Robinson+Cole

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Also admitted in Massachusetts
and New York

October 27, 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**
712 Bread and Milk Street, Coventry, Connecticut

Dear Attorney Bachman:

Cellco Partnership d/b/a Verizon Wireless ("Cellco") currently maintains an existing wireless telecommunications facility at the above-referenced property address (the "Property"). The facility consists of antennas and remote radio heads attached to a tower and related equipment on the ground, near the base of the tower. The tower was approved by the Town of Coventry ("Town") in October of 2000. Cellco's shared use of the tower was approved by the Siting Council ("Council") in July of 2017 (PE1133-VER-20170606). A copy of the Town's approval and the Council's PE1133-VER-20170606 approval are included in Attachment 1.

Cellco now intends to modify its facility by removing three (3) existing antennas and installing three (3) new Samsung MT6407-77A antennas and three (3) CBRS antennas on Cellco's existing antenna platform. Cellco also intends to remove three (3) remote radio heads ("RRHs") and install six (6) new RRHs behind its antennas. A set of project plans showing Cellco's proposed facility modifications and specifications for the new antennas and RRHs are included in Attachment 2.

Please accept this letter as notification pursuant to R.C.S.A. § 16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b)(2). In accordance with R.C.S.A. § 16-50j-73, a copy of this letter is being sent to Coventry'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. Cellco's replacement antennas will be installed on Cellco's existing antenna platform.

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 power density table for Cellco's modified facility are 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:

John Elsesser, Town Manager for the Town of Coventry
Eric Trott, Director of Land Use
Ronald Nadeau, the Property Owner
Karla Hanna

ATTACHMENT 1

TO: OFFICE OF THE TOWN CLERK

FROM: COVENTRY PLANNING AND ZONING COMMISSION

SUBJECT: FILING REQUIREMENTS - SECTION 8-3D, CT. GENERAL STATUTES.

In accordance with the provisions of Public Act Number 75-317, State of Connecticut, the following application **#00-20S** approved on **October 23, 2000,** by the Coventry Planning and Zoning Commission, is being submitted to your office for recording within the Coventry Land Records.

1. Description of Premises: 712 BREAD AND MILK STREET.

2. Assessor's Map: 4 ; Block: 12 ; Lot (s): 8 .
   Volume 226 ; Page(s): 35-39 .

3. Nature of ***SPECIAL PERMIT***: Granted to SBA, Inc. to install a 175' monopole communications tower with the capability of expanding to 195', antenna, and associated equipment. The following conditions apply: 1) A copy of federal licenses necessary to operate the facility must be submitted by the applicant as necessary. 2) The landscape plans provided on the site plan, currently propose vegetation on the westerly fence as white pine to be used. The vegetation is to be reviewed by the Planning and Zoning staff. 3) The tower be constructed to provide service for seven carriers, and that it be built and constructed with the ability to be expanded to 195'. Reason for approval: application meets the regulations and is appropriate for the location.

4. Zoning Regulation(s) which apply: Section 4.0 and 6.19.

5. Owner(s) of Record: NORMAN NADEAU AND RONALD NADEAU.

This information is certified by:

Name Title

11/16/00
Date Signed

Return to:
Attorney Wendell g. Davis
Cranmore, Fitzgerald, and Meany
For SBA, Inc.
49 Wethersfield Avenue
Hartford CT 06114

Received for record Nov 29 2000
At 3:30 P M. Recorded in Coventry
Land Records, Vol 687 Page 290
By Town Clerk

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
www.ct.gov/csc

July 10, 2017

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

RE: **PE1133-VER-20170606** – Cellco Partnership d/b/a Verizon Wireless sub-petition for a declaratory ruling for approval of an eligible facility request for modifications to an existing telecommunications facility located at 712 Bread and Milk Street, Coventry, Connecticut.

Dear Attorney Baldwin:

The Connecticut Siting Council (Council) hereby approves your Eligible Facilities Request (EFR) to install antennas and associated equipment at the above-referenced facility pursuant to the Federal Communications Commission Wireless Infrastructure Report and Order, with the following conditions:

1. Within 45 days after completion of construction, the Council shall be notified in writing that construction has been completed;
2. Any nonfunctioning antenna and associated antenna mounting equipment on this facility owned and operated by the Petitioner shall be removed within 60 days of the date the antenna ceased to function;
3. The validity of this action shall expire one year from the date of this letter; and
4. The Petitioner may file a request for an extension of time beyond the one year deadline provided that such request is submitted to the Council not less than 60 days prior to the expiration.

This decision is under the exclusive jurisdiction of the Council and is not applicable to any other modification or construction. All work is to be implemented as specified in the EFR dated June 5, 2017. Any minor changes to the eligible facility request require advance notification and approval

Thank you for your attention and cooperation.

Very truly yours,

Melanie Bachman
Executive Director

MB/CW

c: Honorable Julie A. Blanchard, Chairwoman, Town of Coventry
John A Elsesser, Town Manager, Town of Coventry
Eric Trott, Director of Planning and Development, Town of Coventry

ATTACHMENT 2

verizon

COVENTRY CT
712 BREAD AND MILK STREET
COVENTRY, CT 06238

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.

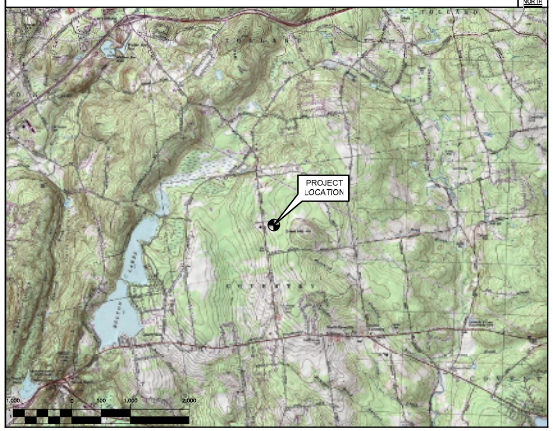
SITE DIRECTIONS

FROM: 20 ALEXANDER DRIVE, WALLINGFORD, CONNECTICUT **TO:** 712 BREAD AND MILK ST. COVENTRY, CT 06238

1.	START OUT GOING NORTH ON ALEXANDER DR TOWARD BARNES INDUSTRIAL RD.	0.18 MI
2.	TURN RIGHT ONTO BARNES INDUSTRIAL RD.	0.11 MI
3.	TAKE FIRST LEFT ONTO CT-68.	0.35 MI
4.	TURN RIGHT ONTO RAMP.	0.17 MI
5.	TURN RIGHT ONTO N COLONY RD/US-5 N.	0.30 MI
6.	MERGE ONTO CT-15 N TOWARD HARTFORD.	3.58 MI
7.	MERGE ONTO I-91 N VIA EXIT 88N-E TOWARD MIDDLETOWN/HARTFORD/CT-66 E.	17.30 MI
8.	MERGE ONTO CT-15 N VIA EXIT 29 TOWARD BOSTON/E HARTFORD/I-84 E.	2.14 MI
9.	CT-15 N BECOMES I-84 E/US-6 E.	1.52 MI
10.	MERGE ONTO I-384 E VIA EXIT 59 TOWARD PROVIDENCE.	8.65 MI
11.	I-384 E BECOMES BOSTON TURNPIKE/US-44 E.	3.14 MI
12.	TURN LEFT ONTO BREAD AND MILK ST/CT-31.	1.37 MI
13.	712 BREAD AND MILK ST, COVENTRY, CT 06238-1052, 712 BREAD AND MILK ST IS ON THE RIGHT.	

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 MONOPOLE MOUNTED ANTENNA SECTORS:

- REMOVE (3) EXISTING AMPHENOL - QUAD56C000X 850 ANTENNAS.
- REMOVE (3) EXISTING NOKIA RADIOS.
- RETAIN (6) EXISTING ANDREW - SBNHH-1D65B ANTENNAS.
- RETAIN (3) EXISTING COMMSCOPE - BASMNT-SBS-1-2 ANTENNA MOUNTS.
- RETAIN (2) EXISTING OVP-6 BOXES.
- RETAIN (2) EXISTING 6x12 HYBRIFLEX CABLES.
- INSTALL (3) SAMSUNG - MT6407-77A ALL-IN-ONE ANTENNA/ RRUs.
- INSTALL (3) SAMSUNG - XXDWMM-12.5-65 ANTENNAS.
- INSTALL (3) SAMSUNG - CBRS RRH - RT4401-48A RRUs.
- INSTALL (3) SAMSUNG - RF4439d-25A RRUs.
- INSTALL (3) SAMSUNG - RF4440d-13A RRUs.

PROJECT INFORMATION

SITE NAME:	COVENTRY CT
SITE ADDRESS:	712 BREAD AND MILK ST. COVENTRY, CT 06238
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°-49'-5.1" N LONGITUDE: 72°-23'-35.4" W COORDINATES BASED ON VERIZON WIRELESS RFDS, DATED JULY 27, 2021.

SHEET INDEX

SHT. NO.	DESCRIPTION	REV.
T-1	TITLE SHEET	0
B-1	RF BILL OF MATERIALS	0
C-1	COMPOUND PLAN AND ELEVATION	0
C-2	ANTENNA SECTOR CONFIGURATION DETAILS	0
C-3	RF DETAILS	0
E-1	ELECTRICAL DETAILS AND SPECIFICATIONS	0

REV.	DATE	DRAWN BY	CHK'D BY	DESCRIPTION
A	09/07/21	ANC	DMD	CONSTRUCTION DRAWINGS - ISSUED FOR CONSTRUCTION
B	10/18/21	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

COVENTRY CT
712 BREAD AND MILK STREET
COVENTRY, CT 06238

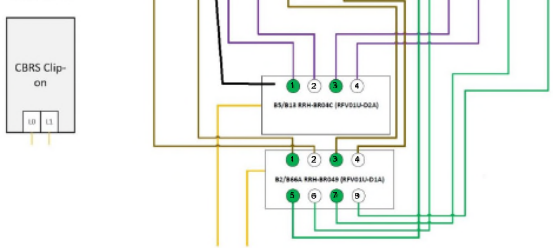
DATE: 09/07/21
SCALE: AS NOTED
JOB NO. 21007.44

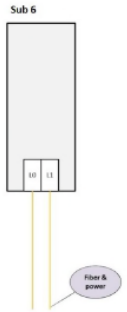
TITLE SHEET

T-1

Sheet No. 1 of 6

CBRS:4T4R





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.0 DATED: 10.18.21), & VERIZON WIRELESS RF ANTENNA EQUIPMENT RECOMMENDATION (DATED 07.27.21).

BILL OF MATERIALS		
TECHNOLOGY	QUANTITY	ANTENNA
5G	3	SAMSUNG ANTENNA MODEL: MT6407-77A
LTE CBRS	3	SAMSUNG ANTENNA MODEL: XXDWMM-12.5-65

CABLES	QUANTITY	LENGTH	COMMENTS
–	–	–	–

RADIOS	QUANTITY	COMMENTS
LTE PCS 1900 LTE AWS 2100	3	SAMSUNG MODEL: RF4439d-25A
LTE 700 LTE 850 5G	3	SAMSUNG MODEL: RF4440d-13A
5G	3	SAMSUNG MODEL: MT6407-77A
LTE CBRS	3	SAMSUNG MODEL: CBRS RRH-RT4401-48A

DIPLEXERS	QUANTITY	COMMENTS
–	–	–

OVP BOXES	QUANTITY	COMMENTS
–	–	–

ANTENNA MOUNT	QUANTITY	COMMENTS
–	–	–

REV.	DATE	DRAWN BY	CHK'D BY	DESCRIPTION
A	09/07/21	ANC	DMD	CONSTRUCTION DRAWINGS – ISSUED FOR CONSTRUCTION
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Cellco Partnership d/b/a Verizon Wireless

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DATE: 09/07/21
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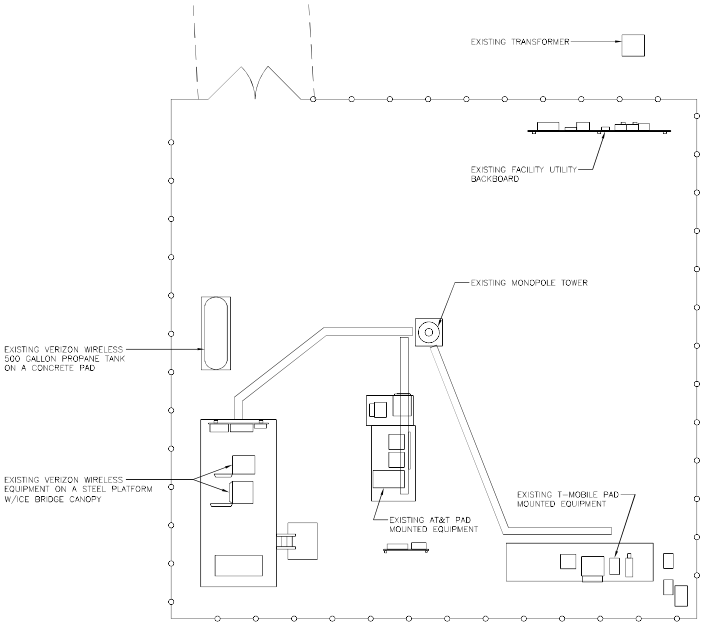
JOB NO. 21007.44

RF BILL OF MATERIALS

B-1

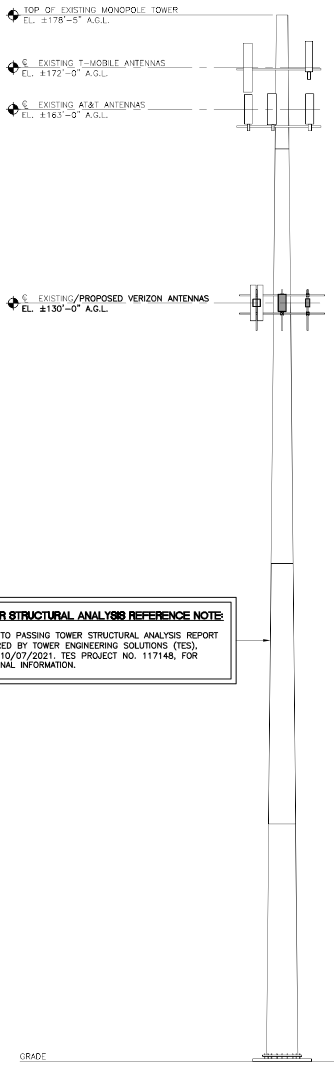
Sheet No. 2 of 6



1 C-1 **COMPOUND PLAN**
SCALE: 1" = 15'

APPROXIMATE NORTH

GRAPHIC SCALE
15 0 7.5 15 30 60
(IN FEET)
1 inch = 15 ft.



TOWER STRUCTURAL ANALYSIS REFERENCE NOTE:

REFER TO PASSING TOWER STRUCTURAL ANALYSIS REPORT PREPARED BY TOWER ENGINEERING SOLUTIONS (TES), DATED 10/07/2021, TES PROJECT NO. 117148, FOR ADDITIONAL INFORMATION.

2 C-1 **TOWER ELEVATION - PROPOSED**
SCALE: 1" = 10'

GRAPHIC SCALE
10 0 5 10 20 40
(IN FEET)
1 inch = 10 ft.

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): 101 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
A	09/07/21	ANC	DMD	CONSTRUCTION DRAWINGS – ISSUED FOR CONSTRUCTION
B	10/18/21	ANC	DMD	CONSTRUCTION DRAWINGS – ISSUED FOR CLIENT REVIEW

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verizon

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Cellco Partnership d/b/a Verizon Wireless

COVENTRY CT

712 BREAD AND MILK STREET
COVENTRY, CT 06238

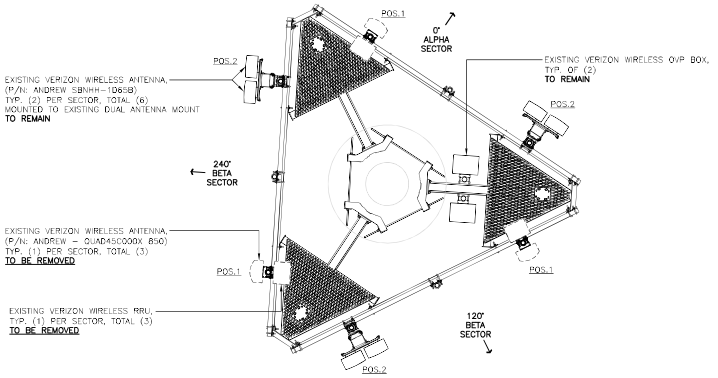
DATE: 09/07/21
SCALE: AS NOTED
JOB NO. 21007.44

COMPOUND PLAN AND ELEVATION

C-1

Sheet No. 3 of 6

EXISTING ANTENNA CONFIGURATIONS



1 C-2 **EXISTING SECTOR CONFIGURATION PLAN**
SCALE: 3/8" = 1'-0"

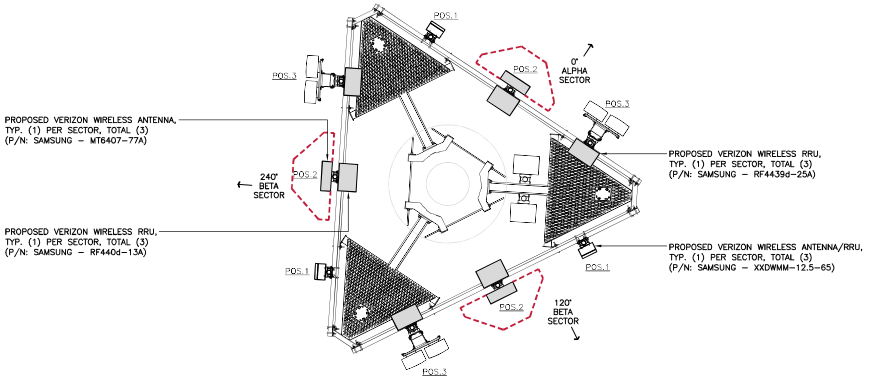
APPROXIMATE NORTH

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

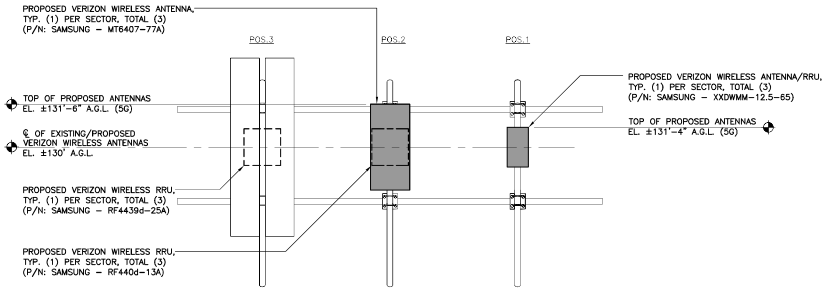
ANTENNA MOUNT ANALYSIS NOTE:

1. REFER TO PASSING VERIZON WIRELESS MOUNT ANALYSIS REPORT PREPARED BY NETWORK BUILDING + CONSULTING, LLC DATED 08/03/2021 FOR ADDITIONAL INFORMATION.



2 C-2 **PROPOSED SECTOR CONFIGURATION PLAN**
SCALE: 3/8" = 1'-0"

APPROXIMATE NORTH



TYPICAL SECTOR

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

NO.	DATE	DRAWN BY	CHK'D BY	DESCRIPTION
0	10/18/21	ANC	DMD	CONSTRUCTION DRAWINGS - ISSUED FOR CONSTRUCTION
A	09/07/21	ANC	DMD	CONSTRUCTION DRAWINGS - ISSUED FOR CLIENT REVIEW

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Cellco Partnership d/b/a Verizon Wireless

COVENTRY CT

712 BREAD AND MILK STREET
COVENTRY, CT 06238

DATE: 09/07/21
SCALE: AS NOTED
JOB NO. 21007.44

ANTENNA SECTOR CONFIGURATION DETAILS

C-2

Sheet No. 4 of 6

ANTENNA FRONT

ALL-IN-ONE SECTOR ANTENNA		
EQUIPMENT	DIMENSIONS	WEIGHT
MAKE: SAMSUNG MODEL: MT6407-77A	35.1"h x 16.1"W x 5.5"D (NOT TO EXCEED)	67 LBS. (NOT TO EXCEED)
CLEARANCES AND SERVICE AREA		
TOP: 31.5"	HORIZONTAL DISTANCE: (ANT. TO ANT.) 31.5"	
FRONT, SIDES & BOTTOM: 15.7"	VERTICAL DISTANCE: (ANT. TO ANT.) 63.0"	
NOTES: 1. THIS ANTENNA HAS ITS OWN BUILT-IN RRH.		

1 / C-3 **ALL-IN-ONE SECTOR ANTENNA DETAIL**
NOT TO SCALE

CLIP-ON ANTENNA ONLY

ALL-IN-ONE ANTENNA & RRH

RRH ONLY

CBRS CLIP-ON ANTENNA			CBRS RRU (REMOTE RADIO UNIT)			
EQUIPMENT	DIMENSIONS	WEIGHT	EQUIPMENT	BAND	DIMENSIONS	WEIGHT
MAKE: SAMSUNG MODEL: XADWMM-12.5-65-8T	12.3"H x 8.7"W x 1.4"D	2.9 LBS	MAKE: SAMSUNG MODEL: CBRS RRH-RT4401-48A	CBRS	12.1"H x 8.5"W x 4.1"D	18.6 LBS.
NOTES: 1. CONTRACTOR TO COORDINATE FINAL EQUIPMENT MODEL SELECTION WITH VERIZON WIRELESS CONSTRUCTION MANAGER PRIOR TO ORDERING.						

2 / C-3 **COMBINED RRH/CLIP-ON ANTENNA DETAIL**
NOT TO SCALE

RRH - ISOMETRIC

DUAL BAND RRU (REMOTE RADIO UNIT)			
EQUIPMENT	BANDS	DIMENSIONS	WEIGHT
MAKE: SAMSUNG MODEL: RF4439d-25A	B25: PCS (1900 MHz) B66: AWS (2100 MHz)	15.0"H x 15.0"W x 10.0"D	74.7 LBS.
NOTES: 1. CONTRACTOR TO COORDINATE FINAL EQUIPMENT MODEL SELECTION WITH VERIZON WIRELESS CONSTRUCTION MANAGER PRIOR TO ORDERING.			

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

RRH - ISOMETRIC

DUAL BAND RRU (REMOTE RADIO UNIT)			
EQUIPMENT	BANDS	DIMENSIONS	WEIGHT
MAKE: SAMSUNG MODEL: RF4440d-13A	B5: 850 MHz B13: 700 MHz	15.0"H x 15.0"W x 9.0"D	70.3 LBS.
NOTES: 1. CONTRACTOR TO COORDINATE FINAL EQUIPMENT MODEL SELECTION WITH VERIZON WIRELESS CONSTRUCTION MANAGER PRIOR TO ORDERING.			

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

REV.	DATE	DRAWN BY	CHK'D BY	DESCRIPTION
A	09/07/21	ANC	DMD	CONSTRUCTION DRAWINGS – ISSUED FOR CONSTRUCTION
B	10/18/21	ANC	DMD	CONSTRUCTION DRAWINGS – ISSUED FOR CLIENT REVIEW

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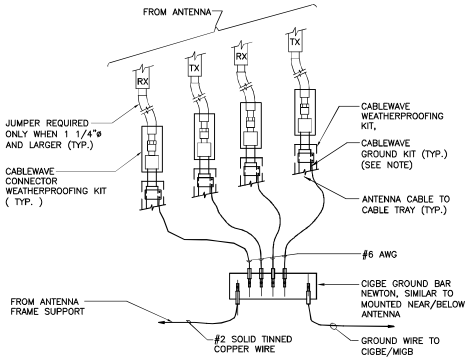
COVENTRY, CT 06238

DATE: 09/07/21
SCALE: AS NOTED
JOB NO. 21007.44

RF DETAILS

C-3
Sheet No. 5 of 6

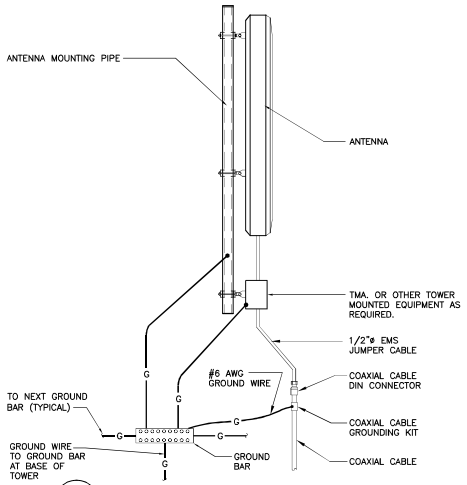


NOTES:

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

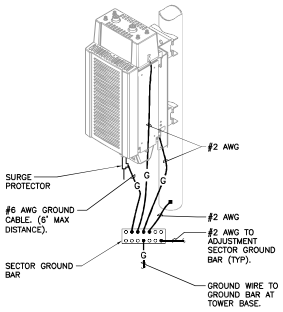
NOT TO SCALE



4 E-1 TYPICAL ANTENNA GROUNDING DETAIL

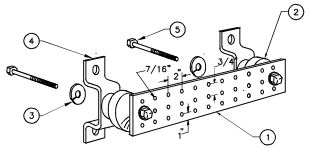
NOT TO SCALE

EACH RRH CABINET SHALL BE GROUNDED IN THE FOLLOWING MANNER:



2 E-1 RRH POLE MOUNT GROUNDING

NOT TO SCALE

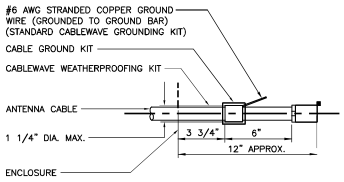


NOTES

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
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COVENTRY CT

712 BREAD AND MILK STREET

COVENTRY, CT 06238

DATE: 09/07/21

SCALE: AS NOTED

JOB NO. 21007.44

ELECTRICAL DETAILS AND SPECIFICATIONS

E-1

Sheet No. 6 of 6

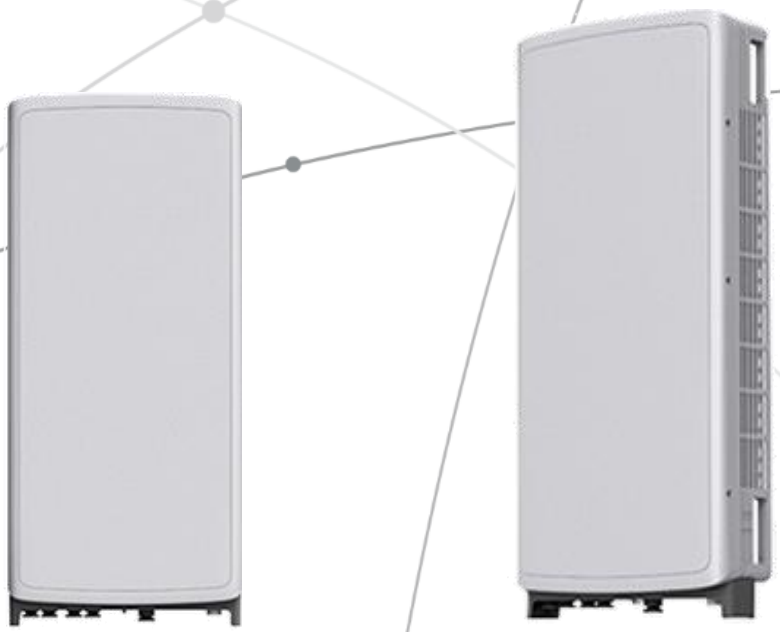
SAMSUNG

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

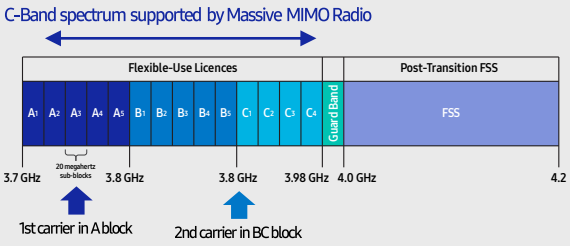


Points of Differentiation

Wide Bandwidth

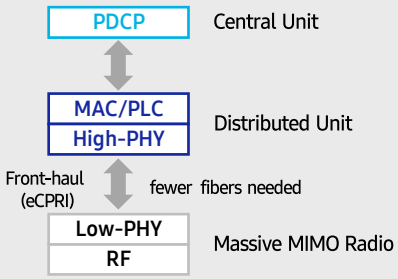
With capability to support up to 2 CC carrier configuration, Samsung C-Band massive MIMO Radio supports 200 MHz bandwidth in the C-Band spectrum.

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.

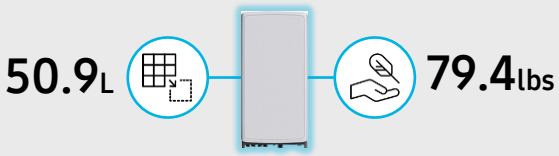
This helps operators reduce their CAPEX as they now need less products to cover the same area than before.

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

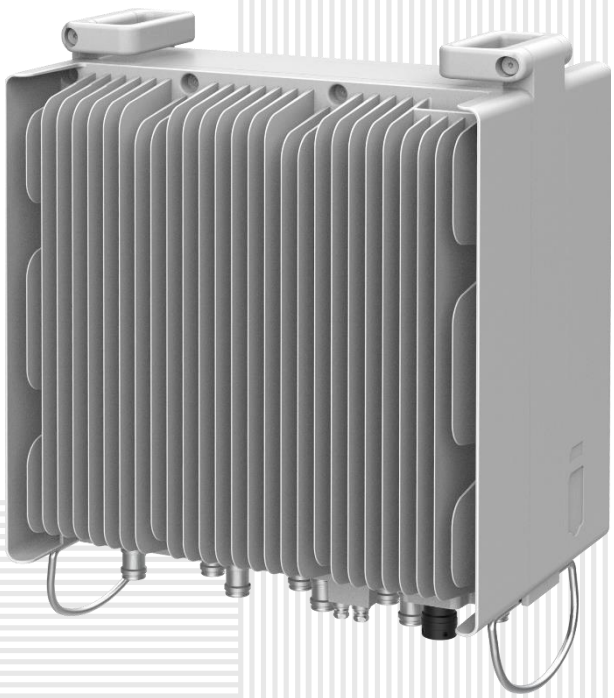
AWS/PCS MACRO RADIO

DUAL-BAND AND HIGH POWER FOR MACRO COVERAGE

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

57196

Model Code	RF4439d-25A



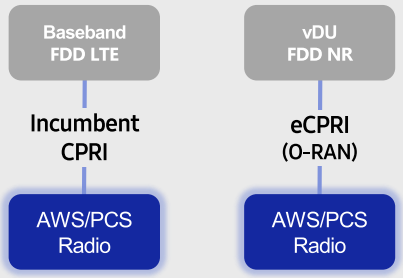
Homepage
samsungnetworks.com

Youtube
www.youtube.com/samsung5g

Points of Differentiation

Continuous Migration

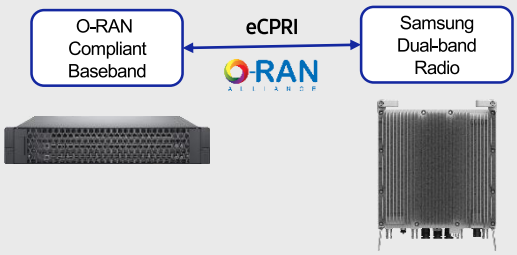
Samsung's AWS/PCS macro radio can support each incumbent CPRI interface as well as advanced eCPRI interfaces. This feature provides installable options for both legacy LTE networks and added NR networks.



O-RAN Compliant

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

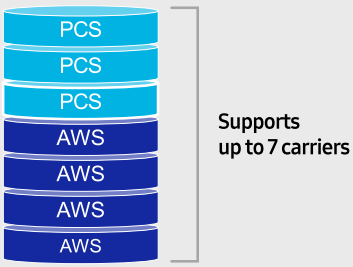
Samsung's state-of-the-art O-RAN technology will help accelerate the effort toward constructing a solid O-RAN ecosystem.



Optimum Spectrum Utilization

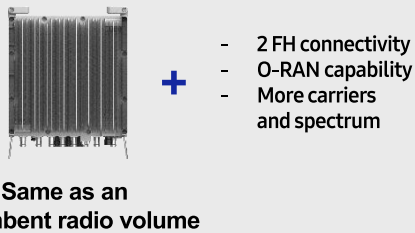
The number of required carriers varies according to site (region). Supporting many carriers is essential for using all frequencies that the operator has available.

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



Brand New Features in a Compact Size

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



Technical Specifications

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

SAMSUNG

700/850MHZ MACRO RADIO

DUAL-BAND AND HIGH POWER FOR MACRO COVERAGE

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

Model Code	RF4440d-13A

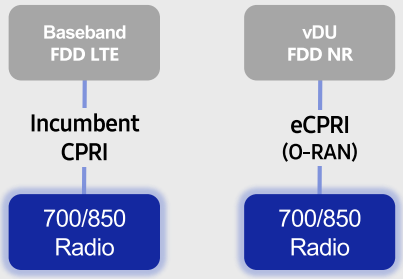
Homepage
samsungnetworks.com

Youtube
www.youtube.com/samsung5g

Points of Differentiation

Continuous Migration

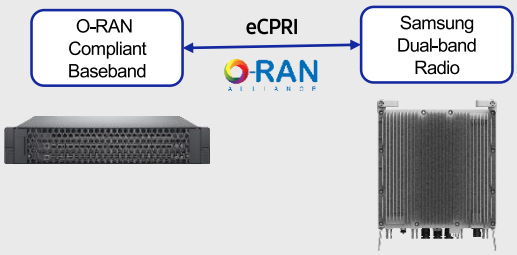
Samsung's 700/850MHz macro radio can support each incumbent CPRI interface as well as an advanced eCPRI interface. This feature provides installable options for both legacy LTE networks and added NR networks.



O-RAN Compliant

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

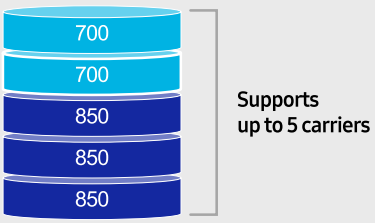
Samsung's state-of-the-art O-RAN technology will help accelerate the effort toward constructing a solid O-RAN ecosystem.



Optimum Spectrum Utilization

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

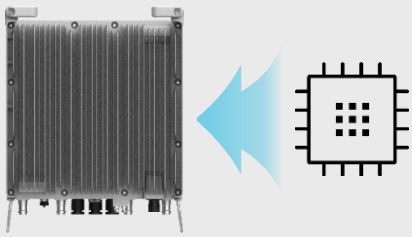
The new 700/850MHz dual-band radio can support up to 2 carriers in the B13 (700MHz) band and 3 carriers in the B5 (850MHz) band, respectively.



Secured Integrity

Access to sensitive data is allowed only to authorized software.

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



Technical Specifications

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

[CBRS] Clip-on Antenna Specifications

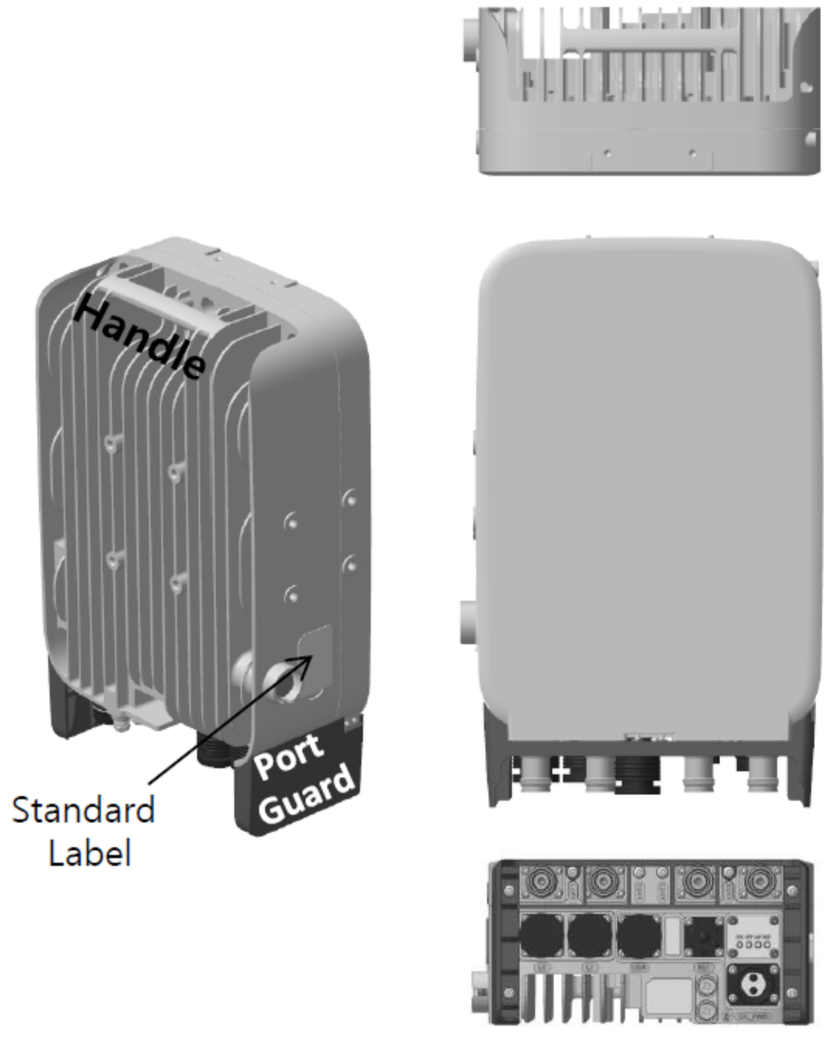
VzW accepted IP45 in FLD, but IP55 is Samsung Spec.

Items	Clip-on Antenna, BASTA**
Antenna Gain	12.5 ± 0.5 dBi (Max 13 dBi)
Horizontal BW (-3dB)	65° ± 5°
Vertical BW (-3dB)	17° ±3°
Electrical Tilt	8° (fixed) ±2°
Front-to-Back Ratio	> 25 dB
Port-to-Port Tracking	< 3 dB
VSWR	< 1.5
Isolation	> 25 dB
Ingress Protection	**IP55**
Size	220(W)×313(H)×34.3(D) mm (*) (8.7 x 12.3 x 1.4 inch.)
Weight	< **2.0** kg [Typ. 1.3 kg]
It is required that the radio should be weatherproofed properly with JMA WPS Boot with external antenna or with Weatherproof Boot for clip-on antennas.	

Antenna includes integrated cable with connector
* Design is subject to minor change

** Ant. spec. follows NGMN recommendations on Base Station Antenna Standards (BASTA). For example, 'mean ± tolerance of 86.6%' is applied to double-sided specification of statistical RF parameters.

[CBRS RRH] Spec.



