Robinson+Cole

KENNETH C. BALDWIN

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Also admitted in Massachusetts
and New York

February 16, 2022

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**
26 Commerce Drive, North Branford, 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 associated equipment on the ground near the base of the tower. The tower was approved by the Siting Council ("Council") in January of 2005 (Docket No. 295). Cellco's shared use of the tower was approved by the Council in July of 2006 (EM-VER-099-060712). A copy of the Council's Docket No. 295 Decision and Order and EM-VER-099-060712 approval are included in Attachment 1.

Cellco now intends to modify its facility by installing three (3) new Samsung MT6407-77A antennas on its existing T-Arm antenna mounts. Cellco also intends to replace nine (9) remote radio heads ("RRHs') with six (6) new RRHs behind its antennas. A set of project plans showing Cellco's proposed facility modifications and the specifications for Cellco's new antennas and RRHs are included in Attachment 2.

Please accept this letter as notification pursuant to R.C.S.A. § 16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b)(2). In accordance with R.C.S.A. § 16-50j-73, a copy of this letter is being sent to North Branford'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 new antennas will be installed on its existing T-Arm antenna mounts.

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

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

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

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

6. According to the attached Structural Analysis ("SA") and Mount Analysis ("MA"), the existing tower, tower foundation and T-Arm 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:
Michael Paulhus, North Branford Town Manager
Eric Knapp, Planning and Zoning Administrator/Town Planner
Artec Properties LLC, Property Owner
Alex Tyurin, Verizon Wireless

ATTACHMENT 1

DOCKET NO. 295 – National Grid Communications, Inc. application for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance and operation of a wireless telecommunications facility in North Branford, Connecticut.	} } }	Connecticut Siting Council January 24, 2005

Decision and Order

Pursuant to the foregoing Findings of Fact and Opinion, the Connecticut Siting Council (Council) finds that the effects associated with the construction, operation, and maintenance of a telecommunications facility including effects on the natural environment; ecological integrity and balance; public health and safety; scenic, historic, and recreational values; forests and parks; air and water purity; and fish and wildlife are not disproportionate either alone or cumulatively with other effects when compared to need, are not in conflict with the policies of the State concerning such effects, and are not sufficient reason to deny the application and therefore directs that a Certificate of Environmental Compatibility and Pubic Need, as provided by General Statutes § 16-50k, be issued to Tower Ventures II, LLC for the construction, maintenance and operation of a wireless telecommunications facility at 26 Commerce Drive, North Branford, Connecticut.

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

1. The tower shall be designed as a monopole and shall be constructed no taller than 155 feet above ground level to provide telecommunications services to both public and private entities.

2. The Certificate Holder shall prepare a Development and Management (D&M) Plan for this site in compliance with Sections 16-50j-75 through 16-50j-77 of the Regulations of Connecticut State Agencies. The D&M Plan shall be served on all parties and intervenors, as listed in the service list, and submitted to and approved by the Council prior to the commencement of facility construction and shall include:

    a. a final site plan(s) of site development to include specifications for the tower, tower foundation, T-bar mounted antennas, equipment building, access road, utility line, and landscaping; and

    b. construction plans for site clearing, water drainage, and erosion and sedimentation control consistent with the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control, as amended.

3. The Certificate Holder shall, prior to the commencement of operation, provide the Council worst-case modeling of electromagnetic radio frequency power density of all proposed entities' antennas at the closest point of uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin No. 65, August 1997. The Certificate Holder shall ensure a recalculated report of electromagnetic radio frequency power density is submitted to the Council in the event other carriers locate at this facility or if circumstances in operation cause a change in power density above the levels calculated and provided pursuant to this Decision and Order.

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

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

6. The Certificate Holder shall provide reasonable space on the tower for no compensation for any municipal antennas, provided such antennas are compatible with the structural integrity of the tower.

7. If the facility does not initially provide wireless services within one year of completion of construction or ceases to provide wireless services for a period of one year, this Decision and Order shall be void, and the Certificate Holder shall dismantle the tower and remove all associated equipment or reapply for any continued or new use to the Council before any such use is made.

8. Any antenna that becomes obsolete and ceases to function shall be removed within 60 days after such antennas become obsolete and cease to function.

9. Unless otherwise approved by the Council, this Decision and Order shall be void if the facility authorized herein is not operational within one year of the effective date of this Decision and Order or within one year after all appeals to this Decision and Order have been resolved. Any request for extensions of the period shall be filed with the Council not later than sixty days prior to expiration date of the Certificate and shall be served on all parties and intervenors, as listed in the service list. Any proposed modifications to this Decision and Order shall likewise be so served.

10. In accordance with Section 16-50j-77 of the Regulations of Connecticut State Agencies, the Certificate Holder shall provide the Council with notice in writing two weeks prior to the commencement of construction activities at the approved site. In

addition, the Certificate Holder shall provide the Council with written notice of the completion of construction.

Pursuant to General Statutes § 16-50p, we hereby direct that a copy of the Findings of Fact, Opinion, and Decision and Order be served on each person listed below, and notice of issuance shall be published in the New Haven Register and the Totoket Times.

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

The parties and intervenors to this proceeding are:

Applicant	**Its Representative**
Tower Ventures II, LLC	Benjamin S. Proto, Jr., Esq. 2090 Cutspring Road Stratford, CT 06614 (203) 378-9595
Intervenor	
Southwestern Bell Mobile Systems, LLC d/b/a Cingular Wireless, LLC	Kenneth I. Spigle, Esq. Tower Ventures II, LLC 170 Westminster Street, Suite 701 Providence, RI 02903
	Its Representative
	Wendell G. Davis Blackwell, Davis & Spadacinni, LLC 158 East Center Street Manchester, CT 06040 (860) 432-0676 (860) 432-2926 fax

July 31, 2006

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

RE: **EM-VER-099-060712** - Cellco Partnership d/b/a Verizon Wireless notice of intent to modify an existing telecommunications facility located at 26 Commerce Drive, North Branford, Connecticut.

Dear Attorney Baldwin:

At a public meeting held on July 27, 2006, the Connecticut Siting Council (Council) acknowledged your notice to modify this existing telecommunications facility, pursuant to Section 16-50j-73 of the Regulations of Connecticut State Agencies.

The proposed modifications are to be implemented as specified here and in your notice dated July 12, 2006, including the placement of all necessary equipment and shelters within the tower compound. The modifications are in compliance with the exception criteria in Section 16-50j-72 (b) of the Regulations of Connecticut State Agencies as changes to an existing facility site that would not increase tower height, extend the boundaries of the tower site, increase noise levels at the tower site boundary by six decibels, and increase the total radio frequencies electromagnetic radiation power density measured at the tower site boundary to or above the standard adopted by the State Department of Environmental Protection pursuant to General Statutes § 22a-162. This facility has also been carefully modeled to ensure that radio frequency emissions are conservatively below State and federal standards applicable to the frequencies now used on this tower.

This decision is under the exclusive jurisdiction of the Council. Please be advised that the validity of this action shall expire one year from the date of this letter. Any additional change to this facility will require explicit notice to this agency pursuant to Regulations of Connecticut State Agencies Section 16-50j-73. Such notice shall include all relevant information regarding the proposed change with cumulative worst-case modeling of radio frequency exposure at the closest point of uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin 65. Any deviation from this format may result in the Council implementing enforcement proceedings pursuant to General Statutes § 16-50u including, without limitation, imposition of expenses resulting from such failure and of civil penalties in an amount not less than one thousand dollars per day for each day of construction or operation in material violation.

Thank you for your attention and cooperation.

Very truly yours,

Colin C. Tait
Chairman

CCT/laf

c: The Honorable Andrew Esposito III, Mayor, Town of North Branford
Karl Kilduff, Town Manager, Town of North Branford
Carol Zeeb, Town Planner, Town of North Branford
Kenneth Ira Spigle, Esq., on behalf of Tower Ventures II, LLC
Christine Farrell, T-Mobile
Michele G. Briggs, New Cingular Wireless PCS, LLC
Christopher B. Fisher, Esq., Cuddy & Feder LLP

ATTACHMENT 2

verizon

SITE NAME: NORTH_BRANFORD_2_CT

26 COMMERCE DRIVE
NORTH BRANFORD, CT 06471-1250
TOWN OF NORTH BRANFORD
NEW HAVEN COUNTY

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

SITE INFORMATION

SITE ADDRESS:	26 COMMERCE DRIVE NORTH BRANFORD, CT 06471-1250
LATITUDE (NAD 83): LONGITUDE (NAD 83):	41°-19'-19.4196"N (41.322061°) 72°-46'-23.7504"W (-72.773264°)
JURISDICTION:	TOWN OF NORTH BRANFORD NEW HAVEN COUNTY
PARCEL NUMBER:	19C 13-5
PROPERTY OWNER:	ARTEC PROPERTIES LLC 26 COMMERCE DRIVE NORTH BRANFORD, CT 06471-1250
TOWER OWNER:	SBA COMMUNICATIONS CORPORATION 8051 CONGRESS AVENUE BOCA RATON, FL 33487-1307
VZW SITE ID:	674994
STRUCTURE TYPE:	MONOPOLE
CONSTRUCTION TYPE:	II B
USE GROUP:	U

CONTRACTOR PMI REQUIREMENTS

PMI ACCESSED AT:	HTTPS://PMI.VZWSMART.COM
SMART TOOL VENDOR PROJECT PROJECT NUMBER:	100765
VERIZON LOCATION CODE (PSLC):	XXX

*** PMI AND REQUIREMENTS ALSO EMBEDDED IN MOUNT ANALYSIS REPORT

HARDWARE UPGRADES REQUIRED

YES

VERIZON APPROVED VENDORS

* REFER TO CONSTRUCTION DRAWINGS.

VICINITY MAP

SCOPE OF WORK

PROJECT CONSISTS OF INSTALLING: (3) PROPOSED ANTENNAS, (3) PROPOSED DUAL ANTENNA MOUNTS, AND (9) PROPOSED RRHs TO AN EXISTING WIRELESS TELECOMMUNICATIONS FACILITY.

PROJECT CONSISTS OF REMOVING: (3) EXISTING ANTENNAS AND (6) EXISTING RRHs FROM AN EXISTING WIRELESS TELECOMMUNICATIONS FACILITY.

CODE COMPLIANCE

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

- 2018 CT STATE BUILDING CODE / (2015 IBC W/ CT AMENDMENTS)
- 2018 CT STATE BUILDING CODE / (2015 IMC W/ CT AMENDMENTS)
- 2018 CT STATE BUILDING CODE / (2017 NEC W/ CT AMENDMENTS)
- NFPA 1-2015 EDITION
- AMERICAN CONCRETE INSTITUTE
- AMERICAN INSTITUTE OF STEEL CONSTRUCTION
- MANUAL OF STEEL CONSTRUCTION 13TH EDITION
- ANSI/TIA-222-G
- TIA 607
- INSTITUTE FOR ELECTRICAL & ELECTRONICS ENGINEER 81
- IEEE C2 NATIONAL ELECTRIC SAFETY CODE LATEST EDITION
- TELECORDIA GR-1275
- ANSI/T 311

DRAWING INDEX

DO NOT SCALE DRAWINGS

THESE DRAWINGS ARE FORMATTED TO BE FULL-SIZE AT 22"X34". CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE DESIGNER / ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR MATERIAL ORDERS OR BE RESPONSIBLE FOR THE SAME. CONTRACTOR SHALL USE BEST MANAGEMENT PRACTICE TO PREVENT STORM WATER POLLUTION DURING CONSTRUCTION.

APPROVAL BLOCK

		APPROVED	APPROVED AS NOTED	DISAPPROVED/ REVISE
CONSTRUCTION MANAGER	DATE	☐	☐	☐
SITE ACQUISITION	DATE	☐	☐	☐
RF ENGINEER	DATE	☐	☐	☐
LESSOR/LESSOR REP	DATE	☐	☐	☐

ENGINEER

NB+C TOTALLY COMMITTED.
NB+C ENGINEERING SERVICES, LLC.
100 APOLLO DRIVE
SUITE 303
CHELMSFORD, MA 01824
(978) 856-8388

APPLICANT

verizon
118 FLANDERS ROAD
FLOOR 3
WESTBOROUGH, MA 01581

SITE INFORMATION

NORTH_BRANFORD_2_CT
26 COMMERCE DRIVE
NORTH BRANFORD, CT 06471
TOWN OF NORTH BRANFORD
NEW HAVEN COUNTY

DESIGN RECORD

REVISIONS

REV	DATE	DESCRIPTION	BY
1	02/10/22	REVISED PER COMMENTS	CSG
0	01/12/22	FINAL CDs	JQ

PROFESSIONAL STAMP

STATE OF CONNECTICUT
DANIEL J. CORNING
34055
LICENSED PROFESSIONAL ENGINEER

ENGINEER

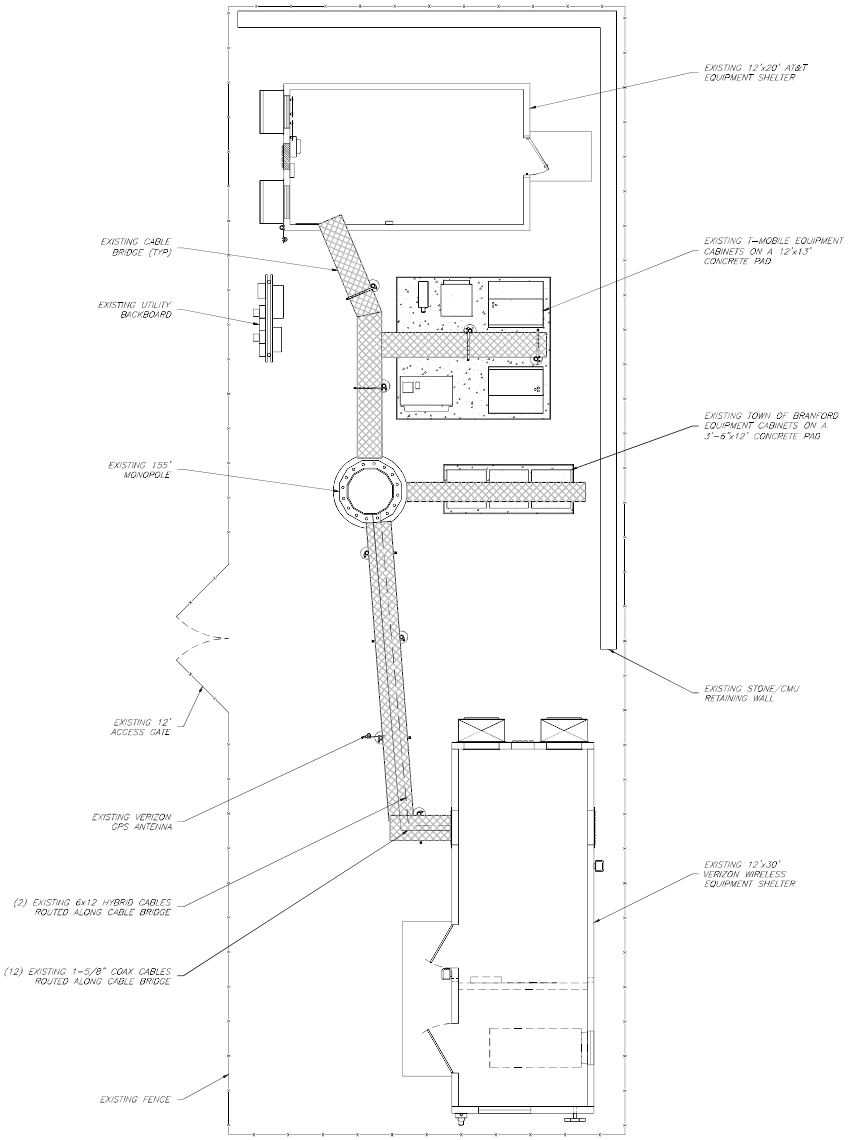
DANIEL J. CORNING, P.E.
CT PROFESSIONAL ENGINEER LIC. #34055

SHEET TITLE

TITLE SHEET

SHEET NUMBER

T-1



1 C-1 COMPOUND PLAN
SCALE: 1" = 5' (22X34)
SCALE: 1" = 10' (11X17)

GENERAL NOTES

1. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE CODES ORDINANCES, LAWS AND REGULATIONS OF ALL MUNICIPALITIES, UTILITIES COMPANY OR OTHER PUBLIC AUTHORITIES.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS THAT MAY BE REQUIRED BY ANY FEDERAL, STATE, COUNTY OR MUNICIPAL AUTHORITIES.
3. THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION MANAGER, IN WRITING, OF ANY CONFLICTS, ERRORS OR OMISSIONS PRIOR TO THE SUBMISSION OF BIDS OR PERFORMANCE OF WORK. MINOR OMISSIONS OR ERRORS IN THE BID DOCUMENTS SHALL NOT RELIEVE THE CONTRACTOR FROM RESPONSIBILITY FOR THE OVERALL INTENT OF THESE DRAWINGS.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING SITE IMPROVEMENTS PRIOR TO COMMENCING CONSTRUCTION. THE CONTRACTOR SHALL REPAIR ANY DAMAGE CAUSED AS A RESULT OF CONSTRUCTION OF THIS FACILITY.
5. THE SCOPE OF WORK FOR THIS PROJECT SHALL INCLUDE PROVIDING ALL MATERIALS, EQUIPMENT AND LABOR REQUIRED TO COMPLETE THIS PROJECT. ALL EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
6. THE CONTRACTOR SHALL VISIT THE PROJECT SITE PRIOR TO SUBMITTING A BID TO VERIFY THAT THE PROJECT CAN BE CONSTRUCTED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
7. ALL STRUCTURAL ELEMENTS SHALL BE HOT DIPPED GALVANIZED STEEL.
8. CONTRACTOR SHALL MAKE A UTILITY "ONE CALL" TO LOCATE ALL UTILITIES PRIOR TO EXCAVATING.
9. IF ANY UNDERGROUND UTILITIES OR STRUCTURES EXIST BENEATH THE PROJECT AREA, CONTRACTOR MUST LOCATE IT AND CONTACT THE APPLICANT & THE OWNER'S REPRESENTATIVE.
10. OCCUPANCY IS LIMITED TO PERIODIC MAINTENANCE AND INSPECTION BY TECHNICIANS APPROXIMATELY 2 TIMES PER MONTH.
11. THIS PLAN IS SUBJECT TO ALL EASEMENTS AND RESTRICTIONS OF RECORD.
12. NO SIGNIFICANT NOISE, SMOKE, DUST, OR ODOR WILL RESULT FROM THIS FACILITY.
13. THE FACILITY IS UNMANNED AND NOT INTENDED FOR HUMAN HABITATION (NO HANDICAP ACCESS REQUIRED).
14. THE FACILITY IS UNMANNED AND DOES NOT REQUIRE POTABLE WATER OR SANITARY SERVICE.

GRAPHIC SCALE
5 0 2.5 5 10 20
1 INCH = 5 FEET (22X34)
1 INCH = 10 FEET (11X17)

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100 APOLLO DRIVE
SUITE 303
LYNNFIELD, MA 01940
(978) 355-8308

APPLICANT

verizon
118 FLANDERS ROAD
FLOOR 3
WESTBOROUGH, MA 01581

SITE INFORMATION

NORTH_BRANFORD_2_CT
26 COMMERCE DRIVE
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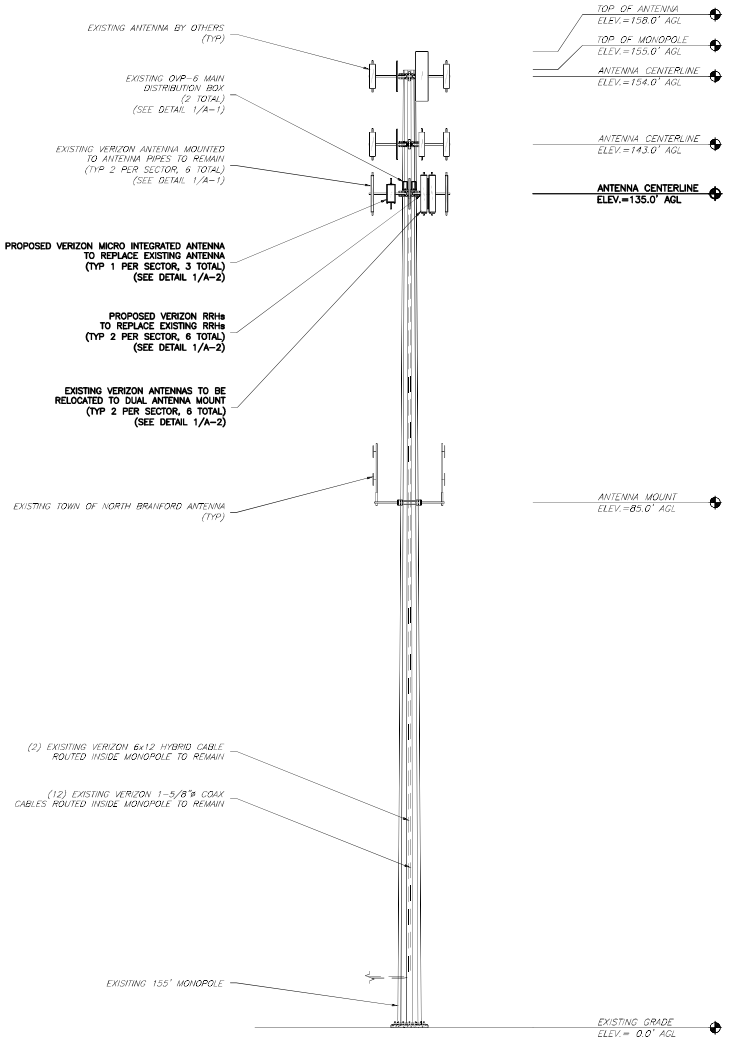
SHEET TITLE

COMPOUND PLAN

SHEET NUMBER

C-1



1 C-2 ELEVATION
SCALE: 1" = 10' (22X34)
SCALE: 1" = 20' (11X17)

NOTE:
POST-MODIFICATION INSPECTION (PMI) REQUIRED ON ALL SITES. REFER TO THE MOUNT ANALYSIS PREPARED BY MASER CONSULTING DATED 11/17/2021 FOR ADDITIONAL DETAILS.

NOTE:
HARDWARE UPGRADES OF THE EXISTING MOUNT ARE REQUIRED BEFORE ANY INSTALL CAN OCCUR, PLEASE REFER TO THE MOUNT ANALYSIS REPORT PROVIDED BY MASER CONSULTING DATED, 11/17/2021.

GRAPHIC SCALE
10 0 5 10 20 40
1 INCH = 10 FEET (22X34)
1 INCH = 20 FEET (11X17)

ENGINEER

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NB+C ENGINEERING SERVICES, LLC.
100 APOLLO DRIVE
SUITE 303
LYNNFIELD, MA 01924
(978) 355-8308

APPLICANT

verizon
118 FLANDERS ROAD
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WESTBOROUGH, MA 01581

SITE INFORMATION

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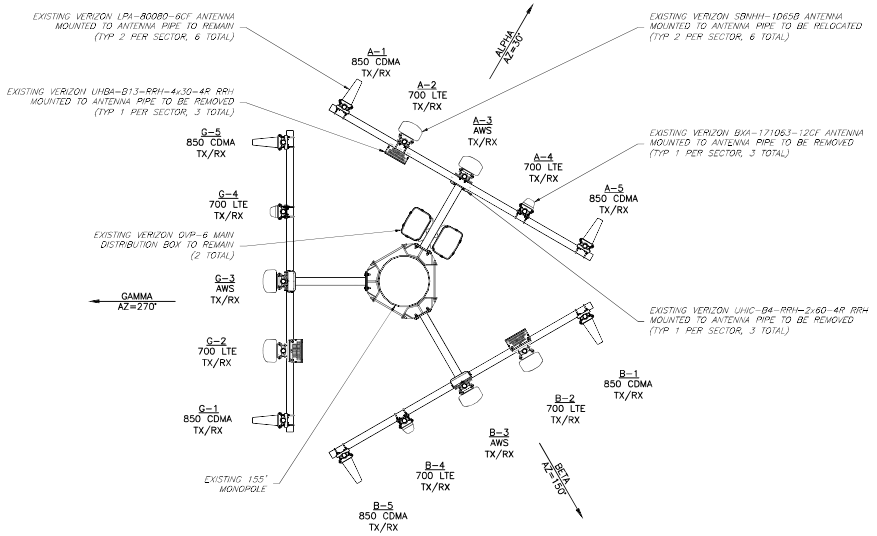
SHEET TITLE

ELEVATION

SHEET NUMBER

C-2



1 / A-1 EXISTING ANTENNA ORIENTATION PLAN
NTS

APPROX TRUE NORTH

EXISTING ANTENNA & RRH SCHEDULE

ANTENNA POSITION	ANTENNA MANUFACTURER	ANTENNA MODEL	RAD CENTER	AZIMUTH	DOWN TILT		RRH QUANTITY & MODEL	TECHNOLOGY	CABLE SIZE, LENGTH & QUANTITY
					MECH	ELEC			
A-1	ANTEL	LPA-80080-6CF	135.00'	30°	0°	2°	–	–	(4) 1-5/8"ø COAX (180'±) (2) 6x12 HYBRID CABLE (180'±)
A-2	ANDREW	SBNHH-1D65B	135.00'	30°	0°	0°	(1) B13-RRH-4x30-4R	700 LTE	
A-3	ANDREW	SBNHH-1D65B	135.00'	30°	0°	2°	(1) B4-RRH-2x60-4R	AWS (2100 MHz)	
A-4	ANTEL	BXA-171063-12CF	135.00'	30°	0°	0°	–	–	
A-5	ANTEL	LPA-80080-6CF	135.00'	30°	0°	2°	–	–	
B-1	ANTEL	LPA-80080-6CF	135.00'	150°	0°	4°	–	–	(4) 1-5/8"ø COAX (180'±) SHARED THROUGH HYBRID CABLE
B-2	ANDREW	SBNHH-1D65B	135.00'	150°	0°	2°	(1) B13-RRH-4x30-4R	700 LTE	
B-3	ANDREW	SBNHH-1D65B	135.00'	150°	0°	2°	(1) B4-RRH-2x60-4R	AWS (2100 MHz)	
B-4	ANTEL	BXA-171063-12CF	135.00'	150°	0°	0°	–	–	
B-5	ANTEL	LPA-80080-6CF	135.00'	150°	0°	4°	–	–	
G-1	ANTEL	LPA-80080-6CF	135.00'	270°	0°	2°	–	–	(4) 1-5/8"ø COAX (180'±) SHARED THROUGH HYBRID CABLE
G-2	ANDREW	SBNHH-1D65B	135.00'	270°	0°	2°	(1) B13-RRH-4x30-4R	700 LTE	
G-3	ANDREW	SBNHH-1D65B	135.00'	270°	0°	0°	(1) B4-RRH-2x60-4R	AWS (2100 MHz)	
G-4	ANTEL	BXA-171063-12CF	135.00'	270°	0°	0°	–	–	
G-5	ANTEL	LPA-80080-6CF	135.00'	270°	0°	2°	–	–	

NOTES:
1. PLANS PREPARED PER RF SHEET DATED 07/21/2021. CONTRACTOR TO VERIFY PROPOSED ANTENNA INFORMATION IS THE MOST CURRENT DATA AT TIME OF CONSTRUCTION.
2. CONTRACTOR TO CONFIRM CABLE LENGTHS PRIOR TO CONSTRUCTION.

ENGINEER

NB+C TOTALLY COMMITTED.
NB+C ENGINEERING SERVICES, LLC.
100 APOLLO DRIVE
SUITE 303
LAKELAND, MN 55124
(978) 856-8388

APPLICANT

verizon
118 FLANDERS ROAD
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WESTBOROUGH, MA 01581

SITE INFORMATION

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ENGINEER

DANIEL J. CORNING, P.E.
CT PROFESSIONAL ENGINEER LIC. #34055

SHEET TITLE

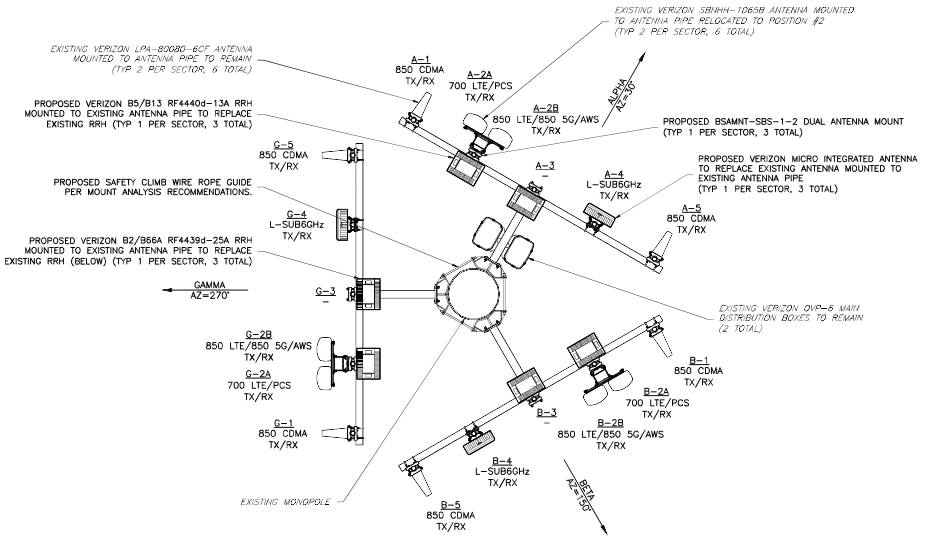
EXISTING ANTENNA PLAN & SCHEDULE

SHEET NUMBER

A-1

GENERAL ANTENNA NOTES

1. ALL ANTENNAS TO BE FURNISHED WITH DOWNTILT BRACKETS. CONTRACTOR TO COORDINATE REQUIRED MECHANICAL DOWNTILT FOR EACH ANTENNA WITH RF ENGINEER.
2. ANTENNA CENTERLINE HEIGHT IS IN REFERENCE TO ELEVATION 0.0'.
3. CHECK WITH RF ENGINEER FOR LATEST ANTENNA TYPE & AZIMUTH.
4. CONTRACTOR SHALL VERIFY ANTENNA TYPE AND AZIMUTH WITH CONSTRUCTION MANAGER PRIOR TO CONSTRUCTION.
5. ALL CABLE LENGTHS ARE ESTIMATED AND SHALL BE FIELD VERIFIED BY THE CONTRACTOR.
6. COLOR TAPE MARKINGS MUST BE 3/4" WIDE AND UV RESISTANT, SUCH AS SCOTCH 35 VINYL ELECTRICAL COLOR CODING TAPE.
7. CONTRACTOR SHALL COORDINATE COLOR CODINGS IN THE FIELD WITH VERIZON REPRESENTATIVE.
8. A STRUCTURAL ANALYSIS REPORT HAS BEEN ISSUED BY SBA COMMUNICATIONS CORPORATION DATED 12/14/2021 TO CERTIFY THAT THE EXISTING/PROPOSED COMMUNICATION STRUCTURE AND COMPONENTS ARE STRUCTURALLY ADEQUATE TO SUPPORT ALL EXISTING AND PROPOSED ANTENNAS, COAXIAL CABLES AND OTHER APPURTENANCES.



1 / A-2 PROPOSED ANTENNA ORIENTATION PLAN
NTS

NOTE:
POST-MODIFICATION INSPECTION (PMI) REQUIRED ON ALL SITES. REFER TO THE MOUNT ANALYSIS PREPARED BY MASER CONSULTING DATED 11/17/2021 FOR ADDITIONAL DETAILS.

NOTE:
HARDWARE UPGRADES OF THE EXISTING MOUNT ARE REQUIRED BEFORE ANY INSTALL CAN OCCUR, PLEASE REFER TO THE MOUNT ANALYSIS REPORT PROVIDED BY MASER CONSULTING DATED, 11/17/2021.

PROPOSED ANTENNA & RRH SCHEDULE

ANTENNA POSITION	ANTENNA MANUFACTURER	ANTENNA MODEL	RAD CENTER	AZIMUTH	DOWN TILT		RRH QUANTITY & MODEL	TECHNOLOGY	CABLE SIZE & QUANTITY
					MECH	ELEC			
A-1	ANTEL	LPA-80080-6CF	135.00'	30°	0°	2°	–	850 CDMA	(4) 1-5/8"ø COAX (180'±) (2) 6x12 HYBRID CABLE (180'±)
A-2a	ANDREW	SBNHH-1D65B	135.00'	30°	0°	0°/2°	(1) B5/B13 RF4440D-13A (1) B2/B66A RF4439D-25A	700/850 PCS/AWS	
A-2b	ANDREW	SBNHH-1D65B	135.00'	30°	0°	0°/2°			
A-3	EMPTY	–	–	–	–	–	–	–	
A-4	SAMSUNG	MT6407-77A	135.00'	30°	0°	6°	INTEGRATED IN ANTENNA	nL-Sub6	
A-5	ANTEL	LPA-80080-6CF	135.00'	30°	0°	2°	–	850 CDMA	
B-1	ANTEL	LPA-80080-6CF	135.00'	150°	0°	4°	–	850 CDMA	(4) 1-5/8"ø COAX (180'±) SHARED THROUGH HYBRID CABLE
B-2a	ANDREW	SBNHH-1D65B	135.00'	150°	0°	2°/2°	(1) B5/B13 RF4440D-13A (1) B2/B66A RF4439D-25A	700/850 PCS/AWS	
B-2b	ANDREW	SBNHH-1D65B	135.00'	150°	0°	2°/2°			
B-3	EMPTY	–	–	–	–	–	–	–	
B-4	SAMSUNG	MT6407-77A	135.00'	150°	0°	6°	INTEGRATED IN ANTENNA	nL-Sub6	
B-5	ANTEL	LPA-80080-6CF	135.00'	150°	0°	4°	–	850 CDMA	
G-1	ANTEL	LPA-80080-6CF	135.00'	270°	0°	2°	–	850 CDMA	(4) 1-5/8"ø COAX (180'±) SHARED THROUGH HYBRID CABLE
G-2a	ANDREW	SBNHH-1D65B	135.00'	270°	0°	2°/0°	(1) B5/B13 RF4440D-13A (1) B2/B66A RF4439D-25A	700/850 PCS/AWS	
G-2b	ANDREW	SBNHH-1D65B	135.00'	270°	0°	2°/0°			
G-3	EMPTY	–	–	–	–	–	–	–	
G-4	SAMSUNG	MT6407-77A	135.00'	270°	0°	6°	INTEGRATED IN ANTENNA	nL-Sub6	
G-5	ANTEL	LPA-80080-6CF	135.00'	270°	0°	2°	–	850 CDMA	

NOTES:
1. CONTRACTOR TO VERIFY PROPOSED ANTENNA INFORMATION IS THE MOST CURRENT DATA AT TIME OF CONSTRUCTION.
2. CONTRACTOR TO CONFIRM CABLE LENGTHS PRIOR TO CONSTRUCTION.
3. CONTRACTOR IS RESPONSIBLE TO BUILD FROM THE LATEST RF SHEET.

ENGINEER

NB+C TOTALLY COMMITTED.
NB+C ENGINEERING SERVICES, LLC.
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(978) 355-8308

APPLICANT

verizon
118 FLANDERS ROAD
FLOOR 3
WESTBOROUGH, MA 01581

SITE INFORMATION

NORTH_BRANFORD_2_CT
26 COMMERCE DRIVE
NORTH BRANFORD, CT 06471
TOWN OF NORTH BRANFORD
NEW HAVEN COUNTY

DESIGN RECORD

REVISIONS

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1	02/10/22	REVISED PER COMMENTS	CSG
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PROFESSIONAL STAMP

STATE OF CONNECTICUT
DANIEL J. CORNING
34055
LICENSED PROFESSIONAL ENGINEER

ENGINEER

DANIEL J. CORNING, P.E.
CT PROFESSIONAL ENGINEER LIC. #34055

SHEET TITLE

PROPOSED ANTENNA PLAN & SCHEDULE

SHEET NUMBER

A-2

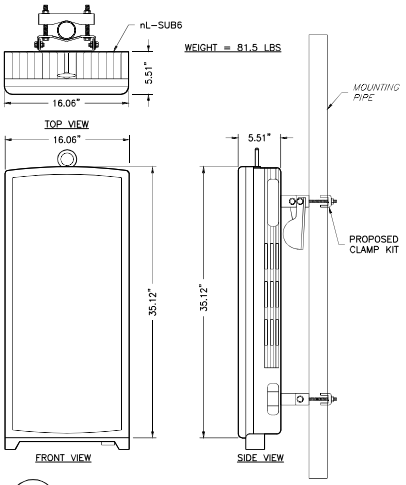
EXISTING ANTENNA SPECIFICATIONS

ANTENNA MANUFACTURER	ANTENNA MODEL	QUANTITY	HEIGHT	WIDTH	DEPTH	WEIGHT
ANTEL	LPA-80080-6CF-EDIN-2	4	70.9"	5.5"	13.2"	21.0 LBS
ANTEL	LPA-80080-6CF-EDIN-4	2	70.9"	5.5"	13.2"	21.0 LBS
ANDREW	SBNHH-1065B	6	72.9"	11.9"	7.1"	40.6 LBS
ANTEL	*BXA-171063-12CF	3	72.4"	8.1"	4.1"	12.8 LBS

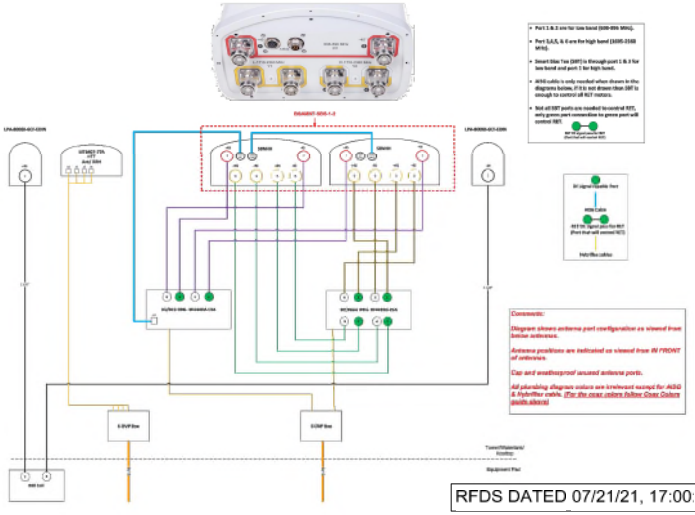
* TO BE REMOVED

PROPOSED ANTENNA SPECIFICATIONS

ANTENNA MANUFACTURER	ANTENNA MODEL	QUANTITY	HEIGHT	WIDTH	DEPTH	WEIGHT
SAMSUNG	MT6407-77A	3	35.12"	16.06"	5.51"	81.5 LBS



1 A-3 MT6407-77A INTEGRATED ANTENNA
NTS



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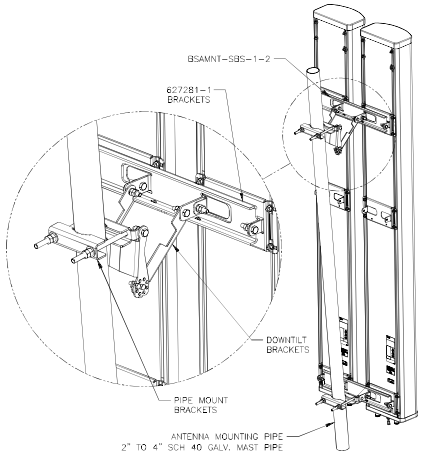

NOTES:

- BSAMNT-SBS-1-2 KIT CONTAINS (2) 627281 MOUNTING BRACKETS.
- TORQUE THE M10 BOLT ASSEMBLY TO 37 N.m. PER MANUFACTURE'S RECOMMENDATIONS.

2 A-3 COMMSCOPE DUAL ANTENNA MOUNT
NTS

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SHEET TITLE

ANTENNA DETAILS & PLUMBING DIAGRAM

SHEET NUMBER

A-3

EXISTING RRH EQUIPMENT SPECIFICATIONS

MANUFACTURER	MODEL #	LOCATION	QUANTITY	HEIGHT	WIDTH	DEPTH	WEIGHT
NOKIA	* UHBA B13 RRH 4x30	MONOPOLE	3	21.60"	12"	9.0"	56.7 LBS
NOKIA	* UHIC B4 RRH 2x60-4R	MONOPOLE	3	24.4"	10.6"	6.7"	44.0 LBS

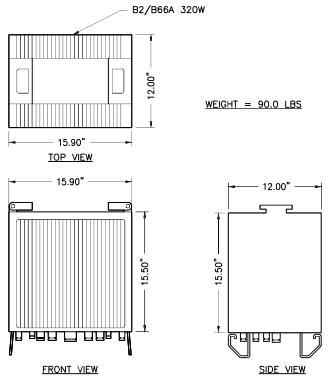
* TO BE REMOVED

PROPOSED RRH EQUIPMENT SPECIFICATIONS

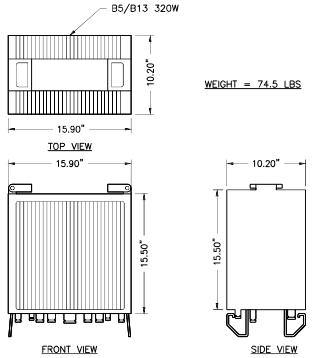
MANUFACTURER	MODEL #	LOCATION	QUANTITY	HEIGHT	WIDTH	DEPTH	WEIGHT
SAMSUNG	RF4440d-13A	MONOPOLE	3	15.50"	15.90"	10.20"	74.5 LBS
SAMSUNG	RF4439d-25A	MONOPOLE	3	15.50"	15.90"	12.00"	90.0 LBS

EXISTING DISTRIBUTION EQUIPMENT SPECIFICATIONS

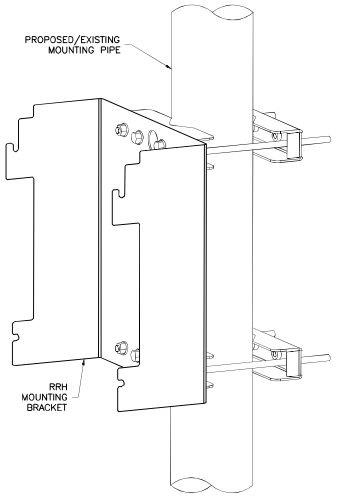
MANUFACUTRER	MODEL #	LOCATION	QUANTITY	HEIGHT	WIDTH	DEPTH	WEIGHT
RAYCAP	RC3DC-3315-PF-48 (OVP6)	MONOPOLE	2	28.93"	15.73"	10.3"	32.0 LBS



1 A-4 B2/B66A RF4439D-25A (REMOTE RADIO HEAD)
NTS



2 A-4 B5/B13 RF4440D-13A (REMOTE RADIO HEAD)
NTS



3 A-4 RRH MOUNTING DETAIL
NTS

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CT PROFESSIONAL ENGINEER LIC. #34055

SHEET TITLE

EQUIPMENT SPECIFICATIONS & DETAILS

SHEET NUMBER

A-4

VERIZON WIRELESS CONTRACTOR SCOPE OF WORK

- VERIZON WIRELESS CONTRACTOR IS TO SUPPLY AND INSTALL THE PROPOSED CABLE JUMPER (WITH LC TO LC CONNECTORS) FROM THE PROPOSED FIBER TRAYS TO THE PROPOSED MAIN DISTRIBUTION BOX (BOTTOM).
- VERIZON WIRELESS CONTRACTOR IS TO SUPPLY AND INSTALL ALL MOUNTING HARDWARE AND 1/2" ANTENNA JUMPER CABLES AS REQUIRED DURING CONSTRUCTION.
- VERIZON WIRELESS CONTRACTOR IS TO INSTALL (9) RUNS OF HELIAX 1x1 HYBRID CABLE FROM THE EXISTING MAIN DISTRIBUTION BOXES TO THE REMOTE RADIO HEAD UNITS.
- VERIZON WIRELESS CONTRACTOR IS TO GROUND ALL REMOTE RADIO HEAD UNITS (RRH) TO THE EXISTING GROUND BARS AS REQUIRED DURING CONSTRUCTION.
- VERIZON WIRELESS CONTRACTOR IS TO GROUND ALL PROPOSED ANTENNAS TO THE EXISTING GROUND BARS AS REQUIRED DURING CONSTRUCTION.
- VERIZON WIRELESS CONTRACTOR IS TO COMPLETE THE INSTALLATION OF THE PROPOSED ANTENNAS.
- VERIZON WIRELESS CONTRACTOR IS TO PERFORM THE FOLLOWING OPTICAL SWEEP TESTS; OTDR AND OPTICAL LOSS. RECOMMENDED UNITS – ANRITSU MT9090, JDSU, EXFO FTB-1/FTB-720 OTDR.
- VERIZON WIRELESS CONTRACTOR IS TO PERFORM THE FOLLOWING ANTENNA SYSTEM SWEEP TESTS: SYSTEM VZWR / dB RL.
- VERIZON WIRELESS CONTRACTOR IS TO PROVIDE ALL CLOSE OUT DOCUMENTS AS REQUIRED BY VERIZON WIRELESS.

INTEGRATED ANTENNA

- MT6407-77A 1x1 HYBRID CABLE MUST BE CONNECTED TO OPT1 PORT AND (2 OR 3) EXTRA FIBER CABLE TO THE SECONDARY OPT2 PORT.

MOP FOR RET INSTALLS

ANTENNA CREW

1. REVIEW ANTENNA SCHEDULE WITH CELL TECH
2. FOR EACH SECTOR, LAY ANTENNAS OUT ON THE GROUND AS THEY WILL BE INSTALLED ACCORDING TO THE ANTENNA SCHEDULE
3. LABELED EACH ANTENNA WITH FACE AND POSITION WITH A SHARPIE (EX:"ALPHA-4")
4. LABEL ALL MOTORS WITH SHARPIE WITH BAND AND TECHNOLOGY (EX:"700LTE", "AWSLTE","PCSLTE","850VOICE", ETC)
5. CONNECT ALL AISG CABLES (INCLUDING JUMPERS THAT WILL BE USED IN FINAL ASSEMBLY) PER THE ANTENNA SCHEDULE
   A. WHEN DAISY CHAINING IS INEVITABLE, AS A GENERAL RULE...
      I. KEEP LOW AND HIGH BANDS ON SEPARATE AISG CHAINS AS MUCH AS POSSIBLE
      II. MINIMIZE AMOUNT OF MOTORS PER CHAIN AS MUCH AS POSSIBLE (MAX IS 6)
   B. WHEN COMPLETED ALL RET MOTOR PORTS NEED TO BE CONNECTED, INCLUDING THE MOTORS NOT BEING USED YET. THE ONLY UNUSED PORT WILL BE THE LAST IN THE DAISY CHAIN, WHICH NEEDS TO BE CAPPED AND WEATHERPROOFED.
6. ON LAPTOP, FILL OUT THE SOFTCOPY OF THE RET DEPLOYMENT FORM AND SAVE IT, REPLACING THE "######" WITH THE 6-DIGIT ENB NUMBER IN THE FILENAME (EX: RET DEPLOYMENT FORM_0981234.XLSX")
7. GIVE A SOFTCOPY OF THE RET DEPLOYMENT FORM TO VZW CELL TECH AND GC/CONSULTANT (EITHER BY EMAIL OR USB STICK)
8. USING THE SAME LAPTOP WHICH HAS THE RET DEPLOYMENT FORM OPENED, CONNECT THE CONTROL MODULE AND PROVISION EACH MOTOR RESPECTIVELY
   NOTE: CREWS MUST USE SOFTWARE THAT IS SPECIFIC TO THE MOTOR TYPE BEING PROVISIONED (IE- JMA SOFTWARE SHOULD ONLY BE SUED FOR JMA MOTORS)
   A. COPY AND PASTE "RET FRIENDLY NAME" FROM SPREADSHEET (COLUMN A) TO THE "SECTOR ID" FIELD OF EACH MOTOR
   B. POPULATE "SET RET TILT"
   C. POPULATE "MECHANICAL TILT"
9. CALIBRATE ALL MOTORS
10. DISCONNECT NECESSARY AISG JUMPERS TO TRANSPORT ANTENNAS SAFELY TO ASSEMBLY
11. INSTALL ANTENNAS ACCORDING TO THE ANTENNA SCHEDULE, USING THE SHARPIE LABELS AS REFERENCE
12. RECONNECT ALL AISG JUMPERS
13. BEFORE PLUGGING INTO EACH RRH, CONNECT MAIN AISG CABLE INTO CONTROLLER TO ENSURE ALL MOTORS ARE STILL SEEN IN THE DAISY CHAIN
14. PLUG AISG INTO RRH AND NOTIFY VZW TECH OF COMPLETION

VZW TECH (USER HELP GUIDE: \\WIN-VZWNET\NORTHEAST\PAPM_IMPLEMENTATION\SYSTEM PERFORMANCE\USERS\MOSERGA\RET\)

15. POWER ON RADIO EQUIPMENT AND RUN ANY NECESSARY WOS
16. "DISCOVER" THE RETS
    A. LOG INTO SAM
       I. VERIFY RET LICENSE ALLOCATION IN SAM
          • ENBEQUIPMENT>ENB>ACTIVATIONSERVICE>ISAISGALLOWED=CHECKED
    B. LOG INTO NEM LOCAL
       I. GO TO TREE VIEW AND HIGHLIGHT RET SUBUNIT
       II. ENABLE BUS SCAN
          • CONFIGURATION> ENABLE AISG BUS SCAN
       III. ALLOCATE CONFIG RIGHTS
          • CONFIGURATION>ALLOCATION CONFIGURATION RIGHTS
       IV. VERIFY CORRECT NUMBER OF RETS ARE DISCOVERED
17. "COMMISSION" THE RETS
    A. LOG INTO NEM LOCAL
       I. STILL IN TREE VIEW, RIGHT CLICK ON "HW MODULES"
       II. SELECT "CREATE RET MO"
       II. RELEASE CONFIG RIGHTS
          • CONFIGURATION>RELEASE CONFIGURATION RIGHTS
       IV. VERIFY RETSUBUNIT:SECTORNAME, ELECTRICAL TILT, AND MECHANICAL TILT ARE POPULATED
18. "PROVISION" THE RETS
    A. LOG INTO SAM
       I. OPEN UP THE ENB PROPERTIES AND COMPLETE A FULL RESYNC
       II. IN THE SEARCH TEXTBOX, SEARCH FOR "RETSUBUNIT"
       III. VERIFY ALL RETS ARE ACCOUNTED FOR AND "RETSUBUNIT:SECTORNAME", "ANTENNAELECTICALTILT", AND "RETSUBUNIT:MECHANICALTILT " ARE ACCURATE

ENGINEER

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PROFESSIONAL STAMP

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DANIEL J. CORNING
34055
LICENSED
PROFESSIONAL ENGINEER

ENGINEER

DANIEL J. CORNING, P.E.
CT PROFESSIONAL ENGINEER LIC. #34055

SHEET TITLE

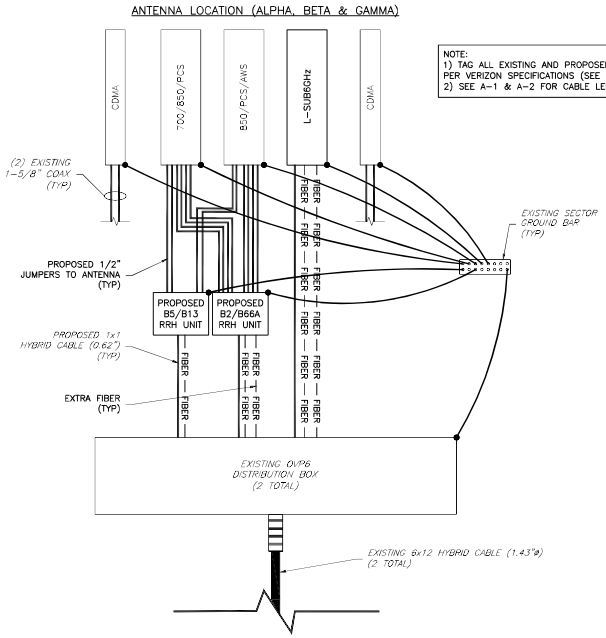
SCOPE OF WORK

SHEET NUMBER

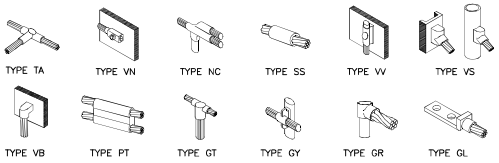
A-5

GROUNDING NOTES

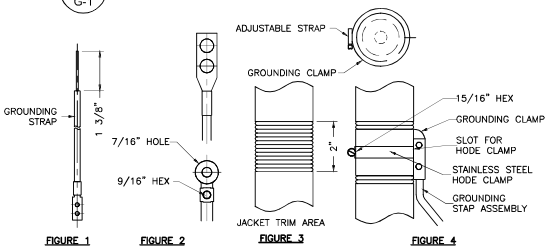
1. GROUNDING SHALL COMPLY WITH ARTICLE 250 OF THE NATIONAL ELECTRICAL CODE.
2. ALL GROUNDING DEVICES SHALL BE U.L. APPROVED OR LISTED FOR THEIR INTENDED USE.
3. ALL WIRES SHALL BE AWG THHN/THWN COPPER UNLESS NOTED OTHERWISE.
4. GROUNDING CONNECTIONS TO GROUND RODS, GROUND RING WIRE, TOWER BASE AND FENCE POSTS SHALL BE EXOTHERMIC ("CADWELDS") UNLESS NOTED OTHERWISE. CLEAN SURFACES TO SHINY METAL. WHERE GROUND WIRES ARE CADWELDED TO GALVANIZED SURFACES, SPRAY CADWELD WITH GALVANIZING PAINT.
5. GROUNDING CONNECTIONS TO GROUND BARS ARE TO BE TWO-HOLE BRASS MECHANICAL CONNECTORS WITH STAINLESS STEEL HARDWARE (INCLUDING SCREW SET) CLEAN GROUND BAR TO SHINY METAL. AFTER MECHANICAL CONNECTION, TREAT WITH PROTECTIVE ANTIOXIDANT COATING.
6. GROUND COAXIAL CABLE SHIELDS AT BOTH ENDS WITH MANUFACTURER'S GROUNDING KITS.
7. ROUTE GROUNDING CONDUCTORS THE SHORTEST AND STRAIGHTEST PATH POSSIBLE. BEND GROUNDING LEADS WITH A MINIMUM 12" RADIUS.
8. INSTALL #2 AWG GREEN-INSULATED STRANDED WIRE FOR ABOVE GRADE GROUNDING AND #2 BARE TINNED COPPER WIRE FOR BELOW GRADE GROUNDING UNLESS OTHERWISE NOTED.
9. REFER TO GROUNDING PLAN FOR GROUND BAR LOCATIONS. GROUNDING CONNECTIONS SHALL BE EXOTHERMIC TYPE ("CADWELDS") TO ANTENNA MOUNTS AND GROUND RING. REMAINING GROUNDING CONNECTIONS SHALL BE COMPRESSION FITTINGS. CONNECTIONS TO GROUND BARS SHALL BE MADE WITH TWO-HOLE LUGS.
10. ALL GROUND LEADS EXCEPT THOSE TO THE EQUIPMENT ARE TO BE #2 BARE TINNED COPPER WIRE. ALL EXTERIOR GROUND BARS TINNED COPPER.
11. PRIOR TO INSTALLING LUGS ON GROUND WIRES, APPLY THOMAS & BETTS KOPR-SHIELD (TM OF JET LUBE INC.). PRIOR TO BOLTING GROUND WIRE LUGS TO GROUND BARS, APPLY KOPR-SHIELD OR EQUAL.
12. PREPARE ALL BONDING SURFACES FOR GROUNDING CONNECTIONS BY REMOVING ALL PAINT AND CORROSION DOWN TO SHINY METAL. FOLLOWING CONNECTION, APPLY APPROPRIATE ANTI-OXIDIZATION PAINT.

