Robinson+Cole

KENNETH C. BALDWIN

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Also admitted in Massachusetts
and New York

October 5, 2021

Via Electronic Mail

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

Re: **Notice of Exempt Modification – Facility Modification**
477 Route 7, Sharon, Connecticut

Dear Attorney Bachman:

Cellco Partnership d/b/a Verizon Wireless ("Cellco") currently maintains a wireless telecommunications facility at the above-referenced property address (the "Property"). The facility consists of antennas and remote radio heads attached to a tower disguised as a pine tree ("monopine") and related equipment on the ground, near the base of the monopine tower. The monopine tower was approved by the Town of Sharon ("Town") in June of 2001. Cellco's shared use of the tower was approved by the Council in February of 2007 (Petition No. 798). Copies of the Town's approval and Petition No. 798 Staff Report are included in Attachment 1.

Cellco now intends to modify its facility by removing nine (9) existing antennas and installing three (3) Samsung MT6407-77A antennas, four (4) JAHH-65C-R3B-V2 antennas and two (2) JAHH-45C-R3B antennas on its existing antenna mounting structure. Cellco also intends to replace six (6) existing remote radio heads ("RRHs") with six (6) new RRHs behind its antennas. A set of project plans showing Cellco's proposed facility modifications and new antennas and RRH specifications are included in Attachment 2.

Please accept this letter as notification pursuant to R.C.S.A. § 16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b)(2). In accordance with R.C.S.A. § 16-50j-73, a copy of this letter is being sent to Sharon's Chief Elected Official and Land Use Officer.

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

1. The proposed modifications will not result in an increase in the height of the existing tower.

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

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

4. The installation of Cellco's new antennas will not increase radio frequency (RF) emissions at the facility to a level at or above the Federal Communications Commission (FCC) safety standard. A cumulative General Power Density table for Cellco's modified facility is included in Attachment 3. The modified facility will be capable of providing Cellco's 5G wireless service.

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

6. According to the attached Structural Analysis ("SA") and Mount Analysis ("MA"), the existing tower, tower foundation and antenna mounts can support Cellco's proposed modifications. Copies of the SA and MA are included in Attachment 4.

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

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

Sincerely,

Kenneth C. Baldwin

Enclosures
Copy to:

Tina M. Pitcher, First Selectman for the Town of Sharon
Jaime Casey, Sharon Land Use Administrator
Joel and Theresa Meisel, Trustees, Property Owner
Karla Hanna

ATTACHMENT 1

[redacted]

Town of Sharon

[redacted]

10125-029

BUILDING Permit CT 2408-5

Permit Date **6/28/2001**

Estimated Value **$ 205,000.00**

Permit Fee **$ 1,032.00**

Building Permit No. **15,541**

Applicant's Name **SBA PROPERTIES & SPRINT PCS**

Applicant's Address **80 EASTERN BLVD**

Applicant's Town **GLASTONBURY**

Applicant's State **CT** Applicant's Zip **06033**

Owner's Name **THERESA MEISEL**

Owner's Address **12 MERRIMAN LANE**

Owner's Town **PROSPECT**

Owner's State **CT** Owner's Zip **061712**

Job Street number **12** Job Street **MERRIMAN LANE**

map **23** Lot **21**

Type of Job **ORIGINAL**

Use Group Type of construction

Remarks **THIS PERMIT IS FOR PROJECT CONSITS OF 120' COMMUNICATIONS TOWER-FENCED COMPOUND, RETAINING WALLS, SPINT PCS EQUIPMENT INCLUDING ANTENNAS, GROUND EQUIPMENT ABD ASSOC UTILITIES, APPROVED WITH ADDED NOTES, 3500 PSI CONCRETE FOR CLABS ON GRADE, ALL ELECTRICAL TO BE 1999 NEC, INCLUDES**

Permit is hereby

☒ **APPROVED**

☐ **DENIED**

6-29-01

Date

Stanley MacMillan

This permit is VOID unless signed by the Building Official

STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051
Phone: (860) 827-2935 Fax: (860) 827-2950
E-Mail: siting.council@ct.gov
Internet: ct.gov/csc

Daniel F. Caruso
Chairman

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

February 16, 2007

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

RE: **PETITION NO. 798** - Cellco Partnership d/b/a Verizon Wireless petition for a declaratory ruling that no Certificate of Environmental Compatibility and Public Need is required for the proposed modification of an existing telecommunications facility located at 477 Route 7, Sharon, Connecticut.

Dear Attorney Baldwin:

At a public meeting held on February 6, 2007, the Connecticut Siting Council (Council) considered and ruled that this proposal would not have a substantial adverse environmental effect, and pursuant to General Statutes § 16-50k would not require a Certificate of Environmental Compatibility and Public Need.

This decision is under the exclusive jurisdiction of the Council and is not applicable to any other modification or construction. All work is to be implemented as specified in the petition, dated December 5, 2006.

Enclosed for your information is a copy of the staff report on this project.

Very truly yours,

Daniel F. Caruso
Chairman

DFC/MP/laf

c: The Honorable Malcom M. Brown, First Selectman, Town of Sharon
Elizabeth H. Casey, Zoning Enforcement Officer, Town of Sharon

Enclosure: Staff Report dated February 6, 2007

STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051
Phone: (860) 827-2935 Fax: (860) 827-2950
E-Mail: siting.council@ct.gov
Internet: ct.gov/csc

Daniel F. Caruso
Chairman

Petition No. 798
Staff Report
Verizon Wireless
477 Route 7, Sharon
February 6, 2007

On December 5, 2006, the Connecticut Siting Council (Council) received a petition (Petition) from Cellco Partnership d/b/a Verizon Wireless (Verizon Wireless) for a declaratory ruling that no Certificate of Environmental Compatibility and Public Need is required for the proposed modifications to an existing "tree" monopole (monopine) at 477 Route 7, Sharon. The monopine was originally approved by the Sharon Planning and Zoning Commission in 2001. In this Petition, Verizon Wireless seeks to extend the existing 120-foot monopine to 130 feet tall.

Verizon Wireless would install 12 panel antennas at the 130-foot level of the tower. Simulated branches at the top of the monopine would extend to a total height of 135 feet. A structural analysis certifies that the tower is capable of supporting the proposed modifications. The power density would also be within applicable limits.

Verizon Wireless currently has no wireless service in the Town of Sharon. At 130 feet, Verizon Wireless can provide reliable service to 3.83 square miles of area, including a 2.4 mile portion of Route 7 in Sharon.

A 12-foot by 30-foot equipment shelter would be installed inside the fenced compound. A 10-foot by 12-foot section of the equipment shelter would contain a backup generator. The generator would be located inside the shelter and would only operate during emergencies, so noise is not expected to be significant.

Currently, only seven acres of land have year-round views of the tower. If the tower is extended to 130 feet, the total area of year-round visibility would increase to nine acres. The views of the existing and modified tower are distant views, above the tree line, from locations in excess of ¼ mile from the tower site.

This petition was field reviewed by Council member Colin Tait and Mike Perrone of the Council staff on January 11, 2007. Mark Gauger from Verizon Wireless and Rachel Mayo of Robinson & Cole LLP also attended the field review. The surrounding area is residential, but has significant tree cover. The nearest home is roughly 400 feet to the south of the monopine. The site is not in the vicinity of wetlands. Also, the Federal Aviation Administration does not require the tower to be marked or lit.

The property owner has been notified, and he informed Council staff that he has no objection. All abutters were noticed and asked to contact S. Derek Phelps with any questions or concerns by January 12, 2007. No responses were received. By letter dated January 9, 2007, the First Selectman of Sharon indicated that he does not object to the proposal.

The applicant was asked to determine if the tower would be visible from the Mohawk or Appalachian Trails. By letter dated January 12, 2007, Verizon Wireless indicated that neither the existing nor the extended monopine would be visible from the Appalachian Trail. Regarding the Mohawk Trail, the only area of the concern was the Lookout Point on the trail. However, VHB (Verizon Wireless' visual resource consultant) believes that views of the existing and/or extended monopine from the Lookout Point are not likely. Furthermore, even if such a view is possible, the monopine would likely blend into the landscape, given that the Lookout Point is at a much higher elevation than the tower and is nearly two miles away.

Council staff also contacted the Department of Environmental Protection (DEP) staff and confirmed that the proposal's visual impact would not significantly affect the Greenway near the Housatonic River, and the tower extension is not expected to harmful to migratory birds.

ATTACHMENT 2

verizon

WIRELESS COMMUNICATIONS FACILITY UPGRADE

SHARON N CT

477 ROUTE 7,

SHARON, CT 06069

GENERAL NOTES

1. ALL WORK SHALL BE IN ACCORDANCE WITH THE 2015 INTERNATIONAL BUILDING CODE AS MODIFIED BY THE 2018 CONNECTICUT SUPPLEMENT, INCLUDING THE TIA/EIA-222 REVISION "G" STRUCTURAL STANDARDS FOR STEEL ANTENNA TOWERS AND SUPPORTING STRUCTURES, 2017 CONNECTICUT FIRE SAFETY CODE, NATIONAL ELECTRICAL CODE, AND LOCAL CODES.
2. SHOULD ANY FIELD CONDITIONS PRECLUDE COMPLIANCE WITH THE DRAWINGS, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER AND SHALL NOT PROCEED WITH ANY AFFECTED WORK.
3. CONTRACTOR SHALL REVIEW ALL DRAWINGS AND SPECIFICATIONS IN THE CONTRACT DOCUMENT SET. CONTRACTOR SHALL COORDINATE ALL WORK SHOWN IN THE SET OF DRAWINGS. THE CONTRACTOR SHALL PROVIDE A COMPLETE SET OF DRAWINGS TO ALL SUBCONTRACTORS AND ALL RELATED PARTIES. THE SUBCONTRACTORS SHALL EXAMINE ALL THE DRAWINGS AND SPECIFICATIONS FOR THE INFORMATION THAT AFFECTS THEIR WORK.
4. CONTRACTOR SHALL PROVIDE A COMPLETE BUILD-OUT WITH ALL FINISHES, STRUCTURAL, MECHANICAL, AND ELECTRICAL COMPONENTS AND PROVIDE ALL ITEMS AS SHOWN OR INDICATED ON THE DRAWINGS OR IN THE WRITTEN SPECIFICATIONS.
5. CONTRACTOR SHALL FURNISH ALL MATERIAL, LABOR AND EQUIPMENT TO COMPLETE THE WORK AND FURNISH A COMPLETED JOB ALL IN ACCORDANCE WITH LOCAL AND STATE GOVERNING AUTHORITIES AND OTHER AUTHORITIES HAVING LAWFUL JURISDICTION OVER THE WORK.
6. CONTRACTOR SHALL SECURE AND PAY FOR ALL PERMITS AND ALL INSPECTIONS REQUIRED AND SHALL ALSO PAY FEES REQUIRED FOR THE GENERAL CONSTRUCTION, AND ALL TRADES AS APPLICABLE PERMITS SHALL BE PAID FOR BY THE RESPECTIVE SUBCONTRACTORS.
7. CONTRACTOR SHALL MAINTAIN A CURRENT SET OF DRAWINGS AND SPECIFICATIONS ON SITE AT ALL TIMES AND INSURE DISTRIBUTION OF NEW DRAWINGS TO SUBCONTRACTORS AND OTHER RELEVANT PARTIES AS SOON AS THEY ARE MADE AVAILABLE. ALL OLD DRAWINGS SHALL BE MARKED VOID AND REMOVED FROM THE CONTRACT AREA. THE CONTRACTOR SHALL FURNISH AN "AS-BUILT" SET OF DRAWINGS TO OWNER UPON COMPLETION OF PROJECT.
8. LOCATION OF EQUIPMENT, AND WORK SUPPLIED BY OTHERS THAT IS DIAGRAMMATICALLY INDICATED ON THE DRAWINGS SHALL BE DETERMINED BY THE CONTRACTOR. THE CONTRACTOR SHALL DETERMINE LOCATIONS AND DIMENSIONS SUBJECT TO STRUCTURAL CONDITIONS AND WORK OF THE SUBCONTRACTORS.
9. THE CONTRACTOR IS SOLELY RESPONSIBLE TO DETERMINE CONSTRUCTION PROCEDURE AND SEQUENCE, AND TO ENSURE THE SAFETY OF THE EXISTING STRUCTURES AND ITS COMPONENT PARTS DURING CONSTRUCTION. THIS INCLUDES THE ADDITION OF WHATEVER SHORING, BRACING, UNDERPINNING, ETC. THAT MAY BE NECESSARY. MAINTAIN EXISTING BUILDING'S/PROPERTY'S OPERATIONS, COORDINATE WORK WITH BUILDING/PROPERTY OWNER.
10. DRAWINGS INDICATE THE MINIMUM STANDARDS, BUT IF ANY WORK SHOULD BE INDICATED TO BE SUBSTANDARD TO ANY ORDINANCES, LAWS, CODES, RULES, OR REGULATIONS BEARING ON THE WORK, THE CONTRACTOR SHALL INCLUDE IN HIS WORK AND SHALL EXECUTE THE WORK CORRECTLY IN ACCORDANCE WITH SUCH ORDINANCES, LAWS, CODES, RULES OR REGULATIONS WITH NO INCREASE IN COSTS.
11. ALL UTILITY WORK SHALL BE IN ACCORDANCE WITH LOCAL UTILITY COMPANY REQUIREMENTS AND SPECIFICATIONS.
12. ALL EQUIPMENT AND PRODUCTS PURCHASED ARE TO BE REVIEWED BY CONTRACTOR AND ALL APPLICABLE SUBCONTRACTORS FOR ANY CONDITION PER MFR.'S RECOMMENDATIONS. CONTRACTOR TO SUPPLY THESE ITEMS AT NO COST TO OWNER OR CONSTRUCTION MANAGER.
13. ANY AND ALL ERRORS, DISCREPANCIES, AND "MISSED" ITEMS ARE TO BE BROUGHT TO THE ATTENTION OF THE VERIZON WIRELESS CONSTRUCTION MANAGER DURING THE BIDDING PROCESS BY THE CONTRACTOR. ALL THESE ITEMS ARE TO BE INCLUDED IN THE BID. NO "EXTRA" WILL BE ALLOWED FOR MISSED ITEMS.
14. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ON-SITE SAFETY FROM THE TIME THE JOB IS AWARDED UNTIL ALL WORK IS COMPLETE AND ACCEPTED BY THE OWNER.
15. CONTRACTOR TO REVIEW ALL SHOP DRAWINGS AND SUBMIT COPY TO ENGINEER FOR APPROVAL. DRAWINGS MUST BEAR THE CHECKER'S INITIALS BEFORE SUBMITTING TO THE CONSTRUCTION MANAGER FOR REVIEW.
16. THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS, ELEVATIONS, ANGLES, AND EXISTING CONDITIONS AT THE SITE, PRIOR TO FABRICATION AND/OR INSTALLATION OF ANY WORK IN THE CONTRACT AREA.
17. COORDINATION, LAYOUT, FURNISHING AND INSTALLATION OF CONDUIT AND ALL APPURTENANCES REQUIRED FOR PROPER INSTALLATION OF ELECTRICAL AND TELECOMMUNICATION SERVICE SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
18. ALL EQUIPMENT AND PRODUCTS PURCHASED ARE TO BE REVIEWED BY CONTRACTOR AND ALL APPLICABLE SUB- CONTRACTORS FOR ANY CONDITION PER THE MANUFACTURER'S RECOMMENDATIONS. CONTRACTOR TO SUPPLY THESE ITEMS AT NO COST TO OWNER OR CONSTRUCTION MANAGER.
19. ALL DAMAGE CAUSED TO ANY EXISTING STRUCTURE SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR WILL BE HELD LIABLE FOR ALL REPAIRS REQUIRED FOR EXISTING STRUCTURES IF DAMAGED DURING CONSTRUCTION ACTIVITIES.
20. THE CONTRACTOR SHALL CONTACT "CALL BEFORE YOU DIG" AT LEAST 48 HOURS PRIOR TO ANY EXCAVATIONS AT 1-800-922-4455. ALL UTILITIES SHALL BE IDENTIFIED AND CLEARLY MARKED PRIOR TO ANY EXCAVATION WORK. CONTRACTOR SHALL MAINTAIN AND PROTECT MARKED UTILITIES THROUGHOUT PROJECT COMPLETION.

SITE DIRECTIONS

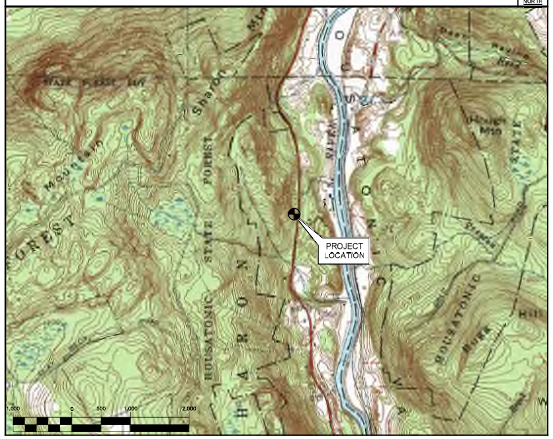
FROM: 20 ALEXANDER DRIVE, WALLINGFORD, CONNECTICUT

TO: 477 ROUTE 7, SHARON, CT 06069

1.	TURN RIGHT ONTO ALEXANDER DR	0.30 MI.
2.	TURN RIGHT ONTO BARNES INDUSTRIAL RD S	0.10 MI.
3.	TURN LEFT AT THE 1ST CROSS STREET ONTO CT-68 W	0.40 MI.
4.	TURN RIGHT	0.20 MI.
5.	TURN RIGHT ONTO N COLONY RD	0.30 MI.
6.	TURN RIGHT TO MERGE ONTO CT-15 N TOWARD HARTFORD	3.60 MI.
7.	USE THE MIDDLE LANE TO STAY ON CT-15 N	0.10 MI.
8.	TAKE EXIST 68W TO MERGE ONTO I-691 W TOWARD MERIDEN/WATERBURY	7.70 MI.
9.	USE ANY LANE TO TAKE EXIT 1 FOR I-84 W TOWARD WATERBURY/DANBURY	1.20 MI.
10.	MERGE ONTO I-84	1.60 MI.
11.	KEEP LEFT TO STAY ON I-84	6.10 MI.
12.	TAKE EXIT 20 TO MERGE ONTO CT-8 N TOWARD TORRINGTON	7.70 MI.
13.	TAKE EXIT 38 TOWARD US-6 W/CT-109/CT-254/THOMASTON	0.30 MI.
14.	TURN LEFT ONTO WATERBURY RD	0.50 MI.
15.	CONTINUE ONTO CT-254 N	0.60 MI.
16.	TURN LEFT TO STAY ON CT-254 N	7.30 MI.
17.	TURN LEFT ONTO CT-118 W/EAST ST	1.00 MI.
18.	SLRIGHT RIGHT INTO EAST ST	0.20 MI.
19.	TURN RIGHT ONTO NORTH ST.	0.60 MI.
20.	CONTINUE ONTO CT-63 N/GOSHEN RD	5.60 MI.
21.	AT THE TRAFFIC CIRCLE, TAKE THE 3RD EXIST ONTO CT-4	5.30 MI.
22.	CONTINUE INTO CT-128 W/SHARON-GOSHEN TURNPIKE	4.00 MI.
23.	SLIGHT RIGHT ONTO US-7 N	2.80 MI.

VICINITY MAP

SCALE: 1" = 1000'



PROJECT SUMMARY

1. THE PROPOSED UPGRADE SCOPE OF WORK AT THE EXISTING UNMANNED TELECOMMUNICATIONS FACILITY GENERALLY INCLUDES THE FOLLOWING:

A. AT THE EXISTING MONOPINE MOUNTED ANTENNA SECTORS:

- REMOVE THE EXISTING (3) T-ARM TRI-SECTOR MOUNTS AND INSTALL (3) T-ARM MOUNT ASSEMBLIES IN A QUAD-TYPE CONFIGURATION AS DETAILED HEREIN.
- INSTALL (1) STAND-OFF MOUNT FOR POSITION 1 BETA SECTOR ANTENNA AS DETAILED HEREIN.
- REMOVE (3) EXISTING NOKIA RRUs.
- REMOVE (6) EXISTING ANTEL LPA-80080/6CF ANTENNAS & (3) EXISTING SPARE ANTENNAS.
- RETAIN (1) EXISTING ANTEL BXA-70040-6CF-2 & (2) EXISTING ANTEL BXA-70063-6CF ANTENNA(S).
- RETAIN (6) EXISTING COAX CABLES.
- INSTALL (2) NEW ANDREW JAHH-45C-R3B ANTENNAS.
- INSTALL (4) NEW ANDREW JAHH-65C-R3B ANTENNAS.
- INSTALL (3) NEW MT6407-77A ALL-IN-ONE ANTENNA/RRUs.
- INSTALL (2) NEW COMMSCOPE BSMANT-SBS-2-2 DUAL ANTENNA MOUNTS.
- INSTALL (1) NEW COMMSCOPE BSMANT-SBS-2-3 DUAL ANTENNA MOUNT.
- INSTALL (3) NEW COMMSCOPE CBC78T-DS-43-2X DIPLEXERS.
- INSTALL (3) NEW SAMSUNG B2/B66A RRH-BRO49 & (3) NEW SAMSUNG B5/B13 RRH-BR04C RRUs.
- INSTALL (1) NEW RFS DB-C1-12C-24AB-0Z OVP BOX.
- INSTALL (1) NEW RFS HB158-13U12S24 HYBRID CABLE.

B. AT THE EXISTING VERIZON WIRELESS EQUIPMENT SHELTER

- REMOVE (3) EXISTING NOKIA RRUs.

PROJECT INFORMATION

SITE NAME:	SHARON N CT
SITE ADDRESS:	477 ROUTE 7, SHARON, CT 06069
LESSEE/TENANT:	CELLCO PARTNERSHIP d.b.a. VERIZON WIRELESS 20 ALEXANDER DRIVE WALLINGFORD, CT 06492
CONTACT PERSON:	WALTER CHARCZNSKI (CONSTRUCTION MANAGER) VERIZON WIRELESS (860) 306-1806
ENGINEER:	CENTEK ENGINEERING, INC. 63-2 NORTH BRANFORD RD. BRANFORD, CT. 06405 (203) 488-0580
PROJECT COORDINATES:	LATITUDE: 41°-54'-34.0416"N LONGITUDE: 73°-21'-57.7116"W COORDINATES BASED ON VERIZON WIRELESS RFDS DATED JUNE 16, 2021.

SHEET INDEX

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C-2	ANTENNA SECTOR CONFIGURATION DETAILS	1
C-3	RF DETAILS	1
C-4	REPLACEMENT MOUNT DETAILS	1
E-1	ELECTRICAL DETAILS AND SPECIFICATIONS	1

REV.	DATE	DRAWN BY	CHK'D BY	DESCRIPTION
1	09/14/21	DMD	TJL	CONSTRUCTION DRAWINGS – REVISED FOR CONSTRUCTION
0	08/27/21	ANC	DMD	CONSTRUCTION DRAWINGS – ISSUED FOR CONSTRUCTION
B	08/03/21	ANC	DMD	CONSTRUCTION DRAWINGS – REVISED PER CLIENT COMMENTS DATED 07/22/21
C	07/22/21	ANC	DMD	CONSTRUCTION DRAWINGS – REVISED PER CLIENT COMMENTS
B	07/19/21	ANC	DMD	CONSTRUCTION DRAWINGS – REVISED PER CLIENT COMMENTS
A	07/07/21	ANC	DMD	CONSTRUCTION DRAWINGS – ISSUED FOR CLIENT REVIEW

PROFESSIONAL ENGINEER SEAL

verizon

CENTEK engineering
Centered on Solutions
(203) 488-0580
(203) 488-8587 Fax
63-2 North Branford Road
Branford, CT 06405
www.CentekEng.com

Cellco Partnership d/b/a Verizon Wireless

SHARON N CT

477 ROUTE 7,
SHARON, CT 06069

DATE: 07/07/21
SCALE: AS NOTED
JOB NO. 21007.13

TITLE SHEET

T-1

Sheet No. 1 of 8

NOTES AND SPECIFICATIONS

DESIGN BASIS:

GOVERNING CODE: 2015 INTERNATIONAL BUILDING (IBC) AS MODIFIED BY THE 2018 CT STATE BUILDING CODE AND AMENDMENTS.

1. DESIGN CRITERIA:

- RISK CATEGORY: II (BASED ON TABLE 1604.5 OF THE 2015 IBC)
- NOMINAL DESIGN SPEED (TOWER): 89 MPH (Vasd) (EXPOSURE B/IMPORTANCE FACTOR 1.0 BASED ON ASCE 7-10) PER 2015 INTERNATIONAL BUILDING CODE (IBC) AS MODIFIED BY THE 2018 CONNECTICUT STATE BUILDING CODE.
- SEISMIC LOAD (DOES NOT CONTROL): PER ASCE 7-10 MINIMUM DESIGN LOADS FOR BUILDING AND OTHER STRUCTURES.

GENERAL NOTES:

1. ALL CONSTRUCTION SHALL BE IN COMPLIANCE WITH THE GOVERNING BUILDING CODE.
2. DRAWINGS INDICATE THE MINIMUM STANDARDS, BUT IF ANY WORK SHOULD BE INDICATED TO BE SUBSTANDARD TO ANY ORDINANCES, LAWS, CODES, RULES, OR REGULATIONS BEARING ON THE WORK, THE CONTRACTOR SHALL INCLUDE IN HIS WORK AND SHALL EXECUTE THE WORK CORRECTLY IN ACCORDANCE WITH SUCH ORDINANCES, LAWS, CODES, RULES OR REGULATIONS WITH NO INCREASE IN COSTS.
3. BEFORE BEGINNING THE WORK, THE CONTRACTOR IS RESPONSIBLE FOR MAKING SUCH INVESTIGATIONS CONCERNING PHYSICAL CONDITIONS (SURFACE AND SUBSURFACE) AT OR CONTIGUOUS TO THE SITE WHICH MAY AFFECT PERFORMANCE AND COST OF THE WORK.
4. DIMENSIONS AND DETAILS SHALL BE CHECKED AGAINST EXISTING FIELD CONDITIONS.
5. THE CONTRACTOR SHALL VERIFY AND COORDINATE THE SIZE AND LOCATION OF ALL OPENINGS, SLEEVES AND ANCHOR BOLTS AS REQUIRED BY ALL TRADES.
6. ALL DIMENSIONS, ELEVATIONS, AND OTHER REFERENCES TO EXISTING STRUCTURES, SURFACE, AND SUBSURFACE CONDITIONS ARE APPROXIMATE. NO GUARANTEE IS MADE FOR THE ACCURACY OR COMPLETENESS OF THE INFORMATION SHOWN. THE CONTRACTOR SHALL VERIFY AND COORDINATE ALL DIMENSIONS, ELEVATIONS, ANGLES WITH EXISTING CONDITIONS AND WITH ARCHITECTURAL AND SITE DRAWINGS BEFORE PROCEEDING WITH ANY WORK.
7. AS THE WORK PROGRESSES, THE CONTRACTOR SHALL NOTIFY THE OWNER OF ANY CONDITIONS WHICH ARE IN CONFLICT OR OTHERWISE NOT CONSISTENT WITH THE CONSTRUCTION DOCUMENTS AND SHALL NOT PROCEED WITH SUCH WORK UNTIL THE CONFLICT IS SATISFACTORILY RESOLVED.
8. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE SAFETY CODES AND REGULATIONS DURING ALL PHASES OF CONSTRUCTION. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR PROVIDING AND MAINTAINING ADEQUATE SHORING, BRACING, AND BARRICADES AS MAY BE REQUIRED FOR THE PROTECTION OF EXISTING PROPERTY, CONSTRUCTION WORKERS, AND FOR PUBLIC SAFETY.
9. THE CONTRACTOR IS SOLELY RESPONSIBLE TO DETERMINE CONSTRUCTION PROCEDURE AND SEQUENCE, AND TO ENSURE THE SAFETY OF THE EXISTING STRUCTURES AND ITS COMPONENT PARTS DURING CONSTRUCTION. THIS INCLUDES THE ADDITION OF WHATEVER SHORING, BRACING, UNDERPINNING, ETC. THAT MAY BE NECESSARY. MAINTAIN EXISTING SITE OPERATIONS, COORDINATE WORK WITH NORTHEAST UTILITIES
10. ALL DAMAGE CAUSED TO ANY EXISTING STRUCTURE SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR WILL BE HELD LIABLE FOR ALL REPAIRS REQUIRED FOR EXISTING STRUCTURES IF DAMAGED DURING CONSTRUCTION ACTIVITIES.
11. REFER TO DRAWING T1 FOR ADDITIONAL NOTES AND REQUIREMENTS.

REV.	DATE	DRAWN BY	CHK'D BY	DESCRIPTION
1	09/14/21	DMD	TJL	CONSTRUCTION DRAWINGS – REVISED FOR CONSTRUCTION
0	08/27/21	ANC	DMD	CONSTRUCTION DRAWINGS – ISSUED FOR CONSTRUCTION
C	08/04/21	ANC	DMD	CONSTRUCTION DRAWINGS – REVISED PER CLIENT COMMENTS DATED 07/22/21
B	07/22/21	ANC	DMD	CONSTRUCTION DRAWINGS – REVISED PER CLIENT COMMENTS
A	07/19/21	ANC	DMD	CONSTRUCTION DRAWINGS – REVISED PER CLIENT COMMENTS
	07/07/21	ANC	DMD	CONSTRUCTION DRAWINGS – ISSUED FOR CLIENT REVIEW

PROFESSIONAL ENGINEER SEAL

verizon

CENTEK engineering
Centered on Solutions
(203) 488-0580
(203) 488-8587 Fax
63-2 North Branford Road
Branford, CT 06405
www.CentekEng.com

Cellco Partnership d/b/a Verizon Wireless

SHARON N CT

477 ROUTE 7,
SHARON, CT 06069

DATE: 07/07/21
SCALE: AS NOTED
JOB NO. 21007.13

NOTES AND SPECIFICATIONS

N-1

Sheet No. 2 of 8

PLUMBING DIAGRAM NOTES:

1. PORTS 1 & 2 ARE FOR LOW BAND (698–896 MHz).
2. PORTS 3, 4, 5 & 5 ARE FOR HIGH BAND (1695–2360 MHz).
3. SMART BIAS TEE (SBT) IS THROUGH ANTENNA PORTS 1 & 3 (1 FOR LOW BAND AND 3 FOR HIGH BAND).
4. AISG CABLE IS ONLY NEEDED WHEN DRAWN IN THE DIAGRAMS ABOVE. IF IT IS NOT DRAWN THEN SBT IS ENOUGH TO CONTROL ALL RET MOTORS.
5. NOT ALL SBT PORTS ARE NEEDED TO CONTROL RET, ONLY GREEN PORT CONNECTION TO GREEN PORT WILL CONTROL RET.

RET DC SIGNAL PASS FOR RET
(PORT THAT WILL CONTROL RET)

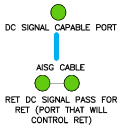
PLUMBING DIAGRAM COMMENTS:

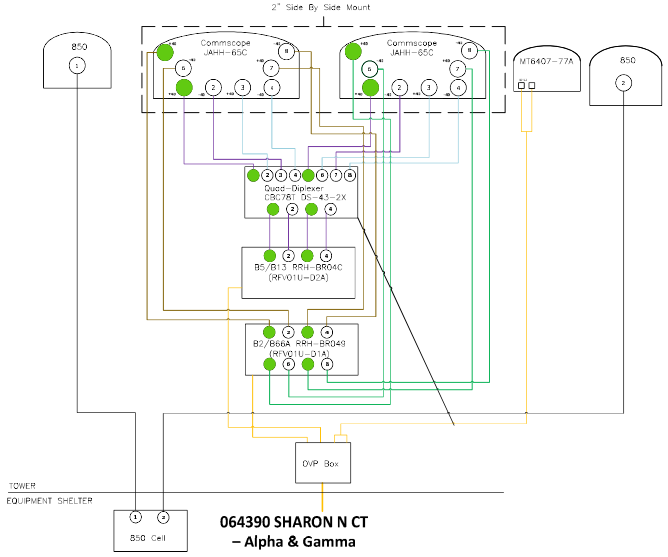
A. DIAGRAMS SHOW ANTENNA PORT CONFIGURATIONS AS VIEWED FROM BELOW ANTENNAS.

B. ANTENNA POSITIONS ARE INDICATED AS VIEWED FROM IN FRONT OF ANTENNAS.

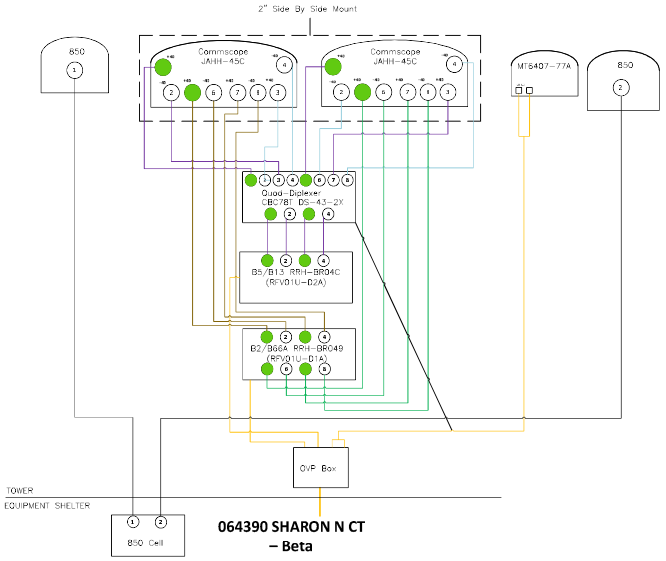
C. CAP AND WEATHERPROOF UNUSED ANTENNA PORTS.

D. ALL PLUMBING DIAGRAM COLORS ARE IRRELEVANT EXCEPT FOR AISG AND HYBRIFLEX CABLE. (FOR THE COAX COLORS, FOLLOW COAX COLORS GUIDE ABOVE)





064390 SHARON N CT
– Alpha & Gamma



064390 SHARON N CT
– Beta

NOTES:

1. INFORMATION SHOWN HEREIN IS FOR USE BY VERIZON WIRELESS EQUIPMENT OPERATIONS.
2. THIS B.O.M. DRAWING IS BASED OFF FACILITY UPGRADE DESIGN DRAWINGS PREPARED BY CENTEK ENGINEERING (REV.1 DATED: 09.14.21), & VERIZON WIRELESS RF ANTENNA EQUIPMENT RECOMMENDATION (DATED 06.16.21).

BILL OF MATERIALS

TECHNOLOGY	QUANTITY	ANTENNA
LTE 700 LTE 850 LTE PCS 1900 LTE AWS 2100	2	ANDREW MODEL: JAHH-45C-R3B
LTE 700 LTE 850 LTE PCS 1900 LTE AWS 2100	4	ANDREW MODEL: JAHH-65C-R3B-V2
5G	3	SAMSUNG ANTENNA MODEL: MT6407-77A

CABLES	QUANTITY	LENGTH	COMMENTS
RFS HYBRID CABLES	1	±215FT EA	RFS MODEL: HB158-13U12S24

RADIOS	QUANTITY	COMMENTS
LTE 700 LTE 850	3	SAMSUNG MODEL: B5/B13 RRH-BR04C
LTE PCS 1900 LTE AWS 2100	3	SAMSUNG MODEL: B2/B66A RRH-BR049
5G	3	INTEGRATED INTO MT6407-77A ANTENNA

OVP BOXES	QUANTITY	COMMENTS
RFS OVP BOX	1	RFS MODEL: DB-C1-12C-24AB-0Z

ANTENNA MOUNT	QUANTITY	COMMENTS
SIDE-BY-SIDE MOUNTING KIT	2	COMMSCOPE MODEL: BASMNT-SBS-2-2
SIDE-BY-SIDE MOUNTING KIT	1	COMMSCOPE MODEL: BASMNT-SBS-2-3

REV.	DATE	DRAWN BY	CHK'D BY	DESCRIPTION
A	07/07/21	ANC	DMD	ISSUED FOR CLIENT REVIEW
B	07/19/21	ANC	DMD	REVISED PER CLIENT COMMENTS
C	07/22/21	ANC	DMD	REVISED PER CLIENT COMMENTS
D	08/27/21	ANC	DMD	ISSUED FOR CONSTRUCTION
1	09/14/21	DMD	TJL	REVISED FOR CONSTRUCTION
				CONSTRUCTION DRAWINGS –

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DATE: 07/07/21
SCALE: AS NOTED
JOB NO. 21007.13

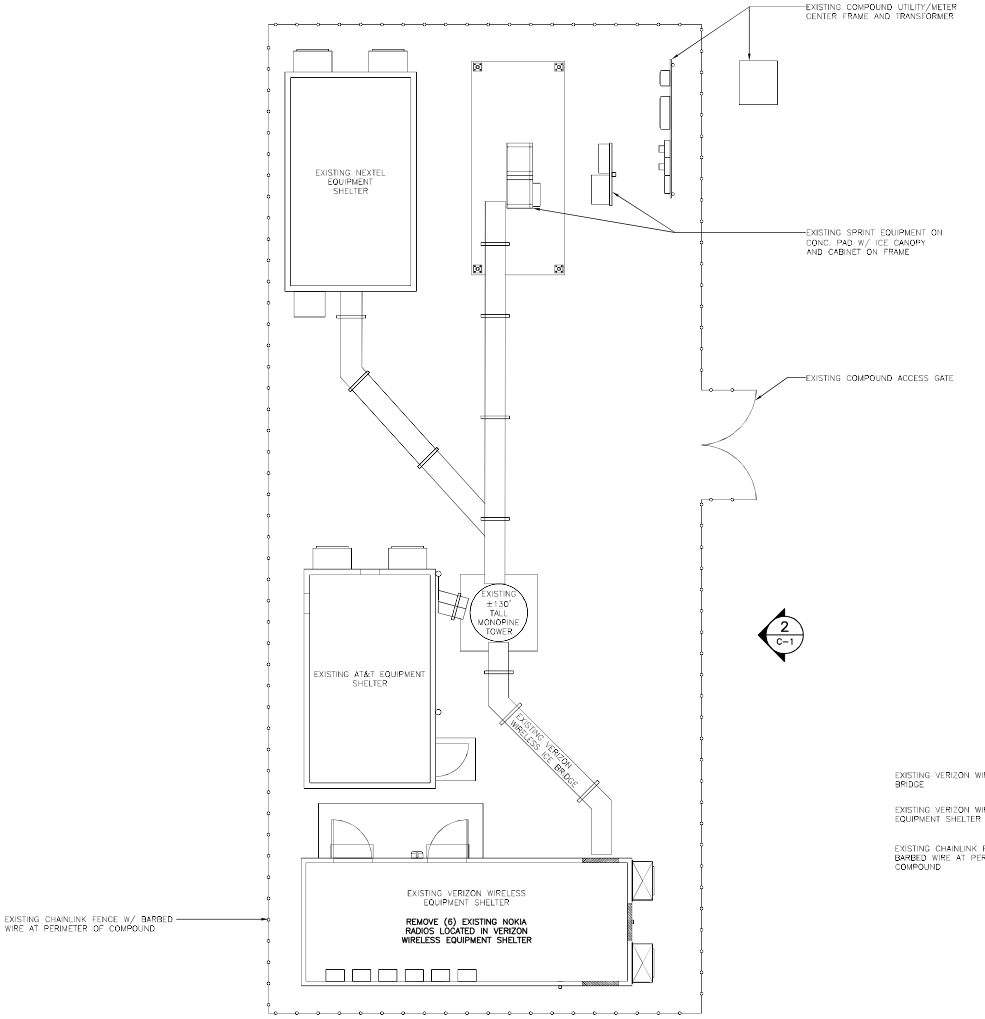
RF BILL OF MATERIALS

B-1

Sheet No. 3 of 8

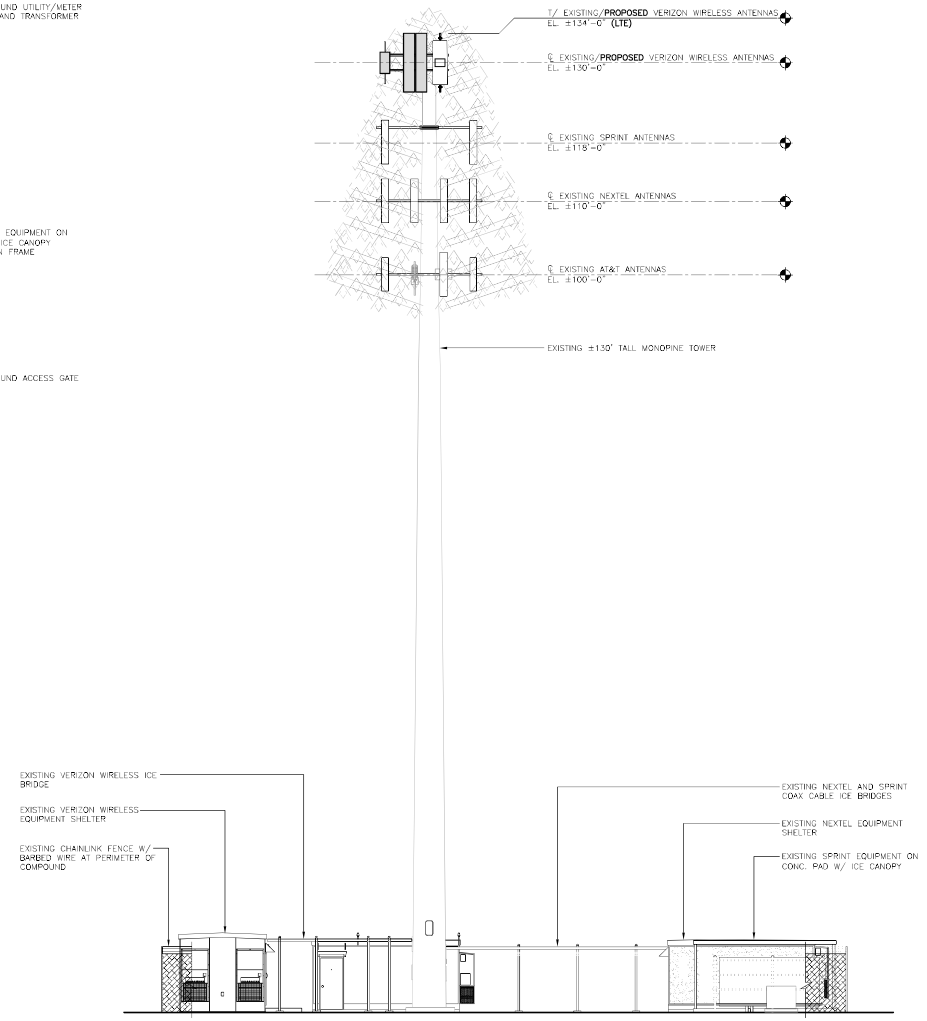
TOWER STRUCTURAL ALALYSIS REFERENCE NOTE:

REFER TO PASSING TOWER STRUCTURAL ANALYSIS PERFORMED FOR SBA COMMUNICATIONS CORP., BY TOWER ENGINEERING SOLUTIONS (TES), DATED AUGUST 20, 2021, FOR ADDITIONAL INFORMATION. TES PROJECT NUMBER: 11470



1 C-1 **COMPOUND PLAN**
SCALE: 1" = 10'-0"

APPROX. NORTH



2 C-1 **NORTHEAST ELEVATION - PROPOSED**
SCALE: 1/8" = 1'-0"

REV.	DATE	DRAWN BY	CHK'D BY	DESCRIPTION
A	07/07/21	ANC	DMD	ISSUED FOR CLIENT REVIEW
B	07/19/21	ANC	DMD	REVISED PER CLIENT COMMENTS
C	07/22/21	ANC	DMD	REVISED PER CLIENT COMMENTS
D	08/27/21	ANC	DMD	ISSUED FOR MUNICIPAL SUBMITTAL DATED 07/22/21
1	09/14/21	DMD	TJL	CONSTRUCTION DRAWINGS – REVISED FOR CONSTRUCTION

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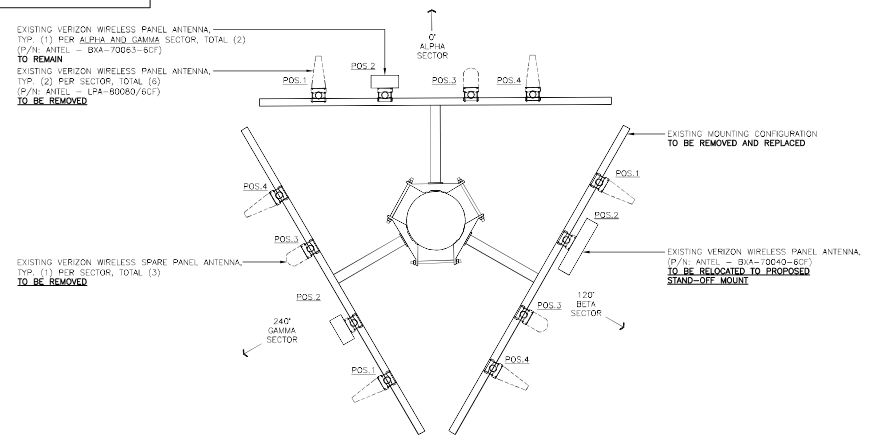
DATE: 07/07/21
SCALE: AS NOTED
JOB NO. 21007.13

COMPOUND PLAN AND ELEVATION

C-1

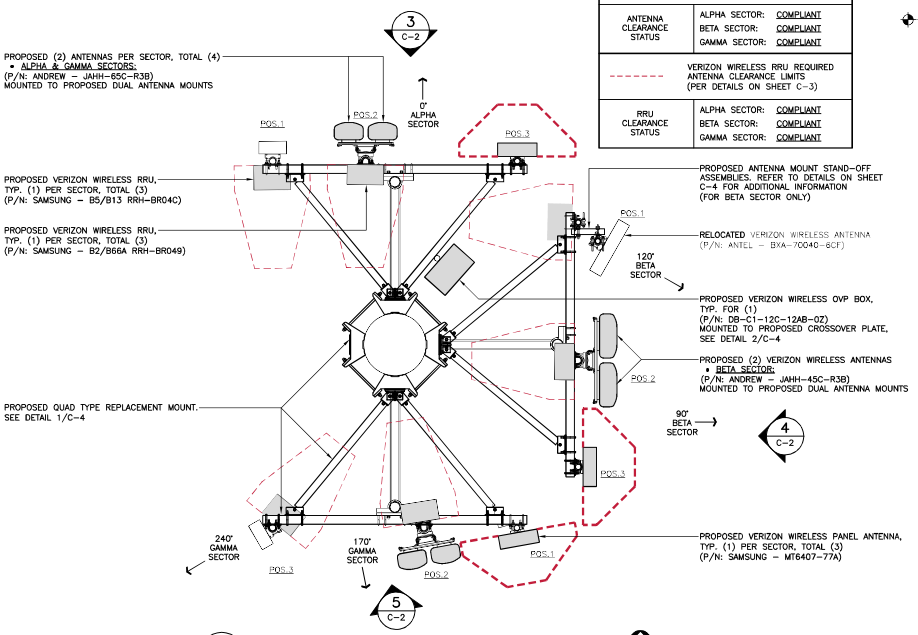
Sheet No. 4 of 8

EXISTING ANTENNA CONFIGURATIONS



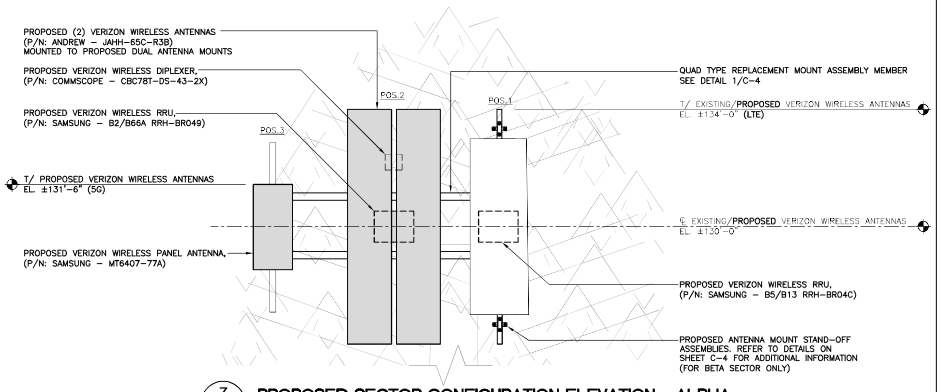
1 C-2 **EXISTING SECTOR CONFIGURATION PLAN**
SCALE: 1/2" = 1'-0"

PROPOSED ANTENNA CONFIGURATIONS

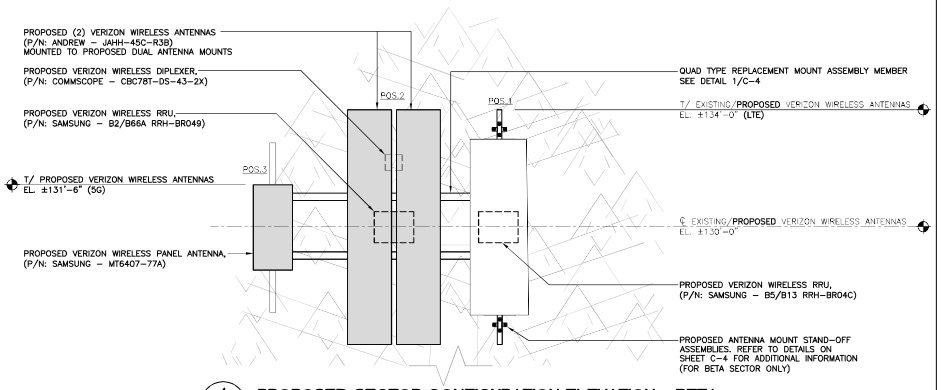


LEGEND		
	VERIZON WIRELESS MT6407-77A REQUIRED ANTENNA CLEARANCE LIMITS (PER DETAILS ON SHEET C-3)	
ANTENNA CLEARANCE STATUS	ALPHA SECTOR:	COMPLIANT
	BETA SECTOR:	COMPLIANT
	GAMMA SECTOR:	COMPLIANT
	VERIZON WIRELESS RRU REQUIRED ANTENNA CLEARANCE LIMITS (PER DETAILS ON SHEET C-3)	
RRU CLEARANCE STATUS	ALPHA SECTOR:	COMPLIANT
	BETA SECTOR:	COMPLIANT
	GAMMA SECTOR:	COMPLIANT

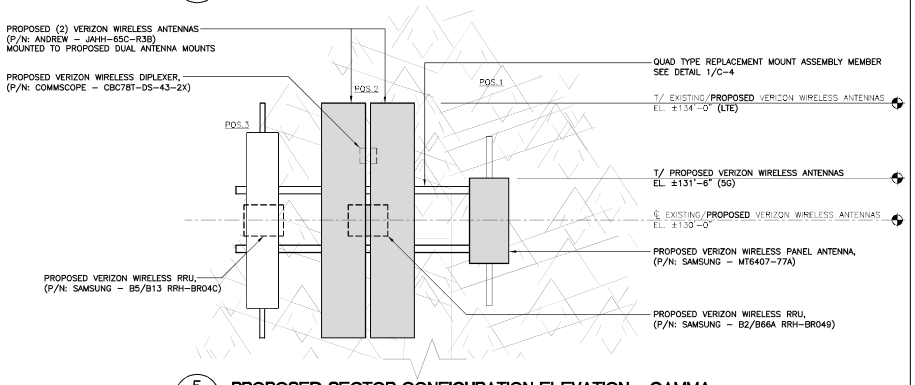
2 C-2 **PROPOSED SECTOR CONFIGURATION PLAN**
SCALE: 1/2" = 1'-0"



3 C-2 **PROPOSED SECTOR CONFIGURATION ELEVATION - ALPHA**
SCALE: 1/2" = 1'-0"



4 C-2 **PROPOSED SECTOR CONFIGURATION ELEVATION - BETA**
SCALE: 1/2" = 1'-0"



5 C-2 **PROPOSED SECTOR CONFIGURATION ELEVATION - GAMMA**
SCALE: 1/2" = 1'-0"

NO.	DATE	DRAWN BY	CHK'D BY	DESCRIPTION
-	06/14/21	DMD	TJL	CONSTRUCTION DRAWINGS – REVISED FOR CONSTRUCTION
1	06/25/21	ANC	DMD	CONSTRUCTION DRAWINGS – ISSUED FOR CONSTRUCTION
0	07/01/21	ANC	DMD	CONSTRUCTION DRAWINGS – REVISED PER CLIENT COMMENTS DATED 07/22/21
A	07/13/21	ANC	DMD	CONSTRUCTION DRAWINGS – REVISED PER CLIENT COMMENTS
B	07/19/21	ANC	DMD	CONSTRUCTION DRAWINGS – REVISED PER CLIENT COMMENTS
C	07/27/21	ANC	DMD	CONSTRUCTION DRAWINGS – ISSUED FOR CLIENT REVIEW
A	07/07/21	ANC	DMD	CONSTRUCTION DRAWINGS – ISSUED FOR CLIENT REVIEW

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SCALE: AS NOTED
JOB NO. 21007.13

ANTENNA SECTOR CONFIGURATION DETAILS

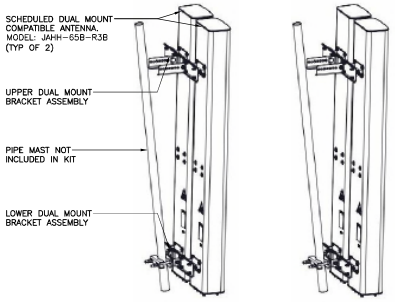
C-2

Sheet No. 5 of 8

ANTENNA FRONT

SECTOR ANTENNA		
EQUIPMENT	DIMENSIONS	WEIGHT
MAKE: SAMSUNG MODEL: MT6407-77A	35.1"h x 16.1"W x 5.5"D (NOT TO EXCEED)	87 LBS. (NOT TO EXCEED)
CLEARANCES AND SERVICE AREA		
TOP: 31.5"	HORIZONTAL DISTANCE: 31.5" (ANT. TO ANT.)	
FRONT, SIDES & BOTTOM: 15.7"	VERTICAL DISTANCE: 63.0" (ANT. TO ANT.)	
NOTES: 1. THIS ANTENNA HAS ITS OWN BUILT-IN RRH.		