Current Size: 216 x 307 x 105.5 mm (6.99L)
(8.5 x 12.1 x 4.1 inch., excluding Port Guard)
Design is subject to minor change

Item	Specification
Band	Band 48 (3.5 GHz)
Frequency	3550~3700 MHz
IBW	150 MHz
OBW	80 MHz
# of Carriers	5/10/15/20 MHz x 4 carriers
RF Chain	4TX / 4RX
RF Output Power & EIRP	4 path x 5 W (Total: 20 W = 43 dBm) (EIRP: 47 dBm / 10 MHz)
RX Sensitivity	Typical : -101.5 dBm @ 1 Rx (3GPP 36.104, Wide Area)
Modulation	256-QAM support (1024-QAM with 1~2dB power back-off)
Input Power	-48 VDC (-38 to -57 VDC, 1 SKU), with clip-on AC-DC converter (Option)
Power Consumption	About 160 Watt @ 100% RF load, typical conditions
Volume	**Under 7L** (w/o Antenna), Under 9.6L (with antenna)
Weight	**Under 8.0 kg** (**18.64** lb) (w/o Antenna), Under 10.5 Kg (with ant.)
Operating Temperature	-40°C (-40°F) ~ 55°C (131°F) (W/o solar load)
Cooling	Natural convection
Unwanted Emission	3GPP 36.104 Category A
	[B48] : FCC 47 CFR 96.41 e)
Optic Interface	20km, 2 ports (9.8Gbps x 2), SFP, single mode, duplex or Bi-Di
CPRI Cascade	Not supported
# of Antenna Port	4
External Alarm (UDA)	4
RET	AISG 2.2
TMA & built-in Bias-T I//F and PIM cancellation	Not supported
Mounting Options	Pole, wall, tower, back to back, side by side (for external ant), 3 RRH with Clip-on Antenna on the pole
Antenna Type	Integrated (Clip-on) antenna (Option), External antenna (Option)
NB-IoT	Not Supported (HW Resource reserved for 1 Guard Band NB-IoT per LTE carrier)
Spectrum Analyzer	TX/RX Support
External Alarm (UDA)	4
5G NR	Support with S/W upgrade
XRAN	Support with S/W upgrade

ATTACHMENT 3

	General	Power	Density					
Site Name: Coventry								
Tower Height: Verizon @ 130ft								
CARRIER	**# OF CHAN.**	**WATTS ERP**	**HEIGHT**	**FREQ.**	**CALC. POWER DENS**	**MAX. PERMISS.EXP.**	**FRACTION MPE**	**Total**
*DISH	2	1469	153	1900	0.0489	1	0.49%	
*DISH	2	1469	153	2020	0.0489	1	0.49%	
*AT&T	1	2951	164	763	0.0425	0.508666667	0.84%	
*AT&T	3	3664	164	1950	0.1583	1	1.58%	
*AT&T	1	1476	164	725	0.0213	0.483333333	0.44%	
*AT&T	1	1000	164	850	0.0144	0.566666667	0.25%	
*AT&T	1	3837	164	2170	0.0553	1.0000	0.55%	
*AT&T	1	1000	164	850	0.0144	0.5667	0.25%	
*T-Mobile	2	2057	172	1900	0.0537	1.0000	0.54%	
*T-Mobile	2	2308	172	2100	0.0602	1.0000	0.60%	
*T-Mobile	2	592	172	600	0.0155	0.4000	0.39%	
*T-Mobile	1	1578	172	600	0.0206	0.4000	0.51%	
*T-Mobile	2	649	172	700	0.0169	0.4667	0.36%	
*T-Mobile	2	2204	172	1900	0.0575	1.0000	0.58%	
*T-Mobile	2	6413	172	2500	0.1674	1.0000	1.67%	
*T-Mobile	2	6413	172	2500	0.1674	1.0000	1.67%	
*T-Mobile	4	1167	172	1900	0.0609	1.0000	0.61%	
*T-Mobile	2	1167	172	2100	0.0305	1.0000	0.30%	
VZW 700	**4**	**677**	**130**	**751**	**0.0058**	**0.5007**	**1.15%**	
VZW PCS	**4**	**1581**	**130**	**1975**	**0.0135**	**1.0000**	**1.35%**	
VZW AWS	**4**	**1581**	**130**	**2120**	**0.0135**	**1.0000**	**1.35%**	
VZW CBRS	**4**	**14**	**130**	**3530**	**0.0001**	**1.0000**	**0.01%**	
VZW CBAND	**4**	**6531**	**130**	**3730.08**	**0.0278**	**1.0000**	**2.78%**	
								18.78%
* 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 178 ft Nudd Corporation Monopole
Customer Name: SBA Communications Corp
Customer Site Number: CT02573-S
Customer Site Name: Coventry 2 CT
Carrier Name: Verizon (App#: 171905, V#1)
Carrier Site ID / Name: 395818 / Coventry CT
Site Location: 712 Bread & Milk Street
Coventry, Connecticut
Tolland County
Latitude: 41.818091
Longitude: -72.393175

Analysis Result:

Max Structural Usage: 90.4% [Pass]
Max Foundation Usage: 32.6% [Pass]
Additional Usage Caused by New Mount/Mount Modification: N/A

Report Prepared By: Mukunda Pokharel

Tower Engineering Solutions
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1320 Greenway Drive, Suite 600, Irving, Texas 75038

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Analysis Result:

Max Structural Usage: 90.4% [Pass]

Max Foundation Usage: 32.6% [Pass]

Additional Usage Caused by New Mount/Mount Modification:

Report Prepared By: Mukunda Pokharel

Introduction

The purpose of this report is to summarize the analysis results on the 178 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 # 7491R Rev A, dated 10/03/2002 Engineered Tower Solutions Job # 171015 (Mapping), dated 05/12/2017
Foundation Drawing	Fred A. Nudd Corporation, Project # 7491R Rev A, dated 10/03/2002 Engineered Tower Solutions Job # 171015 (Mapping), dated 05/12/2017
Geotechnical Report	Jaworski Geotech Inc., Project # 00214G, dated 06/14/2000
Modification Drawings	
Mount Analysis	General Mount Certification by Perfect Vision, dated 01/17/2017

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} =130 mph (3-Sec. Gust)/ Nominal Design Wind Speed V_{asd} = 101 mph (3-Sec. Gust)
Wind Speed with Ice:	50 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
			EMS - RR90-1702-DP - Panel	Low-Profile Platform w/ Mods	(1) 1 5/8" Fiber	T-Mobile
			Ericsson - KRY 112 144/1 - TMA			
			Ericsson - KRY 112 489/2 - TMA			
			Ericsson - Radio 4449 B71+B12 - RRU			
			Kathrein - 782 11056 - Bias T			
		3	RFS - APXVAARR24_43-U-NA20 - Panel			
	2		Cci DMP65R-BU6DA - Panel	Platform w/ Hand Rail HRK12 (Handrail Kit)	Power (1) 3/8" Fiber	
			Cci DMP65R-BU8DA - Panel			
			Cci HPA-65R-BU8AA - Panel			
			Cci HPA-65R-BU6AA - Panel			
			Powerwave 21401 TMA			
			Powerwave 7020.00 RET			
			Ericsson RRUS 8843 B2 B66A RRU			
			Ericsson RRUS 4449 B5/B12 RRU			
			Powerwave 7770 - Panel			
			Raycap DC6-48-60-18-8F			
			Comba ODI2-065R18K-GQ - Panel	(3) Commscope SF-SU7-2-96 Sector Frames	Hybrid	Dish Network
			Ericsson 4415			
			Ericsson 0208			
			Andrew - SBNHH-1D65B - Panel	14'-6" Platform w/ Support Rail	Hybrid	Verizon
			Amphenol - QUAD656C0000x - Panel			
			Alcatel Lucent B13 RRH4X30-4R			
			Alcatel Lucent B25 RRH4x30			
			Alcatel Lucent B66A RRH 4X45			

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
			Samsung MT6407-77A - Panel	14'-6" Platform w/ Support Rail	Hybrid	Verizon
			Samsung XXDWMM-12.5-65 - Panel			
			Andrew SBNHH-1D65B - Panel			
			Samsung RF4440d-13A			
			Samsung RF4439d-25A			
			Alcatel Lucent B25 RRH4X30			

All transmission lines are considered running inside of the pole shafts. 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
Max. Usage:			
Pass/Fail	**Pass**	**Pass**	**Pass**

Foundations

	Moment (Kip-Ft)	Shear (Kips)	Axial (Kips)
Analysis 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 0.7806 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 55.94% at 0.0ft

Structure:	CT02573-S-SBA	**Code:**	EIA/TIA-222-G	10/7/2021
Site Name:	Coventry 2 CT	**Exposure:**	B	
Height:	177.95 (ft)	**Gh:**	1.1	
Base Elev:	0.000 (ft)			Page: 1

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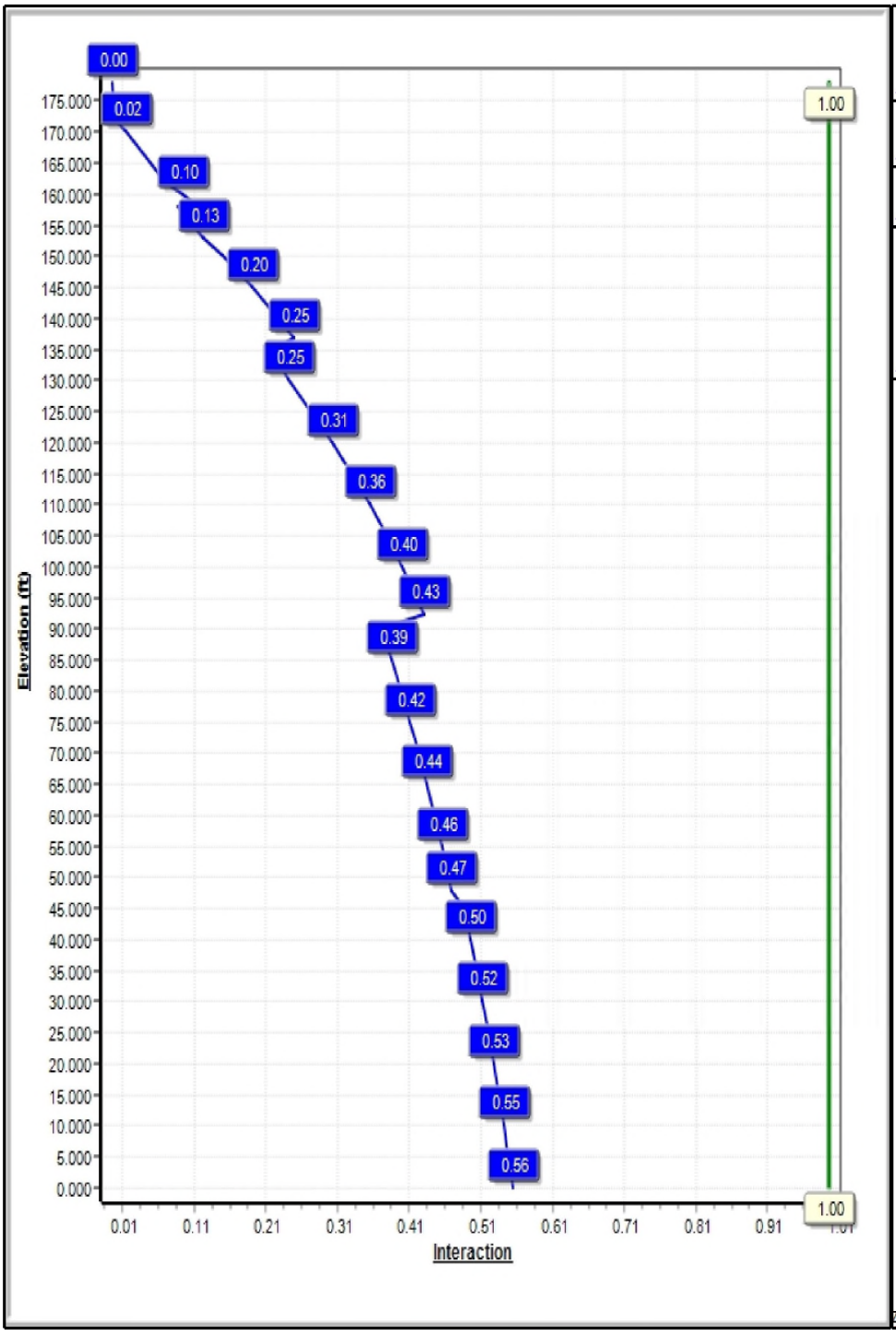
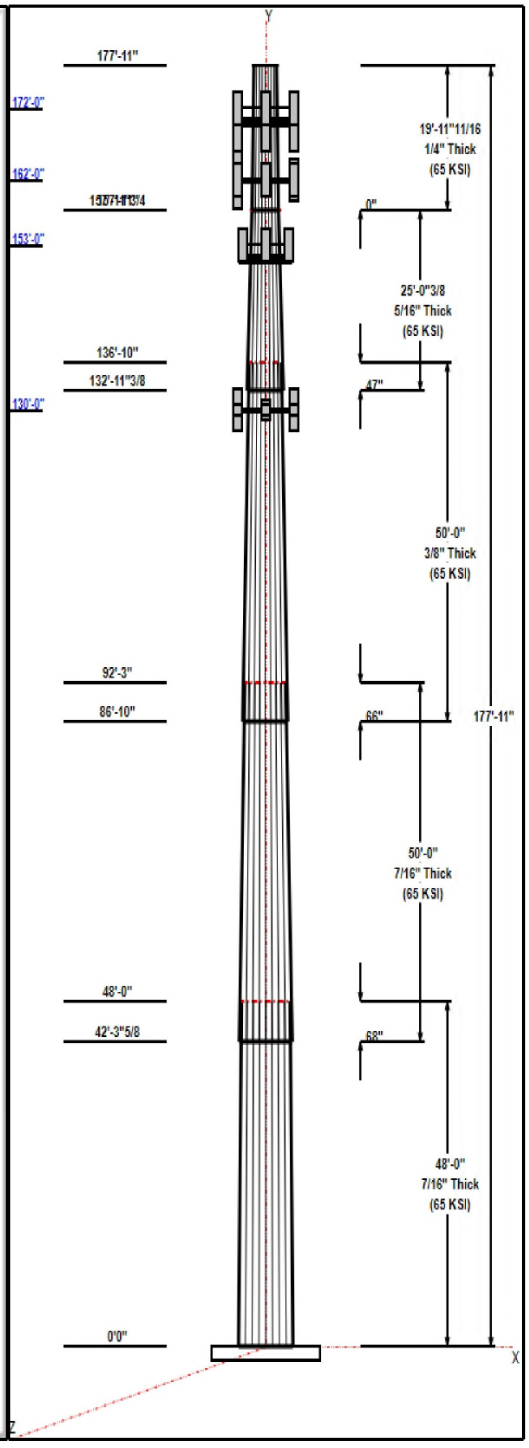
Dead Load Factor:	1.20
Wind Load Factor:	1.60

Load Case : 1.2D + 1.6W 101 mph Wind

Iterations: 24





Structure: CT02573-S-SBA

Type: Tapered
Site Name: Coventry 2 CT
Height: 177.95 (ft)
Base Elev: 0.00 (ft)

Base Shape: 18 Sided
Taper: 0.23391

10/7/2021

Tower Engineering Solutions

Shaft Properties

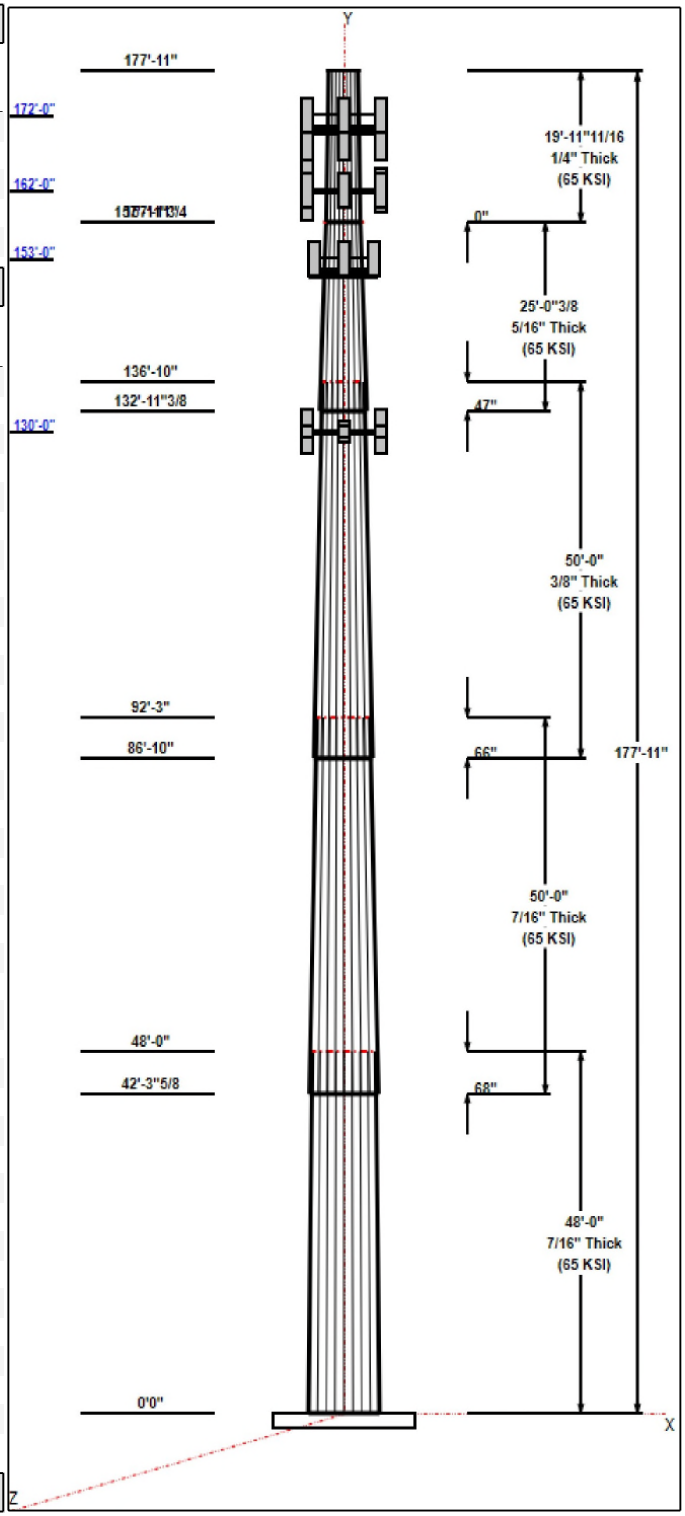
Seq	Length (ft)	Top (in)	Bottom (in)	Thick (in)	Joint Type	Taper	Grade (ksi)
1	48.00	53.27	64.50	0.438		0.23391	65
2	50.00	43.78	55.48	0.438	Slip	0.23391	65
3	50.00	34.12	45.81	0.375	Slip	0.23391	65
4	25.03	29.80	35.65	0.313	Slip	0.23391	65
5	19.97	25.13	29.80	0.250	Butt	0.23391	65

Discrete Appurtenances

Attach Elev (ft)	Force Elev (ft)	Qty	Description	Carrier
177.95	177.95	1	6' Lightning rod	
172.00	172.00	3	T-Frames w/ Pipe Mount	T-Mobile
172.00	172.00	1	MS-1436 (Light Collar	T-Mobile
172.00	172.00	1	MS-HRECP	T-Mobile
172.00	172.00	1	MS-HR35	T-Mobile
172.00	172.00	1	MS-C1B-2875P	T-Mobile
172.00	172.00	3	RR90-17-02DP	T-Mobile
172.00	172.00	3	KRY 112 144/1	T-Mobile
172.00	172.00	3	KRY 112 89/4	T-Mobile
172.00	172.00	3	4449	T-Mobile
172.00	172.00	3	782 10660	T-Mobile
172.00	170.00	3	APXVAARR24_43-U-NA20	T-Mobile
162.00	162.00	2	Cci DMP65R-BU6DA	AT&T
162.00	162.00	1	Cci DMP65R-BU8DA	AT&T
162.00	162.00	1	Cci HPA-65R-BU8AA	AT&T
162.00	162.00	2	Cci HPA-65R-BU6AA	AT&T
162.00	162.00	6	Powerwave 21401 TMA	AT&T
162.00	162.00	6	Powerwave 7020.00 RET	AT&T
162.00	162.00	3	Ericsson RRUS 8843 B2	AT&T
162.00	162.00	3	Ericsson RRUS 4449	AT&T
162.00	162.00	1	HRK12 (Handrail Kit)	AT&T
162.00	162.00	1	HP Platform w/ Pipe Mount	AT&T
162.00	162.00	3	Powerwave 7770	AT&T
162.00	162.00	1	Raycap DC6-48-60-18-8F	AT&T
153.00	153.00	3	ODI2-065R18K-GQ	Dish Network
153.00	153.00	3	SF-SU7-2-96	Dish Network
153.00	153.00	2	4415	Dish Network
153.00	153.00	3	0208	Dish Network
153.00	153.00	2	Collar Mount (3-Sided)	Dish Network
153.00	153.00	3	3.0" Std Pipe	Dish Network
130.00	130.00	3	MT6407-77A	Verizon
130.00	130.00	3	XXDWMM-12.5-65	Verizon
130.00	130.00	3	RF4440d-13A	Verizon
130.00	130.00	3	RF4439d-25A	Verizon
130.00	130.00	3	B25 RRH4x30-4R	Verizon
130.00	130.00	6	SBNHH-1D65B	Verizon
130.00	130.00	2	DB-T1-6Z-8AB-0Z	Verizon
130.00	130.00	1	PV-LPP14L-HR-B Platform	Verizon

Linear Appurtenances

Elev From (ft)	Elev To (ft)	Placement	Description	Carrier
0.00	173.00	Inside	1 5/8" Coax	T-Mobile
0.00	173.00	Inside	1 5/8" Fiber	T-Mobile
0.00	162.00	Inside	1 5/8" Coax	AT&T



0.00	162.00	Inside	1" DC Power	AT&T
0.00	162.00	Inside	1/2" Coax	AT&T
0.00	162.00	Inside	3/8" Fiber	AT&T
0.00	153.00	Inside	1 1/4" Hybrid	Dish Network
0.00	130.00	Inside	1 5/8" Hybrid	Verizon

Anchor Bolts

Qty	Specifications	Grade (ksi)	Arrangement
24	2.00" F1554 105	105.0	Radial

Base Plate

Thickness (in)	Specifications (in)	Grade (ksi)	Geometry
2.2500	68.0	50.0	Round

Reactions

Load Case	Moment (FT-Kips)	Shear (Kips)	Axial (Kips)
1.2D + 1.6W 101 mph Wind	4198.2	33.6	63.7
0.9D + 1.6W 101 mph Wind	4155.1	33.6	47.8
1.2D + 1.0Di + 1.0Wi 50 mph Wind	1240.0	9.7	106.0
1.2D + 1.0E	279.8	2.2	63.8
0.9D + 1.0E	276.7	2.2	47.8
1.0D + 1.0W 60 mph Wind	920.2	7.4	53.1

Structure: CT02573-S-SBA - Coax Line Placement

Type: Monopole
Site Name: Coventry 2 CT
Height: 177.95 (ft)

10/7/2021

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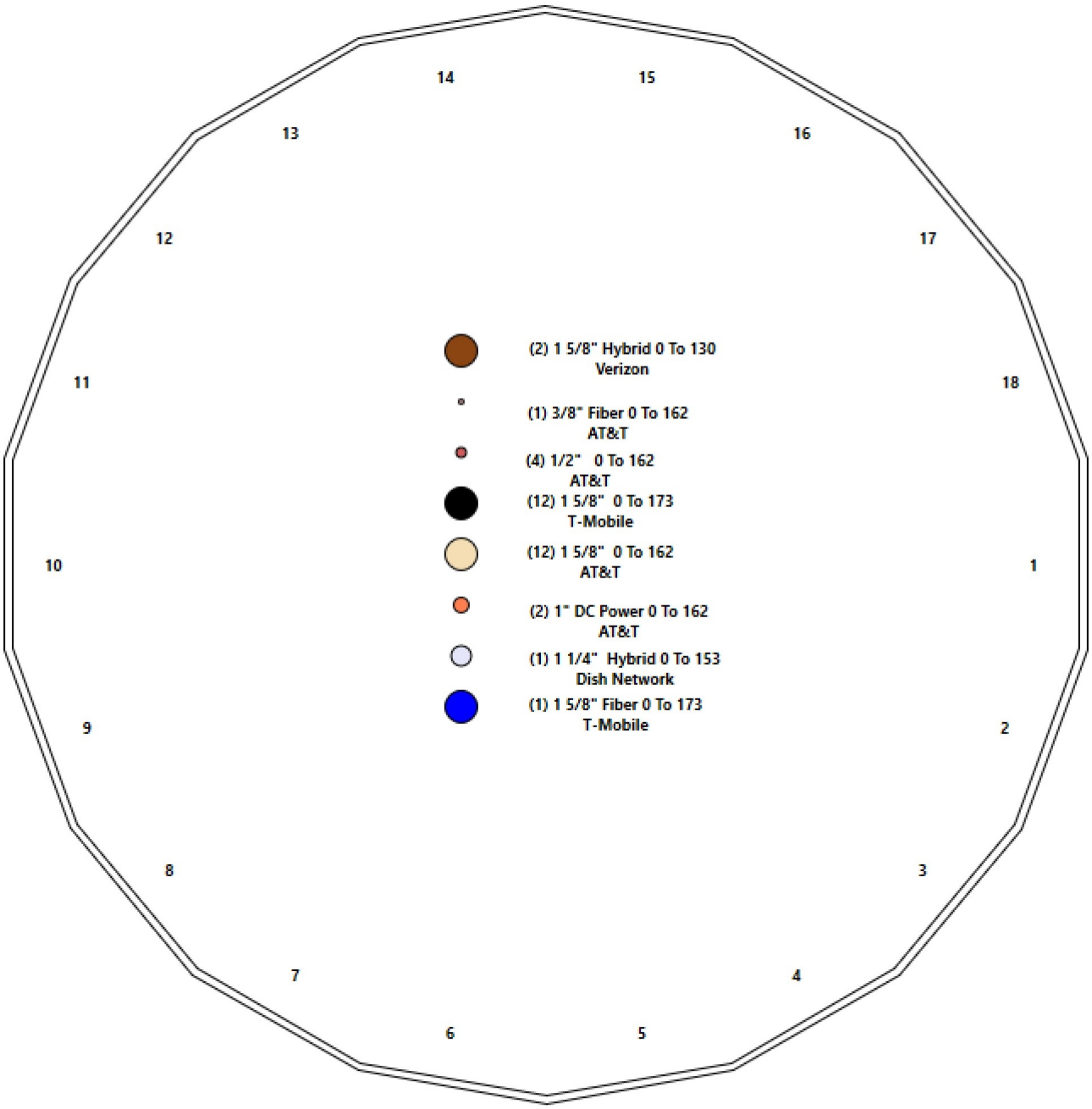

Shaft Properties

Structure:	CT02573-S-SBA		**Code:**	EIA/TIA-222-G	10/7/2021
Site Name:	Coventry 2 CT		**Exposure:**	B	
Height:	177.95 (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

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Sec. No.	Shape	Length (ft)	Thick (in)	Fy (ksi)	Joint Type	Overlap (in)	Weight (lb)
1	18	48.000	0.4375	65		0.00	13,256
2	18	50.000	0.4375	65	Slip	68.38	11,622
3	18	50.000	0.3750	65	Slip	65.63	8,017
4	18	25.030	0.3125	65	Slip	46.63	2,738
5	18	19.972	0.2500	65	Flange	0.00	1,467
					Total Shaft Weight:		**37,101**

	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	64.50	0.00	88.96	46124.76	24.59	147.43	53.27	48.00	73.36	25874.8	20.06	121.7	0.233914
2	55.48	42.30	76.43	29256.05	20.95	126.81	43.78	92.30	60.19	14288.6	16.24	100.0	0.233914
3	45.81	86.83	54.08	14107.39	20.13	122.17	34.12	136.83	40.16	5777.20	14.63	90.98	0.233914
4	35.65	132.9	35.05	5530.46	18.71	114.09	29.80	157.98	29.24	3211.92	15.40	95.35	0.233914
5	29.80	157.9	23.44	2585.91	19.61	119.19	25.13	177.95	19.74	1543.03	16.31	100.5	0.233914

Load Summary

Structure:	CT02573-S-SBA	**Code:**	EIA/TIA-222-G	10/7/2021	
Site Name:	Coventry 2 CT	**Exposure:**	B		
Height:	177.95 (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	177.95	6' Lightning rod	1	6.50	0.38	1.00	55.73	1.855	1.00	0.00	0.00
2	172.00	T-Frames w/ Pipe Mount	3	450.00	16.00	0.75	925.58	26.870	0.75	0.00	0.00
3	172.00	MS-1436 (Light Collar Mount)	1	65.60	1.50	1.00	189.40	3.623	1.00	0.00	0.00
4	172.00	MS-HRECP	1	514.00	12.25	1.00	1338.52	28.433	1.00	0.00	0.00
5	172.00	MS-HR35	1	430.00	8.75	1.00	1119.78	20.309	1.00	0.00	0.00
6	172.00	MS-C1B-2875P	1	329.00	10.00	1.00	949.89	24.154	1.00	0.00	0.00
7	172.00	RR90-17-02DP	3	13.50	4.36	0.73	151.29	5.701	0.77	0.00	0.00
8	172.00	KRY 112 144/1	3	11.00	0.41	0.50	25.57	1.052	0.50	0.00	0.00
9	172.00	KRY 112 89/4	3	15.40	0.65	0.50	39.22	1.477	0.50	0.00	0.00
10	172.00	4449	3	70.00	1.65	0.67	202.11	2.429	0.67	0.00	0.00
11	172.00	782 10660	3	2.60	0.28	0.50	11.43	0.822	0.50	0.00	0.00
12	172.00	APXVAARR24_43-U-NA20	3	128.00	20.24	0.70	750.03	22.799	0.72	0.00	-2.00
13	162.00	Cci DMP65R-BU6DA	2	79.40	12.71	0.72	475.16	14.677	0.72	0.00	0.00
14	162.00	Cci DMP65R-BU8DA	1	95.70	17.87	0.72	713.81	20.284	0.72	0.00	0.00
15	162.00	Cci HPA-65R-BU8AA	1	54.00	11.23	0.86	434.64	13.482	0.86	0.00	0.00
16	162.00	Cci HPA-65R-BU6AA	2	43.00	7.92	0.99	387.80	9.679	0.99	0.00	0.00
17	162.00	Powerwave 21401 TMA	6	17.50	0.82	0.50	61.25	1.402	0.50	0.00	0.00
18	162.00	Powerwave 7020.00 RET	6	2.20	0.40	0.50	15.94	1.051	0.50	0.00	0.00
19	162.00	Ericsson RRUS 8843 B2 B66A RRU	3	72.00	1.64	0.67	134.94	2.308	0.67	0.00	0.00
20	162.00	Ericsson RRUS 4449 B5/B12 RRU	3	70.00	1.65	0.67	170.03	2.400	0.67	0.00	0.00
21	162.00	HRK12 (Handrail Kit)	1	261.72	6.75	1.00	679.05	15.614	1.00	0.00	0.00
22	162.00	HP Platform w/ Pipe Mount	1	1600.00	25.00	1.00	3475.95	51.967	1.00	0.00	0.00
23	162.00	Powerwave 7770	3	35.00	5.50	0.73	231.06	6.963	0.75	0.00	0.00
24	162.00	Raycap DC6-48-60-18-8F	1	31.80	0.92	1.00	114.87	1.508	1.00	0.00	0.00
25	153.00	ODI2-065R18K-GQ	3	25.10	4.85	0.70	167.43	6.162	0.70	0.00	0.00
26	153.00	SF-SU7-2-96	3	395.00	15.10	0.75	910.74	40.449	0.75	0.00	0.00
27	153.00	4415	2	44.10	1.86	0.67	107.48	2.625	0.67	0.00	0.00
28	153.00	0208	3	19.80	1.37	0.67	66.48	2.036	0.67	0.00	0.00
29	153.00	Collar Mount (3-Sided)	2	220.00	2.50	1.00	630.36	5.997	0.75	0.00	0.00
30	153.00	3.0" Std Pipe	3	30.00	1.75	1.00	85.96	4.198	0.75	0.00	0.00
31	130.00	MT6407-77A	3	79.40	4.69	0.70	247.09	5.953	0.70	0.00	0.00
32	130.00	XXDWMM-12.5-65	3	23.14	1.53	0.74	136.31	2.274	0.74	0.00	0.00
33	130.00	RF4440d-13A	3	70.33	1.93	0.67	177.52	3.138	0.67	0.00	0.00
34	130.00	RF4439d-25A	3	50.70	1.93	0.75	127.97	3.138	0.67	0.00	0.00
35	130.00	B25 RRH4x30-4R	3	51.00	2.14	0.67	126.90	2.939	0.67	0.00	0.00
36	130.00	SBNHH-1D65B	6	40.00	8.16	0.83	323.26	9.906	0.83	0.00	0.00
37	130.00	DB-T1-6Z-8AB-0Z	2	18.90	4.80	0.67	218.60	5.973	0.67	0.00	0.00
38	130.00	PV-LPP14L-HR-B Platform w/	1	1641.00	36.80	1.00	4471.74	79.008	1.00	0.00	0.00
		Totals:	**96**	**11,034.23**			**33,647.81**				

Linear Appurtenances

Bottom Elev. (ft)	Top Elev. (ft)	Description	Exposed Width	Exposed
0.00	173.00	(12) 1 5/8" Coax	0.00	Inside
0.00	173.00	(1) 1 5/8" Fiber	0.00	Inside
0.00	162.00	(12) 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	162.00	(2) 1" DC Power			0.00	Inside					
0.00	162.00	(4) 1/2" Coax			0.00	Inside					
0.00	162.00	(1) 3/8" Fiber			0.00	Inside					
0.00	153.00	(1) 1 1/4" Hybrid			0.00	Inside					
0.00	130.00	(2) 1 5/8" Hybrid			0.00	Inside					

Shaft Section Properties

Structure:	CT02573-S-SBA	**Code:**	EIA/TIA-222-G	10/7/2021	
Site Name:	Coventry 2 CT	**Exposure:**	B		
Height:	177.95 (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	

Tower Engineering Solutions

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	64.500	88.956	46124.8	24.59	147.43	72.5	1408.	0.0
5.00		0.4375	63.330	87.332	43644.3	24.11	144.76	73.0	1357.	1499.7
10.00		0.4375	62.161	85.708	41254.5	23.64	142.08	73.6	1307.	1472.0
15.00		0.4375	60.991	84.083	38953.5	23.17	139.41	74.1	1257.	1444.4
20.00		0.4375	59.822	82.459	36739.7	22.70	136.74	74.7	1209.	1416.8
25.00		0.4375	58.652	80.835	34611.4	22.23	134.06	75.3	1162.	1389.1
30.00		0.4375	57.483	79.211	32566.9	21.76	131.39	75.8	1115.	1361.5
35.00		0.4375	56.313	77.587	30604.6	21.29	128.72	76.4	1070.	1333.9
40.00		0.4375	55.143	75.963	28722.7	20.81	126.04	76.9	1025.	1306.2
42.30	Bot - Section 2	0.4375	54.605	75.216	27882.9	20.60	124.81	77.2	1005.	592.1
45.00		0.4375	53.974	74.339	26919.6	20.34	123.37	77.5	982.4	1384.1
48.00	Top - Section 1	0.4375	54.147	74.580	27181.8	20.41	123.76	0.0	0.0	1520.2
50.00		0.4375	53.679	73.930	26477.7	20.22	122.70	77.6	971.5	505.3
55.00		0.4375	52.510	72.306	24770.9	19.75	120.02	78.2	929.1	1244.0
60.00		0.4375	51.340	70.682	23139.0	19.28	117.35	78.7	887.7	1216.4
65.00		0.4375	50.171	69.058	21580.4	18.81	114.68	79.3	847.2	1188.8
70.00		0.4375	49.001	67.434	20093.4	18.34	112.00	79.8	807.7	1161.1
75.00		0.4375	47.831	65.810	18676.3	17.87	109.33	80.4	769.1	1133.5
80.00		0.4375	46.662	64.186	17327.5	17.40	106.66	80.9	731.4	1105.9
85.00		0.4375	45.492	62.562	16045.2	16.92	103.98	81.5	694.7	1078.2
86.83	Bot - Section 3	0.4375	45.063	61.966	15591.4	16.75	103.00	81.7	681.5	388.4
90.00		0.4375	44.323	60.938	14827.8	16.45	101.31	82.0	658.9	1240.2
92.30	Top - Section 2	0.3750	44.534	52.559	12949.1	19.53	118.76	0.0	0.0	888.7
95.00		0.3750	43.903	51.808	12401.9	19.23	117.08	78.8	556.4	479.1
100.00		0.3750	42.734	50.416	11428.8	18.68	113.96	79.4	526.8	869.6
105.00		0.3750	41.564	49.023	10508.0	18.13	110.84	80.1	497.9	845.9
110.00		0.3750	40.394	47.631	9638.1	17.58	107.72	80.7	469.9	822.2
115.00		0.3750	39.225	46.239	8817.5	17.03	104.60	81.4	442.8	798.6
120.00		0.3750	38.055	44.847	8044.9	16.48	101.48	82.0	416.4	774.9
125.00		0.3750	36.886	43.455	7318.8	15.93	98.36	82.5	390.8	751.2
130.00		0.3750	35.716	42.063	6637.7	15.38	95.24	82.5	366.0	727.5
132.95	Bot - Section 4	0.3750	35.027	41.243	6256.7	15.06	93.40	82.5	351.8	417.8
135.00		0.3750	34.547	40.671	6000.3	14.83	92.12	82.5	342.1	529.1
136.83	Top - Section 3	0.3125	34.743	34.149	5114.6	18.19	111.18	0.0	0.0	466.5
140.00		0.3125	34.002	33.415	4791.6	17.77	108.81	80.5	277.6	364.0
145.00		0.3125	32.832	32.255	4309.7	17.11	105.06	81.3	258.5	558.6
150.00		0.3125	31.663	31.095	3861.2	16.46	101.32	82.0	240.2	538.9
153.00		0.3125	30.961	30.399	3607.7	16.06	99.08	82.5	229.5	313.9
155.00		0.3125	30.493	29.935	3445.0	15.80	97.58	82.5	222.5	205.3
157.98	Top - Section 4	0.3125	29.797	29.244	3211.9	15.40	95.35	82.5	212.3	299.8
157.98	Bot - Section 5	0.2500	29.797	23.445	2585.9	19.25	119.19	78.3	170.9	
160.00		0.2500	29.324	23.069	2463.7	19.27	117.30	78.7	165.5	160.0
162.00		0.2500	28.856	22.698	2346.7	18.94	115.42	79.1	160.2	155.7
165.00		0.2500	28.154	22.141	2178.2	18.45	112.62	79.7	152.4	228.9
170.00		0.2500	26.985	21.213	1915.6	17.62	107.94	80.7	139.8	368.8
172.00		0.2500	26.517	20.842	1816.8	17.29	106.07	81.1	134.9	143.1
175.00		0.2500	25.815	20.285	1675.0	16.80	103.26	81.6	127.8	209.9
177.95		0.2500	25.125	19.738	1543.0	16.31	100.50	82.2	121.0	200.9
										37100.9

Wind Loading - Shaft

Structure:	CT02573-S-SBA	**Code:**	EIA/TIA-222-G	10/7/2021	
Site Name:	Coventry 2 CT	**Exposure:**	B		
Height:	177.95 (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	

Tower Engineering Solutions

Load Case: 1.2D + 1.6W 101 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.60

