Robinson+Cole

KENNETH C. BALDWIN

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Also admitted in Massachusetts and New York

May 29, 2024

Via Electronic Mail

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

Re: **Notice of Exempt Modification – Facility Modification**
57 Cook Drive, Montville, Connecticut

Dear Attorney Bachman:

Cellco Partnership d/b/a Verizon Wireless ("Cellco") currently maintains an existing wireless telecommunications facility at the above-referenced property address (the "Property"). The facility consists of antennas on an existing tower and associated equipment on the ground, near the base of the tower. The tower was approved by the Town of Montville in January of 1997. Cellco's shared use of the tower was approved by the Siting Council ("Council") in September of 1998 (EM-BAM-086-98021). A copy of the Town's tower approval and Cellco's shared use approval are included in Attachment 1.

Cellco now intends to modify its facility by removing six (6) antennas and nine (9) remote radio heads ("RRHs") and installing nine (9) new antennas and six (6) new RRHs on its existing antenna platform and antenna mounts. A set of project plans showing Cellco's proposed facility modifications and the specifications for Cellco's new antennas and RRHs are included in Attachment 2.

Please accept this letter as notification pursuant to R.C.S.A. § 16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b)(2). In accordance with R.C.S.A. § 16-50j-73, a copy of this letter is being sent to Montville's Chief Elected Official and Land Use Officer. A copy of this letter is also being sent to 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. Cellco's new antennas and RRHs will be installed at the same height on the tower.

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

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

4. The installation of Cellco's new antennas will not increase radio frequency (RF) emissions at the facility to a level at or above the Federal Communications Commission (FCC) safety standard. Included in Attachment 3 is a Calculated Radio Frequency Emissions Report demonstrating that the proposed modified facility will comply with the FCC safety standards. The modified facility will be capable of providing Cellco's 5G wireless service.

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, tower foundation and antenna mounts, with certain modifications, can support Cellco's proposed modifications. Copies of the SA and MA are included in Attachment 4.

A copy of the parcel map and Property owner information is included in Attachment 5. A Certificate of Mailing verifying that this filing was sent to municipal officials and the property owner is included in Attachment 6.

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:
Leonard Bunnell Sr., Mayor
Matthew Davis, Director of Land Use and Development Department
Robert and Karen Kingsborough, Property Owners
Aleksey Tyurin

ATTACHMENT 1

TEL: 848-8549
FAX: 848-2354

TOWN OF MONTVILLE
PLANNING & ZONING COMMISSION

310 NORWICH-NEW LONDON TPKE.
UNCASVILLE, CONNECTICUT 06382-2599

LEGAL NOTICE

The Montville Planning and Zoning Commission at its meeting held on January 14, 1997, took the following action:

APPROVED the site plan submitted by **Wireless Solutions, LLC and Robert W. Kingsborough** to install a 180' radio tower and antenna for wireless communication purposes on property located at 57 Cook Drive, Montville, Ct. Shown on Assessor's Map 98, Lot 2.

APPROVED modifications to approved subdivision plans of **Lochdale Estates Subdivision** to eliminate the requirement that dry sewers be installed in Phase II and Phase III.

The application of **Christy's Market, Inc./Jack D'Elia** was withdrawn.

Maps and documentation concerning the above applications are on file in the office of the Town Planner, Town Hall Annex, Montville, Ct.

Dated at Montville, Ct. this 15th day of January, 1997.

MONTVILLE PLANNING AND ZONING COMMISSION
Gregory Majewski, Chairman

PUBLISH IN THE NEW LONDON DAY January 17, 1997.

PLEASE REFERENCE PURCHASE ORDER 6100 F 1 ON INVOICE.

STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square
New Britain, Connecticut 06051
Phone: (860) 827-2935
Fax: (860) 827-2950

September 2, 1998

Ms. Sandy M. Carter
Regulatory Manager
Bell Atlantic Mobile
20 Alexander Drive, P.O. Box 5029
Wallingford, CT 06492

Re: EM-BAM-086-980821 - Bell Atlantic Mobile notice of intent to modify an existing telecommunications tower located at 57 Cook Drive, Montville, Connecticut.

Dear Ms. Carter:

At a public meeting held on September 1, 1998, the Connecticut Siting Council (Council) acknowledged your notice to modify this existing telecommunications facility in Montville, Connecticut, pursuant to Section 16-50j-73 of the Regulations of Connecticut State Agencies.

The proposed modifications are to be implemented as specified here and in your notice dated August 21, 1998. The modifications are in compliance with the exception criteria in Section 16-50j-72 (b) of the Regulations of Connecticut State Agencies as changes to an existing facility site that would not increase tower height, extend the boundaries of the tower site, increase noise levels at the tower site boundary by six decibels, and increase the total radio frequency electromagnetic radiation power density measured at the tower site boundary to or above the standard adopted by the State Department of Environmental Protection pursuant to General Statutes § 22a-162. This facility has been carefully modeled to ensure that radio frequency emissions are conservatively below State and federal standards applicable to the frequency now used on this tower. Any additional change to this facility will require explicit notice to this agency pursuant to Regulations of Connecticut State Agencies Section 16-50j-73. Such notice shall include all relevant information regarding the proposed change with cumulative worst-case modeling of radio frequency exposure at the closest point of uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin No. 65. Any deviation from this format may result in the Council implementing enforcement proceedings pursuant to General Statutes § 16-50u including, without limitation, imposition of expenses resulting from such failure and of civil penalties in an amount not less than one thousand dollars per day for each day of construction or operation in material violation.

Thank you for your attention and cooperation.

Very truly yours,

Mortimer A. Gelston
Chairman

MAG/RKE/jlh

c: Honorable Patrick Dougherty, Mayor, Town of Montville

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ATTACHMENT 2

verizon

MONTVILLE_4_CT

57 COOK DRIVE
MONTVILLE, CT 06353

LOCATION CODE (PSLC): 468972
FUZE ID: 16271979
L-SUB6 EQUIPMENT UPGRADE PROJECT
RFDS DATE: 04/05/22

SCOPE OF WORK

- REMOVE (E) (6) PANEL ANTENNAS
- REMOVE (E) (9) 700, PCS, & AWS RRH's
- REMOVE (E) (2) MRHH's ON ALPHA SECTOR
- REMOVE (E) (3) DUPLEXERS
- REMOVE (E) (2) 6-OVP LARGE JUNCTION BOXES
- REMOVE (E) (2) HYBRID CABLES
- (E) (6) B50 PANEL ANTENNAS TO REMAIN
- (P) (6) COMMSCOPE NHH-65B-R2B ANTENNAS
- (P) (3) MT6407-77A ANTENNAS
- (P) (3) SAMSUNG RF4439d-25A RRH's
- (P) (3) SAMSUNG RT4440d-13A RRH's
- (P) (1) 12-OVP LARGE JUNCTION BOX
- (P) (1) 12x24 HYBRID CABLE

PROJECT SUMMARY

SCOPE OF WORK:	EXISTING TELECOMMUNICATIONS FACILITY EQUIPMENT ALTERATION
SITE NAME:	MONTVILLE_4_CT
LOCATION CODE (PSLC):	468972
FUZE PROJECT ID:	16271979
SITE ADDRESS:	57 COOK DRIVE MONTVILLE, CT 06353
LATITUDE:	41° 28' 29.95"± N (42.474986°± N) (RECORD VERIZON FUZE INFO)
LONGITUDE:	72° 6' 18.18"± W (-72.105050°± W) (RECORD VERIZON FUZE INFO)
GROUND ELEVATION:	362'± AMSL, 0'± AGL (RECORD VERIZON FUZE INFO)
HIGHEST APPURTENANCE:	556'± AMSL, 194'± AGL (RECORD VERIZON FUZE INFO)
FACILITY:	GUY TOWER
FACILITY OWNER:	WIRELESS SOLUTIONS LLC
PROPERTY OWNER:	KT ENTERPRISES, LLC
APPLICANT, LESSEE/LICENSEE, PROJECT OWNER:	CELLCO PARTNERSHIP dba VERIZON WIRELESS 20 ALEXANDER DRIVE 2nd FLOOR WALLINGFORD, CT 06492
SITE ENGINEER:	PROTERRA DESIGN GROUP, LLC 4 BAY ROAD BUILDING A, SUITE 200 HADLEY, MA 01035 (413)320-4918

SHEET INDEX

SHT. NO.	DESCRIPTION	REV. NO.
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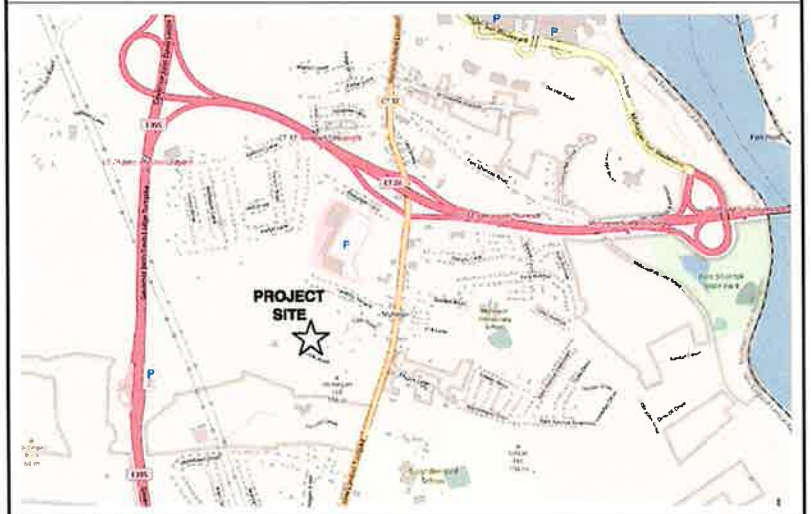
A-2	EXISTING AND PROPOSED ANTENNA PLAN	3
D-1	DETAIL	3
D-2	DETAIL	3
X-1	ANTENNA LAYOUT RENDERINGS (BY OTHERS)	3

LOCATION MAP



GENERAL NOTES

1. VERIFY COAX CONFIGURATION, ANTENNA CONFIGURATION, AND ANTENNA HEIGHT WITH LATEST RF DATA SHEET PRIOR TO INSTALLATION.
2. THE CONTRACTOR SHALL SCHEDULE AND SEQUENCE ALL REQUIRED WORK WITH THE OWNER'S REPRESENTATIVE AND CONSTRUCTION MANAGER.
3. REPAIR ANY DAMAGE DURING CONSTRUCTION TO MATCH EXISTING PRE-CONSTRUCTION CONDITIONS TO THE SATISFACTION OF THE CONSTRUCTION MANAGER.
4. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED HEREIN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES FOR THE WORK.
5. ANTENNAS TO BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS, GLOBAL STRUCTURAL ANALYSIS, AND LOCAL ANTENNA MOUNT ANALYSIS INCLUDING ANTENNA MOUNT MODIFICATIONS AND STRUCTURAL AUGMENTS AS APPLICABLE.
6. REPLACE AND/OR REUSE (E) MOUNTING HARDWARE, INSPECT FOR DAMAGE, AND REPLACE AS NECESSARY TO THE SATISFACTION OF THE ENGINEER.
7. EQUIPMENT LOCATIONS AND CONDITIONS TO BE FIELD VERIFIED PRIOR TO COMMENCEMENT OF CONSTRUCTION. ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES OR BE RESPONSIBLE FOR THE SAME.
8. NORTH SHOWN IS APPROXIMATE. NOT ALL (E) OR (P) IMPROVEMENTS REQUIRED MAY BE SHOWN FOR CLARITY.
9. ANTENNA ELEVATIONS SHALL BE PER ZONING OR AS APPROVALS DICTATE.
10. THESE CONSTRUCTION DRAWINGS ARE CONTINGENT UPON A PASSING GLOBAL STRUCTURAL ANALYSIS INCLUDING THE INSTALLATION OF ANY REQUIRED MODIFICATIONS AND INSPECTION REPORTS AS A RESULT THEREIN.

STRUCTURAL NOTES

GLOBAL TOWER STRUCTURAL ANALYSIS REPORT:

PASSING REPORT - NO MODIFICATIONS REQUIRED BY TOWER ENGINEERING PROFESSIONALS DATED 05/03/24.

LOCAL ANTENNA MOUNT ANALYSIS REPORT:

PASSING REPORT - PASS W/HARDWARE UPGRADES BY COLLIERS ENGINEERING & DESIGN DATED 03/06/24

CONTRACTOR MOUNT POST MODIFICATION INSPECTION (PMI) REPORT REQUIREMENTS

PMI ONLINE ACCESS: https://pmi.vzwsmart.com

SMART TOOL VENDOR PROJECT NUMBER: 10226578

VzW LOCATION CODE (PSLC): 468972

*** PMI AND REQUIREMENTS ALSO EMBEDDED IN ANTENNA MOUNT ANALYSIS REPORT BY COLLIERS ENGINEERING & DESIGN DATED 03/06/24.

MOUNT MODIFICATIONS REQUIRED (Y/N): YES

- **CONTRACTOR SHALL INSTALL PROPOSED OVP UNIT DIRECTLY TO THE CENTER OF THE UPPER LEFT STANDOFF HORIZONTAL ON THE ALPHA SECTOR.**
- **CONTRACTOR SHALL REINFORCE EXISTING MOUNT TO TOWER CONNECTIONS WITH NEW SITEPRO 1 R5-REINF KITS ON ALL SECTORS.**
- **CONTRACTOR SHALL INSTALL SAFETY CLIMB WIRE ROPE GUIDE (PART #: SITE PRO 1 - 120-203/317 OR EOR APPROVED EQUAL) IN LOCATIONS WHERE THE WIRE ROPE IS RUBBING AGAINST MOUNT TO TOWER ATTACHMENTS. CONTRACTOR SHALL PROVIDE PHOTOS OF SAFETY CLIMB WIRE ROPE GUIDE INSTALLATION.**

Jesse Moreno, PE Digitally signed by Jesse Moreno, PE Date: 2024.05.03 16:56:49 -04'00'

verizon
20 ALEXANDER DRIVE
2nd FLOOR
WALLINGFORD, CT 06492

PREPARED BY:
ProTerra DESIGN GROUP, LLC
4 Bay Road, Bldg A
Suite 200
Hadley, MA 01035
P:(413)320-4918

REVISIONS

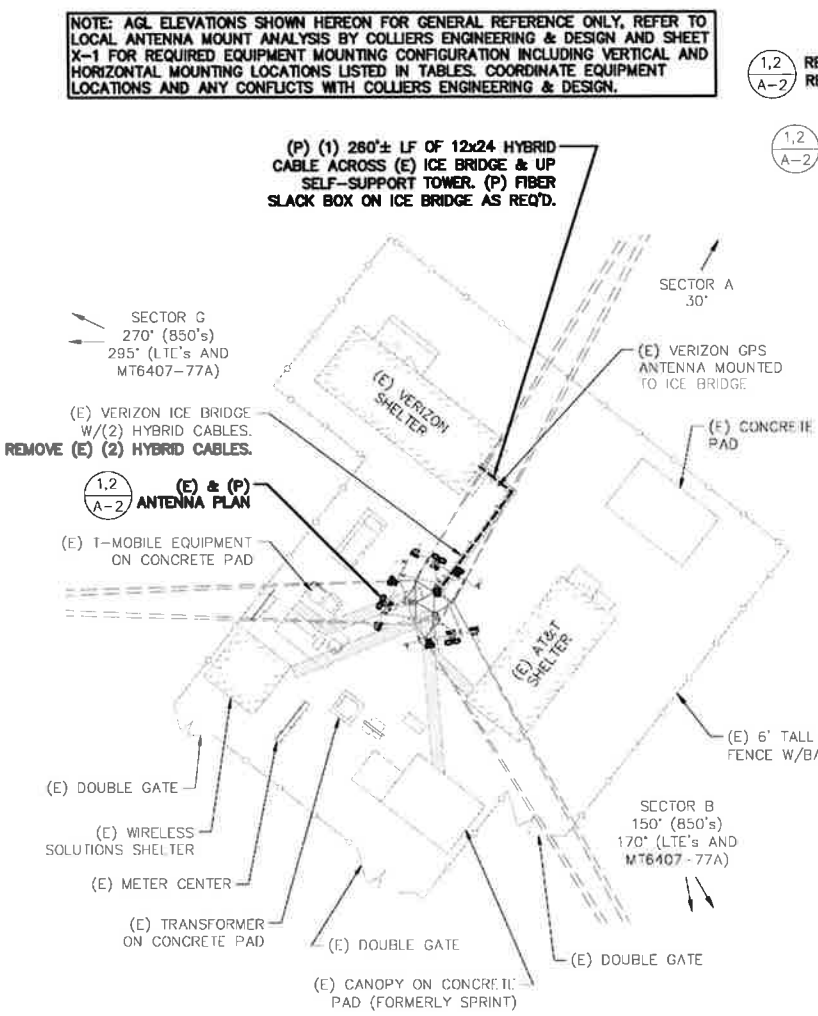
REV	DATE	DESCRIPTION	BY	C-A APP'D
0	09/10/21	PER RFDS DATED 07/30/21	TBD	JWG JVM
1	10/01/21	PER RFDS DATED 07/30/21	TBD	JWG JVM
2	03/25/24	PER RFDS DATED 04/05/22	TBD	JMV JVM
3	05/03/24	PER RFDS DATED 04/05/22	TBD	JMV JVM

STATE OF CONNECTICUT
JESSE M. MORENO
No. 24389
LICENSED PROFESSIONAL ENGINEER
5-3-2024

MONTVILLE_4_CT
57 COOK DRIVE
MONTVILLE, CT 06353
FUZE PROJECT ID: 16271979

T-1

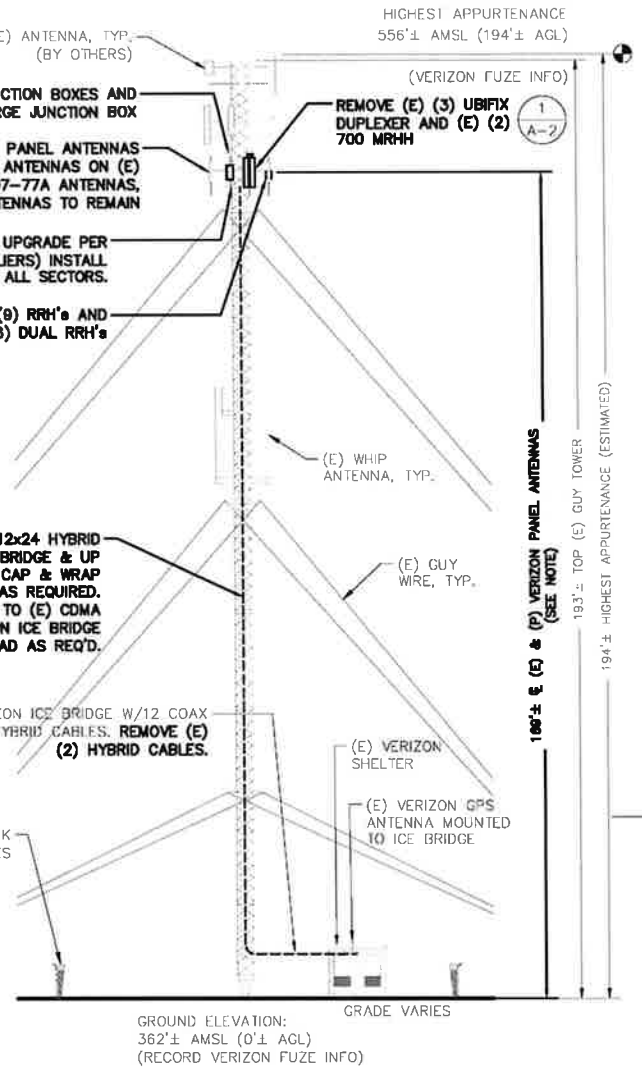
NOTE: AGL ELEVATIONS SHOWN HEREON FOR GENERAL REFERENCE ONLY. REFER TO LOCAL ANTENNA MOUNT ANALYSIS BY COLLIERS ENGINEERING & DESIGN AND SHEET X-1 FOR REQUIRED EQUIPMENT MOUNTING CONFIGURATION INCLUDING VERTICAL AND HORIZONTAL MOUNTING LOCATIONS LISTED IN TABLES. COORDINATE EQUIPMENT LOCATIONS AND ANY CONFLICTS WITH COLLIERS ENGINEERING & DESIGN.



COMPOUND PLAN

SCALE: 1"=20' (11x17) — 1 / A-1

20 10 0 20



SOUTHEAST ELEVATION

SCALE: 1"=25' (11x17) — 2 / A-1

25 12.5 0 25

verizon
20 ALEXANDER DRIVE
WALLINGFORD, CT 06492

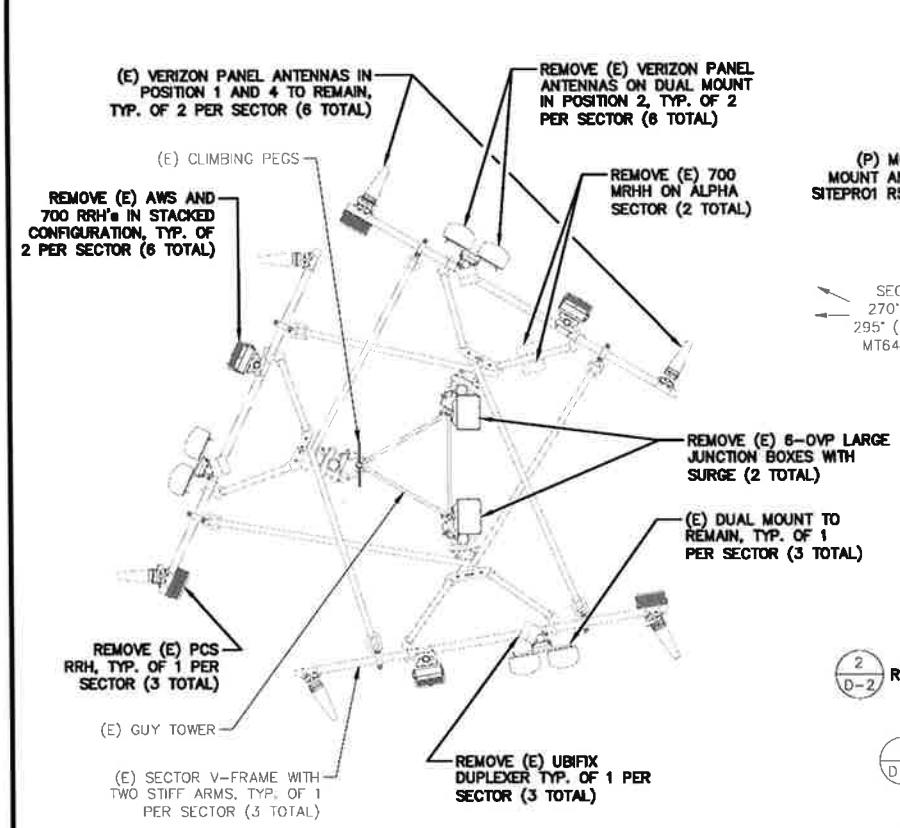
PREPARED BY:
ProTerra DESIGN GROUP, LLC
4 Boy Road, Bldg A
Suite 200
Hadley, MA 01035
ph: (413)320-4918

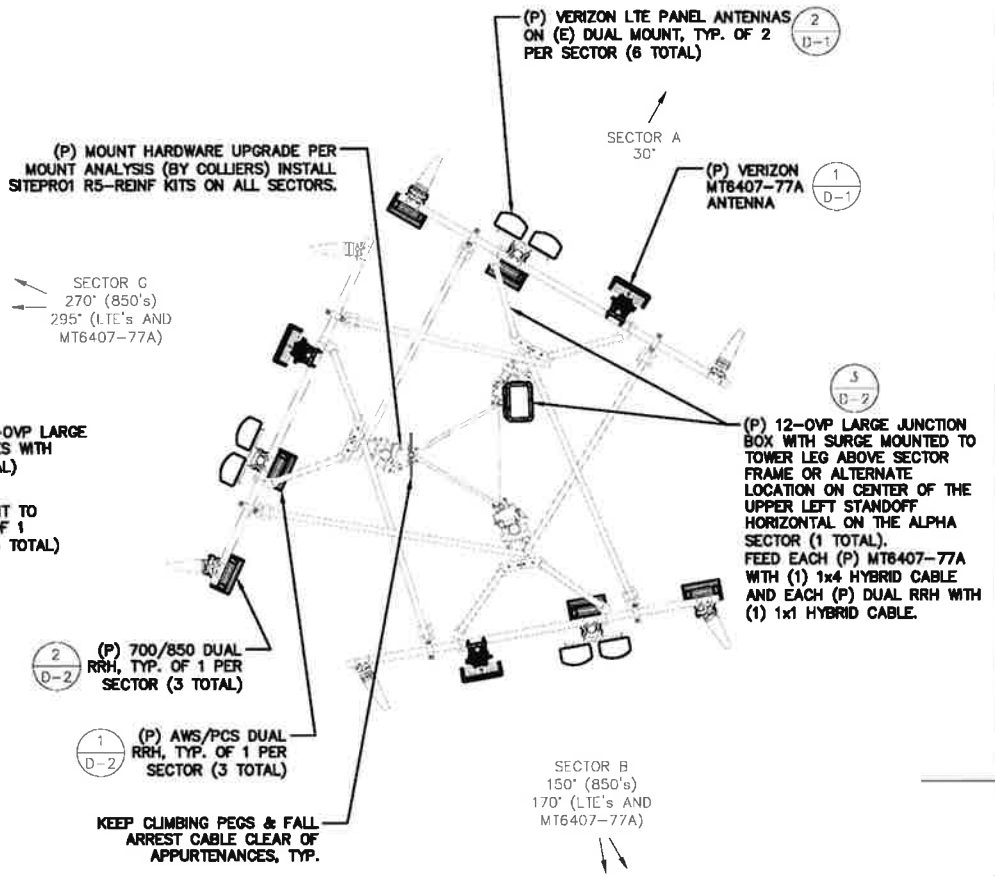
REVISIONS

REV	DATE	DESCRIPTION	BY	C-K APP'D
0	08/10/21	PER RFDS DATED 07/30/21	TBD	JMV, WM
-	10/01/21	PER RFDS DATED 07/30/21	TBD	JMV, WM
2	03/25/24	PER RFDS DATED 04/05/22	TBD	JMV, WM
3	05/03/24	PER RFDS DATED 04/05/22	TBD	JMV, WM

STATE OF CONNECTICUT
JESSE M. MORENO
No. 24389
LICENSED PROFESSIONAL ENGINEER
5-3-2024
MONTVILLE 4 CT
57 COOK DRIVE
MONTVILLE, CT 06353
FUZE PROJECT ID: 15877879

A-1





N

(E) ANTENNA PLAN

1 A-2

SCALE: 1"=4'

4 2 0 4

N

(P) ANTENNA PLAN

2 A-2

SCALE: 1"=4'

4 2 0 4

verizon

20 ALEXANDER DRIVE
2nd FLOOR
WALLINGFORD, CT 06492

PREPARED BY:
ProTerra DESIGN GROUP, LLC
4 Bay Road, Bldg A
Suite 203
Hadley, MA 01035
Ph:(413)320-4918

REVISIONS

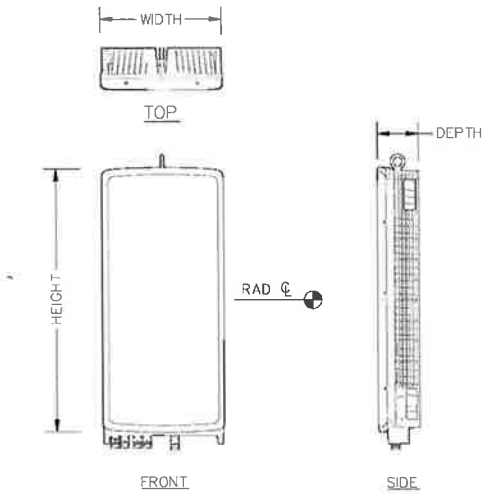
REV	DATE	DESCRIPTION	BY	C-4 APP'S
0	09/10/21	PER RFDS DATED 07/30/21	TBD	JMG, VM
1	10/01/21	PER RFDS DATED 07/30/21	TBD	JMG, VM
2	03/25/24	PER RFDS DATED 04/05/22	TBD	JMV, VM
3	05/03/24	PER RFDS DATED 04/05/22	TBD	JMV, VM

STATE OF CONNECTICUT
JESSE M. MORENO
No. 24389
LICENSED PROFESSIONAL ENGINEER
5-3-2024

MONTVILLE 4 CT
87 COOK DRIVE
MONTVILLE, CT 06353
FUZE PROJECT ID: 18871979

A-2

INSTALLATION NOTES:
1. INSTALL ALL EQUIPMENT, MOUNTING BRACKETS, AND HARDWARE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
2. GROUND DISTRIBUTION BOXES, MOUNTING PIPES, AND RRHs IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
3. INSTALL EQUIPMENT AND MOUNTING BRACKETS TO PRESERVE CLIMBING ACCESS ON TOWER.
4. EQUIPMENT TO BE INSTALLED AT VERIZON RAD. CENTER IN ACCORDANCE WITH GLOBAL TOWER STRUCTURAL ANALYSIS AND MOUNT ANALYSIS (BY OTHERS).

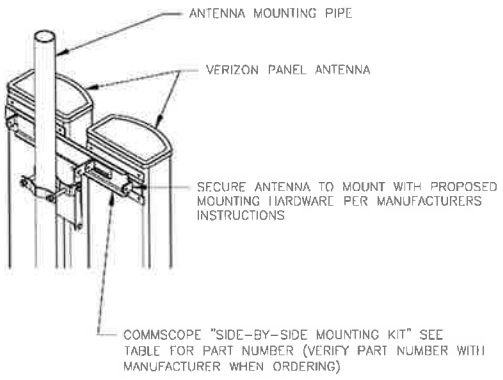


MODEL	HEIGHT	WIDTH	DEPTH	WEIGHT
MT6407-77A - ANTENNA	35.1"±	16.1"±	5.6"±	87.1±lbs.

(P) L-SUB6 ANTENNA DETAIL

SCALE: NONE

1 / D-1



MODEL	HEIGHT	WIDTH	DEPTH	WEIGHT	MOUNT BRACKET
COMMSCOPE NHH-65B-R2B	72.0"	11.9"	7.1"	44±lbs.	BSAMNT-SBS-1-2

(P) PANEL ANTENNA DETAIL

SCALE: NONE

2 / D-1

verizon
20 ALEXANDER DRIVE
2nd FLOOR
WALLINGFORD, CT 06492

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Suite 200
Hadley, MA 01035
Ph:(413)320-4918

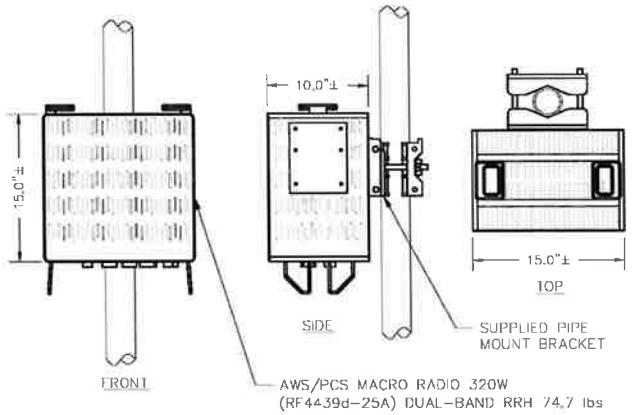
REVISIONS

REV	DATE	DESCRIPTION	BY	C-x APPS
0	06/10/21	SES RFDS DATED 07/30/21	TBD	JNG -VM
1	10/01/21	SES RFDS DATED 07/30/21	TBD	JNG -VM
2	01/25/22	SES RFDS DATED 04/05/22	TBD	JMV -VM
3	05/03/24	SES RFDS DATED 04/05/22	TBD	JMV -VM

STATE OF CONNECTICUT
JESSE M. MORENO
No. 24389
LICENSED PROFESSIONAL ENGINEER
5-3-2024

MONTVILLE 4 CT
67 COOK DRIVE
MONTVILLE, CT 06353

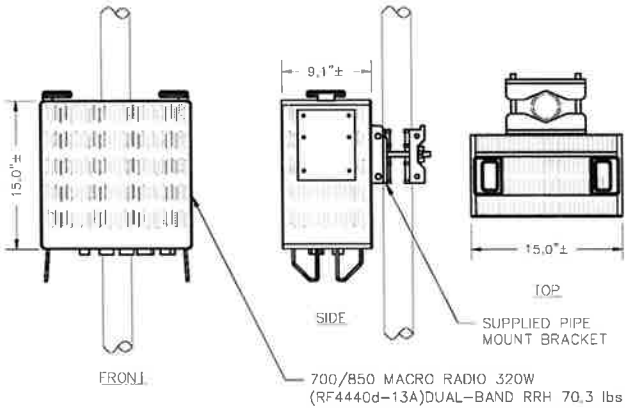
D-1



(P) AWS/PCS RRH MOUNTING DETAIL

1 / D-2

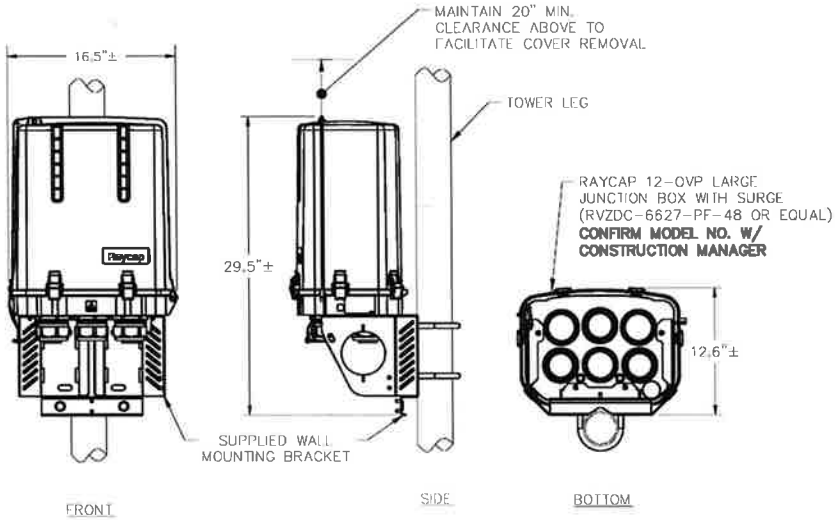
SCALE: NONE



(P) 700/850 RRH MOUNTING DETAIL

2 / D-2

SCALE: NONE



(P) LARGE JUNCTION BOX MOUNTING DETAIL

3 / D-2

SCALE: NONE

INSTALLATION NOTES:

1. INSTALL ALL EQUIPMENT, MOUNTING BRACKETS, AND HARDWARE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
2. GROUND DISTRIBUTION BOXES, MOUNTING PIPES, AND RRHs IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
3. INSTALL EQUIPMENT AND MOUNTING BRACKETS TO PRESERVE CLIMBING ACCESS ON TOWER.
4. EQUIPMENT TO BE INSTALLED AT VERIZON RAD. CENTER IN ACCORDANCE WITH GLOBAL TOWER STRUCTURAL ANALYSIS AND MOUNT ANALYSIS (BY OTHERS).

verizon

20 ALEXANDER DRIVE
2nd FLOOR
WALLINGFORD, CT 06492

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4 Bay Road, Bldg A
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ph:(413)320-4918

REVISIONS

REV	DATE	DESCRIPTION	BY	C+A APP'D
0	09/10/21	PER RFDS DATED 07/30/21	TBD	JWG / WM
1	10/01/21	PER RFDS DATED 07/30/21	TBD	JWG / WM
2	01/25/22	PER RFDS DATED 04/05/22	TBD	JWG / WM
3	05/03/22	PER RFDS DATED 04/05/22	TBD	JWG / WM

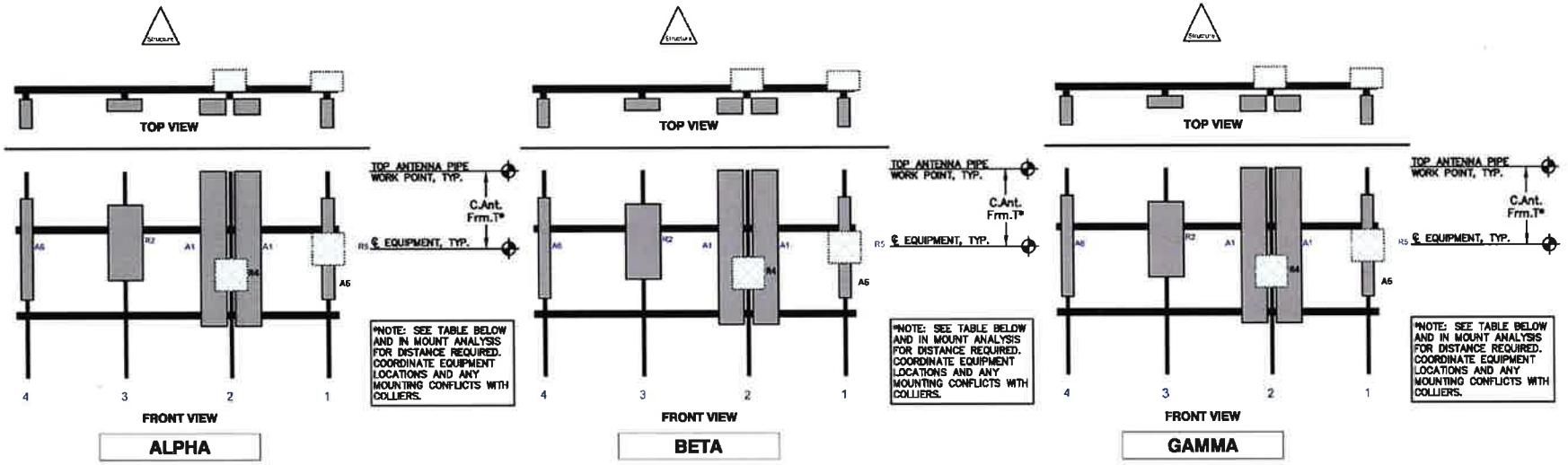
STATE OF CONNECTICUT
JESSE M. MORENO
No. 24389
LICENSED PROFESSIONAL ENGINEER
5-3-2022

MONTVILLE 4 CT
57 COOK DRIVE
MONTVILLE, CT 06353
FUZE PROJECT ID: 19271979

D-2

ANTENNA LAYOUT SCHEMATIC RENDERINGS SHOWN HEREON PROVIDED BY OTHERS

REFER TO ANTENNA MOUNT ANALYSIS REPORT BY COLLIERS ENGINEERING & DESIGN DATED 03/06/24



ALPHA

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
A8	LPA-80080/4CF	47.2	5.5	145	1	a	Front	36	0	Retained	02/25/2021
R5	RF4440d-13A	15	15	145	1	a	Behind	36	0	Added	
A1	NHH-65B-R2B	72	11.9	100	2	a	Front	36	8	Added	
A1	NHH-65B-R2B	72	11.9	100	2	b	Front	36	-8	Added	
R4	RF4439d-25A	15	15	100	2	a	Behind	48	0	Added	
R2	MT6407-77A	35.1	16.1	51	3	a	Front	33	0	Added	
A8	LPA-80080/4CF	47.2	5.5	5	4	a	Front	36	0	Retained	02/25/2021
M17	RVZDC-6627-PF-48	26.5	16.5		Member					Added	

BETA

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
A6	LPA-80080/4CF	47.2	5.5	145	1	a	Front	36	0	Retained	02/25/2021
R5	RF4440d-13A	15	15	145	1	a	Behind	36	0	Added	
A1	NHH-65B-R2B	72	11.9	100	2	a	Front	36	8	Added	
A1	NHH-65B-R2B	72	11.9	100	2	b	Front	36	-8	Added	
R4	RF4439d-25A	15	15	100	2	a	Behind	48	0	Added	
R2	MT6407-77A	35.1	16.1	51	3	a	Front	33	0	Added	
A8	LPA-80080/4CF	47.2	5.5	5	4	a	Front	36	0	Retained	02/25/2021

GAMMA

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
A6	LPA-80080/4CF	47.2	5.5	145	1	a	Front	36	0	Retained	02/25/2021
R5	RF4440d-13A	15	15	145	1	a	Behind	36	0	Added	
A1	NHH-65B-R2B	72	11.9	100	2	a	Front	36	8	Added	
A1	NHH-65B-R2B	72	11.9	100	2	b	Front	36	-8	Added	
R4	RF4439d-25A	15	15	100	2	a	Behind	48	0	Added	
R2	MT6407-77A	35.1	16.1	51	3	a	Front	33	0	Added	
A6	LPA-80080/4CF	47.2	5.5	5	4	a	Front	36	0	Retained	02/25/2021

CONTRACTOR MOUNT POST MODIFICATION INSPECTION (PMI) REPORT REQUIREMENTS

PMI ONLINE ACCESS: https://pmi.vzwsmart.com

SMART TOOL VENDOR PROJECT NUMBER: 10226578

VZW LOCATION CODE (PSLC): 468972

*** PMI AND REQUIREMENTS ALSO EMBEDDED IN ANTENNA MOUNT ANALYSIS REPORT BY COLLIERS ENGINEERING & DESIGN DATED 03/06/24.

MOUNT MODIFICATIONS REQUIRED (Y/N): YES

- CONTRACTOR SHALL INSTALL PROPOSED OVP UNIT DIRECTLY TO THE CENTER OF THE UPPER LEFT STANDOFF HORIZONTAL ON THE ALPHA SECTOR.
- CONTRACTO SHALL REINFORCE EXISTING MOUNT TO TOWER CONNECTIONS WITH NEW SITEPRO 1 R5-REINF KITS ON ALL SECTORS.
- CONTRACTOR SHALL INSTALL SAFETY CLIMB WIRE ROPE GUIDE (PART # SITE PRO 1 – 120-203/317 OR EOR APPROVED EQUAL) IN LOCATIONS WHERE THE WIRE ROPE IS RUBBING AGAINST MOUNT TO TOWER ATTACHMENTS. CONTRACTOR SHALL PROVIDE PHOTOS OF SAFETY CLIMB WIRE ROPE GUIDE INSTALLATION.

verizon
20 ALEXANDER DRIVE
2nd FLOOR
WALLINGFORD, CT 06492

PREPARED BY:
ProTerra DESIGN GROUP, LLC
4 Bay Road, Bldg A
Suite 203
Hadley, MA 01035
P: (413)320-4919

RENDERINGS BY:
COLLIERS ENGINEERING & DESIGN
MT. LAUREL OFFICE:
2000 CRAWFORD PLACE, SUITE 100
MOUNT LAUREL, NJ 08054
Phone: 856-797-0412

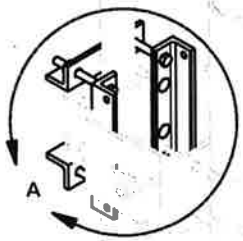
REVISIONS

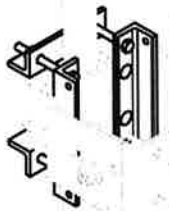
REV	DATE	DESCRIPTION	BY	C-44APPS
0	09/10/21	PER RFDS DATED 07/30/21	TBD	JWG, VM
1	10/01/21	PER RFDS DATED 07/30/21	TBD	JWG, VM
2	03/25/24	PER RFDS DATED 04/05/22	TBD	JMV, VM
3	05/03/24	PER RFDS DATED 04/05/22	TBD	JMV, VM

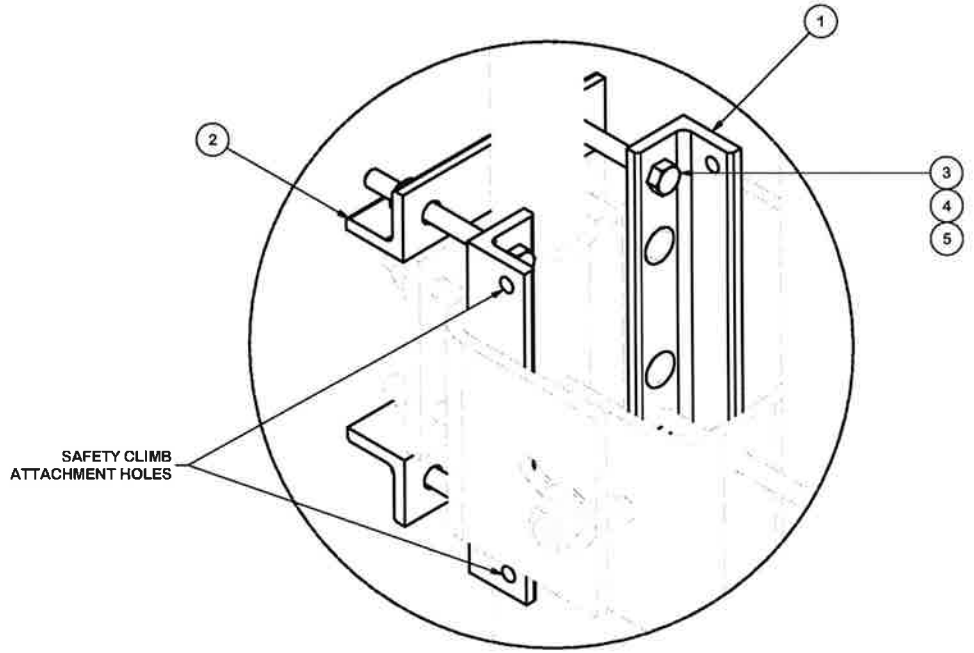
MONTVILLE 4 CT
87 COOK DRIVE
MONTVILLE, CT 06353
FUZE PROJECT ID: 1607189

X-1

PARTS LIST						
ITEM	QTY	PART NO.	PART DESCRIPTION	LENGTH	UNIT WT.	NET WT.
1	4	X-R5-FRA1	REINFORCEMENT ANGLE	10 in	3.84	15.36
2	4	X-R5-RFA2	REINFORCEMENT ANGLE	7 1/8 in	2.86	11.45
3	8	G1208	1/2" x 8" HDG HEX BOLT GR5 FULL THREAD	8 in	0.49	3.94
3	8	G1205	1/2" x 5" HDG HEX BOLT GR5 FULL THREAD	5 in	0.33	2.61
4	8	G12LW	1/2" HDG LOCKWASHER		0.01	0.11
5	8	G12NUT	1/2" HDG HEAVY 2H HEX NUT		0.07	0.57
					TOTAL WT. #	34.04







DETAIL A

TOLERANCE NOTES

TOLERANCES ON DIMENSIONS, UNLESS OTHERWISE NOTED ARE:
SAWED, SHEARED AND GAS CUT EDGES (± 0.030")
DRILLED AND GAS CUT HOLES (± 0.030") - NO CONING OF HOLES
LASER CUT EDGES AND HOLES (± 0.010") - NO CONING OF HOLES
BENDS ARE ± 1/2 DEGREE
ALL OTHER MACHINING (± 0.030")
ALL OTHER ASSEMBLY (± 0.060")

DESCRIPTION
R5 UNIVERSAL PIPE MOUNT
REINFORCEMENT KIT

SITE PRO 1
A valmont COMPANY

Engineering Support Team: 1-888-753-7446
Locations: New York, NY; Atlanta, GA; Los Angeles, CA; Plymouth, IN; Salem, OR; Dallas, TX

CPD NO.	DRAWN BY	ENG. APPROVAL	PART NO.
	JFS 4/22/2020	5/6/2020	R5-REINF

CLASS	SUB	DRAWING USAGE	CHECKED BY	DWG. NO.
81	02	CUSTOMER	BMC 5/6/2020	R5-REINF

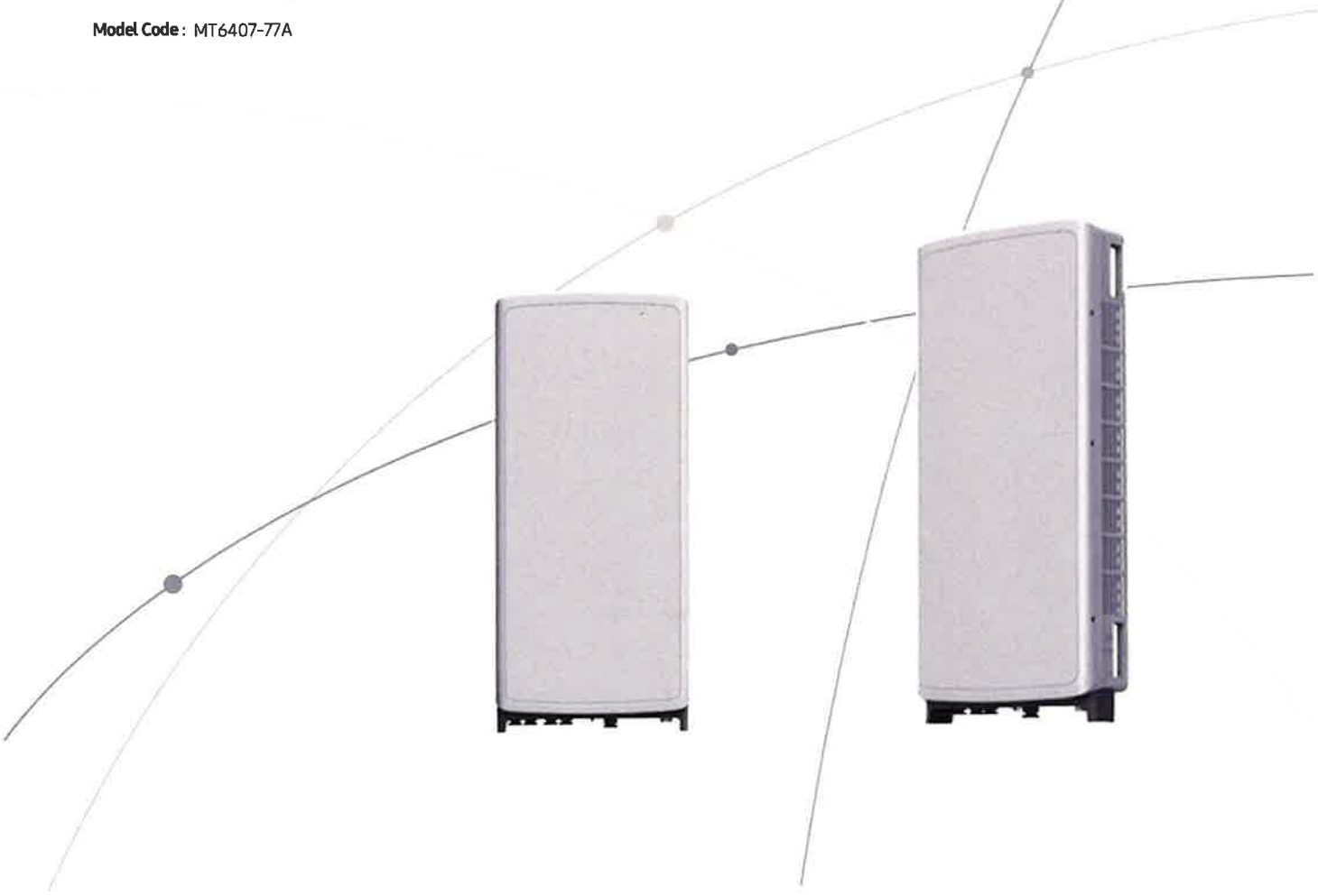
SAMSUNG

SAMSUNG C-Band 64T64R Massive MIMO Radio

for High Capacity and Wide Coverage

Samsung C-Band 64T64R Massive MIMO Radio enables mobile operators to increase coverage range, boost data speeds and ultimately offer enriched 5G experiences to users in the U.S..

Model Code : MT6407-77A

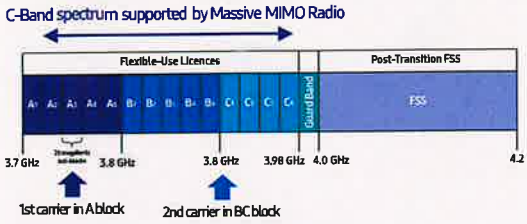


Points of Differentiation

Wide Bandwidth

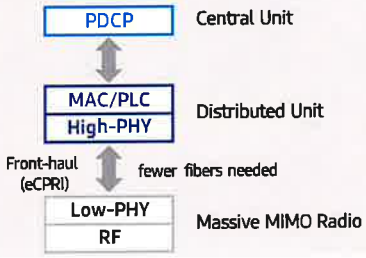
With capability to support up to 2 CC carrier configuration, Samsung C-Band massive MIMO Radio supports 200 MHz bandwidth in the C-Band spectrum.

Samsung C-Band massive MIMO Radio covers the entire C-Band 280 MHz spectrum, so it can meet the operator's needs in current A block and future B/C blocks



Future Proof Product

Samsung C-Band 64T64R Massive MIMO radio supports not only CPRI but also eCPRI as front-haul interface.
It enables operators can cut down on OPEX/CAPEX by reducing front-haul bandwidth through low layer split and using ethernet based higher efficient line.



Enhanced Performance

C-Band massive MIMO Radio creates sharp beams and extends networks' coverage on the critical mid-band spectrum using a large number of antenna elements and high output power to boost data speeds.

This helps operators reduce their CAPEX as they now need less products to cover the same area than before.

Furthermore, as C-Band massive MIMO Radio supports MU-MIMO(Multi-user MIMO) , it enables to increase user throughput by minimizing interference.

Well Matched Design

Samsung C-Band Massive MIMO radio utilizes 64 antennas, supports up to 280MHz bandwidth, and delivers a 200W output power. despite the above advanced performance, the Radio has a compact size of 50.9L and 79.4lbs. This makes it easy to install the Radio.

It is designed to look solid and compact, with a low profile appearance so that, when installed, harmonizes well with the surrounding environment..

Technical Specifications

Item	Specification
Tech	NR
Band	n77
Frequency Band	3700 - 3980 MHz
EIRP	78.5dBm (53.0 dBm+25.5 dBi)
IBW/OBW	280 MHz / 200 MHz
Installation	Pole/Wall
Size/ Weight	16.06 x 35.06 x 5.51 inch (50.86L)/ 79.4 lbs

SAMSUNG

About Samsung Electronics Co., Ltd.

Samsung inspires the world and shapes the future with transformative ideas and technologies. The company is redefining the worlds of TVs, smartphones, wearable devices, tablets, digital appliances, network systems, and memory, system LSI, foundry and LED solutions.

129 Samsung-ro, Yeongtong-gu, Suwon-si Gyeonggi-do, Korea

NHH-65B-R2B

6-port sector antenna, 2x 698–896 and 4x 1695–2360 MHz, 65° HPBW, 2x RET. Both high bands share the same electrical tilt.

- Interleaved dipole technology providing for attractive, low wind load mechanical package
- Internal SBT on low and high band allow remote RET control from the radio over the RF jumper cable
- Separate RS-485 RET input/output for low and high band
- One RET for low band and one RET for both high bands to ensure same tilt level for 4x Rx or 4x MIMO

General Specifications

Antenna Type	Sector
Band	Multiband
Color	Light gray
Effective Projective Area (EPA), frontal	0.26 m^2 | 2.799 ft^2
Effective Projective Area (EPA), lateral	0.22 m^2 | 2.368 ft^2
Grounding Type	RF connector body grounded to reflector and mounting bracket
Performance Note	Outdoor usage | Wind loading figures are validated by wind tunnel measurements described in white paper WP-112534-EN
Radome Material	Fiberglass, UV resistant
Radiator Material	Low loss circuit board
Reflector Material	Aluminum
RF Connector Interface	7-16 DIN Female
RF Connector Location	Bottom
RF Connector Quantity, high band	4
RF Connector Quantity, low band	2
RF Connector Quantity, total	6

Remote Electrical Tilt (RET) Information, General

RET Interface	8-pin DIN Female | 8-pin DIN Male
RET Interface, quantity	2 female | 2 male

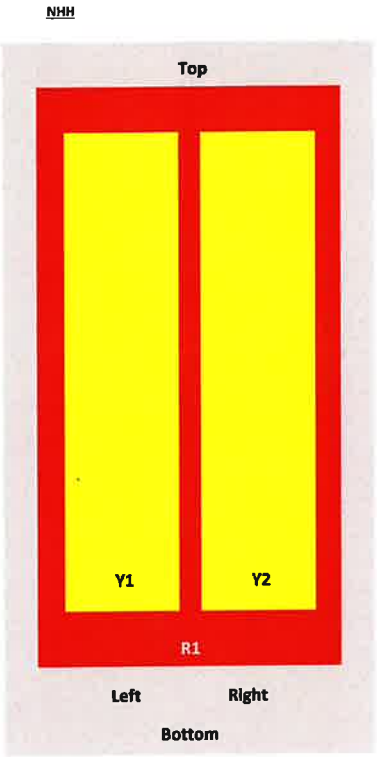
Dimensions

Width	301 mm | 11.85 in
Length	1828 mm | 71.969 in

NHH-65B-R2B

Depth	180 mm | 7.087 in

Array Layout



Array	Freq (MHz)	Conn	RET (SRET)	AISG RET UID
R1	698-896	1-2	1	AN[illegible]1
Y1	1695-2360	3-4	2	AN[illegible]2
Y2	1695-2360	5-6		

View from the front of the antenna

(Sizes of colored boxes are not true depictions of array sizes)

Electrical Specifications

Impedance	50 ohm
Operating Frequency Band	1695 – 2360 MHz | 698 – 896 MHz
Polarization	±45°
Total Input Power, maximum	900 W @ 50 °C

Remote Electrical Tilt (RET) Information, Electrical

Protocol	3GPP/AISG 2.0 (Single RET)
Power Consumption, idle state, maximum	2 W

NHH-65B-R2B

Power Consumption, normal conditions, maximum	13 W
Input Voltage	10–30 Vdc
Internal Bias Tee	Port 1 | Port 3
Internal RET	High band (1) | Low band (1)

Electrical Specifications

Frequency Band, MHz	**698–806**	**806–896**	**1695–1880**	**1850–1990**	**1920–2200**	**2300–2360**
Gain, dBi	14.9	15	17.7	17.9	18.4	18.7
Beamwidth, Horizontal, degrees	65	60	71	69	64	57
Beamwidth, Vertical, degrees	12.4	11.2	5.7	5.2	4.9	4.6
Beam Tilt, degrees	0–14	0–14	0–7	0–7	0–7	0–7
USLS (First Lobe), dB	13	14	18	18	19	18
Front-to-Back Ratio at 180°, dB	30	29	31	30	29	31
Isolation, Cross Polarization, dB	25	25	25	25	25	25
Isolation, Inter-band, dB	30	30	30	30	30	30
VSWR | Return loss, dB	1.5 | 14.0	1.5 | 14.0	1.5 | 14.0	1.5 | 14.0	1.5 | 14.0	1.5 | 14.0
PIM, 3rd Order, 2 x 20 W, dBc	-153	-153	-153	-153	-153	-153
Input Power per Port at 50° C, maximum, watts	300	300	300	300	300	300

Electrical Specifications, BASTA

Frequency Band, MHz	**698–806**	**806–896**	**1695–1880**	**1850–1990**	**1920–2200**	**2300–2360**
Gain by all Beam Tilts, average, dBi	14.5	14.5	17.3	17.7	18.1	18.5
Gain by all Beam Tilts Tolerance, dB	±0.6	±1.1	±0.4	±0.4	±0.5	±0.3
Gain by Beam Tilt, average, dBi	0 ° | 14.4 7 ° | 14.6 14 ° | 14.3	0 ° | 14.7 7 ° | 14.7 14 ° | 14.1	0 ° | 17.2 4 ° | 17.3 7 ° | 17.3	0 ° | 17.6 4 ° | 17.7 7 ° | 17.7	0 ° | 18.0 4 ° | 18.2 7 ° | 18.1	0 ° | 18.3 4 ° | 18.5 7 ° | 18.6
Beamwidth, Horizontal Tolerance, degrees	±2	±2.1	±3	±4.1	±6.5	±2.9
Beamwidth, Vertical Tolerance, degrees	±0.7	±0.7	±0.3	±0.2	±0.3	±0.2
USLS, beampeak to 20° above beampeak, dB	13	14	16	16	17	15
Front-to-Back Total Power at 180° ± 30°, dB	23	22	27	27	25	25
CPR at Boresight, dB	22	21	23	23	22	19

NHH-65B-R2B

CPR at Sector, dB	10	7	16	13	11	4

Mechanical Specifications

Wind Loading at Velocity, frontal	278.0 N @ 150 km/h | 63.6 lbf @ 150 km/h
Wind Loading at Velocity, lateral	230.0 N @ 150 km/h | 51.7 lbf @ 150 km/h
Wind Loading at Velocity, maximum	120.7 lbf @ 150 km/h | 537.0 N @ 150 km/h
Wind Speed, maximum	241 km/h | 149.75 mph

Packaging and Weights

Width, packed	409 mm | 16.102 in
Depth, packed	299 mm | 11.772 in
Length, packed	1952 mm | 76.85 in
Net Weight, without mounting kit	19.8 kg | 43.651 lb
Weight, gross	32.3 kg | 71.209 lb

Regulatory Compliance/Certifications

Agency	**Classification**
CHINA-ROHS	Below maximum concentration value
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
REACH-SVHC	Compliant as per SVHC revision on www.commscope.com/ProductCompliance
ROHS	Compliant

Included Products

BSAMNT-3	—	Wide Profile Antenna Downtilt Mounting Kit for 2.4 - 4.5 in (60 - 115 mm) OD round members. Kit contains one scissor top bracket set and one bottom bracket set.

* Footnotes

Performance Note	Severe environmental conditions may degrade optimum performance

SAMSUNG

AWS/PCS MACRO RADIO

DUAL-BAND AND HIGH POWER FOR MACRO COVERAGE

Samsung's future proof dual-band radio is designed to help effectively increase the coverage areas in wireless networks. This AWS/PCS 4T4R dual-band radio has 4Tx/4Rx to 2Tx/2Rx RF chains options and a total output power of 320W, making it ideal for macro sites.

Model Code	RF4439d-25A

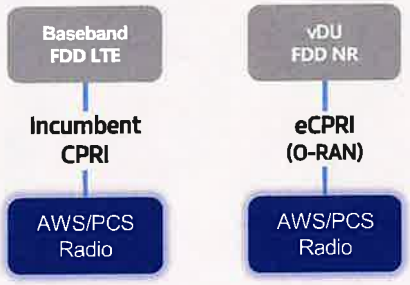
Homepage
samsungnetworks.com

Youtube
www.youtube.com/samsung5g

Points of Differentiation

Continuous Migration

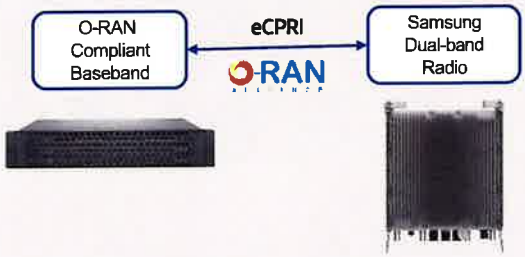
Samsung's AWS/PCS macro radio can support each incumbent CPRI interface as well as advanced eCPRI interfaces. This feature provides installable options for both legacy LTE networks and added NR networks.



O-RAN Compliant

A standardized O-RAN radio can help in implementing cost-effective networks, which are capable of sending more data without compromising additional investments.

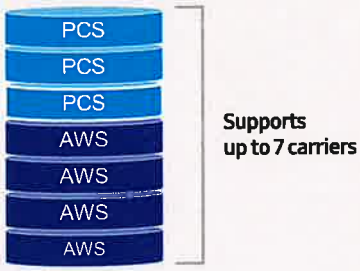
Samsung's state-of-the-art O-RAN technology will help accelerate the effort toward constructing a solid O-RAN ecosystem.



Optimum Spectrum Utilization

The number of required carriers varies according to site (region). Supporting many carriers is essential for using all frequencies that the operator has available.

The new AWS/PCS dual-band radio can support up to 3 carriers in the PCS (1.9GHz) band and 4 carriers in the AWS (2.1GHz) band, respectively.



Brand New Features in a Compact Size

Samsung's AWS/PCS macro radio offers several features, such as dual connectivity for baseband for both CDU and vDU, O-RAN capability, more carriers and an enlarged PCS spectrum, combined into an incumbent radio volume of 36.8L.

\+

- **2 FH connectivity**
- **O-RAN capability**
- **More carriers and spectrum**

Same as an incumbent radio volume

Technical Specifications

Item	Specification
Tech	LTE / NR
Brand	B25(PCS), B66(AWS)
Frequency Band	DL: 1930 – 1995MHz, UL: 1850 – 1915MHz DL: 2110 – 2200MHz, UL: 1710 – 1780MHz
RF Power	(B25) 4 × 40W or 2 × 60W (B66) 4 × 60W or 2 × 80W
IBW/OBW	(B25) 65MHz / 30MHz (B66) DL 90MHz, UL 70MHz / 60MHz
Installation	Pole, Wall
Size/ Weight	14.96 x 14.96 x 10.04inch (36.8L) / 74.7lb

SAMSUNG

700/850MHZ MACRO RADIO

DUAL-BAND AND HIGH POWER FOR MACRO COVERAGE

Samsung's future proof dual-band radio is designed to help effectively increase the coverage areas in wireless networks. This 700/850MHz 4T4R dual-band radio has 4Tx/4Rx to 2Tx/2Rx RF chains options and a total output power of 320W, making it ideal for macro sites.

Model Code	RF4440d-13A

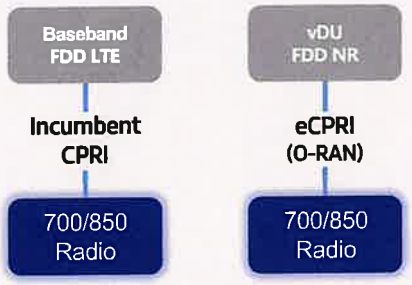
Homepage
samsungnetworks.com

Youtube
www.youtube.com/samsung5g

Points of Differentiation

Continuous Migration

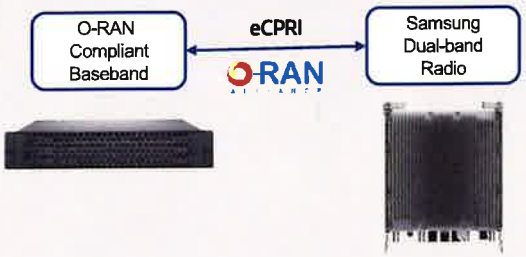
Samsung's 700/850MHz macro radio can support each incumbent CPRI interface as well as an advanced eCPRI interface. This feature provides installable options for both legacy LTE networks and added NR networks.



O-RAN Compliant

A standardized O-RAN radio can help when implementing cost-effective networks because it is capable of sending more data without compromising additional investments.

Samsung's state-of-the-art O-RAN technology will help accelerate the effort toward constructing a solid O-RAN ecosystem.



Optimum Spectrum Utilization

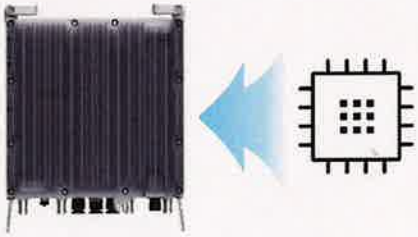
The number of required carriers varies according to site (region). The ability to support many carriers is essential for using all frequencies that the operator has available.

The new 700/850MHz dual-band radio can support up to 2 carriers in the B13 (700MHz) band and 3 carriers in the B5 (850MHz) band, respectively.

Secured Integrity

Access to sensitive data is allowed only to authorized software.

The Samsung radio's CPU can protect root of trust, which is credential information to verify SW integrity, and secure storage provides access control to sensitive data by using dedicated hardware (TPM).



Technical Specifications

Item	Specification
Tech	LTE / NR
Brand	B13(700MHz), B5(850MHz)
Frequency Band	DL: 746 – 756MHz, UL: 777 – 787MHz DL: 869 – 894MHz, UL: 824 – 849MHz
RF Power	(B13) 4 × 40W or 2 × 60W (B5) 4 × 40W or 2 × 60W
IBW/OBW	(B13) 10MHz / 10MHz (B5) 25MHz / 25MHz
Installation	Pole, Wall
Size/ Weight	14.96 x 14.96 x 9.05inch (33.2L) / 70.33 lb

ATTACHMENT 3

C Squared Systems, LLC
65 Dartmouth Drive
Auburn, NH 03032
(603) 644-2800
support@csquaredsystems.com

Calculated Radio Frequency Emissions Report

verizon

Montville 4 CT

57 Cook Drive, Montville, CT

May 24, 2024

Table of Contents

List of Figures

List of Tables

1. Introduction

The purpose of this report is to investigate compliance with applicable FCC regulations for the proposed modification of Verizon's antenna arrays to be mounted at 169' on an existing guyed tower located at 57 Cook Drive in Montville, CT. The coordinates of the tower are 41° 28' 29.9" N, 72° 6' 18.2" W.

Verizon is proposing the following:

1) Install nine (9) multi-band antennas, three (3) per sector to support its commercial LTE and 5G network.

This report considers the planned antenna configuration for Verizon[1] as well as existing antenna configuration for AT&T[2], Sprint[3], T-Mobile[4] and Wireless Solutions, LLC[5] to derive the resulting % MPE of its proposed modification.

2. FCC Guidelines for Evaluating RF Radiation Exposure Limits

In 1985, the FCC established rules to regulate radio frequency (RF) exposure from FCC licensed antenna facilities. In 1996, the FCC updated these rules, which were further amended in August 1997 by OET Bulletin 65 Edition 97-01. These new rules include Maximum Permissible Exposure (MPE) limits for transmitters operating between 300 kHz and 100 GHz. The FCC MPE limits are based upon those recommended by the National Council on Radiation Protection and Measurements (NCRP), developed by the Institute of Electrical and Electronics Engineers, Inc., (IEEE) and adopted by the American National Standards Institute (ANSI).

The FCC general population/uncontrolled limits set the maximum exposure to which most people may be subjected. General population/uncontrolled exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or cannot exercise control over their exposure.

Public exposure to radio frequencies is regulated and enforced in units of milliwatts per square centimeter (mW/cm^2). The general population exposure limits for the various frequency ranges are defined in the attached "FCC Limits for Maximum Permissible Exposure (MPE)" in Attachment C of this report.

Higher exposure limits are permitted under the occupational/controlled exposure category, but only for persons who are exposed as a consequence of their employment and who have been made fully aware of the potential for exposure, and they must be able to exercise control over their exposure. General population/uncontrolled limits are five times more stringent than the levels that are acceptable for occupational, or radio frequency trained individuals. Attachment C contains excerpts from OET Bulletin 65 and defines the Maximum Exposure Limit.

Finally, it should be noted that the MPE limits adopted by the FCC for both general population/uncontrolled exposure and for occupational/controlled exposure incorporate a substantial margin of safety and have been established to be well below levels generally accepted as having the potential to cause adverse health effects.

---

[1] As referenced to Verizon's Radio Frequency Design Sheet updated 04/05/2022.

[2] As referenced to AT&T's Connecticut Siting Council Notice of Exempt Modification – 57 Cook Drive, Montville, Connecticut, dated 12/26/2023.

[3] As referenced to Sprint's Connecticut Siting Council Notice of Exempt Modification Approval – 57 Cook Drive, Montville, Connecticut, dated 08/13/2018.

[4] As referenced to T-Mobile's Connecticut Siting Council Exempt Modification Application – 57 Cook Drive, Montville, Connecticut, dated 07/17/2019.

[5] Heights are in reference to AT&T's Connecticut Siting Council Notice of Exempt Modification – 57 Cook Drive, Montville, Connecticut, dated 12/26/2023. Reasonable assumptions for the antenna model, frequency and power were used in the calculation for absolute worse case %MPE.

3. RF Exposure Prediction Methods

The emission field calculation results displayed in the following figures were generated using the following formula as outlined in FCC bulletin OET 65:

$$\text{Power Density} = \left(\frac{\text{GRF}^2 \times 1.64 \times \text{ERP}}{4\pi \times R^2}\right) \text{X Off Beam Loss}$$

Where:

EIRP = Effective Isotropic Radiated Power

R = Radial Distance = $\sqrt{(H^2 + V^2)}$

H = Horizontal Distance from antenna in meters

V = Vertical Distance from radiation center of antenna in meters

Off Beam Loss is determined by the selected antenna patterns

Ground reflection factor (GRF) of 1.6

These calculations assume that the antennas are operating at 100 percent capacity, that all antenna channels are transmitting simultaneously, and that the radio transmitters are operating at full power. Obstructions (trees, buildings, etc.) that would normally attenuate the signal are not taken into account. The calculations assume even terrain in the area of study and do not take into account actual terrain elevations which could attenuate the signal. As a result, the predicted signal levels reported below are much higher than the actual signal levels will be from the final installations.

4. Antenna Inventory

Table 1 below outlines Verizon's proposed antenna configuration for the site. The associated data sheets and antenna patterns for these specific antenna models are included in Attachments C.

Operator	Sector / Azimuth	TX Freq (MHz)	Power at Antenna (Watts)	Ant Gain (dBi)	Power EIRP (Watts)	Antenna Model	Beam Width	Mech. Tilt	Length (ft)	Antenna Centerline Height (ft)
Verizon	Alpha / 30°	700	80	14.9	2472	NHH-65B-R2B	65	0	6	169
		850	80	15.0	2530		60			
		1900	160	17.9	9866		69			
		2100	240	18.4	16604		64			
		3700	200	25.5	70963	MT6407-77A	-	0	2.92	169
	Beta / 175°	700	80	14.9	2472	NHH-65B-R2B	65	0	6	169
		850	80	15.0	2530		60			
		1900	160	17.9	9866		69			
		2100	240	18.4	16604		64			
		3700	200	25.5	70963	MT6413-77A	-	0	2.92	169
	Gamma / 295°	700	80	14.9	2472	NHH-65B-R2B	65	0	6	169
		850	80	15.0	2530		60			
		1900	160	17.9	9866		69			
		2100	240	18.4	16604		64			
		3700	200	25.5	70963	MT6413-77A	-	0	2.92	169

Table 1: Proposed Antenna Inventory[6] [7]

[6] Antenna heights are in reference to Verizon's Radio Frequency Design Sheet updated 04/05/2022.

[7] Transmit power assumes 0 dB of cable loss.