1 C-3 **SECTOR ANTENNA DETAIL**
NOT TO SCALE



ANTENNA MOUNT ISOMETRIC ANTENNA MOUNT PROFILE

DUAL ANTENNA MOUNTING KIT		
EQUIPMENT	DESCRIPTION	WEIGHT
MOUNT MAKE: COMMSCOPE MODEL: BSAMNT-SBS-2-2	• SIDE-BY-SIDE MOUNTING KIT, ACCOMMODATES (2) COMPATABLE ANTENNAS • ACCOMMODATES MAST DIAMETERS FROM 2.375" TO 4.5" (O.D.)	67.5 LB

2 C-3 **DUAL ANTENNA MOUNT DETAIL**
NOT TO SCALE

ANTENNA MOUNT (SIDE VIEW) ANTENNA MOUNT (BELOW VIEW)

DUAL ANTENNA MOUNTING KIT		
EQUIPMENT	DESCRIPTION	WEIGHT
MOUNT MAKE: COMMSCOPE MODEL: BSAMNT-SBS-2-3	• SIDE-BY-SIDE MOUNTING KIT, ACCOMMODATES (2) COMPATABLE ANTENNAS • ACCOMMODATES MAST DIAMETERS FROM 2.375" TO 4.5" (O.D.)	110.0 LB

2A C-3 **DUAL ANTENNA MOUNT DETAIL**
NOT TO SCALE

ELEVATION - ISOMETRIC BOTTOM

8-PORT SECTOR ANTENNA		
EQUIPMENT	DIMENSIONS	WEIGHT
MAKE: COMMSCOPE MODEL: JAHH-45C-R3B	95.9"L x 17.9"W x 7.0"D	106.263 LBS. (W/OUT MOUNT KIT)

3 C-3 **ANTENNA DETAIL**
NOT TO SCALE

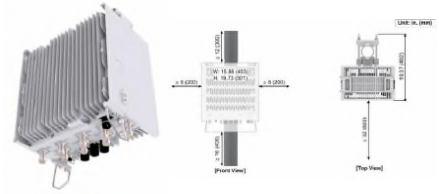
ELEVATION - ISOMETRIC BOTTOM

8-PORT SECTOR ANTENNA		
EQUIPMENT	DIMENSIONS	WEIGHT
MAKE: COMMSCOPE MODEL: JAHH-65C-R3B	95.9"L x 13.7"W x 8.1"D	79.587 LBS. (W/OUT MOUNT KIT)

4 C-3 **ANTENNA DETAIL**
NOT TO SCALE

DIPLEXER			
EQUIPMENT	DESCRIPTION	DIMENSIONS	WEIGHT
MAKE: COMMSCOPE MODEL: CBC78T-DS-43-2X	4 PACK DIPLEXER 700MHz/850MHz	6.4"H x 6.9"W x 9.6"D	21.8 LBS. (W/MNTG HDWR)
NOTES: 1. CONTRACTOR TO COORDINATE FINAL EQUIPMENT MODEL SELECTION WITH VERIZON WIRELESS CONSTRUCTION MANAGER PRIOR TO ORDERING.			

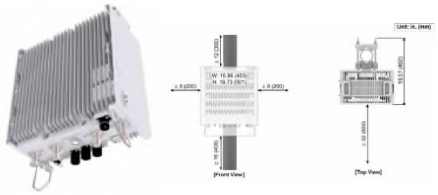
5 C-3 **DIPLEXER DETAIL**
NOT TO SCALE



RRH ISOMETRIC RRH CLEARANCES

DUAL BAND RRU (REMOTE RADIO UNIT)			
EQUIPMENT	BANDS	DIMENSIONS	WEIGHT
MAKE: SAMSUNG MODEL: B2/B66A RRH-BR049 (RFV01U-D1A)	B2: PCS (1900 MHz) B66: AWS (2100 MHz)	15.0"H x 15.0"W x 10.0"D	84.4 LBS.
NOTES: 1. CONTRACTOR TO COORDINATE FINAL EQUIPMENT MODEL SELECTION WITH VERIZON WIRELESS CONSTRUCTION MANAGER PRIOR TO ORDERING.			

6 C-3 **DUAL-BAND AWS/PCS RADIO UNIT DETAIL**
NOT TO SCALE



RRH ISOMETRIC RRH CLEARANCES

DUAL BAND RRU (REMOTE RADIO UNIT)			
EQUIPMENT	BANDS	DIMENSIONS	WEIGHT
MAKE: SAMSUNG MODEL: B5/B13 RRH-BR04C (RFV01U-D2A)	B5: 850 MHz B13: 700 MHz	15.0"H x 15.0"W x 8.1"D	70.3 LBS.
NOTES: 1. CONTRACTOR TO COORDINATE FINAL EQUIPMENT MODEL SELECTION WITH VERIZON WIRELESS CONSTRUCTION MANAGER PRIOR TO ORDERING.			

7 C-3 **DUAL-BAND 700/850 MHZ RADIO UNIT DETAIL**
NOT TO SCALE

OVP BOX		
EQUIPMENT	DIMENSIONS	WEIGHT
MAKE: RAYCAP MODEL: DB-C1-12C-24AB-0Z	29.5"H x 16.5"W x 12.6"D	32 LBS.
NOTES: 1. CONTRACTOR TO CONFIRM OVP BOX MAKE/MODEL AND QUANTITY WITH VERIZON WIRELESS CONSTRUCTION MANAGER PRIOR TO ORDERING.		

7 C-3 **PROPOSED OVER-VOLTAGE PROTECTION BOX**
NOT TO SCALE

REV.	DATE	DRAWN BY	CHK'D BY	DESCRIPTION
1	09/14/21	DMD	TJL	CONSTRUCTION DRAWINGS – REVISED FOR CONSTRUCTION
0	08/27/21	ANC	DMD	CONSTRUCTION DRAWINGS – ISSUED FOR CONSTRUCTION
C	07/22/21	ANC	DMD	CONSTRUCTION DRAWINGS – REVISED PER MARKUP DATED 07/22/21
B	07/19/21	ANC	DMD	CONSTRUCTION DRAWINGS – REVISED PER CLIENT COMMENTS
A	07/07/21	ANC	DMD	CONSTRUCTION DRAWINGS – REVISED PER CLIENT COMMENTS
		ANC	DMD	CONSTRUCTION DRAWINGS – ISSUED FOR CLIENT REVIEW

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RF DETAILS

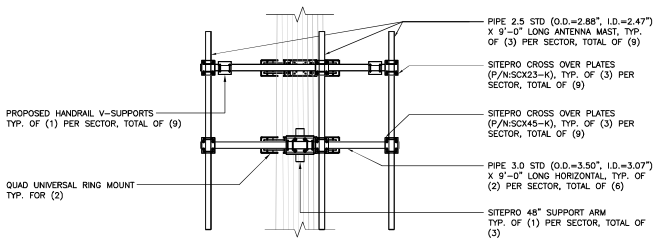
C-3

Sheet No. 6 of 8

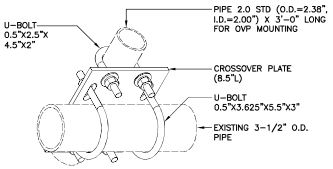
REPLACEMENT ANTENNA MOUNT ANALYSIS NOTES:

1. REFER TO FINAL VERIZON WIRELESS PASSING MOUNT ANALYSIS REPORT PREPARED BY MASER CONSULTING CONNECTICUT DATED 08/12/2021 FOR ADDITIONAL INFORMATION.

ANTENNA MOUNT EQUIPMENT LIST					
EQUIPMENT	DESCRIPTION	QTY.	UNIT WEIGHT	NET WEIGHT (LB)	
MAKE: SITE PRO MODEL: UQB4	QUAD UNIVERSAL RING MOUNT FOR POLES 12" TO 60"	2	351.4 LB	702.8	
MAKE: SITE PRO MODEL: SCX2-K	CROSS OVER PLATE KIT	9	8.4 LB	75.6	
MAKE: SITE PRO MODEL: SV197-48	48" SUPPORT ARM	3	78.5 LB	235.5	
MAKE: SITE PRO MODEL: VSK-MHD	HANDRAIL V-SUPPORTS	3	525.0 LB	1575.0	
MAKE: N/A MODEL: N/A	PIPE 2.5 STD X 9'0 LONG ANTENNA MAST	9	PER MFR.	PER MFR.	
MAKE: N/A MODEL: N/A	PIPE 3.0 STD X 9'0 LONG HORIZONTAL	6	PER MFR.	PER MFR.	
			TOTAL:	2588.9	

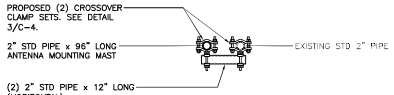


1 / C-4 **QUAD TYPE MOUNT ASSEMBLY ELEVATION**
SCALE: 3/8" = 1'-0"

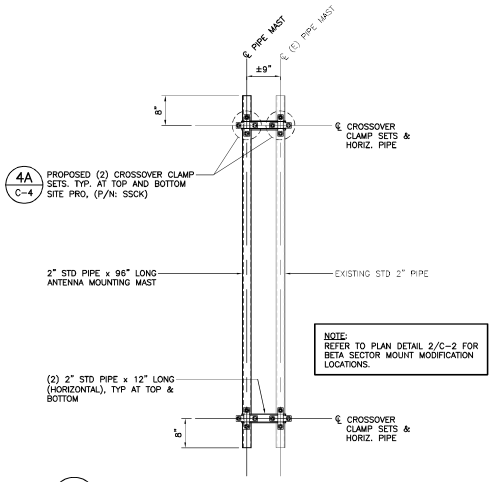


CROSSOVER PLATE	
MAKE/MODEL	DESCRIPTION
MAKE: SITE PRO MODEL: SCX43-K	HOT-DIP GALVANIZED, PIPES IN 90° JUNCTION
NOTES: 1. PIPES NOT INCLUDED IN ASSEMBLY KIT.	

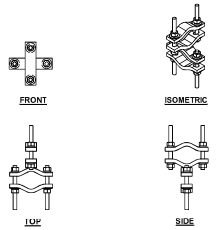
2 / C-4 **CROSSOVER PLATE KIT DETAIL**
NOT TO SCALE



4A / C-4 **ANTENNA MOUNT MOD. SECTION**
SCALE: 3/4" = 1'-0"



4 / C-4 **ANTENNA MOUNT MOD. ELEVATION**
SCALE: 3/4" = 1'-0"



CROSSOVER PLATE	
MAKE/MODEL	DESCRIPTION
MAKE: SITE PRO MODEL: SSCK	HOT-DIP GALVANIZED, PIPES IN 90° JUNCTION
NOTES: 1. PIPES NOT INCLUDED IN ASSEMBLY KIT. 2. ACCOMMODATES PIPE SIZES FROM 1-1/2" - 3-1/2".	

3 / C-4 **CROSSOVER CLAMP SET DETAIL**
NOT TO SCALE

REV.	DATE	DRAWN BY	CHK'D BY	DESCRIPTION
-	07/07/21	ANC	DMD	CONSTRUCTION DRAWINGS – ISSUED FOR CLIENT REVIEW
A	07/19/21	ANC	DMD	CONSTRUCTION DRAWINGS – REVISED PER CLIENT COMMENTS
B	07/22/21	ANC	DMD	CONSTRUCTION DRAWINGS – REVISED PER CLIENT COMMENTS
C	07/23/21	ANC	DMD	CONSTRUCTION DRAWINGS – REVISED PER CLIENT COMMENTS
D	08/27/21	ANC	DMD	CONSTRUCTION DRAWINGS – REVISED MAST HEIGHT DATED 07/22/21
0	09/01/21	ANC	DMD	CONSTRUCTION DRAWINGS – ISSUED FOR CONSTRUCTION
1	09/14/21	DMD	TJL	CONSTRUCTION DRAWINGS – REVISED FOR CONSTRUCTION

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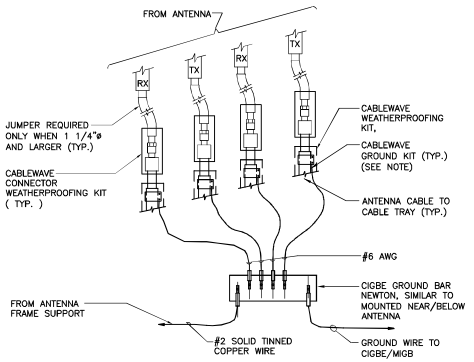
REPLACEMENT MOUNT DETAILS

C-4

Sheet No. 7 of 8

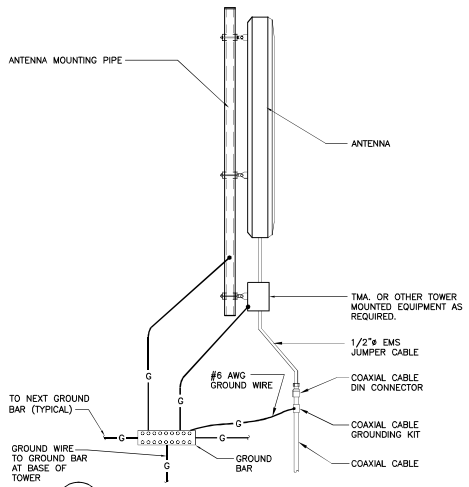


NOTES:

1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO CIGBE

1 E-1 CONNECTION OF GROUND WIRES TO GROUND BAR

NOT TO SCALE

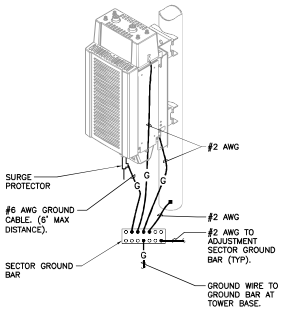


4 E-1 TYPICAL ANTENNA GROUNDING DETAIL

NOT TO SCALE

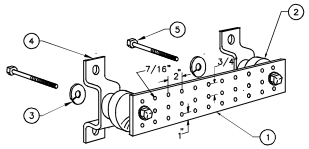
EACH RRH CABINET SHALL BE GROUNDED IN THE FOLLOWING MANNER:

1. AT TOP OF THE CABINET
2. AT RIGHT SIDE OF THE CABINET.



2 E-1 RRH POLE MOUNT GROUNDING

NOT TO SCALE

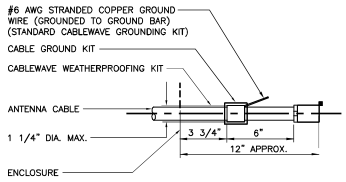


NOTES

1. TINNED COPPER GROUND BAR, 1/4" x 4" x 20", NEWTON INSTRUMENT CO. HOLE CENTERS TO MATCH NEMA DOUBLE LUG CONFIGURATION.
2. INSULATORS, NEWTON INSTRUMENT CAT. NO. 3061-4.
3. 5/8" LOCK WASHERS, NEWTON INSTRUMENT CO. CAT. NO. 3015-8.
4. WALL MOUNTING BRACKET, NEWTON INSTRUMENT CO. CAT NO. A-6056.
5. 5/8-11 x 1" STAINLESS STEEL TRUSS SPANNER MACHINE SCREWS.

5 E-1 GROUND BAR DETAIL

NOT TO SCALE



NOTES:

1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.

3 E-1 ANTENNA CABLE GROUNDING DETAIL

NOT TO SCALE

ELECTRICAL SPECIFICATIONS

SECTION 16010

1.01. SCOPE OF WORK

A. WORK SHALL INCLUDE ALL LABOR, EQUIPMENT AND SERVICES REQUIRED TO COMPLETE (MAKE READY FOR OPERATION) ALL THE ELECTRICAL WORK INCLUDING, BUT NOT LIMITED TO, THE FOLLOWING:

1. CELLULAR GROUNDING SYSTEMS CONSISTING OF ANTENNA GROUNDING, GROUND BARS, ETC.

1.02. GENERAL REQUIREMENTS

A. THE ENTIRE ELECTRICAL INSTALLATION SHALL BE MADE IN STRICT ACCORDANCE WITH ALL LOCAL, STATE AND NATIONAL CODES AND REGULATIONS WHICH MAY APPLY AND NOTHING IN THE DRAWINGS OR SPECIFICATIONS SHALL BE INTERPRETED AS AN INFRINGEMENT OF SUCH CODES OR REGULATIONS.

B. THE ELECTRICAL CONTRACTOR IS TO BE RESPONSIBLE FOR THE COMPLETE INSTALLATION AND COORDINATION OF THE ENTIRE ELECTRICAL SERVICE. ALL ACTIVITIES TO BE COORDINATED THROUGH OWNERS REPRESENTATIVE, DESIGN ENGINEER AND OTHER AUTHORITIES HAVING JURISDICTION OF TRADES.

C. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND PAY ALL FEES THAT MAY BE REQUIRED FOR THE ELECTRICAL WORK AND FOR SCHEDULING OF ALL INSPECTIONS THAT MAY BE REQUIRED BY THE LOCAL AUTHORITY.

D. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH THE BUILDING OWNER FOR NEW AND/OR DEMOLITION WORK INVOLVED.

E. NO MATERIAL OTHER THAN THAT CONTAINED IN THE "LATEST LIST OF ELECTRICAL FITTINGS" APPROVED BY THE UNDERWRITERS' LABORATORIES, SHALL BE USED IN ANY PART OF THE WORK. ALL MATERIAL FOR WHICH LABEL SERVICE HAS BEEN ESTABLISHED SHALL BEAR THE U.L. LABEL.

F. THE CONTRACTOR SHALL GUARANTEE ALL NEW WORK FOR A PERIOD OF ONE YEAR FROM THE ACCEPTANCE DATE BY THE OWNER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING WARRANTIES FROM ALL EQUIPMENT MANUFACTURERS FOR SUBMISSION TO THE OWNER.

G. DRAWINGS INDICATE GENERAL ARRANGEMENT OF WORK INCLUDED IN CONTRACT. CONTRACTOR SHALL, WITHOUT EXTRA CHARGE, MAKE MODIFICATIONS TO THE LAYOUT OF THE WORK TO PREVENT CONFLICT WITH WORK OF OTHER TRADES AND FOR THE PROPER INSTALLATION OF WORK. CHECK ALL DRAWINGS AND VISIT JOB SITE TO VERIFY SPACE AND TYPE OF EXISTING CONDITIONS IN WHICH WORK WILL BE DONE, PRIOR TO SUBMITTAL OF BID.

H. THE ELECTRICAL CONTRACTOR SHALL SUPPLY THREE (3) COMPLETE SETS OF APPROVED DRAWINGS, ENGINEERING DATA SHEETS, MAINTENANCE AND OPERATING INSTRUCTION MANUALS FOR ALL SYSTEMS AND THEIR RESPECTIVE EQUIPMENT. THESE MANUALS SHALL BE INSERTED IN VINYL COVERED 3-RING BINDERS AND TURNED OVER TO OWNER'S REPRESENTATIVE ONE (1) WEEK PRIOR TO FINAL PUNCH LIST.

I. ALL WORK SHALL BE INSTALLED IN A NEAT AND WORKMAN LIKE MANNER AND WILL BE SUBJECT TO THE APPROVAL OF THE OWNER'S REPRESENTATIVE.

J. ALL EQUIPMENT AND MATERIALS TO BE INSTALLED SHALL BE NEW, UNLESS OTHERWISE NOTED.

K. BEFORE FINAL PAYMENT, THE CONTRACTOR SHALL PROVIDE A COMPLETE SET OF PRINTS (AS-BUILTS), LEGIBLY MARKED IN RED PENCIL TO SHOW ALL CHANGES FROM THE ORIGINAL PLANS.

L. ENTIRE ELECTRICAL INSTALLATION SHALL BE IN ACCORDANCE WITH OWNER'S SPECIFICATIONS, AND REQUIREMENTS OF ALL LOCAL AUTHORITIES HAVING JURISDICTION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE WITH APPROPRIATE INDIVIDUALS TO OBTAIN ALL SUCH SPECIFICATIONS AND REQUIREMENTS. NOTHING CONTAINED IN, OR OMITTED FROM, THESE DOCUMENTS SHALL RELIEVE CONTRACTOR FROM THIS OBLIGATION.

SECTION 16450

1.01. GROUNDING

A. ALL NON-CURRENT CARRYING PARTS OF THE ELECTRICAL AND TELEPHONE CONDUIT SYSTEMS SHALL BE MECHANICALLY AND ELECTRICALLY CONNECTED TO PROVIDE AN INDEPENDENT RETURN PATH TO THE EQUIPMENT GROUNDING SOURCES.

B. GROUNDING SYSTEM WILL BE IN ACCORDANCE WITH THE LATEST ACCEPTABLE EDITION OF THE NATIONAL ELECTRICAL CODE AND REQUIREMENTS PER LOCAL INSPECTOR HAVING JURISDICTION.

C. EQUIPMENT GROUNDING CONDUCTOR:

1. EACH EQUIPMENT GROUND CONDUCTOR SHALL BE SIZED IN ACCORDANCE WITH THE N.E.C. ARTICLE 250-122.

2. THE MINIMUM SIZE OF EQUIPMENT GROUND CONDUCTOR SHALL BE #12 AWG COPPER.

D. CELLULAR GROUNDING SYSTEM:

PROVIDE THE CELLULAR GROUNDING SYSTEM AS SPECIFIED ON DRAWINGS, INCLUDING, BUT NOT LIMITED TO:

1. GROUND BARS
2. ANTENNA GROUND CONNECTIONS AND PLATES.

E. ALL EQUIPMENT SHALL BE BONDED TO GROUND AS REQUIRED BY N.E.C., MFG. SPECIFICATIONS, AND OWNER'S SPECIFICATIONS.

REV.	DATE	DRAWN BY	CHK'D BY	DESCRIPTION
1	09/14/21	DMD	TJL	CONSTRUCTION DRAWINGS – REVISED FOR CONSTRUCTION
0	08/27/21	ANC	DMD	CONSTRUCTION DRAWINGS – ISSUED FOR CONSTRUCTION
B	08/06/21	ANC	DMD	CONSTRUCTION DRAWINGS – REVISED PER CLIENT COMMENTS DATED 07/22/21
A	07/22/21	ANC	DMD	CONSTRUCTION DRAWINGS – REVISED PER CLIENT COMMENTS
C	07/19/21	ANC	DMD	CONSTRUCTION DRAWINGS – REVISED PER CLIENT COMMENTS
0	07/07/21	ANC	DMD	CONSTRUCTION DRAWINGS – ISSUED FOR CLIENT REVIEW

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Cellco Partnership d/b/a Verizon Wireless

SHARON N CT

477 ROUTE 7,
SHARON, CT 06069

DATE: 07/07/21
SCALE: AS NOTED
JOB NO. 21007.13

ELECTRICAL DETAILS AND SPECIFICATIONS

E-1

Sheet No. 8 of 8

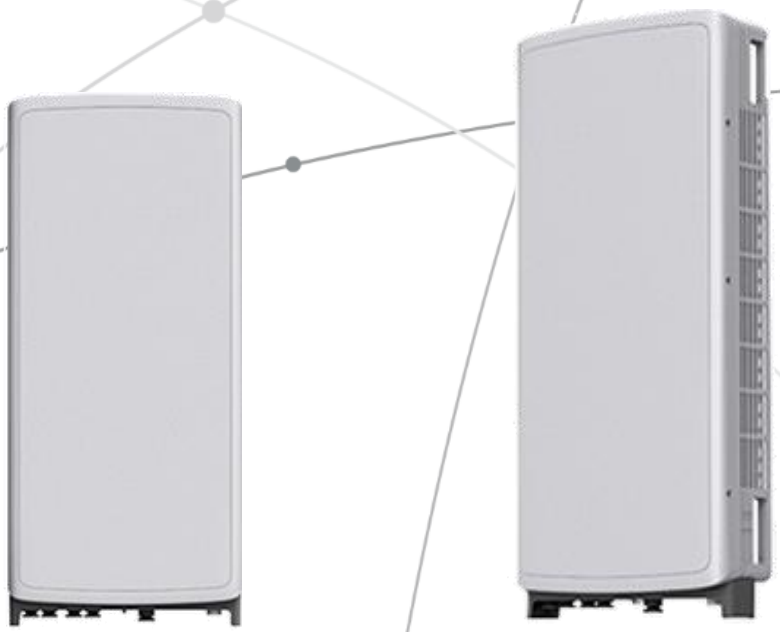
SAMSUNG

SAMSUNG C-Band 64T64R Massive MIMO Radio

for High Capacity and Wide Coverage

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

Model Code : MT6407-77A

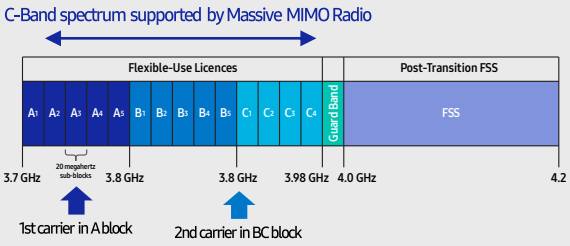


Points of Differentiation

Wide Bandwidth

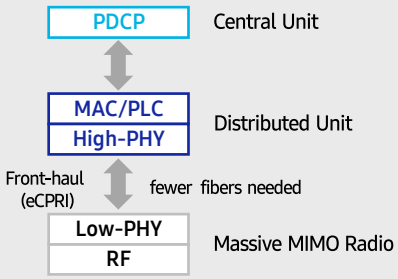
With capability to support up to 2 CC carrier configuration, Samsung C-Band massive MIMO Radio supports 200 MHz bandwidth in the C-Band spectrum.

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



Future Proof Product

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



Enhanced Performance

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

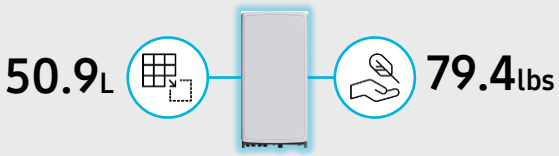
This helps operators reduce their CAPEX as they now need less products to cover the same area than before.

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

Well Matched Design

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

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



Technical Specifications

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

SAMSUNG

About Samsung Electronics Co., Ltd.

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

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

SAMSUNG

Dual-Band Radio Unit
700/850MHz (B13/B5)
RFV01U-D2A

Samsung's RFV01U-D2A is a compact remote Radio Unit (RU) designed for deployments that require flexibility in installation and rapid onlining, without compromising on coverage, capacity or operational expenses.

The RFV01U-D2A RU targets dual-band support across Band 13 (700MHz) and Band 5 (850MHz), making it an ideal product for broad coverage footprints across multiple common low-end, long-range frequencies.

The RU handles all Radio Frequency (RF) processing in a single, compact unit, and is designed to interface via CPRI with Samsung's CDU baseband offerings, in both distributed- and central-RAN configurations.

In addition to its minimal footprint and ease of installation, the RU is also designed to reduce cost of ownership through its integrated spectrum analyzer, which allows for remote RF monitoring, greatly reducing the need for on-site maintenance visits.

Features and Benefits

- Dual-band support for broad frequency coverage
- Minimal footprint reduces site costs
- Rapid, easy installation
- Flexibly deployable in any location
- Remote RF monitoring capability
- Convection cooled, silent operation

Key Technical Specifications

Duplex Type: FDD
Operating Frequencies:
B13: DL(746-756MHz)/UL(777-787MHz)
B5: DL(869-894MHz)/UL(824-849MHz)
Instantaneous Bandwidth: 10MHz(B13) + 25MHz(B5)
RF Chain: 4T4R/2T4R/2T2R
Output Power: Total 320W
DU-RU Interface: CPRI (10Gbps)
Dimensions: 380 x 380 x 207mm (29.9L)
Weight: 31.9kg
Input Power: -48V DC
Operating Temp.: -40 - 55°(w/o solar load)
Cooling: Natural convection

SAMSUNG

Dual-Band Radio Unit
AWS/PCS (B66/B2)
RFV01U-D1A

Samsung's RFV01U-D1A is a compact remote Radio Unit (RU) designed for deployments that require flexibility in installation and rapid onlining, without compromising on coverage, capacity or operational expenses.

The RFV01U-D1A RU targets dual-band support across Band 66 (AWS) and Band 2 (PCS), making it an ideal product for broad coverage footprints across multiple common mid-range frequencies.

The RU handles all Radio Frequency (RF) processing in a single, compact unit, and is designed to interface via CPRI with Samsung's CDU baseband offerings, in both distributed- and central-RAN configurations.

In addition to its minimal footprint and ease of installation, the RU is also designed to reduce cost of ownership through its integrated spectrum analyzer, which allows for remote RF monitoring, greatly reducing the need for on-site maintenance visits.

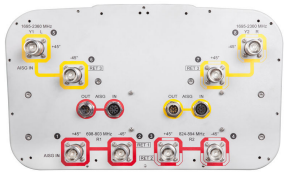
Features and Benefits

- Dual-band support for broad frequency coverage
- Minimal footprint reduces site costs
- Rapid, easy installation
- Flexibly deployable in any location
- Remote RF monitoring capability
- Convection cooled, silent operation
- Built-in Broadcast Auxiliary Services (BAS) filter ensures compliant AWS operation without impacting footprint

Key Technical Specifications

Duplex Type: FDD
Operating Frequencies:
    B66: DL(2,110-2,180MHz)/UL(1,710-1,780MHz)
    B2: DL(1,930-1,990MHz)/UL(1,850-1,910MHz)
Instantaneous Bandwidth:
    70MHz(B66) + 60MHz(B2)
RF Chain: 4T4R/2T4R/2T2R
Output Power: Total 320W
DU-RU Interface: CPRI (10Gbps)
Dimensions: 380 x 380 x 255mm (36.8L)
Weight: 38.3kg
Input Power: -48V DC
Operating Temp.: -40 - 55°(w/o solar load)
Cooling: Natural convection

JAHH-65C-R3B-V2



8-port sector antenna, 2x 698–803, 2x 824-894 and 4x 1695–2360 MHz, 65° HPBW, 3x RET and low bands have diplexers. Internal SBT's on first LB(Port 1) and first HB(Port 5)

- Internal SBT on low and high band allow remote RET control from the radio over the RF jumper cable
- One RET for 700MHz, one RET for 850MHz, and one RET for both high bands to ensure same tilt level for 4x Rx or 4x MIMO
- Internal filter on low band and interleaved dipole technology providing for attractive, low wind load mechanical package
- Separate RS-485 RET input/output for low and high band
- Supports re-configurable antenna sharing capability enabling control of the internal RET system using up to two separate RET compatible OEM radios

General Specifications

Antenna Type	Sector
Band	Multiband
Color	Light gray
Effective Projective Area (EPA), frontal	0.4 m² | 4.306 ft²
Effective Projective Area (EPA), lateral	0.34 m² | 3.66 ft²
Grounding Type	RF connector body grounded to reflector and mounting bracket
Performance Note	Outdoor usage | Wind loading figures are validated by wind tunnel measurements described in white paper WP-112534-EN
Radome Material	Fiberglass, UV resistant
Radiator Material	Low loss circuit board
Reflector Material	Aluminum
RF Connector Interface	4.3-10 Female
RF Connector Location	Bottom
RF Connector Quantity, high band	4
RF Connector Quantity, low band	4
RF Connector Quantity, total	8

Remote Electrical Tilt (RET) Information, General

RET Hardware	CommRET v2
RET Interface	8-pin DIN Female | 8-pin DIN Male

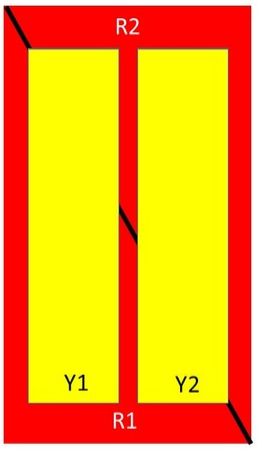
JAHH-65C-R3B-V2

RET Interface, quantity	2 female | 2 male

Dimensions

Width	350 mm | 13.78 in
Depth	208 mm | 8.189 in
Length	2438 mm | 95.984 in

Array Layout

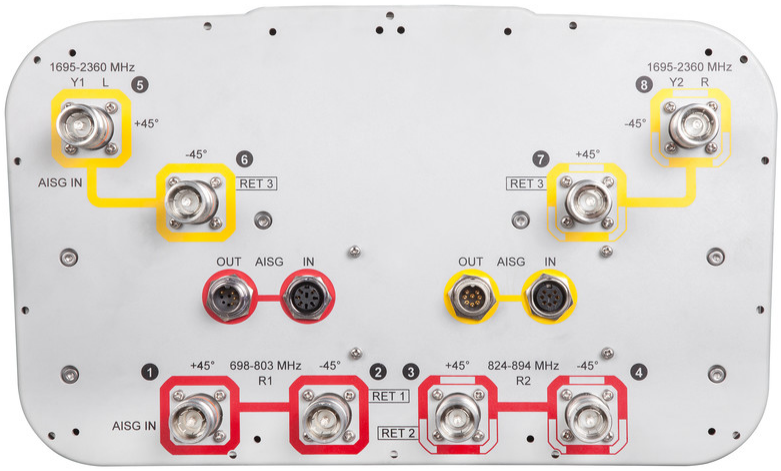


(Sizes of colored boxes are not true depictions of array sizes)

Array	Freq (MHz)	Conns	RET (SRET)	AISG RET UID
R1	698-803	1-2	1	CPxxxxxxxxxxxxxxR1
R2	824-894	3-4	2	CPxxxxxxxxxxxxxxR2
Y1	1695-2360	5-6	3	CPxxxxxxxxxxxxxxY1
Y2	1695-2360	7-8		

Port Configuration

JAHH-65C-R3B-V2



Electrical Specifications

Impedance	50 ohm
Operating Frequency Band	1695 – 2360 MHz | 698 – 803 MHz | 824 – 894 MHz
Polarization	±45°
Total Input Power, maximum	800 W @ 50 °C

Remote Electrical Tilt (RET) Information, Electrical

Protocol	3GPP/AISG 2.0 (Single RET)
Power Consumption, idle state, maximum	1 W
Power Consumption, normal conditions, maximum	8 W
Input Voltage	10–30 Vdc
Internal Bias Tee	Port 1 | Port 5
Internal RET	High band (1) | Low band (2)

Electrical Specifications

Frequency Band, MHz	**698–803**	**824–894**	**1695–1880**	**1850–1990**	**1920–2200**	**2300–2360**
Gain, dBi	15.6	16.1	18.2	18.6	18.8	18.9
Beamwidth, Horizontal, degrees	67	64	62	60	61	63

JAHH-65C-R3B-V2

Beamwidth, Vertical, degrees	9.9	8.4	5.6	5.2	4.9	4.5
Beam Tilt, degrees	0–11	0–11	0–10	0–10	0–10	0–10
USLS (First Lobe), dB	22	23	18	18	18	18
Front-to-Back Ratio at 180°, dB	33	31	30	34	37	35
Isolation, Cross Polarization, dB	25	25	25	25	25	25
Isolation, Inter-band, dB	30	30	30	30	30	30
VSWR | Return loss, dB	1.5 | 14.0	1.5 | 14.0	1.5 | 14.0	1.5 | 14.0	1.5 | 14.0	1.5 | 14.0
PIM, 3rd Order, 2 x 20 W, dBc	-153	-153	-153	-153	-153	-153
Input Power per Port at 50°C, maximum, watts	200	200	250	250	250	200

Electrical Specifications, BASTA

Frequency Band, MHz	**698–803**	**824–894**	**1695–1880**	**1850–1990**	**1920–2200**	**2300–2360**
Gain by all Beam Tilts, average, dBi	15.2	15.9	17.6	18.4	18.5	18.5
Gain by all Beam Tilts Tolerance, dB	±0.4	±0.4	±0.7	±0.4	±0.5	±0.6
Gain by Beam Tilt, average, dBi	0 ° | 15.1 5 ° | 15.3 11 ° | 15.2	0 ° | 15.6 5 ° | 16.0 11 ° | 15.9	0 ° | 17.4 5 ° | 17.7 10 ° | 17.5	0 ° | 18.1 5 ° | 18.5 10 ° | 18.4	0 ° | 18.1 5 ° | 18.6 10 ° | 18.4	0 ° | 18.1 5 ° | 18.7 10 ° | 18.3
Beamwidth, Horizontal Tolerance, degrees	±0.9	±1.6	±3.5	±2.5	±2.7	±4.1
Beamwidth, Vertical Tolerance, degrees	±0.5	±0.4	±0.3	±0.2	±0.3	±0.3
USLS, beampeak to 20° above beampeak, dB	16	14	15	16	16	15
Front-to-Back Total Power at 180° ± 30°, dB	26	23	25	30	28	29
CPR at Boresight, dB	22	22	21	24	22	22
CPR at Sector, dB	12	11	10	13	12	7

Mechanical Specifications

Wind Loading at Velocity, frontal	425.0 N @ 150 km/h | 95.5 lbf @ 150 km/h
Wind Loading at Velocity, lateral	361.0 N @ 150 km/h | 81.2 lbf @ 150 km/h
Wind Loading at Velocity, maximum	202.3 lbf @ 150 km/h | 900.0 N @ 150 km/h
Wind Loading at Velocity, rear	101.4 lbf @ 150 km/h | 451.0 N @ 150 km/h
Wind Speed, maximum	241 km/h | 149.75 mph

JAHH-65C-R3B-V2

Packaging and Weights

Width, packed	456 mm | 17.953 in
Depth, packed	357 mm | 14.055 in
Length, packed	2585 mm | 101.772 in
Net Weight, without mounting kit	36.1 kg | 79.587 lb
Weight, gross	51.1 kg | 112.656 lb

Regulatory Compliance/Certifications

Agency	Classification
CHINA-ROHS	Above maximum concentration value
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
ROHS	Compliant/Exempted

Included Products

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

* Footnotes

Performance Note	Severe environmental conditions may degrade optimum performance

JAHH-45C-R3B

8-port sector antenna, 2x 698–798, 2x 824-894 and 4x 1695–2360 MHz, 45° HPBW, low bands each have a RET and the high bands share a RET. Two internal SBTs.

- Internal SBT on low and high band allow remote RET control from the radio over the RF jumper cable
- One RET for 700MHz, one RET for 850MHz, and one RET for both high bands to ensure same tilt level for 4x Rx or 4x MIMO
- Internal filter on low band and interleaved dipole technology providing for attractive, low wind load mechanical package
- Separate RS-485 RET input/output for low and high band
- Narrow beamwidth capacity antenna for higher level of densification and enhanced data throughput

General Specifications

Antenna Type	Sector
Band	Multiband
Color	Light gray
Grounding Type	RF connector body grounded to reflector and mounting bracket
Performance Note	Outdoor usage | Wind loading figures are validated by wind tunnel measurements described in white paper WP-112534-EN
Radome Material	Fiberglass, UV resistant
Radiator Material	Aluminum | Low loss circuit board
Reflector Material	Aluminum
RF Connector Interface	4.3-10 Female
RF Connector Location	Bottom
RF Connector Quantity, high band	4
RF Connector Quantity, low band	4
RF Connector Quantity, total	8

Remote Electrical Tilt (RET) Information

RET Interface	8-pin DIN Female | 8-pin DIN Male
RET Interface, quantity	2 female | 2 male
Input Voltage	10–30 Vdc
Internal Bias Tee	Port 1 | Port 5

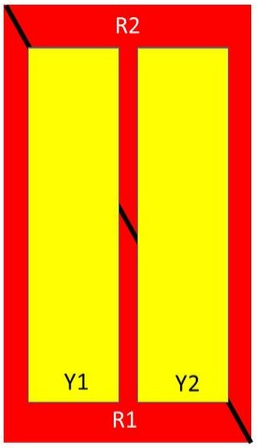
JAHH-45C-R3B

Internal RET	High band (1) | Low band (2)
Power Consumption, idle state, maximum	1 W
Power Consumption, normal conditions, maximum	8 W
Protocol	3GPP/AISG 2.0 (Single RET)

Dimensions

Width	457 mm | 17.992 in
Depth	178 mm | 7.008 in
Length	2437 mm | 95.945 in
Net Weight, without mounting kit	48.2 kg | 106.263 lb

Array Layout

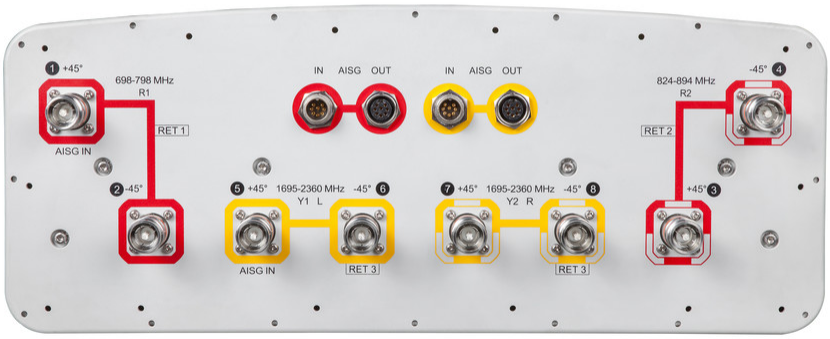


Array	Freq (MHz)	Conns	RET (SRET)	AISG RET UID
R1	698-798	1-2	1	ANxxxxxxxxxxxxxxxx1
R2	824-894	3-4	2	ANxxxxxxxxxxxxxxxx2
Y1	1695-2360	5-6	3	ANxxxxxxxxxxxxxxxx3
Y2	1695-2360	7-8		

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

Port Configuration

JAHH-45C-R3B



Electrical Specifications

Impedance	50 ohm
Operating Frequency Band	1695 – 2360 MHz | 698 – 798 MHz | 824 – 894 MHz
Polarization	±45°
Total Input Power, maximum	800 W @ 50 °C

Electrical Specifications

Frequency Band, MHz	**698–798**	**824–894**	**1695–1880**	**1850–1990**	**1920–2200**	**2300–2360**
Gain, dBi	17.7	18.2	19.5	20	20.5	20.8
Beamwidth, Horizontal, degrees	48	43	44	42.6	42	38
Beamwidth, Vertical, degrees	9.1	8.2	5.8	5.4	5	4.5
Beam Tilt, degrees	0–10	0–10	0–8	0–8	0–8	0–8
USLS (First Lobe), dB	17	20	17	18	18	18
Front-to-Back Ratio at 180°, dB	35	35	36	37	39	40
Isolation, Cross Polarization, dB	25	25	25	25	25	25
Isolation, Inter-band, dB	30	30	28	28	28	28
VSWR | Return loss, dB	1.5 | 14.0	1.5 | 14.0	1.5 | 14.0	1.5 | 14.0	1.5 | 14.0	1.5 | 14.0

PIM, 3rd Order, 2 x 20 W, dBc	-153	-153	-153	-153	-153	-153
Input Power per Port, maximum, watts	200	200	300	300	300	250

Electrical Specifications, BASTA

Frequency Band, MHz	**698–798**	**824–894**	**1695–1880**	**1850–1990**	**1920–2200**	**2300–2360**
Gain by all Beam Tilts, average, dBi	17.4	18.1	19.1	19.8	20.2	20.6
Gain by all Beam Tilts Tolerance, dB	±0.4	±0.2	±0.5	±0.3	±0.5	±0.3
Gain by Beam Tilt, average, dBi	0 ° | 17.3 5 ° | 17.5 10 ° | 17.4	0 ° | 18.0 5 ° | 18.1 10 ° | 18.0	0 ° | 19.1 4 ° | 19.2 8 ° | 19.1	0 ° | 19.8 4 ° | 19.8 8 ° | 19.7	0 ° | 20.1 4 ° | 20.2 8 ° | 20.2	0 ° | 20.5 4 ° | 20.7 8 ° | 20.4
Beamwidth, Horizontal Tolerance, degrees	±1.1	±2.2	±2	±2.1	±1.7	±1.9
Beamwidth, Vertical Tolerance, degrees	±0.5	±0.3	±0.3	±0.2	±0.3	±0.1
USLS, beampeak to 20° above beampeak, dB	16	16	16	16	16	17
Front-to-Back Total Power at 180° ± 30°, dB	24	23	28	30	31	31
CPR at Boresight, dB	26	22	19	20	20	19
CPR at Sector, dB	18	17	12	14	15	18

Mechanical Specifications

Effective Projective Area (EPA), frontal	1.4 m² | 15.069 ft²
Effective Projective Area (EPA), lateral	0.3 m² | 3.229 ft²
Wind Loading @ Velocity, frontal	1,485.0 N @ 150 km/h (333.8 lbf @ 150 km/h)
Wind Loading @ Velocity, lateral	315.0 N @ 150 km/h (70.8 lbf @ 150 km/h)
Wind Loading @ Velocity, maximum	1,485.0 N @ 150 km/h (333.8 lbf @ 150 km/h)
Wind Loading @ Velocity, rear	1,304.0 N @ 150 km/h (293.2 lbf @ 150 km/h)
Wind Speed, maximum	241 km/h | 149.75 mph

Packaging and Weights

Width, packed	608 mm | 23.937 in
Depth, packed	346 mm | 13.622 in
Length, packed	2579 mm | 101.535 in
Weight, gross	73.5 kg | 162.04 lb

JAHH-45C-R3B

Regulatory Compliance/Certifications

Agency	Classification
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system

Included Products

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

* Footnotes

Performance Note	Severe environmental conditions may degrade optimum performance

ATTACHMENT 3

	General	Power	Density					
Site Name: Sharon N								
Tower Height: Verizon @ 130ft								
CARRIER	**# OF CHAN.**	**WATTS ERP**	**HEIGHT**	**FREQ.**	**CALC. POWER DENS**	**MAX. PERMISS. EXP.**	**FRACTION MPE**	**Total**
*T-Mobile	4	1028	118	1900	0.1179	1.0000	1.18%	
*T-Mobile	2	2057	118	1900	0.1179	1.0000	1.18%	
*T-Mobile	2	2308	118	2100	0.1323	1.0000	1.32%	
*T-Mobile	2	592	118	600	0.0339	0.4000	0.85%	
*T-Mobile	1	1578	118	600	0.0452	0.4000	1.13%	
*T-Mobile	2	695	118	700	0.0398	0.4667	0.85%	
*T-Mobile	2	2105	118	1900	0.1207	1.0000	1.21%	
*T-Mobile	1	19239	118	2500	0.5516	1.0000	5.52%	
*T-Mobile	1	19239	118	2500	0.5516	1.0000	5.52%	
*AT&T	1	896	100	850	0.0365	0.5667	0.64%	
*AT&T	4	2234	100	700	0.3637	0.4667	7.79%	
*AT&T	2	2444	100	1900	0.1989	1.0000	1.99%	
*AT&T	2	2444	100	1900	0.1989	1.0000	1.99%	
*AT&T	2	1117	100	700	0.0909	0.4667	1.95%	
*AT&T	4	5360	100	2100	0.8726	1.0000	8.73%	
*AT&T	1	546	100	850	0.0222	0.5667	0.39%	
*AT&T	1	546	100	850	0.0222	0.5667	0.39%	
VZW 700	**4**	**992**	**130**	**751**	**0.0084**	**0.5007**	**1.69%**	
VZW CDMA	**2**	**394**	**130**	**877.26**	**0.0017**	**0.5848**	**0.29%**	
VZW Cellular	**4**	**885**	**130**	**874**	**0.0075**	**0.5827**	**1.29%**	
VZW PCS	**4**	**1675**	**130**	**1975**	**0.0143**	**1.0000**	**1.43%**	
VZW AWS	**4**	**1959**	**130**	**2120**	**0.0167**	**1.0000**	**1.67%**	
VZW CBAND	**4**	**6531**	**130**	**3730.08**	**0.0556**	**1.0000**	**5.56%**	
								54.54%
* Source: Siting Council								

ATTACHMENT 4

Tower Engineering Solutions
Phone (972) 483-0607, Fax (972) 975-9615
1320 Greenway Drive, Suite 600, Irving, Texas 75038

Structural Analysis Report

Existing 130 ft Nudd Corporation Monopole
Customer Name: SBA Communications Corp
Customer Site Number: CT02408-S
Customer Site Name: Sharon 3 CT
Carrier Name: Verizon (App#: 152548, V3)
Carrier Site ID / Name: 469341 / SHARON N CT
Site Location: 477 Route 7
Sharon, Connecticut
Litchfield County
Latitude: 41.909456
Longitude: -73.366031

Exp.10/31/2021

08/20/2021

Analysis Result:

Max Structural Usage: 39.1% [Pass]
Max Foundation Usage: 27.0% [Pass]
Additional Usage Caused by New Mount/Mount Modification:

Report Prepared By: Younus Alkarawi

Tower Engineering Solutions
Phone (972) 483-0607, Fax (972) 975-9615
1320 Greenway Drive, Suite 600, Irving, Texas 75038

Structural Analysis Report

Existing 130 ft Nudd Corporation Monopole

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Latitude: 41.909456

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Analysis Result:

Max Structural Usage: 39.1% [Pass]

Max Foundation Usage: 27.0% [Pass]

Additional Usage Caused by New Mount/Mount Modification:

Report Prepared By: Younus Alkarawi

Introduction

The purpose of this report is to summarize the analysis results on the 130 ft Nudd Corporation Monopole to support the proposed antennas and transmission lines in addition to those currently installed. Any modification listed under Sources of Information was assumed completed and was included in this analysis.

Sources of Information

Tower Drawings	Fred A. Nudd Corporation, Project #8318;10125-029; Dated 04/2001
Foundation Drawing	Fred A. Nudd Corporation, Project #8318;10125-029; Dated 04/2001
Geotechnical Report	Jaworski Geotech, Inc., Project #00133G; Dated 04/05/2001
Modification Drawings	
Mount Analysis	Verizon MA by Maser Consulting Connecticut Project #: 21777245A (Rev 1), Dated

Analysis Criteria

The rigorous analysis was performed in accordance with the requirements and stipulations of the TIA- In accordance with this standard, the structure was analyzed using **TESPoles,** a proprietary analysis software. The program considers the structure as an elastic 3-D model with second-order effects and temperature effects incorporated in the analysis. The analysis was performed using multiple wind directions.

Wind Speed Used in the Analysis:	Ultimate Design Wind Speed V_{ult} 115.0 mph (3-Sec.Gust)/ Nominal Design Wind Speed V_{asd} = 89.0 mph (3-Sec. Gust)
Wind Speed with Ice:	40 mph (3-Sec. Gust) with 1" radial ice concurrent
Operational Wind Speed:	60 mph + 0" Radial ice
Standard/Codes:	TIA-222-G-2 / 2015 IBC / 2018 Connecticut State Building Code
Exposure Category:	
Structure Class:	
Topographic Category:	
Crest Height:	0 ft
Seismic Parameters:	

This structural analysis is based upon the tower being classified as a Structure Class II; however, if a different classification is required subsequent to the date hereof, the tower classification will be changed to meet such requirement and a new structural analysis will be run.

Existing Antennas, Mounts and Transmission Lines

The table below summarizes the antennas, mounts and transmission lines that were considered in the analysis as existing on the tower.

Items	Elevation (ft)	Qty.	Antenna Descriptions	Mount Type & Qty.	Transmission Lines	Owner
			Antel - BXA-70063-6CF_2 - Panel	(3) T-Arm		Verizon
			Antel - LPA80080/6CF - Panel			
			Antel - BXA-171085-12BF_2 - Panel			
			Antel - BXA-70040-6CF - Panel			
			RFS - FD9R6004/2C-3L - Diplexer			
			Ericsson AIR32 KRD901146-1_B66A_B2A (Octo)	(3) T-Arm w/ Modifications [(1) Platform Reinforcement Kit SitePro1 Part PRK-1245L; (1) Handrail Components-V-Brace Kit SitePro1 Park PRK-SFS-L; (1) Handrail Components-(3) Pipe2.0 STD x 6.5 Horiz. Rail; Sitepro1SCX x-K [(12) total] cross-over plates]	(3) 2" Hybrid	T-Mobile Sprint
			Ericsson AIR6449 B41			
			Ericsson 4415 B25			
			ALU 800 MHz RRH			
			Ericsson 4449 B71 + B85			
			ALU 800 MHz Filter			
			Powerwave 7770- Panel	(3) T-Arms	Power (2) 7/16" Fiber (3) 3” Conduit*	
			CCI DMP65R-BU6DA- Panel			
			CCI DMP65R-BU4DA- Panel			
			Powerwave LGP21401			
			Powerwave LGP13519			
			Ericsson 4449 B5/B12			
			Ericsson 8843 B2/B66A			
			Ericsson RRUS 4478 B14			
			Raycap DC6-48-60-18-8F			
			Andrew ABT-DF-DMADBH – Bias-T			

*(Housing (6) 3/4" DC power & (2) 7/16 Fiber cables)

Proposed Carrier's Final Configuration of Antennas, Mounts and Transmission Lines

Information pertaining to the proposed carrier's final configuration of antennas and transmission lines was provided by SBA Communications Corp. The proposed antennas and lines are listed below.