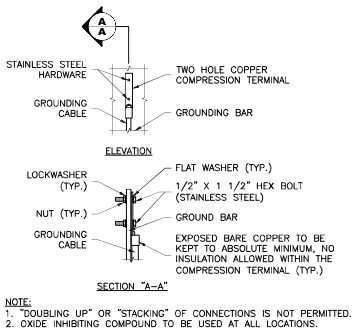


1 G-1 GROUNDING RISER DIAGRAM
NTS



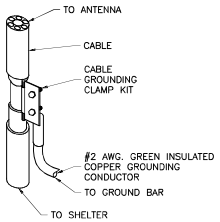
2 G-1 CADWELD GROUNDING CONNECTION DETAILS
NTS



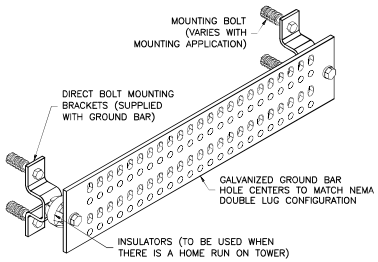


NOTE:
1. "DOUBLING UP" OR "STACKING" OF CONNECTIONS IS NOT PERMITTED.
2. OXIDE INHIBITING COMPOUND TO BE USED AT ALL LOCATIONS.

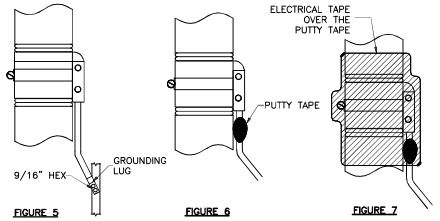
3 G-1 GROUND BAR CONNECTION DETAIL
NTS



4 G-1 CABLE GROUNDING DETAIL
NTS



5 G-1 GROUND BAR DETAIL
NTS



6 G-1 GROUNDING STRAP WEATHERPROOFING DETAIL
NTS

ENGINEER

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SHEET TITLE

GROUNDING DETAILS & NOTES

SHEET NUMBER

G-1

POST-MODIFICATION INSPECTION (PMI) REQUIREMENT

1. PMI REQUIRED FOR ALL SITES, REFER TO VERIZON NSTD-446 SECTIONS 1.5 AND 2.3 FOR MORE INFORMATION.

2. REFER TO THE MOUNT ANALYSIS BY MASER CONSULTING DATED 11/17/2021 FOR ADDITIONAL DETAILS.

3. GENERAL CONTRACTOR SHALL PROVIDE THE BELOW DOCUMENTATION TO THE ENGINEER OF RECORD VIA EMAIL TO VZWMOUNTS@NBCLLC.COM, DROPBOX, OR OTHER FILESHARE METHOD. PROVIDE HIGH RESOLUTION PHOTOS (DO NOT COMPRESS).

4. ENGINEER OF RECORD WILL CONDUCT A REVIEW OF THE PROVIDED DOCUMENTS TO PREPARE A PMI REPORT. ENGINEER OF RECORD WILL NOTIFY GENERAL CONTRACTOR IF ANY ADDITIONAL DOCUMENTATION IS REQUIRED TO COMPLETE THE PMI.

5. PMI DOCUMENTATION SHALL BE SUFFICIENT TO CONFIRM THE UPGRADE WAS BUILT AS DESIGNED, INCLUDING EQUIPMENT CHANGES AND STRUCTURAL MODIFICATIONS, AND IS IN ADDITION TO ANY OTHER REQUIRED CLOSEOUT PACKAGE DOCUMENTATION.

6. REQUIRED DOCUMENTATION FOR PMI INCLUDES THE FOLLOWING AT A MINIMUM. REFER TO THE MOUNT ANALYSIS FOR POSSIBLE ADDITIONAL INFORMATION. IF STRUCTURAL MODIFICATIONS ARE REQUIRED, REFER TO THE MODIFICATION DRAWINGS FOR POSSIBLE ADDITIONAL REQUIREMENTS.

6A. PROVIDE PRE-AND-POST CONSTRUCTION PHOTOS OF EACH SECTOR FROM THE MOUNT ELEVATION AND THE GROUND. CONTRACTOR IS RESPONSIBLE FOR ENSURING THE PHOTOS PROVIDED PROVIDE POSITIVE CONFIRMATION THAT THE MODIFICATION/UPGRADE WAS COMPLETED IN ACCORDANCE WITH THESE CONSTRUCTION DRAWINGS AND ANY STRUCTURAL/MOUNT MODIFICATION DRAWINGS. CONTRACTOR SHALL RELAY ANY DATA THAT CAN IMPACT THE PERFORMANCE OF THE MOUNT OR MOUNT MODIFICATION, INCLUDING SAFETY ISSUES. PHOTOS SHALL HAVE A DATE/TIME STAMP IN THE PHOTO. REFER TO THE MOUNT ANALYSIS FOR FILE STRUCTURE SCHEDULE OF PHOTOS. PROVIDE PHOTOS OF THE GATE SIGNS AND CARRIER SHELTER TO IDENTIFY THE TOWER OWNER, SITE NAME, SITE NUMBER, ETC.

6B. VERIFICATION OF THE MEMBER CONNECTIONS, BRACING, AND RELEVANT DIMENSIONS.

6C. VERIFICATION OF THE ANTENNA AND OTHER EQUIPMENT CONFIGURATION (PHOTOS OF MODEL NUMBERS/TAGS FOR ALL EQUIPMENT, AS WELL AS THE FEEDLINE CONFIGURATION). TAKE PHOTOS OF THE BACK SIDE OF EACH SECTOR AS WELL AS CLOSE-UPS OF ALL EQUIPMENT. PHOTOS SHOULD CONFIRM THE HORIZONTAL AND VERTICAL POSITIONING OF THE ANTENNAS AND EQUIPMENT AND SHALL HAVE TAPE MEASURES IN THE PHOTOS TO CONFIRM.

6D. FOR TIE-BACKS, STRUTS, MOUNT PIPES, PHOTOS TO CONFIRM THE ANGLES AND LOCATION OF ATTACHMENT POINT AT BOTH ENDS OF MEMBER, AS WELL AS DIMENSIONS, THICKNESS, AND LENGTHS OF THE MEMBERS. REFER TO THE CHECKLIST IN THE MOUNT ANALYSIS FOR ADDITIONAL INFORMATION.

6E. MOUNT ATTACHMENT TO THE SUPPORTING STRUCTURE, INCLUDING ANY KICKERS OR SUPPORTS, OR TIEBACKS.

6F. MATERIALS USED (TYPE, STRENGTH, DIMENSIONS, ETC). PROVIDE BILL OF MATERIALS AND MATERIAL SPEC TO CONFIRM MATERIAL GRADES AND SIZES. PROVIDE DOCUMENTATION FOR GALVANIZATION OF MEMBERS WHETHER HOT-DIPPED OR COLD-GALVANIZED. IF MATERIALS DIFFER FROM THOSE SPECIFIED ON THESE DRAWINGS, PROVIDE DOCUMENTATION THAT THE "EQUIVALENT" MATERIAL HAS THE SAME SPECIFICATIONS.

6G. MOUNT ORIENTATION/AZIMUTH AND ELEVATION. PROVIDE TAPE DROP PHOTOS OF ANTENNA CENTERLINE(S) AND MOUNT ATTACHMENT POINTS TO THE SUPPORTING STRUCTURE. IF THERE ARE MULTIPLE RAD CENTERS, PROVIDE PHOTOS OF ALL ELEVATIONS.

POST-MODIFICATION INSPECTION (PMI) REQUIREMENT CONT.

6H. VERIFICATION THAT THE INSTALL HAS NOT CAUSED DAMAGE TO OR UNPLANNED OBSTRUCTION OF THE FOLLOWING:

--- CLIMBING FACILITIES
--- SAFETY CLIMB IF PRESENT, INCLUDING PHOTOS ABOVE AND BELOW THE MOUNT.
--- LIGHTING SYSTEM
--- OTHER INSTALLED SYSTEMS ON THE STRUCTURE.
--- CONTRACTOR SHALL ENSURE THE SAFETY CLIMB IS SUPPORTED AND NOT ADVERSELY AFFECTED BY THE INSTALLATION OF NEW COMPONENTS. THIS MAY INVOLVE THE INSTALLATION OF WIRE ROPE GUIDES OR OTHER ITEMS TO PROTECT THE WIRE ROPE.

6I. OTHER ITEMS DETERMINED BY THE STRUCTURAL ENGINEER TO ENSURE THE MOUNT WILL PERFORM AS DESIGNED. PHOTOS OF RELEVANT MEASUREMENTS, WITH SUFFICIENT DETAILS TO CONFIRM CONNECTION DETAILS, PLACEMENT OF EQUIPMENT, WALL ANCHOR DETAILS, BALLAST QUANTITIES, STRUCTURAL MODIFICATIONS ETC. DIAMETERS AND THICKNESSES OF BOLTS/THREADED RODS/ANGLES/TUBES ETC SHALL HAVE PHOTOS CONFIRMING CALIPER MEASUREMENTS.

--- CONFIRMATION THAT ALL HARDWARE WAS PROPERLY INSTALLED, AND EXISTING HARDWARE WAS INSPECTED FOR ANY ISSUES.
--- FOR BALLAST SLEDS, DOCUMENTATION OF THE WEIGHT OF BALLAST IN EACH SECTOR.
--- FOR WALL ANCHORS, PHOTOS AND MEASUREMENTS OF OUTSIDE AND INSIDE OF CONNECTIONS. DOCUMENTATION OF ADHESIVE USED, SIZE AND LENGTH OF ANCHORS, EFFECTIVE EMBEDMENT DEPTH OF THE ANCHORS, GROUTING OF HOLLOW WALLS, SPACING AND EDGE DISTANCE MEASUREMENTS, AND ANY THROUGH-BOLTS OR BACKING PLATES.
--- FOR STUD WELD CONNECTIONS, DOCUMENTATION TO CONFIRM SURFACE PREPARATION, STUD WELD SIZE, GRADE, LENGTH, AND SPACING.
--- FOR FABRICATED PARTS, SHOP DRAWINGS TO BE APPROVED BY THE ENGINEER OF RECORD PRIOR TO CONSTRUCTION.
--- FOR WELDED PARTS, CERTIFIED WELD INSPECTION.
--- FOR BOLTED PARTS, BOLT INSTALLATION AND TORQUE.

7. CONTRACTOR SHALL PROVIDE, IN ADDITION TO THE ABOVE, AS-BUILT CDS WITH REDLINES IDENTIFYING ANY CHANGES. THE AS-BUILTS SHALL THE CONTRACTOR'S NAME, PREPARER'S SIGNATURE, AND DATE.

8. IF THE MODIFICATION INSTALLATION WOULD FAIL THE PMI ("FAILED PMI"), THE CONTRACTOR SHALL WORK WITH THE ENGINEER OF RECORD TO COORDINATE A REMEDIATION PLAN IN ONE OF TWO WAYS:

8A. CORRECT FAILING ISSUES TO COMPLY WITH THE SPECIFICATIONS CONTAINED IN THE ORIGINAL CONTRACT DOCUMENTS AND COORDINATE A SUPPLEMENTAL PMI.

8B. OR, WITH THE EOR'S APPROVAL, THE GC MAY WORK WITH THE EOR TO RE-ANALYZE THE MODIFICATION/REINFORCEMENT/UPGRADE USING THE AS-BUILT CONDITION.

9. NOTE: IF LOADING IS DIFFERENT THAN THAT SHOWN IN THESE CONSTRUCTION DRAWINGS OR STRUCTURAL/MOUNT MODIFICATION DRAWINGS, CONTRACTOR SHALL NOTIFY THE ENGINEER OF RECORD IMMEDIATELY FOR RESOLUTION.

10. THE ENGINEERING FIRM PERFORMING AN ANALYSIS SHALL PROVIDE A CONTRACTOR'S PHOTO LOG AND CHECKLIST TO BE COMPLETED BY THE INSTALLING CONTRACTOR. THE CONTRACTOR SHALL THEN PROVIDE POST-INSTALLATION INFORMATION TO THE STRUCTURAL ENGINEER. THE STRUCTURAL ENGINEER SHALL REVIEW THE DOCUMENTS FOR ANY DEFICIENCIES THAT CAN BE DETERMINED FROM THE DESKTOP REVIEW OF THE DATA. THE ENGINEERING FIRM SHALL THEN PROVIDE DOCUMENTATION TO VZW THAT THE SITE IS COMPLETED, AND THE PMI REPORT IS APPROVED.

ENGINEER

NB+C
TOTALLY COMMITTED.
NB+C ENGINEERING SERVICES, LLC.
100 APOLLO DRIVE
SUITE 303
LOWELL, MA 01854
(978) 856-8308

APPLICANT

verizon
118 FLANDERS ROAD
FLOOR 3
WESTBOROUGH, MA 01581

SITE INFORMATION

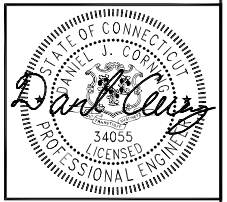
NORTH_BRANFORD_2_CT
26 COMMERCE DRIVE
NORTH BRANFORD, CT 06471
TOWN OF NORTH BRANFORD
NEW HAVEN COUNTY

DESIGN RECORD

REVISIONS

REV	DATE	DESCRIPTION	BY
1	02/10/22	REVISED PER COMMENTS	CSG
0	01/12/22	FINAL CDs	JQ

PROFESSIONAL STAMP



ENGINEER

DANIEL J. CORNING, P.E.
CT PROFESSIONAL ENGINEER LIC. #34055

SHEET TITLE

PMI REQUIREMENTS

SHEET NUMBER

GN-1

SAMSUNG

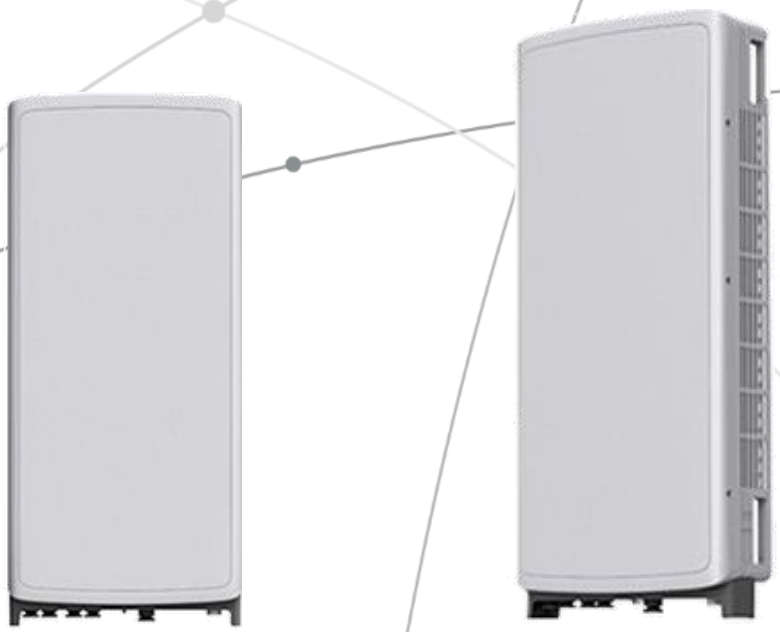
SAMSUNG

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

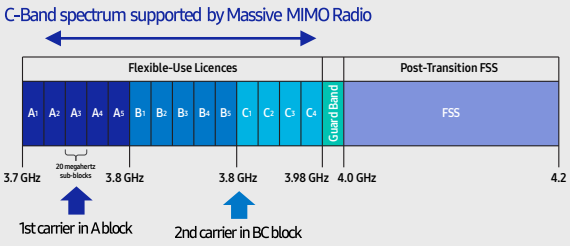


Points of Differentiation

Wide Bandwidth

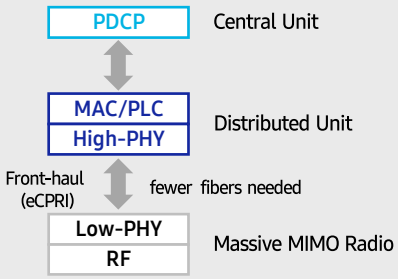
With capability to support up to 2 CC carrier configuration, Samsung C-Band massive MIMO Radio supports 200 MHz bandwidth in the C-Band spectrum.

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.

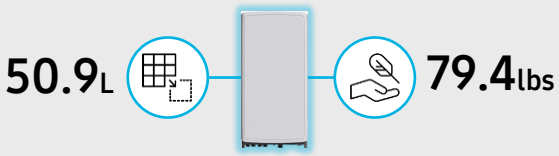
This helps operators reduce their CAPEX as they now need less products to cover the same area than before.

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

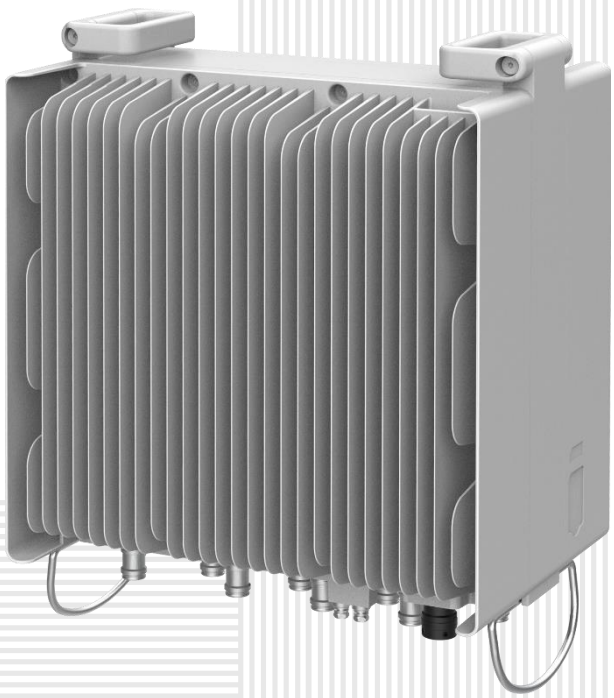
AWS/PCS MACRO RADIO

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



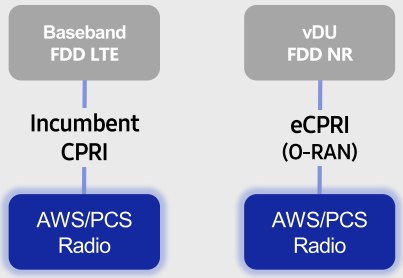
Homepage
samsungnetworks.com

Youtube
www.youtube.com/samsung5g

Points of Differentiation

Continuous Migration

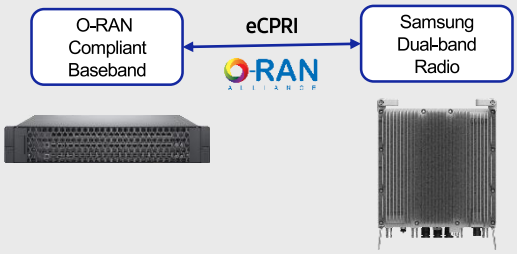
Samsung's AWS/PCS macro radio can support each incumbent CPRI interface as well as advanced eCPRI interfaces. This feature provides installable options for both legacy LTE networks and added NR networks.



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.

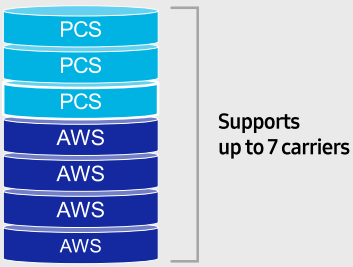
Samsung's state-of-the-art O-RAN technology will help accelerate the effort toward constructing a solid O-RAN ecosystem.



Optimum Spectrum Utilization

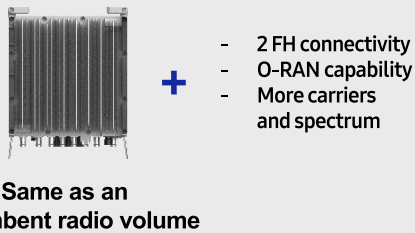
The number of required carriers varies according to site (region). Supporting many carriers is essential for using all frequencies that the operator has available.

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

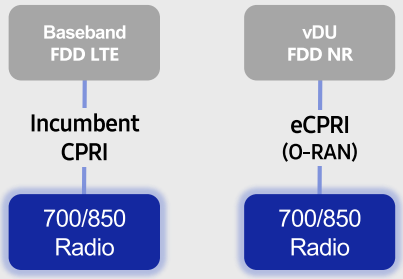
Homepage
samsungnetworks.com

Youtube
www.youtube.com/samsung5g

Points of Differentiation

Continuous Migration

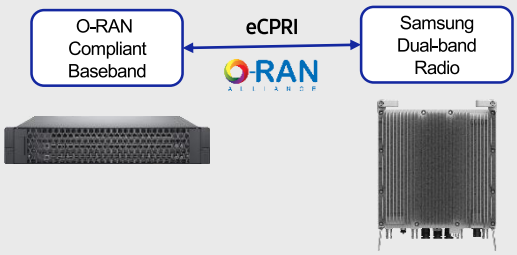
Samsung's 700/850MHz macro radio can support each incumbent CPRI interface as well as an advanced eCPRI interface. This feature provides installable options for both legacy LTE networks and added NR networks.



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.

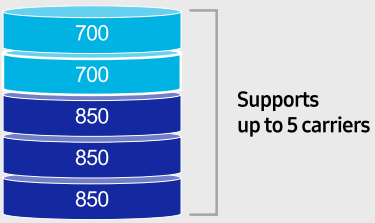
Samsung's state-of-the-art O-RAN technology will help accelerate the effort toward constructing a solid O-RAN ecosystem.



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.

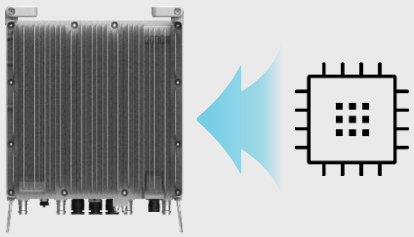
The new 700/850MHz dual-band radio can support up to 2 carriers in the B13 (700MHz) band and 3 carriers in the B5 (850MHz) band, respectively.



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

ATTACHMENT 3

	General	Power	Density					
Site Name: North Branford 2								
Tower Height: Verizon @ 135ft								
CARRIER	**# OF CHAN.**	**WATTS ERP**	**HEIGHT**	**FREQ.**	**CALC. POWER DENS**	**MAX. PERMISS.EXP.**	**FRACTION MPE**	**Total**
*T-Mobile	1	583	154	1950	0.009571702	1	0.00095717	
*T-Mobile	1	1556	154	1950	0.025546428	1	0.002554643	
*T-Mobile	1	1022	154	1950	0.016779209	1	0.001677921	
*T-Mobile	2	2334	154	1950	0.076639284	1	0.007663928	
*T-Mobile	2	789	154	2100	0.025907624	1	0.26%	
*T-Mobile	2	432	154	2100	0.014185163	1	0.14%	
*AT&T	2	1133	143	850	0.043417298	0.566666667	0.77%	
*AT&T	1	1476	143	737	0.028280641	0.491333333	0.58%	
*AT&T	1	4842	143	1900	0.092774298	1	0.93%	
VZW 700	**4**	**713**	**135**	**751**	**0.0056**	**0.5007**	**1.12%**	
VZW CDMA	**2**	**463**	**135**	**877.26**	**0.0018**	**0.5848**	**0.31%**	
VZW Cellular	**4**	**498**	**135**	**874**	**0.0039**	**0.5827**	**0.67%**	
VZW PCS	**4**	**1541**	**135**	**1975**	**0.0122**	**1.0000**	**1.22%**	
VZW AWS	**4**	**1617**	**135**	**2120**	**0.0128**	**1.0000**	**1.28%**	
VZW CBAND	**2**	**21627**	**135**	**3730.08**	**0.0854**	**1.0000**	**8.54%**	
								17.10%
* Source: Siting Council								

ATTACHMENT 4

SBA Communications Corporation
8051 Congress Avenue
Boca Raton, FL 33487-1307

T + 561.995.7670
F + 561.995.7626

sbasite.com

Structural Analysis Report

Client: Verizon

Client Site ID / Name: 467924 / North Branford 2 CT
Application #: 171911, v1

SBA Site ID / Name: CT13610-A / ARTEC

155 ft Monopole

26 Commerce Drive
North Branford, CT 06471
Lat: 41.322139, Long: -72.773278

Project number: CT13610-VZW-121321

Analysis Results

Tower	83.3%	Pass
Foundation	44.5%	Pass

Change in tower stress due to mount modification / replacement	N/A

Prepared by:

Daniel Yohannes
Structural Engineer II
214-570-8110 ext 2626
dyohannes@sbasite.com

Reviewed by:

Anantha (Shan) Shanubhogue, P.E.
Senior Manager, Structural Engineering
561-981-7390
SShanubhogue@sbasite.com

December 14, 2021

STATE OF CONNECTICUT
ANANTHA B SHANUBHOGUE
33126
LICENSED
PROFESSIONAL ENGINEER

12/15/21

Table of Contents

Introduction

The purpose of this report is to summarize the analysis results on the 155 ft Monopole to support the proposed antennas and transmissions lines in addition to those currently installed.

Table 1 List of Documents Used

Item	Document
Tower design/drawings	Paul J. Ford and Company, Job #29205-0112 Rev 1 dated March 31, 2005
Foundation drawings	Paul J. Ford and Company, Job #29205-0112 dated May 31, 2005
Geotechnical report	JGI Eastern, Inc., Project #05267G dated May 16, 2005
Tower Modification	N/A
Foundation Modification	N/A
Latest SA	TES, Project # 119214, dated November 12, 2021
Mount Analysis	Maser Consulting Connecticut, Project # 21777060A (Rev. 1), dated November 17, 2021
Mount Modification	N/A

Analysis Criteria

Table 2 Code Related Data

Jurisdiction (State/County/City)	Connecticut/New Haven/N. Branford
Governing Codes	ANSI/TIA/EIA 222-G, 2015 IBC, 2018 Connecticut State Building Code
Basic Wind Speed (3-Sec gust)	101.0 mph (Ultimate Wind Speed: 130 mph)
Wind Speed with Ice (3-Sec gust)	50 mph
Service Wind Speed (3-Sec gust)	60 mph
Ice Thickness	0.75”
Structural Class*	II
Exposure Category	C
Topographic Category	1
Crest Height	0 ft
Ground Elevation	122 ft.
Seismic Parameter Ss**	0.179
Seismic Parameter S_1	0.061

*This structural analysis is based upon the tower being classified as a structural 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.

**Earthquake effects were ignored as per section 2.7.3 of the TIA-222-G code provisions for S_s < 1.0.

Appurtenance Loading

Existing Loading:

Table 3 Existing Appurtenances

Items	Elevation (ft)	Qty.	Antenna Descriptions	Mount Type & Qty.	Transmission Lines	Owner
			Ericsson - Air 21 B2A/B4P - Panel	(3) T-Arm with (3) V-Bracing Kits [MetroSite MS-C1B-350P] (3) End Brace	(4) 1 5/8" Fiber	T-Mobile
			Ericsson - Air 21 B4A/B2P - Panel			
			RFS - APXVAARR24_43-U-NA20 - Panel			
			Ericsson - KRY 112 144/1 - TMA			
			Ericsson - Radio 4449 B71B12 - RRU			
			Powerwave - 7770 - Panel	(3) T-Arm	power (1) 3/8" Fiber	
			Cci - HPA-65R-BUU-H6 - Panel			
			Powerwave - LGP21401 - TMA			
			Powerwave - LGP13519 - Diplexer			
			Ericsson - RRUS 11 - RRU			
			Ericsson - RRUS 32 B2 - RRU			
			Raycap - DC6-48-60-18-8F - OVP			
		3	Antel - BXA-171063-12CF-EDIN-X - Panel	(3) T-Arm	Hybrid	Verizon
			Andrew - SBNHH-1D65B - Panel			
			Antel - LPA-80080-6CF - Panel			
			Alcatel Lucent - RRH2x60-AWS - RRH			
			Alcatel Lucent - RRH2x60-700 - RRH			
			Rfs Celwave - DB-T1-6Z-8AB-0Z - RRH			
		3	JMA Wireless - MX08FRO665-21 - Panel	Platform w/ Handrail [Commscope	(1) 1.6" Hybrid	Dish Wireless
			Fujitsu - TA08025-B605 - RRU			
			Fujitsu - TA08025-B604 - RRU			
			Raycap - RDIDC-9181-PF-48 - OVP			
			Andrew - DB408 – Whip	Arm @ 85.0’		Town of North Branford
			Sinclair - SD222 – Whip			
			Radio Waves - SP4-4.7NS RD4 - Dish			

Proposed Loading:

Information pertaining to proposed antennas and transmission lines were based upon the Application #: 171911, v1 from Verizon and is listed in Table 4.

Table 4 Proposed Appurtenances

Items	Elevation (ft)	Qty.	Antenna Descriptions	Mount Type & Qty.	Transmission Lines	Owner
			Samsung - MT6407-77A - Panel	(3) T-Arm	Hybrid	Verizon
			Andrew - SBNHH-1D65B - Panel			
			Amphenol - LPA-80080-6CF - Panel			
			Samsung - RF4439d-25A - RRU			
			Samsung - RF4440d-13A - RRU			
			Rfs Celwave - DB-T1-6Z-8AB-0Z - OVP			

add (3) Commscope BSAMNT-SBS-1-2 mounts (25.4 lbs. each)

Analysis Results

Tower

The results of the structural analysis are shown below in table 5. Additional information for the tower analysis is provided within the Appendix.

Table 5 Tower Analysis Summary

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

Foundation

The results of the foundation analysis are shown below in table 6. Additional information for the foundation analysis is provided within the Appendix.

Table 6 Foundation Analysis Summary

Structural Component	Max Usage (%)	Analysis Result
Foundation	44.5%	Pass

Conclusions

Based on the analysis results, the existing tower and foundation were found to be ***sufficient*** to safely support the equipment listed in this analysis. No modification to the tower and foundation is needed at this time.

Installation Requirements

This analysis was performed under the assumption that the carrier will place the proposed equipment and feed lines at the installation height listed in Table 4 and in accordance with the coax layout shown. TMAs and RRUs are to be installed on existing mounts behind tenant's antennas unless otherwise noted. No equipment is to be installed directly in the climbing path. All equipment is to be installed per mount manufacturer specifications. In case site conditions do not allow for the required installation parameters to be met the carrier must notify SBA Communications Corporation engineers for approval of an alternative placement.

Assumptions and Limitations

Assumptions

This analysis was completed based on the following assumptions:

- Tower and foundation were built in accordance to manufacturer specifications.
- Tower and foundation has been properly maintained in accordance with the manufacturer's specifications
- All existing structural members were assumed to be in good condition with no physical damage or deterioration associated with corrosion
- Welds and bolts are assumed able to carry their intended original design loads.
- The configuration of antennas, transmission cables, mounts and other appurtenances are as specified in Table 3 and 4.
- This analysis may be affected if any assumptions are not valid or have been made in error. SBA should be notified to determine the effect on the structural integrity of the tower.

Limitations

The computer generated analysis performed by the tower software is limited to theoretical capacities of the towers structural members and does not account for any missing or damaged members or connections. The tower and foundation are assumed to have been properly designed, fabricated, installed and maintained, barring any conflicting findings from the most recent inspection.

SBA Communications Corporation has used its due diligence to verify the information provided to perform this analysis. It is unreasonable to perform a more detailed inspection of a tower and its components. This report is not a condition assessment of the tower or foundation.

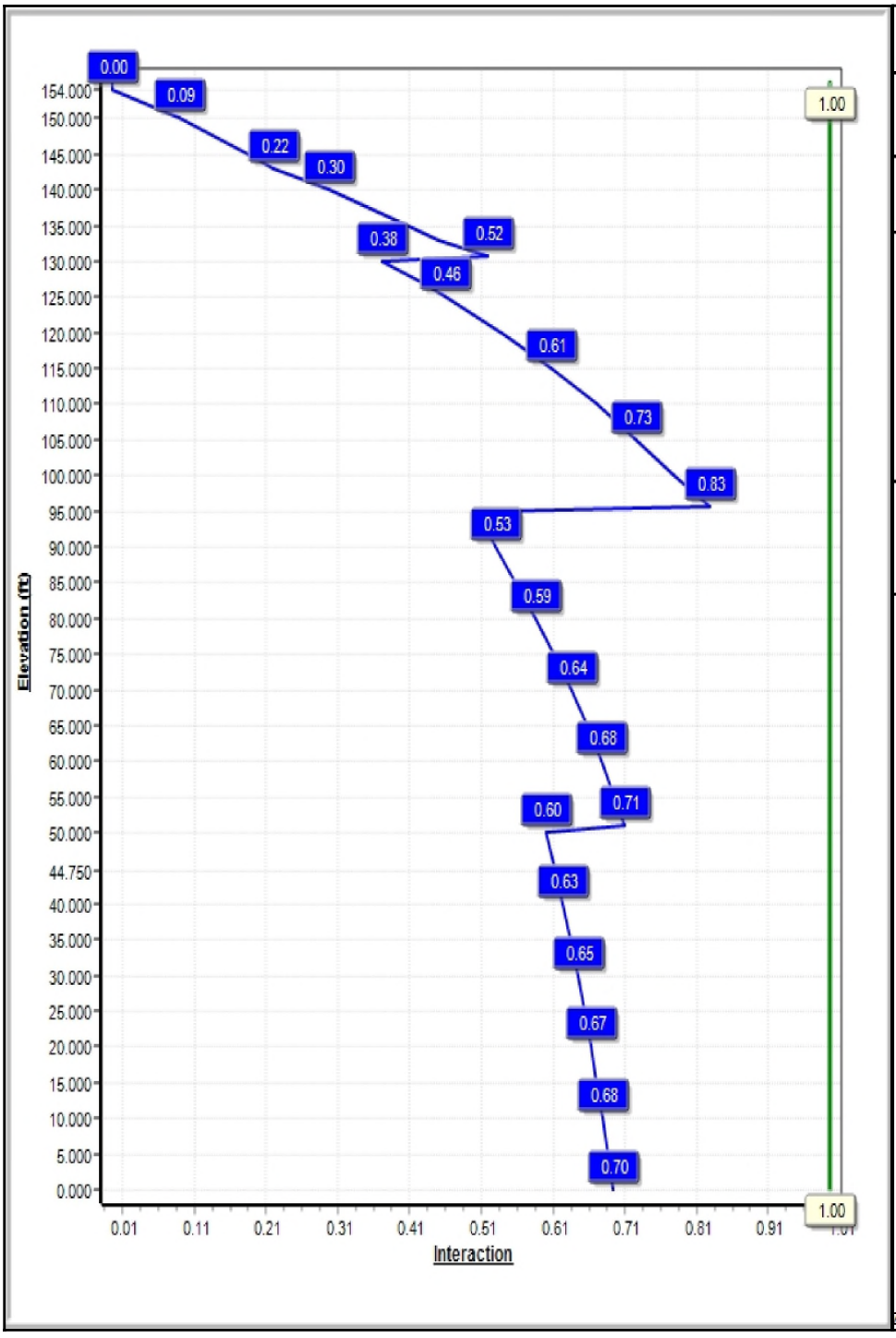
Appendix

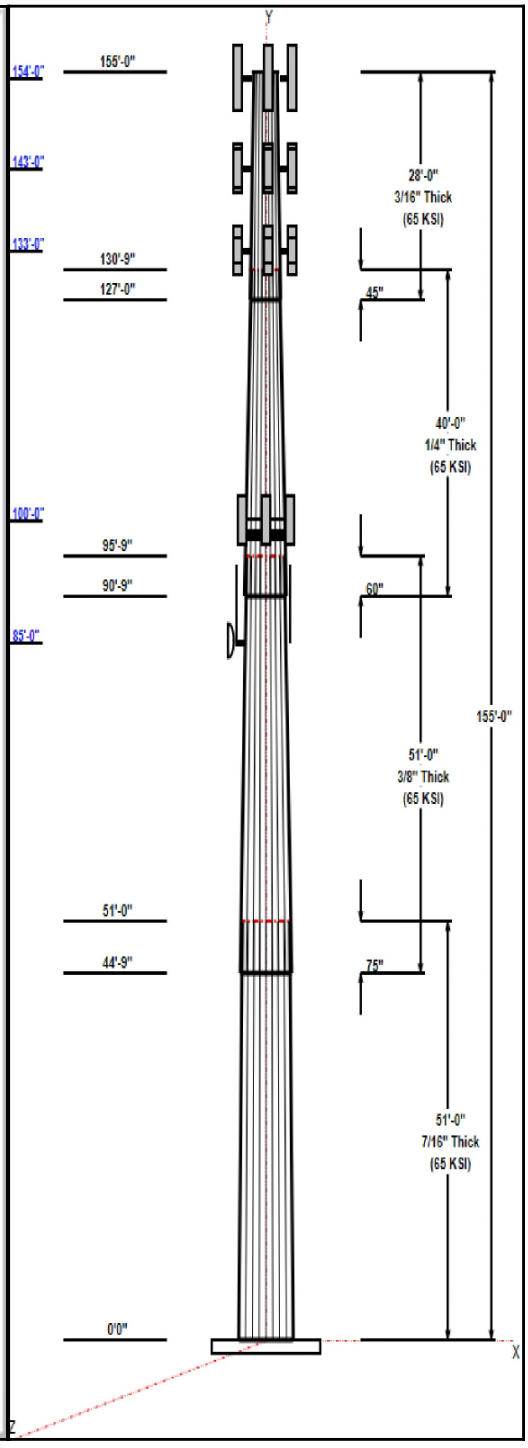
Usage Diagram - Max Ratio 83.32% at 95.8ft

Structure:	CT13610-A	**Code:**	EIA/TIA-222-G	12/14/2021
Site Name:	ARTEC	**Exposure:**	C	
Height:	155.00 (ft)	**Gh:**	1.1	
Base Elev:	0.000 (ft)			Page: 1

Dead Load Factor:	1.20	**Iterations:**	23
Wind Load Factor:	1.60		

Load Case : 1.2D + 1.6W 101 mph Wind





Structure: CT13610-A

Type: Tapered
Site Name: ARTEC
Height: 155.00 (ft)
Base Elev: 0.00 (ft)

Base Shape: 18 Sided
Taper: 0.25803

12/14/2021

Shaft Properties

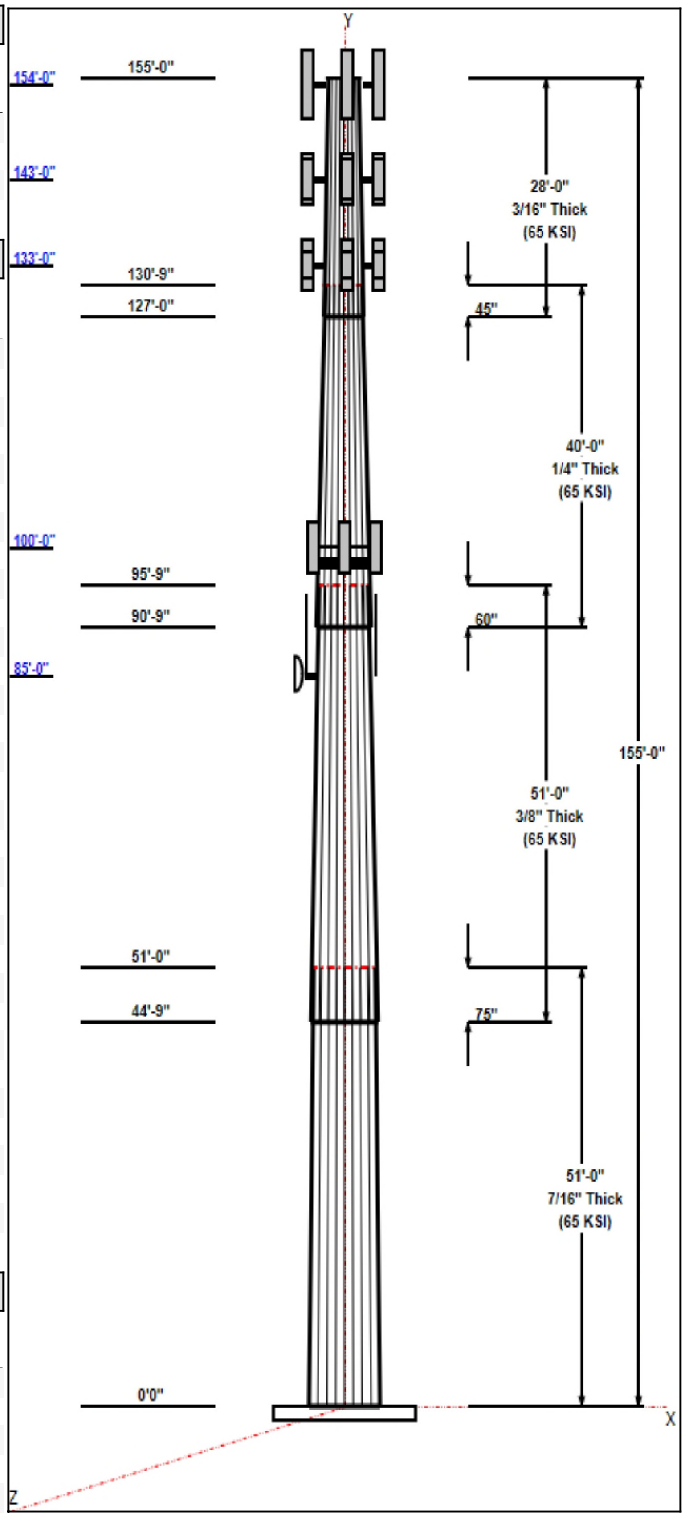
Seq	Length (ft)	Top (in)	Bottom (in)	Thick (in)	Joint Type	Taper	Grade (ksi)
1	51.00	47.71	60.87	0.438		0.25803	65
2	51.00	36.91	50.07	0.375	Slip	0.25803	65
3	40.00	28.38	38.70	0.250	Slip	0.25803	65
4	28.00	22.50	29.72	0.188	Slip	0.25803	65

Discrete Appurtenances

Attach Elev (ft)	Force Elev (ft)	Qty	Description	Carrier
154.00	154.00	3	Ericsson - Air 21 B2A/B4P	T-Mobile
154.00	154.00	3	Ericsson - Air 21 B4A/B2P	T-Mobile
154.00	154.00	3	RFS -	T-Mobile
154.00	154.00	3	Ericsson - KRY 112 144/1	T-Mobile
154.00	154.00	3	Ericsson - Radio 4449	T-Mobile
154.00	154.00	3	T-Arm	T-Mobile
154.00	154.00	3	Mount Mod	T-Mobile
143.00	143.00	6	Powerwave - 7770	AT&T
143.00	143.00	3	Cci - HPA-65R-BUU-H6	AT&T
143.00	143.00	6	Powerwave - LGP21401	AT&T
143.00	143.00	6	Powerwave - LGP13519	AT&T
143.00	143.00	6	Ericsson - RRUS 11	AT&T
143.00	143.00	3	Ericsson - RRUS 32 B2	AT&T
143.00	143.00	1	Raycap - DC6-48-60-18-8F	AT&T
143.00	143.00	3	T-Arm	AT&T
133.00	133.00	3	Samsung - MT6407-77A	Verizon
133.00	133.00	6	Andrew - SBNHH-1D65B	Verizon
133.00	133.00	6	Amphenol -	Verizon
133.00	133.00	3	Samsung - RF4439d-25A	Verizon
133.00	133.00	3	Samsung - RF4440d-13A	Verizon
133.00	133.00	2	Rfs Celwave -	Verizon
133.00	133.00	3	T-Arm	Verizon
100.00	100.00	3	JMA Wireless -	Dish Wireless
100.00	100.00	3	Fujitsu - TA08025-B605	Dish Wireless
100.00	100.00	3	Fujitsu - TA08025-B604	Dish Wireless
100.00	100.00	1	Raycap -	Dish Wireless
100.00	100.00	1	Platform w/ Handrail	Dish Wireless
85.00	89.75	1	DB408	Town of North Branford
85.00	89.75	2	SD222	Town of North Branford
85.00	85.00	1	SP4-4.7NS RD4	Town of North Branford
85.00	85.00	2	Pipe Mount	Town of North Branford
85.00	85.00	1	T-Arm	Verizon

Linear Appurtenances

Elev From (ft)	Elev To (ft)	Placement	Description	Carrier
0.00	155.00	Outside	Safety Cable	
0.00	155.00	Outside	Step bolts (ladder)	
0.00	154.00	Inside	1 5/8" Coax	T-Mobile
0.00	154.00	Inside	1 5/8" Fiber	T-Mobile
0.00	143.00	Inside	1 5/8" Coax	AT&T
0.00	143.00	Inside	1/2" DC power	AT&T
0.00	143.00	Inside	3/8" Fiber	AT&T
0.00	133.00	Inside	1 5/8" Coax	Verizon
0.00	133.00	Inside	1 5/8" Hybrid	Verizon
0.00	100.00	Inside	1.6" Hybrid	Dish Wireless



0.00	85.00	Inside	7/8"	Coax	Town of North Branford

Anchor Bolts

Qty	Specifications	Grade (ksi)	Arrangement
24	2.25" 18J	75.0	Cluster

Base Plate

Thickness (in)	Specifications (in)	Grade (ksi)	Geometry
3.0000	70.0	50.0	Clipped

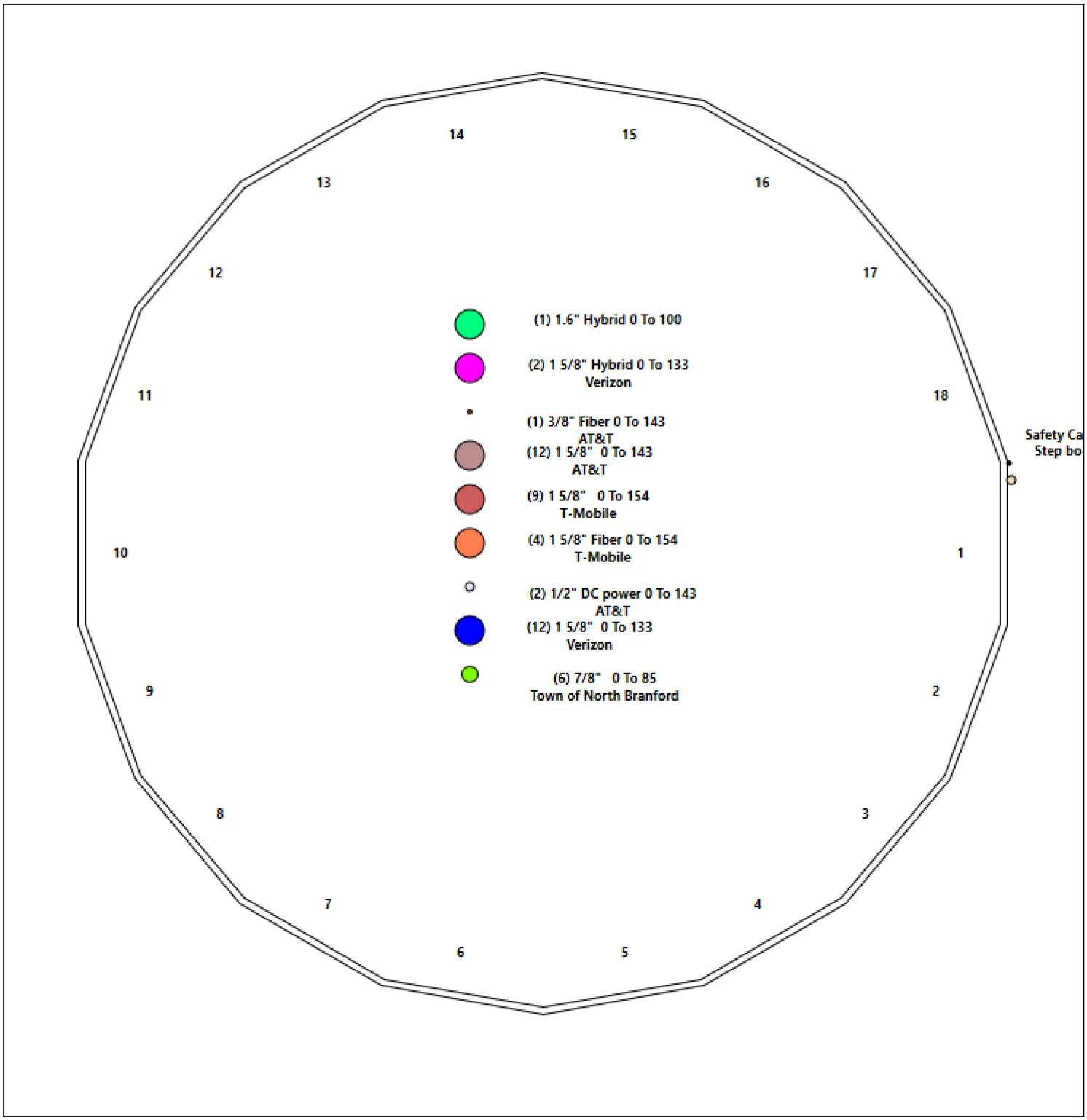
Reactions

Load Case	Moment (FT-Kips)	Shear (Kips)	Axial (Kips)
1.2D + 1.6W 101 mph Wind	4796.3	42.5	55.5
0.9D + 1.6W 101 mph Wind	4750.5	42.5	41.6
1.2D + 1.0Di + 1.0Wi 50 mph Wind	1245.5	10.9	99.9
1.2D + 1.0E	233.1	1.8	55.6
0.9D + 1.0E	230.6	1.8	41.7
1.0D + 1.0W 60 mph Wind	1052.6	9.4	46.3

Structure: CT13610-A - Coax Line Placement

Type: Monopole
Site Name: ARTEC
Height: 155.00 (ft)

12/14/2021



Shaft Properties

Structure:	CT13610-A		**Code:**	EIA/TIA-222-G	12/14/2021
Site Name:	ARTEC		**Exposure:**	C	
Height:	155.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	C - Very Dense Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 1

Sec. No.	Shape	Length (ft)	Thick (in)	Fy (ksi)	Joint Type	Overlap (in)	Weight (lb)
1	18	51.000	0.4375	65		0.00	12,977
2	18	51.000	0.3750	65	Slip	75.00	8,906
3	18	40.000	0.2500	65	Slip	60.00	3,596
4	18	28.000	0.1875	65	Slip	45.00	1,470
					Total Shaft Weight:		**26,949**

	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	60.87	0.00	83.92	38719.89	23.12	139.13	47.71	51.00	65.64	18533.5	17.82	109.0	0.258032
2	50.07	44.75	59.15	18458.39	22.13	133.53	36.91	95.75	43.49	7335.41	15.95	98.44	0.258032
3	38.70	90.75	30.51	5700.26	25.89	154.81	28.38	130.75	22.32	2232.03	18.61	113.5	0.258032
4	29.72	127.0	17.58	1937.59	26.54	158.53	22.50	155.00	13.28	835.20	19.75	120.0	0.258032

Load Summary

Structure:	CT13610-A		**Code:**	EIA/TIA-222-G	12/14/2021
Site Name:	ARTEC		**Exposure:**	C	
Height:	155.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	C - Very Dense Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 2

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	154.00	Ericsson - Air 21 B2A/B4P	3	91.50	6.04	0.85	238.99	7.080	0.86	0.00	0.00
2	154.00	Ericsson - Air 21 B4A/B2P	3	90.30	6.04	0.85	237.82	7.080	0.86	0.00	0.00
3	154.00	RFS - APXVAARR24_43-U-NA20	3	128.00	20.24	0.72	572.64	22.082	0.72	0.00	0.00
4	154.00	Ericsson - KRY 112 144/1	3	11.00	0.35	0.72	19.82	0.588	0.75	0.00	0.00
5	154.00	Ericsson - Radio 4449 B71B12	3	74.00	1.63	0.81	116.06	2.124	0.82	0.00	0.00
6	154.00	T-Arm	3	419.10	8.13	0.75	859.11	14.959	0.75	0.00	0.00
7	154.00	Mount Mod	3	911.72	22.25	1.00	1868.92	40.938	1.00	0.00	0.00
8	143.00	Powerwave - 7770	6	35.00	5.51	0.77	157.39	6.502	0.77	0.00	0.00
9	143.00	Cci - HPA-65R-BUU-H6	3	51.00	9.66	0.83	277.91	10.962	0.84	0.00	0.00
10	143.00	Powerwave - LGP21401	6	19.00	1.05	0.66	43.50	1.456	0.68	0.00	0.00
11	143.00	Powerwave - LGP13519	6	5.50	0.23	0.74	11.32	0.427	0.76	0.00	0.00
12	143.00	Ericsson - RRUS 11	6	50.00	2.57	0.71	110.55	3.181	0.72	0.00	0.00
13	143.00	Ericsson - RRUS 32 B2	3	77.00	1.65	0.75	116.00	2.179	0.71	0.00	0.00
14	143.00	Raycap - DC6-48-60-18-8F	1	32.80	2.20	1.34	126.28	2.808	1.32	0.00	0.00
15	143.00	T-Arm	3	419.10	8.13	0.75	855.86	14.908	0.75	0.00	0.00
16	133.00	Samsung - MT6407-77A	3	79.40	4.69	0.75	186.96	5.563	0.75	0.00	0.00
17	133.00	Andrew - SBNHH-1D65B	6	40.00	8.16	0.83	223.00	9.376	0.84	0.00	0.00
18	133.00	Amphenol - LPA-80080-6CF	6	21.00	4.33	1.50	205.07	5.411	1.47	0.00	0.00
19	133.00	Samsung - RF4439d-25A	3	74.70	1.87	0.84	123.34	2.390	0.84	0.00	0.00
20	133.00	Samsung - RF4440d-13A	3	70.33	1.87	0.80	117.58	2.390	0.81	0.00	0.00
21	133.00	Rfs Celwave - DB-T1-6Z-8AB-0Z	2	44.00	4.80	0.71	155.65	5.621	0.72	0.00	0.00
22	133.00	T-Arm	3	419.10	8.13	0.75	852.70	14.859	0.75	0.00	0.00
23	100.00	JMA Wireless - MX08FRO665-21	3	64.50	12.49	0.73	335.25	13.871	0.74	0.00	0.00
24	100.00	Fujitsu - TA08025-B605	3	74.96	1.96	0.80	123.30	2.476	0.81	0.00	0.00
25	100.00	Fujitsu - TA08025-B604	3	63.93	1.96	0.76	110.69	2.476	0.77	0.00	0.00
26	100.00	Raycap - RDIDC-9181-PF-48	1	21.85	2.01	0.78	70.46	2.533	0.79	0.00	0.00
27	100.00	Platform w/ Handrail [Commscope	1	1727.00	22.00	1.00	3463.53	39.697	1.00	0.00	0.00
28	85.00	DB408	1	17.00	2.90	1.00	134.44	11.633	1.00	0.00	4.75
29	85.00	SD222	2	17.00	5.30	1.00	151.21	13.043	1.00	0.00	4.75
30	85.00	SP4-4.7NS RD4	1	60.00	23.14	1.00	282.63	26.192	1.00	0.00	0.00
31	85.00	Pipe Mount	2	60.00	5.00	1.00	107.49	8.298	1.00	0.00	0.00
32	85.00	T-Arm	1	419.10	8.13	1.00	833.72	14.565	1.00	0.00	0.00
		Totals:	**99**	**12,901.67**			**31,283.52**				