5. Calculation Results

The calculated power density results are shown in Figure 1 below. For completeness, the calculations for this analysis range from 0 feet horizontal distance (directly below the antennas) to a value of 3,000 feet horizontal distance from the site. In addition to the other worst-case scenario considerations that were previously mentioned, the power density calculations to each horizontal distance point away from the antennas was completed using a local maximum off beam antenna gain (within ± 5 degrees of the true mathematical angle) to incorporate a realistic worst-case scenario.

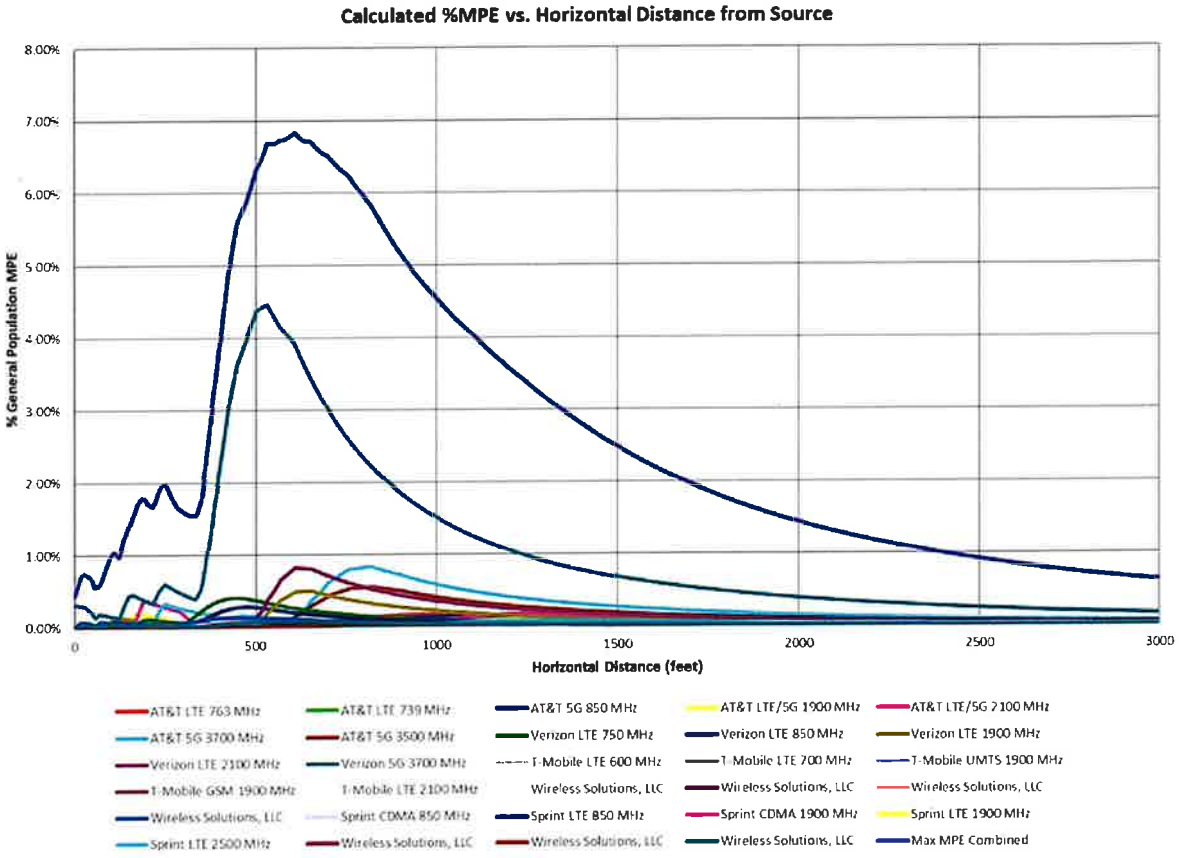


Figure 1: Graph of General Population % MPE vs. Distance

The highest percent of MPE (6.84% of the General Population limit) is calculated to occur at a horizontal distance of 608 feet from antennas. Please note that the percent of MPE calculations close to the site take into account off beam loss, which is determined from the vertical pattern of the antennas used. Therefore, RF power density levels may increase as the distance from the site increases. At distances of approximately 1500 feet and beyond, one would now be in the main beam of the antenna pattern and off beam loss is no longer considered. Beyond this point, RF levels become calculated solely on distance from the site and the percent of MPE decreases significantly as distance from the site increases.

Table 2 below lists percent of MPE values as well as the associated parameters that were included in the calculations. The highest percent of MPE value was calculated to occur at a horizontal distance of 608 feet from the site (reference Figure 1).

As stated in Section 3, all calculations assume that the antennas are operating at 100 percent capacity, that all antenna channels are transmitting simultaneously, and that the radio transmitters are operating at full power. Obstructions (trees, buildings etc.) that would normally attenuate the signal are not taken into account. In addition, a six foot height offset was considered in this analysis to account for average human height. As a result, the predicted signal levels are significantly higher than the actual signal levels will be from the final configuration. The results presented in Figure 1 and Table 2 assume level ground elevation from the base of the tower out to the horizontal distances calculated.

Carrier	Number of Transmitters	Power out of Base Station Per Transmitter (Watts)	Antenna Height (Feet)	Distance to the Base of Antennas (Feet)	Power Density (mW/cm^2)	Limit (mW/cm^2)	% MPE
AT&T 5G 3500 MHz	1	54.2	181.8	608	0.001457	1.000	0.15%
AT&T 5G 3700 MHz	1	86.8	180.0	608	0.001324	1.000	0.13%
AT&T 5G 850 MHz	1	160.0	180.0	608	0.000169	0.567	0.03%
AT&T LTE 739 MHz	1	160.0	180.0	608	0.000089	0.493	0.02%
AT&T LTE 763 MHz	1	160.0	180.0	608	0.000113	0.509	0.02%
AT&T LTE/5G 1900 MHz	1	160.0	180.0	608	0.000502	1.000	0.05%
AT&T LTE/5G 2100 MHz	1	240.0	180.0	608	0.000789	1.000	0.08%
Sprint CDMA 1900 MHz	1	80.0	150.0	608	0.000056	1.000	0.01%
Sprint CDMA 850 MHz	1	20.0	150.0	608	0.000051	0.567	0.01%
Sprint LTE 1900 MHz	1	80.0	150.0	608	0.000056	1.000	0.01%
Sprint LTE 2500 MHz	1	160.0	150.0	608	0.000137	1.000	0.01%
Sprint LTE 850 MHz	1	100.0	150.0	608	0.000255	0.567	0.05%
T-Mobile GSM 1900 MHz	1	120.0	191.0	608	0.000220	1.000	0.02%
T-Mobile LTE 2100 MHz	1	120.0	191.0	608	0.000021	1.000	0.00%
T-Mobile LTE 600 MHz	1	60.0	191.0	608	0.000058	0.400	0.01%
T-Mobile LTE 700 MHz	1	60.0	191.0	608	0.000032	0.467	0.01%
T-Mobile UMTS 1900 MHz	1	60.0	191.0	608	0.000110	1.000	0.01%
Verizon 5G 3700 MHz	1	200.0	169.0	608	0.039251	1.000	3.93%
Verizon LTE 1900 MHz	1	160.0	169.0	608	0.004874	1.000	0.49%
Verizon LTE 2100 MHz	1	240.0	169.0	608	0.008224	1.000	0.82%
Verizon LTE 750 MHz	1	80.0	169.0	608	0.001322	0.500	0.26%
Verizon LTE 850 MHz	1	80.0	169.0	608	0.001156	0.567	0.20%
Wireless Solutions, LLC	1	100.0	113.0	608	0.000295	0.300	0.10%
Wireless Solutions, LLC	1	100.0	118.0	608	0.000276	0.300	0.09%
Wireless Solutions, LLC	1	100.0	117.0	608	0.000280	0.300	0.09%
Wireless Solutions, LLC	1	100.0	98.0	608	0.000344	0.300	0.11%
Wireless Solutions, LLC	1	100.0	190.0	608	0.000048	0.300	0.02%
Wireless Solutions, LLC	1	100.0	182.0	608	0.000065	0.300	0.02%
Wireless Solutions, LLC	1	100.0	123.0	608	0.000258	0.300	0.09%
						Total	**6.84%**

Table 2: Maximum Percent of General Population Exposure Values[8] [9] [10] [11]

[8] Frequencies listed are representative of the operating band and are not the specific operating frequency.

[9] The total % MPE listed is a summation of each unrounded contribution. Therefore, summing each rounded value may not reflect the total value listed in the table.

[10] In the case where antenna pattern data was unavailable from the manufacturer, generic antenna pattern was used based on the frequency, bandwidth and gain of the antenna.

[11] Although Wireless Solutions, LLC are not operational at this time, they are considered in this report for calculating absolute worst case %MPE.

6. Conclusion

The above analysis verifies that RF exposure levels from the site with Verizon's proposed antenna configuration will be well below the maximum permissible levels as outlined by the FCC in the OET Bulletin 65 Ed. 97-01. Using the conservative calculation methods and parameters detailed above, the maximum cumulative percent of MPE in consideration of all transmitters is calculated to be **6.84%** of the FCC limit (General Population/Uncontrolled). This maximum cumulative percent of MPE value is calculated to occur 608 feet away from the site.

7. Statement of Certification

I certify to the best of my knowledge that the statements in this report are true and accurate. The calculations follow guidelines set forth in ANSI/IEEE Std. C95.3, ANSI/IEEE Std. C95.1 and FCC OET Bulletin 65 Edition 97-01.

Report Prepared By: Ram Acharya
RF Engineer
C Squared Systems, LLC

May 23, 2024
Date

Reviewed/Approved By: Martin Lavin
Senior RF Engineer
C Squared Systems, LLC

May 24, 2024
Date

Attachment A: References

OET Bulletin 65 - Edition 97-01 - August 1997 Federal Communications Commission Office of Engineering & Technology

IEEE C95.1-2019, IEEE Standard Safety Levels With Respect to Human Exposure to Electric, Magnetic, and Electromagnetic Fields, 0 Hz to 300 GHz IEEE-SA Standards Board

IEEE C95.3-2021, IEEE Recommended Practice for Measurements and Computations of Electric, Magnetic, and Electromagnetic Fields with Respect to Human Exposure to Such Fields, 0 Hz-300 GHz IEEE-SA Standards Board

Attachment B: FCC Limits for Maximum Permissible Exposure (MPE)

(A) Limits for Occupational/Controlled Exposure[12]

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (E) (A/m)	Power Density (S) (mW/cm^2)	Averaging Time $\|E\|^2$, $\|H\|^2$ or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842/f	4.89/f	($900/f^2$)*	6
30-300	61.4	0.163	1.0	6
300-1500	-	-	f/300	6
1500-100,000	-	-	5	6

(B) Limits for General Population/Uncontrolled Exposure[13]

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (E) (A/m)	Power Density (S) (mW/cm^2)	Averaging Time $\|E\|^2$, $\|H\|^2$ or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	($180/f^2$)*	30
30-300	27.5	0.073	0.2	30
300-1500	-	-	f/1500	30
1500-100,000	-	-	1.0	30

f = frequency in MHz * Plane-wave equivalent power density

Table 3: FCC Limits for Maximum Permissible Exposure

[12] Occupational/controlled limits apply in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure. Limits for occupational/controlled exposure also apply in situations when an individual is transient through a location where occupational/controlled limits apply provided he or she is made aware of the potential for exposure.

[13] General population/uncontrolled exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or cannot exercise control over their exposure.

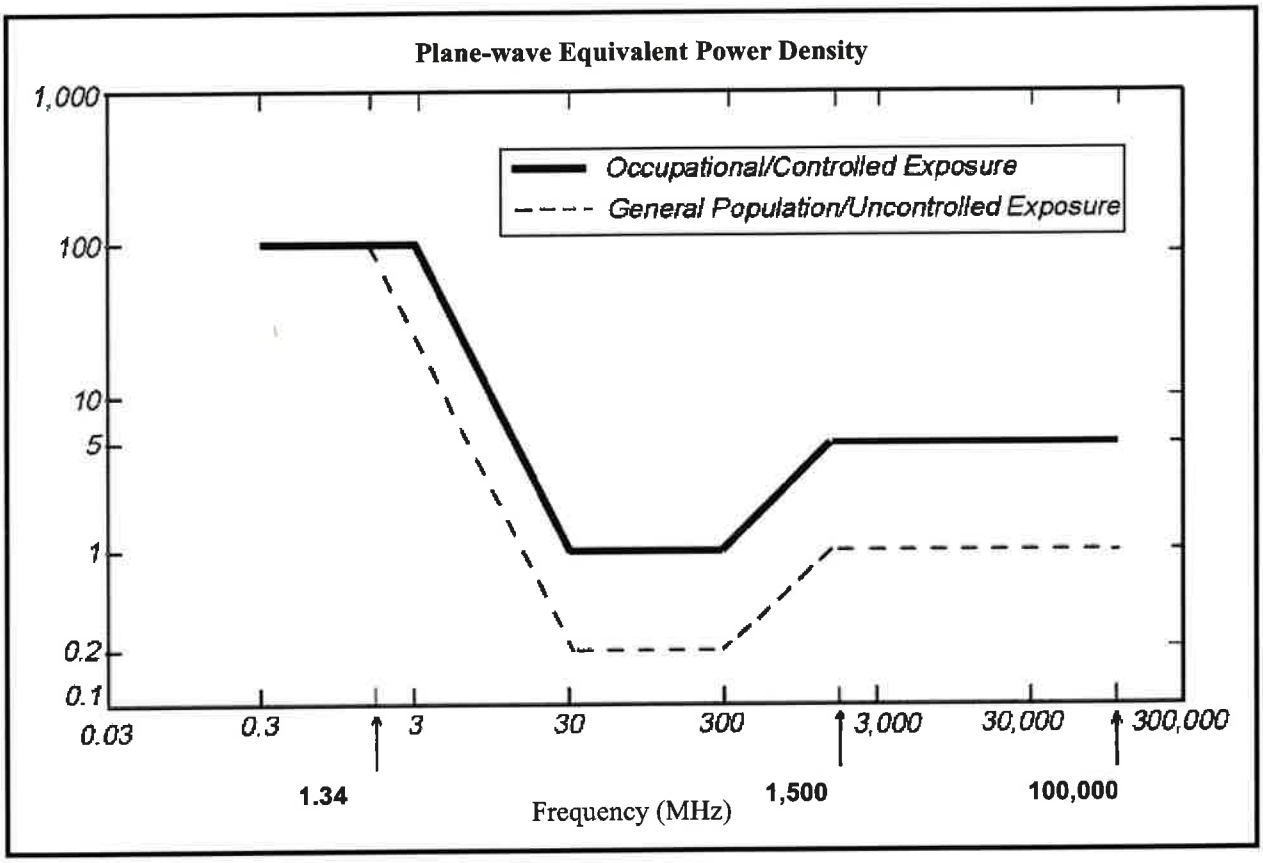
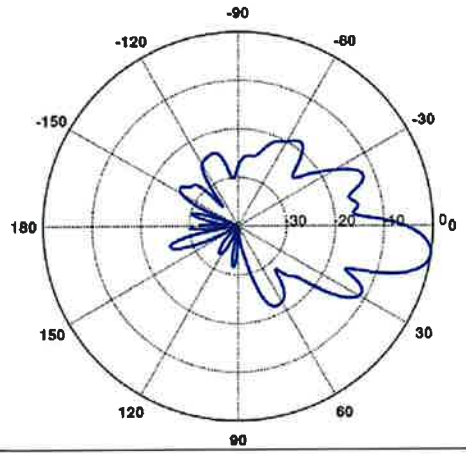


Figure 2: Graph of FCC Limits for Maximum Permissible Exposure (MPE)

Attachment C: Verizon Antenna Model Data Sheets and Electrical Patterns

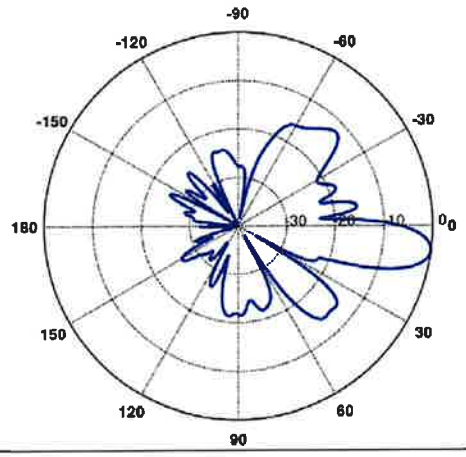
750 MHz

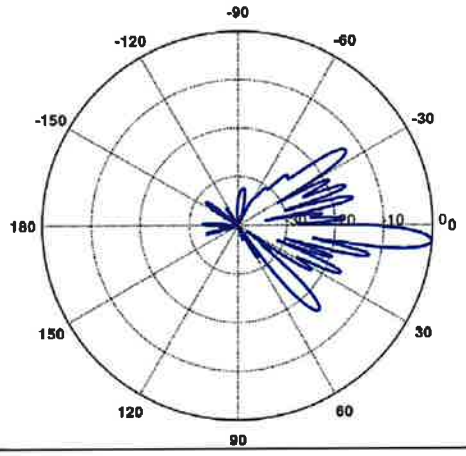
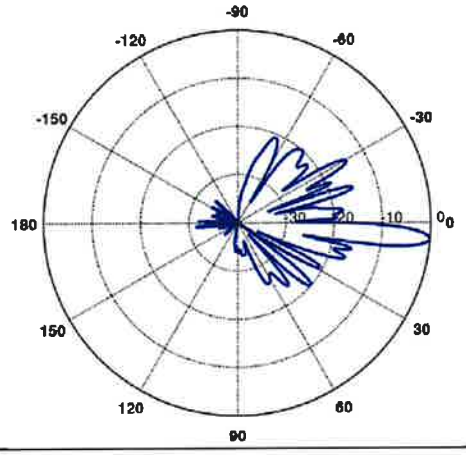
Manufacturer:	COMMSCOPE
Model #:	NHH-65B-R2B
Frequency Band:	698-806 MHz
Gain:	14.9 dBi
Vertical Beamwidth:	12.4°
Horizontal Beamwidth:	65°
Polarization:	±45°
Dimensions (L x W x D):	72.0" x 11.9" x 7.1"



885 MHz

Manufacturer:	COMMSCOPE
Model #:	NHH-65B-R2B
Frequency Band:	806-896 MHz
Gain:	15.0 dBi
Vertical Beamwidth:	11.2°
Horizontal Beamwidth:	60°
Polarization:	±45°
Dimensions (L x W x D):	72.0" x 11.9" x 7.1"



1900 MHz Manufacturer: COMMSCOPE Model #: NHH-65B-R2B Frequency Band: 1850-1990 MHz Gain: 17.9 dBi Vertical Beamwidth: 5.2° Horizontal Beamwidth: 69° Polarization: ±45° Dimensions (L x W x D): 72.0" x 11.9" x 7.1"	
2100 MHz Manufacturer: COMMSCOPE Model #: NHH-65B-R2B Frequency Band: 1920-2200 MHz Gain: 18.4 dBi Vertical Beamwidth: 4.9° Horizontal Beamwidth: 64° Polarization: ±45° Dimensions (L x W x D): 72.0" x 11.9" x 7.1"	

ATTACHMENT 4

May 2, 2024

Alex Tyurin
Verizon Wireless

Tower Engineering Professionals
326 Tryon Road
Raleigh, NC 27603
(919) 661-6351
CS-SA@tepgroup.net

Subject: **Structural Analysis Report**

Verizon Wireless Designation:	**Carrier Site Number:**	5000243569
	Carrier Site Name:	Montville 4 CT
Engineering Firm Designation:	**TEP Project Number:**	83901.937359
Site Data:	**57 Cook Drive, Montville, New London County, CT 06353** **Latitude *41° 28' 29.9"*, Longitude *-72° 06' 18.2"*** **193.6± Foot - Guyed Tower**	

Dear Alex Tyurin,

Tower Engineering Professionals is pleased to submit this **"Structural Analysis Report"** to determine the structural integrity of the above-mentioned tower.

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

LC1: Existing + Proposed Loading **Sufficient Capacity**
Note: See Table 1 for the existing and proposed loading

Structure Capacity	Foundation Capacity
87.2%	51.0%

This analysis utilizes an ultimate 3-second gust wind speed of 125 mph as required by the 2022 Connecticut State Building Code (2021 International Building Code). Applicable Standard references and design criteria are listed in Section 2 - Analysis Criteria.

All modifications and equipment proposed in this report shall be installed in accordance with the appurtenances listed in Table 1 for the determined available structural capacity to be effective.

We at *Tower Engineering Professionals* appreciate the opportunity of providing our continuing professional services to you and *Verizon Wireless.* If you have any questions or need further assistance on this or any other projects, please give us a call.

Structural analysis prepared by: Matthew K. Lackey, P.E. / CS-SA

Respectfully submitted by:

Aaron T. Rucker, P.E.

05/03/2024

TABLE OF CONTENTS

1) INTRODUCTION

This tower is a 193.6± foot Guyed Tower designed by Rohn. Tower Engineering Professionals Northeast visited the site in April of 2024 to perform a full steel and appurtenance mapping. All information provided to TEP was assumed to be accurate and complete.

2) ANALYSIS CRITERIA

TIA-222 Revision:	ANSI/TIA-222-H
Risk Category:	II
Wind Speed:	125
Exposure Category:	B
Topographic Category:	1.0
Ice Thickness:	1.0 in
Wind Speed with Ice:	50 mph
Seismic Design Category:	B
Seismic Ss:	0.198
Seismic S1:	0.054
Service Wind Speed:	60 mph

Table 1 - Existing and Proposed Antenna and Cable Information

Existing/ Proposed	Mount Level (ft)	Ant CL (ft)	Qty	Antenna Model	Mount Type	Qty Coax	Coax Size	Coax Location	Owner/ Tenant
Existing	192.9	194.7	3	RFS APXVAARR24_43-U-NA20 w/ Mount Pipe	(3) Sector	4	1-1/2"Ø	CA Face	T-Mobile
		194.1	3	Ericsson Radio 6649 B41					
		193.2	3	Ericsson AIR 32 w/ Mount Pipe					
		192.9	3	Ericsson Radio 4449					
		192.7	3	Unknown Radio					
	182.0	204.0	1	20' Omni	(3) Sector	1	7/8"Ø	BC Face	Unknown
		186.0	2	6' Omni		2	7/8"Ø	BC Face	
		184.5	1	Raycap DC6		12 4 2	1-1/4"Ø DC Fiber	BC Face	AT&T
		184.0	3	CCI Antennas HPA-65R-BUU-H8 w/ Mount Pipe					
		183.0	1	Quintel QS66512-2 w/ Mount Pipe					
			2	CCI Antennas TPA-65R-LCUUUU-H8 w/ Mount Pipe					
		182.8	1	Raycap DC6					
		181.1	3	Powerwave 7770 w/ Mount Pipe					
		180.0	3	Ericsson RRUS-32					
			3	Ericsson Radio 4426 B66					
		179.8	3	Ericsson RRUS-12 B2					
			3	Ericsson RRUS-11 B12					
		179.0	3	Kaelus DBCT108F1V92-1					
		178.8	3	Powerwave TT19-08BP111-001					

Existing/ Proposed	Mount Level (ft)	Ant CL (ft)	Qty	Antenna Model	Mount Type	Qty Coax	Coax Size	Coax Location	Owner/ Tenant
Existing	168.0	169.0	6	Antel LPA-80080/4CF w/ Mount Pipe	(3) Sector	18	1-5/8	AB Face	Verizon
Proposed	***168.0***	***169.0***	***6***	***Commscope NHH-65B-R2B w/ Mount Pipe***		***1***	***12x24***	***AB Face***	***Verizon***
			3	***Samsung Telecommunications MT6407-77A w/ Mount Pipe***					
			1	***Raycap RVZDC-6627-PF-48***					
			3	***Samsung Telecommunications RF4439d-25A***					
			3	***Samsung Telecommunications RF4440d-13A***					
To Be Removed	*168.0*	*169.0*	*6*	*Andrew SBNHH-1D65B w/ Mount Pipe*	-	*2*	*1-1/4"Ø*	*AB Face*	*Verizon*
			3	*UHBA B13 RRH 4x30*					
			3	*UHFA B25 RRH 4x30*					
			3	*UHIE B66A RRH 4x45*					
			2	*OVP-6*					
Existing	121.0	128.0	1	10' Dipole	Side Arm	1	1-1/4"Ø	BC Face	Unknown
	112.5	113.0	1	10' Dipole	Side Arm	1	1-1/4"Ø		
	110.5	128.0	1	20' Omni	Side Arm	1	7/8"Ø		
	107.0	127.0	1	20' Omni	Side Arm	1	1-1/4"Ø		
	105.8	107.5	1	20' Omni	Side Arm	-	-	-	

3) ANALYSIS PROCEDURE

Table 2 - Documents Provided

Document	Remarks	Source
Previous Structural Analysis Report	TEP Northeast (TEP Opco, LLC) dated April 9, 2024 TEP Project No. 83901.923982	TEP
Mount Analysis	Colliers Engineering & Design dated March 6, 2024 Colliers Project No. 21777019 (Rev. 1)	Verizon
Tower Steel and Appurtenance Mapping	TEP Northeast, dated April 11, 2024 TEP No. 83901.937360	TEP
Correspondence	Correspondence from Verizon Wireless in reference to the existing and proposed loading.	Verizon

3.1) Analysis Method

tnxTower (version 8.2.4.3), a commercially available analysis software package, was used to create a three-dimensional model of the tower and calculate member stresses for various loading cases. Selected output from the analysis is included in Appendix A.

3.2) Assumptions

1) The tower and foundation were built and maintained in accordance with the manufacturer's specification.
2) The configuration of existing antennas, transmission cables, mounts and other appurtenances are as specified in the tower mapping report by TEP.
3) Unless specified by the client or tower mapping, the location of the existing and proposed coax is assumed by TEP and listed in Table 1.
4) All tower components are in sufficient condition to carry their full design capacity.
5) Serviceability with respect to antenna twist, tilt, roll, or lateral translation, is not checked and is left to the carrier or tower owner to ensure conformance.
6) All antenna mounts and mounting hardware are structurally sufficient to carry the full design capacity requirements of appurtenance wind area and weight as provided by the original manufacturer specifications. It is the carrier's responsibility to ensure compliance to the structural limitations of the existing and/or proposed antenna mounts. TEP did not analyze antenna supporting mounts as part of this structural analysis report.
7) The half sleeve modifications mapped from the 140-ft to 160-ft elevations are assumed to be 50 ksi half sleeves and connected to the main tower leg with 3/16" fillet welds at approximately 12' spacing on center.

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

4) ANALYSIS RESULTS

Table 3 - Section Capacity (Summary)

Section No.	Elevation (ft)	Component Type	Size	Critical Element	P (K)	øP$_{allow}$ (K)	% Capacity	Pass / Fail
T1	193.583 - 180.583	Leg	ROHN 2.5 EH	2	-26615.40	106462.65	25.0	Pass
T2	180.583 - 160.583	Leg	2.5 XH w/ HSS3.5x0.25 Half Sleeve	Note 1	Note 1	Note 1	87.2	Pass
T3	160.583 - 140.583	Leg	2.5 XH w/ HSS3.5x0.25 Half Sleeve	Note 1	Note 1	Note 1	83.2	Pass
T4	140.583 - 120.583	Leg	ROHN 2.5 EH	203	-65932.80	99127.24	66.5	Pass
T5	120.583 - 100.583	Leg	ROHN 3 EH	259	-71533.50	140827.05	50.8	Pass
T6	100.583 - 80.5833	Leg	ROHN 3 EH	341	-65395.20	135917.25	48.1	Pass
T7	80.5833 - 60.5833	Leg	ROHN 3 EH	398	-45991.70	135917.25	33.8	Pass
T8	60.5833 - 40.5833	Leg	ROHN 3 EH	454	-54066.20	135917.25	39.8	Pass
T9	40.5833 - 20.5833	Leg	ROHN 3 EH	511	-50777.60	117931.80	43.1	Pass
T10	20.5833 - 5.40104	Leg	ROHN 3 EH	544	-49039.20	117931.80	41.6	Pass
T11	5.40104 - 0.583333	Leg	ROHN 3 EH	573	-53157.20	140744.09	37.8	Pass

Section No.	Elevation (ft)	Component Type	Size	Critical Element	P (K)	ϕP_{allow} (K)	% Capacity	Pass / Fail
T1	193.583 - 180.583	Diagonal	L2x2x1/4	11	3943.68	25709.35	15.3	Pass
T2	180.583 - 160.583	Diagonal	L2x2x1/4	71	7244.25	25709.35	28.2	Pass
T3	160.583 - 140.583	Diagonal	L2x2x1/4	194	-4373.01	29964.69	14.6	Pass
T4	140.583 - 120.583	Diagonal	ROHN 1.5 x 11GA	255	-1774.81	11827.62	15.0	Pass
T5	120.583 - 100.583	Diagonal	L2x2x1/4	268	-3893.15	30078.93	12.9	Pass
T6	100.583 - 80.5833	Diagonal	ROHN 1.5 x 11GA	396	-2555.19	12043.92	21.2	Pass
T7	80.5833 - 60.5833	Diagonal	L1 3/4x1 3/4x3/16	452	-1539.90	11698.47	13.2	Pass
T8	60.5833 - 40.5833	Diagonal	ROHN 1.5 x 11GA	463	-2521.42	12043.92	20.9	Pass
T9	40.5833 - 20.5833	Diagonal	ROHN 1.5 x 11GA	541	-2254.70	12043.92	18.7	Pass
T10	20.5833 - 5.40104	Diagonal	ROHN 1.5 x 11GA	553	977.09	11837.70	8.3	Pass
T11	5.40104 - 0.583333	Horizontal	L4x4x1/4	577	-974.68	62057.94	1.8	Pass
T2	180.583 - 160.583	Secondary Horizontal	L2x2x1/4	64	6666.23	26779.83	24.9	Pass
T3	160.583 - 140.583	Secondary Horizontal	L2x2x1/4	199	2092.68	26779.83	7.8	Pass
T5	120.583 - 100.583	Secondary Horizontal	L2x2x1/4	283	3644.53	26779.83	13.6	Pass
T1	193.583 - 180.583	Top Girt	L2x2x1/4	4	-958.48	23481.36	4.1	Pass
T2	180.583 - 160.583	Top Girt	L2x2x1/4	44	-1602.52	23481.36	6.8	Pass
T3	160.583 - 140.583	Top Girt	ROHN 1.5 x 11GA	125	1529.47	11837.70	12.9	Pass
T4	140.583 - 120.583	Top Girt	ROHN 1.5 x 11GA	205	1166.27	11837.70	9.9	Pass
T5	120.583 - 100.583	Top Girt	L2x2x1/4	262	-1239.00	23665.32	5.2	Pass
T6	100.583 - 80.5833	Top Girt	ROHN 1.5 x 11GA	343	1176.45	11837.70	9.9	Pass
T7	80.5833 - 60.5833	Top Girt	ROHN 1.5 x 11GA	400	823.73	11837.70	7.0	Pass
T8	60.5833 - 40.5833	Top Girt	ROHN 1.5 x 11GA	457	936.45	11837.70	7.9	Pass
T9	40.5833 - 20.5833	Top Girt	ROHN 1.5 x 11GA	516	1005.63	11837.70	8.5	Pass
T10	20.5833 - 5.40104	Top Girt	ROHN 1.5 x 11GA	547	849.38	11837.70	7.2	Pass
T11	5.40104 - 0.583333	Top Girt	L4x4x1/4	575	7486.46	65998.80	11.3	Pass
T1	193.583 - 180.583	Bottom Girt	L2x2x1/4	7	-1542.51	23481.36	6.6	Pass
T2	180.583 - 160.583	Bottom Girt	L2x2x1/4	47	3895.43	26779.83	14.5	Pass
T3	160.583 - 140.583	Bottom Girt	ROHN 1.5 x 11GA	128	1529.47	11837.70	12.9	Pass
T4	140.583 - 120.583	Bottom Girt	ROHN 1.5 x 11GA	208	1166.27	11837.70	9.9	Pass
T5	120.583 - 100.583	Bottom Girt	L2x2x1/4	266	2162.15	26779.83	8.1	Pass

Section No.	Elevation (ft)	Component Type	Size	Critical Element	P (K)	ϕP_{allow} (K)	% Capacity	Pass / Fail
T6	100.583 - 80.5833	Bottom Girt	ROHN 1.5 x 11GA	346	1176.45	11837.70	9.9	Pass
T7	80.5833 - 60.5833	Bottom Girt	ROHN 1.5 x 11GA	403	823.73	11837.70	7.0	Pass
T8	60.5833 - 40.5833	Bottom Girt	ROHN 1.5 x 11GA	461	991.51	11837.70	8.4	Pass
T9	40.5833 - 20.5833	Bottom Girt	ROHN 1.5 x 11GA	517	900.95	11837.70	7.6	Pass
T10	20.5833 - 5.40104	Bottom Girt	ROHN 1.5 x 11GA	551	4325.96	11837.70	36.5	Pass
T2	180.583 - 160.583	Guy A@163.107	3/4	594	23211.00	36729.00	63.2	Pass
T5	120.583 - 100.583	Guy A@103.107	5/8	606	9862.31	26712.00	36.9	Pass
T8	60.5833 - 40.5833	Guy A@43.1068	1/2	618	5015.23	16947.00	29.6	Pass
T2	180.583 - 160.583	Guy B@163.107	3/4	590	22365.30	36729.00	60.9	Pass
T5	120.583 - 100.583	Guy B@103.107	5/8	603	8760.78	26712.00	32.8	Pass
T8	60.5833 - 40.5833	Guy B@43.1068	1/2	614	4590.40	16947.00	27.1	Pass
T2	180.583 - 160.583	Guy C@163.107	3/4	587	22849.50	36729.00	62.2	Pass
T5	120.583 - 100.583	Guy C@103.107	5/8	599	9647.56	26712.00	36.1	Pass
T8	60.5833 - 40.5833	Guy C@43.1068	1/2	611	5273.42	16947.00	31.1	Pass
T2	180.583 - 160.583	Torque Arm Top@163.107	C15x33.9	597	6259.95	330915.88	45.9	Pass
T5	120.583 - 100.583	Torque Arm Top@103.107	C15x33.9	609	2509.20	330915.88	18.4	Pass
T8	60.5833 - 40.5833	Torque Arm Top@43.1068	C12x25	612	-1307.46	214231.48	10.3	Pass
							Summary	
						Leg (T4)	87.2	Pass
						Diagonal (T2)	28.2	Pass
						Horizontal (T11)	1.8	Pass
						Secondary Horizontal (T2)	24.9	Pass
						Top Girt (T3)	12.9	Pass
						Bottom Girt (T10)	36.5	Pass
						Guy A (T2)	63.2	Pass
						Guy B (T2)	60.9	Pass
						Guy C (T2)	62.2	Pass
						Torque Arm Top (T2)	45.9	Pass
						Bolt Checks	76.8	Pass
						RATING =	**87.2**	**Pass**

Table 4 - Tower Component Stresses vs. Capacity

Notes	Component	Elevation (ft)	% Capacity	Pass / Fail
1,2	Base Foundation Structural	-	39.0	Pass
1,2	Base Foundation Soil Interaction	-	51.0	Pass
1,2	Inner Guy Anchor	-	18.8	Pass
1,2	Outer Guy Anchor	-	45.4	Pass

Structure Rating (max from all components) =	87.2%

Notes:
1) A structure rating of 105% or less is within engineering tolerances and considered acceptable.
2) See additional documentation in "Appendix B - Additional Calculations" for calculations supporting the % capacity listed.

4.1) Recommendations

1) If the load differs from that described in Table 1 of this report or the provisions of this analysis are found to be invalid, another structural analysis should be performed.
2) The tower and its foundation have sufficient capacity to carry the proposed load configuration. No modifications are required at this time.

APPENDIX A

TNXTOWER OUTPUT

Section	T11	T10	T9	T8	T7	T6	T5	T4	T3	T2	T1
Legs				ROHN 3 EH				ROHN 2.5 EH	2.5 XH w/ HSS3.5x0.25 Half Sleeve		ROHN 2.5 EH
Leg Grade						A572-50					
Diagonals	N.A.		ROHN 1.5 x 11GA		L1 3/4x1 3/4x3/16	ROHN 1.5 x 11GA	L2x2x1/4	ROHN 1.5 x 11GA	L2x2x1/4		
Diagonal Grade	N.A.		A500-42		A36	A500-42	A36	A500-42	A36		
Top Girts	A		ROHN 1.5 x 11GA				L2x2x1/4	ROHN 1.5 x 11GA	L2x2x1/4		
Bottom Girts	N.A.		ROHN 1.5 x 11GA				L2x2x1/4	ROHN 1.5 x 11GA	L2x2x1/4		
Horizontals	A					N.A.					
Sec. Horizontals			N.A.				L2x2x1/4	N.A.	L2x2x1/4		N.A.
Face Width (ft)											3.41667
# Panels @ (ft)	B					70 @ 2.40885					5 @ 2.45417
Weight (lb)	13437.1	326.7	636.9	829.7	1527.7	1676.1	1907.3	2299.3	851.6	1640.7	2417.8	767.3

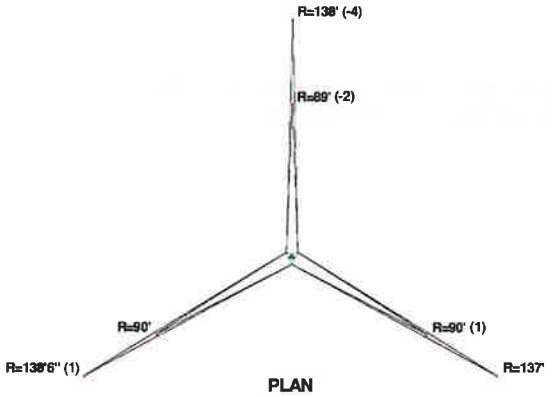
193.6 ft
180.6 ft
163.1 ft
160.6 ft
140.6 ft
120.6 ft
103.1 ft
100.6 ft
80.6 ft
60.6 ft
43.1 ft
40.6 ft
20.6 ft
5.4 ft
0.6 ft

3/4 EHS LC=2154-15/16" IT=10%
5/8 EHS LC=1356-11/32" IT=10%
1/2 EHS LC=971-15/32" IT=10%

912 lb
146170 lb (Axial)
641 lb-ft (Torque)

18178 lb
27950 lb
21231 lb
R=90°

34029 lb
44269 lb
28316 lb
R=138°



PLAN

SYMBOL LIST

MARK	SIZE	MARK	SIZE
A	L4x4x1/4	B	4 @ 1.14193

MATERIAL STRENGTH

GRADE	Fy	Fu	GRADE	Fy	Fu
A572-50	50 ksi	65 ksi	A500-42	42 ksi	58 ksi
A36	36 ksi	58 ksi			

TOWER DESIGN NOTES

1. Tower is located in New London County, Connecticut.
2. Tower designed for Exposure B to the TIA-222-H Standard.
3. Tower designed for a 125 mph basic wind in accordance with the TIA-222-H Standard.
4. Tower is also designed for a 50 mph basic wind with 1.00 in ice. Ice is considered to increase in thickness with height.
5. Deflections are based upon a 60 mph wind.
6. Tower Risk Category II.
7. Topographic Category 1 with Crest Height of 0'
8. TOWER RATING: 87.2%

ALL REACTIONS ARE FACTORED

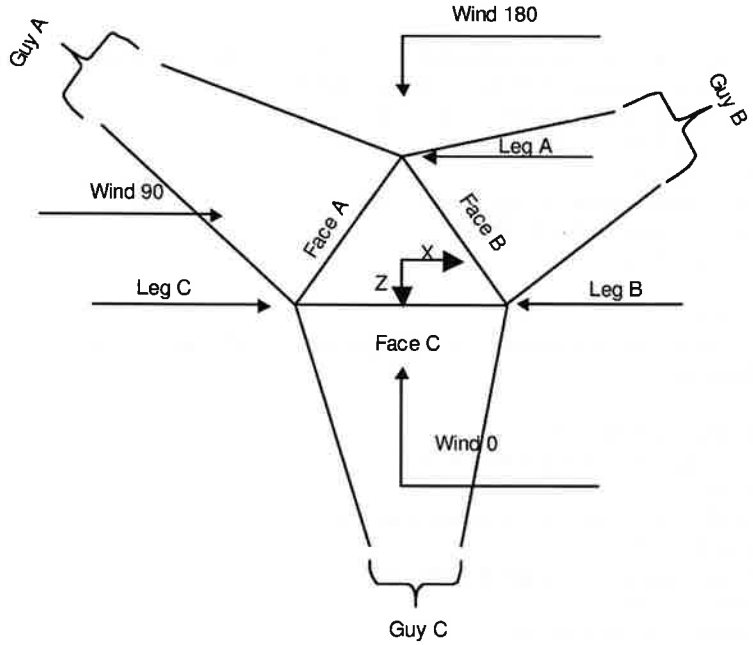
Tower Engineering Professionals
326 Tryon Road
Raleigh, NC 27603
Phone: (919) 661-6351
FAX: (919) 661-6350

Job: Montville 4 CT (5000243569)			
Project: TEP No. 83901.937359			
Client: Verizon	Drawn by: mlackey	App'd:	
Code: TIA-222-H	Date: 05/02/24	Scale: NTS	
Path: C:\Desktop Items\TNX Runs\83901\Montville 4 CT (5000243569).eri		Dwg No. E-1	

Tower Input Data

The main tower is a 3x guyed tower with an overall height of 193'7" above the ground line.
The base of the tower is set at an elevation of 7" above the ground line.
The face width of the tower is 3'5" at the top and tapered at the base.
This tower is designed using the TIA-222-H standard.
The following design criteria apply:

- Tower is located in New London County, Connecticut.
- Tower base elevation above sea level: 361'7".
- Basic wind speed of 125 mph.
- Risk Category II.
- Exposure Category B.
- Simplified Topographic Factor Procedure for wind speed-up calculations is used.
- Topographic Category: 1.
- Crest Height: 0'.
- 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.
- TOWER RATING: 87.2%.
- Pressures are calculated at each section.
- Stress ratio used in tower member design is 1.
- Safety factor used in guy design is 1.
- Tower analysis based on target reliabilities in accordance with Annex S.
- Load Modification Factors used: $K_{es}(F_w) = 0.95$, $K_{es}(t_i) = 0.85$.
- Maximum demand-capacity ratio is: 1.05.
- Local bending stresses due to climbing loads, feed line supports, and appurtenance mounts are not considered.



Face Guyed

Tower Section Geometry

Tower Section	*Tower Elevation*	*Assembly Database*	*Description*	*Section Width*	*Number of Sections*	*Section Length*
	ft			*ft*		*ft*
T1	193'6-31/32"-180' 6-31/32"			3'5-1/32"	1	13'
T2	180'6-31/32"-160' 6-31/32"			3'5-1/32"	1	20'
T3	160'6-31/32"-140' 6-31/32"			3'5-1/32"	1	20'
T4	140'6-31/32"-120' 6-31/32"			3'5-1/32"	1	20'
T5	120'6-31/32"-100' 6-31/32"			3'5-1/32"	1	20'
T6	100'6-31/32"-80'6 -31/32"			3'5-1/32"	1	20'
T7	80'6-31/32"-60'6-31/32"			3'5-1/32"	1	20'
T8	60'6-31/32"-40'6-31/32"			3'5-1/32"	1	20'

Tower Section	Tower Elevation ft	Assembly Database	Description	Section Width ft	Number of Sections	Section Length ft
T9	40'6-31/32"-20'6-31/32"			3'5-1/32"	1	20'
T10	20'6-31/32"-5'4-1 3/16"			3'5-1/32"	1	15'2-5/32"
T11	5'4-13/16"-6-31/32"			3'5-1/32"	1	4'9-27/32"

Tower Section Geometry *(cont'd)*

Tower Section	Tower Elevation ft	Diagonal Spacing ft	Bracing Type	Has K Brace End Panels	Has Horizontals	Top Girt Offset in	Bottom Girt Offset in
T1	193'6-31/32"-180' 6-31/32"	2'5-13/32"	X Brace	No	No	7.3750	1.3750
T2	180'6-31/32"-160' 6-31/32"	2'4-29/32"	X Brace	No	Yes	7.3750	1.3750
T3	160'6-31/32"-140' 6-31/32"	2'4-29/32"	X Brace	No	Yes	7.3750	1.3750
T4	140'6-31/32"-120' 6-31/32"	2'4-29/32"	CX Brace	No	No	7.3750	1.3750
T5	120'6-31/32"-100' 6-31/32"	2'4-29/32"	X Brace	No	Yes	7.3750	1.3750
T6	100'6-31/32"-80'6-31/32"	2'4-29/32"	CX Brace	No	No	7.3750	1.3750
T7	80'6-31/32"-60'6-31/32"	2'4-29/32"	CX Brace	No	No	7.3750	1.3750
T8	60'6-31/32"-40'6-31/32"	2'4-29/32"	CX Brace	No	No	7.3750	1.3750
T9	40'6-31/32"-20'6-31/32"	2'4-29/32"	K Brace Left	No	No	7.3750	1.3750
T10	20'6-31/32"-5'4-1 3/16"	2'4-29/32"	K Brace Left	No	No	7.3750	1.3750
T11	5'4-13/16"-6-31/32"	1'1-11/16"	X Brace	No	Yes	3.0000	0.0000

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Leg Type	Leg Size	Leg Grade	Diagonal Type	Diagonal Size	Diagonal Grade
T1 193'6-31/32"-180' 6-31/32"	Pipe	ROHN 2.5 EH	A572-50 (50 ksi)	Equal Angle	L2x2x1/4	A36 (36 ksi)
T2 180'6-31/32"-160' 6-31/32"	Arbitrary Shape	2.5 XH w/ HSS3.5x0.25 Half Sleeve	A572-50 (50 ksi)	Equal Angle	L2x2x1/4	A36 (36 ksi)
T3 160'6-31/32"-140' 6-31/32"	Arbitrary Shape	2.5 XH w/ HSS3.5x0.25 Half Sleeve	A572-50 (50 ksi)	Equal Angle	L2x2x1/4	A36 (36 ksi)
T4 140'6-31/32"-120'	Pipe	ROHN 2.5 EH	A572-50 (50 ksi)	Pipe	ROHN 1.5 x 11GA	A500-42 (42 ksi)

Tower Elevation ft	Leg Type	Leg Size	Leg Grade	Diagonal Type	Diagonal Size	Diagonal Grade
6-31/32"						
T5 120'6-31/32"-100' 6-31/32"	Pipe	ROHN 3 EH	A572-50 (50 ksi)	Equal Angle	L2x2x1/4	A36 (36 ksi)
T6 100'6-31/32"-80'6 -31/32"	Pipe	ROHN 3 EH	A572-50 (50 ksi)	Pipe	ROHN 1.5 x 11GA	A500-42 (42 ksi)
T7 80'6-31/32"-60'6-31/32"	Pipe	ROHN 3 EH	A572-50 (50 ksi)	Equal Angle	L1 3/4x1 3/4x3/16	A36 (36 ksi)
T8 60'6-31/32"-40'6-31/32"	Pipe	ROHN 3 EH	A572-50 (50 ksi)	Pipe	ROHN 1.5 x 11GA	A500-42 (42 ksi)
T9 40'6-31/32"-20'6-31/32"	Pipe	ROHN 3 EH	A572-50 (50 ksi)	Pipe	ROHN 1.5 x 11GA	A500-42 (42 ksi)
T10 20'6-31/32"-5'4-1 3/16"	Pipe	ROHN 3 EH	A572-50 (50 ksi)	Pipe	ROHN 1.5 x 11GA	A500-42 (42 ksi)
T11 5'4-13/16"-6-31/3 2"	Pipe	ROHN 3 EH	A572-50 (50 ksi)	Solid Round		A500-42 (42 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 193'6-31/32"-180' 6-31/32"	Equal Angle	L2x2x1/4	A36 (36 ksi)	Equal Angle	L2x2x1/4	A36 (36 ksi)
T2 180'6-31/32"-160' 6-31/32"	Equal Angle	L2x2x1/4	A36 (36 ksi)	Equal Angle	L2x2x1/4	A36 (36 ksi)
T3 160'6-31/32"-140' 6-31/32"	Pipe	ROHN 1.5 x 11GA	A500-42 (42 ksi)	Pipe	ROHN 1.5 x 11GA	A500-42 (42 ksi)
T4 140'6-31/32"-120' 6-31/32"	Pipe	ROHN 1.5 x 11GA	A500-42 (42 ksi)	Pipe	ROHN 1.5 x 11GA	A500-42 (42 ksi)
T5 120'6-31/32"-100' 6-31/32"	Equal Angle	L2x2x1/4	A36 (36 ksi)	Equal Angle	L2x2x1/4	A36 (36 ksi)
T6 100'6-31/32"-80'6 -31/32"	Pipe	ROHN 1.5 x 11GA	A500-42 (42 ksi)	Pipe	ROHN 1.5 x 11GA	A500-42 (42 ksi)
T7 80'6-31/32"-60'6-31/32"	Pipe	ROHN 1.5 x 11GA	A500-42 (42 ksi)	Pipe	ROHN 1.5 x 11GA	A500-42 (42 ksi)
T8 60'6-31/32"-40'6-31/32"	Pipe	ROHN 1.5 x 11GA	A500-42 (42 ksi)	Pipe	ROHN 1.5 x 11GA	A500-42 (42 ksi)
T9 40'6-31/32"-20'6-31/32"	Pipe	ROHN 1.5 x 11GA	A500-42 (42 ksi)	Pipe	ROHN 1.5 x 11GA	A500-42 (42 ksi)
T10	Pipe	ROHN 1.5 x 11GA	A500-42	Pipe	ROHN 1.5 x 11GA	A500-42

Tower Elevation ft	Top Girt Type	Top Girt Size	Top Girt Grade	Bottom Girt Type	Bottom Girt Size	Bottom Girt Grade
20'6-31/32"-5'4-1 3/16"			(42 ksi)			(42 ksi)
T11 5'4-13/16"-6-31/3 2"	Equal Angle	L4x4x1/4	A36 (36 ksi)	Equal Angle	L4x4x1/4	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
T11 5'4-13/16"-6-31/3 2"	None	Equal Angle		A572-50 (50 ksi)	Equal Angle	L4x4x1/4	A36 (36 ksi)

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Secondary Horizontal Type	Secondary Horizontal Size	Secondary Horizontal Grade	Inner Bracing Type	Inner Bracing Size	Inner Bracing Grade
T2 180'6-31/32"-160' 6-31/32"	Equal Angle	L2x2x1/4	A36 (36 ksi)	Solid Round		A572-50 (50 ksi)
T3 160'6-31/32"-140' 6-31/32"	Equal Angle	L2x2x1/4	A36 (36 ksi)	Solid Round		A572-50 (50 ksi)
T5 120'6-31/32"-100' 6-31/32"	Equal Angle	L2x2x1/4	A36 (36 ksi)	Solid Round		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 193'6-31/32"-1 80'6-31/32"	0.00	0.3750	A36 (36 ksi)	1	1	1	36.0000	36.0000	36.0000
T2 180'6-31/32"-1 60'6-31/32"	0.00	0.3750	A36 (36 ksi)	1	1	1	36.0000	36.0000	36.0000
T3 160'6-31/32"-1	0.00	0.3750	A36 (36 ksi)	1	1	1	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
40'6-31/32"									
T4 140'6-31/32"-120'6-31/32"	0.00	0.1757	A36 (36 ksi)	1	1	1	36.0000	36.0000	36.0000
T5 120'6-31/32"-100'6-31/32"	0.00	0.3750	A36 (36 ksi)	1	1	1	36.0000	36.0000	36.0000
T6 100'6-31/32"-80'6-31/32"	0.00	0.3750	A36 (36 ksi)	1	1	1	36.0000	36.0000	36.0000
T7 80'6-31/32"-60'6-31/32"	0.00	0.3750	A36 (36 ksi)	1	1	1	36.0000	36.0000	36.0000
T8 60'6-31/32"-40'6-31/32"	0.00	0.3750	A36 (36 ksi)	1	1	1	36.0000	36.0000	36.0000
T9 40'6-31/32"-20'6-31/32"	0.00	0.3750	A36 (36 ksi)	1	1	1	36.0000	36.0000	36.0000
T10 20'6-31/32"-5'4-13/16"	0.00	0.3750	A36 (36 ksi)	1	1	1	36.0000	36.0000	36.0000
T11 5'4-13/16"-6-31/32"	0.00	0.0000	A36 (36 ksi)	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 Y	K Brace Diags X Y	Single Diags X Y	Girts X Y	Horiz. X Y	Sec. Horiz. X Y	Inner Brace X Y
T1 193'6-31/32"-180'6-31/32"	Yes	Yes	1	1 1	1 1	1 1	1 1	1 1	1 1	1 1
T2 180'6-31/32"-160'6-31/32"	Yes	Yes	1	1 1	1 1	1 1	1 1	1 1	1 0.5	1 1
T3 160'6-31/32"-140'6-31/32"	Yes	Yes	1	1 1	1 1	1 1	1 1	1 1	1 0.5	1 1
T4 140'6-31/32"-120'6-31/32"	Yes	Yes	1	1 1	1 1	1 1	1 1	1 1	1 1	1 1
T5 120'6-31/32"-100'6-31/32"	Yes	Yes	1	1 1	1 1	1 1	1 1	1 1	1 0.5	1 1
T6 100'6-31/32"-80'6-31/32"	Yes	Yes	1	1 1	1 1	1 1	1 1	1 1	1 1	1 1
T7 80'6-31/32"-60'6-31/32"	Yes	Yes	1	1 1	1 1	1 1	1 1	1 1	1 1	1 1

Tower Elevation ft	Calc K Single Angles	Calc K Solid Rounds	K Factors[1] Legs	X Brace Diags X	X Brace Diags Y	K Single Diags X	K Single Diags Y	Girts X	Girts Y	Horiz. X	Horiz. Y	Sec. Horiz. X	Sec. Horiz. Y	Inner Brace X	Inner Brace Y
T8 60'6-31/32"-40'6-31/32"	Yes	Yes	1	1	1	1	1	1	1	1	1	1	1	1	1
T9 40'6-31/32"-20'6-31/32"	Yes	Yes	1	1	1	1	1	1	1	1	1	1	1	1	1
T10 20'6-31/32"-5'4-13/16"	Yes	Yes	1	1	1	1	1	1	1	1	1	1	1	1	1
T11 5'4-13/16"-6-31/32"	Yes	Yes	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	Leg Net Width Deduct in	Leg U	Diagonal Net Width Deduct in	Diagonal U	Top Girt Net Width Deduct in	Top Girt U	Bottom Girt Net Width Deduct in	Bottom Girt U	Mid Girt Net Width Deduct in	Mid Girt U	Long Horizontal Net Width Deduct in	Long Horizontal U	Short Horizontal Net Width Deduct in	Short Horizontal U
T1 193'6-31/32"-180'6-31/32"	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
T2 180'6-31/32"-160'6-31/32"	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
T3 160'6-31/32"-140'6-31/32"	0.0000	1	0.0000	0.75	0.0000	0.7	0.0000	0.7	0.0000	0.75	0.0000	0.75	0.0000	0.75
T4 140'6-31/32"-120'6-31/32"	0.0000	1	0.0000	0.7	0.0000	0.7	0.0000	0.7	0.0000	0.75	0.0000	0.75	0.0000	0.75
T5 120'6-31/32"-100'6-31/32"	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 100'6-31/32"-80'6-31/32"	0.0000	1	0.0000	0.7	0.0000	0.7	0.0000	0.7	0.0000	0.75	0.0000	0.75	0.0000	0.75
T7 80'6-31/32"-60'6-31/32"	0.0000	1	0.0000	0.75	0.0000	0.7	0.0000	0.7	0.0000	0.75	0.0000	0.75	0.0000	0.75
T8 60'6-31/32"-40'6-31/32"	0.0000	1	0.0000	0.7	0.0000	0.7	0.0000	0.7	0.0000	0.75	0.0000	0.75	0.0000	0.75
T9 40'6-31/32"-20'6-31/32"	0.0000	1	0.0000	0.7	0.0000	0.7	0.0000	0.7	0.0000	0.75	0.0000	0.75	0.0000	0.75
T10 20'6-31/32"-5'4-13/16"	0.0000	1	0.0000	0.7	0.0000	0.7	0.0000	0.7	0.0000	0.75	0.0000	0.75	0.0000	0.75

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
T11 5'4-13/16"-6-3 1/32"	0.0000	1	0.0000	1	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 193'6-31/32"-180'6-31/32"	0.0000	0.75 (1)	0.0000	0.75 (1)	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75 (1)	0.0000	0.75 (1)
	0.0000	0.75 (2)	0.0000	0.75 (2)							0.0000	0.75 (2)	0.0000	0.75 (2)
	0.0000	0.75 (3)	0.0000	0.75 (3)							0.0000	0.75 (3)	0.0000	0.75 (3)
	0.0000	0.75 (4)	0.0000	0.75 (4)							0.0000	0.75 (4)	0.0000	0.75 (4)
T2 180'6-31/32"-160'6-31/32"	0.0000	0.75 (1)	0.0000	0.75 (1)	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75 (1)	0.0000	0.75 (1)
	0.0000	0.75 (2)	0.0000	0.75 (2)							0.0000	0.75 (2)	0.0000	0.75 (2)
	0.0000	0.75 (3)	0.0000	0.75 (3)							0.0000	0.75 (3)	0.0000	0.75 (3)
	0.0000	0.75 (4)	0.0000	0.75 (4)							0.0000	0.75 (4)	0.0000	0.75 (4)
T3 160'6-31/32"-140'6-31/32"	0.0000	0.75 (1)	0.0000	0.75 (1)	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75 (1)	0.0000	0.75 (1)
	0.0000	0.75 (2)	0.0000	0.75 (2)							0.0000	0.75 (2)	0.0000	0.75 (2)
	0.0000	0.75 (3)	0.0000	0.75 (3)							0.0000	0.75 (3)	0.0000	0.75 (3)
	0.0000	0.75 (4)	0.0000	0.75 (4)							0.0000	0.75 (4)	0.0000	0.75 (4)
T4 140'6-31/32"-120'6-31/32"	0.0000	0.75 (1)	0.0000	0.75 (1)	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75 (1)	0.0000	0.75 (1)
	0.0000	0.75 (2)	0.0000	0.75 (2)							0.0000	0.75 (2)	0.0000	0.75 (2)
	0.0000	0.75 (3)	0.0000	0.75 (3)							0.0000	0.75 (3)	0.0000	0.75 (3)
	0.0000	0.75 (4)	0.0000	0.75 (4)							0.0000	0.75 (4)	0.0000	0.75 (4)
T5 120'6-31/32"-100'6-31/32"	0.0000	0.75 (1)	0.0000	0.75 (1)	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75 (1)	0.0000	0.75 (1)
	0.0000	0.75 (2)	0.0000	0.75 (2)							0.0000	0.75 (2)	0.0000	0.75 (2)
	0.0000	0.75 (3)	0.0000	0.75 (3)							0.0000	0.75 (3)	0.0000	0.75 (3)

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
	0.0000	0.75 (4)	0.0000	0.75 (4)							0.0000	0.75 (4)	0.0000	0.75 (4)
T6 100'6-31/32"-80'6-31/32"	0.0000	0.75 (1)	0.0000	0.75 (1)	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75 (1)	0.0000	0.75 (1)
	0.0000	0.75 (2)	0.0000	0.75 (2)							0.0000	0.75 (2)	0.0000	0.75 (2)
	0.0000	0.75 (3)	0.0000	0.75 (3)							0.0000	0.75 (3)	0.0000	0.75 (3)
	0.0000	0.75 (4)	0.0000	0.75 (4)							0.0000	0.75 (4)	0.0000	0.75 (4)
T7 80'6-31/32"-60'6-31/32"	0.0000	0.75 (1)	0.0000	0.75 (1)	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75 (1)	0.0000	0.75 (1)
	0.0000	0.75 (2)	0.0000	0.75 (2)							0.0000	0.75 (2)	0.0000	0.75 (2)
	0.0000	0.75 (3)	0.0000	0.75 (3)							0.0000	0.75 (3)	0.0000	0.75 (3)
	0.0000	0.75 (4)	0.0000	0.75 (4)							0.0000	0.75 (4)	0.0000	0.75 (4)
T8 60'6-31/32"-40'6-31/32"	0.0000	0.75 (1)	0.0000	0.75 (1)	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75 (1)	0.0000	0.75 (1)
	0.0000	0.75 (2)	0.0000	0.75 (2)							0.0000	0.75 (2)	0.0000	0.75 (2)
	0.0000	0.75 (3)	0.0000	0.75 (3)							0.0000	0.75 (3)	0.0000	0.75 (3)
	0.0000	0.75 (4)	0.0000	0.75 (4)							0.0000	0.75 (4)	0.0000	0.75 (4)
T9 40'6-31/32"-20'6-31/32"	0.0000	0.75 (1)	0.0000	0.75 (1)	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75 (1)	0.0000	0.75 (1)
	0.0000	0.75 (2)	0.0000	0.75 (2)							0.0000	0.75 (2)	0.0000	0.75 (2)
	0.0000	0.75 (3)	0.0000	0.75 (3)							0.0000	0.75 (3)	0.0000	0.75 (3)
	0.0000	0.75 (4)	0.0000	0.75 (4)							0.0000	0.75 (4)	0.0000	0.75 (4)
T10 20'6-31/32"-5'4-13/16"	0.0000	0.75 (1)	0.0000	0.75 (1)	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75 (1)	0.0000	0.75 (1)
	0.0000	0.75 (2)	0.0000	0.75 (2)							0.0000	0.75 (2)	0.0000	0.75 (2)
	0.0000	0.75 (3)	0.0000	0.75 (3)							0.0000	0.75 (3)	0.0000	0.75 (3)
	0.0000	0.75 (4)	0.0000	0.75 (4)							0.0000	0.75 (4)	0.0000	0.75 (4)
T11 5'4-13/16"-6-31/32"	0.0000	0.75 (1)	0.0000	0.75 (1)	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75 (1)	0.0000	0.75 (1)
	0.0000	0.75 (2)	0.0000	0.75 (2)							0.0000	0.75 (2)	0.0000	0.75 (2)

	0.0000	0.75 (3)	0.0000	0.75 (3)									0.0000	0.75 (3)	0.0000	0.75 (3)			
	0.0000	0.75 (4)	0.0000	0.75 (4)									0.0000	0.75 (4)	0.0000	0.75 (4)			

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Leg Connection Type	Leg		Diagonal		Top Girt		Bottom Girt		Mid Girt		Long Horizontal		Short Horizontal	
		Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.
T1 193'6-31/32"-180'6-31/32"	Flange	0.8750 A325X	4	0.6250 A325N	2	0.5000 A325N	2	0.5000 A325N	2	0.0000 A325N	0	0.0000 A325N	0	0.0000 A325N	0
T2 180'6-31/32"-160'6-31/32"	Flange	0.8750 A325X	4	0.6250 A325N	2	0.5000 A325N	2	0.5000 A325N	2	0.0000 A325N	0	0.0000 A325N	0	0.5000 A325N	1
T3 160'6-31/32"-140'6-31/32"	Flange	0.8750 A325X	4	0.6250 A325N	2	0.5000 A325X	1	0.5000 A325X	1	0.0000 A325N	0	0.0000 A325N	0	0.5000 A325N	1
T4 140'6-31/32"-120'6-31/32"	Flange	0.8750 A325X	4	0.5000 A325X	1	0.5000 A325X	1	0.5000 A325X	1	0.0000 A325N	0	0.0000 A325N	0	0.0000 A325N	0
T5 120'6-31/32"-100'6-31/32"	Flange	0.8750 A325X	4	0.6250 A325N	2	0.5000 A325N	2	0.5000 A325N	2	0.0000 A325N	0	0.0000 A325N	0	0.5000 A325N	1
T6 100'6-31/32"-80'6-31/32"	Flange	0.8750 A325X	4	0.5000 A325X	1	0.5000 A325X	1	0.5000 A325X	1	0.0000 A325N	0	0.0000 A325N	0	0.0000 A325N	0
T7 80'6-31/32"-60'6-31/32"	Flange	0.8750 A325X	4	0.5000 A325N	1	0.5000 A325X	1	0.5000 A325X	1	0.0000 A325N	0	0.0000 A325N	0	0.0000 A325N	0
T8 60'6-31/32"-40'6-31/32"	Flange	0.8750 A325X	4	0.5000 A325X	1	0.5000 A325X	1	0.5000 A325X	1	0.0000 A325N	0	0.0000 A325N	0	0.0000 A325N	0
T9 40'6-31/32"-20'6-31/32"	Flange	0.8750 A325X	4	0.5000 A325X	1	0.5000 A325X	1	0.5000 A325X	1	0.0000 A325N	0	0.0000 A325N	0	0.0000 A325N	0
T10 20'6-31/32"-5'4-13/16"	Flange	0.8750 A325X	4	0.5000 A325X	1	0.5000 A325X	1	0.5000 A325X	1	0.0000 A325N	0	0.0000 A325N	0	0.0000 A325N	0
T11 5'4-13/16"-6-3 1/32"	Flange	0.0000 A325X	0	0.5000 A325N	0	0.0000 A325N	0	0.0000 A325N	0	0.0000 A325N	0	0.0000 A325N	0	0.0000 A325N	0

Guy Data

Guy Elevation ft	Guy Grade	Guy Size	Initial Tension lb	%	Guy Modulus ksi	Guy Weight plf	L_u ft	Anchor Radius ft	Anchor Azimuth Adj. °	Anchor Elevation ft	End Fitting Efficiency %

163.107	EHS	A	3/4	5830.00	10%	24000	1.155	215'3-1/8"	138'	0.0000	-4'	100%
		B	3/4	5830.00	10%	24000	1.155	211'6-15/32"	137'	0.0000	0'	100%
		C	3/4	5830.00	10%	24000	1.155	211'8-3/4"	138'6"	0.0000	1'	100%
103.107	EHS	A	5/8	4240.00	10%	23000	0.813	136'3-23/32"	89'	0.0000	-2'	100%
		B	5/8	4240.00	10%	23000	0.813	134'7-29/32"	90'	0.0000	1'	100%
		C	5/8	4240.00	10%	23000	0.813	135'5-1/32"	90'	0.0000	0'	100%
43.1068	EHS	A	1/2	2690.00	10%	23000	0.517	97'10-11/16"	89'	0.0000	-2'	100%
		B	1/2	2690.00	10%	23000	0.517	97'5-9/32"	90'	0.0000	1'	100%
		C	1/2	2690.00	10%	23000	0.517	97'10-9/16"	90'	0.0000	0'	100%

Guy Data *(cont'd)*

Guy Elevation ft	Mount Type	Torque-Arm Spread ft	Torque-Arm Leg Angle °	Torque-Arm Style	Torque-Arm Grade	Torque-Arm Type	Torque-Arm Size
163.107	Torque Arm	7'3-31/32"	0.0000	Channel	A36 (36 ksi)	Channel	C15x33.9
103.107	Torque Arm	7'3-31/32"	0.0000	Channel	A36 (36 ksi)	Channel	C15x33.9
43.1068	Torque Arm	7'3-31/32"	0.0000	Channel	A36 (36 ksi)	Channel	C12x25

Guy Data *(cont'd)*

Guy Elevation ft	Diagonal Grade	Diagonal Type	Upper Diagonal Size	Lower Diagonal Size	Is Strap.	Pull-Off Grade	Pull-Off Type	Pull-Off Size
163'1-5/16'	A572-50 (50 ksi)	Solid Round				A36 (36 ksi)	Single Angle	
103'1-5/16'	A572-50 (50 ksi)	Solid Round				A36 (36 ksi)	Single Angle	
43'1-5/16"	A572-50 (50 ksi)	Solid Round				A36 (36 ksi)	Single Angle	

Guy Data *(cont'd)*

Guy Elevation ft	Cable Weight A lb	Cable Weight B lb	Cable Weight C lb	Cable Weight D lb	Tower Intercept A ft	Tower Intercept B ft	Tower Intercept C ft	Tower Intercept D ft
163.107	248.63	244.32	244.55		4'6-1/4" 3.7 sec/pulse	4'4-7/16" 3.6 sec/pulse	4'4-7/16" 3.6 sec/pulse	
103.107	110.82	109.48	110.10		1'9-1/4" 2.3 sec/pulse	1'8-5/8" 2.3 sec/pulse	1'8-7/8" 2.3 sec/pulse	
43.1068	50.61	50.38	50.60		11-1/32" 1.7 sec/pulse	10-29/32" 1.6 sec/pulse	11-1/32" 1.7 sec/pulse	

Guy Data *(cont'd)*

Guy Elevation ft	Calc K Single Angles	Calc K Solid Rounds	Torque Arm K_x	Torque Arm K_y	Pull Off K_x	Pull Off K_y	Diagonal K_x	Diagonal K_y
163.107	No	No	1	1	1	1	1	1
103.107	No	No	1	1	1	1	1	1
43.1068	No	No	1	1	1	1	1	1

Guy Data *(cont'd)*

Guy Elevation ft	Torque-Arm Bolt Size in	Torque-Arm Number	Torque-Arm Net Width Deduct in	Torque-Arm U	Pull Off Bolt Size in	Pull Off Number	Pull Off Net Width Deduct in	Pull Off U	Diagonal Bolt Size in	Diagonal Number	Diagonal Net Width Deduct in	Diagonal U
163.107	0.6250 A325N	6	0.0000	0.75	0.0000 A325N	0	0.0000	0.75	0.6250 A325N	0	0.0000	0.75
103.107	0.6250 A325N	6	0.0000	0.75	0.0000 A325N	0	0.0000	0.75	0.6250 A325N	0	0.0000	0.75
43.1068	0.6250 A325N	6	0.0000	0.75	0.0000 A325N	0	0.0000	0.75	0.6250 A325N	0	0.0000	0.75

Guy Pressures

Guy Elevation ft	Guy Location	z ft	q_z psf	q_z Ice psf	Ice Thickness in
163.107	A	79'6-19/32"	30	5	0.9282
	B	81'6-19/32"	30	5	0.9305
	C	82'19/32"	30	5	0.9311
103.107	A	50'6-19/32"	26	4	0.8870
	B	52'19/32"	26	4	0.8896
	C	51'6-19/32"	26	4	0.8888
43.1068	A	20'6-19/32"	22	4	0.8107
	B	22'19/32"	22	4	0.8164
	C	21'6-19/32"	22	4	0.8146

Guy-Tensioning Information

Guy Elevation ft		H ft	V ft	Temperature At Time Of Tensioning 0 F Initial Tension lb	0 F Intercept ft	20 F Initial Tension lb	20 F Intercept ft	40 F Initial Tension lb	40 F Intercept ft	60 F Initial Tension lb	60 F Intercept ft	80 F Initial Tension lb	80 F Intercept ft	100 F Initial Tension lb	100 F Intercept ft	120 F Initial Tension lb	120 F Intercept ft
163.107	A	135.93	167.11	7011	3.77	6614	3.99	6219	4.24	5830	4.52	5446	4.83	5070	5.19	4702	5.58
	B	134.93	163.11	7037	3.63	6630	3.84	6228	4.09	5830	4.37	5438	4.68	5054	5.03	4678	5.42
	C	136.43	162.11	7060	3.62	6646	3.84	6235	4.09	5830	4.37	5431	4.69	5040	5.05	4658	5.46
103.107	A	86.96	105.11	5081	1.47	4800	1.56	4519	1.66	4240	1.77	3962	1.89	3687	2.03	3414	2.19
	B	87.96	102.11	5122	1.43	4827	1.52	4533	1.61	4240	1.72	3949	1.85	3661	1.99	3375	2.16
	C	87.96	103.11	5112	1.45	4820	1.53	4529	1.63	4240	1.74	3952	1.87	3667	2.01	3385	2.18
43.1068	A	86.96	45.11	3731	0.66	3382	0.73	3035	0.81	2690	0.92	2349	1.05	2014	1.22	1688	1.46
	B	87.96	42.11	3764	0.65	3404	0.72	3046	0.80	2690	0.91	2338	1.05	1995	1.23	1663	1.47

				Temperature At Time Of Tensioning													
				0 F		20 F		40 F		60 F		80 F		100 F		120 F	
Guy Elevation		H	V	Initial Tension	Intercept	Initial Tension	Intercept	Initial Tension	Intercept	Initial Tension	Intercept	Initial Tension	Intercept	Initial Tension	Intercept	Initial Tension	Intercept
ft		ft	ft	lb	ft	lb	ft	lb	ft	lb	ft	lb	ft	lb	ft	lb	ft
	C	87.96	43.11	3755	0.66	3398	0.73	3043	0.81	2690	0.92	2341	1.05	1999	1.23	1671	1.47

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
*****													
6X12 Hybrid Cables	A	No	No	Ar (CaAa)	193'6" - 8'6-31/32"	0.3000	0	4	4	0.1250	1.5400		1.70
*****													
DC Cable	C	No	No	Ar (CaAa)	182'6-31/32' - 8'6-31/32"	2.0000	0.38	1	1	0.1250	0.9570		0.88
Fiber Cable (1-1/4")	C	No	No	Ar (CaAa)	182'6-31/32' - 8'6-31/32"	2.0000	0.33	2	2	0.1250	1.2500		0.48
DC Cable	C	No	No	Ar (CaAa)	182'6-31/32' - 8'6-31/32"	2.0000	0.28	1	1	0.1250	0.9570		0.88
Fiber Cable (1-1/4")	C	No	No	Ar (CaAa)	182'6-31/32' - 8'6-31/32"	2.0000	0.23	2	2	0.1250	1.2500		0.48
LDF5-50A(7/8)	C	No	No	Ar (CaAa)	182'6-31/32' - 8'6-31/32"	0.3000	0.28	12	8	0.5000	1.0900		0.33
*****													
LDF7-50A(1-5/8")	B	No	No	Ar (CaAa)	170'31/32" - 8'6-31/32"	-0.3000	0	18	12	0.5000	1.9800		0.82
MLCH 12/24 LOW INDUCTION(2)	B	No	No	Ar (CaAa)	170'31/32" - 8'6-31/32"	-2.0000	0	2	2	2.0160	2.0160		3.04
*****													
LDF5-50A(7/8)	B	No	No	Ar (CaAa)	193'6-31/32' - 8'6-31/32"	1.0000	0.4	1	1	1.0900	1.0900		0.33
LDF6-50A(1-1/4)	C	No	No	Ar (CaAa)	106'3-31/32' - 8'6-31/32"	1.0000	-0.17	4	4	1.5500	1.5500		0.60
LDF6-50A(1-1/4)	C	No	No	Ar (CaAa)	107'6-31/32' - 106'3-31/32'	1.0000	-0.17	3	3	1.5500	1.5500		0.60
LDF6-50A(1-1/4)	C	No	No	Ar (CaAa)	113'31/32" - 107'6-31/32'	1.0000	-0.17	2	2	1.5500	1.5500		0.60
LDF6-50A(1-1/4)	C	No	No	Ar (CaAa)	121'6-31/32' - 113'31/32"	1.0000	-0.17	1	1	1.5500	1.5500		0.60
LCF78-50J (7/8 FOAM)	C	No	No	Ar (CaAa)	111'31/32" - 8'6-31/32"	1.0000	-0.17	3	3	0.1250	1.1000		0.53
LCF78-50J (7/8 FOAM)	C	No	No	Ar (CaAa)	182'6-31/32' -	1.0000	-0.17	2	2	0.1250	1.1000		0.53

