1/2x2 1/2x1/4	374	-2.19	5.15	42.4	Pass	
T5	112.5 - 100	Redund Diag 1 Bracing	L2 1/2x2 1/2x3/16	109	-0.66	8.35	7.9	Pass	
T6	100 - 87.5	Redund Diag 1 Bracing	L2 1/2x2 1/2x3/16	146	-0.77	7.69	10.0	Pass	
T7	87.5 - 75	Redund Diag 1 Bracing	L2 1/2x2 1/2x3/16	179	-0.90	7.09	12.7	Pass	
T8	75 - 62.5	Redund Diag 1 Bracing	L2 1/2x2 1/2x3/16	216	-1.00	6.54	15.3	Pass	
T9	62.5 - 50	Redund Diag 1 Bracing	L2 1/2x2 1/2x3/16	253	-1.11	6.21	17.8	Pass	
T10	50 - 25	Redund Diag 1 Bracing	L2 1/2x2 1/2x3/16	311	-1.83	5.92	31.0	Pass	
T11	25 - 0	Redund Diag 1 Bracing	L2 1/2x2 1/2x3/16	375	-1.94	5.45	35.6	Pass	
T10	50 - 25	Redund Diag 2 Bracing	L3x3 1/2x1/4	304	-1.21	8.82	13.7	Pass	
T11	25 - 0	Redund Diag 2 Bracing	2L2 1/2x2x1/4x3/8	381	-7.31	15.92	45.9	Pass	
T10	50 - 25	Redund Hip 2 Bracing	L4x4x3/8	292	-0.08	19.06	0.5	Pass	
T11	25 - 0	Redund Hip 2 Bracing	L4x4x3/8	385	-0.10	14.99	0.6	Pass	
T10	50 - 25	Redund Hip Diagonal 2 Bracing	2L2 1/2x2 1/2x1/4x3/8	293	-0.09	7.42	1.3	Pass	
T11	25 - 0	Redund Hip Diagonal 2 Bracing	2L2 1/2x2 1/2x1/4x3/8	356	-0.09	6.09	1.6	Pass	
T11	25 - 0	Redund Sub Horz Bracing	2L2 1/2x3 1/2x1/4x3/8	382	-9.24	21.18	43.6	Pass	
T5	112.5 - 100	Inner Bracing	2L2 1/2x2x3/16x3/8	117	-0.01	5.25	0.8	Pass	
T6	100 - 87.5	Inner Bracing	2L2 1/2x2 1/2x3/16x3/8	154	-0.01	4.69	1.0	Pass	
T7	87.5 - 75	Inner Bracing	2L3x2 1/2x1/4x3/8	191	-0.02	6.58	0.8	Pass	
T8	75 - 62.5	Inner Bracing	2L2 1/2x2 1/2x3/16x3/8	228	-0.01	3.42	1.1	Pass	
T9	62.5 - 50	Inner Bracing	2L2 1/2x2 1/2x1/4x3/8	265	-0.02	3.83	1.0	Pass	
T10	50 - 25	Inner Bracing	L3x3x1/4	323	-0.04	2.41	1.8	Pass	
T11	25 - 0	Inner Bracing	2L3x2 1/2x1/4x3/8	391	-0.02	4.40	1.1	Pass	
Summary									
							Leg (T8)	32.2	Pass
							Diagonal (T9)	68.4	Pass
							Horizontal (T8)	35.9	Pass
							Secondary Horizontal (T2)	19.2	Pass
							Top Girt (T4)	5.8	Pass
							Redund Horz 1 Bracing (T8)	18.4	Pass
							Redund Horz 2 Bracing (T11)	42.4	Pass
							Redund Diag 1 Bracing (T11)	35.6	Pass
							Redund Diag 2 Bracing (T11)	45.9	Pass
							Redund Hip 2 Bracing (T11)	0.6	Pass
							Redund Hip Diagonal 2 Bracing (T11)	1.6	Pass
							Redund Sub Horz Bracing (T11)	43.6	Pass
							Inner Bracing (T10)	1.8	Pass
							Bolt Checks	40.6	Pass
							RATING =	68.4	Pass

APPENDIX C

Base Plate & Anchor Rod Calculations

Self Support Anchor Rod Capacity

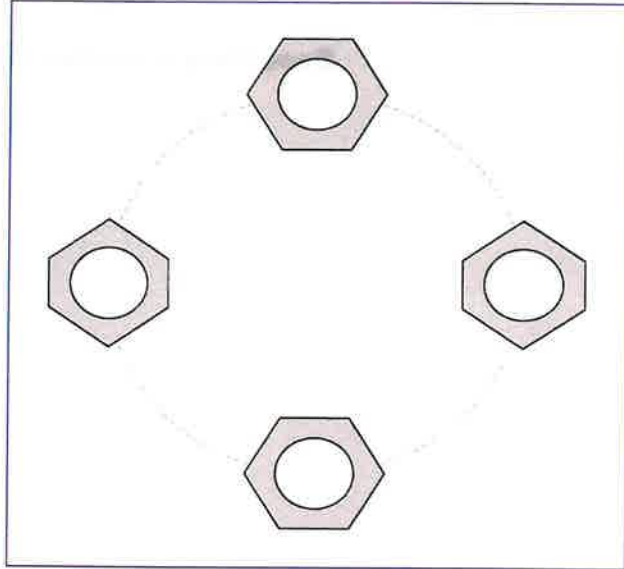
Site Info	
FA #	10034975
Site Name	SHELTON EAST CENTRAL
Project #	KHCL-55054

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

Applied Loads		
	Comp.	Uplift
Axial Force (kips)	178.66	118.38
Shear Force (kips)	35.09	25.77

Considered Eccentricity	
Leg Mod Eccentricity (in)	0.000
Anchor Rod N.A Shift (in)	0.000
Total Eccentricity (in)	0.000

*Anchor Rod Eccentricity Applied



Connection Properties

Analysis Results

Anchor Rod Data

(4) 2-1/4" ϕ bolts (C-1015 N; $F_y=41.25$ ksi, $F_u=56$ ksi)
 l_{ar} (in): 0

Anchor Rod Summary

(units of kips, kip-in)

$P_u_c = 44.67$	$\phi P_n_c = 147.61$	Stress Rating
$V_u = 8.77$	$\phi V_n = 66.43$	32.0%
$M_u = n/a$	$\phi M_n = n/a$	Pass

APPENDIX D

Foundation Calculations

Pier and Pad Foundation

FA #:	10034975
Site Name:	SHELTON EAST CENTRAL
Project #:	KHCLE-55054

TIA-222 Revision:	H
Tower Type:	Self Support

Top & Bot. Pad Rein. Different?:	<input type="checkbox"/>
Block Foundation?:	<input type="checkbox"/>
Rectangular Pad?:	<input type="checkbox"/>

Superstructure Analysis Reactions		
Compression, P_{comp} :	178.66	kips
Compression Shear, V_{u_comp} :	35.09	kips
Uplift, P_{uplift} :	118.38	kips
Uplift Shear, V_{u_uplift} :	25.77	kips
Tower Height, H :	162.5	ft
Base Face Width, BW :	36.25	ft
BP Dist. Above Fdn, bp_{dist} :	2	in

Foundation Analysis Checks				
	Capacity	Demand	Rating	Check
<i>Uplift (kips)</i>	318.49	118.38	37.2%	Pass
<i>Lateral (Sliding) (kips)</i>	143.54	25.77	18.0%	Pass
<i>Bearing Pressure (ksf)</i>	14.25	2.11	14.8%	Pass
<i>Pier Flexure (Comp.) (kip*ft)</i>	3154.05	228.09	7.2%	Pass
<i>Pier Flexure (Tension) (kip*ft)</i>	2387.94	167.51	7.0%	Pass
<i>Pier Compression (kip)</i>	24233.48	238.06	1.0%	Pass
<i>Pad Flexure (kip*ft)</i>	998.54	99.41	10.0%	Pass
<i>Pad Shear - 1-way (kips)</i>	288.38	29.66	10.3%	Pass
<i>Pad Shear - 2-way (Comp) (ksi)</i>	0.164	0.025	14.9%	Pass
<i>Flexural 2-way (Comp) (kip*ft)</i>	1698.96	136.85	8.1%	Pass
<i>Pad Shear - 2-way (Uplift) (ksi)</i>	0.164	0.014	8.7%	Pass
<i>Flexural 2-way (Tension) (kip*ft)</i>	1698.96	100.50	5.9%	Pass

Pier Properties		
Pier Shape:	Square	
Pier Diameter, d_{pier} :	7.125	ft
Ext. Above Grade, E :	0.5	ft
Pier Rebar Size, S_c :	9	
Pier Rebar Quantity, m_c :	16	
Pier Tie/Spiral Size, S_t :	4	
Pier Tie/Spiral Quantity, m_t :	9	
Pier Reinforcement Type:	Tie	
Pier Clear Cover, cc_{pier} :	3	in

Structural Rating:	14.9%
Soil Rating:	37.2%

Pad Properties		
Depth, D :	8	ft
Pad Width, W_1 :	15	ft
Pad Thickness, T :	2	ft
Pad Rebar Size (Bottom dir. 2), Sp_2 :	8	
Pad Rebar Quantity (Bottom dir. 2), mp_2 :	15	
Pad Clear Cover, cc_{pad} :	3	in


Material Properties		
Rebar Grade, F_y :	60	ksi
Concrete Compressive Strength, F'_c :	3	ksi
Dry Concrete Density, δ_c :	150	pcf

Soil Properties		
Total Soil Unit Weight, γ :	125	pcf
Ultimate Net Bearing, Q_{net} :	18.000	ksf
Cohesion, C_u :		ksf
Friction Angle, ϕ :	38	degrees
SPT Blow Count, N_{blows} :		
Base Friction, μ :	0.35	
Neglected Depth, N :	3.50	ft
Foundation Bearing on Rock?:	Yes	
Groundwater Depth, gw :	N/A	ft

<-- Toggle between Gross and Net

APPENDIX E


RF Data Sheet/Proposed Scoping Document

		AT&T Site Lease Application				rev 12		
Please e-mail completed application to corresponding Account Manager (see below)								
	Primary Contact	States / Areas Covered				Email Address		
X	Alison Skipper	ALL TOWER SITES NATIONWIDE				as317b@att.com		
Select One	Alan Campbell	ALL ROOFTOP SITES NATIONWIDE				ac5154@att.com		
NOTE: Upon review/approval of your Site Lease Application, your AT&T Towers / Rooftop representative will send a Preliminary Approval Letter with detailed instructions regarding the next steps in the process. AT&T Towers requires a structural analysis of it's tower foundations and all the expenses in connection therewith are paid by the applicant.								
>>>>Please Select Lease Type>>>> Lease Amendment >>>> NOTE: Revised Applications May Require Additional Processing Time <<<								
APPLICANT INFORMATION								
Application Date:	12/05/2023	Applicant Site Name:	Shelton North 2 CT		Applicant Site Number:	467793		
Company Name:	Verizon Wireless		Legal Entity Name:	Celco Partnership				
State of Incorporation:	DE	Type of Corporation - [Corp, Part, LLC, Non-Prof]:	Corp					
Applicant Address for Legal Notices - Billing - Other								
	NOTICE ADDRESS FOR LEASE:		BILLING (A/P) ADDRESS:		COPY TO:			
COMPANY NAME	Celco Partnership d/b/a Verizon Wireless		Verizon Wireless					
ADDRESS	180 Washington Valley Road		P.O. Box 21074					
CITY, STATE, ZIP	Bedminster, NJ 07921		Tulsa, OK 74121					
Attention:	Network Real Estate		Accounts Payable					
Telephone:								
Applicant Contacts								
	Name & Title		Phone		E-mail Address			
Site Acquisition Contractor:	Aerosmith Development by Michael Elser		508-479-7628		melier@aerosmithdevelopment.com			
Carrier Site Development Manager:								
RF Engineer Contact:								
Lessee Signatory:	TBD							
24 Hour Emergency Contact (NOC):	NOCC		800-852-2671					
Email Address for Invoices/PO requests associated with Pre-Construction Services (i.e. Structural Analysis) >>>>								
Commencement & Terms								
Desired Construction Commencement Date:	12/30/2023							
Initial Term (in years):	Number of Extended Terms (#):		Duration of Each Extended Term (yrs):					
AT&T Towers Site Identification Information (from AT&T Towers Web Site: www.att.com/towers)								
AT&T Towers Site Name:	Shelton East Central	Coordinates (NAD 83)	LAT	41	18	15.0900	Existing Tower Height:	188
AT&T Towers Site ID #:	10034975	LON	73	7	5.9900	Tower Type:	Self Support	
Site Address:	219 Nells Rock Road							
City:	Shelton	State:	CT	Zip Code:	06484	County:	Fairfield	
ANTENNA EQUIPMENT DETAIL (All equipment attached to the structure MUST be listed in this application).								
AT&T Towers requires a structural analysis of the structure and its foundation and all the expenses in connection therewith are paid to AT&T by the applicant.								
>>> Does your equipment installation require a Tower Extension or Tower Replacement?								
N/A								

APPLICATION

If you need additional space to list all equipment attached to the structure, please use row 82 below.									
FINAL INSTALL CONFIGURATION (ALL EQUIPMENT)					EXISTING EQUIPMENT CONFIGURATION (IF ANY)				
ANTENNA DESCRIPTION	SECTOR 1	SECTOR 2	SECTOR 3	SECTOR 4	ANTENNA DESCRIPTION	SECTOR 1	SECTOR 2	SECTOR 3	SECTOR 4
Manufacturer	Andrew, JMA, JMA, Samsung, Samsung, Andrew	Andrew, JMA, JMA, Samsung, Samsung, Andrew	Andrew, JMA, JMA, Samsung, Samsung, Andrew		Manufacturer	Andrew, JMA, JMA, Samsung, Samsung, Andrew	Andrew, JMA, JMA, Samsung, Samsung, Andrew	Andrew, JMA, JMA, Samsung, Samsung, Andrew	
Model Number	(2) DBB46F65ZAXY, (2) MX06FRO660-03, (1) XXDWMM, (1) MT6407	(2) DBB46F65ZAXY, (2) MX06FRO660-03, (1) XXDWMM, (1) MT6407	(2) DBB46F65ZAXY, (2) MX06FRO660-03, (1) XXDWMM, (1) MT6407		Model Number	(2) DBB46F65ZAXY, (2) MX06FRO660-03, (1) XXDWMM, (1) MT6407	(2) DBB46F65ZAXY, (2) MX06FRO660-03, (1) XXDWMM, (1) MT6407	(2) DBB46F65ZAXY, (2) MX06FRO660-03, (1) XXDWMM, (1) MT6407	
Antenna Quantity Per Sector	6	6	6		Antenna Quantity Per Sector	6	6	6	
Antenna Type	Panel	Panel	Panel		Antenna Type	Panel	Panel	Panel	
Antenna Dimensions (HxWxD) show dimensions in "inches"	(2) 72 X 8.5 X 10.1, (2) JMA, MX06FRO660-03 (71.3 X 15.4 X 10.7), (1)	(2) DBB46F65ZAXY (72 X 8.5 X 10.1), (2) MX06FRO660-03 (71.3 X 15.4 X 10.7), (1)	(2) DBB46F65ZAXY (72 X 8.5 X 10.1), (2) MX06FRO660-03 (71.3 X 15.4 X 10.7), (1)		Antenna Dimensions (HxWxD) show dimensions in "inches"	(2) Andrew, DBB46F65ZAXY (72 X 8.5 X 10.1), (2) JMA, MX06FRO660-03 (71.3 X 15.4 X 10.7), (1)	(2) Andrew, DBB46F65ZAXY (72 X 8.5 X 10.1), (2) JMA, MX06FRO660-03 (71.3 X 15.4 X 10.7), (1)	(2) Andrew, DBB46F65ZAXY (72 X 8.5 X 10.1), (2) JMA, MX06FRO660-03 (71.3 X 15.4 X 10.7), (1)	
Weight (lbs)	DBB46F65ZAXY (20.9), JMA, MX06FRO660-03	DBB46F65ZAXY (20.9), JMA, MX06FRO660-03	DBB46F65ZAXY (20.9), JMA, MX06FRO660-03		Weight (lbs)	DBB46F65ZAXY (20.9), JMA, MX06FRO660-03	DBB46F65ZAXY (20.9), JMA, MX06FRO660-03	DBB46F65ZAXY (20.9), JMA, MX06FRO660-03	
Number of Coax Feed Lines per Sector and Diameter	(2) 1.5/8 in	(2) 1.5/8 in	(2) 1.5/8 in		Number of Coax Feed Lines per Sector and Diameter	(2) 1.5/8 in	(2) 1.5/8 in	(2) 1.5/8 in	
Number of Fiber Lines per Sector and Diameter					Number of Fiber Lines per Sector and Diameter				
Number of Hybrid Lines per Sector and Diameter (include DC and RET cables in any)		(2) 6 x 12 (1-1/4)			Number of Hybrid Lines per Sector and Diameter (include DC and RET cables in any)		(2) 6 x 12		
Number of OTHER Lines per Sector and Diameter					Number of OTHER Lines per Sector and Diameter				
Antenna Center Line - (in feet AGL)	125.00	125.00	125.00		Antenna Center Line (in feet AGL)	125.00	125.00	125.00	
Mount Height (in feet AGL)	125.00	125	125		Mount Height (in feet AGL)	125	125	125	
Mount Type & Model					Mount Type & Model				
Mount Face/Leg (If Rooftop, then indicate Parapet, Penthouse, Platform, or attachment)					Mount Face/Leg (If Rooftop, then indicate Parapet, Penthouse, Platform, or attachment)				
Orientation or Azimuth (in degrees)	20	100	270		Orientation or Azimuth (in degrees)	20	100	270	
ALL Other Structure Mounted Equipment Detail (BTS, TMA, TTA, MHA, GPS, NEMA, ODU, RRU, Diplexers, etc., use row 83 if you need additional space)									
OTHER EQUIPMENT DESCRIPTION	SECTOR 1	SECTOR 2	SECTOR 3	SECTOR 4	OTHER EQUIPMENT DESCRIPTION	SECTOR 1	SECTOR 2	SECTOR 3	SECTOR 4
Type (Amplifiers, Diplexers, BTS, GPS, ODU, RRU, etc)	RRU	RRU, ODU	RRU, ODU		Type (Amplifiers, Diplexers, BTS, GPS, ODU, RRU, etc)	RRU	RRU, ODU	RRU, ODU	
Manufacturer	(2) SAMSUNG	(2) SAMSUNG, (1) Raycap	(2) SAMSUNG, (1) Raycap		Manufacturer	(2) SAMSUNG, (1) Raycap	(2) SAMSUNG, (1) Raycap	(2) SAMSUNG, (1) Raycap	
Model Number	(1) RF440d-13A, (1) B2/B66A RRU	(1) RF4439d-25A, (1) Raycap	(1) RF4439d-13A, (1) RF4439d-25A, (1) Raycap		Model Number	(1) RF440d-13A, (1) B2/B66A RRU	(1) RF4439d-25A, (1) Raycap	(1) RF4439d-13A, (1) RF4439d-25A, (1) Raycap	
Quantity	2	3	3		Quantity	2	3	3	
Dimensions (HxWxD) show dimensions in "inches"	RF440d-13A (15 x 15 x 9.1), SAMSUNG	RF440d-13A (15 x 15 x 9.1), SAMSUNG	RF440d-13A (15 x 15 x 9.1), SAMSUNG		Dimensions (HxWxD) show dimensions in "inches"	RF440d-13A (15 x 15 x 9.1), SAMSUNG	RF440d-13A (15 x 15 x 9.1), SAMSUNG	RF440d-13A (15 x 15 x 9.1), SAMSUNG	
Weight (lbs)	RF440d-13A (15 x 15 x 9.1), SAMSUNG	RF440d-13A (15 x 15 x 9.1), SAMSUNG	RF440d-13A (15 x 15 x 9.1), SAMSUNG		Weight (lbs)	RF440d-13A (15 x 15 x 9.1), SAMSUNG	RF440d-13A (15 x 15 x 9.1), SAMSUNG	RF440d-13A (15 x 15 x 9.1), SAMSUNG	
Mount Height and Mount Location	125	125	125		Mount Height and Mount Location	125	125	125	

APPLICATION

Microwave (MW) Equipment									
FINAL INSTALL CONFIGURATION (ALL EQUIPMENT)					EXISTING EQUIPMENT CONFIGURATION (IF ANY)				
MICROWAVE DESCRIPTION	SECTOR 1	SECTOR 2	SECTOR 3	SECTOR 4	MICROWAVE DESCRIPTION	SECTOR 1	SECTOR 2	SECTOR 3	SECTOR 4
Manufacturer	N/A	N/A	N/A	N/A	Manufacturer	N/A	N/A	N/A	N/A
Model Number					Model Number				
Antenna Quantity Per Sector					Antenna Quantity Per Sector				
Antenna Dimensions (HxWxD) show dimensions in "inches"					Antenna Dimensions (HxWxD) show dimensions in "inches"				
Weight (lbs)					Weight (lbs)				
Feed Line Diameter					Feed Line Diameter				
Number of Feed Lines per MW					Number of Feed Lines per MW				
MW Center Line - (in feet AGL)					Rad Center Line - (in feet AGL)				
Mount Height (in feet AGL)					Mount Height (in feet AGL)				
Mount Face/Leg (If Rooftop, then indicate Parapet, Penthouse, Platform, or Orientation of Azimuth (in degrees))	Select One	Select One	Select One	Select One	Mount Face/Leg (If Rooftop, then indicate Parapet, Penthouse, Platform, or attachment)	Select One	Select One	Select One	Select One
EQUIPMENT NOTES: Use space below for notes or to detail other structure mounted equipment. If you intend to install any type of tower CONDUIT or INNERDUCT for your transmission cables you MUST indicate the quantity, diameter, and type in the below space.									
Additional Information and Comments (include any equipment information that did not fit in the cells above)									
Existing ODU RAYCAP RRFDC 3315 (F-48 (V.I.F.)) Dimension (29.5 x 16.5 x 12.6) . Weight 32 lbs . Quantity (1) Each Beta and Gamma Sector New Interference Filters KAELUS KA-6030 TWIN BAND FILTER, Dimension (10.6 x 10.9 x 3.2) . Quantity (2) Alpha Sector and Quantity (2) Gamma Sector									
Applicant Project Type: (examples: 2.5, L700, AWS, UITS 3C, LTE 2C, Modernization, etc.)									
Interference Mitigation Filter Project									
Transmitter Equipment - Final Install (ALL EQUIPMENT)									
Frequency Filings (Notice of Change or Alteration to the FAA): AT&T Towers will arrange for any frequency filing using the "Acceptable FAA Blanket Frequency Bands" in addition to Applicants indicated microwave frequencies and power levels, if any.									
DESCRIPTION	Transmitter 1	Transmitter 2	Transmitter 3	Transmitter 4	Transmitter 5 /OTHER				
Call Sign(s) (if applicable): (REQUIRED)									
Tx Frequency (MHz): (REQUIRED)	778-787, 869-880, 890-891.5, 1970-1990, 2116-2130 MHz								
Rx Frequency (MHz): (REQUIRED)	746-757, 824-835, 845-846, 1710-1730, 1890-1900, 3550-3650 MHz								
Max Tx Output Power: (in watts)									
Max Power Output / Radio: (in watts) (REQUIRED)	320								
Max ERP: (in watts) (REQUIRED)	2375								
Ground or Equipment Space - Power & Telco Requirements (you must complete row 99)									
Equipment/Ground Space Requirements:	Existing Tower Site - No Additional Ground Space	Adding Generator?	No	Equipment Detail	Sheller	Inside Lessor Building?:	NO		
	Building or Equipment Dimensions (HxWxL):	Equipment Pad Dimensions (WxL):	Leased Area Total Width	Leased Area Total Length	Subtotal Square Feet	Total Square Feet			
Equipment Space 1:	384		12 00	32 00	384	464			
Generator Space 2:					0				
Other Space 3:		16 x 5	16 00	5 00	80				
Power (Volts/Amps) (Only if provided by AT&T)		Telco Requirements: (Only if provided by AT&T)	Select One	Number of New Exterior Cabinet(s) (REQUIRED)					
Notes for All Equipment Above (Rows 96-99)									
Notes	Other Space Program Tank includes a 10ft Spire Radius								
Equipment To Be Removed (if any)									
Do you require an LOA (Letter of Authorization)?				Yes					
End of Application 									



Colliers Engineering & Design CT, P.C.
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 Stamford, CT 06901
 860.395.0055
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Antenna Mount Analysis Report with Hardware Upgrades and PMI Requirements

Mount ReAnalysis

SMART Tool Project #: 10208063
 Colliers Engineering & Design CT, P.C. Project #: 23777218

August 2, 2023

Site Information

Site ID:	5000384879-VZW / SHELTON NORTH 2 CT
Site Name:	SHELTON NORTH 2 CT
Carrier Name:	Verizon Wireless
Address:	219 Nells Rock Road Shelton, Connecticut 06484 Fairfield County
Latitude:	41.304198°
Longitude:	-73.118313°

Structure Information

Tower Type:	162.5-Ft Self Support
Mount Type:	12.50-Ft T-Frame

FUZE ID # 17123825

Analysis Results

T-Frame: **47.0% Pass w/ Hardware Upgrades***

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

*****Contractor PMI Requirements:**

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

Report Prepared By: Grant Walters



Executive Summary:

The objective of this report is to determine the capacity of the antenna support mount at the subject facility for the final wireless telecommunications configuration, per the applicable codes and standards. Any modification listed under Sources of Information was assumed completed and was included in this analysis.

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) Mount Mapping Report	Verizon RFDS, Site ID: 608162, Dated September 24, 2021 Hudson Design Group, LLC., Site #: 467793 Dated June 1, 2021
Previous Post Modification Inspection	Colliers Engineering & Design CT, P.C., Project #: 21781010 Dated March 2, 2023
Previous Mount Analysis	Maser Consulting Connecticut, Project #: 21781010 Dated October 4, 2021
Filter Add Scope	Provided by Verizon Wireless

Analysis Criteria:

Codes and Standards:	ANSI/TIA-222-H 2022 Connecticut State Building Code (CSBC), Effective October 1, 2022
Wind Parameters:	Basic Wind Speed (Ultimate 3-sec. Gust), V_{ULT} : 120 mph Ice Wind Speed (3-sec. Gust): 50 mph Design Ice Thickness: 1.00 in Risk Category: II Exposure Category: B Topographic Category: 1 Topographic Feature Considered: N/A Topographic Method: N/A Ground Elevation Factor, K_e : 0.984
Seismic Parameters:	S_s : 0.203 g S_1 : 0.054 g
Maintenance Parameters:	Wind Speed (3-sec. Gust): 30 mph Maintenance Live Load, L_v : 250 lbs. Maintenance Live Load, L_m : 500 lbs.
Analysis Software:	RISA-3D (V17)

Final Loading Configuration:

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

Mount Elevation (ft)	Equipment Elevation (ft)	Quantity	Manufacturer	Model	Status
124.50	127.50	3	Samsung	XXDWMM-12.5-65-8T-CBRS	Retained
	125.00	6	JMA Wireless	MX06FRO660-03	
		3	Samsung	RF4439d-25A	
		3	Samsung	RF4440d-13A	
		6	Andrew	DB846F65ZAXY	
		2	Raycap	RRFDC-3315-PF-48*	
		4	KAelus	KA-6030	Added
	123.50	3	Samsung	MT6407-77A	Retained

* Equipment is flush mounted directly to the Self Support. They are not mounted on T-Frame mounts and are not included in this mount analysis.

The recent mount mapping reported existing OVP units. 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:

1. All engineering services are performed on the basis that the information provided to Colliers Engineering & Design CT, P.C. 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 Colliers Engineering & Design CT, P.C. 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. Colliers Engineering & Design CT, P.C. 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:
 - o Channel, Solid Round, Angle, Plate ASTM A36 (Gr. 36)
 - o HSS (Rectangular) ASTM 500 (Gr. B-46)
 - o Pipe ASTM A53 (Gr. B-35)
 - o Threaded Rod F1554 (Gr. 36)
 - o Bolts ASTM A325

Discrepancies between in-field conditions and the assumptions listed above may render this analysis invalid unless explicitly approved by Colliers Engineering & Design CT, P.C.

Analysis Results:

Component	Utilization %	Pass/Fail
Face Horizontal	47.0 %	Pass
Face Bracing	25.0 %	Pass
Mast Pipe	6.8 %	Pass
Standoff Horizontal	13.2 %	Pass
Mount Pipe	23.5 %	Pass
Tieback	9.5 %	Pass
Mount Connection	13.9 %	Pass

Structure Rating – (Controlling Utilization of all Components)	47.0%*
---	---------------

* Results valid after hardware upgrades noted in the PMI Requirements are installed.

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

Ice Thickness (In)	Mount Pipes Excluded		Mount Pipes Included	
	Front (EPA)a (Sq. Ft.)	Side (EPA)a (Sq. Ft.)	Front (EPA)a (Sq. Ft.)	Side (EPA)a (Sq. Ft.)
0	35.1	15.6	47.4	27.8
0.5	42.9	20.8	60.3	38.2
1	50.0	25.3	72.6	47.8

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 shown in attachment 2 upon the completion of the requirements listed below.

Contractor shall install the proposed filter units on new Site Pro 1 Dual Swivel Mount Kit (Part #: RRUDSM or EOR approved equivalent) in the location shown in the placement diagrams.

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 Post Installation Inspection (PMI) Report Deliverables**
2. Antenna Placement Diagrams
3. Mount Photos
4. Mount Mapping Report (for reference only)
5. Analysis Calculations

Mount Desktop – Post Modification Inspection (PMI) Report Requirements

Documents & Photos Required from Contractor – **Passing Mount Analysis**

Passing Mount Analysis requires a PMI due to a modification in loading.

Electronic pdf version of this can be downloaded at <https://pmi.vzwsmart.com>.

For additional questions and support, please reach out to pmisupport@colliersengineering.com

MDG #: 5000384879

SMART Project #: 10208063

Fuze Project ID: 17123825

Purpose – to provide SMART Tool structural vendor the proper documentation in order 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 installation was completed in accordance with this Passing Mount Analysis.
- Contractor shall relay any data that can impact the performance of the mount, this includes safety issues.