Linear Appurtenances

Bottom Elev. (ft)	**Top Elev. (ft)**	**Description**	**Exposed Width**	**Exposed**
0.00	155.00	(1) Safety Cable	0.38	Outside
0.00	155.00	(1) Step bolts (ladder)	0.63	Outside
0.00	154.00	(9) 1 5/8" Coax	0.00	Inside
0.00	154.00	(4) 1 5/8" Fiber	0.00	Inside
0.00	143.00	(12) 1 5/8" Coax	0.00	Inside
0.00	143.00	(2) 1/2" DC power	0.00	Inside
0.00	143.00	(1) 3/8" Fiber	0.00	Inside
0.00	133.00	(12) 1 5/8" Coax	0.00	Inside
0.00	133.00	(2) 1 5/8" Hybrid	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	100.00	(1) 1.6" Hybrid			0.00	Inside					
0.00	85.00	(6) 7/8" Coax			0.00	Inside					

Shaft Section Properties

Structure:	CT13610-A	**Code:**	EIA/TIA-222-G	12/14/2021	
Site Name:	ARTEC	**Exposure:**	C		
Height:	155.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	C - Very Dense Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 4	

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	60.870	83.915	38719.9	23.12	139.13	74.2	1252.	0.0
5.00		0.4375	59.580	82.124	36292.6	22.60	136.18	74.8	1199.	1412.5
10.00		0.4375	58.290	80.332	33968.9	22.08	133.23	75.4	1147.	1382.0
15.00		0.4375	57.000	78.541	31746.6	21.56	130.28	76.0	1097.	1351.5
20.00		0.4375	55.709	76.749	29623.4	21.04	127.34	76.7	1047.	1321.0
25.00		0.4375	54.419	74.958	27597.0	20.52	124.39	77.3	998.8	1290.6
30.00		0.4375	53.129	73.166	25665.2	20.00	121.44	77.9	951.5	1260.1
35.00		0.4375	51.839	71.375	23825.7	19.48	118.49	78.5	905.3	1229.6
40.00		0.4375	50.549	69.583	22076.3	18.96	115.54	79.1	860.2	1199.1
44.75	Bot - Section 2	0.4375	49.323	67.881	20495.8	18.47	112.74	79.7	818.5	1110.9
45.00		0.4375	49.259	67.792	20414.7	18.44	112.59	79.7	816.3	108.0
50.00		0.4375	47.968	66.000	18838.7	17.92	109.64	80.3	773.5	2130.2
51.00	Top - Section 1	0.3750	48.460	57.232	16719.1	21.38	129.23	0.0	0.0	419.2
55.00		0.3750	47.428	56.003	15665.5	20.89	126.48	76.8	650.6	770.6
60.00		0.3750	46.138	54.468	14411.9	20.28	123.03	77.5	615.2	939.8
65.00		0.3750	44.848	52.932	13227.0	19.68	119.59	78.3	580.9	913.6
70.00		0.3750	43.558	51.396	12108.9	19.07	116.15	79.0	547.5	887.5
75.00		0.3750	42.268	49.861	11055.7	18.46	112.71	79.7	515.2	861.4
80.00		0.3750	40.977	48.325	10065.4	17.86	109.27	80.4	483.8	835.3
85.00		0.3750	39.687	46.790	9136.1	17.25	105.83	81.1	453.4	809.1
90.00		0.3750	38.397	45.254	8265.8	16.64	102.39	81.8	424.0	783.0
90.75	Bot - Section 3	0.3750	38.204	45.024	8140.2	16.55	101.88	81.9	419.7	115.2
95.00		0.3750	37.107	43.719	7452.6	16.04	98.95	82.5	395.6	1076.7
95.75	Top - Section 2	0.2500	37.413	29.488	5145.5	24.98	149.65	0.0	0.0	186.7
100.00		0.2500	36.317	28.618	4703.3	24.20	145.27	72.9	255.1	420.2
105.00		0.2500	35.027	27.594	4216.4	23.29	140.11	74.0	237.1	478.2
110.00		0.2500	33.736	26.571	3764.4	22.38	134.95	75.1	219.8	460.8
115.00		0.2500	32.446	25.547	3345.8	21.47	129.79	76.1	203.1	443.4
120.00		0.2500	31.156	24.523	2959.5	20.56	124.62	77.2	187.1	425.9
125.00		0.2500	29.866	23.499	2604.1	19.65	119.46	78.3	171.7	408.5
127.00	Bot - Section 4	0.2500	29.350	23.090	2470.4	19.29	117.40	78.7	165.8	158.5
130.00		0.2500	28.576	22.476	2278.4	18.74	114.30	79.4	157.0	409.7
130.75	Top - Section 3	0.1875	28.757	17.002	1753.3	25.63	153.37	0.0	0.0	100.7
133.00		0.1875	28.177	16.656	1648.6	25.09	150.28	71.9	115.2	128.8
135.00		0.1875	27.661	16.349	1559.1	24.60	147.52	72.5	111.0	112.3
140.00		0.1875	26.370	15.582	1349.6	23.39	140.64	73.9	100.8	271.6
143.00		0.1875	25.596	15.121	1233.4	22.66	136.51	74.7	94.9	156.7
145.00		0.1875	25.080	14.814	1159.8	22.18	133.76	75.3	91.1	101.9
150.00		0.1875	23.790	14.046	988.6	20.96	126.88	76.7	81.8	245.5
154.00		0.1875	22.758	13.432	864.5	19.99	121.38	77.9	74.8	187.0
155.00		0.1875	22.500	13.278	835.2	19.75	120.00	78.2	73.1	45.4
										26948.9

Wind Loading - Shaft

Structure:	CT13610-A	**Code:**	EIA/TIA-222-G	12/14/2021	
Site Name:	ARTEC	**Exposure:**	C		
Height:	155.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	C - Very Dense Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 5	

Load Case: 1.2D + 1.6W 101 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.60

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	0.85	21.088	23.20	479.62	0.650	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.85	21.088	23.20	469.46	0.650	0.000	5.00	25.481	16.56	614.7	0.0	1695.0
10.00		1.00	0.85	21.088	23.20	459.29	0.650	0.000	5.00	24.935	16.21	601.5	0.0	1658.4
15.00		1.00	0.85	21.088	23.20	449.13	0.650	0.000	5.00	24.389	15.85	588.4	0.0	1621.8
20.00		1.00	0.90	22.375	24.61	452.16	0.650	0.000	5.00	23.843	15.50	610.3	0.0	1585.2
25.00		1.00	0.95	23.451	25.80	452.19	0.650	0.000	5.00	23.297	15.14	625.0	0.0	1548.7
30.00		1.00	0.98	24.369	26.81	450.02	0.650	0.000	5.00	22.752	14.79	634.3	0.0	1512.1
35.00		1.00	1.01	25.172	27.69	446.28	0.650	0.000	5.00	22.206	14.43	639.5	0.0	1475.5
40.00		1.00	1.04	25.890	28.48	441.33	0.650	0.000	5.00	21.660	14.08	641.5	0.0	1438.9
44.75	Bot - Section 2	1.00	1.07	26.509	29.16	435.74	0.650	0.000	4.75	20.071	13.05	608.7	0.0	1333.1
45.00		1.00	1.07	26.540	29.19	435.43	0.650	0.000	0.25	1.059	0.69	32.1	0.0	129.6
50.00		1.00	1.09	27.135	29.85	428.75	0.650	0.000	5.00	20.885	13.58	648.3	0.0	2556.2
51.00	Top - Section 1	1.00	1.10	27.249	29.97	427.34	0.650	0.000	1.00	4.112	2.67	128.2	0.0	503.1
55.00		1.00	1.12	27.685	30.45	428.20	0.650	0.000	4.00	16.228	10.55	514.0	0.0	924.7
60.00		1.00	1.14	28.197	31.02	420.38	0.650	0.000	5.00	19.794	12.87	638.5	0.0	1127.7
65.00		1.00	1.16	28.676	31.54	412.09	0.650	0.000	5.00	19.248	12.51	631.4	0.0	1096.4
70.00		1.00	1.17	29.127	32.04	403.37	0.650	0.000	5.00	18.702	12.16	623.2	0.0	1065.0
75.00		1.00	1.19	29.553	32.51	394.27	0.650	0.000	5.00	18.156	11.80	613.8	0.0	1033.7
80.00		1.00	1.21	29.958	32.95	384.84	0.650	0.000	5.00	17.610	11.45	603.5	0.0	1002.3
85.00	Appurtenance(s)	1.00	1.22	30.342	33.38	375.11	0.650	0.000	5.00	17.064	11.09	592.3	0.0	971.0
90.00		1.00	1.24	30.710	33.78	365.11	0.650	0.000	5.00	16.519	10.74	580.3	0.0	939.6
90.75	Bot - Section 3	1.00	1.24	30.763	33.84	363.59	0.650	0.000	0.75	2.431	1.58	85.5	0.0	138.2
95.00		1.00	1.25	31.061	34.17	354.85	0.650	0.000	4.25	13.722	8.92	487.6	0.0	1292.0
95.75	Top - Section 2	1.00	1.25	31.113	34.22	353.30	0.650	0.000	0.75	2.381	1.55	84.7	0.0	224.1
100.00	Appurtenance(s)	1.00	1.27	31.399	34.54	349.18	0.650	0.000	4.25	13.258	8.62	476.2	0.0	504.2
105.00		1.00	1.28	31.723	34.89	338.51	0.650	0.000	5.00	15.092	9.81	547.7	0.0	573.8
110.00		1.00	1.29	32.035	35.24	327.64	0.650	0.000	5.00	14.547	9.46	533.1	0.0	552.9
115.00		1.00	1.30	32.336	35.57	316.59	0.650	0.000	5.00	14.001	9.10	517.9	0.0	532.0
120.00		1.00	1.32	32.627	35.89	305.36	0.650	0.000	5.00	13.455	8.75	502.2	0.0	511.1
125.00		1.00	1.33	32.909	36.20	293.98	0.650	0.000	5.00	12.909	8.39	486.0	0.0	490.2
127.00	Bot - Section 4	1.00	1.33	33.019	36.32	289.38	0.650	0.000	2.00	5.011	3.26	189.3	0.0	190.2
130.00		1.00	1.34	33.182	36.50	282.44	0.650	0.000	3.00	7.448	4.84	282.7	0.0	491.6
130.75	Top - Section 3	1.00	1.34	33.222	36.54	280.70	0.650	0.000	0.75	1.831	1.19	69.6	0.0	120.8
133.00	Appurtenance(s)	1.00	1.34	33.341	36.68	279.17	0.650	0.000	2.25	5.420	3.52	206.7	0.0	154.6
135.00		1.00	1.35	33.446	36.79	274.49	0.650	0.000	2.00	4.725	3.07	180.8	0.0	134.8
140.00		1.00	1.36	33.703	37.07	262.69	0.650	0.000	5.00	11.430	7.43	440.7	0.0	326.0
143.00	Appurtenance(s)	1.00	1.36	33.854	37.24	255.55	0.650	0.000	3.00	6.596	4.29	255.5	0.0	188.1
145.00		1.00	1.37	33.953	37.35	250.76	0.650	0.000	2.00	4.288	2.79	166.6	0.0	122.2
150.00		1.00	1.38	34.196	37.62	238.71	0.650	0.000	5.00	10.338	6.72	404.4	0.0	294.6
154.00	Appurtenance(s)	1.00	1.39	34.386	37.83	228.99	0.650	0.000	4.00	7.878	5.12	309.9	0.0	224.4
155.00		1.00	1.39	34.433	37.88	226.55	0.650	0.000	1.00	1.915	1.24	75.4	0.0	54.5
								Totals:	**155.00**			**17,472.3**		**32,338.6**

Discrete Appurtenance Forces

Structure:	CT13610-A	**Code:**	EIA/TIA-222-G	12/14/2021	
Site Name:	ARTEC	**Exposure:**	C		
Height:	155.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	C - Very Dense Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 6	

Load Case: 1.2D + 1.6W 101 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.60

Iterations 23

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	CaAa 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	154.00	T-Arm	3	34.386	37.825	0.56	0.75	13.72	1508.76	0.000	0.000	830.30	0.00	0.00
2	154.00	Ericsson - Radio 4449	3	34.386	37.825	0.73	0.90	3.56	266.40	0.000	0.000	215.74	0.00	0.00
3	154.00	Ericsson - KRY 112 144/1	3	34.386	37.825	0.65	0.90	0.68	39.60	0.000	0.000	41.18	0.00	0.00
4	154.00	RFS -	3	34.386	37.825	0.65	0.90	39.35	460.80	0.000	0.000	2381.26	0.00	0.00
5	154.00	Ericsson - Air 21 B4A/B2P	3	34.386	37.825	0.77	0.90	13.86	325.08	0.000	0.000	838.92	0.00	0.00
6	154.00	Ericsson - Air 21 B2A/B4P	3	34.386	37.825	0.77	0.90	13.86	329.40	0.000	0.000	838.92	0.00	0.00
7	154.00	Mount Mod	3	34.386	37.825	1.00	1.00	66.75	3282.19	0.000	0.000	4039.72	0.00	0.00
8	143.00	Cci - HPA-65R-BUU-H6	3	33.854	37.240	0.66	0.80	19.24	183.60	0.000	0.000	1146.54	0.00	0.00
9	143.00	Powerwave - LGP21401	6	33.854	37.240	0.53	0.80	3.33	136.80	0.000	0.000	198.20	0.00	0.00
10	143.00	Powerwave - LGP13519	6	33.854	37.240	0.59	0.80	0.82	39.60	0.000	0.000	48.68	0.00	0.00
11	143.00	Powerwave - 7770	6	33.854	37.240	0.62	0.80	20.36	252.00	0.000	0.000	1213.41	0.00	0.00
12	143.00	T-Arm	3	33.854	37.240	0.56	0.75	13.72	1508.76	0.000	0.000	817.44	0.00	0.00
13	143.00	Ericsson - RRUS 11	6	33.854	37.240	0.57	0.80	8.76	360.00	0.000	0.000	521.86	0.00	0.00
14	143.00	Ericsson - RRUS 32 B2	3	33.854	37.240	0.60	0.80	2.97	277.20	0.000	0.000	176.96	0.00	0.00
15	143.00	Raycap -	1	33.854	37.240	1.07	0.80	2.36	39.36	0.000	0.000	140.52	0.00	0.00
16	133.00	T-Arm	3	33.341	36.675	0.56	0.75	13.72	1508.76	0.000	0.000	805.06	0.00	0.00
17	133.00	Rfs Celwave -	2	33.341	36.675	0.57	0.80	5.45	105.60	0.000	0.000	319.97	0.00	0.00
18	133.00	Samsung - RF4440d-13A	3	33.341	36.675	0.64	0.80	3.59	253.19	0.000	0.000	210.69	0.00	0.00
19	133.00	Samsung - RF4439d-25A	3	33.341	36.675	0.67	0.80	3.77	268.92	0.000	0.000	221.22	0.00	0.00
20	133.00	Amphenol -	6	33.341	36.675	1.20	0.80	31.18	151.20	0.000	0.000	1829.43	0.00	0.00
21	133.00	Andrew - SBNHH-1D65B	6	33.341	36.675	0.66	0.80	32.51	288.00	0.000	0.000	1907.68	0.00	0.00
22	133.00	Samsung - MT6407-77A	3	33.341	36.675	0.60	0.80	8.44	285.84	0.000	0.000	495.38	0.00	0.00
23	100.00	JMA Wireless -	3	31.399	34.538	0.55	0.75	20.51	232.20	0.000	0.000	1133.68	0.00	0.00
24	100.00	Fujitsu - TA08025-B605	3	31.399	34.538	0.60	0.75	3.53	269.86	0.000	0.000	194.96	0.00	0.00
25	100.00	Fujitsu - TA08025-B604	3	31.399	34.538	0.57	0.75	3.35	230.15	0.000	0.000	185.21	0.00	0.00
26	100.00	Raycap -	1	31.399	34.538	0.58	0.75	1.18	26.22	0.000	0.000	64.98	0.00	0.00
27	100.00	Platform w/ Handrail	1	31.399	34.538	1.00	1.00	22.00	2072.40	0.000	0.000	1215.75	0.00	0.00
28	85.00	T-Arm	1	30.342	33.377	1.00	1.00	8.13	502.92	0.000	0.000	434.16	0.00	0.00
29	85.00	Pipe Mount	2	30.342	33.377	1.00	1.00	10.00	144.00	0.000	0.000	534.03	0.00	0.00
30	85.00	SP4-4.7NS RD4	1	30.342	33.377	1.00	1.00	23.14	72.00	0.000	0.000	1235.74	0.00	0.00
31	85.00	SD222	2	30.692	33.761	1.00	1.00	10.60	40.80	0.000	4.750	572.59	0.00	2719.78
32	85.00	DB408	1	30.692	33.761	1.00	1.00	2.90	20.40	0.000	4.750	156.65	0.00	744.09
							Totals:		**15,482.00**			**24,966.84**		

Total Applied Force Summary

Structure:	CT13610-A		**Code:**	EIA/TIA-222-G	12/14/2021
Site Name:	ARTEC		**Exposure:**	C	
Height:	155.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	C - Very Dense Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 7

Load Case: 1.2D + 1.6W 101 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.60

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		614.70	1975.98	0.00	0.00
10.00		601.53	1939.40	0.00	0.00
15.00		588.37	1902.82	0.00	0.00
20.00		610.31	1866.25	0.00	0.00
25.00		625.02	1829.67	0.00	0.00
30.00		634.26	1793.09	0.00	0.00
35.00		639.46	1756.52	0.00	0.00
40.00		641.52	1719.94	0.00	0.00
44.75		608.68	1600.07	0.00	0.00
45.00		32.14	143.64	0.00	0.00
50.00		648.34	2837.21	0.00	0.00
51.00		128.17	559.29	0.00	0.00
55.00		513.97	1149.55	0.00	0.00
60.00		638.49	1408.72	0.00	0.00
65.00		631.44	1377.37	0.00	0.00
70.00		623.18	1346.02	0.00	0.00
75.00		613.84	1314.67	0.00	0.00
80.00		603.53	1283.31	0.00	0.00
85.00	(7) attachments	3525.50	2032.08	0.00	3463.87
90.00		580.33	1201.89	0.00	0.00
90.75		85.54	177.58	0.00	0.00
95.00		487.59	1514.92	0.00	0.00
95.75		84.73	263.42	0.00	0.00
100.00	(11) attachments	3270.80	3557.95	0.00	0.00
105.00		547.72	829.51	0.00	0.00
110.00		533.10	808.61	0.00	0.00
115.00		517.92	787.71	0.00	0.00
120.00		502.21	766.81	0.00	0.00
125.00		485.99	745.91	0.00	0.00
127.00		189.28	292.51	0.00	0.00
130.00		282.71	645.00	0.00	0.00
130.75		69.60	159.19	0.00	0.00
133.00	(26) attachments	5996.17	3131.18	0.00	0.00
135.00		180.79	201.81	0.00	0.00
140.00		440.71	493.56	0.00	0.00
143.00	(34) attachments	4519.08	3085.93	0.00	0.00
145.00		166.56	158.41	0.00	0.00
150.00		404.45	385.05	0.00	0.00
154.00	(21) attachments	9495.93	6508.98	0.00	0.00
155.00		75.43	56.11	0.00	0.00
	Totals:	**42,439.10**	**55,607.66**	**0.00**	**3,463.87**

Linear Appurtenance Segment Forces (Factored)

Structure:	CT13610-A	**Code:**	EIA/TIA-222-G	12/14/2021	
Site Name:	ARTEC	**Exposure:**	C		
Height:	155.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	C - Very Dense Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 8	

Load Case: 1.2D + 1.6W 101 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.60

Iterations 23

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
5.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.017	0.000	21.088	0.00	1.64
5.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.017	0.000	21.088	0.00	6.24
10.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.017	0.000	21.088	0.00	1.64
10.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.017	0.000	21.088	0.00	6.24
15.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.017	0.000	21.088	0.00	1.64
15.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.017	0.000	21.088	0.00	6.24
20.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.018	0.000	22.375	0.00	1.64
20.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.018	0.000	22.375	0.00	6.24
25.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.018	0.000	23.451	0.00	1.64
25.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.018	0.000	23.451	0.00	6.24
30.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.018	0.000	24.369	0.00	1.64
30.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.018	0.000	24.369	0.00	6.24
35.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.019	0.000	25.172	0.00	1.64
35.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.019	0.000	25.172	0.00	6.24
40.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.019	0.000	25.890	0.00	1.64
40.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.019	0.000	25.890	0.00	6.24
44.75	Safety Cable	Yes	4.75	0.000	0.38	0.15	0.00	0.020	0.000	26.509	0.00	1.56
44.75	Step bolts (ladder)	Yes	4.75	0.000	0.63	0.25	0.00	0.020	0.000	26.509	0.00	5.93
45.00	Safety Cable	Yes	0.25	0.000	0.38	0.01	0.00	0.020	0.000	26.540	0.00	0.08
45.00	Step bolts (ladder)	Yes	0.25	0.000	0.63	0.01	0.00	0.020	0.000	26.540	0.00	0.31
50.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.020	0.000	27.135	0.00	1.64
50.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.020	0.000	27.135	0.00	6.24
51.00	Safety Cable	Yes	1.00	0.000	0.38	0.03	0.00	0.021	0.000	27.249	0.00	0.33
51.00	Step bolts (ladder)	Yes	1.00	0.000	0.63	0.05	0.00	0.021	0.000	27.249	0.00	1.25
55.00	Safety Cable	Yes	4.00	0.000	0.38	0.13	0.00	0.021	0.000	27.685	0.00	1.31
55.00	Step bolts (ladder)	Yes	4.00	0.000	0.63	0.21	0.00	0.021	0.000	27.685	0.00	4.99
60.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.021	0.000	28.197	0.00	1.64
60.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.021	0.000	28.197	0.00	6.24
65.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.022	0.000	28.676	0.00	1.64
65.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.022	0.000	28.676	0.00	6.24
70.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.023	0.000	29.127	0.00	1.64
70.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.023	0.000	29.127	0.00	6.24
75.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.023	0.000	29.553	0.00	1.64
75.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.023	0.000	29.553	0.00	6.24
80.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.024	0.000	29.958	0.00	1.64
80.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.024	0.000	29.958	0.00	6.24
85.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.025	0.000	30.342	0.00	1.64
85.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.025	0.000	30.342	0.00	6.24
90.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.025	0.000	30.710	0.00	1.64
90.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.025	0.000	30.710	0.00	6.24
90.75	Safety Cable	Yes	0.75	0.000	0.38	0.02	0.00	0.026	0.000	30.763	0.00	0.25
90.75	Step bolts (ladder)	Yes	0.75	0.000	0.63	0.04	0.00	0.026	0.000	30.763	0.00	0.94
95.00	Safety Cable	Yes	4.25	0.000	0.38	0.13	0.00	0.026	0.000	31.061	0.00	1.39
95.00	Step bolts (ladder)	Yes	4.25	0.000	0.63	0.22	0.00	0.026	0.000	31.061	0.00	5.30
95.75	Safety Cable	Yes	0.75	0.000	0.38	0.02	0.00	0.027	0.000	31.113	0.00	0.25
95.75	Step bolts (ladder)	Yes	0.75	0.000	0.63	0.04	0.00	0.027	0.000	31.113	0.00	0.94
100.00	Safety Cable	Yes	4.25	0.000	0.38	0.13	0.00	0.027	0.000	31.399	0.00	1.39

Linear Appurtenance Segment Forces (Factored)

Structure:	CT13610-A	**Code:**	EIA/TIA-222-G	12/14/2021	
Site Name:	ARTEC	**Exposure:**	C		
Height:	155.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	C - Very Dense Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 9	

Load Case: 1.2D + 1.6W 101 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.60

Iterations 23

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
100.00	Step bolts (ladder)	Yes	4.25	0.000	0.63	0.22	0.00	0.027	0.000	31.399	0.00	5.30
105.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.028	0.000	31.723	0.00	1.64
105.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.028	0.000	31.723	0.00	6.24
110.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.029	0.000	32.035	0.00	1.64
110.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.029	0.000	32.035	0.00	6.24
115.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.030	0.000	32.336	0.00	1.64
115.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.030	0.000	32.336	0.00	6.24
120.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.031	0.000	32.627	0.00	1.64
120.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.031	0.000	32.627	0.00	6.24
125.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.033	0.000	32.909	0.00	1.64
125.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.033	0.000	32.909	0.00	6.24
127.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.034	0.000	33.019	0.00	0.66
127.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.034	0.000	33.019	0.00	2.50
130.00	Safety Cable	Yes	3.00	0.000	0.38	0.10	0.00	0.034	0.000	33.182	0.00	0.98
130.00	Step bolts (ladder)	Yes	3.00	0.000	0.63	0.16	0.00	0.034	0.000	33.182	0.00	3.74
130.75	Safety Cable	Yes	0.75	0.000	0.38	0.02	0.00	0.035	0.000	33.222	0.00	0.25
130.75	Step bolts (ladder)	Yes	0.75	0.000	0.63	0.04	0.00	0.035	0.000	33.222	0.00	0.94
133.00	Safety Cable	Yes	2.25	0.000	0.38	0.07	0.00	0.035	0.000	33.341	0.00	0.74
133.00	Step bolts (ladder)	Yes	2.25	0.000	0.63	0.12	0.00	0.035	0.000	33.341	0.00	2.81
135.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.036	0.000	33.446	0.00	0.66
135.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.036	0.000	33.446	0.00	2.50
140.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.037	0.000	33.703	0.00	1.64
140.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.037	0.000	33.703	0.00	6.24
143.00	Safety Cable	Yes	3.00	0.000	0.38	0.10	0.00	0.038	0.000	33.854	0.00	0.98
143.00	Step bolts (ladder)	Yes	3.00	0.000	0.63	0.16	0.00	0.038	0.000	33.854	0.00	3.74
145.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.039	0.000	33.953	0.00	0.66
145.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.039	0.000	33.953	0.00	2.50
150.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.041	0.000	34.196	0.00	1.64
150.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.041	0.000	34.196	0.00	6.24
154.00	Safety Cable	Yes	4.00	0.000	0.38	0.13	0.00	0.043	0.000	34.386	0.00	1.31
154.00	Step bolts (ladder)	Yes	4.00	0.000	0.63	0.21	0.00	0.043	0.000	34.386	0.00	4.99
155.00	Safety Cable	Yes	1.00	0.000	0.38	0.03	0.00	0.044	0.000	34.433	0.00	0.33
155.00	Step bolts (ladder)	Yes	1.00	0.000	0.63	0.05	0.00	0.044	0.000	34.433	0.00	1.25
									Totals:		**0.0**	**244.2**

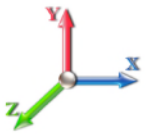
Calculated Forces

Structure:	CT13610-A	**Code:**	EIA/TIA-222-G	12/14/2021	
Site Name:	ARTEC	**Exposure:**	C		
Height:	155.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	C - Very Dense Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 10	

Load Case: 1.2D + 1.6W 101 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.60



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	-55.54	-42.52	0.00	-4796.3	0.00	4796.34	5604.23	2802.12	13924.9	6972.80	0.00	0.000	0.000	0.698
5.00	-53.44	-42.07	0.00	-4583.7	0.00	4583.72	5529.79	2764.90	13444.5	6732.24	0.09	-0.172	0.000	0.691
10.00	-51.37	-41.62	0.00	-4373.3	0.00	4373.38	5453.38	2726.69	12967.3	6493.32	0.37	-0.348	0.000	0.683
15.00	-49.35	-41.17	0.00	-4165.3	0.00	4165.30	5374.99	2687.50	12493.8	6256.19	0.83	-0.527	0.000	0.675
20.00	-47.36	-40.69	0.00	-3959.4	0.00	3959.45	5294.63	2647.32	12024.1	6021.01	1.48	-0.709	0.000	0.667
25.00	-45.41	-40.19	0.00	-3755.9	0.00	3755.99	5212.30	2606.15	11558.7	5787.94	2.32	-0.894	0.000	0.658
30.00	-43.49	-39.67	0.00	-3555.0	0.00	3555.05	5128.00	2564.00	11097.7	5557.14	3.36	-1.082	0.000	0.648
35.00	-41.62	-39.13	0.00	-3356.7	0.00	3356.71	5041.73	2520.86	10641.7	5328.76	4.60	-1.274	0.000	0.638
40.00	-39.78	-38.58	0.00	-3161.0	0.00	3161.05	4953.48	2476.74	10190.8	5102.98	6.03	-1.468	0.000	0.628
44.75	-38.14	-38.00	0.00	-2977.7	0.00	2977.77	4867.82	2433.91	9767.51	4891.01	7.59	-1.656	0.000	0.617
45.00	-37.92	-38.03	0.00	-2968.2	0.00	2968.27	4863.26	2431.63	9745.37	4879.93	7.68	-1.667	0.000	0.616
50.00	-35.03	-37.37	0.00	-2778.1	0.00	2778.12	4771.07	2385.54	9305.74	4659.79	9.53	-1.867	0.000	0.604
51.00	-34.41	-37.29	0.00	-2740.7	0.00	2740.75	3927.98	1963.99	7761.51	3886.53	9.93	-1.909	0.000	0.714
55.00	-33.15	-36.85	0.00	-2591.6	0.00	2591.61	3872.44	1936.22	7486.25	3748.69	11.60	-2.072	0.000	0.700
60.00	-31.62	-36.28	0.00	-2407.3	0.00	2407.39	3801.23	1900.62	7145.52	3578.07	13.89	-2.299	0.000	0.682
65.00	-30.13	-35.71	0.00	-2226.0	0.00	2226.00	3728.06	1864.03	6808.79	3409.45	16.42	-2.528	0.000	0.661
70.00	-28.67	-35.14	0.00	-2047.4	0.00	2047.44	3652.91	1826.46	6476.38	3243.00	19.19	-2.758	0.000	0.640
75.00	-27.25	-34.57	0.00	-1871.7	0.00	1871.74	3575.79	1787.90	6148.62	3078.88	22.20	-2.988	0.000	0.616
80.00	-25.87	-34.00	0.00	-1698.8	0.00	1698.87	3496.70	1748.35	5825.81	2917.23	25.46	-3.218	0.000	0.590
85.00	-23.93	-30.46	0.00	-1525.3	0.00	1525.39	3415.64	1707.82	5508.27	2758.23	28.95	-3.446	0.000	0.560
90.00	-22.69	-29.86	0.00	-1373.0	0.00	1373.09	3332.60	1666.30	5196.32	2602.02	32.68	-3.671	0.000	0.535
90.75	-22.46	-29.81	0.00	-1350.6	0.00	1350.69	3319.98	1659.99	5150.02	2578.84	33.26	-3.706	0.000	0.531
95.00	-20.93	-29.26	0.00	-1224.0	0.00	1224.02	3247.59	1623.80	4890.27	2448.77	36.64	-3.898	0.000	0.507
95.75	-20.61	-29.20	0.00	-1202.0	0.00	1202.07	1911.44	955.72	2922.15	1463.25	37.26	-3.932	0.000	0.833
100.00	-17.18	-25.76	0.00	-1077.9	0.00	1077.98	1878.47	939.23	2786.43	1395.29	40.84	-4.120	0.000	0.782
105.00	-16.26	-25.24	0.00	-949.17	0.00	949.17	1837.85	918.92	2627.99	1315.95	45.32	-4.427	0.000	0.731
110.00	-15.37	-24.72	0.00	-822.98	0.00	822.98	1795.26	897.63	2471.18	1237.43	50.11	-4.726	0.000	0.674
115.00	-14.51	-24.21	0.00	-699.37	0.00	699.37	1750.70	875.35	2316.31	1159.88	55.22	-5.014	0.000	0.612
120.00	-13.69	-23.70	0.00	-578.32	0.00	578.32	1704.17	852.08	2163.70	1083.46	60.61	-5.285	0.000	0.543
125.00	-12.92	-23.19	0.00	-459.80	0.00	459.80	1655.66	827.83	2013.66	1008.33	66.27	-5.535	0.000	0.465
127.00	-12.60	-23.00	0.00	-413.42	0.00	413.42	1635.71	817.85	1954.43	978.67	68.61	-5.630	0.000	0.431
130.00	-11.96	-22.67	0.00	-344.43	0.00	344.43	1605.19	802.59	1866.51	934.64	72.19	-5.761	0.000	0.377
130.75	-11.78	-22.60	0.00	-327.43	0.00	327.43	1090.28	545.14	1281.57	641.74	73.09	-5.792	0.000	0.523
133.00	-9.25	-16.33	0.00	-276.60	0.00	276.60	1077.75	538.87	1240.93	621.39	75.84	-5.879	0.000	0.455
135.00	-9.03	-16.15	0.00	-243.94	0.00	243.94	1066.28	533.14	1204.93	603.36	78.32	-5.969	0.000	0.414
140.00	-8.55	-15.68	0.00	-163.21	0.00	163.21	1036.22	518.11	1115.60	558.63	84.67	-6.155	0.000	0.301
143.00	-5.96	-10.86	0.00	-116.18	0.00	116.18	1017.23	508.62	1062.55	532.07	88.56	-6.243	0.000	0.225
145.00	-5.81	-10.68	0.00	-94.46	0.00	94.46	1004.18	502.09	1027.46	514.49	91.18	-6.292	0.000	0.190
150.00	-5.46	-10.24	0.00	-41.05	0.00	41.05	970.18	485.09	940.83	471.12	97.81	-6.375	0.000	0.093
154.00	-0.05	-0.08	0.00	-0.08	0.00	0.08	941.55	470.78	872.83	437.06	103.15	-6.398	0.000	0.000
155.00	0.00	-0.08	0.00	0.00	0.00	0.00	934.20	467.10	856.03	428.65	104.49	-6.398	0.000	0.000

Wind Loading - Shaft

Structure:	CT13610-A	**Code:**	EIA/TIA-222-G	12/14/2021	
Site Name:	ARTEC	**Exposure:**	C		
Height:	155.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	C - Very Dense Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 11	

Load Case: 0.9D + 1.6W 101 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60

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	0.85	21.088	23.20	479.62	0.650	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.85	21.088	23.20	469.46	0.650	0.000	5.00	25.481	16.56	614.7	0.0	1271.2
10.00		1.00	0.85	21.088	23.20	459.29	0.650	0.000	5.00	24.935	16.21	601.5	0.0	1243.8
15.00		1.00	0.85	21.088	23.20	449.13	0.650	0.000	5.00	24.389	15.85	588.4	0.0	1216.4
20.00		1.00	0.90	22.375	24.61	452.16	0.650	0.000	5.00	23.843	15.50	610.3	0.0	1188.9
25.00		1.00	0.95	23.451	25.80	452.19	0.650	0.000	5.00	23.297	15.14	625.0	0.0	1161.5
30.00		1.00	0.98	24.369	26.81	450.02	0.650	0.000	5.00	22.752	14.79	634.3	0.0	1134.1
35.00		1.00	1.01	25.172	27.69	446.28	0.650	0.000	5.00	22.206	14.43	639.5	0.0	1106.6
40.00		1.00	1.04	25.890	28.48	441.33	0.650	0.000	5.00	21.660	14.08	641.5	0.0	1079.2
44.75	Bot - Section 2	1.00	1.07	26.509	29.16	435.74	0.650	0.000	4.75	20.071	13.05	608.7	0.0	999.8
45.00		1.00	1.07	26.540	29.19	435.43	0.650	0.000	0.25	1.059	0.69	32.1	0.0	97.2
50.00		1.00	1.09	27.135	29.85	428.75	0.650	0.000	5.00	20.885	13.58	648.3	0.0	1917.2
51.00	Top - Section 1	1.00	1.10	27.249	29.97	427.34	0.650	0.000	1.00	4.112	2.67	128.2	0.0	377.3
55.00		1.00	1.12	27.685	30.45	428.20	0.650	0.000	4.00	16.228	10.55	514.0	0.0	693.6
60.00		1.00	1.14	28.197	31.02	420.38	0.650	0.000	5.00	19.794	12.87	638.5	0.0	845.8
65.00		1.00	1.16	28.676	31.54	412.09	0.650	0.000	5.00	19.248	12.51	631.4	0.0	822.3
70.00		1.00	1.17	29.127	32.04	403.37	0.650	0.000	5.00	18.702	12.16	623.2	0.0	798.8
75.00		1.00	1.19	29.553	32.51	394.27	0.650	0.000	5.00	18.156	11.80	613.8	0.0	775.3
80.00		1.00	1.21	29.958	32.95	384.84	0.650	0.000	5.00	17.610	11.45	603.5	0.0	751.7
85.00	Appurtenance(s)	1.00	1.22	30.342	33.38	375.11	0.650	0.000	5.00	17.064	11.09	592.3	0.0	728.2
90.00		1.00	1.24	30.710	33.78	365.11	0.650	0.000	5.00	16.519	10.74	580.3	0.0	704.7
90.75	Bot - Section 3	1.00	1.24	30.763	33.84	363.59	0.650	0.000	0.75	2.431	1.58	85.5	0.0	103.7
95.00		1.00	1.25	31.061	34.17	354.85	0.650	0.000	4.25	13.722	8.92	487.6	0.0	969.0
95.75	Top - Section 2	1.00	1.25	31.113	34.22	353.30	0.650	0.000	0.75	2.381	1.55	84.7	0.0	168.1
100.00	Appurtenance(s)	1.00	1.27	31.399	34.54	349.18	0.650	0.000	4.25	13.258	8.62	476.2	0.0	378.1
105.00		1.00	1.28	31.723	34.89	338.51	0.650	0.000	5.00	15.092	9.81	547.7	0.0	430.4
110.00		1.00	1.29	32.035	35.24	327.64	0.650	0.000	5.00	14.547	9.46	533.1	0.0	414.7
115.00		1.00	1.30	32.336	35.57	316.59	0.650	0.000	5.00	14.001	9.10	517.9	0.0	399.0
120.00		1.00	1.32	32.627	35.89	305.36	0.650	0.000	5.00	13.455	8.75	502.2	0.0	383.3
125.00		1.00	1.33	32.909	36.20	293.98	0.650	0.000	5.00	12.909	8.39	486.0	0.0	367.7
127.00	Bot - Section 4	1.00	1.33	33.019	36.32	289.38	0.650	0.000	2.00	5.011	3.26	189.3	0.0	142.7
130.00		1.00	1.34	33.182	36.50	282.44	0.650	0.000	3.00	7.448	4.84	282.7	0.0	368.7
130.75	Top - Section 3	1.00	1.34	33.222	36.54	280.70	0.650	0.000	0.75	1.831	1.19	69.6	0.0	90.6
133.00	Appurtenance(s)	1.00	1.34	33.341	36.68	279.17	0.650	0.000	2.25	5.420	3.52	206.7	0.0	116.0
135.00		1.00	1.35	33.446	36.79	274.49	0.650	0.000	2.00	4.725	3.07	180.8	0.0	101.1
140.00		1.00	1.36	33.703	37.07	262.69	0.650	0.000	5.00	11.430	7.43	440.7	0.0	244.5
143.00	Appurtenance(s)	1.00	1.36	33.854	37.24	255.55	0.650	0.000	3.00	6.596	4.29	255.5	0.0	141.0
145.00		1.00	1.37	33.953	37.35	250.76	0.650	0.000	2.00	4.288	2.79	166.6	0.0	91.7
150.00		1.00	1.38	34.196	37.62	238.71	0.650	0.000	5.00	10.338	6.72	404.4	0.0	221.0
154.00	Appurtenance(s)	1.00	1.39	34.386	37.83	228.99	0.650	0.000	4.00	7.878	5.12	309.9	0.0	168.3
155.00		1.00	1.39	34.433	37.88	226.55	0.650	0.000	1.00	1.915	1.24	75.4	0.0	40.9
								Totals:	**155.00**			**17,472.3**		**24,254.0**

Discrete Appurtenance Forces

Structure:	CT13610-A	**Code:**	EIA/TIA-222-G	12/14/2021	
Site Name:	ARTEC	**Exposure:**	C		
Height:	155.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	C - Very Dense Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 12	

Load Case: 0.9D + 1.6W 101 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60

Iterations 23

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	CaAa 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	154.00	T-Arm	3	34.386	37.825	0.56	0.75	13.72	1131.57	0.000	0.000	830.30	0.00	0.00
2	154.00	Ericsson - Radio 4449	3	34.386	37.825	0.73	0.90	3.56	199.80	0.000	0.000	215.74	0.00	0.00
3	154.00	Ericsson - KRY 112 144/1	3	34.386	37.825	0.65	0.90	0.68	29.70	0.000	0.000	41.18	0.00	0.00
4	154.00	RFS -	3	34.386	37.825	0.65	0.90	39.35	345.60	0.000	0.000	2381.26	0.00	0.00
5	154.00	Ericsson - Air 21 B4A/B2P	3	34.386	37.825	0.77	0.90	13.86	243.81	0.000	0.000	838.92	0.00	0.00
6	154.00	Ericsson - Air 21 B2A/B4P	3	34.386	37.825	0.77	0.90	13.86	247.05	0.000	0.000	838.92	0.00	0.00
7	154.00	Mount Mod	3	34.386	37.825	1.00	1.00	66.75	2461.64	0.000	0.000	4039.72	0.00	0.00
8	143.00	Cci - HPA-65R-BUU-H6	3	33.854	37.240	0.66	0.80	19.24	137.70	0.000	0.000	1146.54	0.00	0.00
9	143.00	Powerwave - LGP21401	6	33.854	37.240	0.53	0.80	3.33	102.60	0.000	0.000	198.20	0.00	0.00
10	143.00	Powerwave - LGP13519	6	33.854	37.240	0.59	0.80	0.82	29.70	0.000	0.000	48.68	0.00	0.00
11	143.00	Powerwave - 7770	6	33.854	37.240	0.62	0.80	20.36	189.00	0.000	0.000	1213.41	0.00	0.00
12	143.00	T-Arm	3	33.854	37.240	0.56	0.75	13.72	1131.57	0.000	0.000	817.44	0.00	0.00
13	143.00	Ericsson - RRUS 11	6	33.854	37.240	0.57	0.80	8.76	270.00	0.000	0.000	521.86	0.00	0.00
14	143.00	Ericsson - RRUS 32 B2	3	33.854	37.240	0.60	0.80	2.97	207.90	0.000	0.000	176.96	0.00	0.00
15	143.00	Raycap -	1	33.854	37.240	1.07	0.80	2.36	29.52	0.000	0.000	140.52	0.00	0.00
16	133.00	T-Arm	3	33.341	36.675	0.56	0.75	13.72	1131.57	0.000	0.000	805.06	0.00	0.00
17	133.00	Rfs Celwave -	2	33.341	36.675	0.57	0.80	5.45	79.20	0.000	0.000	319.97	0.00	0.00
18	133.00	Samsung - RF4440d-13A	3	33.341	36.675	0.64	0.80	3.59	189.89	0.000	0.000	210.69	0.00	0.00
19	133.00	Samsung - RF4439d-25A	3	33.341	36.675	0.67	0.80	3.77	201.69	0.000	0.000	221.22	0.00	0.00
20	133.00	Amphenol -	6	33.341	36.675	1.20	0.80	31.18	113.40	0.000	0.000	1829.43	0.00	0.00
21	133.00	Andrew - SBNHH-1D65B	6	33.341	36.675	0.66	0.80	32.51	216.00	0.000	0.000	1907.68	0.00	0.00
22	133.00	Samsung - MT6407-77A	3	33.341	36.675	0.60	0.80	8.44	214.38	0.000	0.000	495.38	0.00	0.00
23	100.00	JMA Wireless -	3	31.399	34.538	0.55	0.75	20.51	174.15	0.000	0.000	1133.68	0.00	0.00
24	100.00	Fujitsu - TA08025-B605	3	31.399	34.538	0.60	0.75	3.53	202.39	0.000	0.000	194.96	0.00	0.00
25	100.00	Fujitsu - TA08025-B604	3	31.399	34.538	0.57	0.75	3.35	172.61	0.000	0.000	185.21	0.00	0.00
26	100.00	Raycap -	1	31.399	34.538	0.58	0.75	1.18	19.67	0.000	0.000	64.98	0.00	0.00
27	100.00	Platform w/ Handrail	1	31.399	34.538	1.00	1.00	22.00	1554.30	0.000	0.000	1215.75	0.00	0.00
28	85.00	T-Arm	1	30.342	33.377	1.00	1.00	8.13	377.19	0.000	0.000	434.16	0.00	0.00
29	85.00	Pipe Mount	2	30.342	33.377	1.00	1.00	10.00	108.00	0.000	0.000	534.03	0.00	0.00
30	85.00	SP4-4.7NS RD4	1	30.342	33.377	1.00	1.00	23.14	54.00	0.000	0.000	1235.74	0.00	0.00
31	85.00	SD222	2	30.692	33.761	1.00	1.00	10.60	30.60	0.000	4.750	572.59	0.00	2719.78
32	85.00	DB408	1	30.692	33.761	1.00	1.00	2.90	15.30	0.000	4.750	156.65	0.00	744.09
							Totals:		**11,611.50**			**24,966.84**		

Total Applied Force Summary

Structure:	CT13610-A		**Code:**	EIA/TIA-222-G	12/14/2021
Site Name:	ARTEC		**Exposure:**	C	
Height:	155.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	C - Very Dense Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 13

Load Case: 0.9D + 1.6W 101 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60

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		614.70	1481.98	0.00	0.00
10.00		601.53	1454.55	0.00	0.00
15.00		588.37	1427.12	0.00	0.00
20.00		610.31	1399.69	0.00	0.00
25.00		625.02	1372.25	0.00	0.00
30.00		634.26	1344.82	0.00	0.00
35.00		639.46	1317.39	0.00	0.00
40.00		641.52	1289.96	0.00	0.00
44.75		608.68	1200.05	0.00	0.00
45.00		32.14	107.73	0.00	0.00
50.00		648.34	2127.91	0.00	0.00
51.00		128.17	419.47	0.00	0.00
55.00		513.97	862.16	0.00	0.00
60.00		638.49	1056.54	0.00	0.00
65.00		631.44	1033.03	0.00	0.00
70.00		623.18	1009.51	0.00	0.00
75.00		613.84	986.00	0.00	0.00
80.00		603.53	962.49	0.00	0.00
85.00	(7) attachments	3525.50	1524.06	0.00	3463.87
90.00		580.33	901.42	0.00	0.00
90.75		85.54	133.18	0.00	0.00
95.00		487.59	1136.19	0.00	0.00
95.75		84.73	197.56	0.00	0.00
100.00	(11) attachments	3270.80	2668.46	0.00	0.00
105.00		547.72	622.13	0.00	0.00
110.00		533.10	606.46	0.00	0.00
115.00		517.92	590.78	0.00	0.00
120.00		502.21	575.11	0.00	0.00
125.00		485.99	559.43	0.00	0.00
127.00		189.28	219.38	0.00	0.00
130.00		282.71	483.75	0.00	0.00
130.75		69.60	119.40	0.00	0.00
133.00	(26) attachments	5996.17	2348.39	0.00	0.00
135.00		180.79	151.36	0.00	0.00
140.00		440.71	370.17	0.00	0.00
143.00	(34) attachments	4519.08	2314.45	0.00	0.00
145.00		166.56	118.81	0.00	0.00
150.00		404.45	288.79	0.00	0.00
154.00	(21) attachments	9495.93	4881.74	0.00	0.00
155.00		75.43	42.08	0.00	0.00
	Totals:	**42,439.10**	**41,705.74**	**0.00**	**3,463.87**

Linear Appurtenance Segment Forces (Factored)

Structure:	CT13610-A	**Code:**	EIA/TIA-222-G	12/14/2021	
Site Name:	ARTEC	**Exposure:**	C		
Height:	155.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	C - Very Dense Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 14	

Load Case: 0.9D + 1.6W 101 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60

Iterations 23

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
5.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.017	0.000	21.088	0.00	1.23
5.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.017	0.000	21.088	0.00	4.68
10.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.017	0.000	21.088	0.00	1.23
10.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.017	0.000	21.088	0.00	4.68
15.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.017	0.000	21.088	0.00	1.23
15.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.017	0.000	21.088	0.00	4.68
20.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.018	0.000	22.375	0.00	1.23
20.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.018	0.000	22.375	0.00	4.68
25.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.018	0.000	23.451	0.00	1.23
25.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.018	0.000	23.451	0.00	4.68
30.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.018	0.000	24.369	0.00	1.23
30.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.018	0.000	24.369	0.00	4.68
35.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.019	0.000	25.172	0.00	1.23
35.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.019	0.000	25.172	0.00	4.68
40.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.019	0.000	25.890	0.00	1.23
40.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.019	0.000	25.890	0.00	4.68
44.75	Safety Cable	Yes	4.75	0.000	0.38	0.15	0.00	0.020	0.000	26.509	0.00	1.17
44.75	Step bolts (ladder)	Yes	4.75	0.000	0.63	0.25	0.00	0.020	0.000	26.509	0.00	4.45
45.00	Safety Cable	Yes	0.25	0.000	0.38	0.01	0.00	0.020	0.000	26.540	0.00	0.06
45.00	Step bolts (ladder)	Yes	0.25	0.000	0.63	0.01	0.00	0.020	0.000	26.540	0.00	0.23
50.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.020	0.000	27.135	0.00	1.23
50.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.020	0.000	27.135	0.00	4.68
51.00	Safety Cable	Yes	1.00	0.000	0.38	0.03	0.00	0.021	0.000	27.249	0.00	0.25
51.00	Step bolts (ladder)	Yes	1.00	0.000	0.63	0.05	0.00	0.021	0.000	27.249	0.00	0.94
55.00	Safety Cable	Yes	4.00	0.000	0.38	0.13	0.00	0.021	0.000	27.685	0.00	0.98
55.00	Step bolts (ladder)	Yes	4.00	0.000	0.63	0.21	0.00	0.021	0.000	27.685	0.00	3.74
60.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.021	0.000	28.197	0.00	1.23
60.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.021	0.000	28.197	0.00	4.68
65.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.022	0.000	28.676	0.00	1.23
65.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.022	0.000	28.676	0.00	4.68
70.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.023	0.000	29.127	0.00	1.23
70.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.023	0.000	29.127	0.00	4.68
75.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.023	0.000	29.553	0.00	1.23
75.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.023	0.000	29.553	0.00	4.68
80.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.024	0.000	29.958	0.00	1.23
80.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.024	0.000	29.958	0.00	4.68
85.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.025	0.000	30.342	0.00	1.23
85.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.025	0.000	30.342	0.00	4.68
90.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.025	0.000	30.710	0.00	1.23
90.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.025	0.000	30.710	0.00	4.68
90.75	Safety Cable	Yes	0.75	0.000	0.38	0.02	0.00	0.026	0.000	30.763	0.00	0.18
90.75	Step bolts (ladder)	Yes	0.75	0.000	0.63	0.04	0.00	0.026	0.000	30.763	0.00	0.70
95.00	Safety Cable	Yes	4.25	0.000	0.38	0.13	0.00	0.026	0.000	31.061	0.00	1.04
95.00	Step bolts (ladder)	Yes	4.25	0.000	0.63	0.22	0.00	0.026	0.000	31.061	0.00	3.98
95.75	Safety Cable	Yes	0.75	0.000	0.38	0.02	0.00	0.027	0.000	31.113	0.00	0.18
95.75	Step bolts (ladder)	Yes	0.75	0.000	0.63	0.04	0.00	0.027	0.000	31.113	0.00	0.70
100.00	Safety Cable	Yes	4.25	0.000	0.38	0.13	0.00	0.027	0.000	31.399	0.00	1.04

Linear Appurtenance Segment Forces (Factored)

Structure:	CT13610-A	**Code:**	EIA/TIA-222-G	12/14/2021	
Site Name:	ARTEC	**Exposure:**	C		
Height:	155.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	C - Very Dense Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 15	

Load Case: 0.9D + 1.6W 101 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60

