CENTERLINE COMMUNICATIONS

750 West Center Street, Floor 3 / Suite 301
West Bridgewater, MA 02379 *Corporate Headquarters*
781.713.4725
617.249.0819

T-Mobile
Centerline Communications
Ryan Clark
750 West Center Street, Floor 3
West Bridgewater, MA 02379
203-300-7310
rclark@clinellc.com

June 29, 2022

Members of the Siting Council
Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051

Notice of Exempt Modification
100 Old Redding Road Redding, CT 06896
Latitude: 41.2871128
Longitude: -73.43820646
T-Mobile Site#: CTFF749A

Dear Ms. Bachman,

T-Mobile/Sprint currently maintains nine (9) antennas at the 147-foot level of the existing 180- foot lattice tower at 100 Old Redding Road Redding, CT 06896. The 180 foot tower is owned by American Tower Corporation and the property is owned by Robert J. Kaufman. T-Mobile now intends to replace six (6) of its existing antennas with three (6) new 1900/2100 MHz antenna. The new antennas would be installed at the 148-foot level of the tower. The proposed modifications will make the site available for 5G at some point in the future.

Planned Modifications:

Remove and Replace:
(3) AIR 21 B2A_B4P **(Remove)** - (3) AIR 6419 B41 Antennas **(Replace)**
(3) AIR 21 B2P_B4A **(Remove) -** (3) VV-65A-R1 **(Replace)**
(12) 1-5/8" Coax (Remove)

Install New:
(3) 1.99" Hybrid Trunk Cables
(3) 4460 B25+B66 RRU
(3) Ericsson AIR 6419 B41

CENTERLINE COMMUNICATIONS

750 West Center Street, Floor 3 / Suite 301
West Bridgewater, MA 02379 *Corporate Headquarters*
781.713.4725
617.249.0819

To Remain:

(3) APXVAARR24_43-U-NA20
(3) 4449 B71 + B85 RRU
(2) 1-1/4" 6x12 HCS

Ground:
(1) 6230 Cabinet (**Add**)
(1) Shelter (**Remain**)
(1)6201 Cabinet (**Remain**)

This facility was approved by the Connecticut Siting Council on August 9, 1995. The original facility approval is attached.

Please accept this letter as notification pursuant to Regulations of Connecticut State Agencies§ 16-SOj-73,for construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b)(2). In accordance with R.C.SA. § 16-SOj-73, a copy of this letter is being sent to First Selectwoman Julia Pemberton, Chief Elected Official, Daniel W. Barrett , Chairman of the Planning Commission, American Tower Corporation as the tower owner and Robert J. Kaufman as property owner.

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 structure.

2. The proposed modifications 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 operation of the replacement antennas will not increase radio frequency emissions at the facility

to a level at or above the Federal Communications Commission safety standard.

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

characteristics of the site.

6. The existing structure and its foundation can support the proposed loading.

For the foregoing reasons, T-Mobile respectfully submits that the proposed modifications to the above referenced telecommunications facility constitute an exempt modification under

R.C.S.A. § 16-50j-72(b)(2).

CENTERLINE COMMUNICATIONS

750 West Center Street, Floor 3 / Suite 301
West Bridgewater, MA 02379 *Corporate Headquarters*
781.713.4725
617.249.0819

Sincerely,

Ryan Clark
Mobile: 203-300-7310
Fax: 508-819-3017
Office: 750 West Center Street, Floor 3 West Bridgewater, MA 02379
Email: rclark@clinellc.com

Attachments
cc: First Selectwoman Julia Pemberton, Chief Elected Official
Daniel W. Barrett , Chairman of the Planning Commission
American Tower Corporation as the tower owner
Robert J. Kaufman as property owner

Exhibit A

Original Facility Approval

DOCKET NO. 167 - An application of Springwich Cellular Limited Partnership for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance, and operation of a cellular telecommunications facility located approximately 2,000 feet east southeast of the intersection of Old Redding Road and Mountain Road with an alternate site located approximately 2,400 feet east of the intersection of Old Redding Road and Mountain Road, in the Town of Redding, Connecticut.	}	Connecticut
	}	Siting
	}	Council
	}	August 9, 1995

DECISION AND ORDER

Pursuant to the foregoing Findings of Fact and Opinion, the Connecticut Siting Council (Council) finds that the effects associated with the construction, operation, and maintenance of a cellular telecommunications tower and equipment building at the proposed prime site and the alternate access road in Redding, Connecticut, including effects on the natural environment; ecological integrity and balance; public health and safety; scenic, historic, and recreational values; forests and parks; air and water purity; and fish and wildlife are not disproportionate either alone or cumulatively with other effects when compared to need, are not in conflict with the policies of the State concerning such effects and are not sufficient reason to deny the application and therefore directs that a Certificate of Environmental Compatibility and Public Need (Certificate) as provided by General Statutes § 16-50k be issued to Springwich Cellular Limited Partnership (Springwich) for the construction, operation, and maintenance of a cellular telecommunications tower, associated equipment, and building at the proposed prime site located approximately 2,000 feet east southeast of the intersection of Old Redding Road and Mountain Road in the Town of Redding, Connecticut.

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

1. The self-supporting lattice tower shall be no taller than necessary to provide the proposed communication service and the tower shall not exceed a height of 180 feet above ground level (AGL).

2. The Certificate holder shall prepare a Development and Management (D&M) Plan for this site and access road in compliance with Sections 16-50j-75 through 16-50j-77 of the Regulations of Connecticut State Agencies. The D&M Plan shall be submitted to and approved by the Council prior to the commencement of facility construction and shall include detailed plans for the tower location and tower foundation, the placement of all antennas to be attached to the tower, equipment building, access road, utility line, and security fence; site clearing and tree trimming; and water drainage and erosion and sediment controls consistent with the Connecticut Guidelines for Soil Erosion and Sediment Control, as amended.

3. Springwich shall provide the Council with a statement of intent and schedule to remove the existing Department of Motor Vehicle (DMV) tower on Fire Tower Road in Redding prior to submission of the D&M Plan to the Council. Springwich must arrange to have the DMV tower removed within one year of the completion of construction of Springwich's tower.

4. No salt or chemicals may be used during access road maintenance to clear snow and ice.

5. Upon the establishment of any new State or federal radio frequency power density standards applicable to frequencies of this facility, the facility granted herein shall be brought into compliance with such standards as soon as possible.

6. The Certificate holder shall provide the Council a measurement of electromagnetic radio frequency power density at such time when Springwich, the Connecticut State Police, the DMV, and the Northwest Connecticut Public Safety Communications Center broadcast equipment is fully operational. The Certificate holder shall provide the Council a remeasured report of electromagnetic radio frequency power density if and when circumstances in operation cause a change in power density above the levels originally measured.

7. The Certificate holder shall permit public or private entities to share space on the tower for fair consideration or shall provide any requesting entity with specific legal, technical, environmental, economical, or public safety reasons precluding such tower sharing.

8. If the facility does not initially provide cellular or public safety services following completion of construction or if the facility permanently ceases to provide both cellular and public safety services, this Decision and Order shall be void and the Certificate holder shall dismantle the tower, remove all associated equipment, and restore the site. Reapplication for any continued or new use shall be made to the Council before any such use is made.

9. Unless otherwise approved by the Council, this Decision and Order shall be void if all construction authorized herein is not completed within three years of the approval date of this Decision and Order or within three years after all appeals to this Decision and Order have been resolved.

10. The Certificate holder shall notify the Council upon completion of construction and provide the final cost to construct the facility.

Pursuant to General Statutes § 16-50p, we hereby direct that a copy of the Findings of Fact, Opinion, and Decision and Order be served on each person listed below and Notice of Issuance shall be published in the Danbury News Times and the Redding Pilot.

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

APPLICANT	**ITS REPRESENTATIVE**
Springwich Cellular Ltd. Partnership	Peter J. Tyrrell, Sr. Attorney Springwich Cellular Ltd. Partnership 227 Church St., Rm. 1021 New Haven, CT 06510

PARTIES	ITS REPRESENTATIVE
George Vermilyea and the Neighbors Opposed to the Tower ("NOT")	c/o Marie Burroughs 11 Mine Hill Rd. West Redding, CT 06893 and David Silverstone, Esq. Silverstone & Koontz, P.C. 227 Lawrence St. Hartford, CT 06106
Town of Redding	Michael N. LaVelle, Esq. Pullman & Comley, LLC 850 Main St., P.O. Box 7006 Bridgeport, CT 06601-7006
State of Connecticut, Department of Public Safety, Division of State Police	Stephen R. Sarnoski Assistant Attorney General MacKenzie Hall 110 Sherman St. Hartford, CT 06105

The Hon. John E. Stripp
State Representative
Legislative Office Building
Room 4200
Hartford, CT 06106-1591

The Hon. Judith G. Freedman
State Senator
Legislative office Building
Room 3100
Hartford, CT 06106-1591

INTERVENOR

Robert J. Kaufman
100 Old Redding Rd.
West Redding, CT 06896

CERTIFICATION

The Undersigned members of the Connecticut Siting Council (Council) hereby certify that they have heard this case, or read the record thereof, in Docket No. 167, an application of Springwich Cellular Limited Partnership for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance, and operation of a cellular telecommunications facility located approximately 2,000 feet east southeast of the intersection of Old Redding Road and Mountain Road with an alternate site located approximately 2,400 feet east of the intersection of Old Redding Road and Mountain Road, in the Town of Redding, Connecticut, and voted as follows to approve the prime site:

Council Members	Vote Cast
Mortimer A. Gelston Chairman	YES
Commissioner Reginald J. Smith Designee: Gerald J. Heffernan	YES
Commissioner Sidney J. Holbrook Designee: Brian Emerick	YES
William J. Huber	ABSTAIN
Gloria Dibble Pond	NO
William H. Smith	YES
Colin C. Tait	NO
Edward S. Wilensky	ABSTAIN
Dana J. Wright	ABSENT

Dated at New Britain, Connecticut, August 9, 1995.

Exhibit B

Property Card

100 OLD REDDING RD

Location	100 OLD REDDING RD	**Mblu**	35/ / 46/ /
Acct#	00300300	**Owner**	KAUFMAN ROBERT J
Assessment	$801,200	**Appraisal**	$2,881,800
PID	2924	**Building Count**	3

Current Value

Appraisal			
Valuation Year	**Improvements**	**Land**	**Total**
2021	$675,800	$2,206,000	$2,881,800

Assessment			
Valuation Year	**Improvements**	**Land**	**Total**
2021	$473,000	$328,200	$801,200

Owner of Record

Owner	KAUFMAN ROBERT J
Co-Owner	
Address	41 PADANARAM RD DANBURY, CT 06810

Sale Price	$0
Certificate	2
Book & Page	0117/0510
Sale Date	06/15/1983
Instrument	XX

Ownership History

Ownership History					
Owner	**Sale Price**	**Certificate**	**Book & Page**	**Instrument**	**Sale Date**
KAUFMAN ROBERT J	$0	2	0117/0510	XX	06/15/1983
KAUFMAN ROBERT J	$0	1	0115/0739	XX	12/28/1982
KAUFMAN MARION C	$0	3	0072/0621	XX	05/13/1966

Building Information

Building 1 : Section 1

Year Built:	1940
Living Area:	2,354
Replacement Cost:	$331,800

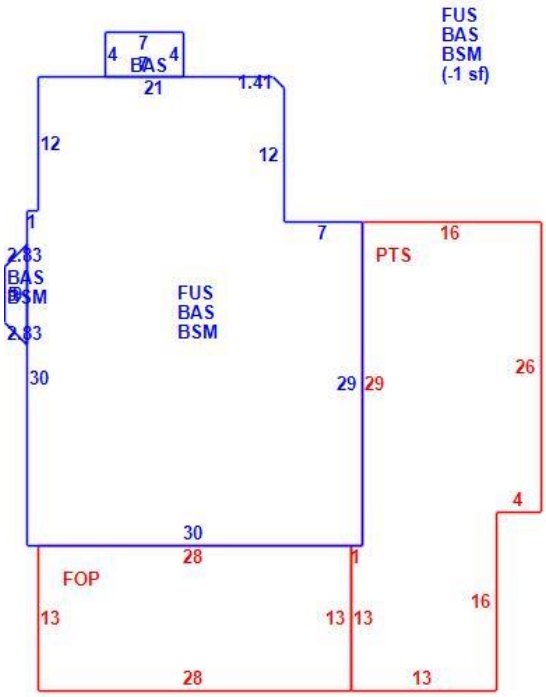
Building Percent Good: 78
Replacement Cost
Less Depreciation: $258,800

Building Attributes	
Field	**Description**
Style	Colonial
Model	Residential
Grade:	B
Stories	2 Stories
Occupancy	1
Exterior Wall 1	Clapboard
Exterior Wall 2	
Roof Structure	Gable
Roof Cover	Wood Shingle
Interior Wall 1	Drywall
Interior Wall 2	
Interior Flr 1	Hardwood
Interior Flr 2	
Heat Fuel	Gas
Heat Type:	Forced Air
AC Type:	None
Total Bedrooms	4 Bedrooms
Full Bathrooms	1
Half Bathrooms	1
Total Xtra Fixtrs	1
Total Rooms	8
Bath Style:	Above Average
Kitchen Style:	Average
Fireplaces 2	3
Cndtn	
Whirlpool Tubs	
Fin Bsmt Area	
Fin Bsmt Qual	
Bsmt Garages	
Num Park	
Fireplaces	
Fndtn Cndtn	
Basement	

Building Photo

(https://images.vgsi.com/photos/ReddingCTPhotos//\00\00\68\79.jpg)

Building Layout



(ParcelSketch.ashx?pid=2924&bid=2924)

Building Sub-Areas (sq ft)			Legend
Code	**Description**	**Gross Area**	**Living Area**
BAS	First Floor	1,198	1,198
FUS	Finished Upper Story	1,156	1,156
BSM	Basement Area	1,170	0
FOP	Framed Open Porch	364	0
PTS	Patio - Stone	621	0
		4,509	2,354

Building 2 : Section 1

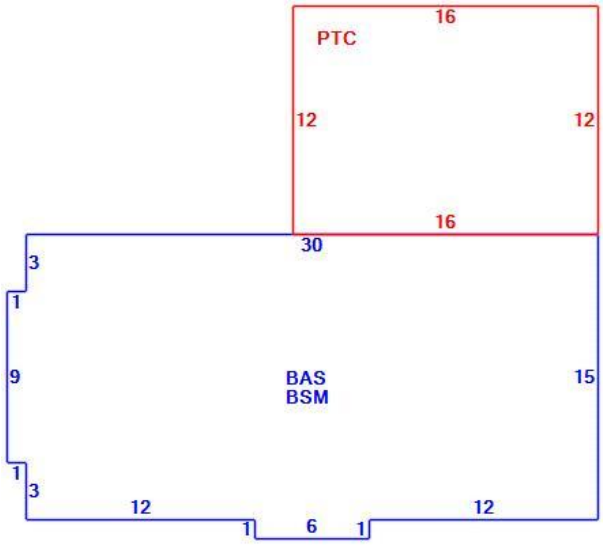
Year Built:	1975
Living Area:	465
Replacement Cost:	$82,790
Building Percent Good:	76
Replacement Cost Less Depreciation:	$62,900

Building Attributes : Bldg 2 of 3	
Field	**Description**
Style	Studio/Hm Office
Model	Residential
Grade:	C
Stories	01
Occupancy	01
Exterior Wall 1	Wood
Exterior Wall 2	
Roof Structure	Gable
Roof Cover	Wood Shingle
Interior Wall 1	Drywall
Interior Wall 2	
Interior Flr 1	Hardwood
Interior Flr 2	
Heat Fuel	Gas
Heat Type:	Hot Water
AC Type:	None
Total Bedrooms	00
Full Bathrooms	0
Half Bathrooms	1
Total Xtra Fixtrs	
Total Rooms	2
Bath Style:	Average
Kitchen Style:	Average
Fireplaces 2	
Cndtn	
Whirlpool Tubs	
Fin Bsmt Area	
Fin Bsmt Qual	
Bsmt Garages	
Num Park	
Fireplaces	
Fndtn Cndtn	
Basement	

Building Photo

(https://images.vgsi.com/photos/ReddingCTPhotos//\00\00\68\80.jpg)

Building Layout



(ParcelSketch.ashx?pid=2924&bid=20361)

Building Sub-Areas (sq ft)			Legend
Code	**Description**	**Gross Area**	**Living Area**
BAS	First Floor	465	465
BSM	Basement Area	465	0
PTC	Patio - Concrete	192	0
		1,122	465

Building 3 : Section 1

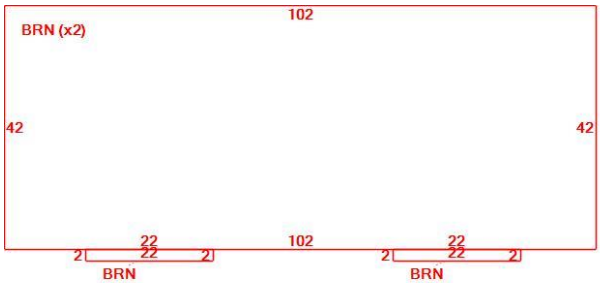
Year Built:	2000
Living Area:	0
Replacement Cost:	$338,148
Building Percent Good:	90
Replacement Cost Less Depreciation:	$304,300

Building Attributes : Bldg 3 of 3	
Field	**Description**
Style	Barn
Model	Ind/Comm
Grade	B
Stories	2
Occupancy	1.00
Exterior Wall 1	Cedar
Exterior Wall 2	
Roof Structure	Gambrel
Roof Cover	Wood Shingle
Interior Wall 1	Wall Board
Interior Wall 2	Minimum
Interior Floor 1	Minimum/Plywd
Interior Floor 2	
Heating Fuel	Oil
Heating Type	Forced Air
AC Type	None
Struct Class	
Bldg Use	Farm Buildings
Bedrooms	0
Full Bths	0
Half Bths	2
1st Floor Use:	
Heat/AC	None
Frame Type	Wood Frame
Baths/Plumbing	Average
Ceiling/Walls	None
Rooms/Prtns	Average
Wall Height	10.00
% Comn Wall	

Building Photo

(https://images.vgsi.com/photos/ReddingCTPhotos//\00\00\68\81.jpg)

Building Layout



(ParcelSketch.ashx?pid=2924&bid=20362)

Building Sub-Areas (sq ft)			Legend
Code	**Description**	**Gross Area**	**Living Area**
BRN	Barn Area	8,656	0
		8,656	0

Extra Features

Extra Features	Legend

Code	Description	Size	Value	Bldg #
FPL	Fireplace	1.00 Units	$3,200	3
GEN	Generator	1.00 Units	$0	1

Land

Land Use

Use Code 101
Description Single Family Res
Zone R-2
Neighborhood 100
Alt Land Appr No
Category

Special Land			
Land Use Code	**Land Use Description**	**Units**	**Unit Type**
800	Open Space	122	AC

Land Line Valuation

Size (Acres) 134.66
Frontage
Depth
Assessed Value $328,200
Appraised Value $2,206,000

Outbuildings

Outbuildings						Legend
Code	**Description**	**Sub Code**	**Sub Description**	**Size**	**Value**	**Bldg #**
WDK	Wood Deck			264.00 S.F.	$2,900	2
GAR1	Garage	FR	Frame	575.00 S.F.	$2,700	1
SPL1	InGround Pool	CRH	Heatd/Concrt	1080.00 S.F.	$37,100	1
PAT1	Patio	ST	Stone	432.00 S.F.	$3,900	1

Valuation History

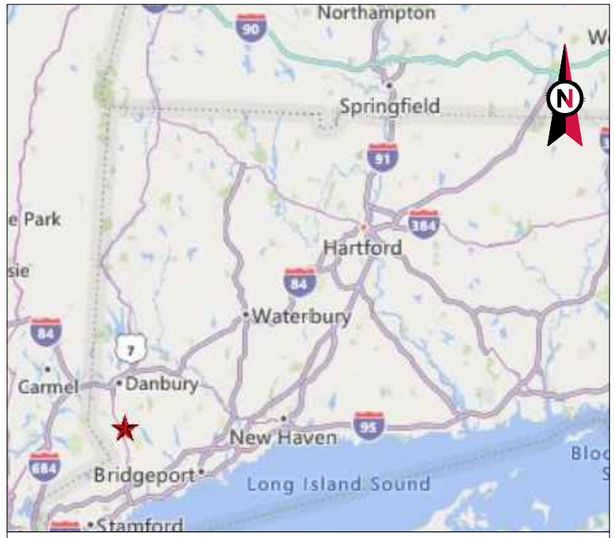
Appraisal			
Valuation Year	**Improvements**	**Land**	**Total**
2021	$675,800	$2,206,000	$2,881,800
2020	$675,800	$2,206,000	$2,881,800
2019	$675,800	$2,206,000	$2,881,800

Assessment			
Valuation Year	**Improvements**	**Land**	**Total**
2021	$473,000	$328,200	$801,200
2020	$473,000	$328,200	$801,200
2019	$473,000	$328,200	$801,200

100 OLD REDDING ROAD, REDDING, CT

Exhibit C

Construction Drawings



VICINITY MAP

AMERICAN TOWER®

ATC SITE NAME: REDDING
ATC SITE NUMBER: 302522
T-MOBILE SITE NAME: ATC REDDING LATTICE TOWER
T-MOBILE SITE NUMBER: CTFF749A
SITE ADDRESS: 100 OLD REDDING ROAD
REDDING, CT 06896

LOCATION MAP

T-MOBILE ANCHOR AMENDMENT PLAN
67D5D998E ODE+6160 CONFIGURATION

COMPLIANCE CODE

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

1. INTERNATIONAL BUILDING CODE (IBC)
2. NATIONAL ELECTRIC CODE (NEC)
3. LOCAL BUILDING CODE
4. CITY/COUNTY ORDINANCES

UTILITY COMPANIES

POWER COMPANY: UNITED ILLUMINATING
PHONE: (800) 722-5584

TELEPHONE COMPANY: FRONTIER COMMUNICATIONS
PHONE: (800) 376-6843

811
Know what's below.
Call before you dig.

PROJECT SUMMARY

SITE ADDRESS:

100 OLD REDDING ROAD
REDDING, CT 06896
COUNTY: FAIRFIELD

GEOGRAPHIC COORDINATES:

LATITUDE: 41.2871128
LONGITUDE: -73.43820646
GROUND ELEVATION: 686' AMSL

PROJECT TEAM

TOWER OWNER:

AMERICAN TOWER
10 PRESIDENTIAL WAY
WOBURN, MA 01801

APPLICANT:

T-MOBILE

ENGINEER:

ATC TOWER SERVICES, LLC
3500 REGENCY PKWY STE 100
CARY, NC 27518

PROPERTY OWNER:

ROBERT J. KAUFMAN
100 OLD REDDING ROAD
REDDING, CT 06896

PROJECT DESCRIPTION

THE PROPOSED PROJECT INCLUDES MODIFYING GROUND BASED AND TOWER MOUNTED EQUIPMENT AS INDICATED PER BELOW:

TOWER WORK:

REMOVE (6) ANTENNA(s) AND (12) 1-5/8" COAX CABLES, (1) 1-1/4" ERICSSON 6X12 HCS, AND (1) 1-5/8" ERICSSON 9X18 HCS CABLE(s)

INSTALL (6) ANTENNA(s), (3) RRU(s), AND (2) 1.99" HYBRID TRUNK 6/24 4AWG CABLE(s)

EXISTING (3) ANTENNA(s), (3) RRU(s), AND (2) 1-1/4" ERICSSON 6X12 HCS CABLE(s) TO REMAIN

GROUND WORK:

REMOVE (1) PBC 6200 CABINET

INSTALL (1) 6230 POWER CABINET AND (1) 19" RACK

EXISTING (1) RBS 6201 ODE CABINET TO REMAIN

PROJECT NOTES

1. THE FACILITY IS UNMANNED.
2. A TECHNICIAN WILL VISIT THE SITE APPROXIMATELY ONCE A MONTH FOR ROUTINE INSPECTION AND MAINTENANCE.
3. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT LAND DISTURBANCE OR EFFECT OF STORM WATER DRAINAGE.
4. NO SANITARY SEWER, POTABLE WATER OR TRASH DISPOSAL IS REQUIRED.
5. HANDICAP ACCESS IS NOT REQUIRED.
6. THE PROJECT DEPICTED IN THESE PLANS QUALIFIES AS AN ELIGIBLE FACILITIES REQUEST ENTITLED TO EXPEDITED REVIEW UNDER 47 U.S.C. § 1455(A) AS A MODIFICATION OF AN EXISTING WIRELESS TOWER THAT INVOLVES THE COLLOCATION, REMOVAL, AND/OR REPLACEMENT OF TRANSMISSION EQUIPMENT THAT IS NOT A SUBSTANTIAL CHANGE UNDER CFR § 1.61000 (B)(7).

PROJECT LOCATION DIRECTIONS

FROM HARTFORD TAKE I-84 WEST TO EXIT 3 TO RT 7 SOUTH. FOLLOW TO REDDING AND TURN LEFT ON OLD REDDING RD. AFTER STOP SIGN STAY TO THE RIGHT ON MOUNTAIN RD. ACCESS ROAD IS AHEAD ACROSS FROM # 139.

SHEET INDEX

SHEET NO:	DESCRIPTION:	REV:	DATE:	BY:
G-001	TITLE SHEET	1	06/27/22	JP
G-002	GENERAL NOTES	0	06/22/22	JP
C-101	DETAILED SITE PLAN	1	06/27/22	JP
C-102	DETAILED EQUIPMENT PLAN	1	06/27/22	JP
C-201	TOWER ELEVATION	0	06/22/22	JP
C-401	ANTENNA INFORMATION & SCHEDULE	0	06/22/22	JP
C-501	CONSTRUCTION DETAILS	0	06/22/22	JP
E-501	GROUNDING DETAILS	0	06/22/22	JP
R-601	SUPPLEMENTAL			
R-602	SUPPLEMENTAL			
R-603	SUPPLEMENTAL			
R-604	SUPPLEMENTAL			
R-605	SUPPLEMENTAL			
R-606	SUPPLEMENTAL			

AMERICAN TOWER®
A.T. ENGINEERING SERVICE, PLLC
3500 REGENCY PARKWAY
SUITE 100
CARY, NC 27518
PHONE: (919) 468-0112
COA: PEC.0001553

REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	JP	06/22/22
1	ADDED SHELTER EQUIP	JP	06/27/22

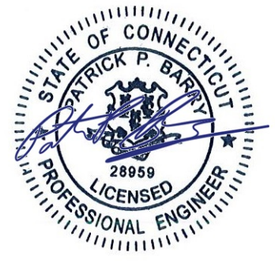
ATC SITE NUMBER:
302522

ATC SITE NAME:
REDDING

T-MOBILE SITE NAME:
ATC REDDING LATTICE TOWER

SITE ADDRESS:
100 OLD REDDING ROAD
REDDING, CT 06896

SEAL:



T-Mobile

DATE DRAWN:	06/22/22
ATC JOB NO:	14108828_G3
CUSTOMER ID:	ATC REDDING LATTICE TOWER
CUSTOMER #:	CTFF749A

TITLE SHEET

SHEET NUMBER:	REVISION:
G-001	1

GENERAL CONSTRUCTION NOTES:

1. OWNER FURNISHED MATERIALS, T-MOBILE "THE COMPANY" WILL PROVIDE AND THE CONTRACTOR WILL INSTALL
   - A. BTS EQUIPMENT FRAME (PLATFORM) AND ICEBRIDGE SHELTER (GROUND BUILD/CO-LOCATE ONLY)
   - B. AC/TELCO INTERFACE BOX (PPC)
   - C. ICE BRIDGE (CABLE TRAY WITH COVER) (GROUND BUILD/CO-LOCATE ONLY, GC TO FURNISH AND INSTALL FOR ROOFTOP INSTALLATION)
   - D. TOWERS, MONOPOLES
   - E. TOWER LIGHTING
   - F. GENERATORS & LIQUID PROPANE TANK
   - G. ANTENNA STANDARD BRACKETS, FRAMES AND PIPES FOR MOUNTING
   - H. ANTENNAS (INSTALLED BY OTHERS)
   - I. TRANSMISSION LINE
   - J. TRANSMISSION LINE JUMPERS
   - K. TRANSMISSION LINE CONNECTORS WITH WEATHERPROOFING KITS
   - L. TRANSMISSION LINE GROUND KITS
   - M. HANGERS
   - N. HOISTING GRIPS
   - O. BTS EQUIPMENT
2. THE CONTRACTOR IS RESPONSIBLE TO PROVIDE ALL OTHER MATERIALS FOR THE COMPLETE INSTALLATION OF THE SITE INCLUDING, BUT NOT LIMITED TO, SUCH MATERIALS AS FENCING, STRUCTURAL STEEL SUPPORTING SUB-FRAME FOR PLATFORM, ROOFING LABOR AND MATERIALS, GROUNDING RINGS, GROUNDING WIRES, COPPER-CLAD OR XIT CHEMICAL GROUND ROD(S), BUSS BARS, TRANSFORMERS AND DISCONNECT SWITCHES WHERE APPLICABLE, TEMPORARY ELECTRICAL POWER, CONDUIT, LANDSCAPING COMPOUND STONE, CRANES, CORE DRILLING, SLEEPERS AND RUBBER MATTING, REBAR, CONCRETE CAISSONS, PADS AND/OR AUGER MOUNTS, MISCELLANEOUS FASTENERS, CABLE TRAYS, NON-STANDARD ANTENNA FRAMES AND ALL OTHER MATERIAL AND LABOR REQUIRED TO COMPLETE THE JOB ACCORDING TO THE DRAWINGS AND SPECIFICATIONS. IT IS THE POSITION OF T-MOBILE TO APPLY FOR PERMITTING AND CONTRACTOR RESPONSIBLE FOR PICKUP AND PAYMENT OF REQUIRED PERMITS.
3. ALL WORK SHALL CONFORM TO ALL CURRENT APPLICABLE FEDERAL, STATE, AND LOCAL CODES, INCLUDING ANSI/EIA/TIA-222, AND COMPLY WITH ATC CONSTRUCTION SPECIFICATIONS.
4. CONTRACTOR SHALL CONTACT LOCAL 811 FOR IDENTIFICATION OF UNDERGROUND UTILITIES PRIOR TO START OF CONSTRUCTION.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL REQUIRED INSPECTIONS.
6. ALL DIMENSIONS TO, OF, AND ON EXISTING BUILDINGS, DRAINAGE STRUCTURES, AND SITE IMPROVEMENTS SHALL BE VERIFIED IN FIELD BY CONTRACTOR WITH ALL DISCREPANCIES REPORTED TO THE ENGINEER.
7. DO NOT CHANGE SIZE OR SPACING OF STRUCTURAL ELEMENTS.
8. DETAILS SHOWN ARE TYPICAL; SIMILAR DETAILS APPLY TO SIMILAR CONDITIONS UNLESS OTHERWISE NOTED.
9. THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY WHICH SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
10. CONTRACTOR SHALL BRACE STRUCTURES UNTIL ALL STRUCTURAL ELEMENTS NEEDED FOR STABILITY ARE INSTALLED. THESE ELEMENTS ARE AS FOLLOWS: LATERAL BRACING, ANCHOR BOLTS, ETC.
11. CONTRACTOR SHALL DETERMINE EXACT LOCATION OF EXISTING UTILITIES, GROUNDS DRAINS, DRAIN PIPES, VENTS, ETC. BEFORE COMMENCING WORK.
12. INCORRECTLY FABRICATED, DAMAGED, OR OTHERWISE MISFITTING OR NONCONFORMING MATERIALS OR CONDITIONS SHALL BE REPORTED TO THE T-MOBILE REP PRIOR TO REMEDIAL OR CORRECTIVE ACTION. ANY SUCH REMEDIAL ACTION SHALL REQUIRE WRITTEN APPROVAL BY THE T-MOBILE REP PRIOR TO PROCEEDING.
13. EACH CONTRACTOR SHALL COOPERATE WITH THE T-MOBILE REP, AND COORDINATE HIS WORK WITH THE WORK OF OTHERS.
14. CONTRACTOR SHALL REPAIR ANY DAMAGE CAUSED BY CONSTRUCTION OF THIS PROJECT TO MATCH EXISTING PRE-CONSTRUCTION CONDITIONS TO THE SATISFACTION OF THE T-MOBILE CONSTRUCTION MANAGER.
15. ALL CABLE/CONDUIT ENTRY/EXIT PORTS SHALL BE WEATHERPROOFED DURING INSTALLATION USING A SILICONE SEALANT.
16. WHERE EXISTING CONDITIONS DO NOT MATCH THOSE SHOWN IN THIS PLAN SET, CONTRACTOR SHALL NOTIFY THE T-MOBILE REP AND ENGINEER OF RECORD IMMEDIATELY.
17. CONTRACTOR SHALL ENSURE ALL SUBCONTRACTORS ARE PROVIDED WITH A COMPLETE AND CURRENT SET OF DRAWINGS AND SPECIFICATIONS FOR THIS PROJECT.
18. CONTRACTOR SHALL REMOVE ALL RUBBISH AND DEBRIS FROM THE SITE AT THE END OF EACH DAY.
19. CONTRACTOR SHALL COORDINATE WORK SCHEDULE WITH AMERICAN TOWER CORPORATION (ATC) AND TAKE PRECAUTIONS TO MINIMIZE IMPACT AND DISRUPTION OF OTHER OCCUPANTS OF THE FACILITY.
20. CONTRACTOR SHALL FURNISH T-MOBILE AND AMERICAN TOWER CORPORATION (ATC) WITH A PDF MARKED UP AS-BUILT SET OF DRAWINGS UPON COMPLETION OF WORK.
21. PRIOR TO SUBMISSION OF BID, CONTRACTOR SHALL COORDINATE WITH T-MOBILE REP TO DETERMINE WHAT, IF ANY, ITEMS WILL BE PROVIDED. ALL ITEMS NOT PROVIDED SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR. CONTRACTOR WILL INSTALL ALL ITEMS PROVIDED.
22. PRIOR TO SUBMISSION OF BID, CONTRACTOR SHALL COORDINATE WITH T-MOBILE REP TO DETERMINE IF ANY PERMITS WILL BE OBTAINED BY CONTRACTOR. ALL REQUIRED PERMITS NOT OBTAINED BY T-MOBILE MUST BE OBTAINED, AND PAID FOR, BY THE CONTRACTOR.
23. CONTRACTOR SHALL INSTALL ALL SITE SIGNAGE IN ACCORDANCE WITH T-MOBILE SPECIFICATIONS AND REQUIREMENTS.
24. CONTRACTOR SHALL SUBMIT ALL SHOP DRAWINGS TO T-MOBILE FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.
25. ALL EQUIPMENT SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND LOCATED ACCORDING TO T-MOBILE SPECIFICATIONS, AND AS SHOWN IN THESE PLANS.
26. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED HEREIN. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
27. CONTRACTOR SHALL NOTIFY T-MOBILE REP A MINIMUM OF 48 HOURS IN ADVANCE OF POURING CONCRETE OR BACKFILLING ANY UNDERGROUND UTILITIES, FOUNDATIONS OR SEALING ANY WALL, FLOOR OR ROOF PENETRATIONS FOR ENGINEERING REVIEW AND APPROVAL.
28. CONTRACTOR SHALL BE RESPONSIBLE FOR SITE SAFETY INCLUDING COMPLIANCE WITH ALL APPLICABLE OSHA STANDARDS AND RECOMMENDATIONS AND SHALL PROVIDE ALL NECESSARY SAFETY DEVICES INCLUDING PPE AND PPM AND CONSTRUCTION DEVICES SUCH AS WELDING AND FIRE PREVENTION, TEMPORARY SHORING, SCAFFOLDING, TRENCH BOXES/SLOPING, BARRIERS, ETC.
29. THE CONTRACTOR SHALL PROTECT AT HIS OWN EXPENSE, ALL EXISTING FACILITIES AND SUCH OF HIS NEW WORK LIABLE TO INJURY DURING THE CONSTRUCTION PERIOD. ANY DAMAGE CAUSED BY NEGLECT ON THE PART OF THIS CONTRACTOR OR HIS REPRESENTATIVES, OR BY THE ELEMENTS DUE TO NEGLECT ON THE PART OF THIS CONTRACTOR OR HIS REPRESENTATIVES, EITHER TO THE EXISTING WORK, OR TO HIS WORK OR THE WORK OF ANY OTHER CONTRACTOR, SHALL BE REPAIRED AT HIS EXPENSE TO THE OWNER'S SATISFACTION.
30. ALL WORK SHALL BE INSTALLED IN A FIRST CLASS, NEAT AND WORKMANLIKE MANNER BY MECHANICS SKILLED IN THE TRADE INVOLVED. THE QUALITY OF WORKMANSHIP SHALL BE SUBJECT TO THE APPROVAL OF THE T-MOBILE REP. ANY WORK FOUND BY THE T-MOBILE REP TO BE OF INFERIOR QUALITY AND/OR WORKMANSHIP SHALL BE REPLACED AND/OR REWORKED AT CONTRACTOR EXPENSE UNTIL APPROVAL IS OBTAINED.
31. IN ORDER TO ESTABLISH STANDARDS OF QUALITY AND PERFORMANCE, ALL TYPES OF MATERIALS LISTED HEREINAFTER BY MANUFACTURER'S NAMES AND/OR MANUFACTURER'S CATALOG NUMBER SHALL BE PROVIDED BY THESE MANUFACTURERS AS SPECIFIED.
32. T-MOBILE FURNISHED EQUIPMENT SHALL BE PICKED-UP AT THE T-MOBILE WAREHOUSE, NO LATER THAN 48HR AFTER BEING NOTIFIED INSURED, STORED, UNCRATE, PROTECTED AND INSTALLED BY THE CONTRACTOR WITH ALL APPURTENANCES REQUIRED TO PLACE THE EQUIPMENT IN OPERATION, READY FOR USE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE EQUIPMENT AFTER PICKING IT UP.
33. T-MOBILE OR HIS ARCHITECT/ENGINEER RESERVES THE RIGHT TO REJECT ANY EQUIPMENT OR MATERIALS WHICH, IN HIS OWN OPINION ARE NOT IN COMPLIANCE WITH THE CONTRACT DOCUMENTS, EITHER BEFORE OR AFTER INSTALLATION AND THE EQUIPMENT SHALL BE REPLACED WITH EQUIPMENT CONFORMING TO THE REQUIREMENTS OF THE CONTRACT DOCUMENTS BY THE CONTRACTOR AT NO COST TO T-MOBILE OR THEIR ARCHITECT/ENGINEER.

SPECIAL CONSTRUCTION ANTENNA INSTALLATION NOTES:

1. WORK INCLUDED:
   - A. ANTENNA AND COAXIAL CABLES ARE FURNISHED BY T-MOBILE UNDER A SEPARATE CONTRACT. THE CONTRACTOR SHALL ASSIST ANTENNA INSTALLATION CONTRACTOR IN TERMS OF COORDINATION AND SITE ACCESS. ERECTION SUBCONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF PERSONNEL.
   - B. INSTALL ANTENNAS AS INDICATED ON DRAWINGS AND T-MOBILE SPECIFICATIONS.
   - C. INSTALL GALVANIZED STEEL ANTENNA MOUNTS AS INDICATED ON DRAWINGS.
   - D. INSTALL FURNISHED GALVANIZED STEEL OR ALUMINUM WAVEGUIDE.
   - E. CONTRACTOR SHALL PROVIDE FOUR (4) SETS OF SWEEP TESTS USING ANRITZU-PACKARD 8713B RF SCALAR NETWORK ANALYZER. SUBMIT FREQUENCY DOMAIN REFLECTOMETER(FDR) TESTS RESULTS TO THE PROJECT MANAGER. SWEEP TESTS SHALL BE AS PER ATTACHED RFS "MINIMUM FIELD TESTING RECOMMENDED FOR ANTENNA AND HELIAX COAXIAL CABLE SYSTEMS" DATED 10/5/93. TESTING SHALL BE PERFORMED BY AN INDEPENDENT TESTING SERVICE AND BE BOUND AND SUBMITTED WITHIN ONE WEEK OF WORK COMPLETION.
   - F. INSTALL COAXIAL CABLES AND TERMINATING BETWEEN ANTENNAS AND EQUIPMENT PER MANUFACTURER'S RECOMMENDATIONS. WEATHERPROOF ALL CONNECTIONS BETWEEN THE ANTENNA AND EQUIPMENT PER MANUFACTURER'S REQUIREMENTS. TERMINATE ALL COAXIAL CABLE THREE (3) FEET IN EXCESS OF ENTRY PORT LOCATION UNLESS OTHERWISE STATED.
   - G. ANTENNA AND COAXIAL CABLE GROUNDING:
2. ALL EXTERIOR #6 GREEN GROUND WIRE "DAISY CHAIN" CONNECTIONS ARE TO BE WEATHER SEALED WITH RFS CONNECTORS/SPLICE WEATHERPROOFING KIT #221213 OR EQUAL.
3. ALL COAXIAL CABLE GROUNDING KITS ARE TO BE INSTALLED ON STRAIGHT RUNS OF COAXIAL CABLE (NOT WITHIN BENDS)

ALL DISCREPANCIES FROM WHAT IS SHOWN ON THESE CONSTRUCTION DRAWINGS SHALL BE COMMUNICATED TO ATC ENGINEERING IMMEDIATELY FOR CORRECTION OR RE-DESIGN. FAILURE TO COMMUNICATE DIRECTLY WITH ATC ENGINEERING OR ANY CHANGES FROM THE DESIGN CONDUCTED WITHOUT PRIOR APPROVAL FROM ATC ENGINEERING SHALL BE THE SOLE RESPONSIBILITY OF THE GENERAL CONTRACTOR.

AMERICAN TOWER®
A.T. ENGINEERING SERVICE, PLLC
3500 REGENCY PARKWAY
SUITE 100
CARY, NC 27518
PHONE: (919) 468-0112
COA: PEC.0001553

REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	JP	06/22/22

ATC SITE NUMBER:
302522

ATC SITE NAME:
REDDING

T-MOBILE SITE NAME:
ATC REDDING LATTICE TOWER

SITE ADDRESS:
100 OLD REDDING ROAD
REDDING, CT 06896

SEAL:

T-Mobile

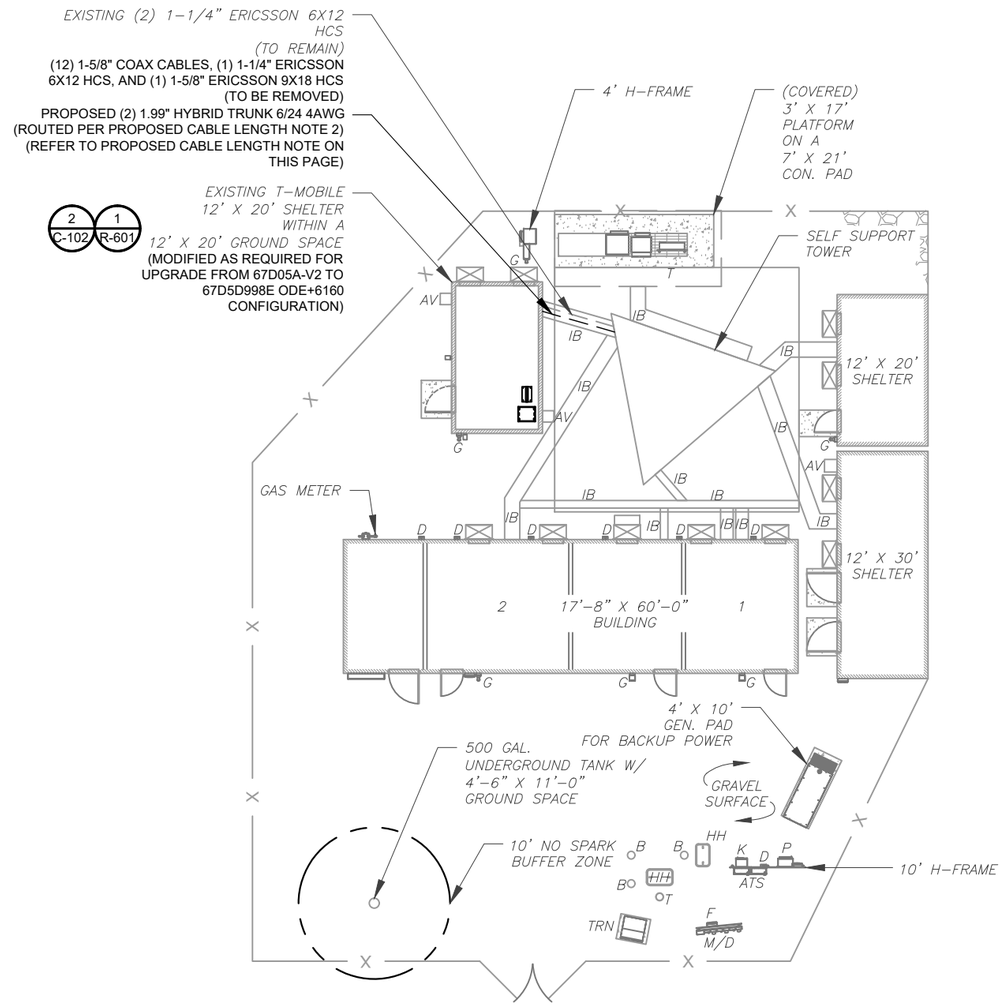
DATE DRAWN:	06/22/22
ATC JOB NO:	14108828_G3
CUSTOMER ID:	ATC REDDING LATTICE TOWER
CUSTOMER #:	CTFF749A

GENERAL NOTES

SHEET NUMBER:	REVISION:
G-002	0

SITE PLAN NOTES:

1. THIS SITE PLAN REPRESENTS THE BEST PRESENT KNOWLEDGE AVAILABLE TO THE ENGINEER AT THE TIME OF THIS DESIGN. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO CONSTRUCTION AND VERIFY ALL EXISTING CONDITIONS RELATED TO THE SCOPE OF WORK FOR THIS PROJECT.
2. ICE BRIDGE, CABLE LADDER, COAX PORT, AND COAX CABLE ARE SHOWN FOR REFERENCE ONLY. CONTRACTOR SHALL CONFIRM THE EXACT LOCATION OF ALL PROPOSED AND EXISTING EQUIPMENT AND STRUCTURES DEPICTED ON THIS PLAN. BEFORE UTILIZING EXISTING CABLE SUPPORTS, COAX PORTS, INSTALLING NEW PORTS OR ANY OTHER EQUIPMENT, CONTRACTOR SHALL VERIFY ALL ASPECTS OF THE COMPONENTS MEET THE ATC SPECIFICATIONS.
3. NO ELECTRICAL SCOPE IS INCLUDED IN THIS PROJECT.



1 DETAILED SITE PLAN

GRAPHIC SCALE

20 0 10 20

(IN FEET)
1 UNIT = 20 FEET

LEGEND

⊗	GROUNDING TEST WELL
ATS	AUTOMATIC TRANSFER SWITCH
B	BOLLARD
CSC	CELL SITE CABINET
D	DISCONNECT
E	ELECTRICAL
F	FIBER
GEN	GENERATOR
G	GENERATOR RECEPTACAL
HH, V	HAND HOLE, VAULT
IB	ICE BRIDGE
K	KENTROX BOX
LC	LIGHTING CONTROL
M	METER
PB	PULL BOX
PP	POWER POLE
T	TELCO
TRN	TRANSFORMER
———	CHAINLINK FENCE

PROPOSED CABLE LENGTH:

1. ESTIMATED LENGTH OF PROPOSED CABLE IS **197'**. ESTIMATED LENGTH OF CABLE WAS PROVIDED BY CUSTOMER OR CALCULATED BY ADDING THE RAD CENTER AND THE DISTANCE FROM THE SHELTER ENTRY PLATE TO THE TOWER (ALONG THE ICE BRIDGE) AND A SAFETY FACTOR MEASUREMENT OF 15% (OF THE TWO PREVIOUS VALUES), CDS DEFER TO GREATEST CABLE LENGTH.
2. ROUTE PROPOSED CABLES ALONG SAME PATH AS EXISTING CABLES AND IN ACCORDANCE WITH STRUCTURAL ANALYSIS. WHERE POSSIBLE UTILIZE EXISTING CABLE SUPPORT STRUCTURES AS PROVIDED FOR CARRIER TO ADEQUATELY SECURE CABLES, USING EITHER APPROPRIATELY SIZED STAINLESS STEEL SNAP-INS OR MOUNTING HARDWARE AND BRACKETS AS SPECIFIED BY CABLE MANUFACTURER. OTHERWISE, ATTACH CABLES TO HORIZONTAL OR DIAGONAL TOWER MEMBERS USING PROPOSED STAINLESS STEEL ADAPTERS (DO NOT ATTACH TO TOWER LEG).

AMERICAN TOWER®
A.T. ENGINEERING SERVICE, PLLC
3500 REGENCY PARKWAY
SUITE 100
CARY, NC 27518
PHONE: (919) 468-0112
COA: PEC.0001553

REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	JP	06/22/22
1	ADDED SHELTER EQUIP	JP	06/27/22

ATC SITE NUMBER:
302522

ATC SITE NAME:
REDDING

T-MOBILE SITE NAME:
ATC REDDING LATTICE TOWER

SITE ADDRESS:
100 OLD REDDING ROAD
REDDING, CT 06896

SEAL:

T-Mobile

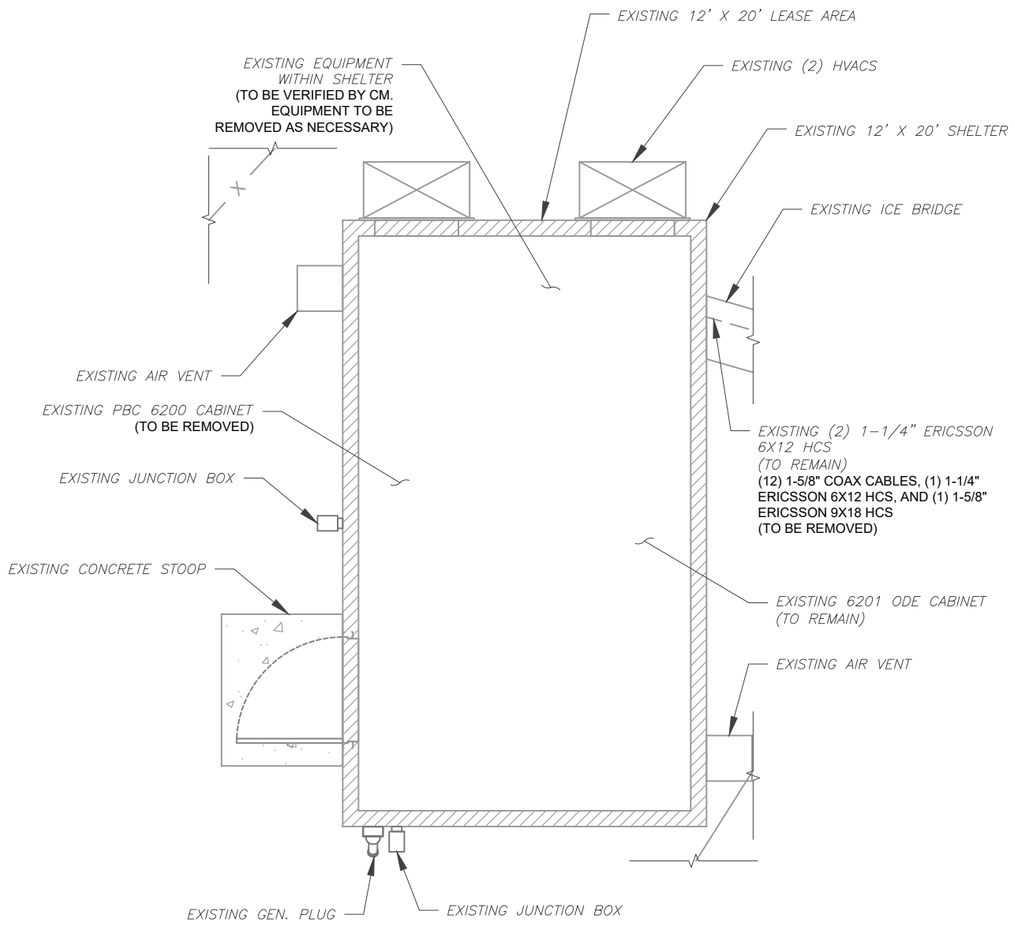
DATE DRAWN:	06/22/22
ATC JOB NO:	14108828_G3
CUSTOMER ID:	ATC REDDING LATTICE TOWER
CUSTOMER #:	CTFF749A

DETAILED SITE PLAN

SHEET NUMBER:	REVISION:
C-101	1

SITE PLAN NOTES:

1. CONTRACTOR TO VERIFY THERE IS NO LIVE AAV FIBER RUNNING THROUGH EXISTING DEAD EQUIPMENT. IF SO, THIS WILL NEED TO BE RERUN THROUGH CONDUIT PRIOR TO REMOVING DEAD 2G (6201 CABS) EQUIPMENT.
2. ALL OPEN PORTS NEED TO BE SEALED / WEATHERPROOFED PROPERLY
3. ALL UNNEEDED / EXCESS EQUIPMENT AND GARBAGE TO BE REMOVED FROM EQUIPMENT AREA. DISPOSE OF MATERIALS PROPERLY OFF SITE.



1 EXISTING GROUND EQUIPMENT LAYOUT

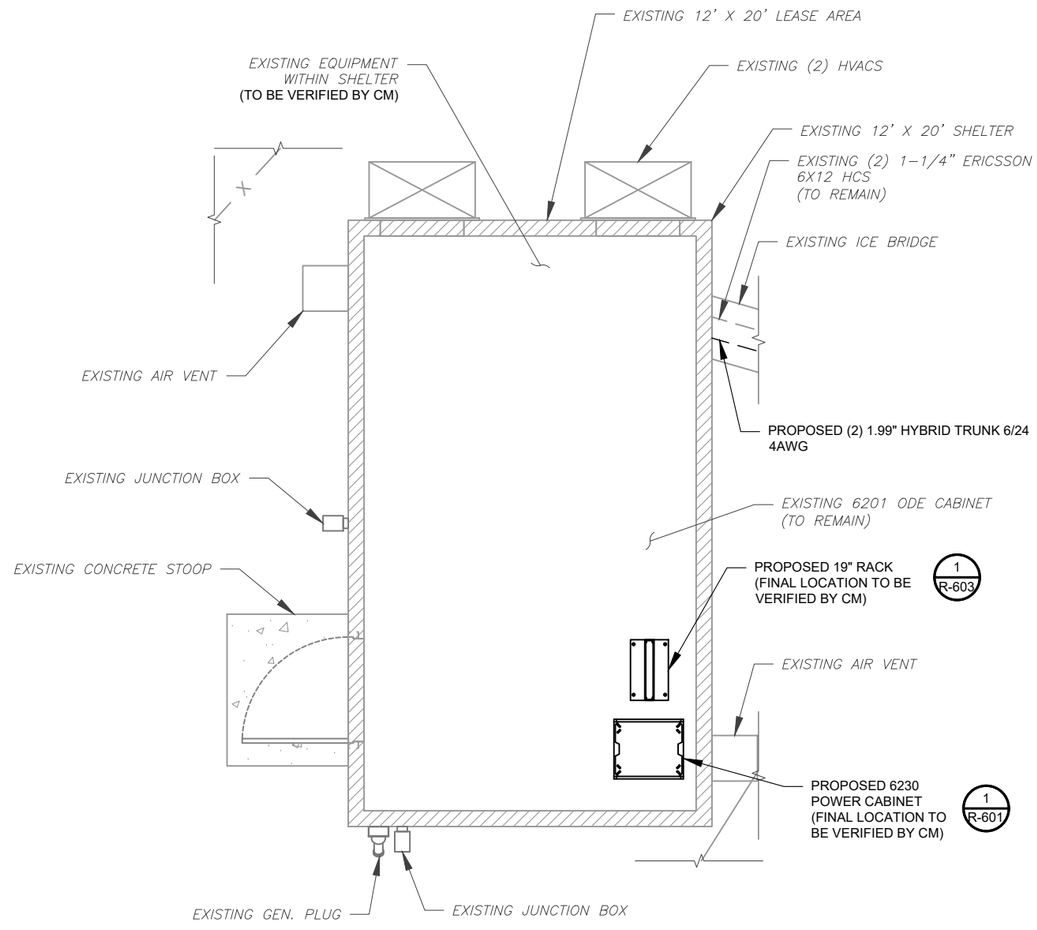
GRAPHIC SCALE

5 0 2.5 5

(IN FEET)
1 UNIT = 5 FEET

N

T-MOBILE CM APPROVAL REQUIRED BEFORE INSTALLING CABINETS.



2 PROPOSED GROUND EQUIPMENT LAYOUT

GRAPHIC SCALE

5 0 2.5 5

(IN FEET)
1 UNIT = 5 FEET

N

AMERICAN TOWER®
A.T. ENGINEERING SERVICE, PLLC
3500 REGENCY PARKWAY
SUITE 100
CARY, NC 27518
PHONE: (919) 468-0112
COA: PEC.0001553

REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	JP	06/22/22
1	ADDED SHELTER EQUIP	JP	06/27/22

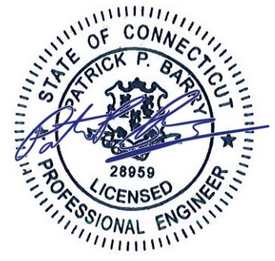
ATC SITE NUMBER:
302522

ATC SITE NAME:
REDDING

T-MOBILE SITE NAME:
ATC REDDING LATTICE TOWER

SITE ADDRESS:
100 OLD REDDING ROAD
REDDING, CT 06896

SEAL:



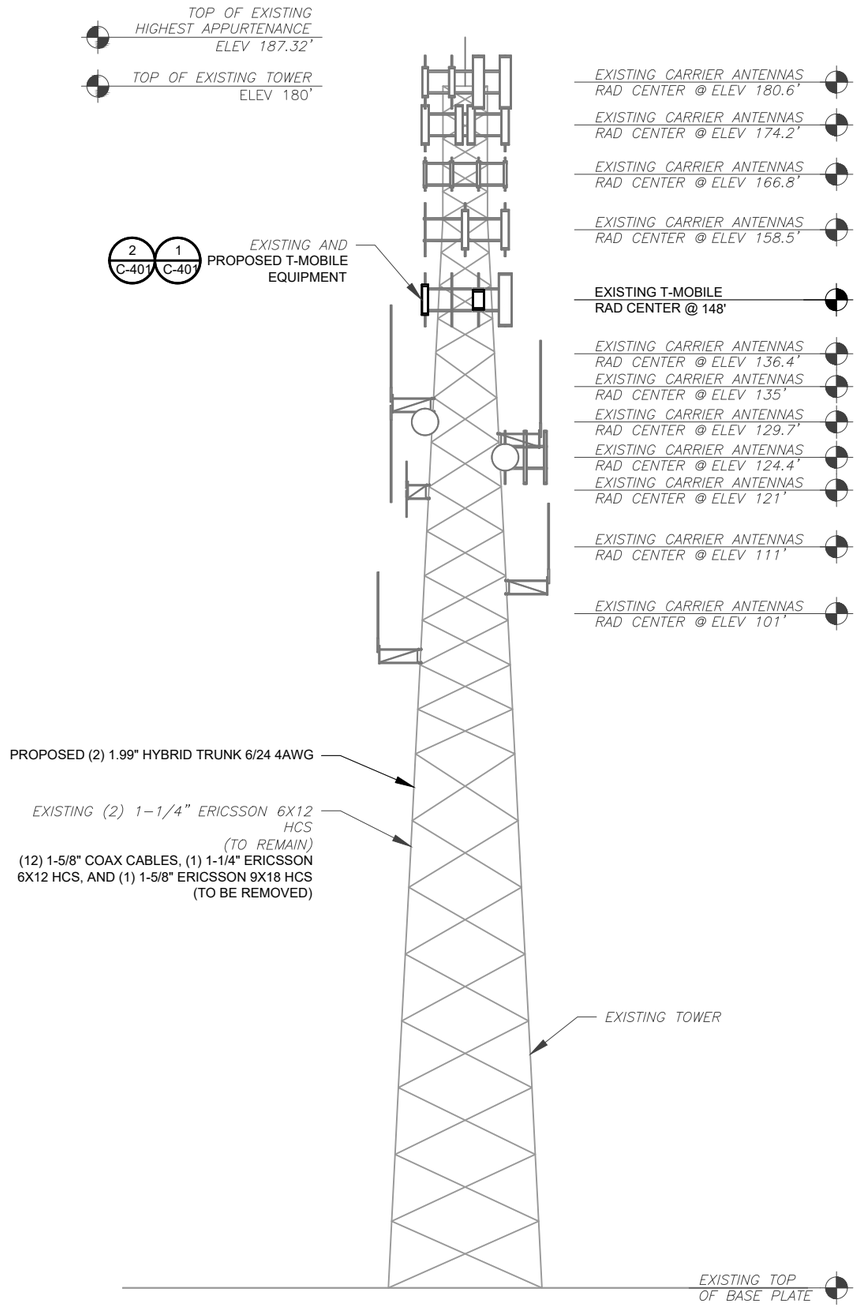
T-Mobile

DATE DRAWN:	06/22/22
ATC JOB NO:	14108828_G3
CUSTOMER ID:	ATC REDDING LATTICE TOWER
CUSTOMER #:	CTFF749A

DETAILED EQUIPMENT PLAN

SHEET NUMBER:	REVISION:
C-102	1

PER MOUNT ANALYSIS COMPLETED BY ATC, DATED 06/02/22, THE EXISTING MOUNT CAN ADEQUATELY SUPPORT THE PROPOSED LOADING.



1 TOWER ELEVATION
SCALE: N.T.S.

TOWER NOTE:

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONFIRM WITH THE PROJECT MANAGER THAT THEY HAVE THE MOST RECENT VERSION OF THE STRUCTURAL ANALYSIS BEFORE COMMENCING WORK. EXISTING AND PROPOSED TOWER APPURTENANCES, MOUNTS, AND ANTENNAS ARE SHOWN BASED ON THE STRUCTURAL ANALYSIS.
2. WHERE APPLICABLE, ALL NEW ANTENNAS, EQUIPMENT, MOUNTS, CABLING, ETC. SHALL BE PAINTED/SOCKED TO MATCH EXISTING EQUIPMENT IN ACCORDANCE WITH FAA, JURISDICTION, AND/OR OTHER LOCAL REQUIREMENTS.
3. ROUTE PROPOSED CABLES ALONG SAME PATH AS EXISTING CABLES AND IN ACCORDANCE WITH STRUCTURAL ANALYSIS. WHERE POSSIBLE UTILIZE EXISTING CABLE SUPPORT STRUCTURES AS PROVIDED FOR CARRIER TO ADEQUATELY SECURE CABLES, USING EITHER APPROPRIATELY SIZED STAINLESS STEEL SNAP-INS OR MOUNTING HARDWARE AND BRACKETS AS SPECIFIED BY CABLE MANUFACTURER. OTHERWISE, ATTACH CABLES TO HORIZONTAL OR DIAGONAL TOWER MEMBERS USING PROPOSED STAINLESS STEEL ADAPTERS (DO NOT ATTACH TO TOWER LEG).
4. TOWER ELEVATIONS ARE MEASURED FROM TOP OF BASE PLATE TO MATCH STRUCTURAL ANALYSIS. ELEVATIONS DO NOT REFLECT TRUE ABOVE GROUND LEVEL (A.G.L.)
5. TOWER ELEVATION DEPICTION MAY NOT REFLECT ALL EQUIPMENT INCLUDED IN STRUCTURAL ANALYSIS. REFER TO STRUCTURAL ANALYSIS FOR FULL TOWER LOADING.

AMERICAN TOWER®
A.T. ENGINEERING SERVICE, PLLC
3500 REGENCY PARKWAY
SUITE 100
CARY, NC 27518
PHONE: (919) 468-0112
COA: PEC.0001553

REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	JP	06/22/22

ATC SITE NUMBER:
302522

ATC SITE NAME:
REDDING

T-MOBILE SITE NAME:
ATC REDDING LATTICE TOWER

SITE ADDRESS:
100 OLD REDDING ROAD
REDDING, CT 06896

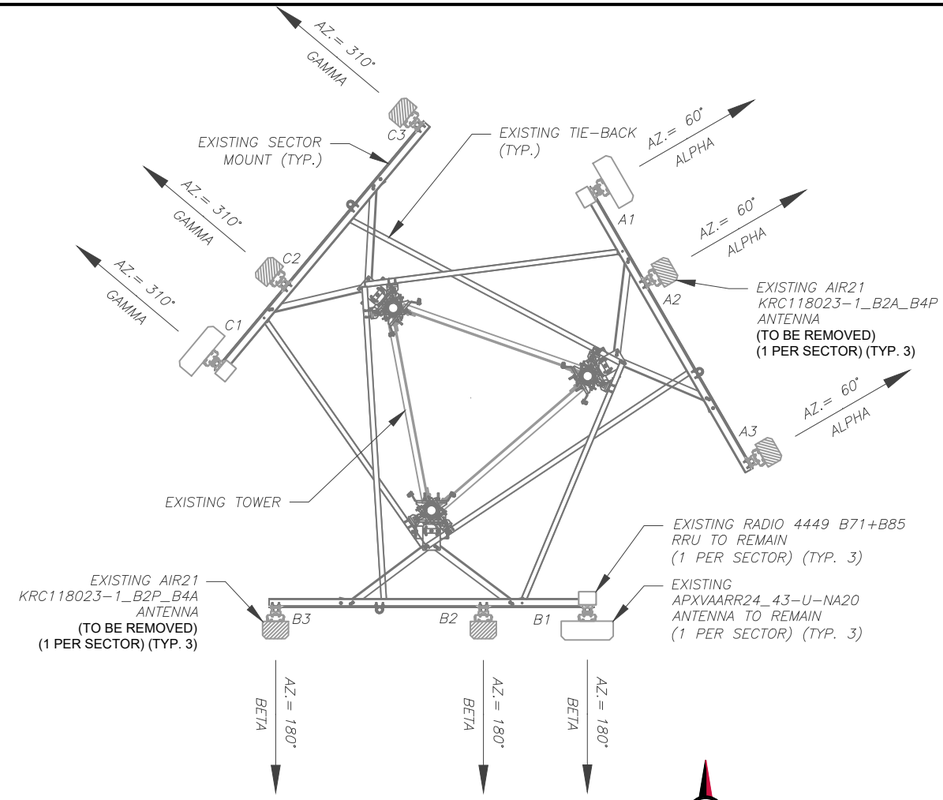
SEAL:

T-Mobile

DATE DRAWN:	06/22/22
ATC JOB NO:	14108828_G3
CUSTOMER ID:	ATC REDDING LATTICE TOWER
CUSTOMER #:	CTFF749A

TOWER ELEVATION

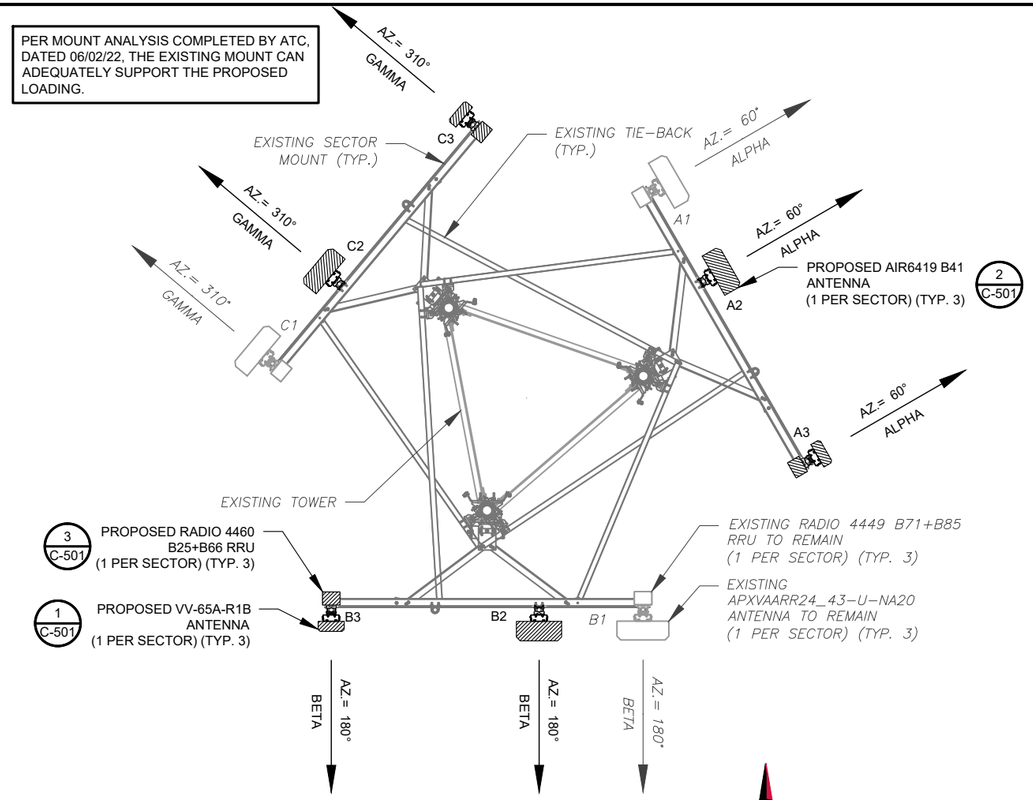
SHEET NUMBER:	REVISION:
C-201	0



1 EXISTING ANTENNA PLAN

SCALE: N.T.S.