Base Requirements:

- If installation 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 mount drawings” showing contractor’s name, contact information, 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 passing mount analysis (MA) contact the SMART Tool vendor immediately.
- Each photo should be time and date stamped
- Photos should be high resolution.
- Contractor shall ensure that the safety climb wire rope is supported and 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: <https://pmi.vzwsmart.com>

Photo Requirements:

- Photos taken at ground level
 - Photo of Gate Signs showing the tower owner, site name, and number.
 - Overall tower structure after installation.
 - Photos of the mount after installation; if the mounts are at different rad elevations, pictures must be provided for all elevations that equipment was installed.
- Photos taken at Mount Elevation
 - Photos showing the safety climb wire rope above and below the mount prior to installation.
 - Photos showing the climbing facility and safety climb if present.
 - Photos showing each individual sector after installation. Each entire sector shall 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.

Antenna & equipment placement and Geometry Confirmation:

- The contractor shall certify that the antenna & equipment placement and geometry is in accordance with the sketch and table as included in the mount analysis and noted below.

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.

OR

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.

Special Instructions / Validation as required from the MA or any other information the contractor deems necessary to share that was identified:

Issue:

Contractor shall install the proposed filter units on new Site Pro 1 Dual Swivel Mount Kit (Part #: RRUDSM or EOR approved equivalent) in the location shown in the placement diagrams.

Response:

Special Instruction Confirmation:

- The contractor has read and acknowledges the above special instructions.
- All hardware listed in the Special Instructions above (if applicable) has been properly installed, and the existing hardware was inspected.
- The material utilized was as specified in the SMART Tool engineering vendor Special Instructions above (if applicable) 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.

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:

Yes No

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

Certifying Individual:

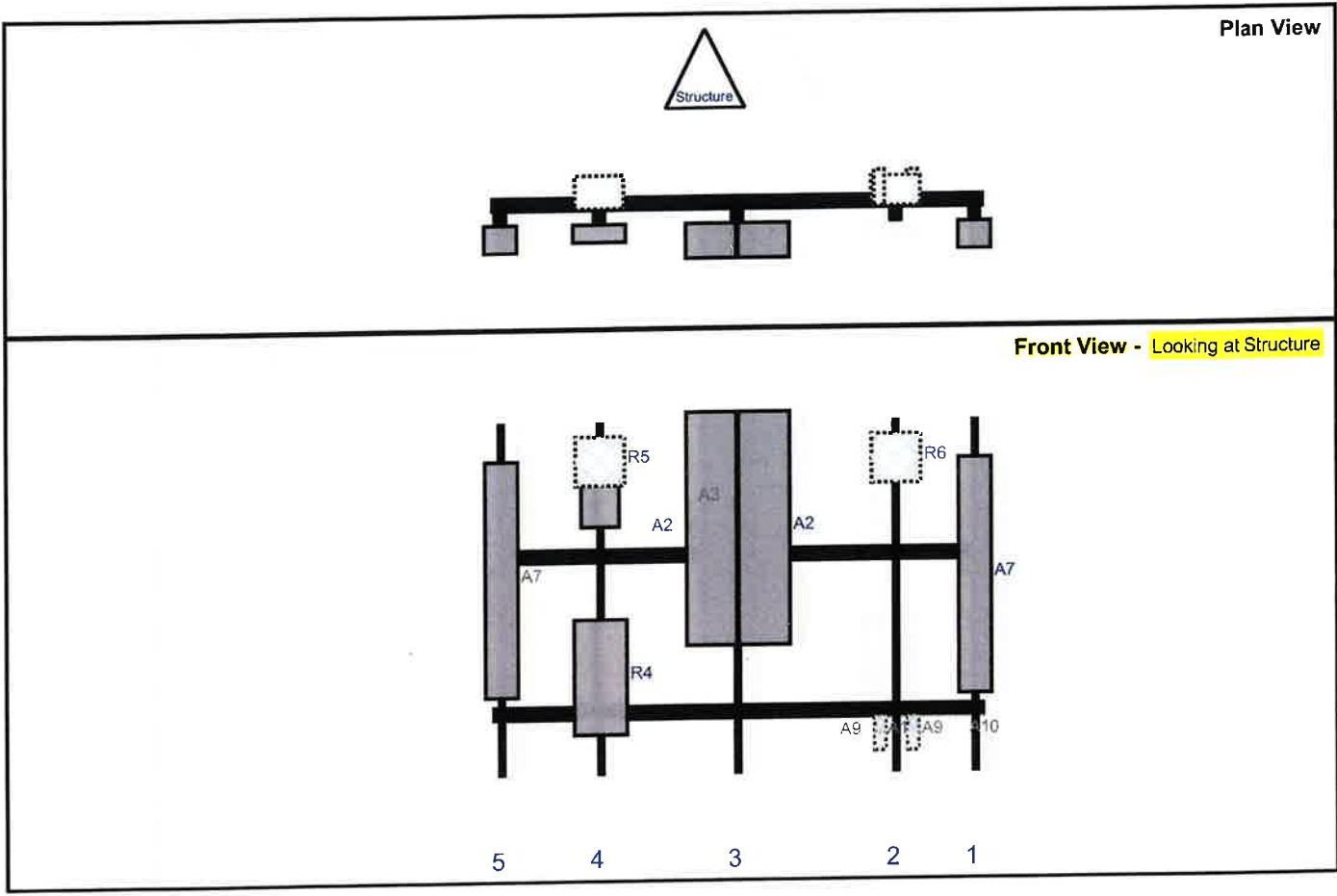
Company:	
Employee Name:	
Contact Phone:	
Email:	
Date:	

Sector: A

Structure Type: Self Support

10208063

Mount Elev: 124.50



Ref#	Model	Height (in)	Width (in)	H Dist Frm L.	Pipe #	Pipe Pos V	Ant Pos	C. Ant Frm T.	Ant H Off	Status	Validation
A7	DB846F65ZAXY	72	10	147	1	a	Front	48	0	Retained	02/21/2023
R6	RF4440d-13A	15	15	123	2	a	Behind	12	0	Retained	02/21/2023
A9	KA-6030	10.6	3.2	123	2	a	Behind	96	-5	Added	
A9	KA-6030	10.6	3.2	123	2	b	Behind	96	5	Added	
A10	KA-6030	10.6	3.2	123	2	a	Behind	96	-5	Added	
A10	KA-6030	10.6	3.2	123	2	b	Behind	96	5	Added	
A2	MX06FRO660-03	71.3	15.4	75	3	a	Front	33	8	Retained	02/21/2023
A2	MX06FRO660-03	71.3	15.4	75	3	b	Front	33	-8	Retained	02/21/2023
A3	XXDWMM-12.5-65-8T-CBRS	16.2	11.4	33	4	a	Front	24	0	Retained	02/21/2023
R4	MT6407-77A	35.1	16.1	33	4	a	Front	78	0	Retained	02/21/2023
R5	RF4439d-25A	15	15	33	4	a	Behind	12	0	Retained	02/21/2023
A7	DB846F65ZAXY	72	10	3	5	a	Front	48	0	Retained	02/21/2023
M1	KA-6030	10.6	10.9			Member				Added	

Structure: 5000384879-VZW - SHELTON NORTH 2 CT

Sector: B

8/2/2023

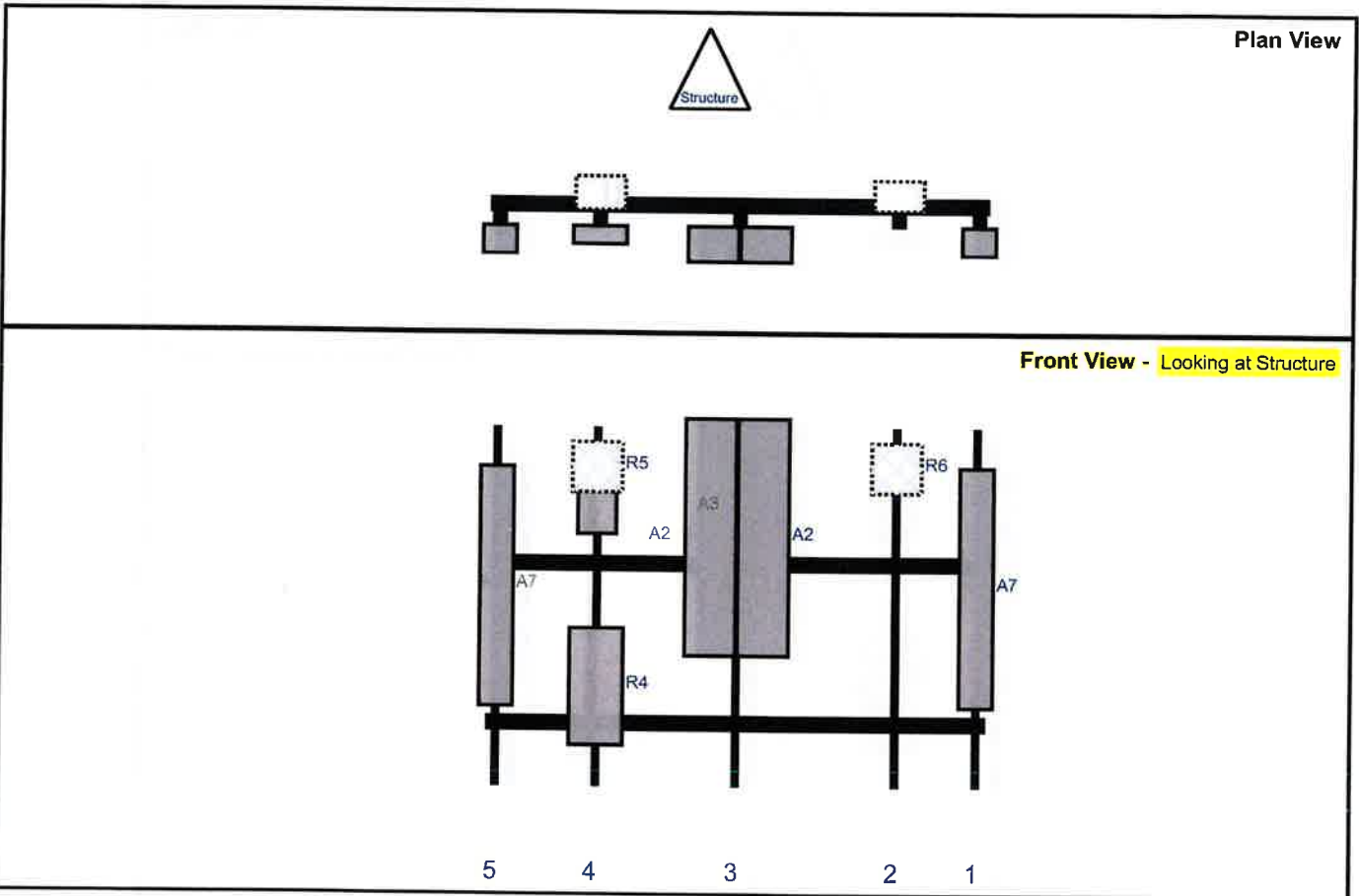
Structure Type: Self Support

10208063



Mount Elev: 124.50

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Ref#	Model	Height (in)	Width (in)	H Dist Frm L.	Pipe #	Pipe Pos V	Ant Pos	C. Ant Frm T.	Ant H Off	Status	Validation
A7	DB846F65ZAXY	72	10	147	1	a	Front	48	0	Retained	02/21/2023
R6	RF4440d-13A	15	15	123	2	a	Behind	12	0	Retained	02/21/2023
A2	MX06FRO660-03	71.3	15.4	75	3	a	Front	33	8	Retained	02/21/2023
A2	MX06FRO660-03	71.3	15.4	75	3	b	Front	33	-8	Retained	02/21/2023
A3	XXDWMM-12.5-65-8T-CBRS	16.2	11.4	33	4	a	Front	24	0	Retained	02/21/2023
R4	MT6407-77A	35.1	16.1	33	4	a	Front	78	0	Retained	02/21/2023
R5	RF4439d-25A	15	15	33	4	a	Behind	12	0	Retained	02/21/2023
A7	DB846F65ZAXY	72	10	3	5	a	Front	48	0	Retained	02/21/2023

Structure: 5000384879-VZW - SHELTON NORTH 2 CT

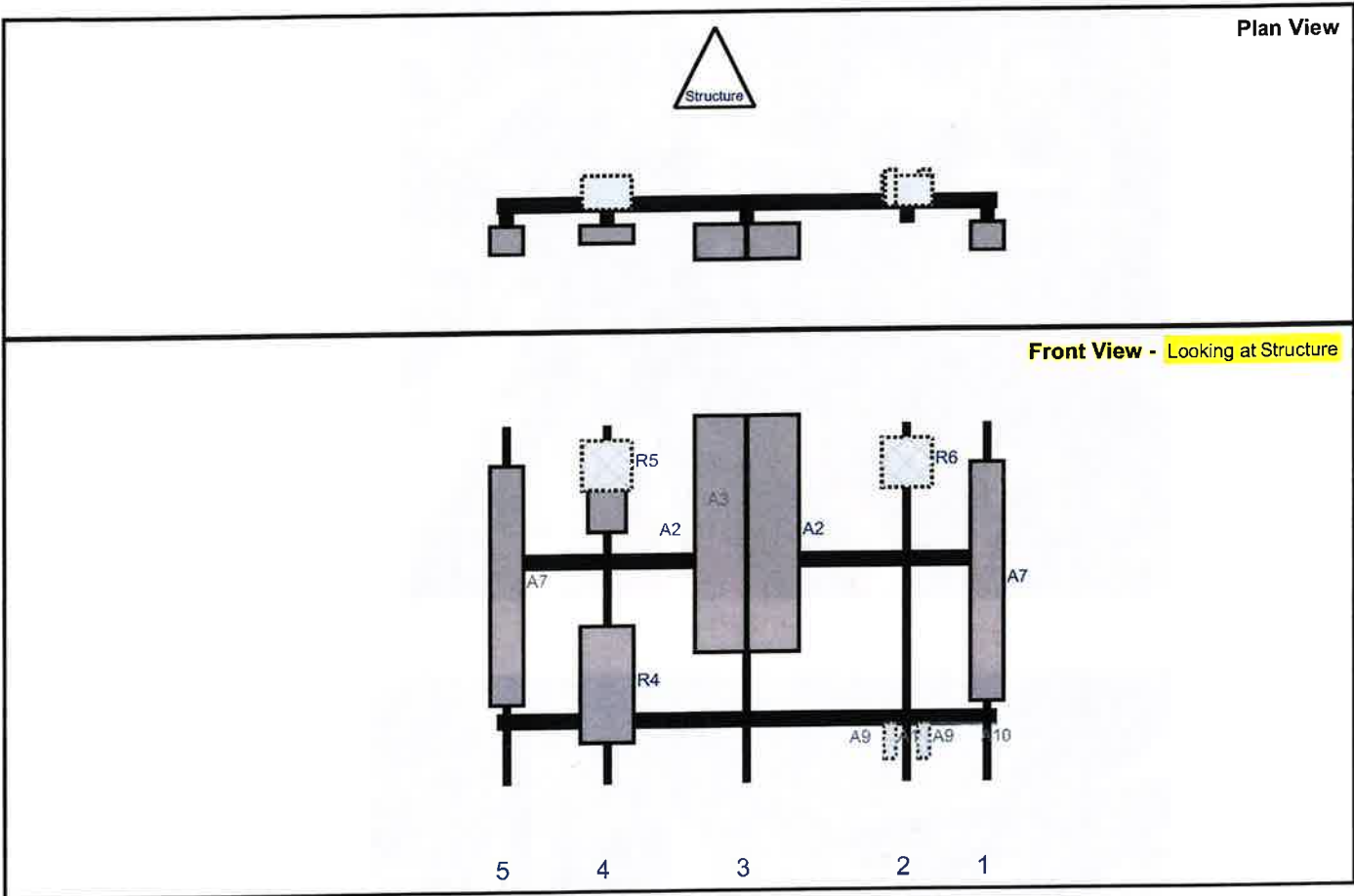
Sector: C
 Structure Type: Self Support
 Mount Elev: 124.50

10208063

8/2/2023



Page: 3

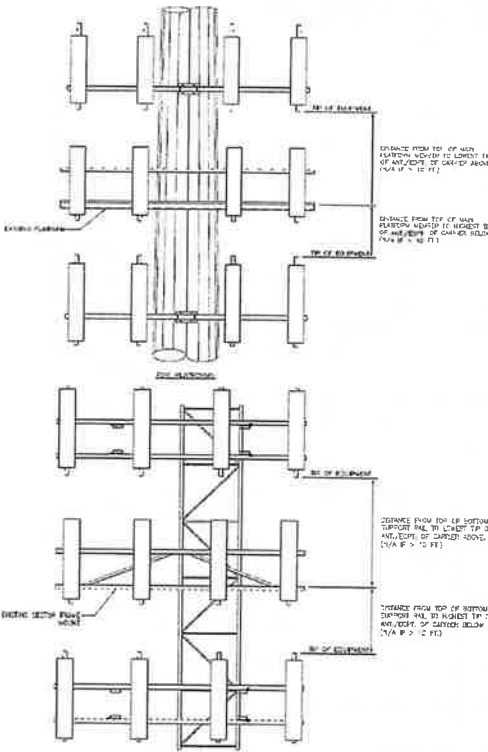


Ref#	Model	Height (in)	Width (in)	H Dist Fm L.	Pipe #	Pipe Pos V	Ant Pos	C. Ant Fm T.	Ant H Off	Status	Validation
A7	DB846F65ZAXY	72	10	147	1	a	Front	48	0	Retained	02/21/2023
R6	RF4440d-13A	15	15	123	2	a	Behind	12	0	Retained	02/21/2023
A9	KA-6030	10.6	3.2	123	2	a	Behind	96	-5	Added	
A9	KA-6030	10.6	3.2	123	2	b	Behind	96	5	Added	
A10	KA-6030	10.6	3.2	123	2	a	Behind	96	-5	Added	
A10	KA-6030	10.6	3.2	123	2	b	Behind	96	5	Added	
A2	MX06FRO660-03	71.3	15.4	75	3	a	Front	33	8	Retained	02/21/2023
A2	MX06FRO660-03	71.3	15.4	75	3	b	Front	33	-8	Retained	02/21/2023
A3	XXDWMM-12.5-65-8T-CBRS	16.2	11.4	33	4	a	Front	24	0	Retained	02/21/2023
R4	MT6407-77A	35.1	16.1	33	4	a	Front	78	0	Retained	02/21/2023
R5	RF4439d-25A	15	15	33	4	a	Behind	12	0	Retained	02/21/2023
A7	DB846F65ZAXY	72	10	3	5	a	Front	48	0	Retained	02/21/2023

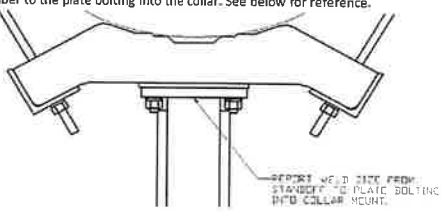


Mount Azimuth (Degree) for Each Sector				Tower Leg Azimuth (Degree) for Each Sector				Sector B												
Sector A:	20.00	Deg	Leg A:	20.00	Deg	Ant _{3a}														
Sector B:	200.00	Deg	Leg B:	110.00	Deg	Ant _{3b}	DB846F652AXY	10.00	8.00	72.00		123.583	52.00	13.00	200.00	28,156				
Sector C:	265.00	Deg	Leg C:	200.00	Deg	Ant _{3c}														
Sector D:		Deg	Leg D:		Deg	Ant _{2a}	B56A RRH 4X45	12.00	7.00	26.00		122.5	65.00	12.00		28,177				
Climbing Facility Information				Ant _{2c}																
Location:	290.00	Deg	Ant _{3a}																	
Climbing Facility	Corrosion Type:	Good condition.				Ant _{3b}	(2) 5BNHH-1D45B	18.00	7.50	72.00		121.917	36.00	12.50	200.00	29,177				
	Access:	Climbing path was unobstructed.				Ant _{3c}														
	Condition:	Good condition.				Ant _{4a}	B25 RRH 4X30	12.00	7.00	21.00		125.833	25.00	6.50		30,182				
				Ant _{4b}																
				Ant _{4c}																
				Ant _{4d}																
				Ant _{5a}																
				Ant _{5b}																
				Ant _{5c}																
				Ant on Standoff																
				Ant on Standoff																
				Ant on Tower																
				Ant on Tower																
				Sector C																
				Ant _{1a}																
				Ant _{1b}																
				Ant _{1c}																
				Ant _{2a}																
				Ant _{2b}																
				Ant _{2c}																
				Ant _{3a}																
				Ant _{3b}																
				Ant _{3c}																
				Ant _{4a}																
				Ant _{4b}																
				Ant _{4c}																
				Ant _{4d}																
				Ant _{5a}																
				Ant _{5b}																
				Ant _{5c}																
				Ant on Standoff																
				Ant on Standoff																
				Ant on Tower																
				Ant on Tower																
				Sector D																
				Ant _{1a}																
				Ant _{1b}																
				Ant _{1c}																
				Ant _{2a}																
				Ant _{2b}																
				Ant _{2c}																
				Ant _{3a}																
				Ant _{3b}																
				Ant _{3c}																
				Ant _{4a}																
				Ant _{4b}																
				Ant _{4c}																
				Ant _{4d}																
				Ant _{5a}																
				Ant _{5b}																
				Ant _{5c}																
				Ant on Standoff																
				Ant on Standoff																
				Ant on Tower																
				Ant on Tower																

Please insert a photo of the mount centerline measurement here.



For T-Arms/Platforms on monopoles, record the weld size from the main standoff member to the plate bolting into the collar. See below for reference.



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

Observed Obstructions to Tower Lighting System			
If the tower lighting system is being obstructed by the carrier's equipment (for example: a light 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
<p>1. Please report any visible structural or safety issues observed on the antenna mounts (Damaged members, loose connections, tilting mounts, safety climb issues, etc.)</p> <p>2. If the thickness of the existing pipes or tubing can't be obtained from a general tool (such as Caliper), please use an ultrasonic measurement tool (thickness gauge) to measure the thickness.</p> <p>3. Please create all required detail sketches of the mounts and insert them into the "Sketches" tab.</p> <p>4. Please measure and enter the bolt sizes and types under the Members Box in the spreadsheet of the mount type.</p> <p>5. Take and label the photos of the tower, mounts, connections, antennas and all measurements. Minimum 50 photos are required.</p> <p>6. Please measure and report the size and length of all existing antenna mounting pipes.</p> <p>7. Please measure and report the antenna information for all sectors.</p> <p>8. Don't delete or rearrange any sheet or contents of any sheet from this mapping form.</p>

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.



Antenna Mount Mapping Form (PATENT PENDING)

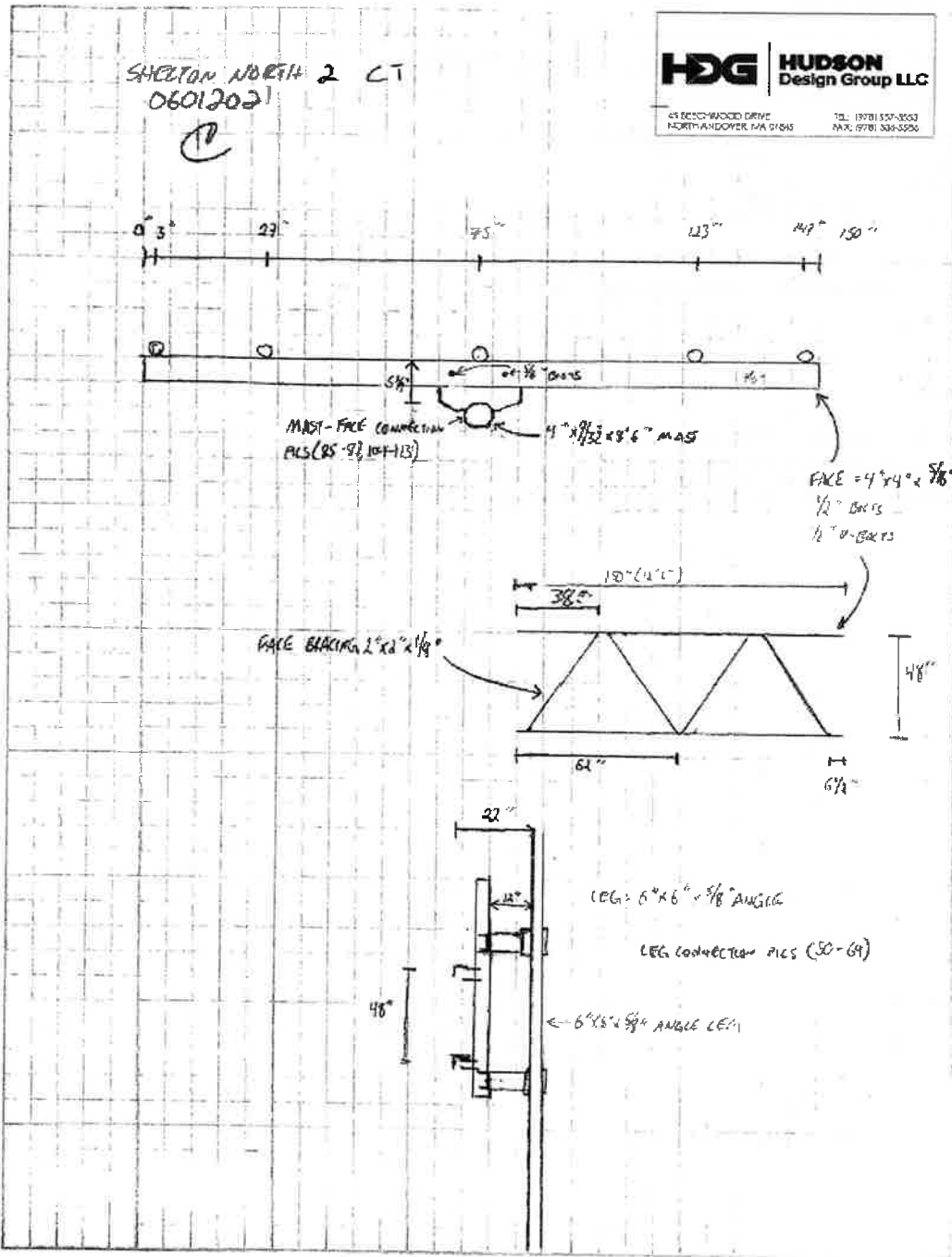
FCC #

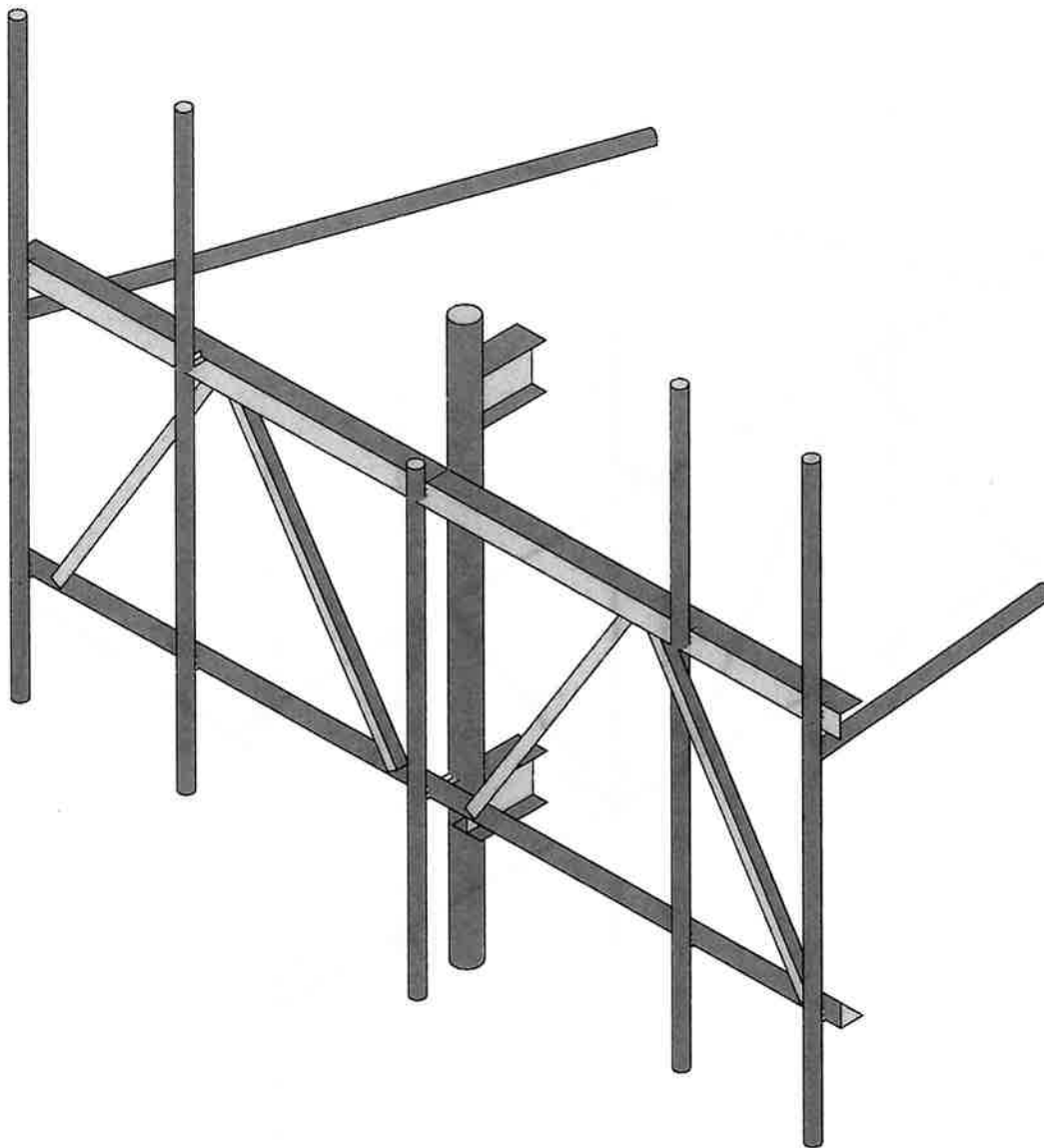
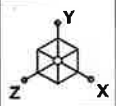
1046316

Tower Owner:	ATT	Mapping Date:	6/1/2021
Site Name:	SHELTON NORTH 2 CT	Tower Type:	Self Support
Site Number or ID:	467793	Tower Height (FL):	
Mapping Contractor:	HUDSON DESIGN GROUP, LLC.	Mount Elevation (FL):	122.5

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, modification 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 10.4B, OSHA, FCC, FAA and other safety requirements that may apply. TES is not warranting 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





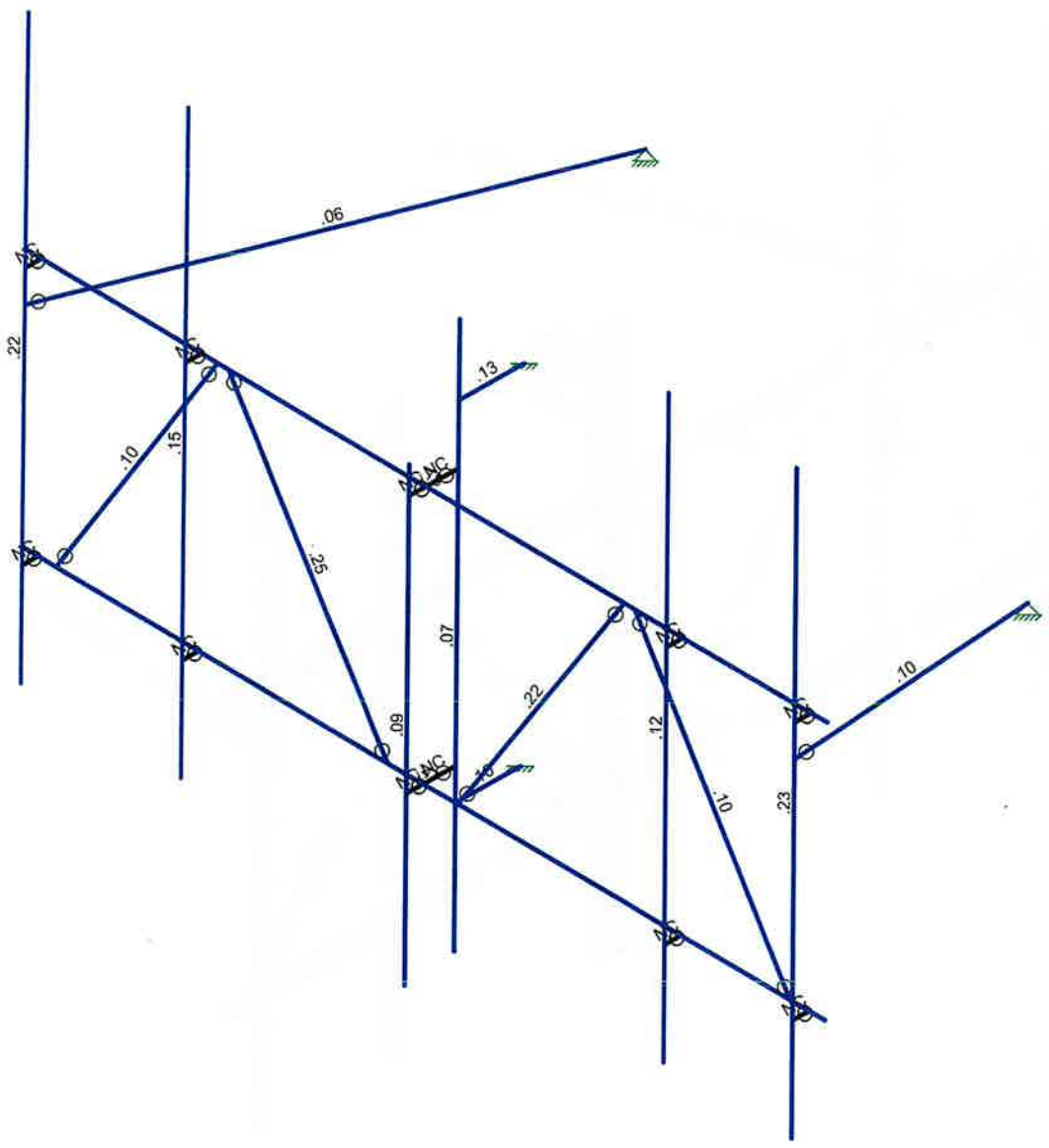
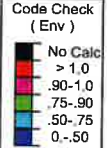
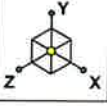
Colliers Engineering & De...