Iterations 23

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
100.00	Step bolts (ladder)	Yes	4.25	0.000	0.63	0.22	0.00	0.027	0.000	31.399	0.00	3.98
105.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.028	0.000	31.723	0.00	1.23
105.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.028	0.000	31.723	0.00	4.68
110.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.029	0.000	32.035	0.00	1.23
110.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.029	0.000	32.035	0.00	4.68
115.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.030	0.000	32.336	0.00	1.23
115.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.030	0.000	32.336	0.00	4.68
120.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.031	0.000	32.627	0.00	1.23
120.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.031	0.000	32.627	0.00	4.68
125.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.033	0.000	32.909	0.00	1.23
125.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.033	0.000	32.909	0.00	4.68
127.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.034	0.000	33.019	0.00	0.49
127.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.034	0.000	33.019	0.00	1.87
130.00	Safety Cable	Yes	3.00	0.000	0.38	0.10	0.00	0.034	0.000	33.182	0.00	0.74
130.00	Step bolts (ladder)	Yes	3.00	0.000	0.63	0.16	0.00	0.034	0.000	33.182	0.00	2.81
130.75	Safety Cable	Yes	0.75	0.000	0.38	0.02	0.00	0.035	0.000	33.222	0.00	0.18
130.75	Step bolts (ladder)	Yes	0.75	0.000	0.63	0.04	0.00	0.035	0.000	33.222	0.00	0.70
133.00	Safety Cable	Yes	2.25	0.000	0.38	0.07	0.00	0.035	0.000	33.341	0.00	0.55
133.00	Step bolts (ladder)	Yes	2.25	0.000	0.63	0.12	0.00	0.035	0.000	33.341	0.00	2.11
135.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.036	0.000	33.446	0.00	0.49
135.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.036	0.000	33.446	0.00	1.87
140.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.037	0.000	33.703	0.00	1.23
140.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.037	0.000	33.703	0.00	4.68
143.00	Safety Cable	Yes	3.00	0.000	0.38	0.10	0.00	0.038	0.000	33.854	0.00	0.74
143.00	Step bolts (ladder)	Yes	3.00	0.000	0.63	0.16	0.00	0.038	0.000	33.854	0.00	2.81
145.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.039	0.000	33.953	0.00	0.49
145.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.039	0.000	33.953	0.00	1.87
150.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.041	0.000	34.196	0.00	1.23
150.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.041	0.000	34.196	0.00	4.68
154.00	Safety Cable	Yes	4.00	0.000	0.38	0.13	0.00	0.043	0.000	34.386	0.00	0.98
154.00	Step bolts (ladder)	Yes	4.00	0.000	0.63	0.21	0.00	0.043	0.000	34.386	0.00	3.74
155.00	Safety Cable	Yes	1.00	0.000	0.38	0.03	0.00	0.044	0.000	34.433	0.00	0.25
155.00	Step bolts (ladder)	Yes	1.00	0.000	0.63	0.05	0.00	0.044	0.000	34.433	0.00	0.94
									Totals:		**0.0**	**183.2**

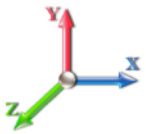
Calculated Forces

Structure:	CT13610-A	**Code:**	EIA/TIA-222-G	12/14/2021	
Site Name:	ARTEC	**Exposure:**	C		
Height:	155.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	C - Very Dense Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 16	

Load Case: 0.9D + 1.6W 101 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60



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	-41.64	-42.50	0.00	-4750.4	0.00	4750.46	5604.23	2802.12	13924.9	6972.80	0.00	0.000	0.000	0.689
5.00	-40.03	-42.01	0.00	-4537.9	0.00	4537.95	5529.79	2764.90	13444.5	6732.24	0.09	-0.171	0.000	0.682
10.00	-38.45	-41.52	0.00	-4327.9	0.00	4327.92	5453.38	2726.69	12967.3	6493.32	0.36	-0.344	0.000	0.674
15.00	-36.90	-41.03	0.00	-4120.3	0.00	4120.35	5374.99	2687.50	12493.8	6256.19	0.82	-0.521	0.000	0.666
20.00	-35.38	-40.52	0.00	-3915.2	0.00	3915.20	5294.63	2647.32	12024.1	6021.01	1.46	-0.701	0.000	0.657
25.00	-33.89	-39.98	0.00	-3712.6	0.00	3712.61	5212.30	2606.15	11558.7	5787.94	2.30	-0.884	0.000	0.648
30.00	-32.43	-39.43	0.00	-3512.6	0.00	3512.69	5128.00	2564.00	11097.7	5557.14	3.32	-1.071	0.000	0.639
35.00	-30.99	-38.87	0.00	-3315.5	0.00	3315.52	5041.73	2520.86	10641.7	5328.76	4.55	-1.260	0.000	0.629
40.00	-29.59	-38.30	0.00	-3121.1	0.00	3121.17	4953.48	2476.74	10190.8	5102.98	5.97	-1.452	0.000	0.618
44.75	-28.35	-37.70	0.00	-2939.2	0.00	2939.27	4867.82	2433.91	9767.51	4891.01	7.51	-1.638	0.000	0.607
45.00	-28.17	-37.72	0.00	-2929.8	0.00	2929.84	4863.26	2431.63	9745.37	4879.93	7.60	-1.648	0.000	0.606
50.00	-25.99	-37.06	0.00	-2741.2	0.00	2741.25	4771.07	2385.54	9305.74	4659.79	9.43	-1.845	0.000	0.594
51.00	-25.51	-36.96	0.00	-2704.1	0.00	2704.19	3927.98	1963.99	7761.51	3886.53	9.82	-1.886	0.000	0.703
55.00	-24.54	-36.50	0.00	-2556.3	0.00	2556.33	3872.44	1936.22	7486.25	3748.69	11.47	-2.048	0.000	0.689
60.00	-23.37	-35.92	0.00	-2373.8	0.00	2373.81	3801.23	1900.62	7145.52	3578.07	13.73	-2.272	0.000	0.670
65.00	-22.22	-35.33	0.00	-2194.2	0.00	2194.22	3728.06	1864.03	6808.79	3409.45	16.24	-2.497	0.000	0.650
70.00	-21.11	-34.75	0.00	-2017.5	0.00	2017.56	3652.91	1826.46	6476.38	3243.00	18.97	-2.724	0.000	0.628
75.00	-20.02	-34.17	0.00	-1843.8	0.00	1843.83	3575.79	1787.90	6148.62	3078.88	21.95	-2.951	0.000	0.605
80.00	-18.95	-33.59	0.00	-1673.0	0.00	1673.00	3496.70	1748.35	5825.81	2917.23	25.16	-3.177	0.000	0.579
85.00	-17.52	-30.05	0.00	-1501.6	0.00	1501.61	3415.64	1707.82	5508.27	2758.23	28.61	-3.401	0.000	0.550
90.00	-16.59	-29.45	0.00	-1351.3	0.00	1351.38	3332.60	1666.30	5196.32	2602.02	32.29	-3.623	0.000	0.525
90.75	-16.40	-29.39	0.00	-1329.2	0.00	1329.29	3319.98	1659.99	5150.02	2578.84	32.86	-3.658	0.000	0.521
95.00	-15.25	-28.86	0.00	-1204.4	0.00	1204.40	3247.59	1623.80	4890.27	2448.77	36.20	-3.846	0.000	0.497
95.75	-15.00	-28.79	0.00	-1182.7	0.00	1182.75	1911.44	955.72	2922.15	1463.25	36.81	-3.880	0.000	0.817
100.00	-12.46	-25.39	0.00	-1060.4	0.00	1060.41	1878.47	939.23	2786.43	1395.29	40.34	-4.065	0.000	0.767
105.00	-11.75	-24.86	0.00	-933.44	0.00	933.44	1837.85	918.92	2627.99	1315.95	44.76	-4.367	0.000	0.716
110.00	-11.06	-24.34	0.00	-809.13	0.00	809.13	1795.26	897.63	2471.18	1237.43	49.49	-4.661	0.000	0.661
115.00	-10.40	-23.82	0.00	-687.44	0.00	687.44	1750.70	875.35	2316.31	1159.88	54.52	-4.944	0.000	0.599
120.00	-9.77	-23.32	0.00	-568.32	0.00	568.32	1704.17	852.08	2163.70	1083.46	59.84	-5.210	0.000	0.531
125.00	-9.19	-22.81	0.00	-451.74	0.00	451.74	1655.66	827.83	2013.66	1008.33	65.42	-5.456	0.000	0.454
127.00	-8.95	-22.62	0.00	-406.12	0.00	406.12	1635.71	817.85	1954.43	978.67	67.73	-5.549	0.000	0.421
130.00	-8.46	-22.30	0.00	-338.28	0.00	338.28	1605.19	802.59	1866.51	934.64	71.25	-5.678	0.000	0.368
130.75	-8.33	-22.23	0.00	-321.55	0.00	321.55	1090.28	545.14	1281.57	641.74	72.15	-5.709	0.000	0.510
133.00	-6.57	-16.03	0.00	-271.54	0.00	271.54	1077.75	538.87	1240.93	621.39	74.85	-5.794	0.000	0.444
135.00	-6.40	-15.86	0.00	-239.48	0.00	239.48	1066.28	533.14	1204.93	603.36	77.30	-5.882	0.000	0.404
140.00	-6.04	-15.39	0.00	-160.20	0.00	160.20	1036.22	518.11	1115.60	558.63	83.55	-6.064	0.000	0.293
143.00	-4.21	-10.66	0.00	-114.03	0.00	114.03	1017.23	508.62	1062.55	532.07	87.39	-6.151	0.000	0.219
145.00	-4.10	-10.48	0.00	-92.71	0.00	92.71	1004.18	502.09	1027.46	514.49	89.97	-6.199	0.000	0.185
150.00	-3.84	-10.05	0.00	-40.29	0.00	40.29	970.18	485.09	940.83	471.12	96.50	-6.280	0.000	0.090
154.00	-0.03	-0.08	0.00	-0.08	0.00	0.08	941.55	470.78	872.83	437.06	101.76	-6.304	0.000	0.000
155.00	0.00	-0.08	0.00	0.00	0.00	0.00	934.20	467.10	856.03	428.65	103.08	-6.304	0.000	0.000

Wind Loading - Shaft

Structure:	CT13610-A		**Code:**	EIA/TIA-222-G	12/14/2021
Site Name:	ARTEC		**Exposure:**	C	
Height:	155.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	C - Very Dense Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 17

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

Dead Load Factor 1.20

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	0.85	5.168	5.68	0.00	1.200	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.85	5.168	5.68	0.00	1.200	1.242	5.00	26.516	31.82	180.9	473.3	2168.2
10.00		1.00	0.85	5.168	5.68	0.00	1.200	1.331	5.00	26.044	31.25	177.7	497.2	2155.6
15.00		1.00	0.85	5.168	5.68	0.00	1.200	1.386	5.00	25.544	30.65	174.3	507.0	2128.9
20.00		1.00	0.90	5.483	6.03	0.00	1.200	1.427	5.00	25.032	30.04	181.2	510.7	2095.9
25.00		1.00	0.95	5.747	6.32	0.00	1.200	1.459	5.00	24.513	29.42	186.0	510.7	2059.3
30.00		1.00	0.98	5.972	6.57	0.00	1.200	1.486	5.00	23.990	28.79	189.1	508.3	2020.4
35.00		1.00	1.01	6.169	6.79	0.00	1.200	1.509	5.00	23.463	28.16	191.1	504.2	1979.7
40.00		1.00	1.04	6.345	6.98	0.00	1.200	1.529	5.00	22.934	27.52	192.1	498.8	1937.8
44.75	Bot - Section 2	1.00	1.07	6.497	7.15	0.00	1.200	1.546	4.75	21.295	25.55	182.6	468.1	1801.2
45.00		1.00	1.07	6.504	7.15	0.00	1.200	1.547	0.25	1.123	1.35	9.6	25.0	154.6
50.00		1.00	1.09	6.650	7.32	0.00	1.200	1.564	5.00	22.188	26.63	194.8	492.5	3048.7
51.00	Top - Section 1	1.00	1.10	6.678	7.35	0.00	1.200	1.567	1.00	4.373	5.25	38.5	98.2	601.3
55.00		1.00	1.12	6.785	7.46	0.00	1.200	1.579	4.00	17.280	20.74	154.8	387.7	1312.4
60.00		1.00	1.14	6.910	7.60	0.00	1.200	1.592	5.00	21.121	25.34	192.7	476.1	1603.8
65.00		1.00	1.16	7.028	7.73	0.00	1.200	1.605	5.00	20.586	24.70	191.0	467.0	1563.4
70.00		1.00	1.17	7.138	7.85	0.00	1.200	1.617	5.00	20.050	24.06	188.9	457.6	1522.6
75.00		1.00	1.19	7.243	7.97	0.00	1.200	1.628	5.00	19.513	23.42	186.6	447.7	1481.3
80.00		1.00	1.21	7.342	8.08	0.00	1.200	1.639	5.00	18.976	22.77	183.9	437.4	1439.7
85.00	Appurtenance(s)	1.00	1.22	7.436	8.18	0.00	1.200	1.649	5.00	18.438	22.13	181.0	426.9	1397.8
90.00		1.00	1.24	7.526	8.28	0.00	1.200	1.658	5.00	17.900	21.48	177.8	416.0	1355.6
90.75	Bot - Section 3	1.00	1.24	7.539	8.29	0.00	1.200	1.660	0.75	2.638	3.17	26.3	62.2	200.4
95.00		1.00	1.25	7.612	8.37	0.00	1.200	1.667	4.25	14.903	17.88	149.7	348.6	1640.6
95.75	Top - Section 2	1.00	1.25	7.625	8.39	0.00	1.200	1.669	0.75	2.589	3.11	26.1	61.3	285.3
100.00	Appurtenance(s)	1.00	1.27	7.695	8.46	0.00	1.200	1.676	4.25	14.445	17.33	146.7	338.9	843.1
105.00		1.00	1.28	7.774	8.55	0.00	1.200	1.684	5.00	16.496	19.80	169.3	387.2	961.0
110.00		1.00	1.29	7.851	8.64	0.00	1.200	1.692	5.00	15.957	19.15	165.4	375.4	928.3
115.00		1.00	1.30	7.925	8.72	0.00	1.200	1.699	5.00	15.417	18.50	161.3	363.4	895.4
120.00		1.00	1.32	7.996	8.80	0.00	1.200	1.707	5.00	14.877	17.85	157.0	351.2	862.3
125.00		1.00	1.33	8.065	8.87	0.00	1.200	1.714	5.00	14.337	17.20	152.6	338.9	829.1
127.00	Bot - Section 4	1.00	1.33	8.092	8.90	0.00	1.200	1.716	2.00	5.583	6.70	59.6	133.5	323.8
130.00		1.00	1.34	8.132	8.95	0.00	1.200	1.720	3.00	8.308	9.97	89.2	198.2	689.8
130.75	Top - Section 3	1.00	1.34	8.142	8.96	0.00	1.200	1.721	0.75	2.046	2.46	22.0	49.3	170.1
133.00	Appurtenance(s)	1.00	1.34	8.171	8.99	0.00	1.200	1.724	2.25	6.067	7.28	65.4	145.3	299.9
135.00		1.00	1.35	8.197	9.02	0.00	1.200	1.727	2.00	5.301	6.36	57.4	127.1	261.9
140.00		1.00	1.36	8.260	9.09	0.00	1.200	1.733	5.00	12.874	15.45	140.4	305.0	630.9
143.00	Appurtenance(s)	1.00	1.36	8.297	9.13	0.00	1.200	1.737	3.00	7.465	8.96	81.7	178.3	366.4
145.00		1.00	1.37	8.321	9.15	0.00	1.200	1.739	2.00	4.868	5.84	53.5	116.8	239.0
150.00		1.00	1.38	8.381	9.22	0.00	1.200	1.745	5.00	11.793	14.15	130.5	279.0	573.6
154.00	Appurtenance(s)	1.00	1.39	8.427	9.27	0.00	1.200	1.750	4.00	9.044	10.85	100.6	214.8	439.2
155.00		1.00	1.39	8.439	9.28	0.00	1.200	1.751	1.00	2.207	2.65	24.6	53.2	107.7
								Totals:	**155.00**			**5,333.6**		**45,376.1**

Discrete Appurtenance Forces

Structure:	CT13610-A	**Code:**	EIA/TIA-222-G	12/14/2021	
Site Name:	ARTEC	**Exposure:**	C		
Height:	155.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	C - Very Dense Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 18	

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

Dead Load Factor 1.20

Wind Load Factor 1.00

Iterations 23

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	CaAa 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	154.00	T-Arm	3	8.427	9.270	0.56	0.75	25.24	4086.08	0.000	0.000	234.00	0.00	0.00
2	154.00	Ericsson - Radio 4449	3	8.427	9.270	0.74	0.90	4.70	614.57	0.000	0.000	43.59	0.00	0.00
3	154.00	Ericsson - KRY 112 144/1	3	8.427	9.270	0.68	0.90	1.19	99.05	0.000	0.000	11.03	0.00	0.00
4	154.00	RFS -	3	8.427	9.270	0.65	0.90	42.93	2178.71	0.000	0.000	397.93	0.00	0.00
5	154.00	Ericsson - Air 21 B4A/B2P	3	8.427	9.270	0.77	0.90	16.44	1038.53	0.000	0.000	152.40	0.00	0.00
6	154.00	Ericsson - Air 21 B2A/B4P	3	8.427	9.270	0.77	0.90	16.44	1046.37	0.000	0.000	152.40	0.00	0.00
7	154.00	Mount Mod	3	8.427	9.270	1.00	1.00	122.81	8888.97	0.000	0.000	1138.48	0.00	0.00
8	143.00	Cci - HPA-65R-BUU-H6	3	8.297	9.126	0.67	0.80	22.10	1017.33	0.000	0.000	201.69	0.00	0.00
9	143.00	Powerwave - LGP21401	6	8.297	9.126	0.54	0.80	4.75	397.80	0.000	0.000	43.36	0.00	0.00
10	143.00	Powerwave - LGP13519	6	8.297	9.126	0.61	0.80	1.56	107.52	0.000	0.000	14.21	0.00	0.00
11	143.00	Powerwave - 7770	6	8.297	9.126	0.62	0.80	24.03	1196.31	0.000	0.000	219.30	0.00	0.00
12	143.00	T-Arm	3	8.297	9.126	0.56	0.75	25.16	4076.34	0.000	0.000	229.60	0.00	0.00
13	143.00	Ericsson - RRUS 11	6	8.297	9.126	0.58	0.80	10.99	1023.29	0.000	0.000	100.32	0.00	0.00
14	143.00	Ericsson - RRUS 32 B2	3	8.297	9.126	0.57	0.80	3.71	625.20	0.000	0.000	33.88	0.00	0.00
15	143.00	Raycap -	1	8.297	9.126	1.06	0.80	2.97	165.64	0.000	0.000	27.07	0.00	0.00
16	133.00	T-Arm	3	8.171	8.988	0.56	0.75	25.07	4066.87	0.000	0.000	225.38	0.00	0.00
17	133.00	Rfs Celwave -	2	8.171	8.988	0.58	0.80	6.48	416.90	0.000	0.000	58.20	0.00	0.00
18	133.00	Samsung - RF4440d-13A	3	8.171	8.988	0.65	0.80	4.65	605.92	0.000	0.000	41.76	0.00	0.00
19	133.00	Samsung - RF4439d-25A	3	8.171	8.988	0.67	0.80	4.82	638.93	0.000	0.000	43.30	0.00	0.00
20	133.00	Amphenol -	6	8.171	8.988	1.18	0.80	38.18	1381.62	0.000	0.000	343.18	0.00	0.00
21	133.00	Andrew - SBNHH-1D65B	6	8.171	8.988	0.67	0.80	37.80	1626.01	0.000	0.000	339.78	0.00	0.00
22	133.00	Samsung - MT6407-77A	3	8.171	8.988	0.60	0.80	10.01	846.72	0.000	0.000	90.01	0.00	0.00
23	100.00	JMA Wireless -	3	7.695	8.464	0.55	0.75	23.10	1237.96	0.000	0.000	195.50	0.00	0.00
24	100.00	Fujitsu - TA08025-B605	3	7.695	8.464	0.61	0.75	4.51	639.76	0.000	0.000	38.20	0.00	0.00
25	100.00	Fujitsu - TA08025-B604	3	7.695	8.464	0.58	0.75	4.29	562.20	0.000	0.000	36.31	0.00	0.00
26	100.00	Raycap -	1	7.695	8.464	0.59	0.75	1.50	96.68	0.000	0.000	12.70	0.00	0.00
27	100.00	Platform w/ Handrail	1	7.695	8.464	1.00	1.00	39.70	5535.93	0.000	0.000	336.02	0.00	0.00
28	85.00	T-Arm	1	7.436	8.180	1.00	1.00	14.56	1336.64	0.000	0.000	119.13	0.00	0.00
29	85.00	Pipe Mount	2	7.436	8.180	1.00	1.00	16.60	-541.03	0.000	0.000	135.75	0.00	0.00
30	85.00	SP4-4.7NS RD4	1	7.436	8.180	1.00	1.00	26.19	227.13	0.000	0.000	214.25	0.00	0.00
31	85.00	SD222	2	7.522	8.274	1.00	1.00	26.09	227.82	0.000	4.750	215.83	0.00	1025.18
32	85.00	DB408	1	7.522	8.274	1.00	1.00	11.63	111.54	0.000	4.750	96.25	0.00	457.20
							Totals:		**45,579.32**			**5,540.78**		

Total Applied Force Summary

Structure:	CT13610-A		**Code:**	EIA/TIA-222-G	12/14/2021
Site Name:	ARTEC		**Exposure:**	C	
Height:	155.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	C - Very Dense Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 19

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

Dead Load Factor 1.20

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		180.88	2473.13	0.00	0.00
10.00		177.67	2463.64	0.00	0.00
15.00		174.26	2438.95	0.00	0.00
20.00		181.19	2407.54	0.00	0.00
25.00		185.96	2372.24	0.00	0.00
30.00		189.11	2334.36	0.00	0.00
35.00		191.06	2294.63	0.00	0.00
40.00		192.08	2253.49	0.00	0.00
44.75		182.62	2101.84	0.00	0.00
45.00		9.64	170.40	0.00	0.00
50.00		194.77	3365.86	0.00	0.00
51.00		38.54	664.74	0.00	0.00
55.00		154.77	1566.65	0.00	0.00
60.00		192.66	1922.18	0.00	0.00
65.00		190.97	1882.35	0.00	0.00
70.00		188.92	1842.04	0.00	0.00
75.00		186.55	1801.29	0.00	0.00
80.00		183.90	1760.15	0.00	0.00
85.00	(7) attachments	962.19	3080.78	0.00	1482.38
90.00		177.83	1658.15	0.00	0.00
90.75		26.25	245.78	0.00	0.00
95.00		149.75	1898.06	0.00	0.00
95.75		26.06	330.79	0.00	0.00
100.00	(11) attachments	765.45	9173.48	0.00	0.00
105.00		169.28	1258.08	0.00	0.00
110.00		165.36	1225.75	0.00	0.00
115.00		161.27	1193.20	0.00	0.00
120.00		157.03	1160.46	0.00	0.00
125.00		152.63	1127.53	0.00	0.00
127.00		59.63	443.22	0.00	0.00
130.00		89.18	869.08	0.00	0.00
130.75		21.99	214.94	0.00	0.00
133.00	(26) attachments	1207.04	10017.39	0.00	0.00
135.00		57.35	346.26	0.00	0.00
140.00		140.37	842.18	0.00	0.00
143.00	(34) attachments	951.17	9102.67	0.00	0.00
145.00		53.47	292.80	0.00	0.00
150.00		130.46	708.25	0.00	0.00
154.00	(21) attachments	2230.42	18499.34	0.00	0.00
155.00		24.58	118.17	0.00	0.00
	Totals:	**10,874.34**	**99,921.83**	**0.00**	**1,482.38**

Linear Appurtenance Segment Forces (Factored)

Structure:	CT13610-A	**Code:**	EIA/TIA-222-G	12/14/2021	
Site Name:	ARTEC	**Exposure:**	C		
Height:	155.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	C - Very Dense Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 20	

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

Dead Load Factor 1.20

Wind Load Factor 1.00

Iterations 23

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
5.00	Safety Cable	Yes	5.00	0.000	0.38	1.19	0.00	0.017	0.000	5.168	0.00	12.93
5.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	1.30	0.00	0.017	0.000	5.168	0.00	18.85
10.00	Safety Cable	Yes	5.00	0.000	0.38	1.27	0.00	0.017	0.000	5.168	0.00	14.46
10.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	1.37	0.00	0.017	0.000	5.168	0.00	20.46
15.00	Safety Cable	Yes	5.00	0.000	0.38	1.31	0.00	0.017	0.000	5.168	0.00	15.46
15.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	1.42	0.00	0.017	0.000	5.168	0.00	21.51
20.00	Safety Cable	Yes	5.00	0.000	0.38	1.35	0.00	0.018	0.000	5.483	0.00	16.21
20.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	1.45	0.00	0.018	0.000	5.483	0.00	22.31
25.00	Safety Cable	Yes	5.00	0.000	0.38	1.37	0.00	0.018	0.000	5.747	0.00	16.83
25.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	1.48	0.00	0.018	0.000	5.747	0.00	22.95
30.00	Safety Cable	Yes	5.00	0.000	0.38	1.40	0.00	0.018	0.000	5.972	0.00	17.35
30.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	1.50	0.00	0.018	0.000	5.972	0.00	23.50
35.00	Safety Cable	Yes	5.00	0.000	0.38	1.42	0.00	0.019	0.000	6.169	0.00	17.80
35.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	1.52	0.00	0.019	0.000	6.169	0.00	23.98
40.00	Safety Cable	Yes	5.00	0.000	0.38	1.43	0.00	0.019	0.000	6.345	0.00	18.21
40.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	1.54	0.00	0.019	0.000	6.345	0.00	24.40
44.75	Safety Cable	Yes	4.75	0.000	0.38	1.37	0.00	0.020	0.000	6.497	0.00	17.63
44.75	Step bolts (ladder)	Yes	4.75	0.000	0.63	1.47	0.00	0.020	0.000	6.497	0.00	23.53
45.00	Safety Cable	Yes	0.25	0.000	0.38	0.07	0.00	0.020	0.000	6.504	0.00	0.93
45.00	Step bolts (ladder)	Yes	0.25	0.000	0.63	0.08	0.00	0.020	0.000	6.504	0.00	1.24
50.00	Safety Cable	Yes	5.00	0.000	0.38	1.46	0.00	0.020	0.000	6.650	0.00	18.91
50.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	1.57	0.00	0.020	0.000	6.650	0.00	25.14
51.00	Safety Cable	Yes	1.00	0.000	0.38	0.29	0.00	0.021	0.000	6.678	0.00	3.80
51.00	Step bolts (ladder)	Yes	1.00	0.000	0.63	0.31	0.00	0.021	0.000	6.678	0.00	5.04
55.00	Safety Cable	Yes	4.00	0.000	0.38	1.18	0.00	0.021	0.000	6.785	0.00	15.38
55.00	Step bolts (ladder)	Yes	4.00	0.000	0.63	1.26	0.00	0.021	0.000	6.785	0.00	20.37
60.00	Safety Cable	Yes	5.00	0.000	0.38	1.49	0.00	0.021	0.000	6.910	0.00	19.51
60.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	1.59	0.00	0.021	0.000	6.910	0.00	25.76
65.00	Safety Cable	Yes	5.00	0.000	0.38	1.50	0.00	0.022	0.000	7.028	0.00	19.78
65.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	1.60	0.00	0.022	0.000	7.028	0.00	26.04
70.00	Safety Cable	Yes	5.00	0.000	0.38	1.51	0.00	0.023	0.000	7.138	0.00	20.03
70.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	1.61	0.00	0.023	0.000	7.138	0.00	26.31
75.00	Safety Cable	Yes	5.00	0.000	0.38	1.52	0.00	0.023	0.000	7.243	0.00	20.27
75.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	1.62	0.00	0.023	0.000	7.243	0.00	26.56
80.00	Safety Cable	Yes	5.00	0.000	0.38	1.52	0.00	0.024	0.000	7.342	0.00	20.49
80.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	1.63	0.00	0.024	0.000	7.342	0.00	26.79
85.00	Safety Cable	Yes	5.00	0.000	0.38	1.53	0.00	0.025	0.000	7.436	0.00	20.71
85.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	1.64	0.00	0.025	0.000	7.436	0.00	27.02
90.00	Safety Cable	Yes	5.00	0.000	0.38	1.54	0.00	0.025	0.000	7.526	0.00	20.91
90.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	1.64	0.00	0.025	0.000	7.526	0.00	27.23
90.75	Safety Cable	Yes	0.75	0.000	0.38	0.23	0.00	0.026	0.000	7.539	0.00	3.14
90.75	Step bolts (ladder)	Yes	0.75	0.000	0.63	0.25	0.00	0.026	0.000	7.539	0.00	4.09
95.00	Safety Cable	Yes	4.25	0.000	0.38	1.32	0.00	0.026	0.000	7.612	0.00	17.94
95.00	Step bolts (ladder)	Yes	4.25	0.000	0.63	1.40	0.00	0.026	0.000	7.612	0.00	23.32
95.75	Safety Cable	Yes	0.75	0.000	0.38	0.23	0.00	0.027	0.000	7.625	0.00	3.17
95.75	Step bolts (ladder)	Yes	0.75	0.000	0.63	0.25	0.00	0.027	0.000	7.625	0.00	4.12
100.00	Safety Cable	Yes	4.25	0.000	0.38	1.32	0.00	0.027	0.000	7.695	0.00	18.10

Linear Appurtenance Segment Forces (Factored)

Structure:	CT13610-A	**Code:**	EIA/TIA-222-G	12/14/2021	
Site Name:	ARTEC	**Exposure:**	C		
Height:	155.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	C - Very Dense Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 21	

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

Dead Load Factor 1.20

Wind Load Factor 1.00

Iterations 23

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
100.00	Step bolts (ladder)	Yes	4.25	0.000	0.63	1.41	0.00	0.027	0.000	7.695	0.00	23.49
105.00	Safety Cable	Yes	5.00	0.000	0.38	1.56	0.00	0.028	0.000	7.774	0.00	21.48
105.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	1.67	0.00	0.028	0.000	7.774	0.00	27.82
110.00	Safety Cable	Yes	5.00	0.000	0.38	1.57	0.00	0.029	0.000	7.851	0.00	21.65
110.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	1.67	0.00	0.029	0.000	7.851	0.00	28.00
115.00	Safety Cable	Yes	5.00	0.000	0.38	1.57	0.00	0.030	0.000	7.925	0.00	21.82
115.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	1.68	0.00	0.030	0.000	7.925	0.00	28.18
120.00	Safety Cable	Yes	5.00	0.000	0.38	1.58	0.00	0.031	0.000	7.996	0.00	21.98
120.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	1.68	0.00	0.031	0.000	7.996	0.00	28.34
125.00	Safety Cable	Yes	5.00	0.000	0.38	1.59	0.00	0.033	0.000	8.065	0.00	22.14
125.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	1.69	0.00	0.033	0.000	8.065	0.00	28.51
127.00	Safety Cable	Yes	2.00	0.000	0.38	0.64	0.00	0.034	0.000	8.092	0.00	8.88
127.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.68	0.00	0.034	0.000	8.092	0.00	11.43
130.00	Safety Cable	Yes	3.00	0.000	0.38	0.96	0.00	0.034	0.000	8.132	0.00	13.37
130.00	Step bolts (ladder)	Yes	3.00	0.000	0.63	1.02	0.00	0.034	0.000	8.132	0.00	17.20
130.75	Safety Cable	Yes	0.75	0.000	0.38	0.24	0.00	0.035	0.000	8.142	0.00	3.35
130.75	Step bolts (ladder)	Yes	0.75	0.000	0.63	0.25	0.00	0.035	0.000	8.142	0.00	4.30
133.00	Safety Cable	Yes	2.25	0.000	0.38	0.72	0.00	0.035	0.000	8.171	0.00	10.07
133.00	Step bolts (ladder)	Yes	2.25	0.000	0.63	0.76	0.00	0.035	0.000	8.171	0.00	12.94
135.00	Safety Cable	Yes	2.00	0.000	0.38	0.64	0.00	0.036	0.000	8.197	0.00	8.97
135.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.68	0.00	0.036	0.000	8.197	0.00	11.53
140.00	Safety Cable	Yes	5.00	0.000	0.38	1.60	0.00	0.037	0.000	8.260	0.00	22.57
140.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	1.71	0.00	0.037	0.000	8.260	0.00	28.97
143.00	Safety Cable	Yes	3.00	0.000	0.38	0.96	0.00	0.038	0.000	8.297	0.00	13.59
143.00	Step bolts (ladder)	Yes	3.00	0.000	0.63	1.03	0.00	0.038	0.000	8.297	0.00	17.43
145.00	Safety Cable	Yes	2.00	0.000	0.38	0.64	0.00	0.039	0.000	8.321	0.00	9.09
145.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.68	0.00	0.039	0.000	8.321	0.00	11.64
150.00	Safety Cable	Yes	5.00	0.000	0.38	1.61	0.00	0.041	0.000	8.381	0.00	22.85
150.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	1.72	0.00	0.041	0.000	8.381	0.00	29.25
154.00	Safety Cable	Yes	4.00	0.000	0.38	1.29	0.00	0.043	0.000	8.427	0.00	18.36
154.00	Step bolts (ladder)	Yes	4.00	0.000	0.63	1.38	0.00	0.043	0.000	8.427	0.00	23.49
155.00	Safety Cable	Yes	1.00	0.000	0.38	0.32	0.00	0.044	0.000	8.439	0.00	4.60
155.00	Step bolts (ladder)	Yes	1.00	0.000	0.63	0.34	0.00	0.044	0.000	8.439	0.00	5.88
									Totals:		**0.0**	**1,423.6**

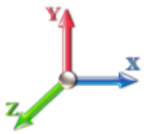
Calculated Forces

Structure:	CT13610-A	**Code:**	EIA/TIA-222-G	12/14/2021	
Site Name:	ARTEC	**Exposure:**	C		
Height:	155.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	C - Very Dense Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 22	

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

Dead Load Factor 1.20

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	-99.92	-10.91	0.00	-1245.5	0.00	1245.54	5604.23	2802.12	13924.9	6972.80	0.00	0.000	0.000	0.196
5.00	-97.44	-10.81	0.00	-1190.9	0.00	1190.97	5529.79	2764.90	13444.5	6732.24	0.02	-0.045	0.000	0.195
10.00	-94.96	-10.70	0.00	-1136.9	0.00	1136.93	5453.38	2726.69	12967.3	6493.32	0.10	-0.090	0.000	0.193
15.00	-92.52	-10.60	0.00	-1083.4	0.00	1083.40	5374.99	2687.50	12493.8	6256.19	0.22	-0.137	0.000	0.190
20.00	-90.10	-10.49	0.00	-1030.4	0.00	1030.40	5294.63	2647.32	12024.1	6021.01	0.38	-0.184	0.000	0.188
25.00	-87.72	-10.37	0.00	-977.96	0.00	977.96	5212.30	2606.15	11558.7	5787.94	0.60	-0.232	0.000	0.186
30.00	-85.38	-10.24	0.00	-926.12	0.00	926.12	5128.00	2564.00	11097.7	5557.14	0.87	-0.282	0.000	0.183
35.00	-83.08	-10.11	0.00	-874.90	0.00	874.90	5041.73	2520.86	10641.7	5328.76	1.19	-0.331	0.000	0.181
40.00	-80.81	-9.98	0.00	-824.34	0.00	824.34	4953.48	2476.74	10190.8	5102.98	1.57	-0.382	0.000	0.178
44.75	-78.71	-9.81	0.00	-776.96	0.00	776.96	4867.82	2433.91	9767.51	4891.01	1.97	-0.431	0.000	0.175
45.00	-78.53	-9.84	0.00	-774.50	0.00	774.50	4863.26	2431.63	9745.37	4879.93	2.00	-0.434	0.000	0.175
50.00	-75.17	-9.66	0.00	-725.30	0.00	725.30	4771.07	2385.54	9305.74	4659.79	2.48	-0.486	0.000	0.171
51.00	-74.50	-9.65	0.00	-715.64	0.00	715.64	3927.98	1963.99	7761.51	3886.53	2.58	-0.497	0.000	0.203
55.00	-72.92	-9.55	0.00	-677.03	0.00	677.03	3872.44	1936.22	7486.25	3748.69	3.02	-0.540	0.000	0.199
60.00	-70.99	-9.41	0.00	-629.30	0.00	629.30	3801.23	1900.62	7145.52	3578.07	3.62	-0.599	0.000	0.195
65.00	-69.10	-9.27	0.00	-582.25	0.00	582.25	3728.06	1864.03	6808.79	3409.45	4.27	-0.659	0.000	0.189
70.00	-67.25	-9.13	0.00	-535.90	0.00	535.90	3652.91	1826.46	6476.38	3243.00	5.00	-0.719	0.000	0.184
75.00	-65.45	-8.99	0.00	-490.25	0.00	490.25	3575.79	1787.90	6148.62	3078.88	5.78	-0.779	0.000	0.178
80.00	-63.68	-8.85	0.00	-445.30	0.00	445.30	3496.70	1748.35	5825.81	2917.23	6.63	-0.839	0.000	0.171
85.00	-60.61	-7.90	0.00	-399.59	0.00	399.59	3415.64	1707.82	5508.27	2758.23	7.54	-0.899	0.000	0.163
90.00	-58.95	-7.73	0.00	-360.09	0.00	360.09	3332.60	1666.30	5196.32	2602.02	8.52	-0.958	0.000	0.156
90.75	-58.70	-7.73	0.00	-354.29	0.00	354.29	3319.98	1659.99	5150.02	2578.84	8.67	-0.968	0.000	0.155
95.00	-56.80	-7.58	0.00	-321.43	0.00	321.43	3247.59	1623.80	4890.27	2448.77	9.55	-1.018	0.000	0.149
95.75	-56.46	-7.58	0.00	-315.75	0.00	315.75	1911.44	955.72	2922.15	1463.25	9.71	-1.027	0.000	0.245
100.00	-47.30	-6.70	0.00	-283.56	0.00	283.56	1878.47	939.23	2786.43	1395.29	10.65	-1.076	0.000	0.228
105.00	-46.03	-6.57	0.00	-250.08	0.00	250.08	1837.85	918.92	2627.99	1315.95	11.82	-1.157	0.000	0.215
110.00	-44.80	-6.44	0.00	-217.25	0.00	217.25	1795.26	897.63	2471.18	1237.43	13.08	-1.236	0.000	0.201
115.00	-43.61	-6.30	0.00	-185.08	0.00	185.08	1750.70	875.35	2316.31	1159.88	14.41	-1.312	0.000	0.185
120.00	-42.44	-6.17	0.00	-153.56	0.00	153.56	1704.17	852.08	2163.70	1083.46	15.83	-1.384	0.000	0.167
125.00	-41.31	-6.02	0.00	-122.71	0.00	122.71	1655.66	827.83	2013.66	1008.33	17.31	-1.450	0.000	0.147
127.00	-40.87	-5.97	0.00	-110.66	0.00	110.66	1635.71	817.85	1954.43	978.67	17.93	-1.476	0.000	0.138
130.00	-40.00	-5.88	0.00	-92.74	0.00	92.74	1605.19	802.59	1866.51	934.64	18.86	-1.511	0.000	0.124
130.75	-39.78	-5.86	0.00	-88.33	0.00	88.33	1090.28	545.14	1281.57	641.74	19.10	-1.519	0.000	0.174
133.00	-29.80	-4.40	0.00	-75.15	0.00	75.15	1077.75	538.87	1240.93	621.39	19.82	-1.543	0.000	0.149
135.00	-29.45	-4.35	0.00	-66.35	0.00	66.35	1066.28	533.14	1204.93	603.36	20.48	-1.567	0.000	0.138
140.00	-28.61	-4.21	0.00	-44.59	0.00	44.59	1036.22	518.11	1115.60	558.63	22.15	-1.618	0.000	0.107
143.00	-19.54	-3.00	0.00	-31.97	0.00	31.97	1017.23	508.62	1062.55	532.07	23.17	-1.642	0.000	0.079
145.00	-19.25	-2.95	0.00	-25.97	0.00	25.97	1004.18	502.09	1027.46	514.49	23.86	-1.655	0.000	0.070
150.00	-18.54	-2.80	0.00	-11.23	0.00	11.23	970.18	485.09	940.83	471.12	25.61	-1.678	0.000	0.043
154.00	-0.12	-0.03	0.00	-0.03	0.00	0.03	941.55	470.78	872.83	437.06	27.02	-1.685	0.000	0.000
155.00	0.00	-0.02	0.00	0.00	0.00	0.00	934.20	467.10	856.03	428.65	27.37	-1.685	0.000	0.000

Seismic Segment Forces (Factored)

Structure:	CT13610-A		**Code:**	EIA/TIA-222-G	12/14/2021
Site Name:	ARTEC		**Exposure:**	C	
Height:	155.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	C - Very Dense Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 23

Load Case:	1.2D + 1.0E							**Iterations**	21
Gust Response Factor	1.10				**Sds**	0.14		**Ss**	0.18
Dead Load Factor	1.20	**Seismic Load Factor**	1.00		**Sd1**	0.07		**S1**	0.06
Wind Load Factor	0.00	**Structure Frequency (f1)**	0.39		**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		1412.4	0.00	0.03	0.02	18.59	
10.00		1382.0	0.01	0.05	0.03	26.67	
15.00		1351.5	0.02	0.06	0.04	30.28	
20.00		1321.0	0.03	0.07	0.04	31.75	
25.00		1290.5	0.05	0.07	0.04	32.24	
30.00		1260.0	0.07	0.07	0.04	32.33	
35.00		1229.6	0.10	0.07	0.04	32.31	
40.00		1199.1	0.13	0.07	0.03	32.22	
44.75	Bot - Section 2	1110.9	0.16	0.07	0.03	30.37	
45.00		107.99	0.16	0.07	0.03	2.95	
50.00		2130.1	0.20	0.06	0.02	58.61	
51.00	Top - Section 1	419.24	0.20	0.06	0.02	11.52	
55.00		770.62	0.24	0.06	0.02	20.80	
60.00		939.77	0.28	0.05	0.01	23.82	
65.00		913.64	0.33	0.04	0.01	20.18	
70.00		887.52	0.39	0.02	0.01	14.90	
75.00		861.39	0.44	0.00	0.01	8.05	
80.00		835.26	0.50	-0.02	0.01	0.23	
85.00	Appurtenance(s)	1459.2	0.57	-0.04	0.01	-13.50	
90.00		783.01	0.64	-0.07	0.02	-13.85	
90.75	Bot - Section 3	115.20	0.65	-0.07	0.02	-2.16	
95.00		1076.6	0.71	-0.09	0.03	-25.51	
95.75	Top - Section 2	186.73	0.72	-0.09	0.03	-4.54	
100.00	Appurtenance(s)	2779.1	0.79	-0.11	0.05	-73.55	
105.00		478.19	0.87	-0.12	0.08	-12.28	
110.00		460.78	0.95	-0.12	0.11	-9.80	
115.00		443.36	1.04	-0.10	0.15	-5.89	
120.00		425.94	1.13	-0.05	0.21	-0.75	
125.00		408.53	1.23	0.03	0.28	5.43	
127.00	Bot - Section 4	158.53	1.27	0.08	0.31	3.22	
130.00		409.66	1.33	0.16	0.36	13.07	
130.75	Top - Section 3	100.70	1.34	0.19	0.38	3.52	
133.00	Appurtenance(s)	2513.4	1.39	0.27	0.42	112.57	
135.00		112.31	1.43	0.35	0.47	6.08	
140.00		271.63	1.54	0.61	0.59	21.72	
143.00	Appurtenance(s)	2487.8	1.61	0.81	0.68	241.98	
145.00		101.86	1.65	0.96	0.75	11.16	
150.00		245.51	1.77	1.41	0.93	35.10	
154.00	Appurtenance(s)	5363.8	1.87	1.85	1.09	925.24	
155.00		45.44	1.89	1.98	1.14	8.19	
	Totals:	**39,850.5**				**1,653.3**	**Total Wind:** **42,439.1**

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

Calculated Forces

Structure:	CT13610-A		**Code:**	EIA/TIA-222-G	12/14/2021
Site Name:	ARTEC		**Exposure:**	C	
Height:	155.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	C - Very Dense Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 24

Load Case:	1.2D + 1.0E							**Iterations**	21
Gust Response Factor	1.10			**Sds**	0.14			**Ss**	0.18
Dead Load Factor	1.20	**Seismic Load Factor**	1.00	**Sd1**	0.07			**S1**	0.06
Wind Load Factor	0.00	**Structure Frequency (f1)**	0.39	**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	-55.61	-1.82	0.00	-233.13	0.00	233.13	5604.23	2802.12	13924.9	6972.80		0.00	0.00	0.043
5.00	-53.63	-1.81	0.00	-224.04	0.00	224.04	5529.79	2764.90	13444.5	6732.24		0.00	-0.01	0.043
10.00	-51.69	-1.79	0.00	-215.00	0.00	215.00	5453.38	2726.69	12967.3	6493.32		0.02	-0.02	0.043
15.00	-49.79	-1.77	0.00	-206.05	0.00	206.05	5374.99	2687.50	12493.8	6256.19		0.04	-0.03	0.042
20.00	-47.92	-1.74	0.00	-197.23	0.00	197.23	5294.63	2647.32	12024.1	6021.01		0.07	-0.03	0.042
25.00	-46.09	-1.71	0.00	-188.53	0.00	188.53	5212.30	2606.15	11558.7	5787.94		0.11	-0.04	0.041
30.00	-44.30	-1.69	0.00	-179.95	0.00	179.95	5128.00	2564.00	11097.7	5557.14		0.17	-0.05	0.041
35.00	-42.54	-1.66	0.00	-171.52	0.00	171.52	5041.73	2520.86	10641.7	5328.76		0.23	-0.06	0.041
40.00	-40.82	-1.63	0.00	-163.21	0.00	163.21	4953.48	2476.74	10190.8	5102.98		0.30	-0.07	0.040
44.75	-39.22	-1.60	0.00	-155.45	0.00	155.45	4867.82	2433.91	9767.51	4891.01		0.38	-0.08	0.040
45.00	-39.08	-1.61	0.00	-155.05	0.00	155.05	4863.26	2431.63	9745.37	4879.93		0.38	-0.08	0.040
50.00	-36.24	-1.55	0.00	-147.02	0.00	147.02	4771.07	2385.54	9305.74	4659.79		0.47	-0.09	0.039
51.00	-35.68	-1.54	0.00	-145.48	0.00	145.48	3927.98	1963.99	7761.51	3886.53		0.49	-0.10	0.047
55.00	-34.53	-1.52	0.00	-139.33	0.00	139.33	3872.44	1936.22	7486.25	3748.69		0.58	-0.11	0.046
60.00	-33.12	-1.50	0.00	-131.72	0.00	131.72	3801.23	1900.62	7145.52	3578.07		0.69	-0.12	0.046
65.00	-31.74	-1.49	0.00	-124.21	0.00	124.21	3728.06	1864.03	6808.79	3409.45		0.82	-0.13	0.045
70.00	-30.40	-1.47	0.00	-116.79	0.00	116.79	3652.91	1826.46	6476.38	3243.00		0.97	-0.14	0.044
75.00	-29.08	-1.47	0.00	-109.41	0.00	109.41	3575.79	1787.90	6148.62	3078.88		1.12	-0.16	0.044
80.00	-27.80	-1.47	0.00	-102.06	0.00	102.06	3496.70	1748.35	5825.81	2917.23		1.30	-0.17	0.043
85.00	-25.77	-1.47	0.00	-94.70	0.00	94.70	3415.64	1707.82	5508.27	2758.23		1.48	-0.18	0.042
90.00	-24.57	-1.47	0.00	-87.34	0.00	87.34	3332.60	1666.30	5196.32	2602.02		1.68	-0.20	0.041
90.75	-24.39	-1.47	0.00	-86.24	0.00	86.24	3319.98	1659.99	5150.02	2578.84		1.71	-0.20	0.041
95.00	-22.87	-1.47	0.00	-79.97	0.00	79.97	3247.59	1623.80	4890.27	2448.77		1.90	-0.21	0.040
95.75	-22.61	-1.47	0.00	-78.86	0.00	78.86	1911.44	955.72	2922.15	1463.25		1.93	-0.21	0.066
100.00	-19.05	-1.47	0.00	-72.60	0.00	72.60	1878.47	939.23	2786.43	1395.29		2.13	-0.23	0.062
105.00	-18.22	-1.47	0.00	-65.27	0.00	65.27	1837.85	918.92	2627.99	1315.95		2.38	-0.25	0.060
110.00	-17.41	-1.47	0.00	-57.92	0.00	57.92	1795.26	897.63	2471.18	1237.43		2.65	-0.27	0.057
115.00	-16.62	-1.47	0.00	-50.57	0.00	50.57	1750.70	875.35	2316.31	1159.88		2.94	-0.29	0.053
120.00	-15.86	-1.48	0.00	-43.20	0.00	43.20	1704.17	852.08	2163.70	1083.46		3.25	-0.31	0.049
125.00	-15.11	-1.47	0.00	-35.82	0.00	35.82	1655.66	827.83	2013.66	1008.33		3.59	-0.33	0.045
127.00	-14.82	-1.47	0.00	-32.88	0.00	32.88	1635.71	817.85	1954.43	978.67		3.73	-0.34	0.043
130.00	-14.17	-1.45	0.00	-28.48	0.00	28.48	1605.19	802.59	1866.51	934.64		3.94	-0.35	0.039
130.75	-14.01	-1.45	0.00	-27.39	0.00	27.39	1090.28	545.14	1281.57	641.74		4.00	-0.35	0.056
133.00	-10.88	-1.32	0.00	-24.14	0.00	24.14	1077.75	538.87	1240.93	621.39		4.16	-0.36	0.049
135.00	-10.68	-1.31	0.00	-21.50	0.00	21.50	1066.28	533.14	1204.93	603.36		4.32	-0.36	0.046
140.00	-10.19	-1.29	0.00	-14.94	0.00	14.94	1036.22	518.11	1115.60	558.63		4.71	-0.38	0.037
143.00	-7.10	-1.03	0.00	-11.07	0.00	11.07	1017.23	508.62	1062.55	532.07		4.95	-0.39	0.028
145.00	-6.94	-1.02	0.00	-9.01	0.00	9.01	1004.18	502.09	1027.46	514.49		5.11	-0.39	0.024
150.00	-6.56	-0.98	0.00	-3.93	0.00	3.93	970.18	485.09	940.83	471.12		5.53	-0.40	0.015
154.00	-0.06	-0.01	0.00	-0.01	0.00	0.01	941.55	470.78	872.83	437.06		5.87	-0.40	0.000
155.00	0.00	-0.01	0.00	0.00	0.00	0.00	934.20	467.10	856.03	428.65		5.95	-0.40	0.000

Seismic Segment Forces (Factored)

Structure:	CT13610-A		**Code:**	EIA/TIA-222-G	12/14/2021
Site Name:	ARTEC		**Exposure:**	C	
Height:	155.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	C - Very Dense Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 25

Load Case:	0.9D + 1.0E							**Iterations**	21
Gust Response Factor	1.10				**Sds**	0.14		**Ss**	0.18
Dead Load Factor	0.90	**Seismic Load Factor**	1.00		**Sd1**	0.07		**S1**	0.06
Wind Load Factor	0.00	**Structure Frequency (f1)**	0.39		**SA**	0.03	**Seismic Importance Factor**		1.00

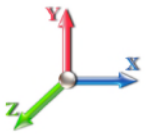
Top Elev (ft)	Description	Wz (lb)	a	b	c	Lateral Fs (lb)	R: 1.50
0.00		0.00	0.00	0.00	0.00	0.00	
5.00		1412.4	0.00	0.03	0.02	18.59	
10.00		1382.0	0.01	0.05	0.03	26.67	
15.00		1351.5	0.02	0.06	0.04	30.28	
20.00		1321.0	0.03	0.07	0.04	31.75	
25.00		1290.5	0.05	0.07	0.04	32.24	
30.00		1260.0	0.07	0.07	0.04	32.33	
35.00		1229.6	0.10	0.07	0.04	32.31	
40.00		1199.1	0.13	0.07	0.03	32.22	
44.75	Bot - Section 2	1110.9	0.16	0.07	0.03	30.37	
45.00		107.99	0.16	0.07	0.03	2.95	
50.00		2130.1	0.20	0.06	0.02	58.61	
51.00	Top - Section 1	419.24	0.20	0.06	0.02	11.52	
55.00		770.62	0.24	0.06	0.02	20.80	
60.00		939.77	0.28	0.05	0.01	23.82	
65.00		913.64	0.33	0.04	0.01	20.18	
70.00		887.52	0.39	0.02	0.01	14.90	
75.00		861.39	0.44	0.00	0.01	8.05	
80.00		835.26	0.50	-0.02	0.01	0.23	
85.00	Appurtenance(s)	1459.2	0.57	-0.04	0.01	-13.50	
90.00		783.01	0.64	-0.07	0.02	-13.85	
90.75	Bot - Section 3	115.20	0.65	-0.07	0.02	-2.16	
95.00		1076.6	0.71	-0.09	0.03	-25.51	
95.75	Top - Section 2	186.73	0.72	-0.09	0.03	-4.54	
100.00	Appurtenance(s)	2779.1	0.79	-0.11	0.05	-73.55	
105.00		478.19	0.87	-0.12	0.08	-12.28	
110.00		460.78	0.95	-0.12	0.11	-9.80	
115.00		443.36	1.04	-0.10	0.15	-5.89	
120.00		425.94	1.13	-0.05	0.21	-0.75	
125.00		408.53	1.23	0.03	0.28	5.43	
127.00	Bot - Section 4	158.53	1.27	0.08	0.31	3.22	
130.00		409.66	1.33	0.16	0.36	13.07	
130.75	Top - Section 3	100.70	1.34	0.19	0.38	3.52	
133.00	Appurtenance(s)	2513.4	1.39	0.27	0.42	112.57	
135.00		112.31	1.43	0.35	0.47	6.08	
140.00		271.63	1.54	0.61	0.59	21.72	
143.00	Appurtenance(s)	2487.8	1.61	0.81	0.68	241.98	
145.00		101.86	1.65	0.96	0.75	11.16	
150.00		245.51	1.77	1.41	0.93	35.10	
154.00	Appurtenance(s)	5363.8	1.87	1.85	1.09	925.24	
155.00		45.44	1.89	1.98	1.14	8.19	
	Totals:	**39,850.5**				**1,653.3**	**Total Wind:** **42,439.1**

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

Calculated Forces

Structure:	CT13610-A	**Code:**	EIA/TIA-222-G	12/14/2021	
Site Name:	ARTEC	**Exposure:**	C		
Height:	155.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	C - Very Dense Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 26	