Iterations 24

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	17.366	19.10	461.21	0.650	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.70	17.366	19.10	452.85	0.650	0.000	5.00	27.042	17.58	537.2	0.0	1799.6
10.00		1.00	0.70	17.366	19.10	444.48	0.650	0.000	5.00	26.547	17.26	527.4	0.0	1766.4
15.00		1.00	0.70	17.366	19.10	436.12	0.650	0.000	5.00	26.052	16.93	517.6	0.0	1733.3
20.00		1.00	0.70	17.366	19.10	427.76	0.650	0.000	5.00	25.558	16.61	507.8	0.0	1700.1
25.00		1.00	0.70	17.366	19.10	419.39	0.650	0.000	5.00	25.063	16.29	497.9	0.0	1667.0
30.00		1.00	0.70	17.381	19.12	411.20	0.650	0.000	5.00	24.568	15.97	488.5	0.0	1633.8
35.00		1.00	0.73	18.163	19.98	411.81	0.650	0.000	5.00	24.073	15.65	500.2	0.0	1600.7
40.00		1.00	0.76	18.870	20.76	411.02	0.650	0.000	5.00	23.578	15.33	509.0	0.0	1567.5
42.30	Bot - Section 2	1.00	0.77	19.174	21.09	410.27	0.650	0.000	2.30	10.689	6.95	234.5	0.0	710.6
45.00		1.00	0.79	19.516	21.47	409.13	0.650	0.000	2.70	12.594	8.19	281.2	0.0	1661.0
48.00	Top - Section 1	1.00	0.80	19.879	21.87	407.55	0.650	0.000	3.00	13.835	8.99	314.6	0.0	1824.3
50.00		1.00	0.81	20.112	22.12	413.07	0.650	0.000	2.00	9.124	5.93	209.9	0.0	606.4
55.00		1.00	0.83	20.667	22.73	409.61	0.650	0.000	5.00	22.464	14.60	531.1	0.0	1492.8
60.00		1.00	0.85	21.187	23.31	405.49	0.650	0.000	5.00	21.969	14.28	532.5	0.0	1459.7
65.00		1.00	0.87	21.678	23.85	400.81	0.650	0.000	5.00	21.474	13.96	532.5	0.0	1426.5
70.00		1.00	0.89	22.142	24.36	395.63	0.650	0.000	5.00	20.979	13.64	531.4	0.0	1393.4
75.00		1.00	0.91	22.582	24.84	390.02	0.650	0.000	5.00	20.485	13.32	529.2	0.0	1360.2
80.00		1.00	0.93	23.003	25.30	384.00	0.650	0.000	5.00	19.990	12.99	526.0	0.0	1327.0
85.00		1.00	0.94	23.404	25.74	377.64	0.650	0.000	5.00	19.495	12.67	522.0	0.0	1293.9
86.83	Bot - Section 3	1.00	0.95	23.548	25.90	375.22	0.650	0.000	1.83	7.024	4.57	189.2	0.0	466.1
90.00		1.00	0.96	23.790	26.17	370.94	0.650	0.000	3.17	12.177	7.92	331.4	0.0	1488.2
92.30	Top - Section 2	1.00	0.97	23.962	26.36	367.76	0.650	0.000	2.30	8.728	5.67	239.2	0.0	1066.4
95.00		1.00	0.97	24.160	26.58	370.28	0.650	0.000	2.70	10.095	6.56	279.0	0.0	574.9
100.00		1.00	0.99	24.517	26.97	363.07	0.650	0.000	5.00	18.328	11.91	514.0	0.0	1043.5
105.00		1.00	1.00	24.861	27.35	355.60	0.650	0.000	5.00	17.833	11.59	507.2	0.0	1015.1
110.00		1.00	1.02	25.194	27.71	347.90	0.650	0.000	5.00	17.338	11.27	499.7	0.0	986.7
115.00		1.00	1.03	25.516	28.07	339.98	0.650	0.000	5.00	16.843	10.95	491.7	0.0	958.3
120.00		1.00	1.04	25.828	28.41	331.85	0.650	0.000	5.00	16.348	10.63	483.0	0.0	929.8
125.00		1.00	1.05	26.131	28.74	323.53	0.650	0.000	5.00	15.854	10.30	473.9	0.0	901.4
130.00	Appurtenance(s)	1.00	1.07	26.425	29.07	315.04	0.650	0.000	5.00	15.359	9.98	464.3	0.0	873.0
132.95	Bot - Section 4	1.00	1.07	26.595	29.25	309.95	0.650	0.000	2.95	8.823	5.74	268.4	0.0	501.4
135.00		1.00	1.08	26.712	29.38	306.37	0.650	0.000	2.05	6.149	4.00	187.9	0.0	634.9
136.83	Top - Section 3	1.00	1.08	26.815	29.50	303.15	0.650	0.000	1.83	5.423	3.52	166.4	0.0	559.8
140.00		1.00	1.09	26.991	29.69	303.11	0.650	0.000	3.17	9.210	5.99	284.4	0.0	436.8
145.00		1.00	1.10	27.263	29.99	294.15	0.650	0.000	5.00	14.139	9.19	441.0	0.0	670.4
150.00		1.00	1.11	27.528	30.28	285.05	0.650	0.000	5.00	13.644	8.87	429.7	0.0	646.7
153.00	Appurtenance(s)	1.00	1.12	27.684	30.45	279.52	0.650	0.000	3.00	7.949	5.17	251.7	0.0	376.6
155.00		1.00	1.12	27.787	30.57	275.81	0.650	0.000	2.00	5.200	3.38	165.3	0.0	246.4
157.98	Top - Section 4	1.00	1.13	27.939	30.73	270.25	0.650	0.000	2.98	7.596	4.94	242.8	0.0	359.8
160.00		1.00	1.13	28.040	30.84	266.44	0.650	0.000	2.02	5.058	3.29	162.3	0.0	192.0
162.00	Appurtenance(s)	1.00	1.13	28.140	30.95	262.65	0.650	0.000	2.00	4.923	3.20	158.5	0.0	186.9
165.00		1.00	1.14	28.288	31.12	256.94	0.650	0.000	3.00	7.236	4.70	234.2	0.0	274.6
170.00		1.00	1.15	28.530	31.38	247.32	0.650	0.000	5.00	11.664	7.58	380.7	0.0	442.6
172.00	Appurtenance(s)	1.00	1.15	28.626	31.49	243.44	0.650	0.000	2.00	4.527	2.94	148.3	0.0	171.7
175.00		1.00	1.16	28.768	31.64	237.58	0.650	0.000	3.00	6.642	4.32	218.6	0.0	251.9
177.95	Appurtenance(s)	1.00	1.17	28.905	31.80	231.78	0.650	0.000	2.95	6.358	4.13	210.2	0.0	241.1

Wind Loading - Shaft

Structure:	CT02573-S-SBA	**Code:**	EIA/TIA-222-G	10/7/2021	
Site Name:	Coventry 2 CT	**Exposure:**	B		
Height:	177.95 (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	

Totals:	**177.95**	**17,253.7**	**44,521.1**

Discrete Appurtenance Forces

Structure:	CT02573-S-SBA	**Code:**	EIA/TIA-222-G	10/7/2021	
Site Name:	Coventry 2 CT	**Exposure:**	B		
Height:	177.95 (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	

Tower Engineering Solutions

Load Case: 1.2D + 1.6W 101 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.60

Iterations 24

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	177.95	6' Lightning rod	1	28.905	31.796	1.00	1.00	0.38	7.80	0.000	0.000	19.33	0.00	0.00
2	172.00	RR90-17-02DP	3	28.626	31.488	0.55	0.75	7.15	48.60	0.000	0.000	360.30	0.00	0.00
3	172.00	T-Frames w/ Pipe Mount	3	28.626	31.488	0.56	0.75	27.00	1620.00	0.000	0.000	1360.30	0.00	0.00
4	172.00	MS-1436 (Light Collar	1	28.626	31.488	1.00	1.00	1.50	78.72	0.000	0.000	75.57	0.00	0.00
5	172.00	MS-HR35	1	28.626	31.488	1.00	1.00	8.75	516.00	0.000	0.000	440.84	0.00	0.00
6	172.00	MS-C1B-2875P	1	28.626	31.488	1.00	1.00	10.00	394.80	0.000	0.000	503.82	0.00	0.00
7	172.00	MS-HRECP	1	28.626	31.488	1.00	1.00	12.25	616.80	0.000	0.000	617.17	0.00	0.00
8	172.00	KRY 112 89/4	3	28.626	31.488	0.38	0.75	0.73	55.44	0.000	0.000	36.84	0.00	0.00
9	172.00	4449	3	28.626	31.488	0.50	0.75	2.49	252.00	0.000	0.000	125.32	0.00	0.00
10	172.00	782 10660	3	28.626	31.488	0.38	0.75	0.32	9.36	0.000	0.000	15.87	0.00	0.00
11	172.00	APXVAARR24_43-U-NA2	3	28.530	31.383	0.53	0.75	31.97	460.80	0.000	-2.000	1605.28	0.00	-3210.56
12	172.00	KRY 112 144/1	3	28.626	31.488	0.38	0.75	0.46	39.60	0.000	0.000	23.24	0.00	0.00
13	162.00	Ericsson RRUS 4449	3	28.140	30.954	0.50	0.75	2.49	252.00	0.000	0.000	123.19	0.00	0.00
14	162.00	Powerwave 7020.00 RET	6	28.140	30.954	0.38	0.75	0.90	15.84	0.000	0.000	44.57	0.00	0.00
15	162.00	Ericsson RRUS 8843 B2	3	28.140	30.954	0.50	0.75	2.47	259.20	0.000	0.000	122.44	0.00	0.00
16	162.00	Raycap DC6-48-60-18-8F	1	28.140	30.954	0.75	0.75	0.69	38.16	0.000	0.000	34.17	0.00	0.00
17	162.00	HRK12 (Handrail Kit)	1	28.140	30.954	1.00	1.00	6.75	314.06	0.000	0.000	334.30	0.00	0.00
18	162.00	HP Platform w/ Pipe	1	28.140	30.954	1.00	1.00	25.00	1920.00	0.000	0.000	1238.17	0.00	0.00
19	162.00	Powerwave 7770	3	28.140	30.954	0.55	0.75	9.03	126.00	0.000	0.000	447.41	0.00	0.00
20	162.00	Powerwave 21401 TMA	6	28.140	30.954	0.38	0.75	1.84	126.00	0.000	0.000	91.38	0.00	0.00
21	162.00	Cci HPA-65R-BU8AA	1	28.140	30.954	0.65	0.75	7.24	64.80	0.000	0.000	358.74	0.00	0.00
22	162.00	Cci DMP65R-BU8DA	1	28.140	30.954	0.54	0.75	9.65	114.84	0.000	0.000	477.92	0.00	0.00
23	162.00	Cci DMP65R-BU6DA	2	28.140	30.954	0.54	0.75	13.73	190.56	0.000	0.000	679.84	0.00	0.00
24	162.00	Cci HPA-65R-BU6AA	2	28.140	30.954	0.74	0.75	11.76	103.20	0.000	0.000	582.49	0.00	0.00
25	153.00	4415	2	27.684	30.453	0.54	0.80	1.99	105.84	0.000	0.000	97.15	0.00	0.00
26	153.00	ODI2-065R18K-GQ	3	27.684	30.453	0.56	0.80	8.15	90.36	0.000	0.000	397.01	0.00	0.00
27	153.00	SF-SU7-2-96	3	27.684	30.453	0.56	0.75	25.48	1422.00	0.000	0.000	1241.56	0.00	0.00
28	153.00	Collar Mount (3-Sided)	2	27.684	30.453	1.00	1.00	5.00	528.00	0.000	0.000	243.62	0.00	0.00
29	153.00	3.0" Std Pipe	3	27.684	30.453	1.00	1.00	5.25	108.00	0.000	0.000	255.80	0.00	0.00
30	153.00	0208	3	27.684	30.453	0.54	0.80	2.20	71.28	0.000	0.000	107.34	0.00	0.00
31	130.00	RF4439d-25A	3	26.425	29.068	0.56	0.75	3.26	182.52	0.000	0.000	151.47	0.00	0.00
32	130.00	MT6407-77A	3	26.425	29.068	0.52	0.75	7.39	285.84	0.000	0.000	343.55	0.00	0.00
33	130.00	XXDWMM-12.5-65	3	26.425	29.068	0.56	0.75	2.56	83.30	0.000	0.000	118.96	0.00	0.00
34	130.00	RF4440d-13A	3	26.425	29.068	0.50	0.75	2.91	253.19	0.000	0.000	135.32	0.00	0.00
35	130.00	SBNHH-1D65B	6	26.425	29.068	0.62	0.75	30.48	288.00	0.000	0.000	1417.47	0.00	0.00
36	130.00	B25 RRH4x30-4R	3	26.425	29.068	0.50	0.75	3.23	183.60	0.000	0.000	150.04	0.00	0.00
37	130.00	DB-T1-6Z-8AB-0Z	2	26.425	29.068	0.50	0.75	4.82	45.36	0.000	0.000	224.36	0.00	0.00
38	130.00	PV-LPP14L-HR-B	1	26.425	29.068	1.00	1.00	36.80	1969.20	0.000	0.000	1711.51	0.00	0.00
							Totals:		**13,241.08**			**16,313.68**		

Total Applied Force Summary

Structure:	CT02573-S-SBA		**Code:**	EIA/TIA-222-G	10/7/2021
Site Name:	Coventry 2 CT		**Exposure:**	B	
Height:	177.95 (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

Load Case: 1.2D + 1.6W 101 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.60

Iterations 24

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		537.24	1982.12	0.00	0.00
10.00		527.41	1948.96	0.00	0.00
15.00		517.58	1915.80	0.00	0.00
20.00		507.75	1882.65	0.00	0.00
25.00		497.92	1849.49	0.00	0.00
30.00		488.50	1816.33	0.00	0.00
35.00		500.22	1783.17	0.00	0.00
40.00		508.99	1750.02	0.00	0.00
42.30		234.47	794.59	0.00	0.00
45.00		281.17	1759.44	0.00	0.00
48.00		314.62	1933.77	0.00	0.00
50.00		209.93	679.42	0.00	0.00
55.00		531.12	1675.35	0.00	0.00
60.00		532.50	1642.19	0.00	0.00
65.00		532.55	1609.04	0.00	0.00
70.00		531.41	1575.88	0.00	0.00
75.00		529.20	1542.72	0.00	0.00
80.00		526.03	1509.56	0.00	0.00
85.00		521.97	1476.41	0.00	0.00
86.83		189.22	533.04	0.00	0.00
90.00		331.40	1603.81	0.00	0.00
92.30		239.25	1150.42	0.00	0.00
95.00		279.02	673.36	0.00	0.00
100.00		514.04	1226.05	0.00	0.00
105.00		507.19	1197.63	0.00	0.00
110.00		499.71	1169.21	0.00	0.00
115.00		491.65	1140.78	0.00	0.00
120.00		483.05	1112.36	0.00	0.00
125.00		473.92	1083.94	0.00	0.00
130.00	(24) attachments	4716.98	4346.54	0.00	0.00
132.95		268.45	601.22	0.00	0.00
135.00		187.90	704.39	0.00	0.00
136.83		166.36	621.88	0.00	0.00
140.00		284.39	544.06	0.00	0.00
145.00		440.96	839.69	0.00	0.00
150.00		429.67	816.01	0.00	0.00
153.00	(16) attachments	2594.22	2803.72	0.00	0.00
155.00		165.31	312.50	0.00	0.00
157.98		242.79	458.28	0.00	0.00
160.00		162.25	258.90	0.00	0.00
162.00	(30) attachments	4693.13	3777.69	0.00	0.00
165.00		234.17	323.53	0.00	0.00
170.00		380.71	524.06	0.00	0.00
172.00	(25) attachments	5312.81	4296.44	0.00	-3210.56
175.00		218.60	268.20	0.00	0.00
177.95	(1) attachments	229.58	248.85	0.00	0.00

Total Applied Force Summary

Structure:	CT02573-S-SBA		**Code:**	EIA/TIA-222-G	10/7/2021
Site Name:	Coventry 2 CT		**Exposure:**	B	
Height:	177.95 (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

Tower Engineering Solutions

Totals:	**33,567.33**	**63,763.46**	**0.00**	**-3,210.56**

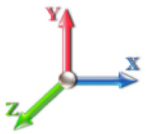
Calculated Forces

Structure:	CT02573-S-SBA	**Code:**	EIA/TIA-222-G	10/7/2021	
Site Name:	Coventry 2 CT	**Exposure:**	B		
Height:	177.95 (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	

Load Case: 1.2D + 1.6W 101 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.60



Iterations 24

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	-63.73	-33.64	0.00	-4198.2	0.00	4198.24	5803.10	2901.55	15291.3	7657.05	0.00	0.000	0.000	0.559
5.00	-61.67	-33.24	0.00	-4030.0	0.00	4030.05	5740.73	2870.37	14848.9	7435.53	0.07	-0.127	0.000	0.553
10.00	-59.65	-32.84	0.00	-3863.8	0.00	3863.87	5676.74	2838.37	14408.5	7214.97	0.27	-0.256	0.000	0.546
15.00	-57.66	-32.44	0.00	-3699.6	0.00	3699.69	5611.13	2805.57	13970.2	6995.50	0.61	-0.386	0.000	0.539
20.00	-55.71	-32.05	0.00	-3537.4	0.00	3537.48	5543.90	2771.95	13534.3	6777.22	1.08	-0.518	0.000	0.532
25.00	-53.79	-31.66	0.00	-3377.2	0.00	3377.24	5475.05	2737.52	13101.0	6560.27	1.70	-0.652	0.000	0.525
30.00	-51.91	-31.27	0.00	-3218.9	0.00	3218.95	5404.57	2702.29	12670.6	6344.75	2.45	-0.787	0.000	0.517
35.00	-50.06	-30.86	0.00	-3062.6	0.00	3062.61	5332.48	2666.24	12243.3	6130.79	3.35	-0.925	0.000	0.509
40.00	-48.26	-30.41	0.00	-2908.2	0.00	2908.29	5258.76	2629.38	11819.4	5918.51	4.40	-1.063	0.000	0.501
42.30	-47.43	-30.22	0.00	-2838.2	0.00	2838.28	5224.28	2612.14	11625.4	5821.36	4.93	-1.129	0.000	0.497
45.00	-45.64	-29.97	0.00	-2756.7	0.00	2756.75	5183.43	2591.71	11399.0	5708.01	5.59	-1.206	0.000	0.492
48.00	-43.67	-29.67	0.00	-2666.8	0.00	2666.85	5194.69	2597.35	11461.1	5739.07	6.37	-1.292	0.000	0.473
50.00	-42.95	-29.51	0.00	-2607.5	0.00	2607.52	5164.20	2582.10	11293.7	5655.29	6.93	-1.350	0.000	0.470
55.00	-41.22	-29.04	0.00	-2459.9	0.00	2459.95	5086.83	2543.42	10878.2	5447.20	8.41	-1.486	0.000	0.460
60.00	-39.52	-28.56	0.00	-2314.7	0.00	2314.76	5007.85	2503.92	10466.7	5241.17	10.04	-1.623	0.000	0.450
65.00	-37.86	-28.07	0.00	-2171.9	0.00	2171.97	4927.24	2463.62	10059.6	5037.31	11.82	-1.761	0.000	0.439
70.00	-36.24	-27.58	0.00	-2031.6	0.00	2031.63	4845.02	2422.51	9657.14	4835.75	13.74	-1.900	0.000	0.428
75.00	-34.65	-27.08	0.00	-1893.7	0.00	1893.75	4761.17	2380.58	9259.43	4636.60	15.80	-2.039	0.000	0.416
80.00	-33.10	-26.58	0.00	-1758.3	0.00	1758.36	4675.70	2337.85	8866.76	4439.97	18.01	-2.178	0.000	0.403
85.00	-31.60	-26.05	0.00	-1625.4	0.00	1625.48	4588.61	2294.31	8479.38	4245.99	20.37	-2.317	0.000	0.390
86.83	-31.04	-25.88	0.00	-1577.7	0.00	1577.72	4556.28	2278.14	8338.71	4175.55	21.27	-2.369	0.000	0.385
90.00	-29.42	-25.52	0.00	-1495.7	0.00	1495.78	4499.90	2249.95	8097.52	4054.78	22.87	-2.457	0.000	0.376
92.30	-28.25	-25.26	0.00	-1437.0	0.00	1437.04	3709.97	1854.99	6727.57	3368.78	24.07	-2.522	0.000	0.434
95.00	-27.54	-25.01	0.00	-1368.8	0.00	1368.88	3673.22	1836.61	6564.94	3287.35	25.51	-2.598	0.000	0.424
100.00	-26.27	-24.51	0.00	-1243.8	0.00	1243.83	3603.88	1801.94	6266.45	3137.88	28.32	-2.747	0.000	0.404
105.00	-25.04	-24.01	0.00	-1121.3	0.00	1121.30	3532.91	1766.45	5971.95	2990.41	31.27	-2.895	0.000	0.382
110.00	-23.84	-23.50	0.00	-1001.2	0.00	1001.28	3460.32	1730.16	5681.65	2845.05	34.38	-3.038	0.000	0.359
115.00	-22.68	-23.01	0.00	-883.76	0.00	883.76	3386.11	1693.05	5395.81	2701.92	37.64	-3.177	0.000	0.334
120.00	-21.54	-22.51	0.00	-768.73	0.00	768.73	3310.28	1655.14	5114.65	2561.13	41.04	-3.311	0.000	0.307
125.00	-20.44	-22.02	0.00	-656.19	0.00	656.19	3228.52	1614.26	4831.97	2419.57	44.57	-3.437	0.000	0.278
130.00	-16.36	-17.07	0.00	-546.11	0.00	546.11	3125.09	1562.55	4525.83	2266.28	48.23	-3.553	0.000	0.246
132.95	-15.76	-16.78	0.00	-495.80	0.00	495.80	3064.12	1532.06	4350.03	2178.25	50.45	-3.619	0.000	0.233
135.00	-15.06	-16.56	0.00	-461.37	0.00	461.37	3021.67	1510.84	4229.72	2118.00	52.01	-3.664	0.000	0.223
136.83	-14.44	-16.36	0.00	-431.01	0.00	431.01	2458.83	1229.41	3474.42	1739.79	53.42	-3.703	0.000	0.254
140.00	-13.89	-16.06	0.00	-379.20	0.00	379.20	2420.71	1210.36	3346.31	1675.64	55.90	-3.766	0.000	0.232
145.00	-13.05	-15.59	0.00	-298.88	0.00	298.88	2359.20	1179.60	3147.03	1575.85	59.90	-3.867	0.000	0.195
150.00	-12.25	-15.12	0.00	-220.93	0.00	220.93	2296.08	1148.04	2951.62	1478.00	63.99	-3.952	0.000	0.155
153.00	-9.63	-12.34	0.00	-175.57	0.00	175.57	2257.42	1128.71	2836.33	1420.27	66.49	-3.996	0.000	0.128
155.00	-9.32	-12.16	0.00	-150.89	0.00	150.89	2223.99	1111.99	2751.24	1377.66	68.17	-4.022	0.000	0.114
157.98	-8.88	-11.89	0.00	-114.67	0.00	114.67	2172.66	1086.33	2625.07	1314.48	70.69	-4.055	0.000	0.091
157.98	-8.88	-11.89	0.00	-114.67	0.00	114.67	1653.01	826.50	2005.69	1004.33	70.69	-4.055	0.000	0.120
160.00	-8.63	-11.71	0.00	-90.63	0.00	90.63	1634.69	817.35	1951.45	977.17	72.41	-4.073	0.000	0.098
162.00	-5.19	-6.76	0.00	-67.21	0.00	67.21	1616.31	808.16	1898.20	950.51	74.12	-4.091	0.000	0.074
165.00	-4.88	-6.51	0.00	-46.91	0.00	46.91	1588.26	794.13	1819.10	910.90	76.69	-4.112	0.000	0.055
170.00	-4.39	-6.09	0.00	-14.37	0.00	14.37	1540.22	770.11	1689.48	845.99	81.01	-4.132	0.000	0.020
172.00	-0.48	-0.48	0.00	-2.18	0.00	2.18	1520.54	760.27	1638.44	820.44	82.74	-4.134	0.000	0.003
175.00	-0.23	-0.25	0.00	-0.73	0.00	0.73	1490.55	745.27	1562.81	782.56	85.34	-4.135	0.000	0.001
177.95	0.00	-0.23	0.00	0.00	0.00	0.00	1460.49	730.24	1489.55	745.88	87.89	-4.135	0.000	0.000

Calculated Forces

Structure:	CT02573-S-SBA		**Code:**	EIA/TIA-222-G	10/7/2021
Site Name:	Coventry 2 CT		**Exposure:**	B	
Height:	177.95 (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

Wind Loading - Shaft

Structure:	CT02573-S-SBA	**Code:**	EIA/TIA-222-G	10/7/2021	
Site Name:	Coventry 2 CT	**Exposure:**	B		
Height:	177.95 (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	

Tower Engineering Solutions

Load Case: 0.9D + 1.6W 101 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60

Iterations 24

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	17.366	19.10	461.21	0.650	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.70	17.366	19.10	452.85	0.650	0.000	5.00	27.042	17.58	537.2	0.0	1349.7
10.00		1.00	0.70	17.366	19.10	444.48	0.650	0.000	5.00	26.547	17.26	527.4	0.0	1324.8
15.00		1.00	0.70	17.366	19.10	436.12	0.650	0.000	5.00	26.052	16.93	517.6	0.0	1300.0
20.00		1.00	0.70	17.366	19.10	427.76	0.650	0.000	5.00	25.558	16.61	507.8	0.0	1275.1
25.00		1.00	0.70	17.366	19.10	419.39	0.650	0.000	5.00	25.063	16.29	497.9	0.0	1250.2
30.00		1.00	0.70	17.381	19.12	411.20	0.650	0.000	5.00	24.568	15.97	488.5	0.0	1225.4
35.00		1.00	0.73	18.163	19.98	411.81	0.650	0.000	5.00	24.073	15.65	500.2	0.0	1200.5
40.00		1.00	0.76	18.870	20.76	411.02	0.650	0.000	5.00	23.578	15.33	509.0	0.0	1175.6
42.30	Bot - Section 2	1.00	0.77	19.174	21.09	410.27	0.650	0.000	2.30	10.689	6.95	234.5	0.0	532.9
45.00		1.00	0.79	19.516	21.47	409.13	0.650	0.000	2.70	12.594	8.19	281.2	0.0	1245.7
48.00	Top - Section 1	1.00	0.80	19.879	21.87	407.55	0.650	0.000	3.00	13.835	8.99	314.6	0.0	1368.2
50.00		1.00	0.81	20.112	22.12	413.07	0.650	0.000	2.00	9.124	5.93	209.9	0.0	454.8
55.00		1.00	0.83	20.667	22.73	409.61	0.650	0.000	5.00	22.464	14.60	531.1	0.0	1119.6
60.00		1.00	0.85	21.187	23.31	405.49	0.650	0.000	5.00	21.969	14.28	532.5	0.0	1094.8
65.00		1.00	0.87	21.678	23.85	400.81	0.650	0.000	5.00	21.474	13.96	532.5	0.0	1069.9
70.00		1.00	0.89	22.142	24.36	395.63	0.650	0.000	5.00	20.979	13.64	531.4	0.0	1045.0
75.00		1.00	0.91	22.582	24.84	390.02	0.650	0.000	5.00	20.485	13.32	529.2	0.0	1020.2
80.00		1.00	0.93	23.003	25.30	384.00	0.650	0.000	5.00	19.990	12.99	526.0	0.0	995.3
85.00		1.00	0.94	23.404	25.74	377.64	0.650	0.000	5.00	19.495	12.67	522.0	0.0	970.4
86.83	Bot - Section 3	1.00	0.95	23.548	25.90	375.22	0.650	0.000	1.83	7.024	4.57	189.2	0.0	349.6
90.00		1.00	0.96	23.790	26.17	370.94	0.650	0.000	3.17	12.177	7.92	331.4	0.0	1116.2
92.30	Top - Section 2	1.00	0.97	23.962	26.36	367.76	0.650	0.000	2.30	8.728	5.67	239.2	0.0	799.8
95.00		1.00	0.97	24.160	26.58	370.28	0.650	0.000	2.70	10.095	6.56	279.0	0.0	431.2
100.00		1.00	0.99	24.517	26.97	363.07	0.650	0.000	5.00	18.328	11.91	514.0	0.0	782.6
105.00		1.00	1.00	24.861	27.35	355.60	0.650	0.000	5.00	17.833	11.59	507.2	0.0	761.3
110.00		1.00	1.02	25.194	27.71	347.90	0.650	0.000	5.00	17.338	11.27	499.7	0.0	740.0
115.00		1.00	1.03	25.516	28.07	339.98	0.650	0.000	5.00	16.843	10.95	491.7	0.0	718.7
120.00		1.00	1.04	25.828	28.41	331.85	0.650	0.000	5.00	16.348	10.63	483.0	0.0	697.4
125.00		1.00	1.05	26.131	28.74	323.53	0.650	0.000	5.00	15.854	10.30	473.9	0.0	676.1
130.00	Appurtenance(s)	1.00	1.07	26.425	29.07	315.04	0.650	0.000	5.00	15.359	9.98	464.3	0.0	654.8
132.95	Bot - Section 4	1.00	1.07	26.595	29.25	309.95	0.650	0.000	2.95	8.823	5.74	268.4	0.0	376.0
135.00		1.00	1.08	26.712	29.38	306.37	0.650	0.000	2.05	6.149	4.00	187.9	0.0	476.2
136.83	Top - Section 3	1.00	1.08	26.815	29.50	303.15	0.650	0.000	1.83	5.423	3.52	166.4	0.0	419.8
140.00		1.00	1.09	26.991	29.69	303.11	0.650	0.000	3.17	9.210	5.99	284.4	0.0	327.6
145.00		1.00	1.10	27.263	29.99	294.15	0.650	0.000	5.00	14.139	9.19	441.0	0.0	502.8
150.00		1.00	1.11	27.528	30.28	285.05	0.650	0.000	5.00	13.644	8.87	429.7	0.0	485.0
153.00	Appurtenance(s)	1.00	1.12	27.684	30.45	279.52	0.650	0.000	3.00	7.949	5.17	251.7	0.0	282.5
155.00		1.00	1.12	27.787	30.57	275.81	0.650	0.000	2.00	5.200	3.38	165.3	0.0	184.8
157.98	Top - Section 4	1.00	1.13	27.939	30.73	270.25	0.650	0.000	2.98	7.596	4.94	242.8	0.0	269.8
160.00		1.00	1.13	28.040	30.84	266.44	0.650	0.000	2.02	5.058	3.29	162.3	0.0	144.0
162.00	Appurtenance(s)	1.00	1.13	28.140	30.95	262.65	0.650	0.000	2.00	4.923	3.20	158.5	0.0	140.2
165.00		1.00	1.14	28.288	31.12	256.94	0.650	0.000	3.00	7.236	4.70	234.2	0.0	206.0
170.00		1.00	1.15	28.530	31.38	247.32	0.650	0.000	5.00	11.664	7.58	380.7	0.0	331.9
172.00	Appurtenance(s)	1.00	1.15	28.626	31.49	243.44	0.650	0.000	2.00	4.527	2.94	148.3	0.0	128.8
175.00		1.00	1.16	28.768	31.64	237.58	0.650	0.000	3.00	6.642	4.32	218.6	0.0	188.9
177.95	Appurtenance(s)	1.00	1.17	28.905	31.80	231.78	0.650	0.000	2.95	6.358	4.13	210.2	0.0	180.8

Wind Loading - Shaft

Structure:	CT02573-S-SBA	**Code:**	EIA/TIA-222-G	10/7/2021	
Site Name:	Coventry 2 CT	**Exposure:**	B		
Height:	177.95 (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	

Totals:	**177.95**	**17,253.7**	**33,390.8**

Discrete Appurtenance Forces

Structure:	CT02573-S-SBA	**Code:**	EIA/TIA-222-G	10/7/2021	
Site Name:	Coventry 2 CT	**Exposure:**	B		
Height:	177.95 (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: 0.9D + 1.6W 101 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60

Iterations 24

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	177.95	6' Lightning rod	1	28.905	31.796	1.00	1.00	0.38	5.85	0.000	0.000	19.33	0.00	0.00
2	172.00	RR90-17-02DP	3	28.626	31.488	0.55	0.75	7.15	36.45	0.000	0.000	360.30	0.00	0.00
3	172.00	T-Frames w/ Pipe Mount	3	28.626	31.488	0.56	0.75	27.00	1215.00	0.000	0.000	1360.30	0.00	0.00
4	172.00	MS-1436 (Light Collar	1	28.626	31.488	1.00	1.00	1.50	59.04	0.000	0.000	75.57	0.00	0.00
5	172.00	MS-HR35	1	28.626	31.488	1.00	1.00	8.75	387.00	0.000	0.000	440.84	0.00	0.00
6	172.00	MS-C1B-2875P	1	28.626	31.488	1.00	1.00	10.00	296.10	0.000	0.000	503.82	0.00	0.00
7	172.00	MS-HRECP	1	28.626	31.488	1.00	1.00	12.25	462.60	0.000	0.000	617.17	0.00	0.00
8	172.00	KRY 112 89/4	3	28.626	31.488	0.38	0.75	0.73	41.58	0.000	0.000	36.84	0.00	0.00
9	172.00	4449	3	28.626	31.488	0.50	0.75	2.49	189.00	0.000	0.000	125.32	0.00	0.00
10	172.00	782 10660	3	28.626	31.488	0.38	0.75	0.32	7.02	0.000	0.000	15.87	0.00	0.00
11	172.00	APXVAARR24_43-U-NA2	3	28.530	31.383	0.53	0.75	31.97	345.60	0.000	-2.000	1605.28	0.00	-3210.56
12	172.00	KRY 112 144/1	3	28.626	31.488	0.38	0.75	0.46	29.70	0.000	0.000	23.24	0.00	0.00
13	162.00	Ericsson RRUS 4449	3	28.140	30.954	0.50	0.75	2.49	189.00	0.000	0.000	123.19	0.00	0.00
14	162.00	Powerwave 7020.00 RET	6	28.140	30.954	0.38	0.75	0.90	11.88	0.000	0.000	44.57	0.00	0.00
15	162.00	Ericsson RRUS 8843 B2	3	28.140	30.954	0.50	0.75	2.47	194.40	0.000	0.000	122.44	0.00	0.00
16	162.00	Raycap DC6-48-60-18-8F	1	28.140	30.954	0.75	0.75	0.69	28.62	0.000	0.000	34.17	0.00	0.00
17	162.00	HRK12 (Handrail Kit)	1	28.140	30.954	1.00	1.00	6.75	235.55	0.000	0.000	334.30	0.00	0.00
18	162.00	HP Platform w/ Pipe	1	28.140	30.954	1.00	1.00	25.00	1440.00	0.000	0.000	1238.17	0.00	0.00
19	162.00	Powerwave 7770	3	28.140	30.954	0.55	0.75	9.03	94.50	0.000	0.000	447.41	0.00	0.00
20	162.00	Powerwave 21401 TMA	6	28.140	30.954	0.38	0.75	1.84	94.50	0.000	0.000	91.38	0.00	0.00
21	162.00	Cci HPA-65R-BU8AA	1	28.140	30.954	0.65	0.75	7.24	48.60	0.000	0.000	358.74	0.00	0.00
22	162.00	Cci DMP65R-BU8DA	1	28.140	30.954	0.54	0.75	9.65	86.13	0.000	0.000	477.92	0.00	0.00
23	162.00	Cci DMP65R-BU6DA	2	28.140	30.954	0.54	0.75	13.73	142.92	0.000	0.000	679.84	0.00	0.00
24	162.00	Cci HPA-65R-BU6AA	2	28.140	30.954	0.74	0.75	11.76	77.40	0.000	0.000	582.49	0.00	0.00
25	153.00	4415	2	27.684	30.453	0.54	0.80	1.99	79.38	0.000	0.000	97.15	0.00	0.00
26	153.00	ODI2-065R18K-GQ	3	27.684	30.453	0.56	0.80	8.15	67.77	0.000	0.000	397.01	0.00	0.00
27	153.00	SF-SU7-2-96	3	27.684	30.453	0.56	0.75	25.48	1066.50	0.000	0.000	1241.56	0.00	0.00
28	153.00	Collar Mount (3-Sided)	2	27.684	30.453	1.00	1.00	5.00	396.00	0.000	0.000	243.62	0.00	0.00
29	153.00	3.0" Std Pipe	3	27.684	30.453	1.00	1.00	5.25	81.00	0.000	0.000	255.80	0.00	0.00
30	153.00	0208	3	27.684	30.453	0.54	0.80	2.20	53.46	0.000	0.000	107.34	0.00	0.00
31	130.00	RF4439d-25A	3	26.425	29.068	0.56	0.75	3.26	136.89	0.000	0.000	151.47	0.00	0.00
32	130.00	MT6407-77A	3	26.425	29.068	0.52	0.75	7.39	214.38	0.000	0.000	343.55	0.00	0.00
33	130.00	XXDWMM-12.5-65	3	26.425	29.068	0.56	0.75	2.56	62.48	0.000	0.000	118.96	0.00	0.00
34	130.00	RF4440d-13A	3	26.425	29.068	0.50	0.75	2.91	189.89	0.000	0.000	135.32	0.00	0.00
35	130.00	SBNHH-1D65B	6	26.425	29.068	0.62	0.75	30.48	216.00	0.000	0.000	1417.47	0.00	0.00
36	130.00	B25 RRH4x30-4R	3	26.425	29.068	0.50	0.75	3.23	137.70	0.000	0.000	150.04	0.00	0.00
37	130.00	DB-T1-6Z-8AB-0Z	2	26.425	29.068	0.50	0.75	4.82	34.02	0.000	0.000	224.36	0.00	0.00
38	130.00	PV-LPP14L-HR-B	1	26.425	29.068	1.00	1.00	36.80	1476.90	0.000	0.000	1711.51	0.00	0.00
							Totals:		**9,930.81**			**16,313.68**		

Total Applied Force Summary

Structure:	CT02573-S-SBA		**Code:**	EIA/TIA-222-G	10/7/2021
Site Name:	Coventry 2 CT		**Exposure:**	B	
Height:	177.95 (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

Tower Engineering Solutions

Load Case: 0.9D + 1.6W 101 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60

Iterations 24

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		537.24	1486.59	0.00	0.00
10.00		527.41	1461.72	0.00	0.00
15.00		517.58	1436.85	0.00	0.00
20.00		507.75	1411.98	0.00	0.00
25.00		497.92	1387.12	0.00	0.00
30.00		488.50	1362.25	0.00	0.00
35.00		500.22	1337.38	0.00	0.00
40.00		508.99	1312.51	0.00	0.00
42.30		234.47	595.94	0.00	0.00
45.00		281.17	1319.58	0.00	0.00
48.00		314.62	1450.33	0.00	0.00
50.00		209.93	509.57	0.00	0.00
55.00		531.12	1256.51	0.00	0.00
60.00		532.50	1231.64	0.00	0.00
65.00		532.55	1206.78	0.00	0.00
70.00		531.41	1181.91	0.00	0.00
75.00		529.20	1157.04	0.00	0.00
80.00		526.03	1132.17	0.00	0.00
85.00		521.97	1107.30	0.00	0.00
86.83		189.22	399.78	0.00	0.00
90.00		331.40	1202.86	0.00	0.00
92.30		239.25	862.82	0.00	0.00
95.00		279.02	505.02	0.00	0.00
100.00		514.04	919.54	0.00	0.00
105.00		507.19	898.22	0.00	0.00
110.00		499.71	876.90	0.00	0.00
115.00		491.65	855.59	0.00	0.00
120.00		483.05	834.27	0.00	0.00
125.00		473.92	812.96	0.00	0.00
130.00	(24) attachments	4716.98	3259.90	0.00	0.00
132.95		268.45	450.91	0.00	0.00
135.00		187.90	528.29	0.00	0.00
136.83		166.36	466.41	0.00	0.00
140.00		284.39	408.04	0.00	0.00
145.00		440.96	629.77	0.00	0.00
150.00		429.67	612.01	0.00	0.00
153.00	(16) attachments	2594.22	2102.79	0.00	0.00
155.00		165.31	234.38	0.00	0.00
157.98		242.79	343.71	0.00	0.00
160.00		162.25	194.18	0.00	0.00
162.00	(30) attachments	4693.13	2833.27	0.00	0.00
165.00		234.17	242.65	0.00	0.00
170.00		380.71	393.04	0.00	0.00
172.00	(25) attachments	5312.81	3222.33	0.00	-3210.56
175.00		218.60	201.15	0.00	0.00
177.95	(1) attachments	229.58	186.64	0.00	0.00

