Robinson+Cole

KENNETH C. BALDWIN

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Also admitted in Massachusetts
and New York

January 23, 2024

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**
435 Mill Street, Southington, Connecticut

Dear Attorney Bachman:

Cellco Partnership d/b/a Verizon Wireless ("Cellco") currently maintains a wireless telecommunications facility at the above-referenced address (the "Property"). Cellco's facility consists of antennas and remote radio heads attached to a tower. Equipment associated with the facility is located on the ground adjacent to the tower. The tower was approved by the Town of Southington ("Town") in August of 2018. Cellco's use of the tower was approved by the Siting Council ("Council") in November of 2020 (TS-VER-131-201005). A copy of the Town's approval and the Cellco's TS-VER-131-201005 approval are included in Attachment 1.

Cellco's proposed modification involves the installation of four (4) interference mitigation filters ("Filters") on its existing antenna platform and antenna mounting assembly. The specification sheet for the Filter 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 Southington's Town Manager and Land Use Officer. The Town of Southington is 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).

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 platforms and antenna mounting assembly.

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 the 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 Structural Analysis Report ("SA") and Antenna Mount Analysis Report ("MA"), the existing tower, foundation, antenna platform and mounting assembly 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 Sciota, Town Manger
Jeremy DeCarli, Director of Planning and Community Development
Alex Tyurin, Verizon Wireless

ATTACHMENT 1

PLANNING AND ZONING DEPARTMENT

JOHN WEICHSEL MUNICIPAL CENTER – 196 NORTH MAIN STREET
SOUTHINGTON, CONNECTICUT 06489

Phone. (860)276-6248 / Fax: (860)628-3511

August 27, 2018

Southington Water Department
605 West Queen Street
PO Box 111
Southington, CT 06489

RE: Site plan application – 435 and 471 (rear) Mill Street (SPR #1760)

Dear Sir:

Please be advised that on August 21, 2018, the Southington Planning and Zoning Commission voted to approve your site plan application to construct a new 65 ft tall water storage tank and a 120' tall communications tower. The Commission also granted a waiver of the communications tower fall radius.

Please submit six sets of revised plans addressing Engineering comments prior to bidding. Building and zoning permits and a preconstruction meeting will also be required. Please note that this approval is good for a period of five (5) years, which will expire on August 21, 2023. You can request a five year extension prior to the expiration date if the work has not been completed.

Respectfully,

Robert A. Phillips, AICP
Director of Planning and Community Development

cc: Engineering Dept.
Building Dept.
Assessor's Dept.

PLANNING AND ZONING DEPARTMENT

JOHN WEICHSEL MUNICIPAL CENTER – 196 NORTH MAIN STREET
SOUTHINGTON, CONNECTICUT 06489
Phone: (860)276-6248 / Fax: (860)628-3511

August 28, 2018

Southington Water Department
605 West Queen Street
PO Box 111
Southington, CT 06489

RE: Special Permit Approval – 435 and 471 (rear) Mill Street (SPU #605)

Dear Sir:

On August 21, 2018, the Planning and Zoning Commission voted to approve your Special Permit Application to construct a new 65-ft water storage tank and a 120-ft tall communications tower on properties located at 435 and 471 (rear) Mill Street.

The special permit use becomes effective upon the filing of the approved special permit use plan with the Town Planner's office and the filing **of this original approval letter in the office of the Town Clerk,** pursuant to Section 8-3d of the General Statutes of Connecticut. Such plan shall be certified by the Planning and Zoning Commission prior to filing. An approved special permit use not put into effect within one year becomes null and void. A single one year extension may be granted before the approval's first anniversary date (Section 8-03.3).

Respectfully,

Robert A. Phillips, AICP
Director of Planning and Community Development

cc: Town Engineer
Building Dept.
Town Assessor

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
Web Site: www.ct.gov/csc

VIA ELECTRONIC MAIL

November 6, 2020

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

RE: **TS-VER-131-201005** - Cellco Partnership d/b/a Verizon Wireless request for an order to approve tower sharing at an existing telecommunications facility located at 435 Mill Street, Southington, Connecticut.

Dear Attorney Baldwin:

At a public meeting held on November 5, 2020 the Connecticut Siting Council (Council) ruled that the shared use of this existing tower site is technically, legally, environmentally, and economically feasible and meets public safety concerns, and therefore, in compliance with General Statutes § 16-50aa, the Council has ordered the shared use of this facility to avoid the unnecessary proliferation of tower structures with the following conditions:

1. Approval of any changes be delegated to Council staff;

2. Any deviation from the proposed installation as specified in the original tower share request and supporting materials with the Council shall render this decision invalid;

3. Any material changes to the proposed installation as specified in the original tower share request and supporting materials filed with the Council shall require an explicit request for modification to the Council pursuant to Connecticut General Statutes § 16-50aa, including 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;

4. Not less than 45 days after completion of the proposed installation, the Council shall be notified in writing that the installation has been completed;

5. Any nonfunctioning antenna and associated antenna mounting equipment on this facility owned and operated by Verizon shall be removed within 60 days of the date the antenna ceased to function;

6. The validity of this action shall expire one year from the date of this letter; and

7. The applicant may file a request for an extension of time beyond the one year deadline provided that such request is submitted to the Council not less than 60 days prior to the expiration.

This decision is under the exclusive jurisdiction of the Council and applies only to this request for tower sharing dated October 6, 2020, and additional information received October 22, 2020. This facility has 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. Any deviation from the approved tower sharing request is enforceable under the provisions of Connecticut General Statutes § 16-50u.

The proposed shared use is to be implemented as specified in your letter dated October 6, 2020, and additional information received October 22, 2020, including the placement of all necessary equipment and shelters within the tower compound.

Please be advised that the validity of this action shall expire one year from the date of this letter.

Thank you for your attention and cooperation.

Sincerely,

s/ Melanie A. Bachman

Melanie Bachman
Executive Director

MAB/IN/emr

c: The Honorable Victoria Triano, Chairwoman, Town of Southington (vtriano@southington.org)
Mark J. Sciota, Town Manager, Town of Southington (sciotam@southington.org)
Robert Phillips, Director of Planning and Community Development, Town of Southington (phillipsr@southington.org)

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

Contact Us: +1 303 768 8080 | +61 (0) 7 3907 1200 | www.kaelus.com

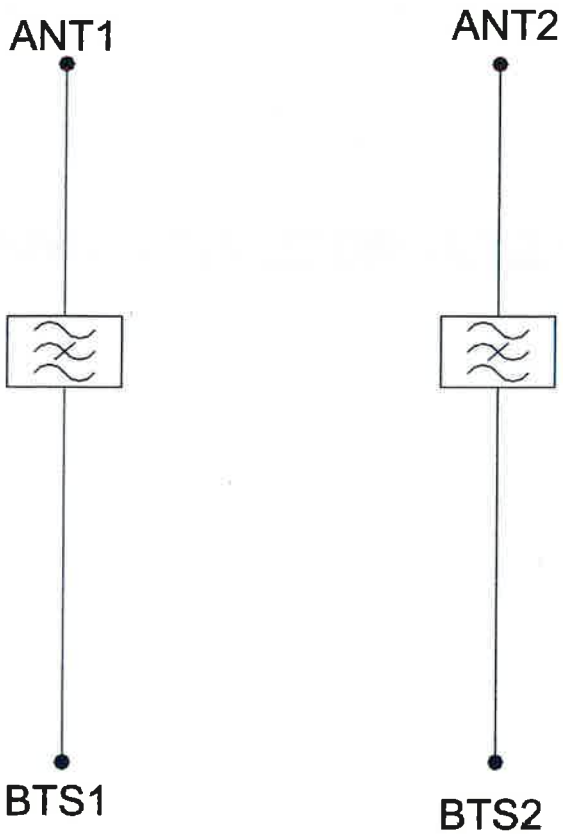
MECHANICAL	
Dimensions H x D x W	269 x 277 x 80mm | 10.60 x 10.90 x 3.15in (Excluding brackets and connectors)
Weight	8.0 kg | 17.6 lbs (no bracket)
Finish	Powder coated, light grey (RAL7035)
Connectors	RF: 4.3-10 (F) x 4
Mounting	Optional pole/wall bracket supplied with two metal clamps 45-178mm diameter 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)

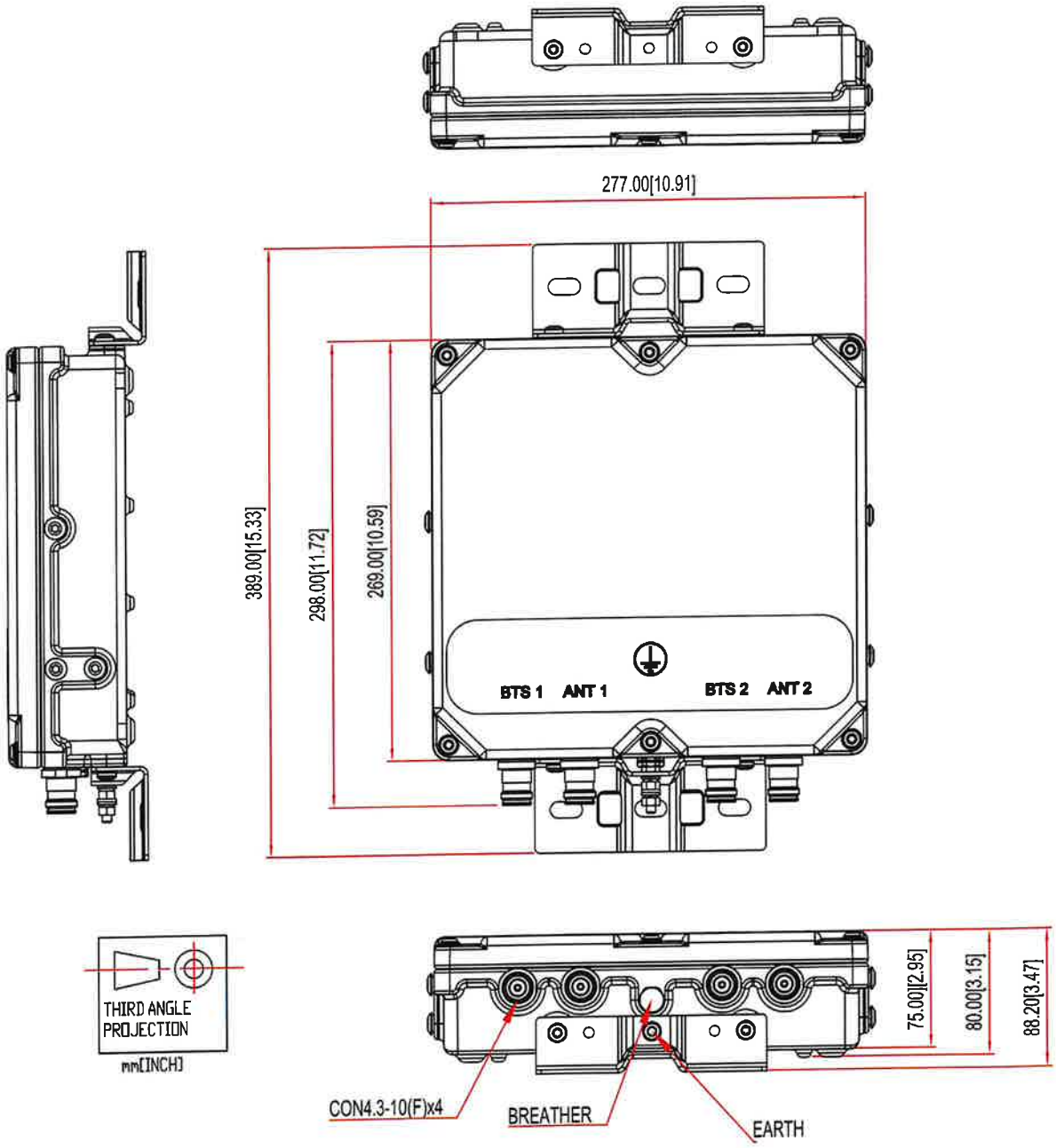
Contact Us: +1 303 768 8080 | +61 (0) 7 3907 1200 | www.kaelus.com

ELECTRICAL BLOCK DIAGRAM



Contact Us: +1 303 768 8080 | +61 (0) 7 3907 1200 | www.kaelus.com

MECHANICAL BLOCK DIAGRAM



Contact Us: +1 303 768 8080 | +61 (0) 7 3907 1200 | www.kaelus.com

ATTACHMENT 3

CENTERLINE

Structural Analysis Report

Location Code: 659460
Site Name: Southington 4 CT
FUZE Project ID: 17123835
Project Name: RF Filter Add
Address: 435 Mill Street
Southington, CT 06489

Client:

verizon

20 ALEXANDER DRIVE
WALLINGFORD, CT 06492

Date: 09/21/2023

STATE OF CONNECTICUT
DEREK J. CREASER
LICENSED
PROFESSIONAL ENGINEER

Centerline Engineering Services, PA
750 W Center St, Suite 301
West Bridgewater, MA 02379
781-713-4725

CENTERLINE

Scope of Work:

Centerline Communications was authorized by Verizon Wireless to perform an analysis of the existing 120 ft. self support tower to determine its capacity to support the existing and proposed equipment listed in this report.

Existing & Proposed Equipment:

Carrier	Mounting Level (ft)	Center Line Elevation (ft)	Number of Appurtenances	Antenna Manufacturer	Appurtenance Model	Feed Lines (in)
-	120.0	125.0	1	Ericsson	10' Dipole	(18) 7/8
		125.0	2	RFI Antenna	BA4040-67-DIN	
		122.5	1	Commscope	DB404-B	
		120.0	2	Andrew	VHLP800-11	
		120.0	3	Motorola	PTP 49400	
-	110.0	110.0	3	Ericsson	AIR 32 B66AA B2P	(3) 1-5/8
		110.0	3	Ericsson	RADIO 4415 B66A	
		110.0	3	Ericsson	RADIO 4449	
		110.0	3	RFS Celwave	APXVAARR24_43-UNA20	
		110.0	3	SitePro 1	VFA12-HD	
-	98.0	98.0	3	CCI Antenna	OPA65R-BU8D	(6) 1-5/8 (6) DC Power (3) 3/8
		98.0	6	CCI Antenna	TPA65R-BU8D	
		98.0	2	Raycap	DC6-48-60-18-8C-EV	
		98.0	3	Ericsson	RADIO 4449 B5/B12	
		98.0	3	Ericsson	RADIO 8843 B2/B66A	
		98.0	1	Raycap	DC6-48-60-0-8C-EV	
		98.0	3	SitePro 1	VFA12-HD	
		98.0	3	Ericsson	RADIO 4415 B30	
		98.0	3	Ericsson	RRUS 4478 B14	

Centerline Engineering Services, PA
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Verizon Wireless	86.0	88.0	3	Commscope	NHH-65B-R2B	(1) 1-5/8 Hybrid
		88.0	3	Commscope	NHHSS-65B-R2BT4	
		88.0	3	Samsung	CBRS RRH - RT4401-48A	
		88.0	3	Samsung	B2/B66A RRH-BR049 (RFV01UD1A)	
		88.0	3	Samsung	B5/B13 RRH-BR04C (RFV01UD2A)	
		88.0	1	Raycap	RVZDC-6627-PF-48	
		88.0	**4**	**Kaelus**	**KA-6030**	
		88.0	**2**	**Site Pro 1**	**RRUDSM**	
		88.0	3	Site Pro 1	VFA12-HD	

*Note: Proposed equipment shown in **bold**.*

Design Criteria:

Design Codes:
2022 Connecticut State Building Code
2021 International Building Code
ASCE 7-16
TIA-222-H Standards

Basic Design Wind Speed (V)	127 mph
Wind Speed with Ice	50 mph
Ice Thickness	1.00 in.
Exposure Category	B
Topographic Category	1
Risk Category	III
Site Soil Class (Assumed)	D – Stiff Soil
Seismic Design Category	B
Spectral Response Acceleration Parameter at a Short Periods, S_S	0.195 g
Spectral Response Acceleration Parameter at a Period of 1 Second, S_1	0.055 g
Short Period Site Coefficient, F_a	1.60
Long Period Site Coefficient, F_v	2.40

***Refer to calculations for additional design criteria.**

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781-713-4725

CENTERLINE

Conclusion:

Tower Section Capacity (Summary)

Section No.	Elevation ft	Component Type	Size	Critical Element	P lb	ϕP_{allow} lb	% Capacity	Pass Fail
T1	120 - 100	Leg	1 3/4	3	-21.35	86.22	24.8	Pass
T2	100 - 80	Leg	2 1/4	69	-88.86	165.34	53.7	Pass
T3	80 - 60	Leg	Valmont 194651 (58 ksi)	135	-113.00	250.28	45.1	Pass
T4	60 - 40	Leg	Valmont 195213 (58 ksi)	153	-142.76	349.87	40.8	Pass
T5	40 - 20	Leg	Valmont 195217 (58 ksi)	168	-172.45	349.74	49.3	Pass
T6	20 - 0	Leg	Valmont 196915 (58 ksi)	183	-175.44	401.94	43.6	Pass
T1	120 - 100	Diagonal	3/4	17	-2.17	5.92	36.7	Pass
T2	100 - 80	Diagonal	7/8	84	-5.30	11.16	47.5	Pass
T3	80 - 60	Diagonal	L2 1/2x2 1/2x1/4	149	-6.68	23.79	28.1 42.9 (b)	Pass
T4	60 - 40	Diagonal	L2 1/2x2 1/2x3/16	158	-4.15	13.67	30.3 43.7 (b)	Pass
T5	40 - 20	Diagonal	L2 1/2x2 1/2x5/16	174	-5.56	17.11	32.5 36.9 (b)	Pass
T6	20 - 0	Diagonal	2L3 1/2x3 1/2x1/4x5/8	188	-13.78	64.81	21.3	Pass
T1	120 - 100	Horizontal	3/4	19	-0.35	3.35	10.4	Pass
T2	100 - 80	Horizontal	3/4	85	-1.47	3.42	42.9	Pass
T1	120 - 100	Top Girt	7/8	6	-0.28	6.20	4.6	Pass
T2	100 - 80	Top Girt	1	71	-1.54	10.81	14.2	Pass
T3	80 - 60	Top Girt	L3x3x3/16	137	1.96	28.68	6.8 19.3 (b)	Pass
T1	120 - 100	Bottom Girt	7/8	7	-0.84	6.20	13.5	Pass
T2	100 - 80	Bottom Girt	1	74	-1.54	10.81	14.2	Pass
T1	120 - 100	Mid Girt	7/8	12	-0.38	6.20	6.1	Pass
T2	100 - 80	Mid Girt	1	76	-0.69	10.73	6.5	Pass
							Summary	
						Leg (T2)	53.7	Pass
						Diagonal (T2)	47.5	Pass
						Horizontal (T2)	42.9	Pass
						Top Girt (T3)	19.3	Pass
						Bottom Girt (T2)	14.2	Pass
						Mid Girt (T2)	6.5	Pass
						Bolt Checks	43.7	Pass
						RATING =	**53.7**	**Pass**

Structure Rating (Max From All Components) =	**53.7%**

Foundation Capacity (Summary)

Component	% Capacity	Pass Fail
Anchor Rods	26.8	Pass
Foundation – Soil Rating	46.2	Pass
Foundation – Structural Rating	38.4	Pass

Foundation Rating (Max From All Components) =	**46.2%**

Centerline Engineering Services, PA
750 W Center St, Suite 301
West Bridgewater, MA 02379
781-713-4725

CENTERLINE

Recommendations:

The existing tower and its foundation have sufficient capacity to support the existing and proposed loading for the final loading configuration.

Reference Documents:

- Structural Analysis Report by Paul J. Ford & Company, dated September 4, 2020
- Lease Exhibit by Centerline Engineering Services, PA, dated September 1, 2023
- Mount Analysis Report by Colliers, dated August 10, 2023

Assumptions and Limitations:

- The tower and structures were built and maintained with the manufacturer's specifications.
- The configuration of antennas, transmission cables, mounts and other appurtenances are as specified in this report and the referenced drawings.
- Existing appurtenance information obtained from the Structural Analysis Report by Paul J. Ford & Company, dated September 4, 2020 and the Lease Exhibit by Centerline Engineering Services, PA, dated September 1, 2023.

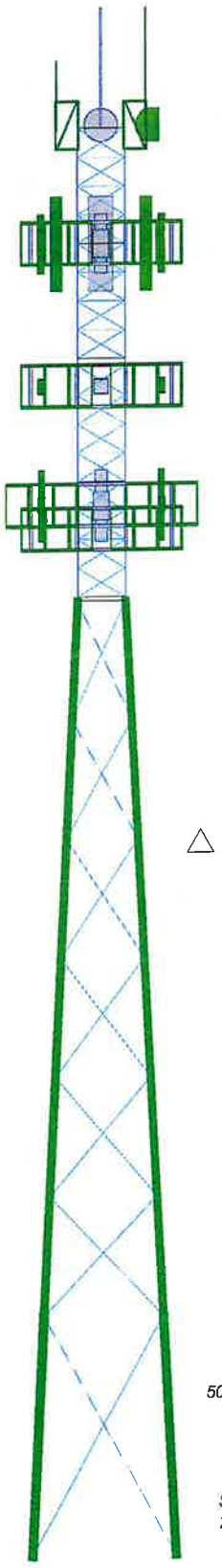
Centerline Engineering Services, PA
750 W Center St, Suite 301
West Bridgewater, MA 02379
781-713-4725

CENTERLINE

Design Calculations

Centerline Engineering Services, PA
750 W Center St, Suite 301
West Bridgewater, MA 02379
781-713-4725

Section	16	15	14	13	12	11
Legs	Valmont 196915 (58 ksi)	Valmont 195217 (58 ksi)	Valmont 195213 (58 ksi)	Valmont 194661 (58 ksi)	SR 2 1/4	SR 1 3/4
Leg Grade	A500M-58		A572-58			SR 3/4
Diagonals	2L3 1/2x3 1/2x1/4x5/8	L2 1/2x2 1/2x5/16	L2 1/2x2 1/2x3/16	L2 1/2x2 1/2x1/4	SR 7/8	
Diagonal Grade		N.A.		A572-50		
Top Girts				L3x3x3/16	SR 1	SR 7/8
Mid Girts			N.A.		SR 1	SR 7/8
Bottom Girts			N.A.		SR 1	SR 7/8
Horizontals			N.A.	SR 3/4		
Face Width (ft)	12	10	8	6	4	
# Panels @ (ft)	1 @ 20		6 @ 10		16 @ 2.42708	
Weight (K)	15.5	47	3.1	28	25	15	16



DESIGNED APPURTENANCE LOADING

TYPE	ELEVATION	TYPE	ELEVATION
BA4040-67-DIN	120	RRUS 4478 B14	98
BA4040-67-DIN	120	RRUS 4478 B14	98
DB404-B	120	RRUS 4478 B14	98
10' Dipole	120	RRUS 4415 B30	98
PTP 49400	120	RRUS 4415 B30	98
PTP 49400	120	RRUS 4415 B30	98
PTP 49400	120	Site Pro 1 VFA12-HD	98
Side Arm (1'x2')	120	Site Pro 1 VFA12-HD	98
Side Arm (1'x2')	120	Site Pro 1 VFA12-HD	98
Side Arm (1'x2')	120	(2) TPA65R-BU8D w/ Mount Pipe	98
Side Arm (1'x2')	120	(2) TPA65R-BU8D w/ Mount Pipe	98
Pipe Mount (4'x4" Sch 40)	120	(2) TPA65R-BU8D w/ Mount Pipe	98
Pipe Mount (4'x4" Sch 40)	120	RADIO 8843 B2/B66A	98
VHLP800-11	120	RADIO 8843 B2/B66A	98
VHLP800-11	120	Site Pro 1 VFA12-HD	86
Site Pro 1 VFA12-HD	110	BSAMNT-SBS-1-2 (Mount Bracket)	86
Site Pro 1 VFA12-HD	110		
Site Pro 1 VFA12-HD	110	BSAMNT-SBS-1-2 (Mount Bracket)	86
APXVAARR24_43-U-NA20 w/ Mount Pipe	110	BSAMNT-SBS-1-2 (Mount Bracket)	86
APXVAARR24_43-U-NA20 w/ Mount Pipe	110	NHH-65B-R2B w/ Mount Pipe	86
APXVAARR24_43-U-NA20 w/ Mount Pipe	110	NHH-65B-R2B w/ Mount Pipe	86
		NHH-65B-R2B w/ Mount Pipe	86
AIR 32 B66A/B2P w/ Mount Pipe	110	NHHSS-65B-R2BT4 w/ Mount Pipe	86
AIR 32 B66A/B2P w/ Mount Pipe	110	NHHSS-65B-R2BT4 w/ Mount Pipe	86
AIR 32 B66A/B2P w/ Mount Pipe	110	NHHSS-65B-R2BT4 w/ Mount Pipe	86
Radio 4415 B66A	110	B2/B66A RRH-BR049 (RFV01U-D1A)	86
Radio 4415 B66A	110	B2/B66A RRH-BR049 (RFV01U-D1A)	86
Radio 4415 B66A	110	B2/B66A RRH-BR049 (RFV01U-D1A)	86
RADIO 4449	110	B5/B13 RRH-BR04C (RFV01U-D2A)	86
RADIO 4449	110	B5/B13 RRH-BR04C (RFV01U-D2A)	86
RADIO 4449	110	B5/B13 RRH-BR04C (RFV01U-D2A)	86
OPA-65R-BU8D w/ Mount Pipe	98	CBRS RRH - RT4401-48A	86
OPA-65R-BU8D w/ Mount Pipe	98	CBRS RRH - RT4401-48A	86
OPA-65R-BU8D w/ Mount Pipe	98	CBRS RRH - RT4401-48A	86
RADIO 4449 B5/B12	98	RVZDC-6627-PF-48	86
RADIO 4449 B5/B12	98	(2) KA-6030	86
RADIO 4449 B5/B12	98	(2) KA-6030	86
RADIO 8843 B2/B66A	98	Site Pro 1 RRUDSM	86
DC6-48-60-18-8C-EV	98	Site Pro 1 RRUDSM	86
DC6-48-60-18-8C-EV	98	Site Pro 1 VFA12-HD	86
DC6-48-60-0-8C-EV	98	Site Pro 1 VFA12-HD	86

MATERIAL STRENGTH

GRADE	Fy	Fu	GRADE	Fy	Fu
A572-58	58 ksi	75 ksi	A500M-58	58 ksi	70 ksi
A572-50	50 ksi	65 ksi			

ALL RE
ARE FA

MAX. C
DOW
SHE

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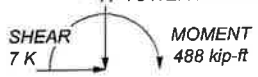
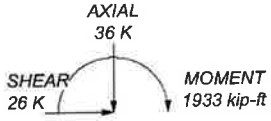
AX

TOWER DESIGN NOTES

1. Tower designed for Exposure B to the TIA-222-H Standard.
2. Tower designed for a 127 mph basic wind in accordance with the TIA-222-H Standard.
3. Tower is also designed for a 50 mph basic wind with 1.00 in ice. Ice is considered to increase in thickness with height.
4. Deflections are based upon a 60 mph wind.
5. Tower Risk Category III.
6. Topographic Category 1 with Crest Height of 0.00 ft
7. TOWER RATING: 53.7%



TORQUE 1 kip-ft
50 mph WIND - 1.0000 in ICE



TORQUE 7 kip-ft
REACTIONS - 127 mph WIND

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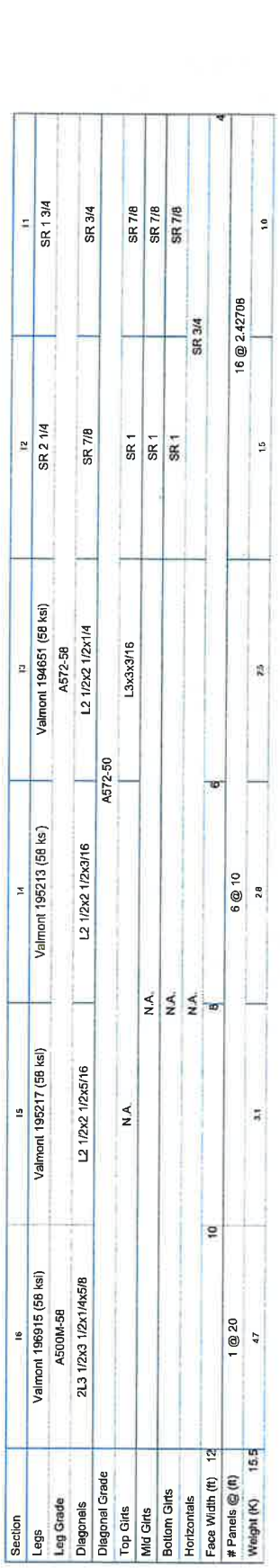
West Bridgewater, MA 02379
Phone: (781) 713-4725
FAX:

Job: Southington 4 CT			
Project: 23CLVZ-0008			
Client: Verizon Wireless	Drawn by: jboegel	App'd:	
Code: TIA-222-H	Date: 09/20/23	Scale: NTS	
Path:		Dwg No. E-1	



MATERIAL STRENGTH

GRADE	Fy	Fu	GRADE	Fy	Fu
A572-58	58 ksi	75 ksi	A500M-58	58 ksi	70 ksi
A572-50	50 ksi	65 ksi			

TOWER DESIGN NOTES

1. Tower designed for Exposure B to the TIA-222-H Standard.
2. Tower designed for a 127 mph basic wind in accordance with the TIA-222-H Standard.
3. Tower is also designed for a 50 mph basic wind with 1.00 in ice. Ice is considered to increase in thickness with height.
4. Deflections are based upon a 60 mph wind.
5. Tower Risk Category III.
6. Topographic Category 1 with Crest Height of 0.00 ft
7. Seismic calculations are in accordance with TIA-222-H.
8. Seismic loads do not control this analysis.
9. TOWER RATING: 53.7%

△ *ALL REACTIONS ARE FACTORED*

MAX. CORNER REACTIONS AT BASE:
DOWN: 198 K
SHEAR: 21 K

UPLIFT: -175 K
SHEAR: 19 K

AXIAL 38 K
SHEAR 2 K *MOMENT 194 kip-ft*
TORQUE 0 kip-ft
SEISMIC

AXIAL 77 K
SHEAR 7 K *MOMENT 488 kip-ft*
TORQUE 1 kip-ft
50 mph WIND - 1.0000 in ICE

AXIAL 36 K
SHEAR 26 K *MOMENT 1933 kip-ft*
TORQUE 7 kip-ft
REACTIONS - 127 mph WIND

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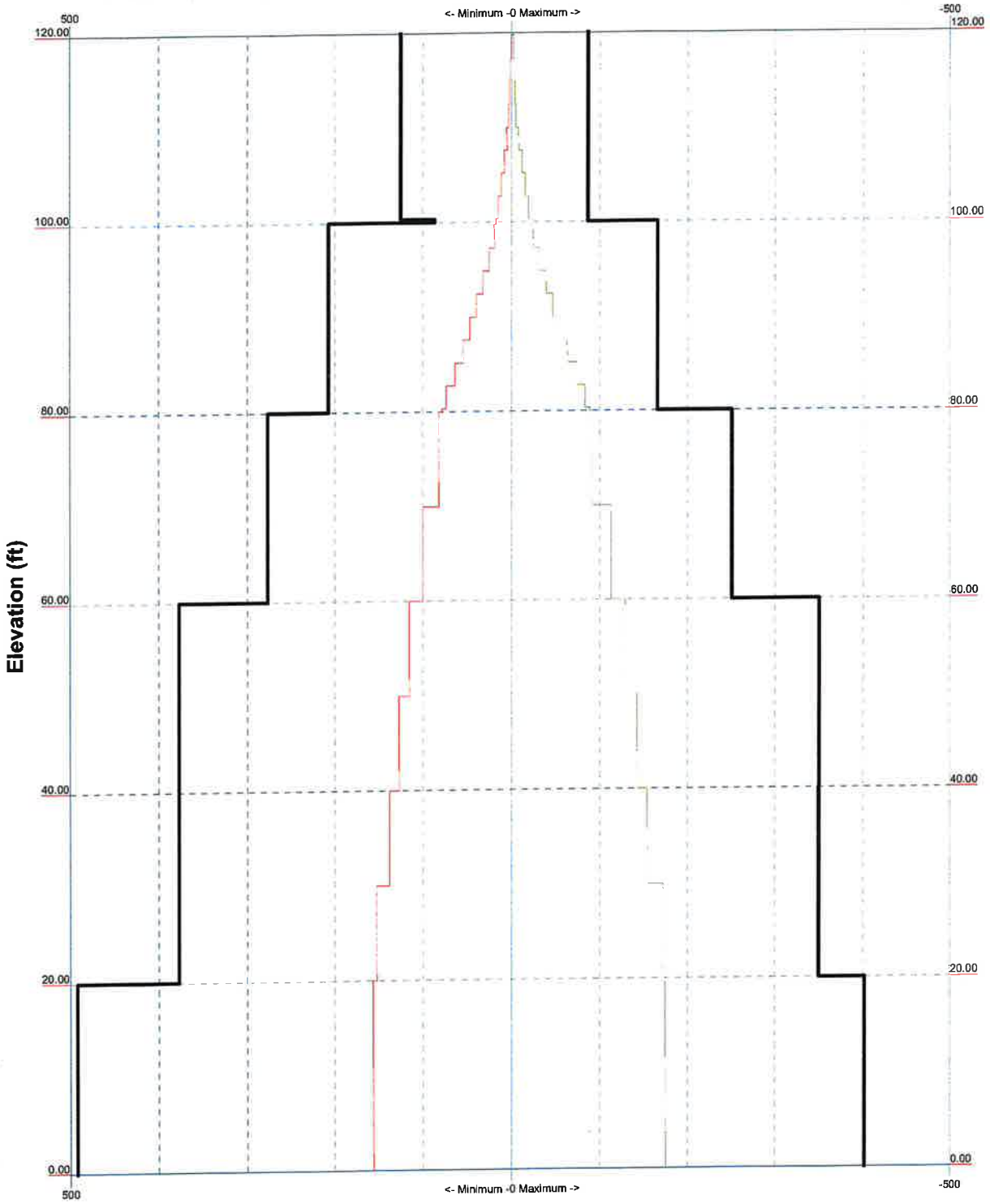
Path:		Dwg No. E-1	

TIA-222-H - 127 mph/50 mph 1.0000 in Ice Exposure B

Leg Capacity ——— **Leg Compression (K)**



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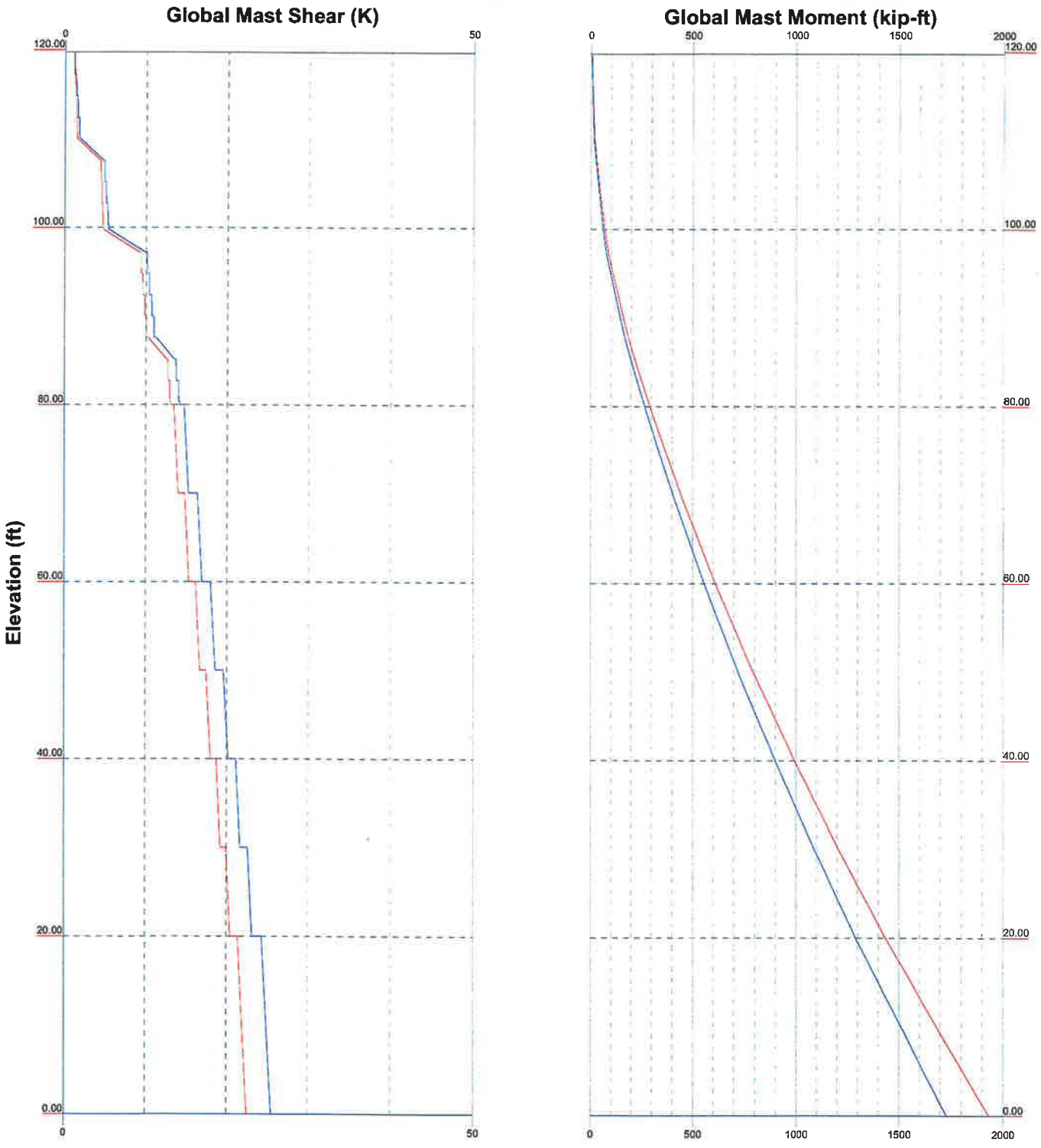
Project: *23CLVZ-0008*			
Client: Verizon Wireless	Drawn by: jboegel	App'd:	
Code: TIA-222-H	Date: 09/20/23	Scale: NTS	
Path:		Dwg No. E-3	

TIA-222-H - 127 mph/50 mph 1.0000 in Ice Exposure B

Vx Vz

Maximum Values

Mx Mz



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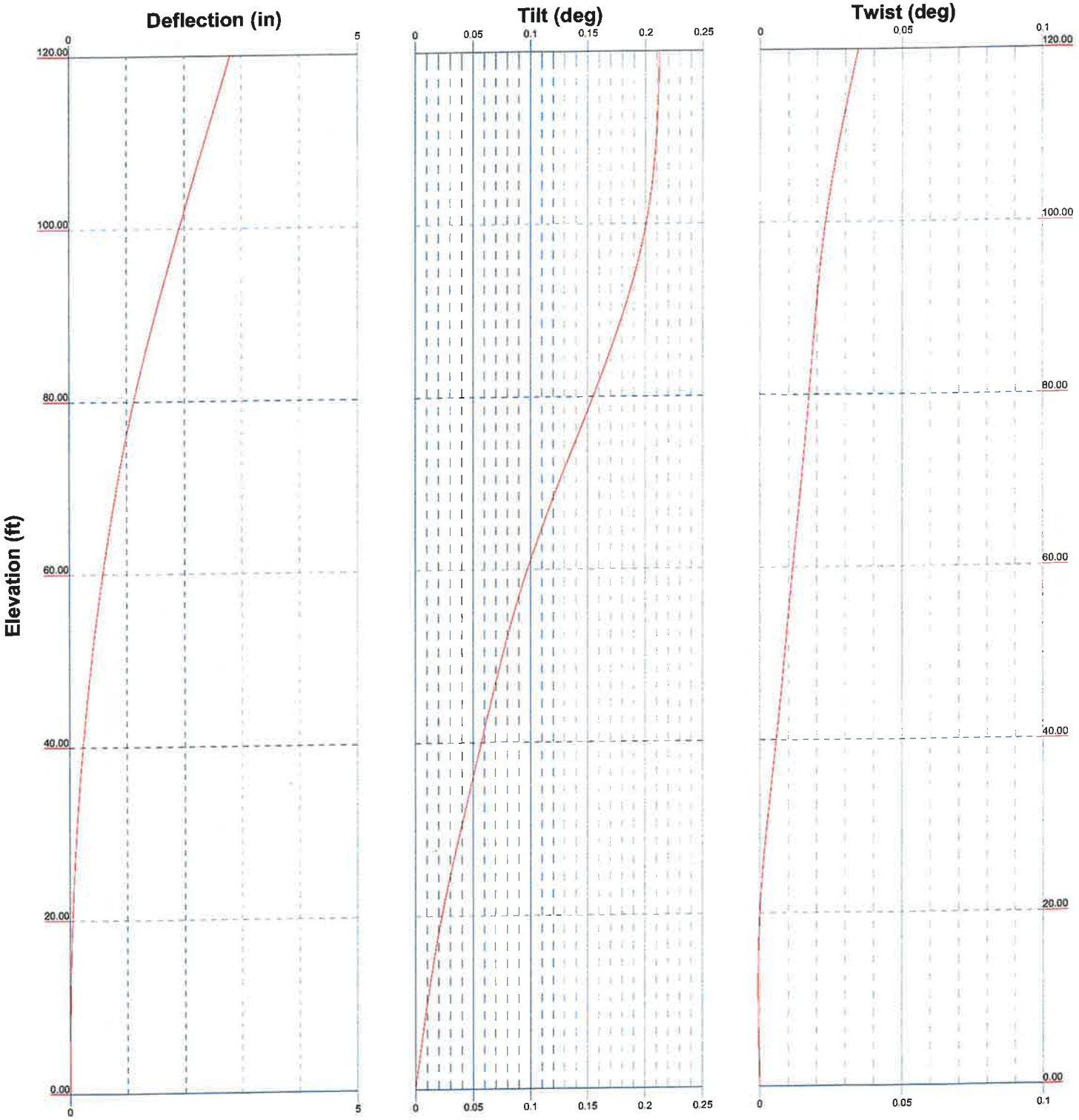
Project: 23CLVZ-0008			
Client: Verizon Wireless	Drawn by: jboegel	App'd:	
Code: TIA-222-H	Date: 09/20/23	Scale: NTS	
Path:		Dwg No. E-4	

TIA-222-H - Service - 60 mph

Maximum Values



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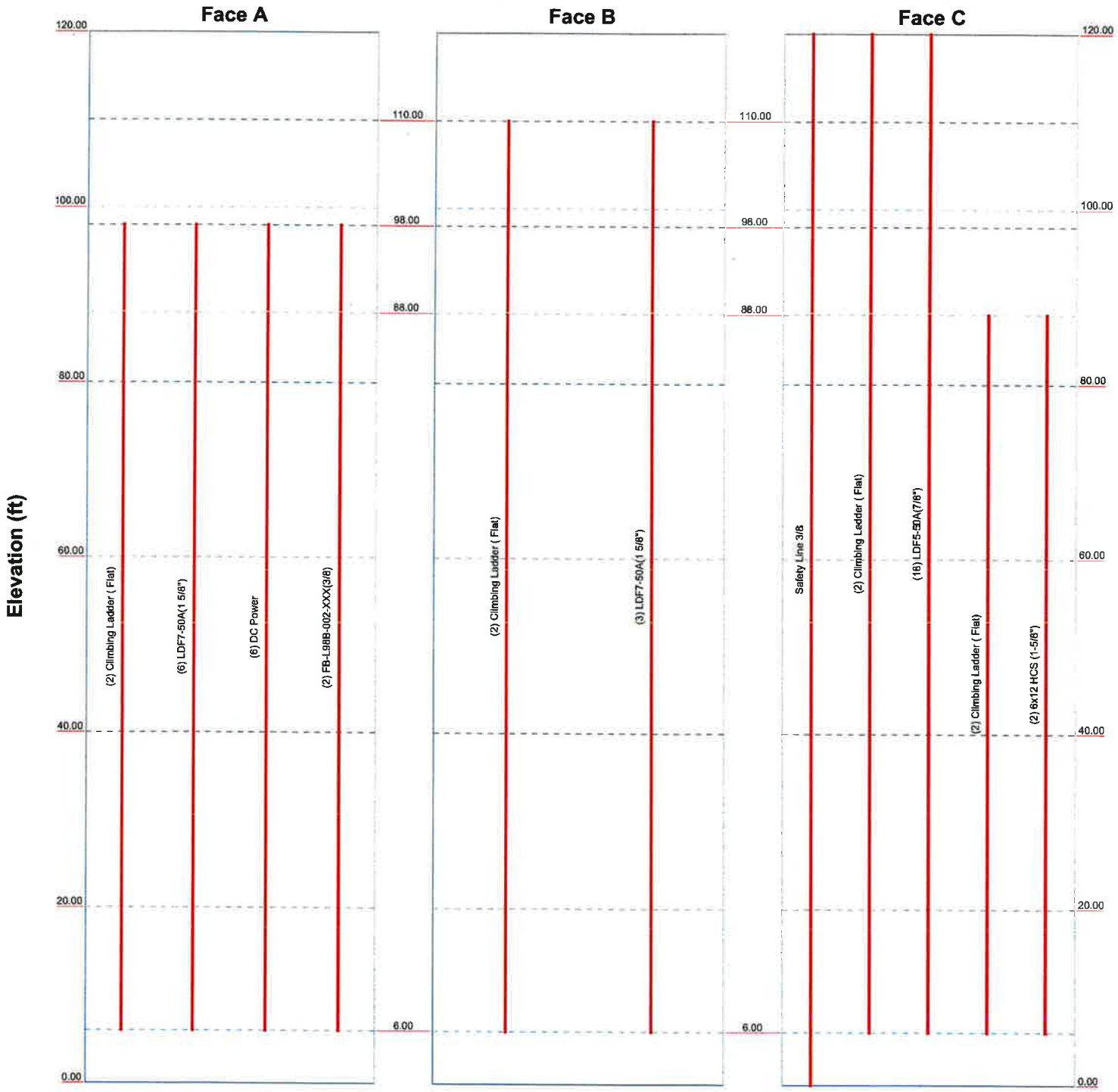
Job: *Southington 4 CT*			
Project: *23CLVZ-0008*			
Client: Verizon Wireless	Drawn by: jboegel	App'd:	
Code: TIA-222-H	Date: 09/20/23	Scale: NTS	
Path:		Dwg No. E-5	

Feed Line Distribution Chart
0' - 120'