5000384879-VZW_MT_LOT_SectorA_H

SK - 1

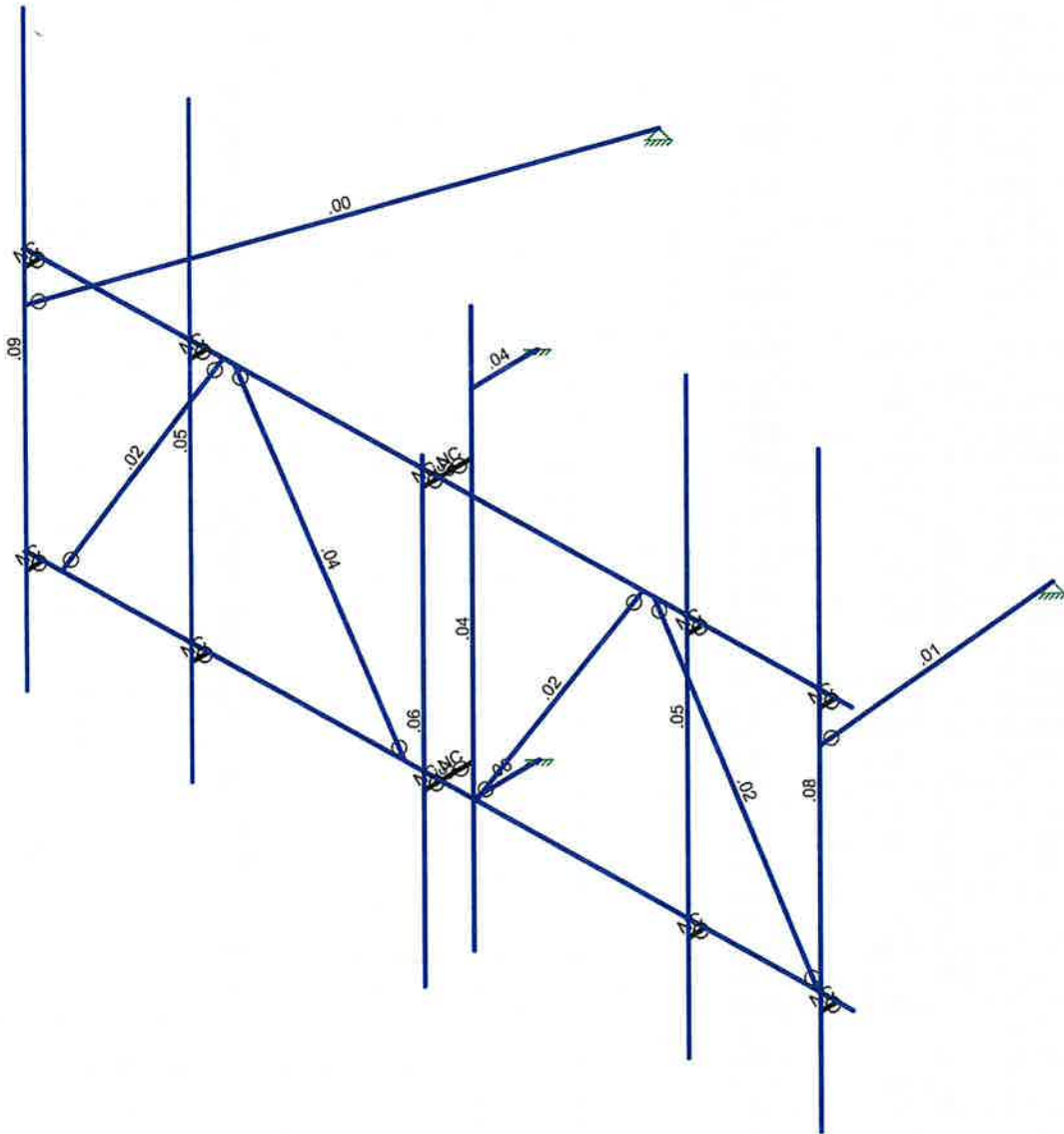
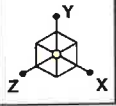
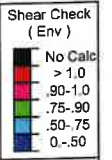
Aug 2, 2023 at 10:15 AM

LOADED_467793-VZW_MT_LOT_...



Member Code Checks Displayed (Enveloped)
 Results for LC 1, 1.2D+1.0Wo (0 Deg)

Colliers Engineering & De...	5000384879-VZW_MT_LOT_SectorA_H	SK - 2
		Aug 2, 2023 at 10:15 AM
		LOADED_467793-VZW_MT_LOT_...



Member Shear Checks Displayed (Enveloped)
Results for LC 1, 1.2D+1.0Wo (0 Deg)

Colliers Engineering & De...

5000384879-VZW_MT_LOT_SectorA_H

SK - 3

Aug 2, 2023 at 10:15 AM

LOADED_467793-VZW_MT_LOT_...



Company : Colliers Engineering & Design
 Designer :
 Job Number :
 Model Name : 5000384879-VZW_MT_LOT_SectorA_H

Aug 2, 2023
 10:15 AM
 Checked By: _____

Basic Load Cases

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



Basic Load Cases (Continued)

BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed Area (Me... Surface(...
57 Structure Wi (120 Deg)	None						32
58 Structure Wi (150 Deg)	None						32
59 Structure Wi (180 Deg)	None						32
60 Structure Wi (210 Deg)	None						32
61 Structure Wi (240 Deg)	None						32
62 Structure Wi (270 Deg)	None						32
63 Structure Wi (300 Deg)	None						32
64 Structure Wi (330 Deg)	None						32
65 Structure Wm (0 Deg)	None						32
66 Structure Wm (30 Deg)	None						32
67 Structure Wm (60 Deg)	None						32
68 Structure Wm (90 Deg)	None						32
69 Structure Wm (120 Deg)	None						32
70 Structure Wm (150 Deg)	None						32
71 Structure Wm (180 Deg)	None						32
72 Structure Wm (210 Deg)	None						32
73 Structure Wm (240 Deg)	None						32
74 Structure Wm (270 Deg)	None						32
75 Structure Wm (300 Deg)	None						32
76 Structure Wm (330 Deg)	None						32
77 Lm1	None					1	
78 Lm2	None					1	
79 Lv1	None					1	
80 Lv2	None					1	
81 Antenna Ev	None					51	
82 Antenna Eh (0 Deg)	None					34	
83 Antenna Eh (90 Deg)	None					34	
84 Structure Ev	ELY		-043				
85 Structure Eh (0 Deg)	ELZ			-108			
86 Structure Eh (90 Deg)	ELX	.108					

Load Combinations

Description	Solve	PDelta	S...	B...	Fa...	B...	Fa...	B...	Fa...	BLC Fa...	BLC Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	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 D...	Yes	Y	1	1.2	39	1.2	4	1	42	1									
3 1.2D+1.0Wo (60 D...	Yes	Y	1	1.2	39	1.2	5	1	43	1									
4 1.2D+1.0Wo (90 D...	Yes	Y	1	1.2	39	1.2	6	1	44	1									
5 1.2D+1.0Wo (120 ...	Yes	Y	1	1.2	39	1.2	7	1	45	1									
6 1.2D+1.0Wo (150 ...	Yes	Y	1	1.2	39	1.2	8	1	46	1									
7 1.2D+1.0Wo (180 ...	Yes	Y	1	1.2	39	1.2	9	1	47	1									
8 1.2D+1.0Wo (210 ...	Yes	Y	1	1.2	39	1.2	10	1	48	1									
9 1.2D+1.0Wo (240 ...	Yes	Y	1	1.2	39	1.2	11	1	49	1									
10 1.2D+1.0Wo (270 ...	Yes	Y	1	1.2	39	1.2	12	1	50	1									
11 1.2D+1.0Wo (300 ...	Yes	Y	1	1.2	39	1.2	13	1	51	1									
12 1.2D+1.0Wo (330 ...	Yes	Y	1	1.2	39	1.2	14	1	52	1									
13 1.2D + 1.0Di + 1.0...	Yes	Y	1	1.2	39	1.2	2	1	40	1	15	1	53	1					
14 1.2D + 1.0Di + 1.0...	Yes	Y	1	1.2	39	1.2	2	1	40	1	16	1	54	1					
15 1.2D + 1.0Di + 1.0...	Yes	Y	1	1.2	39	1.2	2	1	40	1	17	1	55	1					
16 1.2D + 1.0Di + 1.0...	Yes	Y	1	1.2	39	1.2	2	1	40	1	18	1	56	1					
17 1.2D + 1.0Di + 1.0...	Yes	Y	1	1.2	39	1.2	2	1	40	1	19	1	57	1					
18 1.2D + 1.0Di + 1.0...	Yes	Y	1	1.2	39	1.2	2	1	40	1	20	1	58	1					
19 1.2D + 1.0Di + 1.0...	Yes	Y	1	1.2	39	1.2	2	1	40	1	21	1	59	1					
20 1.2D + 1.0Di + 1.0...	Yes	Y	1	1.2	39	1.2	2	1	40	1	22	1	60	1					
21 1.2D + 1.0Di + 1.0...	Yes	Y	1	1.2	39	1.2	2	1	40	1	23	1	61	1					
22 1.2D + 1.0Di + 1.0...	Yes	Y	1	1.2	39	1.2	2	1	40	1	24	1	62	1					



Load Combinations (Continued)

Description	Solve	PDelta	S	B	Fa	B	Fa	B	Fa	B	Fa	B	Fa	B	Fa	B	Fa	B	Fa	B	Fa
23	1.2D + 1.0Di + 1.0...	Yes	Y		1	1.2	39	1.2	2	1	40	1	25	1	63	1					
24	1.2D + 1.0Di + 1.0...	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							
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	Y		1	1.2	39	1.2	78	1.5	28	1	66	1							
39	1.2D + 1.5Lm2 + 1.0...	Yes	Y		1	1.2	39	1.2	78	1.5	29	1	67	1							
40	1.2D + 1.5Lm2 + 1.0...	Yes	Y		1	1.2	39	1.2	78	1.5	30	1	68	1							
41	1.2D + 1.5Lm2 + 1.0...	Yes	Y		1	1.2	39	1.2	78	1.5	31	1	69	1							
42	1.2D + 1.5Lm2 + 1.0...	Yes	Y		1	1.2	39	1.2	78	1.5	32	1	70	1							
43	1.2D + 1.5Lm2 + 1.0...	Yes	Y		1	1.2	39	1.2	78	1.5	33	1	71	1							
44	1.2D + 1.5Lm2 + 1.0...	Yes	Y		1	1.2	39	1.2	78	1.5	34	1	72	1							
45	1.2D + 1.5Lm2 + 1.0...	Yes	Y		1	1.2	39	1.2	78	1.5	35	1	73	1							
46	1.2D + 1.5Lm2 + 1.0...	Yes	Y		1	1.2	39	1.2	78	1.5	36	1	74	1							
47	1.2D + 1.5Lm2 + 1.0...	Yes	Y		1	1.2	39	1.2	78	1.5	37	1	75	1							
48	1.2D + 1.5Lm2 + 1.0...	Yes	Y		1	1.2	39	1.2	78	1.5	38	1	76	1							
49	1.2D + 1.5Lv1	Yes	Y		1	1.2	39	1.2	79	1.5											
50	1.2D + 1.5Lv2	Yes	Y		1	1.2	39	1.2	80	1.5											
51	1.4D	Yes	Y		1	1.4	39	1.4													
52	1.2D + 1.0Ev + 1.0...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	1	83		E...	1	E...		
53	1.2D + 1.0Ev + 1.0...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	.866	83	.5	E...	.866	E...	.5	
54	1.2D + 1.0Ev + 1.0...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	.5	83	.866	E...	.5	E...	.866	
55	1.2D + 1.0Ev + 1.0...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82		83	1	E...		E...	1	
56	1.2D + 1.0Ev + 1.0...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	-.5	83	.866	E...	-.5	E...	.866	
57	1.2D + 1.0Ev + 1.0...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	-.8	83	.5	E...	-.8	E...	.5	
58	1.2D + 1.0Ev + 1.0...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	-1	83		E...	-1	E...		
59	1.2D + 1.0Ev + 1.0...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	-.8	83	-.5	E...	-.8	E...	-.5	
60	1.2D + 1.0Ev + 1.0...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	-.5	83	-.8	E...	-.5	E...	-.8	
61	1.2D + 1.0Ev + 1.0...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82		83	-1	E...		E...	-1	
62	1.2D + 1.0Ev + 1.0...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	.5	83	-.8	E...	.5	E...	-.8	
63	1.2D + 1.0Ev + 1.0...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	.866	83	-.5	E...	.866	E...	-.5	
64	0.9D - 1.0Ev + 1.0...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	1	83		E...	1	E...		
65	0.9D - 1.0Ev + 1.0...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	.866	83	.5	E...	.866	E...	.5	
66	0.9D - 1.0Ev + 1.0...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	.5	83	.866	E...	.5	E...	.866	
67	0.9D - 1.0Ev + 1.0...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82		83	1	E...		E...	1	
68	0.9D - 1.0Ev + 1.0...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	-.5	83	.866	E...	-.5	E...	.866	
69	0.9D - 1.0Ev + 1.0...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	-.8	83	.5	E...	-.8	E...	.5	
70	0.9D - 1.0Ev + 1.0...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	-1	83		E...	-1	E...		
71	0.9D - 1.0Ev + 1.0...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	-.8	83	-.5	E...	-.8	E...	-.5	
72	0.9D - 1.0Ev + 1.0...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	-.5	83	-.8	E...	-.5	E...	-.8	
73	0.9D - 1.0Ev + 1.0...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82		83	-1	E...		E...	-1	
74	0.9D - 1.0Ev + 1.0...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	.5	83	-.8	E...	.5	E...	-.8	
75	0.9D - 1.0Ev + 1.0...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	.866	83	-.5	E...	.866	E...	-.5	



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Joint Coordinates and Temperatures

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diap...
1	N1	0	0	0	0	
2	N2	-6.25	0	0	0	
3	N3	6.25	0	0	0	
4	N4	0	4	0	0	
5	N5	-6.25	4	0	0	
6	N6	6.25	4	0	0	
7	N7	-5.708333	0	0	0	
8	N8	5.708333	0	0	0	
9	N9	-0.541667	0	0	0	
10	N10	0.541667	0	0	0	
11	N11	-3.25	4	0	0	
12	N12	-3.083333	4	0	0	
13	N13	3.25	4	0	0	
14	N14	3.083333	4	0	0	
15	N15	0	0	-5	0	
16	N16	0	4	-5	0	
17	N17	0	6	-5	0	
18	N18	0	-2.5	-5	0	
19	N19	0	4.916667	-5	0	
20	N20	0	-5	-5	0	
21	N21	0	4.916667	-1.5	0	
22	N22	0	-5	-1.5	0	
23	N23	6	0	0	0	
24	N24	6	4	0	0	
25	N25	4	0	0	0	
26	N26	4	4	0	0	
27	N29	-3.5	0	0	0	
28	N30	-3.5	4	0	0	
29	N29A	-6	0	0	0	
30	N30A	-6	4	0	0	
31	N31	0	0	.25	0	
32	N32	0	4	.25	0	
33	N33	6	0	.25	0	
34	N34	6	4	.25	0	
35	N35	4	0	.25	0	
36	N36	-3.5	0	.25	0	
37	N37	-3.5	4	.25	0	
38	N38	-6	0	.25	0	
39	N39	-6	4	.25	0	
40	N40	4	4	.25	0	
41	N41	6	7.416667	.25	0	
42	N42	-3.5	7.416667	.25	0	
43	N43	-6	7.416667	.25	0	
44	N44	4	7.416667	.25	0	
45	N45	6	-1.583333	.25	0	
46	N46	-3.5	-1.583333	.25	0	
47	N47	-6	-1.583333	.25	0	
48	N48	4	-1.583333	.25	0	
49	N49	0	4.416667	.25	0	
50	N50	0	-2.583333	.25	0	
51	N51	-6	3.5	.25	0	
52	N52	6	3.5	.25	0	
53	N55	-3.382273	3.5	-6.735299	0	
54	N56	5.656854	3.5	-3.656854	0	



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Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design ...	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	Mount Pipe	PIPE 2.0	Column	Pipe	A53 Gr. B	Typical	1.02	.627	.627	1.25
2	Tieback	PIPE 2.0	Beam	Pipe	A53 Gr. B	Typical	1.02	.627	.627	1.25
3	Face Horizontal	L4X4X4	Beam	Single Angle	A36 Gr.36	Typical	1.93	3	3	.044
4	Face Bracing	L2x2x2	Beam	Single Angle	A36 Gr.36	Typical	.491	.189	.189	.003
5	Mast Pipe	PIPE 4.0	Column	Pipe	A53 Gr. B	Typical	2.96	6.82	6.82	13.6
6	Standoff Horizontal	W8X18	Beam	Wide Flange	A36 Gr.36	Typical	5.26	7.97	61.9	.172

Hot Rolled Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm (/1...	Density[k/ft^3]	Yield[ksi]	Ry	Fu[ksi]	Rt
1	A36 Gr.36	29000	11154	.3	.65	.49	36	1.5	58	1.2
2	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
7	A500 Gr C Round	29000	11154	.3	.65	.49	46	1.5	62	1.2
8	A529 qr50	29000	11154	.3	.65	.49	50	1.5	65	1.2

Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
1	M1	N2	N3		270	Face Horizontal	Beam	Single Angle	A36 Gr.36	Typical
2	M2	N5	N6		180	Face Horizontal	Beam	Single Angle	A36 Gr.36	Typical
3	M3	N7	N11		180	Face Bracing	Beam	Single Angle	A36 Gr.36	Typical
4	M4	N12	N9		180	Face Bracing	Beam	Single Angle	A36 Gr.36	Typical
5	M5	N10	N14		180	Face Bracing	Beam	Single Angle	A36 Gr.36	Typical
6	M6	N13	N8		180	Face Bracing	Beam	Single Angle	A36 Gr.36	Typical
7	M7	N4	N16			RIGID	None	None	RIGID	Typical
8	M8	N1	N15			RIGID	None	None	RIGID	Typical
9	RRU	N17	N18			Mast Pipe	Column	Pipe	A53 Gr. B	Typical
10	M10	N19	N21			Standoff Horizontal	Beam	Wide Flange	A36 Gr.36	Typical
11	M11	N20	N22			Standoff Horizontal	Beam	Wide Flange	A36 Gr.36	Typical
12	M12	N30A	N39			RIGID	None	None	RIGID	Typical
13	M13	N29A	N38			RIGID	None	None	RIGID	Typical
14	M14	N30	N37			RIGID	None	None	RIGID	Typical
15	LIVE1	N29	N36			RIGID	None	None	RIGID	Typical
16	M16	N4	N32			RIGID	None	None	RIGID	Typical
17	LIVE2	N1	N31			RIGID	None	None	RIGID	Typical
18	M18	N24	N34			RIGID	None	None	RIGID	Typical
19	M19	N23	N33			RIGID	None	None	RIGID	Typical
20	M20	N25	N35			RIGID	None	None	RIGID	Typical
21	M21	N26	N40			RIGID	None	None	RIGID	Typical
22	MP5A	N43	N47			Mount Pipe	Column	Pipe	A53 Gr. B	Typical
23	MP4A	N42	N46			Mount Pipe	Column	Pipe	A53 Gr. B	Typical
24	MP2A	N44	N48			Mount Pipe	Column	Pipe	A53 Gr. B	Typical
25	MP1A	N41	N45			Mount Pipe	Column	Pipe	A53 Gr. B	Typical
26	MP3A	N49	N50			Mount Pipe	Column	Pipe	A53 Gr. B	Typical
27	M27	N51	N55			Tieback	Beam	Pipe	A53 Gr. B	Typical
28	M28	N52	N56			Tieback	Beam	Pipe	A53 Gr. B	Typical



Member Advanced Data

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rati...A..	Inactive	Seismic ...
1	M1						Yes	Default		None
2	M2						Yes	Default		None
3	M3	BenPIN	BenPIN				Yes			None
4	M4	BenPIN	BenPIN				Yes			None
5	M5	BenPIN	BenPIN				Yes			None
6	M6	BenPIN	BenPIN				Yes			None
7	M7		000000				Yes	** NA **		None
8	M8		000000				Yes	** NA **		None
9	RRU						Yes	Default		None
10	M10						Yes	Default		None
11	M11						Yes	** NA **		None
12	M12		000X00				Yes	** NA **		None
13	M13		000X00				Yes	** NA **		None
14	M14		000X00				Yes	** NA **		None
15	LIVE1		000X00				Yes	** NA **		None
16	M16		000X00				Yes	** NA **		None
17	LIVE2		000X00				Yes	** NA **		None
18	M18		000X00				Yes	** NA **		None
19	M19		000X00				Yes	** NA **		None
20	M20		000X00				Yes	** NA **		None
21	M21		000X00				Yes	** NA **		None
22	MP5A						Yes	** NA **		None
23	MP4A						Yes	** NA **		None
24	MP2A						Yes	** NA **		None
25	MP1A						Yes	** NA **		None
26	MP3A						Yes	** NA **		None
27	M27	0000X0					Yes	Default		None
28	M28	0000X0					Yes	Default		None

Member Point Loads (BLC 1 : Antenna D)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	Y	-23	.5
2	MP3A	My	-.011	.5
3	MP3A	Mz	.015	.5
4	MP3A	Y	-23	5
5	MP3A	My	-.011	5
6	MP3A	Mz	.015	5
7	MP3A	Y	-23	.5
8	MP3A	My	-.011	.5
9	MP3A	Mz	-.015	.5
10	MP3A	Y	-23	5
11	MP3A	My	-.011	5
12	MP3A	Mz	-.015	5
13	MP4A	Y	-23.2	2
14	MP4A	My	-.012	2
15	MP4A	Mz	0	2
16	MP4A	Y	-43.55	5.5
17	MP4A	My	-.022	5.5
18	MP4A	Mz	0	5.5
19	MP4A	Y	-43.55	7.5
20	MP4A	My	-.022	7.5
21	MP4A	Mz	0	7.5
22	MP2A	Y	-74.7	1
23	MP2A	My	.037	1



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
24	MP2A	Mz	0	1
25	MP4A	Y	-70.3	1
26	MP4A	Mv	.035	1
27	MP4A	Mz	0	1
28	MP1A	Y	-10.5	2
29	MP1A	Mv	-.005	2
30	MP1A	Mz	0	2
31	MP1A	Y	-10.5	6
32	MP1A	Mv	-.005	6
33	MP1A	Mz	0	6
34	MP5A	Y	-10.5	2
35	MP5A	Mv	-.005	2
36	MP5A	Mz	0	2
37	MP5A	Y	-10.5	6
38	MP5A	Mv	-.005	6
39	MP5A	Mz	0	6
40	MP2A	Y	-8.8	7.5
41	MP2A	Mv	.007	7.5
42	MP2A	Mz	-.004	7.5
43	MP2A	Y	-8.8	8.5
44	MP2A	Mv	.007	8.5
45	MP2A	Mz	-.004	8.5
46	MP2A	Y	-8.8	7.5
47	MP2A	Mv	.007	7.5
48	MP2A	Mz	.004	7.5
49	MP2A	Y	-8.8	8.5
50	MP2A	Mv	.007	8.5
51	MP2A	Mz	.004	8.5

Member Point Loads (BLC 2 : Antenna Di)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	Y	-81.537	.5
2	MP3A	Mv	-.041	.5
3	MP3A	Mz	.054	.5
4	MP3A	Y	-81.537	5
5	MP3A	Mv	-.041	5
6	MP3A	Mz	.054	5
7	MP3A	Y	-81.537	.5
8	MP3A	Mv	-.041	.5
9	MP3A	Mz	-.054	.5
10	MP3A	Y	-81.537	5
11	MP3A	Mv	-.041	5
12	MP3A	Mz	-.054	5
13	MP4A	Y	-29.503	2
14	MP4A	Mv	-.015	2
15	MP4A	Mz	0	2
16	MP4A	Y	-35.201	5.5
17	MP4A	Mv	-.018	5.5
18	MP4A	Mz	0	5.5
19	MP4A	Y	-35.201	7.5
20	MP4A	Mv	-.018	7.5
21	MP4A	Mz	0	7.5
22	MP2A	Y	-44.373	1
23	MP2A	Mv	.022	1
24	MP2A	Mz	0	1
25	MP4A	Y	-42.255	1



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
26	MP4A	My	.021	1
27	MP4A	Mz	0	1
28	MP1A	Y	-58.551	2
29	MP1A	Mv	-.029	2
30	MP1A	Mz	0	2
31	MP1A	Y	-58.551	6
32	MP1A	Mv	-.029	6
33	MP1A	Mz	0	6
34	MP5A	Y	-58.551	2
35	MP5A	Mv	-.029	2
36	MP5A	Mz	0	2
37	MP5A	Y	-58.551	6
38	MP5A	Mv	-.029	6
39	MP5A	Mz	0	6
40	MP2A	Y	3.3	7.5
41	MP2A	Mv	-.003	7.5
42	MP2A	Mz	.001	7.5
43	MP2A	Y	3.3	8.5
44	MP2A	Mv	-.003	8.5
45	MP2A	Mz	.001	8.5
46	MP2A	Y	3.3	7.5
47	MP2A	Mv	-.003	7.5
48	MP2A	Mz	-.001	7.5
49	MP2A	Y	3.3	8.5
50	MP2A	Mv	-.003	8.5
51	MP2A	Mz	-.001	8.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	0	.5
2	MP3A	Z	-77.139	.5
3	MP3A	Mx	-.051	.5
4	MP3A	X	0	5
5	MP3A	Z	-77.139	5
6	MP3A	Mx	-.051	5
7	MP3A	X	0	.5
8	MP3A	Z	-77.139	.5
9	MP3A	Mx	.051	.5
10	MP3A	X	0	5
11	MP3A	Z	-77.139	5
12	MP3A	Mx	.051	5
13	MP4A	X	0	2
14	MP4A	Z	-49.904	2
15	MP4A	Mx	0	2
16	MP4A	X	0	5.5
17	MP4A	Z	-63.929	5.5
18	MP4A	Mx	0	5.5
19	MP4A	X	0	7.5
20	MP4A	Z	-63.929	7.5
21	MP4A	Mx	0	7.5
22	MP2A	X	0	1
23	MP2A	Z	-50.556	1
24	MP2A	Mx	0	1
25	MP4A	X	0	1
26	MP4A	Z	-50.556	1
27	MP4A	Mx	0	1