Load Case: 0.9D + 1.0E



Gust Response Factor	1.10			**Sds**	0.14			**Iterations**	21
Dead Load Factor	0.90	**Seismic Load Factor**	1.00	**Sd1**	0.07			**Ss**	0.18
Wind Load Factor	0.00	**Structure Frequency (f1)**	0.39	**SA**	0.03			**S1**	0.06
								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	-41.71	-1.82	0.00	-230.62	0.00	230.62	5604.23	2802.12	13924.9	6972.80		0.00	0.00	0.041
5.00	-40.22	-1.80	0.00	-221.53	0.00	221.53	5529.79	2764.90	13444.5	6732.24		0.00	-0.01	0.040
10.00	-38.77	-1.78	0.00	-212.50	0.00	212.50	5453.38	2726.69	12967.3	6493.32		0.02	-0.02	0.040
15.00	-37.34	-1.76	0.00	-203.59	0.00	203.59	5374.99	2687.50	12493.8	6256.19		0.04	-0.03	0.039
20.00	-35.94	-1.73	0.00	-194.79	0.00	194.79	5294.63	2647.32	12024.1	6021.01		0.07	-0.03	0.039
25.00	-34.57	-1.70	0.00	-186.14	0.00	186.14	5212.30	2606.15	11558.7	5787.94		0.11	-0.04	0.039
30.00	-33.22	-1.68	0.00	-177.61	0.00	177.61	5128.00	2564.00	11097.7	5557.14		0.16	-0.05	0.038
35.00	-31.91	-1.65	0.00	-169.23	0.00	169.23	5041.73	2520.86	10641.7	5328.76		0.22	-0.06	0.038
40.00	-30.62	-1.62	0.00	-160.99	0.00	160.99	4953.48	2476.74	10190.8	5102.98		0.29	-0.07	0.038
44.75	-29.42	-1.59	0.00	-153.30	0.00	153.30	4867.82	2433.91	9767.51	4891.01		0.37	-0.08	0.037
45.00	-29.31	-1.59	0.00	-152.90	0.00	152.90	4863.26	2431.63	9745.37	4879.93		0.38	-0.08	0.037
50.00	-27.18	-1.53	0.00	-144.96	0.00	144.96	4771.07	2385.54	9305.74	4659.79		0.47	-0.09	0.037
51.00	-26.76	-1.52	0.00	-143.43	0.00	143.43	3927.98	1963.99	7761.51	3886.53		0.49	-0.10	0.044
55.00	-25.90	-1.50	0.00	-137.34	0.00	137.34	3872.44	1936.22	7486.25	3748.69		0.57	-0.10	0.043
60.00	-24.84	-1.48	0.00	-129.82	0.00	129.82	3801.23	1900.62	7145.52	3578.07		0.69	-0.12	0.043
65.00	-23.81	-1.47	0.00	-122.41	0.00	122.41	3728.06	1864.03	6808.79	3409.45		0.81	-0.13	0.042
70.00	-22.80	-1.45	0.00	-115.08	0.00	115.08	3652.91	1826.46	6476.38	3243.00		0.96	-0.14	0.042
75.00	-21.81	-1.45	0.00	-107.81	0.00	107.81	3575.79	1787.90	6148.62	3078.88		1.11	-0.15	0.041
80.00	-20.85	-1.45	0.00	-100.57	0.00	100.57	3496.70	1748.35	5825.81	2917.23		1.28	-0.17	0.040
85.00	-19.32	-1.45	0.00	-93.32	0.00	93.32	3415.64	1707.82	5508.27	2758.23		1.46	-0.18	0.039
90.00	-18.42	-1.45	0.00	-86.07	0.00	86.07	3332.60	1666.30	5196.32	2602.02		1.66	-0.20	0.039
90.75	-18.29	-1.45	0.00	-84.98	0.00	84.98	3319.98	1659.99	5150.02	2578.84		1.69	-0.20	0.038
95.00	-17.15	-1.45	0.00	-78.81	0.00	78.81	3247.59	1623.80	4890.27	2448.77		1.87	-0.21	0.037
95.75	-16.96	-1.45	0.00	-77.72	0.00	77.72	1911.44	955.72	2922.15	1463.25		1.90	-0.21	0.062
100.00	-14.29	-1.45	0.00	-71.55	0.00	71.55	1878.47	939.23	2786.43	1395.29		2.10	-0.22	0.059
105.00	-13.66	-1.45	0.00	-64.33	0.00	64.33	1837.85	918.92	2627.99	1315.95		2.35	-0.24	0.056
110.00	-13.06	-1.45	0.00	-57.09	0.00	57.09	1795.26	897.63	2471.18	1237.43		2.61	-0.27	0.053
115.00	-12.47	-1.45	0.00	-49.84	0.00	49.84	1750.70	875.35	2316.31	1159.88		2.90	-0.29	0.050
120.00	-11.89	-1.45	0.00	-42.58	0.00	42.58	1704.17	852.08	2163.70	1083.46		3.21	-0.31	0.046
125.00	-11.33	-1.45	0.00	-35.32	0.00	35.32	1655.66	827.83	2013.66	1008.33		3.54	-0.32	0.042
127.00	-11.11	-1.44	0.00	-32.43	0.00	32.43	1635.71	817.85	1954.43	978.67		3.68	-0.33	0.040
130.00	-10.63	-1.43	0.00	-28.10	0.00	28.10	1605.19	802.59	1866.51	934.64		3.89	-0.34	0.037
130.75	-10.51	-1.43	0.00	-27.03	0.00	27.03	1090.28	545.14	1281.57	641.74		3.94	-0.34	0.052
133.00	-8.16	-1.30	0.00	-23.82	0.00	23.82	1077.75	538.87	1240.93	621.39		4.11	-0.35	0.046
135.00	-8.01	-1.29	0.00	-21.22	0.00	21.22	1066.28	533.14	1204.93	603.36		4.26	-0.36	0.043
140.00	-7.64	-1.27	0.00	-14.75	0.00	14.75	1036.22	518.11	1115.60	558.63		4.64	-0.38	0.034
143.00	-5.32	-1.02	0.00	-10.93	0.00	10.93	1017.23	508.62	1062.55	532.07		4.88	-0.38	0.026
145.00	-5.21	-1.00	0.00	-8.90	0.00	8.90	1004.18	502.09	1027.46	514.49		5.04	-0.39	0.022
150.00	-4.92	-0.97	0.00	-3.88	0.00	3.88	970.18	485.09	940.83	471.12		5.45	-0.40	0.013
154.00	-0.04	-0.01	0.00	-0.01	0.00	0.01	941.55	470.78	872.83	437.06		5.79	-0.40	0.000
155.00	0.00	-0.01	0.00	0.00	0.00	0.00	934.20	467.10	856.03	428.65		5.87	-0.40	0.000

Wind Loading - Shaft

Structure:	CT13610-A	**Code:**	EIA/TIA-222-G	12/14/2021	
Site Name:	ARTEC	**Exposure:**	C		
Height:	155.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	C - Very Dense Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 27	

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00

Iterations 22

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	0.85	7.442	8.19	284.93	0.650	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.85	7.442	8.19	278.89	0.650	0.000	5.00	25.481	16.56	135.6	0.0	1412.5
10.00		1.00	0.85	7.442	8.19	272.85	0.650	0.000	5.00	24.935	16.21	132.7	0.0	1382.0
15.00		1.00	0.85	7.442	8.19	266.81	0.650	0.000	5.00	24.389	15.85	129.8	0.0	1351.5
20.00		1.00	0.90	7.896	8.69	268.61	0.650	0.000	5.00	23.843	15.50	134.6	0.0	1321.0
25.00		1.00	0.95	8.276	9.10	268.63	0.650	0.000	5.00	23.297	15.14	137.9	0.0	1290.6
30.00		1.00	0.98	8.600	9.46	267.34	0.650	0.000	5.00	22.752	14.79	139.9	0.0	1260.1
35.00		1.00	1.01	8.883	9.77	265.11	0.650	0.000	5.00	22.206	14.43	141.0	0.0	1229.6
40.00		1.00	1.04	9.137	10.05	262.18	0.650	0.000	5.00	21.660	14.08	141.5	0.0	1199.1
44.75	Bot - Section 2	1.00	1.07	9.355	10.29	258.86	0.650	0.000	4.75	20.071	13.05	134.3	0.0	1110.9
45.00		1.00	1.07	9.366	10.30	258.67	0.650	0.000	0.25	1.059	0.69	7.1	0.0	108.0
50.00		1.00	1.09	9.576	10.53	254.71	0.650	0.000	5.00	20.885	13.58	143.0	0.0	2130.2
51.00	Top - Section 1	1.00	1.10	9.616	10.58	253.86	0.650	0.000	1.00	4.112	2.67	28.3	0.0	419.2
55.00		1.00	1.12	9.770	10.75	254.38	0.650	0.000	4.00	16.228	10.55	113.4	0.0	770.6
60.00		1.00	1.14	9.951	10.95	249.73	0.650	0.000	5.00	19.794	12.87	140.8	0.0	939.8
65.00		1.00	1.16	10.120	11.13	244.80	0.650	0.000	5.00	19.248	12.51	139.3	0.0	913.6
70.00		1.00	1.17	10.279	11.31	239.62	0.650	0.000	5.00	18.702	12.16	137.5	0.0	887.5
75.00		1.00	1.19	10.430	11.47	234.22	0.650	0.000	5.00	18.156	11.80	135.4	0.0	861.4
80.00		1.00	1.21	10.572	11.63	228.62	0.650	0.000	5.00	17.610	11.45	133.1	0.0	835.3
85.00	Appurtenance(s)	1.00	1.22	10.708	11.78	222.84	0.650	0.000	5.00	17.064	11.09	130.6	0.0	809.1
90.00		1.00	1.24	10.838	11.92	216.90	0.650	0.000	5.00	16.519	10.74	128.0	0.0	783.0
90.75	Bot - Section 3	1.00	1.24	10.857	11.94	215.99	0.650	0.000	0.75	2.431	1.58	18.9	0.0	115.2
95.00		1.00	1.25	10.962	12.06	210.80	0.650	0.000	4.25	13.722	8.92	107.5	0.0	1076.7
95.75	Top - Section 2	1.00	1.25	10.980	12.08	209.88	0.650	0.000	0.75	2.381	1.55	18.7	0.0	186.7
100.00	Appurtenance(s)	1.00	1.27	11.081	12.19	207.43	0.650	0.000	4.25	13.258	8.62	105.0	0.0	420.2
105.00		1.00	1.28	11.195	12.31	201.09	0.650	0.000	5.00	15.092	9.81	120.8	0.0	478.2
110.00		1.00	1.29	11.305	12.44	194.64	0.650	0.000	5.00	14.547	9.46	117.6	0.0	460.8
115.00		1.00	1.30	11.412	12.55	188.07	0.650	0.000	5.00	14.001	9.10	114.2	0.0	443.4
120.00		1.00	1.32	11.514	12.67	181.40	0.650	0.000	5.00	13.455	8.75	110.8	0.0	425.9
125.00		1.00	1.33	11.614	12.78	174.64	0.650	0.000	5.00	12.909	8.39	107.2	0.0	408.5
127.00	Bot - Section 4	1.00	1.33	11.653	12.82	171.91	0.650	0.000	2.00	5.011	3.26	41.7	0.0	158.5
130.00		1.00	1.34	11.710	12.88	167.79	0.650	0.000	3.00	7.448	4.84	62.4	0.0	409.7
130.75	Top - Section 3	1.00	1.34	11.724	12.90	166.75	0.650	0.000	0.75	1.831	1.19	15.4	0.0	100.7
133.00	Appurtenance(s)	1.00	1.34	11.766	12.94	165.84	0.650	0.000	2.25	5.420	3.52	45.6	0.0	128.8
135.00		1.00	1.35	11.803	12.98	163.06	0.650	0.000	2.00	4.725	3.07	39.9	0.0	112.3
140.00		1.00	1.36	11.894	13.08	156.05	0.650	0.000	5.00	11.430	7.43	97.2	0.0	271.6
143.00	Appurtenance(s)	1.00	1.36	11.947	13.14	151.81	0.650	0.000	3.00	6.596	4.29	56.3	0.0	156.7
145.00		1.00	1.37	11.982	13.18	148.97	0.650	0.000	2.00	4.288	2.79	36.7	0.0	101.9
150.00		1.00	1.38	12.068	13.27	141.81	0.650	0.000	5.00	10.338	6.72	89.2	0.0	245.5
154.00	Appurtenance(s)	1.00	1.39	12.135	13.35	136.03	0.650	0.000	4.00	7.878	5.12	68.4	0.0	187.0
155.00		1.00	1.39	12.152	13.37	134.58	0.650	0.000	1.00	1.915	1.24	16.6	0.0	45.4
								Totals:	**155.00**			**3,853.8**		**26,948.9**

Discrete Appurtenance Forces

Structure:	CT13610-A	**Code:**	EIA/TIA-222-G	12/14/2021	
Site Name:	ARTEC	**Exposure:**	C		
Height:	155.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	C - Very Dense Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 28	

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00

Iterations 22

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	CaAa 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	154.00	T-Arm	3	12.135	13.349	0.56	0.75	13.72	1257.30	0.000	0.000	183.14	0.00	0.00
2	154.00	Ericsson - Radio 4449	3	12.135	13.349	0.73	0.90	3.56	222.00	0.000	0.000	47.59	0.00	0.00
3	154.00	Ericsson - KRY 112 144/1	3	12.135	13.349	0.65	0.90	0.68	33.00	0.000	0.000	9.08	0.00	0.00
4	154.00	RFS -	3	12.135	13.349	0.65	0.90	39.35	384.00	0.000	0.000	525.23	0.00	0.00
5	154.00	Ericsson - Air 21 B4A/B2P	3	12.135	13.349	0.77	0.90	13.86	270.90	0.000	0.000	185.04	0.00	0.00
6	154.00	Ericsson - Air 21 B2A/B4P	3	12.135	13.349	0.77	0.90	13.86	274.50	0.000	0.000	185.04	0.00	0.00
7	154.00	Mount Mod	3	12.135	13.349	1.00	1.00	66.75	2735.16	0.000	0.000	891.03	0.00	0.00
8	143.00	Cci - HPA-65R-BUU-H6	3	11.947	13.142	0.66	0.80	19.24	153.00	0.000	0.000	252.89	0.00	0.00
9	143.00	Powerwave - LGP21401	6	11.947	13.142	0.53	0.80	3.33	114.00	0.000	0.000	43.72	0.00	0.00
10	143.00	Powerwave - LGP13519	6	11.947	13.142	0.59	0.80	0.82	33.00	0.000	0.000	10.74	0.00	0.00
11	143.00	Powerwave - 7770	6	11.947	13.142	0.62	0.80	20.36	210.00	0.000	0.000	267.64	0.00	0.00
12	143.00	T-Arm	3	11.947	13.142	0.56	0.75	13.72	1257.30	0.000	0.000	180.30	0.00	0.00
13	143.00	Ericsson - RRUS 11	6	11.947	13.142	0.57	0.80	8.76	300.00	0.000	0.000	115.11	0.00	0.00
14	143.00	Ericsson - RRUS 32 B2	3	11.947	13.142	0.60	0.80	2.97	231.00	0.000	0.000	39.03	0.00	0.00
15	143.00	Raycap -	1	11.947	13.142	1.07	0.80	2.36	32.80	0.000	0.000	30.99	0.00	0.00
16	133.00	T-Arm	3	11.766	12.943	0.56	0.75	13.72	1257.30	0.000	0.000	177.57	0.00	0.00
17	133.00	Rfs Celwave -	2	11.766	12.943	0.57	0.80	5.45	88.00	0.000	0.000	70.58	0.00	0.00
18	133.00	Samsung - RF4440d-13A	3	11.766	12.943	0.64	0.80	3.59	210.99	0.000	0.000	46.47	0.00	0.00
19	133.00	Samsung - RF4439d-25A	3	11.766	12.943	0.67	0.80	3.77	224.10	0.000	0.000	48.79	0.00	0.00
20	133.00	Amphenol -	6	11.766	12.943	1.20	0.80	31.18	126.00	0.000	0.000	403.51	0.00	0.00
21	133.00	Andrew - SBNHH-1D65B	6	11.766	12.943	0.66	0.80	32.51	240.00	0.000	0.000	420.77	0.00	0.00
22	133.00	Samsung - MT6407-77A	3	11.766	12.943	0.60	0.80	8.44	238.20	0.000	0.000	109.26	0.00	0.00
23	100.00	JMA Wireless -	3	11.081	12.189	0.55	0.75	20.51	193.50	0.000	0.000	250.05	0.00	0.00
24	100.00	Fujitsu - TA08025-B605	3	11.081	12.189	0.60	0.75	3.53	224.88	0.000	0.000	43.00	0.00	0.00
25	100.00	Fujitsu - TA08025-B604	3	11.081	12.189	0.57	0.75	3.35	191.79	0.000	0.000	40.85	0.00	0.00
26	100.00	Raycap -	1	11.081	12.189	0.58	0.75	1.18	21.85	0.000	0.000	14.33	0.00	0.00
27	100.00	Platform w/ Handrail	1	11.081	12.189	1.00	1.00	22.00	1727.00	0.000	0.000	268.15	0.00	0.00
28	85.00	T-Arm	1	10.708	11.779	1.00	1.00	8.13	419.10	0.000	0.000	95.76	0.00	0.00
29	85.00	Pipe Mount	2	10.708	11.779	1.00	1.00	10.00	120.00	0.000	0.000	117.79	0.00	0.00
30	85.00	SP4-4.7NS RD4	1	10.708	11.779	1.00	1.00	23.14	60.00	0.000	0.000	272.56	0.00	0.00
31	85.00	SD222	2	10.831	11.914	1.00	1.00	10.60	34.00	0.000	4.750	126.29	0.00	599.89
32	85.00	DB408	1	10.831	11.914	1.00	1.00	2.90	17.00	0.000	4.750	34.55	0.00	164.12
							Totals:		**12,901.67**			**5,506.85**		

Total Applied Force Summary

Structure:	CT13610-A		**Code:**	EIA/TIA-222-G	12/14/2021
Site Name:	ARTEC		**Exposure:**	C	
Height:	155.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	C - Very Dense Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 29

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00

Iterations 22

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		135.58	1646.65	0.00	0.00
10.00		132.68	1616.17	0.00	0.00
15.00		129.77	1585.69	0.00	0.00
20.00		134.61	1555.21	0.00	0.00
25.00		137.86	1524.73	0.00	0.00
30.00		139.90	1494.25	0.00	0.00
35.00		141.04	1463.77	0.00	0.00
40.00		141.50	1433.29	0.00	0.00
44.75		134.26	1333.39	0.00	0.00
45.00		7.09	119.70	0.00	0.00
50.00		143.00	2364.34	0.00	0.00
51.00		28.27	466.08	0.00	0.00
55.00		113.36	957.96	0.00	0.00
60.00		140.83	1173.93	0.00	0.00
65.00		139.27	1147.81	0.00	0.00
70.00		137.45	1121.68	0.00	0.00
75.00		135.39	1095.55	0.00	0.00
80.00		133.12	1069.43	0.00	0.00
85.00	(7) attachments	777.61	1693.40	0.00	764.01
90.00		128.00	1001.58	0.00	0.00
90.75		18.87	147.98	0.00	0.00
95.00		107.55	1262.43	0.00	0.00
95.75		18.69	219.52	0.00	0.00
100.00	(11) attachments	721.43	2964.96	0.00	0.00
105.00		120.81	691.26	0.00	0.00
110.00		117.58	673.84	0.00	0.00
115.00		114.24	656.42	0.00	0.00
120.00		110.77	639.01	0.00	0.00
125.00		107.19	621.59	0.00	0.00
127.00		41.75	243.76	0.00	0.00
130.00		62.36	537.50	0.00	0.00
130.75		15.35	132.66	0.00	0.00
133.00	(26) attachments	1322.56	2609.32	0.00	0.00
135.00		39.88	168.18	0.00	0.00
140.00		97.21	411.30	0.00	0.00
143.00	(34) attachments	996.76	2571.61	0.00	0.00
145.00		36.74	132.01	0.00	0.00
150.00		89.21	320.87	0.00	0.00
154.00	(21) attachments	2094.48	5424.15	0.00	0.00
155.00		16.64	46.76	0.00	0.00
	Totals:	**9,360.65**	**46,339.71**	**0.00**	**764.01**

Linear Appurtenance Segment Forces (Factored)

Structure:	CT13610-A	**Code:**	EIA/TIA-222-G	12/14/2021	
Site Name:	ARTEC	**Exposure:**	C		
Height:	155.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	C - Very Dense Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 30	

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00

Iterations 22

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
5.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.017	0.000	7.442	0.00	1.37
5.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.017	0.000	7.442	0.00	5.20
10.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.017	0.000	7.442	0.00	1.37
10.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.017	0.000	7.442	0.00	5.20
15.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.017	0.000	7.442	0.00	1.37
15.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.017	0.000	7.442	0.00	5.20
20.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.018	0.000	7.896	0.00	1.37
20.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.018	0.000	7.896	0.00	5.20
25.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.018	0.000	8.276	0.00	1.37
25.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.018	0.000	8.276	0.00	5.20
30.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.018	0.000	8.600	0.00	1.37
30.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.018	0.000	8.600	0.00	5.20
35.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.019	0.000	8.883	0.00	1.37
35.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.019	0.000	8.883	0.00	5.20
40.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.019	0.000	9.137	0.00	1.37
40.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.019	0.000	9.137	0.00	5.20
44.75	Safety Cable	Yes	4.75	0.000	0.38	0.15	0.00	0.020	0.000	9.355	0.00	1.30
44.75	Step bolts (ladder)	Yes	4.75	0.000	0.63	0.25	0.00	0.020	0.000	9.355	0.00	4.94
45.00	Safety Cable	Yes	0.25	0.000	0.38	0.01	0.00	0.020	0.000	9.366	0.00	0.07
45.00	Step bolts (ladder)	Yes	0.25	0.000	0.63	0.01	0.00	0.020	0.000	9.366	0.00	0.26
50.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.020	0.000	9.576	0.00	1.37
50.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.020	0.000	9.576	0.00	5.20
51.00	Safety Cable	Yes	1.00	0.000	0.38	0.03	0.00	0.021	0.000	9.616	0.00	0.27
51.00	Step bolts (ladder)	Yes	1.00	0.000	0.63	0.05	0.00	0.021	0.000	9.616	0.00	1.04
55.00	Safety Cable	Yes	4.00	0.000	0.38	0.13	0.00	0.021	0.000	9.770	0.00	1.09
55.00	Step bolts (ladder)	Yes	4.00	0.000	0.63	0.21	0.00	0.021	0.000	9.770	0.00	4.16
60.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.021	0.000	9.951	0.00	1.37
60.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.021	0.000	9.951	0.00	5.20
65.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.022	0.000	10.120	0.00	1.37
65.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.022	0.000	10.120	0.00	5.20
70.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.023	0.000	10.279	0.00	1.37
70.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.023	0.000	10.279	0.00	5.20
75.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.023	0.000	10.430	0.00	1.37
75.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.023	0.000	10.430	0.00	5.20
80.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.024	0.000	10.572	0.00	1.37
80.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.024	0.000	10.572	0.00	5.20
85.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.025	0.000	10.708	0.00	1.37
85.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.025	0.000	10.708	0.00	5.20
90.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.025	0.000	10.838	0.00	1.37
90.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.025	0.000	10.838	0.00	5.20
90.75	Safety Cable	Yes	0.75	0.000	0.38	0.02	0.00	0.026	0.000	10.857	0.00	0.20
90.75	Step bolts (ladder)	Yes	0.75	0.000	0.63	0.04	0.00	0.026	0.000	10.857	0.00	0.78
95.00	Safety Cable	Yes	4.25	0.000	0.38	0.13	0.00	0.026	0.000	10.962	0.00	1.16
95.00	Step bolts (ladder)	Yes	4.25	0.000	0.63	0.22	0.00	0.026	0.000	10.962	0.00	4.42
95.75	Safety Cable	Yes	0.75	0.000	0.38	0.02	0.00	0.027	0.000	10.980	0.00	0.20
95.75	Step bolts (ladder)	Yes	0.75	0.000	0.63	0.04	0.00	0.027	0.000	10.980	0.00	0.78
100.00	Safety Cable	Yes	4.25	0.000	0.38	0.13	0.00	0.027	0.000	11.081	0.00	1.16

Linear Appurtenance Segment Forces (Factored)

Structure:	CT13610-A		**Code:**	EIA/TIA-222-G	12/14/2021
Site Name:	ARTEC		**Exposure:**	C	
Height:	155.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	C - Very Dense Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 31

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00

Iterations 22

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
100.00	Step bolts (ladder)	Yes	4.25	0.000	0.63	0.22	0.00	0.027	0.000	11.081	0.00	4.42
105.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.028	0.000	11.195	0.00	1.37
105.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.028	0.000	11.195	0.00	5.20
110.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.029	0.000	11.305	0.00	1.37
110.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.029	0.000	11.305	0.00	5.20
115.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.030	0.000	11.412	0.00	1.37
115.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.030	0.000	11.412	0.00	5.20
120.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.031	0.000	11.514	0.00	1.37
120.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.031	0.000	11.514	0.00	5.20
125.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.033	0.000	11.614	0.00	1.37
125.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.033	0.000	11.614	0.00	5.20
127.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.034	0.000	11.653	0.00	0.55
127.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.034	0.000	11.653	0.00	2.08
130.00	Safety Cable	Yes	3.00	0.000	0.38	0.10	0.00	0.034	0.000	11.710	0.00	0.82
130.00	Step bolts (ladder)	Yes	3.00	0.000	0.63	0.16	0.00	0.034	0.000	11.710	0.00	3.12
130.75	Safety Cable	Yes	0.75	0.000	0.38	0.02	0.00	0.035	0.000	11.724	0.00	0.20
130.75	Step bolts (ladder)	Yes	0.75	0.000	0.63	0.04	0.00	0.035	0.000	11.724	0.00	0.78
133.00	Safety Cable	Yes	2.25	0.000	0.38	0.07	0.00	0.035	0.000	11.766	0.00	0.61
133.00	Step bolts (ladder)	Yes	2.25	0.000	0.63	0.12	0.00	0.035	0.000	11.766	0.00	2.34
135.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.036	0.000	11.803	0.00	0.55
135.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.036	0.000	11.803	0.00	2.08
140.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.037	0.000	11.894	0.00	1.37
140.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.037	0.000	11.894	0.00	5.20
143.00	Safety Cable	Yes	3.00	0.000	0.38	0.10	0.00	0.038	0.000	11.947	0.00	0.82
143.00	Step bolts (ladder)	Yes	3.00	0.000	0.63	0.16	0.00	0.038	0.000	11.947	0.00	3.12
145.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.039	0.000	11.982	0.00	0.55
145.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.039	0.000	11.982	0.00	2.08
150.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.041	0.000	12.068	0.00	1.37
150.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.041	0.000	12.068	0.00	5.20
154.00	Safety Cable	Yes	4.00	0.000	0.38	0.13	0.00	0.043	0.000	12.135	0.00	1.09
154.00	Step bolts (ladder)	Yes	4.00	0.000	0.63	0.21	0.00	0.043	0.000	12.135	0.00	4.16
155.00	Safety Cable	Yes	1.00	0.000	0.38	0.03	0.00	0.044	0.000	12.152	0.00	0.27
155.00	Step bolts (ladder)	Yes	1.00	0.000	0.63	0.05	0.00	0.044	0.000	12.152	0.00	1.04
									Totals:		**0.0**	**203.5**

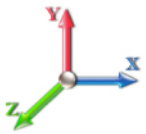
Calculated Forces

Structure:	CT13610-A	**Code:**	EIA/TIA-222-G	12/14/2021	
Site Name:	ARTEC	**Exposure:**	C		
Height:	155.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	C - Very Dense Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 32	

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00



Iterations 22

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	-46.34	-9.38	0.00	-1052.6	0.00	1052.62	5604.23	2802.12	13924.9	6972.80	0.00	0.000	0.000	0.159
5.00	-44.68	-9.27	0.00	-1005.7	0.00	1005.74	5529.79	2764.90	13444.5	6732.24	0.02	-0.038	0.000	0.157
10.00	-43.06	-9.16	0.00	-959.40	0.00	959.40	5453.38	2726.69	12967.3	6493.32	0.08	-0.076	0.000	0.156
15.00	-41.47	-9.06	0.00	-913.58	0.00	913.58	5374.99	2687.50	12493.8	6256.19	0.18	-0.116	0.000	0.154
20.00	-39.91	-8.95	0.00	-868.28	0.00	868.28	5294.63	2647.32	12024.1	6021.01	0.32	-0.155	0.000	0.152
25.00	-38.38	-8.84	0.00	-823.53	0.00	823.53	5212.30	2606.15	11558.7	5787.94	0.51	-0.196	0.000	0.150
30.00	-36.88	-8.72	0.00	-779.35	0.00	779.35	5128.00	2564.00	11097.7	5557.14	0.74	-0.237	0.000	0.147
35.00	-35.41	-8.59	0.00	-735.77	0.00	735.77	5041.73	2520.86	10641.7	5328.76	1.01	-0.279	0.000	0.145
40.00	-33.97	-8.47	0.00	-692.80	0.00	692.80	4953.48	2476.74	10190.8	5102.98	1.32	-0.322	0.000	0.143
44.75	-32.63	-8.34	0.00	-652.56	0.00	652.56	4867.82	2433.91	9767.51	4891.01	1.67	-0.363	0.000	0.140
45.00	-32.51	-8.35	0.00	-650.48	0.00	650.48	4863.26	2431.63	9745.37	4879.93	1.68	-0.365	0.000	0.140
50.00	-30.14	-8.20	0.00	-608.75	0.00	608.75	4771.07	2385.54	9305.74	4659.79	2.09	-0.409	0.000	0.137
51.00	-29.67	-8.18	0.00	-600.55	0.00	600.55	3927.98	1963.99	7761.51	3886.53	2.18	-0.418	0.000	0.162
55.00	-28.71	-8.08	0.00	-567.82	0.00	567.82	3872.44	1936.22	7486.25	3748.69	2.54	-0.454	0.000	0.159
60.00	-27.53	-7.96	0.00	-527.41	0.00	527.41	3801.23	1900.62	7145.52	3578.07	3.05	-0.504	0.000	0.155
65.00	-26.38	-7.83	0.00	-487.64	0.00	487.64	3728.06	1864.03	6808.79	3409.45	3.60	-0.554	0.000	0.150
70.00	-25.25	-7.70	0.00	-448.50	0.00	448.50	3652.91	1826.46	6476.38	3243.00	4.21	-0.605	0.000	0.145
75.00	-24.15	-7.58	0.00	-409.99	0.00	409.99	3575.79	1787.90	6148.62	3078.88	4.87	-0.655	0.000	0.140
80.00	-23.08	-7.45	0.00	-372.11	0.00	372.11	3496.70	1748.35	5825.81	2917.23	5.58	-0.705	0.000	0.134
85.00	-21.39	-6.67	0.00	-334.10	0.00	334.10	3415.64	1707.82	5508.27	2758.23	6.35	-0.755	0.000	0.127
90.00	-20.38	-6.54	0.00	-300.75	0.00	300.75	3332.60	1666.30	5196.32	2602.02	7.17	-0.805	0.000	0.122
90.75	-20.23	-6.53	0.00	-295.85	0.00	295.85	3319.98	1659.99	5150.02	2578.84	7.29	-0.812	0.000	0.121
95.00	-18.97	-6.41	0.00	-268.11	0.00	268.11	3247.59	1623.80	4890.27	2448.77	8.04	-0.854	0.000	0.115
95.75	-18.75	-6.39	0.00	-263.31	0.00	263.31	1911.44	955.72	2922.15	1463.25	8.17	-0.862	0.000	0.190
100.00	-15.79	-5.64	0.00	-236.13	0.00	236.13	1878.47	939.23	2786.43	1395.29	8.96	-0.903	0.000	0.178
105.00	-15.09	-5.53	0.00	-207.92	0.00	207.92	1837.85	918.92	2627.99	1315.95	9.94	-0.970	0.000	0.166
110.00	-14.42	-5.41	0.00	-180.28	0.00	180.28	1795.26	897.63	2471.18	1237.43	10.99	-1.036	0.000	0.154
115.00	-13.76	-5.30	0.00	-153.21	0.00	153.21	1750.70	875.35	2316.31	1159.88	12.11	-1.099	0.000	0.140
120.00	-13.11	-5.19	0.00	-126.70	0.00	126.70	1704.17	852.08	2163.70	1083.46	13.29	-1.158	0.000	0.125
125.00	-12.49	-5.08	0.00	-100.74	0.00	100.74	1655.66	827.83	2013.66	1008.33	14.54	-1.213	0.000	0.107
127.00	-12.25	-5.04	0.00	-90.57	0.00	90.57	1635.71	817.85	1954.43	978.67	15.05	-1.234	0.000	0.100
130.00	-11.71	-4.97	0.00	-75.46	0.00	75.46	1605.19	802.59	1866.51	934.64	15.83	-1.262	0.000	0.088
130.75	-11.58	-4.95	0.00	-71.73	0.00	71.73	1090.28	545.14	1281.57	641.74	16.03	-1.269	0.000	0.122
133.00	-9.00	-3.58	0.00	-60.59	0.00	60.59	1077.75	538.87	1240.93	621.39	16.64	-1.288	0.000	0.106
135.00	-8.83	-3.54	0.00	-53.44	0.00	53.44	1066.28	533.14	1204.93	603.36	17.18	-1.308	0.000	0.097
140.00	-8.42	-3.43	0.00	-35.75	0.00	35.75	1036.22	518.11	1115.60	558.63	18.57	-1.349	0.000	0.072
143.00	-5.87	-2.38	0.00	-25.45	0.00	25.45	1017.23	508.62	1062.55	532.07	19.43	-1.368	0.000	0.054
145.00	-5.74	-2.34	0.00	-20.69	0.00	20.69	1004.18	502.09	1027.46	514.49	20.00	-1.379	0.000	0.046
150.00	-5.42	-2.24	0.00	-8.99	0.00	8.99	970.18	485.09	940.83	471.12	21.46	-1.397	0.000	0.025
154.00	-0.05	-0.02	0.00	-0.02	0.00	0.02	941.55	470.78	872.83	437.06	22.63	-1.402	0.000	0.000
155.00	0.00	-0.02	0.00	0.00	0.00	0.00	934.20	467.10	856.03	428.65	22.93	-1.402	0.000	0.000

Final Analysis Summary

Structure:	CT13610-A		**Code:**	EIA/TIA-222-G	12/14/2021
Site Name:	ARTEC		**Exposure:**	C	
Height:	155.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	C - Very Dense Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 33

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	42.5	0.00	55.54	0.00	0.00	4796.34
0.9D + 1.6W 101 mph Wind	42.5	0.00	41.64	0.00	0.00	4750.46
1.2D + 1.0Di + 1.0Wi 50 mph Wind	10.9	0.00	99.92	0.00	0.00	1245.54
1.2D + 1.0E	1.8	0.00	55.61	0.00	0.00	233.13
0.9D + 1.0E	1.8	0.00	41.71	0.00	0.00	230.62
1.0D + 1.0W 60 mph Wind	9.4	0.00	46.34	0.00	0.00	1052.62

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	-20.61	-29.20	0.00	-1202.0	0.00	-1202.0	1911.44	955.72	2922.15	1463.25	95.75	0.833
0.9D + 1.6W 101 mph Wind	-15.00	-28.79	0.00	-1182.7	0.00	-1182.7	1911.44	955.72	2922.15	1463.25	95.75	0.817
1.2D + 1.0Di + 1.0Wi 50 mph Wind	-56.46	-7.58	0.00	-315.75	0.00	-315.75	1911.44	955.72	2922.15	1463.25	95.75	0.245
1.2D + 1.0E	-22.61	-1.47	0.00	-78.86	0.00	-78.86	1911.44	955.72	2922.15	1463.25	95.75	0.066
0.9D + 1.0E	-16.96	-1.45	0.00	-77.72	0.00	-77.72	1911.44	955.72	2922.15	1463.25	95.75	0.062
1.0D + 1.0W 60 mph Wind	-18.75	-6.39	0.00	-263.31	0.00	-263.31	1911.44	955.72	2922.15	1463.25	95.75	0.190

Base Plate Summary

Structure:	CT13610-A		**Code:**	EIA/TIA-222-G	12/14/2021
Site Name:	ARTEC		**Exposure:**	C	
Height:	155.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	C - Very Dense Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 34

Reactions		Base Plate		Anchor Bolts	
Original Design		**Yield (ksi):**	50.00	**Bolt Circle:**	68.00
Moment (kip-ft):	5060.00	**Width (in):**	70.00	**Number Bolts:**	24.00
Axial (kip):	30.00	**Style:**	Clipped	**Bolt Type:**	2.25" 18J
Shear (kip):	45.00	**Polygon Sides:**	0.00	**Bolt Diameter (in):**	2.25
Analysis		**Clip Length (in):**	15.00	**Yield (ksi):**	75.00
Moment (kip-ft):	4796.34	**Effective Len (in):**	7.89	**Ultimate (ksi):**	100.00
Axial (kip):	55.54	**Moment (kip-in):**	517.75	**Arrangement:**	Clustered
Shear (kip):	42.52	**Allow Stress (ksi):**	67.50	**Cluster Dist (in):**	6.00
		Applied Stress (ksi):	43.88	**Start Angle (deg):**	45.00
Moment Design %:	94.79	**Stress Ratio:**	0.65	Compression	
				Force (kip):	145.23
				Allowable (kip):	260.00
				Ratio:	0.57
				Tension	
				Force (kip):	136.91
				Allowable (kip):	260.00
				Ratio:	0.54

Monopole Mat Foundation Design

				Date
		Customer Name:		EIA/TIA Standard:	EIA-222-G
		Site Name:		Structure Height (Ft.):	155
		Site Number:	CT13610-VZW-121321	Engineer Name:	D. Yohannes
		Engr. Number:		Engineer Login ID:	

Foundation Info Obtained from: Drawings/Calculations

Structure Type: Monopole

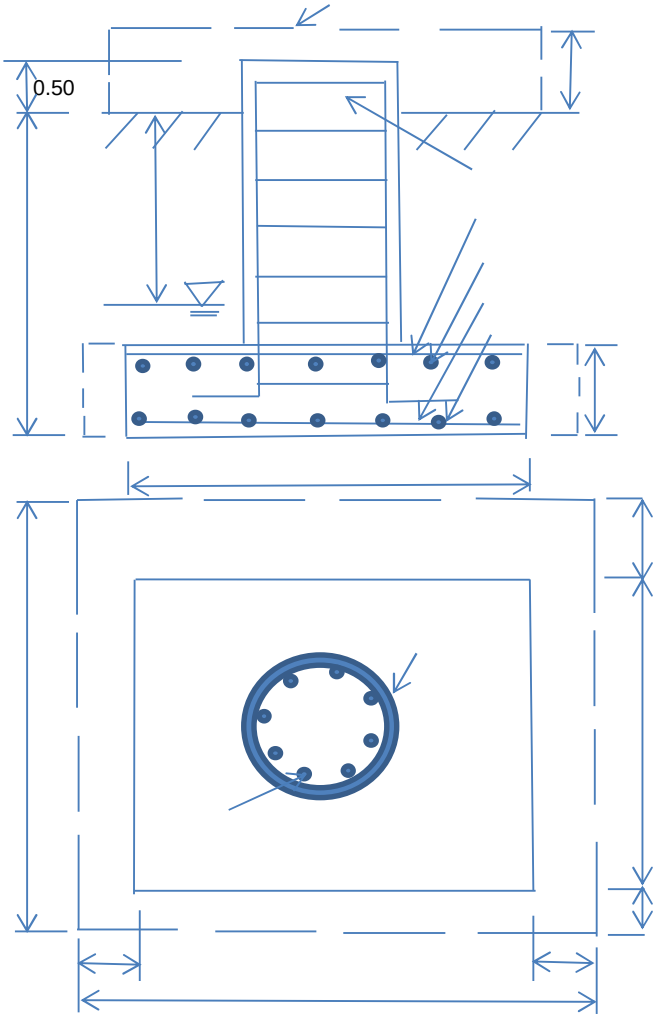
Analysis or Design? Analysis

Base Reactions (Factored):

Axial Load (Kips):	55.5	Shear Force (Kips):	
Uplift Force (Kips):	0.0	Moment (Kips-ft):	
Allowable overstress %:	5.0%		

Foundation Geometries:

		Mods required -Yes/No ?:	
Diameter of Pier (ft.):	8.0	Depth of Base BG (ft.):	
Pier Height A. G. (ft.):	0.50	Thickness of Pad (ft):	
Length of Pad (ft.):	33.5	Width of Pad (ft.):	
Final Length of pad (ft)	33.5	Final width of pad (ft):	



Material Properties and Reabr Info:

Concrete Strength (psi):	3000	Steel Elastic Modulus:	29000	ksi
Vertical bar yield (ksi)	60	Tie steel yield (ksi):		
Vertical Rebar Size #:	11	Tie / Stirrup Size #:		
Qty. of Vertical Rebars:	40	Tie Spacing (in):		
Pad Rebar Yield (Ksi):	60	Pad Steel Rebar Size (#):		
Concrete Cover (in.):		Unit Weight of Concrete:	150.0	pcf

Rebar at the bottom of the concrete pad:

Qty. of Rebar in Pad (L):	33	Qty. of Rebar in Pad (W):	

Rebar at the top of the concrete pad:

Qty. of Rebar in Pad (L):	33	Qty. of Rebar in Pad (W):	

Apply 1.35 factor for e/w Per G:

Soil Design Parameters:

Soil Unit Weight (pcf):	115.0	Soil Buoyant Weight:		Pcf	
Water Table B.G.S. (ft):	2.5	Unit Weight of Water:		pcf	Angle from Top of Pad:
Ultimate Bearing Pressure (psf):	16000	Ultimate Skin Friction:		Psf	Angle from Bottm of Pad:
Consider Friction for O.T.M. (Y/N):		Consider Friction for bearing (Y/N):			Angle from Bottm of Pad:
Consider soil hor. resist. for OTM.:		Reduction factor on the maximum soil bearing pressure:			

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

Total Dry Soil Volume (cu. Ft.):	2143.97	Total Dry Soil Weight (Kips):	
Total Buoyant Soil Volume (cu. Ft.):	0.00	Total Buoyant Soil Weight (Kips):	
Total Effective Soil Weight (Kips):	246.56	Weight from the Concrete Block at Top (K):	
Total Dry Concrete Volume (cu. Ft.):	686.79	Total Dry Concrete Weight (Kips):	
Total Buoyant Concrete Volume (cu. Ft.):	3927.88	Total Buoyant Concrete Weight (Kips):	
Total Effective Concrete Weight (Kips):	447.10	Total Vertical Load on Base (Kips):	

Check Soil Capacities:

Load/ Capacity Ratio

Calculated Maxium Net Soil Pressure under the base (psf):		<	Allowable Factored Soil Bearing (psf):	12000
Allowable Foundation Overturning Resistance (kips-ft.):			Design Factored Momont (kips-ft):	

Factor of Safety Against Overturning (O. R. Moment/Design Moment):

Check the capacities of Reinforceing Concrete:

Strength reduction factor (Flexure and axial tension):	0.90	Strength reduction factor (Shear):		
Strength reduction factor (Axial compresion):	0.65	Wind Load Factor on Concrete Design:		

Load/ 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-Ft		
Calculated Shear Capacity (Kips):	>	Design Factored Shear (Kips):		
Calculated Tension Capacity (Tn, Kips):	>	Design Factored Tension (Tu Kips):		
Calculated Compression Capacity (Pn, Kips):	>	Design Factored Axial Load (Pu Kips):		
Moment & Axial Strength Combination:	OK!	Check Tie Spacing (Design/Required):		
Pier Reinforcement Ratio:		Reinforcement Ratio is satisfied per ACI		

(2).Concrete Pad:

One-Way Design Shear Capacity (L-Direction, Kips):		One-Way Factored Shear (L-D. Kips):	262.1	
One-Way Design Shear Capacity (W-Direction, Kips):		One-Way Factored Shear (W-D., Kips):		
One-Way Design Shear Capacity (Corner-Corner. Kips):		One-Way Factored Shear (C-C, Kips):	255.7	
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):		
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:	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!

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Antenna Mount Analysis Report with Hardware Upgrades and PMI Requirements

Mount Analysis

SMART Tool Project #: 10037856
Maser Consulting Connecticut Project #: 21777060A (Rev. 1)

November 17, 2021

Site Information	*Site ID:*	*467924-VZW / NORTH BRANFORD 2 CT*
	Site Name:	*NORTH BRANFORD 2 CT*
	Carrier Name:	*Verizon Wireless*
	Address:	*26 Commerce Rd*
		North Branford, Connecticut 06471
		New Haven County
	Latitude:	*41.322061°*
	Longitude:	*-72.773264°*
Structure Information	*Tower Type:*	*156.5-Ft Monopole*
	Mount Type:	*12.58-Ft T-Arms*

FUZE ID # 16092574

Analysis Results

T-Arm: **78.0% Pass**
*Results valid after hardware upgrades noted in the PMI Requirements are installed.

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

Report Prepared By: Cody Sherman

11/17/21

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: 674994, dated July 21, 2021*
Mount Mapping Report	*Structural Components, Site #: 16092574, dated October 6, 2021*

Analysis Criteria:

Codes and Standards:	ANSI/TIA-222-H	
Wind Parameters:	Basic Wind Speed (Ultimate 3-sec. Gust), V_{ULT}:	121 mph
	Ice Wind Speed (3-sec. Gust):	50 mph
	Design Ice Thickness:	1.00 in
	Risk Category:	II
	Exposure Category:	C
	Topographic Category:	1
	Topographic Feature Considered:	N/A
	Topographic Method:	N/A
	Ground Elevation Factor, K_e:	0.996
Seismic Parameters:	S_S:	0.204 g
	S_1:	0.054 g
Maintenance Parameters:	Wind Speed (3-sec. Gust):	30 mph
	Maintenance Live Load, Lv:	250 lbs.
	Maintenance Live Load, Lm:	500 lbs.
Analysis Software:	RISA-3D (V17)	

Final Loading Configuration:

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

Mount Elevation (ft)	Equipment Elevation (ft)	Quantity	Manufacturer	Model	Status
135.00	135.00	3	Samsung	MT6407-77A	Added
		3	Samsung	RF4439d-25A	
		3	Samsung	RF4440d-13A	
		6	Commscope	SBNHH-1D65B	Retained
		4	Amphenol Antel	LPA-80080-6CF-EDIN-2	
		2	Amphenol Antel	LPA-80080-6CF-EDIN-4	
		6	RFS	Unknown TMA	
		2	Raycap	RRFDC-3315-PF-48	

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

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

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

BASELINE mount weight per SBA agreement: 473.80 lbs

Increase in mount weight due to Verizon loading change per SBA agreement: No Change

The weight listed above includes 1 sector.

Standard Conditions:

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

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

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

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

3. For mount analyses completed from other data sources (including new replacement mounts) and not specifically mapped in accordance with the NSTD-446 Standard, the mounts are assumed to have been

properly fabricated, installed and maintained in good condition, twist free and plumb in accordance with its original design and manufacturer's specifications.

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

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

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

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

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

Analysis Results:

Component	Utilization %	Pass/Fail
Face Horizontal	78.0%	Pass
Standoff Horizontal	57.0%	Pass
Mount Pipe	43.0%	Pass
Mount Connection	77.0%	Pass

Structure Rating – *(Controlling Utilization of all Components)*	**78.0%**

The mount has been found structurally adequate for all steel and external connection capacities. Serviceability in accordance with TIA-222-H Section 4.9.11.3 has not been considered.

Recommendation:

The existing mount will be **SUFFICIENT** for the final loading configuration upon the completion of the recommendations listed in the Special Instructions section of the below referenced PMI document.

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
6. TIA Adoption and Wind Speed Usage Letter

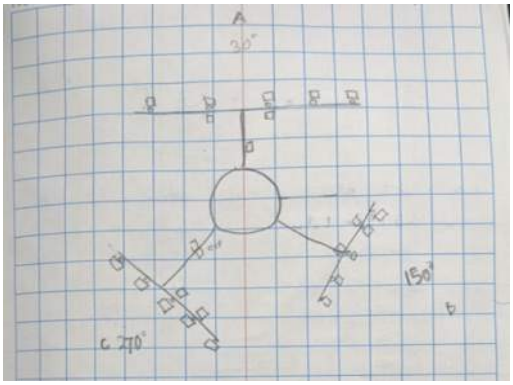

10/28/2021 08:13

V4.0 Updated on 3-31-2021

Antenna Mount Mapping Form (PATENT PENDING)

FCC #

Tower Owner:	SBA Tower	**Mapping Date:**	10/6/2021
Site Name:	NORTH BRANFORD 2 CT	**Tower Type:**	Monopole
Site Number or ID:	16092574	**Tower Height (Ft.):**	156.5
Mapping Contractor:	Structural Components	**Mount Elevation (Ft.):**	135

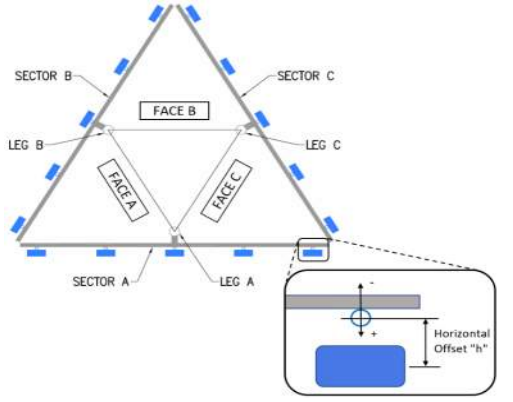


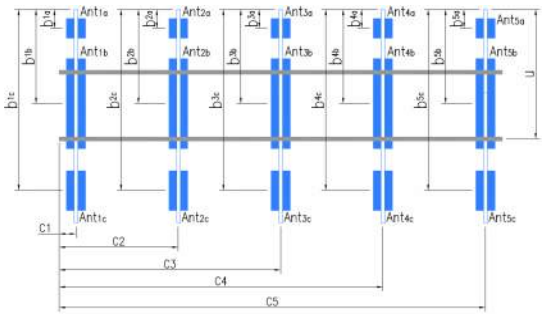
Mount Pipe Configuration and Geometries [Unit = Inches]

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	2.375 x .154 x 75	20.00	4.00	C1	2.375 x .154 x 102	20.00	12.00
A2	2.375 x .154 x 75	24.00	39.00	C2	2.375 x .154 x 102	24.00	47.00
A3	2.375 x .154 x 72	26.00	75.00	C3	2.375 x .154 x 102	26.00	94.00
A4	2.375 x .154 x 75	26.00	112.00	C4	2.375 x .154 x 102	26.00	119.00
A5	2.375 x .154 x 75	20.00	146.00	C5		20.00	
A6				C6			
B1	2.375 x .154 x 75	20.00	12.00	D1			
B2	2.375 x .154 x 75	24.00	85.00	D2			
B3	2.375 x .154 x 72	26.00	132.00	D3			
B4	2.375 x .154 x 75	26.00	157.00	D4			
B5	2.375 x .154 x 75	20.00		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.) :	68
Distance from top of bottom support rail to highest tip of ant./eqpt. of Carrier below. (N/A if > 10 ft.) :	0
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.):	22.9
For T-Arms/Platforms on monopoles, report the weld size from the main standoff to the plate bolting into the collar mount.			0.375



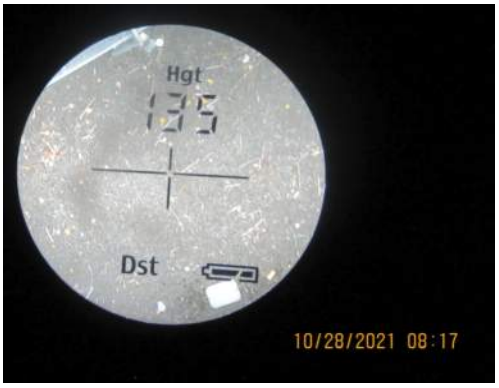


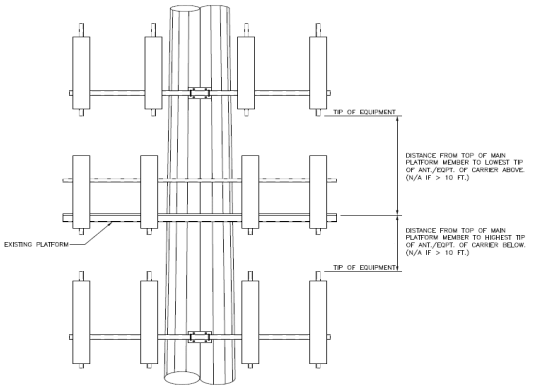
Antenna Layout (Looking Out From Tower)

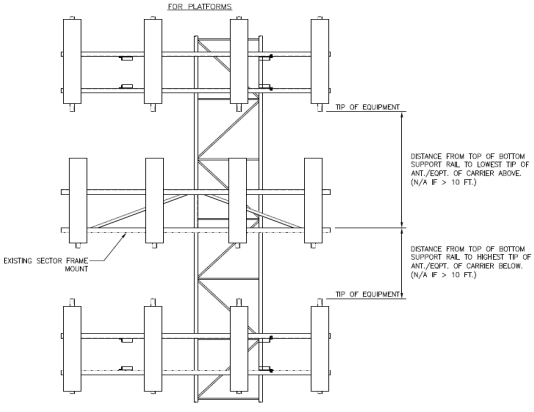
Ants. Items	Enter antenna model. If not labeled, enter "Unknown". Antenna Models if Known	Width (in.)	Depth (in.)	Height (in.)	Coax Size and Qty	Antenna Center-line (Ft.)	Mounting Locations [Units are inches and degrees] Vertical Distances"b_{1a}, b_{2a}, b_{3a}, b_{1b}...." (Inches)	Horiz. Offset "h" (Use "-" if Ant. is behind)	Antenna Azimuth (Degrees)	Photos of antennas Photo Numbers
Sector A										
Ant_{1a}										
Ant_{1b}	LPA800806CFEDIN2	6.00	13.00	48.00	jumpers	135.167	18.00	15.00	30.00	37
Ant_{1c}										
Ant_{2a}										
Ant_{2b}	SBHH-1D65B	12.00	7.00	73.00	jumpers	135.042	23.50	9.00	30.00	37
Ant_{2c}	unknown	12.00	7.00	21.00	jumpers	133.75	39.00	-8.00		37
Ant_{3a}										
Ant_{3b}	SBHH-1D65B	12.00	7.00	73.00	jumpers	135.125	24.50	9.00	30.00	37
Ant_{3c}	B4 RRH 2x60-4R	11.00	6.00	36.00	jumpers	132.667	54.00	-8.00		37
Ant_{4a}										
Ant_{4b}	BXA-171063-12CF-ED	6.00	4.00	72.00	jumpers	134.167	36.00	8.00	30.00	38
Ant_{4c}	unknown diplexer	5.00	1.00	7.00	1) 1 5/8" t	136.167	12.00	-4.00		38
Ant_{5a}										
Ant_{5b}	LPA800806CFEDIN2	6.00	13.00	48.00	jumpers	136.667			30.00	38
Ant_{5c}										
Ant on Standoff	(2)RRFDC-3315-PF-48	14.00	9.00	19.00	1 1/2" hy	138				39
Ant on Standoff										
Ant on Tower										
Ant on Tower										

Mount Azimuth (Degree) for Each Sector			Tower Leg Azimuth (Degree) for Each Sector		
Sector A:	30.00	Deg	Leg A:		Deg
Sector B:	150.00	Deg	Leg B:		Deg
Sector C:	270.00	Deg	Leg C:		Deg
Sector D:		Deg	Leg D:		Deg

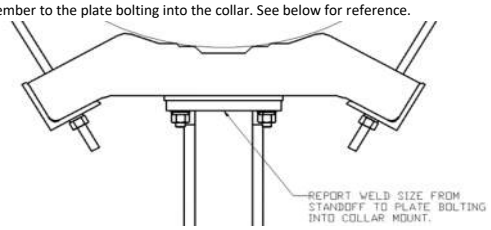
Climbing Facility Information		
Location:	300.00 Deg	N/A
Climbing Facility	Corrosion Type:	Good condition.
	Access:	Climbing path was unobstructed.
	Condition:	Loose hardware.