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



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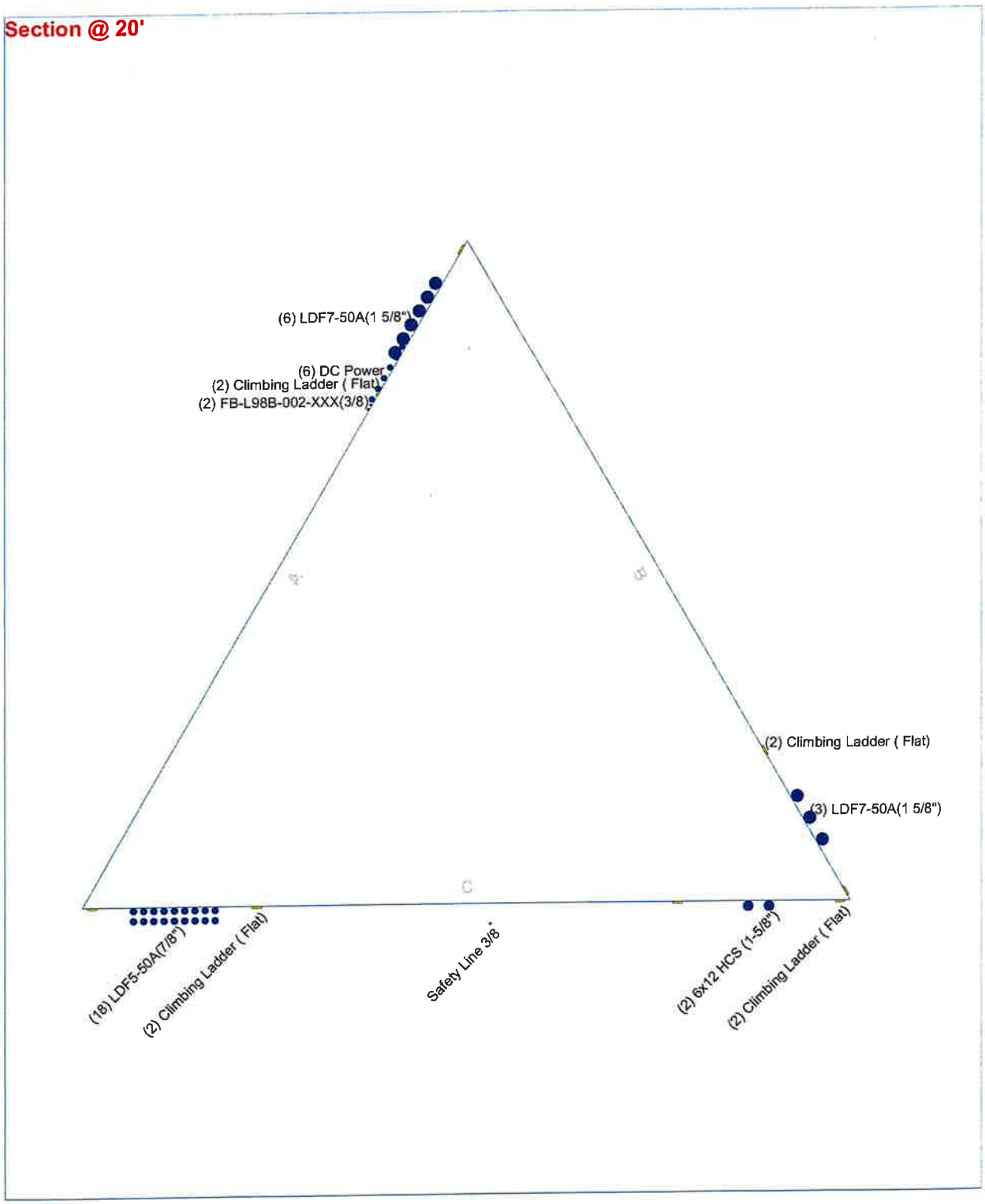
Project: **23CLVZ-0008**			
Client: Verizon Wireless	Drawn by: jboegel	App'd:	
Code: TIA-222-H	Date: 09/20/23	Scale: NTS	
Path:		Dwg No. E-7	

Feed Line Plan
20'

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



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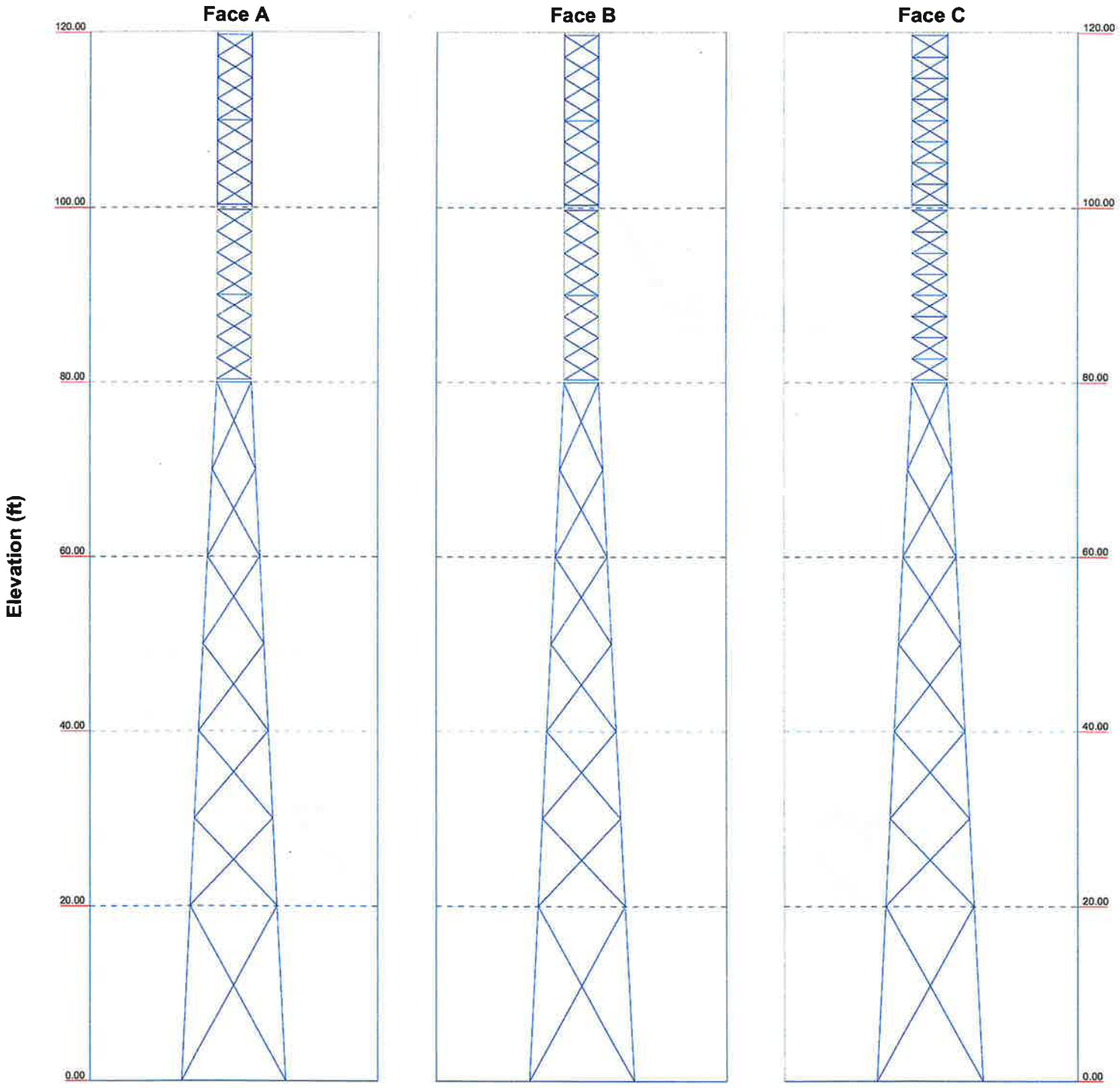
Project: 23CLVZ-0008			
Client: Verizon Wireless	Drawn by: jboegel	App'd:	
Code: TIA-222-H	Date: 09/20/23	Scale: NTS	
Path:		Dwg No. E-7	

Stress Distribution Chart
0' - 120'

> 100% | 90%-100% | 75%-90% | 50%-75% | < 50% Overstress



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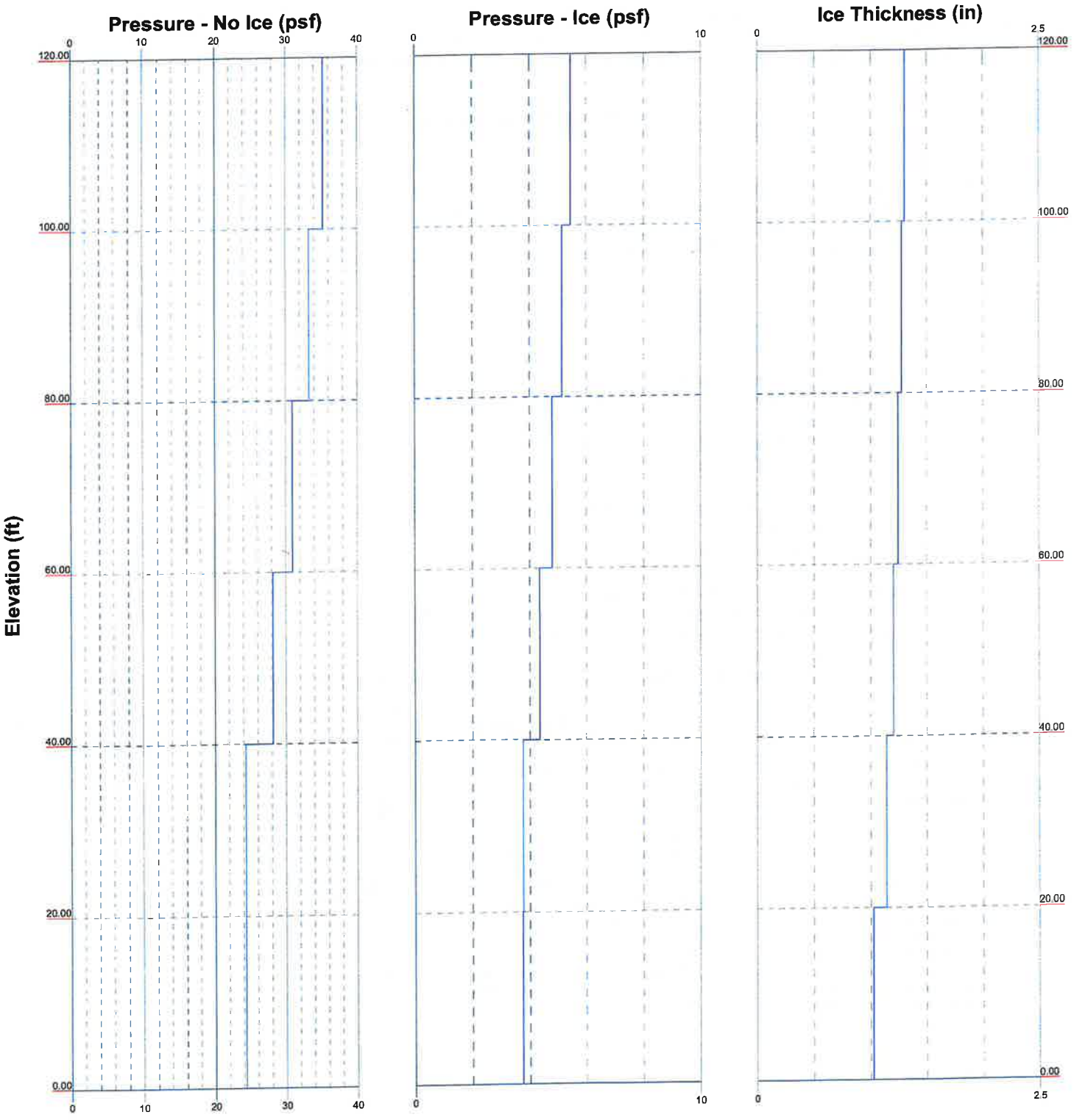
Job: *Southington 4 CT*			
Project: *23CLVZ-0008*			
Client: Verizon Wireless	Drawn by: jboegel	App'd:	
Code: TIA-222-H	Date: 09/20/23	Scale: NTS	
Path:		Dwg No. E-8	

Wind Pressures and Ice Thickness

TIA-222-H - 127 mph/50 mph 1.0000 in Ice Exposure B



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Job: *Southington 4 CT*			
Project: *23CLVZ-0008*			
Client: Verizon Wireless	Drawn by: jboegel	App'd:	
Code: TIA-222-H	Date: 09/20/23	Scale: NTS	
Path:		Dwg No. E-9	

tnxTower	Job	Page
Centerline Engineering Services, PA 750 W Center St, Suite 301 West Bridgewater, MA 02379 Phone: (781) 713-4725 FAX:	Southington 4 CT	1 of 32
	Project 23CLVZ-0008	Date 13:32:52 09/20/23
	Client Verizon Wireless	Designed by jboegel

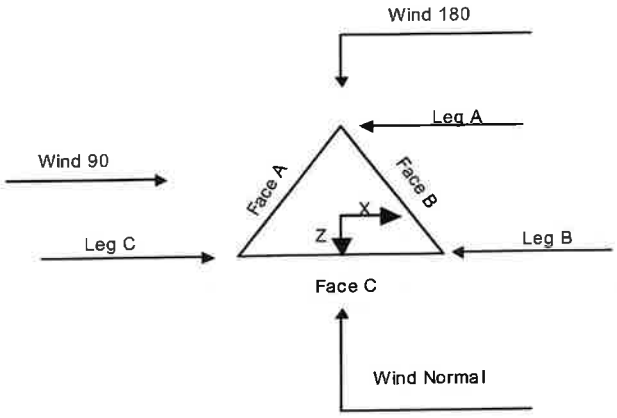
Tower Input Data

The main tower is a 3x free standing tower with an overall height of 120.00 ft above the ground line.
The base of the tower is set at an elevation of 0.00 ft above the ground line.
The face width of the tower is 4.00 ft at the top and 12.00 ft at the base.
This tower is designed using the TIA-222-H standard.
The following design criteria apply:

Tower base elevation above sea level: 318.20 ft.
Basic wind speed of 127 mph.
Risk Category III.
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.
Tower analysis based on target reliabilities in accordance with Annex S.
Load Modification Factors used: $K_{es}(F_w) = 1.0$, $K_{es}(t_i) = 1.0$.
Maximum demand-capacity ratio is: 1.
Local bending stresses due to climbing loads, feed line supports, and appurtenance mounts are not considered.

Options

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



Triangular Tower

Tower Section Geometry

Tower Section	Tower Elevation	Assembly Database	Description	Section Width	Number of Sections	Section Length
	ft			ft		ft
T1	120.00-100.00			4.00	1	20.00
T2	100.00-80.00			4.00	1	20.00
T3	80.00-60.00			4.00	1	20.00
T4	60.00-40.00			6.00	1	20.00
T5	40.00-20.00			8.00	1	20.00
T6	20.00-0.00			10.00	1	20.00

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	120.00-100.00	2.43	X Brace	No	Steps	3.5000	3.5000
T2	100.00-80.00	2.43	X Brace	No	Steps	3.5000	3.5000
T3	80.00-60.00	10.00	X Brace	No	No	0.0000	0.0000
T4	60.00-40.00	10.00	X Brace	No	No	0.0000	0.0000
T5	40.00-20.00	10.00	X Brace	No	No	0.0000	0.0000
T6	20.00-0.00	20.00	X Brace	No	No	0.0000	0.0000

Tower Section Geometry (cont'd)

Tower Elevation ft	Leg Type	Leg Size	Leg Grade	Diagonal Type	Diagonal Size	Diagonal Grade
T1 120.00-100.00	Solid Round	1 3/4	A572-58 (58 ksi)	Solid Round	3/4	A572-50 (50 ksi)
T2 100.00-80.00	Solid Round	2 1/4	A572-58 (58 ksi)	Solid Round	7/8	A572-50 (50 ksi)
T3 80.00-60.00	Truss Leg	Valmont 194651 (58 ksi)	A572-58 (58 ksi)	Equal Angle	L2 1/2x2 1/2x1/4	A572-50 (50 ksi)
T4 60.00-40.00	Truss Leg	Valmont 195213 (58 ksi)	A572-58 (58 ksi)	Equal Angle	L2 1/2x2 1/2x3/16	A572-50 (50 ksi)
T5 40.00-20.00	Truss Leg	Valmont 195217 (58 ksi)	A572-58 (58 ksi)	Equal Angle	L2 1/2x2 1/2x5/16	A572-50 (50 ksi)
T6 20.00-0.00	Truss Leg	Valmont 196915 (58 ksi)	A500M-58 (58 ksi)	Double Equal Angle	2L3 1/2x3 1/2x1/4x5/8	A572-50 (50 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 120.00-100.00	Solid Round	7/8	A572-50 (50 ksi)	Solid Round	7/8	A572-50 (50 ksi)
T2 100.00-80.00	Solid Round	1	A572-50 (50 ksi)	Solid Round	1	A572-50 (50 ksi)
T3 80.00-60.00	Equal Angle	L3x3x3/16	A36 (36 ksi)	Solid Round		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
T1 120.00-100.00	1	Solid Round	7/8	A572-50 (50 ksi)	Solid Round	3/4	A572-50 (50 ksi)
T2 100.00-80.00	1	Solid Round	1	A36 (36 ksi)	Solid Round	3/4	A572-50 (50 ksi)

Tower Section Geometry (cont'd)

Tower Elevation ft	Gusset Area (per face) ft^2	Gusset Thickness in	Gusset Grade	Adjust. Factor A_f	Adjust. Factor A_r	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals in	Double Angle Stitch Bolt Spacing Horizontals in	Double Angle Stitch Bolt Spacing Redundants in
T1	0.00	0.0000	A36	1.03	1	1.05	36.0000	36.0000	36.0000

Tower Elevation ft	Gusset Area (per face) ft²	Gusset Thickness in	Gusset Grade	Adjust. Factor A_f	Adjust. Factor A_r	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals in	Double Angle Stitch Bolt Spacing Horizontals in	Double Angle Stitch Bolt Spacing Redundants in
120.00-100.00 T2	0.00	0.0000	(36 ksi) A36 (36 ksi)	1.03	1	1.05	36.0000	36.0000	36.0000
100.00-80.00 T3 80.00-60.00	0.00	0.5000	(36 ksi) A36 (36 ksi)	1.03	1	1.1	36.0000	36.0000	36.0000
T4 60.00-40.00	0.00	0.5000	(36 ksi) A36 (36 ksi)	1.03	1	1.1	36.0000	36.0000	36.0000
T5 40.00-20.00	0.00	0.5000	(36 ksi) A36 (36 ksi)	1.03	1	1.1	36.0000	36.0000	36.0000
T6 20.00-0.00	0.00	0.6250	(36 ksi) A36 (36 ksi)	1.03	1	1.1	36.0000	36.0000	36.0000

Tower Section Geometry (cont'd)

Tower Elevation ft	Calc K Single Angles	Calc K Solid Rounds	K Factors[1] Legs	X Brace Diags X	X Brace Diags Y	K Factors[1] Single Diags X	Single Diags Y	Girts X	Girts Y	Horiz. X	Horiz. Y	Sec. Horiz. X	Sec. Horiz. Y	Inner Brace X	Inner Brace Y
T1 120.00-100.00	No	Yes	1	1 1	1 1	1 1		1 1		1 1		1 1		1 1	
T2 100.00-80.00	No	Yes	1	1 1	1 1	1 1		1 1		1 1		1 1		1 1	
T3 80.00-60.00	Yes	Yes	1	1 1	1 1	1 1		1 1		1 1		1 1		1 1	
T4 60.00-40.00	Yes	Yes	1	1 1	1 1	1 1		1 1		1 1		1 1		1 1	
T5 40.00-20.00	Yes	Yes	1	1 1	1 1	1 1		1 1		1 1		1 1		1 1	
T6 20.00-0.00	Yes	Yes	1	1 1	1 1	1 1		1 1		1 1		1 1		1 1	

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

Tower Section Geometry (cont'd)

Tower Elevation ft	Truss-Leg K Factors: Truss-Legs Used As Leg Members — Leg Panels	X Brace Diagonals	Z Brace Diagonals	Truss-Legs Used As Inner Members — Leg Panels	X Brace Diagonals	Z Brace Diagonals
T3 80.00-60.00	1	0.5	0.85	1	0.5	0.85
T4 60.00-40.00	1	0.5	0.85	1	0.5	0.85
T5 40.00-20.00	1	0.5	0.85	1	0.5	0.85
T6 20.00-0.00	1	0.5	0.85	1	0.5	0.85

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 120.00-100.00	0.0000	1	0.0000	1	0.0000	1	0.0000	1	0.0000	1	0.0000	1	0.0000	0.75
T2 100.00-80.00	0.0000	1	0.0000	1	0.0000	1	0.0000	1	0.0000	1	0.0000	1	0.0000	0.75
T3 80.00-60.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T4 60.00-40.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T5 40.00-20.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T6 20.00-0.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75

Tower 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 120.00-100.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T2 100.00-80.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T3 80.00-60.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T4 60.00-40.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T5 40.00-20.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T6 20.00-0.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Leg Connection Type	Leg Bolt Size in	Leg No.	Diagonal Bolt Size in	Diagonal No.	Top Girt Bolt Size in	Top Girt No.	Bottom Girt Bolt Size in	Bottom Girt No.	Mid Girt Bolt Size in	Mid Girt No.	Long Horizontal Bolt Size in	Long Horizontal No.	Short Horizontal Bolt Size in	Short Horizontal No.
T1 120.00-100.00	Flange	1.2500 A325N	2	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T2 100.00-80.00	Flange	1.0000 A325N	4	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T3 80.00-60.00	Flange	1.0000 A325N	6	1.0000 A325N	1	1.0000 A325N	1	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T4 60.00-40.00	Flange	1.2500 A325N	6	1.0000 A325N	1	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T5 40.00-20.00	Flange	1.2500 A325N	6	1.0000 A325N	1	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T6 20.00-0.00	Flange	1.0000 F1554-105	0	0.8750 A325N	2	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	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
Safety Line 3/8 ***	C	No	No	Ar (CaAa)	120.00 - 0.00	3.0000	-0.03	1	1	0.3750	0.3750		0.22
Climbing Ladder (Flat) ***	A	No	No	Af (CaAa)	98.00 - 6.00	0.0000	0.38	2	2	24.0000 1.5000	1.5000		1.80
LDF7-50A(1 5/8")	A	No	No	Ar (CaAa)	98.00 - 6.00	0.0000	0.38	6	6	0.5200 1.0000	1.9800		0.82
DC Power	A	No	No	Ar (CaAa)	98.00 - 6.00	0.0000	0.3	6	6	0.9500	0.9500		0.58
FB-L98B-002-XXX(3/8) ***	A	No	No	Ar (CaAa)	98.00 - 6.00	0.0000	0.25	2	2	0.3937	0.3937		0.06
Climbing Ladder (Flat)	C	No	No	Af (CaAa)	120.00 - 6.00	0.0000	0.38	2	2	24.0000 1.5000	1.5000		1.80
LDF5-50A(7/ 8") ***	C	No	No	Ar (CaAa)	120.00 - 6.00	0.0000	0.38	18	9	0.5000	1.0900		0.33
Climbing Ladder (Flat)	B	No	No	Af (CaAa)	110.00 - 6.00	0.0000	0.38	2	2	24.0000 1.5000	1.5000		1.80
LDF7-50A(1 5/8") ***	B	No	No	Ar (CaAa)	110.00 - 6.00	0.0000	0.38	3	3	1.9800	1.9800		0.82
Climbing Ladder (Flat)	C	No	No	Af (CaAa)	88.00 - 6.00	0.0000	-0.38	2	2	24.0000 1.5000	1.5000		1.80
6x12 HCS (1-5/8") ***	C	No	No	Ar (CaAa)	88.00 - 6.00	0.0000	-0.38	2	2	1.6250	1.6250		2.40

Feed Line/Linear Appurtenances - Entered As Area

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

Feed Line/Linear Appurtenances Section Areas

Tower Section	Tower Elevation ft	Face	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight K
T1	120.00-100.00	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	10.940	0.000	0.06
		C	0.000	0.000	49.990	0.000	0.20
T2	100.00-80.00	A	0.000	0.000	42.061	0.000	0.22
		B	0.000	0.000	21.880	0.000	0.12
		C	0.000	0.000	56.590	0.000	0.26
T3	80.00-60.00	A	0.000	0.000	46.735	0.000	0.24
		B	0.000	0.000	21.880	0.000	0.12
		C	0.000	0.000	66.490	0.000	0.36
T4	60.00-40.00	A	0.000	0.000	46.735	0.000	0.24
		B	0.000	0.000	21.880	0.000	0.12
		C	0.000	0.000	66.490	0.000	0.36
T5	40.00-20.00	A	0.000	0.000	46.735	0.000	0.24
		B	0.000	0.000	21.880	0.000	0.12
		C	0.000	0.000	66.490	0.000	0.36
T6	20.00-0.00	A	0.000	0.000	32.714	0.000	0.17
		B	0.000	0.000	15.316	0.000	0.08
		C	0.000	0.000	46.768	0.000	0.26

Feed Line/Linear Appurtenances Section Areas - With Ice

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight K
T1	120.00-100.00	A	1.297	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	26.820	0.000	0.31
		C		0.000	0.000	69.394	0.000	0.94
T2	100.00-80.00	A	1.271	0.000	0.000	98.726	0.000	1.08
		B		0.000	0.000	53.269	0.000	0.62
		C		0.000	0.000	85.499	0.000	1.13
T3	80.00-60.00	A	1.240	0.000	0.000	108.835	0.000	1.17
		B		0.000	0.000	52.814	0.000	0.60
		C		0.000	0.000	109.321	0.000	1.40
T4	60.00-40.00	A	1.199	0.000	0.000	107.718	0.000	1.14
		B		0.000	0.000	52.224	0.000	0.59
		C		0.000	0.000	107.964	0.000	1.37
T5	40.00-20.00	A	1.139	0.000	0.000	106.095	0.000	1.09
		B		0.000	0.000	51.366	0.000	0.56
		C		0.000	0.000	105.991	0.000	1.31
T6	20.00-0.00	A	1.021	0.000	0.000	72.017	0.000	0.70
		B		0.000	0.000	34.765	0.000	0.36
		C		0.000	0.000	72.905	0.000	0.86

Feed Line Center of Pressure

Section	Elevation	CP_X	CP_Z	CP_X Ice	CP_Z Ice
	ft	in	in	in	in
T1	120.00-100.00	-6.7552	4.1720	-3.8028	3.9568
T2	100.00-80.00	-2.7117	-5.2569	-0.9451	-3.1695
T3	80.00-60.00	-1.2500	-4.7465	0.2783	-2.0999
T4	60.00-40.00	-1.6497	-6.2450	0.4795	-3.8289
T5	40.00-20.00	-2.0204	-7.6411	0.6138	-5.3692
T6	20.00-0.00	-1.8029	-6.5867	0.5019	-5.0206

Shielding Factor Ka

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T1	1	Safety Line 3/8	100.00 - 120.00	0.6000	0.5653
T1	9	Climbing Ladder (Flat)	100.00 - 120.00	0.6000	0.5653
T1	10	LDF5-50A(7/8")	100.00 - 120.00	0.6000	0.5653
T1	12	Climbing Ladder (Flat)	100.00 - 110.00	0.6000	0.5653
T1	13	LDF7-50A(1 5/8")	100.00 - 110.00	0.6000	0.5653
T2	1	Safety Line 3/8	80.00 - 100.00	0.6000	0.5491
T2	3	Climbing Ladder (Flat)	80.00 - 98.00	0.6000	0.5491
T2	5	LDF7-50A(1 5/8")	80.00 - 98.00	0.6000	0.5491
T2	6	DC Power	80.00 - 98.00	0.6000	0.5491
T2	7	FB-L98B-002-XXX(3/8)	80.00 - 98.00	0.6000	0.5491
T2	9	Climbing Ladder (Flat)	80.00 - 100.00	0.6000	0.5491
T2	10	LDF5-50A(7/8")	80.00 - 100.00	0.6000	0.5491
T2	12	Climbing Ladder (Flat)	80.00 - 100.00	0.6000	0.5491
T2	13	LDF7-50A(1 5/8")	80.00 - 100.00	0.6000	0.5491
T2	15	Climbing Ladder (Flat)	80.00 - 88.00	0.6000	0.5491
T2	16	6x12 HCS (1-5/8")	80.00 - 88.00	0.6000	0.5491
T3	1	Safety Line 3/8	60.00 - 80.00	0.6000	0.3334
T3	3	Climbing Ladder (Flat)	60.00 - 80.00	0.6000	0.3334
T3	5	LDF7-50A(1 5/8")	60.00 - 80.00	0.6000	0.3334
T3	6	DC Power	60.00 - 80.00	0.6000	0.3334
T3	7	FB-L98B-002-XXX(3/8)	60.00 - 80.00	0.6000	0.3334
T3	9	Climbing Ladder (Flat)	60.00 - 80.00	0.6000	0.3334
T3	10	LDF5-50A(7/8")	60.00 - 80.00	0.6000	0.3334
T3	12	Climbing Ladder (Flat)	60.00 - 80.00	0.6000	0.3334
T3	13	LDF7-50A(1 5/8")	60.00 - 80.00	0.6000	0.3334
T3	15	Climbing Ladder (Flat)	60.00 - 80.00	0.6000	0.3334
T3	16	6x12 HCS (1-5/8")	60.00 - 80.00	0.6000	0.3334
T4	1	Safety Line 3/8	40.00 - 60.00	0.6000	0.4859
T4	3	Climbing Ladder (Flat)	40.00 - 60.00	0.6000	0.4859
T4	5	LDF7-50A(1 5/8")	40.00 - 60.00	0.6000	0.4859
T4	6	DC Power	40.00 - 60.00	0.6000	0.4859
T4	7	FB-L98B-002-XXX(3/8)	40.00 - 60.00	0.6000	0.4859
T4	9	Climbing Ladder (Flat)	40.00 - 60.00	0.6000	0.4859
T4	10	LDF5-50A(7/8")	40.00 - 60.00	0.6000	0.4859
T4	12	Climbing Ladder (Flat)	40.00 - 60.00	0.6000	0.4859

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T4	13	LDF7-50A(1 5/8")	40.00 - 60.00	0.6000	0.4859
T4	15	Climbing Ladder (Flat)	40.00 - 60.00	0.6000	0.4859
T4	16	6x12 HCS (1-5/8")	40.00 - 60.00	0.6000	0.4859
T5	1	Safety Line 3/8	20.00 - 40.00	0.6000	0.5776
T5	3	Climbing Ladder (Flat)	20.00 - 40.00	0.6000	0.5776
T5	5	LDF7-50A(1 5/8")	20.00 - 40.00	0.6000	0.5776
T5	6	DC Power	20.00 - 40.00	0.6000	0.5776
T5	7	FB-L98B-002-XXX(3/8)	20.00 - 40.00	0.6000	0.5776
T5	9	Climbing Ladder (Flat)	20.00 - 40.00	0.6000	0.5776
T5	10	LDF5-50A(7/8")	20.00 - 40.00	0.6000	0.5776
T5	12	Climbing Ladder (Flat)	20.00 - 40.00	0.6000	0.5776
T5	13	LDF7-50A(1 5/8")	20.00 - 40.00	0.6000	0.5776
T5	15	Climbing Ladder (Flat)	20.00 - 40.00	0.6000	0.5776
T5	16	6x12 HCS (1-5/8")	20.00 - 40.00	0.6000	0.5776
T6	1	Safety Line 3/8	0.00 - 20.00	0.6000	0.6000
T6	3	Climbing Ladder (Flat)	6.00 - 20.00	0.6000	0.6000
T6	5	LDF7-50A(1 5/8")	6.00 - 20.00	0.6000	0.6000
T6	6	DC Power	6.00 - 20.00	0.6000	0.6000
T6	7	FB-L98B-002-XXX(3/8)	6.00 - 20.00	0.6000	0.6000
T6	9	Climbing Ladder (Flat)	6.00 - 20.00	0.6000	0.6000
T6	10	LDF5-50A(7/8")	6.00 - 20.00	0.6000	0.6000
T6	12	Climbing Ladder (Flat)	6.00 - 20.00	0.6000	0.6000
T6	13	LDF7-50A(1 5/8")	6.00 - 20.00	0.6000	0.6000
T6	15	Climbing Ladder (Flat)	6.00 - 20.00	0.6000	0.6000
T6	16	6x12 HCS (1-5/8")	6.00 - 20.00	0.6000	0.6000

Discrete Tower Loads

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft / Vert ft / ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
Site Pro 1 VFA12-HD	A	From Leg	2.00 0.00 0.00	0.0000	98.00	No Ice 1/2" Ice 1" Ice	13.20 19.50 25.80	9.20 14.60 19.50	0.66 0.80 1.01
Site Pro 1 VFA12-HD	B	From Leg	2.00 0.00 0.00	0.0000	98.00	No Ice 1/2" Ice 1" Ice	13.20 19.50 25.80	9.20 14.60 19.50	0.66 0.80 1.01
Site Pro 1 VFA12-HD	C	From Leg	2.00 0.00 0.00	0.0000	98.00	No Ice 1/2" Ice 1" Ice	13.20 19.50 25.80	9.20 14.60 19.50	0.66 0.80 1.01
(2) TPA65R-BU8D w/ Mount Pipe	A	From Leg	3.50 0.00 0.00	0.0000	98.00	No Ice 1/2" Ice 1" Ice	18.33 19.06 19.81	10.34 11.86 13.41	0.12 0.24 0.38
(2) TPA65R-BU8D w/ Mount Pipe	B	From Leg	3.50 0.00 0.00	0.0000	98.00	No Ice 1/2" Ice 1" Ice	18.33 19.06 19.81	10.34 11.86 13.41	0.12 0.24 0.38
(2) TPA65R-BU8D w/ Mount Pipe	C	From Leg	3.50 0.00 0.00	0.0000	98.00	No Ice 1/2" Ice 1" Ice	18.33 19.06 19.81	10.34 11.86 13.41	0.12 0.24 0.38
OPA-65R-BU8D w/ Mount Pipe	A	From Leg	3.50 0.00	0.0000	98.00	No Ice 1/2" Ice	18.33 19.06	10.34 11.86	0.11 0.23

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft	Vert ft	ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
			0.00					1" Ice	19.81	13.41	0.37
OPA-65R-BU8D w/ Mount Pipe	B	From Leg	3.50	0.0000			98.00	No Ice	18.33	10.34	0.11
			0.00					1/2" Ice	19.06	11.86	0.23
			0.00					1" Ice	19.81	13.41	0.37
OPA-65R-BU8D w/ Mount Pipe	C	From Leg	3.50	0.0000			98.00	No Ice	18.33	10.34	0.11
			0.00					1/2" Ice	19.06	11.86	0.23
			0.00					1" Ice	19.81	13.41	0.37
RADIO 4449 B5/B12	A	From Leg	3.50	0.0000			98.00	No Ice	1.64	1.30	0.07
			0.00					1/2" Ice	1.80	1.45	0.09
			0.00					1" Ice	1.97	1.60	0.11
RADIO 4449 B5/B12	B	From Leg	3.50	0.0000			98.00	No Ice	1.64	1.30	0.07
			0.00					1/2" Ice	1.80	1.45	0.09
			0.00					1" Ice	1.97	1.60	0.11
RADIO 4449 B5/B12	C	From Leg	3.50	0.0000			98.00	No Ice	1.64	1.30	0.07
			0.00					1/2" Ice	1.80	1.45	0.09
			0.00					1" Ice	1.97	1.60	0.11
RADIO 8843 B2/B66A	A	From Leg	3.50	0.0000			98.00	No Ice	1.64	1.38	0.08
			0.00					1/2" Ice	1.80	1.53	0.09
			0.00					1" Ice	1.97	1.69	0.11
RADIO 8843 B2/B66A	B	From Leg	3.50	0.0000			98.00	No Ice	1.64	1.38	0.08
			0.00					1/2" Ice	1.80	1.53	0.09
			0.00					1" Ice	1.97	1.69	0.11
RADIO 8843 B2/B66A	C	From Leg	3.50	0.0000			98.00	No Ice	1.64	1.38	0.08
			0.00					1/2" Ice	1.80	1.53	0.09
			0.00					1" Ice	1.97	1.69	0.11
DC6-48-60-18-8C-EV	A	From Leg	1.00	0.0000			98.00	No Ice	2.74	2.74	0.03
			0.00					1/2" Ice	2.96	2.96	0.05
			0.00					1" Ice	3.20	3.20	0.08
DC6-48-60-18-8C-EV	B	From Leg	1.00	0.0000			98.00	No Ice	2.74	2.74	0.03
			0.00					1/2" Ice	2.96	2.96	0.05
			0.00					1" Ice	3.20	3.20	0.08
DC6-48-60-0-8C-EV	C	From Leg	1.00	0.0000			98.00	No Ice	2.74	2.74	0.03
			0.00					1/2" Ice	2.96	2.96	0.05
			0.00					1" Ice	3.20	3.20	0.08
RRUS 4478 B14	A	From Leg	3.50	0.0000			98.00	No Ice	1.84	1.06	0.06
			0.00					1/2" Ice	2.01	1.20	0.08
			0.00					1" Ice	2.19	1.34	0.09
RRUS 4478 B14	B	From Leg	3.50	0.0000			98.00	No Ice	1.84	1.06	0.06
			0.00					1/2" Ice	2.01	1.20	0.08
			0.00					1" Ice	2.19	1.34	0.09
RRUS 4478 B14	C	From Leg	3.50	0.0000			98.00	No Ice	1.84	1.06	0.06
			0.00					1/2" Ice	2.01	1.20	0.08
			0.00					1" Ice	2.19	1.34	0.09
RRUS 4415 B30	A	From Leg	3.50	0.0000			98.00	No Ice	1.64	0.68	0.04
			0.00					1/2" Ice	1.80	0.79	0.06
			0.00					1" Ice	1.97	0.91	0.07
RRUS 4415 B30	B	From Leg	3.50	0.0000			98.00	No Ice	1.64	0.68	0.04
			0.00					1/2" Ice	1.80	0.79	0.06
			0.00					1" Ice	1.97	0.91	0.07
RRUS 4415 B30	C	From Leg	3.50	0.0000			98.00	No Ice	1.64	0.68	0.04
			0.00					1/2" Ice	1.80	0.79	0.06
			0.00					1" Ice	1.97	0.91	0.07
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BA4040-67-DIN	A	From Leg	2.00	0.0000			120.00	No Ice	3.30	3.30	0.02
			0.00					1/2" Ice	5.90	5.90	0.04
			5.00					1" Ice	8.50	8.50	0.05
BA4040-67-DIN	B	From Leg	2.00	0.0000			120.00	No Ice	3.30	3.30	0.02

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft / Vert ft / ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
			0.00			1/2" Ice	5.90	5.90	0.04
			5.00			1" Ice	8.50	8.50	0.05
DB404-B	C	From Leg	2.00	0.0000	120.00	No Ice	2.28	2.28	0.01
			0.00			1/2" Ice	2.64	2.64	0.03
			2.50			1" Ice	3.00	3.00	0.05
10' Dipole	A	From Leg	2.00	0.0000	120.00	No Ice	5.40	5.40	0.04
			0.00			1/2" Ice	7.40	7.40	0.14
			5.00			1" Ice	9.40	9.40	0.24
PTP 49400	A	From Leg	1.00	0.0000	120.00	No Ice	1.75	0.48	0.01
			0.00			1/2" Ice	1.92	0.58	0.02
			0.00			1" Ice	2.09	0.69	0.04
PTP 49400	B	From Leg	1.00	0.0000	120.00	No Ice	1.75	0.48	0.01
			0.00			1/2" Ice	1.92	0.58	0.02
			0.00			1" Ice	2.09	0.69	0.04
PTP 49400	C	From Leg	1.00	0.0000	120.00	No Ice	1.75	0.48	0.01
			0.00			1/2" Ice	1.92	0.58	0.02
			0.00			1" Ice	2.09	0.69	0.04
Side Arm (1'x2')	A	From Leg	1.00	0.0000	120.00	No Ice	1.00	2.00	0.13
			0.00			1/2" Ice	2.00	3.00	0.25
			0.00			1" Ice	3.00	4.00	0.35
Side Arm (1'x2')	B	From Leg	1.00	0.0000	120.00	No Ice	1.00	2.00	0.13
			0.00			1/2" Ice	2.00	3.00	0.25
			0.00			1" Ice	3.00	4.00	0.35
Side Arm (1'x2')	C	From Leg	1.00	0.0000	120.00	No Ice	1.00	2.00	0.13
			0.00			1/2" Ice	2.00	3.00	0.25
			0.00			1" Ice	3.00	4.00	0.35
Side Arm (1'x2')	A	From Leg	1.00	0.0000	120.00	No Ice	1.00	2.00	0.13
			0.00			1/2" Ice	2.00	3.00	0.25
			0.00			1" Ice	3.00	4.00	0.35
Pipe Mount (4'x4" Sch 40)	A	From Leg	1.00	0.0000	120.00	No Ice	1.16	1.16	0.04
			0.00			1/2" Ice	1.58	1.58	0.06
			0.00			1" Ice	1.84	1.84	0.07
Pipe Mount (4'x4" Sch 40)	B	From Leg	1.00	0.0000	120.00	No Ice	1.16	1.16	0.04
			0.00			1/2" Ice	1.58	1.58	0.06
			0.00			1" Ice	1.84	1.84	0.07
***									
Site Pro 1 VFA12-HD	A	From Leg	2.00	0.0000	110.00	No Ice	13.20	9.20	0.66
			0.00			1/2" Ice	19.50	14.60	0.80
			0.00			1" Ice	25.80	19.50	1.01
Site Pro 1 VFA12-HD	B	From Leg	2.00	0.0000	110.00	No Ice	13.20	9.20	0.66
			0.00			1/2" Ice	19.50	14.60	0.80
			0.00			1" Ice	25.80	19.50	1.01
Site Pro 1 VFA12-HD	C	From Leg	2.00	0.0000	110.00	No Ice	13.20	9.20	0.66
			0.00			1/2" Ice	19.50	14.60	0.80
			0.00			1" Ice	25.80	19.50	1.01
APXVAARR24_43-U-NA20 w/ Mount Pipe	A	From Leg	2.00	0.0000	110.00	No Ice	20.24	10.79	0.16
			0.00			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	0.0000	110.00	No Ice	20.24	10.79	0.16
			0.00			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	C	From Leg	2.00	0.0000	110.00	No Ice	20.24	10.79	0.16
			0.00			1/2" Ice	20.89	12.21	0.29
			0.00			1" Ice	21.55	13.49	0.44
AIR 32 B66A/B2P w/ Mount Pipe	A	From Leg	3.50	0.0000	110.00	No Ice	7.11	7.29	0.13
			0.00			1/2" Ice	7.59	8.17	0.20
			0.00			1" Ice	8.05	8.93	0.27

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft	Offsets: Vert ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
AIR 32 B66A/B2P w/ Mount Pipe	B	From Leg	3.50	0.00	0.0000	110.00	No Ice	7.11	7.29	0.13
			0.00				1/2" Ice	7.59	8.17	0.20
							1" Ice	8.05	8.93	0.27
AIR 32 B66A/B2P w/ Mount Pipe	C	From Leg	3.50	0.00	0.0000	110.00	No Ice	7.11	7.29	0.13
			0.00				1/2" Ice	7.59	8.17	0.20
							1" Ice	8.05	8.93	0.27
Radio 4415 B66A	A	From Leg	3.50	0.00	0.0000	110.00	No Ice	1.86	0.87	0.05
			0.00				1/2" Ice	2.03	1.00	0.06
							1" Ice	2.20	1.13	0.08
Radio 4415 B66A	B	From Leg	3.50	0.00	0.0000	110.00	No Ice	1.86	0.87	0.05
			0.00				1/2" Ice	2.03	1.00	0.06
							1" Ice	2.20	1.13	0.08
Radio 4415 B66A	C	From Leg	3.50	0.00	0.0000	110.00	No Ice	1.86	0.87	0.05
			0.00				1/2" Ice	2.03	1.00	0.06
							1" Ice	2.20	1.13	0.08
RADIO 4449	A	From Leg	3.50	0.00	0.0000	110.00	No Ice	3.50	2.36	0.09
			0.00				1/2" Ice	3.74	2.57	0.11
							1" Ice	3.99	2.78	0.15
RADIO 4449	B	From Leg	3.50	0.00	0.0000	110.00	No Ice	3.50	2.36	0.09
			0.00				1/2" Ice	3.74	2.57	0.11
							1" Ice	3.99	2.78	0.15
RADIO 4449	C	From Leg	3.50	0.00	0.0000	110.00	No Ice	3.50	2.36	0.09
			0.00				1/2" Ice	3.74	2.57	0.11
							1" Ice	3.99	2.78	0.15
***										
Site Pro 1 VFA12-HD	A	From Leg	2.00	0.00	0.0000	86.00	No Ice	13.20	9.20	0.66
			0.00				1/2" Ice	19.50	14.60	0.80
							1" Ice	25.80	19.50	1.01
Site Pro 1 VFA12-HD	B	From Leg	2.00	0.00	0.0000	86.00	No Ice	13.20	9.20	0.66
			0.00				1/2" Ice	19.50	14.60	0.80
							1" Ice	25.80	19.50	1.01
Site Pro 1 VFA12-HD	C	From Leg	2.00	0.00	0.0000	86.00	No Ice	13.20	9.20	0.66
			0.00				1/2" Ice	19.50	14.60	0.80
							1" Ice	25.80	19.50	1.01
BSAMNT-SBS-1-2 (MountBracket)	A	From Leg	3.50	0.00	0.0000	86.00	No Ice	0.00	0.00	0.03
			0.00				1/2" Ice	0.00	0.00	0.05
			2.00				1" Ice	0.00	0.00	0.07
BSAMNT-SBS-1-2 (MountBracket)	B	From Leg	3.50	0.00	0.0000	86.00	No Ice	0.00	0.00	0.03
			0.00				1/2" Ice	0.00	0.00	0.05
			2.00				1" Ice	0.00	0.00	0.07
BSAMNT-SBS-1-2 (MountBracket)	C	From Leg	3.50	0.00	0.0000	86.00	No Ice	0.00	0.00	0.03
			0.00				1/2" Ice	0.00	0.00	0.05
			2.00				1" Ice	0.00	0.00	0.07
NHH-65B-R2B w/ Mount Pipe	A	From Leg	3.50	0.00	0.0000	86.00	No Ice	8.32	7.00	0.07
			0.00				1/2" Ice	8.88	8.19	0.14
			2.00				1" Ice	9.40	9.08	0.21
NHH-65B-R2B w/ Mount Pipe	B	From Leg	3.50	0.00	0.0000	86.00	No Ice	8.32	7.00	0.07
			0.00				1/2" Ice	8.88	8.19	0.14
			2.00				1" Ice	9.40	9.08	0.21
NHH-65B-R2B w/ Mount Pipe	C	From Leg	3.50	0.00	0.0000	86.00	No Ice	8.32	7.00	0.07
			0.00				1/2" Ice	8.88	8.19	0.14
			2.00				1" Ice	9.40	9.08	0.21
NHHSS-65B-R2BT4 w/ Mount Pipe	A	From Leg	3.50	0.00	0.0000	86.00	No Ice	8.52	7.25	0.08
			0.00				1/2" Ice	9.19	8.54	0.15
			2.00				1" Ice	9.82	9.67	0.23
NHHSS-65B-R2BT4 w/ Mount Pipe	B	From Leg	3.50	0.00	0.0000	86.00	No Ice	8.52	7.25	0.08
			0.00				1/2" Ice	9.19	8.54	0.15