Total Applied Force Summary

Structure:	CT02573-S-SBA		**Code:**	EIA/TIA-222-G	10/7/2021
Site Name:	Coventry 2 CT		**Exposure:**	B	
Height:	177.95 (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

Tower Engineering Solutions

Totals:	**33,567.33**	**47,822.59**	**0.00**	**-3,210.56**

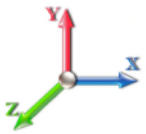
Calculated Forces

Structure:	CT02573-S-SBA	**Code:**	EIA/TIA-222-G	10/7/2021	
Site Name:	Coventry 2 CT	**Exposure:**	B		
Height:	177.95 (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: 0.9D + 1.6W 101 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60



Iterations 24

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	-47.78	-33.62	0.00	-4155.0	0.00	4155.07	5803.10	2901.55	15291.3	7657.05	0.00	0.000	0.000	0.551
5.00	-46.23	-33.18	0.00	-3986.9	0.00	3986.97	5740.73	2870.37	14848.9	7435.53	0.07	-0.126	0.000	0.544
10.00	-44.69	-32.75	0.00	-3821.0	0.00	3821.06	5676.74	2838.37	14408.5	7214.97	0.27	-0.253	0.000	0.538
15.00	-43.19	-32.32	0.00	-3657.3	0.00	3657.30	5611.13	2805.57	13970.2	6995.50	0.60	-0.382	0.000	0.531
20.00	-41.70	-31.90	0.00	-3495.6	0.00	3495.69	5543.90	2771.95	13534.3	6777.22	1.07	-0.512	0.000	0.523
25.00	-40.25	-31.48	0.00	-3336.1	0.00	3336.19	5475.05	2737.52	13101.0	6560.27	1.68	-0.645	0.000	0.516
30.00	-38.82	-31.07	0.00	-3178.7	0.00	3178.78	5404.57	2702.29	12670.6	6344.75	2.43	-0.778	0.000	0.508
35.00	-37.42	-30.64	0.00	-3023.4	0.00	3023.45	5332.48	2666.24	12243.3	6130.79	3.32	-0.914	0.000	0.500
40.00	-36.06	-30.17	0.00	-2870.2	0.00	2870.27	5258.76	2629.38	11819.4	5918.51	4.35	-1.051	0.000	0.492
42.30	-35.43	-29.97	0.00	-2800.8	0.00	2800.82	5224.28	2612.14	11625.4	5821.36	4.87	-1.116	0.000	0.488
45.00	-34.08	-29.71	0.00	-2719.9	0.00	2719.97	5183.43	2591.71	11399.0	5708.01	5.52	-1.192	0.000	0.483
48.00	-32.60	-29.40	0.00	-2630.8	0.00	2630.85	5194.69	2597.35	11461.1	5739.07	6.30	-1.276	0.000	0.465
50.00	-32.04	-29.23	0.00	-2572.0	0.00	2572.05	5164.20	2582.10	11293.7	5655.29	6.85	-1.334	0.000	0.461
55.00	-30.73	-28.74	0.00	-2425.8	0.00	2425.88	5086.83	2543.42	10878.2	5447.20	8.32	-1.468	0.000	0.452
60.00	-29.45	-28.25	0.00	-2282.1	0.00	2282.17	5007.85	2503.92	10466.7	5241.17	9.93	-1.603	0.000	0.441
65.00	-28.19	-27.75	0.00	-2140.9	0.00	2140.92	4927.24	2463.62	10059.6	5037.31	11.68	-1.739	0.000	0.431
70.00	-26.96	-27.24	0.00	-2002.1	0.00	2002.18	4845.02	2422.51	9657.14	4835.75	13.57	-1.876	0.000	0.420
75.00	-25.76	-26.74	0.00	-1865.9	0.00	1865.96	4761.17	2380.58	9259.43	4636.60	15.61	-2.012	0.000	0.408
80.00	-24.59	-26.23	0.00	-1732.2	0.00	1732.28	4675.70	2337.85	8866.76	4439.97	17.79	-2.149	0.000	0.396
85.00	-23.46	-25.70	0.00	-1601.1	0.00	1601.13	4588.61	2294.31	8479.38	4245.99	20.12	-2.286	0.000	0.382
86.83	-23.04	-25.53	0.00	-1554.0	0.00	1554.01	4556.28	2278.14	8338.71	4175.55	21.00	-2.338	0.000	0.377
90.00	-21.81	-25.17	0.00	-1473.1	0.00	1473.17	4499.90	2249.95	8097.52	4054.78	22.58	-2.425	0.000	0.368
92.30	-20.93	-24.92	0.00	-1415.2	0.00	1415.22	3709.97	1854.99	6727.57	3368.78	23.77	-2.489	0.000	0.426
95.00	-20.39	-24.66	0.00	-1347.9	0.00	1347.98	3673.22	1836.61	6564.94	3287.35	25.20	-2.563	0.000	0.416
100.00	-19.44	-24.16	0.00	-1224.6	0.00	1224.67	3603.88	1801.94	6266.45	3137.88	27.96	-2.711	0.000	0.396
105.00	-18.50	-23.65	0.00	-1103.8	0.00	1103.89	3532.91	1766.45	5971.95	2990.41	30.88	-2.856	0.000	0.375
110.00	-17.60	-23.15	0.00	-985.63	0.00	985.63	3460.32	1730.16	5681.65	2845.05	33.94	-2.997	0.000	0.352
115.00	-16.72	-22.65	0.00	-869.88	0.00	869.88	3386.11	1693.05	5395.81	2701.92	37.16	-3.134	0.000	0.327
120.00	-15.86	-22.16	0.00	-756.61	0.00	756.61	3310.28	1655.14	5114.65	2561.13	40.51	-3.265	0.000	0.300
125.00	-15.03	-21.67	0.00	-645.81	0.00	645.81	3228.52	1614.26	4831.97	2419.57	43.99	-3.389	0.000	0.272
130.00	-12.04	-16.79	0.00	-537.46	0.00	537.46	3125.09	1562.55	4525.83	2266.28	47.60	-3.504	0.000	0.241
132.95	-11.59	-16.50	0.00	-487.98	0.00	487.98	3064.12	1532.06	4350.03	2178.25	49.79	-3.569	0.000	0.228
135.00	-11.06	-16.29	0.00	-454.12	0.00	454.12	3021.67	1510.84	4229.72	2118.00	51.33	-3.613	0.000	0.218
136.83	-10.59	-16.10	0.00	-424.25	0.00	424.25	2458.83	1229.41	3474.42	1739.79	52.73	-3.651	0.000	0.248
140.00	-10.18	-15.81	0.00	-373.27	0.00	373.27	2420.71	1210.36	3346.31	1675.64	55.17	-3.713	0.000	0.227
145.00	-9.56	-15.34	0.00	-294.24	0.00	294.24	2359.20	1179.60	3147.03	1575.85	59.11	-3.812	0.000	0.191
150.00	-8.96	-14.88	0.00	-217.53	0.00	217.53	2296.08	1148.04	2951.62	1478.00	63.15	-3.897	0.000	0.151
153.00	-7.03	-12.15	0.00	-172.89	0.00	172.89	2257.42	1128.71	2836.33	1420.27	65.61	-3.940	0.000	0.125
155.00	-6.80	-11.98	0.00	-148.59	0.00	148.59	2223.99	1111.99	2751.24	1377.66	67.26	-3.965	0.000	0.111
157.98	-6.47	-11.71	0.00	-112.93	0.00	112.93	2172.66	1086.33	2625.07	1314.48	69.75	-3.997	0.000	0.089
157.98	-6.47	-11.71	0.00	-112.93	0.00	112.93	1653.01	826.50	2005.69	1004.33	69.75	-3.997	0.000	0.117
160.00	-6.28	-11.54	0.00	-89.25	0.00	89.25	1634.69	817.35	1951.45	977.17	71.44	-4.015	0.000	0.095
162.00	-3.79	-6.66	0.00	-66.17	0.00	66.17	1616.31	808.16	1898.20	950.51	73.13	-4.033	0.000	0.072
165.00	-3.56	-6.41	0.00	-46.19	0.00	46.19	1588.26	794.13	1819.10	910.90	75.67	-4.054	0.000	0.053
170.00	-3.19	-6.00	0.00	-14.14	0.00	14.14	1540.22	770.11	1689.48	845.99	79.92	-4.074	0.000	0.019
172.00	-0.35	-0.47	0.00	-2.14	0.00	2.14	1520.54	760.27	1638.44	820.44	81.63	-4.076	0.000	0.003
175.00	-0.17	-0.24	0.00	-0.71	0.00	0.71	1490.55	745.27	1562.81	782.56	84.19	-4.077	0.000	0.001
177.95	0.00	-0.23	0.00	0.00	0.00	0.00	1460.49	730.24	1489.55	745.88	86.70	-4.077	0.000	0.000

Calculated Forces

Structure:	CT02573-S-SBA		**Code:**	EIA/TIA-222-G	10/7/2021
Site Name:	Coventry 2 CT		**Exposure:**	B	
Height:	177.95 (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

Wind Loading - Shaft

Structure:	CT02573-S-SBA	**Code:**	EIA/TIA-222-G	10/7/2021	
Site Name:	Coventry 2 CT	**Exposure:**	B		
Height:	177.95 (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	

Tower Engineering Solutions

Load Case: 1.2D + 1.0Di + 1.0Wi 50 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00

Iterations 24

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	4.256	4.68	0.00	1.200	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.70	4.256	4.68	0.00	1.200	1.656	5.00	28.422	34.11	159.7	674.2	2473.8
10.00		1.00	0.70	4.256	4.68	0.00	1.200	1.775	5.00	28.026	33.63	157.5	710.8	2477.3
15.00		1.00	0.70	4.256	4.68	0.00	1.200	1.848	5.00	27.593	33.11	155.0	727.5	2460.8
20.00		1.00	0.70	4.256	4.68	0.00	1.200	1.902	5.00	27.143	32.57	152.5	735.5	2435.6
25.00		1.00	0.70	4.256	4.68	0.00	1.200	1.945	5.00	26.684	32.02	149.9	738.3	2405.3
30.00		1.00	0.70	4.260	4.69	0.00	1.200	1.981	5.00	26.219	31.46	147.4	737.8	2371.6
35.00		1.00	0.73	4.451	4.90	0.00	1.200	2.012	5.00	25.750	30.90	151.3	734.9	2335.6
40.00		1.00	0.76	4.625	5.09	0.00	1.200	2.039	5.00	25.277	30.33	154.3	730.2	2297.7
42.30	Bot - Section 2	1.00	0.77	4.699	5.17	0.00	1.200	2.050	2.30	11.476	13.77	71.2	335.0	1045.5
45.00		1.00	0.79	4.783	5.26	0.00	1.200	2.063	2.70	13.521	16.23	85.4	396.8	2057.7
48.00	Top - Section 1	1.00	0.80	4.872	5.36	0.00	1.200	2.076	3.00	14.873	17.85	95.6	438.7	2263.0
50.00		1.00	0.81	4.929	5.42	0.00	1.200	2.085	2.00	9.819	11.78	63.9	291.3	897.7
55.00		1.00	0.83	5.065	5.57	0.00	1.200	2.105	5.00	24.218	29.06	161.9	720.0	2212.8
60.00		1.00	0.85	5.193	5.71	0.00	1.200	2.123	5.00	23.738	28.49	162.7	710.9	2170.6
65.00		1.00	0.87	5.313	5.84	0.00	1.200	2.140	5.00	23.258	27.91	163.1	701.2	2127.7
70.00		1.00	0.89	5.426	5.97	0.00	1.200	2.156	5.00	22.776	27.33	163.1	690.8	2084.2
75.00		1.00	0.91	5.534	6.09	0.00	1.200	2.171	5.00	22.294	26.75	162.9	679.9	2040.1
80.00		1.00	0.93	5.637	6.20	0.00	1.200	2.185	5.00	21.811	26.17	162.3	668.4	1995.5
85.00		1.00	0.94	5.736	6.31	0.00	1.200	2.198	5.00	21.327	25.59	161.5	656.6	1950.5
86.83	Bot - Section 3	1.00	0.95	5.771	6.35	0.00	1.200	2.203	1.83	7.697	9.24	58.6	239.1	705.2
90.00		1.00	0.96	5.830	6.41	0.00	1.200	2.211	3.17	13.344	16.01	102.7	414.6	1902.9
92.30	Top - Section 2	1.00	0.97	5.872	6.46	0.00	1.200	2.217	2.30	9.578	11.49	74.2	298.8	1365.2
95.00		1.00	0.97	5.921	6.51	0.00	1.200	2.223	2.70	11.095	13.31	86.7	346.5	921.4
100.00		1.00	0.99	6.008	6.61	0.00	1.200	2.234	5.00	20.190	24.23	160.1	629.2	1672.7
105.00		1.00	1.00	6.093	6.70	0.00	1.200	2.245	5.00	19.704	23.64	158.5	616.0	1631.1
110.00		1.00	1.02	6.174	6.79	0.00	1.200	2.256	5.00	19.218	23.06	156.6	602.5	1589.1
115.00		1.00	1.03	6.253	6.88	0.00	1.200	2.266	5.00	18.732	22.48	154.6	588.7	1546.9
120.00		1.00	1.04	6.330	6.96	0.00	1.200	2.276	5.00	18.245	21.89	152.4	574.6	1504.5
125.00		1.00	1.05	6.404	7.04	0.00	1.200	2.285	5.00	17.758	21.31	150.1	560.4	1461.8
130.00	Appurtenance(s)	1.00	1.07	6.476	7.12	0.00	1.200	2.294	5.00	17.270	20.72	147.6	545.9	1418.9
132.95	Bot - Section 4	1.00	1.07	6.518	7.17	0.00	1.200	2.299	2.95	9.953	11.94	85.6	316.8	818.1
135.00		1.00	1.08	6.546	7.20	0.00	1.200	2.303	2.05	6.937	8.32	59.9	221.7	856.6
136.83	Top - Section 3	1.00	1.08	6.572	7.23	0.00	1.200	2.306	1.83	6.128	7.35	53.2	196.1	755.9
140.00		1.00	1.09	6.615	7.28	0.00	1.200	2.311	3.17	10.430	12.52	91.1	332.7	769.6
145.00		1.00	1.10	6.681	7.35	0.00	1.200	2.319	5.00	16.071	19.29	141.7	510.3	1180.7
150.00		1.00	1.11	6.746	7.42	0.00	1.200	2.327	5.00	15.583	18.70	138.8	495.1	1141.8
153.00	Appurtenance(s)	1.00	1.12	6.785	7.46	0.00	1.200	2.332	3.00	9.115	10.94	81.6	291.6	668.2
155.00		1.00	1.12	6.810	7.49	0.00	1.200	2.335	2.00	5.978	7.17	53.7	191.9	438.3
157.98	Top - Section 4	1.00	1.13	6.847	7.53	0.00	1.200	2.339	2.98	8.757	10.51	79.1	280.2	640.0
160.00		1.00	1.13	6.872	7.56	0.00	1.200	2.342	2.02	5.847	7.02	53.0	187.7	379.8
162.00	Appurtenance(s)	1.00	1.13	6.896	7.59	0.00	1.200	2.345	2.00	5.705	6.85	51.9	183.2	370.1
165.00		1.00	1.14	6.933	7.63	0.00	1.200	2.349	3.00	8.411	10.09	77.0	269.1	543.8
170.00		1.00	1.15	6.992	7.69	0.00	1.200	2.356	5.00	13.628	16.35	125.8	432.7	875.3
172.00	Appurtenance(s)	1.00	1.15	7.015	7.72	0.00	1.200	2.359	2.00	5.314	6.38	49.2	170.5	342.3
175.00		1.00	1.16	7.050	7.76	0.00	1.200	2.363	3.00	7.824	9.39	72.8	250.1	502.0
177.95	Appurtenance(s)	1.00	1.17	7.084	7.79	0.00	1.200	2.367	2.95	7.522	9.03	70.3	240.3	481.3

Wind Loading - Shaft

Structure:	CT02573-S-SBA		**Code:**	EIA/TIA-222-G	10/7/2021
Site Name:	Coventry 2 CT		**Exposure:**	B	
Height:	177.95 (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

Totals:	**177.95**	**5,368.3**	**66,586.2**

Discrete Appurtenance Forces

Structure:	CT02573-S-SBA	**Code:**	EIA/TIA-222-G	10/7/2021	
Site Name:	Coventry 2 CT	**Exposure:**	B		
Height:	177.95 (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	

Tower Engineering Solutions

Load Case: 1.2D + 1.0Di + 1.0Wi 50 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00

Iterations 24

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	177.95	6' Lightning rod	1	7.084	7.792	1.00	1.00	1.86	51.73	0.000	0.000	14.46	0.00	0.00
2	172.00	RR90-17-02DP	3	7.015	7.717	0.58	0.75	9.90	502.48	0.000	0.000	76.42	0.00	0.00
3	172.00	T-Frames w/ Pipe Mount	3	7.015	7.717	0.56	0.75	45.34	2746.73	0.000	0.000	349.92	0.00	0.00
4	172.00	MS-1436 (Light Collar	1	7.015	7.717	1.00	1.00	3.62	173.62	0.000	0.000	27.96	0.00	0.00
5	172.00	MS-HR35	1	7.015	7.717	1.00	1.00	20.31	1635.78	0.000	0.000	156.73	0.00	0.00
6	172.00	MS-C1B-2875P	1	7.015	7.717	1.00	1.00	24.15	870.69	0.000	0.000	186.40	0.00	0.00
7	172.00	MS-HRECP	1	7.015	7.717	1.00	1.00	28.43	1955.32	0.000	0.000	219.42	0.00	0.00
8	172.00	KRY 112 89/4	3	7.015	7.717	0.38	0.75	1.66	111.89	0.000	0.000	12.83	0.00	0.00
9	172.00	4449	3	7.015	7.717	0.50	0.75	3.66	614.42	0.000	0.000	28.25	0.00	0.00
10	172.00	782 10660	3	7.015	7.717	0.38	0.75	0.93	30.15	0.000	0.000	7.14	0.00	0.00
11	172.00	APXVAARR24_43-U-NA2	3	6.992	7.691	0.54	0.75	36.99	2022.98	0.000	-2.000	284.47	0.00	-568.94
12	172.00	KRY 112 144/1	3	7.015	7.717	0.38	0.75	1.18	74.02	0.000	0.000	9.13	0.00	0.00
13	162.00	Ericsson RRUS 4449	3	6.896	7.586	0.50	0.75	3.62	552.08	0.000	0.000	27.44	0.00	0.00
14	162.00	Powerwave 7020.00 RET	6	6.896	7.586	0.38	0.75	2.36	80.90	0.000	0.000	17.93	0.00	0.00
15	162.00	Ericsson RRUS 8843 B2	3	6.896	7.586	0.50	0.75	3.48	412.03	0.000	0.000	26.39	0.00	0.00
16	162.00	Raycap DC6-48-60-18-8F	1	6.896	7.586	0.75	0.75	1.13	103.53	0.000	0.000	8.58	0.00	0.00
17	162.00	HRK12 (Handrail Kit)	1	6.896	7.586	1.00	1.00	15.61	993.11	0.000	0.000	118.45	0.00	0.00
18	162.00	HP Platform w/ Pipe	1	6.896	7.586	1.00	1.00	51.97	3595.94	0.000	0.000	394.22	0.00	0.00
19	162.00	Powerwave 7770	3	6.896	7.586	0.56	0.75	11.75	714.18	0.000	0.000	89.14	0.00	0.00
20	162.00	Powerwave 21401 TMA	6	6.896	7.586	0.38	0.75	3.16	388.49	0.000	0.000	23.94	0.00	0.00
21	162.00	Cci HPA-65R-BU8AA	1	6.896	7.586	0.65	0.75	8.70	445.44	0.000	0.000	65.97	0.00	0.00
22	162.00	Cci DMP65R-BU8DA	1	6.896	7.586	0.54	0.75	10.95	655.35	0.000	0.000	83.09	0.00	0.00
23	162.00	Cci DMP65R-BU6DA	2	6.896	7.586	0.54	0.75	15.85	847.48	0.000	0.000	120.25	0.00	0.00
24	162.00	Cci HPA-65R-BU6AA	2	6.896	7.586	0.74	0.75	14.37	792.80	0.000	0.000	109.04	0.00	0.00
25	153.00	4415	2	6.785	7.463	0.54	0.80	2.81	212.20	0.000	0.000	21.00	0.00	0.00
26	153.00	ODI2-065R18K-GQ	3	6.785	7.463	0.56	0.80	10.35	451.34	0.000	0.000	77.26	0.00	0.00
27	153.00	SF-SU7-2-96	3	6.785	7.463	0.56	0.75	68.26	2504.23	0.000	0.000	509.42	0.00	0.00
28	153.00	Collar Mount (3-Sided)	2	6.785	7.463	0.75	1.00	9.00	1154.71	0.000	0.000	67.14	0.00	0.00
29	153.00	3.0" Std Pipe	3	6.785	7.463	0.75	1.00	9.45	-585.13	0.000	0.000	70.50	0.00	0.00
30	153.00	0208	3	6.785	7.463	0.54	0.80	3.27	189.43	0.000	0.000	24.43	0.00	0.00
31	130.00	RF4439d-25A	3	6.476	7.124	0.50	0.75	4.73	363.93	0.000	0.000	33.70	0.00	0.00
32	130.00	MT6407-77A	3	6.476	7.124	0.52	0.75	9.38	788.92	0.000	0.000	66.80	0.00	0.00
33	130.00	XXDWMM-12.5-65	3	6.476	7.124	0.56	0.75	3.80	355.43	0.000	0.000	27.08	0.00	0.00
34	130.00	RF4440d-13A	3	6.476	7.124	0.50	0.75	4.73	583.24	0.000	0.000	33.70	0.00	0.00
35	130.00	SBNHH-1D65B	6	6.476	7.124	0.62	0.75	37.00	1987.55	0.000	0.000	263.56	0.00	0.00
36	130.00	B25 RRH4x30-4R	3	6.476	7.124	0.50	0.75	4.43	369.61	0.000	0.000	31.56	0.00	0.00
37	130.00	DB-T1-6Z-8AB-0Z	2	6.476	7.124	0.50	0.75	6.00	444.75	0.000	0.000	42.76	0.00	0.00
38	130.00	PV-LPP14L-HR-B	1	6.476	7.124	1.00	1.00	79.01	4240.94	0.000	0.000	562.83	0.00	0.00
							Totals:		**33,432.28**			**4,289.29**		

Total Applied Force Summary

Structure:	CT02573-S-SBA		**Code:**	EIA/TIA-222-G	10/7/2021
Site Name:	Coventry 2 CT		**Exposure:**	B	
Height:	177.95 (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: 1.2D + 1.0Di + 1.0Wi 50 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00

Iterations 24

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		159.67	2656.28	0.00	0.00
10.00		157.45	2659.81	0.00	0.00
15.00		155.01	2643.35	0.00	0.00
20.00		152.49	2618.12	0.00	0.00
25.00		149.91	2587.82	0.00	0.00
30.00		147.42	2554.16	0.00	0.00
35.00		151.30	2518.10	0.00	0.00
40.00		154.30	2480.22	0.00	0.00
42.30		71.18	1129.56	0.00	0.00
45.00		85.36	2156.23	0.00	0.00
48.00		95.64	2372.47	0.00	0.00
50.00		63.89	970.68	0.00	0.00
55.00		161.92	2395.30	0.00	0.00
60.00		162.71	2353.12	0.00	0.00
65.00		163.10	2310.21	0.00	0.00
70.00		163.14	2266.68	0.00	0.00
75.00		162.86	2222.59	0.00	0.00
80.00		162.30	2178.01	0.00	0.00
85.00		161.47	2132.98	0.00	0.00
86.83		58.64	772.15	0.00	0.00
90.00		102.69	2018.45	0.00	0.00
92.30		74.25	1449.21	0.00	0.00
95.00		86.71	1019.84	0.00	0.00
100.00		160.13	1855.25	0.00	0.00
105.00		158.47	1813.60	0.00	0.00
110.00		156.63	1771.66	0.00	0.00
115.00		154.62	1729.46	0.00	0.00
120.00		152.44	1687.01	0.00	0.00
125.00		150.11	1644.32	0.00	0.00
130.00	(24) attachments	1209.63	10735.77	0.00	0.00
132.95		85.63	917.98	0.00	0.00
135.00		59.94	926.11	0.00	0.00
136.83		53.15	817.97	0.00	0.00
140.00		91.07	876.79	0.00	0.00
145.00		141.74	1350.03	0.00	0.00
150.00		138.77	1311.14	0.00	0.00
153.00	(16) attachments	851.37	4696.57	0.00	0.00
155.00		53.74	504.41	0.00	0.00
157.98		79.15	738.52	0.00	0.00
160.00		53.04	446.64	0.00	0.00
162.00	(30) attachments	1136.37	10017.54	0.00	0.00
165.00		76.97	592.65	0.00	0.00
170.00		125.78	956.77	0.00	0.00
172.00	(25) attachments	1407.87	11112.94	0.00	-568.94
175.00		72.81	518.25	0.00	0.00
177.95	(1) attachments	84.79	533.08	0.00	0.00

Total Applied Force Summary

Structure:	CT02573-S-SBA		**Code:**	EIA/TIA-222-G	10/7/2021
Site Name:	Coventry 2 CT		**Exposure:**	B	
Height:	177.95 (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

Totals:	**9,657.63**	**106,019.82**	**0.00**	**-568.94**

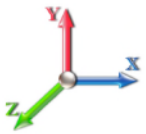
Calculated Forces

Structure:	CT02573-S-SBA	**Code:**	EIA/TIA-222-G	10/7/2021	
Site Name:	Coventry 2 CT	**Exposure:**	B		
Height:	177.95 (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: 1.2D + 1.0Di + 1.0Wi 50 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 24

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	-106.0	-9.69	0.00	-1240.0	0.00	1240.04	5803.10	2901.55	15291.3	7657.05	0.00	0.000	0.000	0.180
5.00	-103.3	-9.60	0.00	-1191.5	0.00	1191.58	5740.73	2870.37	14848.9	7435.53	0.02	-0.037	0.000	0.178
10.00	-100.6	-9.51	0.00	-1143.5	0.00	1143.58	5676.74	2838.37	14408.5	7214.97	0.08	-0.076	0.000	0.176
15.00	-98.04	-9.41	0.00	-1096.0	0.00	1096.04	5611.13	2805.57	13970.2	6995.50	0.18	-0.114	0.000	0.174
20.00	-95.41	-9.32	0.00	-1048.9	0.00	1048.97	5543.90	2771.95	13534.3	6777.22	0.32	-0.153	0.000	0.172
25.00	-92.82	-9.23	0.00	-1002.3	0.00	1002.36	5475.05	2737.52	13101.0	6560.27	0.50	-0.193	0.000	0.170
30.00	-90.26	-9.14	0.00	-956.22	0.00	956.22	5404.57	2702.29	12670.6	6344.75	0.73	-0.233	0.000	0.167
35.00	-87.74	-9.04	0.00	-910.54	0.00	910.54	5332.48	2666.24	12243.3	6130.79	0.99	-0.274	0.000	0.165
40.00	-85.25	-8.91	0.00	-865.36	0.00	865.36	5258.76	2629.38	11819.4	5918.51	1.30	-0.315	0.000	0.162
42.30	-84.12	-8.87	0.00	-844.84	0.00	844.84	5224.28	2612.14	11625.4	5821.36	1.46	-0.335	0.000	0.161
45.00	-81.96	-8.80	0.00	-820.92	0.00	820.92	5183.43	2591.71	11399.0	5708.01	1.65	-0.358	0.000	0.160
48.00	-79.59	-8.72	0.00	-794.51	0.00	794.51	5194.69	2597.35	11461.1	5739.07	1.89	-0.383	0.000	0.154
50.00	-78.61	-8.69	0.00	-777.06	0.00	777.06	5164.20	2582.10	11293.7	5655.29	2.05	-0.401	0.000	0.153
55.00	-76.21	-8.57	0.00	-733.60	0.00	733.60	5086.83	2543.42	10878.2	5447.20	2.49	-0.441	0.000	0.150
60.00	-73.85	-8.44	0.00	-690.77	0.00	690.77	5007.85	2503.92	10466.7	5241.17	2.98	-0.482	0.000	0.147
65.00	-71.54	-8.31	0.00	-648.58	0.00	648.58	4927.24	2463.62	10059.6	5037.31	3.51	-0.523	0.000	0.143
70.00	-69.27	-8.17	0.00	-607.05	0.00	607.05	4845.02	2422.51	9657.14	4835.75	4.08	-0.565	0.000	0.140
75.00	-67.04	-8.03	0.00	-566.20	0.00	566.20	4761.17	2380.58	9259.43	4636.60	4.69	-0.606	0.000	0.136
80.00	-64.86	-7.90	0.00	-526.02	0.00	526.02	4675.70	2337.85	8866.76	4439.97	5.35	-0.648	0.000	0.132
85.00	-62.72	-7.74	0.00	-486.55	0.00	486.55	4588.61	2294.31	8479.38	4245.99	6.05	-0.689	0.000	0.128
86.83	-61.95	-7.70	0.00	-472.36	0.00	472.36	4556.28	2278.14	8338.71	4175.55	6.32	-0.705	0.000	0.127
90.00	-59.93	-7.59	0.00	-447.99	0.00	447.99	4499.90	2249.95	8097.52	4054.78	6.79	-0.732	0.000	0.124
92.30	-58.48	-7.52	0.00	-430.51	0.00	430.51	3709.97	1854.99	6727.57	3368.78	7.15	-0.751	0.000	0.144
95.00	-57.46	-7.45	0.00	-410.23	0.00	410.23	3673.22	1836.61	6564.94	3287.35	7.58	-0.774	0.000	0.140
100.00	-55.60	-7.31	0.00	-372.96	0.00	372.96	3603.88	1801.94	6266.45	3137.88	8.42	-0.818	0.000	0.134
105.00	-53.78	-7.17	0.00	-336.41	0.00	336.41	3532.91	1766.45	5971.95	2990.41	9.30	-0.863	0.000	0.128
110.00	-52.01	-7.02	0.00	-300.57	0.00	300.57	3460.32	1730.16	5681.65	2845.05	10.22	-0.906	0.000	0.121
115.00	-50.28	-6.87	0.00	-265.47	0.00	265.47	3386.11	1693.05	5395.81	2701.92	11.19	-0.947	0.000	0.113
120.00	-48.59	-6.73	0.00	-231.10	0.00	231.10	3310.28	1655.14	5114.65	2561.13	12.21	-0.988	0.000	0.105
125.00	-46.94	-6.58	0.00	-197.46	0.00	197.46	3228.52	1614.26	4831.97	2419.57	13.26	-1.025	0.000	0.096
130.00	-36.23	-5.19	0.00	-164.57	0.00	164.57	3125.09	1562.55	4525.83	2266.28	14.36	-1.061	0.000	0.084
132.95	-35.31	-5.10	0.00	-149.28	0.00	149.28	3064.12	1532.06	4350.03	2178.25	15.02	-1.080	0.000	0.080
135.00	-34.38	-5.03	0.00	-138.82	0.00	138.82	3021.67	1510.84	4229.72	2118.00	15.49	-1.094	0.000	0.077
136.83	-33.56	-4.97	0.00	-129.60	0.00	129.60	2458.83	1229.41	3474.42	1739.79	15.91	-1.106	0.000	0.088
140.00	-32.69	-4.87	0.00	-113.87	0.00	113.87	2420.71	1210.36	3346.31	1675.64	16.65	-1.125	0.000	0.081
145.00	-31.34	-4.72	0.00	-89.50	0.00	89.50	2359.20	1179.60	3147.03	1575.85	17.84	-1.155	0.000	0.070
150.00	-30.03	-4.57	0.00	-65.90	0.00	65.90	2296.08	1148.04	2951.62	1478.00	19.07	-1.180	0.000	0.058
153.00	-25.35	-3.62	0.00	-52.20	0.00	52.20	2257.42	1128.71	2836.33	1420.27	19.81	-1.193	0.000	0.048
155.00	-24.85	-3.56	0.00	-44.96	0.00	44.96	2223.99	1111.99	2751.24	1377.66	20.31	-1.201	0.000	0.044
157.98	-24.11	-3.47	0.00	-34.36	0.00	34.36	2172.66	1086.33	2625.07	1314.48	21.07	-1.211	0.000	0.037
157.98	-24.11	-3.47	0.00	-34.36	0.00	34.36	1653.01	826.50	2005.69	1004.33	21.07	-1.211	0.000	0.049
160.00	-23.66	-3.41	0.00	-27.34	0.00	27.34	1634.69	817.35	1951.45	977.17	21.58	-1.216	0.000	0.042
162.00	-13.67	-2.06	0.00	-20.53	0.00	20.53	1616.31	808.16	1898.20	950.51	22.09	-1.222	0.000	0.030
165.00	-13.08	-1.97	0.00	-14.34	0.00	14.34	1588.26	794.13	1819.10	910.90	22.86	-1.228	0.000	0.024
170.00	-12.13	-1.83	0.00	-4.48	0.00	4.48	1540.22	770.11	1689.48	845.99	24.15	-1.234	0.000	0.013
172.00	-1.05	-0.18	0.00	-0.82	0.00	0.82	1520.54	760.27	1638.44	820.44	24.67	-1.235	0.000	0.002
175.00	-0.53	-0.10	0.00	-0.28	0.00	0.28	1490.55	745.27	1562.81	782.56	25.45	-1.235	0.000	0.001
177.95	0.00	-0.08	0.00	0.00	0.00	0.00	1460.49	730.24	1489.55	745.88	26.21	-1.235	0.000	0.000

Calculated Forces

Structure:	CT02573-S-SBA		**Code:**	EIA/TIA-222-G	10/7/2021
Site Name:	Coventry 2 CT		**Exposure:**	B	
Height:	177.95 (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

Seismic Segment Forces (Factored)

Structure:	CT02573-S-SBA	**Code:**	EIA/TIA-222-G	10/7/2021	
Site Name:	Coventry 2 CT	**Exposure:**	B		
Height:	177.95 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 30	

Tower Engineering Solutions

Load Case:	1.2D + 1.0E							**Iterations**	22
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**	0.06
Wind Load Factor	0.00	**Structure Frequency (f1)**	0.32		**SA**	0.03	**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		1499.6	0.00	0.03	0.02	24.98	
10.00		1472.0	0.01	0.05	0.03	36.57	
15.00		1444.4	0.01	0.06	0.03	42.26	
20.00		1416.7	0.02	0.07	0.04	44.93	
25.00		1389.1	0.04	0.07	0.04	46.04	
30.00		1361.5	0.05	0.07	0.04	46.40	
35.00		1333.8	0.07	0.07	0.04	46.46	
40.00		1306.2	0.10	0.07	0.04	46.43	
42.30	Bot - Section 2	592.13	0.11	0.07	0.04	21.24	
45.00		1384.1	0.12	0.07	0.03	50.19	
48.00	Top - Section 1	1520.2	0.14	0.07	0.03	55.73	
50.00		505.35	0.15	0.07	0.03	18.65	
55.00		1244.0	0.18	0.07	0.03	46.38	
60.00		1216.3	0.21	0.06	0.02	45.17	
65.00		1188.7	0.25	0.05	0.02	42.88	
70.00		1161.1	0.29	0.05	0.01	39.07	
75.00		1133.5	0.34	0.04	0.01	33.27	
80.00		1105.8	0.38	0.02	0.01	25.19	
85.00		1078.2	0.43	0.01	0.01	14.90	
86.83	Bot - Section 3	388.43	0.45	0.00	0.01	3.88	
90.00		1240.1	0.48	-0.01	0.01	3.59	
92.30	Top - Section 2	888.65	0.51	-0.02	0.01	-2.23	
95.00		479.06	0.54	-0.03	0.01	-4.26	
100.00		869.61	0.60	-0.05	0.01	-17.46	
105.00		845.92	0.66	-0.07	0.02	-24.70	
110.00		822.24	0.72	-0.09	0.03	-29.01	
115.00		798.55	0.79	-0.11	0.05	-30.22	
120.00		774.87	0.86	-0.12	0.07	-28.47	
125.00		751.19	0.93	-0.12	0.10	-24.04	
130.00	Appurtenance(s)	3470.0	1.01	-0.11	0.14	-82.33	
132.95	Bot - Section 4	417.83	1.05	-0.09	0.16	-7.19	
135.00		529.08	1.09	-0.08	0.18	-6.32	
136.83	Top - Section 3	466.50	1.12	-0.06	0.20	-3.16	
140.00		364.02	1.17	-0.02	0.23	1.20	
145.00		558.64	1.25	0.06	0.30	12.29	
150.00		538.91	1.34	0.18	0.38	23.82	
153.00	Appurtenance(s)	2251.7	1.40	0.28	0.43	133.39	
155.00		205.30	1.43	0.35	0.47	14.37	
157.98	Top - Section 4	299.83	1.49	0.48	0.53	26.09	
160.00		160.02	1.53	0.57	0.58	15.90	
162.00	Appurtenance(s)	3092.9	1.57	0.68	0.63	346.81	
165.00		228.87	1.62	0.86	0.70	30.30	
170.00		368.81	1.72	1.22	0.85	62.41	
172.00	Appurtenance(s)	3553.2	1.77	1.39	0.92	657.41	
175.00		209.92	1.83	1.67	1.03	44.06	

Seismic Segment Forces (Factored)

Structure:	CT02573-S-SBA		**Code:**	EIA/TIA-222-G	10/7/2021
Site Name:	Coventry 2 CT		**Exposure:**	B	
Height:	177.95 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 31

177.95	Appurtenance(s)		207.38	1.89	1.98	1.14	48.87		
		Totals:	**48,135.1**				**1,891.7**	**Total Wind:**	**33,567.3**

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

Calculated Forces

Structure:	CT02573-S-SBA	**Code:**	EIA/TIA-222-G	10/7/2021	
Site Name:	Coventry 2 CT	**Exposure:**	B		
Height:	177.95 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 32	