Items	Elevation (ft)	Qty.	Antenna Descriptions	Mount Type & Qty.	Transmission Lines	Owner
			Antel BXA-70063-6CF-EDIN-6 - Panel	(3) T-Arm	Hybrid	Verizon
			Andrew JAHH-65-R3B-V2 - Panel			
			Samsung MT6407-77A - Panel			
			Antel BXA-70040-6CF-EDIN-0 - Panel			
			Andrew JAHH-45C-R3B - Panel			
			Commscope CBC78T-DS-43-2X-Diplexer / Dual Coupler			
			Samsung B2-B66A RRH-BRO49			
			Samsung B5-B13 RRH-BRO4C			

See the attached coax layout for the line placement considered in the analysis.

Analysis Results

The results of the structural analysis, performed for the wind and ice loading and antenna equipment as defined above, are summarized as the following:

	Pole shafts	Anchor Bolts	Base Plate	Flange connection
Max. Usage:				
Pass/Fail	**Pass**	**Pass**	**Pass**	**Pass**

Foundations

	Moment (Kip-Ft)	Shear (Kips)
Original Design Reactions		
Analysis Reactions		
Factored Reactions*		
% of Design Reactions		

* Per section 15.5.1 of the TIA-222-G standard, factored reactions were obtained by multiplying a 1.35 factor to the original design reactions.

The foundation has been investigated using the supplied documents and soils report and was found adequate. Therefore, no modification to the foundation will be required.

Operational Condition (Rigidity):

Operational characteristics of the tower are found to be within the limits prescribed by TIA-222 for the installed antennas. The maximum twist/sway at the elevation of the proposed equipment is 0.6112 degrees under the operational wind speed as specified in the Analysis Criteria.

Conclusions

Based on the analysis results, the existing structure and its foundation were found to be adequate to safely support the existing and proposed equipment and meet the minimum requirements per the TIA-222 Standard under the design basic wind speed as specified in the Analysis Criteria.

Standard Conditions

This analysis was performed based on the information supplied to **Tower Engineering Solutions,** Verification of the information provided was not included in the Scope of Work for . The accuracy of the analysis is dependent on the accuracy of the information provided.

The structural analysis was performance based upon the evidence available at the time of this report. All information provided by the client is considered to be accurate.

The analyses will be performed based on the codes as specified by the client or based on the best knowledge of the engineering staff of . In the absence of information to the contrary, all work will be performed in accordance with the latest relevant revision of ANSI/TIA-222. If wind speed and/or ice loads are different from the minimum values recommended by the ANSI/TIA-222 standard or other codes, should be notified in writing and the applicable minimum values provided by the client.

The configuration of the existing mounts, antennas, coax and other appurtenances were supplied by the customer for the current structural analysis. has not visited the tower site to verify the adequacy of the information provided. If there is any discrepancy found in the report regarding the existing conditions, should be notified immediately to evaluate the effect of the discrepancy on the analysis results.

The client will assume responsibility for rework associated with the differences in initially provided information, including tower and foundation information, existing and/or proposed equipment and transmission lines.

If a feasibility analysis was performed, final acceptance of changed conditions shall be based upon a rigorous structural analysis.

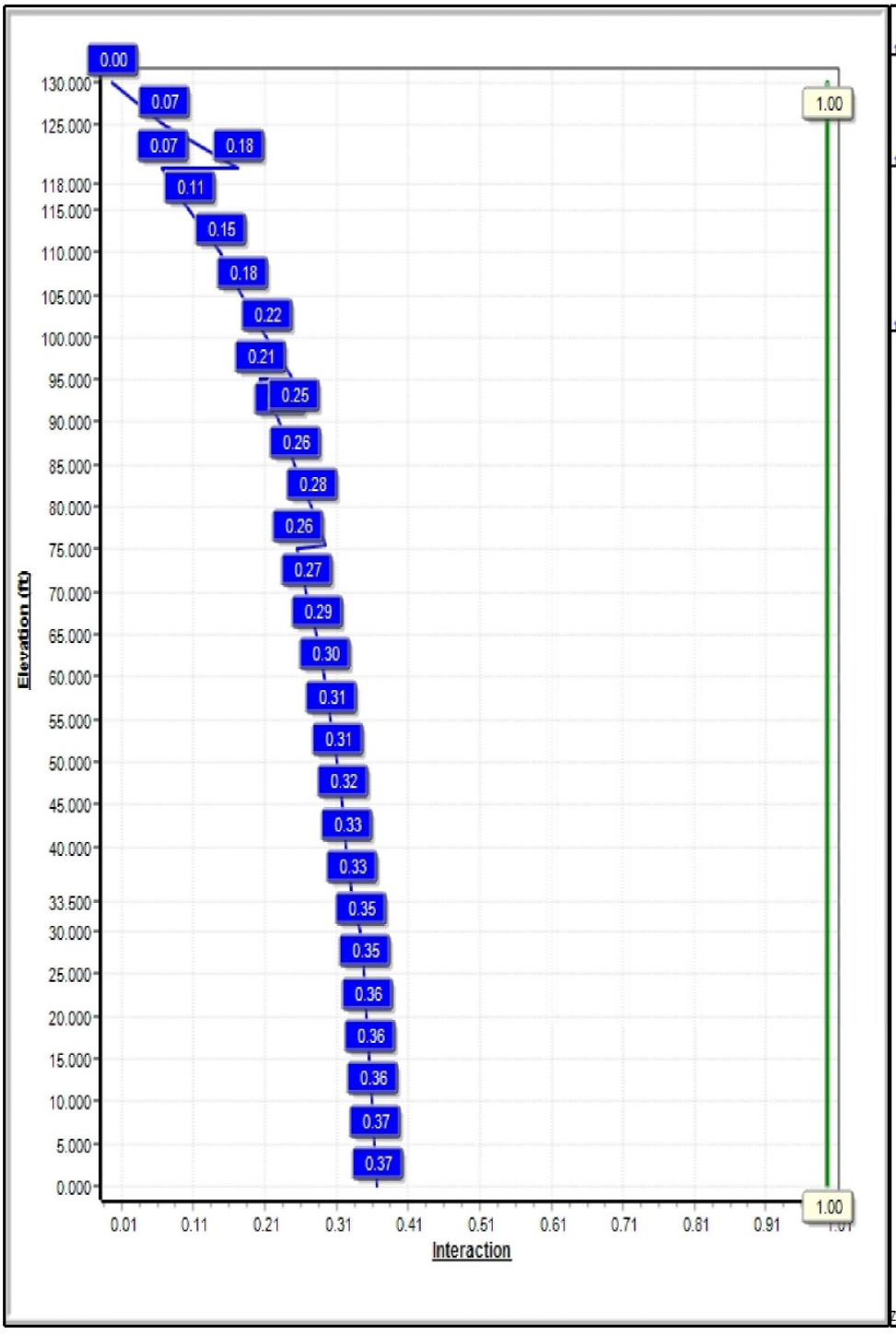
Usage Diagram - Max Ratio 37.06% at 0.0ft

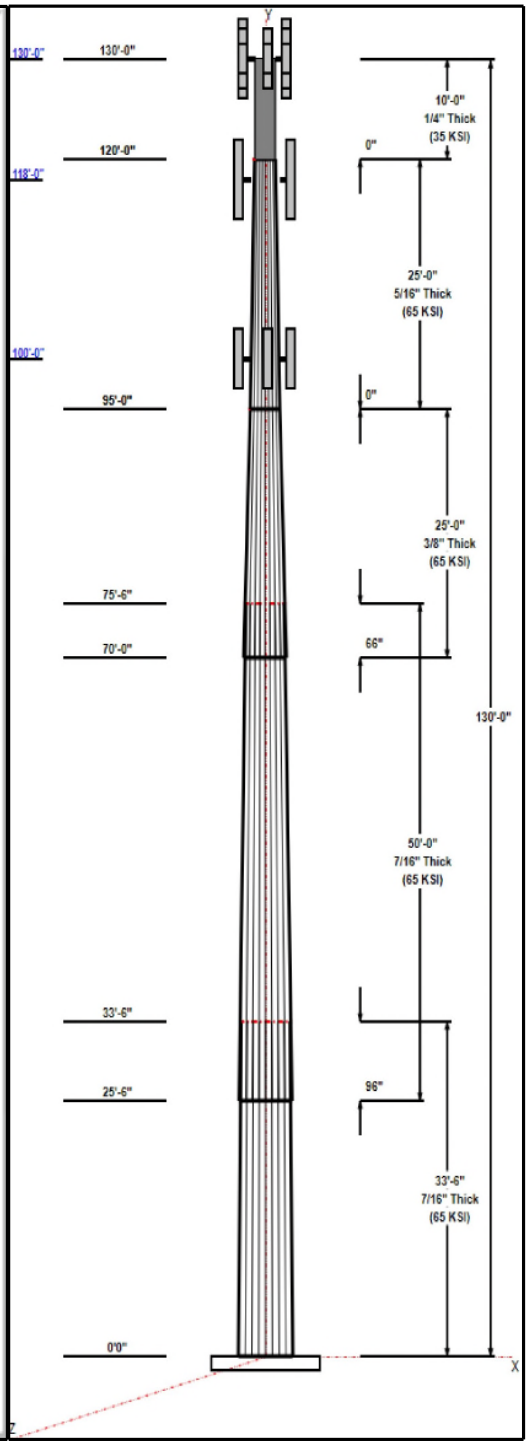
Structure:	CT02408-S-SBA	**Code:**	EIA/TIA-222-G	8/20/2021
Site Name:	Sharon 3 CT	**Exposure:**	B	
Height:	130.00 (ft)	**Gh:**	1.1	
Base Elev:	0.000 (ft)			Page: 1

Dead Load Factor:	1.20
Wind Load Factor:	1.60

Load Case : 1.2D + 1.6W 89 mph Wind

Iterations: 17





Structure: CT02408-S-SBA

Type: Custom
Site Name: Sharon 3 CT
Height: 130.00 (ft)
Base Elev: 0.00 (ft)

Base Shape: 18 Sided
Taper: 0.41354

8/20/2021

Tower Engineering Solutions

Shaft Properties

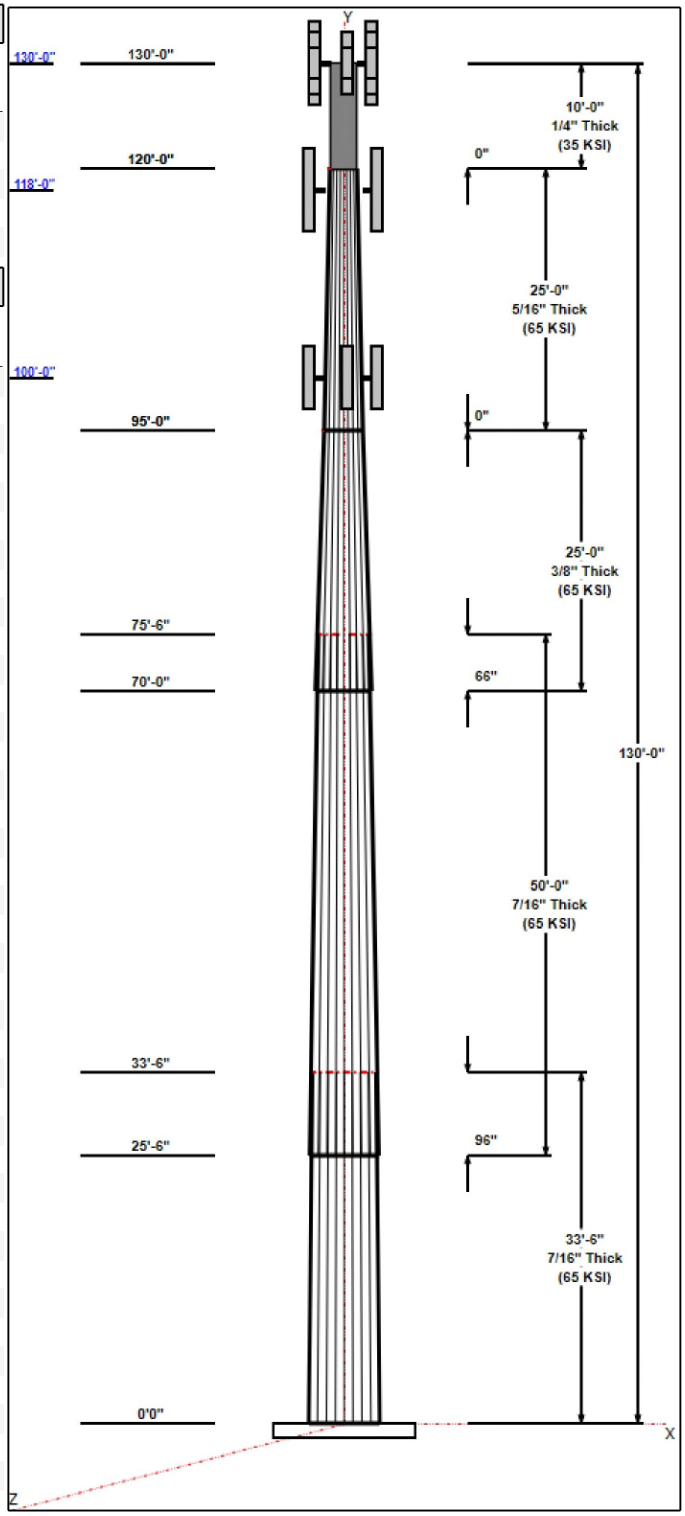
Seq	Length (ft)	Top (in)	Bottom (in)	Thick (in)	Joint Type	Taper	Grade (ksi)
1	33.50	58.15	72.00	0.438		0.41354	65
2	50.00	41.65	62.33	0.438	Slip	0.41354	65
3	25.00	34.34	44.68	0.375	Slip	0.41354	65
4	25.00	24.00	34.34	0.313	Butt	0.41354	65
5	10.00	24.00	24.00	0.250	Butt	0.00000	35

Discrete Appurtenances

Attach Elev (ft)	Force Elev (ft)	Qty	Description	Carrier
130.00	130.00	3	T-Arm	Verizon
130.00	130.00	2	BXA-70063-6CF_2	Verizon
130.00	130.00	1	BXA-70040-6CF	Verizon
130.00	130.00	4	Andrew JAHH-65-R3B-V2	Verizon
130.00	130.00	3	Samsung MT6407-77A	Verizon
130.00	130.00	2	Andrew JAHH-45C-R3B	Verizon
130.00	130.00	3	Commscope	Verizon
130.00	130.00	3	Samsung B2-B66A	Verizon
130.00	130.00	3	Samsung B5-B13	Verizon
130.00	130.00	1	RFS DB-C1-12C-24AB-OZ	Verizon
130.00	130.00	1	Tree Pole Branchs	
125.00	125.00	1	Tree Pole Branchs	
118.00	118.00	2	AIR32	T-Mobile Sprint
118.00	118.00	2	APXVAALL24_43-U-NA20	T-Mobile Sprint
118.00	118.00	2	AIR6449 B41	T-Mobile Sprint
118.00	118.00	2	RRUS 4415 B25	T-Mobile Sprint
118.00	118.00	2	4449 B71 + B85	T-Mobile Sprint
118.00	118.00	1	(3) Pipe 2.0 STD	T-Mobile Sprint
118.00	118.00	2	PRK-SFS-L	T-Mobile Sprint
118.00	118.00	1	PRK-1245L (kicker kit)	T-Mobile Sprint
118.00	118.00	3	T-Arm	T-Mobile Sprint
118.00	118.00	4	800 MHz	T-Mobile Sprint
118.00	118.00	2	800MHz Filter	T-Mobile Sprint
118.00	118.00	4	ACU-A20-N RET	T-Mobile Sprint
115.00	115.00	1	Tree Pole Branchs	
105.00	105.00	1	Tree Pole Branchs	
100.00	100.00	3	T-Arm	AT&T
100.00	100.00	4	DMP65R-BU6DA	AT&T
100.00	100.00	2	DMP65R-BU4DA	AT&T
100.00	100.00	3	4449 B5/B12	AT&T
100.00	100.00	3	7770	AT&T
100.00	100.00	3	DC6-48-60-18-8F	AT&T
100.00	100.00	3	ABT-DF-DMADBH	AT&T
100.00	100.00	12	LGP21401	AT&T
100.00	100.00	6	LGP21901	AT&T
100.00	100.00	3	8843 B2/B66A	AT&T
100.00	100.00	3	RRUS 4478 B14	AT&T
95.00	95.00	1	Tree Pole Branchs	
85.00	85.00	1	Tree Pole Branchs	
77.50	77.50	1	Tree Pole Branchs	

Linear Appurtenances

Elev From (ft)	Elev To (ft)	Placement	Description	Carrier
0.00	130.00	Inside	1 5/8" Coax	Verizon



0.00	130.00	Inside	1 5/8" Hybrid	Verizon
0.00	118.00	Inside	2" Hybrid	T-Mobile Sprint
0.00	100.00	Inside	1 5/8" Coax	AT&T
0.00	100.00	Inside	3/4" DC	AT&T
0.00	100.00	Inside	7/16" Fiber	AT&T

Anchor Bolts

Qty	Specifications	Grade (ksi)	Arrangement
25	2.25" 18J	75.0	Radial

Base Plate

Thickness (in)	Specifications (in)	Grade (ksi)	Geometry
2.0000	65.0	50.0	Round

Reactions

Load Case	Moment (FT-Kips)	Shear (Kips)	Axial (Kips)
1.2D + 1.6W 89 mph Wind	3295.1	34.3	50.1
0.9D + 1.6W 89 mph Wind	3284.1	34.3	37.6
1.2D + 1.0Di + 1.0Wi 40 mph Wind	627.0	6.7	85.2
1.2D + 1.0E	205.2	2.0	50.1
0.9D + 1.0E	204.4	2.0	37.6
1.0D + 1.0W 60 mph Wind	934.0	9.7	41.8

Structure: CT02408-S-SBA - Coax Line Placement

Type: Monopole
Site Name: Sharon 3 CT
Height: 130.00 (ft)

8/20/2021

Shaft Properties

Structure:	CT02408-S-SBA		**Code:**	EIA/TIA-222-G	8/20/2021
Site Name:	Sharon 3 CT		**Exposure:**	B	
Height:	130.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 5

Tower Engineering Solutions

Sec. No.	Shape	Length (ft)	Thick (in)	Fy (ksi)	Joint Type	Overlap (in)	Weight (lb)
1	18	33.500	0.4375	65		0.00	10,231
2	18	50.000	0.4375	65	Slip	96.00	12,180
3	18	25.000	0.3750	65	Slip	66.00	3,962
4	18	25.000	0.3125	65	Flange	0.00	2,435
5	R	10.000	0.2500	35	Flange	0.00	635
					Total Shaft Weight:		**29,442**

	Bottom						Top						
Sec. No.	Dia (in)	Elev (ft)	Area (sqin)	Ix (in^4)	W/t Ratio	D/t Ratio	Dia (in)	Elev (ft)	Area (sqin)	Ix (in^4)	W/t Ratio	D/t Ratio	Taper
1	72.00	0.00	99.37	64295.26	27.61	164.57	58.15	33.50	80.13	33717.0	22.02	132.9	0.413542
2	62.33	25.50	85.94	41593.93	23.71	142.47	41.65	75.50	57.23	12282.6	15.38	95.21	0.413542
3	44.68	70.00	52.73	13075.19	19.60	119.14	34.34	95.00	40.42	5891.35	14.74	91.57	0.413542
4	34.34	95.00	33.75	4936.61	17.96	109.88	24.00	120.00	23.49	1665.53	12.13	76.80	0.413542
5	24.00	120.0	18.65	1316.20	0.00	96.00	24.00	130.00	18.65	1316.20	0.00	96.00	0.000000

Load Summary

Structure:	CT02408-S-SBA	**Code:**	EIA/TIA-222-G	8/20/2021	
Site Name:	Sharon 3 CT	**Exposure:**	B		
Height:	130.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 6	

Tower Engineering Solutions

Discrete Appurtenances

				No Ice			Ice				
No.	Elev (ft)	Description	Qty	Weight (lb)	CaAa (sf)	CaAa Factor	Weight (lb)	CaAa (sf)	CaAa Factor	Hor. Ecc. (ft)	Vert Ecc (ft)
1	130.00	T-Arm	3	400.00	10.00	0.75	767.02	21.470	0.75	0.00	0.00
2	130.00	BXA-70063-6CF_2	2	17.00	7.57	0.73	211.92	11.203	0.73	0.00	0.00
3	130.00	BXA-70040-6CF	1	38.00	14.40	1.00	417.67	18.126	1.00	0.00	0.00
4	130.00	Andrew JAHH-65-R3B-V2	4	63.30	9.11	0.83	382.88	10.913	0.83	0.00	0.00
5	130.00	Samsung MT6407-77A	3	79.40	4.69	0.70	247.09	5.953	0.70	0.00	0.00
6	130.00	Andrew JAHH-45C-R3B	2	106.00	15.89	0.74	566.78	18.229	0.74	0.00	0.00
7	130.00	Commscope CBC78T-DS-43-2X	3	10.40	0.37	0.50	41.93	0.767	0.50	0.00	0.00
8	130.00	Samsung B2-B66A RRH-BRO49	3	84.40	1.87	0.67	192.87	2.646	0.67	0.00	0.00
9	130.00	Samsung B5-B13 RRH-BRO4C	3	70.30	1.87	0.67	169.00	2.646	0.67	0.00	0.00
10	130.00	RFS DB-C1-12C-24AB-OZ	1	32.00	4.06	1.00	181.75	5.140	1.00	0.00	0.00
11	130.00	Tree Pole Branchs	1	100.00	12.00	1.00	1017.56	14.753	1.00	0.00	0.00
12	125.00	Tree Pole Branchs	1	100.00	60.00	1.00	1013.97	73.710	1.00	0.00	0.00
13	118.00	AIR32	2	132.20	6.51	0.87	385.64	8.059	0.87	0.00	0.00
14	118.00	APXVAALL24_43-U-NA20	2	99.00	20.24	0.73	676.91	22.741	0.73	0.00	0.00
15	118.00	AIR6449 B41	2	103.00	5.65	0.71	281.49	6.887	0.71	0.00	0.00
16	118.00	RRUS 4415 B25	2	46.00	1.64	0.67	99.50	2.311	0.67	0.00	0.00
17	118.00	4449 B71 + B85	2	73.20	1.97	0.67	148.37	2.711	0.67	0.00	0.00
18	118.00	(3) Pipe 2.0 STD	1	302.36	8.13	1.00	769.45	18.473	1.00	0.00	0.00
19	118.00	PRK-SFS-L	2	140.00	3.70	1.00	369.00	8.743	1.00	0.00	0.00
20	118.00	PRK-1245L (kicker kit)	1	464.91	9.50	1.00	887.38	22.449	1.00	0.00	0.00
21	118.00	T-Arm	3	400.00	11.50	0.75	763.49	24.563	0.75	0.00	0.00
22	118.00	800 MHz	4	59.50	2.64	0.67	161.04	4.147	0.67	0.00	0.00
23	118.00	800MHz Filter	2	8.80	0.78	1.00	31.77	1.622	1.00	0.00	0.00
24	118.00	ACU-A20-N RET	4	1.00	0.14	0.79	6.59	0.526	0.79	0.00	0.00
25	115.00	Tree Pole Branchs	1	100.00	76.00	1.00	1006.38	93.221	1.00	0.00	0.00
26	105.00	Tree Pole Branchs	1	100.00	70.00	1.00	998.17	85.718	1.00	0.00	0.00
27	100.00	T-Arm	3	400.00	10.00	0.75	757.52	21.172	0.75	0.00	0.00
28	100.00	DMP65R-BU6DA	4	79.40	12.71	0.73	462.70	14.640	0.73	0.00	0.00
29	100.00	DMP65R-BU4DA	2	67.90	8.00	0.76	482.65	9.580	0.76	0.00	0.00
30	100.00	4449 B5/B12	3	71.00	1.97	0.67	139.35	2.671	0.67	0.00	0.00
31	100.00	7770	3	35.00	5.50	0.73	219.26	6.889	0.73	0.00	0.00
32	100.00	DC6-48-60-18-8F	3	31.80	0.92	1.00	110.96	1.481	1.00	0.00	0.00
33	100.00	ABT-DF-DMADBH	3	1.10	0.05	1.00	3.96	0.296	1.00	0.00	0.00
34	100.00	LGP21401	12	14.10	1.29	1.00	46.11	2.360	1.00	0.00	0.00
35	100.00	LGP21901	6	5.50	0.23	0.75	15.35	0.701	0.75	0.00	0.00
36	100.00	8843 B2/B66A	3	72.00	1.64	0.67	131.98	2.276	0.67	0.00	0.00
37	100.00	RRUS 4478 B14	3	59.90	1.84	0.67	120.08	2.514	0.67	0.00	0.00
38	95.00	Tree Pole Branchs	1	100.00	80.00	1.00	989.22	97.784	1.00	0.00	0.00
39	85.00	Tree Pole Branchs	1	100.00	80.00	1.00	979.39	97.588	1.00	0.00	0.00
40	77.50	Tree Pole Branchs	1	100.00	66.00	1.00	971.30	80.376	1.00	0.00	0.00
		Totals:	**104**	**9,284.37**			**31,431.96**				

Linear Appurtenances

Bottom Elev. (ft)	Top Elev. (ft)	Description	Exposed Width	Exposed
0.00	130.00	(6) 1 5/8" Coax	0.00	Inside

Discrete Appurtenances

No.	Elev (ft)	Description	Qty	No Ice Weight (lb)	No Ice CaAa (sf)	No Ice CaAa Factor	Ice Weight (lb)	Ice CaAa (sf)	Ice CaAa Factor	Hor. Ecc. (ft)	Vert Ecc (ft)
0.00	130.00	(1) 1 5/8" Hybrid			0.00	Inside					
0.00	118.00	(3) 2" Hybrid			0.00	Inside					
0.00	100.00	(12) 1 5/8" Coax			0.00	Inside					
0.00	100.00	(6) 3/4" DC			0.00	Inside					
0.00	100.00	(2) 7/16" Fiber			0.00	Inside					

Shaft Section Properties

Structure:	CT02408-S-SBA	**Code:**	EIA/TIA-222-G	8/20/2021	
Site Name:	Sharon 3 CT	**Exposure:**	B		
Height:	130.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 8	

Increment Length: **5 (ft)**

Elev (ft)	Description	Thick (in)	Dia (in)	Area (in^2)	Ix (in^4)	W/t Ratio	D/t Ratio	Fpy (ksi)	S (in^3)	Weight (lb)
0.00		0.4375	72.000	99.370	64295.3	27.61	164.57	68.9	1758.	0.0
5.00		0.4375	69.932	96.499	58881.5	26.77	159.85	69.9	1658.	1666.2
10.00		0.4375	67.865	93.628	53780.6	25.94	155.12	70.9	1560.	1617.4
15.00		0.4375	65.797	90.756	48983.1	25.11	150.39	71.9	1466.	1568.5
20.00		0.4375	63.729	87.885	44479.7	24.27	145.67	72.8	1374.	1519.7
25.00		0.4375	61.661	85.014	40261.2	23.44	140.94	73.8	1286.	1470.8
25.50	Bot - Section 2	0.4375	61.455	84.727	39854.6	23.36	140.47	73.9	1277.	144.4
30.00		0.4375	59.594	82.143	36318.2	22.61	136.21	74.8	1200.	2573.8
33.50	Top - Section 1	0.4375	59.021	81.348	35274.1	22.38	134.91	0.0	0.0	1947.1
35.00		0.4375	58.401	80.487	34165.5	22.13	133.49	75.4	1152.	413.0
40.00		0.4375	56.333	77.616	30638.0	21.29	128.76	76.4	1071.	1345.0
45.00		0.4375	54.266	74.744	27362.1	20.46	124.04	77.3	993.1	1296.1
50.00		0.4375	52.198	71.873	24328.5	19.63	119.31	78.3	918.0	1247.3
55.00		0.4375	50.130	69.002	21527.8	18.79	114.58	79.3	845.8	1198.4
60.00		0.4375	48.062	66.131	18950.8	17.96	109.86	80.3	776.6	1149.6
65.00		0.4375	45.995	63.260	16588.1	17.13	105.13	81.3	710.3	1100.7
70.00	Bot - Section 3	0.4375	43.927	60.389	14430.4	16.29	100.40	82.2	647.0	1051.9
75.00		0.4375	41.859	57.517	12468.4	15.46	95.68	82.5	586.7	1879.2
75.50	Top - Section 2	0.3750	42.403	50.022	11163.0	18.53	113.07	0.0	0.0	182.9
77.50		0.3750	41.576	49.037	10516.8	18.14	110.87	80.1	498.2	337.1
80.00		0.3750	40.542	47.807	9744.8	17.65	108.11	80.6	473.4	411.9
85.00		0.3750	38.474	45.346	8316.0	16.68	102.60	81.8	425.7	792.4
90.00		0.3750	36.406	42.885	7034.2	15.71	97.08	82.5	380.6	750.6
95.00	Top - Section 3	0.3750	34.339	40.424	5891.3	14.74	91.57	82.5	337.9	708.7
95.00	Bot - Section 4	0.3125	34.339	33.748	4936.6	17.68	109.88	80.3	283.2	
100.00		0.3125	32.271	31.698	4090.2	16.80	103.27	81.6	249.6	556.7
105.00		0.3125	30.203	29.647	3346.6	15.63	96.65	82.5	218.2	521.9
110.00		0.3125	28.135	27.596	2699.0	14.46	90.03	82.5	188.9	487.0
115.00		0.3125	26.068	25.545	2140.9	13.30	83.42	82.5	161.8	452.1
118.00		0.3125	24.827	24.315	1846.2	12.60	79.45	82.5	146.5	254.5
120.00	Top - Section 4	0.3125	24.000	23.494	1665.5	12.13	76.80	82.5	136.7	162.7
120.00	Bot - Section 5	0.2500	24.000	18.653	1316.2	15.16	96.00	34.8	109.7	
125.00		0.2500	24.000	18.653	1316.2	0.00	96.00	34.8	109.7	317.4
130.00		0.2500	24.000	18.653	1316.2	0.00	96.00	34.8	109.7	317.4
										29442.4

Wind Loading - Shaft

Structure:	CT02408-S-SBA	**Code:**	EIA/TIA-222-G	8/20/2021	
Site Name:	Sharon 3 CT	**Exposure:**	B		
Height:	130.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 9	

Load Case: 1.2D + 1.6W 89 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.60

Iterations 17

Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.70	13.485	14.83	453.67	0.650	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.70	13.485	14.83	440.64	0.650	0.000	5.00	30.025	19.52	463.2	0.0	1999.5
10.00		1.00	0.70	13.485	14.83	427.61	0.650	0.000	5.00	29.151	18.95	449.7	0.0	1940.9
15.00		1.00	0.70	13.485	14.83	414.58	0.650	0.000	5.00	28.276	18.38	436.2	0.0	1882.3
20.00		1.00	0.70	13.485	14.83	401.55	0.650	0.000	5.00	27.401	17.81	422.7	0.0	1823.6
25.00		1.00	0.70	13.485	14.83	388.53	0.650	0.000	5.00	26.526	17.24	409.2	0.0	1765.0
25.50	Bot - Section 2	1.00	0.70	13.485	14.83	387.22	0.650	0.000	0.50	2.604	1.69	40.2	0.0	173.3
30.00		1.00	0.70	13.496	14.85	375.66	0.650	0.000	4.50	23.380	15.20	361.0	0.0	3088.6
33.50	Top - Section 1	1.00	0.72	13.928	15.32	372.36	0.650	0.000	3.50	17.694	11.50	281.9	0.0	2336.6
35.00		1.00	0.73	14.104	15.51	376.33	0.650	0.000	1.50	7.452	4.84	120.2	0.0	495.6
40.00		1.00	0.76	14.652	16.12	370.00	0.650	0.000	5.00	24.272	15.78	406.8	0.0	1614.0
45.00		1.00	0.79	15.154	16.67	362.47	0.650	0.000	5.00	23.397	15.21	405.6	0.0	1555.3
50.00		1.00	0.81	15.617	17.18	353.94	0.650	0.000	5.00	22.522	14.64	402.4	0.0	1496.7
55.00		1.00	0.83	16.048	17.65	344.58	0.650	0.000	5.00	21.647	14.07	397.4	0.0	1438.1
60.00		1.00	0.85	16.452	18.10	334.50	0.650	0.000	5.00	20.772	13.50	391.0	0.0	1379.5
65.00		1.00	0.87	16.833	18.52	323.79	0.650	0.000	5.00	19.898	12.93	383.2	0.0	1320.9
70.00	Bot - Section 3	1.00	0.89	17.193	18.91	312.53	0.650	0.000	5.00	19.023	12.36	374.1	0.0	1262.2
75.00		1.00	0.91	17.535	19.29	300.77	0.650	0.000	5.00	18.465	12.00	370.4	0.0	2255.0
75.50	Top - Section 2	1.00	0.91	17.568	19.33	299.57	0.650	0.000	0.50	1.798	1.17	36.1	0.0	219.5
77.50	Appurtenance(s)	1.00	0.92	17.700	19.47	300.13	0.650	0.000	2.00	7.106	4.62	143.9	0.0	404.5
80.00		1.00	0.93	17.861	19.65	294.00	0.650	0.000	2.50	8.686	5.65	177.5	0.0	494.3
85.00	Appurtenance(s)	1.00	0.94	18.173	19.99	281.43	0.650	0.000	5.00	16.716	10.87	347.5	0.0	950.9
90.00		1.00	0.96	18.473	20.32	268.49	0.650	0.000	5.00	15.841	10.30	334.8	0.0	900.7
95.00	Top - Section 3	1.00	0.97	18.760	20.64	255.20	0.650	0.000	5.00	14.966	9.73	321.2	0.0	850.4
100.00	Appurtenance(s)	1.00	0.99	19.037	20.94	241.60	0.650	0.000	5.00	14.091	9.16	306.9	0.0	668.1
105.00	Appurtenance(s)	1.00	1.00	19.304	21.23	227.70	0.650	0.000	5.00	13.216	8.59	291.9	0.0	626.2
110.00		1.00	1.02	19.563	21.52	213.53	0.650	0.000	5.00	12.341	8.02	276.2	0.0	584.4
115.00	Appurtenance(s)	1.00	1.03	19.813	21.79	199.10	0.650	0.000	5.00	11.467	7.45	259.9	0.0	542.5
118.00	Appurtenance(s)	1.00	1.04	19.959	21.95	190.32	0.650	0.000	3.00	6.460	4.20	147.5	0.0	305.4
120.00	Top - Section 4	1.00	1.04	20.055	22.06	184.42	0.650	0.000	2.00	4.132	2.69	94.8	0.0	195.2
125.00	Appurtenance(s)	1.00	1.05	20.290	22.32	182.68	0.600	0.000	5.00	10.000	6.00	214.3	0.0	380.8
130.00	Appurtenance(s)	1.00	1.07	20.519	22.57	183.71	0.600	0.000	5.00	10.000	6.00	216.7	0.0	380.8
								Totals:	**130.00**			**9,284.3**		**35,330.8**

Discrete Appurtenance Forces

Structure:	CT02408-S-SBA	**Code:**	EIA/TIA-222-G	8/20/2021	
Site Name:	Sharon 3 CT	**Exposure:**	B		
Height:	130.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 10	

Tower Engineering Solutions

Load Case: 1.2D + 1.6W 89 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.60

Iterations 17

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orient Factor x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	130.00	Samsung MT6407-77A	3	20.519	22.571	0.56	0.80	7.88	285.84	0.000	0.000	284.55	0.00	0.00
2	130.00	T-Arm	3	20.519	22.571	0.56	0.75	16.88	1440.00	0.000	0.000	609.42	0.00	0.00
3	130.00	BXA-70063-6CF_2	2	20.519	22.571	0.58	0.80	8.84	40.80	0.000	0.000	319.31	0.00	0.00
4	130.00	BXA-70040-6CF	1	20.519	22.571	1.00	1.00	14.40	45.60	0.000	0.000	520.03	0.00	0.00
5	130.00	Andrew JAHH-65-R3B-V2	4	20.519	22.571	0.66	0.80	24.20	303.84	0.000	0.000	873.81	0.00	0.00
6	130.00	Tree Pole Branchs	1	20.519	22.571	1.00	1.00	12.00	120.00	0.000	0.000	433.36	0.00	0.00
7	130.00	Commscope	3	20.519	22.571	0.45	0.90	0.50	37.44	0.000	0.000	18.04	0.00	0.00
8	130.00	Samsung B2-B66A	3	20.519	22.571	0.54	0.80	3.01	303.84	0.000	0.000	108.59	0.00	0.00
9	130.00	Samsung B5-B13	3	20.519	22.571	0.54	0.80	3.01	253.08	0.000	0.000	108.59	0.00	0.00
10	130.00	RFS DB-C1-12C-24AB-OZ	1	20.519	22.571	1.00	1.00	4.06	38.40	0.000	0.000	146.62	0.00	0.00
11	130.00	Andrew JAHH-45C-R3B	2	20.519	22.571	0.67	0.90	21.17	254.40	0.000	0.000	764.36	0.00	0.00
12	125.00	Tree Pole Branchs	1	20.290	22.319	1.00	1.00	60.00	120.00	0.000	0.000	2142.67	0.00	0.00
13	118.00	PRK-1245L (kicker kit)	1	19.959	21.955	1.00	1.00	9.50	557.89	0.000	0.000	333.72	0.00	0.00
14	118.00	4449 B71 + B85	2	19.959	21.955	0.54	0.80	2.11	175.68	0.000	0.000	74.18	0.00	0.00
15	118.00	(3) Pipe 2.0 STD	1	19.959	21.955	1.00	1.00	8.13	362.83	0.000	0.000	285.59	0.00	0.00
16	118.00	PRK-SFS-L	2	19.959	21.955	1.00	1.00	7.40	336.00	0.000	0.000	259.95	0.00	0.00
17	118.00	ACU-A20-N RET	4	19.959	21.955	0.63	0.80	0.35	4.80	0.000	0.000	12.43	0.00	0.00
18	118.00	T-Arm	3	19.959	21.955	0.56	0.75	19.41	1440.00	0.000	0.000	681.70	0.00	0.00
19	118.00	800 MHz	4	19.959	21.955	0.54	0.80	5.66	285.60	0.000	0.000	198.83	0.00	0.00
20	118.00	800MHz Filter	2	19.959	21.955	1.00	1.00	1.56	21.12	0.000	0.000	54.80	0.00	0.00
21	118.00	RRUS 4415 B25	2	19.959	21.955	0.54	0.80	1.76	110.40	0.000	0.000	61.76	0.00	0.00
22	118.00	APXVAALL24_43-U-NA20	2	19.959	21.955	0.58	0.80	23.64	237.60	0.000	0.000	830.44	0.00	0.00
23	118.00	AIR32	2	19.959	21.955	0.70	0.80	9.06	317.28	0.000	0.000	318.33	0.00	0.00
24	118.00	AIR6449 B41	2	19.959	21.955	0.57	0.80	6.42	247.20	0.000	0.000	225.47	0.00	0.00
25	115.00	Tree Pole Branchs	1	19.813	21.794	1.00	1.00	76.00	120.00	0.000	0.000	2650.15	0.00	0.00
26	105.00	Tree Pole Branchs	1	19.304	21.235	1.00	1.00	70.00	120.00	0.000	0.000	2378.30	0.00	0.00
27	100.00	7770	3	19.037	20.941	0.58	0.80	9.64	126.00	0.000	0.000	322.86	0.00	0.00
28	100.00	T-Arm	3	19.037	20.941	0.56	0.75	16.88	1440.00	0.000	0.000	565.40	0.00	0.00
29	100.00	DMP65R-BU6DA	4	19.037	20.941	0.58	0.80	29.69	381.12	0.000	0.000	994.79	0.00	0.00
30	100.00	DMP65R-BU4DA	2	19.037	20.941	0.61	0.80	9.73	162.96	0.000	0.000	325.94	0.00	0.00
31	100.00	4449 B5/B12	3	19.037	20.941	0.54	0.80	3.17	255.60	0.000	0.000	106.14	0.00	0.00
32	100.00	ABT-DF-DMADBH	3	19.037	20.941	1.00	1.00	0.15	3.96	0.000	0.000	5.03	0.00	0.00
33	100.00	DC6-48-60-18-8F	3	19.037	20.941	1.00	1.00	2.76	114.48	0.000	0.000	92.47	0.00	0.00
34	100.00	LGP21401	12	19.037	20.941	0.80	0.80	12.38	203.04	0.000	0.000	414.93	0.00	0.00
35	100.00	LGP21901	6	19.037	20.941	0.60	0.80	0.83	39.60	0.000	0.000	27.74	0.00	0.00
36	100.00	8843 B2/B66A	3	19.037	20.941	0.54	0.80	2.64	259.20	0.000	0.000	88.36	0.00	0.00
37	100.00	RRUS 4478 B14	3	19.037	20.941	0.54	0.80	2.96	215.64	0.000	0.000	99.13	0.00	0.00
38	95.00	Tree Pole Branchs	1	18.760	20.636	1.00	1.00	80.00	120.00	0.000	0.000	2641.44	0.00	0.00
39	85.00	Tree Pole Branchs	1	18.173	19.991	1.00	1.00	80.00	120.00	0.000	0.000	2558.81	0.00	0.00
40	77.50	Tree Pole Branchs	1	17.700	19.470	1.00	1.00	66.00	120.00	0.000	0.000	2056.04	0.00	0.00
							Totals:		**11,141.24**			**24,994.07**		

Total Applied Force Summary

Structure:	CT02408-S-SBA		**Code:**	EIA/TIA-222-G	8/20/2021
Site Name:	Sharon 3 CT		**Exposure:**	B	
Height:	130.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 11

Load Case: 1.2D + 1.6W 89 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.60

Iterations 17

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
5.00		463.19	2162.75	0.00	0.00
10.00		449.69	2104.13	0.00	0.00
15.00		436.20	2045.51	0.00	0.00
20.00		422.70	1986.89	0.00	0.00
25.00		409.20	1928.27	0.00	0.00
25.50		40.18	189.60	0.00	0.00
30.00		360.97	3235.49	0.00	0.00
33.50		281.94	2450.84	0.00	0.00
35.00		120.24	544.60	0.00	0.00
40.00		406.85	1777.22	0.00	0.00
45.00		405.61	1718.60	0.00	0.00
50.00		402.37	1659.98	0.00	0.00
55.00		397.42	1601.36	0.00	0.00
60.00		390.96	1542.74	0.00	0.00
65.00		383.16	1484.12	0.00	0.00
70.00		374.15	1425.50	0.00	0.00
75.00		370.41	2418.30	0.00	0.00
75.50		36.14	235.84	0.00	0.00
77.50	(1) attachments	2199.93	589.79	0.00	0.00
80.00		177.48	575.94	0.00	0.00
85.00	(1) attachments	2906.34	1234.19	0.00	0.00
90.00		334.76	1063.94	0.00	0.00
95.00	(1) attachments	2962.63	1133.70	0.00	0.00
100.00	(45) attachments	3349.68	4032.95	0.00	0.00
105.00	(1) attachments	2670.17	819.24	0.00	0.00
110.00		276.20	657.37	0.00	0.00
115.00	(1) attachments	2910.05	735.50	0.00	0.00
118.00	(27) attachments	3484.69	4445.61	0.00	0.00
120.00		94.79	212.83	0.00	0.00
125.00	(1) attachments	2356.93	544.88	0.00	0.00
130.00	(26) attachments	4403.36	3548.12	0.00	0.00
	Totals:	**34,278.37**	**50,105.84**	**0.00**	**0.00**

Calculated Forces

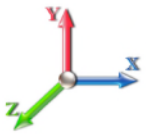
Structure:	CT02408-S-SBA	**Code:**	EIA/TIA-222-G	8/20/2021	
Site Name:	Sharon 3 CT	**Exposure:**	B		
Height:	130.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 12	

Tower Engineering Solutions

Load Case: 1.2D + 1.6W 89 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.60



Iterations 17

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-50.08	-34.31	0.00	-3295.0	0.00	3295.07	6164.54	3082.27	18158.3	9092.69	0.00	0.000	0.000	0.371
5.00	-47.88	-33.91	0.00	-3123.5	0.00	3123.52	6071.55	3035.77	17364.5	8695.20	0.04	-0.071	0.000	0.367
10.00	-45.73	-33.51	0.00	-2953.9	0.00	2953.99	5973.49	2986.74	16572.6	8298.64	0.15	-0.144	0.000	0.364
15.00	-43.64	-33.13	0.00	-2786.4	0.00	2786.44	5870.37	2935.18	15783.8	7903.67	0.35	-0.220	0.000	0.360
20.00	-41.61	-32.75	0.00	-2620.8	0.00	2620.80	5762.18	2881.09	14999.6	7510.95	0.62	-0.299	0.000	0.356
25.00	-39.66	-32.36	0.00	-2457.0	0.00	2457.03	5648.92	2824.46	14221.0	7121.12	0.98	-0.380	0.000	0.352
25.50	-39.45	-32.35	0.00	-2440.8	0.00	2440.85	5637.32	2818.66	14143.6	7082.32	1.02	-0.389	0.000	0.352
30.00	-36.18	-32.01	0.00	-2295.2	0.00	2295.26	5530.60	2765.30	13449.6	6734.83	1.42	-0.465	0.000	0.347
33.50	-33.70	-31.73	0.00	-2183.2	0.00	2183.23	5496.96	2748.48	13237.5	6628.61	1.79	-0.526	0.000	0.336
35.00	-33.13	-31.64	0.00	-2135.6	0.00	2135.63	5460.05	2730.03	13008.4	6513.87	1.96	-0.553	0.000	0.334
40.00	-31.31	-31.26	0.00	-1977.4	0.00	1977.42	5333.74	2666.87	12250.7	6134.50	2.58	-0.639	0.000	0.328
45.00	-29.55	-30.88	0.00	-1821.1	0.00	1821.11	5202.37	2601.19	11503.5	5760.34	3.30	-0.727	0.000	0.322
50.00	-27.84	-30.50	0.00	-1666.6	0.00	1666.69	5065.93	2532.97	10768.1	5392.07	4.11	-0.818	0.000	0.315
55.00	-26.20	-30.12	0.00	-1514.1	0.00	1514.18	4924.43	2462.22	10045.7	5030.32	5.02	-0.911	0.000	0.306
60.00	-24.61	-29.75	0.00	-1363.5	0.00	1363.55	4777.86	2388.93	9337.60	4675.74	6.03	-1.006	0.000	0.297
65.00	-23.09	-29.38	0.00	-1214.8	0.00	1214.81	4626.23	2313.11	8645.15	4329.00	7.13	-1.103	0.000	0.286
70.00	-21.62	-29.01	0.00	-1067.9	0.00	1067.92	4469.53	2234.76	7969.63	3990.74	8.34	-1.201	0.000	0.273
75.00	-19.18	-28.61	0.00	-922.86	0.00	922.86	4273.25	2136.63	7253.77	3632.28	9.65	-1.299	0.000	0.259
75.50	-18.94	-28.57	0.00	-908.55	0.00	908.55	3583.96	1791.98	6182.69	3095.94	9.79	-1.309	0.000	0.299
77.50	-18.37	-26.38	0.00	-851.40	0.00	851.40	3533.61	1766.81	5974.82	2991.85	10.35	-1.350	0.000	0.290
80.00	-17.77	-26.21	0.00	-785.46	0.00	785.46	3469.54	1734.77	5717.95	2863.23	11.07	-1.405	0.000	0.280
85.00	-16.56	-23.30	0.00	-654.41	0.00	654.41	3337.60	1668.80	5214.74	2611.24	12.60	-1.510	0.000	0.256
90.00	-15.47	-22.97	0.00	-537.89	0.00	537.89	3186.12	1593.06	4705.25	2356.12	14.24	-1.612	0.000	0.233
95.00	-14.39	-20.00	0.00	-423.06	0.00	423.06	3003.28	1501.64	4178.09	2092.15	15.98	-1.710	0.000	0.207
95.00	-14.39	-20.00	0.00	-423.06	0.00	423.06	2438.11	1219.05	3404.33	1704.70	15.98	-1.710	0.000	0.254
100.00	-10.43	-16.54	0.00	-323.08	0.00	323.08	2329.09	1164.55	3052.69	1528.62	17.83	-1.800	0.000	0.216
105.00	-9.68	-13.86	0.00	-240.37	0.00	240.37	2202.60	1101.30	2698.31	1351.16	19.77	-1.898	0.000	0.182
110.00	-9.01	-13.58	0.00	-171.06	0.00	171.06	2050.23	1025.12	2336.11	1169.79	21.80	-1.985	0.000	0.151
115.00	-8.37	-10.65	0.00	-103.17	0.00	103.17	1897.87	948.93	2000.01	1001.49	23.92	-2.057	0.000	0.108
118.00	-4.05	-7.01	0.00	-71.22	0.00	71.22	1806.45	903.22	1810.87	906.78	25.23	-2.092	0.000	0.081
120.00	-3.84	-6.91	0.00	-57.21	0.00	57.21	1745.50	872.75	1690.00	846.25	26.11	-2.112	0.000	0.070
120.00	-3.84	-6.91	0.00	-57.21	0.00	57.21	583.92	291.96	571.48	339.36	26.11	-2.112	0.000	0.176
125.00	-3.38	-4.53	0.00	-22.67	0.00	22.67	583.92	291.96	571.48	339.36	28.34	-2.146	0.000	0.073
130.00	0.00	-4.40	0.00	0.00	0.00	0.00	583.92	291.96	571.48	339.36	30.60	-2.158	0.000	0.000

Wind Loading - Shaft

Structure:	CT02408-S-SBA	**Code:**	EIA/TIA-222-G	8/20/2021	
Site Name:	Sharon 3 CT	**Exposure:**	B		
Height:	130.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 13	

Load Case: 0.9D + 1.6W 89 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60

Iterations 17

Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.70	13.485	14.83	453.67	0.650	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.70	13.485	14.83	440.64	0.650	0.000	5.00	30.025	19.52	463.2	0.0	1499.6
10.00		1.00	0.70	13.485	14.83	427.61	0.650	0.000	5.00	29.151	18.95	449.7	0.0	1455.7
15.00		1.00	0.70	13.485	14.83	414.58	0.650	0.000	5.00	28.276	18.38	436.2	0.0	1411.7
20.00		1.00	0.70	13.485	14.83	401.55	0.650	0.000	5.00	27.401	17.81	422.7	0.0	1367.7
25.00		1.00	0.70	13.485	14.83	388.53	0.650	0.000	5.00	26.526	17.24	409.2	0.0	1323.8
25.50	Bot - Section 2	1.00	0.70	13.485	14.83	387.22	0.650	0.000	0.50	2.604	1.69	40.2	0.0	130.0
30.00		1.00	0.70	13.496	14.85	375.66	0.650	0.000	4.50	23.380	15.20	361.0	0.0	2316.4
33.50	Top - Section 1	1.00	0.72	13.928	15.32	372.36	0.650	0.000	3.50	17.694	11.50	281.9	0.0	1752.4
35.00		1.00	0.73	14.104	15.51	376.33	0.650	0.000	1.50	7.452	4.84	120.2	0.0	371.7
40.00		1.00	0.76	14.652	16.12	370.00	0.650	0.000	5.00	24.272	15.78	406.8	0.0	1210.5
45.00		1.00	0.79	15.154	16.67	362.47	0.650	0.000	5.00	23.397	15.21	405.6	0.0	1166.5
50.00		1.00	0.81	15.617	17.18	353.94	0.650	0.000	5.00	22.522	14.64	402.4	0.0	1122.5
55.00		1.00	0.83	16.048	17.65	344.58	0.650	0.000	5.00	21.647	14.07	397.4	0.0	1078.6
60.00		1.00	0.85	16.452	18.10	334.50	0.650	0.000	5.00	20.772	13.50	391.0	0.0	1034.6
65.00		1.00	0.87	16.833	18.52	323.79	0.650	0.000	5.00	19.898	12.93	383.2	0.0	990.6
70.00	Bot - Section 3	1.00	0.89	17.193	18.91	312.53	0.650	0.000	5.00	19.023	12.36	374.1	0.0	946.7
75.00		1.00	0.91	17.535	19.29	300.77	0.650	0.000	5.00	18.465	12.00	370.4	0.0	1691.3
75.50	Top - Section 2	1.00	0.91	17.568	19.33	299.57	0.650	0.000	0.50	1.798	1.17	36.1	0.0	164.6
77.50	Appurtenance(s)	1.00	0.92	17.700	19.47	300.13	0.650	0.000	2.00	7.106	4.62	143.9	0.0	303.4
80.00		1.00	0.93	17.861	19.65	294.00	0.650	0.000	2.50	8.686	5.65	177.5	0.0	370.7
85.00	Appurtenance(s)	1.00	0.94	18.173	19.99	281.43	0.650	0.000	5.00	16.716	10.87	347.5	0.0	713.2
90.00		1.00	0.96	18.473	20.32	268.49	0.650	0.000	5.00	15.841	10.30	334.8	0.0	675.5
95.00	Top - Section 3	1.00	0.97	18.760	20.64	255.20	0.650	0.000	5.00	14.966	9.73	321.2	0.0	637.8
100.00	Appurtenance(s)	1.00	0.99	19.037	20.94	241.60	0.650	0.000	5.00	14.091	9.16	306.9	0.0	501.1
105.00	Appurtenance(s)	1.00	1.00	19.304	21.23	227.70	0.650	0.000	5.00	13.216	8.59	291.9	0.0	469.7
110.00		1.00	1.02	19.563	21.52	213.53	0.650	0.000	5.00	12.341	8.02	276.2	0.0	438.3
115.00	Appurtenance(s)	1.00	1.03	19.813	21.79	199.10	0.650	0.000	5.00	11.467	7.45	259.9	0.0	406.9
118.00	Appurtenance(s)	1.00	1.04	19.959	21.95	190.32	0.650	0.000	3.00	6.460	4.20	147.5	0.0	229.0
120.00	Top - Section 4	1.00	1.04	20.055	22.06	184.42	0.650	0.000	2.00	4.132	2.69	94.8	0.0	146.4
125.00	Appurtenance(s)	1.00	1.05	20.290	22.32	182.68	0.600	0.000	5.00	10.000	6.00	214.3	0.0	285.6
130.00	Appurtenance(s)	1.00	1.07	20.519	22.57	183.71	0.600	0.000	5.00	10.000	6.00	216.7	0.0	285.6
								Totals:	**130.00**			**9,284.3**		**26,498.1**