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft / Vert ft / ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
NHHSS-65B-R2BT4 w/ Mount Pipe	C	From Leg	2.00 3.50 0.00	0.0000	86.00	1" Ice No Ice 1/2" Ice	9.82 8.52 9.19	9.67 7.25 8.54	0.23 0.08 0.15
B2/B66A RRH-BR049 (RFV01U-D1A)	A	From Leg	2.00 3.50 0.00	0.0000	86.00	1" Ice No Ice 1/2" Ice	9.82 1.88 2.05	9.67 1.25 1.39	0.23 0.08 0.10
B2/B66A RRH-BR049 (RFV01U-D1A)	B	From Leg	2.00 3.50 0.00	0.0000	86.00	1" Ice No Ice 1/2" Ice	2.22 1.88 2.05	1.54 1.25 1.39	0.12 0.08 0.10
B2/B66A RRH-BR049 (RFV01U-D1A)	C	From Leg	2.00 3.50 0.00	0.0000	86.00	1" Ice No Ice 1/2" Ice	2.22 1.88 2.05	1.54 1.25 1.39	0.12 0.08 0.10
B5/B13 RRH-BR04C (RFV01U-D2A)	A	From Leg	2.00 3.50 0.00	0.0000	86.00	1" Ice No Ice 1/2" Ice	2.22 1.88 2.05	1.54 1.01 1.14	0.12 0.07 0.09
B5/B13 RRH-BR04C (RFV01U-D2A)	B	From Leg	2.00 3.50 0.00	0.0000	86.00	1" Ice No Ice 1/2" Ice	2.22 1.88 2.05	1.28 1.01 1.14	0.11 0.07 0.09
B5/B13 RRH-BR04C (RFV01U-D2A)	C	From Leg	2.00 3.50 0.00	0.0000	86.00	1" Ice No Ice 1/2" Ice	2.22 1.88 2.05	1.28 1.01 1.14	0.11 0.07 0.09
CBRS RRH - RT4401-48A	A	From Leg	2.00 3.50 0.00	0.0000	86.00	1" Ice No Ice 1/2" Ice	2.22 1.54 1.70	1.28 0.75 0.87	0.11 0.05 0.06
CBRS RRH - RT4401-48A	B	From Leg	2.00 3.50 0.00	0.0000	86.00	1" Ice No Ice 1/2" Ice	1.86 1.54 1.70	1.00 0.75 0.87	0.08 0.05 0.06
CBRS RRH - RT4401-48A	C	From Leg	2.00 3.50 0.00	0.0000	86.00	1" Ice No Ice 1/2" Ice	1.86 1.54 1.70	1.00 0.75 0.87	0.08 0.05 0.06
RVZDC-6627-PF-48	A	From Leg	2.00 3.50 0.00	0.0000	86.00	1" Ice No Ice 1/2" Ice	1.86 3.79 4.04	1.00 2.51 2.73	0.08 0.03 0.06
(2) KA-6030	B	From Leg	2.00 3.00 0.00	0.0000	86.00	1" Ice No Ice 1/2" Ice	4.30 0.77 0.88	2.95 0.28 0.35	0.10 0.03 0.03
(2) KA-6030	C	From Leg	2.00 3.00 0.00	0.0000	86.00	1" Ice No Ice 1/2" Ice	1.00 0.77 0.88	0.43 0.28 0.35	0.04 0.03 0.03
Site Pro 1 RRUDSM	B	From Leg	2.00 3.00 0.00	0.0000	86.00	1" Ice No Ice 1/2" Ice	1.00 1.13 1.69	0.43 1.13 1.69	0.04 0.04 0.09
Site Pro 1 RRUDSM	C	From Leg	2.00 3.00 0.00	0.0000	86.00	1" Ice No Ice 1/2" Ice	2.25 1.13 1.69	2.25 1.13 1.69	0.13 0.04 0.09
***			2.00			1" Ice	2.25	2.25	0.13

Dishes

Description	Face or Leg	Dish Type	Offset Type	Offsets: Horz Lateral / Vert (ft)	Azimuth Adjustment (°)	3 dB Beam Width (°)	Elevation (ft)	Outside Diameter (ft)		Aperture Area (ft^2)	Weight (K)
VHLP800-11	A	Paraboloid w/Shroud (HP)	From Leg	1.00 0.00 0.00	0.0000		120.00	2.92	No Ice 1/2" Ice 1" Ice	6.68 7.07 7.46	0.05 0.07 0.09
VHLP800-11	B	Paraboloid w/Shroud (HP)	From Leg	1.00 0.00 0.00	0.0000		120.00	2.92	No Ice 1/2" Ice 1" Ice	6.68 7.07 7.46	0.05 0.07 0.09

***

Truss-Leg Properties

Section Designation	Area (in^2)	Area Ice (in^2)	Self Weight (K)	Ice Weight (K)	Equiv. Diameter (in)	Equiv. Diameter Ice (in)	Leg Area (in^2)
Valmont 194651 (58 ksi)	2315.4843	5863.1655	0.61	0.64	8.0399	20.3582	5.3014
Valmont 195213 (58 ksi)	2444.4522	5905.9850	0.75	0.63	8.4877	20.5069	7.2158
Valmont 195217 (58 ksi)	2444.5116	5863.5186	0.75	0.65	8.4879	20.3594	7.2158
Valmont 196916 (58 ksi)	2648.8526	5851.2166	0.97	0.52	9.1974	20.3167	9.4248

Tower Forces - No Ice - Wind Normal To Face

Section Elevation (ft)	Add Weight (K)	Self Weight (K)	Face	e	C_F	q_z (psf)	D_F	D_R	A_E (ft^2)	F (K)	w (plf)	Ctrl. Face
T1 120.00-100.00	0.26	0.99	A	0.135	2.828	35	1	1	6.332	1.59	79.28	C
			B	0.135	2.828		1	1	6.332			
			C	0.152	2.763		1	1	7.171			
T2 100.00-80.00	0.60	1.47	A	0.163	2.724	33	1	1	7.770	2.36	118.21	C
			B	0.163	2.724		1	1	7.770			
			C	0.18	2.664		1	1	8.618			
T3 80.00-60.00	0.73	2.49	A	0.288	2.328	31	1	1	24.426	3.30	165.04	C
			B	0.288	2.328		1	1	24.426			
			C	0.288	2.328		1	1	24.426			
T4 60.00-40.00	0.73	2.76	A	0.229	2.502	28	1	1	25.426	3.16	157.96	C
			B	0.229	2.502		1	1	25.426			
			C	0.229	2.502		1	1	25.426			
T5 40.00-20.00	0.73	3.15	A	0.19	2.629	24	1	1	26.504	2.86	142.78	C
			B	0.19	2.629		1	1	26.504			
			C	0.19	2.629		1	1	26.504			
T6 20.00-0.00	0.51	4.65	A	0.177	2.673	24	1	1	30.005	2.65	132.44	C
			B	0.177	2.673		1	1	30.005			
			C	0.177	2.673		1	1	30.005			
Sum Weight:	3.55	15.51						OTM	888.37 kip-ft	15.91		

tnxTower	Job: Southington 4 CT	Page: 15 of 32
Centerline Engineering Services, PA 750 W Center St, Suite 301 West Bridgewater, MA 02379 Phone: (781) 713-4725 FAX:	Project: 23CLVZ-0008	Date: 13:32:52 09/20/23
	Client: Verizon Wireless	Designed by: jboegel

Tower Forces - No Ice - Wind 60 To Face

Section Elevation ft	Add Weight K	Self Weight K	Face	e	C_F	q_z psf	D_F	D_R	A_E ft²	F K	w plf	Ctrl. Face
T1 120.00-100.00	0.26	0.99	A	0.135	2.828	35	0.8	1	6.332	1.53	76.43	A
			B	0.135	2.828		0.8	1	6.332			
			C	0.152	2.763		0.8	1	7.171			
T2 100.00-80.00	0.60	1.47	A	0.163	2.724	33	0.8	1	7.770	2.31	115.67	A
			B	0.163	2.724		0.8	1	7.770			
			C	0.18	2.664		0.8	1	8.618			
T3 80.00-60.00	0.73	2.49	A	0.288	2.328	31	0.8	1	22.737	3.20	159.86	A
			B	0.288	2.328		0.8	1	22.737			
			C	0.288	2.328		0.8	1	22.737			
T4 60.00-40.00	0.73	2.76	A	0.229	2.502	28	0.8	1	23.629	3.05	152.59	A
			B	0.229	2.502		0.8	1	23.629			
			C	0.229	2.502		0.8	1	23.629			
T5 40.00-20.00	0.73	3.15	A	0.19	2.629	24	0.8	1	24.450	2.74	137.20	A
			B	0.19	2.629		0.8	1	24.450			
			C	0.19	2.629		0.8	1	24.450			
T6 20.00-0.00	0.51	4.65	A	0.177	2.673	24	0.8	1	27.510	2.51	125.56	A
			B	0.177	2.673		0.8	1	27.510			
			C	0.177	2.673		0.8	1	27.510			
Sum Weight:	3.55	15.51						OTM	860.19 kip-ft	15.35		

Tower Forces - No Ice - Wind 90 To Face

Section Elevation ft	Add Weight K	Self Weight K	Face	e	C_F	q_z psf	D_F	D_R	A_E ft²	F K	w plf	Ctrl. Face
T1 120.00-100.00	0.26	0.99	A	0.135	2.828	35	0.85	1	6.332	1.42	71.07	A
			B	0.135	2.828		0.85	1	6.332			
			C	0.152	2.763		0.85	1	7.171			
T2 100.00-80.00	0.60	1.47	A	0.163	2.724	33	0.85	1	7.770	2.17	108.45	B
			B	0.163	2.724		0.85	1	7.770			
			C	0.18	2.664		0.85	1	8.618			
T3 80.00-60.00	0.73	2.49	A	0.288	2.328	31	0.85	1	23.159	3.11	155.55	B
			B	0.288	2.328		0.85	1	23.159			
			C	0.288	2.328		0.85	1	23.159			
T4 60.00-40.00	0.73	2.76	A	0.229	2.502	28	0.85	1	24.078	2.98	148.84	B
			B	0.229	2.502		0.85	1	24.078			
			C	0.229	2.502		0.85	1	24.078			
T5 40.00-20.00	0.73	3.15	A	0.19	2.629	24	0.85	1	24.963	2.68	134.20	B
			B	0.19	2.629		0.85	1	24.963			
			C	0.19	2.629		0.85	1	24.963			
T6 20.00-0.00	0.51	4.65	A	0.177	2.673	24	0.85	1	28.134	2.48	124.20	B
			B	0.177	2.673		0.85	1	28.134			
			C	0.177	2.673		0.85	1	28.134			
Sum Weight:	3.55	15.51						OTM	823.54 kip-ft	14.85		

Tower Forces - With Ice - Wind Normal To Face

Section Elevation ft	Add Weight K	Self Weight K	Face	e	C_F	q_z psf	D_F	D_R	A_E ft²	F K	w plf	Ctrl. Face
T1	1.25	2.21	A	0.435	1.999	5	1	1	24.726	0.49	24.66	C
120.00-100.00			B	0.435	1.999		1	1	24.726			
			C	0.509	1.889		1	1	30.601			
T2	2.82	2.75	A	0.451	1.972	5	1	1	26.174	0.68	34.14	C
100.00-80.00			B	0.451	1.972		1	1	26.174			
			C	0.522	1.873		1	1	32.039			
T3	3.18	5.49	A	0.667	1.778	5	1	1	68.298	0.79	39.56	A
80.00-60.00			B	0.667	1.778		1	1	68.298			
			C	0.667	1.778		1	1	68.298			
T4	3.09	5.66	A	0.514	1.882	4	1	1	62.207	0.82	41.04	A
60.00-40.00			B	0.514	1.882		1	1	62.207			
			C	0.514	1.882		1	1	62.207			
T5	2.96	6.16	A	0.422	2.021	4	1	1	60.070	0.78	38.94	A
40.00-20.00			B	0.422	2.021		1	1	60.070			
			C	0.422	2.021		1	1	60.070			
T6 20.00-0.00	1.92	7.70	A	0.354	2.162	4	1	1	58.729	0.68	34.10	A
			B	0.354	2.162		1	1	58.729			
			C	0.354	2.162		1	1	58.729			
Sum Weight:	15.22	29.96						OTM	242.32 kip-ft	4.25		

Tower Forces - With Ice - Wind 60 To Face

Section Elevation ft	Add Weight K	Self Weight K	Face	e	C_F	q_z psf	D_F	D_R	A_E ft²	F K	w plf	Ctrl. Face
T1	1.25	2.21	A	0.435	1.999	5	0.8	1	24.726	0.46	22.90	C
120.00-100.00			B	0.435	1.999		0.8	1	24.726			
			C	0.509	1.889		0.8	1	30.601			
T2	2.82	2.75	A	0.451	1.972	5	0.8	1	26.174	0.68	34.12	B
100.00-80.00			B	0.451	1.972		0.8	1	26.174			
			C	0.522	1.873		0.8	1	32.039			
T3	3.18	5.49	A	0.667	1.778	5	0.8	1	66.609	0.78	38.95	B
80.00-60.00			B	0.667	1.778		0.8	1	66.609			
			C	0.667	1.778		0.8	1	66.609			
T4	3.09	5.66	A	0.514	1.882	4	0.8	1	60.410	0.81	40.41	B
60.00-40.00			B	0.514	1.882		0.8	1	60.410			
			C	0.514	1.882		0.8	1	60.410			
T5	2.96	6.16	A	0.422	2.021	4	0.8	1	58.016	0.77	38.28	B
40.00-20.00			B	0.422	2.021		0.8	1	58.016			
			C	0.422	2.021		0.8	1	58.016			
T6 20.00-0.00	1.92	7.70	A	0.354	2.162	4	0.8	1	56.234	0.66	33.23	B
			B	0.354	2.162		0.8	1	56.234			
			C	0.354	2.162		0.8	1	56.234			
Sum Weight:	15.22	29.96						OTM	236.35 kip-ft	4.16		

Tower Forces - With Ice - Wind 90 To Face

Section Elevation ft	Add Weight K	Self Weight K	Face	e	C_F	q_z psf	D_F	D_R	A_E ft²	F K	w plf	Ctrl. Face
T1	1.25	2.21	A	0.435	1.999	5	0.85	1	24.726	0.45	22.46	A
120.00-100.00			B	0.435	1.999		0.85	1	24.726			
			C	0.509	1.889		0.85	1	30.601			
T2	2.82	2.75	A	0.451	1.972	5	0.85	1	26.174	0.65	32.45	C
100.00-80.00			B	0.451	1.972		0.85	1	26.174			
			C	0.522	1.873		0.85	1	32.039			
T3	3.18	5.49	A	0.667	1.778	5	0.85	1	67.031	0.76	38.13	B
80.00-60.00			B	0.667	1.778		0.85	1	67.031			
			C	0.667	1.778		0.85	1	67.031			
T4	3.09	5.66	A	0.514	1.882	4	0.85	1	60.860	0.79	39.29	B
60.00-40.00			B	0.514	1.882		0.85	1	60.860			
			C	0.514	1.882		0.85	1	60.860			
T5	2.96	6.16	A	0.422	2.021	4	0.85	1	58.529	0.74	37.15	B
40.00-20.00			B	0.422	2.021		0.85	1	58.529			
			C	0.422	2.021		0.85	1	58.529			
T6 20.00-0.00	1.92	7.70	A	0.354	2.162	4	0.85	1	56.858	0.65	32.53	B
			B	0.354	2.162		0.85	1	56.858			
			C	0.354	2.162		0.85	1	56.858			
Sum Weight:	15.22	29.96						OTM	229.28 kip-ft	4.04		

Tower Forces - Service - Wind Normal To Face

Section Elevation ft	Add Weight K	Self Weight K	Face	e	C_F	q_z psf	D_F	D_R	A_E ft²	F K	w plf	Ctrl. Face
T1	0.26	0.99	A	0.135	2.828	8	1	1	6.332	0.35	17.70	C
120.00-100.00			B	0.135	2.828		1	1	6.332			
			C	0.152	2.763		1	1	7.171			
T2	0.60	1.47	A	0.163	2.724	7	1	1	7.770	0.53	26.38	C
100.00-80.00			B	0.163	2.724		1	1	7.770			
			C	0.18	2.664		1	1	8.618			
T3	0.73	2.49	A	0.288	2.328	7	1	1	24.426	0.74	36.84	C
80.00-60.00			B	0.288	2.328		1	1	24.426			
			C	0.288	2.328		1	1	24.426			
T4	0.73	2.76	A	0.229	2.502	6	1	1	25.426	0.71	35.26	C
60.00-40.00			B	0.229	2.502		1	1	25.426			
			C	0.229	2.502		1	1	25.426			
T5	0.73	3.15	A	0.19	2.629	5	1	1	26.504	0.64	31.87	C
40.00-20.00			B	0.19	2.629		1	1	26.504			
			C	0.19	2.629		1	1	26.504			
T6 20.00-0.00	0.51	4.65	A	0.177	2.673	5	1	1	30.005	0.59	29.56	C
			B	0.177	2.673		1	1	30.005			
			C	0.177	2.673		1	1	30.005			
Sum Weight:	3.55	15.51						OTM	198.28 kip-ft	3.55		

Tower Forces - Service - Wind 60 To Face

Section Elevation ft	Add Weight K	Self Weight K	Face	e	C_F	q_z psf	D_F	D_R	A_E ft²	F K	w plf	Ctrl. Face
T1	0.26	0.99	A	0.135	2.828	8	0.8	1	6.332	0.34	17.06	A
120.00-100.00			B	0.135	2.828		0.8	1	6.332			
			C	0.152	2.763		0.8	1	7.171			
T2	0.60	1.47	A	0.163	2.724	7	0.8	1	7.770	0.52	25.82	A
100.00-80.00			B	0.163	2.724		0.8	1	7.770			
			C	0.18	2.664		0.8	1	8.618			
T3	0.73	2.49	A	0.288	2.328	7	0.8	1	22.737	0.71	35.68	A
80.00-60.00			B	0.288	2.328		0.8	1	22.737			
			C	0.288	2.328		0.8	1	22.737			
T4	0.73	2.76	A	0.229	2.502	6	0.8	1	23.629	0.68	34.06	A
60.00-40.00			B	0.229	2.502		0.8	1	23.629			
			C	0.229	2.502		0.8	1	23.629			
T5	0.73	3.15	A	0.19	2.629	5	0.8	1	24.450	0.61	30.62	A
40.00-20.00			B	0.19	2.629		0.8	1	24.450			
			C	0.19	2.629		0.8	1	24.450			
T6 20.00-0.00	0.51	4.65	A	0.177	2.673	5	0.8	1	27.510	0.56	28.03	A
			B	0.177	2.673		0.8	1	27.510			
			C	0.177	2.673		0.8	1	27.510			
Sum Weight:	3.55	15.51						OTM	191.99 kip-ft	3.43		

Tower Forces - Service - Wind 90 To Face

Section Elevation ft	Add Weight K	Self Weight K	Face	e	C_F	q_z psf	D_F	D_R	A_E ft²	F K	w plf	Ctrl. Face
T1	0.26	0.99	A	0.135	2.828	8	0.85	1	6.332	0.32	15.86	A
120.00-100.00			B	0.135	2.828		0.85	1	6.332			
			C	0.152	2.763		0.85	1	7.171			
T2	0.60	1.47	A	0.163	2.724	7	0.85	1	7.770	0.48	24.21	B
100.00-80.00			B	0.163	2.724		0.85	1	7.770			
			C	0.18	2.664		0.85	1	8.618			
T3	0.73	2.49	A	0.288	2.328	7	0.85	1	23.159	0.69	34.72	B
80.00-60.00			B	0.288	2.328		0.85	1	23.159			
			C	0.288	2.328		0.85	1	23.159			
T4	0.73	2.76	A	0.229	2.502	6	0.85	1	24.078	0.66	33.22	B
60.00-40.00			B	0.229	2.502		0.85	1	24.078			
			C	0.229	2.502		0.85	1	24.078			
T5	0.73	3.15	A	0.19	2.629	5	0.85	1	24.963	0.60	29.95	B
40.00-20.00			B	0.19	2.629		0.85	1	24.963			
			C	0.19	2.629		0.85	1	24.963			
T6 20.00-0.00	0.51	4.65	A	0.177	2.673	5	0.85	1	28.134	0.55	27.72	B
			B	0.177	2.673		0.85	1	28.134			
			C	0.177	2.673		0.85	1	28.134			
Sum Weight:	3.55	15.51						OTM	183.81	3.31		

Section Elevation ft	Add Weight K	Self Weight K	Face	e	C_F	q_z psf	D_F	D_R	A_E ft² / kip-ft	F K	w plf	Ctrl. Face

Force Totals

Load Case	Vertical Forces K	Sum of Forces X K	Sum of Forces Z K	Sum of Overturning Moments, M_x kip-ft	Sum of Overturning Moments, M_z kip-ft	Sum of Torques kip-ft
Leg Weight	10.66					
Bracing Weight	4.85					
Total Member Self-Weight	15.51			0.43	-0.83	
Total Weight	30.37			0.43	-0.83	
Wind 0 deg - No Ice		-0.13	-26.22	-1932.77	14.80	-2.62
Wind 30 deg - No Ice		11.87	-20.63	-1558.14	-895.68	3.67
Wind 60 deg - No Ice		20.82	-12.01	-897.14	-1557.51	0.84
Wind 90 deg - No Ice		23.04	0.04	5.77	-1728.85	-7.15
Wind 120 deg - No Ice		21.80	12.73	940.13	-1599.20	-3.28
Wind 150 deg - No Ice		12.52	21.71	1611.36	-929.91	3.08
Wind 180 deg - No Ice		0.08	25.69	1910.13	-10.60	2.50
Wind 210 deg - No Ice		-11.79	20.62	1558.56	885.39	-3.70
Wind 240 deg - No Ice		-21.14	12.20	902.65	1563.89	-0.84
Wind 270 deg - No Ice		-22.98	-0.10	-12.17	1722.49	7.18
Wind 300 deg - No Ice		-21.46	-12.48	-927.85	1589.50	3.40
Wind 330 deg - No Ice		-12.55	-21.69	-1608.62	931.50	-3.08
Member Ice	14.46					
Total Weight Ice	70.57			-0.86	-0.47	
Wind 0 deg - Ice		-0.02	-6.59	-488.05	2.28	0.10
Wind 30 deg - Ice		3.15	-5.47	-410.40	-236.03	1.17
Wind 60 deg - Ice		5.54	-3.20	-238.30	-412.07	0.57
Wind 90 deg - Ice		6.27	0.01	0.08	-465.94	-1.40
Wind 120 deg - Ice		5.71	3.32	241.95	-415.88	-1.20
Wind 150 deg - Ice		3.23	5.59	410.64	-237.86	0.02
Wind 180 deg - Ice		0.01	6.47	477.51	-2.18	-0.12
Wind 210 deg - Ice		-3.11	5.42	403.68	230.74	-1.17
Wind 240 deg - Ice		-5.52	3.19	234.06	406.77	-0.57
Wind 270 deg - Ice		-6.20	-0.02	-3.07	458.49	1.40
Wind 300 deg - Ice		-5.67	-3.29	-242.16	414.39	1.22
Wind 330 deg - Ice		-3.23	-5.59	-412.03	237.50	-0.02
Total Weight	30.37			0.43	-0.83	
Wind 0 deg - Service		-0.03	-5.85	-431.91	3.19	-0.58
Wind 30 deg - Service		2.65	-4.61	-348.29	-200.03	0.82
Wind 60 deg - Service		4.65	-2.68	-200.76	-347.75	0.19
Wind 90 deg - Service		5.14	0.01	0.78	-385.99	-1.60
Wind 120 deg - Service		4.87	2.84	209.32	-357.05	-0.73
Wind 150 deg - Service		2.80	4.85	359.14	-207.67	0.69
Wind 180 deg - Service		0.02	5.73	425.83	-2.48	0.56
Wind 210 deg - Service		-2.63	4.60	347.36	197.51	-0.83
Wind 240 deg - Service		-4.72	2.72	200.96	348.95	-0.19
Wind 270 deg - Service		-5.13	-0.02	-3.23	384.35	1.60
Wind 300 deg - Service		-4.79	-2.78	-207.61	354.67	0.76
Wind 330 deg - Service		-2.80	-4.84	-359.56	207.80	-0.69

Load Combinations

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

Maximum Member Forces

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
T1	120 - 100	Leg	Max Tension	15	17.41	-0.00	0.28
			Max. Compression	2	-21.35	-0.00	0.32
			Max. Mx	8	-16.97	-0.27	-0.04
			Max. My	2	-21.35	-0.00	0.32
			Max. Vy	7	1.61	-0.26	0.15
			Max. Vx	2	-2.05	-0.00	0.32
		Diagonal	Max Tension	5	2.15	0.00	0.00
			Max. Compression	4	-2.17	0.00	0.00
			Max. Mx	27	0.48	-0.00	0.00
			Max. My	21	-0.40	-0.00	0.00
			Max. Vy	27	0.01	-0.00	0.00
			Max. Vx	21	-0.00	-0.00	0.00
		Horizontal	Max Tension	14	0.29	0.00	0.00
			Max. Compression	3	-0.17	0.00	0.00
			Max. Mx	26	0.18	0.01	0.00
			Max. Vy	26	-0.01	0.00	0.00
		Top Girt	Max Tension	11	0.27	0.00	0.00
			Max. Compression	22	-0.28	0.00	0.00
			Max. Mx	26	-0.01	0.01	0.00
			Max. Vy	26	-0.01	0.00	0.00
		Bottom Girt	Max Tension	14	0.92	0.00	0.00
			Max. Compression	3	-0.84	0.00	0.00
			Max. Mx	26	0.03	0.01	0.00
			Max. Vy	26	-0.01	0.00	0.00
		Mid Girt	Max Tension	18	0.40	0.00	0.00
			Max. Compression	23	-0.38	0.00	0.00
			Max. Mx	26	0.03	0.01	0.00
			Max. Vy	26	-0.01	0.00	0.00
T2	100 - 80	Leg	Max Tension	15	78.42	-0.00	-0.11
			Max. Compression	2	-88.86	-0.03	2.28
			Max. Mx	10	-84.84	-1.88	-1.14
			Max. My	2	-88.86	-0.03	2.28
			Max. Vy	10	6.15	-1.88	-1.14
			Max. Vx	2	-7.28	-0.03	2.28
		Diagonal	Max Tension	5	5.25	0.00	0.00
			Max. Compression	16	-5.30	0.00	0.00
			Max. Mx	2	4.75	-0.01	0.00
			Max. My	21	-4.82	0.00	0.00
			Max. Vy	27	0.01	-0.01	0.00
			Max. Vx	21	-0.00	-0.00	0.00
		Horizontal	Max Tension	14	1.29	0.00	0.00
			Max. Compression	3	-0.96	0.00	0.00
			Max. Mx	26	0.40	0.01	0.00
			Max. Vy	26	0.01	0.00	0.00
		Top Girt	Max Tension	2	0.68	0.00	0.00
			Max. Compression	15	-0.62	0.00	0.00
			Max. Mx	26	0.01	0.01	0.00
			Max. Vy	26	-0.01	0.00	0.00
		Bottom Girt	Max Tension	15	0.50	0.00	0.00
			Max. Compression	2	-0.55	0.00	0.00
			Max. Mx	26	-0.12	0.01	0.00
			Max. Vy	26	-0.01	0.00	0.00
		Mid Girt	Max Tension	14	0.90	0.00	0.00
			Max. Compression	3	-0.69	0.00	0.00
			Max. Mx	26	0.11	0.01	0.00
			Max. Vy	26	-0.01	0.00	0.00
T3	80 - 60	Leg	Max Tension	15	100.32	-5.64	0.06
			Max. Compression	2	-112.99	5.62	-0.06
			Max. Mx	14	80.51	-5.75	0.06
			Max. My	12	-5.73	-0.46	-9.44
			Max. Vy	14	0.46	-5.75	0.06

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Vx	4	0.98	-0.49	-9.39
		Diagonal	Max Tension	15	5.88	0.10	-0.02
			Max. Compression	2	-6.68	0.00	0.00
			Max. Mx	2	5.31	0.12	-0.01
			Max. My	2	-6.65	-0.09	0.02
			Max. Vy	2	-0.03	0.12	-0.01
			Max. Vx	2	-0.01	0.00	0.00
		Top Girt	Max Tension	14	1.35	0.00	0.00
			Max. Compression	3	-1.10	0.00	0.00
			Max. Mx	26	0.22	-0.03	0.00
			Max. My	26	0.30	0.00	0.00
			Max. Vy	26	0.03	0.00	0.00
			Max. Vx	26	0.00	0.00	0.00
T4	60 - 40	Leg	Max Tension	15	127.39	-5.67	0.02
			Max. Compression	2	-142.76	4.23	-0.01
			Max. Mx	2	-142.31	5.94	-0.04
			Max. My	12	-8.50	-0.53	-8.09
			Max. Vy	2	0.25	5.94	-0.04
			Max. Vx	12	0.46	-0.53	-8.09
		Diagonal	Max Tension	2	4.49	0.00	0.00
			Max. Compression	14	-4.47	0.00	0.00
			Max. Mx	2	4.47	0.07	-0.00
			Max. My	20	3.58	0.05	-0.01
			Max. Vy	29	0.03	0.04	-0.01
			Max. Vx	36	0.00	0.00	0.00
T5	40 - 20	Leg	Max Tension	15	152.88	-6.56	-0.01
			Max. Compression	2	-172.45	3.63	-0.06
			Max. Mx	2	-154.48	8.24	0.01
			Max. My	12	-10.58	-0.83	-12.84
			Max. Vy	2	0.54	8.24	0.01
			Max. Vx	12	1.59	-0.83	-12.84
		Diagonal	Max Tension	24	6.32	0.00	0.00
			Max. Compression	2	-6.01	0.00	0.00
			Max. Mx	12	-1.70	0.10	-0.01
			Max. My	12	-2.67	-0.03	0.03
			Max. Vy	38	0.04	0.07	-0.01
			Max. Vx	12	-0.00	0.00	0.00
T6	20 - 0	Leg	Max Tension	15	156.95	-4.98	0.03
			Max. Compression	2	-175.44	0.00	-0.00
			Max. Mx	14	154.74	-5.18	0.03
			Max. My	12	-8.94	-0.83	-12.84
			Max. Vy	14	-0.47	-5.18	0.03
			Max. Vx	12	-0.84	-0.83	-12.84
		Diagonal	Max Tension	13	12.05	0.00	0.00
			Max. Compression	24	-13.78	0.00	0.00
			Max. Mx	2	0.73	-0.37	0.13
			Max. My	12	6.07	-0.31	0.16
			Max. Vy	38	-0.10	-0.26	-0.08
			Max. Vx	12	-0.02	0.00	0.00

Maximum Reactions

Location	Condition	Gov. Load Comb.	Vertical K	Horizontal, X K	Horizontal, Z K
Leg C	Max. Vert	18	185.89	17.44	-10.02
	Max. H_x	18	185.89	17.44	-10.02

Location	Condition	Gov. Load Comb.	Vertical K	Horizontal, X K	Horizontal, Z K
	Max. H_z	7	-163.84	-14.99	8.61
	Min. Vert	7	-163.84	-14.99	8.61
	Min. H_x	7	-163.84	-14.99	8.61
	Min. H_z	18	185.89	17.44	-10.02
Leg B	Max. Vert	10	190.67	-17.87	-10.46
	Max. H_x	23	-167.99	15.37	9.04
	Max. H_z	23	-167.99	15.37	9.04
	Min. Vert	23	-167.99	15.37	9.04
	Min. H_x	10	190.67	-17.87	-10.46
	Min. H_z	10	190.67	-17.87	-10.46
Leg A	Max. Vert	2	198.11	-0.16	21.46
	Max. H_x	6	98.46	2.11	10.69
	Max. H_z	2	198.11	-0.16	21.46
	Min. Vert	15	-174.70	0.15	-18.51
	Min. H_x	19	-77.75	-2.07	-8.18
	Min. H_z	15	-174.70	0.15	-18.51

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	30.37	0.00	0.00	0.52	-0.83	0.00
1.2 Dead+1.0 Wind 0 deg - No Ice	36.44	-0.13	-26.22	-1932.58	14.64	-2.62
0.9 Dead+1.0 Wind 0 deg - No Ice	27.33	-0.13	-26.22	-1932.74	14.88	-2.62
1.2 Dead+1.0 Wind 30 deg - No Ice	36.44	11.87	-20.63	-1557.95	-895.85	3.67
0.9 Dead+1.0 Wind 30 deg - No Ice	27.33	11.87	-20.63	-1558.11	-895.60	3.67
1.2 Dead+1.0 Wind 60 deg - No Ice	36.44	20.82	-12.01	-896.95	-1557.67	0.84
0.9 Dead+1.0 Wind 60 deg - No Ice	27.33	20.82	-12.01	-897.11	-1557.43	0.84
1.2 Dead+1.0 Wind 90 deg - No Ice	36.44	23.04	0.04	5.96	-1729.01	-7.15
0.9 Dead+1.0 Wind 90 deg - No Ice	27.33	23.04	0.04	5.81	-1728.76	-7.15
1.2 Dead+1.0 Wind 120 deg - No Ice	36.44	21.80	12.73	940.32	-1599.37	-3.28
0.9 Dead+1.0 Wind 120 deg - No Ice	27.33	21.80	12.73	940.16	-1599.12	-3.28
1.2 Dead+1.0 Wind 150 deg - No Ice	36.44	12.52	21.71	1611.55	-930.07	3.08
0.9 Dead+1.0 Wind 150 deg - No Ice	27.33	12.52	21.71	1611.40	-929.82	3.08
1.2 Dead+1.0 Wind 180 deg - No Ice	36.44	0.08	25.69	1910.32	-10.76	2.50
0.9 Dead+1.0 Wind 180 deg - No Ice	27.33	0.08	25.69	1910.16	-10.51	2.50
1.2 Dead+1.0 Wind 210 deg - No Ice	36.44	-11.79	20.62	1558.76	885.22	-3.70
0.9 Dead+1.0 Wind 210 deg - No Ice	27.33	-11.79	20.62	1558.60	885.47	-3.70
1.2 Dead+1.0 Wind 240 deg - No Ice	36.44	-21.14	12.20	902.84	1563.72	-0.84

Load Combination	Vertical	$Shear_x$	$Shear_z$	Overturning Moment, M_x	Overturning Moment, M_z	Torque
	K	K	K	kip-ft	kip-ft	kip-ft
0.9 Dead+1.0 Wind 240 deg - No Ice	27.33	-21.14	12.20	902.68	1563.97	-0.84
1.2 Dead+1.0 Wind 270 deg - No Ice	36.44	-22.98	-0.10	-11.97	1722.32	7.18
0.9 Dead+1.0 Wind 270 deg - No Ice	27.33	-22.98	-0.10	-12.13	1722.57	7.18
1.2 Dead+1.0 Wind 300 deg - No Ice	36.44	-21.46	-12.48	-927.66	1589.34	3.40
0.9 Dead+1.0 Wind 300 deg - No Ice	27.33	-21.46	-12.48	-927.82	1589.58	3.40
1.2 Dead+1.0 Wind 330 deg - No Ice	36.44	-12.55	-21.69	-1608.43	931.33	-3.08
0.9 Dead+1.0 Wind 330 deg - No Ice	27.33	-12.55	-21.69	-1608.59	931.58	-3.08
1.2 Dead+1.0 Ice+1.0 Temp	76.65	0.00	0.00	-0.49	-0.63	0.00
1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp	76.65	-0.02	-6.59	-487.68	2.11	0.10
1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp	76.65	3.15	-5.47	-410.03	-236.20	1.17
1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp	76.65	5.54	-3.20	-237.93	-412.24	0.57
1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp	76.65	6.27	0.01	0.44	-466.10	-1.40
1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp	76.65	5.71	3.32	242.32	-416.05	-1.20
1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp	76.65	3.23	5.59	411.00	-238.03	0.02
1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp	76.65	0.01	6.47	477.87	-2.35	-0.12
1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp	76.65	-3.11	5.42	404.05	230.57	-1.17
1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp	76.65	-5.52	3.19	234.43	406.60	-0.57
1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp	76.65	-6.20	-0.02	-2.70	458.33	1.40
1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp	76.65	-5.67	-3.29	-241.79	414.23	1.22
1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp	76.65	-3.23	-5.59	-411.66	237.33	-0.02
Dead+Wind 0 deg - Service	30.37	-0.03	-5.85	-430.97	2.66	-0.58
Dead+Wind 30 deg - Service	30.37	2.65	-4.61	-347.36	-200.56	0.82
Dead+Wind 60 deg - Service	30.37	4.65	-2.68	-199.82	-348.28	0.19
Dead+Wind 90 deg - Service	30.37	5.14	0.01	1.71	-386.52	-1.60
Dead+Wind 120 deg - Service	30.37	4.87	2.84	210.26	-357.59	-0.73
Dead+Wind 150 deg - Service	30.37	2.80	4.85	360.08	-208.20	0.69
Dead+Wind 180 deg - Service	30.37	0.02	5.73	426.76	-3.01	0.56
Dead+Wind 210 deg - Service	30.37	-2.63	4.60	348.30	196.98	-0.83
Dead+Wind 240 deg - Service	30.37	-4.72	2.72	201.89	348.42	-0.19
Dead+Wind 270 deg - Service	30.37	-5.13	-0.02	-2.29	383.82	1.60
Dead+Wind 300 deg - Service	30.37	-4.79	-2.78	-206.67	354.13	0.76
Dead+Wind 330 deg - Service	30.37	-2.80	-4.84	-358.62	207.27	-0.69

Solution Summary

Load Comb.	Sum of Applied Forces PX K	PY K	PZ K	Sum of Reactions PX K	PY K	PZ K	% Error
1	0.00	-30.37	0.00	0.00	30.37	0.00	0.000%

Load Comb.	Sum of Applied Forces PX K	PY K	PZ K	Sum of Reactions PX K	PY K	PZ K	% Error
2	-0.13	-36.44	-26.22	0.13	36.44	26.22	0.000%
3	-0.13	-27.33	-26.22	0.13	27.33	26.22	0.000%
4	11.87	-36.44	-20.63	-11.87	36.44	20.63	0.000%
5	11.87	-27.33	-20.63	-11.87	27.33	20.63	0.000%
6	20.82	-36.44	-12.01	-20.82	36.44	12.01	0.000%
7	20.82	-27.33	-12.01	-20.82	27.33	12.01	0.000%
8	23.04	-36.44	0.04	-23.04	36.44	-0.04	0.000%
9	23.04	-27.33	0.04	-23.04	27.33	-0.04	0.000%
10	21.80	-36.44	12.73	-21.80	36.44	-12.73	0.000%
11	21.80	-27.33	12.73	-21.80	27.33	-12.73	0.000%
12	12.52	-36.44	21.71	-12.52	36.44	-21.71	0.000%
13	12.52	-27.33	21.71	-12.52	27.33	-21.71	0.000%
14	0.08	-36.44	25.69	-0.08	36.44	-25.69	0.000%
15	0.08	-27.33	25.69	-0.08	27.33	-25.69	0.000%
16	-11.79	-36.44	20.62	11.79	36.44	-20.62	0.000%
17	-11.79	-27.33	20.62	11.79	27.33	-20.62	0.000%
18	-21.14	-36.44	12.20	21.14	36.44	-12.20	0.000%
19	-21.14	-27.33	12.20	21.14	27.33	-12.20	0.000%
20	-22.98	-36.44	-0.10	22.98	36.44	0.10	0.000%
21	-22.98	-27.33	-0.10	22.98	27.33	0.10	0.000%
22	-21.46	-36.44	-12.48	21.46	36.44	12.48	0.000%
23	-21.46	-27.33	-12.48	21.46	27.33	12.48	0.000%
24	-12.55	-36.44	-21.69	12.55	36.44	21.69	0.000%
25	-12.55	-27.33	-21.69	12.55	27.33	21.69	0.000%
26	0.00	-76.65	0.00	0.00	76.65	0.00	0.000%
27	-0.02	-76.65	-6.59	0.02	76.65	6.59	0.000%
28	3.15	-76.65	-5.47	-3.15	76.65	5.47	0.000%
29	5.54	-76.65	-3.20	-5.54	76.65	3.20	0.000%
30	6.27	-76.65	0.01	-6.27	76.65	-0.01	0.000%
31	5.71	-76.65	3.32	-5.71	76.65	-3.32	0.000%
32	3.23	-76.65	5.59	-3.23	76.65	-5.59	0.000%
33	0.01	-76.65	6.47	-0.01	76.65	-6.47	0.000%
34	-3.11	-76.65	5.42	3.11	76.65	-5.42	0.000%
35	-5.52	-76.65	3.19	5.52	76.65	-3.19	0.000%
36	-6.20	-76.65	-0.02	6.20	76.65	0.02	0.000%
37	-5.67	-76.65	-3.29	5.67	76.65	3.29	0.000%
38	-3.23	-76.65	-5.59	3.23	76.65	5.59	0.000%
39	-0.03	-30.37	-5.85	0.03	30.37	5.85	0.000%
40	2.65	-30.37	-4.61	-2.65	30.37	4.61	0.000%
41	4.65	-30.37	-2.68	-4.65	30.37	2.68	0.000%
42	5.14	-30.37	0.01	-5.14	30.37	-0.01	0.000%
43	4.87	-30.37	2.84	-4.87	30.37	-2.84	0.000%
44	2.80	-30.37	4.85	-2.80	30.37	-4.85	0.000%
45	0.02	-30.37	5.73	-0.02	30.37	-5.73	0.000%
46	-2.63	-30.37	4.60	2.63	30.37	-4.60	0.000%
47	-4.72	-30.37	2.72	4.72	30.37	-2.72	0.000%
48	-5.13	-30.37	-0.02	5.13	30.37	0.02	0.000%
49	-4.79	-30.37	-2.78	4.79	30.37	2.78	0.000%
50	-2.80	-30.37	-4.84	2.80	30.37	4.84	0.000%

Maximum Tower Deflections - Service Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
T1	120 - 100	2.794	39	0.2110	0.0350

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
T2	100 - 80	1.912	39	0.1983	0.0257
T3	80 - 60	1.125	39	0.1520	0.0181
T4	60 - 40	0.584	39	0.0974	0.0092
T5	40 - 20	0.238	39	0.0598	0.0038
T6	20 - 0	0.048	39	0.0238	0.0014

Critical Deflections and Radius of Curvature - Service Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
120.00	VHLP800-11	39	2.794	0.2110	0.0350	290097
110.00	Site Pro 1 VFA12-HD	39	2.349	0.2077	0.0302	145048
98.00	Site Pro 1 VFA12-HD	39	1.826	0.1952	0.0249	52300
86.00	Site Pro 1 VFA12-HD	39	1.340	0.1685	0.0204	20480

Maximum Tower Deflections - Design Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
T1	120 - 100	12.505	2	0.9399	0.1570
T2	100 - 80	8.567	3	0.8872	0.1153
T3	80 - 60	5.044	3	0.6812	0.0809
T4	60 - 40	2.618	3	0.4363	0.0412
T5	40 - 20	1.068	3	0.2681	0.0169
T6	20 - 0	0.213	3	0.1066	0.0064

Critical Deflections and Radius of Curvature - Design Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
120.00	VHLP800-11	2	12.505	0.9399	0.1570	69005
110.00	Site Pro 1 VFA12-HD	2	10.519	0.9273	0.1351	34503
98.00	Site Pro 1 VFA12-HD	3	8.184	0.8735	0.1117	12149
86.00	Site Pro 1 VFA12-HD	3	6.007	0.7552	0.0916	4594

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	120	Leg	A325N	1.2500	2	8.70	87.22	0.100 ✓	1	Bolt Tension
T2	100	Leg	A325N	1.0000	4	19.60	54.52	0.360 ✓	1	Bolt Tension
T3	80	Leg	A325N	1.0000	6	16.72	54.52	0.307 ✓	1	Bolt Tension
		Diagonal	A325N	1.0000	1	5.88	13.71	0.429 ✓	1	Member Block Shear
		Top Girt	A325N	1.0000	1	1.96	10.16	0.193 ✓	1	Member Block Shear
T4	60	Leg	A325N	1.2500	6	21.23	87.22	0.243 ✓	1	Bolt Tension
		Diagonal	A325N	1.0000	1	4.49	10.28	0.437 ✓	1	Member Block Shear
T5	40	Leg	A325N	1.2500	6	25.48	87.22	0.292 ✓	1	Bolt Tension
		Diagonal	A325N	1.0000	1	6.32	17.14	0.369 ✓	1	Member Block Shear
T6	20	Diagonal	A325N	0.8750	2	6.03	30.01	0.201 ✓	1	Member Block Shear

Compression Checks

Leg 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 $\frac{P_u}{\phi P_n}$
T1	120 - 100	1 3/4	20.00	2.43	66.6 K=1.00	2.4053	-21.35	86.22	0.248 [1] ✓
T2	100 - 80	2 1/4	20.00	2.43	51.8 K=1.00	3.9761	-88.86	165.34	0.537 [1] ✓
T3	80 - 60	Valmont 194651 (58 ksi)	20.03	10.02	34.4 K=1.00	5.3014	-113.00	250.28	0.451 [1] ✓
T4	60 - 40	Valmont 195213 (58 ksi)	20.03	10.02	29.5 K=1.00	7.2158	-142.76	349.87	0.408 [1] ✓
T5	40 - 20	Valmont 195217 (58 ksi)	20.03	10.02	29.6 K=1.00	7.2158	-172.45	349.74	0.493 [1] ✓
T6	20 - 0	Valmont 196915 (58 ksi)	20.03	20.03	48.8 K=1.00	9.4248	-175.44	401.94	0.436 [1] ✓

[1] P_u / ϕP_n controls

Truss-Leg Diagonal Data

Section No.	Elevation ft	Diagonal Size	L_d ft	Kl/r	ϕP_n K	A in^2	V_u K	ϕV_n K	Stress Ratio
T3	80 - 60	0.5	1.39	113.1	276.74	0.1963	0.99	3.83	0.258

Section No.	Elevation ft	Diagonal Size	L_d ft	Kl/r	ϕP_n K	A in²	V_u K	ϕV_n K	Stress Ratio
T4	60 - 40	0.5	1.37	112.1	376.67	0.1963	0.47	3.88	0.121
T5	40 - 20	0.5	1.38	112.2	376.67	0.1963	1.60	3.86	0.415
T6	20 - 0	0.625	1.36	89.0	491.97	0.3068	0.84	9.65	0.088