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
28	MP1A	X	0	2
29	MP1A	Z	-114.974	2
30	MP1A	Mx	0	2
31	MP1A	X	0	6
32	MP1A	Z	-114.974	6
33	MP1A	Mx	0	6
34	MP5A	X	0	2
35	MP5A	Z	-114.974	2
36	MP5A	Mx	0	2
37	MP5A	X	0	6
38	MP5A	Z	-114.974	6
39	MP5A	Mx	0	6
40	MP2A	X	0	7.5
41	MP2A	Z	-15.656	7.5
42	MP2A	Mx	.007	7.5
43	MP2A	X	0	8.5
44	MP2A	Z	-15.656	8.5
45	MP2A	Mx	.007	8.5
46	MP2A	X	0	7.5
47	MP2A	Z	-15.656	7.5
48	MP2A	Mx	-.007	7.5
49	MP2A	X	0	8.5
50	MP2A	Z	-15.656	8.5
51	MP2A	Mx	-.007	8.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	36.143	.5
2	MP3A	Z	-62.602	.5
3	MP3A	Mx	-.06	.5
4	MP3A	X	36.143	5
5	MP3A	Z	-62.602	5
6	MP3A	Mx	-.06	5
7	MP3A	X	36.143	.5
8	MP3A	Z	-62.602	.5
9	MP3A	Mx	.024	.5
10	MP3A	X	36.143	5
11	MP3A	Z	-62.602	5
12	MP3A	Mx	.024	5
13	MP4A	X	21.791	2
14	MP4A	Z	-37.743	2
15	MP4A	Mx	-.011	2
16	MP4A	X	26.725	5.5
17	MP4A	Z	-46.29	5.5
18	MP4A	Mx	-.013	5.5
19	MP4A	X	26.725	7.5
20	MP4A	Z	-46.29	7.5
21	MP4A	Mx	-.013	7.5
22	MP2A	X	23.199	1
23	MP2A	Z	-40.181	1
24	MP2A	Mx	.012	1
25	MP4A	X	22.791	1
26	MP4A	Z	-39.475	1
27	MP4A	Mx	.011	1
28	MP1A	X	55.669	2
29	MP1A	Z	-96.422	2



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
30	MP1A	Mx	-.028	2
31	MP1A	X	55.669	6
32	MP1A	Z	-96.422	6
33	MP1A	Mx	-.028	6
34	MP5A	X	55.669	2
35	MP5A	Z	-96.422	2
36	MP5A	Mx	-.028	2
37	MP5A	X	55.669	6
38	MP5A	Z	-96.422	6
39	MP5A	Mx	-.028	6
40	MP2A	X	7.834	7.5
41	MP2A	Z	-13.569	7.5
42	MP2A	Mx	.012	7.5
43	MP2A	X	7.834	8.5
44	MP2A	Z	-13.569	8.5
45	MP2A	Mx	.012	8.5
46	MP2A	X	7.834	7.5
47	MP2A	Z	-13.569	7.5
48	MP2A	Mx	.000875	7.5
49	MP2A	X	7.834	8.5
50	MP2A	Z	-13.569	8.5
51	MP2A	Mx	.000875	8.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	54.199	.5
2	MP3A	Z	-31.292	.5
3	MP3A	Mx	-.048	.5
4	MP3A	X	54.199	5
5	MP3A	Z	-31.292	5
6	MP3A	Mx	-.048	5
7	MP3A	X	54.199	.5
8	MP3A	Z	-31.292	.5
9	MP3A	Mx	-.006	.5
10	MP3A	X	54.199	5
11	MP3A	Z	-31.292	5
12	MP3A	Mx	-.006	5
13	MP4A	X	26.794	2
14	MP4A	Z	-15.469	2
15	MP4A	Mx	-.013	2
16	MP4A	X	28.141	5.5
17	MP4A	Z	-16.247	5.5
18	MP4A	Mx	-.014	5.5
19	MP4A	X	28.141	7.5
20	MP4A	Z	-16.247	7.5
21	MP4A	Mx	-.014	7.5
22	MP2A	X	32.978	1
23	MP2A	Z	-19.04	1
24	MP2A	Mx	.016	1
25	MP4A	X	30.86	1
26	MP4A	Z	-17.817	1
27	MP4A	Mx	.015	1
28	MP1A	X	90.125	2
29	MP1A	Z	-52.034	2
30	MP1A	Mx	-.045	2
31	MP1A	X	90.125	6



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
32	MP1A	Z	-52.034	6
33	MP1A	Mx	-.045	6
34	MP5A	X	90.125	2
35	MP5A	Z	-52.034	2
36	MP5A	Mx	-.045	2
37	MP5A	X	90.125	6
38	MP5A	Z	-52.034	6
39	MP5A	Mx	-.045	6
40	MP2A	X	13.589	7.5
41	MP2A	Z	-7.845	7.5
42	MP2A	Mx	.015	7.5
43	MP2A	X	13.589	8.5
44	MP2A	Z	-7.845	8.5
45	MP2A	Mx	.015	8.5
46	MP2A	X	13.589	7.5
47	MP2A	Z	-7.845	7.5
48	MP2A	Mx	.008	7.5
49	MP2A	X	13.589	8.5
50	MP2A	Z	-7.845	8.5
51	MP2A	Mx	.008	8.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	57.732	.5
2	MP3A	Z	0	.5
3	MP3A	Mx	-.029	.5
4	MP3A	X	57.732	5
5	MP3A	Z	0	5
6	MP3A	Mx	-.029	5
7	MP3A	X	57.732	.5
8	MP3A	Z	0	.5
9	MP3A	Mx	-.029	.5
10	MP3A	X	57.732	5
11	MP3A	Z	0	5
12	MP3A	Mx	-.029	5
13	MP4A	X	24.617	2
14	MP4A	Z	0	2
15	MP4A	Mx	-.012	2
16	MP4A	X	22.016	5.5
17	MP4A	Z	0	5.5
18	MP4A	Mx	-.011	5.5
19	MP4A	X	22.016	7.5
20	MP4A	Z	0	7.5
21	MP4A	Mx	-.011	7.5
22	MP2A	X	33.921	1
23	MP2A	Z	0	1
24	MP2A	Mx	.017	1
25	MP4A	X	30.66	1
26	MP4A	Z	0	1
27	MP4A	Mx	.015	1
28	MP1A	X	100.432	2
29	MP1A	Z	0	2
30	MP1A	Mx	-.05	2
31	MP1A	X	100.432	6
32	MP1A	Z	0	6
33	MP1A	Mx	-.05	6



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
34	MP5A	X	100.432	2
35	MP5A	Z	0	2
36	MP5A	Mx	-.05	2
37	MP5A	X	100.432	6
38	MP5A	Z	0	6
39	MP5A	Mx	-.05	6
40	MP2A	X	15.702	7.5
41	MP2A	Z	0	7.5
42	MP2A	Mx	.013	7.5
43	MP2A	X	15.702	8.5
44	MP2A	Z	0	8.5
45	MP2A	Mx	.013	8.5
46	MP2A	X	15.702	7.5
47	MP2A	Z	0	7.5
48	MP2A	Mx	.013	7.5
49	MP2A	X	15.702	8.5
50	MP2A	Z	0	8.5
51	MP2A	Mx	.013	8.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP3A	X	54.199	.5
2	MP3A	Z	31.292	.5
3	MP3A	Mx	-.006	.5
4	MP3A	X	54.199	5
5	MP3A	Z	31.292	5
6	MP3A	Mx	-.006	5
7	MP3A	X	54.199	.5
8	MP3A	Z	31.292	.5
9	MP3A	Mx	-.048	.5
10	MP3A	X	54.199	5
11	MP3A	Z	31.292	5
12	MP3A	Mx	-.048	5
13	MP4A	X	26.794	2
14	MP4A	Z	15.469	2
15	MP4A	Mx	-.013	2
16	MP4A	X	28.141	5.5
17	MP4A	Z	16.247	5.5
18	MP4A	Mx	-.014	5.5
19	MP4A	X	28.141	7.5
20	MP4A	Z	16.247	7.5
21	MP4A	Mx	-.014	7.5
22	MP2A	X	32.978	1
23	MP2A	Z	19.04	1
24	MP2A	Mx	.016	1
25	MP4A	X	30.86	1
26	MP4A	Z	17.817	1
27	MP4A	Mx	.015	1
28	MP1A	X	90.125	2
29	MP1A	Z	52.034	2
30	MP1A	Mx	-.045	2
31	MP1A	X	90.125	6
32	MP1A	Z	52.034	6
33	MP1A	Mx	-.045	6
34	MP5A	X	90.125	2
35	MP5A	Z	52.034	2



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
36	MP5A	Mx	-.045	2
37	MP5A	X	90.125	6
38	MP5A	Z	52.034	6
39	MP5A	Mx	-.045	6
40	MP2A	X	13.589	7.5
41	MP2A	Z	7.845	7.5
42	MP2A	Mx	.008	7.5
43	MP2A	X	13.589	8.5
44	MP2A	Z	7.845	8.5
45	MP2A	Mx	.008	8.5
46	MP2A	X	13.589	7.5
47	MP2A	Z	7.845	7.5
48	MP2A	Mx	.015	7.5
49	MP2A	X	13.589	8.5
50	MP2A	Z	7.845	8.5
51	MP2A	Mx	.015	8.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	36.143	.5
2	MP3A	Z	62.602	.5
3	MP3A	Mx	.024	.5
4	MP3A	X	36.143	5
5	MP3A	Z	62.602	5
6	MP3A	Mx	.024	5
7	MP3A	X	36.143	.5
8	MP3A	Z	62.602	.5
9	MP3A	Mx	-.06	.5
10	MP3A	X	36.143	5
11	MP3A	Z	62.602	5
12	MP3A	Mx	-.06	5
13	MP4A	X	21.791	2
14	MP4A	Z	37.743	2
15	MP4A	Mx	-.011	2
16	MP4A	X	26.725	5.5
17	MP4A	Z	46.29	5.5
18	MP4A	Mx	-.013	5.5
19	MP4A	X	26.725	7.5
20	MP4A	Z	46.29	7.5
21	MP4A	Mx	-.013	7.5
22	MP2A	X	23.199	1
23	MP2A	Z	40.181	1
24	MP2A	Mx	.012	1
25	MP4A	X	22.791	1
26	MP4A	Z	39.475	1
27	MP4A	Mx	.011	1
28	MP1A	X	55.669	2
29	MP1A	Z	96.422	2
30	MP1A	Mx	-.028	2
31	MP1A	X	55.669	6
32	MP1A	Z	96.422	6
33	MP1A	Mx	-.028	6
34	MP5A	X	55.669	2
35	MP5A	Z	96.422	2
36	MP5A	Mx	-.028	2
37	MP5A	X	55.669	6



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
38	MP5A	Z	96.422	6
39	MP5A	Mx	-.028	6
40	MP2A	X	7.834	7.5
41	MP2A	Z	13.569	7.5
42	MP2A	Mx	.000875	7.5
43	MP2A	X	7.834	8.5
44	MP2A	Z	13.569	8.5
45	MP2A	Mx	.000875	8.5
46	MP2A	X	7.834	7.5
47	MP2A	Z	13.569	7.5
48	MP2A	Mx	.012	7.5
49	MP2A	X	7.834	8.5
50	MP2A	Z	13.569	8.5
51	MP2A	Mx	.012	8.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	0	.5
2	MP3A	Z	77.139	.5
3	MP3A	Mx	.051	.5
4	MP3A	X	0	5
5	MP3A	Z	77.139	5
6	MP3A	Mx	.051	5
7	MP3A	X	0	.5
8	MP3A	Z	77.139	.5
9	MP3A	Mx	-.051	.5
10	MP3A	X	0	5
11	MP3A	Z	77.139	5
12	MP3A	Mx	-.051	5
13	MP4A	X	0	2
14	MP4A	Z	49.904	2
15	MP4A	Mx	0	2
16	MP4A	X	0	5.5
17	MP4A	Z	63.929	5.5
18	MP4A	Mx	0	5.5
19	MP4A	X	0	7.5
20	MP4A	Z	63.929	7.5
21	MP4A	Mx	0	7.5
22	MP2A	X	0	1
23	MP2A	Z	50.556	1
24	MP2A	Mx	0	1
25	MP4A	X	0	1
26	MP4A	Z	50.556	1
27	MP4A	Mx	0	1
28	MP1A	X	0	2
29	MP1A	Z	114.974	2
30	MP1A	Mx	0	2
31	MP1A	X	0	6
32	MP1A	Z	114.974	6
33	MP1A	Mx	0	6
34	MP5A	X	0	2
35	MP5A	Z	114.974	2
36	MP5A	Mx	0	2
37	MP5A	X	0	6
38	MP5A	Z	114.974	6
39	MP5A	Mx	0	6



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
40	MP2A	X	0	7.5
41	MP2A	Z	15.656	7.5
42	MP2A	Mx	-.007	7.5
43	MP2A	X	0	8.5
44	MP2A	Z	15.656	8.5
45	MP2A	Mx	-.007	8.5
46	MP2A	X	0	7.5
47	MP2A	Z	15.656	7.5
48	MP2A	Mx	.007	7.5
49	MP2A	X	0	8.5
50	MP2A	Z	15.656	8.5
51	MP2A	Mx	.007	8.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP3A	X	-36.143	.5
2	MP3A	Z	62.602	.5
3	MP3A	Mx	.06	.5
4	MP3A	X	-36.143	5
5	MP3A	Z	62.602	5
6	MP3A	Mx	.06	5
7	MP3A	X	-36.143	.5
8	MP3A	Z	62.602	.5
9	MP3A	Mx	-.024	.5
10	MP3A	X	-36.143	5
11	MP3A	Z	62.602	5
12	MP3A	Mx	-.024	5
13	MP4A	X	-21.791	2
14	MP4A	Z	37.743	2
15	MP4A	Mx	.011	2
16	MP4A	X	-26.725	5.5
17	MP4A	Z	46.29	5.5
18	MP4A	Mx	.013	5.5
19	MP4A	X	-26.725	7.5
20	MP4A	Z	46.29	7.5
21	MP4A	Mx	.013	7.5
22	MP2A	X	-23.199	1
23	MP2A	Z	40.181	1
24	MP2A	Mx	-.012	1
25	MP4A	X	-22.791	1
26	MP4A	Z	39.475	1
27	MP4A	Mx	-.011	1
28	MP1A	X	-55.669	2
29	MP1A	Z	96.422	2
30	MP1A	Mx	.028	2
31	MP1A	X	-55.669	6
32	MP1A	Z	96.422	6
33	MP1A	Mx	.028	6
34	MP5A	X	-55.669	2
35	MP5A	Z	96.422	2
36	MP5A	Mx	.028	2
37	MP5A	X	-55.669	6
38	MP5A	Z	96.422	6
39	MP5A	Mx	.028	6
40	MP2A	X	-7.834	7.5
41	MP2A	Z	13.569	7.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
42	MP2A	Mx	-.012	7.5
43	MP2A	X	-7.834	8.5
44	MP2A	Z	13.569	8.5
45	MP2A	Mx	-.012	8.5
46	MP2A	X	-7.834	7.5
47	MP2A	Z	13.569	7.5
48	MP2A	Mx	-.000875	7.5
49	MP2A	X	-7.834	8.5
50	MP2A	Z	13.569	8.5
51	MP2A	Mx	-.000875	8.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	-54.199	.5
2	MP3A	Z	31.292	.5
3	MP3A	Mx	.048	.5
4	MP3A	X	-54.199	5
5	MP3A	Z	31.292	5
6	MP3A	Mx	.048	5
7	MP3A	X	-54.199	.5
8	MP3A	Z	31.292	.5
9	MP3A	Mx	.006	.5
10	MP3A	X	-54.199	5
11	MP3A	Z	31.292	5
12	MP3A	Mx	.006	5
13	MP4A	X	-26.794	2
14	MP4A	Z	15.469	2
15	MP4A	Mx	.013	2
16	MP4A	X	-28.141	5.5
17	MP4A	Z	16.247	5.5
18	MP4A	Mx	.014	5.5
19	MP4A	X	-28.141	7.5
20	MP4A	Z	16.247	7.5
21	MP4A	Mx	.014	7.5
22	MP2A	X	-32.978	1
23	MP2A	Z	19.04	1
24	MP2A	Mx	-.016	1
25	MP4A	X	-30.86	1
26	MP4A	Z	17.817	1
27	MP4A	Mx	-.015	1
28	MP1A	X	-90.125	2
29	MP1A	Z	52.034	2
30	MP1A	Mx	.045	2
31	MP1A	X	-90.125	6
32	MP1A	Z	52.034	6
33	MP1A	Mx	.045	6
34	MP5A	X	-90.125	2
35	MP5A	Z	52.034	2
36	MP5A	Mx	.045	2
37	MP5A	X	-90.125	6
38	MP5A	Z	52.034	6
39	MP5A	Mx	.045	6
40	MP2A	X	-13.589	7.5
41	MP2A	Z	7.845	7.5
42	MP2A	Mx	-.015	7.5
43	MP2A	X	-13.589	8.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
44	MP2A	Z	7.845	8.5
45	MP2A	Mx	-.015	8.5
46	MP2A	X	-13.589	7.5
47	MP2A	Z	7.845	7.5
48	MP2A	Mx	-.008	7.5
49	MP2A	X	-13.589	8.5
50	MP2A	Z	7.845	8.5
51	MP2A	Mx	-.008	8.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	-57.732	.5
2	MP3A	Z	0	.5
3	MP3A	Mx	.029	.5
4	MP3A	X	-57.732	5
5	MP3A	Z	0	5
6	MP3A	Mx	.029	5
7	MP3A	X	-57.732	.5
8	MP3A	Z	0	.5
9	MP3A	Mx	.029	.5
10	MP3A	X	-57.732	5
11	MP3A	Z	0	5
12	MP3A	Mx	.029	5
13	MP4A	X	-24.617	2
14	MP4A	Z	0	2
15	MP4A	Mx	.012	2
16	MP4A	X	-22.016	5.5
17	MP4A	Z	0	5.5
18	MP4A	Mx	.011	5.5
19	MP4A	X	-22.016	7.5
20	MP4A	Z	0	7.5
21	MP4A	Mx	.011	7.5
22	MP2A	X	-33.921	1
23	MP2A	Z	0	1
24	MP2A	Mx	-.017	1
25	MP4A	X	-30.66	1
26	MP4A	Z	0	1
27	MP4A	Mx	-.015	1
28	MP1A	X	-100.432	2
29	MP1A	Z	0	2
30	MP1A	Mx	.05	2
31	MP1A	X	-100.432	6
32	MP1A	Z	0	6
33	MP1A	Mx	.05	6
34	MP5A	X	-100.432	2
35	MP5A	Z	0	2
36	MP5A	Mx	.05	2
37	MP5A	X	-100.432	6
38	MP5A	Z	0	6
39	MP5A	Mx	.05	6
40	MP2A	X	-15.702	7.5
41	MP2A	Z	0	7.5
42	MP2A	Mx	-.013	7.5
43	MP2A	X	-15.702	8.5
44	MP2A	Z	0	8.5
45	MP2A	Mx	-.013	8.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
46	MP2A	X	-15.702	7.5
47	MP2A	Z	0	7.5
48	MP2A	Mx	-.013	7.5
49	MP2A	X	-15.702	8.5
50	MP2A	Z	0	8.5
51	MP2A	Mx	-.013	8.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	-54.199	.5
2	MP3A	Z	-31.292	.5
3	MP3A	Mx	.006	.5
4	MP3A	X	-54.199	5
5	MP3A	Z	-31.292	5
6	MP3A	Mx	.006	5
7	MP3A	X	-54.199	.5
8	MP3A	Z	-31.292	.5
9	MP3A	Mx	.048	.5
10	MP3A	X	-54.199	5
11	MP3A	Z	-31.292	5
12	MP3A	Mx	.048	5
13	MP4A	X	-26.794	2
14	MP4A	Z	-15.469	2
15	MP4A	Mx	.013	2
16	MP4A	X	-28.141	5.5
17	MP4A	Z	-16.247	5.5
18	MP4A	Mx	.014	5.5
19	MP4A	X	-28.141	7.5
20	MP4A	Z	-16.247	7.5
21	MP4A	Mx	.014	7.5
22	MP2A	X	-32.978	1
23	MP2A	Z	-19.04	1
24	MP2A	Mx	-.016	1
25	MP4A	X	-30.86	1
26	MP4A	Z	-17.817	1
27	MP4A	Mx	-.015	1
28	MP1A	X	-90.125	2
29	MP1A	Z	-52.034	2
30	MP1A	Mx	.045	2
31	MP1A	X	-90.125	6
32	MP1A	Z	-52.034	6
33	MP1A	Mx	.045	6
34	MP5A	X	-90.125	2
35	MP5A	Z	-52.034	2
36	MP5A	Mx	.045	2
37	MP5A	X	-90.125	6
38	MP5A	Z	-52.034	6
39	MP5A	Mx	.045	6
40	MP2A	X	-13.589	7.5
41	MP2A	Z	-7.845	7.5
42	MP2A	Mx	-.008	7.5
43	MP2A	X	-13.589	8.5
44	MP2A	Z	-7.845	8.5
45	MP2A	Mx	-.008	8.5
46	MP2A	X	-13.589	7.5
47	MP2A	Z	-7.845	7.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
48	MP2A	Mx	-.015	7.5
49	MP2A	X	-13.589	8.5
50	MP2A	Z	-7.845	8.5
51	MP2A	Mx	-.015	8.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	-36.143	.5
2	MP3A	Z	-62.602	.5
3	MP3A	Mx	-.024	.5
4	MP3A	X	-36.143	5
5	MP3A	Z	-62.602	5
6	MP3A	Mx	-.024	5
7	MP3A	X	-36.143	.5
8	MP3A	Z	-62.602	.5
9	MP3A	Mx	.06	.5
10	MP3A	X	-36.143	5
11	MP3A	Z	-62.602	5
12	MP3A	Mx	.06	5
13	MP4A	X	-21.791	2
14	MP4A	Z	-37.743	2
15	MP4A	Mx	.011	2
16	MP4A	X	-26.725	5.5
17	MP4A	Z	-46.29	5.5
18	MP4A	Mx	.013	5.5
19	MP4A	X	-26.725	7.5
20	MP4A	Z	-46.29	7.5
21	MP4A	Mx	.013	7.5
22	MP2A	X	-23.199	1
23	MP2A	Z	-40.181	1
24	MP2A	Mx	-.012	1
25	MP4A	X	-22.791	1
26	MP4A	Z	-39.475	1
27	MP4A	Mx	-.011	1
28	MP1A	X	-55.669	2
29	MP1A	Z	-96.422	2
30	MP1A	Mx	.028	2
31	MP1A	X	-55.669	6
32	MP1A	Z	-96.422	6
33	MP1A	Mx	.028	6
34	MP5A	X	-55.669	2
35	MP5A	Z	-96.422	2
36	MP5A	Mx	.028	2
37	MP5A	X	-55.669	6
38	MP5A	Z	-96.422	6
39	MP5A	Mx	.028	6
40	MP2A	X	-7.834	7.5
41	MP2A	Z	-13.569	7.5
42	MP2A	Mx	-.000875	7.5
43	MP2A	X	-7.834	8.5
44	MP2A	Z	-13.569	8.5
45	MP2A	Mx	-.000875	8.5
46	MP2A	X	-7.834	7.5
47	MP2A	Z	-13.569	7.5
48	MP2A	Mx	-.012	7.5
49	MP2A	X	-7.834	8.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
50	MP2A	Z	-13.569	8.5
51	MP2A	Mx	-.012	8.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	0	.5
2	MP3A	Z	-30.446	.5
3	MP3A	Mx	-.02	.5
4	MP3A	X	0	5
5	MP3A	Z	-30.446	5
6	MP3A	Mx	-.02	5
7	MP3A	X	0	.5
8	MP3A	Z	-30.446	.5
9	MP3A	Mx	.02	.5
10	MP3A	X	0	5
11	MP3A	Z	-30.446	5
12	MP3A	Mx	.02	5
13	MP4A	X	0	2
14	MP4A	Z	-10.594	2
15	MP4A	Mx	0	2
16	MP4A	X	0	5.5
17	MP4A	Z	-15.015	5.5
18	MP4A	Mx	0	5.5
19	MP4A	X	0	7.5
20	MP4A	Z	-15.015	7.5
21	MP4A	Mx	0	7.5
22	MP2A	X	0	1
23	MP2A	Z	-12.647	1
24	MP2A	Mx	0	1
25	MP4A	X	0	1
26	MP4A	Z	-12.647	1
27	MP4A	Mx	0	1
28	MP1A	X	0	2
29	MP1A	Z	-22.168	2
30	MP1A	Mx	0	2
31	MP1A	X	0	6
32	MP1A	Z	-22.168	6
33	MP1A	Mx	0	6
34	MP5A	X	0	2
35	MP5A	Z	-22.168	2
36	MP5A	Mx	0	2
37	MP5A	X	0	6
38	MP5A	Z	-22.168	6
39	MP5A	Mx	0	6
40	MP2A	X	0	7.5
41	MP2A	Z	-1.306	7.5
42	MP2A	Mx	.000544	7.5
43	MP2A	X	0	8.5
44	MP2A	Z	-1.306	8.5
45	MP2A	Mx	.000544	8.5
46	MP2A	X	0	7.5
47	MP2A	Z	-1.306	7.5
48	MP2A	Mx	-.000544	7.5
49	MP2A	X	0	8.5
50	MP2A	Z	-1.306	8.5
51	MP2A	Mx	-.000544	8.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	14.296	.5
2	MP3A	Z	-24.761	.5
3	MP3A	Mx	-.024	.5
4	MP3A	X	14.296	5
5	MP3A	Z	-24.761	5
6	MP3A	Mx	-.024	5
7	MP3A	X	14.296	.5
8	MP3A	Z	-24.761	.5
9	MP3A	Mx	.009	.5
10	MP3A	X	14.296	5
11	MP3A	Z	-24.761	5
12	MP3A	Mx	.009	5
13	MP4A	X	4.687	2
14	MP4A	Z	-8.118	2
15	MP4A	Mx	-.002	2
16	MP4A	X	6.429	5.5
17	MP4A	Z	-11.136	5.5
18	MP4A	Mx	-.003	5.5
19	MP4A	X	6.429	7.5
20	MP4A	Z	-11.136	7.5
21	MP4A	Mx	-.003	7.5
22	MP2A	X	5.842	1
23	MP2A	Z	-10.118	1
24	MP2A	Mx	.003	1
25	MP4A	X	5.755	1
26	MP4A	Z	-9.968	1
27	MP4A	Mx	.003	1
28	MP1A	X	10.782	2
29	MP1A	Z	-18.675	2
30	MP1A	Mx	-.005	2
31	MP1A	X	10.782	6
32	MP1A	Z	-18.675	6
33	MP1A	Mx	-.005	6
34	MP5A	X	10.782	2
35	MP5A	Z	-18.675	2
36	MP5A	Mx	-.005	2
37	MP5A	X	10.782	6
38	MP5A	Z	-18.675	6
39	MP5A	Mx	-.005	6
40	MP2A	X	.924	7.5
41	MP2A	Z	-1.6	7.5
42	MP2A	Mx	.001	7.5
43	MP2A	X	.924	8.5
44	MP2A	Z	-1.6	8.5
45	MP2A	Mx	.001	8.5
46	MP2A	X	.924	7.5
47	MP2A	Z	-1.6	7.5
48	MP2A	Mx	.000103	7.5
49	MP2A	X	.924	8.5
50	MP2A	Z	-1.6	8.5
51	MP2A	Mx	.000103	8.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	21.549	.5
2	MP3A	Z	-12.441	.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
3	MP3A	Mx	-0.019	.5
4	MP3A	X	21.549	5
5	MP3A	Z	-12.441	5
6	MP3A	Mx	-0.019	5
7	MP3A	X	21.549	.5
8	MP3A	Z	-12.441	.5
9	MP3A	Mx	-0.002	.5
10	MP3A	X	21.549	5
11	MP3A	Z	-12.441	5
12	MP3A	Mx	-0.002	5
13	MP4A	X	6.004	2
14	MP4A	Z	-3.466	2
15	MP4A	Mx	-0.003	2
16	MP4A	X	7.401	5.5
17	MP4A	Z	-4.273	5.5
18	MP4A	Mx	-0.004	5.5
19	MP4A	X	7.401	7.5
20	MP4A	Z	-4.273	7.5
21	MP4A	Mx	-0.004	7.5
22	MP2A	X	8.45	1
23	MP2A	Z	-4.879	1
24	MP2A	Mx	.004	1
25	MP4A	X	7.999	1
26	MP4A	Z	-4.618	1
27	MP4A	Mx	.004	1
28	MP1A	X	17.628	2
29	MP1A	Z	-10.178	2
30	MP1A	Mx	-0.009	2
31	MP1A	X	17.628	6
32	MP1A	Z	-10.178	6
33	MP1A	Mx	-0.009	6
34	MP5A	X	17.628	2
35	MP5A	Z	-10.178	2
36	MP5A	Mx	-0.009	2
37	MP5A	X	17.628	6
38	MP5A	Z	-10.178	6
39	MP5A	Mx	-0.009	6
40	MP2A	X	2.539	7.5
41	MP2A	Z	-1.466	7.5
42	MP2A	Mx	.003	7.5
43	MP2A	X	2.539	8.5
44	MP2A	Z	-1.466	8.5
45	MP2A	Mx	.003	8.5
46	MP2A	X	2.539	7.5
47	MP2A	Z	-1.466	7.5
48	MP2A	Mx	.002	7.5
49	MP2A	X	2.539	8.5
50	MP2A	Z	-1.466	8.5
51	MP2A	Mx	.002	8.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	23.028	.5
2	MP3A	Z	0	.5
3	MP3A	Mx	-0.012	.5
4	MP3A	X	23.028	5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
5	MP3A	Z	0	5
6	MP3A	Mx	-.012	5
7	MP3A	X	23.028	.5
8	MP3A	Z	0	.5
9	MP3A	Mx	-.012	.5
10	MP3A	X	23.028	5
11	MP3A	Z	0	5
12	MP3A	Mx	-.012	5
13	MP4A	X	5.712	2
14	MP4A	Z	0	2
15	MP4A	Mx	-.003	2
16	MP4A	X	6.39	5.5
17	MP4A	Z	0	5.5
18	MP4A	Mx	-.003	5.5
19	MP4A	X	6.39	7.5
20	MP4A	Z	0	7.5
21	MP4A	Mx	-.003	7.5
22	MP2A	X	8.794	1
23	MP2A	Z	0	1
24	MP2A	Mx	.004	1
25	MP4A	X	8.1	1
26	MP4A	Z	0	1
27	MP4A	Mx	.004	1
28	MP1A	X	19.751	2
29	MP1A	Z	0	2
30	MP1A	Mx	-.01	2
31	MP1A	X	19.751	6
32	MP1A	Z	0	6
33	MP1A	Mx	-.01	6
34	MP5A	X	19.751	2
35	MP5A	Z	0	2
36	MP5A	Mx	-.01	2
37	MP5A	X	19.751	6
38	MP5A	Z	0	6
39	MP5A	Mx	-.01	6
40	MP2A	X	3.474	7.5
41	MP2A	Z	0	7.5
42	MP2A	Mx	.003	7.5
43	MP2A	X	3.474	8.5
44	MP2A	Z	0	8.5
45	MP2A	Mx	.003	8.5
46	MP2A	X	3.474	7.5
47	MP2A	Z	0	7.5
48	MP2A	Mx	.003	7.5
49	MP2A	X	3.474	8.5
50	MP2A	Z	0	8.5
51	MP2A	Mx	.003	8.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP3A	X	21.549	.5
2	MP3A	Z	12.441	.5
3	MP3A	Mx	-.002	.5
4	MP3A	X	21.549	5
5	MP3A	Z	12.441	5
6	MP3A	Mx	-.002	5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
7	MP3A	X	21.549	.5
8	MP3A	Z	12.441	.5
9	MP3A	Mx	-.019	.5
10	MP3A	X	21.549	5
11	MP3A	Z	12.441	5
12	MP3A	Mx	-.019	5
13	MP4A	X	6.004	2
14	MP4A	Z	3.466	2
15	MP4A	Mx	-.003	2
16	MP4A	X	7.401	5.5
17	MP4A	Z	4.273	5.5
18	MP4A	Mx	-.004	5.5
19	MP4A	X	7.401	7.5
20	MP4A	Z	4.273	7.5
21	MP4A	Mx	-.004	7.5
22	MP2A	X	8.45	1
23	MP2A	Z	4.879	1
24	MP2A	Mx	.004	1
25	MP4A	X	7.999	1
26	MP4A	Z	4.618	1
27	MP4A	Mx	.004	1
28	MP1A	X	17.628	2
29	MP1A	Z	10.178	2
30	MP1A	Mx	-.009	2
31	MP1A	X	17.628	6
32	MP1A	Z	10.178	6
33	MP1A	Mx	-.009	6
34	MP5A	X	17.628	2
35	MP5A	Z	10.178	2
36	MP5A	Mx	-.009	2
37	MP5A	X	17.628	6
38	MP5A	Z	10.178	6
39	MP5A	Mx	-.009	6
40	MP2A	X	2.539	7.5
41	MP2A	Z	1.466	7.5
42	MP2A	Mx	.002	7.5
43	MP2A	X	2.539	8.5
44	MP2A	Z	1.466	8.5
45	MP2A	Mx	.002	8.5
46	MP2A	X	2.539	7.5
47	MP2A	Z	1.466	7.5
48	MP2A	Mx	.003	7.5
49	MP2A	X	2.539	8.5
50	MP2A	Z	1.466	8.5
51	MP2A	Mx	.003	8.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP3A	X	14.296	.5
2	MP3A	Z	24.761	.5
3	MP3A	Mx	.009	.5
4	MP3A	X	14.296	5
5	MP3A	Z	24.761	5
6	MP3A	Mx	.009	5
7	MP3A	X	14.296	.5
8	MP3A	Z	24.761	.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
9	MP3A	Mx	-.024	.5
10	MP3A	X	14.296	5
11	MP3A	Z	24.761	5
12	MP3A	Mx	-.024	5
13	MP4A	X	4.687	2
14	MP4A	Z	8.118	2
15	MP4A	Mx	-.002	2
16	MP4A	X	6.429	5.5
17	MP4A	Z	11.136	5.5
18	MP4A	Mx	-.003	5.5
19	MP4A	X	6.429	7.5
20	MP4A	Z	11.136	7.5
21	MP4A	Mx	-.003	7.5
22	MP2A	X	5.842	1
23	MP2A	Z	10.118	1
24	MP2A	Mx	.003	1
25	MP4A	X	5.755	1
26	MP4A	Z	9.968	1
27	MP4A	Mx	.003	1
28	MP1A	X	10.782	2
29	MP1A	Z	18.675	2
30	MP1A	Mx	-.005	2
31	MP1A	X	10.782	6
32	MP1A	Z	18.675	6
33	MP1A	Mx	-.005	6
34	MP5A	X	10.782	2
35	MP5A	Z	18.675	2
36	MP5A	Mx	-.005	2
37	MP5A	X	10.782	6
38	MP5A	Z	18.675	6
39	MP5A	Mx	-.005	6
40	MP2A	X	.924	7.5
41	MP2A	Z	1.6	7.5
42	MP2A	Mx	.000103	7.5
43	MP2A	X	.924	8.5
44	MP2A	Z	1.6	8.5
45	MP2A	Mx	.000103	8.5
46	MP2A	X	.924	7.5
47	MP2A	Z	1.6	7.5
48	MP2A	Mx	.001	7.5
49	MP2A	X	.924	8.5
50	MP2A	Z	1.6	8.5
51	MP2A	Mx	.001	8.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	0	.5
2	MP3A	Z	30.446	.5
3	MP3A	Mx	.02	.5
4	MP3A	X	0	5
5	MP3A	Z	30.446	5
6	MP3A	Mx	.02	5
7	MP3A	X	0	5
8	MP3A	Z	30.446	.5
9	MP3A	Mx	-.02	.5
10	MP3A	X	0	5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
11	MP3A	Z	30.446	5
12	MP3A	Mx	-.02	5
13	MP4A	X	0	2
14	MP4A	Z	10.594	2
15	MP4A	Mx	0	2
16	MP4A	X	0	5.5
17	MP4A	Z	15.015	5.5
18	MP4A	Mx	0	5.5
19	MP4A	X	0	7.5
20	MP4A	Z	15.015	7.5
21	MP4A	Mx	0	7.5
22	MP2A	X	0	1
23	MP2A	Z	12.647	1
24	MP2A	Mx	0	1
25	MP4A	X	0	1
26	MP4A	Z	12.647	1
27	MP4A	Mx	0	1
28	MP1A	X	0	2
29	MP1A	Z	22.168	2
30	MP1A	Mx	0	2
31	MP1A	X	0	6
32	MP1A	Z	22.168	6
33	MP1A	Mx	0	6
34	MP5A	X	0	2
35	MP5A	Z	22.168	2
36	MP5A	Mx	0	2
37	MP5A	X	0	6
38	MP5A	Z	22.168	6
39	MP5A	Mx	0	6
40	MP2A	X	0	7.5
41	MP2A	Z	1.306	7.5
42	MP2A	Mx	-.000544	7.5
43	MP2A	X	0	8.5
44	MP2A	Z	1.306	8.5
45	MP2A	Mx	-.000544	8.5
46	MP2A	X	0	7.5
47	MP2A	Z	1.306	7.5
48	MP2A	Mx	.000544	7.5
49	MP2A	X	0	8.5
50	MP2A	Z	1.306	8.5
51	MP2A	Mx	.000544	8.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	-14.296	.5
2	MP3A	Z	24.761	.5
3	MP3A	Mx	.024	.5
4	MP3A	X	-14.296	5
5	MP3A	Z	24.761	5
6	MP3A	Mx	.024	5
7	MP3A	X	-14.296	.5
8	MP3A	Z	24.761	.5
9	MP3A	Mx	-.009	.5
10	MP3A	X	-14.296	5
11	MP3A	Z	24.761	5
12	MP3A	Mx	-.009	5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
13	MP4A	X	-4.687	2
14	MP4A	Z	8.118	2
15	MP4A	Mx	.002	2
16	MP4A	X	-6.429	5.5
17	MP4A	Z	11.136	5.5
18	MP4A	Mx	.003	5.5
19	MP4A	X	-6.429	7.5
20	MP4A	Z	11.136	7.5
21	MP4A	Mx	.003	7.5
22	MP2A	X	-5.842	1
23	MP2A	Z	10.118	1
24	MP2A	Mx	-.003	1
25	MP4A	X	-5.755	1
26	MP4A	Z	9.968	1
27	MP4A	Mx	-.003	1
28	MP1A	X	-10.782	2
29	MP1A	Z	18.675	2
30	MP1A	Mx	.005	2
31	MP1A	X	-10.782	6
32	MP1A	Z	18.675	6
33	MP1A	Mx	.005	6
34	MP5A	X	-10.782	2
35	MP5A	Z	18.675	2
36	MP5A	Mx	.005	2
37	MP5A	X	-10.782	6
38	MP5A	Z	18.675	6
39	MP5A	Mx	.005	6
40	MP2A	X	-.924	7.5
41	MP2A	Z	1.6	7.5
42	MP2A	Mx	-.001	7.5
43	MP2A	X	-.924	8.5
44	MP2A	Z	1.6	8.5
45	MP2A	Mx	-.001	8.5
46	MP2A	X	-.924	7.5
47	MP2A	Z	1.6	7.5
48	MP2A	Mx	-.000103	7.5
49	MP2A	X	-.924	8.5
50	MP2A	Z	1.6	8.5
51	MP2A	Mx	-.000103	8.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	-21.549	.5
2	MP3A	Z	12.441	.5
3	MP3A	Mx	.019	.5
4	MP3A	X	-21.549	5
5	MP3A	Z	12.441	5
6	MP3A	Mx	.019	5
7	MP3A	X	-21.549	.5
8	MP3A	Z	12.441	.5
9	MP3A	Mx	.002	.5
10	MP3A	X	-21.549	5
11	MP3A	Z	12.441	5
12	MP3A	Mx	.002	5
13	MP4A	X	-6.004	2
14	MP4A	Z	3.466	2