PER MOUNT ANALYSIS COMPLETED BY ATC, DATED 06/02/22, THE EXISTING MOUNT CAN ADEQUATELY SUPPORT THE PROPOSED LOADING.



2 FINAL ANTENNA PLAN

SCALE: N.T.S.

EXISTING ANTENNA SCHEDULE

LOCATION			ANTENNA SUMMARY					NON ANTENNA SUMMARY	
SECTOR	RAD	AZ	POS	ANTENNA	BAND	MECH/ELEC D-TILT	STATUS	ADDITIONAL TOWER MOUNTED EQUIPMENT	STATUS
ALPHA	147'	60°	A1	APXVAARR24_43-U-NA20	L700,L600,N600	0°/–	RMN	RADIO 4449 B71+B85	RMN
			A2	AIR21 KRC118023-1_B2A_B4P	U2100	0°/–	RMV	–	–
			A3	AIR21 KRC118023-1_B2P_B4A	L2100	0°/–	RMV	–	–
BETA	147'	180°	B1	APXVAARR24_43-U-NA20	L700,L600,N600	0°/–	RMN	RADIO 4449 B71+B85	RMN
			B2	AIR21 KRC118023-1_B2A_B4P	U2100	0°/–	RMV	–	–
			B3	AIR21 KRC118023-1_B2P_B4A	L2100	0°/–	RMV	–	–
GAMMA	147'	310°	C1	APXVAARR24_43-U-NA20	L700,L600,N600	0°/–	RMN	RADIO 4449 B71+B85	RMN
			C2	AIR21 KRC118023-1_B2A_B4P	U2100	0°/–	RMV	–	–
			C3	AIR21 KRC118023-1_B2P_B4A	L2100	0°/–	RMV	–	–

NOTES

1. CONFIRM WITH T-MOBILE REP FOR APPLICABLE UPDATES/REVISIONS AND MOST RECENT RFDS FOR NSN CONFIGURATION (CONFIG). GC TO CAP ALL UNUSED PORTS.
2. CONFIRM SPACING OF PROPOSED EQUIP DOES NOT CAUSE TOWER CONFLICTS NOR IMPEDE TOWER CLIMBING PEGS.

STATUS ABBREVIATIONS

RMV: TO BE REMOVED
RMN: TO REMAIN
REL: TO BE RELOCATED
ADD: TO BE ADDED

CABLE LENGTHS FOR JUMPERS

JUNCTION BOX TO RRU: 15'
RRU TO ANTENNA: 10'

FINAL ANTENNA SCHEDULE

LOCATION			ANTENNA SUMMARY					NON ANTENNA SUMMARY	
SECTOR	RAD	AZ	POS	ANTENNA	BAND	MECH/ELEC D-TILT	STATUS	ADDITIONAL TOWER MOUNTED EQUIPMENT	STATUS
ALPHA	148'	60°	A1	APXVAARR24_43-U-NA20	L700,L600,N600	0°/–	RMN	RADIO 4449 B71+B85	RMN
			A2	AIR 6419 B41	L2500,N2500	0°/-	ADD	-	-
			A3	VV-65A-R1	L2100,L1900	0°/-	ADD	RADIO 4460 B25+B66	ADD
BETA	148'	180°	B1	APXVAARR24_43-U-NA20	L700,L600,N600	0°/–	RMN	RADIO 4449 B71+B85	RMN
			B2	AIR 6419 B41	L2500,N2500	0°/-	ADD	-	-
			B3	VV-65A-R1	L2100,L1900	0°/-	ADD	RADIO 4460 B25+B66	ADD
GAMMA	148'	310°	C1	APXVAARR24_43-U-NA20	L700,L600,N600	0°/–	RMN	RADIO 4449 B71+B85	RMN
			C2	AIR 6419 B41	L2500,N2500	0°/-	ADD	-	-
			C3	VV-65A-R1	L2100,L1900	0°/-	ADD	RADIO 4460 B25+B66	ADD

EXISTING FIBER DISTRIBUTION/OVP BOX		EXISTING CABLING SUMMARY	
MODEL NUMBER	STATUS	CABLE QTY, SIZE, TYPE	STATUS
–	–	(2) 1-1/4" ERICSSON 6X12 HCS	RMN
–	–	(12) 1-5/8" COAX CABLES, (1) 1-1/4" ERICSSON 6X12 HCS, AND (1) 1-5/8" ERICSSON 9X18 HCS	RMV

FINAL FIBER DISTRIBUTION / OVP BOX		FINAL CABLING SUMMARY	
MODEL NUMBER	STATUS	CABLE QTY, SIZE, TYPE	STATUS
-	-	(2) 1-1/4" ERICSSON 6X12 HCS	RMN
-	-	(2) 1.99" HYBRID TRUNK 6/24 4AWG	ADD

3 EQUIPMENT SCHEDULES

AMERICAN TOWER®
A.T. ENGINEERING SERVICE, PLLC
3500 REGENCY PARKWAY
SUITE 100
CARY, NC 27518
PHONE: (919) 468-0112
COA: PEC.0001553

REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	JP	06/22/22

ATC SITE NUMBER:
302522

ATC SITE NAME:
REDDING

T-MOBILE SITE NAME:
ATC REDDING LATTICE TOWER

SITE ADDRESS:
100 OLD REDDING ROAD
REDDING, CT 06896

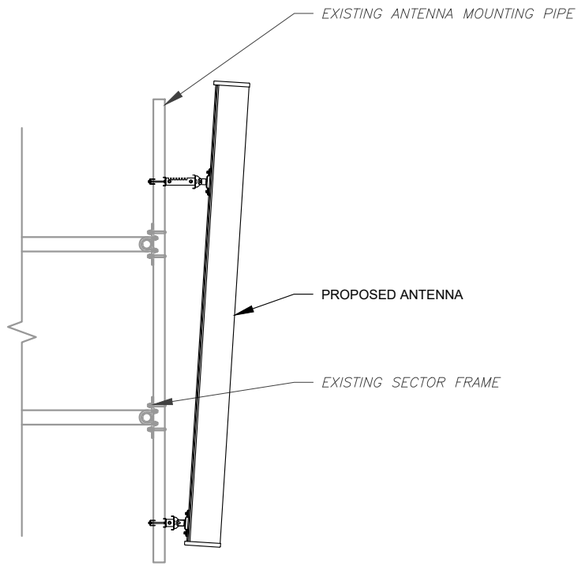
SEAL:

T-Mobile

DATE DRAWN:	06/22/22
ATC JOB NO:	14108828_G3
CUSTOMER ID:	ATC REDDING LATTICE TOWER
CUSTOMER #:	CTFF749A

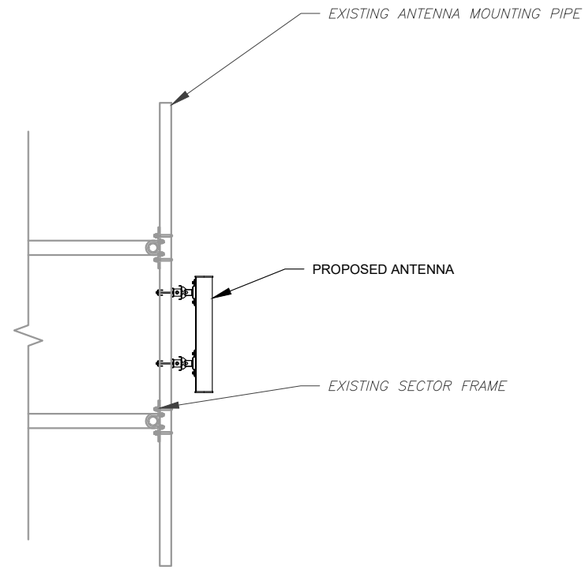
ANTENNA INFORMATION & SCHEDULE

SHEET NUMBER:	REVISION:
C-401	0



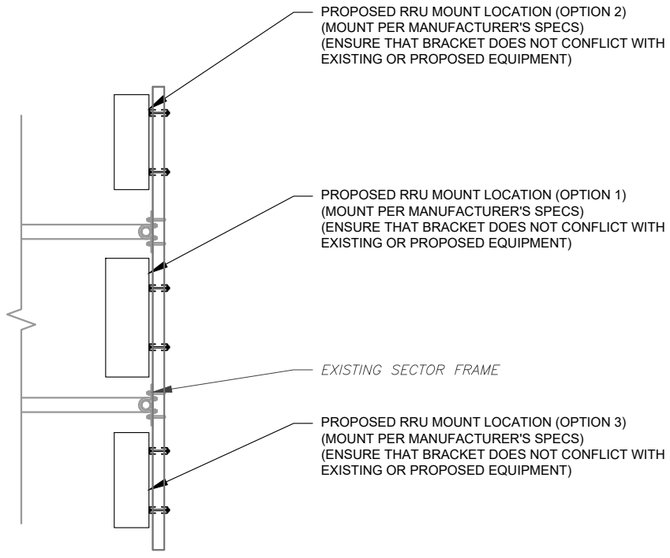
1 PROPOSED ANTENNA MOUNTING DETAIL - TYPICAL

SCALE: N.T.S.



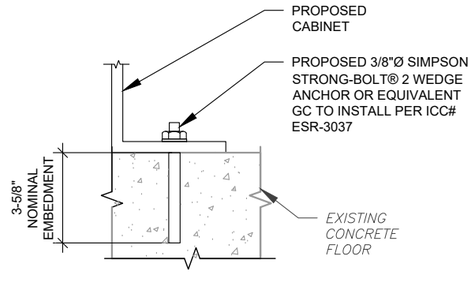
2 PROPOSED 5G ANTENNA MOUNTING DETAIL - TYPICAL

SCALE: N.T.S.



3 PROPOSED RRU MOUNTING DETAIL - TYPICAL

SCALE: N.T.S.



NOTE:

INSTALL SIMPSON STRONG-TIE® STRONG-BOLT® 2 WEDGE ANCHOR(S) STRICTLY PER INSTALLATION INSTRUCTIONS INCLUDED WITH PRODUCT OR FOUND ONLINE AT WWW.STRONGTIE.COM. PROPER INSTALLATION IS CRITICAL FOR FULL PERFORMANCE.

4 CABINET ATTACHMENT DETAIL

SCALE: N.T.S.

AMERICAN TOWER®
A.T. ENGINEERING SERVICE, PLLC
3500 REGENCY PARKWAY
SUITE 100
CARY, NC 27518
PHONE: (919) 468-0112
COA: PEC.0001553

REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	JP	06/22/22

ATC SITE NUMBER:
302522

ATC SITE NAME:
REDDING

T-MOBILE SITE NAME:
ATC REDDING LATTICE TOWER

SITE ADDRESS:
100 OLD REDDING ROAD
REDDING, CT 06896

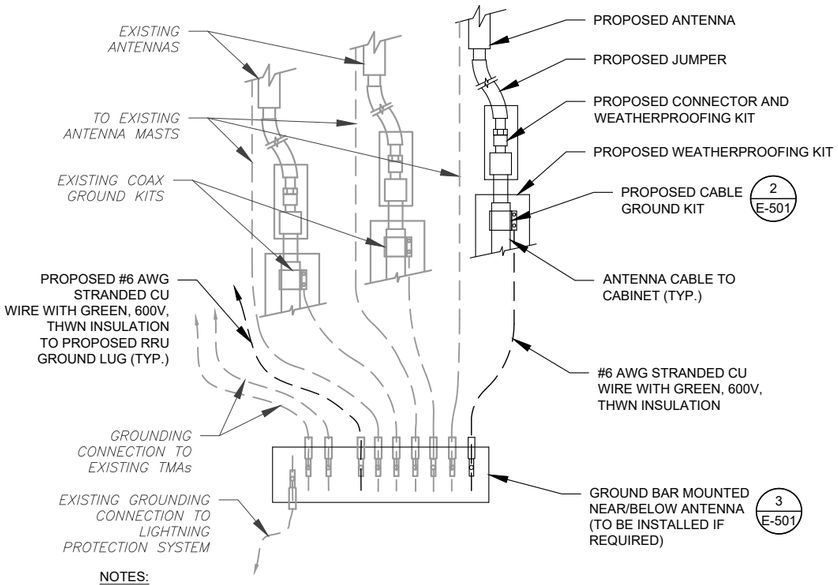
SEAL:

T-Mobile

DATE DRAWN:	06/22/22
ATC JOB NO:	14108828_G3
CUSTOMER ID:	ATC REDDING LATTICE TOWER
CUSTOMER #:	CTFF749A

CONSTRUCTION DETAILS

SHEET NUMBER:	REVISION:
C-501	0

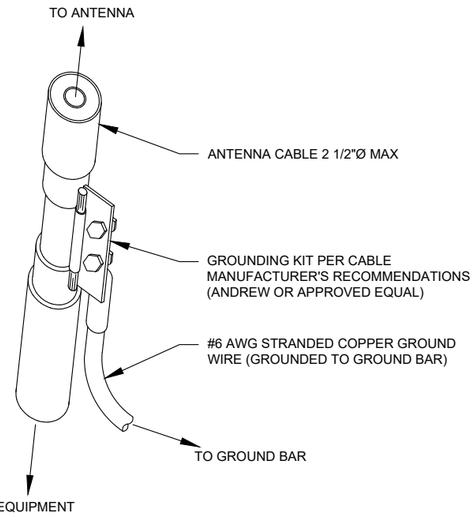


NOTES:

1. THIS DETAIL IS INTENDED TO SHOW THE GENERAL GROUNDING REQUIREMENTS. SLIGHT ADJUSTMENTS MAY BE REQUIRED BASED ON EXISTING SITE CONDITIONS. THE CONTRACTOR SHALL MAKE FIELD ADJUSTMENTS AS NEEDED AND INFORM THE CONSTRUCTION MANAGER OF ANY CONFLICTS.
2. SITE GROUNDING SHALL COMPLY WITH T-MOBILE GROUNDING STANDARDS, LATEST EDITION, AND COMPLY WITH T-MOBILE GROUNDING CHECKLIST, LATEST VERSION. WHEN NATIONAL AND LOCAL GROUNDING CODES ARE MORE STRINGENT THEY SHALL GOVERN.

1 TYPICAL ANTENNA GROUNDING DIAGRAM

SCALE: N.T.S.

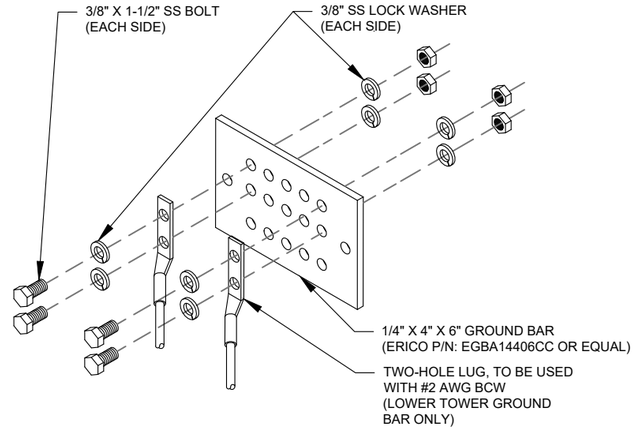


GROUND KIT NOTES:

1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.
2. CONTRACTOR SHALL PROVIDE WEATHERPROOFING KIT (ANDREW PART NUMBER 221213) AND INSTALL/TAPE PER MANUFACTURER'S SPECIFICATIONS.

2 CABLE GROUND KIT CONNECTION DETAIL

SCALE: N.T.S.



GROUND BAR NOTES:

1. GROUND BAR KITS COME WITH ALL HARDWARE, NUTS, BOLTS, WASHERS, ETC. EXCEPT THE STRUCTURAL MOUNTING MEMBER(S).
2. GROUND BAR TO BE BONDED DIRECTLY TO TOWER.

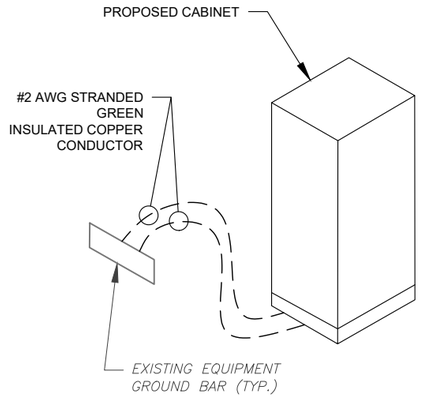
3 TOWER GROUND BAR DETAIL

SCALE: N.T.S.

STANDARD CONDUIT USE TABLE			
CONDUIT TYPE	USE CASE	LOCATION	USE CASE EXAMPLE
RMC (METALLIC)	AC, DC COMM	ABOVE GROUND	ABOVE GROUND PPC TO SSC
PVC	AC POWER	UNDERGROUND	UNDERGROUND PPC TO SSC OR BACKHAUL TRANSPORT HUB TO SSC
LFMC	AC, DC, COMM	MAX 6' PER CONDUIT RUN, ABOVE GROUND ONLY	TIGHT LOCATIONS BETWEEN HUB AND CONDUIT BUT NOT TO BE USED WHERE IT CAN BE STEPPED ON
EMT	INDOOR AC, DC COMM	INDOOR NOT EXPOSED TO THE OUTDOOR ENVIRONMENT (MUST BE DRY)	CIRCUIT PANEL TO JUNCTION BOX
LFNC	GROUND WIRE	CONCEALING AND PROTECTING BTCW RISERS ONLY	GROUND RING TO MGB OR SSC

EXCEPTION CONDUIT USE TABLE			
CONDUIT TYPE	USE CASE	LOCATION	USE CASE EXAMPLE
EMT (NOT PREFERRED)	OUTDOOR DC, COMM	OUTDOOR WHEN USED WITH WATERTIGHT HUBS ONLY	BETWEEN EQUIPMENT AND BATTERY CABINET OR EQUIPMENT TO EQUIPMENT CABINETS FOR INTER CABINET CONNECTION
RMC NONMETALLIC (ALUMINUM)	OUTDOOR/INDOOR PER NEC GUIDLINES	ABOVE GROUND	MAT BE USED AS A LOWER COST ALTERNATIVE TO METALLIC RMC, MUST MEET OR EXCEED FEDERAL SPEC: WW-C-540C, UL-6A, ANSI C80.5, NEC 344.10 (A) ALLOWS THE USE OF EITHER ALUMINUM OR GALVANIZED FITTINGS

4 CONDUIT USE TABLES



5 CABINET GROUNDING DETAIL

SCALE: N.T.S.

ELECTRICAL NOTES:

1. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH THE T-MOBILE REPRESENTATIVE AND LOCAL UTILITY COMPANY FOR THE INSTALLATION OF CONDUITS, CONDUCTORS, BREAKERS, DISCONNECTS, OR ANY OTHER EQUIPMENT REQUIRED FOR ELECTRICAL SERVICE. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH LATEST EDITION OF THE STATE AND NATIONAL CODES, ORDINANCES AND REGULATIONS APPLICABLE TO THIS PROJECT.
2. ATC HAS NOT VERIFIED ANY EXISTING T-MOBILE GROUND EQUIPMENT OR ELECTRICAL LOADING. PROPOSED WORK BASED ON INSTALLATION CONFIGURATION PROVIDED BY T-MOBILE. CONTRACTOR TO VERIFY EXISTING T-MOBILE PANEL HAS SUFFICIENT SPACE FOR PROPOSED BREAKER. PROPOSED CABLE AND CONDUIT SHALL BE MINIMUM SIZE PER BELOW IN CHART.
3. FOR SPECIFIC CABINET / ANCILLARY EQUIPMENT WIRING REQUIREMENTS, THE T-MOBILE CONTRACTOR SHOULD REFERENCE DESIGN DOCUMENTS PROVIDED BY T-MOBILE FOR THIS CURRENT PROJECT CONFIGURATION, IN ACCORDANCE WITH LOCAL JURISDICTION REQUIREMENTS & NEC STANDARDS & PRACTICES.

VOLTS	OCPD SIZE	WIRE SIZE	GROUND	CONDUIT
120/240V OR 120/208V	80A/2P	3-#3 AWG	#8 AWG	1-1/4"
	100/2P	3-#2 AWG	#8 AWG	1-1/4"
	125A/2P	3-#3/0 AWG	#6 AWG	2"
	150A/2P	3-#3/0 AWG	#6 AWG	2"
	200A/2P	3-#3/0 AWG	#6 AWG	2"
240V OR 208V	80A/2P	2-#3 AWG	#8 AWG	1-1/4"
	100/2P	2-#2 AWG	#8 AWG	1-1/4"
	125A/2P	2-#3/0 AWG	#6 AWG	2"
	150A/2P	2-#3/0 AWG	#6 AWG	2"
	200A/2P	2-#3/0 AWG	#6 AWG	2"

6 ELECTRICAL NOTES

AMERICAN TOWER®
A.T. ENGINEERING SERVICE, PLLC
3500 REGENCY PARKWAY
SUITE 100
CARY, NC 27518
PHONE: (919) 468-0112
COA: PEC.0001553

REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	JP	06/22/22

ATC SITE NUMBER:
302522

ATC SITE NAME:
REDDING

T-MOBILE SITE NAME:
ATC REDDING LATTICE TOWER

SITE ADDRESS:
100 OLD REDDING ROAD
REDDING, CT 06896

SEAL:

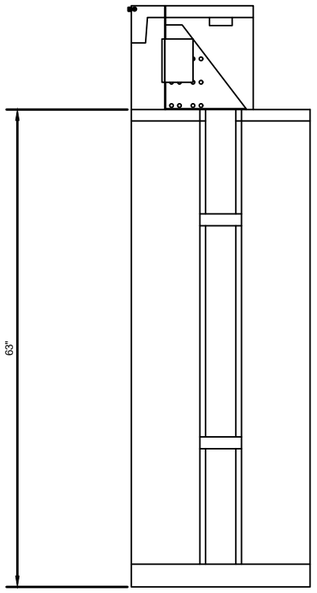
T-Mobile

DATE DRAWN:	06/22/22
ATC JOB NO:	14108828_G3
CUSTOMER ID:	ATC REDDING LATTICE TOWER
CUSTOMER #:	CTFF749A

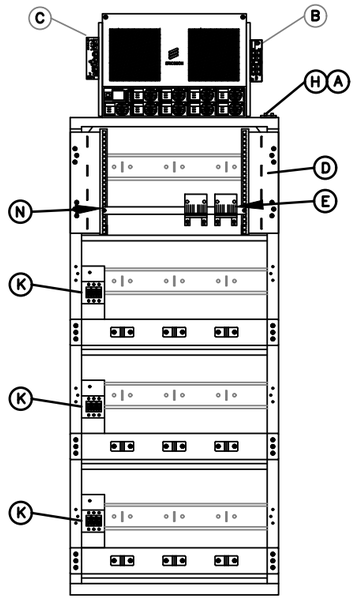
GROUNDING DETAILS

SHEET NUMBER:	REVISION:
E-501	0

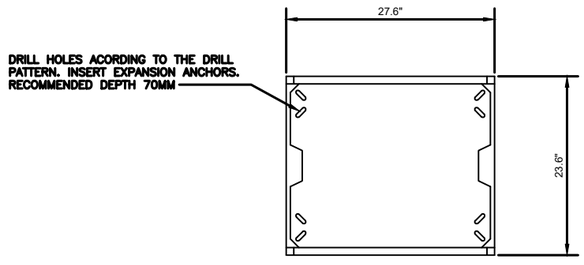
MANUFACTURER:	ERICSSON
MODEL:	6230 POWER CABINET ID KIT REP 32477/9
DIMENSIONS:	63" x 27.6" x 23.6" (H x W x D)
WEIGHT:	343.9 LBS



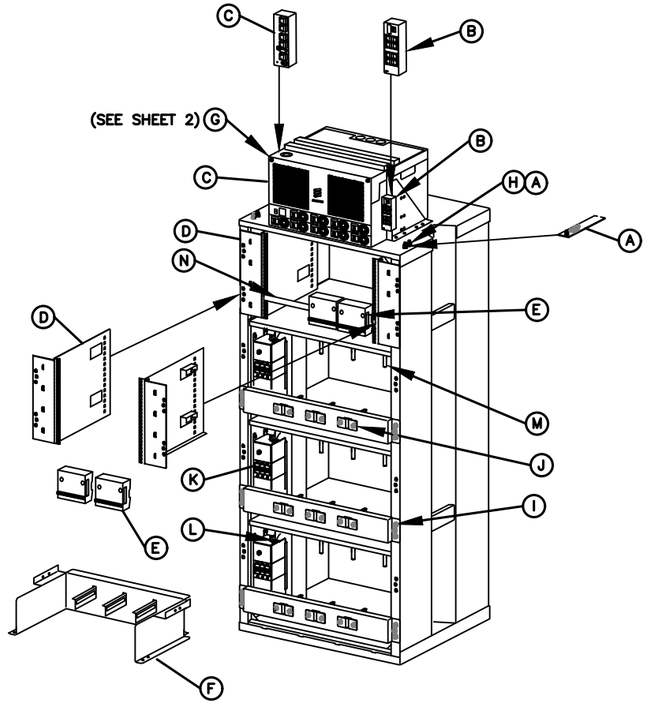
RIGHT SIDE VIEW



FRONT VIEW



BOTTOM VIEW



POSITION	NAME OF UNIT	COMMENTS
A	OPTIONAL GROUND PLATE	
B	SAU	
C	SCU	
D	OPTIONAL BRACKETS FOR 19–INCH UNIT USER SPACE	INSTALLED IN 4TH BATTERY BAY
E	OVP	2x COME w/ TMO KIT. MOUNTED ON DIN RAIL RIGHT SIDE OF EQUIPMENT BAY
F	100Ah BRACKET	IS TO BE INSTALLED IN ALL BAYS FOR 100AMP BATTERIES ONLY
G	POWER RACK	
H	OPTIONAL GROUNDING CONNECTION	M6 STUDS, 5/8" CC
I	FRONT BRACKET FOR BATTERIES	
J	BATTERY SUPPORT	
K	BATTERY CIRCUIT BREAKER	
L	GROUNDING CONNECTION FROM BATTERY	M8 STUDS, 1" CC
M	ADJUSTABLE SCREW FOR BATTERY SUPPORT	
N	DIN–RAIL	FOR OVP'S

1 ERICSSON 6230 POWER CABINET DETAILS

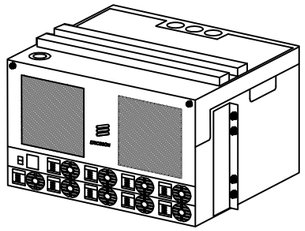
SCALE: N.T.S.

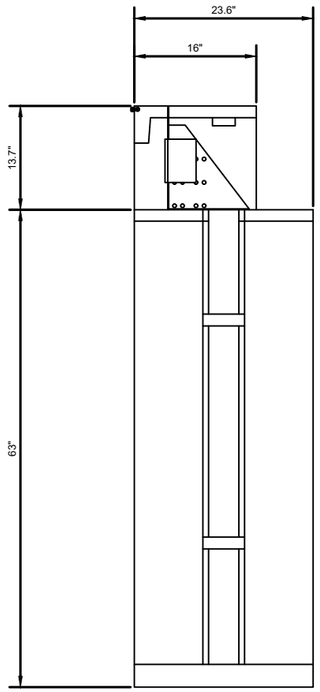
NOTE: THIS SHEET WAS CREATED BY OTHERS AND PROVIDED AT THE REQUEST OF THE CUSTOMER WITHOUT EDIT.

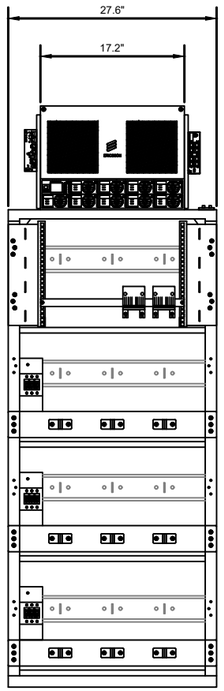
SUPPLEMENTAL

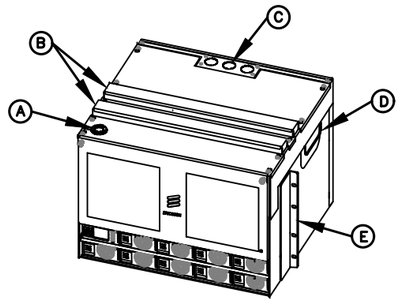
SHEET NUMBER:	REVISION:
R-601	0

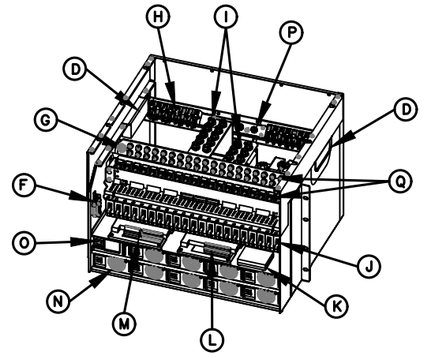
MANUFACTURER:	ERICSSON
MODEL:	6230 POWER RACK
DIMENSIONS:	13.7" x 17.2" x 16" (H x W x D)
WEIGHT:	55.1 LBS











POSITION	NAME OF UNIT	COMMENTS
A	INLET FOR ALARM CIRCUIT BREAKER CABLE, TEMPERATURE SENSOR CABLE AND SCU POWER CABLE	
B	INLET FOR DC POWER CABLES	
C	INLET AC CABLES	
D	INLET FOR BATTERY CABLES	
E	BRACKET FOR WALL MOUNTING KIT	
F	RTN ALARM INTERFACE	
G	0V AND −48 V BUS DC CONNECTION	M6 STUDS, 5/8" CC
H	AC INPUT INTERFACE	TERMINAL CONNECTION FOR CABLES w/ MAX 6MM 2 CROSS SECTION AREA
I	0V/RTN BUS BAR AND −48V BUS BAR FOR BATTERY CABLES	M8 STUDS, 1" CC
J	DC DISTRIBUTION CIRCUIT BREAKERS	
K	DC SPD	
L	EXTENDED INTERFACE BOARD (EIB)	
M	INTERFACE BOARD (IB2) INCLUDING ALARM INTERFACE	
N	RECTIFIERS	
O	POWER SYSTEMS CONTROLLER	
P	AC GROUNDING CONNECTIONS	THREE GROUNDING CONNECTION POINTS FOR NINE AC INPUTS
Q	−48V DC DISTRIBUTION	

1 ERICSSON 6230 POWER CABINET DETAILS

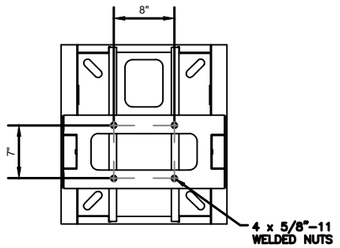
SCALE: N.T.S.

NOTE: THIS SHEET WAS CREATED BY OTHERS AND PROVIDED AT THE REQUEST OF THE CUSTOMER WITHOUT EDIT.

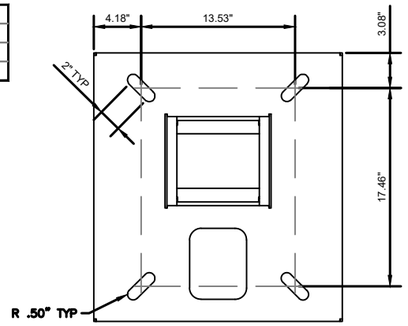
SUPPLEMENTAL

SHEET NUMBER:	REVISION:
R-602	0

MANUFACTURER:	DELTA
MODEL:	TITAN RACK 19" (PART #3921896900)
DIMENSIONS:	84" x 21.88" x 23.62" (H x W x D)
WEIGHT:	147 LBS

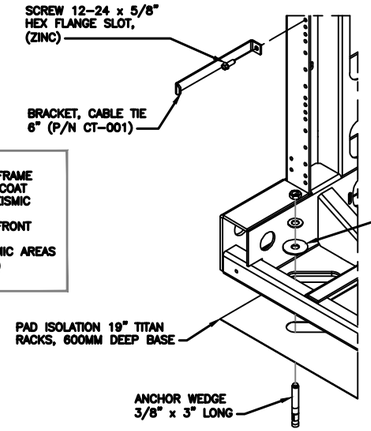


BOLT DOWN FOR RACK TO BASE PLATE

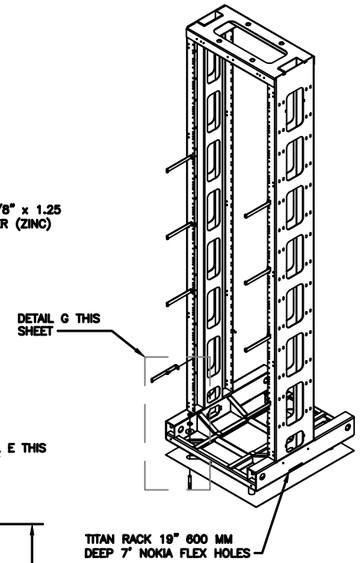


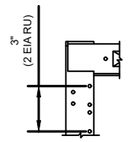
SECTION A-A

NOTE:
1. MATERIAL: HEAVY GAUGE WELDED STEEL FRAME
2. STANDARD FINISH: TELCO GRAY POWDER COAT
3. TELCORDIA GR-63-CORE TESTED FOR SEISMIC ZONE 4 QUALIFICATION
4. TAPPED MOUNTING HOLES PROVIDED IN FRONT AND REAR FLANGES
5. LOAD RATING: 925 LBS IN ZONE 4 SEISMIC AREAS (INCLUDES 50 LBS OF OVERHEAD CABLE)
6. EMPTY RACK WEIGHT: 147 LBS



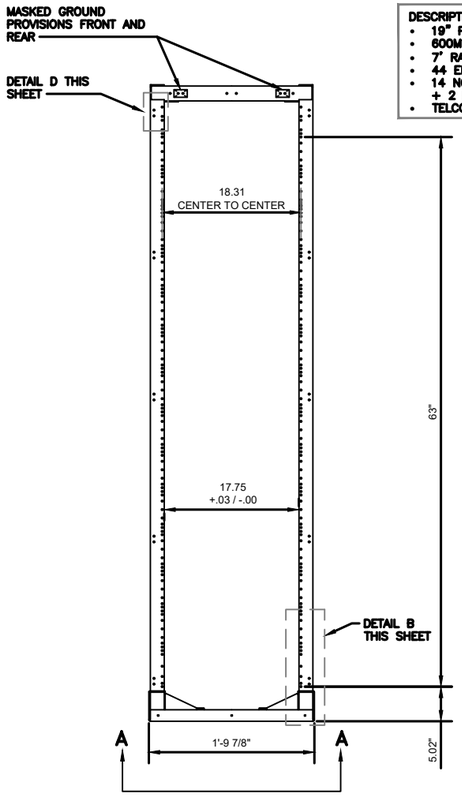
DETAIL G



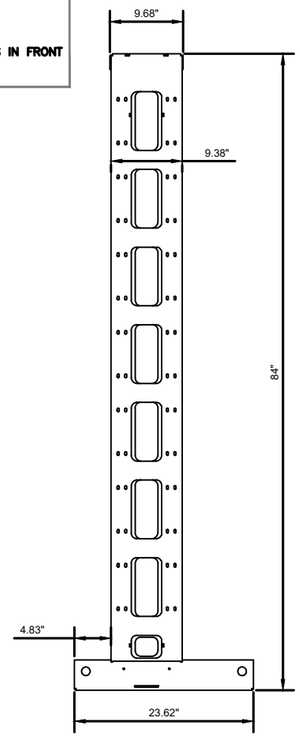


DETAIL D

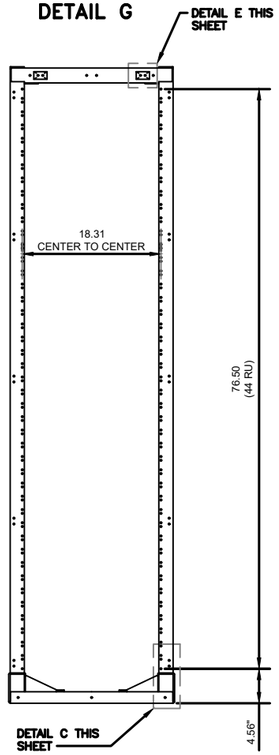
DESCRIPTION:
- 19" PANEL MOUNTING
- 600MM DEEP BASE
- 7' RACK
- 44 EIA RU IN REAR
- 14 NOKIA FLEXI PATTERNS IN FRONT + 2 EIA RU
- TELCO GRAY



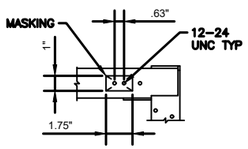
FRONT VIEW



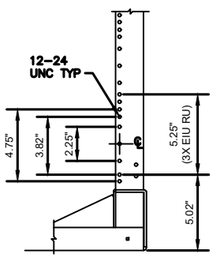
SIDE VIEW



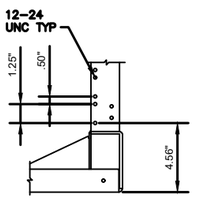
FRONT VIEW



DETAIL E
MASKED GROUNDING PROVISIONS, 4 PLCS.



DETAIL B
NOKIA FLEX HOLE PATTERN



DETAIL C
EIA HOLE PATTERN

1 PROPOSED 19" RACK

SCALE: N.T.S.

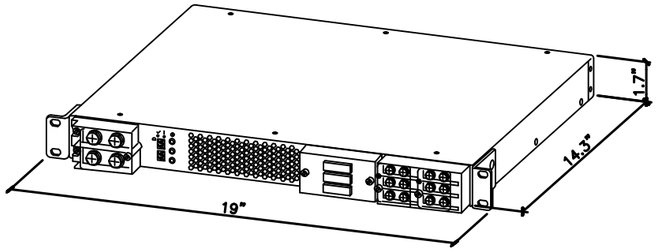
NOTE: THIS SHEET WAS CREATED BY OTHERS AND PROVIDED AT THE REQUEST OF THE CUSTOMER WITHOUT EDIT.

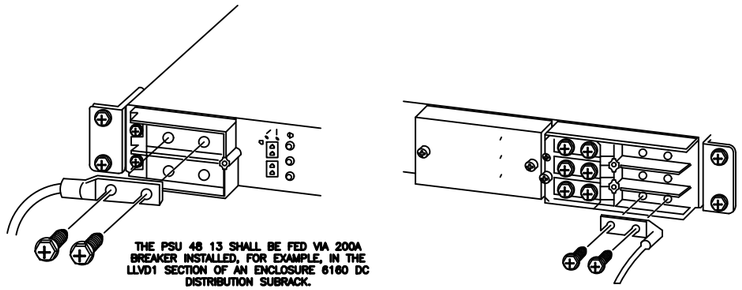
SUPPLEMENTAL

SHEET NUMBER:	REVISION:
R-603	0

MANUFACTURER:	ERICSSON
MODEL:	PSU 48 13
WEIGHT:	17.1 LBS
DIMENSIONS:	19"x 1.7"x 14.3"

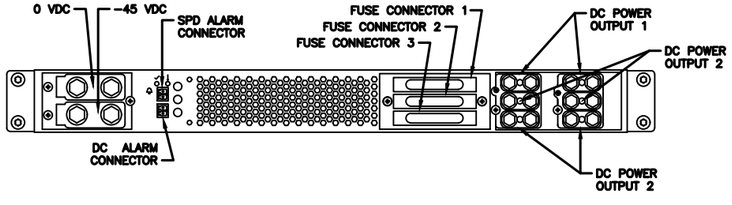
NEEDED INSTALL KIT (PICK 1)
34133 PSU4813 INSTALL KIT FOR RBS61XX
34134 PSU4813 INSTALL KIT FOR PBC6200
34135 PSU4813 INSTALL KIT FOR 6X60/RBS6230





THE PSU 48 13 SHALL BE FED VIA 200A BREAKER INSTALLED, FOR EXAMPLE, IN THE LLVD1 SECTION OF AN ENCLOSURE 6160 DC DISTRIBUTION SUBRACK.

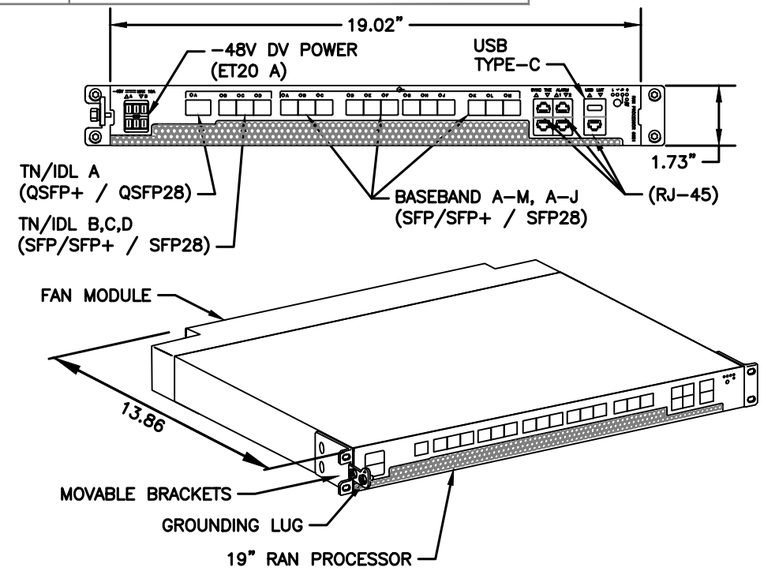
CONNECT –58 VDC DISTRIBUTION CABLE TO TERMINAL AT THE RIGHT, WHICH WILL BE FED TO RRU/AIR AT THE OTHER END.



1 SKU# 34132 - PSU 48 13

SCALE: N.T.S.

MANUFACTURER:	ERICSSON
MODEL:	6651 RAN PROCESSOR (KDU1370093/11)
DIMENSIONS:	1.73" X 19.02" X 13.86" (H" X W" X D")
WEIGHT:	16.98 LBS



2 34553 - ERICSSON 6651 RAN PROCESSOR

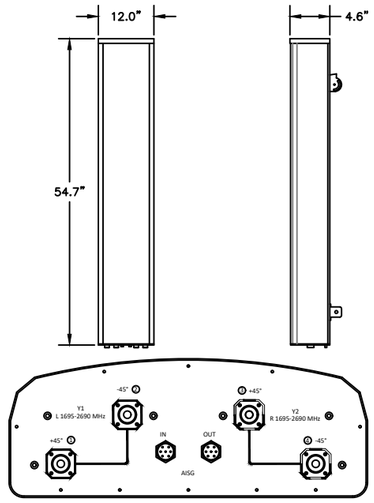
SCALE: N.T.S.

NOTE: THIS SHEET CREATED BY OTHERS AND PROVIDED BY REQUEST OF CUSTOMER WITHOUT EDIT.

SUPPLEMENTAL

SHEET NUMBER:	REVISION:
R-604	0

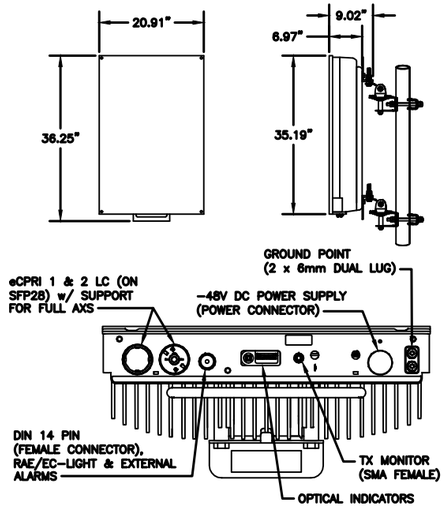
MANUFACTURER:	COMMSCOPE
MODEL:	VV-65A-R1
DIMENSIONS:	54.7" x 12.1" x 4.6" (H x W x D)
WEIGHT:	24.7 LB
INTERFACE:	4-PORT 4.3-10 FEMALE
MOUNTING KIT:	600899A-2 (INCLUDED) WEIGHT: 8.6 LB



1 34401 - COMMSCOPE VV-65A-R1

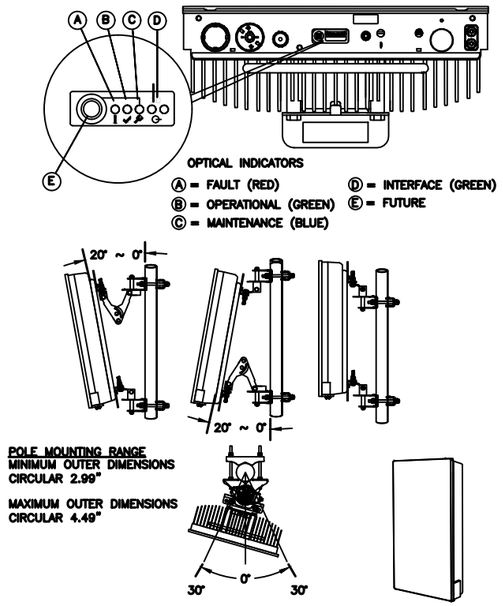
SCALE: N.T.S.

MANUFACTURER:	ERICSSON
MODEL:	AIR 6419 B41 (2.5GHz M-MIMO)
DIMENSIONS:	36.25" x 20.91" x 9.02" NOT TO EXCEED (H x W x D)
WEIGHT:	83 LBS (EXCLUDING MOUNTING KIT)
MOUNT WEIGHT:	13.5 LBS (SXK109 2016/1)

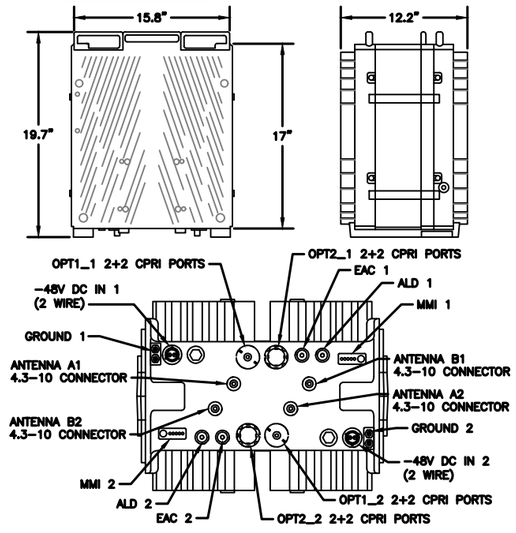


2 34552 - ERICSSON AIR 6419 BAND 41

SCALE: N.T.S.



MANUFACTURER:	ERICSSON
MODEL:	4460 RADIO B2/25 B66 (KRC 161 912/3)
DIMENSIONS:	19.7" x 15.8" x 12.2" (H" x W" x D")
WEIGHT:	109 LBS
BRACKET WEIGHT:	4.8 LBS (ERS HEAVY #SXK1255993/1)



3 34373 - ERICSSON 4460 RADIO B2/25 B66

SCALE: N.T.S.

NOTE: THIS SHEET CREATED BY OTHERS AND PROVIDED BY REQUEST OF CUSTOMER WITHOUT EDIT.

SUPPLEMENTAL

SHEET NUMBER:	REVISION:
R-605	0

AMERICAN TOWER®
CORPORATION

Mount Analysis Report

ATC Site Name	:	**Redding, CT**
ATC Site Number	:	**302522**
Engineering Number	:	**14108828_C8_01**
Mount Elevation	:	**146.5 ft**
Carrier	:	**T-Mobile**
Carrier Site Name	:	**ATC Redding Lattice Tower**
Carrier Site Number	:	**CTFF749A**
Site Location	:	**100 Old Redding Road** **Redding, CT 06896-2721** **41.2871128 , -73.43820646**
County	:	**Fairfield**
Date	:	**June 1, 2022**
Max Usage	:	**55%**
Result	:	**Pass**

Prepared By:
Aviskar Ghansam
Structural Engineer

Aviskar Ghansam

Reviewed By:

STATE OF CONNECTICUT
ESHA KAUSHAL MODI
32593
LICENSED
PROFESSIONAL ENGINEER

Authorized by "EOR"
02 Jun 2022 09:20:22 cosign

COA: PEC.0001553

Introduction

The purpose of this report is to summarize results of the mount analysis performed for T-Mobile at 146.5 ft.

Supporting Documents

Specifications Sheet	Life Mount PV-SFA12-B, dated September 21, 2017
Radio Frequency Data Sheet	RFDS ID #CTFF749A, dated April 20, 2022
Reference Photos	Site photos from 2020

Analysis

This mount was analyzed using American Tower Corporation's Mount Analysis Program and RISA-3D

Basic Wind Speed:	116 mph (3-Second Gust)
Basic Wind Speed w/ Ice:	50 mph (3-Second Gust) w/ 1.00'' radial ice concurrent
Codes:	ANSI/TIA-222-H
Exposure Category:	B
Risk Category:	II
Topographic Factor Procedure:	Method 2
Feature:	Flat
Crest Height (H):	0 ft
Crest Length (L):	0 ft
Spectral Response:	Ss = 0.235, S1 = 0.057
Site Class:	D - Stiff Soil - Default
Live Loads:	Lm = 500 lbs, Lv = 250 lbs

Conclusion

Based on the analysis results, the antenna mount meets the requirements per the applicable codes listed above. The mount can support the equipment as described in this report.

If you have any questions or require additional information, please contact American Tower via email at Engineering@americantower.com. Please include the American Tower site name, site number, and engineering number in the subject line for any questions.

A.T. Engineering Service, PLLC - 3500 Regency Parkway, Suite 100 - Cary, NC 27518 - 919.468.0112 Office - 919.466.5414 Fax - www.americantower.com

1 MOUNT ANALYSIS

NOTE: THIS SHEET WAS CREATED BY OTHERS AND PROVIDED AT THE REQUEST OF THE CUSTOMER WITHOUT EDIT. PLEASE REFERENCE THE MOUNT ANALYSIS REPORT FOR COMPLETE MOUNT ANALYSIS CALCULATIONS AND DETAILS. SUPPLEMENTAL PAGES INCLUDED IN THE CONSTRUCTION DRAWINGS ARE FOR REFERENCE ONLY. GENERAL CONTRACTOR IS TO VERYIFY THEY HAVE THE MOST RECENT MOUNT ANALYSIS PRIOR TO CONTRUCTION.

SUPPLEMENTAL

SHEET NUMBER:	REVISION:
R-606	0

Exhibit D

Structural Analysis Report

AMERICAN TOWER®
CORPORATION

This report was prepared for American Tower Corporation by

telamon
Tower Engineering PLLC

Structural Analysis Report

Structure	:	**180 ft Self Support Tower**
ATC Site Name	:	**Redding, CT**
ATC Site Number	:	**302522**
Engineering Number	:	**14108828_C3_03**
Proposed Carrier	:	**T-MOBILE**
Carrier Site Name	:	**ATC Redding Lattice Tower**
Carrier Site Number	:	**CTFF749A**
Site Location	:	**100 Old Redding Road** **Redding, CT 06896-2721** **41.2871, -73.4382**
County	:	**Fairfield**
Date	:	**June 7, 2022**
Max Usage	:	**86%**
Result	:	**Pass**

Prepared By:

Anna Stiles, E.I.
CLS

Reviewed By:

STATE OF CONNECTICUT
DAVID CHICKERING
No. 35683
LICENSED
PROFESSIONAL ENGINEER

David Chickering
Telamon Tower Engineering PLLC
PE # 35683 Exp. 01/31/2023

Table of Contents

Introduction

The purpose of this report is to summarize results of a structural analysis performed on the 180 ft Self Support tower to reflect the change in loading by T-MOBILE.

Supporting Documents

Tower Drawings	Rohn Drawing #C951762, dated December 26, 1995
Foundation Drawing	Rohn Drawing #A953313-1, dated January 12, 1996
Geotechnical Report	SoilTesting Job #591, dated December 26, 1995

Analysis

The tower was analyzed using American Tower Corporation's tower analysis software. This program considers an elastic three-dimensional model and second-order effects per ANSI/TIA-222.

Basic Wind Speed:	116 mph (3-second gust)
Basic Wind Speed w/ Ice:	50 mph (3-second gust) w/ 1.00" radial ice concurrent
Code:	ANSI/TIA-222-H / 2015 IBC / 2018 Connecticut State Building Code
Exposure Category:	B
Risk Category:	II
Topographic Factor Procedure:	Method 1
Topographic Category:	1
Spectral Response:	Ss = 0.24, S_1 = 0.06
Site Class:	D - Stiff Soil - Default

Conclusion

Based on the analysis results, the structure meets the requirements per the applicable codes listed above. The tower and foundation can support the equipment as described in this report.

If you have any questions or require additional information, please contact American Tower via email at Engineering@americantower.com. Please include the American Tower site name, site number, and engineering number in the subject line for any questions.

Existing and Reserved Equipment

Elev.[1] (ft)	Qty	Equipment	Mount Type	Lines	Carrier
184.0	6	Kaelus DBC0061F1V51-2	Sector Frame	(3) 0.39" (10mm) Fiber Trunk (8) 0.78" (19.7mm) 8 AWG 6 (12) 1 1/4" Coax (2) 2" conduit	AT&T MOBILITY
	1	CCI DMP65R-BU8D			
	6	Powerwave Allgon LGP21401			
	1	Raycap DC6-48-60-18-8F ("Squid")			
	3	Ericsson RRUS 4478 B14			
	3	Ericsson RRUS 4449 B5, B12			
	2	Raycap DC6-48-60-18-8C			
	3	Ericsson RRUS 32 B30 (53 lbs)			
	3	Ericsson RRUS 32 B2			
	3	Powerwave Allgon 7770.00			
	2	Quintel QS66512-2			
	2	CCI DMP65R-BU6DA			
	2	CCI OPA65R-BU6D			
	1	CCI TPA-65R-LCUUUU-H8			
	1	CCI OPA65R-BU8D			
172.0	3	Commscope CBC78T-DS-43-2X	Sector Frame	(12) 1 5/8" Coax (2) 1 5/8" Hybriflex	VERIZON WIRELESS
	1	RFS DB-C1-12C-24AB-0Z			
	3	Samsung B5/B13 RRH-BR04C			
	1	RFS DB-C1-12C-24AB-0Z			
	3	Samsung MT6407-77A			
	4	Andrew DB844G65ZAXY			
	2	RFS APL868013-42T0			
	6	Commscope JAHH-65B-R3B			
	3	Samsung B2/B66A RRH-BR049			
166.8	12	Decibel DB844H90E-XY	Sector Frame	-	SPRINT NEXTEL
160.7	3	Alcatel-Lucent RRH2x50-08	Sector Frame	(4) 1 1/4" Hybriflex Cable	
159.9	3	Alcatel-Lucent 800 MHz RRH			
158.6	3	Commscope DT465B-2XR			
158.5	3	RFS APXVSPP18-C-A20			
158.4	3	Alcatel-Lucent TD-RRH8x20-25 w/ Solar Shield			
156.1	3	Alcatel-Lucent 1900 MHz 4X45 RRH			
148.0	-	-	Sector Frame	(2) 1 1/4" Hybriflex Cable	T-MOBILE
146.0	1	Sinclair SC479-HF1LDF	Side Arm	(2) 1 5/8" Coax	CONNECTICUT STATE POLICE DEPT OF PUBLIC
137.0	1	Andrew Microwaves DB810K-XT	Side Arm	(3) 1 5/8" Coax (1) 1/2" Coax	
136.4	1	Amphenol Antel WPA-700120-4CF-EDIN-X			
135.0	1	Generic 24" x 24" Ice Shield	Leg		
134.8	1	Bird 432E-83I-01-T	Side Arm		
134.0	1	Generic 24" x 24" Ice Shield	Leg		
	2	Sinclair SE419-SF3P4LDF	Side Arm		
129.8	3	Sinclair SC479-HF1LDF	Side Arm	(2) EW63 (1) 3/8" Coax (4) 1 5/8" Coax	
129.0	1	RFS PA6-65AC	Leg		
128.0	1	RFS PA6-65AC			
127.0	1	Bird 432-83H-01-T	Side Arm		
	2	Allgon 7199 / M-1900-90-19.5I			
125.0	1	Sinclair SE419-SF3P4LDF			

Elev.[1] (ft)	Qty	Equipment	Mount Type	Lines	Carrier
120.5	1	Decibel DB586	Side Arm	(1) 7/8" Coax	EVERSOURCE ENERGY
116.8	1	Morad VHF 156-DELUXE	Side Arm	(1) 1/2" Coax	CONNECTICUT STATE POLICE DEPT OF PUBLIC
	1	Morad VHF 156-DELUXE			
115.5	1	Decibel DB586	Side Arm	(1) 7/8" Coax	EVERSOURCE ENERGY
102.5	1	Scala OGT9-840	Side Arm	-	CONNECTICUT STATE POLICE DEPT OF PUBLIC
97.0	1	Sinclair SD210D	Side Arm	(2) 7/8" Coax	EVERSOURCE ENERGY
93.6	1	PCTEL GPS-TMG-HR-26N	Side Arm	(1) 1/2" Coax	SPRINT NEXTEL
92.2	1	Scala OGT9-840	Side Arm	-	CONNECTICUT STATE POLICE DEPT OF PUBLIC
77.6	1	Andrew DB264-A	Side Arm	(1) 7/8" Coax	
76.0	3	Fujitsu TA08025-B605	Sector Frame	(1) 1.75" (44.5mm) Hybrid	DISH WIRELESS L.L.C.
	3	Fujitsu TA08025-B604			
	1	Commscope RDIDC-9181-PF-48			
	3	JMA Wireless MX08FRO665-21			
30.0	1	Generic 2" x 4" GPS	Leg	(1) 1/2" Coax	VERIZON WIRELESS
18.0	1	PCTEL GPS-TMG-HR-26N	Leg	-	AT&T MOBILITY

Equipment to be Removed

Elev.[1] (ft)	Qty	Equipment	Mount Type	Lines	Carrier
147.0	3	Ericsson Radio 4449 B12,B71	-	(1) 1 1/4" Hybriflex Cable (12) 1 5/8" Coax (1) 1 5/8" Hybriflex	T-MOBILE
	3	RFS APXVAARR24_43-U-NA20			
	6	Ericsson AIR 21, 1.3M, B4A B2P (90.4 lbs)			

Proposed Equipment

Elev.[1] (ft)	Qty	Equipment	Mount Type	Lines	Carrier
148.0	3	Ericsson Radio 4449 B71 B85A	Sector Frame	(2) 1.99" (50.7mm) Hybrid	T-MOBILE
	3	Ericsson 4460 BAND 2/25			
	3	Commscope VV-65A-R1B			
	3	Ericsson AIR 6419 B41			
	3	RFS APXVAARR24_43-U-NA20			

[1] Contracted elevations are shown for appurtenances within contracted installation tolerances. Appurtenances outside of contract limits are shown at installed elevations.

Install proposed lines in the place of the existing T-MOBILE lines.

Structure Usage

Structural Component	Controlling Usage	Pass/Fail
Legs	84%	Pass
Diagonals	86%	Pass
Horizontals	23%	Pass
Anchor Bolts	53%	Pass
Leg Bolts	59%	Pass

Foundations

Reaction Component	Original Design Reactions	Factored Design Reactions*	Analysis Reactions	% of Design
Uplift (Kips)	287.6	388.3	283.6	73%
Download (kips)	321.3	433.8	331.4	76%
Moment (Kips-Ft)	6000.3	8100.4	6173.3	76%
Shear (Kips)	56.4	76.1	56.6	74%
* The design reactions are factored by 1.35 per ANSI/TIA-222-H, Sec. 15.6.2				

The structure base reactions resulting from this analysis are acceptable when compared to those shown on the original structure drawings, therefore no modification or reinforcement of the foundation will be required.

Deflection, Twist and Sway*

Antenna Elevation (ft)	Antenna	Carrier	Deflection (ft)	Twist (°)	Sway (Rotation) (°)
148.0	Commscope VV-65A-R1B	T-MOBILE	0.281	2.048	0.337
	Ericsson 4460 BAND 2/25				
	Ericsson AIR 6419 B41				
	Ericsson Radio 4449 B71 B85A				
	RFS APXVAARR24_43-U-NA20				
129.0	RFS PA6-65AC	CONNECTICUT STATE POLICE DEPT OF PUBLIC	0.199	0.944	0.237
128.0	RFS PA6-65AC				

***Deflection, Twist and Sway was evaluated considering a design wind speed of 60 mph (3-Second Gust) per ANSI/TIA-222-H**

Standard Conditions

All engineering services performed by A.T. Engineering Service, PLLC are prepared on the basis that the information used is current and correct. This information may consist of, but is not limited to the following:

- Information supplied by the client regarding antenna, mounts and feed line loading
- Information from drawings, design and analysis documents, and field notes in the possession of A.T. Engineering Service, PLLC

It is the responsibility of the client to ensure that the information provided to A.T. Engineering Service, PLLC and used in the performance of our engineering services is correct and complete.

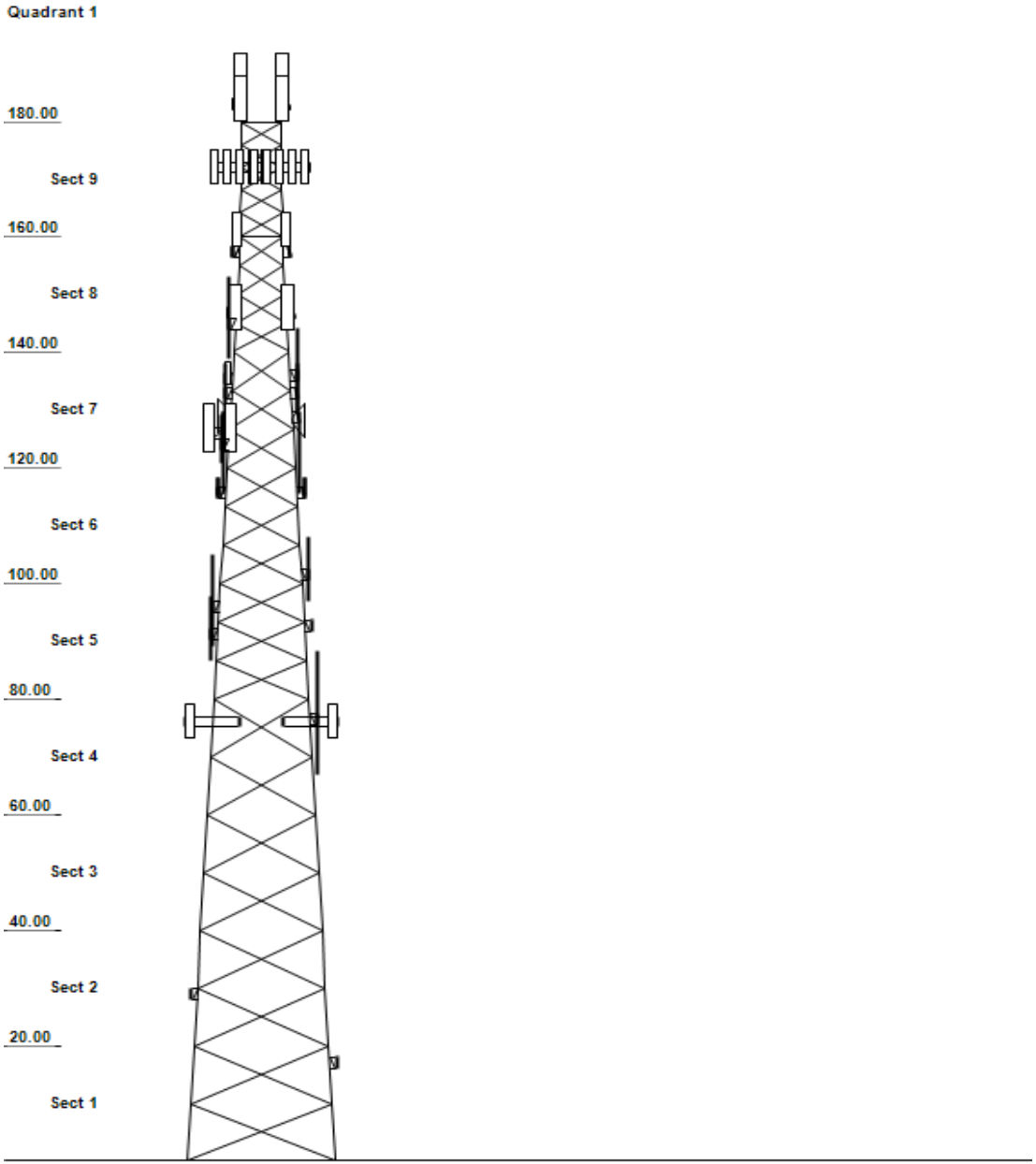
All assets of American Tower Corporation, its affiliates, and subsidiaries (collectively "American Tower") are inspected at regular intervals. Based upon these inspections and in the absence of information to the contrary, American Tower assumes that all structures were constructed in accordance with the drawings and specifications.