Diagonal Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in²	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T1	120 - 100	3/4	4.68	2.25	129.8 K=0.90	0.4418	-2.17	5.92	0.367 [1]
T2	100 - 80	7/8	4.68	2.23	110.1 K=0.90	0.6013	-5.30	11.16	0.475 [1]
T3	80 - 60	L2 1/2x2 1/2x1/4	10.97	4.89	119.7 K=1.00	1.1900	-6.68	23.79	0.281 [1]
T4	60 - 40	L2 1/2x2 1/2x3/16	12.50	5.67	137.4 K=1.00	0.9020	-4.15	13.67	0.303 [1]
T5	40 - 20	L2 1/2x2 1/2x5/16	13.80	6.37	156.3 K=1.00	1.4600	-5.56	17.11	0.325 [1]
T6	20 - 0	2L3 1/2x3 1/2x1/4x5/8	22.83	11.16	122.1 K=1.00	3.3750	-13.78	64.81	0.213 [1]

[1] P_u / ϕP_n controls

Horizontal Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in²	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T1	120 - 100	3/4	4.00	3.85	172.7 K=0.70	0.4418	-0.35	3.35	0.104 [1]
T2	100 - 80	3/4	4.00	3.81	170.8 K=0.70	0.4418	-1.47	3.42	0.429 [1]

[1] P_u / ϕP_n controls

Top Girt Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in²	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$

Section No.	Elevation	Size	L	L_u	Kl/r	A	P_u	ϕP_n	Ratio $\frac{P_u}{\phi P_n}$
	ft		ft	ft		in^2	K	K	
T1	120 - 100	7/8	4.00	3.85	148.0 K=0.70	0.6013	-0.28	6.20	0.046 [1] ✔
T2	100 - 80	1	4.00	3.81	128.1 K=0.70	0.7854	-1.54	10.81	0.142 [1] ✔
T3	80 - 60	L3x3x3/16	4.00	2.67	86.8 K=1.62	1.0900	-1.96	29.22	0.067 [1] ✔

[1] P_u / ϕP_n controls

Bottom Girt Design Data (Compression)

Section No.	Elevation	Size	L	L_u	Kl/r	A	P_u	ϕP_n	Ratio $\frac{P_u}{\phi P_n}$
	ft		ft	ft		in^2	K	K	
T1	120 - 100	7/8	4.00	3.85	148.0 K=0.70	0.6013	-0.84	6.20	0.135 [1] ✔
T2	100 - 80	1	4.00	3.81	128.1 K=0.70	0.7854	-1.54	10.81	0.142 [1] ✔

[1] P_u / ϕP_n controls

Mid Girt Design Data (Compression)

Section No.	Elevation	Size	L	L_u	Kl/r	A	P_u	ϕP_n	Ratio $\frac{P_u}{\phi P_n}$
	ft		ft	ft		in^2	K	K	
T1	120 - 100	7/8	4.00	3.85	148.0 K=0.70	0.6013	-0.38	6.20	0.061 [1] ✔
T2	100 - 80	1	4.00	3.81	128.1 K=0.70	0.7854	-0.69	10.73	0.065 [1] ✔

[1] P_u / ϕP_n controls

Tension Checks

Leg Design Data (Tension)

Section No.	Elevation	Size	L	L_u	Kl/r	A	P_u	ϕP_n	Ratio $\frac{P_u}{\phi P_n}$
	ft		ft	ft		in^2	K	K	
T1	120 - 100	1 3/4	20.00	2.43	66.6	2.4053	17.41	125.56	0.139 [1] ✔

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T2	100 - 80	2 1/4	20.00	2.43	51.8	3.9761	78.42	207.55	0.378 [1] ✔
T3	80 - 60	Valmont 194651 (58 ksi)	20.03	10.02	34.4	5.3014	100.32	276.74	0.363 [1] ✔
T4	60 - 40	Valmont 195213 (58 ksi)	20.03	10.02	29.5	7.2158	127.39	376.67	0.338 [1] ✔
T5	40 - 20	Valmont 195217 (58 ksi)	20.03	10.02	29.6	7.2158	152.88	376.67	0.406 [1] ✔
T6	20 - 0	Valmont 196915 (58 ksi)	20.03	20.03	48.8	9.4248	156.95	491.97	0.319 [1] ✔

[1] P_u / ϕP_n controls

Truss-Leg Diagonal Data

Section No.	Elevation ft	Diagonal Size	L_d ft	Kl/r	ϕP_n K	A in^2	V_u K	ϕV_n K	Stress Ratio
T3	80 - 60	0.5	1.39	113.1	276.74	0.1963	0.99	3.83	0.258 ✔
T4	60 - 40	0.5	1.37	112.1	376.67	0.1963	0.47	3.88	0.121 ✔
T5	40 - 20	0.5	1.38	112.2	376.67	0.1963	1.60	3.86	0.415 ✔
T6	20 - 0	0.625	1.36	89.0	491.97	0.3068	0.84	9.65	0.088 ✔

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	120 - 100	3/4	4.68	2.25	144.3	0.4418	2.15	19.88	0.108 [1] ✔
T2	100 - 80	7/8	4.68	2.23	122.3	0.6013	5.25	27.06	0.194 [1] ✔
T3	80 - 60	L2 1/2x2 1/2x1/4	10.97	4.89	78.9	0.6816	5.88	33.23	0.177 [1] ✔
T4	60 - 40	L2 1/2x2 1/2x3/16	11.93	5.42	86.2	0.5183	4.49	25.27	0.178 [1] ✔
T5	40 - 20	L2 1/2x2 1/2x5/16	13.80	6.37	103.1	0.8313	6.32	40.53	0.156 [1] ✔
T6	20 - 0	2L3 1/2x3 1/2x1/4x5/8	22.83	11.16	125.5	2.1563	12.05	105.12	0.115 [1] ✔

[1] P_u / ϕP_n controls

Horizontal Design Data (Tension)

Section No.	Elevation	Size	L	L_u	Kl/r	A	P_u	ϕP_n	Ratio $\frac{P_u}{\phi P_n}$
	ft		ft	ft		in^2	K	K	
T1	120 - 100	3/4	4.00	3.85	246.7	0.4418	0.35	19.88	0.017 [1] ✔
T2	100 - 80	3/4	4.00	3.81	244.0	0.4418	1.47	19.88	0.074 [1] ✔

[1] P_u / ϕP_n controls

Top Girt Design Data (Tension)

Section No.	Elevation	Size	L	L_u	Kl/r	A	P_u	ϕP_n	Ratio $\frac{P_u}{\phi P_n}$
	ft		ft	ft		in^2	K	K	
T1	120 - 100	7/8	4.00	3.85	211.4	0.6013	0.27	27.06	0.010 [1] ✔
T2	100 - 80	1	4.00	3.81	183.0	0.7854	1.54	35.34	0.044 [1] ✔
T3	80 - 60	L3x3x3/16	4.00	2.67	38.3	0.6593	1.96	28.68	0.068 [1] ✔

[1] P_u / ϕP_n controls

Bottom Girt Design Data (Tension)

Section No.	Elevation	Size	L	L_u	Kl/r	A	P_u	ϕP_n	Ratio $\frac{P_u}{\phi P_n}$
	ft		ft	ft		in^2	K	K	
T1	120 - 100	7/8	4.00	3.85	211.4	0.6013	0.92	27.06	0.034 [1] ✔
T2	100 - 80	1	4.00	3.81	183.0	0.7854	1.54	35.34	0.044 [1] ✔

[1] P_u / ϕP_n controls

Mid Girt Design Data (Tension)

Section No.	Elevation	Size	L	L_u	Kl/r	A	P_u	ϕP_n	Ratio $\frac{P_u}{\phi P_n}$
	ft		ft	ft		in^2	K	K	
T1	120 - 100	7/8	4.00	3.85	211.4	0.6013	0.40	27.06	0.015 [1]

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T2	100 - 80	1	4.00	3.81	183.0	0.7854	0.90	25.45	0.035 [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	120 - 100	Leg	1 3/4	3	-21.35	86.22	24.8	Pass
T2	100 - 80	Leg	2 1/4	69	-88.86	165.34	53.7	Pass
T3	80 - 60	Leg	Valmont 194651 (58 ksi)	135	-113.00	250.28	45.1	Pass
T4	60 - 40	Leg	Valmont 195213 (58 ksi)	153	-142.76	349.87	40.8	Pass
T5	40 - 20	Leg	Valmont 195217 (58 ksi)	168	-172.45	349.74	49.3	Pass
T6	20 - 0	Leg	Valmont 196915 (58 ksi)	183	-175.44	401.94	43.6	Pass
T1	120 - 100	Diagonal	3/4	17	-2.17	5.92	36.7	Pass
T2	100 - 80	Diagonal	7/8	84	-5.30	11.16	47.5	Pass
T3	80 - 60	Diagonal	L2 1/2x2 1/2x1/4	149	-6.68	23.79	28.1 42.9 (b)	Pass
T4	60 - 40	Diagonal	L2 1/2x2 1/2x3/16	158	-4.15	13.67	30.3 43.7 (b)	Pass
T5	40 - 20	Diagonal	L2 1/2x2 1/2x5/16	174	-5.56	17.11	32.5 36.9 (b)	Pass
T6	20 - 0	Diagonal	2L3 1/2x3 1/2x1/4x5/8	188	-13.78	64.81	21.3	Pass
T1	120 - 100	Horizontal	3/4	19	-0.35	3.35	10.4	Pass
T2	100 - 80	Horizontal	3/4	85	-1.47	3.42	42.9	Pass
T1	120 - 100	Top Girt	7/8	6	-0.28	6.20	4.6	Pass
T2	100 - 80	Top Girt	1	71	-1.54	10.81	14.2	Pass
T3	80 - 60	Top Girt	L3x3x3/16	137	1.96	28.68	6.8 19.3 (b)	Pass
T1	120 - 100	Bottom Girt	7/8	7	-0.84	6.20	13.5	Pass
T2	100 - 80	Bottom Girt	1	74	-1.54	10.81	14.2	Pass
T1	120 - 100	Mid Girt	7/8	12	-0.38	6.20	6.1	Pass
T2	100 - 80	Mid Girt	1	76	-0.69	10.73	6.5	Pass
						Summary		
						Leg (T2)	53.7	Pass
						Diagonal (T2)	47.5	Pass
						Horizontal (T2)	42.9	Pass
						Top Girt (T3)	19.3	Pass
						Bottom Girt (T2)	14.2	Pass
						Mid Girt (T2)	6.5	Pass
						Bolt Checks	43.7	Pass
						RATING =	**53.7**	**Pass**

Centerline Engineering Services, PA
750 W Center St, Suite 301
West Bridgewater, MA 02379
Tel: (781)-713-4725

Job:	Southington 4 CT	Engineer:	JB
Project:	23CLVZ-0008	Date:	9/20/2023
Client:	Verizon Wireless	Sheet:	1 of 1

SST Anchor Rod Check (TIA-H)

Anchor Rod Information

Grout Considered?:	No	
Clear Distance, l_{ar}:	1	*in*
Quanity Per Leg:	12	
Diameter:	1	*in*
Rod Material:	F1554 Gr. 105	
Strength (Fu):	125	*ksi*
Yield (Fy):	105	*ksi*

Reactions

Compression, P_{uc}:	198.0	*kips*
Comp Shear, V_{uc}:	21.0	*kips*
Tension, P_{ut}:	175.0	*kips*
Tension Shear, V_{ut}:	19.0	*kips*

Capacity Results

Anchor Rod Results

Interaction Equations for lar ≤ 1(d)	(Puc/ϕcRnc) + [Vu/ϕcRnvc]^2 ≤ 1.0

$R_{nt} = FuA_n$=	75.75	*kips*	Rnvc = $0.6F_yA_n/2$	19.09	*kips*	ϕ_t=	0.75
$R_{nc} = F_yA_n$=	63.63	*kips*	$R_{nb} = F_{cr}A_n$=	63.34	*kips*	ϕ_v=	0.75
$R_{nv} = 0.5F_uA_g$=	49.09	*kips*	$M_n = F_yZ$=	11.86	*ksi*	ϕ_c=	1.0
						ϕ_f=	0.9

P_{uc}=	16.50	*kips*	V_{uc}=	1.75	*kips*	M_{uc}=	1.14	*ksi*
P_{ut}=	14.58	*kips*	V_{ut}=	1.58	*kips*	M_{ut}=	1.03	*ksi*

Anchor Rod Stress Ratio= 26.8% Good

Centerline Engineering Services, PA
750 W Center St, Suite 301
West Bridgewater, MA 02379
Tel: (781)-713-4725

Job:	23CLVZ-0005	Engineer:	JB
Project:	Weston North CT	Date:	9/20/2023
Client:	Verizon Wireless	Sheet:	1 of 1

SST Unit Base Analysis Summary (TIA-H)

Analysis Reactions and Tower Information

Global Moment, M:	1933	*ft-kips*
Global Axial, P:	36	*kips*
Global Shear, V:	26	*kips*
Leg Compression, P_{comp}:	198	*kips*
Leg Comp. Shear, V_{u_comp}:	21	*kips*
Leg Uplift, P_{uplift}:	175	*kips*
Leg Uplift Shear, V_{u_uplift}:	19	*kips*
Tower Height, H:	120	*ft*
Base Face Width: BW:	12	*ft*
BP Dist. Above Fdn, bp_{dist}:	3	*in*

Soil Properties

Total Soil Unit Weight, γ:	100	*pcf*
Ultimate Net Bearing, Qnet:	12	*ksf*
Cohesion, Cu:	0	*ksf*
Friction Angle, ϕ:	30	*degrees*
SPT Blow Count, N_{blows}:	10	
Base Friction, μ:	0.3	
Neglected Depth, N:	1.75	*ft*
Foundation Bearing on Rock?:	No	
Groundwater Depth, D_{gw}:	10.5	*ft*

Pier Properties

Pier Shape:	Circular	
Pier Diameter, d_{pier}:	3.5	*ft*
Ext. Above Grade, E:	0.5	*ft*
Pier Rebar Size, R_{spier}:	7	
Pier Rebar Quantity, R_{qpier}:	16	
Pier Tie Size, T_{spier}:	4	
Pier Tie Quantity, T_{qpier}:	6	
Pier Clear Cover, cc_{pier}:	3	*in*

Pad Properties:

Depth, D:	6	*ft*
Pad Width, W:	23.5	*ft*
Pad Thickness, T:	1.5	*ft*
Pad Rebar Size (Bottom), R_{spad}:	7	
Pad Rebar Qnty (Bottom), R_{qpad}:	35	
Pad Clear Cover, cc_{pad}:	3	*in*

Material Properties

Rebar Strength, F_y:	60	*ksi*
Concrete Strength, f'c:	4.5	*ksi*
Dry Concrete Density, δ_c:	150	*pcf*

Foundation Analysis Results

Soil Capacity Results

	Capacity	Demand	Rating	
Lateral (Sliding) *(kips)* :	145.3	26.0	17.0%	46.2%
Bearing Pressure *(ksf)* :	9.5	1.6	16.8%	Good
Overturning *(kip*ft)* :	4,568.2	2,108.5	46.2%	

Structural Capacity Results

	Capacity	Demand	Rating	
Pier Flexure (Comp.) *(kip*ft)* :	951.9	105.0	10.5%	38.4%
Pier Flexure (Tension) *(kip*ft)* :	532.7	95.0	17.0%	Good
Pier Compression *(kip)* :	6,889.1	206.7	2.9%	
Pad Flexure *(kip*ft)* :	1,238.3	483.6	37.2%	
Pad Shear - 1-way *(kips)* :	388.4	112.9	27.7%	
Pad Shear - 2-way *(ksi)* :	0.2	0.1	38.4%	

Colliers Engineering & Design CT, PC
1055 Washington Boulevard
Stamford, CT 06901
203.324.0800
peter.albano@collierseng.com

Antenna Mount Analysis Report and PMI Requirements

Mount Analysis

SMART Tool Project #: 10207624
Colliers Engineering & Design CT, PC Project # 23777196

August 10, 2023

Site Information	*Site ID:*	*5000175612-VZW / SOUTHINGTON 4 CT - A*
	Site Name:	*SOUTHINGTON 4 CT - A*
	Carrier Name:	*Verizon Wireless*
	Address:	*435 Mill Street* *Southington, Connecticut 06489* *Hartford County*
	Latitude:	*41.604706°*
	Longitude:	*-72.893897°*
Structure Information	*Tower Type:*	*120-Ft Self Support*
	Mount Type:	*12.50-Ft Sector Frame*

FUZE ID # 17123835

Analysis Results

Sector Frame: **38.9% Pass***

***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.vzwsmart.com

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

Report Prepared By: Gilberto Martinez

08/10/2023

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
As-Built Radio Frequency Data Sheet (RFDS)	*Verizon RFDS, Site ID: 616666245, dated June 23, 2020*
As-Built Construction Drawings	*On Air Engineering, LLC, Site Name: Southington 4 CT, Rev. 2, dated January 13, 2021*
Final Loading Configuration	*Filter Add Scope Provided by Verizon Wireless*
Mount Mapping Report	*OnSight Services, Site ID: 17123830, dated July 28, 2023*

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:	0.989
Seismic Parameters:	S_S:	0.196 g
	S_1:	0.055 g
Maintenance Parameters:	Wind Speed (3-sec. Gust):	30 mph
	Maintenance Live Load, Lv:	250 lbs.
	Maintenance Live Load, Lm:	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
86.00	88.00	3	Commscope	NHH-65B-R2B	Retained
		3	Commscope	NHHSS-65B-R2BT4	
		3	Samsung	CBRS RRH - RT4401-48A	
		3	Samsung	B2/B66A RRH-BR049 (RFV01U-D1A)	
		3	Samsung	B5/B13 RRH-BR04C (RFV01U-D2A)	
		1	Raycap	RFFDC-627-PF-48*	
		4	KAelus	KA-6030	Added

* Equipment is flush mounted directly to the Self Support. They are not mounted on the sector 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 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 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 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:
   - Channel, Solid Round, Angle, Plate — ASTM A36 (Gr. 36)
   - HSS (Rectangular) — ASTM 500 (Gr. B-46)
   - Pipe — ASTM A53 (Gr. B-35)
   - Threaded Rod — F1554 (Gr. 36)
   - 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.

Analysis Results:

Component	Utilization %	Pass/Fail
Horizontal mount pipe	25.8 %	Pass
Standoff Plate	38.9 %	Pass
Standoff Horizontal	24.5 %	Pass
Standoff Diagonal	7.8 %	Pass
Antenna Pipe	38.5 %	Pass
Standoff Vertical	5.1 %	Pass
Tieback	6.7 %	Pass
Mount Connection	36.6 %	Pass

Structure Rating – *(Controlling Utilization of all Components)*	**38.9%**

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	14.6	5.2	23.7	14.3
0.5	22.9	10.1	35.8	23.1
1	30.5	14.4	47.3	31.2

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 are **SUFFICIENT** for the final loading configuration shown in attachment 2 and do not require modifications. Additional requirements are noted 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.

If required, ANSI/ASSP rigging plan review services compliant with the requirements of ANSI/TIA 322 are available for a Construction Class IV site or other. 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 #: 5000175612 SMART Project #: 10207624 Fuze Project ID: 17123835

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:	

Structure: 5000175612-VZW - SOUTHINGTON 4 CT - A

Sector: A

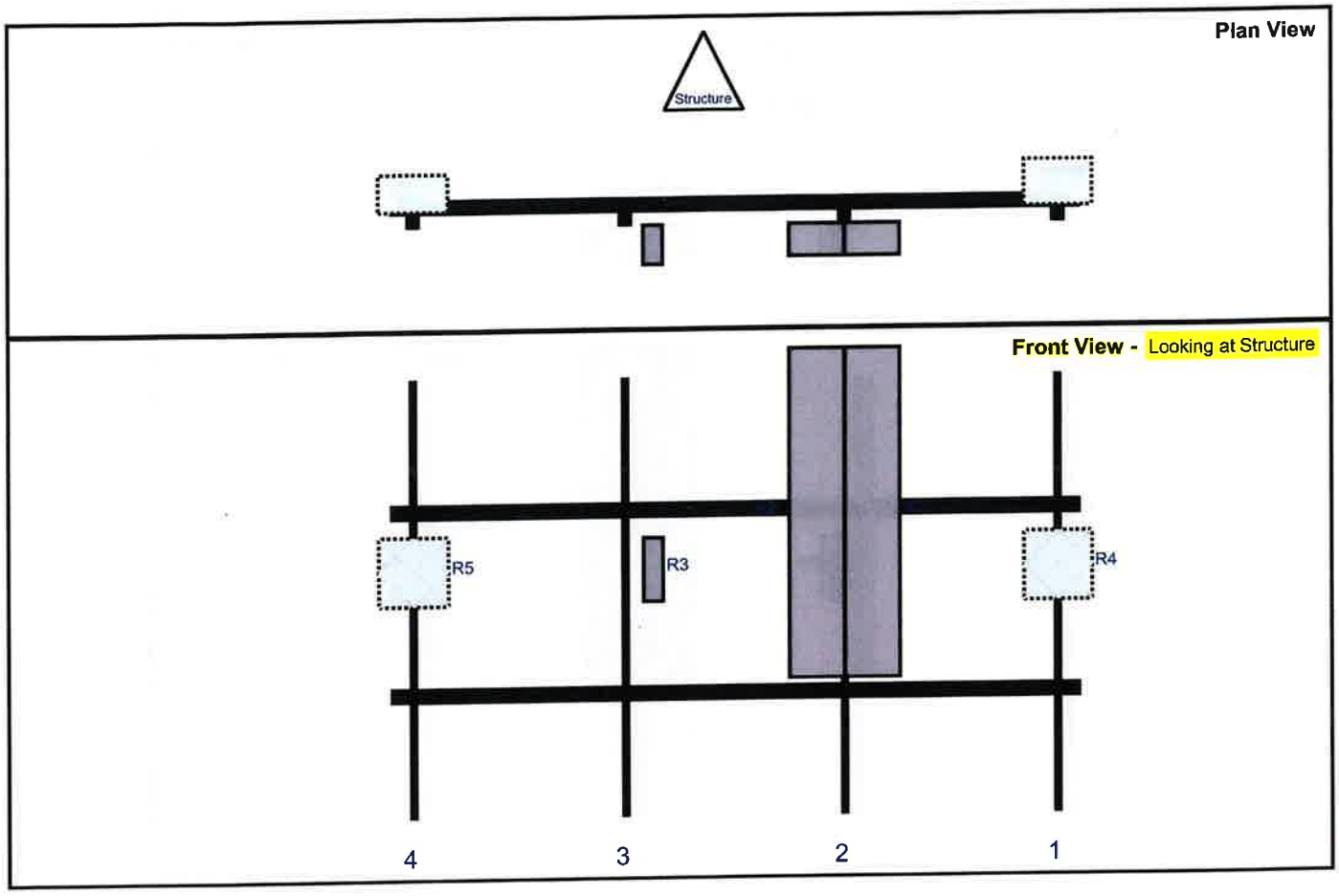
Structure Type: Self Support

Mount Elev: 86.00

10207624

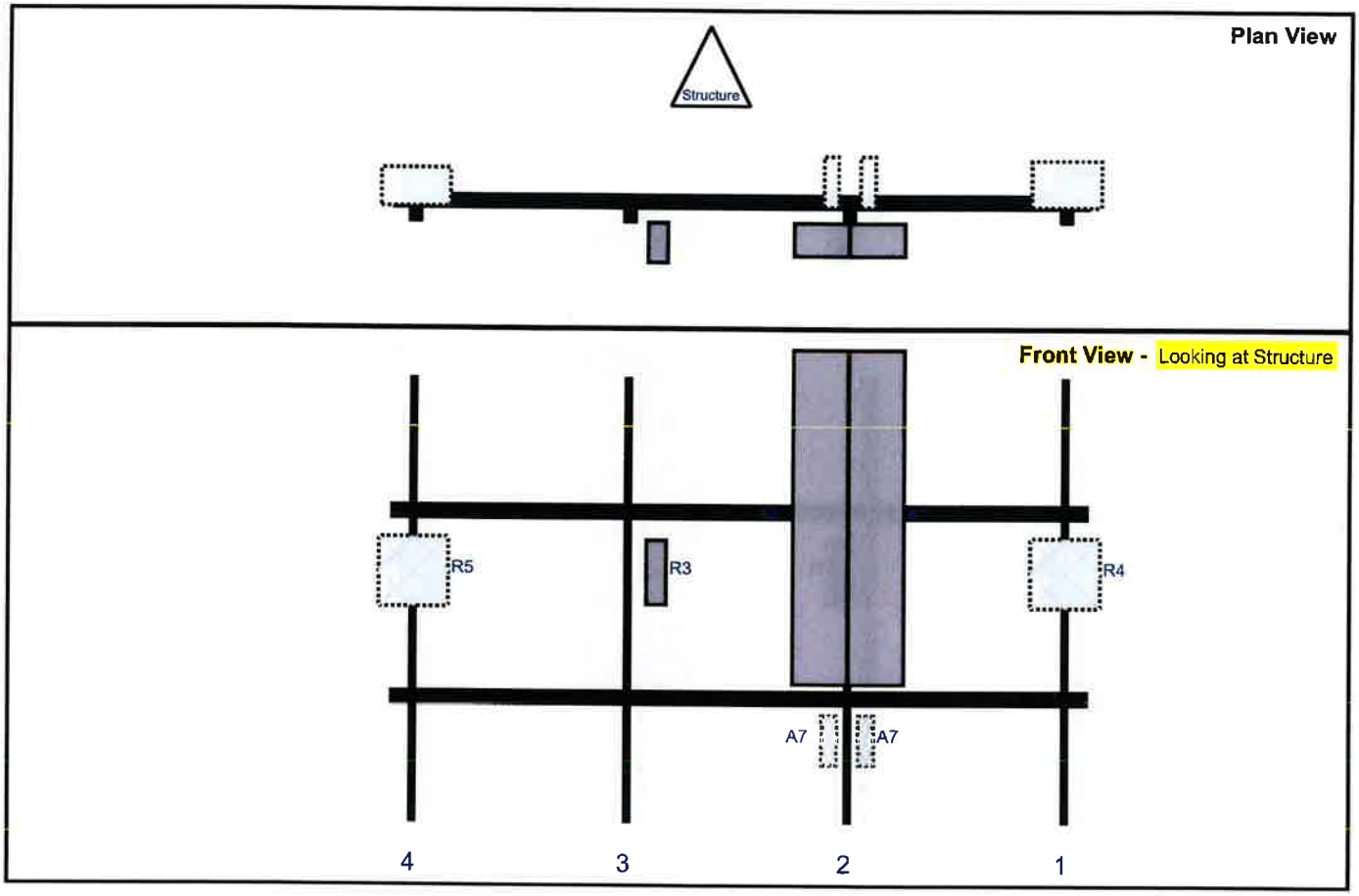
8/10/2023

Colliers Engineering & Design



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
R4	B2/B66A RRH-BR049 (RFV01U-D1A)	15	15	145	1	a	Behind	42	0	Retained	07/28/2023
A1	NHH-65B-R2B	72	11.9	98.5	2	b	Front	30	6	Retained	07/28/2023
A2	NHHSS-65B-R2BT4	72	11.9	98.5	2	a	Front	30	-6	Retained	07/28/2023
R3	CBRS RRH - RT4401-48A	13.9	4.2	51	3	a	Front	42	6	Retained	07/28/2023
R5	B5/B13 RRH-BR04C (RFV01U-D2A)	15	15	5	4	a	Behind	42	0	Retained	07/28/2023

Colliers Engineering & Design



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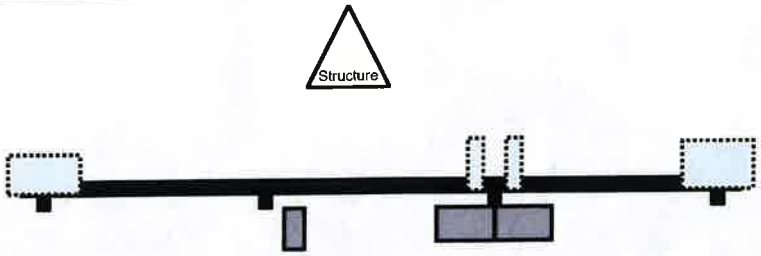
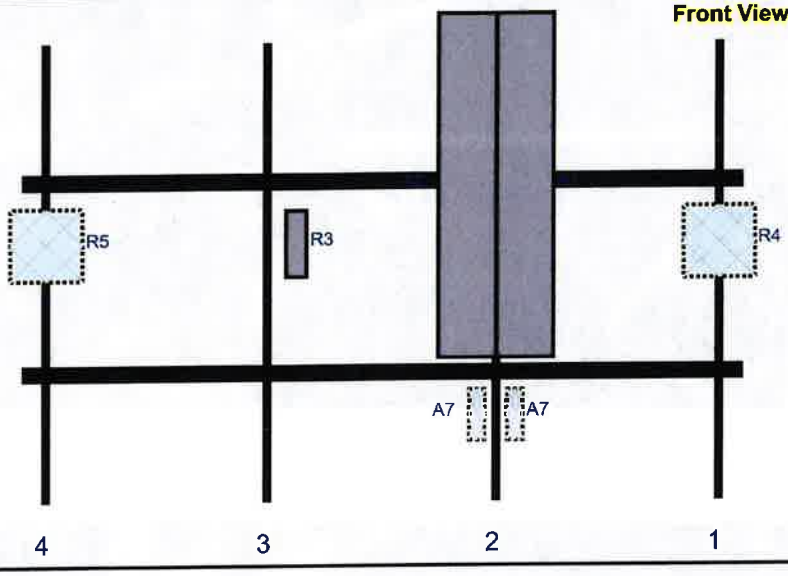
A2	NHHSS-65B-R2BT4	72	11.9	98.5	2	a	Front	30	-6	Retained	07/28/2023
A7	KA-6030	10.6	3.2	98.5	2	a	Behind	78	4	Added	
A7	KA-6030	10.6	3.2	98.5	2	b	Behind	78	-4	Added	
R3	CBRS RRH - RT4401-48A	13.9	4.2	51	3	a	Front	42	6	Retained	07/28/2023
R5	B5/B13 RRH-BR04C (RFV01U-D2A)	15	15	5	4	a	Behind	42	0	Retained	07/28/2023

Colliers Engineering & Design

Plan View



Front View - Looking at Structure



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A1	NHH-65B-R2B	72	11.9	98.5	2	b	Front	30	6	Retained	07/28/2023
A2	NHHSS-65B-R2BT4	72	11.9	98.5	2	a	Front	30	-6	Retained	07/28/2023
A7	KA-6030	10.6	3.2	98.5	2	a	Behind	78	4	Added	
A7	KA-6030	10.6	3.2	98.5	2	b	Behind	78	-4	Added	
R3	CBRS RRH - RT4401-48A	13.9	4.2	51	3	a	Front	42	6	Retained	07/28/2023
R5	B5/B13 RRH-BR04C (RFV01U-D2A)	15	15	5	4	a	Behind	42	0	Retained	07/28/2023

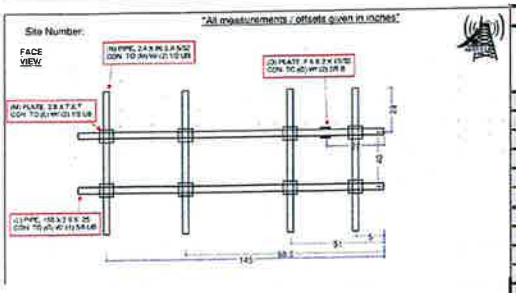
V4.1 Updated on 12-17-2021

Antenna Mount Mapping Form (PATENT PENDING)

FCC #

Colliers Engineering & Design

Tower Owner:	VERIZON	**Mapping Date:**	7/28/2023
Site Name:	SOUTHINGTON	**Tower Type:**	Self Support
Site Number or ID:	17123830	**Tower Height (FT.):**	120
Mapping Contractor:	ONSIGHT SERVICES	**Mount Elevation (FT.):**	88



Mount Pipe Configuration and Geometries [Unit = Inches]

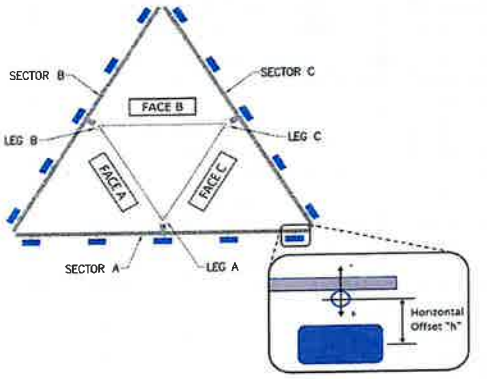
Sector / Position	Mount Pipe Size & Length	Vertical Offset Dimension "b"	Horizontal Offset "C1, C2, C3, etc."	Sector / Position	Mount Pipe Size & Length	Vertical Offset Dimension "b"	Horizontal Offset "C1, C2, C3, etc."
A1	96.5 X 2.4 X 5/32	69.00	5.00	C1	96.5 X 2.4 X 5/32	69.00	5.00
A2	96.5 X 2.4 X 5/32	69.00	51.00	C2	96.5 X 2.4 X 5/32	69.00	51.00
A3	96.5 X 2.4 X 5/32	69.00	98.50	C3	96.5 X 2.4 X 5/32	69.00	98.50
A4	96.5 X 2.4 X 5/32	69.00	145.00	C4	96.5 X 2.4 X 5/32	69.00	145.00
A5				C5			
A6				C6			
B1	96.5 X 2.4 X 5/32	69.00	5.00	D1			
B2	96.5 X 2.4 X 5/32	69.00	51.00	D2			
B3	96.5 X 2.4 X 5/32	69.00	98.50	D3			
B4	96.5 X 2.4 X 5/32	69.00	145.00	D4			
B5				D5			
B6				D6			

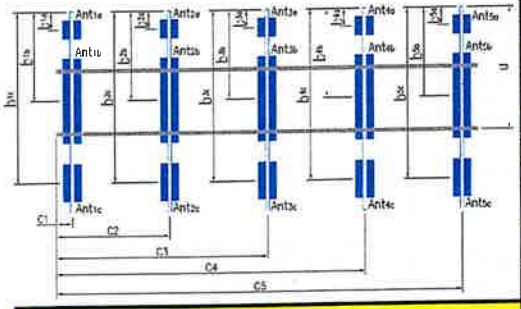
Distance from top of bottom support rail to lowest tip of ant./eqpt. of Carrier above. (N/A if > 10 ft.) :

Distance from top of bottom support rail to highest tip of ant./eqpt. of Carrier below. (N/A if > 10 ft.) :

Please enter additional infomation or comments below.

Tower Face Width at Mount Elev. (ft.): 4 | Tower Leg Size or Pole Shaft Diameter at Mount Elev. (in.): 2.25



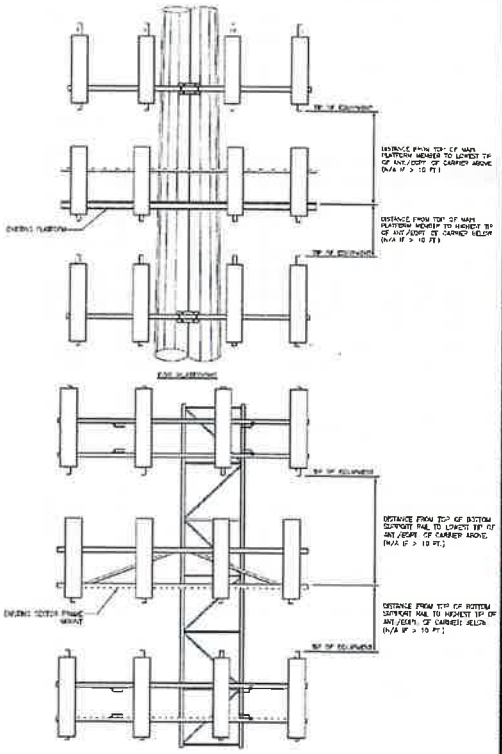


Antenna Layout (Looking Out From Tower)

Ants. Items	Enter antenna model. If not labeled, enter "Unknown". Antenna Models if Known	Width (in.)	Depth (in.)	Height (in.)	Coax Size and Qty	Antenna Center-line (Ft.)	Mounting Locations [Units are inches and degrees] Vertical Distances"b_{1a}, b_{2a}, b_{3a}, b_{1b}...." (Inches)	Horiz. Offset "h" (Use "-" if Ant. is behind)	Antenna Azimuth (Degrees)	Photos of antennas Photo Numbers
Sector A										
Ant_{1a}										
Ant_{1b}	SAMSUNG, RFV01UD1A					88	40.00	-11.00		236-241
Ant_{1c}										
Ant_{2a}										
Ant_{2b}	COMMSCOPE, NHH-65B-R2B					88	40.00	10.00	30.00	242-250
Ant_{2c}	COMMSCOPE, NHH-65B-R2B					88	40.00	10.00	30.00	242-250
Ant_{3a}										
Ant_{3b}	SAMSUNG, RT4401-48A					88	40.00	-9.00		251-259
Ant_{3c}										
Ant_{4a}										
Ant_{4b}	SAMSUNG, RFV01U-D2A					88	40.00	-9.00		260-268
Ant_{4c}										
Ant_{5a}										
Ant_{5b}										
Ant_{5c}										
Ant on Standoff	RAYCAP, RRFDC-6627-PF-48									232-233
Ant on Standoff										
Ant on Tower										
Ant on Tower										

Mount Azimuth (Degree) for Each Sector				Tower Leg Azimuth (Degree) for Each Sector	
Sector A:	0.00	Deg	Leg A:		Deg
Sector B:	120.00	Deg	Leg B:		Deg
Sector C:	240.00	Deg	Leg C:		Deg
Sector D:		Deg	Leg D:		Deg

Climbing Facility Information			
Location:	0.00	Deg	Sector A
Climbing Facility	Corrosion Type:		Good condition.
	Access:		Climbing path was unobstructed.
	Condition:		Good condition.



Sector B											
Ant_{1a}											
Ant_{1b}	SAMSUNG, RFV01UD1A						88	40.00	-11.00		236-241
Ant_{1c}											
Ant_{2a}											
Ant_{2b}	COMMSCOPE, NHH-65B-R2B						88	40.00	10.00	150.00	242-250
Ant_{2c}	COMMSCOPE, NHH-65B-R2B						88	40.00	10.00	150.00	242-250
Ant_{3a}											
Ant_{3b}	SAMSUNG, RT4401-48A						88	40.00	-9.00		251-259
Ant_{3c}											
Ant_{4a}											
Ant_{4b}	SAMSUNG, RFV01U-D2A						88	40.00	-9.00		260-268
Ant_{4c}											
Ant_{5a}											
Ant_{5b}											
Ant_{5c}											
Ant on Standoff											
Ant on Standoff											
Ant on Tower											
Ant on Tower											
Sector C											
Ant_{1a}											
Ant_{1b}	SAMSUNG, RFV01UD1A						88	40.00	-11.00		236-241
Ant_{1c}											
Ant_{2a}											
Ant_{2b}	COMMSCOPE, NHH-65B-R2B						88	40.00	10.00	270.00	242-250
Ant_{2c}	COMMSCOPE, NHH-65B-R2B						88	40.00	10.00	270.00	242-250
Ant_{3a}											
Ant_{3b}	SAMSUNG, RT4401-48A						88	40.00	-9.00		251-259
Ant_{3c}											
Ant_{4a}											
Ant_{4b}	SAMSUNG, RFV01U-D2A						88	40.00	-9.00		260-268
Ant_{4c}											
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_{5a}											
Ant_{5b}											
Ant_{5c}											
Ant on Standoff											
Ant on Standoff											
Ant on Tower											
Ant on Tower											

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

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

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

V4.1 Updated on 12-17-2021

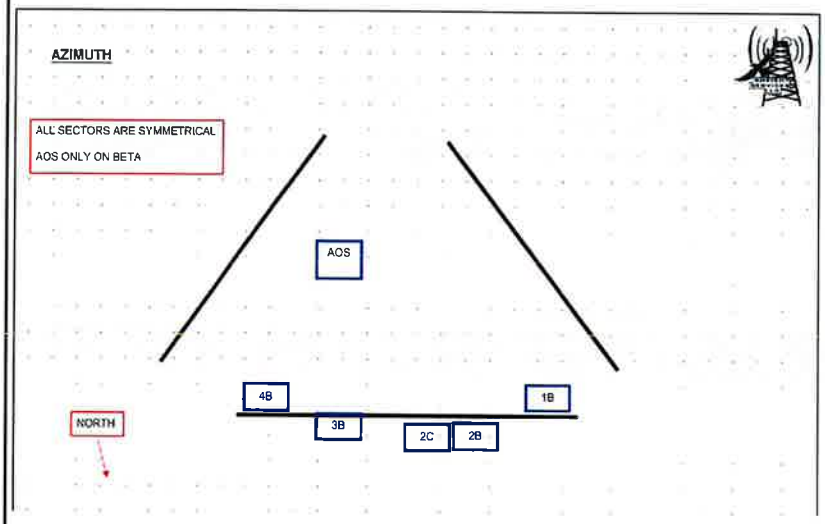
SMART Tool© Vendor

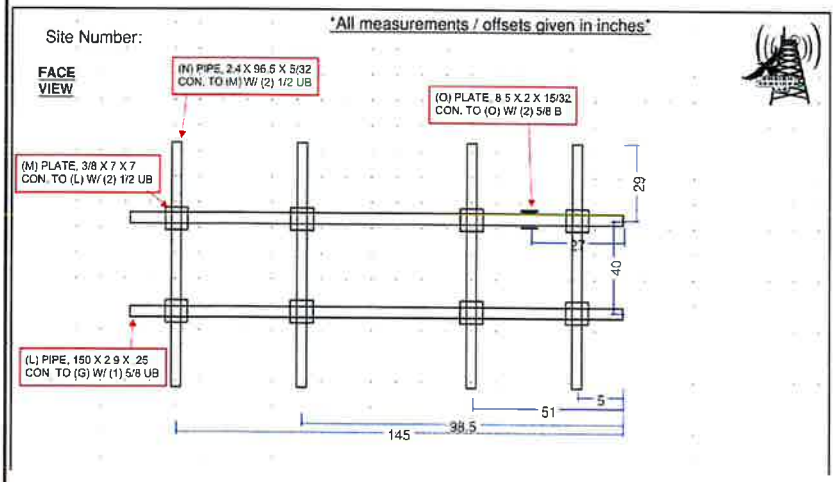
Antenna Mount Mapping Form (PATENT PENDING)

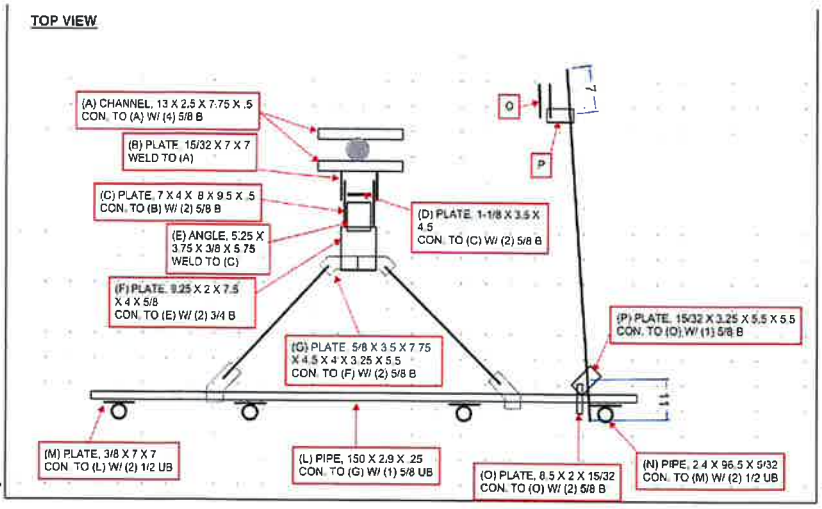
FCC #

Tower Owner:	VERIZON	**Mapping Date:**	7/28/2023
Site Name:	SOUTHINGTON	**Tower Type:**	Self Support
Site Number or ID:	17123830	**Tower Height (Ft.):**	120
Mapping Contractor:	ONSIGHT SERVICES	**Mount Elevation (Ft.):**	88

Please Insert Sketches of the Antenna Mount



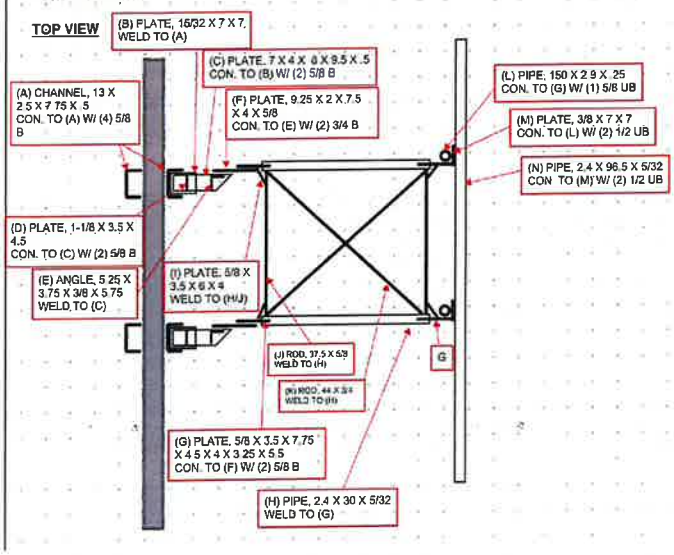




Please Insert Sketches of the Antenna Mount, cont'd

All measurements / offsets given in inches

Site Number:



V4.1 Updated on 12 17 2021

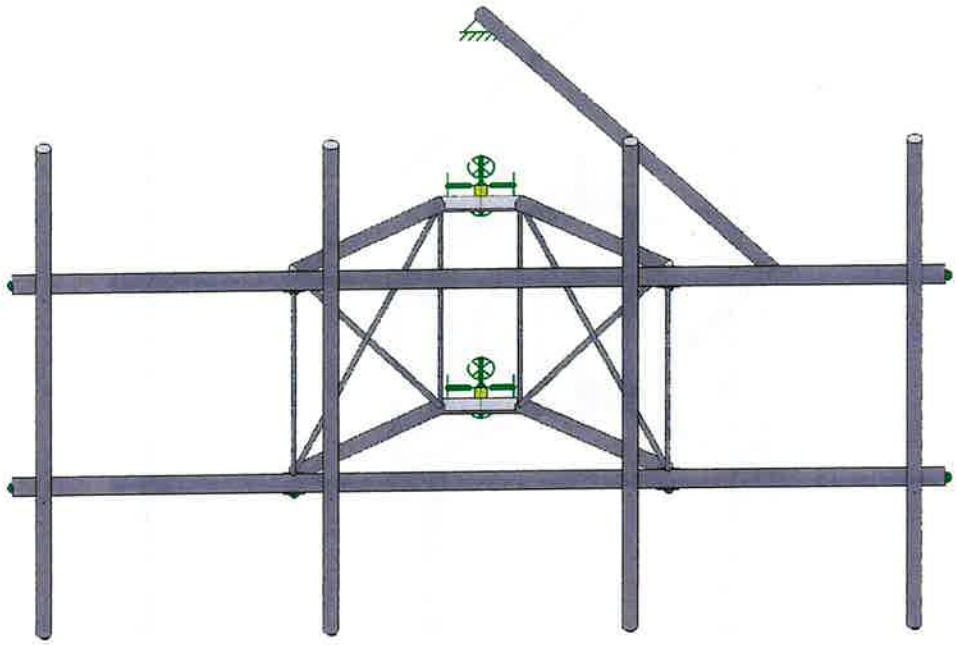
SMART Tool© Vendor	Antenna Mount Mapping Form (PATENT PENDING)			FCC #
	Tower Owner:	VERIZON	Mapping Date:	7/28/2023
	Site Name:	SOUTHINGTON	Tower Type:	Self Support
	Site Number or ID:	17123830	Tower Height (Ft.):	120
	Mapping Contractor:	ONSIGHT SERVICES	Mount Elevation (Ft.):	88

Please enter information about transmission lines.

