Robinson+Cole

KENNETH C. BALDWIN

280 Trumbull Street
Hartford, CT 06103-3597
Main (860) 275-8200
Fax (860) 275-8299
kbaldwin@rc.com
Direct (860) 275-8345

Also admitted in Massachusetts and New York

April 22, 2024

Via Electronic Mail

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

Re: **Notice of Exempt Modification – Facility Modification**
1291-1293 Bantam Road, Litchfield, Connecticut

Dear Attorney Bachman:

Cellco Partnership d/b/a Verizon Wireless ("Cellco") currently maintains an existing wireless telecommunications facility at the above-referenced property address (the "Property"). The facility consists of antennas on an existing tower and related equipment on the ground, near the base of the tower. The tower was approved by the Siting Council ("Council") in December of 2003 (Docket No. 258). Cellco's shared use of the tower was approved by the Council in February of 2005 (EM-VER-074-050110). A copy of the Council's original tower approval and Cellco's shared use approval are included in Attachment 1.

Cellco now intends to modify its facility by removing twelve (12) antennas and three (3) remote radio heads ("RRHs") and installing nine (9) new antennas and six (6) new RRHs on its existing antenna platform and antenna mounts. A set of project plans showing Cellco's proposed facility modifications and the specifications for Cellco's new antennas and RRHs are included in Attachment 2.

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

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

1. The proposed modifications will not result in an increase in the height of the existing tower. Cellco's new antennas and RRHs will be installed on an existing platform at the same height on the tower.

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

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

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

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

6. According to the attached Structural Analysis Report ("SA") and Post Modification Antenna Mount Analysis Report ("MA"), the existing tower, tower foundation and antenna mounting system, with certain modifications, can support Cellco's proposed facility 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:
Denise Raap, First Selectman
Spencer Musselman, Land Use Administrator
Robert and Judith Hammer
Aleksey Tyurin

ATTACHMENT 1

DOCKET NO. 258 - Sprint Spectrum, L.P. d/b/a Sprint PCS application for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance and operation of a wireless telecommunications facility at one of two sites on Bantam Road, Litchfield, Connecticut.	Connecticut Siting Council December 9, 2003

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 proposed site B located at 1291-1293 Bantam Road, Litchfield, Connecticut. The Council denies certification of proposed site A owned by Kathleen Higgins on Route 202 in Litchfield, 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 constructed as a monopole with low profile antennas, no taller than necessary to provide the proposed telecommunications services, sufficient to accommodate the antennas of Sprint and other entities, both public and private, but such tower shall not exceed a height of 150-feet above ground level.

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 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, antennas, equipment building, access road, utility line, landscaping, and the movement of the tower compound not more than 50 feet to the southeast to increase wetland buffers; 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 if and when 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. The Certificate Holder shall provide space on the tower for no compensation for any municipal antennas, provided such antennas are compatible with the structural integrity of the tower.

6. 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.

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

8. 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.

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 Waterbury Republican-American and The Litchfield Enquirer.

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**
Sprint Spectrum, L.P. d/b/a Sprint PCS	Thomas J. Regan, Esq. Brown Rudnick Berlack Israels LLP CityPlace I, 38th Floor 185 Asylum Street Hartford, CT 06103-3402
Intervenor	**Its Representative**
Town of Litchfield	Steven E. Byrne, Esq. Byrne & Byrne 2-B Farmington Commons 790 Farmington Avenue Farmington, Connecticut 06032

STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL
Ten Franklin Square, New Britain, CT 06051
Phone: (860) 827-2935 Fax: (860) 827-2950
E-Mail: siting.council@po.state.ct.us
www.ct.gov/csc

February 3, 2005

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

RE: **EM-VER-074-050110** - Cellco Partnership d/b/a Verizon Wireless notice of intent to modify an existing telecommunications facility located at 1291 Bantam Road, Litchfield, Connecticut.

Dear Attorney Baldwin:

At a public meeting held on February 2, 2005, 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 January 10, 2005, 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. 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,

Pamela B. Katz, P.E.
Chairman

PBK/laf

c: The Honorable Leo Paul, Jr., First Selectman, Town of Litchfield
Ruth Mulcahy, Land Use Director, Town of Litchfield
James R. Riley, Chief Executive Officer, Bay Communications
Thomas J. Regan, Esq., Brown Rudnick Berlack Israels, LLP
Michele G. Briggs, New Cingular Wireless PCS, LLC

ATTACHMENT 2

ANTENNA MOUNT REINFORCEMENT NOTE:
PRIOR TO THE COMMENCEMENT OF THE UPGRADE WORK SHOWN ON THESE DRAWINGS, THE EXISTING VERIZON TRI-SECTOR ANTENNA MOUNTING FRAME LOCATED ON THE EXISTING MONOPOLE SHALL BE REINFORCED AS PER THE MOUNT MODIFICATION DRAWINGS PREPARED BY COLLIERS ENGINEERING & DESIGN (PROJECT #21777238).

verizon

20 ALEXANDER DRIVE, 2nd FLOOR
WALLINGFORD, CT 06492

LITCHFIELD SW CT

1291 BANTAM ROAD
BANTAM, CT 06750
LITCHFIELD COUNTY

PROJECT TYPE: UPGRADE TO EXISTING WIRELESS TELECOMMUNICATIONS INSTALLATION ON EXISTING 149'± MONOPOLE

SUPPORTING DOCUMENTS

RADIO FREQUENCY (RF) DESIGN DATE: 02/22/24

ANTENNA MOUNT STRUCTURAL ANALYSIS DATE: 01/24/24 (BY COLLIERS ENGINEERING & DESIGN)

ANTENNA SUPPORT STRUCTURE (149'± MONOPOLE) STRUCTURAL ANALYSIS DATE: 02/06/24 (BY TOWER ENGINEERING SOLUTIONS)

SITE INFORMATION

VERIZON LOCATION CODE:	467244
VERIZON SITE NAME:	LITCHFIELD SW CT
SBA SITE NUMBER:	CT12215-A
SBA SITE NAME:	LITCHFIELD 3, CT
SBA COLLO APP NUMBER:	244147, V2
MDG LOCATION ID:	500024H162
FUZE PROJECT ID:	16271939
SITE ADDRESS:	1291 BANTAM ROAD BANTAM, CT 06750
PROPERTY OWNER:	ROBERT & JUDITH HAMMER 30 REVERE ROAD WASHINGTON, CT 06793
TOWER OWNER:	SBA TOWERS V, LLC 8051 CONGRESS AVENUE BOCA RATON, FL 33487 PHONE: 561 226 9525
COUNTY	LITCHFIELD, CT
ZONING DISTRICT:	(RR) RURAL RESIDENCES
STRUCTURE TYPE:	MONOPOLE
STRUCTURE HEIGHT:	149'±
STRUCTURE HEIGHT W/APPURTENANCE:	153'±
GROUND ELEVATION:	N/A
TOTAL AMSL:	N/A
SITE CONTROL POINT:	CENTER OF EXISTING MONOPOLE N 41°-43'-01.85" (41.717180') (NAD'83) W 73°-15'-39.35" (-73.260930') (NAD'83)
ARCHITECT/ENGINEER:	CHAPPELL ENGINEERING ASSOCIATES, LLC 201 BOSTON POST ROAD WEST, SUITE 101 MARLBOROUGH, MA 01752

GENERAL NOTES

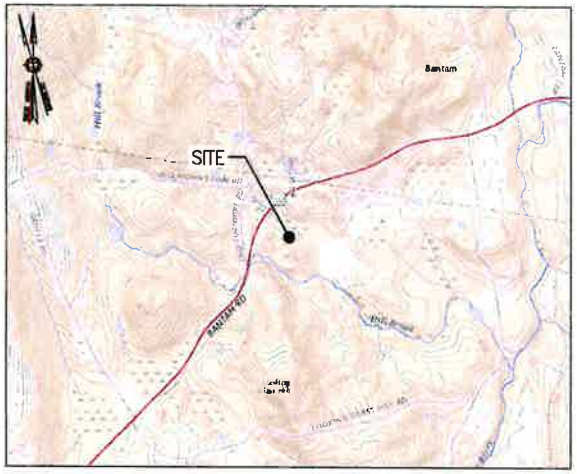
1. CONTRACTOR SHALL VERIFY ALL PLANS, EXISTING DIMENSIONS, AND CONDITIONS ON JOB SITE. CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT/ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK. FAILURE TO NOTIFY THE ARCHITECT/ENGINEER PLACES THE RESPONSIBILITY ON THE CONTRACTOR TO CORRECT THE DISCREPANCIES AT THE CONTRACTORS EXPENSE.

2. NEW CONSTRUCTION SHALL CONFORM TO ALL APPLICABLE CODES AND ORDINANCES.
   - BUILDING CODE: 2022 CONNECTICUT STATE BUILDING CODE
   - ELECTRICAL CODE: 2020 NATIONAL ELECTRICAL CODE
   - STRUCTURAL CODE: TIA/EIA-222-H STRUCTURAL STANDARDS FOR ANTENNA SUPPORTING STRUCTURES AND ANTENNAS

AT LEAST 72 HOURS PRIOR TO DIGGING, THE CONTRACTOR IS REQUIRED TO CALL DIG SAFE AT 811

VICINITY MAP

SCALE: 1"=1000'



DRIVING DIRECTIONS

FROM WALLINGFORD, TAKE CT 68 WEST, TURN RIGHT TOWARD US-5/NORTH COLONY ROAD. TURN RIGHT ONTO US-5/NORTH COLONY ROAD. TURN RIGHT ONTO TIE CT-15 NORTH RAMP TOWARD HARTFORD. MERGE ONTO CT-15 NORTH. TAKE EXIT 66W FOR I-691 WEST TOWARD MERIDEN/WATERBURY. USE LEFT 2 LANES TO TAKE EXIT 66 FOR I-84 WEST TOWARD WATERBURY/DANBURY. MERGE ONTO I-84. TAKE EXIT 20 FOR CT-8 NORTH TOWARD TORRINGTON. TAKE EXIT 38 TOWARD US-6 WEST/CT-109/CT-254/THOMASTON. TURN LEFT ONTO WATERBURY ROAD. TURN LEFT ONTO US-6 WEST/PINE HILL ROAD. TAKE SLIGHT LEFT ONTO US-6 WEST. TAKE SLIGHT RIGHT ONTO CT-109 WEST/BRANCH ROAD. CONTINUE TO FOLLOW CT-109 WEST. TURN RIGHT ONTO CT-209 NORTH. TURN LEFT ONTO US-202 WEST/BANTAM ROAD. THE SITE IS LOCATED ON THE LEFT HAND SIDE BEHIND THE GOOSEBORO DRIVE IN.

SHEET INDEX

DWG.	DESCRIPTION	REV.
T01	TITLE SHEET	2
GN01	GENERAL NOTES	2
A01	SITE PLAN	2
A02	COMPOUND PLAN	2
A03	TOWER ELEVATIONS	2
A04	ANTENNA PLANS & SITE DETAILS	2
RF01	RF DATA	2
RR02	RF PLUMBING DIAGRAM	2
RF00	RF COLOR CODE SPECIFICATIONS	2
E01	GROUNDING NOTES & DETAILS	2
MM01	MOUNT MODIFICATION DRAWINGS I	2
MM02	MOUNT MODIFICATION DRAWINGS II	2
MM03	MOUNT MODIFICATION DRAWINGS III	2

DO NOT SCALE DRAWINGS

ALL PLANS, EXISTING DIMENSIONS AND CONDITIONS AT THE PROPOSED PROJECT SITE SHALL BE VERIFIED IN THE FIELD DURING THE CONSTRUCTION PHASE. THE PROJECT OWNER'S REPRESENTATIVE SHALL BE NOTIFIED IN WRITING OF ANY DISCREPANCIES IMMEDIATELY PRIOR TO PROCEEDING WITH THE PROPOSED WORK AFFECTED BY SUCH DISCREPANCIES. IN THE EVENT OF LACK OF SUCH NOTIFICATION, SUCH DISCREPANCIES SHALL BECOME THE RESPONSIBILITY OF THE PREVAILING CONTRACTOR RESPONSIBLE FOR CONSTRUCTION.

PROJECT DESCRIPTION

1. THIS IS AN UNMANNED AND RESTRICTED ACCESS EQUIPMENT INSTALLATION AND WILL BE USED FOR THE TRANSMISSION OF RADIO SIGNAL FOR THE PURPOSE OF PROVIDING PUBLIC WIRELESS TELECOMMUNICATIONS SERVICE.
2. THIS FACILITY DOES NOT, NOR WILL IT CONSUME UNRECOVERABLE ENERGY.
3. NO PORTABLE WATER SUPPLY IS OR WILL BE PROVIDED AT THIS LOCATION.
4. NO WASTE WATER IS OR WILL BE GENERATED AT THIS LOCATION.
5. NO SOLID WASTE IS OR WILL BE GENERATED AT THIS LOCATION.

SCOPE OF WORK

REMOVE:
- 12 ANTENNAS
- 3 RADIOS

INSTALL:
- 1 HANDRAIL KIT
- 1 PIPE MOUNT FOR JUNCTION BOX
- 3 SIDE-BY-SIDE ANTENNA BRACKETS
- 9 ANTENNAS
- 6 RADIOS
- 1 JUNCTION BOX (12 OVP)
- 2 HYBRID CABLES

verizon
20 ALEXANDER DRIVE, 2ND FLOOR
WALLINGFORD, CT 06492
(203) 741-7335

SBA
SBA COMMUNICATIONS CORP.
134 FLANDERS ROAD, SUITE 125
WESTBOROUGH, MA 01581
(508) 251-0720

CHAPPELL ENGINEERING ASSOCIATES, LLC
R.K. EXECUTIVE CENTRE
201 BOSTON POST ROAD WEST, SUITE 101
MARLBOROUGH, MA 01752
(508) 481-7400
www.chappellengineering.com

STATE OF CONNECTICUT
JAMES M. FITZGERALD
No. 25987
LICENSED PROFESSIONAL CIVIL ENGINEER
5/10/2024

CHECKED BY: JMF
APPROVED BY: JMF

SUBMITTALS

REV.	DATE	DESCRIPTION	BY
2	03/18/24	CONSTRUCTION REVISED	CMC
1	02/21/24	ISSUED FOR CONSTRUCTION	CMC
0	02/20/24	ISSUED FOR REVIEW	CMC

PROJECT NAME & ADDRESS
LITCHFIELD SW CT
1291 BANTAM ROAD
BANTAM, CT 06750

VZW LOCATION CODE: 467244
MDG LOCATION ID: [redacted]
FUZE PROJECT ID: 16271939

SHEET TITLE
TITLE SHEET

SHEET NUMBER
T01

GENERAL NOTES:

1. FOR THE PURPOSE OF CONSTRUCTION DRAWINGS, THE FOLLOWING DEFINITIONS SHALL APPLY:
   - CONTRACTOR – VERIZON WIRELESS
   - SUBCONTRACTOR – GENERAL CONTRACTOR (CONSTRUCTION)
   - OWNER – VERIZON WIRELESS
   - OEM – ORIGINAL EQUIPMENT MANUFACTURER

2. PRIOR TO THE SUBMISSION OF BIDS, THE BIDDING SUBCONTRACTOR SHALL VISIT THE CELL SITE TO FAMILIARIZE WITH THE EXISTING CONDITIONS AND TO CONFIRM THAT THE WORK CAN BE ACCOMPLISHED AS SHOWN ON THE CONSTRUCTION DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE ATTENTION OF CONTRACTOR.

3. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. SUBCONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS, AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK.

4. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.

5. DRAWINGS PROVIDED HERE ARE NOT TO BE SCALED AND ARE INTENDED TO SHOW OUTLINE ONLY.

6. UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.

7. THE SUBCONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.

8. IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE SUBCONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY THE CONTRACTOR.

9. SUBCONTRACTOR SHALL DETERMINE ACTUAL ROUTING OF CONDUIT, POWER AND T1 CABLES, GROUNDING CABLES AS SHOWN ON THE POWER, GROUNDING AND TELCO PLAN DRAWING. SUBCONTRACTOR SHALL UTILIZE EXISTING TRAYS AND/OR SHALL ADD NEW TRAYS AS NECESSARY. SUBCONTRACTOR SHALL CONFIRM THE ACTUAL ROUTING WITH THE CONTRACTOR.

10. THE SUBCONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT SUBCONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER.

11. SUBCONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.

12. SUBCONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION.

13. THE SUBCONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED HEREIN. THE SUBCONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.

14. SUBCONTRACTOR SHALL NOTIFY CHAPPELL ENGINEERING ASSOCIATES, LLC. 48 HOURS IN ADVANCE OF POURING CONCRETE OR BACK FILLING TRENCHES, SEALING ROOF AND WALL PENETRATIONS & POST DOWNS, FINISHING NEW WALLS OR FINAL ELECTRICAL CONNECTIONS FOR ENGINEERING REVIEW.

15. CONSTRUCTION SHALL COMPLY WITH VERIZON WIRELESS NETWORK STANDARD #NSTD123 TO THE MAXIMUM EXTENT FEASIBLE UNLESS PRECLUDED OR LIMITED BY DESIGN SHOWN ON THESE DRAWINGS.

16. SUBCONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS PRIOR TO COMMENCING ANY WORK. ALL DIMENSIONS OF EXISTING CONSTRUCTION SHOWN ON THE DRAWINGS MUST BE VERIFIED. SUBCONTRACTOR SHALL NOTIFY THE CONTRACTOR OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.

17. THE EXISTING CELL SITE IS IN FULL COMMERCIAL OPERATION. ANY CONSTRUCTION WORK BY SUBCONTRACTOR SHALL NOT DISRUPT THE EXISTING NORMAL OPERATION. ANY WORK ON EXISTING EQUIPMENT MUST BE COORDINATED WITH CONTRACTOR. ALSO, WORK SHOULD BE SCHEDULED FOR AN APPROPRIATE MAINTENANCE WINDOW USUALLY IN LOW TRAFFIC PERIODS AFTER MIDNIGHT.

18. SINCE THE CELL SITE IS ACTIVE, ALL SAFETY PRECAUTIONS MUST BE TAKEN WHEN WORKING AROUND HIGH LEVELS OF ELECTROMAGNETIC RADIATION. EQUIPMENT SHOULD BE SHUTDOWN PRIOR TO PERFORMING ANY WORK THAT COULD EXPOSE THE WORKERS TO DANGER. PERSONAL RF EXPOSURE MONITORS ARE TO BE WORN TO ALERT OF ANY DANGEROUS EXPOSURE LEVELS.

SITE WORK GENERAL NOTES:

1. THE SUBCONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES PRIOR TO THE START OF CONSTRUCTION.

2. ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES WHERE ENCOUNTERED IN THE WORK, SHALL BE PROTECTED AT ALL TIMES, AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY ENGINEERS. EXTREME CAUTION SHOULD BE USED BY THE SUBCONTRACTOR WHEN EXCAVATING OR DRILLING PIERS AROUND OR NEAR UTILITIES. SUBCONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS WILL INCLUDE BUT NOT BE LIMITED TO A) FALL PROTECTION B) CONFINED SPACE C) ELECTRICAL SAFETY D) TRENCHING & EXCAVATION.

3. ALL SITE WORK SHALL BE AS INDICATED ON THE DRAWINGS AND PROJECT SPECIFICATIONS.

4. IF NECESSARY, RUBBISH, STUMPS, DEBRIS, STICKS, STONES AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY.

5. THE SITE SHALL BE GRADED TO CAUSE SURFACE WATER TO FLOW AWAY FROM THE BTS EQUIPMENT AND TOWER AREAS.

6. NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUND. FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.

7. THE SUB GRADE SHALL BE COMPACTED AND BROUGHT TO A SMOOTH UNIFORM GRADE PRIOR TO FINISHED SURFACE APPLICATION.

8. ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED AND/OR CAPPED, PLUGGED OR OTHERWISE DISCONTINUED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, SUBJECT TO THE APPROVAL OF ENGINEERING, OWNER AND/OR LOCAL UTILITIES.

9. THE AREAS OF THE OWNERS PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE TOWER, EQUIPMENT OR DRIVEWAY, SHALL BE GRADED TO A UNIFORM SLOPE AND STABILIZED TO PREVENT EROSION AS SPECIFIED IN THE PROJECT SPECIFICATIONS.

10. SUBCONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE LOCAL GUIDELINES FOR EROSION AND SEDIMENT CONTROL.

11. THE SUBCONTRACTOR SHALL PROVIDE SITE SIGNAGE IN ACCORDANCE WITH THE VERIZON WIRELESS SPECIFICATION FOR SITE SIGNAGE.

CONCRETE AND REINFORCING STEEL NOTES:

1. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 301, ACI 318, ACI 336, ASTM A184, ASTM A185 AND THE DESIGN AND CONSTRUCTION SPECIFICATION FOR CAST-IN-PLACE CONCRETE.

2. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS, UNLESS NOTED OTHERWISE. A HIGHER STRENGTH (4000PSI) MAY BE USED. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 381 CODE REQUIREMENTS

3. REINFORCING STEEL SHALL CONFORM TO ASTM A 615, GRADE 60, DEFORMED UNLESS NOTED OTHERWISE, WELDED WIRE FABRIC SHALL CONFORM TO ASTM A 185 WELDED STEEL WIRE FABRIC UNLESS NOTED OTHERWISE. SPLICES SHALL BE CLASS "B" AND ALL HOOKS SHALL BE STANDARD, UNO.

4. THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING STEEL UNLESS SHOWN OTHERWISE ON DRAWINGS:
   - CONCRETE CAST AGAINST EARTH......3 IN.
   - CONCRETE EXPOSED TO EARTH OR WEATHER:
     - #6 AND LARGER ....2 IN.
     - #5 AND SMALLER & WWF ....1½ IN.
   - CONCRETE NOT EXPOSED TO EARTH OR WEATHER OR NOT CAST AGAINST THE GROUND:
     - SLAB AND WALL ....¾ IN.
     - BEAMS AND COLUMNS ....1½ IN.

5. A CHAMFER ¾" SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE, UNO, IN ACCORDANCE WITH ACI 301 SECTION 4.2.4.

6. INSTALLATION OF CONCRETE EXPANSION/WEDGE ANCHOR, SHALL BE PER MANUFACTURER'S WRITTEN RECOMMENDED PROCEDURE. THE ANCHOR BOLT, DOWEL OR ROD SHALL CONFORM TO MANUFACTURER'S RECOMMENDATION FOR EMBEDMENT DEPTH OR AS SHOWN ON THE DRAWINGS. NO REBAR SHALL BE CUT WITHOUT PRIOR ENGINEERING APPROVAL WHEN DRILLING HOLES IN CONCRETE. SPECIAL INSPECTIONS, REQUIRED BY GOVERNING CODES, SHALL BE STAINLESS STEEL OR HOT DIPPED GALVANIZED. EXPANSION BOLTS SHALL BE PROVIDED BY RAMSET/REDHEAD OR APPROVED EQUAL.

7. CONCRETE CYLINDER TEST IS NOT REQUIRED FOR SLAB ON GRADE WHEN CONCRETE IS LESS THAN 50 CUBIC YARDS (IBC1905.6.2.3) IN THAT EVENT THE FOLLOWING RECORDS SHALL BE PROVIDED BY THE CONCRETE SUPPLIER;
   - (A) RESULTS OF CONCRETE CYLINDER TEST PERFORMED AT THE SUPPLIERS PLANT.
   - (B) CERTIFICATION OF MINIMUM COMPRESSIVE STRENGTH FOR THE CONCRETE GRADE SUPPLIED.

   FOR GREATER THAN 50 CUBIC YARDS THE GC SHALL PERFORM THE CONCRETE CYLINDER TEST.

8. AS AN ALTERNATIVE TO ITEM 7. TEST CYLINDERS SHALL BE TAKEN INITIALLY AND THEREAFTER FOR EVERY 50 YARDS OF CONCRETE FROM EACH DIFFERENT BATCH PLANT.

9. EQUIPMENT SHALL NOT BE PLACED ON NEW PADS FOR SEVEN DAYS AFTER PAD IS POURED, UNLESS IT IS VERIFIED BY CYLINDER TESTS THAT COMPRESSIVE STRENGTH HAS BEEN ATTAINED.

STRUCTURAL STEEL NOTES:

1. ALL STEEL WORK SHALL BE PAINTED OR GALVANIZED IN ACCORDANCE WITH THE DRAWINGS AND VERIZON WIRELESS SPECIFICATION 25252-000-3PS-G07-00001 UNLESS OTHERWISE NOTED. STRUCTURAL STEEL SHALL BE ASTM-A-36 UNLESS OTHERWISE NOTED ON THE SITE SPECIFIC DRAWINGS. STEEL DESIGN, INSTALLATION AND BOLTING SHALL BE IN ACCORDANCE WITH THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) "MANUAL OF STEEL CONSTRUCTION".

2. ALL WELDING SHALL BE PERFORMED USING E70XX ELECTRODES AND WELDING SHALL CONFORM TO AISC AND AWS D1.1. WHERE FILLET WELD SIZES ARE NOT SHOWN, PROVIDE THE MINIMUM SIZE PER TABLE J2.4 IN THE AISC "MANUAL OF STEEL CONSTRUCTION", 9TH EDITION. PAINTED SURFACES SHALL BE TOUCHED UP.

3. BOLTED CONNECTIONS SHALL USE BEARING TYPE ASTM A325 BOLTS (¾"ø) AND SHALL HAVE MINIMUM OF TWO BOLTS UNLESS NOTED OTHERWISE.

4. NON-STRUCTURAL CONNECTIONS FOR STEEL GRATING MAY USE ⅝" DIA. ASTM A 307 BOLTS UNLESS NOTED OTHERWISE.

5. INSTALLATION OF CONCRETE EXPANSION/WEDGE ANCHORS SHALL BE PER MANUFACTURER'S WRITTEN RECOMMENDED PROCEDURE. THE ANCHOR BOLT, DOWEL OR ROD SHALL CONFORM TO THE MANUFACTURERS RECOMMENDATION FOR EMBEDMENT DEPTH OR AS SHOWN ON THE DRAWINGS. NO REBAR SHALL BE CUT WITHOUT PRIOR CONTRACTOR APPROVAL WHEN DRILLING HOLES IN CONCRETE. SPECIAL INSPECTIONS, REQUIRED BY GOVERNING CODES, SHALL BE PERFORMED IN ORDER TO MAINTAIN MANUFACTURER'S MAXIMUM ALLOWABLE LOADS. ALL EXPANSION/WEDGE ANCHORS SHALL BE STAINLESS STEEL OR HOT DIPPED GALVANIZED. EXPANSION BOLTS SHALL BE PROVIDED BY RAMSET/REDHEAD OR APPROVED EQUAL.

6. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ENGINEER REVIEW & APPROVAL ON PROJECTS REQUIRING STRUCTURAL STEEL.

7. ALL STRUCTURAL STEEL WORK SHALL BE DONE IN ACCORDANCE WITH AISC SPECIFICATIONS.

SOIL COMPACTION NOTES FOR SLAB ON GRADE:

1. EXCAVATE AS REQUIRED TO REMOVE VEGETATION AND TOPSOIL TO EXPOSE NATURAL SUBGRADE AND PLACE CRUSHED STONE AS REQUIRED.

2. COMPACTION CERTIFICATION: AN INSPECTION AND WRITTEN CERTIFICATION BY A QUALIFIED GEOTECHNICAL TECHNICIAN OR ENGINEER IS ACCEPTABLE.

3. AS AN ALTERNATE TO INSPECTION AND WRITTEN CERTIFICATION, THE "UNDISTURBED SOIL" BASE SHALL BE COMPACTED WITH "COMPACTION EQUIPMENT", LISTED BELOW, TO AT LEAST 90% MODIFIED PROCTOR MAXIMUM DENSITY PER ASTM D 1557 METHOD C.

4. COMPACTED SUBBASE SHALL BE UNIFORM AND LEVELED. PROVIDE 6" MINIMUM CRUSHED STONE OR GRAVEL COMPACTED IN 3" LIFTS ABOVE COMPACTED SOIL. GRAVEL SHALL BE NATURAL OR CRUSHED WITH 100% PASSING #1 SIEVE.

5. AS AN ALTERNATE TO ITEMS 2 AND 3, THE SUBGRADE SOILS WITH 5 PASSES OF A MEDIUM SIZED VIBRATORY PLATE COMPACTOR (SUCH AS BOMAG BPR 30/38) OR HAND-OPERATED SINGLE DRUM VIBRATORY ROLLER (SUCH AS BOMAG BW 55E). AND SOFT AREAS THAT ARE ENCOUNTERED SHOULD BE REMOVED AND REPLACED WITH A WELL-GRADED GRANULAR FILL AND COMPACTED AS STATED ABOVE.

COMPACTION EQUIPMENT:

1. HAND OPERATED DOUBLE DRUM, VIBRATORY ROLLER, VIBRATORY PLATE COMPACTOR OR JUMPING JACK COMPACTOR.

CONSTRUCTION NOTES:

1. FIELD VERIFICATION:
SUBCONTRACTOR SHALL FIELD VERIFY SCOPE OF WORK, VERIZON WIRELESS ANTENNA PLATFORM LOCATION AND ANTENNAS TO BE REPLACED.

2. COORDINATION OF WORK:
SUBCONTRACTOR SHALL COORDINATE RF WORK AND PROCEDURES WITH CONTRACTOR.

3. CABLE LADDER RACK:
SUBCONTRACTOR SHALL FURNISH AND INSTALL CABLE LADDER RACK, CABLE TRAY, AND CONDUIT AS REQUIRED TO SUPPORT CABLES TO THE NEW BTS LOCATION.

ELECTRICAL INSTALLATION NOTES:

1. WIRING, RACEWAY, AND SUPPORT METHODS AND MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE NEC AND TELCORDIA.

2. SUBCONTRACTOR SHALL MODIFY EXISTING CABLE TRAY SYSTEM AS REQUIRED TO SUPPORT RF AND TRANSPORT CABLING TO THE NEW BTS EQUIPMENT. SUBCONTRACTOR SHALL SUBMIT MODIFICATIONS TO CONTRACTOR FOR APPROVAL.

3. ALL CIRCUITS SHALL BE SEGREGATED AND MAINTAIN MINIMUM CABLE SEPARATION AS REQUIRED BY THE NEC AND TELCORDIA.

4. CABLES SHALL NOT BE ROUTED THROUGH LADDER-STYLE CABLE TRAY RUNGS.

5. EACH END OF EVERY POWER, GROUNDING, AND T1 CONDUCTOR AND CABLE SHALL BE LABELED WITH COLOR-CODED INSULATION OR ELECTRICAL TAPE (3M BRAND, 1/2 INCH PLASTIC ELECTRICAL TAPE WITH UV PROTECTION, OR EQUAL). THE IDENTIFICATION METHOD SHALL CONFORM WITH NEC & OSHA, AND MATCH EXISTING INSTALLATION REQUIREMENTS.

6. POWER PHASE CONDUCTORS (I.E., HOTS) SHALL BE LABELED WITH COLOR-CODED INSULATION OR ELECTRICAL TAPE (3M BRAND, ½ INCH PLASTIC ELECTRICAL TAPE WITH UV PROTECTION, OR EQUAL). PHASE CONDUCTOR COLOR CODES SHALL CONFORM WITH THE NEC & OSHA AND MATCH EXISTING INSTALLATION REQUIREMENTS.

7. ALL ELECTRICAL COMPONENTS SHALL BE CLEARLY LABELED WITH ENGRAVED LAMACOID PLASTIC LABELS. ALL EQUIPMENT SHALL BE LABELED WITH THEIR VOLTAGE RATING, PHASE CONFIGURATION, WIRE CONFIGURATION, POWER OR AMPACITY RATING, AND BRANCH CIRCUIT ID NUMBERS (I.E., PANEL BOARD AND CIRCUIT ID'S).

8. PANEL BOARDS (ID NUMBERS) AND INTERNAL CIRCUIT BREAKERS (CIRCUIT ID NUMBERS) SHALL BE CLEARLY LABELED WITH ENGRAVED LAMACOID PLASTIC LABELS.

9. ALL TIE WRAPS SHALL BE CUT FLUSH WITH APPROVED CUTTING TOOL TO REMOVE SHARP EDGES.

10. POWER, CONTROL, AND EQUIPMENT GROUND WIRING IN TUBING OR CONDUIT SHALL BE SINGLE CONDUCTOR (#14 AWG OR LARGER), 600 V, OIL RESISTANT THHN OR THWN-2, CLASS B STRANDED COPPER CABLE RATED FOR 90 °C (WET AND DRY) OPERATION; LISTED OR LABELED FOR THE LOCATION AND RACEWAY SYSTEM USED, UNLESS OTHERWISE SPECIFIED.

11. SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED INDOORS SHALL BE SINGLE CONDUCTOR (#6 AWG OR LARGER), 600 V, OIL RESISTANT THHN OR THWN-2 GREEN INSULATION, CLASS B STRANDED COPPER CABLE RATED FOR 90 °C (WET AND DRY) OPERATION; LISTED OR LABELED FOR THE LOCATION AND RACEWAY SYSTEM USED, UNLESS OTHERWISE SPECIFIED.

12. SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED OUTDOORS, OR BELOW GRADE, SHALL BE SINGLE CONDUCTOR #3 AWG SOLID TINNED COPPER CABLE, UNLESS OTHERWISE SPECIFIED.

13. POWER AND CONTROL WIRING, NOT IN TUBING OR CONDUIT, SHALL BE MULTI-CONDUCTOR, TYPE TC CABLE (#14 AWG OR LARGER), 600 V, OIL RESISTANT THHN OR THWN-2, CLASS B STRANDED COPPER CABLE RATED FOR 90 °C (WET AND DRY) OPERATION; WITH OUTER JACKET; LISTED OR LABELED FOR THE LOCATION USED, UNLESS OTHERWISE SPECIFIED.

14. ALL POWER AND GROUNDING CONNECTIONS SHALL BE CRIMP STYLE, COMPRESSION WIRE LUGS AND WIRE NUTS BY THOMAS AND BETTS (OR EQUAL). LUGS AND WIRE NUTS SHALL BE RATED FOR OPERATION AT NO LESS THAN 75°C (90°C IF AVAILABLE).

15. RACEWAY AND CABLE TRAY SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE, AND NEC.

16. NEW RACEWAY OR CABLE TRAY WILL MATCH THE EXISTING INSTALLATION WHERE POSSIBLE.

17. ELECTRICAL METALLIC TUBING (EMT) OR RIGID NONMETALLIC CONDUIT (I.E., RIGID PVC SCHEDULE 40, OR RIGID PVC SCHEDULE 80 FOR LOCATIONS SUBJECT TO PHYSICAL DAMAGE) SHALL BE USED FOR EXPOSED INDOOR LOCATIONS.

18. ELECTRICAL METALLIC TUBING (EMT), ELECTRICAL NONMETALLIC TUBING (ENT), OR RIGID NONMETALLIC CONDUIT (RIGID PVC, SCHEDULE 40) SHALL BE USED FOR CONCEALED INDOOR LOCATIONS.

19. GALVANIZED STEEL INTERMEDIATE METALLIC CONDUIT (IMC) SHALL BE USED FOR OUTDOOR LOCATIONS ABOVE GRADE

20. RIGID NONMETALLIC CONDUIT (I.E., RIGID PVC SCHEDULE 40 OR RIGID PVC SCHEDULE 80) SHALL BE USED UNDERGROUND; DIRECT BURIED, IN AREAS OF OCCASIONAL LIGHT VEHICLE TRAFFIC OR ENCASED IN REINFORCED CONCRETE IN AREAS OF HEAVY VEHICLE TRAFFIC.

21. LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT (LIQUID-TITE FLEX) SHALL BE USED INDOORS AND OUTDOORS, WHERE VIBRATION OCCURS OR FLEXIBILITY IS NEEDED.

22. CONDUIT AND TUBING FITTINGS SHALL BE THREADED OR COMPRESSION-TYPE AND APPROVED FOR THE LOCATION USED. SET SCREW FITTINGS ARE NOT ACCEPTABLE.

23. CABINETS, BOXES, AND WIREWAYS SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE, AND NEC.

24. CABINETS, BOXES, AND WIREWAYS TO MATCH THE EXISTING INSTALLATION WHERE POSSIBLE.

25. WIREWAYS SHALL BE EPOXY-COATED (GRAY) AND INCLUDE A HINGED COVER, DESIGNED TO SWING OPEN DOWNWARD; SHALL BE PANDUIT TYPE E (OR EQUAL); AND RATED NEMA 1 (OR BETTER) INDOORS, OR NEMA 3R (OR BETTER) OUTDOORS.

26. EQUIPMENT CABINETS, TERMINAL BOXES, JUNCTION BOXES, AND PULL BOXES SHALL BE GALVANIZED OR EPOXY-COATED SHEET STEEL, SHALL MEET OR EXCEED UL 50, AND RATED NEMA 1 (OR BETTER) INDOORS, OR NEMA 3R (OR BETTER) OUTDOORS

27. METAL RECEPTACLE, SWITCH, AND DEVICE BOXES SHALL BE GALVANIZED, EPOXY-COATED, OR NON- CORRODING; SHALL MEET OR EXCEED UL 514A AND NEMA OS 1; AND RATED NEMA 1 (OR BETTER) INDOORS, OR WEATHER PROTECTED (WP OR BETTER) OUTDOORS.

28. NONMETALLIC RECEPTACLE, SWITCH, AND DEVICE BOXES SHALL MEET OR EXCEED NEMA OS 2; AND RATED NEMA 1 (OR BETTER) INDOORS, OR WEATHER PROTECTED (WP OR BETTER) OUTDOORS.

29. THE SUBCONTRACTOR SHALL NOTIFY AND OBTAIN NECESSARY AUTHORIZATION FROM THE CONTRACTOR BEFORE COMMENCING WORK ON THE AC POWER DISTRIBUTION PANELS.

30. THE SUBCONTRACTOR SHALL PROVIDE NECESSARY TAGGING ON THE BREAKERS, CABLES AND DISTRIBUTION PANELS IN ACCORDANCE WITH THE APPLICABLE CODES AND STANDARDS TO SAFEGUARD AGAINST LIFE AND PROPERTY.

31. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, NEC AND ALL APPLICABLE LOCAL CODES.

32. CONDUIT ROUTINGS ARE SCHEMATIC. SUBCONTRACTOR SHALL INSTALL CONDUITS SO THAT ACCESS TO EQUIPMENT IS NOT BLOCKED.

---

verizon

20 ALEXANDER DRIVE, 2ND FLOOR
WALLINGFORD, CT 06492
(203) 741-7338

SBA

SBA COMMUNICATIONS CORP.
134 FLANDERS ROAD, SUITE 125
WESTBOROUGH, MA 01581
(508) 251-0720

CHAPPELL ENGINEERING ASSOCIATES, LLC

R.K. EXECUTIVE CENTRE
201 BOSTON POST ROAD WEST, SUITE 101
MARLBOROUGH, MA 01752
(508) -81-7400
www.chappellengineering.com

STATE OF CONNECTICUT ★ JAMES M. FITZGERALD ★ No. 25997 LICENSED PROFESSIONAL CIVIL ENGINEER

2/18/2024

CHECKED BY: JMT

APPROVED BY: JMT

SUBMITTALS

REV.	DATE	DESCRIPTION	BY
2	03/18/24	CONSTRUCTION REVISED	CAC
1	02/2[illegible]/24	ISSUED FOR CONSTRUCTION	CAC
0	02/2[illegible]/24	ISSUED FOR REVIEW	CAC

PROJECT NAME & ADDRESS

LITCHFIELD SW CT

1291 BANTAM ROAD
BANTAM, CT 06750

VZW LOCATION CODE:	467244
MDG LOCATION ID:	[illegible]
FUZE PROJECT ID:	[illegible]

SHEET TITLE

GENERAL NOTES

SHEET NUMBER

GN01

SITE PLAN
SCALE: 1" = 40'-0"
1
A01
0 40' 80' 120'

verizon

20 ALEXANDER DRIVE, 2ND FLOOR
WALLINGFORD, CT 06492
(203) 741-7338

SBA

SBA COMMUNICATIONS CORP.
134 FLANDERS ROAD, SUITE 125
WESTBOROUGH, MA 01581
(508) 251-0720

CHAPPELL ENGINEERING ASSOCIATES, LLC

R.K. EXECUTIVE CENTRE
201 BOSTON POST ROAD WEST, SUITE 101
MARLBOROUGH, MA 01752
(508) 481-7400
www.chappellengineering.com

STATE OF CONNECTICUT
JAMES M. FITZGERALD
No. 25987
LICENSED
PROFESSIONAL CIVIL ENGINEER
5/9/2024

CHECKED BY: JMT
APPROVED BY: JMT

SUBMITTALS

REV.	DATE	DESCRIPTION	BY
2	05/10/24	CONSTRUCTION REVISED	CHC
1	04/23/24	ISSUED FOR CONSTRUCTION	CHC
0	04/09/24	ISSUED FOR REVIEW	CHC

PROJECT NAME & ADDRESS

LITCHFIELD SW CT

1291 BANTAM ROAD
BANTAM, CT 06750

VZW LOCATION CODE: 467944
MDG LOCATION ID: [redacted]
FUZE PROJECT ID: [redacted]

SHEET TITLE

SITE PLAN

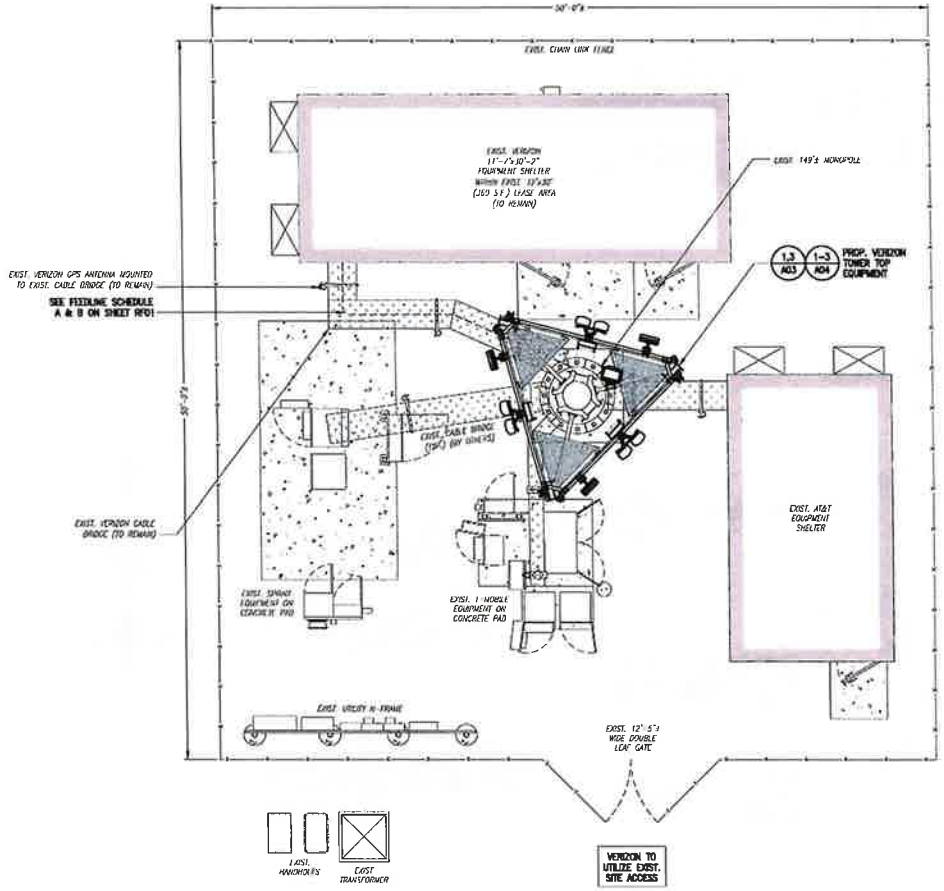
SHEET NUMBER

A01

SPECIAL PRE-CONSTRUCTION WORK NOTE (SBA-PROVIDED TOWER STRUCTURAL ANALYSIS SPECIAL EQUIPMENT INSTALLATION REQUIREMENTS):
GENERAL CONTRACTOR SHALL FURNISH AND INSTALL ALL SPECIAL OR SUPPLEMENTAL ADDITIONAL TOWER-MOUNTED EQUIPMENT PER RECOMMENDATIONS FROM SBA-PROVIDED TOWER STRUCTURAL ANALYSIS FOR ANY SPECIAL SHIELDING OF TOWER TOP EQUIPMENT AND FOR ANY SPECIAL FEEDLINE BUNDLING OR RELOCATION.

ANTENNA MOUNT REINFORCEMENT NOTE:
PRIOR TO THE COMMENCEMENT OF THE UPGRADE WORK SHOWN ON THESE DRAWINGS, THE EXISTING VERIZON TRI-SECTOR ANTENNA MOUNTING FRAME LOCATED ON THE EXISTING MONOPOLE SHALL BE REINFORCED AS PER THE MOUNT MODIFICATION DRAWINGS PREPARED BY COLLIERS ENGINEERING & DESIGN (PROJECT #21777238).

SPECIAL CONSTRUCTION NOTE (SBA-PROVIDED ANTENNA MOUNT STRUCTURAL MOD SPECIAL EQUIPMENT INSTALLATION REQUIREMENTS):
GENERAL CONTRACTOR SHALL FURNISH AND INSTALL ALL ANTENNA MOUNT STRUCTURAL AUGMENTS (STRUCTURAL MODIFICATIONS) AT THE VERIZON RAD/VERTICAL EQUIPMENT SPACE PER RECOMMENDATIONS FROM SBA-PROVIDED ANTENNA MOUNT STRUCTURAL ANALYSIS AND ANY SUPPLEMENTAL CONSTRUCTION DRAWINGS (PROVIDED BY OTHERS).



COMPOUND PLAN (1 / A02)
SCALE: 1/4" = 1'-0"
0 4'-0" 8'-0" 12'-0"

verizon
20 ALEXANDER DRIVE, 2ND FLOOR
WALLINGFORD, CT 06492
(203) 741-7338

SBA
SBA COMMUNICATIONS CORP.
134 FLANDERS ROAD, SUITE 125
WESTBOROUGH, MA 01581
(508) 251-0720

CHAPPELL ENGINEERING ASSOCIATES, LLC
R.K. EXECUTIVE CENTRE
251 BOSTON POST ROAD WEST, SUITE 101
MARLBOROUGH, MA 01752
(508) 481-7400
www.chappellengineering.com

STATE OF CONNECTICUT
JAMES M. FITZGERALD
No. 25987
LICENSED
PROFESSIONAL CIVIL ENGINEER

CHECKED BY: JMT
APPROVED BY: JMT

SUBMITTALS

REV.	DATE	DESCRIPTION	BY
3	03/18/24	CONSTRUCTION REVISED	CHC
1	02/21/24	ISSUED FOR CONSTRUCTION	CHC
0	02/06/24	ISSUED FOR REVIEW	CHC

PROJECT NAME & ADDRESS
LITCHFIELD SW CT
1281 BANTAM ROAD
BANTAM, CT 06750

VZW LOCATION CODE: 467844
MDG LOCATION ID: [illegible]
FUZE PROJECT ID: [illegible]

SHEET TITLE
COMPOUND PLAN

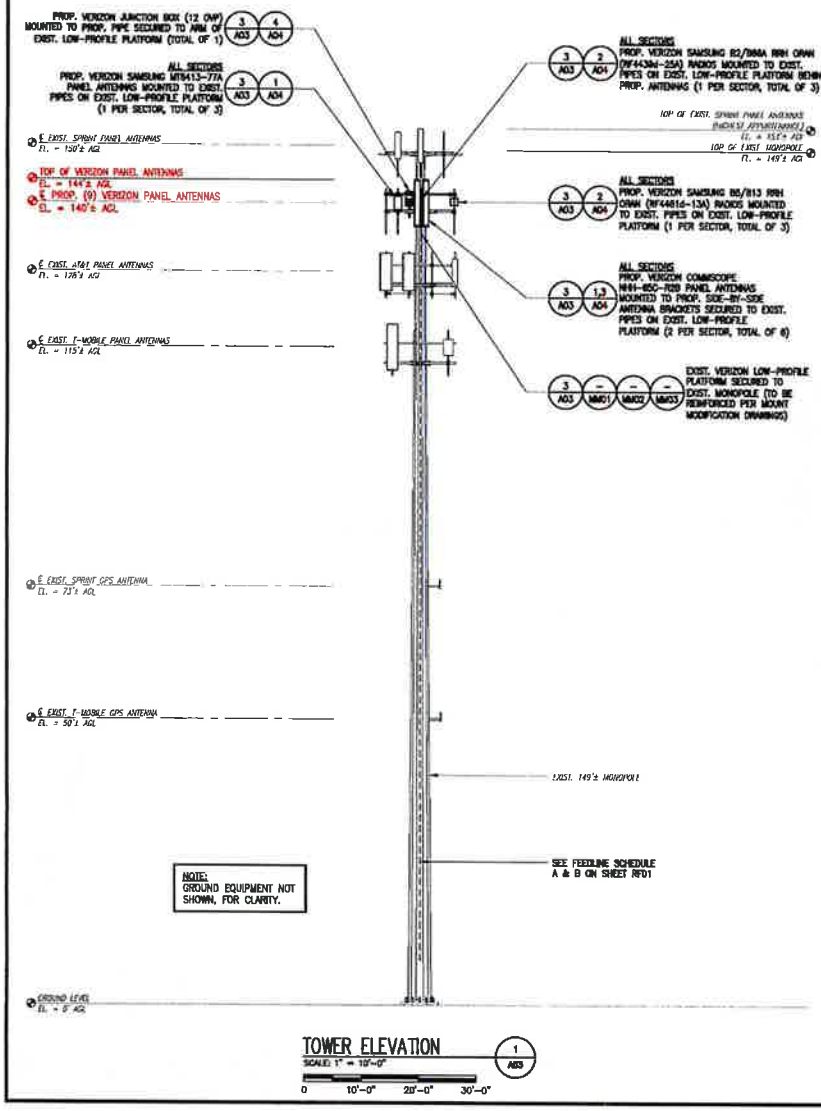
SHEET NUMBER
A02

SPECIAL PRE-CONSTRUCTION WORK NOTE (SBA-PROVIDED TOWER STRUCTURAL ANALYSIS SPECIAL EQUIPMENT INSTALLATION REQUIREMENTS):
GENERAL CONTRACTOR SHALL FURNISH AND INSTALL ALL SPECIAL OR SUPPLEMENTAL ADDITIONAL TOWER-MOUNTED EQUIPMENT PER RECOMMENDATIONS FROM SBA-PROVIDED TOWER STRUCTURAL ANALYSIS FOR ANY SPECIAL SHIELDING OF TOWER TOP EQUIPMENT AND FOR ANY SPECIAL FEEDLINE BUNDLING OR RELOCATION.

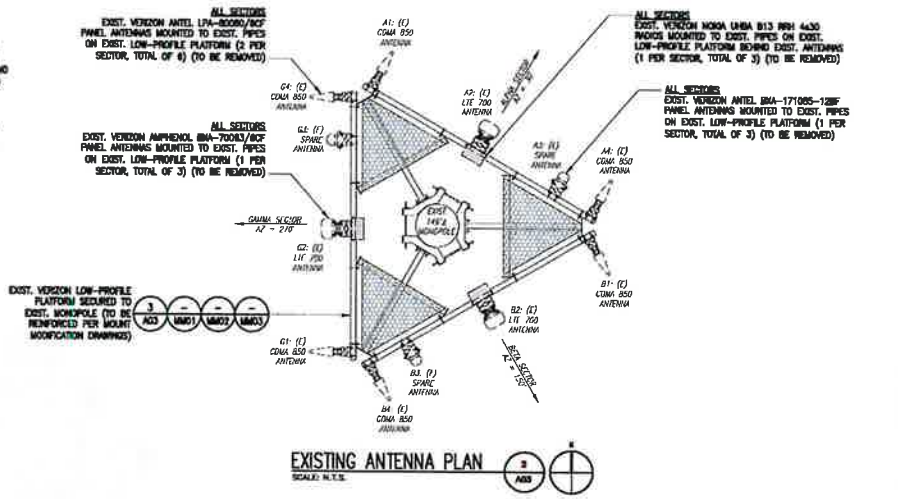
ANTENNA MOUNT REINFORCEMENT NOTE:
PRIOR TO THE COMMENCEMENT OF THE UPGRADE WORK SHOWN ON THESE DRAWINGS, THE EXISTING VERIZON TRI-SECTOR ANTENNA MOUNTING FRAME LOCATED ON THE EXISTING MONOPOLE SHALL BE REINFORCED AS PER THE MOUNT MODIFICATION DRAWINGS PREPARED BY COLLIERS ENGINEERING & DESIGN (PROJECT #21777238).

RAD CENTER NOTE:
VERIZON ANTENNA AND MOUNT RAD CENTER SHOWN IN ELEVATION ARE ACCORDING TO STRUCTURAL ANALYSIS DONE BY OTHERS AND MAY DIFFER FROM RAD CENTER ON RFDS PROVIDED BY VERIZON.