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
15	MP4A	Mx	.003	2
16	MP4A	X	-7.401	5.5
17	MP4A	Z	4.273	5.5
18	MP4A	Mx	.004	5.5
19	MP4A	X	-7.401	7.5
20	MP4A	Z	4.273	7.5
21	MP4A	Mx	.004	7.5
22	MP2A	X	-8.45	1
23	MP2A	Z	4.879	1
24	MP2A	Mx	-.004	1
25	MP4A	X	-7.999	1
26	MP4A	Z	4.618	1
27	MP4A	Mx	-.004	1
28	MP1A	X	-17.628	2
29	MP1A	Z	10.178	2
30	MP1A	Mx	.009	2
31	MP1A	X	-17.628	6
32	MP1A	Z	10.178	6
33	MP1A	Mx	.009	6
34	MP5A	X	-17.628	2
35	MP5A	Z	10.178	2
36	MP5A	Mx	.009	2
37	MP5A	X	-17.628	6
38	MP5A	Z	10.178	6
39	MP5A	Mx	.009	6
40	MP2A	X	-2.539	7.5
41	MP2A	Z	1.466	7.5
42	MP2A	Mx	-.003	7.5
43	MP2A	X	-2.539	8.5
44	MP2A	Z	1.466	8.5
45	MP2A	Mx	-.003	8.5
46	MP2A	X	-2.539	7.5
47	MP2A	Z	1.466	7.5
48	MP2A	Mx	-.002	7.5
49	MP2A	X	-2.539	8.5
50	MP2A	Z	1.466	8.5
51	MP2A	Mx	-.002	8.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP3A	X	-23.028	.5
2	MP3A	Z	0	.5
3	MP3A	Mx	.012	.5
4	MP3A	X	-23.028	5
5	MP3A	Z	0	5
6	MP3A	Mx	.012	5
7	MP3A	X	-23.028	.5
8	MP3A	Z	0	.5
9	MP3A	Mx	.012	.5
10	MP3A	X	-23.028	5
11	MP3A	Z	0	5
12	MP3A	Mx	.012	5
13	MP4A	X	-5.712	2
14	MP4A	Z	0	2
15	MP4A	Mx	.003	2
16	MP4A	X	-6.39	5.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
17	MP4A	Z	0	5.5
18	MP4A	Mx	.003	5.5
19	MP4A	X	-6.39	7.5
20	MP4A	Z	0	7.5
21	MP4A	Mx	.003	7.5
22	MP2A	X	-8.794	1
23	MP2A	Z	0	1
24	MP2A	Mx	-.004	1
25	MP4A	X	-8.1	1
26	MP4A	Z	0	1
27	MP4A	Mx	-.004	1
28	MP1A	X	-19.751	2
29	MP1A	Z	0	2
30	MP1A	Mx	.01	2
31	MP1A	X	-19.751	6
32	MP1A	Z	0	6
33	MP1A	Mx	.01	6
34	MP5A	X	-19.751	2
35	MP5A	Z	0	2
36	MP5A	Mx	.01	2
37	MP5A	X	-19.751	6
38	MP5A	Z	0	6
39	MP5A	Mx	.01	6
40	MP2A	X	-3.474	7.5
41	MP2A	Z	0	7.5
42	MP2A	Mx	-.003	7.5
43	MP2A	X	-3.474	8.5
44	MP2A	Z	0	8.5
45	MP2A	Mx	-.003	8.5
46	MP2A	X	-3.474	7.5
47	MP2A	Z	0	7.5
48	MP2A	Mx	-.003	7.5
49	MP2A	X	-3.474	8.5
50	MP2A	Z	0	8.5
51	MP2A	Mx	-.003	8.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	-21.549	.5
2	MP3A	Z	-12.441	.5
3	MP3A	Mx	.002	.5
4	MP3A	X	-21.549	.5
5	MP3A	Z	-12.441	.5
6	MP3A	Mx	.002	.5
7	MP3A	X	-21.549	.5
8	MP3A	Z	-12.441	.5
9	MP3A	Mx	.019	.5
10	MP3A	X	-21.549	.5
11	MP3A	Z	-12.441	.5
12	MP3A	Mx	.019	.5
13	MP4A	X	-6.004	2
14	MP4A	Z	-3.466	2
15	MP4A	Mx	.003	2
16	MP4A	X	-7.401	5.5
17	MP4A	Z	-4.273	5.5
18	MP4A	Mx	.004	5.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
19	MP4A	X	-7.401	7.5
20	MP4A	Z	-4.273	7.5
21	MP4A	Mx	.004	7.5
22	MP2A	X	-8.45	1
23	MP2A	Z	-4.879	1
24	MP2A	Mx	-.004	1
25	MP4A	X	-7.999	1
26	MP4A	Z	-4.618	1
27	MP4A	Mx	-.004	1
28	MP1A	X	-17.628	2
29	MP1A	Z	-10.178	2
30	MP1A	Mx	.009	2
31	MP1A	X	-17.628	6
32	MP1A	Z	-10.178	6
33	MP1A	Mx	.009	6
34	MP5A	X	-17.628	2
35	MP5A	Z	-10.178	2
36	MP5A	Mx	.009	2
37	MP5A	X	-17.628	6
38	MP5A	Z	-10.178	6
39	MP5A	Mx	.009	6
40	MP2A	X	-2.539	7.5
41	MP2A	Z	-1.466	7.5
42	MP2A	Mx	-.002	7.5
43	MP2A	X	-2.539	8.5
44	MP2A	Z	-1.466	8.5
45	MP2A	Mx	-.002	8.5
46	MP2A	X	-2.539	7.5
47	MP2A	Z	-1.466	7.5
48	MP2A	Mx	-.003	7.5
49	MP2A	X	-2.539	8.5
50	MP2A	Z	-1.466	8.5
51	MP2A	Mx	-.003	8.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	-14.296	.5
2	MP3A	Z	-24.761	.5
3	MP3A	Mx	-.009	.5
4	MP3A	X	-14.296	5
5	MP3A	Z	-24.761	5
6	MP3A	Mx	-.009	5
7	MP3A	X	-14.296	.5
8	MP3A	Z	-24.761	.5
9	MP3A	Mx	.024	.5
10	MP3A	X	-14.296	5
11	MP3A	Z	-24.761	5
12	MP3A	Mx	.024	5
13	MP4A	X	-4.687	2
14	MP4A	Z	-8.118	2
15	MP4A	Mx	.002	2
16	MP4A	X	-6.429	5.5
17	MP4A	Z	-11.136	5.5
18	MP4A	Mx	.003	5.5
19	MP4A	X	-6.429	7.5
20	MP4A	Z	-11.136	7.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
21	MP4A	Mx	.003	7.5
22	MP2A	X	-5.842	1
23	MP2A	Z	-10.118	1
24	MP2A	Mx	-.003	1
25	MP4A	X	-5.755	1
26	MP4A	Z	-9.968	1
27	MP4A	Mx	-.003	1
28	MP1A	X	-10.782	2
29	MP1A	Z	-18.675	2
30	MP1A	Mx	.005	2
31	MP1A	X	-10.782	6
32	MP1A	Z	-18.675	6
33	MP1A	Mx	.005	6
34	MP5A	X	-10.782	2
35	MP5A	Z	-18.675	2
36	MP5A	Mx	.005	2
37	MP5A	X	-10.782	6
38	MP5A	Z	-18.675	6
39	MP5A	Mx	.005	6
40	MP2A	X	-.924	7.5
41	MP2A	Z	-1.6	7.5
42	MP2A	Mx	-.000103	7.5
43	MP2A	X	-.924	8.5
44	MP2A	Z	-1.6	8.5
45	MP2A	Mx	-.000103	8.5
46	MP2A	X	-.924	7.5
47	MP2A	Z	-1.6	7.5
48	MP2A	Mx	-.001	7.5
49	MP2A	X	-.924	8.5
50	MP2A	Z	-1.6	8.5
51	MP2A	Mx	-.001	8.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	0	.5
2	MP3A	Z	-4.821	.5
3	MP3A	Mx	-.003	.5
4	MP3A	X	0	5
5	MP3A	Z	-4.821	5
6	MP3A	Mx	-.003	5
7	MP3A	X	0	.5
8	MP3A	Z	-4.821	.5
9	MP3A	Mx	.003	.5
10	MP3A	X	0	5
11	MP3A	Z	-4.821	5
12	MP3A	Mx	.003	5
13	MP4A	X	0	2
14	MP4A	Z	-3.119	2
15	MP4A	Mx	0	2
16	MP4A	X	0	5.5
17	MP4A	Z	-3.996	5.5
18	MP4A	Mx	0	5.5
19	MP4A	X	0	7.5
20	MP4A	Z	-3.996	7.5
21	MP4A	Mx	0	7.5
22	MP2A	X	0	1



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
23	MP2A	Z	-3.16	1
24	MP2A	Mx	0	1
25	MP4A	X	0	1
26	MP4A	Z	-3.16	1
27	MP4A	Mx	0	1
28	MP1A	X	0	2
29	MP1A	Z	-7.186	2
30	MP1A	Mx	0	2
31	MP1A	X	0	6
32	MP1A	Z	-7.186	6
33	MP1A	Mx	0	6
34	MP5A	X	0	2
35	MP5A	Z	-7.186	2
36	MP5A	Mx	0	2
37	MP5A	X	0	6
38	MP5A	Z	-7.186	6
39	MP5A	Mx	0	6
40	MP2A	X	0	7.5
41	MP2A	Z	-.979	7.5
42	MP2A	Mx	.000408	7.5
43	MP2A	X	0	8.5
44	MP2A	Z	-.979	8.5
45	MP2A	Mx	.000408	8.5
46	MP2A	X	0	7.5
47	MP2A	Z	-.979	7.5
48	MP2A	Mx	-.000408	7.5
49	MP2A	X	0	8.5
50	MP2A	Z	-.979	8.5
51	MP2A	Mx	-.000408	8.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP3A	X	2.259	.5
2	MP3A	Z	-3.913	.5
3	MP3A	Mx	-.004	.5
4	MP3A	X	2.259	5
5	MP3A	Z	-3.913	5
6	MP3A	Mx	-.004	5
7	MP3A	X	2.259	.5
8	MP3A	Z	-3.913	.5
9	MP3A	Mx	.001	.5
10	MP3A	X	2.259	5
11	MP3A	Z	-3.913	5
12	MP3A	Mx	.001	5
13	MP4A	X	1.362	2
14	MP4A	Z	-2.359	2
15	MP4A	Mx	-.000681	2
16	MP4A	X	1.67	5.5
17	MP4A	Z	-2.893	5.5
18	MP4A	Mx	-.000835	5.5
19	MP4A	X	1.67	7.5
20	MP4A	Z	-2.893	7.5
21	MP4A	Mx	-.000835	7.5
22	MP2A	X	1.45	1
23	MP2A	Z	-2.511	1
24	MP2A	Mx	.000725	1



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
25	MP4A	X	1.424	1
26	MP4A	Z	-2.467	1
27	MP4A	Mx	.000712	1
28	MP1A	X	3.479	2
29	MP1A	Z	-6.026	2
30	MP1A	Mx	-.002	2
31	MP1A	X	3.479	6
32	MP1A	Z	-6.026	6
33	MP1A	Mx	-.002	6
34	MP5A	X	3.479	2
35	MP5A	Z	-6.026	2
36	MP5A	Mx	-.002	2
37	MP5A	X	3.479	6
38	MP5A	Z	-6.026	6
39	MP5A	Mx	-.002	6
40	MP2A	X	.49	7.5
41	MP2A	Z	-.848	7.5
42	MP2A	Mx	.000762	7.5
43	MP2A	X	.49	8.5
44	MP2A	Z	-.848	8.5
45	MP2A	Mx	.000762	8.5
46	MP2A	X	.49	7.5
47	MP2A	Z	-.848	7.5
48	MP2A	Mx	5.5e-5	7.5
49	MP2A	X	.49	8.5
50	MP2A	Z	-.848	8.5
51	MP2A	Mx	5.5e-5	8.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	3.387	.5
2	MP3A	Z	-1.956	.5
3	MP3A	Mx	-.003	.5
4	MP3A	X	3.387	5
5	MP3A	Z	-1.956	5
6	MP3A	Mx	-.003	5
7	MP3A	X	3.387	.5
8	MP3A	Z	-1.956	.5
9	MP3A	Mx	-.00039	.5
10	MP3A	X	3.387	5
11	MP3A	Z	-1.956	5
12	MP3A	Mx	-.00039	5
13	MP4A	X	1.675	2
14	MP4A	Z	-.967	2
15	MP4A	Mx	-.000838	2
16	MP4A	X	1.759	5.5
17	MP4A	Z	-1.015	5.5
18	MP4A	Mx	-.000879	5.5
19	MP4A	X	1.759	7.5
20	MP4A	Z	-1.015	7.5
21	MP4A	Mx	-.000879	7.5
22	MP2A	X	2.061	1
23	MP2A	Z	-1.19	1
24	MP2A	Mx	.001	1
25	MP4A	X	1.929	1
26	MP4A	Z	-1.114	1



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
27	MP4A	Mx	.000964	1
28	MP1A	X	5.633	2
29	MP1A	Z	-3.252	2
30	MP1A	Mx	-.003	2
31	MP1A	X	5.633	6
32	MP1A	Z	-3.252	6
33	MP1A	Mx	-.003	6
34	MP5A	X	5.633	2
35	MP5A	Z	-3.252	2
36	MP5A	Mx	-.003	2
37	MP5A	X	5.633	6
38	MP5A	Z	-3.252	6
39	MP5A	Mx	-.003	6
40	MP2A	X	.849	7.5
41	MP2A	Z	-.49	7.5
42	MP2A	Mx	.000912	7.5
43	MP2A	X	.849	8.5
44	MP2A	Z	-.49	8.5
45	MP2A	Mx	.000912	8.5
46	MP2A	X	.849	7.5
47	MP2A	Z	-.49	7.5
48	MP2A	Mx	.000503	7.5
49	MP2A	X	.849	8.5
50	MP2A	Z	-.49	8.5
51	MP2A	Mx	.000503	8.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP3A	X	3.608	.5
2	MP3A	Z	0	.5
3	MP3A	Mx	-.002	.5
4	MP3A	X	3.608	5
5	MP3A	Z	0	5
6	MP3A	Mx	-.002	5
7	MP3A	X	3.608	.5
8	MP3A	Z	0	.5
9	MP3A	Mx	-.002	.5
10	MP3A	X	3.608	5
11	MP3A	Z	0	5
12	MP3A	Mx	-.002	5
13	MP4A	X	1.539	2
14	MP4A	Z	0	2
15	MP4A	Mx	-.00077	2
16	MP4A	X	1.376	5.5
17	MP4A	Z	0	5.5
18	MP4A	Mx	-.000688	5.5
19	MP4A	X	1.376	7.5
20	MP4A	Z	0	7.5
21	MP4A	Mx	-.000688	7.5
22	MP2A	X	2.12	1
23	MP2A	Z	0	1
24	MP2A	Mx	.001	1
25	MP4A	X	1.916	1
26	MP4A	Z	0	1
27	MP4A	Mx	.000958	1
28	MP1A	X	6.277	2



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
29	MP1A	Z	0	2
30	MP1A	Mx	-.003	2
31	MP1A	X	6.277	6
32	MP1A	Z	0	6
33	MP1A	Mx	-.003	6
34	MP5A	X	6.277	2
35	MP5A	Z	0	2
36	MP5A	Mx	-.003	2
37	MP5A	X	6.277	6
38	MP5A	Z	0	6
39	MP5A	Mx	-.003	6
40	MP2A	X	.981	7.5
41	MP2A	Z	0	7.5
42	MP2A	Mx	.000818	7.5
43	MP2A	X	.981	8.5
44	MP2A	Z	0	8.5
45	MP2A	Mx	.000818	8.5
46	MP2A	X	.981	7.5
47	MP2A	Z	0	7.5
48	MP2A	Mx	.000818	7.5
49	MP2A	X	.981	8.5
50	MP2A	Z	0	8.5
51	MP2A	Mx	.000818	8.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	3.387	.5
2	MP3A	Z	1.956	.5
3	MP3A	Mx	-.00039	.5
4	MP3A	X	3.387	5
5	MP3A	Z	1.956	5
6	MP3A	Mx	-.00039	5
7	MP3A	X	3.387	.5
8	MP3A	Z	1.956	.5
9	MP3A	Mx	-.003	.5
10	MP3A	X	3.387	5
11	MP3A	Z	1.956	5
12	MP3A	Mx	-.003	5
13	MP4A	X	1.675	2
14	MP4A	Z	.967	2
15	MP4A	Mx	-.000838	2
16	MP4A	X	1.759	5.5
17	MP4A	Z	1.015	5.5
18	MP4A	Mx	-.000879	5.5
19	MP4A	X	1.759	7.5
20	MP4A	Z	1.015	7.5
21	MP4A	Mx	-.000879	7.5
22	MP2A	X	2.061	1
23	MP2A	Z	1.19	1
24	MP2A	Mx	.001	1
25	MP4A	X	1.929	1
26	MP4A	Z	1.114	1
27	MP4A	Mx	.000964	1
28	MP1A	X	5.633	2
29	MP1A	Z	3.252	2
30	MP1A	Mx	-.003	2



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
31	MP1A	X	5.633	6
32	MP1A	Z	3.252	6
33	MP1A	Mx	-.003	6
34	MP5A	X	5.633	2
35	MP5A	Z	3.252	2
36	MP5A	Mx	-.003	2
37	MP5A	X	5.633	6
38	MP5A	Z	3.252	6
39	MP5A	Mx	-.003	6
40	MP2A	X	.849	7.5
41	MP2A	Z	.49	7.5
42	MP2A	Mx	.000503	7.5
43	MP2A	X	.849	8.5
44	MP2A	Z	.49	8.5
45	MP2A	Mx	.000503	8.5
46	MP2A	X	.849	7.5
47	MP2A	Z	.49	7.5
48	MP2A	Mx	.000912	7.5
49	MP2A	X	.849	8.5
50	MP2A	Z	.49	8.5
51	MP2A	Mx	.000912	8.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP3A	X	2.259	.5
2	MP3A	Z	3.913	.5
3	MP3A	Mx	.001	.5
4	MP3A	X	2.259	5
5	MP3A	Z	3.913	5
6	MP3A	Mx	.001	5
7	MP3A	X	2.259	.5
8	MP3A	Z	3.913	.5
9	MP3A	Mx	-.004	.5
10	MP3A	X	2.259	5
11	MP3A	Z	3.913	5
12	MP3A	Mx	-.004	5
13	MP4A	X	1.362	2
14	MP4A	Z	2.359	2
15	MP4A	Mx	-.000681	2
16	MP4A	X	1.67	5.5
17	MP4A	Z	2.893	5.5
18	MP4A	Mx	-.000835	5.5
19	MP4A	X	1.67	7.5
20	MP4A	Z	2.893	7.5
21	MP4A	Mx	-.000835	7.5
22	MP2A	X	1.45	1
23	MP2A	Z	2.511	1
24	MP2A	Mx	.000725	1
25	MP4A	X	1.424	1
26	MP4A	Z	2.467	1
27	MP4A	Mx	.000712	1
28	MP1A	X	3.479	2
29	MP1A	Z	6.026	2
30	MP1A	Mx	-.002	2
31	MP1A	X	3.479	6
32	MP1A	Z	6.026	6