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
LDF7-50A(1-5/8)	C	No	No	Ar (CaAa)	111'31/32" 193'6-31/32' - 8'6-31/32"	1.0000	-0.17	1	1	1.9800	1.9800		0.82

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 lb
T1	193'6-31/32"-180' 6-31/32"	A	0.000	0.000	7.958	0.000	87.85
		B	0.000	0.000	1.417	0.000	4.29
		C	0.000	0.000	7.013	0.000	28.08
T2	180'6-31/32"-160' 6-31/32"	A	0.000	0.000	12.320	0.000	136.00
		B	0.000	0.000	39.868	0.000	204.58
		C	0.000	0.000	48.348	0.000	190.60
T3	160'6-31/32"-140' 6-31/32"	A	0.000	0.000	12.320	0.000	136.00
		B	0.000	0.000	81.524	0.000	423.40
		C	0.000	0.000	48.348	0.000	190.60
T4	140'6-31/32"-120' 6-31/32"	A	0.000	0.000	12.320	0.000	136.00
		B	0.000	0.000	81.524	0.000	423.40
		C	0.000	0.000	48.503	0.000	191.20
T5	120'6-31/32"-100' 6-31/32"	A	0.000	0.000	12.320	0.000	136.00
		B	0.000	0.000	81.524	0.000	423.40
		C	0.000	0.000	56.517	0.000	223.31
T6	100'6-31/32"-80'6-31/32"	A	0.000	0.000	12.320	0.000	136.00
		B	0.000	0.000	81.524	0.000	423.40
		C	0.000	0.000	62.948	0.000	249.20
T7	80'6-31/32"-60'6-3 1/32"	A	0.000	0.000	12.320	0.000	136.00
		B	0.000	0.000	81.524	0.000	423.40
		C	0.000	0.000	62.948	0.000	249.20
T8	60'6-31/32"-40'6-3 1/32"	A	0.000	0.000	12.320	0.000	136.00
		B	0.000	0.000	81.524	0.000	423.40
		C	0.000	0.000	62.948	0.000	249.20
T9	40'6-31/32"-20'6-3 1/32"	A	0.000	0.000	12.320	0.000	136.00
		B	0.000	0.000	81.524	0.000	423.40
		C	0.000	0.000	62.948	0.000	249.20
T10	20'6-31/32"-5'4-13 /16"	A	0.000	0.000	7.392	0.000	81.60
		B	0.000	0.000	48.914	0.000	254.04
		C	0.000	0.000	37.769	0.000	149.52
T11	5'4-13/16"-6-31/32 "	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.000	0.00

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 lb
T1	193'6-31/32"-180' 6-31/32"	A	1.011	0.000	0.000	14.968	0.000	189.88
		B		0.000	0.000	4.046	0.000	38.03
		C		0.000	0.000	14.324	0.000	143.04
T2	180'6-31/32"-160'	A	1.002	0.000	0.000	23.111	0.000	292.42

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 lb
	6-31/32"	B		0.000	0.000	51.735	0.000	715.68
		C		0.000	0.000	98.849	0.000	926.25
T3	160'6-31/32"-140'	A	0.989	0.000	0.000	23.030	0.000	290.38
	6-31/32"	B		0.000	0.000	101.854	0.000	1432.57
		C		0.000	0.000	98.362	0.000	916.25
T4	140'6-31/32"-120'	A	0.975	0.000	0.000	22.939	0.000	288.10
	6-31/32"	B		0.000	0.000	101.604	0.000	1421.07
		C		0.000	0.000	98.164	0.000	908.66
T5	120'6-31/32"-100'	A	0.959	0.000	0.000	22.834	0.000	285.48
	6-31/32"	B		0.000	0.000	101.316	0.000	1407.90
		C		0.000	0.000	117.370	0.000	1082.06
T6	100'6-31/32"-80'6-	A	0.940	0.000	0.000	22.711	0.000	282.42
	31/32"	B		0.000	0.000	100.977	0.000	1392.44
		C		0.000	0.000	132.003	0.000	1218.25
T7	80'6-31/32"-60'6-3	A	0.917	0.000	0.000	22.560	0.000	278.69
	1/32"	B		0.000	0.000	100.562	0.000	1373.64
		C		0.000	0.000	130.957	0.000	1194.41
T8	60'6-31/32"-40'6-3	A	0.887	0.000	0.000	22.364	0.000	273.90
	1/32"	B		0.000	0.000	100.024	0.000	1349.40
		C		0.000	0.000	129.602	0.000	1163.78
T9	40'6-31/32"-20'6-3	A	0.844	0.000	0.000	22.082	0.000	267.04
	1/32"	B		0.000	0.000	99.246	0.000	1314.60
		C		0.000	0.000	127.642	0.000	1120.05
T10	20'6-31/32"-5'4-13	A	0.774	0.000	0.000	12.981	0.000	153.79
	/16"	B		0.000	0.000	58.805	0.000	756.01
		C		0.000	0.000	70.421	0.000	602.31
T11	5'4-13/16"-6-31/32	A	0.669	0.000	0.000	0.000	0.000	0.00
	"	B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.000	0.00

Feed Line Center of Pressure

Section	Elevation ft	CP_X in	CP_Z in	CP_X Ice in	CP_Z Ice in
T1	193'6-31/32"-180'6-3 1/32"	-0.8473	0.4156	-0.4462	0.9254
T2	180'6-31/32"-160'6-3 1/32"	-1.8525	0.6032	-1.5044	1.5531
T3	160'6-31/32"-140'6-3 1/32"	-0.6644	-0.6358	-0.8230	0.7371
T4	140'6-31/32"-120'6-3 1/32"	-0.8332	-0.7433	-1.2177	1.0600
T5	120'6-31/32"-100'6-3 1/32"	-0.3139	-0.3484	-0.4313	1.0372
T6	100'6-31/32"-80'6-31 /32"	-0.0774	-0.3796	-0.1662	1.4011
T7	80'6-31/32"-60'6-31/ 32"	-0.0699	-0.3540	-0.1527	1.3158
T8	60'6-31/32"-40'6-31/ 32"	-0.0774	-0.3796	-0.1567	1.3465
T9	40'6-31/32"-20'6-31/ 32"	-0.0812	-0.3984	-0.1635	1.4411
T10	20'6-31/32"-5'4-13/1 6"	-0.0755	-0.3706	-0.3182	1.2378
T11	5'4-13/16"-6-31/32"	0.0000	0.0000	0.0000	0.0000

Shielding Factor Ka

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T1	2	6X12 Hybrid Cables	180.58 - 193.50	0.6000	0.4801
T1	4	DC Cable	180.58 - 182.58	0.6000	0.4801
T1	5	Fiber Cable (1-1/4")	180.58 - 182.58	0.6000	0.4801
T1	6	DC Cable	180.58 - 182.58	0.6000	0.4801
T1	7	Fiber Cable (1-1/4")	180.58 - 182.58	0.6000	0.4801
T1	10	LDF5-50A(7/8)	180.58 - 182.58	0.6000	0.4801
T1	16	LDF5-50A(7/8)	180.58 - 193.58	0.6000	0.4801
T1	22	LCF78-50J (7/8 FOAM)	180.58 - 182.58	0.6000	0.4801
T1	23	LDF7-50A(1-5/8)	180.58 - 193.58	0.6000	0.4801
T2	2	6X12 Hybrid Cables	160.58 - 180.58	0.6000	0.3501
T2	4	DC Cable	160.58 - 180.58	0.6000	0.3501
T2	5	Fiber Cable (1-1/4")	160.58 - 180.58	0.6000	0.3501
T2	6	DC Cable	160.58 - 180.58	0.6000	0.3501
T2	7	Fiber Cable (1-1/4")	160.58 - 180.58	0.6000	0.3501
T2	10	LDF5-50A(7/8)	160.58 - 180.58	0.6000	0.3501
T2	12	LDF7-50A(1-5/8")	160.58 - 170.08	0.6000	0.3501
T2	14	MLCH 12/24 LOW INDUCTION(2)	160.58 - 170.08	0.6000	0.3501
T2	16	LDF5-50A(7/8)	160.58 - 180.58	0.6000	0.3501
T2	22	LCF78-50J (7/8 FOAM)	160.58 - 180.58	0.6000	0.3501
T2	23	LDF7-50A(1-5/8)	160.58 - 180.58	0.6000	0.3501
T3	2	6X12 Hybrid Cables	140.58 - 160.58	0.6000	0.3568
T3	4	DC Cable	140.58 - 160.58	0.6000	0.3568
T3	5	Fiber Cable (1-1/4")	140.58 - 160.58	0.6000	0.3568
T3	6	DC Cable	140.58 - 160.58	0.6000	0.3568
T3	7	Fiber Cable (1-1/4")	140.58 - 160.58	0.6000	0.3568
T3	10	LDF5-50A(7/8)	140.58 - 160.58	0.6000	0.3568
T3	12	LDF7-50A(1-5/8")	140.58 -	0.6000	0.3568

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T3	14	MLCH 12/24 LOW INDUCTION(2)	140.58 - 160.58	0.6000	0.3568
T3	16	LDF5-50A(7/8)	140.58 - 160.58	0.6000	0.3568
T3	22	LCF78-50J (7/8 FOAM)	140.58 - 160.58	0.6000	0.3568
T3	23	LDF7-50A(1-5/8)	140.58 - 160.58	0.6000	0.3568
T4	2	6X12 Hybrid Cables	120.58 - 140.58	0.6000	0.5313
T4	4	DC Cable	120.58 - 140.58	0.6000	0.5313
T4	5	Fiber Cable (1-1/4")	120.58 - 140.58	0.6000	0.5313
T4	6	DC Cable	120.58 - 140.58	0.6000	0.5313
T4	7	Fiber Cable (1-1/4")	120.58 - 140.58	0.6000	0.5313
T4	10	LDF5-50A(7/8)	120.58 - 140.58	0.6000	0.5313
T4	12	LDF7-50A(1-5/8")	120.58 - 140.58	0.6000	0.5313
T4	14	MLCH 12/24 LOW INDUCTION(2)	120.58 - 140.58	0.6000	0.5313
T4	16	LDF5-50A(7/8)	120.58 - 140.58	0.6000	0.5313
T4	20	LDF6-50A(1-1/4)	120.58 - 121.58	0.6000	0.5313
T4	22	LCF78-50J (7/8 FOAM)	120.58 - 140.58	0.6000	0.5313
T4	23	LDF7-50A(1-5/8)	120.58 - 140.58	0.6000	0.5313
T5	2	6X12 Hybrid Cables	100.58 - 120.58	0.6000	0.3764
T5	4	DC Cable	100.58 - 120.58	0.6000	0.3764
T5	5	Fiber Cable (1-1/4")	100.58 - 120.58	0.6000	0.3764
T5	6	DC Cable	100.58 - 120.58	0.6000	0.3764
T5	7	Fiber Cable (1-1/4")	100.58 - 120.58	0.6000	0.3764
T5	10	LDF5-50A(7/8)	100.58 - 120.58	0.6000	0.3764
T5	12	LDF7-50A(1-5/8")	100.58 - 120.58	0.6000	0.3764
T5	14	MLCH 12/24 LOW INDUCTION(2)	100.58 - 120.58	0.6000	0.3764
T5	16	LDF5-50A(7/8)	100.58 - 120.58	0.6000	0.3764
T5	17	LDF6-50A(1-1/4)	100.58 - 106.33	0.6000	0.3764
T5	18	LDF6-50A(1-1/4)	106.33 - 107.58	0.6000	0.3764
T5	19	LDF6-50A(1-1/4)	107.58 - 113.08	0.6000	0.3764
T5	20	LDF6-50A(1-1/4)	113.08 - 120.58	0.6000	0.3764
T5	21	LCF78-50J (7/8 FOAM)	100.58 - 111.08	0.6000	0.3764
T5	22	LCF78-50J (7/8 FOAM)	111.08 -	0.6000	0.3764

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T5	23	LDF7-50A(1-5/8)	120.58 - 120.58	0.6000	0.3764
T6	2	6X12 Hybrid Cables	80.58 - 100.58	0.6000	0.5222
T6	4	DC Cable	80.58 - 100.58	0.6000	0.5222
T6	5	Fiber Cable (1-1/4")	80.58 - 100.58	0.6000	0.5222
T6	6	DC Cable	80.58 - 100.58	0.6000	0.5222
T6	7	Fiber Cable (1-1/4")	80.58 - 100.58	0.6000	0.5222
T6	10	LDF5-50A(7/8)	80.58 - 100.58	0.6000	0.5222
T6	12	LDF7-50A(1-5/8")	80.58 - 100.58	0.6000	0.5222
T6	14	MLCH 12/24 LOW INDUCTION(2)	80.58 - 100.58	0.6000	0.5222
T6	16	LDF5-50A(7/8)	80.58 - 100.58	0.6000	0.5222
T6	17	LDF6-50A(1-1/4)	80.58 - 100.58	0.6000	0.5222
T6	21	LCF78-50J (7/8 FOAM)	80.58 - 100.58	0.6000	0.5222
T6	23	LDF7-50A(1-5/8)	80.58 - 100.58	0.6000	0.5222
T7	2	6X12 Hybrid Cables	60.58 - 80.58	0.6000	0.5106
T7	4	DC Cable	60.58 - 80.58	0.6000	0.5106
T7	5	Fiber Cable (1-1/4")	60.58 - 80.58	0.6000	0.5106
T7	6	DC Cable	60.58 - 80.58	0.6000	0.5106
T7	7	Fiber Cable (1-1/4")	60.58 - 80.58	0.6000	0.5106
T7	10	LDF5-50A(7/8)	60.58 - 80.58	0.6000	0.5106
T7	12	LDF7-50A(1-5/8")	60.58 - 80.58	0.6000	0.5106
T7	14	MLCH 12/24 LOW INDUCTION(2)	60.58 - 80.58	0.6000	0.5106
T7	16	LDF5-50A(7/8)	60.58 - 80.58	0.6000	0.5106
T7	17	LDF6-50A(1-1/4)	60.58 - 80.58	0.6000	0.5106
T7	21	LCF78-50J (7/8 FOAM)	60.58 - 80.58	0.6000	0.5106
T7	23	LDF7-50A(1-5/8)	60.58 - 80.58	0.6000	0.5106
T8	2	6X12 Hybrid Cables	40.58 - 60.58	0.6000	0.5335
T8	4	DC Cable	40.58 - 60.58	0.6000	0.5335
T8	5	Fiber Cable (1-1/4")	40.58 - 60.58	0.6000	0.5335
T8	6	DC Cable	40.58 - 60.58	0.6000	0.5335
T8	7	Fiber Cable (1-1/4")	40.58 - 60.58	0.6000	0.5335
T8	10	LDF5-50A(7/8)	40.58 - 60.58	0.6000	0.5335
T8	12	LDF7-50A(1-5/8")	40.58 - 60.58	0.6000	0.5335
T8	14	MLCH 12/24 LOW INDUCTION(2)	40.58 - 60.58	0.6000	0.5335
T8	16	LDF5-50A(7/8)	40.58 - 60.58	0.6000	0.5335
T8	17	LDF6-50A(1-1/4)	40.58 - 60.58	0.6000	0.5335
T8	21	LCF78-50J (7/8 FOAM)	40.58 - 60.58	0.6000	0.5335
T8	23	LDF7-50A(1-5/8)	40.58 - 60.58	0.6000	0.5335
T9	2	6X12 Hybrid Cables	20.58 - 40.58	0.6000	0.6000
T9	4	DC Cable	20.58 - 40.58	0.6000	0.6000
T9	5	Fiber Cable (1-1/4")	20.58 - 40.58	0.6000	0.6000
T9	6	DC Cable	20.58 - 40.58	0.6000	0.6000
T9	7	Fiber Cable (1-1/4")	20.58 - 40.58	0.6000	0.6000
T9	10	LDF5-50A(7/8)	20.58 - 40.58	0.6000	0.6000
T9	12	LDF7-50A(1-5/8")	20.58 - 40.58	0.6000	0.6000
T9	14	MLCH 12/24 LOW INDUCTION(2)	20.58 - 40.58	0.6000	0.6000
T9	16	LDF5-50A(7/8)	20.58 - 40.58	0.6000	0.6000
T9	17	LDF6-50A(1-1/4)	20.58 - 40.58	0.6000	0.6000
T9	21	LCF78-50J (7/8 FOAM)	20.58 - 40.58	0.6000	0.6000
T9	23	LDF7-50A(1-5/8)	20.58 - 40.58	0.6000	0.6000
T10	2	6X12 Hybrid Cables	8.58 - 20.58	0.6000	0.6000
T10	4	DC Cable	8.58 - 20.58	0.6000	0.6000
T10	5	Fiber Cable (1-1/4")	8.58 - 20.58	0.6000	0.6000
T10	6	DC Cable	8.58 - 20.58	0.6000	0.6000
T10	7	Fiber Cable (1-1/4")	8.58 - 20.58	0.6000	0.6000
T10	10	LDF5-50A(7/8)	8.58 - 20.58	0.6000	0.6000
T10	12	LDF7-50A(1-5/8")	8.58 - 20.58	0.6000	0.6000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T10	14	MLCH 12/24 LOW INDUCTION(2)	8.58 - 20.58	0.6000	0.6000
T10	16	LDF5-50A(7/8)	8.58 - 20.58	0.6000	0.6000
T10	17	LDF6-50A(1-1/4)	8.58 - 20.58	0.6000	0.6000
T10	21	LCF78-50J (7/8 FOAM)	8.58 - 20.58	0.6000	0.6000
T10	23	LDF7-50A(1-5/8)	8.58 - 20.58	0.6000	0.6000

Discrete Tower Loads

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight lb
*****									
10'-0" Boom Gate	A	From Leg	1.50 0' 0'	0.0000	193'6"	No Ice 1/2" Ice 1" Ice	12.10 18.30 23.80	9.50 14.60 19.50	633.00 770.00 970.00
10'-0" Boom Gate	B	From Leg	1.50 0' 0'	0.0000	193'6"	No Ice 1/2" Ice 1" Ice	12.10 18.30 23.80	9.50 14.60 19.50	633.00 770.00 970.00
10'-0" Boom Gate	C	From Leg	1.50 0' 0'	0.0000	193'6"	No Ice 1/2" Ice 1" Ice	12.10 18.30 23.80	9.50 14.60 19.50	633.00 770.00 970.00
APXVAARR24_43-U-NA20 w/ Mount Pipe	A	From Leg	3.00 4'6" -8-3/4"	0.0000	193'6"	No Ice 1/2" Ice 1" Ice	20.48 21.23 21.99	11.02 12.55 14.10	160.82 297.10 444.18
APXVAARR24_43-U-NA20 w/ Mount Pipe	B	From Leg	3.00 4'6" -8-3/4"	0.0000	193'6"	No Ice 1/2" Ice 1" Ice	20.48 21.23 21.99	11.02 12.55 14.10	160.82 297.10 444.18
APXVAARR24_43-U-NA20 w/ Mount Pipe	C	From Leg	3.00 4'6" -8-3/4"	0.0000	193'6"	No Ice 1/2" Ice 1" Ice	20.48 21.23 21.99	11.02 12.55 14.10	160.82 297.10 444.18
AIR 32 w/ Mount Pipe	A	From Leg	3.00 0' -5-3/4"	0.0000	193'6"	No Ice 1/2" Ice 1" Ice	6.70 7.13 7.56	6.02 6.77 7.48	125.88 186.28 253.53
AIR 32 w/ Mount Pipe	B	From Leg	3.00 0' -5-3/4"	0.0000	193'6"	No Ice 1/2" Ice 1" Ice	6.70 7.13 7.56	6.02 6.77 7.48	125.88 186.28 253.53
AIR 32 w/ Mount Pipe	C	From Leg	3.00 0' -5-3/4"	0.0000	193'6"	No Ice 1/2" Ice 1" Ice	6.70 7.13 7.56	6.02 6.77 7.48	125.88 186.28 253.53
AIR 6449 B41 w/ Mount Pipe	A	From Leg	3.00 -4'6" 1'2-13/32"	0.0000	193'6"	No Ice 1/2" Ice 1" Ice	5.87 6.23 6.61	3.27 3.73 4.20	128.35 177.30 231.70
AIR 6449 B41 w/ Mount Pipe	B	From Leg	3.00 -4'6" 1'2-13/32"	0.0000	193'6"	No Ice 1/2" Ice 1" Ice	5.87 6.23 6.61	3.27 3.73 4.20	128.35 177.30 231.70
AIR 6449 B41 w/ Mount Pipe	C	From Leg	3.00 -4'6" 1'2-13/32"	0.0000	193'6"	No Ice 1/2" Ice 1" Ice	5.87 6.23 6.61	3.27 3.73 4.20	128.35 177.30 231.70
RADIO 4449	A	From Leg	1.00 -1'6"	0.0000	193'6"	No Ice 1/2" Ice	1.98 2.16	1.41 1.57	85.00 103.55

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 lb
			9-1/4"			1" Ice	2.34	1.73	124.93
RADIO 4449	B	From Leg	1.00	0.0000	193'6"	No Ice	1.98	1.41	85.00
			-1'6"			1/2" Ice	2.16	1.57	103.55
			9-1/4"			1" Ice	2.34	1.73	124.93
RADIO 4449	C	From Leg	1.00	0.0000	193'6"	No Ice	1.98	1.41	85.00
			-1'6"			1/2" Ice	2.16	1.57	103.55
			9-1/4"			1" Ice	2.34	1.73	124.93
RADIO 4415	A	From Leg	1.00	0.0000	193'6"	No Ice	1.86	0.87	49.60
			1'6"			1/2" Ice	2.03	1.00	64.16
			6-1/4"			1" Ice	2.20	1.14	81.26
RADIO 4415	B	From Leg	1.00	0.0000	193'6"	No Ice	1.86	0.87	49.60
			1'6"			1/2" Ice	2.03	1.00	64.16
			6-1/4"			1" Ice	2.20	1.14	81.26
RADIO 4415	C	From Leg	1.00	0.0000	193'6"	No Ice	1.86	0.87	49.60
			1'6"			1/2" Ice	2.03	1.00	64.16
			6-1/4"			1" Ice	2.20	1.14	81.26
*****									
DC6 Surge Arrestor	B	From Leg	1.00	0.0000	184'31/32"	No Ice	3.05	1.10	44.00
			0'			1/2" Ice	3.26	1.24	65.28
			1'			1" Ice	3.49	1.40	89.65
*****									
Omni 3"x20'	C	From Leg	3.00	0.0000	182'6-31/32"	No Ice	6.00	6.00	30.00
			0'			1/2" Ice	8.03	8.03	73.17
			11'3-31/32"			1" Ice	10.08	10.08	129.01
6' Omni	C	From Leg	2.50	0.0000	182'6-31/32"	No Ice	1.50	1.50	25.00
			0'			1/2" Ice	1.97	1.97	36.31
			3'6"			1" Ice	2.34	2.34	51.69
6' Omni	B	From Leg	2.50	0.0000	182'6-31/32"	No Ice	1.50	1.50	25.00
			0'			1/2" Ice	1.97	1.97	36.31
			3'6"			1" Ice	2.34	2.34	51.69
*****									
DC6 Surge Arrestor	A	From Leg	1.00	0.0000	182'6-31/32"	No Ice	3.05	1.10	44.00
			0'			1/2" Ice	3.26	1.24	65.28
			1'			1" Ice	3.49	1.40	89.65
*****									
14'-6" Sector Frame	A	From Leg	1.50	0.0000	182'6-31/32"	No Ice	14.40	9.20	672.00
			0'			1/2" Ice	21.40	14.60	826.00
			0'			1" Ice	27.70	19.50	1048.00
14'-6" Sector Frame	B	From Leg	1.50	0.0000	182'6-31/32"	No Ice	14.40	9.20	672.00
			0'			1/2" Ice	21.40	14.60	826.00
			0'			1" Ice	27.70	19.50	1048.00
14'-6" Sector Frame	C	From Leg	1.50	0.0000	182'6-31/32"	No Ice	14.40	9.20	672.00
			0'			1/2" Ice	21.40	14.60	826.00
			0'			1" Ice	27.70	19.50	1048.00
TPA-65R-LCUUUU-H8 w/ Mount Pipe	A	From Leg	3.00	0.0000	182'6-31/32"	No Ice	13.54	10.96	114.45
			-6'			1/2" Ice	14.24	12.49	217.61
			1'6"			1" Ice	14.95	14.04	330.97
QS66512-2 w/ Mount Pipe	B	From Leg	3.00	0.0000	182'6-31/32"	No Ice	8.37	8.46	136.55
			-6'			1/2" Ice	8.93	9.66	212.24
			1'6"			1" Ice	9.46	10.55	296.07
TPA-65R-LCUUUU-H8 w/ Mount Pipe	C	From Leg	3.00	0.0000	182'6-31/32"	No Ice	13.54	10.96	114.45
			-6'			1/2" Ice	14.24	12.49	217.61
			1'6"			1" Ice	14.95	14.04	330.97
HPA-65R-BUU-H8 w/ Mount Pipe	A	From Leg	3.00	0.0000	182'6-31/32"	No Ice	13.21	9.58	99.76
			-6'			1/2" Ice	13.90	11.05	196.45
			1'6"			1" Ice	14.59	12.50	302.99
HPA-65R-BUU-H8 w/	B	From Leg	3.00	0.0000	182'6-31/32"	No Ice	13.21	9.58	99.76

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 lb
Mount Pipe			-6'			1/2" Ice	13.90	11.05	196.45
			1'6"			1" Ice	14.59	12.50	302.99
HPA-65R-BUU-H8 w/ Mount Pipe	C	From Leg	3.00	0.0000	182'6-31/32"	No Ice	13.21	9.58	99.76
			-6'			1/2" Ice	13.90	11.05	196.45
			1'6"			1" Ice	14.59	12.50	302.99
7770.00 w/ Mount Pipe	A	From Leg	3.00	0.0000	182'6-31/32"	No Ice	5.75	4.25	55.38
			-2'			1/2" Ice	6.18	5.01	102.81
			-6"			1" Ice	6.61	5.71	156.64
7770.00 w/ Mount Pipe	B	From Leg	3.00	0.0000	182'6-31/32"	No Ice	5.75	4.25	55.38
			-2'			1/2" Ice	6.18	5.01	102.81
			-6"			1" Ice	6.61	5.71	156.64
7770.00 w/ Mount Pipe	C	From Leg	3.00	0.0000	182'6-31/32"	No Ice	5.75	4.25	55.38
			-2'			1/2" Ice	6.18	5.01	102.81
			-6"			1" Ice	6.61	5.71	156.64
RRUS 32	A	From Leg	2.20	90.0000	182'6-31/32"	No Ice	2.86	1.78	55.12
			-5'6"			1/2" Ice	3.08	1.97	77.39
			1'6"			1" Ice	3.32	2.17	102.93
RRUS 32	B	From Leg	2.20	90.0000	182'6-31/32"	No Ice	2.86	1.78	55.12
			-5'6"			1/2" Ice	3.08	1.97	77.39
			1'6"			1" Ice	3.32	2.17	102.93
RRUS 32	C	From Leg	2.20	90.0000	182'6-31/32"	No Ice	2.86	1.78	55.12
			-5'6"			1/2" Ice	3.08	1.97	77.39
			1'6"			1" Ice	3.32	2.17	102.93
RADIO 4426 B66	A	From Leg	2.50	90.0000	182'6-31/32"	No Ice	1.64	0.72	50.00
			2'6"			1/2" Ice	1.80	0.84	62.79
			1'6"			1" Ice	1.97	0.96	77.97
RADIO 4426 B66	B	From Leg	2.20	90.0000	182'6-31/32"	No Ice	1.64	0.72	50.00
			2'6"			1/2" Ice	1.80	0.84	62.79
			1'6"			1" Ice	1.97	0.96	77.97
RADIO 4426 B66	C	From Leg	2.20	90.0000	182'6-31/32"	No Ice	1.64	0.72	50.00
			2'6"			1/2" Ice	1.80	0.84	62.79
			1'6"			1" Ice	1.97	0.96	77.97
RRUS 12 B2	A	From Leg	2.50	90.0000	182'6-31/32"	No Ice	3.15	1.29	49.38
			2'6"			1/2" Ice	3.36	1.44	72.60
			-2'2-1/32"			1" Ice	3.59	1.60	99.02
RRUS 12 B2	B	From Leg	2.50	90.0000	182'6-31/32"	No Ice	3.15	1.29	49.38
			2'6"			1/2" Ice	3.36	1.44	72.60
			-2'2-1/32"			1" Ice	3.59	1.60	99.02
RRUS 12 B2	C	From Leg	2.50	90.0000	182'6-31/32"	No Ice	3.15	1.29	49.38
			2'6"			1/2" Ice	3.36	1.44	72.60
			-2'2-1/32"			1" Ice	3.59	1.60	99.02
RRUS 11 B12	A	From Leg	2.50	90.0000	182'6-31/32"	No Ice	2.79	1.19	50.70
			2'6"			1/2" Ice	3.00	1.34	71.57
			-2'2-1/32"			1" Ice	3.21	1.50	95.48
RRUS 11 B12	B	From Leg	2.50	90.0000	182'6-31/32"	No Ice	2.79	1.19	50.70
			2'6"			1/2" Ice	3.00	1.34	71.57
			-2'2-1/32"			1" Ice	3.21	1.50	95.48
RRUS 11 B12	C	From Leg	2.50	90.0000	182'6-31/32"	No Ice	2.79	1.19	50.70
			2'6"			1/2" Ice	3.00	1.34	71.57
			-2'2-1/32"			1" Ice	3.21	1.50	95.48
DBCT108F1V92-1	A	From Leg	2.50	90.0000	182'6-31/32"	No Ice	0.64	0.60	28.66
			6'			1/2" Ice	0.74	0.71	35.88
			-3'			1" Ice	0.85	0.81	44.90
DBCT108F1V92-1	B	From Leg	2.50	90.0000	182'6-31/32"	No Ice	0.64	0.60	28.66
			6'			1/2" Ice	0.74	0.71	35.88
			-3'			1" Ice	0.85	0.81	44.90
DBCT108F1V92-1	C	From Leg	2.50	90.0000	182'6-31/32"	No Ice	0.64	0.60	28.66

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 lb
			6'			1/2" Ice	0.74	0.71	35.88
			-3'			1" Ice	0.85	0.81	44.90
TT19-08BP111-001	A	From Leg	2.50	90.0000	182'6-31/32"	No Ice	0.55	0.44	16.00
			6'			1/2" Ice	0.64	0.53	21.74
			-2'2-1/32"			1" Ice	0.74	0.63	29.10
TT19-08BP111-001	B	From Leg	2.50	90.0000	182'6-31/32"	No Ice	0.55	0.44	16.00
			6'			1/2" Ice	0.64	0.53	21.74
			-2'2-1/32"			1" Ice	0.74	0.63	29.10
TT19-08BP111-001	C	From Leg	2.50	90.0000	182'6-31/32"	No Ice	0.55	0.44	16.00
			6'			1/2" Ice	0.64	0.53	21.74
			-2'2-1/32"			1" Ice	0.74	0.63	29.10
*****									
14'-6" Sector Frame	A	From Leg	1.50	0.0000	168'6-31/32"	No Ice	14.40	9.20	672.00
			0'			1/2" Ice	21.40	14.60	826.00
			0'			1" Ice	27.70	19.50	1048.00
14'-6" Sector Frame	B	From Leg	1.50	0.0000	168'6-31/32"	No Ice	14.40	9.20	672.00
			0'			1/2" Ice	21.40	14.60	826.00
			0'			1" Ice	27.70	19.50	1048.00
14'-6" Sector Frame	C	From Leg	1.50	0.0000	168'6-31/32"	No Ice	14.40	9.20	672.00
			0'			1/2" Ice	21.40	14.60	826.00
			0'			1" Ice	27.70	19.50	1048.00
(2) NHH-65B-R2B w/ Mount Pipe	A	From Leg	3.00	0.0000	168'6-31/32"	No Ice	8.32	7.00	69.25
			-2'			1/2" Ice	8.88	8.19	137.80
			1'			1" Ice	9.40	9.08	214.31
(2) NHH-65B-R2B w/ Mount Pipe	B	From Leg	3.00	0.0000	168'6-31/32"	No Ice	8.32	7.00	69.25
			-2'			1/2" Ice	8.88	8.19	137.80
			1'			1" Ice	9.40	9.08	214.31
(2) NHH-65B-R2B w/ Mount Pipe	C	From Leg	3.00	0.0000	168'6-31/32"	No Ice	8.32	7.00	69.25
			-2'			1/2" Ice	8.88	8.19	137.80
			1'			1" Ice	9.40	9.08	214.31
(2) LPA-80080/4CF w/ Mount Pipe	A	From Leg	3.00	0.0000	168'6-31/32"	No Ice	3.11	6.82	33.90
			-6'			1/2" Ice	3.58	7.65	82.91
			1'			1" Ice	4.02	8.35	138.07
(2) LPA-80080/4CF w/ Mount Pipe	B	From Leg	3.00	0.0000	168'6-31/32"	No Ice	3.11	6.82	33.90
			-6'			1/2" Ice	3.58	7.65	82.91
			1'			1" Ice	4.02	8.35	138.07
(2) LPA-80080/4CF w/ Mount Pipe	C	From Leg	3.00	0.0000	168'6-31/32"	No Ice	3.11	6.82	33.90
			-6'			1/2" Ice	3.58	7.65	82.91
			1'			1" Ice	4.02	8.35	138.07
MT6407-77A w/ Mount Pipe	A	From Leg	3.00	0.0000	168'6-31/32"	No Ice	4.91	2.68	95.88
			2'			1/2" Ice	5.26	3.14	135.60
			1'			1" Ice	5.61	3.62	180.44
MT6407-77A w/ Mount Pipe	B	From Leg	3.00	0.0000	168'6-31/32"	No Ice	4.91	2.68	95.88
			2'			1/2" Ice	5.26	3.14	135.60
			1'			1" Ice	5.61	3.62	180.44
MT6407-77A w/ Mount Pipe	C	From Leg	3.00	0.0000	168'6-31/32"	No Ice	4.91	2.68	95.88
			2'			1/2" Ice	5.26	3.14	135.60
			1'			1" Ice	5.61	3.62	180.44
RF4439d-25A	A	From Leg	3.00	0.0000	168'6-31/32"	No Ice	1.87	1.25	74.70
			-2'			1/2" Ice	2.03	1.39	93.02
			1'			1" Ice	2.21	1.54	114.12
RF4439d-25A	B	From Leg	3.00	0.0000	168'6-31/32"	No Ice	1.87	1.25	74.70
			-2'			1/2" Ice	2.03	1.39	93.02
			1'			1" Ice	2.21	1.54	114.12
RF4439d-25A	C	From Leg	3.00	0.0000	168'6-31/32"	No Ice	1.87	1.25	74.70
			-2'			1/2" Ice	2.03	1.39	93.02
			1'			1" Ice	2.21	1.54	114.12

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight lb
RF4440d-13A	A	From Leg	3.00 -6' 1'	0.0000	168'6-31/32"	No Ice 1/2" Ice 1" Ice	1.87 2.03 2.21	1.13 1.27 1.41	72.50 89.83 109.89
RF4440d-13A	B	From Leg	3.00 -6' 1'	0.0000	168'6-31/32"	No Ice 1/2" Ice 1" Ice	1.87 2.03 2.21	1.13 1.27 1.41	72.50 89.83 109.89
RF4440d-13A	C	From Leg	3.00 -6' 1'	0.0000	168'6-31/32"	No Ice 1/2" Ice 1" Ice	1.87 2.03 2.21	1.13 1.27 1.41	72.50 89.83 109.89
RVZDC-6627-PF-48	A	From Leg	0.50 0' 0'	0.0000	168'6-31/32"	No Ice 1/2" Ice 1" Ice	3.79 4.04 4.30	2.51 2.73 2.95	32.00 63.48 98.72
Pipe Mount [PM 601-3]	C	None		0.0000	168'6-31/32"	No Ice 1/2" Ice 1" Ice	4.39 5.48 6.57	4.39 5.48 6.57	195.00 237.41 279.82
*****									
48" Sidearm	B	From Leg	2.00 0' 0'	0.0000	121'6-31/32"	No Ice 1/2" Ice 1" Ice	2.43 3.50 4.50	1.22 1.75 2.25	50.00 100.00 175.00
10-ft 4-Element Dipole	B	From Leg	4.00 0' 4'	0.0000	121'6-31/32"	No Ice 1/2" Ice 1" Ice	2.00 3.02 4.07	2.00 3.02 4.07	30.00 45.50 67.47
*****									
48" Sidearm	B	From Leg	2.00 0' 0'	0.0000	111'31/32"	No Ice 1/2" Ice 1" Ice	2.43 3.50 4.50	1.22 1.75 2.25	50.00 100.00 175.00
Omni 3"x20'	B	From Leg	4.00 0' 9'6"	0.0000	111'31/32"	No Ice 1/2" Ice 1" Ice	6.00 8.03 10.08	6.00 8.03 10.08	30.00 73.17 129.01
*****									
48" Sidearm	A	From Leg	2.00 0' 0'	0.0000	107'6-31/32"	No Ice 1/2" Ice 1" Ice	2.43 3.50 4.50	1.22 1.75 2.25	50.00 100.00 175.00
Omni 3"x20'	A	From Leg	4.00 0' 12'	0.0000	107'6-31/32"	No Ice 1/2" Ice 1" Ice	6.00 8.03 10.08	6.00 8.03 10.08	30.00 73.17 129.01
*****									
48" Sidearm	C	From Leg	2.00 0' 0'	0.0000	113'31/32"	No Ice 1/2" Ice 1" Ice	2.43 3.50 4.50	1.22 1.75 2.25	50.00 100.00 175.00
10-ft 4-Element Dipole	C	From Leg	4.00 0' 4'	0.0000	113'31/32"	No Ice 1/2" Ice 1" Ice	2.00 3.02 4.07	2.00 3.02 4.07	30.00 45.50 67.47
*****									
48" Sidearm	B	From Leg	2.00 0' 0'	0.0000	106'3-31/32"	No Ice 1/2" Ice 1" Ice	2.43 3.50 4.50	1.22 1.75 2.25	50.00 100.00 175.00
Omni 3"x20'	B	From Leg	4.00 0' 12'	0.0000	106'3-31/32"	No Ice 1/2" Ice 1" Ice	6.00 8.03 10.08	6.00 8.03 10.08	30.00 73.17 129.01

Load Combinations

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

Maximum Tower Deflections - Service Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
T1	193.583 - 180.583	2.931	33	0.2546	0.0469
T2	180.583 - 160.583	2.263	34	0.2420	0.0456
T3	160.583 - 140.583	1.424	34	0.1658	0.0352
T4	140.583 - 120.583	0.941	34	0.1006	0.0332
T5	120.583 - 100.583	0.661	34	0.0492	0.0289
T6	100.583 - 80.5833	0.511	34	0.0208	0.0262
T7	80.5833 - 60.5833	0.453	34	0.0174	0.0269
T8	60.5833 - 40.5833	0.356	34	0.0289	0.0223
T9	40.5833 - 20.5833	0.226	34	0.0261	0.0131
T10	20.5833 - 5.40104	0.129	34	0.0273	0.0189
T11	5.40104 - 0.583333	0.033	34	0.0315	0.0132

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °

Critical Deflections and Radius of Curvature - Service Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
193'6"	10'-0" Boom Gate	33	2.927	0.2546	0.0469	77964
184'31/32"	DC6 Surge Arrestor	33	2.435	0.2482	0.0465	41013
182'6-31/32"	Omni 3"x20'	34	2.361	0.2459	0.0461	35314
168'6-31/32"	14'-6" Sector Frame	34	1.722	0.1999	0.0391	14067
163'1-5/16"	Guy	34	1.511	0.1762	0.0362	11373
121'6-31/32"	48" Sidearm	34	0.672	0.0511	0.0288	31080
113'31/32"	48" Sidearm	34	0.591	0.0362	0.0284	35262
111'31/32"	48" Sidearm	34	0.575	0.0332	0.0280	36298
107'6-31/32"	48" Sidearm	34	0.550	0.0284	0.0273	37825
106'3-31/32"	48" Sidearm	34	0.542	0.0268	0.0271	38121
103'1-5/16"	Guy	34	0.524	0.0232	0.0265	38176
43'1-5/16"	Guy	34	0.240	0.0267	0.0133	77034

Maximum Tower Deflections - Design Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
T1	193.583 - 180.583	22.348	10	1.5530	0.3054
T2	180.583 - 160.583	18.249	10	1.5003	0.3002
T3	160.583 - 140.583	12.624	10	1.1818	0.2561
T4	140.583 - 120.583	8.517	10	0.8881	0.2319
T5	120.583 - 100.583	5.524	10	0.5805	0.1812
T6	100.583 - 80.5833	3.550	10	0.3482	0.1611
T7	80.5833 - 60.5833	2.453	10	0.2251	0.1506
T8	60.5833 - 40.5833	1.601	10	0.1915	0.1203
T9	40.5833 - 20.5833	0.912	4	0.1307	0.0725
T10	20.5833 - 5.40104	0.518	4	0.1104	0.0784
T11	5.40104 - 0.583333	0.131	4	0.1267	0.0507

Critical Deflections and Radius of Curvature - Design Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
193'6"	10'-0" Boom Gate	10	22.322	1.5529	0.3054	18524
184'31/32"	DC6 Surge Arrestor	10	19.336	1.5262	0.3037	9746
182'6-31/32"	Omni 3"x20'	10	18.868	1.5167	0.3025	8398
168'6-31/32"	14'-6" Sector Frame	10	14.716	1.3242	0.2737	3424
163'1-5/16"	Guy	10	13.255	1.2254	0.2608	2765
121'6-31/32"	48" Sidearm	10	5.650	0.5943	0.1815	4036
113'31/32"	48" Sidearm	10	4.662	0.4825	0.1752	4208

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
111'31/32"	48" Sidearm	10	4.457	0.4585	0.1729	4262
107'6-31/32"	48" Sidearm	10	4.123	0.4186	0.1687	4362
106'3-31/32"	48" Sidearm	10	4.011	0.4050	0.1672	4398
103'1-5/16"	Guy	10	3.742	0.3720	0.1636	4511
43'1-5/16"	Guy	4	0.972	0.1400	0.0759	11500

Bolt Design Data

Section No.	Elevation ft	Component Type	Bolt Grade	Bolt Size in	Number Of Bolts	Maximum Load per Bolt lb	Allowable Load per Bolt lb	Ratio Load / Allowable	Allowable Ratio	Criteria
T1	193.583	Leg	A325X	0.8750	4	4935.73	41556.00	0.119	1.05	Bolt Tension
		Diagonal	A325N	0.6250	2	1971.84	8224.22	0.240	1.05	Member Block Shear
		Top Girt	A325N	0.5000	2	516.72	7340.62	0.070	1.05	Member Block Shear
		Bottom Girt	A325N	0.5000	2	834.85	7340.62	0.114	1.05	Member Block Shear
T2	180.583	Leg	A325X	0.8750	4	11083.40	41556.00	0.267	1.05	Bolt Tension
		Diagonal	A325N	0.6250	2	3622.13	8224.22	0.440	1.05	Member Block Shear
		Secondary Horizontal	A325N	0.5000	1	6666.23	8265.00	0.807	1.05	Member Bearing
		Top Girt	A325N	0.5000	2	801.26	7340.62	0.109	1.05	Member Block Shear
		Bottom Girt	A325N	0.5000	2	1947.71	7340.62	0.265	1.05	Member Block Shear
		Torque Arm Top@163.107	A325N	0.6250	6	2613.83	13805.80	0.189	1.05	Bolt Shear
T3	160.583	Leg	A325X	0.8750	4	5610.69	41556.00	0.135	1.05	Bolt Tension
		Diagonal	A325N	0.6250	2	1781.40	8224.22	0.217	1.05	Member Block Shear
		Secondary Horizontal	A325N	0.5000	1	2092.68	8265.00	0.253	1.05	Member Bearing
		Top Girt	A325X	0.5000	1	1529.47	11044.70	0.138	1.05	Bolt Shear
		Bottom Girt	A325X	0.5000	1	1529.47	11044.70	0.138	1.05	Bolt Shear
T4	140.583	Leg	A325X	0.8750	4	5132.94	41556.00	0.124	1.05	Bolt Tension
		Diagonal	A325X	0.5000	1	1774.81	9782.98	0.181	1.05	Gusset Bearing
		Top Girt	A325X	0.5000	1	1166.27	9782.98	0.119	1.05	Gusset Bearing
		Bottom Girt	A325X	0.5000	1	1166.27	9782.98	0.119	1.05	Gusset Bearing
T5	120.583	Leg	A325X	0.8750	4	5659.68	41556.00	0.136	1.05	Bolt Tension
		Diagonal	A325N	0.6250	2	1946.57	13805.80	0.141	1.05	Bolt Shear
		Secondary Horizontal	A325N	0.5000	1	3644.53	8265.00	0.441	1.05	Member Bearing
		Top Girt	A325N	0.5000	2	619.50	7340.62	0.084	1.05	Member Block Shear
		Bottom Girt	A325N	0.5000	2	1081.07	7340.62	0.147	1.05	Member Block Shear
		Torque Arm Top@103.107	A325N	0.6250	6	1070.78	13805.80	0.078	1.05	Bolt Shear
T6	100.583	Leg	A325X	0.8750	4	3962.43	41556.00	0.095	1.05	Bolt Tension
		Diagonal	A325X	0.5000	1	2555.19	11044.70	0.231	1.05	Bolt Shear
		Top Girt	A325X	0.5000	1	1176.45	11044.70	0.107	1.05	Bolt Shear
		Bottom Girt	A325X	0.5000	1	1176.45	11044.70	0.107	1.05	Bolt Shear
T7	80.5833	Leg	A325X	0.8750	4	3595.01	41556.00	0.087	1.05	Bolt Tension

Section No.	Elevation ft	Component Type	Bolt Grade	Bolt Size in	Number Of Bolts	Maximum Load per Bolt lb	Allowable Load per Bolt lb	Ratio Load / Allowable	Allowable Ratio	Criteria
		Diagonal	A325N	0.5000	1	1539.90	8835.73	0.174	1.05	Bolt Shear
		Top Girt	A325X	0.5000	1	823.73	11044.70	0.075	1.05	Bolt Shear
		Bottom Girt	A325X	0.5000	1	823.73	11044.70	0.075	1.05	Bolt Shear
T8	60.5833	Leg	A325X	0.8750	4	4334.20	41556.00	0.104	1.05	Bolt Tension
		Diagonal	A325X	0.5000	1	2521.42	11044.70	0.228	1.05	Bolt Shear
		Top Girt	A325X	0.5000	1	936.45	11044.70	0.085	1.05	Bolt Shear
		Bottom Girt	A325X	0.5000	1	991.51	11044.70	0.090	1.05	Bolt Shear
		Torque Arm Top@43.1068	A325N	0.6250	6	788.59	13805.80	0.057	1.05	Bolt Shear
T9	40.5833	Leg	A325X	0.8750	4	4044.75	41556.00	0.097	1.05	Bolt Tension
		Diagonal	A325X	0.5000	1	2254.70	11044.70	0.204	1.05	Bolt Shear
		Top Girt	A325X	0.5000	1	1005.63	11044.70	0.091	1.05	Bolt Shear
		Bottom Girt	A325X	0.5000	1	900.95	11044.70	0.082	1.05	Bolt Shear
T10	20.5833	Leg	A325X	0.8750	4	4070.37	41556.00	0.098	1.05	Bolt Tension
		Diagonal	A325X	0.5000	1	977.09	11044.70	0.088	1.05	Bolt Shear
		Top Girt	A325X	0.5000	1	849.38	11044.70	0.077	1.05	Bolt Shear
		Bottom Girt	A325X	0.5000	1	4325.96	11044.70	0.392	1.05	Bolt Shear

Guy Design Data

Section No.	Elevation ft	Size	Initial Tension lb	Breaking Load lb	Actual T_u lb	Allowable ϕT_n lb	Required S.F.	Actual S.F.
T2	163'1-5/16" (A) (594)	3/4 EHS	5830.00	58299.91	23211.00	36729.00	0.952	1.507
	163'1-5/16" (A) (595)	3/4 EHS	5830.00	58299.91	22538.50	36729.00	0.952	1.552
	163'1-5/16" (B) (590)	3/4 EHS	5830.00	58299.91	22365.30	36729.00	0.952	1.564
	163'1-5/16" (B) (591)	3/4 EHS	5830.00	58299.91	22299.60	36729.00	0.952	1.569
	163'1-5/16" (C) (586)	3/4 EHS	5830.00	58299.91	22139.10	36729.00	0.952	1.580
	163'1-5/16" (C) (587)	3/4 EHS	5830.00	58299.91	22849.50	36729.00	0.952	1.531
T5	103'1-5/16" (A) (606)	5/8 EHS	4240.00	42399.99	9862.31	26712.00	0.952	2.580
	103'1-5/16" (A) (607)	5/8 EHS	4240.00	42399.99	8854.27	26712.00	0.952	2.873
	103'1-5/16" (B) (602)	5/8 EHS	4240.00	42399.99	8279.17	26712.00	0.952	3.073
	103'1-5/16" (B) (603)	5/8 EHS	4240.00	42399.99	8760.78	26712.00	0.952	2.904
	103'1-5/16" (C) (598)	5/8 EHS	4240.00	42399.99	8991.42	26712.00	0.952	2.829
	103'1-5/16" (C) (599)	5/8 EHS	4240.00	42399.99	9647.56	26712.00	0.952	2.637
T8	43'1-5/16" (A) (618)	1/2 EHS	2690.00	26900.04	5015.23	16947.00	0.952	3.218
	43'1-5/16" (A) (619)	1/2 EHS	2690.00	26900.04	4804.78	16947.00	0.952	3.359
	43'1-5/16" (B) (614)	1/2 EHS	2690.00	26900.04	4590.40	16947.00	0.952	3.516
	43'1-5/16" (B)	1/2 EHS	2690.00	26900.04	4479.90	16947.00	0.952	3.603

Section No.	Elevation ft	Size	Initial Tension lb	Breaking Load lb	Actual T_u lb	Allowable ϕT_n lb	Required S.F.	Actual S.F.
	(615) 43'1-5/16" (C) (610)	1/2 EHS	2690.00	26900.04	5103.30	16947.00	0.952	3.163
	43'1-5/16" (C) (611)	1/2 EHS	2690.00	26900.04	5273.42	16947.00	0.952	3.061

Compression Checks

Leg Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
T1	193.583 - 180.583	ROHN 2.5 EH	13'	1-5/16"	1.5 K=1.00	2.2535	-26615.40	101393.00	0.262 [1]
T2	180.583 - 160.583	2.5 XH w/ HSS3.5x0.25 Half Sleeve	20'	1'2-13/32"	15.6 K=1.00	3.4492	-92521.80	152472.00	0.607 [1]
T3	160.583 - 140.583	2.5 XH w/ HSS3.5x0.25 Half Sleeve	20'	7-5/16"	8.0 K=1.00	3.4492	-88303.80	154497.00	0.572 [1]
T4	140.583 - 120.583	ROHN 2.5 EH	20'	2'4-29/32"	31.3 K=1.00	2.2535	-65932.80	94406.90	0.698 [1]
T5	120.583 - 100.583	ROHN 3 EH	20'	1'2-13/32"	12.7 K=1.00	3.0159	-71533.50	134121.00	0.533 [1]
T6	100.583 - 80.5833	ROHN 3 EH	20'	2'4-29/32"	25.4 K=1.00	3.0159	-65395.20	129445.00	0.505 [1]
T7	80.5833 - 60.5833	ROHN 3 EH	20'	2'4-29/32"	25.4 K=1.00	3.0159	-45991.70	129445.00	0.355 [1]
T8	60.5833 - 40.5833	ROHN 3 EH	20'	2'4-29/32"	25.4 K=1.00	3.0159	-54066.20	129445.00	0.418 [1]
T9	40.5833 - 20.5833	ROHN 3 EH	20'	2'4-29/32"	50.9 K=2.00	3.0159	-50777.60	112316.00	0.452 [1]
T10	20.5833 - 5.40104	ROHN 3 EH	15'2-5/32"	2'4-29/32"	50.9 K=2.00	3.0159	-49039.20	112316.00	0.437 [1]
T11	5.40104 - 0.583333	ROHN 3 EH	5'2-17/32"	1'2-3/4"	13.0 K=1.00	3.0159	-53157.20	134042.00	0.397 [1]

[1] P_u / ϕP_n controls

Diagonal Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
T1	193.583 - 180.583	L2x2x1/4	4'2-17/32"	1'9-1/8"	70.5 K=1.31	0.9380	-4157.69	28495.80	0.146 [1]
T2	180.583 - 160.583	L2x2x1/4	4'2-5/32'	1'9"	70.2 K=1.31	0.9380	-8012.97	28537.80	0.281 [1]
T3	160.583 -	L2x2x1/4	4'2-5/32'	1'9"	70.2	0.9380	-4373.01	28537.80	0.153 [1]

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
	140.583		'		K=1.31				
T4	140.583 - 120.583	ROHN 1.5 x 11GA	4'2-5/32"	3'10-11/16"	95.2 K=1.00	0.5202	-1774.81	11264.40	0.158 [1]
T5	120.583 - 100.583	L2x2x1/4	4'2-5/32"	1'8-17/32"	69.4 K=1.32	0.9380	-3893.15	28646.60	0.136 [1]
T6	100.583 - 80.5833	ROHN 1.5 x 11GA	4'2-5/32"	3'9-27/32"	93.7 K=1.00	0.5202	-2555.19	11470.40	0.223 [1]
T7	80.5833 - 60.5833	L1 3/4x1 3/4x3/16	4'2-5/32"	3'7-7/16"	126.3 K=1.00	0.6211	-1539.90	11141.40	0.138 [1]
T8	60.5833 - 40.5833	ROHN 1.5 x 11GA	4'2-5/32"	3'9-27/32"	93.7 K=1.00	0.5202	-2521.42	11470.40	0.220 [1]
T9	40.5833 - 20.5833	ROHN 1.5 x 11GA	4'2-5/32"	3'9-27/32"	93.7 K=1.00	0.5202	-2254.70	11470.40	0.197 [1]
T10	20.5833 - 5.40104	ROHN 1.5 x 11GA	4'2-5/32"	3'9-27/32"	93.7 K=1.00	0.5202	-699.44	11470.40	0.061 [1]

[1] $P_u / \phi P_n$ controls

Horizontal Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
T11	5.40104 - 0.583333	L4x4x1/4	2'5-5/32"	2'1-11/16"	76.1 K=2.36	1.9400	-974.68	55593.50	0.018 [1]

[1] $P_u / \phi P_n$ controls

Secondary Horizontal Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
T2	180.583 - 160.583	L2x2x1/4	3'5-1/32"	1'5-3/4"	82.8 K=1.82	0.9380	-4317.58	26492.20	0.163 [1]
T3	160.583 - 140.583	L2x2x1/4	3'5-1/32"	1'5-3/4"	82.8 K=1.82	0.9380	-1529.47	26492.20	0.058 [1]
T5	120.583 - 100.583	L2x2x1/4	3'5-1/32"	1'5-17/32"	82.4 K=1.84	0.9380	-1264.65	26562.30	0.048 [1]

[1] $P_u / \phi P_n$ controls

Top Girt Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
T1	193.583 - 180.583	L2x2x1/4	3'5-1/32'	2'10-3/32"	103.6 K=1.19	0.9380	-958.48	22363.20	0.043 [1]
T2	180.583 - 160.583	L2x2x1/4	3'5-1/32'	2'10-3/32"	103.6 K=1.19	0.9380	-1602.52	22363.20	0.072 [1]
T3	160.583 - 140.583	ROHN 1.5 x 11GA	3'5-1/32'	3'2-5/32'	77.8 K=1.00	0.5202	-1529.47	13553.70	0.113 [1]
T4	140.583 - 120.583	ROHN 1.5 x 11GA	3'5-1/32'	3'2-5/32'	77.8 K=1.00	0.5202	-1166.27	13553.70	0.086 [1]
T5	120.583 - 100.583	L2x2x1/4	3'5-1/32'	2'9-15/32"	102.8 K=1.20	0.9380	-1239.00	22538.40	0.055 [1]
T6	100.583 - 80.5833	ROHN 1.5 x 11GA	3'5-1/32'	3'1-9/16'	76.6 K=1.00	0.5202	-1176.45	13718.70	0.086 [1]
T7	80.5833 - 60.5833	ROHN 1.5 x 11GA	3'5-1/32'	3'1-9/16'	76.6 K=1.00	0.5202	-823.73	13718.70	0.060 [1]
T8	60.5833 - 40.5833	ROHN 1.5 x 11GA	3'5-1/32'	3'1-9/16'	76.6 K=1.00	0.5202	-936.45	13718.70	0.068 [1]
T9	40.5833 - 20.5833	ROHN 1.5 x 11GA	3'5-1/32'	3'1-9/16'	76.6 K=1.00	0.5202	-900.95	13718.70	0.066 [1]
T10	20.5833 - 5.40104	ROHN 1.5 x 11GA	3'5-1/32'	3'1-9/16'	76.6 K=1.00	0.5202	-849.38	13718.70	0.062 [1]
T11	5.40104 - 0.583333	L4x4x1/4	3'2-7/8"	2'11-13/32"	82.2 K=1.85	1.9400	-974.68	53609.10	0.018 [1]

[1] P_u / ϕP_n controls

Bottom Girt Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
T1	193.583 - 180.583	L2x2x1/4	3'5-1/32'	2'10-3/32"	103.6 K=1.19	0.9380	-1542.51	22363.20	0.069 [1]
T2	180.583 - 160.583	L2x2x1/4	3'5-1/32'	2'10-3/32"	103.6 K=1.19	0.9380	-2923.01	22363.20	0.131 [1]
T3	160.583 - 140.583	ROHN 1.5 x 11GA	3'5-1/32'	3'2-5/32'	77.8 K=1.00	0.5202	-1529.47	13553.70	0.113 [1]
T4	140.583 - 120.583	ROHN 1.5 x 11GA	3'5-1/32'	3'2-5/32'	77.8 K=1.00	0.5202	-1166.27	13553.70	0.086 [1]
T5	120.583 - 100.583	L2x2x1/4	3'5-1/32'	2'9-15/32"	102.8 K=1.20	0.9380	-1239.00	22538.40	0.055 [1]
T6	100.583 - 80.5833	ROHN 1.5 x 11GA	3'5-1/32'	3'1-9/16'	76.6 K=1.00	0.5202	-1176.45	13718.70	0.086 [1]
T7	80.5833 - 60.5833	ROHN 1.5 x 11GA	3'5-1/32'	3'1-9/16'	76.6 K=1.00	0.5202	-823.73	13718.70	0.060 [1]
T8	60.5833 - 40.5833	ROHN 1.5 x 11GA	3'5-1/32'	3'1-9/16'	76.6 K=1.00	0.5202	-936.45	13718.70	0.068 [1]
T9	40.5833 - 20.5833	ROHN 1.5 x 11GA	3'5-1/32'	3'1-9/16'	76.6 K=1.00	0.5202	-900.95	13718.70	0.066 [1]
T10	20.5833 - 5.40104	ROHN 1.5 x 11GA	3'5-1/32'	3'1-9/16'	76.6 K=1.00	0.5202	-849.38	13718.70	0.062 [1]

[1] P_u / ϕP_n controls

Torque-Arm Top Design Data

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
T2	180.583 - 160.583 (588)	C15x33.9	3'8-1/32"	3'6-19/32"	47.1 K=1.00	9.9600	-8011.70	287130.00	0.028
T2	180.583 - 160.583 (589)	C15x33.9	3'8-1/32"	3'6-19/32"	47.1 K=1.00	9.9600	-7996.80	287130.00	0.028
T2	180.583 - 160.583 (592)	C15x33.9	3'8-1/32"	3'6-19/32"	47.1 K=1.00	9.9600	-7843.04	287130.00	0.027
T2	180.583 - 160.583 (593)	C15x33.9	3'8-1/32"	3'6-19/32"	47.1 K=1.00	9.9600	-770.99	287130.00	0.003
T2	180.583 - 160.583 (596)	C15x33.9	3'8-1/32"	3'6-19/32"	47.1 K=1.00	9.9600	-527.22	287130.00	0.002
T2	180.583 - 160.583 (597)	C15x33.9	3'8-1/32"	3'6-19/32"	47.1 K=1.00	9.9600	-830.71	287130.00	0.003
T5	120.583 - 100.583 (600)	C15x33.9	3'8-1/32"	3'6-1/4"	46.8 K=1.00	9.9600	-2009.97	287621.00	0.007
T5	120.583 - 100.583 (601)	C15x33.9	3'8-1/32"	3'6-1/4"	46.8 K=1.00	9.9600	-3229.29	287621.00	0.011
T5	120.583 - 100.583 (604)	C15x33.9	3'8-1/32"	3'6-1/4"	46.8 K=1.00	9.9600	-2968.60	287621.00	0.010
T5	120.583 - 100.583 (605)	C15x33.9	3'8-1/32"	3'6-1/4"	46.8 K=1.00	9.9600	-2338.01	287621.00	0.008
T5	120.583 - 100.583 (608)	C15x33.9	3'8-1/32"	3'6-1/4"	46.8 K=1.00	9.9600	-1284.47	287621.00	0.004
T5	120.583 - 100.583 (609)	C15x33.9	3'8-1/32"	3'6-1/4"	46.8 K=1.00	9.9600	-167.36	287621.00	0.001
T8	60.5833 - 40.5833 (612)	C12x25	3'8-1/32"	3'6-1/4"	54.2 K=1.00	7.3500	-1307.46	204030.00	0.006
T8	60.5833 - 40.5833 (613)	C12x25	3'8-1/32"	3'6-1/4"	54.2 K=1.00	7.3500	-1920.58	204030.00	0.009
T8	60.5833 - 40.5833 (616)	C12x25	3'8-1/32"	3'6-1/4"	54.2 K=1.00	7.3500	-847.13	204030.00	0.004
T8	60.5833 - 40.5833 (617)	C12x25	3'8-1/32"	3'6-1/4"	54.2 K=1.00	7.3500	-1561.67	204030.00	0.008
T8	60.5833 - 40.5833 (620)	C12x25	3'8-1/32"	3'6-1/4"	54.2 K=1.00	7.3500	-667.14	204030.00	0.003
T8	60.5833 - 40.5833 (621)	C12x25	3'8-1/32"	3'6-1/4"	54.2 K=1.00	7.3500	-311.03	204030.00	0.002

Torque-Arm Top Bending Design Data

Section No.	Elevation ft	Size	M_{ux} lb-ft	ϕM_{nx} lb-ft	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	M_{uy} lb-ft	ϕM_{ny} lb-ft	Ratio $\frac{M_{uy}}{\phi M_{ny}}$
T2	180.583 - 160.583 (588)	C15x33.9	-61046.50	136080.00	0.449	0.00	12595.50	0.000
T2	180.583 - 160.583 (589)	C15x33.9	-62796.17	136080.00	0.461	-0.00	12595.50	0.000
T2	180.583 - 160.583 (592)	C15x33.9	-60945.67	136080.00	0.448	0.00	12595.50	0.000
T2	180.583 - 160.583 (593)	C15x33.9	-63538.67	136080.00	0.467	-0.00	12595.50	0.000
T2	180.583 - 160.583 (596)	C15x33.9	-63430.00	136080.00	0.466	0.00	12595.50	0.000
T2	180.583 -	C15x33.9	-65315.42	136080.00	0.480	0.00	12595.50	0.000

Section No.	Elevation ft	Size	M_{ux} lb-ft	ϕM_{nx} lb-ft	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	M_{uy} lb-ft	ϕM_{ny} lb-ft	Ratio $\frac{M_{uy}}{\phi M_{ny}}$
	160.583 (597)							
T5	120.583 - 100.583 (600)	C15x33.9	-24966.33	136080.00	0.183	0.00	12595.50	0.000
T5	120.583 - 100.583 (601)	C15x33.9	-25360.83	136080.00	0.186	-0.00	12595.50	0.000
T5	120.583 - 100.583 (604)	C15x33.9	-23262.00	136080.00	0.171	0.00	12595.50	0.000
T5	120.583 - 100.583 (605)	C15x33.9	-24903.08	136080.00	0.183	0.00	12595.50	0.000
T5	120.583 - 100.583 (608)	C15x33.9	-22131.33	136080.00	0.163	-0.00	12595.50	0.000
T5	120.583 - 100.583 (609)	C15x33.9	-26197.67	136080.00	0.193	0.00	12595.50	0.000
T8	60.5833 - 40.5833 (612)	C12x25	-8152.27	77957.83	0.105	0.00	7614.00	0.000
T8	60.5833 - 40.5833 (613)	C12x25	-7795.42	77957.83	0.100	-0.00	7614.00	0.000
T8	60.5833 - 40.5833 (616)	C12x25	-7052.76	77957.83	0.090	-0.00	7614.00	0.000
T8	60.5833 - 40.5833 (617)	C12x25	-8025.28	77957.83	0.103	0.00	7614.00	0.000
T8	60.5833 - 40.5833 (620)	C12x25	-7047.48	77957.83	0.090	-0.00	7614.00	0.000
T8	60.5833 - 40.5833 (621)	C12x25	-8058.01	77957.83	0.103	0.00	7614.00	0.000

Torque-Arm Top Interaction Design Data

Section No.	Elevation ft	Size	Ratio $\frac{P_u}{\phi P_n}$	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	Ratio $\frac{M_{uy}}{\phi M_{ny}}$	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
T2	180.583 - 160.583 (588)	C15x33.9	0.028	0.449	0.000	0.463	1.050	
T2	180.583 - 160.583 (589)	C15x33.9	0.028	0.461	0.000	0.475	1.050	
T2	180.583 - 160.583 (592)	C15x33.9	0.027	0.448	0.000	0.462	1.050	
T2	180.583 - 160.583 (593)	C15x33.9	0.003	0.467	0.000	0.468	1.050	
T2	180.583 - 160.583 (596)	C15x33.9	0.002	0.466	0.000	0.467	1.050	
T2	180.583 - 160.583 (597)	C15x33.9	0.003	0.480	0.000	0.481	1.050	
T5	120.583 - 100.583 (600)	C15x33.9	0.007	0.183	0.000	0.187	1.050	
T5	120.583 - 100.583 (601)	C15x33.9	0.011	0.186	0.000	0.192	1.050	
T5	120.583 - 100.583 (604)	C15x33.9	0.010	0.171	0.000	0.176	1.050	
T5	120.583 - 100.583 (605)	C15x33.9	0.008	0.183	0.000	0.187	1.050	
T5	120.583 - 100.583 (608)	C15x33.9	0.004	0.163	0.000	0.165	1.050	
T5	120.583 - 100.583 (609)	C15x33.9	0.001	0.193	0.000	0.193	1.050	
T8	60.5833 -	C12x25	0.006	0.105	0.000	0.108	1.050	

Section No.	Elevation ft	Size	Ratio $\frac{P_u}{\phi P_n}$	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	Ratio $\frac{M_{uy}}{\phi M_{ny}}$	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
T8	40.5833 (612) 60.5833 - 40.5833 (613)	C12x25	0.009	0.100	0.000	0.105	1.050	
T8	60.5833 - 40.5833 (616)	C12x25	0.004	0.090	0.000	0.093	1.050	
T8	60.5833 - 40.5833 (617)	C12x25	0.008	0.103	0.000	0.107	1.050	
T8	60.5833 - 40.5833 (620)	C12x25	0.003	0.090	0.000	0.092	1.050	
T8	60.5833 - 40.5833 (621)	C12x25	0.002	0.103	0.000	0.104	1.050	

Tension Checks

Leg Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
T1	193.583 - 180.583	ROHN 2.5 EH	13'	1-5/16"	1.5	2.2535	19742.90	101409.00	0.195 [1]
T2	180.583 - 160.583	2.5 XH w/ HSS3.5x0.25 Half Sleeve	20'	1'2-13/32"	15.6	3.4492	79739.10	155216.00	0.514 [1]
T3	160.583 - 140.583	2.5 XH w/ HSS3.5x0.25 Half Sleeve	20'	7-5/16"	8.0	3.4492	44332.70	155216.00	0.286 [1]
T4	140.583 - 120.583	ROHN 2.5 EH	20'	7-5/16"	8.0	2.2535	14869.60	101409.00	0.147 [1]
T5	120.583 - 100.583	ROHN 3 EH	20'	1'2-13/32"	12.7	3.0159	5255.09	135717.00	0.039 [1]

[1] P_u / ϕP_n controls

Diagonal Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
T1	193.583 - 180.583	L2x2x1/4	4'2-17/32"	1'9-1/8"	38.5	0.5629	3943.68	24485.10	0.161 [1]
T2	180.583 - 160.583	L2x2x1/4	4'2-5/32'	1'9"	38.3	0.5629	7244.25	24485.10	0.296 [1]
T3	160.583 - 140.583	L2x2x1/4	4'2-5/32'	1'9"	38.3	0.5629	3562.79	24485.10	0.146 [1]
T4	140.583 - 120.583	ROHN 1.5 x 11GA	4'2-5/32'	3'10-11/16"	95.2	0.2592	1339.91	11274.00	0.119 [1]
T5	120.583 - 100.583	L2x2x1/4	4'2-5/32'	1'8-17/32"	37.7	0.5629	1629.29	24485.10	0.067 [1]
T6	100.583 - 80.5833	ROHN 1.5 x 11GA	4'2-5/32'	3'9-27/32"	93.7	0.2592	1814.81	11274.00	0.161 [1]

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
T7	80.5833 - 60.5833	L1 3/4x1 3/4x3/16	4'2-5/32'	3'7-7/16'	85.5	0.3779	974.44	16439.90	0.059 [1]
T8	60.5833 - 40.5833	ROHN 1.5 x 11GA	4'2-5/32'	3'9-27/32"	93.7	0.2592	2369.18	11274.00	0.210 [1]
T9	40.5833 - 20.5833	ROHN 1.5 x 11GA	4'2-5/32'	3'9-27/32"	93.7	0.2592	1823.47	11274.00	0.162 [1]
T10	20.5833 - 5.40104	ROHN 1.5 x 11GA	4'2-5/32'	3'9-27/32"	93.7	0.2592	977.09	11274.00	0.087 [1]

[1] P_u / ϕP_n controls

Horizontal Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
T11	5.40104 - 0.583333	L4x4x1/4	2'5-5/32'	2'1-11/16"	20.5	1.9400	974.68	62856.00	0.016 [1]

[1] P_u / ϕP_n controls

Secondary Horizontal Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
T2	180.583 - 160.583	L2x2x1/4	3'5-1/32'	1'5-3/4"	62.6	0.5863	6666.23	25504.60	0.261 [1]
T3	160.583 - 140.583	L2x2x1/4	3'5-1/32'	1'5-3/4"	62.6	0.5863	2092.68	25504.60	0.082 [1]
T5	120.583 - 100.583	L2x2x1/4	3'5-1/32'	1'5-17/32"	61.6	0.5863	3644.53	25504.60	0.143 [1]

[1] P_u / ϕP_n controls

Top Girt Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
T1	193.583 - 180.583	L2x2x1/4	3'5-1/32'	2'10-3/32"	62.6	0.5863	1033.43	25504.60	0.041 [1]
T2	180.583 - 160.583	L2x2x1/4	3'5-1/32'	2'10-3/32"	62.6	0.5863	1602.52	25504.60	0.063 [1]
T3	160.583 - 140.583	ROHN 1.5 x 11GA	3'5-1/32'	3'2-5/32'	77.8	0.2592	1529.47	11274.00	0.136 [1]
T4	140.583 -	ROHN 1.5 x 11GA	3'5-1/32'	3'2-5/32'	77.8	0.2592	1166.27	11274.00	0.103 [1]

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
	120.583								
T5	120.583 - 100.583	L2x2x1/4	3'5-1/32"	2'9-15/32"	61.6	0.5863	1239.00	25504.60	0.049 [1]
T6	100.583 - 80.5833	ROHN 1.5 x 11GA	3'5-1/32"	3'1-9/16"	76.6	0.2592	1176.45	11274.00	0.104 [1]
T7	80.5833 - 60.5833	ROHN 1.5 x 11GA	3'5-1/32"	3'1-9/16"	76.6	0.2592	823.73	11274.00	0.073 [1]
T8	60.5833 - 40.5833	ROHN 1.5 x 11GA	3'5-1/32"	3'1-9/16"	76.6	0.2592	936.45	11274.00	0.083 [1]
T9	40.5833 - 20.5833	ROHN 1.5 x 11GA	3'5-1/32"	3'1-9/16"	76.6	0.2592	1005.63	11274.00	0.089 [1]
T10	20.5833 - 5.40104	ROHN 1.5 x 11GA	3'5-1/32"	3'1-9/16"	76.6	0.2592	849.38	11274.00	0.075 [1]
T11	5.40104 - 0.583333	L4x4x1/4	3'2-7/8"	2'11-13/32"	28.3	1.9400	7486.46	62856.00	0.119 [1]