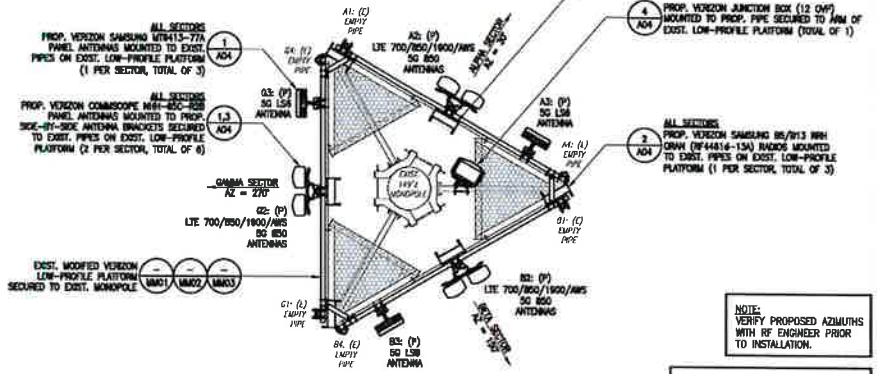
SPECIAL CONSTRUCTION NOTE (SBA-PROVIDED ANTENNA MOUNT STRUCTURAL MOD SPECIAL EQUIPMENT INSTALLATION REQUIREMENTS):
GENERAL CONTRACTOR SHALL FURNISH AND INSTALL ALL ANTENNA MOUNT STRUCTURAL AUGMENTS (STRUCTURAL MODIFICATIONS) AT THE VERIZON RAD/VERTICAL EQUIPMENT SPACE PER RECOMMENDATIONS FROM SBA-PROVIDED ANTENNA MOUNT STRUCTURAL ANALYSIS AND ANY SUPPLEMENTAL CONSTRUCTION DRAWINGS (PROVIDED BY OTHERS).



TOWER ELEVATION
SCALE: 1" = 10'-0"
0 10'-0" 20'-0" 30'-0"



EXISTING ANTENNA PLAN
SCALE: N.T.S.



PROPOSED ANTENNA PLAN
SCALE: N.T.S.

NOTE:
VERIFY PROPOSED AZIMUTHS WITH RF ENGINEER PRIOR TO INSTALLATION.

ANTENNA STATUS LEGEND:
EMPTY – EMPTY PIPE
(E) – EXISTING
(P) – INSTALL
(F) – FUTURE

verizon
20 ALEXANDER DRIVE, 2ND FLOOR
WALLINGFORD, CT 06492
(203) 741-7338

SBA
SBA COMMUNICATIONS CORP.
134 FLANDERS ROAD, SUITE 125
WESTBOROUGH, MA 01581
(508) 251-0720

CHAPPELL ENGINEERING ASSOCIATES, LLC
R.K. EXECUTIVE CENTRE
201 BOSTON POST ROAD WEST, SUITE 101
MARLBOROUGH, MA 01752
(508) 481-7400
www.chappellengineering.com

STATE OF CONNECTICUT
JAMES M. FITZGERALD
No. 25987
LICENSED
PROFESSIONAL CIVIL ENGINEER
3/18/2024

CHECKED BY: JMT
APPROVED BY: JMT

SUBMITTALS

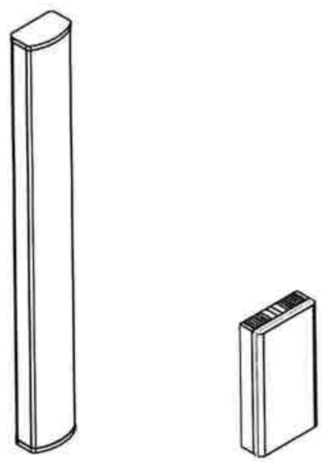
REV	DATE	DESCRIPTION	BY
3	03/18/24	CONSTRUCTION BOARD	CMC
2	02/21/24	ISSUED FOR CONSTRUCTION	CMC
1	02/20/24	ISSUED FOR REVIEW	CMC

PROJECT NAME & ADDRESS
LITCHFIELD SW CT
1291 BANTAM ROAD
BANTAM, CT 06750

VZW LOCATION CODE: 467344
MDG LOCATION ID: [redacted]
FUZE PROJECT ID: 16271989

SHEET TITLE
TOWER ELEVATION & ANTENNA PLANS

SHEET NUMBER
A03



COMMSCOPE NHH-65C-R2B ANTENNA
DIMENSIONS: 96.0"H x 11.9"W x 7.1"D
WEIGHT: 51.8 lbs
QUANTITY: 2 PER SECTOR, TOTAL OF 6
SECTORS: ALPHA, BETA, GAMMA

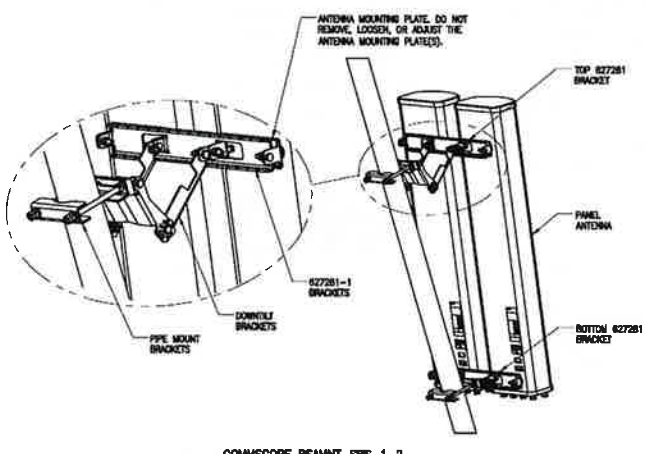
SAMSUNG MT6413-77A ANTENNA
DIMENSIONS: 28.9"H x 15.8"W x 5.5"D
WEIGHT: 57.3 lbs
QUANTITY: 1 PER SECTOR, TOTAL OF 3
SECTORS: ALPHA, BETA, GAMMA

ANTENNA DETAILS (1/A04)
SCALE: N.T.S.

SAMSUNG RF4439d-25A B2/B66A RADIO
DIMENSIONS: 15.0"H x 15.0"W x 10.0"D
WEIGHT: 74.7 lbs
QUANTITY: 1 PER SECTOR, TOTAL OF 3
SECTORS: ALPHA, BETA, GAMMA

SAMSUNG RF4461d-13A B5/B13 RADIO
DIMENSIONS: 15.0"H x 15.0"W x 10.2"D
WEIGHT: 70.1 lbs
QUANTITY: 1 PER SECTOR, TOTAL OF 3
SECTORS: ALPHA, BETA, GAMMA

RADIO DETAILS (2/A04)
SCALE: N.T.S.



COMMSCOPE BSAMNT-SBS-1-2
SIDE-BY-SIDE ANTENNA MOUNT BRACKET
WEIGHT: 25.4 lbs
QUANTITY: 1 PER SECTOR, TOTAL OF 3
NOTE: MOUNT ANTENNA PER MANUFACTURER'S SPECIFICATIONS

TYPICAL SIDE-BY-SIDE ANTENNA MOUNT KIT (3/A04)
SCALE: N.T.S.

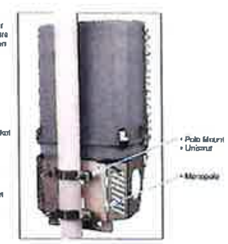
Procedure
Mounting Procedures

4.1 A mounting base is delivered with the unit. The base allows either wall/ladder or pole mounted installation. See picture to identify the holes for each installation method.

4.2 *Option 1: Pole Mount*
Using supplied hardware, mount bracket to 2" to 4" diameter pole.

4.3 *Option 2: Unistrut*

4.4 *Option 3: Monopole*
Use 1" stainless steel bands (not supplied) through slots on bracket to mount to Monopole.



Gland/Insert Definitions

5.1 See picture to identify Base Gland Assembly Definitions.

Assembled in unit as shipped:

Qty	Connector Size	Pos	Insert P/N	Insert Hole	Cable Type
2	M75	A	100-E000	[illegible]	[illegible]
4	M75	B	100-0730	3x 18.5mm	[illegible]

Included in kit shipped with unit:

Qty	Connector Size	Insert P/N	Insert Hole	Cable Type	Purpose	Pos
2	M75	[illegible]	42mm	[illegible]	[illegible]	[illegible]
1	M75	[illegible]	2x 14.5mm	[illegible] DC	[illegible]	[illegible]
1	M75	[illegible]	2x 10.3mm	[illegible]	[illegible]	[illegible]
1	M75	[illegible]	2x 8.3mm	[illegible]	[illegible]	[illegible]

FIBER JUNCTION BOX
DIMENSIONS: 29.88"H x 18.5"W x 12.8"D
WEIGHT: 32.0 lbs
QUANTITY: TOTAL OF 1

TYPICAL FIBER JUNCTION BOX (OVP) DETAILS (4/A04)
SCALE: N.T.S.

verizon
20 ALEXANDER DRIVE, 2ND FLOOR
WALLINGFORD, CT 06492
(203) 741-7338

SBA
SBA COMMUNICATIONS CORP.
134 FLANDERS ROAD, SUITE 125
WESTBOROUGH, MA 01581
(508) 251-0720

CHAPPELL ENGINEERING ASSOCIATES, LLC
R.K. EXECUTIVE CENTRE
201 BOSTON POST ROAD WEST, SUITE 101
MARLBOROUGH, MA 01752
(508) 481-7400
www.chappellengineering.com

STATE OF CONNECTICUT ★ JAMES M. FITZGERALD ★ No. 25697 ★ LICENSED ★ PROFESSIONAL CIVIL ENGINEER
3/18/2024

CHECKED BY: JMT
APPROVED BY: JMT

SUBMITTALS			
REV.	DATE	DESCRIPTION	BY
2	03/18/24	CONSTRUCTION REVISED	CMC
1	08/23/24	ISSUED FOR CONSTRUCTION	CMC
0	05/30/24	ISSUED FOR REVIEW	CMC

PROJECT NAME & ADDRESS
LITCHFIELD SW CT
1291 BANTAM ROAD
BANTAM, CT 06750

VZW LOCATION CODE: 467244
MDG LOCATION ID: [illegible]
FUZE PROJECT ID: 16871969

SHEET TITLE
SITE DETAILS

SHEET NUMBER
A04

EXISTING EQUIPMENT CONFIGURATION

SECTOR	EQUIPMENT MAKE & MODEL	QTY	AZIMUTH (TRUE NORTH)	ANTENNA RAD	BAND	MECHANICAL DOWNTILT	ELECTRICAL DOWNTILT	EQUIPMENT STATUS	H (IN)	W (IN)	D (IN)	WEIGHT (LBS)	HYBRID CABLE SIZE & QTY
ALPHA	ANTEL LPA-80080-6CF PANEL ANTENNA	1	30°	140'± AGL	CDMA 850	-	-	ETRE	70.9	5.5	13.2	21.0	
	AMPHENOL BXA-70063-6CF PANEL ANTENNA	1	30°	140'± AGL	LTE 700	0°	2°	ETRE	71.0	11.3	6.0	17.0	
	ANTEL BXA-171085-12IF PANEL ANTENNA	1	30°	140'± AGL	SPARE	-	-	ETRL	71.7	8.1	4.1	15.0	
	ANTEL LPA-80080-6CF PANEL ANTENNA	1	30°	140'± AGL	CDMA 850	-	-	ETRE	70.9	5.5	13.2	21.0	
BETA	ANTEL LPA-80080-6CF PANEL ANTENNA	1	150°	140'± AGL	CDMA 850	-	-	ETRE	70.9	5.5	13.2	21.0	
	AMPHENOL BXA-70063-6CF PANEL ANTENNA	1	150°	140'± AGL	LTE 700	2°	2°	ETRE	71.0	11.3	6.0	17.0	
	ANTEL BXA-171085-12IF PANEL ANTENNA	1	150°	140'± AGL	SPARE	-	-	ETRE	71.7	8.1	4.1	15.0	(1)ST. (12) 1-5/8" COAXIAL CABLES
	ANTEL LPA-80080-6CF PANEL ANTENNA	1	150°	140'± AGL	CDMA 850	-	-	ETRE	70.9	5.5	13.2	21.0	
GAMMA	ANTEL LPA-80080-6CF PANEL ANTENNA	1	270°	140'± AGL	CDMA 850	-	-	ETRE	70.9	5.5	13.2	21.0	
	AMPHENOL BXA-70063-6CF PANEL ANTENNA	1	270°	140'± AGL	LTE 700	2°	2°	ETRE	71.0	11.3	6.0	17.0	
	ANTEL BXA-171085-12IF PANEL ANTENNA	1	270°	140'± AGL	SPARE	-	-	ETRE	71.7	8.1	4.1	15.0	
	ANTEL LPA-80080-6CF PANEL ANTENNA	1	270°	140'± AGL	CDMA 850	-	-	ETRE	70.9	5.5	13.2	21.0	
ALL	RADIO 4460 B13 4X30 RADIOS	3	-	-	-	-	-	ETRE	21.4	12.0	7.2	51.0	

NOTES:
1. "ETR" DENOTES "EXISTING TO REMAIN".
2. "ETRE" DENOTES "EXISTING TO BE REMOVED".
3. WEIGHTS LISTED ARE WITHOUT MOUNTING BRACKETS.
4. INFORMATION IS BASED ON RFDS DATED 02/22/24.

FINAL EQUIPMENT CONFIGURATION

SECTOR	EQUIPMENT MAKE & MODEL	QTY	AZIMUTH (TRUE NORTH)	ANTENNA RAD	BAND	MECHANICAL DOWNTILT	ELECTRICAL DOWNTILT	EQUIPMENT STATUS	H (IN)	W (IN)	D (IN)	WEIGHT (LBS)	HYBRID CABLE SIZE & QTY
ALPHA	COMMSCOPE NHH-65C-R2B PANEL ANTENNAS	2	30°	140'± AGL	LTE 700/850/1900/AWS 5G 850	2°/2°/2°/2°	2°/2°/3°/3°	NEW	96.0	11.9	7.1	51.6	
	SAMSUNG MT8413-77A PANEL ANTENNA	1	30°	140'± AGL	5G L26	0°	1°	NEW	28.9	15.5	5.5	57.3	
BETA	COMMSCOPE NHH-65C-R2B PANEL ANTENNAS	2	150°	140'± AGL	LTE 700/850/1900/AWS 5G 850	2°/2°/2°/2°	4°/4°/4°/3°	NEW	96.0	11.9	7.1	51.6	
	SAMSUNG MT8413-77A PANEL ANTENNA	1	150°	140'± AGL	5G L26	0°	1°	NEW	28.9	15.5	5.5	57.3	DEST. (11) 1-5/8" COAXIAL CABLES
GAMMA	COMMSCOPE NHH-65C-R2B PANEL ANTENNAS	2	270°	140'± AGL	LTE 700/850/1900/AWS 5G 850	2°/2°/2°/2°	4°/4°/4°/4°	NEW	96.0	11.9	7.1	51.6	PROP. (2) 8x12 HYBRID CABLES
	SAMSUNG MT8413-77A PANEL ANTENNA	1	270°	140'± AGL	5G L26	0°	1°	NEW	28.9	15.5	5.5	57.3	
ALL	SAMSUNG B2/B66A RF4439d-25A RADIOS	3	-	-	-	-	-	NEW	15.0	13.0	10.0	74.7	
	SAMSUNG B5/B13 RF4461d-13A RADIOS	3	-	-	-	-	-	NEW	15.0	13.0	10.2	79.1	
	12 OVP	1	-	-	-	-	-	NEW	29.6	16.5	12.6	32.0	

NOTES:
1. "ETR" DENOTES "EXISTING TO REMAIN".
2. "ETRE" DENOTES "EXISTING TO BE REMOVED".
3. WEIGHTS LISTED ARE WITHOUT MOUNTING BRACKETS.
4. INFORMATION IS BASED ON RFDS DATED 02/22/24.

FEEDLINE SCHEDULE

SCHEDULE	FEEDLINES	LOCATION
A	EXISTING TO REMAIN: (1) 3/8" COAX CABLE FOR GPS ANTENNA (11) 1-5/8" COAXIAL CABLES	ROUTED PER STRUCTURAL ANALYSIS
	EXISTING TO BE REMOVED: (1) 1-5/8" COAXIAL CABLE	
B	PROPOSED: (2) 8x12 HYBRID CABLES	

NOTE:
EXISTING VERIZON EQUIPMENT FEEDLINE INVENTORY BASED ON OBSERVED FIELD CONDITIONS, RFDS AND FEEDLINE LEASING ENTITLEMENTS MAY DIFFER.

verizon
20 ALEXANDER DRIVE, 2ND FLOOR
WALLINGFORD, CT 06492
(203) 741-7338

SBA
SBA COMMUNICATIONS CORP.
134 FLANDERS ROAD, SUITE 125
WESTBOROUGH, MA 01581
(508) 251-0720

CHAPPELL ENGINEERING ASSOCIATES, LLC
R.K. EXECUTIVE CENTRE
201 BOSTON POST ROAD WEST, SUITE 101
MARLBOROUGH, MA 01752
(508) 481-7400
www.chappellengineering.com

STATE OF CONNECTICUT
JAMES M. FITZGERALD
No. 25987
LICENSED
PROFESSIONAL ENGINEER
4/19/2024

CHECKED BY: JMF
APPROVED BY: JMF

SUBMITTALS

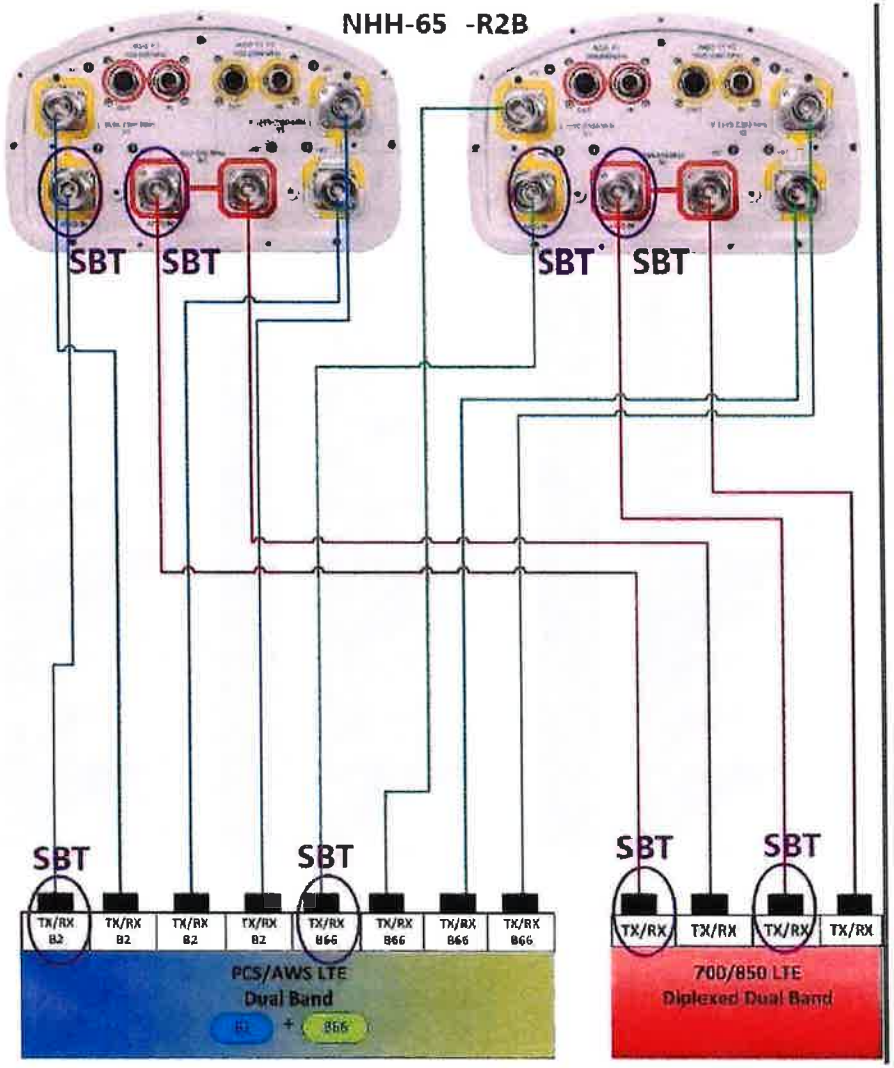
REV.	DATE	DESCRIPTION	BY
2	03/14/24	CONSTRUCTION ISSUED	CMC
1	02/23/24	ISSUED FOR CONSTRUCTION	CMC
0	02/22/24	ISSUED FOR REVIEW	CMC

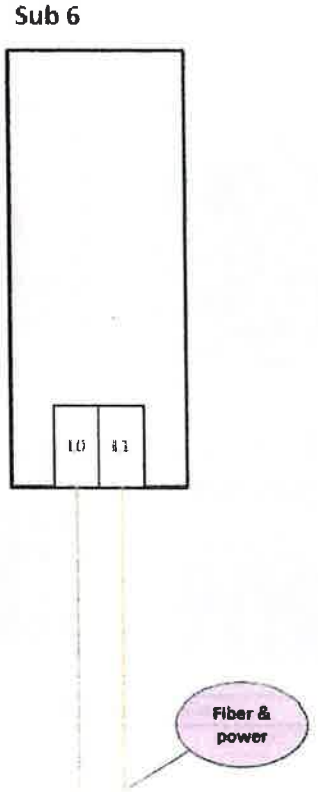
PROJECT NAME & ADDRESS
LITCHFIELD SW CT
1291 BANTAM ROAD
BANTAM, CT 06750

VZW LOCATION CODE: 482344
MDG LOCATION ID: [redacted]
FUZE PROJECT ID: 16571988

SHEET TITLE
RF DATA

SHEET NUMBER
RF01





RF PLUMBING DIAGRAM
SCALE: N.T.S.

verizon

20 ALEXANDER DRIVE, 2ND FLOOR
WALLINGFORD, CT 06492
(203) 741-7328

SBA

SBA COMMUNICATIONS CORP.
134 FLANDERS ROAD, SUITE 125
WESTBOROUGH, MA 01581
(508) 251-0720

CHAPPELL ENGINEERING ASSOCIATES, LLC

R.K. EXECUTIVE CENTRE
201 BOSTON POST ROAD WEST, SUITE 101
MARLBOROUGH, MA 01752
(508) 481-7400

STATE OF CONNECTICUT
JAMES M. FITZGERALD
No. 25987
LICENSED
PROFESSIONAL CIVIL ENGINEER
3/18/2024

CHECKED BY: JMT
APPROVED BY: JMT

SUBMITTALS

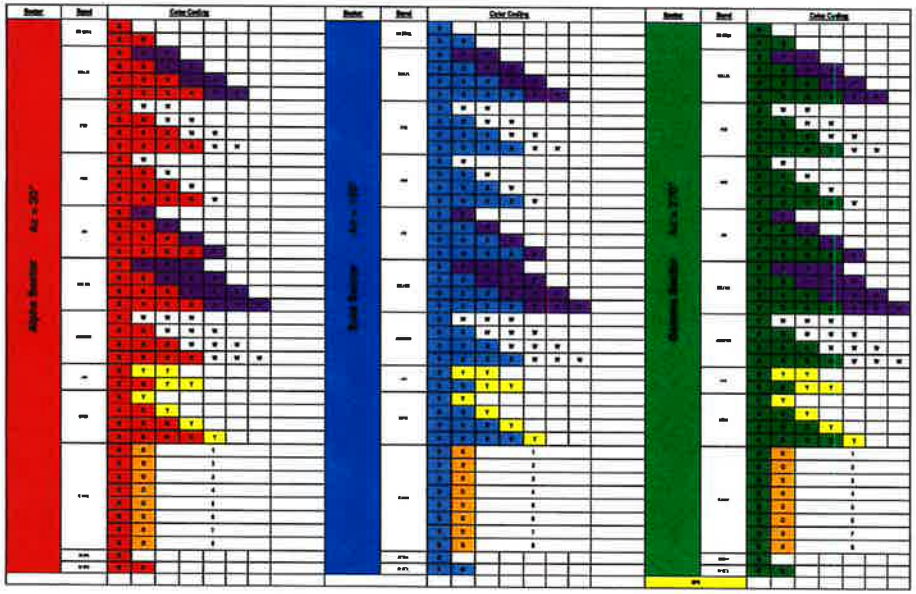
REV.	DATE	DESCRIPTION	BY
2	03/18/24	CONSTRUCTION ISSUED	CMC
1	02/27/24	ISSUED FOR CONSTRUCTION	CMC
0	02/09/24	ISSUED FOR REVIEW	CMC

PROJECT NAME & ADDRESS
LITCHFIELD SW CT
1291 BANTAM ROAD
BANTAM, CT 06750

VZW LOCATION CODE: 467944
MDG LOCATION ID:
FUZE PROJECT ID:

SHEET TITLE
RF PLUMBING DIAGRAM

SHEET NUMBER
RF02



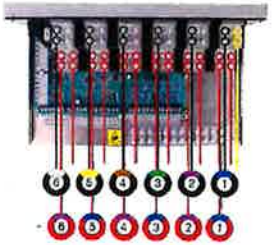
CABLE NOTE:
SEE FEEDLINE SCHEDULE A & B ON SHEET RF01
FOR EXISTING & PROPOSED CABLE QUANTITIES.

LINE COLOR CODE SPECIFICATIONS (1 / RF03)
SCALE: N.T.S.

Hybrid Cable on Towers

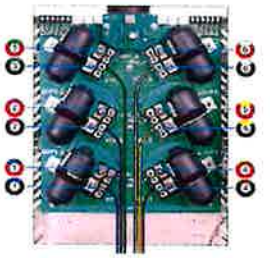
Hybrid Cable 1

Sector	Identification Color	-48V	RTN
700 Alpha	Blue		
AWS Alpha	Violet		
PCS Alpha	Green		
850 Alpha	Brown		
Spare	Yellow		
Spare	White		



Hybrid Cable 2

Sector	Identification Color	-48V	RTN
700 Beta	Blue		
AWS Beta	Violet		
PCS Beta	Green		
850 Beta	Brown		
Spare	Yellow		
Spare	White		



HYBRID CABLE COLOR CODE SPECIFICATIONS (2 / RF03)
SCALE: N.T.S.

verizon
20 ALEXANDER DRIVE, 2ND FLOOR
WALLINGFORD, CT 06492
(203) 741-7338

SBA
SBA COMMUNICATIONS CORP.
134 FLANDERS ROAD, SUITE 125
WESTBOROUGH, MA 01581
(508) 251-0720

CHAPPELL ENGINEERING ASSOCIATES, LLC
R.K. EXECUTIVE CENTRE
201 BOSTON POST ROAD WEST, SUITE 101
MARLBOROUGH, MA 01752
(508) 481-7400
www.chappellengineering.com

STATE OF CONNECTICUT
JAMES M. FITZGERALD
No. 25987
LICENSED
PROFESSIONAL CIVIL ENGINEER
3/19/2024

CHECKED BY: JMT
APPROVED BY: JMT

SUBMITTALS

REV.	DATE	DESCRIPTION	BY
2	03/19/24	CONSTRUCTION ISSUED	CMC
1	02/23/24	ISSUED FOR CONSTRUCTION	CMC
0	02/09/24	ISSUED FOR REVIEW	CMC

PROJECT NAME & ADDRESS
LITCHFIELD SW CT
1291 BANTAM ROAD
BANTAM, CT 06750

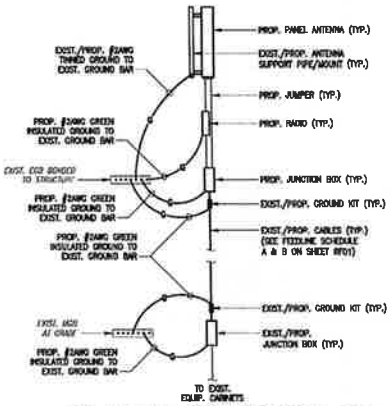
VZW LOCATION CODE: 467344
MDG LOCATION ID: [redacted]
FUZE PROJECT ID: 16571988

SHEET TITLE
RF COLOR CODE SPECIFICATIONS

SHEET NUMBER
RF03

GROUNDING GENERAL NOTES

1. ALL EXTERIOR CONDUCTORS SHALL BE #2 AWG, SOLID, BARE, TINNED COPPER, UNLESS OTHERWISE NOTED. MINIMUM BEND RADIUS SHALL BE EIGHT (8) INCHES.
2. ALL WIRE-TO-WIRE CONNECTIONS SHALL BE THREE-CLAMP, C TAP COMPRESSION (TAP #64740 ORANGE OR EQUIVALENT). ALL GROUND BAR CONNECTIONS SHALL BE TWO-HOLE, LONG-BARREL TYPE COMPRESSION LUGS (TAP OR EQUIVALENT). ALL OTHER CONNECTIONS TO STEEL SURFACES SHALL USE LUG-TYPE CONNECTORS.
3. MECHANICALLY BOND ANTENNA MOUNTS WITH #2 AWG, BARE, STRANDED CONDUCTORS.
4. ALL GROUNDING WORK SHALL COMPLY WITH VERIZON WIRELESS STANDARDS.
5. CONNECT GROUND CONDUCTOR TO EXISTING GROUNDING SYSTEM. ATTACH TO WALLS, PARAPET, CABLE TRAY, ETC. WITH A CLAMPS AS NECESSARY. REMOVE PAINT, FIREPROOFING, MILL SCALE, ETC. TO ACHIEVE GOOD CAD WELD GROUND CONNECTION.
6. CONNECT TO HALO GROUND USING C-TAP (#64730).
7. CONNECT TO ENCLOSURES USING BLUE GROUND LUGS.
8. COMPRESSION GROUND CONNECTIONS MAY BE REPLACED BY EXOTHERMIC (CADWELD) CONNECTIONS.
9. ALL GROUND CONNECTIONS BELOW GRADE SHALL BE EXOTHERMIC (CADWELD).
10. ALL GROUND CONNECTIONS ABOVE GRADE (INTERIOR & EXTERIOR) SHALL BE FORMED USING HIGH PRESS CRIMPS.
11. ALL EXOTHERMIC CONNECTIONS TO THE GROUND RODS SHALL START AT THE TOP & HAVE A VERTICAL SEPARATION OF 6" FOR EVERY ADDITIONAL CONNECTION.
12. ALL EXTERIOR GROUND CONNECTIONS SHALL BE COATED WITH A CORROSION RESISTANT MATERIAL.
13. USE OF 90° BENDS IN THE PROTECTION GROUNDING CONDUCTORS SHALL BE AVOIDED WHEN 45° BENDS CAN BE ADEQUATELY SUPPORTED.
14. MAXIMUM RESISTANCE OF THE COMPLETED GROUND SYSTEM SHALL NOT EXCEED 5 OHMS. TESTING SHALL BE PERFORMED IN ACCORDANCE WITH PROJECT SPECIFICATION FOR FACILITY GROUNDING, USING FALL OF POTENTIAL METHOD.
15. ANTENNA GROUND KITS SHALL BE FURNISHED BY VERIZON & INSTALLED BY CONTRACTOR.



TYP. ANTENNA GROUNDING RISER

SCALE: N.T.S. — 1 / E01

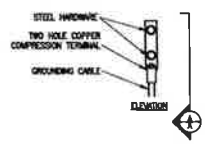
LEGEND

GROUNDING SYMBOLS

- ⊠ GROUND ROD/TEST (OBSERVATION) WELL
- ⊗ GROUND ROD
- ▲ CADWELD TYPE CONNECTION
- ● COMPRESSION TYPE CONNECTION
- ----- GROUNDING WIRE
- (1/E01) REPRESENTS DETAIL NUMBER

ABBREVIATIONS

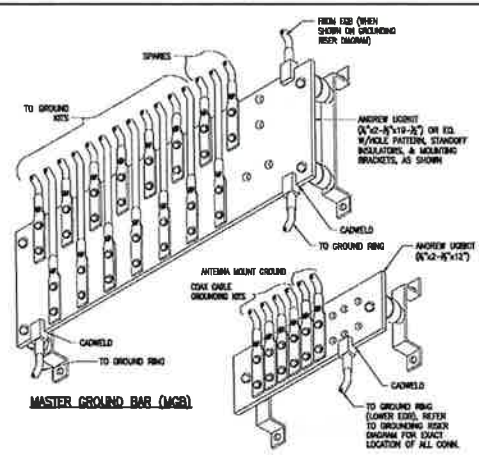
AWG	AMERICAN WIRE GAUGE
BCW	BARE COPPER WIRE
GPS	GLOBAL POSITIONING SYSTEM
PCS	PERSONAL COMMUNICATION SYSTEM
RWY	RACEWAY
TYP.	TYPICAL
RGS	RIGID GALVANIZED STEEL
EMT	ELECTRICAL METALLIC TUBING
DWG	DRAWING
EMT	INTERIOR GROUND RING (HALO)
GEN	GENERATOR
GR	GROWTH
CCBE	COAX GROUND BAR EXTERNAL
CIGBE	COAX ISOLATED GROUND BAR EXTERNAL
MGB	MASTER GROUND BAR
PVC	RIGID (SCH. 40) POLYVINYL CHLORIDE CONDUIT
EBH	ETHERNET BACK HAUL



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

TYP. GROUND BAR CONNECTION

SCALE: N.T.S. — 2 / E01

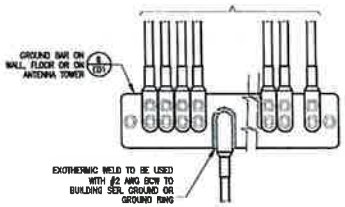


MASTER GROUND BAR (MGB)

EQUIPMENT GROUND BAR (EGB)

GROUND BAR DETAILS

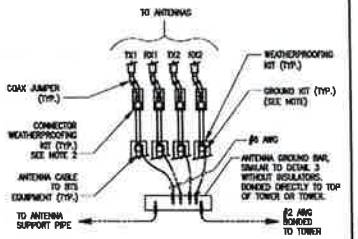
SCALE: N.T.S. — 6 / E01



NOTE:
GROUND BARS AT THE BOTTOM OF TOWER SHALL ONLY USE EXOTHERMIC WELDS.

INSTALLATION OF GROUND WIRE TO GROUND BAR

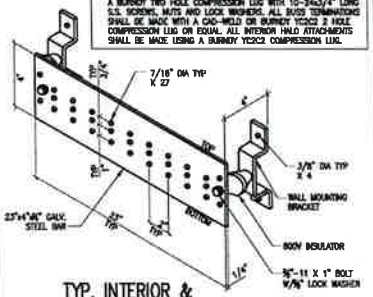
SCALE: N.T.S. — 3 / E01



CONN. OF GROUND WIRE TO GROUND BAR (TOWER)

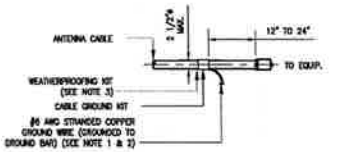
SCALE: N.T.S. — 4 / E01

NOTES:
1. SURFACE PREPERATION: ALL CONNECTIONS MADE TO BARE METAL. ALL PAINTED SURFACES SHALL BE MADE BARE TO ENSURE PROPER CONTACT. NO WASHERS SHALL BE ALLOWED BETWEEN THE ITEMS BEING GROUNDED. ALL CONNECTIONS SHALL HAVE AN ANTI-OXIDANT AGENT APPLIED PRIOR TO INSTALLATION.
2. BUSS PREPERATION: ALL GALV. STEEL BUSSES SHALL BE CLEANED, POLISHED AND AN ANTI-OXIDANT APPLIED. NO FINISHPAINTS OR DISCOLORED STEEL WILL BE PERMITTED.
3. TERMINATIONS: ALL EQUIPMENT TERMINATIONS SHALL BE MADE WITH A BURNDY TWO HOLE COMPRESSION LUG WITH 10-24x3/4" LONG S.S. SCREWS, NUTS AND LOCK WASHERS. ALL BUSS TERMINATIONS SHALL BE MADE WITH A CAD-WELD OR BURNDY YC2C2 2 HOLE COMPRESSION LUG OR EQUAL. ALL INTERIOR HALO ATTACHMENTS SHALL BE MADE USING A BURNDY YC2C2 COMPRESSION LUG.



TYP. INTERIOR & EXTERIOR GROUND BAR

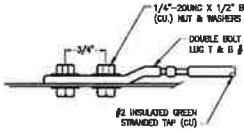
SCALE: N.T.S. — 5 / E01



NOTES:
1. DO NOT INSTALL CABLE GROUND KIT AT A BEND & ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.
2. GROUNDING KIT SHALL BE TYPE & PART NUMBER AS SUPPLIED OR RECOMMENDED BY CABLE MANUFACTURER.
3. WEATHER PROOFING SHALL BE TWO-PART TAPE SUPPLIED WITH KIT. COLD SHRINK SHALL NOT BE USED.

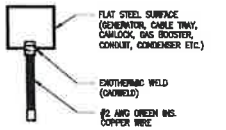
CONN. OF CABLE GROUND KIT TO ANTENNA CABLE

SCALE: N.T.S. — 7 / E01



TYP. EQUIPMENT GROUND CONNECTION

SCALE: N.T.S. — 8 / E01



TYP. CADWELD #2 GREEN TO FLAT STEEL SURFACE

SCALE: N.T.S. — 9 / E01

verizon
20 ALEXANDER DRIVE, 2ND FLOOR
WALLINGFORD, CT 06492
(203) 741-7338

SBA
SBA COMMUNICATIONS CORP.
134 FLANDERS ROAD, SUITE 125
WESTBOROUGH, MA 01581
(508) 251-0720

CHAPPELL ENGINEERING ASSOCIATES, LLC
R.K. EXECUTIVE CENTRE
201 BOSTON POST ROAD WEST, SUITE 101
MARLBOROUGH, MA 01752
(508) 481-7400
www.chappellengineering.com

STATE OF CONNECTICUT
JAMES M. FITZGERALD
No. 25987
LICENSED PROFESSIONAL CIVIL ENGINEER
3/19/2024

DESIGNED BY:	JMT
APPROVED BY:	JMT

SUBMITTALS

REV.	DATE	DESCRIPTION	BY
3	03/19/24	CONSTRUCTION ISSUED	CMC
2	02/07/24	ISSUED FOR CONSTRUCTION	CMC
1	01/29/24	ISSUED FOR REVIEW	CMC
0	01/26/24	ISSUED FOR REVIEW	CMC

PROJECT NAME & ADDRESS
LITCHFIELD SW CT
1291 BANTAM ROAD
BANTAM, CT 06750

VZW LOCATION CODE:	467344
MDG LOCATION ID:	[illegible]
FUZE PROJECT ID:	14271988

SHEET TITLE
GROUNDING NOTES & DETAILS

SHEET NUMBER
E01

verizon

MOUNT MODIFICATION DRAWINGS
EXISTING 12.50' PLATFORM

TOWER OWNER: SBA COMMUNICATIONS CORPORATION
TOWER OWNER SITE NUMBER: CT12215

CARRIER SITE NAME: LITCHFIELD SW CT
CARRIER SITE NUMBER: 5000248162
FUZE ID: 16271969

1291 BANTAM RD
BANTAM, CT 06750
LITCHFIELD COUNTY

LATITUDE: 41.717319° N
LONGITUDE: 73.260969° W

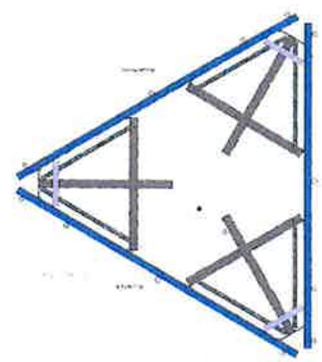
DESIGN CRITERIA

PROJECT INFORMATION

SHEET INDEX

BILL OF MATERIALS

VZW SMART KIT: APPROVED VENDORS



CLIMBING FACILITY LOCATION

PROPOSED WIRE ROPE GUIDE ATTACHMENT - PLAN VIEW

CLIMBING FACILITY PHOTO

verizon

20 ALEXANDER DRIVE, 2ND FLOOR
WALLINGFORD, CT 06492
(203) 791-7336

SBA

SBA COMMUNICATIONS CORP.
134 FLANDERS ROAD, SUITE 125
WESTBOROUGH, MA 01581
(508) 251-0720

CHAPPELL ENGINEERING ASSOCIATES, LLC

R.K. EXECUTIVE CENTRE
201 BOSTON POST ROAD WEST, SUITE 101
MARLBOROUGH, MA 01752
(508) 481-7400
www.chappellengineering.com

STATE OF CONNECTICUT ★ JAMES M. FITZGERALD ★ No. 25987 LICENSED PROFESSIONAL CIVIL ENGINEER
3/18/2024

CHECKED BY: JMT

APPROVED BY: JMT

SUBMITTALS

REV.	DATE	DESCRIPTION	BY
2	03/18/24	CONSTRUCTION REVISED	CAC
1	02/23/24	ISSUED FOR CONSTRUCTION	CAC
0	02/20/24	ISSUED FOR REVIEW	CAC

PROJECT NAME & ADDRESS

LITCHFIELD SW CT

1291 BANTAM ROAD
BANTAM, CT 06750

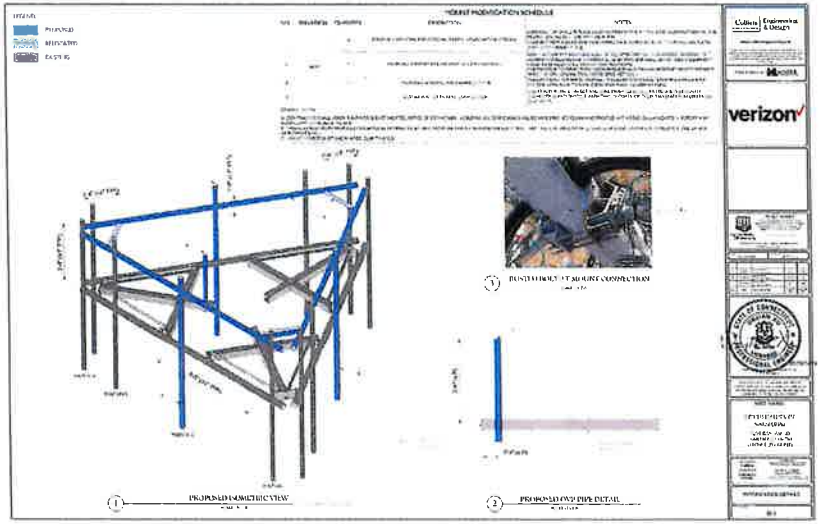
VZW LOCATION CODE: [illegible]
MDG LOCATION ID: [illegible]
FUZE PROJECT ID: 16271969

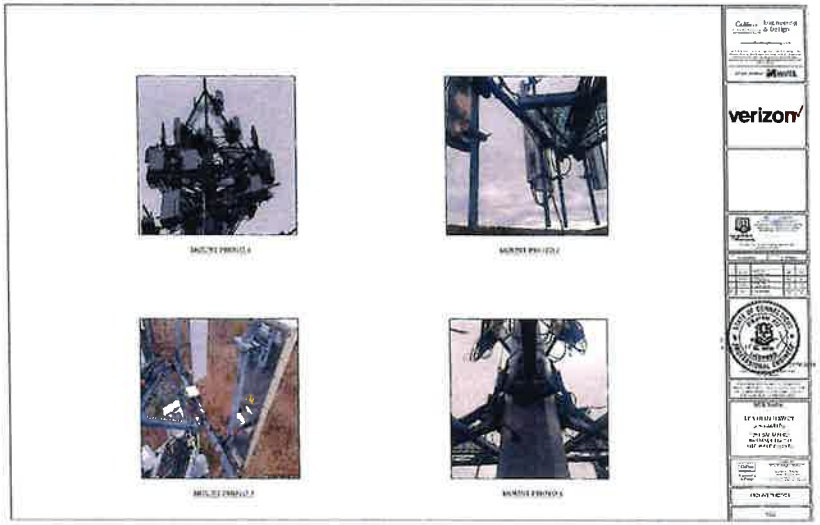
SHEET TITLE

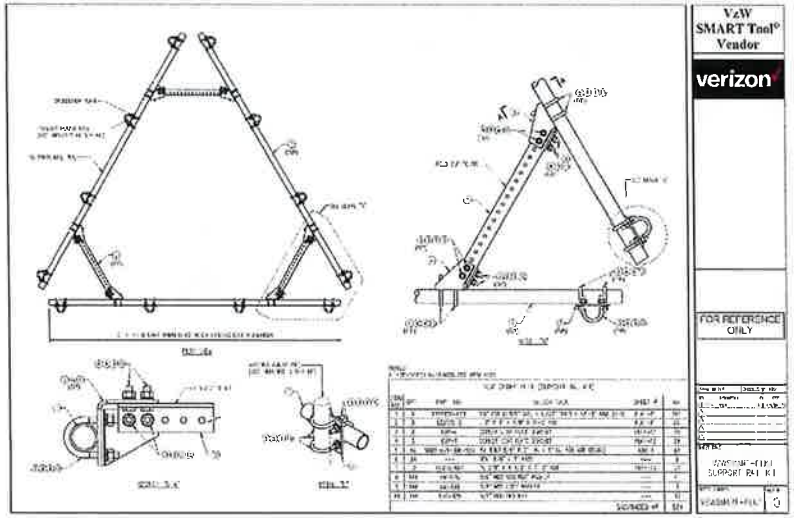
MOUNT MODIFICATION DRAWINGS I

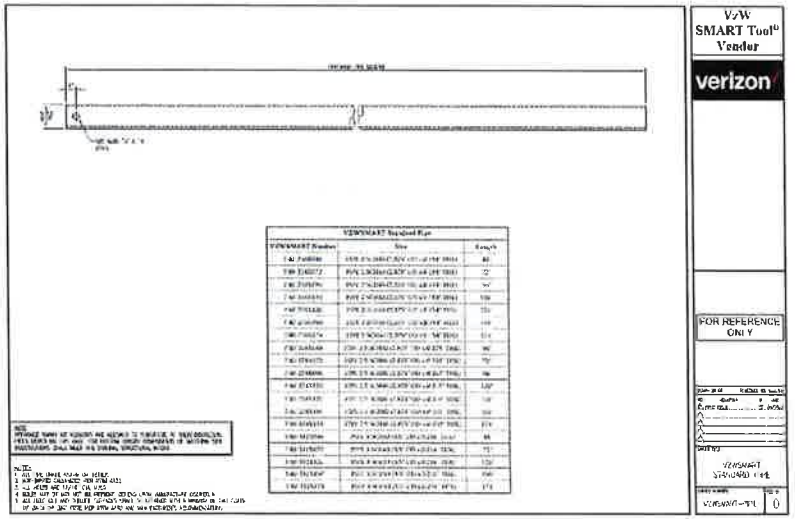
SHEET NUMBER

MM01









verizon

20 ALEXANDER DRIVE, 2ND FLOOR
WALLINGFORD, CT 06492
(203) 741-7338

SBA

SBA COMMUNICATIONS CORP.
134 FLANDERS ROAD, SUITE 125
WESTBOROUGH, MA 01581
(508) 251-0720

CHAPPELL ENGINEERING ASSOCIATES, LLC

R.K. EXECUTIVE CENTRE
201 BOSTON POST ROAD WEST, SUITE 101
MARLBOROUGH, MA 01752
(508) 481-7400
www.chappellengineering.com

STATE OF CONNECTICUT
JAMES M. FITZGERALD
No. 25987
LICENSED
PROFESSIONAL CIVIL ENGINEER
3/19/2024

CHECKED BY: JMT

APPROVED BY: JMT

SUBMITTALS

REV.	DATE	DESCRIPTION	BY
2	03/19/24	CONSTRUCTION BOARD	CMC
1	02/23/24	ISSUED FOR CONSTRUCTION	CMC
0	02/20/24	ISSUED FOR REVIEW	CMC

PROJECT NAME & ADDRESS

LITCHFIELD SW CT

1291 BANTAM ROAD
BANTAM, CT 06750

VZW LOCATION CODE: 467944

MDG LOCATION ID: [redacted]

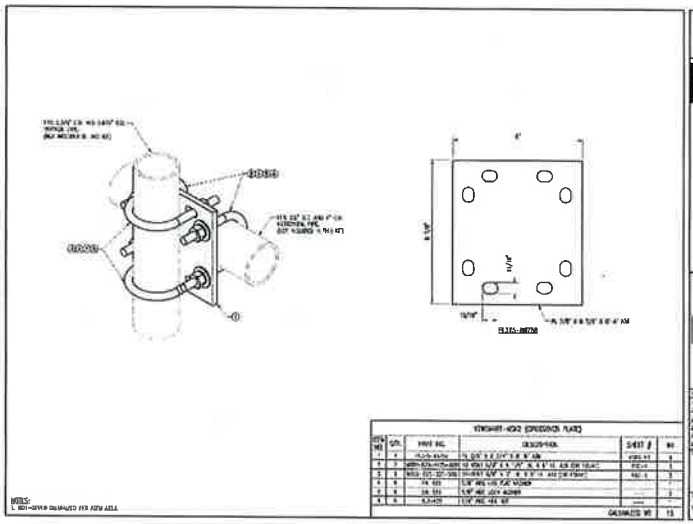
FUZE PROJECT ID: 14271988

SHEET TITLE

MOUNT MODIFICATION DRAWINGS II

SHEET NUMBER

MM02



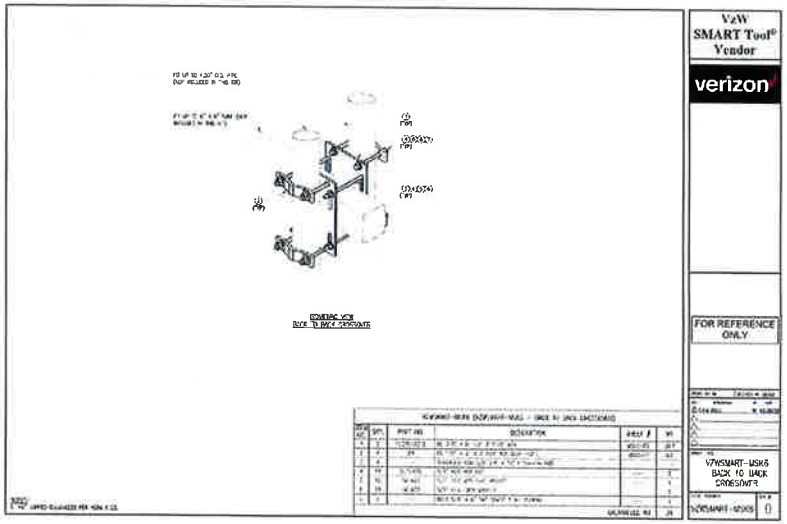
VzW SMART Tool® Vendor

verizon

FOR REFERENCE ONLY

VZWSMART-MSK2 CROSSOVER PLATE

VZWSMART-MSK2 | 0



VzW SMART Tool® Vendor

verizon

FOR REFERENCE ONLY

VZWSMART-MSK2 BACK TO BACK CROSSOVER

VZWSMART-MSK2 | 0

verizon

20 ALEXANDER DRIVE, 2ND FLOOR
WALLINGFORD, CT 06492
(203) 741-7338

SBA

SBA COMMUNICATIONS CORP.
134 FLANDERS ROAD, SUITE 125
WESTBOROUGH, MA 01581
(508) 251-0720

CHAPPELL ENGINEERING ASSOCIATES, LLC

R.K. EXECUTIVE CENTRE
201 BOSTON POST ROAD WEST, SUITE 101
MARLBOROUGH, MA 01752
(508) 481-7400
www.chappellengineering.com

STATE OF CONNECTICUT
JAMES M. FITZGERALD
No. 25987
LICENSED
PROFESSIONAL CIVIL ENGINEER

CHECKED BY: JMT

APPROVED BY: JMT

SUBMITTALS

REV.	DATE	DESCRIPTION	BY
2	03/18/24	CONSTRUCTION ISSUED	CMC
1	03/01/24	ISSUED FOR CONSTRUCTION	CMC
0	02/26/24	ISSUED FOR REVIEW	CMC

PROJECT NAME & ADDRESS

LITCHFIELD SW CT

1291 BANTAM ROAD
BANTAM, CT 06750

VZW LOCATION CODE:	457244
MDG LOCATION ID:	10058102
FUZE PROJECT ID:	14071988

SHEET TITLE

MOUNT MODIFICATION DRAWINGS III

SHEET NUMBER

MM03

NHH-65C-R2B

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

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

General Specifications

Antenna Type	Sector
Band	Multiband
Color	Light Gray (RAL 7035)
Grounding Type	RF connector body grounded to reflector and mounting bracket
Performance Note	Outdoor usage | Wind loading figures are validated by wind tunnel measurements described in white paper WP-112534-EN
Radome Material	Fiberglass, UV resistant
Radiator Material	Copper | Low loss circuit board
Reflector Material	Aluminum
RF Connector Interface	4.3-10 Female
RF Connector Location	Bottom
RF Connector Quantity, high band	4
RF Connector Quantity, low band	2
RF Connector Quantity, total	6

Remote Electrical Tilt (RET) Information

RET Interface	8-pin DIN Female | 8-pin DIN Male
RET Interface, quantity	2 female | 2 male
Input Voltage	10–30 Vdc
Internal Bias Tee	Port 1 | Port 3
Internal RET	High band (1) | Low band (1)
Power Consumption, idle state, maximum	2 W
Power Consumption, normal conditions, maximum	13 W

NHH-65C-R2B

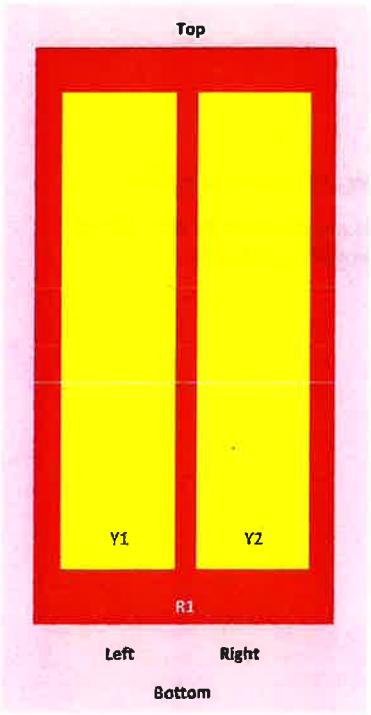
Protocol	3GPP/AISG 2.0 (Single RET)

Dimensions

Width	301 mm | 11.85 in
Depth	180 mm | 7.087 in
Length	2438 mm | 95.984 in
Net Weight, without mounting kit	23.4 kg | 51.588 lb

Array Layout

NHH



Array	Freq (MHz)	Conn	RET (SRET)	AISG RET UID
R1	698-896	1-2	1	ANxxxxxxxxxxxxxx1
Y1	1695-2360	3-4	2	ANxxxxxxxxxxxxxx2
Y2	1695-2360	5-6		