For T-Arms/Platforms on monopoles, record the weld size from the main standoff member to the plate bolting into the collar. See below for reference.



Sector B										
Ant_{1a}										
Ant_{1b}	LPA800806CFEDIN2	6.00	13.00	48.00	jumpers	135.167	18.00	15.00	150.00	40
Ant_{1c}										
Ant_{2a}										
Ant_{2b}	SBHH-1D65B	12.00	7.00	73.00	jumpers	135.042	23.50	9.00	150.00	40
Ant_{2c}	unknown	12.00	7.00	21.00	jumpers	133.75	39.00	-8.00		40
Ant_{3a}										
Ant_{3b}	SBHH-1D65B	12.00	7.00	73.00	jumpers	135.125	24.50	9.00	150.00	40
Ant_{3c}	B4 RRH 2x60-4R	11.00	6.00	36.00	jumpers	132.667	54.00	-8.00		40
Ant_{4a}										
Ant_{4b}	BXA-171063-12CF-ED	6.00	4.00	72.00	jumpers	134.167	36.00	8.00	150.00	41
Ant_{4c}										
Ant_{5a}										
Ant_{5b}	LPA800806CFEDIN2	6.00	13.00	48.00	jumpers	136.667				41
Ant_{5c}										
Ant on Standoff										
Ant on Standoff										
Ant on Tower										
Ant on Tower										
Sector C										
Ant_{1a}										
Ant_{1b}	LPA800806CFEDIN2	6.00	13.00	48.00	jumpers	135.167	18.00	15.00	270.00	42
Ant_{1c}										
Ant_{2a}										
Ant_{2b}	SBHH-1D65B	12.00	7.00	73.00	jumpers	135.042	23.50	9.00	270.00	42
Ant_{2c}	unknown	12.00	7.00	21.00	jumpers	133.75	39.00	-8.00		42
Ant_{3a}										
Ant_{3b}	SBHH-1D65B	12.00	7.00	73.00	jumpers	135.125	24.50	9.00	270.00	43
Ant_{3c}	B4 RRH 2x60-4R	11.00	6.00	36.00	jumpers	132.667	54.00	-8.00		43
Ant_{4a}										
Ant_{4b}	BXA-171063-12CF-ED	6.00	4.00	72.00	jumpers	134.167	36.00	8.00	270.00	43
Ant_{4c}										
Ant_{5a}										
Ant_{5b}	LPA800806CFEDIN2	6.00	13.00	48.00	jumpers	136.667				43
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	Damaged hybrid line.	154
2		
3		
4		
5		
6		
7		
8		

Observed Obstructions to Tower Lighting System				
If the tower lighting system is being obstructed by the carrier's equipment (for example: a light nested by the antennas), please provide photos and fill in the information below.				Photo #
Description of Obstruction:				
Type of Light:		Photo #		Additional Comments:
Lighting Technology:		Photo #		
Elevation (AGL) at base of light (Ft.):		Photo #		
Is a service loop available?		Photo #		
Is beacon installed on an extension?		Photo #		

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

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

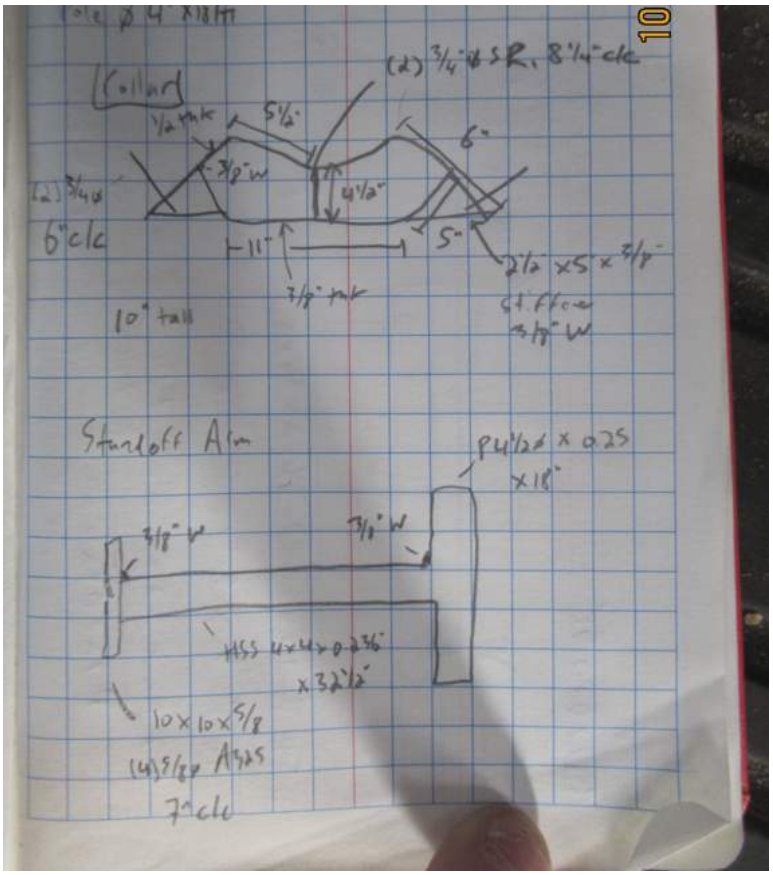
V4.0 Updated on 3-31-2021

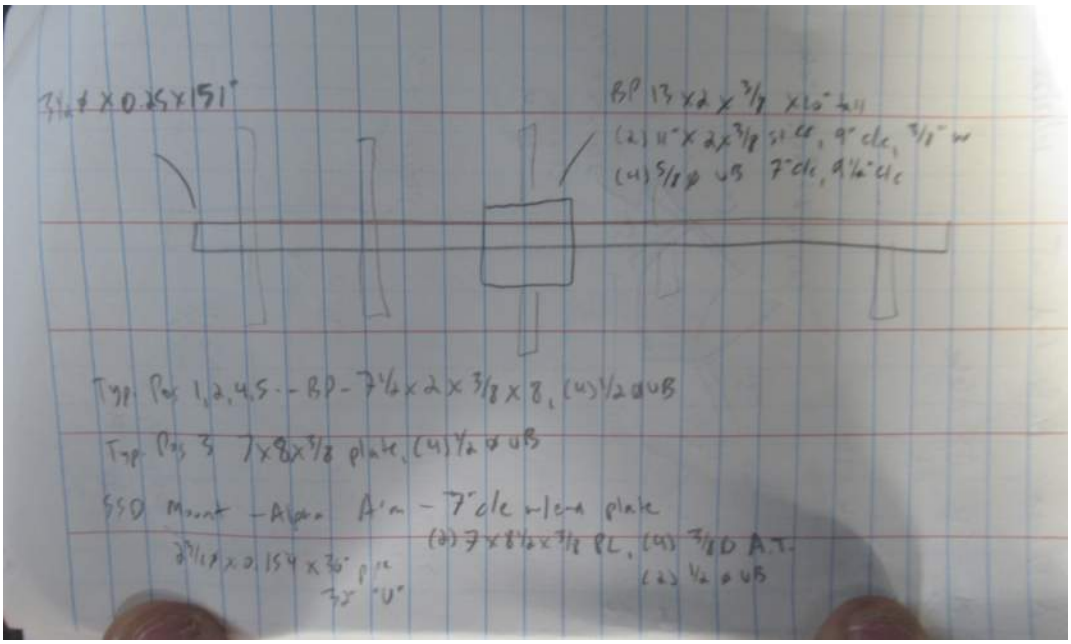
Antenna Mount Mapping Form (PATENT PENDING)

FCC #

Tower Owner:	SBA Tower	**Mapping Date:**	10/6/2021
Site Name:	NORTH BRANFORD 2 CT	**Tower Type:**	Monopole
Site Number or ID:	16092574	**Tower Height (Ft.):**	156.5
Mapping Contractor:	Structural Components	**Mount Elevation (Ft.):**	135

Please Insert Sketches of the Antenna Mount





V4.0 Updated on 3-31-2021

Antenna Mount Mapping Form (PATENT PENDING)

FCC #

Tower Owner:	SBA Tower	**Mapping Date:**	10/6/2021
Site Name:	NORTH BRANFORD 2 CT	**Tower Type:**	Monopole
Site Number or ID:	16092574	**Tower Height (Ft.):**	156.5
Mapping Contractor:	Structural Components	**Mount Elevation (Ft.):**	135

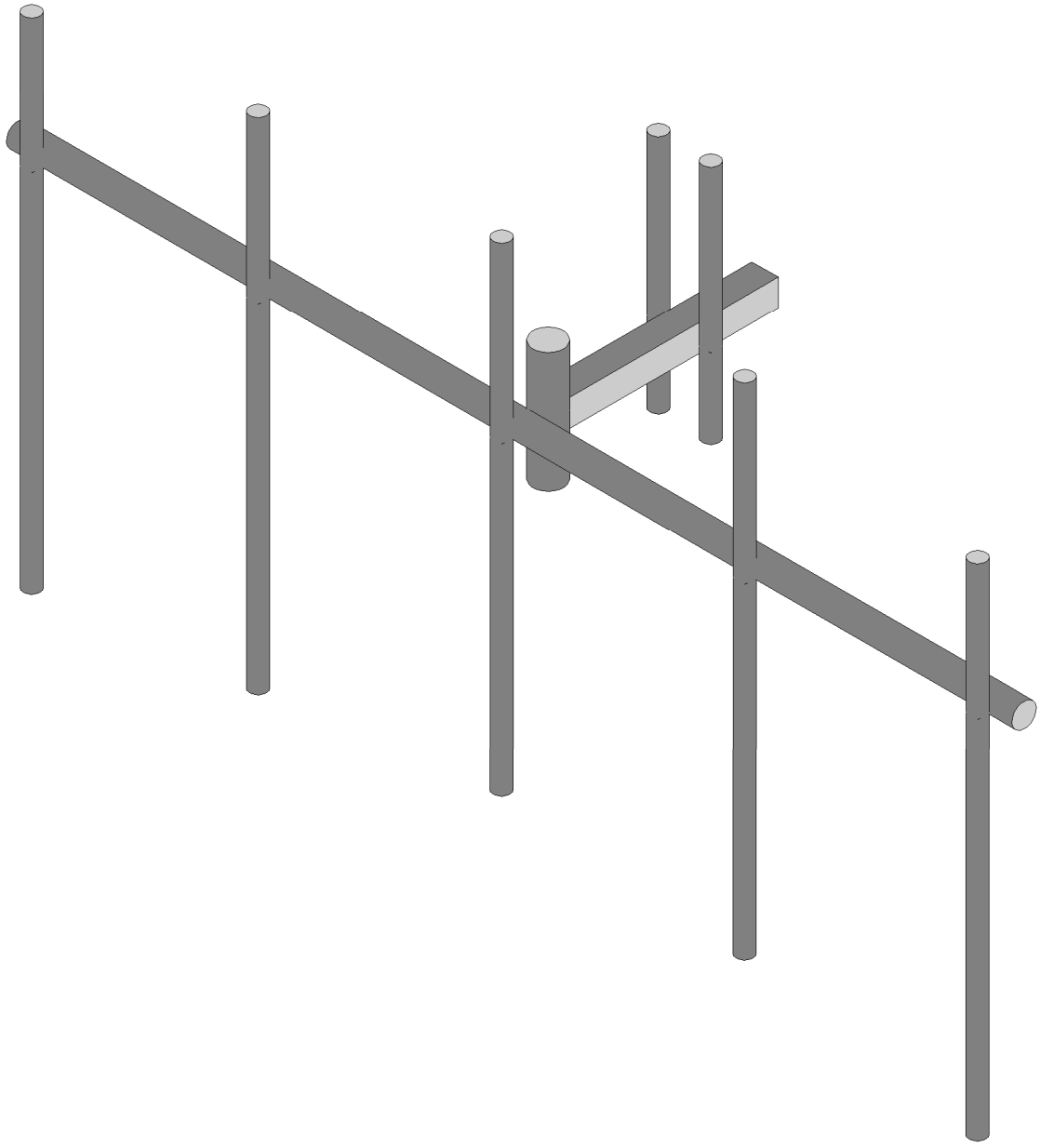
Please enter information about transmission lines.

Transmission Line Type (Pick from List)	Quantity	Diameter/Size (in.) Please add a description if using type "Other".	Located on Tower Face	Photo #	Additional Comments
All Sectors					
Coax	12	1 5/8	Inside tower	20, 21	2 capped per sector.
Hybrid	2	1 1/2	Inside tower	20, 21	

Please enter information about additional RF equipment.

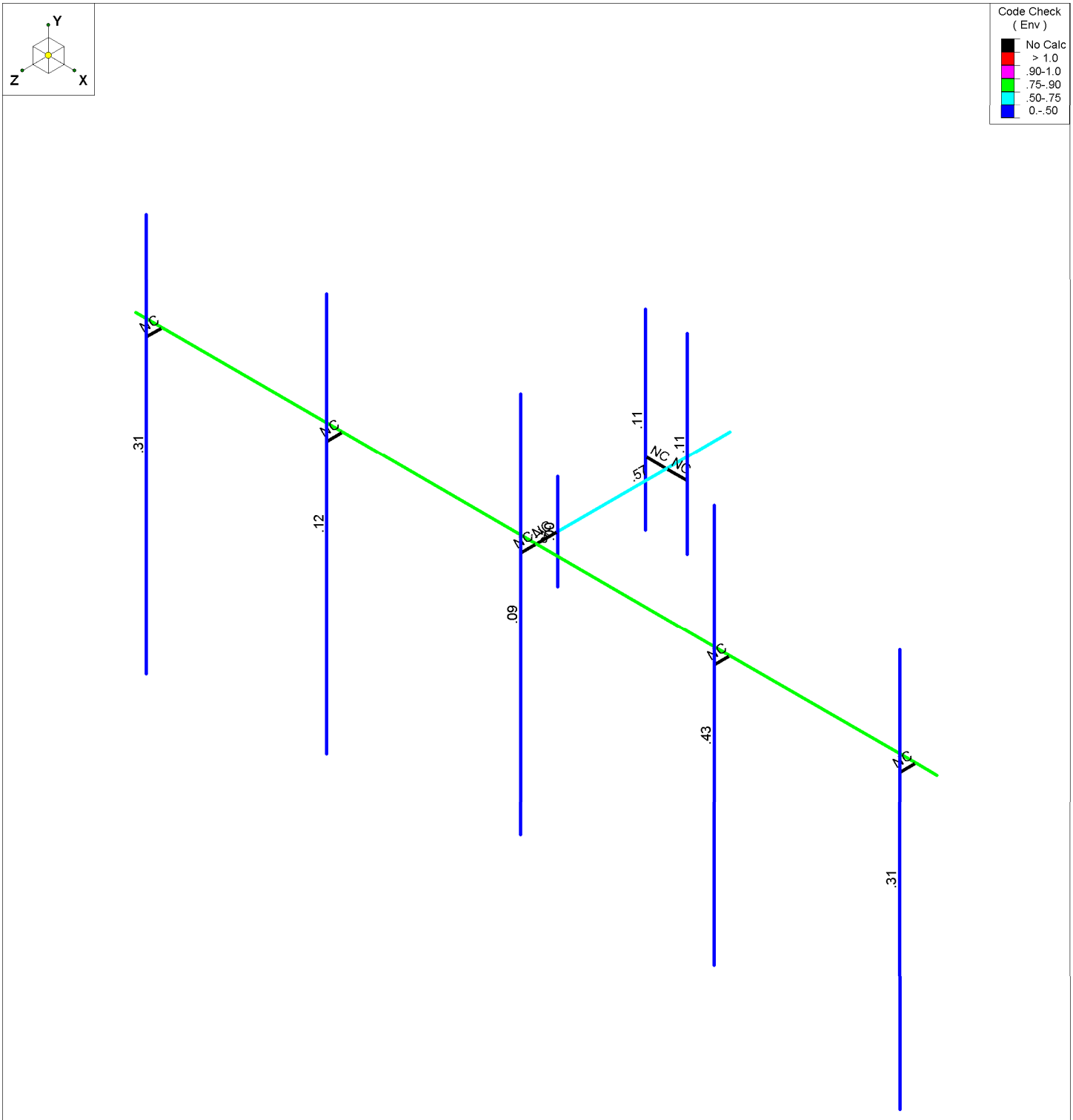
Equipment Type (Pick from List)	Quantity	Model Numbers if Known	Width (in.)	Depth (in.)	Height (in.)	Location	Photo #	Additional Comments
Sector A								
Diplexer	1	N/A	7.00	1.00	5.00	near center of footrail	38	1 5/8" tx
Sector B								
Diplexer	1	N/A	7.00	1.00	5.00	footrail between position 2 and 3	40	1 5/8 " tx
Diplexer	1	N/A	7.00	1.00	5.00	footrail position 4	41	1 5/8" tx
Sector C								
Diplexer	1	N/A	7.00	1.00	5.00	footrail between position 2 and 3	42	1 5/8 " tx
Diplexer	1	N/A	7.00	1.00	5.00	footrail position 4	43	1 5/8" tx

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



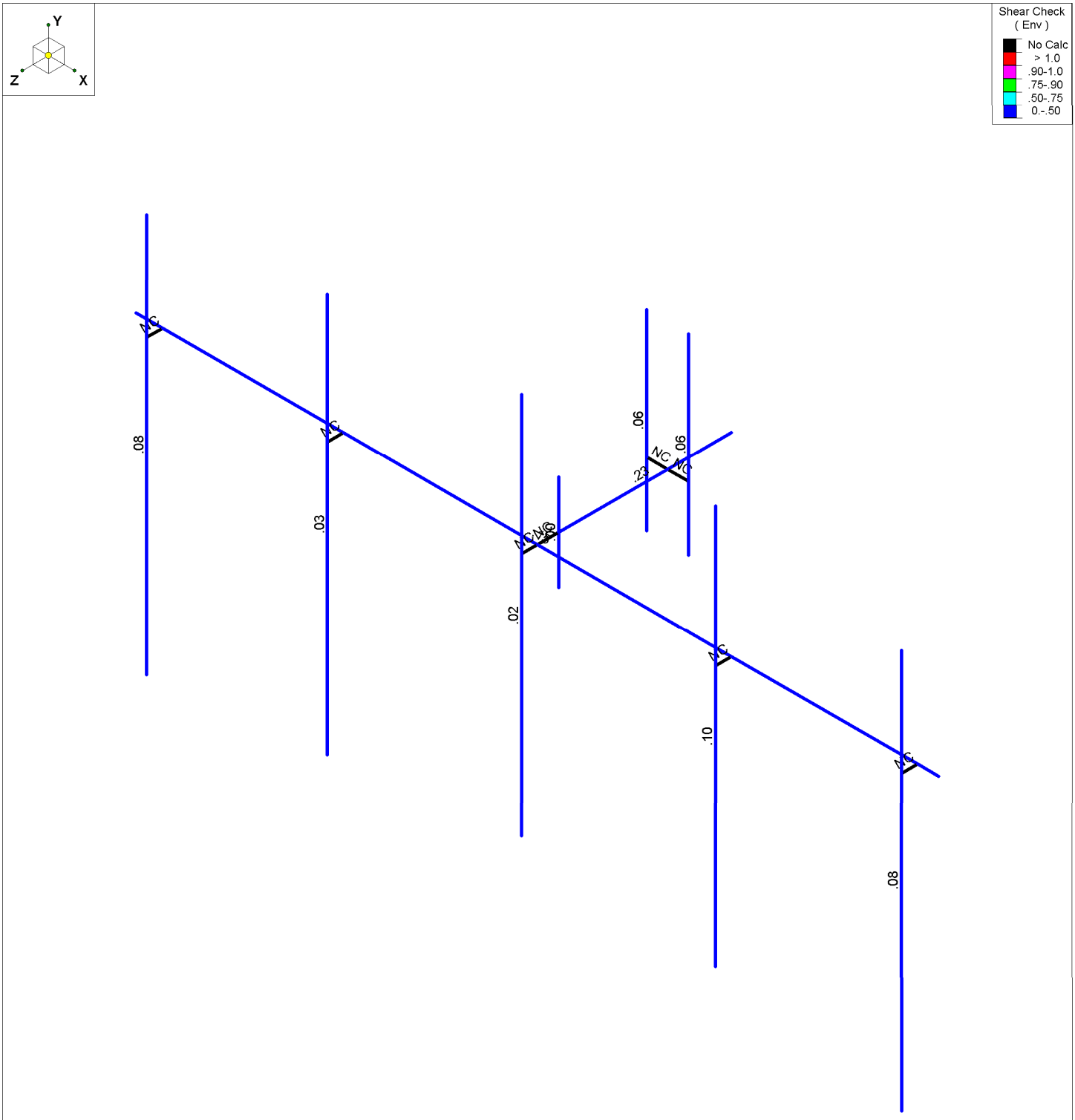
Envelope Only Solution

Tower Engineering Solutio...	467924-VZW_MT_LOT_SectorA_H	SK - 1
		Nov 5, 2021 at 4:22 PM
		467924-VZW_MT_LOT_A_H.r3d



Member Code Checks Displayed (Enveloped)
Envelope Only Solution

Tower Engineering Solutio...	467924-VZW_MT_LOT_SectorA_H	SK - 2
		Nov 5, 2021 at 4:22 PM
		467924-VZW_MT_LOT_A_H.r3d



Member Shear Checks Displayed (Enveloped)
Envelope Only Solution

Basic Load Cases

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

Basic Load Cases (Continued)

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed	Area(Me...	Surface(P...
54	Structure Wi (30 Deg)	None						20		
55	Structure Wi (60 Deg)	None						20		
56	Structure Wi (90 Deg)	None						20		
57	Structure Wi (120 De...	None						20		
58	Structure Wi (150 De...	None						20		
59	Structure Wi (180 De...	None						20		
60	Structure Wi (210 De...	None						20		
61	Structure Wi (240 De...	None						20		
62	Structure Wi (270 De...	None						20		
63	Structure Wi (300 De...	None						20		
64	Structure Wi (330 De...	None						20		
65	Structure Wm (0 Deg)	None						20		
66	Structure Wm (30 De...	None						20		
67	Structure Wm (60 De...	None						20		
68	Structure Wm (90 De...	None						20		
69	Structure Wm (120 D...	None						20		
70	Structure Wm (150 D...	None						20		
71	Structure Wm (180 D...	None						20		
72	Structure Wm (210 D...	None						20		
73	Structure Wm (240 D...	None						20		
74	Structure Wm (270 D...	None						20		
75	Structure Wm (300 D...	None						20		
76	Structure Wm (330 D...	None						20		
77	Lm1	None					1			
78	Lm2	None					1			
79	Lv1	None					1			
80	Lv2	None					1			
81	Antenna Ev	None					42			
82	Antenna Eh (0 Deg)	None					28			
83	Antenna Eh (90 Deg)	None					28			
84	Structure Ev	ELY		-.044						
85	Structure Eh (0 Deg)	ELZ	-.109							
86	Structure Eh (90 Deg)	ELX			.109					

Load Combinations

	Description	Solve	PDe...	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 ...	Yes	Y		1	1.2	39	1.2	3	1	41	1												
2	1.2D+1.0Wo (3...	Yes	Y		1	1.2	39	1.2	4	1	42	1												
3	1.2D+1.0Wo (6...	Yes	Y		1	1.2	39	1.2	5	1	43	1												
4	1.2D+1.0Wo (9...	Yes	Y		1	1.2	39	1.2	6	1	44	1												
5	1.2D+1.0Wo (1...	Yes	Y		1	1.2	39	1.2	7	1	45	1												
6	1.2D+1.0Wo (1...	Yes	Y		1	1.2	39	1.2	8	1	46	1												
7	1.2D+1.0Wo (1...	Yes	Y		1	1.2	39	1.2	9	1	47	1												
8	1.2D+1.0Wo (2...	Yes	Y		1	1.2	39	1.2	10	1	48	1												
9	1.2D+1.0Wo (2...	Yes	Y		1	1.2	39	1.2	11	1	49	1												
10	1.2D+1.0Wo (2...	Yes	Y		1	1.2	39	1.2	12	1	50	1												
11	1.2D+1.0Wo (3...	Yes	Y		1	1.2	39	1.2	13	1	51	1												
12	1.2D+1.0Wo (3...	Yes	Y		1	1.2	39	1.2	14	1	52	1												
13	1.2D + 1.0Di + ...	Yes	Y		1	1.2	39	1.2	2	1	40	1	15	1	53	1								
14	1.2D + 1.0Di + ...	Yes	Y		1	1.2	39	1.2	2	1	40	1	16	1	54	1								
15	1.2D + 1.0Di + ...	Yes	Y		1	1.2	39	1.2	2	1	40	1	17	1	55	1								
16	1.2D + 1.0Di + ...	Yes	Y		1	1.2	39	1.2	2	1	40	1	18	1	56	1								
17	1.2D + 1.0Di + ...	Yes	Y		1	1.2	39	1.2	2	1	40	1	19	1	57	1								
18	1.2D + 1.0Di + ...	Yes	Y		1	1.2	39	1.2	2	1	40	1	20	1	58	1								
19	1.2D + 1.0Di + ...	Yes	Y		1	1.2	39	1.2	2	1	40	1	21	1	59	1								

Load Combinations (Continued)

	Description	Solve	PDe...	S...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...
20	1.2D + 1.0Di + ...	Yes	Y		1	1.2	39	1.2	2	1	40	1	22	1	60	1								
21	1.2D + 1.0Di + ...	Yes	Y		1	1.2	39	1.2	2	1	40	1	23	1	61	1								
22	1.2D + 1.0Di + ...	Yes	Y		1	1.2	39	1.2	2	1	40	1	24	1	62	1								
23	1.2D + 1.0Di + ...	Yes	Y		1	1.2	39	1.2	2	1	40	1	25	1	63	1								
24	1.2D + 1.0Di + ...	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										
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	1.2D + 1.0Ev + ...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	1	83		ELZ	1	ELX					
53	1.2D + 1.0Ev + ...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	.866	83	.5	ELZ	.866	ELX	.5				
54	1.2D + 1.0Ev + ...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	.5	83	.866	ELZ	.5	ELX	.866				
55	1.2D + 1.0Ev + ...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82		83	1	ELZ		ELX	1				
56	1.2D + 1.0Ev + ...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	-.5	83	.866	ELZ	-.5	ELX	.866				
57	1.2D + 1.0Ev + ...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	-.866	83	.5	ELZ	-.866	ELX	.5				
58	1.2D + 1.0Ev + ...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	-1	83		ELZ	-1	ELX					
59	1.2D + 1.0Ev + ...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	-.866	83	-.5	ELZ	-.866	ELX	-.5				
60	1.2D + 1.0Ev + ...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	-.5	83	-.866	ELZ	-.5	ELX	-.866				
61	1.2D + 1.0Ev + ...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82		83	-1	ELZ		ELX	-1				
62	1.2D + 1.0Ev + ...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	.5	83	-.866	ELZ	.5	ELX	-.866				
63	1.2D + 1.0Ev + ...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	.866	83	-.5	ELZ	.866	ELX	-.5				
64	0.9D - 1.0Ev + ...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	1	83		ELZ	1	ELX					
65	0.9D - 1.0Ev + ...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	.866	83	.5	ELZ	.866	ELX	.5				
66	0.9D - 1.0Ev + ...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	.5	83	.866	ELZ	.5	ELX	.866				
67	0.9D - 1.0Ev + ...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82		83	1	ELZ		ELX	1				
68	0.9D - 1.0Ev + ...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	-.5	83	.866	ELZ	-.5	ELX	.866				
69	0.9D - 1.0Ev + ...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	-.866	83	.5	ELZ	-.866	ELX	.5				
70	0.9D - 1.0Ev + ...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	-1	83		ELZ	-1	ELX					
71	0.9D - 1.0Ev + ...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	-.866	83	-.5	ELZ	-.866	ELX	-.5				
72	0.9D - 1.0Ev + ...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	-.5	83	-.866	ELZ	-.5	ELX	-.866				
73	0.9D - 1.0Ev + ...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82		83	-1	ELZ		ELX	-1				
74	0.9D - 1.0Ev + ...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	.5	83	-.866	ELZ	.5	ELX	-.866				
75	0.9D - 1.0Ev + ...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	.866	83	-.5	ELZ	.866	ELX	-.5				

Joint Coordinates and Temperatures

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diap...
1	N1	0	0	0	0	
2	N2	0	0	2.708333	0	
3	N3	0	0	3.041667	0	
4	N4	6.291667	0	3.041667	0	
5	N5	-6.291667	0	3.041667	0	
6	N6	0	.75	2.708333	0	
7	N7	0	-.75	2.708333	0	
8	N8	-5.875	0	3.041667	0	
9	N9	-3.041667	0	3.041667	0	
10	N10	5.958333	0	3.041667	0	
11	N11	3.041667	0	3.041667	0	
12	N12	0	0	3.291667	0	
13	N13	-5.875	0	3.291667	0	
14	N14	-3.041667	0	3.291667	0	
15	N15	5.958333	0	3.291667	0	
16	N16	3.041667	0	3.291667	0	
17	N17	0	2.166667	3.291667	0	
18	N18	-5.875	1.666667	3.291667	0	
19	N19	-3.041667	2	3.291667	0	
20	N20	5.958333	1.666667	3.291667	0	
21	N21	3.041667	2.166667	3.291667	0	
22	N22	0	-3.833333	3.291667	0	
23	N23	-5.875	-4.583333	3.291667	0	
24	N24	-3.041667	-4.25	3.291667	0	
25	N25	5.958333	-4.583333	3.291667	0	
26	N26	3.041667	-4.083333	3.291667	0	
27	N27	0	0	1	0	
28	N28	.33	0	1	0	
29	N29	-.33	0	1	0	
30	N30	.33	2	1	0	
31	N31	-.33	2	1	0	
32	N32	.33	-1	1	0	
33	N33	-.33	-1	1	0	

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design ...	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	Standoff Horizontal	HSS4X4X4	Beam	SquareTube	A500 Gr. B ...	Typical	3.37	7.8	7.8	12.8
2	Mast Pipe	PIPE_4.0	Column	Pipe	A53 Gr. B	Typical	2.96	6.82	6.82	13.6
3	Mount Pipes	PIPE_2.0	Column	Pipe	A53 Gr. B	Typical	1.02	.627	.627	1.25
4	Face Horizontal	PIPE_3.0	Beam	Pipe	A53 Gr. B	Typical	2.07	2.85	2.85	5.69

Hot Rolled Steel Properties

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

Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
1	M1	N5	N4			Face Horizontal	Beam	Pipe	A53 Gr. B	Typical
2	M2	N1	N2			Standoff Horiz...	Beam	SquareTube	A500 Gr. ...	Typical
3	M3	N6	N7			Mast Pipe	Column	Pipe	A53 Gr. B	Typical
4	M4	N2	N3			RIGID	None	None	RIGID	Typical
5	M5	N8	N13			RIGID	None	None	RIGID	Typical
6	M6	N9	N14			RIGID	None	None	RIGID	Typical
7	M7	N3	N12			RIGID	None	None	RIGID	Typical
8	M8	N11	N16			RIGID	None	None	RIGID	Typical
9	M9	N10	N15			RIGID	None	None	RIGID	Typical
10	MP1A	N20	N25			Mount Pipes	Column	Pipe	A53 Gr. B	Typical
11	MP3A	N17	N22			Mount Pipes	Column	Pipe	A53 Gr. B	Typical
12	MP4A	N19	N24			Mount Pipes	Column	Pipe	A53 Gr. B	Typical
13	MP5A	N18	N23			Mount Pipes	Column	Pipe	A53 Gr. B	Typical
14	MP2A	N21	N26			Mount Pipes	Column	Pipe	A53 Gr. B	Typical
15	M15	N29	N27			RIGID	None	None	RIGID	Typical
16	M16	N27	N28			RIGID	None	None	RIGID	Typical
17	OVP	N31	N33			Mount Pipes	Column	Pipe	A53 Gr. B	Typical
18	OVP2	N30	N32			Mount Pipes	Column	Pipe	A53 Gr. B	Typical

Member Advanced Data

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rat...	Analysis ...	Inactive	Seismic...
1	M1						Yes				None
2	M2						Yes				None
3	M3						Yes	** NA **			None
4	M4						Yes	** NA **			None
5	M5						Yes	** NA **			None
6	M6						Yes	** NA **			None
7	M7						Yes	** NA **			None
8	M8						Yes	** NA **			None
9	M9						Yes	** NA **			None
10	MP1A						Yes	** NA **			None
11	MP3A						Yes	** NA **			None
12	MP4A						Yes	** NA **			None
13	MP5A						Yes	** NA **			None
14	MP2A						Yes	** NA **			None
15	M15						Yes	** NA **			None
16	M16						Yes	** NA **			None
17	OVP						Yes	** NA **			None
18	OVP2						Yes	** NA **			None

Member Point Loads (BLC 1 : Antenna D)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	Y	-43.55	1
2	MP4A	My	-.022	1
3	MP4A	Mz	0	1
4	MP4A	Y	-43.55	3
5	MP4A	My	-.022	3
6	MP4A	Mz	0	3
7	MP3A	Y	-74.7	1
8	MP3A	My	.037	1
9	MP3A	Mz	0	1
10	MP2A	Y	-70.3	1
11	MP2A	My	.035	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
12	MP2A	Mz	0	1
13	MP2A	Y	-20.3	.25
14	MP2A	My	-.01	.25
15	MP2A	Mz	.012	.25
16	MP2A	Y	-20.3	3.75
17	MP2A	My	-.01	3.75
18	MP2A	Mz	.012	3.75
19	MP2A	Y	-20.3	.25
20	MP2A	My	-.01	.25
21	MP2A	Mz	-.012	.25
22	MP2A	Y	-20.3	3.75
23	MP2A	My	-.01	3.75
24	MP2A	Mz	-.012	3.75
25	MP1A	Y	-10.5	.75
26	MP1A	My	-.005	.75
27	MP1A	Mz	0	.75
28	MP1A	Y	-10.5	4.25
29	MP1A	My	-.005	4.25
30	MP1A	Mz	0	4.25
31	MP5A	Y	-10.5	.75
32	MP5A	My	-.005	.75
33	MP5A	Mz	0	.75
34	MP5A	Y	-10.5	4.25
35	MP5A	My	-.005	4.25
36	MP5A	Mz	0	4.25
37	OVP	Y	-32	1
38	OVP	My	0	1
39	OVP	Mz	-.016	1
40	OVP2	Y	-32	1
41	OVP2	My	0	1
42	OVP2	Mz	.016	1

Member Point Loads (BLC 2 : Antenna Di)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	Y	-35.52	1
2	MP4A	My	-.018	1
3	MP4A	Mz	0	1
4	MP4A	Y	-35.52	3
5	MP4A	My	-.018	3
6	MP4A	Mz	0	3
7	MP3A	Y	-44.781	1
8	MP3A	My	.022	1
9	MP3A	Mz	0	1
10	MP2A	Y	-42.644	1
11	MP2A	My	.021	1
12	MP2A	Mz	0	1
13	MP2A	Y	-60.436	.25
14	MP2A	My	-.03	.25
15	MP2A	Mz	.035	.25
16	MP2A	Y	-60.436	3.75
17	MP2A	My	-.03	3.75
18	MP2A	Mz	.035	3.75
19	MP2A	Y	-60.436	.25
20	MP2A	My	-.03	.25
21	MP2A	Mz	-.035	.25
22	MP2A	Y	-60.436	3.75

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
23	MP2A	My	-.03	3.75
24	MP2A	Mz	-.035	3.75
25	MP1A	Y	-58.325	.75
26	MP1A	My	-.029	.75
27	MP1A	Mz	0	.75
28	MP1A	Y	-58.325	4.25
29	MP1A	My	-.029	4.25
30	MP1A	Mz	0	4.25
31	MP5A	Y	-58.325	.75
32	MP5A	My	-.029	.75
33	MP5A	Mz	0	.75
34	MP5A	Y	-58.325	4.25
35	MP5A	My	-.029	4.25
36	MP5A	Mz	0	4.25
37	OVP	Y	-87.686	1
38	OVP	My	0	1
39	OVP	Mz	-.044	1
40	OVP2	Y	-87.686	1
41	OVP2	My	0	1
42	OVP2	Mz	.044	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	0	1
2	MP4A	Z	-101.082	1
3	MP4A	Mx	0	1
4	MP4A	X	0	3
5	MP4A	Z	-101.082	3
6	MP4A	Mx	0	3
7	MP3A	X	0	1
8	MP3A	Z	-80.435	1
9	MP3A	Mx	0	1
10	MP2A	X	0	1
11	MP2A	Z	-80.435	1
12	MP2A	Mx	0	1
13	MP2A	X	0	.25
14	MP2A	Z	-173.775	.25
15	MP2A	Mx	-.101	.25
16	MP2A	X	0	3.75
17	MP2A	Z	-173.775	3.75
18	MP2A	Mx	-.101	3.75
19	MP2A	X	0	.25
20	MP2A	Z	-173.775	.25
21	MP2A	Mx	.101	.25
22	MP2A	X	0	3.75
23	MP2A	Z	-173.775	3.75
24	MP2A	Mx	.101	3.75
25	MP1A	X	0	.75
26	MP1A	Z	-93.124	.75
27	MP1A	Mx	0	.75
28	MP1A	X	0	4.25
29	MP1A	Z	-93.124	4.25
30	MP1A	Mx	0	4.25
31	MP5A	X	0	.75
32	MP5A	Z	-93.124	.75
33	MP5A	Mx	0	.75

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
34	MP5A	X	0	4.25
35	MP5A	Z	-93.124	4.25
36	MP5A	Mx	0	4.25
37	OVP	X	0	1
38	OVP	Z	-133.235	1
39	OVP	Mx	.067	1
40	OVP2	X	0	1
41	OVP2	Z	-133.235	1
42	OVP2	Mx	-.067	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	42.852	1
2	MP4A	Z	-74.223	1
3	MP4A	Mx	-.021	1
4	MP4A	X	42.852	3
5	MP4A	Z	-74.223	3
6	MP4A	Mx	-.021	3
7	MP3A	X	36.884	1
8	MP3A	Z	-63.885	1
9	MP3A	Mx	.018	1
10	MP2A	X	36.279	1
11	MP2A	Z	-62.838	1
12	MP2A	Mx	.018	1
13	MP2A	X	79.526	.25
14	MP2A	Z	-137.743	.25
15	MP2A	Mx	-.12	.25
16	MP2A	X	79.526	3.75
17	MP2A	Z	-137.743	3.75
18	MP2A	Mx	-.12	3.75
19	MP2A	X	79.526	.25
20	MP2A	Z	-137.743	.25
21	MP2A	Mx	.041	.25
22	MP2A	X	79.526	3.75
23	MP2A	Z	-137.743	3.75
24	MP2A	Mx	.041	3.75
25	MP1A	X	58.118	.75
26	MP1A	Z	-100.663	.75
27	MP1A	Mx	-.029	.75
28	MP1A	X	58.118	4.25
29	MP1A	Z	-100.663	4.25
30	MP1A	Mx	-.029	4.25
31	MP5A	X	58.118	.75
32	MP5A	Z	-100.663	.75
33	MP5A	Mx	-.029	.75
34	MP5A	X	58.118	4.25
35	MP5A	Z	-100.663	4.25
36	MP5A	Mx	-.029	4.25
37	OVP	X	71.792	1
38	OVP	Z	-124.348	1
39	OVP	Mx	.062	1
40	OVP2	X	71.792	1
41	OVP2	Z	-124.348	1
42	OVP2	Mx	-.062	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	47.589	1
2	MP4A	Z	-27.475	1
3	MP4A	Mx	-.024	1
4	MP4A	X	47.589	3
5	MP4A	Z	-27.475	3
6	MP4A	Mx	-.024	3
7	MP3A	X	52.337	1
8	MP3A	Z	-30.217	1
9	MP3A	Mx	.026	1
10	MP2A	X	49.194	1
11	MP2A	Z	-28.402	1
12	MP2A	Mx	.025	1
13	MP2A	X	112.241	.25
14	MP2A	Z	-64.803	.25
15	MP2A	Mx	-.094	.25
16	MP2A	X	112.241	3.75
17	MP2A	Z	-64.803	3.75
18	MP2A	Mx	-.094	3.75
19	MP2A	X	112.241	.25
20	MP2A	Z	-64.803	.25
21	MP2A	Mx	-.018	.25
22	MP2A	X	112.241	3.75
23	MP2A	Z	-64.803	3.75
24	MP2A	Mx	-.018	3.75
25	MP1A	X	140.692	.75
26	MP1A	Z	-81.229	.75
27	MP1A	Mx	-.07	.75
28	MP1A	X	140.692	4.25
29	MP1A	Z	-81.229	4.25
30	MP1A	Mx	-.07	4.25
31	MP5A	X	140.692	.75
32	MP5A	Z	-81.229	.75
33	MP5A	Mx	-.07	.75
34	MP5A	X	140.692	4.25
35	MP5A	Z	-81.229	4.25
36	MP5A	Mx	-.07	4.25
37	OVP	X	142.275	1
38	OVP	Z	-82.142	1
39	OVP	Mx	.041	1
40	OVP2	X	142.275	1
41	OVP2	Z	-82.142	1
42	OVP2	Mx	-.041	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	39.573	1
2	MP4A	Z	0	1
3	MP4A	Mx	-.02	1
4	MP4A	X	39.573	3
5	MP4A	Z	0	3
6	MP4A	Mx	-.02	3
7	MP3A	X	53.767	1
8	MP3A	Z	0	1
9	MP3A	Mx	.027	1
10	MP2A	X	48.928	1
11	MP2A	Z	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
12	MP2A	Mx	.024	1
13	MP2A	X	114.882	.25
14	MP2A	Z	0	.25
15	MP2A	Mx	-.057	.25
16	MP2A	X	114.882	3.75
17	MP2A	Z	0	3.75
18	MP2A	Mx	-.057	3.75
19	MP2A	X	114.882	.25
20	MP2A	Z	0	.25
21	MP2A	Mx	-.057	.25
22	MP2A	X	114.882	3.75
23	MP2A	Z	0	3.75
24	MP2A	Mx	-.057	3.75
25	MP1A	X	185.568	.75
26	MP1A	Z	0	.75
27	MP1A	Mx	-.093	.75
28	MP1A	X	185.568	4.25
29	MP1A	Z	0	4.25
30	MP1A	Mx	-.093	4.25
31	MP5A	X	185.568	.75
32	MP5A	Z	0	.75
33	MP5A	Mx	-.093	.75
34	MP5A	X	185.568	4.25
35	MP5A	Z	0	4.25
36	MP5A	Mx	-.093	4.25
37	OVP	X	174.635	1
38	OVP	Z	0	1
39	OVP	Mx	0	1
40	OVP2	X	174.635	1
41	OVP2	Z	0	1
42	OVP2	Mx	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	47.589	1
2	MP4A	Z	27.475	1
3	MP4A	Mx	-.024	1
4	MP4A	X	47.589	3
5	MP4A	Z	27.475	3
6	MP4A	Mx	-.024	3
7	MP3A	X	52.337	1
8	MP3A	Z	30.217	1
9	MP3A	Mx	.026	1
10	MP2A	X	49.194	1
11	MP2A	Z	28.402	1
12	MP2A	Mx	.025	1
13	MP2A	X	112.241	.25
14	MP2A	Z	64.803	.25
15	MP2A	Mx	-.018	.25
16	MP2A	X	112.241	3.75
17	MP2A	Z	64.803	3.75
18	MP2A	Mx	-.018	3.75
19	MP2A	X	112.241	.25
20	MP2A	Z	64.803	.25
21	MP2A	Mx	-.094	.25
22	MP2A	X	112.241	3.75

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
23	MP2A	Z	64.803	3.75
24	MP2A	Mx	-.094	3.75
25	MP1A	X	140.692	.75
26	MP1A	Z	81.229	.75
27	MP1A	Mx	-.07	.75
28	MP1A	X	140.692	4.25
29	MP1A	Z	81.229	4.25
30	MP1A	Mx	-.07	4.25
31	MP5A	X	140.692	.75
32	MP5A	Z	81.229	.75
33	MP5A	Mx	-.07	.75
34	MP5A	X	140.692	4.25
35	MP5A	Z	81.229	4.25
36	MP5A	Mx	-.07	4.25
37	OVP	X	142.275	1
38	OVP	Z	82.142	1
39	OVP	Mx	-.041	1
40	OVP2	X	142.275	1
41	OVP2	Z	82.142	1
42	OVP2	Mx	.041	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	42.852	1
2	MP4A	Z	74.223	1
3	MP4A	Mx	-.021	1
4	MP4A	X	42.852	3
5	MP4A	Z	74.223	3
6	MP4A	Mx	-.021	3
7	MP3A	X	36.884	1
8	MP3A	Z	63.885	1
9	MP3A	Mx	.018	1
10	MP2A	X	36.279	1
11	MP2A	Z	62.838	1
12	MP2A	Mx	.018	1
13	MP2A	X	79.526	.25
14	MP2A	Z	137.743	.25
15	MP2A	Mx	.041	.25
16	MP2A	X	79.526	3.75
17	MP2A	Z	137.743	3.75
18	MP2A	Mx	.041	3.75
19	MP2A	X	79.526	.25
20	MP2A	Z	137.743	.25
21	MP2A	Mx	-.12	.25
22	MP2A	X	79.526	3.75
23	MP2A	Z	137.743	3.75
24	MP2A	Mx	-.12	3.75
25	MP1A	X	58.118	.75
26	MP1A	Z	100.663	.75
27	MP1A	Mx	-.029	.75
28	MP1A	X	58.118	4.25
29	MP1A	Z	100.663	4.25
30	MP1A	Mx	-.029	4.25
31	MP5A	X	58.118	.75
32	MP5A	Z	100.663	.75
33	MP5A	Mx	-.029	.75

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
34	MP5A	X	58.118	4.25
35	MP5A	Z	100.663	4.25
36	MP5A	Mx	-.029	4.25
37	OVP	X	71.792	1
38	OVP	Z	124.348	1
39	OVP	Mx	-.062	1
40	OVP2	X	71.792	1
41	OVP2	Z	124.348	1
42	OVP2	Mx	.062	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	0	1
2	MP4A	Z	101.082	1
3	MP4A	Mx	0	1
4	MP4A	X	0	3
5	MP4A	Z	101.082	3
6	MP4A	Mx	0	3
7	MP3A	X	0	1
8	MP3A	Z	80.435	1
9	MP3A	Mx	0	1
10	MP2A	X	0	1
11	MP2A	Z	80.435	1
12	MP2A	Mx	0	1
13	MP2A	X	0	.25
14	MP2A	Z	173.775	.25
15	MP2A	Mx	.101	.25
16	MP2A	X	0	3.75
17	MP2A	Z	173.775	3.75
18	MP2A	Mx	.101	3.75
19	MP2A	X	0	.25
20	MP2A	Z	173.775	.25
21	MP2A	Mx	-.101	.25
22	MP2A	X	0	3.75
23	MP2A	Z	173.775	3.75
24	MP2A	Mx	-.101	3.75
25	MP1A	X	0	.75
26	MP1A	Z	93.124	.75
27	MP1A	Mx	0	.75
28	MP1A	X	0	4.25
29	MP1A	Z	93.124	4.25
30	MP1A	Mx	0	4.25
31	MP5A	X	0	.75
32	MP5A	Z	93.124	.75
33	MP5A	Mx	0	.75
34	MP5A	X	0	4.25
35	MP5A	Z	93.124	4.25
36	MP5A	Mx	0	4.25
37	OVP	X	0	1
38	OVP	Z	133.235	1
39	OVP	Mx	-.067	1
40	OVP2	X	0	1
41	OVP2	Z	133.235	1
42	OVP2	Mx	.067	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-42.852	1
2	MP4A	Z	74.223	1
3	MP4A	Mx	.021	1
4	MP4A	X	-42.852	3
5	MP4A	Z	74.223	3
6	MP4A	Mx	.021	3
7	MP3A	X	-36.884	1
8	MP3A	Z	63.885	1
9	MP3A	Mx	-.018	1
10	MP2A	X	-36.279	1
11	MP2A	Z	62.838	1
12	MP2A	Mx	-.018	1
13	MP2A	X	-79.526	.25
14	MP2A	Z	137.743	.25
15	MP2A	Mx	.12	.25
16	MP2A	X	-79.526	3.75
17	MP2A	Z	137.743	3.75
18	MP2A	Mx	.12	3.75
19	MP2A	X	-79.526	.25
20	MP2A	Z	137.743	.25
21	MP2A	Mx	-.041	.25
22	MP2A	X	-79.526	3.75
23	MP2A	Z	137.743	3.75
24	MP2A	Mx	-.041	3.75
25	MP1A	X	-58.118	.75
26	MP1A	Z	100.663	.75
27	MP1A	Mx	.029	.75
28	MP1A	X	-58.118	4.25
29	MP1A	Z	100.663	4.25
30	MP1A	Mx	.029	4.25
31	MP5A	X	-58.118	.75
32	MP5A	Z	100.663	.75
33	MP5A	Mx	.029	.75
34	MP5A	X	-58.118	4.25
35	MP5A	Z	100.663	4.25
36	MP5A	Mx	.029	4.25
37	OVP	X	-71.792	1
38	OVP	Z	124.348	1
39	OVP	Mx	-.062	1
40	OVP2	X	-71.792	1
41	OVP2	Z	124.348	1
42	OVP2	Mx	.062	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-47.589	1
2	MP4A	Z	27.475	1
3	MP4A	Mx	.024	1
4	MP4A	X	-47.589	3
5	MP4A	Z	27.475	3
6	MP4A	Mx	.024	3
7	MP3A	X	-52.337	1
8	MP3A	Z	30.217	1
9	MP3A	Mx	-.026	1
10	MP2A	X	-49.194	1
11	MP2A	Z	28.402	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
12	MP2A	Mx	-.025	1
13	MP2A	X	-112.241	.25
14	MP2A	Z	64.803	.25
15	MP2A	Mx	.094	.25
16	MP2A	X	-112.241	3.75
17	MP2A	Z	64.803	3.75
18	MP2A	Mx	.094	3.75
19	MP2A	X	-112.241	.25
20	MP2A	Z	64.803	.25
21	MP2A	Mx	.018	.25
22	MP2A	X	-112.241	3.75
23	MP2A	Z	64.803	3.75
24	MP2A	Mx	.018	3.75
25	MP1A	X	-140.692	.75
26	MP1A	Z	81.229	.75
27	MP1A	Mx	.07	.75
28	MP1A	X	-140.692	4.25
29	MP1A	Z	81.229	4.25
30	MP1A	Mx	.07	4.25
31	MP5A	X	-140.692	.75
32	MP5A	Z	81.229	.75
33	MP5A	Mx	.07	.75
34	MP5A	X	-140.692	4.25
35	MP5A	Z	81.229	4.25
36	MP5A	Mx	.07	4.25
37	OVP	X	-142.275	1
38	OVP	Z	82.142	1
39	OVP	Mx	-.041	1
40	OVP2	X	-142.275	1
41	OVP2	Z	82.142	1
42	OVP2	Mx	.041	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-39.573	1
2	MP4A	Z	0	1
3	MP4A	Mx	.02	1
4	MP4A	X	-39.573	3
5	MP4A	Z	0	3
6	MP4A	Mx	.02	3
7	MP3A	X	-53.767	1
8	MP3A	Z	0	1
9	MP3A	Mx	-.027	1
10	MP2A	X	-48.928	1
11	MP2A	Z	0	1
12	MP2A	Mx	-.024	1
13	MP2A	X	-114.882	.25
14	MP2A	Z	0	.25
15	MP2A	Mx	.057	.25
16	MP2A	X	-114.882	3.75
17	MP2A	Z	0	3.75
18	MP2A	Mx	.057	3.75
19	MP2A	X	-114.882	.25
20	MP2A	Z	0	.25
21	MP2A	Mx	.057	.25
22	MP2A	X	-114.882	3.75

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
23	MP2A	Z	0	3.75
24	MP2A	Mx	.057	3.75
25	MP1A	X	-185.568	.75
26	MP1A	Z	0	.75
27	MP1A	Mx	.093	.75
28	MP1A	X	-185.568	4.25
29	MP1A	Z	0	4.25
30	MP1A	Mx	.093	4.25
31	MP5A	X	-185.568	.75
32	MP5A	Z	0	.75
33	MP5A	Mx	.093	.75
34	MP5A	X	-185.568	4.25
35	MP5A	Z	0	4.25
36	MP5A	Mx	.093	4.25
37	OVP	X	-174.635	1
38	OVP	Z	0	1
39	OVP	Mx	0	1
40	OVP2	X	-174.635	1
41	OVP2	Z	0	1
42	OVP2	Mx	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-47.589	1
2	MP4A	Z	-27.475	1
3	MP4A	Mx	.024	1
4	MP4A	X	-47.589	3
5	MP4A	Z	-27.475	3
6	MP4A	Mx	.024	3
7	MP3A	X	-52.337	1
8	MP3A	Z	-30.217	1
9	MP3A	Mx	-.026	1
10	MP2A	X	-49.194	1
11	MP2A	Z	-28.402	1
12	MP2A	Mx	-.025	1
13	MP2A	X	-112.241	.25
14	MP2A	Z	-64.803	.25
15	MP2A	Mx	.018	.25
16	MP2A	X	-112.241	3.75
17	MP2A	Z	-64.803	3.75
18	MP2A	Mx	.018	3.75
19	MP2A	X	-112.241	.25
20	MP2A	Z	-64.803	.25
21	MP2A	Mx	.094	.25
22	MP2A	X	-112.241	3.75
23	MP2A	Z	-64.803	3.75
24	MP2A	Mx	.094	3.75
25	MP1A	X	-140.692	.75
26	MP1A	Z	-81.229	.75
27	MP1A	Mx	.07	.75
28	MP1A	X	-140.692	4.25
29	MP1A	Z	-81.229	4.25
30	MP1A	Mx	.07	4.25
31	MP5A	X	-140.692	.75
32	MP5A	Z	-81.229	.75
33	MP5A	Mx	.07	.75