Load Case:	1.2D + 1.0E							**Iterations**	22
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**	0.06
Wind Load Factor	0.00	**Structure Frequency (f1)**	0.32	**SA**	0.03	**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	-63.76	-2.15	0.00	-279.81	0.00	279.81	5803.10	2901.55	15291.3	7657.05		0.00	0.00	0.048
5.00	-61.78	-2.14	0.00	-269.03	0.00	269.03	5740.73	2870.37	14848.9	7435.53		0.00	-0.01	0.047
10.00	-59.83	-2.11	0.00	-258.34	0.00	258.34	5676.74	2838.37	14408.5	7214.97		0.02	-0.02	0.046
15.00	-57.92	-2.08	0.00	-247.78	0.00	247.78	5611.13	2805.57	13970.2	6995.50		0.04	-0.03	0.046
20.00	-56.03	-2.04	0.00	-237.40	0.00	237.40	5543.90	2771.95	13534.3	6777.22		0.07	-0.03	0.045
25.00	-54.18	-2.00	0.00	-227.20	0.00	227.20	5475.05	2737.52	13101.0	6560.27		0.11	-0.04	0.045
30.00	-52.37	-1.96	0.00	-217.20	0.00	217.20	5404.57	2702.29	12670.6	6344.75		0.16	-0.05	0.044
35.00	-50.58	-1.92	0.00	-207.39	0.00	207.39	5332.48	2666.24	12243.3	6130.79		0.22	-0.06	0.043
40.00	-48.83	-1.88	0.00	-197.78	0.00	197.78	5258.76	2629.38	11819.4	5918.51		0.29	-0.07	0.043
42.30	-48.04	-1.86	0.00	-193.46	0.00	193.46	5224.28	2612.14	11625.4	5821.36		0.33	-0.08	0.042
45.00	-46.28	-1.81	0.00	-188.44	0.00	188.44	5183.43	2591.71	11399.0	5708.01		0.37	-0.08	0.042
48.00	-44.34	-1.76	0.00	-183.00	0.00	183.00	5194.69	2597.35	11461.1	5739.07		0.43	-0.09	0.040
50.00	-43.66	-1.74	0.00	-179.48	0.00	179.48	5164.20	2582.10	11293.7	5655.29		0.46	-0.09	0.040
55.00	-41.99	-1.70	0.00	-170.77	0.00	170.77	5086.83	2543.42	10878.2	5447.20		0.57	-0.10	0.040
60.00	-40.35	-1.66	0.00	-162.26	0.00	162.26	5007.85	2503.92	10466.7	5241.17		0.68	-0.11	0.039
65.00	-38.74	-1.62	0.00	-153.96	0.00	153.96	4927.24	2463.62	10059.6	5037.31		0.80	-0.12	0.038
70.00	-37.16	-1.58	0.00	-145.86	0.00	145.86	4845.02	2422.51	9657.14	4835.75		0.93	-0.13	0.038
75.00	-35.62	-1.55	0.00	-137.94	0.00	137.94	4761.17	2380.58	9259.43	4636.60		1.07	-0.14	0.037
80.00	-34.11	-1.53	0.00	-130.17	0.00	130.17	4675.70	2337.85	8866.76	4439.97		1.22	-0.15	0.037
85.00	-32.63	-1.52	0.00	-122.52	0.00	122.52	4588.61	2294.31	8479.38	4245.99		1.38	-0.16	0.036
86.83	-32.10	-1.51	0.00	-119.74	0.00	119.74	4556.28	2278.14	8338.71	4175.55		1.44	-0.16	0.036
90.00	-30.50	-1.51	0.00	-114.95	0.00	114.95	4499.90	2249.95	8097.52	4054.78		1.56	-0.17	0.035
92.30	-29.34	-1.51	0.00	-111.48	0.00	111.48	3709.97	1854.99	6727.57	3368.78		1.64	-0.18	0.041
95.00	-28.67	-1.51	0.00	-107.41	0.00	107.41	3673.22	1836.61	6564.94	3287.35		1.74	-0.18	0.040
100.00	-27.44	-1.51	0.00	-99.86	0.00	99.86	3603.88	1801.94	6266.45	3137.88		1.94	-0.19	0.039
105.00	-26.25	-1.51	0.00	-92.30	0.00	92.30	3532.91	1766.45	5971.95	2990.41		2.15	-0.21	0.038
110.00	-25.08	-1.51	0.00	-84.73	0.00	84.73	3460.32	1730.16	5681.65	2845.05		2.37	-0.22	0.037
115.00	-23.94	-1.51	0.00	-77.16	0.00	77.16	3386.11	1693.05	5395.81	2701.92		2.60	-0.23	0.036
120.00	-22.82	-1.51	0.00	-69.59	0.00	69.59	3310.28	1655.14	5114.65	2561.13		2.85	-0.24	0.034
125.00	-21.74	-1.51	0.00	-62.02	0.00	62.02	3228.52	1614.26	4831.97	2419.57		3.11	-0.25	0.032
130.00	-17.39	-1.50	0.00	-54.45	0.00	54.45	3125.09	1562.55	4525.83	2266.28		3.38	-0.26	0.030
132.95	-16.79	-1.50	0.00	-50.03	0.00	50.03	3064.12	1532.06	4350.03	2178.25		3.55	-0.27	0.028
135.00	-16.09	-1.49	0.00	-46.96	0.00	46.96	3021.67	1510.84	4229.72	2118.00		3.66	-0.28	0.027
136.83	-15.46	-1.49	0.00	-44.22	0.00	44.22	2458.83	1229.41	3474.42	1739.79		3.77	-0.28	0.032
140.00	-14.92	-1.49	0.00	-39.49	0.00	39.49	2420.71	1210.36	3346.31	1675.64		3.96	-0.29	0.030
145.00	-14.08	-1.48	0.00	-32.04	0.00	32.04	2359.20	1179.60	3147.03	1575.85		4.26	-0.30	0.026
150.00	-13.26	-1.45	0.00	-24.65	0.00	24.65	2296.08	1148.04	2951.62	1478.00		4.58	-0.31	0.022
153.00	-10.46	-1.30	0.00	-20.30	0.00	20.30	2257.42	1128.71	2836.33	1420.27		4.77	-0.31	0.019
155.00	-10.15	-1.29	0.00	-17.70	0.00	17.70	2223.99	1111.99	2751.24	1377.66		4.90	-0.31	0.017
157.98	-9.69	-1.26	0.00	-13.86	0.00	13.86	2172.66	1086.33	2625.07	1314.48		5.10	-0.32	0.015
157.98	-9.69	-1.26	0.00	-13.86	0.00	13.86	1653.01	826.50	2005.69	1004.33		5.10	-0.32	0.020
160.00	-9.43	-1.24	0.00	-11.32	0.00	11.32	1634.69	817.35	1951.45	977.17		5.24	-0.32	0.017
162.00	-5.66	-0.87	0.00	-8.83	0.00	8.83	1616.31	808.16	1898.20	950.51		5.37	-0.32	0.013
165.00	-5.33	-0.84	0.00	-6.21	0.00	6.21	1588.26	794.13	1819.10	910.90		5.57	-0.33	0.010
170.00	-4.81	-0.78	0.00	-1.99	0.00	1.99	1540.22	770.11	1689.48	845.99		5.92	-0.33	0.005
172.00	-0.52	-0.10	0.00	-0.44	0.00	0.44	1520.54	760.27	1638.44	820.44		6.05	-0.33	0.001
175.00	-0.25	-0.05	0.00	-0.15	0.00	0.15	1490.55	745.27	1562.81	782.56		6.26	-0.33	0.000

Calculated Forces

Structure:	CT02573-S-SBA	**Code:**	EIA/TIA-222-G	10/7/2021	
Site Name:	Coventry 2 CT	**Exposure:**	B		
Height:	177.95 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 33	

177.95	0.00	-0.05	0.00	0.00	0.00	0.00	1460.49	730.24	1489.55	745.88	6.46	-0.33	0.000

Seismic Segment Forces (Factored)

Structure:	CT02573-S-SBA	**Code:**	EIA/TIA-222-G	10/7/2021	
Site Name:	Coventry 2 CT	**Exposure:**	B		
Height:	177.95 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 34	

Load Case:	0.9D + 1.0E							**Iterations**	22
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**	0.06
Wind Load Factor	0.00	**Structure Frequency (f1)**	0.32		**SA**	0.03	**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		1499.6	0.00	0.03	0.02	24.98	
10.00		1472.0	0.01	0.05	0.03	36.57	
15.00		1444.4	0.01	0.06	0.03	42.26	
20.00		1416.7	0.02	0.07	0.04	44.93	
25.00		1389.1	0.04	0.07	0.04	46.04	
30.00		1361.5	0.05	0.07	0.04	46.40	
35.00		1333.8	0.07	0.07	0.04	46.46	
40.00		1306.2	0.10	0.07	0.04	46.43	
42.30	Bot - Section 2	592.13	0.11	0.07	0.04	21.24	
45.00		1384.1	0.12	0.07	0.03	50.19	
48.00	Top - Section 1	1520.2	0.14	0.07	0.03	55.73	
50.00		505.35	0.15	0.07	0.03	18.65	
55.00		1244.0	0.18	0.07	0.03	46.38	
60.00		1216.3	0.21	0.06	0.02	45.17	
65.00		1188.7	0.25	0.05	0.02	42.88	
70.00		1161.1	0.29	0.05	0.01	39.07	
75.00		1133.5	0.34	0.04	0.01	33.27	
80.00		1105.8	0.38	0.02	0.01	25.19	
85.00		1078.2	0.43	0.01	0.01	14.90	
86.83	Bot - Section 3	388.43	0.45	0.00	0.01	3.88	
90.00		1240.1	0.48	-0.01	0.01	3.59	
92.30	Top - Section 2	888.65	0.51	-0.02	0.01	-2.23	
95.00		479.06	0.54	-0.03	0.01	-4.26	
100.00		869.61	0.60	-0.05	0.01	-17.46	
105.00		845.92	0.66	-0.07	0.02	-24.70	
110.00		822.24	0.72	-0.09	0.03	-29.01	
115.00		798.55	0.79	-0.11	0.05	-30.22	
120.00		774.87	0.86	-0.12	0.07	-28.47	
125.00		751.19	0.93	-0.12	0.10	-24.04	
130.00	Appurtenance(s)	3470.0	1.01	-0.11	0.14	-82.33	
132.95	Bot - Section 4	417.83	1.05	-0.09	0.16	-7.19	
135.00		529.08	1.09	-0.08	0.18	-6.32	
136.83	Top - Section 3	466.50	1.12	-0.06	0.20	-3.16	
140.00		364.02	1.17	-0.02	0.23	1.20	
145.00		558.64	1.25	0.06	0.30	12.29	
150.00		538.91	1.34	0.18	0.38	23.82	
153.00	Appurtenance(s)	2251.7	1.40	0.28	0.43	133.39	
155.00		205.30	1.43	0.35	0.47	14.37	
157.98	Top - Section 4	299.83	1.49	0.48	0.53	26.09	
160.00		160.02	1.53	0.57	0.58	15.90	
162.00	Appurtenance(s)	3092.9	1.57	0.68	0.63	346.81	
165.00		228.87	1.62	0.86	0.70	30.30	
170.00		368.81	1.72	1.22	0.85	62.41	
172.00	Appurtenance(s)	3553.2	1.77	1.39	0.92	657.41	
175.00		209.92	1.83	1.67	1.03	44.06	

Seismic Segment Forces (Factored)

Structure:	CT02573-S-SBA		**Code:**	EIA/TIA-222-G	10/7/2021
Site Name:	Coventry 2 CT		**Exposure:**	B	
Height:	177.95 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 35

177.95	Appurtenance(s)		207.38	1.89	1.98	1.14	48.87	
		Totals:	**48,135.1**				**1,891.7**	**Total Wind:** **33,567.3**

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

Calculated Forces

Structure:	CT02573-S-SBA	**Code:**	EIA/TIA-222-G	10/7/2021	
Site Name:	Coventry 2 CT	**Exposure:**	B		
Height:	177.95 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 36	

Load Case:	0.9D + 1.0E							**Iterations**	22
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**	0.06
Wind Load Factor	0.00	**Structure Frequency (f1)**	0.32	**SA**	0.03	**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	-47.82	-2.15	0.00	-276.75	0.00	276.75	5803.10	2901.55	15291.3	7657.05		0.00	0.00	0.044
5.00	-46.34	-2.14	0.00	-265.98	0.00	265.98	5740.73	2870.37	14848.9	7435.53		0.00	-0.01	0.044
10.00	-44.87	-2.11	0.00	-255.30	0.00	255.30	5676.74	2838.37	14408.5	7214.97		0.02	-0.02	0.043
15.00	-43.44	-2.07	0.00	-244.77	0.00	244.77	5611.13	2805.57	13970.2	6995.50		0.04	-0.03	0.043
20.00	-42.02	-2.03	0.00	-234.43	0.00	234.43	5543.90	2771.95	13534.3	6777.22		0.07	-0.03	0.042
25.00	-40.64	-1.99	0.00	-224.28	0.00	224.28	5475.05	2737.52	13101.0	6560.27		0.11	-0.04	0.042
30.00	-39.27	-1.95	0.00	-214.33	0.00	214.33	5404.57	2702.29	12670.6	6344.75		0.16	-0.05	0.041
35.00	-37.94	-1.91	0.00	-204.59	0.00	204.59	5332.48	2666.24	12243.3	6130.79		0.22	-0.06	0.040
40.00	-36.62	-1.86	0.00	-195.06	0.00	195.06	5258.76	2629.38	11819.4	5918.51		0.29	-0.07	0.040
42.30	-36.03	-1.84	0.00	-190.77	0.00	190.77	5224.28	2612.14	11625.4	5821.36		0.33	-0.07	0.040
45.00	-34.71	-1.80	0.00	-185.80	0.00	185.80	5183.43	2591.71	11399.0	5708.01		0.37	-0.08	0.039
48.00	-33.26	-1.74	0.00	-180.42	0.00	180.42	5194.69	2597.35	11461.1	5739.07		0.42	-0.09	0.038
50.00	-32.75	-1.72	0.00	-176.94	0.00	176.94	5164.20	2582.10	11293.7	5655.29		0.46	-0.09	0.038
55.00	-31.49	-1.68	0.00	-168.31	0.00	168.31	5086.83	2543.42	10878.2	5447.20		0.56	-0.10	0.037
60.00	-30.26	-1.64	0.00	-159.91	0.00	159.91	5007.85	2503.92	10466.7	5241.17		0.67	-0.11	0.037
65.00	-29.05	-1.60	0.00	-151.71	0.00	151.71	4927.24	2463.62	10059.6	5037.31		0.79	-0.12	0.036
70.00	-27.87	-1.56	0.00	-143.72	0.00	143.72	4845.02	2422.51	9657.14	4835.75		0.91	-0.13	0.035
75.00	-26.71	-1.53	0.00	-135.92	0.00	135.92	4761.17	2380.58	9259.43	4636.60		1.05	-0.14	0.035
80.00	-25.58	-1.51	0.00	-128.26	0.00	128.26	4675.70	2337.85	8866.76	4439.97		1.20	-0.15	0.034
85.00	-24.47	-1.49	0.00	-120.73	0.00	120.73	4588.61	2294.31	8479.38	4245.99		1.36	-0.16	0.034
86.83	-24.07	-1.49	0.00	-118.00	0.00	118.00	4556.28	2278.14	8338.71	4175.55		1.43	-0.16	0.034
90.00	-22.87	-1.48	0.00	-113.28	0.00	113.28	4499.90	2249.95	8097.52	4054.78		1.54	-0.17	0.033
92.30	-22.01	-1.48	0.00	-109.86	0.00	109.86	3709.97	1854.99	6727.57	3368.78		1.62	-0.17	0.039
95.00	-21.50	-1.49	0.00	-105.86	0.00	105.86	3673.22	1836.61	6564.94	3287.35		1.72	-0.18	0.038
100.00	-20.58	-1.49	0.00	-98.43	0.00	98.43	3603.88	1801.94	6266.45	3137.88		1.91	-0.19	0.037
105.00	-19.68	-1.49	0.00	-91.00	0.00	91.00	3532.91	1766.45	5971.95	2990.41		2.12	-0.20	0.036
110.00	-18.81	-1.49	0.00	-83.56	0.00	83.56	3460.32	1730.16	5681.65	2845.05		2.34	-0.21	0.035
115.00	-17.95	-1.49	0.00	-76.11	0.00	76.11	3386.11	1693.05	5395.81	2701.92		2.57	-0.23	0.033
120.00	-17.12	-1.49	0.00	-68.67	0.00	68.67	3310.28	1655.14	5114.65	2561.13		2.81	-0.24	0.032
125.00	-16.30	-1.49	0.00	-61.22	0.00	61.22	3228.52	1614.26	4831.97	2419.57		3.07	-0.25	0.030
130.00	-13.04	-1.48	0.00	-53.78	0.00	53.78	3125.09	1562.55	4525.83	2266.28		3.34	-0.26	0.028
132.95	-12.59	-1.48	0.00	-49.43	0.00	49.43	3064.12	1532.06	4350.03	2178.25		3.50	-0.27	0.027
135.00	-12.06	-1.47	0.00	-46.40	0.00	46.40	3021.67	1510.84	4229.72	2118.00		3.61	-0.27	0.026
136.83	-11.60	-1.47	0.00	-43.70	0.00	43.70	2458.83	1229.41	3474.42	1739.79		3.72	-0.28	0.030
140.00	-11.19	-1.47	0.00	-39.03	0.00	39.03	2420.71	1210.36	3346.31	1675.64		3.90	-0.28	0.028
145.00	-10.56	-1.46	0.00	-31.68	0.00	31.68	2359.20	1179.60	3147.03	1575.85		4.21	-0.29	0.025
150.00	-9.95	-1.43	0.00	-24.39	0.00	24.39	2296.08	1148.04	2951.62	1478.00		4.52	-0.30	0.021
153.00	-7.84	-1.29	0.00	-20.09	0.00	20.09	2257.42	1128.71	2836.33	1420.27		4.71	-0.31	0.018
155.00	-7.61	-1.27	0.00	-17.51	0.00	17.51	2223.99	1111.99	2751.24	1377.66		4.84	-0.31	0.016
157.98	-7.27	-1.25	0.00	-13.72	0.00	13.72	2172.66	1086.33	2625.07	1314.48		5.03	-0.31	0.014
157.98	-7.27	-1.25	0.00	-13.72	0.00	13.72	1653.01	826.50	2005.69	1004.33		5.03	-0.31	0.018
160.00	-7.07	-1.23	0.00	-11.21	0.00	11.21	1634.69	817.35	1951.45	977.17		5.17	-0.32	0.016
162.00	-4.24	-0.87	0.00	-8.75	0.00	8.75	1616.31	808.16	1898.20	950.51		5.30	-0.32	0.012
165.00	-4.00	-0.84	0.00	-6.15	0.00	6.15	1588.26	794.13	1819.10	910.90		5.50	-0.32	0.009
170.00	-3.61	-0.77	0.00	-1.97	0.00	1.97	1540.22	770.11	1689.48	845.99		5.84	-0.32	0.005
172.00	-0.39	-0.10	0.00	-0.43	0.00	0.43	1520.54	760.27	1638.44	820.44		5.97	-0.32	0.001
175.00	-0.19	-0.05	0.00	-0.15	0.00	0.15	1490.55	745.27	1562.81	782.56		6.18	-0.32	0.000

Calculated Forces

Structure:	CT02573-S-SBA	**Code:**	EIA/TIA-222-G	10/7/2021	
Site Name:	Coventry 2 CT	**Exposure:**	B		
Height:	177.95 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 37	

177.95	0.00	-0.05	0.00	0.00	0.00	0.00	1460.49	730.24	1489.55	745.88	6.38	-0.32	0.000

Wind Loading - Shaft

Structure:	CT02573-S-SBA	**Code:**	EIA/TIA-222-G	10/7/2021	
Site Name:	Coventry 2 CT	**Exposure:**	B		
Height:	177.95 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 38	

Tower Engineering Solutions

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00

Iterations 23

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	273.99	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	269.02	0.650	0.000	5.00	27.042	17.58	118.5	0.0	1499.7
10.00		1.00	0.70	6.129	6.74	264.05	0.650	0.000	5.00	26.547	17.26	116.3	0.0	1472.0
15.00		1.00	0.70	6.129	6.74	259.08	0.650	0.000	5.00	26.052	16.93	114.2	0.0	1444.4
20.00		1.00	0.70	6.129	6.74	254.11	0.650	0.000	5.00	25.558	16.61	112.0	0.0	1416.8
25.00		1.00	0.70	6.129	6.74	249.14	0.650	0.000	5.00	25.063	16.29	109.8	0.0	1389.1
30.00		1.00	0.70	6.134	6.75	244.28	0.650	0.000	5.00	24.568	15.97	107.7	0.0	1361.5
35.00		1.00	0.73	6.410	7.05	244.64	0.650	0.000	5.00	24.073	15.65	110.3	0.0	1333.9
40.00		1.00	0.76	6.659	7.33	244.17	0.650	0.000	5.00	23.578	15.33	112.3	0.0	1306.2
42.30	Bot - Section 2	1.00	0.77	6.767	7.44	243.73	0.650	0.000	2.30	10.689	6.95	51.7	0.0	592.1
45.00		1.00	0.79	6.887	7.58	243.05	0.650	0.000	2.70	12.594	8.19	62.0	0.0	1384.1
48.00	Top - Section 1	1.00	0.80	7.015	7.72	242.11	0.650	0.000	3.00	13.835	8.99	69.4	0.0	1520.2
50.00		1.00	0.81	7.098	7.81	245.39	0.650	0.000	2.00	9.124	5.93	46.3	0.0	505.3
55.00		1.00	0.83	7.294	8.02	243.33	0.650	0.000	5.00	22.464	14.60	117.1	0.0	1244.0
60.00		1.00	0.85	7.477	8.22	240.89	0.650	0.000	5.00	21.969	14.28	117.5	0.0	1216.4
65.00		1.00	0.87	7.650	8.42	238.11	0.650	0.000	5.00	21.474	13.96	117.5	0.0	1188.8
70.00		1.00	0.89	7.814	8.60	235.03	0.650	0.000	5.00	20.979	13.64	117.2	0.0	1161.1
75.00		1.00	0.91	7.969	8.77	231.69	0.650	0.000	5.00	20.485	13.32	116.7	0.0	1133.5
80.00		1.00	0.93	8.118	8.93	228.12	0.650	0.000	5.00	19.990	12.99	116.0	0.0	1105.9
85.00		1.00	0.94	8.260	9.09	224.34	0.650	0.000	5.00	19.495	12.67	115.1	0.0	1078.2
86.83	Bot - Section 3	1.00	0.95	8.310	9.14	222.90	0.650	0.000	1.83	7.024	4.57	41.7	0.0	388.4
90.00		1.00	0.96	8.396	9.24	220.36	0.650	0.000	3.17	12.177	7.92	73.1	0.0	1240.2
92.30	Top - Section 2	1.00	0.97	8.456	9.30	218.47	0.650	0.000	2.30	8.728	5.67	52.8	0.0	888.7
95.00		1.00	0.97	8.526	9.38	219.97	0.650	0.000	2.70	10.095	6.56	61.5	0.0	479.1
100.00		1.00	0.99	8.652	9.52	215.68	0.650	0.000	5.00	18.328	11.91	113.4	0.0	869.6
105.00		1.00	1.00	8.774	9.65	211.25	0.650	0.000	5.00	17.833	11.59	111.9	0.0	845.9
110.00		1.00	1.02	8.891	9.78	206.67	0.650	0.000	5.00	17.338	11.27	110.2	0.0	822.2
115.00		1.00	1.03	9.005	9.91	201.97	0.650	0.000	5.00	16.843	10.95	108.4	0.0	798.6
120.00		1.00	1.04	9.115	10.03	197.14	0.650	0.000	5.00	16.348	10.63	106.5	0.0	774.9
125.00		1.00	1.05	9.222	10.14	192.20	0.650	0.000	5.00	15.854	10.30	104.5	0.0	751.2
130.00	Appurtenance(s)	1.00	1.07	9.326	10.26	187.15	0.650	0.000	5.00	15.359	9.98	102.4	0.0	727.5
132.95	Bot - Section 4	1.00	1.07	9.386	10.32	184.13	0.650	0.000	2.95	8.823	5.74	59.2	0.0	417.8
135.00		1.00	1.08	9.427	10.37	182.00	0.650	0.000	2.05	6.149	4.00	41.4	0.0	529.1
136.83	Top - Section 3	1.00	1.08	9.463	10.41	180.09	0.650	0.000	1.83	5.423	3.52	36.7	0.0	466.5
140.00		1.00	1.09	9.525	10.48	180.06	0.650	0.000	3.17	9.210	5.99	62.7	0.0	364.0
145.00		1.00	1.10	9.621	10.58	174.74	0.650	0.000	5.00	14.139	9.19	97.3	0.0	558.6
150.00		1.00	1.11	9.715	10.69	169.34	0.650	0.000	5.00	13.644	8.87	94.8	0.0	538.9
153.00	Appurtenance(s)	1.00	1.12	9.770	10.75	166.05	0.650	0.000	3.00	7.949	5.17	55.5	0.0	313.9
155.00		1.00	1.12	9.806	10.79	163.85	0.650	0.000	2.00	5.200	3.38	36.5	0.0	205.3
157.98	Top - Section 4	1.00	1.13	9.860	10.85	160.54	0.650	0.000	2.98	7.596	4.94	53.6	0.0	299.8
160.00		1.00	1.13	9.896	10.89	158.28	0.650	0.000	2.02	5.058	3.29	35.8	0.0	160.0
162.00	Appurtenance(s)	1.00	1.13	9.931	10.92	156.03	0.650	0.000	2.00	4.923	3.20	35.0	0.0	155.7
165.00		1.00	1.14	9.983	10.98	152.64	0.650	0.000	3.00	7.236	4.70	51.7	0.0	228.9
170.00		1.00	1.15	10.069	11.08	146.92	0.650	0.000	5.00	11.664	7.58	84.0	0.0	368.8
172.00	Appurtenance(s)	1.00	1.15	10.102	11.11	144.62	0.650	0.000	2.00	4.527	2.94	32.7	0.0	143.1
175.00		1.00	1.16	10.152	11.17	141.14	0.650	0.000	3.00	6.642	4.32	48.2	0.0	209.9
177.95	Appurtenance(s)	1.00	1.17	10.201	11.22	137.69	0.650	0.000	2.95	6.358	4.13	46.4	0.0	200.9

Wind Loading - Shaft

Structure:	CT02573-S-SBA	**Code:**	EIA/TIA-222-G	10/7/2021	
Site Name:	Coventry 2 CT	**Exposure:**	B		
Height:	177.95 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 39	

Totals:	**177.95**	**3,805.6**	**37,100.9**

Discrete Appurtenance Forces

Structure:	CT02573-S-SBA	**Code:**	EIA/TIA-222-G	10/7/2021	
Site Name:	Coventry 2 CT	**Exposure:**	B		
Height:	177.95 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 40	

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00

Iterations 23

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	177.95	6' Lightning rod	1	10.201	11.221	1.00	1.00	0.38	6.50	0.000	0.000	4.26	0.00	0.00
2	172.00	RR90-17-02DP	3	10.102	11.112	0.55	0.75	7.15	40.50	0.000	0.000	79.47	0.00	0.00
3	172.00	T-Frames w/ Pipe Mount	3	10.102	11.112	0.56	0.75	27.00	1350.00	0.000	0.000	300.04	0.00	0.00
4	172.00	MS-1436 (Light Collar	1	10.102	11.112	1.00	1.00	1.50	65.60	0.000	0.000	16.67	0.00	0.00
5	172.00	MS-HR35	1	10.102	11.112	1.00	1.00	8.75	430.00	0.000	0.000	97.23	0.00	0.00
6	172.00	MS-C1B-2875P	1	10.102	11.112	1.00	1.00	10.00	329.00	0.000	0.000	111.12	0.00	0.00
7	172.00	MS-HRECP	1	10.102	11.112	1.00	1.00	12.25	514.00	0.000	0.000	136.13	0.00	0.00
8	172.00	KRY 112 89/4	3	10.102	11.112	0.38	0.75	0.73	46.20	0.000	0.000	8.13	0.00	0.00
9	172.00	4449	3	10.102	11.112	0.50	0.75	2.49	210.00	0.000	0.000	27.64	0.00	0.00
10	172.00	782 10660	3	10.102	11.112	0.38	0.75	0.32	7.80	0.000	0.000	3.50	0.00	0.00
11	172.00	APXVAARR24_43-U-NA2	3	10.069	11.075	0.53	0.75	31.97	384.00	0.000	-2.000	354.07	0.00	-708.14
12	172.00	KRY 112 144/1	3	10.102	11.112	0.38	0.75	0.46	33.00	0.000	0.000	5.13	0.00	0.00
13	162.00	Ericsson RRUS 4449	3	9.931	10.924	0.50	0.75	2.49	210.00	0.000	0.000	27.17	0.00	0.00
14	162.00	Powerwave 7020.00 RET	6	9.931	10.924	0.38	0.75	0.90	13.20	0.000	0.000	9.83	0.00	0.00
15	162.00	Ericsson RRUS 8843 B2	3	9.931	10.924	0.50	0.75	2.47	216.00	0.000	0.000	27.01	0.00	0.00
16	162.00	Raycap DC6-48-60-18-8F	1	9.931	10.924	0.75	0.75	0.69	31.80	0.000	0.000	7.54	0.00	0.00
17	162.00	HRK12 (Handrail Kit)	1	9.931	10.924	1.00	1.00	6.75	261.72	0.000	0.000	73.74	0.00	0.00
18	162.00	HP Platform w/ Pipe	1	9.931	10.924	1.00	1.00	25.00	1600.00	0.000	0.000	273.10	0.00	0.00
19	162.00	Powerwave 7770	3	9.931	10.924	0.55	0.75	9.03	105.00	0.000	0.000	98.68	0.00	0.00
20	162.00	Powerwave 21401 TMA	6	9.931	10.924	0.38	0.75	1.84	105.00	0.000	0.000	20.15	0.00	0.00
21	162.00	Cci HPA-65R-BU8AA	1	9.931	10.924	0.65	0.75	7.24	54.00	0.000	0.000	79.13	0.00	0.00
22	162.00	Cci DMP65R-BU8DA	1	9.931	10.924	0.54	0.75	9.65	95.70	0.000	0.000	105.41	0.00	0.00
23	162.00	Cci DMP65R-BU6DA	2	9.931	10.924	0.54	0.75	13.73	158.80	0.000	0.000	149.95	0.00	0.00
24	162.00	Cci HPA-65R-BU6AA	2	9.931	10.924	0.74	0.75	11.76	86.00	0.000	0.000	128.48	0.00	0.00
25	153.00	4415	2	9.770	10.747	0.54	0.80	1.99	88.20	0.000	0.000	21.43	0.00	0.00
26	153.00	ODI2-065R18K-GQ	3	9.770	10.747	0.56	0.80	8.15	75.30	0.000	0.000	87.57	0.00	0.00
27	153.00	SF-SU7-2-96	3	9.770	10.747	0.56	0.75	25.48	1185.00	0.000	0.000	273.85	0.00	0.00
28	153.00	Collar Mount (3-Sided)	2	9.770	10.747	1.00	1.00	5.00	440.00	0.000	0.000	53.73	0.00	0.00
29	153.00	3.0" Std Pipe	3	9.770	10.747	1.00	1.00	5.25	90.00	0.000	0.000	56.42	0.00	0.00
30	153.00	0208	3	9.770	10.747	0.54	0.80	2.20	59.40	0.000	0.000	23.68	0.00	0.00
31	130.00	RF4439d-25A	3	9.326	10.258	0.56	0.75	3.26	152.10	0.000	0.000	33.41	0.00	0.00
32	130.00	MT6407-77A	3	9.326	10.258	0.52	0.75	7.39	238.20	0.000	0.000	75.78	0.00	0.00
33	130.00	XXDWMM-12.5-65	3	9.326	10.258	0.56	0.75	2.56	69.42	0.000	0.000	26.24	0.00	0.00
34	130.00	RF4440d-13A	3	9.326	10.258	0.50	0.75	2.91	210.99	0.000	0.000	29.85	0.00	0.00
35	130.00	SBNHH-1D65B	6	9.326	10.258	0.62	0.75	30.48	240.00	0.000	0.000	312.65	0.00	0.00
36	130.00	B25 RRH4x30-4R	3	9.326	10.258	0.50	0.75	3.23	153.00	0.000	0.000	33.09	0.00	0.00
37	130.00	DB-T1-6Z-8AB-0Z	2	9.326	10.258	0.50	0.75	4.82	37.80	0.000	0.000	49.49	0.00	0.00
38	130.00	PV-LPP14L-HR-B	1	9.326	10.258	1.00	1.00	36.80	1641.00	0.000	0.000	377.50	0.00	0.00
							Totals:		**11,034.23**			**3,598.25**		

Total Applied Force Summary

Structure:	CT02573-S-SBA		**Code:**	EIA/TIA-222-G	10/7/2021
Site Name:	Coventry 2 CT		**Exposure:**	B	
Height:	177.95 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 41

Tower Engineering Solutions

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00

Iterations 23

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		118.50	1651.76	0.00	0.00
10.00		116.33	1624.13	0.00	0.00
15.00		114.16	1596.50	0.00	0.00
20.00		111.99	1568.87	0.00	0.00
25.00		109.82	1541.24	0.00	0.00
30.00		107.75	1513.61	0.00	0.00
35.00		110.33	1485.98	0.00	0.00
40.00		112.27	1458.35	0.00	0.00
42.30		51.72	662.16	0.00	0.00
45.00		62.02	1466.20	0.00	0.00
48.00		69.39	1611.48	0.00	0.00
50.00		46.30	566.19	0.00	0.00
55.00		117.15	1396.13	0.00	0.00
60.00		117.45	1368.49	0.00	0.00
65.00		117.46	1340.86	0.00	0.00
70.00		117.21	1313.23	0.00	0.00
75.00		116.72	1285.60	0.00	0.00
80.00		116.02	1257.97	0.00	0.00
85.00		115.13	1230.34	0.00	0.00
86.83		41.74	444.20	0.00	0.00
90.00		73.10	1336.51	0.00	0.00
92.30		52.77	958.68	0.00	0.00
95.00		61.54	561.13	0.00	0.00
100.00		113.38	1021.71	0.00	0.00
105.00		111.87	998.02	0.00	0.00
110.00		110.22	974.34	0.00	0.00
115.00		108.44	950.65	0.00	0.00
120.00		106.54	926.97	0.00	0.00
125.00		104.53	903.29	0.00	0.00
130.00	(24) attachments	1040.41	3622.11	0.00	0.00
132.95		59.21	501.02	0.00	0.00
135.00		41.45	586.99	0.00	0.00
136.83		36.69	518.23	0.00	0.00
140.00		62.73	453.38	0.00	0.00
145.00		97.26	699.74	0.00	0.00
150.00		94.77	680.01	0.00	0.00
153.00	(16) attachments	572.20	2336.43	0.00	0.00
155.00		36.46	260.42	0.00	0.00
157.98		53.55	381.90	0.00	0.00
160.00		35.79	215.75	0.00	0.00
162.00	(30) attachments	1035.15	3148.08	0.00	0.00
165.00		51.65	269.61	0.00	0.00
170.00		83.97	436.71	0.00	0.00
172.00	(25) attachments	1171.83	3580.36	0.00	-708.14
175.00		48.22	223.50	0.00	0.00
177.95	(1) attachments	50.64	207.38	0.00	0.00

Total Applied Force Summary

Structure:	CT02573-S-SBA		**Code:**	EIA/TIA-222-G	10/7/2021
Site Name:	Coventry 2 CT		**Exposure:**	B	
Height:	177.95 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 42

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Totals:	**7,403.83**	**53,136.22**	**0.00**	**-708.14**

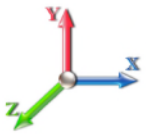
Calculated Forces

Structure:	CT02573-S-SBA	**Code:**	EIA/TIA-222-G	10/7/2021	
Site Name:	Coventry 2 CT	**Exposure:**	B		
Height:	177.95 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 43	

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00



Iterations 23

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	-53.13	-7.42	0.00	-920.22	0.00	920.22	5803.10	2901.55	15291.3	7657.05	0.00	0.000	0.000	0.129
5.00	-51.48	-7.32	0.00	-883.14	0.00	883.14	5740.73	2870.37	14848.9	7435.53	0.02	-0.028	0.000	0.128
10.00	-49.85	-7.23	0.00	-846.53	0.00	846.53	5676.74	2838.37	14408.5	7214.97	0.06	-0.056	0.000	0.126
15.00	-48.25	-7.14	0.00	-810.38	0.00	810.38	5611.13	2805.57	13970.2	6995.50	0.13	-0.085	0.000	0.124
20.00	-46.68	-7.05	0.00	-774.69	0.00	774.69	5543.90	2771.95	13534.3	6777.22	0.24	-0.114	0.000	0.123
25.00	-45.13	-6.96	0.00	-739.46	0.00	739.46	5475.05	2737.52	13101.0	6560.27	0.37	-0.143	0.000	0.121
30.00	-43.62	-6.87	0.00	-704.68	0.00	704.68	5404.57	2702.29	12670.6	6344.75	0.54	-0.172	0.000	0.119
35.00	-42.13	-6.77	0.00	-670.34	0.00	670.34	5332.48	2666.24	12243.3	6130.79	0.73	-0.203	0.000	0.117
40.00	-40.67	-6.67	0.00	-636.47	0.00	636.47	5258.76	2629.38	11819.4	5918.51	0.96	-0.233	0.000	0.115
42.30	-40.00	-6.63	0.00	-621.11	0.00	621.11	5224.28	2612.14	11625.4	5821.36	1.08	-0.247	0.000	0.114
45.00	-38.54	-6.57	0.00	-603.22	0.00	603.22	5183.43	2591.71	11399.0	5708.01	1.22	-0.264	0.000	0.113
48.00	-36.92	-6.51	0.00	-583.51	0.00	583.51	5194.69	2597.35	11461.1	5739.07	1.40	-0.283	0.000	0.109
50.00	-36.36	-6.47	0.00	-570.50	0.00	570.50	5164.20	2582.10	11293.7	5655.29	1.52	-0.296	0.000	0.108
55.00	-34.96	-6.36	0.00	-538.15	0.00	538.15	5086.83	2543.42	10878.2	5447.20	1.84	-0.325	0.000	0.106
60.00	-33.59	-6.26	0.00	-506.33	0.00	506.33	5007.85	2503.92	10466.7	5241.17	2.20	-0.355	0.000	0.103
65.00	-32.24	-6.15	0.00	-475.06	0.00	475.06	4927.24	2463.62	10059.6	5037.31	2.59	-0.386	0.000	0.101
70.00	-30.93	-6.04	0.00	-444.33	0.00	444.33	4845.02	2422.51	9657.14	4835.75	3.01	-0.416	0.000	0.098
75.00	-29.64	-5.93	0.00	-414.14	0.00	414.14	4761.17	2380.58	9259.43	4636.60	3.46	-0.446	0.000	0.096
80.00	-28.38	-5.81	0.00	-384.52	0.00	384.52	4675.70	2337.85	8866.76	4439.97	3.94	-0.477	0.000	0.093
85.00	-27.15	-5.70	0.00	-355.45	0.00	355.45	4588.61	2294.31	8479.38	4245.99	4.46	-0.507	0.000	0.090
86.83	-26.70	-5.66	0.00	-345.00	0.00	345.00	4556.28	2278.14	8338.71	4175.55	4.66	-0.518	0.000	0.088
90.00	-25.36	-5.58	0.00	-327.08	0.00	327.08	4499.90	2249.95	8097.52	4054.78	5.01	-0.538	0.000	0.086
92.30	-24.40	-5.53	0.00	-314.23	0.00	314.23	3709.97	1854.99	6727.57	3368.78	5.27	-0.552	0.000	0.100
95.00	-23.84	-5.47	0.00	-299.31	0.00	299.31	3673.22	1836.61	6564.94	3287.35	5.59	-0.568	0.000	0.098
100.00	-22.82	-5.36	0.00	-271.96	0.00	271.96	3603.88	1801.94	6266.45	3137.88	6.20	-0.601	0.000	0.093
105.00	-21.82	-5.25	0.00	-245.17	0.00	245.17	3532.91	1766.45	5971.95	2990.41	6.85	-0.633	0.000	0.088
110.00	-20.84	-5.14	0.00	-218.93	0.00	218.93	3460.32	1730.16	5681.65	2845.05	7.53	-0.665	0.000	0.083
115.00	-19.89	-5.03	0.00	-193.23	0.00	193.23	3386.11	1693.05	5395.81	2701.92	8.24	-0.695	0.000	0.077
120.00	-18.96	-4.92	0.00	-168.09	0.00	168.09	3310.28	1655.14	5114.65	2561.13	8.98	-0.724	0.000	0.071
125.00	-18.06	-4.81	0.00	-143.48	0.00	143.48	3228.52	1614.26	4831.97	2419.57	9.76	-0.752	0.000	0.065
130.00	-14.45	-3.73	0.00	-119.42	0.00	119.42	3125.09	1562.55	4525.83	2266.28	10.56	-0.777	0.000	0.057
132.95	-13.95	-3.67	0.00	-108.42	0.00	108.42	3064.12	1532.06	4350.03	2178.25	11.04	-0.792	0.000	0.054
135.00	-13.36	-3.62	0.00	-100.90	0.00	100.90	3021.67	1510.84	4229.72	2118.00	11.39	-0.802	0.000	0.052
136.83	-12.84	-3.58	0.00	-94.27	0.00	94.27	2458.83	1229.41	3474.42	1739.79	11.70	-0.810	0.000	0.059
140.00	-12.39	-3.51	0.00	-82.94	0.00	82.94	2420.71	1210.36	3346.31	1675.64	12.24	-0.824	0.000	0.055
145.00	-11.69	-3.41	0.00	-65.38	0.00	65.38	2359.20	1179.60	3147.03	1575.85	13.11	-0.846	0.000	0.046
150.00	-11.01	-3.31	0.00	-48.34	0.00	48.34	2296.08	1148.04	2951.62	1478.00	14.01	-0.865	0.000	0.038
153.00	-8.68	-2.70	0.00	-38.42	0.00	38.42	2257.42	1128.71	2836.33	1420.27	14.56	-0.874	0.000	0.031
155.00	-8.42	-2.66	0.00	-33.02	0.00	33.02	2223.99	1111.99	2751.24	1377.66	14.92	-0.880	0.000	0.028
157.98	-8.04	-2.60	0.00	-25.09	0.00	25.09	2172.66	1086.33	2625.07	1314.48	15.48	-0.887	0.000	0.023
157.98	-8.04	-2.60	0.00	-25.09	0.00	25.09	1653.01	826.50	2005.69	1004.33	15.48	-0.887	0.000	0.030
160.00	-7.83	-2.56	0.00	-19.83	0.00	19.83	1634.69	817.35	1951.45	977.17	15.85	-0.891	0.000	0.025
162.00	-4.69	-1.48	0.00	-14.70	0.00	14.70	1616.31	808.16	1898.20	950.51	16.23	-0.895	0.000	0.018
165.00	-4.43	-1.42	0.00	-10.26	0.00	10.26	1588.26	794.13	1819.10	910.90	16.79	-0.900	0.000	0.014
170.00	-3.99	-1.33	0.00	-3.14	0.00	3.14	1540.22	770.11	1689.48	845.99	17.74	-0.904	0.000	0.006
172.00	-0.43	-0.11	0.00	-0.48	0.00	0.48	1520.54	760.27	1638.44	820.44	18.12	-0.905	0.000	0.001
175.00	-0.21	-0.05	0.00	-0.16	0.00	0.16	1490.55	745.27	1562.81	782.56	18.68	-0.905	0.000	0.000
177.95	0.00	-0.05	0.00	0.00	0.00	0.00	1460.49	730.24	1489.55	745.88	19.24	-0.905	0.000	0.000