Discrete Appurtenance Forces

Structure:	CT02408-S-SBA	**Code:**	EIA/TIA-222-G	8/20/2021	
Site Name:	Sharon 3 CT	**Exposure:**	B		
Height:	130.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 14	

Tower Engineering Solutions

Load Case: 0.9D + 1.6W 89 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60

Iterations 17

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orient Factor x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	130.00	Samsung MT6407-77A	3	20.519	22.571	0.56	0.80	7.88	214.38	0.000	0.000	284.55	0.00	0.00
2	130.00	T-Arm	3	20.519	22.571	0.56	0.75	16.88	1080.00	0.000	0.000	609.42	0.00	0.00
3	130.00	BXA-70063-6CF_2	2	20.519	22.571	0.58	0.80	8.84	30.60	0.000	0.000	319.31	0.00	0.00
4	130.00	BXA-70040-6CF	1	20.519	22.571	1.00	1.00	14.40	34.20	0.000	0.000	520.03	0.00	0.00
5	130.00	Andrew JAHH-65-R3B-V2	4	20.519	22.571	0.66	0.80	24.20	227.88	0.000	0.000	873.81	0.00	0.00
6	130.00	Tree Pole Branchs	1	20.519	22.571	1.00	1.00	12.00	90.00	0.000	0.000	433.36	0.00	0.00
7	130.00	Commscope	3	20.519	22.571	0.45	0.90	0.50	28.08	0.000	0.000	18.04	0.00	0.00
8	130.00	Samsung B2-B66A	3	20.519	22.571	0.54	0.80	3.01	227.88	0.000	0.000	108.59	0.00	0.00
9	130.00	Samsung B5-B13	3	20.519	22.571	0.54	0.80	3.01	189.81	0.000	0.000	108.59	0.00	0.00
10	130.00	RFS DB-C1-12C-24AB-OZ	1	20.519	22.571	1.00	1.00	4.06	28.80	0.000	0.000	146.62	0.00	0.00
11	130.00	Andrew JAHH-45C-R3B	2	20.519	22.571	0.67	0.90	21.17	190.80	0.000	0.000	764.36	0.00	0.00
12	125.00	Tree Pole Branchs	1	20.290	22.319	1.00	1.00	60.00	90.00	0.000	0.000	2142.67	0.00	0.00
13	118.00	PRK-1245L (kicker kit)	1	19.959	21.955	1.00	1.00	9.50	418.42	0.000	0.000	333.72	0.00	0.00
14	118.00	4449 B71 + B85	2	19.959	21.955	0.54	0.80	2.11	131.76	0.000	0.000	74.18	0.00	0.00
15	118.00	(3) Pipe 2.0 STD	1	19.959	21.955	1.00	1.00	8.13	272.12	0.000	0.000	285.59	0.00	0.00
16	118.00	PRK-SFS-L	2	19.959	21.955	1.00	1.00	7.40	252.00	0.000	0.000	259.95	0.00	0.00
17	118.00	ACU-A20-N RET	4	19.959	21.955	0.63	0.80	0.35	3.60	0.000	0.000	12.43	0.00	0.00
18	118.00	T-Arm	3	19.959	21.955	0.56	0.75	19.41	1080.00	0.000	0.000	681.70	0.00	0.00
19	118.00	800 MHz	4	19.959	21.955	0.54	0.80	5.66	214.20	0.000	0.000	198.83	0.00	0.00
20	118.00	800MHz Filter	2	19.959	21.955	1.00	1.00	1.56	15.84	0.000	0.000	54.80	0.00	0.00
21	118.00	RRUS 4415 B25	2	19.959	21.955	0.54	0.80	1.76	82.80	0.000	0.000	61.76	0.00	0.00
22	118.00	APXVAALL24_43-U-NA20	2	19.959	21.955	0.58	0.80	23.64	178.20	0.000	0.000	830.44	0.00	0.00
23	118.00	AIR32	2	19.959	21.955	0.70	0.80	9.06	237.96	0.000	0.000	318.33	0.00	0.00
24	118.00	AIR6449 B41	2	19.959	21.955	0.57	0.80	6.42	185.40	0.000	0.000	225.47	0.00	0.00
25	115.00	Tree Pole Branchs	1	19.813	21.794	1.00	1.00	76.00	90.00	0.000	0.000	2650.15	0.00	0.00
26	105.00	Tree Pole Branchs	1	19.304	21.235	1.00	1.00	70.00	90.00	0.000	0.000	2378.30	0.00	0.00
27	100.00	7770	3	19.037	20.941	0.58	0.80	9.64	94.50	0.000	0.000	322.86	0.00	0.00
28	100.00	T-Arm	3	19.037	20.941	0.56	0.75	16.88	1080.00	0.000	0.000	565.40	0.00	0.00
29	100.00	DMP65R-BU6DA	4	19.037	20.941	0.58	0.80	29.69	285.84	0.000	0.000	994.79	0.00	0.00
30	100.00	DMP65R-BU4DA	2	19.037	20.941	0.61	0.80	9.73	122.22	0.000	0.000	325.94	0.00	0.00
31	100.00	4449 B5/B12	3	19.037	20.941	0.54	0.80	3.17	191.70	0.000	0.000	106.14	0.00	0.00
32	100.00	ABT-DF-DMADBH	3	19.037	20.941	1.00	1.00	0.15	2.97	0.000	0.000	5.03	0.00	0.00
33	100.00	DC6-48-60-18-8F	3	19.037	20.941	1.00	1.00	2.76	85.86	0.000	0.000	92.47	0.00	0.00
34	100.00	LGP21401	12	19.037	20.941	0.80	0.80	12.38	152.28	0.000	0.000	414.93	0.00	0.00
35	100.00	LGP21901	6	19.037	20.941	0.60	0.80	0.83	29.70	0.000	0.000	27.74	0.00	0.00
36	100.00	8843 B2/B66A	3	19.037	20.941	0.54	0.80	2.64	194.40	0.000	0.000	88.36	0.00	0.00
37	100.00	RRUS 4478 B14	3	19.037	20.941	0.54	0.80	2.96	161.73	0.000	0.000	99.13	0.00	0.00
38	95.00	Tree Pole Branchs	1	18.760	20.636	1.00	1.00	80.00	90.00	0.000	0.000	2641.44	0.00	0.00
39	85.00	Tree Pole Branchs	1	18.173	19.991	1.00	1.00	80.00	90.00	0.000	0.000	2558.81	0.00	0.00
40	77.50	Tree Pole Branchs	1	17.700	19.470	1.00	1.00	66.00	90.00	0.000	0.000	2056.04	0.00	0.00
							Totals:		**8,355.93**			**24,994.07**		

Total Applied Force Summary

Structure:	CT02408-S-SBA		**Code:**	EIA/TIA-222-G	8/20/2021
Site Name:	Sharon 3 CT		**Exposure:**	B	
Height:	130.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 15

Load Case: 0.9D + 1.6W 89 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60

Iterations 17

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
5.00		463.19	1622.06	0.00	0.00
10.00		449.69	1578.10	0.00	0.00
15.00		436.20	1534.13	0.00	0.00
20.00		422.70	1490.17	0.00	0.00
25.00		409.20	1446.21	0.00	0.00
25.50		40.18	142.20	0.00	0.00
30.00		360.97	2426.62	0.00	0.00
33.50		281.94	1838.13	0.00	0.00
35.00		120.24	408.45	0.00	0.00
40.00		406.85	1332.92	0.00	0.00
45.00		405.61	1288.95	0.00	0.00
50.00		402.37	1244.99	0.00	0.00
55.00		397.42	1201.02	0.00	0.00
60.00		390.96	1157.06	0.00	0.00
65.00		383.16	1113.09	0.00	0.00
70.00		374.15	1069.13	0.00	0.00
75.00		370.41	1813.73	0.00	0.00
75.50		36.14	176.88	0.00	0.00
77.50	(1) attachments	2199.93	442.35	0.00	0.00
80.00		177.48	431.95	0.00	0.00
85.00	(1) attachments	2906.34	925.64	0.00	0.00
90.00		334.76	797.96	0.00	0.00
95.00	(1) attachments	2962.63	850.27	0.00	0.00
100.00	(45) attachments	3349.68	3024.72	0.00	0.00
105.00	(1) attachments	2670.17	614.43	0.00	0.00
110.00		276.20	493.03	0.00	0.00
115.00	(1) attachments	2910.05	551.62	0.00	0.00
118.00	(27) attachments	3484.69	3334.20	0.00	0.00
120.00		94.79	159.63	0.00	0.00
125.00	(1) attachments	2356.93	408.66	0.00	0.00
130.00	(26) attachments	4403.36	2661.09	0.00	0.00
	Totals:	**34,278.37**	**37,579.38**	**0.00**	**0.00**

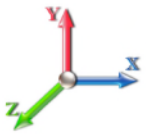
Calculated Forces

Structure:	CT02408-S-SBA	**Code:**	EIA/TIA-222-G	8/20/2021	
Site Name:	Sharon 3 CT	**Exposure:**	B		
Height:	130.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 16	

Load Case: 0.9D + 1.6W 89 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60



Iterations 17

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-37.56	-34.30	0.00	-3284.1	0.00	3284.11	6164.54	3082.27	18158.3	9092.69	0.00	0.000	0.000	0.367
5.00	-35.89	-33.88	0.00	-3112.6	0.00	3112.60	6071.55	3035.77	17364.5	8695.20	0.04	-0.071	0.000	0.364
10.00	-34.27	-33.47	0.00	-2943.1	0.00	2943.19	5973.49	2986.74	16572.6	8298.64	0.15	-0.144	0.000	0.361
15.00	-32.70	-33.08	0.00	-2775.8	0.00	2775.82	5870.37	2935.18	15783.8	7903.67	0.35	-0.220	0.000	0.357
20.00	-31.16	-32.69	0.00	-2610.4	0.00	2610.43	5762.18	2881.09	14999.6	7510.95	0.62	-0.298	0.000	0.353
25.00	-29.69	-32.30	0.00	-2446.9	0.00	2446.98	5648.92	2824.46	14221.0	7121.12	0.97	-0.379	0.000	0.349
25.50	-29.53	-32.28	0.00	-2430.8	0.00	2430.83	5637.32	2818.66	14143.6	7082.32	1.01	-0.387	0.000	0.349
30.00	-27.06	-31.93	0.00	-2285.5	0.00	2285.58	5530.60	2765.30	13449.6	6734.83	1.42	-0.463	0.000	0.344
33.50	-25.20	-31.65	0.00	-2173.8	0.00	2173.82	5496.96	2748.48	13237.5	6628.61	1.78	-0.524	0.000	0.333
35.00	-24.77	-31.55	0.00	-2126.3	0.00	2126.35	5460.05	2730.03	13008.4	6513.87	1.95	-0.551	0.000	0.331
40.00	-23.39	-31.17	0.00	-1968.5	0.00	1968.58	5333.74	2666.87	12250.7	6134.50	2.57	-0.637	0.000	0.325
45.00	-22.06	-30.78	0.00	-1812.7	0.00	1812.75	5202.37	2601.19	11503.5	5760.34	3.29	-0.724	0.000	0.319
50.00	-20.77	-30.40	0.00	-1658.8	0.00	1658.84	5065.93	2532.97	10768.1	5392.07	4.10	-0.815	0.000	0.312
55.00	-19.53	-30.01	0.00	-1506.8	0.00	1506.87	4924.43	2462.22	10045.7	5030.32	5.00	-0.907	0.000	0.304
60.00	-18.33	-29.63	0.00	-1356.8	0.00	1356.81	4777.86	2388.93	9337.60	4675.74	6.00	-1.002	0.000	0.294
65.00	-17.17	-29.26	0.00	-1208.6	0.00	1208.65	4626.23	2313.11	8645.15	4329.00	7.11	-1.098	0.000	0.283
70.00	-16.06	-28.89	0.00	-1062.3	0.00	1062.37	4469.53	2234.76	7969.63	3990.74	8.31	-1.195	0.000	0.270
75.00	-14.23	-28.49	0.00	-917.92	0.00	917.92	4273.25	2136.63	7253.77	3632.28	9.61	-1.293	0.000	0.256
75.50	-14.04	-28.46	0.00	-903.67	0.00	903.67	3583.96	1791.98	6182.69	3095.94	9.75	-1.303	0.000	0.296
77.50	-13.63	-26.26	0.00	-846.76	0.00	846.76	3533.61	1766.81	5974.82	2991.85	10.31	-1.344	0.000	0.287
80.00	-13.16	-26.09	0.00	-781.10	0.00	781.10	3469.54	1734.77	5717.95	2863.23	11.03	-1.399	0.000	0.277
85.00	-12.27	-23.19	0.00	-650.65	0.00	650.65	3337.60	1668.80	5214.74	2611.24	12.55	-1.504	0.000	0.253
90.00	-11.44	-22.85	0.00	-534.72	0.00	534.72	3186.12	1593.06	4705.25	2356.12	14.18	-1.605	0.000	0.231
95.00	-10.65	-19.88	0.00	-420.48	0.00	420.48	3003.28	1501.64	4178.09	2092.15	15.92	-1.702	0.000	0.205
95.00	-10.65	-19.88	0.00	-420.48	0.00	420.48	2438.11	1219.05	3404.33	1704.70	15.92	-1.702	0.000	0.251
100.00	-7.70	-16.45	0.00	-321.08	0.00	321.08	2329.09	1164.55	3052.69	1528.62	17.75	-1.791	0.000	0.214
105.00	-7.15	-13.78	0.00	-238.82	0.00	238.82	2202.60	1101.30	2698.31	1351.16	19.68	-1.888	0.000	0.180
110.00	-6.64	-13.49	0.00	-169.95	0.00	169.95	2050.23	1025.12	2336.11	1169.79	21.71	-1.975	0.000	0.149
115.00	-6.19	-10.57	0.00	-102.49	0.00	102.49	1897.87	948.93	2000.01	1001.49	23.82	-2.047	0.000	0.106
118.00	-2.98	-6.97	0.00	-70.78	0.00	70.78	1806.45	903.22	1810.87	906.78	25.12	-2.082	0.000	0.080
120.00	-2.82	-6.87	0.00	-56.84	0.00	56.84	1745.50	872.75	1690.00	846.25	25.99	-2.101	0.000	0.069
120.00	-2.82	-6.87	0.00	-56.84	0.00	56.84	583.92	291.96	571.48	339.36	25.99	-2.101	0.000	0.173
125.00	-2.49	-4.50	0.00	-22.50	0.00	22.50	583.92	291.96	571.48	339.36	28.21	-2.135	0.000	0.071
130.00	0.00	-4.40	0.00	0.00	0.00	0.00	583.92	291.96	571.48	339.36	30.46	-2.147	0.000	0.000

Wind Loading - Shaft

Structure:	CT02408-S-SBA	**Code:**	EIA/TIA-222-G	8/20/2021	
Site Name:	Sharon 3 CT	**Exposure:**	B		
Height:	130.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 17	

Load Case: 1.2D + 1.0Di + 1.0Wi 40 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00

Iterations 16

Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.70	2.724	3.00	0.00	1.200	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.70	2.724	3.00	0.00	1.200	1.656	5.00	31.405	37.69	112.9	735.1	2734.6
10.00		1.00	0.70	2.724	3.00	0.00	1.200	1.775	5.00	30.630	36.76	110.1	766.4	2707.3
15.00		1.00	0.70	2.724	3.00	0.00	1.200	1.848	5.00	29.816	35.78	107.2	775.2	2657.5
20.00		1.00	0.70	2.724	3.00	0.00	1.200	1.902	5.00	28.986	34.78	104.2	774.1	2597.7
25.00		1.00	0.70	2.724	3.00	0.00	1.200	1.945	5.00	28.147	33.78	101.2	767.1	2532.1
25.50	Bot - Section 2	1.00	0.70	2.724	3.00	0.00	1.200	1.949	0.50	2.767	3.32	9.9	76.6	249.9
30.00		1.00	0.70	2.726	3.00	0.00	1.200	1.981	4.50	24.866	29.84	89.5	690.3	3778.9
33.50	Top - Section 1	1.00	0.72	2.813	3.09	0.00	1.200	2.003	3.50	18.863	22.64	70.1	530.5	2867.0
35.00		1.00	0.73	2.849	3.13	0.00	1.200	2.012	1.50	7.955	9.55	29.9	226.1	721.7
40.00		1.00	0.76	2.960	3.26	0.00	1.200	2.039	5.00	25.971	31.16	101.5	737.8	2351.8
45.00		1.00	0.79	3.061	3.37	0.00	1.200	2.063	5.00	25.116	30.14	101.5	720.4	2275.8
50.00		1.00	0.81	3.155	3.47	0.00	1.200	2.085	5.00	24.259	29.11	101.0	701.6	2198.3
55.00		1.00	0.83	3.242	3.57	0.00	1.200	2.105	5.00	23.401	28.08	100.1	681.6	2119.7
60.00		1.00	0.85	3.323	3.66	0.00	1.200	2.123	5.00	22.542	27.05	98.9	660.5	2040.0
65.00		1.00	0.87	3.400	3.74	0.00	1.200	2.140	5.00	21.681	26.02	97.3	638.6	1959.5
70.00	Bot - Section 3	1.00	0.89	3.473	3.82	0.00	1.200	2.156	5.00	20.820	24.98	95.4	615.9	1878.2
75.00		1.00	0.91	3.542	3.90	0.00	1.200	2.171	5.00	20.274	24.33	94.8	602.6	2857.7
75.50	Top - Section 2	1.00	0.91	3.549	3.90	0.00	1.200	2.173	0.50	1.979	2.38	9.3	60.0	279.5
77.50	Appurtenance(s)	1.00	0.92	3.575	3.93	0.00	1.200	2.178	2.00	7.832	9.40	37.0	236.3	640.8
80.00		1.00	0.93	3.608	3.97	0.00	1.200	2.185	2.50	9.596	11.52	45.7	289.3	783.7
85.00	Appurtenance(s)	1.00	0.94	3.671	4.04	0.00	1.200	2.198	5.00	18.548	22.26	89.9	554.2	1505.1
90.00		1.00	0.96	3.731	4.10	0.00	1.200	2.211	5.00	17.683	21.22	87.1	529.2	1429.9
95.00	Top - Section 3	1.00	0.97	3.789	4.17	0.00	1.200	2.223	5.00	16.818	20.18	84.1	503.7	1354.1
100.00	Appurtenance(s)	1.00	0.99	3.845	4.23	0.00	1.200	2.234	5.00	15.953	19.14	81.0	477.8	1145.9
105.00	Appurtenance(s)	1.00	1.00	3.899	4.29	0.00	1.200	2.245	5.00	15.087	18.10	77.7	451.5	1077.7
110.00		1.00	1.02	3.952	4.35	0.00	1.200	2.256	5.00	14.221	17.07	74.2	424.8	1009.1
115.00	Appurtenance(s)	1.00	1.03	4.002	4.40	0.00	1.200	2.266	5.00	13.355	16.03	70.5	397.8	940.2
118.00	Appurtenance(s)	1.00	1.04	4.032	4.43	0.00	1.200	2.272	3.00	7.596	9.12	40.4	228.8	534.2
120.00	Top - Section 4	1.00	1.04	4.051	4.46	0.00	1.200	2.276	2.00	4.890	5.87	26.1	148.2	343.4
125.00	Appurtenance(s)	1.00	1.05	4.099	4.51	0.00	1.200	2.285	5.00	11.904	14.28	64.4	366.9	747.7
130.00	Appurtenance(s)	1.00	1.07	4.145	4.56	0.00	1.200	2.294	5.00	11.912	14.29	65.2	368.4	749.3
								Totals:	**130.00**			**2,378.1**		**51,068.2**

Discrete Appurtenance Forces

Structure:	CT02408-S-SBA	**Code:**	EIA/TIA-222-G	8/20/2021	
Site Name:	Sharon 3 CT	**Exposure:**	B		
Height:	130.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 18	

Tower Engineering Solutions

Load Case: 1.2D + 1.0Di + 1.0Wi 40 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00

Iterations 16

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orient Factor x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	130.00	Samsung MT6407-77A	3	4.145	4.559	0.56	0.80	10.00	788.92	0.000	0.000	45.60	0.00	0.00
2	130.00	T-Arm	3	4.145	4.559	0.56	0.75	36.23	2301.07	0.000	0.000	165.18	0.00	0.00
3	130.00	BXA-70063-6CF_2	2	4.145	4.559	0.58	0.80	13.08	345.64	0.000	0.000	59.66	0.00	0.00
4	130.00	BXA-70040-6CF	1	4.145	4.559	1.00	1.00	18.13	342.47	0.000	0.000	82.64	0.00	0.00
5	130.00	Andrew JAHH-65-R3B-V2	4	4.145	4.559	0.66	0.80	28.98	1582.15	0.000	0.000	132.15	0.00	0.00
6	130.00	Tree Pole Branchs	1	4.145	4.559	1.00	1.00	14.75	837.56	0.000	0.000	67.26	0.00	0.00
7	130.00	Commscope	3	4.145	4.559	0.45	0.90	1.04	132.04	0.000	0.000	4.72	0.00	0.00
8	130.00	Samsung B2-B66A	3	4.145	4.559	0.54	0.80	4.26	629.25	0.000	0.000	19.40	0.00	0.00
9	130.00	Samsung B5-B13	3	4.145	4.559	0.54	0.80	4.26	549.18	0.000	0.000	19.40	0.00	0.00
10	130.00	RFS DB-C1-12C-24AB-OZ	1	4.145	4.559	1.00	1.00	5.14	159.55	0.000	0.000	23.44	0.00	0.00
11	130.00	Andrew JAHH-45C-R3B	2	4.145	4.559	0.67	0.90	24.28	1175.97	0.000	0.000	110.70	0.00	0.00
12	125.00	Tree Pole Branchs	1	4.099	4.508	1.00	1.00	73.71	833.97	0.000	0.000	332.31	0.00	0.00
13	118.00	PRK-1245L (kicker kit)	1	4.032	4.435	1.00	1.00	22.45	885.27	0.000	0.000	99.56	0.00	0.00
14	118.00	4449 B71 + B85	2	4.032	4.435	0.54	0.80	2.91	209.21	0.000	0.000	12.89	0.00	0.00
15	118.00	(3) Pipe 2.0 STD	1	4.032	4.435	1.00	1.00	18.47	1132.28	0.000	0.000	81.92	0.00	0.00
16	118.00	PRK-SFS-L	2	4.032	4.435	1.00	1.00	17.49	673.99	0.000	0.000	77.55	0.00	0.00
17	118.00	ACU-A20-N RET	4	4.032	4.435	0.63	0.80	1.33	21.97	0.000	0.000	5.90	0.00	0.00
18	118.00	T-Arm	3	4.032	4.435	0.56	0.75	41.45	2290.46	0.000	0.000	183.82	0.00	0.00
19	118.00	800 MHz	4	4.032	4.435	0.54	0.80	8.89	602.16	0.000	0.000	39.43	0.00	0.00
20	118.00	800MHz Filter	2	4.032	4.435	1.00	1.00	3.24	57.05	0.000	0.000	14.39	0.00	0.00
21	118.00	RRUS 4415 B25	2	4.032	4.435	0.54	0.80	2.48	198.61	0.000	0.000	10.98	0.00	0.00
22	118.00	APXVAALL24_43-U-NA20	2	4.032	4.435	0.58	0.80	26.56	1393.41	0.000	0.000	117.80	0.00	0.00
23	118.00	AIR32	2	4.032	4.435	0.70	0.80	11.22	824.16	0.000	0.000	49.75	0.00	0.00
24	118.00	AIR6449 B41	2	4.032	4.435	0.57	0.80	7.82	540.78	0.000	0.000	34.70	0.00	0.00
25	115.00	Tree Pole Branchs	1	4.002	4.402	1.00	1.00	93.22	826.38	0.000	0.000	410.38	0.00	0.00
26	105.00	Tree Pole Branchs	1	3.899	4.289	1.00	1.00	85.72	818.17	0.000	0.000	367.67	0.00	0.00
27	100.00	7770	3	3.845	4.230	0.58	0.80	12.07	678.78	0.000	0.000	51.05	0.00	0.00
28	100.00	T-Arm	3	3.845	4.230	0.56	0.75	35.73	2272.56	0.000	0.000	151.13	0.00	0.00
29	100.00	DMP65R-BU6DA	4	3.845	4.230	0.58	0.80	34.20	1914.30	0.000	0.000	144.66	0.00	0.00
30	100.00	DMP65R-BU4DA	2	3.845	4.230	0.61	0.80	11.65	968.25	0.000	0.000	49.28	0.00	0.00
31	100.00	4449 B5/B12	3	3.845	4.230	0.54	0.80	4.29	419.84	0.000	0.000	18.17	0.00	0.00
32	100.00	ABT-DF-DMADBH	3	3.845	4.230	1.00	1.00	0.89	10.43	0.000	0.000	3.76	0.00	0.00
33	100.00	DC6-48-60-18-8F	3	3.845	4.230	1.00	1.00	4.44	298.85	0.000	0.000	18.79	0.00	0.00
34	100.00	LGP21401	12	3.845	4.230	0.80	0.80	22.66	501.97	0.000	0.000	95.83	0.00	0.00
35	100.00	LGP21901	6	3.845	4.230	0.60	0.80	2.52	85.48	0.000	0.000	10.68	0.00	0.00
36	100.00	8843 B2/B66A	3	3.845	4.230	0.54	0.80	3.66	403.13	0.000	0.000	15.48	0.00	0.00
37	100.00	RRUS 4478 B14	3	3.845	4.230	0.54	0.80	4.04	361.07	0.000	0.000	17.10	0.00	0.00
38	95.00	Tree Pole Branchs	1	3.789	4.168	1.00	1.00	97.78	809.22	0.000	0.000	407.61	0.00	0.00
39	85.00	Tree Pole Branchs	1	3.671	4.038	1.00	1.00	97.59	799.39	0.000	0.000	394.06	0.00	0.00
40	77.50	Tree Pole Branchs	1	3.575	3.933	1.00	1.00	80.38	791.30	0.000	0.000	316.11	0.00	0.00
							Totals:		**30,466.21**			**4,262.90**		

Total Applied Force Summary

Structure:	CT02408-S-SBA		**Code:**	EIA/TIA-222-G	8/20/2021
Site Name:	Sharon 3 CT		**Exposure:**	B	
Height:	130.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 19

Load Case: 1.2D + 1.0Di + 1.0Wi 40 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00

Iterations 16

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
5.00		112.92	2897.87	0.00	0.00
10.00		110.13	2870.54	0.00	0.00
15.00		107.20	2820.76	0.00	0.00
20.00		104.22	2760.99	0.00	0.00
25.00		101.20	2695.40	0.00	0.00
25.50		9.95	266.22	0.00	0.00
30.00		89.48	3925.81	0.00	0.00
33.50		70.05	2981.31	0.00	0.00
35.00		29.92	770.65	0.00	0.00
40.00		101.46	2515.05	0.00	0.00
45.00		101.48	2439.01	0.00	0.00
50.00		101.02	2361.56	0.00	0.00
55.00		100.13	2282.92	0.00	0.00
60.00		98.88	2203.27	0.00	0.00
65.00		97.31	2122.73	0.00	0.00
70.00		95.44	2041.41	0.00	0.00
75.00		94.79	3020.93	0.00	0.00
75.50		9.27	295.87	0.00	0.00
77.50	(1) attachments	353.07	1497.39	0.00	0.00
80.00		45.70	865.28	0.00	0.00
85.00	(1) attachments	483.94	2467.77	0.00	0.00
90.00		87.10	1593.12	0.00	0.00
95.00	(1) attachments	491.73	2326.62	0.00	0.00
100.00	(45) attachments	656.91	9223.79	0.00	0.00
105.00	(1) attachments	445.33	1968.88	0.00	0.00
110.00		74.18	1082.16	0.00	0.00
115.00	(1) attachments	480.93	1839.63	0.00	0.00
118.00	(27) attachments	769.10	9407.38	0.00	0.00
120.00		26.15	361.00	0.00	0.00
125.00	(1) attachments	396.71	1625.72	0.00	0.00
130.00	(26) attachments	795.32	9637.10	0.00	0.00
	Totals:	**6,641.02**	**85,168.14**	**0.00**	**0.00**

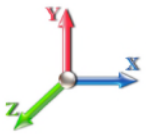
Calculated Forces

Structure:	CT02408-S-SBA	**Code:**	EIA/TIA-222-G	8/20/2021	
Site Name:	Sharon 3 CT	**Exposure:**	B		
Height:	130.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 20	

Load Case: 1.2D + 1.0Di + 1.0Wi 40 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 16

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-85.17	-6.65	0.00	-627.04	0.00	627.04	6164.54	3082.27	18158.3	9092.69	0.00	0.000	0.000	0.083
5.00	-82.27	-6.56	0.00	-593.79	0.00	593.79	6071.55	3035.77	17364.5	8695.20	0.01	-0.014	0.000	0.082
10.00	-79.40	-6.47	0.00	-561.01	0.00	561.01	5973.49	2986.74	16572.6	8298.64	0.03	-0.027	0.000	0.081
15.00	-76.57	-6.38	0.00	-528.68	0.00	528.68	5870.37	2935.18	15783.8	7903.67	0.07	-0.042	0.000	0.080
20.00	-73.81	-6.29	0.00	-496.80	0.00	496.80	5762.18	2881.09	14999.6	7510.95	0.12	-0.057	0.000	0.079
25.00	-71.11	-6.20	0.00	-465.35	0.00	465.35	5648.92	2824.46	14221.0	7121.12	0.19	-0.072	0.000	0.078
25.50	-70.85	-6.20	0.00	-462.25	0.00	462.25	5637.32	2818.66	14143.6	7082.32	0.19	-0.074	0.000	0.078
30.00	-66.92	-6.12	0.00	-434.37	0.00	434.37	5530.60	2765.30	13449.6	6734.83	0.27	-0.088	0.000	0.077
33.50	-63.94	-6.05	0.00	-412.97	0.00	412.97	5496.96	2748.48	13237.5	6628.61	0.34	-0.100	0.000	0.074
35.00	-63.17	-6.03	0.00	-403.90	0.00	403.90	5460.05	2730.03	13008.4	6513.87	0.37	-0.105	0.000	0.074
40.00	-60.65	-5.94	0.00	-373.75	0.00	373.75	5333.74	2666.87	12250.7	6134.50	0.49	-0.121	0.000	0.072
45.00	-58.21	-5.85	0.00	-344.04	0.00	344.04	5202.37	2601.19	11503.5	5760.34	0.63	-0.138	0.000	0.071
50.00	-55.85	-5.76	0.00	-314.78	0.00	314.78	5065.93	2532.97	10768.1	5392.07	0.78	-0.155	0.000	0.069
55.00	-53.56	-5.67	0.00	-285.98	0.00	285.98	4924.43	2462.22	10045.7	5030.32	0.95	-0.173	0.000	0.068
60.00	-51.36	-5.58	0.00	-257.62	0.00	257.62	4777.86	2388.93	9337.60	4675.74	1.14	-0.190	0.000	0.066
65.00	-49.23	-5.49	0.00	-229.71	0.00	229.71	4626.23	2313.11	8645.15	4329.00	1.35	-0.209	0.000	0.064
70.00	-47.19	-5.41	0.00	-202.25	0.00	202.25	4469.53	2234.76	7969.63	3990.74	1.58	-0.227	0.000	0.061
75.00	-44.17	-5.31	0.00	-175.22	0.00	175.22	4273.25	2136.63	7253.77	3632.28	1.83	-0.246	0.000	0.059
75.50	-43.87	-5.30	0.00	-172.57	0.00	172.57	3583.96	1791.98	6182.69	3095.94	1.86	-0.248	0.000	0.068
77.50	-42.38	-4.95	0.00	-161.98	0.00	161.98	3533.61	1766.81	5974.82	2991.85	1.96	-0.256	0.000	0.066
80.00	-41.51	-4.91	0.00	-149.61	0.00	149.61	3469.54	1734.77	5717.95	2863.23	2.10	-0.266	0.000	0.064
85.00	-39.04	-4.43	0.00	-125.07	0.00	125.07	3337.60	1668.80	5214.74	2611.24	2.39	-0.286	0.000	0.060
90.00	-37.45	-4.34	0.00	-102.95	0.00	102.95	3186.12	1593.06	4705.25	2356.12	2.70	-0.306	0.000	0.055
95.00	-35.12	-3.85	0.00	-81.24	0.00	81.24	3003.28	1501.64	4178.09	2092.15	3.03	-0.324	0.000	0.051
95.00	-35.12	-3.85	0.00	-81.24	0.00	81.24	2438.11	1219.05	3404.33	1704.70	3.03	-0.324	0.000	0.062
100.00	-25.90	-3.15	0.00	-61.99	0.00	61.99	2329.09	1164.55	3052.69	1528.62	3.38	-0.342	0.000	0.052
105.00	-23.94	-2.70	0.00	-46.26	0.00	46.26	2202.60	1101.30	2698.31	1351.16	3.75	-0.360	0.000	0.045
110.00	-22.85	-2.62	0.00	-32.78	0.00	32.78	2050.23	1025.12	2336.11	1169.79	4.13	-0.377	0.000	0.039
115.00	-21.02	-2.13	0.00	-19.67	0.00	19.67	1897.87	948.93	2000.01	1001.49	4.54	-0.391	0.000	0.031
118.00	-11.62	-1.30	0.00	-13.28	0.00	13.28	1806.45	903.22	1810.87	906.78	4.79	-0.398	0.000	0.021
120.00	-11.25	-1.27	0.00	-10.68	0.00	10.68	1745.50	872.75	1690.00	846.25	4.95	-0.401	0.000	0.019
120.00	-11.25	-1.27	0.00	-10.68	0.00	10.68	583.92	291.96	571.48	339.36	4.95	-0.401	0.000	0.051
125.00	-9.63	-0.86	0.00	-4.32	0.00	4.32	583.92	291.96	571.48	339.36	5.38	-0.408	0.000	0.029
130.00	0.00	-0.80	0.00	0.00	0.00	0.00	583.92	291.96	571.48	339.36	5.81	-0.410	0.000	0.000

Seismic Segment Forces (Factored)

Structure:	CT02408-S-SBA	**Code:**	EIA/TIA-222-G	8/20/2021	
Site Name:	Sharon 3 CT	**Exposure:**	B		
Height:	130.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 21	

Load Case:	1.2D + 1.0E					**Iterations**	16
Gust Response Factor	1.10			**Sds**	0.19	**Ss**	0.18
Dead Load Factor	1.20	**Seismic Load Factor**	1.00	**Sd1**	0.10	**S1**	0.07
Wind Load Factor	0.00	**Structure Frequency (f1)**	0.67	**SA**	0.07	**Seismic Importance Factor**	1.00

Top Elev (ft)	Description	Wz (lb)	a	b	c	Lateral Fs (lb)	R: 1.50
0.00		0.00	0.00	0.00	0.00	0.00	
5.00		1666.2	0.00	0.04	0.02	19.76	
10.00		1617.3	0.01	0.06	0.03	29.15	
15.00		1568.5	0.03	0.07	0.04	33.43	
20.00		1519.6	0.04	0.07	0.04	35.31	
25.00		1470.8	0.07	0.07	0.04	36.25	
25.50	Bot - Section 2	144.40	0.07	0.07	0.04	3.58	
30.00		2573.8	0.10	0.07	0.04	66.76	
33.50	Top - Section 1	1947.1	0.13	0.07	0.03	52.26	
35.00		413.02	0.14	0.07	0.03	11.24	
40.00		1344.9	0.18	0.07	0.03	38.13	
45.00		1296.1	0.23	0.06	0.02	37.61	
50.00		1247.2	0.28	0.05	0.01	35.95	
55.00		1198.4	0.34	0.04	0.01	32.76	
60.00		1149.5	0.40	0.02	0.01	27.86	
65.00		1100.7	0.47	-0.01	0.01	21.44	
70.00	Bot - Section 3	1051.8	0.55	-0.03	0.01	14.13	
75.00		1879.2	0.63	-0.06	0.02	13.15	
75.50	Top - Section 2	182.93	0.64	-0.07	0.02	1.17	
77.50	Appurtenance(s)	437.07	0.67	-0.08	0.02	1.77	
80.00		411.92	0.72	-0.09	0.03	0.64	
85.00	Appurtenance(s)	892.44	0.81	-0.11	0.06	-1.12	
90.00		750.57	0.91	-0.12	0.09	0.10	
95.00	Top - Section 3	808.70	1.01	-0.11	0.14	5.68	
100.00	Appurtenance(s)	3224.7	1.12	-0.06	0.20	65.32	
105.00	Appurtenance(s)	621.85	1.23	0.04	0.28	25.12	
110.00		486.96	1.35	0.20	0.39	32.98	
115.00	Appurtenance(s)	552.07	1.48	0.45	0.52	56.54	
118.00	Appurtenance(s)	3668.1	1.56	0.65	0.61	465.26	
120.00	Top - Section 4	162.68	1.61	0.81	0.68	23.53	
125.00	Appurtenance(s)	417.36	1.75	1.31	0.89	81.15	
130.00	Appurtenance(s)	2920.0	1.89	1.98	1.14	735.73	
	Totals:	**38,726.7**				**2,002.6**	**Total Wind:** **34,278.4**

Seismic Base Shear is Less Than 50% of Wind Force - An Analysis is NOT Required

Calculated Forces

Structure:	CT02408-S-SBA	**Code:**	EIA/TIA-222-G	8/20/2021	
Site Name:	Sharon 3 CT	**Exposure:**	B		
Height:	130.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 22	

Tower Engineering Solutions

Load Case:	1.2D + 1.0E							**Iterations**	16
Gust Response Factor	1.10			**Sds**	0.19			**Ss**	0.18
Dead Load Factor	1.20	**Seismic Load Factor**	1.00	**Sd1**	0.10			**S1**	0.07
Wind Load Factor	0.00	**Structure Frequency (f1)**	0.67	**SA**	0.07			**Seismic Importance Factor**	1.00

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-50.11	-2.01	0.00	-205.17	0.00	205.17	6164.54	3082.27	18158.3	9092.69		0.00	0.00	0.031
5.00	-47.94	-1.99	0.00	-195.15	0.00	195.15	6071.55	3035.77	17364.5	8695.20		0.00	0.00	0.030
10.00	-45.84	-1.96	0.00	-185.20	0.00	185.20	5973.49	2986.74	16572.6	8298.64		0.01	-0.01	0.030
15.00	-43.79	-1.93	0.00	-175.38	0.00	175.38	5870.37	2935.18	15783.8	7903.67		0.02	-0.01	0.030
20.00	-41.81	-1.90	0.00	-165.71	0.00	165.71	5762.18	2881.09	14999.6	7510.95		0.04	-0.02	0.029
25.00	-39.88	-1.87	0.00	-156.20	0.00	156.20	5648.92	2824.46	14221.0	7121.12		0.06	-0.02	0.029
25.50	-39.69	-1.86	0.00	-155.27	0.00	155.27	5637.32	2818.66	14143.6	7082.32		0.06	-0.02	0.029
30.00	-36.45	-1.80	0.00	-146.88	0.00	146.88	5530.60	2765.30	13449.6	6734.83		0.09	-0.03	0.028
33.50	-34.00	-1.75	0.00	-140.58	0.00	140.58	5496.96	2748.48	13237.5	6628.61		0.11	-0.03	0.027
35.00	-33.46	-1.74	0.00	-137.96	0.00	137.96	5460.05	2730.03	13008.4	6513.87		0.12	-0.03	0.027
40.00	-31.68	-1.70	0.00	-129.27	0.00	129.27	5333.74	2666.87	12250.7	6134.50		0.16	-0.04	0.027
45.00	-29.96	-1.67	0.00	-120.76	0.00	120.76	5202.37	2601.19	11503.5	5760.34		0.21	-0.05	0.027
50.00	-28.30	-1.63	0.00	-112.43	0.00	112.43	5065.93	2532.97	10768.1	5392.07		0.26	-0.05	0.026
55.00	-26.70	-1.60	0.00	-104.27	0.00	104.27	4924.43	2462.22	10045.7	5030.32		0.32	-0.06	0.026
60.00	-25.16	-1.57	0.00	-96.27	0.00	96.27	4777.86	2388.93	9337.60	4675.74		0.38	-0.07	0.026
65.00	-23.67	-1.55	0.00	-88.40	0.00	88.40	4626.23	2313.11	8645.15	4329.00		0.46	-0.07	0.026
70.00	-22.25	-1.54	0.00	-80.64	0.00	80.64	4469.53	2234.76	7969.63	3990.74		0.54	-0.08	0.025
75.00	-19.83	-1.53	0.00	-72.94	0.00	72.94	4273.25	2136.63	7253.77	3632.28		0.62	-0.09	0.025
75.50	-19.59	-1.52	0.00	-72.17	0.00	72.17	3583.96	1791.98	6182.69	3095.94		0.63	-0.09	0.029
77.50	-19.00	-1.52	0.00	-69.12	0.00	69.12	3533.61	1766.81	5974.82	2991.85		0.67	-0.09	0.028
80.00	-18.43	-1.52	0.00	-65.32	0.00	65.32	3469.54	1734.77	5717.95	2863.23		0.72	-0.10	0.028
85.00	-17.19	-1.52	0.00	-57.70	0.00	57.70	3337.60	1668.80	5214.74	2611.24		0.82	-0.10	0.027
90.00	-16.13	-1.52	0.00	-50.08	0.00	50.08	3186.12	1593.06	4705.25	2356.12		0.94	-0.11	0.026
95.00	-14.99	-1.52	0.00	-42.46	0.00	42.46	3003.28	1501.64	4178.09	2092.15		1.06	-0.12	0.025
95.00	-14.99	-1.52	0.00	-42.46	0.00	42.46	2438.11	1219.05	3404.33	1704.70		1.06	-0.12	0.031
100.00	-10.96	-1.45	0.00	-34.86	0.00	34.86	2329.09	1164.55	3052.69	1528.62		1.20	-0.13	0.028
105.00	-10.14	-1.42	0.00	-27.63	0.00	27.63	2202.60	1101.30	2698.31	1351.16		1.34	-0.14	0.025
110.00	-9.48	-1.39	0.00	-20.52	0.00	20.52	2050.23	1025.12	2336.11	1169.79		1.50	-0.15	0.022
115.00	-8.75	-1.33	0.00	-13.58	0.00	13.58	1897.87	948.93	2000.01	1001.49		1.67	-0.16	0.018
118.00	-4.30	-0.85	0.00	-9.59	0.00	9.59	1806.45	903.22	1810.87	906.78		1.77	-0.17	0.013
120.00	-4.09	-0.83	0.00	-7.88	0.00	7.88	1745.50	872.75	1690.00	846.25		1.84	-0.17	0.012
120.00	-4.09	-0.83	0.00	-7.88	0.00	7.88	583.92	291.96	571.48	339.36		1.84	-0.17	0.030
125.00	-3.55	-0.75	0.00	-3.73	0.00	3.73	583.92	291.96	571.48	339.36		2.02	-0.18	0.017
130.00	0.00	-0.74	0.00	0.00	0.00	0.00	583.92	291.96	571.48	339.36		2.21	-0.18	0.000

Seismic Segment Forces (Factored)

Structure:	CT02408-S-SBA	**Code:**	EIA/TIA-222-G	8/20/2021	
Site Name:	Sharon 3 CT	**Exposure:**	B		
Height:	130.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 23	

Load Case:	0.9D + 1.0E							**Iterations**	16
Gust Response Factor	1.10				**Sds**	0.19		**Ss**	0.18
Dead Load Factor	0.90	**Seismic Load Factor**	1.00		**Sd1**	0.10		**S1**	0.07
Wind Load Factor	0.00	**Structure Frequency (f1)**	0.67		**SA**	0.07	**Seismic Importance Factor**		1.00

Top Elev (ft)	Description	Wz (lb)	a	b	c	Lateral Fs (lb)	R: 1.50
0.00		0.00	0.00	0.00	0.00	0.00	
5.00		1666.2	0.00	0.04	0.02	19.76	
10.00		1617.3	0.01	0.06	0.03	29.15	
15.00		1568.5	0.03	0.07	0.04	33.43	
20.00		1519.6	0.04	0.07	0.04	35.31	
25.00		1470.8	0.07	0.07	0.04	36.25	
25.50	Bot - Section 2	144.40	0.07	0.07	0.04	3.58	
30.00		2573.8	0.10	0.07	0.04	66.76	
33.50	Top - Section 1	1947.1	0.13	0.07	0.03	52.26	
35.00		413.02	0.14	0.07	0.03	11.24	
40.00		1344.9	0.18	0.07	0.03	38.13	
45.00		1296.1	0.23	0.06	0.02	37.61	
50.00		1247.2	0.28	0.05	0.01	35.95	
55.00		1198.4	0.34	0.04	0.01	32.76	
60.00		1149.5	0.40	0.02	0.01	27.86	
65.00		1100.7	0.47	-0.01	0.01	21.44	
70.00	Bot - Section 3	1051.8	0.55	-0.03	0.01	14.13	
75.00		1879.2	0.63	-0.06	0.02	13.15	
75.50	Top - Section 2	182.93	0.64	-0.07	0.02	1.17	
77.50	Appurtenance(s)	437.07	0.67	-0.08	0.02	1.77	
80.00		411.92	0.72	-0.09	0.03	0.64	
85.00	Appurtenance(s)	892.44	0.81	-0.11	0.06	-1.12	
90.00		750.57	0.91	-0.12	0.09	0.10	
95.00	Top - Section 3	808.70	1.01	-0.11	0.14	5.68	
100.00	Appurtenance(s)	3224.7	1.12	-0.06	0.20	65.32	
105.00	Appurtenance(s)	621.85	1.23	0.04	0.28	25.12	
110.00		486.96	1.35	0.20	0.39	32.98	
115.00	Appurtenance(s)	552.07	1.48	0.45	0.52	56.54	
118.00	Appurtenance(s)	3668.1	1.56	0.65	0.61	465.26	
120.00	Top - Section 4	162.68	1.61	0.81	0.68	23.53	
125.00	Appurtenance(s)	417.36	1.75	1.31	0.89	81.15	
130.00	Appurtenance(s)	2920.0	1.89	1.98	1.14	735.73	
	Totals:	**38,726.7**				**2,002.6**	**Total Wind:** **34,278.4**

Seismic Base Shear is Less Than 50% of Wind Force - An Analysis is NOT Required

Calculated Forces

Structure:	CT02408-S-SBA	**Code:**	EIA/TIA-222-G	8/20/2021	
Site Name:	Sharon 3 CT	**Exposure:**	B		
Height:	130.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 24	

Tower Engineering Solutions

Load Case: 0.9D + 1.0E

Iterations 16

Gust Response Factor	1.10			**Sds**	0.19			**Ss**	0.18
Dead Load Factor	0.90	**Seismic Load Factor**	1.00	**Sd1**	0.10			**S1**	0.07
Wind Load Factor	0.00	**Structure Frequency (f1)**	0.67	**SA**	0.07	**Seismic Importance Factor**			1.00

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-37.58	-2.01	0.00	-204.42	0.00	204.42	6164.54	3082.27	18158.3	9092.69		0.00	0.00	0.029
5.00	-35.96	-1.99	0.00	-194.40	0.00	194.40	6071.55	3035.77	17364.5	8695.20		0.00	0.00	0.028
10.00	-34.38	-1.96	0.00	-184.46	0.00	184.46	5973.49	2986.74	16572.6	8298.64		0.01	-0.01	0.028
15.00	-32.84	-1.93	0.00	-174.65	0.00	174.65	5870.37	2935.18	15783.8	7903.67		0.02	-0.01	0.028
20.00	-31.35	-1.90	0.00	-165.00	0.00	165.00	5762.18	2881.09	14999.6	7510.95		0.04	-0.02	0.027
25.00	-29.91	-1.86	0.00	-155.51	0.00	155.51	5648.92	2824.46	14221.0	7121.12		0.06	-0.02	0.027
25.50	-29.77	-1.86	0.00	-154.58	0.00	154.58	5637.32	2818.66	14143.6	7082.32		0.06	-0.02	0.027
30.00	-27.34	-1.79	0.00	-146.21	0.00	146.21	5530.60	2765.30	13449.6	6734.83		0.09	-0.03	0.027
33.50	-25.50	-1.74	0.00	-139.93	0.00	139.93	5496.96	2748.48	13237.5	6628.61		0.11	-0.03	0.026
35.00	-25.09	-1.73	0.00	-137.32	0.00	137.32	5460.05	2730.03	13008.4	6513.87		0.12	-0.03	0.026
40.00	-23.76	-1.70	0.00	-128.66	0.00	128.66	5333.74	2666.87	12250.7	6134.50		0.16	-0.04	0.025
45.00	-22.47	-1.66	0.00	-120.18	0.00	120.18	5202.37	2601.19	11503.5	5760.34		0.21	-0.05	0.025
50.00	-21.22	-1.62	0.00	-111.88	0.00	111.88	5065.93	2532.97	10768.1	5392.07		0.26	-0.05	0.025
55.00	-20.02	-1.59	0.00	-103.76	0.00	103.76	4924.43	2462.22	10045.7	5030.32		0.32	-0.06	0.025
60.00	-18.87	-1.57	0.00	-95.79	0.00	95.79	4777.86	2388.93	9337.60	4675.74		0.38	-0.07	0.024
65.00	-17.75	-1.55	0.00	-87.96	0.00	87.96	4626.23	2313.11	8645.15	4329.00		0.45	-0.07	0.024
70.00	-16.68	-1.53	0.00	-80.23	0.00	80.23	4469.53	2234.76	7969.63	3990.74		0.53	-0.08	0.024
75.00	-14.87	-1.52	0.00	-72.57	0.00	72.57	4273.25	2136.63	7253.77	3632.28		0.62	-0.09	0.023
75.50	-14.69	-1.52	0.00	-71.81	0.00	71.81	3583.96	1791.98	6182.69	3095.94		0.63	-0.09	0.027
77.50	-14.25	-1.52	0.00	-68.78	0.00	68.78	3533.61	1766.81	5974.82	2991.85		0.67	-0.09	0.027
80.00	-13.82	-1.52	0.00	-64.99	0.00	64.99	3469.54	1734.77	5717.95	2863.23		0.72	-0.10	0.027
85.00	-12.89	-1.52	0.00	-57.42	0.00	57.42	3337.60	1668.80	5214.74	2611.24		0.82	-0.10	0.026
90.00	-12.09	-1.52	0.00	-49.84	0.00	49.84	3186.12	1593.06	4705.25	2356.12		0.93	-0.11	0.025
95.00	-11.24	-1.51	0.00	-42.26	0.00	42.26	3003.28	1501.64	4178.09	2092.15		1.06	-0.12	0.024
95.00	-11.24	-1.51	0.00	-42.26	0.00	42.26	2438.11	1219.05	3404.33	1704.70		1.06	-0.12	0.029
100.00	-8.22	-1.44	0.00	-34.70	0.00	34.70	2329.09	1164.55	3052.69	1528.62		1.19	-0.13	0.026
105.00	-7.60	-1.41	0.00	-27.51	0.00	27.51	2202.60	1101.30	2698.31	1351.16		1.34	-0.14	0.024
110.00	-7.11	-1.38	0.00	-20.43	0.00	20.43	2050.23	1025.12	2336.11	1169.79		1.49	-0.15	0.021
115.00	-6.56	-1.32	0.00	-13.52	0.00	13.52	1897.87	948.93	2000.01	1001.49		1.66	-0.16	0.017
118.00	-3.23	-0.85	0.00	-9.55	0.00	9.55	1806.45	903.22	1810.87	906.78		1.76	-0.17	0.012
120.00	-3.07	-0.83	0.00	-7.85	0.00	7.85	1745.50	872.75	1690.00	846.25		1.83	-0.17	0.011
120.00	-3.07	-0.83	0.00	-7.85	0.00	7.85	583.92	291.96	571.48	339.36		1.83	-0.17	0.028
125.00	-2.66	-0.74	0.00	-3.72	0.00	3.72	583.92	291.96	571.48	339.36		2.01	-0.17	0.016
130.00	0.00	-0.74	0.00	0.00	0.00	0.00	583.92	291.96	571.48	339.36		2.20	-0.18	0.000