View from the front of the antenna

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

Logo Image

NHH-65C-R2B

Electrical Specifications

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

Electrical Specifications

Frequency Band, MHz	**698–806**	**806–896**	**1695–1880**	**1850–1990**	**1920–2200**	**2300–2360**
Gain, dBi	16	16.1	17.3	17.7	18.3	18.2
Beamwidth, Horizontal, degrees	65	62	74	66	62	59
Beamwidth, Vertical, degrees	9	7.9	5.6	5.2	4.9	4.5
Beam Tilt, degrees	0–11	0–11	0–7	0–7	0–7	0–7
USLS (First Lobe), dB	21	18	19	20	22	18
Front-to-Back Ratio at 180°, dB	35	31	33	29	29	30
Isolation, Cross Polarization, dB	25	25	25	25	25	25
Isolation, Inter-band, dB	30	30	30	30	30	30
VSWR | Return loss, dB	1.5 | 14.0	1.5 | 14.0	1.5 | 14.0	1.5 | 14.0	1.5 | 14.0	1.5 | 14.0
PIM, 3rd Order, 2 x 20 W, dBc	-153	-153	-153	-153	-153	-153
Input Power per Port, maximum, watts	400	400	350	350	350	300

Electrical Specifications, BASTA

Frequency Band, MHz	**698–806**	**806–896**	**1695–1880**	**1850–1990**	**1920–2200**	**2300–2360**

NHH-65C-R2B

Gain by all Beam Tilts, average, dBi	15.8	15.9	16.9	17.5	18	17.9
Gain by all Beam Tilts Tolerance, dB	±0.4	±0.4	±0.4	±0.3	±0.6	±0.4
Gain by Beam Tilt, average, dBi	0 ° | 15.9 5 ° | 15.9 11 ° | 15.5	0 ° | 15.8 5 ° | 16.0 11 ° | 15.7	0 ° | 16.9 4 ° | 17.0 7 ° | 16.9	0 ° | 17.4 4 ° | 17.5 7 ° | 17.4	0 ° | 17.9 4 ° | 18.0 7 ° | 18.0	0 ° | 17.8 4 ° | 17.9 7 ° | 17.9
Beamwidth, Horizontal Tolerance, degrees	±1.2	±1.6	±5.3	±3.4	±6	±3.1
Beamwidth, Vertical Tolerance, degrees	±0.6	±0.4	±0.3	±0.2	±0.2	±0.2
USLS, beampeak to 20° above beampeak, dB	15	14	17	16	17	15
Front-to-Back Total Power at 180° ± 30°, dB	25.6	23.8	28	25	25	24
CPR at Boresight, dB	18	26	20	25	20	17
CPR at Sector, dB	15	9	11	10	8	2

Mechanical Specifications

Effective Projective Area (EPA), frontal	0.37 m² | 3.983 ft²
Effective Projective Area (EPA), lateral	0.31 m² | 3.337 ft²
Mechanical Tilt Range	0°–12°
Wind Loading @ Velocity, frontal	393.0 N @ 150 km/h (88.3 lbf @ 150 km/h)
Wind Loading @ Velocity, lateral	330.0 N @ 150 km/h (74.2 lbf @ 150 km/h)
Wind Loading @ Velocity, maximum	757.0 N @ 150 km/h (170.2 lbf @ 150 km/h)
Wind Loading @ Velocity, rear	398.0 N @ 150 km/h (89.5 lbf @ 150 km/h)
Wind Speed, maximum	241 km/h (150 mph)

Packaging and Weights

Width, packed	380 mm | 14.961 in
Depth, packed	295 mm | 11.614 in
Length, packed	2571 mm | 101.221 in
Weight, gross	35.9 kg | 79.146 lb

Regulatory Compliance/Certifications

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

NHH-65C-R2B

ROHS	Compliant/Exempted
UK-ROHS	Compliant/Exempted

Included Products

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

* Footnotes

Performance Note	Severe environmental conditions may degrade optimum performance

C-band 64T64R

SAMSUNG

Gen 2

Gen 2 : Higher conducted power radio with reduced size/volume/weight vs Gen 1 and also SOC embedded for flexibility to support new features

※ Preliminary Design: External appearance and mechanical design can be subject to change

Gen 2. 64T64R C-band MMU Dimensions	
Size (WxHxD)	400 x 734 x 140 mm (15.75 x 28.90 x 5.51 inch)
Weight	26kg (57.3 lb)

Item	Gen 2 64T64R (MT6413-77A)
Air Technology	NR n77/TDD
Frequency	3700 – 3980 MHz
IBW	200 MHz
OBW	200 MHz
Carrier Bandwidth	20(HW ready)/40/60/80/100 MHz
# of Carriers	2 carriers
Layer	DL : 16L, UL : 16RX (8L)
RF Chain	64T64R
Antenna Configuration	4V16H with 192 AE
EIRP	80.5 dBm @320W (55 dBm + 25.5 dBi)
Conductive Power	320W
Spectrum Analyzer	TX/RX support
RX Sensitivity	Typical -97.8dBm @(1Rx, 18.36MHz with 30kHz,51RBs)
Modulation	DL 256QAM support, (DL 1024QAM with 1~2dB power back-off)
Function Split	DL/UL option 7-2x
Input Power	-48 VDC (-38 VDC to -57 VDC)
Power Consumption	1,287W (100% load, room temp.)
Size (WHD)	**400 x 734 x 140 mm (15.75 x 28.90 x 5.51 inch)**
Volume	**41.1L**
Weight	**26kg (57.3 lb)**
Operating Temperature	-40°C - 55°C (w/o solar load)
Cooling	Natural convection
Unwanted Emission	3GPP 38.104 FCC 47 CFR 27.53 : < -13dBm/MHz < -40 dBm/MHz @ above 4 GHz <-50 dBm /MHz @ 4,040 ~ 4,050 MHz, <-60 dBm /MHz @ above 4,050 MHz
Optic Interface	15km, 4 ports (25Gbps x 4), SFP28, single mode, Bi-di (Option: Duplex)
Mounting Options	Pole, wall
NB-IoT	Not support
External Alarm	4RX
Fronthaul Interface	eCPRI

700/850 4T4R Macro 320W ORU - New Filter (RF4461d-13A)

SAMSUNG

Specifications

Item	Specification	
Air Interface	LTE, NR(HW resource ready)	
Band	Band13 (700MHz)	Band5 (850MHz)
Frequency	DL: 746~756MHz	DL: 869~894MHz
	UL: 777~787MHz	UL: 824~849MHz
IBW	10MHz	25MHz
OBW	10MHz	25MHz
Carrier Bandwidth	LTE/NR 5*/10MHz	LTE 5/10MHz NR 5/10/15/20MHz
# of carriers	2C*	3C
Total # of carriers	4C + B13 (SDL) 1C	
RF Chain	4T4R/2T4R/2T2R/1T2R 2T2R+2T2R bi-sector	
RF Output Power	Total : 320W	
	4 x 40W or 2 x 60W	4 x 40W or 2 x 60W
Spectrum Analyzer	TX/RX Support	
RX Sensitivity	Typ. -104.5dBm @1Rx (25RBs 5MHz)	
Modulation	256QAM support, (1024QAM with 1~2dB power back-off)	
Input Power	-48VDC (-38VDC to -57VDC)	
Power Consumption	1,165 Watt @ 100% RF load, room temperature	
Size (WHD)	380 x 380 x 260 mm (14.96 x 14.96 x 10.23 inch)	
Volume	37.5 L	
Weight (W/o Solar Shield & finger guard)	35.9 kg (79.1 lb)	
Operating Temperature	-40℃ (-40°F) ~ 55℃ (131°F) (Without solar load)	
Cooling	Natural convection	
Unwanted Emission	3GPP 36.104	3GPP 36.104
	FCC 47 CFR 27.53 c), f)	FCC 47 CFR 22.917
	-	-69 dBm/100 kHz per path @ 896 ~901MHz
CPRI Cascade	Not supported	
Optic Interface	20km, 2 ports (9.8Gbps x 2), SFP+, single mode, Duplex (Option: Bi-di)	
RET & TMA Interface	AISG 3.0	
Bias-T	4 ports (2 ports per band)	
Mounting Options	Pole, wall	
NB-IoT	2GB+2IB or 4IB	2SA+2GB or 2GB+2IE or 4GB
PIM Cancellation	Support	
# of antenna port	4	
External Alarm	4	
Fronthaul Interface	Opt. 8 CPRI / Opt. 7-2x selectable (not simultaneous support)	
CPRI compression	Not Support	

* 5MHz supporting in B13(700MHz) depends on 3GPP std. and UE capability.
External filters in interferer and victim sides for Mexican boarder to support 5MHz service need to be considered
** Finger guard is not needed.

SAMSUNG

AWS/PCS MACRO RADIO

DUAL-BAND AND HIGH POWER FOR MACRO COVERAGE

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

Model Code RF4439d-25A

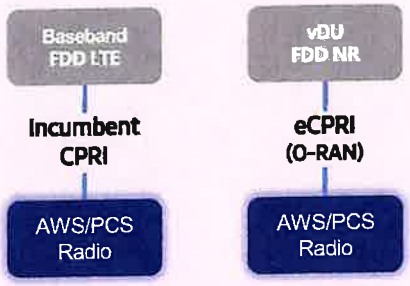
Homepage
samsungnetworks.com

Youtube
www.youtube.com/samsung5g

Points of Differentiation

Continuous Migration

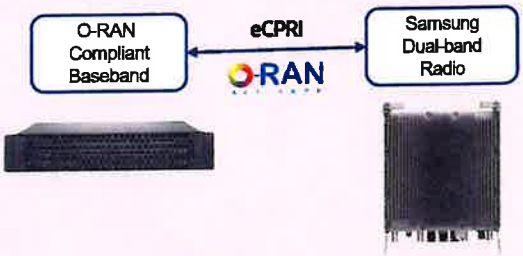
Samsung's AWS/PCS macro radio can support each incumbent CPRI interface as well as advanced eCPRI interfaces. This feature provides installable options for both legacy LTE networks and added NR networks.



O-RAN Compliant

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

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



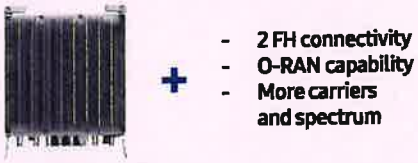
Optimum Spectrum Utilization

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

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

Brand New Features in a Compact Size

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



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

ATTACHMENT 3

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

Calculated Radio Frequency Emissions Report

Litchfield SW

1291 Bantam Road, Litchfield, CT

April 17, 2024

Table of Contents

List of Figures

List of Tables

1. Introduction

The purpose of this report is to investigate compliance with applicable FCC regulations for the proposed modification of Verizon's antenna arrays mounted on an rooftop located at 1291 Bantam Road in Litchfield, CT. The coordinates of the building are 41° 43' 02.34" N, 73° 15' 39.12" W.

Verizon is proposing the following:

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

This report considers the planned antenna configuration for Verizon[1] and the current configuration for AT&T[2] and T-Mobile[3] to derive the resulting % MPE of its proposed modification.

2. FCC Guidelines for Evaluating RF Radiation Exposure Limits

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

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

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

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

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

---

[1] As referenced to Verizon's Radio Frequency Design Sheet updated 2/22/2024.

[2] As referenced to T-Mobile's Connecticut Siting Council Notice of Exempt Modification – 1291-1293 Bantam Road, Bantam, CT, dated May 26th, 2022

[3] As referenced to AT&T's Connecticut Siting Council Notice of Exempt Modification – CT1035 1291-1293 Bantam Road, Litchfield, CT, dated June 21st, 2019

3. RF Exposure Prediction Methods

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

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

Where:

EIRP = Effective Isotropic Radiated Power

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

H = Horizontal Distance from antenna in meters

V = Vertical Distance from radiation center of antenna in meters

Off Beam Loss is determined by the selected antenna patterns

Ground reflection factor (GRF) of 1.6

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

4. Antenna Inventory

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

Operator	Sector / Azimuth	TX Freq (MHz)	Power at Antenna (Watts)	Ant Gain (dBi)	Power EIRP (Watts)	Antenna Model	Beam Width	Mech Tilt	Length (ft)	Antenna Centerline Height (ft)
Verizon	Alpha / 30°	750	160	16.0	6370	NHH-65C-R2B	65	2	8.4	140
		850	160	16.1	6518		62			
		1900	160	17.7	9421		66			
		2100	240	18.3	16226		62			
		3700	320	25.5	11354	MT6413-77A	-	0	3.42	140
	Beta 150°	750	160	16.0	6370	NHH-65C-R2B	65	2	8.4	140
		850	160	16.1	6518		62			
		1900	160	17.7	9421		66			
		2100	240	18.3	16226		62			
		3700	320	25.5	11354	MT6413-77A	-	0	3.42	140
	Gamma 270°	750	160	16.0	6370	NHH-65C-R2B	65	2	8.4	140
		850	160	16.1	6518		62			
		1900	160	17.7	9421		66			
		2100	240	18.3	16226		62			
		3700	320	25.5	11354	MT6413-77A	-	0	3.42	140

Table 1: Proposed Antenna Inventory[4,5]

[4] Antenna heights are in reference to Verizon's Radio Frequency Design Sheet updated 2/22/2024.

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

5. Calculation Results

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

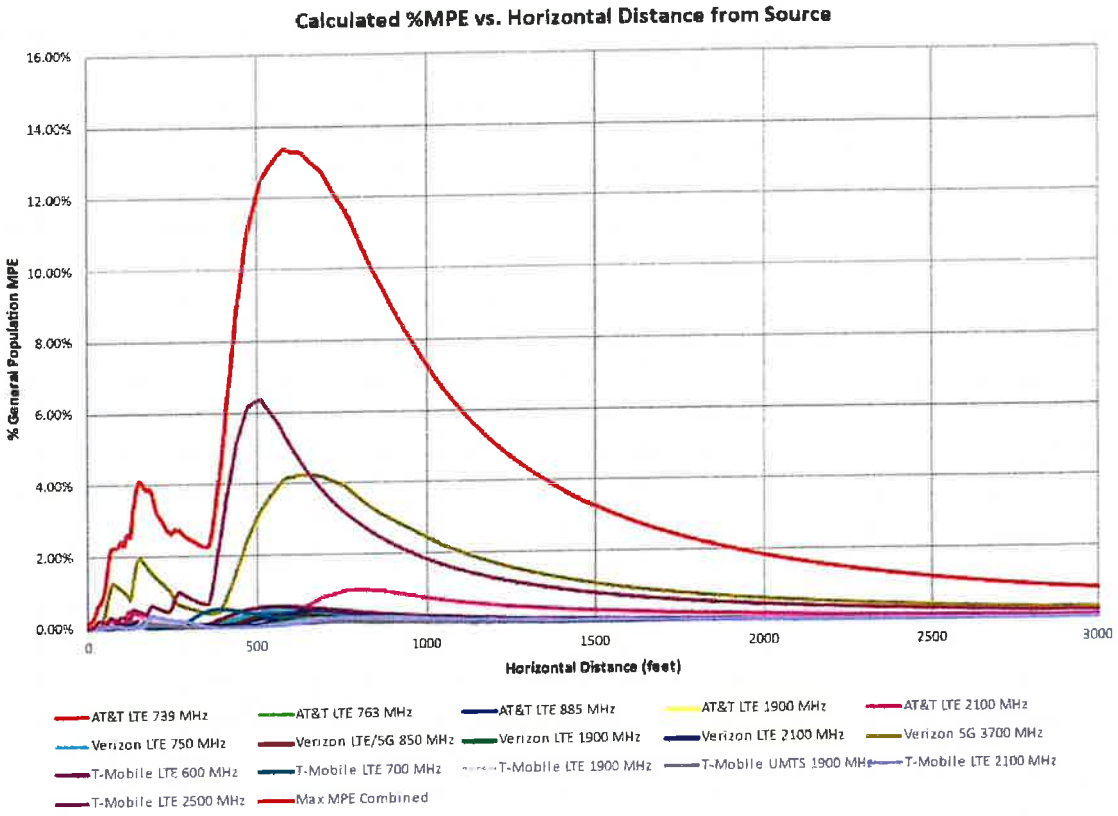


Figure 1: Graph of General Population % MPE vs. Distance

The highest percent of MPE (13.34% of the General Population limit) is calculated to occur at a horizontal distance of 581 feet from antennas. Please note that the percent of MPE calculations close to the site take into account off beam loss, which is determined from the vertical pattern of the antennas used. Therefore, RF power density levels may increase as the distance from the site increases. At distances of approximately 1500 feet and beyond, one would now be in the main beam of the antenna pattern and off beam loss is no longer considered. Beyond this point, RF levels become calculated solely on distance from the site and the percent of MPE decreases significantly as distance from the site increases.

Table 2 below lists percent of MPE values as well as the associated parameters that were included in the calculations. The highest percent of MPE value was calculated to occur at a horizontal distance of 581 feet from the site (reference Figure 1).

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

Carrier	Number of Transmitters	Power out of Base Station Per Transmitter (Watts)	Antenna Height (Feet)	Distance to the Base of Antennas (Feet)	Power Density (mW/cm^2)	Limit (mW/cm^2)	% MPE
T-Mobile LTE 600 MHz	1	140.0	115.0	581	0.002239	0.400	0.56%
T-Mobile LTE 700 MHz	1	60.0	115.0	581	0.001247	0.467	0.27%
T-Mobile UMTS 1900 MHz	2	30.0	115.0	581	0.000592	1.000	0.06%
T-Mobile LTE 1900 MHz	2	60.0	115.0	581	0.001183	1.000	0.12%
T-Mobile LTE 2100 MHz	2	60.0	115.0	581	0.000443	1.000	0.04%
T-Mobile LTE 2500 MHz	1	240.0	115.0	581	0.053436	1.000	5.34%
AT&T LTE 739 MHz	1	160.0	128.0	581	0.001986	0.493	0.40%
AT&T LTE 763 MHz	1	160.0	128.0	581	0.001986	0.509	0.39%
AT&T LTE 885 MHz	1	160.0	128.0	581	0.001877	0.590	0.32%
AT&T LTE 1900 MHz	1	160.0	128.0	581	0.001164	1.000	0.12%
AT&T LTE 2100 MHz	2	240.0	128.0	581	0.002337	1.000	0.23%
Verizon LTE 750 MHz	1	160.0	140.0	581	0.002197	0.500	0.44%
Verizon LTE/5G 850 MHz	1	160.0	140.0	581	0.002038	0.567	0.36%
Verizon LTE 1900 MHz	1	160.0	140.0	581	0.002247	1.000	0.22%
Verizon LTE 2100 MHz	1	240.0	140.0	581	0.003334	1.000	0.33%
Verizon 5G 3700 MHz	1	320.0	140.0	581	0.041333	1.000	4.13%
						Total	**13.34%**

Table 2: Maximum Percent of General Population Exposure Values[6,7,8]

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

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

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

6. Conclusion

The above analysis verifies that RF exposure levels from the site with Verizon's proposed antenna configuration will be well below the maximum permissible levels as outlined by the FCC in the OET Bulletin 65 Ed. 97-01. Using the conservative calculation methods and parameters detailed above, the maximum cumulative percent of MPE in consideration of all transmitters is calculated to be **13.34%** of the FCC limit (General Population/Uncontrolled). This maximum cumulative percent of MPE value is calculated to occur 581 feet away from the site.

7. Statement of Certification

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

April 17, 2024
Date

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

Attachment A: References

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

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

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

Verizon's Radio Frequency Design Sheet updated 2/22/2024

T-Mobile's Connecticut Siting Council Notice of Exempt Modification – 1291-1293 Bantam Road, Bantam, CT, dated May 26th, 2022

AT&T's Connecticut Siting Council Notice of Exempt Modification – CT1035 1291-1293 Bantam Road, Litchfield, CT, dated June 21st, 2019

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

(A) Limits for Occupational/Controlled Exposure[9]

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

(B) Limits for General Population/Uncontrolled Exposure[10]

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

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

Table 3: FCC Limits for Maximum Permissible Exposure

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

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

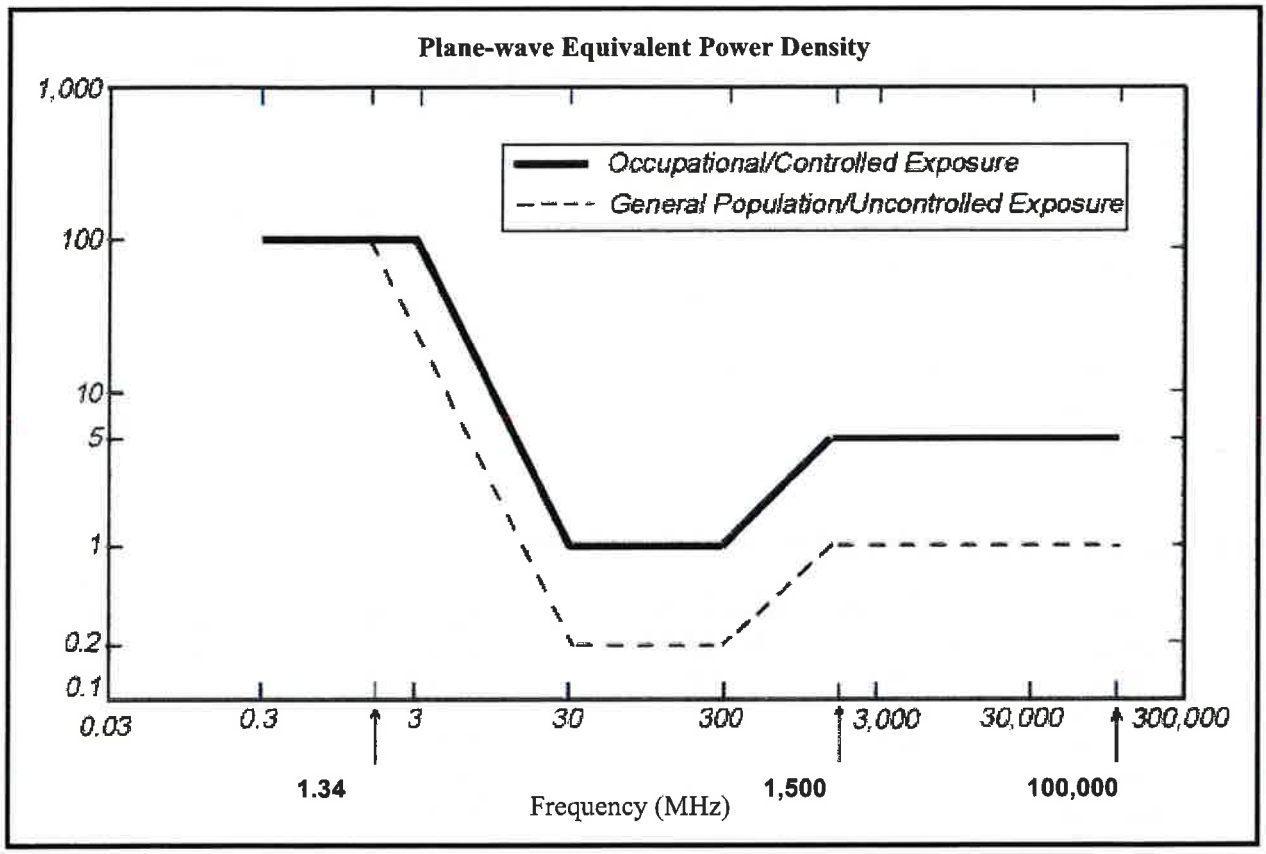
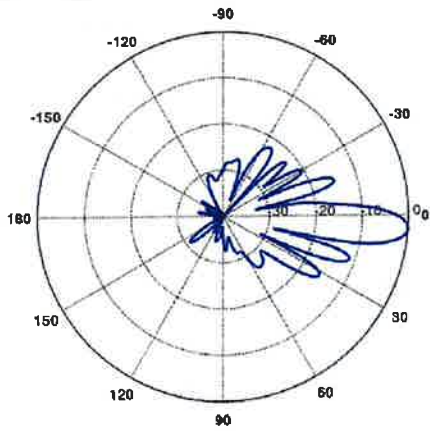


Figure 2: Graph of FCC Limits for Maximum Permissible Exposure (MPE)

Attachment C: Verizon Antenna Model Data Sheets and Electrical Patterns

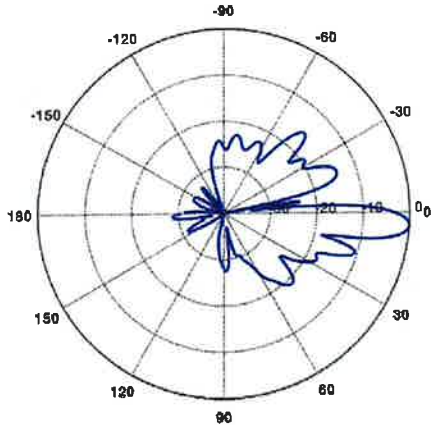
750 MHz

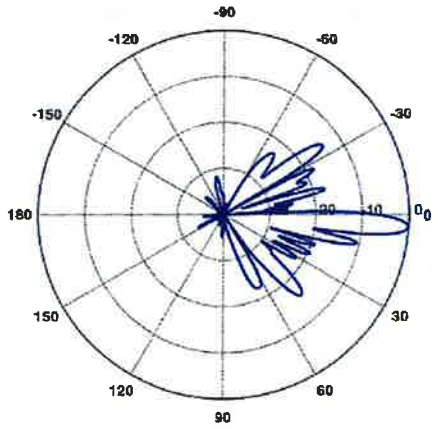
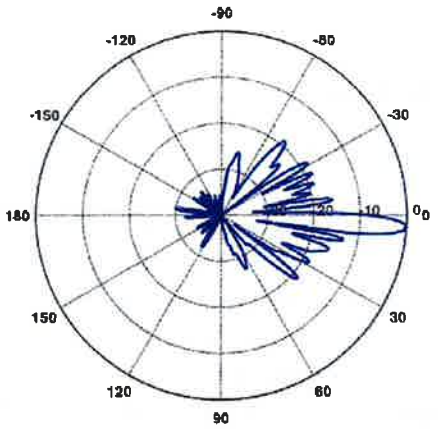
Manufacturer:	COMMSCOPE
Model #:	NHH-65C-R2B
Frequency Band:	698-787 MHz
Gain:	16.0 dBi
Vertical Beamwidth:	9°
Horizontal Beamwidth:	65°
Polarization:	±45°
Dimensions (L x W x D):	96" x 11.9" x 7.1"



850 MHz

Manufacturer:	COMMSCOPE
Model #:	NHH-65C-R2B
Frequency Band:	806-896 MHz
Gain:	16.1 dBi
Vertical Beamwidth:	7.9°
Horizontal Beamwidth:	62°
Polarization:	±45°
Dimensions (L x W x D):	96" x 11.9" x 7.1"



1900 MHz Manufacturer: COMMSCOPE Model #: NHH-65C-R2B Frequency Band: 698-787 MHz Gain: 17.7 dBi Vertical Beamwidth: 5.2° Horizontal Beamwidth: 66° Polarization: ±45° Dimensions (L x W x D): 96" x 11.9" x 7.1"	
2100 MHz Manufacturer: COMMSCOPE Model #: NHH-65C-R2B Frequency Band: 698-787 MHz Gain: 18.3 dBi Vertical Beamwidth: 4.9° Horizontal Beamwidth: 62° Polarization: ±45° Dimensions (L x W x D): 96" x 11.9" x 7.1"	

ATTACHMENT 4

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

Structural Analysis Report

Existing 149 ft EEI Monopole

Customer Name: SBA Communications Corp

Customer Site Number: CT12215-A

Customer Site Name: Litchfield 3 CT

Carrier Name: Verizon (App#: 244147-2)

Carrier Site ID / Name: 500024816 / Litchfield SW CT

Site Location: 1291 Bantam Road

Bantam, Connecticut

Litchfield County

Latitude: 41.717183

Longitude: -73.260928

Jarryd Tibbetts

Digitally signed by Jarryd Tibbetts
Date: 2024.02.06 16:55:45 -06'00'

STATE OF CONNECTICUT
JARRYD TIBBETTS
No. 34170
LICENSED
PROFESSIONAL ENGINEER

2/6/2024

Analysis Result:

Max Structural Usage: 89.3% [Pass]

Max Foundation Usage: 69.0% [Pass]

Additional Usage Caused by Mount Modification: +2%

Report Prepared By : Tawfeeq Alajaj

Introduction

The purpose of this report is to summarize the analysis results on the 149 ft EEI Monopole to support the proposed antennas and transmission lines in addition to those currently installed. Any modification listed under Sources of Information was assumed completed and was included in this analysis.

Sources of Information

Tower Drawings	Engineered Endeavors, Inc. (Job No. 12278) Structure and Foundation Design Calculations dated January 26, 2004
Foundation Drawing	Engineered Endeavors, Inc. (Job No. 12278) Design Calculations for a Spread Footer Foundation dated January 27, 2004
Geotechnical Report	Clarence Welti Associates, Inc. (Project Name: Sprint Site CT33XC204) Geotechnical Study dated January 24, 2004
Modification Drawings	FDH Engineering, Inc. (Project No. 12-06691E S3) Modification Drawings for a 149' Monopole dated February 6, 2013 TES, Project # 75424, dated 05/23/2019
Mount Analysis	Colliers Engineering & Design Project #: 21777238 (Rev. 2). Dated 01/11/2024.

Analysis Criteria

The comprehensive analysis was performed in accordance with the requirements and stipulations of the TIA-222-H. In accordance with this standard, the structure was analyzed using **TESPoles,** a proprietary analysis software. The program considers the structure as an elastic 3-D model with second-order effects and temperature effects incorporated in the analysis. The analysis was performed using multiple wind directions.

Wind Speed Used in the Analysis:	115.0 mph (3-Sec. Gust) (Ultimate wind speed)
Wind Speed with Ice:	40 mph (3-Sec. Gust) with 1" radial ice concurrent
Service Load Wind Speed:	60 mph + 0" Radial ice
Standard/Codes:	TIA-222-H / 2021 IBC / 2022 Connecticut State Building Code
Exposure Category:	B
Risk Category:	II
Topographic Category:	1
Crest Height:	0 ft
Seismic Parameters:	$S_S = 0.18$, $S_1 = 0.054$

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

Existing Antennas, Mounts and Transmission Lines

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

Items	Elevation (ft.)	Qty.	Antenna Descriptions	Mount Type & Qty.	Transmission Lines	Owner
1	150.0	3	RFS APXVSPP18-C-A20 - Panel	Low Profile Platform	(4) 1-1/4" Fiber Outside	Sprint Nextel
2		3	RFS APXVTM14-C-I20 - Panel			
3		4	RFS ACU-A20-N RET			
4		3	Alcatel Lucent 1900 MHz RRH			
5		3	Alcatel Lucent 800 MHz RRH			
6		3	Alcatel Lucent TD-RRH8x20-25			
7		3	Alcatel Lucent 800 MHz Filter			
8	138.0	3	Antel LPA-80080/6CF - Panel	Low Profile Platform	(12) 1 5/8" (1) 1/2"	Verizon
9		3	Antel BXA-70063-6CF_2 - Panel			
10		3	Antel BXA-171085-12B_2 - Panel			
11		1	GPS Receiver			
12		6	RFS FD9R6004/2C-3L Diplexer			
13	128.0	3	Powerwave 7770.00 - Panel	Low Profile Platform w/ (2) Commscope VSR-MS-B Reinforcement Kit (24) Commscope XP-2020 Crossover Plate	(12) 1 5/8" * (1) 3" Conduit (2) 2" Conduit (2) 7/16" Fiber (6) 3/4" DC	AT&T
14		6	Kathrein 80010965 - Panel			
15		12	Powerwave LGP 21401 TMA			
16		3	Ericsson RRUS 4478 B14 RRU			
17		3	Ericsson 4449 B5/B12 RRU			
18		3	Ericsson 8843 B2/B66A RRU			
19		1	Raycap DC6-48-60-18-8F			
20		1	Raycap DC6-48-60-18-8C			
21		1	Raycap DC6-48-60-0-8C-EV			
22		1	Commscope ABT-DF-DM-ADBH			
23	115.0	3	Ericsson- AIR6419 B41- Panel	(3) Sitepro RMV12-3XX- (T-arms)	(1) 1-5/8" Fiber (2) 1.9" Fiber	T-Mobile
24		3	RFS- APXVAALL24_43-U-NA20- Panel			
25		3	Ericsson- RRUS 11 (Band 4)- RRUs			
26		3	Ericsson- 4460 B25 + B66- RRU's			
27		3	Ericsson- 4449 B71 + B85- RRUs			
29	50.0	1	Symmetricom- 58532A- GPS	-	(1) 1/2"	
28	73.0	1	GPS Receiver	-	(1) 1/2"	Sprint Nextel
-	50.0	1	Symmetricom 58532A	-	(1) 1/2"	T-Mobile

*AT&T coax inside the pole. (1) 3" conduit housing (1) 7/16" fiber and (2) 3/4" DC
(1) 2" conduit housing (1) 7/16" fiber and (2) 3/4" DC
(1) 2" conduit housing (2) 3/4" DC

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

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

Items	Elevation (ft)	Qty.	Antenna Descriptions	Mount Type & Qty.	Transmission Lines	Owner
8	140.0	6	Commscope - NHH-65C-R2B - Panel	Modified Low Profile Platform	(11) 1 5/8" (1) 1/2" (1) 1 5/8" Hybrid	Verizon
9		3	Samsung - MT6413 77A - Panel			
10		6	RFS FD9R6004/2C-3L Diplexer			
11		3	RF4461d-13A			
12		3	RF4439-25A ORAN			
13		1	RFS DB-C1-12C-24AB-0Z			
13	138.0	3	Antel - BXA-70063-6CF-EDIN-5 - Panel			
15		1	GPS Receiver			

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

Analysis Results

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

	Pole shafts	Anchor Bolts	Base Plate
Max. Usage:	**89.3%**	**73.6%**	**75.6%**
Pass/Fail	**Pass**	**Pass**	**Pass**

Foundations

	Moment (Kip-Ft)	Shear (Kips)	Axial (Kips)
Analysis Reactions	2601.2	22.4	37.8

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

Service Load Condition (Rigidity):

Operational characteristics of the tower are found to be within the limits prescribed by TIA-222 for the installed antennas. The maximum twist/sway at the elevation of the proposed equipment is 2.0246 degrees under the operational wind speed as specified in the Analysis Criteria.

Conclusions

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

Standard Conditions

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

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

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

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

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

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

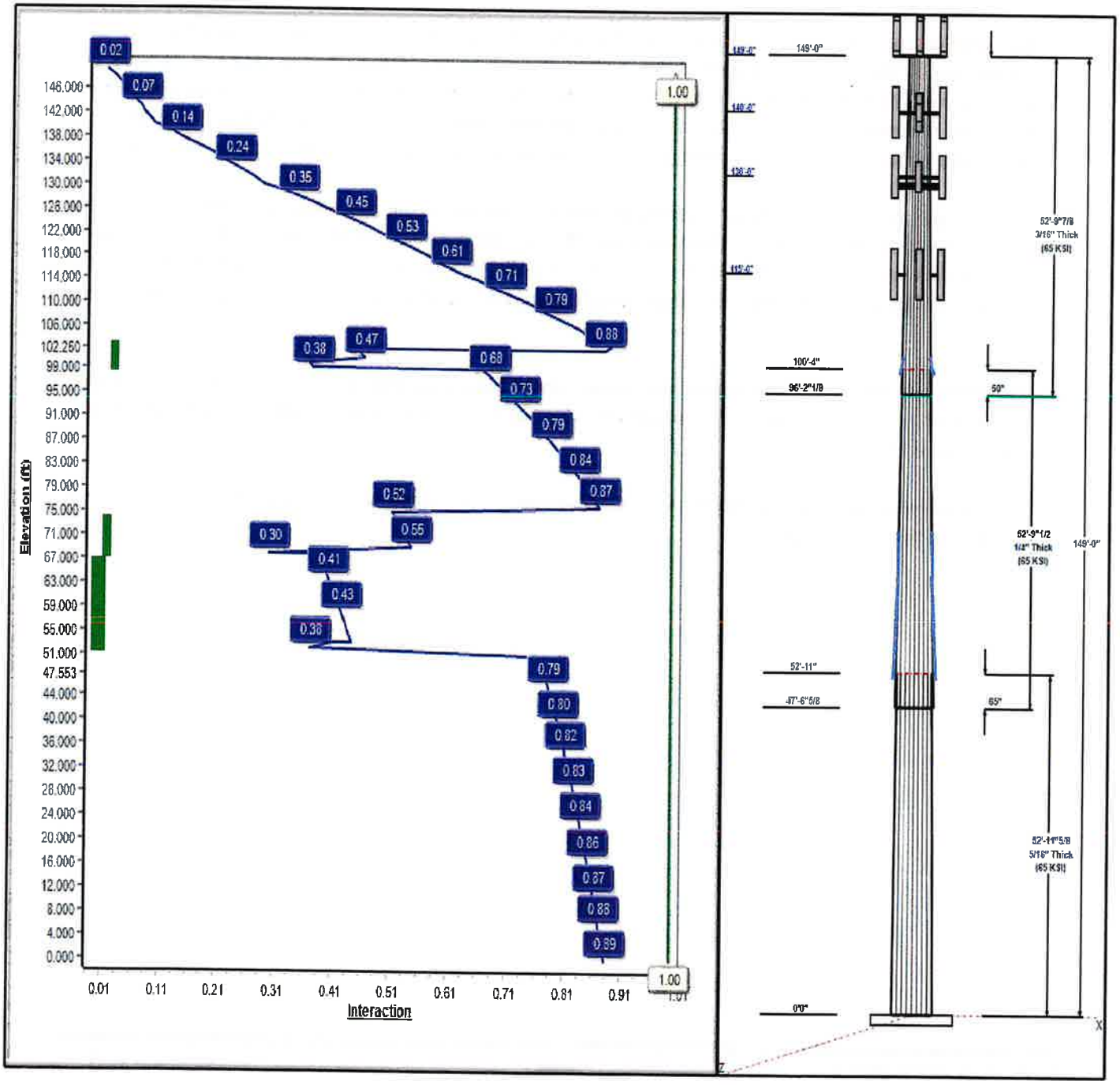
Usage Diagram - Max Ratio 89.26% at 103.0ft

Structure:	CT12215-A-SBA	**Code:**	EIA/TIA-222-H	2/6/2024	
Site Name:	Litchfield 3 CT	**Exposure:**	B		
Height:	149.00 (ft)	**Gh:**	1.1		
Base Elev:	0.000 (ft)			Page: 1	

Tower Engineering Solutions

Dead Load Factor:	1.20	**Iterations:**	35
Wind Load Factor:	1.00		

Load Case : 1.2D + 1.0W 115 mph Wind



Structure: CT12215-A-SBA

Type: Tapered
Site Name: Litchfield 3 CT
Height: 149.00 (ft)
Base Elev: 0.00 (ft)

Base Shape: 18 Sided
Taper: 0.20721

2/6/2024

Tower Engineering Solutions

Shaft Properties

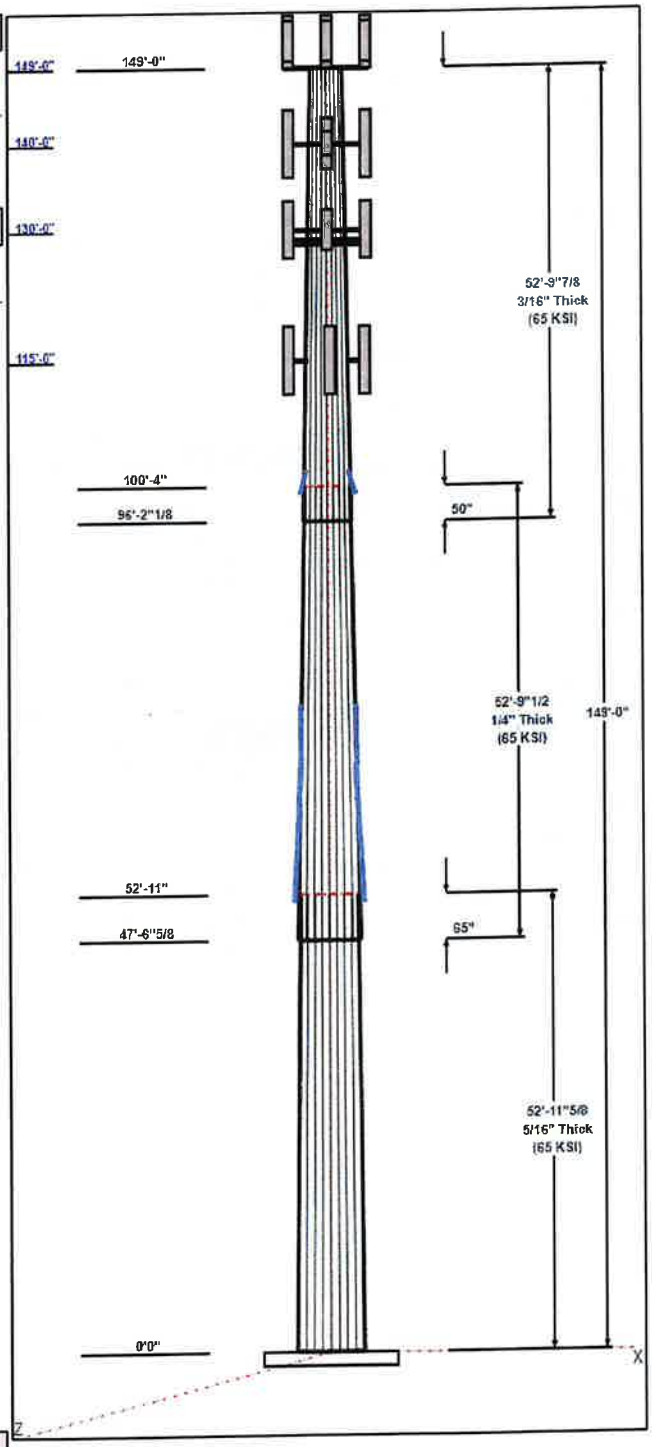
Seq	Length (ft)	Top (in)	Bottom (in)	Thick (in)	Joint Type	Taper	Grade (ksi)
1	52.97	37.02	48.00	0.313		0.20721	65
2	52.79	27.71	38.65	0.250	Slip	0.20721	65
3	52.82	18.00	28.95	0.188	Slip	0.20721	65

Discrete Appurtenances

Attach Elev (ft)	Force Elev (ft)	Qty	Description	Carrier
149.00	152.00	3	APXVSPP18-C-A20	Sprint Nextel
149.00	152.00	3	APXVTM14-C-I20	Sprint Nextel
149.00	152.00	3	1900MHz	Sprint Nextel
149.00	152.00	3	800MHZ	Sprint Nextel
149.00	152.00	3	TD-RRH8x20-25	Sprint Nextel
149.00	152.00	3	800MHz Filter	Sprint Nextel
149.00	152.00	4	ACU-A20-N	Sprint Nextel
149.00	149.00	1	Low Profile Platform	Sprint Nextel
140.00	140.00	1	Mount Mods	Verizon
140.00	140.00	6	NHH-65C-R2B	Verizon
140.00	140.00	3	BXA-70063-6CF-EDIN-5	Verizon
140.00	140.00	3	MT6413 77A	Verizon
140.00	140.00	6	RFS FD9R6004/2C-3L	Verizon
140.00	140.00	3	RF4461d-13A	Verizon
140.00	140.00	3	RF4439-25A ORAN	Verizon
140.00	140.00	1	RFS DB-C1-12C-24AB-0Z	Verizon
140.00	140.00	1	Low Profile	Verizon
138.00	138.00	1	GPS Receiver	Verizon
130.00	130.00	3	7770.00	AT&T
130.00	130.00	12	LGP 21401	AT&T
130.00	130.00	1	DC6-48-60-18-8F	AT&T
130.00	130.00	1	ABT-DF-DM-ADBH	AT&T
130.00	130.00	1	Low Profile Platform	AT&T
130.00	130.00	6	80010965	AT&T
130.00	130.00	3	RRUS 4478 B14	AT&T
130.00	130.00	3	4449 B5/B12	AT&T
130.00	130.00	3	8843 B2/B66A	AT&T
130.00	130.00	1	DC6-48-60-18-8C	AT&T
130.00	130.00	1	DC6-48-60-0-8C-EV	AT&T
130.00	130.00	2	VSRDual-TS-B-HD	AT&T
130.00	130.00	24	XP-2020	AT&T
130.00	130.00	1	(3) 12.5' - 2" Horizontal	AT&T
115.00	115.00	3	AIR6449 B41	T-Mobile
115.00	115.00	3	APXVAALL24_43-U-NA20	T-Mobile
115.00	115.00	3	RRUS 11	T-Mobile
115.00	115.00	3	4460 Radio	T-Mobile
115.00	115.00	3	4449 B71 + B85	T-Mobile
115.00	115.00	1	(3) Stabilizer Kit (12' FW)	T-Mobile
115.00	115.00	3	T-Arm	T-Mobile
73.00	73.00	1	GPS Receiver	Sprint
50.00	50.00	1	58532A	T-Mobile

Linear Appurtenances

Elev From (ft)	Elev To (ft)	Placement	Description	Carrier
0.00	149.00	Inside	1-1/4" Fiber	Sprint
0.00	140.00	Inside	1 5/8" Coax	Verizon



0.00	140.00	Inside	1 5/8" Hybrid	Verizon
0.00	140.00	Inside	1/2" Coax	Verizon
0.00	130.00	Inside	1 5/8" Coax	AT&T
0.00	130.00	Inside	2" Conduit	AT&T
0.00	130.00	Inside	3" Conduit	AT&T
0.00	130.00	Inside	3/4" DC	AT&T
0.00	130.00	Inside	7/16" Fiber	AT&T
96.00	116.00	Outside	1" Reinforcing plate	
0.00	115.00	Outside	1 5/8" Fiber	T-Mobile
0.00	115.00	Outside	1.9" Fiber	T-Mobile
97.00	105.00	Outside	1.25" Reinforcing plate	
50.00	77.00	Outside	1.25" Reinforcing plate	
0.00	73.00	Inside	1/2" Coax	Sprint
50.00	70.00	Outside	1" Reinforcing plate	
0.00	50.00	Outside	1/2" Coax	T-Mobile

Anchor Bolts

Qty	Specifications	Grade (ksi)	Arrangement
12	2.25" 18J	75.0	Radial

Base Plate

Thickness (in)	Specifications (in)	Grade (ksi)	Geometry
1.7500	63.0	60.0	Round

Reactions

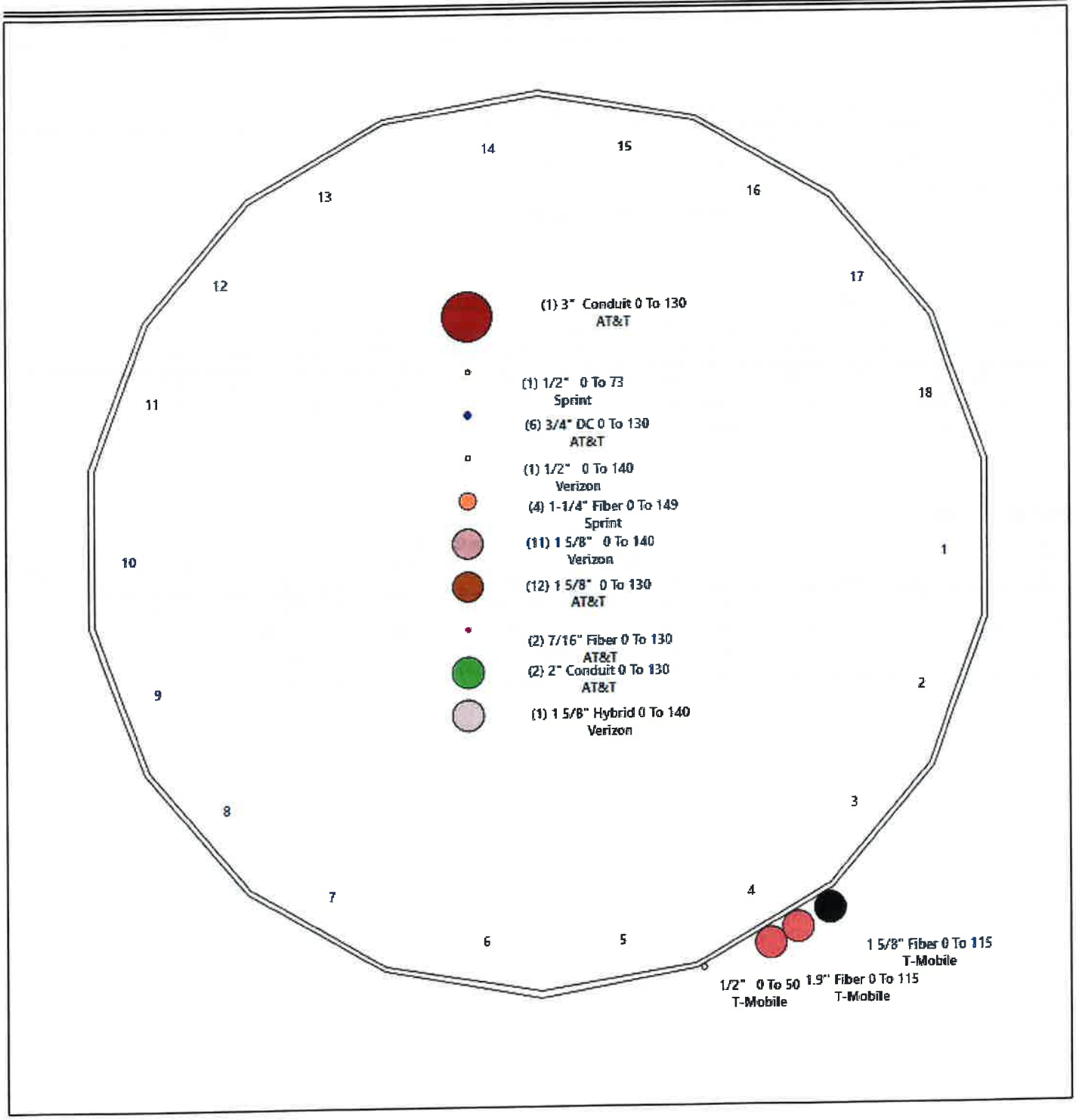
Load Case	Moment (FT-Kips)	Shear (Kips)	Axial (Kips)
1.2D + 1.0W 115 mph Wind	2601.2	22.4	37.8
0.9D + 1.0W 115 mph Wind	2551.2	22.4	28.3
1.2D + 1.0Di + 1.0Wi 40 mph Wind	471.7	4.0	53.2
1.2D + 1.0Ev + 1.0Eh	57.3	0.4	39.1
0.9D + 1.0Ev + 1.0Eh	56.2	0.4	29.5
1.0D + 1.0W 60 mph Wind	626.7	5.5	31.5

Structure: CT12215-A-SBA - Coax Line Placement

Type: Monopole
Site Name: Litchfield 3 CT
Height: 149.00 (ft)

2/6/2024

TES Tower Engineering Solutions



Shaft Properties

Structure:	CT12215-A-SBA	**Code:**	TIA-222-H	2/6/2024	
Site Name:	Litchfield 3 CT	**Exposure:**	B		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 5	

Tower Engineering Solutions

Sec. No.	Shape	Length (ft)	Thick (in)	Fy (ksi)	Joint Type	Overlap (in)	Weight (lb)
1	18	52.970	0.3125	65		0.00	7,544
2	18	52.790	0.2500	65	Slip	65.00	4,693
3	18	52.823	0.1875	65	Slip	50.00	2,491
					Total Shaft Weight:		**14,728**

	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	48.00	0.00	47.30	13589.64	25.67	153.60	37.02	52.97	36.41	6200.05	19.48	118.4	0.207215
2	38.65	47.55	30.47	5674.80	25.85	154.58	27.71	100.34	21.79	2075.21	18.13	110.8	0.207215
3	28.95	96.18	17.11	1788.27	25.81	154.38	18.00	149.00	10.60	424.93	15.52	96.00	0.207215

Additional Steel

Elev From (ft)	Elev To (ft)	Qty	Description	Fy (ksi)	Fu (ksi)	Offset (in)	Intermediate Connectors: Description	Intermediate Connectors: Spacing (in)	Termination Connectors: Description	Termination Connectors: Spacing (in)	Termination Connectors: Lower Qty	Termination Connectors: Upper Qty
52.00	68.00	3	PLT 4.5"x 1-1/4"(1.25"ho	65	80	0.00	AJM20&sleeve	24.00	AJM20&sleeve	3.00	8	8
52.00	68.00	3	LNP LP6X100-G-20TT	65	80	0.00	5/8" Hollo Bolt	24.00	5/8" Hollo Bolt	3.00	8	8
67.92	75.00	3	PLT 4.5"x 1-1/4"(1.25"ho	65	80	0.00	AJM20&sleeve	24.00	AJM20&sleeve	3.00	8	8
99.25	102.2	3	PLT 4x1.25 (1.25 Hole)	65	80	0.00	AJM20&sleeve	22.00	AJM20&sleeve	3.00	9	9

Load Summary

Structure:	CT12215-A-SBA	**Code:**	TIA-222-H	2/6/2024	
Site Name:	Litchfield 3 CT	**Exposure:**	B		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 6	