Unless explicitly agreed by both the client and A.T. Engineering Service, PLLC, all services will be performed in accordance with the current revision of ANSI/TIA-222.

All services are performed, results obtained, and recommendations made in accordance with generally accepted engineering principles and practices. A.T. Engineering Service, PLLC is not responsible for the conclusions, opinions and recommendations made by others based on the information supplied herein.

JOB INFORMATION

Asset:	302522, Redding	Height :	180 ft
Client	T-MOBILE	Base Width :	23 ft
Code:	ANSI/TIA-222-H	Shape :	Triangle



SITE PARAMETERS

Nominal Wind : 116 mph wind with no ice — Exposure : B — Site Class : D

Ice Wind: 50 mph wind with 1" radial — Topo Method: Method 1 — Risk Cat : II

Service Wind : 60 mph Serviceability — Topo Feature : — S_s : 0.235 — S_1 : 0.057

SECTION PROPERTIES

Section	Leg Members	Diagonal Members	Horizontal Members
1	PSP 50 ksi ROHN 8 EHS	SAE 50 ksi 4X4X0.3125	
2	PSP 50 ksi ROHN 8 EHS	SAE 50 ksi 4X4X0.25	
3	PX 50 ksi 6" DIA PIPE	SAE 50 ksi 4X4X0.25	
4	PX 50 ksi 6" DIA PIPE	SAE 50 ksi 3.5x3.5x0.25	
5 - 6	PX 50 ksi 5" DIA PIPE	SAE 50 ksi 3X3X0.25	
7	PX 50 ksi 4" DIA PIPE	SAE 36 ksi 2.5X2.5X0.25	
8	PST 50 ksi 3" DIA PIP	SAE 36 ksi 2X2X0.25	SAE 36 ksi 2X2X0.25
9	PST 50 ksi 2-1/2" DIA	SAE 36 ksi 1.75X1.75X0.1875	SAE 36 ksi 2X2X0.125

REDUNDANT SECONDARY BRACING

Section	Sub Diag 1	Sub Horiz 1	Sub Diag 2	Sub Horiz 2	Sub Diag 3	Sub Horiz 3
1 - 9	-	-	-	-	-	-

DISCRETE APPURTENANCE

Elev (ft)	Type	Qty	Description
184.00	BOB/SSB	1	Raycap DC6-48-60-18-8F ("Squid
184.00	BOB/SSB	2	Raycap DC6-48-60-18-8C
184.00	DIPLEXER/DUAL COUPLER	6	Kaelus DBC0061F1V51-2
184.00	PANEL	1	CCI DMP65R-BU8D
184.00	PANEL	1	CCI OPA65R-BU8D
184.00	PANEL	1	CCI TPA-65R-LCUUUU-H8
184.00	PANEL	2	Quintel QS66512-2
184.00	PANEL	2	CCI OPA65R-BU6D
184.00	PANEL	2	CCI DMP65R-BU6DA
184.00	PANEL	3	Powerwave Allgon 7770.00
184.00	RRU/RRH	3	Ericsson RRUS 4449 B5, B12
184.00	RRU/RRH	3	Ericsson RRUS 4478 B14
184.00	RRU/RRH	3	Ericsson RRUS 32 B2
184.00	RRU/RRH	3	Ericsson RRUS 32 B30 (53 lbs)
184.00	TTA	6	Powerwave Allgon LGP21401
180.00	Sector Frame	3	Generic Round Sector Frame
172.00	BOB/SSB	1	RFS DB-C1-12C-24AB-0Z
172.00	BOB/SSB	1	RFS DB-C1-12C-24AB-0Z
172.00	DIPLEXER/DUAL COUPLER	3	Commscope CBC78T-DS-43-2X
172.00	PANEL	2	RFS APL868013-42T0
172.00	PANEL	3	Samsung MT6407-77A
172.00	PANEL	4	Andrew DB844G65ZAXY
172.00	PANEL	6	Commscope JAHH-65B-R3B
172.00	RRU/RRH	3	Samsung B2/B66A RRH-BR049
172.00	RRU/RRH	3	Samsung B5/B13 RRH-BR04C
172.00	Sector Frame	3	Generic Round Sector Frame
165.00	Other	12	Decibel DB844H90-XY
164.00	Sector Frame	3	Generic Round Sector Frame

JOB INFORMATION

Asset:	302522, Redding	Height :	180 ft
Client	T-MOBILE	Base Width :	23 ft
Code:	ANSI/TIA-222-H	Shape :	Triangle

DISCRETE APPURTENANCE

Elev (ft)	Type	Qty	Description
160.70	RRU/RRH	3	Alcatel-Lucent RRH2x50-08
159.90	RRU/RRH	3	Alcatel-Lucent 800 MHz RRH
158.60	PANEL	3	Commscope DT465B-2XR
158.50	PANEL	3	RFS APXVSPP18-C-A20
158.40	RRU/RRH	3	Alcatel-Lucent TD-RRH8x20-25 w
157.00	Sector Frame	3	Generic Round Sector Frame
156.10	RRU/RRH	3	Alcatel-Lucent 1900 MHz 4X45 R
148.00	PANEL	3	RFS APXVAARR24_43-U-NA20
148.00	PANEL	3	Commscope VV-65A-R1B
148.00	PANEL	3	Ericsson AIR 6419 B41
148.00	RRU/RRH	3	Ericsson Radio 4449 B71 B85A
148.00	Radio/ODU	3	Ericsson 4460 BAND 2/25
147.00	Sector Frame	3	Perfect Vision PV-SFA12-B Sect
146.00	OMNI	1	Sinclair SC479-HF1LDF
142.50	T-Arm	2	Round Side Arm
137.00	OMNI	1	Andrew Microwaves DB810K-XT
136.40	PANEL	1	Amphenol Antel WPA-700120-4CF-
136.00	Sector Frame	2	Generic Round Sector Frame
135.00	ICE SHIELD	1	Generic 24" x 24" Ice Shield
134.80	TTA	1	Bird 432E-83I-01-T
134.00	DIPOLE	2	Sinclair SE419-SF3P4LDF
134.00	ICE SHIELD	1	Generic 24" x 24" Ice Shield
131.00	Other	1	Morad VHF 156-DELUXE
131.00	Side Arm	2	Generic Round Side Arm
129.80	OMNI	3	Sinclair SC479-HF1LDF
129.00	DISH-STANDARD	1	RFS PA6-65AC
128.00	DISH-STANDARD	1	RFS PA6-65AC
127.00	PANEL	2	Allgon 7199 / M-1900-90-19.5I
127.00	Side Arm	1	Generic Round Side Arm
127.00	TTA	1	Bird 432-83H-01-T
125.00	DIPOLE	1	Sinclair SE419-SF3P4LDF
121.00	Side Arm	1	Generic Round Side Arm
120.50	Other	1	Decibel DB586
120.50	Side Arm	1	Generic Round Side Arm
116.80	OMNI	1	Morad VHF 156-DELUXE
116.80	OMNI	1	Morad VHF 156-DELUXE
115.50	Other	1	Decibel DB586
115.00	Side Arm	2	Generic Round Side Arm
102.50	OMNI	1	Scala OGT9-840
100.00	Side Arm	1	Generic Round Side Arm
100.00	T-Arm	1	Generic Flat Stand-Off
97.00	DIPOLE	1	Sinclair SD210D
93.60	GPS	1	PCTEL GPS-TMG-HR-26N
92.20	OMNI	1	Scala OGT9-840
91.00	Side Arm	1	Generic Round Side Arm
86.00	Side Arm	1	Generic Round Side Arm
77.60	DIPOLE	1	Andrew DB264-A
76.00	BOB/SSB	1	Commscope RDIDC-9181-PF-48
76.00	PANEL	3	JMA Wireless MX08FRO665-21
76.00	RRU/RRH	3	Fujitsu TA08025-B604
76.00	RRU/RRH	3	Fujitsu TA08025-B605
76.00	Sector Frame	3	Generic Round Sector Frame
30.00	GPS	1	Generic 2" x 4" GPS
18.00	GPS	1	PCTEL GPS-TMG-HR-26N

JOB INFORMATION

Asset:	302522, Redding	Height :	180 ft
Client	T-MOBILE	Base Width :	23 ft
Code:	ANSI/TIA-222-H	Shape :	Triangle

LINEAR APPURTENANCE

Elev (ft) From	To	Qty	Description
0.00	184.00	2	2" conduit
0.00	184.00	12	1 1/4" Coax
0.00	184.00	8	0.78" (19.7mm) 8 AWG 6
0.00	184.00	3	0.39" (10mm) Fiber Trunk
0.00	180.00	1	Waveguide
0.00	172.00	1	Waveguide
0.00	172.00	2	1 5/8" Hybriflex
0.00	172.00	12	1 5/8" Coax
0.00	164.00	1	Waveguide
0.00	159.00	4	1 1/4" Hybriflex Cable
0.00	148.00	2	1.99" (50.7mm) Hybrid
0.00	148.00	2	1 1/4" Hybriflex Cable
0.00	147.00	1	Waveguide
0.00	143.00	2	1 5/8" Coax
0.00	142.50	1	Waveguide
0.00	137.00	1	1 5/8" Coax
0.00	135.00	1	1/2" Coax
0.00	134.00	2	1 5/8" Coax
0.00	129.00	1	EW63
0.00	128.00	1	EW63
0.00	127.00	1	3/8" Coax
0.00	125.00	1	1 5/8" Coax
0.00	122.00	3	1 5/8" Coax
0.00	120.50	1	7/8" Coax
0.00	117.00	1	1/2" Coax
0.00	115.50	1	7/8" Coax
0.00	97.00	2	7/8" Coax
0.00	94.00	1	1/2" Coax
0.00	78.00	1	7/8" Coax
0.00	76.00	1	1.75" (44.5mm) Hybrid
0.00	30.00	1	1/2" Coax

GLOBAL BASE FOUNDATION DESIGN LOADS

Load Case	Moment (k-ft)	Vertical (kip)	Horizontal (kip)
DL+WL	6173.27	64.43	56.64
DL+WL+IL	1795.99	131.69	16.95

INDIVIDUAL BASE FOUNDATION DESIGN LOADS

	Vertical (kip)	Uplift (kip)	Horizontal (kip)
	331.40	283.63	35.27

ANALYSIS PARAMETERS

Location:	Fairfield County, CT	**Height:**	180 ft
Type and Shape:	Self Support, Triangle	**Base Elevation:**	0.00 ft
Manufacturer:	Rohn	**Bottom Face Width:**	23.00 ft
Kd	0.85	**Top Face Width:**	6.65 ft
Ke:	0.98	**Anchor Bolt Detail Type:**	c

ICE & WIND PARAMETERS

Exposure Category:	B	**Design Wind Speed Without Ice:**	116 mph
Risk Category:	II	**Design Wind Speed with Ice:**	50 mph
Topographic Factor Procedure:	Method 1	**Operational Windspeed:**	60 mph
Topographic Category:	Flat	**Design Ice Thickness:**	1.00 in
Crest Height:	0 ft	**HMSL:**	686 ft

SEISMIC PARAMETERS

Analysis Method:	Equivalent Lateral Force Method				
Site Class:	D - Stiff Soil			**Period Based on Rayleigh Method (sec):**	0.99
T_L (sec):	6	**P:**	1.3	**C_s:**	0.031
S_s:	0.235	**S_1:**	0.057	**C_s Max:**	0.031
F_a:	1.600	**F_v:**	2.400	**C_s Min:**	0.030
S_{ds}:	0.251	**S_{d1}:**	0.091		

LOAD CASES

1.2D + 1.0W Normal	116 mph wind with no ice
1.2D + 1.0W 60°	116 mph wind with no ice
1.2D + 1.0W 90°	116 mph wind with no ice
1.2D + 1.0W 120°	116 mph wind with no ice
1.2D + 1.0W 180°	116 mph wind with no ice
1.2D + 1.0W 210°	116 mph wind with no ice
1.2D + 1.0W 240°	116 mph wind with no ice
1.2D + 1.0W 300°	116 mph wind with no ice
1.2D + 1.0W 330°	116 mph wind with no ice
0.9D + 1.0W Normal	116 mph wind with no ice
0.9D + 1.0W 60°	116 mph wind with no ice
0.9D + 1.0W 90°	116 mph wind with no ice
0.9D + 1.0W 120°	116 mph wind with no ice
0.9D + 1.0W 180°	116 mph wind with no ice
0.9D + 1.0W 210°	116 mph wind with no ice
0.9D + 1.0W 240°	116 mph wind with no ice
0.9D + 1.0W 300°	116 mph wind with no ice
0.9D + 1.0W 330°	116 mph wind with no ice
1.2D + 1.0Di + 1.0Wi Normal	50 mph wind with 1" radial ice
1.2D + 1.0Di + 1.0Wi 60°	50 mph wind with 1" radial ice
1.2D + 1.0Di + 1.0Wi 90°	50 mph wind with 1" radial ice
1.2D + 1.0Di + 1.0Wi 120°	50 mph wind with 1" radial ice
1.2D + 1.0Di + 1.0Wi 180°	50 mph wind with 1" radial ice
1.2D + 1.0Di + 1.0Wi 210°	50 mph wind with 1" radial ice
1.2D + 1.0Di + 1.0Wi 240°	50 mph wind with 1" radial ice
1.2D + 1.0Di + 1.0Wi 300°	50 mph wind with 1" radial ice
1.2D + 1.0Di + 1.0Wi 330°	50 mph wind with 1" radial ice
1.2D + 1.0Ev + 1.0Eh Normal	Seismic
1.2D + 1.0Ev + 1.0Eh 60°	Seismic
1.2D + 1.0Ev + 1.0Eh 90°	Seismic
1.2D + 1.0Ev + 1.0Eh 120°	Seismic
1.2D + 1.0Ev + 1.0Eh 180°	Seismic
1.2D + 1.0Ev + 1.0Eh 210°	Seismic
1.2D + 1.0Ev + 1.0Eh 240°	Seismic

LOAD CASES

1.2D + 1.0Ev + 1.0Eh 300°	Seismic
1.2D + 1.0Ev + 1.0Eh 330°	Seismic
0.9D - 1.0Ev + 1.0Eh Normal	Seismic (Reduced DL)
0.9D - 1.0Ev + 1.0Eh 60°	Seismic (Reduced DL)
0.9D - 1.0Ev + 1.0Eh 90°	Seismic (Reduced DL)
0.9D - 1.0Ev + 1.0Eh 120°	Seismic (Reduced DL)
0.9D - 1.0Ev + 1.0Eh 180°	Seismic (Reduced DL)
0.9D - 1.0Ev + 1.0Eh 210°	Seismic (Reduced DL)
0.9D - 1.0Ev + 1.0Eh 240°	Seismic (Reduced DL)
0.9D - 1.0Ev + 1.0Eh 300°	Seismic (Reduced DL)
0.9D - 1.0Ev + 1.0Eh 330°	Seismic (Reduced DL)
1.0D + 1.0W Service Normal	60 mph Wind with No Ice
1.0D + 1.0W Service 60°	60 mph Wind with No Ice
1.0D + 1.0W Service 90°	60 mph Wind with No Ice
1.0D + 1.0W Service 120°	60 mph Wind with No Ice
1.0D + 1.0W Service 180°	60 mph Wind with No Ice
1.0D + 1.0W Service 210°	60 mph Wind with No Ice
1.0D + 1.0W Service 240°	60 mph Wind with No Ice
1.0D + 1.0W Service 300°	60 mph Wind with No Ice
1.0D + 1.0W Service 330°	60 mph Wind with No Ice

TOWER LOADING

Discrete Appurtenance Properties 1.2D + 1.0W

Elev (ft)	Description	Qty	Wt. (lb)	EPA (sf)	Length (ft)	Width (in)	Depth (in)	K_a	Orient Factor	Vert Ecc (ft)	M_u (lb-ft)	Q_z (psf)	F_a (WL) (lb)	P_a (DL) (lb)
184.0	Kaelus DBC0061F1V51-2	6	26	0.4	0.7	6.5	6.2	0.80	0.50	1.0	29.72	33.65	30	184
184.0	Powerwave Allgon LGP21401	6	14	1.1	1.2	9.2	2.6	0.80	0.50	1.0	75.78	33.65	76	102
184.0	Raycap DC6-48-60-18-8F ("Squid	1	32	1.5	2.0	11.0	11.0	0.80	1.00	1.0	33.64	33.65	34	38
184.0	Ericsson RRUS 4478 B14	3	60	1.8	1.4	13.4	7.7	0.80	0.50	0.0	0.00	33.60	63	216
184.0	Ericsson RRUS 4449 B5, B12	3	71	2.0	1.5	13.2	9.4	0.80	0.50	0.0	0.00	33.60	67	256
184.0	Raycap DC6-48-60-18-8C	2	16	2.0	1.7	18.2	6.4	0.80	0.50	1.0	46.45	33.65	46	38
184.0	Ericsson RRUS 32 B30 (53 lbs)	3	53	2.7	2.3	12.1	7.0	0.80	0.50	1.0	94.15	33.65	94	191
184.0	Ericsson RRUS 32 B2	3	53	2.7	2.3	12.1	7.0	0.80	0.50	1.0	94.15	33.65	94	191
184.0	Powerwave Allgon 7770.00	3	35	5.5	4.6	11.0	5.0	0.80	0.65	2.0	492.29	33.70	246	126
184.0	Quintel QS66512-2	2	111	8.1	6.0	12.0	9.6	0.80	0.80	1.0	297.76	33.65	298	266
184.0	CCI DMP65R-BU6DA	2	79	12.7	5.9	20.7	7.7	0.80	0.72	0.0	0.00	33.60	418	191
184.0	CCI OPA65R-BU6D	2	63	12.9	5.9	21.0	7.8	0.80	0.72	0.0	0.00	33.60	423	152
184.0	CCI TPA-65R-LCUUUU-H8	1	82	13.3	8.0	14.4	8.6	0.80	0.80	1.0	243.43	33.65	243	98
184.0	CCI DMP65R-BU8D	1	96	17.9	8.0	20.7	7.7	0.80	0.80	0.0	0.00	33.60	327	115
184.0	CCI OPA65R-BU8D	1	77	18.1	8.0	21.0	7.8	0.80	0.80	0.0	0.00	33.60	331	92
180.0	Generic Round Sector Frame	3	300	14.4	0.0	0.0	0.0	0.75	0.67	0.0	0.00	33.39	616	1080
172.0	Commscope CBC78T-DS-43-2X	3	21	0.6	0.8	6.9	6.4	0.80	0.50	0.0	0.00	32.96	19	75
172.0	Samsung B5/B13 RRH-BR04C	3	70	1.9	1.3	15.0	8.1	0.80	0.50	0.0	0.00	32.96	63	253
172.0	Samsung B2/B66A RRH-BR049	3	84	1.9	1.3	15.0	10.0	0.80	0.50	0.0	0.00	32.96	63	304
172.0	RFS APL868013-42T0	2	6	3.6	4.0	6.0	8.0	0.80	0.79	0.0	0.00	32.96	128	15
172.0	RFS DB-C1-12C-24AB-0Z	1	32	4.1	2.5	16.5	12.6	0.80	0.50	0.0	0.00	32.96	45	38
172.0	RFS DB-C1-12C-24AB-0Z	1	32	4.1	2.5	16.5	12.6	0.80	0.50	0.0	0.00	32.96	45	38
172.0	Andrew DB844G65ZAXY	4	12	4.3	4.0	10.0	8.5	0.80	0.75	2.7	791.51	33.10	293	58
172.0	Samsung MT6407-77A	3	82	4.7	2.9	16.1	5.5	0.80	0.61	0.0	0.00	32.96	193	294
172.0	Commscope JAHH-65B-R3B	6	61	9.1	6.0	13.8	8.2	0.80	0.69	0.0	0.00	32.96	845	436
172.0	Generic Round Sector Frame	3	300	14.4	0.0	0.0	0.0	0.75	0.67	0.0	0.00	32.96	608	1080
165.0	Decibel DB844H90-XY	12	14	3.6	4.0	6.5	8.0	0.80	0.73	10.0	7,141.83	33.12	714	202
164.0	Generic Round Sector Frame	3	300	14.4	0.0	0.0	0.0	0.75	0.67	0.0	0.00	32.51	600	1080
160.7	Alcatel-Lucent RRH2x50-08	3	53	1.7	1.3	13.0	9.8	0.80	0.50	3.0	169.13	32.49	56	190
159.9	Alcatel-Lucent 800 MHz RRH	3	53	2.1	1.6	13.0	10.8	0.80	0.50	3.0	211.89	32.45	71	191
158.6	Commscope DT465B-2XR	3	58	9.1	6.0	13.8	8.2	0.80	0.69	3.0	1,243.80	32.37	415	209
158.5	RFS APXVSPP18-C-A20	3	57	8.0	6.0	11.8	7.0	0.80	0.69	3.0	1,096.78	32.37	366	205
158.4	Alcatel-Lucent TD-RRH8x20-25 w	3	70	4.0	2.2	18.6	6.7	0.80	0.50	3.0	400.68	32.36	134	252
157.0	Generic Round Sector Frame	3	300	14.4	0.0	0.0	0.0	0.75	0.75	0.0	0.00	32.11	663	1080
156.1	Alcatel-Lucent 1900 MHz 4X45 R	3	60	2.3	2.1	11.1	10.7	0.80	0.50	3.0	229.01	32.23	76	216
148.0	Ericsson Radio 4449 B71 B85A	3	75	1.6	1.3	13.2	10.5	0.80	0.50	0.0	0.00	31.57	53	270
148.0	Ericsson 4460 BAND 2/25	3	109	2.6	1.6	15.7	12.1	0.80	0.50	0.0	0.00	31.57	83	392
148.0	Commscope VV-65A-R1B	3	25	5.9	4.6	12.0	4.6	0.80	0.63	0.0	0.00	31.57	239	89
148.0	Ericsson AIR 6419 B41	3	83	6.3	3.0	20.9	9.0	0.80	0.63	0.0	0.00	31.57	257	300
148.0	RFS APXVAARR24_43-U-NA20	3	128	20.2	8.0	24.0	8.7	0.80	0.63	0.0	0.00	31.57	821	460
147.0	Perfect Vision PV-SFA12-B Sect	3	592	18.2	0.0	0.0	0.0	0.75	0.67	0.0	0.00	31.51	735	2131
146.0	Sinclair SC479-HF1LDF	1	34	5.0	14.4	3.5	3.5	1.00	1.00	0.0	0.00	31.45	134	41
142.5	Round Side Arm	2	150	5.2	0.0	0.0	0.0	1.00	0.90	0.0	0.00	31.23	248	360
137.0	Andrew Microwaves DB810K-XT	1	35	4.4	14.5	3.0	3.0	1.00	1.00	0.0	0.00	30.88	114	42
136.4	Amphenol Antel WPA-700120-4CF-	1	7	2.7	4.0	5.6	5.6	1.00	0.70	0.0	0.00	30.84	49	8
136.0	Generic Round Sector Frame	2	300	14.4	0.0	0.0	0.0	1.00	0.90	0.0	0.00	30.82	679	720
135.0	Generic 24" x 24" Ice Shield	1	50	0.8	0.3	24.0	24.0	1.00	1.00	-2.0	41.65	30.62	21	60
134.8	Bird 432E-83I-01-T	1	25	1.2	1.0	12.0	7.5	1.00	0.50	0.0	0.00	30.74	16	30
134.0	Generic 24" x 24" Ice Shield	1	50	0.8	0.3	24.0	24.0	1.00	1.00	-1.0	20.82	30.62	21	60
134.0	Sinclair SE419-SF3P4LDF	2	24	9.5	8.6	2.9	8.5	1.00	1.00	0.0	0.00	30.69	498	58
131.0	Morad VHF 156-DELUXE	1	1	0.3	3.2	0.8	0.8	1.00	1.00	0.0	0.00	30.49	7	1
131.0	Generic Round Side Arm	2	188	5.2	0.0	0.0	0.0	1.00	0.90	0.0	0.00	30.49	243	450
129.8	Sinclair SC479-HF1LDF	3	34	5.0	14.4	3.5	3.5	1.00	1.00	-4.0	1,546.31	30.14	387	122
129.0	RFS PA6-65AC	1	278	47.0	6.0	72.0	0.0	1.00	1.00	0.0	0.00	30.36	1214	334
128.0	RFS PA6-65AC	1	278	47.0	6.0	72.0	0.0	1.00	1.00	0.0	0.00	30.29	1211	334
127.0	Bird 432-83H-01-T	1	25	1.4	1.2	12.0	7.0	1.00	0.50	0.0	0.00	30.22	18	30
127.0	Generic Round Side Arm	1	188	5.2	0.0	0.0	0.0	1.00	1.00	0.0	0.00	30.22	134	225
127.0	Allgon 7199 / M-1900-90-19.5I	2	18	6.6	8.5	5.0	3.1	1.00	0.78	0.0	0.00	30.22	263	42
125.0	Sinclair SE419-SF3P4LDF	1	24	9.5	8.6	2.9	8.5	1.00	1.00	0.0	0.00	30.08	244	29
121.0	Generic Round Side Arm	1	188	5.2	0.0	0.0	0.0	1.00	1.00	0.0	0.00	29.81	132	225
120.5	Decibel DB586	1	59	0.7	0.0	0.0	0.0	0.90	0.90	0.0	0.00	29.77	15	71
120.5	Generic Round Side Arm	1	188	5.2	0.0	0.0	0.0	0.90	0.90	0.0	0.00	29.77	107	225
116.8	Morad VHF 156-DELUXE	1	1	0.3	3.3	0.8	0.8	1.00	1.00	0.0	0.00	29.51	7	1
116.8	Morad VHF 156-DELUXE	1	1	0.3	3.3	0.8	0.8	1.00	1.00	0.0	0.00	29.51	7	1
115.5	Decibel DB586	1	59	0.7	0.0	0.0	0.0	1.00	1.00	0.0	0.00	29.41	19	71
115.0	Generic Round Side Arm	2	188	5.2	0.0	0.0	0.0	1.00	0.90	0.0	0.00	29.38	234	450

Elev (ft)	Description	Qty	Wt. (lb)	EPA (sf)	Length (ft)	Width (in)	Depth (in)	K_a	Orient Factor	Vert Ecc (ft)	M_u (lb-ft)	Q_z (psf)	F_a (WL) (lb)	P_a (DL) (lb)
102.5	Scala OGT9-840	1	19	2.3	11.4	2.0	2.0	1.00	1.00	0.0	0.00	28.43	55	22
100.0	Generic Round Side Arm	1	188	5.2	0.0	0.0	0.0	1.00	1.00	0.0	0.00	28.23	125	225
100.0	Generic Flat Stand-Off	1	188	6.3	0.0	0.0	0.0	1.00	1.00	0.0	0.00	28.23	151	225
97.0	Sinclair SD210D	1	40	4.4	16.0	41.0	4.0	1.00	1.00	0.0	0.00	27.98	106	48
93.6	PCTEL GPS-TMG-HR-26N	1	1	0.1	0.4	3.2	3.2	1.00	1.00	2.0	4.26	27.87	2	1
92.2	Scala OGT9-840	1	19	2.3	11.4	2.0	2.0	1.00	1.00	0.0	0.00	27.58	53	22
91.0	Generic Round Side Arm	1	188	5.2	0.0	0.0	0.0	1.00	1.00	0.0	0.00	27.48	121	225
86.0	Generic Round Side Arm	1	188	5.2	0.0	0.0	0.0	1.00	1.00	0.0	0.00	27.04	119	225
77.6	Andrew DB264-A	1	36	5.9	21.5	0.0	0.0	1.00	1.00	0.0	0.00	26.25	132	43
76.0	Commscope RDIDC-9181-PF-48	1	22	1.9	1.3	14.0	8.0	0.80	0.50	0.0	0.00	26.10	17	26
76.0	Fujitsu TA08025-B604	3	64	2.0	1.3	15.0	7.9	0.80	0.50	0.0	0.00	26.10	52	230
76.0	Fujitsu TA08025-B605	3	75	2.0	1.3	15.0	9.1	0.80	0.50	0.0	0.00	26.10	52	270
76.0	JMA Wireless MX08FRO665-21	3	65	12.5	6.0	20.0	8.0	0.80	0.64	0.0	0.00	26.10	426	232
76.0	Generic Round Sector Frame	3	300	14.4	0.0	0.0	0.0	0.75	0.75	0.0	0.00	26.10	539	1080
30.0	Generic 2" x 4" GPS	1	5	0.0	0.2	4.0	2.0	1.00	0.50	0.0	0.00	20.01	0	6
18.0	PCTEL GPS-TMG-HR-26N	1	1	0.1	0.4	3.2	3.2	1.00	1.00	0.0	0.00	19.99	2	1
	Totals	182	16,719	1129.5									18,964	20,063

TOWER LOADING

Discrete Appurtenance Properties 0.9D + 1.0W

Elev (ft)	Description	Qty	Wt. (lb)	EPA (sf)	Length (ft)	Width (in)	Depth (in)	K_a	Orient Factor	Vert Ecc (ft)	M_u (lb-ft)	Q_z (psf)	F_a (WL) (lb)	P_a (DL) (lb)
184.0	Kaelus DBC0061F1V51-2	6	26	0.4	0.7	6.5	6.2	0.80	0.50	1.0	29.72	33.65	30	138
184.0	Powerwave Allgon LGP21401	6	14	1.1	1.2	9.2	2.6	0.80	0.50	1.0	75.78	33.65	76	76
184.0	Raycap DC6-48-60-18-8F ("Squid	1	32	1.5	2.0	11.0	11.0	0.80	1.00	1.0	33.64	33.65	34	29
184.0	Ericsson RRUS 4478 B14	3	60	1.8	1.4	13.4	7.7	0.80	0.50	0.0	0.00	33.60	63	162
184.0	Ericsson RRUS 4449 B5, B12	3	71	2.0	1.5	13.2	9.4	0.80	0.50	0.0	0.00	33.60	67	192
184.0	Raycap DC6-48-60-18-8C	2	16	2.0	1.7	18.2	6.4	0.80	0.50	1.0	46.45	33.65	46	29
184.0	Ericsson RRUS 32 B30 (53 lbs)	3	53	2.7	2.3	12.1	7.0	0.80	0.50	1.0	94.15	33.65	94	143
184.0	Ericsson RRUS 32 B2	3	53	2.7	2.3	12.1	7.0	0.80	0.50	1.0	94.15	33.65	94	143
184.0	Powerwave Allgon 7770.00	3	35	5.5	4.6	11.0	5.0	0.80	0.65	2.0	492.29	33.70	246	94
184.0	Quintel QS66512-2	2	111	8.1	6.0	12.0	9.6	0.80	0.80	1.0	297.76	33.65	298	200
184.0	CCI DMP65R-BU6DA	2	79	12.7	5.9	20.7	7.7	0.80	0.72	0.0	0.00	33.60	418	143
184.0	CCI OPA65R-BU6D	2	63	12.9	5.9	21.0	7.8	0.80	0.72	0.0	0.00	33.60	423	114
184.0	CCI TPA-65R-LCUUUU-H8	1	82	13.3	8.0	14.4	8.6	0.80	0.80	1.0	243.43	33.65	243	73
184.0	CCI DMP65R-BU8D	1	96	17.9	8.0	20.7	7.7	0.80	0.80	0.0	0.00	33.60	327	86
184.0	CCI OPA65R-BU8D	1	77	18.1	8.0	21.0	7.8	0.80	0.80	0.0	0.00	33.60	331	69
180.0	Generic Round Sector Frame	3	300	14.4	0.0	0.0	0.0	0.75	0.67	0.0	0.00	33.39	616	810
172.0	Commscope CBC78T-DS-43-2X	3	21	0.6	0.8	6.9	6.4	0.80	0.50	0.0	0.00	32.96	19	56
172.0	Samsung B5/B13 RRH-BR04C	3	70	1.9	1.3	15.0	8.1	0.80	0.50	0.0	0.00	32.96	63	190
172.0	Samsung B2/B66A RRH-BR049	3	84	1.9	1.3	15.0	10.0	0.80	0.50	0.0	0.00	32.96	63	228
172.0	RFS APL868013-42T0	2	6	3.6	4.0	6.0	8.0	0.80	0.79	0.0	0.00	32.96	128	11
172.0	RFS DB-C1-12C-24AB-0Z	1	32	4.1	2.5	16.5	12.6	0.80	0.50	0.0	0.00	32.96	45	29
172.0	RFS DB-C1-12C-24AB-0Z	1	32	4.1	2.5	16.5	12.6	0.80	0.50	0.0	0.00	32.96	45	29
172.0	Andrew DB844G65ZAXY	4	12	4.3	4.0	10.0	8.5	0.80	0.75	2.7	791.51	33.10	293	43
172.0	Samsung MT6407-77A	3	82	4.7	2.9	16.1	5.5	0.80	0.61	0.0	0.00	32.96	193	220
172.0	Commscope JAHH-65B-R3B	6	61	9.1	6.0	13.8	8.2	0.80	0.69	0.0	0.00	32.96	845	327
172.0	Generic Round Sector Frame	3	300	14.4	0.0	0.0	0.0	0.75	0.67	0.0	0.00	32.96	608	810
165.0	Decibel DB844H90-XY	12	14	3.6	4.0	6.5	8.0	0.80	0.73	10.0	7,141.83	33.12	714	151
164.0	Generic Round Sector Frame	3	300	14.4	0.0	0.0	0.0	0.75	0.67	0.0	0.00	32.51	600	810
160.7	Alcatel-Lucent RRH2x50-08	3	53	1.7	1.3	13.0	9.8	0.80	0.50	3.0	169.13	32.49	56	143
159.9	Alcatel-Lucent 800 MHz RRH	3	53	2.1	1.6	13.0	10.8	0.80	0.50	3.0	211.89	32.45	71	143
158.6	Commscope DT465B-2XR	3	58	9.1	6.0	13.8	8.2	0.80	0.69	3.0	1,243.80	32.37	415	157
158.5	RFS APXVSPP18-C-A20	3	57	8.0	6.0	11.8	7.0	0.80	0.69	3.0	1,096.78	32.37	366	154
158.4	Alcatel-Lucent TD-RRH8x20-25 w	3	70	4.0	2.2	18.6	6.7	0.80	0.50	3.0	400.68	32.36	134	189
157.0	Generic Round Sector Frame	3	300	14.4	0.0	0.0	0.0	0.75	0.75	0.0	0.00	32.11	663	810
156.1	Alcatel-Lucent 1900 MHz 4X45 R	3	60	2.3	2.1	11.1	10.7	0.80	0.50	3.0	229.01	32.23	76	162
148.0	Ericsson Radio 4449 B71 B85A	3	75	1.6	1.3	13.2	10.5	0.80	0.50	0.0	0.00	31.57	53	202
148.0	Ericsson 4460 BAND 2/25	3	109	2.6	1.6	15.7	12.1	0.80	0.50	0.0	0.00	31.57	83	294
148.0	Commscope VV-65A-R1B	3	25	5.9	4.6	12.0	4.6	0.80	0.63	0.0	0.00	31.57	239	67
148.0	Ericsson AIR 6419 B41	3	83	6.3	3.0	20.9	9.0	0.80	0.63	0.0	0.00	31.57	257	225
148.0	RFS APXVAARR24_43-U-NA20	3	128	20.2	8.0	24.0	8.7	0.80	0.63	0.0	0.00	31.57	821	345
147.0	Perfect Vision PV-SFA12-B Sect	3	592	18.2	0.0	0.0	0.0	0.75	0.67	0.0	0.00	31.51	735	1598
146.0	Sinclair SC479-HF1LDF	1	34	5.0	14.4	3.5	3.5	1.00	1.00	0.0	0.00	31.45	134	31
142.5	Round Side Arm	2	150	5.2	0.0	0.0	0.0	1.00	0.90	0.0	0.00	31.23	248	270
137.0	Andrew Microwaves DB810K-XT	1	35	4.4	14.5	3.0	3.0	1.00	1.00	0.0	0.00	30.88	114	32
136.4	Amphenol Antel WPA-700120-4CF-	1	7	2.7	4.0	5.6	5.6	1.00	0.70	0.0	0.00	30.84	49	6

Elev (ft)	Description	Qty	Wt. (lb)	EPA (sf)	Length (ft)	Width (in)	Depth (in)	K_a	Orient Factor	Vert Ecc (ft)	M_u (lb-ft)	Q_z (psf)	F_a (WL) (lb)	P_a (DL) (lb)
136.0	Generic Round Sector Frame	2	300	14.4	0.0	0.0	0.0	1.00	0.90	0.0	0.00	30.82	679	540
135.0	Generic 24" x 24" Ice Shield	1	50	0.8	0.3	24.0	24.0	1.00	1.00	-2.0	41.65	30.62	21	45
134.8	Bird 432E-83I-01-T	1	25	1.2	1.0	12.0	7.5	1.00	0.50	0.0	0.00	30.74	16	22
134.0	Generic 24" x 24" Ice Shield	1	50	0.8	0.3	24.0	24.0	1.00	1.00	-1.0	20.82	30.62	21	45
134.0	Sinclair SE419-SF3P4LDF	2	24	9.5	8.6	2.9	8.5	1.00	1.00	0.0	0.00	30.69	498	43
131.0	Morad VHF 156-DELUXE	1	1	0.3	3.2	0.8	0.8	1.00	1.00	0.0	0.00	30.49	7	1
131.0	Generic Round Side Arm	2	188	5.2	0.0	0.0	0.0	1.00	0.90	0.0	0.00	30.49	243	338
129.8	Sinclair SC479-HF1LDF	3	34	5.0	14.4	3.5	3.5	1.00	1.00	-4.0	1,546.31	30.14	387	92
129.0	RFS PA6-65AC	1	278	47.0	6.0	72.0	0.0	1.00	1.00	0.0	0.00	30.36	1214	250
128.0	RFS PA6-65AC	1	278	47.0	6.0	72.0	0.0	1.00	1.00	0.0	0.00	30.29	1211	250
127.0	Bird 432-83H-01-T	1	25	1.4	1.2	12.0	7.0	1.00	0.50	0.0	0.00	30.22	18	22
127.0	Generic Round Side Arm	1	188	5.2	0.0	0.0	0.0	1.00	1.00	0.0	0.00	30.22	134	169
127.0	Allgon 7199 / M-1900-90-19.5I	2	18	6.6	8.5	5.0	3.1	1.00	0.78	0.0	0.00	30.22	263	32
125.0	Sinclair SE419-SF3P4LDF	1	24	9.5	8.6	2.9	8.5	1.00	1.00	0.0	0.00	30.08	244	22
121.0	Generic Round Side Arm	1	188	5.2	0.0	0.0	0.0	1.00	1.00	0.0	0.00	29.81	132	169
120.5	Decibel DB586	1	59	0.7	0.0	0.0	0.0	0.90	0.90	0.0	0.00	29.77	15	53
120.5	Generic Round Side Arm	1	188	5.2	0.0	0.0	0.0	0.90	0.90	0.0	0.00	29.77	107	169
116.8	Morad VHF 156-DELUXE	1	1	0.3	3.3	0.8	0.8	1.00	1.00	0.0	0.00	29.51	7	1
116.8	Morad VHF 156-DELUXE	1	1	0.3	3.3	0.8	0.8	1.00	1.00	0.0	0.00	29.51	7	1
115.5	Decibel DB586	1	59	0.7	0.0	0.0	0.0	1.00	1.00	0.0	0.00	29.41	19	53
115.0	Generic Round Side Arm	2	188	5.2	0.0	0.0	0.0	1.00	0.90	0.0	0.00	29.38	234	338
102.5	Scala OGT9-840	1	19	2.3	11.4	2.0	2.0	1.00	1.00	0.0	0.00	28.43	55	17
100.0	Generic Round Side Arm	1	188	5.2	0.0	0.0	0.0	1.00	1.00	0.0	0.00	28.23	125	169
100.0	Generic Flat Stand-Off	1	188	6.3	0.0	0.0	0.0	1.00	1.00	0.0	0.00	28.23	151	169
97.0	Sinclair SD210D	1	40	4.4	16.0	41.0	4.0	1.00	1.00	0.0	0.00	27.98	106	36
93.6	PCTEL GPS-TMG-HR-26N	1	1	0.1	0.4	3.2	3.2	1.00	1.00	2.0	4.26	27.87	2	1
92.2	Scala OGT9-840	1	19	2.3	11.4	2.0	2.0	1.00	1.00	0.0	0.00	27.58	53	17
91.0	Generic Round Side Arm	1	188	5.2	0.0	0.0	0.0	1.00	1.00	0.0	0.00	27.48	121	169
86.0	Generic Round Side Arm	1	188	5.2	0.0	0.0	0.0	1.00	1.00	0.0	0.00	27.04	119	169
77.6	Andrew DB264-A	1	36	5.9	21.5	0.0	0.0	1.00	1.00	0.0	0.00	26.25	132	32
76.0	Commscope RDIDC-9181-PF-48	1	22	1.9	1.3	14.0	8.0	0.80	0.50	0.0	0.00	26.10	17	20
76.0	Fujitsu TA08025-B604	3	64	2.0	1.3	15.0	7.9	0.80	0.50	0.0	0.00	26.10	52	173
76.0	Fujitsu TA08025-B605	3	75	2.0	1.3	15.0	9.1	0.80	0.50	0.0	0.00	26.10	52	202
76.0	JMA Wireless MX08FRO665-21	3	65	12.5	6.0	20.0	8.0	0.80	0.64	0.0	0.00	26.10	426	174
76.0	Generic Round Sector Frame	3	300	14.4	0.0	0.0	0.0	0.75	0.75	0.0	0.00	26.10	539	810
30.0	Generic 2" x 4" GPS	1	5	0.0	0.2	4.0	2.0	1.00	0.50	0.0	0.00	20.01	0	4
18.0	PCTEL GPS-TMG-HR-26N	1	1	0.1	0.4	3.2	3.2	1.00	1.00	0.0	0.00	19.99	2	1
	Totals	182	16,719	1129.5									18,964	15,047

TOWER LOADING

Discrete Appurtenance Properties 1.2D + 1.0Di + 1.0Wi

Elev (ft)	Description	Qty	Ice Wt (lb)	Ice EPA (sf)	Length (ft)	Width (in)	Depth (in)	K_a	Orient Factor	Vert Ecc (ft)	M_u (lb-ft)	Q_z (psf)	F_a (WL) (lb)	P_a (DL) (lb)
184.0	Kaelus DBC0061F1V51-2	6	38	0.7	0.7	6.5	6.2	0.80	0.50	1.0	9.40	6.25	9	259
184.0	Powerwave Allgon LGP21401	6	31	1.6	1.2	9.2	2.6	0.80	0.50	1.0	20.24	6.25	20	203
184.0	Raycap DC6-48-60-18-8F ("Squid	1	74	1.9	2.0	11.0	11.0	0.80	1.00	1.0	8.26	6.25	8	80
184.0	Ericsson RRUS 4478 B14	3	97	2.4	1.4	13.4	7.7	0.80	0.50	0.0	0.00	6.24	16	328
184.0	Ericsson RRUS 4449 B5, B12	3	115	2.6	1.5	13.2	9.4	0.80	0.50	0.0	0.00	6.24	17	386
184.0	Raycap DC6-48-60-18-8C	2	55	2.5	1.7	18.2	6.4	0.80	0.50	1.0	10.81	6.25	11	117
184.0	Ericsson RRUS 32 B30 (53 lbs)	3	103	3.5	2.3	12.1	7.0	0.80	0.50	1.0	22.54	6.25	23	340
184.0	Ericsson RRUS 32 B2	3	103	3.5	2.3	12.1	7.0	0.80	0.50	1.0	22.54	6.25	23	340
184.0	Powerwave Allgon 7770.00	3	112	6.9	4.6	11.0	5.0	0.80	0.65	2.0	115.34	6.26	58	357
184.0	Quintel QS66512-2	2	246	10.0	6.0	12.0	9.6	0.80	0.80	1.0	68.15	6.25	68	536
184.0	CCI DMP65R-BU6DA	2	254	14.6	5.9	20.7	7.7	0.80	0.72	0.0	0.00	6.24	89	539
184.0	CCI OPA65R-BU6D	2	240	14.8	5.9	21.0	7.8	0.80	0.72	0.0	0.00	6.24	90	505
184.0	CCI TPA-65R-LCUUUU-H8	1	269	15.8	8.0	14.4	8.6	0.80	0.80	1.0	53.82	6.25	54	285
184.0	CCI DMP65R-BU8D	1	326	20.4	8.0	20.7	7.7	0.80	0.80	0.0	0.00	6.24	69	345
184.0	CCI OPA65R-BU8D	1	310	20.6	8.0	21.0	7.8	0.80	0.80	0.0	0.00	6.24	70	325
180.0	Generic Round Sector Frame	3	549	25.6	0.0	0.0	0.0	0.75	0.67	0.0	0.00	6.20	203	1826
172.0	Commscope CBC78T-DS-43-2X	3	36	0.9	0.8	6.9	6.4	0.80	0.50	0.0	0.00	6.12	6	119
172.0	Samsung B5/B13 RRH-BR04C	3	109	2.5	1.3	15.0	8.1	0.80	0.50	0.0	0.00	6.12	16	369
172.0	Samsung B2/B66A RRH-BR049	3	128	2.5	1.3	15.0	10.0	0.80	0.50	0.0	0.00	6.12	16	433
172.0	RFS APL868013-42T0	2	66	4.9	4.0	6.0	8.0	0.80	0.79	0.0	0.00	6.12	32	134
172.0	RFS DB-C1-12C-24AB-0Z	1	118	5.0	2.5	16.5	12.6	0.80	0.50	0.0	0.00	6.12	10	124
172.0	RFS DB-C1-12C-24AB-0Z	1	118	5.0	2.5	16.5	12.6	0.80	0.50	0.0	0.00	6.12	10	124
172.0	Andrew DB844G65ZAXY	4	99	5.0	4.0	10.0	8.5	0.80	0.75	2.7	168.00	6.15	62	404

Elev (ft)	Description	Qty	Ice Wt (lb)	Ice EPA (sf)	Length (ft)	Width (in)	Depth (in)	K_a	Orient Factor	Vert Ecc (ft)	M_u (lb-ft)	Q_z (psf)	F_a (WL) (lb)	P_a (DL) (lb)
172.0	Samsung MT6407-77A	3	151	5.7	2.9	16.1	5.5	0.80	0.61	0.0	0.00	6.12	44	501
172.0	Commscope JAHH-65B-R3B	6	197	11.0	6.0	13.8	8.2	0.80	0.69	0.0	0.00	6.12	189	1257
172.0	Generic Round Sector Frame	3	549	25.6	0.0	0.0	0.0	0.75	0.67	0.0	0.00	6.12	201	1826
165.0	Decibel DB844H90-XY	12	21	5.3	4.0	6.5	8.0	0.80	0.73	10.0	1,952.18	6.15	195	281
164.0	Generic Round Sector Frame	3	549	25.6	0.0	0.0	0.0	0.75	0.67	0.0	0.00	6.04	198	1826
160.7	Alcatel-Lucent RRH2x50-08	3	93	2.3	1.3	13.0	9.8	0.80	0.50	3.0	42.20	6.04	14	311
159.9	Alcatel-Lucent 800 MHz RRH	3	102	2.8	1.6	13.0	10.8	0.80	0.50	3.0	51.42	6.03	17	339
158.6	Commscope DT465B-2XR	3	193	10.9	6.0	13.8	8.2	0.80	0.69	3.0	278.08	6.01	93	614
158.5	RFS APXVSPP18-C-A20	3	172	9.9	6.0	11.8	7.0	0.80	0.69	3.0	251.09	6.01	84	551
158.4	Alcatel-Lucent TD-RRH8x20-25 w	3	133	4.9	2.2	18.6	6.7	0.80	0.50	3.0	90.76	6.01	30	441
157.0	Generic Round Sector Frame	3	546	25.5	0.0	0.0	0.0	0.75	0.75	0.0	0.00	5.97	218	1817
156.1	Alcatel-Lucent 1900 MHz 4X45 R	3	114	3.0	2.1	11.1	10.7	0.80	0.50	3.0	55.78	5.99	19	378
148.0	Ericsson Radio 4449 B71 B85A	3	115	2.2	1.3	13.2	10.5	0.80	0.50	0.0	0.00	5.87	13	391
148.0	Ericsson 4460 BAND 2/25	3	168	3.3	1.6	15.7	12.1	0.80	0.50	0.0	0.00	5.87	20	570
148.0	Commscope VV-65A-R1B	3	103	7.3	4.6	12.0	4.6	0.80	0.63	0.0	0.00	5.87	55	323
148.0	Ericsson AIR 6419 B41	3	184	7.5	3.0	20.9	9.0	0.80	0.63	0.0	0.00	5.87	56	603
148.0	RFS APXVAARR24_43-U-NA20	3	390	22.7	8.0	24.0	8.7	0.80	0.63	0.0	0.00	5.87	171	1247
147.0	Perfect Vision PV-SFA12-B Sect	3	868	26.7	0.0	0.0	0.0	0.75	0.67	0.0	0.00	5.85	200	2958
146.0	Sinclair SC479-HF1LDF	1	117	8.5	14.4	3.5	3.5	1.00	1.00	0.0	0.00	5.84	42	124
142.5	Round Side Arm	2	199	7.0	0.0	0.0	0.0	1.00	0.90	0.0	0.00	5.80	62	458
137.0	Andrew Microwaves DB810K-XT	1	107	7.8	14.5	3.0	3.0	1.00	1.00	0.0	0.00	5.74	38	114
136.4	Amphenol Antel WPA-700120-4CF-	1	53	3.7	4.0	5.6	5.6	1.00	0.70	0.0	0.00	5.73	13	54
136.0	Generic Round Sector Frame	2	542	25.3	0.0	0.0	0.0	1.00	0.90	0.0	0.00	5.73	222	1204
135.0	Generic 24" x 24" Ice Shield	1	111	1.4	0.3	24.0	24.0	1.00	1.00	-2.0	13.10	5.69	7	121
134.8	Bird 432E-83I-01-T	1	52	1.7	1.0	12.0	7.5	1.00	0.50	0.0	0.00	5.71	4	57
134.0	Generic 24" x 24" Ice Shield	1	111	1.4	0.3	24.0	24.0	1.00	1.00	-1.0	6.55	5.69	7	121
134.0	Sinclair SE419-SF3P4LDF	2	122	11.7	8.6	2.9	8.5	1.00	1.00	0.0	0.00	5.70	114	253
131.0	Morad VHF 156-DELUXE	1	1	0.4	3.2	0.8	0.8	1.00	1.00	0.0	0.00	5.66	2	1
131.0	Generic Round Side Arm	2	248	7.0	0.0	0.0	0.0	1.00	0.90	0.0	0.00	5.66	61	570
129.8	Sinclair SC479-HF1LDF	3	116	8.4	14.4	3.5	3.5	1.00	1.00	-4.0	480.51	5.60	120	368
129.0	RFS PA6-65AC	1	589	50.1	6.0	72.0	0.0	1.00	1.00	0.0	0.00	5.64	240	645
128.0	RFS PA6-65AC	1	589	50.1	6.0	72.0	0.0	1.00	1.00	0.0	0.00	5.63	240	645
127.0	Bird 432-83H-01-T	1	54	1.9	1.2	12.0	7.0	1.00	0.50	0.0	0.00	5.61	5	59
127.0	Generic Round Side Arm	1	248	7.0	0.0	0.0	0.0	1.00	1.00	0.0	0.00	5.61	33	285
127.0	Allgon 7199 / M-1900-90-19.5I	2	100	7.5	8.5	5.0	3.1	1.00	0.78	0.0	0.00	5.61	56	206
125.0	Sinclair SE419-SF3P4LDF	1	122	11.7	8.6	2.9	8.5	1.00	1.00	0.0	0.00	5.59	56	126
121.0	Generic Round Side Arm	1	247	7.0	0.0	0.0	0.0	1.00	1.00	0.0	0.00	5.54	33	284
120.5	Decibel DB586	1	86	1.1	0.0	0.0	0.0	0.90	0.90	0.0	0.00	5.53	4	97
120.5	Generic Round Side Arm	1	247	7.0	0.0	0.0	0.0	0.90	0.90	0.0	0.00	5.53	27	284
116.8	Morad VHF 156-DELUXE	1	13	0.8	3.3	0.8	0.8	1.00	1.00	0.0	0.00	5.48	4	13
116.8	Morad VHF 156-DELUXE	1	13	0.8	3.3	0.8	0.8	1.00	1.00	0.0	0.00	5.48	4	13
115.5	Decibel DB586	1	86	1.1	0.0	0.0	0.0	1.00	1.00	0.0	0.00	5.46	5	97
115.0	Generic Round Side Arm	2	247	7.0	0.0	0.0	0.0	1.00	0.90	0.0	0.00	5.46	58	568
102.5	Scala OGT9-840	1	80	4.9	11.4	2.0	2.0	1.00	1.00	0.0	0.00	5.28	22	84
100.0	Generic Round Side Arm	1	246	6.9	0.0	0.0	0.0	1.00	1.00	0.0	0.00	5.24	31	283
100.0	Generic Flat Stand-Off	1	272	8.3	0.0	0.0	0.0	1.00	1.00	0.0	0.00	5.24	37	310
97.0	Sinclair SD210D	1	122	11.4	16.0	41.0	4.0	1.00	1.00	0.0	0.00	5.20	51	130
93.6	PCTEL GPS-TMG-HR-26N	1	4	0.2	0.4	3.2	3.2	1.00	1.00	2.0	1.80	5.18	1	4
92.2	Scala OGT9-840	1	80	4.9	11.4	2.0	2.0	1.00	1.00	0.0	0.00	5.12	21	84
91.0	Generic Round Side Arm	1	246	6.9	0.0	0.0	0.0	1.00	1.00	0.0	0.00	5.10	30	283
86.0	Generic Round Side Arm	1	246	6.9	0.0	0.0	0.0	1.00	1.00	0.0	0.00	5.02	30	283
77.6	Andrew DB264-A	1	150	17.7	21.5	0.0	0.0	1.00	1.00	0.0	0.00	4.88	73	158
76.0	Commscope RDIDC-9181-PF-48	1	57	2.4	1.3	14.0	8.0	0.80	0.50	0.0	0.00	4.85	4	62
76.0	Fujitsu TA08025-B604	3	100	2.5	1.3	15.0	7.9	0.80	0.50	0.0	0.00	4.85	13	338
76.0	Fujitsu TA08025-B605	3	114	2.5	1.3	15.0	9.1	0.80	0.50	0.0	0.00	4.85	13	386
76.0	JMA Wireless MX08FRO665-21	3	224	14.2	6.0	20.0	8.0	0.80	0.64	0.0	0.00	4.85	90	710
76.0	Generic Round Sector Frame	3	528	24.6	0.0	0.0	0.0	0.75	0.75	0.0	0.00	4.85	171	1763
30.0	Generic 2" x 4" GPS	1	6	0.1	0.2	4.0	2.0	1.00	0.50	0.0	0.00	3.72	0	7
18.0	PCTEL GPS-TMG-HR-26N	1	3	0.2	0.4	3.2	3.2	1.00	1.00	0.0	0.00	3.71	1	3
	Totals	182	33,026	1557.4									4836	36,370

TOWER LOADING

Discrete Appurtenance Properties 1.0D + 1.0W Service

Elev (ft)	Description	Qty	Wt. (lb)	EPA (sf)	Length (ft)	Width (in)	Depth (in)	K_a	Orient Factor	Vert Ecc (ft)	M_u (lb-ft)	Q_z (psf)	F_a (WL) (lb)	P_a (DL) (lb)
184.0	Kaelus DBC0061F1V51-2	6	26	0.4	0.7	6.5	6.2	0.80	0.50	1.0	7.95	9.00	8	153
184.0	Powerwave Allgon LGP21401	6	14	1.1	1.2	9.2	2.6	0.80	0.50	1.0	20.28	9.00	20	85
184.0	Raycap DC6-48-60-18-8F ("Squid	1	32	1.5	2.0	11.0	11.0	0.80	1.00	1.0	9.00	9.00	9	32
184.0	Ericsson RRUS 4478 B14	3	60	1.8	1.4	13.4	7.7	0.80	0.50	0.0	0.00	8.99	17	180
184.0	Ericsson RRUS 4449 B5, B12	3	71	2.0	1.5	13.2	9.4	0.80	0.50	0.0	0.00	8.99	18	213
184.0	Raycap DC6-48-60-18-8C	2	16	2.0	1.7	18.2	6.4	0.80	0.50	1.0	12.43	9.00	12	32
184.0	Ericsson RRUS 32 B30 (53 lbs)	3	53	2.7	2.3	12.1	7.0	0.80	0.50	1.0	25.19	9.00	25	159
184.0	Ericsson RRUS 32 B2	3	53	2.7	2.3	12.1	7.0	0.80	0.50	1.0	25.19	9.00	25	159
184.0	Powerwave Allgon 7770.00	3	35	5.5	4.6	11.0	5.0	0.80	0.65	2.0	131.71	9.02	66	105
184.0	Quintel QS66512-2	2	111	8.1	6.0	12.0	9.6	0.80	0.80	1.0	79.66	9.00	80	222
184.0	CCI DMP65R-BU6DA	2	79	12.7	5.9	20.7	7.7	0.80	0.72	0.0	0.00	8.99	112	159
184.0	CCI OPA65R-BU6D	2	63	12.9	5.9	21.0	7.8	0.80	0.72	0.0	0.00	8.99	113	126
184.0	CCI TPA-65R-LCUUUU-H8	1	82	13.3	8.0	14.4	8.6	0.80	0.80	1.0	65.13	9.00	65	82
184.0	CCI DMP65R-BU8D	1	96	17.9	8.0	20.7	7.7	0.80	0.80	0.0	0.00	8.99	87	96
184.0	CCI OPA65R-BU8D	1	77	18.1	8.0	21.0	7.8	0.80	0.80	0.0	0.00	8.99	88	76
180.0	Generic Round Sector Frame	3	300	14.4	0.0	0.0	0.0	0.75	0.67	0.0	0.00	8.93	165	900
172.0	Commscope CBC78T-DS-43-2X	3	21	0.6	0.8	6.9	6.4	0.80	0.50	0.0	0.00	8.82	5	62
172.0	Samsung B5/B13 RRH-BR04C	3	70	1.9	1.3	15.0	8.1	0.80	0.50	0.0	0.00	8.82	17	211
172.0	Samsung B2/B66A RRH-BR049	3	84	1.9	1.3	15.0	10.0	0.80	0.50	0.0	0.00	8.82	17	253
172.0	RFS APL868013-42T0	2	6	3.6	4.0	6.0	8.0	0.80	0.79	0.0	0.00	8.82	34	13
172.0	RFS DB-C1-12C-24AB-0Z	1	32	4.1	2.5	16.5	12.6	0.80	0.50	0.0	0.00	8.82	12	32
172.0	RFS DB-C1-12C-24AB-0Z	1	32	4.1	2.5	16.5	12.6	0.80	0.50	0.0	0.00	8.82	12	32
172.0	Andrew DB844G65ZAXY	4	12	4.3	4.0	10.0	8.5	0.80	0.75	2.7	211.76	8.86	78	48
172.0	Samsung MT6407-77A	3	82	4.7	2.9	16.1	5.5	0.80	0.61	0.0	0.00	8.82	52	245
172.0	Commscope JAHH-65B-R3B	6	61	9.1	6.0	13.8	8.2	0.80	0.69	0.0	0.00	8.82	226	364
172.0	Generic Round Sector Frame	3	300	14.4	0.0	0.0	0.0	0.75	0.67	0.0	0.00	8.82	163	900
165.0	Decibel DB844H90-XY	12	14	3.6	4.0	6.5	8.0	0.80	0.73	10.0	1,910.72	8.86	191	168
164.0	Generic Round Sector Frame	3	300	14.4	0.0	0.0	0.0	0.75	0.67	0.0	0.00	8.70	160	900
160.7	Alcatel-Lucent RRH2x50-08	3	53	1.7	1.3	13.0	9.8	0.80	0.50	3.0	45.25	8.69	15	159
159.9	Alcatel-Lucent 800 MHz RRH	3	53	2.1	1.6	13.0	10.8	0.80	0.50	3.0	56.69	8.68	19	159
158.6	Commscope DT465B-2XR	3	58	9.1	6.0	13.8	8.2	0.80	0.69	3.0	332.76	8.66	111	174
158.5	RFS APXVSPP18-C-A20	3	57	8.0	6.0	11.8	7.0	0.80	0.69	3.0	293.43	8.66	98	171
158.4	Alcatel-Lucent TD-RRH8x20-25 w	3	70	4.0	2.2	18.6	6.7	0.80	0.50	3.0	107.20	8.66	36	210
157.0	Generic Round Sector Frame	3	300	14.4	0.0	0.0	0.0	0.75	0.75	0.0	0.00	8.59	177	900
156.1	Alcatel-Lucent 1900 MHz 4X45 R	3	60	2.3	2.1	11.1	10.7	0.80	0.50	3.0	61.27	8.62	20	180
148.0	Ericsson Radio 4449 B71 B85A	3	75	1.6	1.3	13.2	10.5	0.80	0.50	0.0	0.00	8.45	14	225
148.0	Ericsson 4460 BAND 2/25	3	109	2.6	1.6	15.7	12.1	0.80	0.50	0.0	0.00	8.45	22	327
148.0	Commscope VV-65A-R1B	3	25	5.9	4.6	12.0	4.6	0.80	0.63	0.0	0.00	8.45	64	74
148.0	Ericsson AIR 6419 B41	3	83	6.3	3.0	20.9	9.0	0.80	0.63	0.0	0.00	8.45	69	250
148.0	RFS APXVAARR24_43-U-NA20	3	128	20.2	8.0	24.0	8.7	0.80	0.63	0.0	0.00	8.45	220	384
147.0	Perfect Vision PV-SFA12-B Sect	3	592	18.2	0.0	0.0	0.0	0.75	0.67	0.0	0.00	8.43	197	1776
146.0	Sinclair SC479-HF1LDF	1	34	5.0	14.4	3.5	3.5	1.00	1.00	0.0	0.00	8.41	36	34
142.5	Round Side Arm	2	150	5.2	0.0	0.0	0.0	1.00	0.90	0.0	0.00	8.36	66	300
137.0	Andrew Microwaves DB810K-XT	1	35	4.4	14.5	3.0	3.0	1.00	1.00	0.0	0.00	8.26	31	35
136.4	Amphenol Antel WPA-700120-4CF-	1	7	2.7	4.0	5.6	5.6	1.00	0.70	0.0	0.00	8.25	13	7
136.0	Generic Round Sector Frame	2	300	14.4	0.0	0.0	0.0	1.00	0.90	0.0	0.00	8.24	182	600
135.0	Generic 24" x 24" Ice Shield	1	50	0.8	0.3	24.0	24.0	1.00	1.00	-2.0	11.14	8.19	6	50
134.8	Bird 432E-83I-01-T	1	25	1.2	1.0	12.0	7.5	1.00	0.50	0.0	0.00	8.22	4	25
134.0	Generic 24" x 24" Ice Shield	1	50	0.8	0.3	24.0	24.0	1.00	1.00	-1.0	5.57	8.19	6	50
134.0	Sinclair SE419-SF3P4LDF	2	24	9.5	8.6	2.9	8.5	1.00	1.00	0.0	0.00	8.21	133	48
131.0	Morad VHF 156-DELUXE	1	1	0.3	3.2	0.8	0.8	1.00	1.00	0.0	0.00	8.16	2	1
131.0	Generic Round Side Arm	2	188	5.2	0.0	0.0	0.0	1.00	0.90	0.0	0.00	8.16	65	375
129.8	Sinclair SC479-HF1LDF	3	34	5.0	14.4	3.5	3.5	1.00	1.00	-4.0	413.70	8.06	103	102
129.0	RFS PA6-65AC	1	278	47.0	6.0	72.0	0.0	1.00	1.00	0.0	0.00	8.12	325	278
128.0	RFS PA6-65AC	1	278	47.0	6.0	72.0	0.0	1.00	1.00	0.0	0.00	8.10	324	278
127.0	Bird 432-83H-01-T	1	25	1.4	1.2	12.0	7.0	1.00	0.50	0.0	0.00	8.09	5	25
127.0	Generic Round Side Arm	1	188	5.2	0.0	0.0	0.0	1.00	1.00	0.0	0.00	8.09	36	188
127.0	Allgon 7199 / M-1900-90-19.5I	2	18	6.6	8.5	5.0	3.1	1.00	0.78	0.0	0.00	8.09	70	35
125.0	Sinclair SE419-SF3P4LDF	1	24	9.5	8.6	2.9	8.5	1.00	1.00	0.0	0.00	8.05	65	24
121.0	Generic Round Side Arm	1	188	5.2	0.0	0.0	0.0	1.00	1.00	0.0	0.00	7.97	35	188
120.5	Decibel DB586	1	59	0.7	0.0	0.0	0.0	0.90	0.90	0.0	0.00	7.96	4	59
120.5	Generic Round Side Arm	1	188	5.2	0.0	0.0	0.0	0.90	0.90	0.0	0.00	7.96	29	188
116.8	Morad VHF 156-DELUXE	1	1	0.3	3.3	0.8	0.8	1.00	1.00	0.0	0.00	7.89	2	1
116.8	Morad VHF 156-DELUXE	1	1	0.3	3.3	0.8	0.8	1.00	1.00	0.0	0.00	7.89	2	1
115.5	Decibel DB586	1	59	0.7	0.0	0.0	0.0	1.00	1.00	0.0	0.00	7.87	5	59
115.0	Generic Round Side Arm	2	188	5.2	0.0	0.0	0.0	1.00	0.90	0.0	0.00	7.86	63	375
102.5	Scala OGT9-840	1	19	2.3	11.4	2.0	2.0	1.00	1.00	0.0	0.00	7.60	15	18
100.0	Generic Round Side Arm	1	188	5.2	0.0	0.0	0.0	1.00	1.00	0.0	0.00	7.55	33	188
100.0	Generic Flat Stand-Off	1	188	6.3	0.0	0.0	0.0	1.00	1.00	0.0	0.00	7.55	40	188
97.0	Sinclair SD210D	1	40	4.4	16.0	41.0	4.0	1.00	1.00	0.0	0.00	7.49	28	40