Transmission Line Type (Pick from List)	Quantity	Diameter/Size (in.) Please add a description if using type "Other".	Located on Tower Face	Photo #	Additional Comments
All Sectors					
Hybrid	2	1-1/4"	B	16	

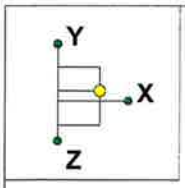
Please enter information about additional RF equipment.

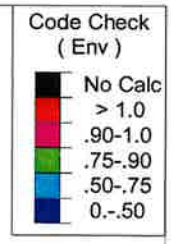
Equipment Type (Pick from List)	Quantity	Model Numbers if Known	Width (in.)	Depth (in.)	Height (in.)	Location	Photo #	Additional Comments
Sector A								
Sector B								
Sector C								

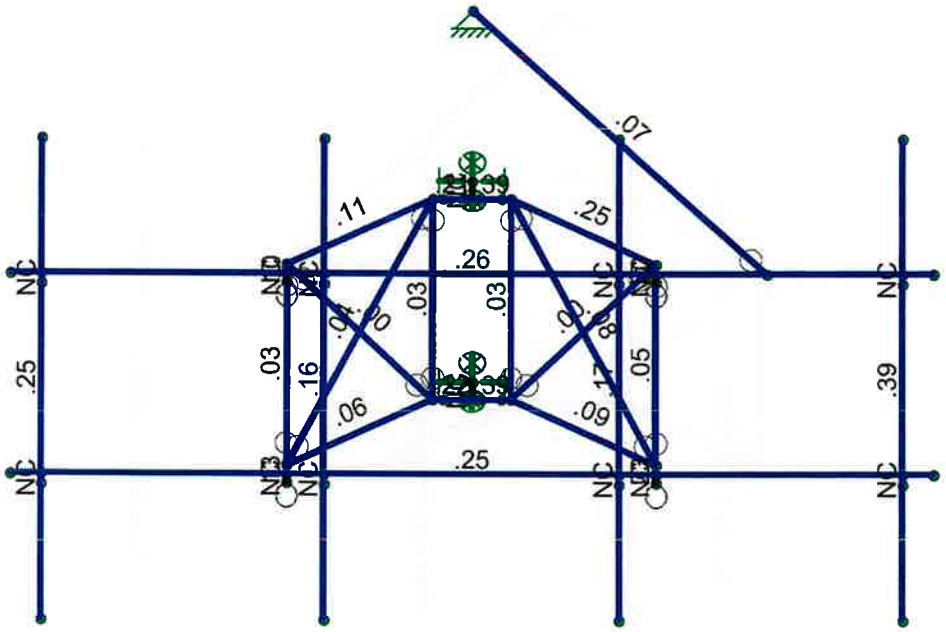


Loads: BLC 81, Antenna Ev
Envelope Only Solution

	SK - 1
	Aug 9, 2023 at 3:10 PM
	5000175612-VZW_MT_LOT_B_H.r3d

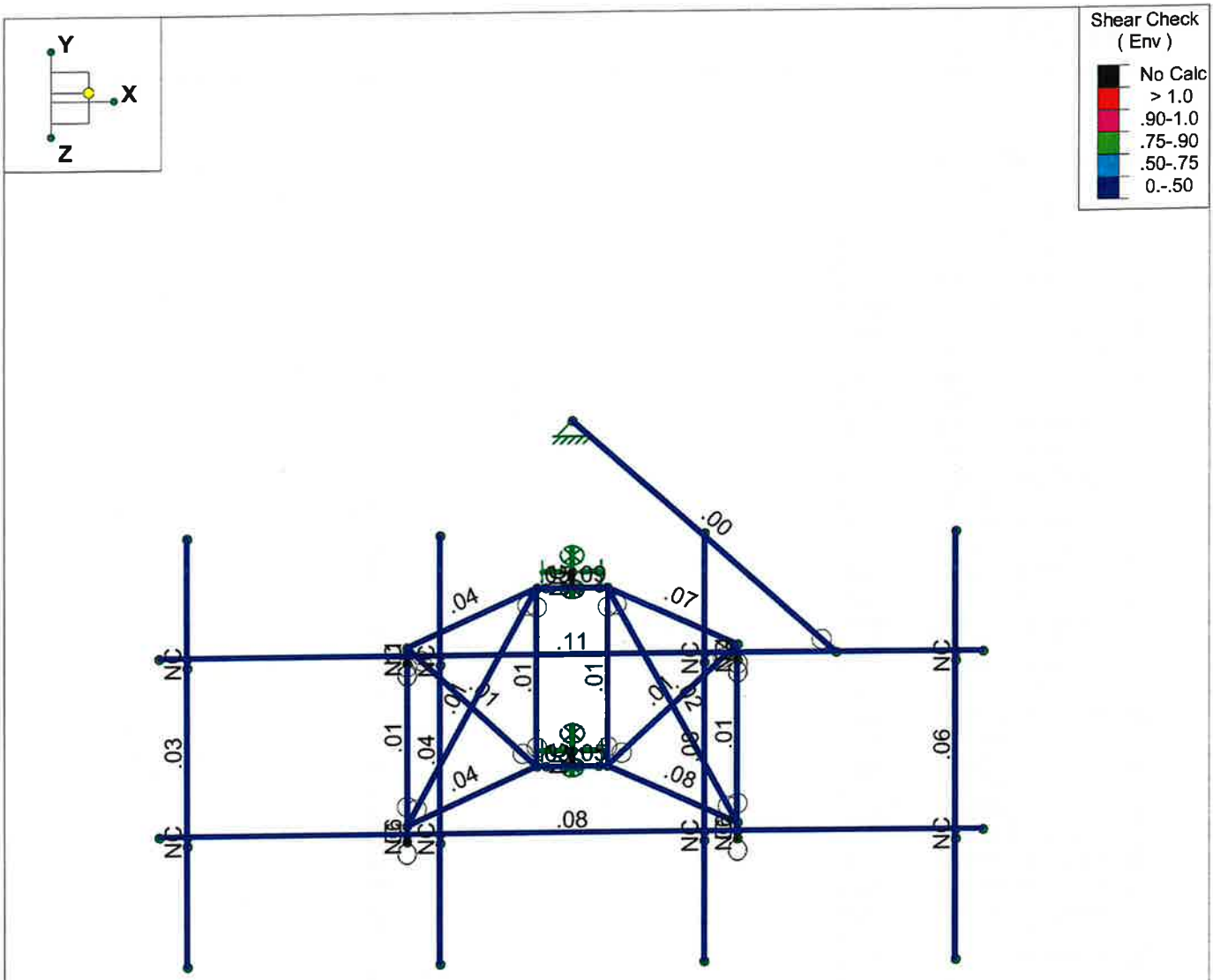






Member Code Checks Displayed (Enveloped)
Loads: BLC 81, Antenna Ev
Envelope Only Solution

		SK - 2
		Aug 9, 2023 at 3:10 PM
		5000175612-VZW_MT_LOT_B_H.r3d



Member Shear Checks Displayed (Enveloped)
Loads: BLC 81, Antenna Ev
Envelope Only Solution

	SK - 3
	Aug 9, 2023 at 3:11 PM
	5000175612-VZW_MT_LOT_B_H.r3d

Basic Load Cases

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

Basic Load Cases (Continued)

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed	Area(Me...	Surface(P...
59	Structure Wi (180 De...	None						54		
60	Structure Wi (210 De...	None						54		
61	Structure Wi (240 De...	None						54		
62	Structure Wi (270 De...	None						54		
63	Structure Wi (300 De...	None						54		
64	Structure Wi (330 De...	None						54		
65	Structure Wm (0 Deg)	None						54		
66	Structure Wm (30 De...	None						54		
67	Structure Wm (60 De...	None						54		
68	Structure Wm (90 De...	None						54		
69	Structure Wm (120 D...	None						54		
70	Structure Wm (150 D...	None						54		
71	Structure Wm (180 D...	None						54		
72	Structure Wm (210 D...	None						54		
73	Structure Wm (240 D...	None						54		
74	Structure Wm (270 D...	None						54		
75	Structure Wm (300 D...	None						54		
76	Structure Wm (330 D...	None						54		
77	Lm1	None					1			
78	Lm2	None					1			
79	Lv1	None					1			
80	Lv2	None					1			
81	Antenna Ev	None					33			
82	Antenna Eh (0 Deg)	None					22			
83	Antenna Eh (90 Deg)	None					22			
84	Structure Ev	ELY								
85	Structure Eh (0 Deg)	ELZ			-.03					
86	Structure Eh (90 Deg)	ELX	.03							

Load Combinations

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

Load Combinations (Continued)

	Description	S...	P...	S...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...
27	1.2D + 1.5Lm1 + 1.0Wm (6...	Yes	Y		1	1.2	39	1.2	77	1.5	29	1	67	1										
28	1.2D + 1.5Lm1 + 1.0Wm (9...	Yes	Y		1	1.2	39	1.2	77	1.5	30	1	68	1										
29	1.2D + 1.5Lm1 + 1.0Wm (1...	Yes	Y		1	1.2	39	1.2	77	1.5	31	1	69	1										
30	1.2D + 1.5Lm1 + 1.0Wm (1...	Yes	Y		1	1.2	39	1.2	77	1.5	32	1	70	1										
31	1.2D + 1.5Lm1 + 1.0Wm (1...	Yes	Y		1	1.2	39	1.2	77	1.5	33	1	71	1										
32	1.2D + 1.5Lm1 + 1.0Wm (2...	Yes	Y		1	1.2	39	1.2	77	1.5	34	1	72	1										
33	1.2D + 1.5Lm1 + 1.0Wm (2...	Yes	Y		1	1.2	39	1.2	77	1.5	35	1	73	1										
34	1.2D + 1.5Lm1 + 1.0Wm (2...	Yes	Y		1	1.2	39	1.2	77	1.5	36	1	74	1										
35	1.2D + 1.5Lm1 + 1.0Wm (3...	Yes	Y		1	1.2	39	1.2	77	1.5	37	1	75	1										
36	1.2D + 1.5Lm1 + 1.0Wm (3...	Yes	Y		1	1.2	39	1.2	77	1.5	38	1	76	1										
37	1.2D + 1.5Lm2 + 1.0Wm (0...	Yes	Y		1	1.2	39	1.2	78	1.5	27	1	65	1										
38	1.2D + 1.5Lm2 + 1.0Wm (3...	Yes	Y		1	1.2	39	1.2	78	1.5	28	1	66	1										
39	1.2D + 1.5Lm2 + 1.0Wm (6...	Yes	Y		1	1.2	39	1.2	78	1.5	29	1	67	1										
40	1.2D + 1.5Lm2 + 1.0Wm (9...	Yes	Y		1	1.2	39	1.2	78	1.5	30	1	68	1										
41	1.2D + 1.5Lm2 + 1.0Wm (1...	Yes	Y		1	1.2	39	1.2	78	1.5	31	1	69	1										
42	1.2D + 1.5Lm2 + 1.0Wm (1...	Yes	Y		1	1.2	39	1.2	78	1.5	32	1	70	1										
43	1.2D + 1.5Lm2 + 1.0Wm (1...	Yes	Y		1	1.2	39	1.2	78	1.5	33	1	71	1										
44	1.2D + 1.5Lm2 + 1.0Wm (2...	Yes	Y		1	1.2	39	1.2	78	1.5	34	1	72	1										
45	1.2D + 1.5Lm2 + 1.0Wm (2...	Yes	Y		1	1.2	39	1.2	78	1.5	35	1	73	1										
46	1.2D + 1.5Lm2 + 1.0Wm (2...	Yes	Y		1	1.2	39	1.2	78	1.5	36	1	74	1										
47	1.2D + 1.5Lm2 + 1.0Wm (3...	Yes	Y		1	1.2	39	1.2	78	1.5	37	1	75	1										
48	1.2D + 1.5Lm2 + 1.0Wm (3...	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 + 1.0Eh (0 De...	Yes	Y		1	1.2	39	1.2	81	1	E...	1	82	1	83		ELZ	1	E...					
53	1.2D + 1.0Ev + 1.0Eh (30 D...	Yes	Y		1	1.2	39	1.2	81	1	E...	1	82	.866	83	.5	ELZ	.866	E...	.5				
54	1.2D + 1.0Ev + 1.0Eh (60 D...	Yes	Y		1	1.2	39	1.2	81	1	E...	1	82	.5	83	.866	ELZ	.5	E...	.866				
55	1.2D + 1.0Ev + 1.0Eh (90 D...	Yes	Y		1	1.2	39	1.2	81	1	E...	1	82		83	1	ELZ		E...	1				
56	1.2D + 1.0Ev + 1.0Eh (120 ...	Yes	Y		1	1.2	39	1.2	81	1	E...	1	82	-.5	83	.866	ELZ	-.5	E...	.866				
57	1.2D + 1.0Ev + 1.0Eh (150 ...	Yes	Y		1	1.2	39	1.2	81	1	E...	1	82	-.866	83	.5	ELZ	-.866	E...	.5				
58	1.2D + 1.0Ev + 1.0Eh (180 ...	Yes	Y		1	1.2	39	1.2	81	1	E...	1	82	-1	83		ELZ	-1	E...					
59	1.2D + 1.0Ev + 1.0Eh (210 ...	Yes	Y		1	1.2	39	1.2	81	1	E...	1	82	-.866	83	-.5	ELZ	-.866	E...	-.5				
60	1.2D + 1.0Ev + 1.0Eh (240 ...	Yes	Y		1	1.2	39	1.2	81	1	E...	1	82	-.5	83	-.866	ELZ	-.5	E...	-.866				
61	1.2D + 1.0Ev + 1.0Eh (270 ...	Yes	Y		1	1.2	39	1.2	81	1	E...	1	82		83	-1	ELZ		E...	-1				
62	1.2D + 1.0Ev + 1.0Eh (300 ...	Yes	Y		1	1.2	39	1.2	81	1	E...	1	82	.5	83	-.866	ELZ	.5	E...	-.866				
63	1.2D + 1.0Ev + 1.0Eh (330 ...	Yes	Y		1	1.2	39	1.2	81	1	E...	1	82	.866	83	-.5	ELZ	.866	E...	-.5				
64	0.9D - 1.0Ev + 1.0Eh (0 Deg)	Yes	Y		1	.9	39	.9	81	-1	E...	-1	82	1	83		ELZ	1	E...					
65	0.9D - 1.0Ev + 1.0Eh (30 D...	Yes	Y		1	.9	39	.9	81	-1	E...	-1	82	.866	83	.5	ELZ	.866	E...	.5				
66	0.9D - 1.0Ev + 1.0Eh (60 D...	Yes	Y		1	.9	39	.9	81	-1	E...	-1	82	.5	83	.866	ELZ	.5	E...	.866				
67	0.9D - 1.0Ev + 1.0Eh (90 D...	Yes	Y		1	.9	39	.9	81	-1	E...	-1	82		83	1	ELZ		E...	1				
68	0.9D - 1.0Ev + 1.0Eh (120 ...	Yes	Y		1	.9	39	.9	81	-1	E...	-1	82	-.5	83	.866	ELZ	-.5	E...	.866				
69	0.9D - 1.0Ev + 1.0Eh (150 ...	Yes	Y		1	.9	39	.9	81	-1	E...	-1	82	-.866	83	.5	ELZ	-.866	E...	.5				
70	0.9D - 1.0Ev + 1.0Eh (180 ...	Yes	Y		1	.9	39	.9	81	-1	E...	-1	82	-1	83		ELZ	-1	E...					
71	0.9D - 1.0Ev + 1.0Eh (210 ...	Yes	Y		1	.9	39	.9	81	-1	E...	-1	82	-.866	83	-.5	ELZ	-.866	E...	-.5				
72	0.9D - 1.0Ev + 1.0Eh (240 ...	Yes	Y		1	.9	39	.9	81	-1	E...	-1	82	-.5	83	-.866	ELZ	-.5	E...	-.866				
73	0.9D - 1.0Ev + 1.0Eh (270 ...	Yes	Y		1	.9	39	.9	81	-1	E...	-1	82		83	-1	ELZ		E...	-1				
74	0.9D - 1.0Ev + 1.0Eh (300 ...	Yes	Y		1	.9	39	.9	81	-1	E...	-1	82	.5	83	-.866	ELZ	.5	E...	-.866				
75	0.9D - 1.0Ev + 1.0Eh (330 ...	Yes	Y		1	.9	39	.9	81	-1	E...	-1	82	.866	83	-.5	ELZ	.866	E...	-.5				

Joint Coordinates and Temperatures

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diap...
1	N1	3.416667	0.145833	8.083333	0	
2	N2	-9.083333	0.145833	8.083333	0	
3	N3	3.416667	3.479167	8.083333	0	
4	N4	-9.083333	3.479167	8.083333	0	
5	N5	-8.666667	0.145833	8.083333	0	

Joint Coordinates and Temperatures (Continued)

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diap...
6	N6	-8.666667	3.479167	8.083333	0	
7	N7	-4.833333	0.145833	8.083333	0	
8	N8	-4.833333	3.479167	8.083333	0	
9	N9	-0.833333	0.145833	8.083333	0	
10	N10	-0.833333	3.479167	8.083333	0	
11	N11	3	0.145833	8.083333	0	
12	N12	3	3.479167	8.083333	0	
13	N13	-8.666667	0.145833	8.333333	0	
14	N14	-8.666667	3.479167	8.333333	0	
15	N15	-4.833333	0.145833	8.333333	0	
16	N16	-4.833333	3.479167	8.333333	0	
17	N17	-0.833333	0.145833	8.333333	0	
18	N18	-0.833333	3.479167	8.333333	0	
19	N19	3	0.145833	8.333333	0	
20	N20	3	3.479167	8.333333	0	
21	N21	-5.333333	0	8.083333	0	
22	N22	-5.333333	3.333333	8.083333	0	
23	N23	-0.333333	0	8.083333	0	
24	N24	-0.333333	3.333333	8.083333	0	
25	N25	-5.333333	0	7.661458	0	
26	N26	-5.333333	3.333333	7.661458	0	
27	N27	-0.333333	0	7.661458	0	
28	N28	-0.333333	3.333333	7.661458	0	
29	N29	-2.833333	0	6.119792	0	
30	N30	-2.833333	3.333333	6.119792	0	
31	N31	-3.364583	0	6.119792	0	
32	N32	-3.364583	3.333333	6.119792	0	
33	N33	-2.302083	0	6.119792	0	
34	N34	-2.302083	3.333333	6.119792	0	
35	N35	-2.833333	0	5.703125	0	
36	N36	-2.833333	3.333333	5.703125	0	
37	N39	-8.666667	5.895833	8.333333	0	
38	N40	-4.833333	5.895833	8.333333	0	
39	N41	-0.833333	5.895833	8.333333	0	
40	N42	3	5.895833	8.333333	0	
41	N43	-8.666667	-2.104167	8.333333	0	
42	N44	-4.833333	-2.104167	8.333333	0	
43	N45	-0.833333	-2.104167	8.333333	0	
44	N46	3	-2.104167	8.333333	0	
45	N58	-5.333333	3.333333	7.708333	0	
46	N76	-2.927083	0	6.119792	0	
47	N77	-3.229167	0	6.119792	0	
48	N78	-2.739583	0	6.119792	0	
49	N79	-2.4375	0	6.119792	0	
50	N80	-2.927083	3.333333	6.119792	0	
51	N81	-3.229167	3.333333	6.119792	0	
52	N82	-2.739583	3.333333	6.119792	0	
53	N83	-2.4375	3.333333	6.119792	0	
54	N59	-5.333333	0.145833	8.083333	0	
55	N60	-5.333333	3.479167	8.083333	0	
56	N61	-0.333333	0.145833	8.083333	0	
57	N62	-0.333333	3.479167	8.083333	0	
58	N63	-2.833333	3.333333	1.703125	0	
59	N65	1.166667	3.479167	8.083333	0	

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design R...	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	Antenna Pipe	PIPE 2.0	Beam	Pipe	A53 Gr. B	Typical	1.02	.627	.627	1.25
2	Horizontal mou...	PIPE 2.5	Beam	Pipe	Q235	Typical	1.61	1.45	1.45	2.89
3	Standoff Horizo...	PIPE 2.0	Beam	Pipe	Q235	Typical	1.02	.627	.627	1.25
4	Standoff Diago...	SR 0.75	Beam	BAR	Q235	Typical	.442	.016	.016	.031
5	Tieback	PIPE 2.0	Beam	Pipe	Q235	Typical	1.02	.627	.627	1.25
6	Standoff Vertical	SR 0.625	Beam	BAR	Q235	Typical	.307	.007	.007	.015
7	Standoff Plate	PL5/8X3.5	Beam	BAR	Q235	Typical	2.188	.071	2.233	.253
8	tower pipe	PIPE 3.0	Column	Pipe	A53 Gr. B	Typical	2.07	2.85	2.85	5.69

Hot Rolled Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm (/1E...	Density[k/ft...	Yield[ksi]	Ry	Fu[ksi]	Rt
1	A36 Gr.36	29000	11154	.3	.65	.49	36	1.5	58	1.2
2	A53 Gr. B	29000	11154	.3	.65	.49	35	1.5	60	1.2
3	A572 Gr.50	29000	11154	.3	.65	.49	50	1.1	65	1.1
4	A992	29000	11154	.3	.65	.49	50	1.1	65	1.1
5	A500 Gr. B 42	29000	11154	.3	.65	.49	42	1.4	58	1.3
6	A500 Gr. B 46	29000	11154	.3	.65	.49	46	1.4	58	1.3
7	Q235	29000	11154	.3	.65	.49	35	1.5	58	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	N1			Horizontal mo...	Beam	Pipe	Q235	Typical
2	M2	N4	N3			Horizontal mo...	Beam	Pipe	Q235	Typical
3	M3	N5	N13			RIGID	None	None	RIGID	Typical
4	M4	N6	N14			RIGID	None	None	RIGID	Typical
5	M5	N8	N16			RIGID	None	None	RIGID	Typical
6	M6	N7	N15			RIGID	None	None	RIGID	Typical
7	M9	N10	N18			RIGID	None	None	RIGID	Typical
8	M10	N9	N17			RIGID	None	None	RIGID	Typical
9	M11	N12	N20			RIGID	None	None	RIGID	Typical
10	M12	N11	N19			RIGID	None	None	RIGID	Typical
11	M13	N22	N26		90	Standoff Plate	Beam	BAR	Q235	Typical
12	M14	N21	N25		90	Standoff Plate	Beam	BAR	Q235	Typical
13	M15	N23	N27		90	Standoff Plate	Beam	BAR	Q235	Typical
14	M16	N24	N28		90	Standoff Plate	Beam	BAR	Q235	Typical
15	M17	N26	N32			Standoff Horiz...	Beam	Pipe	Q235	Typical
16	M18	N25	N31			Standoff Horiz...	Beam	Pipe	Q235	Typical
17	M19	N27	N33			Standoff Horiz...	Beam	Pipe	Q235	Typical
18	M20	N28	N34			Standoff Horiz...	Beam	Pipe	Q235	Typical
19	M21	N32	N30		90	Standoff Plate	Beam	BAR	Q235	Typical
20	M22	N34	N30		90	Standoff Plate	Beam	BAR	Q235	Typical
21	M23	N31	N29		90	Standoff Plate	Beam	BAR	Q235	Typical
22	M24	N33	N29		90	Standoff Plate	Beam	BAR	Q235	Typical
23	M25	N31	N26			Standoff Diago...	Beam	BAR	Q235	Typical
24	M26	N32	N25			Standoff Diago...	Beam	BAR	Q235	Typical
25	M27	N33	N28			Standoff Diago...	Beam	BAR	Q235	Typical
26	M28	N27	N34			Standoff Diago...	Beam	BAR	Q235	Typical
27	M29	N29	N35			RIGID	None	None	RIGID	Typical
28	M30	N30	N36			RIGID	None	None	RIGID	Typical
29	MP4A	N39	N43			Antenna Pipe	Beam	Pipe	A53 Gr. B	Typical
30	MP3A	N40	N44			Antenna Pipe	Beam	Pipe	A53 Gr. B	Typical
31	MP2A	N41	N45			Antenna Pipe	Beam	Pipe	A53 Gr. B	Typical
32	MP1A	N42	N46			Antenna Pipe	Beam	Pipe	A53 Gr. B	Typical
33	M44	N25	N26			Standoff Vertical	Beam	BAR	Q235	Typical
34	M45	N31	N32			Standoff Vertical	Beam	BAR	Q235	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
35	M46	N33	N34			Standoff Vertical	Beam	BAR	Q235	Typical
36	M47	N27	N28			Standoff Vertical	Beam	BAR	Q235	Typical
37	M47B	N22	N60			RIGID	None	None	RIGID	Typical
38	M48A	N21	N59			RIGID	None	None	RIGID	Typical
39	M49A	N24	N62			RIGID	None	None	RIGID	Typical
40	M50A	N23	N61			RIGID	None	None	RIGID	Typical
41	M51A	N30	N36			RIGID	None	None	RIGID	Typical
42	M52A	N29	N35			RIGID	None	None	RIGID	Typical
43	M44A	N65	N63			Tieback	Beam	Pipe	Q235	Typical

Member Advanced Data

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rat...	Analysis ...	Inactive	Seismic...
1	M1						Yes				None
2	M2						Yes				None
3	M3						Yes	** NA **			None
4	M4						Yes	** NA **			None
5	M5						Yes	** NA **			None
6	M6						Yes	** NA **			None
7	M9						Yes	** NA **			None
8	M10						Yes	** NA **			None
9	M11						Yes	** NA **			None
10	M12						Yes	** NA **			None
11	M13						Yes	Default			None
12	M14						Yes	Default			None
13	M15						Yes				None
14	M16						Yes				None
15	M17						Yes	Default			None
16	M18						Yes				None
17	M19						Yes				None
18	M20						Yes	Default			None
19	M21						Yes	Default			None
20	M22						Yes				None
21	M23						Yes				None
22	M24						Yes				None
23	M25	BenPIN	BenPIN			Euler Buc..	Yes	Default			None
24	M26	BenPIN	BenPIN			Euler Buc..	Yes	Default			None
25	M27	BenPIN	BenPIN			Euler Buc..	Yes				None
26	M28	BenPIN	BenPIN			Euler Buc..	Yes				None
27	M29						Yes	** NA **		Inactive	None
28	M30						Yes	** NA **		Inactive	None
29	MP4A						Yes				None
30	MP3A						Yes				None
31	MP2A						Yes				None
32	MP1A						Yes				None
33	M44	BenPIN	BenPIN				Yes				None
34	M45	BenPIN	BenPIN				Yes				None
35	M46	BenPIN	BenPIN				Yes				None
36	M47	BenPIN	BenPIN				Yes	Default			None
37	M47B		OOOXOO				Yes	** NA **			None
38	M48A		OOOXOO				Yes	** NA **			None
39	M49A		OOOXOO				Yes	** NA **			None
40	M50A		OOOXOO				Yes	** NA **			None
41	M51A						Yes	** NA **			None
42	M52A						Yes	** NA **			None
43	M44A	BenPIN					Yes	Default			None

Member Point Loads (BLC 1 : Antenna D)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	Y	-21.85	1.5
2	MP2A	My	.011	1.5
3	MP2A	Mz	-.011	1.5
4	MP2A	Y	-21.85	3.5
5	MP2A	My	.011	3.5
6	MP2A	Mz	-.011	3.5
7	MP2A	Y	-32.3	1.5
8	MP2A	My	.016	1.5
9	MP2A	Mz	.016	1.5
10	MP2A	Y	-32.3	3.5
11	MP2A	My	.016	3.5
12	MP2A	Mz	.016	3.5
13	MP3A	Y	-18.7	3.5
14	MP3A	My	.006	3.5
15	MP3A	Mz	-.009	3.5
16	MP1A	Y	-84.4	3.5
17	MP1A	My	-.042	3.5
18	MP1A	Mz	0	3.5
19	MP4A	Y	-70.3	3.5
20	MP4A	My	-.035	3.5
21	MP4A	Mz	0	3.5
22	MP2A	Y	-8.8	6
23	MP2A	My	-.009	6
24	MP2A	Mz	-.003	6
25	MP2A	Y	-8.8	7
26	MP2A	My	-.009	7
27	MP2A	Mz	-.003	7
28	MP2A	Y	-8.8	6
29	MP2A	My	-.009	6
30	MP2A	Mz	.003	6
31	MP2A	Y	-8.8	7
32	MP2A	My	-.009	7
33	MP2A	Mz	.003	7

Member Point Loads (BLC 2 : Antenna Di)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	Y	-57.65	1.5
2	MP2A	My	.029	1.5
3	MP2A	Mz	-.029	1.5
4	MP2A	Y	-57.65	3.5
5	MP2A	My	.029	3.5
6	MP2A	Mz	-.029	3.5
7	MP2A	Y	-57.65	1.5
8	MP2A	My	.029	1.5
9	MP2A	Mz	.029	1.5
10	MP2A	Y	-57.65	3.5
11	MP2A	My	.029	3.5
12	MP2A	Mz	.029	3.5
13	MP3A	Y	-18.741	3.5
14	MP3A	My	.006	3.5
15	MP3A	Mz	-.009	3.5
16	MP1A	Y	-42.562	3.5
17	MP1A	My	-.021	3.5
18	MP1A	Mz	0	3.5
19	MP4A	Y	-38.261	3.5
20	MP4A	My	-.019	3.5
21	MP4A	Mz	0	3.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
22	MP2A	Y	-8.188	6
23	MP2A	My	-.008	6
24	MP2A	Mz	-.003	6
25	MP2A	Y	-8.188	7
26	MP2A	My	-.008	7
27	MP2A	Mz	-.003	7
28	MP2A	Y	-8.188	6
29	MP2A	My	-.008	6
30	MP2A	Mz	.003	6
31	MP2A	Y	-8.188	7
32	MP2A	My	-.008	7
33	MP2A	Mz	.003	7

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	0	1.5
2	MP2A	Z	-119.943	1.5
3	MP2A	Mx	.06	1.5
4	MP2A	X	0	3.5
5	MP2A	Z	-119.943	3.5
6	MP2A	Mx	.06	3.5
7	MP2A	X	0	1.5
8	MP2A	Z	-119.498	1.5
9	MP2A	Mx	-.06	1.5
10	MP2A	X	0	3.5
11	MP2A	Z	-119.498	3.5
12	MP2A	Mx	-.06	3.5
13	MP3A	X	0	3.5
14	MP3A	Z	-29.495	3.5
15	MP3A	Mx	.015	3.5
16	MP1A	X	0	3.5
17	MP1A	Z	-55.155	3.5
18	MP1A	Mx	0	3.5
19	MP4A	X	0	3.5
20	MP4A	Z	-55.155	3.5
21	MP4A	Mx	0	3.5
22	MP2A	X	0	6
23	MP2A	Z	-14.157	6
24	MP2A	Mx	.005	6
25	MP2A	X	0	7
26	MP2A	Z	-14.157	7
27	MP2A	Mx	.005	7
28	MP2A	X	0	6
29	MP2A	Z	-14.157	6
30	MP2A	Mx	-.005	6
31	MP2A	X	0	7
32	MP2A	Z	-14.157	7
33	MP2A	Mx	-.005	7

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	54.89	1.5
2	MP2A	Z	-95.073	1.5
3	MP2A	Mx	.075	1.5
4	MP2A	X	54.89	3.5
5	MP2A	Z	-95.073	3.5
6	MP2A	Mx	.075	3.5
7	MP2A	X	54.723	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
8	MP2A	Z	-94.784	1.5
9	MP2A	Mx	-.02	1.5
10	MP2A	X	54.723	3.5
11	MP2A	Z	-94.784	3.5
12	MP2A	Mx	-.02	3.5
13	MP3A	X	14.733	3.5
14	MP3A	Z	-25.519	3.5
15	MP3A	Mx	.018	3.5
16	MP1A	X	25.292	3.5
17	MP1A	Z	-43.806	3.5
18	MP1A	Mx	-.013	3.5
19	MP4A	X	24.416	3.5
20	MP4A	Z	-42.29	3.5
21	MP4A	Mx	-.012	3.5
22	MP2A	X	7.084	6
23	MP2A	Z	-12.27	6
24	MP2A	Mx	-.003	6
25	MP2A	X	7.084	7
26	MP2A	Z	-12.27	7
27	MP2A	Mx	-.003	7
28	MP2A	X	7.084	6
29	MP2A	Z	-12.27	6
30	MP2A	Mx	-.011	6
31	MP2A	X	7.084	7
32	MP2A	Z	-12.27	7
33	MP2A	Mx	-.011	7

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	77.471	1.5
2	MP2A	Z	-44.728	1.5
3	MP2A	Mx	.061	1.5
4	MP2A	X	77.471	3.5
5	MP2A	Z	-44.728	3.5
6	MP2A	Mx	.061	3.5
7	MP2A	X	77.375	1.5
8	MP2A	Z	-44.673	1.5
9	MP2A	Mx	.016	1.5
10	MP2A	X	77.375	3.5
11	MP2A	Z	-44.673	3.5
12	MP2A	Mx	.016	3.5
13	MP3A	X	25.47	3.5
14	MP3A	Z	-14.705	3.5
15	MP3A	Mx	.016	3.5
16	MP1A	X	35.888	3.5
17	MP1A	Z	-20.72	3.5
18	MP1A	Mx	-.018	3.5
19	MP4A	X	31.338	3.5
20	MP4A	Z	-18.093	3.5
21	MP4A	Mx	-.016	3.5
22	MP2A	X	12.288	6
23	MP2A	Z	-7.094	6
24	MP2A	Mx	-.01	6
25	MP2A	X	12.288	7
26	MP2A	Z	-7.094	7
27	MP2A	Mx	-.01	7
28	MP2A	X	12.288	6
29	MP2A	Z	-7.094	6

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
30	MP2A	Mx	-.015	6
31	MP2A	X	12.288	7
32	MP2A	Z	-7.094	7
33	MP2A	Mx	-.015	7

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	79.294	1.5
2	MP2A	Z	0	1.5
3	MP2A	Mx	.04	1.5
4	MP2A	X	79.294	3.5
5	MP2A	Z	0	3.5
6	MP2A	Mx	.04	3.5
7	MP2A	X	79.294	1.5
8	MP2A	Z	0	1.5
9	MP2A	Mx	.04	1.5
10	MP2A	X	79.294	3.5
11	MP2A	Z	0	3.5
12	MP2A	Mx	.04	3.5
13	MP3A	X	29.381	3.5
14	MP3A	Z	0	3.5
15	MP3A	Mx	.01	3.5
16	MP1A	X	36.868	3.5
17	MP1A	Z	0	3.5
18	MP1A	Mx	-.018	3.5
19	MP4A	X	29.863	3.5
20	MP4A	Z	0	3.5
21	MP4A	Mx	-.015	3.5
22	MP2A	X	14.199	6
23	MP2A	Z	0	6
24	MP2A	Mx	-.014	6
25	MP2A	X	14.199	7
26	MP2A	Z	0	7
27	MP2A	Mx	-.014	7
28	MP2A	X	14.199	6
29	MP2A	Z	0	6
30	MP2A	Mx	-.014	6
31	MP2A	X	14.199	7
32	MP2A	Z	0	7
33	MP2A	Mx	-.014	7

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	77.471	1.5
2	MP2A	Z	44.728	1.5
3	MP2A	Mx	.016	1.5
4	MP2A	X	77.471	3.5
5	MP2A	Z	44.728	3.5
6	MP2A	Mx	.016	3.5
7	MP2A	X	77.375	1.5
8	MP2A	Z	44.673	1.5
9	MP2A	Mx	.061	1.5
10	MP2A	X	77.375	3.5
11	MP2A	Z	44.673	3.5
12	MP2A	Mx	.061	3.5
13	MP3A	X	25.47	3.5
14	MP3A	Z	14.705	3.5
15	MP3A	Mx	.001	3.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
16	MP1A	X	35.888	3.5
17	MP1A	Z	20.72	3.5
18	MP1A	Mx	-.018	3.5
19	MP4A	X	31.338	3.5
20	MP4A	Z	18.093	3.5
21	MP4A	Mx	-.016	3.5
22	MP2A	X	12.288	6
23	MP2A	Z	7.094	6
24	MP2A	Mx	-.015	6
25	MP2A	X	12.288	7
26	MP2A	Z	7.094	7
27	MP2A	Mx	-.015	7
28	MP2A	X	12.288	6
29	MP2A	Z	7.094	6
30	MP2A	Mx	-.01	6
31	MP2A	X	12.288	7
32	MP2A	Z	7.094	7
33	MP2A	Mx	-.01	7

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	54.89	1.5
2	MP2A	Z	95.073	1.5
3	MP2A	Mx	-.02	1.5
4	MP2A	X	54.89	3.5
5	MP2A	Z	95.073	3.5
6	MP2A	Mx	-.02	3.5
7	MP2A	X	54.723	1.5
8	MP2A	Z	94.784	1.5
9	MP2A	Mx	.075	1.5
10	MP2A	X	54.723	3.5
11	MP2A	Z	94.784	3.5
12	MP2A	Mx	.075	3.5
13	MP3A	X	14.733	3.5
14	MP3A	Z	25.519	3.5
15	MP3A	Mx	-.008	3.5
16	MP1A	X	25.292	3.5
17	MP1A	Z	43.806	3.5
18	MP1A	Mx	-.013	3.5
19	MP4A	X	24.416	3.5
20	MP4A	Z	42.29	3.5
21	MP4A	Mx	-.012	3.5
22	MP2A	X	7.084	6
23	MP2A	Z	12.27	6
24	MP2A	Mx	-.011	6
25	MP2A	X	7.084	7
26	MP2A	Z	12.27	7
27	MP2A	Mx	-.011	7
28	MP2A	X	7.084	6
29	MP2A	Z	12.27	6
30	MP2A	Mx	-.003	6
31	MP2A	X	7.084	7
32	MP2A	Z	12.27	7
33	MP2A	Mx	-.003	7

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	0	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
2	MP2A	Z	119.943	1.5
3	MP2A	Mx	-.06	1.5
4	MP2A	X	0	3.5
5	MP2A	Z	119.943	3.5
6	MP2A	Mx	-.06	3.5
7	MP2A	X	0	1.5
8	MP2A	Z	119.498	1.5
9	MP2A	Mx	.06	1.5
10	MP2A	X	0	3.5
11	MP2A	Z	119.498	3.5
12	MP2A	Mx	.06	3.5
13	MP3A	X	0	3.5
14	MP3A	Z	29.495	3.5
15	MP3A	Mx	-.015	3.5
16	MP1A	X	0	3.5
17	MP1A	Z	55.155	3.5
18	MP1A	Mx	0	3.5
19	MP4A	X	0	3.5
20	MP4A	Z	55.155	3.5
21	MP4A	Mx	0	3.5
22	MP2A	X	0	6
23	MP2A	Z	14.157	6
24	MP2A	Mx	-.005	6
25	MP2A	X	0	7
26	MP2A	Z	14.157	7
27	MP2A	Mx	-.005	7
28	MP2A	X	0	6
29	MP2A	Z	14.157	6
30	MP2A	Mx	.005	6
31	MP2A	X	0	7
32	MP2A	Z	14.157	7
33	MP2A	Mx	.005	7

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-54.89	1.5
2	MP2A	Z	95.073	1.5
3	MP2A	Mx	-.075	1.5
4	MP2A	X	-54.89	3.5
5	MP2A	Z	95.073	3.5
6	MP2A	Mx	-.075	3.5
7	MP2A	X	-54.723	1.5
8	MP2A	Z	94.784	1.5
9	MP2A	Mx	.02	1.5
10	MP2A	X	-54.723	3.5
11	MP2A	Z	94.784	3.5
12	MP2A	Mx	.02	3.5
13	MP3A	X	-14.733	3.5
14	MP3A	Z	25.519	3.5
15	MP3A	Mx	-.018	3.5
16	MP1A	X	-25.292	3.5
17	MP1A	Z	43.806	3.5
18	MP1A	Mx	.013	3.5
19	MP4A	X	-24.416	3.5
20	MP4A	Z	42.29	3.5
21	MP4A	Mx	.012	3.5
22	MP2A	X	-7.084	6
23	MP2A	Z	12.27	6

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
24	MP2A	Mx	.003	6
25	MP2A	X	-7.084	7
26	MP2A	Z	12.27	7
27	MP2A	Mx	.003	7
28	MP2A	X	-7.084	6
29	MP2A	Z	12.27	6
30	MP2A	Mx	.011	6
31	MP2A	X	-7.084	7
32	MP2A	Z	12.27	7
33	MP2A	Mx	.011	7

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-77.471	1.5
2	MP2A	Z	44.728	1.5
3	MP2A	Mx	-.061	1.5
4	MP2A	X	-77.471	3.5
5	MP2A	Z	44.728	3.5
6	MP2A	Mx	-.061	3.5
7	MP2A	X	-77.375	1.5
8	MP2A	Z	44.673	1.5
9	MP2A	Mx	-.016	1.5
10	MP2A	X	-77.375	3.5
11	MP2A	Z	44.673	3.5
12	MP2A	Mx	-.016	3.5
13	MP3A	X	-25.47	3.5
14	MP3A	Z	14.705	3.5
15	MP3A	Mx	-.016	3.5
16	MP1A	X	-35.888	3.5
17	MP1A	Z	20.72	3.5
18	MP1A	Mx	.018	3.5
19	MP4A	X	-31.338	3.5
20	MP4A	Z	18.093	3.5
21	MP4A	Mx	.016	3.5
22	MP2A	X	-12.288	6
23	MP2A	Z	7.094	6
24	MP2A	Mx	.01	6
25	MP2A	X	-12.288	7
26	MP2A	Z	7.094	7
27	MP2A	Mx	.01	7
28	MP2A	X	-12.288	6
29	MP2A	Z	7.094	6
30	MP2A	Mx	.015	6
31	MP2A	X	-12.288	7
32	MP2A	Z	7.094	7
33	MP2A	Mx	.015	7

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-79.294	1.5
2	MP2A	Z	0	1.5
3	MP2A	Mx	-.04	1.5
4	MP2A	X	-79.294	3.5
5	MP2A	Z	0	3.5
6	MP2A	Mx	-.04	3.5
7	MP2A	X	-79.294	1.5
8	MP2A	Z	0	1.5
9	MP2A	Mx	-.04	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
10	MP2A	X	-79.294	3.5
11	MP2A	Z	0	3.5
12	MP2A	Mx	-.04	3.5
13	MP3A	X	-29.381	3.5
14	MP3A	Z	0	3.5
15	MP3A	Mx	-.01	3.5
16	MP1A	X	-36.868	3.5
17	MP1A	Z	0	3.5
18	MP1A	Mx	.018	3.5
19	MP4A	X	-29.863	3.5
20	MP4A	Z	0	3.5
21	MP4A	Mx	.015	3.5
22	MP2A	X	-14.199	6
23	MP2A	Z	0	6
24	MP2A	Mx	.014	6
25	MP2A	X	-14.199	7
26	MP2A	Z	0	7
27	MP2A	Mx	.014	7
28	MP2A	X	-14.199	6
29	MP2A	Z	0	6
30	MP2A	Mx	.014	6
31	MP2A	X	-14.199	7
32	MP2A	Z	0	7
33	MP2A	Mx	.014	7

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-77.471	1.5
2	MP2A	Z	-44.728	1.5
3	MP2A	Mx	-.016	1.5
4	MP2A	X	-77.471	3.5
5	MP2A	Z	-44.728	3.5
6	MP2A	Mx	-.016	3.5
7	MP2A	X	-77.375	1.5
8	MP2A	Z	-44.673	1.5
9	MP2A	Mx	-.061	1.5
10	MP2A	X	-77.375	3.5
11	MP2A	Z	-44.673	3.5
12	MP2A	Mx	-.061	3.5
13	MP3A	X	-25.47	3.5
14	MP3A	Z	-14.705	3.5
15	MP3A	Mx	-.001	3.5
16	MP1A	X	-35.888	3.5
17	MP1A	Z	-20.72	3.5
18	MP1A	Mx	.018	3.5
19	MP4A	X	-31.338	3.5
20	MP4A	Z	-18.093	3.5
21	MP4A	Mx	.016	3.5
22	MP2A	X	-12.288	6
23	MP2A	Z	-7.094	6
24	MP2A	Mx	.015	6
25	MP2A	X	-12.288	7
26	MP2A	Z	-7.094	7
27	MP2A	Mx	.015	7
28	MP2A	X	-12.288	6
29	MP2A	Z	-7.094	6
30	MP2A	Mx	.01	6
31	MP2A	X	-12.288	7

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
32	MP2A	Z	-7.094	7
33	MP2A	Mx	.01	7

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-54.89	1.5
2	MP2A	Z	-95.073	1.5
3	MP2A	Mx	.02	1.5
4	MP2A	X	-54.89	3.5
5	MP2A	Z	-95.073	3.5
6	MP2A	Mx	.02	3.5
7	MP2A	X	-54.723	1.5
8	MP2A	Z	-94.784	1.5
9	MP2A	Mx	-.075	1.5
10	MP2A	X	-54.723	3.5
11	MP2A	Z	-94.784	3.5
12	MP2A	Mx	-.075	3.5
13	MP3A	X	-14.733	3.5
14	MP3A	Z	-25.519	3.5
15	MP3A	Mx	.008	3.5
16	MP1A	X	-25.292	3.5
17	MP1A	Z	-43.806	3.5
18	MP1A	Mx	.013	3.5
19	MP4A	X	-24.416	3.5
20	MP4A	Z	-42.29	3.5
21	MP4A	Mx	.012	3.5
22	MP2A	X	-7.084	6
23	MP2A	Z	-12.27	6
24	MP2A	Mx	.011	6
25	MP2A	X	-7.084	7
26	MP2A	Z	-12.27	7
27	MP2A	Mx	.011	7
28	MP2A	X	-7.084	6
29	MP2A	Z	-12.27	6
30	MP2A	Mx	.003	6
31	MP2A	X	-7.084	7
32	MP2A	Z	-12.27	7
33	MP2A	Mx	.003	7