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
34	MP5A	X	-140.692	4.25
35	MP5A	Z	-81.229	4.25
36	MP5A	Mx	.07	4.25
37	OVP	X	-142.275	1
38	OVP	Z	-82.142	1
39	OVP	Mx	.041	1
40	OVP2	X	-142.275	1
41	OVP2	Z	-82.142	1
42	OVP2	Mx	-.041	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-42.852	1
2	MP4A	Z	-74.223	1
3	MP4A	Mx	.021	1
4	MP4A	X	-42.852	3
5	MP4A	Z	-74.223	3
6	MP4A	Mx	.021	3
7	MP3A	X	-36.884	1
8	MP3A	Z	-63.885	1
9	MP3A	Mx	-.018	1
10	MP2A	X	-36.279	1
11	MP2A	Z	-62.838	1
12	MP2A	Mx	-.018	1
13	MP2A	X	-79.526	.25
14	MP2A	Z	-137.743	.25
15	MP2A	Mx	-.041	.25
16	MP2A	X	-79.526	3.75
17	MP2A	Z	-137.743	3.75
18	MP2A	Mx	-.041	3.75
19	MP2A	X	-79.526	.25
20	MP2A	Z	-137.743	.25
21	MP2A	Mx	.12	.25
22	MP2A	X	-79.526	3.75
23	MP2A	Z	-137.743	3.75
24	MP2A	Mx	.12	3.75
25	MP1A	X	-58.118	.75
26	MP1A	Z	-100.663	.75
27	MP1A	Mx	.029	.75
28	MP1A	X	-58.118	4.25
29	MP1A	Z	-100.663	4.25
30	MP1A	Mx	.029	4.25
31	MP5A	X	-58.118	.75
32	MP5A	Z	-100.663	.75
33	MP5A	Mx	.029	.75
34	MP5A	X	-58.118	4.25
35	MP5A	Z	-100.663	4.25
36	MP5A	Mx	.029	4.25
37	OVP	X	-71.792	1
38	OVP	Z	-124.348	1
39	OVP	Mx	.062	1
40	OVP2	X	-71.792	1
41	OVP2	Z	-124.348	1
42	OVP2	Mx	-.062	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	0	1
2	MP4A	Z	-19.493	1
3	MP4A	Mx	0	1
4	MP4A	X	0	3
5	MP4A	Z	-19.493	3
6	MP4A	Mx	0	3
7	MP3A	X	0	1
8	MP3A	Z	-16.427	1
9	MP3A	Mx	0	1
10	MP2A	X	0	1
11	MP2A	Z	-16.427	1
12	MP2A	Mx	0	1
13	MP2A	X	0	.25
14	MP2A	Z	-32.724	.25
15	MP2A	Mx	-.019	.25
16	MP2A	X	0	3.75
17	MP2A	Z	-32.724	3.75
18	MP2A	Mx	-.019	3.75
19	MP2A	X	0	.25
20	MP2A	Z	-32.724	.25
21	MP2A	Mx	.019	.25
22	MP2A	X	0	3.75
23	MP2A	Z	-32.724	3.75
24	MP2A	Mx	.019	3.75
25	MP1A	X	0	.75
26	MP1A	Z	-18.654	.75
27	MP1A	Mx	0	.75
28	MP1A	X	0	4.25
29	MP1A	Z	-18.654	4.25
30	MP1A	Mx	0	4.25
31	MP5A	X	0	.75
32	MP5A	Z	-18.654	.75
33	MP5A	Mx	0	.75
34	MP5A	X	0	4.25
35	MP5A	Z	-18.654	4.25
36	MP5A	Mx	0	4.25
37	OVP	X	0	1
38	OVP	Z	-26.401	1
39	OVP	Mx	.013	1
40	OVP2	X	0	1
41	OVP2	Z	-26.401	1
42	OVP2	Mx	-.013	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	8.348	1
2	MP4A	Z	-14.459	1
3	MP4A	Mx	-.004	1
4	MP4A	X	8.348	3
5	MP4A	Z	-14.459	3
6	MP4A	Mx	-.004	3
7	MP3A	X	7.588	1
8	MP3A	Z	-13.143	1
9	MP3A	Mx	.004	1
10	MP2A	X	7.476	1
11	MP2A	Z	-12.948	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
12	MP2A	Mx	.004	1
13	MP2A	X	15.092	.25
14	MP2A	Z	-26.14	.25
15	MP2A	Mx	-.023	.25
16	MP2A	X	15.092	3.75
17	MP2A	Z	-26.14	3.75
18	MP2A	Mx	-.023	3.75
19	MP2A	X	15.092	.25
20	MP2A	Z	-26.14	.25
21	MP2A	Mx	.008	.25
22	MP2A	X	15.092	3.75
23	MP2A	Z	-26.14	3.75
24	MP2A	Mx	.008	3.75
25	MP1A	X	11.345	.75
26	MP1A	Z	-19.65	.75
27	MP1A	Mx	-.006	.75
28	MP1A	X	11.345	4.25
29	MP1A	Z	-19.65	4.25
30	MP1A	Mx	-.006	4.25
31	MP5A	X	11.345	.75
32	MP5A	Z	-19.65	.75
33	MP5A	Mx	-.006	.75
34	MP5A	X	11.345	4.25
35	MP5A	Z	-19.65	4.25
36	MP5A	Mx	-.006	4.25
37	OVP	X	14.121	1
38	OVP	Z	-24.458	1
39	OVP	Mx	.012	1
40	OVP2	X	14.121	1
41	OVP2	Z	-24.458	1
42	OVP2	Mx	-.012	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	9.613	1
2	MP4A	Z	-5.55	1
3	MP4A	Mx	-.005	1
4	MP4A	X	9.613	3
5	MP4A	Z	-5.55	3
6	MP4A	Mx	-.005	3
7	MP3A	X	10.978	1
8	MP3A	Z	-6.338	1
9	MP3A	Mx	.005	1
10	MP2A	X	10.393	1
11	MP2A	Z	-6	1
12	MP2A	Mx	.005	1
13	MP2A	X	21.74	.25
14	MP2A	Z	-12.552	.25
15	MP2A	Mx	-.018	.25
16	MP2A	X	21.74	3.75
17	MP2A	Z	-12.552	3.75
18	MP2A	Mx	-.018	3.75
19	MP2A	X	21.74	.25
20	MP2A	Z	-12.552	.25
21	MP2A	Mx	-.004	.25
22	MP2A	X	21.74	3.75

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
23	MP2A	Z	-12.552	3.75
24	MP2A	Mx	-.004	3.75
25	MP1A	X	26.642	.75
26	MP1A	Z	-15.382	.75
27	MP1A	Mx	-.013	.75
28	MP1A	X	26.642	4.25
29	MP1A	Z	-15.382	4.25
30	MP1A	Mx	-.013	4.25
31	MP5A	X	26.642	.75
32	MP5A	Z	-15.382	.75
33	MP5A	Mx	-.013	.75
34	MP5A	X	26.642	4.25
35	MP5A	Z	-15.382	4.25
36	MP5A	Mx	-.013	4.25
37	OVP	X	27.646	1
38	OVP	Z	-15.961	1
39	OVP	Mx	.008	1
40	OVP2	X	27.646	1
41	OVP2	Z	-15.961	1
42	OVP2	Mx	-.008	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	8.302	1
2	MP4A	Z	0	1
3	MP4A	Mx	-.004	1
4	MP4A	X	8.302	3
5	MP4A	Z	0	3
6	MP4A	Mx	-.004	3
7	MP3A	X	11.425	1
8	MP3A	Z	0	1
9	MP3A	Mx	.006	1
10	MP2A	X	10.525	1
11	MP2A	Z	0	1
12	MP2A	Mx	.005	1
13	MP2A	X	22.564	.25
14	MP2A	Z	0	.25
15	MP2A	Mx	-.011	.25
16	MP2A	X	22.564	3.75
17	MP2A	Z	0	3.75
18	MP2A	Mx	-.011	3.75
19	MP2A	X	22.564	.25
20	MP2A	Z	0	.25
21	MP2A	Mx	-.011	.25
22	MP2A	X	22.564	3.75
23	MP2A	Z	0	3.75
24	MP2A	Mx	-.011	3.75
25	MP1A	X	34.8	.75
26	MP1A	Z	0	.75
27	MP1A	Mx	-.017	.75
28	MP1A	X	34.8	4.25
29	MP1A	Z	0	4.25
30	MP1A	Mx	-.017	4.25
31	MP5A	X	34.8	.75
32	MP5A	Z	0	.75
33	MP5A	Mx	-.017	.75

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
34	MP5A	X	34.8	4.25
35	MP5A	Z	0	4.25
36	MP5A	Mx	-.017	4.25
37	OVP	X	33.763	1
38	OVP	Z	0	1
39	OVP	Mx	0	1
40	OVP2	X	33.763	1
41	OVP2	Z	0	1
42	OVP2	Mx	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	9.613	1
2	MP4A	Z	5.55	1
3	MP4A	Mx	-.005	1
4	MP4A	X	9.613	3
5	MP4A	Z	5.55	3
6	MP4A	Mx	-.005	3
7	MP3A	X	10.978	1
8	MP3A	Z	6.338	1
9	MP3A	Mx	.005	1
10	MP2A	X	10.393	1
11	MP2A	Z	6	1
12	MP2A	Mx	.005	1
13	MP2A	X	21.74	.25
14	MP2A	Z	12.552	.25
15	MP2A	Mx	-.004	.25
16	MP2A	X	21.74	3.75
17	MP2A	Z	12.552	3.75
18	MP2A	Mx	-.004	3.75
19	MP2A	X	21.74	.25
20	MP2A	Z	12.552	.25
21	MP2A	Mx	-.018	.25
22	MP2A	X	21.74	3.75
23	MP2A	Z	12.552	3.75
24	MP2A	Mx	-.018	3.75
25	MP1A	X	26.642	.75
26	MP1A	Z	15.382	.75
27	MP1A	Mx	-.013	.75
28	MP1A	X	26.642	4.25
29	MP1A	Z	15.382	4.25
30	MP1A	Mx	-.013	4.25
31	MP5A	X	26.642	.75
32	MP5A	Z	15.382	.75
33	MP5A	Mx	-.013	.75
34	MP5A	X	26.642	4.25
35	MP5A	Z	15.382	4.25
36	MP5A	Mx	-.013	4.25
37	OVP	X	27.646	1
38	OVP	Z	15.961	1
39	OVP	Mx	-.008	1
40	OVP2	X	27.646	1
41	OVP2	Z	15.961	1
42	OVP2	Mx	.008	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	8.348	1
2	MP4A	Z	14.459	1
3	MP4A	Mx	-.004	1
4	MP4A	X	8.348	3
5	MP4A	Z	14.459	3
6	MP4A	Mx	-.004	3
7	MP3A	X	7.588	1
8	MP3A	Z	13.143	1
9	MP3A	Mx	.004	1
10	MP2A	X	7.476	1
11	MP2A	Z	12.948	1
12	MP2A	Mx	.004	1
13	MP2A	X	15.092	.25
14	MP2A	Z	26.14	.25
15	MP2A	Mx	.008	.25
16	MP2A	X	15.092	3.75
17	MP2A	Z	26.14	3.75
18	MP2A	Mx	.008	3.75
19	MP2A	X	15.092	.25
20	MP2A	Z	26.14	.25
21	MP2A	Mx	-.023	.25
22	MP2A	X	15.092	3.75
23	MP2A	Z	26.14	3.75
24	MP2A	Mx	-.023	3.75
25	MP1A	X	11.345	.75
26	MP1A	Z	19.65	.75
27	MP1A	Mx	-.006	.75
28	MP1A	X	11.345	4.25
29	MP1A	Z	19.65	4.25
30	MP1A	Mx	-.006	4.25
31	MP5A	X	11.345	.75
32	MP5A	Z	19.65	.75
33	MP5A	Mx	-.006	.75
34	MP5A	X	11.345	4.25
35	MP5A	Z	19.65	4.25
36	MP5A	Mx	-.006	4.25
37	OVP	X	14.121	1
38	OVP	Z	24.458	1
39	OVP	Mx	-.012	1
40	OVP2	X	14.121	1
41	OVP2	Z	24.458	1
42	OVP2	Mx	.012	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	0	1
2	MP4A	Z	19.493	1
3	MP4A	Mx	0	1
4	MP4A	X	0	3
5	MP4A	Z	19.493	3
6	MP4A	Mx	0	3
7	MP3A	X	0	1
8	MP3A	Z	16.427	1
9	MP3A	Mx	0	1
10	MP2A	X	0	1
11	MP2A	Z	16.427	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
12	MP2A	Mx	0	1
13	MP2A	X	0	.25
14	MP2A	Z	32.724	.25
15	MP2A	Mx	.019	.25
16	MP2A	X	0	3.75
17	MP2A	Z	32.724	3.75
18	MP2A	Mx	.019	3.75
19	MP2A	X	0	.25
20	MP2A	Z	32.724	.25
21	MP2A	Mx	-.019	.25
22	MP2A	X	0	3.75
23	MP2A	Z	32.724	3.75
24	MP2A	Mx	-.019	3.75
25	MP1A	X	0	.75
26	MP1A	Z	18.654	.75
27	MP1A	Mx	0	.75
28	MP1A	X	0	4.25
29	MP1A	Z	18.654	4.25
30	MP1A	Mx	0	4.25
31	MP5A	X	0	.75
32	MP5A	Z	18.654	.75
33	MP5A	Mx	0	.75
34	MP5A	X	0	4.25
35	MP5A	Z	18.654	4.25
36	MP5A	Mx	0	4.25
37	OVP	X	0	1
38	OVP	Z	26.401	1
39	OVP	Mx	-.013	1
40	OVP2	X	0	1
41	OVP2	Z	26.401	1
42	OVP2	Mx	.013	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-8.348	1
2	MP4A	Z	14.459	1
3	MP4A	Mx	.004	1
4	MP4A	X	-8.348	3
5	MP4A	Z	14.459	3
6	MP4A	Mx	.004	3
7	MP3A	X	-7.588	1
8	MP3A	Z	13.143	1
9	MP3A	Mx	-.004	1
10	MP2A	X	-7.476	1
11	MP2A	Z	12.948	1
12	MP2A	Mx	-.004	1
13	MP2A	X	-15.092	.25
14	MP2A	Z	26.14	.25
15	MP2A	Mx	.023	.25
16	MP2A	X	-15.092	3.75
17	MP2A	Z	26.14	3.75
18	MP2A	Mx	.023	3.75
19	MP2A	X	-15.092	.25
20	MP2A	Z	26.14	.25
21	MP2A	Mx	-.008	.25
22	MP2A	X	-15.092	3.75

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
23	MP2A	Z	26.14	3.75
24	MP2A	Mx	-.008	3.75
25	MP1A	X	-11.345	.75
26	MP1A	Z	19.65	.75
27	MP1A	Mx	.006	.75
28	MP1A	X	-11.345	4.25
29	MP1A	Z	19.65	4.25
30	MP1A	Mx	.006	4.25
31	MP5A	X	-11.345	.75
32	MP5A	Z	19.65	.75
33	MP5A	Mx	.006	.75
34	MP5A	X	-11.345	4.25
35	MP5A	Z	19.65	4.25
36	MP5A	Mx	.006	4.25
37	OVP	X	-14.121	1
38	OVP	Z	24.458	1
39	OVP	Mx	-.012	1
40	OVP2	X	-14.121	1
41	OVP2	Z	24.458	1
42	OVP2	Mx	.012	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-9.613	1
2	MP4A	Z	5.55	1
3	MP4A	Mx	.005	1
4	MP4A	X	-9.613	3
5	MP4A	Z	5.55	3
6	MP4A	Mx	.005	3
7	MP3A	X	-10.978	1
8	MP3A	Z	6.338	1
9	MP3A	Mx	-.005	1
10	MP2A	X	-10.393	1
11	MP2A	Z	6	1
12	MP2A	Mx	-.005	1
13	MP2A	X	-21.74	.25
14	MP2A	Z	12.552	.25
15	MP2A	Mx	.018	.25
16	MP2A	X	-21.74	3.75
17	MP2A	Z	12.552	3.75
18	MP2A	Mx	.018	3.75
19	MP2A	X	-21.74	.25
20	MP2A	Z	12.552	.25
21	MP2A	Mx	.004	.25
22	MP2A	X	-21.74	3.75
23	MP2A	Z	12.552	3.75
24	MP2A	Mx	.004	3.75
25	MP1A	X	-26.642	.75
26	MP1A	Z	15.382	.75
27	MP1A	Mx	.013	.75
28	MP1A	X	-26.642	4.25
29	MP1A	Z	15.382	4.25
30	MP1A	Mx	.013	4.25
31	MP5A	X	-26.642	.75
32	MP5A	Z	15.382	.75
33	MP5A	Mx	.013	.75

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
34	MP5A	X	-26.642	4.25
35	MP5A	Z	15.382	4.25
36	MP5A	Mx	.013	4.25
37	OVP	X	-27.646	1
38	OVP	Z	15.961	1
39	OVP	Mx	-.008	1
40	OVP2	X	-27.646	1
41	OVP2	Z	15.961	1
42	OVP2	Mx	.008	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-8.302	1
2	MP4A	Z	0	1
3	MP4A	Mx	.004	1
4	MP4A	X	-8.302	3
5	MP4A	Z	0	3
6	MP4A	Mx	.004	3
7	MP3A	X	-11.425	1
8	MP3A	Z	0	1
9	MP3A	Mx	-.006	1
10	MP2A	X	-10.525	1
11	MP2A	Z	0	1
12	MP2A	Mx	-.005	1
13	MP2A	X	-22.564	.25
14	MP2A	Z	0	.25
15	MP2A	Mx	.011	.25
16	MP2A	X	-22.564	3.75
17	MP2A	Z	0	3.75
18	MP2A	Mx	.011	3.75
19	MP2A	X	-22.564	.25
20	MP2A	Z	0	.25
21	MP2A	Mx	.011	.25
22	MP2A	X	-22.564	3.75
23	MP2A	Z	0	3.75
24	MP2A	Mx	.011	3.75
25	MP1A	X	-34.8	.75
26	MP1A	Z	0	.75
27	MP1A	Mx	.017	.75
28	MP1A	X	-34.8	4.25
29	MP1A	Z	0	4.25
30	MP1A	Mx	.017	4.25
31	MP5A	X	-34.8	.75
32	MP5A	Z	0	.75
33	MP5A	Mx	.017	.75
34	MP5A	X	-34.8	4.25
35	MP5A	Z	0	4.25
36	MP5A	Mx	.017	4.25
37	OVP	X	-33.763	1
38	OVP	Z	0	1
39	OVP	Mx	0	1
40	OVP2	X	-33.763	1
41	OVP2	Z	0	1
42	OVP2	Mx	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-9.613	1
2	MP4A	Z	-5.55	1
3	MP4A	Mx	.005	1
4	MP4A	X	-9.613	3
5	MP4A	Z	-5.55	3
6	MP4A	Mx	.005	3
7	MP3A	X	-10.978	1
8	MP3A	Z	-6.338	1
9	MP3A	Mx	-.005	1
10	MP2A	X	-10.393	1
11	MP2A	Z	-6	1
12	MP2A	Mx	-.005	1
13	MP2A	X	-21.74	.25
14	MP2A	Z	-12.552	.25
15	MP2A	Mx	.004	.25
16	MP2A	X	-21.74	3.75
17	MP2A	Z	-12.552	3.75
18	MP2A	Mx	.004	3.75
19	MP2A	X	-21.74	.25
20	MP2A	Z	-12.552	.25
21	MP2A	Mx	.018	.25
22	MP2A	X	-21.74	3.75
23	MP2A	Z	-12.552	3.75
24	MP2A	Mx	.018	3.75
25	MP1A	X	-26.642	.75
26	MP1A	Z	-15.382	.75
27	MP1A	Mx	.013	.75
28	MP1A	X	-26.642	4.25
29	MP1A	Z	-15.382	4.25
30	MP1A	Mx	.013	4.25
31	MP5A	X	-26.642	.75
32	MP5A	Z	-15.382	.75
33	MP5A	Mx	.013	.75
34	MP5A	X	-26.642	4.25
35	MP5A	Z	-15.382	4.25
36	MP5A	Mx	.013	4.25
37	OVP	X	-27.646	1
38	OVP	Z	-15.961	1
39	OVP	Mx	.008	1
40	OVP2	X	-27.646	1
41	OVP2	Z	-15.961	1
42	OVP2	Mx	-.008	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-8.348	1
2	MP4A	Z	-14.459	1
3	MP4A	Mx	.004	1
4	MP4A	X	-8.348	3
5	MP4A	Z	-14.459	3
6	MP4A	Mx	.004	3
7	MP3A	X	-7.588	1
8	MP3A	Z	-13.143	1
9	MP3A	Mx	-.004	1
10	MP2A	X	-7.476	1
11	MP2A	Z	-12.948	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
12	MP2A	Mx	-.004	1
13	MP2A	X	-15.092	.25
14	MP2A	Z	-26.14	.25
15	MP2A	Mx	-.008	.25
16	MP2A	X	-15.092	3.75
17	MP2A	Z	-26.14	3.75
18	MP2A	Mx	-.008	3.75
19	MP2A	X	-15.092	.25
20	MP2A	Z	-26.14	.25
21	MP2A	Mx	.023	.25
22	MP2A	X	-15.092	3.75
23	MP2A	Z	-26.14	3.75
24	MP2A	Mx	.023	3.75
25	MP1A	X	-11.345	.75
26	MP1A	Z	-19.65	.75
27	MP1A	Mx	.006	.75
28	MP1A	X	-11.345	4.25
29	MP1A	Z	-19.65	4.25
30	MP1A	Mx	.006	4.25
31	MP5A	X	-11.345	.75
32	MP5A	Z	-19.65	.75
33	MP5A	Mx	.006	.75
34	MP5A	X	-11.345	4.25
35	MP5A	Z	-19.65	4.25
36	MP5A	Mx	.006	4.25
37	OVP	X	-14.121	1
38	OVP	Z	-24.458	1
39	OVP	Mx	.012	1
40	OVP2	X	-14.121	1
41	OVP2	Z	-24.458	1
42	OVP2	Mx	-.012	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	0	1
2	MP4A	Z	-6.214	1
3	MP4A	Mx	0	1
4	MP4A	X	0	3
5	MP4A	Z	-6.214	3
6	MP4A	Mx	0	3
7	MP3A	X	0	1
8	MP3A	Z	-4.944	1
9	MP3A	Mx	0	1
10	MP2A	X	0	1
11	MP2A	Z	-4.944	1
12	MP2A	Mx	0	1
13	MP2A	X	0	.25
14	MP2A	Z	-10.682	.25
15	MP2A	Mx	-.006	.25
16	MP2A	X	0	3.75
17	MP2A	Z	-10.682	3.75
18	MP2A	Mx	-.006	3.75
19	MP2A	X	0	.25
20	MP2A	Z	-10.682	.25
21	MP2A	Mx	.006	.25
22	MP2A	X	0	3.75

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
23	MP2A	Z	-10.682	3.75
24	MP2A	Mx	.006	3.75
25	MP1A	X	0	.75
26	MP1A	Z	-5.724	.75
27	MP1A	Mx	0	.75
28	MP1A	X	0	4.25
29	MP1A	Z	-5.724	4.25
30	MP1A	Mx	0	4.25
31	MP5A	X	0	.75
32	MP5A	Z	-5.724	.75
33	MP5A	Mx	0	.75
34	MP5A	X	0	4.25
35	MP5A	Z	-5.724	4.25
36	MP5A	Mx	0	4.25
37	OVP	X	0	1
38	OVP	Z	-8.19	1
39	OVP	Mx	.004	1
40	OVP2	X	0	1
41	OVP2	Z	-8.19	1
42	OVP2	Mx	-.004	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	2.634	1
2	MP4A	Z	-4.563	1
3	MP4A	Mx	-.001	1
4	MP4A	X	2.634	3
5	MP4A	Z	-4.563	3
6	MP4A	Mx	-.001	3
7	MP3A	X	2.267	1
8	MP3A	Z	-3.927	1
9	MP3A	Mx	.001	1
10	MP2A	X	2.23	1
11	MP2A	Z	-3.863	1
12	MP2A	Mx	.001	1
13	MP2A	X	4.889	.25
14	MP2A	Z	-8.467	.25
15	MP2A	Mx	-.007	.25
16	MP2A	X	4.889	3.75
17	MP2A	Z	-8.467	3.75
18	MP2A	Mx	-.007	3.75
19	MP2A	X	4.889	.25
20	MP2A	Z	-8.467	.25
21	MP2A	Mx	.002	.25
22	MP2A	X	4.889	3.75
23	MP2A	Z	-8.467	3.75
24	MP2A	Mx	.002	3.75
25	MP1A	X	3.573	.75
26	MP1A	Z	-6.188	.75
27	MP1A	Mx	-.002	.75
28	MP1A	X	3.573	4.25
29	MP1A	Z	-6.188	4.25
30	MP1A	Mx	-.002	4.25
31	MP5A	X	3.573	.75
32	MP5A	Z	-6.188	.75
33	MP5A	Mx	-.002	.75

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
34	MP5A	X	3.573	4.25
35	MP5A	Z	-6.188	4.25
36	MP5A	Mx	-.002	4.25
37	OVP	X	4.413	1
38	OVP	Z	-7.644	1
39	OVP	Mx	.004	1
40	OVP2	X	4.413	1
41	OVP2	Z	-7.644	1
42	OVP2	Mx	-.004	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	2.925	1
2	MP4A	Z	-1.689	1
3	MP4A	Mx	-.001	1
4	MP4A	X	2.925	3
5	MP4A	Z	-1.689	3
6	MP4A	Mx	-.001	3
7	MP3A	X	3.217	1
8	MP3A	Z	-1.857	1
9	MP3A	Mx	.002	1
10	MP2A	X	3.024	1
11	MP2A	Z	-1.746	1
12	MP2A	Mx	.002	1
13	MP2A	X	6.9	.25
14	MP2A	Z	-3.983	.25
15	MP2A	Mx	-.006	.25
16	MP2A	X	6.9	3.75
17	MP2A	Z	-3.983	3.75
18	MP2A	Mx	-.006	3.75
19	MP2A	X	6.9	.25
20	MP2A	Z	-3.983	.25
21	MP2A	Mx	-.001	.25
22	MP2A	X	6.9	3.75
23	MP2A	Z	-3.983	3.75
24	MP2A	Mx	-.001	3.75
25	MP1A	X	8.649	.75
26	MP1A	Z	-4.993	.75
27	MP1A	Mx	-.004	.75
28	MP1A	X	8.649	4.25
29	MP1A	Z	-4.993	4.25
30	MP1A	Mx	-.004	4.25
31	MP5A	X	8.649	.75
32	MP5A	Z	-4.993	.75
33	MP5A	Mx	-.004	.75
34	MP5A	X	8.649	4.25
35	MP5A	Z	-4.993	4.25
36	MP5A	Mx	-.004	4.25
37	OVP	X	8.746	1
38	OVP	Z	-5.049	1
39	OVP	Mx	.003	1
40	OVP2	X	8.746	1
41	OVP2	Z	-5.049	1
42	OVP2	Mx	-.003	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	2.433	1
2	MP4A	Z	0	1
3	MP4A	Mx	-.001	1
4	MP4A	X	2.433	3
5	MP4A	Z	0	3
6	MP4A	Mx	-.001	3
7	MP3A	X	3.305	1
8	MP3A	Z	0	1
9	MP3A	Mx	.002	1
10	MP2A	X	3.008	1
11	MP2A	Z	0	1
12	MP2A	Mx	.002	1
13	MP2A	X	7.062	.25
14	MP2A	Z	0	.25
15	MP2A	Mx	-.004	.25
16	MP2A	X	7.062	3.75
17	MP2A	Z	0	3.75
18	MP2A	Mx	-.004	3.75
19	MP2A	X	7.062	.25
20	MP2A	Z	0	.25
21	MP2A	Mx	-.004	.25
22	MP2A	X	7.062	3.75
23	MP2A	Z	0	3.75
24	MP2A	Mx	-.004	3.75
25	MP1A	X	11.407	.75
26	MP1A	Z	0	.75
27	MP1A	Mx	-.006	.75
28	MP1A	X	11.407	4.25
29	MP1A	Z	0	4.25
30	MP1A	Mx	-.006	4.25
31	MP5A	X	11.407	.75
32	MP5A	Z	0	.75
33	MP5A	Mx	-.006	.75
34	MP5A	X	11.407	4.25
35	MP5A	Z	0	4.25
36	MP5A	Mx	-.006	4.25
37	OVP	X	10.735	1
38	OVP	Z	0	1
39	OVP	Mx	0	1
40	OVP2	X	10.735	1
41	OVP2	Z	0	1
42	OVP2	Mx	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	2.925	1
2	MP4A	Z	1.689	1
3	MP4A	Mx	-.001	1
4	MP4A	X	2.925	3
5	MP4A	Z	1.689	3
6	MP4A	Mx	-.001	3
7	MP3A	X	3.217	1
8	MP3A	Z	1.857	1
9	MP3A	Mx	.002	1
10	MP2A	X	3.024	1
11	MP2A	Z	1.746	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
12	MP2A	Mx	.002	1
13	MP2A	X	6.9	.25
14	MP2A	Z	3.983	.25
15	MP2A	Mx	-.001	.25
16	MP2A	X	6.9	3.75
17	MP2A	Z	3.983	3.75
18	MP2A	Mx	-.001	3.75
19	MP2A	X	6.9	.25
20	MP2A	Z	3.983	.25
21	MP2A	Mx	-.006	.25
22	MP2A	X	6.9	3.75
23	MP2A	Z	3.983	3.75
24	MP2A	Mx	-.006	3.75
25	MP1A	X	8.649	.75
26	MP1A	Z	4.993	.75
27	MP1A	Mx	-.004	.75
28	MP1A	X	8.649	4.25
29	MP1A	Z	4.993	4.25
30	MP1A	Mx	-.004	4.25
31	MP5A	X	8.649	.75
32	MP5A	Z	4.993	.75
33	MP5A	Mx	-.004	.75
34	MP5A	X	8.649	4.25
35	MP5A	Z	4.993	4.25
36	MP5A	Mx	-.004	4.25
37	OVP	X	8.746	1
38	OVP	Z	5.049	1
39	OVP	Mx	-.003	1
40	OVP2	X	8.746	1
41	OVP2	Z	5.049	1
42	OVP2	Mx	.003	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	2.634	1
2	MP4A	Z	4.563	1
3	MP4A	Mx	-.001	1
4	MP4A	X	2.634	3
5	MP4A	Z	4.563	3
6	MP4A	Mx	-.001	3
7	MP3A	X	2.267	1
8	MP3A	Z	3.927	1
9	MP3A	Mx	.001	1
10	MP2A	X	2.23	1
11	MP2A	Z	3.863	1
12	MP2A	Mx	.001	1
13	MP2A	X	4.889	.25
14	MP2A	Z	8.467	.25
15	MP2A	Mx	.002	.25
16	MP2A	X	4.889	3.75
17	MP2A	Z	8.467	3.75
18	MP2A	Mx	.002	3.75
19	MP2A	X	4.889	.25
20	MP2A	Z	8.467	.25
21	MP2A	Mx	-.007	.25
22	MP2A	X	4.889	3.75

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
23	MP2A	Z	8.467	3.75
24	MP2A	Mx	-.007	3.75
25	MP1A	X	3.573	.75
26	MP1A	Z	6.188	.75
27	MP1A	Mx	-.002	.75
28	MP1A	X	3.573	4.25
29	MP1A	Z	6.188	4.25
30	MP1A	Mx	-.002	4.25
31	MP5A	X	3.573	.75
32	MP5A	Z	6.188	.75
33	MP5A	Mx	-.002	.75
34	MP5A	X	3.573	4.25
35	MP5A	Z	6.188	4.25
36	MP5A	Mx	-.002	4.25
37	OVP	X	4.413	1
38	OVP	Z	7.644	1
39	OVP	Mx	-.004	1
40	OVP2	X	4.413	1
41	OVP2	Z	7.644	1
42	OVP2	Mx	.004	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	0	1
2	MP4A	Z	6.214	1
3	MP4A	Mx	0	1
4	MP4A	X	0	3
5	MP4A	Z	6.214	3
6	MP4A	Mx	0	3
7	MP3A	X	0	1
8	MP3A	Z	4.944	1
9	MP3A	Mx	0	1
10	MP2A	X	0	1
11	MP2A	Z	4.944	1
12	MP2A	Mx	0	1
13	MP2A	X	0	.25
14	MP2A	Z	10.682	.25
15	MP2A	Mx	.006	.25
16	MP2A	X	0	3.75
17	MP2A	Z	10.682	3.75
18	MP2A	Mx	.006	3.75
19	MP2A	X	0	.25
20	MP2A	Z	10.682	.25
21	MP2A	Mx	-.006	.25
22	MP2A	X	0	3.75
23	MP2A	Z	10.682	3.75
24	MP2A	Mx	-.006	3.75
25	MP1A	X	0	.75
26	MP1A	Z	5.724	.75
27	MP1A	Mx	0	.75
28	MP1A	X	0	4.25
29	MP1A	Z	5.724	4.25
30	MP1A	Mx	0	4.25
31	MP5A	X	0	.75
32	MP5A	Z	5.724	.75
33	MP5A	Mx	0	.75

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
34	MP5A	X	0	4.25
35	MP5A	Z	5.724	4.25
36	MP5A	Mx	0	4.25
37	OVP	X	0	1
38	OVP	Z	8.19	1
39	OVP	Mx	-.004	1
40	OVP2	X	0	1
41	OVP2	Z	8.19	1
42	OVP2	Mx	.004	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-2.634	1
2	MP4A	Z	4.563	1
3	MP4A	Mx	.001	1
4	MP4A	X	-2.634	3
5	MP4A	Z	4.563	3
6	MP4A	Mx	.001	3
7	MP3A	X	-2.267	1
8	MP3A	Z	3.927	1
9	MP3A	Mx	-.001	1
10	MP2A	X	-2.23	1
11	MP2A	Z	3.863	1
12	MP2A	Mx	-.001	1
13	MP2A	X	-4.889	.25
14	MP2A	Z	8.467	.25
15	MP2A	Mx	.007	.25
16	MP2A	X	-4.889	3.75
17	MP2A	Z	8.467	3.75
18	MP2A	Mx	.007	3.75
19	MP2A	X	-4.889	.25
20	MP2A	Z	8.467	.25
21	MP2A	Mx	-.002	.25
22	MP2A	X	-4.889	3.75
23	MP2A	Z	8.467	3.75
24	MP2A	Mx	-.002	3.75
25	MP1A	X	-3.573	.75
26	MP1A	Z	6.188	.75
27	MP1A	Mx	.002	.75
28	MP1A	X	-3.573	4.25
29	MP1A	Z	6.188	4.25
30	MP1A	Mx	.002	4.25
31	MP5A	X	-3.573	.75
32	MP5A	Z	6.188	.75
33	MP5A	Mx	.002	.75
34	MP5A	X	-3.573	4.25
35	MP5A	Z	6.188	4.25
36	MP5A	Mx	.002	4.25
37	OVP	X	-4.413	1
38	OVP	Z	7.644	1
39	OVP	Mx	-.004	1
40	OVP2	X	-4.413	1
41	OVP2	Z	7.644	1
42	OVP2	Mx	.004	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-2.925	1
2	MP4A	Z	1.689	1
3	MP4A	Mx	.001	1
4	MP4A	X	-2.925	3
5	MP4A	Z	1.689	3
6	MP4A	Mx	.001	3
7	MP3A	X	-3.217	1
8	MP3A	Z	1.857	1
9	MP3A	Mx	-.002	1
10	MP2A	X	-3.024	1
11	MP2A	Z	1.746	1
12	MP2A	Mx	-.002	1
13	MP2A	X	-6.9	.25
14	MP2A	Z	3.983	.25
15	MP2A	Mx	.006	.25
16	MP2A	X	-6.9	3.75
17	MP2A	Z	3.983	3.75
18	MP2A	Mx	.006	3.75
19	MP2A	X	-6.9	.25
20	MP2A	Z	3.983	.25
21	MP2A	Mx	.001	.25
22	MP2A	X	-6.9	3.75
23	MP2A	Z	3.983	3.75
24	MP2A	Mx	.001	3.75
25	MP1A	X	-8.649	.75
26	MP1A	Z	4.993	.75
27	MP1A	Mx	.004	.75
28	MP1A	X	-8.649	4.25
29	MP1A	Z	4.993	4.25
30	MP1A	Mx	.004	4.25
31	MP5A	X	-8.649	.75
32	MP5A	Z	4.993	.75
33	MP5A	Mx	.004	.75
34	MP5A	X	-8.649	4.25
35	MP5A	Z	4.993	4.25
36	MP5A	Mx	.004	4.25
37	OVP	X	-8.746	1
38	OVP	Z	5.049	1
39	OVP	Mx	-.003	1
40	OVP2	X	-8.746	1
41	OVP2	Z	5.049	1
42	OVP2	Mx	.003	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-2.433	1
2	MP4A	Z	0	1
3	MP4A	Mx	.001	1
4	MP4A	X	-2.433	3
5	MP4A	Z	0	3
6	MP4A	Mx	.001	3
7	MP3A	X	-3.305	1
8	MP3A	Z	0	1
9	MP3A	Mx	-.002	1
10	MP2A	X	-3.008	1
11	MP2A	Z	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
12	MP2A	Mx	-.002	1
13	MP2A	X	-7.062	.25
14	MP2A	Z	0	.25
15	MP2A	Mx	.004	.25
16	MP2A	X	-7.062	3.75
17	MP2A	Z	0	3.75
18	MP2A	Mx	.004	3.75
19	MP2A	X	-7.062	.25
20	MP2A	Z	0	.25
21	MP2A	Mx	.004	.25
22	MP2A	X	-7.062	3.75
23	MP2A	Z	0	3.75
24	MP2A	Mx	.004	3.75
25	MP1A	X	-11.407	.75
26	MP1A	Z	0	.75
27	MP1A	Mx	.006	.75
28	MP1A	X	-11.407	4.25
29	MP1A	Z	0	4.25
30	MP1A	Mx	.006	4.25
31	MP5A	X	-11.407	.75
32	MP5A	Z	0	.75
33	MP5A	Mx	.006	.75
34	MP5A	X	-11.407	4.25
35	MP5A	Z	0	4.25
36	MP5A	Mx	.006	4.25
37	OVP	X	-10.735	1
38	OVP	Z	0	1
39	OVP	Mx	0	1
40	OVP2	X	-10.735	1
41	OVP2	Z	0	1
42	OVP2	Mx	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-2.925	1
2	MP4A	Z	-1.689	1
3	MP4A	Mx	.001	1
4	MP4A	X	-2.925	3
5	MP4A	Z	-1.689	3
6	MP4A	Mx	.001	3
7	MP3A	X	-3.217	1
8	MP3A	Z	-1.857	1
9	MP3A	Mx	-.002	1
10	MP2A	X	-3.024	1
11	MP2A	Z	-1.746	1
12	MP2A	Mx	-.002	1
13	MP2A	X	-6.9	.25
14	MP2A	Z	-3.983	.25
15	MP2A	Mx	.001	.25
16	MP2A	X	-6.9	3.75
17	MP2A	Z	-3.983	3.75
18	MP2A	Mx	.001	3.75
19	MP2A	X	-6.9	.25
20	MP2A	Z	-3.983	.25
21	MP2A	Mx	.006	.25
22	MP2A	X	-6.9	3.75

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
23	MP2A	Z	-3.983	3.75
24	MP2A	Mx	.006	3.75
25	MP1A	X	-8.649	.75
26	MP1A	Z	-4.993	.75
27	MP1A	Mx	.004	.75
28	MP1A	X	-8.649	4.25
29	MP1A	Z	-4.993	4.25
30	MP1A	Mx	.004	4.25
31	MP5A	X	-8.649	.75
32	MP5A	Z	-4.993	.75
33	MP5A	Mx	.004	.75
34	MP5A	X	-8.649	4.25
35	MP5A	Z	-4.993	4.25
36	MP5A	Mx	.004	4.25
37	OVP	X	-8.746	1
38	OVP	Z	-5.049	1
39	OVP	Mx	.003	1
40	OVP2	X	-8.746	1
41	OVP2	Z	-5.049	1
42	OVP2	Mx	-.003	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-2.634	1
2	MP4A	Z	-4.563	1
3	MP4A	Mx	.001	1
4	MP4A	X	-2.634	3
5	MP4A	Z	-4.563	3
6	MP4A	Mx	.001	3
7	MP3A	X	-2.267	1
8	MP3A	Z	-3.927	1
9	MP3A	Mx	-.001	1
10	MP2A	X	-2.23	1
11	MP2A	Z	-3.863	1
12	MP2A	Mx	-.001	1
13	MP2A	X	-4.889	.25
14	MP2A	Z	-8.467	.25
15	MP2A	Mx	-.002	.25
16	MP2A	X	-4.889	3.75
17	MP2A	Z	-8.467	3.75
18	MP2A	Mx	-.002	3.75
19	MP2A	X	-4.889	.25
20	MP2A	Z	-8.467	.25
21	MP2A	Mx	.007	.25
22	MP2A	X	-4.889	3.75
23	MP2A	Z	-8.467	3.75
24	MP2A	Mx	.007	3.75
25	MP1A	X	-3.573	.75
26	MP1A	Z	-6.188	.75
27	MP1A	Mx	.002	.75
28	MP1A	X	-3.573	4.25
29	MP1A	Z	-6.188	4.25
30	MP1A	Mx	.002	4.25
31	MP5A	X	-3.573	.75
32	MP5A	Z	-6.188	.75
33	MP5A	Mx	.002	.75

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
34	MP5A	X	-3.573	4.25
35	MP5A	Z	-6.188	4.25
36	MP5A	Mx	.002	4.25
37	OVP	X	-4.413	1
38	OVP	Z	-7.644	1
39	OVP	Mx	.004	1
40	OVP2	X	-4.413	1
41	OVP2	Z	-7.644	1
42	OVP2	Mx	-.004	1

Member Point Loads (BLC 77 : Lm1)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	M6	Y	-500	0

Member Point Loads (BLC 78 : Lm2)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	M8	Y	-500	0

Member Point Loads (BLC 79 : Lv1)

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

Member Point Loads (BLC 80 : Lv2)

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

Member Point Loads (BLC 81 : Antenna Ev)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	Y	-1.895	1
2	MP4A	My	-.000948	1
3	MP4A	Mz	0	1
4	MP4A	Y	-1.895	3
5	MP4A	My	-.000948	3
6	MP4A	Mz	0	3
7	MP3A	Y	-3.251	1
8	MP3A	My	.002	1
9	MP3A	Mz	0	1
10	MP2A	Y	-3.059	1
11	MP2A	My	.002	1
12	MP2A	Mz	0	1
13	MP2A	Y	-.883	.25
14	MP2A	My	-.000442	.25
15	MP2A	Mz	.000515	.25
16	MP2A	Y	-.883	3.75
17	MP2A	My	-.000442	3.75
18	MP2A	Mz	.000515	3.75
19	MP2A	Y	-.883	.25
20	MP2A	My	-.000442	.25
21	MP2A	Mz	-.000515	.25
22	MP2A	Y	-.883	3.75
23	MP2A	My	-.000442	3.75
24	MP2A	Mz	-.000515	3.75
25	MP1A	Y	-.457	.75
26	MP1A	My	-.000228	.75

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
27	MP1A	Mz	0	.75
28	MP1A	Y	-.457	4.25
29	MP1A	My	-.000228	4.25
30	MP1A	Mz	0	4.25
31	MP5A	Y	-.457	.75
32	MP5A	My	-.000228	.75
33	MP5A	Mz	0	.75
34	MP5A	Y	-.457	4.25
35	MP5A	My	-.000228	4.25
36	MP5A	Mz	0	4.25
37	OVP	Y	-1.393	1
38	OVP	My	0	1
39	OVP	Mz	-.000696	1
40	OVP2	Y	-1.393	1
41	OVP2	My	0	1
42	OVP2	Mz	.000696	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	Z	-4.738	1
2	MP4A	Mx	0	1
3	MP4A	Z	-4.738	3
4	MP4A	Mx	0	3
5	MP3A	Z	-8.127	1
6	MP3A	Mx	0	1
7	MP2A	Z	-7.649	1
8	MP2A	Mx	0	1
9	MP2A	Z	-2.209	.25
10	MP2A	Mx	-.001	.25
11	MP2A	Z	-2.209	3.75
12	MP2A	Mx	-.001	3.75
13	MP2A	Z	-2.209	.25
14	MP2A	Mx	.001	.25
15	MP2A	Z	-2.209	3.75
16	MP2A	Mx	.001	3.75
17	MP1A	Z	-1.142	.75
18	MP1A	Mx	0	.75
19	MP1A	Z	-1.142	4.25
20	MP1A	Mx	0	4.25
21	MP5A	Z	-1.142	.75
22	MP5A	Mx	0	.75
23	MP5A	Z	-1.142	4.25
24	MP5A	Mx	0	4.25
25	OVP	Z	-3.482	1
26	OVP	Mx	.002	1
27	OVP2	Z	-3.482	1
28	OVP2	Mx	-.002	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	4.738	1
2	MP4A	Mx	-.002	1
3	MP4A	X	4.738	3
4	MP4A	Mx	-.002	3
5	MP3A	X	8.127	1
6	MP3A	Mx	.004	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
7	MP2A	X	7.649	1
8	MP2A	Mx	.004	1
9	MP2A	X	2.209	.25
10	MP2A	Mx	-.001	.25
11	MP2A	X	2.209	3.75
12	MP2A	Mx	-.001	3.75
13	MP2A	X	2.209	.25
14	MP2A	Mx	-.001	.25
15	MP2A	X	2.209	3.75
16	MP2A	Mx	-.001	3.75
17	MP1A	X	1.142	.75
18	MP1A	Mx	-.000571	.75
19	MP1A	X	1.142	4.25
20	MP1A	Mx	-.000571	4.25
21	MP5A	X	1.142	.75
22	MP5A	Mx	-.000571	.75
23	MP5A	X	1.142	4.25
24	MP5A	Mx	-.000571	4.25
25	OVP	X	3.482	1
26	OVP	Mx	0	1
27	OVP2	X	3.482	1
28	OVP2	Mx	0	1