Tower Engineering Solutions

Discrete Appurtenances

No.	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)
1	149.00	APXVSPP18-C-A20	3	57.00	8.02	0.83	172.16	9.881	0.83	0.00	3.00
2	149.00	APXVTM14-C-I20	3	56.00	6.34	0.79	155.76	7.066	0.79	0.00	3.00
3	149.00	1900MHz	3	60.00	2.77	0.50	115.59	3.615	0.50	0.00	3.00
4	149.00	800MHZ	3	59.50	2.64	0.50	111.47	3.411	0.50	0.00	3.00
5	149.00	TD-RRH8x20-25	3	70.00	4.05	0.50	138.57	4.577	0.50	0.00	3.00
6	149.00	800MHz Filter	3	8.80	0.78	0.50	20.55	1.211	0.50	0.00	3.00
7	149.00	ACU-A20-N	4	1.00	0.14	0.50	3.86	0.338	0.50	0.00	3.00
8	149.00	Low Profile Platform	1	1200.00	25.00	1.00	1897.62	38.952	1.00	0.00	0.00
9	140.00	Mount Mods	1	415.06	17.00	1.00	683.63	31.143	1.00	0.00	0.00
10	140.00	NHH-65C-R2B	6	51.60	11.39	0.84	214.83	12.489	0.84	0.00	0.00
11	140.00	BXA-70063-6CF-EDIN-5	3	17.00	7.57	0.73	124.09	8.382	0.73	0.00	0.00
12	140.00	MT6413 77A	3	87.10	4.30	0.69	155.35	4.874	0.69	0.00	0.00
13	140.00	RFS FD9R6004/2C-3L Diplexer	6	3.10	0.36	1.00	8.41	0.653	1.00	0.00	0.00
14	140.00	RF4461d-13A	3	84.50	1.88	0.67	118.44	2.245	0.67	0.00	0.00
15	140.00	RF4439-25A ORAN	3	84.40	1.87	0.67	131.04	2.238	0.67	0.00	0.00
16	140.00	RFS DB-C1-12C-24AB-0Z	1	32.00	4.06	1.00	107.43	4.604	1.00	0.00	0.00
17	140.00	Low Profile Platform-Round	1	1500.00	22.00	1.00	2366.61	33.693	1.00	0.00	0.00
18	138.00	GPS Receiver	1	10.00	1.00	1.00	29.38	1.471	1.00	0.00	0.00
19	130.00	7770.00	3	35.00	5.50	0.73	117.01	6.185	0.73	0.00	0.00
20	130.00	LGP 21401	12	17.50	0.00	0.50	33.43	1.076	0.50	0.00	0.00
21	130.00	DC6-48-60-18-8F	1	31.80	0.92	1.00	72.43	1.208	1.00	0.00	0.00
22	130.00	ABT-DF-DM-ADBH	1	1.10	0.05	1.00	2.57	0.176	1.00	0.00	0.00
23	130.00	Low Profile Platform	1	1200.00	25.00	1.00	1888.17	38.763	1.00	0.00	0.00
24	130.00	80010965	6	108.60	13.81	0.71	294.64	14.834	0.71	0.00	0.00
25	130.00	RRUS 4478 B14	3	59.40	1.65	0.50	86.65	1.991	0.50	0.00	0.00
26	130.00	4449 B5/B12	3	71.00	1.97	0.50	106.08	2.330	0.50	0.00	0.00
27	130.00	8843 B2/B66A	3	72.00	1.64	0.50	102.79	1.966	0.50	0.00	0.00
28	130.00	DC6-48-60-18-8C	1	20.00	1.26	1.00	54.67	1.694	1.00	0.00	0.00
29	130.00	DC6-48-60-0-8C-EV	1	16.00	4.78	1.00	97.32	5.361	1.00	0.00	0.00
30	130.00	VSRDual-TS-B-HD	2	148.40	4.10	0.75	243.72	7.486	0.75	0.00	0.00
31	130.00	XP-2020	24	10.00	0.69	0.75	15.89	1.022	0.75	0.00	0.00
32	130.00	(3) 12.5' - 2" Horizontal Pipe	1	137.25	5.94	0.75	225.40	10.841	0.75	0.00	0.00
33	115.00	AIR6449 B41	3	103.00	5.65	0.71	192.02	6.267	0.71	0.00	0.00
34	115.00	APXVAALL24_43-U-NA20	3	122.80	20.24	0.73	388.40	21.457	0.73	0.00	0.00
35	115.00	RRUS 11	3	50.70	2.52	0.50	104.13	2.930	0.50	0.00	0.00
36	115.00	4460 Radio	3	109.00	2.85	0.50	155.68	3.288	0.50	0.00	0.00
37	115.00	4449 B71 + B85	3	73.20	1.97	0.50	110.69	2.340	0.50	0.00	0.00
38	115.00	(3) Stabilizer Kit (12' FW)	1	180.00	6.10	1.00	326.83	10.247	1.00	0.00	0.00
39	115.00	T-Arm	3	350.00	8.00	0.75	508.62	12.532	0.75	0.00	0.00
40	73.00	GPS Receiver	1	10.00	1.00	1.00	28.19	1.442	1.00	0.00	0.00
41	50.00	58532A	1	0.40	0.22	1.00	5.18	0.441	1.00	0.00	0.00
		Totals:	**134**	**11,375.41**			**21,523.27**				

Linear Appurtenances

Bottom Elev. (ft)	Top Elev. (ft)	Description	Exposed Width	Exposed

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	149.00	(4) 1-1/4" Fiber			0.00	Inside					
0.00	140.00	(11) 1 5/8" Coax			0.00	Inside					
0.00	140.00	(1) 1 5/8" Hybrid			0.00	Inside					
0.00	140.00	(1) 1/2" Coax			0.00	Inside					
0.00	130.00	(12) 1 5/8" Coax			0.00	Inside					
0.00	130.00	(2) 2" Conduit			0.00	Inside					
0.00	130.00	(1) 3" Conduit			0.00	Inside					
0.00	130.00	(6) 3/4" DC			0.00	Inside					
0.00	130.00	(2) 7/16" Fiber			0.00	Inside					
96.00	116.00	(3) 1" Reinforcing plate			1.00	Outside					
0.00	115.00	(1) 1 5/8" Fiber			2.00	Outside					
0.00	115.00	(2) 1.9" Fiber			0.00	Outside					
97.00	105.00	(3) 1.25" Reinforcing plate			1.25	Outside					
50.00	77.00	(3) 1.25" Reinforcing plate			1.25	Outside					
0.00	73.00	(1) 1/2" Coax			0.00	Inside					
50.00	70.00	(3) 1" Reinforcing plate			1.00	Outside					
0.00	50.00	(1) 1/2" Coax			0.65	Outside					

Shaft Section Properties

Structure: CT12215-A-SBA
Site Name: Litchfield 3 CT
Height: 149.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1 **Topography:** 1

Code: TIA-222-H
Exposure: B
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

2/6/2024

Tower Engineering Solutions

Increment Length: 1 (ft)

Elev (ft)	Description	Thick (in)	Flat Dia (in)	Area (in^2)	Ix (in^4)	W/t Ratio	D/t Ratio	Fy (ksi)	Fb (ksi)	Weight (lb)	Additional Reinforcing Area (in^2)	Ixp (in^4)	Iyp (in^4)	Weight (lb)
0.00		0.3125	48.000	47.298	13589.6	25.67	153.60	65	71	0.0				
1.00		0.3125	47.793	47.093	13413.3	25.56	152.94	65	71	160.6				
2.00		0.3125	47.586	46.887	13238.4	25.44	152.27	65	71	159.9				
3.00		0.3125	47.378	46.682	13065.1	25.32	151.61	65	72	159.2				
4.00		0.3125	47.171	46.476	12893.3	25.21	150.95	65	72	158.5				
5.00		0.3125	46.964	46.271	12723.0	25.09	150.28	65	72	157.8				
6.00		0.3125	46.757	46.065	12554.2	24.97	149.62	65	72	157.1				
7.00		0.3125	46.549	45.860	12386.9	24.85	148.96	65	72	156.4				
8.00		0.3125	46.342	45.654	12221.1	24.74	148.30	65	72	155.7				
9.00		0.3125	46.135	45.449	12056.8	24.62	147.63	65	72	155.0				
10.00		0.3125	45.928	45.243	11894.0	24.50	146.97	65	73	154.3				
11.00		0.3125	45.721	45.038	11732.6	24.39	146.31	65	73	153.6				
12.00		0.3125	45.513	44.832	11572.7	24.27	145.64	65	73	152.9				
13.00		0.3125	45.306	44.627	11414.3	24.15	144.98	65	73	152.2				
14.00		0.3125	45.099	44.421	11257.3	24.04	144.32	65	73	151.5				
15.00		0.3125	44.892	44.215	11101.8	23.92	143.65	65	73	150.8				
16.00		0.3125	44.685	44.010	10947.7	23.80	142.99	65	73	150.1				
17.00		0.3125	44.477	43.804	10795.0	23.69	142.33	65	74	149.4				
18.00		0.3125	44.270	43.599	10643.8	23.57	141.66	65	74	148.7				
19.00		0.3125	44.063	43.393	10494.0	23.45	141.00	65	74	148.0				
20.00		0.3125	43.856	43.188	10345.6	23.33	140.34	65	74	147.3				
21.00		0.3125	43.648	42.982	10198.6	23.22	139.68	65	74	146.6				
22.00		0.3125	43.441	42.777	10053.0	23.10	139.01	65	74	145.9				
23.00		0.3125	43.234	42.571	9908.8	22.98	138.35	65	74	145.2				
24.00		0.3125	43.027	42.366	9766.0	22.87	137.69	65	75	144.5				
25.00		0.3125	42.820	42.160	9624.5	22.75	137.02	65	75	143.8				
26.00		0.3125	42.612	41.955	9484.5	22.63	136.36	65	75	143.1				
27.00		0.3125	42.405	41.749	9345.8	22.52	135.70	65	75	142.4				
28.00		0.3125	42.198	41.544	9208.4	22.40	135.03	65	75	141.7				
29.00		0.3125	41.991	41.338	9072.4	22.28	134.37	65	75	141.0				
30.00		0.3125	41.784	41.133	8937.8	22.17	133.71	65	75	140.3				
31.00		0.3125	41.576	40.927	8804.5	22.05	133.04	65	75	139.6				
32.00		0.3125	41.369	40.722	8672.5	21.93	132.38	65	76	138.9				
33.00		0.3125	41.162	40.516	8541.8	21.81	131.72	65	76	138.2				
34.00		0.3125	40.955	40.311	8412.5	21.70	131.06	65	76	137.5				
35.00		0.3125	40.747	40.105	8284.5	21.58	130.39	65	76	136.8				
36.00		0.3125	40.540	39.899	8157.8	21.46	129.73	65	76	136.1				
37.00		0.3125	40.333	39.694	8032.4	21.35	129.07	65	76	135.4				
38.00		0.3125	40.126	39.488	7908.2	21.23	128.40	65	76	134.7				
39.00		0.3125	39.919	39.283	7785.4	21.11	127.74	65	77	134.0				
40.00		0.3125	39.711	39.077	7663.9	21.00	127.08	65	77	133.3				
41.00		0.3125	39.504	38.872	7543.6	20.88	126.41	65	77	132.6				
42.00		0.3125	39.297	38.666	7424.5	20.76	125.75	65	77	131.9				
43.00		0.3125	39.090	38.461	7306.8	20.65	125.09	65	77	131.2				
44.00		0.3125	38.883	38.255	7190.3	20.53	124.42	65	77	130.5				
45.00		0.3125	38.675	38.050	7075.0	20.41	123.76	65	77	129.8				
46.00		0.3125	38.468	37.844	6961.0	20.29	123.10	65	78	129.1				
47.00		0.3125	38.261	37.639	6848.2	20.18	122.43	65	78	128.4				
47.55	Bot - Section 2	0.3125	38.146	37.525	6786.3	20.11	122.07	65	78	70.8				
48.00		0.3125	38.054	37.433	6736.6	20.06	121.77	65	78	103.2				

Increment Length: 1 (ft)

Elev (ft)	Description	Thick (in)	Flat Dia (in)	Area (in^2)	Ix (in^4)	W/t Ratio	D/t Ratio	Fy (ksi)	Fb (ksi)	Weight (lb)	Additional Reinforcing Area (in^2)	Additional Reinforcing Ixp (in^4)	Additional Reinforcing Iyp (in^4)	Additional Reinforcing Weight (lb)
49.00		0.3125	37.846	37.228	6626.3	19.94	121.11	65	78	230.2				
50.00		0.3125	37.639	37.022	6517.1	19.83	120.45	65	78	228.9				
51.00		0.3125	37.432	36.817	6409.2	19.71	119.78	65	78	227.6				
52.00	RB1 RB2	0.3125	37.225	36.611	6302.4	19.59	119.12	65	78	226.4	34.88	6621.4	6621.4	118.7
52.97	Top - Section 1	0.2500	37.524	29.576	5191.5	25.06	150.10	65	72	218.4	34.88	6553.5	6553.5	115.1
53.00		0.2500	37.518	29.571	5188.9	25.05	150.07	65	72	3.0	34.88	6551.4	6551.4	3.6
54.00		0.2500	37.310	29.406	5102.9	24.90	149.24	65	72	100.3	34.88	6481.8	6481.8	118.7
55.00		0.2500	37.103	29.242	5017.8	24.76	148.41	65	72	99.8	34.88	6412.6	6412.6	118.7
56.00		0.2500	36.896	29.078	4933.6	24.61	147.58	65	72	99.2	34.88	6343.7	6343.7	118.7
57.00		0.2500	36.689	28.913	4850.4	24.47	146.76	65	73	98.7	34.88	6275.2	6275.2	118.7
58.00		0.2500	36.482	28.749	4768.1	24.32	145.93	65	73	98.1	34.88	6207.1	6207.1	118.7
59.00		0.2500	36.274	28.584	4686.8	24.17	145.10	65	73	97.5	34.88	6139.3	6139.3	118.7
60.00		0.2500	36.067	28.420	4606.3	24.03	144.27	65	73	97.0	34.88	6072.0	6072.0	118.7
61.00		0.2500	35.860	28.255	4526.9	23.88	143.44	65	73	96.4	34.88	6005.0	6005.0	118.7
62.00		0.2500	35.653	28.091	4448.3	23.74	142.61	65	73	95.9	34.88	5938.3	5938.3	118.7
63.00		0.2500	35.445	27.927	4370.6	23.59	141.78	65	74	95.3	34.88	5872.1	5872.1	118.7
64.00		0.2500	35.238	27.762	4293.9	23.44	140.95	65	74	94.7	34.88	5806.2	5806.2	118.7
65.00		0.2500	35.031	27.598	4218.1	23.30	140.12	65	74	94.2	34.88	5740.7	5740.7	118.7
66.00		0.2500	34.824	27.433	4143.1	23.15	139.30	65	74	93.6	34.88	5675.6	5675.6	118.7
67.00		0.2500	34.617	27.269	4069.1	23.00	138.47	65	74	93.1	34.88	5610.8	5610.8	118.7
67.92	RB3	0.2500	34.426	27.118	4001.7	22.87	137.70	65	75	85.1	51.75	8251.7	8251.7	162.0
68.00	RT1 RT2	0.2500	34.409	27.105	3995.9	22.86	137.64	65	75	7.4	51.75	8244.1	8244.1	14.1
69.00		0.2500	34.202	26.940	3923.6	22.71	136.81	65	75	92.0	16.88	2666.5	2666.5	57.4
70.00		0.2500	33.995	26.776	3852.2	22.57	135.98	65	75	91.4	16.88	2635.6	2635.6	57.4
71.00		0.2500	33.788	26.611	3781.7	22.42	135.15	65	75	90.8	16.88	2604.9	2604.9	57.4
72.00		0.2500	33.581	26.447	3712.0	22.27	134.32	65	75	90.3	16.88	2574.4	2574.4	57.4
73.00		0.2500	33.373	26.282	3643.2	22.13	133.49	65	75	89.7	16.88	2544.0	2544.0	57.4
74.00		0.2500	33.166	26.118	3575.3	21.98	132.66	65	76	89.2	16.88	2513.8	2513.8	57.4
75.00	RT3	0.2500	32.959	25.954	3508.2	21.84	131.84	65	76	88.6	16.88	2483.8	2483.8	57.4
76.00		0.2500	32.752	25.789	3441.9	21.69	131.01	65	76	88.0				
77.00		0.2500	32.544	25.625	3376.5	21.54	130.18	65	76	87.5				
78.00		0.2500	32.337	25.460	3311.9	21.40	129.35	65	76	86.9				
79.00		0.2500	32.130	25.296	3248.2	21.25	128.52	65	76	86.4				
80.00		0.2500	31.923	25.131	3185.3	21.10	127.69	65	77	85.8				
81.00		0.2500	31.716	24.967	3123.1	20.96	126.86	65	77	85.2				
82.00		0.2500	31.508	24.803	3061.9	20.81	126.03	65	77	84.7				
83.00		0.2500	31.301	24.638	3001.4	20.67	125.20	65	77	84.1				
84.00		0.2500	31.094	24.474	2941.7	20.52	124.38	65	77	83.6				
85.00		0.2500	30.887	24.309	2882.8	20.37	123.55	65	77	83.0				
86.00		0.2500	30.680	24.145	2824.7	20.23	122.72	65	78	82.4				
87.00		0.2500	30.472	23.981	2767.4	20.08	121.89	65	78	81.9				
88.00		0.2500	30.265	23.816	2710.8	19.94	121.06	65	78	81.3				
89.00		0.2500	30.058	23.652	2655.1	19.79	120.23	65	78	80.8				
90.00		0.2500	29.851	23.487	2600.1	19.64	119.40	65	78	80.2				
91.00		0.2500	29.643	23.323	2545.9	19.50	118.57	65	78	79.6				
92.00		0.2500	29.436	23.158	2492.4	19.35	117.74	65	79	79.1				
93.00		0.2500	29.229	22.994	2439.7	19.20	116.92	65	79	78.5				
94.00		0.2500	29.022	22.830	2387.7	19.06	116.09	65	79	78.0				
95.00		0.2500	28.815	22.665	2336.5	18.91	115.26	65	79	77.4				
96.00		0.2500	28.607	22.501	2286.0	18.77	114.43	65	79	76.8				
96.18	Bot - Section 3	0.2500	28.571	22.472	2277.2	18.74	114.28	65	79	13.5				
97.00		0.2500	28.400	22.336	2236.3	18.62	113.60	65	79	110.6				
98.00		0.2500	28.193	22.172	2187.3	18.47	112.77	65	80	133.4				
99.00		0.2500	27.986	22.008	2139.0	18.33	111.94	65	80	132.4				
99.25	RB4	0.2500	27.934	21.966	2127.0	18.29	111.74	65	80	33.0	15.00	1649.2	1649.2	12.8
100.00		0.2500	27.779	21.843	2091.4	18.18	111.11	65	80	98.5	15.00	1632.0	1632.0	38.3
100.34	Top - Section 2	0.1875	28.082	16.600	1632.0	25.00	149.77	65	72	44.9	15.00	1624.2	1624.2	17.5
101.00		0.1875	27.946	16.519	1608.2	24.87	149.05	65	72	37.0	15.00	1609.3	1609.3	33.5
102.00		0.1875	27.739	16.396	1572.5	24.68	147.94	65	72	56.0	15.00	1586.7	1586.7	51.0
102.25	RT4	0.1875	27.687	16.365	1563.6	24.63	147.67	65	72	13.9	15.00	1581.0	1581.0	12.8

Increment Length: 1 (ft)

Elev (ft)	Description	Thick (in)	Flat Dia (in)	Area (in^2)	Ix (in^4)	W/t Ratio	D/t Ratio	Fy (ksi)	Fb (ksi)	Weight (lb)	Additional Reinforcing Area (in^2)	Ixp (in^4)	Iyp (in^4)	Weight (lb)
103.00		0.1875	27.532	16.273	1537.3	24.48	146.84	65	73	41.6				
104.00		0.1875	27.325	16.149	1502.6	24.29	145.73	65	73	55.2				
105.00		0.1875	27.117	16.026	1468.4	24.09	144.63	65	73	54.7				
106.00		0.1875	26.910	15.903	1434.8	23.90	143.52	65	73	54.3				
107.00		0.1875	26.703	15.779	1401.7	23.70	142.42	65	74	53.9				
108.00		0.1875	26.496	15.656	1369.1	23.51	141.31	65	74	53.5				
109.00		0.1875	26.289	15.533	1337.0	23.31	140.21	65	74	53.1				
110.00		0.1875	26.081	15.410	1305.4	23.12	139.10	65	74	52.6				
111.00		0.1875	25.874	15.286	1274.3	22.92	138.00	65	74	52.2				
112.00		0.1875	25.667	15.163	1243.7	22.73	136.89	65	75	51.8				
113.00		0.1875	25.460	15.040	1213.6	22.53	135.79	65	75	51.4				
114.00		0.1875	25.253	14.916	1184.0	22.34	134.68	65	75	51.0				
115.00		0.1875	25.045	14.793	1154.9	22.14	133.57	65	75	50.5				
116.00		0.1875	24.838	14.670	1126.2	21.95	132.47	65	76	50.1				
117.00		0.1875	24.631	14.546	1098.1	21.75	131.36	65	76	49.7				
118.00		0.1875	24.424	14.423	1070.4	21.56	130.26	65	76	49.3				
119.00		0.1875	24.216	14.300	1043.2	21.36	129.15	65	76	48.9				
120.00		0.1875	24.009	14.176	1016.4	21.17	128.05	65	77	48.4				
121.00		0.1875	23.802	14.053	990.1	20.97	126.94	65	77	48.0				
122.00		0.1875	23.595	13.930	964.3	20.78	125.84	65	77	47.6				
123.00		0.1875	23.388	13.806	938.9	20.58	124.73	65	77	47.2				
124.00		0.1875	23.180	13.683	914.0	20.39	123.63	65	77	46.8				
125.00		0.1875	22.973	13.560	889.5	20.19	122.52	65	78	46.4				
126.00		0.1875	22.766	13.437	865.4	20.00	121.42	65	78	45.9				
127.00		0.1875	22.559	13.313	841.8	19.80	120.31	65	78	45.5				
128.00		0.1875	22.352	13.190	818.6	19.61	119.21	65	78	45.1				
129.00		0.1875	22.144	13.067	795.9	19.41	118.10	65	79	44.7				
130.00		0.1875	21.937	12.943	773.6	19.22	117.00	65	79	44.3				
131.00		0.1875	21.730	12.820	751.7	19.02	115.89	65	79	43.8				
132.00		0.1875	21.523	12.697	730.2	18.83	114.79	65	79	43.4				
133.00		0.1875	21.315	12.573	709.1	18.63	113.68	65	79	43.0				
134.00		0.1875	21.108	12.450	688.5	18.44	112.58	65	80	42.6				
135.00		0.1875	20.901	12.327	668.2	18.24	111.47	65	80	42.2				
136.00		0.1875	20.694	12.203	648.3	18.05	110.37	65	80	41.7				
137.00		0.1875	20.487	12.080	628.9	17.86	109.26	65	80	41.3				
138.00		0.1875	20.279	11.957	609.8	17.66	108.16	65	81	40.9				
139.00		0.1875	20.072	11.833	591.2	17.47	107.05	65	81	40.5				
140.00		0.1875	19.865	11.710	572.9	17.27	105.95	65	81	40.1				
141.00		0.1875	19.658	11.587	555.0	17.08	104.84	65	81	39.6				
142.00		0.1875	19.451	11.463	537.4	16.88	103.74	65	82	39.2				
143.00		0.1875	19.243	11.340	520.3	16.69	102.63	65	82	38.8				
144.00		0.1875	19.036	11.217	503.5	16.49	101.53	65	82	38.4				
145.00		0.1875	18.829	11.094	487.1	16.30	100.42	65	82	38.0				
146.00		0.1875	18.622	10.970	471.0	16.10	99.32	65	82	37.5				
147.00		0.1875	18.414	10.847	455.3	15.91	98.21	65	83	37.1				
148.00		0.1875	18.207	10.724	439.9	15.71	97.11	65	83	36.7				
149.00		0.1875	18.000	10.600	424.9	15.52	96.00	65	83	36.3				
									Total Weight	14728.1				2642.6

Wind Loading - Shaft

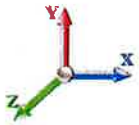
Structure:	CT12215-A-SBA	**Code:**	TIA-222-H	2/6/2024	
Site Name:	Litchfield 3 CT	**Exposure:**	B		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 11	

Tower Engineering Solutions

Load Case: 1.2D + 1.0W 115 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 35

Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.70	21.846	24.03	384.96	0.730	0.000	0.00	0.000	0.00	0.0	0.0	0.0
1.00		1.00	0.70	21.846	24.03	383.30	0.730	0.000	1.00	4.053	2.96	71.1	0.0	192.7
2.00		1.00	0.70	21.846	24.03	381.64	0.730	0.000	1.00	4.035	2.95	70.8	0.0	191.9
3.00		1.00	0.70	21.846	24.03	379.97	0.730	0.000	1.00	4.018	2.93	70.5	0.0	191.0
4.00		1.00	0.70	21.846	24.03	378.31	0.730	0.000	1.00	4.000	2.92	70.2	0.0	190.2
5.00		1.00	0.70	21.846	24.03	376.65	0.730	0.000	1.00	3.983	2.91	69.9	0.0	189.4
6.00		1.00	0.70	21.846	24.03	374.99	0.730	0.000	1.00	3.965	2.89	69.6	0.0	188.5
7.00		1.00	0.70	21.846	24.03	373.33	0.730	0.000	1.00	3.948	2.88	69.3	0.0	187.7
8.00		1.00	0.70	21.846	24.03	371.67	0.730	0.000	1.00	3.930	2.87	68.9	0.0	186.8
9.00		1.00	0.70	21.846	24.03	370.00	0.730	0.000	1.00	3.913	2.86	68.6	0.0	186.0
10.00		1.00	0.70	21.846	24.03	368.34	0.730	0.000	1.00	3.895	2.84	68.3	0.0	185.2
11.00		1.00	0.70	21.846	24.03	366.68	0.730	0.000	1.00	3.878	2.83	68.0	0.0	184.3
12.00		1.00	0.70	21.846	24.03	365.02	0.730	0.000	1.00	3.860	2.82	67.7	0.0	183.5
13.00		1.00	0.70	21.846	24.03	363.36	0.730	0.000	1.00	3.843	2.81	67.4	0.0	182.6
14.00		1.00	0.70	21.846	24.03	361.69	0.730	0.000	1.00	3.825	2.79	67.1	0.0	181.8
15.00		1.00	0.70	21.846	24.03	360.03	0.730	0.000	1.00	3.807	2.78	66.8	0.0	181.0
16.00		1.00	0.70	21.846	24.03	358.37	0.730	0.000	1.00	3.790	2.77	66.5	0.0	180.1
17.00		1.00	0.70	21.846	24.03	356.71	0.730	0.000	1.00	3.772	2.75	66.2	0.0	179.3
18.00		1.00	0.70	21.846	24.03	355.05	0.730	0.000	1.00	3.755	2.74	65.9	0.0	178.4
19.00		1.00	0.70	21.846	24.03	353.38	0.730	0.000	1.00	3.737	2.73	65.6	0.0	177.6
20.00		1.00	0.70	21.846	24.03	351.72	0.730	0.000	1.00	3.720	2.72	65.3	0.0	176.8
21.00		1.00	0.70	21.846	24.03	350.06	0.730	0.000	1.00	3.702	2.70	64.9	0.0	175.9
22.00		1.00	0.70	21.846	24.03	348.40	0.730	0.000	1.00	3.685	2.69	64.6	0.0	175.1
23.00		1.00	0.70	21.846	24.03	346.74	0.730	0.000	1.00	3.667	2.68	64.3	0.0	174.3
24.00		1.00	0.70	21.846	24.03	345.08	0.730	0.000	1.00	3.650	2.66	64.0	0.0	173.4
25.00		1.00	0.70	21.846	24.03	343.41	0.730	0.000	1.00	3.632	2.65	63.7	0.0	172.6
26.00		1.00	0.70	21.846	24.03	341.75	0.730	0.000	1.00	3.615	2.64	63.4	0.0	171.7
27.00		1.00	0.70	21.846	24.03	340.09	0.730	0.000	1.00	3.597	2.63	63.1	0.0	170.9
28.00		1.00	0.70	21.846	24.03	338.43	0.730	0.000	1.00	3.580	2.61	62.8	0.0	170.1
29.00		1.00	0.70	21.846	24.03	336.77	0.730	0.000	1.00	3.562	2.60	62.5	0.0	169.2
30.00		1.00	0.70	21.865	24.05	335.25	0.730	0.000	1.00	3.544	2.59	62.2	0.0	168.4
31.00		1.00	0.71	22.071	24.28	335.15	0.730	0.000	1.00	3.527	2.57	62.5	0.0	167.5
32.00		1.00	0.71	22.272	24.50	335.00	0.730	0.000	1.00	3.509	2.56	62.8	0.0	166.7
33.00		1.00	0.72	22.468	24.72	334.79	0.730	0.000	1.00	3.492	2.55	63.0	0.0	165.9
34.00		1.00	0.73	22.661	24.93	334.52	0.730	0.000	1.00	3.474	2.54	63.2	0.0	165.0
35.00		1.00	0.73	22.849	25.13	334.21	0.730	0.000	1.00	3.457	2.52	63.4	0.0	164.2
36.00		1.00	0.74	23.034	25.34	333.85	0.730	0.000	1.00	3.439	2.51	63.6	0.0	163.3
37.00		1.00	0.74	23.215	25.54	333.45	0.730	0.000	1.00	3.422	2.50	63.8	0.0	162.5
38.00		1.00	0.75	23.393	25.73	333.00	0.730	0.000	1.00	3.404	2.49	63.9	0.0	161.7
39.00		1.00	0.76	23.567	25.92	332.51	0.730	0.000	1.00	3.387	2.47	64.1	0.0	160.8
40.00		1.00	0.76	23.738	26.11	331.99	0.730	0.000	1.00	3.369	2.46	64.2	0.0	160.0
41.00		1.00	0.77	23.906	26.30	331.42	0.730	0.000	1.00	3.352	2.45	64.3	0.0	159.1
42.00		1.00	0.77	24.071	26.48	330.82	0.730	0.000	1.00	3.334	2.43	64.4	0.0	158.3
43.00		1.00	0.78	24.233	26.66	330.18	0.730	0.000	1.00	3.316	2.42	64.5	0.0	157.5
44.00		1.00	0.78	24.393	26.83	329.51	0.730	0.000	1.00	3.299	2.41	64.6	0.0	156.6
45.00		1.00	0.79	24.550	27.01	328.81	0.730	0.000	1.00	3.281	2.40	64.7	0.0	155.8
46.00		1.00	0.79	24.705	27.18	328.08	0.730	0.000	1.00	3.264	2.38	64.7	0.0	155.0

Wind Loading - Shaft

Structure: CT12215-A-SBA
Site Name: Litchfield 3 CT
Height: 149.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1
Topography: 1

Code: TIA-222-H
Exposure: B
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

2/6/2024

Tower Engineering Solutions

47.00	1.00	0.80	24.857	27.34	327.32	0.730	0.000	1.00	3.246	2.37	64.8	0.0	154.1
47.55 Bot - Section 2	1.00	0.80	24.940	27.43	326.88	0.730	0.000	0.55	1.789	1.31	35.8	0.0	84.9
48.00	1.00	0.80	25.007	27.51	326.52	0.730	0.000	0.45	1.459	1.07	29.3	0.0	123.9
49.00	1.00	0.81	25.155	27.67	325.70	0.730	0.000	1.00	3.254	2.38	65.7	0.0	276.2
50.00 Appurtenance(s)	1.00	0.81	25.301	27.83	324.86	0.730	0.000	1.00	3.236	2.36	65.7	0.0	274.7
51.00	1.00	0.82	25.444	27.99	323.98	0.755 *	0.000	1.00	3.219	2.43	68.0	0.0	273.2
52.00 RB1 RB2	1.00	0.82	25.586	28.14	323.08	0.757 *	0.000	1.00	3.201	2.42	68.2	0.0	271.7
52.97 Top - Section 1	1.00	0.82	25.721	28.29	322.19	0.758 *	0.000	0.97	3.088	2.34	66.2	0.0	262.1
53.00	1.00	0.82	25.725	28.30	326.51	0.755 *	0.000	0.03	0.095	0.07	2.0	0.0	3.6
54.00	1.00	0.83	25.863	28.45	325.58	0.756 *	0.000	1.00	3.166	2.39	68.1	0.0	120.4
55.00	1.00	0.83	25.999	28.60	324.62	0.757 *	0.000	1.00	3.148	2.38	68.2	0.0	119.7
56.00	1.00	0.84	26.133	28.75	323.64	0.759 *	0.000	1.00	3.131	2.38	68.3	0.0	119.1
57.00	1.00	0.84	26.266	28.89	322.64	0.760 *	0.000	1.00	3.113	2.37	68.4	0.0	118.4
58.00	1.00	0.85	26.397	29.04	321.61	0.762 *	0.000	1.00	3.096	2.36	68.5	0.0	117.7
59.00	1.00	0.85	26.526	29.18	320.57	0.763 *	0.000	1.00	3.078	2.35	68.5	0.0	117.1
60.00	1.00	0.85	26.653	29.32	319.50	0.764 *	0.000	1.00	3.061	2.34	68.6	0.0	116.4
61.00	1.00	0.86	26.780	29.46	318.42	0.766 *	0.000	1.00	3.043	2.33	68.7	0.0	115.7
62.00	1.00	0.86	26.904	29.59	317.31	0.767 *	0.000	1.00	3.026	2.32	68.7	0.0	115.0
63.00	1.00	0.87	27.028	29.73	316.19	0.769 *	0.000	1.00	3.008	2.31	68.8	0.0	114.4
64.00	1.00	0.87	27.149	29.86	315.05	0.770 *	0.000	1.00	2.991	2.30	68.8	0.0	113.7
65.00	1.00	0.87	27.270	30.00	313.89	0.772 *	0.000	1.00	2.973	2.29	68.8	0.0	113.0
66.00	1.00	0.88	27.389	30.13	312.72	0.773 *	0.000	1.00	2.956	2.29	68.9	0.0	112.4
67.00	1.00	0.88	27.507	30.26	311.53	0.775 *	0.000	1.00	2.938	2.28	68.9	0.0	111.7
67.92 RB3	1.00	0.88	27.615	30.38	310.41	0.777 *	0.000	0.92	2.687	2.09	63.4	0.0	102.2
68.00 RT1 RT2	1.00	0.89	27.624	30.39	310.32	0.777 *	0.000	0.08	0.233	0.18	5.5	0.0	8.9
69.00	1.00	0.89	27.739	30.51	309.09	0.778 *	0.000	1.00	2.903	2.26	68.9	0.0	110.3
70.00	1.00	0.89	27.854	30.64	307.85	0.780 *	0.000	1.00	2.885	2.25	68.9	0.0	109.7
71.00	1.00	0.90	27.967	30.76	306.60	0.730	0.000	1.00	2.868	2.09	64.4	0.0	109.0
72.00	1.00	0.90	28.079	30.89	305.32	0.730	0.000	1.00	2.850	2.08	64.3	0.0	108.3
73.00 Appurtenance(s)	1.00	0.90	28.190	31.01	304.04	0.730	0.000	1.00	2.833	2.07	64.1	0.0	107.7
74.00	1.00	0.91	28.299	31.13	302.74	0.730	0.000	1.00	2.815	2.06	64.0	0.0	107.0
75.00 RT3	1.00	0.91	28.408	31.25	301.42	0.730	0.000	1.00	2.798	2.04	63.8	0.0	106.3
76.00	1.00	0.91	28.516	31.37	300.10	0.730	0.000	1.00	2.780	2.03	63.7	0.0	105.6
77.00	1.00	0.92	28.623	31.48	298.76	0.730	0.000	1.00	2.763	2.02	63.5	0.0	105.0
78.00	1.00	0.92	28.728	31.60	297.40	0.730	0.000	1.00	2.745	2.00	63.3	0.0	104.3
79.00	1.00	0.92	28.833	31.72	296.03	0.730	0.000	1.00	2.728	1.99	63.2	0.0	103.6
80.00	1.00	0.93	28.937	31.83	294.65	0.730	0.000	1.00	2.710	1.98	63.0	0.0	103.0
81.00	1.00	0.93	29.040	31.94	293.26	0.730	0.000	1.00	2.693	1.97	62.8	0.0	102.3
82.00	1.00	0.93	29.142	32.06	291.86	0.730	0.000	1.00	2.675	1.95	62.6	0.0	101.6
83.00	1.00	0.94	29.243	32.17	290.44	0.730	0.000	1.00	2.657	1.94	62.4	0.0	100.9
84.00	1.00	0.94	29.343	32.28	289.01	0.730	0.000	1.00	2.640	1.93	62.2	0.0	100.3
85.00	1.00	0.94	29.442	32.39	287.57	0.730	0.000	1.00	2.622	1.91	62.0	0.0	99.6
86.00	1.00	0.95	29.541	32.50	286.12	0.730	0.000	1.00	2.605	1.90	61.8	0.0	98.9
87.00	1.00	0.95	29.639	32.60	284.66	0.730	0.000	1.00	2.587	1.89	61.6	0.0	98.3
88.00	1.00	0.95	29.736	32.71	283.18	0.730	0.000	1.00	2.570	1.88	61.4	0.0	97.6
89.00	1.00	0.96	29.832	32.81	281.70	0.730	0.000	1.00	2.552	1.86	61.1	0.0	96.9
90.00	1.00	0.96	29.927	32.92	280.20	0.730	0.000	1.00	2.535	1.85	60.9	0.0	96.2
91.00	1.00	0.96	30.022	33.02	278.70	0.730	0.000	1.00	2.517	1.84	60.7	0.0	95.6
92.00	1.00	0.96	30.116	33.13	277.18	0.730	0.000	1.00	2.500	1.82	60.4	0.0	94.9
93.00	1.00	0.97	30.209	33.23	275.66	0.730	0.000	1.00	2.482	1.81	60.2	0.0	94.2
94.00	1.00	0.97	30.301	33.33	274.12	0.730	0.000	1.00	2.465	1.80	60.0	0.0	93.6
95.00	1.00	0.97	30.393	33.43	272.57	0.730	0.000	1.00	2.447	1.79	59.7	0.0	92.9
96.00	1.00	0.98	30.484	33.53	271.02	0.730	0.000	1.00	2.429	1.77	59.5	0.0	92.2
96.18 Bot - Section 3	1.00	0.98	30.500	33.55	270.74	0.737 *	0.000	0.18	0.427	0.32	10.6	0.0	16.2
97.00	1.00	0.98	30.575	33.63	269.45	0.738 *	0.000	0.82	2.011	1.48	49.9	0.0	132.7
98.00	1.00	0.98	30.664	33.73	267.88	0.835 *	0.000	1.00	2.426	2.03	68.3	0.0	160.1
99.00	1.00	0.99	30.753	33.83	266.30	0.837 *	0.000	1.00	2.409	2.02	68.2	0.0	158.9

Wind Loading - Shaft

Structure: CT12215-A-SBA
Site Name: Litchfield 3 CT
Height: 149.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1
Topography: 1

Code: TIA-222-H
Exposure: B
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

2/6/2024

Tower Engineering Solutions

99.25 RB4	1.00	0.99	30.775	33.85	265.90	0.839 *	0.000	0.25	0.599	0.50	17.0	0.0	39.5
100.00	1.00	0.99	30.842	33.93	264.71	0.840 *	0.000	0.75	1.792	1.51	51.1	0.0	118.2
100.34 Top - Section 2	1.00	0.99	30.872	33.96	264.16	0.841 *	0.000	0.34	0.817	0.69	23.3	0.0	53.9
101.00	1.00	0.99	30.930	34.02	266.68	0.838 *	0.000	0.66	1.557	1.30	44.4	0.0	44.4
102.00	1.00	0.99	31.017	34.12	265.08	0.840 *	0.000	1.00	2.356	1.98	67.5	0.0	67.2
102.25 RT4	1.00	0.99	31.038	34.14	264.68	0.842 *	0.000	0.25	0.586	0.49	16.8	0.0	16.7
103.00	1.00	1.00	31.103	34.21	263.47	0.843 *	0.000	0.75	1.752	1.48	50.5	0.0	50.0
104.00	1.00	1.00	31.189	34.31	261.84	0.845 *	0.000	1.00	2.321	1.96	67.3	0.0	66.2
105.00	1.00	1.00	31.275	34.40	260.21	0.848 *	0.000	1.00	2.303	1.95	67.2	0.0	65.7
106.00	1.00	1.00	31.360	34.50	258.58	0.751 *	0.000	1.00	2.286	1.72	59.2	0.0	65.2
107.00	1.00	1.01	31.444	34.59	256.93	0.752 *	0.000	1.00	2.268	1.71	59.0	0.0	64.7
108.00	1.00	1.01	31.527	34.68	255.27	0.754 *	0.000	1.00	2.251	1.70	58.9	0.0	64.2
109.00	1.00	1.01	31.611	34.77	253.61	0.756 *	0.000	1.00	2.233	1.69	58.7	0.0	63.7
110.00	1.00	1.02	31.693	34.86	251.94	0.758 *	0.000	1.00	2.216	1.68	58.6	0.0	63.2
111.00	1.00	1.02	31.775	34.95	250.26	0.760 *	0.000	1.00	2.198	1.67	58.4	0.0	62.7
112.00	1.00	1.02	31.857	35.04	248.58	0.762 *	0.000	1.00	2.181	1.66	58.2	0.0	62.2
113.00	1.00	1.02	31.938	35.13	246.88	0.764 *	0.000	1.00	2.163	1.65	58.1	0.0	61.7
114.00	1.00	1.03	32.018	35.22	245.18	0.766 *	0.000	1.00	2.146	1.64	57.9	0.0	61.2
115.00 Appurtenance(s)	1.00	1.03	32.098	35.31	243.47	0.768 *	0.000	1.00	2.128	1.63	57.7	0.0	60.7
116.00	1.00	1.03	32.178	35.40	241.76	0.730	0.000	1.00	2.111	1.54	54.5	0.0	60.2
117.00	1.00	1.03	32.257	35.48	240.04	0.730	0.000	1.00	2.093	1.53	54.2	0.0	59.6
118.00	1.00	1.04	32.335	35.57	238.31	0.730	0.000	1.00	2.075	1.52	53.9	0.0	59.1
119.00	1.00	1.04	32.413	35.65	236.57	0.730	0.000	1.00	2.058	1.50	53.6	0.0	58.6
120.00	1.00	1.04	32.491	35.74	234.83	0.730	0.000	1.00	2.040	1.49	53.2	0.0	58.1
121.00	1.00	1.04	32.568	35.82	233.07	0.730	0.000	1.00	2.023	1.48	52.9	0.0	57.6
122.00	1.00	1.05	32.645	35.91	231.32	0.730	0.000	1.00	2.005	1.46	52.6	0.0	57.1
123.00	1.00	1.05	32.721	35.99	229.55	0.730	0.000	1.00	1.988	1.45	52.2	0.0	56.6
124.00	1.00	1.05	32.797	36.08	227.78	0.730	0.000	1.00	1.970	1.44	51.9	0.0	56.1
125.00	1.00	1.05	32.872	36.16	226.01	0.730	0.000	1.00	1.953	1.43	51.5	0.0	55.6
126.00	1.00	1.06	32.947	36.24	224.22	0.730	0.000	1.00	1.935	1.41	51.2	0.0	55.1
127.00	1.00	1.06	33.022	36.32	222.43	0.730	0.000	1.00	1.918	1.40	50.8	0.0	54.6
128.00	1.00	1.06	33.096	36.41	220.64	0.730	0.000	1.00	1.900	1.39	50.5	0.0	54.1
129.00	1.00	1.06	33.169	36.49	218.83	0.730	0.000	1.00	1.883	1.37	50.1	0.0	53.6
130.00 Appurtenance(s)	1.00	1.07	33.243	36.57	217.03	0.730	0.000	1.00	1.865	1.36	49.8	0.0	53.1
131.00	1.00	1.07	33.315	36.65	215.21	0.730	0.000	1.00	1.848	1.35	49.4	0.0	52.6
132.00	1.00	1.07	33.388	36.73	213.39	0.730	0.000	1.00	1.830	1.34	49.1	0.0	52.1
133.00	1.00	1.07	33.460	36.81	211.56	0.730	0.000	1.00	1.812	1.32	48.7	0.0	51.6
134.00	1.00	1.07	33.532	36.88	209.73	0.730	0.000	1.00	1.795	1.31	48.3	0.0	51.1
135.00	1.00	1.08	33.603	36.96	207.89	0.730	0.000	1.00	1.777	1.30	48.0	0.0	50.6
136.00	1.00	1.08	33.674	37.04	206.05	0.730	0.000	1.00	1.760	1.28	47.6	0.0	50.1
137.00	1.00	1.08	33.744	37.12	204.20	0.730	0.000	1.00	1.742	1.27	47.2	0.0	49.6
138.00 Appurtenance(s)	1.00	1.08	33.815	37.20	202.34	0.730	0.000	1.00	1.725	1.26	46.8	0.0	49.1
139.00	1.00	1.09	33.884	37.27	200.48	0.730	0.000	1.00	1.707	1.25	46.5	0.0	48.6
140.00 Appurtenance(s)	1.00	1.09	33.954	37.35	198.62	0.730	0.000	1.00	1.690	1.23	46.1	0.0	48.1
141.00	1.00	1.09	34.023	37.43	196.75	0.730	0.000	1.00	1.672	1.22	45.7	0.0	47.6
142.00	1.00	1.09	34.092	37.50	194.87	0.730	0.000	1.00	1.655	1.21	45.3	0.0	47.1
143.00	1.00	1.09	34.160	37.58	192.99	0.730	0.000	1.00	1.637	1.20	44.9	0.0	46.6
144.00	1.00	1.10	34.228	37.65	191.10	0.730	0.000	1.00	1.620	1.18	44.5	0.0	46.1
145.00	1.00	1.10	34.296	37.73	189.20	0.730	0.000	1.00	1.602	1.17	44.1	0.0	45.6
146.00	1.00	1.10	34.363	37.80	187.31	0.730	0.000	1.00	1.585	1.16	43.7	0.0	45.0
147.00	1.00	1.10	34.431	37.87	185.40	0.730	0.000	1.00	1.567	1.14	43.3	0.0	44.5
148.00	1.00	1.11	34.497	37.95	183.49	0.730	0.000	1.00	1.549	1.13	42.9	0.0	44.0
149.00 Appurtenance(s)	1.00	1.11	34.564	38.02	181.58	0.730	0.000	1.00	1.532	1.12	42.5	0.0	43.5
							Totals:	**149.00**			**9,114.9**		**17,673.7**

* Cf Adjusted by Linear Load Ra Effect

Discrete Appurtenance Forces

Structure:	CT12215-A-SBA	**Code:**	TIA-222-H	2/6/2024	
Site Name:	Litchfield 3 CT	**Exposure:**	B		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 14	

TES Tower Engineering Solutions

Load Case: 1.2D + 1.0W 115 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00

Iterations 35

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orient Factor x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	149.00	ACU-A20-N	4	34.761	38.237	0.40	0.80	0.22	4.80	0.000	3.000	8.57	0.00	25.70
2	149.00	800MHz Filter	3	34.761	38.237	0.40	0.80	0.94	31.68	0.000	3.000	35.79	0.00	107.37
3	149.00	TD-RRH8x20-25	3	34.761	38.237	0.40	0.80	4.86	252.00	0.000	3.000	185.83	0.00	557.50
4	149.00	800MHZ	3	34.761	38.237	0.40	0.80	3.17	214.20	0.000	3.000	121.14	0.00	363.41
5	149.00	1900MHz	3	34.761	38.237	0.40	0.80	3.32	216.00	0.000	3.000	127.10	0.00	381.30
6	149.00	APXVTM14-C-I20	3	34.761	38.237	0.63	0.80	12.02	201.60	0.000	3.000	459.64	0.00	1378.91
7	149.00	APXVSPP18-C-A20	3	34.761	38.237	0.66	0.80	15.98	205.20	0.000	3.000	610.87	0.00	1832.62
8	149.00	Low Profile Platform	1	34.564	38.020	1.00	1.00	25.00	1440.00	0.000	0.000	950.50	0.00	0.00
9	140.00	NHH-65C-R2B	6	33.954	37.349	0.63	0.75	43.05	371.52	0.000	0.000	1608.04	0.00	0.00
10	140.00	BXA-70063-6CF-EDIN-5	3	33.954	37.349	0.55	0.75	12.43	61.20	0.000	0.000	464.39	0.00	0.00
11	140.00	MT6413 77A	3	33.954	37.349	0.52	0.75	6.68	313.56	0.000	0.000	249.33	0.00	0.00
12	140.00	Low Profile	1	33.954	37.349	1.00	1.00	22.00	1800.00	0.000	0.000	821.68	0.00	0.00
13	140.00	RFS DB-C1-12C-24AB-0Z	1	33.954	37.349	0.75	0.75	3.04	38.40	0.000	0.000	113.73	0.00	0.00
14	140.00	RFS FD9R6004/2C-3L	6	33.954	37.349	0.75	0.75	1.62	22.32	0.000	0.000	60.51	0.00	0.00
15	140.00	RF4461d-13A	3	33.954	37.349	0.50	0.75	2.83	304.20	0.000	0.000	105.85	0.00	0.00
16	140.00	RF4439-25A ORAN	3	33.954	37.349	0.50	0.75	2.82	303.84	0.000	0.000	105.29	0.00	0.00
17	140.00	Mount Mods	1	33.954	37.349	1.00	1.00	17.00	498.07	0.000	0.000	634.94	0.00	0.00
18	138.00	GPS Receiver	1	33.815	37.196	0.80	0.80	0.80	12.00	0.000	0.000	29.76	0.00	0.00
19	130.00	80010965	6	33.243	36.567	0.53	0.75	44.12	781.92	0.000	0.000	1613.43	0.00	0.00
20	130.00	(3) 12.5' - 2" Horizontal	1	33.243	36.567	0.75	1.00	4.45	164.70	0.000	0.000	162.84	0.00	0.00
21	130.00	XP-2020	24	33.243	36.567	0.56	0.75	9.31	288.00	0.000	0.000	340.62	0.00	0.00
22	130.00	Low Profile Platform	1	33.243	36.567	1.00	1.00	25.00	1440.00	0.000	0.000	914.17	0.00	0.00
23	130.00	7770.00	3	33.243	36.567	0.55	0.75	9.03	126.00	0.000	0.000	330.34	0.00	0.00
24	130.00	LGP 21401	12	33.243	36.567	0.38	0.75	0.00	252.00	0.000	0.000	0.00	0.00	0.00
25	130.00	DC6-48-60-18-8F	1	33.243	36.567	0.75	0.75	0.69	38.16	0.000	0.000	25.23	0.00	0.00
26	130.00	ABT-DF-DM-ADBH	1	33.243	36.567	0.75	0.75	0.04	1.32	0.000	0.000	1.37	0.00	0.00
27	130.00	VSRDual-TS-B-HD	2	33.243	36.567	0.56	0.75	4.61	356.16	0.000	0.000	168.66	0.00	0.00
28	130.00	4449 B5/B12	3	33.243	36.567	0.38	0.75	2.22	255.60	0.000	0.000	81.04	0.00	0.00
29	130.00	8843 B2/B66A	3	33.243	36.567	0.38	0.75	1.84	259.20	0.000	0.000	67.47	0.00	0.00
30	130.00	DC6-48-60-18-8C	1	33.243	36.567	0.75	0.75	0.95	24.00	0.000	0.000	34.56	0.00	0.00
31	130.00	DC6-48-60-0-8C-EV	1	33.243	36.567	0.75	0.75	3.58	19.20	0.000	0.000	131.09	0.00	0.00
32	130.00	RRUS 4478 B14	3	33.243	36.567	0.38	0.75	1.86	213.84	0.000	0.000	67.88	0.00	0.00
33	115.00	AIR6449 B41	3	32.098	35.308	0.57	0.80	9.63	370.80	0.000	0.000	339.93	0.00	0.00
34	115.00	T-Arm	3	32.098	35.308	0.56	0.75	13.50	1260.00	0.000	0.000	476.66	0.00	0.00
35	115.00	(3) Stabilizer Kit (12' FW)	1	32.098	35.308	1.00	1.00	6.10	216.00	0.000	0.000	215.38	0.00	0.00
36	115.00	4460 Radio	3	32.098	35.308	0.40	0.80	3.42	392.40	0.000	0.000	120.75	0.00	0.00
37	115.00	APXVAALL24_43-U-NA20	3	32.098	35.308	0.58	0.80	35.46	442.08	0.000	0.000	1252.04	0.00	0.00
38	115.00	RRUS 11	3	32.098	35.308	0.40	0.80	3.02	182.52	0.000	0.000	106.77	0.00	0.00
39	115.00	4449 B71 + B85	3	32.098	35.308	0.40	0.80	2.36	263.52	0.000	0.000	83.47	0.00	0.00
40	73.00	GPS Receiver	1	28.190	31.009	1.00	1.00	1.00	12.00	0.000	0.000	31.01	0.00	0.00
41	50.00	58532A	1	25.301	27.831	1.00	1.00	0.22	0.48	0.000	0.000	6.12	0.00	0.00
							Totals:		**13,650.49**			**13,263.79**		

Total Applied Force Summary

Structure:	CT12215-A-SBA	**Code:**	TIA-222-H	2/6/2024	
Site Name:	Litchfield 3 CT	**Exposure:**	B		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 15	

Tower Engineering Solutions

Load Case: 1.2D + 1.0W 115 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00