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	0	1.5
2	MP2A	Z	-22.871	1.5
3	MP2A	Mx	.011	1.5
4	MP2A	X	0	3.5
5	MP2A	Z	-22.871	3.5
6	MP2A	Mx	.011	3.5
7	MP2A	X	0	1.5
8	MP2A	Z	-22.871	1.5
9	MP2A	Mx	-.011	1.5
10	MP2A	X	0	3.5
11	MP2A	Z	-22.871	3.5
12	MP2A	Mx	-.011	3.5
13	MP3A	X	0	3.5
14	MP3A	Z	-3.605	3.5
15	MP3A	Mx	.002	3.5
16	MP1A	X	0	3.5
17	MP1A	Z	-11.365	3.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
18	MP1A	Mx	0	3.5
19	MP4A	X	0	3.5
20	MP4A	Z	-11.365	3.5
21	MP4A	Mx	0	3.5
22	MP2A	X	0	6
23	MP2A	Z	-1.162	6
24	MP2A	Mx	.000387	6
25	MP2A	X	0	7
26	MP2A	Z	-1.162	7
27	MP2A	Mx	.000387	7
28	MP2A	X	0	6
29	MP2A	Z	-1.162	6
30	MP2A	Mx	-.000387	6
31	MP2A	X	0	7
32	MP2A	Z	-1.162	7
33	MP2A	Mx	-.000387	7

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	10.544	1.5
2	MP2A	Z	-18.263	1.5
3	MP2A	Mx	.014	1.5
4	MP2A	X	10.544	3.5
5	MP2A	Z	-18.263	3.5
6	MP2A	Mx	.014	3.5
7	MP2A	X	10.544	1.5
8	MP2A	Z	-18.263	1.5
9	MP2A	Mx	-.004	1.5
10	MP2A	X	10.544	3.5
11	MP2A	Z	-18.263	3.5
12	MP2A	Mx	-.004	3.5
13	MP3A	X	2.159	3.5
14	MP3A	Z	-3.739	3.5
15	MP3A	Mx	.003	3.5
16	MP1A	X	5.248	3.5
17	MP1A	Z	-9.09	3.5
18	MP1A	Mx	-.003	3.5
19	MP4A	X	5.083	3.5
20	MP4A	Z	-8.805	3.5
21	MP4A	Mx	-.003	3.5
22	MP2A	X	.825	6
23	MP2A	Z	-1.429	6
24	MP2A	Mx	-.000349	6
25	MP2A	X	.825	7
26	MP2A	Z	-1.429	7
27	MP2A	Mx	-.000349	7
28	MP2A	X	.825	6
29	MP2A	Z	-1.429	6
30	MP2A	Mx	-.001	6
31	MP2A	X	.825	7
32	MP2A	Z	-1.429	7
33	MP2A	Mx	-.001	7

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	15.177	1.5
2	MP2A	Z	-8.763	1.5
3	MP2A	Mx	.012	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
4	MP2A	X	15.177	3.5
5	MP2A	Z	-8.763	3.5
6	MP2A	Mx	.012	3.5
7	MP2A	X	15.177	1.5
8	MP2A	Z	-8.763	1.5
9	MP2A	Mx	.003	1.5
10	MP2A	X	15.177	3.5
11	MP2A	Z	-8.763	3.5
12	MP2A	Mx	.003	3.5
13	MP3A	X	4.973	3.5
14	MP3A	Z	-2.871	3.5
15	MP3A	Mx	.003	3.5
16	MP1A	X	7.586	3.5
17	MP1A	Z	-4.38	3.5
18	MP1A	Mx	-.004	3.5
19	MP4A	X	6.729	3.5
20	MP4A	Z	-3.885	3.5
21	MP4A	Mx	-.003	3.5
22	MP2A	X	2.274	6
23	MP2A	Z	-1.313	6
24	MP2A	Mx	-.002	6
25	MP2A	X	2.274	7
26	MP2A	Z	-1.313	7
27	MP2A	Mx	-.002	7
28	MP2A	X	2.274	6
29	MP2A	Z	-1.313	6
30	MP2A	Mx	-.003	6
31	MP2A	X	2.274	7
32	MP2A	Z	-1.313	7
33	MP2A	Mx	-.003	7

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	15.743	1.5
2	MP2A	Z	0	1.5
3	MP2A	Mx	.008	1.5
4	MP2A	X	15.743	3.5
5	MP2A	Z	0	3.5
6	MP2A	Mx	.008	3.5
7	MP2A	X	15.743	1.5
8	MP2A	Z	0	1.5
9	MP2A	Mx	.008	1.5
10	MP2A	X	15.743	3.5
11	MP2A	Z	0	3.5
12	MP2A	Mx	.008	3.5
13	MP3A	X	6.454	3.5
14	MP3A	Z	0	3.5
15	MP3A	Mx	.002	3.5
16	MP1A	X	7.891	3.5
17	MP1A	Z	0	3.5
18	MP1A	Mx	-.004	3.5
19	MP4A	X	6.571	3.5
20	MP4A	Z	0	3.5
21	MP4A	Mx	-.003	3.5
22	MP2A	X	3.114	6
23	MP2A	Z	0	6
24	MP2A	Mx	-.003	6
25	MP2A	X	3.114	7

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
26	MP2A	Z	0	7
27	MP2A	Mx	-.003	7
28	MP2A	X	3.114	6
29	MP2A	Z	0	6
30	MP2A	Mx	-.003	6
31	MP2A	X	3.114	7
32	MP2A	Z	0	7
33	MP2A	Mx	-.003	7

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	15.177	1.5
2	MP2A	Z	8.763	1.5
3	MP2A	Mx	.003	1.5
4	MP2A	X	15.177	3.5
5	MP2A	Z	8.763	3.5
6	MP2A	Mx	.003	3.5
7	MP2A	X	15.177	1.5
8	MP2A	Z	8.763	1.5
9	MP2A	Mx	.012	1.5
10	MP2A	X	15.177	3.5
11	MP2A	Z	8.763	3.5
12	MP2A	Mx	.012	3.5
13	MP3A	X	4.973	3.5
14	MP3A	Z	2.871	3.5
15	MP3A	Mx	.000222	3.5
16	MP1A	X	7.586	3.5
17	MP1A	Z	4.38	3.5
18	MP1A	Mx	-.004	3.5
19	MP4A	X	6.729	3.5
20	MP4A	Z	3.885	3.5
21	MP4A	Mx	-.003	3.5
22	MP2A	X	2.274	6
23	MP2A	Z	1.313	6
24	MP2A	Mx	-.003	6
25	MP2A	X	2.274	7
26	MP2A	Z	1.313	7
27	MP2A	Mx	-.003	7
28	MP2A	X	2.274	6
29	MP2A	Z	1.313	6
30	MP2A	Mx	-.002	6
31	MP2A	X	2.274	7
32	MP2A	Z	1.313	7
33	MP2A	Mx	-.002	7

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	10.544	1.5
2	MP2A	Z	18.263	1.5
3	MP2A	Mx	-.004	1.5
4	MP2A	X	10.544	3.5
5	MP2A	Z	18.263	3.5
6	MP2A	Mx	-.004	3.5
7	MP2A	X	10.544	1.5
8	MP2A	Z	18.263	1.5
9	MP2A	Mx	.014	1.5
10	MP2A	X	10.544	3.5
11	MP2A	Z	18.263	3.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
12	MP2A	Mx	.014	3.5
13	MP3A	X	2.159	3.5
14	MP3A	Z	3.739	3.5
15	MP3A	Mx	-.001	3.5
16	MP1A	X	5.248	3.5
17	MP1A	Z	9.09	3.5
18	MP1A	Mx	-.003	3.5
19	MP4A	X	5.083	3.5
20	MP4A	Z	8.805	3.5
21	MP4A	Mx	-.003	3.5
22	MP2A	X	.825	6
23	MP2A	Z	1.429	6
24	MP2A	Mx	-.001	6
25	MP2A	X	.825	7
26	MP2A	Z	1.429	7
27	MP2A	Mx	-.001	7
28	MP2A	X	.825	6
29	MP2A	Z	1.429	6
30	MP2A	Mx	-.000349	6
31	MP2A	X	.825	7
32	MP2A	Z	1.429	7
33	MP2A	Mx	-.000349	7

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	0	1.5
2	MP2A	Z	22.871	1.5
3	MP2A	Mx	-.011	1.5
4	MP2A	X	0	3.5
5	MP2A	Z	22.871	3.5
6	MP2A	Mx	-.011	3.5
7	MP2A	X	0	1.5
8	MP2A	Z	22.871	1.5
9	MP2A	Mx	.011	1.5
10	MP2A	X	0	3.5
11	MP2A	Z	22.871	3.5
12	MP2A	Mx	.011	3.5
13	MP3A	X	0	3.5
14	MP3A	Z	3.605	3.5
15	MP3A	Mx	-.002	3.5
16	MP1A	X	0	3.5
17	MP1A	Z	11.365	3.5
18	MP1A	Mx	0	3.5
19	MP4A	X	0	3.5
20	MP4A	Z	11.365	3.5
21	MP4A	Mx	0	3.5
22	MP2A	X	0	6
23	MP2A	Z	1.162	6
24	MP2A	Mx	-.000387	6
25	MP2A	X	0	7
26	MP2A	Z	1.162	7
27	MP2A	Mx	-.000387	7
28	MP2A	X	0	6
29	MP2A	Z	1.162	6
30	MP2A	Mx	.000387	6
31	MP2A	X	0	7
32	MP2A	Z	1.162	7
33	MP2A	Mx	.000387	7

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-10.544	1.5
2	MP2A	Z	18.263	1.5
3	MP2A	Mx	-.014	1.5
4	MP2A	X	-10.544	3.5
5	MP2A	Z	18.263	3.5
6	MP2A	Mx	-.014	3.5
7	MP2A	X	-10.544	1.5
8	MP2A	Z	18.263	1.5
9	MP2A	Mx	.004	1.5
10	MP2A	X	-10.544	3.5
11	MP2A	Z	18.263	3.5
12	MP2A	Mx	.004	3.5
13	MP3A	X	-2.159	3.5
14	MP3A	Z	3.739	3.5
15	MP3A	Mx	-.003	3.5
16	MP1A	X	-5.248	3.5
17	MP1A	Z	9.09	3.5
18	MP1A	Mx	.003	3.5
19	MP4A	X	-5.083	3.5
20	MP4A	Z	8.805	3.5
21	MP4A	Mx	.003	3.5
22	MP2A	X	-.825	6
23	MP2A	Z	1.429	6
24	MP2A	Mx	.000349	6
25	MP2A	X	-.825	7
26	MP2A	Z	1.429	7
27	MP2A	Mx	.000349	7
28	MP2A	X	-.825	6
29	MP2A	Z	1.429	6
30	MP2A	Mx	.001	6
31	MP2A	X	-.825	7
32	MP2A	Z	1.429	7
33	MP2A	Mx	.001	7

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-15.177	1.5
2	MP2A	Z	8.763	1.5
3	MP2A	Mx	-.012	1.5
4	MP2A	X	-15.177	3.5
5	MP2A	Z	8.763	3.5
6	MP2A	Mx	-.012	3.5
7	MP2A	X	-15.177	1.5
8	MP2A	Z	8.763	1.5
9	MP2A	Mx	-.003	1.5
10	MP2A	X	-15.177	3.5
11	MP2A	Z	8.763	3.5
12	MP2A	Mx	-.003	3.5
13	MP3A	X	-4.973	3.5
14	MP3A	Z	2.871	3.5
15	MP3A	Mx	-.003	3.5
16	MP1A	X	-7.586	3.5
17	MP1A	Z	4.38	3.5
18	MP1A	Mx	.004	3.5
19	MP4A	X	-6.729	3.5
20	MP4A	Z	3.885	3.5
21	MP4A	Mx	.003	3.5
22	MP2A	X	-2.274	6

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
23	MP2A	Z	1.313	6
24	MP2A	Mx	.002	6
25	MP2A	X	-2.274	7
26	MP2A	Z	1.313	7
27	MP2A	Mx	.002	7
28	MP2A	X	-2.274	6
29	MP2A	Z	1.313	6
30	MP2A	Mx	.003	6
31	MP2A	X	-2.274	7
32	MP2A	Z	1.313	7
33	MP2A	Mx	.003	7

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-15.743	1.5
2	MP2A	Z	0	1.5
3	MP2A	Mx	-.008	1.5
4	MP2A	X	-15.743	3.5
5	MP2A	Z	0	3.5
6	MP2A	Mx	-.008	3.5
7	MP2A	X	-15.743	1.5
8	MP2A	Z	0	1.5
9	MP2A	Mx	-.008	1.5
10	MP2A	X	-15.743	3.5
11	MP2A	Z	0	3.5
12	MP2A	Mx	-.008	3.5
13	MP3A	X	-6.454	3.5
14	MP3A	Z	0	3.5
15	MP3A	Mx	-.002	3.5
16	MP1A	X	-7.891	3.5
17	MP1A	Z	0	3.5
18	MP1A	Mx	.004	3.5
19	MP4A	X	-6.571	3.5
20	MP4A	Z	0	3.5
21	MP4A	Mx	.003	3.5
22	MP2A	X	-3.114	6
23	MP2A	Z	0	6
24	MP2A	Mx	.003	6
25	MP2A	X	-3.114	7
26	MP2A	Z	0	7
27	MP2A	Mx	.003	7
28	MP2A	X	-3.114	6
29	MP2A	Z	0	6
30	MP2A	Mx	.003	6
31	MP2A	X	-3.114	7
32	MP2A	Z	0	7
33	MP2A	Mx	.003	7

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-15.177	1.5
2	MP2A	Z	-8.763	1.5
3	MP2A	Mx	-.003	1.5
4	MP2A	X	-15.177	3.5
5	MP2A	Z	-8.763	3.5
6	MP2A	Mx	-.003	3.5
7	MP2A	X	-15.177	1.5
8	MP2A	Z	-8.763	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
9	MP2A	Mx	-.012	1.5
10	MP2A	X	-15.177	3.5
11	MP2A	Z	-8.763	3.5
12	MP2A	Mx	-.012	3.5
13	MP3A	X	-4.973	3.5
14	MP3A	Z	-2.871	3.5
15	MP3A	Mx	-.000222	3.5
16	MP1A	X	-7.586	3.5
17	MP1A	Z	-4.38	3.5
18	MP1A	Mx	.004	3.5
19	MP4A	X	-6.729	3.5
20	MP4A	Z	-3.885	3.5
21	MP4A	Mx	.003	3.5
22	MP2A	X	-2.274	6
23	MP2A	Z	-1.313	6
24	MP2A	Mx	.003	6
25	MP2A	X	-2.274	7
26	MP2A	Z	-1.313	7
27	MP2A	Mx	.003	7
28	MP2A	X	-2.274	6
29	MP2A	Z	-1.313	6
30	MP2A	Mx	.002	6
31	MP2A	X	-2.274	7
32	MP2A	Z	-1.313	7
33	MP2A	Mx	.002	7

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-10.544	1.5
2	MP2A	Z	-18.263	1.5
3	MP2A	Mx	.004	1.5
4	MP2A	X	-10.544	3.5
5	MP2A	Z	-18.263	3.5
6	MP2A	Mx	.004	3.5
7	MP2A	X	-10.544	1.5
8	MP2A	Z	-18.263	1.5
9	MP2A	Mx	-.014	1.5
10	MP2A	X	-10.544	3.5
11	MP2A	Z	-18.263	3.5
12	MP2A	Mx	-.014	3.5
13	MP3A	X	-2.159	3.5
14	MP3A	Z	-3.739	3.5
15	MP3A	Mx	.001	3.5
16	MP1A	X	-5.248	3.5
17	MP1A	Z	-9.09	3.5
18	MP1A	Mx	.003	3.5
19	MP4A	X	-5.083	3.5
20	MP4A	Z	-8.805	3.5
21	MP4A	Mx	.003	3.5
22	MP2A	X	-.825	6
23	MP2A	Z	-1.429	6
24	MP2A	Mx	.001	6
25	MP2A	X	-.825	7
26	MP2A	Z	-1.429	7
27	MP2A	Mx	.001	7
28	MP2A	X	-.825	6
29	MP2A	Z	-1.429	6
30	MP2A	Mx	.000349	6

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
31	MP2A	X	-.825	7
32	MP2A	Z	-1.429	7
33	MP2A	Mx	.000349	7

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	0	1.5
2	MP2A	Z	-7.496	1.5
3	MP2A	Mx	.004	1.5
4	MP2A	X	0	3.5
5	MP2A	Z	-7.496	3.5
6	MP2A	Mx	.004	3.5
7	MP2A	X	0	1.5
8	MP2A	Z	-7.469	1.5
9	MP2A	Mx	-.004	1.5
10	MP2A	X	0	3.5
11	MP2A	Z	-7.469	3.5
12	MP2A	Mx	-.004	3.5
13	MP3A	X	0	3.5
14	MP3A	Z	-1.843	3.5
15	MP3A	Mx	.000922	3.5
16	MP1A	X	0	3.5
17	MP1A	Z	-3.447	3.5
18	MP1A	Mx	0	3.5
19	MP4A	X	0	3.5
20	MP4A	Z	-3.447	3.5
21	MP4A	Mx	0	3.5
22	MP2A	X	0	6
23	MP2A	Z	-.885	6
24	MP2A	Mx	.000295	6
25	MP2A	X	0	7
26	MP2A	Z	-.885	7
27	MP2A	Mx	.000295	7
28	MP2A	X	0	6
29	MP2A	Z	-.885	6
30	MP2A	Mx	-.000295	6
31	MP2A	X	0	7
32	MP2A	Z	-.885	7
33	MP2A	Mx	-.000295	7

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	3.431	1.5
2	MP2A	Z	-5.942	1.5
3	MP2A	Mx	.005	1.5
4	MP2A	X	3.431	3.5
5	MP2A	Z	-5.942	3.5
6	MP2A	Mx	.005	3.5
7	MP2A	X	3.42	1.5
8	MP2A	Z	-5.924	1.5
9	MP2A	Mx	-.001	1.5
10	MP2A	X	3.42	3.5
11	MP2A	Z	-5.924	3.5
12	MP2A	Mx	-.001	3.5
13	MP3A	X	.921	3.5
14	MP3A	Z	-1.595	3.5
15	MP3A	Mx	.001	3.5
16	MP1A	X	1.581	3.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
17	MP1A	Z	-2.738	3.5
18	MP1A	Mx	-.000791	3.5
19	MP4A	X	1.526	3.5
20	MP4A	Z	-2.643	3.5
21	MP4A	Mx	-.000763	3.5
22	MP2A	X	.443	6
23	MP2A	Z	-.767	6
24	MP2A	Mx	-.000187	6
25	MP2A	X	.443	7
26	MP2A	Z	-.767	7
27	MP2A	Mx	-.000187	7
28	MP2A	X	.443	6
29	MP2A	Z	-.767	6
30	MP2A	Mx	-.000699	6
31	MP2A	X	.443	7
32	MP2A	Z	-.767	7
33	MP2A	Mx	-.000699	7

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	4.842	1.5
2	MP2A	Z	-2.796	1.5
3	MP2A	Mx	.004	1.5
4	MP2A	X	4.842	3.5
5	MP2A	Z	-2.796	3.5
6	MP2A	Mx	.004	3.5
7	MP2A	X	4.836	1.5
8	MP2A	Z	-2.792	1.5
9	MP2A	Mx	.001	1.5
10	MP2A	X	4.836	3.5
11	MP2A	Z	-2.792	3.5
12	MP2A	Mx	.001	3.5
13	MP3A	X	1.592	3.5
14	MP3A	Z	-.919	3.5
15	MP3A	Mx	.00099	3.5
16	MP1A	X	2.243	3.5
17	MP1A	Z	-1.295	3.5
18	MP1A	Mx	-.001	3.5
19	MP4A	X	1.959	3.5
20	MP4A	Z	-1.131	3.5
21	MP4A	Mx	-.00098	3.5
22	MP2A	X	.768	6
23	MP2A	Z	-.443	6
24	MP2A	Mx	-.00062	6
25	MP2A	X	.768	7
26	MP2A	Z	-.443	7
27	MP2A	Mx	-.00062	7
28	MP2A	X	.768	6
29	MP2A	Z	-.443	6
30	MP2A	Mx	-.000916	6
31	MP2A	X	.768	7
32	MP2A	Z	-.443	7
33	MP2A	Mx	-.000916	7

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	4.956	1.5
2	MP2A	Z	0	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
3	MP2A	Mx	.002	1.5
4	MP2A	X	4.956	3.5
5	MP2A	Z	0	3.5
6	MP2A	Mx	.002	3.5
7	MP2A	X	4.956	1.5
8	MP2A	Z	0	1.5
9	MP2A	Mx	.002	1.5
10	MP2A	X	4.956	3.5
11	MP2A	Z	0	3.5
12	MP2A	Mx	.002	3.5
13	MP3A	X	1.836	3.5
14	MP3A	Z	0	3.5
15	MP3A	Mx	.000612	3.5
16	MP1A	X	2.304	3.5
17	MP1A	Z	0	3.5
18	MP1A	Mx	-.001	3.5
19	MP4A	X	1.866	3.5
20	MP4A	Z	0	3.5
21	MP4A	Mx	-.000933	3.5
22	MP2A	X	.887	6
23	MP2A	Z	0	6
24	MP2A	Mx	-.000887	6
25	MP2A	X	.887	7
26	MP2A	Z	0	7
27	MP2A	Mx	-.000887	7
28	MP2A	X	.887	6
29	MP2A	Z	0	6
30	MP2A	Mx	-.000887	6
31	MP2A	X	.887	7
32	MP2A	Z	0	7
33	MP2A	Mx	-.000887	7

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	4.842	1.5
2	MP2A	Z	2.796	1.5
3	MP2A	Mx	.001	1.5
4	MP2A	X	4.842	3.5
5	MP2A	Z	2.796	3.5
6	MP2A	Mx	.001	3.5
7	MP2A	X	4.836	1.5
8	MP2A	Z	2.792	1.5
9	MP2A	Mx	.004	1.5
10	MP2A	X	4.836	3.5
11	MP2A	Z	2.792	3.5
12	MP2A	Mx	.004	3.5
13	MP3A	X	1.592	3.5
14	MP3A	Z	.919	3.5
15	MP3A	Mx	7.1e-5	3.5
16	MP1A	X	2.243	3.5
17	MP1A	Z	1.295	3.5
18	MP1A	Mx	-.001	3.5
19	MP4A	X	1.959	3.5
20	MP4A	Z	1.131	3.5
21	MP4A	Mx	-.00098	3.5
22	MP2A	X	.768	6
23	MP2A	Z	.443	6
24	MP2A	Mx	-.000916	6

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
25	MP2A	X	.768	7
26	MP2A	Z	.443	7
27	MP2A	Mx	-.000916	7
28	MP2A	X	.768	6
29	MP2A	Z	.443	6
30	MP2A	Mx	-.00062	6
31	MP2A	X	.768	7
32	MP2A	Z	.443	7
33	MP2A	Mx	-.00062	7

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	3.431	1.5
2	MP2A	Z	5.942	1.5
3	MP2A	Mx	-.001	1.5
4	MP2A	X	3.431	3.5
5	MP2A	Z	5.942	3.5
6	MP2A	Mx	-.001	3.5
7	MP2A	X	3.42	1.5
8	MP2A	Z	5.924	1.5
9	MP2A	Mx	.005	1.5
10	MP2A	X	3.42	3.5
11	MP2A	Z	5.924	3.5
12	MP2A	Mx	.005	3.5
13	MP3A	X	.921	3.5
14	MP3A	Z	1.595	3.5
15	MP3A	Mx	-.000491	3.5
16	MP1A	X	1.581	3.5
17	MP1A	Z	2.738	3.5
18	MP1A	Mx	-.000791	3.5
19	MP4A	X	1.526	3.5
20	MP4A	Z	2.643	3.5
21	MP4A	Mx	-.000763	3.5
22	MP2A	X	.443	6
23	MP2A	Z	.767	6
24	MP2A	Mx	-.000699	6
25	MP2A	X	.443	7
26	MP2A	Z	.767	7
27	MP2A	Mx	-.000699	7
28	MP2A	X	.443	6
29	MP2A	Z	.767	6
30	MP2A	Mx	-.000187	6
31	MP2A	X	.443	7
32	MP2A	Z	.767	7
33	MP2A	Mx	-.000187	7

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	0	1.5
2	MP2A	Z	7.496	1.5
3	MP2A	Mx	-.004	1.5
4	MP2A	X	0	3.5
5	MP2A	Z	7.496	3.5
6	MP2A	Mx	-.004	3.5
7	MP2A	X	0	1.5
8	MP2A	Z	7.469	1.5
9	MP2A	Mx	.004	1.5
10	MP2A	X	0	3.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
11	MP2A	Z	7.469	3.5
12	MP2A	Mx	.004	3.5
13	MP3A	X	0	3.5
14	MP3A	Z	1.843	3.5
15	MP3A	Mx	-.000922	3.5
16	MP1A	X	0	3.5
17	MP1A	Z	3.447	3.5
18	MP1A	Mx	0	3.5
19	MP4A	X	0	3.5
20	MP4A	Z	3.447	3.5
21	MP4A	Mx	0	3.5
22	MP2A	X	0	6
23	MP2A	Z	.885	6
24	MP2A	Mx	-.000295	6
25	MP2A	X	0	7
26	MP2A	Z	.885	7
27	MP2A	Mx	-.000295	7
28	MP2A	X	0	6
29	MP2A	Z	.885	6
30	MP2A	Mx	.000295	6
31	MP2A	X	0	7
32	MP2A	Z	.885	7
33	MP2A	Mx	.000295	7

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-3.431	1.5
2	MP2A	Z	5.942	1.5
3	MP2A	Mx	-.005	1.5
4	MP2A	X	-3.431	3.5
5	MP2A	Z	5.942	3.5
6	MP2A	Mx	-.005	3.5
7	MP2A	X	-3.42	1.5
8	MP2A	Z	5.924	1.5
9	MP2A	Mx	.001	1.5
10	MP2A	X	-3.42	3.5
11	MP2A	Z	5.924	3.5
12	MP2A	Mx	.001	3.5
13	MP3A	X	-.921	3.5
14	MP3A	Z	1.595	3.5
15	MP3A	Mx	-.001	3.5
16	MP1A	X	-1.581	3.5
17	MP1A	Z	2.738	3.5
18	MP1A	Mx	.000791	3.5
19	MP4A	X	-1.526	3.5
20	MP4A	Z	2.643	3.5
21	MP4A	Mx	.000763	3.5
22	MP2A	X	-.443	6
23	MP2A	Z	.767	6
24	MP2A	Mx	.000187	6
25	MP2A	X	-.443	7
26	MP2A	Z	.767	7
27	MP2A	Mx	.000187	7
28	MP2A	X	-.443	6
29	MP2A	Z	.767	6
30	MP2A	Mx	.000699	6
31	MP2A	X	-.443	7
32	MP2A	Z	.767	7

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
33	MP2A	Mx	.000699	7

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-4.842	1.5
2	MP2A	Z	2.796	1.5
3	MP2A	Mx	-.004	1.5
4	MP2A	X	-4.842	3.5
5	MP2A	Z	2.796	3.5
6	MP2A	Mx	-.004	3.5
7	MP2A	X	-4.836	1.5
8	MP2A	Z	2.792	1.5
9	MP2A	Mx	-.001	1.5
10	MP2A	X	-4.836	3.5
11	MP2A	Z	2.792	3.5
12	MP2A	Mx	-.001	3.5
13	MP3A	X	-1.592	3.5
14	MP3A	Z	.919	3.5
15	MP3A	Mx	-.00099	3.5
16	MP1A	X	-2.243	3.5
17	MP1A	Z	1.295	3.5
18	MP1A	Mx	.001	3.5
19	MP4A	X	-1.959	3.5
20	MP4A	Z	1.131	3.5
21	MP4A	Mx	.00098	3.5
22	MP2A	X	-.768	6
23	MP2A	Z	.443	6
24	MP2A	Mx	.00062	6
25	MP2A	X	-.768	7
26	MP2A	Z	.443	7
27	MP2A	Mx	.00062	7
28	MP2A	X	-.768	6
29	MP2A	Z	.443	6
30	MP2A	Mx	.000916	6
31	MP2A	X	-.768	7
32	MP2A	Z	.443	7
33	MP2A	Mx	.000916	7

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-4.956	1.5
2	MP2A	Z	0	1.5
3	MP2A	Mx	-.002	1.5
4	MP2A	X	-4.956	3.5
5	MP2A	Z	0	3.5
6	MP2A	Mx	-.002	3.5
7	MP2A	X	-4.956	1.5
8	MP2A	Z	0	1.5
9	MP2A	Mx	-.002	1.5
10	MP2A	X	-4.956	3.5
11	MP2A	Z	0	3.5
12	MP2A	Mx	-.002	3.5
13	MP3A	X	-1.836	3.5
14	MP3A	Z	0	3.5
15	MP3A	Mx	-.000612	3.5
16	MP1A	X	-2.304	3.5
17	MP1A	Z	0	3.5
18	MP1A	Mx	.001	3.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
19	MP4A	X	-1.866	3.5
20	MP4A	Z	0	3.5
21	MP4A	Mx	.000933	3.5
22	MP2A	X	-.887	6
23	MP2A	Z	0	6
24	MP2A	Mx	.000887	6
25	MP2A	X	-.887	7
26	MP2A	Z	0	7
27	MP2A	Mx	.000887	7
28	MP2A	X	-.887	6
29	MP2A	Z	0	6
30	MP2A	Mx	.000887	6
31	MP2A	X	-.887	7
32	MP2A	Z	0	7
33	MP2A	Mx	.000887	7

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-4.842	1.5
2	MP2A	Z	-2.796	1.5
3	MP2A	Mx	-.001	1.5
4	MP2A	X	-4.842	3.5
5	MP2A	Z	-2.796	3.5
6	MP2A	Mx	-.001	3.5
7	MP2A	X	-4.836	1.5
8	MP2A	Z	-2.792	1.5
9	MP2A	Mx	-.004	1.5
10	MP2A	X	-4.836	3.5
11	MP2A	Z	-2.792	3.5
12	MP2A	Mx	-.004	3.5
13	MP3A	X	-1.592	3.5
14	MP3A	Z	-.919	3.5
15	MP3A	Mx	-7.1e-5	3.5
16	MP1A	X	-2.243	3.5
17	MP1A	Z	-1.295	3.5
18	MP1A	Mx	.001	3.5
19	MP4A	X	-1.959	3.5
20	MP4A	Z	-1.131	3.5
21	MP4A	Mx	.00098	3.5
22	MP2A	X	-.768	6
23	MP2A	Z	-.443	6
24	MP2A	Mx	.000916	6
25	MP2A	X	-.768	7
26	MP2A	Z	-.443	7
27	MP2A	Mx	.000916	7
28	MP2A	X	-.768	6
29	MP2A	Z	-.443	6
30	MP2A	Mx	.00062	6
31	MP2A	X	-.768	7
32	MP2A	Z	-.443	7
33	MP2A	Mx	.00062	7

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-3.431	1.5
2	MP2A	Z	-5.942	1.5
3	MP2A	Mx	.001	1.5
4	MP2A	X	-3.431	3.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
5	MP2A	Z	-5.942	3.5
6	MP2A	Mx	.001	3.5
7	MP2A	X	-3.42	1.5
8	MP2A	Z	-5.924	1.5
9	MP2A	Mx	-.005	1.5
10	MP2A	X	-3.42	3.5
11	MP2A	Z	-5.924	3.5
12	MP2A	Mx	-.005	3.5
13	MP3A	X	-.921	3.5
14	MP3A	Z	-1.595	3.5
15	MP3A	Mx	.000491	3.5
16	MP1A	X	-1.581	3.5
17	MP1A	Z	-2.738	3.5
18	MP1A	Mx	.000791	3.5
19	MP4A	X	-1.526	3.5
20	MP4A	Z	-2.643	3.5
21	MP4A	Mx	.000763	3.5
22	MP2A	X	-.443	6
23	MP2A	Z	-.767	6
24	MP2A	Mx	.000699	6
25	MP2A	X	-.443	7
26	MP2A	Z	-.767	7
27	MP2A	Mx	.000699	7
28	MP2A	X	-.443	6
29	MP2A	Z	-.767	6
30	MP2A	Mx	.000187	6
31	MP2A	X	-.443	7
32	MP2A	Z	-.767	7
33	MP2A	Mx	.000187	7

Member Point Loads (BLC 77 : Lm1)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	M1	Y	-500	%97

Member Point Loads (BLC 78 : Lm2)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	M1	Y	-500	%66

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	MP2A	Y	0	1.5
2	MP2A	My	0	1.5
3	MP2A	Mz	0	1.5
4	MP2A	Y	0	3.5
5	MP2A	My	0	3.5
6	MP2A	Mz	0	3.5
7	MP2A	Y	0	1.5
8	MP2A	My	0	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
9	MP2A	Mz	0	1.5
10	MP2A	Y	0	3.5
11	MP2A	My	0	3.5
12	MP2A	Mz	0	3.5
13	MP3A	Y	0	3.5
14	MP3A	My	0	3.5
15	MP3A	Mz	0	3.5
16	MP1A	Y	0	3.5
17	MP1A	My	0	3.5
18	MP1A	Mz	0	3.5
19	MP4A	Y	0	3.5
20	MP4A	My	0	3.5
21	MP4A	Mz	0	3.5
22	MP2A	Y	0	6
23	MP2A	My	0	6
24	MP2A	Mz	0	6
25	MP2A	Y	0	7
26	MP2A	My	0	7
27	MP2A	Mz	0	7
28	MP2A	Y	0	6
29	MP2A	My	0	6
30	MP2A	Mz	0	6
31	MP2A	Y	0	7
32	MP2A	My	0	7
33	MP2A	Mz	0	7

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	Z	-.655	1.5
2	MP2A	Mx	.000328	1.5
3	MP2A	Z	-.655	3.5
4	MP2A	Mx	.000328	3.5
5	MP2A	Z	-.969	1.5
6	MP2A	Mx	-.000485	1.5
7	MP2A	Z	-.969	3.5
8	MP2A	Mx	-.000485	3.5
9	MP3A	Z	-.561	3.5
10	MP3A	Mx	.000281	3.5
11	MP1A	Z	-2.532	3.5
12	MP1A	Mx	0	3.5
13	MP4A	Z	-2.109	3.5
14	MP4A	Mx	0	3.5
15	MP2A	Z	-.264	6
16	MP2A	Mx	8.8e-5	6
17	MP2A	Z	-.264	7
18	MP2A	Mx	8.8e-5	7
19	MP2A	Z	-.264	6
20	MP2A	Mx	-8.8e-5	6
21	MP2A	Z	-.264	7
22	MP2A	Mx	-8.8e-5	7

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	.655	1.5
2	MP2A	Mx	.000328	1.5
3	MP2A	X	.655	3.5
4	MP2A	Mx	.000328	3.5
5	MP2A	X	.969	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
6	MP2A	Mx	.000485	1.5
7	MP2A	X	.969	3.5
8	MP2A	Mx	.000485	3.5
9	MP3A	X	.561	3.5
10	MP3A	Mx	.000187	3.5
11	MP1A	X	2.532	3.5
12	MP1A	Mx	-.001	3.5
13	MP4A	X	2.109	3.5
14	MP4A	Mx	-.001	3.5
15	MP2A	X	.264	6
16	MP2A	Mx	-.000264	6
17	MP2A	X	.264	7
18	MP2A	Mx	-.000264	7
19	MP2A	X	.264	6
20	MP2A	Mx	-.000264	6
21	MP2A	X	.264	7
22	MP2A	Mx	-.000264	7