Elev (ft)	Description	Qty	Wt. (lb)	EPA (sf)	Length (ft)	Width (in)	Depth (in)	K_a	Orient Factor	Vert E_{cc} (ft)	M_u (lb-ft)	Q_z (psf)	F_a (WL) (lb)	P_a (DL) (lb)
93.6	PCTEL GPS-TMG-HR-26N	1	1	0.1	0.4	3.2	3.2	1.00	1.00	2.0	1.14	7.46	1	1
92.2	Scala OGT9-840	1	19	2.3	11.4	2.0	2.0	1.00	1.00	0.0	0.00	7.38	14	18
91.0	Generic Round Side Arm	1	188	5.2	0.0	0.0	0.0	1.00	1.00	0.0	0.00	7.35	32	188
86.0	Generic Round Side Arm	1	188	5.2	0.0	0.0	0.0	1.00	1.00	0.0	0.00	7.23	32	188
77.6	Andrew DB264-A	1	36	5.9	21.5	0.0	0.0	1.00	1.00	0.0	0.00	7.02	35	36
76.0	Commscope RDIDC-9181-PF-48	1	22	1.9	1.3	14.0	8.0	0.80	0.50	0.0	0.00	6.98	4	22
76.0	Fujitsu TA08025-B604	3	64	2.0	1.3	15.0	7.9	0.80	0.50	0.0	0.00	6.98	14	192
76.0	Fujitsu TA08025-B605	3	75	2.0	1.3	15.0	9.1	0.80	0.50	0.0	0.00	6.98	14	225
76.0	JMA Wireless MX08FRO665-21	3	65	12.5	6.0	20.0	8.0	0.80	0.64	0.0	0.00	6.98	114	194
76.0	Generic Round Sector Frame	3	300	14.4	0.0	0.0	0.0	0.75	0.75	0.0	0.00	6.98	144	900
30.0	Generic 2" x 4" GPS	1	5	0.0	0.2	4.0	2.0	1.00	0.50	0.0	0.00	5.35	0	5
18.0	PCTEL GPS-TMG-HR-26N	1	1	0.1	0.4	3.2	3.2	1.00	1.00	0.0	0.00	5.35	0	1
	Totals	182	16,719	1129.5									5,074	16,719

TOWER LOADING

Linear Appurtenance Properties

Elev From (ft)	Elev To (ft)	Description	Qty	Width (in)	Weight (lb/ft)	% In Wind	Spread On Faces	Bundling	Cluster Dia (in)	Out of Zone	Spacing (in)	Orient Factor	K_a Override
0.0	184.0	2" conduit	2	2.38	3.65	100	1	Individual	0.00	N	1.00	1.00	0.00
0.0	184.0	0.78" (19.7mm) 8 AWG 6	2	0.78	0.59	100	1	Individual	0.00	N	1.00	1.00	0.00
0.0	184.0	0.39" (10mm) Fiber Trunk	3	0.39	0.06	100	1	Individual	0.00	N	1.00	1.00	0.01
0.0	184.0	0.78" (19.7mm) 8 AWG 6	4	0.78	0.59	50	1	Block	0.00	N	1.00	1.00	0.01
0.0	184.0	0.78" (19.7mm) 8 AWG 6	2	0.78	0.59	100	1	Individual	0.00	N	1.00	1.00	0.01
0.0	184.0	1 1/4" Coax	12	1.55	0.63	50	1	Block	0.00	N	1.00	1.00	0.00
0.0	180.0	Waveguide	1	2.00	6.00	100	1	Individual	0.00	N	1.00	1.00	0.00
0.0	172.0	1 5/8" Coax	12	1.98	0.82	50	3	Block	0.00	N	1.00	1.00	0.00
0.0	172.0	Waveguide	1	2.00	6.00	100	3	Individual	0.00	N	1.00	1.00	0.00
0.0	172.0	1 5/8" Hybriflex	2	1.98	1.30	100	3	Individual	0.00	N	1.00	1.00	0.01
0.0	164.0	Waveguide	1	2.00	6.00	100	2	Individual	0.00	N	1.00	1.00	0.00
0.0	159.0	1 1/4" Hybriflex Cable	4	1.54	1.00	100	2	Individual	0.00	N	1.00	1.00	0.00
0.0	148.0	1 1/4" Hybriflex Cable	2	1.54	1.00	100	1	Individual	0.00	N	1.00	1.00	0.00
0.0	148.0	1.99" (50.7mm) Hybrid	2	1.99	1.90	100	1	Individual	0.00	N	1.00	1.00	0.00
0.0	147.0	Waveguide	1	2.00	6.00	100	1	Individual	0.00	N	1.00	1.00	0.00
0.0	143.0	1 5/8" Coax	2	1.98	0.82	100	1	Individual	0.00	N	1.00	1.00	0.00
0.0	142.5	Waveguide	1	2.00	6.00	100	1	Individual	0.00	N	1.00	1.00	0.00
0.0	137.0	1 5/8" Coax	1	1.98	0.82	100	1	Individual	0.00	N	1.00	1.00	0.00
0.0	135.0	1/2" Coax	1	0.63	0.15	100	1	Individual	0.00	N	1.00	1.00	0.00
0.0	134.0	1 5/8" Coax	2	1.98	0.82	100	1	Individual	0.00	N	1.00	1.00	0.00
0.0	129.0	EW63	1	2.01	0.51	100	1	Individual	0.00	N	1.00	1.00	0.01
0.0	128.0	EW63	1	2.01	0.51	100	1	Individual	0.00	N	1.00	1.00	0.01
0.0	127.0	3/8" Coax	1	0.44	0.08	100	1	Individual	0.00	N	1.00	1.00	0.01
0.0	125.0	1 5/8" Coax	1	1.98	0.82	100	1	Individual	0.00	N	1.00	1.00	0.00
0.0	122.0	1 5/8" Coax	3	1.98	0.82	100	1	Individual	0.00	N	1.00	1.00	0.00
0.0	120.5	7/8" Coax	1	1.09	0.33	100	1	Individual	0.00	N	1.00	1.00	0.00
0.0	117.0	1/2" Coax	1	0.63	0.15	100	1	Individual	0.00	N	1.00	1.00	0.01
0.0	115.5	7/8" Coax	1	1.09	0.33	100	1	Individual	0.00	N	1.00	1.00	0.00
0.0	97.0	7/8" Coax	2	1.09	0.33	100	1	Individual	0.00	N	1.00	1.00	0.00
0.0	94.0	1/2" Coax	1	0.63	0.15	100	2	Individual	0.00	N	1.00	1.00	0.00
0.0	78.0	7/8" Coax	1	1.09	0.33	100	1	Individual	0.00	N	1.00	1.00	0.00
0.0	76.0	1.75" (44.5mm) Hybrid	1	1.75	2.72	100	2	Individual	0.00	N	1.00	1.00	0.00
0.0	30.0	1/2" Coax	1	0.63	0.15	100	3	Individual	0.00	N	1.00	1.00	0.00

SECTION FORCES

1.2D + 1.0W Normal — Gust Response Factor (Gh): 0.85
116 mph wind with no ice — Wind Importance Factor (Iw): 1.00

Sect #	Elev (ft)	Q_z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt. (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
9	170	32.85	12.020	9.583	0.00	0.156	2.75	1.00	1.00	0.0	17.47	48.00	0.00	1960	0	1340	1440	2780
8	150	31.69	12.895	11.688	0.00	0.153	2.76	1.00	1.00	0.0	19.53	53.89	0.00	2891	0	1452	2144	3595
7	130	30.42	14.333	15.027	0.00	0.144	2.79	1.00	1.00	0.0	22.57	63.03	0.00	3967	0	1630	2649	4279
6	110	29.01	19.684	18.574	0.00	0.156	2.75	1.00	1.00	0.0	29.28	80.56	0.00	4889	0	1986	2835	4821
5	90	27.39	22.335	18.575	0.00	0.143	2.80	1.00	1.00	0.0	32.01	89.55	0.00	5096	0	2085	2748	4833
4	70	25.49	21.229	22.120	0.00	0.132	2.84	1.00	1.00	0.0	32.10	91.10	0.00	5660	0	1974	2633	4607
3	50	23.15	26.584	22.126	0.00	0.132	2.84	1.00	1.00	0.0	37.81	107.37	0.00	6059	0	2113	2402	4515
2	30	20.01	28.860	28.798	0.00	0.139	2.81	1.00	1.00	0.0	41.69	117.24	0.00	6559	0	1994	2082	4076
1	10	19.99	31.267	28.798	0.00	0.132	2.84	1.00	1.00	0.0	43.07	122.24	0.00	7290	0	2077	2087	4164
														44,372	0			37,671

1.2D + 1.0W 60° — Gust Response Factor (Gh): 0.85
116 mph wind with no ice — Wind Importance Factor (Iw): 1.00

Sect #	Elev (ft)	Q_z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt. (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
9	170	32.85	12.020	9.583	0.00	0.156	2.75	0.80	1.00	0.0	15.06	41.39	0.00	1960	0	1156	1440	2596
8	150	31.69	12.895	11.688	0.00	0.153	2.76	0.80	1.00	0.0	16.95	46.78	0.00	2891	0	1260	2144	3404
7	130	30.42	14.333	15.027	0.00	0.144	2.79	0.80	1.00	0.0	19.70	55.03	0.00	3967	0	1423	2649	4072
6	110	29.01	19.684	18.574	0.00	0.156	2.75	0.80	1.00	0.0	25.35	69.73	0.00	4889	0	1719	2835	4554
5	90	27.39	22.335	18.575	0.00	0.143	2.80	0.80	1.00	0.0	27.54	77.06	0.00	5096	0	1794	2748	4542
4	70	25.49	21.229	22.120	0.00	0.132	2.84	0.80	1.00	0.0	27.85	79.05	0.00	5660	0	1713	2633	4345
3	50	23.15	26.584	22.126	0.00	0.132	2.84	0.80	1.00	0.0	32.49	92.27	0.00	6059	0	1816	2402	4218
2	30	20.01	28.860	28.798	0.00	0.139	2.81	0.80	1.00	0.0	35.92	101.01	0.00	6559	0	1718	2082	3800
1	10	19.99	31.267	28.798	0.00	0.132	2.84	0.80	1.00	0.0	37.77	107.19	0.00	7290	0	1822	2087	3909
														44,372	0			35,440

1.2D + 1.0W 90° — Gust Response Factor (Gh): 0.85
116 mph wind with no ice — Wind Importance Factor (Iw): 1.00

Sect #	Elev (ft)	Q_z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt. (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
9	170	32.85	12.020	9.583	0.00	0.156	2.75	0.85	1.00	0.0	15.66	43.04	0.00	1960	0	1202	1440	2642
8	150	31.69	12.895	11.688	0.00	0.153	2.76	0.85	1.00	0.0	17.60	48.56	0.00	2891	0	1308	2144	3452
7	130	30.42	14.333	15.027	0.00	0.144	2.79	0.85	1.00	0.0	20.42	57.03	0.00	3967	0	1475	2649	4124
6	110	29.01	19.684	18.574	0.00	0.156	2.75	0.85	1.00	0.0	26.33	72.44	0.00	4889	0	1786	2835	4621
5	90	27.39	22.335	18.575	0.00	0.143	2.80	0.85	1.00	0.0	28.66	80.18	0.00	5096	0	1867	2748	4614
4	70	25.49	21.229	22.120	0.00	0.132	2.84	0.85	1.00	0.0	28.91	82.06	0.00	5660	0	1778	2633	4411
3	50	23.15	26.584	22.126	0.00	0.132	2.84	0.85	1.00	0.0	33.82	96.04	0.00	6059	0	1890	2402	4292
2	30	20.01	28.860	28.798	0.00	0.139	2.81	0.85	1.00	0.0	37.36	105.06	0.00	6559	0	1787	2082	3869
1	10	19.99	31.267	28.798	0.00	0.132	2.84	0.85	1.00	0.0	39.33	111.62	0.00	7290	0	1897	2087	3984
														44,372	0			36,010

1.2D + 1.0W 120° — Gust Response Factor (Gh): 0.85
116 mph wind with no ice — Wind Importance Factor (Iw): 1.00

Sect #	Elev (ft)	Q_z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt. (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
9	170	32.85	12.020	9.583	0.00	0.156	2.75	1.00	1.00	0.0	17.47	48.00	0.00	1960	0	1340	1440	2780
8	150	31.69	12.895	11.688	0.00	0.153	2.76	1.00	1.00	0.0	19.53	53.89	0.00	2891	0	1452	2144	3595
7	130	30.42	14.333	15.027	0.00	0.144	2.79	1.00	1.00	0.0	22.57	63.03	0.00	3967	0	1630	2649	4279
6	110	29.01	19.684	18.574	0.00	0.156	2.75	1.00	1.00	0.0	29.28	80.56	0.00	4889	0	1986	2835	4821
5	90	27.39	22.335	18.575	0.00	0.143	2.80	1.00	1.00	0.0	32.01	89.55	0.00	5096	0	2085	2748	4833

SECTION FORCES

Sect #	Elev (ft)	Q_Z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt. (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
4	70	25.49	21.229	22.120	0.00	0.132	2.84	1.00	1.00	0.0	32.10	91.10	0.00	5660	0	1974	2633	4607
3	50	23.15	26.584	22.126	0.00	0.132	2.84	1.00	1.00	0.0	37.81	107.37	0.00	6059	0	2113	2402	4515
2	30	20.01	28.860	28.798	0.00	0.139	2.81	1.00	1.00	0.0	41.69	117.24	0.00	6559	0	1994	2082	4076
1	10	19.99	31.267	28.798	0.00	0.132	2.84	1.00	1.00	0.0	44.02	124.93	0.00	7290	0	2123	2087	4210
														44,372	0			37,717

1.2D + 1.0W 180° Gust Response Factor (Gh): 0.85
116 mph wind with no ice Wind Importance Factor (Iw): 1.00

Sect #	Elev (ft)	Q_Z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt. (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
9	170	32.85	12.020	9.583	0.00	0.156	2.75	0.80	1.00	0.0	15.06	41.39	0.00	1960	0	1156	1440	2596
8	150	31.69	12.895	11.688	0.00	0.153	2.76	0.80	1.00	0.0	16.95	46.78	0.00	2891	0	1260	2144	3404
7	130	30.42	14.333	15.027	0.00	0.144	2.79	0.80	1.00	0.0	19.70	55.03	0.00	3967	0	1423	2649	4072
6	110	29.01	19.684	18.574	0.00	0.156	2.75	0.80	1.00	0.0	25.35	69.73	0.00	4889	0	1719	2835	4554
5	90	27.39	22.335	18.575	0.00	0.143	2.80	0.80	1.00	0.0	27.54	77.06	0.00	5096	0	1794	2748	4542
4	70	25.49	21.229	22.120	0.00	0.132	2.84	0.80	1.00	0.0	27.85	79.05	0.00	5660	0	1713	2633	4345
3	50	23.15	26.584	22.126	0.00	0.132	2.84	0.80	1.00	0.0	32.49	92.27	0.00	6059	0	1816	2402	4218
2	30	20.01	28.860	28.798	0.00	0.139	2.81	0.80	1.00	0.0	35.92	101.01	0.00	6559	0	1718	2082	3800
1	10	19.99	31.267	28.798	0.00	0.132	2.84	0.80	1.00	0.0	37.77	107.19	0.00	7290	0	1822	2087	3909
														44,372	0			35,440

1.2D + 1.0W 210° Gust Response Factor (Gh): 0.85
116 mph wind with no ice Wind Importance Factor (Iw): 1.00

Sect #	Elev (ft)	Q_Z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt. (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
9	170	32.85	12.020	9.583	0.00	0.156	2.75	0.85	1.00	0.0	15.66	43.04	0.00	1960	0	1202	1440	2642
8	150	31.69	12.895	11.688	0.00	0.153	2.76	0.85	1.00	0.0	17.60	48.56	0.00	2891	0	1308	2144	3452
7	130	30.42	14.333	15.027	0.00	0.144	2.79	0.85	1.00	0.0	20.42	57.03	0.00	3967	0	1475	2649	4124
6	110	29.01	19.684	18.574	0.00	0.156	2.75	0.85	1.00	0.0	26.33	72.44	0.00	4889	0	1786	2835	4621
5	90	27.39	22.335	18.575	0.00	0.143	2.80	0.85	1.00	0.0	28.66	80.18	0.00	5096	0	1867	2748	4614
4	70	25.49	21.229	22.120	0.00	0.132	2.84	0.85	1.00	0.0	28.91	82.06	0.00	5660	0	1778	2633	4411
3	50	23.15	26.584	22.126	0.00	0.132	2.84	0.85	1.00	0.0	33.82	96.04	0.00	6059	0	1890	2402	4292
2	30	20.01	28.860	28.798	0.00	0.139	2.81	0.85	1.00	0.0	37.36	105.06	0.00	6559	0	1787	2082	3869
1	10	19.99	31.267	28.798	0.00	0.132	2.84	0.85	1.00	0.0	39.33	111.62	0.00	7290	0	1897	2087	3984
														44,372	0			36,010

1.2D + 1.0W 240° Gust Response Factor (Gh): 0.85
116 mph wind with no ice Wind Importance Factor (Iw): 1.00

Sect #	Elev (ft)	Q_Z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt. (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
9	170	32.85	12.020	9.583	0.00	0.156	2.75	1.00	1.00	0.0	17.47	48.00	0.00	1960	0	1340	1440	2780
8	150	31.69	12.895	11.688	0.00	0.153	2.76	1.00	1.00	0.0	19.53	53.89	0.00	2891	0	1452	2144	3595
7	130	30.42	14.333	15.027	0.00	0.144	2.79	1.00	1.00	0.0	22.57	63.03	0.00	3967	0	1630	2649	4279
6	110	29.01	19.684	18.574	0.00	0.156	2.75	1.00	1.00	0.0	29.28	80.56	0.00	4889	0	1986	2835	4821
5	90	27.39	22.335	18.575	0.00	0.143	2.80	1.00	1.00	0.0	32.01	89.55	0.00	5096	0	2085	2748	4833
4	70	25.49	21.229	22.120	0.00	0.132	2.84	1.00	1.00	0.0	32.10	91.10	0.00	5660	0	1974	2633	4607
3	50	23.15	26.584	22.126	0.00	0.132	2.84	1.00	1.00	0.0	37.81	107.37	0.00	6059	0	2113	2402	4515
2	30	20.01	28.860	28.798	0.00	0.139	2.81	1.00	1.00	0.0	41.69	117.24	0.00	6559	0	1994	2082	4076
1	10	19.99	31.267	28.798	0.00	0.132	2.84	1.00	1.00	0.0	44.02	124.93	0.00	7290	0	2123	2087	4210
														44,372	0			37,717

1.2D + 1.0W 300° Gust Response Factor (Gh): 0.85
116 mph wind with no ice Wind Importance Factor (Iw): 1.00

SECTION FORCES

Sect #	Elev (ft)	Q_Z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt. (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
9	170	32.85	12.020	9.583	0.00	0.156	2.75	0.80	1.00	0.0	15.06	41.39	0.00	1960	0	1156	1440	2596
8	150	31.69	12.895	11.688	0.00	0.153	2.76	0.80	1.00	0.0	16.95	46.78	0.00	2891	0	1260	2144	3404
7	130	30.42	14.333	15.027	0.00	0.144	2.79	0.80	1.00	0.0	19.70	55.03	0.00	3967	0	1423	2649	4072
6	110	29.01	19.684	18.574	0.00	0.156	2.75	0.80	1.00	0.0	25.35	69.73	0.00	4889	0	1719	2835	4554
5	90	27.39	22.335	18.575	0.00	0.143	2.80	0.80	1.00	0.0	27.54	77.06	0.00	5096	0	1794	2748	4542
4	70	25.49	21.229	22.120	0.00	0.132	2.84	0.80	1.00	0.0	27.85	79.05	0.00	5660	0	1713	2633	4345
3	50	23.15	26.584	22.126	0.00	0.132	2.84	0.80	1.00	0.0	32.49	92.27	0.00	6059	0	1816	2402	4218
2	30	20.01	28.860	28.798	0.00	0.139	2.81	0.80	1.00	0.0	35.92	101.01	0.00	6559	0	1718	2082	3800
1	10	19.99	31.267	28.798	0.00	0.132	2.84	0.80	1.00	0.0	37.77	107.19	0.00	7290	0	1822	2087	3909
														44,372	0			35,440

1.2D + 1.0W 330° Gust Response Factor (Gh): 0.85
116 mph wind with no ice Wind Importance Factor (Iw): 1.00

Sect #	Elev (ft)	Q_Z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt. (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
9	170	32.85	12.020	9.583	0.00	0.156	2.75	0.85	1.00	0.0	15.66	43.04	0.00	1960	0	1202	1440	2642
8	150	31.69	12.895	11.688	0.00	0.153	2.76	0.85	1.00	0.0	17.60	48.56	0.00	2891	0	1308	2144	3452
7	130	30.42	14.333	15.027	0.00	0.144	2.79	0.85	1.00	0.0	20.42	57.03	0.00	3967	0	1475	2649	4124
6	110	29.01	19.684	18.574	0.00	0.156	2.75	0.85	1.00	0.0	26.33	72.44	0.00	4889	0	1786	2835	4621
5	90	27.39	22.335	18.575	0.00	0.143	2.80	0.85	1.00	0.0	28.66	80.18	0.00	5096	0	1867	2748	4614
4	70	25.49	21.229	22.120	0.00	0.132	2.84	0.85	1.00	0.0	28.91	82.06	0.00	5660	0	1778	2633	4411
3	50	23.15	26.584	22.126	0.00	0.132	2.84	0.85	1.00	0.0	33.82	96.04	0.00	6059	0	1890	2402	4292
2	30	20.01	28.860	28.798	0.00	0.139	2.81	0.85	1.00	0.0	37.36	105.06	0.00	6559	0	1787	2082	3869
1	10	19.99	31.267	28.798	0.00	0.132	2.84	0.85	1.00	0.0	39.33	111.62	0.00	7290	0	1897	2087	3984
														44,372	0			36,010

0.9D + 1.0W Normal Gust Response Factor (Gh): 0.85
116 mph wind with no ice Wind Importance Factor (Iw): 1.00

Sect #	Elev (ft)	Q_Z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt. (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
9	170	32.85	12.020	9.583	0.00	0.156	2.75	1.00	1.00	0.0	17.47	48.00	0.00	1470	0	1340	1440	2780
8	150	31.69	12.895	11.688	0.00	0.153	2.76	1.00	1.00	0.0	19.53	53.89	0.00	2169	0	1452	2144	3595
7	130	30.42	14.333	15.027	0.00	0.144	2.79	1.00	1.00	0.0	22.57	63.03	0.00	2975	0	1630	2649	4279
6	110	29.01	19.684	18.574	0.00	0.156	2.75	1.00	1.00	0.0	29.28	80.56	0.00	3667	0	1986	2835	4821
5	90	27.39	22.335	18.575	0.00	0.143	2.80	1.00	1.00	0.0	32.01	89.55	0.00	3822	0	2085	2748	4833
4	70	25.49	21.229	22.120	0.00	0.132	2.84	1.00	1.00	0.0	32.10	91.10	0.00	4245	0	1974	2633	4607
3	50	23.15	26.584	22.126	0.00	0.132	2.84	1.00	1.00	0.0	37.81	107.37	0.00	4545	0	2113	2402	4515
2	30	20.01	28.860	28.798	0.00	0.139	2.81	1.00	1.00	0.0	41.69	117.24	0.00	4920	0	1994	2082	4076
1	10	19.99	31.267	28.798	0.00	0.132	2.84	1.00	1.00	0.0	44.02	124.93	0.00	5467	0	2123	2087	4210
														33,279	0			37,717

0.9D + 1.0W 60° Gust Response Factor (Gh): 0.85
116 mph wind with no ice Wind Importance Factor (Iw): 1.00

Sect #	Elev (ft)	Q_Z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt. (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
9	170	32.85	12.020	9.583	0.00	0.156	2.75	0.80	1.00	0.0	15.06	41.39	0.00	1470	0	1156	1440	2596
8	150	31.69	12.895	11.688	0.00	0.153	2.76	0.80	1.00	0.0	16.95	46.78	0.00	2169	0	1260	2144	3404
7	130	30.42	14.333	15.027	0.00	0.144	2.79	0.80	1.00	0.0	19.70	55.03	0.00	2975	0	1423	2649	4072
6	110	29.01	19.684	18.574	0.00	0.156	2.75	0.80	1.00	0.0	25.35	69.73	0.00	3667	0	1719	2835	4554
5	90	27.39	22.335	18.575	0.00	0.143	2.80	0.80	1.00	0.0	27.54	77.06	0.00	3822	0	1794	2748	4542
4	70	25.49	21.229	22.120	0.00	0.132	2.84	0.80	1.00	0.0	27.85	79.05	0.00	4245	0	1713	2633	4345
3	50	23.15	26.584	22.126	0.00	0.132	2.84	0.80	1.00	0.0	32.49	92.27	0.00	4545	0	1816	2402	4218
2	30	20.01	28.860	28.798	0.00	0.139	2.81	0.80	1.00	0.0	35.92	101.01	0.00	4920	0	1718	2082	3800
1	10	19.99	31.267	28.798	0.00	0.132	2.84	0.80	1.00	0.0	37.77	107.19	0.00	5467	0	1822	2087	3909
														33,279	0			35,440

0.9D + 1.0W 90° Gust Response Factor (Gh): 0.85

SECTION FORCES

116 mph wind with no ice Wind Importance Factor (Iw): 1.00

Sect #	Elev (ft)	Q_Z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt. (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
9	170	32.85	12.020	9.583	0.00	0.156	2.75	0.85	1.00	0.0	15.66	43.04	0.00	1470	0	1202	1440	2642
8	150	31.69	12.895	11.688	0.00	0.153	2.76	0.85	1.00	0.0	17.60	48.56	0.00	2169	0	1308	2144	3452
7	130	30.42	14.333	15.027	0.00	0.144	2.79	0.85	1.00	0.0	20.42	57.03	0.00	2975	0	1475	2649	4124
6	110	29.01	19.684	18.574	0.00	0.156	2.75	0.85	1.00	0.0	26.33	72.44	0.00	3667	0	1786	2835	4621
5	90	27.39	22.335	18.575	0.00	0.143	2.80	0.85	1.00	0.0	28.66	80.18	0.00	3822	0	1867	2748	4614
4	70	25.49	21.229	22.120	0.00	0.132	2.84	0.85	1.00	0.0	28.91	82.06	0.00	4245	0	1778	2633	4411
3	50	23.15	26.584	22.126	0.00	0.132	2.84	0.85	1.00	0.0	33.82	96.04	0.00	4545	0	1890	2402	4292
2	30	20.01	28.860	28.798	0.00	0.139	2.81	0.85	1.00	0.0	37.36	105.06	0.00	4920	0	1787	2082	3869
1	10	19.99	31.267	28.798	0.00	0.132	2.84	0.85	1.00	0.0	39.33	111.62	0.00	5467	0	1897	2087	3984
														33,279	0			36,010

0.9D + 1.0W 120° Gust Response Factor (Gh): 0.85
116 mph wind with no ice Wind Importance Factor (Iw): 1.00

Sect #	Elev (ft)	Q_Z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt. (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
9	170	32.85	12.020	9.583	0.00	0.156	2.75	1.00	1.00	0.0	17.47	48.00	0.00	1470	0	1340	1440	2780
8	150	31.69	12.895	11.688	0.00	0.153	2.76	1.00	1.00	0.0	19.53	53.89	0.00	2169	0	1452	2144	3595
7	130	30.42	14.333	15.027	0.00	0.144	2.79	1.00	1.00	0.0	22.57	63.03	0.00	2975	0	1630	2649	4279
6	110	29.01	19.684	18.574	0.00	0.156	2.75	1.00	1.00	0.0	29.28	80.56	0.00	3667	0	1986	2835	4821
5	90	27.39	22.335	18.575	0.00	0.143	2.80	1.00	1.00	0.0	32.01	89.55	0.00	3822	0	2085	2748	4833
4	70	25.49	21.229	22.120	0.00	0.132	2.84	1.00	1.00	0.0	32.10	91.10	0.00	4245	0	1974	2633	4607
3	50	23.15	26.584	22.126	0.00	0.132	2.84	1.00	1.00	0.0	37.81	107.37	0.00	4545	0	2113	2402	4515
2	30	20.01	28.860	28.798	0.00	0.139	2.81	1.00	1.00	0.0	41.69	117.24	0.00	4920	0	1994	2082	4076
1	10	19.99	31.267	28.798	0.00	0.132	2.84	1.00	1.00	0.0	44.02	124.93	0.00	5467	0	2123	2087	4210
														33,279	0			37,717

0.9D + 1.0W 180° Gust Response Factor (Gh): 0.85
116 mph wind with no ice Wind Importance Factor (Iw): 1.00

Sect #	Elev (ft)	Q_Z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt. (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
9	170	32.85	12.020	9.583	0.00	0.156	2.75	0.80	1.00	0.0	15.06	41.39	0.00	1470	0	1156	1440	2596
8	150	31.69	12.895	11.688	0.00	0.153	2.76	0.80	1.00	0.0	16.95	46.78	0.00	2169	0	1260	2144	3404
7	130	30.42	14.333	15.027	0.00	0.144	2.79	0.80	1.00	0.0	19.70	55.03	0.00	2975	0	1423	2649	4072
6	110	29.01	19.684	18.574	0.00	0.156	2.75	0.80	1.00	0.0	25.35	69.73	0.00	3667	0	1719	2835	4554
5	90	27.39	22.335	18.575	0.00	0.143	2.80	0.80	1.00	0.0	27.54	77.06	0.00	3822	0	1794	2748	4542
4	70	25.49	21.229	22.120	0.00	0.132	2.84	0.80	1.00	0.0	27.85	79.05	0.00	4245	0	1713	2633	4345
3	50	23.15	26.584	22.126	0.00	0.132	2.84	0.80	1.00	0.0	32.49	92.27	0.00	4545	0	1816	2402	4218
2	30	20.01	28.860	28.798	0.00	0.139	2.81	0.80	1.00	0.0	35.92	101.01	0.00	4920	0	1718	2082	3800
1	10	19.99	31.267	28.798	0.00	0.132	2.84	0.80	1.00	0.0	37.77	107.19	0.00	5467	0	1822	2087	3909
														33,279	0			35,440

0.9D + 1.0W 210° Gust Response Factor (Gh): 0.85
116 mph wind with no ice Wind Importance Factor (Iw): 1.00

Sect #	Elev (ft)	Q_Z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt. (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
9	170	32.85	12.020	9.583	0.00	0.156	2.75	0.85	1.00	0.0	15.66	43.04	0.00	1470	0	1202	1440	2642
8	150	31.69	12.895	11.688	0.00	0.153	2.76	0.85	1.00	0.0	17.60	48.56	0.00	2169	0	1308	2144	3452
7	130	30.42	14.333	15.027	0.00	0.144	2.79	0.85	1.00	0.0	20.42	57.03	0.00	2975	0	1475	2649	4124
6	110	29.01	19.684	18.574	0.00	0.156	2.75	0.85	1.00	0.0	26.33	72.44	0.00	3667	0	1786	2835	4621
5	90	27.39	22.335	18.575	0.00	0.143	2.80	0.85	1.00	0.0	28.66	80.18	0.00	3822	0	1867	2748	4614
4	70	25.49	21.229	22.120	0.00	0.132	2.84	0.85	1.00	0.0	28.91	82.06	0.00	4245	0	1778	2633	4411
3	50	23.15	26.584	22.126	0.00	0.132	2.84	0.85	1.00	0.0	33.82	96.04	0.00	4545	0	1890	2402	4292
2	30	20.01	28.860	28.798	0.00	0.139	2.81	0.85	1.00	0.0	37.36	105.06	0.00	4920	0	1787	2082	3869

SECTION FORCES

Sect #	Elev (ft)	Q_Z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt. (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
1	10	19.99	31.267	28.798	0.00	0.132	2.84	0.85	1.00	0.0	39.33	111.62	0.00	5467	0	1897	2087	3984
														33,279	0			36,010

0.9D + 1.0W 240° — Gust Response Factor (Gh): 0.85
116 mph wind with no ice — Wind Importance Factor (Iw): 1.00

Sect #	Elev (ft)	Q_Z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt. (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
9	170	32.85	12.020	9.583	0.00	0.156	2.75	1.00	1.00	0.0	17.47	48.00	0.00	1470	0	1340	1440	2780
8	150	31.69	12.895	11.688	0.00	0.153	2.76	1.00	1.00	0.0	19.53	53.89	0.00	2169	0	1452	2144	3595
7	130	30.42	14.333	15.027	0.00	0.144	2.79	1.00	1.00	0.0	22.57	63.03	0.00	2975	0	1630	2649	4279
6	110	29.01	19.684	18.574	0.00	0.156	2.75	1.00	1.00	0.0	29.28	80.56	0.00	3667	0	1986	2835	4821
5	90	27.39	22.335	18.575	0.00	0.143	2.80	1.00	1.00	0.0	32.01	89.55	0.00	3822	0	2085	2748	4833
4	70	25.49	21.229	22.120	0.00	0.132	2.84	1.00	1.00	0.0	32.10	91.10	0.00	4245	0	1974	2633	4607
3	50	23.15	26.584	22.126	0.00	0.132	2.84	1.00	1.00	0.0	37.81	107.37	0.00	4545	0	2113	2402	4515
2	30	20.01	28.860	28.798	0.00	0.139	2.81	1.00	1.00	0.0	41.69	117.24	0.00	4920	0	1994	2082	4076
1	10	19.99	31.267	28.798	0.00	0.132	2.84	1.00	1.00	0.0	44.02	124.93	0.00	5467	0	2123	2087	4210
														33,279	0			37,717

0.9D + 1.0W 300° — Gust Response Factor (Gh): 0.85
116 mph wind with no ice — Wind Importance Factor (Iw): 1.00

Sect #	Elev (ft)	Q_Z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt. (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
9	170	32.85	12.020	9.583	0.00	0.156	2.75	0.80	1.00	0.0	15.06	41.39	0.00	1470	0	1156	1440	2596
8	150	31.69	12.895	11.688	0.00	0.153	2.76	0.80	1.00	0.0	16.95	46.78	0.00	2169	0	1260	2144	3404
7	130	30.42	14.333	15.027	0.00	0.144	2.79	0.80	1.00	0.0	19.70	55.03	0.00	2975	0	1423	2649	4072
6	110	29.01	19.684	18.574	0.00	0.156	2.75	0.80	1.00	0.0	25.35	69.73	0.00	3667	0	1719	2835	4554
5	90	27.39	22.335	18.575	0.00	0.143	2.80	0.80	1.00	0.0	27.54	77.06	0.00	3822	0	1794	2748	4542
4	70	25.49	21.229	22.120	0.00	0.132	2.84	0.80	1.00	0.0	27.85	79.05	0.00	4245	0	1713	2633	4345
3	50	23.15	26.584	22.126	0.00	0.132	2.84	0.80	1.00	0.0	32.49	92.27	0.00	4545	0	1816	2402	4218
2	30	20.01	28.860	28.798	0.00	0.139	2.81	0.80	1.00	0.0	35.92	101.01	0.00	4920	0	1718	2082	3800
1	10	19.99	31.267	28.798	0.00	0.132	2.84	0.80	1.00	0.0	37.77	107.19	0.00	5467	0	1822	2087	3909
														33,279	0			35,440

0.9D + 1.0W 330° — Gust Response Factor (Gh): 0.85
116 mph wind with no ice — Wind Importance Factor (Iw): 1.00

Sect #	Elev (ft)	Q_Z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt. (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
9	170	32.85	12.020	9.583	0.00	0.156	2.75	0.85	1.00	0.0	15.66	43.04	0.00	1470	0	1202	1440	2642
8	150	31.69	12.895	11.688	0.00	0.153	2.76	0.85	1.00	0.0	17.60	48.56	0.00	2169	0	1308	2144	3452
7	130	30.42	14.333	15.027	0.00	0.144	2.79	0.85	1.00	0.0	20.42	57.03	0.00	2975	0	1475	2649	4124
6	110	29.01	19.684	18.574	0.00	0.156	2.75	0.85	1.00	0.0	26.33	72.44	0.00	3667	0	1786	2835	4621
5	90	27.39	22.335	18.575	0.00	0.143	2.80	0.85	1.00	0.0	28.66	80.18	0.00	3822	0	1867	2748	4614
4	70	25.49	21.229	22.120	0.00	0.132	2.84	0.85	1.00	0.0	28.91	82.06	0.00	4245	0	1778	2633	4411
3	50	23.15	26.584	22.126	0.00	0.132	2.84	0.85	1.00	0.0	33.82	96.04	0.00	4545	0	1890	2402	4292
2	30	20.01	28.860	28.798	0.00	0.139	2.81	0.85	1.00	0.0	37.36	105.06	0.00	4920	0	1787	2082	3869
1	10	19.99	31.267	28.798	0.00	0.132	2.84	0.85	1.00	0.0	39.33	111.62	0.00	5467	0	1897	2087	3984
														33,279	0			36,010

1.2D + 1.0Di + 1.0Wi Normal — Gust Response Factor (Gh): 0.85 — Ice Importance Factor: 1.00
50 mph wind with 1" radial ice — Wind Importance Factor (Iw): 1.00 — Ice Dead Load Factor: 1.00

Sect #	Elev (ft)	Q_Z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt. (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
9	170	6.10	12.020	33.960	24.38	0.324	2.24	1.00	1.00	1.2	32.62	72.91	24.38	5301	3341	378	414	792
8	150	5.89	12.895	34.970	23.28	0.292	2.32	1.00	1.00	1.2	33.75	78.26	23.28	7220	4328	392	693	1085
7	130	5.65	14.333	36.285	21.26	0.244	2.45	1.00	1.00	1.1	35.51	87.17	21.26	9246	5279	419	975	1393

SECTION FORCES

Sect #	Elev (ft)	Q_Z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt. (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
6	110	5.39	19.684	41.431	22.86	0.245	2.45	1.00	1.00	1.1	43.87	107.62	22.86	11181	6293	493	1091	1584
5	90	5.09	22.335	42.948	24.37	0.225	2.51	1.00	1.00	1.1	47.22	118.70	24.37	11589	6493	513	1093	1606
4	70	4.74	21.229	42.794	20.67	0.193	2.62	1.00	1.00	1.1	45.76	119.88	20.67	12068	6408	483	1082	1564
3	50	4.30	26.584	43.357	21.23	0.188	2.64	1.00	1.00	1.0	51.40	135.61	21.23	12575	6516	496	978	1474
2	30	3.72	28.860	50.180	21.38	0.189	2.63	1.00	1.00	1.0	57.60	151.61	21.38	13014	6454	479	831	1310
1	10	3.71	31.267	49.023	20.23	0.176	2.68	1.00	1.00	0.9	59.24	158.75	20.23	13129	5839	501	805	1306
														95,323	50,952			12,115

1.2D + 1.0Di + 1.0Wi 60° Gust Response Factor (Gh): 0.85 Ice Importance Factor: 1.00
50 mph wind with 1" radial ice Wind Importance Factor (Iw): 1.00 Ice Dead Load Factor: 1.00

Sect #	Elev (ft)	Q_Z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt. (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
9	170	6.10	12.020	33.960	24.38	0.324	2.24	0.80	1.00	1.2	30.22	67.54	24.38	5301	3341	350	414	764
8	150	5.89	12.895	34.970	23.28	0.292	2.32	0.80	1.00	1.2	31.17	72.28	23.28	7220	4328	362	693	1055
7	130	5.65	14.333	36.285	21.26	0.244	2.45	0.80	1.00	1.1	32.64	80.14	21.26	9246	5279	385	975	1360
6	110	5.39	19.684	41.431	22.86	0.245	2.45	0.80	1.00	1.1	39.93	97.97	22.86	11181	6293	449	1091	1540
5	90	5.09	22.335	42.948	24.37	0.225	2.51	0.80	1.00	1.1	42.75	107.47	24.37	11589	6493	465	1093	1557
4	70	4.74	21.229	42.794	20.67	0.193	2.62	0.80	1.00	1.1	41.52	108.75	20.67	12068	6408	438	1082	1520
3	50	4.30	26.584	43.357	21.23	0.188	2.64	0.80	1.00	1.0	46.08	121.59	21.23	12575	6516	445	978	1422
2	30	3.72	28.860	50.180	21.38	0.189	2.63	0.80	1.00	1.0	51.82	136.42	21.38	13014	6454	431	831	1262
1	10	3.71	31.267	49.023	20.23	0.176	2.68	0.80	1.00	0.9	52.99	141.99	20.23	13129	5839	448	805	1253
														95,323	50,952			11,733

1.2D + 1.0Di + 1.0Wi 90° Gust Response Factor (Gh): 0.85 Ice Importance Factor: 1.00
50 mph wind with 1" radial ice Wind Importance Factor (Iw): 1.00 Ice Dead Load Factor: 1.00

Sect #	Elev (ft)	Q_Z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt. (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
9	170	6.10	12.020	33.960	24.38	0.324	2.24	0.85	1.00	1.2	30.82	68.88	24.38	5301	3341	357	414	771
8	150	5.89	12.895	34.970	23.28	0.292	2.32	0.85	1.00	1.2	31.81	73.77	23.28	7220	4328	369	693	1062
7	130	5.65	14.333	36.285	21.26	0.244	2.45	0.85	1.00	1.1	33.36	81.89	21.26	9246	5279	393	975	1368
6	110	5.39	19.684	41.431	22.86	0.245	2.45	0.85	1.00	1.1	40.92	100.38	22.86	11181	6293	460	1091	1551
5	90	5.09	22.335	42.948	24.37	0.225	2.51	0.85	1.00	1.1	43.87	110.27	24.37	11589	6493	477	1093	1570
4	70	4.74	21.229	42.794	20.67	0.193	2.62	0.85	1.00	1.1	42.58	111.53	20.67	12068	6408	449	1082	1531
3	50	4.30	26.584	43.357	21.23	0.188	2.64	0.85	1.00	1.0	47.41	125.09	21.23	12575	6516	457	978	1435
2	30	3.72	28.860	50.180	21.38	0.189	2.63	0.85	1.00	1.0	53.27	140.22	21.38	13014	6454	443	831	1274
1	10	3.71	31.267	49.023	20.23	0.176	2.68	0.85	1.00	0.9	54.55	146.18	20.23	13129	5839	462	805	1267
														95,323	50,952			11,829

1.2D + 1.0Di + 1.0Wi 120° Gust Response Factor (Gh): 0.85 Ice Importance Factor: 1.00
50 mph wind with 1" radial ice Wind Importance Factor (Iw): 1.00 Ice Dead Load Factor: 1.00

Sect #	Elev (ft)	Q_Z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt. (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
9	170	6.10	12.020	33.960	24.38	0.324	2.24	1.00	1.00	1.2	32.62	72.91	24.38	5301	3341	378	414	792
8	150	5.89	12.895	34.970	23.28	0.292	2.32	1.00	1.00	1.2	33.75	78.26	23.28	7220	4328	392	693	1085
7	130	5.65	14.333	36.285	21.26	0.244	2.45	1.00	1.00	1.1	35.51	87.17	21.26	9246	5279	419	975	1393
6	110	5.39	19.684	41.431	22.86	0.245	2.45	1.00	1.00	1.1	43.87	107.62	22.86	11181	6293	493	1091	1584
5	90	5.09	22.335	42.948	24.37	0.225	2.51	1.00	1.00	1.1	47.22	118.70	24.37	11589	6493	513	1093	1606
4	70	4.74	21.229	42.794	20.67	0.193	2.62	1.00	1.00	1.1	45.76	119.88	20.67	12068	6408	483	1082	1564
3	50	4.30	26.584	43.357	21.23	0.188	2.64	1.00	1.00	1.0	51.40	135.61	21.23	12575	6516	496	978	1474
2	30	3.72	28.860	50.180	21.38	0.189	2.63	1.00	1.00	1.0	57.60	151.61	21.38	13014	6454	479	831	1310
1	10	3.71	31.267	49.023	20.23	0.176	2.68	1.00	1.00	0.9	59.24	158.75	20.23	13129	5839	501	805	1306
														95,323	50,952			12,115

1.2D + 1.0Di + 1.0Wi 180° Gust Response Factor (Gh): 0.85 Ice Importance Factor: 1.00
50 mph wind with 1" radial ice Wind Importance Factor (Iw): 1.00 Ice Dead Load Factor: 1.00

SECTION FORCES

Sect #	Elev (ft)	Q_Z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt. (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
9	170	6.10	12.020	33.960	24.38	0.324	2.24	0.80	1.00	1.2	30.22	67.54	24.38	5301	3341	350	414	764
8	150	5.89	12.895	34.970	23.28	0.292	2.32	0.80	1.00	1.2	31.17	72.28	23.28	7220	4328	362	693	1055
7	130	5.65	14.333	36.285	21.26	0.244	2.45	0.80	1.00	1.1	32.64	80.14	21.26	9246	5279	385	975	1360
6	110	5.39	19.684	41.431	22.86	0.245	2.45	0.80	1.00	1.1	39.93	97.97	22.86	11181	6293	449	1091	1540
5	90	5.09	22.335	42.948	24.37	0.225	2.51	0.80	1.00	1.1	42.75	107.47	24.37	11589	6493	465	1093	1557
4	70	4.74	21.229	42.794	20.67	0.193	2.62	0.80	1.00	1.1	41.52	108.75	20.67	12068	6408	438	1082	1520
3	50	4.30	26.584	43.357	21.23	0.188	2.64	0.80	1.00	1.0	46.08	121.59	21.23	12575	6516	445	978	1422
2	30	3.72	28.860	50.180	21.38	0.189	2.63	0.80	1.00	1.0	51.82	136.42	21.38	13014	6454	431	831	1262
1	10	3.71	31.267	49.023	20.23	0.176	2.68	0.80	1.00	0.9	52.99	141.99	20.23	13129	5839	448	805	1253
														95,323	50,952			11,733

1.2D + 1.0Di + 1.0Wi 210° Gust Response Factor (Gh): 0.85 Ice Importance Factor: 1.00
50 mph wind with 1" radial ice Wind Importance Factor (Iw): 1.00 Ice Dead Load Factor: 1.00

Sect #	Elev (ft)	Q_Z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt. (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
9	170	6.10	12.020	33.960	24.38	0.324	2.24	0.85	1.00	1.2	30.82	68.88	24.38	5301	3341	357	414	771
8	150	5.89	12.895	34.970	23.28	0.292	2.32	0.85	1.00	1.2	31.81	73.77	23.28	7220	4328	369	693	1062
7	130	5.65	14.333	36.285	21.26	0.244	2.45	0.85	1.00	1.1	33.36	81.89	21.26	9246	5279	393	975	1368
6	110	5.39	19.684	41.431	22.86	0.245	2.45	0.85	1.00	1.1	40.92	100.38	22.86	11181	6293	460	1091	1551
5	90	5.09	22.335	42.948	24.37	0.225	2.51	0.85	1.00	1.1	43.87	110.27	24.37	11589	6493	477	1093	1570
4	70	4.74	21.229	42.794	20.67	0.193	2.62	0.85	1.00	1.1	42.58	111.53	20.67	12068	6408	449	1082	1531
3	50	4.30	26.584	43.357	21.23	0.188	2.64	0.85	1.00	1.0	47.41	125.09	21.23	12575	6516	457	978	1435
2	30	3.72	28.860	50.180	21.38	0.189	2.63	0.85	1.00	1.0	53.27	140.22	21.38	13014	6454	443	831	1274
1	10	3.71	31.267	49.023	20.23	0.176	2.68	0.85	1.00	0.9	54.55	146.18	20.23	13129	5839	462	805	1267
														95,323	50,952			11,829

1.2D + 1.0Di + 1.0Wi 240° Gust Response Factor (Gh): 0.85 Ice Importance Factor: 1.00
50 mph wind with 1" radial ice Wind Importance Factor (Iw): 1.00 Ice Dead Load Factor: 1.00

Sect #	Elev (ft)	Q_Z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt. (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
9	170	6.10	12.020	33.960	24.38	0.324	2.24	1.00	1.00	1.2	32.62	72.91	24.38	5301	3341	378	414	792
8	150	5.89	12.895	34.970	23.28	0.292	2.32	1.00	1.00	1.2	33.75	78.26	23.28	7220	4328	392	693	1085
7	130	5.65	14.333	36.285	21.26	0.244	2.45	1.00	1.00	1.1	35.51	87.17	21.26	9246	5279	419	975	1393
6	110	5.39	19.684	41.431	22.86	0.245	2.45	1.00	1.00	1.1	43.87	107.62	22.86	11181	6293	493	1091	1584
5	90	5.09	22.335	42.948	24.37	0.225	2.51	1.00	1.00	1.1	47.22	118.70	24.37	11589	6493	513	1093	1606
4	70	4.74	21.229	42.794	20.67	0.193	2.62	1.00	1.00	1.1	45.76	119.88	20.67	12068	6408	483	1082	1564
3	50	4.30	26.584	43.357	21.23	0.188	2.64	1.00	1.00	1.0	51.40	135.61	21.23	12575	6516	496	978	1474
2	30	3.72	28.860	50.180	21.38	0.189	2.63	1.00	1.00	1.0	57.60	151.61	21.38	13014	6454	479	831	1310
1	10	3.71	31.267	49.023	20.23	0.176	2.68	1.00	1.00	0.9	59.24	158.75	20.23	13129	5839	501	805	1306
														95,323	50,952			12,115

1.2D + 1.0Di + 1.0Wi 300° Gust Response Factor (Gh): 0.85 Ice Importance Factor: 1.00
50 mph wind with 1" radial ice Wind Importance Factor (Iw): 1.00 Ice Dead Load Factor: 1.00

Sect #	Elev (ft)	Q_Z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt. (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
9	170	6.10	12.020	33.960	24.38	0.324	2.24	0.80	1.00	1.2	30.22	67.54	24.38	5301	3341	350	414	764
8	150	5.89	12.895	34.970	23.28	0.292	2.32	0.80	1.00	1.2	31.17	72.28	23.28	7220	4328	362	693	1055
7	130	5.65	14.333	36.285	21.26	0.244	2.45	0.80	1.00	1.1	32.64	80.14	21.26	9246	5279	385	975	1360
6	110	5.39	19.684	41.431	22.86	0.245	2.45	0.80	1.00	1.1	39.93	97.97	22.86	11181	6293	449	1091	1540
5	90	5.09	22.335	42.948	24.37	0.225	2.51	0.80	1.00	1.1	42.75	107.47	24.37	11589	6493	465	1093	1557
4	70	4.74	21.229	42.794	20.67	0.193	2.62	0.80	1.00	1.1	41.52	108.75	20.67	12068	6408	438	1082	1520
3	50	4.30	26.584	43.357	21.23	0.188	2.64	0.80	1.00	1.0	46.08	121.59	21.23	12575	6516	445	978	1422
2	30	3.72	28.860	50.180	21.38	0.189	2.63	0.80	1.00	1.0	51.82	136.42	21.38	13014	6454	431	831	1262
1	10	3.71	31.267	49.023	20.23	0.176	2.68	0.80	1.00	0.9	52.99	141.99	20.23	13129	5839	448	805	1253
														95,323	50,952			11,733

1.2D + 1.0Di + 1.0Wi 330° Gust Response Factor (Gh): 0.85 Ice Importance Factor: 1.00

SECTION FORCES

50 mph wind with 1" radial ice — Wind Importance Factor (Iw): 1.00 — Ice Dead Load Factor: 1.00

Sect #	Elev (ft)	Q_Z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt. (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
9	170	6.10	12.020	33.960	24.38	0.324	2.24	0.85	1.00	1.2	30.82	68.88	24.38	5301	3341	357	414	771
8	150	5.89	12.895	34.970	23.28	0.292	2.32	0.85	1.00	1.2	31.81	73.77	23.28	7220	4328	369	693	1062
7	130	5.65	14.333	36.285	21.26	0.244	2.45	0.85	1.00	1.1	33.36	81.89	21.26	9246	5279	393	975	1368
6	110	5.39	19.684	41.431	22.86	0.245	2.45	0.85	1.00	1.1	40.92	100.38	22.86	11181	6293	460	1091	1551
5	90	5.09	22.335	42.948	24.37	0.225	2.51	0.85	1.00	1.1	43.87	110.27	24.37	11589	6493	477	1093	1570
4	70	4.74	21.229	42.794	20.67	0.193	2.62	0.85	1.00	1.1	42.58	111.53	20.67	12068	6408	449	1082	1531
3	50	4.30	26.584	43.357	21.23	0.188	2.64	0.85	1.00	1.0	47.41	125.09	21.23	12575	6516	457	978	1435
2	30	3.72	28.860	50.180	21.38	0.189	2.63	0.85	1.00	1.0	53.27	140.22	21.38	13014	6454	443	831	1274
1	10	3.71	31.267	49.023	20.23	0.176	2.68	0.85	1.00	0.9	54.55	146.18	20.23	13129	5839	462	805	1267
														95,323	50,952			11,829

1.0D + 1.0W Service Normal — Gust Response Factor (Gh): 0.85
60 mph Wind with No Ice — Wind Importance Factor (Iw): 1.00

Sect #	Elev (ft)	Q_Z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt. (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
9	170	8.79	12.020	9.583	0.00	0.156	2.75	1.00	1.00	0.0	17.47	48.00	0.00	1634	0	359	385	744
8	150	8.48	12.895	11.688	0.00	0.153	2.76	1.00	1.00	0.0	19.53	53.89	0.00	2409	0	388	574	962
7	130	8.14	14.333	15.027	0.00	0.144	2.79	1.00	1.00	0.0	22.85	63.82	0.00	3306	0	442	709	1150
6	110	7.76	19.684	18.574	0.00	0.156	2.75	1.00	1.00	0.0	30.24	83.18	0.00	4074	0	549	758	1307
5	90	7.33	22.335	18.575	0.00	0.143	2.80	1.00	1.00	0.0	32.86	91.94	0.00	4247	0	573	735	1308
4	70	6.82	21.229	22.120	0.00	0.132	2.84	1.00	1.00	0.0	33.75	95.79	0.00	4716	0	555	704	1260
3	50	6.19	26.584	22.126	0.00	0.132	2.84	1.00	1.00	0.0	39.11	111.04	0.00	5050	0	585	643	1227
2	30	5.35	28.860	28.798	0.00	0.139	2.81	1.00	1.00	0.0	45.17	127.02	0.00	5466	0	578	557	1135
1	10	5.35	31.267	28.798	0.00	0.132	2.84	1.00	1.00	0.0	47.57	135.00	0.00	6075	0	614	558	1172
														36,976	0			10,265

1.0D + 1.0W Service 60° — Gust Response Factor (Gh): 0.85
60 mph Wind with No Ice — Wind Importance Factor (Iw): 1.00

Sect #	Elev (ft)	Q_Z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt. (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
9	170	8.79	12.020	9.583	0.00	0.156	2.75	0.80	1.00	0.0	15.06	41.39	0.00	1634	0	309	385	695
8	150	8.48	12.895	11.688	0.00	0.153	2.76	0.80	1.00	0.0	16.95	46.78	0.00	2409	0	337	574	911
7	130	8.14	14.333	15.027	0.00	0.144	2.79	0.80	1.00	0.0	19.99	55.81	0.00	3306	0	386	709	1095
6	110	7.76	19.684	18.574	0.00	0.156	2.75	0.80	1.00	0.0	26.30	72.35	0.00	4074	0	477	758	1236
5	90	7.33	22.335	18.575	0.00	0.143	2.80	0.80	1.00	0.0	28.40	79.44	0.00	4247	0	495	735	1230
4	70	6.82	21.229	22.120	0.00	0.132	2.84	0.80	1.00	0.0	29.50	83.74	0.00	4716	0	485	704	1190
3	50	6.19	26.584	22.126	0.00	0.132	2.84	0.80	1.00	0.0	33.79	95.95	0.00	5050	0	505	643	1148
2	30	5.35	28.860	28.798	0.00	0.139	2.81	0.80	1.00	0.0	39.40	110.79	0.00	5466	0	504	557	1061
1	10	5.35	31.267	28.798	0.00	0.132	2.84	0.80	1.00	0.0	41.31	117.25	0.00	6075	0	533	558	1091
														36,976	0			9,656

1.0D + 1.0W Service 90° — Gust Response Factor (Gh): 0.85
60 mph Wind with No Ice — Wind Importance Factor (Iw): 1.00

Sect #	Elev (ft)	Q_Z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt. (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
9	170	8.79	12.020	9.583	0.00	0.156	2.75	0.85	1.00	0.0	15.66	43.04	0.00	1634	0	322	385	707
8	150	8.48	12.895	11.688	0.00	0.153	2.76	0.85	1.00	0.0	17.60	48.56	0.00	2409	0	350	574	923
7	130	8.14	14.333	15.027	0.00	0.144	2.79	0.85	1.00	0.0	20.70	57.81	0.00	3306	0	400	709	1109
6	110	7.76	19.684	18.574	0.00	0.156	2.75	0.85	1.00	0.0	27.28	75.06	0.00	4074	0	495	758	1253
5	90	7.33	22.335	18.575	0.00	0.143	2.80	0.85	1.00	0.0	29.51	82.57	0.00	4247	0	514	735	1249
4	70	6.82	21.229	22.120	0.00	0.132	2.84	0.85	1.00	0.0	30.56	86.75	0.00	4716	0	503	704	1207
3	50	6.19	26.584	22.126	0.00	0.132	2.84	0.85	1.00	0.0	35.12	99.72	0.00	5050	0	525	643	1168
2	30	5.35	28.860	28.798	0.00	0.139	2.81	0.85	1.00	0.0	40.85	114.85	0.00	5466	0	523	557	1080

SECTION FORCES

Sect #	Elev (ft)	Q_Z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt. (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
1	10	5.35	31.267	28.798	0.00	0.132	2.84	0.85	1.00	0.0	42.88	121.69	0.00	6075	0	553	558	1112
														36,976	0			9,808

1.0D + 1.0W Service 120° Gust Response Factor (Gh): 0.85
60 mph Wind with No Ice Wind Importance Factor (Iw): 1.00

Sect #	Elev (ft)	Q_Z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt. (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
9	170	8.79	12.020	9.583	0.00	0.156	2.75	1.00	1.00	0.0	17.47	48.00	0.00	1634	0	359	385	744
8	150	8.48	12.895	11.688	0.00	0.153	2.76	1.00	1.00	0.0	19.53	53.89	0.00	2409	0	388	574	962
7	130	8.14	14.333	15.027	0.00	0.144	2.79	1.00	1.00	0.0	22.85	63.82	0.00	3306	0	442	709	1150
6	110	7.76	19.684	18.574	0.00	0.156	2.75	1.00	1.00	0.0	30.24	83.18	0.00	4074	0	549	758	1307
5	90	7.33	22.335	18.575	0.00	0.143	2.80	1.00	1.00	0.0	32.86	91.94	0.00	4247	0	573	735	1308
4	70	6.82	21.229	22.120	0.00	0.132	2.84	1.00	1.00	0.0	33.75	95.79	0.00	4716	0	555	704	1260
3	50	6.19	26.584	22.126	0.00	0.132	2.84	1.00	1.00	0.0	39.11	111.04	0.00	5050	0	585	643	1227
2	30	5.35	28.860	28.798	0.00	0.139	2.81	1.00	1.00	0.0	45.17	127.02	0.00	5466	0	578	557	1135
1	10	5.35	31.267	28.798	0.00	0.132	2.84	1.00	1.00	0.0	47.57	135.00	0.00	6075	0	614	558	1172
														36,976	0			10,265

1.0D + 1.0W Service 180° Gust Response Factor (Gh): 0.85
60 mph Wind with No Ice Wind Importance Factor (Iw): 1.00

Sect #	Elev (ft)	Q_Z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt. (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
9	170	8.79	12.020	9.583	0.00	0.156	2.75	0.80	1.00	0.0	15.06	41.39	0.00	1634	0	309	385	695
8	150	8.48	12.895	11.688	0.00	0.153	2.76	0.80	1.00	0.0	16.95	46.78	0.00	2409	0	337	574	911
7	130	8.14	14.333	15.027	0.00	0.144	2.79	0.80	1.00	0.0	19.99	55.81	0.00	3306	0	386	709	1095
6	110	7.76	19.684	18.574	0.00	0.156	2.75	0.80	1.00	0.0	26.30	72.35	0.00	4074	0	477	758	1236
5	90	7.33	22.335	18.575	0.00	0.143	2.80	0.80	1.00	0.0	28.40	79.44	0.00	4247	0	495	735	1230
4	70	6.82	21.229	22.120	0.00	0.132	2.84	0.80	1.00	0.0	29.50	83.74	0.00	4716	0	485	704	1190
3	50	6.19	26.584	22.126	0.00	0.132	2.84	0.80	1.00	0.0	33.79	95.95	0.00	5050	0	505	643	1148
2	30	5.35	28.860	28.798	0.00	0.139	2.81	0.80	1.00	0.0	39.40	110.79	0.00	5466	0	504	557	1061
1	10	5.35	31.267	28.798	0.00	0.132	2.84	0.80	1.00	0.0	41.31	117.25	0.00	6075	0	533	558	1091
														36,976	0			9,656

1.0D + 1.0W Service 210° Gust Response Factor (Gh): 0.85
60 mph Wind with No Ice Wind Importance Factor (Iw): 1.00

Sect #	Elev (ft)	Q_Z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt. (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
9	170	8.79	12.020	9.583	0.00	0.156	2.75	0.85	1.00	0.0	15.66	43.04	0.00	1634	0	322	385	707
8	150	8.48	12.895	11.688	0.00	0.153	2.76	0.85	1.00	0.0	17.60	48.56	0.00	2409	0	350	574	923
7	130	8.14	14.333	15.027	0.00	0.144	2.79	0.85	1.00	0.0	20.70	57.81	0.00	3306	0	400	709	1109
6	110	7.76	19.684	18.574	0.00	0.156	2.75	0.85	1.00	0.0	27.28	75.06	0.00	4074	0	495	758	1253
5	90	7.33	22.335	18.575	0.00	0.143	2.80	0.85	1.00	0.0	29.51	82.57	0.00	4247	0	514	735	1249
4	70	6.82	21.229	22.120	0.00	0.132	2.84	0.85	1.00	0.0	30.56	86.75	0.00	4716	0	503	704	1207
3	50	6.19	26.584	22.126	0.00	0.132	2.84	0.85	1.00	0.0	35.12	99.72	0.00	5050	0	525	643	1168
2	30	5.35	28.860	28.798	0.00	0.139	2.81	0.85	1.00	0.0	40.85	114.85	0.00	5466	0	523	557	1080
1	10	5.35	31.267	28.798	0.00	0.132	2.84	0.85	1.00	0.0	42.88	121.69	0.00	6075	0	553	558	1112
														36,976	0			9,808

1.0D + 1.0W Service 240° Gust Response Factor (Gh): 0.85
60 mph Wind with No Ice Wind Importance Factor (Iw): 1.00

Sect #	Elev (ft)	Q_Z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt. (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
9	170	8.79	12.020	9.583	0.00	0.156	2.75	1.00	1.00	0.0	17.47	48.00	0.00	1634	0	359	385	744
8	150	8.48	12.895	11.688	0.00	0.153	2.76	1.00	1.00	0.0	19.53	53.89	0.00	2409	0	388	574	962
7	130	8.14	14.333	15.027	0.00	0.144	2.79	1.00	1.00	0.0	22.85	63.82	0.00	3306	0	442	709	1150

SECTION FORCES

Sect #	Elev (ft)	Q_Z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt. (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
6	110	7.76	19.684	18.574	0.00	0.156	2.75	1.00	1.00	0.0	30.24	83.18	0.00	4074	0	549	758	1307
5	90	7.33	22.335	18.575	0.00	0.143	2.80	1.00	1.00	0.0	32.86	91.94	0.00	4247	0	573	735	1308
4	70	6.82	21.229	22.120	0.00	0.132	2.84	1.00	1.00	0.0	33.75	95.79	0.00	4716	0	555	704	1260
3	50	6.19	26.584	22.126	0.00	0.132	2.84	1.00	1.00	0.0	39.11	111.04	0.00	5050	0	585	643	1227
2	30	5.35	28.860	28.798	0.00	0.139	2.81	1.00	1.00	0.0	45.17	127.02	0.00	5466	0	578	557	1135
1	10	5.35	31.267	28.798	0.00	0.132	2.84	1.00	1.00	0.0	47.57	135.00	0.00	6075	0	614	558	1172
														36,976	0			10,265

1.0D + 1.0W Service 300° Gust Response Factor (Gh): 0.85
60 mph Wind with No Ice Wind Importance Factor (Iw): 1.00

Sect #	Elev (ft)	Q_Z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt. (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
9	170	8.79	12.020	9.583	0.00	0.156	2.75	0.80	1.00	0.0	15.06	41.39	0.00	1634	0	309	385	695
8	150	8.48	12.895	11.688	0.00	0.153	2.76	0.80	1.00	0.0	16.95	46.78	0.00	2409	0	337	574	911
7	130	8.14	14.333	15.027	0.00	0.144	2.79	0.80	1.00	0.0	19.99	55.81	0.00	3306	0	386	709	1095
6	110	7.76	19.684	18.574	0.00	0.156	2.75	0.80	1.00	0.0	26.30	72.35	0.00	4074	0	477	758	1236
5	90	7.33	22.335	18.575	0.00	0.143	2.80	0.80	1.00	0.0	28.40	79.44	0.00	4247	0	495	735	1230
4	70	6.82	21.229	22.120	0.00	0.132	2.84	0.80	1.00	0.0	29.50	83.74	0.00	4716	0	485	704	1190
3	50	6.19	26.584	22.126	0.00	0.132	2.84	0.80	1.00	0.0	33.79	95.95	0.00	5050	0	505	643	1148
2	30	5.35	28.860	28.798	0.00	0.139	2.81	0.80	1.00	0.0	39.40	110.79	0.00	5466	0	504	557	1061
1	10	5.35	31.267	28.798	0.00	0.132	2.84	0.80	1.00	0.0	41.31	117.25	0.00	6075	0	533	558	1091
														36,976	0			9,656

1.0D + 1.0W Service 330° Gust Response Factor (Gh): 0.85
60 mph Wind with No Ice Wind Importance Factor (Iw): 1.00