Iterations 35

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
1.00		71.10	241.36	0.00	0.00
2.00		70.79	240.52	0.00	0.00
3.00		70.48	239.68	0.00	0.00
4.00		70.18	238.84	0.00	0.00
5.00		69.87	238.00	0.00	0.00
6.00		69.56	237.16	0.00	0.00
7.00		69.25	236.32	0.00	0.00
8.00		68.95	235.48	0.00	0.00
9.00		68.64	234.64	0.00	0.00
10.00		68.33	233.81	0.00	0.00
11.00		68.02	232.97	0.00	0.00
12.00		67.72	232.13	0.00	0.00
13.00		67.41	231.29	0.00	0.00
14.00		67.10	230.45	0.00	0.00
15.00		66.79	229.61	0.00	0.00
16.00		66.49	228.77	0.00	0.00
17.00		66.18	227.93	0.00	0.00
18.00		65.87	227.09	0.00	0.00
19.00		65.56	226.25	0.00	0.00
20.00		65.25	225.41	0.00	0.00
21.00		64.95	224.57	0.00	0.00
22.00		64.64	223.73	0.00	0.00
23.00		64.33	222.90	0.00	0.00
24.00		64.02	222.06	0.00	0.00
25.00		63.72	221.22	0.00	0.00
26.00		63.41	220.38	0.00	0.00
27.00		63.10	219.54	0.00	0.00
28.00		62.79	218.70	0.00	0.00
29.00		62.49	217.86	0.00	0.00
30.00		62.23	217.02	0.00	0.00
31.00		62.51	216.18	0.00	0.00
32.00		62.76	215.34	0.00	0.00
33.00		63.00	214.50	0.00	0.00
34.00		63.22	213.66	0.00	0.00
35.00		63.42	212.82	0.00	0.00
36.00		63.61	211.99	0.00	0.00
37.00		63.79	211.15	0.00	0.00
38.00		63.94	210.31	0.00	0.00
39.00		64.09	209.47	0.00	0.00
40.00		64.22	208.63	0.00	0.00
41.00		64.34	207.79	0.00	0.00
42.00		64.44	206.95	0.00	0.00
43.00		64.54	206.11	0.00	0.00
44.00		64.62	205.27	0.00	0.00
45.00		64.69	204.43	0.00	0.00
46.00		64.75	203.59	0.00	0.00

Total Applied Force Summary

Structure:	CT12215-A-SBA		**Code:**	TIA-222-H	2/6/2024
Site Name:	Litchfield 3 CT		**Exposure:**	B	
Height:	149.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 16

Tower Engineering Solutions

47.00		64.80	202.75	0.00	0.00
47.55		35.82	111.83	0.00	0.00
48.00		29.30	145.59	0.00	0.00
49.00		65.72	324.84	0.00	0.00
50.00	(1) attachments	71.87	323.81	0.00	0.00
51.00		68.03	321.63	0.00	0.00
52.00		68.16	320.12	0.00	0.00
52.97		66.22	309.07	0.00	0.00
53.00		2.04	5.08	0.00	0.00
54.00		68.09	168.86	0.00	0.00
55.00		68.19	168.19	0.00	0.00
56.00		68.29	167.52	0.00	0.00
57.00		68.37	166.85	0.00	0.00
58.00		68.46	166.18	0.00	0.00
59.00		68.53	165.51	0.00	0.00
60.00		68.60	164.83	0.00	0.00
61.00		68.66	164.16	0.00	0.00
62.00		68.71	163.49	0.00	0.00
63.00		68.76	162.82	0.00	0.00
64.00		68.80	162.15	0.00	0.00
65.00		68.84	161.48	0.00	0.00
66.00		68.87	160.81	0.00	0.00
67.00		68.90	160.13	0.00	0.00
67.92		63.39	146.73	0.00	0.00
68.00		5.50	12.73	0.00	0.00
69.00		68.93	158.79	0.00	0.00
70.00		68.94	158.12	0.00	0.00
71.00		64.40	157.45	0.00	0.00
72.00		64.27	156.78	0.00	0.00
73.00	(1) attachments	95.13	168.11	0.00	0.00
74.00		63.97	155.24	0.00	0.00
75.00		63.82	154.57	0.00	0.00
76.00		63.66	153.90	0.00	0.00
77.00		63.50	153.23	0.00	0.00
78.00		63.33	152.56	0.00	0.00
79.00		63.15	151.89	0.00	0.00
80.00		62.97	151.22	0.00	0.00
81.00		62.79	150.54	0.00	0.00
82.00		62.60	149.87	0.00	0.00
83.00		62.40	149.20	0.00	0.00
84.00		62.20	148.53	0.00	0.00
85.00		62.00	147.86	0.00	0.00
86.00		61.79	147.19	0.00	0.00
87.00		61.58	146.52	0.00	0.00
88.00		61.36	145.84	0.00	0.00
89.00		61.14	145.17	0.00	0.00
90.00		60.91	144.50	0.00	0.00
91.00		60.68	143.83	0.00	0.00
92.00		60.45	143.16	0.00	0.00
93.00		60.21	142.49	0.00	0.00
94.00		59.97	141.82	0.00	0.00
95.00		59.72	141.14	0.00	0.00
96.00		59.47	140.47	0.00	0.00
96.18		10.57	24.75	0.00	0.00
97.00		49.92	172.42	0.00	0.00
98.00		68.33	208.35	0.00	0.00
99.00		68.23	207.17	0.00	0.00

Total Applied Force Summary

Structure:	CT12215-A-SBA		**Code:**	TIA-222-H	2/6/2024
Site Name:	Litchfield 3 CT		**Exposure:**	B	
Height:	149.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 17

TES Tower Engineering Solutions

99.25		17.02	51.61	0.00	0.00
100.00		51.06	154.39	0.00	0.00
100.34		23.34	70.45	0.00	0.00
101.00		44.39	76.09	0.00	0.00
102.00		67.54	115.46	0.00	0.00
102.25		16.85	28.79	0.00	0.00
103.00		50.54	86.17	0.00	0.00
104.00		67.30	114.45	0.00	0.00
105.00		67.18	113.95	0.00	0.00
106.00		59.18	113.45	0.00	0.00
107.00		59.03	112.94	0.00	0.00
108.00		58.88	112.44	0.00	0.00
109.00		58.72	111.94	0.00	0.00
110.00		58.56	111.43	0.00	0.00
111.00		58.40	110.93	0.00	0.00
112.00		58.23	110.43	0.00	0.00
113.00		58.07	109.92	0.00	0.00
114.00		57.90	109.42	0.00	0.00
115.00	(19) attachments	2652.73	3236.24	0.00	0.00
116.00		54.53	104.45	0.00	0.00
117.00		54.21	103.95	0.00	0.00
118.00		53.89	103.44	0.00	0.00
119.00		53.56	102.94	0.00	0.00
120.00		53.23	102.44	0.00	0.00
121.00		52.90	101.93	0.00	0.00
122.00		52.57	101.43	0.00	0.00
123.00		52.23	100.93	0.00	0.00
124.00		51.89	100.42	0.00	0.00
125.00		51.54	99.92	0.00	0.00
126.00		51.20	99.42	0.00	0.00
127.00		50.85	98.91	0.00	0.00
128.00		50.50	98.41	0.00	0.00
129.00		50.14	97.91	0.00	0.00
130.00	(62) attachments	3988.48	4317.50	0.00	0.00
131.00		49.43	72.42	0.00	0.00
132.00		49.06	71.92	0.00	0.00
133.00		48.70	71.41	0.00	0.00
134.00		48.33	70.91	0.00	0.00
135.00		47.96	70.40	0.00	0.00
136.00		47.59	69.90	0.00	0.00
137.00		47.21	69.40	0.00	0.00
138.00	(1) attachments	76.59	80.89	0.00	0.00
139.00		46.45	68.39	0.00	0.00
140.00	(27) attachments	4209.84	3781.00	0.00	0.00
141.00		45.68	52.14	0.00	0.00
142.00		45.30	51.64	0.00	0.00
143.00		44.91	51.14	0.00	0.00
144.00		44.51	50.63	0.00	0.00
145.00		44.12	50.13	0.00	0.00
146.00		43.72	49.63	0.00	0.00
147.00		43.32	49.12	0.00	0.00
148.00		42.92	48.62	0.00	0.00
149.00	(23) attachments	2541.95	2613.60	0.00	4646.80
	Totals:	**22,378.69**	**37,801.55**	**0.00**	**4,646.80**

Linear Appurtenance Segment Forces (Factored)

Structure:	CT12215-A-SBA	**Code:**	TIA-222-H	2/6/2024	
Site Name:	Litchfield 3 CT	**Exposure:**	B		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 18	

TES Tower Engineering Solutions

Load Case: 1.2D + 1.0W 115 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00

Iterations 35

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)
1.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.054	0.000	21.846	0.00	1.32
1.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.054	0.000	21.846	0.00	2.64
1.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.054	0.000	21.846	0.00	0.19
2.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.055	0.000	21.846	0.00	1.32
2.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.055	0.000	21.846	0.00	2.64
2.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.055	0.000	21.846	0.00	0.19
3.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.055	0.000	21.846	0.00	1.32
3.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.055	0.000	21.846	0.00	2.64
3.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.055	0.000	21.846	0.00	0.19
4.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.055	0.000	21.846	0.00	1.32
4.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.055	0.000	21.846	0.00	2.64
4.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.055	0.000	21.846	0.00	0.19
5.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.055	0.000	21.846	0.00	1.32
5.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.055	0.000	21.846	0.00	2.64
5.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.055	0.000	21.846	0.00	0.19
6.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.056	0.000	21.846	0.00	1.32
6.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.056	0.000	21.846	0.00	2.64
6.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.056	0.000	21.846	0.00	0.19
7.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.056	0.000	21.846	0.00	1.32
7.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.056	0.000	21.846	0.00	2.64
7.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.056	0.000	21.846	0.00	0.19
8.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.056	0.000	21.846	0.00	1.32
8.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.056	0.000	21.846	0.00	2.64
8.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.056	0.000	21.846	0.00	0.19
9.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.056	0.000	21.846	0.00	1.32
9.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.056	0.000	21.846	0.00	2.64
9.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.056	0.000	21.846	0.00	0.19
10.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.057	0.000	21.846	0.00	1.32
10.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.057	0.000	21.846	0.00	2.64
10.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.057	0.000	21.846	0.00	0.19
11.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.057	0.000	21.846	0.00	1.32
11.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.057	0.000	21.846	0.00	2.64
11.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.057	0.000	21.846	0.00	0.19
12.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.057	0.000	21.846	0.00	1.32
12.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.057	0.000	21.846	0.00	2.64
12.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.057	0.000	21.846	0.00	0.19
13.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.057	0.000	21.846	0.00	1.32
13.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.057	0.000	21.846	0.00	2.64
13.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.057	0.000	21.846	0.00	0.19
14.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.058	0.000	21.846	0.00	1.32
14.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.058	0.000	21.846	0.00	2.64
14.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.058	0.000	21.846	0.00	0.19
15.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.058	0.000	21.846	0.00	1.32
15.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.058	0.000	21.846	0.00	2.64
15.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.058	0.000	21.846	0.00	0.19
16.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.058	0.000	21.846	0.00	1.32
16.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.058	0.000	21.846	0.00	2.64

Linear Appurtenance Segment Forces (Factored)

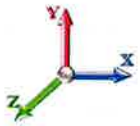
Structure:	CT12215-A-SBA	**Code:**	TIA-222-H	2/6/2024	
Site Name:	Litchfield 3 CT	**Exposure:**	B		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 19	

Tower Engineering Solutions

Load Case: 1.2D + 1.0W 115 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 35

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)
16.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.058	0.000	21.846	0.00	0.19
17.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.059	0.000	21.846	0.00	1.32
17.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.059	0.000	21.846	0.00	2.64
17.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.059	0.000	21.846	0.00	0.19
18.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.059	0.000	21.846	0.00	1.32
18.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.059	0.000	21.846	0.00	2.64
18.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.059	0.000	21.846	0.00	0.19
19.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.059	0.000	21.846	0.00	1.32
19.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.059	0.000	21.846	0.00	2.64
19.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.059	0.000	21.846	0.00	0.19
20.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.059	0.000	21.846	0.00	1.32
20.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.059	0.000	21.846	0.00	2.64
20.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.059	0.000	21.846	0.00	0.19
21.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.060	0.000	21.846	0.00	1.32
21.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.060	0.000	21.846	0.00	2.64
21.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.060	0.000	21.846	0.00	0.19
22.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.060	0.000	21.846	0.00	1.32
22.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.060	0.000	21.846	0.00	2.64
22.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.060	0.000	21.846	0.00	0.19
23.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.060	0.000	21.846	0.00	1.32
23.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.060	0.000	21.846	0.00	2.64
23.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.060	0.000	21.846	0.00	0.19
24.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.061	0.000	21.846	0.00	1.32
24.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.061	0.000	21.846	0.00	2.64
24.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.061	0.000	21.846	0.00	0.19
25.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.061	0.000	21.846	0.00	1.32
25.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.061	0.000	21.846	0.00	2.64
25.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.061	0.000	21.846	0.00	0.19
26.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.061	0.000	21.846	0.00	1.32
26.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.061	0.000	21.846	0.00	2.64
26.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.061	0.000	21.846	0.00	0.19
27.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.061	0.000	21.846	0.00	1.32
27.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.061	0.000	21.846	0.00	2.64
27.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.061	0.000	21.846	0.00	0.19
28.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.062	0.000	21.846	0.00	1.32
28.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.062	0.000	21.846	0.00	2.64
28.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.062	0.000	21.846	0.00	0.19
29.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.062	0.000	21.846	0.00	1.32
29.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.062	0.000	21.846	0.00	2.64
29.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.062	0.000	21.846	0.00	0.19
30.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.062	0.000	21.865	0.00	1.32
30.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.062	0.000	21.865	0.00	2.64
30.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.062	0.000	21.865	0.00	0.19
31.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.063	0.000	22.071	0.00	1.32
31.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.063	0.000	22.071	0.00	2.64
31.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.063	0.000	22.071	0.00	0.19
32.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.063	0.000	22.272	0.00	1.32

Linear Appurtenance Segment Forces (Factored)

Structure: CT12215-A-SBA
Site Name: Litchfield 3 CT
Height: 149.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1 **Topography:** 1

Code: TIA-222-H
Exposure: B
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

2/6/2024

Tower Engineering Solutions

Load Case: 1.2D + 1.0W 115 mph Wind
Dead Load Factor 1.20
Wind Load Factor 1.00

Iterations 35

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)
32.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.063	0.000	22.272	0.00	2.64
32.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.063	0.000	22.272	0.00	0.19
33.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.063	0.000	22.468	0.00	1.32
33.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.063	0.000	22.468	0.00	2.64
33.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.063	0.000	22.468	0.00	0.19
34.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.064	0.000	22.661	0.00	1.32
34.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.064	0.000	22.661	0.00	2.64
34.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.064	0.000	22.661	0.00	0.19
35.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.064	0.000	22.849	0.00	1.32
35.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.064	0.000	22.849	0.00	2.64
35.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.064	0.000	22.849	0.00	0.19
36.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.064	0.000	23.034	0.00	1.32
36.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.064	0.000	23.034	0.00	2.64
36.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.064	0.000	23.034	0.00	0.19
37.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.065	0.000	23.215	0.00	1.32
37.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.065	0.000	23.215	0.00	2.64
37.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.065	0.000	23.215	0.00	0.19
38.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.065	0.000	23.393	0.00	1.32
38.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.065	0.000	23.393	0.00	2.64
38.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.065	0.000	23.393	0.00	0.19
39.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.065	0.000	23.567	0.00	1.32
39.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.065	0.000	23.567	0.00	2.64
39.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.065	0.000	23.567	0.00	0.19
40.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.066	0.000	23.738	0.00	1.32
40.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.066	0.000	23.738	0.00	2.64
40.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.066	0.000	23.738	0.00	0.19
41.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.066	0.000	23.906	0.00	1.32
41.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.066	0.000	23.906	0.00	2.64
41.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.066	0.000	23.906	0.00	0.19
42.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.066	0.000	24.071	0.00	1.32
42.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.066	0.000	24.071	0.00	2.64
42.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.066	0.000	24.071	0.00	0.19
43.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.067	0.000	24.233	0.00	1.32
43.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.067	0.000	24.233	0.00	2.64
43.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.067	0.000	24.233	0.00	0.19
44.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.067	0.000	24.393	0.00	1.32
44.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.067	0.000	24.393	0.00	2.64
44.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.067	0.000	24.393	0.00	0.19
45.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.067	0.000	24.550	0.00	1.32
45.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.067	0.000	24.550	0.00	2.64
45.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.067	0.000	24.550	0.00	0.19
46.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.068	0.000	24.705	0.00	1.32
46.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.068	0.000	24.705	0.00	2.64
46.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.068	0.000	24.705	0.00	0.19
47.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.068	0.000	24.857	0.00	1.32
47.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.068	0.000	24.857	0.00	2.64
47.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.068	0.000	24.857	0.00	0.19

Linear Appurtenance Segment Forces (Factored)

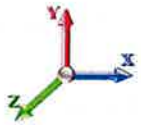
Structure:	CT12215-A-SBA	**Code:**	TIA-222-H	2/6/2024	
Site Name:	Litchfield 3 CT	**Exposure:**	B		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 21	

Tower Engineering Solutions

Load Case: 1.2D + 1.0W 115 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 35

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)
47.55	1 5/8" Fiber	Yes	0.55	0.000	2.00	0.09	0.00	0.068	0.000	24.940	0.00	0.73
47.55	1.9" Fiber	Yes	0.55	0.000	0.00	0.00	0.00	0.068	0.000	24.940	0.00	1.46
47.55	1/2" Coax	Yes	0.55	0.000	0.65	0.03	0.00	0.068	0.000	24.940	0.00	0.11
48.00	1 5/8" Fiber	Yes	0.45	0.000	2.00	0.07	0.00	0.068	0.000	25.007	0.00	0.59
48.00	1.9" Fiber	Yes	0.45	0.000	0.00	0.00	0.00	0.068	0.000	25.007	0.00	1.18
48.00	1/2" Coax	Yes	0.45	0.000	0.65	0.02	0.00	0.068	0.000	25.007	0.00	0.09
49.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.069	0.000	25.155	0.00	1.32
49.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.069	0.000	25.155	0.00	2.64
49.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.069	0.000	25.155	0.00	0.19
50.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.069	0.000	25.301	0.00	1.32
50.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.069	0.000	25.301	0.00	2.64
50.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.069	0.000	25.301	0.00	0.19
51.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.112	1.035	25.444	0.00	1.32
51.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.112	1.035	25.444	0.00	2.64
51.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.112	1.035	25.444	0.00	0.00
51.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.112	1.035	25.444	0.00	0.00
52.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.112	1.036	25.586	0.00	1.32
52.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.112	1.036	25.586	0.00	2.64
52.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.112	1.036	25.586	0.00	0.00
52.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.112	1.036	25.586	0.00	0.00
52.97	1 5/8" Fiber	Yes	0.97	0.000	2.00	0.16	0.00	0.113	1.038	25.721	0.00	1.28
52.97	1.9" Fiber	Yes	0.97	0.000	0.00	0.00	0.00	0.113	1.038	25.721	0.00	2.56
52.97	1.25" Reinforcing	Yes	0.97	0.000	1.25	0.10	0.00	0.113	1.038	25.721	0.00	0.00
52.97	1" Reinforcing plate	Yes	0.97	0.000	1.00	0.08	0.00	0.113	1.038	25.721	0.00	0.00
53.00	1 5/8" Fiber	Yes	0.03	0.000	2.00	0.01	0.00	0.112	1.035	25.725	0.00	0.04
53.00	1.9" Fiber	Yes	0.03	0.000	0.00	0.00	0.00	0.112	1.035	25.725	0.00	0.08
53.00	1.25" Reinforcing	Yes	0.03	0.000	1.25	0.00	0.00	0.112	1.035	25.725	0.00	0.00
53.00	1" Reinforcing plate	Yes	0.03	0.000	1.00	0.00	0.00	0.112	1.035	25.725	0.00	0.00
54.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.112	1.036	25.863	0.00	1.32
54.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.112	1.036	25.863	0.00	2.64
54.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.112	1.036	25.863	0.00	0.00
54.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.112	1.036	25.863	0.00	0.00
55.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.112	1.037	25.999	0.00	1.32
55.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.112	1.037	25.999	0.00	2.64
55.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.112	1.037	25.999	0.00	0.00
55.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.112	1.037	25.999	0.00	0.00
56.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.113	1.039	26.133	0.00	1.32
56.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.113	1.039	26.133	0.00	2.64
56.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.113	1.039	26.133	0.00	0.00
56.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.113	1.039	26.133	0.00	0.00
57.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.114	1.041	26.266	0.00	1.32
57.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.114	1.041	26.266	0.00	2.64
57.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.114	1.041	26.266	0.00	0.00
57.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.114	1.041	26.266	0.00	0.00
58.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.114	1.043	26.397	0.00	1.32
58.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.114	1.043	26.397	0.00	2.64
58.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.114	1.043	26.397	0.00	0.00

Linear Appurtenance Segment Forces (Factored)

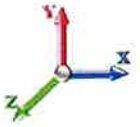
Structure: CT12215-A-SBA
Site Name: Litchfield 3 CT
Height: 149.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1 **Topography:** 1

Code: TIA-222-H
Exposure: B
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

2/6/2024

Tower Engineering Solutions

Load Case: 1.2D + 1.0W 115 mph Wind
Dead Load Factor 1.20
Wind Load Factor 1.00



Iterations 35

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)
58.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.114	1.043	26.397	0.00	0.00
59.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.115	1.045	26.526	0.00	1.32
59.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.115	1.045	26.526	0.00	2.64
59.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.115	1.045	26.526	0.00	0.00
59.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.115	1.045	26.526	0.00	0.00
60.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.116	1.047	26.653	0.00	1.32
60.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.116	1.047	26.653	0.00	2.64
60.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.116	1.047	26.653	0.00	0.00
60.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.116	1.047	26.653	0.00	0.00
61.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.116	1.049	26.780	0.00	1.32
61.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.116	1.049	26.780	0.00	2.64
61.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.116	1.049	26.780	0.00	0.00
61.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.116	1.049	26.780	0.00	0.00
62.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.117	1.051	26.904	0.00	1.32
62.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.117	1.051	26.904	0.00	2.64
62.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.117	1.051	26.904	0.00	0.00
62.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.117	1.051	26.904	0.00	0.00
63.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.118	1.053	27.028	0.00	1.32
63.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.118	1.053	27.028	0.00	2.64
63.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.118	1.053	27.028	0.00	0.00
63.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.118	1.053	27.028	0.00	0.00
64.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.118	1.055	27.149	0.00	1.32
64.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.118	1.055	27.149	0.00	2.64
64.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.118	1.055	27.149	0.00	0.00
64.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.118	1.055	27.149	0.00	0.00
65.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.119	1.057	27.270	0.00	1.32
65.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.119	1.057	27.270	0.00	2.64
65.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.119	1.057	27.270	0.00	0.00
65.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.119	1.057	27.270	0.00	0.00
66.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.120	1.059	27.389	0.00	1.32
66.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.120	1.059	27.389	0.00	2.64
66.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.120	1.059	27.389	0.00	0.00
66.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.120	1.059	27.389	0.00	0.00
67.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.121	1.062	27.507	0.00	1.32
67.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.121	1.062	27.507	0.00	2.64
67.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.121	1.062	27.507	0.00	0.00
67.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.121	1.062	27.507	0.00	0.00
67.92	1 5/8" Fiber	Yes	0.92	0.000	2.00	0.15	0.00	0.121	1.064	27.615	0.00	1.21
67.92	1.9" Fiber	Yes	0.92	0.000	0.00	0.00	0.00	0.121	1.064	27.615	0.00	2.43
67.92	1.25" Reinforcing	Yes	0.92	0.000	1.25	0.10	0.00	0.121	1.064	27.615	0.00	0.00
67.92	1" Reinforcing plate	Yes	0.92	0.000	1.00	0.08	0.00	0.121	1.064	27.615	0.00	0.00
68.00	1 5/8" Fiber	Yes	0.08	0.000	2.00	0.01	0.00	0.122	1.065	27.624	0.00	0.11
68.00	1.9" Fiber	Yes	0.08	0.000	0.00	0.00	0.00	0.122	1.065	27.624	0.00	0.21
68.00	1.25" Reinforcing	Yes	0.08	0.000	1.25	0.01	0.00	0.122	1.065	27.624	0.00	0.00
68.00	1" Reinforcing plate	Yes	0.08	0.000	1.00	0.01	0.00	0.122	1.065	27.624	0.00	0.00
69.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.122	1.066	27.739	0.00	1.32
69.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.122	1.066	27.739	0.00	2.64

Linear Appurtenance Segment Forces (Factored)

Structure:	CT12215-A-SBA	**Code:**	TIA-222-H	2/6/2024	
Site Name:	Litchfield 3 CT	**Exposure:**	B		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 23	

Tower Engineering Solutions

Load Case: 1.2D + 1.0W 115 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00

Iterations 35

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)
69.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.122	1.066	27.739	0.00	0.00
69.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.122	1.066	27.739	0.00	0.00
70.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.123	1.068	27.854	0.00	1.32
70.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.123	1.068	27.854	0.00	2.64
70.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.123	1.068	27.854	0.00	0.00
70.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.123	1.068	27.854	0.00	0.00
71.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.094	0.000	27.967	0.00	1.32
71.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.094	0.000	27.967	0.00	2.64
71.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.094	0.000	27.967	0.00	0.00
72.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.095	0.000	28.079	0.00	1.32
72.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.095	0.000	28.079	0.00	2.64
72.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.095	0.000	28.079	0.00	0.00
73.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.096	0.000	28.190	0.00	1.32
73.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.096	0.000	28.190	0.00	2.64
73.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.096	0.000	28.190	0.00	0.00
74.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.096	0.000	28.299	0.00	1.32
74.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.096	0.000	28.299	0.00	2.64
74.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.096	0.000	28.299	0.00	0.00
75.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.097	0.000	28.408	0.00	1.32
75.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.097	0.000	28.408	0.00	2.64
75.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.097	0.000	28.408	0.00	0.00
76.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.097	0.000	28.516	0.00	1.32
76.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.097	0.000	28.516	0.00	2.64
76.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.097	0.000	28.516	0.00	0.00
77.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.098	0.000	28.623	0.00	1.32
77.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.098	0.000	28.623	0.00	2.64
77.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.098	0.000	28.623	0.00	0.00
78.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.061	0.000	28.728	0.00	1.32
78.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.061	0.000	28.728	0.00	2.64
79.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.061	0.000	28.833	0.00	1.32
79.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.061	0.000	28.833	0.00	2.64
80.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.061	0.000	28.937	0.00	1.32
80.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.061	0.000	28.937	0.00	2.64
81.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.062	0.000	29.040	0.00	1.32
81.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.062	0.000	29.040	0.00	2.64
82.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.062	0.000	29.142	0.00	1.32
82.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.062	0.000	29.142	0.00	2.64
83.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.063	0.000	29.243	0.00	1.32
83.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.063	0.000	29.243	0.00	2.64
84.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.063	0.000	29.343	0.00	1.32
84.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.063	0.000	29.343	0.00	2.64
85.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.064	0.000	29.442	0.00	1.32
85.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.064	0.000	29.442	0.00	2.64
86.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.064	0.000	29.541	0.00	1.32
86.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.064	0.000	29.541	0.00	2.64
87.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.064	0.000	29.639	0.00	1.32
87.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.064	0.000	29.639	0.00	2.64

Linear Appurtenance Segment Forces (Factored)

Structure:	CT12215-A-SBA	**Code:**	TIA-222-H	2/6/2024	
Site Name:	Litchfield 3 CT	**Exposure:**	B		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 24	

Tower Engineering Solutions

Load Case: 1.2D + 1.0W 115 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00

Iterations 35

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)
88.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.065	0.000	29.736	0.00	1.32
88.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.065	0.000	29.736	0.00	2.64
89.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.065	0.000	29.832	0.00	1.32
89.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.065	0.000	29.832	0.00	2.64
90.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.066	0.000	29.927	0.00	1.32
90.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.066	0.000	29.927	0.00	2.64
91.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.066	0.000	30.022	0.00	1.32
91.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.066	0.000	30.022	0.00	2.64
92.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.067	0.000	30.116	0.00	1.32
92.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.067	0.000	30.116	0.00	2.64
93.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.067	0.000	30.209	0.00	1.32
93.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.067	0.000	30.209	0.00	2.64
94.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.068	0.000	30.301	0.00	1.32
94.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.068	0.000	30.301	0.00	2.64
95.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.068	0.000	30.393	0.00	1.32
95.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.068	0.000	30.393	0.00	2.64
96.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.069	0.000	30.484	0.00	1.32
96.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.069	0.000	30.484	0.00	2.64
96.18	1" Reinforcing plate	Yes	0.18	0.000	1.00	0.01	0.00	0.103	1.010	30.500	0.00	0.00
96.18	1 5/8" Fiber	Yes	0.18	0.000	2.00	0.03	0.00	0.103	1.010	30.500	0.00	0.23
96.18	1.9" Fiber	Yes	0.18	0.000	0.00	0.00	0.00	0.103	1.010	30.500	0.00	0.47
97.00	1" Reinforcing plate	Yes	0.82	0.000	1.00	0.07	0.00	0.104	1.011	30.575	0.00	0.00
97.00	1 5/8" Fiber	Yes	0.82	0.000	2.00	0.14	0.00	0.104	1.011	30.575	0.00	1.09
97.00	1.9" Fiber	Yes	0.82	0.000	0.00	0.00	0.00	0.104	1.011	30.575	0.00	2.17
98.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.148	1.144	30.664	0.00	0.00
98.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.148	1.144	30.664	0.00	1.32
98.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.148	1.144	30.664	0.00	2.64
98.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.148	1.144	30.664	0.00	0.00
99.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.149	1.147	30.753	0.00	0.00
99.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.149	1.147	30.753	0.00	1.32
99.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.149	1.147	30.753	0.00	2.64
99.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.149	1.147	30.753	0.00	0.00
99.25	1" Reinforcing plate	Yes	0.25	0.000	1.00	0.02	0.00	0.150	1.149	30.775	0.00	0.00
99.25	1 5/8" Fiber	Yes	0.25	0.000	2.00	0.04	0.00	0.150	1.149	30.775	0.00	0.33
99.25	1.9" Fiber	Yes	0.25	0.000	0.00	0.00	0.00	0.150	1.149	30.775	0.00	0.66
99.25	1.25" Reinforcing	Yes	0.25	0.000	1.25	0.03	0.00	0.150	1.149	30.775	0.00	0.00
100.00	1" Reinforcing plate	Yes	0.75	0.000	1.00	0.06	0.00	0.150	1.151	30.842	0.00	0.00
100.00	1 5/8" Fiber	Yes	0.75	0.000	2.00	0.13	0.00	0.150	1.151	30.842	0.00	0.99
100.00	1.9" Fiber	Yes	0.75	0.000	0.00	0.00	0.00	0.150	1.151	30.842	0.00	1.98
100.00	1.25" Reinforcing	Yes	0.75	0.000	1.25	0.08	0.00	0.150	1.151	30.842	0.00	0.00
100.34	1" Reinforcing plate	Yes	0.34	0.000	1.00	0.03	0.00	0.151	1.153	30.872	0.00	0.00
100.34	1 5/8" Fiber	Yes	0.34	0.000	2.00	0.06	0.00	0.151	1.153	30.872	0.00	0.45
100.34	1.9" Fiber	Yes	0.34	0.000	0.00	0.00	0.00	0.151	1.153	30.872	0.00	0.91
100.34	1.25" Reinforcing	Yes	0.34	0.000	1.25	0.04	0.00	0.151	1.153	30.872	0.00	0.00
101.00	1" Reinforcing plate	Yes	0.66	0.000	1.00	0.05	0.00	0.149	1.148	30.930	0.00	0.00
101.00	1 5/8" Fiber	Yes	0.66	0.000	2.00	0.11	0.00	0.149	1.148	30.930	0.00	0.87
101.00	1.9" Fiber	Yes	0.66	0.000	0.00	0.00	0.00	0.149	1.148	30.930	0.00	1.73

Linear Appurtenance Segment Forces (Factored)

Structure:	CT12215-A-SBA	**Code:**	TIA-222-H	2/6/2024	
Site Name:	Litchfield 3 CT	**Exposure:**	B		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 25	

TES Tower Engineering Solutions

Load Case: 1.2D + 1.0W 115 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00

Iterations 35

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)
101.00	1.25" Reinforcing	Yes	0.66	0.000	1.25	0.07	0.00	0.149	1.148	30.930	0.00	0.00
102.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.150	1.151	31.017	0.00	0.00
102.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.150	1.151	31.017	0.00	1.32
102.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.150	1.151	31.017	0.00	2.64
102.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.150	1.151	31.017	0.00	0.00
102.25	1" Reinforcing plate	Yes	0.25	0.000	1.00	0.02	0.00	0.151	1.153	31.038	0.00	0.00
102.25	1 5/8" Fiber	Yes	0.25	0.000	2.00	0.04	0.00	0.151	1.153	31.038	0.00	0.33
102.25	1.9" Fiber	Yes	0.25	0.000	0.00	0.00	0.00	0.151	1.153	31.038	0.00	0.66
102.25	1.25" Reinforcing	Yes	0.25	0.000	1.25	0.03	0.00	0.151	1.153	31.038	0.00	0.00
103.00	1" Reinforcing plate	Yes	0.75	0.000	1.00	0.06	0.00	0.152	1.155	31.103	0.00	0.00
103.00	1 5/8" Fiber	Yes	0.75	0.000	2.00	0.13	0.00	0.152	1.155	31.103	0.00	0.99
103.00	1.9" Fiber	Yes	0.75	0.000	0.00	0.00	0.00	0.152	1.155	31.103	0.00	1.98
103.00	1.25" Reinforcing	Yes	0.75	0.000	1.25	0.08	0.00	0.152	1.155	31.103	0.00	0.00
104.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.153	1.158	31.189	0.00	0.00
104.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.153	1.158	31.189	0.00	1.32
104.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.153	1.158	31.189	0.00	2.64
104.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.153	1.158	31.189	0.00	0.00
105.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.154	1.161	31.275	0.00	0.00
105.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.154	1.161	31.275	0.00	1.32
105.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.154	1.161	31.275	0.00	2.64
105.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.154	1.161	31.275	0.00	0.00
106.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.109	1.028	31.360	0.00	0.00
106.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.109	1.028	31.360	0.00	1.32
106.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.109	1.028	31.360	0.00	2.64
107.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.110	1.031	31.444	0.00	0.00
107.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.110	1.031	31.444	0.00	1.32
107.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.110	1.031	31.444	0.00	2.64
108.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.111	1.033	31.527	0.00	0.00
108.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.111	1.033	31.527	0.00	1.32
108.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.111	1.033	31.527	0.00	2.64
109.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.112	1.036	31.611	0.00	0.00
109.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.112	1.036	31.611	0.00	1.32
109.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.112	1.036	31.611	0.00	2.64
110.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.113	1.038	31.693	0.00	0.00
110.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.113	1.038	31.693	0.00	1.32
110.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.113	1.038	31.693	0.00	2.64
111.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.114	1.041	31.775	0.00	0.00
111.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.114	1.041	31.775	0.00	1.32
111.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.114	1.041	31.775	0.00	2.64
112.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.115	1.044	31.857	0.00	0.00
112.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.115	1.044	31.857	0.00	1.32
112.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.115	1.044	31.857	0.00	2.64
113.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.116	1.047	31.938	0.00	0.00
113.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.116	1.047	31.938	0.00	1.32
113.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.116	1.047	31.938	0.00	2.64
114.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.117	1.050	32.018	0.00	0.00
114.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.117	1.050	32.018	0.00	1.32

Linear Appurtenance Segment Forces (Factored)

Structure:	CT12215-A-SBA	**Code:**	TIA-222-H	2/6/2024	
Site Name:	Litchfield 3 CT	**Exposure:**	B		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 26	

Tower Engineering Solutions

Load Case: 1.2D + 1.0W 115 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00

Iterations 35

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)
114.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.117	1.050	32.018	0.00	2.64
115.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.117	1.052	32.098	0.00	0.00
115.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.117	1.052	32.098	0.00	1.32
115.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.117	1.052	32.098	0.00	2.64
116.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.039	0.000	32.178	0.00	0.00
										Totals:	**0.0**	**465.0**

Calculated Forces

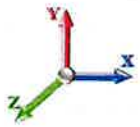
Structure:	CT12215-A-SBA	**Code:**	TIA-222-H	2/6/2024	
Site Name:	Litchfield 3 CT	**Exposure:**	B		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 27	

Tower Engineering Solutions

Load Case: 1.2D + 1.0W 115 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 35

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-37.79	-22.40	0.00	-2601.1	0.00	2601.17	3031.07	830.09	3284.29	2977.95	0.00	0.000	0.000	0.887
1.00	-37.53	-22.36	0.00	-2578.7	0.00	2578.77	3023.73	826.48	3255.81	2957.74	0.01	-0.054	0.000	0.885
2.00	-37.27	-22.33	0.00	-2556.4	0.00	2556.41	3016.33	822.87	3227.46	2937.55	0.02	-0.109	0.000	0.883
3.00	-37.01	-22.29	0.00	-2534.0	0.00	2534.09	3008.89	819.26	3199.23	2917.37	0.05	-0.163	0.000	0.882
4.00	-36.75	-22.25	0.00	-2511.8	0.00	2511.80	3001.40	815.66	3171.12	2897.21	0.09	-0.218	0.000	0.880
5.00	-36.49	-22.22	0.00	-2489.5	0.00	2489.55	2993.85	812.05	3143.13	2877.06	0.14	-0.274	0.000	0.878
6.00	-36.23	-22.18	0.00	-2467.3	0.00	2467.33	2986.25	808.44	3115.27	2856.93	0.21	-0.329	0.000	0.877
7.00	-35.97	-22.15	0.00	-2445.1	0.00	2445.15	2978.60	804.84	3087.54	2836.81	0.28	-0.385	0.000	0.875
8.00	-35.71	-22.11	0.00	-2423.0	0.00	2423.00	2970.91	801.23	3059.93	2816.71	0.37	-0.440	0.000	0.873
9.00	-35.46	-22.08	0.00	-2400.8	0.00	2400.89	2963.16	797.62	3032.44	2796.63	0.47	-0.497	0.000	0.871
10.00	-35.20	-22.04	0.00	-2378.8	0.00	2378.81	2955.36	794.02	3005.07	2776.57	0.58	-0.553	0.000	0.869
11.00	-34.95	-22.00	0.00	-2356.7	0.00	2356.78	2947.51	790.41	2977.83	2756.53	0.70	-0.610	0.000	0.868
12.00	-34.70	-21.97	0.00	-2334.7	0.00	2334.77	2939.60	786.80	2950.72	2736.51	0.84	-0.667	0.000	0.866
13.00	-34.44	-21.93	0.00	-2312.8	0.00	2312.81	2931.65	783.20	2923.73	2716.51	0.98	-0.724	0.000	0.864
14.00	-34.19	-21.90	0.00	-2290.8	0.00	2290.87	2923.65	779.59	2896.86	2696.53	1.14	-0.781	0.000	0.862
15.00	-33.94	-21.86	0.00	-2268.9	0.00	2268.98	2915.59	775.98	2870.11	2676.57	1.31	-0.839	0.000	0.860
16.00	-33.69	-21.82	0.00	-2247.1	0.00	2247.12	2907.49	772.37	2843.49	2656.64	1.49	-0.897	0.000	0.858
17.00	-33.44	-21.79	0.00	-2225.2	0.00	2225.29	2899.33	768.77	2817.00	2636.73	1.69	-0.955	0.000	0.856
18.00	-33.19	-21.75	0.00	-2203.5	0.00	2203.50	2891.12	765.16	2790.63	2616.84	1.89	-1.013	0.000	0.854
19.00	-32.95	-21.72	0.00	-2181.7	0.00	2181.75	2882.86	761.55	2764.38	2596.98	2.11	-1.072	0.000	0.852
20.00	-32.70	-21.68	0.00	-2160.0	0.00	2160.04	2874.56	757.95	2738.25	2577.14	2.34	-1.130	0.000	0.850
21.00	-32.46	-21.65	0.00	-2138.3	0.00	2138.35	2866.20	754.34	2712.25	2557.33	2.59	-1.190	0.000	0.848
22.00	-32.21	-21.61	0.00	-2116.7	0.00	2116.71	2857.79	750.73	2686.38	2537.55	2.84	-1.249	0.000	0.846
23.00	-31.97	-21.57	0.00	-2095.1	0.00	2095.10	2849.32	747.13	2660.63	2517.79	3.11	-1.309	0.000	0.844
24.00	-31.72	-21.54	0.00	-2073.5	0.00	2073.53	2840.81	743.52	2635.00	2498.06	3.39	-1.368	0.000	0.842
25.00	-31.48	-21.50	0.00	-2051.9	0.00	2051.99	2832.25	739.91	2609.50	2478.36	3.68	-1.428	0.000	0.840
26.00	-31.24	-21.47	0.00	-2030.4	0.00	2030.49	2823.63	736.31	2584.12	2458.69	3.99	-1.489	0.000	0.838
27.00	-31.00	-21.43	0.00	-2009.0	0.00	2009.02	2814.97	732.70	2558.86	2439.05	4.31	-1.549	0.000	0.836
28.00	-30.76	-21.39	0.00	-1987.6	0.00	1987.60	2806.25	729.09	2533.73	2419.44	4.64	-1.610	0.000	0.833
29.00	-30.52	-21.36	0.00	-1966.2	0.00	1966.20	2797.49	725.48	2508.72	2399.86	4.98	-1.671	0.000	0.831
30.00	-30.28	-21.32	0.00	-1944.8	0.00	1944.85	2788.67	721.88	2483.84	2380.32	5.34	-1.733	0.000	0.829
31.00	-30.05	-21.28	0.00	-1923.5	0.00	1923.53	2779.80	718.27	2459.08	2360.80	5.71	-1.794	0.000	0.826
32.00	-29.81	-21.25	0.00	-1902.2	0.00	1902.24	2770.88	714.66	2434.44	2341.32	6.09	-1.856	0.000	0.824
33.00	-29.57	-21.21	0.00	-1881.0	0.00	1881.00	2761.91	711.06	2409.93	2321.88	6.49	-1.918	0.000	0.822
34.00	-29.34	-21.17	0.00	-1859.7	0.00	1859.79	2752.89	707.45	2385.54	2302.46	6.90	-1.980	0.000	0.819
35.00	-29.11	-21.13	0.00	-1838.6	0.00	1838.62	2743.82	703.84	2361.28	2283.08	7.32	-2.043	0.000	0.817
36.00	-28.87	-21.09	0.00	-1817.4	0.00	1817.49	2734.69	700.24	2337.14	2263.74	7.75	-2.106	0.000	0.814
37.00	-28.64	-21.05	0.00	-1796.3	0.00	1796.39	2725.52	696.63	2313.13	2244.44	8.20	-2.169	0.000	0.812
38.00	-28.41	-21.01	0.00	-1775.3	0.00	1775.34	2716.29	693.02	2289.23	2225.17	8.66	-2.232	0.000	0.809
39.00	-28.18	-20.97	0.00	-1754.3	0.00	1754.33	2707.02	689.42	2265.47	2205.94	9.14	-2.295	0.000	0.807
40.00	-27.95	-20.93	0.00	-1733.3	0.00	1733.36	2697.69	685.81	2241.82	2186.75	9.62	-2.359	0.000	0.804
41.00	-27.72	-20.89	0.00	-1712.4	0.00	1712.43	2688.32	682.20	2218.30	2167.60	10.12	-2.423	0.000	0.801
42.00	-27.50	-20.84	0.00	-1691.5	0.00	1691.55	2678.89	678.59	2194.91	2148.48	10.64	-2.487	0.000	0.799
43.00	-27.27	-20.80	0.00	-1670.7	0.00	1670.70	2669.41	674.99	2171.64	2129.41	11.17	-2.552	0.000	0.796
44.00	-27.04	-20.76	0.00	-1649.9	0.00	1649.90	2659.88	671.38	2148.49	2110.38	11.71	-2.616	0.000	0.793
45.00	-26.82	-20.72	0.00	-1629.1	0.00	1629.14	2650.30	667.77	2125.47	2091.39	12.26	-2.681	0.000	0.790
46.00	-26.60	-20.67	0.00	-1608.4	0.00	1608.43	2640.67	664.17	2102.57	2072.44	12.83	-2.746	0.000	0.787
47.00	-26.38	-20.62	0.00	-1587.7	0.00	1587.76	2630.98	660.56	2079.79	2053.54	13.41	-2.812	0.000	0.784

Calculated Forces

Structure: CT12215-A-SBA
Site Name: Litchfield 3 CT
Height: 149.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1 **Topography:** 1

Code: TIA-222-H
Exposure: B
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

2/6/2024

TES Tower Engineering Solutions

47.55	-26.26	-20.59	0.00	-1576.3	0.00	1576.35	2625.60	658.56	2067.24	2043.10	13.74	-2.848	0.000	0.783
48.00	-26.10	-20.58	0.00	-1567.1	0.00	1567.15	2621.25	656.95	2057.14	2034.68	14.01	-2.877	0.000	0.781
49.00	-25.75	-20.53	0.00	-1546.5	0.00	1546.57	2611.47	653.35	2034.61	2015.86	14.62	-2.943	0.000	0.778
50.00	-25.41	-20.47	0.00	-1526.0	0.00	1526.05	2601.63	649.74	2012.21	1997.09	15.24	-3.009	0.000	0.775
51.00	-25.07	-20.41	0.00	-1505.5	0.00	1505.58	2591.74	646.13	1989.93	1978.37	15.88	-3.075	0.000	0.772
52.00	-24.73	-20.35	0.00	-1485.1	0.00	1485.17	2581.81	642.52	1967.78	1959.69	16.53	-3.142	0.000	0.375
52.97	-24.42	-20.27	0.00	-1465.4	0.00	1465.43	1914.68	519.05	1605.21	1470.11	17.17	-3.173	0.000	0.413
53.00	-24.41	-20.28	0.00	-1464.8	0.00	1464.82	1914.50	518.97	1604.67	1469.72	17.19	-3.174	0.000	0.448
54.00	-24.23	-20.21	0.00	-1444.5	0.00	1444.55	1908.40	516.08	1586.88	1456.85	17.86	-3.209	0.000	0.444
55.00	-24.06	-20.15	0.00	-1424.3	0.00	1424.34	1902.26	513.20	1569.18	1443.98	18.54	-3.245	0.000	0.440
56.00	-23.88	-20.09	0.00	-1404.1	0.00	1404.19	1896.06	510.31	1551.58	1431.13	19.22	-3.280	0.000	0.437
57.00	-23.71	-20.02	0.00	-1384.1	0.00	1384.10	1889.81	507.43	1534.09	1418.29	19.91	-3.315	0.000	0.433
58.00	-23.53	-19.96	0.00	-1364.0	0.00	1364.08	1883.51	504.54	1516.69	1405.47	20.61	-3.350	0.000	0.429
59.00	-23.36	-19.90	0.00	-1344.1	0.00	1344.12	1877.16	501.65	1499.39	1392.67	21.31	-3.385	0.000	0.425
60.00	-23.19	-19.83	0.00	-1324.2	0.00	1324.22	1870.76	498.77	1482.19	1379.88	22.03	-3.420	0.000	0.421
61.00	-23.02	-19.77	0.00	-1304.3	0.00	1304.39	1864.31	495.88	1465.09	1367.11	22.75	-3.455	0.000	0.417
62.00	-22.84	-19.70	0.00	-1284.6	0.00	1284.62	1857.80	493.00	1448.09	1354.36	23.47	-3.490	0.000	0.413
63.00	-22.67	-19.64	0.00	-1264.9	0.00	1264.92	1851.25	490.11	1431.19	1341.63	24.21	-3.525	0.000	0.409
64.00	-22.50	-19.57	0.00	-1245.2	0.00	1245.28	1844.65	487.23	1414.38	1328.91	24.95	-3.560	0.000	0.405
65.00	-22.34	-19.51	0.00	-1225.7	0.00	1225.71	1837.99	484.34	1397.68	1316.22	25.70	-3.595	0.000	0.401
66.00	-22.17	-19.44	0.00	-1206.2	0.00	1206.20	1831.29	481.46	1381.08	1303.55	26.46	-3.630	0.000	0.397
67.00	-22.00	-19.38	0.00	-1186.7	0.00	1186.75	1824.53	478.57	1364.57	1290.90	27.22	-3.664	0.000	0.393
67.92	-21.85	-19.31	0.00	-1168.9	0.00	1168.93	1818.27	475.91	1349.47	1279.28	27.93	-3.696	0.000	0.390
68.00	-21.84	-19.31	0.00	-1167.3	0.00	1167.38	1817.72	475.68	1348.17	1278.27	27.99	-3.698	0.000	0.304
69.00	-21.67	-19.25	0.00	-1148.0	0.00	1148.07	1810.86	472.80	1331.86	1265.67	28.77	-3.725	0.000	0.549
70.00	-21.50	-19.18	0.00	-1128.8	0.00	1128.83	1803.95	469.91	1315.65	1253.09	29.55	-3.774	0.000	0.544
71.00	-21.33	-19.13	0.00	-1109.6	0.00	1109.64	1796.99	467.03	1299.54	1240.53	30.35	-3.823	0.000	0.539
72.00	-21.16	-19.07	0.00	-1090.5	0.00	1090.52	1789.98	464.14	1283.53	1228.00	31.15	-3.872	0.000	0.533
73.00	-20.98	-18.98	0.00	-1071.4	0.00	1071.44	1782.92	461.26	1267.62	1215.49	31.97	-3.921	0.000	0.528
74.00	-20.82	-18.93	0.00	-1052.4	0.00	1052.46	1775.81	458.37	1251.81	1203.02	32.80	-3.970	0.000	0.523
75.00	-20.65	-18.87	0.00	-1033.5	0.00	1033.53	1768.64	455.49	1236.10	1190.56	33.63	-4.019	0.000	0.517
76.00	-20.48	-18.82	0.00	-1014.6	0.00	1014.67	1761.43	452.60	1220.49	1178.14	34.48	-4.068	0.000	0.875
77.00	-20.31	-18.77	0.00	-995.85	0.00	995.85	1754.16	449.71	1204.98	1165.74	35.34	-4.151	0.000	0.868
78.00	-20.13	-18.73	0.00	-977.07	0.00	977.07	1746.84	446.83	1189.56	1153.37	36.22	-4.234	0.000	0.860
79.00	-19.96	-18.68	0.00	-958.34	0.00	958.34	1739.48	443.94	1174.25	1141.03	37.11	-4.317	0.000	0.853
80.00	-19.78	-18.64	0.00	-939.66	0.00	939.66	1732.06	441.06	1159.03	1128.72	38.02	-4.400	0.000	0.846
81.00	-19.61	-18.59	0.00	-921.02	0.00	921.02	1724.59	438.17	1143.92	1116.45	38.95	-4.483	0.000	0.838
82.00	-19.44	-18.55	0.00	-902.43	0.00	902.43	1717.07	435.29	1128.90	1104.20	39.90	-4.566	0.000	0.830
83.00	-19.27	-18.50	0.00	-883.88	0.00	883.88	1709.50	432.40	1113.98	1091.99	40.87	-4.649	0.000	0.823
84.00	-19.10	-18.45	0.00	-865.38	0.00	865.38	1701.88	429.52	1099.17	1079.81	41.85	-4.732	0.000	0.814
85.00	-18.93	-18.41	0.00	-846.93	0.00	846.93	1694.20	426.63	1084.45	1067.66	42.85	-4.815	0.000	0.806
86.00	-18.76	-18.36	0.00	-828.52	0.00	828.52	1686.48	423.74	1069.83	1055.54	43.86	-4.898	0.000	0.798
87.00	-18.60	-18.31	0.00	-810.16	0.00	810.16	1678.71	420.86	1055.31	1043.46	44.90	-4.980	0.000	0.789
88.00	-18.43	-18.27	0.00	-791.85	0.00	791.85	1670.88	417.97	1040.88	1031.42	45.95	-5.062	0.000	0.781
89.00	-18.27	-18.22	0.00	-773.59	0.00	773.59	1663.00	415.09	1026.56	1019.41	47.02	-5.145	0.000	0.772
90.00	-18.10	-18.17	0.00	-755.37	0.00	755.37	1655.08	412.20	1012.34	1007.44	48.10	-5.227	0.000	0.763
91.00	-17.94	-18.12	0.00	-737.20	0.00	737.20	1647.10	409.32	998.22	995.51	49.20	-5.308	0.000	0.753
92.00	-17.77	-18.07	0.00	-719.08	0.00	719.08	1639.07	406.43	984.19	983.61	50.32	-5.390	0.000	0.744
93.00	-17.61	-18.03	0.00	-701.00	0.00	701.00	1630.99	403.55	970.27	971.76	51.46	-5.471	0.000	0.734
94.00	-17.45	-17.98	0.00	-682.98	0.00	682.98	1622.86	400.66	956.44	959.94	52.61	-5.551	0.000	0.724
95.00	-17.29	-17.93	0.00	-665.00	0.00	665.00	1614.68	397.77	942.71	948.16	53.78	-5.632	0.000	0.714
96.00	-17.14	-17.87	0.00	-647.08	0.00	647.08	1606.45	394.89	929.08	936.43	54.97	-5.711	0.000	0.704
96.18	-17.11	-17.87	0.00	-643.92	0.00	643.92	1604.99	394.38	926.69	934.36	55.18	-5.726	0.000	0.702
97.00	-16.92	-17.82	0.00	-629.21	0.00	629.21	1598.16	392.00	915.56	924.73	56.17	-5.791	0.000	0.693
98.00	-16.69	-17.76	0.00	-611.39	0.00	611.39	1589.83	389.12	902.13	913.08	57.39	-5.870	0.000	0.682
99.00	-16.48	-17.68	0.00	-593.63	0.00	593.63	1581.44	386.23	888.80	901.47	58.63	-5.948	0.000	0.671
99.25	-16.42	-17.67	0.00	-589.21	0.00	589.21	1579.34	385.51	885.48	898.57	58.94	-5.968	0.000	0.378

Calculated Forces

Structure: CT12215-A-SBA
Site Name: Litchfield 3 CT
Height: 149.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1 **Topography:** 1

Code: TIA-222-H 2/6/2024
Exposure: B
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