[1] P_u / ϕP_n controls

Bottom Girt Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
T1	193.583 - 180.583	L2x2x1/4	3'5-1/32"	2'10-3/32"	62.6	0.5863	1669.70	25504.60	0.065 [1]
T2	180.583 - 160.583	L2x2x1/4	3'5-1/32"	2'10-3/32"	62.6	0.5863	3895.43	25504.60	0.153 [1]
T3	160.583 - 140.583	ROHN 1.5 x 11GA	3'5-1/32"	3'2-5/32"	77.8	0.2592	1529.47	11274.00	0.136 [1]
T4	140.583 - 120.583	ROHN 1.5 x 11GA	3'5-1/32"	3'2-5/32"	77.8	0.2592	1166.27	11274.00	0.103 [1]
T5	120.583 - 100.583	L2x2x1/4	3'5-1/32"	2'9-15/32"	61.6	0.5863	2162.15	25504.60	0.085 [1]
T6	100.583 - 80.5833	ROHN 1.5 x 11GA	3'5-1/32"	3'1-9/16"	76.6	0.2592	1176.45	11274.00	0.104 [1]
T7	80.5833 - 60.5833	ROHN 1.5 x 11GA	3'5-1/32"	3'1-9/16"	76.6	0.2592	823.73	11274.00	0.073 [1]
T8	60.5833 - 40.5833	ROHN 1.5 x 11GA	3'5-1/32"	3'1-9/16"	76.6	0.2592	991.51	11274.00	0.088 [1]
T9	40.5833 - 20.5833	ROHN 1.5 x 11GA	3'5-1/32"	3'1-9/16"	76.6	0.2592	900.95	11274.00	0.080 [1]
T10	20.5833 - 5.40104	ROHN 1.5 x 11GA	3'5-1/32"	3'1-9/16"	76.6	0.2592	4325.96	11274.00	0.384 [1]

[1] P_u / ϕP_n controls

Torque-Arm Top Design Data

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
T2	180.583 - 160.583 (588)	C15x33.9	3'8-1/32'	3'6-19/32"	47.1	7.2450	6430.90	315158.00	0.020
T2	180.583 - 160.583 (589)	C15x33.9	3'8-1/32'	3'6-19/32"	47.1	7.2450	5978.03	315158.00	0.019
T2	180.583 - 160.583 (592)	C15x33.9	3'8-1/32'	3'6-19/32"	47.1	7.2450	6240.70	315158.00	0.020
T2	180.583 - 160.583 (593)	C15x33.9	3'8-1/32'	3'6-19/32"	47.1	7.2450	6446.97	315158.00	0.020
T2	180.583 - 160.583 (596)	C15x33.9	3'8-1/32'	3'6-19/32"	47.1	7.2450	6673.02	315158.00	0.021
T2	180.583 - 160.583 (597)	C15x33.9	3'8-1/32'	3'6-19/32"	47.1	7.2450	6259.95	315158.00	0.020
T5	120.583 - 100.583 (600)	C15x33.9	3'8-1/32'	3'6-1/4"	46.8	7.2450	290.83	315158.00	0.001
T5	120.583 - 100.583 (601)	C15x33.9	3'8-1/32'	3'6-1/4"	46.8	7.2450	207.17	315158.00	0.001
T5	120.583 - 100.583 (604)	C15x33.9	3'8-1/32'	3'6-1/4"	46.8	7.2450	208.13	315158.00	0.001
T5	120.583 - 100.583 (605)	C15x33.9	3'8-1/32'	3'6-1/4"	46.8	7.2450	2440.04	315158.00	0.008
T5	120.583 - 100.583 (608)	C15x33.9	3'8-1/32'	3'6-1/4"	46.8	7.2450	2901.98	315158.00	0.009
T5	120.583 - 100.583 (609)	C15x33.9	3'8-1/32'	3'6-1/4"	46.8	7.2450	2509.20	315158.00	0.008
T8	60.5833 - 40.5833 (612)	C12x25	3'8-1/32'	3'6-1/4"	54.2	5.2948	1146.68	230324.00	0.005
T8	60.5833 - 40.5833 (613)	C12x25	3'8-1/32'	3'6-1/4"	54.2	5.2948	1146.49	230324.00	0.005
T8	60.5833 - 40.5833 (616)	C12x25	3'8-1/32'	3'6-1/4"	54.2	5.2948	1432.95	230324.00	0.006
T8	60.5833 - 40.5833 (617)	C12x25	3'8-1/32'	3'6-1/4"	54.2	5.2948	1416.16	230324.00	0.006
T8	60.5833 - 40.5833 (620)	C12x25	3'8-1/32'	3'6-1/4"	54.2	5.2948	1488.91	230324.00	0.006
T8	60.5833 - 40.5833 (621)	C12x25	3'8-1/32'	3'6-1/4"	54.2	5.2948	1392.59	230324.00	0.006

Torque-Arm Top Bending Design Data

Section No.	Elevation ft	Size	M_{ux} lb-ft	ϕM_{nx} lb-ft	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	M_{uy} lb-ft	ϕM_{ny} lb-ft	Ratio $\frac{M_{uy}}{\phi M_{ny}}$
T2	180.583 - 160.583 (588)	C15x33.9	-54995.08	136080.00	0.404	-0.00	12595.50	0.000
T2	180.583 - 160.583 (589)	C15x33.9	-55521.17	136080.00	0.408	-0.00	12595.50	0.000
T2	180.583 - 160.583 (592)	C15x33.9	-55941.17	136080.00	0.411	0.00	12595.50	0.000
T2	180.583 - 160.583 (593)	C15x33.9	-55836.33	136080.00	0.410	0.00	12595.50	0.000
T2	180.583 - 160.583 (596)	C15x33.9	-57665.58	136080.00	0.424	0.00	12595.50	0.000
T2	180.583 - 160.583 (597)	C15x33.9	-57882.00	136080.00	0.425	0.00	12595.50	0.000
T5	120.583 - 100.583 (600)	C15x33.9	-24095.17	136080.00	0.177	0.00	12595.50	0.000

Section No.	Elevation ft	Size	M_{ux} lb-ft	ϕM_{nx} lb-ft	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	M_{uy} lb-ft	ϕM_{ny} lb-ft	Ratio $\frac{M_{uy}}{\phi M_{ny}}$
T5	120.583 - 100.583 (601)	C15x33.9	-22715.50	136080.00	0.167	-0.00	12595.50	0.000
T5	120.583 - 100.583 (604)	C15x33.9	-22045.67	136080.00	0.162	0.00	12595.50	0.000
T5	120.583 - 100.583 (605)	C15x33.9	-21345.83	136080.00	0.157	-0.00	12595.50	0.000
T5	120.583 - 100.583 (608)	C15x33.9	-24028.92	136080.00	0.177	0.00	12595.50	0.000
T5	120.583 - 100.583 (609)	C15x33.9	-23805.92	136080.00	0.175	0.00	12595.50	0.000
T8	60.5833 - 40.5833 (612)	C12x25	-7356.04	77957.83	0.094	0.00	7614.00	0.000
T8	60.5833 - 40.5833 (613)	C12x25	-7619.24	77957.83	0.098	0.00	7614.00	0.000
T8	60.5833 - 40.5833 (616)	C12x25	-7081.45	77957.83	0.091	-0.00	7614.00	0.000
T8	60.5833 - 40.5833 (617)	C12x25	-7262.98	77957.83	0.093	0.00	7614.00	0.000
T8	60.5833 - 40.5833 (620)	C12x25	-7083.43	77957.83	0.091	-0.00	7614.00	0.000
T8	60.5833 - 40.5833 (621)	C12x25	-7665.60	77957.83	0.098	-0.00	7614.00	0.000

Torque-Arm Top Interaction Design Data

Section No.	Elevation ft	Size	Ratio $\frac{P_u}{\phi P_n}$	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	Ratio $\frac{M_{uy}}{\phi M_{ny}}$	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
T2	180.583 - 160.583 (588)	C15x33.9	0.020	0.404	0.000	0.414	1.050	
T2	180.583 - 160.583 (589)	C15x33.9	0.019	0.408	0.000	0.417	1.050	
T2	180.583 - 160.583 (592)	C15x33.9	0.020	0.411	0.000	0.421	1.050	
T2	180.583 - 160.583 (593)	C15x33.9	0.020	0.410	0.000	0.421	1.050	
T2	180.583 - 160.583 (596)	C15x33.9	0.021	0.424	0.000	0.434	1.050	
T2	180.583 - 160.583 (597)	C15x33.9	0.020	0.425	0.000	0.435	1.050	
T5	120.583 - 100.583 (600)	C15x33.9	0.001	0.177	0.000	0.178	1.050	
T5	120.583 - 100.583 (601)	C15x33.9	0.001	0.167	0.000	0.167	1.050	
T5	120.583 - 100.583 (604)	C15x33.9	0.001	0.162	0.000	0.162	1.050	
T5	120.583 - 100.583 (605)	C15x33.9	0.008	0.157	0.000	0.161	1.050	
T5	120.583 - 100.583 (608)	C15x33.9	0.009	0.177	0.000	0.181	1.050	
T5	120.583 - 100.583 (609)	C15x33.9	0.008	0.175	0.000	0.179	1.050	
T8	60.5833 - 40.5833 (612)	C12x25	0.005	0.094	0.000	0.097	1.050	
T8	60.5833 - 40.5833 (613)	C12x25	0.005	0.098	0.000	0.100	1.050	

Section No.	Elevation ft	Size	Ratio $\frac{P_u}{\phi P_n}$	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	Ratio $\frac{M_{uy}}{\phi M_{ny}}$	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
T8	60.5833 - 40.5833 (616)	C12x25	0.006	0.091	0.000	0.094	1.050	
T8	60.5833 - 40.5833 (617)	C12x25	0.006	0.093	0.000	0.096	1.050	
T8	60.5833 - 40.5833 (620)	C12x25	0.006	0.091	0.000	0.094	1.050	
T8	60.5833 - 40.5833 (621)	C12x25	0.006	0.098	0.000	0.101	1.050	

Section Capacity Table

Section No.	Elevation ft	Component Type	Size	Critical Element	P lb	ϕP_{allow} lb	% Capacity	Pass Fail
T1	193.583 - 180.583	Leg	ROHN 2.5 EH	2	-26615.40	106462.65	25.0	Pass
T2	180.583 - 160.583	Leg	2.5 XH w/ HSS3.5x0.25 Half Sleeve	Note 1	Note 1	Note 1	87.2	Pass
T3	160.583 - 140.583	Leg	2.5 XH w/ HSS3.5x0.25 Half Sleeve	Note 1	Note 1	Note 1	83.2	Pass
T4	140.583 - 120.583	Leg	ROHN 2.5 EH	203	-65932.80	99127.24	66.5	Pass
T5	120.583 - 100.583	Leg	ROHN 3 EH	259	-71533.50	140827.05	50.8	Pass
T6	100.583 - 80.5833	Leg	ROHN 3 EH	341	-65395.20	135917.25	48.1	Pass
T7	80.5833 - 60.5833	Leg	ROHN 3 EH	398	-45991.70	135917.25	33.8	Pass
T8	60.5833 - 40.5833	Leg	ROHN 3 EH	454	-54066.20	135917.25	39.8	Pass
T9	40.5833 - 20.5833	Leg	ROHN 3 EH	511	-50777.60	117931.80	43.1	Pass
T10	20.5833 - 5.40104	Leg	ROHN 3 EH	544	-49039.20	117931.80	41.6	Pass
T11	5.40104 - 0.583333	Leg	ROHN 3 EH	573	-53157.20	140744.09	37.8	Pass
T1	193.583 - 180.583	Diagonal	L2x2x1/4	11	3943.68	25709.35	15.3	Pass
T2	180.583 - 160.583	Diagonal	L2x2x1/4	71	7244.25	25709.35	28.2	Pass
T3	160.583 - 140.583	Diagonal	L2x2x1/4	194	-4373.01	29964.69	14.6	Pass
T4	140.583 - 120.583	Diagonal	ROHN 1.5 x 11GA	255	-1774.81	11827.62	15.0	Pass
T5	120.583 - 100.583	Diagonal	L2x2x1/4	268	-3893.15	30078.93	12.9	Pass
T6	100.583 - 80.5833	Diagonal	ROHN 1.5 x 11GA	396	-2555.19	12043.92	21.2	Pass
T7	80.5833 - 60.5833	Diagonal	L1 3/4x1 3/4x3/16	452	-1539.90	11698.47	13.2	Pass
T8	60.5833 - 40.5833	Diagonal	ROHN 1.5 x 11GA	463	-2521.42	12043.92	20.9	Pass
T9	40.5833 - 20.5833	Diagonal	ROHN 1.5 x 11GA	541	-2254.70	12043.92	18.7	Pass
T10	20.5833 - 5.40104	Diagonal	ROHN 1.5 x 11GA	553	977.09	11837.70	8.3	Pass
T11	5.40104 -	Horizontal	L4x4x1/4	577	-974.68	62057.94	1.8	Pass

Section No.	Elevation ft	Component Type	Size	Critical Element	P lb	ϕP_{allow} lb	% Capacity	Pass Fail
T2	0.583333 180.583 - 160.583	Secondary Horizontal	L2x2x1/4	64	6666.23	26779.83	24.9	Pass
T3	160.583 - 140.583	Secondary Horizontal	L2x2x1/4	199	2092.68	26779.83	7.8	Pass
T5	120.583 - 100.583	Secondary Horizontal	L2x2x1/4	283	3644.53	26779.83	13.6	Pass
T1	193.583 - 180.583	Top Girt	L2x2x1/4	4	-958.48	23481.36	4.1	Pass
T2	180.583 - 160.583	Top Girt	L2x2x1/4	44	-1602.52	23481.36	6.8	Pass
T3	160.583 - 140.583	Top Girt	ROHN 1.5 x 11GA	125	1529.47	11837.70	12.9	Pass
T4	140.583 - 120.583	Top Girt	ROHN 1.5 x 11GA	205	1166.27	11837.70	9.9	Pass
T5	120.583 - 100.583	Top Girt	L2x2x1/4	262	-1239.00	23665.32	5.2	Pass
T6	100.583 - 80.5833	Top Girt	ROHN 1.5 x 11GA	343	1176.45	11837.70	9.9	Pass
T7	80.5833 - 60.5833	Top Girt	ROHN 1.5 x 11GA	400	823.73	11837.70	7.0	Pass
T8	60.5833 - 40.5833	Top Girt	ROHN 1.5 x 11GA	457	936.45	11837.70	7.9	Pass
T9	40.5833 - 20.5833	Top Girt	ROHN 1.5 x 11GA	516	1005.63	11837.70	8.5	Pass
T10	20.5833 - 5.40104	Top Girt	ROHN 1.5 x 11GA	547	849.38	11837.70	7.2	Pass
T11	5.40104 - 0.583333	Top Girt	L4x4x1/4	575	7486.46	65998.80	11.3	Pass
T1	193.583 - 180.583	Bottom Girt	L2x2x1/4	7	-1542.51	23481.36	6.6	Pass
T2	180.583 - 160.583	Bottom Girt	L2x2x1/4	47	3895.43	26779.83	14.5	Pass
T3	160.583 - 140.583	Bottom Girt	ROHN 1.5 x 11GA	128	1529.47	11837.70	12.9	Pass
T4	140.583 - 120.583	Bottom Girt	ROHN 1.5 x 11GA	208	1166.27	11837.70	9.9	Pass
T5	120.583 - 100.583	Bottom Girt	L2x2x1/4	266	2162.15	26779.83	8.1	Pass
T6	100.583 - 80.5833	Bottom Girt	ROHN 1.5 x 11GA	346	1176.45	11837.70	9.9	Pass
T7	80.5833 - 60.5833	Bottom Girt	ROHN 1.5 x 11GA	403	823.73	11837.70	7.0	Pass
T8	60.5833 - 40.5833	Bottom Girt	ROHN 1.5 x 11GA	461	991.51	11837.70	8.4	Pass
T9	40.5833 - 20.5833	Bottom Girt	ROHN 1.5 x 11GA	517	900.95	11837.70	7.6	Pass
T10	20.5833 - 5.40104	Bottom Girt	ROHN 1.5 x 11GA	551	4325.96	11837.70	36.5	Pass
T2	180.583 - 160.583	Guy A@163.107	3/4	594	23211.00	36729.00	63.2	Pass
T5	120.583 - 100.583	Guy A@103.107	5/8	606	9862.31	26712.00	36.9	Pass
T8	60.5833 - 40.5833	Guy A@43.1068	1/2	618	5015.23	16947.00	29.6	Pass
T2	180.583 - 160.583	Guy B@163.107	3/4	590	22365.30	36729.00	60.9	Pass
T5	120.583 - 100.583	Guy B@103.107	5/8	603	8760.78	26712.00	32.8	Pass
T8	60.5833 - 40.5833	Guy B@43.1068	1/2	614	4590.40	16947.00	27.1	Pass

Section No.	Elevation ft	Component Type	Size	Critical Element	P lb	ϕP_{allow} lb	% Capacity	Pass Fail
T2	180.583 - 160.583	Guy C@163.107	3/4	587	22849.50	36729.00	62.2	Pass
T5	120.583 - 100.583	Guy C@103.107	5/8	599	9647.56	26712.00	36.1	Pass
T8	60.5833 - 40.5833	Guy C@43.1068	1/2	611	5273.42	16947.00	31.1	Pass
T2	180.583 - 160.583	Torque Arm Top@163.107	C15x33.9	597	6259.95	330915.88	45.9	Pass
T5	120.583 - 100.583	Torque Arm Top@103.107	C15x33.9	609	2509.20	330915.88	18.4	Pass
T8	60.5833 - 40.5833	Torque Arm Top@43.1068	C12x25	612	-1307.46	214231.48	10.3	Pass

Summary		
Leg (T4)	87.2	Pass
Diagonal (T2)	28.2	Pass
Horizontal (T11)	1.8	Pass
Secondary Horizontal (T2)	24.9	Pass
Top Girt (T3)	12.9	Pass
Bottom Girt (T10)	36.5	Pass
Guy A (T2)	63.2	Pass
Guy B (T2)	60.9	Pass
Guy C (T2)	62.2	Pass
Torque Arm Top (T2)	45.9	Pass
Bolt Checks	76.8	Pass
RATING =	**87.2**	**Pass**

Notes:

1) See additional documentation in "Appendix B - Additional Calculations" for calculations supporting the % capacity listed.

APPENDIX B

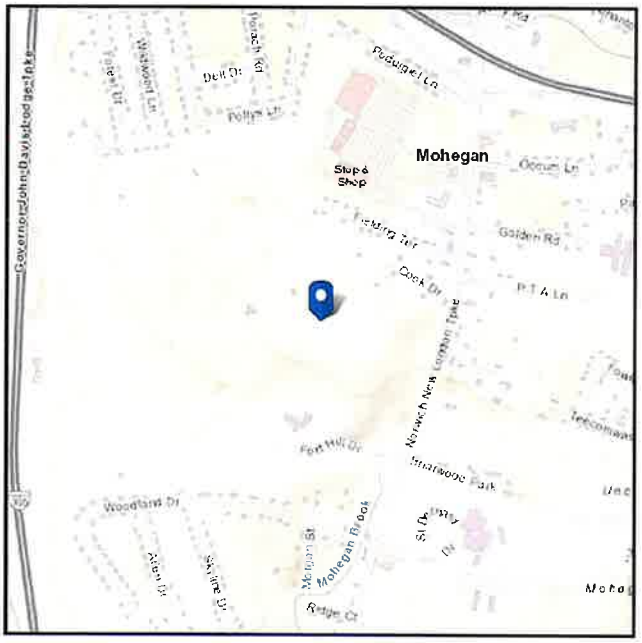
ADDITIONAL CALCULATIONS

ASCE Hazards Report

Address:
No Address at This Location

Standard: ASCE/SEI 7-16
Risk Category: II
Soil Class: D - Default (see Section 11.4.3)

Latitude: 41.474986
Longitude: -72.10505
Elevation: 361.3465091877598 ft (NAVD 88)



Wind

Results:

Wind Speed	125 Vmph
10-year MRI	75 Vmph
25-year MRI	85 Vmph
50-year MRI	97 Vmph
100-year MRI	102 Vmph

Data Source: ASCE/SEI 7-16, Fig. 26.5-1B and Figs. CC.2-1–CC.2-4, and Section 26.5.2
Date Accessed: Wed May 01 2024

Value provided is 3-second gust wind speeds at 33 ft above ground for Exposure C Category, based on linear interpolation between contours. Wind speeds are interpolated in accordance with the 7-16 Standard. Wind speeds correspond to approximately a 7% probability of exceedance in 50 years (annual exceedance probability = 0.00143, MRI = 700 years).

Site is in a hurricane-prone region as defined in ASCE/SEI 7-16 Section 26.2. Glazed openings need not be protected against wind-borne debris.

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Seismic

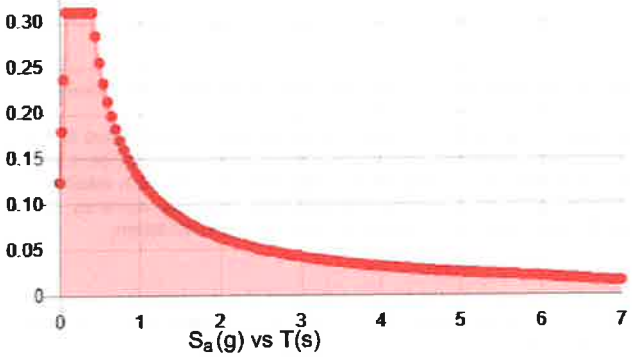
Site Soil Class: D - Default (see Section 11.4.3)

Results:

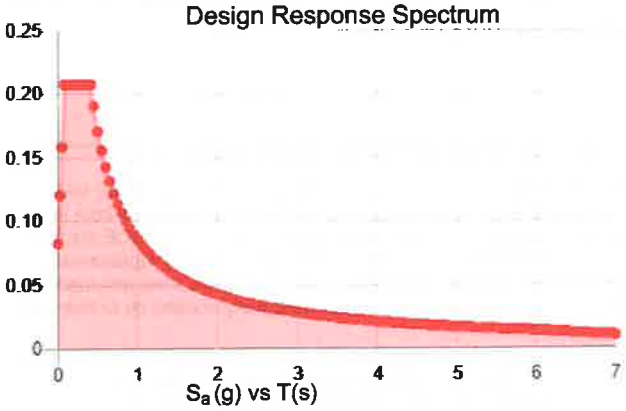
S_S :	0.195	S_{D1} :	0.086
S_1 :	0.054	T_L :	6
F_a :	1.6	PGA :	0.107
F_v :	2.4	PGA_M :	0.17
S_{MS} :	0.312	F_{PGA} :	1.585
S_{M1} :	0.129	I_e :	1
S_{DS} :	0.208	C_v :	0.7

Seismic Design Category: B

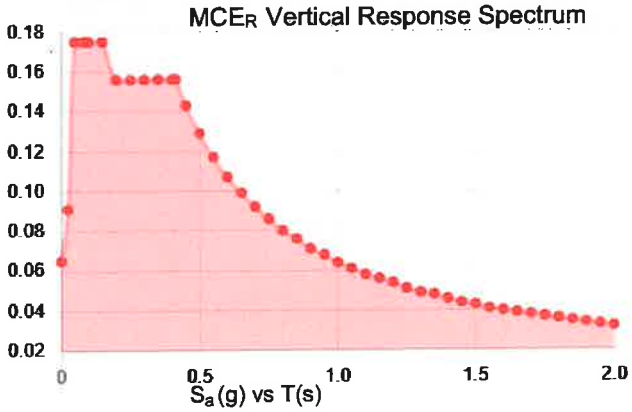
MCE_R Response Spectrum



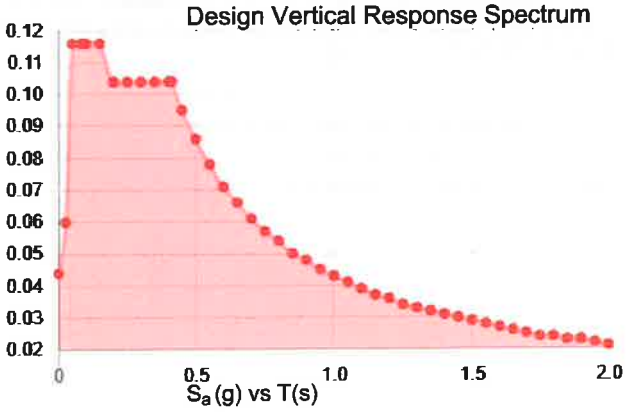
Design Response Spectrum



MCE_R Vertical Response Spectrum



Design Vertical Response Spectrum



Data Accessed: Wed May 01 2024

Date Source:
USGS Seismic Design Maps based on ASCE/SEI 7-16 and ASCE/SEI 7-16 Table 1.5-2. Additional data for site-specific ground motion procedures in accordance with ASCE/SEI 7-16 Ch. 21 are available from USGS.

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Ice

Results:

Ice Thickness:	1.00 in.
Concurrent Temperature:	15 F
Gust Speed	50 mph
Data Source:	Standard ASCE/SEI 7-16, Figs. 10-2 through 10-8
Date Accessed:	Wed May 01 2024

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

Values provided are equivalent radial ice thicknesses due to freezing rain with concurrent 3-second gust speeds, for a 500-year mean recurrence interval, and temperatures concurrent with ice thicknesses due to freezing rain. Thicknesses for ice accretions caused by other sources shall be obtained from local meteorological studies. Ice thicknesses in exposed locations at elevations higher than the surrounding terrain and in valleys and gorges may exceed the mapped values.

Project Name:	Montville 4 CT	**Engineer:**	MKL
Project Number:	TEP No. 83901.937359	**Check:**	CS-SA
Client Site Number:	5000243569	**Date:**	5/2/2024
Elevation:	160-ft - 180-ft	**CODE:**	TIA-H

Grouted/Un-Grouted Pipe Leg + Half Sleeve R/F

Φc_L =	0.90	- LRFD strength reduction factor (leg, compression)
ΦT_L =	0.90	- LRFD strength reduction factor (leg, tension)
Φc_S =	0.90	- LRFD strength reduction factor (sleeve, compression)
ΦT_S =	0.90	- LRFD strength reduction factor (sleeve, tension)
Φ_W =	0.75	- LRFD strength reduction factor (weld shear)
Φ_V =	0.75	- LRFD strength reduction factor (shear)

Mast St.: 1.00 - from tnxTower

Moment Ratio: 0 - Moment ratio from tnxTower

Input - Loads

$P_{initial}$:	15.3	kips - force from initial load (no wind)
P_{wind}:	92.8	kips - force due to final loading including reinforcement
T_u:	80.0	kips - maximum load on leg

Quick Check

Weld Size:	OK
Weld Connection:	53.2%
Crushing Check:	87.2%
Leg Comp. Check:	61.6%
Sleeve Check:	48.4%
Built-up Check:	59.0%
Leg Tension Check:	75.1%

Input - Tower Leg

2.5 XS

K:	1.00	- effective length factor for leg
L_u:	1.20	ft - unbraced length of tower leg
F_{y_leg}:	50.00	ksi - minimum specified yield strength of tower leg
F_{u_leg}:	65.00	ksi - minimum specified ultimate strength of tower leg
r:	0.92	in - minimum radius of gyration of tower leg
A_{leg}:	2.25	in^2 - area of tower leg
Di:	2.32	in - inside diameter of tower leg
t_{leg}:	0.276	in - thickness of tower leg
$f`_c$:	0.00	ksi - minimum specified compressive strength of grout (If ungrouted enter 0)

Input - Sleeve R/F

3.5 HSS x 0.25 Gap Check: OK

F_{y_sleeve}:	50.00	ksi - minimum specified yield strength of sleeve r/f
F_{u_sleeve}:	65.00	ksi - minimum specified ultimate strength of sleeve r/f
r_{x_sleeve}:	0.50	in - minimum radius of gyration of sleeve r/f about the x-axis
r_{y_sleeve}:	1.15	in - minimum radius of gyration of sleeve r/f about the y-axis
A_{sleeve}:	1.28	in^2 - area of sleeve r/f
t_{sleeve}:	0.250	in - thickness of sleeve r/f

Termination: Connected to Leg ONLY

Input - Sleeve Connection to Leg

a:	12.00	in - spacing of connectors connecting the sleeve to the leg
D:	3.00	- weld size for the weld connecting the sleeve to the leg (unit = # of 16ths)
Length //:	6.00	in - length of weld on each side of the leg at the termination
Length ⊥:	0.00	in - length of weld at the bottom/top of the leg sleeve at termination ($\pi D/2$)
No:	2.00	- number of longitudinal welds per end of the leg (typically near side & far side, so 2)
F_{EXX}:	70.00	ksi - weld electrode classification
Width:	3.50	in - maximum width of the built-up leg
Gap:	3.00	in - length of leg considered for crushing

Input - Built-up Leg Section

2.5 XS w/3.5 HSS x 0.25 Half Sleeve

r_{x_bu}:	0.93	in - minimum radius of gyration of the built-up section about the x-axis
r_{y_bu}:	1.01	in - minimum radius of gyration of the built-up section about the y-axis

Project Name:	Montville 4 CT	**Engineer:**	MKL
Project Number:	TEP No. 83901.937359	**Check:**	CS-SA
Client Site Number:	5000243569	**Date:**	5/2/2024
Elevation:	160-ft - 180-ft	**CODE:**	TIA-H

Grouted/Un-Grouted Pipe Leg + Half Sleeve R/F

ΦC_L =	0.90 - LRFD strength reduction factor (leg, compression)	Mast St.:	1.00 - from tnxTower
ΦT_L =	0.90 - LRFD strength reduction factor (leg, tension)	Moment Ratio:	0 - Moment ratio from tnxTower
ΦC_S =	0.90 - LRFD strength reduction factor (sleeve, compression)		
ΦT_S =	0.90 - LRFD strength reduction factor (sleeve, tension)		
ΦW =	0.75 - LRFD strength reduction factor (weld shear)		
ΦV =	0.75 - LRFD strength reduction factor (shear)		

Input - Loads

$P_{initial}$:	16.3	kips - force from initial load (no wind)
P_{wind}:	88.6	kips - force due to final loading including reinforcement
T_u:	44.4	kips - maximum load on leg

Quick Check

Weld Size:	OK
Weld Connection:	49.7%
Crushing Check:	83.2%
Leg Comp. Check:	59.3%
Sleeve Check:	45.2%
Built-up Check:	56.4%
Leg Tension Check:	41.7%

Input - Tower Leg

2.5 XS

K:	1.00	- effective length factor for leg
L_u:	1.20	ft - unbraced length of tower leg
F_{y_leg}:	50.00	ksi - minimum specified yield strength of tower leg
F_{u_leg}:	65.00	ksi - minimum specified ultimate strength of tower leg
r:	0.92	in - minimum radius of gyration of tower leg
A_{leg}:	2.25	in^2 - area of tower leg
Di:	2.32	in - inside diameter of tower leg
t_{leg}:	0.276	in - thickness of tower leg
$f`_c$:	0.00	ksi - minimum specified compressive strength of grout (if ungrouted enter 0)

Input - Sleeve R/F

3.5 HSS x 0.25 Gap Check: OK

F_{y_sleeve}:	50.00	ksi - minimum specified yield strength of sleeve r/f
F_{u_sleeve}:	65.00	ksi - minimum specified ultimate strength of sleeve r/f
r_{x_sleeve}:	0.50	in - minimum radius of gyration of sleeve r/f about the x-axis
r_{y_sleeve}:	1.15	in - minimum radius of gyration of sleeve r/f about the y-axis
A_{sleeve}:	1.28	in^2 - area of sleeve r/f
t_{sleeve}:	0.250	in - thickness of sleeve r/f

Termination: Connected to Leg ONLY

Input - Sleeve Connection to Leg

a:	12.00	in - spacing of connectors connecting the sleeve to the leg
D:	3.00	- weld size for the weld connecting the sleeve to the leg (unit = # of 16ths)
Length //:	6.00	in - length of weld on each side of the leg at the termination
Length ⊥:	0.00	in - length of weld at the bottom/top of the leg sleeve at termination ($\pi D/2$)
No:	2.00	- number of longitudinal welds per end of the leg (typically near side & far side, so 2)
F_{Exx}:	70.00	ksi - weld electrode classification
Width:	3.50	in - maximum width of the built-up leg
Gap:	3.00	in - length of leg considered for crushing

Input - Built-up Leg Section

2.5 XS w/3.5 HSS x 0.25 Half Sleeve

r_{x_bu}:	0.93	in - minimum radius of gyration of the built-up section about the x-axis
r_{y_bu}:	1.01	in - minimum radius of gyration of the built-up section about the y-axis

Pier and Pad Foundation

Site # :	5000243569
Site Name:	Montville 4 CT
TEP Number:	83901.937359

TIA-222 Revision:	H
Tower Type:	Guyed

Top & Bot. Pad Rein. Different?:	☐
Block Foundation?:	☐
Rectangular Pad?:	☐

Superstructure Analysis Reactions		
Compression, P_{comp}:	146.17	kips
Base Shear, Vu_comp:	0.91	kips
Moment, M_u:	0	ft-kips
Tower Height, **H**:	193.6	ft
BP Dist. Above Fdn, bp_{dist}:	0	in
Bolt Circle / Bearing Plate Width, **BC**:	16	in

Pier Properties		
Pier Shape:	Square	
Pier Diameter, **dpier**:	2.5	ft
Ext. Above Grade, **E**:	0.5	ft
Pier Rebar Size, **Sc**:	7	
Pier Rebar Quantity, **mc**:	6	
Pier Tie/Spiral Size, **St**:	3	
Pier Tie/Spiral Quantity, **mt**:	6	
Pier Reinforcement Type:	Tie	
Pier Clear Cover, cc_{pier}:	3	in

Pad Properties		
Depth, **D**:	5	ft
Pad Width, W_1:	7	ft
Pad Thickness, **T**:	1.75	ft
Pad Rebar Size (Bottom dir. 2), Sp_2:	7	
Pad Rebar Quantity (Bottom dir. 2), mp_2:	3	
Pad Clear Cover, cc_{pad}:	3	in

Material Properties		
Rebar Grade, **Fy**:	60	ksi
Concrete Compressive Strength, **F'c**:	3	ksi
Dry Concrete Density, δc:	150	pcf

Soil Properties		
Total Soil Unit Weight, γ:	125	pcf
Ultimate Gross Bearing, Qult:	12.000	ksf
Cohesion, **Cu**:		ksf
Friction Angle, φ:	35	degrees
SPT Blow Count, N_{blows}:	30	
Base Friction, μ:	0.45	
Neglected Depth, **N**:	0.00	ft
Foundation Bearing on Rock?	No	
Groundwater Depth, **gw**:	N/A	ft

<--Toggle between Gross and Net

Foundation Analysis Checks				
	Capacity	**Demand**	**Rating***	**Check**
Lateral (Sliding) (kips)	55.44	0.91	**1.6%**	**Pass**
Bearing Pressure (ksf)	7.20	3.85	**51.0%**	**Pass**
*Overturning (kip*ft)*	272.35	5.01	**1.8%**	**Pass**
*Pier Flexure (Comp.) (kip*ft)*	291.04	3.41	**1.1%**	**Pass**
Pier Compression (kip)	2983.50	150.39	**4.8%**	**Pass**
*Pad Flexure (kip*ft)*	133.13	54.50	**39.0%**	**Pass**
Pad Shear - 1-way (kips)	115.17	18.55	**15.3%**	**Pass**
Pad Shear - 2-way (Comp) (ksi)	0.164	0.026	**15.0%**	**Pass**
*Flexural 2-way (Comp) (kip*ft)*	266.25	2.05	**0.7%**	**Pass**

**Rating per TIA-222-H Section 15.5*

Structural Rating*:	**39.0%**
Soil Rating*:	**51.0%**

Guyed Anchor Block Foundation

Checks capacity of anchor blocks for a guyed tower.

Site #:	5000243569
Site Name:	Montville 4 CT
TEP Number:	83901.937359
Location:	A Inner

TIA-222 Revision: H

Design Reactions		
Shear, **S**:	20.56	kips
Uplift, **Ua**:	18.55	kips
Resultant Force, **Rf**:	27.70	kips
Tower Height, **H**:	193.60	ft
Guy Anchor Radius, **R**:	89.00	ft
Resultant Angle to Horizontal, **θ**:	42.1	deg

Guy Anchor Properties		
Depth to Bottom of Deadman, **Da**:	8	ft
Anchor Width, **Wa**:	6	ft
Anchor Thickness, **Ta**:	4	ft
Anchor Length, **La**:	12	ft
Concrete Volume, **Vc**:	10.7	yd^3
Toe Width, **toe**:	0	ft

Material Properties		
Wt. Avg.Concrete Density, **δx**:	0.150	kcf

Design Checks				
	Capacity	**Demand**	**Rating***	**Check**
Lateral Capacity (kips):	107.07	20.56	**18.3%**	**Pass**
Uplift Capacity (kips):	110.51	18.55	**16.0%**	**Pass**

**Rating per TIA-222-H Section 15.5*

Anchor Shaft Rating:	**N/A**
Structural Rating:	**N/A**
Soil Rating:	**18.3%**

Neglect Depth, **Neg**:	0	ft
Groundwater Level, **gw**:	None	ft

Soil Properties: No. of Soil Layers: 1

Layer	φ, deg	cu, ksf	δ, pcf	d, ft	Ultimate fs (ksf)	N (blows/ft)
1	30	0.000	110	8.00	0.450	Layer 1

key: φ = Internal Angle of Friction
cu = Cohesion / Undrained Shear Strength
δ = Buoyant Soil Unit Weight
d = Depth to Bottom of Layer
Ultimate fs = Geotechnical Report-provided skin friction / adhesion
N = SPT Blow Count

Version 5.0.1

Guyed Anchor Block Foundation

Checks capacity of anchor blocks for a guyed tower.

Site #:	5000243569
Site Name:	Montville 4 CT
TEP Number:	83901.937359
Location:	B Inner

TIA-222 Revision: H

Design Reactions		
Shear, **S:**	19.05	kips
Uplift, **Ua:**	16.35	kips
Resultant Force, **Rf:**	25.10	kips
Tower Height, **H:**	193.60	ft
Guy Anchor Radius, **R:**	90.00	ft
Resultant Angle to Horizontal, **θ:**	40.6	deg

Guy Anchor Properties		
Depth to Bottom of Deadman, **Da:**	8	ft
Anchor Width, **Wa:**	6	ft
Anchor Thickness, **Ta:**	4	ft
Anchor Length, **La:**	12	ft
Concrete Volume, **Vc:**	10.7	yd^3
Toe Width, **toe:**	0	ft

Material Properties		
Wt. Avg.Concrete Density, **δx:**	0.150	kcf

Design Checks				
	Capacity	**Demand**	**Rating***	**Check**
Lateral Capacity (kips):	107.33	19.05	**16.9%**	**Pass**
Uplift Capacity (kips):	110.21	16.35	**14.1%**	**Pass**

**Rating per TIA-222-H Section 15.5*

Anchor Shaft Rating:	**N/A**
Structural Rating:	**N/A**
Soil Rating:	**16.9%**

Neglect Depth, **Neg:**	0	ft
Groundwater Level, **gw:**	None	ft

Soil Properties: No. of Soil Layers: 1

Layer	φ, deg	cu, ksf	δ, pcf	d, ft	Ultimate fs (ksf)	N (blows/ft)
1	30	0.000	110	8.00	0.450	Layer 1

*key: φ = *Internal Angle of Friction*
cu = Cohesion / Undrained Shear Strength
δ = Buoyant Soil Unit Weight
d = Depth to Bottom of Layer
Ultimate fs = Geotechnical Report-provided skin friction / adhesion
N = SPT Blow Count

Version 5.0.1

Guyed Anchor Block Foundation

Checks capacity of anchor blocks for a guyed tower.

Site #:	5000243569
Site Name:	Montville 4 CT
TEP Number:	83901.937359
Location:	C Inner

TIA-222 Revision: H

Design Reactions		
Shear, **S**:	21.23	kips
Uplift, **Ua**:	18.18	kips
Resultant Force, **Rf**:	27.95	kips
Tower Height, **H**:	193.60	ft
Guy Anchor Radius, **R**:	90.00	ft
Resultant Angle to Horizontal, **θ**:	40.6	deg

Guy Anchor Properties		
Depth to Bottom of Deadman, **Da**:	8	ft
Anchor Width, **Wa**:	6	ft
Anchor Thickness, **Ta**:	4	ft
Anchor Length, **La**:	12	ft
Concrete Volume, **Vc**:	10.7	yd^3
Toe Width, **toe**:	0	ft

Material Properties		
Wt. Avg.Concrete Density, **δx**:	0.150	kcf

Design Checks				
	Capacity	**Demand**	**Rating***	**Check**
Lateral Capacity (kips):	107.35	21.23	**18.8%**	**Pass**
Uplift Capacity (kips):	110.19	18.18	**15.7%**	**Pass**

**Rating per TIA-222-H Section 15.5*

Anchor Shaft Rating:	**N/A**
Structural Rating:	**N/A**
Soil Rating:	**18.8%**

Neglect Depth, **Neg**:	0	ft
Groundwater Level, **gw**:	None	ft

Soil Properties: No. of Soil Layers: 1

Layer	φ, deg	cu, ksf	δ, pcf	d, ft	Ultimate fs (ksf)	N (blows/ft)
1	30	0.000	110	8.00	0.450	Layer 1

key: φ = Internal Angle of Friction
cu = Cohesion / Undrained Shear Strength
δ = Buoyant Soil Unit Weight
d = Depth to Bottom of Layer
Ultimate fs = Geotechnical Report-provided skin friction / adhesion
N = SPT Blow Count

Version 5.0.1

Guyed Anchor Block Foundation

Checks capacity of anchor blocks for a guyed tower.

Site #:	5000243569
Site Name:	Montville 4 CT
TEP Number:	83901.937359
Location:	A Outer

TIA-222 Revision: H

Design Reactions		
Shear, **S:**	28.32	kips
Uplift, **Ua:**	34.03	kips
Resultant Force, **Rf:**	44.27	kips
Tower Height, **H:**	193.60	ft
Guy Anchor Radius, **R:**	138.00	ft
Resultant Angle to Horizontal, **θ:**	50.2	deg

Guy Anchor Properties		
Depth to Bottom of Deadman, **Da:**	10	ft
Anchor Width, **Wa:**	5	ft
Anchor Thickness, **Ta:**	2	ft
Anchor Length, **La:**	9	ft
Concrete Volume, **Vc:**	3.3	yd^3
Toe Width, **toe:**	0	ft

Material Properties		
Wt. Avg.Concrete Density, **δx:**	0.150	kcf

Design Checks				
	Capacity	**Demand**	**Rating***	**Check**
Lateral Capacity (kips):	59.60	28.32	**45.2%**	**Pass**
Uplift Capacity (kips):	120.50	34.03	**26.9%**	**Pass**

**Rating per TIA-222-H Section 15.5*

Anchor Shaft Rating:	**N/A**
Structural Rating:	**N/A**
Soil Rating:	**45.2%**

Neglect Depth, **Neg:**	0	ft
Groundwater Level, **gw:**	None	ft

Soil Properties: No. of Soil Layers: 1

Layer	φ, deg	cu, ksf	δ, pcf	d, ft	Ultimate fs (ksf)	N (blows/ft)
1	30	0.000	110	10.00	0.450	Layer 1

key: φ = Internal Angle of Friction
cu = Cohesion / Undrained Shear Strength
δ = Buoyant Soil Unit Weight
d = Depth to Bottom of Layer
Ultimate fs = Geotechnical Report-provided skin friction / adhesion
N = SPT Blow Count

Version 5.0.1

Guyed Anchor Block Foundation

Checks capacity of anchor blocks for a guyed tower.

Site #:	5000243569
Site Name:	Montville 4 CT
TEP Number:	83901.937359
Location:	B Outer

TIA-222 Revision: H

Design Reactions		
Shear, **S:**	27.64	kips
Uplift, **Ua:**	32.67	kips
Resultant Force, **Rf:**	42.79	kips
Tower Height, **H:**	193.60	ft
Guy Anchor Radius, **R:**	137.00	ft
Resultant Angle to Horizontal, **θ:**	49.8	deg

Guy Anchor Properties		
Depth to Bottom of Deadman, **De:**	10	ft
Anchor Width, **Wa:**	5	ft
Anchor Thickness, **Ta:**	2	ft
Anchor Length, **La:**	9	ft
Concrete Volume, **Vc:**	3.3	yd^3
Toe Width, **toe:**	0	ft

Material Properties		
Wt. Avg.Concrete Density, **δx:**	0.150	kcf

Design Checks				
	Capacity	**Demand**	**Rating***	**Check**
Lateral Capacity (kips):	59.64	27.64	**44.1%**	**Pass**
Uplift Capacity (kips):	120.47	32.67	**25.8%**	**Pass**

**Rating per TIA-222-H Section 15.5*

Anchor Shaft Rating:	**N/A**
Structural Rating:	**N/A**
Soil Rating:	**44.1%**

Neglect Depth, **Neg:**	0	ft
Groundwater Level, **gw:**	None	ft

Soil Properties: No. of Soil Layers: 1

Layer	φ, deg	cu, ksf	δ, pcf	d, ft	Ultimate fs (ksf)	N (blows/ft)
1	30	0.000	110	10.00	0.450	Layer 1

*key: φ = Internal Angle of Friction
cu = Cohesion / Undrained Shear Strength
δ = Buoyant Soil Unit Weight
d = Depth to Bottom of Layer
Ultimate fs = Geotechnical Report-provided skin friction / adhesion
N = SPT Blow Count

Version 5.0.1

Guyed Anchor Block Foundation

Checks capacity of anchor blocks for a guyed tower.

Site #:	5000243569
Site Name:	Montville 4 CT
TEP Number:	83901.937359
Location:	C Outer

TIA-222 Revision: H

Design Reactions		
Shear, **S:**	28.43	kips
Uplift, **Ua:**	33.04	kips
Resultant Force, **Rf:**	43.59	kips
Tower Height, **H:**	193.60	ft
Guy Anchor Radius, **R:**	138.50	ft
Resultant Angle to Horizontal, **θ:**	49.3	deg

Guy Anchor Properties		
Depth to Bottom of Deadman, **Da:**	10	ft
Anchor Width, **Wa:**	5	ft
Anchor Thickness, **Ta:**	2	ft
Anchor Length, **La:**	9	ft
Concrete Volume, **Vc:**	3.3	yd^3
Toe Width, **toe:**	0	ft

Material Properties		
Wt. Avg.Concrete Density, **δx:**	0.150	kcf

Design Checks				
	Capacity	**Demand**	**Rating***	**Check**
Lateral Capacity (kips):	59.69	28.43	**45.4%**	**Pass**
Uplift Capacity (kips):	120.43	33.04	**26.1%**	**Pass**

**Rating per TIA-222-H Section 15.5*

Anchor Shaft Rating:	**N/A**
Structural Rating:	**N/A**
Soil Rating:	**45.4%**

Neglect Depth, **Neg:**	0	ft
Groundwater Level, **gw:**	None	ft

Soil Properties: No. of Soil Layers: 1

Layer	φ, deg	cu, ksf	δ, pcf	d, ft	Ultimate fs (ksf)	N (blows/ft)
1	30	0.000	110	10.00	0.450	Layer 1

*key: *φ = Internal Angle of Friction*
cu = Cohesion / Undrained Shear Strength
δ = Buoyant Soil Unit Weight
d = Depth to Bottom of Layer
Ultimate fs = Geotechnical Report-provided skin friction / adhesion
N = SPT Blow Count

Version 5.0.1

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Antenna Mount Analysis Report with Hardware Upgrades and PMI Requirements

Mount ReAnalysis-VZW

SMART Tool Project #: 10226578
Colliers Engineering & Design Project #: 21777019 (Rev. 1)

March 6, 2024

Site Information	*Site ID:*	*5000243569-VZW / Montville 4*
	Site Name:	*Montville 4*
	Carrier Name:	*Verizon Wireless*
	Address:	*57 Cook Dr.* *Montville, Connecticut 06353* *New London County*
	Latitude:	*41.474986°*
	Longitude:	*-72.105050°*
Structure Information	*Tower Type:*	*Guyed*
	Mount Type:	*12.50-Ft Sector Frame*

FUZE ID # 16271979

Analysis Results

Sector Frame: **59.4% Pass w/ Hardware Upgrades***

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

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

Report Prepared By: Frank Centone

Executive Summary:

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

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

Sources of Information:

Document Type	Remarks
Radio Frequency Data Sheet (RFDS)	*Verizon RFDS Site ID: 324409, dated April 5, 2022*
Mount Mapping Report	*Hudson Design Group, LLC., Site ID: 468972, dated February 25, 2021*

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}:	125 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:	0.987
Seismic Parameters:	S_S:	0.198 g
	S_1:	0.054 g
Maintenance Parameters:	Wind Speed (3-sec. Gust):	30 mph
	Maintenance Load, Lv:	250 lbs.
	Maintenance 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
168.00	169.00	6	Commscope	NHH-65B-R2B	Added
		3	Samsung	MT6407-77A	
		1	Raycap	RVZDC-6627-PF-48	
		3	Samsung	RF4439d-25A	
		3	Samsung	RF4440d-13A	
		6	Antel	LPA-80080/4CF	Retained

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	54.7%	Pass
Standoff Plate	51.6%	Pass
Standoff Horizontal	41.7%	Pass
Standoff Diagonal	5.5%	Pass
Antenna Pipe	15.0%	Pass
Standoff Vertical	59.4%	Pass
Collector Pipe	32.9%	Pass
Tieback	10.3%	Pass
Mount Connection	57.6%	Pass

Structure Rating – *(Controlling Utilization of all Components)*	**59.4%**

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

Mount Connection Envelope Reactions:

Connection Description	Elev. AGL (Ft)	Node Label	Envelope Wind Reactions				Envelope Wind + Ice Reactions			
			Axial (Lbs)	Lateral (Lbs)	Moment (K-Ft)	Torsion (K-Ft)	Axial (Lbs)	Lateral (Lbs)	Moment (K-Ft)	Torsion (K-Ft)
Sector A Top Standoff	168.0	N68	737	2954	3.539	0.000	981	2463	3.117	0.000
Sector A Bottom Standoff	165.8	N70	940	1328	0.824	0.000	1477	2159	0.981	0.000
Sector C Bottom Standoff	165.8	N140	885	1047	0.825	0.000	1337	1945	0.926	0.000
Sector B Bottom Standoff	165.8	N209	932	1266	0.801	0.000	1387	2047	0.918	0.000
Sector C Top Standoff	168.0	N70A	649	2390	2.672	0.000	982	1935	2.579	0.000
Sector B Top Standoff	168.0	N71	720	2744	3.446	0.000	947	2231	2.581	0.000

Notes:
- Axial loads act along the axis of the tower leg
- Lateral reactions act perpendicular to the tower leg
- Moment loads introduce bending moment to the tower leg
- Torsion loads introduce twisting moment to the tower leg
- Batch solutions by individual load cases are included at the end of this document

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	28.5	27.0	50.6	49.0
0.5	47.2	45.8	77.3	75.1
1	63.6	61.8	101.6	98.7

Notes:
- (EPA)a values listed above may be used in the absence of more precise information
- (EPA)a values in the table above include 3 sector(s).
- Ka factors included in (EPA)a calculations

Requirements:

The existing mounts will be **SUFFICIENT** for the final loading configuration shown in attachment 2 upon the completion of the requirements listed below.

Contractor shall install proposed OVP unit directly to the center of the upper left standoff horizontal on the Alpha Sector.

Contractor shall reinforce existing mount to tower connections with new Site Pro 1 R5-REINF kits on all sectors.

Contractor shall install safety climb wire rope guide (Part #: Site Pro 1 - 120-203/317 or EOR approved equal) in locations where the wire rope is rubbing against mount to tower attachments. Contractor shall provide photos of safety climb wire rope guide installation.

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

Attachments:

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

Mount Desktop – Post Modification Inspection (PMI) Report Requirements

Documents & Photos Required from Contractor – Passing Mount Analysis

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

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

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

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MDG #: 5000243569 SMART Project #: 10226578 Fuze Project ID: 16271979

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 proposed OVP unit directly to the center of the upper left standoff horizontal on the Alpha Sector. Contractor shall reinforce existing mount to tower connections with new Site Pro 1 R5-REINF kits on all sectors. Contractor shall install safety climb wire rope guide (Part #: Site Pro 1 - 120-203/317 or EOR approved equal) in locations where the wire rope is rubbing against mount to tower attachments. Contractor shall provide photos of safety climb wire rope guide installation.

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: 5000243569-VZW - Montville 4

Sector: A

Structure Type: Guyed

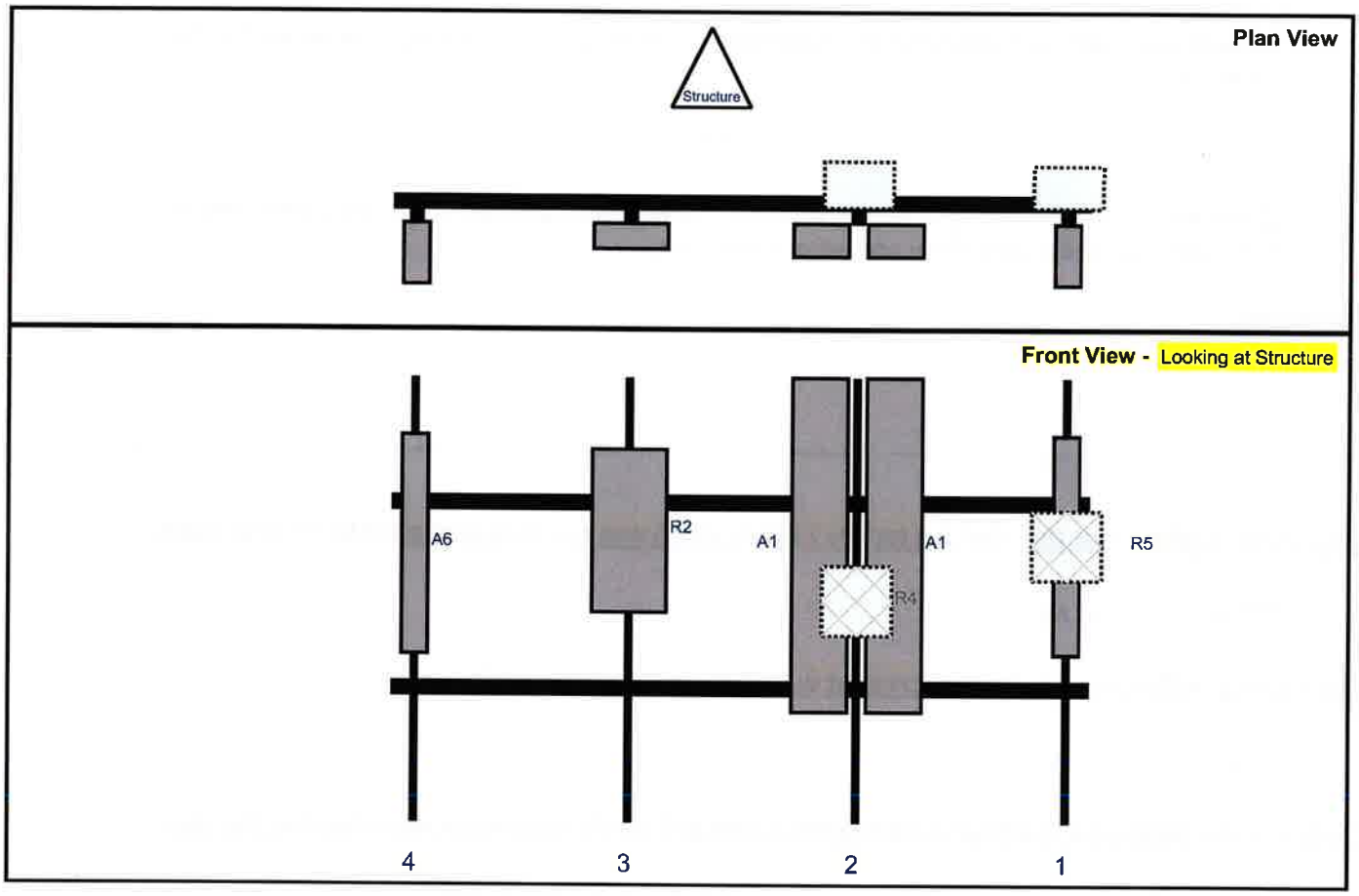
Mount Elev: 168.00

10226578

3/6/2024

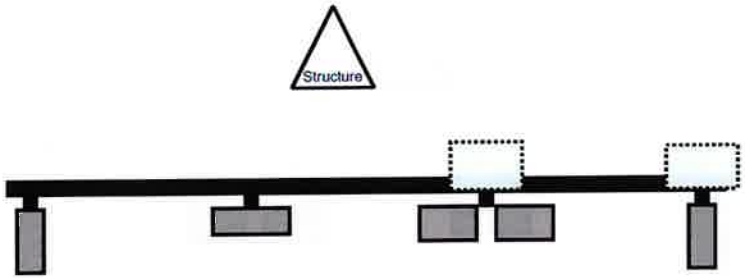
Page: 1

Colliers Engineering & Design

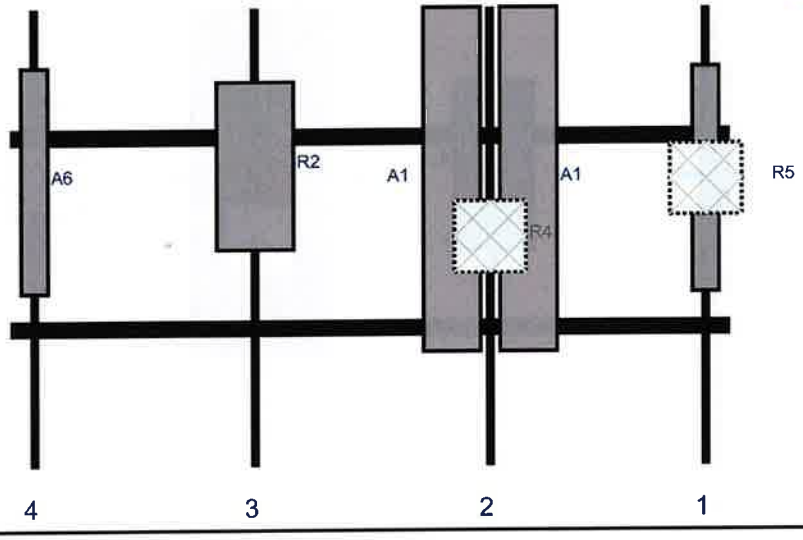


Ref#	Model	Height (in)	Width (in)	H Dist Frm L.	Pipe #	Pipe Pos V	Ant Pos	C. Ant Frm T.	Ant H Off	Status	Validation
A6	LPA-80080/4CF	47.2	5.5	145	1	a	Front	36	0	Retained	02/25/2021
R5	RF4440d-13A	15	15	145	1	a	Behind	36	0	Added	
A1	NHH-65B-R2B	72	11.9	100	2	a	Front	36	8	Added	
A1	NHH-65B-R2B	72	11.9	100	2	b	Front	36	-8	Added	
R4	RF4439d-25A	15	15	100	2	a	Behind	48	0	Added	
R2	MT6407-77A	35.1	16.1	51	3	a	Front	33	0	Added	
A6	LPA-80080/4CF	47.2	5.5	5	4	a	Front	36	0	Retained	02/25/2021
M17	RVZDC-6627-PF-48	29.5	16.5		Member					Added	

Plan View



Front View - Looking at Structure



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
A6	LPA-80080/4CF	47.2	5.5	145	1	a	Front	36	0	Retained	02/25/2021
R5	RF4440d-13A	15	15	145	1	a	Behind	36	0	Added	
A1	NHH-65B-R2B	72	11.9	100	2	a	Front	36	8	Added	
A1	NHH-65B-R2B	72	11.9	100	2	b	Front	36	-8	Added	
R4	RF4439d-25A	15	15	100	2	a	Behind	48	0	Added	
R2	MT6407-77A	35.1	16.1	51	3	a	Front	33	0	Added	
A6	LPA-80080/4CF	47.2	5.5	5	4	a	Front	36	0	Retained	02/25/2021

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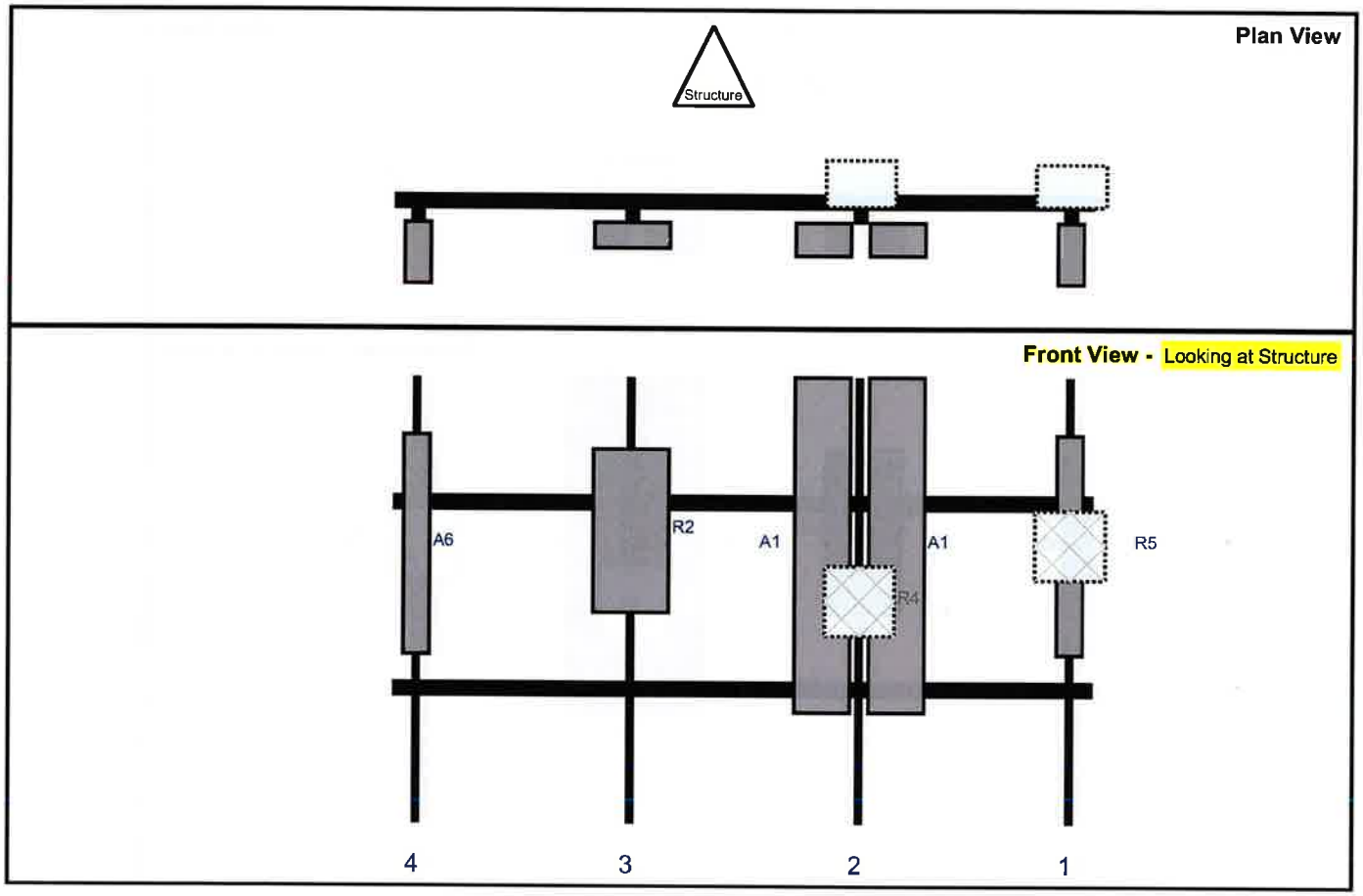


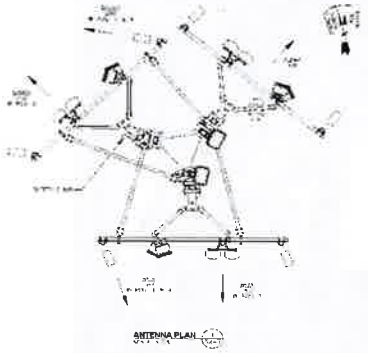
Ref#	Model	Height (in)	Width (in)	H Dist Frm L.	Pipe #	Pipe Pos V	Ant Pos	C. Ant Frm T.	Ant H Off	Status	Validation
A6	LPA-80080/4CF	47.2	5.5	145	1	a	Front	36	0	Retained	02/25/2021
R5	RF4440d-13A	15	15	145	1	a	Behind	36	0	Added	
A1	NHH-65B-R2B	72	11.9	100	2	a	Front	36	8	Added	
A1	NHH-65B-R2B	72	11.9	100	2	b	Front	36	-8	Added	
R4	RF4439d-25A	15	15	100	2	a	Behind	48	0	Added	
R2	MT6407-77A	35.1	16.1	51	3	a	Front	33	0	Added	
A6	LPA-80080/4CF	47.2	5.5	5	4	a	Front	36	0	Retained	02/25/2021

V3.0 Updated on 8-31-2020

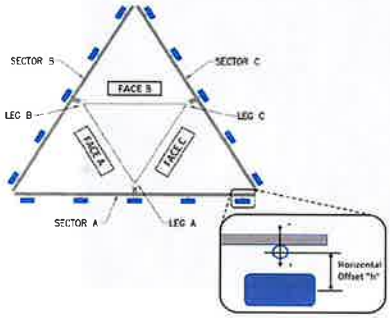
Antenna Mount Mapping Form (PATENT PENDING)

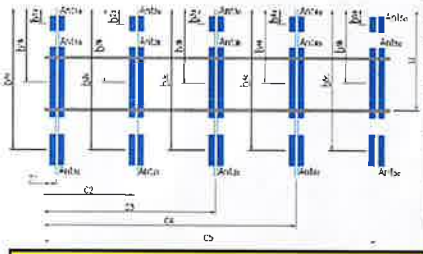
FCC #: N/A

Tower Owner:	OTHER	Mapping Date:	2/26/2021
Site Name:	MONTVILLE 4 CT	Tower Type:	Guyed Tower
Site Number or ID:	468072	Tower Height (Ft.):	
Mapping Contractor:	HUDSON DESIGN GROUP, LLC	Mount Elevation (Ft.):	169.5



ANTENNA PLAN





Antenna Layout (Looking Out From Tower)

Mount Pipe Configuration and Geometries (Unit = inches)

Sector / Position	Mount Pipe Size & Length	Vertical Offset Dimension "d"	Horizontal Offset "C1, C2, C3, etc."	Sector / Position	Mount Pipe Size & Length	Vertical Offset Dimension "d"	Horizontal Offset "C1, C2, C3, etc."
A1	Pipe 2-1/2" STD. X 96" Long	67.00	5.00	C1	Pipe 2-1/2" STD. X 96" Long	67.00	5.00
A2	Pipe 2-1/2" STD. X 96" Long	67.00	51.00	C2	Pipe 2-1/2" STD. X 96" Long	67.00	51.00
A3	Pipe 2-1/2" STD. X 96" Long	67.00	100.00	C3	Pipe 2-1/2" STD. X 96" Long	67.00	100.00
A4	Pipe 2-1/2" STD. X 96" Long	67.00	146.00	C4	Pipe 2-1/2" STD. X 96" Long	67.00	146.00
A5				C5			
A6				C6			
B1	Pipe 2-1/2" STD. X 96" Long	67.00	5.00	D1			
B2	Pipe 2-1/2" STD. X 96" Long	67.00	51.00	D2			
B3	Pipe 2-1/2" STD. X 96" Long	67.00	100.00	D3			
B4	Pipe 2-1/2" STD. X 96" Long	67.00	146.00	D4			
B5				D5			
B6				D6			

Distance between bottom rail and mount CL elevation (dim d). Unit is inches. See 'Mount Elev Ref' tab for details. :	5.00
Distance from top of bottom support rail to lowest tip of ant./eqpt. of Carrier above. (N/A if > 10 ft.) :	4.5
Distance from top of bottom support rail to highest tip of ant./eqpt. of Carrier below. (N/A if > 10 ft.) :	1.7

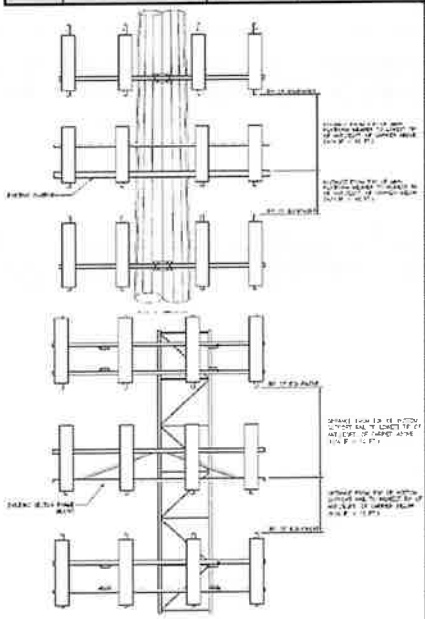
Please enter additional information or comments below.

Tower Face Width at Mount Elev. (ft.):	3.2	Tower Leg Size or Pole Shaft Diameter at Mount Elev. (in.):	3

	Enter antenna model. If not labeled, enter "Unknown".						Mounting Locations [Units are inches and degrees]			Photos of antennas
Ants. Items	Antenna Models if Known	Width (in.)	Depth (in.)	Height (in.)	Coax Size and Qty	Antenna Center-line (Ft.)	Vertical Distances "b_{1a}, b_{2a}, b_{1b}, b_{1b},..." (Inches)	Horiz. Offset "hi" (Use "-" if Ant. is behind)	Antenna Azimuth (Degrees)	Photo Numbers
Sector A										
Ant_{1a}	B66A (RRH)	12.00	7.00	25.50		170.75	47.00	-6.00		93
Ant_{1b}	LPA80080-4CF-EDIN	6.00	13.00	48.00		171.417	39.00	14.00	40.00	91
Ant_{1c}										
Ant_{2a}	(2) UBIFIX107U DUP	5.00	4.00	6.00		170.75	47.00			97
Ant_{2b}	(2) SBNHH-ID65B	17.00	7.00	73.00		171.583	37.00	11.00	40.00	99
Ant_{2c}										
Ant_{3a}	B25	12.00	7.00	20.50		173.75	11.00	6.00		104
Ant_{3b}										
Ant_{3c}	B13	12.00	9.00	22.50		170.667	48.00	6.00		105
Ant_{4a}										
Ant_{4b}	LPA80080-4CF-EDIN	6.00	13.00	48.00		171.417	39.00	14.00	40.00	91
Ant_{4c}										
Ant_{5a}										
Ant_{5b}										
Ant_{5c}										
Ant on Standoff	(2) 700MRRH	9.00	5.00	4.00						114
Ant on Standoff										
Ant on Tower	RRFDC-3315-PF-45	15.00	10.00	28.00			50.00			132
Ant on Tower										

Mount Azimuth (Degree) for Each Sector				Tower Leg Azimuth (Degree) for Each Sector	
Sector A:	40.00	Deg	Leg A:	50.00	Deg
Sector B:	180.00	Deg	Leg B:	170.00	Deg
Sector C:	315.00	Deg	Leg C:	290.00	Deg
Sector D:		Deg	Leg D:		Deg

Climbing Facility Information			
Location:	290.00	Deg	On Leg C
Climbing Facility	Corrosion Type:		Good condition.
	Access:		Climbing path was obstructed.
	Condition:		Good condition.



Sector B										
Ant_{1a}	B66A (RRH)	12.00	7.00	25.50		170.75	47.00	-6.00		93
Ant_{1b}	LPA80080-4CF-EDIN	6.00	13.00	48.00		171.417	39.00	14.00	160.00	91
Ant_{1c}										
Ant_{2a}	(2) UBIFIX107U DUP	5.00	4.00	6.00		170.75	47.00			97
Ant_{2b}	(2) SBNHH-1D65B	17.00	7.00	73.00		171.583	37.00	11.00	180.00	99
Ant_{2c}										
Ant_{3a}	B25	12.00	7.00	20.50		173.75	11.00	6.00		104
Ant_{3b}										
Ant_{3c}	B13	12.00	9.00	22.50		170.667	48.00	6.00		105
Ant_{4a}										
Ant_{4b}	LPA80080-4CF-EDIN	6.00	13.00	48.00		171.417	39.00	14.00	160.00	91
Ant_{4c}										
Ant_{5a}										
Ant_{5b}										
Ant_{5c}										
Ant on Standoff										
Ant on Standoff										
Ant on Tower	RRFDC-3315-PF-45	15.00	10.00	28.00			50.00			132
Ant on Tower										
Sector C										
Ant_{1a}	B66A (RRH)	12.00	7.00	25.50		170.75	47.00	-6.00		93
Ant_{1b}	LPA80080-4CF-EDIN	6.00	13.00	48.00		171.417	39.00	14.00	280.00	91
Ant_{1c}										
Ant_{2a}	(2) UBIFIX107U DUP	5.00	4.00	6.00		170.75	47.00			97
Ant_{2b}	(2) SBNHH-1D65B	17.00	7.00	73.00		171.583	37.00	11.00	315.00	99
Ant_{2c}										
Ant_{3a}	B25	12.00	7.00	20.50		173.75	11.00	6.00		104
Ant_{3b}										
Ant_{3c}	B13	12.00	9.00	22.50		170.667	48.00	6.00		105
Ant_{4a}										
Ant_{4b}	LPA80080-4CF-EDIN	6.00	13.00	48.00		171.417	39.00	14.00	280.00	91
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	Saftey climb obstructed	177
2	(12) 1-5/8"Ø COAX, (2) 1-1/4"Ø HYBRID	189
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.