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
33	MP1A	Mx	-.002	6
34	MP5A	X	3.479	2
35	MP5A	Z	6.026	2
36	MP5A	Mx	-.002	2
37	MP5A	X	3.479	6
38	MP5A	Z	6.026	6
39	MP5A	Mx	-.002	6
40	MP2A	X	.49	7.5
41	MP2A	Z	.848	7.5
42	MP2A	Mx	5.5e-5	7.5
43	MP2A	X	.49	8.5
44	MP2A	Z	.848	8.5
45	MP2A	Mx	5.5e-5	8.5
46	MP2A	X	.49	7.5
47	MP2A	Z	.848	7.5
48	MP2A	Mx	.000762	7.5
49	MP2A	X	.49	8.5
50	MP2A	Z	.848	8.5
51	MP2A	Mx	.000762	8.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	0	.5
2	MP3A	Z	4.821	.5
3	MP3A	Mx	.003	.5
4	MP3A	X	0	5
5	MP3A	Z	4.821	5
6	MP3A	Mx	.003	5
7	MP3A	X	0	.5
8	MP3A	Z	4.821	.5
9	MP3A	Mx	-.003	.5
10	MP3A	X	0	5
11	MP3A	Z	4.821	5
12	MP3A	Mx	-.003	5
13	MP4A	X	0	2
14	MP4A	Z	3.119	2
15	MP4A	Mx	0	2
16	MP4A	X	0	5.5
17	MP4A	Z	3.996	5.5
18	MP4A	Mx	0	5.5
19	MP4A	X	0	7.5
20	MP4A	Z	3.996	7.5
21	MP4A	Mx	0	7.5
22	MP2A	X	0	1
23	MP2A	Z	3.16	1
24	MP2A	Mx	0	1
25	MP4A	X	0	1
26	MP4A	Z	3.16	1
27	MP4A	Mx	0	1
28	MP1A	X	0	2
29	MP1A	Z	7.186	2
30	MP1A	Mx	0	2
31	MP1A	X	0	6
32	MP1A	Z	7.186	6
33	MP1A	Mx	0	6
34	MP5A	X	0	2



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
35	MP5A	Z	7.186	2
36	MP5A	Mx	0	2
37	MP5A	X	0	6
38	MP5A	Z	7.186	6
39	MP5A	Mx	0	6
40	MP2A	X	0	7.5
41	MP2A	Z	.979	7.5
42	MP2A	Mx	-.000408	7.5
43	MP2A	X	0	8.5
44	MP2A	Z	.979	8.5
45	MP2A	Mx	-.000408	8.5
46	MP2A	X	0	7.5
47	MP2A	Z	.979	7.5
48	MP2A	Mx	.000408	7.5
49	MP2A	X	0	8.5
50	MP2A	Z	.979	8.5
51	MP2A	Mx	.000408	8.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP3A	X	-2.259	.5
2	MP3A	Z	3.913	.5
3	MP3A	Mx	.004	.5
4	MP3A	X	-2.259	5
5	MP3A	Z	3.913	5
6	MP3A	Mx	.004	5
7	MP3A	X	-2.259	.5
8	MP3A	Z	3.913	.5
9	MP3A	Mx	-.001	.5
10	MP3A	X	-2.259	5
11	MP3A	Z	3.913	5
12	MP3A	Mx	-.001	5
13	MP4A	X	-1.362	2
14	MP4A	Z	2.359	2
15	MP4A	Mx	.000681	2
16	MP4A	X	-1.67	5.5
17	MP4A	Z	2.893	5.5
18	MP4A	Mx	.000835	5.5
19	MP4A	X	-1.67	7.5
20	MP4A	Z	2.893	7.5
21	MP4A	Mx	.000835	7.5
22	MP2A	X	-1.45	1
23	MP2A	Z	2.511	1
24	MP2A	Mx	-.000725	1
25	MP4A	X	-1.424	1
26	MP4A	Z	2.467	1
27	MP4A	Mx	-.000712	1
28	MP1A	X	-3.479	2
29	MP1A	Z	6.026	2
30	MP1A	Mx	.002	2
31	MP1A	X	-3.479	6
32	MP1A	Z	6.026	6
33	MP1A	Mx	.002	6
34	MP5A	X	-3.479	2
35	MP5A	Z	6.026	2
36	MP5A	Mx	.002	2



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
37	MP5A	X	-3.479	6
38	MP5A	Z	6.026	6
39	MP5A	Mx	.002	6
40	MP2A	X	-.49	7.5
41	MP2A	Z	.848	7.5
42	MP2A	Mx	-.000762	7.5
43	MP2A	X	-.49	8.5
44	MP2A	Z	.848	8.5
45	MP2A	Mx	-.000762	8.5
46	MP2A	X	-.49	7.5
47	MP2A	Z	.848	7.5
48	MP2A	Mx	-5.5e-5	7.5
49	MP2A	X	-.49	8.5
50	MP2A	Z	.848	8.5
51	MP2A	Mx	-5.5e-5	8.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP3A	X	-3.387	.5
2	MP3A	Z	1.956	.5
3	MP3A	Mx	.003	.5
4	MP3A	X	-3.387	5
5	MP3A	Z	1.956	5
6	MP3A	Mx	.003	5
7	MP3A	X	-3.387	.5
8	MP3A	Z	1.956	.5
9	MP3A	Mx	.00039	.5
10	MP3A	X	-3.387	5
11	MP3A	Z	1.956	5
12	MP3A	Mx	.00039	5
13	MP4A	X	-1.675	2
14	MP4A	Z	.967	2
15	MP4A	Mx	.000838	2
16	MP4A	X	-1.759	5.5
17	MP4A	Z	1.015	5.5
18	MP4A	Mx	.000879	5.5
19	MP4A	X	-1.759	7.5
20	MP4A	Z	1.015	7.5
21	MP4A	Mx	.000879	7.5
22	MP2A	X	-2.061	1
23	MP2A	Z	1.19	1
24	MP2A	Mx	-.001	1
25	MP4A	X	-1.929	1
26	MP4A	Z	1.114	1
27	MP4A	Mx	-.000964	1
28	MP1A	X	-5.633	2
29	MP1A	Z	3.252	2
30	MP1A	Mx	.003	2
31	MP1A	X	-5.633	6
32	MP1A	Z	3.252	6
33	MP1A	Mx	.003	6
34	MP5A	X	-5.633	2
35	MP5A	Z	3.252	2
36	MP5A	Mx	.003	2
37	MP5A	X	-5.633	6
38	MP5A	Z	3.252	6



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
39	MP5A	Mx	.003	6
40	MP2A	X	-.849	7.5
41	MP2A	Z	.49	7.5
42	MP2A	Mx	-.000912	7.5
43	MP2A	X	-.849	8.5
44	MP2A	Z	.49	8.5
45	MP2A	Mx	-.000912	8.5
46	MP2A	X	-.849	7.5
47	MP2A	Z	.49	7.5
48	MP2A	Mx	-.000503	7.5
49	MP2A	X	-.849	8.5
50	MP2A	Z	.49	8.5
51	MP2A	Mx	-.000503	8.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	-3.608	.5
2	MP3A	Z	0	.5
3	MP3A	Mx	.002	.5
4	MP3A	X	-3.608	5
5	MP3A	Z	0	5
6	MP3A	Mx	.002	5
7	MP3A	X	-3.608	.5
8	MP3A	Z	0	.5
9	MP3A	Mx	.002	.5
10	MP3A	X	-3.608	5
11	MP3A	Z	0	5
12	MP3A	Mx	.002	5
13	MP4A	X	-1.539	2
14	MP4A	Z	0	2
15	MP4A	Mx	.00077	2
16	MP4A	X	-1.376	5.5
17	MP4A	Z	0	5.5
18	MP4A	Mx	.000688	5.5
19	MP4A	X	-1.376	7.5
20	MP4A	Z	0	7.5
21	MP4A	Mx	.000688	7.5
22	MP2A	X	-2.12	1
23	MP2A	Z	0	1
24	MP2A	Mx	-.001	1
25	MP4A	X	-1.916	1
26	MP4A	Z	0	1
27	MP4A	Mx	-.000958	1
28	MP1A	X	-6.277	2
29	MP1A	Z	0	2
30	MP1A	Mx	.003	2
31	MP1A	X	-6.277	6
32	MP1A	Z	0	6
33	MP1A	Mx	.003	6
34	MP5A	X	-6.277	2
35	MP5A	Z	0	2
36	MP5A	Mx	.003	2
37	MP5A	X	-6.277	6
38	MP5A	Z	0	6
39	MP5A	Mx	.003	6
40	MP2A	X	-.981	7.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
41	MP2A	Z	0	7.5
42	MP2A	Mx	-.000818	7.5
43	MP2A	X	-.981	8.5
44	MP2A	Z	0	8.5
45	MP2A	Mx	-.000818	8.5
46	MP2A	X	-.981	7.5
47	MP2A	Z	0	7.5
48	MP2A	Mx	-.000818	7.5
49	MP2A	X	-.981	8.5
50	MP2A	Z	0	8.5
51	MP2A	Mx	-.000818	8.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP3A	X	-3.387	.5
2	MP3A	Z	-1.956	.5
3	MP3A	Mx	.00039	.5
4	MP3A	X	-3.387	5
5	MP3A	Z	-1.956	5
6	MP3A	Mx	.00039	5
7	MP3A	X	-3.387	.5
8	MP3A	Z	-1.956	.5
9	MP3A	Mx	.003	.5
10	MP3A	X	-3.387	5
11	MP3A	Z	-1.956	5
12	MP3A	Mx	.003	5
13	MP4A	X	-1.675	2
14	MP4A	Z	-.967	2
15	MP4A	Mx	.000838	2
16	MP4A	X	-1.759	5.5
17	MP4A	Z	-1.015	5.5
18	MP4A	Mx	.000879	5.5
19	MP4A	X	-1.759	7.5
20	MP4A	Z	-1.015	7.5
21	MP4A	Mx	.000879	7.5
22	MP2A	X	-2.061	1
23	MP2A	Z	-1.19	1
24	MP2A	Mx	-.001	1
25	MP4A	X	-1.929	1
26	MP4A	Z	-1.114	1
27	MP4A	Mx	-.000964	1
28	MP1A	X	-5.633	2
29	MP1A	Z	-3.252	2
30	MP1A	Mx	.003	2
31	MP1A	X	-5.633	6
32	MP1A	Z	-3.252	6
33	MP1A	Mx	.003	6
34	MP5A	X	-5.633	2
35	MP5A	Z	-3.252	2
36	MP5A	Mx	.003	2
37	MP5A	X	-5.633	6
38	MP5A	Z	-3.252	6
39	MP5A	Mx	.003	6
40	MP2A	X	-.849	7.5
41	MP2A	Z	-.49	7.5
42	MP2A	Mx	-.000503	7.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
43	MP2A	X	- .849	8.5
44	MP2A	Z	-.49	8.5
45	MP2A	Mx	-.000503	8.5
46	MP2A	X	-.849	7.5
47	MP2A	Z	-.49	7.5
48	MP2A	Mx	-.000912	7.5
49	MP2A	X	-.849	8.5
50	MP2A	Z	-.49	8.5
51	MP2A	Mx	-.000912	8.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP3A	X	-2.259	.5
2	MP3A	Z	-3.913	.5
3	MP3A	Mx	-.001	.5
4	MP3A	X	-2.259	5
5	MP3A	Z	-3.913	5
6	MP3A	Mx	-.001	5
7	MP3A	X	-2.259	.5
8	MP3A	Z	-3.913	.5
9	MP3A	Mx	.004	.5
10	MP3A	X	-2.259	5
11	MP3A	Z	-3.913	5
12	MP3A	Mx	.004	5
13	MP4A	X	-1.362	2
14	MP4A	Z	-2.359	2
15	MP4A	Mx	.000681	2
16	MP4A	X	-1.67	5.5
17	MP4A	Z	-2.893	5.5
18	MP4A	Mx	.000835	5.5
19	MP4A	X	-1.67	7.5
20	MP4A	Z	-2.893	7.5
21	MP4A	Mx	.000835	7.5
22	MP2A	X	-1.45	1
23	MP2A	Z	-2.511	1
24	MP2A	Mx	-.000725	1
25	MP4A	X	-1.424	1
26	MP4A	Z	-2.467	1
27	MP4A	Mx	-.000712	1
28	MP1A	X	-3.479	2
29	MP1A	Z	-6.026	2
30	MP1A	Mx	.002	2
31	MP1A	X	-3.479	6
32	MP1A	Z	-6.026	6
33	MP1A	Mx	.002	6
34	MP5A	X	-3.479	2
35	MP5A	Z	-6.026	2
36	MP5A	Mx	.002	2
37	MP5A	X	-3.479	6
38	MP5A	Z	-6.026	6
39	MP5A	Mx	.002	6
40	MP2A	X	-.49	7.5
41	MP2A	Z	-.848	7.5
42	MP2A	Mx	-5.5e-5	7.5
43	MP2A	X	-.49	8.5
44	MP2A	Z	-.848	8.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
45	MP2A	Mx	-5.5e-5	8.5
46	MP2A	X	-.49	7.5
47	MP2A	Z	-.848	7.5
48	MP2A	Mx	-.000762	7.5
49	MP2A	X	-.49	8.5
50	MP2A	Z	-.848	8.5
51	MP2A	Mx	-.000762	8.5

Member Point Loads (BLC 77 : Lm1)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	LIVE1	Y	-500	0

Member Point Loads (BLC 78 : Lm2)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	LIVE2	Y	-500	0

Member Point Loads (BLC 79 : Lv1)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	M1	Y	-250	0

Member Point Loads (BLC 80 : Lv2)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	M1	Y	-250	%50

Member Point Loads (BLC 81 : Antenna Ev)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP3A	Y	-.996	.5
2	MP3A	My	-.000498	.5
3	MP3A	Mz	.000664	.5
4	MP3A	Y	-.996	5
5	MP3A	Mv	-.000498	5
6	MP3A	Mz	.000664	5
7	MP3A	Y	-.996	.5
8	MP3A	My	-.000498	.5
9	MP3A	Mz	-.000664	.5
10	MP3A	Y	-.996	5
11	MP3A	Mv	-.000498	5
12	MP3A	Mz	-.000664	5
13	MP4A	Y	-1.005	2
14	MP4A	Mv	-.000502	2
15	MP4A	Mz	0	2
16	MP4A	Y	-1.886	5.5
17	MP4A	Mv	-.000943	5.5
18	MP4A	Mz	0	5.5
19	MP4A	Y	-1.886	7.5
20	MP4A	Mv	-.000943	7.5
21	MP4A	Mz	0	7.5
22	MP2A	Y	-3.235	1
23	MP2A	Mv	.002	1
24	MP2A	Mz	0	1
25	MP4A	Y	-3.044	1
26	MP4A	Mv	.002	1
27	MP4A	Mz	0	1
28	MP1A	Y	-.455	2



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
29	MP1A	Mv	-.000227	2
30	MP1A	Mz	0	2
31	MP1A	Y	-.455	6
32	MP1A	My	-.000227	6
33	MP1A	Mz	0	6
34	MP5A	Y	-.455	2
35	MP5A	Mv	-.000227	2
36	MP5A	Mz	0	2
37	MP5A	Y	-.455	6
38	MP5A	Mv	-.000227	6
39	MP5A	Mz	0	6
40	MP2A	Y	-.381	7.5
41	MP2A	Mv	.000318	7.5
42	MP2A	Mz	-.000159	7.5
43	MP2A	Y	-.381	8.5
44	MP2A	Mv	.000318	8.5
45	MP2A	Mz	-.000159	8.5
46	MP2A	Y	-.381	7.5
47	MP2A	Mv	.000318	7.5
48	MP2A	Mz	.000159	7.5
49	MP2A	Y	-.381	8.5
50	MP2A	Mv	.000318	8.5
51	MP2A	Mz	.000159	8.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP3A	Z	-2.49	.5
2	MP3A	Mx	-.002	.5
3	MP3A	Z	-2.49	5
4	MP3A	Mx	-.002	5
5	MP3A	Z	-2.49	.5
6	MP3A	Mx	.002	.5
7	MP3A	Z	-2.49	5
8	MP3A	Mx	.002	5
9	MP4A	Z	-2.512	2
10	MP4A	Mx	0	2
11	MP4A	Z	-4.715	5.5
12	MP4A	Mx	0	5.5
13	MP4A	Z	-4.715	7.5
14	MP4A	Mx	0	7.5
15	MP2A	Z	-8.088	1
16	MP2A	Mx	0	1
17	MP4A	Z	-7.611	1
18	MP4A	Mx	0	1
19	MP1A	Z	-1.137	2
20	MP1A	Mx	0	2
21	MP1A	Z	-1.137	6
22	MP1A	Mx	0	6
23	MP5A	Z	-1.137	2
24	MP5A	Mx	0	2
25	MP5A	Z	-1.137	6
26	MP5A	Mx	0	6
27	MP2A	Z	-.953	7.5
28	MP2A	Mx	.000397	7.5
29	MP2A	Z	-.953	8.5
30	MP2A	Mx	.000397	8.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
31	MP2A	Z	-.953	7.5
32	MP2A	Mx	-.000397	7.5
33	MP2A	Z	-.953	8.5
34	MP2A	Mx	-.000397	8.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	2.49	.5
2	MP3A	Mx	-.001	.5
3	MP3A	X	2.49	5
4	MP3A	Mx	-.001	5
5	MP3A	X	2.49	.5
6	MP3A	Mx	-.001	.5
7	MP3A	X	2.49	5
8	MP3A	Mx	-.001	5
9	MP4A	X	2.512	2
10	MP4A	Mx	-.001	2
11	MP4A	X	4.715	5.5
12	MP4A	Mx	-.002	5.5
13	MP4A	X	4.715	7.5
14	MP4A	Mx	-.002	7.5
15	MP2A	X	8.088	1
16	MP2A	Mx	.004	1
17	MP4A	X	7.611	1
18	MP4A	Mx	.004	1
19	MP1A	X	1.137	2
20	MP1A	Mx	-.000568	2
21	MP1A	X	1.137	6
22	MP1A	Mx	-.000568	6
23	MP5A	X	1.137	2
24	MP5A	Mx	-.000568	2
25	MP5A	X	1.137	6
26	MP5A	Mx	-.000568	6
27	MP2A	X	.953	7.5
28	MP2A	Mx	.000794	7.5
29	MP2A	X	.953	8.5
30	MP2A	Mx	.000794	8.5
31	MP2A	X	.953	7.5
32	MP2A	Mx	.000794	7.5
33	MP2A	X	.953	8.5
34	MP2A	Mx	.000794	8.5

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	-9.486	-9.486	0	%100
2	M2	Y	-9.486	-9.486	0	%100
3	M3	Y	-5.54	-5.54	0	%100
4	M4	Y	-5.54	-5.54	0	%100
5	M5	Y	-5.54	-5.54	0	%100
6	M6	Y	-5.54	-5.54	0	%100
7	RRU	Y	-7.872	-7.872	0	%100
8	M10	Y	-15.108	-15.108	0	%100
9	M11	Y	-15.108	-15.108	0	%100
10	MP5A	Y	-4.907	-4.907	0	%100
11	MP4A	Y	-4.907	-4.907	0	%100



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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
12	MP2A	Y	-4.907	-4.907	0	%100
13	MP1A	Y	-4.907	-4.907	0	%100
14	MP3A	Y	-4.907	-4.907	0	%100
15	M27	Y	-4.907	-4.907	0	%100
16	M28	Y	-4.907	-4.907	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	X	0	0	0	%100
2	M1	Z	-21.744	-21.744	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	-21.744	-21.744	0	%100
5	M3	X	0	0	0	%100
6	M3	Z	-10.872	-10.872	0	%100
7	M4	X	0	0	0	%100
8	M4	Z	-10.872	-10.872	0	%100
9	M5	X	0	0	0	%100
10	M5	Z	-10.872	-10.872	0	%100
11	M6	X	0	0	0	%100
12	M6	Z	-10.872	-10.872	0	%100
13	RRU	X	0	0	0	%100
14	RRU	Z	-12.071	-12.071	0	%100
15	M10	X	0	0	0	%100
16	M10	Z	0	0	0	%100
17	M11	X	0	0	0	%100
18	M11	Z	0	0	0	%100
19	MP5A	X	0	0	0	%100
20	MP5A	Z	-7.746	-7.746	0	%100
21	MP4A	X	0	0	0	%100
22	MP4A	Z	-7.746	-7.746	0	%100
23	MP2A	X	0	0	0	%100
24	MP2A	Z	-7.746	-7.746	0	%100
25	MP1A	X	0	0	0	%100
26	MP1A	Z	-7.746	-7.746	0	%100
27	MP3A	X	0	0	0	%100
28	MP3A	Z	-7.746	-7.746	0	%100
29	M27	X	0	0	0	%100
30	M27	Z	-0.954	-0.954	0	%100
31	M28	X	0	0	0	%100
32	M28	Z	-0.054	-0.054	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	X	8.154	8.154	0	%100
2	M1	Z	-14.123	-14.123	0	%100
3	M2	X	8.154	8.154	0	%100
4	M2	Z	-14.123	-14.123	0	%100
5	M3	X	5.064	5.064	0	%100
6	M3	Z	-8.77	-8.77	0	%100
7	M4	X	5.045	5.045	0	%100
8	M4	Z	-8.739	-8.739	0	%100
9	M5	X	5.045	5.045	0	%100
10	M5	Z	-8.739	-8.739	0	%100
11	M6	X	5.064	5.064	0	%100
12	M6	Z	-8.77	-8.77	0	%100
13	RRU	X	6.035	6.035	0	%100



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

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft.F...]	Start Location[ft.%]	End Location[ft.%]
14	RRU	Z	-10.454	-10.454	0	%100
15	M10	X	3.319	3.319	0	%100
16	M10	Z	-5.748	-5.748	0	%100
17	M11	X	3.319	3.319	0	%100
18	M11	Z	-5.748	-5.748	0	%100
19	MP5A	X	3.873	3.873	0	%100
20	MP5A	Z	-6.709	-6.709	0	%100
21	MP4A	X	3.873	3.873	0	%100
22	MP4A	Z	-6.709	-6.709	0	%100
23	MP2A	X	3.873	3.873	0	%100
24	MP2A	Z	-6.709	-6.709	0	%100
25	MP1A	X	3.873	3.873	0	%100
26	MP1A	Z	-6.709	-6.709	0	%100
27	MP3A	X	3.873	3.873	0	%100
28	MP3A	Z	-6.709	-6.709	0	%100
29	M27	X	.105	.105	0	%100
30	M27	Z	-.181	-.181	0	%100
31	M28	X	1.153	1.153	0	%100
32	M28	Z	-1.997	-1.997	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft.F...]	Start Location[ft.%]	End Location[ft.%]
1	M1	X	4.708	4.708	0	%100
2	M1	Z	-2.718	-2.718	0	%100
3	M2	X	4.708	4.708	0	%100
4	M2	Z	-2.718	-2.718	0	%100
5	M3	X	7.48	7.48	0	%100
6	M3	Z	-4.318	-4.318	0	%100
7	M4	X	7.385	7.385	0	%100
8	M4	Z	-4.263	-4.263	0	%100
9	M5	X	7.385	7.385	0	%100
10	M5	Z	-4.263	-4.263	0	%100
11	M6	X	7.48	7.48	0	%100
12	M6	Z	-4.318	-4.318	0	%100
13	RRU	X	10.454	10.454	0	%100
14	RRU	Z	-6.035	-6.035	0	%100
15	M10	X	17.245	17.245	0	%100
16	M10	Z	-9.956	-9.956	0	%100
17	M11	X	17.245	17.245	0	%100
18	M11	Z	-9.956	-9.956	0	%100
19	MP5A	X	6.709	6.709	0	%100
20	MP5A	Z	-3.873	-3.873	0	%100
21	MP4A	X	6.709	6.709	0	%100
22	MP4A	Z	-3.873	-3.873	0	%100
23	MP2A	X	6.709	6.709	0	%100
24	MP2A	Z	-3.873	-3.873	0	%100
25	MP1A	X	6.709	6.709	0	%100
26	MP1A	Z	-3.873	-3.873	0	%100
27	MP3A	X	6.709	6.709	0	%100
28	MP3A	Z	-3.873	-3.873	0	%100
29	M27	X	2.709	2.709	0	%100
30	M27	Z	-1.564	-1.564	0	%100
31	M28	X	4.983	4.983	0	%100
32	M28	Z	-2.877	-2.877	0	%100



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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	0	0	0	%100
5	M3	X	7.892	7.892	0	%100
6	M3	Z	0	0	0	%100
7	M4	X	7.745	7.745	0	%100
8	M4	Z	0	0	0	%100
9	M5	X	7.745	7.745	0	%100
10	M5	Z	0	0	0	%100
11	M6	X	7.892	7.892	0	%100
12	M6	Z	0	0	0	%100
13	RRU	X	12.071	12.071	0	%100
14	RRU	Z	0	0	0	%100
15	M10	X	26.55	26.55	0	%100
16	M10	Z	0	0	0	%100
17	M11	X	26.55	26.55	0	%100
18	M11	Z	0	0	0	%100
19	MP5A	X	7.746	7.746	0	%100
20	MP5A	Z	0	0	0	%100
21	MP4A	X	7.746	7.746	0	%100
22	MP4A	Z	0	0	0	%100
23	MP2A	X	7.746	7.746	0	%100
24	MP2A	Z	0	0	0	%100
25	MP1A	X	7.746	7.746	0	%100
26	MP1A	Z	0	0	0	%100
27	MP3A	X	7.746	7.746	0	%100
28	MP3A	Z	0	0	0	%100
29	M27	X	6.793	6.793	0	%100
30	M27	Z	0	0	0	%100
31	M28	X	6.949	6.949	0	%100
32	M28	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.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	X	4.708	4.708	0	%100
2	M1	Z	2.718	2.718	0	%100
3	M2	X	4.708	4.708	0	%100
4	M2	Z	2.718	2.718	0	%100
5	M3	X	7.48	7.48	0	%100
6	M3	Z	4.318	4.318	0	%100
7	M4	X	7.385	7.385	0	%100
8	M4	Z	4.263	4.263	0	%100
9	M5	X	7.385	7.385	0	%100
10	M5	Z	4.263	4.263	0	%100
11	M6	X	7.48	7.48	0	%100
12	M6	Z	4.318	4.318	0	%100
13	RRU	X	10.454	10.454	0	%100
14	RRU	Z	6.035	6.035	0	%100
15	M10	X	17.245	17.245	0	%100
16	M10	Z	9.956	9.956	0	%100
17	M11	X	17.245	17.245	0	%100
18	M11	Z	9.956	9.956	0	%100
19	MP5A	X	6.709	6.709	0	%100
20	MP5A	Z	3.873	3.873	0	%100
21	MP4A	X	6.709	6.709	0	%100



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

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft.F...]	Start Location[ft.%]	End Location[ft.%]
22	MP4A	Z	3.873	3.873	0	%100
23	MP2A	X	6.709	6.709	0	%100
24	MP2A	Z	3.873	3.873	0	%100
25	MP1A	X	6.709	6.709	0	%100
26	MP1A	Z	3.873	3.873	0	%100
27	MP3A	X	6.709	6.709	0	%100
28	MP3A	Z	3.873	3.873	0	%100
29	M27	X	6.528	6.528	0	%100
30	M27	Z	3.769	3.769	0	%100
31	M28	X	4.067	4.067	0	%100
32	M28	Z	2.348	2.348	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft.F...]	Start Location[ft.%]	End Location[ft.%]
1	M1	X	8.154	8.154	0	%100
2	M1	Z	14.123	14.123	0	%100
3	M2	X	8.154	8.154	0	%100
4	M2	Z	14.123	14.123	0	%100
5	M3	X	5.064	5.064	0	%100
6	M3	Z	8.77	8.77	0	%100
7	M4	X	5.045	5.045	0	%100
8	M4	Z	8.739	8.739	0	%100
9	M5	X	5.045	5.045	0	%100
10	M5	Z	8.739	8.739	0	%100
11	M6	X	5.064	5.064	0	%100
12	M6	Z	8.77	8.77	0	%100
13	RRU	X	6.035	6.035	0	%100
14	RRU	Z	10.454	10.454	0	%100
15	M10	X	3.319	3.319	0	%100
16	M10	Z	5.748	5.748	0	%100
17	M11	X	3.319	3.319	0	%100
18	M11	Z	5.748	5.748	0	%100
19	MP5A	X	3.873	3.873	0	%100
20	MP5A	Z	6.709	6.709	0	%100
21	MP4A	X	3.873	3.873	0	%100
22	MP4A	Z	6.709	6.709	0	%100
23	MP2A	X	3.873	3.873	0	%100
24	MP2A	Z	6.709	6.709	0	%100
25	MP1A	X	3.873	3.873	0	%100
26	MP1A	Z	6.709	6.709	0	%100
27	MP3A	X	3.873	3.873	0	%100
28	MP3A	Z	6.709	6.709	0	%100
29	M27	X	2.309	2.309	0	%100
30	M27	Z	3.999	3.999	0	%100
31	M28	X	.624	.624	0	%100
32	M28	Z	1.082	1.082	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft.F...]	Start Location[ft.%]	End Location[ft.%]
1	M1	X	0	0	0	%100
2	M1	Z	21.744	21.744	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	21.744	21.744	0	%100
5	M3	X	0	0	0	%100
6	M3	Z	10.872	10.872	0	%100
7	M4	X	0	0	0	%100