Sect #	Elev (ft)	Q_Z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt. (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
9	170	8.79	12.020	9.583	0.00	0.156	2.75	0.85	1.00	0.0	15.66	43.04	0.00	1634	0	322	385	707
8	150	8.48	12.895	11.688	0.00	0.153	2.76	0.85	1.00	0.0	17.60	48.56	0.00	2409	0	350	574	923
7	130	8.14	14.333	15.027	0.00	0.144	2.79	0.85	1.00	0.0	20.70	57.81	0.00	3306	0	400	709	1109
6	110	7.76	19.684	18.574	0.00	0.156	2.75	0.85	1.00	0.0	27.28	75.06	0.00	4074	0	495	758	1253
5	90	7.33	22.335	18.575	0.00	0.143	2.80	0.85	1.00	0.0	29.51	82.57	0.00	4247	0	514	735	1249
4	70	6.82	21.229	22.120	0.00	0.132	2.84	0.85	1.00	0.0	30.56	86.75	0.00	4716	0	503	704	1207
3	50	6.19	26.584	22.126	0.00	0.132	2.84	0.85	1.00	0.0	35.12	99.72	0.00	5050	0	525	643	1168
2	30	5.35	28.860	28.798	0.00	0.139	2.81	0.85	1.00	0.0	40.85	114.85	0.00	5466	0	523	557	1080
1	10	5.35	31.267	28.798	0.00	0.132	2.84	0.85	1.00	0.0	42.88	121.69	0.00	6075	0	553	558	1112
														36,976	0			9,808

EQUIVALENT LATERAL FORCE METHOD

Spectral Response Acceleration for Short Period (S_S):	0.24
Spectral Response Acceleration at 1.0 Second Period (S_1):	0.06
Long-Period Transition Period (T_L – Seconds):	6
Importance Factor (I_e):	1.00
Site Coefficient F_a:	1.60
Site Coefficient F_v:	2.40
Response Modification Coefficient (R):	3.00
Design Spectral Response Acceleration at Short Period (S_{ds}):	0.25
Design Spectral Response Acceleration at 1.0 Second Period (S_{d1}):	0.09
Seismic Response Coefficient (C_s):	0.03
Upper Limit C_S:	0.03
Lower Limit C_S:	0.03
Period based on Rayleigh Method (sec):	0.99
Redundancy Factor (p):	1.30
Seismic Force Distribution Exponent (k):	1.25
Total Unfactored Dead Load:	53.70 k
Seismic Base Shear (E):	2.14 k

SEISMIC

Load Case: 0.9D - 1.0Ev + 1.0Eh Seismic

Section	Height Above Base (ft)	Weight (lb)	W_z (lb-ft)	Cvx	Horizontal Force (lb)	Vertical Force (lb)
9	170.00	1,634	979,280	0.059	126	1,388
8	150.00	2,409	1,235,866	0.074	160	2,048
7	130.00	3,306	1,418,800	0.086	183	2,809
6	110.00	4,074	1,420,115	0.086	183	3,462
5	90.00	4,247	1,152,917	0.070	149	3,609
4	70.00	4,716	936,373	0.056	121	4,008
3	50.00	5,050	659,340	0.040	85	4,291
2	30.00	5,466	377,795	0.023	49	4,646
1	10.00	6,075	106,881	0.006	14	5,163
Kaelus DBC0061F1V51-2	180.00	153	98,481	0.006	13	130
Powerwave Allgon LGP21401	180.00	85	54,454	0.003	7	72
Raycap DC6-48-60-18-8F ("Squid")	180.00	32	20,469	0.001	3	27
Ericsson RRUS 4478 B14	180.00	180	115,667	0.007	15	153
Ericsson RRUS 4449 B5, B12	180.00	213	137,101	0.008	18	181
Raycap DC6-48-60-18-8C	180.00	32	20,597	0.001	3	27
Ericsson RRUS 32 B30 (53 lbs)	180.00	159	102,343	0.006	13	135
Ericsson RRUS 32 B2	180.00	159	102,343	0.006	13	135
Powerwave Allgon 7770.00	180.00	105	67,585	0.004	9	89
Quintel QS66512-2	180.00	222	142,894	0.009	18	189
CCI DMP65R-BU6DA	180.00	159	102,214	0.006	13	135
CCI OPA65R-BU6D	180.00	126	81,359	0.005	11	107
CCI TPA-65R-LCUUUU-H8	180.00	82	52,523	0.003	7	69
CCI DMP65R-BU8D	180.00	96	61,599	0.004	8	81
CCI OPA65R-BU8D	180.00	76	49,240	0.003	6	65
Generic Round Sector Frame	180.00	900	579,298	0.035	75	765
Commscope CBC78T-DS-43-2X	172.00	62	37,771	0.002	5	53
Samsung B5/B13 RRH-BR04C	172.00	211	128,277	0.008	17	179
Samsung B2/B66A RRH-BR049	172.00	253	154,005	0.009	20	215
RFS APL868013-42T0	172.00	13	7,664	0.000	1	11
RFS DB-C1-12C-24AB-0Z	172.00	32	19,464	0.001	3	27
RFS DB-C1-12C-24AB-0Z	172.00	32	19,464	0.001	3	27

Andrew DB844G65ZAXY	172.00	48	29,195	0.002	4	41
Samsung MT6407-77A	172.00	245	148,896	0.009	19	208
Commscope JAHH-65B-R3B	172.00	364	221,154	0.013	29	309
Generic Round Sector Frame	172.00	900	547,411	0.033	71	765
Decibel DB844H90-XY	165.00	168	97,030	0.006	13	143
Generic Round Sector Frame	164.00	900	515,886	0.031	67	765
Alcatel-Lucent RRH2x50-08	160.70	159	88,694	0.005	11	135
Alcatel-Lucent 800 MHz RRH	159.90	159	88,311	0.005	11	135
Commscope DT465B-2XR	158.60	174	95,665	0.006	12	148
RFS APXVSPP18-C-A20	158.50	171	93,941	0.006	12	145
Alcatel-Lucent TD-RRH8x20-25 w/ Solar Shield	158.40	210	115,276	0.007	15	178
Generic Round Sector Frame	157.00	900	488,608	0.029	63	765
Alcatel-Lucent 1900 MHz 4X45 RRH	156.10	180	97,025	0.006	13	153
Ericsson Radio 4449 B71 B85A	148.00	225	113,494	0.007	15	191
Ericsson 4460 BAND 2/25	148.00	327	164,944	0.010	21	278
Commscope VV-65A-R1B	148.00	74	37,377	0.002	5	63
Ericsson AIR 6419 B41	148.00	250	126,054	0.008	16	212
RFS APXVAARR24_43-U-NA20	148.00	384	193,545	0.012	25	326
Perfect Vision PV-SFA12-B Sector Frames	147.00	1,776	888,312	0.054	115	1,509
Sinclair SC479-HF1LDF	146.00	34	16,862	0.001	2	29
Round Side Arm	142.50	300	144,354	0.009	19	255
Andrew Microwaves DB810K-XT	137.00	35	16,036	0.001	2	30
Amphenol Antel WPA-700120-4CF-EDIN-X	136.40	7	3,099	0.000	0	6
Generic Round Sector Frame	136.00	600	272,400	0.016	35	510
Generic 24" x 24" Ice Shield	135.00	50	22,492	0.001	3	42
Bird 432E-83I-01-T	134.80	25	11,225	0.001	1	21
Generic 24" x 24" Ice Shield	134.00	50	22,285	0.001	3	42
Sinclair SE419-SF3P4LDF	134.00	48	21,394	0.001	3	41
Morad VHF 156-DELUXE	131.00	1	390	0.000	0	1
Generic Round Side Arm	131.00	375	162,490	0.010	21	319
Sinclair SC479-HF1LDF	129.80	102	43,694	0.003	6	87
RFS PA6-65AC	129.00	278	118,174	0.007	15	236
RFS PA6-65AC	128.00	278	117,034	0.007	15	236
Bird 432-83H-01-T	127.00	25	10,422	0.001	1	21
Generic Round Side Arm	127.00	188	78,167	0.005	10	159
Allgon 7199 / M-1900-90-19.5I	127.00	35	14,675	0.001	2	30
Sinclair SE419-SF3P4LDF	125.00	24	9,810	0.001	1	20
Generic Round Side Arm	121.00	188	73,595	0.004	9	159
Decibel DB586	120.50	59	23,039	0.001	3	50
Generic Round Side Arm	120.50	188	73,217	0.004	9	159
Morad VHF 156-DELUXE	116.80	1	338	0.000	0	1
Morad VHF 156-DELUXE	116.80	1	338	0.000	0	1
Decibel DB586	115.50	59	21,854	0.001	3	50
Generic Round Side Arm	115.00	375	138,157	0.008	18	319
Scala OGT9-840	102.50	18	5,906	0.000	1	16
Generic Round Side Arm	100.00	188	58,043	0.004	7	159
Generic Flat Stand-Off	100.00	188	58,043	0.004	7	159
Sinclair SD210D	97.00	40	11,922	0.001	2	34
PCTEL GPS-TMG-HR-26N	93.60	1	171	0.000	0	1
Scala OGT9-840	92.20	18	5,176	0.000	1	16
Generic Round Side Arm	91.00	188	51,611	0.003	7	159
Generic Round Side Arm	86.00	188	48,104	0.003	6	159
Andrew DB264-A	77.60	36	8,126	0.000	1	31
Commscope RDIDC-9181-PF-48	76.00	22	4,817	0.000	1	19
Fujitsu TA08025-B604	76.00	192	42,164	0.002	5	163
Fujitsu TA08025-B605	76.00	225	49,488	0.003	6	191
JMA Wireless MX08FRO665-21	76.00	194	42,560	0.003	5	164
Generic Round Sector Frame	76.00	900	197,952	0.012	26	765
Generic 2" x 4" GPS	30.00	5	346	0.000	0	4
PCTEL GPS-TMG-HR-26N	18.00	1	22	0.000	0	1
Totals		53,696	16,592,984	1.000	2,142	45,634

SEISMIC

Load Case: 1.2D + 1.0Ev + 1.0Eh

Seismic

Section	Height Above Base (ft)	Weight (lb)	W_z (lb-ft)	Cvx	Horizontal Force (lb)	Vertical Force (lb)
9	170.00	1,634	979,280	0.059	126	2,042
8	150.00	2,409	1,235,866	0.074	160	3,012

7	130.00	3,306	1,418,800	0.086	183	4,133
6	110.00	4,074	1,420,115	0.086	183	5,093
5	90.00	4,247	1,152,917	0.070	149	5,309
4	70.00	4,716	936,373	0.056	121	5,896
3	50.00	5,050	659,340	0.040	85	6,313
2	30.00	5,466	377,795	0.023	49	6,833
1	10.00	6,075	106,881	0.006	14	7,594
Kaelus DBC0061F1V51-2	180.00	153	98,481	0.006	13	191
Powerwave Allgon LGP21401	180.00	85	54,454	0.003	7	106
Raycap DC6-48-60-18-8F ("Squid")	180.00	32	20,469	0.001	3	40
Ericsson RRUS 4478 B14	180.00	180	115,667	0.007	15	225
Ericsson RRUS 4449 B5, B12	180.00	213	137,101	0.008	18	266
Raycap DC6-48-60-18-8C	180.00	32	20,597	0.001	3	40
Ericsson RRUS 32 B30 (53 lbs)	180.00	159	102,343	0.006	13	199
Ericsson RRUS 32 B2	180.00	159	102,343	0.006	13	199
Powerwave Allgon 7770.00	180.00	105	67,585	0.004	9	131
Quintel QS66512-2	180.00	222	142,894	0.009	18	278
CCI DMP65R-BU6DA	180.00	159	102,214	0.006	13	199
CCI OPA65R-BU6D	180.00	126	81,359	0.005	11	158
CCI TPA-65R-LCUUUU-H8	180.00	82	52,523	0.003	7	102
CCI DMP65R-BU8D	180.00	96	61,599	0.004	8	120
CCI OPA65R-BU8D	180.00	76	49,240	0.003	6	96
Generic Round Sector Frame	180.00	900	579,298	0.035	75	1,125
Commscope CBC78T-DS-43-2X	172.00	62	37,771	0.002	5	78
Samsung B5/B13 RRH-BR04C	172.00	211	128,277	0.008	17	264
Samsung B2/B66A RRH-BR049	172.00	253	154,005	0.009	20	317
RFS APL868013-42T0	172.00	13	7,664	0.000	1	16
RFS DB-C1-12C-24AB-0Z	172.00	32	19,464	0.001	3	40
RFS DB-C1-12C-24AB-0Z	172.00	32	19,464	0.001	3	40
Andrew DB844G65ZAXY	172.00	48	29,195	0.002	4	60
Samsung MT6407-77A	172.00	245	148,896	0.009	19	306
Commscope JAHH-65B-R3B	172.00	364	221,154	0.013	29	455
Generic Round Sector Frame	172.00	900	547,411	0.033	71	1,125
Decibel DB844H90-XY	165.00	168	97,030	0.006	13	210
Generic Round Sector Frame	164.00	900	515,886	0.031	67	1,125
Alcatel-Lucent RRH2x50-08	160.70	159	88,694	0.005	11	198
Alcatel-Lucent 800 MHz RRH	159.90	159	88,311	0.005	11	199
Commscope DT465B-2XR	158.60	174	95,665	0.006	12	218
RFS APXVSPP18-C-A20	158.50	171	93,941	0.006	12	214
Alcatel-Lucent TD-RRH8x20-25 w/ Solar Shield	158.40	210	115,276	0.007	15	263
Generic Round Sector Frame	157.00	900	488,608	0.029	63	1,125
Alcatel-Lucent 1900 MHz 4X45 RRH	156.10	180	97,025	0.006	13	225
Ericsson Radio 4449 B71 B85A	148.00	225	113,494	0.007	15	281
Ericsson 4460 BAND 2/25	148.00	327	164,944	0.010	21	409
Commscope VV-65A-R1B	148.00	74	37,377	0.002	5	93
Ericsson AIR 6419 B41	148.00	250	126,054	0.008	16	312
RFS APXVAARR24_43-U-NA20	148.00	384	193,545	0.012	25	480
Perfect Vision PV-SFA12-B Sector Frames	147.00	1,776	888,312	0.054	115	2,220
Sinclair SC479-HF1LDF	146.00	34	16,862	0.001	2	43
Round Side Arm	142.50	300	144,354	0.009	19	375
Andrew Microwaves DB810K-XT	137.00	35	16,036	0.001	2	44
Amphenol Antel WPA-700120-4CF-EDIN-X	136.40	7	3,099	0.000	0	9
Generic Round Sector Frame	136.00	600	272,400	0.016	35	750
Generic 24" x 24" Ice Shield	135.00	50	22,492	0.001	3	63
Bird 432E-83I-01-T	134.80	25	11,225	0.001	1	31
Generic 24" x 24" Ice Shield	134.00	50	22,285	0.001	3	63
Sinclair SE419-SF3P4LDF	134.00	48	21,394	0.001	3	60
Morad VHF 156-DELUXE	131.00	1	390	0.000	0	1
Generic Round Side Arm	131.00	375	162,490	0.010	21	469
Sinclair SC479-HF1LDF	129.80	102	43,694	0.003	6	128
RFS PA6-65AC	129.00	278	118,174	0.007	15	348
RFS PA6-65AC	128.00	278	117,034	0.007	15	348
Bird 432-83H-01-T	127.00	25	10,422	0.001	1	31
Generic Round Side Arm	127.00	188	78,167	0.005	10	234
Allgon 7199 / M-1900-90-19.5I	127.00	35	14,675	0.001	2	44
Sinclair SE419-SF3P4LDF	125.00	24	9,810	0.001	1	30
Generic Round Side Arm	121.00	188	73,595	0.004	9	234
Decibel DB586	120.50	59	23,039	0.001	3	74
Generic Round Side Arm	120.50	188	73,217	0.004	9	234
Morad VHF 156-DELUXE	116.80	1	338	0.000	0	1
Morad VHF 156-DELUXE	116.80	1	338	0.000	0	1
Decibel DB586	115.50	59	21,854	0.001	3	74
Generic Round Side Arm	115.00	375	138,157	0.008	18	469

Scala OGT9-840		102.50	18	5,906	0.000	1	23
Generic Round Side Arm		100.00	188	58,043	0.004	7	234
Generic Flat Stand-Off		100.00	188	58,043	0.004	7	234
Sinclair SD210D		97.00	40	11,922	0.001	2	50
PCTEL GPS-TMG-HR-26N		93.60	1	171	0.000	0	1
Scala OGT9-840		92.20	18	5,176	0.000	1	23
Generic Round Side Arm		91.00	188	51,611	0.003	7	234
Generic Round Side Arm		86.00	188	48,104	0.003	6	234
Andrew DB264-A		77.60	36	8,126	0.000	1	45
Commscope RDIDC-9181-PF-48		76.00	22	4,817	0.000	1	27
Fujitsu TA08025-B604		76.00	192	42,164	0.002	5	240
Fujitsu TA08025-B605		76.00	225	49,488	0.003	6	281
JMA Wireless MX08FRO665-21		76.00	194	42,560	0.003	5	242
Generic Round Sector Frame		76.00	900	197,952	0.012	26	1,125
Generic 2" x 4" GPS		30.00	5	346	0.000	0	6
PCTEL GPS-TMG-HR-26N		18.00	1	22	0.000	0	1
	Totals		53,696	16,592,984	1.000	2,142	67,127

FORCE/STRESS SUMMARY

Section 1 – Base 0.0 (ft) and Height 20.00 (ft)

Max Compression	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'_y (ksi)	$\Phi_c P_n$ (kip)	Shear ΦR_{nv} (kip)	Bear ΦR_n (kip)	# Bolt	# Hole	Use %	Controls
L PSP - ROHN 8 EHS	-322.97	1.2D + 1.0W N	10.017	100	100	100	41.16	50.0	386.43	0.00	0.00	0	0	83	Member X
D SAE - 4X4X0.3125	-10.40	1.2D + 1.0W 90°	24.624	50	50	50	189.17	50.0	19.20	19.88	29.25	1	1	54	Member Z

Max Tension Member	Pu (kip)	Load Case	F_y (ksi)	F_u (ksi)	$\Phi_c P_n$ (kip)	Shear ΦR_{nv} (kip)	Bear ΦR_n (kip)	Blk Shear $\Phi_t P_n$ (kip)	# Bolt	# Hole	Use %	Controls
L PSP - ROHN 8 EHS	276.40	0.9D + 1.0W 60°	50.0	65	437.40	0.00	0.00		0	0	63	Member
D SAE - 4X4X0.3125	10.30	1.2D + 1.0W 90°	50.0	65	78.47	19.88	17.67	22.47	1	1	58	Bolt Bear

Max Splice Forces	Pu (kip)	Load Case	ΦR_{nt} (kip)	Use %	Num Bolts	Bolt Type
Top Tension	255.51	0.9D + 1.0W 180°	0.00	0	0	
Bot Tension	285.57	0.9D + 1.0W 180°	567.88	26	10	1" A354-BC
Bot Compression	332.04	1.2D + 1.0W N	660.26	53	0	

Section 2 – Base 20.0 (ft) and Height 20.00 (ft)

Max Compression	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'_y (ksi)	$\Phi_c P_n$ (kip)	Shear ΦR_{nv} (kip)	Bear ΦR_n (kip)	# Bolt	# Hole	Use %	Controls
L PSP - ROHN 8 EHS	-290.43	1.2D + 1.0W N	10.017	100	100	100	41.16	50.0	386.43	0.00	0.00	0	0	75	Member X
D SAE - 4X4X0.25	-10.64	1.2D + 1.0W 90°	22.811	50	50	50	172.16	43.5	18.73	19.88	23.40	1	1	56	Member Z

Max Tension Member	Pu (kip)	Load Case	F_y (ksi)	F_u (ksi)	$\Phi_c P_n$ (kip)	Shear ΦR_{nv} (kip)	Bear ΦR_n (kip)	Blk Shear $\Phi_t P_n$ (kip)	# Bolt	# Hole	Use %	Controls
L PSP - ROHN 8 EHS	247.97	0.9D + 1.0W 60°	50.0	65	437.40	0.00	0.00		0	0	56	Member
D SAE - 4X4X0.25	10.33	0.9D + 1.0W 90°	50.0	65	63.50	19.88	14.14	17.98	1	1	73	Bolt Bear

Max Splice Forces	Pu (kip)	Load Case	ΦR_{nt} (kip)	Use %	Num Bolts	Bolt Type
Top Tension	225.22	0.9D + 1.0W 180°	0.00	0	0	
Bot Tension	255.51	0.9D + 1.0W 180°	436.14	59	8	1 A325

Section 3 – Base 40.0 (ft) and Height 20.00 (ft)

Max Compression	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'_y (ksi)	$\Phi_c P_n$ (kip)	Shear ΦR_{nv} (kip)	Bear ΦR_n (kip)	# Bolt	# Hole	Use %	Controls
L PX - 6" DIA PIPE	-255.29	1.2D + 1.0W N	10.019	100	100	100	54.77	50.0	303.54	0.00	0.00	0	0	84	Member X
D SAE - 4X4X0.25	-9.85	1.2D + 1.0W 90°	21	50	50	50	158.49	43.5	22.11	19.88	23.40	1	1	49	Bolt Shear

Max Tension Member	Pu (kip)	Load Case	F_y (ksi)	F_u (ksi)	$\Phi_c P_n$ (kip)	Shear ΦR_{nv} (kip)	Bear ΦR_n (kip)	Blk Shear $\Phi_t P_n$ (kip)	# Bolt	# Hole	Use %	Controls
L PX - 6" DIA PIPE	217.91	0.9D + 1.0W 60°	50.0	65	378.00	0.00	0.00		0	0	57	Member
D SAE - 4X4X0.25	9.66	1.2D + 1.0W 90°	50.0	65	63.50	19.88	14.14	17.98	1	1	68	Bolt Bear

Max Splice Forces	Pu (kip)	Load Case	ΦR_{nt} (kip)	Use %	Num Bolts	Bolt Type
Top Tension	194.55	0.9D + 1.0W 180°	0.00	0	0	
Bot Tension	225.22	0.9D + 1.0W 180°	436.14	52	8	1 A325

Section 4 – Base 60.0 (ft) and Height 20.00 (ft)

FORCE/STRESS SUMMARY

Max Compression	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'_y (ksi)	$\Phi_c P_n$ (kip)	Shear ΦR_{nv} (kip)	Bear ΦR_n (kip)	# Bolt	# Hole	Use %	Controls
L PX - 6" DIA PIPE	-218.31	1.2D + 1.0W N	10.017	100	100	100	54.76	50.0	303.58	0.00	0.00	0	0	71	Member X
D SAE - 3.5x3.5x0.25	-10.23	1.2D + 1.0W 90°	19.171	50	50	50	167.19	50.0	17.30	19.88	23.40	1	1	59	Member Z

Max Tension Member	Pu (kip)	Load Case	F_y (ksi)	F_u (ksi)	$\Phi_c P_n$ (kip)	Shear ΦR_{nv} (kip)	Bear ΦR_n (kip)	Blk Shear $\Phi_t P_n$ (kip)	# Bolt	# Hole	Use %	Controls
L PX - 6" DIA PIPE	185.77	0.9D + 1.0W 60°	50.0	65	378.00	0.00	0.00		0	0	49	Member
D SAE - 3.5x3.5x0.25	10.02	1.2D + 1.0W 90°	50.0	65	54.36	19.88	14.14	17.98	1	1	70	Bolt Bear

Max Splice Forces	Pu (kip)	Load Case	ΦR_{nt} (kip)	Use %	Num Bolts	Bolt Type
Top Tension	159.17	0.9D + 1.0W 180°	0.00	0	0	
Bot Tension	194.55	0.9D + 1.0W 180°	327.10	59	6	1 A325

Section 5 – Base 80.0 (ft) and Height 20.00 (ft)

Max Compression	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'_y (ksi)	$\Phi_c P_n$ (kip)	Shear ΦR_{nv} (kip)	Bear ΦR_n (kip)	# Bolt	# Hole	Use %	Controls
L PX - 5" DIA PIPE	-180.74	1.2D + 1.0W N	6.678	100	100	100	43.55	50.0	238.95	0.00	0.00	0	0	75	Member X
D SAE - 3X3X0.25	-8.51	1.2D + 1.0W 90°	15.976	50	50	50	161.92	50.0	15.72	19.88	23.40	1	1	54	Member Z

Max Tension Member	Pu (kip)	Load Case	F_y (ksi)	F_u (ksi)	$\Phi_c P_n$ (kip)	Shear ΦR_{nv} (kip)	Bear ΦR_n (kip)	Blk Shear $\Phi_t P_n$ (kip)	# Bolt	# Hole	Use %	Controls
L PX - 5" DIA PIPE	154.98	0.9D + 1.0W 180°	50.0	65	274.50	0.00	0.00		0	0	56	Member
D SAE - 3X3X0.25	8.39	1.2D + 1.0W 90°	50.0	65	45.22	19.88	14.14	14.93	1	1	59	Bolt Bear

Max Splice Forces	Pu (kip)	Load Case	ΦR_{nt} (kip)	Use %	Num Bolts	Bolt Type
Top Tension	124.32	0.9D + 1.0W 180°	0.00	0	0	
Bot Tension	159.17	0.9D + 1.0W 180°	327.10	49	6	1 A325

Section 6 – Base 100.0 (ft) and Height 20.00 (ft)

Max Compression	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'_y (ksi)	$\Phi_c P_n$ (kip)	Shear ΦR_{nv} (kip)	Bear ΦR_n (kip)	# Bolt	# Hole	Use %	Controls
L PX - 5" DIA PIPE	-139.93	1.2D + 1.0W N	6.678	100	100	100	43.55	50.0	238.95	0.00	0.00	0	0	58	Member X
D SAE - 3X3X0.25	-8.07	1.2D + 1.0W 90°	14.168	50	50	50	143.59	50.0	19.99	19.88	23.40	1	1	40	Bolt Shear

Max Tension Member	Pu (kip)	Load Case	F_y (ksi)	F_u (ksi)	$\Phi_c P_n$ (kip)	Shear ΦR_{nv} (kip)	Bear ΦR_n (kip)	Blk Shear $\Phi_t P_n$ (kip)	# Bolt	# Hole	Use %	Controls
L PX - 5" DIA PIPE	118.98	0.9D + 1.0W 180°	50.0	65	274.50	0.00	0.00		0	0	43	Member
D SAE - 3X3X0.25	7.99	1.2D + 1.0W 90°	50.0	65	45.22	19.88	14.14	14.93	1	1	56	Bolt Bear

Max Splice Forces	Pu (kip)	Load Case	ΦR_{nt} (kip)	Use %	Num Bolts	Bolt Type
Top Tension	85.83	0.9D + 1.0W 180°	0.00	0	0	
Bot Tension	124.32	0.9D + 1.0W 180°	327.10	38	6	1 A325

Section 7 – Base 120.0 (ft) and Height 20.00 (ft)

Max Compression	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'_y (ksi)	$\Phi_c P_n$ (kip)	Shear ΦR_{nv} (kip)	Bear ΦR_n (kip)	# Bolt	# Hole	Use %	Controls
L PX - 4" DIA PIPE	-96.04	1.2D + 1.0W N	6.679	100	100	100	54.15	50.0	160.15	0.00	0.00	0	0	59	Member X
D SAE - 2.5X2.5X0.25	-7.59	1.2D + 1.0W 90°	12.429	50	50	50	151.88	36.0	14.76	19.88	20.88	1	1	51	Member Z

FORCE/STRESS SUMMARY

Max Tension Member	Pu (kip)	Load Case	F_y (ksi)	F_u (ksi)	$\Phi_c P_n$ (kip)	Shear ΦR_{nv} (kip)	Bear ΦR_n (kip)	Blk Shear $\Phi_t P_n$ (kip)	# Bolt	# Hole	Use %	Controls
L PX - 4" DIA PIPE	79.72	0.9D + 1.0W 180°	50.0	65	198.45	0.00	0.00		0	0	40	Member
D SAE - 2.5X2.5X0.25	7.81	1.2D + 1.0W 90°	36.0	58	32.20	19.88	12.62	11.96	1	1	65	Blk Shear

Max Splice Forces	Pu (kip)	Load Case	ΦR_{nt} (kip)	Use %	Num Bolts	Bolt Type
Top Tension	50.25	0.9D + 1.0W 180°	0.00	0	0	
Bot Tension	85.83	0.9D + 1.0W 180°	218.07	39	4	1 A325

Section 8 – Base 140.0 (ft) and Height 20.00 (ft)

Max Compression	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'_y (ksi)	$\Phi_c P_n$ (kip)	Shear ΦR_{nv} (kip)	Bear ΦR_n (kip)	# Bolt	# Hole	Use %	Controls
L PST - 3" DIA PIPE	-58.18	1.2D + 1.0W N	4.946	100	100	100	51.17	50.0	82.87	0.00	0.00	0	0	70	Member X
H SAE - 2X2X0.25	-1.23	1.2D + 1.0W 120°	6.689	100	100	100	205.27	36.0	6.38	13.81	17.40	1	1	19	Member Z
D SAE - 2X2X0.25	-4.96	1.2D + 1.0W 90°	9.813	50	50	50	150.58	36.0	11.87	13.81	17.40	1	1	41	Member Z

Max Tension Member	Pu (kip)	Load Case	F_y (ksi)	F_u (ksi)	$\Phi_c P_n$ (kip)	Shear ΦR_{nv} (kip)	Bear ΦR_n (kip)	Blk Shear $\Phi_t P_n$ (kip)	# Bolt	# Hole	Use %	Controls
L PST - 3" DIA PIPE	51.36	0.9D + 1.0W 180°	50.0	65	100.35	0.00	0.00		0	0	51	Member
H SAE - 2X2X0.25	1.52	1.2D + 1.0W 330°	36.0	58	25.06	13.81	10.44	9.11	1	1	16	Blk Shear
D SAE - 2X2X0.25	4.75	1.2D + 1.0W 90°	36.0	58	25.06	13.81	10.44	9.11	1	1	52	Blk Shear

Max Splice Forces	Pu (kip)	Load Case	ΦR_{nt} (kip)	Use %	Num Bolts	Bolt Type
Top Tension	21.15	0.9D + 1.0W 180°	0.00	0	0	
Bot Tension	50.25	0.9D + 1.0W 180°	166.22	30	4	0.875" A325

Section 9 – Base 160.0 (ft) and Height 20.00 (ft)

Max Compression	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'_y (ksi)	$\Phi_c P_n$ (kip)	Shear ΦR_{nv} (kip)	Bear ΦR_n (kip)	# Bolt	# Hole	Use %	Controls
L PST - 2-1/2" DIA PIPE	-23.13	1.2D + 1.0W N	3.95	100	100	100	50.05	50.0	63.85	0.00	0.00	0	0	36	Member X
H SAE - 2X2X0.125	-0.79	1.2D + 1.0W 180°	6.647	100	100	100	200.41	36.0	3.42	13.81	8.70	1	1	23	Member Z
D SAE - 1.75X1.75X0.1875	-4.55	1.2D + 1.0W N	7.764	50	50	50	135.81	36.0	9.64	13.81	13.05	1	1	47	Member Z

Max Tension Member	Pu (kip)	Load Case	F_y (ksi)	F_u (ksi)	$\Phi_c P_n$ (kip)	Shear ΦR_{nv} (kip)	Bear ΦR_n (kip)	Blk Shear $\Phi_t P_n$ (kip)	# Bolt	# Hole	Use %	Controls
L PST - 2-1/2" DIA PIPE	21.76	0.9D + 1.0W 180°	50.0	65	76.68	0.00	0.00		0	0	28	Member
H SAE - 2X2X0.125	0.92	1.2D + 1.0W N	36.0	58	12.86	13.81	5.22	4.55	1	1	20	Blk Shear
D SAE - 1.75X1.75X0.1875	5.02	1.2D + 1.0W N	36.0	58	16.05	13.81	7.83	5.81	1	1	86	Blk Shear

Max Splice Forces	Pu (kip)	Load Case	ΦR_{nt} (kip)	Use %	Num Bolts	Bolt Type
Bot Tension	21.15	0.9D + 1.0W 180°	120.41	18	4	0.75" A325

DETAILED REACTIONS

Load Case	Radius (ft)	Elevation (ft)	Azimuth (deg)	Node	*(-) Uplift and (+) Down *F_X (kip)	*F_Y (kip)	*F_Z (kip)
1.2D + 1.0W Normal	13.28	0.00	0	1	-0.01	331.40	-35.27
	13.28	0.00	120	1a	11.82	-133.48	-10.68
	13.28	0.00	240	1b	-11.82	-133.49	-10.69
1.2D + 1.0W 60°	13.28	0.00	0	1	-3.15	171.57	-17.71
	13.28	0.00	120	1a	-16.88	170.73	6.15
	13.28	0.00	240	1b	-27.09	-277.87	-15.63
1.2D + 1.0W 90°	13.28	0.00	0	1	-3.71	21.48	-1.40
	13.28	0.00	120	1a	-26.80	282.58	13.37
	13.28	0.00	240	1b	-24.46	-239.63	-11.97
1.2D + 1.0W 120°	13.28	0.00	0	1	-3.38	-133.50	15.59
	13.28	0.00	120	1a	-30.54	330.58	17.63
	13.28	0.00	240	1b	-15.16	-132.65	-4.88
1.2D + 1.0W 180°	13.28	0.00	0	1	-0.01	-278.72	31.30
	13.28	0.00	120	1a	-13.77	171.57	11.56
	13.28	0.00	240	1b	13.78	171.58	11.55
1.2D + 1.0W 210°	13.28	0.00	0	1	1.87	-240.61	27.20
	13.28	0.00	120	1a	0.62	21.97	3.90
	13.28	0.00	240	1b	24.99	283.07	16.51
1.2D + 1.0W 240°	13.28	0.00	0	1	3.37	-133.49	15.59
	13.28	0.00	120	1a	15.17	-132.65	-4.87
	13.28	0.00	240	1b	30.55	330.58	17.62
1.2D + 1.0W 300°	13.28	0.00	0	1	3.13	171.58	-17.71
	13.28	0.00	120	1a	27.09	-277.87	-15.62
	13.28	0.00	240	1b	16.89	170.73	6.13
1.2D + 1.0W 330°	13.28	0.00	0	1	1.82	283.56	-29.92
	13.28	0.00	120	1a	22.61	-240.12	-15.19
	13.28	0.00	240	1b	3.05	20.99	-2.50
0.9D + 1.0W Normal	13.28	0.00	0	1	-0.01	325.59	-34.91
	13.28	0.00	120	1a	12.14	-138.63	-10.88
	13.28	0.00	240	1b	-12.13	-138.63	-10.89
0.9D + 1.0W 60°	13.28	0.00	0	1	-3.15	165.98	-17.34
	13.28	0.00	120	1a	-16.56	165.13	5.95
	13.28	0.00	240	1b	-27.40	-282.78	-15.82
0.9D + 1.0W 90°	13.28	0.00	0	1	-3.72	16.11	-1.03
	13.28	0.00	120	1a	-26.47	276.82	13.18
	13.28	0.00	240	1b	-24.78	-244.61	-12.14
0.9D + 1.0W 120°	13.28	0.00	0	1	-3.39	-138.63	15.96
	13.28	0.00	120	1a	-30.22	324.74	17.44
	13.28	0.00	240	1b	-15.48	-137.78	-5.06
0.9D + 1.0W 180°	13.28	0.00	0	1	-0.01	-283.63	31.66
	13.28	0.00	120	1a	-13.45	165.98	11.38
	13.28	0.00	240	1b	13.46	165.98	11.37
0.9D + 1.0W 210°	13.28	0.00	0	1	1.87	-245.58	27.56
	13.28	0.00	120	1a	0.95	16.60	3.73
	13.28	0.00	240	1b	24.67	277.31	16.33
0.9D + 1.0W 240°	13.28	0.00	0	1	3.37	-138.63	15.96
	13.28	0.00	120	1a	15.49	-137.79	-5.04
	13.28	0.00	240	1b	30.23	324.74	17.43
0.9D + 1.0W 300°	13.28	0.00	0	1	3.14	165.98	-17.34
	13.28	0.00	120	1a	27.41	-282.78	-15.80
	13.28	0.00	240	1b	16.57	165.13	5.94
0.9D + 1.0W 330°	13.28	0.00	0	1	1.82	277.80	-29.54
	13.28	0.00	120	1a	22.93	-245.09	-15.37
	13.28	0.00	240	1b	2.74	15.62	-2.69
1.2D + 1.0Di + 1.0Wi Normal	13.28	0.00	0	1	0.00	134.06	-9.81
	13.28	0.00	120	1a	4.13	-1.19	-3.57
	13.28	0.00	240	1b	-4.13	-1.19	-3.57
1.2D + 1.0Di + 1.0Wi 60°	13.28	0.00	0	1	-1.00	88.18	-4.64
	13.28	0.00	120	1a	-4.51	87.97	1.46
	13.28	0.00	240	1b	-8.84	-44.45	-5.10
1.2D + 1.0Di + 1.0Wi 90°	13.28	0.00	0	1	-1.17	43.90	0.30
	13.28	0.00	120	1a	-7.48	120.70	3.65
	13.28	0.00	240	1b	-8.02	-32.90	-3.96
1.2D + 1.0Di + 1.0Wi 120°	13.28	0.00	0	1	-1.04	-1.19	5.36
	13.28	0.00	120	1a	-8.49	133.85	4.90
	13.28	0.00	240	1b	-5.16	-0.97	-1.79
1.2D + 1.0Di + 1.0Wi 180°	13.28	0.00	0	1	0.00	-44.67	10.21
	13.28	0.00	120	1a	-3.52	88.18	3.18

DETAILED REACTIONS

Load Case	Radius (ft)	Elevation (ft)	Azimuth (deg)	Node	*(-) Uplift and (+) Down *F_X (kip)	*F_Y (kip)	*F_Z (kip)
	13.28	0.00	240	1b	3.53	88.18	3.18
1.2D + 1.0Di + 1.0Wi 210°	13.28	0.00	0	1	0.58	-33.15	8.93
	13.28	0.00	120	1a	0.84	44.02	0.85
	13.28	0.00	240	1b	6.91	120.82	4.65
1.2D + 1.0Di + 1.0Wi 240°	13.28	0.00	0	1	1.03	-1.19	5.36
	13.28	0.00	120	1a	5.16	-0.97	-1.79
	13.28	0.00	240	1b	8.49	133.85	4.90
1.2D + 1.0Di + 1.0Wi 300°	13.28	0.00	0	1	1.00	88.18	-4.64
	13.28	0.00	120	1a	8.84	-44.45	-5.10
	13.28	0.00	240	1b	4.52	87.97	1.46
1.2D + 1.0Di + 1.0Wi 330°	13.28	0.00	0	1	0.58	120.94	-8.31
	13.28	0.00	120	1a	7.44	-33.02	-4.96
	13.28	0.00	240	1b	0.32	43.78	-1.16
1.2D + 1.0Ev + 1.0Eh Normal	13.28	0.00	0	1	0.00	35.60	-2.86
	13.28	0.00	120	1a	-0.80	14.50	0.38
	13.28	0.00	240	1b	0.80	14.50	0.38
1.2D + 1.0Ev + 1.0Eh 60°	13.28	0.00	0	1	-0.07	28.57	-2.20
	13.28	0.00	120	1a	-1.94	28.57	1.04
	13.28	0.00	240	1b	0.19	7.46	0.11
1.2D + 1.0Ev + 1.0Eh 90°	13.28	0.00	0	1	-0.09	21.53	-1.54
	13.28	0.00	120	1a	-2.35	33.72	1.30
	13.28	0.00	240	1b	0.32	9.35	0.23
1.2D + 1.0Ev + 1.0Eh 120°	13.28	0.00	0	1	-0.07	14.50	-0.88
	13.28	0.00	120	1a	-2.48	35.60	1.43
	13.28	0.00	240	1b	0.72	14.50	0.50
1.2D + 1.0Ev + 1.0Eh 180°	13.28	0.00	0	1	0.00	7.46	-0.22
	13.28	0.00	120	1a	-1.87	28.57	1.16
	13.28	0.00	240	1b	1.87	28.57	1.16
1.2D + 1.0Ev + 1.0Eh 210°	13.28	0.00	0	1	0.04	9.35	-0.39
	13.28	0.00	120	1a	-1.29	21.53	0.84
	13.28	0.00	240	1b	2.30	33.72	1.38
1.2D + 1.0Ev + 1.0Eh 240°	13.28	0.00	0	1	0.07	14.50	-0.88
	13.28	0.00	120	1a	-0.72	14.50	0.50
	13.28	0.00	240	1b	2.48	35.60	1.43
1.2D + 1.0Ev + 1.0Eh 300°	13.28	0.00	0	1	0.07	28.57	-2.20
	13.28	0.00	120	1a	-0.19	7.46	0.11
	13.28	0.00	240	1b	1.94	28.57	1.04
1.2D + 1.0Ev + 1.0Eh 330°	13.28	0.00	0	1	0.04	33.72	-2.68
	13.28	0.00	120	1a	-0.36	9.35	0.16
	13.28	0.00	240	1b	1.38	21.53	0.70
0.9D - 1.0Ev + 1.0Eh Normal	13.28	0.00	0	1	0.00	28.68	-2.37
	13.28	0.00	120	1a	-0.37	7.62	0.13
	13.28	0.00	240	1b	0.37	7.62	0.13
0.9D - 1.0Ev + 1.0Eh 60°	13.28	0.00	0	1	-0.07	21.66	-1.71
	13.28	0.00	120	1a	-1.52	21.66	0.79
	13.28	0.00	240	1b	-0.24	0.60	-0.14
0.9D - 1.0Ev + 1.0Eh 90°	13.28	0.00	0	1	-0.09	14.64	-1.05
	13.28	0.00	120	1a	-1.92	26.80	1.06
	13.28	0.00	240	1b	-0.11	2.48	-0.01
0.9D - 1.0Ev + 1.0Eh 120°	13.28	0.00	0	1	-0.07	7.62	-0.39
	13.28	0.00	120	1a	-2.05	28.68	1.18
	13.28	0.00	240	1b	0.30	7.62	0.26
0.9D - 1.0Ev + 1.0Eh 180°	13.28	0.00	0	1	0.00	0.60	0.27
	13.28	0.00	120	1a	-1.44	21.66	0.92
	13.28	0.00	240	1b	1.44	21.66	0.92
0.9D - 1.0Ev + 1.0Eh 210°	13.28	0.00	0	1	0.04	2.48	0.10
	13.28	0.00	120	1a	-0.86	14.64	0.60
	13.28	0.00	240	1b	1.88	26.80	1.13
0.9D - 1.0Ev + 1.0Eh 240°	13.28	0.00	0	1	0.07	7.62	-0.39
	13.28	0.00	120	1a	-0.30	7.62	0.26
	13.28	0.00	240	1b	2.05	28.68	1.18
0.9D - 1.0Ev + 1.0Eh 300°	13.28	0.00	0	1	0.07	21.66	-1.71
	13.28	0.00	120	1a	0.24	0.60	-0.14
	13.28	0.00	240	1b	1.52	21.66	0.79
0.9D - 1.0Ev + 1.0Eh 330°	13.28	0.00	0	1	0.04	26.80	-2.19
	13.28	0.00	120	1a	0.06	2.48	-0.09
	13.28	0.00	240	1b	0.95	14.64	0.45
1.0D + 1.0W Service Normal	13.28	0.00	0	1	0.00	101.20	-10.40

DETAILED REACTIONS

Load Case	Radius (ft)	Elevation (ft)	Azimuth (deg)	Node	*(-) Uplift and (+) Down *F_X (kip)	*F_Y (kip)	*F_Z (kip)
	13.28	0.00	120	1a	2.46	-23.75	-2.47
	13.28	0.00	240	1b	-2.46	-23.75	-2.47
1.0D + 1.0W Service 60°	13.28	0.00	0	1	-0.87	58.25	-5.64
	13.28	0.00	120	1a	-5.31	58.02	2.07
	13.28	0.00	240	1b	-6.58	-62.57	-3.80
1.0D + 1.0W Service 90°	13.28	0.00	0	1	-1.02	17.90	-1.22
	13.28	0.00	120	1a	-7.99	88.09	4.03
	13.28	0.00	240	1b	-5.88	-52.29	-2.81
1.0D + 1.0W Service 120°	13.28	0.00	0	1	-0.92	-23.75	3.36
	13.28	0.00	120	1a	-9.00	100.98	5.19
	13.28	0.00	240	1b	-3.37	-23.53	-0.89
1.0D + 1.0W Service 180°	13.28	0.00	0	1	0.00	-62.80	7.61
	13.28	0.00	120	1a	-4.45	58.25	3.56
	13.28	0.00	240	1b	4.45	58.25	3.56
1.0D + 1.0W Service 210°	13.28	0.00	0	1	0.51	-52.55	6.50
	13.28	0.00	120	1a	-0.56	18.03	1.49
	13.28	0.00	240	1b	7.49	88.22	4.90
1.0D + 1.0W Service 240°	13.28	0.00	0	1	0.92	-23.75	3.36
	13.28	0.00	120	1a	3.37	-23.53	-0.89
	13.28	0.00	240	1b	9.00	100.98	5.19
1.0D + 1.0W Service 300°	13.28	0.00	0	1	0.86	58.25	-5.64
	13.28	0.00	120	1a	6.58	-62.57	-3.80
	13.28	0.00	240	1b	5.31	58.02	2.07
1.0D + 1.0W Service 330°	13.28	0.00	0	1	0.50	88.35	-8.94
	13.28	0.00	120	1a	5.37	-52.42	-3.68
	13.28	0.00	240	1b	1.56	17.77	-0.26

Max Uplift:	283.63 (kip)	Moment Ice:	1795.99 (kip-ft)	Moment:	6173.27 (kip-ft)
Max Down:	331.4 (kip)	Total Down Ice:	131.69 (kip)	Total Down:	64.43 (kip)
Max Shear:	35.27 (kip)	Total Shear Ice:	16.95 (kip)	Total Shear:	56.64(kip)

1.2D + 1.0W Normal

DEFLECTIONS AND ROTATIONS

Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
1.2D + 1.0W Normal 116 mph wind with no ice	20.00	0.0247	0.2137	0.1312	0.241
1.2D + 1.0W Normal 116 mph wind with no ice	30.00	0.0498	0.3194	0.1790	0.3532
1.2D + 1.0W Normal 116 mph wind with no ice	80.00	0.2975	1.2852	0.4782	1.3379
1.2D + 1.0W Normal 116 mph wind with no ice	86.67	0.3478	1.5644	0.5358	1.6175
1.2D + 1.0W Normal 116 mph wind with no ice	93.33	0.4029	1.8439	0.5908	1.8973
1.2D + 1.0W Normal 116 mph wind with no ice	100.00	0.4624	2.1232	0.6425	2.1769
1.2D + 1.0W Normal 116 mph wind with no ice	113.33	0.5941	2.6816	0.7425	2.7367
1.2D + 1.0W Normal 116 mph wind with no ice	120.00	0.6662	2.9599	0.7961	3.0174
1.2D + 1.0W Normal 116 mph wind with no ice	126.67	0.7426	3.5531	0.8750	3.6113
1.2D + 1.0W Normal 116 mph wind with no ice	133.33	0.8233	4.1424	0.9490	4.2137
1.2D + 1.0W Normal 116 mph wind with no ice	140.00	0.9078	4.7282	1.0686	4.8232
1.2D + 1.0W Normal 116 mph wind with no ice	140.25	0.9112	4.7984	1.0819	4.8963
1.2D + 1.0W Normal 116 mph wind with no ice	145.19	0.9778	6.2074	1.2595	6.3339
1.2D + 1.0W Normal 116 mph wind with no ice	150.13	1.0479	7.6472	1.3787	7.7704
1.2D + 1.0W Normal 116 mph wind with no ice	155.06	1.1208	9.0833	1.5455	9.2138
1.2D + 1.0W Normal 116 mph wind with no ice	160.00	1.1968	10.5227	1.6068	10.6446
1.2D + 1.0W Normal 116 mph wind with no ice	160.25	1.2024	10.6667	1.5505	10.7788
1.2D + 1.0W Normal 116 mph wind with no ice	164.20	1.2657	12.9517	1.3381	13.012
1.2D + 1.0W Normal 116 mph wind with no ice	172.10	1.3959	12.9592	1.0285	13
1.2D + 1.0W Normal 116 mph wind with no ice	180.00	1.5268	12.9600	1.0967	13.0063
1.2D + 1.0W 60° 116 mph wind with no ice	20.00	0.0236	0.2155	0.1264	0.241
1.2D + 1.0W 60° 116 mph wind with no ice	30.00	0.0477	0.3232	0.1732	0.361
1.2D + 1.0W 60° 116 mph wind with no ice	80.00	0.2879	1.3129	0.4609	1.373
1.2D + 1.0W 60° 116 mph wind with no ice	86.67	0.3367	1.6007	0.5160	1.6642
1.2D + 1.0W 60° 116 mph wind with no ice	93.33	0.3902	1.8888	0.5681	1.9528
1.2D + 1.0W 60° 116 mph wind with no ice	100.00	0.4479	2.1768	0.6170	2.2425
1.2D + 1.0W 60° 116 mph wind with no ice	113.33	0.5757	2.7530	0.7127	2.8216
1.2D + 1.0W 60° 116 mph wind with no ice	120.00	0.6454	3.0396	0.7537	3.1105
1.2D + 1.0W 60° 116 mph wind with no ice	126.67	0.7194	3.6543	0.8475	3.7284
1.2D + 1.0W 60° 116 mph wind with no ice	133.33	0.7975	4.2785	0.8838	4.3464
1.2D + 1.0W 60° 116 mph wind with no ice	140.00	0.8791	4.8983	0.9884	4.9837
1.2D + 1.0W 60° 116 mph wind with no ice	140.25	0.8825	4.9725	1.0002	5.0606
1.2D + 1.0W 60° 116 mph wind with no ice	145.19	0.9467	6.4528	1.0911	6.5436
1.2D + 1.0W 60° 116 mph wind with no ice	150.13	1.014	7.9461	1.2017	8.0364
1.2D + 1.0W 60° 116 mph wind with no ice	155.06	1.0843	9.4357	1.3315	9.5268
1.2D + 1.0W 60° 116 mph wind with no ice	160.00	1.1567	10.9238	1.4868	11.0245
1.2D + 1.0W 60° 116 mph wind with no ice	160.25	1.161	11.0714	1.4729	11.1689
1.2D + 1.0W 60° 116 mph wind with no ice	164.20	1.2228	13.3976	1.1724	13.4392
1.2D + 1.0W 60° 116 mph wind with no ice	172.10	1.3462	13.4264	0.9358	13.4579
1.2D + 1.0W 60° 116 mph wind with no ice	180.00	1.4699	13.4391	0.9331	13.4692
1.2D + 1.0W 90° 116 mph wind with no ice	20.00	0.0235	0.2132	0.1318	0.2382
1.2D + 1.0W 90° 116 mph wind with no ice	30.00	0.0478	0.3192	0.1759	0.3536
1.2D + 1.0W 90° 116 mph wind with no ice	80.00	0.2892	1.2896	0.4756	1.3406
1.2D + 1.0W 90° 116 mph wind with no ice	86.67	0.3384	1.5708	0.5305	1.6233
1.2D + 1.0W 90° 116 mph wind with no ice	93.33	0.3921	1.8523	0.5858	1.9042
1.2D + 1.0W 90° 116 mph wind with no ice	100.00	0.4502	2.1337	0.6362	2.1861
1.2D + 1.0W 90° 116 mph wind with no ice	113.33	0.5786	2.6965	0.7364	2.7499
1.2D + 1.0W 90° 116 mph wind with no ice	120.00	0.6484	2.9764	0.7801	3.0301
1.2D + 1.0W 90° 116 mph wind with no ice	126.67	0.7228	3.5757	0.8905	3.633
1.2D + 1.0W 90° 116 mph wind with no ice	133.33	0.8013	4.1804	0.9261	4.2279
1.2D + 1.0W 90° 116 mph wind with no ice	140.00	0.8828	4.7813	1.0352	4.8432
1.2D + 1.0W 90° 116 mph wind with no ice	140.25	0.8862	4.8532	1.0464	4.9177
1.2D + 1.0W 90° 116 mph wind with no ice	145.19	0.9509	6.2856	1.1896	6.3501
1.2D + 1.0W 90° 116 mph wind with no ice	150.13	1.0179	7.7294	1.2926	7.7924
1.2D + 1.0W 90° 116 mph wind with no ice	155.06	1.0885	9.1692	1.4644	9.2296
1.2D + 1.0W 90° 116 mph wind with no ice	160.00	1.1608	10.6130	1.4079	10.6861
1.2D + 1.0W 90° 116 mph wind with no ice	160.25	1.1657	10.7571	1.4123	10.8344
1.2D + 1.0W 90° 116 mph wind with no ice	164.20	1.2264	13.0432	0.9209	13.0702
1.2D + 1.0W 90° 116 mph wind with no ice	172.10	1.3498	13.0487	0.8901	13.0783
1.2D + 1.0W 90° 116 mph wind with no ice	180.00	1.4733	13.0496	0.8519	13.0754
1.2D + 1.0W 120° 116 mph wind with no ice	20.00	0.0247	0.2087	0.1307	0.2376
1.2D + 1.0W 120° 116 mph wind with no ice	30.00	0.0498	0.3119	0.1784	0.3479
1.2D + 1.0W 120° 116 mph wind with no ice	80.00	0.2965	1.2548	0.4752	1.315
1.2D + 1.0W 120° 116 mph wind with no ice	86.67	0.3466	1.5273	0.5321	1.5894

DEFLECTIONS AND ROTATIONS

Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
1.2D + 1.0W 120° 116 mph wind with no ice	93.33	0.4015	1.8000	0.5864	1.864
1.2D + 1.0W 120° 116 mph wind with no ice	100.00	0.4607	2.0726	0.6373	2.1384
1.2D + 1.0W 120° 116 mph wind with no ice	113.33	0.5917	2.6177	0.7366	2.688
1.2D + 1.0W 120° 116 mph wind with no ice	120.00	0.6633	2.8892	0.7838	2.9624
1.2D + 1.0W 120° 116 mph wind with no ice	126.67	0.7392	3.4688	0.8898	3.5503
1.2D + 1.0W 120° 116 mph wind with no ice	133.33	0.8192	4.0485	0.9299	4.1213
1.2D + 1.0W 120° 116 mph wind with no ice	140.00	0.9029	4.6260	1.0534	4.7054
1.2D + 1.0W 120° 116 mph wind with no ice	140.25	0.9062	4.6952	1.0661	4.7753
1.2D + 1.0W 120° 116 mph wind with no ice	145.19	0.9721	6.0681	1.2291	6.1482
1.2D + 1.0W 120° 116 mph wind with no ice	150.13	1.0412	7.4495	1.3399	7.5209
1.2D + 1.0W 120° 116 mph wind with no ice	155.06	1.1128	8.8259	1.5088	8.9016
1.2D + 1.0W 120° 116 mph wind with no ice	160.00	1.1873	10.2156	1.4874	10.2676
1.2D + 1.0W 120° 116 mph wind with no ice	160.25	1.1927	10.3559	1.4839	10.4129
1.2D + 1.0W 120° 116 mph wind with no ice	164.20	1.254	12.5993	0.8962	12.6312
1.2D + 1.0W 120° 116 mph wind with no ice	172.10	1.3808	12.5816	0.9195	12.6147
1.2D + 1.0W 120° 116 mph wind with no ice	180.00	1.508	12.5700	0.8943	12.6014
1.2D + 1.0W 180° 116 mph wind with no ice	20.00	0.0237	0.2113	0.1264	0.2373
1.2D + 1.0W 180° 116 mph wind with no ice	30.00	0.0478	0.3170	0.1732	0.3556
1.2D + 1.0W 180° 116 mph wind with no ice	80.00	0.2888	1.2875	0.4611	1.349
1.2D + 1.0W 180° 116 mph wind with no ice	86.67	0.3379	1.5697	0.5162	1.6347
1.2D + 1.0W 180° 116 mph wind with no ice	93.33	0.3916	1.8522	0.5683	1.9178
1.2D + 1.0W 180° 116 mph wind with no ice	100.00	0.4496	2.1347	0.6174	2.202
1.2D + 1.0W 180° 116 mph wind with no ice	113.33	0.5781	2.6997	0.7126	2.7699
1.2D + 1.0W 180° 116 mph wind with no ice	120.00	0.6484	2.9810	0.7588	3.0541
1.2D + 1.0W 180° 116 mph wind with no ice	126.67	0.7229	3.5827	0.8261	3.6557
1.2D + 1.0W 180° 116 mph wind with no ice	133.33	0.8017	4.1881	0.8915	4.258
1.2D + 1.0W 180° 116 mph wind with no ice	140.00	0.884	4.7873	0.9902	4.8741
1.2D + 1.0W 180° 116 mph wind with no ice	140.25	0.8875	4.8591	1.0021	4.9486
1.2D + 1.0W 180° 116 mph wind with no ice	145.19	0.9525	6.2912	1.0976	6.3825
1.2D + 1.0W 180° 116 mph wind with no ice	150.13	1.0207	7.7358	1.2008	7.8271
1.2D + 1.0W 180° 116 mph wind with no ice	155.06	1.0923	9.1764	1.3351	9.2673
1.2D + 1.0W 180° 116 mph wind with no ice	160.00	1.1662	10.6215	1.4967	10.7265
1.2D + 1.0W 180° 116 mph wind with no ice	160.25	1.1709	10.7660	1.4759	10.8666
1.2D + 1.0W 180° 116 mph wind with no ice	164.20	1.2344	13.0516	1.3520	13.1105
1.2D + 1.0W 180° 116 mph wind with no ice	172.10	1.3612	13.0565	1.0181	13.0951
1.2D + 1.0W 180° 116 mph wind with no ice	180.00	1.4886	13.0569	1.0902	13.0993
1.2D + 1.0W 210° 116 mph wind with no ice	20.00	0.0235	0.2177	0.1323	0.2418
1.2D + 1.0W 210° 116 mph wind with no ice	30.00	0.0479	0.3259	0.1766	0.3598
1.2D + 1.0W 210° 116 mph wind with no ice	80.00	0.2902	1.3170	0.4786	1.3673
1.2D + 1.0W 210° 116 mph wind with no ice	86.67	0.3396	1.6042	0.5342	1.6561
1.2D + 1.0W 210° 116 mph wind with no ice	93.33	0.3935	1.8917	0.5901	1.9431
1.2D + 1.0W 210° 116 mph wind with no ice	100.00	0.4519	2.1791	0.6414	2.231
1.2D + 1.0W 210° 116 mph wind with no ice	113.33	0.581	2.7539	0.7422	2.8068
1.2D + 1.0W 210° 116 mph wind with no ice	120.00	0.6513	3.0398	0.7919	3.094
1.2D + 1.0W 210° 116 mph wind with no ice	126.67	0.7262	3.6520	0.8762	3.705
1.2D + 1.0W 210° 116 mph wind with no ice	133.33	0.8054	4.2706	0.9440	4.3193
1.2D + 1.0W 210° 116 mph wind with no ice	140.00	0.8878	4.8857	1.0486	4.9477
1.2D + 1.0W 210° 116 mph wind with no ice	140.25	0.8912	4.9593	1.0603	5.024
1.2D + 1.0W 210° 116 mph wind with no ice	145.19	0.9567	6.4252	1.2154	6.4914
1.2D + 1.0W 210° 116 mph wind with no ice	150.13	1.0247	7.9029	1.3260	7.9683
1.2D + 1.0W 210° 116 mph wind with no ice	155.06	1.0965	9.3766	1.4935	9.4382
1.2D + 1.0W 210° 116 mph wind with no ice	160.00	1.1704	10.8532	1.5259	10.9384
1.2D + 1.0W 210° 116 mph wind with no ice	160.25	1.1755	11.0004	1.4786	11.0844
1.2D + 1.0W 210° 116 mph wind with no ice	164.20	1.2382	13.3236	1.3672	13.3852
1.2D + 1.0W 210° 116 mph wind with no ice	172.10	1.365	13.3508	1.0024	13.3877
1.2D + 1.0W 210° 116 mph wind with no ice	180.00	1.4922	13.3635	1.0632	13.4032
1.2D + 1.0W 240° 116 mph wind with no ice	20.00	0.0247	0.2174	0.1313	0.2452
1.2D + 1.0W 240° 116 mph wind with no ice	30.00	0.0498	0.3250	0.1791	0.3596
1.2D + 1.0W 240° 116 mph wind with no ice	80.00	0.2965	1.3080	0.4783	1.3663
1.2D + 1.0W 240° 116 mph wind with no ice	86.67	0.3466	1.5922	0.5360	1.6524
1.2D + 1.0W 240° 116 mph wind with no ice	93.33	0.4015	1.8766	0.5910	1.9388
1.2D + 1.0W 240° 116 mph wind with no ice	100.00	0.4607	2.1609	0.6428	2.225
1.2D + 1.0W 240° 116 mph wind with no ice	113.33	0.5917	2.7293	0.7434	2.7981
1.2D + 1.0W 240° 116 mph wind with no ice	120.00	0.6633	3.0122	0.7930	3.0845
1.2D + 1.0W 240° 116 mph wind with no ice	126.67	0.7392	3.6180	0.8939	3.6971
1.2D + 1.0W 240° 116 mph wind with no ice	133.33	0.8192	4.2308	0.9449	4.3037
1.2D + 1.0W 240° 116 mph wind with no ice	140.00	0.9029	4.8434	1.0698	4.9226
1.2D + 1.0W 240° 116 mph wind with no ice	140.25	0.9062	4.9167	1.0832	4.9967

DEFLECTIONS AND ROTATIONS

Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
1.2D + 1.0W 240° 116 mph wind with no ice	145.19	0.972	6.3723	1.2610	6.4548
1.2D + 1.0W 240° 116 mph wind with no ice	150.13	1.0412	7.8368	1.3772	7.9113
1.2D + 1.0W 240° 116 mph wind with no ice	155.06	1.1128	9.2967	1.5508	9.3759
1.2D + 1.0W 240° 116 mph wind with no ice	160.00	1.1873	10.7628	1.5749	10.8252
1.2D + 1.0W 240° 116 mph wind with no ice	160.25	1.1927	10.9095	1.5425	10.9708
1.2D + 1.0W 240° 116 mph wind with no ice	164.20	1.2541	13.2317	1.1775	13.2807
1.2D + 1.0W 240° 116 mph wind with no ice	172.10	1.3809	13.2598	0.9466	13.2933
1.2D + 1.0W 240° 116 mph wind with no ice	180.00	1.5081	13.2730	0.9469	13.3059
1.2D + 1.0W 300° 116 mph wind with no ice	20.00	0.0236	0.2072	0.1259	0.2336
1.2D + 1.0W 300° 116 mph wind with no ice	30.00	0.0477	0.3109	0.1725	0.35
1.2D + 1.0W 300° 116 mph wind with no ice	80.00	0.2879	1.2627	0.4583	1.3247
1.2D + 1.0W 300° 116 mph wind with no ice	86.67	0.3367	1.5395	0.5128	1.6049
1.2D + 1.0W 300° 116 mph wind with no ice	93.33	0.3902	1.8166	0.5643	1.8825
1.2D + 1.0W 300° 116 mph wind with no ice	100.00	0.4479	2.0936	0.6128	2.1612
1.2D + 1.0W 300° 116 mph wind with no ice	113.33	0.5757	2.6478	0.7073	2.7183
1.2D + 1.0W 300° 116 mph wind with no ice	120.00	0.6454	2.9239	0.7482	2.996
1.2D + 1.0W 300° 116 mph wind with no ice	126.67	0.7194	3.5130	0.8398	3.5907
1.2D + 1.0W 300° 116 mph wind with no ice	133.33	0.7975	4.0997	0.8760	4.168
1.2D + 1.0W 300° 116 mph wind with no ice	140.00	0.879	4.6788	0.9801	4.7653
1.2D + 1.0W 300° 116 mph wind with no ice	140.25	0.8825	4.7482	0.9915	4.8373
1.2D + 1.0W 300° 116 mph wind with no ice	145.19	0.9467	6.1329	1.0784	6.2219
1.2D + 1.0W 300° 116 mph wind with no ice	150.13	1.014	7.5296	1.1750	7.6178
1.2D + 1.0W 300° 116 mph wind with no ice	155.06	1.0843	8.9221	1.3170	9.0111
1.2D + 1.0W 300° 116 mph wind with no ice	160.00	1.1567	10.3249	1.3766	10.4162
1.2D + 1.0W 300° 116 mph wind with no ice	160.25	1.161	10.4660	1.4052	10.5599
1.2D + 1.0W 300° 116 mph wind with no ice	164.20	1.2226	12.7117	0.9008	12.7369
1.2D + 1.0W 300° 116 mph wind with no ice	172.10	1.346	12.6932	0.9080	12.7245
1.2D + 1.0W 300° 116 mph wind with no ice	180.00	1.4698	12.6811	0.8918	12.7097
1.2D + 1.0W 330° 116 mph wind with no ice	20.00	0.0235	0.2094	0.1317	0.2344
1.2D + 1.0W 330° 116 mph wind with no ice	30.00	0.0479	0.3134	0.1758	0.3486
1.2D + 1.0W 330° 116 mph wind with no ice	80.00	0.2902	1.2662	0.4754	1.3187
1.2D + 1.0W 330° 116 mph wind with no ice	86.67	0.3396	1.5423	0.5303	1.5963
1.2D + 1.0W 330° 116 mph wind with no ice	93.33	0.3935	1.8187	0.5855	1.8721
1.2D + 1.0W 330° 116 mph wind with no ice	100.00	0.4518	2.0950	0.6361	2.1489
1.2D + 1.0W 330° 116 mph wind with no ice	113.33	0.581	2.6475	0.7355	2.7024
1.2D + 1.0W 330° 116 mph wind with no ice	120.00	0.6514	2.9227	0.7841	2.9784
1.2D + 1.0W 330° 116 mph wind with no ice	126.67	0.7262	3.5093	0.8697	3.5657
1.2D + 1.0W 330° 116 mph wind with no ice	133.33	0.8053	4.0918	0.9320	4.1412
1.2D + 1.0W 330° 116 mph wind with no ice	140.00	0.8877	4.6678	1.0357	4.731
1.2D + 1.0W 330° 116 mph wind with no ice	140.25	0.8912	4.7368	1.0468	4.8026
1.2D + 1.0W 330° 116 mph wind with no ice	145.19	0.9566	6.1108	1.1930	6.1756
1.2D + 1.0W 330° 116 mph wind with no ice	150.13	1.0247	7.4959	1.2999	7.5594
1.2D + 1.0W 330° 116 mph wind with no ice	155.06	1.0964	8.8764	1.4655	8.9364
1.2D + 1.0W 330° 116 mph wind with no ice	160.00	1.1704	10.2703	1.4547	10.3459
1.2D + 1.0W 330° 116 mph wind with no ice	160.25	1.1754	10.4110	1.4267	10.4907
1.2D + 1.0W 330° 116 mph wind with no ice	164.20	1.238	12.6546	1.1271	12.7011
1.2D + 1.0W 330° 116 mph wind with no ice	172.10	1.3649	12.6353	0.9759	12.6721
1.2D + 1.0W 330° 116 mph wind with no ice	180.00	1.4921	12.6232	1.0201	12.6619
0.9D + 1.0W Normal 116 mph wind with no ice	20.00	0.0247	0.2137	0.1310	0.2409
0.9D + 1.0W Normal 116 mph wind with no ice	30.00	0.0497	0.3194	0.1788	0.353
0.9D + 1.0W Normal 116 mph wind with no ice	80.00	0.2969	1.2852	0.4773	1.3376
0.9D + 1.0W Normal 116 mph wind with no ice	86.67	0.3471	1.5644	0.5349	1.6172
0.9D + 1.0W Normal 116 mph wind with no ice	93.33	0.4022	1.8439	0.5897	1.897
0.9D + 1.0W Normal 116 mph wind with no ice	100.00	0.4615	2.1231	0.6413	2.1766
0.9D + 1.0W Normal 116 mph wind with no ice	113.33	0.593	2.6816	0.7411	2.7364
0.9D + 1.0W Normal 116 mph wind with no ice	120.00	0.6649	2.9598	0.7946	3.017
0.9D + 1.0W Normal 116 mph wind with no ice	126.67	0.7411	3.5530	0.8733	3.6109
0.9D + 1.0W Normal 116 mph wind with no ice	133.33	0.8215	4.1423	0.9472	4.2133
0.9D + 1.0W Normal 116 mph wind with no ice	140.00	0.9059	4.7282	1.0665	4.8227
0.9D + 1.0W Normal 116 mph wind with no ice	140.25	0.9093	4.7984	1.0798	4.8958
0.9D + 1.0W Normal 116 mph wind with no ice	145.19	0.9756	6.2074	1.2572	6.3334
0.9D + 1.0W Normal 116 mph wind with no ice	150.13	1.0457	7.6471	1.3763	7.7699
0.9D + 1.0W Normal 116 mph wind with no ice	155.06	1.1183	9.0831	1.5430	9.2133
0.9D + 1.0W Normal 116 mph wind with no ice	160.00	1.1941	10.5225	1.6036	10.644
0.9D + 1.0W Normal 116 mph wind with no ice	160.25	1.1998	10.6665	1.5472	10.7782
0.9D + 1.0W Normal 116 mph wind with no ice	164.20	1.2629	12.9515	1.3353	13.0115
0.9D + 1.0W Normal 116 mph wind with no ice	172.10	1.3927	12.9590	1.0259	12.9995
0.9D + 1.0W Normal 116 mph wind with no ice	180.00	1.5232	12.9598	1.0939	13.0059