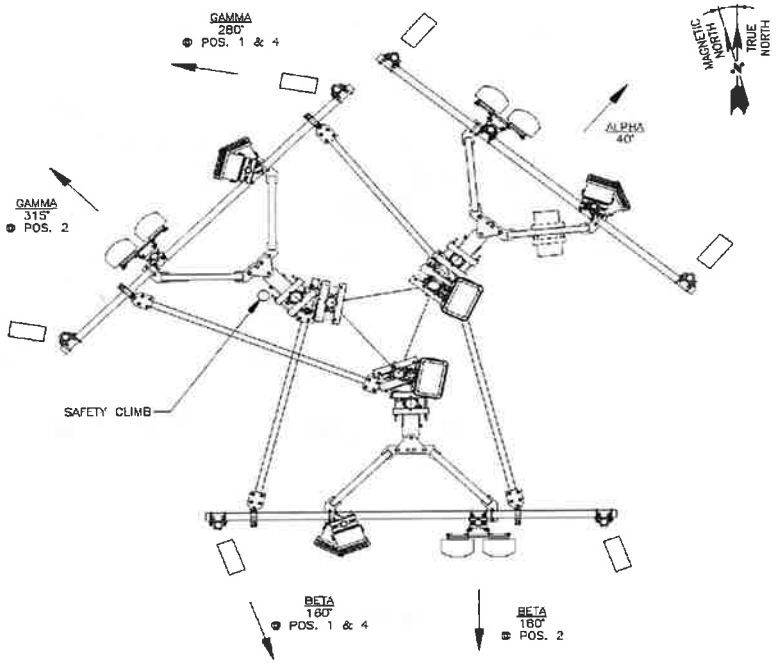
V3.0 Updated on 8-31-2020

Antenna Mount Mapping Form (PATENT PENDING)

FCC #: N/A

Tower Owner:	OTHER	Mapping Date:	2/25/2021
Site Name:	MONTVILLE 4 CT	Tower Type:	Guyed Tower
Site Number or ID:	468972	Tower Height (FL):	
Mapping Contractor:	HUDSON DESIGN GROUP, LLC	Mount Elevation (FL):	169.5

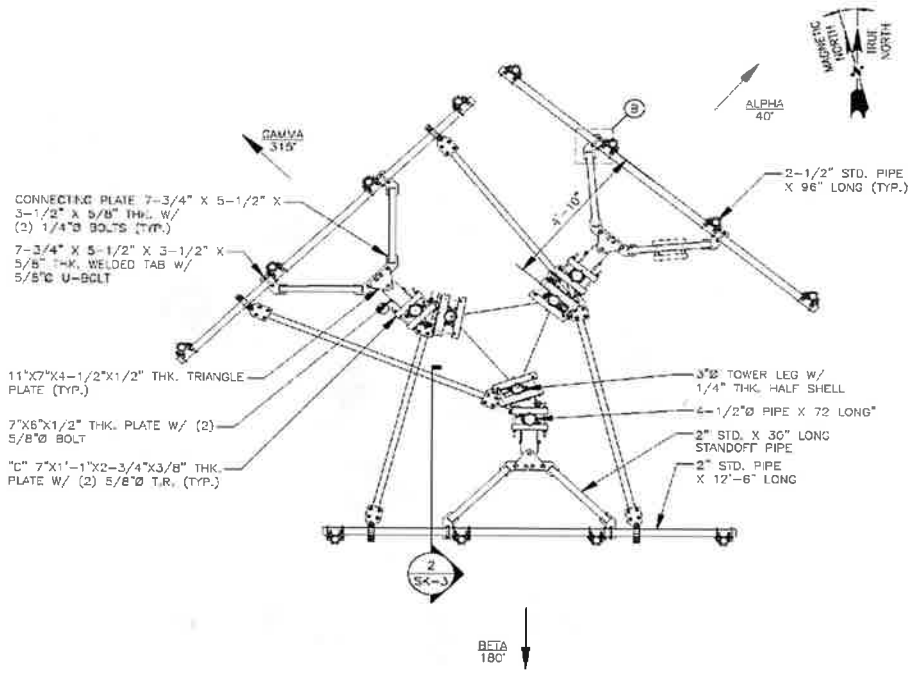
Please Insert Sketches of the Antenna Mount



ANTENNA PLAN
SCALE: N.T.S

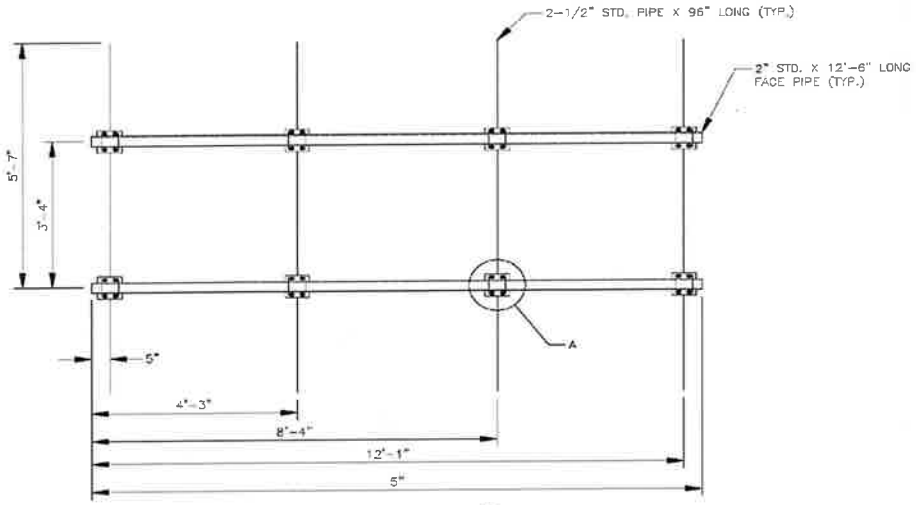
SK-1

Please Insert Sketches of the Antenna Mount, cont'd

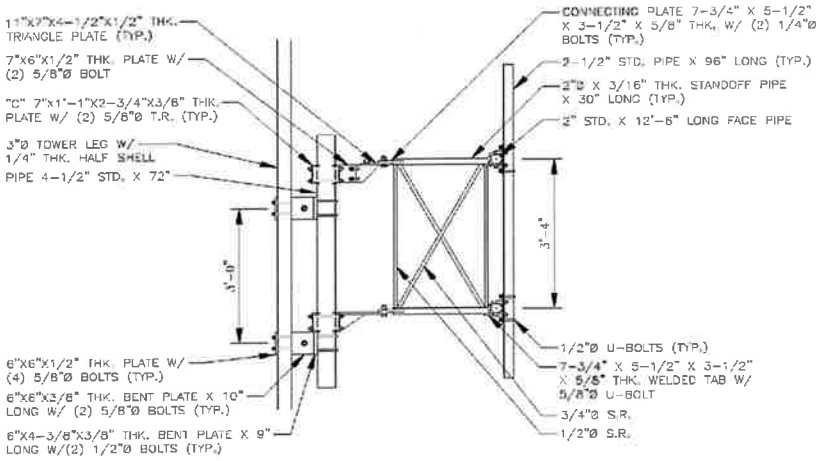


MOUNT PLAN (1 / SK-2)
SCALE: N.T.S

Please Insert Sketches of the Antenna Mount, cont'd

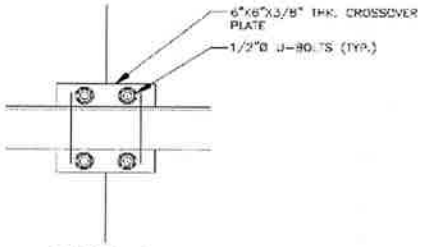


MOUNT FACE ELEVATION (1 / SK-3)
SCALE: N.T.S

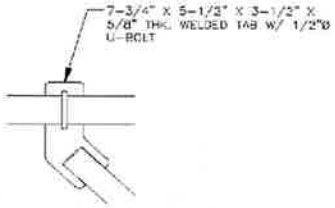


MOUNT SIDE ELEVATION (2 / SK-3)
SCALE: N.T.S

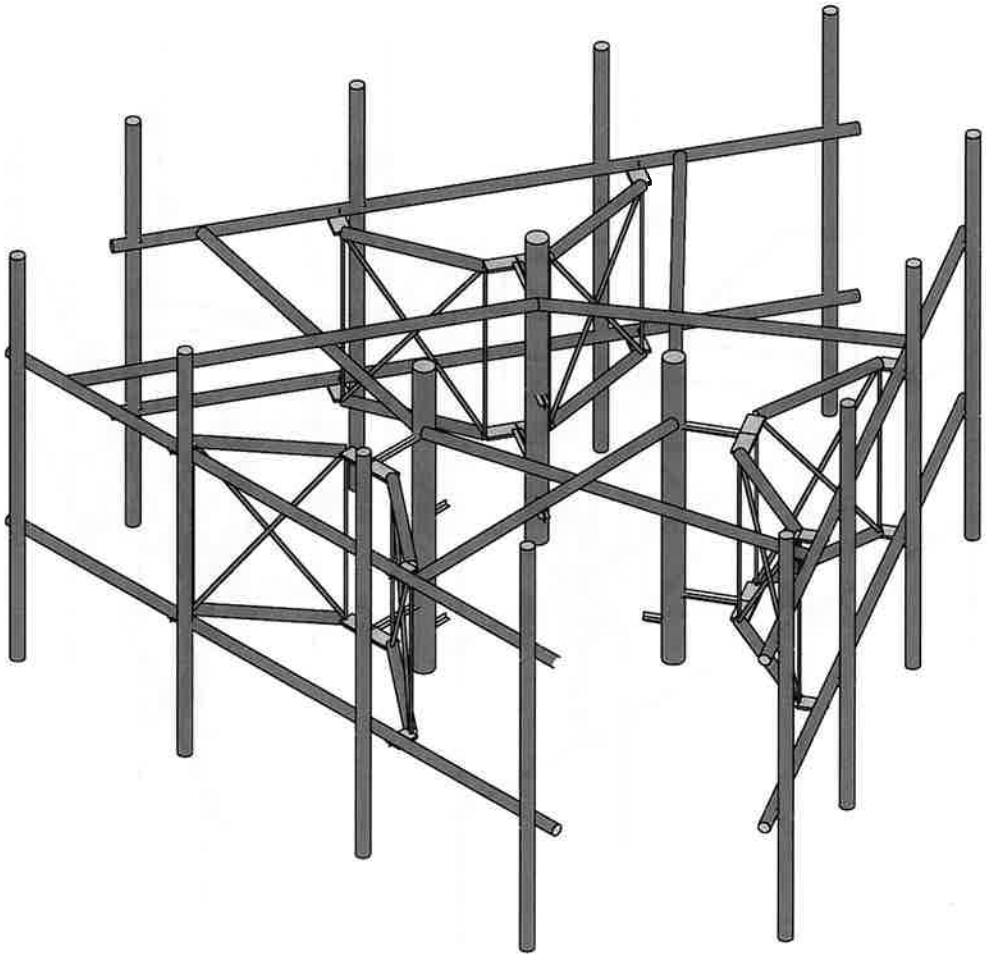
Please Insert Sketches of the Antenna Mount, cont'd



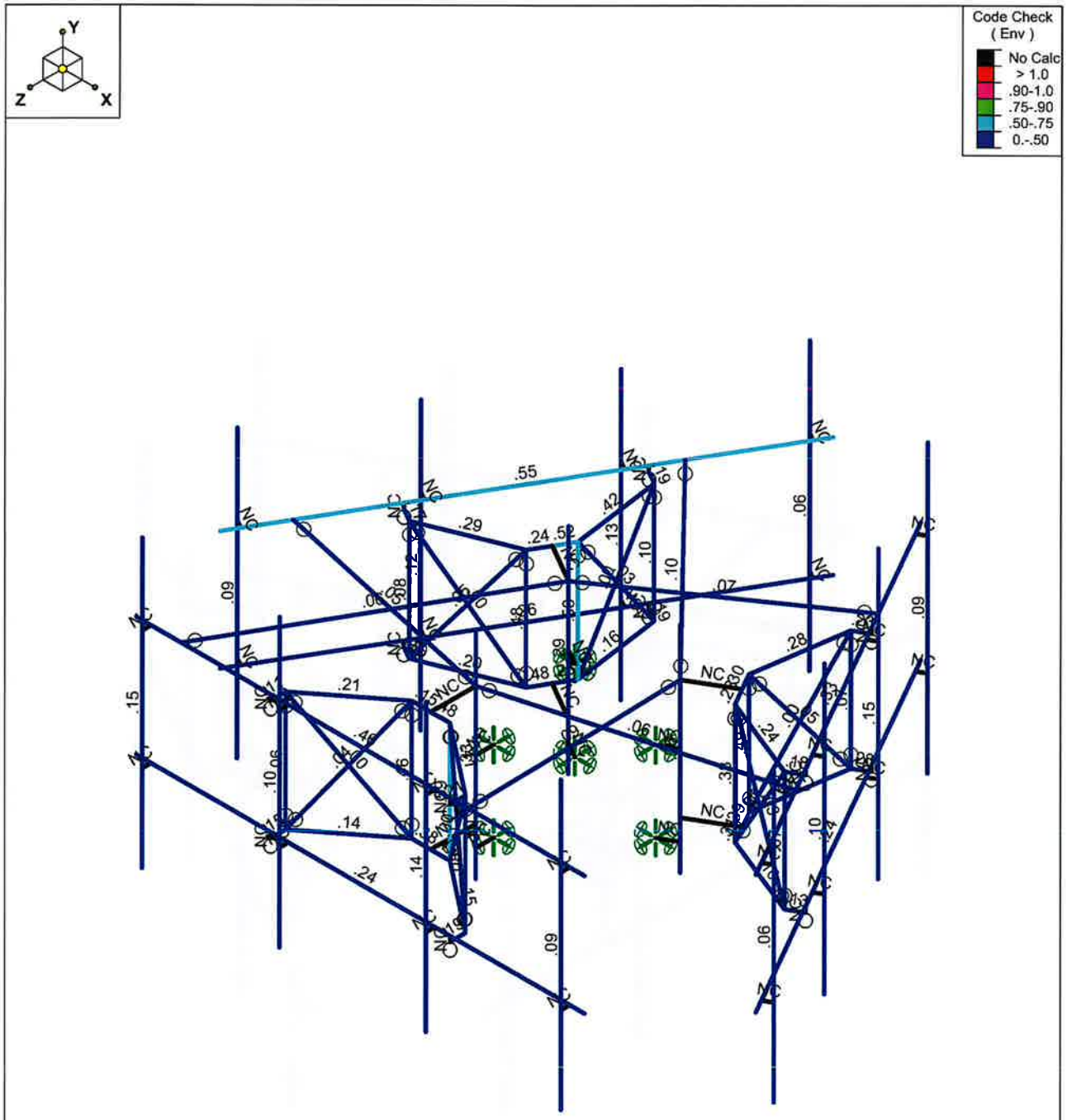
DETAIL A



DETAIL B

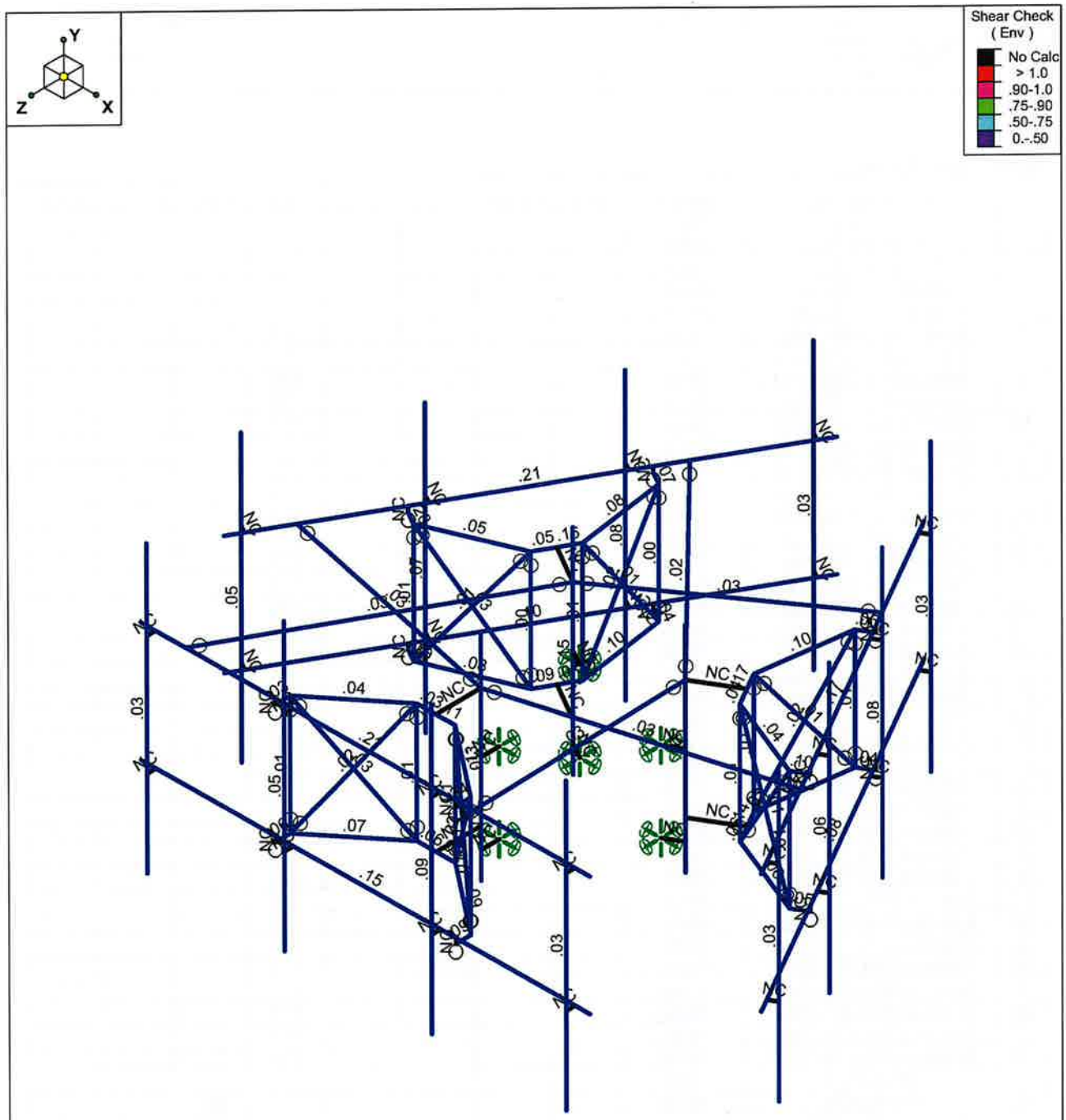


Colliers Engineering & De...	5000243569-VZW_MT_LO_H	SK - 1
		Mar 6, 2024 at 10:03 AM
		5000243569-VZW_MT_LO_H.r3d



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

Colliers Engineering & De...	5000243569-VZW_MT_LO_H	SK - 2
		Mar 6, 2024 at 10:04 AM
		5000243569-VZW_MT_LO_H.r3d



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

Colliers Engineering & De...	5000243569-VZW_MT_LO_H	SK - 3
		Mar 6, 2024 at 10:04 AM
		5000243569-VZW_MT_LO_H.r3d

Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distribut...	Area(Me...	Surface(...
1	Antenna D	None					111			
2	Antenna Di	None					111			
3	Antenna Wo (0 Deg)	None					111			
4	Antenna Wo (30 Deg)	None					111			
5	Antenna Wo (60 Deg)	None					111			
6	Antenna Wo (90 Deg)	None					111			
7	Antenna Wo (120 Deg)	None					111			
8	Antenna Wo (150 Deg)	None					111			
9	Antenna Wo (180 Deg)	None					111			
10	Antenna Wo (210 Deg)	None					111			
11	Antenna Wo (240 Deg)	None					111			
12	Antenna Wo (270 Deg)	None					111			
13	Antenna Wo (300 Deg)	None					111			
14	Antenna Wo (330 Deg)	None					111			
15	Antenna Wi (0 Deg)	None					111			
16	Antenna Wi (30 Deg)	None					111			
17	Antenna Wi (60 Deg)	None					111			
18	Antenna Wi (90 Deg)	None					111			
19	Antenna Wi (120 Deg)	None					111			
20	Antenna Wi (150 Deg)	None					111			
21	Antenna Wi (180 Deg)	None					111			
22	Antenna Wi (210 Deg)	None					111			
23	Antenna Wi (240 Deg)	None					111			
24	Antenna Wi (270 Deg)	None					111			
25	Antenna Wi (300 Deg)	None					111			
26	Antenna Wi (330 Deg)	None					111			
27	Antenna Wm (0 Deg)	None					111			
28	Antenna Wm (30 Deg)	None					111			
29	Antenna Wm (60 Deg)	None					111			
30	Antenna Wm (90 Deg)	None					111			
31	Antenna Wm (120 Deg)	None					111			
32	Antenna Wm (150 Deg)	None					111			
33	Antenna Wm (180 Deg)	None					111			
34	Antenna Wm (210 Deg)	None					111			
35	Antenna Wm (240 Deg)	None					111			
36	Antenna Wm (270 Deg)	None					111			
37	Antenna Wm (300 Deg)	None					111			
38	Antenna Wm (330 Deg)	None					111			
39	Structure D	None		-1						
40	Structure Di	None						87		
41	Structure Wo (0 Deg)	None						174		
42	Structure Wo (30 Deg)	None						174		
43	Structure Wo (60 Deg)	None						174		
44	Structure Wo (90 Deg)	None						174		
45	Structure Wo (120 Deg)	None						174		
46	Structure Wo (150 Deg)	None						174		
47	Structure Wo (180 Deg)	None						174		
48	Structure Wo (210 Deg)	None						174		
49	Structure Wo (240 Deg)	None						174		
50	Structure Wo (270 Deg)	None						174		
51	Structure Wo (300 Deg)	None						174		
52	Structure Wo (330 Deg)	None						174		
53	Structure Wi (0 Deg)	None						174		
54	Structure Wi (30 Deg)	None						174		
55	Structure Wi (60 Deg)	None						174		
56	Structure Wi (90 Deg)	None						174		
57	Structure Wi (120 Deg)	None						174		
58	Structure Wi (150 Deg)	None						174		

Basic Load Cases (Continued)

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distribut...	Area(Me...	Surface(...
59	Structure Wi (180 Deg)	None						174		
60	Structure Wi (210 Deg)	None						174		
61	Structure Wi (240 Deg)	None						174		
62	Structure Wi (270 Deg)	None						174		
63	Structure Wi (300 Deg)	None						174		
64	Structure Wi (330 Deg)	None						174		
65	Structure Wm (0 Deg)	None						174		
66	Structure Wm (30 Deg)	None						174		
67	Structure Wm (60 Deg)	None						174		
68	Structure Wm (90 Deg)	None						174		
69	Structure Wm (120 Deg)	None						174		
70	Structure Wm (150 Deg)	None						174		
71	Structure Wm (180 Deg)	None						174		
72	Structure Wm (210 Deg)	None						174		
73	Structure Wm (240 Deg)	None						174		
74	Structure Wm (270 Deg)	None						174		
75	Structure Wm (300 Deg)	None						174		
76	Structure Wm (330 Deg)	None						174		
77	Lm1	None					1			
78	Lm2	None					1			
79	Lv1	None					1			
80	Lv2	None					1			
81	Antenna Ev	None					111			
82	Antenna Eh (0 Deg)	None					74			
83	Antenna Eh (90 Deg)	None					74			
84	Structure Ev	ELY		-.042						
85	Structure Eh (0 Deg)	ELZ			-.106					
86	Structure Eh (90 Deg)	ELX	.106							

Load Combinations

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

Load Combinations (Continued)

	Description	So...	P...	S...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...
27	1.2D + 1.5Lm1 + 1...	Yes	Y		1	1.2	39	1.2	77	1.5	29	1	67	1										
28	1.2D + 1.5Lm1 + 1...	Yes	Y		1	1.2	39	1.2	77	1.5	30	1	68	1										
29	1.2D + 1.5Lm1 + 1...	Yes	Y		1	1.2	39	1.2	77	1.5	31	1	69	1										
30	1.2D + 1.5Lm1 + 1...	Yes	Y		1	1.2	39	1.2	77	1.5	32	1	70	1										
31	1.2D + 1.5Lm1 + 1...	Yes	Y		1	1.2	39	1.2	77	1.5	33	1	71	1										
32	1.2D + 1.5Lm1 + 1...	Yes	Y		1	1.2	39	1.2	77	1.5	34	1	72	1										
33	1.2D + 1.5Lm1 + 1...	Yes	Y		1	1.2	39	1.2	77	1.5	35	1	73	1										
34	1.2D + 1.5Lm1 + 1...	Yes	Y		1	1.2	39	1.2	77	1.5	36	1	74	1										
35	1.2D + 1.5Lm1 + 1...	Yes	Y		1	1.2	39	1.2	77	1.5	37	1	75	1										
36	1.2D + 1.5Lm1 + 1...	Yes	Y		1	1.2	39	1.2	77	1.5	38	1	76	1										
37	1.2D + 1.5Lm2 + 1...	Yes	Y		1	1.2	39	1.2	78	1.5	27	1	65	1										
38	1.2D + 1.5Lm2 + 1...	Yes	Y		1	1.2	39	1.2	78	1.5	28	1	66	1										
39	1.2D + 1.5Lm2 + 1...	Yes	Y		1	1.2	39	1.2	78	1.5	29	1	67	1										
40	1.2D + 1.5Lm2 + 1...	Yes	Y		1	1.2	39	1.2	78	1.5	30	1	68	1										
41	1.2D + 1.5Lm2 + 1...	Yes	Y		1	1.2	39	1.2	78	1.5	31	1	69	1										
42	1.2D + 1.5Lm2 + 1...	Yes	Y		1	1.2	39	1.2	78	1.5	32	1	70	1										
43	1.2D + 1.5Lm2 + 1...	Yes	Y		1	1.2	39	1.2	78	1.5	33	1	71	1										
44	1.2D + 1.5Lm2 + 1...	Yes	Y		1	1.2	39	1.2	78	1.5	34	1	72	1										
45	1.2D + 1.5Lm2 + 1...	Yes	Y		1	1.2	39	1.2	78	1.5	35	1	73	1										
46	1.2D + 1.5Lm2 + 1...	Yes	Y		1	1.2	39	1.2	78	1.5	36	1	74	1										
47	1.2D + 1.5Lm2 + 1...	Yes	Y		1	1.2	39	1.2	78	1.5	37	1	75	1										
48	1.2D + 1.5Lm2 + 1...	Yes	Y		1	1.2	39	1.2	78	1.5	38	1	76	1										
49	1.2D + 1.5Lv1	Yes	Y		1	1.2	39	1.2	79	1.5														
50	1.2D + 1.5Lv2	Yes	Y		1	1.2	39	1.2	80	1.5														
51	1.4D	Yes	Y		1	1.4	39	1.4																
52	1.2D + 1.0Ev + 1.0...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	1	83		ELZ	1	ELX					
53	1.2D + 1.0Ev + 1.0...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	.866	83	.5	ELZ	.866	ELX	.5				
54	1.2D + 1.0Ev + 1.0...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	.5	83	.866	ELZ	.5	ELX	.866				
55	1.2D + 1.0Ev + 1.0...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82		83	1	ELZ		ELX	1				
56	1.2D + 1.0Ev + 1.0...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	-.5	83	.866	ELZ	-.5	ELX	.866				
57	1.2D + 1.0Ev + 1.0...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	-.866	83	.5	ELZ	-.866	ELX	.5				
58	1.2D + 1.0Ev + 1.0...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	-1	83		ELZ	-1	ELX					
59	1.2D + 1.0Ev + 1.0...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	-.866	83	-.5	ELZ	-.866	ELX	-.5				
60	1.2D + 1.0Ev + 1.0...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	-.5	83	-.866	ELZ	-.5	ELX	-.866				
61	1.2D + 1.0Ev + 1.0...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82		83	-1	ELZ		ELX	-1				
62	1.2D + 1.0Ev + 1.0...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	.5	83	-.866	ELZ	.5	ELX	-.866				
63	1.2D + 1.0Ev + 1.0...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	.866	83	-.5	ELZ	.866	ELX	-.5				
64	0.9D - 1.0Ev + 1.0...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	1	83		ELZ	1	ELX					
65	0.9D - 1.0Ev + 1.0...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	.866	83	.5	ELZ	.866	ELX	.5				
66	0.9D - 1.0Ev + 1.0...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	.5	83	.866	ELZ	.5	ELX	.866				
67	0.9D - 1.0Ev + 1.0...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82		83	1	ELZ		ELX	1				
68	0.9D - 1.0Ev + 1.0...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	-.5	83	.866	ELZ	-.5	ELX	.866				
69	0.9D - 1.0Ev + 1.0...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	-.866	83	.5	ELZ	-.866	ELX	.5				
70	0.9D - 1.0Ev + 1.0...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	-1	83		ELZ	-1	ELX					
71	0.9D - 1.0Ev + 1.0...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	-.866	83	-.5	ELZ	-.866	ELX	-.5				
72	0.9D - 1.0Ev + 1.0...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	-.5	83	-.866	ELZ	-.5	ELX	-.866				
73	0.9D - 1.0Ev + 1.0...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82		83	-1	ELZ		ELX	-1				
74	0.9D - 1.0Ev + 1.0...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	.5	83	-.866	ELZ	.5	ELX	-.866				
75	0.9D - 1.0Ev + 1.0...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	.866	83	-.5	ELZ	.866	ELX	-.5				

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design L...	Material	Design ...	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	OVP Pipe	PIPE 2.0	Beam	Pipe	A53 Gr. B	Typical	1.02	.627	.627	1.25
2	Antenna Pipe	PIPE 2.5	Beam	Pipe	A53 Gr. B	Typical	1.61	1.45	1.45	2.89
3	Horizontal mount pipe	PIPE 2.0	Beam	Pipe	A53 Gr. B	Typical	1.02	.627	.627	1.25
4	Standoff Horizontal	PIPE 2.0	Beam	Pipe	A53 Gr. B	Typical	1.02	.627	.627	1.25
5	Standoff Diagonal	SR 0.75	Beam	BAR	A36 Gr.36	Typical	.442	.016	.016	.031

Hot Rolled Steel Section Sets (Continued)

	Label	Shape	Type	Design L...	Material	Design ...	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
6	Tieback	PIPE 2.0	Beam	Pipe	A53 Gr. B	Typical	1.02	.627	.627	1.25
7	Standoff Vertical	SR 0.5	Beam	BAR	A36 Gr.36	Typical	.196	.003	.003	.006
8	Standoff Plate	PL5/8x3.5	Beam	BAR	A36 Gr.36	Typical	2.188	.071	2.233	.253
9	Collector Pipe	PIPE 4.0	Column	Pipe	A53 Gr. B	Typical	2.96	6.82	6.82	13.6

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	A53 Gr. B	Typical
2	M2	N4	N3			Horizontal mo...	Beam	Pipe	A53 Gr. B	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	A36 Gr.36	Typical
12	M14	N21	N25		90	Standoff Plate	Beam	BAR	A36 Gr.36	Typical
13	M15	N23	N27		90	Standoff Plate	Beam	BAR	A36 Gr.36	Typical
14	M16	N24	N28		90	Standoff Plate	Beam	BAR	A36 Gr.36	Typical
15	M17	N26	N32			Standoff Horiz...	Beam	Pipe	A53 Gr. B	Typical
16	M18	N25	N31			Standoff Horiz...	Beam	Pipe	A53 Gr. B	Typical
17	M19	N27	N33			Standoff Horiz...	Beam	Pipe	A53 Gr. B	Typical
18	M20	N28	N34			Standoff Horiz...	Beam	Pipe	A53 Gr. B	Typical
19	M21	N32	N30		90	Standoff Plate	Beam	BAR	A36 Gr.36	Typical
20	M22	N34	N30		90	Standoff Plate	Beam	BAR	A36 Gr.36	Typical
21	M23	N31	N29		90	Standoff Plate	Beam	BAR	A36 Gr.36	Typical
22	M24	N33	N29		90	Standoff Plate	Beam	BAR	A36 Gr.36	Typical
23	M25	N31	N26			Standoff Diago...	Beam	BAR	A36 Gr.36	Typical
24	M26	N32	N25			Standoff Diago...	Beam	BAR	A36 Gr.36	Typical
25	M27	N33	N28			Standoff Diago...	Beam	BAR	A36 Gr.36	Typical
26	M28	N27	N34			Standoff Diago...	Beam	BAR	A36 Gr.36	Typical
27	M29	N29	N35			RIGID	None	None	RIGID	Typical
28	M30	N30	N36			RIGID	None	None	RIGID	Typical
29	MP4A	N37	N41			Antenna Pipe	Beam	Pipe	A53 Gr. B	Typical
30	MP3A	N38	N42			Antenna Pipe	Beam	Pipe	A53 Gr. B	Typical
31	MP2A	N39	N43			Antenna Pipe	Beam	Pipe	A53 Gr. B	Typical
32	MP1A	N40	N44			Antenna Pipe	Beam	Pipe	A53 Gr. B	Typical
33	M44	N25	N26			Standoff Vertical	Beam	BAR	A36 Gr.36	Typical
34	M45	N31	N32			Standoff Vertical	Beam	BAR	A36 Gr.36	Typical
35	M46	N33	N34			Standoff Vertical	Beam	BAR	A36 Gr.36	Typical
36	M47	N27	N28			Standoff Vertical	Beam	BAR	A36 Gr.36	Typical
37	M47B	N22	N56			RIGID	None	None	RIGID	Typical
38	M48A	N21	N55			RIGID	None	None	RIGID	Typical
39	M49A	N24	N58			RIGID	None	None	RIGID	Typical
40	M50A	N23	N57			RIGID	None	None	RIGID	Typical
41	M43A	N30	N36			RIGID	None	None	RIGID	Typical
42	M44B	N29	N35			RIGID	None	None	RIGID	Typical
43	M45A	N64	N66			Collector Pipe	Column	Pipe	A53 Gr. B	Typical
44	M47A	N67	N68			RIGID	None	None	RIGID	Typical
45	M48	N69	N70			RIGID	None	None	RIGID	Typical
46	M53	N74	N73			Horizontal mo...	Beam	Pipe	A53 Gr. B	Typical
47	M54	N76	N75			Horizontal mo...	Beam	Pipe	A53 Gr. B	Typical
48	M55	N77	N85			RIGID	None	None	RIGID	Typical
49	M56	N78	N86			RIGID	None	None	RIGID	Typical
50	M57	N80	N88			RIGID	None	None	RIGID	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
51	M58	N79	N87			RIGID	None	None	RIGID	Typical
52	M59	N82	N90			RIGID	None	None	RIGID	Typical
53	M60	N81	N89			RIGID	None	None	RIGID	Typical
54	M61	N84	N92			RIGID	None	None	RIGID	Typical
55	M62	N83	N91			RIGID	None	None	RIGID	Typical
56	M63	N94	N98		90	Standoff Plate	Beam	BAR	A36 Gr.36	Typical
57	M64	N93	N97		90	Standoff Plate	Beam	BAR	A36 Gr.36	Typical
58	M65	N95	N99		90	Standoff Plate	Beam	BAR	A36 Gr.36	Typical
59	M66	N96	N100		90	Standoff Plate	Beam	BAR	A36 Gr.36	Typical
60	M67	N98	N104			Standoff Horiz...	Beam	Pipe	A53 Gr. B	Typical
61	M68	N97	N103			Standoff Horiz...	Beam	Pipe	A53 Gr. B	Typical
62	M69	N99	N105			Standoff Horiz...	Beam	Pipe	A53 Gr. B	Typical
63	M70	N100	N106			Standoff Horiz...	Beam	Pipe	A53 Gr. B	Typical
64	M71	N104	N102		90	Standoff Plate	Beam	BAR	A36 Gr.36	Typical
65	M72	N106	N102		90	Standoff Plate	Beam	BAR	A36 Gr.36	Typical
66	M73	N103	N101		90	Standoff Plate	Beam	BAR	A36 Gr.36	Typical
67	M74	N105	N101		90	Standoff Plate	Beam	BAR	A36 Gr.36	Typical
68	M75	N103	N98			Standoff Diago...	Beam	BAR	A36 Gr.36	Typical
69	M76	N104	N97			Standoff Diago...	Beam	BAR	A36 Gr.36	Typical
70	M77	N105	N100			Standoff Diago...	Beam	BAR	A36 Gr.36	Typical
71	M78	N99	N106			Standoff Diago...	Beam	BAR	A36 Gr.36	Typical
72	MP4C	N109	N113			Antenna Pipe	Beam	Pipe	A53 Gr. B	Typical
73	MP3C	N110	N114			Antenna Pipe	Beam	Pipe	A53 Gr. B	Typical
74	MP2C	N111	N115			Antenna Pipe	Beam	Pipe	A53 Gr. B	Typical
75	MP1C	N112	N116			Antenna Pipe	Beam	Pipe	A53 Gr. B	Typical
76	M83	N97	N98			Standoff Vertica	Beam	BAR	A36 Gr.36	Typical
77	M84	N103	N104			Standoff Vertica	Beam	BAR	A36 Gr.36	Typical
78	M85	N105	N106			Standoff Vertica	Beam	BAR	A36 Gr.36	Typical
79	M86	N99	N100			Standoff Vertica	Beam	BAR	A36 Gr.36	Typical
80	M87	N94	N128			RIGID	None	None	RIGID	Typical
81	M88	N93	N127			RIGID	None	None	RIGID	Typical
82	M89	N96	N130			RIGID	None	None	RIGID	Typical
83	M90	N95	N129			RIGID	None	None	RIGID	Typical
84	M93	N102	N108			RIGID	None	None	RIGID	Typical
85	M94	N101	N107			RIGID	None	None	RIGID	Typical
86	M95	N135	N136			Collector Pipe	Column	Pipe	A53 Gr. B	Typical
87	M96	N137	N70A			RIGID	None	None	RIGID	Typical
88	M97	N139	N140			RIGID	None	None	RIGID	Typical
89	M98	N143	N142			Horizontal mo...	Beam	Pipe	A53 Gr. B	Typical
90	M99	N145	N144			Horizontal mo...	Beam	Pipe	A53 Gr. B	Typical
91	M100	N146	N154			RIGID	None	None	RIGID	Typical
92	M101	N147	N155			RIGID	None	None	RIGID	Typical
93	M102	N149	N157			RIGID	None	None	RIGID	Typical
94	M103	N148	N156			RIGID	None	None	RIGID	Typical
95	M104	N151	N159			RIGID	None	None	RIGID	Typical
96	M105	N150	N158			RIGID	None	None	RIGID	Typical
97	M106	N153	N161			RIGID	None	None	RIGID	Typical
98	M107	N152	N160			RIGID	None	None	RIGID	Typical
99	M108	N163	N167		90	Standoff Plate	Beam	BAR	A36 Gr.36	Typical
100	M109	N162	N166		90	Standoff Plate	Beam	BAR	A36 Gr.36	Typical
101	M110	N164	N168		90	Standoff Plate	Beam	BAR	A36 Gr.36	Typical
102	M111	N165	N169		90	Standoff Plate	Beam	BAR	A36 Gr.36	Typical
103	M112	N167	N173			Standoff Horiz...	Beam	Pipe	A53 Gr. B	Typical
104	M113	N166	N172			Standoff Horiz...	Beam	Pipe	A53 Gr. B	Typical
105	M114	N168	N174			Standoff Horiz...	Beam	Pipe	A53 Gr. B	Typical
106	M115	N169	N175			Standoff Horiz...	Beam	Pipe	A53 Gr. B	Typical
107	M116	N173	N171		90	Standoff Plate	Beam	BAR	A36 Gr.36	Typical
108	M117	N175	N171		90	Standoff Plate	Beam	BAR	A36 Gr.36	Typical
109	M118	N172	N170		90	Standoff Plate	Beam	BAR	A36 Gr.36	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
110	M119	N174	N170		90	Standoff Plate	Beam	BAR	A36 Gr.36	Typical
111	M120	N172	N167			Standoff Diago...	Beam	BAR	A36 Gr.36	Typical
112	M121	N173	N166			Standoff Diago...	Beam	BAR	A36 Gr.36	Typical
113	M122	N174	N169			Standoff Diago...	Beam	BAR	A36 Gr.36	Typical
114	M123	N168	N175			Standoff Diago...	Beam	BAR	A36 Gr.36	Typical
115	MP4B	N178	N182			Antenna Pipe	Beam	Pipe	A53 Gr. B	Typical
116	MP3B	N179	N183			Antenna Pipe	Beam	Pipe	A53 Gr. B	Typical
117	MP2B	N180	N184			Antenna Pipe	Beam	Pipe	A53 Gr. B	Typical
118	MP1B	N181	N185			Antenna Pipe	Beam	Pipe	A53 Gr. B	Typical
119	M128	N166	N167			Standoff Vertica	Beam	BAR	A36 Gr.36	Typical
120	M129	N172	N173			Standoff Vertica	Beam	BAR	A36 Gr.36	Typical
121	M130	N174	N175			Standoff Vertica	Beam	BAR	A36 Gr.36	Typical
122	M131	N168	N169			Standoff Vertica	Beam	BAR	A36 Gr.36	Typical
123	M132	N163	N197			RIGID	None	None	RIGID	Typical
124	M133	N162	N196			RIGID	None	None	RIGID	Typical
125	M134	N165	N199			RIGID	None	None	RIGID	Typical
126	M135	N164	N198			RIGID	None	None	RIGID	Typical
127	M138	N171	N177			RIGID	None	None	RIGID	Typical
128	M139	N170	N176			RIGID	None	None	RIGID	Typical
129	M140	N204	N205			Collector Pipe	Column	Pipe	A53 Gr. B	Typical
130	M141	N206	N71			RIGID	None	None	RIGID	Typical
131	M142	N208	N209			RIGID	None	None	RIGID	Typical
132	M138A	N199B	N36			Tieback	Beam	Pipe	A53 Gr. B	Typical
133	M138B	N132	N177			Tieback	Beam	Pipe	A53 Gr. B	Typical
134	M138C	N60	N108			Tieback	Beam	Pipe	A53 Gr. B	Typical
135	M138D	N59	N177			Tieback	Beam	Pipe	A53 Gr. B	Typical
136	M138E	N201A	N36			Tieback	Beam	Pipe	A53 Gr. B	Typical
137	M138F	N199A	N108			Tieback	Beam	Pipe	A53 Gr. B	Typical

Member Advanced Data

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl 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

Member Advanced Data (Continued)

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rat...	Analysis ...	Inactive	Seismic...
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	M43A						Yes	** NA **			None
42	M44B						Yes	** NA **			None
43	M45A						Yes	** NA **			None
44	M47A						Yes	** NA **			None
45	M48						Yes	** NA **			None
46	M53						Yes				None
47	M54						Yes				None
48	M55						Yes	** NA **			None
49	M56						Yes	** NA **			None
50	M57						Yes	** NA **			None
51	M58						Yes	** NA **			None
52	M59						Yes	** NA **			None
53	M60						Yes	** NA **			None
54	M61						Yes	** NA **			None
55	M62						Yes	** NA **			None
56	M63						Yes	Default			None
57	M64						Yes	Default			None
58	M65						Yes				None
59	M66						Yes				None
60	M67						Yes	Default			None
61	M68						Yes				None
62	M69						Yes				None
63	M70						Yes	Default			None
64	M71						Yes	Default			None
65	M72						Yes				None
66	M73						Yes				None
67	M74						Yes				None
68	M75	BenPIN	BenPIN			Euler Buc...	Yes	Default			None
69	M76	BenPIN	BenPIN			Euler Buc...	Yes	Default			None
70	M77	BenPIN	BenPIN			Euler Buc...	Yes				None
71	M78	BenPIN	BenPIN			Euler Buc...	Yes				None
72	MP4C						Yes				None
73	MP3C						Yes				None
74	MP2C						Yes				None
75	MP1C						Yes				None
76	M83	BenPIN	BenPIN				Yes				None
77	M84	BenPIN	BenPIN				Yes				None
78	M85	BenPIN	BenPIN				Yes				None
79	M86	BenPIN	BenPIN				Yes	Default			None
80	M87		OOOXOO				Yes	** NA **			None
81	M88		OOOXOO				Yes	** NA **			None
82	M89		OOOXOO				Yes	** NA **			None
83	M90		OOOXOO				Yes	** NA **			None
84	M93						Yes	** NA **			None
85	M94						Yes	** NA **			None

Member Advanced Data (Continued)

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rat..	Analysis ...	Inactive	Seismic...
86	M95						Yes	** NA **			None
87	M96						Yes	** NA **			None
88	M97						Yes	** NA **			None
89	M98						Yes				None
90	M99						Yes				None
91	M100						Yes	** NA **			None
92	M101						Yes	** NA **			None
93	M102						Yes	** NA **			None
94	M103						Yes	** NA **			None
95	M104						Yes	** NA **			None
96	M105						Yes	** NA **			None
97	M106						Yes	** NA **			None
98	M107						Yes	** NA **			None
99	M108						Yes	Default			None
100	M109						Yes	Default			None
101	M110						Yes				None
102	M111						Yes				None
103	M112						Yes	Default			None
104	M113						Yes				None
105	M114						Yes				None
106	M115						Yes	Default			None
107	M116						Yes	Default			None
108	M117						Yes				None
109	M118						Yes				None
110	M119						Yes				None
111	M120	BenPIN	BenPIN			Euler Buc..	Yes	Default			None
112	M121	BenPIN	BenPIN			Euler Buc..	Yes	Default			None
113	M122	BenPIN	BenPIN			Euler Buc..	Yes				None
114	M123	BenPIN	BenPIN			Euler Buc..	Yes				None
115	MP4B						Yes				None
116	MP3B						Yes				None
117	MP2B						Yes				None
118	MP1B						Yes				None
119	M128	BenPIN	BenPIN				Yes				None
120	M129	BenPIN	BenPIN				Yes				None
121	M130	BenPIN	BenPIN				Yes				None
122	M131	BenPIN	BenPIN				Yes	Default			None
123	M132		OOOXOO				Yes	** NA **			None
124	M133		OOOXOO				Yes	** NA **			None
125	M134		OOOXOO				Yes	** NA **			None
126	M135		OOOXOO				Yes	** NA **			None
127	M138						Yes	** NA **			None
128	M139						Yes	** NA **			None
129	M140						Yes	** NA **			None
130	M141						Yes	** NA **			None
131	M142						Yes	** NA **			None
132	M138A	BenPIN	BenPIN				Yes	Default			None
133	M138B	BenPIN	BenPIN				Yes	Default			None
134	M138C	BenPIN	BenPIN				Yes	Default			None
135	M138D	BenPIN	BenPIN				Yes	Default			None
136	M138E	BenPIN	BenPIN				Yes	Default			None
137	M138F	BenPIN	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	.5
2	MP2A	My	-.011	.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
3	MP2A	Mz	.015	.5
4	MP2A	Y	-21.85	5.5
5	MP2A	My	-.011	5.5
6	MP2A	Mz	.015	5.5
7	MP2B	Y	-21.85	.5
8	MP2B	My	-.000994	.5
9	MP2B	Mz	-.018	.5
10	MP2B	Y	-21.85	5.5
11	MP2B	My	-.000994	5.5
12	MP2B	Mz	-.018	5.5
13	MP2C	Y	-21.85	.5
14	MP2C	My	.015	.5
15	MP2C	Mz	.01	.5
16	MP2C	Y	-21.85	5.5
17	MP2C	My	.015	5.5
18	MP2C	Mz	.01	5.5
19	MP2A	Y	-21.85	.5
20	MP2A	My	-.011	.5
21	MP2A	Mz	-.015	.5
22	MP2A	Y	-21.85	5.5
23	MP2A	My	-.011	5.5
24	MP2A	Mz	-.015	5.5
25	MP2B	Y	-21.85	.5
26	MP2B	My	.018	.5
27	MP2B	Mz	.004	.5
28	MP2B	Y	-21.85	5.5
29	MP2B	My	.018	5.5
30	MP2B	Mz	.004	5.5
31	MP2C	Y	-21.85	.5
32	MP2C	My	-.014	.5
33	MP2C	Mz	.012	.5
34	MP2C	Y	-21.85	5.5
35	MP2C	My	-.014	5.5
36	MP2C	Mz	.012	5.5
37	MP3A	Y	-43.55	1.5
38	MP3A	My	-.022	1.5
39	MP3A	Mz	0	1.5
40	MP3A	Y	-43.55	4
41	MP3A	My	-.022	4
42	MP3A	Mz	0	4
43	MP3B	Y	-43.55	1.5
44	MP3B	My	.017	1.5
45	MP3B	Mz	-.014	1.5
46	MP3B	Y	-43.55	4
47	MP3B	My	.017	4
48	MP3B	Mz	-.014	4
49	MP3C	Y	-43.55	1.5
50	MP3C	My	.002	1.5
51	MP3C	Mz	.022	1.5
52	MP3C	Y	-43.55	4
53	MP3C	My	.002	4
54	MP3C	Mz	.022	4
55	M17	Y	-32	1.25
56	M17	My	0	1.25
57	M17	Mz	0	1.25
58	MP2A	Y	-74.7	4
59	MP2A	My	.037	4
60	MP2A	Mz	0	4
61	MP2B	Y	-74.7	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
62	MP2B	My	-.029	4
63	MP2B	Mz	.024	4
64	MP2C	Y	-74.7	4
65	MP2C	My	-.003	4
66	MP2C	Mz	-.037	4
67	MP1A	Y	-70.3	3
68	MP1A	My	.035	3
69	MP1A	Mz	0	3
70	MP1B	Y	-70.3	3
71	MP1B	My	-.027	3
72	MP1B	Mz	.023	3
73	MP1C	Y	-70.3	3
74	MP1C	My	-.003	3
75	MP1C	Mz	-.035	3
76	MP1A	Y	-6	1.5
77	MP1A	My	-.003	1.5
78	MP1A	Mz	0	1.5
79	MP1A	Y	-6	4.5
80	MP1A	My	-.003	4.5
81	MP1A	Mz	0	4.5
82	MP1B	Y	-6	1.5
83	MP1B	My	.002	1.5
84	MP1B	Mz	-.002	1.5
85	MP1B	Y	-6	4.5
86	MP1B	My	.002	4.5
87	MP1B	Mz	-.002	4.5
88	MP1C	Y	-6	1.5
89	MP1C	My	.000261	1.5
90	MP1C	Mz	.003	1.5
91	MP1C	Y	-6	4.5
92	MP1C	My	.000261	4.5
93	MP1C	Mz	.003	4.5
94	MP4A	Y	-6	1.5
95	MP4A	My	-.003	1.5
96	MP4A	Mz	0	1.5
97	MP4A	Y	-6	4.5
98	MP4A	My	-.003	4.5
99	MP4A	Mz	0	4.5
100	MP4B	Y	-6	1.5
101	MP4B	My	.002	1.5
102	MP4B	Mz	-.002	1.5
103	MP4B	Y	-6	4.5
104	MP4B	My	.002	4.5
105	MP4B	Mz	-.002	4.5
106	MP4C	Y	-6	1.5
107	MP4C	My	.000261	1.5
108	MP4C	Mz	.003	1.5
109	MP4C	Y	-6	4.5
110	MP4C	My	.000261	4.5
111	MP4C	Mz	.003	4.5

Member Point Loads (BLC 2 : Antenna Di)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	Y	-61.916	.5
2	MP2A	My	-.031	.5
3	MP2A	Mz	.041	.5
4	MP2A	Y	-61.916	5.5
5	MP2A	My	-.031	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
6	MP2A	Mz	.041	5.5
7	MP2B	Y	-61.916	.5
8	MP2B	My	-.003	.5
9	MP2B	Mz	-.052	.5
10	MP2B	Y	-61.916	5.5
11	MP2B	My	-.003	5.5
12	MP2B	Mz	-.052	5.5
13	MP2C	Y	-61.916	.5
14	MP2C	My	.044	.5
15	MP2C	Mz	.027	.5
16	MP2C	Y	-61.916	5.5
17	MP2C	My	.044	5.5
18	MP2C	Mz	.027	5.5
19	MP2A	Y	-61.916	.5
20	MP2A	My	-.031	.5
21	MP2A	Mz	-.041	.5
22	MP2A	Y	-61.916	5.5
23	MP2A	My	-.031	5.5
24	MP2A	Mz	-.041	5.5
25	MP2B	Y	-61.916	.5
26	MP2B	My	.05	.5
27	MP2B	Mz	.012	.5
28	MP2B	Y	-61.916	5.5
29	MP2B	My	.05	5.5
30	MP2B	Mz	.012	5.5
31	MP2C	Y	-61.916	.5
32	MP2C	My	-.038	.5
33	MP2C	Mz	.034	.5
34	MP2C	Y	-61.916	5.5
35	MP2C	My	-.038	5.5
36	MP2C	Mz	.034	5.5
37	MP3A	Y	-36.397	1.5
38	MP3A	My	-.018	1.5
39	MP3A	Mz	0	1.5
40	MP3A	Y	-36.397	4
41	MP3A	My	-.018	4
42	MP3A	Mz	0	4
43	MP3B	Y	-36.397	1.5
44	MP3B	My	.014	1.5
45	MP3B	Mz	-.012	1.5
46	MP3B	Y	-36.397	4
47	MP3B	My	.014	4
48	MP3B	Mz	-.012	4
49	MP3C	Y	-36.397	1.5
50	MP3C	My	.002	1.5
51	MP3C	Mz	.018	1.5
52	MP3C	Y	-36.397	4
53	MP3C	My	.002	4
54	MP3C	Mz	.018	4
55	M17	Y	-89.813	1.25
56	M17	My	0	1.25
57	M17	Mz	0	1.25
58	MP2A	Y	-45.902	4
59	MP2A	My	.023	4
60	MP2A	Mz	0	4
61	MP2B	Y	-45.902	4
62	MP2B	My	-.018	4
63	MP2B	Mz	.015	4
64	MP2C	Y	-45.902	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
65	MP2C	My	-.002	4
66	MP2C	Mz	-.023	4
67	MP1A	Y	-43.716	3
68	MP1A	My	.022	3
69	MP1A	Mz	0	3
70	MP1B	Y	-43.716	3
71	MP1B	My	-.017	3
72	MP1B	Mz	.014	3
73	MP1C	Y	-43.716	3
74	MP1C	My	-.002	3
75	MP1C	Mz	-.022	3
76	MP1A	Y	-41.184	1.5
77	MP1A	My	-.021	1.5
78	MP1A	Mz	0	1.5
79	MP1A	Y	-41.184	4.5
80	MP1A	My	-.021	4.5
81	MP1A	Mz	0	4.5
82	MP1B	Y	-41.184	1.5
83	MP1B	My	.016	1.5
84	MP1B	Mz	-.013	1.5
85	MP1B	Y	-41.184	4.5
86	MP1B	My	.016	4.5
87	MP1B	Mz	-.013	4.5
88	MP1C	Y	-41.184	1.5
89	MP1C	My	.002	1.5
90	MP1C	Mz	.021	1.5
91	MP1C	Y	-41.184	4.5
92	MP1C	My	.002	4.5
93	MP1C	Mz	.021	4.5
94	MP4A	Y	-41.184	1.5
95	MP4A	My	-.021	1.5
96	MP4A	Mz	0	1.5
97	MP4A	Y	-41.184	4.5
98	MP4A	My	-.021	4.5
99	MP4A	Mz	0	4.5
100	MP4B	Y	-41.184	1.5
101	MP4B	My	.016	1.5
102	MP4B	Mz	-.013	1.5
103	MP4B	Y	-41.184	4.5
104	MP4B	My	.016	4.5
105	MP4B	Mz	-.013	4.5
106	MP4C	Y	-41.184	1.5
107	MP4C	My	.002	1.5
108	MP4C	Mz	.021	1.5
109	MP4C	Y	-41.184	4.5
110	MP4C	My	.002	4.5
111	MP4C	Mz	.021	4.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	0	.5
2	MP2A	Z	-105.032	.5
3	MP2A	Mx	-.07	.5
4	MP2A	X	0	5.5
5	MP2A	Z	-105.032	5.5
6	MP2A	Mx	-.07	5.5
7	MP2B	X	0	.5
8	MP2B	Z	-80.257	.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
9	MP2B	Mx	.067	.5
10	MP2B	X	0	5.5
11	MP2B	Z	-80.257	5.5
12	MP2B	Mx	.067	5.5
13	MP2C	X	0	.5
14	MP2C	Z	-45.524	.5
15	MP2C	Mx	-.02	.5
16	MP2C	X	0	5.5
17	MP2C	Z	-45.524	5.5
18	MP2C	Mx	-.02	5.5
19	MP2A	X	0	.5
20	MP2A	Z	-105.032	.5
21	MP2A	Mx	.07	.5
22	MP2A	X	0	5.5
23	MP2A	Z	-105.032	5.5
24	MP2A	Mx	.07	5.5
25	MP2B	X	0	.5
26	MP2B	Z	-80.257	.5
27	MP2B	Mx	-.015	.5
28	MP2B	X	0	5.5
29	MP2B	Z	-80.257	5.5
30	MP2B	Mx	-.015	5.5
31	MP2C	X	0	.5
32	MP2C	Z	-45.524	.5
33	MP2C	Mx	-.025	.5
34	MP2C	X	0	5.5
35	MP2C	Z	-45.524	5.5
36	MP2C	Mx	-.025	5.5
37	MP3A	X	0	1.5
38	MP3A	Z	-75.824	1.5
39	MP3A	Mx	0	1.5
40	MP3A	X	0	4
41	MP3A	Z	-75.824	4
42	MP3A	Mx	0	4
43	MP3B	X	0	1.5
44	MP3B	Z	-55.285	1.5
45	MP3B	Mx	.018	1.5
46	MP3B	X	0	4
47	MP3B	Z	-55.285	4
48	MP3B	Mx	.018	4
49	MP3C	X	0	1.5
50	MP3C	Z	-26.491	1.5
51	MP3C	Mx	-.013	1.5
52	MP3C	X	0	4
53	MP3C	Z	-26.491	4
54	MP3C	Mx	-.013	4
55	M17	X	0	1.25
56	M17	Z	-122.634	1.25
57	M17	Mx	0	1.25
58	MP2A	X	0	4
59	MP2A	Z	-59.963	4
60	MP2A	Mx	0	4
61	MP2B	X	0	4
62	MP2B	Z	-51.811	4
63	MP2B	Mx	-.017	4
64	MP2C	X	0	4
65	MP2C	Z	-40.383	4
66	MP2C	Mx	.02	4
67	MP1A	X	0	3

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
68	MP1A	Z	-59.963	3
69	MP1A	Mx	0	3
70	MP1B	X	0	3
71	MP1B	Z	-50.213	3
72	MP1B	Mx	-.016	3
73	MP1C	X	0	3
74	MP1C	Z	-36.544	3
75	MP1C	Mx	.018	3
76	MP1A	X	0	1.5
77	MP1A	Z	-50.485	1.5
78	MP1A	Mx	0	1.5
79	MP1A	X	0	4.5
80	MP1A	Z	-50.485	4.5
81	MP1A	Mx	0	4.5
82	MP1B	X	0	1.5
83	MP1B	Z	-72.774	1.5
84	MP1B	Mx	.023	1.5
85	MP1B	X	0	4.5
86	MP1B	Z	-72.774	4.5
87	MP1B	Mx	.023	4.5
88	MP1C	X	0	1.5
89	MP1C	Z	-104.02	1.5
90	MP1C	Mx	-.052	1.5
91	MP1C	X	0	4.5
92	MP1C	Z	-104.02	4.5
93	MP1C	Mx	-.052	4.5
94	MP4A	X	0	1.5
95	MP4A	Z	-50.485	1.5
96	MP4A	Mx	0	1.5
97	MP4A	X	0	4.5
98	MP4A	Z	-50.485	4.5
99	MP4A	Mx	0	4.5
100	MP4B	X	0	1.5
101	MP4B	Z	-72.774	1.5
102	MP4B	Mx	.023	1.5
103	MP4B	X	0	4.5
104	MP4B	Z	-72.774	4.5
105	MP4B	Mx	.023	4.5
106	MP4C	X	0	1.5
107	MP4C	Z	-104.02	1.5
108	MP4C	Mx	-.052	1.5
109	MP4C	X	0	4.5
110	MP4C	Z	-104.02	4.5
111	MP4C	Mx	-.052	4.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	45.021	.5
2	MP2A	Z	-77.978	.5
3	MP2A	Mx	-.074	.5
4	MP2A	X	45.021	5.5
5	MP2A	Z	-77.978	5.5
6	MP2A	Mx	-.074	5.5
7	MP2B	X	26.042	.5
8	MP2B	Z	-45.105	.5
9	MP2B	Mx	.036	.5
10	MP2B	X	26.042	5.5
11	MP2B	Z	-45.105	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
12	MP2B	Mx	.036	5.5
13	MP2C	X	32.398	.5
14	MP2C	Z	-56.115	.5
15	MP2C	Mx	-.002	.5
16	MP2C	X	32.398	5.5
17	MP2C	Z	-56.115	5.5
18	MP2C	Mx	-.002	5.5
19	MP2A	X	45.021	.5
20	MP2A	Z	-77.978	.5
21	MP2A	Mx	.029	.5
22	MP2A	X	45.021	5.5
23	MP2A	Z	-77.978	5.5
24	MP2A	Mx	.029	5.5
25	MP2B	X	26.042	.5
26	MP2B	Z	-45.105	.5
27	MP2B	Mx	.013	.5
28	MP2B	X	26.042	5.5
29	MP2B	Z	-45.105	5.5
30	MP2B	Mx	.013	5.5
31	MP2C	X	32.398	.5
32	MP2C	Z	-56.115	.5
33	MP2C	Mx	-.051	.5
34	MP2C	X	32.398	5.5
35	MP2C	Z	-56.115	5.5
36	MP2C	Mx	-.051	5.5
37	MP3A	X	31.698	1.5
38	MP3A	Z	-54.903	1.5
39	MP3A	Mx	-.016	1.5
40	MP3A	X	31.698	4
41	MP3A	Z	-54.903	4
42	MP3A	Mx	-.016	4
43	MP3B	X	15.964	1.5
44	MP3B	Z	-27.65	1.5
45	MP3B	Mx	.015	1.5
46	MP3B	X	15.964	4
47	MP3B	Z	-27.65	4
48	MP3B	Mx	.015	4
49	MP3C	X	21.234	1.5
50	MP3C	Z	-36.778	1.5
51	MP3C	Mx	-.017	1.5
52	MP3C	X	21.234	4
53	MP3C	Z	-36.778	4
54	MP3C	Mx	-.017	4
55	M17	X	57.642	1.25
56	M17	Z	-99.839	1.25
57	M17	Mx	0	1.25
58	MP2A	X	27.515	4
59	MP2A	Z	-47.658	4
60	MP2A	Mx	.014	4
61	MP2B	X	21.271	4
62	MP2B	Z	-36.842	4
63	MP2B	Mx	-.02	4
64	MP2C	X	23.362	4
65	MP2C	Z	-40.464	4
66	MP2C	Mx	.019	4
67	MP1A	X	27.032	3
68	MP1A	Z	-46.82	3
69	MP1A	Mx	.014	3
70	MP1B	X	19.563	3

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
71	MP1B	Z	-33.883	3
72	MP1B	Mx	-.018	3
73	MP1C	X	22.064	3
74	MP1C	Z	-38.216	3
75	MP1C	Mx	.018	3
76	MP1A	X	31.986	1.5
77	MP1A	Z	-55.401	1.5
78	MP1A	Mx	-.016	1.5
79	MP1A	X	31.986	4.5
80	MP1A	Z	-55.401	4.5
81	MP1A	Mx	-.016	4.5
82	MP1B	X	49.06	1.5
83	MP1B	Z	-84.974	1.5
84	MP1B	Mx	.046	1.5
85	MP1B	X	49.06	4.5
86	MP1B	Z	-84.974	4.5
87	MP1B	Mx	.046	4.5
88	MP1C	X	43.341	1.5
89	MP1C	Z	-75.069	1.5
90	MP1C	Mx	-.036	1.5
91	MP1C	X	43.341	4.5
92	MP1C	Z	-75.069	4.5
93	MP1C	Mx	-.036	4.5
94	MP4A	X	31.986	1.5
95	MP4A	Z	-55.401	1.5
96	MP4A	Mx	-.016	1.5
97	MP4A	X	31.986	4.5
98	MP4A	Z	-55.401	4.5
99	MP4A	Mx	-.016	4.5
100	MP4B	X	49.06	1.5
101	MP4B	Z	-84.974	1.5
102	MP4B	Mx	.046	1.5
103	MP4B	X	49.06	4.5
104	MP4B	Z	-84.974	4.5
105	MP4B	Mx	.046	4.5
106	MP4C	X	43.341	1.5
107	MP4C	Z	-75.069	1.5
108	MP4C	Mx	-.036	1.5
109	MP4C	X	43.341	4.5
110	MP4C	Z	-75.069	4.5
111	MP4C	Mx	-.036	4.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	52.013	.5
2	MP2A	Z	-30.03	.5
3	MP2A	Mx	-.046	.5
4	MP2A	X	52.013	5.5
5	MP2A	Z	-30.03	5.5
6	MP2A	Mx	-.046	5.5
7	MP2B	X	40.597	.5
8	MP2B	Z	-23.439	.5
9	MP2B	Mx	.018	.5
10	MP2B	X	40.597	5.5
11	MP2B	Z	-23.439	5.5
12	MP2B	Mx	.018	5.5
13	MP2C	X	81.685	.5
14	MP2C	Z	-47.161	.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
15	MP2C	Mx	.037	.5
16	MP2C	X	81.685	5.5
17	MP2C	Z	-47.161	5.5
18	MP2C	Mx	.037	5.5
19	MP2A	X	52.013	.5
20	MP2A	Z	-30.03	.5
21	MP2A	Mx	-.006	.5
22	MP2A	X	52.013	5.5
23	MP2A	Z	-30.03	5.5
24	MP2A	Mx	-.006	5.5
25	MP2B	X	40.597	.5
26	MP2B	Z	-23.439	.5
27	MP2B	Mx	.029	.5
28	MP2B	X	40.597	5.5
29	MP2B	Z	-23.439	5.5
30	MP2B	Mx	.029	5.5
31	MP2C	X	81.685	.5
32	MP2C	Z	-47.161	.5
33	MP2C	Mx	-.077	.5
34	MP2C	X	81.685	5.5
35	MP2C	Z	-47.161	5.5
36	MP2C	Mx	-.077	5.5
37	MP3A	X	33.377	1.5
38	MP3A	Z	-19.27	1.5
39	MP3A	Mx	-.017	1.5
40	MP3A	X	33.377	4
41	MP3A	Z	-19.27	4
42	MP3A	Mx	-.017	4
43	MP3B	X	23.913	1.5
44	MP3B	Z	-13.806	1.5
45	MP3B	Mx	.014	1.5
46	MP3B	X	23.913	4
47	MP3B	Z	-13.806	4
48	MP3B	Mx	.014	4
49	MP3C	X	57.976	1.5
50	MP3C	Z	-33.473	1.5
51	MP3C	Mx	-.014	1.5
52	MP3C	X	57.976	4
53	MP3C	Z	-33.473	4
54	MP3C	Mx	-.014	4
55	M17	X	87.108	1.25
56	M17	Z	-50.292	1.25
57	M17	Mx	0	1.25
58	MP2A	X	39.115	4
59	MP2A	Z	-22.583	4
60	MP2A	Mx	.02	4
61	MP2B	X	35.358	4
62	MP2B	Z	-20.414	4
63	MP2B	Mx	-.02	4
64	MP2C	X	48.878	4
65	MP2C	Z	-28.22	4
66	MP2C	Mx	.012	4
67	MP1A	X	36.602	3
68	MP1A	Z	-21.132	3
69	MP1A	Mx	.018	3
70	MP1B	X	32.109	3
71	MP1B	Z	-18.538	3
72	MP1B	Mx	-.018	3
73	MP1C	X	48.279	3