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	-5.345	-5.345	0	%100
2	M2	Y	-5.345	-5.345	0	%100
3	M13	Y	-6.26	-6.26	0	%100
4	M14	Y	-6.26	-6.26	0	%100
5	M15	Y	-6.26	-6.26	0	%100
6	M16	Y	-6.26	-6.26	0	%100
7	M17	Y	-4.673	-4.673	0	%100
8	M18	Y	-4.673	-4.673	0	%100
9	M19	Y	-4.673	-4.673	0	%100
10	M20	Y	-4.673	-4.673	0	%100
11	M21	Y	-6.26	-6.26	0	%100
12	M22	Y	-6.26	-6.26	0	%100
13	M23	Y	-6.26	-6.26	0	%100
14	M24	Y	-6.26	-6.26	0	%100
15	M25	Y	-2.488	-2.488	0	%100
16	M26	Y	-2.488	-2.488	0	%100
17	M27	Y	-2.488	-2.488	0	%100
18	M28	Y	-2.488	-2.488	0	%100
19	MP4A	Y	-4.673	-4.673	0	%100
20	MP3A	Y	-4.673	-4.673	0	%100
21	MP2A	Y	-4.673	-4.673	0	%100
22	MP1A	Y	-4.673	-4.673	0	%100
23	M44	Y	-2.32	-2.32	0	%100
24	M45	Y	-2.32	-2.32	0	%100
25	M46	Y	-2.32	-2.32	0	%100
26	M47	Y	-2.32	-2.32	0	%100
27	M44A	Y	-4.673	-4.673	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	-8.48	-8.48	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	-8.48	-8.48	0	%100
5	M13	X	0	0	0	%100
6	M13	Z	0	0	0	%100
7	M14	X	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
8	M14	Z	0	0	0	%100
9	M15	X	0	0	0	%100
10	M15	Z	0	0	0	%100
11	M16	X	0	0	0	%100
12	M16	Z	0	0	0	%100
13	M17	X	0	0	0	%100
14	M17	Z	-3.348	-3.348	0	%100
15	M18	X	0	0	0	%100
16	M18	Z	-3.348	-3.348	0	%100
17	M19	X	0	0	0	%100
18	M19	Z	-3.348	-3.348	0	%100
19	M20	X	0	0	0	%100
20	M20	Z	-3.348	-3.348	0	%100
21	M21	X	0	0	0	%100
22	M21	Z	-1.843	-1.843	0	%100
23	M22	X	0	0	0	%100
24	M22	Z	-1.843	-1.843	0	%100
25	M23	X	0	0	0	%100
26	M23	Z	-1.843	-1.843	0	%100
27	M24	X	0	0	0	%100
28	M24	Z	-1.843	-1.843	0	%100
29	M25	X	0	0	0	%100
30	M25	Z	-1.909	-1.909	0	%100
31	M26	X	0	0	0	%100
32	M26	Z	-1.909	-1.909	0	%100
33	M27	X	0	0	0	%100
34	M27	Z	-1.909	-1.909	0	%100
35	M28	X	0	0	0	%100
36	M28	Z	-1.909	-1.909	0	%100
37	MP4A	X	0	0	0	%100
38	MP4A	Z	-7.005	-7.005	0	%100
39	MP3A	X	0	0	0	%100
40	MP3A	Z	-7.005	-7.005	0	%100
41	MP2A	X	0	0	0	%100
42	MP2A	Z	-7.005	-7.005	0	%100
43	MP1A	X	0	0	0	%100
44	MP1A	Z	-7.005	-7.005	0	%100
45	M44	X	0	0	0	%100
46	M44	Z	-1.843	-1.843	0	%100
47	M45	X	0	0	0	%100
48	M45	Z	-1.843	-1.843	0	%100
49	M46	X	0	0	0	%100
50	M46	Z	-1.843	-1.843	0	%100
51	M47	X	0	0	0	%100
52	M47	Z	-1.843	-1.843	0	%100
53	M44A	X	0	0	0	%100
54	M44A	Z	-1.978	-1.978	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	3.18	3.18	0	%100
2	M1	Z	-5.508	-5.508	0	%100
3	M2	X	3.18	3.18	0	%100
4	M2	Z	-5.508	-5.508	0	%100
5	M13	X	.23	.23	0	%100
6	M13	Z	-.399	-.399	0	%100
7	M14	X	.23	.23	0	%100
8	M14	Z	-.399	-.399	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
9	M15	X	.23	.23	0	%100
10	M15	Z	-.399	-.399	0	%100
11	M16	X	.23	.23	0	%100
12	M16	Z	-.399	-.399	0	%100
13	M17	X	.377	.377	0	%100
14	M17	Z	-.653	-.653	0	%100
15	M18	X	.377	.377	0	%100
16	M18	Z	-.653	-.653	0	%100
17	M19	X	2.647	2.647	0	%100
18	M19	Z	-4.585	-4.585	0	%100
19	M20	X	2.647	2.647	0	%100
20	M20	Z	-4.585	-4.585	0	%100
21	M21	X	.691	.691	0	%100
22	M21	Z	-1.197	-1.197	0	%100
23	M22	X	.691	.691	0	%100
24	M22	Z	-1.197	-1.197	0	%100
25	M23	X	.691	.691	0	%100
26	M23	Z	-1.197	-1.197	0	%100
27	M24	X	.691	.691	0	%100
28	M24	Z	-1.197	-1.197	0	%100
29	M25	X	.763	.763	0	%100
30	M25	Z	-1.322	-1.322	0	%100
31	M26	X	.763	.763	0	%100
32	M26	Z	-1.322	-1.322	0	%100
33	M27	X	1.098	1.098	0	%100
34	M27	Z	-1.902	-1.902	0	%100
35	M28	X	1.098	1.098	0	%100
36	M28	Z	-1.902	-1.902	0	%100
37	MP4A	X	3.502	3.502	0	%100
38	MP4A	Z	-6.066	-6.066	0	%100
39	MP3A	X	3.502	3.502	0	%100
40	MP3A	Z	-6.066	-6.066	0	%100
41	MP2A	X	3.502	3.502	0	%100
42	MP2A	Z	-6.066	-6.066	0	%100
43	MP1A	X	3.502	3.502	0	%100
44	MP1A	Z	-6.066	-6.066	0	%100
45	M44	X	.922	.922	0	%100
46	M44	Z	-1.596	-1.596	0	%100
47	M45	X	.922	.922	0	%100
48	M45	Z	-1.596	-1.596	0	%100
49	M46	X	.922	.922	0	%100
50	M46	Z	-1.596	-1.596	0	%100
51	M47	X	.922	.922	0	%100
52	M47	Z	-1.596	-1.596	0	%100
53	M44A	X	2.735	2.735	0	%100
54	M44A	Z	-4.737	-4.737	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	1.836	1.836	0	%100
2	M1	Z	-1.06	-1.06	0	%100
3	M2	X	1.836	1.836	0	%100
4	M2	Z	-1.06	-1.06	0	%100
5	M13	X	1.197	1.197	0	%100
6	M13	Z	-.691	-.691	0	%100
7	M14	X	1.197	1.197	0	%100
8	M14	Z	-.691	-.691	0	%100
9	M15	X	1.197	1.197	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
10	M15	Z	-.691	-.691	0	%100
11	M16	X	1.197	1.197	0	%100
12	M16	Z	-.691	-.691	0	%100
13	M17	X	.092	.092	0	%100
14	M17	Z	-.053	-.053	0	%100
15	M18	X	.092	.092	0	%100
16	M18	Z	-.053	-.053	0	%100
17	M19	X	4.025	4.025	0	%100
18	M19	Z	-2.324	-2.324	0	%100
19	M20	X	4.025	4.025	0	%100
20	M20	Z	-2.324	-2.324	0	%100
21	M21	X	.399	.399	0	%100
22	M21	Z	-.23	-.23	0	%100
23	M22	X	.399	.399	0	%100
24	M22	Z	-.23	-.23	0	%100
25	M23	X	.399	.399	0	%100
26	M23	Z	-.23	-.23	0	%100
27	M24	X	.399	.399	0	%100
28	M24	Z	-.23	-.23	0	%100
29	M25	X	1.239	1.239	0	%100
30	M25	Z	-.716	-.716	0	%100
31	M26	X	1.239	1.239	0	%100
32	M26	Z	-.716	-.716	0	%100
33	M27	X	1.819	1.819	0	%100
34	M27	Z	-1.05	-1.05	0	%100
35	M28	X	1.819	1.819	0	%100
36	M28	Z	-1.05	-1.05	0	%100
37	MP4A	X	6.066	6.066	0	%100
38	MP4A	Z	-3.502	-3.502	0	%100
39	MP3A	X	6.066	6.066	0	%100
40	MP3A	Z	-3.502	-3.502	0	%100
41	MP2A	X	6.066	6.066	0	%100
42	MP2A	Z	-3.502	-3.502	0	%100
43	MP1A	X	6.066	6.066	0	%100
44	MP1A	Z	-3.502	-3.502	0	%100
45	M44	X	1.596	1.596	0	%100
46	M44	Z	-.922	-.922	0	%100
47	M45	X	1.596	1.596	0	%100
48	M45	Z	-.922	-.922	0	%100
49	M46	X	1.596	1.596	0	%100
50	M46	Z	-.922	-.922	0	%100
51	M47	X	1.596	1.596	0	%100
52	M47	Z	-.922	-.922	0	%100
53	M44A	X	6.058	6.058	0	%100
54	M44A	Z	-3.498	-3.498	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
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	M13	X	1.843	1.843	0	%100
6	M13	Z	0	0	0	%100
7	M14	X	1.843	1.843	0	%100
8	M14	Z	0	0	0	%100
9	M15	X	1.843	1.843	0	%100
10	M15	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
11	M16	X	1.843	1.843	0	%100
12	M16	Z	0	0	0	%100
13	M17	X	2.053	2.053	0	%100
14	M17	Z	0	0	0	%100
15	M18	X	2.053	2.053	0	%100
16	M18	Z	0	0	0	%100
17	M19	X	2.053	2.053	0	%100
18	M19	Z	0	0	0	%100
19	M20	X	2.053	2.053	0	%100
20	M20	Z	0	0	0	%100
21	M21	X	0	0	0	%100
22	M21	Z	0	0	0	%100
23	M22	X	0	0	0	%100
24	M22	Z	0	0	0	%100
25	M23	X	0	0	0	%100
26	M23	Z	0	0	0	%100
27	M24	X	0	0	0	%100
28	M24	Z	0	0	0	%100
29	M25	X	1.718	1.718	0	%100
30	M25	Z	0	0	0	%100
31	M26	X	1.718	1.718	0	%100
32	M26	Z	0	0	0	%100
33	M27	X	1.718	1.718	0	%100
34	M27	Z	0	0	0	%100
35	M28	X	1.718	1.718	0	%100
36	M28	Z	0	0	0	%100
37	MP4A	X	7.005	7.005	0	%100
38	MP4A	Z	0	0	0	%100
39	MP3A	X	7.005	7.005	0	%100
40	MP3A	Z	0	0	0	%100
41	MP2A	X	7.005	7.005	0	%100
42	MP2A	Z	0	0	0	%100
43	MP1A	X	7.005	7.005	0	%100
44	MP1A	Z	0	0	0	%100
45	M44	X	1.843	1.843	0	%100
46	M44	Z	0	0	0	%100
47	M45	X	1.843	1.843	0	%100
48	M45	Z	0	0	0	%100
49	M46	X	1.843	1.843	0	%100
50	M46	Z	0	0	0	%100
51	M47	X	1.843	1.843	0	%100
52	M47	Z	0	0	0	%100
53	M44A	X	5.029	5.029	0	%100
54	M44A	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	1.836	1.836	0	%100
2	M1	Z	1.06	1.06	0	%100
3	M2	X	1.836	1.836	0	%100
4	M2	Z	1.06	1.06	0	%100
5	M13	X	1.197	1.197	0	%100
6	M13	Z	.691	.691	0	%100
7	M14	X	1.197	1.197	0	%100
8	M14	Z	.691	.691	0	%100
9	M15	X	1.197	1.197	0	%100
10	M15	Z	.691	.691	0	%100
11	M16	X	1.197	1.197	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
12	M16	Z	.691	.691	0	%100
13	M17	X	4.025	4.025	0	%100
14	M17	Z	2.324	2.324	0	%100
15	M18	X	4.025	4.025	0	%100
16	M18	Z	2.324	2.324	0	%100
17	M19	X	.092	.092	0	%100
18	M19	Z	.053	.053	0	%100
19	M20	X	.092	.092	0	%100
20	M20	Z	.053	.053	0	%100
21	M21	X	.399	.399	0	%100
22	M21	Z	.23	.23	0	%100
23	M22	X	.399	.399	0	%100
24	M22	Z	.23	.23	0	%100
25	M23	X	.399	.399	0	%100
26	M23	Z	.23	.23	0	%100
27	M24	X	.399	.399	0	%100
28	M24	Z	.23	.23	0	%100
29	M25	X	1.819	1.819	0	%100
30	M25	Z	1.05	1.05	0	%100
31	M26	X	1.819	1.819	0	%100
32	M26	Z	1.05	1.05	0	%100
33	M27	X	1.239	1.239	0	%100
34	M27	Z	.716	.716	0	%100
35	M28	X	1.239	1.239	0	%100
36	M28	Z	.716	.716	0	%100
37	MP4A	X	6.066	6.066	0	%100
38	MP4A	Z	3.502	3.502	0	%100
39	MP3A	X	6.066	6.066	0	%100
40	MP3A	Z	3.502	3.502	0	%100
41	MP2A	X	6.066	6.066	0	%100
42	MP2A	Z	3.502	3.502	0	%100
43	MP1A	X	6.066	6.066	0	%100
44	MP1A	Z	3.502	3.502	0	%100
45	M44	X	1.596	1.596	0	%100
46	M44	Z	.922	.922	0	%100
47	M45	X	1.596	1.596	0	%100
48	M45	Z	.922	.922	0	%100
49	M46	X	1.596	1.596	0	%100
50	M46	Z	.922	.922	0	%100
51	M47	X	1.596	1.596	0	%100
52	M47	Z	.922	.922	0	%100
53	M44A	X	1.331	1.331	0	%100
54	M44A	Z	.769	.769	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	3.18	3.18	0	%100
2	M1	Z	5.508	5.508	0	%100
3	M2	X	3.18	3.18	0	%100
4	M2	Z	5.508	5.508	0	%100
5	M13	X	.23	.23	0	%100
6	M13	Z	.399	.399	0	%100
7	M14	X	.23	.23	0	%100
8	M14	Z	.399	.399	0	%100
9	M15	X	.23	.23	0	%100
10	M15	Z	.399	.399	0	%100
11	M16	X	.23	.23	0	%100
12	M16	Z	.399	.399	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
13	M17	X	2.647	2.647	0	%100
14	M17	Z	4.585	4.585	0	%100
15	M18	X	2.647	2.647	0	%100
16	M18	Z	4.585	4.585	0	%100
17	M19	X	.377	.377	0	%100
18	M19	Z	.653	.653	0	%100
19	M20	X	.377	.377	0	%100
20	M20	Z	.653	.653	0	%100
21	M21	X	.691	.691	0	%100
22	M21	Z	1.197	1.197	0	%100
23	M22	X	.691	.691	0	%100
24	M22	Z	1.197	1.197	0	%100
25	M23	X	.691	.691	0	%100
26	M23	Z	1.197	1.197	0	%100
27	M24	X	.691	.691	0	%100
28	M24	Z	1.197	1.197	0	%100
29	M25	X	1.098	1.098	0	%100
30	M25	Z	1.902	1.902	0	%100
31	M26	X	1.098	1.098	0	%100
32	M26	Z	1.902	1.902	0	%100
33	M27	X	.763	.763	0	%100
34	M27	Z	1.322	1.322	0	%100
35	M28	X	.763	.763	0	%100
36	M28	Z	1.322	1.322	0	%100
37	MP4A	X	3.502	3.502	0	%100
38	MP4A	Z	6.066	6.066	0	%100
39	MP3A	X	3.502	3.502	0	%100
40	MP3A	Z	6.066	6.066	0	%100
41	MP2A	X	3.502	3.502	0	%100
42	MP2A	Z	6.066	6.066	0	%100
43	MP1A	X	3.502	3.502	0	%100
44	MP1A	Z	6.066	6.066	0	%100
45	M44	X	.922	.922	0	%100
46	M44	Z	1.596	1.596	0	%100
47	M45	X	.922	.922	0	%100
48	M45	Z	1.596	1.596	0	%100
49	M46	X	.922	.922	0	%100
50	M46	Z	1.596	1.596	0	%100
51	M47	X	.922	.922	0	%100
52	M47	Z	1.596	1.596	0	%100
53	M44A	X	.006	.006	0	%100
54	M44A	Z	.01	.01	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	8.48	8.48	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	8.48	8.48	0	%100
5	M13	X	0	0	0	%100
6	M13	Z	0	0	0	%100
7	M14	X	0	0	0	%100
8	M14	Z	0	0	0	%100
9	M15	X	0	0	0	%100
10	M15	Z	0	0	0	%100
11	M16	X	0	0	0	%100
12	M16	Z	0	0	0	%100
13	M17	X	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
14	M17	Z	3.348	3.348	0	%100
15	M18	X	0	0	0	%100
16	M18	Z	3.348	3.348	0	%100
17	M19	X	0	0	0	%100
18	M19	Z	3.348	3.348	0	%100
19	M20	X	0	0	0	%100
20	M20	Z	3.348	3.348	0	%100
21	M21	X	0	0	0	%100
22	M21	Z	1.843	1.843	0	%100
23	M22	X	0	0	0	%100
24	M22	Z	1.843	1.843	0	%100
25	M23	X	0	0	0	%100
26	M23	Z	1.843	1.843	0	%100
27	M24	X	0	0	0	%100
28	M24	Z	1.843	1.843	0	%100
29	M25	X	0	0	0	%100
30	M25	Z	1.909	1.909	0	%100
31	M26	X	0	0	0	%100
32	M26	Z	1.909	1.909	0	%100
33	M27	X	0	0	0	%100
34	M27	Z	1.909	1.909	0	%100
35	M28	X	0	0	0	%100
36	M28	Z	1.909	1.909	0	%100
37	MP4A	X	0	0	0	%100
38	MP4A	Z	7.005	7.005	0	%100
39	MP3A	X	0	0	0	%100
40	MP3A	Z	7.005	7.005	0	%100
41	MP2A	X	0	0	0	%100
42	MP2A	Z	7.005	7.005	0	%100
43	MP1A	X	0	0	0	%100
44	MP1A	Z	7.005	7.005	0	%100
45	M44	X	0	0	0	%100
46	M44	Z	1.843	1.843	0	%100
47	M45	X	0	0	0	%100
48	M45	Z	1.843	1.843	0	%100
49	M46	X	0	0	0	%100
50	M46	Z	1.843	1.843	0	%100
51	M47	X	0	0	0	%100
52	M47	Z	1.843	1.843	0	%100
53	M44A	X	0	0	0	%100
54	M44A	Z	1.978	1.978	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-3.18	-3.18	0	%100
2	M1	Z	5.508	5.508	0	%100
3	M2	X	-3.18	-3.18	0	%100
4	M2	Z	5.508	5.508	0	%100
5	M13	X	-.23	-.23	0	%100
6	M13	Z	.399	.399	0	%100
7	M14	X	-.23	-.23	0	%100
8	M14	Z	.399	.399	0	%100
9	M15	X	-.23	-.23	0	%100
10	M15	Z	.399	.399	0	%100
11	M16	X	-.23	-.23	0	%100
12	M16	Z	.399	.399	0	%100
13	M17	X	-.377	-.377	0	%100
14	M17	Z	.653	.653	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
15	M18	X	-.377	-.377	0	%100
16	M18	Z	.653	.653	0	%100
17	M19	X	-2.647	-2.647	0	%100
18	M19	Z	4.585	4.585	0	%100
19	M20	X	-2.647	-2.647	0	%100
20	M20	Z	4.585	4.585	0	%100
21	M21	X	-.691	-.691	0	%100
22	M21	Z	1.197	1.197	0	%100
23	M22	X	-.691	-.691	0	%100
24	M22	Z	1.197	1.197	0	%100
25	M23	X	-.691	-.691	0	%100
26	M23	Z	1.197	1.197	0	%100
27	M24	X	-.691	-.691	0	%100
28	M24	Z	1.197	1.197	0	%100
29	M25	X	-.763	-.763	0	%100
30	M25	Z	1.322	1.322	0	%100
31	M26	X	-.763	-.763	0	%100
32	M26	Z	1.322	1.322	0	%100
33	M27	X	-1.098	-1.098	0	%100
34	M27	Z	1.902	1.902	0	%100
35	M28	X	-1.098	-1.098	0	%100
36	M28	Z	1.902	1.902	0	%100
37	MP4A	X	-3.502	-3.502	0	%100
38	MP4A	Z	6.066	6.066	0	%100
39	MP3A	X	-3.502	-3.502	0	%100
40	MP3A	Z	6.066	6.066	0	%100
41	MP2A	X	-3.502	-3.502	0	%100
42	MP2A	Z	6.066	6.066	0	%100
43	MP1A	X	-3.502	-3.502	0	%100
44	MP1A	Z	6.066	6.066	0	%100
45	M44	X	-.922	-.922	0	%100
46	M44	Z	1.596	1.596	0	%100
47	M45	X	-.922	-.922	0	%100
48	M45	Z	1.596	1.596	0	%100
49	M46	X	-.922	-.922	0	%100
50	M46	Z	1.596	1.596	0	%100
51	M47	X	-.922	-.922	0	%100
52	M47	Z	1.596	1.596	0	%100
53	M44A	X	-2.735	-2.735	0	%100
54	M44A	Z	4.737	4.737	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-1.836	-1.836	0	%100
2	M1	Z	1.06	1.06	0	%100
3	M2	X	-1.836	-1.836	0	%100
4	M2	Z	1.06	1.06	0	%100
5	M13	X	-1.197	-1.197	0	%100
6	M13	Z	.691	.691	0	%100
7	M14	X	-1.197	-1.197	0	%100
8	M14	Z	.691	.691	0	%100
9	M15	X	-1.197	-1.197	0	%100
10	M15	Z	.691	.691	0	%100
11	M16	X	-1.197	-1.197	0	%100
12	M16	Z	.691	.691	0	%100
13	M17	X	-.092	-.092	0	%100
14	M17	Z	.053	.053	0	%100
15	M18	X	-.092	-.092	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
16	M18	Z	.053	.053	0	%100
17	M19	X	-4.025	-4.025	0	%100
18	M19	Z	2.324	2.324	0	%100
19	M20	X	-4.025	-4.025	0	%100
20	M20	Z	2.324	2.324	0	%100
21	M21	X	-.399	-.399	0	%100
22	M21	Z	.23	.23	0	%100
23	M22	X	-.399	-.399	0	%100
24	M22	Z	.23	.23	0	%100
25	M23	X	-.399	-.399	0	%100
26	M23	Z	.23	.23	0	%100
27	M24	X	-.399	-.399	0	%100
28	M24	Z	.23	.23	0	%100
29	M25	X	-1.239	-1.239	0	%100
30	M25	Z	.716	.716	0	%100
31	M26	X	-1.239	-1.239	0	%100
32	M26	Z	.716	.716	0	%100
33	M27	X	-1.819	-1.819	0	%100
34	M27	Z	1.05	1.05	0	%100
35	M28	X	-1.819	-1.819	0	%100
36	M28	Z	1.05	1.05	0	%100
37	MP4A	X	-6.066	-6.066	0	%100
38	MP4A	Z	3.502	3.502	0	%100
39	MP3A	X	-6.066	-6.066	0	%100
40	MP3A	Z	3.502	3.502	0	%100
41	MP2A	X	-6.066	-6.066	0	%100
42	MP2A	Z	3.502	3.502	0	%100
43	MP1A	X	-6.066	-6.066	0	%100
44	MP1A	Z	3.502	3.502	0	%100
45	M44	X	-1.596	-1.596	0	%100
46	M44	Z	.922	.922	0	%100
47	M45	X	-1.596	-1.596	0	%100
48	M45	Z	.922	.922	0	%100
49	M46	X	-1.596	-1.596	0	%100
50	M46	Z	.922	.922	0	%100
51	M47	X	-1.596	-1.596	0	%100
52	M47	Z	.922	.922	0	%100
53	M44A	X	-6.058	-6.058	0	%100
54	M44A	Z	3.498	3.498	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	0	0	0	%100
5	M13	X	-1.843	-1.843	0	%100
6	M13	Z	0	0	0	%100
7	M14	X	-1.843	-1.843	0	%100
8	M14	Z	0	0	0	%100
9	M15	X	-1.843	-1.843	0	%100
10	M15	Z	0	0	0	%100
11	M16	X	-1.843	-1.843	0	%100
12	M16	Z	0	0	0	%100
13	M17	X	-2.053	-2.053	0	%100
14	M17	Z	0	0	0	%100
15	M18	X	-2.053	-2.053	0	%100
16	M18	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
17	M19	X	-2.053	-2.053	0	%100
18	M19	Z	0	0	0	%100
19	M20	X	-2.053	-2.053	0	%100
20	M20	Z	0	0	0	%100
21	M21	X	0	0	0	%100
22	M21	Z	0	0	0	%100
23	M22	X	0	0	0	%100
24	M22	Z	0	0	0	%100
25	M23	X	0	0	0	%100
26	M23	Z	0	0	0	%100
27	M24	X	0	0	0	%100
28	M24	Z	0	0	0	%100
29	M25	X	-1.718	-1.718	0	%100
30	M25	Z	0	0	0	%100
31	M26	X	-1.718	-1.718	0	%100
32	M26	Z	0	0	0	%100
33	M27	X	-1.718	-1.718	0	%100
34	M27	Z	0	0	0	%100
35	M28	X	-1.718	-1.718	0	%100
36	M28	Z	0	0	0	%100
37	MP4A	X	-7.005	-7.005	0	%100
38	MP4A	Z	0	0	0	%100
39	MP3A	X	-7.005	-7.005	0	%100
40	MP3A	Z	0	0	0	%100
41	MP2A	X	-7.005	-7.005	0	%100
42	MP2A	Z	0	0	0	%100
43	MP1A	X	-7.005	-7.005	0	%100
44	MP1A	Z	0	0	0	%100
45	M44	X	-1.843	-1.843	0	%100
46	M44	Z	0	0	0	%100
47	M45	X	-1.843	-1.843	0	%100
48	M45	Z	0	0	0	%100
49	M46	X	-1.843	-1.843	0	%100
50	M46	Z	0	0	0	%100
51	M47	X	-1.843	-1.843	0	%100
52	M47	Z	0	0	0	%100
53	M44A	X	-5.029	-5.029	0	%100
54	M44A	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-1.836	-1.836	0	%100
2	M1	Z	-1.06	-1.06	0	%100
3	M2	X	-1.836	-1.836	0	%100
4	M2	Z	-1.06	-1.06	0	%100
5	M13	X	-1.197	-1.197	0	%100
6	M13	Z	-.691	-.691	0	%100
7	M14	X	-1.197	-1.197	0	%100
8	M14	Z	-.691	-.691	0	%100
9	M15	X	-1.197	-1.197	0	%100
10	M15	Z	-.691	-.691	0	%100
11	M16	X	-1.197	-1.197	0	%100
12	M16	Z	-.691	-.691	0	%100
13	M17	X	-4.025	-4.025	0	%100
14	M17	Z	-2.324	-2.324	0	%100
15	M18	X	-4.025	-4.025	0	%100
16	M18	Z	-2.324	-2.324	0	%100
17	M19	X	-.092	-.092	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
18	M19	Z	-.053	-.053	0	%100
19	M20	X	-.092	-.092	0	%100
20	M20	Z	-.053	-.053	0	%100
21	M21	X	-.399	-.399	0	%100
22	M21	Z	-.23	-.23	0	%100
23	M22	X	-.399	-.399	0	%100
24	M22	Z	-.23	-.23	0	%100
25	M23	X	-.399	-.399	0	%100
26	M23	Z	-.23	-.23	0	%100
27	M24	X	-.399	-.399	0	%100
28	M24	Z	-.23	-.23	0	%100
29	M25	X	-1.819	-1.819	0	%100
30	M25	Z	-1.05	-1.05	0	%100
31	M26	X	-1.819	-1.819	0	%100
32	M26	Z	-1.05	-1.05	0	%100
33	M27	X	-1.239	-1.239	0	%100
34	M27	Z	-.716	-.716	0	%100
35	M28	X	-1.239	-1.239	0	%100
36	M28	Z	-.716	-.716	0	%100
37	MP4A	X	-6.066	-6.066	0	%100
38	MP4A	Z	-3.502	-3.502	0	%100
39	MP3A	X	-6.066	-6.066	0	%100
40	MP3A	Z	-3.502	-3.502	0	%100
41	MP2A	X	-6.066	-6.066	0	%100
42	MP2A	Z	-3.502	-3.502	0	%100
43	MP1A	X	-6.066	-6.066	0	%100
44	MP1A	Z	-3.502	-3.502	0	%100
45	M44	X	-1.596	-1.596	0	%100
46	M44	Z	-.922	-.922	0	%100
47	M45	X	-1.596	-1.596	0	%100
48	M45	Z	-.922	-.922	0	%100
49	M46	X	-1.596	-1.596	0	%100
50	M46	Z	-.922	-.922	0	%100
51	M47	X	-1.596	-1.596	0	%100
52	M47	Z	-.922	-.922	0	%100
53	M44A	X	-1.331	-1.331	0	%100
54	M44A	Z	-.769	-.769	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-3.18	-3.18	0	%100
2	M1	Z	-5.508	-5.508	0	%100
3	M2	X	-3.18	-3.18	0	%100
4	M2	Z	-5.508	-5.508	0	%100
5	M13	X	-.23	-.23	0	%100
6	M13	Z	-.399	-.399	0	%100
7	M14	X	-.23	-.23	0	%100
8	M14	Z	-.399	-.399	0	%100
9	M15	X	-.23	-.23	0	%100
10	M15	Z	-.399	-.399	0	%100
11	M16	X	-.23	-.23	0	%100
12	M16	Z	-.399	-.399	0	%100
13	M17	X	-2.647	-2.647	0	%100
14	M17	Z	-4.585	-4.585	0	%100
15	M18	X	-2.647	-2.647	0	%100
16	M18	Z	-4.585	-4.585	0	%100
17	M19	X	-.377	-.377	0	%100
18	M19	Z	-.653	-.653	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
19	M20	X	-.377	-.377	0	%100
20	M20	Z	-.653	-.653	0	%100
21	M21	X	-.691	-.691	0	%100
22	M21	Z	-1.197	-1.197	0	%100
23	M22	X	-.691	-.691	0	%100
24	M22	Z	-1.197	-1.197	0	%100
25	M23	X	-.691	-.691	0	%100
26	M23	Z	-1.197	-1.197	0	%100
27	M24	X	-.691	-.691	0	%100
28	M24	Z	-1.197	-1.197	0	%100
29	M25	X	-1.098	-1.098	0	%100
30	M25	Z	-1.902	-1.902	0	%100
31	M26	X	-1.098	-1.098	0	%100
32	M26	Z	-1.902	-1.902	0	%100
33	M27	X	-.763	-.763	0	%100
34	M27	Z	-1.322	-1.322	0	%100
35	M28	X	-.763	-.763	0	%100
36	M28	Z	-1.322	-1.322	0	%100
37	MP4A	X	-3.502	-3.502	0	%100
38	MP4A	Z	-6.066	-6.066	0	%100
39	MP3A	X	-3.502	-3.502	0	%100
40	MP3A	Z	-6.066	-6.066	0	%100
41	MP2A	X	-3.502	-3.502	0	%100
42	MP2A	Z	-6.066	-6.066	0	%100
43	MP1A	X	-3.502	-3.502	0	%100
44	MP1A	Z	-6.066	-6.066	0	%100
45	M44	X	-.922	-.922	0	%100
46	M44	Z	-1.596	-1.596	0	%100
47	M45	X	-.922	-.922	0	%100
48	M45	Z	-1.596	-1.596	0	%100
49	M46	X	-.922	-.922	0	%100
50	M46	Z	-1.596	-1.596	0	%100
51	M47	X	-.922	-.922	0	%100
52	M47	Z	-1.596	-1.596	0	%100
53	M44A	X	-.006	-.006	0	%100
54	M44A	Z	-.01	-.01	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	-2.599	-2.599	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	-2.599	-2.599	0	%100
5	M13	X	0	0	0	%100
6	M13	Z	0	0	0	%100
7	M14	X	0	0	0	%100
8	M14	Z	0	0	0	%100
9	M15	X	0	0	0	%100
10	M15	Z	0	0	0	%100
11	M16	X	0	0	0	%100
12	M16	Z	0	0	0	%100
13	M17	X	0	0	0	%100
14	M17	Z	-1.133	-1.133	0	%100
15	M18	X	0	0	0	%100
16	M18	Z	-1.133	-1.133	0	%100
17	M19	X	0	0	0	%100
18	M19	Z	-1.133	-1.133	0	%100
19	M20	X	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
20	M20	Z	-1.133	-1.133	0	%100
21	M21	X	0	0	0	%100
22	M21	Z	-.986	-.986	0	%100
23	M22	X	0	0	0	%100
24	M22	Z	-.986	-.986	0	%100
25	M23	X	0	0	0	%100
26	M23	Z	-.986	-.986	0	%100
27	M24	X	0	0	0	%100
28	M24	Z	-.986	-.986	0	%100
29	M25	X	0	0	0	%100
30	M25	Z	-1.263	-1.263	0	%100
31	M26	X	0	0	0	%100
32	M26	Z	-1.263	-1.263	0	%100
33	M27	X	0	0	0	%100
34	M27	Z	-1.263	-1.263	0	%100
35	M28	X	0	0	0	%100
36	M28	Z	-1.263	-1.263	0	%100
37	MP4A	X	0	0	0	%100
38	MP4A	Z	-2.343	-2.343	0	%100
39	MP3A	X	0	0	0	%100
40	MP3A	Z	-2.343	-2.343	0	%100
41	MP2A	X	0	0	0	%100
42	MP2A	Z	-2.343	-2.343	0	%100
43	MP1A	X	0	0	0	%100
44	MP1A	Z	-2.343	-2.343	0	%100
45	M44	X	0	0	0	%100
46	M44	Z	-1.305	-1.305	0	%100
47	M45	X	0	0	0	%100
48	M45	Z	-1.305	-1.305	0	%100
49	M46	X	0	0	0	%100
50	M46	Z	-1.305	-1.305	0	%100
51	M47	X	0	0	0	%100
52	M47	Z	-1.305	-1.305	0	%100
53	M44A	X	0	0	0	%100
54	M44A	Z	-.662	-.662	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	.975	.975	0	%100
2	M1	Z	-1.688	-1.688	0	%100
3	M2	X	.975	.975	0	%100
4	M2	Z	-1.688	-1.688	0	%100
5	M13	X	.122	.122	0	%100
6	M13	Z	-.212	-.212	0	%100
7	M14	X	.122	.122	0	%100
8	M14	Z	-.212	-.212	0	%100
9	M15	X	.122	.122	0	%100
10	M15	Z	-.212	-.212	0	%100
11	M16	X	.122	.122	0	%100
12	M16	Z	-.212	-.212	0	%100
13	M17	X	.128	.128	0	%100
14	M17	Z	-.221	-.221	0	%100
15	M18	X	.128	.128	0	%100
16	M18	Z	-.221	-.221	0	%100
17	M19	X	.896	.896	0	%100
18	M19	Z	-1.551	-1.551	0	%100
19	M20	X	.896	.896	0	%100
20	M20	Z	-1.551	-1.551	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
21	M21	X	.37	.37	0	%100
22	M21	Z	-.64	-.64	0	%100
23	M22	X	.37	.37	0	%100
24	M22	Z	-.64	-.64	0	%100
25	M23	X	.37	.37	0	%100
26	M23	Z	-.64	-.64	0	%100
27	M24	X	.37	.37	0	%100
28	M24	Z	-.64	-.64	0	%100
29	M25	X	.505	.505	0	%100
30	M25	Z	-.875	-.875	0	%100
31	M26	X	.505	.505	0	%100
32	M26	Z	-.875	-.875	0	%100
33	M27	X	.727	.727	0	%100
34	M27	Z	-1.258	-1.258	0	%100
35	M28	X	.727	.727	0	%100
36	M28	Z	-1.258	-1.258	0	%100
37	MP4A	X	1.172	1.172	0	%100
38	MP4A	Z	-2.029	-2.029	0	%100
39	MP3A	X	1.172	1.172	0	%100
40	MP3A	Z	-2.029	-2.029	0	%100
41	MP2A	X	1.172	1.172	0	%100
42	MP2A	Z	-2.029	-2.029	0	%100
43	MP1A	X	1.172	1.172	0	%100
44	MP1A	Z	-2.029	-2.029	0	%100
45	M44	X	.652	.652	0	%100
46	M44	Z	-1.13	-1.13	0	%100
47	M45	X	.652	.652	0	%100
48	M45	Z	-1.13	-1.13	0	%100
49	M46	X	.652	.652	0	%100
50	M46	Z	-1.13	-1.13	0	%100
51	M47	X	.652	.652	0	%100
52	M47	Z	-1.13	-1.13	0	%100
53	M44A	X	.915	.915	0	%100
54	M44A	Z	-1.585	-1.585	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	.563	.563	0	%100
2	M1	Z	-.325	-.325	0	%100
3	M2	X	.563	.563	0	%100
4	M2	Z	-.325	-.325	0	%100
5	M13	X	.635	.635	0	%100
6	M13	Z	-.367	-.367	0	%100
7	M14	X	.635	.635	0	%100
8	M14	Z	-.367	-.367	0	%100
9	M15	X	.635	.635	0	%100
10	M15	Z	-.367	-.367	0	%100
11	M16	X	.635	.635	0	%100
12	M16	Z	-.367	-.367	0	%100
13	M17	X	.031	.031	0	%100
14	M17	Z	-.018	-.018	0	%100
15	M18	X	.031	.031	0	%100
16	M18	Z	-.018	-.018	0	%100
17	M19	X	1.362	1.362	0	%100
18	M19	Z	-.786	-.786	0	%100
19	M20	X	1.362	1.362	0	%100
20	M20	Z	-.786	-.786	0	%100
21	M21	X	.213	.213	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
22	M21	Z	-.123	-.123	0	%100
23	M22	X	.213	.213	0	%100
24	M22	Z	-.123	-.123	0	%100
25	M23	X	.213	.213	0	%100
26	M23	Z	-.123	-.123	0	%100
27	M24	X	.213	.213	0	%100
28	M24	Z	-.123	-.123	0	%100
29	M25	X	.82	.82	0	%100
30	M25	Z	-.473	-.473	0	%100
31	M26	X	.82	.82	0	%100
32	M26	Z	-.473	-.473	0	%100
33	M27	X	1.204	1.204	0	%100
34	M27	Z	-.695	-.695	0	%100
35	M28	X	1.204	1.204	0	%100
36	M28	Z	-.695	-.695	0	%100
37	MP4A	X	2.029	2.029	0	%100
38	MP4A	Z	-1.172	-1.172	0	%100
39	MP3A	X	2.029	2.029	0	%100
40	MP3A	Z	-1.172	-1.172	0	%100
41	MP2A	X	2.029	2.029	0	%100
42	MP2A	Z	-1.172	-1.172	0	%100
43	MP1A	X	2.029	2.029	0	%100
44	MP1A	Z	-1.172	-1.172	0	%100
45	M44	X	1.13	1.13	0	%100
46	M44	Z	-.652	-.652	0	%100
47	M45	X	1.13	1.13	0	%100
48	M45	Z	-.652	-.652	0	%100
49	M46	X	1.13	1.13	0	%100
50	M46	Z	-.652	-.652	0	%100
51	M47	X	1.13	1.13	0	%100
52	M47	Z	-.652	-.652	0	%100
53	M44A	X	2.027	2.027	0	%100
54	M44A	Z	-1.17	-1.17	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	0	0	0	%100
5	M13	X	.977	.977	0	%100
6	M13	Z	0	0	0	%100
7	M14	X	.977	.977	0	%100
8	M14	Z	0	0	0	%100
9	M15	X	.977	.977	0	%100
10	M15	Z	0	0	0	%100
11	M16	X	.977	.977	0	%100
12	M16	Z	0	0	0	%100
13	M17	X	.695	.695	0	%100
14	M17	Z	0	0	0	%100
15	M18	X	.695	.695	0	%100
16	M18	Z	0	0	0	%100
17	M19	X	.695	.695	0	%100
18	M19	Z	0	0	0	%100
19	M20	X	.695	.695	0	%100
20	M20	Z	0	0	0	%100
21	M21	X	0	0	0	%100
22	M21	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
23	M22	X	0	0	0	%100
24	M22	Z	0	0	0	%100
25	M23	X	0	0	0	%100
26	M23	Z	0	0	0	%100
27	M24	X	0	0	0	%100
28	M24	Z	0	0	0	%100
29	M25	X	1.137	1.137	0	%100
30	M25	Z	0	0	0	%100
31	M26	X	1.137	1.137	0	%100
32	M26	Z	0	0	0	%100
33	M27	X	1.137	1.137	0	%100
34	M27	Z	0	0	0	%100
35	M28	X	1.137	1.137	0	%100
36	M28	Z	0	0	0	%100
37	MP4A	X	2.343	2.343	0	%100
38	MP4A	Z	0	0	0	%100
39	MP3A	X	2.343	2.343	0	%100
40	MP3A	Z	0	0	0	%100
41	MP2A	X	2.343	2.343	0	%100
42	MP2A	Z	0	0	0	%100
43	MP1A	X	2.343	2.343	0	%100
44	MP1A	Z	0	0	0	%100
45	M44	X	1.305	1.305	0	%100
46	M44	Z	0	0	0	%100
47	M45	X	1.305	1.305	0	%100
48	M45	Z	0	0	0	%100
49	M46	X	1.305	1.305	0	%100
50	M46	Z	0	0	0	%100
51	M47	X	1.305	1.305	0	%100
52	M47	Z	0	0	0	%100
53	M44A	X	1.682	1.682	0	%100
54	M44A	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,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	.563	.563	0	%100
2	M1	Z	.325	.325	0	%100
3	M2	X	.563	.563	0	%100
4	M2	Z	.325	.325	0	%100
5	M13	X	.635	.635	0	%100
6	M13	Z	.367	.367	0	%100
7	M14	X	.635	.635	0	%100
8	M14	Z	.367	.367	0	%100
9	M15	X	.635	.635	0	%100
10	M15	Z	.367	.367	0	%100
11	M16	X	.635	.635	0	%100
12	M16	Z	.367	.367	0	%100
13	M17	X	1.362	1.362	0	%100
14	M17	Z	.786	.786	0	%100
15	M18	X	1.362	1.362	0	%100
16	M18	Z	.786	.786	0	%100
17	M19	X	.031	.031	0	%100
18	M19	Z	.018	.018	0	%100
19	M20	X	.031	.031	0	%100
20	M20	Z	.018	.018	0	%100
21	M21	X	.213	.213	0	%100
22	M21	Z	.123	.123	0	%100
23	M22	X	.213	.213	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
24	M22	Z	.123	.123	0	%100
25	M23	X	.213	.213	0	%100
26	M23	Z	.123	.123	0	%100
27	M24	X	.213	.213	0	%100
28	M24	Z	.123	.123	0	%100
29	M25	X	1.204	1.204	0	%100
30	M25	Z	.695	.695	0	%100
31	M26	X	1.204	1.204	0	%100
32	M26	Z	.695	.695	0	%100
33	M27	X	.82	.82	0	%100
34	M27	Z	.473	.473	0	%100
35	M28	X	.82	.82	0	%100
36	M28	Z	.473	.473	0	%100
37	MP4A	X	2.029	2.029	0	%100
38	MP4A	Z	1.172	1.172	0	%100
39	MP3A	X	2.029	2.029	0	%100
40	MP3A	Z	1.172	1.172	0	%100
41	MP2A	X	2.029	2.029	0	%100
42	MP2A	Z	1.172	1.172	0	%100
43	MP1A	X	2.029	2.029	0	%100
44	MP1A	Z	1.172	1.172	0	%100
45	M44	X	1.13	1.13	0	%100
46	M44	Z	.652	.652	0	%100
47	M45	X	1.13	1.13	0	%100
48	M45	Z	.652	.652	0	%100
49	M46	X	1.13	1.13	0	%100
50	M46	Z	.652	.652	0	%100
51	M47	X	1.13	1.13	0	%100
52	M47	Z	.652	.652	0	%100
53	M44A	X	.445	.445	0	%100
54	M44A	Z	.257	.257	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	.975	.975	0	%100
2	M1	Z	1.688	1.688	0	%100
3	M2	X	.975	.975	0	%100
4	M2	Z	1.688	1.688	0	%100
5	M13	X	.122	.122	0	%100
6	M13	Z	.212	.212	0	%100
7	M14	X	.122	.122	0	%100
8	M14	Z	.212	.212	0	%100
9	M15	X	.122	.122	0	%100
10	M15	Z	.212	.212	0	%100
11	M16	X	.122	.122	0	%100
12	M16	Z	.212	.212	0	%100
13	M17	X	.896	.896	0	%100
14	M17	Z	1.551	1.551	0	%100
15	M18	X	.896	.896	0	%100
16	M18	Z	1.551	1.551	0	%100
17	M19	X	.128	.128	0	%100
18	M19	Z	.221	.221	0	%100
19	M20	X	.128	.128	0	%100
20	M20	Z	.221	.221	0	%100
21	M21	X	.37	.37	0	%100
22	M21	Z	.64	.64	0	%100
23	M22	X	.37	.37	0	%100
24	M22	Z	.64	.64	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
25	M23	X	.37	.37	0	%100
26	M23	Z	.64	.64	0	%100
27	M24	X	.37	.37	0	%100
28	M24	Z	.64	.64	0	%100
29	M25	X	.727	.727	0	%100
30	M25	Z	1.258	1.258	0	%100
31	M26	X	.727	.727	0	%100
32	M26	Z	1.258	1.258	0	%100
33	M27	X	.505	.505	0	%100
34	M27	Z	.875	.875	0	%100
35	M28	X	.505	.505	0	%100
36	M28	Z	.875	.875	0	%100
37	MP4A	X	1.172	1.172	0	%100
38	MP4A	Z	2.029	2.029	0	%100
39	MP3A	X	1.172	1.172	0	%100
40	MP3A	Z	2.029	2.029	0	%100
41	MP2A	X	1.172	1.172	0	%100
42	MP2A	Z	2.029	2.029	0	%100
43	MP1A	X	1.172	1.172	0	%100
44	MP1A	Z	2.029	2.029	0	%100
45	M44	X	.652	.652	0	%100
46	M44	Z	1.13	1.13	0	%100
47	M45	X	.652	.652	0	%100
48	M45	Z	1.13	1.13	0	%100
49	M46	X	.652	.652	0	%100
50	M46	Z	1.13	1.13	0	%100
51	M47	X	.652	.652	0	%100
52	M47	Z	1.13	1.13	0	%100
53	M44A	X	.002	.002	0	%100
54	M44A	Z	.003	.003	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	2.599	2.599	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	2.599	2.599	0	%100
5	M13	X	0	0	0	%100
6	M13	Z	0	0	0	%100
7	M14	X	0	0	0	%100
8	M14	Z	0	0	0	%100
9	M15	X	0	0	0	%100
10	M15	Z	0	0	0	%100
11	M16	X	0	0	0	%100
12	M16	Z	0	0	0	%100
13	M17	X	0	0	0	%100
14	M17	Z	1.133	1.133	0	%100
15	M18	X	0	0	0	%100
16	M18	Z	1.133	1.133	0	%100
17	M19	X	0	0	0	%100
18	M19	Z	1.133	1.133	0	%100
19	M20	X	0	0	0	%100
20	M20	Z	1.133	1.133	0	%100
21	M21	X	0	0	0	%100
22	M21	Z	.986	.986	0	%100
23	M22	X	0	0	0	%100
24	M22	Z	.986	.986	0	%100
25	M23	X	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
26	M23	Z	.986	.986	0	%100
27	M24	X	0	0	0	%100
28	M24	Z	.986	.986	0	%100
29	M25	X	0	0	0	%100
30	M25	Z	1.263	1.263	0	%100
31	M26	X	0	0	0	%100
32	M26	Z	1.263	1.263	0	%100
33	M27	X	0	0	0	%100
34	M27	Z	1.263	1.263	0	%100
35	M28	X	0	0	0	%100
36	M28	Z	1.263	1.263	0	%100
37	MP4A	X	0	0	0	%100
38	MP4A	Z	2.343	2.343	0	%100
39	MP3A	X	0	0	0	%100
40	MP3A	Z	2.343	2.343	0	%100
41	MP2A	X	0	0	0	%100
42	MP2A	Z	2.343	2.343	0	%100
43	MP1A	X	0	0	0	%100
44	MP1A	Z	2.343	2.343	0	%100
45	M44	X	0	0	0	%100
46	M44	Z	1.305	1.305	0	%100
47	M45	X	0	0	0	%100
48	M45	Z	1.305	1.305	0	%100
49	M46	X	0	0	0	%100
50	M46	Z	1.305	1.305	0	%100
51	M47	X	0	0	0	%100
52	M47	Z	1.305	1.305	0	%100
53	M44A	X	0	0	0	%100
54	M44A	Z	.662	.662	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-.975	-.975	0	%100
2	M1	Z	1.688	1.688	0	%100
3	M2	X	-.975	-.975	0	%100
4	M2	Z	1.688	1.688	0	%100
5	M13	X	-.122	-.122	0	%100
6	M13	Z	.212	.212	0	%100
7	M14	X	-.122	-.122	0	%100
8	M14	Z	.212	.212	0	%100
9	M15	X	-.122	-.122	0	%100
10	M15	Z	.212	.212	0	%100
11	M16	X	-.122	-.122	0	%100
12	M16	Z	.212	.212	0	%100
13	M17	X	-.128	-.128	0	%100
14	M17	Z	.221	.221	0	%100
15	M18	X	-.128	-.128	0	%100
16	M18	Z	.221	.221	0	%100
17	M19	X	-.896	-.896	0	%100
18	M19	Z	1.551	1.551	0	%100
19	M20	X	-.896	-.896	0	%100
20	M20	Z	1.551	1.551	0	%100
21	M21	X	-.37	-.37	0	%100
22	M21	Z	.64	.64	0	%100
23	M22	X	-.37	-.37	0	%100
24	M22	Z	.64	.64	0	%100
25	M23	X	-.37	-.37	0	%100
26	M23	Z	.64	.64	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
27	M24	X	-.37	-.37	0	%100
28	M24	Z	.64	.64	0	%100
29	M25	X	-.505	-.505	0	%100
30	M25	Z	.875	.875	0	%100
31	M26	X	-.505	-.505	0	%100
32	M26	Z	.875	.875	0	%100
33	M27	X	-.727	-.727	0	%100
34	M27	Z	1.258	1.258	0	%100
35	M28	X	-.727	-.727	0	%100
36	M28	Z	1.258	1.258	0	%100
37	MP4A	X	-1.172	-1.172	0	%100
38	MP4A	Z	2.029	2.029	0	%100
39	MP3A	X	-1.172	-1.172	0	%100
40	MP3A	Z	2.029	2.029	0	%100
41	MP2A	X	-1.172	-1.172	0	%100
42	MP2A	Z	2.029	2.029	0	%100
43	MP1A	X	-1.172	-1.172	0	%100
44	MP1A	Z	2.029	2.029	0	%100
45	M44	X	-.652	-.652	0	%100
46	M44	Z	1.13	1.13	0	%100
47	M45	X	-.652	-.652	0	%100
48	M45	Z	1.13	1.13	0	%100
49	M46	X	-.652	-.652	0	%100
50	M46	Z	1.13	1.13	0	%100
51	M47	X	-.652	-.652	0	%100
52	M47	Z	1.13	1.13	0	%100
53	M44A	X	-.915	-.915	0	%100
54	M44A	Z	1.585	1.585	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-.563	-.563	0	%100
2	M1	Z	.325	.325	0	%100
3	M2	X	-.563	-.563	0	%100
4	M2	Z	.325	.325	0	%100
5	M13	X	-.635	-.635	0	%100
6	M13	Z	.367	.367	0	%100
7	M14	X	-.635	-.635	0	%100
8	M14	Z	.367	.367	0	%100
9	M15	X	-.635	-.635	0	%100
10	M15	Z	.367	.367	0	%100
11	M16	X	-.635	-.635	0	%100
12	M16	Z	.367	.367	0	%100
13	M17	X	-.031	-.031	0	%100
14	M17	Z	.018	.018	0	%100
15	M18	X	-.031	-.031	0	%100
16	M18	Z	.018	.018	0	%100
17	M19	X	-1.362	-1.362	0	%100
18	M19	Z	.786	.786	0	%100
19	M20	X	-1.362	-1.362	0	%100
20	M20	Z	.786	.786	0	%100
21	M21	X	-.213	-.213	0	%100
22	M21	Z	.123	.123	0	%100
23	M22	X	-.213	-.213	0	%100
24	M22	Z	.123	.123	0	%100
25	M23	X	-.213	-.213	0	%100
26	M23	Z	.123	.123	0	%100
27	M24	X	-.213	-.213	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
28	M24	Z	.123	.123	0	%100
29	M25	X	-.82	-.82	0	%100
30	M25	Z	.473	.473	0	%100
31	M26	X	-.82	-.82	0	%100
32	M26	Z	.473	.473	0	%100
33	M27	X	-1.204	-1.204	0	%100
34	M27	Z	.695	.695	0	%100
35	M28	X	-1.204	-1.204	0	%100
36	M28	Z	.695	.695	0	%100
37	MP4A	X	-2.029	-2.029	0	%100
38	MP4A	Z	1.172	1.172	0	%100
39	MP3A	X	-2.029	-2.029	0	%100
40	MP3A	Z	1.172	1.172	0	%100
41	MP2A	X	-2.029	-2.029	0	%100
42	MP2A	Z	1.172	1.172	0	%100
43	MP1A	X	-2.029	-2.029	0	%100
44	MP1A	Z	1.172	1.172	0	%100
45	M44	X	-1.13	-1.13	0	%100
46	M44	Z	.652	.652	0	%100
47	M45	X	-1.13	-1.13	0	%100
48	M45	Z	.652	.652	0	%100
49	M46	X	-1.13	-1.13	0	%100
50	M46	Z	.652	.652	0	%100
51	M47	X	-1.13	-1.13	0	%100
52	M47	Z	.652	.652	0	%100
53	M44A	X	-2.027	-2.027	0	%100
54	M44A	Z	1.17	1.17	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	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	M13	X	-.977	-.977	0	%100
6	M13	Z	0	0	0	%100
7	M14	X	-.977	-.977	0	%100
8	M14	Z	0	0	0	%100
9	M15	X	-.977	-.977	0	%100
10	M15	Z	0	0	0	%100
11	M16	X	-.977	-.977	0	%100
12	M16	Z	0	0	0	%100
13	M17	X	-.695	-.695	0	%100
14	M17	Z	0	0	0	%100
15	M18	X	-.695	-.695	0	%100
16	M18	Z	0	0	0	%100
17	M19	X	-.695	-.695	0	%100
18	M19	Z	0	0	0	%100
19	M20	X	-.695	-.695	0	%100
20	M20	Z	0	0	0	%100
21	M21	X	0	0	0	%100
22	M21	Z	0	0	0	%100
23	M22	X	0	0	0	%100
24	M22	Z	0	0	0	%100
25	M23	X	0	0	0	%100
26	M23	Z	0	0	0	%100
27	M24	X	0	0	0	%100
28	M24	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
29	M25	X	-1.137	-1.137	0	%100
30	M25	Z	0	0	0	%100
31	M26	X	-1.137	-1.137	0	%100
32	M26	Z	0	0	0	%100
33	M27	X	-1.137	-1.137	0	%100
34	M27	Z	0	0	0	%100
35	M28	X	-1.137	-1.137	0	%100
36	M28	Z	0	0	0	%100
37	MP4A	X	-2.343	-2.343	0	%100
38	MP4A	Z	0	0	0	%100
39	MP3A	X	-2.343	-2.343	0	%100
40	MP3A	Z	0	0	0	%100
41	MP2A	X	-2.343	-2.343	0	%100
42	MP2A	Z	0	0	0	%100
43	MP1A	X	-2.343	-2.343	0	%100
44	MP1A	Z	0	0	0	%100
45	M44	X	-1.305	-1.305	0	%100
46	M44	Z	0	0	0	%100
47	M45	X	-1.305	-1.305	0	%100
48	M45	Z	0	0	0	%100
49	M46	X	-1.305	-1.305	0	%100
50	M46	Z	0	0	0	%100
51	M47	X	-1.305	-1.305	0	%100
52	M47	Z	0	0	0	%100
53	M44A	X	-1.682	-1.682	0	%100
54	M44A	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,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-.563	-.563	0	%100
2	M1	Z	-.325	-.325	0	%100
3	M2	X	-.563	-.563	0	%100
4	M2	Z	-.325	-.325	0	%100
5	M13	X	-.635	-.635	0	%100
6	M13	Z	-.367	-.367	0	%100
7	M14	X	-.635	-.635	0	%100
8	M14	Z	-.367	-.367	0	%100
9	M15	X	-.635	-.635	0	%100
10	M15	Z	-.367	-.367	0	%100
11	M16	X	-.635	-.635	0	%100
12	M16	Z	-.367	-.367	0	%100
13	M17	X	-1.362	-1.362	0	%100
14	M17	Z	-.786	-.786	0	%100
15	M18	X	-1.362	-1.362	0	%100
16	M18	Z	-.786	-.786	0	%100
17	M19	X	-.031	-.031	0	%100
18	M19	Z	-.018	-.018	0	%100
19	M20	X	-.031	-.031	0	%100
20	M20	Z	-.018	-.018	0	%100
21	M21	X	-.213	-.213	0	%100
22	M21	Z	-.123	-.123	0	%100
23	M22	X	-.213	-.213	0	%100
24	M22	Z	-.123	-.123	0	%100
25	M23	X	-.213	-.213	0	%100
26	M23	Z	-.123	-.123	0	%100
27	M24	X	-.213	-.213	0	%100
28	M24	Z	-.123	-.123	0	%100
29	M25	X	-1.204	-1.204	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
30	M25	Z	-.695	-.695	0	%100
31	M26	X	-1.204	-1.204	0	%100
32	M26	Z	-.695	-.695	0	%100
33	M27	X	-.82	-.82	0	%100
34	M27	Z	-.473	-.473	0	%100
35	M28	X	-.82	-.82	0	%100
36	M28	Z	-.473	-.473	0	%100
37	MP4A	X	-2.029	-2.029	0	%100
38	MP4A	Z	-1.172	-1.172	0	%100
39	MP3A	X	-2.029	-2.029	0	%100
40	MP3A	Z	-1.172	-1.172	0	%100
41	MP2A	X	-2.029	-2.029	0	%100
42	MP2A	Z	-1.172	-1.172	0	%100
43	MP1A	X	-2.029	-2.029	0	%100
44	MP1A	Z	-1.172	-1.172	0	%100
45	M44	X	-1.13	-1.13	0	%100
46	M44	Z	-.652	-.652	0	%100
47	M45	X	-1.13	-1.13	0	%100
48	M45	Z	-.652	-.652	0	%100
49	M46	X	-1.13	-1.13	0	%100
50	M46	Z	-.652	-.652	0	%100
51	M47	X	-1.13	-1.13	0	%100
52	M47	Z	-.652	-.652	0	%100
53	M44A	X	-.445	-.445	0	%100
54	M44A	Z	-.257	-.257	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-.975	-.975	0	%100
2	M1	Z	-1.688	-1.688	0	%100
3	M2	X	-.975	-.975	0	%100
4	M2	Z	-1.688	-1.688	0	%100
5	M13	X	-.122	-.122	0	%100
6	M13	Z	-.212	-.212	0	%100
7	M14	X	-.122	-.122	0	%100
8	M14	Z	-.212	-.212	0	%100
9	M15	X	-.122	-.122	0	%100
10	M15	Z	-.212	-.212	0	%100
11	M16	X	-.122	-.122	0	%100
12	M16	Z	-.212	-.212	0	%100
13	M17	X	-.896	-.896	0	%100
14	M17	Z	-1.551	-1.551	0	%100
15	M18	X	-.896	-.896	0	%100
16	M18	Z	-1.551	-1.551	0	%100
17	M19	X	-.128	-.128	0	%100
18	M19	Z	-.221	-.221	0	%100
19	M20	X	-.128	-.128	0	%100
20	M20	Z	-.221	-.221	0	%100
21	M21	X	-.37	-.37	0	%100
22	M21	Z	-.64	-.64	0	%100
23	M22	X	-.37	-.37	0	%100
24	M22	Z	-.64	-.64	0	%100
25	M23	X	-.37	-.37	0	%100
26	M23	Z	-.64	-.64	0	%100
27	M24	X	-.37	-.37	0	%100
28	M24	Z	-.64	-.64	0	%100
29	M25	X	-.727	-.727	0	%100
30	M25	Z	-1.258	-1.258	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
31	M26	X	-.727	-.727	0	%100
32	M26	Z	-1.258	-1.258	0	%100
33	M27	X	-.505	-.505	0	%100
34	M27	Z	-.875	-.875	0	%100
35	M28	X	-.505	-.505	0	%100
36	M28	Z	-.875	-.875	0	%100
37	MP4A	X	-1.172	-1.172	0	%100
38	MP4A	Z	-2.029	-2.029	0	%100
39	MP3A	X	-1.172	-1.172	0	%100
40	MP3A	Z	-2.029	-2.029	0	%100
41	MP2A	X	-1.172	-1.172	0	%100
42	MP2A	Z	-2.029	-2.029	0	%100
43	MP1A	X	-1.172	-1.172	0	%100
44	MP1A	Z	-2.029	-2.029	0	%100
45	M44	X	-.652	-.652	0	%100
46	M44	Z	-1.13	-1.13	0	%100
47	M45	X	-.652	-.652	0	%100
48	M45	Z	-1.13	-1.13	0	%100
49	M46	X	-.652	-.652	0	%100
50	M46	Z	-1.13	-1.13	0	%100
51	M47	X	-.652	-.652	0	%100
52	M47	Z	-1.13	-1.13	0	%100
53	M44A	X	-.002	-.002	0	%100
54	M44A	Z	-.003	-.003	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	-.53	-.53	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	-.53	-.53	0	%100
5	M13	X	0	0	0	%100
6	M13	Z	0	0	0	%100
7	M14	X	0	0	0	%100
8	M14	Z	0	0	0	%100
9	M15	X	0	0	0	%100
10	M15	Z	0	0	0	%100
11	M16	X	0	0	0	%100
12	M16	Z	0	0	0	%100
13	M17	X	0	0	0	%100
14	M17	Z	-.209	-.209	0	%100
15	M18	X	0	0	0	%100
16	M18	Z	-.209	-.209	0	%100
17	M19	X	0	0	0	%100
18	M19	Z	-.209	-.209	0	%100
19	M20	X	0	0	0	%100
20	M20	Z	-.209	-.209	0	%100
21	M21	X	0	0	0	%100
22	M21	Z	-.115	-.115	0	%100
23	M22	X	0	0	0	%100
24	M22	Z	-.115	-.115	0	%100
25	M23	X	0	0	0	%100
26	M23	Z	-.115	-.115	0	%100
27	M24	X	0	0	0	%100
28	M24	Z	-.115	-.115	0	%100
29	M25	X	0	0	0	%100
30	M25	Z	-.119	-.119	0	%100
31	M26	X	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
32	M26	Z	-.119	-.119	0	%100
33	M27	X	0	0	0	%100
34	M27	Z	-.119	-.119	0	%100
35	M28	X	0	0	0	%100
36	M28	Z	-.119	-.119	0	%100
37	MP4A	X	0	0	0	%100
38	MP4A	Z	-.438	-.438	0	%100
39	MP3A	X	0	0	0	%100
40	MP3A	Z	-.438	-.438	0	%100
41	MP2A	X	0	0	0	%100
42	MP2A	Z	-.438	-.438	0	%100
43	MP1A	X	0	0	0	%100
44	MP1A	Z	-.438	-.438	0	%100
45	M44	X	0	0	0	%100
46	M44	Z	-.115	-.115	0	%100
47	M45	X	0	0	0	%100
48	M45	Z	-.115	-.115	0	%100
49	M46	X	0	0	0	%100
50	M46	Z	-.115	-.115	0	%100
51	M47	X	0	0	0	%100
52	M47	Z	-.115	-.115	0	%100
53	M44A	X	0	0	0	%100
54	M44A	Z	-.124	-.124	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	.199	.199	0	%100
2	M1	Z	-.344	-.344	0	%100
3	M2	X	.199	.199	0	%100
4	M2	Z	-.344	-.344	0	%100
5	M13	X	.014	.014	0	%100
6	M13	Z	-.025	-.025	0	%100
7	M14	X	.014	.014	0	%100
8	M14	Z	-.025	-.025	0	%100
9	M15	X	.014	.014	0	%100
10	M15	Z	-.025	-.025	0	%100
11	M16	X	.014	.014	0	%100
12	M16	Z	-.025	-.025	0	%100
13	M17	X	.024	.024	0	%100
14	M17	Z	-.041	-.041	0	%100
15	M18	X	.024	.024	0	%100
16	M18	Z	-.041	-.041	0	%100
17	M19	X	.165	.165	0	%100
18	M19	Z	-.287	-.287	0	%100
19	M20	X	.165	.165	0	%100
20	M20	Z	-.287	-.287	0	%100
21	M21	X	.043	.043	0	%100
22	M21	Z	-.075	-.075	0	%100
23	M22	X	.043	.043	0	%100
24	M22	Z	-.075	-.075	0	%100
25	M23	X	.043	.043	0	%100
26	M23	Z	-.075	-.075	0	%100
27	M24	X	.043	.043	0	%100
28	M24	Z	-.075	-.075	0	%100
29	M25	X	.048	.048	0	%100
30	M25	Z	-.083	-.083	0	%100
31	M26	X	.048	.048	0	%100
32	M26	Z	-.083	-.083	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
33	M27	X	.069	.069	0	%100
34	M27	Z	-.119	-.119	0	%100
35	M28	X	.069	.069	0	%100
36	M28	Z	-.119	-.119	0	%100
37	MP4A	X	.219	.219	0	%100
38	MP4A	Z	-.379	-.379	0	%100
39	MP3A	X	.219	.219	0	%100
40	MP3A	Z	-.379	-.379	0	%100
41	MP2A	X	.219	.219	0	%100
42	MP2A	Z	-.379	-.379	0	%100
43	MP1A	X	.219	.219	0	%100
44	MP1A	Z	-.379	-.379	0	%100
45	M44	X	.058	.058	0	%100
46	M44	Z	-.1	-.1	0	%100
47	M45	X	.058	.058	0	%100
48	M45	Z	-.1	-.1	0	%100
49	M46	X	.058	.058	0	%100
50	M46	Z	-.1	-.1	0	%100
51	M47	X	.058	.058	0	%100
52	M47	Z	-.1	-.1	0	%100
53	M44A	X	.171	.171	0	%100
54	M44A	Z	-.296	-.296	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	.115	.115	0	%100
2	M1	Z	-.066	-.066	0	%100
3	M2	X	.115	.115	0	%100
4	M2	Z	-.066	-.066	0	%100
5	M13	X	.075	.075	0	%100
6	M13	Z	-.043	-.043	0	%100
7	M14	X	.075	.075	0	%100
8	M14	Z	-.043	-.043	0	%100
9	M15	X	.075	.075	0	%100
10	M15	Z	-.043	-.043	0	%100
11	M16	X	.075	.075	0	%100
12	M16	Z	-.043	-.043	0	%100
13	M17	X	.006	.006	0	%100
14	M17	Z	-.003	-.003	0	%100
15	M18	X	.006	.006	0	%100
16	M18	Z	-.003	-.003	0	%100
17	M19	X	.252	.252	0	%100
18	M19	Z	-.145	-.145	0	%100
19	M20	X	.252	.252	0	%100
20	M20	Z	-.145	-.145	0	%100
21	M21	X	.025	.025	0	%100
22	M21	Z	-.014	-.014	0	%100
23	M22	X	.025	.025	0	%100
24	M22	Z	-.014	-.014	0	%100
25	M23	X	.025	.025	0	%100
26	M23	Z	-.014	-.014	0	%100
27	M24	X	.025	.025	0	%100
28	M24	Z	-.014	-.014	0	%100
29	M25	X	.077	.077	0	%100
30	M25	Z	-.045	-.045	0	%100
31	M26	X	.077	.077	0	%100
32	M26	Z	-.045	-.045	0	%100
33	M27	X	.114	.114	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
34	M27	Z	-.066	-.066	0	%100
35	M28	X	.114	.114	0	%100
36	M28	Z	-.066	-.066	0	%100
37	MP4A	X	.379	.379	0	%100
38	MP4A	Z	-.219	-.219	0	%100
39	MP3A	X	.379	.379	0	%100
40	MP3A	Z	-.219	-.219	0	%100
41	MP2A	X	.379	.379	0	%100
42	MP2A	Z	-.219	-.219	0	%100
43	MP1A	X	.379	.379	0	%100
44	MP1A	Z	-.219	-.219	0	%100
45	M44	X	.1	.1	0	%100
46	M44	Z	-.058	-.058	0	%100
47	M45	X	.1	.1	0	%100
48	M45	Z	-.058	-.058	0	%100
49	M46	X	.1	.1	0	%100
50	M46	Z	-.058	-.058	0	%100
51	M47	X	.1	.1	0	%100
52	M47	Z	-.058	-.058	0	%100
53	M44A	X	.379	.379	0	%100
54	M44A	Z	-.219	-.219	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	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	M13	X	.115	.115	0	%100
6	M13	Z	0	0	0	%100
7	M14	X	.115	.115	0	%100
8	M14	Z	0	0	0	%100
9	M15	X	.115	.115	0	%100
10	M15	Z	0	0	0	%100
11	M16	X	.115	.115	0	%100
12	M16	Z	0	0	0	%100
13	M17	X	.128	.128	0	%100
14	M17	Z	0	0	0	%100
15	M18	X	.128	.128	0	%100
16	M18	Z	0	0	0	%100
17	M19	X	.128	.128	0	%100
18	M19	Z	0	0	0	%100
19	M20	X	.128	.128	0	%100
20	M20	Z	0	0	0	%100
21	M21	X	0	0	0	%100
22	M21	Z	0	0	0	%100
23	M22	X	0	0	0	%100
24	M22	Z	0	0	0	%100
25	M23	X	0	0	0	%100
26	M23	Z	0	0	0	%100
27	M24	X	0	0	0	%100
28	M24	Z	0	0	0	%100
29	M25	X	.107	.107	0	%100
30	M25	Z	0	0	0	%100
31	M26	X	.107	.107	0	%100
32	M26	Z	0	0	0	%100
33	M27	X	.107	.107	0	%100
34	M27	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
35	M28	X	.107	.107	0	%100
36	M28	Z	0	0	0	%100
37	MP4A	X	.438	.438	0	%100
38	MP4A	Z	0	0	0	%100
39	MP3A	X	.438	.438	0	%100
40	MP3A	Z	0	0	0	%100
41	MP2A	X	.438	.438	0	%100
42	MP2A	Z	0	0	0	%100
43	MP1A	X	.438	.438	0	%100
44	MP1A	Z	0	0	0	%100
45	M44	X	.115	.115	0	%100
46	M44	Z	0	0	0	%100
47	M45	X	.115	.115	0	%100
48	M45	Z	0	0	0	%100
49	M46	X	.115	.115	0	%100
50	M46	Z	0	0	0	%100
51	M47	X	.115	.115	0	%100
52	M47	Z	0	0	0	%100
53	M44A	X	.314	.314	0	%100
54	M44A	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	.115	.115	0	%100
2	M1	Z	.066	.066	0	%100
3	M2	X	.115	.115	0	%100
4	M2	Z	.066	.066	0	%100
5	M13	X	.075	.075	0	%100
6	M13	Z	.043	.043	0	%100
7	M14	X	.075	.075	0	%100
8	M14	Z	.043	.043	0	%100
9	M15	X	.075	.075	0	%100
10	M15	Z	.043	.043	0	%100
11	M16	X	.075	.075	0	%100
12	M16	Z	.043	.043	0	%100
13	M17	X	.252	.252	0	%100
14	M17	Z	.145	.145	0	%100
15	M18	X	.252	.252	0	%100
16	M18	Z	.145	.145	0	%100
17	M19	X	.006	.006	0	%100
18	M19	Z	.003	.003	0	%100
19	M20	X	.006	.006	0	%100
20	M20	Z	.003	.003	0	%100
21	M21	X	.025	.025	0	%100
22	M21	Z	.014	.014	0	%100
23	M22	X	.025	.025	0	%100
24	M22	Z	.014	.014	0	%100
25	M23	X	.025	.025	0	%100
26	M23	Z	.014	.014	0	%100
27	M24	X	.025	.025	0	%100
28	M24	Z	.014	.014	0	%100
29	M25	X	.114	.114	0	%100
30	M25	Z	.066	.066	0	%100
31	M26	X	.114	.114	0	%100
32	M26	Z	.066	.066	0	%100
33	M27	X	.077	.077	0	%100
34	M27	Z	.045	.045	0	%100
35	M28	X	.077	.077	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,%]
36	M28	Z	.045	.045	0	%100
37	MP4A	X	.379	.379	0	%100
38	MP4A	Z	.219	.219	0	%100
39	MP3A	X	.379	.379	0	%100
40	MP3A	Z	.219	.219	0	%100
41	MP2A	X	.379	.379	0	%100
42	MP2A	Z	.219	.219	0	%100
43	MP1A	X	.379	.379	0	%100
44	MP1A	Z	.219	.219	0	%100
45	M44	X	.1	.1	0	%100
46	M44	Z	.058	.058	0	%100
47	M45	X	.1	.1	0	%100
48	M45	Z	.058	.058	0	%100
49	M46	X	.1	.1	0	%100
50	M46	Z	.058	.058	0	%100
51	M47	X	.1	.1	0	%100
52	M47	Z	.058	.058	0	%100
53	M44A	X	.083	.083	0	%100
54	M44A	Z	.048	.048	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	.199	.199	0	%100
2	M1	Z	.344	.344	0	%100
3	M2	X	.199	.199	0	%100
4	M2	Z	.344	.344	0	%100
5	M13	X	.014	.014	0	%100
6	M13	Z	.025	.025	0	%100
7	M14	X	.014	.014	0	%100
8	M14	Z	.025	.025	0	%100
9	M15	X	.014	.014	0	%100
10	M15	Z	.025	.025	0	%100
11	M16	X	.014	.014	0	%100
12	M16	Z	.025	.025	0	%100
13	M17	X	.165	.165	0	%100
14	M17	Z	.287	.287	0	%100
15	M18	X	.165	.165	0	%100
16	M18	Z	.287	.287	0	%100
17	M19	X	.024	.024	0	%100
18	M19	Z	.041	.041	0	%100
19	M20	X	.024	.024	0	%100
20	M20	Z	.041	.041	0	%100
21	M21	X	.043	.043	0	%100
22	M21	Z	.075	.075	0	%100
23	M22	X	.043	.043	0	%100
24	M22	Z	.075	.075	0	%100
25	M23	X	.043	.043	0	%100
26	M23	Z	.075	.075	0	%100
27	M24	X	.043	.043	0	%100
28	M24	Z	.075	.075	0	%100
29	M25	X	.069	.069	0	%100
30	M25	Z	.119	.119	0	%100
31	M26	X	.069	.069	0	%100
32	M26	Z	.119	.119	0	%100
33	M27	X	.048	.048	0	%100
34	M27	Z	.083	.083	0	%100
35	M28	X	.048	.048	0	%100
36	M28	Z	.083	.083	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
37	MP4A	X	.219	.219	0	%100
38	MP4A	Z	.379	.379	0	%100
39	MP3A	X	.219	.219	0	%100
40	MP3A	Z	.379	.379	0	%100
41	MP2A	X	.219	.219	0	%100
42	MP2A	Z	.379	.379	0	%100
43	MP1A	X	.219	.219	0	%100
44	MP1A	Z	.379	.379	0	%100
45	M44	X	.058	.058	0	%100
46	M44	Z	.1	.1	0	%100
47	M45	X	.058	.058	0	%100
48	M45	Z	.1	.1	0	%100
49	M46	X	.058	.058	0	%100
50	M46	Z	.1	.1	0	%100
51	M47	X	.058	.058	0	%100
52	M47	Z	.1	.1	0	%100
53	M44A	X	.000372	.000372	0	%100
54	M44A	Z	.000644	.000644	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	.53	.53	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	.53	.53	0	%100
5	M13	X	0	0	0	%100
6	M13	Z	0	0	0	%100
7	M14	X	0	0	0	%100
8	M14	Z	0	0	0	%100
9	M15	X	0	0	0	%100
10	M15	Z	0	0	0	%100
11	M16	X	0	0	0	%100
12	M16	Z	0	0	0	%100
13	M17	X	0	0	0	%100
14	M17	Z	.209	.209	0	%100
15	M18	X	0	0	0	%100
16	M18	Z	.209	.209	0	%100
17	M19	X	0	0	0	%100
18	M19	Z	.209	.209	0	%100
19	M20	X	0	0	0	%100
20	M20	Z	.209	.209	0	%100
21	M21	X	0	0	0	%100
22	M21	Z	.115	.115	0	%100
23	M22	X	0	0	0	%100
24	M22	Z	.115	.115	0	%100
25	M23	X	0	0	0	%100
26	M23	Z	.115	.115	0	%100
27	M24	X	0	0	0	%100
28	M24	Z	.115	.115	0	%100
29	M25	X	0	0	0	%100
30	M25	Z	.119	.119	0	%100
31	M26	X	0	0	0	%100
32	M26	Z	.119	.119	0	%100
33	M27	X	0	0	0	%100
34	M27	Z	.119	.119	0	%100
35	M28	X	0	0	0	%100
36	M28	Z	.119	.119	0	%100
37	MP4A	X	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
38	MP4A	Z	.438	.438	0	%100
39	MP3A	X	0	0	0	%100
40	MP3A	Z	.438	.438	0	%100
41	MP2A	X	0	0	0	%100
42	MP2A	Z	.438	.438	0	%100
43	MP1A	X	0	0	0	%100
44	MP1A	Z	.438	.438	0	%100
45	M44	X	0	0	0	%100
46	M44	Z	.115	.115	0	%100
47	M45	X	0	0	0	%100
48	M45	Z	.115	.115	0	%100
49	M46	X	0	0	0	%100
50	M46	Z	.115	.115	0	%100
51	M47	X	0	0	0	%100
52	M47	Z	.115	.115	0	%100
53	M44A	X	0	0	0	%100
54	M44A	Z	.124	.124	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-.199	-.199	0	%100
2	M1	Z	.344	.344	0	%100
3	M2	X	-.199	-.199	0	%100
4	M2	Z	.344	.344	0	%100
5	M13	X	-.014	-.014	0	%100
6	M13	Z	.025	.025	0	%100
7	M14	X	-.014	-.014	0	%100
8	M14	Z	.025	.025	0	%100
9	M15	X	-.014	-.014	0	%100
10	M15	Z	.025	.025	0	%100
11	M16	X	-.014	-.014	0	%100
12	M16	Z	.025	.025	0	%100
13	M17	X	-.024	-.024	0	%100
14	M17	Z	.041	.041	0	%100
15	M18	X	-.024	-.024	0	%100
16	M18	Z	.041	.041	0	%100
17	M19	X	-.165	-.165	0	%100
18	M19	Z	.287	.287	0	%100
19	M20	X	-.165	-.165	0	%100
20	M20	Z	.287	.287	0	%100
21	M21	X	-.043	-.043	0	%100
22	M21	Z	.075	.075	0	%100
23	M22	X	-.043	-.043	0	%100
24	M22	Z	.075	.075	0	%100
25	M23	X	-.043	-.043	0	%100
26	M23	Z	.075	.075	0	%100
27	M24	X	-.043	-.043	0	%100
28	M24	Z	.075	.075	0	%100
29	M25	X	-.048	-.048	0	%100
30	M25	Z	.083	.083	0	%100
31	M26	X	-.048	-.048	0	%100
32	M26	Z	.083	.083	0	%100
33	M27	X	-.069	-.069	0	%100
34	M27	Z	.119	.119	0	%100
35	M28	X	-.069	-.069	0	%100
36	M28	Z	.119	.119	0	%100
37	MP4A	X	-.219	-.219	0	%100
38	MP4A	Z	.379	.379	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
39	MP3A	X	-.219	-.219	0	%100
40	MP3A	Z	.379	.379	0	%100
41	MP2A	X	-.219	-.219	0	%100
42	MP2A	Z	.379	.379	0	%100
43	MP1A	X	-.219	-.219	0	%100
44	MP1A	Z	.379	.379	0	%100
45	M44	X	-.058	-.058	0	%100
46	M44	Z	.1	.1	0	%100
47	M45	X	-.058	-.058	0	%100
48	M45	Z	.1	.1	0	%100
49	M46	X	-.058	-.058	0	%100
50	M46	Z	.1	.1	0	%100
51	M47	X	-.058	-.058	0	%100
52	M47	Z	.1	.1	0	%100
53	M44A	X	-.171	-.171	0	%100
54	M44A	Z	.296	.296	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-.115	-.115	0	%100
2	M1	Z	.066	.066	0	%100
3	M2	X	-.115	-.115	0	%100
4	M2	Z	.066	.066	0	%100
5	M13	X	-.075	-.075	0	%100
6	M13	Z	.043	.043	0	%100
7	M14	X	-.075	-.075	0	%100
8	M14	Z	.043	.043	0	%100
9	M15	X	-.075	-.075	0	%100
10	M15	Z	.043	.043	0	%100
11	M16	X	-.075	-.075	0	%100
12	M16	Z	.043	.043	0	%100
13	M17	X	-.006	-.006	0	%100
14	M17	Z	.003	.003	0	%100
15	M18	X	-.006	-.006	0	%100
16	M18	Z	.003	.003	0	%100
17	M19	X	-.252	-.252	0	%100
18	M19	Z	.145	.145	0	%100
19	M20	X	-.252	-.252	0	%100
20	M20	Z	.145	.145	0	%100
21	M21	X	-.025	-.025	0	%100
22	M21	Z	.014	.014	0	%100
23	M22	X	-.025	-.025	0	%100
24	M22	Z	.014	.014	0	%100
25	M23	X	-.025	-.025	0	%100
26	M23	Z	.014	.014	0	%100
27	M24	X	-.025	-.025	0	%100
28	M24	Z	.014	.014	0	%100
29	M25	X	-.077	-.077	0	%100
30	M25	Z	.045	.045	0	%100
31	M26	X	-.077	-.077	0	%100
32	M26	Z	.045	.045	0	%100
33	M27	X	-.114	-.114	0	%100
34	M27	Z	.066	.066	0	%100
35	M28	X	-.114	-.114	0	%100
36	M28	Z	.066	.066	0	%100
37	MP4A	X	-.379	-.379	0	%100
38	MP4A	Z	.219	.219	0	%100
39	MP3A	X	-.379	-.379	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
40	MP3A	Z	.219	.219	0	%100
41	MP2A	X	-.379	-.379	0	%100
42	MP2A	Z	.219	.219	0	%100
43	MP1A	X	-.379	-.379	0	%100
44	MP1A	Z	.219	.219	0	%100
45	M44	X	-.1	-.1	0	%100
46	M44	Z	.058	.058	0	%100
47	M45	X	-.1	-.1	0	%100
48	M45	Z	.058	.058	0	%100
49	M46	X	-.1	-.1	0	%100
50	M46	Z	.058	.058	0	%100
51	M47	X	-.1	-.1	0	%100
52	M47	Z	.058	.058	0	%100
53	M44A	X	-.379	-.379	0	%100
54	M44A	Z	.219	.219	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	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	M13	X	-.115	-.115	0	%100
6	M13	Z	0	0	0	%100
7	M14	X	-.115	-.115	0	%100
8	M14	Z	0	0	0	%100
9	M15	X	-.115	-.115	0	%100
10	M15	Z	0	0	0	%100
11	M16	X	-.115	-.115	0	%100
12	M16	Z	0	0	0	%100
13	M17	X	-.128	-.128	0	%100
14	M17	Z	0	0	0	%100
15	M18	X	-.128	-.128	0	%100
16	M18	Z	0	0	0	%100
17	M19	X	-.128	-.128	0	%100
18	M19	Z	0	0	0	%100
19	M20	X	-.128	-.128	0	%100
20	M20	Z	0	0	0	%100
21	M21	X	0	0	0	%100
22	M21	Z	0	0	0	%100
23	M22	X	0	0	0	%100
24	M22	Z	0	0	0	%100
25	M23	X	0	0	0	%100
26	M23	Z	0	0	0	%100
27	M24	X	0	0	0	%100
28	M24	Z	0	0	0	%100
29	M25	X	-.107	-.107	0	%100
30	M25	Z	0	0	0	%100
31	M26	X	-.107	-.107	0	%100
32	M26	Z	0	0	0	%100
33	M27	X	-.107	-.107	0	%100
34	M27	Z	0	0	0	%100
35	M28	X	-.107	-.107	0	%100
36	M28	Z	0	0	0	%100
37	MP4A	X	-.438	-.438	0	%100
38	MP4A	Z	0	0	0	%100
39	MP3A	X	-.438	-.438	0	%100
40	MP3A	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
41	MP2A	X	-.438	-.438	0	%100
42	MP2A	Z	0	0	0	%100
43	MP1A	X	-.438	-.438	0	%100
44	MP1A	Z	0	0	0	%100
45	M44	X	-.115	-.115	0	%100
46	M44	Z	0	0	0	%100
47	M45	X	-.115	-.115	0	%100
48	M45	Z	0	0	0	%100
49	M46	X	-.115	-.115	0	%100
50	M46	Z	0	0	0	%100
51	M47	X	-.115	-.115	0	%100
52	M47	Z	0	0	0	%100
53	M44A	X	-.314	-.314	0	%100
54	M44A	Z	0	0	0	%100