DEFLECTIONS AND ROTATIONS

Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
0.9D + 1.0W 60° 116 mph wind with no ice	20.00	0.0236	0.2155	0.1263	0.2408
0.9D + 1.0W 60° 116 mph wind with no ice	30.00	0.0478	0.3232	0.1730	0.3609
0.9D + 1.0W 60° 116 mph wind with no ice	80.00	0.2874	1.3128	0.4602	1.3725
0.9D + 1.0W 60° 116 mph wind with no ice	86.67	0.3362	1.6005	0.5151	1.6638
0.9D + 1.0W 60° 116 mph wind with no ice	93.33	0.3895	1.8886	0.5671	1.9523
0.9D + 1.0W 60° 116 mph wind with no ice	100.00	0.4471	2.1766	0.6159	2.242
0.9D + 1.0W 60° 116 mph wind with no ice	113.33	0.5746	2.7527	0.7114	2.821
0.9D + 1.0W 60° 116 mph wind with no ice	120.00	0.6442	3.0393	0.7522	3.1098
0.9D + 1.0W 60° 116 mph wind with no ice	126.67	0.718	3.6539	0.8459	3.7277
0.9D + 1.0W 60° 116 mph wind with no ice	133.33	0.7959	4.2780	0.8821	4.3456
0.9D + 1.0W 60° 116 mph wind with no ice	140.00	0.8772	4.8977	0.9864	4.9827
0.9D + 1.0W 60° 116 mph wind with no ice	140.25	0.8807	4.9719	0.9983	5.0597
0.9D + 1.0W 60° 116 mph wind with no ice	145.19	0.9448	6.4521	1.0891	6.5425
0.9D + 1.0W 60° 116 mph wind with no ice	150.13	1.0118	7.9452	1.1995	8.0352
0.9D + 1.0W 60° 116 mph wind with no ice	155.06	1.0819	9.4346	1.3293	9.5254
0.9D + 1.0W 60° 116 mph wind with no ice	160.00	1.1541	10.9226	1.4836	11.0229
0.9D + 1.0W 60° 116 mph wind with no ice	160.25	1.1584	11.0702	1.4697	11.1673
0.9D + 1.0W 60° 116 mph wind with no ice	164.20	1.22	13.3962	1.1696	13.4376
0.9D + 1.0W 60° 116 mph wind with no ice	172.10	1.3431	13.4249	0.9331	13.4563
0.9D + 1.0W 60° 116 mph wind with no ice	180.00	1.4664	13.4376	0.9304	13.4675
0.9D + 1.0W 90° 116 mph wind with no ice	20.00	0.0235	0.2132	0.1316	0.2381
0.9D + 1.0W 90° 116 mph wind with no ice	30.00	0.0477	0.3192	0.1757	0.3535
0.9D + 1.0W 90° 116 mph wind with no ice	80.00	0.2888	1.2895	0.4747	1.3403
0.9D + 1.0W 90° 116 mph wind with no ice	86.67	0.3379	1.5707	0.5296	1.623
0.9D + 1.0W 90° 116 mph wind with no ice	93.33	0.3914	1.8522	0.5847	1.9039
0.9D + 1.0W 90° 116 mph wind with no ice	100.00	0.4494	2.1336	0.6351	2.1858
0.9D + 1.0W 90° 116 mph wind with no ice	113.33	0.5775	2.6963	0.7350	2.7495
0.9D + 1.0W 90° 116 mph wind with no ice	120.00	0.6472	2.9763	0.7787	3.0297
0.9D + 1.0W 90° 116 mph wind with no ice	126.67	0.7213	3.5756	0.8889	3.6326
0.9D + 1.0W 90° 116 mph wind with no ice	133.33	0.7996	4.1802	0.9244	4.2275
0.9D + 1.0W 90° 116 mph wind with no ice	140.00	0.8809	4.7811	1.0333	4.8427
0.9D + 1.0W 90° 116 mph wind with no ice	140.25	0.8843	4.8530	1.0444	4.9172
0.9D + 1.0W 90° 116 mph wind with no ice	145.19	0.9489	6.2854	1.1874	6.3495
0.9D + 1.0W 90° 116 mph wind with no ice	150.13	1.0157	7.7291	1.2903	7.7918
0.9D + 1.0W 90° 116 mph wind with no ice	155.06	1.0861	9.1689	1.4620	9.229
0.9D + 1.0W 90° 116 mph wind with no ice	160.00	1.1582	10.6126	1.4048	10.6854
0.9D + 1.0W 90° 116 mph wind with no ice	160.25	1.163	10.7568	1.4090	10.8337
0.9D + 1.0W 90° 116 mph wind with no ice	164.20	1.2236	13.0428	0.9181	13.0696
0.9D + 1.0W 90° 116 mph wind with no ice	172.10	1.3467	13.0483	0.8875	13.0777
0.9D + 1.0W 90° 116 mph wind with no ice	180.00	1.4698	13.0492	0.8492	13.0748
0.9D + 1.0W 120° 116 mph wind with no ice	20.00	0.0246	0.2087	0.1305	0.2375
0.9D + 1.0W 120° 116 mph wind with no ice	30.00	0.0497	0.3119	0.1781	0.3478
0.9D + 1.0W 120° 116 mph wind with no ice	80.00	0.296	1.2548	0.4743	1.3147
0.9D + 1.0W 120° 116 mph wind with no ice	86.67	0.346	1.5273	0.5312	1.5892
0.9D + 1.0W 120° 116 mph wind with no ice	93.33	0.4008	1.8001	0.5854	1.8638
0.9D + 1.0W 120° 116 mph wind with no ice	100.00	0.4598	2.0727	0.6361	2.1382
0.9D + 1.0W 120° 116 mph wind with no ice	113.33	0.5905	2.6178	0.7352	2.6878
0.9D + 1.0W 120° 116 mph wind with no ice	120.00	0.662	2.8893	0.7824	2.9622
0.9D + 1.0W 120° 116 mph wind with no ice	126.67	0.7376	3.4690	0.8881	3.5501
0.9D + 1.0W 120° 116 mph wind with no ice	133.33	0.8175	4.0487	0.9281	4.1211
0.9D + 1.0W 120° 116 mph wind with no ice	140.00	0.901	4.6263	1.0514	4.7052
0.9D + 1.0W 120° 116 mph wind with no ice	140.25	0.9043	4.6955	1.0640	4.7751
0.9D + 1.0W 120° 116 mph wind with no ice	145.19	0.9699	6.0685	1.2268	6.1481
0.9D + 1.0W 120° 116 mph wind with no ice	150.13	1.039	7.4500	1.3376	7.5208
0.9D + 1.0W 120° 116 mph wind with no ice	155.06	1.1103	8.8265	1.5063	8.9016
0.9D + 1.0W 120° 116 mph wind with no ice	160.00	1.1847	10.2163	1.4842	10.2677
0.9D + 1.0W 120° 116 mph wind with no ice	160.25	1.19	10.3566	1.4807	10.4133
0.9D + 1.0W 120° 116 mph wind with no ice	164.20	1.2512	12.6001	0.8934	12.6318
0.9D + 1.0W 120° 116 mph wind with no ice	172.10	1.3777	12.5824	0.9169	12.6153
0.9D + 1.0W 120° 116 mph wind with no ice	180.00	1.5045	12.5709	0.8915	12.6021
0.9D + 1.0W 180° 116 mph wind with no ice	20.00	0.0237	0.2113	0.1263	0.2372
0.9D + 1.0W 180° 116 mph wind with no ice	30.00	0.0478	0.3169	0.1729	0.3555
0.9D + 1.0W 180° 116 mph wind with no ice	80.00	0.2883	1.2874	0.4604	1.3486
0.9D + 1.0W 180° 116 mph wind with no ice	86.67	0.3373	1.5696	0.5153	1.6344
0.9D + 1.0W 180° 116 mph wind with no ice	93.33	0.3909	1.8521	0.5673	1.9174
0.9D + 1.0W 180° 116 mph wind with no ice	100.00	0.4488	2.1346	0.6163	2.2016
0.9D + 1.0W 180° 116 mph wind with no ice	113.33	0.577	2.6996	0.7112	2.7695
0.9D + 1.0W 180° 116 mph wind with no ice	120.00	0.6471	2.9808	0.7573	3.0537

DEFLECTIONS AND ROTATIONS

Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
0.9D + 1.0W 180° 116 mph wind with no ice	126.67	0.7214	3.5826	0.8245	3.6552
0.9D + 1.0W 180° 116 mph wind with no ice	133.33	0.8	4.1878	0.8898	4.2575
0.9D + 1.0W 180° 116 mph wind with no ice	140.00	0.8821	4.7871	0.9883	4.8735
0.9D + 1.0W 180° 116 mph wind with no ice	140.25	0.8856	4.8588	1.0002	4.948
0.9D + 1.0W 180° 116 mph wind with no ice	145.19	0.9505	6.2909	1.0956	6.3819
0.9D + 1.0W 180° 116 mph wind with no ice	150.13	1.0185	7.7354	1.1985	7.8263
0.9D + 1.0W 180° 116 mph wind with no ice	155.06	1.0899	9.1759	1.3329	9.2665
0.9D + 1.0W 180° 116 mph wind with no ice	160.00	1.1636	10.6210	1.4935	10.7255
0.9D + 1.0W 180° 116 mph wind with no ice	160.25	1.1682	10.7654	1.4727	10.8657
0.9D + 1.0W 180° 116 mph wind with no ice	164.20	1.2316	13.0510	1.3491	13.1096
0.9D + 1.0W 180° 116 mph wind with no ice	172.10	1.3581	13.0558	1.0154	13.0942
0.9D + 1.0W 180° 116 mph wind with no ice	180.00	1.4851	13.0563	1.0875	13.0984
0.9D + 1.0W 210° 116 mph wind with no ice	20.00	0.0235	0.2177	0.1321	0.2416
0.9D + 1.0W 210° 116 mph wind with no ice	30.00	0.0478	0.3259	0.1763	0.3597
0.9D + 1.0W 210° 116 mph wind with no ice	80.00	0.2897	1.3168	0.4778	1.3669
0.9D + 1.0W 210° 116 mph wind with no ice	86.67	0.339	1.6040	0.5333	1.6557
0.9D + 1.0W 210° 116 mph wind with no ice	93.33	0.3928	1.8915	0.5890	1.9427
0.9D + 1.0W 210° 116 mph wind with no ice	100.00	0.451	2.1788	0.6403	2.2306
0.9D + 1.0W 210° 116 mph wind with no ice	113.33	0.5799	2.7536	0.7408	2.8063
0.9D + 1.0W 210° 116 mph wind with no ice	120.00	0.6501	3.0395	0.7905	3.0934
0.9D + 1.0W 210° 116 mph wind with no ice	126.67	0.7248	3.6516	0.8745	3.7044
0.9D + 1.0W 210° 116 mph wind with no ice	133.33	0.8038	4.2702	0.9422	4.3187
0.9D + 1.0W 210° 116 mph wind with no ice	140.00	0.8859	4.8852	1.0466	4.9469
0.9D + 1.0W 210° 116 mph wind with no ice	140.25	0.8893	4.9588	1.0583	5.0232
0.9D + 1.0W 210° 116 mph wind with no ice	145.19	0.9547	6.4246	1.2132	6.4905
0.9D + 1.0W 210° 116 mph wind with no ice	150.13	1.0224	7.9021	1.3236	7.9673
0.9D + 1.0W 210° 116 mph wind with no ice	155.06	1.0941	9.3757	1.4910	9.437
0.9D + 1.0W 210° 116 mph wind with no ice	160.00	1.1678	10.8522	1.5227	10.937
0.9D + 1.0W 210° 116 mph wind with no ice	160.25	1.1728	10.9994	1.4753	11.083
0.9D + 1.0W 210° 116 mph wind with no ice	164.20	1.2354	13.3224	1.3643	13.3837
0.9D + 1.0W 210° 116 mph wind with no ice	172.10	1.3619	13.3495	0.9997	13.3862
0.9D + 1.0W 210° 116 mph wind with no ice	180.00	1.4887	13.3622	1.0604	13.4016
0.9D + 1.0W 240° 116 mph wind with no ice	20.00	0.0246	0.2174	0.1310	0.2451
0.9D + 1.0W 240° 116 mph wind with no ice	30.00	0.0497	0.3250	0.1788	0.3595
0.9D + 1.0W 240° 116 mph wind with no ice	80.00	0.296	1.3079	0.4774	1.3659
0.9D + 1.0W 240° 116 mph wind with no ice	86.67	0.346	1.5921	0.5351	1.652
0.9D + 1.0W 240° 116 mph wind with no ice	93.33	0.4008	1.8765	0.5899	1.9384
0.9D + 1.0W 240° 116 mph wind with no ice	100.00	0.4598	2.1607	0.6416	2.2246
0.9D + 1.0W 240° 116 mph wind with no ice	113.33	0.5905	2.7291	0.7420	2.7976
0.9D + 1.0W 240° 116 mph wind with no ice	120.00	0.662	3.0120	0.7915	3.0839
0.9D + 1.0W 240° 116 mph wind with no ice	126.67	0.7376	3.6178	0.8922	3.6965
0.9D + 1.0W 240° 116 mph wind with no ice	133.33	0.8175	4.2305	0.9430	4.303
0.9D + 1.0W 240° 116 mph wind with no ice	140.00	0.901	4.8431	1.0678	4.9218
0.9D + 1.0W 240° 116 mph wind with no ice	140.25	0.9043	4.9164	1.0811	4.996
0.9D + 1.0W 240° 116 mph wind with no ice	145.19	0.9699	6.3719	1.2586	6.4539
0.9D + 1.0W 240° 116 mph wind with no ice	150.13	1.039	7.8362	1.3747	7.9103
0.9D + 1.0W 240° 116 mph wind with no ice	155.06	1.1103	9.2961	1.5482	9.3747
0.9D + 1.0W 240° 116 mph wind with no ice	160.00	1.1846	10.7621	1.5716	10.8239
0.9D + 1.0W 240° 116 mph wind with no ice	160.25	1.1901	10.9088	1.5391	10.9698
0.9D + 1.0W 240° 116 mph wind with no ice	164.20	1.2513	13.2308	1.1746	13.2796
0.9D + 1.0W 240° 116 mph wind with no ice	172.10	1.3777	13.2589	0.9440	13.2922
0.9D + 1.0W 240° 116 mph wind with no ice	180.00	1.5046	13.2720	0.9442	13.3048
0.9D + 1.0W 300° 116 mph wind with no ice	20.00	0.0236	0.2072	0.1259	0.2335
0.9D + 1.0W 300° 116 mph wind with no ice	30.00	0.0478	0.3109	0.1723	0.3499
0.9D + 1.0W 300° 116 mph wind with no ice	80.00	0.2874	1.2627	0.4576	1.3244
0.9D + 1.0W 300° 116 mph wind with no ice	86.67	0.3362	1.5395	0.5119	1.6047
0.9D + 1.0W 300° 116 mph wind with no ice	93.33	0.3895	1.8166	0.5633	1.8822
0.9D + 1.0W 300° 116 mph wind with no ice	100.00	0.4471	2.0937	0.6117	2.1609
0.9D + 1.0W 300° 116 mph wind with no ice	113.33	0.5746	2.6478	0.7060	2.718
0.9D + 1.0W 300° 116 mph wind with no ice	120.00	0.6442	2.9239	0.7468	2.9957
0.9D + 1.0W 300° 116 mph wind with no ice	126.67	0.718	3.5130	0.8382	3.5904
0.9D + 1.0W 300° 116 mph wind with no ice	133.33	0.7959	4.0998	0.8743	4.1677
0.9D + 1.0W 300° 116 mph wind with no ice	140.00	0.8772	4.6789	0.9782	4.7649
0.9D + 1.0W 300° 116 mph wind with no ice	140.25	0.8807	4.7483	0.9895	4.8369
0.9D + 1.0W 300° 116 mph wind with no ice	145.19	0.9448	6.1330	1.0764	6.2216
0.9D + 1.0W 300° 116 mph wind with no ice	150.13	1.0118	7.5297	1.1727	7.6176
0.9D + 1.0W 300° 116 mph wind with no ice	155.06	1.0819	8.9221	1.3149	9.0109
0.9D + 1.0W 300° 116 mph wind with no ice	160.00	1.1541	10.3250	1.3735	10.4159

DEFLECTIONS AND ROTATIONS

Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
0.9D + 1.0W 300° 116 mph wind with no ice	160.25	1.1584	10.4661	1.4022	10.5596
0.9D + 1.0W 300° 116 mph wind with no ice	164.20	1.2198	12.7118	0.8980	12.737
0.9D + 1.0W 300° 116 mph wind with no ice	172.10	1.3429	12.6934	0.9054	12.7245
0.9D + 1.0W 300° 116 mph wind with no ice	180.00	1.4664	12.6814	0.8891	12.7098
0.9D + 1.0W 330° 116 mph wind with no ice	20.00	0.0235	0.2094	0.1316	0.2343
0.9D + 1.0W 330° 116 mph wind with no ice	30.00	0.0478	0.3135	0.1756	0.3486
0.9D + 1.0W 330° 116 mph wind with no ice	80.00	0.2897	1.2662	0.4746	1.3184
0.9D + 1.0W 330° 116 mph wind with no ice	86.67	0.339	1.5423	0.5294	1.596
0.9D + 1.0W 330° 116 mph wind with no ice	93.33	0.3928	1.8187	0.5844	1.8719
0.9D + 1.0W 330° 116 mph wind with no ice	100.00	0.451	2.0950	0.6350	2.1487
0.9D + 1.0W 330° 116 mph wind with no ice	113.33	0.5799	2.6475	0.7342	2.7022
0.9D + 1.0W 330° 116 mph wind with no ice	120.00	0.6501	2.9227	0.7827	2.9782
0.9D + 1.0W 330° 116 mph wind with no ice	126.67	0.7248	3.5094	0.8681	3.5655
0.9D + 1.0W 330° 116 mph wind with no ice	133.33	0.8037	4.0919	0.9303	4.141
0.9D + 1.0W 330° 116 mph wind with no ice	140.00	0.8858	4.6679	1.0338	4.7308
0.9D + 1.0W 330° 116 mph wind with no ice	140.25	0.8893	4.7369	1.0449	4.8024
0.9D + 1.0W 330° 116 mph wind with no ice	145.19	0.9546	6.1110	1.1909	6.1755
0.9D + 1.0W 330° 116 mph wind with no ice	150.13	1.0224	7.4961	1.2976	7.5593
0.9D + 1.0W 330° 116 mph wind with no ice	155.06	1.094	8.8766	1.4632	8.9364
0.9D + 1.0W 330° 116 mph wind with no ice	160.00	1.1677	10.2706	1.4516	10.3458
0.9D + 1.0W 330° 116 mph wind with no ice	160.25	1.1727	10.4113	1.4235	10.4907
0.9D + 1.0W 330° 116 mph wind with no ice	164.20	1.2352	12.6550	1.1242	12.7012
0.9D + 1.0W 330° 116 mph wind with no ice	172.10	1.3617	12.6357	0.9732	12.6723
0.9D + 1.0W 330° 116 mph wind with no ice	180.00	1.4885	12.6236	1.0173	12.6622
1.2D + 1.0Di + 1.0Wi Normal 50 mph wind with 1" radial ice	20.00	0.0074	0.0581	0.0383	0.0672
1.2D + 1.0Di + 1.0Wi Normal 50 mph wind with 1" radial ice	30.00	0.0153	0.0868	0.0548	0.0987
1.2D + 1.0Di + 1.0Wi Normal 50 mph wind with 1" radial ice	80.00	0.0865	0.3489	0.1362	0.3635
1.2D + 1.0Di + 1.0Wi Normal 50 mph wind with 1" radial ice	86.67	0.101	0.4247	0.1514	0.4386
1.2D + 1.0Di + 1.0Wi Normal 50 mph wind with 1" radial ice	93.33	0.1166	0.5005	0.1662	0.5139
1.2D + 1.0Di + 1.0Wi Normal 50 mph wind with 1" radial ice	100.00	0.1336	0.5762	0.1801	0.5893
1.2D + 1.0Di + 1.0Wi Normal 50 mph wind with 1" radial ice	113.33	0.171	0.7277	0.2069	0.7404
1.2D + 1.0Di + 1.0Wi Normal 50 mph wind with 1" radial ice	120.00	0.1911	0.8033	0.2199	0.8155
1.2D + 1.0Di + 1.0Wi Normal 50 mph wind with 1" radial ice	126.67	0.2127	0.9644	0.2391	0.9749
1.2D + 1.0Di + 1.0Wi Normal 50 mph wind with 1" radial ice	133.33	0.2353	1.1239	0.2596	1.1358
1.2D + 1.0Di + 1.0Wi Normal 50 mph wind with 1" radial ice	140.00	0.2591	1.2831	0.2872	1.2998
1.2D + 1.0Di + 1.0Wi Normal 50 mph wind with 1" radial ice	140.25	0.2601	1.3022	0.2897	1.3194
1.2D + 1.0Di + 1.0Wi Normal 50 mph wind with 1" radial ice	145.19	0.2785	1.6803	0.3188	1.7047
1.2D + 1.0Di + 1.0Wi Normal 50 mph wind with 1" radial ice	150.13	0.2983	2.0626	0.3491	2.0919
1.2D + 1.0Di + 1.0Wi Normal 50 mph wind with 1" radial ice	155.06	0.3183	2.4494	0.3940	2.4809
1.2D + 1.0Di + 1.0Wi Normal 50 mph wind with 1" radial ice	160.00	0.3398	2.8396	0.3811	2.865
1.2D + 1.0Di + 1.0Wi Normal 50 mph wind with 1" radial ice	160.25	0.3413	2.8790	0.3579	2.9012
1.2D + 1.0Di + 1.0Wi Normal 50 mph wind with 1" radial ice	164.20	0.3589	3.5022	0.3360	3.5156
1.2D + 1.0Di + 1.0Wi Normal 50 mph wind with 1" radial ice	172.10	0.3949	3.5026	0.2755	3.5135
1.2D + 1.0Di + 1.0Wi Normal 50 mph wind with 1" radial ice	180.00	0.431	3.5028	0.2941	3.5151
1.2D + 1.0Di + 1.0Wi 60° 50 mph wind with 1" radial ice	20.00	0.0081	0.0574	0.0403	0.0679
1.2D + 1.0Di + 1.0Wi 60° 50 mph wind with 1" radial ice	30.00	0.0165	0.0858	0.0532	0.1
1.2D + 1.0Di + 1.0Wi 60° 50 mph wind with 1" radial ice	80.00	0.0857	0.3449	0.1323	0.3635
1.2D + 1.0Di + 1.0Wi 60° 50 mph wind with 1" radial ice	86.67	0.1	0.4199	0.1483	0.4394
1.2D + 1.0Di + 1.0Wi 60° 50 mph wind with 1" radial ice	93.33	0.1152	0.4950	0.1629	0.5151
1.2D + 1.0Di + 1.0Wi 60° 50 mph wind with 1" radial ice	100.00	0.1319	0.5705	0.1763	0.5908
1.2D + 1.0Di + 1.0Wi 60° 50 mph wind with 1" radial ice	113.33	0.1684	0.7215	0.2028	0.7424
1.2D + 1.0Di + 1.0Wi 60° 50 mph wind with 1" radial ice	120.00	0.1881	0.7968	0.2147	0.8181
1.2D + 1.0Di + 1.0Wi 60° 50 mph wind with 1" radial ice	126.67	0.2091	0.9583	0.2404	0.9801
1.2D + 1.0Di + 1.0Wi 60° 50 mph wind with 1" radial ice	133.33	0.2312	1.1217	0.2507	1.1404
1.2D + 1.0Di + 1.0Wi 60° 50 mph wind with 1" radial ice	140.00	0.2544	1.2852	0.2784	1.3073
1.2D + 1.0Di + 1.0Wi 60° 50 mph wind with 1" radial ice	140.25	0.2554	1.3049	0.2810	1.3273
1.2D + 1.0Di + 1.0Wi 60° 50 mph wind with 1" radial ice	145.19	0.2734	1.6945	0.3013	1.7129
1.2D + 1.0Di + 1.0Wi 60° 50 mph wind with 1" radial ice	150.13	0.2925	2.0853	0.3307	2.1034
1.2D + 1.0Di + 1.0Wi 60° 50 mph wind with 1" radial ice	155.06	0.312	2.4748	0.3721	2.493
1.2D + 1.0Di + 1.0Wi 60° 50 mph wind with 1" radial ice	160.00	0.3327	2.8678	0.3467	2.885
1.2D + 1.0Di + 1.0Wi 60° 50 mph wind with 1" radial ice	160.25	0.3339	2.9075	0.3377	2.9237
1.2D + 1.0Di + 1.0Wi 60° 50 mph wind with 1" radial ice	164.20	0.3505	3.5337	0.2538	3.5409
1.2D + 1.0Di + 1.0Wi 60° 50 mph wind with 1" radial ice	172.10	0.3851	3.5356	0.2515	3.5442
1.2D + 1.0Di + 1.0Wi 60° 50 mph wind with 1" radial ice	180.00	0.4199	3.5365	0.2496	3.5448
1.2D + 1.0Di + 1.0Wi 90° 50 mph wind with 1" radial ice	20.00	0.0079	0.0571	0.0393	0.0672
1.2D + 1.0Di + 1.0Wi 90° 50 mph wind with 1" radial ice	30.00	0.0162	0.0854	0.0519	0.0991
1.2D + 1.0Di + 1.0Wi 90° 50 mph wind with 1" radial ice	80.00	0.0857	0.3450	0.1366	0.3647
1.2D + 1.0Di + 1.0Wi 90° 50 mph wind with 1" radial ice	86.67	0.1	0.4202	0.1518	0.4403

DEFLECTIONS AND ROTATIONS

Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
1.2D + 1.0Di + 1.0Wi 90° 50 mph wind with 1" radial ice	93.33	0.1153	0.4955	0.1671	0.5162
1.2D + 1.0Di + 1.0Wi 90° 50 mph wind with 1" radial ice	100.00	0.132	0.5708	0.1809	0.5919
1.2D + 1.0Di + 1.0Wi 90° 50 mph wind with 1" radial ice	113.33	0.1686	0.7213	0.2084	0.7437
1.2D + 1.0Di + 1.0Wi 90° 50 mph wind with 1" radial ice	120.00	0.1883	0.7963	0.2198	0.8193
1.2D + 1.0Di + 1.0Wi 90° 50 mph wind with 1" radial ice	126.67	0.2094	0.9569	0.2498	0.9823
1.2D + 1.0Di + 1.0Wi 90° 50 mph wind with 1" radial ice	133.33	0.2316	1.1185	0.2594	1.1394
1.2D + 1.0Di + 1.0Wi 90° 50 mph wind with 1" radial ice	140.00	0.2548	1.2802	0.2867	1.2999
1.2D + 1.0Di + 1.0Wi 90° 50 mph wind with 1" radial ice	140.25	0.2558	1.2997	0.2889	1.3191
1.2D + 1.0Di + 1.0Wi 90° 50 mph wind with 1" radial ice	145.19	0.2738	1.6843	0.3172	1.6967
1.2D + 1.0Di + 1.0Wi 90° 50 mph wind with 1" radial ice	150.13	0.2929	2.0701	0.3461	2.0812
1.2D + 1.0Di + 1.0Wi 90° 50 mph wind with 1" radial ice	155.06	0.3124	2.4543	0.3931	2.4647
1.2D + 1.0Di + 1.0Wi 90° 50 mph wind with 1" radial ice	160.00	0.333	2.8432	0.3562	2.8542
1.2D + 1.0Di + 1.0Wi 90° 50 mph wind with 1" radial ice	160.25	0.334	2.8827	0.3476	2.8942
1.2D + 1.0Di + 1.0Wi 90° 50 mph wind with 1" radial ice	164.20	0.3509	3.5058	0.1943	3.5107
1.2D + 1.0Di + 1.0Wi 90° 50 mph wind with 1" radial ice	172.10	0.3853	3.5060	0.2430	3.5141
1.2D + 1.0Di + 1.0Wi 90° 50 mph wind with 1" radial ice	180.00	0.4198	3.5062	0.2354	3.5134
1.2D + 1.0Di + 1.0Wi 120° 50 mph wind with 1" radial ice	20.00	0.0074	0.0574	0.0382	0.0667
1.2D + 1.0Di + 1.0Wi 120° 50 mph wind with 1" radial ice	30.00	0.0153	0.0858	0.0547	0.0988
1.2D + 1.0Di + 1.0Wi 120° 50 mph wind with 1" radial ice	80.00	0.0863	0.3449	0.1359	0.3647
1.2D + 1.0Di + 1.0Wi 120° 50 mph wind with 1" radial ice	86.67	0.1007	0.4198	0.1510	0.4401
1.2D + 1.0Di + 1.0Wi 120° 50 mph wind with 1" radial ice	93.33	0.1163	0.4947	0.1657	0.5158
1.2D + 1.0Di + 1.0Wi 120° 50 mph wind with 1" radial ice	100.00	0.1332	0.5696	0.1795	0.5915
1.2D + 1.0Di + 1.0Wi 120° 50 mph wind with 1" radial ice	113.33	0.1704	0.7193	0.2064	0.743
1.2D + 1.0Di + 1.0Wi 120° 50 mph wind with 1" radial ice	120.00	0.1904	0.7940	0.2177	0.8184
1.2D + 1.0Di + 1.0Wi 120° 50 mph wind with 1" radial ice	126.67	0.2118	0.9534	0.2456	0.9807
1.2D + 1.0Di + 1.0Wi 120° 50 mph wind with 1" radial ice	133.33	0.2343	1.1127	0.2563	1.1381
1.2D + 1.0Di + 1.0Wi 120° 50 mph wind with 1" radial ice	140.00	0.2579	1.2722	0.2857	1.299
1.2D + 1.0Di + 1.0Wi 120° 50 mph wind with 1" radial ice	140.25	0.2589	1.2914	0.2881	1.3182
1.2D + 1.0Di + 1.0Wi 120° 50 mph wind with 1" radial ice	145.19	0.2771	1.6699	0.3152	1.6951
1.2D + 1.0Di + 1.0Wi 120° 50 mph wind with 1" radial ice	150.13	0.2966	2.0495	0.3442	2.0739
1.2D + 1.0Di + 1.0Wi 120° 50 mph wind with 1" radial ice	155.06	0.3164	2.4274	0.3890	2.4547
1.2D + 1.0Di + 1.0Wi 120° 50 mph wind with 1" radial ice	160.00	0.3374	2.8113	0.3622	2.8309
1.2D + 1.0Di + 1.0Wi 120° 50 mph wind with 1" radial ice	160.25	0.3389	2.8504	0.3516	2.8684
1.2D + 1.0Di + 1.0Wi 120° 50 mph wind with 1" radial ice	164.20	0.3559	3.4702	0.2304	3.4779
1.2D + 1.0Di + 1.0Wi 120° 50 mph wind with 1" radial ice	172.10	0.3911	3.4688	0.2516	3.4776
1.2D + 1.0Di + 1.0Wi 120° 50 mph wind with 1" radial ice	180.00	0.4263	3.4680	0.2495	3.4766
1.2D + 1.0Di + 1.0Wi 180° 50 mph wind with 1" radial ice	20.00	0.0081	0.0575	0.0403	0.0673
1.2D + 1.0Di + 1.0Wi 180° 50 mph wind with 1" radial ice	30.00	0.0166	0.0858	0.0532	0.1001
1.2D + 1.0Di + 1.0Wi 180° 50 mph wind with 1" radial ice	80.00	0.086	0.3452	0.1325	0.3636
1.2D + 1.0Di + 1.0Wi 180° 50 mph wind with 1" radial ice	86.67	0.1003	0.4202	0.1484	0.4396
1.2D + 1.0Di + 1.0Wi 180° 50 mph wind with 1" radial ice	93.33	0.1156	0.4953	0.1631	0.5151
1.2D + 1.0Di + 1.0Wi 180° 50 mph wind with 1" radial ice	100.00	0.1323	0.5708	0.1766	0.5909
1.2D + 1.0Di + 1.0Wi 180° 50 mph wind with 1" radial ice	113.33	0.169	0.7219	0.2029	0.7425
1.2D + 1.0Di + 1.0Wi 180° 50 mph wind with 1" radial ice	120.00	0.1888	0.7973	0.2164	0.8181
1.2D + 1.0Di + 1.0Wi 180° 50 mph wind with 1" radial ice	126.67	0.21	0.9586	0.2335	0.9785
1.2D + 1.0Di + 1.0Wi 180° 50 mph wind with 1" radial ice	133.33	0.2323	1.1203	0.2533	1.1393
1.2D + 1.0Di + 1.0Wi 180° 50 mph wind with 1" radial ice	140.00	0.2556	1.2815	0.2791	1.3037
1.2D + 1.0Di + 1.0Wi 180° 50 mph wind with 1" radial ice	140.25	0.2566	1.3009	0.2817	1.3234
1.2D + 1.0Di + 1.0Wi 180° 50 mph wind with 1" radial ice	145.19	0.2748	1.6852	0.3036	1.7039
1.2D + 1.0Di + 1.0Wi 180° 50 mph wind with 1" radial ice	150.13	0.2942	2.0707	0.3340	2.0891
1.2D + 1.0Di + 1.0Wi 180° 50 mph wind with 1" radial ice	155.06	0.314	2.4548	0.3751	2.4731
1.2D + 1.0Di + 1.0Wi 180° 50 mph wind with 1" radial ice	160.00	0.3351	2.8436	0.3625	2.8621
1.2D + 1.0Di + 1.0Wi 180° 50 mph wind with 1" radial ice	160.25	0.3363	2.8830	0.3424	2.9
1.2D + 1.0Di + 1.0Wi 180° 50 mph wind with 1" radial ice	164.20	0.3534	3.5058	0.3366	3.5197
1.2D + 1.0Di + 1.0Wi 180° 50 mph wind with 1" radial ice	172.10	0.3889	3.5058	0.2738	3.5161
1.2D + 1.0Di + 1.0Wi 180° 50 mph wind with 1" radial ice	180.00	0.4247	3.5058	0.2914	3.5172
1.2D + 1.0Di + 1.0Wi 210° 50 mph wind with 1" radial ice	20.00	0.0079	0.0574	0.0394	0.0676
1.2D + 1.0Di + 1.0Wi 210° 50 mph wind with 1" radial ice	30.00	0.0162	0.0859	0.0520	0.0996
1.2D + 1.0Di + 1.0Wi 210° 50 mph wind with 1" radial ice	80.00	0.086	0.3469	0.1369	0.3633
1.2D + 1.0Di + 1.0Wi 210° 50 mph wind with 1" radial ice	86.67	0.1003	0.4226	0.1521	0.4388
1.2D + 1.0Di + 1.0Wi 210° 50 mph wind with 1" radial ice	93.33	0.1157	0.4982	0.1675	0.5141
1.2D + 1.0Di + 1.0Wi 210° 50 mph wind with 1" radial ice	100.00	0.1324	0.5739	0.1815	0.5898
1.2D + 1.0Di + 1.0Wi 210° 50 mph wind with 1" radial ice	113.33	0.1692	0.7252	0.2088	0.7411
1.2D + 1.0Di + 1.0Wi 210° 50 mph wind with 1" radial ice	120.00	0.1891	0.8007	0.2219	0.8163
1.2D + 1.0Di + 1.0Wi 210° 50 mph wind with 1" radial ice	126.67	0.2103	0.9622	0.2437	0.9767
1.2D + 1.0Di + 1.0Wi 210° 50 mph wind with 1" radial ice	133.33	0.2326	1.1247	0.2626	1.1383
1.2D + 1.0Di + 1.0Wi 210° 50 mph wind with 1" radial ice	140.00	0.256	1.2875	0.2881	1.303
1.2D + 1.0Di + 1.0Wi 210° 50 mph wind with 1" radial ice	140.25	0.257	1.3071	0.2904	1.3228

DEFLECTIONS AND ROTATIONS

Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
1.2D + 1.0Di + 1.0Wi 210° 50 mph wind with 1" radial ice	145.19	0.2752	1.6940	0.3205	1.7064
1.2D + 1.0Di + 1.0Wi 210° 50 mph wind with 1" radial ice	150.13	0.2946	2.0822	0.3506	2.0937
1.2D + 1.0Di + 1.0Wi 210° 50 mph wind with 1" radial ice	155.06	0.3144	2.4689	0.3976	2.4815
1.2D + 1.0Di + 1.0Wi 210° 50 mph wind with 1" radial ice	160.00	0.3354	2.8601	0.3748	2.873
1.2D + 1.0Di + 1.0Wi 210° 50 mph wind with 1" radial ice	160.25	0.3364	2.8998	0.3540	2.9121
1.2D + 1.0Di + 1.0Wi 210° 50 mph wind with 1" radial ice	164.20	0.3538	3.5256	0.3150	3.5384
1.2D + 1.0Di + 1.0Wi 210° 50 mph wind with 1" radial ice	172.10	0.3891	3.5273	0.2676	3.5371
1.2D + 1.0Di + 1.0Wi 210° 50 mph wind with 1" radial ice	180.00	0.4245	3.5282	0.2819	3.5386
1.2D + 1.0Di + 1.0Wi 240° 50 mph wind with 1" radial ice	20.00	0.0074	0.0577	0.0382	0.0677
1.2D + 1.0Di + 1.0Wi 240° 50 mph wind with 1" radial ice	30.00	0.0153	0.0862	0.0547	0.0992
1.2D + 1.0Di + 1.0Wi 240° 50 mph wind with 1" radial ice	80.00	0.0863	0.3466	0.1360	0.3663
1.2D + 1.0Di + 1.0Wi 240° 50 mph wind with 1" radial ice	86.67	0.1007	0.4219	0.1512	0.4422
1.2D + 1.0Di + 1.0Wi 240° 50 mph wind with 1" radial ice	93.33	0.1163	0.4972	0.1659	0.5182
1.2D + 1.0Di + 1.0Wi 240° 50 mph wind with 1" radial ice	100.00	0.1332	0.5724	0.1798	0.5943
1.2D + 1.0Di + 1.0Wi 240° 50 mph wind with 1" radial ice	113.33	0.1704	0.7229	0.2067	0.7466
1.2D + 1.0Di + 1.0Wi 240° 50 mph wind with 1" radial ice	120.00	0.1904	0.7978	0.2183	0.8224
1.2D + 1.0Di + 1.0Wi 240° 50 mph wind with 1" radial ice	126.67	0.2118	0.9584	0.2448	0.9855
1.2D + 1.0Di + 1.0Wi 240° 50 mph wind with 1" radial ice	133.33	0.2342	1.1205	0.2574	1.1461
1.2D + 1.0Di + 1.0Wi 240° 50 mph wind with 1" radial ice	140.00	0.2579	1.2833	0.2866	1.3102
1.2D + 1.0Di + 1.0Wi 240° 50 mph wind with 1" radial ice	140.25	0.2589	1.3029	0.2890	1.3298
1.2D + 1.0Di + 1.0Wi 240° 50 mph wind with 1" radial ice	145.19	0.2771	1.6891	0.3171	1.7146
1.2D + 1.0Di + 1.0Wi 240° 50 mph wind with 1" radial ice	150.13	0.2966	2.0765	0.3466	2.1012
1.2D + 1.0Di + 1.0Wi 240° 50 mph wind with 1" radial ice	155.06	0.3163	2.4622	0.3922	2.4899
1.2D + 1.0Di + 1.0Wi 240° 50 mph wind with 1" radial ice	160.00	0.3374	2.8527	0.3679	2.8731
1.2D + 1.0Di + 1.0Wi 240° 50 mph wind with 1" radial ice	160.25	0.3388	2.8924	0.3535	2.9106
1.2D + 1.0Di + 1.0Wi 240° 50 mph wind with 1" radial ice	164.20	0.3559	3.5183	0.2467	3.527
1.2D + 1.0Di + 1.0Wi 240° 50 mph wind with 1" radial ice	172.10	0.3911	3.5202	0.2530	3.529
1.2D + 1.0Di + 1.0Wi 240° 50 mph wind with 1" radial ice	180.00	0.4263	3.5212	0.2532	3.5298
1.2D + 1.0Di + 1.0Wi 300° 50 mph wind with 1" radial ice	20.00	0.0081	0.0565	0.0403	0.0672
1.2D + 1.0Di + 1.0Wi 300° 50 mph wind with 1" radial ice	30.00	0.0165	0.0848	0.0531	0.1001
1.2D + 1.0Di + 1.0Wi 300° 50 mph wind with 1" radial ice	80.00	0.0857	0.3445	0.1321	0.3637
1.2D + 1.0Di + 1.0Wi 300° 50 mph wind with 1" radial ice	86.67	0.1	0.4201	0.1479	0.4398
1.2D + 1.0Di + 1.0Wi 300° 50 mph wind with 1" radial ice	93.33	0.1152	0.4956	0.1625	0.5152
1.2D + 1.0Di + 1.0Wi 300° 50 mph wind with 1" radial ice	100.00	0.1319	0.5713	0.1760	0.5912
1.2D + 1.0Di + 1.0Wi 300° 50 mph wind with 1" radial ice	113.33	0.1684	0.7225	0.2023	0.7429
1.2D + 1.0Di + 1.0Wi 300° 50 mph wind with 1" radial ice	120.00	0.1881	0.7980	0.2143	0.8182
1.2D + 1.0Di + 1.0Wi 300° 50 mph wind with 1" radial ice	126.67	0.2091	0.9591	0.2389	0.9803
1.2D + 1.0Di + 1.0Wi 300° 50 mph wind with 1" radial ice	133.33	0.2312	1.1189	0.2503	1.1374
1.2D + 1.0Di + 1.0Wi 300° 50 mph wind with 1" radial ice	140.00	0.2544	1.2779	0.2778	1.2999
1.2D + 1.0Di + 1.0Wi 300° 50 mph wind with 1" radial ice	140.25	0.2554	1.2970	0.2804	1.3193
1.2D + 1.0Di + 1.0Wi 300° 50 mph wind with 1" radial ice	145.19	0.2734	1.6762	0.3008	1.6944
1.2D + 1.0Di + 1.0Wi 300° 50 mph wind with 1" radial ice	150.13	0.2925	2.0564	0.3301	2.0743
1.2D + 1.0Di + 1.0Wi 300° 50 mph wind with 1" radial ice	155.06	0.312	2.4352	0.3718	2.4532
1.2D + 1.0Di + 1.0Wi 300° 50 mph wind with 1" radial ice	160.00	0.3327	2.8197	0.3445	2.836
1.2D + 1.0Di + 1.0Wi 300° 50 mph wind with 1" radial ice	160.25	0.3339	2.8589	0.3352	2.875
1.2D + 1.0Di + 1.0Wi 300° 50 mph wind with 1" radial ice	164.20	0.3505	3.4782	0.2258	3.4846
1.2D + 1.0Di + 1.0Wi 300° 50 mph wind with 1" radial ice	172.10	0.3851	3.4764	0.2495	3.485
1.2D + 1.0Di + 1.0Wi 300° 50 mph wind with 1" radial ice	180.00	0.4199	3.4754	0.2477	3.4836
1.2D + 1.0Di + 1.0Wi 330° 50 mph wind with 1" radial ice	20.00	0.0079	0.0574	0.0393	0.0666
1.2D + 1.0Di + 1.0Wi 330° 50 mph wind with 1" radial ice	30.00	0.0162	0.0859	0.0520	0.0996
1.2D + 1.0Di + 1.0Wi 330° 50 mph wind with 1" radial ice	80.00	0.086	0.3468	0.1367	0.3631
1.2D + 1.0Di + 1.0Wi 330° 50 mph wind with 1" radial ice	86.67	0.1003	0.4224	0.1519	0.4387
1.2D + 1.0Di + 1.0Wi 330° 50 mph wind with 1" radial ice	93.33	0.1157	0.4981	0.1672	0.514
1.2D + 1.0Di + 1.0Wi 330° 50 mph wind with 1" radial ice	100.00	0.1324	0.5737	0.1811	0.5896
1.2D + 1.0Di + 1.0Wi 330° 50 mph wind with 1" radial ice	113.33	0.1692	0.7250	0.2084	0.7408
1.2D + 1.0Di + 1.0Wi 330° 50 mph wind with 1" radial ice	120.00	0.1891	0.8005	0.2214	0.816
1.2D + 1.0Di + 1.0Wi 330° 50 mph wind with 1" radial ice	126.67	0.2103	0.9615	0.2434	0.9764
1.2D + 1.0Di + 1.0Wi 330° 50 mph wind with 1" radial ice	133.33	0.2326	1.1206	0.2618	1.1338
1.2D + 1.0Di + 1.0Wi 330° 50 mph wind with 1" radial ice	140.00	0.256	1.2791	0.2873	1.2947
1.2D + 1.0Di + 1.0Wi 330° 50 mph wind with 1" radial ice	140.25	0.257	1.2982	0.2895	1.314
1.2D + 1.0Di + 1.0Wi 330° 50 mph wind with 1" radial ice	145.19	0.2752	1.6754	0.3192	1.6874
1.2D + 1.0Di + 1.0Wi 330° 50 mph wind with 1" radial ice	150.13	0.2946	2.0538	0.3491	2.0688
1.2D + 1.0Di + 1.0Wi 330° 50 mph wind with 1" radial ice	155.06	0.3143	2.4307	0.3958	2.4527
1.2D + 1.0Di + 1.0Wi 330° 50 mph wind with 1" radial ice	160.00	0.3354	2.8139	0.3707	2.8304
1.2D + 1.0Di + 1.0Wi 330° 50 mph wind with 1" radial ice	160.25	0.3364	2.8530	0.3516	2.8669
1.2D + 1.0Di + 1.0Wi 330° 50 mph wind with 1" radial ice	164.20	0.3538	3.4722	0.2904	3.4843
1.2D + 1.0Di + 1.0Wi 330° 50 mph wind with 1" radial ice	172.10	0.3891	3.4703	0.2660	3.4801
1.2D + 1.0Di + 1.0Wi 330° 50 mph wind with 1" radial ice	180.00	0.4245	3.4693	0.2793	3.4797

DEFLECTIONS AND ROTATIONS

Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
1.2D + 1.0Ev + 1.0Eh Normal Seismic	20.00	0.0012	0.0002	0.0057	0.0057
1.2D + 1.0Ev + 1.0Eh Normal Seismic	30.00	0.0024	0.0003	0.0076	0.0076
1.2D + 1.0Ev + 1.0Eh Normal Seismic	80.00	0.014	0.0008	0.0205	0.0205
1.2D + 1.0Ev + 1.0Eh Normal Seismic	86.67	0.0164	0.0008	0.0222	0.0223
1.2D + 1.0Ev + 1.0Eh Normal Seismic	93.33	0.0191	0.0009	0.0244	0.0244
1.2D + 1.0Ev + 1.0Eh Normal Seismic	100.00	0.0221	0.0009	0.0264	0.0265
1.2D + 1.0Ev + 1.0Eh Normal Seismic	113.33	0.0286	0.0010	0.0304	0.0304
1.2D + 1.0Ev + 1.0Eh Normal Seismic	120.00	0.0324	0.0010	0.0324	0.0324
1.2D + 1.0Ev + 1.0Eh Normal Seismic	126.67	0.0363	0.0010	0.0349	0.0349
1.2D + 1.0Ev + 1.0Eh Normal Seismic	133.33	0.0405	0.0009	0.0365	0.0365
1.2D + 1.0Ev + 1.0Eh Normal Seismic	140.00	0.0448	0.0010	0.0416	0.0416
1.2D + 1.0Ev + 1.0Eh Normal Seismic	140.25	0.0449	0.0010	0.0425	0.0425
1.2D + 1.0Ev + 1.0Eh Normal Seismic	145.19	0.0485	0.0006	0.0410	0.041
1.2D + 1.0Ev + 1.0Eh Normal Seismic	150.13	0.052	0.0004	0.0440	0.044
1.2D + 1.0Ev + 1.0Eh Normal Seismic	155.06	0.056	0.0000	0.0445	0.0445
1.2D + 1.0Ev + 1.0Eh Normal Seismic	160.00	0.0597	0.0002	0.0518	0.0518
1.2D + 1.0Ev + 1.0Eh Normal Seismic	160.25	0.0599	0.0002	0.0533	0.0533
1.2D + 1.0Ev + 1.0Eh Normal Seismic	164.20	0.0633	0.0001	0.0466	0.0466
1.2D + 1.0Ev + 1.0Eh Normal Seismic	172.10	0.0698	0.0000	0.0483	0.0483
1.2D + 1.0Ev + 1.0Eh Normal Seismic	180.00	0.0764	0.0001	0.0479	0.0479
1.2D + 1.0Ev + 1.0Eh 60° Seismic	20.00	0.001	0.0002	0.0057	0.0057
1.2D + 1.0Ev + 1.0Eh 60° Seismic	30.00	0.0022	0.0003	0.0074	0.0074
1.2D + 1.0Ev + 1.0Eh 60° Seismic	80.00	0.0138	0.0008	0.0206	0.0206
1.2D + 1.0Ev + 1.0Eh 60° Seismic	86.67	0.0163	0.0008	0.0222	0.0222
1.2D + 1.0Ev + 1.0Eh 60° Seismic	93.33	0.019	0.0008	0.0245	0.0245
1.2D + 1.0Ev + 1.0Eh 60° Seismic	100.00	0.0219	0.0009	0.0264	0.0264
1.2D + 1.0Ev + 1.0Eh 60° Seismic	113.33	0.0286	0.0010	0.0305	0.0305
1.2D + 1.0Ev + 1.0Eh 60° Seismic	120.00	0.0322	0.0010	0.0321	0.0322
1.2D + 1.0Ev + 1.0Eh 60° Seismic	126.67	0.0361	0.0010	0.0351	0.0351
1.2D + 1.0Ev + 1.0Eh 60° Seismic	133.33	0.0403	0.0009	0.0362	0.0362
1.2D + 1.0Ev + 1.0Eh 60° Seismic	140.00	0.0447	0.0010	0.0433	0.0433
1.2D + 1.0Ev + 1.0Eh 60° Seismic	140.25	0.0449	-0.0010	0.0437	0.0437
1.2D + 1.0Ev + 1.0Eh 60° Seismic	145.19	0.0484	0.0006	0.0405	0.0405
1.2D + 1.0Ev + 1.0Eh 60° Seismic	150.13	0.052	0.0003	0.0438	0.0438
1.2D + 1.0Ev + 1.0Eh 60° Seismic	155.06	0.0558	0.0000	0.0439	0.0439
1.2D + 1.0Ev + 1.0Eh 60° Seismic	160.00	0.0597	0.0002	0.0527	0.0527
1.2D + 1.0Ev + 1.0Eh 60° Seismic	160.25	0.0599	0.0002	0.0523	0.0523
1.2D + 1.0Ev + 1.0Eh 60° Seismic	164.20	0.0632	0.0001	0.0469	0.0469
1.2D + 1.0Ev + 1.0Eh 60° Seismic	172.10	0.0698	0.0000	0.0482	0.0482
1.2D + 1.0Ev + 1.0Eh 60° Seismic	180.00	0.0764	0.0000	0.0478	0.0478
1.2D + 1.0Ev + 1.0Eh 90° Seismic	20.00	0.0011	-0.0003	0.0057	0.0057
1.2D + 1.0Ev + 1.0Eh 90° Seismic	30.00	0.0023	-0.0004	0.0076	0.0076
1.2D + 1.0Ev + 1.0Eh 90° Seismic	80.00	0.0139	-0.0009	0.0206	0.0206
1.2D + 1.0Ev + 1.0Eh 90° Seismic	86.67	0.0164	-0.0009	0.0222	0.0223
1.2D + 1.0Ev + 1.0Eh 90° Seismic	93.33	0.0191	-0.0010	0.0244	0.0245
1.2D + 1.0Ev + 1.0Eh 90° Seismic	100.00	0.022	-0.0010	0.0264	0.0265
1.2D + 1.0Ev + 1.0Eh 90° Seismic	113.33	0.0286	-0.0011	0.0304	0.0304
1.2D + 1.0Ev + 1.0Eh 90° Seismic	120.00	0.0323	-0.0011	0.0323	0.0324
1.2D + 1.0Ev + 1.0Eh 90° Seismic	126.67	0.0362	-0.0011	0.0351	0.0351
1.2D + 1.0Ev + 1.0Eh 90° Seismic	133.33	0.0404	-0.0011	0.0366	0.0366
1.2D + 1.0Ev + 1.0Eh 90° Seismic	140.00	0.0447	-0.0011	0.0427	0.0427
1.2D + 1.0Ev + 1.0Eh 90° Seismic	140.25	0.0449	-0.0011	0.0429	0.0429
1.2D + 1.0Ev + 1.0Eh 90° Seismic	145.19	0.0485	-0.0007	0.0409	0.0409
1.2D + 1.0Ev + 1.0Eh 90° Seismic	150.13	0.052	-0.0004	0.0439	0.0439
1.2D + 1.0Ev + 1.0Eh 90° Seismic	155.06	0.0559	-0.0001	0.0444	0.0444
1.2D + 1.0Ev + 1.0Eh 90° Seismic	160.00	0.0597	0.0002	0.0519	0.0519
1.2D + 1.0Ev + 1.0Eh 90° Seismic	160.25	0.0599	0.0002	0.0523	0.0523
1.2D + 1.0Ev + 1.0Eh 90° Seismic	164.20	0.0633	0.0001	0.0470	0.047
1.2D + 1.0Ev + 1.0Eh 90° Seismic	172.10	0.0698	0.0000	0.0483	0.0483
1.2D + 1.0Ev + 1.0Eh 90° Seismic	180.00	0.0764	0.0000	0.0479	0.0479
1.2D + 1.0Ev + 1.0Eh 120° Seismic	20.00	0.0012	0.0002	0.0057	0.0057
1.2D + 1.0Ev + 1.0Eh 120° Seismic	30.00	0.0024	0.0003	0.0076	0.0076
1.2D + 1.0Ev + 1.0Eh 120° Seismic	80.00	0.014	0.0008	0.0205	0.0205
1.2D + 1.0Ev + 1.0Eh 120° Seismic	86.67	0.0164	0.0008	0.0222	0.0223
1.2D + 1.0Ev + 1.0Eh 120° Seismic	93.33	0.0191	0.0008	0.0244	0.0244
1.2D + 1.0Ev + 1.0Eh 120° Seismic	100.00	0.0221	0.0009	0.0264	0.0265
1.2D + 1.0Ev + 1.0Eh 120° Seismic	113.33	0.0286	0.0010	0.0304	0.0304
1.2D + 1.0Ev + 1.0Eh 120° Seismic	120.00	0.0324	0.0010	0.0324	0.0324

DEFLECTIONS AND ROTATIONS

Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
1.2D + 1.0Ev + 1.0Eh 120° Seismic	126.67	0.0363	0.0010	0.0349	0.0349
1.2D + 1.0Ev + 1.0Eh 120° Seismic	133.33	0.0405	0.0009	0.0365	0.0365
1.2D + 1.0Ev + 1.0Eh 120° Seismic	140.00	0.0448	0.0010	0.0416	0.0416
1.2D + 1.0Ev + 1.0Eh 120° Seismic	140.25	0.0449	-0.0010	0.0425	0.0425
1.2D + 1.0Ev + 1.0Eh 120° Seismic	145.19	0.0485	0.0006	0.0410	0.041
1.2D + 1.0Ev + 1.0Eh 120° Seismic	150.13	0.052	0.0003	0.0440	0.044
1.2D + 1.0Ev + 1.0Eh 120° Seismic	155.06	0.056	-0.0001	0.0445	0.0445
1.2D + 1.0Ev + 1.0Eh 120° Seismic	160.00	0.0597	0.0002	0.0518	0.0518
1.2D + 1.0Ev + 1.0Eh 120° Seismic	160.25	0.0599	0.0002	0.0533	0.0533
1.2D + 1.0Ev + 1.0Eh 120° Seismic	164.20	0.0633	0.0001	0.0466	0.0466
1.2D + 1.0Ev + 1.0Eh 120° Seismic	172.10	0.0698	0.0000	0.0483	0.0483
1.2D + 1.0Ev + 1.0Eh 120° Seismic	180.00	0.0764	0.0000	0.0479	0.0479
1.2D + 1.0Ev + 1.0Eh 180° Seismic	20.00	0.001	0.0002	0.0057	0.0057
1.2D + 1.0Ev + 1.0Eh 180° Seismic	30.00	0.0022	0.0003	0.0074	0.0074
1.2D + 1.0Ev + 1.0Eh 180° Seismic	80.00	0.0138	0.0008	0.0206	0.0206
1.2D + 1.0Ev + 1.0Eh 180° Seismic	86.67	0.0163	0.0008	0.0222	0.0222
1.2D + 1.0Ev + 1.0Eh 180° Seismic	93.33	0.019	0.0008	0.0245	0.0245
1.2D + 1.0Ev + 1.0Eh 180° Seismic	100.00	0.0219	0.0009	0.0264	0.0264
1.2D + 1.0Ev + 1.0Eh 180° Seismic	113.33	0.0286	0.0010	0.0305	0.0305
1.2D + 1.0Ev + 1.0Eh 180° Seismic	120.00	0.0322	0.0010	0.0321	0.0321
1.2D + 1.0Ev + 1.0Eh 180° Seismic	126.67	0.0361	0.0010	0.0351	0.0351
1.2D + 1.0Ev + 1.0Eh 180° Seismic	133.33	0.0403	0.0009	0.0362	0.0362
1.2D + 1.0Ev + 1.0Eh 180° Seismic	140.00	0.0447	0.0010	0.0433	0.0433
1.2D + 1.0Ev + 1.0Eh 180° Seismic	140.25	0.0449	0.0010	0.0437	0.0437
1.2D + 1.0Ev + 1.0Eh 180° Seismic	145.19	0.0484	0.0006	0.0405	0.0405
1.2D + 1.0Ev + 1.0Eh 180° Seismic	150.13	0.052	0.0003	0.0438	0.0438
1.2D + 1.0Ev + 1.0Eh 180° Seismic	155.06	0.0558	0.0000	0.0439	0.0439
1.2D + 1.0Ev + 1.0Eh 180° Seismic	160.00	0.0597	0.0002	0.0527	0.0527
1.2D + 1.0Ev + 1.0Eh 180° Seismic	160.25	0.0599	0.0002	0.0523	0.0523
1.2D + 1.0Ev + 1.0Eh 180° Seismic	164.20	0.0632	0.0001	0.0469	0.0469
1.2D + 1.0Ev + 1.0Eh 180° Seismic	172.10	0.0698	0.0000	0.0482	0.0482
1.2D + 1.0Ev + 1.0Eh 180° Seismic	180.00	0.0764	0.0000	0.0478	0.0478
1.2D + 1.0Ev + 1.0Eh 210° Seismic	20.00	0.0011	-0.0003	0.0057	0.0057
1.2D + 1.0Ev + 1.0Eh 210° Seismic	30.00	0.0023	-0.0004	0.0076	0.0076
1.2D + 1.0Ev + 1.0Eh 210° Seismic	80.00	0.0139	-0.0009	0.0206	0.0206
1.2D + 1.0Ev + 1.0Eh 210° Seismic	86.67	0.0164	-0.0009	0.0222	0.0223
1.2D + 1.0Ev + 1.0Eh 210° Seismic	93.33	0.0191	-0.0010	0.0244	0.0245
1.2D + 1.0Ev + 1.0Eh 210° Seismic	100.00	0.022	-0.0010	0.0265	0.0265
1.2D + 1.0Ev + 1.0Eh 210° Seismic	113.33	0.0286	-0.0011	0.0304	0.0304
1.2D + 1.0Ev + 1.0Eh 210° Seismic	120.00	0.0323	-0.0011	0.0323	0.0324
1.2D + 1.0Ev + 1.0Eh 210° Seismic	126.67	0.0362	-0.0011	0.0351	0.0351
1.2D + 1.0Ev + 1.0Eh 210° Seismic	133.33	0.0404	-0.0011	0.0366	0.0366
1.2D + 1.0Ev + 1.0Eh 210° Seismic	140.00	0.0447	-0.0011	0.0427	0.0427
1.2D + 1.0Ev + 1.0Eh 210° Seismic	140.25	0.0449	-0.0011	0.0429	0.0429
1.2D + 1.0Ev + 1.0Eh 210° Seismic	145.19	0.0485	-0.0007	0.0409	0.0409
1.2D + 1.0Ev + 1.0Eh 210° Seismic	150.13	0.052	-0.0004	0.0439	0.0439
1.2D + 1.0Ev + 1.0Eh 210° Seismic	155.06	0.0559	0.0000	0.0444	0.0444
1.2D + 1.0Ev + 1.0Eh 210° Seismic	160.00	0.0597	0.0002	0.0519	0.0519
1.2D + 1.0Ev + 1.0Eh 210° Seismic	160.25	0.0599	0.0002	0.0524	0.0524
1.2D + 1.0Ev + 1.0Eh 210° Seismic	164.20	0.0633	0.0001	0.0470	0.047
1.2D + 1.0Ev + 1.0Eh 210° Seismic	172.10	0.0698	0.0000	0.0483	0.0483
1.2D + 1.0Ev + 1.0Eh 210° Seismic	180.00	0.0764	0.0000	0.0479	0.0479
1.2D + 1.0Ev + 1.0Eh 240° Seismic	20.00	0.0012	0.0002	0.0057	0.0057
1.2D + 1.0Ev + 1.0Eh 240° Seismic	30.00	0.0024	0.0003	0.0076	0.0076
1.2D + 1.0Ev + 1.0Eh 240° Seismic	80.00	0.014	0.0008	0.0205	0.0205
1.2D + 1.0Ev + 1.0Eh 240° Seismic	86.67	0.0164	0.0008	0.0222	0.0223
1.2D + 1.0Ev + 1.0Eh 240° Seismic	93.33	0.0191	0.0008	0.0244	0.0244
1.2D + 1.0Ev + 1.0Eh 240° Seismic	100.00	0.0221	0.0009	0.0264	0.0265
1.2D + 1.0Ev + 1.0Eh 240° Seismic	113.33	0.0286	0.0010	0.0304	0.0304
1.2D + 1.0Ev + 1.0Eh 240° Seismic	120.00	0.0324	0.0010	0.0324	0.0324
1.2D + 1.0Ev + 1.0Eh 240° Seismic	126.67	0.0363	0.0010	0.0349	0.0349
1.2D + 1.0Ev + 1.0Eh 240° Seismic	133.33	0.0405	0.0009	0.0365	0.0365
1.2D + 1.0Ev + 1.0Eh 240° Seismic	140.00	0.0448	0.0010	0.0416	0.0416
1.2D + 1.0Ev + 1.0Eh 240° Seismic	140.25	0.0449	0.0010	0.0425	0.0425
1.2D + 1.0Ev + 1.0Eh 240° Seismic	145.19	0.0485	0.0006	0.0410	0.041
1.2D + 1.0Ev + 1.0Eh 240° Seismic	150.13	0.052	0.0003	0.0440	0.044
1.2D + 1.0Ev + 1.0Eh 240° Seismic	155.06	0.056	0.0001	0.0445	0.0445
1.2D + 1.0Ev + 1.0Eh 240° Seismic	160.00	0.0597	0.0002	0.0518	0.0518