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
74	MP1C	Z	-27.874	3
75	MP1C	Mx	.012	3
76	MP1A	X	78.759	1.5
77	MP1A	Z	-45.472	1.5
78	MP1A	Mx	-.039	1.5
79	MP1A	X	78.759	4.5
80	MP1A	Z	-45.472	4.5
81	MP1A	Mx	-.039	4.5
82	MP1B	X	89.03	1.5
83	MP1B	Z	-51.402	1.5
84	MP1B	Mx	.051	1.5
85	MP1B	X	89.03	4.5
86	MP1B	Z	-51.402	4.5
87	MP1B	Mx	.051	4.5
88	MP1C	X	52.065	1.5
89	MP1C	Z	-30.06	1.5
90	MP1C	Mx	-.013	1.5
91	MP1C	X	52.065	4.5
92	MP1C	Z	-30.06	4.5
93	MP1C	Mx	-.013	4.5
94	MP4A	X	78.759	1.5
95	MP4A	Z	-45.472	1.5
96	MP4A	Mx	-.039	1.5
97	MP4A	X	78.759	4.5
98	MP4A	Z	-45.472	4.5
99	MP4A	Mx	-.039	4.5
100	MP4B	X	89.03	1.5
101	MP4B	Z	-51.402	1.5
102	MP4B	Mx	.051	1.5
103	MP4B	X	89.03	4.5
104	MP4B	Z	-51.402	4.5
105	MP4B	Mx	.051	4.5
106	MP4C	X	52.065	1.5
107	MP4C	Z	-30.06	1.5
108	MP4C	Mx	-.013	1.5
109	MP4C	X	52.065	4.5
110	MP4C	Z	-30.06	4.5
111	MP4C	Mx	-.013	4.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	45.069	.5
2	MP2A	Z	0	.5
3	MP2A	Mx	-.023	.5
4	MP2A	X	45.069	5.5
5	MP2A	Z	0	5.5
6	MP2A	Mx	-.023	5.5
7	MP2B	X	69.844	.5
8	MP2B	Z	0	.5
9	MP2B	Mx	-.003	.5
10	MP2B	X	69.844	5.5
11	MP2B	Z	0	5.5
12	MP2B	Mx	-.003	5.5
13	MP2C	X	104.577	.5
14	MP2C	Z	0	.5
15	MP2C	Mx	.074	.5
16	MP2C	X	104.577	5.5
17	MP2C	Z	0	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
18	MP2C	Mx	.074	5.5
19	MP2A	X	45.069	.5
20	MP2A	Z	0	.5
21	MP2A	Mx	-.023	.5
22	MP2A	X	45.069	5.5
23	MP2A	Z	0	5.5
24	MP2A	Mx	-.023	5.5
25	MP2B	X	69.844	.5
26	MP2B	Z	0	.5
27	MP2B	Mx	.057	.5
28	MP2B	X	69.844	5.5
29	MP2B	Z	0	5.5
30	MP2B	Mx	.057	5.5
31	MP2C	X	104.577	.5
32	MP2C	Z	0	.5
33	MP2C	Mx	-.065	.5
34	MP2C	X	104.577	5.5
35	MP2C	Z	0	5.5
36	MP2C	Mx	-.065	5.5
37	MP3A	X	26.113	1.5
38	MP3A	Z	0	1.5
39	MP3A	Mx	-.013	1.5
40	MP3A	X	26.113	4
41	MP3A	Z	0	4
42	MP3A	Mx	-.013	4
43	MP3B	X	46.652	1.5
44	MP3B	Z	0	1.5
45	MP3B	Mx	.018	1.5
46	MP3B	X	46.652	4
47	MP3B	Z	0	4
48	MP3B	Mx	.018	4
49	MP3C	X	75.447	1.5
50	MP3C	Z	0	1.5
51	MP3C	Mx	.003	1.5
52	MP3C	X	75.447	4
53	MP3C	Z	0	4
54	MP3C	Mx	.003	4
55	M17	X	93.233	1.25
56	M17	Z	0	1.25
57	M17	Mx	0	1.25
58	MP2A	X	40.233	4
59	MP2A	Z	0	4
60	MP2A	Mx	.02	4
61	MP2B	X	48.385	4
62	MP2B	Z	0	4
63	MP2B	Mx	-.019	4
64	MP2C	X	59.813	4
65	MP2C	Z	0	4
66	MP2C	Mx	-.003	4
67	MP1A	X	36.365	3
68	MP1A	Z	0	3
69	MP1A	Mx	.018	3
70	MP1B	X	46.115	3
71	MP1B	Z	0	3
72	MP1B	Mx	-.018	3
73	MP1C	X	59.784	3
74	MP1C	Z	0	3
75	MP1C	Mx	-.003	3
76	MP1A	X	104.43	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
77	MP1A	Z	0	1.5
78	MP1A	Mx	-.052	1.5
79	MP1A	X	104.43	4.5
80	MP1A	Z	0	4.5
81	MP1A	Mx	-.052	4.5
82	MP1B	X	82.141	1.5
83	MP1B	Z	0	1.5
84	MP1B	Mx	.031	1.5
85	MP1B	X	82.141	4.5
86	MP1B	Z	0	4.5
87	MP1B	Mx	.031	4.5
88	MP1C	X	50.895	1.5
89	MP1C	Z	0	1.5
90	MP1C	Mx	.002	1.5
91	MP1C	X	50.895	4.5
92	MP1C	Z	0	4.5
93	MP1C	Mx	.002	4.5
94	MP4A	X	104.43	1.5
95	MP4A	Z	0	1.5
96	MP4A	Mx	-.052	1.5
97	MP4A	X	104.43	4.5
98	MP4A	Z	0	4.5
99	MP4A	Mx	-.052	4.5
100	MP4B	X	82.141	1.5
101	MP4B	Z	0	1.5
102	MP4B	Mx	.031	1.5
103	MP4B	X	82.141	4.5
104	MP4B	Z	0	4.5
105	MP4B	Mx	.031	4.5
106	MP4C	X	50.895	1.5
107	MP4C	Z	0	1.5
108	MP4C	Mx	.002	1.5
109	MP4C	X	50.895	4.5
110	MP4C	Z	0	4.5
111	MP4C	Mx	.002	4.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	52.013	.5
2	MP2A	Z	30.03	.5
3	MP2A	Mx	-.006	.5
4	MP2A	X	52.013	5.5
5	MP2A	Z	30.03	5.5
6	MP2A	Mx	-.006	5.5
7	MP2B	X	84.886	.5
8	MP2B	Z	49.009	.5
9	MP2B	Mx	-.045	.5
10	MP2B	X	84.886	5.5
11	MP2B	Z	49.009	5.5
12	MP2B	Mx	-.045	5.5
13	MP2C	X	73.876	.5
14	MP2C	Z	42.652	.5
15	MP2C	Mx	.071	.5
16	MP2C	X	73.876	5.5
17	MP2C	Z	42.652	5.5
18	MP2C	Mx	.071	5.5
19	MP2A	X	52.013	.5
20	MP2A	Z	30.03	.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
21	MP2A	Mx	-.046	.5
22	MP2A	X	52.013	5.5
23	MP2A	Z	30.03	5.5
24	MP2A	Mx	-.046	5.5
25	MP2B	X	84.886	.5
26	MP2B	Z	49.009	.5
27	MP2B	Mx	.078	.5
28	MP2B	X	84.886	5.5
29	MP2B	Z	49.009	5.5
30	MP2B	Mx	.078	5.5
31	MP2C	X	73.876	.5
32	MP2C	Z	42.652	.5
33	MP2C	Mx	-.022	.5
34	MP2C	X	73.876	5.5
35	MP2C	Z	42.652	5.5
36	MP2C	Mx	-.022	5.5
37	MP3A	X	33.377	1.5
38	MP3A	Z	19.27	1.5
39	MP3A	Mx	-.017	1.5
40	MP3A	X	33.377	4
41	MP3A	Z	19.27	4
42	MP3A	Mx	-.017	4
43	MP3B	X	60.63	1.5
44	MP3B	Z	35.005	1.5
45	MP3B	Mx	.012	1.5
46	MP3B	X	60.63	4
47	MP3B	Z	35.005	4
48	MP3B	Mx	.012	4
49	MP3C	X	51.502	1.5
50	MP3C	Z	29.735	1.5
51	MP3C	Mx	.017	1.5
52	MP3C	X	51.502	4
53	MP3C	Z	29.735	4
54	MP3C	Mx	.017	4
55	M17	X	87.108	1.25
56	M17	Z	50.292	1.25
57	M17	Mx	0	1.25
58	MP2A	X	39.115	4
59	MP2A	Z	22.583	4
60	MP2A	Mx	.02	4
61	MP2B	X	49.931	4
62	MP2B	Z	28.828	4
63	MP2B	Mx	-.01	4
64	MP2C	X	46.308	4
65	MP2C	Z	26.736	4
66	MP2C	Mx	-.015	4
67	MP1A	X	36.602	3
68	MP1A	Z	21.132	3
69	MP1A	Mx	.018	3
70	MP1B	X	49.539	3
71	MP1B	Z	28.601	3
72	MP1B	Mx	-.01	3
73	MP1C	X	45.206	3
74	MP1C	Z	26.1	3
75	MP1C	Mx	-.015	3
76	MP1A	X	78.759	1.5
77	MP1A	Z	45.472	1.5
78	MP1A	Mx	-.039	1.5
79	MP1A	X	78.759	4.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
80	MP1A	Z	45.472	4.5
81	MP1A	Mx	-.039	4.5
82	MP1B	X	49.186	1.5
83	MP1B	Z	28.398	1.5
84	MP1B	Mx	.01	1.5
85	MP1B	X	49.186	4.5
86	MP1B	Z	28.398	4.5
87	MP1B	Mx	.01	4.5
88	MP1C	X	59.091	1.5
89	MP1C	Z	34.116	1.5
90	MP1C	Mx	.02	1.5
91	MP1C	X	59.091	4.5
92	MP1C	Z	34.116	4.5
93	MP1C	Mx	.02	4.5
94	MP4A	X	78.759	1.5
95	MP4A	Z	45.472	1.5
96	MP4A	Mx	-.039	1.5
97	MP4A	X	78.759	4.5
98	MP4A	Z	45.472	4.5
99	MP4A	Mx	-.039	4.5
100	MP4B	X	49.186	1.5
101	MP4B	Z	28.398	1.5
102	MP4B	Mx	.01	1.5
103	MP4B	X	49.186	4.5
104	MP4B	Z	28.398	4.5
105	MP4B	Mx	.01	4.5
106	MP4C	X	59.091	1.5
107	MP4C	Z	34.116	1.5
108	MP4C	Mx	.02	1.5
109	MP4C	X	59.091	4.5
110	MP4C	Z	34.116	4.5
111	MP4C	Mx	.02	4.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	45.021	.5
2	MP2A	Z	77.978	.5
3	MP2A	Mx	.029	.5
4	MP2A	X	45.021	5.5
5	MP2A	Z	77.978	5.5
6	MP2A	Mx	.029	5.5
7	MP2B	X	51.612	.5
8	MP2B	Z	89.395	.5
9	MP2B	Mx	-.077	.5
10	MP2B	X	51.612	5.5
11	MP2B	Z	89.395	5.5
12	MP2B	Mx	-.077	5.5
13	MP2C	X	27.889	.5
14	MP2C	Z	48.306	.5
15	MP2C	Mx	.041	.5
16	MP2C	X	27.889	5.5
17	MP2C	Z	48.306	5.5
18	MP2C	Mx	.041	5.5
19	MP2A	X	45.021	.5
20	MP2A	Z	77.978	.5
21	MP2A	Mx	-.074	.5
22	MP2A	X	45.021	5.5
23	MP2A	Z	77.978	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
24	MP2A	Mx	-.074	5.5
25	MP2B	X	51.612	.5
26	MP2B	Z	89.395	.5
27	MP2B	Mx	.059	.5
28	MP2B	X	51.612	5.5
29	MP2B	Z	89.395	5.5
30	MP2B	Mx	.059	5.5
31	MP2C	X	27.889	.5
32	MP2C	Z	48.306	.5
33	MP2C	Mx	.01	.5
34	MP2C	X	27.889	5.5
35	MP2C	Z	48.306	5.5
36	MP2C	Mx	.01	5.5
37	MP3A	X	31.698	1.5
38	MP3A	Z	54.903	1.5
39	MP3A	Mx	-.016	1.5
40	MP3A	X	31.698	4
41	MP3A	Z	54.903	4
42	MP3A	Mx	-.016	4
43	MP3B	X	37.163	1.5
44	MP3B	Z	64.368	1.5
45	MP3B	Mx	-.006	1.5
46	MP3B	X	37.163	4
47	MP3B	Z	64.368	4
48	MP3B	Mx	-.006	4
49	MP3C	X	17.496	1.5
50	MP3C	Z	30.304	1.5
51	MP3C	Mx	.016	1.5
52	MP3C	X	17.496	4
53	MP3C	Z	30.304	4
54	MP3C	Mx	.016	4
55	M17	X	57.642	1.25
56	M17	Z	99.839	1.25
57	M17	Mx	0	1.25
58	MP2A	X	27.515	4
59	MP2A	Z	47.658	4
60	MP2A	Mx	.014	4
61	MP2B	X	29.684	4
62	MP2B	Z	51.414	4
63	MP2B	Mx	.005	4
64	MP2C	X	21.879	4
65	MP2C	Z	37.895	4
66	MP2C	Mx	-.02	4
67	MP1A	X	27.032	3
68	MP1A	Z	46.82	3
69	MP1A	Mx	.014	3
70	MP1B	X	29.626	3
71	MP1B	Z	51.313	3
72	MP1B	Mx	.005	3
73	MP1C	X	20.29	3
74	MP1C	Z	35.143	3
75	MP1C	Mx	-.018	3
76	MP1A	X	31.986	1.5
77	MP1A	Z	55.401	1.5
78	MP1A	Mx	-.016	1.5
79	MP1A	X	31.986	4.5
80	MP1A	Z	55.401	4.5
81	MP1A	Mx	-.016	4.5
82	MP1B	X	26.056	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
83	MP1B	Z	45.13	1.5
84	MP1B	Mx	-.005	1.5
85	MP1B	X	26.056	4.5
86	MP1B	Z	45.13	4.5
87	MP1B	Mx	-.005	4.5
88	MP1C	X	47.397	1.5
89	MP1C	Z	82.095	1.5
90	MP1C	Mx	.043	1.5
91	MP1C	X	47.397	4.5
92	MP1C	Z	82.095	4.5
93	MP1C	Mx	.043	4.5
94	MP4A	X	31.986	1.5
95	MP4A	Z	55.401	1.5
96	MP4A	Mx	-.016	1.5
97	MP4A	X	31.986	4.5
98	MP4A	Z	55.401	4.5
99	MP4A	Mx	-.016	4.5
100	MP4B	X	26.056	1.5
101	MP4B	Z	45.13	1.5
102	MP4B	Mx	-.005	1.5
103	MP4B	X	26.056	4.5
104	MP4B	Z	45.13	4.5
105	MP4B	Mx	-.005	4.5
106	MP4C	X	47.397	1.5
107	MP4C	Z	82.095	1.5
108	MP4C	Mx	.043	1.5
109	MP4C	X	47.397	4.5
110	MP4C	Z	82.095	4.5
111	MP4C	Mx	.043	4.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	0	.5
2	MP2A	Z	105.032	.5
3	MP2A	Mx	.07	.5
4	MP2A	X	0	5.5
5	MP2A	Z	105.032	5.5
6	MP2A	Mx	.07	5.5
7	MP2B	X	0	.5
8	MP2B	Z	80.257	.5
9	MP2B	Mx	-.067	.5
10	MP2B	X	0	5.5
11	MP2B	Z	80.257	5.5
12	MP2B	Mx	-.067	5.5
13	MP2C	X	0	.5
14	MP2C	Z	45.524	.5
15	MP2C	Mx	.02	.5
16	MP2C	X	0	5.5
17	MP2C	Z	45.524	5.5
18	MP2C	Mx	.02	5.5
19	MP2A	X	0	.5
20	MP2A	Z	105.032	.5
21	MP2A	Mx	-.07	.5
22	MP2A	X	0	5.5
23	MP2A	Z	105.032	5.5
24	MP2A	Mx	-.07	5.5
25	MP2B	X	0	.5
26	MP2B	Z	80.257	.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
27	MP2B	Mx	.015	.5
28	MP2B	X	0	5.5
29	MP2B	Z	80.257	5.5
30	MP2B	Mx	.015	5.5
31	MP2C	X	0	.5
32	MP2C	Z	45.524	.5
33	MP2C	Mx	.025	.5
34	MP2C	X	0	5.5
35	MP2C	Z	45.524	5.5
36	MP2C	Mx	.025	5.5
37	MP3A	X	0	1.5
38	MP3A	Z	75.824	1.5
39	MP3A	Mx	0	1.5
40	MP3A	X	0	4
41	MP3A	Z	75.824	4
42	MP3A	Mx	0	4
43	MP3B	X	0	1.5
44	MP3B	Z	55.285	1.5
45	MP3B	Mx	-.018	1.5
46	MP3B	X	0	4
47	MP3B	Z	55.285	4
48	MP3B	Mx	-.018	4
49	MP3C	X	0	1.5
50	MP3C	Z	26.491	1.5
51	MP3C	Mx	.013	1.5
52	MP3C	X	0	4
53	MP3C	Z	26.491	4
54	MP3C	Mx	.013	4
55	M17	X	0	1.25
56	M17	Z	122.634	1.25
57	M17	Mx	0	1.25
58	MP2A	X	0	4
59	MP2A	Z	59.963	4
60	MP2A	Mx	0	4
61	MP2B	X	0	4
62	MP2B	Z	51.811	4
63	MP2B	Mx	.017	4
64	MP2C	X	0	4
65	MP2C	Z	40.383	4
66	MP2C	Mx	-.02	4
67	MP1A	X	0	3
68	MP1A	Z	59.963	3
69	MP1A	Mx	0	3
70	MP1B	X	0	3
71	MP1B	Z	50.213	3
72	MP1B	Mx	.016	3
73	MP1C	X	0	3
74	MP1C	Z	36.544	3
75	MP1C	Mx	-.018	3
76	MP1A	X	0	1.5
77	MP1A	Z	50.485	1.5
78	MP1A	Mx	0	1.5
79	MP1A	X	0	4.5
80	MP1A	Z	50.485	4.5
81	MP1A	Mx	0	4.5
82	MP1B	X	0	1.5
83	MP1B	Z	72.774	1.5
84	MP1B	Mx	-.023	1.5
85	MP1B	X	0	4.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
86	MP1B	Z	72.774	4.5
87	MP1B	Mx	-.023	4.5
88	MP1C	X	0	1.5
89	MP1C	Z	104.02	1.5
90	MP1C	Mx	.052	1.5
91	MP1C	X	0	4.5
92	MP1C	Z	104.02	4.5
93	MP1C	Mx	.052	4.5
94	MP4A	X	0	1.5
95	MP4A	Z	50.485	1.5
96	MP4A	Mx	0	1.5
97	MP4A	X	0	4.5
98	MP4A	Z	50.485	4.5
99	MP4A	Mx	0	4.5
100	MP4B	X	0	1.5
101	MP4B	Z	72.774	1.5
102	MP4B	Mx	-.023	1.5
103	MP4B	X	0	4.5
104	MP4B	Z	72.774	4.5
105	MP4B	Mx	-.023	4.5
106	MP4C	X	0	1.5
107	MP4C	Z	104.02	1.5
108	MP4C	Mx	.052	1.5
109	MP4C	X	0	4.5
110	MP4C	Z	104.02	4.5
111	MP4C	Mx	.052	4.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-45.021	.5
2	MP2A	Z	77.978	.5
3	MP2A	Mx	.074	.5
4	MP2A	X	-45.021	5.5
5	MP2A	Z	77.978	5.5
6	MP2A	Mx	.074	5.5
7	MP2B	X	-26.042	.5
8	MP2B	Z	45.105	.5
9	MP2B	Mx	-.036	.5
10	MP2B	X	-26.042	5.5
11	MP2B	Z	45.105	5.5
12	MP2B	Mx	-.036	5.5
13	MP2C	X	-32.398	.5
14	MP2C	Z	56.115	.5
15	MP2C	Mx	.002	.5
16	MP2C	X	-32.398	5.5
17	MP2C	Z	56.115	5.5
18	MP2C	Mx	.002	5.5
19	MP2A	X	-45.021	.5
20	MP2A	Z	77.978	.5
21	MP2A	Mx	-.029	.5
22	MP2A	X	-45.021	5.5
23	MP2A	Z	77.978	5.5
24	MP2A	Mx	-.029	5.5
25	MP2B	X	-26.042	.5
26	MP2B	Z	45.105	.5
27	MP2B	Mx	-.013	.5
28	MP2B	X	-26.042	5.5
29	MP2B	Z	45.105	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
30	MP2B	Mx	-.013	5.5
31	MP2C	X	-32.398	.5
32	MP2C	Z	56.115	.5
33	MP2C	Mx	.051	.5
34	MP2C	X	-32.398	5.5
35	MP2C	Z	56.115	5.5
36	MP2C	Mx	.051	5.5
37	MP3A	X	-31.698	1.5
38	MP3A	Z	54.903	1.5
39	MP3A	Mx	.016	1.5
40	MP3A	X	-31.698	4
41	MP3A	Z	54.903	4
42	MP3A	Mx	.016	4
43	MP3B	X	-15.964	1.5
44	MP3B	Z	27.65	1.5
45	MP3B	Mx	-.015	1.5
46	MP3B	X	-15.964	4
47	MP3B	Z	27.65	4
48	MP3B	Mx	-.015	4
49	MP3C	X	-21.234	1.5
50	MP3C	Z	36.778	1.5
51	MP3C	Mx	.017	1.5
52	MP3C	X	-21.234	4
53	MP3C	Z	36.778	4
54	MP3C	Mx	.017	4
55	M17	X	-57.642	1.25
56	M17	Z	99.839	1.25
57	M17	Mx	0	1.25
58	MP2A	X	-27.515	4
59	MP2A	Z	47.658	4
60	MP2A	Mx	-.014	4
61	MP2B	X	-21.271	4
62	MP2B	Z	36.842	4
63	MP2B	Mx	.02	4
64	MP2C	X	-23.362	4
65	MP2C	Z	40.464	4
66	MP2C	Mx	-.019	4
67	MP1A	X	-27.032	3
68	MP1A	Z	46.82	3
69	MP1A	Mx	-.014	3
70	MP1B	X	-19.563	3
71	MP1B	Z	33.883	3
72	MP1B	Mx	.018	3
73	MP1C	X	-22.064	3
74	MP1C	Z	38.216	3
75	MP1C	Mx	-.018	3
76	MP1A	X	-31.986	1.5
77	MP1A	Z	55.401	1.5
78	MP1A	Mx	.016	1.5
79	MP1A	X	-31.986	4.5
80	MP1A	Z	55.401	4.5
81	MP1A	Mx	.016	4.5
82	MP1B	X	-49.06	1.5
83	MP1B	Z	84.974	1.5
84	MP1B	Mx	-.046	1.5
85	MP1B	X	-49.06	4.5
86	MP1B	Z	84.974	4.5
87	MP1B	Mx	-.046	4.5
88	MP1C	X	-43.341	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
89	MP1C	Z	75.069	1.5
90	MP1C	Mx	.036	1.5
91	MP1C	X	-43.341	4.5
92	MP1C	Z	75.069	4.5
93	MP1C	Mx	.036	4.5
94	MP4A	X	-31.986	1.5
95	MP4A	Z	55.401	1.5
96	MP4A	Mx	.016	1.5
97	MP4A	X	-31.986	4.5
98	MP4A	Z	55.401	4.5
99	MP4A	Mx	.016	4.5
100	MP4B	X	-49.06	1.5
101	MP4B	Z	84.974	1.5
102	MP4B	Mx	-.046	1.5
103	MP4B	X	-49.06	4.5
104	MP4B	Z	84.974	4.5
105	MP4B	Mx	-.046	4.5
106	MP4C	X	-43.341	1.5
107	MP4C	Z	75.069	1.5
108	MP4C	Mx	.036	1.5
109	MP4C	X	-43.341	4.5
110	MP4C	Z	75.069	4.5
111	MP4C	Mx	.036	4.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-52.013	.5
2	MP2A	Z	30.03	.5
3	MP2A	Mx	.046	.5
4	MP2A	X	-52.013	5.5
5	MP2A	Z	30.03	5.5
6	MP2A	Mx	.046	5.5
7	MP2B	X	-40.597	.5
8	MP2B	Z	23.439	.5
9	MP2B	Mx	-.018	.5
10	MP2B	X	-40.597	5.5
11	MP2B	Z	23.439	5.5
12	MP2B	Mx	-.018	5.5
13	MP2C	X	-81.685	.5
14	MP2C	Z	47.161	.5
15	MP2C	Mx	-.037	.5
16	MP2C	X	-81.685	5.5
17	MP2C	Z	47.161	5.5
18	MP2C	Mx	-.037	5.5
19	MP2A	X	-52.013	.5
20	MP2A	Z	30.03	.5
21	MP2A	Mx	.006	.5
22	MP2A	X	-52.013	5.5
23	MP2A	Z	30.03	5.5
24	MP2A	Mx	.006	5.5
25	MP2B	X	-40.597	.5
26	MP2B	Z	23.439	.5
27	MP2B	Mx	-.029	.5
28	MP2B	X	-40.597	5.5
29	MP2B	Z	23.439	5.5
30	MP2B	Mx	-.029	5.5
31	MP2C	X	-81.685	.5
32	MP2C	Z	47.161	.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
33	MP2C	Mx	.077	.5
34	MP2C	X	-81.685	5.5
35	MP2C	Z	47.161	5.5
36	MP2C	Mx	.077	5.5
37	MP3A	X	-33.377	1.5
38	MP3A	Z	19.27	1.5
39	MP3A	Mx	.017	1.5
40	MP3A	X	-33.377	4
41	MP3A	Z	19.27	4
42	MP3A	Mx	.017	4
43	MP3B	X	-23.913	1.5
44	MP3B	Z	13.806	1.5
45	MP3B	Mx	-.014	1.5
46	MP3B	X	-23.913	4
47	MP3B	Z	13.806	4
48	MP3B	Mx	-.014	4
49	MP3C	X	-57.976	1.5
50	MP3C	Z	33.473	1.5
51	MP3C	Mx	.014	1.5
52	MP3C	X	-57.976	4
53	MP3C	Z	33.473	4
54	MP3C	Mx	.014	4
55	M17	X	-87.108	1.25
56	M17	Z	50.292	1.25
57	M17	Mx	0	1.25
58	MP2A	X	-39.115	4
59	MP2A	Z	22.583	4
60	MP2A	Mx	-.02	4
61	MP2B	X	-35.358	4
62	MP2B	Z	20.414	4
63	MP2B	Mx	.02	4
64	MP2C	X	-48.878	4
65	MP2C	Z	28.22	4
66	MP2C	Mx	-.012	4
67	MP1A	X	-36.602	3
68	MP1A	Z	21.132	3
69	MP1A	Mx	-.018	3
70	MP1B	X	-32.109	3
71	MP1B	Z	18.538	3
72	MP1B	Mx	.018	3
73	MP1C	X	-48.279	3
74	MP1C	Z	27.874	3
75	MP1C	Mx	-.012	3
76	MP1A	X	-78.759	1.5
77	MP1A	Z	45.472	1.5
78	MP1A	Mx	.039	1.5
79	MP1A	X	-78.759	4.5
80	MP1A	Z	45.472	4.5
81	MP1A	Mx	.039	4.5
82	MP1B	X	-89.03	1.5
83	MP1B	Z	51.402	1.5
84	MP1B	Mx	-.051	1.5
85	MP1B	X	-89.03	4.5
86	MP1B	Z	51.402	4.5
87	MP1B	Mx	-.051	4.5
88	MP1C	X	-52.065	1.5
89	MP1C	Z	30.06	1.5
90	MP1C	Mx	.013	1.5
91	MP1C	X	-52.065	4.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
92	MP1C	Z	30.06	4.5
93	MP1C	Mx	.013	4.5
94	MP4A	X	-78.759	1.5
95	MP4A	Z	45.472	1.5
96	MP4A	Mx	.039	1.5
97	MP4A	X	-78.759	4.5
98	MP4A	Z	45.472	4.5
99	MP4A	Mx	.039	4.5
100	MP4B	X	-89.03	1.5
101	MP4B	Z	51.402	1.5
102	MP4B	Mx	-.051	1.5
103	MP4B	X	-89.03	4.5
104	MP4B	Z	51.402	4.5
105	MP4B	Mx	-.051	4.5
106	MP4C	X	-52.065	1.5
107	MP4C	Z	30.06	1.5
108	MP4C	Mx	.013	1.5
109	MP4C	X	-52.065	4.5
110	MP4C	Z	30.06	4.5
111	MP4C	Mx	.013	4.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-45.069	.5
2	MP2A	Z	0	.5
3	MP2A	Mx	.023	.5
4	MP2A	X	-45.069	5.5
5	MP2A	Z	0	5.5
6	MP2A	Mx	.023	5.5
7	MP2B	X	-69.844	.5
8	MP2B	Z	0	.5
9	MP2B	Mx	.003	.5
10	MP2B	X	-69.844	5.5
11	MP2B	Z	0	5.5
12	MP2B	Mx	.003	5.5
13	MP2C	X	-104.577	.5
14	MP2C	Z	0	.5
15	MP2C	Mx	-.074	.5
16	MP2C	X	-104.577	5.5
17	MP2C	Z	0	5.5
18	MP2C	Mx	-.074	5.5
19	MP2A	X	-45.069	.5
20	MP2A	Z	0	.5
21	MP2A	Mx	.023	.5
22	MP2A	X	-45.069	5.5
23	MP2A	Z	0	5.5
24	MP2A	Mx	.023	5.5
25	MP2B	X	-69.844	.5
26	MP2B	Z	0	.5
27	MP2B	Mx	-.057	.5
28	MP2B	X	-69.844	5.5
29	MP2B	Z	0	5.5
30	MP2B	Mx	-.057	5.5
31	MP2C	X	-104.577	.5
32	MP2C	Z	0	.5
33	MP2C	Mx	.065	.5
34	MP2C	X	-104.577	5.5
35	MP2C	Z	0	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
36	MP2C	Mx	.065	5.5
37	MP3A	X	-26.113	1.5
38	MP3A	Z	0	1.5
39	MP3A	Mx	.013	1.5
40	MP3A	X	-26.113	4
41	MP3A	Z	0	4
42	MP3A	Mx	.013	4
43	MP3B	X	-46.652	1.5
44	MP3B	Z	0	1.5
45	MP3B	Mx	-.018	1.5
46	MP3B	X	-46.652	4
47	MP3B	Z	0	4
48	MP3B	Mx	-.018	4
49	MP3C	X	-75.447	1.5
50	MP3C	Z	0	1.5
51	MP3C	Mx	-.003	1.5
52	MP3C	X	-75.447	4
53	MP3C	Z	0	4
54	MP3C	Mx	-.003	4
55	M17	X	-93.233	1.25
56	M17	Z	0	1.25
57	M17	Mx	0	1.25
58	MP2A	X	-40.233	4
59	MP2A	Z	0	4
60	MP2A	Mx	-.02	4
61	MP2B	X	-48.385	4
62	MP2B	Z	0	4
63	MP2B	Mx	.019	4
64	MP2C	X	-59.813	4
65	MP2C	Z	0	4
66	MP2C	Mx	.003	4
67	MP1A	X	-36.365	3
68	MP1A	Z	0	3
69	MP1A	Mx	-.018	3
70	MP1B	X	-46.115	3
71	MP1B	Z	0	3
72	MP1B	Mx	.018	3
73	MP1C	X	-59.784	3
74	MP1C	Z	0	3
75	MP1C	Mx	.003	3
76	MP1A	X	-104.43	1.5
77	MP1A	Z	0	1.5
78	MP1A	Mx	.052	1.5
79	MP1A	X	-104.43	4.5
80	MP1A	Z	0	4.5
81	MP1A	Mx	.052	4.5
82	MP1B	X	-82.141	1.5
83	MP1B	Z	0	1.5
84	MP1B	Mx	-.031	1.5
85	MP1B	X	-82.141	4.5
86	MP1B	Z	0	4.5
87	MP1B	Mx	-.031	4.5
88	MP1C	X	-50.895	1.5
89	MP1C	Z	0	1.5
90	MP1C	Mx	-.002	1.5
91	MP1C	X	-50.895	4.5
92	MP1C	Z	0	4.5
93	MP1C	Mx	-.002	4.5
94	MP4A	X	-104.43	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
95	MP4A	Z	0	1.5
96	MP4A	Mx	.052	1.5
97	MP4A	X	-104.43	4.5
98	MP4A	Z	0	4.5
99	MP4A	Mx	.052	4.5
100	MP4B	X	-82.141	1.5
101	MP4B	Z	0	1.5
102	MP4B	Mx	-.031	1.5
103	MP4B	X	-82.141	4.5
104	MP4B	Z	0	4.5
105	MP4B	Mx	-.031	4.5
106	MP4C	X	-50.895	1.5
107	MP4C	Z	0	1.5
108	MP4C	Mx	-.002	1.5
109	MP4C	X	-50.895	4.5
110	MP4C	Z	0	4.5
111	MP4C	Mx	-.002	4.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-52.013	.5
2	MP2A	Z	-30.03	.5
3	MP2A	Mx	.006	.5
4	MP2A	X	-52.013	5.5
5	MP2A	Z	-30.03	5.5
6	MP2A	Mx	.006	5.5
7	MP2B	X	-84.886	.5
8	MP2B	Z	-49.009	.5
9	MP2B	Mx	.045	.5
10	MP2B	X	-84.886	5.5
11	MP2B	Z	-49.009	5.5
12	MP2B	Mx	.045	5.5
13	MP2C	X	-73.876	.5
14	MP2C	Z	-42.652	.5
15	MP2C	Mx	-.071	.5
16	MP2C	X	-73.876	5.5
17	MP2C	Z	-42.652	5.5
18	MP2C	Mx	-.071	5.5
19	MP2A	X	-52.013	.5
20	MP2A	Z	-30.03	.5
21	MP2A	Mx	.046	.5
22	MP2A	X	-52.013	5.5
23	MP2A	Z	-30.03	5.5
24	MP2A	Mx	.046	5.5
25	MP2B	X	-84.886	.5
26	MP2B	Z	-49.009	.5
27	MP2B	Mx	-.078	.5
28	MP2B	X	-84.886	5.5
29	MP2B	Z	-49.009	5.5
30	MP2B	Mx	-.078	5.5
31	MP2C	X	-73.876	.5
32	MP2C	Z	-42.652	.5
33	MP2C	Mx	.022	.5
34	MP2C	X	-73.876	5.5
35	MP2C	Z	-42.652	5.5
36	MP2C	Mx	.022	5.5
37	MP3A	X	-33.377	1.5
38	MP3A	Z	-19.27	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
39	MP3A	Mx	.017	1.5
40	MP3A	X	-33.377	4
41	MP3A	Z	-19.27	4
42	MP3A	Mx	.017	4
43	MP3B	X	-60.63	1.5
44	MP3B	Z	-35.005	1.5
45	MP3B	Mx	-.012	1.5
46	MP3B	X	-60.63	4
47	MP3B	Z	-35.005	4
48	MP3B	Mx	-.012	4
49	MP3C	X	-51.502	1.5
50	MP3C	Z	-29.735	1.5
51	MP3C	Mx	-.017	1.5
52	MP3C	X	-51.502	4
53	MP3C	Z	-29.735	4
54	MP3C	Mx	-.017	4
55	M17	X	-87.108	1.25
56	M17	Z	-50.292	1.25
57	M17	Mx	0	1.25
58	MP2A	X	-39.115	4
59	MP2A	Z	-22.583	4
60	MP2A	Mx	-.02	4
61	MP2B	X	-49.931	4
62	MP2B	Z	-28.828	4
63	MP2B	Mx	.01	4
64	MP2C	X	-46.308	4
65	MP2C	Z	-26.736	4
66	MP2C	Mx	.015	4
67	MP1A	X	-36.602	3
68	MP1A	Z	-21.132	3
69	MP1A	Mx	-.018	3
70	MP1B	X	-49.539	3
71	MP1B	Z	-28.601	3
72	MP1B	Mx	.01	3
73	MP1C	X	-45.206	3
74	MP1C	Z	-26.1	3
75	MP1C	Mx	.015	3
76	MP1A	X	-78.759	1.5
77	MP1A	Z	-45.472	1.5
78	MP1A	Mx	.039	1.5
79	MP1A	X	-78.759	4.5
80	MP1A	Z	-45.472	4.5
81	MP1A	Mx	.039	4.5
82	MP1B	X	-49.186	1.5
83	MP1B	Z	-28.398	1.5
84	MP1B	Mx	-.01	1.5
85	MP1B	X	-49.186	4.5
86	MP1B	Z	-28.398	4.5
87	MP1B	Mx	-.01	4.5
88	MP1C	X	-59.091	1.5
89	MP1C	Z	-34.116	1.5
90	MP1C	Mx	-.02	1.5
91	MP1C	X	-59.091	4.5
92	MP1C	Z	-34.116	4.5
93	MP1C	Mx	-.02	4.5
94	MP4A	X	-78.759	1.5
95	MP4A	Z	-45.472	1.5
96	MP4A	Mx	.039	1.5
97	MP4A	X	-78.759	4.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
98	MP4A	Z	-45.472	4.5
99	MP4A	Mx	.039	4.5
100	MP4B	X	-49.186	1.5
101	MP4B	Z	-28.398	1.5
102	MP4B	Mx	-.01	1.5
103	MP4B	X	-49.186	4.5
104	MP4B	Z	-28.398	4.5
105	MP4B	Mx	-.01	4.5
106	MP4C	X	-59.091	1.5
107	MP4C	Z	-34.116	1.5
108	MP4C	Mx	-.02	1.5
109	MP4C	X	-59.091	4.5
110	MP4C	Z	-34.116	4.5
111	MP4C	Mx	-.02	4.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-45.021	.5
2	MP2A	Z	-77.978	.5
3	MP2A	Mx	-.029	.5
4	MP2A	X	-45.021	5.5
5	MP2A	Z	-77.978	5.5
6	MP2A	Mx	-.029	5.5
7	MP2B	X	-51.612	.5
8	MP2B	Z	-89.395	.5
9	MP2B	Mx	.077	.5
10	MP2B	X	-51.612	5.5
11	MP2B	Z	-89.395	5.5
12	MP2B	Mx	.077	5.5
13	MP2C	X	-27.889	.5
14	MP2C	Z	-48.306	.5
15	MP2C	Mx	-.041	.5
16	MP2C	X	-27.889	5.5
17	MP2C	Z	-48.306	5.5
18	MP2C	Mx	-.041	5.5
19	MP2A	X	-45.021	.5
20	MP2A	Z	-77.978	.5
21	MP2A	Mx	.074	.5
22	MP2A	X	-45.021	5.5
23	MP2A	Z	-77.978	5.5
24	MP2A	Mx	.074	5.5
25	MP2B	X	-51.612	.5
26	MP2B	Z	-89.395	.5
27	MP2B	Mx	-.059	.5
28	MP2B	X	-51.612	5.5
29	MP2B	Z	-89.395	5.5
30	MP2B	Mx	-.059	5.5
31	MP2C	X	-27.889	.5
32	MP2C	Z	-48.306	.5
33	MP2C	Mx	-.01	.5
34	MP2C	X	-27.889	5.5
35	MP2C	Z	-48.306	5.5
36	MP2C	Mx	-.01	5.5
37	MP3A	X	-31.698	1.5
38	MP3A	Z	-54.903	1.5
39	MP3A	Mx	.016	1.5
40	MP3A	X	-31.698	4
41	MP3A	Z	-54.903	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
42	MP3A	Mx	.016	4
43	MP3B	X	-37.163	1.5
44	MP3B	Z	-64.368	1.5
45	MP3B	Mx	.006	1.5
46	MP3B	X	-37.163	4
47	MP3B	Z	-64.368	4
48	MP3B	Mx	.006	4
49	MP3C	X	-17.496	1.5
50	MP3C	Z	-30.304	1.5
51	MP3C	Mx	-.016	1.5
52	MP3C	X	-17.496	4
53	MP3C	Z	-30.304	4
54	MP3C	Mx	-.016	4
55	M17	X	-57.642	1.25
56	M17	Z	-99.839	1.25
57	M17	Mx	0	1.25
58	MP2A	X	-27.515	4
59	MP2A	Z	-47.658	4
60	MP2A	Mx	-.014	4
61	MP2B	X	-29.684	4
62	MP2B	Z	-51.414	4
63	MP2B	Mx	-.005	4
64	MP2C	X	-21.879	4
65	MP2C	Z	-37.895	4
66	MP2C	Mx	.02	4
67	MP1A	X	-27.032	3
68	MP1A	Z	-46.82	3
69	MP1A	Mx	-.014	3
70	MP1B	X	-29.626	3
71	MP1B	Z	-51.313	3
72	MP1B	Mx	-.005	3
73	MP1C	X	-20.29	3
74	MP1C	Z	-35.143	3
75	MP1C	Mx	.018	3
76	MP1A	X	-31.986	1.5
77	MP1A	Z	-55.401	1.5
78	MP1A	Mx	.016	1.5
79	MP1A	X	-31.986	4.5
80	MP1A	Z	-55.401	4.5
81	MP1A	Mx	.016	4.5
82	MP1B	X	-26.056	1.5
83	MP1B	Z	-45.13	1.5
84	MP1B	Mx	.005	1.5
85	MP1B	X	-26.056	4.5
86	MP1B	Z	-45.13	4.5
87	MP1B	Mx	.005	4.5
88	MP1C	X	-47.397	1.5
89	MP1C	Z	-82.095	1.5
90	MP1C	Mx	-.043	1.5
91	MP1C	X	-47.397	4.5
92	MP1C	Z	-82.095	4.5
93	MP1C	Mx	-.043	4.5
94	MP4A	X	-31.986	1.5
95	MP4A	Z	-55.401	1.5
96	MP4A	Mx	.016	1.5
97	MP4A	X	-31.986	4.5
98	MP4A	Z	-55.401	4.5
99	MP4A	Mx	.016	4.5
100	MP4B	X	-26.056	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
101	MP4B	Z	-45.13	1.5
102	MP4B	Mx	.005	1.5
103	MP4B	X	-26.056	4.5
104	MP4B	Z	-45.13	4.5
105	MP4B	Mx	.005	4.5
106	MP4C	X	-47.397	1.5
107	MP4C	Z	-82.095	1.5
108	MP4C	Mx	-.043	1.5
109	MP4C	X	-47.397	4.5
110	MP4C	Z	-82.095	4.5
111	MP4C	Mx	-.043	4.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	0	.5
2	MP2A	Z	-27.638	.5
3	MP2A	Mx	-.018	.5
4	MP2A	X	0	5.5
5	MP2A	Z	-27.638	5.5
6	MP2A	Mx	-.018	5.5
7	MP2B	X	0	.5
8	MP2B	Z	-24.099	.5
9	MP2B	Mx	.02	.5
10	MP2B	X	0	5.5
11	MP2B	Z	-24.099	5.5
12	MP2B	Mx	.02	5.5
13	MP2C	X	0	.5
14	MP2C	Z	-19.139	.5
15	MP2C	Mx	-.008	.5
16	MP2C	X	0	5.5
17	MP2C	Z	-19.139	5.5
18	MP2C	Mx	-.008	5.5
19	MP2A	X	0	.5
20	MP2A	Z	-27.638	.5
21	MP2A	Mx	.018	.5
22	MP2A	X	0	5.5
23	MP2A	Z	-27.638	5.5
24	MP2A	Mx	.018	5.5
25	MP2B	X	0	.5
26	MP2B	Z	-24.099	.5
27	MP2B	Mx	-.005	.5
28	MP2B	X	0	5.5
29	MP2B	Z	-24.099	5.5
30	MP2B	Mx	-.005	5.5
31	MP2C	X	0	.5
32	MP2C	Z	-19.139	.5
33	MP2C	Mx	-.011	.5
34	MP2C	X	0	5.5
35	MP2C	Z	-19.139	5.5
36	MP2C	Mx	-.011	5.5
37	MP3A	X	0	1.5
38	MP3A	Z	-16.471	1.5
39	MP3A	Mx	0	1.5
40	MP3A	X	0	4
41	MP3A	Z	-16.471	4
42	MP3A	Mx	0	4
43	MP3B	X	0	1.5
44	MP3B	Z	-12.569	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
45	MP3B	Mx	.004	1.5
46	MP3B	X	0	4
47	MP3B	Z	-12.569	4
48	MP3B	Mx	.004	4
49	MP3C	X	0	1.5
50	MP3C	Z	-7.099	1.5
51	MP3C	Mx	-.004	1.5
52	MP3C	X	0	4
53	MP3C	Z	-7.099	4
54	MP3C	Mx	-.004	4
55	M17	X	0	1.25
56	M17	Z	-28.531	1.25
57	M17	Mx	0	1.25
58	MP2A	X	0	4
59	MP2A	Z	-13.897	4
60	MP2A	Mx	0	4
61	MP2B	X	0	4
62	MP2B	Z	-12.152	4
63	MP2B	Mx	-.004	4
64	MP2C	X	0	4
65	MP2C	Z	-9.706	4
66	MP2C	Mx	.005	4
67	MP1A	X	0	3
68	MP1A	Z	-13.897	3
69	MP1A	Mx	0	3
70	MP1B	X	0	3
71	MP1B	Z	-11.838	3
72	MP1B	Mx	-.004	3
73	MP1C	X	0	3
74	MP1C	Z	-8.952	3
75	MP1C	Mx	.004	3
76	MP1A	X	0	1.5
77	MP1A	Z	-9.825	1.5
78	MP1A	Mx	0	1.5
79	MP1A	X	0	4.5
80	MP1A	Z	-9.825	4.5
81	MP1A	Mx	0	4.5
82	MP1B	X	0	1.5
83	MP1B	Z	-13.511	1.5
84	MP1B	Mx	.004	1.5
85	MP1B	X	0	4.5
86	MP1B	Z	-13.511	4.5
87	MP1B	Mx	.004	4.5
88	MP1C	X	0	1.5
89	MP1C	Z	-18.679	1.5
90	MP1C	Mx	-.009	1.5
91	MP1C	X	0	4.5
92	MP1C	Z	-18.679	4.5
93	MP1C	Mx	-.009	4.5
94	MP4A	X	0	1.5
95	MP4A	Z	-9.825	1.5
96	MP4A	Mx	0	1.5
97	MP4A	X	0	4.5
98	MP4A	Z	-9.825	4.5
99	MP4A	Mx	0	4.5
100	MP4B	X	0	1.5
101	MP4B	Z	-13.511	1.5
102	MP4B	Mx	.004	1.5
103	MP4B	X	0	4.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
104	MP4B	Z	-13.511	4.5
105	MP4B	Mx	.004	4.5
106	MP4C	X	0	1.5
107	MP4C	Z	-18.679	1.5
108	MP4C	Mx	-.009	1.5
109	MP4C	X	0	4.5
110	MP4C	Z	-18.679	4.5
111	MP4C	Mx	-.009	4.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	12.748	.5
2	MP2A	Z	-22.081	.5
3	MP2A	Mx	-.021	.5
4	MP2A	X	12.748	5.5
5	MP2A	Z	-22.081	5.5
6	MP2A	Mx	-.021	5.5
7	MP2B	X	10.038	.5
8	MP2B	Z	-17.386	.5
9	MP2B	Mx	.014	.5
10	MP2B	X	10.038	5.5
11	MP2B	Z	-17.386	5.5
12	MP2B	Mx	.014	5.5
13	MP2C	X	10.946	.5
14	MP2C	Z	-18.958	.5
15	MP2C	Mx	-.000595	.5
16	MP2C	X	10.946	5.5
17	MP2C	Z	-18.958	5.5
18	MP2C	Mx	-.000595	5.5
19	MP2A	X	12.748	.5
20	MP2A	Z	-22.081	.5
21	MP2A	Mx	.008	.5
22	MP2A	X	12.748	5.5
23	MP2A	Z	-22.081	5.5
24	MP2A	Mx	.008	5.5
25	MP2B	X	10.038	.5
26	MP2B	Z	-17.386	.5
27	MP2B	Mx	.005	.5
28	MP2B	X	10.038	5.5
29	MP2B	Z	-17.386	5.5
30	MP2B	Mx	.005	5.5
31	MP2C	X	10.946	.5
32	MP2C	Z	-18.958	.5
33	MP2C	Mx	-.017	.5
34	MP2C	X	10.946	5.5
35	MP2C	Z	-18.958	5.5
36	MP2C	Mx	-.017	5.5
37	MP3A	X	7.055	1.5
38	MP3A	Z	-12.22	1.5
39	MP3A	Mx	-.004	1.5
40	MP3A	X	7.055	4
41	MP3A	Z	-12.22	4
42	MP3A	Mx	-.004	4
43	MP3B	X	4.066	1.5
44	MP3B	Z	-7.043	1.5
45	MP3B	Mx	.004	1.5
46	MP3B	X	4.066	4
47	MP3B	Z	-7.043	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
48	MP3B	Mx	.004	4
49	MP3C	X	5.067	1.5
50	MP3C	Z	-8.777	1.5
51	MP3C	Mx	-.004	1.5
52	MP3C	X	5.067	4
53	MP3C	Z	-8.777	4
54	MP3C	Mx	-.004	4
55	M17	X	13.489	1.25
56	M17	Z	-23.364	1.25
57	M17	Mx	0	1.25
58	MP2A	X	6.421	4
59	MP2A	Z	-11.121	4
60	MP2A	Mx	.003	4
61	MP2B	X	5.084	4
62	MP2B	Z	-8.806	4
63	MP2B	Mx	-.005	4
64	MP2C	X	5.532	4
65	MP2C	Z	-9.581	4
66	MP2C	Mx	.005	4
67	MP1A	X	6.326	3
68	MP1A	Z	-10.956	3
69	MP1A	Mx	.003	3
70	MP1B	X	4.748	3
71	MP1B	Z	-8.225	3
72	MP1B	Mx	-.004	3
73	MP1C	X	5.277	3
74	MP1C	Z	-9.139	3
75	MP1C	Mx	.004	3
76	MP1A	X	6.028	1.5
77	MP1A	Z	-10.44	1.5
78	MP1A	Mx	-.003	1.5
79	MP1A	X	6.028	4.5
80	MP1A	Z	-10.44	4.5
81	MP1A	Mx	-.003	4.5
82	MP1B	X	8.852	1.5
83	MP1B	Z	-15.332	1.5
84	MP1B	Mx	.008	1.5
85	MP1B	X	8.852	4.5
86	MP1B	Z	-15.332	4.5
87	MP1B	Mx	.008	4.5
88	MP1C	X	7.906	1.5
89	MP1C	Z	-13.693	1.5
90	MP1C	Mx	-.006	1.5
91	MP1C	X	7.906	4.5
92	MP1C	Z	-13.693	4.5
93	MP1C	Mx	-.006	4.5
94	MP4A	X	6.028	1.5
95	MP4A	Z	-10.44	1.5
96	MP4A	Mx	-.003	1.5
97	MP4A	X	6.028	4.5
98	MP4A	Z	-10.44	4.5
99	MP4A	Mx	-.003	4.5
100	MP4B	X	8.852	1.5
101	MP4B	Z	-15.332	1.5
102	MP4B	Mx	.008	1.5
103	MP4B	X	8.852	4.5
104	MP4B	Z	-15.332	4.5
105	MP4B	Mx	.008	4.5
106	MP4C	X	7.906	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
107	MP4C	Z	-13.693	1.5
108	MP4C	Mx	-.006	1.5
109	MP4C	X	7.906	4.5
110	MP4C	Z	-13.693	4.5
111	MP4C	Mx	-.006	4.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	18.372	.5
2	MP2A	Z	-10.607	.5
3	MP2A	Mx	-.016	.5
4	MP2A	X	18.372	5.5
5	MP2A	Z	-10.607	5.5
6	MP2A	Mx	-.016	5.5
7	MP2B	X	16.742	.5
8	MP2B	Z	-9.666	.5
9	MP2B	Mx	.007	.5
10	MP2B	X	16.742	5.5
11	MP2B	Z	-9.666	5.5
12	MP2B	Mx	.007	5.5
13	MP2C	X	22.61	.5
14	MP2C	Z	-13.054	.5
15	MP2C	Mx	.01	.5
16	MP2C	X	22.61	5.5
17	MP2C	Z	-13.054	5.5
18	MP2C	Mx	.01	5.5
19	MP2A	X	18.372	.5
20	MP2A	Z	-10.607	.5
21	MP2A	Mx	-.002	.5
22	MP2A	X	18.372	5.5
23	MP2A	Z	-10.607	5.5
24	MP2A	Mx	-.002	5.5
25	MP2B	X	16.742	.5
26	MP2B	Z	-9.666	.5
27	MP2B	Mx	.012	.5
28	MP2B	X	16.742	5.5
29	MP2B	Z	-9.666	5.5
30	MP2B	Mx	.012	5.5
31	MP2C	X	22.61	.5
32	MP2C	Z	-13.054	.5
33	MP2C	Mx	-.021	.5
34	MP2C	X	22.61	5.5
35	MP2C	Z	-13.054	5.5
36	MP2C	Mx	-.021	5.5
37	MP3A	X	8.131	1.5
38	MP3A	Z	-4.694	1.5
39	MP3A	Mx	-.004	1.5
40	MP3A	X	8.131	4
41	MP3A	Z	-4.694	4
42	MP3A	Mx	-.004	4
43	MP3B	X	6.333	1.5
44	MP3B	Z	-3.656	1.5
45	MP3B	Mx	.004	1.5
46	MP3B	X	6.333	4
47	MP3B	Z	-3.656	4
48	MP3B	Mx	.004	4
49	MP3C	X	12.803	1.5
50	MP3C	Z	-7.392	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
51	MP3C	Mx	-.003	1.5
52	MP3C	X	12.803	4
53	MP3C	Z	-7.392	4
54	MP3C	Mx	-.003	4
55	M17	X	20.675	1.25
56	M17	Z	-11.937	1.25
57	M17	Mx	0	1.25
58	MP2A	X	9.292	4
59	MP2A	Z	-5.365	4
60	MP2A	Mx	.005	4
61	MP2B	X	8.488	4
62	MP2B	Z	-4.901	4
63	MP2B	Mx	-.005	4
64	MP2C	X	11.382	4
65	MP2C	Z	-6.571	4
66	MP2C	Mx	.003	4
67	MP1A	X	8.799	3
68	MP1A	Z	-5.08	3
69	MP1A	Mx	.004	3
70	MP1B	X	7.85	3
71	MP1B	Z	-4.532	3
72	MP1B	Mx	-.004	3
73	MP1C	X	11.264	3
74	MP1C	Z	-6.503	3
75	MP1C	Mx	.003	3
76	MP1A	X	14.304	1.5
77	MP1A	Z	-8.258	1.5
78	MP1A	Mx	-.007	1.5
79	MP1A	X	14.304	4.5
80	MP1A	Z	-8.258	4.5
81	MP1A	Mx	-.007	4.5
82	MP1B	X	16.002	1.5
83	MP1B	Z	-9.239	1.5
84	MP1B	Mx	.009	1.5
85	MP1B	X	16.002	4.5
86	MP1B	Z	-9.239	4.5
87	MP1B	Mx	.009	4.5
88	MP1C	X	9.889	1.5
89	MP1C	Z	-5.709	1.5
90	MP1C	Mx	-.002	1.5
91	MP1C	X	9.889	4.5
92	MP1C	Z	-5.709	4.5
93	MP1C	Mx	-.002	4.5
94	MP4A	X	14.304	1.5
95	MP4A	Z	-8.258	1.5
96	MP4A	Mx	-.007	1.5
97	MP4A	X	14.304	4.5
98	MP4A	Z	-8.258	4.5
99	MP4A	Mx	-.007	4.5
100	MP4B	X	16.002	1.5
101	MP4B	Z	-9.239	1.5
102	MP4B	Mx	.009	1.5
103	MP4B	X	16.002	4.5
104	MP4B	Z	-9.239	4.5
105	MP4B	Mx	.009	4.5
106	MP4C	X	9.889	1.5
107	MP4C	Z	-5.709	1.5
108	MP4C	Mx	-.002	1.5
109	MP4C	X	9.889	4.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
110	MP4C	Z	-5.709	4.5
111	MP4C	Mx	-.002	4.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	19.074	.5
2	MP2A	Z	0	.5
3	MP2A	Mx	-.01	.5
4	MP2A	X	19.074	5.5
5	MP2A	Z	0	5.5
6	MP2A	Mx	-.01	5.5
7	MP2B	X	22.612	.5
8	MP2B	Z	0	.5
9	MP2B	Mx	-.001	.5
10	MP2B	X	22.612	5.5
11	MP2B	Z	0	5.5
12	MP2B	Mx	-.001	5.5
13	MP2C	X	27.573	.5
14	MP2C	Z	0	.5
15	MP2C	Mx	.02	.5
16	MP2C	X	27.573	5.5
17	MP2C	Z	0	5.5
18	MP2C	Mx	.02	5.5
19	MP2A	X	19.074	.5
20	MP2A	Z	0	.5
21	MP2A	Mx	-.01	.5
22	MP2A	X	19.074	5.5
23	MP2A	Z	0	5.5
24	MP2A	Mx	-.01	5.5
25	MP2B	X	22.612	.5
26	MP2B	Z	0	.5
27	MP2B	Mx	.018	.5
28	MP2B	X	22.612	5.5
29	MP2B	Z	0	5.5
30	MP2B	Mx	.018	5.5
31	MP2C	X	27.573	.5
32	MP2C	Z	0	.5
33	MP2C	Mx	-.017	.5
34	MP2C	X	27.573	5.5
35	MP2C	Z	0	5.5
36	MP2C	Mx	-.017	5.5
37	MP3A	X	7.028	1.5
38	MP3A	Z	0	1.5
39	MP3A	Mx	-.004	1.5
40	MP3A	X	7.028	4
41	MP3A	Z	0	4
42	MP3A	Mx	-.004	4
43	MP3B	X	10.929	1.5
44	MP3B	Z	0	1.5
45	MP3B	Mx	.004	1.5
46	MP3B	X	10.929	4
47	MP3B	Z	0	4
48	MP3B	Mx	.004	4
49	MP3C	X	16.399	1.5
50	MP3C	Z	0	1.5
51	MP3C	Mx	.000715	1.5
52	MP3C	X	16.399	4
53	MP3C	Z	0	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
54	MP3C	Mx	.000715	4
55	M17	X	22.321	1.25
56	M17	Z	0	1.25
57	M17	Mx	0	1.25
58	MP2A	X	9.674	4
59	MP2A	Z	0	4
60	MP2A	Mx	.005	4
61	MP2B	X	11.419	4
62	MP2B	Z	0	4
63	MP2B	Mx	-.004	4
64	MP2C	X	13.865	4
65	MP2C	Z	0	4
66	MP2C	Mx	-.000604	4
67	MP1A	X	8.914	3
68	MP1A	Z	0	3
69	MP1A	Mx	.004	3
70	MP1B	X	10.973	3
71	MP1B	Z	0	3
72	MP1B	Mx	-.004	3
73	MP1C	X	13.859	3
74	MP1C	Z	0	3
75	MP1C	Mx	-.000604	3
76	MP1A	X	18.747	1.5
77	MP1A	Z	0	1.5
78	MP1A	Mx	-.009	1.5
79	MP1A	X	18.747	4.5
80	MP1A	Z	0	4.5
81	MP1A	Mx	-.009	4.5
82	MP1B	X	15.061	1.5
83	MP1B	Z	0	1.5
84	MP1B	Mx	.006	1.5
85	MP1B	X	15.061	4.5
86	MP1B	Z	0	4.5
87	MP1B	Mx	.006	4.5
88	MP1C	X	9.893	1.5
89	MP1C	Z	0	1.5
90	MP1C	Mx	.000431	1.5
91	MP1C	X	9.893	4.5
92	MP1C	Z	0	4.5
93	MP1C	Mx	.000431	4.5
94	MP4A	X	18.747	1.5
95	MP4A	Z	0	1.5
96	MP4A	Mx	-.009	1.5
97	MP4A	X	18.747	4.5
98	MP4A	Z	0	4.5
99	MP4A	Mx	-.009	4.5
100	MP4B	X	15.061	1.5
101	MP4B	Z	0	1.5
102	MP4B	Mx	.006	1.5
103	MP4B	X	15.061	4.5
104	MP4B	Z	0	4.5
105	MP4B	Mx	.006	4.5
106	MP4C	X	9.893	1.5
107	MP4C	Z	0	1.5
108	MP4C	Mx	.000431	1.5
109	MP4C	X	9.893	4.5
110	MP4C	Z	0	4.5
111	MP4C	Mx	.000431	4.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	18.372	.5
2	MP2A	Z	10.607	.5
3	MP2A	Mx	-.002	.5
4	MP2A	X	18.372	5.5
5	MP2A	Z	10.607	5.5
6	MP2A	Mx	-.002	5.5
7	MP2B	X	23.068	.5
8	MP2B	Z	13.318	.5
9	MP2B	Mx	-.012	.5
10	MP2B	X	23.068	5.5
11	MP2B	Z	13.318	5.5
12	MP2B	Mx	-.012	5.5
13	MP2C	X	21.495	.5
14	MP2C	Z	12.41	.5
15	MP2C	Mx	.021	.5
16	MP2C	X	21.495	5.5
17	MP2C	Z	12.41	5.5
18	MP2C	Mx	.021	5.5
19	MP2A	X	18.372	.5
20	MP2A	Z	10.607	.5
21	MP2A	Mx	-.016	.5
22	MP2A	X	18.372	5.5
23	MP2A	Z	10.607	5.5
24	MP2A	Mx	-.016	5.5
25	MP2B	X	23.068	.5
26	MP2B	Z	13.318	.5
27	MP2B	Mx	.021	.5
28	MP2B	X	23.068	5.5
29	MP2B	Z	13.318	5.5
30	MP2B	Mx	.021	5.5
31	MP2C	X	21.495	.5
32	MP2C	Z	12.41	.5
33	MP2C	Mx	-.006	.5
34	MP2C	X	21.495	5.5
35	MP2C	Z	12.41	5.5
36	MP2C	Mx	-.006	5.5
37	MP3A	X	8.131	1.5
38	MP3A	Z	4.694	1.5
39	MP3A	Mx	-.004	1.5
40	MP3A	X	8.131	4
41	MP3A	Z	4.694	4
42	MP3A	Mx	-.004	4
43	MP3B	X	13.307	1.5
44	MP3B	Z	7.683	1.5
45	MP3B	Mx	.003	1.5
46	MP3B	X	13.307	4
47	MP3B	Z	7.683	4
48	MP3B	Mx	.003	4
49	MP3C	X	11.574	1.5
50	MP3C	Z	6.682	1.5
51	MP3C	Mx	.004	1.5
52	MP3C	X	11.574	4
53	MP3C	Z	6.682	4
54	MP3C	Mx	.004	4
55	M17	X	20.675	1.25
56	M17	Z	11.937	1.25
57	M17	Mx	0	1.25
58	MP2A	X	9.292	4
59	MP2A	Z	5.365	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
60	MP2A	Mx	.005	4
61	MP2B	X	11.607	4
62	MP2B	Z	6.701	4
63	MP2B	Mx	-.002	4
64	MP2C	X	10.832	4
65	MP2C	Z	6.254	4
66	MP2C	Mx	-.004	4
67	MP1A	X	8.799	3
68	MP1A	Z	5.08	3
69	MP1A	Mx	.004	3
70	MP1B	X	11.53	3
71	MP1B	Z	6.657	3
72	MP1B	Mx	-.002	3
73	MP1C	X	10.615	3
74	MP1C	Z	6.129	3
75	MP1C	Mx	-.004	3
76	MP1A	X	14.304	1.5
77	MP1A	Z	8.258	1.5
78	MP1A	Mx	-.007	1.5
79	MP1A	X	14.304	4.5
80	MP1A	Z	8.258	4.5
81	MP1A	Mx	-.007	4.5
82	MP1B	X	9.413	1.5
83	MP1B	Z	5.434	1.5
84	MP1B	Mx	.002	1.5
85	MP1B	X	9.413	4.5
86	MP1B	Z	5.434	4.5
87	MP1B	Mx	.002	4.5
88	MP1C	X	11.051	1.5
89	MP1C	Z	6.38	1.5
90	MP1C	Mx	.004	1.5
91	MP1C	X	11.051	4.5
92	MP1C	Z	6.38	4.5
93	MP1C	Mx	.004	4.5
94	MP4A	X	14.304	1.5
95	MP4A	Z	8.258	1.5
96	MP4A	Mx	-.007	1.5
97	MP4A	X	14.304	4.5
98	MP4A	Z	8.258	4.5
99	MP4A	Mx	-.007	4.5
100	MP4B	X	9.413	1.5
101	MP4B	Z	5.434	1.5
102	MP4B	Mx	.002	1.5
103	MP4B	X	9.413	4.5
104	MP4B	Z	5.434	4.5
105	MP4B	Mx	.002	4.5
106	MP4C	X	11.051	1.5
107	MP4C	Z	6.38	1.5
108	MP4C	Mx	.004	1.5
109	MP4C	X	11.051	4.5
110	MP4C	Z	6.38	4.5
111	MP4C	Mx	.004	4.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	12.748	.5
2	MP2A	Z	22.081	.5
3	MP2A	Mx	.008	.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
4	MP2A	X	12.748	5.5
5	MP2A	Z	22.081	5.5
6	MP2A	Mx	.008	5.5
7	MP2B	X	13.69	.5
8	MP2B	Z	23.711	.5
9	MP2B	Mx	-.02	.5
10	MP2B	X	13.69	5.5
11	MP2B	Z	23.711	5.5
12	MP2B	Mx	-.02	5.5
13	MP2C	X	10.302	.5
14	MP2C	Z	17.843	.5
15	MP2C	Mx	.015	.5
16	MP2C	X	10.302	5.5
17	MP2C	Z	17.843	5.5
18	MP2C	Mx	.015	5.5
19	MP2A	X	12.748	.5
20	MP2A	Z	22.081	.5
21	MP2A	Mx	-.021	.5
22	MP2A	X	12.748	5.5
23	MP2A	Z	22.081	5.5
24	MP2A	Mx	-.021	5.5
25	MP2B	X	13.69	.5
26	MP2B	Z	23.711	.5
27	MP2B	Mx	.016	.5
28	MP2B	X	13.69	5.5
29	MP2B	Z	23.711	5.5
30	MP2B	Mx	.016	5.5
31	MP2C	X	10.302	.5
32	MP2C	Z	17.843	.5
33	MP2C	Mx	.004	.5
34	MP2C	X	10.302	5.5
35	MP2C	Z	17.843	5.5
36	MP2C	Mx	.004	5.5
37	MP3A	X	7.055	1.5
38	MP3A	Z	12.22	1.5
39	MP3A	Mx	-.004	1.5
40	MP3A	X	7.055	4
41	MP3A	Z	12.22	4
42	MP3A	Mx	-.004	4
43	MP3B	X	8.093	1.5
44	MP3B	Z	14.017	1.5
45	MP3B	Mx	-.001	1.5
46	MP3B	X	8.093	4
47	MP3B	Z	14.017	4
48	MP3B	Mx	-.001	4
49	MP3C	X	4.357	1.5
50	MP3C	Z	7.547	1.5
51	MP3C	Mx	.004	1.5
52	MP3C	X	4.357	4
53	MP3C	Z	7.547	4
54	MP3C	Mx	.004	4
55	M17	X	13.489	1.25
56	M17	Z	23.364	1.25
57	M17	Mx	0	1.25
58	MP2A	X	6.421	4
59	MP2A	Z	11.121	4
60	MP2A	Mx	.003	4
61	MP2B	X	6.885	4
62	MP2B	Z	11.925	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
63	MP2B	Mx	.001	4
64	MP2C	X	5.214	4
65	MP2C	Z	9.031	4
66	MP2C	Mx	-.005	4
67	MP1A	X	6.326	3
68	MP1A	Z	10.956	3
69	MP1A	Mx	.003	3
70	MP1B	X	6.873	3
71	MP1B	Z	11.905	3
72	MP1B	Mx	.001	3
73	MP1C	X	4.902	3
74	MP1C	Z	8.491	3
75	MP1C	Mx	-.004	3
76	MP1A	X	6.028	1.5
77	MP1A	Z	10.44	1.5
78	MP1A	Mx	-.003	1.5
79	MP1A	X	6.028	4.5
80	MP1A	Z	10.44	4.5
81	MP1A	Mx	-.003	4.5
82	MP1B	X	5.047	1.5
83	MP1B	Z	8.742	1.5
84	MP1B	Mx	-.000877	1.5
85	MP1B	X	5.047	4.5
86	MP1B	Z	8.742	4.5
87	MP1B	Mx	-.000877	4.5
88	MP1C	X	8.577	1.5
89	MP1C	Z	14.855	1.5
90	MP1C	Mx	.008	1.5
91	MP1C	X	8.577	4.5
92	MP1C	Z	14.855	4.5
93	MP1C	Mx	.008	4.5
94	MP4A	X	6.028	1.5
95	MP4A	Z	10.44	1.5
96	MP4A	Mx	-.003	1.5
97	MP4A	X	6.028	4.5
98	MP4A	Z	10.44	4.5
99	MP4A	Mx	-.003	4.5
100	MP4B	X	5.047	1.5
101	MP4B	Z	8.742	1.5
102	MP4B	Mx	-.000877	1.5
103	MP4B	X	5.047	4.5
104	MP4B	Z	8.742	4.5
105	MP4B	Mx	-.000877	4.5
106	MP4C	X	8.577	1.5
107	MP4C	Z	14.855	1.5
108	MP4C	Mx	.008	1.5
109	MP4C	X	8.577	4.5
110	MP4C	Z	14.855	4.5
111	MP4C	Mx	.008	4.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	0	.5
2	MP2A	Z	27.638	.5
3	MP2A	Mx	.018	.5
4	MP2A	X	0	5.5
5	MP2A	Z	27.638	5.5
6	MP2A	Mx	.018	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
7	MP2B	X	0	.5
8	MP2B	Z	24.099	.5
9	MP2B	Mx	-.02	.5
10	MP2B	X	0	5.5
11	MP2B	Z	24.099	5.5
12	MP2B	Mx	-.02	5.5
13	MP2C	X	0	.5
14	MP2C	Z	19.139	.5
15	MP2C	Mx	.008	.5
16	MP2C	X	0	5.5
17	MP2C	Z	19.139	5.5
18	MP2C	Mx	.008	5.5
19	MP2A	X	0	.5
20	MP2A	Z	27.638	.5
21	MP2A	Mx	-.018	.5
22	MP2A	X	0	5.5
23	MP2A	Z	27.638	5.5
24	MP2A	Mx	-.018	5.5
25	MP2B	X	0	.5
26	MP2B	Z	24.099	.5
27	MP2B	Mx	.005	.5
28	MP2B	X	0	5.5
29	MP2B	Z	24.099	5.5
30	MP2B	Mx	.005	5.5
31	MP2C	X	0	.5
32	MP2C	Z	19.139	.5
33	MP2C	Mx	.011	.5
34	MP2C	X	0	5.5
35	MP2C	Z	19.139	5.5
36	MP2C	Mx	.011	5.5
37	MP3A	X	0	1.5
38	MP3A	Z	16.471	1.5
39	MP3A	Mx	0	1.5
40	MP3A	X	0	4
41	MP3A	Z	16.471	4
42	MP3A	Mx	0	4
43	MP3B	X	0	1.5
44	MP3B	Z	12.569	1.5
45	MP3B	Mx	-.004	1.5
46	MP3B	X	0	4
47	MP3B	Z	12.569	4
48	MP3B	Mx	-.004	4
49	MP3C	X	0	1.5
50	MP3C	Z	7.099	1.5
51	MP3C	Mx	.004	1.5
52	MP3C	X	0	4
53	MP3C	Z	7.099	4
54	MP3C	Mx	.004	4
55	M17	X	0	1.25
56	M17	Z	28.531	1.25
57	M17	Mx	0	1.25
58	MP2A	X	0	4
59	MP2A	Z	13.897	4
60	MP2A	Mx	0	4
61	MP2B	X	0	4
62	MP2B	Z	12.152	4
63	MP2B	Mx	.004	4
64	MP2C	X	0	4
65	MP2C	Z	9.706	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
66	MP2C	Mx	-.005	4
67	MP1A	X	0	3
68	MP1A	Z	13.897	3
69	MP1A	Mx	0	3
70	MP1B	X	0	3
71	MP1B	Z	11.838	3
72	MP1B	Mx	.004	3
73	MP1C	X	0	3
74	MP1C	Z	8.952	3
75	MP1C	Mx	-.004	3
76	MP1A	X	0	1.5
77	MP1A	Z	9.825	1.5
78	MP1A	Mx	0	1.5
79	MP1A	X	0	4.5
80	MP1A	Z	9.825	4.5
81	MP1A	Mx	0	4.5
82	MP1B	X	0	1.5
83	MP1B	Z	13.511	1.5
84	MP1B	Mx	-.004	1.5
85	MP1B	X	0	4.5
86	MP1B	Z	13.511	4.5
87	MP1B	Mx	-.004	4.5
88	MP1C	X	0	1.5
89	MP1C	Z	18.679	1.5
90	MP1C	Mx	.009	1.5
91	MP1C	X	0	4.5
92	MP1C	Z	18.679	4.5
93	MP1C	Mx	.009	4.5
94	MP4A	X	0	1.5
95	MP4A	Z	9.825	1.5
96	MP4A	Mx	0	1.5
97	MP4A	X	0	4.5
98	MP4A	Z	9.825	4.5
99	MP4A	Mx	0	4.5
100	MP4B	X	0	1.5
101	MP4B	Z	13.511	1.5
102	MP4B	Mx	-.004	1.5
103	MP4B	X	0	4.5
104	MP4B	Z	13.511	4.5
105	MP4B	Mx	-.004	4.5
106	MP4C	X	0	1.5
107	MP4C	Z	18.679	1.5
108	MP4C	Mx	.009	1.5
109	MP4C	X	0	4.5
110	MP4C	Z	18.679	4.5
111	MP4C	Mx	.009	4.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-12.748	.5
2	MP2A	Z	22.081	.5
3	MP2A	Mx	.021	.5
4	MP2A	X	-12.748	5.5
5	MP2A	Z	22.081	5.5
6	MP2A	Mx	.021	5.5
7	MP2B	X	-10.038	.5
8	MP2B	Z	17.386	.5
9	MP2B	Mx	-.014	.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
10	MP2B	X	-10.038	5.5
11	MP2B	Z	17.386	5.5
12	MP2B	Mx	-.014	5.5
13	MP2C	X	-10.946	.5
14	MP2C	Z	18.958	.5
15	MP2C	Mx	.000595	.5
16	MP2C	X	-10.946	5.5
17	MP2C	Z	18.958	5.5
18	MP2C	Mx	.000595	5.5
19	MP2A	X	-12.748	.5
20	MP2A	Z	22.081	.5
21	MP2A	Mx	-.008	.5
22	MP2A	X	-12.748	5.5
23	MP2A	Z	22.081	5.5
24	MP2A	Mx	-.008	5.5
25	MP2B	X	-10.038	.5
26	MP2B	Z	17.386	.5
27	MP2B	Mx	-.005	.5
28	MP2B	X	-10.038	5.5
29	MP2B	Z	17.386	5.5
30	MP2B	Mx	-.005	5.5
31	MP2C	X	-10.946	.5
32	MP2C	Z	18.958	.5
33	MP2C	Mx	.017	.5
34	MP2C	X	-10.946	5.5
35	MP2C	Z	18.958	5.5
36	MP2C	Mx	.017	5.5
37	MP3A	X	-7.055	1.5
38	MP3A	Z	12.22	1.5
39	MP3A	Mx	.004	1.5
40	MP3A	X	-7.055	4
41	MP3A	Z	12.22	4
42	MP3A	Mx	.004	4
43	MP3B	X	-4.066	1.5
44	MP3B	Z	7.043	1.5
45	MP3B	Mx	-.004	1.5
46	MP3B	X	-4.066	4
47	MP3B	Z	7.043	4
48	MP3B	Mx	-.004	4
49	MP3C	X	-5.067	1.5
50	MP3C	Z	8.777	1.5
51	MP3C	Mx	.004	1.5
52	MP3C	X	-5.067	4
53	MP3C	Z	8.777	4
54	MP3C	Mx	.004	4
55	M17	X	-13.489	1.25
56	M17	Z	23.364	1.25
57	M17	Mx	0	1.25
58	MP2A	X	-6.421	4
59	MP2A	Z	11.121	4
60	MP2A	Mx	-.003	4
61	MP2B	X	-5.084	4
62	MP2B	Z	8.806	4
63	MP2B	Mx	.005	4
64	MP2C	X	-5.532	4
65	MP2C	Z	9.581	4
66	MP2C	Mx	-.005	4
67	MP1A	X	-6.326	3
68	MP1A	Z	10.956	3

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
69	MP1A	Mx	-.003	3
70	MP1B	X	-4.748	3
71	MP1B	Z	8.225	3
72	MP1B	Mx	.004	3
73	MP1C	X	-5.277	3
74	MP1C	Z	9.139	3
75	MP1C	Mx	-.004	3
76	MP1A	X	-6.028	1.5
77	MP1A	Z	10.44	1.5
78	MP1A	Mx	.003	1.5
79	MP1A	X	-6.028	4.5
80	MP1A	Z	10.44	4.5
81	MP1A	Mx	.003	4.5
82	MP1B	X	-8.852	1.5
83	MP1B	Z	15.332	1.5
84	MP1B	Mx	-.008	1.5
85	MP1B	X	-8.852	4.5
86	MP1B	Z	15.332	4.5
87	MP1B	Mx	-.008	4.5
88	MP1C	X	-7.906	1.5
89	MP1C	Z	13.693	1.5
90	MP1C	Mx	.006	1.5
91	MP1C	X	-7.906	4.5
92	MP1C	Z	13.693	4.5
93	MP1C	Mx	.006	4.5
94	MP4A	X	-6.028	1.5
95	MP4A	Z	10.44	1.5
96	MP4A	Mx	.003	1.5
97	MP4A	X	-6.028	4.5
98	MP4A	Z	10.44	4.5
99	MP4A	Mx	.003	4.5
100	MP4B	X	-8.852	1.5
101	MP4B	Z	15.332	1.5
102	MP4B	Mx	-.008	1.5
103	MP4B	X	-8.852	4.5
104	MP4B	Z	15.332	4.5
105	MP4B	Mx	-.008	4.5
106	MP4C	X	-7.906	1.5
107	MP4C	Z	13.693	1.5
108	MP4C	Mx	.006	1.5
109	MP4C	X	-7.906	4.5
110	MP4C	Z	13.693	4.5
111	MP4C	Mx	.006	4.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-18.372	.5
2	MP2A	Z	10.607	.5
3	MP2A	Mx	.016	.5
4	MP2A	X	-18.372	5.5
5	MP2A	Z	10.607	5.5
6	MP2A	Mx	.016	5.5
7	MP2B	X	-16.742	.5
8	MP2B	Z	9.666	.5
9	MP2B	Mx	-.007	.5
10	MP2B	X	-16.742	5.5
11	MP2B	Z	9.666	5.5
12	MP2B	Mx	-.007	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
13	MP2C	X	-22.61	.5
14	MP2C	Z	13.054	.5
15	MP2C	Mx	-.01	.5
16	MP2C	X	-22.61	5.5
17	MP2C	Z	13.054	5.5
18	MP2C	Mx	-.01	5.5
19	MP2A	X	-18.372	.5
20	MP2A	Z	10.607	.5
21	MP2A	Mx	.002	.5
22	MP2A	X	-18.372	5.5
23	MP2A	Z	10.607	5.5
24	MP2A	Mx	.002	5.5
25	MP2B	X	-16.742	.5
26	MP2B	Z	9.666	.5
27	MP2B	Mx	-.012	.5
28	MP2B	X	-16.742	5.5
29	MP2B	Z	9.666	5.5
30	MP2B	Mx	-.012	5.5
31	MP2C	X	-22.61	.5
32	MP2C	Z	13.054	.5
33	MP2C	Mx	.021	.5
34	MP2C	X	-22.61	5.5
35	MP2C	Z	13.054	5.5
36	MP2C	Mx	.021	5.5
37	MP3A	X	-8.131	1.5
38	MP3A	Z	4.694	1.5
39	MP3A	Mx	.004	1.5
40	MP3A	X	-8.131	4
41	MP3A	Z	4.694	4
42	MP3A	Mx	.004	4
43	MP3B	X	-6.333	1.5
44	MP3B	Z	3.656	1.5
45	MP3B	Mx	-.004	1.5
46	MP3B	X	-6.333	4
47	MP3B	Z	3.656	4
48	MP3B	Mx	-.004	4
49	MP3C	X	-12.803	1.5
50	MP3C	Z	7.392	1.5
51	MP3C	Mx	.003	1.5
52	MP3C	X	-12.803	4
53	MP3C	Z	7.392	4
54	MP3C	Mx	.003	4
55	M17	X	-20.675	1.25
56	M17	Z	11.937	1.25
57	M17	Mx	0	1.25
58	MP2A	X	-9.292	4
59	MP2A	Z	5.365	4
60	MP2A	Mx	-.005	4
61	MP2B	X	-8.488	4
62	MP2B	Z	4.901	4
63	MP2B	Mx	.005	4
64	MP2C	X	-11.382	4
65	MP2C	Z	6.571	4
66	MP2C	Mx	-.003	4
67	MP1A	X	-8.799	3
68	MP1A	Z	5.08	3
69	MP1A	Mx	-.004	3
70	MP1B	X	-7.85	3
71	MP1B	Z	4.532	3