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

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft.F....]	Start Location[ft.%]	End Location[ft.%]
8	M4	Z	10.872	10.872	0	%100
9	M5	X	0	0	0	%100
10	M5	Z	10.872	10.872	0	%100
11	M6	X	0	0	0	%100
12	M6	Z	10.872	10.872	0	%100
13	RRU	X	0	0	0	%100
14	RRU	Z	12.071	12.071	0	%100
15	M10	X	0	0	0	%100
16	M10	Z	0	0	0	%100
17	M11	X	0	0	0	%100
18	M11	Z	0	0	0	%100
19	MP5A	X	0	0	0	%100
20	MP5A	Z	7.746	7.746	0	%100
21	MP4A	X	0	0	0	%100
22	MP4A	Z	7.746	7.746	0	%100
23	MP2A	X	0	0	0	%100
24	MP2A	Z	7.746	7.746	0	%100
25	MP1A	X	0	0	0	%100
26	MP1A	Z	7.746	7.746	0	%100
27	MP3A	X	0	0	0	%100
28	MP3A	Z	7.746	7.746	0	%100
29	M27	X	0	0	0	%100
30	M27	Z	.954	.954	0	%100
31	M28	X	0	0	0	%100
32	M28	Z	.054	.054	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft.F....]	Start Location[ft.%]	End Location[ft.%]
1	M1	X	-8.154	-8.154	0	%100
2	M1	Z	14.123	14.123	0	%100
3	M2	X	-8.154	-8.154	0	%100
4	M2	Z	14.123	14.123	0	%100
5	M3	X	-5.064	-5.064	0	%100
6	M3	Z	8.77	8.77	0	%100
7	M4	X	-5.045	-5.045	0	%100
8	M4	Z	8.739	8.739	0	%100
9	M5	X	-5.045	-5.045	0	%100
10	M5	Z	8.739	8.739	0	%100
11	M6	X	-5.064	-5.064	0	%100
12	M6	Z	8.77	8.77	0	%100
13	RRU	X	-6.035	-6.035	0	%100
14	RRU	Z	10.454	10.454	0	%100
15	M10	X	-3.319	-3.319	0	%100
16	M10	Z	5.748	5.748	0	%100
17	M11	X	-3.319	-3.319	0	%100
18	M11	Z	5.748	5.748	0	%100
19	MP5A	X	-3.873	-3.873	0	%100
20	MP5A	Z	6.709	6.709	0	%100
21	MP4A	X	-3.873	-3.873	0	%100
22	MP4A	Z	6.709	6.709	0	%100
23	MP2A	X	-3.873	-3.873	0	%100
24	MP2A	Z	6.709	6.709	0	%100
25	MP1A	X	-3.873	-3.873	0	%100
26	MP1A	Z	6.709	6.709	0	%100
27	MP3A	X	-3.873	-3.873	0	%100
28	MP3A	Z	6.709	6.709	0	%100



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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
29	M27	X	- .105	- .105	0	%100
30	M27	Z	.181	.181	0	%100
31	M28	X	-1.153	-1.153	0	%100
32	M28	Z	1.997	1.997	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	X	-4.708	-4.708	0	%100
2	M1	Z	2.718	2.718	0	%100
3	M2	X	-4.708	-4.708	0	%100
4	M2	Z	2.718	2.718	0	%100
5	M3	X	-7.48	-7.48	0	%100
6	M3	Z	4.318	4.318	0	%100
7	M4	X	-7.385	-7.385	0	%100
8	M4	Z	4.263	4.263	0	%100
9	M5	X	-7.385	-7.385	0	%100
10	M5	Z	4.263	4.263	0	%100
11	M6	X	-7.48	-7.48	0	%100
12	M6	Z	4.318	4.318	0	%100
13	RRU	X	-10.454	-10.454	0	%100
14	RRU	Z	6.035	6.035	0	%100
15	M10	X	-17.245	-17.245	0	%100
16	M10	Z	9.956	9.956	0	%100
17	M11	X	-17.245	-17.245	0	%100
18	M11	Z	9.956	9.956	0	%100
19	MP5A	X	-6.709	-6.709	0	%100
20	MP5A	Z	3.873	3.873	0	%100
21	MP4A	X	-6.709	-6.709	0	%100
22	MP4A	Z	3.873	3.873	0	%100
23	MP2A	X	-6.709	-6.709	0	%100
24	MP2A	Z	3.873	3.873	0	%100
25	MP1A	X	-6.709	-6.709	0	%100
26	MP1A	Z	3.873	3.873	0	%100
27	MP3A	X	-6.709	-6.709	0	%100
28	MP3A	Z	3.873	3.873	0	%100
29	M27	X	-2.709	-2.709	0	%100
30	M27	Z	1.564	1.564	0	%100
31	M28	X	-4.983	-4.983	0	%100
32	M28	Z	2.877	2.877	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	0	0	0	%100
5	M3	X	-7.892	-7.892	0	%100
6	M3	Z	0	0	0	%100
7	M4	X	-7.745	-7.745	0	%100
8	M4	Z	0	0	0	%100
9	M5	X	-7.745	-7.745	0	%100
10	M5	Z	0	0	0	%100
11	M6	X	-7.892	-7.892	0	%100
12	M6	Z	0	0	0	%100
13	RRU	X	-12.071	-12.071	0	%100
14	RRU	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.F...	Start Location[ft.%]	End Location[ft.%]
15	M10	X	-26.55	-26.55	0	%100
16	M10	Z	0	0	0	%100
17	M11	X	-26.55	-26.55	0	%100
18	M11	Z	0	0	0	%100
19	MP5A	X	-7.746	-7.746	0	%100
20	MP5A	Z	0	0	0	%100
21	MP4A	X	-7.746	-7.746	0	%100
22	MP4A	Z	0	0	0	%100
23	MP2A	X	-7.746	-7.746	0	%100
24	MP2A	Z	0	0	0	%100
25	MP1A	X	-7.746	-7.746	0	%100
26	MP1A	Z	0	0	0	%100
27	MP3A	X	-7.746	-7.746	0	%100
28	MP3A	Z	0	0	0	%100
29	M27	X	-6.793	-6.793	0	%100
30	M27	Z	0	0	0	%100
31	M28	X	-6.949	-6.949	0	%100
32	M28	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.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	X	-4.708	-4.708	0	%100
2	M1	Z	-2.718	-2.718	0	%100
3	M2	X	-4.708	-4.708	0	%100
4	M2	Z	-2.718	-2.718	0	%100
5	M3	X	-7.48	-7.48	0	%100
6	M3	Z	-4.318	-4.318	0	%100
7	M4	X	-7.385	-7.385	0	%100
8	M4	Z	-4.263	-4.263	0	%100
9	M5	X	-7.385	-7.385	0	%100
10	M5	Z	-4.263	-4.263	0	%100
11	M6	X	-7.48	-7.48	0	%100
12	M6	Z	-4.318	-4.318	0	%100
13	RRU	X	-10.454	-10.454	0	%100
14	RRU	Z	-6.035	-6.035	0	%100
15	M10	X	-17.245	-17.245	0	%100
16	M10	Z	-9.956	-9.956	0	%100
17	M11	X	-17.245	-17.245	0	%100
18	M11	Z	-9.956	-9.956	0	%100
19	MP5A	X	-6.709	-6.709	0	%100
20	MP5A	Z	-3.873	-3.873	0	%100
21	MP4A	X	-6.709	-6.709	0	%100
22	MP4A	Z	-3.873	-3.873	0	%100
23	MP2A	X	-6.709	-6.709	0	%100
24	MP2A	Z	-3.873	-3.873	0	%100
25	MP1A	X	-6.709	-6.709	0	%100
26	MP1A	Z	-3.873	-3.873	0	%100
27	MP3A	X	-6.709	-6.709	0	%100
28	MP3A	Z	-3.873	-3.873	0	%100
29	M27	X	-6.528	-6.528	0	%100
30	M27	Z	-3.769	-3.769	0	%100
31	M28	X	-4.067	-4.067	0	%100
32	M28	Z	-2.348	-2.348	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
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Member Distributed Loads (BLC 52 : Structure Wo (330 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	X	-8.154	-8.154	0	%100
2	M1	Z	-14.123	-14.123	0	%100
3	M2	X	-8.154	-8.154	0	%100
4	M2	Z	-14.123	-14.123	0	%100
5	M3	X	-5.064	-5.064	0	%100
6	M3	Z	-8.77	-8.77	0	%100
7	M4	X	-5.045	-5.045	0	%100
8	M4	Z	-8.739	-8.739	0	%100
9	M5	X	-5.045	-5.045	0	%100
10	M5	Z	-8.739	-8.739	0	%100
11	M6	X	-5.064	-5.064	0	%100
12	M6	Z	-8.77	-8.77	0	%100
13	RRU	X	-6.035	-6.035	0	%100
14	RRU	Z	-10.454	-10.454	0	%100
15	M10	X	-3.319	-3.319	0	%100
16	M10	Z	-5.748	-5.748	0	%100
17	M11	X	-3.319	-3.319	0	%100
18	M11	Z	-5.748	-5.748	0	%100
19	MP5A	X	-3.873	-3.873	0	%100
20	MP5A	Z	-6.709	-6.709	0	%100
21	MP4A	X	-3.873	-3.873	0	%100
22	MP4A	Z	-6.709	-6.709	0	%100
23	MP2A	X	-3.873	-3.873	0	%100
24	MP2A	Z	-6.709	-6.709	0	%100
25	MP1A	X	-3.873	-3.873	0	%100
26	MP1A	Z	-6.709	-6.709	0	%100
27	MP3A	X	-3.873	-3.873	0	%100
28	MP3A	Z	-6.709	-6.709	0	%100
29	M27	X	-2.309	-2.309	0	%100
30	M27	Z	-3.999	-3.999	0	%100
31	M28	X	-.624	-.624	0	%100
32	M28	Z	-1.082	-1.082	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	X	0	0	0	%100
2	M1	Z	-5.068	-5.068	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	-5.068	-5.068	0	%100
5	M3	X	0	0	0	%100
6	M3	Z	-3.173	-3.173	0	%100
7	M4	X	0	0	0	%100
8	M4	Z	-3.178	-3.178	0	%100
9	M5	X	0	0	0	%100
10	M5	Z	-3.178	-3.178	0	%100
11	M6	X	0	0	0	%100
12	M6	Z	-3.173	-3.173	0	%100
13	RRU	X	0	0	0	%100
14	RRU	Z	-3.731	-3.731	0	%100
15	M10	X	0	0	0	%100
16	M10	Z	0	0	0	%100
17	M11	X	0	0	0	%100
18	M11	Z	0	0	0	%100
19	MP5A	X	0	0	0	%100
20	MP5A	Z	-2.638	-2.638	0	%100
21	MP4A	X	0	0	0	%100



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 Designer :
 Job Number :
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Member Distributed Loads (BLC 53 : Structure Wi (0 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft.F...]	Start Location[ft.%]	End Location[ft.%]
22	MP4A	Z	-2.638	-2.638	0	%100
23	MP2A	X	0	0	0	%100
24	MP2A	Z	-2.638	-2.638	0	%100
25	MP1A	X	0	0	0	%100
26	MP1A	Z	-2.638	-2.638	0	%100
27	MP3A	X	0	0	0	%100
28	MP3A	Z	-2.638	-2.638	0	%100
29	M27	X	0	0	0	%100
30	M27	Z	-.325	-.325	0	%100
31	M28	X	0	0	0	%100
32	M28	Z	-.018	-.018	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft.F...]	Start Location[ft.%]	End Location[ft.%]
1	M1	X	1.901	1.901	0	%100
2	M1	Z	-3.292	-3.292	0	%100
3	M2	X	1.901	1.901	0	%100
4	M2	Z	-3.292	-3.292	0	%100
5	M3	X	1.478	1.478	0	%100
6	M3	Z	-2.559	-2.559	0	%100
7	M4	X	1.475	1.475	0	%100
8	M4	Z	-2.555	-2.555	0	%100
9	M5	X	1.475	1.475	0	%100
10	M5	Z	-2.555	-2.555	0	%100
11	M6	X	1.478	1.478	0	%100
12	M6	Z	-2.559	-2.559	0	%100
13	RRU	X	1.866	1.866	0	%100
14	RRU	Z	-3.232	-3.232	0	%100
15	M10	X	.679	.679	0	%100
16	M10	Z	-1.176	-1.176	0	%100
17	M11	X	.679	.679	0	%100
18	M11	Z	-1.176	-1.176	0	%100
19	MP5A	X	1.319	1.319	0	%100
20	MP5A	Z	-2.285	-2.285	0	%100
21	MP4A	X	1.319	1.319	0	%100
22	MP4A	Z	-2.285	-2.285	0	%100
23	MP2A	X	1.319	1.319	0	%100
24	MP2A	Z	-2.285	-2.285	0	%100
25	MP1A	X	1.319	1.319	0	%100
26	MP1A	Z	-2.285	-2.285	0	%100
27	MP3A	X	1.319	1.319	0	%100
28	MP3A	Z	-2.285	-2.285	0	%100
29	M27	X	.036	.036	0	%100
30	M27	Z	-.062	-.062	0	%100
31	M28	X	.396	.396	0	%100
32	M28	Z	-.686	-.686	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft.F...]	Start Location[ft.%]	End Location[ft.%]
1	M1	X	1.097	1.097	0	%100
2	M1	Z	-.634	-.634	0	%100
3	M2	X	1.097	1.097	0	%100
4	M2	Z	-.634	-.634	0	%100
5	M3	X	2.183	2.183	0	%100
6	M3	Z	-1.26	-1.26	0	%100
7	M4	X	2.159	2.159	0	%100



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

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft.F...]	Start Location[ft.%]	End Location[ft.%]
8	M4	Z	-1.246	-1.246	0	%100
9	M5	X	2.159	2.159	0	%100
10	M5	Z	-1.246	-1.246	0	%100
11	M6	X	2.183	2.183	0	%100
12	M6	Z	-1.26	-1.26	0	%100
13	RRU	X	3.232	3.232	0	%100
14	RRU	Z	-1.866	-1.866	0	%100
15	M10	X	3.527	3.527	0	%100
16	M10	Z	-2.036	-2.036	0	%100
17	M11	X	3.527	3.527	0	%100
18	M11	Z	-2.036	-2.036	0	%100
19	MP5A	X	2.285	2.285	0	%100
20	MP5A	Z	-1.319	-1.319	0	%100
21	MP4A	X	2.285	2.285	0	%100
22	MP4A	Z	-1.319	-1.319	0	%100
23	MP2A	X	2.285	2.285	0	%100
24	MP2A	Z	-1.319	-1.319	0	%100
25	MP1A	X	2.285	2.285	0	%100
26	MP1A	Z	-1.319	-1.319	0	%100
27	MP3A	X	2.285	2.285	0	%100
28	MP3A	Z	-1.319	-1.319	0	%100
29	M27	X	.923	.923	0	%100
30	M27	Z	-.533	-.533	0	%100
31	M28	X	1.711	1.711	0	%100
32	M28	Z	-.988	-.988	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft.F...]	Start Location[ft.%]	End Location[ft.%]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	0	0	0	%100
5	M3	X	2.303	2.303	0	%100
6	M3	Z	0	0	0	%100
7	M4	X	2.264	2.264	0	%100
8	M4	Z	0	0	0	%100
9	M5	X	2.264	2.264	0	%100
10	M5	Z	0	0	0	%100
11	M6	X	2.303	2.303	0	%100
12	M6	Z	0	0	0	%100
13	RRU	X	3.731	3.731	0	%100
14	RRU	Z	0	0	0	%100
15	M10	X	5.43	5.43	0	%100
16	M10	Z	0	0	0	%100
17	M11	X	5.43	5.43	0	%100
18	M11	Z	0	0	0	%100
19	MP5A	X	2.638	2.638	0	%100
20	MP5A	Z	0	0	0	%100
21	MP4A	X	2.638	2.638	0	%100
22	MP4A	Z	0	0	0	%100
23	MP2A	X	2.638	2.638	0	%100
24	MP2A	Z	0	0	0	%100
25	MP1A	X	2.638	2.638	0	%100
26	MP1A	Z	0	0	0	%100
27	MP3A	X	2.638	2.638	0	%100
28	MP3A	Z	0	0	0	%100



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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
29	M27	X	2.313	2.313	0	%100
30	M27	Z	0	0	0	%100
31	M28	X	2.385	2.385	0	%100
32	M28	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	X	1.097	1.097	0	%100
2	M1	Z	.634	.634	0	%100
3	M2	X	1.097	1.097	0	%100
4	M2	Z	.634	.634	0	%100
5	M3	X	2.183	2.183	0	%100
6	M3	Z	1.26	1.26	0	%100
7	M4	X	2.159	2.159	0	%100
8	M4	Z	1.246	1.246	0	%100
9	M5	X	2.159	2.159	0	%100
10	M5	Z	1.246	1.246	0	%100
11	M6	X	2.183	2.183	0	%100
12	M6	Z	1.26	1.26	0	%100
13	RRU	X	3.232	3.232	0	%100
14	RRU	Z	1.866	1.866	0	%100
15	M10	X	3.527	3.527	0	%100
16	M10	Z	2.036	2.036	0	%100
17	M11	X	3.527	3.527	0	%100
18	M11	Z	2.036	2.036	0	%100
19	MP5A	X	2.285	2.285	0	%100
20	MP5A	Z	1.319	1.319	0	%100
21	MP4A	X	2.285	2.285	0	%100
22	MP4A	Z	1.319	1.319	0	%100
23	MP2A	X	2.285	2.285	0	%100
24	MP2A	Z	1.319	1.319	0	%100
25	MP1A	X	2.285	2.285	0	%100
26	MP1A	Z	1.319	1.319	0	%100
27	MP3A	X	2.285	2.285	0	%100
28	MP3A	Z	1.319	1.319	0	%100
29	M27	X	2.223	2.223	0	%100
30	M27	Z	1.283	1.283	0	%100
31	M28	X	1.396	1.396	0	%100
32	M28	Z	.806	.806	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	X	1.901	1.901	0	%100
2	M1	Z	3.292	3.292	0	%100
3	M2	X	1.901	1.901	0	%100
4	M2	Z	3.292	3.292	0	%100
5	M3	X	1.478	1.478	0	%100
6	M3	Z	2.559	2.559	0	%100
7	M4	X	1.475	1.475	0	%100
8	M4	Z	2.555	2.555	0	%100
9	M5	X	1.475	1.475	0	%100
10	M5	Z	2.555	2.555	0	%100
11	M6	X	1.478	1.478	0	%100
12	M6	Z	2.559	2.559	0	%100
13	RRU	X	1.866	1.866	0	%100
14	RRU	Z	3.232	3.232	0	%100



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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
15	M10	X	.679	.679	0	%100
16	M10	Z	1.176	1.176	0	%100
17	M11	X	.679	.679	0	%100
18	M11	Z	1.176	1.176	0	%100
19	MP5A	X	1.319	1.319	0	%100
20	MP5A	Z	2.285	2.285	0	%100
21	MP4A	X	1.319	1.319	0	%100
22	MP4A	Z	2.285	2.285	0	%100
23	MP2A	X	1.319	1.319	0	%100
24	MP2A	Z	2.285	2.285	0	%100
25	MP1A	X	1.319	1.319	0	%100
26	MP1A	Z	2.285	2.285	0	%100
27	MP3A	X	1.319	1.319	0	%100
28	MP3A	Z	2.285	2.285	0	%100
29	M27	X	.786	.786	0	%100
30	M27	Z	1.362	1.362	0	%100
31	M28	X	.214	.214	0	%100
32	M28	Z	.371	.371	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	X	0	0	0	%100
2	M1	Z	5.068	5.068	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	5.068	5.068	0	%100
5	M3	X	0	0	0	%100
6	M3	Z	3.173	3.173	0	%100
7	M4	X	0	0	0	%100
8	M4	Z	3.178	3.178	0	%100
9	M5	X	0	0	0	%100
10	M5	Z	3.178	3.178	0	%100
11	M6	X	0	0	0	%100
12	M6	Z	3.173	3.173	0	%100
13	RRU	X	0	0	0	%100
14	RRU	Z	3.731	3.731	0	%100
15	M10	X	0	0	0	%100
16	M10	Z	0	0	0	%100
17	M11	X	0	0	0	%100
18	M11	Z	0	0	0	%100
19	MP5A	X	0	0	0	%100
20	MP5A	Z	2.638	2.638	0	%100
21	MP4A	X	0	0	0	%100
22	MP4A	Z	2.638	2.638	0	%100
23	MP2A	X	0	0	0	%100
24	MP2A	Z	2.638	2.638	0	%100
25	MP1A	X	0	0	0	%100
26	MP1A	Z	2.638	2.638	0	%100
27	MP3A	X	0	0	0	%100
28	MP3A	Z	2.638	2.638	0	%100
29	M27	X	0	0	0	%100
30	M27	Z	.325	.325	0	%100
31	M28	X	0	0	0	%100
32	M28	Z	.018	.018	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
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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.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	X	-1.901	-1.901	0	%100
2	M1	Z	3.292	3.292	0	%100
3	M2	X	-1.901	-1.901	0	%100
4	M2	Z	3.292	3.292	0	%100
5	M3	X	-1.478	-1.478	0	%100
6	M3	Z	2.559	2.559	0	%100
7	M4	X	-1.475	-1.475	0	%100
8	M4	Z	2.555	2.555	0	%100
9	M5	X	-1.475	-1.475	0	%100
10	M5	Z	2.555	2.555	0	%100
11	M6	X	-1.478	-1.478	0	%100
12	M6	Z	2.559	2.559	0	%100
13	RRU	X	-1.866	-1.866	0	%100
14	RRU	Z	3.232	3.232	0	%100
15	M10	X	-0.679	-0.679	0	%100
16	M10	Z	1.176	1.176	0	%100
17	M11	X	-0.679	-0.679	0	%100
18	M11	Z	1.176	1.176	0	%100
19	MP5A	X	-1.319	-1.319	0	%100
20	MP5A	Z	2.285	2.285	0	%100
21	MP4A	X	-1.319	-1.319	0	%100
22	MP4A	Z	2.285	2.285	0	%100
23	MP2A	X	-1.319	-1.319	0	%100
24	MP2A	Z	2.285	2.285	0	%100
25	MP1A	X	-1.319	-1.319	0	%100
26	MP1A	Z	2.285	2.285	0	%100
27	MP3A	X	-1.319	-1.319	0	%100
28	MP3A	Z	2.285	2.285	0	%100
29	M27	X	-0.036	-0.036	0	%100
30	M27	Z	0.062	0.062	0	%100
31	M28	X	-0.396	-0.396	0	%100
32	M28	Z	0.686	0.686	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	X	-1.097	-1.097	0	%100
2	M1	Z	0.634	0.634	0	%100
3	M2	X	-1.097	-1.097	0	%100
4	M2	Z	0.634	0.634	0	%100
5	M3	X	-2.183	-2.183	0	%100
6	M3	Z	1.26	1.26	0	%100
7	M4	X	-2.159	-2.159	0	%100
8	M4	Z	1.246	1.246	0	%100
9	M5	X	-2.159	-2.159	0	%100
10	M5	Z	1.246	1.246	0	%100
11	M6	X	-2.183	-2.183	0	%100
12	M6	Z	1.26	1.26	0	%100
13	RRU	X	-3.232	-3.232	0	%100
14	RRU	Z	1.866	1.866	0	%100
15	M10	X	-3.527	-3.527	0	%100
16	M10	Z	2.036	2.036	0	%100
17	M11	X	-3.527	-3.527	0	%100
18	M11	Z	2.036	2.036	0	%100
19	MP5A	X	-2.285	-2.285	0	%100
20	MP5A	Z	1.319	1.319	0	%100
21	MP4A	X	-2.285	-2.285	0	%100



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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
22	MP4A	Z	1.319	1.319	0	%100
23	MP2A	X	-2.285	-2.285	0	%100
24	MP2A	Z	1.319	1.319	0	%100
25	MP1A	X	-2.285	-2.285	0	%100
26	MP1A	Z	1.319	1.319	0	%100
27	MP3A	X	-2.285	-2.285	0	%100
28	MP3A	Z	1.319	1.319	0	%100
29	M27	X	-.923	-.923	0	%100
30	M27	Z	.533	.533	0	%100
31	M28	X	-1.711	-1.711	0	%100
32	M28	Z	.988	.988	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	0	0	0	%100
5	M3	X	-2.303	-2.303	0	%100
6	M3	Z	0	0	0	%100
7	M4	X	-2.264	-2.264	0	%100
8	M4	Z	0	0	0	%100
9	M5	X	-2.264	-2.264	0	%100
10	M5	Z	0	0	0	%100
11	M6	X	-2.303	-2.303	0	%100
12	M6	Z	0	0	0	%100
13	RRU	X	-3.731	-3.731	0	%100
14	RRU	Z	0	0	0	%100
15	M10	X	-5.43	-5.43	0	%100
16	M10	Z	0	0	0	%100
17	M11	X	-5.43	-5.43	0	%100
18	M11	Z	0	0	0	%100
19	MP5A	X	-2.638	-2.638	0	%100
20	MP5A	Z	0	0	0	%100
21	MP4A	X	-2.638	-2.638	0	%100
22	MP4A	Z	0	0	0	%100
23	MP2A	X	-2.638	-2.638	0	%100
24	MP2A	Z	0	0	0	%100
25	MP1A	X	-2.638	-2.638	0	%100
26	MP1A	Z	0	0	0	%100
27	MP3A	X	-2.638	-2.638	0	%100
28	MP3A	Z	0	0	0	%100
29	M27	X	-2.313	-2.313	0	%100
30	M27	Z	0	0	0	%100
31	M28	X	-2.385	-2.385	0	%100
32	M28	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	X	-1.097	-1.097	0	%100
2	M1	Z	-.634	-.634	0	%100
3	M2	X	-1.097	-1.097	0	%100
4	M2	Z	-.634	-.634	0	%100
5	M3	X	-2.183	-2.183	0	%100
6	M3	Z	-1.26	-1.26	0	%100
7	M4	X	-2.159	-2.159	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.F...]	Start Location[ft.%]	End Location[ft.%]
8	M4	Z	-1.246	-1.246	0	%100
9	M5	X	-2.159	-2.159	0	%100
10	M5	Z	-1.246	-1.246	0	%100
11	M6	X	-2.183	-2.183	0	%100
12	M6	Z	-1.26	-1.26	0	%100
13	RRU	X	-3.232	-3.232	0	%100
14	RRU	Z	-1.866	-1.866	0	%100
15	M10	X	-3.527	-3.527	0	%100
16	M10	Z	-2.036	-2.036	0	%100
17	M11	X	-3.527	-3.527	0	%100
18	M11	Z	-2.036	-2.036	0	%100
19	MP5A	X	-2.285	-2.285	0	%100
20	MP5A	Z	-1.319	-1.319	0	%100
21	MP4A	X	-2.285	-2.285	0	%100
22	MP4A	Z	-1.319	-1.319	0	%100
23	MP2A	X	-2.285	-2.285	0	%100
24	MP2A	Z	-1.319	-1.319	0	%100
25	MP1A	X	-2.285	-2.285	0	%100
26	MP1A	Z	-1.319	-1.319	0	%100
27	MP3A	X	-2.285	-2.285	0	%100
28	MP3A	Z	-1.319	-1.319	0	%100
29	M27	X	-2.223	-2.223	0	%100
30	M27	Z	-1.283	-1.283	0	%100
31	M28	X	-1.396	-1.396	0	%100
32	M28	Z	-.806	-.806	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft.F...]	Start Location[ft.%]	End Location[ft.%]
1	M1	X	-1.901	-1.901	0	%100
2	M1	Z	-3.292	-3.292	0	%100
3	M2	X	-1.901	-1.901	0	%100
4	M2	Z	-3.292	-3.292	0	%100
5	M3	X	-1.478	-1.478	0	%100
6	M3	Z	-2.559	-2.559	0	%100
7	M4	X	-1.475	-1.475	0	%100
8	M4	Z	-2.555	-2.555	0	%100
9	M5	X	-1.475	-1.475	0	%100
10	M5	Z	-2.555	-2.555	0	%100
11	M6	X	-1.478	-1.478	0	%100
12	M6	Z	-2.559	-2.559	0	%100
13	RRU	X	-1.866	-1.866	0	%100
14	RRU	Z	-3.232	-3.232	0	%100
15	M10	X	-.679	-.679	0	%100
16	M10	Z	-1.176	-1.176	0	%100
17	M11	X	-.679	-.679	0	%100
18	M11	Z	-1.176	-1.176	0	%100
19	MP5A	X	-1.319	-1.319	0	%100
20	MP5A	Z	-2.285	-2.285	0	%100
21	MP4A	X	-1.319	-1.319	0	%100
22	MP4A	Z	-2.285	-2.285	0	%100
23	MP2A	X	-1.319	-1.319	0	%100
24	MP2A	Z	-2.285	-2.285	0	%100
25	MP1A	X	-1.319	-1.319	0	%100
26	MP1A	Z	-2.285	-2.285	0	%100
27	MP3A	X	-1.319	-1.319	0	%100
28	MP3A	Z	-2.285	-2.285	0	%100



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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
29	M27	X	-786	-786	0	%100
30	M27	Z	-1.362	-1.362	0	%100
31	M28	X	-214	-214	0	%100
32	M28	Z	-371	-371	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	X	0	0	0	%100
2	M1	Z	-1.359	-1.359	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	-1.359	-1.359	0	%100
5	M3	X	0	0	0	%100
6	M3	Z	-.68	-.68	0	%100
7	M4	X	0	0	0	%100
8	M4	Z	-.68	-.68	0	%100
9	M5	X	0	0	0	%100
10	M5	Z	-.68	-.68	0	%100
11	M6	X	0	0	0	%100
12	M6	Z	-.68	-.68	0	%100
13	RRU	X	0	0	0	%100
14	RRU	Z	-.754	-.754	0	%100
15	M10	X	0	0	0	%100
16	M10	Z	0	0	0	%100
17	M11	X	0	0	0	%100
18	M11	Z	0	0	0	%100
19	MP5A	X	0	0	0	%100
20	MP5A	Z	-.484	-.484	0	%100
21	MP4A	X	0	0	0	%100
22	MP4A	Z	-.484	-.484	0	%100
23	MP2A	X	0	0	0	%100
24	MP2A	Z	-.484	-.484	0	%100
25	MP1A	X	0	0	0	%100
26	MP1A	Z	-.484	-.484	0	%100
27	MP3A	X	0	0	0	%100
28	MP3A	Z	-.484	-.484	0	%100
29	M27	X	0	0	0	%100
30	M27	Z	-.06	-.06	0	%100
31	M28	X	0	0	0	%100
32	M28	Z	-.003	-.003	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	X	.51	.51	0	%100
2	M1	Z	-.883	-.883	0	%100
3	M2	X	.51	.51	0	%100
4	M2	Z	-.883	-.883	0	%100
5	M3	X	.316	.316	0	%100
6	M3	Z	-.548	-.548	0	%100
7	M4	X	.315	.315	0	%100
8	M4	Z	-.546	-.546	0	%100
9	M5	X	.315	.315	0	%100
10	M5	Z	-.546	-.546	0	%100
11	M6	X	.316	.316	0	%100
12	M6	Z	-.548	-.548	0	%100
13	RRU	X	.377	.377	0	%100
14	RRU	Z	-.653	-.653	0	%100