DEFLECTIONS AND ROTATIONS

Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
1.2D + 1.0Ev + 1.0Eh 240° Seismic	160.25	0.0599	0.0002	0.0533	0.0533
1.2D + 1.0Ev + 1.0Eh 240° Seismic	164.20	0.0633	0.0001	0.0466	0.0466
1.2D + 1.0Ev + 1.0Eh 240° Seismic	172.10	0.0698	0.0000	0.0483	0.0483
1.2D + 1.0Ev + 1.0Eh 240° Seismic	180.00	0.0764	0.0000	0.0479	0.0479
1.2D + 1.0Ev + 1.0Eh 300° Seismic	20.00	0.001	0.0002	0.0057	0.0057
1.2D + 1.0Ev + 1.0Eh 300° Seismic	30.00	0.0022	0.0003	0.0074	0.0074
1.2D + 1.0Ev + 1.0Eh 300° Seismic	80.00	0.0138	0.0008	0.0206	0.0206
1.2D + 1.0Ev + 1.0Eh 300° Seismic	86.67	0.0163	0.0008	0.0222	0.0222
1.2D + 1.0Ev + 1.0Eh 300° Seismic	93.33	0.019	0.0008	0.0245	0.0245
1.2D + 1.0Ev + 1.0Eh 300° Seismic	100.00	0.0219	0.0009	0.0264	0.0264
1.2D + 1.0Ev + 1.0Eh 300° Seismic	113.33	0.0286	0.0010	0.0305	0.0305
1.2D + 1.0Ev + 1.0Eh 300° Seismic	120.00	0.0322	0.0010	0.0321	0.0322
1.2D + 1.0Ev + 1.0Eh 300° Seismic	126.67	0.0361	0.0010	0.0351	0.0351
1.2D + 1.0Ev + 1.0Eh 300° Seismic	133.33	0.0403	0.0009	0.0362	0.0362
1.2D + 1.0Ev + 1.0Eh 300° Seismic	140.00	0.0447	0.0010	0.0433	0.0433
1.2D + 1.0Ev + 1.0Eh 300° Seismic	140.25	0.0449	0.0010	0.0437	0.0437
1.2D + 1.0Ev + 1.0Eh 300° Seismic	145.19	0.0484	0.0006	0.0405	0.0405
1.2D + 1.0Ev + 1.0Eh 300° Seismic	150.13	0.052	0.0003	0.0438	0.0438
1.2D + 1.0Ev + 1.0Eh 300° Seismic	155.06	0.0558	0.0000	0.0439	0.0439
1.2D + 1.0Ev + 1.0Eh 300° Seismic	160.00	0.0597	0.0002	0.0527	0.0527
1.2D + 1.0Ev + 1.0Eh 300° Seismic	160.25	0.0599	0.0002	0.0523	0.0523
1.2D + 1.0Ev + 1.0Eh 300° Seismic	164.20	0.0632	0.0001	0.0469	0.0469
1.2D + 1.0Ev + 1.0Eh 300° Seismic	172.10	0.0698	0.0000	0.0482	0.0482
1.2D + 1.0Ev + 1.0Eh 300° Seismic	180.00	0.0764	0.0000	0.0478	0.0478
1.2D + 1.0Ev + 1.0Eh 330° Seismic	20.00	0.0011	-0.0003	0.0057	0.0057
1.2D + 1.0Ev + 1.0Eh 330° Seismic	30.00	0.0023	-0.0004	0.0076	0.0076
1.2D + 1.0Ev + 1.0Eh 330° Seismic	80.00	0.0139	-0.0009	0.0206	0.0206
1.2D + 1.0Ev + 1.0Eh 330° Seismic	86.67	0.0164	-0.0009	0.0222	0.0223
1.2D + 1.0Ev + 1.0Eh 330° Seismic	93.33	0.0191	-0.0010	0.0244	0.0245
1.2D + 1.0Ev + 1.0Eh 330° Seismic	100.00	0.022	-0.0010	0.0265	0.0265
1.2D + 1.0Ev + 1.0Eh 330° Seismic	113.33	0.0286	-0.0011	0.0304	0.0304
1.2D + 1.0Ev + 1.0Eh 330° Seismic	120.00	0.0323	-0.0011	0.0323	0.0324
1.2D + 1.0Ev + 1.0Eh 330° Seismic	126.67	0.0362	-0.0011	0.0351	0.0351
1.2D + 1.0Ev + 1.0Eh 330° Seismic	133.33	0.0404	-0.0011	0.0366	0.0366
1.2D + 1.0Ev + 1.0Eh 330° Seismic	140.00	0.0447	-0.0011	0.0427	0.0427
1.2D + 1.0Ev + 1.0Eh 330° Seismic	140.25	0.0449	-0.0011	0.0429	0.0429
1.2D + 1.0Ev + 1.0Eh 330° Seismic	145.19	0.0485	-0.0007	0.0409	0.0409
1.2D + 1.0Ev + 1.0Eh 330° Seismic	150.13	0.052	-0.0004	0.0439	0.0439
1.2D + 1.0Ev + 1.0Eh 330° Seismic	155.06	0.0559	0.0000	0.0444	0.0444
1.2D + 1.0Ev + 1.0Eh 330° Seismic	160.00	0.0597	0.0002	0.0519	0.0519
1.2D + 1.0Ev + 1.0Eh 330° Seismic	160.25	0.0599	0.0002	0.0524	0.0524
1.2D + 1.0Ev + 1.0Eh 330° Seismic	164.20	0.0633	0.0001	0.0470	0.047
1.2D + 1.0Ev + 1.0Eh 330° Seismic	172.10	0.0698	0.0000	0.0483	0.0483
1.2D + 1.0Ev + 1.0Eh 330° Seismic	180.00	0.0764	0.0001	0.0479	0.0479
0.9D - 1.0Ev + 1.0Eh Normal Seismic (Reduced DL)	20.00	0.0011	0.0002	0.0056	0.0056
0.9D - 1.0Ev + 1.0Eh Normal Seismic (Reduced DL)	30.00	0.0023	0.0003	0.0076	0.0076
0.9D - 1.0Ev + 1.0Eh Normal Seismic (Reduced DL)	80.00	0.0139	0.0008	0.0202	0.0202
0.9D - 1.0Ev + 1.0Eh Normal Seismic (Reduced DL)	86.67	0.0163	0.0008	0.0222	0.0222
0.9D - 1.0Ev + 1.0Eh Normal Seismic (Reduced DL)	93.33	0.0191	0.0008	0.0243	0.0243
0.9D - 1.0Ev + 1.0Eh Normal Seismic (Reduced DL)	100.00	0.022	0.0009	0.0263	0.0264
0.9D - 1.0Ev + 1.0Eh Normal Seismic (Reduced DL)	113.33	0.0285	0.0010	0.0303	0.0303
0.9D - 1.0Ev + 1.0Eh Normal Seismic (Reduced DL)	120.00	0.0322	0.0010	0.0322	0.0322
0.9D - 1.0Ev + 1.0Eh Normal Seismic (Reduced DL)	126.67	0.0361	0.0010	0.0348	0.0348
0.9D - 1.0Ev + 1.0Eh Normal Seismic (Reduced DL)	133.33	0.0403	0.0009	0.0363	0.0363
0.9D - 1.0Ev + 1.0Eh Normal Seismic (Reduced DL)	140.00	0.0446	0.0010	0.0417	0.0417
0.9D - 1.0Ev + 1.0Eh Normal Seismic (Reduced DL)	140.25	0.0448	0.0010	0.0426	0.0426
0.9D - 1.0Ev + 1.0Eh Normal Seismic (Reduced DL)	145.19	0.0483	0.0006	0.0407	0.0407
0.9D - 1.0Ev + 1.0Eh Normal Seismic (Reduced DL)	150.13	0.0518	0.0004	0.0438	0.0438
0.9D - 1.0Ev + 1.0Eh Normal Seismic (Reduced DL)	155.06	0.0558	0.0000	0.0442	0.0442
0.9D - 1.0Ev + 1.0Eh Normal Seismic (Reduced DL)	160.00	0.0595	0.0002	0.0518	0.0518
0.9D - 1.0Ev + 1.0Eh Normal Seismic (Reduced DL)	160.25	0.0597	0.0002	0.0529	0.0529
0.9D - 1.0Ev + 1.0Eh Normal Seismic (Reduced DL)	164.20	0.0631	0.0001	0.0465	0.0465
0.9D - 1.0Ev + 1.0Eh Normal Seismic (Reduced DL)	172.10	0.0696	0.0000	0.0480	0.048
0.9D - 1.0Ev + 1.0Eh Normal Seismic (Reduced DL)	180.00	0.0761	0.0001	0.0477	0.0477
0.9D - 1.0Ev + 1.0Eh 60° Seismic (Reduced DL)	20.00	0.001	0.0002	0.0054	0.0054
0.9D - 1.0Ev + 1.0Eh 60° Seismic (Reduced DL)	30.00	0.0021	0.0003	0.0074	0.0074
0.9D - 1.0Ev + 1.0Eh 60° Seismic (Reduced DL)	80.00	0.0138	-0.0008	0.0202	0.0202
0.9D - 1.0Ev + 1.0Eh 60° Seismic (Reduced DL)	86.67	0.0162	0.0008	0.0221	0.0222

DEFLECTIONS AND ROTATIONS

Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
0.9D - 1.0Ev + 1.0Eh 60° Seismic (Reduced DL)	93.33	0.0189	0.0008	0.0243	0.0243
0.9D - 1.0Ev + 1.0Eh 60° Seismic (Reduced DL)	100.00	0.0219	0.0009	0.0263	0.0263
0.9D - 1.0Ev + 1.0Eh 60° Seismic (Reduced DL)	113.33	0.0285	0.0010	0.0303	0.0303
0.9D - 1.0Ev + 1.0Eh 60° Seismic (Reduced DL)	120.00	0.0321	0.0010	0.0320	0.032
0.9D - 1.0Ev + 1.0Eh 60° Seismic (Reduced DL)	126.67	0.036	0.0010	0.0350	0.035
0.9D - 1.0Ev + 1.0Eh 60° Seismic (Reduced DL)	133.33	0.0402	0.0009	0.0361	0.0361
0.9D - 1.0Ev + 1.0Eh 60° Seismic (Reduced DL)	140.00	0.0445	0.0010	0.0429	0.0429
0.9D - 1.0Ev + 1.0Eh 60° Seismic (Reduced DL)	140.25	0.0447	-0.0010	0.0433	0.0433
0.9D - 1.0Ev + 1.0Eh 60° Seismic (Reduced DL)	145.19	0.0482	0.0006	0.0403	0.0403
0.9D - 1.0Ev + 1.0Eh 60° Seismic (Reduced DL)	150.13	0.0518	0.0003	0.0437	0.0437
0.9D - 1.0Ev + 1.0Eh 60° Seismic (Reduced DL)	155.06	0.0556	0.0000	0.0437	0.0437
0.9D - 1.0Ev + 1.0Eh 60° Seismic (Reduced DL)	160.00	0.0595	0.0002	0.0524	0.0524
0.9D - 1.0Ev + 1.0Eh 60° Seismic (Reduced DL)	160.25	0.0597	0.0002	0.0523	0.0523
0.9D - 1.0Ev + 1.0Eh 60° Seismic (Reduced DL)	164.20	0.063	0.0001	0.0467	0.0467
0.9D - 1.0Ev + 1.0Eh 60° Seismic (Reduced DL)	172.10	0.0696	0.0000	0.0480	0.048
0.9D - 1.0Ev + 1.0Eh 60° Seismic (Reduced DL)	180.00	0.0762	0.0000	0.0476	0.0476
0.9D - 1.0Ev + 1.0Eh 90° Seismic (Reduced DL)	20.00	0.0011	-0.0003	0.0055	0.0055
0.9D - 1.0Ev + 1.0Eh 90° Seismic (Reduced DL)	30.00	0.0022	-0.0004	0.0075	0.0075
0.9D - 1.0Ev + 1.0Eh 90° Seismic (Reduced DL)	80.00	0.0139	-0.0009	0.0202	0.0202
0.9D - 1.0Ev + 1.0Eh 90° Seismic (Reduced DL)	86.67	0.0163	-0.0009	0.0222	0.0222
0.9D - 1.0Ev + 1.0Eh 90° Seismic (Reduced DL)	93.33	0.019	-0.0010	0.0243	0.0243
0.9D - 1.0Ev + 1.0Eh 90° Seismic (Reduced DL)	100.00	0.0219	-0.0010	0.0263	0.0263
0.9D - 1.0Ev + 1.0Eh 90° Seismic (Reduced DL)	113.33	0.0285	-0.0011	0.0303	0.0303
0.9D - 1.0Ev + 1.0Eh 90° Seismic (Reduced DL)	120.00	0.0322	-0.0011	0.0321	0.0321
0.9D - 1.0Ev + 1.0Eh 90° Seismic (Reduced DL)	126.67	0.0361	-0.0011	0.0349	0.0349
0.9D - 1.0Ev + 1.0Eh 90° Seismic (Reduced DL)	133.33	0.0403	-0.0011	0.0365	0.0365
0.9D - 1.0Ev + 1.0Eh 90° Seismic (Reduced DL)	140.00	0.0446	-0.0011	0.0423	0.0423
0.9D - 1.0Ev + 1.0Eh 90° Seismic (Reduced DL)	140.25	0.0448	-0.0011	0.0426	0.0426
0.9D - 1.0Ev + 1.0Eh 90° Seismic (Reduced DL)	145.19	0.0483	-0.0007	0.0408	0.0408
0.9D - 1.0Ev + 1.0Eh 90° Seismic (Reduced DL)	150.13	0.0518	-0.0004	0.0437	0.0437
0.9D - 1.0Ev + 1.0Eh 90° Seismic (Reduced DL)	155.06	0.0557	-0.0001	0.0443	0.0443
0.9D - 1.0Ev + 1.0Eh 90° Seismic (Reduced DL)	160.00	0.0595	0.0002	0.0516	0.0516
0.9D - 1.0Ev + 1.0Eh 90° Seismic (Reduced DL)	160.25	0.0597	0.0002	0.0520	0.052
0.9D - 1.0Ev + 1.0Eh 90° Seismic (Reduced DL)	164.20	0.0631	0.0001	0.0468	0.0468
0.9D - 1.0Ev + 1.0Eh 90° Seismic (Reduced DL)	172.10	0.0696	0.0000	0.0480	0.048
0.9D - 1.0Ev + 1.0Eh 90° Seismic (Reduced DL)	180.00	0.0761	0.0000	0.0477	0.0477
0.9D - 1.0Ev + 1.0Eh 120° Seismic (Reduced DL)	20.00	0.0011	0.0002	0.0056	0.0056
0.9D - 1.0Ev + 1.0Eh 120° Seismic (Reduced DL)	30.00	0.0023	0.0003	0.0075	0.0075
0.9D - 1.0Ev + 1.0Eh 120° Seismic (Reduced DL)	80.00	0.0139	-0.0008	0.0202	0.0202
0.9D - 1.0Ev + 1.0Eh 120° Seismic (Reduced DL)	86.67	0.0163	0.0008	0.0222	0.0222
0.9D - 1.0Ev + 1.0Eh 120° Seismic (Reduced DL)	93.33	0.0191	0.0008	0.0243	0.0243
0.9D - 1.0Ev + 1.0Eh 120° Seismic (Reduced DL)	100.00	0.022	0.0009	0.0263	0.0264
0.9D - 1.0Ev + 1.0Eh 120° Seismic (Reduced DL)	113.33	0.0286	0.0010	0.0303	0.0303
0.9D - 1.0Ev + 1.0Eh 120° Seismic (Reduced DL)	120.00	0.0322	0.0010	0.0322	0.0322
0.9D - 1.0Ev + 1.0Eh 120° Seismic (Reduced DL)	126.67	0.0361	0.0010	0.0348	0.0348
0.9D - 1.0Ev + 1.0Eh 120° Seismic (Reduced DL)	133.33	0.0403	0.0009	0.0363	0.0363
0.9D - 1.0Ev + 1.0Eh 120° Seismic (Reduced DL)	140.00	0.0446	0.0010	0.0417	0.0417
0.9D - 1.0Ev + 1.0Eh 120° Seismic (Reduced DL)	140.25	0.0448	-0.0010	0.0426	0.0426
0.9D - 1.0Ev + 1.0Eh 120° Seismic (Reduced DL)	145.19	0.0483	0.0006	0.0407	0.0407
0.9D - 1.0Ev + 1.0Eh 120° Seismic (Reduced DL)	150.13	0.0519	0.0003	0.0438	0.0438
0.9D - 1.0Ev + 1.0Eh 120° Seismic (Reduced DL)	155.06	0.0558	-0.0001	0.0442	0.0442
0.9D - 1.0Ev + 1.0Eh 120° Seismic (Reduced DL)	160.00	0.0595	0.0002	0.0518	0.0518
0.9D - 1.0Ev + 1.0Eh 120° Seismic (Reduced DL)	160.25	0.0597	0.0002	0.0529	0.0529
0.9D - 1.0Ev + 1.0Eh 120° Seismic (Reduced DL)	164.20	0.0631	0.0001	0.0465	0.0465
0.9D - 1.0Ev + 1.0Eh 120° Seismic (Reduced DL)	172.10	0.0696	0.0000	0.0480	0.048
0.9D - 1.0Ev + 1.0Eh 120° Seismic (Reduced DL)	180.00	0.0761	0.0000	0.0477	0.0477
0.9D - 1.0Ev + 1.0Eh 180° Seismic (Reduced DL)	20.00	0.001	0.0002	0.0054	0.0054
0.9D - 1.0Ev + 1.0Eh 180° Seismic (Reduced DL)	30.00	0.0021	0.0003	0.0074	0.0074
0.9D - 1.0Ev + 1.0Eh 180° Seismic (Reduced DL)	80.00	0.0138	0.0008	0.0202	0.0202
0.9D - 1.0Ev + 1.0Eh 180° Seismic (Reduced DL)	86.67	0.0162	0.0008	0.0221	0.0222
0.9D - 1.0Ev + 1.0Eh 180° Seismic (Reduced DL)	93.33	0.0189	0.0008	0.0243	0.0243
0.9D - 1.0Ev + 1.0Eh 180° Seismic (Reduced DL)	100.00	0.0219	0.0009	0.0263	0.0263
0.9D - 1.0Ev + 1.0Eh 180° Seismic (Reduced DL)	113.33	0.0285	0.0010	0.0303	0.0303
0.9D - 1.0Ev + 1.0Eh 180° Seismic (Reduced DL)	120.00	0.0321	0.0010	0.0320	0.032
0.9D - 1.0Ev + 1.0Eh 180° Seismic (Reduced DL)	126.67	0.036	0.0010	0.0350	0.035
0.9D - 1.0Ev + 1.0Eh 180° Seismic (Reduced DL)	133.33	0.0402	0.0009	0.0361	0.0361
0.9D - 1.0Ev + 1.0Eh 180° Seismic (Reduced DL)	140.00	0.0445	0.0010	0.0429	0.0429
0.9D - 1.0Ev + 1.0Eh 180° Seismic (Reduced DL)	140.25	0.0447	0.0010	0.0433	0.0433

DEFLECTIONS AND ROTATIONS

Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
0.9D - 1.0Ev + 1.0Eh 180° Seismic (Reduced DL)	145.19	0.0482	0.0006	0.0403	0.0403
0.9D - 1.0Ev + 1.0Eh 180° Seismic (Reduced DL)	150.13	0.0518	0.0003	0.0437	0.0437
0.9D - 1.0Ev + 1.0Eh 180° Seismic (Reduced DL)	155.06	0.0556	0.0000	0.0437	0.0437
0.9D - 1.0Ev + 1.0Eh 180° Seismic (Reduced DL)	160.00	0.0595	0.0002	0.0524	0.0524
0.9D - 1.0Ev + 1.0Eh 180° Seismic (Reduced DL)	160.25	0.0597	0.0002	0.0523	0.0523
0.9D - 1.0Ev + 1.0Eh 180° Seismic (Reduced DL)	164.20	0.063	0.0001	0.0467	0.0467
0.9D - 1.0Ev + 1.0Eh 180° Seismic (Reduced DL)	172.10	0.0696	0.0000	0.0480	0.048
0.9D - 1.0Ev + 1.0Eh 180° Seismic (Reduced DL)	180.00	0.0762	0.0000	0.0476	0.0476
0.9D - 1.0Ev + 1.0Eh 210° Seismic (Reduced DL)	20.00	0.0011	-0.0003	0.0055	0.0055
0.9D - 1.0Ev + 1.0Eh 210° Seismic (Reduced DL)	30.00	0.0022	-0.0004	0.0075	0.0075
0.9D - 1.0Ev + 1.0Eh 210° Seismic (Reduced DL)	80.00	0.0139	-0.0009	0.0202	0.0202
0.9D - 1.0Ev + 1.0Eh 210° Seismic (Reduced DL)	86.67	0.0163	-0.0009	0.0222	0.0222
0.9D - 1.0Ev + 1.0Eh 210° Seismic (Reduced DL)	93.33	0.019	-0.0010	0.0243	0.0243
0.9D - 1.0Ev + 1.0Eh 210° Seismic (Reduced DL)	100.00	0.0219	-0.0010	0.0263	0.0263
0.9D - 1.0Ev + 1.0Eh 210° Seismic (Reduced DL)	113.33	0.0285	-0.0011	0.0303	0.0303
0.9D - 1.0Ev + 1.0Eh 210° Seismic (Reduced DL)	120.00	0.0322	-0.0011	0.0321	0.0321
0.9D - 1.0Ev + 1.0Eh 210° Seismic (Reduced DL)	126.67	0.0361	-0.0011	0.0349	0.0349
0.9D - 1.0Ev + 1.0Eh 210° Seismic (Reduced DL)	133.33	0.0403	-0.0011	0.0365	0.0365
0.9D - 1.0Ev + 1.0Eh 210° Seismic (Reduced DL)	140.00	0.0446	-0.0011	0.0423	0.0423
0.9D - 1.0Ev + 1.0Eh 210° Seismic (Reduced DL)	140.25	0.0448	-0.0011	0.0426	0.0426
0.9D - 1.0Ev + 1.0Eh 210° Seismic (Reduced DL)	145.19	0.0483	-0.0007	0.0408	0.0408
0.9D - 1.0Ev + 1.0Eh 210° Seismic (Reduced DL)	150.13	0.0518	-0.0004	0.0437	0.0437
0.9D - 1.0Ev + 1.0Eh 210° Seismic (Reduced DL)	155.06	0.0557	0.0000	0.0443	0.0443
0.9D - 1.0Ev + 1.0Eh 210° Seismic (Reduced DL)	160.00	0.0595	0.0002	0.0516	0.0516
0.9D - 1.0Ev + 1.0Eh 210° Seismic (Reduced DL)	160.25	0.0597	0.0002	0.0521	0.0521
0.9D - 1.0Ev + 1.0Eh 210° Seismic (Reduced DL)	164.20	0.0631	0.0001	0.0468	0.0468
0.9D - 1.0Ev + 1.0Eh 210° Seismic (Reduced DL)	172.10	0.0696	0.0000	0.0480	0.048
0.9D - 1.0Ev + 1.0Eh 210° Seismic (Reduced DL)	180.00	0.0762	0.0000	0.0477	0.0477
0.9D - 1.0Ev + 1.0Eh 240° Seismic (Reduced DL)	20.00	0.0011	0.0002	0.0056	0.0056
0.9D - 1.0Ev + 1.0Eh 240° Seismic (Reduced DL)	30.00	0.0023	0.0003	0.0075	0.0075
0.9D - 1.0Ev + 1.0Eh 240° Seismic (Reduced DL)	80.00	0.0139	0.0008	0.0202	0.0202
0.9D - 1.0Ev + 1.0Eh 240° Seismic (Reduced DL)	86.67	0.0163	0.0008	0.0222	0.0222
0.9D - 1.0Ev + 1.0Eh 240° Seismic (Reduced DL)	93.33	0.0191	0.0008	0.0243	0.0243
0.9D - 1.0Ev + 1.0Eh 240° Seismic (Reduced DL)	100.00	0.022	0.0009	0.0263	0.0264
0.9D - 1.0Ev + 1.0Eh 240° Seismic (Reduced DL)	113.33	0.0286	0.0010	0.0303	0.0303
0.9D - 1.0Ev + 1.0Eh 240° Seismic (Reduced DL)	120.00	0.0322	0.0010	0.0322	0.0322
0.9D - 1.0Ev + 1.0Eh 240° Seismic (Reduced DL)	126.67	0.0361	0.0010	0.0348	0.0348
0.9D - 1.0Ev + 1.0Eh 240° Seismic (Reduced DL)	133.33	0.0403	0.0009	0.0363	0.0363
0.9D - 1.0Ev + 1.0Eh 240° Seismic (Reduced DL)	140.00	0.0446	0.0010	0.0417	0.0417
0.9D - 1.0Ev + 1.0Eh 240° Seismic (Reduced DL)	140.25	0.0448	0.0010	0.0426	0.0426
0.9D - 1.0Ev + 1.0Eh 240° Seismic (Reduced DL)	145.19	0.0483	0.0006	0.0407	0.0407
0.9D - 1.0Ev + 1.0Eh 240° Seismic (Reduced DL)	150.13	0.0519	0.0003	0.0438	0.0438
0.9D - 1.0Ev + 1.0Eh 240° Seismic (Reduced DL)	155.06	0.0558	0.0001	0.0442	0.0442
0.9D - 1.0Ev + 1.0Eh 240° Seismic (Reduced DL)	160.00	0.0595	0.0002	0.0518	0.0518
0.9D - 1.0Ev + 1.0Eh 240° Seismic (Reduced DL)	160.25	0.0597	0.0002	0.0529	0.0529
0.9D - 1.0Ev + 1.0Eh 240° Seismic (Reduced DL)	164.20	0.0631	0.0001	0.0465	0.0465
0.9D - 1.0Ev + 1.0Eh 240° Seismic (Reduced DL)	172.10	0.0696	0.0000	0.0480	0.048
0.9D - 1.0Ev + 1.0Eh 240° Seismic (Reduced DL)	180.00	0.0761	0.0000	0.0477	0.0477
0.9D - 1.0Ev + 1.0Eh 300° Seismic (Reduced DL)	20.00	0.001	0.0002	0.0054	0.0054
0.9D - 1.0Ev + 1.0Eh 300° Seismic (Reduced DL)	30.00	0.0021	0.0003	0.0074	0.0074
0.9D - 1.0Ev + 1.0Eh 300° Seismic (Reduced DL)	80.00	0.0138	0.0008	0.0202	0.0202
0.9D - 1.0Ev + 1.0Eh 300° Seismic (Reduced DL)	86.67	0.0162	0.0008	0.0221	0.0222
0.9D - 1.0Ev + 1.0Eh 300° Seismic (Reduced DL)	93.33	0.0189	0.0008	0.0243	0.0243
0.9D - 1.0Ev + 1.0Eh 300° Seismic (Reduced DL)	100.00	0.0219	0.0009	0.0263	0.0263
0.9D - 1.0Ev + 1.0Eh 300° Seismic (Reduced DL)	113.33	0.0285	0.0010	0.0303	0.0303
0.9D - 1.0Ev + 1.0Eh 300° Seismic (Reduced DL)	120.00	0.0321	0.0010	0.0320	0.032
0.9D - 1.0Ev + 1.0Eh 300° Seismic (Reduced DL)	126.67	0.036	0.0010	0.0350	0.035
0.9D - 1.0Ev + 1.0Eh 300° Seismic (Reduced DL)	133.33	0.0402	0.0009	0.0361	0.0361
0.9D - 1.0Ev + 1.0Eh 300° Seismic (Reduced DL)	140.00	0.0445	0.0010	0.0429	0.0429
0.9D - 1.0Ev + 1.0Eh 300° Seismic (Reduced DL)	140.25	0.0447	0.0010	0.0433	0.0433
0.9D - 1.0Ev + 1.0Eh 300° Seismic (Reduced DL)	145.19	0.0482	0.0006	0.0403	0.0403
0.9D - 1.0Ev + 1.0Eh 300° Seismic (Reduced DL)	150.13	0.0518	0.0003	0.0437	0.0437
0.9D - 1.0Ev + 1.0Eh 300° Seismic (Reduced DL)	155.06	0.0556	0.0000	0.0437	0.0437
0.9D - 1.0Ev + 1.0Eh 300° Seismic (Reduced DL)	160.00	0.0595	0.0002	0.0524	0.0524
0.9D - 1.0Ev + 1.0Eh 300° Seismic (Reduced DL)	160.25	0.0597	0.0002	0.0523	0.0523
0.9D - 1.0Ev + 1.0Eh 300° Seismic (Reduced DL)	164.20	0.063	0.0001	0.0467	0.0467
0.9D - 1.0Ev + 1.0Eh 300° Seismic (Reduced DL)	172.10	0.0696	0.0000	0.0480	0.048
0.9D - 1.0Ev + 1.0Eh 300° Seismic (Reduced DL)	180.00	0.0762	0.0000	0.0476	0.0476

DEFLECTIONS AND ROTATIONS

Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
0.9D - 1.0Ev + 1.0Eh 330° Seismic (Reduced DL)	20.00	0.0011	-0.0003	0.0055	0.0055
0.9D - 1.0Ev + 1.0Eh 330° Seismic (Reduced DL)	30.00	0.0022	-0.0004	0.0075	0.0075
0.9D - 1.0Ev + 1.0Eh 330° Seismic (Reduced DL)	80.00	0.0139	-0.0009	0.0202	0.0202
0.9D - 1.0Ev + 1.0Eh 330° Seismic (Reduced DL)	86.67	0.0163	-0.0009	0.0222	0.0222
0.9D - 1.0Ev + 1.0Eh 330° Seismic (Reduced DL)	93.33	0.019	-0.0010	0.0243	0.0243
0.9D - 1.0Ev + 1.0Eh 330° Seismic (Reduced DL)	100.00	0.0219	-0.0010	0.0263	0.0263
0.9D - 1.0Ev + 1.0Eh 330° Seismic (Reduced DL)	113.33	0.0285	-0.0011	0.0303	0.0303
0.9D - 1.0Ev + 1.0Eh 330° Seismic (Reduced DL)	120.00	0.0322	-0.0011	0.0321	0.0321
0.9D - 1.0Ev + 1.0Eh 330° Seismic (Reduced DL)	126.67	0.0361	-0.0011	0.0349	0.0349
0.9D - 1.0Ev + 1.0Eh 330° Seismic (Reduced DL)	133.33	0.0403	-0.0011	0.0365	0.0365
0.9D - 1.0Ev + 1.0Eh 330° Seismic (Reduced DL)	140.00	0.0446	-0.0011	0.0423	0.0423
0.9D - 1.0Ev + 1.0Eh 330° Seismic (Reduced DL)	140.25	0.0448	-0.0011	0.0426	0.0426
0.9D - 1.0Ev + 1.0Eh 330° Seismic (Reduced DL)	145.19	0.0483	-0.0007	0.0408	0.0408
0.9D - 1.0Ev + 1.0Eh 330° Seismic (Reduced DL)	150.13	0.0518	-0.0004	0.0437	0.0437
0.9D - 1.0Ev + 1.0Eh 330° Seismic (Reduced DL)	155.06	0.0557	0.0000	0.0443	0.0443
0.9D - 1.0Ev + 1.0Eh 330° Seismic (Reduced DL)	160.00	0.0595	0.0002	0.0516	0.0516
0.9D - 1.0Ev + 1.0Eh 330° Seismic (Reduced DL)	160.25	0.0597	0.0002	0.0520	0.052
0.9D - 1.0Ev + 1.0Eh 330° Seismic (Reduced DL)	164.20	0.0631	0.0001	0.0468	0.0468
0.9D - 1.0Ev + 1.0Eh 330° Seismic (Reduced DL)	172.10	0.0696	0.0000	0.0480	0.048
0.9D - 1.0Ev + 1.0Eh 330° Seismic (Reduced DL)	180.00	0.0761	0.0001	0.0477	0.0477
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	20.00	0.0067	0.0565	0.0355	0.0642
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	30.00	0.0136	0.0845	0.0480	0.0937
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	80.00	0.08	0.3398	0.1280	0.3545
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	86.67	0.0935	0.4137	0.1428	0.4284
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	93.33	0.1083	0.4876	0.1573	0.5024
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	100.00	0.1242	0.5614	0.1709	0.5763
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	113.33	0.1595	0.7090	0.1971	0.7244
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	120.00	0.1789	0.7827	0.2103	0.7986
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	126.67	0.1994	0.9398	0.2293	0.9555
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	133.33	0.221	1.0954	0.2486	1.1148
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	140.00	0.2435	1.2509	0.2761	1.2758
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	140.25	0.2445	1.2696	0.2785	1.295
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	145.19	0.2624	1.6449	0.3070	1.6733
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	150.13	0.2809	2.0254	0.3374	2.0533
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	155.06	0.3006	2.4050	0.3802	2.4349
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	160.00	0.3207	2.7874	0.3728	2.8123
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	160.25	0.3222	2.8261	0.3496	2.8476
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	164.20	0.3393	3.4361	0.3246	3.4487
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	172.10	0.3741	3.4365	0.2689	3.447
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	180.00	0.4091	3.4367	0.2893	3.4489
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	20.00	0.0063	0.0561	0.0338	0.0633
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	30.00	0.0127	0.0839	0.0466	0.0937
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	80.00	0.0772	0.3381	0.1234	0.3547
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	86.67	0.0903	0.4123	0.1386	0.4295
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	93.33	0.1046	0.4864	0.1525	0.5038
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	100.00	0.1201	0.5606	0.1657	0.5783
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	113.33	0.1543	0.7090	0.1913	0.7274
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	120.00	0.1729	0.7831	0.2028	0.8016
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	126.67	0.1927	0.9418	0.2277	0.9605
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	133.33	0.2136	1.1021	0.2380	1.1191
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	140.00	0.2355	1.2625	0.2654	1.2827
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	140.25	0.2364	1.2819	0.2677	1.3023
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	145.19	0.2536	1.6641	0.2882	1.681
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	150.13	0.2716	2.0475	0.3163	2.0643
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	155.06	0.2903	2.4296	0.3581	2.4465
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	160.00	0.3098	2.8148	0.3306	2.8308
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	160.25	0.3111	2.8537	0.3216	2.8689
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	164.20	0.3275	3.4666	0.2418	3.4733
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	172.10	0.3606	3.4686	0.2394	3.4766
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	180.00	0.3937	3.4697	0.2375	3.4773
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	20.00	0.0064	0.0559	0.0355	0.064
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	30.00	0.013	0.0837	0.0473	0.0931
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	80.00	0.0778	0.3382	0.1275	0.3535
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	86.67	0.0909	0.4120	0.1421	0.4272
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	93.33	0.1053	0.4859	0.1568	0.5012
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	100.00	0.1208	0.5597	0.1703	0.5751
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	113.33	0.1552	0.7073	0.1969	0.7231
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	120.00	0.174	0.7809	0.2083	0.7968

DEFLECTIONS AND ROTATIONS

Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	126.67	0.1939	0.9384	0.2368	0.9555
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	133.33	0.2148	1.0968	0.2465	1.1091
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	140.00	0.2368	1.2553	0.2735	1.2693
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	140.25	0.2377	1.2744	0.2756	1.2886
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	145.19	0.2549	1.6513	0.3033	1.6619
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	150.13	0.2729	2.0293	0.3314	2.0396
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	155.06	0.2917	2.4059	0.3784	2.4155
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	160.00	0.311	2.7869	0.3379	2.7968
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	160.25	0.3124	2.8255	0.3299	2.836
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	164.20	0.3286	3.4354	0.1845	3.4399
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	172.10	0.3617	3.4357	0.2306	3.4431
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	180.00	0.3947	3.4358	0.2213	3.4423
1.0D + 1.0W Service 120° 60 mph Wind with No Ice	20.00	0.0067	0.0561	0.0354	0.064
1.0D + 1.0W Service 120° 60 mph Wind with No Ice	30.00	0.0135	0.0838	0.0479	0.0935
1.0D + 1.0W Service 120° 60 mph Wind with No Ice	80.00	0.0798	0.3372	0.1275	0.3536
1.0D + 1.0W Service 120° 60 mph Wind with No Ice	86.67	0.0932	0.4105	0.1422	0.4273
1.0D + 1.0W Service 120° 60 mph Wind with No Ice	93.33	0.1079	0.4837	0.1566	0.5011
1.0D + 1.0W Service 120° 60 mph Wind with No Ice	100.00	0.1238	0.5570	0.1700	0.5749
1.0D + 1.0W Service 120° 60 mph Wind with No Ice	113.33	0.1589	0.7035	0.1962	0.7227
1.0D + 1.0W Service 120° 60 mph Wind with No Ice	120.00	0.1781	0.7766	0.2078	0.7963
1.0D + 1.0W Service 120° 60 mph Wind with No Ice	126.67	0.1984	0.9326	0.2342	0.9543
1.0D + 1.0W Service 120° 60 mph Wind with No Ice	133.33	0.2199	1.0884	0.2449	1.1081
1.0D + 1.0W Service 120° 60 mph Wind with No Ice	140.00	0.2422	1.2445	0.2739	1.2651
1.0D + 1.0W Service 120° 60 mph Wind with No Ice	140.25	0.2432	1.2633	0.2762	1.2838
1.0D + 1.0W Service 120° 60 mph Wind with No Ice	145.19	0.2608	1.6337	0.3026	1.6518
1.0D + 1.0W Service 120° 60 mph Wind with No Ice	150.13	0.2791	2.0052	0.3312	2.0216
1.0D + 1.0W Service 120° 60 mph Wind with No Ice	155.06	0.2985	2.3750	0.3754	2.3932
1.0D + 1.0W Service 120° 60 mph Wind with No Ice	160.00	0.3182	2.7507	0.3466	2.7603
1.0D + 1.0W Service 120° 60 mph Wind with No Ice	160.25	0.3196	2.7890	0.3369	2.7971
1.0D + 1.0W Service 120° 60 mph Wind with No Ice	164.20	0.3362	3.3956	0.2224	3.4028
1.0D + 1.0W Service 120° 60 mph Wind with No Ice	172.10	0.3701	3.3940	0.2421	3.4023
1.0D + 1.0W Service 120° 60 mph Wind with No Ice	180.00	0.404	3.3932	0.2390	3.4012
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	20.00	0.0063	0.0559	0.0338	0.0628
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	30.00	0.0127	0.0835	0.0467	0.0934
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	80.00	0.0774	0.3368	0.1237	0.3536
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	86.67	0.0906	0.4107	0.1389	0.4281
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	93.33	0.105	0.4846	0.1529	0.5021
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	100.00	0.1205	0.5585	0.1662	0.5764
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	113.33	0.1549	0.7063	0.1918	0.7248
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	120.00	0.1737	0.7801	0.2047	0.799
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	126.67	0.1936	0.9379	0.2224	0.956
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	133.33	0.2147	1.0960	0.2409	1.1134
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	140.00	0.2368	1.2537	0.2668	1.2741
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	140.25	0.2377	1.2727	0.2691	1.2934
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	145.19	0.2551	1.6488	0.2912	1.666
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	150.13	0.2734	2.0259	0.3209	2.0431
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	155.06	0.2925	2.4017	0.3608	2.4187
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	160.00	0.3124	2.7821	0.3530	2.7998
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	160.25	0.3137	2.8207	0.3319	2.8369
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	164.20	0.3307	3.4302	0.3223	3.4433
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	172.10	0.3646	3.4302	0.2644	3.4401
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	180.00	0.3987	3.4302	0.2846	3.4412
1.0D + 1.0W Service 210° 60 mph Wind with No Ice	20.00	0.0064	0.0562	0.0355	0.0641
1.0D + 1.0W Service 210° 60 mph Wind with No Ice	30.00	0.013	0.0842	0.0474	0.0936
1.0D + 1.0W Service 210° 60 mph Wind with No Ice	80.00	0.078	0.3402	0.1280	0.3545
1.0D + 1.0W Service 210° 60 mph Wind with No Ice	86.67	0.0912	0.4144	0.1427	0.4286
1.0D + 1.0W Service 210° 60 mph Wind with No Ice	93.33	0.1057	0.4887	0.1575	0.5027
1.0D + 1.0W Service 210° 60 mph Wind with No Ice	100.00	0.1213	0.5629	0.1711	0.577
1.0D + 1.0W Service 210° 60 mph Wind with No Ice	113.33	0.1559	0.7114	0.1978	0.7255
1.0D + 1.0W Service 210° 60 mph Wind with No Ice	120.00	0.1747	0.7854	0.2107	0.7996
1.0D + 1.0W Service 210° 60 mph Wind with No Ice	126.67	0.1948	0.9439	0.2322	0.9572
1.0D + 1.0W Service 210° 60 mph Wind with No Ice	133.33	0.2159	1.1032	0.2501	1.1158
1.0D + 1.0W Service 210° 60 mph Wind with No Ice	140.00	0.2381	1.2628	0.2757	1.2769
1.0D + 1.0W Service 210° 60 mph Wind with No Ice	140.25	0.239	1.2820	0.2778	1.2963
1.0D + 1.0W Service 210° 60 mph Wind with No Ice	145.19	0.2564	1.6613	0.3073	1.6732
1.0D + 1.0W Service 210° 60 mph Wind with No Ice	150.13	0.2747	2.0418	0.3371	2.0525
1.0D + 1.0W Service 210° 60 mph Wind with No Ice	155.06	0.2938	2.4208	0.3826	2.4333
1.0D + 1.0W Service 210° 60 mph Wind with No Ice	160.00	0.3136	2.8041	0.3635	2.8165

DEFLECTIONS AND ROTATIONS

Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
1.0D + 1.0W Service 210° 60 mph Wind with No Ice	160.25	0.315	2.8430	0.3425	2.8548
1.0D + 1.0W Service 210° 60 mph Wind with No Ice	164.20	0.3318	3.4555	0.3016	3.4675
1.0D + 1.0W Service 210° 60 mph Wind with No Ice	172.10	0.3657	3.4573	0.2582	3.4667
1.0D + 1.0W Service 210° 60 mph Wind with No Ice	180.00	0.3997	3.4583	0.2742	3.4684
1.0D + 1.0W Service 240° 60 mph Wind with No Ice	20.00	0.0067	0.0566	0.0355	0.0645
1.0D + 1.0W Service 240° 60 mph Wind with No Ice	30.00	0.0135	0.0846	0.0479	0.0943
1.0D + 1.0W Service 240° 60 mph Wind with No Ice	80.00	0.0798	0.3405	0.1277	0.3569
1.0D + 1.0W Service 240° 60 mph Wind with No Ice	86.67	0.0932	0.4145	0.1424	0.4313
1.0D + 1.0W Service 240° 60 mph Wind with No Ice	93.33	0.1079	0.4886	0.1569	0.5059
1.0D + 1.0W Service 240° 60 mph Wind with No Ice	100.00	0.1238	0.5626	0.1704	0.5804
1.0D + 1.0W Service 240° 60 mph Wind with No Ice	113.33	0.1589	0.7105	0.1967	0.7296
1.0D + 1.0W Service 240° 60 mph Wind with No Ice	120.00	0.1781	0.7843	0.2086	0.804
1.0D + 1.0W Service 240° 60 mph Wind with No Ice	126.67	0.1984	0.9421	0.2338	0.9635
1.0D + 1.0W Service 240° 60 mph Wind with No Ice	133.33	0.2199	1.1013	0.2462	1.121
1.0D + 1.0W Service 240° 60 mph Wind with No Ice	140.00	0.2422	1.2611	0.2751	1.2817
1.0D + 1.0W Service 240° 60 mph Wind with No Ice	140.25	0.2432	1.2803	0.2775	1.3009
1.0D + 1.0W Service 240° 60 mph Wind with No Ice	145.19	0.2608	1.6595	0.3049	1.6777
1.0D + 1.0W Service 240° 60 mph Wind with No Ice	150.13	0.2791	2.0396	0.3341	2.0563
1.0D + 1.0W Service 240° 60 mph Wind with No Ice	155.06	0.2985	2.4183	0.3788	2.4367
1.0D + 1.0W Service 240° 60 mph Wind with No Ice	160.00	0.3182	2.8013	0.3544	2.8118
1.0D + 1.0W Service 240° 60 mph Wind with No Ice	160.25	0.3196	2.8401	0.3406	2.8486
1.0D + 1.0W Service 240° 60 mph Wind with No Ice	164.20	0.3362	3.4529	0.2376	3.461
1.0D + 1.0W Service 240° 60 mph Wind with No Ice	172.10	0.3701	3.4549	0.2437	3.4633
1.0D + 1.0W Service 240° 60 mph Wind with No Ice	180.00	0.4041	3.4560	0.2435	3.4641
1.0D + 1.0W Service 300° 60 mph Wind with No Ice	20.00	0.0063	0.0554	0.0338	0.0626
1.0D + 1.0W Service 300° 60 mph Wind with No Ice	30.00	0.0127	0.0828	0.0466	0.0931
1.0D + 1.0W Service 300° 60 mph Wind with No Ice	80.00	0.0772	0.3355	0.1233	0.3522
1.0D + 1.0W Service 300° 60 mph Wind with No Ice	86.67	0.0903	0.4091	0.1383	0.4264
1.0D + 1.0W Service 300° 60 mph Wind with No Ice	93.33	0.1046	0.4827	0.1522	0.5001
1.0D + 1.0W Service 300° 60 mph Wind with No Ice	100.00	0.1201	0.5564	0.1654	0.5741
1.0D + 1.0W Service 300° 60 mph Wind with No Ice	113.33	0.1543	0.7036	0.1910	0.722
1.0D + 1.0W Service 300° 60 mph Wind with No Ice	120.00	0.1729	0.7772	0.2026	0.7956
1.0D + 1.0W Service 300° 60 mph Wind with No Ice	126.67	0.1927	0.9341	0.2265	0.9533
1.0D + 1.0W Service 300° 60 mph Wind with No Ice	133.33	0.2136	1.0900	0.2378	1.1068
1.0D + 1.0W Service 300° 60 mph Wind with No Ice	140.00	0.2355	1.2451	0.2650	1.2653
1.0D + 1.0W Service 300° 60 mph Wind with No Ice	140.25	0.2364	1.2638	0.2673	1.2843
1.0D + 1.0W Service 300° 60 mph Wind with No Ice	145.19	0.2536	1.6337	0.2879	1.6505
1.0D + 1.0W Service 300° 60 mph Wind with No Ice	150.13	0.2716	2.0046	0.3162	2.0213
1.0D + 1.0W Service 300° 60 mph Wind with No Ice	155.06	0.2903	2.3742	0.3581	2.391
1.0D + 1.0W Service 300° 60 mph Wind with No Ice	160.00	0.3098	2.7497	0.3289	2.7645
1.0D + 1.0W Service 300° 60 mph Wind with No Ice	160.25	0.3111	2.7880	0.3191	2.8028
1.0D + 1.0W Service 300° 60 mph Wind with No Ice	164.20	0.3275	3.3940	0.2151	3.4
1.0D + 1.0W Service 300° 60 mph Wind with No Ice	172.10	0.3606	3.3920	0.2373	3.4001
1.0D + 1.0W Service 300° 60 mph Wind with No Ice	180.00	0.3937	3.3910	0.2356	3.3985
1.0D + 1.0W Service 330° 60 mph Wind with No Ice	20.00	0.0064	0.0558	0.0355	0.0636
1.0D + 1.0W Service 330° 60 mph Wind with No Ice	30.00	0.013	0.0835	0.0473	0.093
1.0D + 1.0W Service 330° 60 mph Wind with No Ice	80.00	0.078	0.3374	0.1277	0.3515
1.0D + 1.0W Service 330° 60 mph Wind with No Ice	86.67	0.0912	0.4110	0.1424	0.4253
1.0D + 1.0W Service 330° 60 mph Wind with No Ice	93.33	0.1057	0.4847	0.1572	0.4988
1.0D + 1.0W Service 330° 60 mph Wind with No Ice	100.00	0.1213	0.5583	0.1707	0.5724
1.0D + 1.0W Service 330° 60 mph Wind with No Ice	113.33	0.1559	0.7056	0.1973	0.7198
1.0D + 1.0W Service 330° 60 mph Wind with No Ice	120.00	0.1747	0.7791	0.2102	0.7932
1.0D + 1.0W Service 330° 60 mph Wind with No Ice	126.67	0.1948	0.9358	0.2318	0.9493
1.0D + 1.0W Service 330° 60 mph Wind with No Ice	133.33	0.2159	1.0909	0.2493	1.1031
1.0D + 1.0W Service 330° 60 mph Wind with No Ice	140.00	0.2381	1.2456	0.2748	1.2613
1.0D + 1.0W Service 330° 60 mph Wind with No Ice	140.25	0.239	1.2642	0.2769	1.2803
1.0D + 1.0W Service 330° 60 mph Wind with No Ice	145.19	0.2564	1.6322	0.3061	1.6534
1.0D + 1.0W Service 330° 60 mph Wind with No Ice	150.13	0.2747	2.0012	0.3355	2.0276
1.0D + 1.0W Service 330° 60 mph Wind with No Ice	155.06	0.2938	2.3735	0.3809	2.4039
1.0D + 1.0W Service 330° 60 mph Wind with No Ice	160.00	0.3136	2.7511	0.3587	2.7744
1.0D + 1.0W Service 330° 60 mph Wind with No Ice	160.25	0.315	2.7895	0.3392	2.81
1.0D + 1.0W Service 330° 60 mph Wind with No Ice	164.20	0.3318	3.3962	0.2792	3.4058
1.0D + 1.0W Service 330° 60 mph Wind with No Ice	172.10	0.3657	3.3949	0.2565	3.4046
1.0D + 1.0W Service 330° 60 mph Wind with No Ice	180.00	0.3997	3.3942	0.2713	3.405

Exhibit E

Mount Analysis

AMERICAN TOWER®
CORPORATION

Mount Analysis Report

ATC Site Name	:	**Redding, CT**
ATC Site Number	:	**302522**
Engineering Number	:	**14108828_C8_01**
Mount Elevation	:	**146.5 ft**
Carrier	:	**T-Mobile**
Carrier Site Name	:	**ATC Redding Lattice Tower**
Carrier Site Number	:	**CTFF749A**
Site Location	:	**100 Old Redding Road** **Redding, CT 06896-2721** **41.2871128 , -73.43820646**
County	:	**Fairfield**
Date	:	**June 1, 2022**
Max Usage	:	**55%**
Result	:	**Pass**

Prepared By:
Aviskar Ghansam
Structural Engineer

Aviskar Ghansam

Reviewed By:

COA: PEC.0001553

AMERICAN TOWER®
CORPORATION

Table of Contents

Introduction

The purpose of this report is to summarize results of the mount analysis performed for T-Mobile at 146.5 ft.

Supporting Documents

Specifications Sheet	Life Mount PV-SFA12-B, dated September 21, 2017
Radio Frequency Data Sheet	RFDS ID #CTFF749A, dated April 20, 2022
Reference Photos	Site photos from 2020

Analysis

This mount was analyzed using American Tower Corporation's Mount Analysis Program and RISA-3D

Basic Wind Speed:	116 mph (3-Second Gust)
Basic Wind Speed w/ Ice:	50 mph (3-Second Gust) w/ 1.00'' radial ice concurrent
Codes:	ANSI/TIA-222-H
Exposure Category:	B
Risk Category:	II
Topographic Factor Procedure:	Method 2
Feature:	Flat
Crest Height (H):	0 ft
Crest Length (L):	0 ft
Spectral Response:	Ss = 0.235, S1 = 0.057
Site Class:	D - Stiff Soil - Default
Live Loads:	Lm = 500 lbs, Lv = 250 lbs

Conclusion

Based on the analysis results, the antenna mount meets the requirements per the applicable codes listed above. The mount can support the equipment as described in this report.

If you have any questions or require additional information, please contact American Tower via email at Engineering@americantower.com. Please include the American Tower site name, site number, and engineering number in the subject line for any questions.

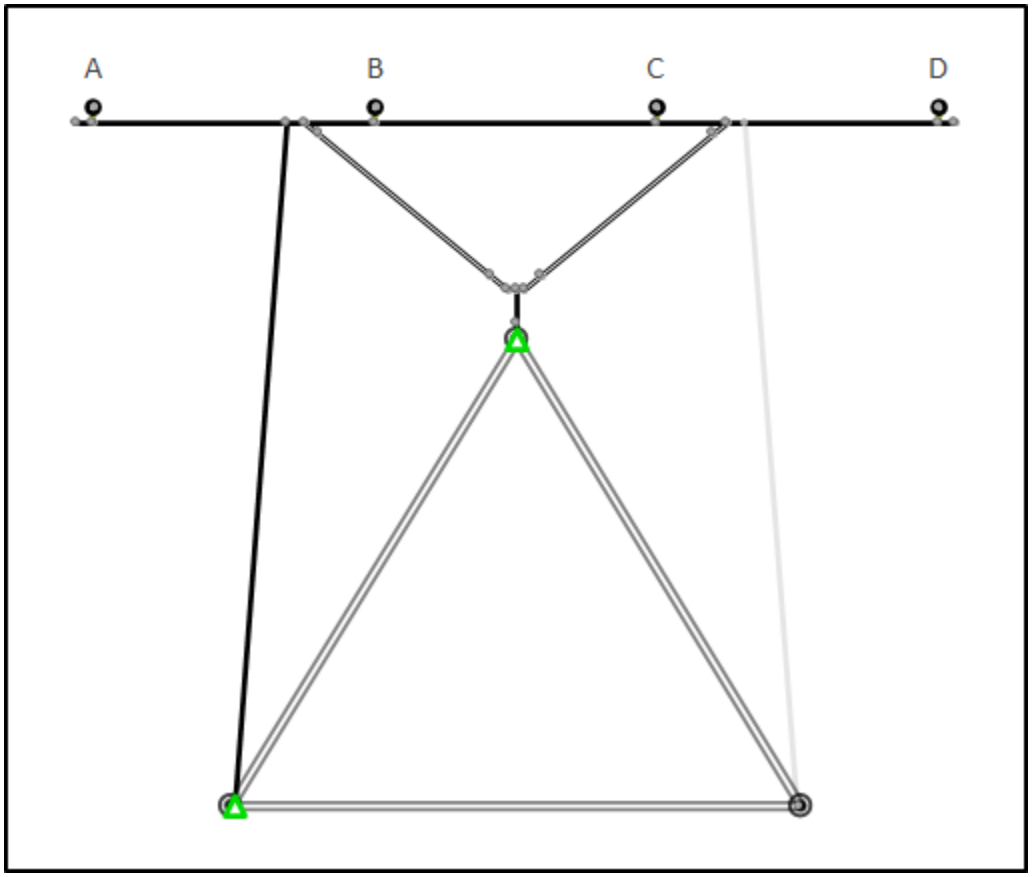
Application Loading

Mount Centerline (ft)	Equipment Centerline (ft)	Qty	Equipment Manufacturer & Model
146.5	148.0	3	RFS APXVAARR24_43-U-NA20
		3	Ericsson AIR 6419 B41
		3	Commscope VV-65A-R1B
		3	Ericsson Radio 4449 B71 B85A
		3	Ericsson 4460 BAND 2/25

Structure Usages

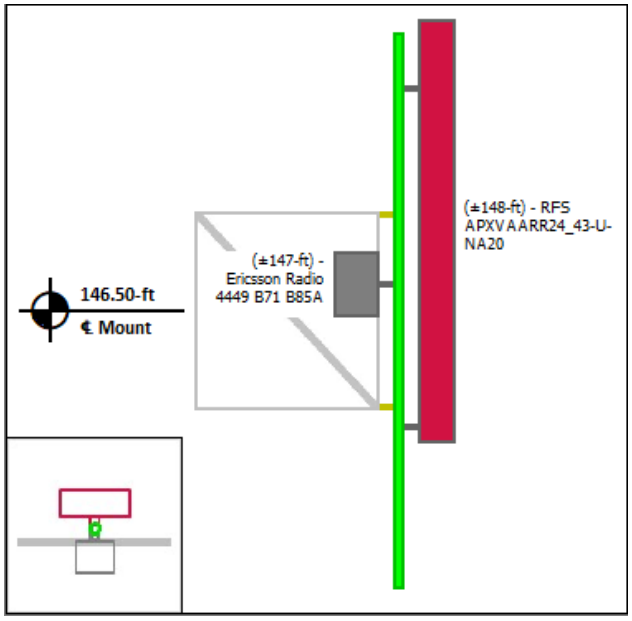
Structural Component	Controlling Usage	Pass/Fail
Horizontals	55%	Pass
Verticals	36%	Pass
Diagonals	30%	Pass
Mount Pipes	46%	Pass

Mount Layout

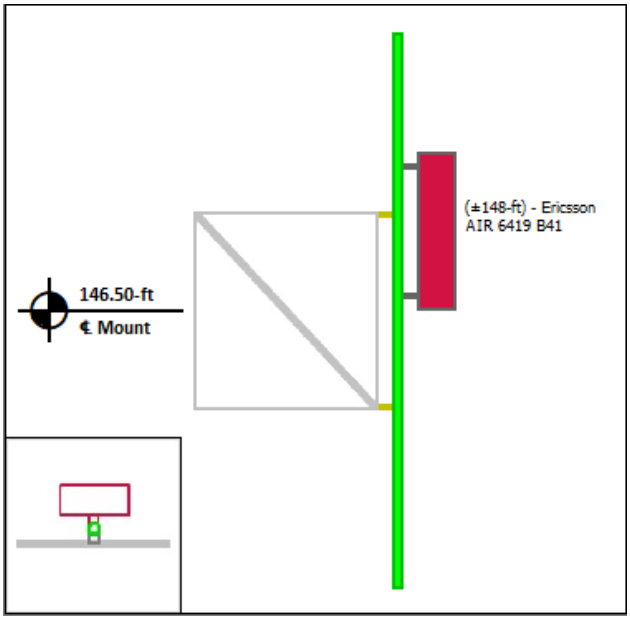


Equipment Layout

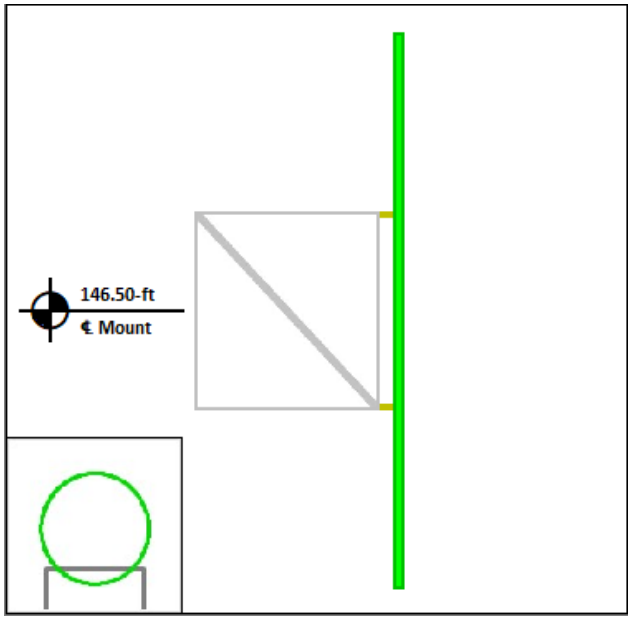
Mount Pipe A



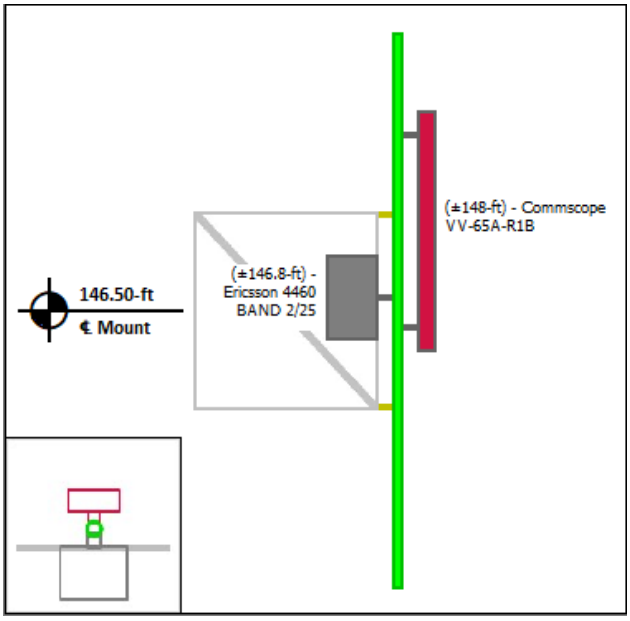
Mount Pipe B



Mount Pipe C



Mount Pipe D



Standard Conditions

All engineering services performed by A.T. Engineering Service, PLLC are prepared on the basis that the information used is current and correct. This information may consist of, but is not limited to the following:

- Information supplied by the client regarding equipment, mounts and feed line loading
- Information from drawings, design and analysis documents, and field notes in the possession of A.T. Engineering Service, PLLC

It is the responsibility of the client to ensure that the information provided to A.T. Engineering Service, PLLC and used in the performance of our engineering services is correct and complete.

American Tower assumes that all structures were constructed in accordance with the drawings and specifications.

All connections are to be verified for condition and tightness by the installation contractor preceding any changes to the appurtenance mounting system and/or equipment attached to it.

Unless explicitly agreed by both the client and A.T. Engineering Service, PLLC, all services will be performed in accordance with the current revision of ANSI/TIA-222.

Installation of all equipment and steel should be confirmed not to cause tower conflicts nor impede the tower climbing pegs.

All services are performed, results obtained, and recommendations made in accordance with generally accepted engineering principles and practices. A.T. Engineering Service, PLLC is not responsible for the conclusions, opinions and recommendations made by others based on the information supplied herein.