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
72	MP1B	Mx	.004	3
73	MP1C	X	-11.264	3
74	MP1C	Z	6.503	3
75	MP1C	Mx	-.003	3
76	MP1A	X	-14.304	1.5
77	MP1A	Z	8.258	1.5
78	MP1A	Mx	.007	1.5
79	MP1A	X	-14.304	4.5
80	MP1A	Z	8.258	4.5
81	MP1A	Mx	.007	4.5
82	MP1B	X	-16.002	1.5
83	MP1B	Z	9.239	1.5
84	MP1B	Mx	-.009	1.5
85	MP1B	X	-16.002	4.5
86	MP1B	Z	9.239	4.5
87	MP1B	Mx	-.009	4.5
88	MP1C	X	-9.889	1.5
89	MP1C	Z	5.709	1.5
90	MP1C	Mx	.002	1.5
91	MP1C	X	-9.889	4.5
92	MP1C	Z	5.709	4.5
93	MP1C	Mx	.002	4.5
94	MP4A	X	-14.304	1.5
95	MP4A	Z	8.258	1.5
96	MP4A	Mx	.007	1.5
97	MP4A	X	-14.304	4.5
98	MP4A	Z	8.258	4.5
99	MP4A	Mx	.007	4.5
100	MP4B	X	-16.002	1.5
101	MP4B	Z	9.239	1.5
102	MP4B	Mx	-.009	1.5
103	MP4B	X	-16.002	4.5
104	MP4B	Z	9.239	4.5
105	MP4B	Mx	-.009	4.5
106	MP4C	X	-9.889	1.5
107	MP4C	Z	5.709	1.5
108	MP4C	Mx	.002	1.5
109	MP4C	X	-9.889	4.5
110	MP4C	Z	5.709	4.5
111	MP4C	Mx	.002	4.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-19.074	.5
2	MP2A	Z	0	.5
3	MP2A	Mx	.01	.5
4	MP2A	X	-19.074	5.5
5	MP2A	Z	0	5.5
6	MP2A	Mx	.01	5.5
7	MP2B	X	-22.612	.5
8	MP2B	Z	0	.5
9	MP2B	Mx	.001	.5
10	MP2B	X	-22.612	5.5
11	MP2B	Z	0	5.5
12	MP2B	Mx	.001	5.5
13	MP2C	X	-27.573	.5
14	MP2C	Z	0	.5
15	MP2C	Mx	-.02	.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
16	MP2C	X	-27.573	5.5
17	MP2C	Z	0	5.5
18	MP2C	Mx	-.02	5.5
19	MP2A	X	-19.074	.5
20	MP2A	Z	0	.5
21	MP2A	Mx	.01	.5
22	MP2A	X	-19.074	5.5
23	MP2A	Z	0	5.5
24	MP2A	Mx	.01	5.5
25	MP2B	X	-22.612	.5
26	MP2B	Z	0	.5
27	MP2B	Mx	-.018	.5
28	MP2B	X	-22.612	5.5
29	MP2B	Z	0	5.5
30	MP2B	Mx	-.018	5.5
31	MP2C	X	-27.573	.5
32	MP2C	Z	0	.5
33	MP2C	Mx	.017	.5
34	MP2C	X	-27.573	5.5
35	MP2C	Z	0	5.5
36	MP2C	Mx	.017	5.5
37	MP3A	X	-7.028	1.5
38	MP3A	Z	0	1.5
39	MP3A	Mx	.004	1.5
40	MP3A	X	-7.028	4
41	MP3A	Z	0	4
42	MP3A	Mx	.004	4
43	MP3B	X	-10.929	1.5
44	MP3B	Z	0	1.5
45	MP3B	Mx	-.004	1.5
46	MP3B	X	-10.929	4
47	MP3B	Z	0	4
48	MP3B	Mx	-.004	4
49	MP3C	X	-16.399	1.5
50	MP3C	Z	0	1.5
51	MP3C	Mx	-.000715	1.5
52	MP3C	X	-16.399	4
53	MP3C	Z	0	4
54	MP3C	Mx	-.000715	4
55	M17	X	-22.321	1.25
56	M17	Z	0	1.25
57	M17	Mx	0	1.25
58	MP2A	X	-9.674	4
59	MP2A	Z	0	4
60	MP2A	Mx	-.005	4
61	MP2B	X	-11.419	4
62	MP2B	Z	0	4
63	MP2B	Mx	.004	4
64	MP2C	X	-13.865	4
65	MP2C	Z	0	4
66	MP2C	Mx	.000604	4
67	MP1A	X	-8.914	3
68	MP1A	Z	0	3
69	MP1A	Mx	-.004	3
70	MP1B	X	-10.973	3
71	MP1B	Z	0	3
72	MP1B	Mx	.004	3
73	MP1C	X	-13.859	3
74	MP1C	Z	0	3

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
75	MP1C	Mx	.000604	3
76	MP1A	X	-18.747	1.5
77	MP1A	Z	0	1.5
78	MP1A	Mx	.009	1.5
79	MP1A	X	-18.747	4.5
80	MP1A	Z	0	4.5
81	MP1A	Mx	.009	4.5
82	MP1B	X	-15.061	1.5
83	MP1B	Z	0	1.5
84	MP1B	Mx	-.006	1.5
85	MP1B	X	-15.061	4.5
86	MP1B	Z	0	4.5
87	MP1B	Mx	-.006	4.5
88	MP1C	X	-9.893	1.5
89	MP1C	Z	0	1.5
90	MP1C	Mx	-.000431	1.5
91	MP1C	X	-9.893	4.5
92	MP1C	Z	0	4.5
93	MP1C	Mx	-.000431	4.5
94	MP4A	X	-18.747	1.5
95	MP4A	Z	0	1.5
96	MP4A	Mx	.009	1.5
97	MP4A	X	-18.747	4.5
98	MP4A	Z	0	4.5
99	MP4A	Mx	.009	4.5
100	MP4B	X	-15.061	1.5
101	MP4B	Z	0	1.5
102	MP4B	Mx	-.006	1.5
103	MP4B	X	-15.061	4.5
104	MP4B	Z	0	4.5
105	MP4B	Mx	-.006	4.5
106	MP4C	X	-9.893	1.5
107	MP4C	Z	0	1.5
108	MP4C	Mx	-.000431	1.5
109	MP4C	X	-9.893	4.5
110	MP4C	Z	0	4.5
111	MP4C	Mx	-.000431	4.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-18.372	.5
2	MP2A	Z	-10.607	.5
3	MP2A	Mx	.002	.5
4	MP2A	X	-18.372	5.5
5	MP2A	Z	-10.607	5.5
6	MP2A	Mx	.002	5.5
7	MP2B	X	-23.068	.5
8	MP2B	Z	-13.318	.5
9	MP2B	Mx	.012	.5
10	MP2B	X	-23.068	5.5
11	MP2B	Z	-13.318	5.5
12	MP2B	Mx	.012	5.5
13	MP2C	X	-21.495	.5
14	MP2C	Z	-12.41	.5
15	MP2C	Mx	-.021	.5
16	MP2C	X	-21.495	5.5
17	MP2C	Z	-12.41	5.5
18	MP2C	Mx	-.021	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
19	MP2A	X	-18.372	.5
20	MP2A	Z	-10.607	.5
21	MP2A	Mx	.016	.5
22	MP2A	X	-18.372	5.5
23	MP2A	Z	-10.607	5.5
24	MP2A	Mx	.016	5.5
25	MP2B	X	-23.068	.5
26	MP2B	Z	-13.318	.5
27	MP2B	Mx	-.021	.5
28	MP2B	X	-23.068	5.5
29	MP2B	Z	-13.318	5.5
30	MP2B	Mx	-.021	5.5
31	MP2C	X	-21.495	.5
32	MP2C	Z	-12.41	.5
33	MP2C	Mx	.006	.5
34	MP2C	X	-21.495	5.5
35	MP2C	Z	-12.41	5.5
36	MP2C	Mx	.006	5.5
37	MP3A	X	-8.131	1.5
38	MP3A	Z	-4.694	1.5
39	MP3A	Mx	.004	1.5
40	MP3A	X	-8.131	4
41	MP3A	Z	-4.694	4
42	MP3A	Mx	.004	4
43	MP3B	X	-13.307	1.5
44	MP3B	Z	-7.683	1.5
45	MP3B	Mx	-.003	1.5
46	MP3B	X	-13.307	4
47	MP3B	Z	-7.683	4
48	MP3B	Mx	-.003	4
49	MP3C	X	-11.574	1.5
50	MP3C	Z	-6.682	1.5
51	MP3C	Mx	-.004	1.5
52	MP3C	X	-11.574	4
53	MP3C	Z	-6.682	4
54	MP3C	Mx	-.004	4
55	M17	X	-20.675	1.25
56	M17	Z	-11.937	1.25
57	M17	Mx	0	1.25
58	MP2A	X	-9.292	4
59	MP2A	Z	-5.365	4
60	MP2A	Mx	-.005	4
61	MP2B	X	-11.607	4
62	MP2B	Z	-6.701	4
63	MP2B	Mx	.002	4
64	MP2C	X	-10.832	4
65	MP2C	Z	-6.254	4
66	MP2C	Mx	.004	4
67	MP1A	X	-8.799	3
68	MP1A	Z	-5.08	3
69	MP1A	Mx	-.004	3
70	MP1B	X	-11.53	3
71	MP1B	Z	-6.657	3
72	MP1B	Mx	.002	3
73	MP1C	X	-10.615	3
74	MP1C	Z	-6.129	3
75	MP1C	Mx	.004	3
76	MP1A	X	-14.304	1.5
77	MP1A	Z	-8.258	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
78	MP1A	Mx	.007	1.5
79	MP1A	X	-14.304	4.5
80	MP1A	Z	-8.258	4.5
81	MP1A	Mx	.007	4.5
82	MP1B	X	-9.413	1.5
83	MP1B	Z	-5.434	1.5
84	MP1B	Mx	-.002	1.5
85	MP1B	X	-9.413	4.5
86	MP1B	Z	-5.434	4.5
87	MP1B	Mx	-.002	4.5
88	MP1C	X	-11.051	1.5
89	MP1C	Z	-6.38	1.5
90	MP1C	Mx	-.004	1.5
91	MP1C	X	-11.051	4.5
92	MP1C	Z	-6.38	4.5
93	MP1C	Mx	-.004	4.5
94	MP4A	X	-14.304	1.5
95	MP4A	Z	-8.258	1.5
96	MP4A	Mx	.007	1.5
97	MP4A	X	-14.304	4.5
98	MP4A	Z	-8.258	4.5
99	MP4A	Mx	.007	4.5
100	MP4B	X	-9.413	1.5
101	MP4B	Z	-5.434	1.5
102	MP4B	Mx	-.002	1.5
103	MP4B	X	-9.413	4.5
104	MP4B	Z	-5.434	4.5
105	MP4B	Mx	-.002	4.5
106	MP4C	X	-11.051	1.5
107	MP4C	Z	-6.38	1.5
108	MP4C	Mx	-.004	1.5
109	MP4C	X	-11.051	4.5
110	MP4C	Z	-6.38	4.5
111	MP4C	Mx	-.004	4.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-12.748	.5
2	MP2A	Z	-22.081	.5
3	MP2A	Mx	-.008	.5
4	MP2A	X	-12.748	5.5
5	MP2A	Z	-22.081	5.5
6	MP2A	Mx	-.008	5.5
7	MP2B	X	-13.69	.5
8	MP2B	Z	-23.711	.5
9	MP2B	Mx	.02	.5
10	MP2B	X	-13.69	5.5
11	MP2B	Z	-23.711	5.5
12	MP2B	Mx	.02	5.5
13	MP2C	X	-10.302	.5
14	MP2C	Z	-17.843	.5
15	MP2C	Mx	-.015	.5
16	MP2C	X	-10.302	5.5
17	MP2C	Z	-17.843	5.5
18	MP2C	Mx	-.015	5.5
19	MP2A	X	-12.748	.5
20	MP2A	Z	-22.081	.5
21	MP2A	Mx	.021	.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
22	MP2A	X	-12.748	5.5
23	MP2A	Z	-22.081	5.5
24	MP2A	Mx	.021	5.5
25	MP2B	X	-13.69	.5
26	MP2B	Z	-23.711	.5
27	MP2B	Mx	-.016	.5
28	MP2B	X	-13.69	5.5
29	MP2B	Z	-23.711	5.5
30	MP2B	Mx	-.016	5.5
31	MP2C	X	-10.302	.5
32	MP2C	Z	-17.843	.5
33	MP2C	Mx	-.004	.5
34	MP2C	X	-10.302	5.5
35	MP2C	Z	-17.843	5.5
36	MP2C	Mx	-.004	5.5
37	MP3A	X	-7.055	1.5
38	MP3A	Z	-12.22	1.5
39	MP3A	Mx	.004	1.5
40	MP3A	X	-7.055	4
41	MP3A	Z	-12.22	4
42	MP3A	Mx	.004	4
43	MP3B	X	-8.093	1.5
44	MP3B	Z	-14.017	1.5
45	MP3B	Mx	.001	1.5
46	MP3B	X	-8.093	4
47	MP3B	Z	-14.017	4
48	MP3B	Mx	.001	4
49	MP3C	X	-4.357	1.5
50	MP3C	Z	-7.547	1.5
51	MP3C	Mx	-.004	1.5
52	MP3C	X	-4.357	4
53	MP3C	Z	-7.547	4
54	MP3C	Mx	-.004	4
55	M17	X	-13.489	1.25
56	M17	Z	-23.364	1.25
57	M17	Mx	0	1.25
58	MP2A	X	-6.421	4
59	MP2A	Z	-11.121	4
60	MP2A	Mx	-.003	4
61	MP2B	X	-6.885	4
62	MP2B	Z	-11.925	4
63	MP2B	Mx	-.001	4
64	MP2C	X	-5.214	4
65	MP2C	Z	-9.031	4
66	MP2C	Mx	.005	4
67	MP1A	X	-6.326	3
68	MP1A	Z	-10.956	3
69	MP1A	Mx	-.003	3
70	MP1B	X	-6.873	3
71	MP1B	Z	-11.905	3
72	MP1B	Mx	-.001	3
73	MP1C	X	-4.902	3
74	MP1C	Z	-8.491	3
75	MP1C	Mx	.004	3
76	MP1A	X	-6.028	1.5
77	MP1A	Z	-10.44	1.5
78	MP1A	Mx	.003	1.5
79	MP1A	X	-6.028	4.5
80	MP1A	Z	-10.44	4.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
81	MP1A	Mx	.003	4.5
82	MP1B	X	-5.047	1.5
83	MP1B	Z	-8.742	1.5
84	MP1B	Mx	.000877	1.5
85	MP1B	X	-5.047	4.5
86	MP1B	Z	-8.742	4.5
87	MP1B	Mx	.000877	4.5
88	MP1C	X	-8.577	1.5
89	MP1C	Z	-14.855	1.5
90	MP1C	Mx	-.008	1.5
91	MP1C	X	-8.577	4.5
92	MP1C	Z	-14.855	4.5
93	MP1C	Mx	-.008	4.5
94	MP4A	X	-6.028	1.5
95	MP4A	Z	-10.44	1.5
96	MP4A	Mx	.003	1.5
97	MP4A	X	-6.028	4.5
98	MP4A	Z	-10.44	4.5
99	MP4A	Mx	.003	4.5
100	MP4B	X	-5.047	1.5
101	MP4B	Z	-8.742	1.5
102	MP4B	Mx	.000877	1.5
103	MP4B	X	-5.047	4.5
104	MP4B	Z	-8.742	4.5
105	MP4B	Mx	.000877	4.5
106	MP4C	X	-8.577	1.5
107	MP4C	Z	-14.855	1.5
108	MP4C	Mx	-.008	1.5
109	MP4C	X	-8.577	4.5
110	MP4C	Z	-14.855	4.5
111	MP4C	Mx	-.008	4.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	0	.5
2	MP2A	Z	-6.05	.5
3	MP2A	Mx	-.004	.5
4	MP2A	X	0	5.5
5	MP2A	Z	-6.05	5.5
6	MP2A	Mx	-.004	5.5
7	MP2B	X	0	.5
8	MP2B	Z	-4.623	.5
9	MP2B	Mx	.004	.5
10	MP2B	X	0	5.5
11	MP2B	Z	-4.623	5.5
12	MP2B	Mx	.004	5.5
13	MP2C	X	0	.5
14	MP2C	Z	-2.622	.5
15	MP2C	Mx	-.001	.5
16	MP2C	X	0	5.5
17	MP2C	Z	-2.622	5.5
18	MP2C	Mx	-.001	5.5
19	MP2A	X	0	.5
20	MP2A	Z	-6.05	.5
21	MP2A	Mx	.004	.5
22	MP2A	X	0	5.5
23	MP2A	Z	-6.05	5.5
24	MP2A	Mx	.004	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
25	MP2B	X	0	.5
26	MP2B	Z	-4.623	.5
27	MP2B	Mx	-.000875	.5
28	MP2B	X	0	5.5
29	MP2B	Z	-4.623	5.5
30	MP2B	Mx	-.000875	5.5
31	MP2C	X	0	.5
32	MP2C	Z	-2.622	.5
33	MP2C	Mx	-.001	.5
34	MP2C	X	0	5.5
35	MP2C	Z	-2.622	5.5
36	MP2C	Mx	-.001	5.5
37	MP3A	X	0	1.5
38	MP3A	Z	-4.367	1.5
39	MP3A	Mx	0	1.5
40	MP3A	X	0	4
41	MP3A	Z	-4.367	4
42	MP3A	Mx	0	4
43	MP3B	X	0	1.5
44	MP3B	Z	-3.184	1.5
45	MP3B	Mx	.001	1.5
46	MP3B	X	0	4
47	MP3B	Z	-3.184	4
48	MP3B	Mx	.001	4
49	MP3C	X	0	1.5
50	MP3C	Z	-1.526	1.5
51	MP3C	Mx	-.00076	1.5
52	MP3C	X	0	4
53	MP3C	Z	-1.526	4
54	MP3C	Mx	-.00076	4
55	M17	X	0	1.25
56	M17	Z	-7.064	1.25
57	M17	Mx	0	1.25
58	MP2A	X	0	4
59	MP2A	Z	-3.454	4
60	MP2A	Mx	0	4
61	MP2B	X	0	4
62	MP2B	Z	-2.984	4
63	MP2B	Mx	-.000959	4
64	MP2C	X	0	4
65	MP2C	Z	-2.326	4
66	MP2C	Mx	.001	4
67	MP1A	X	0	3
68	MP1A	Z	-3.454	3
69	MP1A	Mx	0	3
70	MP1B	X	0	3
71	MP1B	Z	-2.892	3
72	MP1B	Mx	-.000929	3
73	MP1C	X	0	3
74	MP1C	Z	-2.105	3
75	MP1C	Mx	.001	3
76	MP1A	X	0	1.5
77	MP1A	Z	-2.908	1.5
78	MP1A	Mx	0	1.5
79	MP1A	X	0	4.5
80	MP1A	Z	-2.908	4.5
81	MP1A	Mx	0	4.5
82	MP1B	X	0	1.5
83	MP1B	Z	-4.192	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
84	MP1B	Mx	.001	1.5
85	MP1B	X	0	4.5
86	MP1B	Z	-4.192	4.5
87	MP1B	Mx	.001	4.5
88	MP1C	X	0	1.5
89	MP1C	Z	-5.992	1.5
90	MP1C	Mx	-.003	1.5
91	MP1C	X	0	4.5
92	MP1C	Z	-5.992	4.5
93	MP1C	Mx	-.003	4.5
94	MP4A	X	0	1.5
95	MP4A	Z	-2.908	1.5
96	MP4A	Mx	0	1.5
97	MP4A	X	0	4.5
98	MP4A	Z	-2.908	4.5
99	MP4A	Mx	0	4.5
100	MP4B	X	0	1.5
101	MP4B	Z	-4.192	1.5
102	MP4B	Mx	.001	1.5
103	MP4B	X	0	4.5
104	MP4B	Z	-4.192	4.5
105	MP4B	Mx	.001	4.5
106	MP4C	X	0	1.5
107	MP4C	Z	-5.992	1.5
108	MP4C	Mx	-.003	1.5
109	MP4C	X	0	4.5
110	MP4C	Z	-5.992	4.5
111	MP4C	Mx	-.003	4.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	2.593	.5
2	MP2A	Z	-4.492	.5
3	MP2A	Mx	-.004	.5
4	MP2A	X	2.593	5.5
5	MP2A	Z	-4.492	5.5
6	MP2A	Mx	-.004	5.5
7	MP2B	X	1.5	.5
8	MP2B	Z	-2.598	.5
9	MP2B	Mx	.002	.5
10	MP2B	X	1.5	5.5
11	MP2B	Z	-2.598	5.5
12	MP2B	Mx	.002	5.5
13	MP2C	X	1.866	.5
14	MP2C	Z	-3.232	.5
15	MP2C	Mx	-.000101	.5
16	MP2C	X	1.866	5.5
17	MP2C	Z	-3.232	5.5
18	MP2C	Mx	-.000101	5.5
19	MP2A	X	2.593	.5
20	MP2A	Z	-4.492	.5
21	MP2A	Mx	.002	.5
22	MP2A	X	2.593	5.5
23	MP2A	Z	-4.492	5.5
24	MP2A	Mx	.002	5.5
25	MP2B	X	1.5	.5
26	MP2B	Z	-2.598	.5
27	MP2B	Mx	.000726	.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
28	MP2B	X	1.5	5.5
29	MP2B	Z	-2.598	5.5
30	MP2B	Mx	.000726	5.5
31	MP2C	X	1.866	.5
32	MP2C	Z	-3.232	.5
33	MP2C	Mx	-.003	.5
34	MP2C	X	1.866	5.5
35	MP2C	Z	-3.232	5.5
36	MP2C	Mx	-.003	5.5
37	MP3A	X	1.826	1.5
38	MP3A	Z	-3.162	1.5
39	MP3A	Mx	-.000913	1.5
40	MP3A	X	1.826	4
41	MP3A	Z	-3.162	4
42	MP3A	Mx	-.000913	4
43	MP3B	X	.92	1.5
44	MP3B	Z	-1.593	1.5
45	MP3B	Mx	.000864	1.5
46	MP3B	X	.92	4
47	MP3B	Z	-1.593	4
48	MP3B	Mx	.000864	4
49	MP3C	X	1.223	1.5
50	MP3C	Z	-2.118	1.5
51	MP3C	Mx	-.001	1.5
52	MP3C	X	1.223	4
53	MP3C	Z	-2.118	4
54	MP3C	Mx	-.001	4
55	M17	X	3.32	1.25
56	M17	Z	-5.751	1.25
57	M17	Mx	0	1.25
58	MP2A	X	1.585	4
59	MP2A	Z	-2.745	4
60	MP2A	Mx	.000792	4
61	MP2B	X	1.225	4
62	MP2B	Z	-2.122	4
63	MP2B	Mx	-.001	4
64	MP2C	X	1.346	4
65	MP2C	Z	-2.331	4
66	MP2C	Mx	.001	4
67	MP1A	X	1.557	3
68	MP1A	Z	-2.697	3
69	MP1A	Mx	.000778	3
70	MP1B	X	1.127	3
71	MP1B	Z	-1.952	3
72	MP1B	Mx	-.001	3
73	MP1C	X	1.271	3
74	MP1C	Z	-2.201	3
75	MP1C	Mx	.001	3
76	MP1A	X	1.842	1.5
77	MP1A	Z	-3.191	1.5
78	MP1A	Mx	-.000921	1.5
79	MP1A	X	1.842	4.5
80	MP1A	Z	-3.191	4.5
81	MP1A	Mx	-.000921	4.5
82	MP1B	X	2.826	1.5
83	MP1B	Z	-4.894	1.5
84	MP1B	Mx	.003	1.5
85	MP1B	X	2.826	4.5
86	MP1B	Z	-4.894	4.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
87	MP1B	Mx	.003	4.5
88	MP1C	X	2.496	1.5
89	MP1C	Z	-4.324	1.5
90	MP1C	Mx	-.002	1.5
91	MP1C	X	2.496	4.5
92	MP1C	Z	-4.324	4.5
93	MP1C	Mx	-.002	4.5
94	MP4A	X	1.842	1.5
95	MP4A	Z	-3.191	1.5
96	MP4A	Mx	-.000921	1.5
97	MP4A	X	1.842	4.5
98	MP4A	Z	-3.191	4.5
99	MP4A	Mx	-.000921	4.5
100	MP4B	X	2.826	1.5
101	MP4B	Z	-4.894	1.5
102	MP4B	Mx	.003	1.5
103	MP4B	X	2.826	4.5
104	MP4B	Z	-4.894	4.5
105	MP4B	Mx	.003	4.5
106	MP4C	X	2.496	1.5
107	MP4C	Z	-4.324	1.5
108	MP4C	Mx	-.002	1.5
109	MP4C	X	2.496	4.5
110	MP4C	Z	-4.324	4.5
111	MP4C	Mx	-.002	4.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	2.996	.5
2	MP2A	Z	-1.73	.5
3	MP2A	Mx	-.003	.5
4	MP2A	X	2.996	5.5
5	MP2A	Z	-1.73	5.5
6	MP2A	Mx	-.003	5.5
7	MP2B	X	2.338	.5
8	MP2B	Z	-1.35	.5
9	MP2B	Mx	.001	.5
10	MP2B	X	2.338	5.5
11	MP2B	Z	-1.35	5.5
12	MP2B	Mx	.001	5.5
13	MP2C	X	4.705	.5
14	MP2C	Z	-2.716	.5
15	MP2C	Mx	.002	.5
16	MP2C	X	4.705	5.5
17	MP2C	Z	-2.716	5.5
18	MP2C	Mx	.002	5.5
19	MP2A	X	2.996	.5
20	MP2A	Z	-1.73	.5
21	MP2A	Mx	-.000345	.5
22	MP2A	X	2.996	5.5
23	MP2A	Z	-1.73	5.5
24	MP2A	Mx	-.000345	5.5
25	MP2B	X	2.338	.5
26	MP2B	Z	-1.35	.5
27	MP2B	Mx	.002	.5
28	MP2B	X	2.338	5.5
29	MP2B	Z	-1.35	5.5
30	MP2B	Mx	.002	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
31	MP2C	X	4.705	.5
32	MP2C	Z	-2.716	.5
33	MP2C	Mx	-.004	.5
34	MP2C	X	4.705	5.5
35	MP2C	Z	-2.716	5.5
36	MP2C	Mx	-.004	5.5
37	MP3A	X	1.923	1.5
38	MP3A	Z	-1.11	1.5
39	MP3A	Mx	-.000962	1.5
40	MP3A	X	1.923	4
41	MP3A	Z	-1.11	4
42	MP3A	Mx	-.000962	4
43	MP3B	X	1.377	1.5
44	MP3B	Z	-.795	1.5
45	MP3B	Mx	.000783	1.5
46	MP3B	X	1.377	4
47	MP3B	Z	-.795	4
48	MP3B	Mx	.000783	4
49	MP3C	X	3.339	1.5
50	MP3C	Z	-1.928	1.5
51	MP3C	Mx	-.000815	1.5
52	MP3C	X	3.339	4
53	MP3C	Z	-1.928	4
54	MP3C	Mx	-.000815	4
55	M17	X	5.017	1.25
56	M17	Z	-2.897	1.25
57	M17	Mx	0	1.25
58	MP2A	X	2.253	4
59	MP2A	Z	-1.301	4
60	MP2A	Mx	.001	4
61	MP2B	X	2.037	4
62	MP2B	Z	-1.176	4
63	MP2B	Mx	-.001	4
64	MP2C	X	2.815	4
65	MP2C	Z	-1.625	4
66	MP2C	Mx	.000687	4
67	MP1A	X	2.108	3
68	MP1A	Z	-1.217	3
69	MP1A	Mx	.001	3
70	MP1B	X	1.849	3
71	MP1B	Z	-1.068	3
72	MP1B	Mx	-.001	3
73	MP1C	X	2.781	3
74	MP1C	Z	-1.606	3
75	MP1C	Mx	.000679	3
76	MP1A	X	4.537	1.5
77	MP1A	Z	-2.619	1.5
78	MP1A	Mx	-.002	1.5
79	MP1A	X	4.537	4.5
80	MP1A	Z	-2.619	4.5
81	MP1A	Mx	-.002	4.5
82	MP1B	X	5.128	1.5
83	MP1B	Z	-2.961	1.5
84	MP1B	Mx	.003	1.5
85	MP1B	X	5.128	4.5
86	MP1B	Z	-2.961	4.5
87	MP1B	Mx	.003	4.5
88	MP1C	X	2.999	1.5
89	MP1C	Z	-1.731	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
90	MP1C	Mx	-.000732	1.5
91	MP1C	X	2.999	4.5
92	MP1C	Z	-1.731	4.5
93	MP1C	Mx	-.000732	4.5
94	MP4A	X	4.537	1.5
95	MP4A	Z	-2.619	1.5
96	MP4A	Mx	-.002	1.5
97	MP4A	X	4.537	4.5
98	MP4A	Z	-2.619	4.5
99	MP4A	Mx	-.002	4.5
100	MP4B	X	5.128	1.5
101	MP4B	Z	-2.961	1.5
102	MP4B	Mx	.003	1.5
103	MP4B	X	5.128	4.5
104	MP4B	Z	-2.961	4.5
105	MP4B	Mx	.003	4.5
106	MP4C	X	2.999	1.5
107	MP4C	Z	-1.731	1.5
108	MP4C	Mx	-.000732	1.5
109	MP4C	X	2.999	4.5
110	MP4C	Z	-1.731	4.5
111	MP4C	Mx	-.000732	4.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	2.596	.5
2	MP2A	Z	0	.5
3	MP2A	Mx	-.001	.5
4	MP2A	X	2.596	5.5
5	MP2A	Z	0	5.5
6	MP2A	Mx	-.001	5.5
7	MP2B	X	4.023	.5
8	MP2B	Z	0	.5
9	MP2B	Mx	-.000183	.5
10	MP2B	X	4.023	5.5
11	MP2B	Z	0	5.5
12	MP2B	Mx	-.000183	5.5
13	MP2C	X	6.024	.5
14	MP2C	Z	0	.5
15	MP2C	Mx	.004	.5
16	MP2C	X	6.024	5.5
17	MP2C	Z	0	5.5
18	MP2C	Mx	.004	5.5
19	MP2A	X	2.596	.5
20	MP2A	Z	0	.5
21	MP2A	Mx	-.001	.5
22	MP2A	X	2.596	5.5
23	MP2A	Z	0	5.5
24	MP2A	Mx	-.001	5.5
25	MP2B	X	4.023	.5
26	MP2B	Z	0	.5
27	MP2B	Mx	.003	.5
28	MP2B	X	4.023	5.5
29	MP2B	Z	0	5.5
30	MP2B	Mx	.003	5.5
31	MP2C	X	6.024	.5
32	MP2C	Z	0	.5
33	MP2C	Mx	-.004	.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
34	MP2C	X	6.024	5.5
35	MP2C	Z	0	5.5
36	MP2C	Mx	-.004	5.5
37	MP3A	X	1.504	1.5
38	MP3A	Z	0	1.5
39	MP3A	Mx	-.000752	1.5
40	MP3A	X	1.504	4
41	MP3A	Z	0	4
42	MP3A	Mx	-.000752	4
43	MP3B	X	2.687	1.5
44	MP3B	Z	0	1.5
45	MP3B	Mx	.001	1.5
46	MP3B	X	2.687	4
47	MP3B	Z	0	4
48	MP3B	Mx	.001	4
49	MP3C	X	4.346	1.5
50	MP3C	Z	0	1.5
51	MP3C	Mx	.000189	1.5
52	MP3C	X	4.346	4
53	MP3C	Z	0	4
54	MP3C	Mx	.000189	4
55	M17	X	5.37	1.25
56	M17	Z	0	1.25
57	M17	Mx	0	1.25
58	MP2A	X	2.317	4
59	MP2A	Z	0	4
60	MP2A	Mx	.001	4
61	MP2B	X	2.787	4
62	MP2B	Z	0	4
63	MP2B	Mx	-.001	4
64	MP2C	X	3.445	4
65	MP2C	Z	0	4
66	MP2C	Mx	-.00015	4
67	MP1A	X	2.095	3
68	MP1A	Z	0	3
69	MP1A	Mx	.001	3
70	MP1B	X	2.656	3
71	MP1B	Z	0	3
72	MP1B	Mx	-.001	3
73	MP1C	X	3.444	3
74	MP1C	Z	0	3
75	MP1C	Mx	-.00015	3
76	MP1A	X	6.015	1.5
77	MP1A	Z	0	1.5
78	MP1A	Mx	-.003	1.5
79	MP1A	X	6.015	4.5
80	MP1A	Z	0	4.5
81	MP1A	Mx	-.003	4.5
82	MP1B	X	4.731	1.5
83	MP1B	Z	0	1.5
84	MP1B	Mx	.002	1.5
85	MP1B	X	4.731	4.5
86	MP1B	Z	0	4.5
87	MP1B	Mx	.002	4.5
88	MP1C	X	2.932	1.5
89	MP1C	Z	0	1.5
90	MP1C	Mx	.000128	1.5
91	MP1C	X	2.932	4.5
92	MP1C	Z	0	4.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
93	MP1C	Mx	.000128	4.5
94	MP4A	X	6.015	1.5
95	MP4A	Z	0	1.5
96	MP4A	Mx	-.003	1.5
97	MP4A	X	6.015	4.5
98	MP4A	Z	0	4.5
99	MP4A	Mx	-.003	4.5
100	MP4B	X	4.731	1.5
101	MP4B	Z	0	1.5
102	MP4B	Mx	.002	1.5
103	MP4B	X	4.731	4.5
104	MP4B	Z	0	4.5
105	MP4B	Mx	.002	4.5
106	MP4C	X	2.932	1.5
107	MP4C	Z	0	1.5
108	MP4C	Mx	.000128	1.5
109	MP4C	X	2.932	4.5
110	MP4C	Z	0	4.5
111	MP4C	Mx	.000128	4.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	2.996	.5
2	MP2A	Z	1.73	.5
3	MP2A	Mx	-.000345	.5
4	MP2A	X	2.996	5.5
5	MP2A	Z	1.73	5.5
6	MP2A	Mx	-.000345	5.5
7	MP2B	X	4.889	.5
8	MP2B	Z	2.823	.5
9	MP2B	Mx	-.003	.5
10	MP2B	X	4.889	5.5
11	MP2B	Z	2.823	5.5
12	MP2B	Mx	-.003	5.5
13	MP2C	X	4.255	.5
14	MP2C	Z	2.457	.5
15	MP2C	Mx	.004	.5
16	MP2C	X	4.255	5.5
17	MP2C	Z	2.457	5.5
18	MP2C	Mx	.004	5.5
19	MP2A	X	2.996	.5
20	MP2A	Z	1.73	.5
21	MP2A	Mx	-.003	.5
22	MP2A	X	2.996	5.5
23	MP2A	Z	1.73	5.5
24	MP2A	Mx	-.003	5.5
25	MP2B	X	4.889	.5
26	MP2B	Z	2.823	.5
27	MP2B	Mx	.005	.5
28	MP2B	X	4.889	5.5
29	MP2B	Z	2.823	5.5
30	MP2B	Mx	.005	5.5
31	MP2C	X	4.255	.5
32	MP2C	Z	2.457	.5
33	MP2C	Mx	-.001	.5
34	MP2C	X	4.255	5.5
35	MP2C	Z	2.457	5.5
36	MP2C	Mx	-.001	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
37	MP3A	X	1.923	1.5
38	MP3A	Z	1.11	1.5
39	MP3A	Mx	-.000962	1.5
40	MP3A	X	1.923	4
41	MP3A	Z	1.11	4
42	MP3A	Mx	-.000962	4
43	MP3B	X	3.492	1.5
44	MP3B	Z	2.016	1.5
45	MP3B	Mx	.00069	1.5
46	MP3B	X	3.492	4
47	MP3B	Z	2.016	4
48	MP3B	Mx	.00069	4
49	MP3C	X	2.967	1.5
50	MP3C	Z	1.713	1.5
51	MP3C	Mx	.000983	1.5
52	MP3C	X	2.967	4
53	MP3C	Z	1.713	4
54	MP3C	Mx	.000983	4
55	M17	X	5.017	1.25
56	M17	Z	2.897	1.25
57	M17	Mx	0	1.25
58	MP2A	X	2.253	4
59	MP2A	Z	1.301	4
60	MP2A	Mx	.001	4
61	MP2B	X	2.876	4
62	MP2B	Z	1.66	4
63	MP2B	Mx	-.000568	4
64	MP2C	X	2.667	4
65	MP2C	Z	1.54	4
66	MP2C	Mx	-.000883	4
67	MP1A	X	2.108	3
68	MP1A	Z	1.217	3
69	MP1A	Mx	.001	3
70	MP1B	X	2.853	3
71	MP1B	Z	1.647	3
72	MP1B	Mx	-.000563	3
73	MP1C	X	2.604	3
74	MP1C	Z	1.503	3
75	MP1C	Mx	-.000862	3
76	MP1A	X	4.537	1.5
77	MP1A	Z	2.619	1.5
78	MP1A	Mx	-.002	1.5
79	MP1A	X	4.537	4.5
80	MP1A	Z	2.619	4.5
81	MP1A	Mx	-.002	4.5
82	MP1B	X	2.833	1.5
83	MP1B	Z	1.636	1.5
84	MP1B	Mx	.000559	1.5
85	MP1B	X	2.833	4.5
86	MP1B	Z	1.636	4.5
87	MP1B	Mx	.000559	4.5
88	MP1C	X	3.404	1.5
89	MP1C	Z	1.965	1.5
90	MP1C	Mx	.001	1.5
91	MP1C	X	3.404	4.5
92	MP1C	Z	1.965	4.5
93	MP1C	Mx	.001	4.5
94	MP4A	X	4.537	1.5
95	MP4A	Z	2.619	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
96	MP4A	Mx	-.002	1.5
97	MP4A	X	4.537	4.5
98	MP4A	Z	2.619	4.5
99	MP4A	Mx	-.002	4.5
100	MP4B	X	2.833	1.5
101	MP4B	Z	1.636	1.5
102	MP4B	Mx	.000559	1.5
103	MP4B	X	2.833	4.5
104	MP4B	Z	1.636	4.5
105	MP4B	Mx	.000559	4.5
106	MP4C	X	3.404	1.5
107	MP4C	Z	1.965	1.5
108	MP4C	Mx	.001	1.5
109	MP4C	X	3.404	4.5
110	MP4C	Z	1.965	4.5
111	MP4C	Mx	.001	4.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	2.593	.5
2	MP2A	Z	4.492	.5
3	MP2A	Mx	.002	.5
4	MP2A	X	2.593	5.5
5	MP2A	Z	4.492	5.5
6	MP2A	Mx	.002	5.5
7	MP2B	X	2.973	.5
8	MP2B	Z	5.149	.5
9	MP2B	Mx	-.004	.5
10	MP2B	X	2.973	5.5
11	MP2B	Z	5.149	5.5
12	MP2B	Mx	-.004	5.5
13	MP2C	X	1.606	.5
14	MP2C	Z	2.782	.5
15	MP2C	Mx	.002	.5
16	MP2C	X	1.606	5.5
17	MP2C	Z	2.782	5.5
18	MP2C	Mx	.002	5.5
19	MP2A	X	2.593	.5
20	MP2A	Z	4.492	.5
21	MP2A	Mx	-.004	.5
22	MP2A	X	2.593	5.5
23	MP2A	Z	4.492	5.5
24	MP2A	Mx	-.004	5.5
25	MP2B	X	2.973	.5
26	MP2B	Z	5.149	.5
27	MP2B	Mx	.003	.5
28	MP2B	X	2.973	5.5
29	MP2B	Z	5.149	5.5
30	MP2B	Mx	.003	5.5
31	MP2C	X	1.606	.5
32	MP2C	Z	2.782	.5
33	MP2C	Mx	.000551	.5
34	MP2C	X	1.606	5.5
35	MP2C	Z	2.782	5.5
36	MP2C	Mx	.000551	5.5
37	MP3A	X	1.826	1.5
38	MP3A	Z	3.162	1.5
39	MP3A	Mx	-.000913	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
40	MP3A	X	1.826	4
41	MP3A	Z	3.162	4
42	MP3A	Mx	-.000913	4
43	MP3B	X	2.141	1.5
44	MP3B	Z	3.708	1.5
45	MP3B	Mx	-.000372	1.5
46	MP3B	X	2.141	4
47	MP3B	Z	3.708	4
48	MP3B	Mx	-.000372	4
49	MP3C	X	1.008	1.5
50	MP3C	Z	1.745	1.5
51	MP3C	Mx	.000913	1.5
52	MP3C	X	1.008	4
53	MP3C	Z	1.745	4
54	MP3C	Mx	.000913	4
55	M17	X	3.32	1.25
56	M17	Z	5.751	1.25
57	M17	Mx	0	1.25
58	MP2A	X	1.585	4
59	MP2A	Z	2.745	4
60	MP2A	Mx	.000792	4
61	MP2B	X	1.71	4
62	MP2B	Z	2.961	4
63	MP2B	Mx	.000297	4
64	MP2C	X	1.26	4
65	MP2C	Z	2.183	4
66	MP2C	Mx	-.001	4
67	MP1A	X	1.557	3
68	MP1A	Z	2.697	3
69	MP1A	Mx	.000778	3
70	MP1B	X	1.706	3
71	MP1B	Z	2.956	3
72	MP1B	Mx	.000297	3
73	MP1C	X	1.169	3
74	MP1C	Z	2.024	3
75	MP1C	Mx	-.001	3
76	MP1A	X	1.842	1.5
77	MP1A	Z	3.191	1.5
78	MP1A	Mx	-.000921	1.5
79	MP1A	X	1.842	4.5
80	MP1A	Z	3.191	4.5
81	MP1A	Mx	-.000921	4.5
82	MP1B	X	1.501	1.5
83	MP1B	Z	2.599	1.5
84	MP1B	Mx	-.00026	1.5
85	MP1B	X	1.501	4.5
86	MP1B	Z	2.599	4.5
87	MP1B	Mx	-.00026	4.5
88	MP1C	X	2.73	1.5
89	MP1C	Z	4.729	1.5
90	MP1C	Mx	.002	1.5
91	MP1C	X	2.73	4.5
92	MP1C	Z	4.729	4.5
93	MP1C	Mx	.002	4.5
94	MP4A	X	1.842	1.5
95	MP4A	Z	3.191	1.5
96	MP4A	Mx	-.000921	1.5
97	MP4A	X	1.842	4.5
98	MP4A	Z	3.191	4.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
99	MP4A	Mx	-.000921	4.5
100	MP4B	X	1.501	1.5
101	MP4B	Z	2.599	1.5
102	MP4B	Mx	-.00026	1.5
103	MP4B	X	1.501	4.5
104	MP4B	Z	2.599	4.5
105	MP4B	Mx	-.00026	4.5
106	MP4C	X	2.73	1.5
107	MP4C	Z	4.729	1.5
108	MP4C	Mx	.002	1.5
109	MP4C	X	2.73	4.5
110	MP4C	Z	4.729	4.5
111	MP4C	Mx	.002	4.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	0	.5
2	MP2A	Z	6.05	.5
3	MP2A	Mx	.004	.5
4	MP2A	X	0	5.5
5	MP2A	Z	6.05	5.5
6	MP2A	Mx	.004	5.5
7	MP2B	X	0	.5
8	MP2B	Z	4.623	.5
9	MP2B	Mx	-.004	.5
10	MP2B	X	0	5.5
11	MP2B	Z	4.623	5.5
12	MP2B	Mx	-.004	5.5
13	MP2C	X	0	.5
14	MP2C	Z	2.622	.5
15	MP2C	Mx	.001	.5
16	MP2C	X	0	5.5
17	MP2C	Z	2.622	5.5
18	MP2C	Mx	.001	5.5
19	MP2A	X	0	.5
20	MP2A	Z	6.05	.5
21	MP2A	Mx	-.004	.5
22	MP2A	X	0	5.5
23	MP2A	Z	6.05	5.5
24	MP2A	Mx	-.004	5.5
25	MP2B	X	0	.5
26	MP2B	Z	4.623	.5
27	MP2B	Mx	.000875	.5
28	MP2B	X	0	5.5
29	MP2B	Z	4.623	5.5
30	MP2B	Mx	.000875	5.5
31	MP2C	X	0	.5
32	MP2C	Z	2.622	.5
33	MP2C	Mx	.001	.5
34	MP2C	X	0	5.5
35	MP2C	Z	2.622	5.5
36	MP2C	Mx	.001	5.5
37	MP3A	X	0	1.5
38	MP3A	Z	4.367	1.5
39	MP3A	Mx	0	1.5
40	MP3A	X	0	4
41	MP3A	Z	4.367	4
42	MP3A	Mx	0	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
43	MP3B	X	0	1.5
44	MP3B	Z	3.184	1.5
45	MP3B	Mx	-.001	1.5
46	MP3B	X	0	4
47	MP3B	Z	3.184	4
48	MP3B	Mx	-.001	4
49	MP3C	X	0	1.5
50	MP3C	Z	1.526	1.5
51	MP3C	Mx	.00076	1.5
52	MP3C	X	0	4
53	MP3C	Z	1.526	4
54	MP3C	Mx	.00076	4
55	M17	X	0	1.25
56	M17	Z	7.064	1.25
57	M17	Mx	0	1.25
58	MP2A	X	0	4
59	MP2A	Z	3.454	4
60	MP2A	Mx	0	4
61	MP2B	X	0	4
62	MP2B	Z	2.984	4
63	MP2B	Mx	.000959	4
64	MP2C	X	0	4
65	MP2C	Z	2.326	4
66	MP2C	Mx	-.001	4
67	MP1A	X	0	3
68	MP1A	Z	3.454	3
69	MP1A	Mx	0	3
70	MP1B	X	0	3
71	MP1B	Z	2.892	3
72	MP1B	Mx	.000929	3
73	MP1C	X	0	3
74	MP1C	Z	2.105	3
75	MP1C	Mx	-.001	3
76	MP1A	X	0	1.5
77	MP1A	Z	2.908	1.5
78	MP1A	Mx	0	1.5
79	MP1A	X	0	4.5
80	MP1A	Z	2.908	4.5
81	MP1A	Mx	0	4.5
82	MP1B	X	0	1.5
83	MP1B	Z	4.192	1.5
84	MP1B	Mx	-.001	1.5
85	MP1B	X	0	4.5
86	MP1B	Z	4.192	4.5
87	MP1B	Mx	-.001	4.5
88	MP1C	X	0	1.5
89	MP1C	Z	5.992	1.5
90	MP1C	Mx	.003	1.5
91	MP1C	X	0	4.5
92	MP1C	Z	5.992	4.5
93	MP1C	Mx	.003	4.5
94	MP4A	X	0	1.5
95	MP4A	Z	2.908	1.5
96	MP4A	Mx	0	1.5
97	MP4A	X	0	4.5
98	MP4A	Z	2.908	4.5
99	MP4A	Mx	0	4.5
100	MP4B	X	0	1.5
101	MP4B	Z	4.192	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
102	MP4B	Mx	-.001	1.5
103	MP4B	X	0	4.5
104	MP4B	Z	4.192	4.5
105	MP4B	Mx	-.001	4.5
106	MP4C	X	0	1.5
107	MP4C	Z	5.992	1.5
108	MP4C	Mx	.003	1.5
109	MP4C	X	0	4.5
110	MP4C	Z	5.992	4.5
111	MP4C	Mx	.003	4.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-2.593	.5
2	MP2A	Z	4.492	.5
3	MP2A	Mx	.004	.5
4	MP2A	X	-2.593	5.5
5	MP2A	Z	4.492	5.5
6	MP2A	Mx	.004	5.5
7	MP2B	X	-1.5	.5
8	MP2B	Z	2.598	.5
9	MP2B	Mx	-.002	.5
10	MP2B	X	-1.5	5.5
11	MP2B	Z	2.598	5.5
12	MP2B	Mx	-.002	5.5
13	MP2C	X	-1.866	.5
14	MP2C	Z	3.232	.5
15	MP2C	Mx	.000101	.5
16	MP2C	X	-1.866	5.5
17	MP2C	Z	3.232	5.5
18	MP2C	Mx	.000101	5.5
19	MP2A	X	-2.593	.5
20	MP2A	Z	4.492	.5
21	MP2A	Mx	-.002	.5
22	MP2A	X	-2.593	5.5
23	MP2A	Z	4.492	5.5
24	MP2A	Mx	-.002	5.5
25	MP2B	X	-1.5	.5
26	MP2B	Z	2.598	.5
27	MP2B	Mx	-.000726	.5
28	MP2B	X	-1.5	5.5
29	MP2B	Z	2.598	5.5
30	MP2B	Mx	-.000726	5.5
31	MP2C	X	-1.866	.5
32	MP2C	Z	3.232	.5
33	MP2C	Mx	.003	.5
34	MP2C	X	-1.866	5.5
35	MP2C	Z	3.232	5.5
36	MP2C	Mx	.003	5.5
37	MP3A	X	-1.826	1.5
38	MP3A	Z	3.162	1.5
39	MP3A	Mx	.000913	1.5
40	MP3A	X	-1.826	4
41	MP3A	Z	3.162	4
42	MP3A	Mx	.000913	4
43	MP3B	X	-.92	1.5
44	MP3B	Z	1.593	1.5
45	MP3B	Mx	-.000864	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
46	MP3B	X	-.92	4
47	MP3B	Z	1.593	4
48	MP3B	Mx	-.000864	4
49	MP3C	X	-1.223	1.5
50	MP3C	Z	2.118	1.5
51	MP3C	Mx	.001	1.5
52	MP3C	X	-1.223	4
53	MP3C	Z	2.118	4
54	MP3C	Mx	.001	4
55	M17	X	-3.32	1.25
56	M17	Z	5.751	1.25
57	M17	Mx	0	1.25
58	MP2A	X	-1.585	4
59	MP2A	Z	2.745	4
60	MP2A	Mx	-.000792	4
61	MP2B	X	-1.225	4
62	MP2B	Z	2.122	4
63	MP2B	Mx	.001	4
64	MP2C	X	-1.346	4
65	MP2C	Z	2.331	4
66	MP2C	Mx	-.001	4
67	MP1A	X	-1.557	3
68	MP1A	Z	2.697	3
69	MP1A	Mx	-.000778	3
70	MP1B	X	-1.127	3
71	MP1B	Z	1.952	3
72	MP1B	Mx	.001	3
73	MP1C	X	-1.271	3
74	MP1C	Z	2.201	3
75	MP1C	Mx	-.001	3
76	MP1A	X	-1.842	1.5
77	MP1A	Z	3.191	1.5
78	MP1A	Mx	.000921	1.5
79	MP1A	X	-1.842	4.5
80	MP1A	Z	3.191	4.5
81	MP1A	Mx	.000921	4.5
82	MP1B	X	-2.826	1.5
83	MP1B	Z	4.894	1.5
84	MP1B	Mx	-.003	1.5
85	MP1B	X	-2.826	4.5
86	MP1B	Z	4.894	4.5
87	MP1B	Mx	-.003	4.5
88	MP1C	X	-2.496	1.5
89	MP1C	Z	4.324	1.5
90	MP1C	Mx	.002	1.5
91	MP1C	X	-2.496	4.5
92	MP1C	Z	4.324	4.5
93	MP1C	Mx	.002	4.5
94	MP4A	X	-1.842	1.5
95	MP4A	Z	3.191	1.5
96	MP4A	Mx	.000921	1.5
97	MP4A	X	-1.842	4.5
98	MP4A	Z	3.191	4.5
99	MP4A	Mx	.000921	4.5
100	MP4B	X	-2.826	1.5
101	MP4B	Z	4.894	1.5
102	MP4B	Mx	-.003	1.5
103	MP4B	X	-2.826	4.5
104	MP4B	Z	4.894	4.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
105	MP4B	Mx	-.003	4.5
106	MP4C	X	-2.496	1.5
107	MP4C	Z	4.324	1.5
108	MP4C	Mx	.002	1.5
109	MP4C	X	-2.496	4.5
110	MP4C	Z	4.324	4.5
111	MP4C	Mx	.002	4.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-2.996	.5
2	MP2A	Z	1.73	.5
3	MP2A	Mx	.003	.5
4	MP2A	X	-2.996	5.5
5	MP2A	Z	1.73	5.5
6	MP2A	Mx	.003	5.5
7	MP2B	X	-2.338	.5
8	MP2B	Z	1.35	.5
9	MP2B	Mx	-.001	.5
10	MP2B	X	-2.338	5.5
11	MP2B	Z	1.35	5.5
12	MP2B	Mx	-.001	5.5
13	MP2C	X	-4.705	.5
14	MP2C	Z	2.716	.5
15	MP2C	Mx	-.002	.5
16	MP2C	X	-4.705	5.5
17	MP2C	Z	2.716	5.5
18	MP2C	Mx	-.002	5.5
19	MP2A	X	-2.996	.5
20	MP2A	Z	1.73	.5
21	MP2A	Mx	.000345	.5
22	MP2A	X	-2.996	5.5
23	MP2A	Z	1.73	5.5
24	MP2A	Mx	.000345	5.5
25	MP2B	X	-2.338	.5
26	MP2B	Z	1.35	.5
27	MP2B	Mx	-.002	.5
28	MP2B	X	-2.338	5.5
29	MP2B	Z	1.35	5.5
30	MP2B	Mx	-.002	5.5
31	MP2C	X	-4.705	.5
32	MP2C	Z	2.716	.5
33	MP2C	Mx	.004	.5
34	MP2C	X	-4.705	5.5
35	MP2C	Z	2.716	5.5
36	MP2C	Mx	.004	5.5
37	MP3A	X	-1.923	1.5
38	MP3A	Z	1.11	1.5
39	MP3A	Mx	.000962	1.5
40	MP3A	X	-1.923	4
41	MP3A	Z	1.11	4
42	MP3A	Mx	.000962	4
43	MP3B	X	-1.377	1.5
44	MP3B	Z	.795	1.5
45	MP3B	Mx	-.000783	1.5
46	MP3B	X	-1.377	4
47	MP3B	Z	.795	4
48	MP3B	Mx	-.000783	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
49	MP3C	X	-3.339	1.5
50	MP3C	Z	1.928	1.5
51	MP3C	Mx	.000815	1.5
52	MP3C	X	-3.339	4
53	MP3C	Z	1.928	4
54	MP3C	Mx	.000815	4
55	M17	X	-5.017	1.25
56	M17	Z	2.897	1.25
57	M17	Mx	0	1.25
58	MP2A	X	-2.253	4
59	MP2A	Z	1.301	4
60	MP2A	Mx	-.001	4
61	MP2B	X	-2.037	4
62	MP2B	Z	1.176	4
63	MP2B	Mx	.001	4
64	MP2C	X	-2.815	4
65	MP2C	Z	1.625	4
66	MP2C	Mx	-.000687	4
67	MP1A	X	-2.108	3
68	MP1A	Z	1.217	3
69	MP1A	Mx	-.001	3
70	MP1B	X	-1.849	3
71	MP1B	Z	1.068	3
72	MP1B	Mx	.001	3
73	MP1C	X	-2.781	3
74	MP1C	Z	1.606	3
75	MP1C	Mx	-.000679	3
76	MP1A	X	-4.537	1.5
77	MP1A	Z	2.619	1.5
78	MP1A	Mx	.002	1.5
79	MP1A	X	-4.537	4.5
80	MP1A	Z	2.619	4.5
81	MP1A	Mx	.002	4.5
82	MP1B	X	-5.128	1.5
83	MP1B	Z	2.961	1.5
84	MP1B	Mx	-.003	1.5
85	MP1B	X	-5.128	4.5
86	MP1B	Z	2.961	4.5
87	MP1B	Mx	-.003	4.5
88	MP1C	X	-2.999	1.5
89	MP1C	Z	1.731	1.5
90	MP1C	Mx	.000732	1.5
91	MP1C	X	-2.999	4.5
92	MP1C	Z	1.731	4.5
93	MP1C	Mx	.000732	4.5
94	MP4A	X	-4.537	1.5
95	MP4A	Z	2.619	1.5
96	MP4A	Mx	.002	1.5
97	MP4A	X	-4.537	4.5
98	MP4A	Z	2.619	4.5
99	MP4A	Mx	.002	4.5
100	MP4B	X	-5.128	1.5
101	MP4B	Z	2.961	1.5
102	MP4B	Mx	-.003	1.5
103	MP4B	X	-5.128	4.5
104	MP4B	Z	2.961	4.5
105	MP4B	Mx	-.003	4.5
106	MP4C	X	-2.999	1.5
107	MP4C	Z	1.731	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
108	MP4C	Mx	.000732	1.5
109	MP4C	X	-2.999	4.5
110	MP4C	Z	1.731	4.5
111	MP4C	Mx	.000732	4.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-2.596	.5
2	MP2A	Z	0	.5
3	MP2A	Mx	.001	.5
4	MP2A	X	-2.596	5.5
5	MP2A	Z	0	5.5
6	MP2A	Mx	.001	5.5
7	MP2B	X	-4.023	.5
8	MP2B	Z	0	.5
9	MP2B	Mx	.000183	.5
10	MP2B	X	-4.023	5.5
11	MP2B	Z	0	5.5
12	MP2B	Mx	.000183	5.5
13	MP2C	X	-6.024	.5
14	MP2C	Z	0	.5
15	MP2C	Mx	-.004	.5
16	MP2C	X	-6.024	5.5
17	MP2C	Z	0	5.5
18	MP2C	Mx	-.004	5.5
19	MP2A	X	-2.596	.5
20	MP2A	Z	0	.5
21	MP2A	Mx	.001	.5
22	MP2A	X	-2.596	5.5
23	MP2A	Z	0	5.5
24	MP2A	Mx	.001	5.5
25	MP2B	X	-4.023	.5
26	MP2B	Z	0	.5
27	MP2B	Mx	-.003	.5
28	MP2B	X	-4.023	5.5
29	MP2B	Z	0	5.5
30	MP2B	Mx	-.003	5.5
31	MP2C	X	-6.024	.5
32	MP2C	Z	0	.5
33	MP2C	Mx	.004	.5
34	MP2C	X	-6.024	5.5
35	MP2C	Z	0	5.5
36	MP2C	Mx	.004	5.5
37	MP3A	X	-1.504	1.5
38	MP3A	Z	0	1.5
39	MP3A	Mx	.000752	1.5
40	MP3A	X	-1.504	4
41	MP3A	Z	0	4
42	MP3A	Mx	.000752	4
43	MP3B	X	-2.687	1.5
44	MP3B	Z	0	1.5
45	MP3B	Mx	-.001	1.5
46	MP3B	X	-2.687	4
47	MP3B	Z	0	4
48	MP3B	Mx	-.001	4
49	MP3C	X	-4.346	1.5
50	MP3C	Z	0	1.5
51	MP3C	Mx	-.000189	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
52	MP3C	X	-4.346	4
53	MP3C	Z	0	4
54	MP3C	Mx	-.000189	4
55	M17	X	-5.37	1.25
56	M17	Z	0	1.25
57	M17	Mx	0	1.25
58	MP2A	X	-2.317	4
59	MP2A	Z	0	4
60	MP2A	Mx	-.001	4
61	MP2B	X	-2.787	4
62	MP2B	Z	0	4
63	MP2B	Mx	.001	4
64	MP2C	X	-3.445	4
65	MP2C	Z	0	4
66	MP2C	Mx	.00015	4
67	MP1A	X	-2.095	3
68	MP1A	Z	0	3
69	MP1A	Mx	-.001	3
70	MP1B	X	-2.656	3
71	MP1B	Z	0	3
72	MP1B	Mx	.001	3
73	MP1C	X	-3.444	3
74	MP1C	Z	0	3
75	MP1C	Mx	.00015	3
76	MP1A	X	-6.015	1.5
77	MP1A	Z	0	1.5
78	MP1A	Mx	.003	1.5
79	MP1A	X	-6.015	4.5
80	MP1A	Z	0	4.5
81	MP1A	Mx	.003	4.5
82	MP1B	X	-4.731	1.5
83	MP1B	Z	0	1.5
84	MP1B	Mx	-.002	1.5
85	MP1B	X	-4.731	4.5
86	MP1B	Z	0	4.5
87	MP1B	Mx	-.002	4.5
88	MP1C	X	-2.932	1.5
89	MP1C	Z	0	1.5
90	MP1C	Mx	-.000128	1.5
91	MP1C	X	-2.932	4.5
92	MP1C	Z	0	4.5
93	MP1C	Mx	-.000128	4.5
94	MP4A	X	-6.015	1.5
95	MP4A	Z	0	1.5
96	MP4A	Mx	.003	1.5
97	MP4A	X	-6.015	4.5
98	MP4A	Z	0	4.5
99	MP4A	Mx	.003	4.5
100	MP4B	X	-4.731	1.5
101	MP4B	Z	0	1.5
102	MP4B	Mx	-.002	1.5
103	MP4B	X	-4.731	4.5
104	MP4B	Z	0	4.5
105	MP4B	Mx	-.002	4.5
106	MP4C	X	-2.932	1.5
107	MP4C	Z	0	1.5
108	MP4C	Mx	-.000128	1.5
109	MP4C	X	-2.932	4.5
110	MP4C	Z	0	4.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
111	MP4C	Mx	-.000128	4.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-2.996	.5
2	MP2A	Z	-1.73	.5
3	MP2A	Mx	.000345	.5
4	MP2A	X	-2.996	5.5
5	MP2A	Z	-1.73	5.5
6	MP2A	Mx	.000345	5.5
7	MP2B	X	-4.889	.5
8	MP2B	Z	-2.823	.5
9	MP2B	Mx	.003	.5
10	MP2B	X	-4.889	5.5
11	MP2B	Z	-2.823	5.5
12	MP2B	Mx	.003	5.5
13	MP2C	X	-4.255	.5
14	MP2C	Z	-2.457	.5
15	MP2C	Mx	-.004	.5
16	MP2C	X	-4.255	5.5
17	MP2C	Z	-2.457	5.5
18	MP2C	Mx	-.004	5.5
19	MP2A	X	-2.996	.5
20	MP2A	Z	-1.73	.5
21	MP2A	Mx	.003	.5
22	MP2A	X	-2.996	5.5
23	MP2A	Z	-1.73	5.5
24	MP2A	Mx	.003	5.5
25	MP2B	X	-4.889	.5
26	MP2B	Z	-2.823	.5
27	MP2B	Mx	-.005	.5
28	MP2B	X	-4.889	5.5
29	MP2B	Z	-2.823	5.5
30	MP2B	Mx	-.005	5.5
31	MP2C	X	-4.255	.5
32	MP2C	Z	-2.457	.5
33	MP2C	Mx	.001	.5
34	MP2C	X	-4.255	5.5
35	MP2C	Z	-2.457	5.5
36	MP2C	Mx	.001	5.5
37	MP3A	X	-1.923	1.5
38	MP3A	Z	-1.11	1.5
39	MP3A	Mx	.000962	1.5
40	MP3A	X	-1.923	4
41	MP3A	Z	-1.11	4
42	MP3A	Mx	.000962	4
43	MP3B	X	-3.492	1.5
44	MP3B	Z	-2.016	1.5
45	MP3B	Mx	-.00069	1.5
46	MP3B	X	-3.492	4
47	MP3B	Z	-2.016	4
48	MP3B	Mx	-.00069	4
49	MP3C	X	-2.967	1.5
50	MP3C	Z	-1.713	1.5
51	MP3C	Mx	-.000983	1.5
52	MP3C	X	-2.967	4
53	MP3C	Z	-1.713	4
54	MP3C	Mx	-.000983	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
55	M17	X	-5.017	1.25
56	M17	Z	-2.897	1.25
57	M17	Mx	0	1.25
58	MP2A	X	-2.253	4
59	MP2A	Z	-1.301	4
60	MP2A	Mx	-.001	4
61	MP2B	X	-2.876	4
62	MP2B	Z	-1.66	4
63	MP2B	Mx	.000568	4
64	MP2C	X	-2.667	4
65	MP2C	Z	-1.54	4
66	MP2C	Mx	.000883	4
67	MP1A	X	-2.108	3
68	MP1A	Z	-1.217	3
69	MP1A	Mx	-.001	3
70	MP1B	X	-2.853	3
71	MP1B	Z	-1.647	3
72	MP1B	Mx	.000563	3
73	MP1C	X	-2.604	3
74	MP1C	Z	-1.503	3
75	MP1C	Mx	.000862	3
76	MP1A	X	-4.537	1.5
77	MP1A	Z	-2.619	1.5
78	MP1A	Mx	.002	1.5
79	MP1A	X	-4.537	4.5
80	MP1A	Z	-2.619	4.5
81	MP1A	Mx	.002	4.5
82	MP1B	X	-2.833	1.5
83	MP1B	Z	-1.636	1.5
84	MP1B	Mx	-.000559	1.5
85	MP1B	X	-2.833	4.5
86	MP1B	Z	-1.636	4.5
87	MP1B	Mx	-.000559	4.5
88	MP1C	X	-3.404	1.5
89	MP1C	Z	-1.965	1.5
90	MP1C	Mx	-.001	1.5
91	MP1C	X	-3.404	4.5
92	MP1C	Z	-1.965	4.5
93	MP1C	Mx	-.001	4.5
94	MP4A	X	-4.537	1.5
95	MP4A	Z	-2.619	1.5
96	MP4A	Mx	.002	1.5
97	MP4A	X	-4.537	4.5
98	MP4A	Z	-2.619	4.5
99	MP4A	Mx	.002	4.5
100	MP4B	X	-2.833	1.5
101	MP4B	Z	-1.636	1.5
102	MP4B	Mx	-.000559	1.5
103	MP4B	X	-2.833	4.5
104	MP4B	Z	-1.636	4.5
105	MP4B	Mx	-.000559	4.5
106	MP4C	X	-3.404	1.5
107	MP4C	Z	-1.965	1.5
108	MP4C	Mx	-.001	1.5
109	MP4C	X	-3.404	4.5
110	MP4C	Z	-1.965	4.5
111	MP4C	Mx	-.001	4.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-2.593	.5
2	MP2A	Z	-4.492	.5
3	MP2A	Mx	-.002	.5
4	MP2A	X	-2.593	5.5
5	MP2A	Z	-4.492	5.5
6	MP2A	Mx	-.002	5.5
7	MP2B	X	-2.973	.5
8	MP2B	Z	-5.149	.5
9	MP2B	Mx	.004	.5
10	MP2B	X	-2.973	5.5
11	MP2B	Z	-5.149	5.5
12	MP2B	Mx	.004	5.5
13	MP2C	X	-1.606	.5
14	MP2C	Z	-2.782	.5
15	MP2C	Mx	-.002	.5
16	MP2C	X	-1.606	5.5
17	MP2C	Z	-2.782	5.5
18	MP2C	Mx	-.002	5.5
19	MP2A	X	-2.593	.5
20	MP2A	Z	-4.492	.5
21	MP2A	Mx	.004	.5
22	MP2A	X	-2.593	5.5
23	MP2A	Z	-4.492	5.5
24	MP2A	Mx	.004	5.5
25	MP2B	X	-2.973	.5
26	MP2B	Z	-5.149	.5
27	MP2B	Mx	-.003	.5
28	MP2B	X	-2.973	5.5
29	MP2B	Z	-5.149	5.5
30	MP2B	Mx	-.003	5.5
31	MP2C	X	-1.606	.5
32	MP2C	Z	-2.782	.5
33	MP2C	Mx	-.000551	.5
34	MP2C	X	-1.606	5.5
35	MP2C	Z	-2.782	5.5
36	MP2C	Mx	-.000551	5.5
37	MP3A	X	-1.826	1.5
38	MP3A	Z	-3.162	1.5
39	MP3A	Mx	.000913	1.5
40	MP3A	X	-1.826	4
41	MP3A	Z	-3.162	4
42	MP3A	Mx	.000913	4
43	MP3B	X	-2.141	1.5
44	MP3B	Z	-3.708	1.5
45	MP3B	Mx	.000372	1.5
46	MP3B	X	-2.141	4
47	MP3B	Z	-3.708	4
48	MP3B	Mx	.000372	4
49	MP3C	X	-1.008	1.5
50	MP3C	Z	-1.745	1.5
51	MP3C	Mx	-.000913	1.5
52	MP3C	X	-1.008	4
53	MP3C	Z	-1.745	4
54	MP3C	Mx	-.000913	4
55	M17	X	-3.32	1.25
56	M17	Z	-5.751	1.25
57	M17	Mx	0	1.25
58	MP2A	X	-1.585	4
59	MP2A	Z	-2.745	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
60	MP2A	Mx	-.000792	4
61	MP2B	X	-1.71	4
62	MP2B	Z	-2.961	4
63	MP2B	Mx	-.000297	4
64	MP2C	X	-1.26	4
65	MP2C	Z	-2.183	4
66	MP2C	Mx	.001	4
67	MP1A	X	-1.557	3
68	MP1A	Z	-2.697	3
69	MP1A	Mx	-.000778	3
70	MP1B	X	-1.706	3
71	MP1B	Z	-2.956	3
72	MP1B	Mx	-.000297	3
73	MP1C	X	-1.169	3
74	MP1C	Z	-2.024	3
75	MP1C	Mx	.001	3
76	MP1A	X	-1.842	1.5
77	MP1A	Z	-3.191	1.5
78	MP1A	Mx	.000921	1.5
79	MP1A	X	-1.842	4.5
80	MP1A	Z	-3.191	4.5
81	MP1A	Mx	.000921	4.5
82	MP1B	X	-1.501	1.5
83	MP1B	Z	-2.599	1.5
84	MP1B	Mx	.00026	1.5
85	MP1B	X	-1.501	4.5
86	MP1B	Z	-2.599	4.5
87	MP1B	Mx	.00026	4.5
88	MP1C	X	-2.73	1.5
89	MP1C	Z	-4.729	1.5
90	MP1C	Mx	-.002	1.5
91	MP1C	X	-2.73	4.5
92	MP1C	Z	-4.729	4.5
93	MP1C	Mx	-.002	4.5
94	MP4A	X	-1.842	1.5
95	MP4A	Z	-3.191	1.5
96	MP4A	Mx	.000921	1.5
97	MP4A	X	-1.842	4.5
98	MP4A	Z	-3.191	4.5
99	MP4A	Mx	.000921	4.5
100	MP4B	X	-1.501	1.5
101	MP4B	Z	-2.599	1.5
102	MP4B	Mx	.00026	1.5
103	MP4B	X	-1.501	4.5
104	MP4B	Z	-2.599	4.5
105	MP4B	Mx	.00026	4.5
106	MP4C	X	-2.73	1.5
107	MP4C	Z	-4.729	1.5
108	MP4C	Mx	-.002	1.5
109	MP4C	X	-2.73	4.5
110	MP4C	Z	-4.729	4.5
111	MP4C	Mx	-.002	4.5

Member Point Loads (BLC 77 : Lm1)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	M1	Y	-500	%67

Member Point Loads (BLC 78 : Lm2)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	M1	Y	-500	%34

Member Point Loads (BLC 79 : Lv1)

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

Member Point Loads (BLC 80 : Lv2)