Wind Loading - Shaft

Structure:	CT02408-S-SBA	**Code:**	EIA/TIA-222-G	8/20/2021	
Site Name:	Sharon 3 CT	**Exposure:**	B		
Height:	130.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 25	

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00

Iterations 16

Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.70	6.129	6.74	305.84	0.650	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.70	6.129	6.74	297.06	0.650	0.000	5.00	30.025	19.52	131.6	0.0	1666.2
10.00		1.00	0.70	6.129	6.74	288.28	0.650	0.000	5.00	29.151	18.95	127.7	0.0	1617.4
15.00		1.00	0.70	6.129	6.74	279.49	0.650	0.000	5.00	28.276	18.38	123.9	0.0	1568.5
20.00		1.00	0.70	6.129	6.74	270.71	0.650	0.000	5.00	27.401	17.81	120.1	0.0	1519.7
25.00		1.00	0.70	6.129	6.74	261.93	0.650	0.000	5.00	26.526	17.24	116.2	0.0	1470.8
25.50	Bot - Section 2	1.00	0.70	6.129	6.74	261.05	0.650	0.000	0.50	2.604	1.69	11.4	0.0	144.4
30.00		1.00	0.70	6.134	6.75	253.25	0.650	0.000	4.50	23.380	15.20	102.5	0.0	2573.8
33.50	Top - Section 1	1.00	0.72	6.330	6.96	251.03	0.650	0.000	3.50	17.694	11.50	80.1	0.0	1947.1
35.00		1.00	0.73	6.410	7.05	253.71	0.650	0.000	1.50	7.452	4.84	34.2	0.0	413.0
40.00		1.00	0.76	6.659	7.33	249.44	0.650	0.000	5.00	24.272	15.78	115.6	0.0	1345.0
45.00		1.00	0.79	6.887	7.58	244.36	0.650	0.000	5.00	23.397	15.21	115.2	0.0	1296.1
50.00		1.00	0.81	7.098	7.81	238.61	0.650	0.000	5.00	22.522	14.64	114.3	0.0	1247.3
55.00		1.00	0.83	7.294	8.02	232.30	0.650	0.000	5.00	21.647	14.07	112.9	0.0	1198.4
60.00		1.00	0.85	7.477	8.22	225.51	0.650	0.000	5.00	20.772	13.50	111.1	0.0	1149.6
65.00		1.00	0.87	7.650	8.42	218.29	0.650	0.000	5.00	19.898	12.93	108.8	0.0	1100.7
70.00	Bot - Section 3	1.00	0.89	7.814	8.60	210.69	0.650	0.000	5.00	19.023	12.36	106.3	0.0	1051.9
75.00		1.00	0.91	7.969	8.77	202.76	0.650	0.000	5.00	18.465	12.00	105.2	0.0	1879.2
75.50	Top - Section 2	1.00	0.91	7.985	8.78	201.95	0.650	0.000	0.50	1.798	1.17	10.3	0.0	182.9
77.50	Appurtenance(s)	1.00	0.92	8.044	8.85	202.34	0.650	0.000	2.00	7.106	4.62	40.9	0.0	337.1
80.00		1.00	0.93	8.118	8.93	198.20	0.650	0.000	2.50	8.686	5.65	50.4	0.0	411.9
85.00	Appurtenance(s)	1.00	0.94	8.260	9.09	189.73	0.650	0.000	5.00	16.716	10.87	98.7	0.0	792.4
90.00		1.00	0.96	8.396	9.24	181.00	0.650	0.000	5.00	15.841	10.30	95.1	0.0	750.6
95.00	Top - Section 3	1.00	0.97	8.526	9.38	172.05	0.650	0.000	5.00	14.966	9.73	91.2	0.0	708.7
100.00	Appurtenance(s)	1.00	0.99	8.652	9.52	162.88	0.650	0.000	5.00	14.091	9.16	87.2	0.0	556.7
105.00	Appurtenance(s)	1.00	1.00	8.774	9.65	153.51	0.650	0.000	5.00	13.216	8.59	82.9	0.0	521.9
110.00		1.00	1.02	8.891	9.78	143.95	0.650	0.000	5.00	12.341	8.02	78.5	0.0	487.0
115.00	Appurtenance(s)	1.00	1.03	9.005	9.91	134.22	0.650	0.000	5.00	11.467	7.45	73.8	0.0	452.1
118.00	Appurtenance(s)	1.00	1.04	9.071	9.98	128.30	0.650	0.000	3.00	6.460	4.20	41.9	0.0	254.5
120.00	Top - Section 4	1.00	1.04	9.115	10.03	124.33	0.650	0.000	2.00	4.132	2.69	26.9	0.0	162.7
125.00	Appurtenance(s)	1.00	1.05	9.222	10.14	123.16	0.600	0.000	5.00	10.000	6.00	60.9	0.0	317.4
130.00	Appurtenance(s)	1.00	1.07	9.326	10.26	123.85	0.600	0.000	5.00	10.000	6.00	61.5	0.0	317.4
								Totals:	**130.00**			**2,637.3**		**29,442.4**

Discrete Appurtenance Forces

Structure:	CT02408-S-SBA	**Code:**	EIA/TIA-222-G	8/20/2021	
Site Name:	Sharon 3 CT	**Exposure:**	B		
Height:	130.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 26	

Tower Engineering Solutions

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00

Iterations 16

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orient Factor x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	130.00	Samsung MT6407-77A	3	9.326	10.258	0.56	0.80	7.88	238.20	0.000	0.000	80.83	0.00	0.00
2	130.00	T-Arm	3	9.326	10.258	0.56	0.75	16.88	1200.00	0.000	0.000	173.11	0.00	0.00
3	130.00	BXA-70063-6CF_2	2	9.326	10.258	0.58	0.80	8.84	34.00	0.000	0.000	90.70	0.00	0.00
4	130.00	BXA-70040-6CF	1	9.326	10.258	1.00	1.00	14.40	38.00	0.000	0.000	147.72	0.00	0.00
5	130.00	Andrew JAHH-65-R3B-V2	4	9.326	10.258	0.66	0.80	24.20	253.20	0.000	0.000	248.21	0.00	0.00
6	130.00	Tree Pole Branchs	1	9.326	10.258	1.00	1.00	12.00	100.00	0.000	0.000	123.10	0.00	0.00
7	130.00	Commscope	3	9.326	10.258	0.45	0.90	0.50	31.20	0.000	0.000	5.12	0.00	0.00
8	130.00	Samsung B2-B66A	3	9.326	10.258	0.54	0.80	3.01	253.20	0.000	0.000	30.85	0.00	0.00
9	130.00	Samsung B5-B13	3	9.326	10.258	0.54	0.80	3.01	210.90	0.000	0.000	30.85	0.00	0.00
10	130.00	RFS DB-C1-12C-24AB-OZ	1	9.326	10.258	1.00	1.00	4.06	32.00	0.000	0.000	41.65	0.00	0.00
11	130.00	Andrew JAHH-45C-R3B	2	9.326	10.258	0.67	0.90	21.17	212.00	0.000	0.000	217.12	0.00	0.00
12	125.00	Tree Pole Branchs	1	9.222	10.144	1.00	1.00	60.00	100.00	0.000	0.000	608.64	0.00	0.00
13	118.00	PRK-1245L (kicker kit)	1	9.071	9.978	1.00	1.00	9.50	464.91	0.000	0.000	94.79	0.00	0.00
14	118.00	4449 B71 + B85	2	9.071	9.978	0.54	0.80	2.11	146.40	0.000	0.000	21.07	0.00	0.00
15	118.00	(3) Pipe 2.0 STD	1	9.071	9.978	1.00	1.00	8.13	302.36	0.000	0.000	81.12	0.00	0.00
16	118.00	PRK-SFS-L	2	9.071	9.978	1.00	1.00	7.40	280.00	0.000	0.000	73.84	0.00	0.00
17	118.00	ACU-A20-N RET	4	9.071	9.978	0.63	0.80	0.35	4.00	0.000	0.000	3.53	0.00	0.00
18	118.00	T-Arm	3	9.071	9.978	0.56	0.75	19.41	1200.00	0.000	0.000	193.64	0.00	0.00
19	118.00	800 MHz	4	9.071	9.978	0.54	0.80	5.66	238.00	0.000	0.000	56.48	0.00	0.00
20	118.00	800MHz Filter	2	9.071	9.978	1.00	1.00	1.56	17.60	0.000	0.000	15.57	0.00	0.00
21	118.00	RRUS 4415 B25	2	9.071	9.978	0.54	0.80	1.76	92.00	0.000	0.000	17.54	0.00	0.00
22	118.00	APXVAALL24_43-U-NA20	2	9.071	9.978	0.58	0.80	23.64	198.00	0.000	0.000	235.89	0.00	0.00
23	118.00	AIR32	2	9.071	9.978	0.70	0.80	9.06	264.40	0.000	0.000	90.42	0.00	0.00
24	118.00	AIR6449 B41	2	9.071	9.978	0.57	0.80	6.42	206.00	0.000	0.000	64.04	0.00	0.00
25	115.00	Tree Pole Branchs	1	9.005	9.905	1.00	1.00	76.00	100.00	0.000	0.000	752.79	0.00	0.00
26	105.00	Tree Pole Branchs	1	8.774	9.651	1.00	1.00	70.00	100.00	0.000	0.000	675.57	0.00	0.00
27	100.00	7770	3	8.652	9.517	0.58	0.80	9.64	105.00	0.000	0.000	91.71	0.00	0.00
28	100.00	T-Arm	3	8.652	9.517	0.56	0.75	16.88	1200.00	0.000	0.000	160.61	0.00	0.00
29	100.00	DMP65R-BU6DA	4	8.652	9.517	0.58	0.80	29.69	317.60	0.000	0.000	282.58	0.00	0.00
30	100.00	DMP65R-BU4DA	2	8.652	9.517	0.61	0.80	9.73	135.80	0.000	0.000	92.59	0.00	0.00
31	100.00	4449 B5/B12	3	8.652	9.517	0.54	0.80	3.17	213.00	0.000	0.000	30.15	0.00	0.00
32	100.00	ABT-DF-DMADBH	3	8.652	9.517	1.00	1.00	0.15	3.30	0.000	0.000	1.43	0.00	0.00
33	100.00	DC6-48-60-18-8F	3	8.652	9.517	1.00	1.00	2.76	95.40	0.000	0.000	26.27	0.00	0.00
34	100.00	LGP21401	12	8.652	9.517	0.80	0.80	12.38	169.20	0.000	0.000	117.86	0.00	0.00
35	100.00	LGP21901	6	8.652	9.517	0.60	0.80	0.83	33.00	0.000	0.000	7.88	0.00	0.00
36	100.00	8843 B2/B66A	3	8.652	9.517	0.54	0.80	2.64	216.00	0.000	0.000	25.10	0.00	0.00
37	100.00	RRUS 4478 B14	3	8.652	9.517	0.54	0.80	2.96	179.70	0.000	0.000	28.16	0.00	0.00
38	95.00	Tree Pole Branchs	1	8.526	9.379	1.00	1.00	80.00	100.00	0.000	0.000	750.31	0.00	0.00
39	85.00	Tree Pole Branchs	1	8.260	9.086	1.00	1.00	80.00	100.00	0.000	0.000	726.84	0.00	0.00
40	77.50	Tree Pole Branchs	1	8.044	8.849	1.00	1.00	66.00	100.00	0.000	0.000	584.03	0.00	0.00
							Totals:		**9,284.37**			**7,099.69**		

Total Applied Force Summary

Structure:	CT02408-S-SBA		**Code:**	EIA/TIA-222-G	8/20/2021
Site Name:	Sharon 3 CT		**Exposure:**	B	
Height:	130.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 27

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00

Iterations 16

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
5.00		131.57	1802.29	0.00	0.00
10.00		127.74	1753.44	0.00	0.00
15.00		123.90	1704.59	0.00	0.00
20.00		120.07	1655.74	0.00	0.00
25.00		116.24	1606.89	0.00	0.00
25.50		11.41	158.00	0.00	0.00
30.00		102.54	2696.24	0.00	0.00
33.50		80.09	2042.37	0.00	0.00
35.00		34.15	453.83	0.00	0.00
40.00		115.57	1481.02	0.00	0.00
45.00		115.21	1432.17	0.00	0.00
50.00		114.30	1383.32	0.00	0.00
55.00		112.89	1334.47	0.00	0.00
60.00		111.05	1285.62	0.00	0.00
65.00		108.84	1236.77	0.00	0.00
70.00		106.28	1187.92	0.00	0.00
75.00		105.22	2015.25	0.00	0.00
75.50		10.27	196.54	0.00	0.00
77.50	(1) attachments	624.90	491.49	0.00	0.00
80.00		50.41	479.95	0.00	0.00
85.00	(1) attachments	825.56	1028.49	0.00	0.00
90.00		95.09	886.62	0.00	0.00
95.00	(1) attachments	841.55	944.75	0.00	0.00
100.00	(45) attachments	951.49	3360.79	0.00	0.00
105.00	(1) attachments	758.48	682.70	0.00	0.00
110.00		78.45	547.81	0.00	0.00
115.00	(1) attachments	826.61	612.92	0.00	0.00
118.00	(27) attachments	989.84	3704.67	0.00	0.00
120.00		26.93	177.36	0.00	0.00
125.00	(1) attachments	669.50	454.06	0.00	0.00
130.00	(26) attachments	1250.80	2956.76	0.00	0.00
	Totals:	**9,736.94**	**41,754.87**	**0.00**	**0.00**

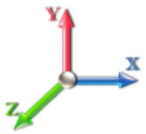
Calculated Forces

Structure:	CT02408-S-SBA	**Code:**	EIA/TIA-222-G	8/20/2021	
Site Name:	Sharon 3 CT	**Exposure:**	B		
Height:	130.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 28	

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00



Iterations 16

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-41.75	-9.74	0.00	-933.98	0.00	933.98	6164.54	3082.27	18158.3	9092.69	0.00	0.000	0.000	0.110
5.00	-39.95	-9.63	0.00	-885.26	0.00	885.26	6071.55	3035.77	17364.5	8695.20	0.01	-0.020	0.000	0.108
10.00	-38.19	-9.51	0.00	-837.13	0.00	837.13	5973.49	2986.74	16572.6	8298.64	0.04	-0.041	0.000	0.107
15.00	-36.48	-9.40	0.00	-789.58	0.00	789.58	5870.37	2935.18	15783.8	7903.67	0.10	-0.062	0.000	0.106
20.00	-34.82	-9.29	0.00	-742.58	0.00	742.58	5762.18	2881.09	14999.6	7510.95	0.18	-0.085	0.000	0.105
25.00	-33.21	-9.18	0.00	-696.12	0.00	696.12	5648.92	2824.46	14221.0	7121.12	0.28	-0.108	0.000	0.104
25.50	-33.05	-9.18	0.00	-691.53	0.00	691.53	5637.32	2818.66	14143.6	7082.32	0.29	-0.110	0.000	0.104
30.00	-30.36	-9.08	0.00	-650.24	0.00	650.24	5530.60	2765.30	13449.6	6734.83	0.40	-0.132	0.000	0.102
33.50	-28.31	-9.00	0.00	-618.47	0.00	618.47	5496.96	2748.48	13237.5	6628.61	0.51	-0.149	0.000	0.098
35.00	-27.86	-8.97	0.00	-604.98	0.00	604.98	5460.05	2730.03	13008.4	6513.87	0.55	-0.157	0.000	0.098
40.00	-26.37	-8.86	0.00	-560.12	0.00	560.12	5333.74	2666.87	12250.7	6134.50	0.73	-0.181	0.000	0.096
45.00	-24.93	-8.75	0.00	-515.81	0.00	515.81	5202.37	2601.19	11503.5	5760.34	0.94	-0.206	0.000	0.094
50.00	-23.55	-8.64	0.00	-472.05	0.00	472.05	5065.93	2532.97	10768.1	5392.07	1.17	-0.232	0.000	0.092
55.00	-22.21	-8.54	0.00	-428.82	0.00	428.82	4924.43	2462.22	10045.7	5030.32	1.42	-0.258	0.000	0.090
60.00	-20.92	-8.43	0.00	-386.14	0.00	386.14	4777.86	2388.93	9337.60	4675.74	1.71	-0.285	0.000	0.087
65.00	-19.68	-8.32	0.00	-344.00	0.00	344.00	4626.23	2313.11	8645.15	4329.00	2.02	-0.312	0.000	0.084
70.00	-18.49	-8.22	0.00	-302.39	0.00	302.39	4469.53	2234.76	7969.63	3990.74	2.36	-0.340	0.000	0.080
75.00	-16.47	-8.11	0.00	-261.29	0.00	261.29	4273.25	2136.63	7253.77	3632.28	2.74	-0.368	0.000	0.076
75.50	-16.28	-8.10	0.00	-257.24	0.00	257.24	3583.96	1791.98	6182.69	3095.94	2.77	-0.371	0.000	0.088
77.50	-15.79	-7.47	0.00	-241.05	0.00	241.05	3533.61	1766.81	5974.82	2991.85	2.93	-0.382	0.000	0.085
80.00	-15.30	-7.42	0.00	-222.37	0.00	222.37	3469.54	1734.77	5717.95	2863.23	3.14	-0.398	0.000	0.082
85.00	-14.28	-6.60	0.00	-185.25	0.00	185.25	3337.60	1668.80	5214.74	2611.24	3.57	-0.428	0.000	0.075
90.00	-13.39	-6.50	0.00	-152.25	0.00	152.25	3186.12	1593.06	4705.25	2356.12	4.03	-0.457	0.000	0.069
95.00	-12.45	-5.66	0.00	-119.74	0.00	119.74	3003.28	1501.64	4178.09	2092.15	4.53	-0.484	0.000	0.061
95.00	-12.45	-5.66	0.00	-119.74	0.00	119.74	2438.11	1219.05	3404.33	1704.70	4.53	-0.484	0.000	0.075
100.00	-9.09	-4.68	0.00	-91.44	0.00	91.44	2329.09	1164.55	3052.69	1528.62	5.05	-0.510	0.000	0.064
105.00	-8.42	-3.92	0.00	-68.02	0.00	68.02	2202.60	1101.30	2698.31	1351.16	5.60	-0.537	0.000	0.054
110.00	-7.87	-3.84	0.00	-48.40	0.00	48.40	2050.23	1025.12	2336.11	1169.79	6.18	-0.562	0.000	0.045
115.00	-7.26	-3.01	0.00	-29.19	0.00	29.19	1897.87	948.93	2000.01	1001.49	6.78	-0.583	0.000	0.033
118.00	-3.57	-1.98	0.00	-20.16	0.00	20.16	1806.45	903.22	1810.87	906.78	7.15	-0.592	0.000	0.024
120.00	-3.39	-1.96	0.00	-16.19	0.00	16.19	1745.50	872.75	1690.00	846.25	7.40	-0.598	0.000	0.021
120.00	-3.39	-1.96	0.00	-16.19	0.00	16.19	583.92	291.96	571.48	339.36	7.40	-0.598	0.000	0.054
125.00	-2.94	-1.28	0.00	-6.41	0.00	6.41	583.92	291.96	571.48	339.36	8.03	-0.608	0.000	0.024
130.00	0.00	-1.25	0.00	0.00	0.00	0.00	583.92	291.96	571.48	339.36	8.67	-0.611	0.000	0.000

Final Analysis Summary

Structure:	CT02408-S-SBA	**Code:**	EIA/TIA-222-G	8/20/2021	
Site Name:	Sharon 3 CT	**Exposure:**	B		
Height:	130.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 29	

Tower Engineering Solutions

Reactions

Load Case	Shear FX (kips)	Shear FZ (kips)	Axial FY (kips)	Moment MX (ft-kips)	Moment MY (ft-kips)	Moment MZ (ft-kips)
1.2D + 1.6W 89 mph Wind	34.3	0.00	50.08	0.00	0.00	3295.07
0.9D + 1.6W 89 mph Wind	34.3	0.00	37.56	0.00	0.00	3284.11
1.2D + 1.0Di + 1.0Wi 40 mph Wind	6.7	0.00	85.17	0.00	0.00	627.04
1.2D + 1.0E	2.0	0.00	50.11	0.00	0.00	205.17
0.9D + 1.0E	2.0	0.00	37.58	0.00	0.00	204.42
1.0D + 1.0W 60 mph Wind	9.7	0.00	41.75	0.00	0.00	933.98

Max Stresses

Load Case	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Elev (ft)	Stress Ratio
1.2D + 1.6W 89 mph Wind	-50.08	-34.31	0.00	-3295.0	0.00	-3295.0	6164.54	3082.2	18158.3	9092.69	0.00	0.371
0.9D + 1.6W 89 mph Wind	-37.56	-34.30	0.00	-3284.1	0.00	-3284.1	6164.54	3082.2	18158.3	9092.69	0.00	0.367
1.2D + 1.0Di + 1.0Wi 40 mph Wind	-85.17	-6.65	0.00	-627.04	0.00	-627.04	6164.54	3082.2	18158.3	9092.69	0.00	0.083
1.2D + 1.0E	-14.99	-1.52	0.00	-42.46	0.00	-42.46	3003.28	1501.6	4178.09	2092.15	95.00	0.031
0.9D + 1.0E	-11.24	-1.51	0.00	-42.26	0.00	-42.26	3003.28	1501.6	4178.09	2092.15	95.00	0.029
1.0D + 1.0W 60 mph Wind	-41.75	-9.74	0.00	-933.98	0.00	-933.98	6164.54	3082.2	18158.3	9092.69	0.00	0.110

Monopole Mat Foundation Design

			Date: 8/20/2021
Customer Name:	Verizon	**EIA/TIA Standard:**	EIA-222-G
Site Name:		**Structure Height (Ft.):**	130
Site Number:	CT02408-S-SBA	**Engineer Name:**	T. Alajaj
Engr. Number:	111470	**Engineer Login ID:**	

Foundation Info Obtained from: Mapping Operation

Structure Type: Monopole

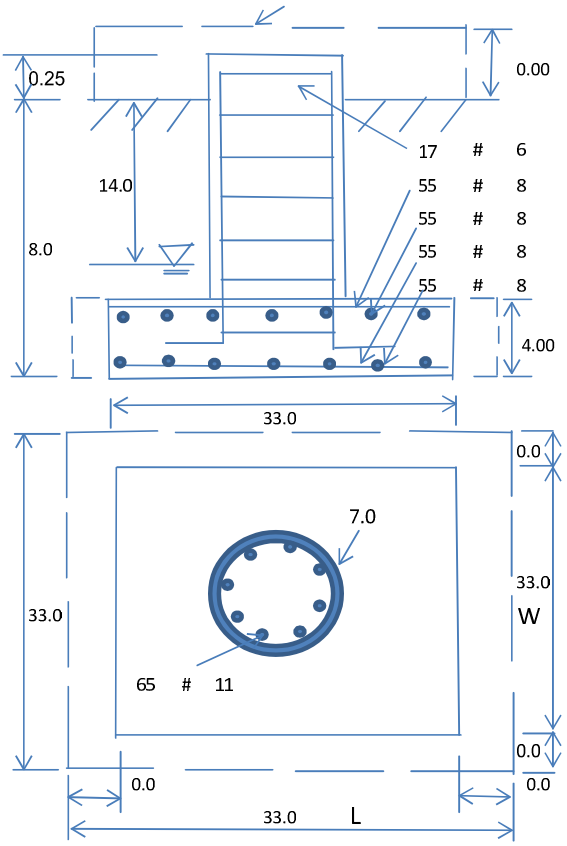
Analysis or Design? Analysis

Base Reactions (Factored):

Axial Load (Kips):	50.1	Shear Force (Kips):	34.3
Uplift Force (Kips):	0.0	Moment (Kips-ft):	3295.1
Allowable overstress %:	5.0%		

Foundation Geometries:

		Mods required -Yes/No ?:	No
Diameter of Pier (ft.):	7.0	Depth of Base BG (ft.):	8.0
Pier Height A. G. (ft.):	0.25	Thickness of Pad (ft):	4.00
Length of Pad (ft.):	33	Width of Pad (ft.):	33
Final Length of pad (ft)	33.0	Final width of pad (ft):	33.0



Material Properties and Reabr Info:

Concrete Strength (psi):	3000	Steel Elastic Modulus:	29000	ksi
Vertical bar yield (ksi)	60	Tie steel yield (ksi):	60	
Vertical Rebar Size #:	11	Tie / Stirrup Size #:	6	
Qty. of Vertical Rebars:	65	Tie Spacing (in):	6.0	
Pad Rebar Yield (Ksi):	60	Pad Steel Rebar Size (#):	8	
Concrete Cover (in.):	3	Unit Weight of Concrete:	150.0	pcf
Rebar at the bottom of the concrete pad:				
Qty. of Rebar in Pad (L):	55	Qty. of Rebar in Pad (W):	55	
Rebar at the top of the concrete pad:				
Qty. of Rebar in Pad (L):	55	Qty. of Rebar in Pad (W):	55	
Apply 1.35 factor for e/w Per G:	1.35			

Soil Design Parameters:

Soil Unit Weight (pcf):	125.0	Soil Buoyant Weight:	50.0	Pcf		
Water Table B.G.S. (ft):	14.0	Unit Weight of Water:	62.4	pcf	Angle from Top of Pad:	30
Ultimate Bearing Pressure (psf):	7000	Ultimate Skin Friction:	0	Psf	Angle from Bottm of Pad:	25
Consider Friction for O.T.M. (Y/N):	No	Consider Friction for bearing (Y/N):	No		Angle from Bottm of Pad:	25
Consider soil hor. resist. for OTM.:	No	Reduction factor on the maximum soil bearing pressure:			1.00	

Foundation Analysis and Design: Uplift Strength Reduction Factor: 0.75 — Compression Strength Reduction Factor: 0.75

Total Dry Soil Volume (cu. Ft.):	4202.06	Total Dry Soil Weight (Kips):	525.26
Total Buoyant Soil Volume (cu. Ft.):	0.00	Total Buoyant Soil Weight (Kips):	0.00
Total Effective Soil Weight (Kips):	525.26	Weight from the Concrete Block at Top (K):	0.00
Total Dry Concrete Volume (cu. Ft.):	4519.56	Total Dry Concrete Weight (Kips):	677.93
Total Buoyant Concrete Volume (cu. Ft.):	0.00	Total Buoyant Concrete Weight (Kips):	0.00
Total Effective Concrete Weight (Kips):	677.93	Total Vertical Load on Base (Kips):	1253.29

Check Soil Capacities:

					Load/ Capacity Ratio	
Calculated Maxium Net Soil Pressure under the base (psf):	1393	<	Allowable Factored Soil Bearing (psf):	5250	0.27	OK!
Allowable Foundation Overturning Resistance (kips-ft.):	18694.0	>	Design Factored Momont (kips-ft):	3578	0.19	OK!
Factor of Safety Against Overturning (O. R. Moment/Design Moment):	5.22	OK!				

Check the capacities of Reinforceing Concrete:

Strength reduction factor (Flexure and axial tension):
Strength reduction factor (Axial compresion):
Strength reduction factor (Shear):
Wind Load Factor on Concrete Design:

ad Capacity Ratio

(1) Concrete Pier:

Vertical Steel Rebar Area (sq. in./each):			Tie / Stirrup Area (sq. in./each):	
Calculated Moment Capacity (Mn,Kips-Ft):		>	Design Factored Moment (Mu, Kips-	
Calculated Shear Capacity (Kips):		>	Design Factored Shear (Kips):	
Calculated Tension Capacity (Tn, Kips):		>	Design Factored Tension (Tu Kips):	
Calculated Compression Capacity (Pn, Kips):		>	Design Factored Axial Load (Pu Kips):	
Moment & Axial Strength Combination:		OK!	Check Tie Spacing (Design/Required):	
Pier Reinforcement Ratio:			Reinforcement Ratio is satisfied per ACI	

(2).Concrete Pad:

One-Way Design Shear Capacity (L-Direction, Kips):			One-Way Factored Shear (L-D. Kips): 250.1	
One-Way Design Shear Capacity (W-Direction, Kips):			One-Way Factored Shear (W-D., Kips	
One-Way Design Shear Capacity (Corner-Corner. Kips):			One-Way Factored Shear (C-C, Kips): 218.8	
Lower Steel Pad Reinforcement Ratio (L-Direct.):			Lower Steel Pad Reinf. Ratio (W-Direc	
Lower Steel Pad Moment Capacity (L-Direction. Kips-ft):			Moment at Bottom (L-Dir. K-Ft):	
Lower Steel Pad Moment Capacity (W-Direction. Kips-ft):			Moment at Bottom (W-Dir. K-Ft):	
Lower Steel Pad Moment Capacity (Corner-Corner,K-ft):			Moment at Bottom (C-C Dir. K-Ft): 2747.8	
Upper Steel Pad Reinforcement Ratio (L-Direct.):			Upper Steel Reinf. Ratio (W-Dir.):	
Upper Steel Pad Moment Capacity (L-Direc. Kips-ft):			Moment at the top (L-Dir K-Ft):	
Upper Steel Pad Moment Capacity (W-Direc. Kips-ft):			Moment at the top (W-Dir K-Ft):	
Upper Steel Pad Moment Capacity (Corner-Corner. K-ft):			Moment at the top (C-C Dir. K-Ft):	

(3).Check Punching Shear Capacity due to Moment in the Pier:

Moment transferred by punching shear:	1318.0	k-ft.	Max. factored shear stress v_{u_CD}	Psi
Max. factored shear stress v_{u_AB}		Psi	Factored shear Strength ϕv_n	Psi
Max. factored shear stress v_u		Psi	Check Usage of Punching Shear Capacity:	OK!

Maser Consulting Connecticut
2000 Midlantic Drive, Suite 100
Mt. Laurel, NJ 08054
(856) 797-0412
peter.albano@colliersengineering.com

Replacement Antenna Mount Analysis Report and PMI Requirements

Mount Analysis-R

SMART Tool Project #: 10087368
Maser Consulting Connecticut Project #: 21777245A (Rev 1)

August 12, 2021

Site Information	*Site ID:*	*469341-VZW / SHARON N CT*
	Site Name:	*SHARON N CT*
	Carrier Name:	*Verizon Wireless*
	Address:	*477 Route 7* *Sharon, Connecticut 06069* *Litchfield County*
	Latitude:	*41.909456°*
	Longitude:	*-73.366031°*
Structure Information	*Tower Type:*	*Monopole*
	Mount Type:	*9.00-Ft T-Arm*

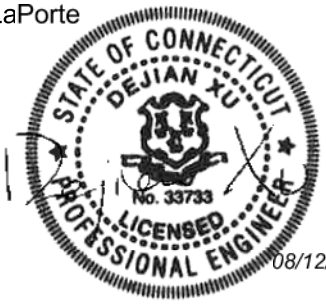
FUZE ID # 16272077

Analysis Results

T-Arm: **91.7% Pass**

******Contractor PMI Requirements*:**
Included at the end of this MA report
Available & Submitted via portal at https://pmi.vzwsmart.com
Contractor - Please Review Specific Site PMI Requirements Upon Award
Requirements also Noted on Mount Modification Drawings
Requirements may also be Noted on A & E drawings

Report Prepared By: Nathan LaPorte



08/12/2021

Executive Summary:

The objective of this report is to determine the capacity of the proposed antenna support mount at the subject facility for the final wireless telecommunications configuration, per the applicable codes and standards. The proposed mount was assumed to be installed properly to the existing tower per the manufacturer's instructions. Maser Consulting Connecticut cannot verify that the proposed mount will fit properly and is not liable for any fit-up issues during installation.

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

Sources of Information:

Document Type	Remarks
Radio Frequency Data Sheet (RFDS)	*Verizon RFDS, Site ID: 675035, dated June 16, 2021*
Construction Drawings	*Centek Engineering, Site No: 21007.13 dated July 19, 2021*
Mount Specification	*Site Pro 1, P/N: VSK-MHD*
Mount Specification	*Site Pro1, P/N: SV197-48*
Mount Specification	*Site Pro1, P/N: SCX2-K*
Mount Specification	*Site Pro1, P/N: UQB4*
Mount Specification	*Site Pro1, P/N: SSCK*

Analysis Criteria:

Codes and Standards:	ANSI/TIA-222-H	
Wind Parameters:	Basic Wind Speed (Ultimate 3-sec. Gust), V_{ULT}:	114 mph
	Ice Wind Speed (3-sec. Gust):	40 mph
	Design Ice Thickness:	1.00 in
	Risk Category:	II
	Exposure Category:	B
	Topographic Category:	1
	Topographic Feature Considered:	N/A
	Topographic Method:	N/A
	Ground Elevation Factor, K_e:	0.974
Seismic Parameters:	S_S:	0.168
	S_1:	0.054
Maintenance Parameters:	Wind Speed (3-sec. Gust):	30 mph
	Maintenance Live Load, Lv:	250 lbs.
	Maintenance Live Load, Lm:	500 lbs.
Analysis Software:	RISA-3D (V17)	

Final Loading Configuration:

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

Mount Elevation (ft)	Equipment Elevation (ft)	Quantity	Manufacturer	Model	Status
130.00	130.00	2	Commscope	JAHH-45C-R3B	Added
		4	Commscope	JAHH-65C-R3B-V2	
		3	Samsung	MT6407-77A	
		3	Samsung	B5/B13 RRH-BR04C	
		3	Samsung	B2/B66A RRH-BR049	
		1	RFS	DB-C1-12C-24AB-0Z	
		3	Commscope	CBC78T-DS-43-2X	
		2	Amphenol Antel	BXA-70063-6CF	Retained
		1	Amphenol Antel	BXA-70040-6CF	

Any proposed antennas not currently installed should be mounted such that the centerline of the antennas does not exceed 6 inches vertically from the center of the antenna mount(s).

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

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

Standard Conditions:

1. All engineering services are performed on the basis that the information provided to Maser Consulting Connecticut and used in this analysis is current and correct. The existing equipment loading has been applied at locations determined from the supplied documentation. Any deviation from the loading locations specified in this report shall be communicated to Maser Consulting Connecticut to verify deviation will not adversely impact the analysis.

2. Mounts are assumed to have been properly fabricated, installed and maintained in good condition, twist free and plumb in accordance with its original design and manufacturer's specifications.

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

4. All member connections are assumed to have been designed to meet or exceed the load carrying capacity of the connected member unless otherwise specified in this report.

5. The mount was checked up to, and including, the bolts that fasten it to the mount collar/attachment and threaded rod connections in collar members if applicable. Local deformation and interaction between the mount collar/attachment and the supporting tower structure are outside the scope of this analysis.

6. All services are performed, results obtained, and recommendations made in accordance with generally accepted engineering principles and practices. Maser Consulting Connecticut is not responsible for the conclusion, opinions, and recommendations made by others based on the information supplied.

7. Structural Steel Grades have been assumed as follows, if applicable, unless otherwise noted in this analysis:
   - Channel, Solid Round, Angle, Plate — ASTM A36 (Gr. 36)
   - HSS (Rectangular) — ASTM 500 (Gr. B-46)
   - Pipe — ASTM A53 (Gr. B-35)
   - Threaded Rod — F1554 (Gr. 36)
   - Bolts — ASTM A325

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

Analysis Results:

Component	Utilization %	Pass/Fail
Face Horizontal	62.2 %	Pass
Mount Pipe	47.6 %	Pass
Standoff Horizontal	84.2 %	Pass
V Bracing	14.9 %	Pass
Mount connection	91.7 %	Pass

Structure Rating – *(Controlling Utilization of all Components)*	**91.7%**

Recommendation:

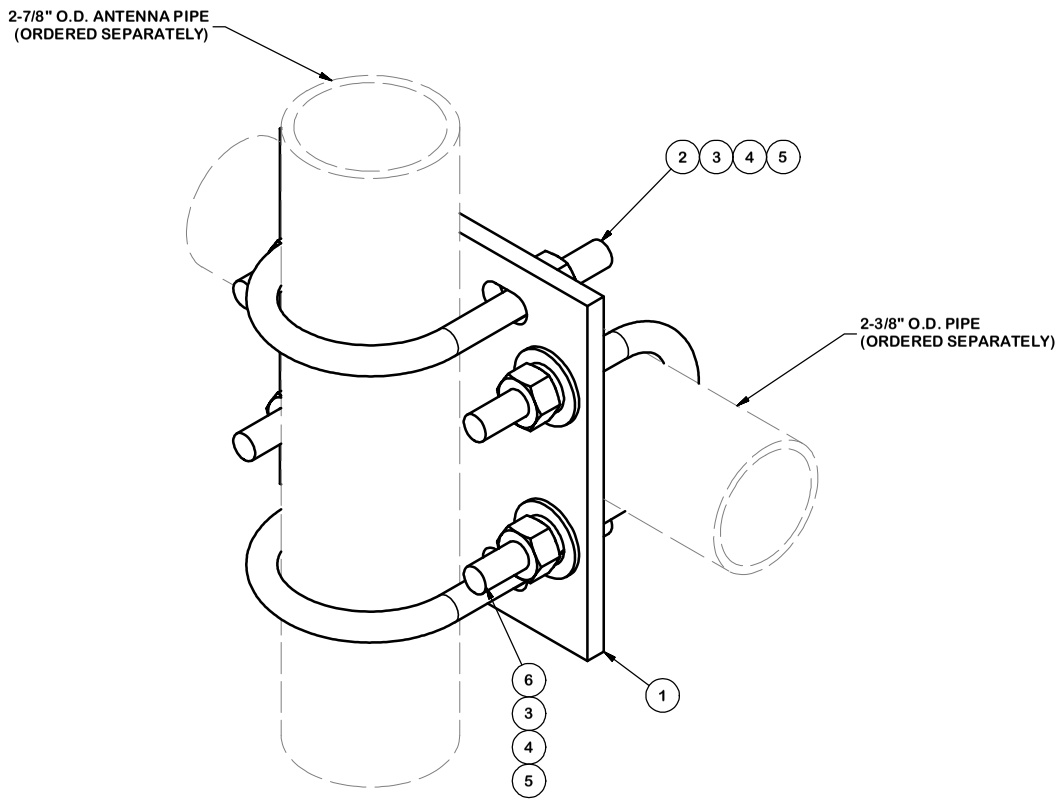
The proposed antenna mounts are **SUFFICIENT** for the final loading configuration and do not require modifications.

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

Attachments:

1. Mount Assembly
2. Analysis Calculations
3. **Contractor Required Post Installation Inspection (PMI) Report Deliverables**
4. Antenna Placement Diagrams
5. TIA Adoption and Wind Speed Usage Letter

PARTS LIST						
ITEM	QTY	PART NO.	PART DESCRIPTION	LENGTH	UNIT WT.	NET WT.
1	1	SCX2	CROSSOVER PLATE	7 in	4.80	4.80
2	2	X-UB1300	1/2" X 3" X 5" X 2" U-BOLT (HDG.)		0.66	1.31
3	8	G12FW	1/2" HDG USS FLATWASHER		0.03	0.27
4	8	G12LW	1/2" HDG LOCKWASHER		0.01	0.11
5	8	G12NUT	1/2" HDG HEAVY 2H HEX NUT		0.07	0.57
6	2	X-UB1212	1/2" X 2-1/2" X 4-1/2" X 2" U-BOLT (HDG.)		0.63	1.25
					TOTAL WT. #	8.39



TOLERANCE NOTES

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

DESCRIPTION: CROSSOVER PLATE KIT

SITE PRO 1 — A valmont COMPANY

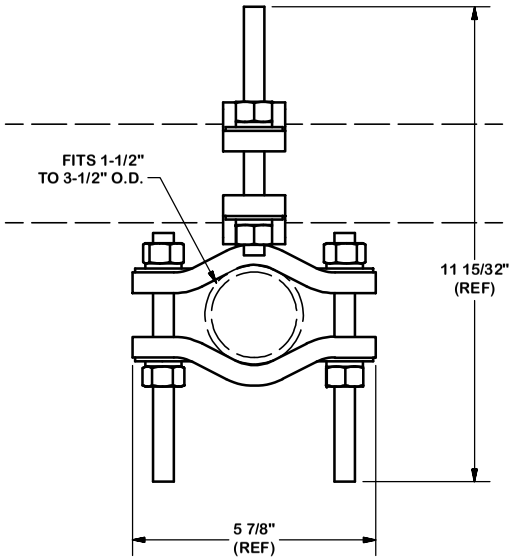
Engineering Support Team: 1-888-753-7446

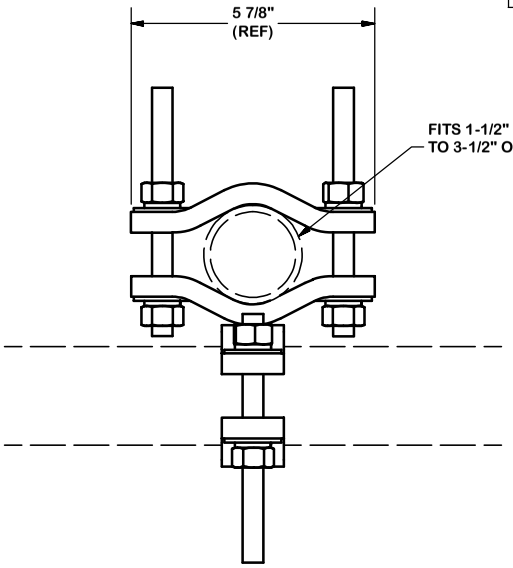
Locations: New York, NY; Atlanta, GA; Los Angeles, CA; Plymouth, IN; Salem, OR; Dallas, TX

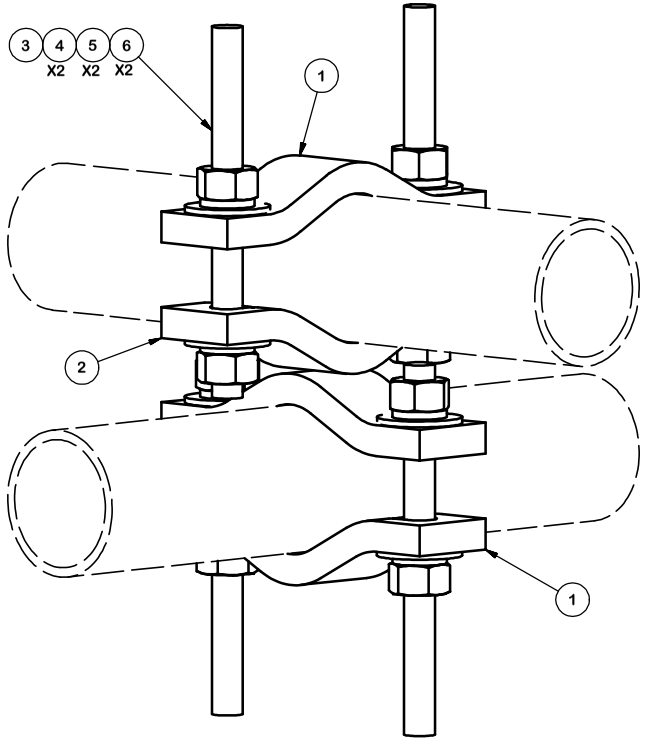
CPD NO.	DRAWN BY	ENG. APPROVAL	PART NO.
	CEK 6/30/2011		SCX2-K

CLASS	SUB	DRAWING USAGE	CHECKED BY	DWG. NO.
		SHOP	BMC 7/1/2011	SCX2-K

PARTS LIST						
ITEM	QTY	PART NO.	PART DESCRIPTION	LENGTH	UNIT WT.	NET WT.
1	2	SCP	CLAMP HALF, 5-7/8" LONG		1.25	2.50
2	1	SSC	CROSSOVER CLAMP WELDMENT		2.50	2.50
3	4	G12R-6	1/2" x 6" THREADED ROD (HDG.)	6"	3.23	12.91
4	8	G12NUT	1/2" HDG HEAVY 2H HEX NUT		0.07	0.57
5	8	G12LW	1/2" HDG LOCKWASHER		0.01	0.11
6	8	G12FW	1/2" HDG USS FLATWASHER		0.03	0.27
					TOTAL WT. #	7.05







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BENDS ARE ± 1/2 DEGREE
ALL OTHER MACHINING *(± 0.030")*
ALL OTHER ASSEMBLY *(± 0.060")*

REVISION HISTORY				
REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
A	REDRAWN IN INV, UPDATED VIEWS & TABLE		KC8	8/22/2012

DESCRIPTION: CROSSOVER CLAMP SET
1-1/2" TO 3-1/2" O.D.