Tower Engineering Solutions

100.00	-16.27	-17.61	0.00	-575.96	0.00	575.96	1573.01	383.35	875.57	889.90	59.88	-6.001	0.000	0.372
100.34	-16.19	-17.58	0.00	-569.92	0.00	569.92	1075.68	291.34	674.27	618.09	60.31	-6.016	0.000	0.417
101.00	-16.11	-17.54	0.00	-558.37	0.00	558.37	1072.67	289.91	667.71	613.33	61.14	-6.045	0.000	0.467
102.00	-15.99	-17.47	0.00	-540.83	0.00	540.83	1068.04	287.75	657.78	606.10	62.41	-6.093	0.000	0.456
102.25	-15.96	-17.46	0.00	-536.47	0.00	536.47	1066.88	287.21	655.30	604.29	62.73	-6.105	0.000	0.453
102.25	-15.96	-17.46	0.00	-536.47	0.00	536.47	1066.88	287.21	655.30	604.29	62.73	-6.105	0.000	0.882
103.00	-15.86	-17.42	0.00	-523.38	0.00	523.38	1063.37	285.59	647.92	598.87	63.69	-6.141	0.000	0.893
104.00	-15.72	-17.36	0.00	-505.96	0.00	505.96	1058.64	283.42	638.14	591.66	64.98	-6.236	0.000	0.874
105.00	-15.59	-17.31	0.00	-488.60	0.00	488.60	1053.86	281.26	628.43	584.47	66.30	-6.331	0.000	0.855
106.00	-15.46	-17.26	0.00	-471.29	0.00	471.29	1049.03	279.09	618.79	577.28	67.63	-6.424	0.000	0.835
107.00	-15.32	-17.21	0.00	-454.03	0.00	454.03	1044.15	276.93	609.23	570.11	68.98	-6.515	0.000	0.815
108.00	-15.19	-17.17	0.00	-436.82	0.00	436.82	1039.22	274.77	599.75	562.95	70.35	-6.606	0.000	0.794
109.00	-15.06	-17.12	0.00	-419.65	0.00	419.65	1034.24	272.60	590.34	555.81	71.74	-6.695	0.000	0.774
110.00	-14.93	-17.07	0.00	-402.53	0.00	402.53	1029.21	270.44	581.00	548.68	73.15	-6.782	0.000	0.752
111.00	-14.80	-17.02	0.00	-385.46	0.00	385.46	1024.13	268.27	571.74	541.57	74.58	-6.868	0.000	0.730
112.00	-14.67	-16.97	0.00	-368.44	0.00	368.44	1018.99	266.11	562.55	534.48	76.03	-6.952	0.000	0.708
113.00	-14.55	-16.92	0.00	-351.47	0.00	351.47	1013.81	263.94	553.44	527.40	77.49	-7.035	0.000	0.685
114.00	-14.42	-16.87	0.00	-334.55	0.00	334.55	1008.57	261.78	544.40	520.34	78.97	-7.115	0.000	0.661
115.00	-11.52	-13.85	0.00	-317.68	0.00	317.68	1003.28	259.62	535.44	513.31	80.46	-7.193	0.000	0.633
116.00	-11.41	-13.80	0.00	-303.83	0.00	303.83	997.95	257.45	526.55	506.29	81.97	-7.270	0.000	0.614
117.00	-11.30	-13.75	0.00	-290.03	0.00	290.03	992.56	255.29	517.73	499.29	83.50	-7.345	0.000	0.595
118.00	-11.18	-13.69	0.00	-276.29	0.00	276.29	987.12	253.12	508.99	492.31	85.04	-7.418	0.000	0.575
119.00	-11.07	-13.64	0.00	-262.59	0.00	262.59	981.63	250.96	500.33	485.36	86.60	-7.490	0.000	0.555
120.00	-10.96	-13.59	0.00	-248.95	0.00	248.95	976.09	248.80	491.73	478.42	88.17	-7.560	0.000	0.535
121.00	-10.85	-13.53	0.00	-235.37	0.00	235.37	970.50	246.63	483.22	471.51	89.76	-7.627	0.000	0.513
122.00	-10.74	-13.48	0.00	-221.83	0.00	221.83	964.85	244.47	474.77	464.62	91.36	-7.693	0.000	0.492
123.00	-10.63	-13.43	0.00	-208.35	0.00	208.35	959.16	242.30	466.41	457.76	92.97	-7.757	0.000	0.469
124.00	-10.53	-13.37	0.00	-194.92	0.00	194.92	953.42	240.14	458.11	450.92	94.60	-7.818	0.000	0.446
125.00	-10.42	-13.32	0.00	-181.55	0.00	181.55	947.62	237.97	449.89	444.11	96.24	-7.876	0.000	0.423
126.00	-10.32	-13.26	0.00	-168.23	0.00	168.23	941.77	235.81	441.75	437.32	97.89	-7.932	0.000	0.399
127.00	-10.22	-13.21	0.00	-154.97	0.00	154.97	935.88	233.65	433.67	430.56	99.55	-7.985	0.000	0.374
128.00	-10.11	-13.15	0.00	-141.76	0.00	141.76	929.93	231.48	425.68	423.83	101.23	-8.036	0.000	0.349
129.00	-10.01	-13.10	0.00	-128.61	0.00	128.61	923.93	229.32	417.76	417.13	102.91	-8.083	0.000	0.322
130.00	-6.30	-8.55	0.00	-115.51	0.00	115.51	917.88	227.15	409.91	410.45	104.60	-8.126	0.000	0.290
131.00	-6.22	-8.49	0.00	-106.96	0.00	106.96	911.78	224.99	402.13	403.81	106.30	-8.167	0.000	0.273
132.00	-6.16	-8.44	0.00	-98.47	0.00	98.47	905.63	222.83	394.44	397.19	108.01	-8.206	0.000	0.256
133.00	-6.09	-8.38	0.00	-90.04	0.00	90.04	899.43	220.66	386.81	390.61	109.73	-8.243	0.000	0.239
134.00	-6.02	-8.33	0.00	-81.65	0.00	81.65	893.17	218.50	379.26	384.05	111.45	-8.277	0.000	0.221
135.00	-5.95	-8.27	0.00	-73.33	0.00	73.33	886.87	216.33	371.78	377.53	113.19	-8.309	0.000	0.202
136.00	-5.88	-8.22	0.00	-65.05	0.00	65.05	880.51	214.17	364.38	371.04	114.92	-8.339	0.000	0.183
137.00	-5.82	-8.16	0.00	-56.84	0.00	56.84	874.11	212.00	357.06	364.59	116.67	-8.365	0.000	0.164
138.00	-5.75	-8.08	0.00	-48.67	0.00	48.67	867.65	209.84	349.80	358.17	118.42	-8.389	0.000	0.144
139.00	-5.68	-8.02	0.00	-40.59	0.00	40.59	861.15	207.68	342.63	351.78	120.17	-8.410	0.000	0.123
140.00	-2.56	-3.31	0.00	-32.57	0.00	32.57	854.59	205.51	335.52	345.43	121.93	-8.428	0.000	0.098
141.00	-2.51	-3.26	0.00	-29.26	0.00	29.26	847.98	203.35	328.49	339.11	123.69	-8.443	0.000	0.090
142.00	-2.47	-3.20	0.00	-26.01	0.00	26.01	841.32	201.18	321.54	332.84	125.45	-8.457	0.000	0.081
143.00	-2.42	-3.15	0.00	-22.80	0.00	22.80	834.61	199.02	314.66	326.60	127.22	-8.470	0.000	0.073
144.00	-2.38	-3.10	0.00	-19.65	0.00	19.65	827.84	196.86	307.85	320.39	128.99	-8.482	0.000	0.064
145.00	-2.34	-3.05	0.00	-16.55	0.00	16.55	821.03	194.69	301.12	314.23	130.76	-8.492	0.000	0.056
146.00	-2.29	-3.00	0.00	-13.50	0.00	13.50	814.17	192.53	294.46	308.10	132.53	-8.501	0.000	0.047
147.00	-2.25	-2.95	0.00	-10.50	0.00	10.50	805.87	190.36	287.88	301.50	134.31	-8.508	0.000	0.038
148.00	-2.21	-2.90	0.00	-7.55	0.00	7.55	796.71	188.20	281.37	294.65	136.08	-8.514	0.000	0.029
149.00	0.00	-2.54	0.00	-4.65	0.00	4.65	787.55	186.03	274.94	287.88	137.86	-8.518	0.000	0.016

Wind Loading - Shaft

Structure: CT12215-A-SBA
Site Name: Litchfield 3 CT
Height: 149.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1 **Topography:** 1

Code: TIA-222-H
Exposure: B
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

2/6/2024

Tower Engineering Solutions

Load Case: 0.9D + 1.0W 115 mph Wind
Dead Load Factor 0.90
Wind Load Factor 1.00

Iterations 35

Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.70	21.846	24.03	384.96	0.730	0.000	0.00	0.000	0.00	0.0	0.0	0.0
1.00		1.00	0.70	21.846	24.03	383.30	0.730	0.000	1.00	4.053	2.96	71.1	0.0	144.5
2.00		1.00	0.70	21.846	24.03	381.64	0.730	0.000	1.00	4.035	2.95	70.8	0.0	143.9
3.00		1.00	0.70	21.846	24.03	379.97	0.730	0.000	1.00	4.018	2.93	70.5	0.0	143.3
4.00		1.00	0.70	21.846	24.03	378.31	0.730	0.000	1.00	4.000	2.92	70.2	0.0	142.6
5.00		1.00	0.70	21.846	24.03	376.65	0.730	0.000	1.00	3.983	2.91	69.9	0.0	142.0
6.00		1.00	0.70	21.846	24.03	374.99	0.730	0.000	1.00	3.965	2.89	69.6	0.0	141.4
7.00		1.00	0.70	21.846	24.03	373.33	0.730	0.000	1.00	3.948	2.88	69.3	0.0	140.8
8.00		1.00	0.70	21.846	24.03	371.67	0.730	0.000	1.00	3.930	2.87	68.9	0.0	140.1
9.00		1.00	0.70	21.846	24.03	370.00	0.730	0.000	1.00	3.913	2.86	68.6	0.0	139.5
10.00		1.00	0.70	21.846	24.03	368.34	0.730	0.000	1.00	3.895	2.84	68.3	0.0	138.9
11.00		1.00	0.70	21.846	24.03	366.68	0.730	0.000	1.00	3.878	2.83	68.0	0.0	138.2
12.00		1.00	0.70	21.846	24.03	365.02	0.730	0.000	1.00	3.860	2.82	67.7	0.0	137.6
13.00		1.00	0.70	21.846	24.03	363.36	0.730	0.000	1.00	3.843	2.81	67.4	0.0	137.0
14.00		1.00	0.70	21.846	24.03	361.69	0.730	0.000	1.00	3.825	2.79	67.1	0.0	136.4
15.00		1.00	0.70	21.846	24.03	360.03	0.730	0.000	1.00	3.807	2.78	66.8	0.0	135.7
16.00		1.00	0.70	21.846	24.03	358.37	0.730	0.000	1.00	3.790	2.77	66.5	0.0	135.1
17.00		1.00	0.70	21.846	24.03	356.71	0.730	0.000	1.00	3.772	2.75	66.2	0.0	134.5
18.00		1.00	0.70	21.846	24.03	355.05	0.730	0.000	1.00	3.755	2.74	65.9	0.0	133.8
19.00		1.00	0.70	21.846	24.03	353.38	0.730	0.000	1.00	3.737	2.73	65.6	0.0	133.2
20.00		1.00	0.70	21.846	24.03	351.72	0.730	0.000	1.00	3.720	2.72	65.3	0.0	132.6
21.00		1.00	0.70	21.846	24.03	350.06	0.730	0.000	1.00	3.702	2.70	64.9	0.0	131.9
22.00		1.00	0.70	21.846	24.03	348.40	0.730	0.000	1.00	3.685	2.69	64.6	0.0	131.3
23.00		1.00	0.70	21.846	24.03	346.74	0.730	0.000	1.00	3.667	2.68	64.3	0.0	130.7
24.00		1.00	0.70	21.846	24.03	345.08	0.730	0.000	1.00	3.650	2.66	64.0	0.0	130.1
25.00		1.00	0.70	21.846	24.03	343.41	0.730	0.000	1.00	3.632	2.65	63.7	0.0	129.4
26.00		1.00	0.70	21.846	24.03	341.75	0.730	0.000	1.00	3.615	2.64	63.4	0.0	128.8
27.00		1.00	0.70	21.846	24.03	340.09	0.730	0.000	1.00	3.597	2.63	63.1	0.0	128.2
28.00		1.00	0.70	21.846	24.03	338.43	0.730	0.000	1.00	3.580	2.61	62.8	0.0	127.5
29.00		1.00	0.70	21.846	24.03	336.77	0.730	0.000	1.00	3.562	2.60	62.5	0.0	126.9
30.00		1.00	0.70	21.865	24.05	335.25	0.730	0.000	1.00	3.544	2.59	62.2	0.0	126.3
31.00		1.00	0.71	22.071	24.28	335.15	0.730	0.000	1.00	3.527	2.57	62.5	0.0	125.7
32.00		1.00	0.71	22.272	24.50	335.00	0.730	0.000	1.00	3.509	2.56	62.8	0.0	125.0
33.00		1.00	0.72	22.468	24.72	334.79	0.730	0.000	1.00	3.492	2.55	63.0	0.0	124.4
34.00		1.00	0.73	22.661	24.93	334.52	0.730	0.000	1.00	3.474	2.54	63.2	0.0	123.8
35.00		1.00	0.73	22.849	25.13	334.21	0.730	0.000	1.00	3.457	2.52	63.4	0.0	123.1
36.00		1.00	0.74	23.034	25.34	333.85	0.730	0.000	1.00	3.439	2.51	63.6	0.0	122.5
37.00		1.00	0.74	23.215	25.54	333.45	0.730	0.000	1.00	3.422	2.50	63.8	0.0	121.9
38.00		1.00	0.75	23.393	25.73	333.00	0.730	0.000	1.00	3.404	2.49	63.9	0.0	121.2
39.00		1.00	0.76	23.567	25.92	332.51	0.730	0.000	1.00	3.387	2.47	64.1	0.0	120.6
40.00		1.00	0.76	23.738	26.11	331.99	0.730	0.000	1.00	3.369	2.46	64.2	0.0	120.0
41.00		1.00	0.77	23.906	26.30	331.42	0.730	0.000	1.00	3.352	2.45	64.3	0.0	119.4
42.00		1.00	0.77	24.071	26.48	330.82	0.730	0.000	1.00	3.334	2.43	64.4	0.0	118.7
43.00		1.00	0.78	24.233	26.66	330.18	0.730	0.000	1.00	3.316	2.42	64.5	0.0	118.1
44.00		1.00	0.78	24.393	26.83	329.51	0.730	0.000	1.00	3.299	2.41	64.6	0.0	117.5
45.00		1.00	0.79	24.550	27.01	328.81	0.730	0.000	1.00	3.281	2.40	64.7	0.0	116.8
46.00		1.00	0.79	24.705	27.18	328.08	0.730	0.000	1.00	3.264	2.38	64.7	0.0	116.2

Wind Loading - Shaft

Structure: CT12215-A-SBA
Site Name: Litchfield 3 CT
Height: 149.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1
Topography: 1
Code: TIA-222-H
Exposure: B
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II
2/6/2024
Page: 31

TES Tower Engineering Solutions

47.00	1.00	0.80	24.857	27.34	327.32	0.730	0.000	1.00	3.246	2.37	64.8	0.0	115.6
47.55 Bot - Section 2	1.00	0.80	24.940	27.43	326.88	0.730	0.000	0.55	1.789	1.31	35.8	0.0	63.7
48.00	1.00	0.80	25.007	27.51	326.52	0.730	0.000	0.45	1.459	1.07	29.3	0.0	92.9
49.00	1.00	0.81	25.155	27.67	325.70	0.730	0.000	1.00	3.254	2.38	65.7	0.0	207.2
50.00 Appurtenance(s)	1.00	0.81	25.301	27.83	324.86	0.730	0.000	1.00	3.236	2.36	65.7	0.0	206.0
51.00	1.00	0.82	25.444	27.99	323.98	0.755 *	0.000	1.00	3.219	2.43	68.0	0.0	204.9
52.00 RB1 RB2	1.00	0.82	25.586	28.14	323.08	0.757 *	0.000	1.00	3.201	2.42	68.2	0.0	203.8
52.97 Top - Section 1	1.00	0.82	25.721	28.29	322.19	0.758 *	0.000	0.97	3.088	2.34	66.2	0.0	196.6
53.00	1.00	0.82	25.725	28.30	326.51	0.755 *	0.000	0.03	0.095	0.07	2.0	0.0	2.7
54.00	1.00	0.83	25.863	28.45	325.58	0.756 *	0.000	1.00	3.166	2.39	68.1	0.0	90.3
55.00	1.00	0.83	25.999	28.60	324.62	0.757 *	0.000	1.00	3.148	2.38	68.2	0.0	89.8
56.00	1.00	0.84	26.133	28.75	323.64	0.759 *	0.000	1.00	3.131	2.38	68.3	0.0	89.3
57.00	1.00	0.84	26.266	28.89	322.64	0.760 *	0.000	1.00	3.113	2.37	68.4	0.0	88.8
58.00	1.00	0.85	26.397	29.04	321.61	0.762 *	0.000	1.00	3.096	2.36	68.5	0.0	88.3
59.00	1.00	0.85	26.526	29.18	320.57	0.763 *	0.000	1.00	3.078	2.35	68.5	0.0	87.8
60.00	1.00	0.85	26.653	29.32	319.50	0.764 *	0.000	1.00	3.061	2.34	68.6	0.0	87.3
61.00	1.00	0.86	26.780	29.46	318.42	0.766 *	0.000	1.00	3.043	2.33	68.7	0.0	86.8
62.00	1.00	0.86	26.904	29.59	317.31	0.767 *	0.000	1.00	3.026	2.32	68.7	0.0	86.3
63.00	1.00	0.87	27.028	29.73	316.19	0.769 *	0.000	1.00	3.008	2.31	68.8	0.0	85.8
64.00	1.00	0.87	27.149	29.86	315.05	0.770 *	0.000	1.00	2.991	2.30	68.8	0.0	85.3
65.00	1.00	0.87	27.270	30.00	313.89	0.772 *	0.000	1.00	2.973	2.29	68.8	0.0	84.8
66.00	1.00	0.88	27.389	30.13	312.72	0.773 *	0.000	1.00	2.956	2.29	68.9	0.0	84.3
67.00	1.00	0.88	27.507	30.26	311.53	0.775 *	0.000	1.00	2.938	2.28	68.9	0.0	83.8
67.92 RB3	1.00	0.88	27.615	30.38	310.41	0.777 *	0.000	0.92	2.687	2.09	63.4	0.0	76.6
68.00 RT1 RT2	1.00	0.89	27.624	30.39	310.32	0.777 *	0.000	0.08	0.233	0.18	5.5	0.0	6.6
69.00	1.00	0.89	27.739	30.51	309.09	0.778 *	0.000	1.00	2.903	2.26	68.9	0.0	82.8
70.00	1.00	0.89	27.854	30.64	307.85	0.780 *	0.000	1.00	2.885	2.25	68.9	0.0	82.3
71.00	1.00	0.90	27.967	30.76	306.60	0.730	0.000	1.00	2.868	2.09	64.4	0.0	81.7
72.00	1.00	0.90	28.079	30.89	305.32	0.730	0.000	1.00	2.850	2.08	64.3	0.0	81.2
73.00 Appurtenance(s)	1.00	0.90	28.190	31.01	304.04	0.730	0.000	1.00	2.833	2.07	64.1	0.0	80.7
74.00	1.00	0.91	28.299	31.13	302.74	0.730	0.000	1.00	2.815	2.06	64.0	0.0	80.2
75.00 RT3	1.00	0.91	28.408	31.25	301.42	0.730	0.000	1.00	2.798	2.04	63.8	0.0	79.7
76.00	1.00	0.91	28.516	31.37	300.10	0.730	0.000	1.00	2.780	2.03	63.7	0.0	79.2
77.00	1.00	0.92	28.623	31.48	298.76	0.730	0.000	1.00	2.763	2.02	63.5	0.0	78.7
78.00	1.00	0.92	28.728	31.60	297.40	0.730	0.000	1.00	2.745	2.00	63.3	0.0	78.2
79.00	1.00	0.92	28.833	31.72	296.03	0.730	0.000	1.00	2.728	1.99	63.2	0.0	77.7
80.00	1.00	0.93	28.937	31.83	294.65	0.730	0.000	1.00	2.710	1.98	63.0	0.0	77.2
81.00	1.00	0.93	29.040	31.94	293.26	0.730	0.000	1.00	2.693	1.97	62.8	0.0	76.7
82.00	1.00	0.93	29.142	32.06	291.86	0.730	0.000	1.00	2.675	1.95	62.6	0.0	76.2
83.00	1.00	0.94	29.243	32.17	290.44	0.730	0.000	1.00	2.657	1.94	62.4	0.0	75.7
84.00	1.00	0.94	29.343	32.28	289.01	0.730	0.000	1.00	2.640	1.93	62.2	0.0	75.2
85.00	1.00	0.94	29.442	32.39	287.57	0.730	0.000	1.00	2.622	1.91	62.0	0.0	74.7
86.00	1.00	0.95	29.541	32.50	286.12	0.730	0.000	1.00	2.605	1.90	61.8	0.0	74.2
87.00	1.00	0.95	29.639	32.60	284.66	0.730	0.000	1.00	2.587	1.89	61.6	0.0	73.7
88.00	1.00	0.95	29.736	32.71	283.18	0.730	0.000	1.00	2.570	1.88	61.4	0.0	73.2
89.00	1.00	0.96	29.832	32.81	281.70	0.730	0.000	1.00	2.552	1.86	61.1	0.0	72.7
90.00	1.00	0.96	29.927	32.92	280.20	0.730	0.000	1.00	2.535	1.85	60.9	0.0	72.2
91.00	1.00	0.96	30.022	33.02	278.70	0.730	0.000	1.00	2.517	1.84	60.7	0.0	71.7
92.00	1.00	0.96	30.116	33.13	277.18	0.730	0.000	1.00	2.500	1.82	60.4	0.0	71.2
93.00	1.00	0.97	30.209	33.23	275.66	0.730	0.000	1.00	2.482	1.81	60.2	0.0	70.7
94.00	1.00	0.97	30.301	33.33	274.12	0.730	0.000	1.00	2.465	1.80	60.0	0.0	70.2
95.00	1.00	0.97	30.393	33.43	272.57	0.730	0.000	1.00	2.447	1.79	59.7	0.0	69.7
96.00	1.00	0.98	30.484	33.53	271.02	0.730	0.000	1.00	2.429	1.77	59.5	0.0	69.2
96.18 Bot - Section 3	1.00	0.98	30.500	33.55	270.74	0.737 *	0.000	0.18	0.427	0.32	10.6	0.0	12.2
97.00	1.00	0.98	30.575	33.63	269.45	0.738 *	0.000	0.82	2.011	1.48	49.9	0.0	99.5
98.00	1.00	0.98	30.664	33.73	267.88	0.835 *	0.000	1.00	2.426	2.03	68.3	0.0	120.1
99.00	1.00	0.99	30.753	33.83	266.30	0.837 *	0.000	1.00	2.409	2.02	68.2	0.0	119.2

Wind Loading - Shaft

Structure: CT12215-A-SBA
Site Name: Litchfield 3 CT
Height: 149.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1

Topography: 1

Code: TIA-222-H
Exposure: B
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

2/6/2024

TES Tower Engineering Solutions

99.25 RB4	1.00	0.99	30.775	33.85	265.90	0.839 *	0.000	0.25	0.599	0.50	17.0	0.0	29.7
100.00	1.00	0.99	30.842	33.93	264.71	0.840 *	0.000	0.75	1.792	1.51	51.1	0.0	88.6
100.34 Top - Section 2	1.00	0.99	30.872	33.96	264.16	0.841 *	0.000	0.34	0.817	0.69	23.3	0.0	40.4
101.00	1.00	0.99	30.930	34.02	266.68	0.838 *	0.000	0.66	1.557	1.30	44.4	0.0	33.3
102.00	1.00	0.99	31.017	34.12	265.08	0.840 *	0.000	1.00	2.356	1.98	67.5	0.0	50.4
102.25 RT4	1.00	0.99	31.038	34.14	264.68	0.842 *	0.000	0.25	0.586	0.49	16.8	0.0	12.5
103.00	1.00	1.00	31.103	34.21	263.47	0.843 *	0.000	0.75	1.752	1.48	50.5	0.0	37.5
104.00	1.00	1.00	31.189	34.31	261.84	0.845 *	0.000	1.00	2.321	1.96	67.3	0.0	49.6
105.00	1.00	1.00	31.275	34.40	260.21	0.848 *	0.000	1.00	2.303	1.95	67.2	0.0	49.3
106.00	1.00	1.00	31.360	34.50	258.58	0.751 *	0.000	1.00	2.286	1.72	59.2	0.0	48.9
107.00	1.00	1.01	31.444	34.59	256.93	0.752 *	0.000	1.00	2.268	1.71	59.0	0.0	48.5
108.00	1.00	1.01	31.527	34.68	255.27	0.754 *	0.000	1.00	2.251	1.70	58.9	0.0	48.1
109.00	1.00	1.01	31.611	34.77	253.61	0.756 *	0.000	1.00	2.233	1.69	58.7	0.0	47.8
110.00	1.00	1.02	31.693	34.86	251.94	0.758 *	0.000	1.00	2.216	1.68	58.6	0.0	47.4
111.00	1.00	1.02	31.775	34.95	250.26	0.760 *	0.000	1.00	2.198	1.67	58.4	0.0	47.0
112.00	1.00	1.02	31.857	35.04	248.58	0.762 *	0.000	1.00	2.181	1.66	58.2	0.0	46.6
113.00	1.00	1.02	31.938	35.13	246.88	0.764 *	0.000	1.00	2.163	1.65	58.1	0.0	46.2
114.00	1.00	1.03	32.018	35.22	245.18	0.766 *	0.000	1.00	2.146	1.64	57.9	0.0	45.9
115.00 Appurtenance(s)	1.00	1.03	32.098	35.31	243.47	0.768 *	0.000	1.00	2.128	1.63	57.7	0.0	45.5
116.00	1.00	1.03	32.178	35.40	241.76	0.730	0.000	1.00	2.111	1.54	54.5	0.0	45.1
117.00	1.00	1.03	32.257	35.48	240.04	0.730	0.000	1.00	2.093	1.53	54.2	0.0	44.7
118.00	1.00	1.04	32.335	35.57	238.31	0.730	0.000	1.00	2.075	1.52	53.9	0.0	44.4
119.00	1.00	1.04	32.413	35.65	236.57	0.730	0.000	1.00	2.058	1.50	53.6	0.0	44.0
120.00	1.00	1.04	32.491	35.74	234.83	0.730	0.000	1.00	2.040	1.49	53.2	0.0	43.6
121.00	1.00	1.04	32.568	35.82	233.07	0.730	0.000	1.00	2.023	1.48	52.9	0.0	43.2
122.00	1.00	1.05	32.645	35.91	231.32	0.730	0.000	1.00	2.005	1.46	52.6	0.0	42.8
123.00	1.00	1.05	32.721	35.99	229.55	0.730	0.000	1.00	1.988	1.45	52.2	0.0	42.5
124.00	1.00	1.05	32.797	36.08	227.78	0.730	0.000	1.00	1.970	1.44	51.9	0.0	42.1
125.00	1.00	1.05	32.872	36.16	226.01	0.730	0.000	1.00	1.953	1.43	51.5	0.0	41.7
126.00	1.00	1.06	32.947	36.24	224.22	0.730	0.000	1.00	1.935	1.41	51.2	0.0	41.3
127.00	1.00	1.06	33.022	36.32	222.43	0.730	0.000	1.00	1.918	1.40	50.8	0.0	41.0
128.00	1.00	1.06	33.096	36.41	220.64	0.730	0.000	1.00	1.900	1.39	50.5	0.0	40.6
129.00	1.00	1.06	33.169	36.49	218.83	0.730	0.000	1.00	1.883	1.37	50.1	0.0	40.2
130.00 Appurtenance(s)	1.00	1.07	33.243	36.57	217.03	0.730	0.000	1.00	1.865	1.36	49.8	0.0	39.8
131.00	1.00	1.07	33.315	36.65	215.21	0.730	0.000	1.00	1.848	1.35	49.4	0.0	39.4
132.00	1.00	1.07	33.388	36.73	213.39	0.730	0.000	1.00	1.830	1.34	49.1	0.0	39.1
133.00	1.00	1.07	33.460	36.81	211.56	0.730	0.000	1.00	1.812	1.32	48.7	0.0	38.7
134.00	1.00	1.07	33.532	36.88	209.73	0.730	0.000	1.00	1.795	1.31	48.3	0.0	38.3
135.00	1.00	1.08	33.603	36.96	207.89	0.730	0.000	1.00	1.777	1.30	48.0	0.0	37.9
136.00	1.00	1.08	33.674	37.04	206.05	0.730	0.000	1.00	1.760	1.28	47.6	0.0	37.6
137.00	1.00	1.08	33.744	37.12	204.20	0.730	0.000	1.00	1.742	1.27	47.2	0.0	37.2
138.00 Appurtenance(s)	1.00	1.08	33.815	37.20	202.34	0.730	0.000	1.00	1.725	1.26	46.8	0.0	36.8
139.00	1.00	1.09	33.884	37.27	200.48	0.730	0.000	1.00	1.707	1.25	46.5	0.0	36.4
140.00 Appurtenance(s)	1.00	1.09	33.954	37.35	198.62	0.730	0.000	1.00	1.690	1.23	46.1	0.0	36.1
141.00	1.00	1.09	34.023	37.43	196.75	0.730	0.000	1.00	1.672	1.22	45.7	0.0	35.7
142.00	1.00	1.09	34.092	37.50	194.87	0.730	0.000	1.00	1.655	1.21	45.3	0.0	35.3
143.00	1.00	1.09	34.160	37.58	192.99	0.730	0.000	1.00	1.637	1.20	44.9	0.0	34.9
144.00	1.00	1.10	34.228	37.65	191.10	0.730	0.000	1.00	1.620	1.18	44.5	0.0	34.5
145.00	1.00	1.10	34.296	37.73	189.20	0.730	0.000	1.00	1.602	1.17	44.1	0.0	34.2
146.00	1.00	1.10	34.363	37.80	187.31	0.730	0.000	1.00	1.585	1.16	43.7	0.0	33.8
147.00	1.00	1.10	34.431	37.87	185.40	0.730	0.000	1.00	1.567	1.14	43.3	0.0	33.4
148.00	1.00	1.11	34.497	37.95	183.49	0.730	0.000	1.00	1.549	1.13	42.9	0.0	33.0
149.00 Appurtenance(s)	1.00	1.11	34.564	38.02	181.58	0.730	0.000	1.00	1.532	1.12	42.5	0.0	32.7
* Cf Adjusted by Linear Load Ra Effect							**Totals:**	**149.00**			**9,114.9**		**13,255.3**

Discrete Appurtenance Forces

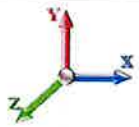
Structure:	CT12215-A-SBA	**Code:**	TIA-222-H	2/6/2024	
Site Name:	Litchfield 3 CT	**Exposure:**	B		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 33	

TES Tower Engineering Solutions

Load Case: 0.9D + 1.0W 115 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.00



Iterations 35

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orient Factor x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	149.00	ACU-A20-N	4	34.761	38.237	0.40	0.80	0.22	3.60	0.000	3.000	8.57	0.00	25.70
2	149.00	800MHz Filter	3	34.761	38.237	0.40	0.80	0.94	23.76	0.000	3.000	35.79	0.00	107.37
3	149.00	TD-RRH8x20-25	3	34.761	38.237	0.40	0.80	4.86	189.00	0.000	3.000	185.83	0.00	557.50
4	149.00	800MHZ	3	34.761	38.237	0.40	0.80	3.17	160.65	0.000	3.000	121.14	0.00	363.41
5	149.00	1900MHz	3	34.761	38.237	0.40	0.80	3.32	162.00	0.000	3.000	127.10	0.00	381.30
6	149.00	APXVTM14-C-I20	3	34.761	38.237	0.63	0.80	12.02	151.20	0.000	3.000	459.64	0.00	1378.91
7	149.00	APXVSPP18-C-A20	3	34.761	38.237	0.66	0.80	15.98	153.90	0.000	3.000	610.87	0.00	1832.62
8	149.00	Low Profile Platform	1	34.564	38.020	1.00	1.00	25.00	1080.00	0.000	0.000	950.50	0.00	0.00
9	140.00	NHH-65C-R2B	6	33.954	37.349	0.63	0.75	43.05	278.64	0.000	0.000	1608.04	0.00	0.00
10	140.00	BXA-70063-6CF-EDIN-5	3	33.954	37.349	0.55	0.75	12.43	45.90	0.000	0.000	464.39	0.00	0.00
11	140.00	MT6413 77A	3	33.954	37.349	0.52	0.75	6.68	235.17	0.000	0.000	249.33	0.00	0.00
12	140.00	Low Profile	1	33.954	37.349	1.00	1.00	22.00	1350.00	0.000	0.000	821.68	0.00	0.00
13	140.00	RFS DB-C1-12C-24AB-0Z	1	33.954	37.349	0.75	0.75	3.04	28.80	0.000	0.000	113.73	0.00	0.00
14	140.00	RFS FD9R6004/2C-3L	6	33.954	37.349	0.75	0.75	1.62	16.74	0.000	0.000	60.51	0.00	0.00
15	140.00	RF4461d-13A	3	33.954	37.349	0.50	0.75	2.83	228.15	0.000	0.000	105.85	0.00	0.00
16	140.00	RF4439-25A ORAN	3	33.954	37.349	0.50	0.75	2.82	227.88	0.000	0.000	105.29	0.00	0.00
17	140.00	Mount Mods	1	33.954	37.349	1.00	1.00	17.00	373.55	0.000	0.000	634.94	0.00	0.00
18	138.00	GPS Receiver	1	33.815	37.196	0.80	0.80	0.80	9.00	0.000	0.000	29.76	0.00	0.00
19	130.00	80010965	6	33.243	36.567	0.53	0.75	44.12	586.44	0.000	0.000	1613.43	0.00	0.00
20	130.00	(3) 12.5' - 2" Horizontal	1	33.243	36.567	0.75	1.00	4.45	123.53	0.000	0.000	162.84	0.00	0.00
21	130.00	XP-2020	24	33.243	36.567	0.56	0.75	9.31	216.00	0.000	0.000	340.62	0.00	0.00
22	130.00	Low Profile Platform	1	33.243	36.567	1.00	1.00	25.00	1080.00	0.000	0.000	914.17	0.00	0.00
23	130.00	7770.00	3	33.243	36.567	0.55	0.75	9.03	94.50	0.000	0.000	330.34	0.00	0.00
24	130.00	LGP 21401	12	33.243	36.567	0.38	0.75	0.00	189.00	0.000	0.000	0.00	0.00	0.00
25	130.00	DC6-48-60-18-8F	1	33.243	36.567	0.75	0.75	0.69	28.62	0.000	0.000	25.23	0.00	0.00
26	130.00	ABT-DF-DM-ADBH	1	33.243	36.567	0.75	0.75	0.04	0.99	0.000	0.000	1.37	0.00	0.00
27	130.00	VSRDual-TS-B-HD	2	33.243	36.567	0.56	0.75	4.61	267.12	0.000	0.000	168.66	0.00	0.00
28	130.00	4449 B5/B12	3	33.243	36.567	0.38	0.75	2.22	191.70	0.000	0.000	81.04	0.00	0.00
29	130.00	8843 B2/B66A	3	33.243	36.567	0.38	0.75	1.84	194.40	0.000	0.000	67.47	0.00	0.00
30	130.00	DC6-48-60-18-8C	1	33.243	36.567	0.75	0.75	0.95	18.00	0.000	0.000	34.56	0.00	0.00
31	130.00	DC6-48-60-0-8C-EV	1	33.243	36.567	0.75	0.75	3.58	14.40	0.000	0.000	131.09	0.00	0.00
32	130.00	RRUS 4478 B14	3	33.243	36.567	0.38	0.75	1.86	160.38	0.000	0.000	67.88	0.00	0.00
33	115.00	AIR6449 B41	3	32.098	35.308	0.57	0.80	9.63	278.10	0.000	0.000	339.93	0.00	0.00
34	115.00	T-Arm	3	32.098	35.308	0.56	0.75	13.50	945.00	0.000	0.000	476.66	0.00	0.00
35	115.00	(3) Stabilizer Kit (12' FW)	1	32.098	35.308	1.00	1.00	6.10	162.00	0.000	0.000	215.38	0.00	0.00
36	115.00	4460 Radio	3	32.098	35.308	0.40	0.80	3.42	294.30	0.000	0.000	120.75	0.00	0.00
37	115.00	APXVAALL24_43-U-NA20	3	32.098	35.308	0.58	0.80	35.46	331.56	0.000	0.000	1252.04	0.00	0.00
38	115.00	RRUS 11	3	32.098	35.308	0.40	0.80	3.02	136.89	0.000	0.000	106.77	0.00	0.00
39	115.00	4449 B71 + B85	3	32.098	35.308	0.40	0.80	2.36	197.64	0.000	0.000	83.47	0.00	0.00
40	73.00	GPS Receiver	1	28.190	31.009	1.00	1.00	1.00	9.00	0.000	0.000	31.01	0.00	0.00
41	50.00	58532A	1	25.301	27.831	1.00	1.00	0.22	0.36	0.000	0.000	6.12	0.00	0.00
							Totals:		**10,237.87**			**13,263.79**		

Total Applied Force Summary

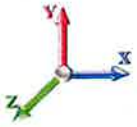
Structure:	CT12215-A-SBA	**Code:**	TIA-222-H	2/6/2024	
Site Name:	Litchfield 3 CT	**Exposure:**	B		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 34	

IES Tower Engineering Solutions

Load Case: 0.9D + 1.0W 115 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.00



Iterations 35

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
1.00		71.10	181.02	0.00	0.00
2.00		70.79	180.39	0.00	0.00
3.00		70.48	179.76	0.00	0.00
4.00		70.18	179.13	0.00	0.00
5.00		69.87	178.50	0.00	0.00
6.00		69.56	177.87	0.00	0.00
7.00		69.25	177.24	0.00	0.00
8.00		68.95	176.61	0.00	0.00
9.00		68.64	175.98	0.00	0.00
10.00		68.33	175.35	0.00	0.00
11.00		68.02	174.72	0.00	0.00
12.00		67.72	174.10	0.00	0.00
13.00		67.41	173.47	0.00	0.00
14.00		67.10	172.84	0.00	0.00
15.00		66.79	172.21	0.00	0.00
16.00		66.49	171.58	0.00	0.00
17.00		66.18	170.95	0.00	0.00
18.00		65.87	170.32	0.00	0.00
19.00		65.56	169.69	0.00	0.00
20.00		65.25	169.06	0.00	0.00
21.00		64.95	168.43	0.00	0.00
22.00		64.64	167.80	0.00	0.00
23.00		64.33	167.17	0.00	0.00
24.00		64.02	166.54	0.00	0.00
25.00		63.72	165.91	0.00	0.00
26.00		63.41	165.28	0.00	0.00
27.00		63.10	164.65	0.00	0.00
28.00		62.79	164.02	0.00	0.00
29.00		62.49	163.40	0.00	0.00
30.00		62.23	162.77	0.00	0.00
31.00		62.51	162.14	0.00	0.00
32.00		62.76	161.51	0.00	0.00
33.00		63.00	160.88	0.00	0.00
34.00		63.22	160.25	0.00	0.00
35.00		63.42	159.62	0.00	0.00
36.00		63.61	158.99	0.00	0.00
37.00		63.79	158.36	0.00	0.00
38.00		63.94	157.73	0.00	0.00
39.00		64.09	157.10	0.00	0.00
40.00		64.22	156.47	0.00	0.00
41.00		64.34	155.84	0.00	0.00
42.00		64.44	155.21	0.00	0.00
43.00		64.54	154.58	0.00	0.00
44.00		64.62	153.95	0.00	0.00
45.00		64.69	153.32	0.00	0.00
46.00		64.75	152.70	0.00	0.00

Total Applied Force Summary

Structure:	CT12215-A-SBA		**Code:**	TIA-222-H	2/6/2024
Site Name:	Litchfield 3 CT		**Exposure:**	B	
Height:	149.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 35

Tower Engineering Solutions

47.00		64.80	152.07	0.00	0.00
47.55		35.82	83.87	0.00	0.00
48.00		29.30	109.19	0.00	0.00
49.00		65.72	243.63	0.00	0.00
50.00	(1) attachments	71.87	242.86	0.00	0.00
51.00		68.03	241.22	0.00	0.00
52.00		68.16	240.09	0.00	0.00
52.97		66.22	231.81	0.00	0.00
53.00		2.04	3.81	0.00	0.00
54.00		68.09	126.65	0.00	0.00
55.00		68.19	126.14	0.00	0.00
56.00		68.29	125.64	0.00	0.00
57.00		68.37	125.14	0.00	0.00
58.00		68.46	124.63	0.00	0.00
59.00		68.53	124.13	0.00	0.00
60.00		68.60	123.63	0.00	0.00
61.00		68.66	123.12	0.00	0.00
62.00		68.71	122.62	0.00	0.00
63.00		68.76	122.12	0.00	0.00
64.00		68.80	121.61	0.00	0.00
65.00		68.84	121.11	0.00	0.00
66.00		68.87	120.60	0.00	0.00
67.00		68.90	120.10	0.00	0.00
67.92		63.39	110.05	0.00	0.00
68.00		5.50	9.55	0.00	0.00
69.00		68.93	119.09	0.00	0.00
70.00		68.94	118.59	0.00	0.00
71.00		64.40	118.09	0.00	0.00
72.00		64.27	117.58	0.00	0.00
73.00	(1) attachments	95.13	126.08	0.00	0.00
74.00		63.97	116.43	0.00	0.00
75.00		63.82	115.93	0.00	0.00
76.00		63.66	115.43	0.00	0.00
77.00		63.50	114.92	0.00	0.00
78.00		63.33	114.42	0.00	0.00
79.00		63.15	113.91	0.00	0.00
80.00		62.97	113.41	0.00	0.00
81.00		62.79	112.91	0.00	0.00
82.00		62.60	112.40	0.00	0.00
83.00		62.40	111.90	0.00	0.00
84.00		62.20	111.40	0.00	0.00
85.00		62.00	110.89	0.00	0.00
86.00		61.79	110.39	0.00	0.00
87.00		61.58	109.89	0.00	0.00
88.00		61.36	109.38	0.00	0.00
89.00		61.14	108.88	0.00	0.00
90.00		60.91	108.38	0.00	0.00
91.00		60.68	107.87	0.00	0.00
92.00		60.45	107.37	0.00	0.00
93.00		60.21	106.87	0.00	0.00
94.00		59.97	106.36	0.00	0.00
95.00		59.72	105.86	0.00	0.00
96.00		59.47	105.35	0.00	0.00
96.18		10.57	18.56	0.00	0.00
97.00		49.92	129.32	0.00	0.00
98.00		68.33	156.26	0.00	0.00
99.00		68.23	155.38	0.00	0.00

Total Applied Force Summary

Structure:	CT12215-A-SBA		**Code:**	TIA-222-H	2/6/2024
Site Name:	Litchfield 3 CT		**Exposure:**	B	
Height:	149.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 36

99.25		17.02	38.71	0.00	0.00
100.00		51.06	115.79	0.00	0.00
100.34		23.34	52.84	0.00	0.00
101.00		44.39	57.07	0.00	0.00
102.00		67.54	86.60	0.00	0.00
102.25		16.85	21.59	0.00	0.00
103.00		50.54	64.63	0.00	0.00
104.00		67.30	85.84	0.00	0.00
105.00		67.18	85.46	0.00	0.00
106.00		59.18	85.09	0.00	0.00
107.00		59.03	84.71	0.00	0.00
108.00		58.88	84.33	0.00	0.00
109.00		58.72	83.95	0.00	0.00
110.00		58.56	83.57	0.00	0.00
111.00		58.40	83.20	0.00	0.00
112.00		58.23	82.82	0.00	0.00
113.00		58.07	82.44	0.00	0.00
114.00		57.90	82.06	0.00	0.00
115.00	(19) attachments	2652.73	2427.18	0.00	0.00
116.00		54.53	78.34	0.00	0.00
117.00		54.21	77.96	0.00	0.00
118.00		53.89	77.58	0.00	0.00
119.00		53.56	77.21	0.00	0.00
120.00		53.23	76.83	0.00	0.00
121.00		52.90	76.45	0.00	0.00
122.00		52.57	76.07	0.00	0.00
123.00		52.23	75.70	0.00	0.00
124.00		51.89	75.32	0.00	0.00
125.00		51.54	74.94	0.00	0.00
126.00		51.20	74.56	0.00	0.00
127.00		50.85	74.18	0.00	0.00
128.00		50.50	73.81	0.00	0.00
129.00		50.14	73.43	0.00	0.00
130.00	(62) attachments	3988.48	3238.13	0.00	0.00
131.00		49.43	54.31	0.00	0.00
132.00		49.06	53.94	0.00	0.00
133.00		48.70	53.56	0.00	0.00
134.00		48.33	53.18	0.00	0.00
135.00		47.96	52.80	0.00	0.00
136.00		47.59	52.43	0.00	0.00
137.00		47.21	52.05	0.00	0.00
138.00	(1) attachments	76.59	60.67	0.00	0.00
139.00		46.45	51.29	0.00	0.00
140.00	(27) attachments	4209.84	2835.75	0.00	0.00
141.00		45.68	39.11	0.00	0.00
142.00		45.30	38.73	0.00	0.00
143.00		44.91	38.35	0.00	0.00
144.00		44.51	37.97	0.00	0.00
145.00		44.12	37.60	0.00	0.00
146.00		43.72	37.22	0.00	0.00
147.00		43.32	36.84	0.00	0.00
148.00		42.92	36.46	0.00	0.00
149.00	(23) attachments	2541.95	1960.20	0.00	4646.80
	Totals:	**22,378.69**	**28,351.16**	**0.00**	**4,646.80**

Linear Appurtenance Segment Forces (Factored)

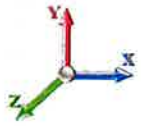
Structure:	CT12215-A-SBA	**Code:**	TIA-222-H	2/6/2024	
Site Name:	Litchfield 3 CT	**Exposure:**	B		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 37	

Tower Engineering Solutions

Load Case: 0.9D + 1.0W 115 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.00



Iterations 35

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)
1.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.054	0.000	21.846	0.00	0.99
1.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.054	0.000	21.846	0.00	1.98
1.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.054	0.000	21.846	0.00	0.14
2.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.055	0.000	21.846	0.00	0.99
2.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.055	0.000	21.846	0.00	1.98
2.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.055	0.000	21.846	0.00	0.14
3.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.055	0.000	21.846	0.00	0.99
3.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.055	0.000	21.846	0.00	1.98
3.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.055	0.000	21.846	0.00	0.14
4.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.055	0.000	21.846	0.00	0.99
4.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.055	0.000	21.846	0.00	1.98
4.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.055	0.000	21.846	0.00	0.14
5.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.055	0.000	21.846	0.00	0.99
5.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.055	0.000	21.846	0.00	1.98
5.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.055	0.000	21.846	0.00	0.14
6.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.056	0.000	21.846	0.00	0.99
6.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.056	0.000	21.846	0.00	1.98
6.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.056	0.000	21.846	0.00	0.14
7.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.056	0.000	21.846	0.00	0.99
7.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.056	0.000	21.846	0.00	1.98
7.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.056	0.000	21.846	0.00	0.14
8.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.056	0.000	21.846	0.00	0.99
8.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.056	0.000	21.846	0.00	1.98
8.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.056	0.000	21.846	0.00	0.14
9.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.056	0.000	21.846	0.00	0.99
9.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.056	0.000	21.846	0.00	1.98
9.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.056	0.000	21.846	0.00	0.14
10.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.057	0.000	21.846	0.00	0.99
10.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.057	0.000	21.846	0.00	1.98
10.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.057	0.000	21.846	0.00	0.14
11.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.057	0.000	21.846	0.00	0.99
11.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.057	0.000	21.846	0.00	1.98
11.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.057	0.000	21.846	0.00	0.14
12.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.057	0.000	21.846	0.00	0.99
12.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.057	0.000	21.846	0.00	1.98
12.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.057	0.000	21.846	0.00	0.14
13.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.057	0.000	21.846	0.00	0.99
13.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.057	0.000	21.846	0.00	1.98
13.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.057	0.000	21.846	0.00	0.14
14.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.058	0.000	21.846	0.00	0.99
14.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.058	0.000	21.846	0.00	1.98
14.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.058	0.000	21.846	0.00	0.14
15.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.058	0.000	21.846	0.00	0.99
15.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.058	0.000	21.846	0.00	1.98
15.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.058	0.000	21.846	0.00	0.14
16.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.058	0.000	21.846	0.00	0.99
16.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.058	0.000	21.846	0.00	1.98

Linear Appurtenance Segment Forces (Factored)

Structure: CT12215-A-SBA
Site Name: Litchfield 3 CT
Height: 149.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1 **Topography:** 1

Code: TIA-222-H 2/6/2024
Exposure: B
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

Tower Engineering Solutions

Load Case: 0.9D + 1.0W 115 mph Wind
Dead Load Factor 0.90
Wind Load Factor 1.00

Iterations 35

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)
16.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.058	0.000	21.846	0.00	0.14
17.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.059	0.000	21.846	0.00	0.99
17.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.059	0.000	21.846	0.00	1.98
17.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.059	0.000	21.846	0.00	0.14
18.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.059	0.000	21.846	0.00	0.99
18.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.059	0.000	21.846	0.00	1.98
18.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.059	0.000	21.846	0.00	0.14
19.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.059	0.000	21.846	0.00	0.99
19.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.059	0.000	21.846	0.00	1.98
19.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.059	0.000	21.846	0.00	0.14
20.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.059	0.000	21.846	0.00	0.99
20.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.059	0.000	21.846	0.00	1.98
20.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.059	0.000	21.846	0.00	0.14
21.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.060	0.000	21.846	0.00	0.99
21.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.060	0.000	21.846	0.00	1.98
21.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.060	0.000	21.846	0.00	0.14
22.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.060	0.000	21.846	0.00	0.99
22.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.060	0.000	21.846	0.00	1.98
22.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.060	0.000	21.846	0.00	0.14
23.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.060	0.000	21.846	0.00	0.99
23.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.060	0.000	21.846	0.00	1.98
23.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.060	0.000	21.846	0.00	0.14
24.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.061	0.000	21.846	0.00	0.99
24.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.061	0.000	21.846	0.00	1.98
24.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.061	0.000	21.846	0.00	0.14
25.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.061	0.000	21.846	0.00	0.99
25.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.061	0.000	21.846	0.00	1.98
25.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.061	0.000	21.846	0.00	0.14
26.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.061	0.000	21.846	0.00	0.99
26.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.061	0.000	21.846	0.00	1.98
26.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.061	0.000	21.846	0.00	0.14
27.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.061	0.000	21.846	0.00	0.99
27.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.061	0.000	21.846	0.00	1.98
27.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.061	0.000	21.846	0.00	0.14
28.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.062	0.000	21.846	0.00	0.99
28.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.062	0.000	21.846	0.00	1.98
28.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.062	0.000	21.846	0.00	0.14
29.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.062	0.000	21.846	0.00	0.99
29.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.062	0.000	21.846	0.00	1.98
29.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.062	0.000	21.846	0.00	0.14
30.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.062	0.000	21.865	0.00	0.99
30.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.062	0.000	21.865	0.00	1.98
30.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.062	0.000	21.865	0.00	0.14
31.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.063	0.000	22.071	0.00	0.99
31.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.063	0.000	22.071	0.00	1.98
31.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.063	0.000	22.071	0.00	0.14
32.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.063	0.000	22.272	0.00	0.99

Linear Appurtenance Segment Forces (Factored)

Structure:	CT12215-A-SBA	**Code:**	TIA-222-H	2/6/2024	
Site Name:	Litchfield 3 CT	**Exposure:**	B		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 39	

Tower Engineering Solutions

Load Case: 0.9D + 1.0W 115 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.00

Iterations 35

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)
32.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.063	0.000	22.272	0.00	1.98
32.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.063	0.000	22.272	0.00	0.14
33.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.063	0.000	22.468	0.00	0.99
33.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.063	0.000	22.468	0.00	1.98
33.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.063	0.000	22.468	0.00	0.14
34.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.064	0.000	22.661	0.00	0.99
34.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.064	0.000	22.661	0.00	1.98
34.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.064	0.000	22.661	0.00	0.14
35.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.064	0.000	22.849	0.00	0.99
35.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.064	0.000	22.849	0.00	1.98
35.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.064	0.000	22.849	0.00	0.14
36.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.064	0.000	23.034	0.00	0.99
36.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.064	0.000	23.034	0.00	1.98
36.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.064	0.000	23.034	0.00	0.14
37.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.065	0.000	23.215	0.00	0.99
37.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.065	0.000	23.215	0.00	1.98
37.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.065	0.000	23.215	0.00	0.14
38.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.065	0.000	23.393	0.00	0.99
38.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.065	0.000	23.393	0.00	1.98
38.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.065	0.000	23.393	0.00	0.14
39.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.065	0.000	23.567	0.00	0.99
39.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.065	0.000	23.567	0.00	1.98
39.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.065	0.000	23.567	0.00	0.14
40.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.066	0.000	23.738	0.00	0.99
40.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.066	0.000	23.738	0.00	1.98
40.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.066	0.000	23.738	0.00	0.14
41.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.066	0.000	23.906	0.00	0.99
41.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.066	0.000	23.906	0.00	1.98
41.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.066	0.000	23.906	0.00	0.14
42.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.066	0.000	24.071	0.00	0.99
42.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.066	0.000	24.071	0.00	1.98
42.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.066	0.000	24.071	0.00	0.14
43.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.067	0.000	24.233	0.00	0.99
43.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.067	0.000	24.233	0.00	1.98
43.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.067	0.000	24.233	0.00	0.14
44.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.067	0.000	24.393	0.00	0.99
44.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.067	0.000	24.393	0.00	1.98
44.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.067	0.000	24.393	0.00	0.14
45.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.067	0.000	24.550	0.00	0.99
45.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.067	0.000	24.550	0.00	1.98
45.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.067	0.000	24.550	0.00	0.14
46.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.068	0.000	24.705	0.00	0.99
46.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.068	0.000	24.705	0.00	1.98
46.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.068	0.000	24.705	0.00	0.14
47.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.068	0.000	24.857	0.00	0.99
47.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.068	0.000	24.857	0.00	1.98
47.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.068	0.000	24.857	0.00	0.14