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

Member Point Loads (BLC 81 : Antenna Ev)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	Y	-.923	.5
2	MP2A	My	-.000461	.5
3	MP2A	Mz	.000615	.5
4	MP2A	Y	-.923	5.5
5	MP2A	My	-.000461	5.5
6	MP2A	Mz	.000615	5.5
7	MP2B	Y	-.923	.5
8	MP2B	My	-4.2e-5	.5
9	MP2B	Mz	-.000768	.5
10	MP2B	Y	-.923	5.5
11	MP2B	My	-4.2e-5	5.5
12	MP2B	Mz	-.000768	5.5
13	MP2C	Y	-.923	.5
14	MP2C	My	.000653	.5
15	MP2C	Mz	.000406	.5
16	MP2C	Y	-.923	5.5
17	MP2C	My	.000653	5.5
18	MP2C	Mz	.000406	5.5
19	MP2A	Y	-.923	.5
20	MP2A	My	-.000461	.5
21	MP2A	Mz	-.000615	.5
22	MP2A	Y	-.923	5.5
23	MP2A	My	-.000461	5.5
24	MP2A	Mz	-.000615	5.5
25	MP2B	Y	-.923	.5
26	MP2B	My	.000749	.5
27	MP2B	Mz	.000175	.5
28	MP2B	Y	-.923	5.5
29	MP2B	My	.000749	5.5
30	MP2B	Mz	.000175	5.5
31	MP2C	Y	-.923	.5
32	MP2C	My	-.000573	.5
33	MP2C	Mz	.000513	.5
34	MP2C	Y	-.923	5.5
35	MP2C	My	-.000573	5.5
36	MP2C	Mz	.000513	5.5
37	MP3A	Y	-1.84	1.5
38	MP3A	My	-.00092	1.5
39	MP3A	Mz	0	1.5
40	MP3A	Y	-1.84	4
41	MP3A	My	-.00092	4
42	MP3A	Mz	0	4
43	MP3B	Y	-1.84	1.5
44	MP3B	My	.000705	1.5
45	MP3B	Mz	-.000591	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
46	MP3B	Y	-1.84	4
47	MP3B	My	.000705	4
48	MP3B	Mz	-.000591	4
49	MP3C	Y	-1.84	1.5
50	MP3C	My	8e-5	1.5
51	MP3C	Mz	.000916	1.5
52	MP3C	Y	-1.84	4
53	MP3C	My	8e-5	4
54	MP3C	Mz	.000916	4
55	M17	Y	-1.352	1.25
56	M17	My	0	1.25
57	M17	Mz	0	1.25
58	MP2A	Y	-3.155	4
59	MP2A	My	.002	4
60	MP2A	Mz	0	4
61	MP2B	Y	-3.155	4
62	MP2B	My	-.001	4
63	MP2B	Mz	.001	4
64	MP2C	Y	-3.155	4
65	MP2C	My	-.000138	4
66	MP2C	Mz	-.002	4
67	MP1A	Y	-2.969	3
68	MP1A	My	.001	3
69	MP1A	Mz	0	3
70	MP1B	Y	-2.969	3
71	MP1B	My	-.001	3
72	MP1B	Mz	.000954	3
73	MP1C	Y	-2.969	3
74	MP1C	My	-.000129	3
75	MP1C	Mz	-.001	3
76	MP1A	Y	-.253	1.5
77	MP1A	My	-.000127	1.5
78	MP1A	Mz	0	1.5
79	MP1A	Y	-.253	4.5
80	MP1A	My	-.000127	4.5
81	MP1A	Mz	0	4.5
82	MP1B	Y	-.253	1.5
83	MP1B	My	9.7e-5	1.5
84	MP1B	Mz	-8.1e-5	1.5
85	MP1B	Y	-.253	4.5
86	MP1B	My	9.7e-5	4.5
87	MP1B	Mz	-8.1e-5	4.5
88	MP1C	Y	-.253	1.5
89	MP1C	My	1.1e-5	1.5
90	MP1C	Mz	.000126	1.5
91	MP1C	Y	-.253	4.5
92	MP1C	My	1.1e-5	4.5
93	MP1C	Mz	.000126	4.5
94	MP4A	Y	-.253	1.5
95	MP4A	My	-.000127	1.5
96	MP4A	Mz	0	1.5
97	MP4A	Y	-.253	4.5
98	MP4A	My	-.000127	4.5
99	MP4A	Mz	0	4.5
100	MP4B	Y	-.253	1.5
101	MP4B	My	9.7e-5	1.5
102	MP4B	Mz	-8.1e-5	1.5
103	MP4B	Y	-.253	4.5
104	MP4B	My	9.7e-5	4.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
105	MP4B	Mz	-8.1e-5	4.5
106	MP4C	Y	-.253	1.5
107	MP4C	My	1.1e-5	1.5
108	MP4C	Mz	.000126	1.5
109	MP4C	Y	-.253	4.5
110	MP4C	My	1.1e-5	4.5
111	MP4C	Mz	.000126	4.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	Z	-2.307	.5
2	MP2A	Mx	-.002	.5
3	MP2A	Z	-2.307	5.5
4	MP2A	Mx	-.002	5.5
5	MP2B	Z	-2.307	.5
6	MP2B	Mx	.002	.5
7	MP2B	Z	-2.307	5.5
8	MP2B	Mx	.002	5.5
9	MP2C	Z	-2.307	.5
10	MP2C	Mx	-.001	.5
11	MP2C	Z	-2.307	5.5
12	MP2C	Mx	-.001	5.5
13	MP2A	Z	-2.307	.5
14	MP2A	Mx	.002	.5
15	MP2A	Z	-2.307	5.5
16	MP2A	Mx	.002	5.5
17	MP2B	Z	-2.307	.5
18	MP2B	Mx	-.000437	.5
19	MP2B	Z	-2.307	5.5
20	MP2B	Mx	-.000437	5.5
21	MP2C	Z	-2.307	.5
22	MP2C	Mx	-.001	.5
23	MP2C	Z	-2.307	5.5
24	MP2C	Mx	-.001	5.5
25	MP3A	Z	-4.599	1.5
26	MP3A	Mx	0	1.5
27	MP3A	Z	-4.599	4
28	MP3A	Mx	0	4
29	MP3B	Z	-4.599	1.5
30	MP3B	Mx	.001	1.5
31	MP3B	Z	-4.599	4
32	MP3B	Mx	.001	4
33	MP3C	Z	-4.599	1.5
34	MP3C	Mx	-.002	1.5
35	MP3C	Z	-4.599	4
36	MP3C	Mx	-.002	4
37	M17	Z	-3.379	1.25
38	M17	Mx	0	1.25
39	MP2A	Z	-7.888	4
40	MP2A	Mx	0	4
41	MP2B	Z	-7.888	4
42	MP2B	Mx	-.003	4
43	MP2C	Z	-7.888	4
44	MP2C	Mx	.004	4
45	MP1A	Z	-7.424	3
46	MP1A	Mx	0	3
47	MP1B	Z	-7.424	3
48	MP1B	Mx	-.002	3

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
49	MP1C	Z	-7.424	3
50	MP1C	Mx	.004	3
51	MP1A	Z	-.634	1.5
52	MP1A	Mx	0	1.5
53	MP1A	Z	-.634	4.5
54	MP1A	Mx	0	4.5
55	MP1B	Z	-.634	1.5
56	MP1B	Mx	.000204	1.5
57	MP1B	Z	-.634	4.5
58	MP1B	Mx	.000204	4.5
59	MP1C	Z	-.634	1.5
60	MP1C	Mx	-.000316	1.5
61	MP1C	Z	-.634	4.5
62	MP1C	Mx	-.000316	4.5
63	MP4A	Z	-.634	1.5
64	MP4A	Mx	0	1.5
65	MP4A	Z	-.634	4.5
66	MP4A	Mx	0	4.5
67	MP4B	Z	-.634	1.5
68	MP4B	Mx	.000204	1.5
69	MP4B	Z	-.634	4.5
70	MP4B	Mx	.000204	4.5
71	MP4C	Z	-.634	1.5
72	MP4C	Mx	-.000316	1.5
73	MP4C	Z	-.634	4.5
74	MP4C	Mx	-.000316	4.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	2.307	.5
2	MP2A	Mx	-.001	.5
3	MP2A	X	2.307	5.5
4	MP2A	Mx	-.001	5.5
5	MP2B	X	2.307	.5
6	MP2B	Mx	-.000105	.5
7	MP2B	X	2.307	5.5
8	MP2B	Mx	-.000105	5.5
9	MP2C	X	2.307	.5
10	MP2C	Mx	.002	.5
11	MP2C	X	2.307	5.5
12	MP2C	Mx	.002	5.5
13	MP2A	X	2.307	.5
14	MP2A	Mx	-.001	.5
15	MP2A	X	2.307	5.5
16	MP2A	Mx	-.001	5.5
17	MP2B	X	2.307	.5
18	MP2B	Mx	.002	.5
19	MP2B	X	2.307	5.5
20	MP2B	Mx	.002	5.5
21	MP2C	X	2.307	.5
22	MP2C	Mx	-.001	.5
23	MP2C	X	2.307	5.5
24	MP2C	Mx	-.001	5.5
25	MP3A	X	4.599	1.5
26	MP3A	Mx	-.002	1.5
27	MP3A	X	4.599	4
28	MP3A	Mx	-.002	4
29	MP3B	X	4.599	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
30	MP3B	Mx	.002	1.5
31	MP3B	X	4.599	4
32	MP3B	Mx	.002	4
33	MP3C	X	4.599	1.5
34	MP3C	Mx	.0002	1.5
35	MP3C	X	4.599	4
36	MP3C	Mx	.0002	4
37	M17	X	3.379	1.25
38	M17	Mx	0	1.25
39	MP2A	X	7.888	4
40	MP2A	Mx	.004	4
41	MP2B	X	7.888	4
42	MP2B	Mx	-.003	4
43	MP2C	X	7.888	4
44	MP2C	Mx	-.000344	4
45	MP1A	X	7.424	3
46	MP1A	Mx	.004	3
47	MP1B	X	7.424	3
48	MP1B	Mx	-.003	3
49	MP1C	X	7.424	3
50	MP1C	Mx	-.000324	3
51	MP1A	X	.634	1.5
52	MP1A	Mx	-.000317	1.5
53	MP1A	X	.634	4.5
54	MP1A	Mx	-.000317	4.5
55	MP1B	X	.634	1.5
56	MP1B	Mx	.000243	1.5
57	MP1B	X	.634	4.5
58	MP1B	Mx	.000243	4.5
59	MP1C	X	.634	1.5
60	MP1C	Mx	2.8e-5	1.5
61	MP1C	X	.634	4.5
62	MP1C	Mx	2.8e-5	4.5
63	MP4A	X	.634	1.5
64	MP4A	Mx	-.000317	1.5
65	MP4A	X	.634	4.5
66	MP4A	Mx	-.000317	4.5
67	MP4B	X	.634	1.5
68	MP4B	Mx	.000243	1.5
69	MP4B	X	.634	4.5
70	MP4B	Mx	.000243	4.5
71	MP4C	X	.634	1.5
72	MP4C	Mx	2.8e-5	1.5
73	MP4C	X	.634	4.5
74	MP4C	Mx	2.8e-5	4.5

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	N68	max	1135.258	9	981.07	23	1070.772	12	.692	11	0	75	2.384	5
2		min	-1383.868	3	69.39	5	-2668.554	6	-2.682	17	0	1	-1.261	11
3	N70	max	376.612	11	1477.496	17	2159.113	14	.034	12	0	75	.307	29
4		min	-323.164	5	275.74	11	435.376	8	-.956	18	0	1	-.238	50

Envelope Joint Reactions (Continued)

	Joint		X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
5	N140	max	1687.443	22	1336.889	15	-174.922	2	.649	15	0	75	.661	15
6		min	440.213	4	227.614	9	-1041.204	20	.002	8	0	1	-.144	9
7	N209	max	-267.921	9	1387.352	24	-95.075	1	.441	1	0	75	.041	5
8		min	-1874.634	15	220.71	6	-931.131	19	-.251	7	0	1	-.865	23
9	N70A	max	1101.423	9	982.13	20	1748.568	2	2.437	2	0	75	1.705	4
10		min	-2073.933	3	184.382	3	-1011.37	8	-.668	8	0	1	-.966	10
11	N71	max	2182.133	11	946.924	18	2317.909	3	3.203	3	0	75	.657	5
12		min	-909.387	5	73.817	12	-1586.044	9	-2.967	9	0	1	-2.58	11
13	Totals:	max	4626.339	10	6541.079	14	4725.356	1						
14		min	-4626.336	4	2115.093	71	-4725.349	7						

Joint Reactions (By Combination)

	LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
1	1	N68	-295.666	534.253	297.304	-.075	0	.692
2	1	N70	76.86	424.56	1196.301	-.052	0	.036
3	1	N140	796.428	749.19	-197.935	.416	0	.428
4	1	N209	-1009.924	897.921	-95.075	.441	0	-.555
5	1	N70A	-1158.985	266.907	1323.63	1.788	0	.932
6	1	N71	1591.261	86.186	2201.13	2.476	0	-1.41
7	1	Totals:	-.026	2959.016	4725.356			
8	1	COG (ft):	X: -2.57	Y: 2.199	Z: 2.681			
9	2	N68	-1200.261	281.113	-1034.482	-1.266	0	2.092
10	2	N70	-149.275	664.457	1319.363	-.285	0	.153
11	2	N140	689.017	856.895	-174.922	.552	0	.54
12	2	N209	-1148.985	827.688	-123.566	.422	0	-.415
13	2	N70A	-1582.354	196.756	1748.568	2.437	0	1.096
14	2	N71	1081.253	132.109	2267.087	2.835	0	-.85
15	2	Totals:	-2310.605	2959.017	4002.046			
16	2	COG (ft):	X: -2.57	Y: 2.199	Z: 2.681			
17	3	N68	-1383.868	120.341	-2023.587	-2.121	0	2.372
18	3	N70	-260.292	838.672	1276.243	-.499	0	.206
19	3	N140	535.628	885.4	-296.937	.539	0	.624
20	3	N209	-1250.224	737.176	-176.22	.386	0	-.267
21	3	N70A	-2073.933	184.382	1188.409	1.59	0	1.674
22	3	N71	473.507	193.043	2317.909	3.203	0	-.176
23	3	Totals:	-3959.182	2959.014	2285.817			
24	3	COG (ft):	X: -2.57	Y: 2.199	Z: 2.681			
25	4	N68	-1266.195	80.973	-2422.99	-2.44	0	2.247
26	4	N70	-301.282	904.287	1141.109	-.619	0	.24
27	4	N140	440.213	785.744	-465.363	.431	0	.555
28	4	N209	-1235.124	553.804	-277.042	.25	0	-.082
29	4	N70A	-1928.88	276.759	317.78	.508	0	1.705
30	4	N71	-335.069	357.441	1706.487	2.637	0	.509
31	4	Totals:	-4626.336	2959.008	-.017			
32	4	COG (ft):	X: -2.57	Y: 2.199	Z: 2.681			
33	5	N68	-1275.318	69.39	-2664.108	-2.615	0	2.384
34	5	N70	-323.164	940.094	981.279	-.713	0	.286
35	5	N140	466.582	622.876	-543.638	.357	0	.35
36	5	N209	-1024.507	328.715	-449.271	0	0	.041
37	5	N70A	-1030.922	408.515	75.539	.608	0	.76
38	5	N71	-909.387	589.41	234.942	.649	0	.657
39	5	Totals:	-4096.716	2958.999	-2365.257			
40	5	COG (ft):	X: -2.57	Y: 2.199	Z: 2.681			
41	6	N68	-938.256	100.791	-2668.554	-2.57	0	1.961
42	6	N70	-247.344	933.71	777.923	-.776	0	.276
43	6	N140	545.354	482.736	-577.834	.287	0	.165
44	6	N209	-726.882	220.71	-610.78	-.201	0	0

Joint Reactions (By Combination) (Continued)

	LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
45	6	N70A	-198.543	500.545	3.083	.829	0	-.095
46	6	N71	-824.3	720.498	-1063.454	-1.378	0	.147
47	6	Totals:	-2389.972	2958.99	-4139.617			
48	6	COG (ft):	X: -2.57	Y: 2.199	Z: 2.681			
49	7	N68	49.486	270.226	-1902.065	-1.849	0	.454
50	7	N70	-30.132	791.654	556.013	-.691	0	.168
51	7	N140	617.069	364.99	-650.368	.138	0	.052
52	7	N209	-506.344	257.054	-665.329	-.251	0	-.147
53	7	N70A	188.313	568.336	-583.768	-.014	0	-.208
54	7	N71	-318.36	706.724	-1479.832	-2.26	0	-.522
55	7	Totals:	.032	2958.984	-4725.349			
56	7	COG (ft):	X: -2.57	Y: 2.199	Z: 2.681			
57	8	N68	950.509	522.146	-577.009	-.665	0	-.947
58	8	N70	198.951	553.395	435.376	-.46	0	.049
59	8	N140	724.244	256.943	-673.213	.002	0	-.06
60	8	N209	-368.456	328.73	-636.856	-.232	0	-.288
61	8	N70A	610.739	637.801	-1011.37	-.668	0	-.37
62	8	N71	194.621	659.969	-1538.968	-2.607	0	-1.083
63	8	Totals:	2310.608	2958.983	-4002.04			
64	8	COG (ft):	X: -2.57	Y: 2.199	Z: 2.681			
65	9	N68	1135.258	684.33	415.692	.193	0	-1.237
66	9	N70	313.069	378.448	477.738	-.245	0	-.007
67	9	N140	877.773	227.614	-550.227	.015	0	-.144
68	9	N209	-267.921	419.295	-583.562	-.195	0	-.435
69	9	N70A	1101.423	649.43	-459.409	.169	0	-.946
70	9	N71	799.581	599.869	-1586.044	-2.967	0	-1.753
71	9	Totals:	3959.184	2958.986	-2285.811			
72	9	COG (ft):	X: -2.57	Y: 2.199	Z: 2.681			
73	10	N68	1024.253	724	816.894	.515	0	-1.124
74	10	N70	354.776	312.301	611.809	-.125	0	-.042
75	10	N140	974.667	329.04	-383.031	.123	0	-.074
76	10	N209	-285.118	602.531	-478.554	-.055	0	-.619
77	10	N70A	947.26	556.642	410.673	1.248	0	-.966
78	10	N71	1610.502	434.478	-977.766	-2.396	0	-2.436
79	10	Totals:	4626.339	2958.992	.024			
80	10	COG (ft):	X: -2.57	Y: 2.199	Z: 2.681			
81	11	N68	1033.549	736.67	1060.68	.692	0	-1.261
82	11	N70	376.612	275.74	770.703	-.03	0	-.088
83	11	N140	948.369	492.446	-305.068	.198	0	.131
84	11	N209	-495.267	825.523	-302.477	.195	0	-.74
85	11	N70A	51.323	425.667	659.085	1.157	0	-.025
86	11	N71	2182.133	202.956	482.341	-.418	0	-2.58
87	11	Totals:	4096.719	2959.001	2365.263			
88	11	COG (ft):	X: -2.57	Y: 2.199	Z: 2.681			
89	12	N68	692.566	706.34	1070.772	.653	0	-.823
90	12	N70	297.448	280.898	972.711	.034	0	-.074
91	12	N140	868.316	630.898	-269.73	.268	0	.315
92	12	N209	-789.428	932.135	-145.648	.392	0	-.698
93	12	N70A	-769.715	334.922	733.843	.943	0	.816
94	12	N71	2090.789	73.817	1777.676	1.594	0	-2.07
95	12	Totals:	2389.976	2959.011	4139.623			
96	12	COG (ft):	X: -2.57	Y: 2.199	Z: 2.681			
97	13	N68	-307.67	921.509	-1528.234	-1.945	0	1.15
98	13	N70	70.333	1328.268	2129.141	-.744	0	.164
99	13	N140	1638.935	1303.301	-910.573	.609	0	.612
100	13	N209	-1806.846	1380.408	-774.962	.345	0	-.817
101	13	N70A	-1351.642	848.175	1125.11	2.1	0	1.139
102	13	N71	1756.887	759.418	1315.496	.997	0	-2.284
103	13	Totals:	-.003	6541.079	1355.977			

Joint Reactions (By Combination) (Continued)

	LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
104	13	COG (ft):	X: -2.583	Y: 2.268	Z: 2.709			
105	14	N68	-543.68	853.665	-1886.538	-2.265	0	1.493
106	14	N70	8.202	1392.516	2159.113	-.807	0	.19
107	14	N140	1604.246	1334.917	-904.341	.648	0	.646
108	14	N209	-1847.667	1356.253	-781.861	.337	0	-.773
109	14	N70A	-1478.787	826.209	1248.566	2.289	0	1.188
110	14	N71	1590.62	777.519	1320.455	1.085	0	-2.107
111	14	Totals:	-667.066	6541.079	1155.394			
112	14	COG (ft):	X: -2.583	Y: 2.268	Z: 2.709			
113	15	N68	-602.154	808.149	-2163.043	-2.502	0	1.574
114	15	N70	-24.165	1440.682	2142.216	-.868	0	.203
115	15	N140	1556.058	1336.889	-934.427	.649	0	.661
116	15	N209	-1874.634	1321.627	-794.75	.324	0	-.722
117	15	N70A	-1574.081	828.817	1101.191	2.098	0	1.289
118	15	N71	1373.72	804.914	1310.026	1.171	0	-1.875
119	15	Totals:	-1145.255	6541.079	661.214			
120	15	COG (ft):	X: -2.583	Y: 2.268	Z: 2.709			
121	16	N68	-579.134	790.938	-2304.936	-2.617	0	1.551
122	16	N70	-35.608	1464.057	2103.559	-.908	0	.212
123	16	N140	1530.512	1306.421	-980.898	.622	0	.636
124	16	N209	-1873.081	1268.78	-825.973	.285	0	-.666
125	16	N70A	-1510.391	857.555	868.056	1.835	0	1.261
126	16	N71	1135.119	853.326	1140.195	1.026	0	-1.667
127	16	Totals:	-1332.583	6541.077	.004			
128	16	COG (ft):	X: -2.583	Y: 2.268	Z: 2.709			
129	17	N68	-582.809	783.665	-2393.215	-2.682	0	1.589
130	17	N70	-39.422	1477.496	2056.391	-.939	0	.223
131	17	N140	1540.709	1260.948	-1007.152	.601	0	.578
132	17	N209	-1819.469	1211.531	-877.464	.222	0	-.633
133	17	N70A	-1264.741	895.116	786.631	1.846	0	1.006
134	17	N71	992.77	912.318	757.609	.523	0	-1.629
135	17	Totals:	-1172.962	6541.075	-677.2			
136	17	COG (ft):	X: -2.583	Y: 2.268	Z: 2.709			
137	18	N68	-500.269	794.362	-2383.288	-2.657	0	1.498
138	18	N70	-17.216	1473.28	1992.841	-.956	0	.222
139	18	N140	1560.714	1214.987	-1018.116	.576	0	.52
140	18	N209	-1735.637	1182.346	-919.785	.173	0	-.643
141	18	N70A	-1004.881	929.175	733.247	1.869	0	.748
142	18	N71	1014.241	946.924	412.017	0	0	-1.752
143	18	Totals:	-683.048	6541.073	-1183.084			
144	18	COG (ft):	X: -2.583	Y: 2.268	Z: 2.709			
145	19	N68	-251.793	843.085	-2159.164	-2.446	0	1.145
146	19	N70	41.585	1431.498	1927.157	-.931	0	.201
147	19	N140	1578.901	1171.591	-1034.993	.531	0	.478
148	19	N209	-1668.075	1189.42	-931.131	.162	0	-.681
149	19	N70A	-840.56	960.192	547.293	1.625	0	.661
150	19	N71	1139.957	945.285	294.878	-.234	0	-1.915
151	19	Totals:	.014	6541.071	-1355.959			
152	19	COG (ft):	X: -2.583	Y: 2.268	Z: 2.709			
153	20	N68	-16.097	910.809	-1801.41	-2.126	0	.802
154	20	N70	103.948	1367.38	1897.376	-.868	0	.175
155	20	N140	1613.571	1139.952	-1041.204	.491	0	.444
156	20	N209	-1627.363	1213.712	-924.245	.169	0	-.726
157	20	N70A	-713.537	982.13	423.608	1.436	0	.612
158	20	N71	1306.555	927.09	290.499	-.322	0	-2.092
159	20	Totals:	667.077	6541.071	-1155.376			
160	20	COG (ft):	X: -2.583	Y: 2.268	Z: 2.709			
161	21	N68	42.368	956.41	-1524.613	-1.889	0	.72
162	21	N70	136.55	1319.157	1914.226	-.807	0	.161

Joint Reactions (By Combination) (Continued)

	LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
163	21	N140	1661.788	1137.954	-1011.056	.491	0	.428
164	21	N209	-1600.507	1248.401	-911.28	.183	0	-.777
165	21	N70A	-618.534	979.454	570.3	1.627	0	.511
166	21	N71	1523.601	899.696	301.227	-.407	0	-2.325
167	21	Totals:	1145.266	6541.072	-661.196			
168	21	COG (ft):	X: -2.583	Y: 2.268	Z: 2.709			
169	22	N68	19.8	973.686	-1382.413	-1.774	0	.743
170	22	N70	148.052	1295.71	1952.776	-.768	0	.152
171	22	N140	1687.443	1168.549	-964.681	.517	0	.454
172	22	N209	-1602.2	1301.23	-879.737	.221	0	-.832
173	22	N70A	-682.9	950.66	803.342	1.889	0	.541
174	22	N71	1762.4	851.237	470.726	-.262	0	-2.532
175	22	Totals:	1332.594	6541.074	.014			
176	22	COG (ft):	X: -2.583	Y: 2.268	Z: 2.709			
177	23	N68	23.465	981.07	-1293.844	-1.708	0	.705
178	23	N70	151.839	1282.194	1999.851	-.736	0	.141
179	23	N140	1677.244	1214.039	-938.438	.539	0	.512
180	23	N209	-1655.742	1358.294	-827.973	.284	0	-.865
181	23	N70A	-928.236	913.15	885.243	1.879	0	.795
182	23	N71	1904.404	792.329	852.378	.241	0	-2.57
183	23	Totals:	1172.974	6541.076	677.218			
184	23	COG (ft):	X: -2.583	Y: 2.268	Z: 2.709			
185	24	N68	-59.275	970.437	-1303.484	-1.733	0	.797
186	24	N70	129.361	1286.345	2063.318	-.719	0	.142
187	24	N140	1657.145	1259.879	-927.399	.564	0	.569
188	24	N209	-1739.314	1387.352	-785.986	.333	0	-.855
189	24	N70A	-1187.202	879.19	938.917	1.856	0	1.052
190	24	N71	1882.344	757.874	1197.736	.763	0	-2.447
191	24	Totals:	683.059	6541.078	1183.102			
192	24	COG (ft):	X: -2.583	Y: 2.268	Z: 2.709			
193	25	N68	-238.806	675.764	-1441.718	-1.708	0	1.593
194	25	N70	168.992	1082.671	1618.776	-.654	0	.293
195	25	N140	718.582	577.829	-415.881	.286	0	.26
196	25	N209	-769.457	591.72	-360.352	.111	0	-.362
197	25	N70A	-574.551	397.984	442.49	.94	0	.451
198	25	N71	695.241	383.034	428.872	.187	0	-1.009
199	25	Totals:	.002	3709.002	272.187			
200	25	COG (ft):	X: -2.228	Y: 1.784	Z: 3.779			
201	26	N68	-290.95	661.28	-1518.149	-1.777	0	1.674
202	26	N70	156.033	1096.414	1625.707	-.668	0	.3
203	26	N140	712.401	584.041	-414.56	.294	0	.267
204	26	N209	-777.436	587.635	-361.991	.11	0	-.353
205	26	N70A	-598.913	393.932	467.024	.977	0	.46
206	26	N71	665.78	385.701	432.489	.207	0	-.976
207	26	Totals:	-133.085	3709.002	230.52			
208	26	COG (ft):	X: -2.228	Y: 1.784	Z: 3.779			
209	27	N68	-301.595	652.009	-1575.174	-1.826	0	1.69
210	27	N70	149.598	1106.451	1623.212	-.68	0	.303
211	27	N140	703.562	585.703	-421.61	.293	0	.272
212	27	N209	-783.247	582.418	-365.038	.107	0	-.345
213	27	N70A	-627.202	393.233	434.96	.929	0	.494
214	27	N71	630.84	389.189	435.315	.228	0	-.938
215	27	Totals:	-228.044	3709.002	131.665			
216	27	COG (ft):	X: -2.228	Y: 1.784	Z: 3.779			
217	28	N68	-294.984	649.736	-1598.209	-1.845	0	1.684
218	28	N70	147.217	1110.236	1615.454	-.687	0	.305
219	28	N140	698.025	579.914	-431.273	.287	0	.268
220	28	N209	-782.319	571.857	-370.959	.099	0	-.334
221	28	N70A	-618.604	398.572	384.809	.867	0	.495

Joint Reactions (By Combination) (Continued)

	LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
222	28	N71	584.19	398.686	400.182	.195	0	-.898
223	28	Totals:	-266.475	3709.002	.003			
224	28	COG (ft):	X: -2.228	Y: 1.784	Z: 3.779			
225	29	N68	-295.518	649.039	-1612.149	-1.855	0	1.691
226	29	N70	145.974	1112.309	1606.255	-.692	0	.307
227	29	N140	699.543	570.519	-435.772	.283	0	.256
228	29	N209	-770.197	558.948	-380.99	.085	0	-.327
229	29	N70A	-566.939	406.15	370.683	.872	0	.441
230	29	N71	551.169	412.037	315.737	.081	0	-.89
231	29	Totals:	-235.968	3709.001	-136.236			
232	29	COG (ft):	X: -2.228	Y: 1.784	Z: 3.779			
233	30	N68	-275.932	650.8	-1612.549	-1.852	0	1.666
234	30	N70	150.395	1111.97	1594.587	-.696	0	.307
235	30	N140	704.115	562.492	-437.776	.279	0	.245
236	30	N209	-753.148	552.764	-390.167	.074	0	-.33
237	30	N70A	-519.314	411.437	366.427	.885	0	.392
238	30	N71	556.226	419.537	241.042	-.035	0	-.919
239	30	Totals:	-137.657	3709.001	-238.436			
240	30	COG (ft):	X: -2.228	Y: 1.784	Z: 3.779			
241	31	N68	-218.874	660.572	-1568.288	-1.811	0	1.579
242	31	N70	162.851	1103.765	1581.842	-.691	0	.301
243	31	N140	708.25	555.695	-441.934	.27	0	.239
244	31	N209	-740.446	554.8	-393.203	.071	0	-.338
245	31	N70A	-496.97	415.385	332.537	.836	0	.386
246	31	N71	585.193	418.783	216.867	-.086	0	-.957
247	31	Totals:	.005	3709	-272.178			
248	31	COG (ft):	X: -2.228	Y: 1.784	Z: 3.779			
249	32	N68	-166.742	675.051	-1491.878	-1.742	0	1.499
250	32	N70	175.821	1090.028	1574.92	-.678	0	.294
251	32	N140	714.43	549.482	-443.254	.262	0	.232
252	32	N209	-732.471	558.89	-391.565	.072	0	-.346
253	32	N70A	-472.611	419.436	307.994	.799	0	.376
254	32	N71	614.665	416.113	213.272	-.107	0	-.99
255	32	Totals:	133.092	3709	-230.511			
256	32	COG (ft):	X: -2.228	Y: 1.784	Z: 3.779			
257	33	N68	-156.093	684.328	-1434.841	-1.693	0	1.482
258	33	N70	182.266	1079.989	1577.411	-.665	0	.291
259	33	N140	723.27	547.817	-436.201	.263	0	.227
260	33	N209	-726.662	564.107	-388.515	.074	0	-.355
261	33	N70A	-444.325	420.132	340.031	.847	0	.343
262	33	N71	649.594	412.628	210.46	-.127	0	-1.028
263	33	Totals:	228.051	3709	-131.656			
264	33	COG (ft):	X: -2.228	Y: 1.784	Z: 3.779			
265	34	N68	-162.682	686.601	-1411.801	-1.675	0	1.489
266	34	N70	184.649	1076.202	1585.167	-.659	0	.289
267	34	N140	728.811	553.612	-426.542	.269	0	.231
268	34	N209	-727.597	574.667	-382.58	.082	0	-.365
269	34	N70A	-452.953	414.791	390.18	.909	0	.341
270	34	N71	696.252	403.127	245.582	-.095	0	-1.068
271	34	Totals:	266.482	3709.001	.006			
272	34	COG (ft):	X: -2.228	Y: 1.784	Z: 3.779			
273	35	N68	-162.147	687.302	-1397.852	-1.664	0	1.481
274	35	N70	185.892	1074.126	1594.362	-.653	0	.286
275	35	N140	727.294	563.009	-422.043	.274	0	.243
276	35	N209	-739.718	587.57	-372.537	.096	0	-.372
277	35	N70A	-504.611	407.216	404.326	.904	0	.396
278	35	N71	729.264	389.778	329.989	.019	0	-1.076
279	35	Totals:	235.975	3709.001	136.245			
280	35	COG (ft):	X: -2.228	Y: 1.784	Z: 3.779			

Joint Reactions (By Combination) (Continued)

	LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
281	36	N68	-181.747	685.544	-1397.433	-1.667	0	1.506
282	36	N70	181.46	1074.461	1606.025	-.649	0	.287
283	36	N140	722.718	571.03	-420.037	.278	0	.254
284	36	N209	-756.755	593.749	-363.376	.108	0	-.37
285	36	N70A	-552.199	401.933	408.591	.891	0	.445
286	36	N71	724.186	382.284	404.673	.136	0	-1.047
287	36	Totals:	137.664	3709.002	238.444			
288	36	COG (ft):	X: -2.228	Y: 1.784	Z: 3.779			
289	37	N68	-33.785	680.209	-1413.912	-1.685	0	-.356
290	37	N70	-113.547	1077.286	1614.893	-.649	0	-.077
291	37	N140	700.38	552.249	-403.762	.277	0	.24
292	37	N209	-772.995	593.836	-358.623	.115	0	-.361
293	37	N70A	-464.693	426.506	371.232	.879	0	.345
294	37	N71	684.637	378.903	462.357	.243	0	-.984
295	37	Totals:	-.002	3708.989	272.186			
296	37	COG (ft):	X: -3.062	Y: 1.784	Z: 3.779			
297	38	N68	-85.901	665.651	-1490.523	-1.753	0	-.275
298	38	N70	-126.526	1091.062	1621.988	-.663	0	-.07
299	38	N140	694.201	558.465	-402.445	.285	0	.246
300	38	N209	-780.975	589.752	-360.262	.114	0	-.353
301	38	N70A	-489.068	422.484	395.783	.917	0	.355
302	38	N71	655.179	381.575	465.978	.264	0	-.952
303	38	Totals:	-133.088	3708.989	230.519			
304	38	COG (ft):	X: -3.062	Y: 1.784	Z: 3.779			
305	39	N68	-96.544	656.354	-1547.61	-1.803	0	-.259
306	39	N70	-132.975	1101.11	1619.533	-.675	0	-.067
307	39	N140	685.36	560.127	-409.504	.284	0	.251
308	39	N209	-786.788	584.536	-363.309	.112	0	-.344
309	39	N70A	-517.34	421.796	363.743	.868	0	.388
310	39	N71	620.24	385.066	468.811	.285	0	-.913
311	39	Totals:	-228.047	3708.989	131.664			
312	39	COG (ft):	X: -3.062	Y: 1.784	Z: 3.779			
313	40	N68	-89.944	654.078	-1570.653	-1.821	0	-.266
314	40	N70	-135.363	1104.899	1611.763	-.682	0	-.065
315	40	N140	679.819	554.336	-419.176	.278	0	.247
316	40	N209	-785.863	573.977	-369.227	.104	0	-.334
317	40	N70A	-508.723	427.131	313.609	.806	0	.389
318	40	N71	573.597	394.567	433.688	.252	0	-.873
319	40	Totals:	-266.478	3708.989	.002			
320	40	COG (ft):	X: -3.062	Y: 1.784	Z: 3.779			
321	41	N68	-90.494	653.376	-1584.623	-1.831	0	-.258
322	41	N70	-136.613	1106.983	1602.583	-.687	0	-.063
323	41	N140	681.335	544.94	-423.677	.274	0	.235
324	41	N209	-773.746	561.071	-379.252	.09	0	-.327
325	41	N70A	-457.054	434.7	299.487	.812	0	.335
326	41	N71	540.6	407.917	349.246	.138	0	-.865
327	41	Totals:	-235.971	3708.988	-136.237			
328	41	COG (ft):	X: -3.062	Y: 1.784	Z: 3.779			
329	42	N68	-70.933	655.164	-1584.988	-1.829	0	-.283
330	42	N70	-132.194	1106.642	1590.876	-.691	0	-.063
331	42	N140	685.905	536.911	-425.677	.27	0	.224
332	42	N209	-756.701	554.89	-388.425	.078	0	-.329
333	42	N70A	-409.418	439.968	295.232	.824	0	.286
334	42	N71	545.68	415.412	274.546	.021	0	-.894
335	42	Totals:	-137.661	3708.988	-238.436			
336	42	COG (ft):	X: -3.062	Y: 1.784	Z: 3.779			
337	43	N68	-13.913	665.012	-1540.557	-1.787	0	-.37
338	43	N70	-119.727	1098.407	1577.965	-.686	0	-.069
339	43	N140	690.037	530.11	-429.833	.261	0	.218

Joint Reactions (By Combination) (Continued)

	LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
340	43	N209	-743.999	556.926	-391.46	.076	0	-.337
341	43	N70A	-387.047	443.881	261.341	.776	0	.279
342	43	N71	574.651	414.651	250.364	-.029	0	-.933
343	43	Totals:	.002	3708.987	-272.179			
344	43	COG (ft):	X: -3.062	Y: 1.784	Z: 3.779			
345	44	N68	38.191	679.566	-1463.969	-1.718	0	-.45
346	44	N70	-106.739	1084.637	1570.879	-.673	0	-.076
347	44	N140	696.215	523.893	-431.149	.253	0	.211
348	44	N209	-736.023	561.015	-389.821	.077	0	-.345
349	44	N70A	-362.675	447.901	236.782	.738	0	.27
350	44	N71	604.119	411.977	246.766	-.05	0	-.965
351	44	Totals:	133.089	3708.987	-230.512			
352	44	COG (ft):	X: -3.062	Y: 1.784	Z: 3.779			
353	45	N68	48.838	688.868	-1406.87	-1.669	0	-.467
354	45	N70	-100.279	1074.586	1573.332	-.661	0	-.079
355	45	N140	705.058	522.228	-424.087	.254	0	.207
356	45	N209	-730.212	566.231	-386.772	.079	0	-.354
357	45	N70A	-334.406	448.587	268.794	.786	0	.237
358	45	N71	639.049	408.488	243.946	-.071	0	-1.004
359	45	Totals:	228.047	3708.987	-131.657			
360	45	COG (ft):	X: -3.062	Y: 1.784	Z: 3.779			
361	46	N68	42.261	691.144	-1383.821	-1.651	0	-.46
362	46	N70	-97.889	1070.795	1581.098	-.654	0	-.081
363	46	N140	710.603	528.025	-414.419	.26	0	.211
364	46	N209	-731.143	576.789	-380.84	.087	0	-.365
365	46	N70A	-343.054	443.25	318.927	.849	0	.235
366	46	N71	685.7	398.985	279.059	-.038	0	-1.043
367	46	Totals:	266.478	3708.988	.005			
368	46	COG (ft):	X: -3.062	Y: 1.784	Z: 3.779			
369	47	N68	42.81	691.85	-1369.842	-1.64	0	-.468
370	47	N70	-96.64	1068.709	1590.274	-.648	0	-.084
371	47	N140	709.087	537.423	-409.918	.265	0	.222
372	47	N209	-743.259	589.688	-370.802	.101	0	-.372
373	47	N70A	-394.716	435.684	333.07	.843	0	.29
374	47	N71	718.688	385.635	363.462	.076	0	-1.052
375	47	Totals:	235.971	3708.988	136.244			
376	47	COG (ft):	X: -3.062	Y: 1.784	Z: 3.779			
377	48	N68	23.237	690.065	-1369.458	-1.643	0	-.443
378	48	N70	-101.069	1069.046	1601.977	-.644	0	-.083
379	48	N140	704.513	545.446	-407.915	.269	0	.233
380	48	N209	-760.293	595.864	-361.645	.113	0	-.369
381	48	N70A	-442.314	430.421	337.332	.831	0	.339
382	48	N71	713.587	378.147	438.152	.193	0	-1.022
383	48	Totals:	137.661	3708.989	238.444			
384	48	COG (ft):	X: -3.062	Y: 1.784	Z: 3.779			
385	49	N68	-120.554	540.08	-1140.074	-1.368	0	.573
386	49	N70	22.095	845.569	1231.994	-.516	0	.104
387	49	N140	705.684	555.522	-423.372	.275	0	.24
388	49	N209	-758.225	575.567	-375.98	.095	0	-.349
389	49	N70A	-485.85	419.579	358.811	.869	0	.367
390	49	N71	636.852	397.681	348.624	.095	0	-.968
391	49	Totals:	.002	3333.998	.004			
392	49	COG (ft):	X: -2.619	Y: 1.968	Z: 3.292			
393	50	N68	-21.189	540.749	-1124.685	-1.345	0	-.979
394	50	N70	-117.633	844.568	1238.693	-.514	0	-.238
395	50	N140	693.731	538.513	-416.152	.269	0	.226
396	50	N209	-768.461	590.508	-380.773	.103	0	-.36
397	50	N70A	-427.382	437.872	318.779	.838	0	.307
398	50	N71	640.935	381.772	364.148	.119	0	-.974

Joint Reactions (By Combination) (Continued)

	LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
399	50	Totals:	.002	3333.981	.009			
400	50	COG (ft):	X: -3.322	Y: 1.968	Z: 3.292			
401	51	N68	-137.026	468.83	-937.874	-1.125	0	.657
402	51	N70	27.873	709.851	1022.55	-.434	0	.118
403	51	N140	825.839	651.149	-494.918	.324	0	.281
404	51	N209	-887.197	674.054	-439.044	.114	0	-.408
405	51	N70A	-574.892	486.705	429.789	1.031	0	.432
406	51	N71	745.404	461.579	419.5	.135	0	-1.125
407	51	Totals:	.002	3452.167	.004			
408	51	COG (ft):	X: -2.57	Y: 2.199	Z: 2.681			
409	52	N68	-127.019	421.781	-781.158	-.958	0	.583
410	52	N70	27.685	621.79	925.955	-.37	0	.101
411	52	N140	739.07	591.406	-424.573	.296	0	.263
412	52	N209	-800.627	617.351	-373.16	.119	0	-.377
413	52	N70A	-564.242	420.173	439.612	.961	0	.435
414	52	N71	725.133	390.657	473.719	.237	0	-1.04
415	52	Totals:	0	3063.158	260.396			
416	52	COG (ft):	X: -2.57	Y: 2.199	Z: 2.681			
417	53	N68	-160.495	411.708	-835.128	-1.006	0	.628
418	53	N70	16.576	631.472	931.154	-.379	0	.105
419	53	N140	731.78	596.582	-426.547	.302	0	.269
420	53	N209	-811.475	612.99	-372.659	.12	0	-.367
421	53	N70A	-594.893	416.78	443.422	.968	0	.457
422	53	N71	688.31	393.626	485.261	.272	0	-.997
423	53	Totals:	-130.197	3063.158	225.504			
424	53	COG (ft):	X: -2.57	Y: 2.199	Z: 2.681			
425	54	N68	-183.536	402.775	-888.313	-1.052	0	.661
426	54	N70	7.646	640.732	929.971	-.39	0	.109
427	54	N140	724.757	596.726	-431.895	.303	0	.27
428	54	N209	-815.827	604.648	-376.679	.115	0	-.356
429	54	N70A	-602.834	417.422	430.611	.96	0	.46
430	54	N71	644.293	400.856	466.503	.266	0	-.955
431	54	Totals:	-225.501	3063.158	130.199			
432	54	COG (ft):	X: -2.57	Y: 2.199	Z: 2.681			
433	55	N68	-189.97	397.372	-926.472	-1.084	0	.672
434	55	N70	3.28	647.091	922.722	-.4	0	.112
435	55	N140	719.884	591.8	-439.185	.301	0	.266
436	55	N209	-812.514	594.556	-384.145	.107	0	-.347
437	55	N70A	-585.935	421.926	404.62	.941	0	.442
438	55	N71	604.863	410.412	422.464	.221	0	-.924
439	55	Totals:	-260.392	3063.157	.003			
440	55	COG (ft):	X: -2.57	Y: 2.199	Z: 2.681			
441	56	N68	-178.067	396.949	-939.377	-1.092	0	.66
442	56	N70	4.649	648.844	911.349	-.405	0	.113
443	56	N140	718.465	583.122	-446.463	.294	0	.256
444	56	N209	-802.419	585.421	-393.064	.098	0	-.341
445	56	N70A	-548.717	429.088	372.414	.915	0	.409
446	56	N71	580.591	419.734	364.948	.149	0	-.913
447	56	Totals:	-225.499	3063.157	-130.194			
448	56	COG (ft):	X: -2.57	Y: 2.199	Z: 2.681			
449	57	N68	-151.029	401.615	-923.579	-1.075	0	.627
450	57	N70	11.387	645.525	898.903	-.406	0	.112
451	57	N140	720.88	573.019	-451.779	.287	0	.246
452	57	N209	-788.252	579.692	-401.048	.089	0	-.342
453	57	N70A	-501.162	436.985	342.619	.889	0	.369
454	57	N71	577.982	426.321	309.386	.068	0	-.925
455	57	Totals:	-130.194	3063.157	-225.497			
456	57	COG (ft):	X: -2.57	Y: 2.199	Z: 2.681			
457	58	N68	-116.096	410.121	-883.309	-1.038	0	.582

Joint Reactions (By Combination) (Continued)

	LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
458	58	N70	21.692	638.021	888.718	-.401	0	.109
459	58	N140	726.482	564.195	-453.707	.279	0	.236
460	58	N209	-773.809	578.906	-405.955	.084	0	-.348
461	58	N70A	-456.006	443.504	323.203	.87	0	.333
462	58	N71	597.741	428.41	270.661	.002	0	-.957
463	58	Totals:	.003	3063.156	-260.39			
464	58	COG (ft):	X: -2.57	Y: 2.199	Z: 2.681			
465	59	N68	-82.631	420.191	-829.349	-.99	0	.537
466	59	N70	32.806	628.341	883.522	-.391	0	.105
467	59	N140	733.771	559.017	-451.732	.274	0	.229
468	59	N209	-762.963	583.273	-406.463	.084	0	-.358
469	59	N70A	-425.36	446.896	319.372	.863	0	.31
470	59	N71	634.577	425.438	259.152	-.033	0	-1
471	59	Totals:	130.2	3063.156	-225.497			
472	59	COG (ft):	X: -2.57	Y: 2.199	Z: 2.681			
473	60	N68	-59.598	429.125	-776.162	-.944	0	.505
474	60	N70	41.748	619.081	884.706	-.38	0	.101
475	60	N140	740.794	558.872	-446.383	.272	0	.229
476	60	N209	-758.619	591.62	-402.434	.088	0	-.369
477	60	N70A	-417.43	446.254	332.156	.87	0	.308
478	60	N71	678.609	418.204	277.923	-.027	0	-1.042
479	60	Totals:	225.504	3063.157	-130.193			
480	60	COG (ft):	X: -2.57	Y: 2.199	Z: 2.681			
481	61	N68	-53.161	434.532	-737.989	-.912	0	.493
482	61	N70	46.119	612.719	891.952	-.371	0	.099
483	61	N140	745.67	563.799	-439.093	.275	0	.233
484	61	N209	-761.938	601.71	-394.951	.096	0	-.378
485	61	N70A	-434.335	441.75	358.142	.889	0	.325
486	61	N71	718.041	408.648	321.944	.018	0	-1.073
487	61	Totals:	260.396	3063.157	.004			
488	61	COG (ft):	X: -2.57	Y: 2.199	Z: 2.681			
489	62	N68	-65.053	434.958	-725.074	-.904	0	.505
490	62	N70	44.744	610.963	903.321	-.365	0	.098
491	62	N140	747.09	572.479	-431.816	.281	0	.242
492	62	N209	-772.03	610.838	-386.025	.105	0	-.383
493	62	N70A	-471.549	434.589	390.368	.915	0	.359
494	62	N71	742.299	399.33	379.427	.091	0	-1.084
495	62	Totals:	225.502	3063.157	130.2			
496	62	COG (ft):	X: -2.57	Y: 2.199	Z: 2.681			
497	63	N68	-92.084	430.291	-740.874	-.92	0	.538
498	63	N70	37.996	614.283	915.766	-.365	0	.099
499	63	N140	744.674	582.583	-426.502	.289	0	.253
500	63	N209	-786.189	616.563	-378.051	.114	0	-.382
501	63	N70A	-519.094	426.692	420.19	.942	0	.399
502	63	N71	744.893	392.746	434.975	.171	0	-1.072
503	63	Totals:	130.197	3063.158	225.504			
504	63	COG (ft):	X: -2.57	Y: 2.199	Z: 2.681			
505	64	N68	-89.347	292.947	-523.646	-.649	0	.402
506	64	N70	19.969	426.899	645.145	-.251	0	.069
507	64	N140	512.297	412.617	-288.608	.207	0	.186
508	64	N209	-557.026	432.285	-252.454	.088	0	-.264
509	64	N70A	-406.395	286.489	321.588	.678	0	.316
510	64	N71	520.502	263.857	358.37	.2	0	-.731
511	64	Totals:	0	2115.094	260.395			
512	64	COG (ft):	X: -2.57	Y: 2.199	Z: 2.681			
513	65	N68	-122.784	282.869	-577.61	-.697	0	.447
514	65	N70	8.817	436.583	650.344	-.26	0	.072
515	65	N140	504.994	417.795	-290.6	.213	0	.192
516	65	N209	-567.879	427.921	-251.934	.088	0	-.255

Joint Reactions (By Combination) (Continued)

	LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
517	65	N70A	-437.03	283.11	325.413	.684	0	.339
518	65	N71	483.686	266.817	369.889	.235	0	-.688
519	65	Totals:	-130.197	2115.094	225.502			
520	65	COG (ft):	X: -2.57	Y: 2.199	Z: 2.681			
521	66	N68	-145.795	273.935	-630.793	-.743	0	.48
522	66	N70	-.145	445.846	649.163	-.271	0	.076
523	66	N140	497.957	417.943	-295.971	.214	0	.193
524	66	N209	-572.222	419.575	-255.965	.084	0	-.244
525	66	N70A	-444.964	283.76	312.627	.677	0	.341
526	66	N71	439.669	274.037	351.138	.229	0	-.646
527	66	Totals:	-225.501	2115.094	130.198			
528	66	COG (ft):	X: -2.57	Y: 2.199	Z: 2.681			
529	67	N68	-152.214	268.536	-668.955	-.775	0	.492
530	67	N70	-4.521	452.209	641.917	-.28	0	.079
531	67	N140	493.069	413.02	-303.283	.212	0	.188
532	67	N209	-568.891	409.481	-263.472	.076	0	-.234
533	67	N70A	-428.068	288.263	286.662	.658	0	.323
534	67	N71	400.232	283.585	307.133	.184	0	-.615
535	67	Totals:	-260.393	2115.094	.002			
536	67	COG (ft):	X: -2.57	Y: 2.199	Z: 2.681			
537	68	N68	-140.317	268.12	-681.866	-.783	0	.48
538	68	N70	-3.139	453.966	630.549	-.286	0	.08
539	68	N140	491.642	404.345	-310.576	.205	0	.179
540	68	N209	-558.772	400.345	-272.449	.066	0	-.229
541	68	N70A	-390.86	295.415	254.477	.632	0	.29
542	68	N71	375.948	292.902	249.67	.112	0	-.604
543	68	Totals:	-225.499	2115.093	-130.195			
544	68	COG (ft):	X: -2.57	Y: 2.199	Z: 2.681			
545	69	N68	-113.302	272.796	-666.077	-.767	0	.447
546	69	N70	3.631	450.648	618.107	-.287	0	.079
547	69	N140	494.055	394.242	-315.895	.198	0	.168
548	69	N209	-544.582	394.618	-280.493	.058	0	-.23
549	69	N70A	-343.322	303.298	224.694	.605	0	.25
550	69	N71	373.325	299.491	194.166	.031	0	-.616
551	69	Totals:	-130.194	2115.093	-225.498			
552	69	COG (ft):	X: -2.57	Y: 2.199	Z: 2.681			
553	70	N68	-78.406	281.311	-625.815	-.729	0	.402
554	70	N70	13.981	443.145	607.924	-.281	0	.076
555	70	N140	499.664	385.417	-317.816	.19	0	.158
556	70	N209	-530.123	393.835	-285.447	.053	0	-.236
557	70	N70A	-298.185	309.8	205.275	.586	0	.214
558	70	N71	393.072	301.585	155.487	-.035	0	-.648
559	70	Totals:	.003	2115.093	-260.391			
560	70	COG (ft):	X: -2.57	Y: 2.199	Z: 2.681			
561	71	N68	-44.979	291.386	-571.861	-.681	0	.357
562	71	N70	25.138	433.464	602.729	-.272	0	.073
563	71	N140	506.965	380.236	-315.822	.185	0	.152
564	71	N209	-519.272	398.206	-285.974	.052	0	-.246
565	71	N70A	-267.553	313.179	201.429	.579	0	.191
566	71	N71	429.901	298.622	144.001	-.07	0	-.691
567	71	Totals:	130.2	2115.093	-225.498			
568	71	COG (ft):	X: -2.57	Y: 2.199	Z: 2.681			
569	72	N68	-21.977	300.32	-518.675	-.635	0	.324
570	72	N70	34.111	424.2	603.911	-.261	0	.069
571	72	N140	514.003	380.088	-310.45	.183	0	.151
572	72	N209	-514.937	406.556	-281.934	.057	0	-.257
573	72	N70A	-259.63	312.529	214.189	.586	0	.189
574	72	N71	473.933	291.398	162.765	-.064	0	-.733
575	72	Totals:	225.503	2115.093	-130.194			

Joint Reactions (By Combination) (Continued)

	LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
576	72	COG (ft):	X: -2.57	Y: 2.199	Z: 2.681			
577	73	N68	-15.555	305.723	-480.5	-.603	0	.312
578	73	N70	38.493	417.834	611.153	-.252	0	.066
579	73	N140	518.892	385.012	-303.139	.186	0	.156
580	73	N209	-518.274	416.648	-274.411	.065	0	-.266
581	73	N70A	-276.534	308.026	240.148	.606	0	.207
582	73	N71	513.372	281.85	206.751	-.019	0	-.764
583	73	Totals:	260.395	2115.093	.003			
584	73	COG (ft):	X: -2.57	Y: 2.199	Z: 2.681			
585	74	N68	-27.441	306.142	-467.579	-.595	0	.324
586	74	N70	37.105	416.075	622.518	-.246	0	.065
587	74	N140	520.321	393.689	-295.847	.192	0	.165
588	74	N209	-528.39	425.777	-265.426	.074	0	-.271
589	74	N70A	-313.737	300.874	272.353	.632	0	.24
590	74	N71	537.643	272.536	264.181	.054	0	-.775
591	74	Totals:	225.502	2115.093	130.199			
592	74	COG (ft):	X: -2.57	Y: 2.199	Z: 2.681			
593	75	N68	-54.447	301.466	-483.371	-.612	0	.357
594	75	N70	30.324	419.393	634.959	-.246	0	.066
595	75	N140	517.907	403.793	-290.529	.2	0	.176
596	75	N209	-542.572	431.5	-257.391	.083	0	-.27
597	75	N70A	-361.265	292.992	302.164	.658	0	.28
598	75	N71	540.25	265.951	319.672	.134	0	-.763
599	75	Totals:	130.197	2115.094	225.503			
600	75	COG (ft):	X: -2.57	Y: 2.199	Z: 2.681			

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

	Member	Shape	Code C...	Loc[ft]	LC	Shear ...	Loc[ft]	Dir	LC	phi*Pnc [lb]	phi*Pnt [lb]	phi*Mn y-...	phi*Mn z-...	Cb	Eqn
1	M1	PIPE 2.0	.239	8.854	12	.150	8.724		30	6295.422	32130	1.872	1.872	2....	H1-1b
2	M2	PIPE 2.0	.463	8.724	5	.209	9.245		9	6295.422	32130	1.872	1.872	2....	H1-1b
3	M13	PL5/8x3.5	.110	0	50	.033	.378	y	7	67997.431	70875	.923	5.168	1....	H1-1b
4	M14	PL5/8x3.5	.145	0	39	.058	0	y	1	67997.431	70875	.923	5.168	1....	H1-1b
5	M15	PL5/8x3.5	.186	0	33	.086	0	y	1	67997.431	70875	.923	5.168	1....	H1-1b
6	M16	PL5/8x3.5	.215	0	11	.339	.422	y	4	67997.431	70875	.923	5.168	1....	H1-1b
7	M17	PIPE 2.0	.210	2.501	4	.038	0		11	31128.25	32130	1.872	1.872	1....	H1-1b
8	M18	PIPE 2.0	.137	2.501	4	.072	0		39	31128.25	32130	1.872	1.872	1....	H1-1b
9	M19	PIPE 2.0	.151	2.501	11	.088	0		17	31128.25	32130	1.872	1.872	1....	H1-1b
10	M20	PIPE 2.0	.410	2.501	4	.104	0		10	31128.25	32130	1.872	1.872	1....	H1-1b
11	M21	PL5/8x3.5	.152	.531	8	.034	.531	y	21	69484.705	70875	.923	5.168	1....	H1-1b
12	M22	PL5/8x3.5	.485	.531	4	.114	.443	y	4	69484.705	70875	.923	5.168	1....	H1-1b
13	M23	PL5/8x3.5	.379	.531	40	.059	0	y	17	69484.705	70875	.923	5.168	1....	H1-1b
14	M24	PL5/8x3.5	.447	.531	15	.051	0	y	20	69484.705	70875	.923	5.168	1....	H1-1b
15	M25	SR 0.75	.000	0	75	.027	0		5	2863.936	14313.866	.179	.179	1....	H1-1a
16	M26	SR 0.75	.044	0	39	.016	0		6	2863.936	14313.866	.179	.179	1....	H1-1b*
17	M27	SR 0.75	.000	0	75	.024	0		9	2863.936	14313.866	.179	.179	1....	H1-1a
18	M28	SR 0.75	.055	4.167	32	.006	4.167		50	2863.936	14313.866	.179	.179	1....	H1-1b*
19	MP4A	PIPE 2.5	.150	5.583	50	.032	2.25		5	30038.461	50715	3.596	3.596	4....	H1-1b
20	MP3A	PIPE 2.5	.102	2.25	9	.052	2.25		11	30038.461	50715	3.596	3.596	3....	H1-1b
21	MP2A	PIPE 2.5	.138	2.25	6	.090	4.083		9	30038.461	50715	3.596	3.596	2....	H1-1b
22	MP1A	PIPE 2.5	.094	2.25	16	.030	2.25		4	30038.461	50715	3.596	3.596	4....	H1-1b
23	M44	SR 0.5	.064	1.667	6	.014	0		9	864.46	6350.4	.052	.052	1....	H1-1b
24	M45	SR 0.5	.458	1.528	18	.006	0		9	864.46	6350.4	.052	.052	1....	H1-1a
25	M46	SR 0.5	.594	1.632	5	.009	0		9	864.46	6350.4	.052	.052	1....	H1-1a
26	M47	SR 0.5	.077	1.667	1	.008	0		9	864.46	6350.4	.052	.052	1	H1-1b
27	M45A	PIPE 4.0	.329	2.938	5	.126	2.938		3	83096.869	93240	10.631	10.631	4....	H1-1b
28	M53	PIPE 2.0	.242	8.724	2	.079	8.333		5	6295.422	32130	1.872	1.872	2....	H1-1b
29	M54	PIPE 2.0	.325	8.724	8	.174	9.245		5	6295.422	32130	1.872	1.872	2....	H1-1b

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

	Member	Shape	Code C...	Loc[ft]	LC	Shear ...	Loc[ft]	Dir	LC	phi*Pnc [lb]	phi*Pnt [lb]	phi*Mn y-...	phi*Mn z-...	Cb	Eqn
30	M63	PL5/8x3.5	.175	0	1	.103	.422	y	7	67997.431	70875	.923	5.168	1....	H1-1b
31	M64	PL5/8x3.5	.131	.422	15	.046	0	y	15	67997.431	70875	.923	5.168	1....	H1-1b
32	M65	PL5/8x3.5	.284	.422	15	.040	0	y	3	67997.431	70875	.923	5.168	1....	H1-1b
33	M66	PL5/8x3.5	.231	.422	19	.049	.422	y	2	67997.431	70875	.923	5.168	1....	H1-1b
34	M67	PIPE 2.0	.239	2.501	1	.039	0		7	31128.25	32130	1.872	1.872	1....	H1-1b
35	M68	PIPE 2.0	.102	2.501	11	.058	0		16	31128.25	32130	1.872	1.872	1....	H1-1b
36	M69	PIPE 2.0	.112	2.501	2	.144	0		15	31128.25	32130	1.872	1.872	2....	H1-1b
37	M70	PIPE 2.0	.281	2.501	5	.103	0		19	31128.25	32130	1.872	1.872	2....	H1-1b
38	M71	PL5/8x3.5	.228	.531	10	.045	.531	y	5	69484.705	70875	.923	5.168	1....	H1-1b
39	M72	PL5/8x3.5	.303	.531	1	.174	.443	y	24	69484.705	70875	.923	5.168	1....	H1-1b
40	M73	PL5/8x3.5	.313	.531	13	.064	0	y	24	69484.705	70875	.923	5.168	1....	H1-1b
41	M74	PL5/8x3.5	.387	.531	17	.137	0	y	24	69484.705	70875	.923	5.168	1....	H1-1b
42	M75	SR 0.75	.000	0	75	.016	4.167		1	2863.936	14313.866	.179	.179	1....	H1-1a
43	M76	SR 0.75	.031	0	22	.014	0		2	2863.936	14313.866	.179	.179	1....	H1-1b*
44	M77	SR 0.75	.000	0	75	.024	4.167		16	2863.936	14313.866	.179	.179	1....	H1-1a
45	M78	SR 0.75	.053	4.167	19	.011	4.167		21	2863.936	14313.866	.179	.179	1....	H1-1b*
46	MP4C	PIPE 2.5	.065	2.25	18	.025	5.583		1	30038.461	50715	3.596	3.596	3....	H1-1b
47	MP3C	PIPE 2.5	.101	2.25	5	.056	2.25		7	30038.461	50715	3.596	3.596	2....	H1-1b
48	MP2C	PIPE 2.5	.146	2.25	11	.078	4.083		5	30038.461	50715	3.596	3.596	2....	H1-1b
49	MP1C	PIPE 2.5	.092	5.583	23	.029	2.25		1	30038.461	50715	3.596	3.596	3....	H1-1b
50	M83	SR 0.5	.068	1.667	10	.013	0		5	864.46	6350.4	.052	.052	1....	H1-1b
51	M84	SR 0.5	.381	1.632	3	.007	0		5	864.46	6350.4	.052	.052	1....	H1-1a
52	M85	SR 0.5	.494	1.632	2	.008	0		5	864.46	6350.4	.052	.052	1....	H1-1a
53	M86	SR 0.5	.073	1.667	8	.008	0		7	864.46	6350.4	.052	.052	1....	H1-1b
54	M95	PIPE 4.0	.250	2.938	2	.103	2.938		4	83096.869	93240	10.631	10.631	2....	H1-1b
55	M98	PIPE 2.0	.264	4.297	1	.103	8.333		7	6295.422	32130	1.872	1.872	2....	H1-1b
56	M99	PIPE 2.0	.547	3.776	1	.212	3.125		9	6295.422	32130	1.872	1.872	2....	H1-1b
57	M108	PL5/8x3.5	.191	.422	2	.069	.422	y	1	67997.431	70875	.923	5.168	1....	H1-1b
58	M109	PL5/8x3.5	.193	.422	14	.038	.422	y	12	67997.431	70875	.923	5.168	1....	H1-1b
59	M110	PL5/8x3.5	.223	.422	23	.130	0	y	23	67997.431	70875	.923	5.168	1....	H1-1b
60	M111	PL5/8x3.5	.172	.422	20	.201	.422	y	20	67997.431	70875	.923	5.168	1....	H1-1b
61	M112	PIPE 2.0	.417	2.501	9	.079	0		3	31128.25	32130	1.872	1.872	1....	H1-1b
62	M113	PIPE 2.0	.161	2.501	2	.100	0		13	31128.25	32130	1.872	1.872	2....	H1-1b
63	M114	PIPE 2.0	.199	2.501	3	.082	0		23	31128.25	32130	1.872	1.872	2....	H1-1b
64	M115	PIPE 2.0	.292	2.501	9	.050	0		7	31128.25	32130	1.872	1.872	2....	H1-1b
65	M116	PL5/8x3.5	.516	.531	2	.159	.443	y	2	69484.705	70875	.923	5.168	1....	H1-1b
66	M117	PL5/8x3.5	.236	.531	10	.049	0	y	16	69484.705	70875	.923	5.168	1....	H1-1b
67	M118	PL5/8x3.5	.263	.531	21	.071	.138	y	14	69484.705	70875	.923	5.168	1....	H1-1b
68	M119	PL5/8x3.5	.479	.531	14	.085	0	y	14	69484.705	70875	.923	5.168	1....	H1-1b
69	M120	SR 0.75	.000	0	75	.016	4.167		22	2863.936	14313.866	.179	.179	1....	H1-1a
70	M121	SR 0.75	.032	0	21	.008	4.167		10	2863.936	14313.866	.179	.179	1....	H1-1b*
71	M122	SR 0.75	.000	0	75	.026	4.167		2	2863.936	14313.866	.179	.179	1....	H1-1a
72	M123	SR 0.75	.054	4.167	16	.014	0		7	2863.936	14313.866	.179	.179	1....	H1-1b*
73	MP4B	PIPE 2.5	.064	5.583	13	.026	2.25		3	30038.461	50715	3.596	3.596	3....	H1-1b
74	MP3B	PIPE 2.5	.128	2.25	2	.085	2.25		3	30038.461	50715	3.596	3.596	3....	H1-1b
75	MP2B	PIPE 2.5	.117	2.25	12	.070	4.083		1	30038.461	50715	3.596	3.596	1....	H1-1b
76	MP1B	PIPE 2.5	.093	5.583	14	.046	3.083		1	30038.461	50715	3.596	3.596	3....	H1-1b
77	M128	SR 0.5	.100	1.667	7	.003	0		22	864.46	6350.4	.052	.052	1	H1-1b
78	M129	SR 0.5	.582	1.632	1	.009	0		3	864.46	6350.4	.052	.052	1	H1-1a
79	M130	SR 0.5	.482	1.528	23	.004	0		3	864.46	6350.4	.052	.052	1....	H1-1a
80	M131	SR 0.5	.078	1.667	6	.010	0		3	864.46	6350.4	.052	.052	1....	H1-1b
81	M140	PIPE 4.0	.294	2.938	3	.150	2.938		3	83096.869	93240	10.631	10.631	2....	H1-1b
82	M138A	PIPE 2.0	.058	3.665	7	.031	0		6	16869.092	32130	1.872	1.872	1....	H1-1b
83	M138B	PIPE 2.0	.065	6.235	11	.031	0		6	20159.386	32130	1.872	1.872	1....	H1-1b*
84	M138C	PIPE 2.0	.089	6.235	3	.029	6.235		9	20159.386	32130	1.872	1.872	1....	H1-1b*
85	M138D	PIPE 2.0	.058	3.993	11	.030	7.985		11	14958.905	32130	1.872	1.872	1....	H1-1b
86	M138E	PIPE 2.0	.045	3.279	7	.031	6.558		1	19186.054	32130	1.872	1.872	1....	H1-1b
87	M138F	PIPE 2.0	.103	7.331	3	.021	0		2	16869.092	32130	1.872	1.872	1....	H1-1b*

VzW SMART Tool© Vendor

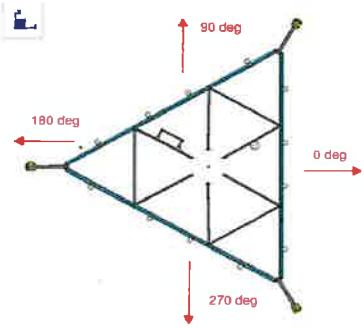
Client:	Verizon Wireless	Date:	3/6/2024
Site Name:	Montville 4		
MDG #:	5000243569		
Fuze ID #:	16271979	Page:	1

Version 2.00

I. Mount-to-Tower Connection Check

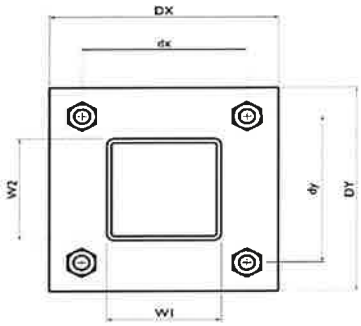
Custom Orientation Required	Yes

Nodes (labeled per Risa)	Orientation (per graphic of typical platform)
N68	0
N70	0
N71	240
N209	240
N70A	120
N140	120



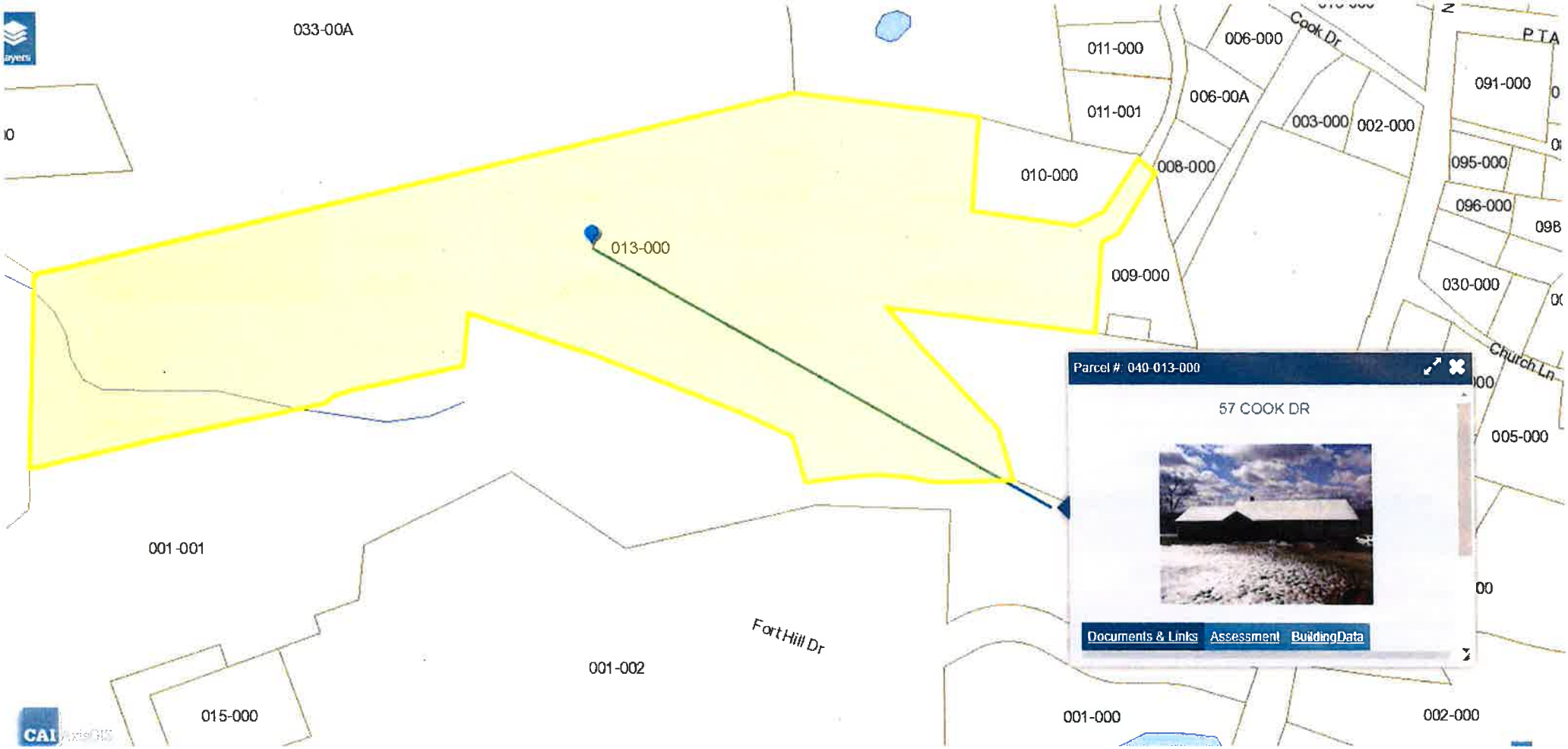
Tower Connection Bolt Checks	Yes
Bolt Orientation	Parallel

Bolt Quantity per Reaction:	4
d_x (in) *(Delta X of typ. bolt config. sketch)*:	10
d_y (in) *(Delta Y of typ. bolt config. sketch)*:	3
Bolt Type:	A307
Bolt Diameter (in):	0.625
Required Tensile Strength / bolt (kips):	5.9
Required Shear Strength / bolt (kips):	1.7
Tensile Capacity / bolt (kips):	10.4
Shear Capacity / bolt (kips):	6.2
Bolt Overall Utilization:	**57.6%**



Tower Connection Baseplate Checks	No

ATTACHMENT 5


033-00A
011-000
011-001
006-000
006-00A
Cook Dr
003-000
002-000
091-000
095-000
096-000
008-000
010-000
013-000
009-000
030-000
Church Ln
005-000
Parcel #: 040-013-000
57 COOK DR
Documents & Links
Assessment
BuildingData
001-001
Fort Hill Dr
001-002
015-000
001-000
002-000

Property Card: **57 COOK DR**

Town of Montville, CT

Parcel Information

Location:	57 COOK DR	Property Use:	Residential	Primary Use:	Residential
Unique ID:	K0555700	Map Block Lot:	040-013-000	Acres:	45.3
		Zone:	C-3	Volume / Page:	0546/0511
		Sale Date:	03/04/2010	Sale Price:	$0

Value Information

	Appraised Value	Assessed Value
Land	164880	49760
Buildings	306943	214860
Detached Outbuildings	696814	487770
Total	1168637	752390

Owner's Information

Owner's Data
KINGSBOROUGH ROBERT W & KAREN A 57 COOK RD UNCASVILLE, CT 06382

Building 1

Category:	Residential	Siding:	Vinyl Siding	Total Rooms:	9
Stories:	1.00	Fuel:	Oil	Beds/Units:	5
GLA:	3462	Heating:	Hot Water	Baths:	3
Year Built:	1989	Fireplace:	1		
Class:	B	Cooling Percent:	None	Half Baths:	0
Use:	Single Family	Floors:	Carpet	Basement Garage:	0
Construction Style:	Ranch	Roof Material:	Asphalt	Finished Basement:	0

ATTACHMENT 6

Verizon/Montville 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	3	3	OLD STATE HOUSE STATION 06103 MAY 29 2024 USPS POSTAGE quadient CORRECTION IMI $003.34
	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.	Leonard Bunnell Sr., Mayor Town of Montville 310 Norwich – New London Turnpike Uncasville, CT 06382				
2.	Matthew Davis, Director of Land Use and Development Department Town of Montville 310 Norwich – New London Turnpike Uncasville, CT 06382				
3.	Robert and Karen Kingsborough 57 Cook Road Uncasville, CT 06382				
4.					
5.					
6.					

See Reverse for Instructions