AMERICAN TOWER®
CORPORATION

Site Number:	*302522*
Project Number:	*14108828_C8_01*
Carrier:	*T-Mobile*
Mount Elevation:	*146.5 ft*
Date:	6/1/2022

Mount Analysis Force Calculations

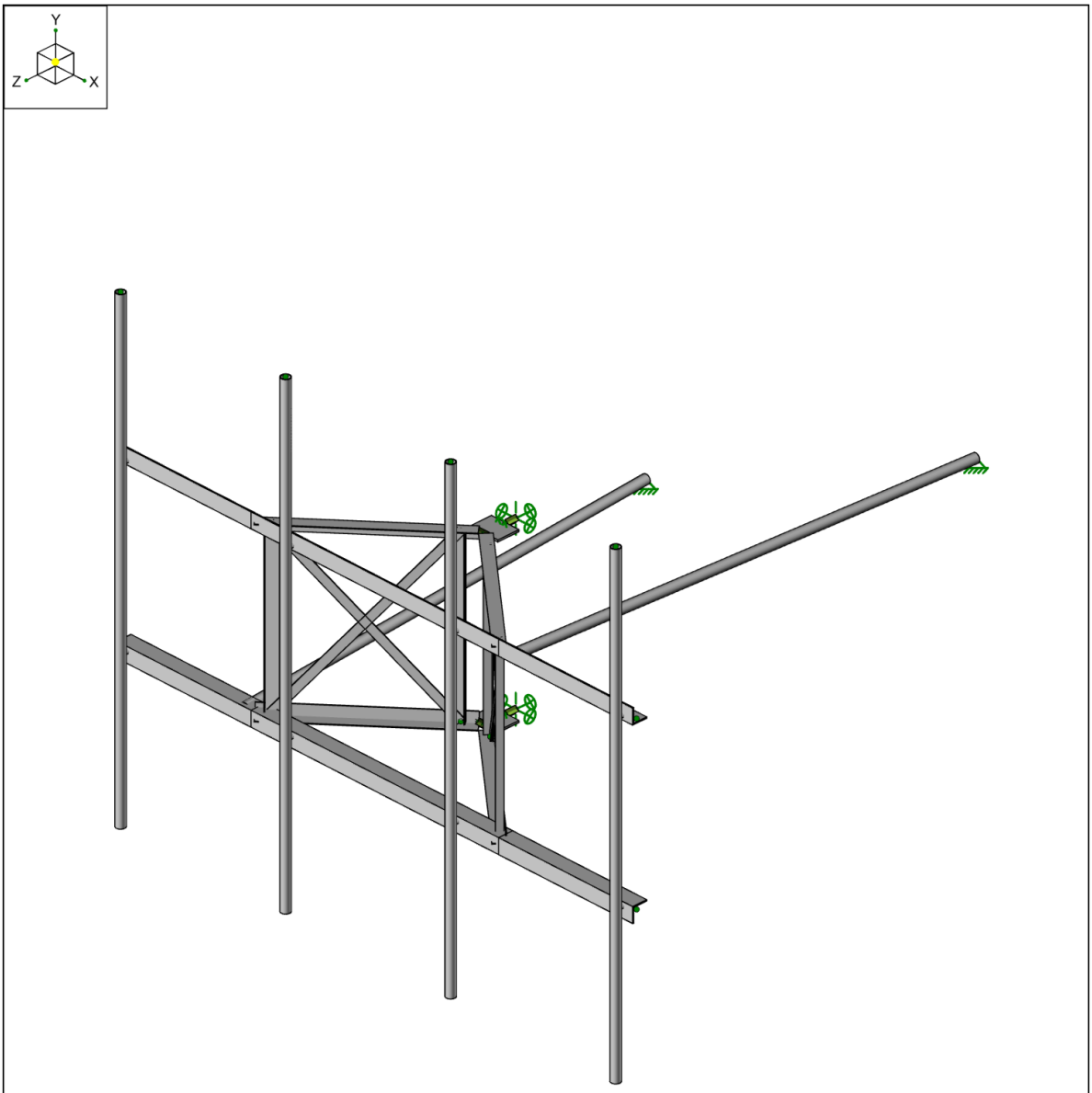
Wind & Ice Load Calculations			
Velocity Pressure Coefficient	K_z	1.10	
Topographic Factor	K_{zt}	1.00	
Rooftop Wind Speed-up Factor	K_s	1.00	
Shielding Factor	K_a	0.90	
Ground Elevation Factor	K_e	0.98	
Wind Direction Probability Factor	K_d	0.95	
Basic Wind Speed	V	116	mph
Velocity Pressure	q_z	35.2	psf
Height Escalation Factor	K_{iz}	1.16	
Thickness of Radial Glaze Ice	T_{iz}	1.16	in

Seismic Load Calculations			
Short Period DSRAP	S_{DS}	0.188	
1 Second DSRAP	S_{D1}	0.091	
Importance Factor	I	1.0	
Response Modification Coefficient	R	2.0	
Seismic Response Coefficient	C_S	0.094	
Amplification Factor	A	1.0	
Total Weight	W	1107.2	lbs
Total Shear Force	V_S	104.1	lbs
Horizontal Seismic Load	Eh	104.1	lbs
Vertical Seismic Load	Ev	41.6	lbs

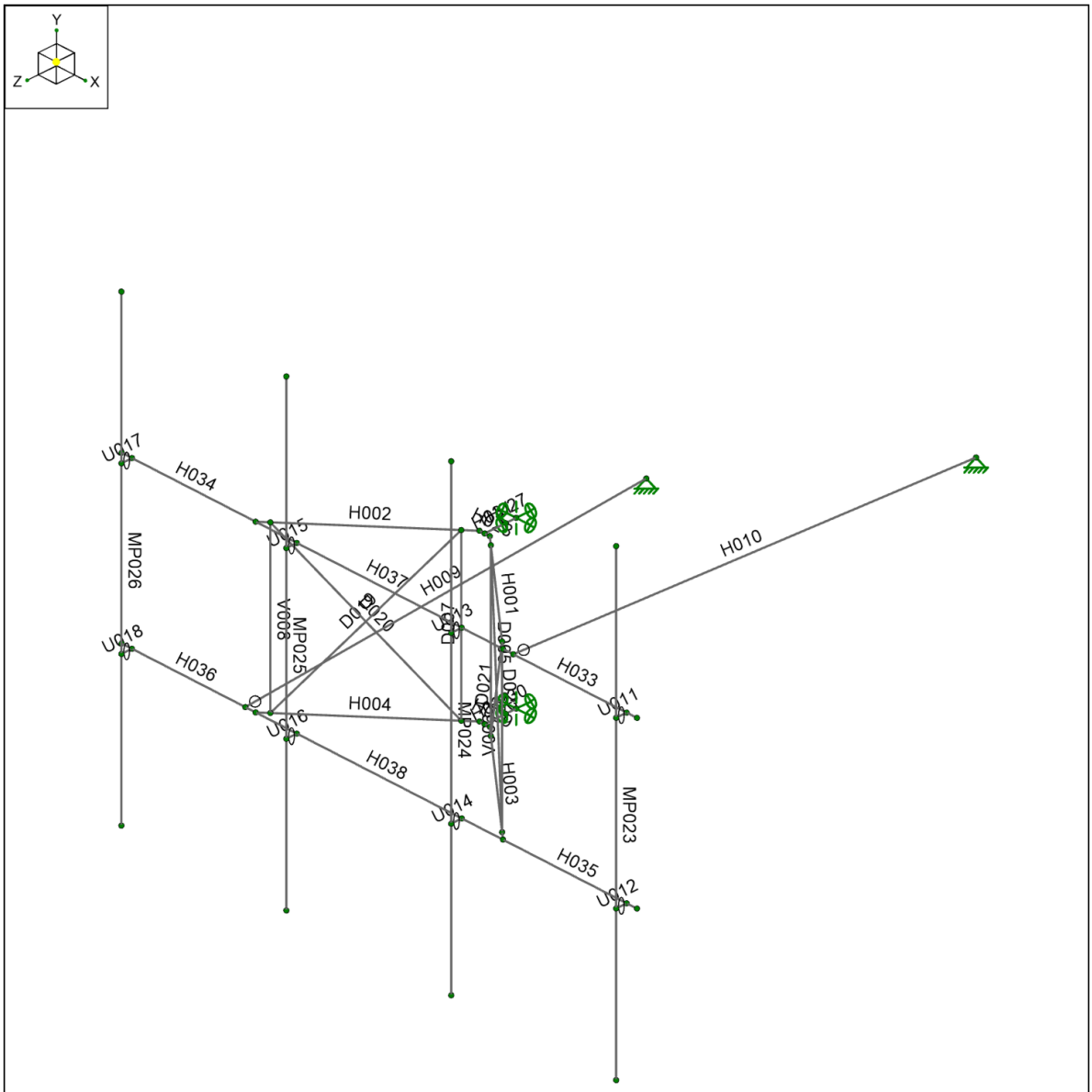
Antenna Calculations (Elevations per Application/RFDS)*

Equipment	Height	Width	Depth	Weight	EPA_N	EPA_T	EPA_{Ni}	EPA_{Ti}
Model #	in	in	in	lbs	sqft	sqft	sqft	sqft
RFS APXVAARR24_43-U-NA20	95.9	24.0	8.7	127.9	20.24	3.48	22.74	4.51
Ericsson AIR 6419 B41	36.3	20.9	9.0	83.3	6.32	1.82	7.47	2.44
Commscope VV-65A-R1B	54.7	12.0	4.6	24.7	5.89	1.43	7.32	2.24
Ericsson Radio 4449 B71 B85A	15.0	13.2	10.5	75.0	1.65	1.31	2.24	1.85
Ericsson 4460 BAND 2/25	19.6	15.7	12.1	109.0	2.56	1.98	3.29	2.63

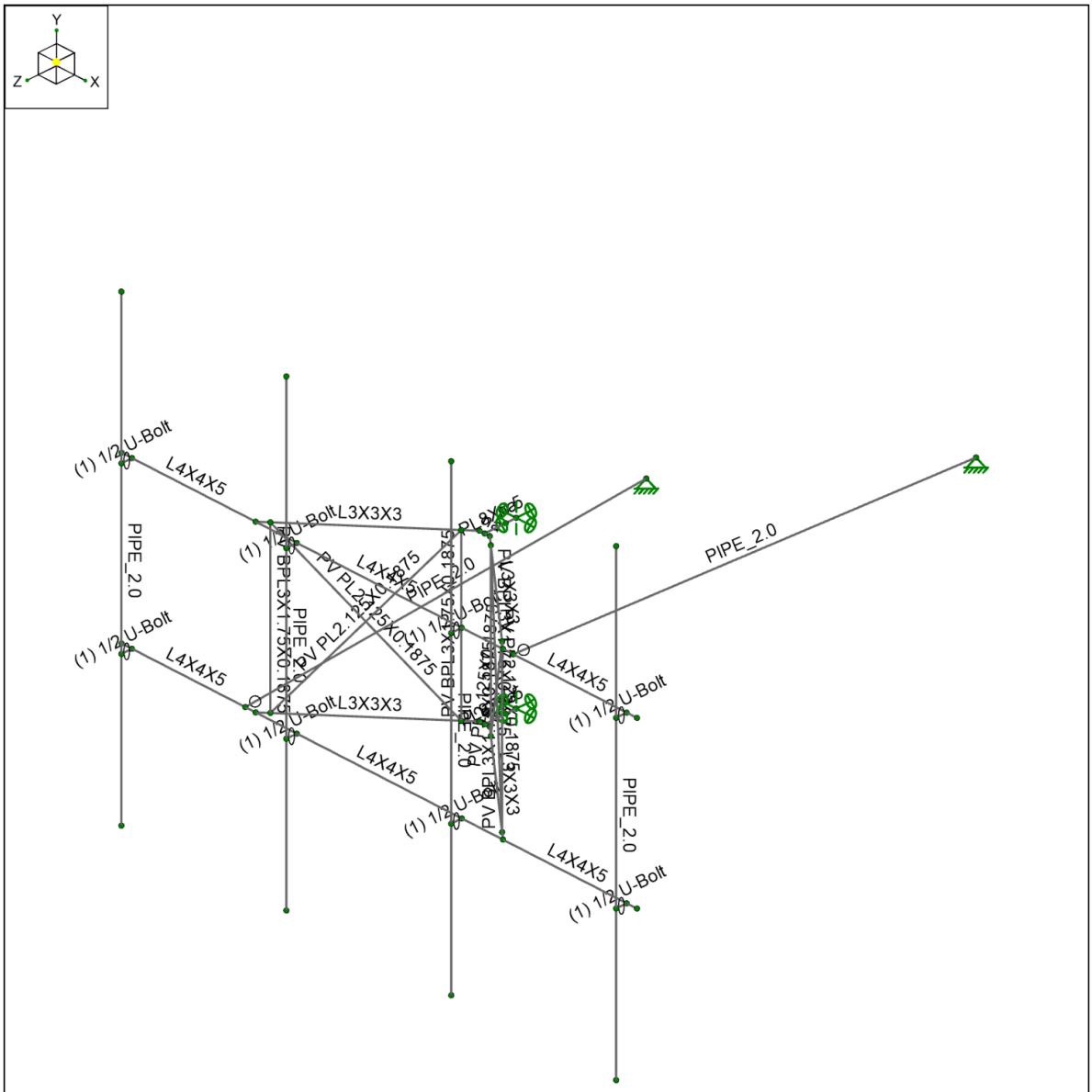
**** Equipment with EPA values N/A were not considered in the mount analysis***



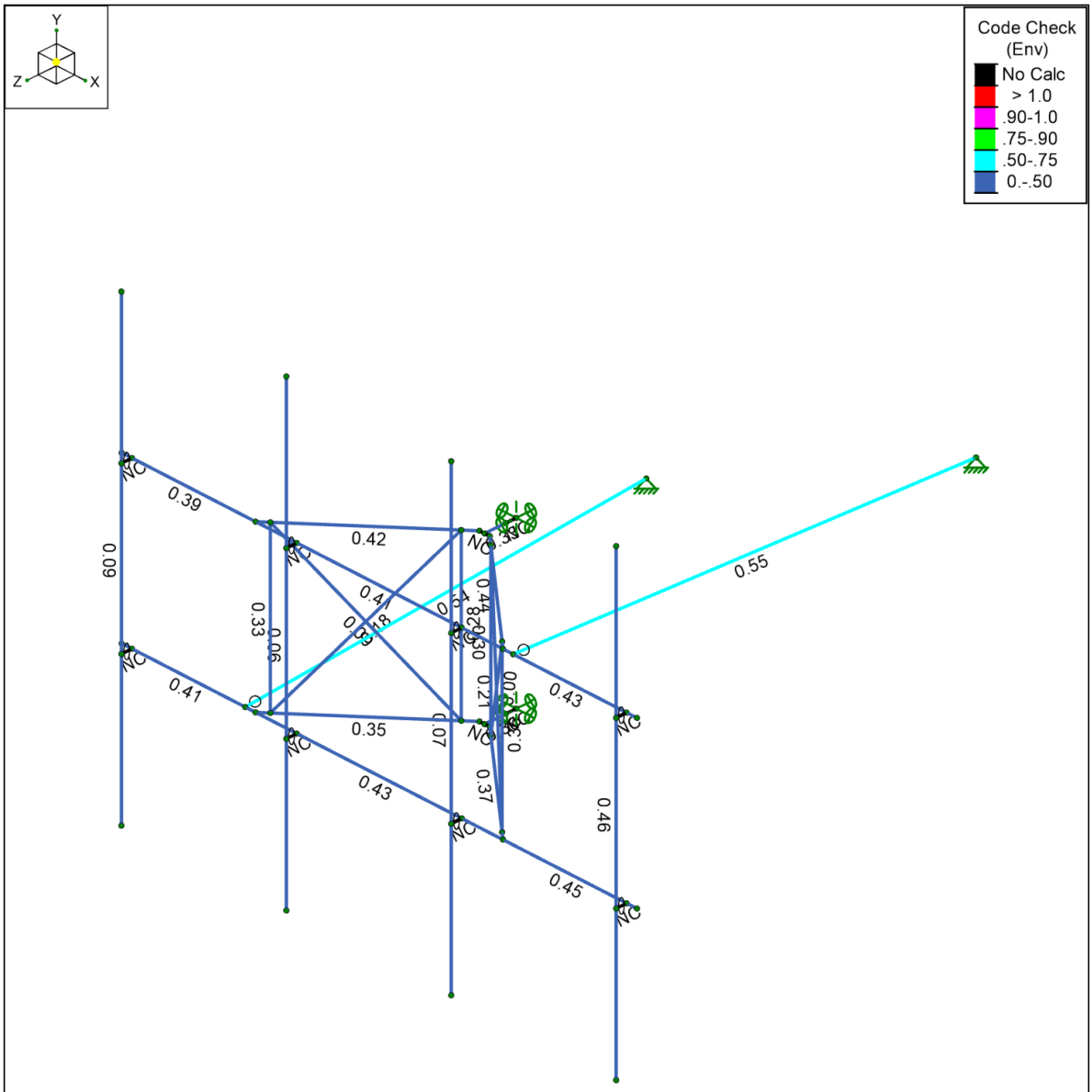
American Tower Corp.	302522, Redding	SK-1
Aviskar.Ghansam		Jun 01, 2022
14108828_C8_01		R3D. T-MOBILE @ 302522, Reddi…



American Tower Corp.	302522, Redding	SK-2
Aviskar.Ghansam		Jun 01, 2022
14108828_C8_01		R3D. T-MOBILE @ 302522, Reddi…

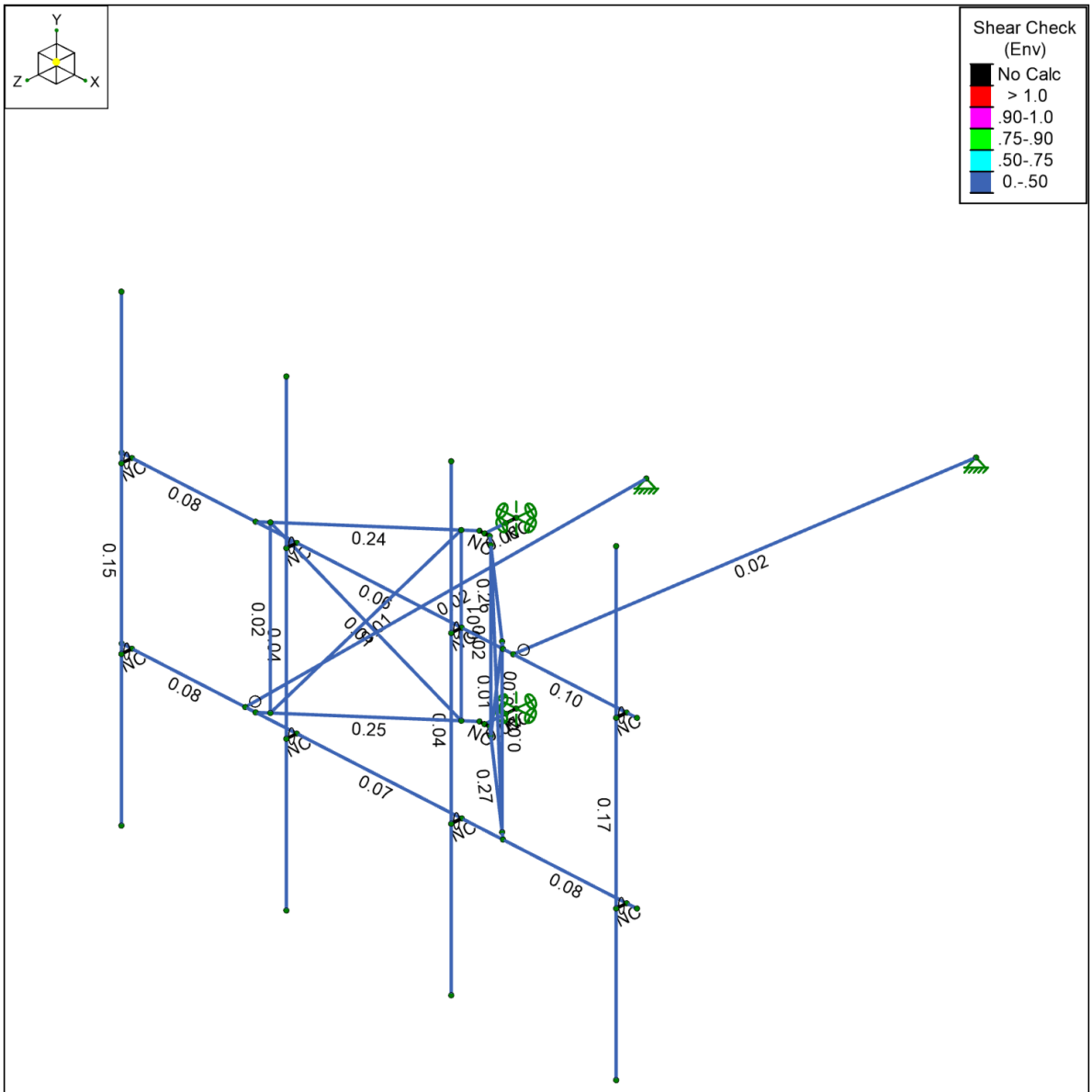


American Tower Corp.	302522, Redding	SK-3
Aviskar.Ghansam		Jun 01, 2022
14108828_C8_01		R3D. T-MOBILE @ 302522, Reddi…



Member Code Checks Displayed (Enveloped)

American Tower Corp.	302522, Redding	SK-4
Aviskar.Ghansam		Jun 01, 2022
14108828_C8_01		R3D. T-MOBILE @ 302522, Reddi…



American Tower Corp.	302522, Redding	SK-5
Aviskar.Ghansam		Jun 01, 2022
14108828_C8_01		R3D. T-MOBILE @ 302522, Reddi…

Basic Load Cases

	BLC Description	Category	Y Gravity	Nodal	Point	Distributed
1	D	DL	-1		8	
2	Di	IL			8	26
3	W 0	WL			8	36
4	W 30	WL			16	70
5	W 60	WL			16	70
6	W 90	WL			8	35
7	W 120	WL			16	70
8	W 150	WL			16	70
9	W 180	WL			8	36
10	W 210	WL			16	70
11	W 240	WL			16	70
12	W 270	WL			8	35
13	W 300	WL			16	70
14	W 330	WL			16	70
15	Wi 0	WL			8	36
16	Wi 30	WL			16	70
17	Wi 60	WL			16	70
18	Wi 90	WL			8	35
19	Wi 120	WL			16	70
20	Wi 150	WL			16	70
21	Wi 180	WL			8	36
22	Wi 210	WL			16	70
23	Wi 240	WL			16	70
24	Wi 270	WL			8	35
25	Wi 300	WL			16	70
26	Wi 330	WL			16	70
27	Ws 0	WL			8	36
28	Ws 30	WL			16	70
29	Ws 60	WL			16	70
30	Ws 90	WL			8	35
31	Ws 120	WL			16	70
32	Ws 150	WL			16	70
33	Ws 180	WL			8	36
34	Ws 210	WL			16	70
35	Ws 240	WL			16	70
36	Ws 270	WL			8	35
37	Ws 300	WL			16	70
38	Ws 330	WL			16	70
39	Ev -Y	ELY				26
40	Eh -Z	ELZ				26
41	Eh -X	ELX				26
42	Lv (1)	LL			1	
43	Lv (2)	LL			1	
44	Lv (3)	LL			1	
45	Lv (4)	LL			1	
46	Lv (5)	LL			1	
47	Lv (6)	LL			1	
48	Lv (7)	LL			1	
49	Lv (8)	LL			1	
50	Lv (9)	LL			1	
51	Lv (10)	LL			1	
52	Lv (11)	LL			1	
53	Lv (12)	LL			1	
54	Lv (13)	LL		1		
55	Lv (14)	LL		1		

Basic Load Cases (Continued)

	BLC Description	Category	Y Gravity	Nodal	Point	Distributed
56	Lv (15)	LL		1		
57	Lv (16)	LL		1		
58	Lm (1)	LL		1		
59	Lm (2)	LL		1		
60	Lm (3)	LL		1		
61	Lm (4)	LL		1		

Hot Rolled Steel Properties

	Label	E [psi]	G [psi]	Nu	Therm. Coeff. [1e⁵°F⁻¹]	Density [lb/ft³]	Yield [psi]	Ry	Fu [psi]	Rt
1	A36	2.9e+07	1.115e+07	0.3	0.65	490	36000	1.5	58000	1.2
2	A53 Gr. B	2.9e+07	1.115e+07	0.3	0.65	490	35000	1.6	60000	1.2

Node Boundary Conditions

	Node Label	X [lb/in]	Y [lb/in]	Z [lb/in]	X Rot [k-in/rad]	Z Rot [k-in/rad]
1	N001	Reaction	Reaction	Reaction	Reaction	Reaction
2	N010	Reaction	Reaction	Reaction		
3	N013	Reaction	Reaction	Reaction		
4	N052	Reaction	Reaction	Reaction	Reaction	Reaction

Member Primary Data

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
1	H001	N002	N040	180	L3X3X3	Beam	None	A36	Typical
2	H002	N003	N041	90	L3X3X3	Beam	None	A36	Typical
3	H003	N006	N042	270	L3X3X3	Beam	None	A36	Typical
4	H004	N007	N043		L3X3X3	Beam	None	A36	Typical
5	D005	N045	N048	218	PV BPL3X1.75X0.1875	Column	None	A36	Typical
6	V006	N051	N046	322	PV BPL3X1.75X0.1875	Column	None	A36	Typical
7	D007	N049	N044	38	PV BPL3X1.75X0.1875	Column	None	A36	Typical
8	V008	N047	N050	142	PV BPL3X1.75X0.1875	Column	None	A36	Typical
9	H009	N011	N010		PIPE_2.0	Beam	None	A53 Gr. B	Typical
10	H010	N012	N013		PIPE_2.0	Beam	None	A53 Gr. B	Typical
11	U011	N014	N018		(1) 1/2 U-Bolt	Beam	None	A36	Typical
12	U012	N019	N020		(1) 1/2 U-Bolt	Beam	None	A36	Typical
13	U013	N015	N021		(1) 1/2 U-Bolt	Beam	None	A36	Typical
14	U014	N022	N023		(1) 1/2 U-Bolt	Beam	None	A36	Typical
15	U015	N016	N024		(1) 1/2 U-Bolt	Beam	None	A36	Typical
16	U016	N025	N026		(1) 1/2 U-Bolt	Beam	None	A36	Typical
17	U017	N017	N027		(1) 1/2 U-Bolt	Beam	None	A36	Typical
18	U018	N028	N029		(1) 1/2 U-Bolt	Beam	None	A36	Typical
19	D019	N044	N050		PV PL2.125X0.1875	Column	None	A36	Typical
20	D020	N049	N047		PV PL2.125X0.1875	Column	None	A36	Typical
21	D021	N046	N048		PV PL2.125X0.1875	Column	None	A36	Typical
22	D022	N051	N045		PV PL2.125X0.1875	Column	None	A36	Typical
23	MP023	N030	N031		PIPE_2.0	Column	None	A53 Gr. B	Typical
24	MP024	N032	N033		PIPE_2.0	Column	None	A53 Gr. B	Typical
25	MP025	N034	N035		PIPE_2.0	Column	None	A53 Gr. B	Typical
26	MP026	N036	N037		PIPE_2.0	Column	None	A53 Gr. B	Typical
27	H027	N001	N038		RIGID	None	None	RIGID	Typical
28	H028	N040	N041		RIGID	None	None	RIGID	Typical
29	H029	N042	N043		RIGID	None	None	RIGID	Typical
30	H030	N052	N039		RIGID	None	None	RIGID	Typical
31	H031	N038	N053	90	PL8X0.5	Beam	None	A36	Typical

Member Primary Data (Continued)

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
32	H032	N039	N054	90	PL8X0.5	Beam	None	A36	Typical
33	H033	N004	N002		L4X4X5	Beam	None	A36	Typical
34	H034	N003	N005		L4X4X5	Beam	None	A36	Typical
35	H035	N008	N006	90	L4X4X5	Beam	None	A36	Typical
36	H036	N007	N009	90	L4X4X5	Beam	None	A36	Typical
37	H037	N002	N003		L4X4X5	Beam	None	A36	Typical
38	H038	N006	N007	90	L4X4X5	Beam	None	A36	Typical

Member Advanced Data

	Label	I Release	T/C Only	Physical	Deflection Ratio Options	Activation	Seismic DR
1	H001			Yes	N/A		None
2	H002			Yes	N/A		None
3	H003			Yes	N/A		None
4	H004			Yes	N/A		None
5	D005			Yes	** NA **		None
6	V006			Yes	** NA **		None
7	D007			Yes	** NA **		None
8	V008			Yes	** NA **		None
9	H009	BenPIN		Yes	N/A		None
10	H010	BenPIN		Yes	N/A		None
11	U011	OOOXOO		Yes	Default	Exclude	None
12	U012	OOOXOO		Yes	Default	Exclude	None
13	U013	OOOXOO		Yes	Default	Exclude	None
14	U014	OOOXOO		Yes	Default	Exclude	None
15	U015	OOOXOO		Yes	Default	Exclude	None
16	U016	OOOXOO		Yes	Default	Exclude	None
17	U017	OOOXOO		Yes	Default	Exclude	None
18	U018	OOOXOO		Yes	Default	Exclude	None
19	D019		Tension Only	Yes	** NA **		None
20	D020		Tension Only	Yes	** NA **		None
21	D021		Tension Only	Yes	** NA **		None
22	D022		Tension Only	Yes	** NA **		None
23	MP023			Yes	** NA **		None
24	MP024			Yes	** NA **		None
25	MP025			Yes	** NA **		None
26	MP026			Yes	** NA **		None
27	H027			Yes	** NA **		None
28	H028			Yes	** NA **		None
29	H029			Yes	** NA **		None
30	H030			Yes	** NA **		None
31	H031			Yes	N/A		None
32	H032			Yes	N/A		None
33	H033			Yes	N/A		None
34	H034			Yes	N/A		None
35	H035			Yes	N/A		None
36	H036			Yes	N/A		None
37	H037			Yes	N/A		None
38	H038			Yes	N/A		None

Hot Rolled Steel Design Parameters

	Label	Shape	Length [in]	Lb y-y [in]	Lb z-z [in]	Lcomp top [in]	L-Torque [in]	K y-y	K z-z	Function
1	H001	L3X3X3	45.719			Lbyy		0.65	0.65	Lateral
2	H002	L3X3X3	45.719			Lbyy		0.65	0.65	Lateral

Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length [in]	Lb y-y [in]	Lb z-z [in]	Lcomp top [in]	L-Torque [in]	K y-y	K z-z	Function
3	H003	L3X3X3	45.719			Lbyy		0.65	0.65	Lateral
4	H004	L3X3X3	45.719			Lbyy		0.65	0.65	Lateral
5	D005	PV BPL3X1.75X0.1875	45			Lbyy		0.65	0.65	Lateral
6	V006	PV BPL3X1.75X0.1875	45			Lbyy		0.65	0.65	Lateral
7	D007	PV BPL3X1.75X0.1875	45			Lbyy		0.65	0.65	Lateral
8	V008	PV BPL3X1.75X0.1875	45			Lbyy		0.65	0.65	Lateral
9	H009	PIPE_2.0	123.329			Lbyy		1	1	Lateral
10	H010	PIPE_2.0	123.329			Lbyy		1	1	Lateral
11	U011	(1) 1/2 U-Bolt	3			Lbyy		0.5	0.5	Lateral
12	U012	(1) 1/2 U-Bolt	3			Lbyy		0.5	0.5	Lateral
13	U013	(1) 1/2 U-Bolt	3			Lbyy		0.5	0.5	Lateral
14	U014	(1) 1/2 U-Bolt	3			Lbyy		0.5	0.5	Lateral
15	U015	(1) 1/2 U-Bolt	3			Lbyy		0.5	0.5	Lateral
16	U016	(1) 1/2 U-Bolt	3			Lbyy		0.5	0.5	Lateral
17	U017	(1) 1/2 U-Bolt	3			Lbyy		0.5	0.5	Lateral
18	U018	(1) 1/2 U-Bolt	3			Lbyy		0.5	0.5	Lateral
19	D019	PV PL2.125X0.1875	59.548			Lbyy		0.65	0.65	Lateral
20	D020	PV PL2.125X0.1875	59.548			Lbyy		0.65	0.65	Lateral
21	D021	PV PL2.125X0.1875	59.548			Lbyy		0.65	0.65	Lateral
22	D022	PV PL2.125X0.1875	59.548			Lbyy		0.65	0.65	Lateral
23	MP023	PIPE_2.0	126	Segment	Segment	Lbyy	Segment	2.1	2.1	Lateral
24	MP024	PIPE_2.0	126	Segment	Segment	Lbyy	Segment	2.1	2.1	Lateral
25	MP025	PIPE_2.0	126	Segment	Segment	Lbyy	Segment	2.1	2.1	Lateral
26	MP026	PIPE_2.0	126	Segment	Segment	Lbyy	Segment	2.1	2.1	Lateral
27	H031	PL8X0.5	6			Lbyy		0.65	0.65	Lateral
28	H032	PL8X0.5	6			Lbyy		0.65	0.65	Lateral
29	H033	L4X4X5	39			Lbyy		2.1	2.1	Lateral
30	H034	L4X4X5	39			Lbyy		2.1	2.1	Lateral
31	H035	L4X4X5	39			Lbyy		2.1	2.1	Lateral
32	H036	L4X4X5	39			Lbyy		2.1	2.1	Lateral
33	H037	L4X4X5	72			Lbyy		1	1	Lateral
34	H038	L4X4X5	72			Lbyy		1	1	Lateral

Envelope Node Reactions

	Node Label		X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [lb-ft]	LC	MY [lb-ft]	LC	MZ [lb-ft]	LC
1	N001	max	1055.221	116	1329.538	37	901.805	15	-241.9	19	0	125	41.017	82
2		min	-1419.996	86	414.403	19	-2348.46	9	-753.149	37	0	1	-30.351	124
3	N010	max	71.65	5	208.903	66	574.753	4	0	125	0	125	0	125
4		min	-67.979	23	15.944	16	-523.635	22	0	1	0	1	0	1
5	N013	max	120.686	18	208.877	67	1444.629	13	0	125	0	125	0	125
6		min	-123.755	12	15.661	24	-1396.107	19	0	1	0	1	0	1
7	N052	max	1388.428	82	1218.518	31	1900.978	37	-220.171	25	0	125	28.292	86
8		min	-1024.283	124	379.812	25	-480.72	19	-698.369	31	0	1	-20.671	116
9	Totals:	max	1797.38	4	2634.436	33	2526.048	14						
10		min	-1797.38	22	886.089	14	-2526.048	8						

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

	Member	Shape	Code Check	Loc[in]	LC	Shear Check	Loc[in]	Dir	LC	phi*Pnc [lb]	phi*Pnt [lb]	phi*Mn y-y [lb-ft]	phi*Mn z-z [lb-ft]	Cb	Eqn
1	H001	L3X3X3	0.44	0	8	0.265	2.857	y	89	26828.199	35316	1320.097	2702.95	1.5	H2-1
2	H002	L3X3X3	0.419	0	9	0.244	2.857	z	115	26828.199	35316	1320.097	2702.95	1.5	H2-1
3	H003	L3X3X3	0.373	45.719	80	0.273	2.857	z	83	26828.199	35316	1320.097	2702.95	1.5	H2-1
4	H004	L3X3X3	0.352	45.719	82	0.252	2.857	y	121	26828.199	35316	1320.097	2702.95	1.5	H2-1
5	D005	PV BPL3X1.75X0.1875	0.299	0	31	0.017	0	y	85	19894.332	27717.188	493.139	1478.77	1.5	H2-1

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

	Member	Shape	Code Check	Loc[in]	LC	Shear Check	Loc[in]	Dir	LC	phi*Pnc [lb]	phi*Pnt [lb]	phi*Mn y-y [lb-ft]	phi*Mn z-z [lb-ft]	Cb	Eqn
6	V006	PV BPL3X1.75X0.1875	0.36	0	84	0.022	45	y	84	19894.332	27717.188	493.139	1478.77	1.5	H2-1
7	D007	PV BPL3X1.75X0.1875	0.282	45	33	0.015	0	y	88	19894.332	27717.188	493.139	1478.77	1.5	H2-1
8	V008	PV BPL3X1.75X0.1875	0.33	45	123	0.02	0	y	120	19894.332	27717.188	493.139	1478.77	1.5	H2-1
9	H009	PIPE_2.0	0.544	61.664	66	0.022	123.329		66	9312.755	32130	1871.625	1871.625	1.305	H1-1b
10	H010	PIPE_2.0	0.547	61.664	67	0.022	123.329		67	9312.755	32130	1871.625	1871.625	1.305	H1-1b
11	D019	PV PL2.125X0.1875	0.179	0	116	0.011	59.548	y	26	176.018	12909.375	50.427	381.627	2.356	H1-1b*
12	D020	PV PL2.125X0.1875	0.002	59.548	83	0.009	59.548	y	84	176.018	12909.375	50.427	326.998	2.018	H1-1b*
13	D021	PV PL2.125X0.1875	0	59.548	125	0	59.548	y	125	176.018	12909.375	50.427	162.015	1	H1-1a
14	D022	PV PL2.125X0.1875	0.206	59.548	89	0.01	0	y	26	176.018	12909.375	50.427	386.528	2.386	H1-1a*
15	MP023	PIPE_2.0	0.459	39.375	8	0.17	55.125		84	17593.139	32130	1871.625	1871.625	1	H1-1b
16	MP024	PIPE_2.0	0.072	85.312	95	0.039	85.312		84	15275.24	32130	1871.625	1871.625	2.989	H1-1b
17	MP025	PIPE_2.0	0.064	85.312	109	0.038	85.312		121	15275.24	32130	1871.625	1871.625	1.509	H1-1b
18	MP026	PIPE_2.0	0.088	40.688	7	0.153	40.688		121	15275.24	32130	1871.625	1871.625	2.504	H1-1b
19	H031	PL8X0.5	0.328	0	34	0.065	0	y	86	124713.379	129600	1350	21600	1.363	H1-1b
20	H032	PL8X0.5	0.305	0	28	0.053	0	y	82	124713.379	129600	1350	21600	1.363	H1-1b
21	H033	L4X4X5	0.429	39	78	0.098	35.75	z	8	43584.764	77760	3776.855	8413.92	1.5	H2-1
22	H034	L4X4X5	0.393	0	125	0.077	0	y	120	43584.764	77760	3776.855	8413.92	1.5	H2-1
23	H035	L4X4X5	0.447	39	84	0.082	39	z	84	43584.764	77760	3776.855	8413.92	1.5	H2-1
24	H036	L4X4X5	0.407	0	121	0.077	0	z	121	43584.764	77760	3776.855	8413.92	1.5	H2-1
25	H037	L4X4X5	0.413	0	89	0.059	0	y	13	49710.052	77760	3776.855	7778.895	1.355	H2-1
26	H038	L4X4X5	0.427	0	84	0.066	0	z	83	49710.052	77760	3776.855	7798.317	1.372	H2-1

Exhibit F

Power Density/RF Emissions Report

Radio Frequency Exposure Analysis Report

June 28, 2022

Centerline on behalf of T-Mobile
Centerline Communications Project Number: N/A

T-Mobile Site Name: ATC Redding Lattice Tower
Site Number: CTFF749A

Site Address: 100 Old Redding Rd, Redding, CT 06896-2721

Site Compliance Summary

T-Mobile Compliance Status:	Compliant
Cumulative Calculated Power Density (Ground Level):	35.62415 µW/cm^2
Cumulative General Population % MPE (Ground Level):	3.5626699999999998%

750 West Center Street | Suite 301 | West Bridgewater | MA | 02379

June 28, 2022

Centerline
Attn: Jessica Meyer, Project Coordinator
750 W Center St, Suite 301
West Bridgewater, MA 02379

RF Exposure Analysis for Site: **ATC Redding Lattice Tower**

Centerline Communications, LLC ("Centerline") was contracted to analyze the proposed T-Mobile facility at **100 Old Redding Rd, Redding, CT 06896-2721** for the purpose of determining whether the predictive exposure from the proposed facility is within specified federal limits.

All information used in this report was analyzed as a percentage of the Maximum Permissible Exposure (% MPE) limits as detailed in 47 CFR § 1.1310 as well as Federal Communications Commission (FCC) OET Bulletin 65 Edition 97-01. The FCC MPE limits are typically expressed in units of milliwatts per square centimeter (mW/cm^2) or microwatts per square centimeter ($\mu W/cm^2$). The exposure limits vary depending upon the frequencies being utilized. The General Population/Uncontrolled MPE limit (in mW/cm^2) for frequencies between 300 and 1500 is defined as frequency (in MHz) divided by 1500 ($f_{MHz}/1500$). Frequencies between 1500 and 100,000 MHz have a General Population/Uncontrolled MPE limit of 1 mW/cm^2 (1000 $\mu W/cm^2$). The calculated power density at each sample point divided by the limit at each calculated frequency provides a result in % MPE. Summing the calculated % MPE from all contributors provides a cumulative % MPE at a particular sample point. Wireless carriers use different frequency bands with varying MPE limits; therefore, it is useful to report results in terms of % MPE as opposed to power density.

All results were compared to the FCC radio frequency exposure rules as detailed in 47 CFR § 1.1307(b) to determine compliance with the MPE limits for General Population/Uncontrolled environments as defined below.

General population/uncontrolled exposure limits apply to situations in which the general population may be exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Therefore, members of the general population would always be considered under this category when exposure is not employment related, for example, in the case of a telecommunications tower that exposes persons in a nearby residential area.

Occupational/controlled exposure limits apply to situations in which persons are exposed as a consequence of their employment and in which those persons who are exposed have been made fully aware of the potential for exposure and can exercise control over their exposure. Occupational/ controlled exposure limits also apply where exposure is of a transient nature as a result of incidental passage through a location where exposure levels may be above general population/uncontrolled limits, as long as the exposed person has been made fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means. Additional details can be found in FCC OET 65.

Calculation Methodology

Centerline Communications, LLC has performed theoretical modeling of the site using a software tool, RoofMaster®, which incorporates calculation methodologies detailed in FCC OET 65. RoofMaster® uses a cylindrical model for conservative power density predictions within the near field of the antenna where the antenna pattern has not truly formed yet. Within this area power density values tend to decrease based upon an inverse distance function. At the point where it is appropriate for modeling to change from near-field calculations to far-field calculations, the power decreases inversely with the square of the distance. The modeling is based on worst-case assumptions in terms of transmitter power and duty cycle. No losses were included in the power calculations unless they were specifically provided for the project.

In OET 65, a far field model is presented to calculate the spatial peak power density. The RoofMaster® implementation of this model incorporates antenna manufacturer's horizontal and vertical pattern data to determine the power density in all directions. This model yields the power density at a single point in space. In order to determine the spatial power density for comparison to the FCC limits, the average of several points calculated within the human profile (0-6') must be conducted. RoofMaster® calculates seven power density values between 0-6' above the specified study plane and performs a linear spatial average.

Data & Results

The following table details the antennas and operating parameters for the T-Mobile antenna system as well as any other antenna systems at the site. This is based on antenna information provided by the client and data compiled from other sources where necessary. The data below was input into Roofmaster® to perform the theoretical exposure calculations at the ground.

The theoretical calculations performed in Roofmaster® determine the cumulative exposure at all sample points at ground level (0-6' spatial average). The results from highest cumulative sample point at ground level surrounding the site are displayed in the table below. The contribution from directional antennas to the maximum cumulative totals varies greatly depending on location; therefore, the contribution from one antenna sector at the highest calculated exposure point may be greater or less than other sectors since sectorized directional antennas are pointed in different directions and there is not much overlapping exposure.

The contribution to the cumulative power density and % MPE for each antenna/frequency band is listed in the table. The cumulative power density and cumulative % MPE are displayed at the bottom of the table.

Maximum Calculated Cumulative Power Density (Location: approximately 423' northeast of site)

Antenna ID	Make / Model	Frequency Band (MHz)	Antenna Gain (dBd)	Antenna Centerline (ft)	Channel Count	TX Power/ Channel (watts)	ERP (watts)	Calculated Power Density ($\mu W/cm^2$)	General Population MPE Limit ($\mu W/cm^2$)	General Population % MPE
T-Mobile A 1	RFS APXVAARR24 43-U-NA20	700	13.17	148.00	4.00	40.00	3319.86	0.00010	466.67	0.00002
T-Mobile A 1	RFS APXVAARR24 43-U-NA20	600	13.09	148.00	2.00	40.00	1629.63	0.00004	400.00	0.00001
T-Mobile A 1	RFS APXVAARR24 43-U-NA20	600	13.09	148.00	2.00	30.00	1222.23	0.00003	400.00	0.00001
T-Mobile A 2	ERICSSON AIR6419	2500	22.05	148.00	2.00	80.00	25651.93	17.21995	1000.00	1.72200
T-Mobile A 2	ERICSSON AIR6419	2500	22.05	148.00	2.00	80.00	25651.93	17.21995	1000.00	1.72200
T-Mobile A 3	COMMSCOPE VV-65A-R1	1900	15.80	148.00	2.00	140.00	10645.30	0.00016	1000.00	0.00002
T-Mobile A 3	COMMSCOPE VV-65A-R1	2100	16.43	148.00	2.00	140.00	12307.17	0.00015	1000.00	0.00002
T-Mobile B 4	RFS APXVAARR24 43-U-NA20	700	13.17	148.00	4.00	40.00	3319.86	0.00000	466.67	0.00000
T-Mobile B 4	RFS APXVAARR24 43-U-NA20	600	13.09	148.00	2.00	40.00	1629.63	0.00000	400.00	0.00000
T-Mobile B 4	RFS APXVAARR24 43-U-NA20	600	13.09	148.00	2.00	30.00	1222.23	0.00000	400.00	0.00000
T-Mobile B 5	ERICSSON AIR6419	2500	22.05	148.00	2.00	80.00	25651.93	0.27799	1000.00	0.02780
T-Mobile B 5	ERICSSON AIR6419	2500	22.05	148.00	2.00	80.00	25651.93	0.27799	1000.00	0.02780
T-Mobile B 6	COMMSCOPE VV-65A-R1	1900	15.80	148.00	2.00	140.00	10645.30	0.00000	1000.00	0.00000
T-Mobile B 6	COMMSCOPE VV-65A-R1	2100	16.43	148.00	2.00	140.00	12307.17	0.00000	1000.00	0.00000
T-Mobile C 7	RFS APXVAARR24 43-U-NA20	700	13.17	148.00	4.00	40.00	3319.86	0.00000	466.67	0.00000
T-Mobile C 7	RFS APXVAARR24 43-U-NA20	600	13.09	148.00	2.00	40.00	1629.63	0.00000	400.00	0.00000
T-Mobile C 7	RFS APXVAARR24 43-U-NA20	600	13.09	148.00	2.00	30.00	1222.23	0.00000	400.00	0.00000
T-Mobile C 8	ERICSSON AIR6419	2500	22.05	148.00	2.00	80.00	25651.93	0.31191	1000.00	0.03119
T-Mobile C 8	ERICSSON AIR6419	2500	22.05	148.00	2.00	80.00	25651.93	0.31191	1000.00	0.03119
T-Mobile C 9	COMMSCOPE VV-65A-R1	1900	15.80	148.00	2.00	140.00	10645.30	0.00000	1000.00	0.00000
T-Mobile C 9	COMMSCOPE VV-65A-R1	2100	16.43	148.00	2.00	140.00	12307.17	0.00000	1000.00	0.00000
AT&T A 10	CCI DMP65R-BU6D	700	11.75	184.00	4.00	40.00	2393.98	0.00007	466.67	0.00001
AT&T A 10	CCI DMP65R-BU6D	1900	14.05	184.00	4.00	40.00	4065.56	0.00006	1000.00	0.00001
AT&T A 11	QUINTEL QS66512-2	700	11.45	184.00	4.00	40.00	2234.19	0.00006	466.67	0.00001
AT&T A 11	QUINTEL QS66512-2	850	10.95	184.00	4.00	40.00	1991.22	0.00007	566.67	0.00001
AT&T A 12	CCI OPA65R-BU6D	2300	14.25	184.00	4.00	25.00	2660.73	0.00004	1000.00	0.00000
AT&T A 13	POWERWAVE 7770 00	850	11.35	184.00	1.00	40.00	545.83	0.00001	566.67	0.00000
AT&T B 14	CCI DMP65R-BU8D	700	12.25	184.00	4.00	40.00	2686.09	0.00000	466.67	0.00000
AT&T B 14	CCI DMP65R-BU8D	1900	14.55	184.00	4.00	40.00	4561.63	0.00000	1000.00	0.00000
AT&T B 15	CCI TPA-65R-LCUUUU-H8	700	13.35	184.00	4.00	40.00	3460.35	0.00000	466.67	0.00000
AT&T B 15	CCI TPA-65R-LCUUUU-H8	850	13.55	184.00	4.00	40.00	3623.43	0.00000	566.67	0.00000
AT&T B 16	CCI OPA65R-BU8D	2300	14.95	184.00	4.00	25.00	3126.08	0.00000	1000.00	0.00000
AT&T B 17	POWERWAVE 7770 00	850	11.35	184.00	1.00	40.00	545.83	0.00000	566.67	0.00000
AT&T C 18	CCI DMP65R-BU6D	700	11.75	184.00	4.00	40.00	2393.98	0.00000	466.67	0.00000
AT&T C 18	CCI DMP65R-BU6D	1900	14.05	184.00	4.00	40.00	4065.56	0.00000	1000.00	0.00000

Antenna ID	Make / Model	Frequency Band (MHz)	Antenna Gain (dBd)	Antenna Centerline (ft)	Channel Count	TX Power/ Channel (watts)	ERP (watts)	Calculated Power Density (μW/cm²)	General Population MPE Limit (μW/cm²)	General Population % MPE
AT&T C 19	QUINTEL QS66512-2	700	11.45	184.00	4.00	40.00	2234.19	0.00000	466.67	0.00000
AT&T C 19	QUINTEL QS66512-2	850	10.95	184.00	4.00	40.00	1991.22	0.00000	566.67	0.00000
AT&T C 20	CCI OPA65R-BU6D	2300	14.25	184.00	4.00	25.00	2660.73	0.00000	1000.00	0.00000
AT&T C 21	POWERWAVE 7770 00	850	11.35	184.00	1.00	40.00	545.83	0.00000	566.67	0.00000
Verizon A 22	ANDREW DB844G65ZAXY	850	13.50	172.00	4.00	20.00	1790.98	0.00003	566.67	0.00001
Verizon A 23	COMMSCOPE JAHH-65B-R3B	700	12.11	172.00	2.00	40.00	1300.44	0.00004	466.67	0.00001
Verizon A 23	COMMSCOPE JAHH-65B-R3B	850	12.81	172.00	2.00	40.00	1527.88	0.00004	566.67	0.00001
Verizon A 23	COMMSCOPE JAHH-65B-R3B	1900	15.72	172.00	4.00	40.00	5972.00	0.00007	1000.00	0.00001
Verizon A 24	COMMSCOPE JAHH-65B-R3B	700	12.11	172.00	2.00	40.00	1300.44	0.00004	466.67	0.00001
Verizon A 24	COMMSCOPE JAHH-65B-R3B	850	12.81	172.00	2.00	40.00	1527.88	0.00004	566.67	0.00001
Verizon A 24	COMMSCOPE JAHH-65B-R3B	2100	15.71	172.00	4.00	40.00	5958.27	0.00007	1000.00	0.00001
Verizon A 25	SAMSUNG MT6407	3700	23.35	172.00	4.00	50.00	43254.37	0.00079	1000.00	0.00008
Verizon A 26	ANDREW DB844G65ZAXY	850	13.50	172.00	3.00	20.00	1343.23	0.00003	566.67	0.00000
Verizon B 27	ANDREW DB844G65ZAXY	850	13.50	172.00	4.00	20.00	1790.98	0.00000	566.67	0.00000
Verizon B 28	COMMSCOPE JAHH-65B-R3B	700	12.11	172.00	2.00	40.00	1300.44	0.00000	466.67	0.00000
Verizon B 28	COMMSCOPE JAHH-65B-R3B	850	12.81	172.00	2.00	40.00	1527.88	0.00000	566.67	0.00000
Verizon B 28	COMMSCOPE JAHH-65B-R3B	1900	15.72	172.00	4.00	40.00	5972.00	0.00000	1000.00	0.00000
Verizon B 29	COMMSCOPE JAHH-65B-R3B	700	12.11	172.00	2.00	40.00	1300.44	0.00000	466.67	0.00000
Verizon B 29	COMMSCOPE JAHH-65B-R3B	850	12.81	172.00	2.00	40.00	1527.88	0.00000	566.67	0.00000
Verizon B 29	COMMSCOPE JAHH-65B-R3B	2100	15.71	172.00	4.00	40.00	5958.27	0.00000	1000.00	0.00000
Verizon B 30	SAMSUNG MT6407	3700	23.35	172.00	4.00	50.00	43254.37	0.00002	1000.00	0.00000
Verizon B 31	ANDREW DB844G65ZAXY	850	13.50	172.00	3.00	20.00	1343.23	0.00000	566.67	0.00000
Verizon C 32	RFS APL868013	850	12.90	172.00	4.00	20.00	1559.88	0.00000	566.67	0.00000
Verizon C 33	COMMSCOPE JAHH-65B-R3B	700	12.11	172.00	2.00	40.00	1300.44	0.00000	466.67	0.00000
Verizon C 33	COMMSCOPE JAHH-65B-R3B	850	12.81	172.00	2.00	40.00	1527.88	0.00000	566.67	0.00000
Verizon C 33	COMMSCOPE JAHH-65B-R3B	1900	15.72	172.00	4.00	40.00	5972.00	0.00000	1000.00	0.00000
Verizon C 34	COMMSCOPE JAHH-65B-R3B	700	12.11	172.00	2.00	40.00	1300.44	0.00000	466.67	0.00000
Verizon C 34	COMMSCOPE JAHH-65B-R3B	850	12.81	172.00	2.00	40.00	1527.88	0.00000	566.67	0.00000
Verizon C 34	COMMSCOPE JAHH-65B-R3B	2100	15.71	172.00	4.00	40.00	5958.27	0.00000	1000.00	0.00000
Verizon C 35	SAMSUNG MT6407	3700	23.35	172.00	4.00	50.00	43254.37	0.00002	1000.00	0.00000
Verizon C 36	RFS APL868013	850	12.90	172.00	3.00	20.00	1169.91	0.00000	566.67	0.00000
Sprint A 37	RFS APXVSPP18-C-A20	850	13.35	158.50	4.00	40.00	3460.35	0.00007	566.67	0.00001
Sprint A 37	RFS APXVSPP18-C-A20-	1900	15.85	158.50	4.00	45.00	6922.65	0.00009	1000.00	0.00001
Sprint A 38	COMMSCOPE DT465B-2XR	850	13.82	158.60	2.00	50.00	2409.91	0.00005	566.67	0.00001
Sprint A 38	COMMSCOPE DT465B-2XR	2500	15.62	158.60	8.00	20.00	5836.06	0.00008	1000.00	0.00001
Sprint B 39	RFS APXVSPP18-C-A20	850	13.35	158.50	4.00	40.00	3460.35	0.00000	566.67	0.00000

Antenna ID	Make / Model	Frequency Band (MHz)	Antenna Gain (dBd)	Antenna Centerline (ft)	Channel Count	TX Power/ Channel (watts)	ERP (watts)	Calculated Power Density (µW/cm²)	General Population MPE Limit (µW/cm²)	General Population % MPE
Sprint B 39	RFS APXVSPP18-C-A20-	1900	15.85	158.50	4.00	45.00	6922.65	0.00000	1000.00	0.00000
Sprint B 40	COMMSCOPE DT465B-2XR	850	13.82	158.60	2.00	50.00	2409.91	0.00000	566.67	0.00000
Sprint B 40	COMMSCOPE DT465B-2XR	2500	15.62	158.60	8.00	20.00	5836.06	0.00000	1000.00	0.00000
Sprint C 41	RFS APXVSPP18-C-A20	850	13.35	158.50	4.00	40.00	3460.35	0.00000	566.67	0.00000
Sprint C 41	RFS APXVSPP18-C-A20-	1900	15.85	158.50	4.00	45.00	6922.65	0.00000	1000.00	0.00000
Sprint C 42	COMMSCOPE DT465B-2XR	850	13.82	158.60	2.00	50.00	2409.91	0.00000	566.67	0.00000
Sprint C 42	COMMSCOPE DT465B-2XR	2500	15.62	158.60	8.00	20.00	5836.06	0.00000	1000.00	0.00000
CT State Police 43	COMMSCOPE DB810KE-XC	850	9.96	137.00	4.00	40.00	1585.33	0.00002	566.67	0.00000
CT State Police 44	AMPHENOL WPA-800120-4CF	850	10.50	136.40	4.00	40.00	1795.23	0.00003	566.67	0.00001
CT State Police 45	ALLGON 7199.01	1900	17.35	127.00	4.00	40.00	8692.01	0.00000	1000.00	0.00000
CT State Police 46	ALLGON 7199.01	1900	17.35	127.00	4.00	40.00	8692.01	0.00000	1000.00	0.00000
Eversource 47	ANDREW DB586-XC	850	6.00	120.00	1.00	25.00	99.53	0.00000	566.67	0.00000
Eversource 48	ANDREW DB586-XC	850	6.00	115.50	1.00	25.00	99.53	0.00000	566.67	0.00000
Eversource 49	SINCLAIR SD212-SF2P2SNF	150	5.00	97.00	1.00	25.00	79.06	0.00001	200.00	0.00000
Dish A 50	JMA MX08FRO665-21	700	12.05	76.00	4.00	40.00	2565.19	0.00069	466.67	0.00015
Dish A 50	JMA MX08FRO665-21	600	11.35	76.00	4.00	40.00	2183.33	0.00061	400.00	0.00015
Dish A 50	JMA MX08FRO665-21	1900	15.95	76.00	4.00	40.00	6296.80	0.00081	1000.00	0.00008
Dish B 51	JMA MX08FRO665-21	700	12.05	76.00	4.00	40.00	2565.19	0.00000	466.67	0.00000
Dish B 51	JMA MX08FRO665-21	600	11.35	76.00	4.00	40.00	2183.33	0.00000	400.00	0.00000
Dish B 51	JMA MX08FRO665-21	1900	15.95	76.00	4.00	40.00	6296.80	0.00000	1000.00	0.00000
Dish C 52	JMA MX08FRO665-21	700	12.05	76.00	4.00	40.00	2565.19	0.00000	466.67	0.00000
Dish C 52	JMA MX08FRO665-21	600	11.35	76.00	4.00	40.00	2183.33	0.00000	400.00	0.00000
Dish C 52	JMA MX08FRO665-21	1900	15.95	76.00	4.00	40.00	6296.80	0.00000	1000.00	0.00000
							Cumulative Power Density:	**35.62415 µW/cm²**	**Cumulative % MPE:**	**3.56267%**

Summary

The theoretical calculations performed for this analysis yielded cumulative power density totals in all areas at ground that are within the allowable federal limits for public exposure to RF energy. Therefore, the site is **Compliant** with FCC rules and regulations.

Katrina Styx
RF EME Technical Writer
Centerline Communications, LLC

Exhibit G

Mailing Receipts/Proof of Notice

〈 Back to Shipping History

Your shipment from
CENTERLINE SITE ACQUISITION

Estimated delivery

Tomorrow, June 30 **between** 9:45 A.M. - 11:45 A.M. 

Label Created

On the Way

Out for Delivery

Delivery

Ship To
AMERICAN TOWER CORPORATION
LAND MANAGEMENT
10 PRESIDENTIAL WAY
WOBURN, MA 018011053 US

Get Updates ›

Change My Delivery

View Details

〈 Back to Shipping History

☆

Your shipment from
CENTERLINE SITE ACQUISITION

Estimated delivery
Tomorrow, June 30 by 7:00 P.M.

Label Created

On the Way

Out for Delivery

Delivery

Ship To
ROBERT J. KAUFMAN
41 PADANARAM ROAD
DANBURY, CT 068113701 US

Get Updates ›

Change My Delivery

View Details

〈 Back to Shipping History

Your shipment from
CENTERLINE SITE ACQUISITION

Estimated delivery

Tomorrow, June 30 **between** 9:30 A.M. - 11:30 A.M. 

Label Created

On the Way

Out for Delivery

Delivery

Ship To
REDDING PLANNING COMMISSION
CHAIRMAN
100 HILL ROAD
REDDING, CT 068962007 US

Get Updates ›

Change My Delivery

View Details

This website uses cookies
We do this to better understand how visitors use our site and to offer you a more personal experience. Please see our Privacy Notice (https://www.ups.com/us/en/help-center/legal-terms-conditions/privacy-notice.page) for more information. You can manage your preferences by selecting Cookie Settings.

UPS Freight Less than Truckload ("LTL") transportation services are offered by TFI International Inc., its affiliates or divisions (including without limitation TForce Freight), which are not affiliated with United Parcel Service, Inc.

Back to Shipping History

Your shipment from
CENTERLINE SITE ACQUISITION

Estimated delivery

Tomorrow, June 30 **between** 9:30 A.M. - 11:30 A.M.

Label Created

On the Way

Out for Delivery

Delivery

Ship To
TOWN OF REDDING
CHIEF ELECTED OFFICIAL
100 HILL ROAD
REDDING, CT 068962007 US

Get Updates

Change My Delivery

View Details

UPS Freight Less-than-Truckload ("LTL") transportation services are offered by TFI International Inc., its affiliates or divisions (including without limitation TForce Freight), which are not affiliated with United Parcel Service, Inc. or any of its affiliates, subsidiaries or related entities ("UPS"). UPS assumes no liability in connection with UPS Freight LTL transportation services or any other services offered or provided by TFI International Inc. or its affiliates, divisions, subsidiaries or related entities.

Legal

UPS CampusShip: View/Print Label

1. **Ensure there are no other shipping or tracking labels attached to your package.** Select the Print button on the print dialog box that appears. Note: If your browser does not support this function select Print from the File menu to print the label.

2. **Fold the printed label at the solid line below.** Place the label in a UPS Shipping Pouch. If you do not have a pouch, affix the folded label using clear plastic shipping tape over the entire label.

3. **GETTING YOUR SHIPMENT TO UPS**
   Customers with a Daily Pickup
   Your driver will pickup your shipment(s) as usual.

   Customers without a Daily Pickup
   Take your package to any location of The UPS Store®, UPS Access Point(TM) location, UPS Drop Box, UPS Customer Center, Staples® or Authorized Shipping Outlet near you. Items sent via UPS Return Services(SM) (including via Ground) are also accepted at Drop Boxes. To find the location nearest you, please visit the Resources area of CampusShip and select UPS Locations.
   Schedule a same day or future day Pickup to have a UPS driver pickup all your CampusShip packages.
   Hand the package to any UPS driver in your area.

UPS Access Point™
CVS STORE # 629
146 SOUTH ST
DANBURY ,CT 06810

UPS Access Point™
TIENDA ECUADOR
72 LAKE AVE
DANBURY ,CT 06810

UPS Access Point™
THE UPS STORE
42 LAKE AVENUE EXT
DANBURY ,CT 06811

FOLD HERE

UPS CampusShip: View/Print Label

1. **Ensure there are no other shipping or tracking labels attached to your package.** Select the Print button on the print dialog box that appears. Note: If your browser does not support this function select Print from the File menu to print the label.

2. **Fold the printed label at the solid line below.** Place the label in a UPS Shipping Pouch. If you do not have a pouch, affix the folded label using clear plastic shipping tape over the entire label.

3. **GETTING YOUR SHIPMENT TO UPS**
   Customers with a Daily Pickup
   Your driver will pickup your shipment(s) as usual.

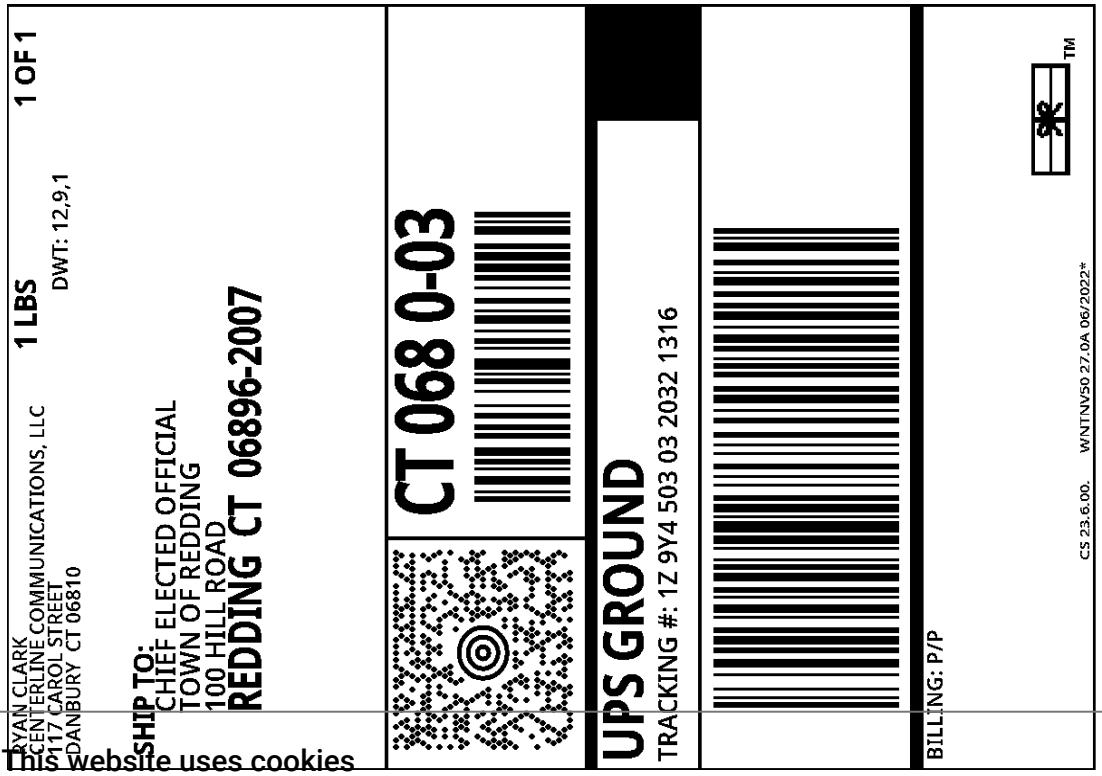
   Customers without a Daily Pickup
   Take your package to any location of The UPS Store®, UPS Access Point(TM) location, UPS Drop Box, UPS Customer Center, Staples® or Authorized Shipping Outlet near you. Items sent via UPS Return Services(SM) (including via Ground) are also accepted at Drop Boxes. To find the location nearest you, please visit the Resources area of CampusShip and select UPS Locations.
   Schedule a same day or future day Pickup to have a UPS driver pickup all your CampusShip packages.
   Hand the package to any UPS driver in your area.

UPS Access Point™
CVS STORE # 629
146 SOUTH ST
DANBURY ,CT 06810

UPS Access Point™
TIENDA ECUADOR
72 LAKE AVE
DANBURY ,CT 06810

UPS Access Point™
THE UPS STORE
42 LAKE AVENUE EXT
DANBURY ,CT 06811

FOLD HERE



UPS CampusShip: View/Print Label

1. **Ensure there are no other shipping or tracking labels attached to your package.** Select the Print button on the print dialog box that appears. Note: If your browser does not support this function select Print from the File menu to print the label.

2. **Fold the printed label at the solid line below.** Place the label in a UPS Shipping Pouch. If you do not have a pouch, affix the folded label using clear plastic shipping tape over the entire label.

3. **GETTING YOUR SHIPMENT TO UPS**
   Customers with a Daily Pickup
   Your driver will pickup your shipment(s) as usual.

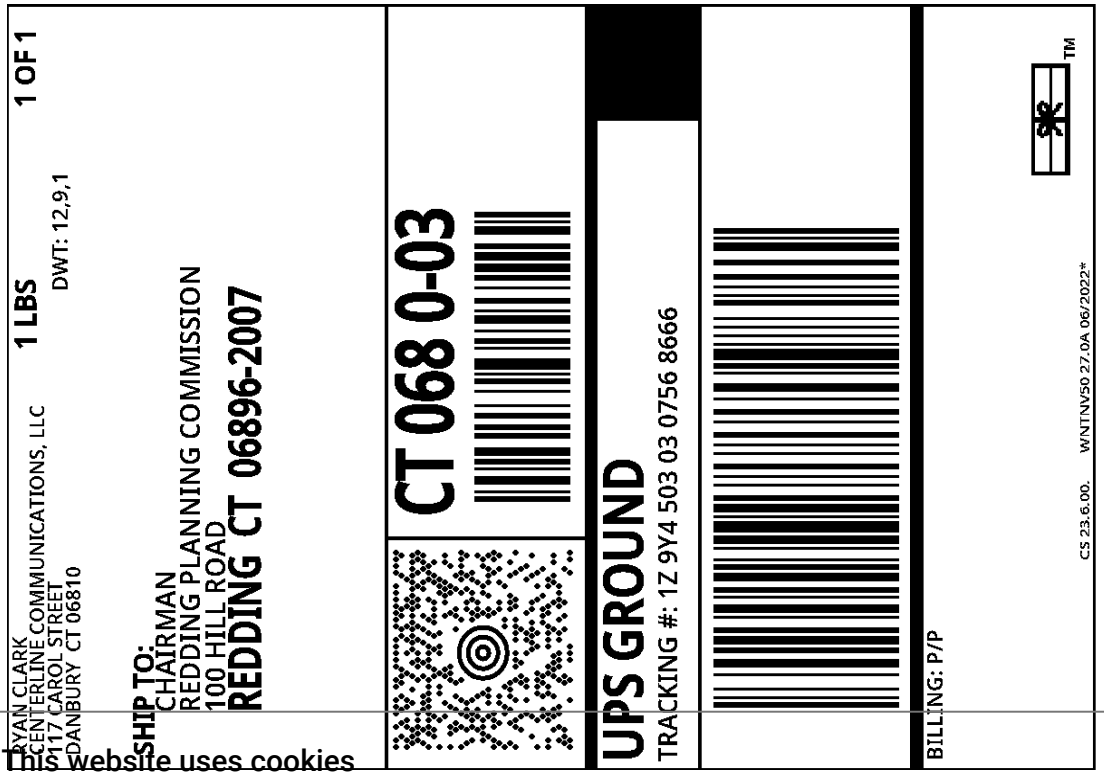
   Customers without a Daily Pickup
   Take your package to any location of The UPS Store®, UPS Access Point(TM) location, UPS Drop Box, UPS Customer Center, Staples® or Authorized Shipping Outlet near you. Items sent via UPS Return Services(SM) (including via Ground) are also accepted at Drop Boxes. To find the location nearest you, please visit the Resources area of CampusShip and select UPS Locations.
   Schedule a same day or future day Pickup to have a UPS driver pickup all your CampusShip packages.
   Hand the package to any UPS driver in your area.

UPS Access Point™
CVS STORE # 629
146 SOUTH ST
DANBURY ,CT 06810

UPS Access Point™
TIENDA ECUADOR
72 LAKE AVE
DANBURY ,CT 06810

UPS Access Point™
THE UPS STORE
42 LAKE AVENUE EXT
DANBURY ,CT 06811

FOLD HERE



UPS CampusShip: View/Print Label

1. **Ensure there are no other shipping or tracking labels attached to your package.** Select the Print button on the print dialog box that appears. Note: If your browser does not support this function select Print from the File menu to print the label.

2. **Fold the printed label at the solid line below.** Place the label in a UPS Shipping Pouch. If you do not have a pouch, affix the folded label using clear plastic shipping tape over the entire label.

3. **GETTING YOUR SHIPMENT TO UPS**
   Customers with a Daily Pickup
   Your driver will pickup your shipment(s) as usual.

   Customers without a Daily Pickup
   Take your package to any location of The UPS Store®, UPS Access Point(TM) location, UPS Drop Box, UPS Customer Center, Staples® or Authorized Shipping Outlet near you. Items sent via UPS Return Services(SM) (including via Ground) are also accepted at Drop Boxes. To find the location nearest you, please visit the Resources area of CampusShip and select UPS Locations.
   Schedule a same day or future day Pickup to have a UPS driver pickup all your CampusShip packages.
   Hand the package to any UPS driver in your area.

UPS Access Point™
CVS STORE # 629
146 SOUTH ST
DANBURY ,CT 06810

UPS Access Point™
TIENDA ECUADOR
72 LAKE AVE
DANBURY ,CT 06810

UPS Access Point™
THE UPS STORE
42 LAKE AVENUE EXT
DANBURY ,CT 06811

FOLD HERE