Calculated Forces

Structure:	CT02573-S-SBA		**Code:**	EIA/TIA-222-G	10/7/2021
Site Name:	Coventry 2 CT		**Exposure:**	B	
Height:	177.95 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 44

Final Analysis Summary

Structure:	CT02573-S-SBA	**Code:**	EIA/TIA-222-G	10/7/2021	
Site Name:	Coventry 2 CT	**Exposure:**	B		
Height:	177.95 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 45	

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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 101 mph Wind	33.6	0.00	63.73	0.00	0.00	4198.24
0.9D + 1.6W 101 mph Wind	33.6	0.00	47.78	0.00	0.00	4155.07
1.2D + 1.0Di + 1.0Wi 50 mph Wind	9.7	0.00	106.02	0.00	0.00	1240.04
1.2D + 1.0E	2.2	0.00	63.76	0.00	0.00	279.81
0.9D + 1.0E	2.2	0.00	47.82	0.00	0.00	276.75
1.0D + 1.0W 60 mph Wind	7.4	0.00	53.13	0.00	0.00	920.22

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 101 mph Wind	-63.73	-33.64	0.00	-4198.2	0.00	-4198.2	5803.10	2901.5	15291.3	7657.05	0.00	0.559
0.9D + 1.6W 101 mph Wind	-47.78	-33.62	0.00	-4155.0	0.00	-4155.0	5803.10	2901.5	15291.3	7657.05	0.00	0.551
1.2D + 1.0Di + 1.0Wi 50 mph Wind	-106.02	-9.69	0.00	-1240.0	0.00	-1240.0	5803.10	2901.5	15291.3	7657.05	0.00	0.180
1.2D + 1.0E	-63.76	-2.15	0.00	-279.81	0.00	-279.81	5803.10	2901.5	15291.3	7657.05	0.00	0.048
0.9D + 1.0E	-47.82	-2.15	0.00	-276.75	0.00	-276.75	5803.10	2901.5	15291.3	7657.05	0.00	0.044
1.0D + 1.0W 60 mph Wind	-53.13	-7.42	0.00	-920.22	0.00	-920.22	5803.10	2901.5	15291.3	7657.05	0.00	0.129

Monopole Mat Foundation Design

			Date: 10/7/2021
Customer Name:	Verizon	EIA/TIA Standard:	EIA-222-G
Site Name:		Structure Height (Ft.):	177.95
Site Number:	CT02573-S-SBA	Engineer Name:	J. Tibbetts
Engr. Number:	117148	Engineer Login ID:	

Foundation Info Obtained from: Drawings/Calculations

Structure Type: Monopole

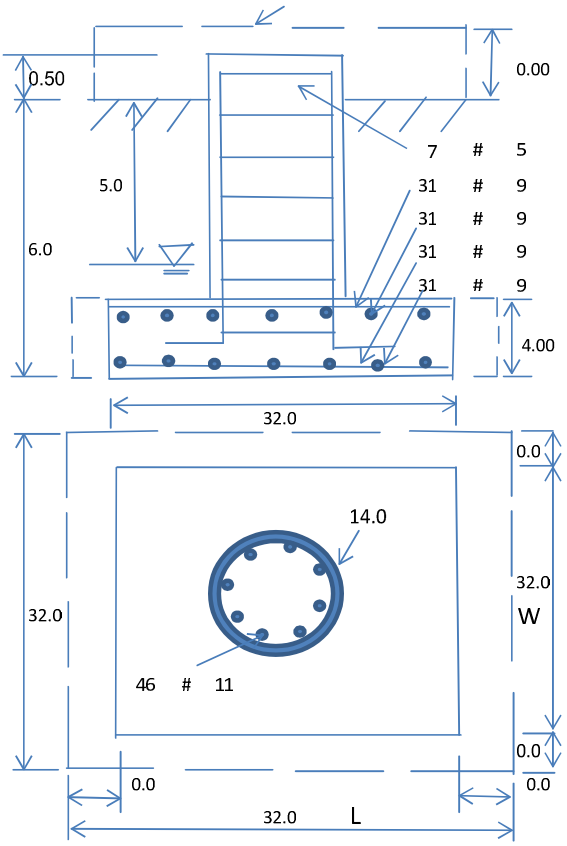
Analysis or Design? Analysis

Base Reactions (Factored):

Axial Load (Kips):	63.7	Shear Force (Kips):	33.6
Uplift Force (Kips):	0.0	Moment (Kips-ft):	4198.2
Allowable overstress %:	5.0%		

Foundation Geometries:

		Mods required -Yes/No ?:	No
Diameter of Pier (ft.):	14.0	Depth of Base BG (ft.):	6.0
Pier Height A. G. (ft.):	0.50	Thickness of Pad (ft):	4.00
Length of Pad (ft.):	32	Width of Pad (ft.):	32
Final Length of pad (ft)	32.0	Final width of pad (ft):	32.0



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 #:	5	
Qty. of Vertical Rebars:	46	Tie Spacing (in):	12.0	
Pad Rebar Yield (Ksi):	60	Pad Steel Rebar Size (#):	9	
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):	31	Qty. of Rebar in Pad (W):	31	
Rebar at the top of the concrete pad:				
Qty. of Rebar in Pad (L):	31	Qty. of Rebar in Pad (W):	31	
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):	5.0	Unit Weight of Water:	62.4	pcf	Angle from Top of Pad:	30
Ultimate Bearing Pressure (psf):	16000	Ultimate Skin Friction:	175	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.:	Yes	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.):	1740.12	Total Dry Soil Weight (Kips):	217.52
Total Buoyant Soil Volume (cu. Ft.):	0.00	Total Buoyant Soil Weight (Kips):	0.00
Total Effective Soil Weight (Kips):	217.52	Weight from the Concrete Block at Top (K):	0.00
Total Dry Concrete Volume (cu. Ft.):	3456.85	Total Dry Concrete Weight (Kips):	518.53
Total Buoyant Concrete Volume (cu. Ft.):	1024.00	Total Buoyant Concrete Weight (Kips):	89.70
Total Effective Concrete Weight (Kips):	608.23	Total Vertical Load on Base (Kips):	889.47

Check Soil Capacities:

					Load/ Capacity Ratio	
Calculated Maxium Net Soil Pressure under the base (psf):	1853	<	Allowable Factored Soil Bearing (psf):	12000	0.15	OK!
Allowable Foundation Overturning Resistance (kips-ft.):	12910.4	>	Design Factored Momont (kips-ft):	4205	0.33	OK!
Factor of Safety Against Overturning (O. R. Moment/Design Moment):	3.07	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 too small		

(2).Concrete Pad:

One-Way Design Shear Capacity (L-Direction, Kips):			One-Way Factored Shear (L-D. Kips):	230.9	
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):	207.8	
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):	2273.9	
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:	1679.3	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!

Network Building + Consulting, LLC
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Blue Bell, PA 19422
(267) 460-0122
NBC_SmartTool@nbcllc.com

Antenna Mount Analysis Report and PMI Requirements

Mount Analysis

SMART Tool Project #: 10037974
NB+C Project #: 100820

August 3, 2021

Site Information	*Site ID:*	*469734-VZW / COVENTRY CT - A*
	Site Name:	*COVENTRY CT - A*
	Carrier Name:	*Verizon Wireless*
	Address:	*712 BREAD AND MILK ST* *COVENTRY, Connecticut 6238* *Tolland County*
	Latitude:	*41.818083°*
	Longitude:	*-72.393167°*
Structure Information	*Tower Type:*	*190-Ft Monopole*
	Mount Type:	*13.00-Ft Platform*

FUZE ID # 16272171

Analysis Results

Platform: **63.3 % 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 may also be Noted on A & E drawings

Report Prepared By: Zaynab Bayati

08/03/2021

Executive Summary:

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

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

Sources of Information:

Document Type	Remarks
Radio Frequency Data Sheet (RFDS)	*Verizon RFDS Site ID: 5011053, dated July 21, 2021*
Mount Mapping Report	*HUDSON DESIGN GROUP, LLC, Site ID: 469734, dated February 12, 2021*

Analysis Criteria:

Codes and Standards:	ANSI/TIA-222-H	
Wind Parameters:	Basic Wind Speed (Ultimate 3-sec. Gust), V_{ULT}:	119 mph
	Ice Wind Speed (3-sec. Gust):	50 mph
Desi	gn Ice Thickness:	1.50 in
	Risk Category:	II
	Exposure Category:	C
Topo	graphic Category:	1
Topo	graphic Feature Considered:	N/A
Topo	graphic Method:	N/A
	Ground Elevation Factor, K_e:	0.971
Seismic Parameters:	S_S:	0.186
S	$_1$:	0.055
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
129.20	130.0	3	Samsung	MT6407-77A	Added
		3	Samsung	CBRS RRH + Clip-on Ant	
		3	Samsung	RF4439d-25A	
		3	Samsung	RF4440d-13A	
		2	Raycap	RRFDC-3315-PF-48*	Retained
		6	Andrew	SBNHH-1D65B	

* Existing equipment is mounted on pipe mounts connected to the mount standoff and is not shown in the antenna placement diagrams.

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

Model Number	Ports	AKA
RHSDC-1064-PF-48	2	OVP-2
RC3DC-3315-PF-48	6	OVP-6
RC3DC-3300-PF-48	6	OVP-6
RC3DC-4750-PF-48	6	OVP-6
RHSDC-6627-PF-48	12	OVP-12
RHSDC-6600-PF-48	12	OVP-12

Standard Conditions:

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

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

   Obvious safety and structural issues/deficiencies noticed at the time of the mount mapping and reported in the Mount Mapping Report are assumed to be corrected and documented as part of the PMI process and are not considered in the mount analysis.

   The mount analysis and the mount mapping are not a condition assessment of the mount. Proper maintenance and condition assessments are still required post analysis.

3. For mount analyses completed from other data sources (including new replacement mounts) and not specifically mapped by Network Building + Consulting, 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. Network Building + Consulting 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 Network Building + Consulting.

Analysis Results:

Component	Utilization %	Pass/Fail
Footrails	15.4 %	Pass
Mount Pipes	31.2 %	Pass
Support Rail	13.9 %	Pass
Footrail Corner Brace	37.2 %	Pass
Standoff Arm	36.3 %	Pass
Support Rail Corner Brace	8.7 %	Pass
Plan Bracing	51.5 %	Pass
Grating Plate Bracing	52.4 %	Pass
GratingAn gles	19.9 %	Pass
Connection Plate	25.5 %	Pass
Connection Check (Weld)	63.3 %	Pass

Structure Rating – *(Controlling Utilization of all Components)*	**63.3%**

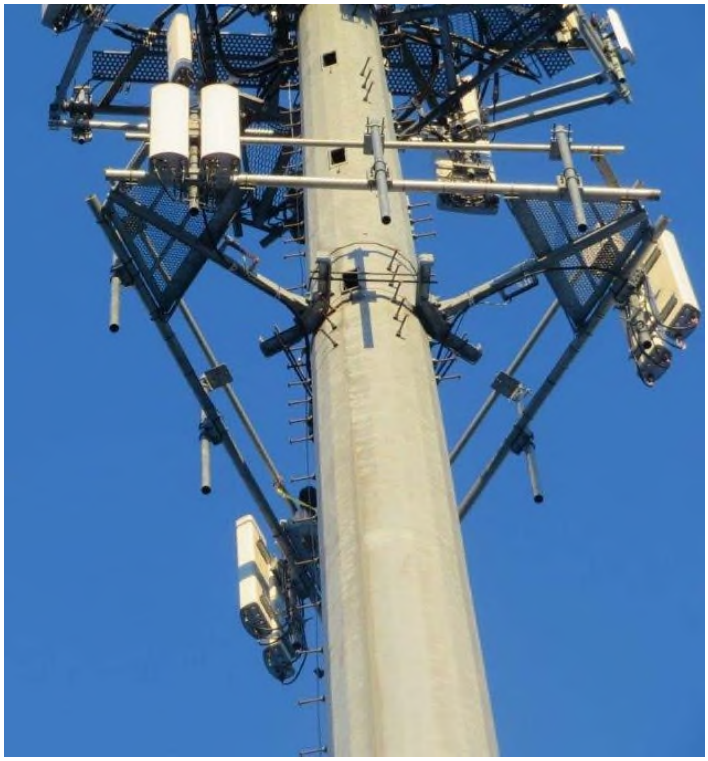
Recommendation:

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

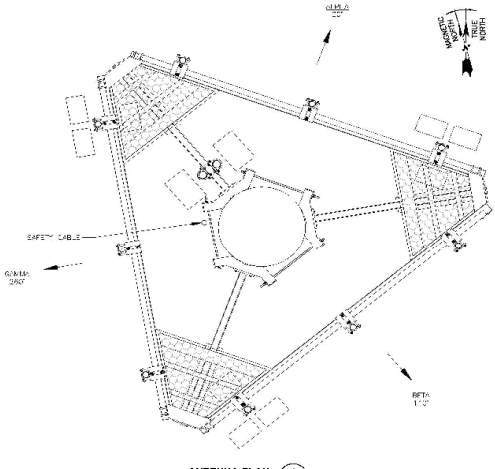


V3.0 Updated on 8-31-2020

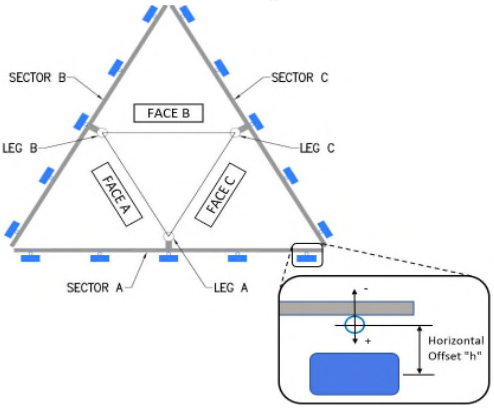
Antenna Mount Mapping Form (PATENT PENDING)

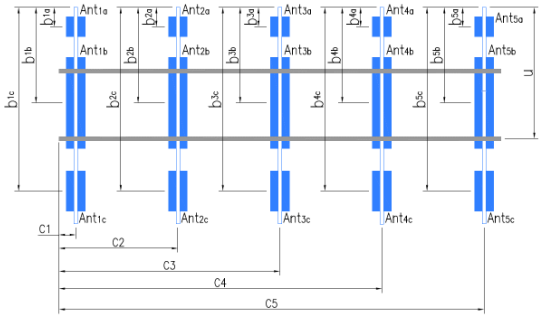
FCC # 1232487

Tower Owner:	SBA TOWERS	**Mapping Date:**	2/12/2021
Site Name:	COVENTRY CT	**Tower Type:**	Monopole
Site Number or ID:	469734	**Tower Height (Ft.):**	190
Mapping Contractor:	HUDSON DESIGHN GROUP, LLC	**Mount Elevation (Ft.):**	129.2



ANTENNA PLAN
SCALE: N.T.S





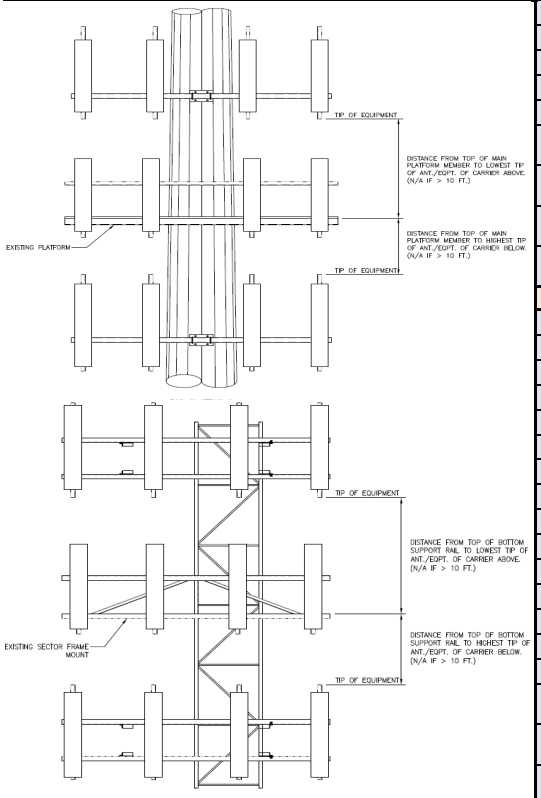
Antenna Layout (Looking Out From Tower)

Mount Pipe Configuration and Geometries [Unit = Inches]							
Sector / Position	Mount Pipe Size & Length	Vertical Offset Dimension "u"	Horizontal Offset "C1, C2, C3, etc."	Sector / Position	Mount Pipe Size & Length	Vertical Offset Dimension "u"	Horizontal Offset "C1, C2, C3, etc."
A1	PIPE 2.5" STD. X 96" LONG	45.00	21.00	C1	PIPE 2.5" STD. X 96" LONG	45.00	21.00
A2	PIPE 2.5" STD. X 96" LONG	45.00	78.00	C2	PIPE 2.5" STD. X 96" LONG	45.00	78.00
A3	PIPE 2.5" STD. X 96" LONG	45.00	135.00	C3	PIPE 2.5" STD. X 96" LONG	45.00	135.00
A4				C4			
A5				C5			
A6				C6			
B1	PIPE 2.5" STD. X 96" LONG	45.00	21.00	D1			
B2	PIPE 2.5" STD. X 96" LONG	45.00	78.00	D2			
B3	PIPE 2.5" STD. X 96" LONG	45.00	135.00	D3			
B4				D4			
B5				D5			
B6				D6			
Distance between bottom rail and mount CL elevation (dim d). Unit is inches. See 'Mount Elev Ref' tab for details. :							
Distance from top of bottom support rail to lowest tip of ant./eqpt. of Carrier above. (N/A if > 10 ft.) :							
Distance from top of bottom support rail to highest tip of ant./eqpt. of Carrier below. (N/A if > 10 ft.) :							
Please enter additional infomation or comments below.							
Tower Face Width at Mount Elev. (ft.):			Tower Leg Size or Pole Shaft Diameter at Mount Elev. (in.):				36

	Enter antenna model. If not labeled, enter "Unknown".						Mounting Locations [Units are inches and degrees]			Photos of antennas
Ants. Items	Antenna Models if Known	Width (in.)	Depth (in.)	Height (in.)	Coax Size and Qty	Antenna Center-line (Ft.)	Vertical Distances"b_{1a}, b_{2a}, b_{3a}, b_{1b}...." (Inches)	Horiz. Offset "h" (Use "-" if Ant. is behind)	Antenna Azimuth (Degrees)	Photo Numbers
Sector A										
Ant_{1a}										
Ant_{1b}										
Ant_{1c}										
Ant_{2a}										
Ant_{2b}										
Ant_{2c}										
Ant_{3a}	B13 RRH 4X30	12.00	7.50	20.00		131.575	16.50	-6.50		111
Ant_{3b}	1	12.00	7.50	72.00		129.2	45.00	9.50	20.00	111
Ant_{3c}										
Ant_{4a}										
Ant_{4b}										
Ant_{4c}										
Ant_{5a}										
Ant_{5b}										
Ant_{5c}										
Ant on Standoff	OVP BOX	15.00	10.00	28.00		133.8				7,11
Ant on Standoff										
Ant on Tower										
Ant on Tower										

Mount Azimuth (Degree) for Each Sector			Tower Leg Azimuth (Degree) for Each Sector		
Sector A:	20.00	Deg	Leg A:		Deg
Sector B:	140.00	Deg	Leg B:		Deg
Sector C:	260.00	Deg	Leg C:		Deg
Sector D:		Deg	Leg D:		Deg

Climbing Facility Information		
Location:	275.00	Deg
Climbing Facility	Corrosion Type:	Good condition.
	Access:	Climbing path was unobstructed.
	Condition:	Good condition.



Sector B										
Ant_{1a}										
Ant_{1b}										
Ant_{1c}										
Ant_{2a}										
Ant_{2b}										
Ant_{2c}										
Ant_{3a}	B13 RRH 4X30	12.00	7.50	20.00		131.575	16.50	-6.50		109
Ant_{3b}	(2) SBNHH-1DS65B	12.00	7.50	72.00		129.2	45.00	9.50	140.00	109
Ant_{3c}										
Ant_{4a}										
Ant_{4b}										
Ant_{4c}										
Ant_{5a}										
Ant_{5b}										
Ant_{5c}										
Ant on Standoff	OVP BOX	15.00	10.00	28.00		133.8				7,11
Ant on Standoff										
Ant on Tower										
Ant on Tower										
Sector C										
Ant_{1a}										
Ant_{1b}										
Ant_{1c}										
Ant_{2a}										
Ant_{2b}										
Ant_{2c}										
Ant_{3a}	B13 RRH 4X30	12.00	7.50	20.00		131.575	16.50	-6.50		110
Ant_{3b}	(2) SBNHH-1DS65B	12.00	7.50	72.00		129.2	45.00	9.50	260.00	110
Ant_{3c}										
Ant_{4a}										
Ant_{4b}										
Ant_{4c}										
Ant_{5a}										
Ant_{5b}										
Ant_{5c}										
Ant on Standoff										
Ant on Standoff										
Ant on Tower										
Ant on Tower										
Sector D										
Ant_{1a}										
Ant_{1b}										
Ant_{1c}										
Ant_{2a}										
Ant_{2b}										
Ant_{2c}										
Ant_{3a}										
Ant_{3b}										
Ant_{3c}										
Ant_{4a}										
Ant_{4b}										
Ant_{4c}										
Ant_{5a}										
Ant_{5b}										
Ant_{5c}										
Ant on Standoff										
Ant on Standoff										
Ant on Tower										
Ant on Tower										

Observed Safety and Structural Issues During the Mount Mapping		
Issue #	Description of Issue	Photo #

1		
2	(2) 1-1/4" HYBRID CABLES	152
3	TOWER TAG: MODEL # 190' MJ-180, SERIAL# 7491 CONVENTRY CT, PROJECT# SBA # 10125-033	151
4		
5		
6		
7		
8		

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

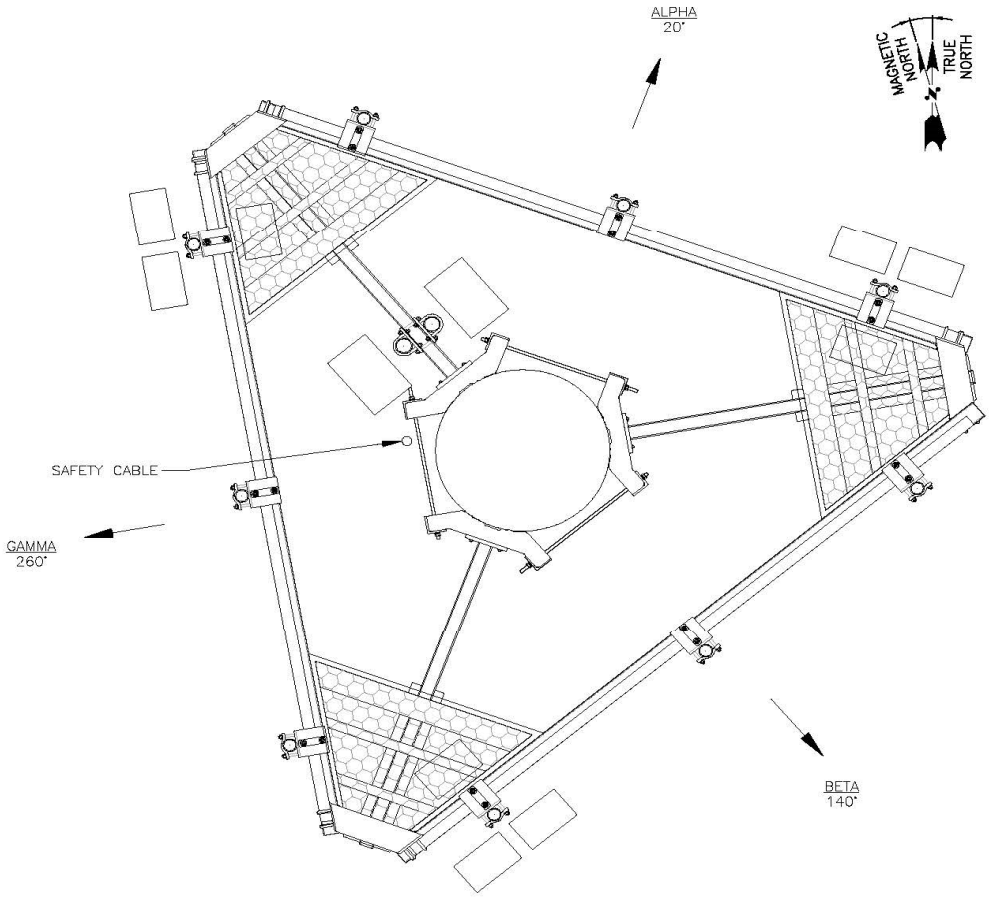
Standard Conditions
1. Obvious safety and structural issues/deficiencies noticed at the time of the mount mapping are to be reported in this mapping. However, this mount mapping is not a condition assessment of the mount.

Antenna Mount Mapping Form (PATENT PENDING)

FCC # 1232487

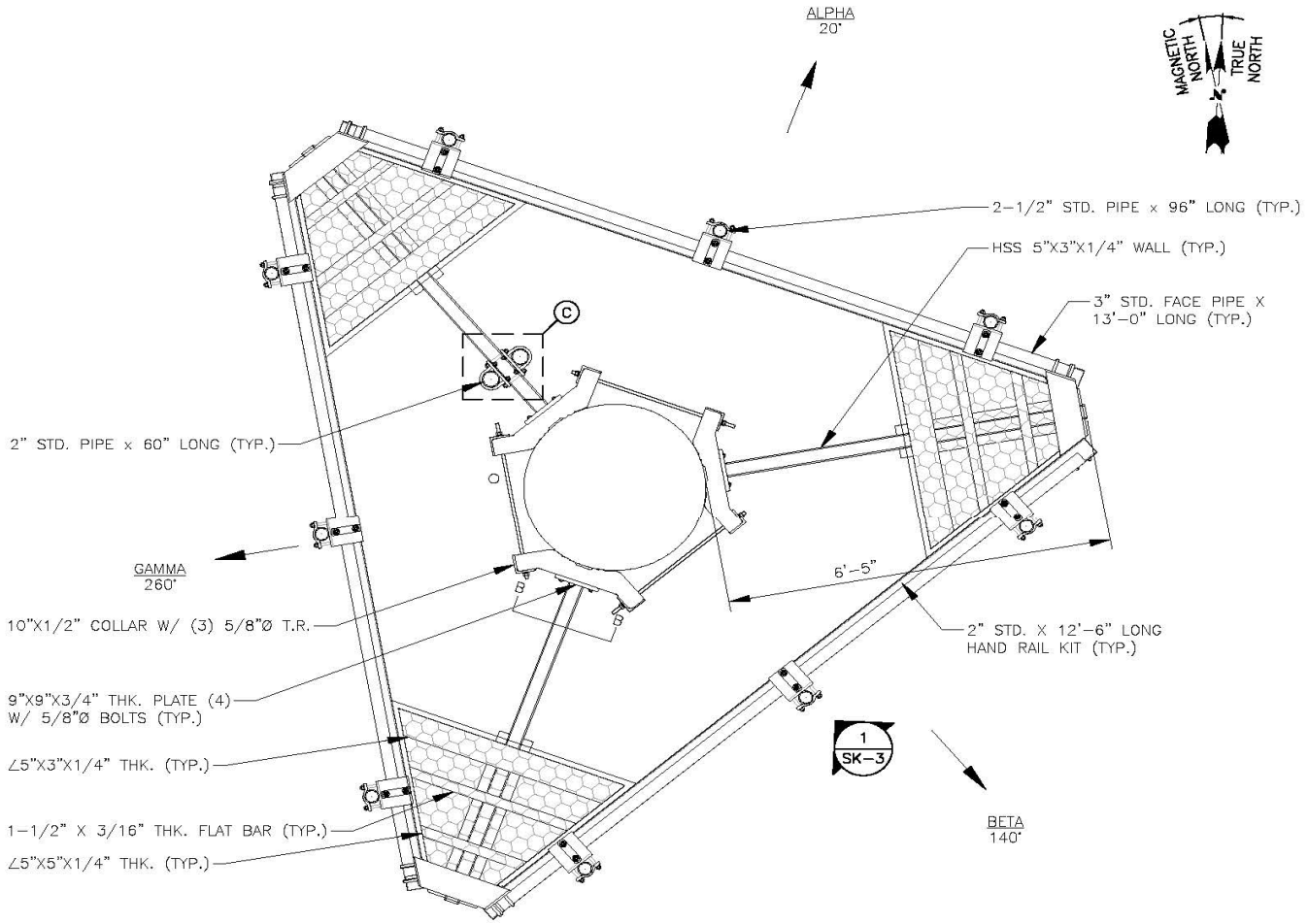
Tower Owner:	SBA TOWERS	**Mapping Date:**	2/12/2021
Site Name:	COVENTRY CT	**Tower Type:**	Monopole
Site Number or ID:	469734	**Tower Height (Ft.):**	190
Mapping Contractor:	HUDSON DESIGHN GROUP, LLC	**Mount Elevation (Ft.):**	129.2

Please Insert Sketches of the Antenna Mount



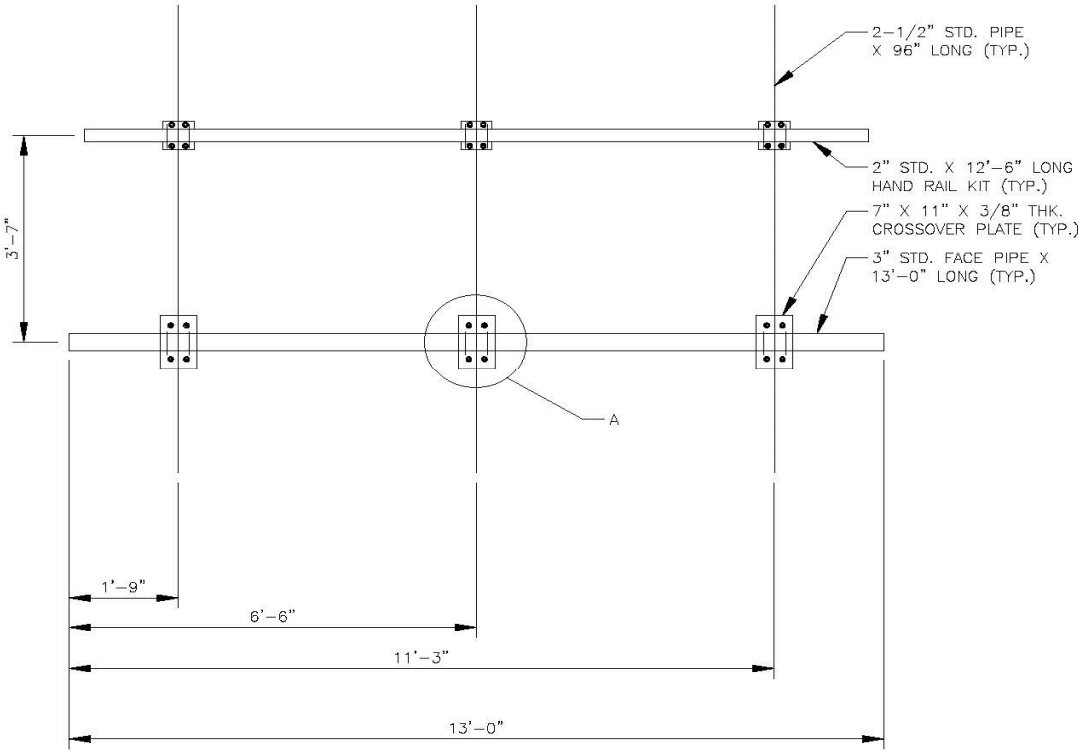
ANTENNA PLAN (1 / SK–1)
SCALE: N.T.S

Please Insert Sketches of the Antenna Mount, cont'd

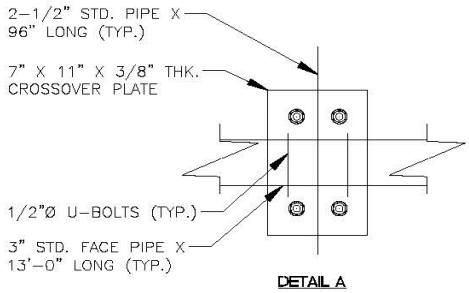


MOUNT PLAN 1/SK–2
SCALE: N.T.S

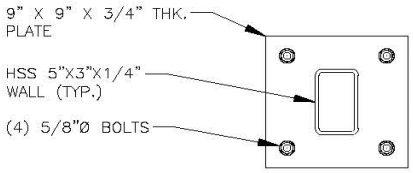
Please Insert Sketches of the Antenna Mount, cont'd