Member Distributed Loads (BLC 75 : Structure Wm (300 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-.115	-.115	0	%100
2	M1	Z	-.066	-.066	0	%100
3	M2	X	-.115	-.115	0	%100
4	M2	Z	-.066	-.066	0	%100
5	M13	X	-.075	-.075	0	%100
6	M13	Z	-.043	-.043	0	%100
7	M14	X	-.075	-.075	0	%100
8	M14	Z	-.043	-.043	0	%100
9	M15	X	-.075	-.075	0	%100
10	M15	Z	-.043	-.043	0	%100
11	M16	X	-.075	-.075	0	%100
12	M16	Z	-.043	-.043	0	%100
13	M17	X	-.252	-.252	0	%100
14	M17	Z	-.145	-.145	0	%100
15	M18	X	-.252	-.252	0	%100
16	M18	Z	-.145	-.145	0	%100
17	M19	X	-.006	-.006	0	%100
18	M19	Z	-.003	-.003	0	%100
19	M20	X	-.006	-.006	0	%100
20	M20	Z	-.003	-.003	0	%100
21	M21	X	-.025	-.025	0	%100
22	M21	Z	-.014	-.014	0	%100
23	M22	X	-.025	-.025	0	%100
24	M22	Z	-.014	-.014	0	%100
25	M23	X	-.025	-.025	0	%100
26	M23	Z	-.014	-.014	0	%100
27	M24	X	-.025	-.025	0	%100
28	M24	Z	-.014	-.014	0	%100
29	M25	X	-.114	-.114	0	%100
30	M25	Z	-.066	-.066	0	%100
31	M26	X	-.114	-.114	0	%100
32	M26	Z	-.066	-.066	0	%100
33	M27	X	-.077	-.077	0	%100
34	M27	Z	-.045	-.045	0	%100
35	M28	X	-.077	-.077	0	%100
36	M28	Z	-.045	-.045	0	%100
37	MP4A	X	-.379	-.379	0	%100
38	MP4A	Z	-.219	-.219	0	%100
39	MP3A	X	-.379	-.379	0	%100
40	MP3A	Z	-.219	-.219	0	%100
41	MP2A	X	-.379	-.379	0	%100

Member Distributed Loads (BLC 75 : Structure Wm (300 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
42	MP2A	Z	-.219	-.219	0	%100
43	MP1A	X	-.379	-.379	0	%100
44	MP1A	Z	-.219	-.219	0	%100
45	M44	X	-.1	-.1	0	%100
46	M44	Z	-.058	-.058	0	%100
47	M45	X	-.1	-.1	0	%100
48	M45	Z	-.058	-.058	0	%100
49	M46	X	-.1	-.1	0	%100
50	M46	Z	-.058	-.058	0	%100
51	M47	X	-.1	-.1	0	%100
52	M47	Z	-.058	-.058	0	%100
53	M44A	X	-.083	-.083	0	%100
54	M44A	Z	-.048	-.048	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-.199	-.199	0	%100
2	M1	Z	-.344	-.344	0	%100
3	M2	X	-.199	-.199	0	%100
4	M2	Z	-.344	-.344	0	%100
5	M13	X	-.014	-.014	0	%100
6	M13	Z	-.025	-.025	0	%100
7	M14	X	-.014	-.014	0	%100
8	M14	Z	-.025	-.025	0	%100
9	M15	X	-.014	-.014	0	%100
10	M15	Z	-.025	-.025	0	%100
11	M16	X	-.014	-.014	0	%100
12	M16	Z	-.025	-.025	0	%100
13	M17	X	-.165	-.165	0	%100
14	M17	Z	-.287	-.287	0	%100
15	M18	X	-.165	-.165	0	%100
16	M18	Z	-.287	-.287	0	%100
17	M19	X	-.024	-.024	0	%100
18	M19	Z	-.041	-.041	0	%100
19	M20	X	-.024	-.024	0	%100
20	M20	Z	-.041	-.041	0	%100
21	M21	X	-.043	-.043	0	%100
22	M21	Z	-.075	-.075	0	%100
23	M22	X	-.043	-.043	0	%100
24	M22	Z	-.075	-.075	0	%100
25	M23	X	-.043	-.043	0	%100
26	M23	Z	-.075	-.075	0	%100
27	M24	X	-.043	-.043	0	%100
28	M24	Z	-.075	-.075	0	%100
29	M25	X	-.069	-.069	0	%100
30	M25	Z	-.119	-.119	0	%100
31	M26	X	-.069	-.069	0	%100
32	M26	Z	-.119	-.119	0	%100
33	M27	X	-.048	-.048	0	%100
34	M27	Z	-.083	-.083	0	%100
35	M28	X	-.048	-.048	0	%100
36	M28	Z	-.083	-.083	0	%100
37	MP4A	X	-.219	-.219	0	%100
38	MP4A	Z	-.379	-.379	0	%100
39	MP3A	X	-.219	-.219	0	%100
40	MP3A	Z	-.379	-.379	0	%100
41	MP2A	X	-.219	-.219	0	%100
42	MP2A	Z	-.379	-.379	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
43	MP1A	X	-.219	-.219	0	%100
44	MP1A	Z	-.379	-.379	0	%100
45	M44	X	-.058	-.058	0	%100
46	M44	Z	-.1	-.1	0	%100
47	M45	X	-.058	-.058	0	%100
48	M45	Z	-.1	-.1	0	%100
49	M46	X	-.058	-.058	0	%100
50	M46	Z	-.1	-.1	0	%100
51	M47	X	-.058	-.058	0	%100
52	M47	Z	-.1	-.1	0	%100
53	M44A	X	-.000372	-.000372	0	%100
54	M44A	Z	-.000644	-.000644	0	%100

Member Area Loads

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

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	N35	max	1324.079	34	816.249	17	1038.468	13	-.132	72	0	75	.252	35
2		min	-508.116	49	307.647	73	152.36	7	-.351	15	0	1	-.095	49
3	N36	max	1034.658	9	818.646	21	428.848	11	-.126	68	0	75	.246	34
4		min	-1382.719	27	303.268	67	-1403.97	5	-.349	23	0	1	-.091	49
5	N63	max	561.977	3	38.524	15	940.912	3	0	75	0	75	0	75
6		min	-559.69	9	-5.275	9	-947.039	9	0	1	0	1	0	1
7	Totals:	max	808.947	10	1656.051	22	1220.177	1						
8		min	-808.943	4	623.824	67	-1220.177	7						

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

	Member	Shape	Code ...	Loc[ft]	LC	Shear ...	Loc[ft]	Dir	LC	phi*Pnc [..	phi*Pnt [l..	phi*Mn y...	phi*Mn z...	Cb	Eqn
1	M16	PL5/8X3.5	.201	.422	3	.242	.422	y	4	66184.77	68906.25	.897	5.024	1...	H1-1b
2	M13	PL5/8X3.5	.102	.422	49	.108	.422	y	8	66184.77	68906.25	.897	5.024	1...	H1-1b
3	M2	PIPE 2.5	.258	8.724	3	.106	10.156		3	14558.792	50715	3.596	3.596	1...	H1-1b
4	M22	PL5/8X3.5	.386	.531	29	.092	.531	y	5	67591.76	68906.25	.897	5.024	1...	H1-1b
5	MP2A	PIPE 2.0	.169	2.417	5	.083	5.75		3	14916.096	32130	1.872	1.872	2...	H1-1b
6	M19	PIPE 2.0	.089	2.501	35	.078	0		26	31128.25	32130	1.872	1.872	2...	H1-1b
7	M1	PIPE 2.5	.247	8.724	33	.078	8.724		39	14558.792	50715	3.596	3.596	2...	H1-1b
8	M20	PIPE 2.0	.245	0	4	.068	0		35	31128.25	32130	1.872	1.872	2...	H1-1b
9	MP1A	PIPE 2.0	.385	5.75	33	.064	2.417		3	14916.096	32130	1.872	1.872	4...	H1-1b
10	M14	PL5/8X3.5	.126	0	49	.061	.422	y	2	66184.77	68906.25	.897	5.024	1...	H1-1b
11	M15	PL5/8X3.5	.230	0	33	.061	.422	y	12	66184.77	68906.25	.897	5.024	1...	H1-1b
12	M21	PL5/8X3.5	.215	.531	49	.049	.531	y	8	67591.76	68906.25	.897	5.024	1...	H1-1b
13	M24	PL5/8X3.5	.389	.531	36	.047	.133	y	26	67591.76	68906.25	.897	5.024	1...	H1-1b
14	M18	PIPE 2.0	.060	0	2	.044	0		49	31128.25	32130	1.872	1.872	1...	H1-1b
15	M17	PIPE 2.0	.110	0	8	.038	0		49	31128.25	32130	1.872	1.872	2...	H1-1b
16	MP3A	PIPE 2.0	.155	5.75	35	.037	2.417		25	14916.096	32130	1.872	1.872	4...	H1-1b
17	M23	PL5/8X3.5	.219	.531	49	.033	.531	y	2	67591.76	68906.25	.897	5.024	1...	H1-1b
18	MP4A	PIPE 2.0	.253	5.75	49	.031	2.417		49	14916.096	32130	1.872	1.872	4...	H1-1b
19	M28	SR 0.75	.078	4.167	29	.016	4.167		35	2863.936	13916.259	.174	.174	1...	H1-1b*
20	M47	SR 0.625	.051	0	3	.014	0		27	2158.269	9664.074	.101	.101	1...	H1-1b*
21	M27	SR 0.75	.000	0	75	.012	4.167		27	2863.936	13916.259	.174	.174	1...	H1-1a
22	M44	SR 0.625	.034	1.667	8	.011	0		26	2158.269	9664.074	.101	.101	1...	H1-1b
23	M46	SR 0.625	.034	1.667	5	.011	0		3	2158.269	9664.074	.101	.101	1...	H1-1b
24	M26	SR 0.75	.043	0	49	.010	0		3	2863.936	13916.259	.174	.174	1...	H1-1b*

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

	Member	Shape	Code ...	Loc[ft]	LC	Shear ...	Loc[ft]	Dir	LC	phi*Pnc [...	phi*Pnt [l...	phi*Mn y...	phi*Mn z...	Cb	Eqn
25	M45	SR 0.625	.031	1.667	8	.008	0		9	2158.269	9664.074	.101	.101	1....	H1-1b
26	M25	SR 0.75	.002	4.167	33	.007	0		49	2863.936	13916.259	.174	.174	1....	H1-1b*
27	M44A	PIPE 2.0	.067	0	3	.004	7.532		15	16274.949	32130	1.872	1.872	1....	H1-1b*

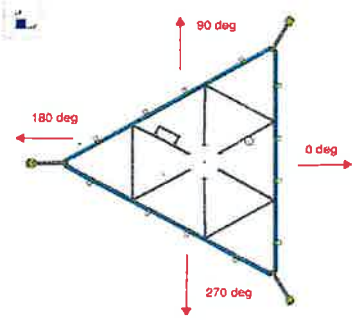
VzW SMART Tool© Vendor

Client:	Verizon Wireless	Date:	8/10/2023
Site Name:	SOUTHINGTON 4 CT - A		
MDG #:	5000175612		
Fuze ID #:	17123835	Page:	1
			Version 1.01

I. Mount-to-Tower Connection Check

Custom Orientation Required — Yes

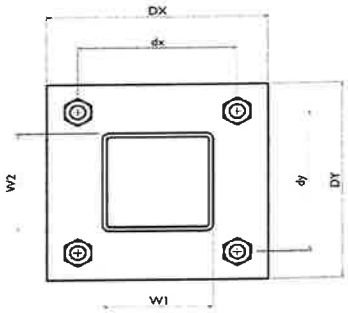
Nodes (labeled per Risa)	Orientation (per graphic of typical platform)
N36	30
N35	30



Tower Connection Bolt Checks — Yes

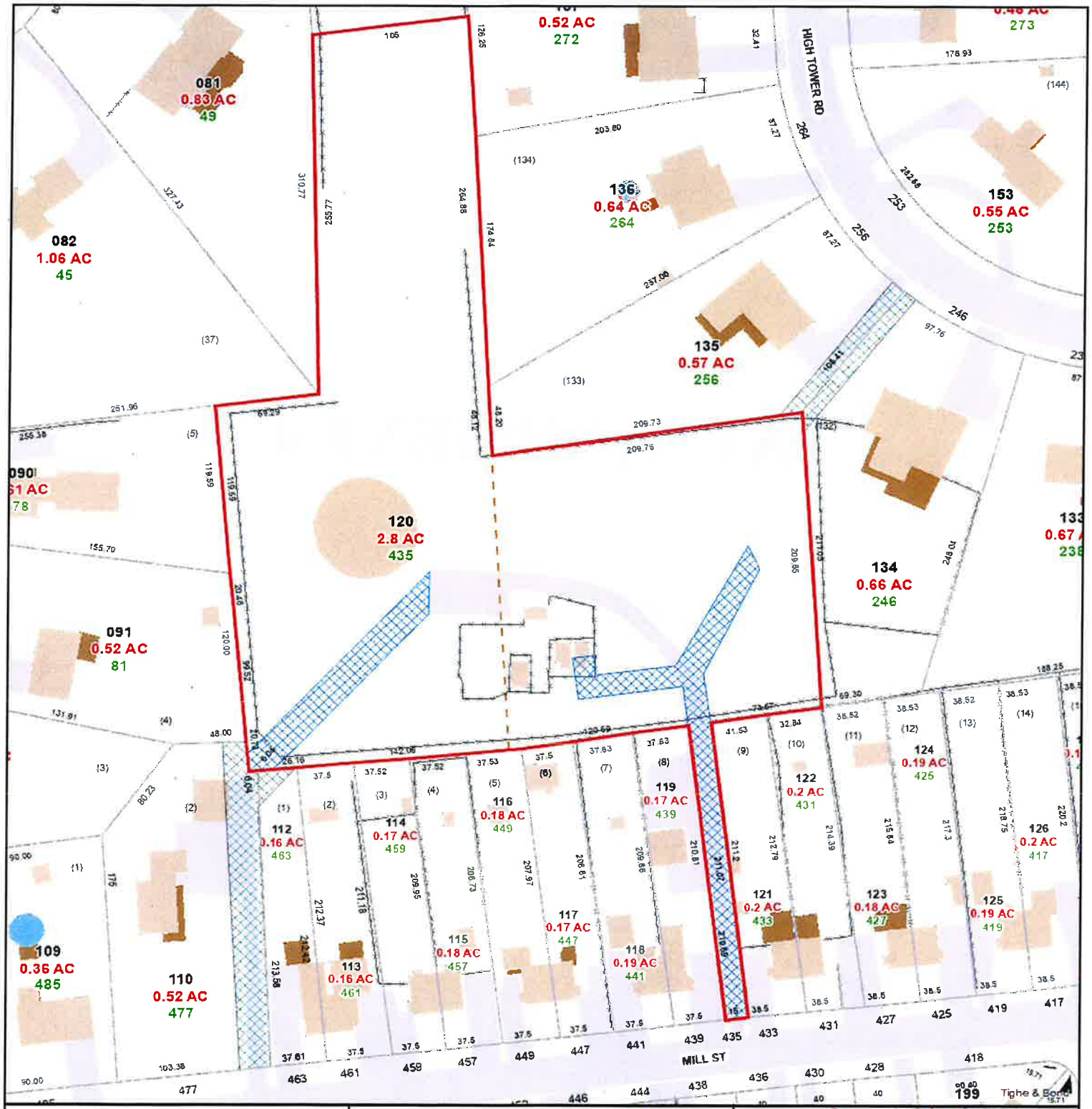
Bolt Orientation — Parallel

Bolt Quantity per Reaction:	4
d_x (in) *(Delta X of typ. bolt config. sketch)* :	11
d_y (in) *(Delta Y of typ. bolt config. sketch)* :	4
Bolt Type:	A307
Bolt Diameter (in):	0.625
Required Tensile Strength / bolt (kips):	3.8
Required Shear Strength / bolt (kips):	0.4
Tensile Capacity / bolt (kips):	10.4
Shear Capacity / bolt (kips):	6.2
Bolt Overall Utilization:	**36.6%**



Tower Connection Baseplate Checks — No

ATTACHMENT 4



435 MILL ST

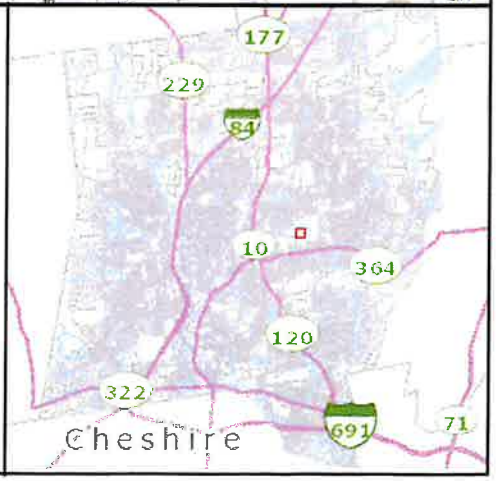
1/19/2024 9:52:51

1"=93'

Property Information

Unique ID	undefined
Location	undefined
Sale Date	9/30/1938 0

The information depicted on this map is for planning purposes only. It is not adequate for legal boundary definition, regulatory interpretation, or parcel-level analyses.



435 MILL ST

Location 435 MILL ST

Mblu 109/ / 120/ /

Acct# 14081

Owner SOUTHINGTON TOWN OF

Assessment $790,370

Appraisal $1,129,100

PID 10843

Building Count 1

Current Value

Appraisal			
Valuation Year	**Improvements**	**Land**	**Total**
2020	$840,990	$288,110	$1,129,100

Assessment			
Valuation Year	**Improvements**	**Land**	**Total**
2020	$588,690	$201,680	$790,370

Owner of Record

Owner SOUTHINGTON TOWN OF
Co-Owner
Address 75 MAIN ST
SOUTHINGTON, CT 06489-2504

Sale Price $0
Certificate
Book & Page 0087/0075
Sale Date 09/30/1938
Instrument 25

Ownership History

Ownership History					
Owner	**Sale Price**	**Certificate**	**Book & Page**	**Instrument**	**Sale Date**
SOUTHINGTON TOWN OF	$0		0087/0075	25	09/30/1938

Building Information

Building 1 : Section 1

Year Built:
Living Area: 0
Building Percent Good:

Building Attributes	
Field	**Description**
Style	Vacant w/OB

ATTACHMENT 5

Verizon/Southington 4

UNITED STATES POSTAL SERVICE®

Certificate of Mailing — Firm

Name and Address of Sender	TOTAL NO. of Pieces Listed by Sender	TOTAL NO. of Pieces Received at Post Office™	Affix Stamp Here *Postmark with Date of Receipt.*
Kenneth C. Baldwin, Esq. Robinson & Cole LLP 280 Trumbull Street Hartford, CT 06103	2	2	quadient CORRECTION IMI $003.34 01/23/2024 ZIP 06101 043M32206619 US POSTAGE
	Postmaster, per *(name of receiving employee)*		

USPS® Tracking Number / Firm-specific Identifier	Address (Name, Street, City, State, and ZIP Code™)	Postage	Fee	Special Handling	Parcel Airlift
1.	Mark Sciota, Town Manger Town of Southington 75 Main Street Southington, CT 06489				
2.	Jeremy DeCarli, Director of Planning and Community Development Town of Southington Municipal Center 196 North Main Street Southington, CT 06489				
3.					
4.					
5.					
6.					

ANN STREET STATION
JAN 23 2024
06103 USPS