SITE PRO 1 — A valmont COMPANY

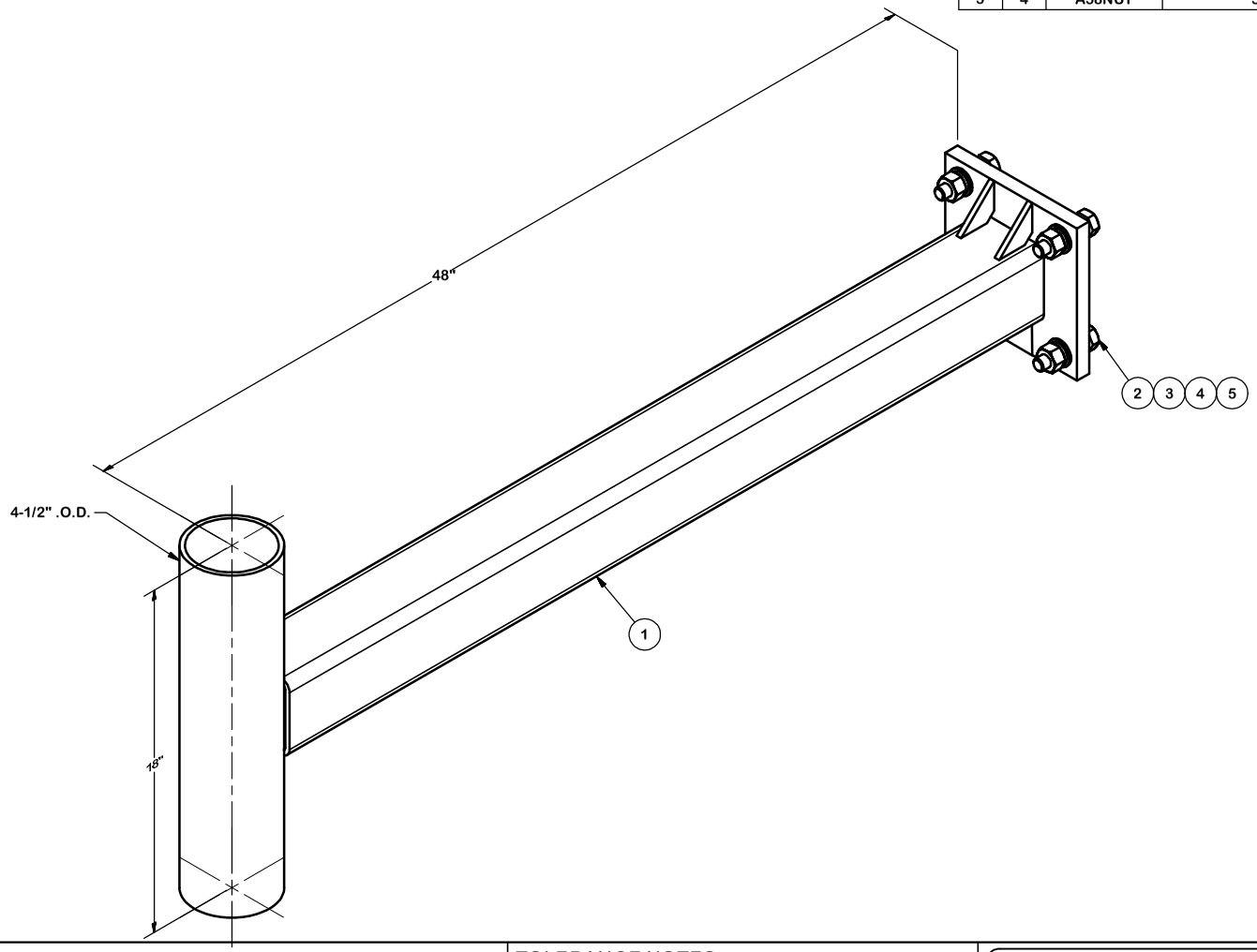
Engineering Support Team: 1-888-753-7446

Locations:
New York, NY
Atlanta, GA
Los Angeles, CA
Plymouth, IN
Salem, OR
Dallas, TX

CPD NO.	DRAWN BY	ENG. APPROVAL	PART NO.	PAGE
	GLS 2/3/2009		SSCK	1 OF 1

CLASS	SUB	DRAWING USAGE	CHECKED BY	DWG. NO.
81	01	CUSTOMER	CEK 2/16/2013	SSCK

PARTS LIST						
ITEM	QTY	PART NO.	PART DESCRIPTION	LENGTH	UNIT WT.	NET WT.
1	1	X-SV197-48	SUPPORT ARM WELDMENT - 36"		76.32	76.32
2	4	A58234	5/8" x 2-3/4" HDG A325 HEX BOLT		0.36	1.42
3	4	A58FW	5/8" HDG A325 FLATWASHER		0.03	0.14
4	4	G58LW	5/8" HDG LOCKWASHER		0.03	0.10
5	4	A58NUT	5/8" HDG A325 HEX NUT		0.13	0.52
					TOTAL WT. #	78.50



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ALL OTHER MACHINING *(± 0.030")*
ALL OTHER ASSEMBLY *(± 0.060")*

DESCRIPTION: 48" SUPPORT ARM

SITE PRO 1 — A valmont COMPANY

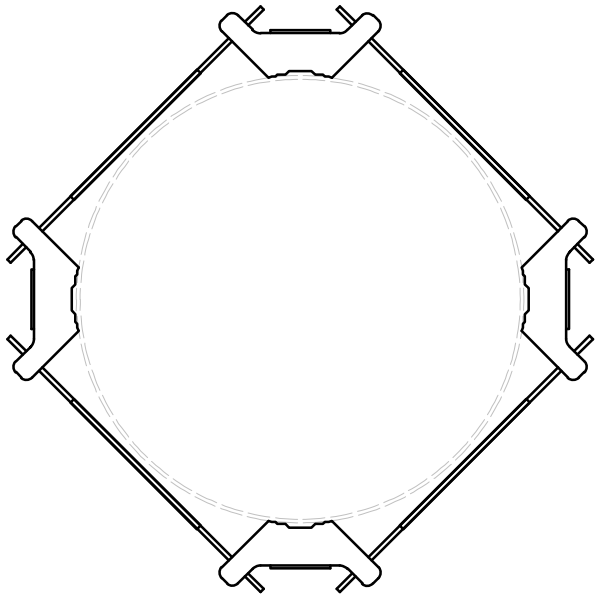
Engineering Support Team: 1-888-753-7446

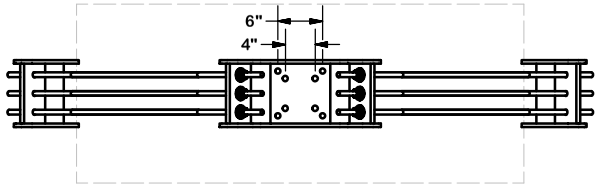
Locations: New York, NY; Atlanta, GA; Los Angeles, CA; Plymouth, IN; Salem, OR; Dallas, TX

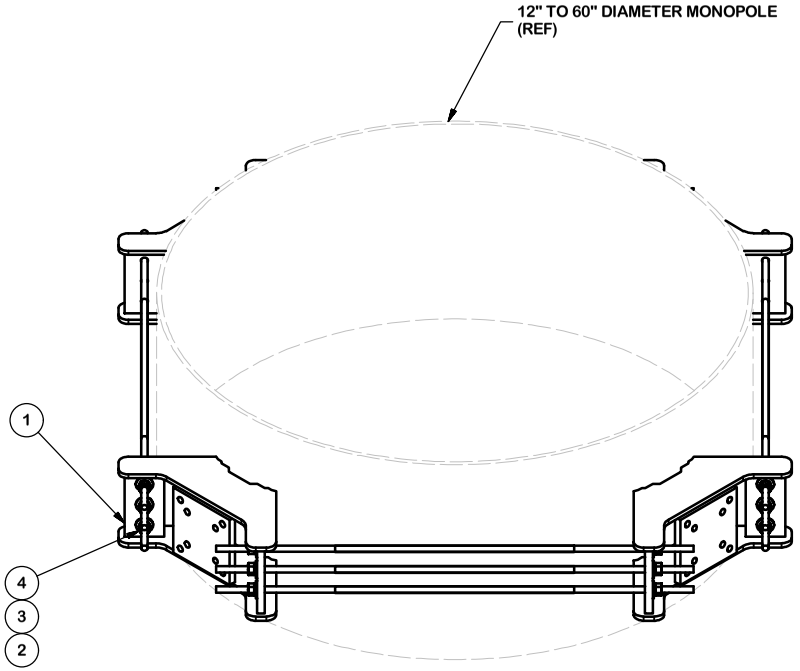
CPD NO.	DRAWN BY	ENG. APPROVAL	PART NO.	PAGE
4470	CEK 4/14/2011		SV197-48	1 OF 1

CLASS	SUB	DRAWING USAGE	CHECKED BY	DWG. NO.
81	01	CUSTOMER	BMC 4/14/2011	SV197-48

PARTS LIST						
ITEM	QTY	PART NO.	PART DESCRIPTION	LENGTH	UNIT WT.	NET WT.
1	4	X-UQB4	QUAD BRACKET WELDMENT		61.57	246.27
2	24	G58FW	5/8" HDG USS FLATWASHER	1/8 in	0.07	1.69
3	24	G58LW	5/8" HDG LOCKWASHER		0.03	0.63
4	24	G58NUT	5/8" HDG HEAVY 2H HEX NUT		0.13	3.12
5	12	G58R-48	5/8" X 48" THREADED ROD (HDG.)		4.43	53.19
6	12	G58R-24	5/8" X 24" THREADED ROD (HDG.)		2.22	26.60
					TOTAL WT. #	351.38







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LASER CUT EDGES AND HOLES (± 0.010") - NO CONING OF HOLES
BENDS ARE ± 1/2 DEGREE
ALL OTHER MACHINING (± 0.030")
ALL OTHER ASSEMBLY (± 0.060")

DESCRIPTION
QUAD UNIVERSAL RING MOUNT
FOR POLES 12" TO 60"
(UQB4)

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

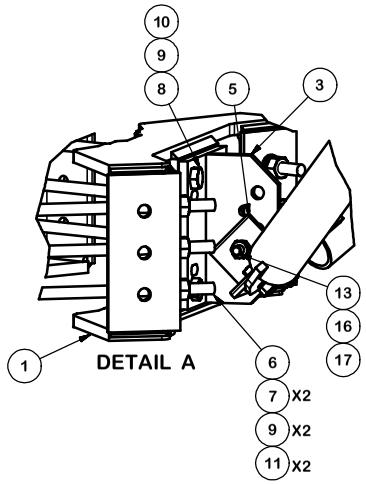
CPD NO.	DRAWN BY	ENG. APPROVAL	PART NO.
4893	CEK 9/20/2010		UQB4

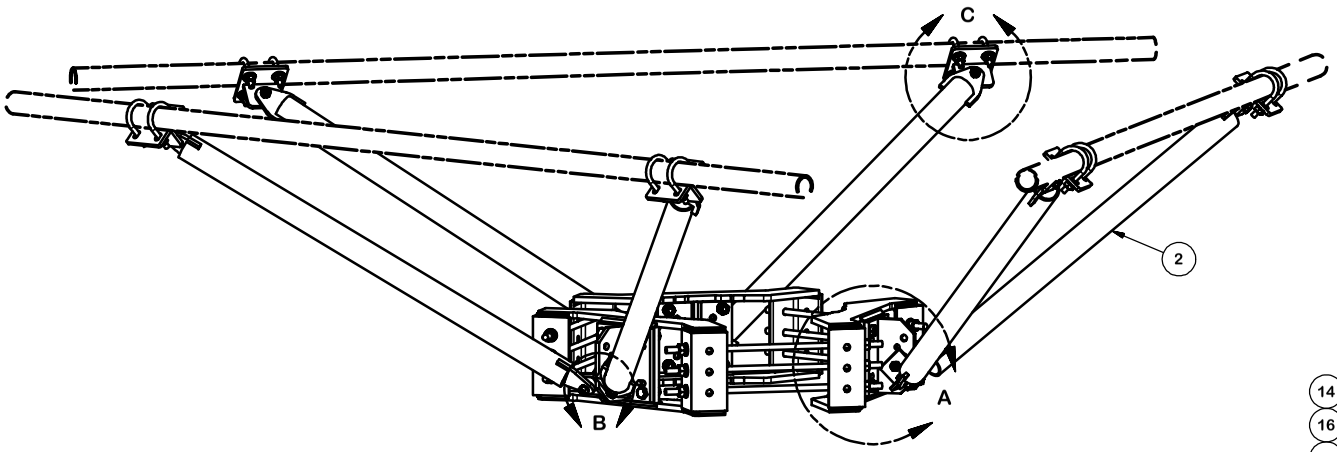
CLASS	SUB	DRAWING USAGE	CHECKED BY	DWG. NO.
81	01	CUSTOMER	BMC 9/20/2010	UQB4

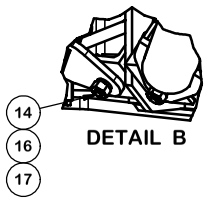
REVISION HISTORY

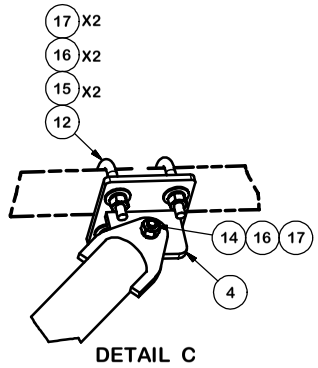
REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
A	UQB4 revised to meet modern loading	4863	JET	6/3/2019

PARTS LIST						
ITEM	QTY	PART NO.	PART DESCRIPTION	LENGTH	UNIT WT.	NET WT.
1	3	X-LWRM	RING MOUNT WELDMENT		68.81	206.42
2	6	X-VSK	SUPPORT WELDMENT FOR VSK REINFORCEMENTS		27.05	162.32
3	3	X-TBW	T-BRACKET WELDMENT		13.60	40.80
4	6	X-VSKBRKT	T-BRACKET WELDMENT FOR VSK REINFORCEMENTS		4.19	25.13
5	6	SHCM-T	CHAIN MOUNT TIGHTENER BRACKET	3 in	1.86	11.15
6	9	G58R-24	5/8" x 24" THREADED ROD (HDG.)		2.09	18.82
6	9	G58R-48	5/8" x 48" THREADED ROD (HDG.)		4.18	37.63
7	18	A58FW	5/8" HDG A325 FLATWASHER		0.03	0.61
8	12	A582114	5/8" x 2-1/4" HDG A325 HEX BOLT	2 1/4 in	0.31	3.75
9	30	G58LW	5/8" HDG LOCKWASHER		0.03	0.78
10	12	G58NUT	5/8" HDG HEAVY 2H HEX NUT		0.13	1.56
11	18	A58NUT	5/8" HDG A325 HEX NUT		0.13	2.34
12	12	X-UB1212	1/2" X 2-1/2" X 4-1/2" X 2" U-BOLT (HDG.)		0.60	7.17
13	3	G12212	1/2" x 2-1/2" HDG HEX BOLT GR5	2 1/2 in	0.20	0.61
14	12	G12112	1/2" x 1-1/2" HDG HEX BOLT GR5	1/2 in	0.15	1.77
15	24	G12FW	1/2" HDG USS FLATWASHER	3/32 in	0.03	0.82
16	39	G12LW	1/2" HDG LOCKWASHER	1/8 in	0.01	0.54
17	39	G12NUT	1/2" HDG HEAVY 2H HEX NUT		0.07	2.79
					TOTAL WT. #	525.02









TOLERANCE NOTES

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SAWED, SHEARED AND GAS CUT EDGES *(± 0.030")*
DRILLED AND GAS CUT HOLES *(± 0.030")* - NO CONING OF HOLES
LASER CUT EDGES AND HOLES *(± 0.010")* - NO CONING OF HOLES
BENDS AND ANGLES ARE ± 1/2 DEGREE
ALL OTHER MACHINING *(± 0.030")*
ALL OTHER ASSEMBLY *(± 0.060")*

DESCRIPTION: V-STYLE MONOPOLE REINFORCEMENT KITS

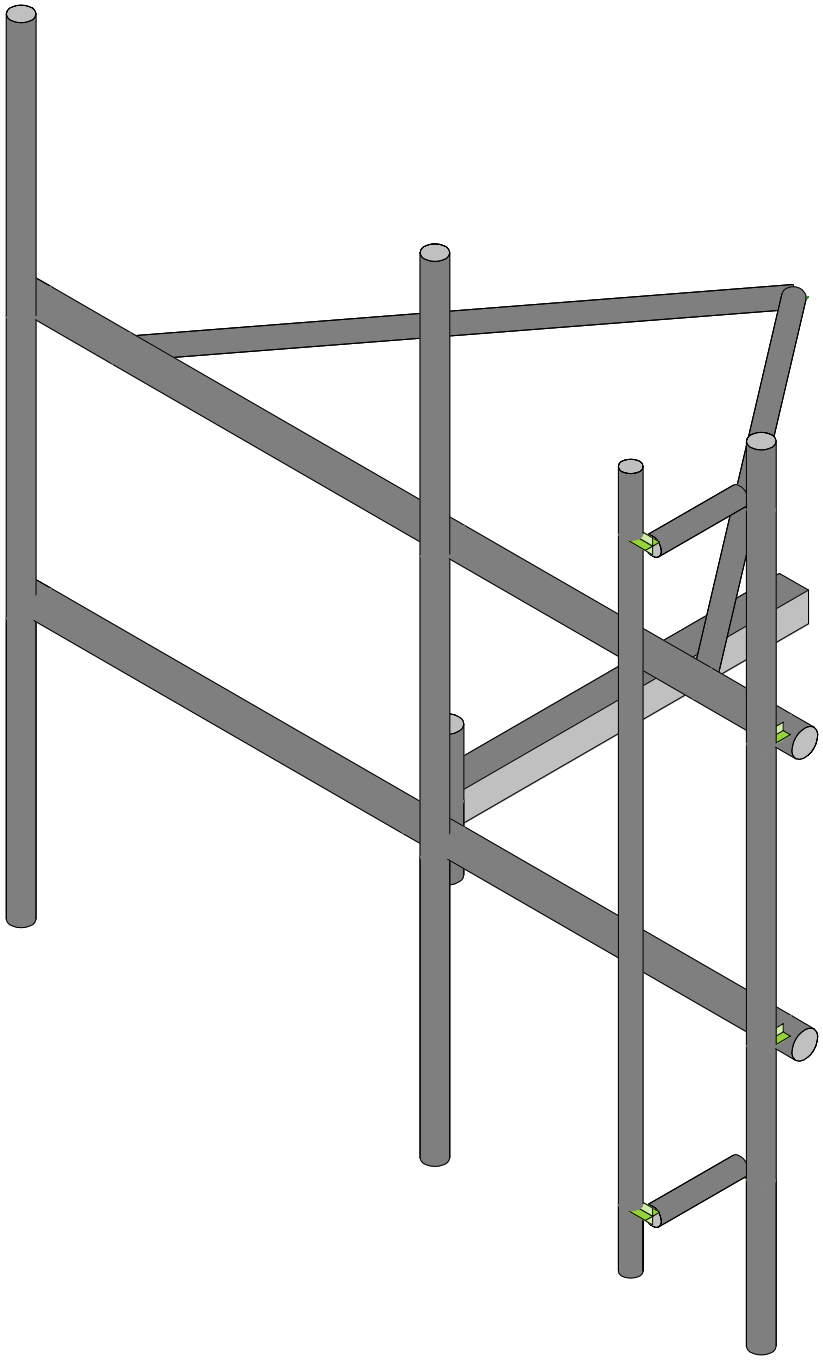
SITE PRO 1 — A valmont COMPANY

Engineering Support Team: 1-888-753-7446

Locations: New York, NY; Atlanta, GA; Los Angeles, CA; Plymouth, IN; Salem, OR; Dallas, TX; Tampa, FL

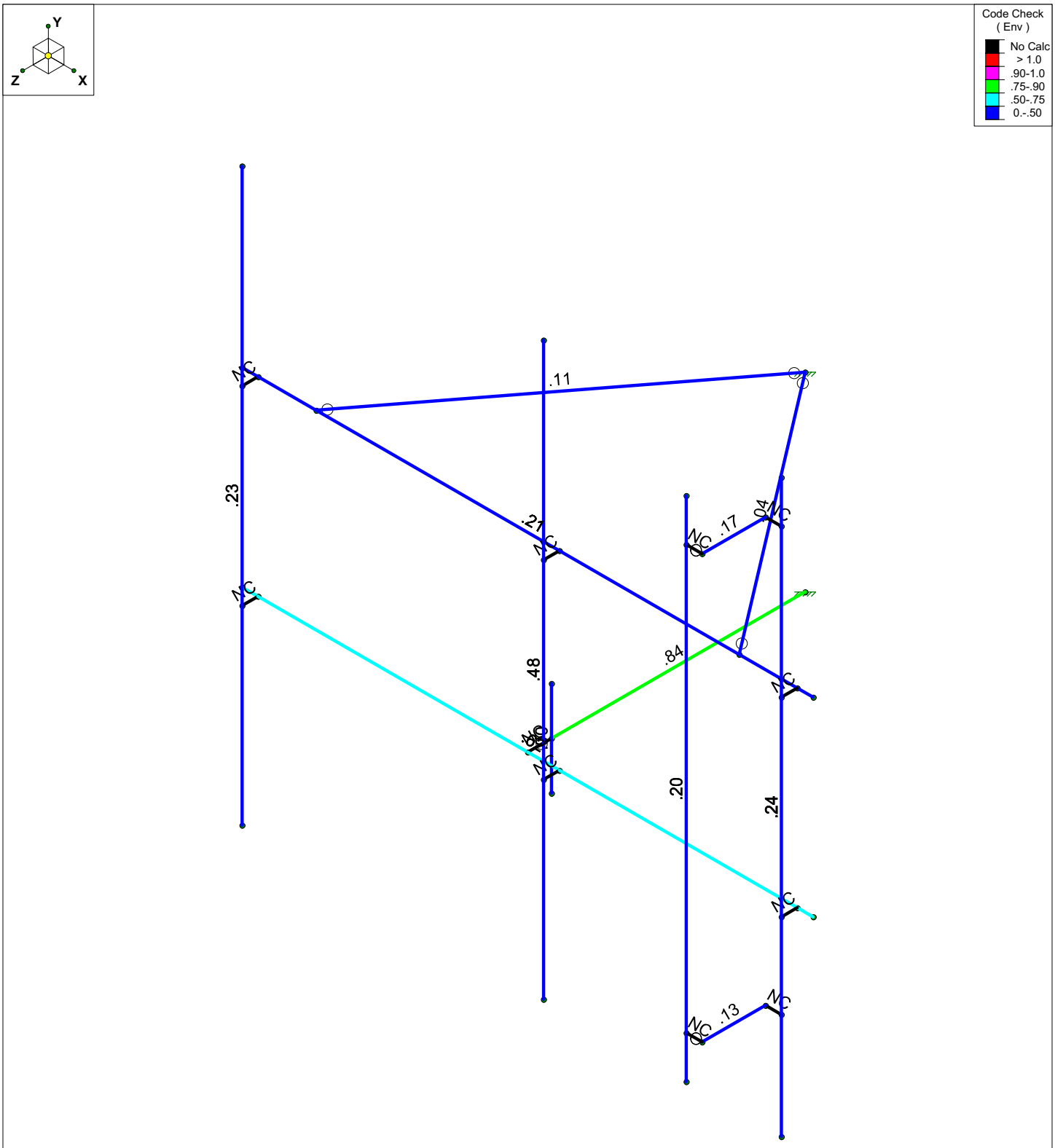
CPD NO.	DRAWN BY	ENG. APPROVAL	PART NO.	PAGE
	CEK 8/28/2019		VSK-MHD	1 OF 1

CLASS	SUB	DRAWING USAGE	CHECKED BY	DWG. NO.
81	01	CUSTOMER	BMC 8/29/2019	VSK-MHD



Envelope Only Solution

Maser Consulting	Mount Analysis-R	SK - 1
NL		Aug 11, 2021 at 6:34 AM
21777245A		469341-VZW_MT_LOT_B_H.r3d



Member Code Checks Displayed (Enveloped)
Envelope Only Solution

Maser Consulting	Mount Analysis-R	SK - 2
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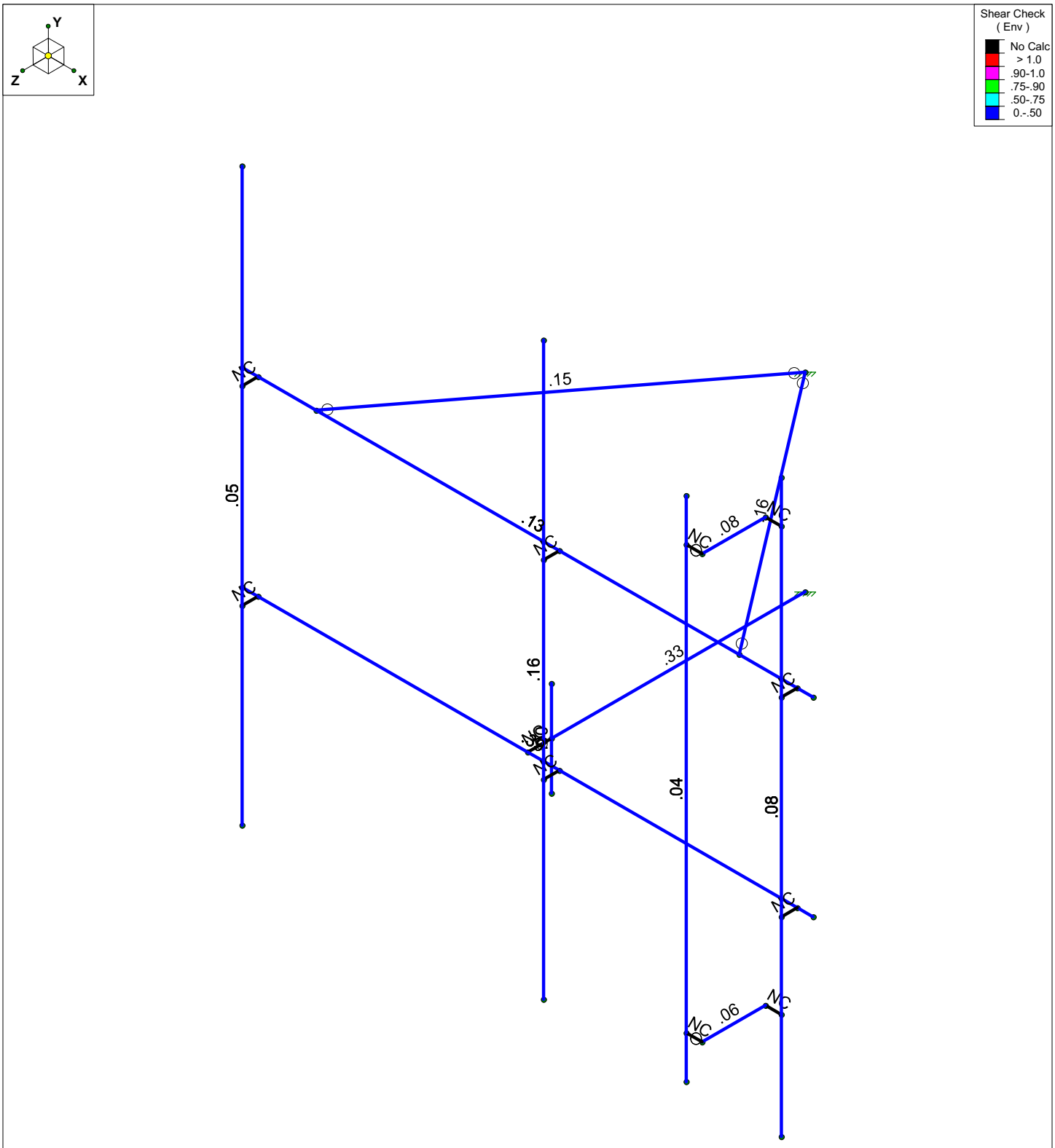


Member Shear Checks Displayed (Enveloped)
Envelope Only Solution

Maser Consulting	Mount Analysis-R	SK - 3
NL		Aug 11, 2021 at 6:35 AM
21777245A		469341-VZW_MT_LOT_B_H.r3d

Basic Load Cases

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

Basic Load Cases (Continued)

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed	Area(Me...	Surface(...
57	Structure Wi (120 Deg)	None						24		
58	Structure Wi (150 Deg)	None						24		
59	Structure Wi (180 Deg)	None						24		
60	Structure Wi (210 Deg)	None						24		
61	Structure Wi (240 Deg)	None						24		
62	Structure Wi (270 Deg)	None						24		
63	Structure Wi (300 Deg)	None						24		
64	Structure Wi (330 Deg)	None						24		
65	Structure Wm (0 Deg)	None						24		
66	Structure Wm (30 Deg)	None						24		
67	Structure Wm (60 Deg)	None						24		
68	Structure Wm (90 Deg)	None						24		
69	Structure Wm (120 Deg)	None						24		
70	Structure Wm (150 Deg)	None						24		
71	Structure Wm (180 Deg)	None						24		
72	Structure Wm (210 Deg)	None						24		
73	Structure Wm (240 Deg)	None						24		
74	Structure Wm (270 Deg)	None						24		
75	Structure Wm (300 Deg)	None						24		
76	Structure Wm (330 Deg)	None						24		
77	Lm1	None					1			
78	Lm2	None					1			
79	Lv1	None					1			
80	Lv2	None					1			

Load Combinations

	Description	Solve	P...	S...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...
1	1.2D+1.0Wo (0 De...	Yes	Y		1	1.2	39	1.2	3	1	41	1												
2	1.2D+1.0Wo (30 D...	Yes	Y		1	1.2	39	1.2	4	1	42	1												
3	1.2D+1.0Wo (60 D...	Yes	Y		1	1.2	39	1.2	5	1	43	1												
4	1.2D+1.0Wo (90 D...	Yes	Y		1	1.2	39	1.2	6	1	44	1												
5	1.2D+1.0Wo (120 ...	Yes	Y		1	1.2	39	1.2	7	1	45	1												
6	1.2D+1.0Wo (150 ...	Yes	Y		1	1.2	39	1.2	8	1	46	1												
7	1.2D+1.0Wo (180 ...	Yes	Y		1	1.2	39	1.2	9	1	47	1												
8	1.2D+1.0Wo (210 ...	Yes	Y		1	1.2	39	1.2	10	1	48	1												
9	1.2D+1.0Wo (240 ...	Yes	Y		1	1.2	39	1.2	11	1	49	1												
10	1.2D+1.0Wo (270 ...	Yes	Y		1	1.2	39	1.2	12	1	50	1												
11	1.2D+1.0Wo (300 ...	Yes	Y		1	1.2	39	1.2	13	1	51	1												
12	1.2D+1.0Wo (330 ...	Yes	Y		1	1.2	39	1.2	14	1	52	1												
13	1.2D + 1.0Di + 1.0...	Yes	Y		1	1.2	39	1.2	2	1	40	1	15	1	53	1								
14	1.2D + 1.0Di + 1.0...	Yes	Y		1	1.2	39	1.2	2	1	40	1	16	1	54	1								
15	1.2D + 1.0Di + 1.0...	Yes	Y		1	1.2	39	1.2	2	1	40	1	17	1	55	1								
16	1.2D + 1.0Di + 1.0...	Yes	Y		1	1.2	39	1.2	2	1	40	1	18	1	56	1								
17	1.2D + 1.0Di + 1.0...	Yes	Y		1	1.2	39	1.2	2	1	40	1	19	1	57	1								
18	1.2D + 1.0Di + 1.0...	Yes	Y		1	1.2	39	1.2	2	1	40	1	20	1	58	1								
19	1.2D + 1.0Di + 1.0...	Yes	Y		1	1.2	39	1.2	2	1	40	1	21	1	59	1								
20	1.2D + 1.0Di + 1.0...	Yes	Y		1	1.2	39	1.2	2	1	40	1	22	1	60	1								
21	1.2D + 1.0Di + 1.0...	Yes	Y		1	1.2	39	1.2	2	1	40	1	23	1	61	1								
22	1.2D + 1.0Di + 1.0...	Yes	Y		1	1.2	39	1.2	2	1	40	1	24	1	62	1								
23	1.2D + 1.0Di + 1.0...	Yes	Y		1	1.2	39	1.2	2	1	40	1	25	1	63	1								
24	1.2D + 1.0Di + 1.0...	Yes	Y		1	1.2	39	1.2	2	1	40	1	26	1	64	1								
25	1.2D + 1.5Lm1 + 1...	Yes	Y		1	1.2	39	1.2	77	1.5	27	1	65	1										
26	1.2D + 1.5Lm1 + 1...	Yes	Y		1	1.2	39	1.2	77	1.5	28	1	66	1										
27	1.2D + 1.5Lm1 + 1...	Yes	Y		1	1.2	39	1.2	77	1.5	29	1	67	1										
28	1.2D + 1.5Lm1 + 1...	Yes	Y		1	1.2	39	1.2	77	1.5	30	1	68	1										

Load Combinations (Continued)

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

Joint Coordinates and Temperatures

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diap...
1	N2	-5.666667	-.74	1.458333	0	
2	N3	3.333333	-.74	1.458333	0	
3	N46A	3.083333	-.74	1.458333	0	
4	N50	3.083333	-.74	1.708333	0	
5	N52	3.083333	5.26	1.708333	0	
6	N53	3.083333	-3.74	1.708333	0	
7	N53A	-1.166667	-.74	1.458333	0	
8	N54A	-1.166667	-.74	1.083333	0	
9	N33A	-1.166667	.01	1.083333	0	
10	N34A	-1.166667	-1.49	1.083333	0	
11	N35B	-1.166667	-.74	-2.916667	0	
12	N12	-0.666667	-.74	1.458333	0	
13	N13	-0.666667	-.74	1.708333	0	
14	N14	-0.666667	5.26	1.708333	0	
15	N15	-0.666667	-3.74	1.708333	0	
16	N20	-5.416667	-.74	1.458333	0	

Joint Coordinates and Temperatures (Continued)

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diap...
17	N21	-5.416667	-.74	1.708333	0	
18	N22	-5.416667	5.26	1.708333	0	
19	N23	-5.416667	-3.74	1.708333	0	
20	N20A	-5.666667	2.26	1.458333	0	
21	N21A	3.333333	2.26	1.458333	0	
22	N22A	3.083333	2.26	1.458333	0	
23	N23A	3.083333	2.26	1.708333	0	
24	N24	-0.666667	2.26	1.458333	0	
25	N25	-0.666667	2.26	1.708333	0	
26	N26	-5.416667	2.26	1.458333	0	
27	N27	-5.416667	2.26	1.708333	0	
28	N28	2.166667	2.26	1.458333	0	
29	N29	-4.5	2.26	1.458333	0	
30	N30	-1.166667	2.26	-2.916667	0	
31	N31	3.083333	4.593333	1.708333	0	
32	N32	2.833333	4.593333	1.708333	0	
33	N33	2.833333	4.593333	2.708333	0	
34	N34	2.583333	4.593333	2.708333	0	
35	N35	2.583333	5.26	2.708333	0	
36	N36	2.583333	-2.74	2.708333	0	
37	N37	3.083333	-2.073333	1.708333	0	
38	N38	2.833333	-2.073333	1.708333	0	
39	N39	2.833333	-2.073333	2.708333	0	
40	N40	2.583333	-2.073333	2.708333	0	

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design ...	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	Mount Pipe	PIPE_2.5	Column	Pipe	A53 Gr. B	Typical	1.61	1.45	1.45	2.89
2	Face Horizontal	PIPE_3.0	Beam	Pipe	A53 Gr. B	Typical	2.07	2.85	2.85	5.69
3	V Bracing Face	PIPE_2.5	Beam	Pipe	A53 Gr. B	Typical	1.61	1.45	1.45	2.89
4	V Braicng	PIPE_2.0	Beam	Pipe	A53 Gr. B	Typical	1.02	.627	.627	1.25
5	Standoff Horizontal	HSS4X4X4	Beam	Pipe	A500 Gr. B 46	Typical	3.37	7.8	7.8	12.8
6	Standoff Mount Pi...	PIPE_3.0	Column	Pipe	A53 Gr. B	Typical	2.07	2.85	2.85	5.69
7	Tie Back	PIPE_2.0	Beam	Pipe	A53 Gr. B	Typical	1.02	.627	.627	1.25
8	Dual Pipes	PIPE_2.0	Beam	Pipe	A53 Gr. B	Typical	1.02	.627	.627	1.25

Hot Rolled Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm (/1...	Density[k/ft...	Yield[ksi]	Ry	Fu[ksi]	Rt
1	A36 Gr.36	29000	11154	.3	.65	.49	36	1.5	58	1.2
2	A53 Gr. B	29000	11154	.3	.65	.49	35	1.5	60	1.2
3	A572 Gr.50	29000	11154	.3	.65	.49	50	1.1	65	1.1
4	A992	29000	11154	.3	.65	.49	50	1.1	65	1.1
5	A500 Gr. B 42	29000	11154	.3	.65	.49	42	1.4	58	1.3
6	A500 Gr. B 46	29000	11154	.3	.65	.49	46	1.4	58	1.3
7	A500 Gr C Round	29000	11154	.3	.65	.49	46	1.5	62	1.2
8	A529 gr50	29000	11154	.3	.65	.49	50	1.5	65	1.2

Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
1	M1	N2	N3			Face Horizontal	Beam	Pipe	A53 Gr. B	Typical
2	M28	N46A	N50			RIGID	None	None	RIGID	Typical
3	MP6A	N52	N53			Mount Pipe	Column	Pipe	A53 Gr. B	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
4	M31A	N53A	N54A			RIGID	None	None	RIGID	Typical
5	M17A	N34A	N33A			Standoff Moun...	Column	Pipe	A53 Gr. B	Typical
6	O2	N54A	N35B			Standoff Horiz...	Beam	Pipe	A500 Gr. ...	Typical
7	M7	N12	N13			RIGID	None	None	RIGID	Typical
8	MP2A	N14	N15			Mount Pipe	Column	Pipe	A53 Gr. B	Typical
9	M11	N20	N21			RIGID	None	None	RIGID	Typical
10	MP3A	N22	N23			Mount Pipe	Column	Pipe	A53 Gr. B	Typical
11	M11A	N20A	N21A			Face Horizontal	Beam	Pipe	A53 Gr. B	Typical
12	M12	N22A	N23A			RIGID	None	None	RIGID	Typical
13	M13	N24	N25			RIGID	None	None	RIGID	Typical
14	M14	N26	N27			RIGID	None	None	RIGID	Typical
15	O1	N29	N30			V Braicng	Beam	Pipe	A53 Gr. B	Typical
16	M16	N28	N30			V Braicng	Beam	Pipe	A53 Gr. B	Typical
17	M17	N31	N32			RIGID	None	None	RIGID	Typical
18	M18	N37	N38			RIGID	None	None	RIGID	Typical
19	M19	N40	N39			RIGID	None	None	RIGID	Typical
20	M20	N34	N33			RIGID	None	None	RIGID	Typical
21	M21	N32	N33			Dual Pipes	Beam	Pipe	A53 Gr. B	Typical
22	MP1A	N35	N36			Dual Pipes	Beam	Pipe	A53 Gr. B	Typical
23	M23	N38	N39			Dual Pipes	Beam	Pipe	A53 Gr. B	Typical

Member Advanced Data

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rat...	Analysis ...	Inactive	Seismic...
1	M1						Yes				None
2	M28						Yes	** NA **			None
3	MP6A						Yes	** NA **			None
4	M31A		OOOOOO				Yes	** NA **			None
5	M17A						Yes	** NA **			None
6	O2						Yes	Default			None
7	M7						Yes	** NA **			None
8	MP2A						Yes	** NA **			None
9	M11						Yes	** NA **			None
10	MP3A						Yes	** NA **			None
11	M11A						Yes	Default			None
12	M12						Yes	** NA **			None
13	M13						Yes	** NA **			None
14	M14						Yes	** NA **			None
15	O1	BenPIN	BenPIN				Yes	Default			None
16	M16	BenPIN	BenPIN				Yes	Default			None
17	M17						Yes	** NA **			None
18	M18						Yes	** NA **			None
19	M19	OOOXOX					Yes	** NA **			None
20	M20	OOOXOX					Yes	** NA **			None
21	M21						Yes				None
22	MP1A						Yes				None
23	M23						Yes				None

Member Point Loads (BLC 1 : Antenna D)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP6A	Y	-70.3	4
2	MP6A	My	0	4
3	MP6A	Mz	-.035	4
4	MP2A	Y	-53.5	1.5
5	MP2A	My	-.027	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
6	MP2A	Mz	.042	1.5
7	MP2A	Y	-53.5	7.5
8	MP2A	My	-.027	7.5
9	MP2A	Mz	.042	7.5
10	MP2A	Y	-53.5	1.5
11	MP2A	My	-.027	1.5
12	MP2A	Mz	-.042	1.5
13	MP2A	Y	-53.5	7.5
14	MP2A	My	-.027	7.5
15	MP2A	Mz	-.042	7.5
16	MP3A	Y	-43.55	3.5
17	MP3A	My	-.022	3.5
18	MP3A	Mz	0	3.5
19	MP3A	Y	-43.55	5.5
20	MP3A	My	-.022	5.5
21	MP3A	Mz	0	5.5
22	MP2A	Y	-84.4	4
23	MP2A	My	.042	4
24	MP2A	Mz	0	4
25	O1	Y	-32	3.5
26	O1	My	0	3.5
27	O1	Mz	0	3.5
28	MP1A	Y	-19	2.5
29	MP1A	My	.001	2.5
30	MP1A	Mz	.000792	2.5
31	MP1A	Y	-19	6.5
32	MP1A	My	.001	6.5
33	MP1A	Mz	.000792	6.5
34	MP2A	Y	-10.4	2
35	MP2A	My	.005	2
36	MP2A	Mz	0	2