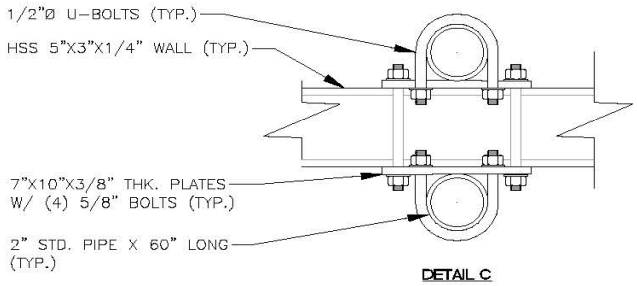
FACE ELEVATION (1 / SK–3)
SCALE: N.T.S



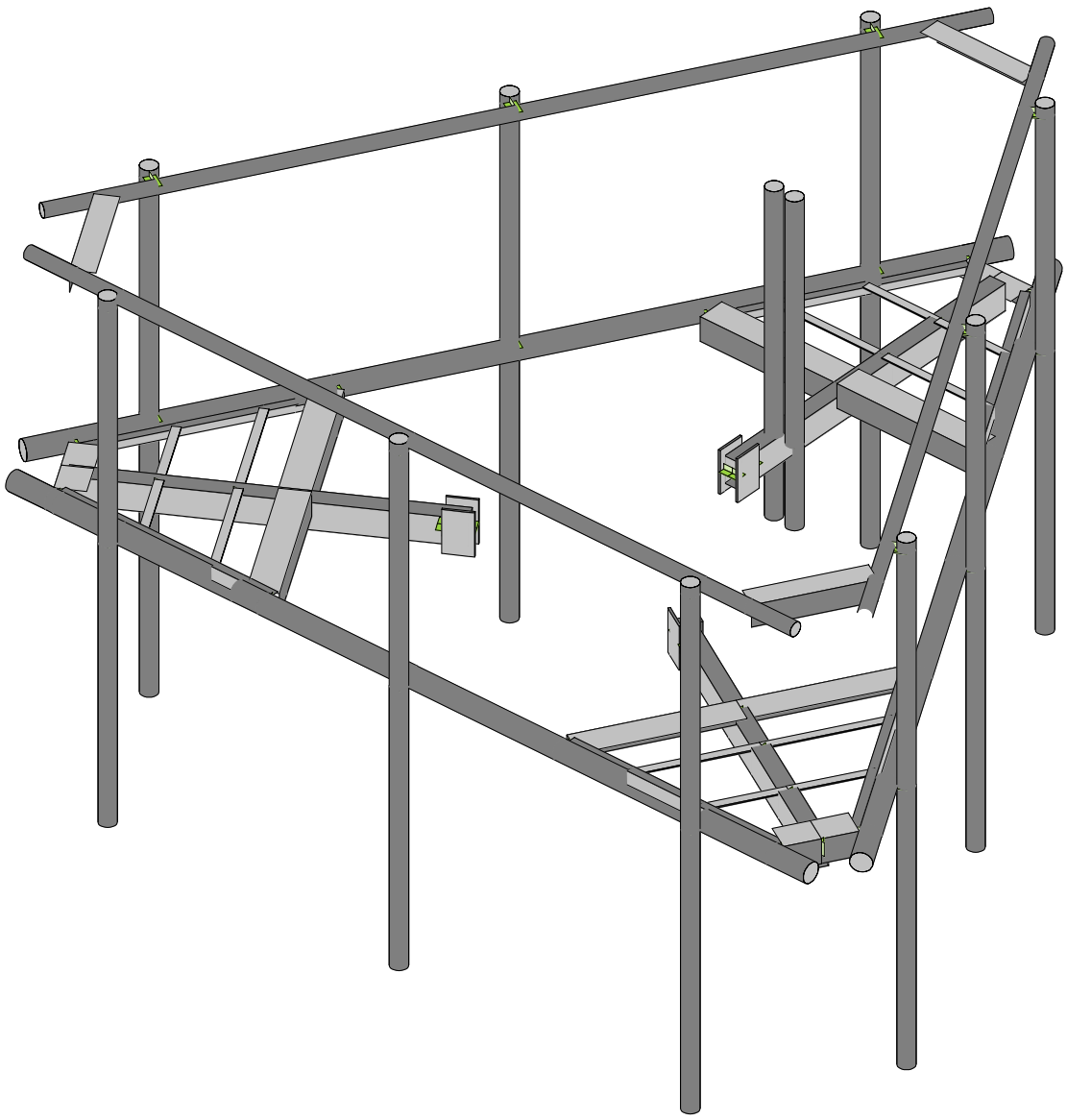
DETAIL A



DETAIL B–B

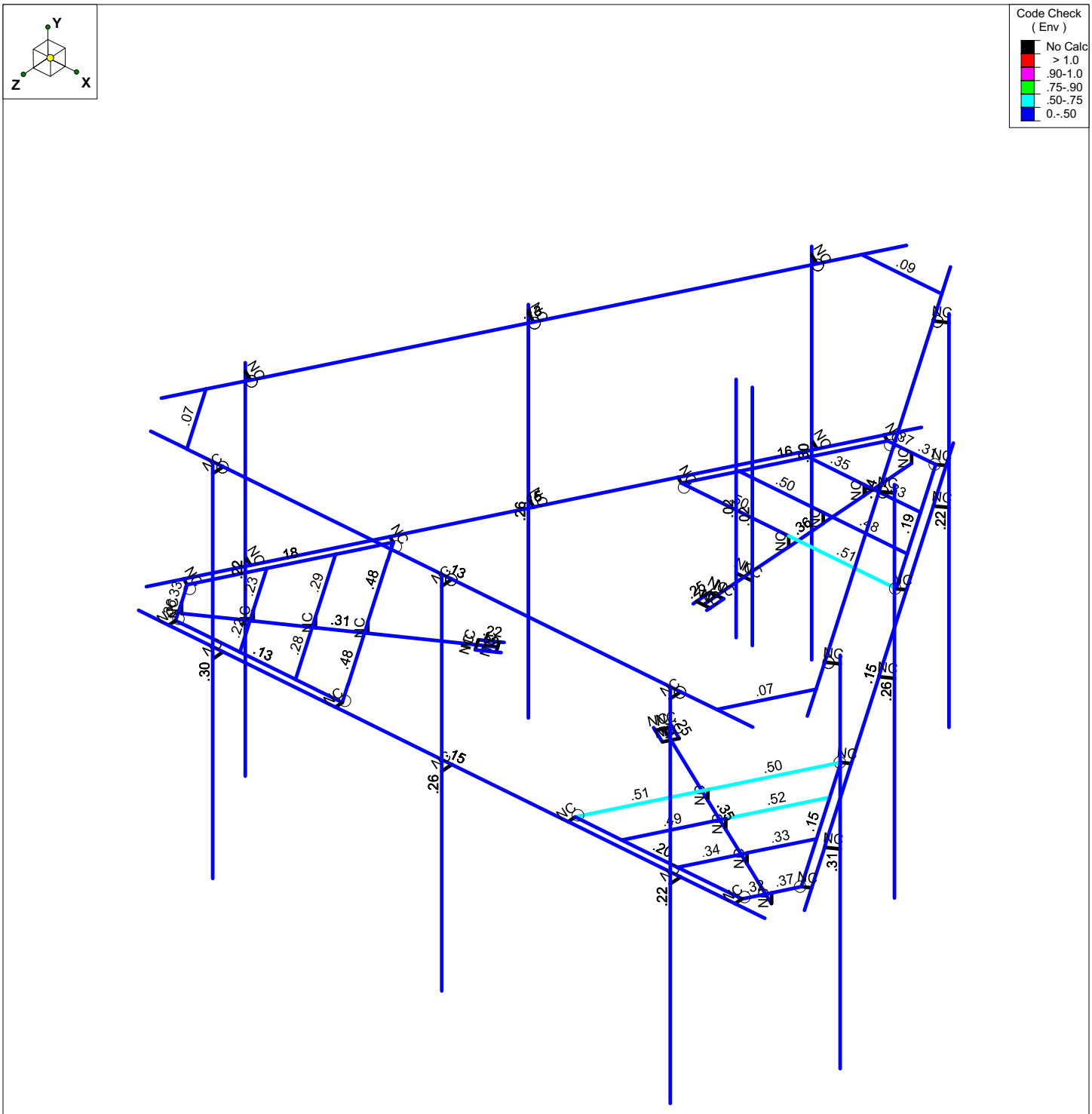


DETAIL C



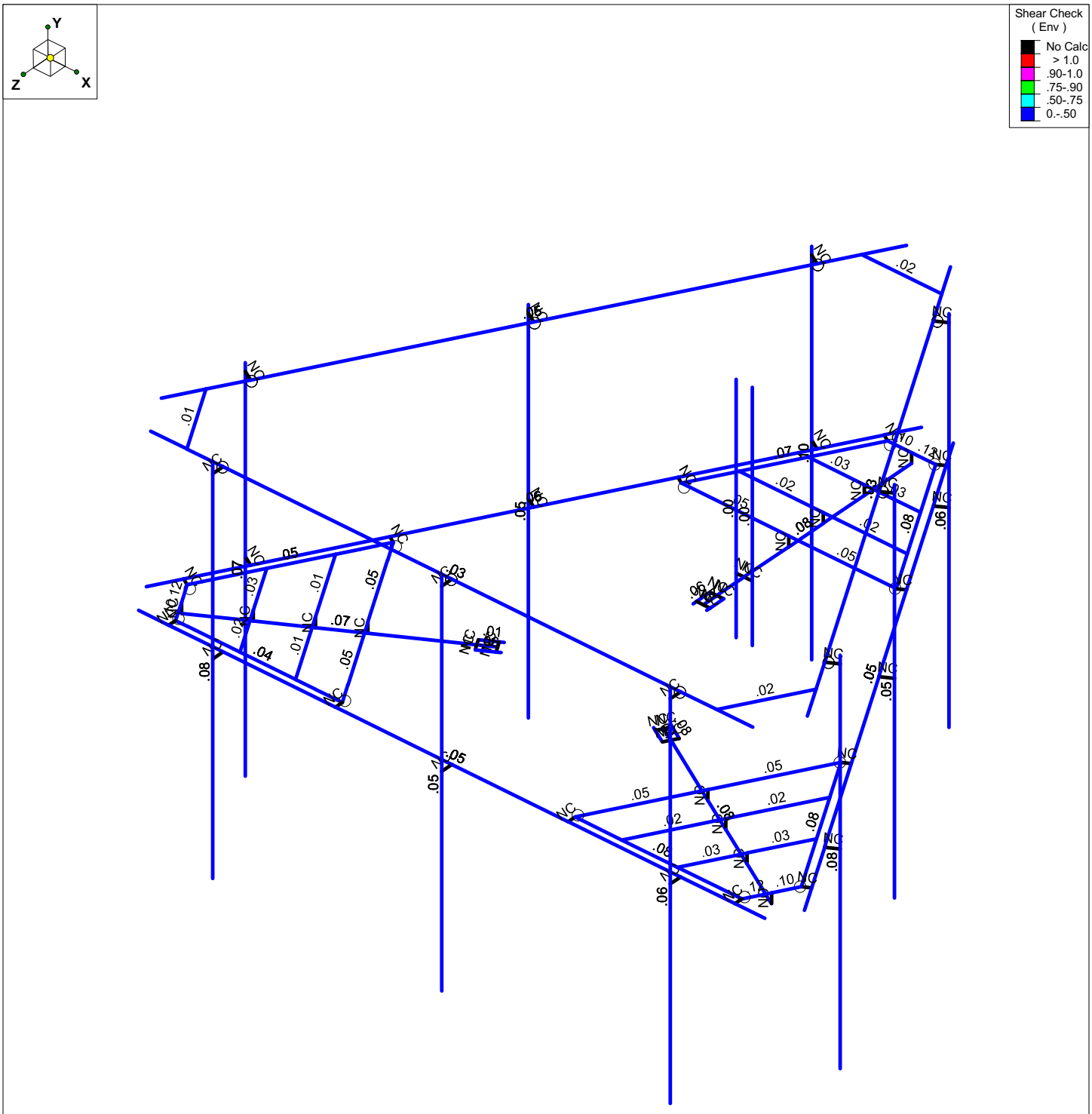
Envelope Only Solution

Network Building + Consu...		SK - 1
Zaynab Bayati	469734-VZW_MT_LO_H	Aug 3, 2021 at 11:47 AM
Project No. 10037974	Rendering	469734-VZW_MT_LO_H.r3d



Member Code Checks Displayed (Enveloped)
Envelope Only Solution

Network Building + Consu...		SK - 2
Zaynab Bayati	469734-VZW_MT_LO_H	Aug 3, 2021 at 11:49 AM
Project No. 10037974	Code Check	469734-VZW_MT_LO_H.r3d



Member Shear Checks Displayed (Enveloped)
Envelope Only Solution

Network Building + Consu...		SK - 3
Zaynab Bayati	469734-VZW_MT_LO_H	Aug 3, 2021 at 11:49 AM
Project No. 10037974	Shear Check	469734-VZW_MT_LO_H.r3d

Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distribu..	Area(M...	Surface...
1	Antenna D	None					81			
2	Antenna Di	None					81			
3	Antenna Wo (0 Deg)	None					81			
4	Antenna Wo (30 Deg)	None					81			
5	Antenna Wo (60 Deg)	None					81			
6	Antenna Wo (90 Deg)	None					81			
7	Antenna Wo (120 Deg)	None					81			
8	Antenna Wo (150 Deg)	None					81			
9	Antenna Wo (180 Deg)	None					81			
10	Antenna Wo (210 Deg)	None					81			
11	Antenna Wo (240 Deg)	None					81			
12	Antenna Wo (270 Deg)	None					81			
13	Antenna Wo (300 Deg)	None					81			
14	Antenna Wo (330 Deg)	None					81			
15	Antenna Wi (0 Deg)	None					81			
16	Antenna Wi (30 Deg)	None					81			
17	Antenna Wi (60 Deg)	None					81			
18	Antenna Wi (90 Deg)	None					81			
19	Antenna Wi (120 Deg)	None					81			
20	Antenna Wi (150 Deg)	None					81			
21	Antenna Wi (180 Deg)	None					81			
22	Antenna Wi (210 Deg)	None					81			
23	Antenna Wi (240 Deg)	None					81			
24	Antenna Wi (270 Deg)	None					81			
25	Antenna Wi (300 Deg)	None					81			
26	Antenna Wi (330 Deg)	None					81			
27	Antenna Wm (0 Deg)	None					81			
28	Antenna Wm (30 Deg)	None					81			
29	Antenna Wm (60 Deg)	None					81			
30	Antenna Wm (90 Deg)	None					81			
31	Antenna Wm (120 Deg)	None					81			
32	Antenna Wm (150 Deg)	None					81			
33	Antenna Wm (180 Deg)	None					81			
34	Antenna Wm (210 Deg)	None					81			
35	Antenna Wm (240 Deg)	None					81			
36	Antenna Wm (270 Deg)	None					81			
37	Antenna Wm (300 Deg)	None					81			
38	Antenna Wm (330 Deg)	None					81			
39	Structure D	None		-1					5	
40	Structure Di	None						67	5	
41	Structure Wo (0 Deg)	None						134		
42	Structure Wo (30 Deg)	None						134		
43	Structure Wo (60 Deg)	None						134		
44	Structure Wo (90 Deg)	None						134		
45	Structure Wo (120 Deg)	None						134		
46	Structure Wo (150 Deg)	None						134		
47	Structure Wo (180 Deg)	None						134		
48	Structure Wo (210 Deg)	None						134		
49	Structure Wo (240 Deg)	None						134		
50	Structure Wo (270 Deg)	None						134		
51	Structure Wo (300 Deg)	None						134		
52	Structure Wo (330 Deg)	None						134		
53	Structure Wi (0 Deg)	None						134		
54	Structure Wi (30 Deg)	None						134		
55	Structure Wi (60 Deg)	None						134		
56	Structure Wi (90 Deg)	None						134		

Basic Load Cases (Continued)

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distribu...	Area(M...	Surface...
57	Structure Wi (120 Deg)	None						134		
58	Structure Wi (150 Deg)	None						134		
59	Structure Wi (180 Deg)	None						134		
60	Structure Wi (210 Deg)	None						134		
61	Structure Wi (240 Deg)	None						134		
62	Structure Wi (270 Deg)	None						134		
63	Structure Wi (300 Deg)	None						134		
64	Structure Wi (330 Deg)	None						134		
65	Structure Wm (0 Deg)	None						134		
66	Structure Wm (30 Deg)	None						134		
67	Structure Wm (60 Deg)	None						134		
68	Structure Wm (90 Deg)	None						134		
69	Structure Wm (120 Deg)	None						134		
70	Structure Wm (150 Deg)	None						134		
71	Structure Wm (180 Deg)	None						134		
72	Structure Wm (210 Deg)	None						134		
73	Structure Wm (240 Deg)	None						134		
74	Structure Wm (270 Deg)	None						134		
75	Structure Wm (300 Deg)	None						134		
76	Structure Wm (330 Deg)	None						134		
77	Lm1	None					1			
78	Lm2	None					1			
79	Lv1	None					1			
80	Lv2	None					1			
81	BLC 39 Transient Area ...	None						64		
82	BLC 40 Transient Area ...	None						64		

Load Combinations

	Description	So...	PDelta	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 D...	Yes	Y		1	1.2	39	1.2	3	1	41	1												
2	1.2D+1.0Wo (30 ...	Yes	Y		1	1.2	39	1.2	4	1	42	1												
3	1.2D+1.0Wo (60 ...	Yes	Y		1	1.2	39	1.2	5	1	43	1												
4	1.2D+1.0Wo (90 ...	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....	Yes	Y		1	1.2	39	1.2	2	1	40	1	15	1	53	1								
14	1.2D + 1.0Di + 1....	Yes	Y		1	1.2	39	1.2	2	1	40	1	16	1	54	1								
15	1.2D + 1.0Di + 1....	Yes	Y		1	1.2	39	1.2	2	1	40	1	17	1	55	1								
16	1.2D + 1.0Di + 1....	Yes	Y		1	1.2	39	1.2	2	1	40	1	18	1	56	1								
17	1.2D + 1.0Di + 1....	Yes	Y		1	1.2	39	1.2	2	1	40	1	19	1	57	1								
18	1.2D + 1.0Di + 1....	Yes	Y		1	1.2	39	1.2	2	1	40	1	20	1	58	1								
19	1.2D + 1.0Di + 1....	Yes	Y		1	1.2	39	1.2	2	1	40	1	21	1	59	1								
20	1.2D + 1.0Di + 1....	Yes	Y		1	1.2	39	1.2	2	1	40	1	22	1	60	1								
21	1.2D + 1.0Di + 1....	Yes	Y		1	1.2	39	1.2	2	1	40	1	23	1	61	1								
22	1.2D + 1.0Di + 1....	Yes	Y		1	1.2	39	1.2	2	1	40	1	24	1	62	1								
23	1.2D + 1.0Di + 1....	Yes	Y		1	1.2	39	1.2	2	1	40	1	25	1	63	1								
24	1.2D + 1.0Di + 1....	Yes	Y		1	1.2	39	1.2	2	1	40	1	26	1	64	1								
25	1.2D + 1.5Lm1 + ...	Yes	Y		1	1.2	39	1.2	77	1.5	27	1	65	1										
26	1.2D + 1.5Lm1 + ...	Yes	Y		1	1.2	39	1.2	77	1.5	28	1	66	1										

Load Combinations (Continued)

	Description	So...	PDelta	S...	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac...
27	1.2D + 1.5Lm1 + ...	Yes	Y		1	1.2	39	1.2	77	1.5	29	1	67	1										
28	1.2D + 1.5Lm1 + ...	Yes	Y		1	1.2	39	1.2	77	1.5	30	1	68	1										
29	1.2D + 1.5Lm1 + ...	Yes	Y		1	1.2	39	1.2	77	1.5	31	1	69	1										
30	1.2D + 1.5Lm1 + ...	Yes	Y		1	1.2	39	1.2	77	1.5	32	1	70	1										
31	1.2D + 1.5Lm1 + ...	Yes	Y		1	1.2	39	1.2	77	1.5	33	1	71	1										
32	1.2D + 1.5Lm1 + ...	Yes	Y		1	1.2	39	1.2	77	1.5	34	1	72	1										
33	1.2D + 1.5Lm1 + ...	Yes	Y		1	1.2	39	1.2	77	1.5	35	1	73	1										
34	1.2D + 1.5Lm1 + ...	Yes	Y		1	1.2	39	1.2	77	1.5	36	1	74	1										
35	1.2D + 1.5Lm1 + ...	Yes	Y		1	1.2	39	1.2	77	1.5	37	1	75	1										
36	1.2D + 1.5Lm1 + ...	Yes	Y		1	1.2	39	1.2	77	1.5	38	1	76	1										
37	1.2D + 1.5Lm2 + ...	Yes	Y		1	1.2	39	1.2	78	1.5	27	1	65	1										
38	1.2D + 1.5Lm2 + ...	Yes	Y		1	1.2	39	1.2	78	1.5	28	1	66	1										
39	1.2D + 1.5Lm2 + ...	Yes	Y		1	1.2	39	1.2	78	1.5	29	1	67	1										
40	1.2D + 1.5Lm2 + ...	Yes	Y		1	1.2	39	1.2	78	1.5	30	1	68	1										
41	1.2D + 1.5Lm2 + ...	Yes	Y		1	1.2	39	1.2	78	1.5	31	1	69	1										
42	1.2D + 1.5Lm2 + ...	Yes	Y		1	1.2	39	1.2	78	1.5	32	1	70	1										
43	1.2D + 1.5Lm2 + ...	Yes	Y		1	1.2	39	1.2	78	1.5	33	1	71	1										
44	1.2D + 1.5Lm2 + ...	Yes	Y		1	1.2	39	1.2	78	1.5	34	1	72	1										
45	1.2D + 1.5Lm2 + ...	Yes	Y		1	1.2	39	1.2	78	1.5	35	1	73	1										
46	1.2D + 1.5Lm2 + ...	Yes	Y		1	1.2	39	1.2	78	1.5	36	1	74	1										
47	1.2D + 1.5Lm2 + ...	Yes	Y		1	1.2	39	1.2	78	1.5	37	1	75	1										
48	1.2D + 1.5Lm2 + ...	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				1	1	39	1																
53	1.2D + 1.0Ev + 1....				1	1.2	39	1.2	SX		SY	1	SZ	-1										
54	1.2D + 1.0Ev + 1....				1	1.2	39	1.2	SX	.5	SY	1	SZ	-.866										
55	1.2D + 1.0Ev + 1....				1	1.2	39	1.2	SX	.866	SY	1	SZ	-.5										
56	1.2D + 1.0Ev + 1....				1	1.2	39	1.2	SX	1	SY	1	SZ											
57	1.2D + 1.0Ev + 1....				1	1.2	39	1.2	SX	.866	SY	1	SZ	.5										
58	1.2D + 1.0Ev + 1....				1	1.2	39	1.2	SX	.5	SY	1	SZ	.866										
59	1.2D + 1.0Ev + 1....				1	1.2	39	1.2	SX		SY	1	SZ	1										
60	1.2D + 1.0Ev + 1....				1	1.2	39	1.2	SX	-.5	SY	1	SZ	.866										
61	1.2D + 1.0Ev + 1....				1	1.2	39	1.2	SX	-.866	SY	1	SZ	.5										
62	1.2D + 1.0Ev + 1....				1	1.2	39	1.2	SX	-1	SY	1	SZ											
63	1.2D + 1.0Ev + 1....				1	1.2	39	1.2	SX	-.866	SY	1	SZ	-.5										
64	1.2D + 1.0Ev + 1....				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	N19	12.206646	0	-2.089466	0	
2	N20	12.423153	0	-2.214466	0	
3	N21	12.423153	3.75	-2.214466	0	
4	N22	12.423153	-4.25	-2.214466	0	
5	N26	9.831446	0	-6.203433	0	
6	N27	10.047953	0	-6.328433	0	
7	N28	10.047953	3.75	-6.328433	0	
8	N29	10.047953	-4.25	-6.328433	0	
9	N30	7.456646	0	-10.316707	0	
10	N31	7.673153	0	-10.441707	0	
11	N32	7.673153	3.75	-10.441707	0	
12	N33	7.673153	-4.25	-10.441707	0	
13	N148A	12.95648	3.583333	-0.790716	0	
14	N149A	6.70648	3.583333	-11.616034	0	

Joint Coordinates and Temperatures (Continued)

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diap...
15	N150	12.206646	3.583333	-2.089466	0	
16	N151	12.423153	3.583333	-2.214466	0	
17	N154	9.831446	3.583333	-6.203433	0	
18	N155	10.047953	3.583333	-6.328433	0	
19	N156	7.456646	3.583333	-10.316707	0	
20	N157	7.673153	3.583333	-10.441707	0	
21	CG	6.250005	0	-4.135606	0	
22	N110	5.79348	3.583333	-11.616034	0	
23	N111	-0.45652	3.583333	-0.790716	0	
24	N141	-0.26902	0	-1.115475	0	
25	N142	-0.124394	0	-1.031975	0	
26	N144	0.000606	0	-1.248482	0	
27	N145	0.49998	0	-0.000035	0	
28	N146	0.49998	0	-0.167035	0	
29	N147	0.62498	0	-0.167035	0	
30	N148	0.37498	0	-0.167035	0	
31	N149	0.125293	-0.208333	-0.599505	0	
32	N150A	4.525135	-0.208333	-3.139755	0	
33	N170	-0.00002	3.583333	-0.000035	0	
34	N171	12.49998	3.583333	-0.000035	0	
35	N188A	6.58148	0	-11.83254	0	
36	N189A	13.08148	0	-0.57421	0	
37	N191	-0.58152	0	-0.57421	0	
38	N192	5.91848	0	-11.83254	0	
39	N194	12.74998	0	-0.000035	0	
40	N195	-0.25002	0	-0.000035	0	
41	N131	5.043646	0	-10.317284	0	
42	N132	4.82714	0	-10.442284	0	
43	N133	4.82714	3.75	-10.442284	0	
44	N134	4.82714	-4.25	-10.442284	0	
45	N135	2.668446	0	-6.203317	0	
46	N136	2.45194	0	-6.328317	0	
47	N137	2.45194	3.75	-6.328317	0	
48	N138	2.45194	-4.25	-6.328317	0	
49	N139	0.293646	0	-2.090043	0	
50	N140	0.07714	0	-2.215043	0	
51	N141A	0.07714	3.75	-2.215043	0	
52	N142A	0.07714	-4.25	-2.215043	0	
53	N143A	5.043646	3.583333	-10.317284	0	
54	N144A	4.82714	3.583333	-10.442284	0	
55	N145A	2.668446	3.583333	-6.203317	0	
56	N146A	2.45194	3.583333	-6.328317	0	
57	N147A	0.293646	3.583333	-2.090043	0	
58	N148B	0.07714	3.583333	-2.215043	0	
59	N150B	1.499646	0	-0.000035	0	
60	N151B	1.499646	0	0.249965	0	
61	N152	1.499646	3.75	0.249965	0	
62	N153	1.499646	-4.25	0.249965	0	
63	N154B	6.250046	0	-0.000035	0	
64	N155B	6.250046	0	0.249965	0	
65	N156B	6.250046	3.75	0.249965	0	
66	N157B	6.250046	-4.25	0.249965	0	
67	N158A	10.999646	0	-0.000035	0	
68	N159A	10.999646	0	0.249965	0	
69	N160A	10.999646	3.75	0.249965	0	
70	N161A	10.999646	-4.25	0.249965	0	
71	N162A	1.499646	3.583333	-0.000035	0	

Joint Coordinates and Temperatures (Continued)

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diap...
72	N163A	1.499646	3.583333	0.249965	0	
73	N164A	6.250046	3.583333	-0.000035	0	
74	N165A	6.250046	3.583333	0.249965	0	
75	N166A	10.999646	3.583333	-0.000035	0	
76	N167A	10.999646	3.583333	0.249965	0	
77	N161B	12.581313	3.583333	-1.440524	0	
78	N162B	7.081646	3.583333	-10.966226	0	
79	N164B	5.418313	3.583333	-10.966226	0	
80	N165B	-0.081354	3.583333	-1.440524	0	
81	N167B	0.750313	3.583333	-0.000035	0	
82	N168A	11.749646	3.583333	-0.000035	0	
83	N195A	9.780917	0	-2.097008	0	
84	N160	1.708313	0	-0.167035	0	
85	N161	0.542273	0	-2.186676	0	
86	N166B	3.833313	0	-0.167035	0	
87	N167	3.583626	0	-0.599505	0	
88	N168	3.403842	0	-0.000035	0	
89	N169	3.403842	0	-0.167035	0	
90	N171A	3.278842	0	-0.167035	0	
91	N173A	1.670391	-0.	-3.913327	0	
92	N174A	1.85446	0	-3.59451	0	
93	N175	1.460146	0	-4.11048	0	
94	N176	1.604773	0	-4.02698	0	
95	N177	1.473538	-0.	-3.799673	0	
96	N178	1.327538	0.	-3.546794	0	
97	N180A	2.719043	0	-2.097007	0	
98	N181A	2.863013	0	-0.167035	0	
99	N182B	1.119623	0	-3.186675	0	
100	N179A	6.250008	-0.208333	-7.124441	0	
101	N184A	6.083313	-0.208333	-7.124441	0	
102	N185A	6.416646	-0.208333	-7.124441	0	
103	N183B	6.083313	3.541667	-7.124441	0	
104	N184B	6.416646	3.541667	-7.124441	0	
105	N186A	6.083313	-1.458333	-7.124441	0	
106	N187	6.416646	-1.458333	-7.124441	0	
107	N126	0.125293	0	-0.599505	0	
108	N127A	1.125293	0	-1.176855	0	
109	N128	1.991318	0	-1.676855	0	
110	N129	2.719043	-0.208333	-2.097008	0	
111	N131A	1.125293	-0.208333	-1.176856	0	
112	N132A	1.991318	-0.208333	-1.676855	0	
113	N132B	0.37498	0	-0.000035	0	
114	N133A	3.833313	0	-0.000035	0	
115	N133B	12.125028	0	-0.000035	0	
116	N134A	12.125028	0	-0.16703	0	
117	N135A	12.624401	0	-1.03197	0	
118	N136A	12.374714	-0.208333	-0.5995	0	
119	N137A	7.974872	-0.208333	-3.13975	0	
120	N138A	11.957735	0	-2.186671	0	
121	N139A	10.791694	0	-0.16703	0	
122	N140A	10.895235	0	-4.026975	0	
123	N141B	8.666694	0	-0.000035	0	
124	N142B	8.666694	0	-0.16703	0	
125	N144B	11.380385	0	-3.18667	0	
126	N145B	9.636994	0	-0.16703	0	
127	N146B	12.374714	0	-0.5995	0	
128	N147B	11.374714	0	-1.176851	0	

Joint Coordinates and Temperatures (Continued)

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diap...
129	N148C	10.508689	0	-1.67685	0	
130	N149B	9.780964	-0.208333	-2.097002	0	
131	N150C	10.50869	-0.208333	-1.67685	0	
132	N151A	12.768994	0	-1.115451	0	
133	N152A	11.039827	0	-4.110456	0	
134	N154A	6.89397	0	-11.291291	0	
135	N155A	6.749381	0	-11.207813	0	
136	N156A	5.750634	0	-11.207813	0	
137	N157A	6.250008	-0.208333	-11.207813	0	
138	N158	6.250008	-0.208333	-6.127313	0	
139	N159	5.083968	0	-10.053112	0	
140	N160B	7.416048	0	-10.053112	0	
141	N161D	4.021468	0	-8.212808	0	
142	N162D	8.623137	0	-8.296287	0	
143	N163B	8.478548	0	-8.212808	0	
144	N164C	6.250008	0	-8.212808	0	
145	N165C	4.506618	0	-9.053113	0	
146	N166C	7.993398	0	-9.053113	0	
147	N167D	6.250008	0	-11.207813	0	
148	N168B	6.250008	0	-10.053112	0	
149	N169A	6.250008	0	-9.053113	0	
150	N170A	6.250008	-0.208333	-8.212808	0	
151	N171B	6.250008	-0.208333	-9.053113	0	
152	N172A	5.606004	0	-11.291315	0	
153	N173	3.876837	0	-8.296311	0	
154	N171C	4.454302	-0.208333	-3.262442	0	
155	N172B	4.595968	-0.208333	-3.017068	0	
156	N173B	4.526471	-0.208333	-3.304109	0	
157	N174	4.668137	-0.208333	-3.058735	0	
158	N175A	4.165627	-0.208333	-3.095775	0	
159	N176A	4.307293	-0.208333	-2.850402	0	
160	N177A	4.23646	-0.208333	-2.973089	0	
161	N180	7.904012	-0.208333	-3.017034	0	
162	N181	8.045678	-0.208333	-3.262408	0	
163	N182	7.831843	-0.208333	-3.0587	0	
164	N183	7.973509	-0.208333	-3.304074	0	
165	N184	8.192687	-0.208333	-2.850367	0	
166	N185	8.334353	-0.208333	-3.095741	0	
167	N186	8.26354	-0.208333	-2.973088	0	
168	N189	6.391687	-0.208333	-6.127274	0	
169	N190	6.108353	-0.208333	-6.127313	0	
170	N191A	6.391687	-0.208333	-6.043941	0	
171	N192A	6.108353	-0.208333	-6.043941	0	
172	N193	6.391687	-0.208333	-6.460608	0	
173	N194A	6.108353	-0.208333	-6.460608	0	
174	N195B	6.250008	-0.208333	-6.460608	0	
175	N175B	11.374714	-0.208333	-1.176851	0	
176	N176B	6.250008	-.208	-10.053112	0	

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design ...	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	Standoff Arm	HSS5X3X4	Beam	SquareTube	A500 Gr.B...	Typical	3.37	4.81	10.7	11
2	Footrail Corner Brace	L5x4.5x4	Beam	BAR	A36 Gr.36	Typical	2.313	4.513	5.849	.047
3	Footrails	PIPE_3.0	Beam	Pipe	A53 Gr.B	Typical	2.07	2.85	2.85	5.69
4	Support Rail	PIPE_2.0	Beam	Pipe	A53 Gr.B	Typical	1.02	.627	.627	1.25

Hot Rolled Steel Section Sets (Continued)

	Label	Shape	Type	Design List	Material	Design ...	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
5	Mount Pipes	PIPE 2.5	Column	Pipe	A53 Gr.B	Typical	1.61	1.45	1.45	2.89
6	Grating Angles	L2.5x1.5x4	Beam	Single Angle	A36 Gr.36	Typical	.947	.16	.594	.021
7	Plan Bracing	L5x4.5x4	Beam	Tube	A36 Gr.36	Typical	2.313	4.513	5.849	.047
8	Support Rail Corner Brace	L4X4X4	Beam	Single Angle	A36 Gr.36	Typical	1.93	3	3	.044
9	Kickers	LL2.5x2.5x3x3	Beam	Double Angle (...	A36 Gr.36	Typical	1.8	2.46	1.07	.023
10	Grating Plate Bracing	PL3/16x1.5	Beam	BAR	A36 Gr.36	Typical	.281	.000824	.053	.003
11	Grating Angle Bracing	L5X3X4	Beam	Single Angle	A36 Gr.36	Typical	1.94	1.41	5.09	.044
12	Connection Plate	PL3/8x8	Beam	Single Angle	A36 Gr.36	Typical	3	.035	16	.136

Hot Rolled Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm (/1...	Density[k/ft^3]	Yield[ksi]	Ry	Fu[ksi]	Rt
1	A992	29000	11154	.3	.65	.49	50	1.1	65	1.1
2	A36 Gr.36	29000	11154	.3	.65	.49	36	1.5	58	1.2
3	A572 Gr.50	29000	11154	.3	.65	.49	50	1.1	65	1.1
4	A500 Gr.B RND	29000	11154	.3	.65	.527	42	1.4	58	1.3
5	A500 Gr.B Rect	29000	11154	.3	.65	.527	46	1.4	58	1.3
6	A53 Gr.B	29000	11154	.3	.65	.49	35	1.6	60	1.2
7	A1085	29000	11154	.3	.65	.49	50	1.25	65	1.15
8	A913 Gr.65	29000	11154	.3	.65	.49	65	1.1	80	1.1

Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
1	M1	N189A	N188A			Footrails	Beam	Pipe	A53 Gr.B	Typical
2	M8	N20	N19			RIGID	None	None	RIGID	Typical
3	MP3A	N21	N22			Mount Pipes	Column	Pipe	A53 Gr.B	Typical
4	M12	N27	N26			RIGID	None	None	RIGID	Typical
5	MP2A	N28	N29			Mount Pipes	Column	Pipe	A53 Gr.B	Typical
6	M14	N31	N30			RIGID	None	None	RIGID	Typical
7	MP1A	N32	N33			Mount Pipes	Column	Pipe	A53 Gr.B	Typical
8	M88	N148A	N149A			Support Rail	Beam	Pipe	A53 Gr.B	Typical
9	M89	N151	N150			RIGID	None	None	RIGID	Typical
10	M91	N155	N154			RIGID	None	None	RIGID	Typical
11	M92	N157	N156			RIGID	None	None	RIGID	Typical
12	M34	N192	N191			Footrails	Beam	Pipe	A53 Gr.B	Typical
13	M62	N110	N111			Support Rail	Beam	Pipe	A53 Gr.B	Typical
14	M67A	N195	N194			Footrails	Beam	Pipe	A53 Gr.B	Typical
15	M76	N142	N141			RIGID	None	None	RIGID	Typical
16	M80	N148	N126		90	Footrail Corne...	Beam	BAR	A36 Gr.36	Typical
17	M81	N149	N150A			Standoff Arm	Beam	SquareTube	A500 Gr.B...	Typical
18	M95	N170	N171			Support Rail	Beam	Pipe	A53 Gr.B	Typical
19	M79A	N132	N131			RIGID	None	None	RIGID	Typical
20	MP3C	N133	N134		240	Mount Pipes	Column	Pipe	A53 Gr.B	Typical
21	M81A	N136	N135			RIGID	None	None	RIGID	Typical
22	MP2C	N137	N138		240	Mount Pipes	Column	Pipe	A53 Gr.B	Typical
23	M83A	N140	N139			RIGID	None	None	RIGID	Typical
24	MP1C	N141A	N142A		240	Mount Pipes	Column	Pipe	A53 Gr.B	Typical
25	M85A	N144A	N143A			RIGID	None	None	RIGID	Typical
26	M86A	N146A	N145A			RIGID	None	None	RIGID	Typical
27	M87A	N148B	N147A			RIGID	None	None	RIGID	Typical
28	M88B	N151B	N150B			RIGID	None	None	RIGID	Typical
29	MP3B	N152	N153		120	Mount Pipes	Column	Pipe	A53 Gr.B	Typical
30	M90	N155B	N154B			RIGID	None	None	RIGID	Typical
31	MP2B	N156B	N157B		120	Mount Pipes	Column	Pipe	A53 Gr.B	Typical
32	M92B	N159A	N158A			RIGID	None	None	RIGID	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
33	MP1B	N160A	N161A		120	Mount Pipes	Column	Pipe	A53 Gr.B	Typical
34	M94A	N163A	N162A			RIGID	None	None	RIGID	Typical
35	M95A	N165A	N164A			RIGID	None	None	RIGID	Typical
36	M96	N167A	N166A			RIGID	None	None	RIGID	Typical
37	M91C	N161B	N168A		90	Support Rail C...	Beam	Single Angle	A36 Gr.36	Typical
38	M92C	N167B	N165B		90	Support Rail C...	Beam	Single Angle	A36 Gr.36	Typical
39	M93B	N164B	N162B		90	Support Rail C...	Beam	Single Angle	A36 Gr.36	Typical
40	M90A	N180A	N166B		90	Plan Bracing	Beam	Tube	A36 Gr.36	Typical
41	M95D	N176	N180A		90	Plan Bracing	Beam	Tube	A36 Gr.36	Typical
42	M97A	N176	N175			RIGID	None	None	RIGID	Typical
43	M100A	N160	N127A		90	Grating Plate ...	Beam	BAR	A36 Gr.36	Typical
44	M102A	N181A	N128		90	Grating Plate ...	Beam	BAR	A36 Gr.36	Typical
45	M105	N184A	N179A			RIGID	None	None	RIGID	Typical
46	M106	N185A	N179A			RIGID	None	None	RIGID	Typical
47	MOVP-2	N184B	N187			Mount Pipes	Column	Pipe	A53 Gr.B	Typical
48	MOVP-1	N183B	N186A			Mount Pipes	Column	Pipe	A53 Gr.B	Typical
49	M54	N148	N166B		180	Grating Angles	Beam	Single Angle	A36 Gr.36	Typical
50	M53	N176	N142		180	Grating Angles	Beam	Single Angle	A36 Gr.36	Typical
51	M53A	N126	N142		90	Footrail Corne...	Beam	BAR	A36 Gr.36	Typical
52	M54A	N127A	N161		90	Grating Plate ...	Beam	BAR	A36 Gr.36	Typical
53	M55	N128	N182B		90	Grating Plate ...	Beam	BAR	A36 Gr.36	Typical
54	M56	N129	N180A			RIGID	None	None	RIGID	Typical
55	M57	N132A	N128			RIGID	None	None	RIGID	Typical
56	M58	N131A	N127A			RIGID	None	None	RIGID	Typical
57	M59	N149	N126			RIGID	None	None	RIGID	Typical
58	M58A	N166B	N133A			RIGID	None	None	RIGID	Typical
59	M59A	N148	N132B			RIGID	None	None	RIGID	Typical
60	M60	N134A	N133B			RIGID	None	None	RIGID	Typical
61	M62A	N136A	N137A			Standoff Arm	Beam	SquareTube	A500 Gr.B...	Typical
62	M65	N142B	N141B			RIGID	None	None	RIGID	Typical
63	M66	N138A	N147B		90	Grating Plate ...	Beam	BAR	A36 Gr.36	Typical
64	M67	N144B	N148C		90	Grating Plate ...	Beam	BAR	A36 Gr.36	Typical
65	M71	N147B	N139A		90	Grating Plate ...	Beam	BAR	A36 Gr.36	Typical
66	M72	N148C	N145B		90	Grating Plate ...	Beam	BAR	A36 Gr.36	Typical
67	M73	N149B	N195A			RIGID	None	None	RIGID	Typical
68	M74	N150C	N148C			RIGID	None	None	RIGID	Typical
69	M75	N136A	N146B			RIGID	None	None	RIGID	Typical
70	M76A	N140A	N152A			RIGID	None	None	RIGID	Typical
71	M77	N135A	N151A			RIGID	None	None	RIGID	Typical
72	M78	N155A	N154A			RIGID	None	None	RIGID	Typical
73	M80A	N157A	N158			Standoff Arm	Beam	SquareTube	A500 Gr.B...	Typical
74	M83	N163B	N162D			RIGID	None	None	RIGID	Typical
75	M84	N159	N168B		90	Grating Plate ...	Beam	BAR	A36 Gr.36	Typical
76	M85	N165C	N169A		90	Grating Plate ...	Beam	BAR	A36 Gr.36	Typical
77	M89A	N168B	N160B		90	Grating Plate ...	Beam	BAR	A36 Gr.36	Typical
78	M90B	N169A	N166C		90	Grating Plate ...	Beam	BAR	A36 Gr.36	Typical
79	M91A	N170A	N164C			RIGID	None	None	RIGID	Typical
80	M92A	N171B	N169A			RIGID	None	None	RIGID	Typical
81	M93	N157A	N167D			RIGID	None	None	RIGID	Typical
82	M94	N161D	N173			RIGID	None	None	RIGID	Typical
83	M95B	N156A	N172A			RIGID	None	None	RIGID	Typical
84	M96A	N175A	N177A			RIGID	None	None	RIGID	Typical
85	M97	N177A	N176A			RIGID	None	None	RIGID	Typical
86	M98	N171C	N150A			RIGID	None	None	RIGID	Typical
87	M99	N150A	N172B			RIGID	None	None	RIGID	Typical
88	M100	N176A	N174			Connection Pl...	Beam	Single Angle	A36 Gr.36	Typical
89	M101	N175A	N173B			Connection Pl...	Beam	Single Angle	A36 Gr.36	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
90	M102	N184	N186			RIGID	None	None	RIGID	Typical
91	M103	N186	N185			RIGID	None	None	RIGID	Typical
92	M104	N180	N137A			RIGID	None	None	RIGID	Typical
93	M105A	N137A	N181			RIGID	None	None	RIGID	Typical
94	M106A	N185	N183			Connection Pl...	Beam	Single Angle	A36 Gr.36	Typical
95	M107	N184	N182			Connection Pl...	Beam	Single Angle	A36 Gr.36	Typical
96	M108	N193	N195B			RIGID	None	None	RIGID	Typical
97	M109	N195B	N194A			RIGID	None	None	RIGID	Typical
98	M110	N189	N158			RIGID	None	None	RIGID	Typical
99	M111	N158	N190			RIGID	None	None	RIGID	Typical
100	M112	N194A	N192A			Connection Pl...	Beam	Single Angle	A36 Gr.36	Typical
101	M113	N193	N191A			Connection Pl...	Beam	Single Angle	A36 Gr.36	Typical
102	M102B	N135A	N146B		90	Footrail Corne...	Beam	BAR	A36 Gr.36	Typical
103	M103A	N195A	N140A		90	Plan Bracing	Beam	Tube	A36 Gr.36	Typical
104	M104A	N142B	N195A		90	Plan Bracing	Beam	Tube	A36 Gr.36	Typical
105	M107A	N135A	N140A		180	Grating Angles	Beam	Single Angle	A36 Gr.36	Typical
106	M108A	N142B	N134A		180	Grating Angles	Beam	Single Angle	A36 Gr.36	Typical
107	M109A	N146B	N134A		90	Footrail Corne...	Beam	BAR	A36 Gr.36	Typical
108	M112A	N156A	N167D		90	Footrail Corne...	Beam	BAR	A36 Gr.36	Typical
109	M113A	N164C	N161D		90	Plan Bracing	Beam	Tube	A36 Gr.36	Typical
110	M114	N163B	N164C		90	Plan Bracing	Beam	Tube	A36 Gr.36	Typical
111	M117	N156A	N161D		180	Grating Angles	Beam	Single Angle	A36 Gr.36	Typical
112	M118	N163B	N155A		180	Grating Angles	Beam	Single Angle	A36 Gr.36	Typical
113	M119	N167D	N155A		90	Footrail Corne...	Beam	BAR	A36 Gr.36	Typical
114	M114A	N147B	N175B			RIGID	None	None	RIGID	Typical
115	M115	N168B	N176B			RIGID	None	None	RIGID	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	M8						Yes	** NA **			None
3	MP3A						Yes	** NA **			None
4	M12						Yes	** NA **			None
5	MP2A						Yes	** NA **			None
6	M14						Yes	** NA **			None
7	MP1A						Yes	** NA **			None
8	M88						Yes				None
9	M89	OOOXOX					Yes	** NA **			None
10	M91	OOOXOX					Yes	** NA **			None
11	M92	OOOXOX					Yes	** NA **			None
12	M34						Yes				None
13	M62						Yes				None
14	M67A						Yes				None
15	M76		BenPIN				Yes	** NA **			None
16	M80						Yes				None
17	M81						Yes				None
18	M95						Yes				None
19	M79A						Yes	** NA **			None
20	MP3C						Yes	** NA **			None
21	M81A						Yes	** NA **			None
22	MP2C						Yes	** NA **			None
23	M83A						Yes	** NA **			None
24	MP1C						Yes	** NA **			None
25	M85A	OOOXOX					Yes	** NA **			None
26	M86A	OOOXOX					Yes	** NA **			None