Member Distributed Loads (BLC 40 : Structure Di)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	Y	-6.542	-6.542	0	%100
2	M2	Y	-9.576	-9.576	0	%100
3	M3	Y	-7.949	-7.949	0	%100
4	MP1A	Y	-4.96	-4.96	0	%100
5	MP3A	Y	-4.96	-4.96	0	%100
6	MP4A	Y	-4.96	-4.96	0	%100
7	MP5A	Y	-4.96	-4.96	0	%100
8	MP2A	Y	-4.96	-4.96	0	%100
9	OVP	Y	-4.96	-4.96	0	%100
10	OVP2	Y	-4.96	-4.96	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	-14.36	-14.36	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	0	0	0	%100
5	M3	X	0	0	0	%100
6	M3	Z	-10.317	-10.317	0	%100
7	MP1A	X	0	0	0	%100
8	MP1A	Z	-10.216	-10.216	0	%100
9	MP3A	X	0	0	0	%100
10	MP3A	Z	-10.216	-10.216	0	%100
11	MP4A	X	0	0	0	%100
12	MP4A	Z	-10.216	-10.216	0	%100
13	MP5A	X	0	0	0	%100
14	MP5A	Z	-10.216	-10.216	0	%100
15	MP2A	X	0	0	0	%100
16	MP2A	Z	-10.216	-10.216	0	%100
17	OVP	X	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
18	OVP	Z	-8.354	-8.354	0	%100
19	OVP2	X	0	0	0	%100
20	OVP2	Z	-8.354	-8.354	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	5.385	5.385	0	%100
2	M1	Z	-9.327	-9.327	0	%100
3	M2	X	1.652	1.652	0	%100
4	M2	Z	-2.862	-2.862	0	%100
5	M3	X	5.159	5.159	0	%100
6	M3	Z	-8.935	-8.935	0	%100
7	MP1A	X	5.108	5.108	0	%100
8	MP1A	Z	-8.847	-8.847	0	%100
9	MP3A	X	5.108	5.108	0	%100
10	MP3A	Z	-8.847	-8.847	0	%100
11	MP4A	X	5.108	5.108	0	%100
12	MP4A	Z	-8.847	-8.847	0	%100
13	MP5A	X	5.108	5.108	0	%100
14	MP5A	Z	-8.847	-8.847	0	%100
15	MP2A	X	5.108	5.108	0	%100
16	MP2A	Z	-8.847	-8.847	0	%100
17	OVP	X	4.177	4.177	0	%100
18	OVP	Z	-7.235	-7.235	0	%100
19	OVP2	X	4.177	4.177	0	%100
20	OVP2	Z	-7.235	-7.235	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	3.109	3.109	0	%100
2	M1	Z	-1.795	-1.795	0	%100
3	M2	X	8.585	8.585	0	%100
4	M2	Z	-4.957	-4.957	0	%100
5	M3	X	8.935	8.935	0	%100
6	M3	Z	-5.159	-5.159	0	%100
7	MP1A	X	8.847	8.847	0	%100
8	MP1A	Z	-5.108	-5.108	0	%100
9	MP3A	X	8.847	8.847	0	%100
10	MP3A	Z	-5.108	-5.108	0	%100
11	MP4A	X	8.847	8.847	0	%100
12	MP4A	Z	-5.108	-5.108	0	%100
13	MP5A	X	8.847	8.847	0	%100
14	MP5A	Z	-5.108	-5.108	0	%100
15	MP2A	X	8.847	8.847	0	%100
16	MP2A	Z	-5.108	-5.108	0	%100
17	OVP	X	7.235	7.235	0	%100
18	OVP	Z	-4.177	-4.177	0	%100
19	OVP2	X	7.235	7.235	0	%100
20	OVP2	Z	-4.177	-4.177	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	13.218	13.218	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
4	M2	Z	0	0	0	%100
5	M3	X	10.317	10.317	0	%100
6	M3	Z	0	0	0	%100
7	MP1A	X	10.216	10.216	0	%100
8	MP1A	Z	0	0	0	%100
9	MP3A	X	10.216	10.216	0	%100
10	MP3A	Z	0	0	0	%100
11	MP4A	X	10.216	10.216	0	%100
12	MP4A	Z	0	0	0	%100
13	MP5A	X	10.216	10.216	0	%100
14	MP5A	Z	0	0	0	%100
15	MP2A	X	10.216	10.216	0	%100
16	MP2A	Z	0	0	0	%100
17	OVP	X	8.354	8.354	0	%100
18	OVP	Z	0	0	0	%100
19	OVP2	X	8.354	8.354	0	%100
20	OVP2	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	3.109	3.109	0	%100
2	M1	Z	1.795	1.795	0	%100
3	M2	X	8.585	8.585	0	%100
4	M2	Z	4.957	4.957	0	%100
5	M3	X	8.935	8.935	0	%100
6	M3	Z	5.159	5.159	0	%100
7	MP1A	X	8.847	8.847	0	%100
8	MP1A	Z	5.108	5.108	0	%100
9	MP3A	X	8.847	8.847	0	%100
10	MP3A	Z	5.108	5.108	0	%100
11	MP4A	X	8.847	8.847	0	%100
12	MP4A	Z	5.108	5.108	0	%100
13	MP5A	X	8.847	8.847	0	%100
14	MP5A	Z	5.108	5.108	0	%100
15	MP2A	X	8.847	8.847	0	%100
16	MP2A	Z	5.108	5.108	0	%100
17	OVP	X	7.235	7.235	0	%100
18	OVP	Z	4.177	4.177	0	%100
19	OVP2	X	7.235	7.235	0	%100
20	OVP2	Z	4.177	4.177	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	5.385	5.385	0	%100
2	M1	Z	9.327	9.327	0	%100
3	M2	X	1.652	1.652	0	%100
4	M2	Z	2.862	2.862	0	%100
5	M3	X	5.159	5.159	0	%100
6	M3	Z	8.935	8.935	0	%100
7	MP1A	X	5.108	5.108	0	%100
8	MP1A	Z	8.847	8.847	0	%100
9	MP3A	X	5.108	5.108	0	%100
10	MP3A	Z	8.847	8.847	0	%100
11	MP4A	X	5.108	5.108	0	%100
12	MP4A	Z	8.847	8.847	0	%100
13	MP5A	X	5.108	5.108	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
14	MP5A	Z	8.847	8.847	0	%100
15	MP2A	X	5.108	5.108	0	%100
16	MP2A	Z	8.847	8.847	0	%100
17	OVP	X	4.177	4.177	0	%100
18	OVP	Z	7.235	7.235	0	%100
19	OVP2	X	4.177	4.177	0	%100
20	OVP2	Z	7.235	7.235	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	14.36	14.36	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	0	0	0	%100
5	M3	X	0	0	0	%100
6	M3	Z	10.317	10.317	0	%100
7	MP1A	X	0	0	0	%100
8	MP1A	Z	10.216	10.216	0	%100
9	MP3A	X	0	0	0	%100
10	MP3A	Z	10.216	10.216	0	%100
11	MP4A	X	0	0	0	%100
12	MP4A	Z	10.216	10.216	0	%100
13	MP5A	X	0	0	0	%100
14	MP5A	Z	10.216	10.216	0	%100
15	MP2A	X	0	0	0	%100
16	MP2A	Z	10.216	10.216	0	%100
17	OVP	X	0	0	0	%100
18	OVP	Z	8.354	8.354	0	%100
19	OVP2	X	0	0	0	%100
20	OVP2	Z	8.354	8.354	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-5.385	-5.385	0	%100
2	M1	Z	9.327	9.327	0	%100
3	M2	X	-1.652	-1.652	0	%100
4	M2	Z	2.862	2.862	0	%100
5	M3	X	-5.159	-5.159	0	%100
6	M3	Z	8.935	8.935	0	%100
7	MP1A	X	-5.108	-5.108	0	%100
8	MP1A	Z	8.847	8.847	0	%100
9	MP3A	X	-5.108	-5.108	0	%100
10	MP3A	Z	8.847	8.847	0	%100
11	MP4A	X	-5.108	-5.108	0	%100
12	MP4A	Z	8.847	8.847	0	%100
13	MP5A	X	-5.108	-5.108	0	%100
14	MP5A	Z	8.847	8.847	0	%100
15	MP2A	X	-5.108	-5.108	0	%100
16	MP2A	Z	8.847	8.847	0	%100
17	OVP	X	-4.177	-4.177	0	%100
18	OVP	Z	7.235	7.235	0	%100
19	OVP2	X	-4.177	-4.177	0	%100
20	OVP2	Z	7.235	7.235	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-3.109	-3.109	0	%100
2	M1	Z	1.795	1.795	0	%100
3	M2	X	-8.585	-8.585	0	%100
4	M2	Z	4.957	4.957	0	%100
5	M3	X	-8.935	-8.935	0	%100
6	M3	Z	5.159	5.159	0	%100
7	MP1A	X	-8.847	-8.847	0	%100
8	MP1A	Z	5.108	5.108	0	%100
9	MP3A	X	-8.847	-8.847	0	%100
10	MP3A	Z	5.108	5.108	0	%100
11	MP4A	X	-8.847	-8.847	0	%100
12	MP4A	Z	5.108	5.108	0	%100
13	MP5A	X	-8.847	-8.847	0	%100
14	MP5A	Z	5.108	5.108	0	%100
15	MP2A	X	-8.847	-8.847	0	%100
16	MP2A	Z	5.108	5.108	0	%100
17	OVP	X	-7.235	-7.235	0	%100
18	OVP	Z	4.177	4.177	0	%100
19	OVP2	X	-7.235	-7.235	0	%100
20	OVP2	Z	4.177	4.177	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	-13.218	-13.218	0	%100
4	M2	Z	0	0	0	%100
5	M3	X	-10.317	-10.317	0	%100
6	M3	Z	0	0	0	%100
7	MP1A	X	-10.216	-10.216	0	%100
8	MP1A	Z	0	0	0	%100
9	MP3A	X	-10.216	-10.216	0	%100
10	MP3A	Z	0	0	0	%100
11	MP4A	X	-10.216	-10.216	0	%100
12	MP4A	Z	0	0	0	%100
13	MP5A	X	-10.216	-10.216	0	%100
14	MP5A	Z	0	0	0	%100
15	MP2A	X	-10.216	-10.216	0	%100
16	MP2A	Z	0	0	0	%100
17	OVP	X	-8.354	-8.354	0	%100
18	OVP	Z	0	0	0	%100
19	OVP2	X	-8.354	-8.354	0	%100
20	OVP2	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-3.109	-3.109	0	%100
2	M1	Z	-1.795	-1.795	0	%100
3	M2	X	-8.585	-8.585	0	%100
4	M2	Z	-4.957	-4.957	0	%100
5	M3	X	-8.935	-8.935	0	%100
6	M3	Z	-5.159	-5.159	0	%100
7	MP1A	X	-8.847	-8.847	0	%100
8	MP1A	Z	-5.108	-5.108	0	%100
9	MP3A	X	-8.847	-8.847	0	%100
10	MP3A	Z	-5.108	-5.108	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
11	MP4A	X	-8.847	-8.847	0	%100
12	MP4A	Z	-5.108	-5.108	0	%100
13	MP5A	X	-8.847	-8.847	0	%100
14	MP5A	Z	-5.108	-5.108	0	%100
15	MP2A	X	-8.847	-8.847	0	%100
16	MP2A	Z	-5.108	-5.108	0	%100
17	OVP	X	-7.235	-7.235	0	%100
18	OVP	Z	-4.177	-4.177	0	%100
19	OVP2	X	-7.235	-7.235	0	%100
20	OVP2	Z	-4.177	-4.177	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-5.385	-5.385	0	%100
2	M1	Z	-9.327	-9.327	0	%100
3	M2	X	-1.652	-1.652	0	%100
4	M2	Z	-2.862	-2.862	0	%100
5	M3	X	-5.159	-5.159	0	%100
6	M3	Z	-8.935	-8.935	0	%100
7	MP1A	X	-5.108	-5.108	0	%100
8	MP1A	Z	-8.847	-8.847	0	%100
9	MP3A	X	-5.108	-5.108	0	%100
10	MP3A	Z	-8.847	-8.847	0	%100
11	MP4A	X	-5.108	-5.108	0	%100
12	MP4A	Z	-8.847	-8.847	0	%100
13	MP5A	X	-5.108	-5.108	0	%100
14	MP5A	Z	-8.847	-8.847	0	%100
15	MP2A	X	-5.108	-5.108	0	%100
16	MP2A	Z	-8.847	-8.847	0	%100
17	OVP	X	-4.177	-4.177	0	%100
18	OVP	Z	-7.235	-7.235	0	%100
19	OVP2	X	-4.177	-4.177	0	%100
20	OVP2	Z	-7.235	-7.235	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	-4.262	-4.262	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	0	0	0	%100
5	M3	X	0	0	0	%100
6	M3	Z	-3.173	-3.173	0	%100
7	MP1A	X	0	0	0	%100
8	MP1A	Z	-3.436	-3.436	0	%100
9	MP3A	X	0	0	0	%100
10	MP3A	Z	-3.436	-3.436	0	%100
11	MP4A	X	0	0	0	%100
12	MP4A	Z	-3.436	-3.436	0	%100
13	MP5A	X	0	0	0	%100
14	MP5A	Z	-3.436	-3.436	0	%100
15	MP2A	X	0	0	0	%100
16	MP2A	Z	-3.436	-3.436	0	%100
17	OVP	X	0	0	0	%100
18	OVP	Z	-2.824	-2.824	0	%100
19	OVP2	X	0	0	0	%100
20	OVP2	Z	-2.824	-2.824	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	1.598	1.598	0	%100
2	M1	Z	-2.768	-2.768	0	%100
3	M2	X	.451	.451	0	%100
4	M2	Z	-.781	-.781	0	%100
5	M3	X	1.586	1.586	0	%100
6	M3	Z	-2.748	-2.748	0	%100
7	MP1A	X	1.718	1.718	0	%100
8	MP1A	Z	-2.975	-2.975	0	%100
9	MP3A	X	1.718	1.718	0	%100
10	MP3A	Z	-2.975	-2.975	0	%100
11	MP4A	X	1.718	1.718	0	%100
12	MP4A	Z	-2.975	-2.975	0	%100
13	MP5A	X	1.718	1.718	0	%100
14	MP5A	Z	-2.975	-2.975	0	%100
15	MP2A	X	1.718	1.718	0	%100
16	MP2A	Z	-2.975	-2.975	0	%100
17	OVP	X	1.412	1.412	0	%100
18	OVP	Z	-2.446	-2.446	0	%100
19	OVP2	X	1.412	1.412	0	%100
20	OVP2	Z	-2.446	-2.446	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	.923	.923	0	%100
2	M1	Z	-.533	-.533	0	%100
3	M2	X	2.343	2.343	0	%100
4	M2	Z	-1.353	-1.353	0	%100
5	M3	X	2.748	2.748	0	%100
6	M3	Z	-1.586	-1.586	0	%100
7	MP1A	X	2.975	2.975	0	%100
8	MP1A	Z	-1.718	-1.718	0	%100
9	MP3A	X	2.975	2.975	0	%100
10	MP3A	Z	-1.718	-1.718	0	%100
11	MP4A	X	2.975	2.975	0	%100
12	MP4A	Z	-1.718	-1.718	0	%100
13	MP5A	X	2.975	2.975	0	%100
14	MP5A	Z	-1.718	-1.718	0	%100
15	MP2A	X	2.975	2.975	0	%100
16	MP2A	Z	-1.718	-1.718	0	%100
17	OVP	X	2.446	2.446	0	%100
18	OVP	Z	-1.412	-1.412	0	%100
19	OVP2	X	2.446	2.446	0	%100
20	OVP2	Z	-1.412	-1.412	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	3.607	3.607	0	%100
4	M2	Z	0	0	0	%100
5	M3	X	3.173	3.173	0	%100
6	M3	Z	0	0	0	%100
7	MP1A	X	3.436	3.436	0	%100
8	MP1A	Z	0	0	0	%100
9	MP3A	X	3.436	3.436	0	%100
10	MP3A	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
11	MP4A	X	3.436	3.436	0	%100
12	MP4A	Z	0	0	0	%100
13	MP5A	X	3.436	3.436	0	%100
14	MP5A	Z	0	0	0	%100
15	MP2A	X	3.436	3.436	0	%100
16	MP2A	Z	0	0	0	%100
17	OVP	X	2.824	2.824	0	%100
18	OVP	Z	0	0	0	%100
19	OVP2	X	2.824	2.824	0	%100
20	OVP2	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	.923	.923	0	%100
2	M1	Z	.533	.533	0	%100
3	M2	X	2.343	2.343	0	%100
4	M2	Z	1.353	1.353	0	%100
5	M3	X	2.748	2.748	0	%100
6	M3	Z	1.586	1.586	0	%100
7	MP1A	X	2.975	2.975	0	%100
8	MP1A	Z	1.718	1.718	0	%100
9	MP3A	X	2.975	2.975	0	%100
10	MP3A	Z	1.718	1.718	0	%100
11	MP4A	X	2.975	2.975	0	%100
12	MP4A	Z	1.718	1.718	0	%100
13	MP5A	X	2.975	2.975	0	%100
14	MP5A	Z	1.718	1.718	0	%100
15	MP2A	X	2.975	2.975	0	%100
16	MP2A	Z	1.718	1.718	0	%100
17	OVP	X	2.446	2.446	0	%100
18	OVP	Z	1.412	1.412	0	%100
19	OVP2	X	2.446	2.446	0	%100
20	OVP2	Z	1.412	1.412	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	1.598	1.598	0	%100
2	M1	Z	2.768	2.768	0	%100
3	M2	X	.451	.451	0	%100
4	M2	Z	.781	.781	0	%100
5	M3	X	1.586	1.586	0	%100
6	M3	Z	2.748	2.748	0	%100
7	MP1A	X	1.718	1.718	0	%100
8	MP1A	Z	2.975	2.975	0	%100
9	MP3A	X	1.718	1.718	0	%100
10	MP3A	Z	2.975	2.975	0	%100
11	MP4A	X	1.718	1.718	0	%100
12	MP4A	Z	2.975	2.975	0	%100
13	MP5A	X	1.718	1.718	0	%100
14	MP5A	Z	2.975	2.975	0	%100
15	MP2A	X	1.718	1.718	0	%100
16	MP2A	Z	2.975	2.975	0	%100
17	OVP	X	1.412	1.412	0	%100
18	OVP	Z	2.446	2.446	0	%100
19	OVP2	X	1.412	1.412	0	%100
20	OVP2	Z	2.446	2.446	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	4.262	4.262	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	0	0	0	%100
5	M3	X	0	0	0	%100
6	M3	Z	3.173	3.173	0	%100
7	MP1A	X	0	0	0	%100
8	MP1A	Z	3.436	3.436	0	%100
9	MP3A	X	0	0	0	%100
10	MP3A	Z	3.436	3.436	0	%100
11	MP4A	X	0	0	0	%100
12	MP4A	Z	3.436	3.436	0	%100
13	MP5A	X	0	0	0	%100
14	MP5A	Z	3.436	3.436	0	%100
15	MP2A	X	0	0	0	%100
16	MP2A	Z	3.436	3.436	0	%100
17	OVP	X	0	0	0	%100
18	OVP	Z	2.824	2.824	0	%100
19	OVP2	X	0	0	0	%100
20	OVP2	Z	2.824	2.824	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-1.598	-1.598	0	%100
2	M1	Z	2.768	2.768	0	%100
3	M2	X	-.451	-.451	0	%100
4	M2	Z	.781	.781	0	%100
5	M3	X	-1.586	-1.586	0	%100
6	M3	Z	2.748	2.748	0	%100
7	MP1A	X	-1.718	-1.718	0	%100
8	MP1A	Z	2.975	2.975	0	%100
9	MP3A	X	-1.718	-1.718	0	%100
10	MP3A	Z	2.975	2.975	0	%100
11	MP4A	X	-1.718	-1.718	0	%100
12	MP4A	Z	2.975	2.975	0	%100
13	MP5A	X	-1.718	-1.718	0	%100
14	MP5A	Z	2.975	2.975	0	%100
15	MP2A	X	-1.718	-1.718	0	%100
16	MP2A	Z	2.975	2.975	0	%100
17	OVP	X	-1.412	-1.412	0	%100
18	OVP	Z	2.446	2.446	0	%100
19	OVP2	X	-1.412	-1.412	0	%100
20	OVP2	Z	2.446	2.446	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-.923	-.923	0	%100
2	M1	Z	.533	.533	0	%100
3	M2	X	-2.343	-2.343	0	%100
4	M2	Z	1.353	1.353	0	%100
5	M3	X	-2.748	-2.748	0	%100
6	M3	Z	1.586	1.586	0	%100
7	MP1A	X	-2.975	-2.975	0	%100
8	MP1A	Z	1.718	1.718	0	%100
9	MP3A	X	-2.975	-2.975	0	%100
10	MP3A	Z	1.718	1.718	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
11	MP4A	X	-2.975	-2.975	0	%100
12	MP4A	Z	1.718	1.718	0	%100
13	MP5A	X	-2.975	-2.975	0	%100
14	MP5A	Z	1.718	1.718	0	%100
15	MP2A	X	-2.975	-2.975	0	%100
16	MP2A	Z	1.718	1.718	0	%100
17	OVP	X	-2.446	-2.446	0	%100
18	OVP	Z	1.412	1.412	0	%100
19	OVP2	X	-2.446	-2.446	0	%100
20	OVP2	Z	1.412	1.412	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	-3.607	-3.607	0	%100
4	M2	Z	0	0	0	%100
5	M3	X	-3.173	-3.173	0	%100
6	M3	Z	0	0	0	%100
7	MP1A	X	-3.436	-3.436	0	%100
8	MP1A	Z	0	0	0	%100
9	MP3A	X	-3.436	-3.436	0	%100
10	MP3A	Z	0	0	0	%100
11	MP4A	X	-3.436	-3.436	0	%100
12	MP4A	Z	0	0	0	%100
13	MP5A	X	-3.436	-3.436	0	%100
14	MP5A	Z	0	0	0	%100
15	MP2A	X	-3.436	-3.436	0	%100
16	MP2A	Z	0	0	0	%100
17	OVP	X	-2.824	-2.824	0	%100
18	OVP	Z	0	0	0	%100
19	OVP2	X	-2.824	-2.824	0	%100
20	OVP2	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-.923	-.923	0	%100
2	M1	Z	-.533	-.533	0	%100
3	M2	X	-2.343	-2.343	0	%100
4	M2	Z	-1.353	-1.353	0	%100
5	M3	X	-2.748	-2.748	0	%100
6	M3	Z	-1.586	-1.586	0	%100
7	MP1A	X	-2.975	-2.975	0	%100
8	MP1A	Z	-1.718	-1.718	0	%100
9	MP3A	X	-2.975	-2.975	0	%100
10	MP3A	Z	-1.718	-1.718	0	%100
11	MP4A	X	-2.975	-2.975	0	%100
12	MP4A	Z	-1.718	-1.718	0	%100
13	MP5A	X	-2.975	-2.975	0	%100
14	MP5A	Z	-1.718	-1.718	0	%100
15	MP2A	X	-2.975	-2.975	0	%100
16	MP2A	Z	-1.718	-1.718	0	%100
17	OVP	X	-2.446	-2.446	0	%100
18	OVP	Z	-1.412	-1.412	0	%100
19	OVP2	X	-2.446	-2.446	0	%100
20	OVP2	Z	-1.412	-1.412	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-1.598	-1.598	0	%100
2	M1	Z	-2.768	-2.768	0	%100
3	M2	X	-.451	-.451	0	%100
4	M2	Z	-.781	-.781	0	%100
5	M3	X	-1.586	-1.586	0	%100
6	M3	Z	-2.748	-2.748	0	%100
7	MP1A	X	-1.718	-1.718	0	%100
8	MP1A	Z	-2.975	-2.975	0	%100
9	MP3A	X	-1.718	-1.718	0	%100
10	MP3A	Z	-2.975	-2.975	0	%100
11	MP4A	X	-1.718	-1.718	0	%100
12	MP4A	Z	-2.975	-2.975	0	%100
13	MP5A	X	-1.718	-1.718	0	%100
14	MP5A	Z	-2.975	-2.975	0	%100
15	MP2A	X	-1.718	-1.718	0	%100
16	MP2A	Z	-2.975	-2.975	0	%100
17	OVP	X	-1.412	-1.412	0	%100
18	OVP	Z	-2.446	-2.446	0	%100
19	OVP2	X	-1.412	-1.412	0	%100
20	OVP2	Z	-2.446	-2.446	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	-.883	-.883	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	0	0	0	%100
5	M3	X	0	0	0	%100
6	M3	Z	-.634	-.634	0	%100
7	MP1A	X	0	0	0	%100
8	MP1A	Z	-.628	-.628	0	%100
9	MP3A	X	0	0	0	%100
10	MP3A	Z	-.628	-.628	0	%100
11	MP4A	X	0	0	0	%100
12	MP4A	Z	-.628	-.628	0	%100
13	MP5A	X	0	0	0	%100
14	MP5A	Z	-.628	-.628	0	%100
15	MP2A	X	0	0	0	%100
16	MP2A	Z	-.628	-.628	0	%100
17	OVP	X	0	0	0	%100
18	OVP	Z	-.514	-.514	0	%100
19	OVP2	X	0	0	0	%100
20	OVP2	Z	-.514	-.514	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	.331	.331	0	%100
2	M1	Z	-.573	-.573	0	%100
3	M2	X	.102	.102	0	%100
4	M2	Z	-.176	-.176	0	%100
5	M3	X	.317	.317	0	%100
6	M3	Z	-.549	-.549	0	%100
7	MP1A	X	.314	.314	0	%100
8	MP1A	Z	-.544	-.544	0	%100
9	MP3A	X	.314	.314	0	%100
10	MP3A	Z	-.544	-.544	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
11	MP4A	X	.314	.314	0	%100
12	MP4A	Z	-.544	-.544	0	%100
13	MP5A	X	.314	.314	0	%100
14	MP5A	Z	-.544	-.544	0	%100
15	MP2A	X	.314	.314	0	%100
16	MP2A	Z	-.544	-.544	0	%100
17	OVP	X	.257	.257	0	%100
18	OVP	Z	-.445	-.445	0	%100
19	OVP2	X	.257	.257	0	%100
20	OVP2	Z	-.445	-.445	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	.191	.191	0	%100
2	M1	Z	-.11	-.11	0	%100
3	M2	X	.528	.528	0	%100
4	M2	Z	-.305	-.305	0	%100
5	M3	X	.549	.549	0	%100
6	M3	Z	-.317	-.317	0	%100
7	MP1A	X	.544	.544	0	%100
8	MP1A	Z	-.314	-.314	0	%100
9	MP3A	X	.544	.544	0	%100
10	MP3A	Z	-.314	-.314	0	%100
11	MP4A	X	.544	.544	0	%100
12	MP4A	Z	-.314	-.314	0	%100
13	MP5A	X	.544	.544	0	%100
14	MP5A	Z	-.314	-.314	0	%100
15	MP2A	X	.544	.544	0	%100
16	MP2A	Z	-.314	-.314	0	%100
17	OVP	X	.445	.445	0	%100
18	OVP	Z	-.257	-.257	0	%100
19	OVP2	X	.445	.445	0	%100
20	OVP2	Z	-.257	-.257	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	.813	.813	0	%100
4	M2	Z	0	0	0	%100
5	M3	X	.634	.634	0	%100
6	M3	Z	0	0	0	%100
7	MP1A	X	.628	.628	0	%100
8	MP1A	Z	0	0	0	%100
9	MP3A	X	.628	.628	0	%100
10	MP3A	Z	0	0	0	%100
11	MP4A	X	.628	.628	0	%100
12	MP4A	Z	0	0	0	%100
13	MP5A	X	.628	.628	0	%100
14	MP5A	Z	0	0	0	%100
15	MP2A	X	.628	.628	0	%100
16	MP2A	Z	0	0	0	%100
17	OVP	X	.514	.514	0	%100
18	OVP	Z	0	0	0	%100
19	OVP2	X	.514	.514	0	%100
20	OVP2	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	.191	.191	0	%100
2	M1	Z	.11	.11	0	%100
3	M2	X	.528	.528	0	%100
4	M2	Z	.305	.305	0	%100
5	M3	X	.549	.549	0	%100
6	M3	Z	.317	.317	0	%100
7	MP1A	X	.544	.544	0	%100
8	MP1A	Z	.314	.314	0	%100
9	MP3A	X	.544	.544	0	%100
10	MP3A	Z	.314	.314	0	%100
11	MP4A	X	.544	.544	0	%100
12	MP4A	Z	.314	.314	0	%100
13	MP5A	X	.544	.544	0	%100
14	MP5A	Z	.314	.314	0	%100
15	MP2A	X	.544	.544	0	%100
16	MP2A	Z	.314	.314	0	%100
17	OVP	X	.445	.445	0	%100
18	OVP	Z	.257	.257	0	%100
19	OVP2	X	.445	.445	0	%100
20	OVP2	Z	.257	.257	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	.331	.331	0	%100
2	M1	Z	.573	.573	0	%100
3	M2	X	.102	.102	0	%100
4	M2	Z	.176	.176	0	%100
5	M3	X	.317	.317	0	%100
6	M3	Z	.549	.549	0	%100
7	MP1A	X	.314	.314	0	%100
8	MP1A	Z	.544	.544	0	%100
9	MP3A	X	.314	.314	0	%100
10	MP3A	Z	.544	.544	0	%100
11	MP4A	X	.314	.314	0	%100
12	MP4A	Z	.544	.544	0	%100
13	MP5A	X	.314	.314	0	%100
14	MP5A	Z	.544	.544	0	%100
15	MP2A	X	.314	.314	0	%100
16	MP2A	Z	.544	.544	0	%100
17	OVP	X	.257	.257	0	%100
18	OVP	Z	.445	.445	0	%100
19	OVP2	X	.257	.257	0	%100
20	OVP2	Z	.445	.445	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	.883	.883	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	0	0	0	%100
5	M3	X	0	0	0	%100
6	M3	Z	.634	.634	0	%100
7	MP1A	X	0	0	0	%100
8	MP1A	Z	.628	.628	0	%100
9	MP3A	X	0	0	0	%100
10	MP3A	Z	.628	.628	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
11	MP4A	X	0	0	0	%100
12	MP4A	Z	.628	.628	0	%100
13	MP5A	X	0	0	0	%100
14	MP5A	Z	.628	.628	0	%100
15	MP2A	X	0	0	0	%100
16	MP2A	Z	.628	.628	0	%100
17	OVP	X	0	0	0	%100
18	OVP	Z	.514	.514	0	%100
19	OVP2	X	0	0	0	%100
20	OVP2	Z	.514	.514	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-.331	-.331	0	%100
2	M1	Z	.573	.573	0	%100
3	M2	X	-.102	-.102	0	%100
4	M2	Z	.176	.176	0	%100
5	M3	X	-.317	-.317	0	%100
6	M3	Z	.549	.549	0	%100
7	MP1A	X	-.314	-.314	0	%100
8	MP1A	Z	.544	.544	0	%100
9	MP3A	X	-.314	-.314	0	%100
10	MP3A	Z	.544	.544	0	%100
11	MP4A	X	-.314	-.314	0	%100
12	MP4A	Z	.544	.544	0	%100
13	MP5A	X	-.314	-.314	0	%100
14	MP5A	Z	.544	.544	0	%100
15	MP2A	X	-.314	-.314	0	%100
16	MP2A	Z	.544	.544	0	%100
17	OVP	X	-.257	-.257	0	%100
18	OVP	Z	.445	.445	0	%100
19	OVP2	X	-.257	-.257	0	%100
20	OVP2	Z	.445	.445	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-.191	-.191	0	%100
2	M1	Z	.11	.11	0	%100
3	M2	X	-.528	-.528	0	%100
4	M2	Z	.305	.305	0	%100
5	M3	X	-.549	-.549	0	%100
6	M3	Z	.317	.317	0	%100
7	MP1A	X	-.544	-.544	0	%100
8	MP1A	Z	.314	.314	0	%100
9	MP3A	X	-.544	-.544	0	%100
10	MP3A	Z	.314	.314	0	%100
11	MP4A	X	-.544	-.544	0	%100
12	MP4A	Z	.314	.314	0	%100
13	MP5A	X	-.544	-.544	0	%100
14	MP5A	Z	.314	.314	0	%100
15	MP2A	X	-.544	-.544	0	%100
16	MP2A	Z	.314	.314	0	%100
17	OVP	X	-.445	-.445	0	%100
18	OVP	Z	.257	.257	0	%100
19	OVP2	X	-.445	-.445	0	%100
20	OVP2	Z	.257	.257	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	-.813	-.813	0	%100
4	M2	Z	0	0	0	%100
5	M3	X	-.634	-.634	0	%100
6	M3	Z	0	0	0	%100
7	MP1A	X	-.628	-.628	0	%100
8	MP1A	Z	0	0	0	%100
9	MP3A	X	-.628	-.628	0	%100
10	MP3A	Z	0	0	0	%100
11	MP4A	X	-.628	-.628	0	%100
12	MP4A	Z	0	0	0	%100
13	MP5A	X	-.628	-.628	0	%100
14	MP5A	Z	0	0	0	%100
15	MP2A	X	-.628	-.628	0	%100
16	MP2A	Z	0	0	0	%100
17	OVP	X	-.514	-.514	0	%100
18	OVP	Z	0	0	0	%100
19	OVP2	X	-.514	-.514	0	%100
20	OVP2	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-.191	-.191	0	%100
2	M1	Z	-.11	-.11	0	%100
3	M2	X	-.528	-.528	0	%100
4	M2	Z	-.305	-.305	0	%100
5	M3	X	-.549	-.549	0	%100
6	M3	Z	-.317	-.317	0	%100
7	MP1A	X	-.544	-.544	0	%100
8	MP1A	Z	-.314	-.314	0	%100
9	MP3A	X	-.544	-.544	0	%100
10	MP3A	Z	-.314	-.314	0	%100
11	MP4A	X	-.544	-.544	0	%100
12	MP4A	Z	-.314	-.314	0	%100
13	MP5A	X	-.544	-.544	0	%100
14	MP5A	Z	-.314	-.314	0	%100
15	MP2A	X	-.544	-.544	0	%100
16	MP2A	Z	-.314	-.314	0	%100
17	OVP	X	-.445	-.445	0	%100
18	OVP	Z	-.257	-.257	0	%100
19	OVP2	X	-.445	-.445	0	%100
20	OVP2	Z	-.257	-.257	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-.331	-.331	0	%100
2	M1	Z	-.573	-.573	0	%100
3	M2	X	-.102	-.102	0	%100
4	M2	Z	-.176	-.176	0	%100
5	M3	X	-.317	-.317	0	%100
6	M3	Z	-.549	-.549	0	%100
7	MP1A	X	-.314	-.314	0	%100
8	MP1A	Z	-.544	-.544	0	%100
9	MP3A	X	-.314	-.314	0	%100
10	MP3A	Z	-.544	-.544	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
11	MP4A	X	-.314	-.314	0	%100
12	MP4A	Z	-.544	-.544	0	%100
13	MP5A	X	-.314	-.314	0	%100
14	MP5A	Z	-.544	-.544	0	%100
15	MP2A	X	-.314	-.314	0	%100
16	MP2A	Z	-.544	-.544	0	%100
17	OVP	X	-.257	-.257	0	%100
18	OVP	Z	-.445	-.445	0	%100
19	OVP2	X	-.257	-.257	0	%100
20	OVP2	Z	-.445	-.445	0	%100

Member Area Loads

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

Envelope Joint Reactions

	Joint		X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
1	N1	max	2150.995	10	1931.608	22	2260.143	1	-1.681	65	6.696	10	2.598	50
2		min	-2150.995	4	584.565	71	-2260.143	7	-5.805	24	-6.659	4	-2.068	28
3	Totals:	max	2150.995	10	1931.608	22	2260.143	1						
4		min	-2150.995	4	584.565	71	-2260.143	7						

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

	Member	Shape	Code C...	Loc[ft]	LC	Shear ...	Loc[ft]	Dir	LC	phi*Pnc [lb]	phi*Pnt [lb]	phi*Mn y-...	phi*Mn z-...	Cb	Eqn
1	M1	PIPE_3.0	.778	6.292	1	.146	6.292		1	27936.207	65205	5.749	5.749	1....	H1-1b
2	M2	HSS4X4X4	.570	0	3	.227	0	y	46	135300.15	139518	16.181	16.181	1....	H1-1b
3	M3	PIPE_4.0	.000	.75	7	.000	.75		7	92571.332	93240	10.631	10.631	1	H1-1b
4	MP1A	PIPE_2.0	.310	1.693	4	.080	1.693		4	20114.427	32130	1.872	1.872	2....	H1-1b
5	MP3A	PIPE_2.0	.087	2.125	1	.024	2.125		5	20866.733	32130	1.872	1.872	2....	H1-1b
6	MP4A	PIPE_2.0	.116	2.018	1	.026	2.018		8	20114.427	32130	1.872	1.872	1....	H1-1b
7	MP5A	PIPE_2.0	.310	1.693	10	.080	1.693		10	20114.427	32130	1.872	1.872	2....	H1-1b
8	MP2A	PIPE_2.0	.428	2.148	1	.099	2.214		5	20114.427	32130	1.872	1.872	1....	H1-1b
9	OVP	PIPE_2.0	.113	2	10	.056	2		7	28843.414	32130	1.872	1.872	2....	H1-1b
10	OVP2	PIPE_2.0	.113	2	4	.056	2		7	28843.414	32130	1.872	1.872	2....	H1-1b

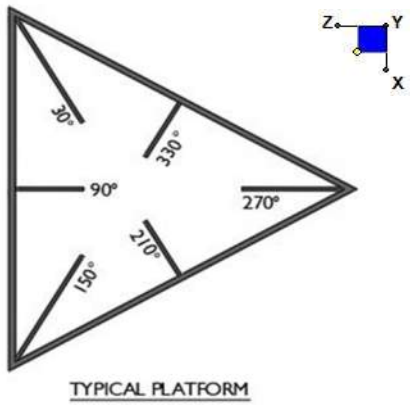
Client:	Verizon Wireless	Date:	11/5/2021
Site Name:	NORTH BRANFORD 2 CT		
Project No.	21777060A		
Title:	Mount Analysis	Page:	1

Version 3.1

I. Mount-to-Tower Connection Check

RISA Model Data

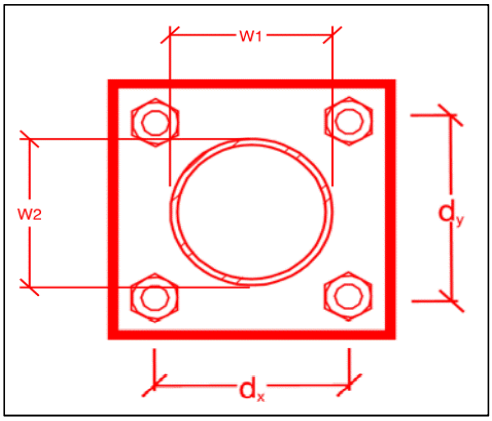
Nodes *(labeled per RISA)*	Orientation *(per graphic of typical platform)*
N1	90



TYPICAL PLATFORM

Tower Connection Bolt Checks

Any moment resistance?:	yes
Bolt Quantity per Reaction:	4
d_x (in) *(Delta X of typ. bolt config. sketch)* :	7
d_y (in) *(Delta Y of typ. bolt config. sketch)* :	7
Bolt Type:	A325N
Bolt Diameter (in):	0.625
Required Tensile Strength (kips):	25.3
Required Shear Strength (kips):	10.3
Tensile Strength / bolt (kips):	20.7
Shear Strength / bolt (kips):	12.4
Tensile Capacity Overall:	**30.6%***
Shear Capacity Overall:	**20.8%**



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

Tower Connection Plate and Weld Check

Connecting Standoff Member Shape:	Rect
Plate Width (in):	10
Plate Height (in):	10
W1 (in):	4
W2 (in):	4
Fy (ksi, plate):	36
t_{Plate} (in):	0.625
Weld Size (1/16 in):	6
Phi*Rn (kip/in):	8.35
Required Weld Strength (kip/in):	4.05
Plate Bending Capacity:	**77.0%**
Weld Capacity:	**48.5%**

Max Plate Bending Strengths

Mu_{xx} *(kip-in)* :	6.8
Phi*Mn_{xx} *(kip-in)* :	31.6
Mu_{yy} *(kip-in)* :	17.5
Phi*Mn_{yy} *(kip-in)* :	31.6

Mount Desktop – Post Modification Inspection (PMI) Report Requirements

Documents & Photos Required from Contractor – Passing Mount Analysis

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

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

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

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Purpose – to provide SMART Tool structural vendor the proper documentation in order to complete the required Mount Desktop review of the Post Modification Inspection Report.

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

Base Requirements:

- If installation will cause damage to the structure, the climbing facility, or safety climb if present or any installed system, SMART Tool vendor to be notified prior to install. Any special photos outside of the standard requirements will be indicated on the drawings.
- Provide "as built mount drawings" showing contractor's name, contact information, preparer's signature, and date. Any deviations from the drawings (Proposed modification) shall be shown. NOTE: If loading is different than what is conveyed in the passing mount analysis (MA) contact the SMART Tool vendor immediately.
- Each photo should be time and date stamped
- Photos should be high resolution.
- Contractor shall ensure that the safety climb wire rope is supported and not adversely impacted by the install of the modification components. This may involve the install of wire rope guides, or other items to protect the wire rope. If there is conflict, contact the SMART Tool engineer for recommendations.
- The PMI can be accessed at the following portal: ***https://pmi.vzwsmart.com***

Photo Requirements:

- *Photos taken at ground level*
  - Photo of Gate Signs showing the tower owner, site name, and number.
  - Overall tower structure after installation.
  - Photos of the mount after installation; if the mounts are at different rad elevations, pictures must be provided for all elevations that equipment was installed.
- *Photos taken at Mount Elevation*
  - Photos showing the safety climb wire rope above and below the mount prior to installation.
  - Photos showing the climbing facility and safety climb if present.
  - Photos showing each individual sector after installation. Each entire sector shall be in one photo to show the interconnection of members.

- These photos shall also certify that the placement and geometry of the equipment on the mount is as depicted in the antenna placement diagram in this form.
- Photos that show the model number of each antenna and piece of equipment installed per sector.

Antenna & equipment placement and Geometry Confirmation:

- The contractor shall certify that the antenna & equipment placement and geometry is in accordance with the sketch and table as included in the mount analysis and noted below.

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

Issue:

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

Response:

Contractor certifies that the climbing facility / safety climb was not damaged or obstructed prior to starting work:

☐ Yes ☐ No

Contractor certifies no new damage/obstructions created during the current installation:

☐ Yes ☐ No

Contractor to certify the condition of the safety climb and verify no obstructions when leaving the site:

☐ Safety climb in good condition with no obstructions ☐ Safety Climb Damaged
☐ Safety Climb Obstructed

Comments:

☐ All hardware has been properly installed, and the existing hardware was inspected.

☐ The material utilized was as specified on the SMART Tool engineering vendor Mount Modification Drawings and included in the material certification folder is a packing list or invoice for these materials.

OR

☐ The material utilized was approved by a SMART Tool as an “equivalent” and this approval is included as part of the contractor submission.

Antenna & equipment placement and Geometry Confirmation:

☐ The contractor certifies that the photos support and the equipment on the mount is as depicted on the sketch and table included in this form and with the mount analysis provided.

OR

☐ The contractor notes that the equipment on the mount is not in accordance with the sketch and has noted the differences below and provided photo documentation of any alterations.

Special Instruction Confirmation:

☐ The contractor has read and acknowledges the above special instructions.

Certifying Individual:

Company:	
Employee Name:	
Contact Phone:	
Email:	
Date:	

Structure: 467924-VZW - NORTH BRANFORD 2 CT

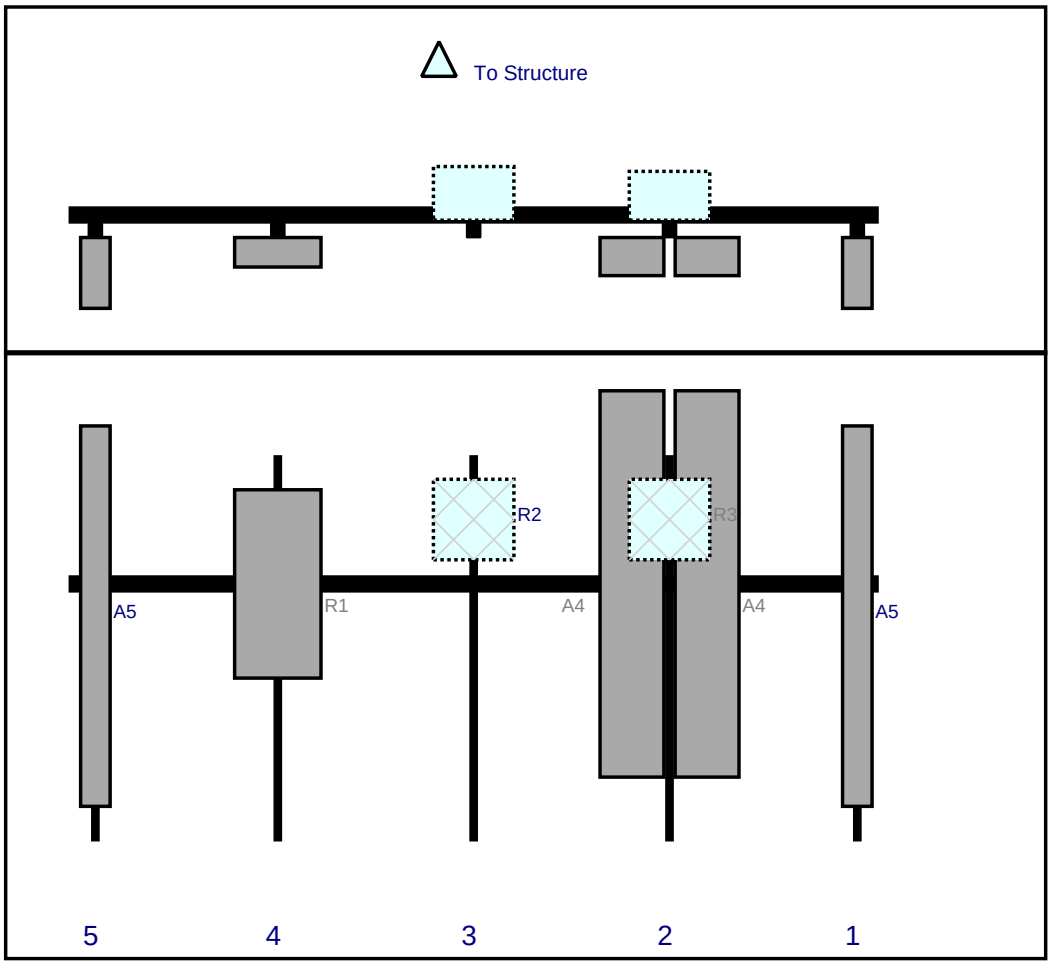
Sector: **A** 11/5/2021

Structure Type: Monopole 10037856

Mount Elev: 135.00 Page: 1

Plan View

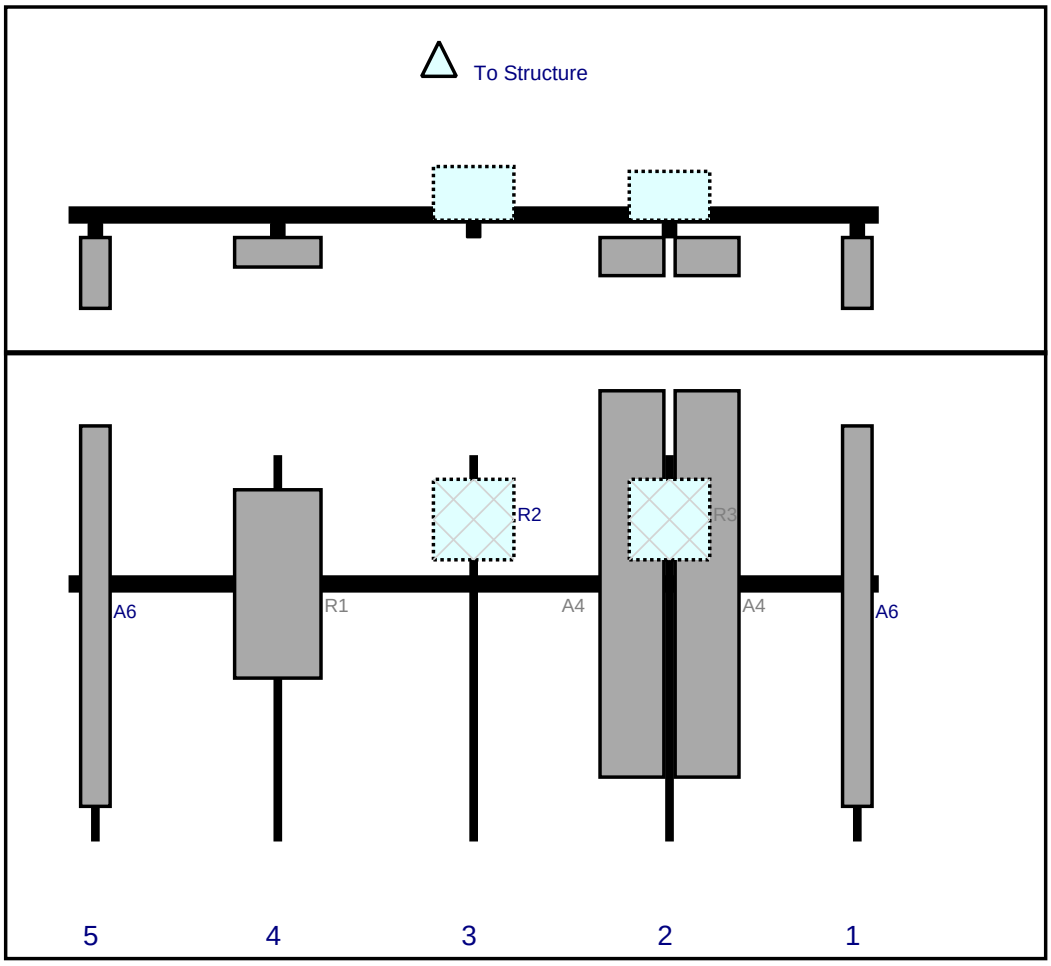
Front View
Looking at Structure



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
A5	LPA-80080-6CF-EDIN-2	70.9	5.5	147	1	a	Front	30	0	Retained	10/06/2021
A4	SBNHH-1D65B	72	11.9	112	2	a	Front	24	7	Retained	
A4	SBNHH-1D65B	72	11.9	112	2	b	Front	24	-7	Retained	
R3	RF4440d-13A	15	15	112	2	a	Behind	12	0	Added	
R2	RF4439d-25A	15	15	75.5	3	a	Behind	12	0	Added	
R1	MT6407-77A	35.1	16.1	39	4	a	Front	24	0	Added	
A5	LPA-80080-6CF-EDIN-2	70.9	5.5	5	5	a	Front	30	0	Retained	10/06/2021

Plan View

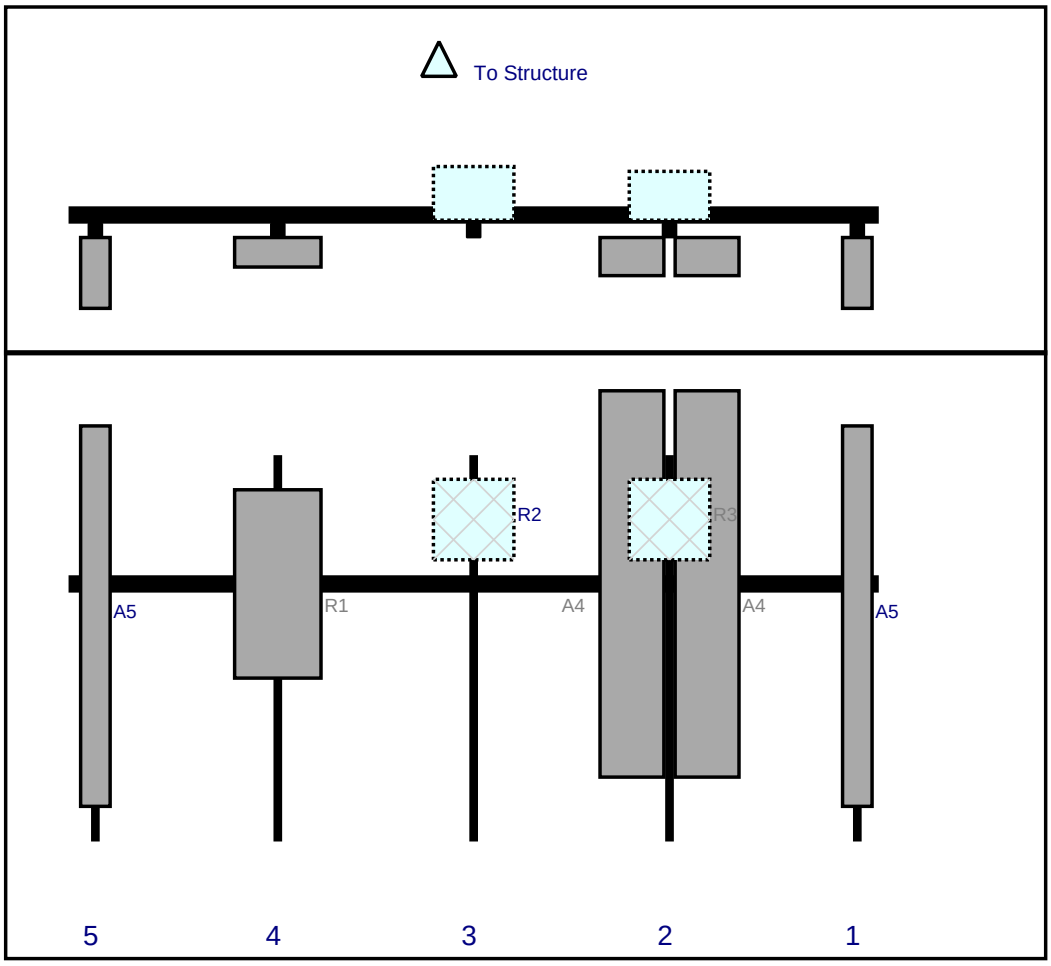
Front View
Looking at Structure



Ref#	Model	Height (in)	Width (in)	H Dist Frm L.	Pipe #	Pipe Pos V	Ant Pos	C. Ant Frm T.	Ant H Off	Status	Validation
A6	LPA-80080-6CF-EDIN-4	70.9	5.5	147	1	a	Front	30	0	Retained	10/06/2021
A4	SBNHH-1D65B	72	11.9	112	2	a	Front	24	7	Retained	
A4	SBNHH-1D65B	72	11.9	112	2	b	Front	24	-7	Retained	
R3	RF4440d-13A	15	15	112	2	a	Behind	12	0	Added	
R2	RF4439d-25A	15	15	75.5	3	a	Behind	12	0	Added	
R1	MT6407-77A	35.1	16.1	39	4	a	Front	24	0	Added	
A6	LPA-80080-6CF-EDIN-4	70.9	5.5	5	5	a	Front	30	0	Retained	10/06/2021

Plan View

Front View
Looking at Structure



Ref#	Model	Height (in)	Width (in)	H Dist Frm L.	Pipe #	Pipe Pos V	Ant Pos	C. Ant Frm T.	Ant H Off	Status	Validation
A5	LPA-80080-6CF-EDIN-2	70.9	5.5	147	1	a	Front	30	0	Retained	10/06/2021
A4	SBNHH-1D65B	72	11.9	112	2	a	Front	24	7	Retained	
A4	SBNHH-1D65B	72	11.9	112	2	b	Front	24	-7	Retained	
R3	RF4440d-13A	15	15	112	2	a	Behind	12	0	Added	
R2	RF4439d-25A	15	15	75.5	3	a	Behind	12	0	Added	
R1	MT6407-77A	35.1	16.1	39	4	a	Front	24	0	Added	
A5	LPA-80080-6CF-EDIN-2	70.9	5.5	5	5	a	Front	30	0	Retained	10/06/2021

MASER CONSULTING
CONNECTICUT

Maser Consulting Connecticut

Subject	TIA-222-H Adoption and Wind Speed Usage	
Site Information	*Site ID:*	*467924-VZW / NORTH BRANFORD 2 CT*
	Site Name:	*NORTH BRANFORD 2 CT*
	Carrier Name:	*Verizon Wireless*
	Address:	*26 Commerce Rd* *North Branford, Connecticut 06471* *New Haven County*
	Latitude:	*41.322061°*
	Longitude:	*-72.773264°*
Structure Information	*Tower Type:*	*156.5-Ft Monopole*
	Mount Type:	*12.58-Ft T-Arms*
	FUZE ID # 16092574	

To Whom It May Concern,

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

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

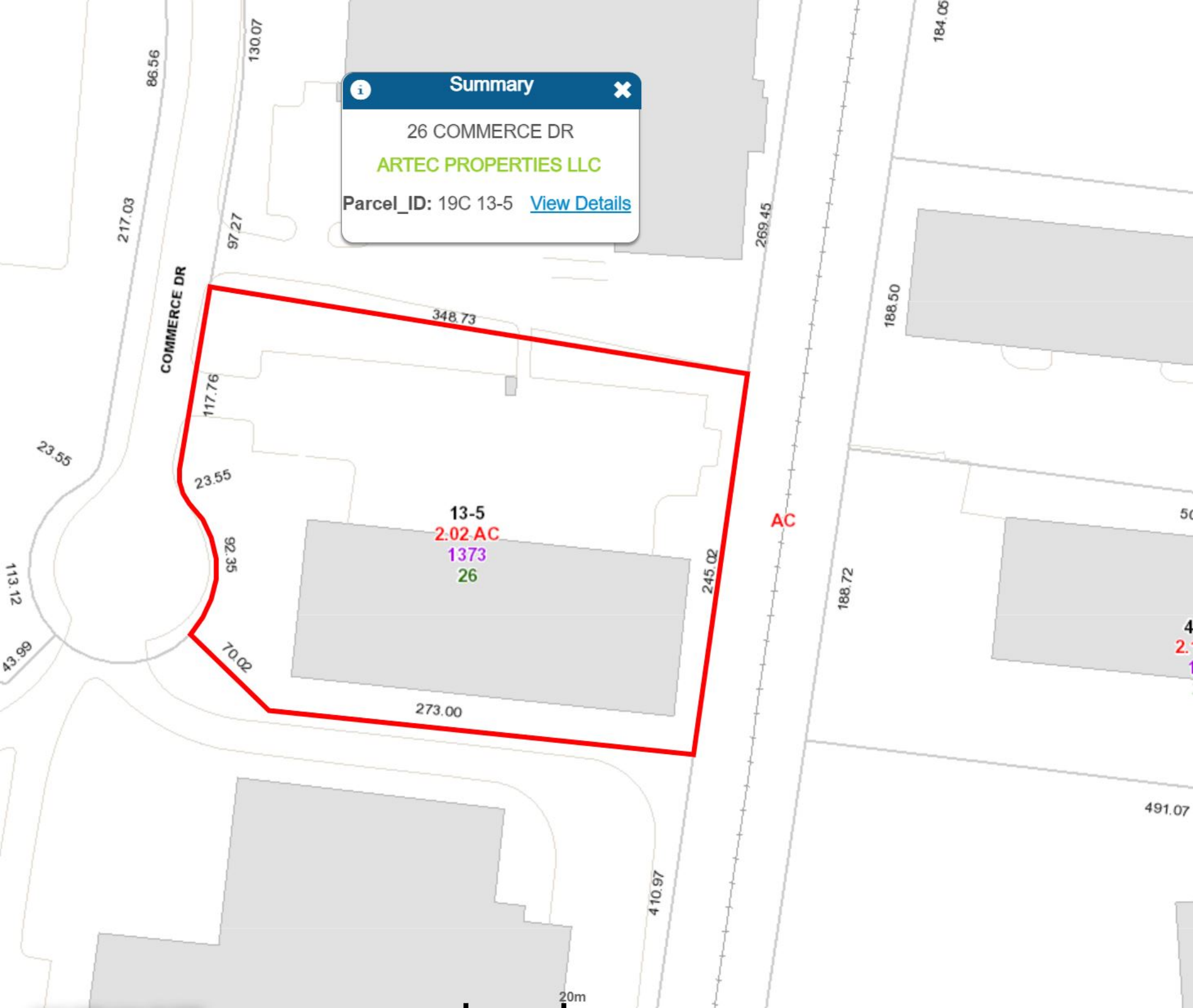
As with all ANSI standards and engineering best practice is to apply the most current revision of the standard. This ensures the engineer is applying all updates. As an example, the TIA-222-H standard includes updates to bring it in line with the latest AISC and ACI standards and it also incorporates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

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

Sincerely,

Derek Hartzell, PE
Technical Specialist

ATTACHMENT 5


Summary
26 COMMERCE DR
ARTEC PROPERTIES LLC
Parcel_ID: 19C 13-5 View Details
COMMERCE DR
86.56
130.07
217.03
97.27
269.45
348.73
117.76
23.55
23.55
92.35
70.02
273.00
245.02
13-5
2.02 AC
1373
26
AC
113.12
43.99
188.50
188.72
184.05
491.07
410.97
20m

26 COMMERCE DR

Sales Print Field Card Map It

Location	26 COMMERCE DR	**Mblu**	19/C 13-5/ / /
Acct#	000156	**Owner**	ARTEC PROPERTIES LLC
Assessment	$945,000	**Appraisal**	$1,350,000
PID	1373	**Building Count**	1

Current Value

Appraisal			
Valuation Year	**Improvements**	**Land**	**Total**
2020	$1,059,400	$290,600	$1,350,000

Assessment			
Valuation Year	**Improvements**	**Land**	**Total**
2020	$741,600	$203,400	$945,000

Owner of Record

Owner	ARTEC PROPERTIES LLC	**Sale Price**	$0
Co-Owner		**Certificate**	
Address	26 COMMERCE DR NORTH BRANFORD, CT 06471-1250	**Book & Page**	0472/1180
		Sale Date	12/30/2014

ATTACHMENT 6

UNITED STATES POSTAL SERVICE®

NORTH BRANFORD 2

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 02/16/2022 US POSTAGE $002.99 ZIP 06103 041L12203937
	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.	Michael Paulhus, Town Manager Town of North Branford 909 Foxon Road North Branford, CT 06471				
2.	Eric Knapp, Planning and Zoning Administrator/Town Planner Town of North Branford 909 Foxon Road North Branford, CT 06471				
3.	Artec Properties LLC 26 Commerce Drive North Branford, CT 06471				
4.					
5.					
6.					

OLD STATE HOUSE STATION CT 06106 FEB 16 2022 USPS