Member Point Loads (BLC 2 : Antenna Di)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP6A	Y	-40.098	4
2	MP6A	My	0	4
3	MP6A	Mz	-.02	4
4	MP2A	Y	-101.996	1.5
5	MP2A	My	-.051	1.5
6	MP2A	Mz	.081	1.5
7	MP2A	Y	-101.996	7.5
8	MP2A	My	-.051	7.5
9	MP2A	Mz	.081	7.5
10	MP2A	Y	-101.996	1.5
11	MP2A	My	-.051	1.5
12	MP2A	Mz	-.081	1.5
13	MP2A	Y	-101.996	7.5
14	MP2A	My	-.051	7.5
15	MP2A	Mz	-.081	7.5
16	MP3A	Y	-35.371	3.5
17	MP3A	My	-.018	3.5
18	MP3A	Mz	0	3.5
19	MP3A	Y	-35.371	5.5
20	MP3A	My	-.018	5.5
21	MP3A	Mz	0	5.5
22	MP2A	Y	-44.59	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
23	MP2A	My	.022	4
24	MP2A	Mz	0	4
25	O1	Y	-87.325	3.5
26	O1	My	0	3.5
27	O1	Mz	0	3.5
28	MP1A	Y	-98.051	2.5
29	MP1A	My	.007	2.5
30	MP1A	Mz	.004	2.5
31	MP1A	Y	-98.051	6.5
32	MP1A	My	.007	6.5
33	MP1A	Mz	.004	6.5
34	MP2A	Y	-10.658	2
35	MP2A	My	.005	2
36	MP2A	Mz	0	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP6A	X	0	4
2	MP6A	Z	-29.869	4
3	MP6A	Mx	.015	4
4	MP2A	X	0	1.5
5	MP2A	Z	-234.378	1.5
6	MP2A	Mx	-.186	1.5
7	MP2A	X	0	7.5
8	MP2A	Z	-234.378	7.5
9	MP2A	Mx	-.186	7.5
10	MP2A	X	0	1.5
11	MP2A	Z	-234.378	1.5
12	MP2A	Mx	.186	1.5
13	MP2A	X	0	7.5
14	MP2A	Z	-234.378	7.5
15	MP2A	Mx	.186	7.5
16	MP3A	X	0	3.5
17	MP3A	Z	-69.325	3.5
18	MP3A	Mx	0	3.5
19	MP3A	X	0	5.5
20	MP3A	Z	-69.325	5.5
21	MP3A	Mx	0	5.5
22	MP2A	X	0	4
23	MP2A	Z	-55.165	4
24	MP2A	Mx	0	4
25	O1	X	0	3.5
26	O1	Z	-91.377	3.5
27	O1	Mx	0	3.5
28	MP1A	X	0	2.5
29	MP1A	Z	-180.397	2.5
30	MP1A	Mx	-.008	2.5
31	MP1A	X	0	6.5
32	MP1A	Z	-180.397	6.5
33	MP1A	Mx	-.008	6.5
34	MP2A	X	0	2
35	MP2A	Z	-10.915	2
36	MP2A	Mx	0	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP6A	X	18.096	4
2	MP6A	Z	-31.344	4
3	MP6A	Mx	.016	4
4	MP2A	X	101.845	1.5
5	MP2A	Z	-176.4	1.5
6	MP2A	Mx	-.191	1.5
7	MP2A	X	101.845	7.5
8	MP2A	Z	-176.4	7.5
9	MP2A	Mx	-.191	7.5
10	MP2A	X	101.845	1.5
11	MP2A	Z	-176.4	1.5
12	MP2A	Mx	.089	1.5
13	MP2A	X	101.845	7.5
14	MP2A	Z	-176.4	7.5
15	MP2A	Mx	.089	7.5
16	MP3A	X	29.39	3.5
17	MP3A	Z	-50.904	3.5
18	MP3A	Mx	-.015	3.5
19	MP3A	X	29.39	5.5
20	MP3A	Z	-50.904	5.5
21	MP3A	Mx	-.015	5.5
22	MP2A	X	25.296	4
23	MP2A	Z	-43.815	4
24	MP2A	Mx	.013	4
25	O1	X	49.238	3.5
26	O1	Z	-85.282	3.5
27	O1	Mx	0	3.5
28	MP1A	X	106.2	2.5
29	MP1A	Z	-183.944	2.5
30	MP1A	Mx	0	2.5
31	MP1A	X	106.2	6.5
32	MP1A	Z	-183.944	6.5
33	MP1A	Mx	0	6.5
34	MP2A	X	5.037	2
35	MP2A	Z	-8.725	2
36	MP2A	Mx	.003	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP6A	X	42.298	4
2	MP6A	Z	-24.421	4
3	MP6A	Mx	.012	4
4	MP2A	X	123.246	1.5
5	MP2A	Z	-71.156	1.5
6	MP2A	Mx	-.118	1.5
7	MP2A	X	123.246	7.5
8	MP2A	Z	-71.156	7.5
9	MP2A	Mx	-.118	7.5
10	MP2A	X	123.246	1.5
11	MP2A	Z	-71.156	1.5
12	MP2A	Mx	-.005	1.5
13	MP2A	X	123.246	7.5
14	MP2A	Z	-71.156	7.5
15	MP2A	Mx	-.005	7.5
16	MP3A	X	32.638	3.5
17	MP3A	Z	-18.843	3.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
18	MP3A	Mx	-.016	3.5
19	MP3A	X	32.638	5.5
20	MP3A	Z	-18.843	5.5
21	MP3A	Mx	-.016	5.5
22	MP2A	X	35.895	4
23	MP2A	Z	-20.724	4
24	MP2A	Mx	.018	4
25	O1	X	97.577	3.5
26	O1	Z	-56.336	3.5
27	O1	Mx	0	3.5
28	MP1A	X	156.228	2.5
29	MP1A	Z	-90.198	2.5
30	MP1A	Mx	.008	2.5
31	MP1A	X	156.228	6.5
32	MP1A	Z	-90.198	6.5
33	MP1A	Mx	.008	6.5
34	MP2A	X	7.268	2
35	MP2A	Z	-4.196	2
36	MP2A	Mx	.004	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP6A	X	55.165	4
2	MP6A	Z	0	4
3	MP6A	Mx	0	4
4	MP2A	X	111.623	1.5
5	MP2A	Z	0	1.5
6	MP2A	Mx	-.056	1.5
7	MP2A	X	111.623	7.5
8	MP2A	Z	0	7.5
9	MP2A	Mx	-.056	7.5
10	MP2A	X	111.623	1.5
11	MP2A	Z	0	1.5
12	MP2A	Mx	-.056	1.5
13	MP2A	X	111.623	7.5
14	MP2A	Z	0	7.5
15	MP2A	Mx	-.056	7.5
16	MP3A	X	27.141	3.5
17	MP3A	Z	0	3.5
18	MP3A	Mx	-.014	3.5
19	MP3A	X	27.141	5.5
20	MP3A	Z	0	5.5
21	MP3A	Mx	-.014	5.5
22	MP2A	X	36.875	4
23	MP2A	Z	0	4
24	MP2A	Mx	.018	4
25	O1	X	119.77	3.5
26	O1	Z	0	3.5
27	O1	Mx	0	3.5
28	MP1A	X	116.388	2.5
29	MP1A	Z	0	2.5
30	MP1A	Mx	.008	2.5
31	MP1A	X	116.388	6.5
32	MP1A	Z	0	6.5
33	MP1A	Mx	.008	6.5
34	MP2A	X	7.552	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
35	MP2A	Z	0	2
36	MP2A	Mx	.004	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP6A	X	42.298	4
2	MP6A	Z	24.421	4
3	MP6A	Mx	-.012	4
4	MP2A	X	123.246	1.5
5	MP2A	Z	71.156	1.5
6	MP2A	Mx	-.005	1.5
7	MP2A	X	123.246	7.5
8	MP2A	Z	71.156	7.5
9	MP2A	Mx	-.005	7.5
10	MP2A	X	123.246	1.5
11	MP2A	Z	71.156	1.5
12	MP2A	Mx	-.118	1.5
13	MP2A	X	123.246	7.5
14	MP2A	Z	71.156	7.5
15	MP2A	Mx	-.118	7.5
16	MP3A	X	32.638	3.5
17	MP3A	Z	18.843	3.5
18	MP3A	Mx	-.016	3.5
19	MP3A	X	32.638	5.5
20	MP3A	Z	18.843	5.5
21	MP3A	Mx	-.016	5.5
22	MP2A	X	35.895	4
23	MP2A	Z	20.724	4
24	MP2A	Mx	.018	4
25	O1	X	97.577	3.5
26	O1	Z	56.336	3.5
27	O1	Mx	0	3.5
28	MP1A	X	73.079	2.5
29	MP1A	Z	42.192	2.5
30	MP1A	Mx	.007	2.5
31	MP1A	X	73.079	6.5
32	MP1A	Z	42.192	6.5
33	MP1A	Mx	.007	6.5
34	MP2A	X	7.268	2
35	MP2A	Z	4.196	2
36	MP2A	Mx	.004	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP6A	X	18.096	4
2	MP6A	Z	31.344	4
3	MP6A	Mx	-.016	4
4	MP2A	X	101.845	1.5
5	MP2A	Z	176.4	1.5
6	MP2A	Mx	.089	1.5
7	MP2A	X	101.845	7.5
8	MP2A	Z	176.4	7.5
9	MP2A	Mx	.089	7.5
10	MP2A	X	101.845	1.5
11	MP2A	Z	176.4	1.5
12	MP2A	Mx	-.191	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
13	MP2A	X	101.845	7.5
14	MP2A	Z	176.4	7.5
15	MP2A	Mx	-.191	7.5
16	MP3A	X	29.39	3.5
17	MP3A	Z	50.904	3.5
18	MP3A	Mx	-.015	3.5
19	MP3A	X	29.39	5.5
20	MP3A	Z	50.904	5.5
21	MP3A	Mx	-.015	5.5
22	MP2A	X	25.296	4
23	MP2A	Z	43.815	4
24	MP2A	Mx	.013	4
25	O1	X	49.238	3.5
26	O1	Z	85.282	3.5
27	O1	Mx	0	3.5
28	MP1A	X	58.194	2.5
29	MP1A	Z	100.795	2.5
30	MP1A	Mx	.008	2.5
31	MP1A	X	58.194	6.5
32	MP1A	Z	100.795	6.5
33	MP1A	Mx	.008	6.5
34	MP2A	X	5.037	2
35	MP2A	Z	8.725	2
36	MP2A	Mx	.003	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP6A	X	0	4
2	MP6A	Z	29.869	4
3	MP6A	Mx	-.015	4
4	MP2A	X	0	1.5
5	MP2A	Z	234.378	1.5
6	MP2A	Mx	.186	1.5
7	MP2A	X	0	7.5
8	MP2A	Z	234.378	7.5
9	MP2A	Mx	.186	7.5
10	MP2A	X	0	1.5
11	MP2A	Z	234.378	1.5
12	MP2A	Mx	-.186	1.5
13	MP2A	X	0	7.5
14	MP2A	Z	234.378	7.5
15	MP2A	Mx	-.186	7.5
16	MP3A	X	0	3.5
17	MP3A	Z	69.325	3.5
18	MP3A	Mx	0	3.5
19	MP3A	X	0	5.5
20	MP3A	Z	69.325	5.5
21	MP3A	Mx	0	5.5
22	MP2A	X	0	4
23	MP2A	Z	55.165	4
24	MP2A	Mx	0	4
25	O1	X	0	3.5
26	O1	Z	91.377	3.5
27	O1	Mx	0	3.5
28	MP1A	X	0	2.5
29	MP1A	Z	180.397	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
30	MP1A	Mx	.008	2.5
31	MP1A	X	0	6.5
32	MP1A	Z	180.397	6.5
33	MP1A	Mx	.008	6.5
34	MP2A	X	0	2
35	MP2A	Z	10.915	2
36	MP2A	Mx	0	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP6A	X	-18.096	4
2	MP6A	Z	31.344	4
3	MP6A	Mx	-.016	4
4	MP2A	X	-101.845	1.5
5	MP2A	Z	176.4	1.5
6	MP2A	Mx	.191	1.5
7	MP2A	X	-101.845	7.5
8	MP2A	Z	176.4	7.5
9	MP2A	Mx	.191	7.5
10	MP2A	X	-101.845	1.5
11	MP2A	Z	176.4	1.5
12	MP2A	Mx	-.089	1.5
13	MP2A	X	-101.845	7.5
14	MP2A	Z	176.4	7.5
15	MP2A	Mx	-.089	7.5
16	MP3A	X	-29.39	3.5
17	MP3A	Z	50.904	3.5
18	MP3A	Mx	.015	3.5
19	MP3A	X	-29.39	5.5
20	MP3A	Z	50.904	5.5
21	MP3A	Mx	.015	5.5
22	MP2A	X	-25.296	4
23	MP2A	Z	43.815	4
24	MP2A	Mx	-.013	4
25	O1	X	-49.238	3.5
26	O1	Z	85.282	3.5
27	O1	Mx	0	3.5
28	MP1A	X	-106.2	2.5
29	MP1A	Z	183.944	2.5
30	MP1A	Mx	0	2.5
31	MP1A	X	-106.2	6.5
32	MP1A	Z	183.944	6.5
33	MP1A	Mx	0	6.5
34	MP2A	X	-5.037	2
35	MP2A	Z	8.725	2
36	MP2A	Mx	-.003	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP6A	X	-42.298	4
2	MP6A	Z	24.421	4
3	MP6A	Mx	-.012	4
4	MP2A	X	-123.246	1.5
5	MP2A	Z	71.156	1.5
6	MP2A	Mx	.118	1.5
7	MP2A	X	-123.246	7.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
8	MP2A	Z	71.156	7.5
9	MP2A	Mx	.118	7.5
10	MP2A	X	-123.246	1.5
11	MP2A	Z	71.156	1.5
12	MP2A	Mx	.005	1.5
13	MP2A	X	-123.246	7.5
14	MP2A	Z	71.156	7.5
15	MP2A	Mx	.005	7.5
16	MP3A	X	-32.638	3.5
17	MP3A	Z	18.843	3.5
18	MP3A	Mx	.016	3.5
19	MP3A	X	-32.638	5.5
20	MP3A	Z	18.843	5.5
21	MP3A	Mx	.016	5.5
22	MP2A	X	-35.895	4
23	MP2A	Z	20.724	4
24	MP2A	Mx	-.018	4
25	O1	X	-97.577	3.5
26	O1	Z	56.336	3.5
27	O1	Mx	0	3.5
28	MP1A	X	-156.228	2.5
29	MP1A	Z	90.198	2.5
30	MP1A	Mx	-.008	2.5
31	MP1A	X	-156.228	6.5
32	MP1A	Z	90.198	6.5
33	MP1A	Mx	-.008	6.5
34	MP2A	X	-7.268	2
35	MP2A	Z	4.196	2
36	MP2A	Mx	-.004	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP6A	X	-55.165	4
2	MP6A	Z	0	4
3	MP6A	Mx	0	4
4	MP2A	X	-111.623	1.5
5	MP2A	Z	0	1.5
6	MP2A	Mx	.056	1.5
7	MP2A	X	-111.623	7.5
8	MP2A	Z	0	7.5
9	MP2A	Mx	.056	7.5
10	MP2A	X	-111.623	1.5
11	MP2A	Z	0	1.5
12	MP2A	Mx	.056	1.5
13	MP2A	X	-111.623	7.5
14	MP2A	Z	0	7.5
15	MP2A	Mx	.056	7.5
16	MP3A	X	-27.141	3.5
17	MP3A	Z	0	3.5
18	MP3A	Mx	.014	3.5
19	MP3A	X	-27.141	5.5
20	MP3A	Z	0	5.5
21	MP3A	Mx	.014	5.5
22	MP2A	X	-36.875	4
23	MP2A	Z	0	4
24	MP2A	Mx	-.018	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
25	O1	X	-119.77	3.5
26	O1	Z	0	3.5
27	O1	Mx	0	3.5
28	MP1A	X	-116.388	2.5
29	MP1A	Z	0	2.5
30	MP1A	Mx	-.008	2.5
31	MP1A	X	-116.388	6.5
32	MP1A	Z	0	6.5
33	MP1A	Mx	-.008	6.5
34	MP2A	X	-7.552	2
35	MP2A	Z	0	2
36	MP2A	Mx	-.004	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP6A	X	-42.298	4
2	MP6A	Z	-24.421	4
3	MP6A	Mx	.012	4
4	MP2A	X	-123.246	1.5
5	MP2A	Z	-71.156	1.5
6	MP2A	Mx	.005	1.5
7	MP2A	X	-123.246	7.5
8	MP2A	Z	-71.156	7.5
9	MP2A	Mx	.005	7.5
10	MP2A	X	-123.246	1.5
11	MP2A	Z	-71.156	1.5
12	MP2A	Mx	.118	1.5
13	MP2A	X	-123.246	7.5
14	MP2A	Z	-71.156	7.5
15	MP2A	Mx	.118	7.5
16	MP3A	X	-32.638	3.5
17	MP3A	Z	-18.843	3.5
18	MP3A	Mx	.016	3.5
19	MP3A	X	-32.638	5.5
20	MP3A	Z	-18.843	5.5
21	MP3A	Mx	.016	5.5
22	MP2A	X	-35.895	4
23	MP2A	Z	-20.724	4
24	MP2A	Mx	-.018	4
25	O1	X	-97.577	3.5
26	O1	Z	-56.336	3.5
27	O1	Mx	0	3.5
28	MP1A	X	-73.079	2.5
29	MP1A	Z	-42.192	2.5
30	MP1A	Mx	-.007	2.5
31	MP1A	X	-73.079	6.5
32	MP1A	Z	-42.192	6.5
33	MP1A	Mx	-.007	6.5
34	MP2A	X	-7.268	2
35	MP2A	Z	-4.196	2
36	MP2A	Mx	-.004	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP6A	X	-18.096	4
2	MP6A	Z	-31.344	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
3	MP6A	Mx	.016	4
4	MP2A	X	-101.845	1.5
5	MP2A	Z	-176.4	1.5
6	MP2A	Mx	-.089	1.5
7	MP2A	X	-101.845	7.5
8	MP2A	Z	-176.4	7.5
9	MP2A	Mx	-.089	7.5
10	MP2A	X	-101.845	1.5
11	MP2A	Z	-176.4	1.5
12	MP2A	Mx	.191	1.5
13	MP2A	X	-101.845	7.5
14	MP2A	Z	-176.4	7.5
15	MP2A	Mx	.191	7.5
16	MP3A	X	-29.39	3.5
17	MP3A	Z	-50.904	3.5
18	MP3A	Mx	.015	3.5
19	MP3A	X	-29.39	5.5
20	MP3A	Z	-50.904	5.5
21	MP3A	Mx	.015	5.5
22	MP2A	X	-25.296	4
23	MP2A	Z	-43.815	4
24	MP2A	Mx	-.013	4
25	O1	X	-49.238	3.5
26	O1	Z	-85.282	3.5
27	O1	Mx	0	3.5
28	MP1A	X	-58.194	2.5
29	MP1A	Z	-100.795	2.5
30	MP1A	Mx	-.008	2.5
31	MP1A	X	-58.194	6.5
32	MP1A	Z	-100.795	6.5
33	MP1A	Mx	-.008	6.5
34	MP2A	X	-5.037	2
35	MP2A	Z	-8.725	2
36	MP2A	Mx	-.003	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP6A	X	0	4
2	MP6A	Z	-4.706	4
3	MP6A	Mx	.002	4
4	MP2A	X	0	1.5
5	MP2A	Z	-30.913	1.5
6	MP2A	Mx	-.024	1.5
7	MP2A	X	0	7.5
8	MP2A	Z	-30.913	7.5
9	MP2A	Mx	-.024	7.5
10	MP2A	X	0	1.5
11	MP2A	Z	-30.913	1.5
12	MP2A	Mx	.024	1.5
13	MP2A	X	0	7.5
14	MP2A	Z	-30.913	7.5
15	MP2A	Mx	.024	7.5
16	MP3A	X	0	3.5
17	MP3A	Z	-9.635	3.5
18	MP3A	Mx	0	3.5
19	MP3A	X	0	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
20	MP3A	Z	-9.635	5.5
21	MP3A	Mx	0	5.5
22	MP2A	X	0	4
23	MP2A	Z	-8.118	4
24	MP2A	Mx	0	4
25	O1	X	0	3.5
26	O1	Z	-13.048	3.5
27	O1	Mx	0	3.5
28	MP1A	X	0	2.5
29	MP1A	Z	-23.958	2.5
30	MP1A	Mx	-.000998	2.5
31	MP1A	X	0	6.5
32	MP1A	Z	-23.958	6.5
33	MP1A	Mx	-.000998	6.5
34	MP2A	X	0	2
35	MP2A	Z	-1.968	2
36	MP2A	Mx	0	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP6A	X	2.779	4
2	MP6A	Z	-4.814	4
3	MP6A	Mx	.002	4
4	MP2A	X	13.534	1.5
5	MP2A	Z	-23.441	1.5
6	MP2A	Mx	-.025	1.5
7	MP2A	X	13.534	7.5
8	MP2A	Z	-23.441	7.5
9	MP2A	Mx	-.025	7.5
10	MP2A	X	13.534	1.5
11	MP2A	Z	-23.441	1.5
12	MP2A	Mx	.012	1.5
13	MP2A	X	13.534	7.5
14	MP2A	Z	-23.441	7.5
15	MP2A	Mx	.012	7.5
16	MP3A	X	4.126	3.5
17	MP3A	Z	-7.146	3.5
18	MP3A	Mx	-.002	3.5
19	MP3A	X	4.126	5.5
20	MP3A	Z	-7.146	5.5
21	MP3A	Mx	-.002	5.5
22	MP2A	X	3.75	4
23	MP2A	Z	-6.495	4
24	MP2A	Mx	.002	4
25	O1	X	6.979	3.5
26	O1	Z	-12.088	3.5
27	O1	Mx	0	3.5
28	MP1A	X	13.996	2.5
29	MP1A	Z	-24.242	2.5
30	MP1A	Mx	0	2.5
31	MP1A	X	13.996	6.5
32	MP1A	Z	-24.242	6.5
33	MP1A	Mx	0	6.5
34	MP2A	X	.923	2
35	MP2A	Z	-1.598	2
36	MP2A	Mx	.000462	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP6A	X	6.291	4
2	MP6A	Z	-3.632	4
3	MP6A	Mx	.002	4
4	MP2A	X	16.782	1.5
5	MP2A	Z	-9.689	1.5
6	MP2A	Mx	-.016	1.5
7	MP2A	X	16.782	7.5
8	MP2A	Z	-9.689	7.5
9	MP2A	Mx	-.016	7.5
10	MP2A	X	16.782	1.5
11	MP2A	Z	-9.689	1.5
12	MP2A	Mx	-.000721	1.5
13	MP2A	X	16.782	7.5
14	MP2A	Z	-9.689	7.5
15	MP2A	Mx	-.000721	7.5
16	MP3A	X	4.75	3.5
17	MP3A	Z	-2.743	3.5
18	MP3A	Mx	-.002	3.5
19	MP3A	X	4.75	5.5
20	MP3A	Z	-2.743	5.5
21	MP3A	Mx	-.002	5.5
22	MP2A	X	5.424	4
23	MP2A	Z	-3.132	4
24	MP2A	Mx	.003	4
25	O1	X	13.664	3.5
26	O1	Z	-7.889	3.5
27	O1	Mx	0	3.5
28	MP1A	X	20.748	2.5
29	MP1A	Z	-11.979	2.5
30	MP1A	Mx	.000998	2.5
31	MP1A	X	20.748	6.5
32	MP1A	Z	-11.979	6.5
33	MP1A	Mx	.000998	6.5
34	MP2A	X	1.385	2
35	MP2A	Z	-.8	2
36	MP2A	Mx	.000693	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP6A	X	8.118	4
2	MP6A	Z	0	4
3	MP6A	Mx	0	4
4	MP2A	X	15.533	1.5
5	MP2A	Z	0	1.5
6	MP2A	Mx	-.008	1.5
7	MP2A	X	15.533	7.5
8	MP2A	Z	0	7.5
9	MP2A	Mx	-.008	7.5
10	MP2A	X	15.533	1.5
11	MP2A	Z	0	1.5
12	MP2A	Mx	-.008	1.5
13	MP2A	X	15.533	7.5
14	MP2A	Z	0	7.5
15	MP2A	Mx	-.008	7.5
16	MP3A	X	4.102	3.5
17	MP3A	Z	0	3.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
18	MP3A	Mx	-.002	3.5
19	MP3A	X	4.102	5.5
20	MP3A	Z	0	5.5
21	MP3A	Mx	-.002	5.5
22	MP2A	X	5.645	4
23	MP2A	Z	0	4
24	MP2A	Mx	.003	4
25	O1	X	16.688	3.5
26	O1	Z	0	3.5
27	O1	Mx	0	3.5
28	MP1A	X	15.89	2.5
29	MP1A	Z	0	2.5
30	MP1A	Mx	.001	2.5
31	MP1A	X	15.89	6.5
32	MP1A	Z	0	6.5
33	MP1A	Mx	.001	6.5
34	MP2A	X	1.476	2
35	MP2A	Z	0	2
36	MP2A	Mx	.000738	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP6A	X	6.291	4
2	MP6A	Z	3.632	4
3	MP6A	Mx	-.002	4
4	MP2A	X	16.782	1.5
5	MP2A	Z	9.689	1.5
6	MP2A	Mx	-.000721	1.5
7	MP2A	X	16.782	7.5
8	MP2A	Z	9.689	7.5
9	MP2A	Mx	-.000721	7.5
10	MP2A	X	16.782	1.5
11	MP2A	Z	9.689	1.5
12	MP2A	Mx	-.016	1.5
13	MP2A	X	16.782	7.5
14	MP2A	Z	9.689	7.5
15	MP2A	Mx	-.016	7.5
16	MP3A	X	4.75	3.5
17	MP3A	Z	2.743	3.5
18	MP3A	Mx	-.002	3.5
19	MP3A	X	4.75	5.5
20	MP3A	Z	2.743	5.5
21	MP3A	Mx	-.002	5.5
22	MP2A	X	5.424	4
23	MP2A	Z	3.132	4
24	MP2A	Mx	.003	4
25	O1	X	13.664	3.5
26	O1	Z	7.889	3.5
27	O1	Mx	0	3.5
28	MP1A	X	10.267	2.5
29	MP1A	Z	5.928	2.5
30	MP1A	Mx	.000988	2.5
31	MP1A	X	10.267	6.5
32	MP1A	Z	5.928	6.5
33	MP1A	Mx	.000988	6.5
34	MP2A	X	1.385	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
35	MP2A	Z	.8	2
36	MP2A	Mx	.000693	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP6A	X	2.779	4
2	MP6A	Z	4.814	4
3	MP6A	Mx	-.002	4
4	MP2A	X	13.534	1.5
5	MP2A	Z	23.441	1.5
6	MP2A	Mx	.012	1.5
7	MP2A	X	13.534	7.5
8	MP2A	Z	23.441	7.5
9	MP2A	Mx	.012	7.5
10	MP2A	X	13.534	1.5
11	MP2A	Z	23.441	1.5
12	MP2A	Mx	-.025	1.5
13	MP2A	X	13.534	7.5
14	MP2A	Z	23.441	7.5
15	MP2A	Mx	-.025	7.5
16	MP3A	X	4.126	3.5
17	MP3A	Z	7.146	3.5
18	MP3A	Mx	-.002	3.5
19	MP3A	X	4.126	5.5
20	MP3A	Z	7.146	5.5
21	MP3A	Mx	-.002	5.5
22	MP2A	X	3.75	4
23	MP2A	Z	6.495	4
24	MP2A	Mx	.002	4
25	O1	X	6.979	3.5
26	O1	Z	12.088	3.5
27	O1	Mx	0	3.5
28	MP1A	X	7.945	2.5
29	MP1A	Z	13.761	2.5
30	MP1A	Mx	.001	2.5
31	MP1A	X	7.945	6.5
32	MP1A	Z	13.761	6.5
33	MP1A	Mx	.001	6.5
34	MP2A	X	.923	2
35	MP2A	Z	1.598	2
36	MP2A	Mx	.000462	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP6A	X	0	4
2	MP6A	Z	4.706	4
3	MP6A	Mx	-.002	4
4	MP2A	X	0	1.5
5	MP2A	Z	30.913	1.5
6	MP2A	Mx	.024	1.5
7	MP2A	X	0	7.5
8	MP2A	Z	30.913	7.5
9	MP2A	Mx	.024	7.5
10	MP2A	X	0	1.5
11	MP2A	Z	30.913	1.5
12	MP2A	Mx	-.024	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
13	MP2A	X	0	7.5
14	MP2A	Z	30.913	7.5
15	MP2A	Mx	-.024	7.5
16	MP3A	X	0	3.5
17	MP3A	Z	9.635	3.5
18	MP3A	Mx	0	3.5
19	MP3A	X	0	5.5
20	MP3A	Z	9.635	5.5
21	MP3A	Mx	0	5.5
22	MP2A	X	0	4
23	MP2A	Z	8.118	4
24	MP2A	Mx	0	4
25	O1	X	0	3.5
26	O1	Z	13.048	3.5
27	O1	Mx	0	3.5
28	MP1A	X	0	2.5
29	MP1A	Z	23.958	2.5
30	MP1A	Mx	.000998	2.5
31	MP1A	X	0	6.5
32	MP1A	Z	23.958	6.5
33	MP1A	Mx	.000998	6.5
34	MP2A	X	0	2
35	MP2A	Z	1.968	2
36	MP2A	Mx	0	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP6A	X	-2.779	4
2	MP6A	Z	4.814	4
3	MP6A	Mx	-.002	4
4	MP2A	X	-13.534	1.5
5	MP2A	Z	23.441	1.5
6	MP2A	Mx	.025	1.5
7	MP2A	X	-13.534	7.5
8	MP2A	Z	23.441	7.5
9	MP2A	Mx	.025	7.5
10	MP2A	X	-13.534	1.5
11	MP2A	Z	23.441	1.5
12	MP2A	Mx	-.012	1.5
13	MP2A	X	-13.534	7.5
14	MP2A	Z	23.441	7.5
15	MP2A	Mx	-.012	7.5
16	MP3A	X	-4.126	3.5
17	MP3A	Z	7.146	3.5
18	MP3A	Mx	.002	3.5
19	MP3A	X	-4.126	5.5
20	MP3A	Z	7.146	5.5
21	MP3A	Mx	.002	5.5
22	MP2A	X	-3.75	4
23	MP2A	Z	6.495	4
24	MP2A	Mx	-.002	4
25	O1	X	-6.979	3.5
26	O1	Z	12.088	3.5
27	O1	Mx	0	3.5
28	MP1A	X	-13.996	2.5
29	MP1A	Z	24.242	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
30	MP1A	Mx	0	2.5
31	MP1A	X	-13.996	6.5
32	MP1A	Z	24.242	6.5
33	MP1A	Mx	0	6.5
34	MP2A	X	-.923	2
35	MP2A	Z	1.598	2
36	MP2A	Mx	-.000462	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP6A	X	-6.291	4
2	MP6A	Z	3.632	4
3	MP6A	Mx	-.002	4
4	MP2A	X	-16.782	1.5
5	MP2A	Z	9.689	1.5
6	MP2A	Mx	.016	1.5
7	MP2A	X	-16.782	7.5
8	MP2A	Z	9.689	7.5
9	MP2A	Mx	.016	7.5
10	MP2A	X	-16.782	1.5
11	MP2A	Z	9.689	1.5
12	MP2A	Mx	.000721	1.5
13	MP2A	X	-16.782	7.5
14	MP2A	Z	9.689	7.5
15	MP2A	Mx	.000721	7.5
16	MP3A	X	-4.75	3.5
17	MP3A	Z	2.743	3.5
18	MP3A	Mx	.002	3.5
19	MP3A	X	-4.75	5.5
20	MP3A	Z	2.743	5.5
21	MP3A	Mx	.002	5.5
22	MP2A	X	-5.424	4
23	MP2A	Z	3.132	4
24	MP2A	Mx	-.003	4
25	O1	X	-13.664	3.5
26	O1	Z	7.889	3.5
27	O1	Mx	0	3.5
28	MP1A	X	-20.748	2.5
29	MP1A	Z	11.979	2.5
30	MP1A	Mx	-.000998	2.5
31	MP1A	X	-20.748	6.5
32	MP1A	Z	11.979	6.5
33	MP1A	Mx	-.000998	6.5
34	MP2A	X	-1.385	2
35	MP2A	Z	.8	2
36	MP2A	Mx	-.000693	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP6A	X	-8.118	4
2	MP6A	Z	0	4
3	MP6A	Mx	0	4
4	MP2A	X	-15.533	1.5
5	MP2A	Z	0	1.5
6	MP2A	Mx	.008	1.5
7	MP2A	X	-15.533	7.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
8	MP2A	Z	0	7.5
9	MP2A	Mx	.008	7.5
10	MP2A	X	-15.533	1.5
11	MP2A	Z	0	1.5
12	MP2A	Mx	.008	1.5
13	MP2A	X	-15.533	7.5
14	MP2A	Z	0	7.5
15	MP2A	Mx	.008	7.5
16	MP3A	X	-4.102	3.5
17	MP3A	Z	0	3.5
18	MP3A	Mx	.002	3.5
19	MP3A	X	-4.102	5.5
20	MP3A	Z	0	5.5
21	MP3A	Mx	.002	5.5
22	MP2A	X	-5.645	4
23	MP2A	Z	0	4
24	MP2A	Mx	-.003	4
25	O1	X	-16.688	3.5
26	O1	Z	0	3.5
27	O1	Mx	0	3.5
28	MP1A	X	-15.89	2.5
29	MP1A	Z	0	2.5
30	MP1A	Mx	-.001	2.5
31	MP1A	X	-15.89	6.5
32	MP1A	Z	0	6.5
33	MP1A	Mx	-.001	6.5
34	MP2A	X	-1.476	2
35	MP2A	Z	0	2
36	MP2A	Mx	-.000738	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP6A	X	-6.291	4
2	MP6A	Z	-3.632	4
3	MP6A	Mx	.002	4
4	MP2A	X	-16.782	1.5
5	MP2A	Z	-9.689	1.5
6	MP2A	Mx	.000721	1.5
7	MP2A	X	-16.782	7.5
8	MP2A	Z	-9.689	7.5
9	MP2A	Mx	.000721	7.5
10	MP2A	X	-16.782	1.5
11	MP2A	Z	-9.689	1.5
12	MP2A	Mx	.016	1.5
13	MP2A	X	-16.782	7.5
14	MP2A	Z	-9.689	7.5
15	MP2A	Mx	.016	7.5
16	MP3A	X	-4.75	3.5
17	MP3A	Z	-2.743	3.5
18	MP3A	Mx	.002	3.5
19	MP3A	X	-4.75	5.5
20	MP3A	Z	-2.743	5.5
21	MP3A	Mx	.002	5.5
22	MP2A	X	-5.424	4
23	MP2A	Z	-3.132	4
24	MP2A	Mx	-.003	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
25	O1	X	-13.664	3.5
26	O1	Z	-7.889	3.5
27	O1	Mx	0	3.5
28	MP1A	X	-10.267	2.5
29	MP1A	Z	-5.928	2.5
30	MP1A	Mx	-.000988	2.5
31	MP1A	X	-10.267	6.5
32	MP1A	Z	-5.928	6.5
33	MP1A	Mx	-.000988	6.5
34	MP2A	X	-1.385	2
35	MP2A	Z	-.8	2
36	MP2A	Mx	-.000693	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP6A	X	-2.779	4
2	MP6A	Z	-4.814	4
3	MP6A	Mx	.002	4
4	MP2A	X	-13.534	1.5
5	MP2A	Z	-23.441	1.5
6	MP2A	Mx	-.012	1.5
7	MP2A	X	-13.534	7.5
8	MP2A	Z	-23.441	7.5
9	MP2A	Mx	-.012	7.5
10	MP2A	X	-13.534	1.5
11	MP2A	Z	-23.441	1.5
12	MP2A	Mx	.025	1.5
13	MP2A	X	-13.534	7.5
14	MP2A	Z	-23.441	7.5
15	MP2A	Mx	.025	7.5
16	MP3A	X	-4.126	3.5
17	MP3A	Z	-7.146	3.5
18	MP3A	Mx	.002	3.5
19	MP3A	X	-4.126	5.5
20	MP3A	Z	-7.146	5.5
21	MP3A	Mx	.002	5.5
22	MP2A	X	-3.75	4
23	MP2A	Z	-6.495	4
24	MP2A	Mx	-.002	4
25	O1	X	-6.979	3.5
26	O1	Z	-12.088	3.5
27	O1	Mx	0	3.5
28	MP1A	X	-7.945	2.5
29	MP1A	Z	-13.761	2.5
30	MP1A	Mx	-.001	2.5
31	MP1A	X	-7.945	6.5
32	MP1A	Z	-13.761	6.5
33	MP1A	Mx	-.001	6.5
34	MP2A	X	-.923	2
35	MP2A	Z	-1.598	2
36	MP2A	Mx	-.000462	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP6A	X	0	4
2	MP6A	Z	-2.068	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
3	MP6A	Mx	.001	4
4	MP2A	X	0	1.5
5	MP2A	Z	-16.231	1.5
6	MP2A	Mx	-.013	1.5
7	MP2A	X	0	7.5
8	MP2A	Z	-16.231	7.5
9	MP2A	Mx	-.013	7.5
10	MP2A	X	0	1.5
11	MP2A	Z	-16.231	1.5
12	MP2A	Mx	.013	1.5
13	MP2A	X	0	7.5
14	MP2A	Z	-16.231	7.5
15	MP2A	Mx	.013	7.5
16	MP3A	X	0	3.5
17	MP3A	Z	-4.801	3.5
18	MP3A	Mx	0	3.5
19	MP3A	X	0	5.5
20	MP3A	Z	-4.801	5.5
21	MP3A	Mx	0	5.5
22	MP2A	X	0	4
23	MP2A	Z	-3.82	4
24	MP2A	Mx	0	4
25	O1	X	0	3.5
26	O1	Z	-6.328	3.5
27	O1	Mx	0	3.5
28	MP1A	X	0	2.5
29	MP1A	Z	-12.493	2.5
30	MP1A	Mx	-.000521	2.5
31	MP1A	X	0	6.5
32	MP1A	Z	-12.493	6.5
33	MP1A	Mx	-.000521	6.5
34	MP2A	X	0	2
35	MP2A	Z	-.756	2
36	MP2A	Mx	0	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP6A	X	1.253	4
2	MP6A	Z	-2.171	4
3	MP6A	Mx	.001	4
4	MP2A	X	7.053	1.5
5	MP2A	Z	-12.216	1.5
6	MP2A	Mx	-.013	1.5
7	MP2A	X	7.053	7.5
8	MP2A	Z	-12.216	7.5
9	MP2A	Mx	-.013	7.5
10	MP2A	X	7.053	1.5
11	MP2A	Z	-12.216	1.5
12	MP2A	Mx	.006	1.5
13	MP2A	X	7.053	7.5
14	MP2A	Z	-12.216	7.5
15	MP2A	Mx	.006	7.5
16	MP3A	X	2.035	3.5
17	MP3A	Z	-3.525	3.5
18	MP3A	Mx	-.001	3.5
19	MP3A	X	2.035	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
20	MP3A	Z	-3.525	5.5
21	MP3A	Mx	-.001	5.5
22	MP2A	X	1.752	4
23	MP2A	Z	-3.034	4
24	MP2A	Mx	.000876	4
25	O1	X	3.41	3.5
26	O1	Z	-5.906	3.5
27	O1	Mx	0	3.5
28	MP1A	X	7.355	2.5
29	MP1A	Z	-12.739	2.5
30	MP1A	Mx	0	2.5
31	MP1A	X	7.355	6.5
32	MP1A	Z	-12.739	6.5
33	MP1A	Mx	0	6.5
34	MP2A	X	.349	2
35	MP2A	Z	-.604	2
36	MP2A	Mx	.000174	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP6A	X	2.929	4
2	MP6A	Z	-1.691	4
3	MP6A	Mx	.000846	4
4	MP2A	X	8.535	1.5
5	MP2A	Z	-4.928	1.5
6	MP2A	Mx	-.008	1.5
7	MP2A	X	8.535	7.5
8	MP2A	Z	-4.928	7.5
9	MP2A	Mx	-.008	7.5
10	MP2A	X	8.535	1.5
11	MP2A	Z	-4.928	1.5
12	MP2A	Mx	-.000366	1.5
13	MP2A	X	8.535	7.5
14	MP2A	Z	-4.928	7.5
15	MP2A	Mx	-.000366	7.5
16	MP3A	X	2.26	3.5
17	MP3A	Z	-1.305	3.5
18	MP3A	Mx	-.001	3.5
19	MP3A	X	2.26	5.5
20	MP3A	Z	-1.305	5.5
21	MP3A	Mx	-.001	5.5
22	MP2A	X	2.486	4
23	MP2A	Z	-1.435	4
24	MP2A	Mx	.001	4
25	O1	X	6.757	3.5
26	O1	Z	-3.901	3.5
27	O1	Mx	0	3.5
28	MP1A	X	10.819	2.5
29	MP1A	Z	-6.246	2.5
30	MP1A	Mx	.000521	2.5
31	MP1A	X	10.819	6.5
32	MP1A	Z	-6.246	6.5
33	MP1A	Mx	.000521	6.5
34	MP2A	X	.503	2
35	MP2A	Z	-.291	2
36	MP2A	Mx	.000252	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP6A	X	3.82	4
2	MP6A	Z	0	4
3	MP6A	Mx	0	4
4	MP2A	X	7.73	1.5
5	MP2A	Z	0	1.5
6	MP2A	Mx	-.004	1.5
7	MP2A	X	7.73	7.5
8	MP2A	Z	0	7.5
9	MP2A	Mx	-.004	7.5
10	MP2A	X	7.73	1.5
11	MP2A	Z	0	1.5
12	MP2A	Mx	-.004	1.5
13	MP2A	X	7.73	7.5
14	MP2A	Z	0	7.5
15	MP2A	Mx	-.004	7.5
16	MP3A	X	1.88	3.5
17	MP3A	Z	0	3.5
18	MP3A	Mx	-.00094	3.5
19	MP3A	X	1.88	5.5
20	MP3A	Z	0	5.5
21	MP3A	Mx	-.00094	5.5
22	MP2A	X	2.554	4
23	MP2A	Z	0	4
24	MP2A	Mx	.001	4
25	O1	X	8.294	3.5
26	O1	Z	0	3.5
27	O1	Mx	0	3.5
28	MP1A	X	8.06	2.5
29	MP1A	Z	0	2.5
30	MP1A	Mx	.000582	2.5
31	MP1A	X	8.06	6.5
32	MP1A	Z	0	6.5
33	MP1A	Mx	.000582	6.5
34	MP2A	X	.523	2
35	MP2A	Z	0	2
36	MP2A	Mx	.000262	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP6A	X	2.929	4
2	MP6A	Z	1.691	4
3	MP6A	Mx	-.000846	4
4	MP2A	X	8.535	1.5
5	MP2A	Z	4.928	1.5
6	MP2A	Mx	-.000366	1.5
7	MP2A	X	8.535	7.5
8	MP2A	Z	4.928	7.5
9	MP2A	Mx	-.000366	7.5
10	MP2A	X	8.535	1.5
11	MP2A	Z	4.928	1.5
12	MP2A	Mx	-.008	1.5
13	MP2A	X	8.535	7.5
14	MP2A	Z	4.928	7.5
15	MP2A	Mx	-.008	7.5
16	MP3A	X	2.26	3.5
17	MP3A	Z	1.305	3.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
18	MP3A	Mx	-.001	3.5
19	MP3A	X	2.26	5.5
20	MP3A	Z	1.305	5.5
21	MP3A	Mx	-.001	5.5
22	MP2A	X	2.486	4
23	MP2A	Z	1.435	4
24	MP2A	Mx	.001	4
25	O1	X	6.757	3.5
26	O1	Z	3.901	3.5
27	O1	Mx	0	3.5
28	MP1A	X	5.061	2.5
29	MP1A	Z	2.922	2.5
30	MP1A	Mx	.000487	2.5
31	MP1A	X	5.061	6.5
32	MP1A	Z	2.922	6.5
33	MP1A	Mx	.000487	6.5
34	MP2A	X	.503	2
35	MP2A	Z	.291	2
36	MP2A	Mx	.000252	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP6A	X	1.253	4
2	MP6A	Z	2.171	4
3	MP6A	Mx	-.001	4
4	MP2A	X	7.053	1.5
5	MP2A	Z	12.216	1.5
6	MP2A	Mx	.006	1.5
7	MP2A	X	7.053	7.5
8	MP2A	Z	12.216	7.5
9	MP2A	Mx	.006	7.5
10	MP2A	X	7.053	1.5
11	MP2A	Z	12.216	1.5
12	MP2A	Mx	-.013	1.5
13	MP2A	X	7.053	7.5
14	MP2A	Z	12.216	7.5
15	MP2A	Mx	-.013	7.5
16	MP3A	X	2.035	3.5
17	MP3A	Z	3.525	3.5
18	MP3A	Mx	-.001	3.5
19	MP3A	X	2.035	5.5
20	MP3A	Z	3.525	5.5
21	MP3A	Mx	-.001	5.5
22	MP2A	X	1.752	4
23	MP2A	Z	3.034	4
24	MP2A	Mx	.000876	4
25	O1	X	3.41	3.5
26	O1	Z	5.906	3.5
27	O1	Mx	0	3.5
28	MP1A	X	4.03	2.5
29	MP1A	Z	6.98	2.5
30	MP1A	Mx	.000582	2.5
31	MP1A	X	4.03	6.5
32	MP1A	Z	6.98	6.5
33	MP1A	Mx	.000582	6.5
34	MP2A	X	.349	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
35	MP2A	Z	.604	2
36	MP2A	Mx	.000174	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP6A	X	0	4
2	MP6A	Z	2.068	4
3	MP6A	Mx	-.001	4
4	MP2A	X	0	1.5
5	MP2A	Z	16.231	1.5
6	MP2A	Mx	.013	1.5
7	MP2A	X	0	7.5
8	MP2A	Z	16.231	7.5
9	MP2A	Mx	.013	7.5
10	MP2A	X	0	1.5
11	MP2A	Z	16.231	1.5
12	MP2A	Mx	-.013	1.5
13	MP2A	X	0	7.5
14	MP2A	Z	16.231	7.5
15	MP2A	Mx	-.013	7.5
16	MP3A	X	0	3.5
17	MP3A	Z	4.801	3.5
18	MP3A	Mx	0	3.5
19	MP3A	X	0	5.5
20	MP3A	Z	4.801	5.5
21	MP3A	Mx	0	5.5
22	MP2A	X	0	4
23	MP2A	Z	3.82	4
24	MP2A	Mx	0	4
25	O1	X	0	3.5
26	O1	Z	6.328	3.5
27	O1	Mx	0	3.5
28	MP1A	X	0	2.5
29	MP1A	Z	12.493	2.5
30	MP1A	Mx	.000521	2.5
31	MP1A	X	0	6.5
32	MP1A	Z	12.493	6.5
33	MP1A	Mx	.000521	6.5
34	MP2A	X	0	2
35	MP2A	Z	.756	2
36	MP2A	Mx	0	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP6A	X	-1.253	4
2	MP6A	Z	2.171	4
3	MP6A	Mx	-.001	4
4	MP2A	X	-7.053	1.5
5	MP2A	Z	12.216	1.5
6	MP2A	Mx	.013	1.5
7	MP2A	X	-7.053	7.5
8	MP2A	Z	12.216	7.5
9	MP2A	Mx	.013	7.5
10	MP2A	X	-7.053	1.5
11	MP2A	Z	12.216	1.5
12	MP2A	Mx	-.006	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
13	MP2A	X	-7.053	7.5
14	MP2A	Z	12.216	7.5
15	MP2A	Mx	-.006	7.5
16	MP3A	X	-2.035	3.5
17	MP3A	Z	3.525	3.5
18	MP3A	Mx	.001	3.5
19	MP3A	X	-2.035	5.5
20	MP3A	Z	3.525	5.5
21	MP3A	Mx	.001	5.5
22	MP2A	X	-1.752	4
23	MP2A	Z	3.034	4
24	MP2A	Mx	-.000876	4
25	O1	X	-3.41	3.5
26	O1	Z	5.906	3.5
27	O1	Mx	0	3.5
28	MP1A	X	-7.355	2.5
29	MP1A	Z	12.739	2.5
30	MP1A	Mx	0	2.5
31	MP1A	X	-7.355	6.5
32	MP1A	Z	12.739	6.5
33	MP1A	Mx	0	6.5
34	MP2A	X	-.349	2
35	MP2A	Z	.604	2
36	MP2A	Mx	-.000174	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP6A	X	-2.929	4
2	MP6A	Z	1.691	4
3	MP6A	Mx	-.000846	4
4	MP2A	X	-8.535	1.5
5	MP2A	Z	4.928	1.5
6	MP2A	Mx	.008	1.5
7	MP2A	X	-8.535	7.5
8	MP2A	Z	4.928	7.5
9	MP2A	Mx	.008	7.5
10	MP2A	X	-8.535	1.5
11	MP2A	Z	4.928	1.5
12	MP2A	Mx	.000366	1.5
13	MP2A	X	-8.535	7.5
14	MP2A	Z	4.928	7.5
15	MP2A	Mx	.000366	7.5
16	MP3A	X	-2.26	3.5
17	MP3A	Z	1.305	3.5
18	MP3A	Mx	.001	3.5
19	MP3A	X	-2.26	5.5
20	MP3A	Z	1.305	5.5
21	MP3A	Mx	.001	5.5
22	MP2A	X	-2.486	4
23	MP2A	Z	1.435	4
24	MP2A	Mx	-.001	4
25	O1	X	-6.757	3.5
26	O1	Z	3.901	3.5
27	O1	Mx	0	3.5
28	MP1A	X	-10.819	2.5
29	MP1A	Z	6.246	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
30	MP1A	Mx	-.000521	2.5
31	MP1A	X	-10.819	6.5
32	MP1A	Z	6.246	6.5
33	MP1A	Mx	-.000521	6.5
34	MP2A	X	-.503	2
35	MP2A	Z	.291	2
36	MP2A	Mx	-.000252	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP6A	X	-3.82	4
2	MP6A	Z	0	4
3	MP6A	Mx	0	4
4	MP2A	X	-7.73	1.5
5	MP2A	Z	0	1.5
6	MP2A	Mx	.004	1.5
7	MP2A	X	-7.73	7.5
8	MP2A	Z	0	7.5
9	MP2A	Mx	.004	7.5
10	MP2A	X	-7.73	1.5
11	MP2A	Z	0	1.5
12	MP2A	Mx	.004	1.5
13	MP2A	X	-7.73	7.5
14	MP2A	Z	0	7.5
15	MP2A	Mx	.004	7.5
16	MP3A	X	-1.88	3.5
17	MP3A	Z	0	3.5
18	MP3A	Mx	.00094	3.5
19	MP3A	X	-1.88	5.5
20	MP3A	Z	0	5.5
21	MP3A	Mx	.00094	5.5
22	MP2A	X	-2.554	4
23	MP2A	Z	0	4
24	MP2A	Mx	-.001	4
25	O1	X	-8.294	3.5
26	O1	Z	0	3.5
27	O1	Mx	0	3.5
28	MP1A	X	-8.06	2.5
29	MP1A	Z	0	2.5
30	MP1A	Mx	-.000582	2.5
31	MP1A	X	-8.06	6.5
32	MP1A	Z	0	6.5
33	MP1A	Mx	-.000582	6.5
34	MP2A	X	-.523	2
35	MP2A	Z	0	2
36	MP2A	Mx	-.000262	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP6A	X	-2.929	4
2	MP6A	Z	-1.691	4
3	MP6A	Mx	.000846	4
4	MP2A	X	-8.535	1.5
5	MP2A	Z	-4.928	1.5
6	MP2A	Mx	.000366	1.5
7	MP2A	X	-8.535	7.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
8	MP2A	Z	-4.928	7.5
9	MP2A	Mx	.000366	7.5
10	MP2A	X	-8.535	1.5
11	MP2A	Z	-4.928	1.5
12	MP2A	Mx	.008	1.5
13	MP2A	X	-8.535	7.5
14	MP2A	Z	-4.928	7.5
15	MP2A	Mx	.008	7.5
16	MP3A	X	-2.26	3.5
17	MP3A	Z	-1.305	3.5
18	MP3A	Mx	.001	3.5
19	MP3A	X	-2.26	5.5
20	MP3A	Z	-1.305	5.5
21	MP3A	Mx	.001	5.5
22	MP2A	X	-2.486	4
23	MP2A	Z	-1.435	4
24	MP2A	Mx	-.001	4
25	O1	X	-6.757	3.5
26	O1	Z	-3.901	3.5
27	O1	Mx	0	3.5
28	MP1A	X	-5.061	2.5
29	MP1A	Z	-2.922	2.5
30	MP1A	Mx	-.000487	2.5
31	MP1A	X	-5.061	6.5
32	MP1A	Z	-2.922	6.5
33	MP1A	Mx	-.000487	6.5
34	MP2A	X	-.503	2
35	MP2A	Z	-.291	2
36	MP2A	Mx	-.000252	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP6A	X	-1.253	4
2	MP6A	Z	-2.171	4
3	MP6A	Mx	.001	4
4	MP2A	X	-7.053	1.5
5	MP2A	Z	-12.216	1.5
6	MP2A	Mx	-.006	1.5
7	MP2A	X	-7.053	7.5
8	MP2A	Z	-12.216	7.5
9	MP2A	Mx	-.006	7.5
10	MP2A	X	-7.053	1.5
11	MP2A	Z	-12.216	1.5
12	MP2A	Mx	.013	1.5
13	MP2A	X	-7.053	7.5
14	MP2A	Z	-12.216	7.5
15	MP2A	Mx	.013	7.5
16	MP3A	X	-2.035	3.5
17	MP3A	Z	-3.525	3.5
18	MP3A	Mx	.001	3.5
19	MP3A	X	-2.035	5.5
20	MP3A	Z	-3.525	5.5
21	MP3A	Mx	.001	5.5
22	MP2A	X	-1.752	4
23	MP2A	Z	-3.034	4
24	MP2A	Mx	-.000876	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
25	O1	X	-3.41	3.5
26	O1	Z	-5.906	3.5
27	O1	Mx	0	3.5
28	MP1A	X	-4.03	2.5
29	MP1A	Z	-6.98	2.5
30	MP1A	Mx	-.000582	2.5
31	MP1A	X	-4.03	6.5
32	MP1A	Z	-6.98	6.5
33	MP1A	Mx	-.000582	6.5
34	MP2A	X	-.349	2
35	MP2A	Z	-.604	2
36	MP2A	Mx	-.000174	2

Member Point Loads (BLC 77 : Lm1)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	M1	Y	-500	%56

Member Point Loads (BLC 78 : Lm2)

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

Member Point Loads (BLC 79 : Lv1)

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

Member Point Loads (BLC 80 : Lv2)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	M1	Y	-250	%100