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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
15	M10	X	.207	.207	0	%100
16	M10	Z	-.359	-.359	0	%100
17	M11	X	.207	.207	0	%100
18	M11	Z	-.359	-.359	0	%100
19	MP5A	X	.242	.242	0	%100
20	MP5A	Z	-.419	-.419	0	%100
21	MP4A	X	.242	.242	0	%100
22	MP4A	Z	-.419	-.419	0	%100
23	MP2A	X	.242	.242	0	%100
24	MP2A	Z	-.419	-.419	0	%100
25	MP1A	X	.242	.242	0	%100
26	MP1A	Z	-.419	-.419	0	%100
27	MP3A	X	.242	.242	0	%100
28	MP3A	Z	-.419	-.419	0	%100
29	M27	X	.007	.007	0	%100
30	M27	Z	-.011	-.011	0	%100
31	M28	X	.072	.072	0	%100
32	M28	Z	-.125	-.125	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	X	.294	.294	0	%100
2	M1	Z	-.17	-.17	0	%100
3	M2	X	.294	.294	0	%100
4	M2	Z	-.17	-.17	0	%100
5	M3	X	.467	.467	0	%100
6	M3	Z	-.27	-.27	0	%100
7	M4	X	.462	.462	0	%100
8	M4	Z	-.266	-.266	0	%100
9	M5	X	.462	.462	0	%100
10	M5	Z	-.266	-.266	0	%100
11	M6	X	.467	.467	0	%100
12	M6	Z	-.27	-.27	0	%100
13	RRU	X	.653	.653	0	%100
14	RRU	Z	-.377	-.377	0	%100
15	M10	X	1.078	1.078	0	%100
16	M10	Z	-.622	-.622	0	%100
17	M11	X	1.078	1.078	0	%100
18	M11	Z	-.622	-.622	0	%100
19	MP5A	X	.419	.419	0	%100
20	MP5A	Z	-.242	-.242	0	%100
21	MP4A	X	.419	.419	0	%100
22	MP4A	Z	-.242	-.242	0	%100
23	MP2A	X	.419	.419	0	%100
24	MP2A	Z	-.242	-.242	0	%100
25	MP1A	X	.419	.419	0	%100
26	MP1A	Z	-.242	-.242	0	%100
27	MP3A	X	.419	.419	0	%100
28	MP3A	Z	-.242	-.242	0	%100
29	M27	X	.169	.169	0	%100
30	M27	Z	-.098	-.098	0	%100
31	M28	X	.311	.311	0	%100
32	M28	Z	-.18	-.18	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
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Member Distributed Loads (BLC 68 : Structure Wm (90 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	0	0	0	%100
5	M3	X	.493	.493	0	%100
6	M3	Z	0	0	0	%100
7	M4	X	.484	.484	0	%100
8	M4	Z	0	0	0	%100
9	M5	X	.484	.484	0	%100
10	M5	Z	0	0	0	%100
11	M6	X	.493	.493	0	%100
12	M6	Z	0	0	0	%100
13	RRU	X	.754	.754	0	%100
14	RRU	Z	0	0	0	%100
15	M10	X	1.659	1.659	0	%100
16	M10	Z	0	0	0	%100
17	M11	X	1.659	1.659	0	%100
18	M11	Z	0	0	0	%100
19	MP5A	X	.484	.484	0	%100
20	MP5A	Z	0	0	0	%100
21	MP4A	X	.484	.484	0	%100
22	MP4A	Z	0	0	0	%100
23	MP2A	X	.484	.484	0	%100
24	MP2A	Z	0	0	0	%100
25	MP1A	X	.484	.484	0	%100
26	MP1A	Z	0	0	0	%100
27	MP3A	X	.484	.484	0	%100
28	MP3A	Z	0	0	0	%100
29	M27	X	.425	.425	0	%100
30	M27	Z	0	0	0	%100
31	M28	X	.434	.434	0	%100
32	M28	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.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	X	.294	.294	0	%100
2	M1	Z	.17	.17	0	%100
3	M2	X	.294	.294	0	%100
4	M2	Z	.17	.17	0	%100
5	M3	X	.467	.467	0	%100
6	M3	Z	.27	.27	0	%100
7	M4	X	.462	.462	0	%100
8	M4	Z	.266	.266	0	%100
9	M5	X	.462	.462	0	%100
10	M5	Z	.266	.266	0	%100
11	M6	X	.467	.467	0	%100
12	M6	Z	.27	.27	0	%100
13	RRU	X	.653	.653	0	%100
14	RRU	Z	.377	.377	0	%100
15	M10	X	1.078	1.078	0	%100
16	M10	Z	.622	.622	0	%100
17	M11	X	1.078	1.078	0	%100
18	M11	Z	.622	.622	0	%100
19	MP5A	X	.419	.419	0	%100
20	MP5A	Z	.242	.242	0	%100
21	MP4A	X	.419	.419	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.%]
22	MP4A	Z	.242	.242	0	%100
23	MP2A	X	.419	.419	0	%100
24	MP2A	Z	.242	.242	0	%100
25	MP1A	X	.419	.419	0	%100
26	MP1A	Z	.242	.242	0	%100
27	MP3A	X	.419	.419	0	%100
28	MP3A	Z	.242	.242	0	%100
29	M27	X	.408	.408	0	%100
30	M27	Z	.236	.236	0	%100
31	M28	X	.254	.254	0	%100
32	M28	Z	.147	.147	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	X	.51	.51	0	%100
2	M1	Z	.883	.883	0	%100
3	M2	X	.51	.51	0	%100
4	M2	Z	.883	.883	0	%100
5	M3	X	.316	.316	0	%100
6	M3	Z	.548	.548	0	%100
7	M4	X	.315	.315	0	%100
8	M4	Z	.546	.546	0	%100
9	M5	X	.315	.315	0	%100
10	M5	Z	.546	.546	0	%100
11	M6	X	.316	.316	0	%100
12	M6	Z	.548	.548	0	%100
13	RRU	X	.377	.377	0	%100
14	RRU	Z	.653	.653	0	%100
15	M10	X	.207	.207	0	%100
16	M10	Z	.359	.359	0	%100
17	M11	X	.207	.207	0	%100
18	M11	Z	.359	.359	0	%100
19	MP5A	X	.242	.242	0	%100
20	MP5A	Z	.419	.419	0	%100
21	MP4A	X	.242	.242	0	%100
22	MP4A	Z	.419	.419	0	%100
23	MP2A	X	.242	.242	0	%100
24	MP2A	Z	.419	.419	0	%100
25	MP1A	X	.242	.242	0	%100
26	MP1A	Z	.419	.419	0	%100
27	MP3A	X	.242	.242	0	%100
28	MP3A	Z	.419	.419	0	%100
29	M27	X	.144	.144	0	%100
30	M27	Z	.25	.25	0	%100
31	M28	X	.039	.039	0	%100
32	M28	Z	.068	.068	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	X	0	0	0	%100
2	M1	Z	1.359	1.359	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	1.359	1.359	0	%100
5	M3	X	0	0	0	%100
6	M3	Z	.68	.68	0	%100
7	M4	X	0	0	0	%100



Company : Colliers Engineering & Design
 Designer :
 Job Number :
 Model Name : 5000384879-VZW_MT_LOT_SectorA_H

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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.F...]	Start Location[ft.%]	End Location[ft.%]
8	M4	Z	.68	.68	0	%100
9	M5	X	0	0	0	%100
10	M5	Z	.68	.68	0	%100
11	M6	X	0	0	0	%100
12	M6	Z	.68	.68	0	%100
13	RRU	X	0	0	0	%100
14	RRU	Z	.754	.754	0	%100
15	M10	X	0	0	0	%100
16	M10	Z	0	0	0	%100
17	M11	X	0	0	0	%100
18	M11	Z	0	0	0	%100
19	MP5A	X	0	0	0	%100
20	MP5A	Z	.484	.484	0	%100
21	MP4A	X	0	0	0	%100
22	MP4A	Z	.484	.484	0	%100
23	MP2A	X	0	0	0	%100
24	MP2A	Z	.484	.484	0	%100
25	MP1A	X	0	0	0	%100
26	MP1A	Z	.484	.484	0	%100
27	MP3A	X	0	0	0	%100
28	MP3A	Z	.484	.484	0	%100
29	M27	X	0	0	0	%100
30	M27	Z	.06	.06	0	%100
31	M28	X	0	0	0	%100
32	M28	Z	.003	.003	0	%100

Member Distributed Loads (BLC 72 : Structure Wm (210 Deg))

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft.F...]	Start Location[ft.%]	End Location[ft.%]
1	M1	X	-.51	-.51	0	%100
2	M1	Z	.883	.883	0	%100
3	M2	X	-.51	-.51	0	%100
4	M2	Z	.883	.883	0	%100
5	M3	X	-.316	-.316	0	%100
6	M3	Z	.548	.548	0	%100
7	M4	X	-.315	-.315	0	%100
8	M4	Z	.546	.546	0	%100
9	M5	X	-.315	-.315	0	%100
10	M5	Z	.546	.546	0	%100
11	M6	X	-.316	-.316	0	%100
12	M6	Z	.548	.548	0	%100
13	RRU	X	-.377	-.377	0	%100
14	RRU	Z	.653	.653	0	%100
15	M10	X	-.207	-.207	0	%100
16	M10	Z	.359	.359	0	%100
17	M11	X	-.207	-.207	0	%100
18	M11	Z	.359	.359	0	%100
19	MP5A	X	-.242	-.242	0	%100
20	MP5A	Z	.419	.419	0	%100
21	MP4A	X	-.242	-.242	0	%100
22	MP4A	Z	.419	.419	0	%100
23	MP2A	X	-.242	-.242	0	%100
24	MP2A	Z	.419	.419	0	%100
25	MP1A	X	-.242	-.242	0	%100
26	MP1A	Z	.419	.419	0	%100
27	MP3A	X	-.242	-.242	0	%100
28	MP3A	Z	.419	.419	0	%100



Company : Colliers Engineering & Design
 Designer :
 Job Number :
 Model Name : 5000384879-VZW_MT_LOT_SectorA_H

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Member Distributed Loads (BLC 72 : Structure Wm (210 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
29	M27	X	-.007	-.007	0	%100
30	M27	Z	.011	.011	0	%100
31	M28	X	-.072	-.072	0	%100
32	M28	Z	.125	.125	0	%100

Member Distributed Loads (BLC 73 : Structure Wm (240 Deg))

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	X	-.294	-.294	0	%100
2	M1	Z	.17	.17	0	%100
3	M2	X	-.294	-.294	0	%100
4	M2	Z	.17	.17	0	%100
5	M3	X	-.467	-.467	0	%100
6	M3	Z	.27	.27	0	%100
7	M4	X	-.462	-.462	0	%100
8	M4	Z	.266	.266	0	%100
9	M5	X	-.462	-.462	0	%100
10	M5	Z	.266	.266	0	%100
11	M6	X	-.467	-.467	0	%100
12	M6	Z	.27	.27	0	%100
13	RRU	X	-.653	-.653	0	%100
14	RRU	Z	.377	.377	0	%100
15	M10	X	-1.078	-1.078	0	%100
16	M10	Z	.622	.622	0	%100
17	M11	X	-1.078	-1.078	0	%100
18	M11	Z	.622	.622	0	%100
19	MP5A	X	-.419	-.419	0	%100
20	MP5A	Z	.242	.242	0	%100
21	MP4A	X	-.419	-.419	0	%100
22	MP4A	Z	.242	.242	0	%100
23	MP2A	X	-.419	-.419	0	%100
24	MP2A	Z	.242	.242	0	%100
25	MP1A	X	-.419	-.419	0	%100
26	MP1A	Z	.242	.242	0	%100
27	MP3A	X	-.419	-.419	0	%100
28	MP3A	Z	.242	.242	0	%100
29	M27	X	-.169	-.169	0	%100
30	M27	Z	.098	.098	0	%100
31	M28	X	-.311	-.311	0	%100
32	M28	Z	.18	.18	0	%100

Member Distributed Loads (BLC 74 : Structure Wm (270 Deg))

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	0	0	0	%100
5	M3	X	-.493	-.493	0	%100
6	M3	Z	0	0	0	%100
7	M4	X	-.484	-.484	0	%100
8	M4	Z	0	0	0	%100
9	M5	X	-.484	-.484	0	%100
10	M5	Z	0	0	0	%100
11	M6	X	-.493	-.493	0	%100
12	M6	Z	0	0	0	%100
13	RRU	X	-.754	-.754	0	%100
14	RRU	Z	0	0	0	%100



Company : Colliers Engineering & Design
 Designer :
 Job Number :
 Model Name : 5000384879-VZW_MT_LOT_SectorA_H

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Member Distributed Loads (BLC 74 : Structure Wm (270 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
15	M10	X	-1.659	-1.659	0	%100
16	M10	Z	0	0	0	%100
17	M11	X	-1.659	-1.659	0	%100
18	M11	Z	0	0	0	%100
19	MP5A	X	-484	-484	0	%100
20	MP5A	Z	0	0	0	%100
21	MP4A	X	-484	-484	0	%100
22	MP4A	Z	0	0	0	%100
23	MP2A	X	-484	-484	0	%100
24	MP2A	Z	0	0	0	%100
25	MP1A	X	-484	-484	0	%100
26	MP1A	Z	0	0	0	%100
27	MP3A	X	-484	-484	0	%100
28	MP3A	Z	0	0	0	%100
29	M27	X	-425	-425	0	%100
30	M27	Z	0	0	0	%100
31	M28	X	-434	-434	0	%100
32	M28	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.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	X	-294	-294	0	%100
2	M1	Z	-17	-17	0	%100
3	M2	X	-294	-294	0	%100
4	M2	Z	-17	-17	0	%100
5	M3	X	-467	-467	0	%100
6	M3	Z	-27	-27	0	%100
7	M4	X	-462	-462	0	%100
8	M4	Z	-266	-266	0	%100
9	M5	X	-462	-462	0	%100
10	M5	Z	-266	-266	0	%100
11	M6	X	-467	-467	0	%100
12	M6	Z	-27	-27	0	%100
13	RRU	X	-653	-653	0	%100
14	RRU	Z	-377	-377	0	%100
15	M10	X	-1.078	-1.078	0	%100
16	M10	Z	-622	-622	0	%100
17	M11	X	-1.078	-1.078	0	%100
18	M11	Z	-622	-622	0	%100
19	MP5A	X	-419	-419	0	%100
20	MP5A	Z	-242	-242	0	%100
21	MP4A	X	-419	-419	0	%100
22	MP4A	Z	-242	-242	0	%100
23	MP2A	X	-419	-419	0	%100
24	MP2A	Z	-242	-242	0	%100
25	MP1A	X	-419	-419	0	%100
26	MP1A	Z	-242	-242	0	%100
27	MP3A	X	-419	-419	0	%100
28	MP3A	Z	-242	-242	0	%100
29	M27	X	-408	-408	0	%100
30	M27	Z	-236	-236	0	%100
31	M28	X	-254	-254	0	%100
32	M28	Z	-147	-147	0	%100

Member Distributed Loads (BLC 76 : Structure Wm (330 Deg))

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
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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.]
1	M1	X	-51	-51	0	%100
2	M1	Z	-883	-883	0	%100
3	M2	X	-51	-51	0	%100
4	M2	Z	-883	-883	0	%100
5	M3	X	-316	-316	0	%100
6	M3	Z	-548	-548	0	%100
7	M4	X	-315	-315	0	%100
8	M4	Z	-546	-546	0	%100
9	M5	X	-315	-315	0	%100
10	M5	Z	-546	-546	0	%100
11	M6	X	-316	-316	0	%100
12	M6	Z	-548	-548	0	%100
13	RRU	X	-377	-377	0	%100
14	RRU	Z	-653	-653	0	%100
15	M10	X	-207	-207	0	%100
16	M10	Z	-359	-359	0	%100
17	M11	X	-207	-207	0	%100
18	M11	Z	-359	-359	0	%100
19	MP5A	X	-242	-242	0	%100
20	MP5A	Z	-419	-419	0	%100
21	MP4A	X	-242	-242	0	%100
22	MP4A	Z	-419	-419	0	%100
23	MP2A	X	-242	-242	0	%100
24	MP2A	Z	-419	-419	0	%100
25	MP1A	X	-242	-242	0	%100
26	MP1A	Z	-419	-419	0	%100
27	MP3A	X	-242	-242	0	%100
28	MP3A	Z	-419	-419	0	%100
29	M27	X	-144	-144	0	%100
30	M27	Z	-25	-25	0	%100
31	M28	X	-039	-039	0	%100
32	M28	Z	-068	-068	0	%100

Member Area Loads

Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
No Data to Print ...						

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

Member	Shape	Code Check	L...	LC	Shear C...	Loc...	phi*P...	phi*P...	phi*M...	phi*M...	Egn	
1	M1	L4X4X4	.470	6...	26	.309	6.25	z 14	11880...	62532	3.138	5.131 ... H2-1
2	M2	L4X4X4	.175	3...	21	.295	3.1...	y 19	11880...	62532	3.138	4.325 ... H2-1
3	M3	L2x2x2	.099	2...	7	.023	4.6...	y 18	5342...	15908...	.403	.638 ... H2-1
4	M4	L2x2x2	.250	2...	23	.039	4.7...	y 22	5243...	15908...	.403	.635 ... H2-1
5	M5	L2x2x2	.216	2...	15	.024	4.7...	y 16	5243...	15908...	.403	.635 ... H2-1
6	M6	L2x2x2	.096	2...	7	.021	4.6...	y 21	5342...	15908...	.403	.638 ... H2-1
7	RRU	PIPE_4.0	.068	6...	26	.039	1.1...	z 11	73999...	93240	10.631	10.631 ... H1-1b
8	M10	W8X18	.132	1	11	.042	.51	z 11	16957...	170424	12.582	45.9 ... H1-1b
9	M11	W8X18	.105	1	29	.034	.5	z 27	16957...	170424	12.582	45.9 ... H1-1b
10	MP5A	PIPE_2.0	.217	3...	7	.094	3.8...	z 12	12143...	32130	1.872	1.872 ... H1-1b
11	MP4A	PIPE_2.0	.145	3...	1	.052	3.4...	z 12	12143...	32130	1.872	1.872 ... H1-1b
12	MP2A	PIPE_2.0	.116	3...	1	.050	3.4...	z 2	12143...	32130	1.872	1.872 ... H1-1b
13	MP1A	PIPE_2.0	.235	3...	8	.083	3.8...	z 2	12143...	32130	1.872	1.872 ... H1-1b
14	MP3A	PIPE_2.0	.088	4...	13	.064	.438	z 3	17855...	32130	1.872	1.872 ... H1-1b
15	M27	PIPE_2.0	.063	2...	15	.005	7.46	z 16	16487...	32130	1.872	1.872 ... H1-1b



Company : Colliers Engineering & Design
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 Job Number :
 Model Name : 5000384879-VZW_MT_LOT_SectorA_H

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

Member	Shape	Code Check	L	LC	Shear C	Loc	phi*P	phi*P	phi*M	phi*M	Eqn
16	M28 PIPE 2.0	.095	0	24	.007	3.9...	2326718..	32130	1.872	1.872	H1-1b

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	N21	max	1035.78	11	1192.002	19	425.485	1	-.338	70	.999	11	.341	11
2		min	-899.733	5	337.833	1	-677.382	7	-1.135	13	-.879	5	-.298	5
3	N22	max	556.248	11	1354.324	13	897.82	1	-.487	70	.576	11	.087	5
4		min	-689.763	5	399.818	70	-663.08	7	-1.583	18	-.693	5	-.346	35
5	N55	max	193.374	7	45.743	15	528.438	1	0	75	0	75	0	75
6		min	-196.76	1	10.382	9	-519.715	7	0	1	0	1	0	1
7	N56	max	39.498	1	62.741	21	449.998	1	0	75	0	75	0	75
8		min	-38.78	7	15.531	3	-441.557	7	0	1	0	1	0	1
9	Totals:	max	1542.93	10	2555.792	18	2301.741	1						
10		min	-1542.93	4	797.046	75	-2301.735	7						

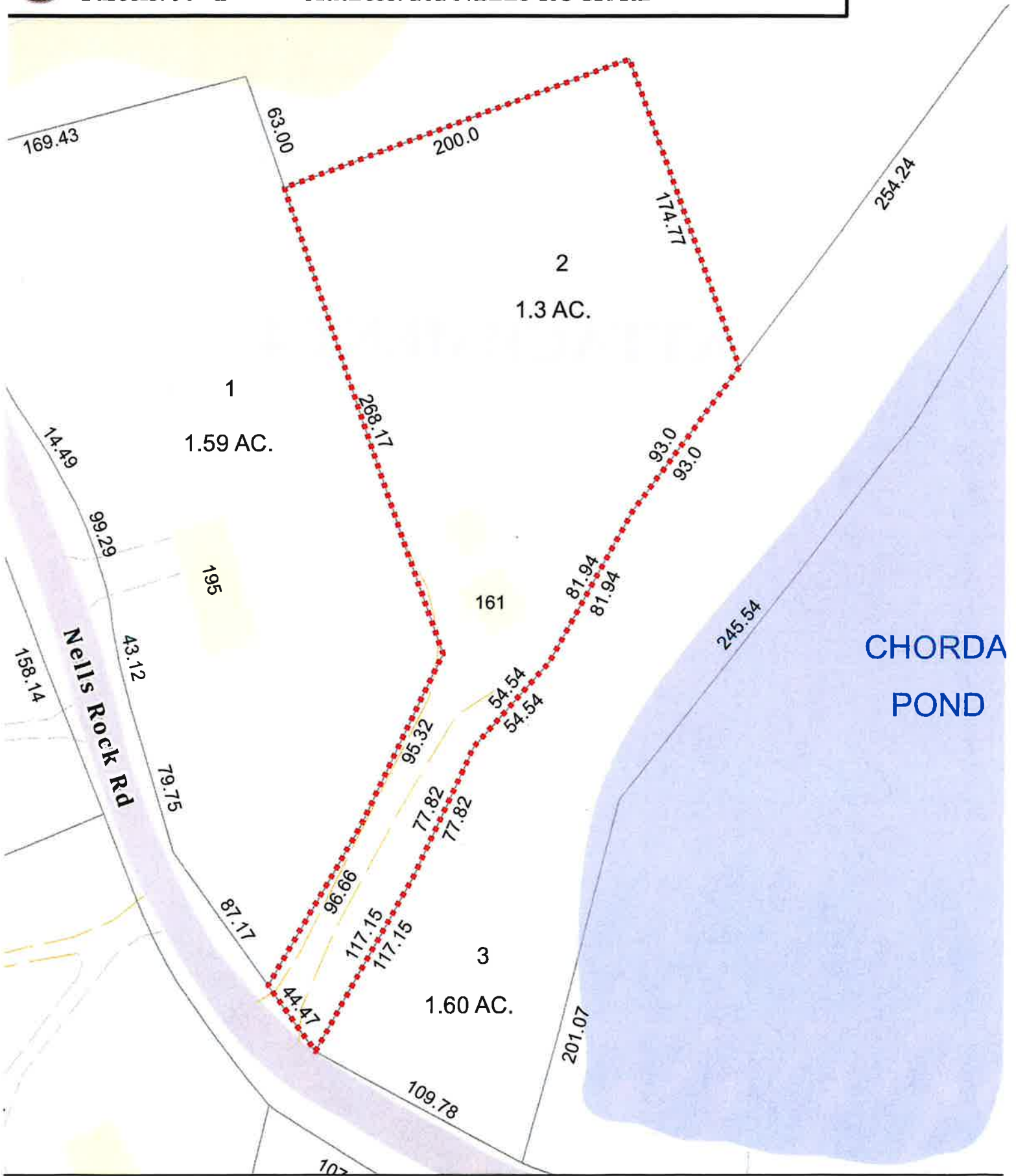
ATTACHMENT 4



City of Shelton, Connecticut - Parcel Map

Parcels: 90 2

Address: 161 NELLS ROCK RD



Approximate Scale: 1:800

50 0 50 Feet

Map Produced
October 2021

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



Property Information

Property Location	161 NELLS ROCK RD
Mailing Address	1010 PINE ST LOUIS, MO 63101
Land Use	Radio/TV Trans
Zoning Code	R-1
Neighborhood	23000

Owner	NEW CINGULAR WIRELESS PCS LLC
Co-Owner	
Book / Page	3564/0303
Land Class	Public Utility
Census Tract	
Acreage	1.3

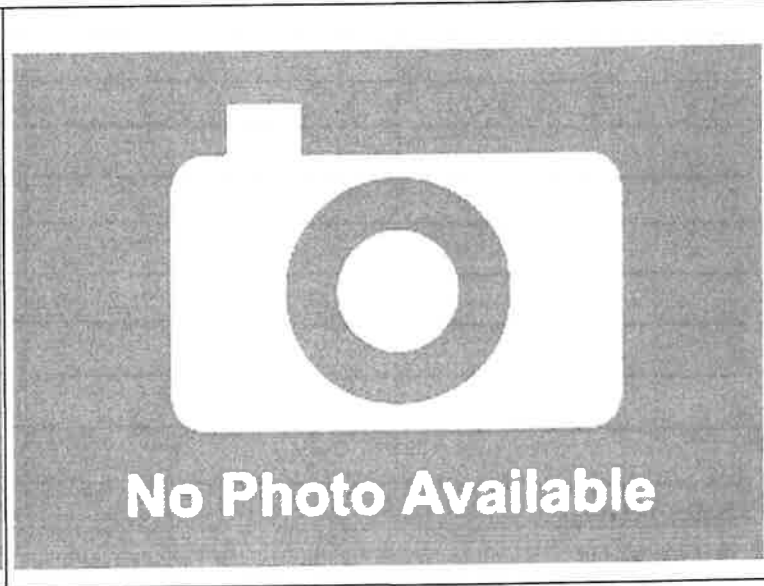
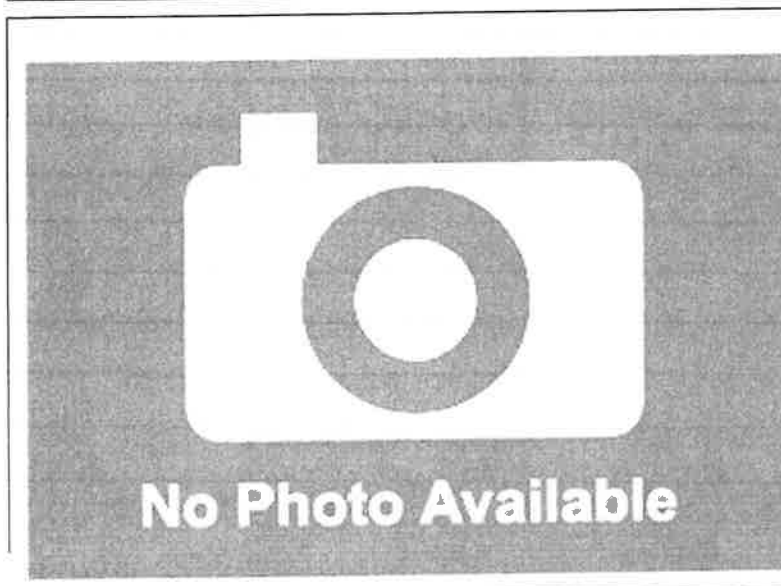
Valuation Summary

(Assessed value = 70% of Appraised Value)

Item	Appraised	Assessed
Buildings	71400	49980
Outbuildings	17600	12320
Land	130000	91000
Total	219000	153300

Utility Information

Electric	NA
Gas	NA
Sewer	NA
Public Water	NA
Well	NA



Primary Construction Details

Year Built	1955
Building Desc.	Commercial
Building Style	
Stories	1
Exterior Walls	Concrete Block
Exterior Walls 2	
Interior Walls	
Interior Walls 2	
Interior Floors 1	
Interior Floors 2	

Heating Fuel	
Heating Type	
AC Type	
Bedrooms	0
Full Bathrooms	0
Half Bathrooms	0
Extra Fixtures	0
Total Rooms	0
Bath Style	NA
Kitchen Style	
Occupancy	0

Building Use	Radio/TV Trans
Building Condition	Average
Frame Type	3
Fireplaces	0
Bsmt Gar	0
Fin Bsmt Area	0
Fin Bsmt Quality	
Building Grade	0
Roof Style	Flat
Roof Cover	Composite Built Up

Town of Shelton, CT

Property Listing Report

Map Block Lot 90 2

Building # 1

Unique Identifier

90 2

Detached Outbuildings

Type	Description	Area (sq ft)	Condition	Year Built
Fence	8 Ft Chain	3200	Average	1965

Attached Extra Features

Type	Description	Area (sq ft)	Condition	Year Built



Sales History

Owner of Record	Book/ Page	Sale Date	Sale Price
NEW CINGULAR WIRELESS PCS LLC	3564_0303	6/23/2015	0
AT & T CAPITAL SERVICES INC	3514_0208	10/28/2014	0
SOUTHERN NEW ENGLAND	0162_0385	6/30/1959	0

ATTACHMENT 5

Certificate of Mailing — Firm



Name and Address of Sender Kenneth C. Baldwin, Esq. Robinson & Cole LLP 280 Trumbull Street Hartford, CT 06103	TOTAL NO. of Pieces Listed by Sender 3	TOTAL NO. of Pieces Received at Post Office™ 3	Affix Stamp Here Postmark with Date of Receipt. 					
USPS® Tracking Number Firm-specific Identifier		Postmaster, per (name of receiving employee) 		Address (Name, Street, City, State, and ZIP Code™)	Postage	Fee	Special Handling	Parcel Airlift
1. _____ _____ _____		Mark Lauretti, Mayor City of Shelton 54 Hill Street Shelton, CT 06484		_____ _____ _____				
2. _____ _____ _____		Alexander Rosetti, Planning and Zoning Administrator City of Shelton 54 Hill Street Shelton, CT 06484		_____ _____ _____				
3. _____ _____ _____		New Cingular Wireless PCS LLC 1010 Pine Street St. Louis, MO 63101		_____ _____ _____				
4. _____ _____ _____				_____ _____ _____				
5. _____ _____ _____				_____ _____ _____				
6. _____ _____ _____				_____ _____ _____				