Linear Appurtenance Segment Forces (Factored)

Structure: CT12215-A-SBA
Site Name: Litchfield 3 CT
Height: 149.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1 **Topography:** 1

Code: TIA-222-H 2/6/2024
Exposure: B
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

Tower Engineering Solutions

Load Case: 0.9D + 1.0W 115 mph Wind
Dead Load Factor 0.90
Wind Load Factor 1.00

Iterations 35

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)
47.55	1 5/8" Fiber	Yes	0.55	0.000	2.00	0.09	0.00	0.068	0.000	24.940	0.00	0.55
47.55	1.9" Fiber	Yes	0.55	0.000	0.00	0.00	0.00	0.068	0.000	24.940	0.00	1.10
47.55	1/2" Coax	Yes	0.55	0.000	0.65	0.03	0.00	0.068	0.000	24.940	0.00	0.08
48.00	1 5/8" Fiber	Yes	0.45	0.000	2.00	0.07	0.00	0.068	0.000	25.007	0.00	0.44
48.00	1.9" Fiber	Yes	0.45	0.000	0.00	0.00	0.00	0.068	0.000	25.007	0.00	0.88
48.00	1/2" Coax	Yes	0.45	0.000	0.65	0.02	0.00	0.068	0.000	25.007	0.00	0.06
49.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.069	0.000	25.155	0.00	0.99
49.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.069	0.000	25.155	0.00	1.98
49.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.069	0.000	25.155	0.00	0.14
50.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.069	0.000	25.301	0.00	0.99
50.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.069	0.000	25.301	0.00	1.98
50.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.069	0.000	25.301	0.00	0.14
51.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.112	1.035	25.444	0.00	0.99
51.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.112	1.035	25.444	0.00	1.98
51.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.112	1.035	25.444	0.00	0.00
51.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.112	1.035	25.444	0.00	0.00
52.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.112	1.036	25.586	0.00	0.99
52.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.112	1.036	25.586	0.00	1.98
52.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.112	1.036	25.586	0.00	0.00
52.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.112	1.036	25.586	0.00	0.00
52.97	1 5/8" Fiber	Yes	0.97	0.000	2.00	0.16	0.00	0.113	1.038	25.721	0.00	0.96
52.97	1.9" Fiber	Yes	0.97	0.000	0.00	0.00	0.00	0.113	1.038	25.721	0.00	1.92
52.97	1.25" Reinforcing	Yes	0.97	0.000	1.25	0.10	0.00	0.113	1.038	25.721	0.00	0.00
52.97	1" Reinforcing plate	Yes	0.97	0.000	1.00	0.08	0.00	0.113	1.038	25.721	0.00	0.00
53.00	1 5/8" Fiber	Yes	0.03	0.000	2.00	0.01	0.00	0.112	1.035	25.725	0.00	0.03
53.00	1.9" Fiber	Yes	0.03	0.000	0.00	0.00	0.00	0.112	1.035	25.725	0.00	0.06
53.00	1.25" Reinforcing	Yes	0.03	0.000	1.25	0.00	0.00	0.112	1.035	25.725	0.00	0.00
53.00	1" Reinforcing plate	Yes	0.03	0.000	1.00	0.00	0.00	0.112	1.035	25.725	0.00	0.00
54.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.112	1.036	25.863	0.00	0.99
54.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.112	1.036	25.863	0.00	1.98
54.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.112	1.036	25.863	0.00	0.00
54.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.112	1.036	25.863	0.00	0.00
55.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.112	1.037	25.999	0.00	0.99
55.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.112	1.037	25.999	0.00	1.98
55.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.112	1.037	25.999	0.00	0.00
55.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.112	1.037	25.999	0.00	0.00
56.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.113	1.039	26.133	0.00	0.99
56.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.113	1.039	26.133	0.00	1.98
56.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.113	1.039	26.133	0.00	0.00
56.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.113	1.039	26.133	0.00	0.00
57.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.114	1.041	26.266	0.00	0.99
57.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.114	1.041	26.266	0.00	1.98
57.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.114	1.041	26.266	0.00	0.00
57.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.114	1.041	26.266	0.00	0.00
58.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.114	1.043	26.397	0.00	0.99
58.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.114	1.043	26.397	0.00	1.98
58.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.114	1.043	26.397	0.00	0.00

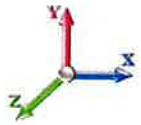
Linear Appurtenance Segment Forces (Factored)

Structure: CT12215-A-SBA
Site Name: Litchfield 3 CT
Height: 149.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1 **Topography:** 1

Code: TIA-222-H 2/6/2024
Exposure: B
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

Tower Engineering Solutions

Load Case: 0.9D + 1.0W 115 mph Wind
Dead Load Factor 0.90
Wind Load Factor 1.00



Iterations 35

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)
58.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.114	1.043	26.397	0.00	0.00
59.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.115	1.045	26.526	0.00	0.99
59.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.115	1.045	26.526	0.00	1.98
59.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.115	1.045	26.526	0.00	0.00
59.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.115	1.045	26.526	0.00	0.00
60.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.116	1.047	26.653	0.00	0.99
60.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.116	1.047	26.653	0.00	1.98
60.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.116	1.047	26.653	0.00	0.00
60.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.116	1.047	26.653	0.00	0.00
61.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.116	1.049	26.780	0.00	0.99
61.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.116	1.049	26.780	0.00	1.98
61.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.116	1.049	26.780	0.00	0.00
61.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.116	1.049	26.780	0.00	0.00
62.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.117	1.051	26.904	0.00	0.99
62.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.117	1.051	26.904	0.00	1.98
62.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.117	1.051	26.904	0.00	0.00
62.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.117	1.051	26.904	0.00	0.00
63.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.118	1.053	27.028	0.00	0.99
63.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.118	1.053	27.028	0.00	1.98
63.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.118	1.053	27.028	0.00	0.00
63.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.118	1.053	27.028	0.00	0.00
64.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.118	1.055	27.149	0.00	0.99
64.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.118	1.055	27.149	0.00	1.98
64.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.118	1.055	27.149	0.00	0.00
64.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.118	1.055	27.149	0.00	0.00
65.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.119	1.057	27.270	0.00	0.99
65.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.119	1.057	27.270	0.00	1.98
65.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.119	1.057	27.270	0.00	0.00
65.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.119	1.057	27.270	0.00	0.00
66.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.120	1.059	27.389	0.00	0.99
66.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.120	1.059	27.389	0.00	1.98
66.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.120	1.059	27.389	0.00	0.00
66.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.120	1.059	27.389	0.00	0.00
67.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.121	1.062	27.507	0.00	0.99
67.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.121	1.062	27.507	0.00	1.98
67.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.121	1.062	27.507	0.00	0.00
67.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.121	1.062	27.507	0.00	0.00
67.92	1 5/8" Fiber	Yes	0.92	0.000	2.00	0.15	0.00	0.121	1.064	27.615	0.00	0.91
67.92	1.9" Fiber	Yes	0.92	0.000	0.00	0.00	0.00	0.121	1.064	27.615	0.00	1.82
67.92	1.25" Reinforcing	Yes	0.92	0.000	1.25	0.10	0.00	0.121	1.064	27.615	0.00	0.00
67.92	1" Reinforcing plate	Yes	0.92	0.000	1.00	0.08	0.00	0.121	1.064	27.615	0.00	0.00
68.00	1 5/8" Fiber	Yes	0.08	0.000	2.00	0.01	0.00	0.122	1.065	27.624	0.00	0.08
68.00	1.9" Fiber	Yes	0.08	0.000	0.00	0.00	0.00	0.122	1.065	27.624	0.00	0.16
68.00	1.25" Reinforcing	Yes	0.08	0.000	1.25	0.01	0.00	0.122	1.065	27.624	0.00	0.00
68.00	1" Reinforcing plate	Yes	0.08	0.000	1.00	0.01	0.00	0.122	1.065	27.624	0.00	0.00
69.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.122	1.066	27.739	0.00	0.99
69.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.122	1.066	27.739	0.00	1.98

Linear Appurtenance Segment Forces (Factored)

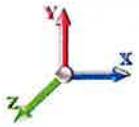
Structure:	CT12215-A-SBA	**Code:**	TIA-222-H	2/6/2024	
Site Name:	Litchfield 3 CT	**Exposure:**	B		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 42	

TES Tower Engineering Solutions

Load Case: 0.9D + 1.0W 115 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.00



Iterations 35

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)
69.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.122	1.066	27.739	0.00	0.00
69.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.122	1.066	27.739	0.00	0.00
70.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.123	1.068	27.854	0.00	0.99
70.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.123	1.068	27.854	0.00	1.98
70.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.123	1.068	27.854	0.00	0.00
70.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.123	1.068	27.854	0.00	0.00
71.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.094	0.000	27.967	0.00	0.99
71.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.094	0.000	27.967	0.00	1.98
71.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.094	0.000	27.967	0.00	0.00
72.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.095	0.000	28.079	0.00	0.99
72.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.095	0.000	28.079	0.00	1.98
72.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.095	0.000	28.079	0.00	0.00
73.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.096	0.000	28.190	0.00	0.99
73.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.096	0.000	28.190	0.00	1.98
73.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.096	0.000	28.190	0.00	0.00
74.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.096	0.000	28.299	0.00	0.99
74.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.096	0.000	28.299	0.00	1.98
74.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.096	0.000	28.299	0.00	0.00
75.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.097	0.000	28.408	0.00	0.99
75.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.097	0.000	28.408	0.00	1.98
75.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.097	0.000	28.408	0.00	0.00
76.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.097	0.000	28.516	0.00	0.99
76.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.097	0.000	28.516	0.00	1.98
76.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.097	0.000	28.516	0.00	0.00
77.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.098	0.000	28.623	0.00	0.99
77.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.098	0.000	28.623	0.00	1.98
77.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.098	0.000	28.623	0.00	0.00
78.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.061	0.000	28.728	0.00	0.99
78.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.061	0.000	28.728	0.00	1.98
79.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.061	0.000	28.833	0.00	0.99
79.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.061	0.000	28.833	0.00	1.98
80.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.061	0.000	28.937	0.00	0.99
80.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.061	0.000	28.937	0.00	1.98
81.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.062	0.000	29.040	0.00	0.99
81.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.062	0.000	29.040	0.00	1.98
82.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.062	0.000	29.142	0.00	0.99
82.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.062	0.000	29.142	0.00	1.98
83.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.063	0.000	29.243	0.00	0.99
83.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.063	0.000	29.243	0.00	1.98
84.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.063	0.000	29.343	0.00	0.99
84.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.063	0.000	29.343	0.00	1.98
85.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.064	0.000	29.442	0.00	0.99
85.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.064	0.000	29.442	0.00	1.98
86.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.064	0.000	29.541	0.00	0.99
86.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.064	0.000	29.541	0.00	1.98
87.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.064	0.000	29.639	0.00	0.99
87.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.064	0.000	29.639	0.00	1.98

Linear Appurtenance Segment Forces (Factored)

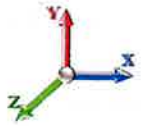
Structure:	CT12215-A-SBA	**Code:**	TIA-222-H	2/6/2024	
Site Name:	Litchfield 3 CT	**Exposure:**	B		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 43	

Tower Engineering Solutions

Load Case: 0.9D + 1.0W 115 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.00



Iterations 35

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)
88.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.065	0.000	29.736	0.00	0.99
88.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.065	0.000	29.736	0.00	1.98
89.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.065	0.000	29.832	0.00	0.99
89.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.065	0.000	29.832	0.00	1.98
90.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.066	0.000	29.927	0.00	0.99
90.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.066	0.000	29.927	0.00	1.98
91.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.066	0.000	30.022	0.00	0.99
91.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.066	0.000	30.022	0.00	1.98
92.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.067	0.000	30.116	0.00	0.99
92.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.067	0.000	30.116	0.00	1.98
93.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.067	0.000	30.209	0.00	0.99
93.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.067	0.000	30.209	0.00	1.98
94.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.068	0.000	30.301	0.00	0.99
94.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.068	0.000	30.301	0.00	1.98
95.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.068	0.000	30.393	0.00	0.99
95.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.068	0.000	30.393	0.00	1.98
96.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.069	0.000	30.484	0.00	0.99
96.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.069	0.000	30.484	0.00	1.98
96.18	1" Reinforcing plate	Yes	0.18	0.000	1.00	0.01	0.00	0.103	1.010	30.500	0.00	0.00
96.18	1 5/8" Fiber	Yes	0.18	0.000	2.00	0.03	0.00	0.103	1.010	30.500	0.00	0.17
96.18	1.9" Fiber	Yes	0.18	0.000	0.00	0.00	0.00	0.103	1.010	30.500	0.00	0.35
97.00	1" Reinforcing plate	Yes	0.82	0.000	1.00	0.07	0.00	0.104	1.011	30.575	0.00	0.00
97.00	1 5/8" Fiber	Yes	0.82	0.000	2.00	0.14	0.00	0.104	1.011	30.575	0.00	0.82
97.00	1.9" Fiber	Yes	0.82	0.000	0.00	0.00	0.00	0.104	1.011	30.575	0.00	1.63
98.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.148	1.144	30.664	0.00	0.00
98.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.148	1.144	30.664	0.00	0.99
98.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.148	1.144	30.664	0.00	1.98
98.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.148	1.144	30.664	0.00	0.00
99.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.149	1.147	30.753	0.00	0.00
99.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.149	1.147	30.753	0.00	0.99
99.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.149	1.147	30.753	0.00	1.98
99.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.149	1.147	30.753	0.00	0.00
99.25	1" Reinforcing plate	Yes	0.25	0.000	1.00	0.02	0.00	0.150	1.149	30.775	0.00	0.00
99.25	1 5/8" Fiber	Yes	0.25	0.000	2.00	0.04	0.00	0.150	1.149	30.775	0.00	0.25
99.25	1.9" Fiber	Yes	0.25	0.000	0.00	0.00	0.00	0.150	1.149	30.775	0.00	0.50
99.25	1.25" Reinforcing	Yes	0.25	0.000	1.25	0.03	0.00	0.150	1.149	30.775	0.00	0.00
100.00	1" Reinforcing plate	Yes	0.75	0.000	1.00	0.06	0.00	0.150	1.151	30.842	0.00	0.00
100.00	1 5/8" Fiber	Yes	0.75	0.000	2.00	0.13	0.00	0.150	1.151	30.842	0.00	0.74
100.00	1.9" Fiber	Yes	0.75	0.000	0.00	0.00	0.00	0.150	1.151	30.842	0.00	1.49
100.00	1.25" Reinforcing	Yes	0.75	0.000	1.25	0.08	0.00	0.150	1.151	30.842	0.00	0.00
100.34	1" Reinforcing plate	Yes	0.34	0.000	1.00	0.03	0.00	0.151	1.153	30.872	0.00	0.00
100.34	1 5/8" Fiber	Yes	0.34	0.000	2.00	0.06	0.00	0.151	1.153	30.872	0.00	0.34
100.34	1.9" Fiber	Yes	0.34	0.000	0.00	0.00	0.00	0.151	1.153	30.872	0.00	0.68
100.34	1.25" Reinforcing	Yes	0.34	0.000	1.25	0.04	0.00	0.151	1.153	30.872	0.00	0.00
101.00	1" Reinforcing plate	Yes	0.66	0.000	1.00	0.05	0.00	0.149	1.148	30.930	0.00	0.00
101.00	1 5/8" Fiber	Yes	0.66	0.000	2.00	0.11	0.00	0.149	1.148	30.930	0.00	0.65
101.00	1.9" Fiber	Yes	0.66	0.000	0.00	0.00	0.00	0.149	1.148	30.930	0.00	1.30

Linear Appurtenance Segment Forces (Factored)

Structure:	CT12215-A-SBA	**Code:**	TIA-222-H	2/6/2024	
Site Name:	Litchfield 3 CT	**Exposure:**	B		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 44	

Load Case: 0.9D + 1.0W 115 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.00

Iterations 35

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)
101.00	1.25" Reinforcing	Yes	0.66	0.000	1.25	0.07	0.00	0.149	1.148	30.930	0.00	0.00
102.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.150	1.151	31.017	0.00	0.00
102.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.150	1.151	31.017	0.00	0.99
102.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.150	1.151	31.017	0.00	1.98
102.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.150	1.151	31.017	0.00	0.00
102.25	1" Reinforcing plate	Yes	0.25	0.000	1.00	0.02	0.00	0.151	1.153	31.038	0.00	0.00
102.25	1 5/8" Fiber	Yes	0.25	0.000	2.00	0.04	0.00	0.151	1.153	31.038	0.00	0.25
102.25	1.9" Fiber	Yes	0.25	0.000	0.00	0.00	0.00	0.151	1.153	31.038	0.00	0.50
102.25	1.25" Reinforcing	Yes	0.25	0.000	1.25	0.03	0.00	0.151	1.153	31.038	0.00	0.00
103.00	1" Reinforcing plate	Yes	0.75	0.000	1.00	0.06	0.00	0.152	1.155	31.103	0.00	0.00
103.00	1 5/8" Fiber	Yes	0.75	0.000	2.00	0.13	0.00	0.152	1.155	31.103	0.00	0.74
103.00	1.9" Fiber	Yes	0.75	0.000	0.00	0.00	0.00	0.152	1.155	31.103	0.00	1.49
103.00	1.25" Reinforcing	Yes	0.75	0.000	1.25	0.08	0.00	0.152	1.155	31.103	0.00	0.00
104.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.153	1.158	31.189	0.00	0.00
104.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.153	1.158	31.189	0.00	0.99
104.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.153	1.158	31.189	0.00	1.98
104.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.153	1.158	31.189	0.00	0.00
105.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.154	1.161	31.275	0.00	0.00
105.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.154	1.161	31.275	0.00	0.99
105.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.154	1.161	31.275	0.00	1.98
105.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.154	1.161	31.275	0.00	0.00
106.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.109	1.028	31.360	0.00	0.00
106.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.109	1.028	31.360	0.00	0.99
106.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.109	1.028	31.360	0.00	1.98
107.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.110	1.031	31.444	0.00	0.00
107.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.110	1.031	31.444	0.00	0.99
107.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.110	1.031	31.444	0.00	1.98
108.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.111	1.033	31.527	0.00	0.00
108.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.111	1.033	31.527	0.00	0.99
108.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.111	1.033	31.527	0.00	1.98
109.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.112	1.036	31.611	0.00	0.00
109.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.112	1.036	31.611	0.00	0.99
109.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.112	1.036	31.611	0.00	1.98
110.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.113	1.038	31.693	0.00	0.00
110.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.113	1.038	31.693	0.00	0.99
110.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.113	1.038	31.693	0.00	1.98
111.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.114	1.041	31.775	0.00	0.00
111.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.114	1.041	31.775	0.00	0.99
111.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.114	1.041	31.775	0.00	1.98
112.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.115	1.044	31.857	0.00	0.00
112.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.115	1.044	31.857	0.00	0.99
112.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.115	1.044	31.857	0.00	1.98
113.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.116	1.047	31.938	0.00	0.00
113.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.116	1.047	31.938	0.00	0.99
113.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.116	1.047	31.938	0.00	1.98
114.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.117	1.050	32.018	0.00	0.00
114.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.117	1.050	32.018	0.00	0.99

Linear Appurtenance Segment Forces (Factored)

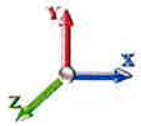
Structure:	CT12215-A-SBA	**Code:**	TIA-222-H	2/6/2024	
Site Name:	Litchfield 3 CT	**Exposure:**	B		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 45	

Tower Engineering Solutions

Load Case: 0.9D + 1.0W 115 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.00



Iterations 35

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)
114.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.117	1.050	32.018	0.00	1.98
115.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.117	1.052	32.098	0.00	0.00
115.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.117	1.052	32.098	0.00	0.99
115.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.117	1.052	32.098	0.00	1.98
116.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.039	0.000	32.178	0.00	0.00
										Totals:	**0.0**	**348.8**

Calculated Forces

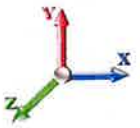
Structure: CT12215-A-SBA
Site Name: Litchfield 3 CT
Height: 149.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1 **Topography:** 1

Code: TIA-222-H
Exposure: B
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

2/6/2024

Tower Engineering Solutions

Load Case: 0.9D + 1.0W 115 mph Wind
Dead Load Factor 0.90
Wind Load Factor 1.00



Iterations 35

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	-28.34	-22.39	0.00	-2551.2	0.00	2551.22	3031.07	830.09	3284.29	2977.95	0.00	0.000	0.000	0.867
1.00	-28.14	-22.35	0.00	-2528.8	0.00	2528.82	3023.73	826.48	3255.81	2957.74	0.01	-0.053	0.000	0.865
2.00	-27.94	-22.30	0.00	-2506.4	0.00	2506.48	3016.33	822.87	3227.46	2937.55	0.02	-0.107	0.000	0.863
3.00	-27.74	-22.26	0.00	-2484.1	0.00	2484.18	3008.89	819.26	3199.23	2917.37	0.05	-0.160	0.000	0.861
4.00	-27.54	-22.21	0.00	-2461.9	0.00	2461.92	3001.40	815.66	3171.12	2897.21	0.09	-0.214	0.000	0.860
5.00	-27.34	-22.17	0.00	-2439.7	0.00	2439.71	2993.85	812.05	3143.13	2877.06	0.14	-0.268	0.000	0.858
6.00	-27.14	-22.12	0.00	-2417.5	0.00	2417.54	2986.25	808.44	3115.27	2856.93	0.20	-0.322	0.000	0.856
7.00	-26.94	-22.08	0.00	-2395.4	0.00	2395.42	2978.60	804.84	3087.54	2836.81	0.28	-0.377	0.000	0.854
8.00	-26.74	-22.03	0.00	-2373.3	0.00	2373.34	2970.91	801.23	3059.93	2816.71	0.36	-0.432	0.000	0.852
9.00	-26.55	-21.99	0.00	-2351.3	0.00	2351.31	2963.16	797.62	3032.44	2796.63	0.46	-0.487	0.000	0.850
10.00	-26.35	-21.94	0.00	-2329.3	0.00	2329.32	2955.36	794.02	3005.07	2776.57	0.57	-0.542	0.000	0.849
11.00	-26.16	-21.90	0.00	-2307.3	0.00	2307.38	2947.51	790.41	2977.83	2756.53	0.69	-0.597	0.000	0.847
12.00	-25.96	-21.86	0.00	-2285.4	0.00	2285.48	2939.60	786.80	2950.72	2736.51	0.82	-0.653	0.000	0.845
13.00	-25.77	-21.81	0.00	-2263.6	0.00	2263.62	2931.65	783.20	2923.73	2716.51	0.96	-0.709	0.000	0.843
14.00	-25.57	-21.77	0.00	-2241.8	0.00	2241.81	2923.65	779.59	2896.86	2696.53	1.12	-0.765	0.000	0.841
15.00	-25.38	-21.72	0.00	-2220.0	0.00	2220.05	2915.59	775.98	2870.11	2676.57	1.28	-0.822	0.000	0.839
16.00	-25.19	-21.68	0.00	-2198.3	0.00	2198.32	2907.49	772.37	2843.49	2656.64	1.46	-0.878	0.000	0.837
17.00	-25.00	-21.63	0.00	-2176.6	0.00	2176.64	2899.33	768.77	2817.00	2636.73	1.65	-0.935	0.000	0.835
18.00	-24.81	-21.59	0.00	-2155.0	0.00	2155.01	2891.12	765.16	2790.63	2616.84	1.85	-0.992	0.000	0.833
19.00	-24.62	-21.55	0.00	-2133.4	0.00	2133.42	2882.86	761.55	2764.38	2596.98	2.07	-1.049	0.000	0.831
20.00	-24.43	-21.50	0.00	-2111.8	0.00	2111.87	2874.56	757.95	2738.25	2577.14	2.29	-1.107	0.000	0.829
21.00	-24.24	-21.46	0.00	-2090.3	0.00	2090.37	2866.20	754.34	2712.25	2557.33	2.53	-1.165	0.000	0.827
22.00	-24.05	-21.42	0.00	-2068.9	0.00	2068.91	2857.79	750.73	2686.38	2537.55	2.78	-1.223	0.000	0.825
23.00	-23.86	-21.37	0.00	-2047.5	0.00	2047.50	2849.32	747.13	2660.63	2517.79	3.05	-1.281	0.000	0.822
24.00	-23.68	-21.33	0.00	-2026.1	0.00	2026.12	2840.81	743.52	2635.00	2498.06	3.32	-1.339	0.000	0.820
25.00	-23.49	-21.29	0.00	-2004.8	0.00	2004.80	2832.25	739.91	2609.50	2478.36	3.61	-1.398	0.000	0.818
26.00	-23.31	-21.24	0.00	-1983.5	0.00	1983.51	2823.63	736.31	2584.12	2458.69	3.91	-1.457	0.000	0.816
27.00	-23.12	-21.20	0.00	-1962.2	0.00	1962.27	2814.97	732.70	2558.86	2439.05	4.22	-1.516	0.000	0.814
28.00	-22.94	-21.15	0.00	-1941.0	0.00	1941.07	2806.25	729.09	2533.73	2419.44	4.54	-1.576	0.000	0.811
29.00	-22.75	-21.11	0.00	-1919.9	0.00	1919.92	2797.49	725.48	2508.72	2399.86	4.88	-1.635	0.000	0.809
30.00	-22.57	-21.07	0.00	-1898.8	0.00	1898.81	2788.67	721.88	2483.84	2380.32	5.23	-1.695	0.000	0.807
31.00	-22.39	-21.02	0.00	-1877.7	0.00	1877.74	2779.80	718.27	2459.08	2360.80	5.59	-1.755	0.000	0.804
32.00	-22.21	-20.98	0.00	-1856.7	0.00	1856.71	2770.88	714.66	2434.44	2341.32	5.96	-1.816	0.000	0.802
33.00	-22.02	-20.94	0.00	-1835.7	0.00	1835.73	2761.91	711.06	2409.93	2321.88	6.35	-1.876	0.000	0.799
34.00	-21.84	-20.89	0.00	-1814.8	0.00	1814.80	2752.89	707.45	2385.54	2302.46	6.75	-1.937	0.000	0.797
35.00	-21.66	-20.84	0.00	-1793.9	0.00	1793.91	2743.82	703.84	2361.28	2283.08	7.16	-1.998	0.000	0.795
36.00	-21.49	-20.80	0.00	-1773.0	0.00	1773.07	2734.69	700.24	2337.14	2263.74	7.59	-2.059	0.000	0.792
37.00	-21.31	-20.75	0.00	-1752.2	0.00	1752.27	2725.52	696.63	2313.13	2244.44	8.03	-2.121	0.000	0.789
38.00	-21.13	-20.70	0.00	-1731.5	0.00	1731.52	2716.29	693.02	2289.23	2225.17	8.48	-2.182	0.000	0.787
39.00	-20.95	-20.66	0.00	-1710.8	0.00	1710.81	2707.02	689.42	2265.47	2205.94	8.94	-2.244	0.000	0.784
40.00	-20.78	-20.61	0.00	-1690.1	0.00	1690.16	2697.69	685.81	2241.82	2186.75	9.42	-2.307	0.000	0.782
41.00	-20.60	-20.56	0.00	-1669.5	0.00	1669.55	2688.32	682.20	2218.30	2167.60	9.91	-2.369	0.000	0.779
42.00	-20.43	-20.51	0.00	-1648.9	0.00	1648.99	2678.89	678.59	2194.91	2148.48	10.41	-2.431	0.000	0.776
43.00	-20.25	-20.46	0.00	-1628.4	0.00	1628.48	2669.41	674.99	2171.64	2129.41	10.93	-2.494	0.000	0.773
44.00	-20.08	-20.41	0.00	-1608.0	0.00	1608.01	2659.88	671.38	2148.49	2110.38	11.46	-2.557	0.000	0.770
45.00	-19.91	-20.36	0.00	-1587.6	0.00	1587.60	2650.30	667.77	2125.47	2091.39	12.00	-2.621	0.000	0.768
46.00	-19.73	-20.32	0.00	-1567.2	0.00	1567.23	2640.67	664.17	2102.57	2072.44	12.56	-2.684	0.000	0.765
47.00	-19.57	-20.26	0.00	-1546.9	0.00	1546.92	2630.98	660.56	2079.79	2053.54	13.12	-2.748	0.000	0.762

Calculated Forces

Structure: CT12215-A-SBA
Site Name: Litchfield 3 CT
Height: 149.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1 **Topography:** 1

Code: TIA-222-H
Exposure: B
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

2/6/2024

TES Tower Engineering Solutions

47.55	-19.47	-20.23	0.00	-1535.7	0.00	1535.71	2625.60	658.56	2067.24	2043.10	13.45	-2.783	0.000	0.760
48.00	-19.35	-20.21	0.00	-1526.6	0.00	1526.67	2621.25	656.95	2057.14	2034.68	13.71	-2.812	0.000	0.759
49.00	-19.09	-20.16	0.00	-1506.4	0.00	1506.46	2611.47	653.35	2034.61	2015.86	14.30	-2.876	0.000	0.756
50.00	-18.83	-20.09	0.00	-1486.3	0.00	1486.31	2601.63	649.74	2012.21	1997.09	14.91	-2.940	0.000	0.752
51.00	-18.57	-20.03	0.00	-1466.2	0.00	1466.21	2591.74	646.13	1989.93	1978.37	15.53	-3.004	0.000	0.749
52.00	-18.31	-19.97	0.00	-1446.1	0.00	1446.18	2581.81	642.52	1967.78	1959.69	16.17	-3.069	0.000	0.364
52.97	-18.08	-19.89	0.00	-1426.8	0.00	1426.81	1914.68	519.05	1605.21	1470.11	16.80	-3.100	0.000	0.400
53.00	-18.07	-19.90	0.00	-1426.2	0.00	1426.21	1914.50	518.97	1604.67	1469.72	16.82	-3.101	0.000	0.435
54.00	-17.94	-19.83	0.00	-1406.3	0.00	1406.32	1908.40	516.08	1586.88	1456.85	17.47	-3.135	0.000	0.431
55.00	-17.80	-19.77	0.00	-1386.4	0.00	1386.48	1902.26	513.20	1569.18	1443.98	18.13	-3.169	0.000	0.427
56.00	-17.67	-19.70	0.00	-1366.7	0.00	1366.72	1896.06	510.31	1551.58	1431.13	18.80	-3.204	0.000	0.424
57.00	-17.54	-19.64	0.00	-1347.0	0.00	1347.01	1889.81	507.43	1534.09	1418.29	19.47	-3.238	0.000	0.420
58.00	-17.40	-19.57	0.00	-1327.3	0.00	1327.37	1883.51	504.54	1516.69	1405.47	20.15	-3.272	0.000	0.416
59.00	-17.27	-19.51	0.00	-1307.8	0.00	1307.80	1877.16	501.65	1499.39	1392.67	20.84	-3.306	0.000	0.412
60.00	-17.14	-19.44	0.00	-1288.2	0.00	1288.29	1870.76	498.77	1482.19	1379.88	21.54	-3.340	0.000	0.408
61.00	-17.01	-19.38	0.00	-1268.8	0.00	1268.85	1864.31	495.88	1465.09	1367.11	22.24	-3.374	0.000	0.405
62.00	-16.88	-19.31	0.00	-1249.4	0.00	1249.47	1857.80	493.00	1448.09	1354.36	22.95	-3.408	0.000	0.401
63.00	-16.75	-19.25	0.00	-1230.1	0.00	1230.16	1851.25	490.11	1431.19	1341.63	23.67	-3.442	0.000	0.397
64.00	-16.62	-19.18	0.00	-1210.9	0.00	1210.91	1844.65	487.23	1414.38	1328.91	24.39	-3.476	0.000	0.393
65.00	-16.50	-19.11	0.00	-1191.7	0.00	1191.73	1837.99	484.34	1397.68	1316.22	25.12	-3.510	0.000	0.389
66.00	-16.37	-19.05	0.00	-1172.6	0.00	1172.62	1831.29	481.46	1381.08	1303.55	25.86	-3.544	0.000	0.385
67.00	-16.24	-18.98	0.00	-1153.5	0.00	1153.57	1824.53	478.57	1364.57	1290.90	26.61	-3.578	0.000	0.381
67.92	-16.13	-18.91	0.00	-1136.1	0.00	1136.11	1818.27	475.91	1349.47	1279.28	27.30	-3.608	0.000	0.377
68.00	-16.12	-18.91	0.00	-1134.6	0.00	1134.60	1817.72	475.68	1348.17	1278.27	27.36	-3.611	0.000	0.294
69.00	-15.99	-18.85	0.00	-1115.6	0.00	1115.68	1810.86	472.80	1331.86	1265.67	28.12	-3.637	0.000	0.532
70.00	-15.86	-18.78	0.00	-1096.8	0.00	1096.84	1803.95	469.91	1315.65	1253.09	28.89	-3.685	0.000	0.527
71.00	-15.73	-18.72	0.00	-1078.0	0.00	1078.06	1796.99	467.03	1299.54	1240.53	29.66	-3.732	0.000	0.522
72.00	-15.60	-18.67	0.00	-1059.3	0.00	1059.33	1789.98	464.14	1283.53	1228.00	30.45	-3.780	0.000	0.516
73.00	-15.47	-18.58	0.00	-1040.6	0.00	1040.67	1782.92	461.26	1267.62	1215.49	31.24	-3.827	0.000	0.511
74.00	-15.34	-18.52	0.00	-1022.0	0.00	1022.09	1775.81	458.37	1251.81	1203.02	32.05	-3.875	0.000	0.506
75.00	-15.21	-18.46	0.00	-1003.5	0.00	1003.57	1768.64	455.49	1236.10	1190.56	32.87	-3.922	0.000	0.500
76.00	-15.08	-18.40	0.00	-985.12	0.00	985.12	1761.43	452.60	1220.49	1178.14	33.69	-3.969	0.000	0.846
77.00	-14.95	-18.35	0.00	-966.71	0.00	966.71	1754.16	449.71	1204.98	1165.74	34.53	-4.050	0.000	0.839
78.00	-14.81	-18.30	0.00	-948.36	0.00	948.36	1746.84	446.83	1189.56	1153.37	35.39	-4.131	0.000	0.832
79.00	-14.68	-18.25	0.00	-930.06	0.00	930.06	1739.48	443.94	1174.25	1141.03	36.26	-4.211	0.000	0.825
80.00	-14.54	-18.20	0.00	-911.81	0.00	911.81	1732.06	441.06	1159.03	1128.72	37.15	-4.292	0.000	0.818
81.00	-14.41	-18.15	0.00	-893.61	0.00	893.61	1724.59	438.17	1143.92	1116.45	38.06	-4.373	0.000	0.810
82.00	-14.28	-18.10	0.00	-875.46	0.00	875.46	1717.07	435.29	1128.90	1104.20	38.98	-4.453	0.000	0.803
83.00	-14.14	-18.05	0.00	-857.36	0.00	857.36	1709.50	432.40	1113.98	1091.99	39.93	-4.534	0.000	0.795
84.00	-14.01	-18.00	0.00	-839.31	0.00	839.31	1701.88	429.52	1099.17	1079.81	40.88	-4.614	0.000	0.787
85.00	-13.88	-17.95	0.00	-821.32	0.00	821.32	1694.20	426.63	1084.45	1067.66	41.86	-4.694	0.000	0.779
86.00	-13.75	-17.89	0.00	-803.37	0.00	803.37	1686.48	423.74	1069.83	1055.54	42.85	-4.775	0.000	0.771
87.00	-13.62	-17.84	0.00	-785.48	0.00	785.48	1678.71	420.86	1055.31	1043.46	43.86	-4.855	0.000	0.763
88.00	-13.49	-17.79	0.00	-767.64	0.00	767.64	1670.88	417.97	1040.88	1031.42	44.88	-4.934	0.000	0.754
89.00	-13.37	-17.74	0.00	-749.84	0.00	749.84	1663.00	415.09	1026.56	1019.41	45.92	-5.014	0.000	0.745
90.00	-13.24	-17.69	0.00	-732.11	0.00	732.11	1655.08	412.20	1012.34	1007.44	46.98	-5.093	0.000	0.737
91.00	-13.11	-17.64	0.00	-714.42	0.00	714.42	1647.10	409.32	998.22	995.51	48.05	-5.173	0.000	0.727
92.00	-12.99	-17.58	0.00	-696.78	0.00	696.78	1639.07	406.43	984.19	983.61	49.14	-5.251	0.000	0.718
93.00	-12.86	-17.53	0.00	-679.20	0.00	679.20	1630.99	403.55	970.27	971.76	50.25	-5.330	0.000	0.709
94.00	-12.74	-17.48	0.00	-661.67	0.00	661.67	1622.86	400.66	956.44	959.94	51.37	-5.408	0.000	0.699
95.00	-12.62	-17.43	0.00	-644.19	0.00	644.19	1614.68	397.77	942.71	948.16	52.51	-5.486	0.000	0.689
96.00	-12.50	-17.37	0.00	-626.77	0.00	626.77	1606.45	394.89	929.08	936.43	53.67	-5.563	0.000	0.679
96.18	-12.47	-17.36	0.00	-623.70	0.00	623.70	1604.99	394.38	926.69	934.36	53.88	-5.577	0.000	0.677
97.00	-12.33	-17.32	0.00	-609.40	0.00	609.40	1598.16	392.00	915.56	924.73	54.84	-5.641	0.000	0.669
98.00	-12.16	-17.25	0.00	-592.09	0.00	592.09	1589.83	389.12	902.13	913.08	56.03	-5.717	0.000	0.658
99.00	-12.00	-17.17	0.00	-574.84	0.00	574.84	1581.44	386.23	888.80	901.47	57.23	-5.793	0.000	0.647
99.25	-11.95	-17.16	0.00	-570.55	0.00	570.55	1579.34	385.51	885.48	898.57	57.54	-5.812	0.000	0.364

Calculated Forces

Structure: CT12215-A-SBA
Site Name: Litchfield 3 CT
Height: 149.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1 **Topography:** 1

Code: TIA-222-H
Exposure: B
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

2/6/2024

Tower Engineering Solutions

100.00	-11.83	-17.10	0.00	-557.68	0.00	557.68	1573.01	383.35	875.57	889.90	58.45	-5.844	0.000	0.358
100.34	-11.78	-17.08	0.00	-551.81	0.00	551.81	1075.68	291.34	674.27	618.09	58.87	-5.858	0.000	0.402
101.00	-11.71	-17.03	0.00	-540.59	0.00	540.59	1072.67	289.91	667.71	613.33	59.68	-5.886	0.000	0.450
102.00	-11.63	-16.96	0.00	-523.56	0.00	523.56	1068.04	287.75	657.78	606.10	60.91	-5.933	0.000	0.439
102.25	-11.60	-16.95	0.00	-519.32	0.00	519.32	1066.88	287.21	655.30	604.29	61.23	-5.945	0.000	0.436
102.25	-11.60	-16.95	0.00	-519.32	0.00	519.32	1066.88	287.21	655.30	604.29	61.23	-5.945	0.000	0.852
103.00	-11.52	-16.91	0.00	-506.60	0.00	506.60	1063.37	285.59	647.92	598.87	62.16	-5.979	0.000	0.860
104.00	-11.42	-16.85	0.00	-489.70	0.00	489.70	1058.64	283.42	638.14	591.66	63.42	-6.072	0.000	0.842
105.00	-11.31	-16.79	0.00	-472.85	0.00	472.85	1053.86	281.26	628.43	584.47	64.70	-6.163	0.000	0.823
106.00	-11.21	-16.74	0.00	-456.06	0.00	456.06	1049.03	279.09	618.79	577.28	66.00	-6.253	0.000	0.804
107.00	-11.10	-16.69	0.00	-439.32	0.00	439.32	1044.15	276.93	609.23	570.11	67.32	-6.342	0.000	0.785
108.00	-11.00	-16.64	0.00	-422.63	0.00	422.63	1039.22	274.77	599.75	562.95	68.65	-6.429	0.000	0.765
109.00	-10.90	-16.59	0.00	-405.99	0.00	405.99	1034.24	272.60	590.34	555.81	70.01	-6.515	0.000	0.745
110.00	-10.80	-16.53	0.00	-389.41	0.00	389.41	1029.21	270.44	581.00	548.68	71.38	-6.600	0.000	0.724
111.00	-10.70	-16.48	0.00	-372.87	0.00	372.87	1024.13	268.27	571.74	541.57	72.77	-6.683	0.000	0.703
112.00	-10.60	-16.43	0.00	-356.39	0.00	356.39	1018.99	266.11	562.55	534.48	74.17	-6.764	0.000	0.681
113.00	-10.50	-16.38	0.00	-339.96	0.00	339.96	1013.81	263.94	553.44	527.40	75.59	-6.844	0.000	0.659
114.00	-10.41	-16.32	0.00	-323.58	0.00	323.58	1008.57	261.78	544.40	520.34	77.03	-6.922	0.000	0.636
115.00	-8.30	-13.41	0.00	-307.26	0.00	307.26	1003.28	259.62	535.44	513.31	78.49	-6.997	0.000	0.610
116.00	-8.21	-13.35	0.00	-293.85	0.00	293.85	997.95	257.45	526.55	506.29	79.96	-7.071	0.000	0.591
117.00	-8.13	-13.30	0.00	-280.50	0.00	280.50	992.56	255.29	517.73	499.29	81.44	-7.144	0.000	0.573
118.00	-8.04	-13.25	0.00	-267.20	0.00	267.20	987.12	253.12	508.99	492.31	82.94	-7.215	0.000	0.554
119.00	-7.96	-13.19	0.00	-253.95	0.00	253.95	981.63	250.96	500.33	485.36	84.46	-7.284	0.000	0.534
120.00	-7.87	-13.14	0.00	-240.76	0.00	240.76	976.09	248.80	491.73	478.42	85.99	-7.352	0.000	0.514
121.00	-7.79	-13.09	0.00	-227.62	0.00	227.62	970.50	246.63	483.22	471.51	87.53	-7.417	0.000	0.494
122.00	-7.70	-13.03	0.00	-214.53	0.00	214.53	964.85	244.47	474.77	464.62	89.09	-7.481	0.000	0.473
123.00	-7.62	-12.98	0.00	-201.50	0.00	201.50	959.16	242.30	466.41	457.76	90.66	-7.542	0.000	0.451
124.00	-7.54	-12.93	0.00	-188.52	0.00	188.52	953.42	240.14	458.11	450.92	92.24	-7.601	0.000	0.429
125.00	-7.46	-12.87	0.00	-175.59	0.00	175.59	947.62	237.97	449.89	444.11	93.83	-7.658	0.000	0.406
126.00	-7.38	-12.82	0.00	-162.72	0.00	162.72	941.77	235.81	441.75	437.32	95.44	-7.712	0.000	0.383
127.00	-7.30	-12.76	0.00	-149.90	0.00	149.90	935.88	233.65	433.67	430.56	97.06	-7.763	0.000	0.359
128.00	-7.23	-12.71	0.00	-137.14	0.00	137.14	929.93	231.48	425.68	423.83	98.68	-7.812	0.000	0.334
129.00	-7.15	-12.66	0.00	-124.43	0.00	124.43	923.93	229.32	417.76	417.13	100.32	-7.857	0.000	0.309
130.00	-4.49	-8.26	0.00	-111.77	0.00	111.77	917.88	227.15	409.91	410.45	101.96	-7.900	0.000	0.279
131.00	-4.43	-8.21	0.00	-103.51	0.00	103.51	911.78	224.99	402.13	403.81	103.62	-7.939	0.000	0.263
132.00	-4.38	-8.16	0.00	-95.30	0.00	95.30	905.63	222.83	394.44	397.19	105.28	-7.977	0.000	0.246
133.00	-4.33	-8.10	0.00	-87.14	0.00	87.14	899.43	220.66	386.81	390.61	106.95	-8.012	0.000	0.229
134.00	-4.28	-8.05	0.00	-79.03	0.00	79.03	893.17	218.50	379.26	384.05	108.63	-8.046	0.000	0.212
135.00	-4.23	-8.00	0.00	-70.98	0.00	70.98	886.87	216.33	371.78	377.53	110.31	-8.077	0.000	0.194
136.00	-4.18	-7.95	0.00	-62.98	0.00	62.98	880.51	214.17	364.38	371.04	112.00	-8.105	0.000	0.176
137.00	-4.13	-7.89	0.00	-55.04	0.00	55.04	874.11	212.00	357.06	364.59	113.69	-8.131	0.000	0.157
138.00	-4.08	-7.81	0.00	-47.14	0.00	47.14	867.65	209.84	349.80	358.17	115.40	-8.154	0.000	0.138
139.00	-4.03	-7.76	0.00	-39.33	0.00	39.33	861.15	207.68	342.63	351.78	117.10	-8.174	0.000	0.118
140.00	-1.83	-3.19	0.00	-31.57	0.00	31.57	854.59	205.51	335.52	345.43	118.81	-8.191	0.000	0.094
141.00	-1.79	-3.14	0.00	-28.38	0.00	28.38	847.98	203.35	328.49	339.11	120.52	-8.206	0.000	0.086
142.00	-1.76	-3.09	0.00	-25.24	0.00	25.24	841.32	201.18	321.54	332.84	122.23	-8.220	0.000	0.078
143.00	-1.73	-3.04	0.00	-22.15	0.00	22.15	834.61	199.02	314.66	326.60	123.95	-8.233	0.000	0.070
144.00	-1.70	-2.99	0.00	-19.11	0.00	19.11	827.84	196.86	307.85	320.39	125.67	-8.244	0.000	0.062
145.00	-1.67	-2.94	0.00	-16.12	0.00	16.12	821.03	194.69	301.12	314.23	127.39	-8.254	0.000	0.054
146.00	-1.63	-2.89	0.00	-13.18	0.00	13.18	814.17	192.53	294.46	308.10	129.12	-8.262	0.000	0.045
147.00	-1.60	-2.85	0.00	-10.29	0.00	10.29	805.87	190.36	287.88	301.50	130.84	-8.270	0.000	0.036
148.00	-1.57	-2.80	0.00	-7.44	0.00	7.44	796.71	188.20	281.37	294.65	132.57	-8.275	0.000	0.027
149.00	0.00	-2.54	0.00	-4.65	0.00	4.65	787.55	186.03	274.94	287.88	134.30	-8.279	0.000	0.016

Wind Loading - Shaft

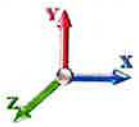
Structure:	CT12215-A-SBA	**Code:**	TIA-222-H	2/6/2024	
Site Name:	Litchfield 3 CT	**Exposure:**	B		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 49	

Tower Engineering Solutions

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

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 33

Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.70	2.643	2.91	0.00	1.200	0.000	0.00	0.000	0.00	0.0	0.0	0.0
1.00		1.00	0.70	2.643	2.91	0.00	1.200	0.705	1.00	4.170	5.00	14.5	42.8	235.6
2.00		1.00	0.70	2.643	2.91	0.00	1.200	0.756	1.00	4.161	4.99	14.5	45.8	237.6
3.00		1.00	0.70	2.643	2.91	0.00	1.200	0.787	1.00	4.149	4.98	14.5	47.5	238.5
4.00		1.00	0.70	2.643	2.91	0.00	1.200	0.810	1.00	4.135	4.96	14.4	48.7	238.9
5.00		1.00	0.70	2.643	2.91	0.00	1.200	0.828	1.00	4.121	4.94	14.4	49.6	238.9
6.00		1.00	0.70	2.643	2.91	0.00	1.200	0.843	1.00	4.106	4.93	14.3	50.3	238.8
7.00		1.00	0.70	2.643	2.91	0.00	1.200	0.856	1.00	4.090	4.91	14.3	50.9	238.5
8.00		1.00	0.70	2.643	2.91	0.00	1.200	0.868	1.00	4.075	4.89	14.2	51.3	238.2
9.00		1.00	0.70	2.643	2.91	0.00	1.200	0.878	1.00	4.059	4.87	14.2	51.7	237.7
10.00		1.00	0.70	2.643	2.91	0.00	1.200	0.887	1.00	4.043	4.85	14.1	52.1	237.2
11.00		1.00	0.70	2.643	2.91	0.00	1.200	0.896	1.00	4.027	4.83	14.0	52.3	236.7
12.00		1.00	0.70	2.643	2.91	0.00	1.200	0.904	1.00	4.011	4.81	14.0	52.6	236.0
13.00		1.00	0.70	2.643	2.91	0.00	1.200	0.911	1.00	3.994	4.79	13.9	52.8	235.4
14.00		1.00	0.70	2.643	2.91	0.00	1.200	0.918	1.00	3.978	4.77	13.9	52.9	234.7
15.00		1.00	0.70	2.643	2.91	0.00	1.200	0.924	1.00	3.961	4.75	13.8	53.1	234.0
16.00		1.00	0.70	2.643	2.91	0.00	1.200	0.930	1.00	3.945	4.73	13.8	53.2	233.3
17.00		1.00	0.70	2.643	2.91	0.00	1.200	0.936	1.00	3.928	4.71	13.7	53.2	232.5
18.00		1.00	0.70	2.643	2.91	0.00	1.200	0.941	1.00	3.912	4.69	13.6	53.3	231.8
19.00		1.00	0.70	2.643	2.91	0.00	1.200	0.946	1.00	3.895	4.67	13.6	53.4	231.0
20.00		1.00	0.70	2.643	2.91	0.00	1.200	0.951	1.00	3.878	4.65	13.5	53.4	230.2
21.00		1.00	0.70	2.643	2.91	0.00	1.200	0.956	1.00	3.862	4.63	13.5	53.4	229.3
22.00		1.00	0.70	2.643	2.91	0.00	1.200	0.960	1.00	3.845	4.61	13.4	53.4	228.5
23.00		1.00	0.70	2.643	2.91	0.00	1.200	0.965	1.00	3.828	4.59	13.4	53.4	227.7
24.00		1.00	0.70	2.643	2.91	0.00	1.200	0.969	1.00	3.811	4.57	13.3	53.4	226.8
25.00		1.00	0.70	2.643	2.91	0.00	1.200	0.973	1.00	3.794	4.55	13.2	53.4	225.9
26.00		1.00	0.70	2.643	2.91	0.00	1.200	0.976	1.00	3.777	4.53	13.2	53.3	225.1
27.00		1.00	0.70	2.643	2.91	0.00	1.200	0.980	1.00	3.760	4.51	13.1	53.3	224.2
28.00		1.00	0.70	2.643	2.91	0.00	1.200	0.984	1.00	3.743	4.49	13.1	53.2	223.3
29.00		1.00	0.70	2.643	2.91	0.00	1.200	0.987	1.00	3.727	4.47	13.0	53.2	222.4
30.00		1.00	0.70	2.645	2.91	0.00	1.200	0.991	1.00	3.710	4.45	13.0	53.1	221.5
31.00		1.00	0.71	2.670	2.94	0.00	1.200	0.994	1.00	3.693	4.43	13.0	53.0	220.5
32.00		1.00	0.71	2.694	2.96	0.00	1.200	0.997	1.00	3.676	4.41	13.1	52.9	219.6
33.00		1.00	0.72	2.718	2.99	0.00	1.200	1.000	1.00	3.659	4.39	13.1	52.8	218.7
34.00		1.00	0.73	2.742	3.02	0.00	1.200	1.003	1.00	3.641	4.37	13.2	52.7	217.7
35.00		1.00	0.73	2.764	3.04	0.00	1.200	1.006	1.00	3.624	4.35	13.2	52.6	216.8
36.00		1.00	0.74	2.787	3.07	0.00	1.200	1.009	1.00	3.607	4.33	13.3	52.5	215.9
37.00		1.00	0.74	2.809	3.09	0.00	1.200	1.012	1.00	3.590	4.31	13.3	52.4	214.9
38.00		1.00	0.75	2.830	3.11	0.00	1.200	1.014	1.00	3.573	4.29	13.3	52.3	213.9
39.00		1.00	0.76	2.851	3.14	0.00	1.200	1.017	1.00	3.556	4.27	13.4	52.2	213.0
40.00		1.00	0.76	2.872	3.16	0.00	1.200	1.019	1.00	3.539	4.25	13.4	52.0	212.0
41.00		1.00	0.77	2.892	3.18	0.00	1.200	1.022	1.00	3.522	4.23	13.4	51.9	211.0
42.00		1.00	0.77	2.912	3.20	0.00	1.200	1.024	1.00	3.505	4.21	13.5	51.7	210.1
43.00		1.00	0.78	2.932	3.23	0.00	1.200	1.027	1.00	3.488	4.19	13.5	51.6	209.1
44.00		1.00	0.78	2.951	3.25	0.00	1.200	1.029	1.00	3.470	4.16	13.5	51.5	208.1
45.00		1.00	0.79	2.970	3.27	0.00	1.200	1.032	1.00	3.453	4.14	13.5	51.3	207.1
46.00		1.00	0.79	2.989	3.29	0.00	1.200	1.034	1.00	3.436	4.12	13.6	51.2	206.1

Wind Loading - Shaft

Structure: CT12215-A-SBA
Site Name: Litchfield 3 CT
Height: 149.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1 **Topography:** 1

Code: TIA-222-H
Exposure: B
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