Member Distributed Loads (BLC 40 : Structure Di)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	Y	-6.512	-6.512	0	%100
2	MP6A	Y	-5.636	-5.636	0	%100
3	M17A	Y	-6.512	-6.512	0	%100
4	O2	Y	-9.534	-9.534	0	%100
5	MP2A	Y	-5.636	-5.636	0	%100
6	MP3A	Y	-5.636	-5.636	0	%100
7	M11A	Y	-6.512	-6.512	0	%100
8	O1	Y	-4.935	-4.935	0	%100
9	M16	Y	-4.935	-4.935	0	%100
10	M21	Y	-4.935	-4.935	0	%100
11	MP1A	Y	-4.935	-4.935	0	%100
12	M23	Y	-4.935	-4.935	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	-10.325	-10.325	0	%100
3	MP6A	X	0	0	0	%100
4	MP6A	Z	-8.481	-8.481	0	%100
5	M17A	X	0	0	0	%100
6	M17A	Z	-6.528	-6.528	0	%100
7	O2	X	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
8	O2	Z	0	0	0	%100
9	MP2A	X	0	0	0	%100
10	MP2A	Z	-8.481	-8.481	0	%100
11	MP3A	X	0	0	0	%100
12	MP3A	Z	-8.481	-8.481	0	%100
13	M11A	X	0	0	0	%100
14	M11A	Z	-10.325	-10.325	0	%100
15	O1	X	0	0	0	%100
16	O1	Z	-2.573	-2.573	0	%100
17	M16	X	0	0	0	%100
18	M16	Z	-2.573	-2.573	0	%100
19	M21	X	0	0	0	%100
20	M21	Z	0	0	0	%100
21	MP1A	X	0	0	0	%100
22	MP1A	Z	-7.006	-7.006	0	%100
23	M23	X	0	0	0	%100
24	M23	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	3.872	3.872	0	%100
2	M1	Z	-6.706	-6.706	0	%100
3	MP6A	X	4.241	4.241	0	%100
4	MP6A	Z	-7.345	-7.345	0	%100
5	M17A	X	3.264	3.264	0	%100
6	M17A	Z	-5.654	-5.654	0	%100
7	O2	X	1.226	1.226	0	%100
8	O2	Z	-2.123	-2.123	0	%100
9	MP2A	X	4.241	4.241	0	%100
10	MP2A	Z	-7.345	-7.345	0	%100
11	MP3A	X	4.241	4.241	0	%100
12	MP3A	Z	-7.345	-7.345	0	%100
13	M11A	X	3.872	3.872	0	%100
14	M11A	Z	-6.706	-6.706	0	%100
15	O1	X	.057	.057	0	%100
16	O1	Z	-.098	-.098	0	%100
17	M16	X	2.982	2.982	0	%100
18	M16	Z	-5.164	-5.164	0	%100
19	M21	X	.552	.552	0	%100
20	M21	Z	-.957	-.957	0	%100
21	MP1A	X	3.503	3.503	0	%100
22	MP1A	Z	-6.068	-6.068	0	%100
23	M23	X	.552	.552	0	%100
24	M23	Z	-.957	-.957	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	2.235	2.235	0	%100
2	M1	Z	-1.291	-1.291	0	%100
3	MP6A	X	7.345	7.345	0	%100
4	MP6A	Z	-4.241	-4.241	0	%100
5	M17A	X	5.654	5.654	0	%100
6	M17A	Z	-3.264	-3.264	0	%100
7	O2	X	6.369	6.369	0	%100
8	O2	Z	-3.677	-3.677	0	%100
9	MP2A	X	7.345	7.345	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
10	MP2A	Z	-4.241	-4.241	0	%100
11	MP3A	X	7.345	7.345	0	%100
12	MP3A	Z	-4.241	-4.241	0	%100
13	M11A	X	2.235	2.235	0	%100
14	M11A	Z	-1.291	-1.291	0	%100
15	O1	X	.903	.903	0	%100
16	O1	Z	-.522	-.522	0	%100
17	M16	X	5.97	5.97	0	%100
18	M16	Z	-3.447	-3.447	0	%100
19	M21	X	2.87	2.87	0	%100
20	M21	Z	-1.657	-1.657	0	%100
21	MP1A	X	6.068	6.068	0	%100
22	MP1A	Z	-3.503	-3.503	0	%100
23	M23	X	2.87	2.87	0	%100
24	M23	Z	-1.657	-1.657	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	MP6A	X	8.481	8.481	0	%100
4	MP6A	Z	0	0	0	%100
5	M17A	X	6.528	6.528	0	%100
6	M17A	Z	0	0	0	%100
7	O2	X	9.806	9.806	0	%100
8	O2	Z	0	0	0	%100
9	MP2A	X	8.481	8.481	0	%100
10	MP2A	Z	0	0	0	%100
11	MP3A	X	8.481	8.481	0	%100
12	MP3A	Z	0	0	0	%100
13	M11A	X	0	0	0	%100
14	M11A	Z	0	0	0	%100
15	O1	X	4.433	4.433	0	%100
16	O1	Z	0	0	0	%100
17	M16	X	4.433	4.433	0	%100
18	M16	Z	0	0	0	%100
19	M21	X	4.418	4.418	0	%100
20	M21	Z	0	0	0	%100
21	MP1A	X	7.006	7.006	0	%100
22	MP1A	Z	0	0	0	%100
23	M23	X	4.418	4.418	0	%100
24	M23	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	2.235	2.235	0	%100
2	M1	Z	1.291	1.291	0	%100
3	MP6A	X	7.345	7.345	0	%100
4	MP6A	Z	4.241	4.241	0	%100
5	M17A	X	5.654	5.654	0	%100
6	M17A	Z	3.264	3.264	0	%100
7	O2	X	6.369	6.369	0	%100
8	O2	Z	3.677	3.677	0	%100
9	MP2A	X	7.345	7.345	0	%100
10	MP2A	Z	4.241	4.241	0	%100
11	MP3A	X	7.345	7.345	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
12	MP3A	Z	4.241	4.241	0	%100
13	M11A	X	2.235	2.235	0	%100
14	M11A	Z	1.291	1.291	0	%100
15	O1	X	5.97	5.97	0	%100
16	O1	Z	3.447	3.447	0	%100
17	M16	X	.903	.903	0	%100
18	M16	Z	.522	.522	0	%100
19	M21	X	2.87	2.87	0	%100
20	M21	Z	1.657	1.657	0	%100
21	MP1A	X	6.068	6.068	0	%100
22	MP1A	Z	3.503	3.503	0	%100
23	M23	X	2.87	2.87	0	%100
24	M23	Z	1.657	1.657	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	3.872	3.872	0	%100
2	M1	Z	6.706	6.706	0	%100
3	MP6A	X	4.241	4.241	0	%100
4	MP6A	Z	7.345	7.345	0	%100
5	M17A	X	3.264	3.264	0	%100
6	M17A	Z	5.654	5.654	0	%100
7	O2	X	1.226	1.226	0	%100
8	O2	Z	2.123	2.123	0	%100
9	MP2A	X	4.241	4.241	0	%100
10	MP2A	Z	7.345	7.345	0	%100
11	MP3A	X	4.241	4.241	0	%100
12	MP3A	Z	7.345	7.345	0	%100
13	M11A	X	3.872	3.872	0	%100
14	M11A	Z	6.706	6.706	0	%100
15	O1	X	2.982	2.982	0	%100
16	O1	Z	5.164	5.164	0	%100
17	M16	X	.057	.057	0	%100
18	M16	Z	.098	.098	0	%100
19	M21	X	.552	.552	0	%100
20	M21	Z	.957	.957	0	%100
21	MP1A	X	3.503	3.503	0	%100
22	MP1A	Z	6.068	6.068	0	%100
23	M23	X	.552	.552	0	%100
24	M23	Z	.957	.957	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	10.325	10.325	0	%100
3	MP6A	X	0	0	0	%100
4	MP6A	Z	8.481	8.481	0	%100
5	M17A	X	0	0	0	%100
6	M17A	Z	6.528	6.528	0	%100
7	O2	X	0	0	0	%100
8	O2	Z	0	0	0	%100
9	MP2A	X	0	0	0	%100
10	MP2A	Z	8.481	8.481	0	%100
11	MP3A	X	0	0	0	%100
12	MP3A	Z	8.481	8.481	0	%100
13	M11A	X	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
14	M11A	Z	10.325	10.325	0	%100
15	O1	X	0	0	0	%100
16	O1	Z	2.573	2.573	0	%100
17	M16	X	0	0	0	%100
18	M16	Z	2.573	2.573	0	%100
19	M21	X	0	0	0	%100
20	M21	Z	0	0	0	%100
21	MP1A	X	0	0	0	%100
22	MP1A	Z	7.006	7.006	0	%100
23	M23	X	0	0	0	%100
24	M23	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-3.872	-3.872	0	%100
2	M1	Z	6.706	6.706	0	%100
3	MP6A	X	-4.241	-4.241	0	%100
4	MP6A	Z	7.345	7.345	0	%100
5	M17A	X	-3.264	-3.264	0	%100
6	M17A	Z	5.654	5.654	0	%100
7	O2	X	-1.226	-1.226	0	%100
8	O2	Z	2.123	2.123	0	%100
9	MP2A	X	-4.241	-4.241	0	%100
10	MP2A	Z	7.345	7.345	0	%100
11	MP3A	X	-4.241	-4.241	0	%100
12	MP3A	Z	7.345	7.345	0	%100
13	M11A	X	-3.872	-3.872	0	%100
14	M11A	Z	6.706	6.706	0	%100
15	O1	X	-.057	-.057	0	%100
16	O1	Z	.098	.098	0	%100
17	M16	X	-2.982	-2.982	0	%100
18	M16	Z	5.164	5.164	0	%100
19	M21	X	-.552	-.552	0	%100
20	M21	Z	.957	.957	0	%100
21	MP1A	X	-3.503	-3.503	0	%100
22	MP1A	Z	6.068	6.068	0	%100
23	M23	X	-.552	-.552	0	%100
24	M23	Z	.957	.957	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-2.235	-2.235	0	%100
2	M1	Z	1.291	1.291	0	%100
3	MP6A	X	-7.345	-7.345	0	%100
4	MP6A	Z	4.241	4.241	0	%100
5	M17A	X	-5.654	-5.654	0	%100
6	M17A	Z	3.264	3.264	0	%100
7	O2	X	-6.369	-6.369	0	%100
8	O2	Z	3.677	3.677	0	%100
9	MP2A	X	-7.345	-7.345	0	%100
10	MP2A	Z	4.241	4.241	0	%100
11	MP3A	X	-7.345	-7.345	0	%100
12	MP3A	Z	4.241	4.241	0	%100
13	M11A	X	-2.235	-2.235	0	%100
14	M11A	Z	1.291	1.291	0	%100
15	O1	X	-.903	-.903	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
16	O1	Z	.522	.522	0	%100
17	M16	X	-5.97	-5.97	0	%100
18	M16	Z	3.447	3.447	0	%100
19	M21	X	-2.87	-2.87	0	%100
20	M21	Z	1.657	1.657	0	%100
21	MP1A	X	-6.068	-6.068	0	%100
22	MP1A	Z	3.503	3.503	0	%100
23	M23	X	-2.87	-2.87	0	%100
24	M23	Z	1.657	1.657	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	MP6A	X	-8.481	-8.481	0	%100
4	MP6A	Z	0	0	0	%100
5	M17A	X	-6.528	-6.528	0	%100
6	M17A	Z	0	0	0	%100
7	O2	X	-9.806	-9.806	0	%100
8	O2	Z	0	0	0	%100
9	MP2A	X	-8.481	-8.481	0	%100
10	MP2A	Z	0	0	0	%100
11	MP3A	X	-8.481	-8.481	0	%100
12	MP3A	Z	0	0	0	%100
13	M11A	X	0	0	0	%100
14	M11A	Z	0	0	0	%100
15	O1	X	-4.433	-4.433	0	%100
16	O1	Z	0	0	0	%100
17	M16	X	-4.433	-4.433	0	%100
18	M16	Z	0	0	0	%100
19	M21	X	-4.418	-4.418	0	%100
20	M21	Z	0	0	0	%100
21	MP1A	X	-7.006	-7.006	0	%100
22	MP1A	Z	0	0	0	%100
23	M23	X	-4.418	-4.418	0	%100
24	M23	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-2.235	-2.235	0	%100
2	M1	Z	-1.291	-1.291	0	%100
3	MP6A	X	-7.345	-7.345	0	%100
4	MP6A	Z	-4.241	-4.241	0	%100
5	M17A	X	-5.654	-5.654	0	%100
6	M17A	Z	-3.264	-3.264	0	%100
7	O2	X	-6.369	-6.369	0	%100
8	O2	Z	-3.677	-3.677	0	%100
9	MP2A	X	-7.345	-7.345	0	%100
10	MP2A	Z	-4.241	-4.241	0	%100
11	MP3A	X	-7.345	-7.345	0	%100
12	MP3A	Z	-4.241	-4.241	0	%100
13	M11A	X	-2.235	-2.235	0	%100
14	M11A	Z	-1.291	-1.291	0	%100
15	O1	X	-5.97	-5.97	0	%100
16	O1	Z	-3.447	-3.447	0	%100
17	M16	X	-.903	-.903	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
18	M16	Z	-.522	-.522	0	%100
19	M21	X	-2.87	-2.87	0	%100
20	M21	Z	-1.657	-1.657	0	%100
21	MP1A	X	-6.068	-6.068	0	%100
22	MP1A	Z	-3.503	-3.503	0	%100
23	M23	X	-2.87	-2.87	0	%100
24	M23	Z	-1.657	-1.657	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-3.872	-3.872	0	%100
2	M1	Z	-6.706	-6.706	0	%100
3	MP6A	X	-4.241	-4.241	0	%100
4	MP6A	Z	-7.345	-7.345	0	%100
5	M17A	X	-3.264	-3.264	0	%100
6	M17A	Z	-5.654	-5.654	0	%100
7	O2	X	-1.226	-1.226	0	%100
8	O2	Z	-2.123	-2.123	0	%100
9	MP2A	X	-4.241	-4.241	0	%100
10	MP2A	Z	-7.345	-7.345	0	%100
11	MP3A	X	-4.241	-4.241	0	%100
12	MP3A	Z	-7.345	-7.345	0	%100
13	M11A	X	-3.872	-3.872	0	%100
14	M11A	Z	-6.706	-6.706	0	%100
15	O1	X	-2.982	-2.982	0	%100
16	O1	Z	-5.164	-5.164	0	%100
17	M16	X	-.057	-.057	0	%100
18	M16	Z	-.098	-.098	0	%100
19	M21	X	-.552	-.552	0	%100
20	M21	Z	-.957	-.957	0	%100
21	MP1A	X	-3.503	-3.503	0	%100
22	MP1A	Z	-6.068	-6.068	0	%100
23	M23	X	-.552	-.552	0	%100
24	M23	Z	-.957	-.957	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	-2.104	-2.104	0	%100
3	MP6A	X	0	0	0	%100
4	MP6A	Z	-1.877	-1.877	0	%100
5	M17A	X	0	0	0	%100
6	M17A	Z	-1.372	-1.372	0	%100
7	O2	X	0	0	0	%100
8	O2	Z	0	0	0	%100
9	MP2A	X	0	0	0	%100
10	MP2A	Z	-1.877	-1.877	0	%100
11	MP3A	X	0	0	0	%100
12	MP3A	Z	-1.877	-1.877	0	%100
13	M11A	X	0	0	0	%100
14	M11A	Z	-2.104	-2.104	0	%100
15	O1	X	0	0	0	%100
16	O1	Z	-.623	-.623	0	%100
17	M16	X	0	0	0	%100
18	M16	Z	-.623	-.623	0	%100
19	M21	X	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
20	M21	Z	0	0	0	%100
21	MP1A	X	0	0	0	%100
22	MP1A	Z	-1.696	-1.696	0	%100
23	M23	X	0	0	0	%100
24	M23	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	.789	.789	0	%100
2	M1	Z	-1.367	-1.367	0	%100
3	MP6A	X	.939	.939	0	%100
4	MP6A	Z	-1.626	-1.626	0	%100
5	M17A	X	.686	.686	0	%100
6	M17A	Z	-1.188	-1.188	0	%100
7	O2	X	.247	.247	0	%100
8	O2	Z	-.428	-.428	0	%100
9	MP2A	X	.939	.939	0	%100
10	MP2A	Z	-1.626	-1.626	0	%100
11	MP3A	X	.939	.939	0	%100
12	MP3A	Z	-1.626	-1.626	0	%100
13	M11A	X	.789	.789	0	%100
14	M11A	Z	-1.367	-1.367	0	%100
15	O1	X	.014	.014	0	%100
16	O1	Z	-.024	-.024	0	%100
17	M16	X	.722	.722	0	%100
18	M16	Z	-1.25	-1.25	0	%100
19	M21	X	.134	.134	0	%100
20	M21	Z	-.232	-.232	0	%100
21	MP1A	X	.848	.848	0	%100
22	MP1A	Z	-1.469	-1.469	0	%100
23	M23	X	.134	.134	0	%100
24	M23	Z	-.232	-.232	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	.456	.456	0	%100
2	M1	Z	-.263	-.263	0	%100
3	MP6A	X	1.626	1.626	0	%100
4	MP6A	Z	-.939	-.939	0	%100
5	M17A	X	1.188	1.188	0	%100
6	M17A	Z	-.686	-.686	0	%100
7	O2	X	1.284	1.284	0	%100
8	O2	Z	-.742	-.742	0	%100
9	MP2A	X	1.626	1.626	0	%100
10	MP2A	Z	-.939	-.939	0	%100
11	MP3A	X	1.626	1.626	0	%100
12	MP3A	Z	-.939	-.939	0	%100
13	M11A	X	.456	.456	0	%100
14	M11A	Z	-.263	-.263	0	%100
15	O1	X	.219	.219	0	%100
16	O1	Z	-.126	-.126	0	%100
17	M16	X	1.445	1.445	0	%100
18	M16	Z	-.834	-.834	0	%100
19	M21	X	.696	.696	0	%100
20	M21	Z	-.402	-.402	0	%100
21	MP1A	X	1.469	1.469	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
22	MP1A	Z	-.848	-.848	0	%100
23	M23	X	.696	.696	0	%100
24	M23	Z	-.402	-.402	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	MP6A	X	1.877	1.877	0	%100
4	MP6A	Z	0	0	0	%100
5	M17A	X	1.372	1.372	0	%100
6	M17A	Z	0	0	0	%100
7	O2	X	1.978	1.978	0	%100
8	O2	Z	0	0	0	%100
9	MP2A	X	1.877	1.877	0	%100
10	MP2A	Z	0	0	0	%100
11	MP3A	X	1.877	1.877	0	%100
12	MP3A	Z	0	0	0	%100
13	M11A	X	0	0	0	%100
14	M11A	Z	0	0	0	%100
15	O1	X	1.073	1.073	0	%100
16	O1	Z	0	0	0	%100
17	M16	X	1.073	1.073	0	%100
18	M16	Z	0	0	0	%100
19	M21	X	1.072	1.072	0	%100
20	M21	Z	0	0	0	%100
21	MP1A	X	1.696	1.696	0	%100
22	MP1A	Z	0	0	0	%100
23	M23	X	1.072	1.072	0	%100
24	M23	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	.456	.456	0	%100
2	M1	Z	.263	.263	0	%100
3	MP6A	X	1.626	1.626	0	%100
4	MP6A	Z	.939	.939	0	%100
5	M17A	X	1.188	1.188	0	%100
6	M17A	Z	.686	.686	0	%100
7	O2	X	1.284	1.284	0	%100
8	O2	Z	.742	.742	0	%100
9	MP2A	X	1.626	1.626	0	%100
10	MP2A	Z	.939	.939	0	%100
11	MP3A	X	1.626	1.626	0	%100
12	MP3A	Z	.939	.939	0	%100
13	M11A	X	.456	.456	0	%100
14	M11A	Z	.263	.263	0	%100
15	O1	X	1.445	1.445	0	%100
16	O1	Z	.834	.834	0	%100
17	M16	X	.219	.219	0	%100
18	M16	Z	.126	.126	0	%100
19	M21	X	.696	.696	0	%100
20	M21	Z	.402	.402	0	%100
21	MP1A	X	1.469	1.469	0	%100
22	MP1A	Z	.848	.848	0	%100
23	M23	X	.696	.696	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
24	M23	Z	.402	.402	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	.789	.789	0	%100
2	M1	Z	1.367	1.367	0	%100
3	MP6A	X	.939	.939	0	%100
4	MP6A	Z	1.626	1.626	0	%100
5	M17A	X	.686	.686	0	%100
6	M17A	Z	1.188	1.188	0	%100
7	O2	X	.247	.247	0	%100
8	O2	Z	.428	.428	0	%100
9	MP2A	X	.939	.939	0	%100
10	MP2A	Z	1.626	1.626	0	%100
11	MP3A	X	.939	.939	0	%100
12	MP3A	Z	1.626	1.626	0	%100
13	M11A	X	.789	.789	0	%100
14	M11A	Z	1.367	1.367	0	%100
15	O1	X	.722	.722	0	%100
16	O1	Z	1.25	1.25	0	%100
17	M16	X	.014	.014	0	%100
18	M16	Z	.024	.024	0	%100
19	M21	X	.134	.134	0	%100
20	M21	Z	.232	.232	0	%100
21	MP1A	X	.848	.848	0	%100
22	MP1A	Z	1.469	1.469	0	%100
23	M23	X	.134	.134	0	%100
24	M23	Z	.232	.232	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	2.104	2.104	0	%100
3	MP6A	X	0	0	0	%100
4	MP6A	Z	1.877	1.877	0	%100
5	M17A	X	0	0	0	%100
6	M17A	Z	1.372	1.372	0	%100
7	O2	X	0	0	0	%100
8	O2	Z	0	0	0	%100
9	MP2A	X	0	0	0	%100
10	MP2A	Z	1.877	1.877	0	%100
11	MP3A	X	0	0	0	%100
12	MP3A	Z	1.877	1.877	0	%100
13	M11A	X	0	0	0	%100
14	M11A	Z	2.104	2.104	0	%100
15	O1	X	0	0	0	%100
16	O1	Z	.623	.623	0	%100
17	M16	X	0	0	0	%100
18	M16	Z	.623	.623	0	%100
19	M21	X	0	0	0	%100
20	M21	Z	0	0	0	%100
21	MP1A	X	0	0	0	%100
22	MP1A	Z	1.696	1.696	0	%100
23	M23	X	0	0	0	%100
24	M23	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-.789	-.789	0	%100
2	M1	Z	1.367	1.367	0	%100
3	MP6A	X	-.939	-.939	0	%100
4	MP6A	Z	1.626	1.626	0	%100
5	M17A	X	-.686	-.686	0	%100
6	M17A	Z	1.188	1.188	0	%100
7	O2	X	-.247	-.247	0	%100
8	O2	Z	.428	.428	0	%100
9	MP2A	X	-.939	-.939	0	%100
10	MP2A	Z	1.626	1.626	0	%100
11	MP3A	X	-.939	-.939	0	%100
12	MP3A	Z	1.626	1.626	0	%100
13	M11A	X	-.789	-.789	0	%100
14	M11A	Z	1.367	1.367	0	%100
15	O1	X	-.014	-.014	0	%100
16	O1	Z	.024	.024	0	%100
17	M16	X	-.722	-.722	0	%100
18	M16	Z	1.25	1.25	0	%100
19	M21	X	-.134	-.134	0	%100
20	M21	Z	.232	.232	0	%100
21	MP1A	X	-.848	-.848	0	%100
22	MP1A	Z	1.469	1.469	0	%100
23	M23	X	-.134	-.134	0	%100
24	M23	Z	.232	.232	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-.456	-.456	0	%100
2	M1	Z	.263	.263	0	%100
3	MP6A	X	-1.626	-1.626	0	%100
4	MP6A	Z	.939	.939	0	%100
5	M17A	X	-1.188	-1.188	0	%100
6	M17A	Z	.686	.686	0	%100
7	O2	X	-1.284	-1.284	0	%100
8	O2	Z	.742	.742	0	%100
9	MP2A	X	-1.626	-1.626	0	%100
10	MP2A	Z	.939	.939	0	%100
11	MP3A	X	-1.626	-1.626	0	%100
12	MP3A	Z	.939	.939	0	%100
13	M11A	X	-.456	-.456	0	%100
14	M11A	Z	.263	.263	0	%100
15	O1	X	-.219	-.219	0	%100
16	O1	Z	.126	.126	0	%100
17	M16	X	-1.445	-1.445	0	%100
18	M16	Z	.834	.834	0	%100
19	M21	X	-.696	-.696	0	%100
20	M21	Z	.402	.402	0	%100
21	MP1A	X	-1.469	-1.469	0	%100
22	MP1A	Z	.848	.848	0	%100
23	M23	X	-.696	-.696	0	%100
24	M23	Z	.402	.402	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
3	MP6A	X	-1.877	-1.877	0	%100
4	MP6A	Z	0	0	0	%100
5	M17A	X	-1.372	-1.372	0	%100
6	M17A	Z	0	0	0	%100
7	O2	X	-1.978	-1.978	0	%100
8	O2	Z	0	0	0	%100
9	MP2A	X	-1.877	-1.877	0	%100
10	MP2A	Z	0	0	0	%100
11	MP3A	X	-1.877	-1.877	0	%100
12	MP3A	Z	0	0	0	%100
13	M11A	X	0	0	0	%100
14	M11A	Z	0	0	0	%100
15	O1	X	-1.073	-1.073	0	%100
16	O1	Z	0	0	0	%100
17	M16	X	-1.073	-1.073	0	%100
18	M16	Z	0	0	0	%100
19	M21	X	-1.072	-1.072	0	%100
20	M21	Z	0	0	0	%100
21	MP1A	X	-1.696	-1.696	0	%100
22	MP1A	Z	0	0	0	%100
23	M23	X	-1.072	-1.072	0	%100
24	M23	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-.456	-.456	0	%100
2	M1	Z	-.263	-.263	0	%100
3	MP6A	X	-1.626	-1.626	0	%100
4	MP6A	Z	-.939	-.939	0	%100
5	M17A	X	-1.188	-1.188	0	%100
6	M17A	Z	-.686	-.686	0	%100
7	O2	X	-1.284	-1.284	0	%100
8	O2	Z	-.742	-.742	0	%100
9	MP2A	X	-1.626	-1.626	0	%100
10	MP2A	Z	-.939	-.939	0	%100
11	MP3A	X	-1.626	-1.626	0	%100
12	MP3A	Z	-.939	-.939	0	%100
13	M11A	X	-.456	-.456	0	%100
14	M11A	Z	-.263	-.263	0	%100
15	O1	X	-1.445	-1.445	0	%100
16	O1	Z	-.834	-.834	0	%100
17	M16	X	-.219	-.219	0	%100
18	M16	Z	-.126	-.126	0	%100
19	M21	X	-.696	-.696	0	%100
20	M21	Z	-.402	-.402	0	%100
21	MP1A	X	-1.469	-1.469	0	%100
22	MP1A	Z	-.848	-.848	0	%100
23	M23	X	-.696	-.696	0	%100
24	M23	Z	-.402	-.402	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-.789	-.789	0	%100
2	M1	Z	-1.367	-1.367	0	%100
3	MP6A	X	-.939	-.939	0	%100
4	MP6A	Z	-1.626	-1.626	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
5	M17A	X	-.686	-.686	0	%100
6	M17A	Z	-1.188	-1.188	0	%100
7	O2	X	-.247	-.247	0	%100
8	O2	Z	-.428	-.428	0	%100
9	MP2A	X	-.939	-.939	0	%100
10	MP2A	Z	-1.626	-1.626	0	%100
11	MP3A	X	-.939	-.939	0	%100
12	MP3A	Z	-1.626	-1.626	0	%100
13	M11A	X	-.789	-.789	0	%100
14	M11A	Z	-1.367	-1.367	0	%100
15	O1	X	-.722	-.722	0	%100
16	O1	Z	-1.25	-1.25	0	%100
17	M16	X	-.014	-.014	0	%100
18	M16	Z	-.024	-.024	0	%100
19	M21	X	-.134	-.134	0	%100
20	M21	Z	-.232	-.232	0	%100
21	MP1A	X	-.848	-.848	0	%100
22	MP1A	Z	-1.469	-1.469	0	%100
23	M23	X	-.134	-.134	0	%100
24	M23	Z	-.232	-.232	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	-.715	-.715	0	%100
3	MP6A	X	0	0	0	%100
4	MP6A	Z	-.587	-.587	0	%100
5	M17A	X	0	0	0	%100
6	M17A	Z	-.452	-.452	0	%100
7	O2	X	0	0	0	%100
8	O2	Z	0	0	0	%100
9	MP2A	X	0	0	0	%100
10	MP2A	Z	-.587	-.587	0	%100
11	MP3A	X	0	0	0	%100
12	MP3A	Z	-.587	-.587	0	%100
13	M11A	X	0	0	0	%100
14	M11A	Z	-.715	-.715	0	%100
15	O1	X	0	0	0	%100
16	O1	Z	-.178	-.178	0	%100
17	M16	X	0	0	0	%100
18	M16	Z	-.178	-.178	0	%100
19	M21	X	0	0	0	%100
20	M21	Z	0	0	0	%100
21	MP1A	X	0	0	0	%100
22	MP1A	Z	-.485	-.485	0	%100
23	M23	X	0	0	0	%100
24	M23	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	.268	.268	0	%100
2	M1	Z	-.464	-.464	0	%100
3	MP6A	X	.294	.294	0	%100
4	MP6A	Z	-.509	-.509	0	%100
5	M17A	X	.226	.226	0	%100
6	M17A	Z	-.392	-.392	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
7	O2	X	.085	.085	0	%100
8	O2	Z	-.147	-.147	0	%100
9	MP2A	X	.294	.294	0	%100
10	MP2A	Z	-.509	-.509	0	%100
11	MP3A	X	.294	.294	0	%100
12	MP3A	Z	-.509	-.509	0	%100
13	M11A	X	.268	.268	0	%100
14	M11A	Z	-.464	-.464	0	%100
15	O1	X	.004	.004	0	%100
16	O1	Z	-.007	-.007	0	%100
17	M16	X	.206	.206	0	%100
18	M16	Z	-.358	-.358	0	%100
19	M21	X	.038	.038	0	%100
20	M21	Z	-.066	-.066	0	%100
21	MP1A	X	.243	.243	0	%100
22	MP1A	Z	-.42	-.42	0	%100
23	M23	X	.038	.038	0	%100
24	M23	Z	-.066	-.066	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	.155	.155	0	%100
2	M1	Z	-.089	-.089	0	%100
3	MP6A	X	.509	.509	0	%100
4	MP6A	Z	-.294	-.294	0	%100
5	M17A	X	.392	.392	0	%100
6	M17A	Z	-.226	-.226	0	%100
7	O2	X	.441	.441	0	%100
8	O2	Z	-.255	-.255	0	%100
9	MP2A	X	.509	.509	0	%100
10	MP2A	Z	-.294	-.294	0	%100
11	MP3A	X	.509	.509	0	%100
12	MP3A	Z	-.294	-.294	0	%100
13	M11A	X	.155	.155	0	%100
14	M11A	Z	-.089	-.089	0	%100
15	O1	X	.063	.063	0	%100
16	O1	Z	-.036	-.036	0	%100
17	M16	X	.413	.413	0	%100
18	M16	Z	-.239	-.239	0	%100
19	M21	X	.199	.199	0	%100
20	M21	Z	-.115	-.115	0	%100
21	MP1A	X	.42	.42	0	%100
22	MP1A	Z	-.243	-.243	0	%100
23	M23	X	.199	.199	0	%100
24	M23	Z	-.115	-.115	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	MP6A	X	.587	.587	0	%100
4	MP6A	Z	0	0	0	%100
5	M17A	X	.452	.452	0	%100
6	M17A	Z	0	0	0	%100
7	O2	X	.679	.679	0	%100
8	O2	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
9	MP2A	X	.587	.587	0	%100
10	MP2A	Z	0	0	0	%100
11	MP3A	X	.587	.587	0	%100
12	MP3A	Z	0	0	0	%100
13	M11A	X	0	0	0	%100
14	M11A	Z	0	0	0	%100
15	O1	X	.307	.307	0	%100
16	O1	Z	0	0	0	%100
17	M16	X	.307	.307	0	%100
18	M16	Z	0	0	0	%100
19	M21	X	.306	.306	0	%100
20	M21	Z	0	0	0	%100
21	MP1A	X	.485	.485	0	%100
22	MP1A	Z	0	0	0	%100
23	M23	X	.306	.306	0	%100
24	M23	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	.155	.155	0	%100
2	M1	Z	.089	.089	0	%100
3	MP6A	X	.509	.509	0	%100
4	MP6A	Z	.294	.294	0	%100
5	M17A	X	.392	.392	0	%100
6	M17A	Z	.226	.226	0	%100
7	O2	X	.441	.441	0	%100
8	O2	Z	.255	.255	0	%100
9	MP2A	X	.509	.509	0	%100
10	MP2A	Z	.294	.294	0	%100
11	MP3A	X	.509	.509	0	%100
12	MP3A	Z	.294	.294	0	%100
13	M11A	X	.155	.155	0	%100
14	M11A	Z	.089	.089	0	%100
15	O1	X	.413	.413	0	%100
16	O1	Z	.239	.239	0	%100
17	M16	X	.063	.063	0	%100
18	M16	Z	.036	.036	0	%100
19	M21	X	.199	.199	0	%100
20	M21	Z	.115	.115	0	%100
21	MP1A	X	.42	.42	0	%100
22	MP1A	Z	.243	.243	0	%100
23	M23	X	.199	.199	0	%100
24	M23	Z	.115	.115	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	.268	.268	0	%100
2	M1	Z	.464	.464	0	%100
3	MP6A	X	.294	.294	0	%100
4	MP6A	Z	.509	.509	0	%100
5	M17A	X	.226	.226	0	%100
6	M17A	Z	.392	.392	0	%100
7	O2	X	.085	.085	0	%100
8	O2	Z	.147	.147	0	%100
9	MP2A	X	.294	.294	0	%100
10	MP2A	Z	.509	.509	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
11	MP3A	X	.294	.294	0	%100
12	MP3A	Z	.509	.509	0	%100
13	M11A	X	.268	.268	0	%100
14	M11A	Z	.464	.464	0	%100
15	O1	X	.206	.206	0	%100
16	O1	Z	.358	.358	0	%100
17	M16	X	.004	.004	0	%100
18	M16	Z	.007	.007	0	%100
19	M21	X	.038	.038	0	%100
20	M21	Z	.066	.066	0	%100
21	MP1A	X	.243	.243	0	%100
22	MP1A	Z	.42	.42	0	%100
23	M23	X	.038	.038	0	%100
24	M23	Z	.066	.066	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	.715	.715	0	%100
3	MP6A	X	0	0	0	%100
4	MP6A	Z	.587	.587	0	%100
5	M17A	X	0	0	0	%100
6	M17A	Z	.452	.452	0	%100
7	O2	X	0	0	0	%100
8	O2	Z	0	0	0	%100
9	MP2A	X	0	0	0	%100
10	MP2A	Z	.587	.587	0	%100
11	MP3A	X	0	0	0	%100
12	MP3A	Z	.587	.587	0	%100
13	M11A	X	0	0	0	%100
14	M11A	Z	.715	.715	0	%100
15	O1	X	0	0	0	%100
16	O1	Z	.178	.178	0	%100
17	M16	X	0	0	0	%100
18	M16	Z	.178	.178	0	%100
19	M21	X	0	0	0	%100
20	M21	Z	0	0	0	%100
21	MP1A	X	0	0	0	%100
22	MP1A	Z	.485	.485	0	%100
23	M23	X	0	0	0	%100
24	M23	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-.268	-.268	0	%100
2	M1	Z	.464	.464	0	%100
3	MP6A	X	-.294	-.294	0	%100
4	MP6A	Z	.509	.509	0	%100
5	M17A	X	-.226	-.226	0	%100
6	M17A	Z	.392	.392	0	%100
7	O2	X	-.085	-.085	0	%100
8	O2	Z	.147	.147	0	%100
9	MP2A	X	-.294	-.294	0	%100
10	MP2A	Z	.509	.509	0	%100
11	MP3A	X	-.294	-.294	0	%100
12	MP3A	Z	.509	.509	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
13	M11A	X	-.268	-.268	0	%100
14	M11A	Z	.464	.464	0	%100
15	O1	X	-.004	-.004	0	%100
16	O1	Z	.007	.007	0	%100
17	M16	X	-.206	-.206	0	%100
18	M16	Z	.358	.358	0	%100
19	M21	X	-.038	-.038	0	%100
20	M21	Z	.066	.066	0	%100
21	MP1A	X	-.243	-.243	0	%100
22	MP1A	Z	.42	.42	0	%100
23	M23	X	-.038	-.038	0	%100
24	M23	Z	.066	.066	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-.155	-.155	0	%100
2	M1	Z	.089	.089	0	%100
3	MP6A	X	-.509	-.509	0	%100
4	MP6A	Z	.294	.294	0	%100
5	M17A	X	-.392	-.392	0	%100
6	M17A	Z	.226	.226	0	%100
7	O2	X	-.441	-.441	0	%100
8	O2	Z	.255	.255	0	%100
9	MP2A	X	-.509	-.509	0	%100
10	MP2A	Z	.294	.294	0	%100
11	MP3A	X	-.509	-.509	0	%100
12	MP3A	Z	.294	.294	0	%100
13	M11A	X	-.155	-.155	0	%100
14	M11A	Z	.089	.089	0	%100
15	O1	X	-.063	-.063	0	%100
16	O1	Z	.036	.036	0	%100
17	M16	X	-.413	-.413	0	%100
18	M16	Z	.239	.239	0	%100
19	M21	X	-.199	-.199	0	%100
20	M21	Z	.115	.115	0	%100
21	MP1A	X	-.42	-.42	0	%100
22	MP1A	Z	.243	.243	0	%100
23	M23	X	-.199	-.199	0	%100
24	M23	Z	.115	.115	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	MP6A	X	-.587	-.587	0	%100
4	MP6A	Z	0	0	0	%100
5	M17A	X	-.452	-.452	0	%100
6	M17A	Z	0	0	0	%100
7	O2	X	-.679	-.679	0	%100
8	O2	Z	0	0	0	%100
9	MP2A	X	-.587	-.587	0	%100
10	MP2A	Z	0	0	0	%100
11	MP3A	X	-.587	-.587	0	%100
12	MP3A	Z	0	0	0	%100
13	M11A	X	0	0	0	%100
14	M11A	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
15	O1	X	-.307	-.307	0	%100
16	O1	Z	0	0	0	%100
17	M16	X	-.307	-.307	0	%100
18	M16	Z	0	0	0	%100
19	M21	X	-.306	-.306	0	%100
20	M21	Z	0	0	0	%100
21	MP1A	X	-.485	-.485	0	%100
22	MP1A	Z	0	0	0	%100
23	M23	X	-.306	-.306	0	%100
24	M23	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-.155	-.155	0	%100
2	M1	Z	-.089	-.089	0	%100
3	MP6A	X	-.509	-.509	0	%100
4	MP6A	Z	-.294	-.294	0	%100
5	M17A	X	-.392	-.392	0	%100
6	M17A	Z	-.226	-.226	0	%100
7	O2	X	-.441	-.441	0	%100
8	O2	Z	-.255	-.255	0	%100
9	MP2A	X	-.509	-.509	0	%100
10	MP2A	Z	-.294	-.294	0	%100
11	MP3A	X	-.509	-.509	0	%100
12	MP3A	Z	-.294	-.294	0	%100
13	M11A	X	-.155	-.155	0	%100
14	M11A	Z	-.089	-.089	0	%100
15	O1	X	-.413	-.413	0	%100
16	O1	Z	-.239	-.239	0	%100
17	M16	X	-.063	-.063	0	%100
18	M16	Z	-.036	-.036	0	%100
19	M21	X	-.199	-.199	0	%100
20	M21	Z	-.115	-.115	0	%100
21	MP1A	X	-.42	-.42	0	%100
22	MP1A	Z	-.243	-.243	0	%100
23	M23	X	-.199	-.199	0	%100
24	M23	Z	-.115	-.115	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-.268	-.268	0	%100
2	M1	Z	-.464	-.464	0	%100
3	MP6A	X	-.294	-.294	0	%100
4	MP6A	Z	-.509	-.509	0	%100
5	M17A	X	-.226	-.226	0	%100
6	M17A	Z	-.392	-.392	0	%100
7	O2	X	-.085	-.085	0	%100
8	O2	Z	-.147	-.147	0	%100
9	MP2A	X	-.294	-.294	0	%100
10	MP2A	Z	-.509	-.509	0	%100
11	MP3A	X	-.294	-.294	0	%100
12	MP3A	Z	-.509	-.509	0	%100
13	M11A	X	-.268	-.268	0	%100
14	M11A	Z	-.464	-.464	0	%100
15	O1	X	-.206	-.206	0	%100
16	O1	Z	-.358	-.358	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
17	M16	X	-.004	-.004	0	%100
18	M16	Z	-.007	-.007	0	%100
19	M21	X	-.038	-.038	0	%100
20	M21	Z	-.066	-.066	0	%100
21	MP1A	X	-.243	-.243	0	%100
22	MP1A	Z	-.42	-.42	0	%100
23	M23	X	-.038	-.038	0	%100
24	M23	Z	-.066	-.066	0	%100

Member Area Loads

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

Envelope Joint Reactions

	Joint		X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
1	N35B	max	1885.031	9	2269.193	14	1316.807	1	-3.251	7	7.495	9	3.79	3
2		min	-1895.917	3	1075.787	6	-404.849	7	-7.815	13	-7.557	3	-3.121	9
3	N30	max	638.409	2	141.506	19	816.521	1	.027	37	0	51	.396	3
4		min	-590.226	8	31.953	2	-1728.453	7	-.008	7	0	1	-.334	9
5	Totals:	max	1418.334	9	2406.678	15	2133.328	1						
6		min	-1418.335	3	1128.247	9	-2133.302	7						

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

	Member	Shape	Code Check	Loc[...	LC	Shear Check	Loc[ft]	Dir	LC	phi*Pnc...	phi*Pnt ...	phi*Mn ...	phi*Mn ...	Cb	Eqn
1	M1	PIPE_3.0	.622	4.5	39	.391	4.5		20	42263.9...	65205	5.749	5.749	1...	H3-6
2	MP6A	PIPE_2.5	.236	3	8	.077	4.031		8	26137.1...	50715	3.596	3.596	3...	H1-1b
3	M17A	PIPE_3.0	.000	.75	9	.000	.75		9	64424.35	65205	5.749	5.749	1...	H1-1b
4	O2	HSS4X4X4	.842	4	3	.327	4	z	3	130481....	139518	16.181	16.181	1...	H3-6
5	MP2A	PIPE_2.5	.476	6	13	.161	6		2	26137.1...	50715	3.596	3.596	2...	H1-1b
6	MP3A	PIPE_2.5	.232	6	14	.050	3.469		3	26137.1...	50715	3.596	3.596	4...	H1-1b
7	M11A	PIPE_3.0	.209	4.969	18	.134	7.781		2	42263.9...	65205	5.749	5.749	2...	H1-1b
8	O1	PIPE_2.0	.114	3.495	18	.149	5.5		3	22355.6...	32130	1.872	1.872	1...	H1-1b
9	M16	PIPE_2.0	.041	5.5	2	.157	0		3	22355.6...	32130	1.872	1.872	1...	H1-1b*
10	M21	PIPE_2.0	.171	0	2	.079	0		2	31747.0...	32130	1.872	1.872	1...	H1-1b
11	MP1A	PIPE_2.0	.198	2.583	8	.042	7.333		2	14916.0...	32130	1.872	1.872	1...	H1-1b
12	M23	PIPE_2.0	.127	0	8	.061	1		2	31747.0...	32130	1.872	1.872	1...	H1-1b

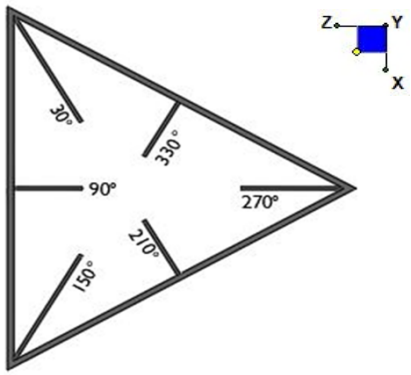
Client:	Verizon Wireless	Date:	8/11/2021
Site Name:	Sharon N CT		
Project No.	21777245A		
Title:	Mount Analysis-R	Page:	1

Version 3.1

I. Mount-to-Tower Connection Check

RISA Model Data

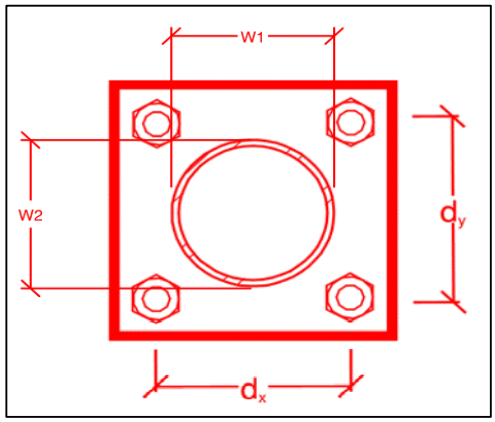
Nodes *(labeled per RISA)*	Orientation *(per graphic of typical platform)*
N35B	90



TYPICAL PLATFORM

Tower Connection Bolt Checks

Any moment resistance?:	yes
Bolt Quantity per Reaction:	4
d_x (in) *(Delta X of typ. bolt config. sketch)* :	6
d_y (in) *(Delta Y of typ. bolt config. sketch)* :	6
Bolt Type:	A325N
Bolt Diameter (in):	0.625
Required Tensile Strength (kips):	34.8
Required Shear Strength (kips):	17.3
Tensile Strength / bolt (kips):	19.7
Shear Strength / bolt (kips):	12.4
Tensile Capacity Overall:	**44.2%***
Shear Capacity Overall:	**34.9%**



**Note: Tension reduction not required if tension or shear capacity < 30%*

Tower Connection Plate and Weld Check

Connecting Standoff Member Shape:	Rect
Plate Width (in):	8
Plate Height (in):	8
W1 (in):	4
W2 (in):	4
Fy (ksi, plate):	36
t_{Plate} (in):	0.75
Weld Size (1/16 in):	4
Phi*Rn (kip/in):	5.57
Required Weld Strength (kip/in):	5.10
Plate Bending Capacity:	**64.0%**
Weld Capacity:	**91.7%**

previous engineer used 1/4" here but the proposed mount will have stiffiners on top and bottom... EOR to confirm if we should actually just use 5/16" so this isn't controlling

Max Plate Bending Strengths

Mu_{xx} *(kip-in)* :	8.0
$Phi*Mn_{xx}$ *(kip-in)* :	36.5
Mu_{yy} *(kip-in)* :	15.4
$Phi*Mn_{yy}$ *(kip-in)* :	36.5

Mount Desktop – Post Modification Inspection (PMI) Report Requirements

Documents & Photos Required from Contractor – New Mount Passing MA

Purpose – to provide Maser Consulting Connecticut the proper documentation in order to complete the required Mount Desktop review of the Post Modification Inspection Report.

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

Base Requirements:

- Any special photos outside of the standard requirements will be indicated on the passing MA
- Verification that loading is as communicated in the Mount Analysis. NOTE If loading is different than what is conveyed in the modification drawing contact Maser Consulting Connecticut immediately.
- Verification that the New Mount Installed is as specified in the MA
- Each photo should be time and date stamped
- Photos should be high resolution and submitted in a Zip File and should be organized in the file structure as depicted in Schedule A attached.
- Contractor shall ensure that the safety climb wire rope is supported and not adversely impacted by the install of the modification components. This may involve the install of wire rope guides, or other items to protect the wire rope.
- The photos in the file structure should be uploaded to **https://pmi.vzwsmart.com** as depicted on the drawings

Photo Requirements:

- *Base and "During Installation Photos"*
  - Base pictures include
    - Photo of Gate Signs showing the tower owner, site name, and number
    - Photo of carrier shelter showing the carrier site name and number if available
    - Photos of the galvanizing compound and/or paint used (if applicable), clearly showing the label and name
  - "During Installation Photos if provided - must be placed only in this folder
- *Photos taken at ground level*
  - Overall tower structure before and after installation of the modifications
  - Photos of the appropriate mount before and after installation of the new mount;
- *Photos taken at Mount Elevation*
  - Photos showing each individual sector before and also after installation of equipment. These photos should also certify that the placement and geometry of the equipment on the mount is as depicted on the sketch and table in the mount analysis
  - Photos showing the newly installed mount that is as specified in the Mount Analysis

- Photos showing the safety climb wire rope above and below the mount prior to modification.
- Photos showing the climbing facility and safety climb if present.
- Photos showing the climbing facility and safety climb if present.

Antenna & equipment placement and Geometry Confirmation:

- The contractor must certify that the antenna & equipment placement and geometry is in accordance with the antenna placement diagrams as included in this mount analysis.

☐ The contractor certifies that the photos support and the equipment on the mount is as depicted on the antenna placement diagrams as included in this mount analysis.

☐ The contractor notes that the equipment on the mount is not in accordance with the antenna placement diagrams and has accordingly marked up the diagrams or provided a diagram outlining the differences.

Certifying Individual: Company _____

Name _____

Signature _____

New Mount Certification:

- The contractor must certify that the New Mount installed is as specified

☐ The contractor certifies that the New Mount installed is as specified in the Passing Mount Analysis

☐ The contractor notes that the New Mount installed is not as specified and engineering approval was received for the New Mount Installed

☐ The contractor did not install the New Mount specified in the Passing Mount Analysis

Certifying Individual: Company _____

Name _____

Signature _____

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

Issue:

- Contractor shall install the proposed VSK-MHD rail kit 36" above the face horizontal of the mount.
- Contractor shall Install (1) OVP box facing gamma sector. Connect to the right standoff arm of the VSK-MHD kit at 24" from standoff end close to monopole.
- Contractor shall verify the horizontal offset of each mount pipe on the face horizontal. Looking from in front of the mount P1 is 105”, P2 is 60”, and P3 is 3” away from the left end of the face horizontal.
- Contractor shall verify all mount pipes vertical offset. All mount pipes to be cantilevered up by 72” from the bottom face horizontal.

Response:

Schedule A – Photo & Document File Structure

- VzW Site Number / Name
  - Base & “During Installation” Photos
  - Pre-Installation Photos
    - Alpha
    - Beta
    - Gamma
    - Ground Level
    - Tape Drop
  - Post-Installation Photos
    - Alpha
    - Beta
    - Gamma
    - Ground Level
    - Tape Drop
    - Photos of climbing facility and safety climb – If Present
  - Certifications – Submission of this document including certifications
  - Specific Required Additional Photos

Structure: 469341-VZW - SHARON N CT

Sector: **A**

Structure Type: Monopole

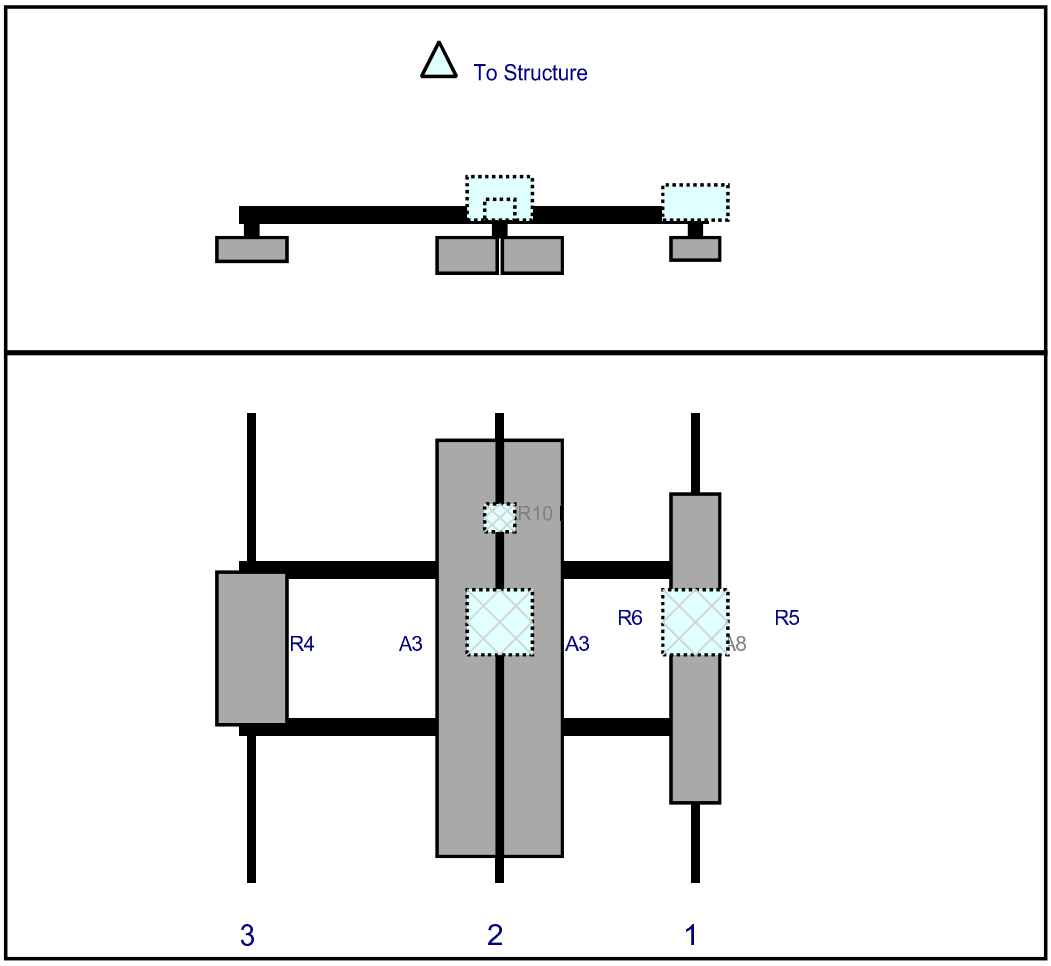
Mount Elev: 130.00

10087368

8/12/2021

Plan View

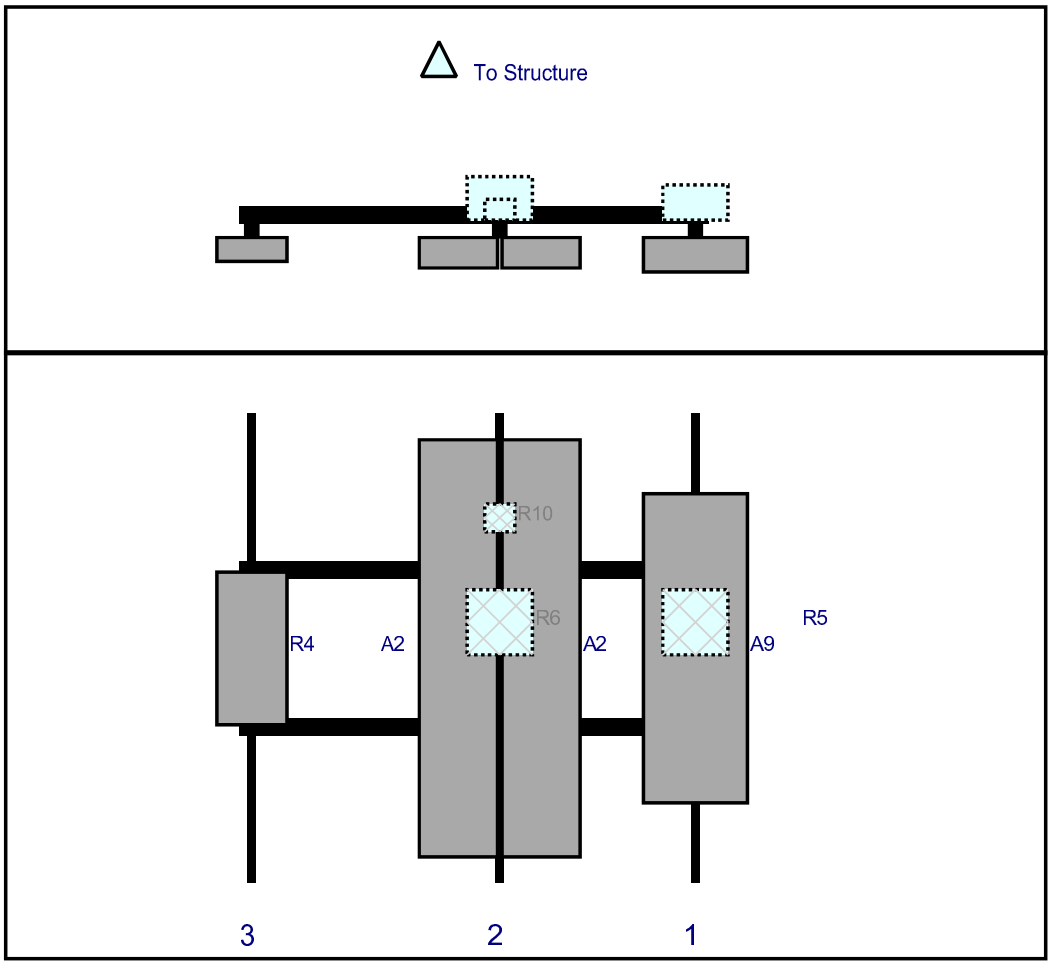
Front View
Looking at Structure



Ref#	Model	Height (in)	Width (in)	H Dist Frm L.	Pipe #	Pipe Pos V	Ant Pos	C. Ant Frm T.	Ant H Off	Status	Validation
A8	BXA-70063-6CF	71	11.2	105	1	a	Front	54	0	Retained	
R5	B5/b13 RRH-BR04C	15	15	105	1	a	Behind	48	0	Added	
A3	JAHH-65C-R3B-V2	95.7	13.8	60	2	a	Front	54	7.5	Added	
A3	JAHH-65C-R3B-V2	95.7	13.8	60	2	b	Front	54	-7.5	Added	
R6	B2/B66A RRH-BR049	15	15	60	2	a	Behind	48	0	Added	
R10	CBC78T-DS-43-2X	6.4	6.9	60	2	a	Behind	24	0	Added	
R4	MT6407-77A	35.1	16.1	3	3	a	Front	54	0	Added	

Plan View

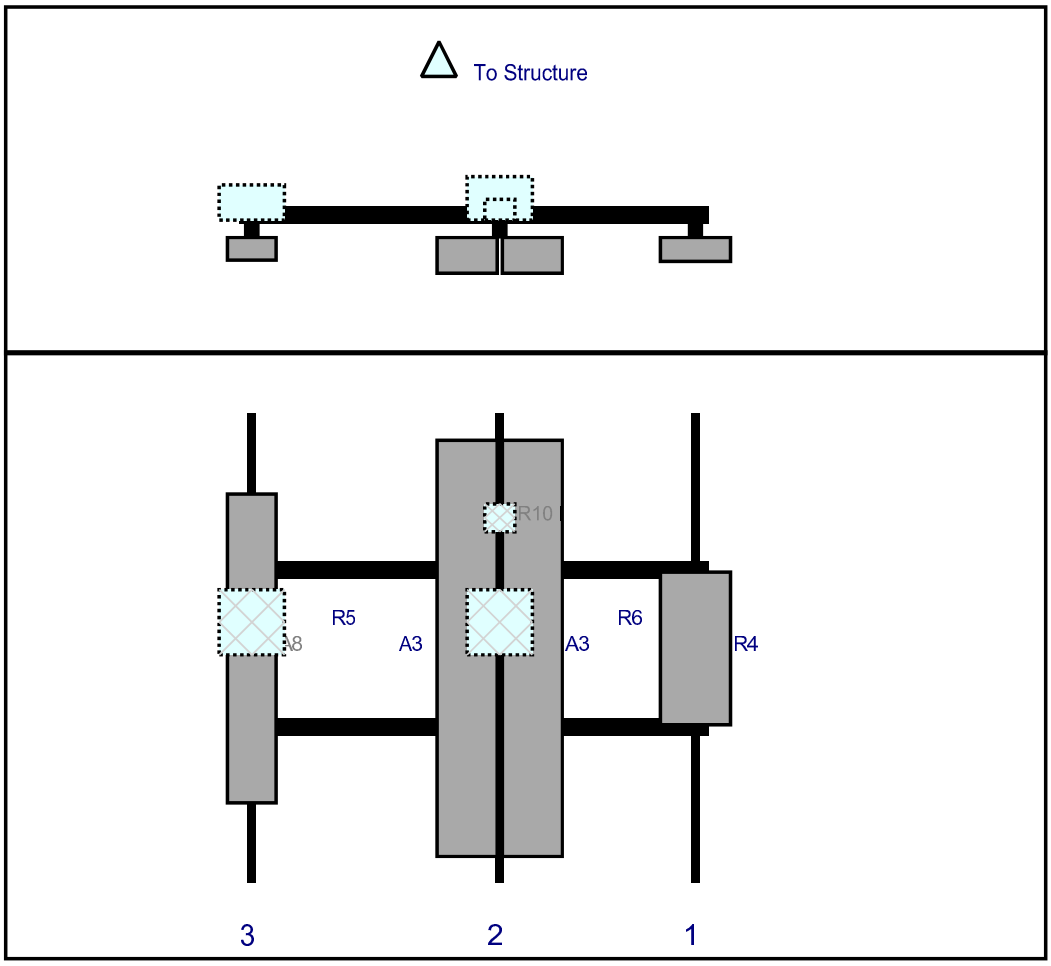
Front View
Looking at Structure



Ref#	Model	Height (in)	Width (in)	H Dist Frm L.	Pipe #	Pipe Pos V	Ant Pos	C. Ant Frm T.	Ant H Off	Status	Validation
A9	BXA-70040-6CF	71.1	23.9	105	1	a	Front	54	0	Retained	
R5	B5/b13 RRH-BR04C	15	15	105	1	a	Behind	48	0	Added	
A2	JAHH-45C-R3B	95.9	18	60	2	a	Front	54	9.5	Added	
A2	JAHH-45C-R3B	95.9	18	60	2	b	Front	54	-9.5	Added	
R6	B2/B66A RRH-BR049	15	15	60	2	a	Behind	48	0	Added	
R10	CBC78T-DS-43-2X	6.4	6.9	60	2	a	Behind	24	0	Added	
R4	MT6407-77A	35.1	16.1	3	3	a	Front	54	0	Added	

Plan View

Front View
Looking at Structure



Ref#	Model	Height (in)	Width (in)	H Dist Frm L.	Pipe #	Pipe Pos V	Ant Pos	C. Ant Frm T.	Ant H Off	Status	Validation
R4	MT6407-77A	35.1	16.1	105	1	a	Front	54	0	Added	
A3	JAHH-65C-R3B-V2	95.7	13.8	60	2	a	Front	54	7.5	Added	
A3	JAHH-65C-R3B-V2	95.7	13.8	60	2	b	Front	54	-7.5	Added	
R6	B2/B66A RRH-BR049	15	15	60	2	a	Behind	48	0	Added	
R10	CBC78T-DS-43-2X	6.4	6.9	60	2	a	Behind	24	0	Added	
A8	BXA-70063-6CF	71	11.2	3	3	a	Front	54	0	Retained	
R5	B5/b13 RRH-BR04C	15	15	3	3	a	Behind	48	0	Added	

Maser Consulting Connecticut

Subject	TIA-222-H Usage	
Site Information	*Site ID:*	*469341-VZW / SHARON N CT*
	Site Name:	*SHARON N CT*
	Carrier Name:	*Verizon Wireless*
	Address:	*477 Route 7* *Sharon, Connecticut 06069* *Litchfield County*
	Latitude:	*41.909456°*
	Longitude:	*-73.366031°*
Structure Information	*Tower Type:*	*Monopole*
	Mount Type:	*9.00-Ft T-Arm*

To Whom It May Concern,

We respectfully submit the above referenced Antenna Mount Structural Analysis report in conformance with ANSI/TIA-222-H, Structural Standard for Antenna Supporting Structures and Antennas and Small Wind Turbine Support Structures.

The 2015 International Building Code states that, in Section 3108, telecommunication towers shall be designed and constructed in accordance with the provisions of TIA-222. TIA-222-H is the latest revision of the TIA-222 Standard, effective as of January 01, 2018.

As with all ANSI standards and engineering best practice is to apply the most current revision of the standard. This ensures the engineer is applying all updates. As an example, the TIA-222-H Standard includes updates to bring it in line with the latest AISC and ACI standards and it also incorporates the latest wind speed maps by ASCE 7 based on updated studies of the wind data.

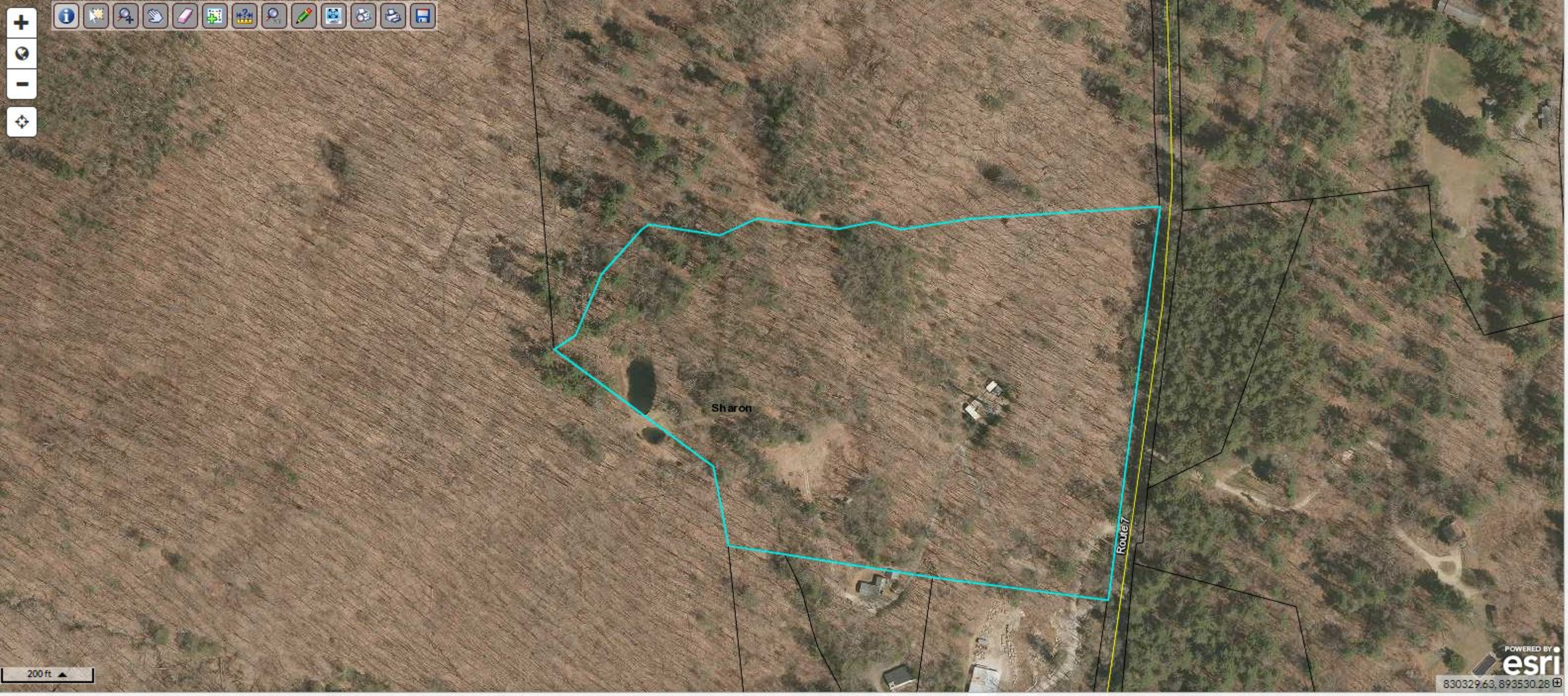
The TIA-222-H standard clarifies these specific requirements for the antenna mount analysis such as modeling methods, seismic analysis, 30-degree increment wind directions and maintenance loading. Therefore, it is our opinion that TIA-222-H is the most appropriate standard for antenna mount structural analysis and is acceptable for use at this site to ensure the engineer is taking into account the most current engineering standard available.

Sincerely,

Dejian Xu

Dejian Xu, PE
Technical Manager

ATTACHMENT 5



Results:

Parcel ID - 23-13
Alt Id - 00139700
Address - 477 ROUTE 7
Owner - MEISEL JOEL H & THERESA C TRUSTEES
Acres - 21.13
View: Report

Parcel ID	23-13	Alternate ID	00139700	Owner Address	MEISEL JOEL H & THERESA C TRUSTEES
Sec/Twp/Rng	23-13-	Class	R		12 MERRIMAN LANE
Property Address	477 ROUTE 7 SHARON	Acreage	21.13		PROSPECT CT 06712
District	5A				

ATTACHMENT 6

UNITED STATES POSTAL SERVICE®

SHARON NORTH

Certificate of Mailing — Firm

Name and Address of Sender	TOTAL NO. of Pieces Listed by Sender	TOTAL NO. of Pieces Received at Post Office™	Affix Stamp Here *Postmark with Date of Receipt.*
Kenneth C. Baldwin, Esq. Robinson & Cole LLP 280 Trumbull Street Hartford, CT 06103	3	3	neopost 10/05/2021 US POSTAGE $002.99 ZIP 06103 041L12203937
	Postmaster, per *(name of receiving employee)*		

OLD STATE HOUSE STATION 06103
OCT - 5 2021
USPS

USPS® Tracking Number Firm-specific Identifier	Address (Name, Street, City, State, and ZIP Code™)	Postage	Fee	Special Handling	Parcel Airlift
1.	Tina M. Pitcher, First Selectman Town of Sharon 63 Main Street Sharon, CT 06069				
2.	Jamie Casey, Development Director Town of Sharon 63 Main Street Sharon, CT 06069				
3.	Joel and Theresa Meisel, Trustees 12 Merriman Lane Prospect, CT 06712				
4.					
5.					
6.					