Member Advanced Data (Continued)

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rat...	Analysis ...	Inactive	Seismic...
27	M87A	OOOXOX					Yes	** NA **			None
28	M88B						Yes	** NA **			None
29	MP3B						Yes	** NA **			None
30	M90						Yes	** NA **			None
31	MP2B						Yes	** NA **			None
32	M92B						Yes	** NA **			None
33	MP1B						Yes	** NA **			None
34	M94A	OOOXOX					Yes	** NA **			None
35	M95A	OOOXOX					Yes	** NA **			None
36	M96	OOOXOX					Yes	** NA **			None
37	M91C						Yes				None
38	M92C						Yes				None
39	M93B						Yes				None
40	M90A						Yes	Default			None
41	M95D						Yes				None
42	M97A		BenPIN				Yes	** NA **			None
43	M100A						Yes				None
44	M102A						Yes	Default			None
45	M105						Yes	** NA **			None
46	M106						Yes	** NA **			None
47	MOVP-2						Yes	** NA **			None
48	MOVP-1						Yes	** NA **			None
49	M54						Yes				None
50	M53						Yes				None
51	M53A						Yes				None
52	M54A						Yes				None
53	M55						Yes				None
54	M56						Yes	** NA **			None
55	M57						Yes	** NA **			None
56	M58						Yes	** NA **			None
57	M59						Yes	** NA **			None
58	M58A		BenPIN				Yes	** NA **			None
59	M59A		BenPIN				Yes	** NA **			None
60	M60		BenPIN				Yes	** NA **			None
61	M62A						Yes				None
62	M65		BenPIN				Yes	** NA **			None
63	M66						Yes				None
64	M67						Yes	Default			None
65	M71						Yes				None
66	M72						Yes				None
67	M73						Yes	** NA **			None
68	M74						Yes	** NA **			None
69	M75						Yes	** NA **			None
70	M76A		BenPIN				Yes	** NA **			None
71	M77		BenPIN				Yes	** NA **			None
72	M78		BenPIN				Yes	** NA **			None
73	M80A						Yes				None
74	M83		BenPIN				Yes	** NA **			None
75	M84						Yes				None
76	M85						Yes	Default			None
77	M89A						Yes				None
78	M90B						Yes				None
79	M91A						Yes	** NA **			None
80	M92A						Yes	** NA **			None
81	M93						Yes	** NA **			None
82	M94		BenPIN				Yes	** NA **			None
83	M95B		BenPIN				Yes	** NA **			None

Member Advanced Data (Continued)

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rat...	Analysis ...	Inactive	Seismic...
84	M96A						Yes	** NA **			None
85	M97						Yes	** NA **			None
86	M98						Yes	** NA **			None
87	M99						Yes	** NA **			None
88	M100						Yes				None
89	M101						Yes				None
90	M102						Yes	** NA **			None
91	M103						Yes	** NA **			None
92	M104						Yes	** NA **			None
93	M105A						Yes	** NA **			None
94	M106A						Yes				None
95	M107						Yes				None
96	M108						Yes	** NA **			None
97	M109						Yes	** NA **			None
98	M110						Yes	** NA **			None
99	M111						Yes	** NA **			None
100	M112						Yes				None
101	M113						Yes				None
102	M102B						Yes				None
103	M103A						Yes	Default			None
104	M104A						Yes				None
105	M107A						Yes				None
106	M108A						Yes				None
107	M109A						Yes				None
108	M112A						Yes				None
109	M113A						Yes	Default			None
110	M114						Yes				None
111	M117						Yes				None
112	M118						Yes				None
113	M119						Yes				None
114	M114A						Yes	** NA **			None
115	M115						Yes	** NA **			None

Member Area Loads (BLC 39 : Structure D)

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
1	N148	N142	N176	N166B	Y	Two Way	-.01
2	N161D	N156A	N155A	N163B	Y	Two Way	-.01
3	N142B	N140A	N135A	N134A	Y	Two Way	-.01
4	N135A	N134A	N142B	N140A	Y	Two Way	-.01
5	N156A	N155A	N163B	N161D	Y	Two Way	-.01

Member Area Loads (BLC 40 : Structure Di)

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
1	N148	N142	N176	N166B	Y	Two Way	-.015
2	N161D	N156A	N155A	N163B	Y	Two Way	-.015
3	N142B	N140A	N135A	N134A	Y	Two Way	-.015
4	N135A	N134A	N142B	N140A	Y	Two Way	-.015
5	N156A	N155A	N163B	N161D	Y	Two Way	-.015

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	N173B	max	3135.747	6	424.624	19	3112.646	12	-.161	3	.022	12	-.278	3
2		min	-4459.047	12	143.792	1	-2358.017	6	-1.621	21	-.022	6	-2.802	21

Envelope Joint Reactions (Continued)

	Joint		X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
3	N174	max	3454.244	12	2261.59	22	2351.761	5	-.162	3	.022	12	-.281	3
4		min	-4904.13	6	328.032	4	-1520.468	11	-1.659	21	-.022	6	-2.869	21
5	N182	max	4948.234	8	718.377	15	2315.615	8	-.239	11	.022	8	3.167	17
6		min	-3584.836	2	-1322.655	42	-1524.569	2	-1.826	17	-.022	2	.414	11
7	N183	max	4502.775	1	2890.93	42	3103.088	2	-.238	11	.022	8	3.223	17
8		min	-3071.064	7	324.901	12	-2276.157	8	-1.858	17	-.022	2	.412	11
9	N191A	max	518.746	10	2527.519	40	4124.924	10	3.795	13	.025	4	.005	41
10		min	-527.253	4	145.603	10	-5841.13	4	.464	7	-.024	10	-.002	22
11	N192A	max	517.188	10	2318.209	23	4144.501	3	3.854	13	.025	4	.005	41
12		min	-527.509	4	-922.266	42	-5634.056	9	.46	7	-.024	10	-.002	22
13	Totals:	max	4389.782	10	8399.514	20	4392.642	1						
14		min	-4389.775	4	3272.551	2	-4392.637	7						

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

	Member	Shape	Code ...	Loc[ft]	LC	Shear...	Loc[ft]	Dir	LC	phi*Pnc...	phi*Pnt ...	phi*Mn ...	phi*Mn ...	Cb	Eqn
1	M1	PIPE_3.0	.154	6.5	48	.053	4.063		9	26386....	65205	5.749	5.749	1...	H1-1b
2	MP3A	PIPE_2.5	.312	3.75	12	.080	.167		9	30038....	50715	3.596	3.596	2...	H1-1b
3	MP2A	PIPE_2.5	.261	3.75	12	.051	3.75		2	30038....	50715	3.596	3.596	3...	H1-1b
4	MP1A	PIPE_2.5	.220	3.75	6	.059	3.75		10	30038....	50715	3.596	3.596	2...	H1-1b
5	M88	PIPE_2.0	.139	11.7...	23	.034	.781		21	6295.422	32130	1.872	1.872	1...	H1-1b
6	M34	PIPE_3.0	.148	8.802	21	.057	8.802		21	26386....	65205	5.749	5.749	2...	H1-1b
7	M62	PIPE_2.0	.130	1.432	10	.048	.781		23	6295.422	32130	1.872	1.872	1...	H1-1b
8	M67A	PIPE_3.0	.152	8.802	17	.052	4.063		7	26386....	65205	5.749	5.749	2...	H1-1b
9	M80	L5x4.5x4	.357	.499	15	.097	.499	y	15	50904....	74925	3.579	7.767	1...	H2-1
10	M81	HSS5X3X4	.311	4.71	21	.074	4.71	y	22	117099...	139518	13.006	18.561	2...	H1-1b
11	M95	PIPE_2.0	.134	1.432	12	.030	.781		19	6295.422	32130	1.872	1.872	1...	H1-1b
12	MP3C	PIPE_2.5	.301	3.75	8	.098	.167		11	30038....	50715	3.596	3.596	2...	H1-1b
13	MP2C	PIPE_2.5	.257	3.75	8	.046	3.75		4	30038....	50715	3.596	3.596	3...	H1-1b
14	MP1C	PIPE_2.5	.218	3.75	2	.074	3.75		12	30038....	50715	3.596	3.596	2...	H1-1b
15	MP3B	PIPE_2.5	.297	3.75	4	.083	.167		1	30038....	50715	3.596	3.596	2...	H1-1b
16	MP2B	PIPE_2.5	.256	3.75	4	.049	3.75		12	30038....	50715	3.596	3.596	3...	H1-1b
17	MP1B	PIPE_2.5	.221	3.75	10	.058	3.75		8	30038....	50715	3.596	3.596	2...	H1-1b
18	M91C	L4X4X4	.067	1.663	9	.016	.017	y	2	49732....	62532	3.138	6.715	1...	H2-1
19	M92C	L4X4X4	.072	0	23	.015	0	y	12	49732....	62532	3.138	6.897	1...	H2-1
20	M93B	L4X4X4	.087	1.663	23	.017	0	y	10	49732....	62532	3.138	6.897	2...	H2-1
21	M90A	L5x4.5x4	.478	0	21	.047	0	z	21	50119....	74925	4.408	8.54	1...	H2-1
22	M95D	L5x4.5x4	.479	2.229	22	.047	2.229	z	21	50119....	74925	4.408	8.54	1...	H2-1
23	M100A	PL3/16x1.5	.220	1.166	14	.018	1.166	y	14	950.774	9112.5	.036	.285	2...	H1-1b
24	M102A	PL3/16x1.5	.276	1.743	14	.008	1.743	y	14	425.32	9112.5	.036	.285	2...	H1-1b
25	MOVP-2	PIPE_2.5	.021	3.75	1	.003	3.75		1	41331....	50715	3.596	3.596	1	H1-1b
26	MOVP-1	PIPE_2.5	.021	3.75	1	.003	3.75		1	41331....	50715	3.596	3.596	1	H1-1b
27	M54	L2.5x1.5x4	.128	3.458	2	.041	3.458	y	19	12727....	30682.8	.461	1.597	1...	H2-1
28	M53	L2.5x1.5x4	.185	0	19	.046	0	y	23	12727....	30682.8	.461	1.597	2...	H2-1
29	M53A	L5x4.5x4	.327	0	16	.116	0	y	15	50904....	74925	3.579	7.767	1...	H2-1
30	M54A	PL3/16x1.5	.234	0	17	.025	0	y	16	950.775	9112.5	.036	.285	2...	H1-1b
31	M55	PL3/16x1.5	.293	0	17	.014	0	y	16	425.32	9112.5	.036	.285	2...	H1-1b
32	M62A	HSS5X3X4	.348	4.71	17	.079	4.71	y	30	117099...	139518	13.006	18.561	2...	H1-1b
33	M66	PL3/16x1.5	.329	1.166	22	.030	1.166	y	22	950.774	9112.5	.036	.285	2...	H1-1b
34	M67	PL3/16x1.5	.524	1.743	22	.018	1.743	z	15	425.32	9112.5	.036	.285	2.3	H1-1b
35	M71	PL3/16x1.5	.341	0	24	.034	0	y	24	950.775	9112.5	.036	.285	2...	H1-1b
36	M72	PL3/16x1.5	.489	0	24	.020	0	z	19	425.32	9112.5	.036	.285	2...	H1-1b
37	M80A	HSS5X3X4	.363	4.71	15	.079	4.71	y	24	117099...	139518	13.006	18.561	2...	H1-1b
38	M84	PL3/16x1.5	.353	1.166	18	.029	1.166	y	18	950.774	9112.5	.036	.285	2...	H1-1b
39	M85	PL3/16x1.5	.499	1.743	18	.017	1.743	z	24	425.32	9112.5	.036	.285	2...	H1-1b
40	M89A	PL3/16x1.5	.332	0	20	.032	0	y	20	950.775	9112.5	.036	.285	2...	H1-1b

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

	Member	Shape	Code ...	Loc[ft]	LC	Shear...	Loc[ft]	Dir	LC	phi*Pnc...	phi*Pnt ...	phi*Mn ...	phi*Mn ...	Cb	Eqn
41	M90B	PL3/16x1.5	.481	0	20	.020	0	z	14	425.32	9112.5	.036	.285	2...	H1-1b
42	M100	PL3/8x8	.221	.417	19	.062	.417	y	22	86874.26	97200	.759	16.2	1...	H1-1b
43	M101	PL3/8x8	.216	.417	23	.015	.417	y	20	86874.26	97200	.759	16.2	1...	H1-1b
44	M106A	PL3/8x8	.246	.417	15	.084	.417	y	42	86874.26	97200	.759	16.2	1...	H1-1b
45	M107	PL3/8x8	.243	.417	19	.043	.334	y	42	86874.26	97200	.759	16.2	1...	H1-1b
46	M112	PL3/8x8	.253	.417	23	.063	.417	y	23	86874.26	97200	.759	16.2	1...	H1-1b
47	M113	PL3/8x8	.255	.417	15	.073	.417	y	40	86874.26	97200	.759	16.2	1...	H1-1b
48	M102B	L5x4.5x4	.367	.499	23	.100	.499	y	23	50904....	74925	3.579	7.767	1...	H2-1
49	M103A	L5x4.5x4	.500	0	17	.049	0	z	17	50119.66	74925	4.408	8.54	1...	H2-1
50	M104A	L5x4.5x4	.515	2.229	18	.050	2.229	z	17	50119....	74925	4.408	8.54	1...	H2-1
51	M107A	L2.5x1.5x4	.155	3.458	21	.076	3.458	y	15	12727....	30682.8	.461	1.55	1...	H2-1
52	M108A	L2.5x1.5x4	.199	0	15	.075	0	y	19	12727....	30682.8	.461	1.597	3...	H2-1
53	M109A	L5x4.5x4	.324	0	24	.120	0	y	23	50904....	74925	3.579	7.767	1...	H2-1
54	M112A	L5x4.5x4	.372	.499	19	.104	.499	y	19	50904....	74925	3.579	7.767	1...	H2-1
55	M113A	L5x4.5x4	.497	0	13	.050	0	z	14	50119....	74925	4.408	8.54	1...	H2-1
56	M114	L5x4.5x4	.513	2.229	13	.050	2.229	z	13	50119....	74925	4.408	8.54	1...	H2-1
57	M117	L2.5x1.5x4	.157	3.458	17	.070	3.458	y	24	12727....	30682.8	.461	1.529	1...	H2-1
58	M118	L2.5x1.5x4	.191	0	23	.075	0	y	15	12727....	30682.8	.461	1.597	3...	H2-1
59	M119	L5x4.5x4	.307	0	20	.116	0	y	19	50904....	74925	3.579	7.767	1...	H2-1

Connection Check Summary	
Site Name	COVENTRY CT
Site ID	469734
NB+C Project No.	100820

Connection Properties			
Plate Properties			
Thickness	t	0.75	in
Plate length	L	9	in
Plate Grade	F_y	36	ksi
Connected Part Dimensions	Width	3	in
	Height	5	in
Horizontal Bolt Separation	d_x	7	in
Vertical Bolt Separation	d_y	7	in
Bolt Properties			
Bolt Grade		A325	
Bolt Diameter	d_b	0.625	in
Number of Bolts	N_b	4	Bolts
Weld Properties			
Weld Shape		Line	
Height	d	8	in
Standoff Arm Width	b	4	in
Fillet Weld Size	a	5/16	in

Member End Reactions			
Shear	F_y	2320	lbs
	F_z	527	lbs
Tension	F_x	5634	lbs
Bending	M_z	3.854	k-ft
	M_y	0.025	k-ft
Torsion	M_x	0.005	k-ft

Connection Capacities (% Usage)			
Plate Capacity	Shear	**13.9%**	**Pass**
	Bending	**22.2%**	**Pass**
Bolt Capacity	Shear	**4.8%**	**Pass**
	Tension	**22.9%**	**Pass**
Weld Capacity	% Usage	**63.3%**	**Pass**

Mount Desktop – Post Modification Inspection (PMI) Report Requirements

Documents & Photos Required from Contractor – Passing Mount Analysis

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

Contractor is responsible for making certain the photos provided as noted below provide confirmation that the installation was completed in accordance with this Passing Mount Analysis.

Contractor shall relay any data that can impact the performance of the mount, this includes safety issues.

Base Requirements:

Any special photos outside of the standard requirements will be indicated on the passing MA Verification that loading is as communicated in the Passing Mount Analysis. NOTE If loading is different than what is conveyed contact Network Building + Consulting immediately.

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 equipment modifications
- Photos of the appropriate mount before and after installation of the modifications; if the mounts are at different rad elevations, pictures must be provided for all elevations that the modifications were installed

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 safety climb wire rope above and below the mount prior to modification.
- 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 _____

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

Issue:

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: 469734-VZW - COVENTRY CT - A

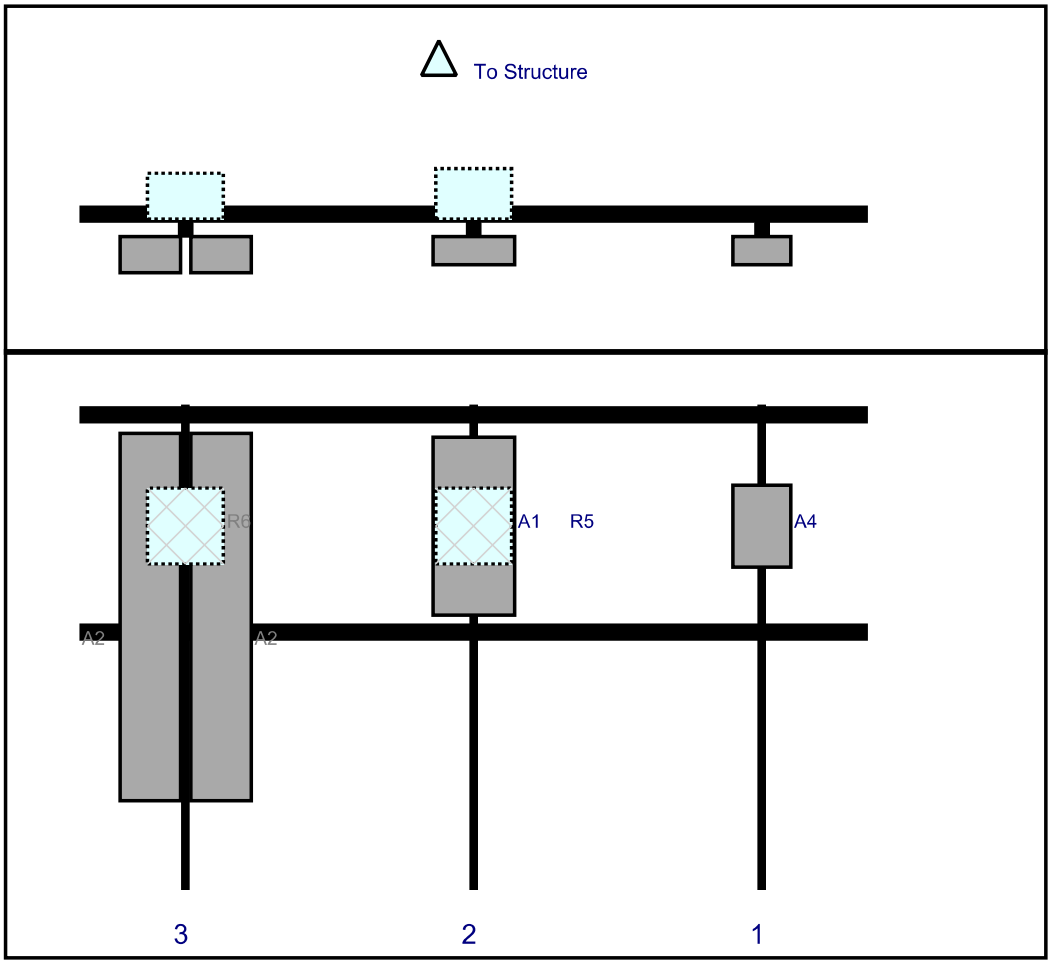
Sector: **A** 8/3/2021

Structure Type: Monopole 10037974

Mount Elev: 129.20 Page: 1

Plan View

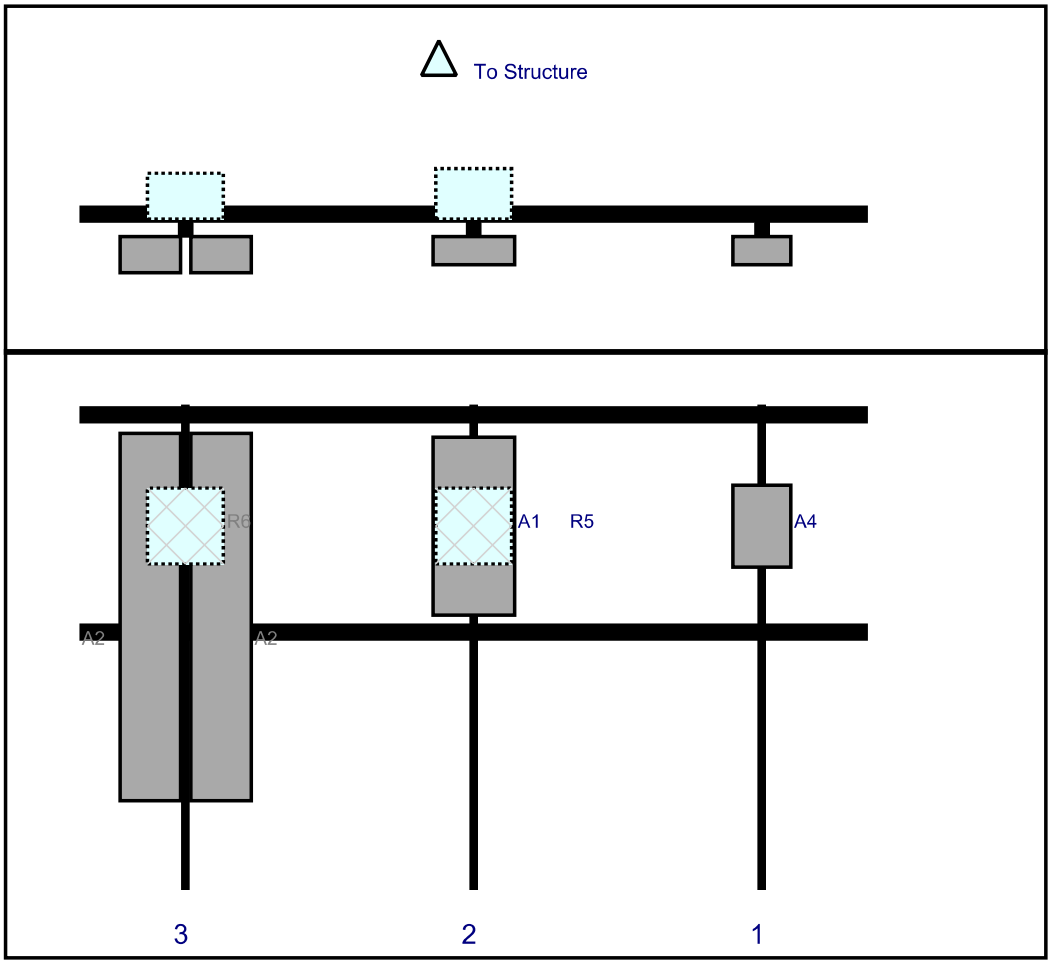
Front View
Looking at Structure



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
A4	CBRS RRH + Clip-on Ant	16.2	11.4	135	1	c	Front	24	0	Added	
A1	MT6407-77A	35.1	16.1	78	2	a	Front	24	0	Added	
R5	RF4439d-25A	15	15	78	2	c	Behind	24	0	Added	
A2	SBNHH-1D65B	72.6	11.9	21	3	a	Front	42	7	Retained	02/12/2021
A2	SBNHH-1D65B	72.6	11.9	21	3	b	Front	42	-7	Retained	02/12/2021
R6	RF4440d-13A	15	15	21	3	c	Behind	24	0	Added	

Plan View

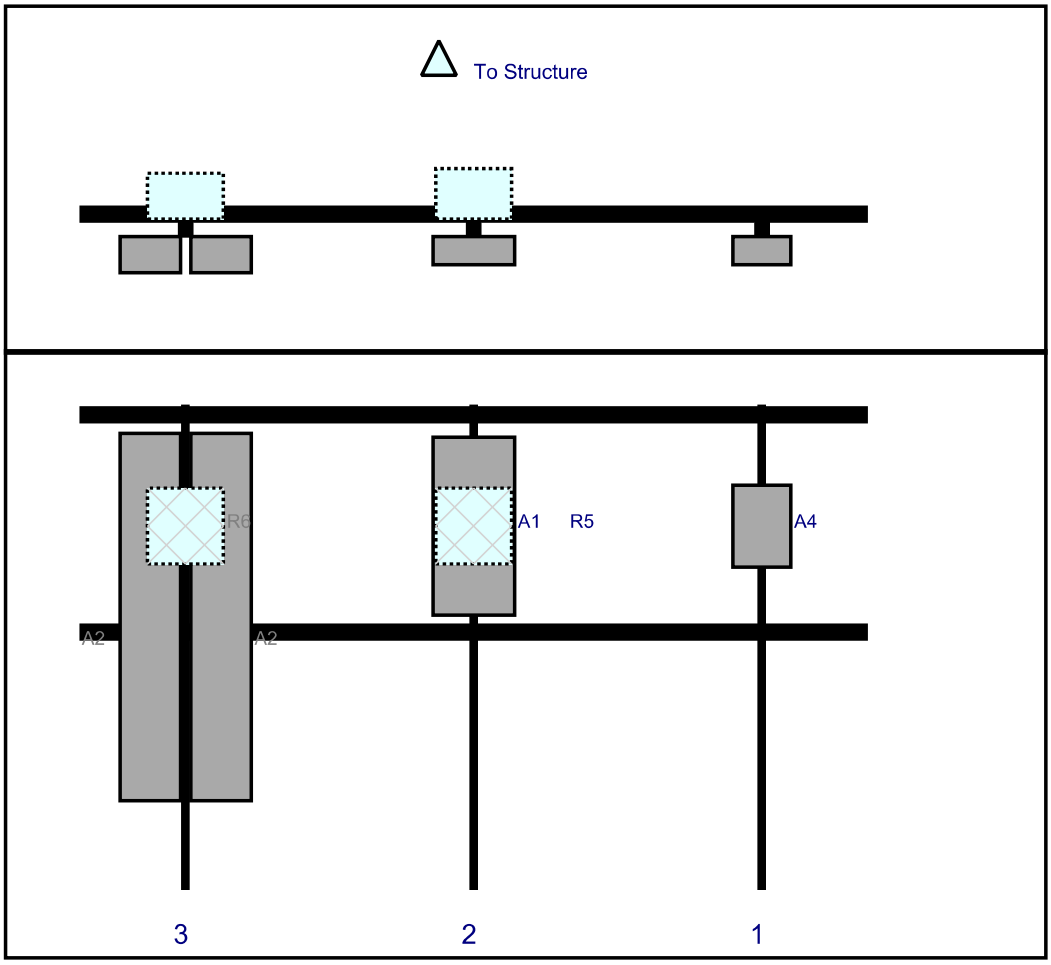
Front View
Looking at Structure



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
A4	CBRS RRH + Clip-on Ant	16.2	11.4	135	1	c	Front	24	0	Added	
A1	MT6407-77A	35.1	16.1	78	2	a	Front	24	0	Added	
R5	RF4439d-25A	15	15	78	2	c	Behind	24	0	Added	
A2	SBNHH-1D65B	72.6	11.9	21	3	a	Front	42	7	Retained	02/12/2021
A2	SBNHH-1D65B	72.6	11.9	21	3	b	Front	42	-7	Retained	02/12/2021
R6	RF4440d-13A	15	15	21	3	c	Behind	24	0	Added	

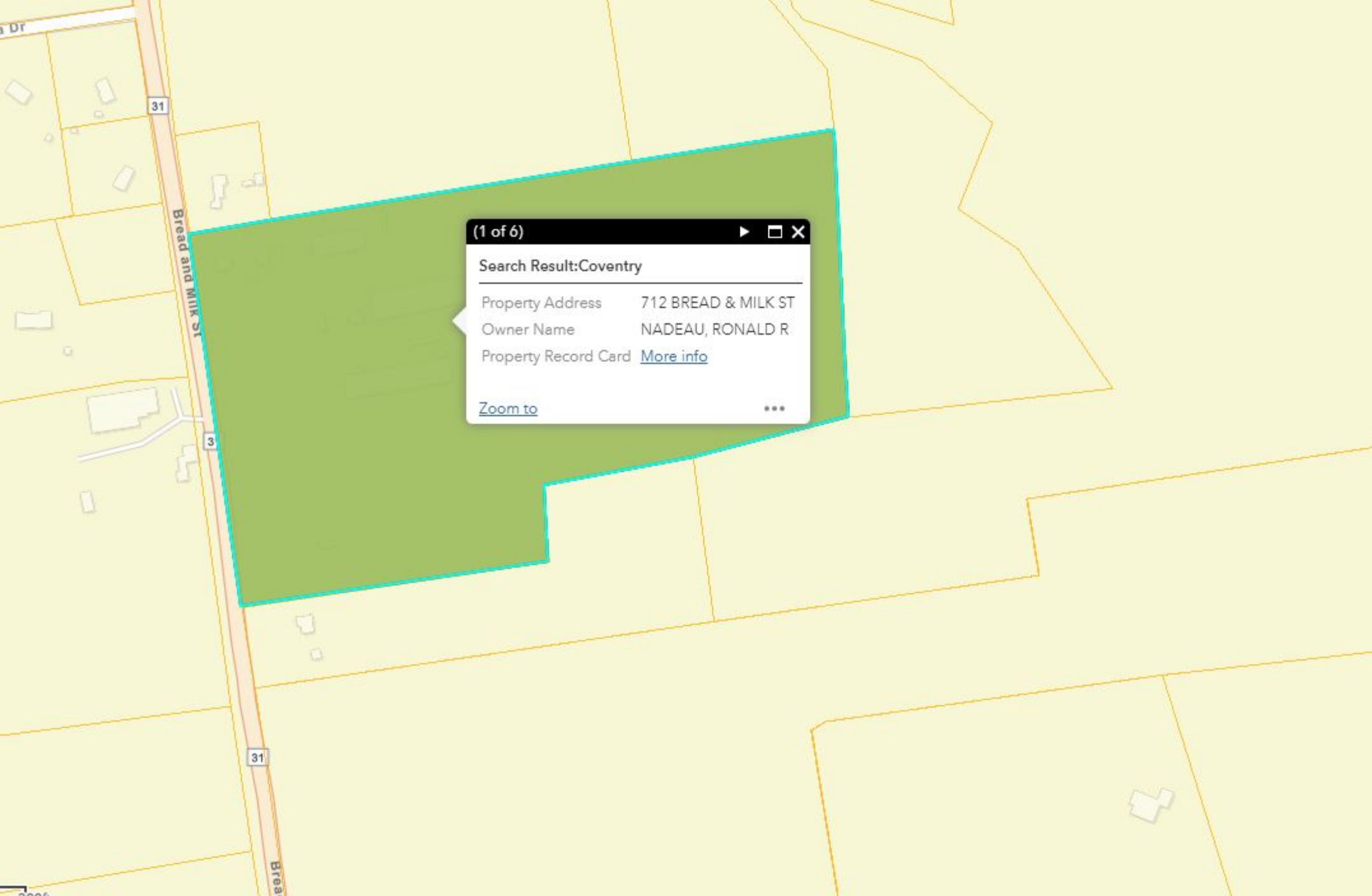
Plan View

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
A4	CBRS RRH + Clip-on Ant	16.2	11.4	135	1	c	Front	24	0	Added	
A1	MT6407-77A	35.1	16.1	78	2	a	Front	24	0	Added	
R5	RF4439d-25A	15	15	78	2	c	Behind	24	0	Added	
A2	SBNHH-1D65B	72.6	11.9	21	3	a	Front	42	7	Retained	02/12/2021
A2	SBNHH-1D65B	72.6	11.9	21	3	b	Front	42	-7	Retained	02/12/2021
R6	RF4440d-13A	15	15	21	3	c	Behind	24	0	Added	

ATTACHMENT 5


(1 of 6)
Search Result:Coventry
Property Address 712 BREAD & MILK ST
Owner Name NADEAU, RONALD R
Property Record Card More info
Zoom to
Bread and Milk St
31
31

Coventry, CT

712 BREAD & MILK ST

Location
712 BREAD & MILK ST
Mblu
10/ / 15/ /
Acct#
R04086
Owner
NADEAU, RONALD R
PBN
Assessment
$1,268,300
Appraisal
$1,836,300
PID
3904
Building Count
6

Current Value

Appraisal

Valuation Year	Improvements	Land	Total
2019	$1,114,600	$721,700	$1,836,300

Assessment

Valuation Year	Improvements	Land	Total
2019	$780,400	$487,900	$1,268,300

Owner of Record

Owner	NADEAU, RONALD R
Co-Owner	
Address	2050 BOSTON TPK COVENTRY, CT 06238
Sale Price	$0
Certificate	
Book & Page	1264/462
Sale Date	10/10/2019
Instrument	79

Ownership History

Ownership History

Owner	Sale Price	Certificate	Book & Page	Instrument	Sale Date
NADEAU, RONALD R	$0		1264/462	79	10/10/2019
NADEAU RONALD R +	$407,500		0968/0121	81	11/02/2005
NADEAU RONALD&RENETTE G TRUSTEE	$0		0876/0158	64	03/15/2004

Building Information

Building 1 : Section 1

Year Built:	1950
Living Area:	24,816
Replacement Cost:	$1,022,221
Building Percent Good:	60
Replacement Cost Less Depreciation:	$613,300

Building Attributes

Field	Description
Style	Office/Warehs
Model	Comm/Ind

ATTACHMENT 6

UNITED STATES POSTAL SERVICE®

COVENTRY

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 10/27/2021 US POSTAGE $002.99 ZIP 06103 041L12203937 OLD STATE HOUSE CT 06103 OCT 27 2021 USPS
	Postmaster, per *(name of receiving employee)*		

USPS® Tracking Number / Firm-specific Identifier	Address (Name, Street, City, State, and ZIP Code™)	Postage	Fee	Special Handling	Parcel Airlift
1.	John Elsesser, Town Manager Town of Coventry 1712 Main Street Bozrah, CT 06238				
2.	Eric Trott, Director of Land Use Town of Coventry 1712 Main Street Bozrah, CT 06238				
3.	Ronald Nadeau 2050 Boston Turnpike Coventry, CT 06238				
4.					
5.					
6.					