2/6/2024

Tower Engineering Solutions

47.00	1.00	0.80	3.007	3.31	0.00	1.200	1.036	1.00	3.419	4.10	13.6	51.0	205.1
47.55 Bot - Section 2	1.00	0.80	3.017	3.32	0.00	1.200	1.037	0.55	1.884	2.26	7.5	28.2	113.1
48.00	1.00	0.80	3.025	3.33	0.00	1.200	1.038	0.45	1.536	1.84	6.1	23.0	146.9
49.00	1.00	0.81	3.043	3.35	0.00	1.200	1.040	1.00	3.427	4.11	13.8	51.3	327.5
50.00 Appurtenance(s)	1.00	0.81	3.061	3.37	0.00	1.200	1.042	1.00	3.410	4.09	13.8	51.2	325.9
51.00	1.00	0.82	3.078	3.39	0.00	1.241 *	1.044	1.00	3.393	4.21	14.3	51.0	324.2
52.00 RB1 RB2	1.00	0.82	3.095	3.40	0.00	1.244 *	1.047	1.00	3.375	4.20	14.3	50.8	322.5
52.97 Top - Section 1	1.00	0.82	3.112	3.42	0.00	1.246 *	1.048	0.97	3.258	4.06	13.9	49.1	311.2
53.00	1.00	0.82	3.112	3.42	0.00	1.242 *	1.049	0.03	0.100	0.12	0.4	1.5	5.1
54.00	1.00	0.83	3.129	3.44	0.00	1.243 *	1.050	1.00	3.341	4.15	14.3	50.5	170.9
55.00	1.00	0.83	3.145	3.46	0.00	1.245 *	1.052	1.00	3.324	4.14	14.3	50.3	170.0
56.00	1.00	0.84	3.162	3.48	0.00	1.247 *	1.054	1.00	3.307	4.12	14.3	50.1	169.2
57.00	1.00	0.84	3.178	3.50	0.00	1.250 *	1.056	1.00	3.289	4.11	14.4	49.9	168.3
58.00	1.00	0.85	3.194	3.51	0.00	1.252 *	1.058	1.00	3.272	4.10	14.4	49.8	167.5
59.00	1.00	0.85	3.209	3.53	0.00	1.254 *	1.060	1.00	3.255	4.08	14.4	49.6	166.6
60.00	1.00	0.85	3.225	3.55	0.00	1.257 *	1.062	1.00	3.238	4.07	14.4	49.4	165.8
61.00	1.00	0.86	3.240	3.56	0.00	1.259 *	1.063	1.00	3.220	4.05	14.4	49.2	164.9
62.00	1.00	0.86	3.255	3.58	0.00	1.261 *	1.065	1.00	3.203	4.04	14.5	49.0	164.0
63.00	1.00	0.87	3.270	3.60	0.00	1.264 *	1.067	1.00	3.186	4.03	14.5	48.8	163.2
64.00	1.00	0.87	3.285	3.61	0.00	1.266 *	1.068	1.00	3.169	4.01	14.5	48.6	162.3
65.00	1.00	0.87	3.299	3.63	0.00	1.269 *	1.070	1.00	3.151	4.00	14.5	48.4	161.4
66.00	1.00	0.88	3.314	3.64	0.00	1.271 *	1.072	1.00	3.134	3.98	14.5	48.2	160.6
67.00	1.00	0.88	3.328	3.66	0.00	1.274 *	1.073	1.00	3.117	3.97	14.5	48.0	159.7
67.92 RB3	1.00	0.88	3.341	3.67	0.00	1.276 *	1.075	0.92	2.852	3.64	13.4	44.0	146.1
68.00 RT1 RT2	1.00	0.89	3.342	3.68	0.00	1.278 *	1.075	0.08	0.247	0.32	1.2	3.8	12.7
69.00	1.00	0.89	3.356	3.69	0.00	1.279 *	1.077	1.00	3.082	3.94	14.6	47.6	157.9
70.00	1.00	0.89	3.370	3.71	0.00	1.282 *	1.078	1.00	3.065	3.93	14.6	47.4	157.0
71.00	1.00	0.90	3.383	3.72	0.00	1.200	1.080	1.00	3.048	3.66	13.6	47.2	156.2
72.00	1.00	0.90	3.397	3.74	0.00	1.200	1.081	1.00	3.031	3.64	13.6	46.9	155.3
73.00 Appurtenance(s)	1.00	0.90	3.410	3.75	0.00	1.200	1.083	1.00	3.013	3.62	13.6	46.7	154.4
74.00	1.00	0.91	3.424	3.77	0.00	1.200	1.084	1.00	2.996	3.60	13.5	46.5	153.5
75.00 RT3	1.00	0.91	3.437	3.78	0.00	1.200	1.086	1.00	2.979	3.57	13.5	46.3	152.6
76.00	1.00	0.91	3.450	3.79	0.00	1.200	1.087	1.00	2.961	3.55	13.5	46.1	151.7
77.00	1.00	0.92	3.463	3.81	0.00	1.200	1.088	1.00	2.944	3.53	13.5	45.9	150.8
78.00	1.00	0.92	3.476	3.82	0.00	1.200	1.090	1.00	2.927	3.51	13.4	45.6	149.9
79.00	1.00	0.92	3.488	3.84	0.00	1.200	1.091	1.00	2.909	3.49	13.4	45.4	149.0
80.00	1.00	0.93	3.501	3.85	0.00	1.200	1.093	1.00	2.892	3.47	13.4	45.2	148.1
81.00	1.00	0.93	3.513	3.86	0.00	1.200	1.094	1.00	2.875	3.45	13.3	45.0	147.2
82.00	1.00	0.93	3.526	3.88	0.00	1.200	1.095	1.00	2.858	3.43	13.3	44.7	146.3
83.00	1.00	0.94	3.538	3.89	0.00	1.200	1.097	1.00	2.840	3.41	13.3	44.5	145.4
84.00	1.00	0.94	3.550	3.91	0.00	1.200	1.098	1.00	2.823	3.39	13.2	44.3	144.5
85.00	1.00	0.94	3.562	3.92	0.00	1.200	1.099	1.00	2.806	3.37	13.2	44.0	143.6
86.00	1.00	0.95	3.574	3.93	0.00	1.200	1.101	1.00	2.788	3.35	13.2	43.8	142.7
87.00	1.00	0.95	3.586	3.94	0.00	1.200	1.102	1.00	2.771	3.33	13.1	43.6	141.8
88.00	1.00	0.95	3.598	3.96	0.00	1.200	1.103	1.00	2.754	3.30	13.1	43.3	140.9
89.00	1.00	0.96	3.609	3.97	0.00	1.200	1.104	1.00	2.736	3.28	13.0	43.1	140.0
90.00	1.00	0.96	3.621	3.98	0.00	1.200	1.106	1.00	2.719	3.26	13.0	42.9	139.1
91.00	1.00	0.96	3.632	4.00	0.00	1.200	1.107	1.00	2.702	3.24	13.0	42.6	138.2
92.00	1.00	0.96	3.643	4.01	0.00	1.200	1.108	1.00	2.684	3.22	12.9	42.4	137.3
93.00	1.00	0.97	3.655	4.02	0.00	1.200	1.109	1.00	2.667	3.20	12.9	42.2	136.4
94.00	1.00	0.97	3.666	4.03	0.00	1.200	1.110	1.00	2.650	3.18	12.8	41.9	135.5
95.00	1.00	0.97	3.677	4.04	0.00	1.200	1.112	1.00	2.632	3.16	12.8	41.7	134.6
96.00	1.00	0.98	3.688	4.06	0.00	1.200	1.113	1.00	2.615	3.14	12.7	41.4	133.6
96.18 Bot - Section 3	1.00	0.98	3.690	4.06	0.00	1.212 *	1.113	0.18	0.460	0.56	2.3	7.3	23.5
97.00	1.00	0.98	3.699	4.07	0.00	1.213 *	1.114	0.82	2.164	2.63	10.7	34.3	167.0
98.00	1.00	0.98	3.710	4.08	0.00	1.372 *	1.115	1.00	2.612	3.58	14.6	41.5	201.5
99.00	1.00	0.99	3.721	4.09	0.00	1.376 *	1.116	1.00	2.595	3.57	14.6	41.2	200.1

Wind Loading - Shaft

Structure: CT12215-A-SBA
Site Name: Litchfield 3 CT
Height: 149.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1
Topography: 1

Code: TIA-222-H
Exposure: B
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

2/6/2024

TES Tower Engineering Solutions

99.25 RB4	1.00	0.99	3.723	4.10	0.00	1.379 *	1.116	0.25	0.646	0.89	3.6	10.3	49.8
100.00	1.00	0.99	3.731	4.10	0.00	1.381 *	1.117	0.75	1.931	2.67	10.9	30.7	148.9
100.34 Top - Section 2	1.00	0.99	3.735	4.11	0.00	1.383 *	1.118	0.34	0.881	1.22	5.0	14.0	67.9
101.00	1.00	0.99	3.742	4.12	0.00	1.378 *	1.118	0.66	1.679	2.31	9.5	26.7	71.1
102.00	1.00	0.99	3.752	4.13	0.00	1.381 *	1.119	1.00	2.543	3.51	14.5	40.5	107.7
102.25 RT4	1.00	0.99	3.755	4.13	0.00	1.384 *	1.120	0.25	0.633	0.88	3.6	10.1	26.8
103.00	1.00	1.00	3.763	4.14	0.00	1.386 *	1.121	0.75	1.892	2.62	10.9	30.2	80.1
104.00	1.00	1.00	3.773	4.15	0.00	1.389 *	1.122	1.00	2.508	3.48	14.5	40.0	106.2
105.00	1.00	1.00	3.784	4.16	0.00	1.394 *	1.123	1.00	2.491	3.47	14.4	39.7	105.4
106.00	1.00	1.00	3.794	4.17	0.00	1.234 *	1.124	1.00	2.473	3.05	12.7	39.5	104.6
107.00	1.00	1.01	3.804	4.18	0.00	1.237 *	1.125	1.00	2.456	3.04	12.7	39.2	103.9
108.00	1.00	1.01	3.814	4.20	0.00	1.240 *	1.126	1.00	2.438	3.02	12.7	39.0	103.1
109.00	1.00	1.01	3.824	4.21	0.00	1.243 *	1.127	1.00	2.421	3.01	12.7	38.7	102.4
110.00	1.00	1.02	3.834	4.22	0.00	1.246 *	1.128	1.00	2.404	3.00	12.6	38.4	101.6
111.00	1.00	1.02	3.844	4.23	0.00	1.249 *	1.129	1.00	2.386	2.98	12.6	38.2	100.9
112.00	1.00	1.02	3.854	4.24	0.00	1.253 *	1.130	1.00	2.369	2.97	12.6	37.9	100.1
113.00	1.00	1.02	3.864	4.25	0.00	1.256 *	1.131	1.00	2.352	2.95	12.6	37.7	99.3
114.00	1.00	1.03	3.874	4.26	0.00	1.259 *	1.132	1.00	2.334	2.94	12.5	37.4	98.6
115.00 Appurtenance(s)	1.00	1.03	3.883	4.27	0.00	1.263 *	1.133	1.00	2.317	2.93	12.5	37.1	97.8
116.00	1.00	1.03	3.893	4.28	0.00	1.200	1.134	1.00	2.300	2.76	11.8	36.9	97.0
117.00	1.00	1.03	3.903	4.29	0.00	1.200	1.135	1.00	2.282	2.74	11.8	36.6	96.3
118.00	1.00	1.04	3.912	4.30	0.00	1.200	1.136	1.00	2.265	2.72	11.7	36.4	95.5
119.00	1.00	1.04	3.921	4.31	0.00	1.200	1.137	1.00	2.247	2.70	11.6	36.1	94.7
120.00	1.00	1.04	3.931	4.32	0.00	1.200	1.138	1.00	2.230	2.68	11.6	35.8	94.0
121.00	1.00	1.04	3.940	4.33	0.00	1.200	1.139	1.00	2.213	2.66	11.5	35.6	93.2
122.00	1.00	1.05	3.949	4.34	0.00	1.200	1.140	1.00	2.195	2.63	11.4	35.3	92.4
123.00	1.00	1.05	3.959	4.35	0.00	1.200	1.141	1.00	2.178	2.61	11.4	35.0	91.7
124.00	1.00	1.05	3.968	4.36	0.00	1.200	1.142	1.00	2.161	2.59	11.3	34.8	90.9
125.00	1.00	1.05	3.977	4.37	0.00	1.200	1.142	1.00	2.143	2.57	11.3	34.5	90.1
126.00	1.00	1.06	3.986	4.38	0.00	1.200	1.143	1.00	2.126	2.55	11.2	34.2	89.4
127.00	1.00	1.06	3.995	4.39	0.00	1.200	1.144	1.00	2.108	2.53	11.1	34.0	88.6
128.00	1.00	1.06	4.004	4.40	0.00	1.200	1.145	1.00	2.091	2.51	11.1	33.7	87.8
129.00	1.00	1.06	4.013	4.41	0.00	1.200	1.146	1.00	2.074	2.49	11.0	33.4	87.0
130.00 Appurtenance(s)	1.00	1.07	4.022	4.42	0.00	1.200	1.147	1.00	2.056	2.47	10.9	33.2	86.3
131.00	1.00	1.07	4.031	4.43	0.00	1.200	1.148	1.00	2.039	2.45	10.8	32.9	85.5
132.00	1.00	1.07	4.039	4.44	0.00	1.200	1.149	1.00	2.021	2.43	10.8	32.6	84.7
133.00	1.00	1.07	4.048	4.45	0.00	1.200	1.150	1.00	2.004	2.40	10.7	32.3	83.9
134.00	1.00	1.07	4.057	4.46	0.00	1.200	1.150	1.00	1.987	2.38	10.6	32.1	83.2
135.00	1.00	1.08	4.065	4.47	0.00	1.200	1.151	1.00	1.969	2.36	10.6	31.8	82.4
136.00	1.00	1.08	4.074	4.48	0.00	1.200	1.152	1.00	1.952	2.34	10.5	31.5	81.6
137.00	1.00	1.08	4.083	4.49	0.00	1.200	1.153	1.00	1.934	2.32	10.4	31.2	80.8
138.00 Appurtenance(s)	1.00	1.08	4.091	4.50	0.00	1.200	1.154	1.00	1.917	2.30	10.4	31.0	80.0
139.00	1.00	1.09	4.099	4.51	0.00	1.200	1.155	1.00	1.900	2.28	10.3	30.7	79.3
140.00 Appurtenance(s)	1.00	1.09	4.108	4.52	0.00	1.200	1.155	1.00	1.882	2.26	10.2	30.4	78.5
141.00	1.00	1.09	4.116	4.53	0.00	1.200	1.156	1.00	1.865	2.24	10.1	30.1	77.7
142.00	1.00	1.09	4.125	4.54	0.00	1.200	1.157	1.00	1.847	2.22	10.1	29.9	76.9
143.00	1.00	1.09	4.133	4.55	0.00	1.200	1.158	1.00	1.830	2.20	10.0	29.6	76.1
144.00	1.00	1.10	4.141	4.56	0.00	1.200	1.159	1.00	1.813	2.18	9.9	29.3	75.4
145.00	1.00	1.10	4.149	4.56	0.00	1.200	1.160	1.00	1.795	2.15	9.8	29.0	74.6
146.00	1.00	1.10	4.157	4.57	0.00	1.200	1.160	1.00	1.778	2.13	9.8	28.7	73.8
147.00	1.00	1.10	4.166	4.58	0.00	1.200	1.161	1.00	1.760	2.11	9.7	28.5	73.0
148.00	1.00	1.11	4.174	4.59	0.00	1.200	1.162	1.00	1.743	2.09	9.6	28.2	72.2
149.00 Appurtenance(s)	1.00	1.11	4.182	4.60	0.00	1.200	1.163	1.00	1.726	2.07	9.5	27.9	71.4
							Totals:	**149.00**			**1,933.6**		**24,257.9**

* Cf Adjusted by Linear Load Ra Effect

Discrete Appurtenance Forces

Structure:	CT12215-A-SBA	**Code:**	TIA-222-H	2/6/2024	
Site Name:	Litchfield 3 CT	**Exposure:**	B		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 52	

Tower Engineering Solutions

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

Dead Load Factor 1.20

Wind Load Factor 1.00

Iterations 33

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orient Factor x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	149.00	ACU-A20-N	4	4.206	4.626	0.40	0.80	0.54	11.05	0.000	3.000	2.50	0.00	7.50
2	149.00	800MHz Filter	3	4.206	4.626	0.40	0.80	1.45	51.94	0.000	3.000	6.72	0.00	20.17
3	149.00	TD-RRH8x20-25	3	4.206	4.626	0.40	0.80	5.49	457.71	0.000	3.000	25.41	0.00	76.23
4	149.00	800MHZ	3	4.206	4.626	0.40	0.80	4.09	302.91	0.000	3.000	18.94	0.00	56.81
5	149.00	1900MHz	3	4.206	4.626	0.40	0.80	4.34	311.06	0.000	3.000	20.07	0.00	60.21
6	149.00	APXVTM14-C-I20	3	4.206	4.626	0.63	0.80	13.40	500.87	0.000	3.000	61.97	0.00	185.92
7	149.00	APXVSPP18-C-A20	3	4.206	4.626	0.66	0.80	19.68	402.17	0.000	3.000	91.06	0.00	273.17
8	149.00	Low Profile Platform	1	4.182	4.600	1.00	1.00	38.95	1837.62	0.000	0.000	179.17	0.00	0.00
9	140.00	NHH-65C-R2B	6	4.108	4.519	0.63	0.75	47.21	1350.92	0.000	0.000	213.33	0.00	0.00
10	140.00	BXA-70063-6CF-EDIN-5	3	4.108	4.519	0.55	0.75	13.77	382.48	0.000	0.000	62.21	0.00	0.00
11	140.00	MT6413 77A	3	4.108	4.519	0.52	0.75	7.57	518.32	0.000	0.000	34.19	0.00	0.00
12	140.00	Low Profile	1	4.108	4.519	1.00	1.00	33.69	2366.61	0.000	0.000	152.25	0.00	0.00
13	140.00	RFS DB-C1-12C-24AB-0Z	1	4.108	4.519	0.75	0.75	3.45	85.23	0.000	0.000	15.60	0.00	0.00
14	140.00	RFS FD9R6004/2C-3L	6	4.108	4.519	0.75	0.75	2.94	40.41	0.000	0.000	13.29	0.00	0.00
15	140.00	RF4461d-13A	3	4.108	4.519	0.50	0.75	3.38	368.52	0.000	0.000	15.29	0.00	0.00
16	140.00	RF4439-25A ORAN	3	4.108	4.519	0.50	0.75	3.37	443.76	0.000	0.000	15.24	0.00	0.00
17	140.00	Mount Mods	1	4.108	4.519	1.00	1.00	31.14	581.70	0.000	0.000	140.72	0.00	0.00
18	138.00	GPS Receiver	1	4.091	4.500	0.80	0.80	1.18	23.38	0.000	0.000	5.29	0.00	0.00
19	130.00	80010965	6	4.022	4.424	0.53	0.75	47.39	1898.13	0.000	0.000	209.67	0.00	0.00
20	130.00	(3) 12.5' - 2" Horizontal	1	4.022	4.424	0.75	1.00	8.13	210.10	0.000	0.000	35.97	0.00	0.00
21	130.00	XP-2020	24	4.022	4.424	0.56	0.75	13.80	126.87	0.000	0.000	61.06	0.00	0.00
22	130.00	Low Profile Platform	1	4.022	4.424	1.00	1.00	38.76	1828.17	0.000	0.000	171.49	0.00	0.00
23	130.00	7770.00	3	4.022	4.424	0.55	0.75	10.16	372.02	0.000	0.000	44.94	0.00	0.00
24	130.00	LGP 21401	12	4.022	4.424	0.38	0.75	4.84	443.19	0.000	0.000	21.43	0.00	0.00
25	130.00	DC6-48-60-18-8F	1	4.022	4.424	0.75	0.75	0.91	61.09	0.000	0.000	4.01	0.00	0.00
26	130.00	ABT-DF-DM-ADBH	1	4.022	4.424	0.75	0.75	0.13	2.09	0.000	0.000	0.59	0.00	0.00
27	130.00	VSRDual-TS-B-HD	2	4.022	4.424	0.56	0.75	8.42	457.79	0.000	0.000	37.26	0.00	0.00
28	130.00	4449 B5/B12	3	4.022	4.424	0.38	0.75	2.62	320.04	0.000	0.000	11.59	0.00	0.00
29	130.00	8843 B2/B66A	3	4.022	4.424	0.38	0.75	2.21	315.56	0.000	0.000	9.79	0.00	0.00
30	130.00	DC6-48-60-18-8C	1	4.022	4.424	0.75	0.75	1.27	43.57	0.000	0.000	5.62	0.00	0.00
31	130.00	DC6-48-60-0-8C-EV	1	4.022	4.424	0.75	0.75	4.02	70.72	0.000	0.000	17.79	0.00	0.00
32	130.00	RRUS 4478 B14	3	4.022	4.424	0.38	0.75	2.24	267.39	0.000	0.000	9.91	0.00	0.00
33	115.00	AIR6449 B41	3	3.883	4.272	0.57	0.80	10.68	542.75	0.000	0.000	45.62	0.00	0.00
34	115.00	T-Arm	3	3.883	4.272	0.56	0.75	21.15	1525.85	0.000	0.000	90.34	0.00	0.00
35	115.00	(3) Stabilizer Kit (12' FW)	1	3.883	4.272	1.00	1.00	10.25	292.83	0.000	0.000	43.77	0.00	0.00
36	115.00	4460 Radio	3	3.883	4.272	0.40	0.80	3.95	481.44	0.000	0.000	16.85	0.00	0.00
37	115.00	APXVAALL24_43-U-NA20	3	3.883	4.272	0.58	0.80	37.59	1238.87	0.000	0.000	160.59	0.00	0.00
38	115.00	RRUS 11	3	3.883	4.272	0.40	0.80	3.52	342.81	0.000	0.000	15.02	0.00	0.00
39	115.00	4449 B71 + B85	3	3.883	4.272	0.40	0.80	2.81	200.78	0.000	0.000	11.99	0.00	0.00
40	73.00	GPS Receiver	1	3.410	3.752	1.00	1.00	1.44	22.19	0.000	0.000	5.41	0.00	0.00
41	50.00	58532A	1	3.061	3.367	1.00	1.00	0.44	2.86	0.000	0.000	1.49	0.00	0.00
							Totals:		**21,103.76**			**2,105.44**		

Total Applied Force Summary

Structure:	CT12215-A-SBA	**Code:**	TIA-222-H	2/6/2024	
Site Name:	Litchfield 3 CT	**Exposure:**	B		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 53	

Tower Engineering Solutions

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

Dead Load Factor 1.20

Wind Load Factor 1.00

Iterations 33

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
1.00		14.55	290.70	0.00	0.00
2.00		14.52	293.32	0.00	0.00
3.00		14.48	294.54	0.00	0.00
4.00		14.43	295.15	0.00	0.00
5.00		14.38	295.42	0.00	0.00
6.00		14.32	295.46	0.00	0.00
7.00		14.27	295.34	0.00	0.00
8.00		14.22	295.11	0.00	0.00
9.00		14.16	294.78	0.00	0.00
10.00		14.11	294.38	0.00	0.00
11.00		14.05	293.91	0.00	0.00
12.00		13.99	293.40	0.00	0.00
13.00		13.94	292.84	0.00	0.00
14.00		13.88	292.24	0.00	0.00
15.00		13.82	291.61	0.00	0.00
16.00		13.76	290.95	0.00	0.00
17.00		13.71	290.27	0.00	0.00
18.00		13.65	289.56	0.00	0.00
19.00		13.59	288.83	0.00	0.00
20.00		13.53	288.08	0.00	0.00
21.00		13.47	287.32	0.00	0.00
22.00		13.41	286.54	0.00	0.00
23.00		13.35	285.74	0.00	0.00
24.00		13.30	284.94	0.00	0.00
25.00		13.24	284.12	0.00	0.00
26.00		13.18	283.29	0.00	0.00
27.00		13.12	282.44	0.00	0.00
28.00		13.06	281.59	0.00	0.00
29.00		13.00	280.73	0.00	0.00
30.00		12.95	279.86	0.00	0.00
31.00		13.01	278.98	0.00	0.00
32.00		13.07	278.09	0.00	0.00
33.00		13.13	277.20	0.00	0.00
34.00		13.18	276.30	0.00	0.00
35.00		13.23	275.39	0.00	0.00
36.00		13.27	274.48	0.00	0.00
37.00		13.31	273.56	0.00	0.00
38.00		13.35	272.63	0.00	0.00
39.00		13.38	271.70	0.00	0.00
40.00		13.42	270.77	0.00	0.00
41.00		13.45	269.83	0.00	0.00
42.00		13.47	268.88	0.00	0.00
43.00		13.50	267.93	0.00	0.00
44.00		13.52	266.98	0.00	0.00
45.00		13.54	266.02	0.00	0.00
46.00		13.56	265.05	0.00	0.00

Total Applied Force Summary

Structure:	CT12215-A-SBA		**Code:**	TIA-222-H	2/6/2024
Site Name:	Litchfield 3 CT		**Exposure:**	B	
Height:	149.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 54

TES Tower Engineering Solutions

47.00		13.57	264.09	0.00	0.00
47.55		7.51	145.73	0.00	0.00
48.00		6.14	173.21	0.00	0.00
49.00		13.77	386.56	0.00	0.00
50.00	(1) attachments	15.26	387.77	0.00	0.00
51.00		14.26	389.97	0.00	0.00
52.00		14.29	388.33	0.00	0.00
52.97		13.89	375.11	0.00	0.00
53.00		0.43	7.12	0.00	0.00
54.00		14.29	236.80	0.00	0.00
55.00		14.32	235.99	0.00	0.00
56.00		14.34	235.18	0.00	0.00
57.00		14.37	234.36	0.00	0.00
58.00		14.39	233.54	0.00	0.00
59.00		14.41	232.72	0.00	0.00
60.00		14.43	231.89	0.00	0.00
61.00		14.45	231.06	0.00	0.00
62.00		14.47	230.23	0.00	0.00
63.00		14.48	229.40	0.00	0.00
64.00		14.50	228.57	0.00	0.00
65.00		14.51	227.73	0.00	0.00
66.00		14.52	226.89	0.00	0.00
67.00		14.54	226.05	0.00	0.00
67.92		13.38	207.22	0.00	0.00
68.00		1.16	17.99	0.00	0.00
69.00		14.56	224.35	0.00	0.00
70.00		14.56	223.50	0.00	0.00
71.00		13.61	218.46	0.00	0.00
72.00		13.59	217.60	0.00	0.00
73.00	(1) attachments	18.97	238.92	0.00	0.00
74.00		13.54	215.68	0.00	0.00
75.00		13.51	214.81	0.00	0.00
76.00		13.49	213.95	0.00	0.00
77.00		13.46	213.08	0.00	0.00
78.00		13.43	207.18	0.00	0.00
79.00		13.40	206.30	0.00	0.00
80.00		13.36	205.42	0.00	0.00
81.00		13.33	204.54	0.00	0.00
82.00		13.30	203.65	0.00	0.00
83.00		13.26	202.76	0.00	0.00
84.00		13.23	201.88	0.00	0.00
85.00		13.19	200.99	0.00	0.00
86.00		13.15	200.10	0.00	0.00
87.00		13.12	199.20	0.00	0.00
88.00		13.08	198.31	0.00	0.00
89.00		13.04	197.41	0.00	0.00
90.00		12.99	196.52	0.00	0.00
91.00		12.95	195.62	0.00	0.00
92.00		12.91	194.72	0.00	0.00
93.00		12.87	193.82	0.00	0.00
94.00		12.82	192.92	0.00	0.00
95.00		12.78	192.02	0.00	0.00
96.00		12.73	191.12	0.00	0.00
96.18		2.26	34.46	0.00	0.00
97.00		10.68	217.95	0.00	0.00
98.00		14.63	268.58	0.00	0.00
99.00		14.62	267.18	0.00	0.00

Total Applied Force Summary

Structure:	CT12215-A-SBA		**Code:**	TIA-222-H	2/6/2024
Site Name:	Litchfield 3 CT		**Exposure:**	B	
Height:	149.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 55

TES Tower Engineering Solutions

99.25		3.65	66.60	0.00	0.00
100.00		10.95	199.23	0.00	0.00
100.34		5.01	90.95	0.00	0.00
101.00		9.52	115.21	0.00	0.00
102.00		14.50	174.80	0.00	0.00
102.25		3.62	43.61	0.00	0.00
103.00		10.85	130.50	0.00	0.00
104.00		14.46	173.33	0.00	0.00
105.00		14.44	172.60	0.00	0.00
106.00		12.73	166.66	0.00	0.00
107.00		12.71	165.91	0.00	0.00
108.00		12.69	165.17	0.00	0.00
109.00		12.66	164.43	0.00	0.00
110.00		12.63	163.69	0.00	0.00
111.00		12.61	162.94	0.00	0.00
112.00		12.58	162.19	0.00	0.00
113.00		12.55	161.45	0.00	0.00
114.00		12.53	160.70	0.00	0.00
115.00	(19) attachments	396.68	4785.27	0.00	0.00
116.00		11.82	145.81	0.00	0.00
117.00		11.76	140.57	0.00	0.00
118.00		11.70	139.81	0.00	0.00
119.00		11.63	139.04	0.00	0.00
120.00		11.57	138.27	0.00	0.00
121.00		11.51	137.51	0.00	0.00
122.00		11.44	136.74	0.00	0.00
123.00		11.38	135.97	0.00	0.00
124.00		11.32	135.20	0.00	0.00
125.00		11.25	134.43	0.00	0.00
126.00		11.18	133.65	0.00	0.00
127.00		11.12	132.88	0.00	0.00
128.00		11.05	132.11	0.00	0.00
129.00		10.98	131.34	0.00	0.00
130.00	(62) attachments	652.02	6547.30	0.00	0.00
131.00		10.85	105.31	0.00	0.00
132.00		10.78	104.53	0.00	0.00
133.00		10.71	103.75	0.00	0.00
134.00		10.64	102.98	0.00	0.00
135.00		10.57	102.20	0.00	0.00
136.00		10.50	101.42	0.00	0.00
137.00		10.42	100.64	0.00	0.00
138.00	(1) attachments	15.65	123.25	0.00	0.00
139.00		10.28	99.08	0.00	0.00
140.00	(27) attachments	672.34	6236.25	0.00	0.00
141.00		10.13	82.28	0.00	0.00
142.00		10.06	81.50	0.00	0.00
143.00		9.98	80.72	0.00	0.00
144.00		9.91	79.94	0.00	0.00
145.00		9.83	79.15	0.00	0.00
146.00		9.76	78.37	0.00	0.00
147.00		9.68	77.58	0.00	0.00
148.00		9.60	76.80	0.00	0.00
149.00	(23) attachments	415.36	3951.34	0.00	680.00
	Totals:	**4,039.04**	**53,235.70**	**0.00**	**680.00**

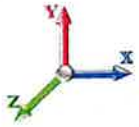
Linear Appurtenance Segment Forces (Factored)

Structure: CT12215-A-SBA
Site Name: Litchfield 3 CT
Height: 149.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1 **Topography:** 1

Code: TIA-222-H 2/6/2024
Exposure: B
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

Tower Engineering Solutions

Load Case: 1.2D + 1.0Di + 1.0Wi 40 mph Wind
Dead Load Factor 1.20
Wind Load Factor 1.00



Iterations 33

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)
1.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.28	0.00	0.054	0.000	2.643	0.00	3.36
1.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.054	0.000	2.643	0.00	6.11
1.00	1/2" Coax	Yes	1.00	0.000	0.65	0.17	0.00	0.054	0.000	2.643	0.00	1.19
2.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.29	0.00	0.055	0.000	2.643	0.00	3.53
2.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.055	0.000	2.643	0.00	6.36
2.00	1/2" Coax	Yes	1.00	0.000	0.65	0.18	0.00	0.055	0.000	2.643	0.00	1.31
3.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.30	0.00	0.055	0.000	2.643	0.00	3.63
3.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.055	0.000	2.643	0.00	6.51
3.00	1/2" Coax	Yes	1.00	0.000	0.65	0.19	0.00	0.055	0.000	2.643	0.00	1.38
4.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.30	0.00	0.055	0.000	2.643	0.00	3.71
4.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.055	0.000	2.643	0.00	6.63
4.00	1/2" Coax	Yes	1.00	0.000	0.65	0.19	0.00	0.055	0.000	2.643	0.00	1.44
5.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.30	0.00	0.055	0.000	2.643	0.00	3.78
5.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.055	0.000	2.643	0.00	6.72
5.00	1/2" Coax	Yes	1.00	0.000	0.65	0.19	0.00	0.055	0.000	2.643	0.00	1.48
6.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.31	0.00	0.056	0.000	2.643	0.00	3.83
6.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.056	0.000	2.643	0.00	6.80
6.00	1/2" Coax	Yes	1.00	0.000	0.65	0.19	0.00	0.056	0.000	2.643	0.00	1.52
7.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.31	0.00	0.056	0.000	2.643	0.00	3.88
7.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.056	0.000	2.643	0.00	6.87
7.00	1/2" Coax	Yes	1.00	0.000	0.65	0.20	0.00	0.056	0.000	2.643	0.00	1.56
8.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.31	0.00	0.056	0.000	2.643	0.00	3.92
8.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.056	0.000	2.643	0.00	6.93
8.00	1/2" Coax	Yes	1.00	0.000	0.65	0.20	0.00	0.056	0.000	2.643	0.00	1.59
9.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.31	0.00	0.056	0.000	2.643	0.00	3.96
9.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.056	0.000	2.643	0.00	6.98
9.00	1/2" Coax	Yes	1.00	0.000	0.65	0.20	0.00	0.056	0.000	2.643	0.00	1.61
10.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.31	0.00	0.057	0.000	2.643	0.00	4.00
10.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.057	0.000	2.643	0.00	7.03
10.00	1/2" Coax	Yes	1.00	0.000	0.65	0.20	0.00	0.057	0.000	2.643	0.00	1.64
11.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.32	0.00	0.057	0.000	2.643	0.00	4.03
11.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.057	0.000	2.643	0.00	7.08
11.00	1/2" Coax	Yes	1.00	0.000	0.65	0.20	0.00	0.057	0.000	2.643	0.00	1.66
12.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.32	0.00	0.057	0.000	2.643	0.00	4.06
12.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.057	0.000	2.643	0.00	7.12
12.00	1/2" Coax	Yes	1.00	0.000	0.65	0.20	0.00	0.057	0.000	2.643	0.00	1.68
13.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.32	0.00	0.057	0.000	2.643	0.00	4.09
13.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.057	0.000	2.643	0.00	7.16
13.00	1/2" Coax	Yes	1.00	0.000	0.65	0.21	0.00	0.057	0.000	2.643	0.00	1.70
14.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.32	0.00	0.058	0.000	2.643	0.00	4.11
14.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.058	0.000	2.643	0.00	7.19
14.00	1/2" Coax	Yes	1.00	0.000	0.65	0.21	0.00	0.058	0.000	2.643	0.00	1.72
15.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.32	0.00	0.058	0.000	2.643	0.00	4.13
15.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.058	0.000	2.643	0.00	7.23
15.00	1/2" Coax	Yes	1.00	0.000	0.65	0.21	0.00	0.058	0.000	2.643	0.00	1.74
16.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.32	0.00	0.058	0.000	2.643	0.00	4.16
16.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.058	0.000	2.643	0.00	7.26

Linear Appurtenance Segment Forces (Factored)

Structure:	CT12215-A-SBA	**Code:**	TIA-222-H	2/6/2024	
Site Name:	Litchfield 3 CT	**Exposure:**	B		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 57	

Tower Engineering Solutions

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

Dead Load Factor 1.20

Wind Load Factor 1.00

Iterations 33

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)
16.00	1/2" Coax	Yes	1.00	0.000	0.65	0.21	0.00	0.058	0.000	2.643	0.00	1.75
17.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.32	0.00	0.059	0.000	2.643	0.00	4.18
17.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.059	0.000	2.643	0.00	7.29
17.00	1/2" Coax	Yes	1.00	0.000	0.65	0.21	0.00	0.059	0.000	2.643	0.00	1.77
18.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.32	0.00	0.059	0.000	2.643	0.00	4.20
18.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.059	0.000	2.643	0.00	7.32
18.00	1/2" Coax	Yes	1.00	0.000	0.65	0.21	0.00	0.059	0.000	2.643	0.00	1.79
19.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.32	0.00	0.059	0.000	2.643	0.00	4.22
19.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.059	0.000	2.643	0.00	7.35
19.00	1/2" Coax	Yes	1.00	0.000	0.65	0.21	0.00	0.059	0.000	2.643	0.00	1.80
20.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.33	0.00	0.059	0.000	2.643	0.00	4.24
20.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.059	0.000	2.643	0.00	7.37
20.00	1/2" Coax	Yes	1.00	0.000	0.65	0.21	0.00	0.059	0.000	2.643	0.00	1.81
21.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.33	0.00	0.060	0.000	2.643	0.00	4.26
21.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.060	0.000	2.643	0.00	7.40
21.00	1/2" Coax	Yes	1.00	0.000	0.65	0.21	0.00	0.060	0.000	2.643	0.00	1.83
22.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.33	0.00	0.060	0.000	2.643	0.00	4.27
22.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.060	0.000	2.643	0.00	7.42
22.00	1/2" Coax	Yes	1.00	0.000	0.65	0.21	0.00	0.060	0.000	2.643	0.00	1.84
23.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.33	0.00	0.060	0.000	2.643	0.00	4.29
23.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.060	0.000	2.643	0.00	7.45
23.00	1/2" Coax	Yes	1.00	0.000	0.65	0.21	0.00	0.060	0.000	2.643	0.00	1.85
24.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.33	0.00	0.061	0.000	2.643	0.00	4.31
24.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.061	0.000	2.643	0.00	7.47
24.00	1/2" Coax	Yes	1.00	0.000	0.65	0.22	0.00	0.061	0.000	2.643	0.00	1.86
25.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.33	0.00	0.061	0.000	2.643	0.00	4.32
25.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.061	0.000	2.643	0.00	7.49
25.00	1/2" Coax	Yes	1.00	0.000	0.65	0.22	0.00	0.061	0.000	2.643	0.00	1.87
26.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.33	0.00	0.061	0.000	2.643	0.00	4.34
26.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.061	0.000	2.643	0.00	7.51
26.00	1/2" Coax	Yes	1.00	0.000	0.65	0.22	0.00	0.061	0.000	2.643	0.00	1.89
27.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.33	0.00	0.061	0.000	2.643	0.00	4.35
27.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.061	0.000	2.643	0.00	7.53
27.00	1/2" Coax	Yes	1.00	0.000	0.65	0.22	0.00	0.061	0.000	2.643	0.00	1.90
28.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.33	0.00	0.062	0.000	2.643	0.00	4.37
28.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.062	0.000	2.643	0.00	7.55
28.00	1/2" Coax	Yes	1.00	0.000	0.65	0.22	0.00	0.062	0.000	2.643	0.00	1.91
29.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.33	0.00	0.062	0.000	2.643	0.00	4.38
29.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.062	0.000	2.643	0.00	7.57
29.00	1/2" Coax	Yes	1.00	0.000	0.65	0.22	0.00	0.062	0.000	2.643	0.00	1.92
30.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.33	0.00	0.062	0.000	2.645	0.00	4.39
30.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.062	0.000	2.645	0.00	7.59
30.00	1/2" Coax	Yes	1.00	0.000	0.65	0.22	0.00	0.062	0.000	2.645	0.00	1.93
31.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.33	0.00	0.063	0.000	2.670	0.00	4.41
31.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.063	0.000	2.670	0.00	7.61
31.00	1/2" Coax	Yes	1.00	0.000	0.65	0.22	0.00	0.063	0.000	2.670	0.00	1.94
32.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.33	0.00	0.063	0.000	2.694	0.00	4.42

Linear Appurtenance Segment Forces (Factored)

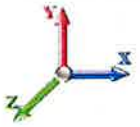
Structure: CT12215-A-SBA
Site Name: Litchfield 3 CT
Height: 149.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1 **Topography:** 1

Code: TIA-222-H
Exposure: B
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

2/6/2024

Tower Engineering Solutions

Load Case: 1.2D + 1.0Di + 1.0Wi 40 mph Wind
Dead Load Factor 1.20
Wind Load Factor 1.00



Iterations 33

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)
32.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.063	0.000	2.694	0.00	7.62
32.00	1/2" Coax	Yes	1.00	0.000	0.65	0.22	0.00	0.063	0.000	2.694	0.00	1.95
33.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.33	0.00	0.063	0.000	2.718	0.00	4.43
33.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.063	0.000	2.718	0.00	7.64
33.00	1/2" Coax	Yes	1.00	0.000	0.65	0.22	0.00	0.063	0.000	2.718	0.00	1.95
34.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.33	0.00	0.064	0.000	2.742	0.00	4.44
34.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.064	0.000	2.742	0.00	7.66
34.00	1/2" Coax	Yes	1.00	0.000	0.65	0.22	0.00	0.064	0.000	2.742	0.00	1.96
35.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.33	0.00	0.064	0.000	2.764	0.00	4.45
35.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.064	0.000	2.764	0.00	7.67
35.00	1/2" Coax	Yes	1.00	0.000	0.65	0.22	0.00	0.064	0.000	2.764	0.00	1.97
36.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.33	0.00	0.064	0.000	2.787	0.00	4.47
36.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.064	0.000	2.787	0.00	7.69
36.00	1/2" Coax	Yes	1.00	0.000	0.65	0.22	0.00	0.064	0.000	2.787	0.00	1.98
37.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.34	0.00	0.065	0.000	2.809	0.00	4.48
37.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.065	0.000	2.809	0.00	7.70
37.00	1/2" Coax	Yes	1.00	0.000	0.65	0.22	0.00	0.065	0.000	2.809	0.00	1.99
38.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.34	0.00	0.065	0.000	2.830	0.00	4.49
38.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.065	0.000	2.830	0.00	7.72
38.00	1/2" Coax	Yes	1.00	0.000	0.65	0.22	0.00	0.065	0.000	2.830	0.00	2.00
39.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.34	0.00	0.065	0.000	2.851	0.00	4.50
39.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.065	0.000	2.851	0.00	7.73
39.00	1/2" Coax	Yes	1.00	0.000	0.65	0.22	0.00	0.065	0.000	2.851	0.00	2.00
40.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.34	0.00	0.066	0.000	2.872	0.00	4.51
40.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.066	0.000	2.872	0.00	7.75
40.00	1/2" Coax	Yes	1.00	0.000	0.65	0.22	0.00	0.066	0.000	2.872	0.00	2.01
41.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.34	0.00	0.066	0.000	2.892	0.00	4.52
41.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.066	0.000	2.892	0.00	7.76
41.00	1/2" Coax	Yes	1.00	0.000	0.65	0.22	0.00	0.066	0.000	2.892	0.00	2.02
42.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.34	0.00	0.066	0.000	2.912	0.00	4.53
42.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.066	0.000	2.912	0.00	7.78
42.00	1/2" Coax	Yes	1.00	0.000	0.65	0.22	0.00	0.066	0.000	2.912	0.00	2.03
43.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.34	0.00	0.067	0.000	2.932	0.00	4.54
43.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.067	0.000	2.932	0.00	7.79
43.00	1/2" Coax	Yes	1.00	0.000	0.65	0.23	0.00	0.067	0.000	2.932	0.00	2.03
44.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.34	0.00	0.067	0.000	2.951	0.00	4.55
44.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.067	0.000	2.951	0.00	7.80
44.00	1/2" Coax	Yes	1.00	0.000	0.65	0.23	0.00	0.067	0.000	2.951	0.00	2.04
45.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.34	0.00	0.067	0.000	2.970	0.00	4.56
45.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.067	0.000	2.970	0.00	7.82
45.00	1/2" Coax	Yes	1.00	0.000	0.65	0.23	0.00	0.067	0.000	2.970	0.00	2.05
46.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.34	0.00	0.068	0.000	2.989	0.00	4.57
46.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.068	0.000	2.989	0.00	7.83
46.00	1/2" Coax	Yes	1.00	0.000	0.65	0.23	0.00	0.068	0.000	2.989	0.00	2.06
47.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.34	0.00	0.068	0.000	3.007	0.00	4.58
47.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.068	0.000	3.007	0.00	7.84
47.00	1/2" Coax	Yes	1.00	0.000	0.65	0.23	0.00	0.068	0.000	3.007	0.00	2.06

Linear Appurtenance Segment Forces (Factored)

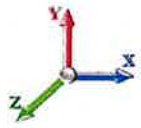
Structure:	CT12215-A-SBA	**Code:**	TIA-222-H	2/6/2024	
Site Name:	Litchfield 3 CT	**Exposure:**	B		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 59	

Tower Engineering Solutions

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

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 33

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)
47.55	1 5/8" Fiber	Yes	0.55	0.000	2.00	0.19	0.00	0.068	0.000	3.017	0.00	2.54
47.55	1.9" Fiber	Yes	0.55	0.000	0.00	0.00	0.00	0.068	0.000	3.017	0.00	4.34
47.55	1/2" Coax	Yes	0.55	0.000	0.65	0.13	0.00	0.068	0.000	3.017	0.00	1.14
48.00	1 5/8" Fiber	Yes	0.45	0.000	2.00	0.15	0.00	0.068	0.000	3.025	0.00	2.05
48.00	1.9" Fiber	Yes	0.45	0.000	0.00	0.00	0.00	0.068	0.000	3.025	0.00	3.51
48.00	1/2" Coax	Yes	0.45	0.000	0.65	0.10	0.00	0.068	0.000	3.025	0.00	0.92
49.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.34	0.00	0.069	0.000	3.043	0.00	4.59
49.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.069	0.000	3.043	0.00	7.87
49.00	1/2" Coax	Yes	1.00	0.000	0.65	0.23	0.00	0.069	0.000	3.043	0.00	2.08
50.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.34	0.00	0.069	0.000	3.061	0.00	4.60
50.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.069	0.000	3.061	0.00	7.88
50.00	1/2" Coax	Yes	1.00	0.000	0.65	0.23	0.00	0.069	0.000	3.061	0.00	2.08
51.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.34	0.00	0.112	1.035	3.078	0.00	4.61
51.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.112	1.035	3.078	0.00	7.89
51.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.28	0.00	0.112	1.035	3.078	0.00	4.77
51.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.26	0.00	0.112	1.035	3.078	0.00	4.02
52.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.34	0.00	0.112	1.036	3.095	0.00	4.62
52.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.112	1.036	3.095	0.00	7.90
52.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.28	0.00	0.112	1.036	3.095	0.00	4.78
52.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.26	0.00	0.112	1.036	3.095	0.00	4.03
52.97	1 5/8" Fiber	Yes	0.97	0.000	2.00	0.33	0.00	0.113	1.038	3.112	0.00	4.49
52.97	1.9" Fiber	Yes	0.97	0.000	0.00	0.00	0.00	0.113	1.038	3.112	0.00	7.68
52.97	1.25" Reinforcing	Yes	0.97	0.000	1.25	0.27	0.00	0.113	1.038	3.112	0.00	4.65
52.97	1" Reinforcing plate	Yes	0.97	0.000	1.00	0.25	0.00	0.113	1.038	3.112	0.00	3.92
53.00	1 5/8" Fiber	Yes	0.03	0.000	2.00	0.01	0.00	0.112	1.035	3.112	0.00	0.14
53.00	1.9" Fiber	Yes	0.03	0.000	0.00	0.00	0.00	0.112	1.035	3.112	0.00	0.24
53.00	1.25" Reinforcing	Yes	0.03	0.000	1.25	0.01	0.00	0.112	1.035	3.112	0.00	0.14
53.00	1" Reinforcing plate	Yes	0.03	0.000	1.00	0.01	0.00	0.112	1.035	3.112	0.00	0.12
54.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.34	0.00	0.112	1.036	3.129	0.00	4.64
54.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.112	1.036	3.129	0.00	7.92
54.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.28	0.00	0.112	1.036	3.129	0.00	4.80
54.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.26	0.00	0.112	1.036	3.129	0.00	4.05
55.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.34	0.00	0.112	1.037	3.145	0.00	4.64
55.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.112	1.037	3.145	0.00	7.93
55.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.28	0.00	0.112	1.037	3.145	0.00	4.81
55.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.26	0.00	0.112	1.037	3.145	0.00	4.06
56.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.34	0.00	0.113	1.039	3.162	0.00	4.65
56.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.113	1.039	3.162	0.00	7.95
56.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.28	0.00	0.113	1.039	3.162	0.00	4.82
56.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.26	0.00	0.113	1.039	3.162	0.00	4.07
57.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.34	0.00	0.114	1.041	3.178	0.00	4.66
57.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.114	1.041	3.178	0.00	7.96
57.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.28	0.00	0.114	1.041	3.178	0.00	4.83
57.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.26	0.00	0.114	1.041	3.178	0.00	4.08
58.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.34	0.00	0.114	1.043	3.194	0.00	4.67
58.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.114	1.043	3.194	0.00	7.97
58.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.28	0.00	0.114	1.043	3.194	0.00	4.84

Linear Appurtenance Segment Forces (Factored)

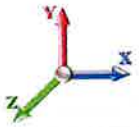
Structure: CT12215-A-SBA
Site Name: Litchfield 3 CT
Height: 149.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1 **Topography:** 1

Code: TIA-222-H
Exposure: B
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

2/6/2024

Tower Engineering Solutions

Load Case: 1.2D + 1.0Di + 1.0Wi 40 mph Wind
Dead Load Factor 1.20
Wind Load Factor 1.00



Iterations 33

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)
58.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.26	0.00	0.114	1.043	3.194	0.00	4.09
59.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.34	0.00	0.115	1.045	3.209	0.00	4.67
59.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.115	1.045	3.209	0.00	7.98
59.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.28	0.00	0.115	1.045	3.209	0.00	4.85
59.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.26	0.00	0.115	1.045	3.209	0.00	4.10
60.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.34	0.00	0.116	1.047	3.225	0.00	4.68
60.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.116	1.047	3.225	0.00	7.99
60.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.28	0.00	0.116	1.047	3.225	0.00	4.86
60.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.26	0.00	0.116	1.047	3.225	0.00	4.10
61.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.34	0.00	0.116	1.049	3.240	0.00	4.69
61.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.116	1.049	3.240	0.00	8.00
61.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.28	0.00	0.116	1.049	3.240	0.00	4.87
61.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.26	0.00	0.116	1.049	3.240	0.00	4.11
62.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.34	0.00	0.117	1.051	3.255	0.00	4.70
62.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.117	1.051	3.255	0.00	8.01
62.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.28	0.00	0.117	1.051	3.255	0.00	4.88
62.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.26	0.00	0.117	1.051	3.255	0.00	4.12
63.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.34	0.00	0.118	1.053	3.270	0.00	4.70
63.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.118	1.053	3.270	0.00	8.02
63.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.28	0.00	0.118	1.053	3.270	0.00	4.89
63.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.26	0.00	0.118	1.053	3.270	0.00	4.13
64.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.34	0.00	0.118	1.055	3.285	0.00	4.71
64.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.118	1.055	3.285	0.00	8.03
64.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.28	0.00	0.118	1.055	3.285	0.00	4.90
64.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.26	0.00	0.118	1.055	3.285	0.00	4.14
65.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.35	0.00	0.119	1.057	3.299	0.00	4.72
65.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.119	1.057	3.299	0.00	8.04
65.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.28	0.00	0.119	1.057	3.299	0.00	4.91
65.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.26	0.00	0.119	1.057	3.299	0.00	4.15
66.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.35	0.00	0.120	1.059	3.314	0.00	4.72
66.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.120	1.059	3.314	0.00	8.05
66.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.28	0.00	0.120	1.059	3.314	0.00	4.92
66.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.26	0.00	0.120	1.059	3.314	0.00	4.15
67.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.35	0.00	0.121	1.062	3.328	0.00	4.73
67.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.121	1.062	3.328	0.00	8.05
67.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.28	0.00	0.121	1.062	3.328	0.00	4.93
67.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.26	0.00	0.121	1.062	3.328	0.00	4.16
67.92	1 5/8" Fiber	Yes	0.92	0.000	2.00	0.32	0.00	0.121	1.064	3.341	0.00	4.36
67.92	1.9" Fiber	Yes	0.92	0.000	0.00	0.00	0.00	0.121	1.064	3.341	0.00	7.42
67.92	1.25" Reinforcing	Yes	0.92	0.000	1.25	0.26	0.00	0.121	1.064	3.341	0.00	4.54
67.92	1" Reinforcing plate	Yes	0.92	0.000	1.00	0.24	0.00	0.121	1.064	3.341	0.00	3.84
68.00	1 5/8" Fiber	Yes	0.08	0.000	2.00	0.03	0.00	0.122	1.065	3.342	0.00	0.38
68.00	1.9" Fiber	Yes	0.08	0.000	0.00	0.00	0.00	0.122	1.065	3.342	0.00	0.65
68.00	1.25" Reinforcing	Yes	0.08	0.000	1.25	0.02	0.00	0.122	1.065	3.342	0.00	0.40
68.00	1" Reinforcing plate	Yes	0.08	0.000	1.00	0.02	0.00	0.122	1.065	3.342	0.00	0.33
69.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.35	0.00	0.122	1.066	3.356	0.00	4.74
69.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.122	1.066	3.356	0.00	8.07

Linear Appurtenance Segment Forces (Factored)

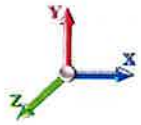
Structure:	CT12215-A-SBA	**Code:**	TIA-222-H	2/6/2024	
Site Name:	Litchfield 3 CT	**Exposure:**	B		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 61	

TES Tower Engineering Solutions

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

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 33

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)
69.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.28	0.00	0.122	1.066	3.356	0.00	4.95
69.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.26	0.00	0.122	1.066	3.356	0.00	4.18
70.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.35	0.00	0.123	1.068	3.370	0.00	4.75
70.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.123	1.068	3.370	0.00	8.08
70.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.28	0.00	0.123	1.068	3.370	0.00	4.96
70.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.26	0.00	0.123	1.068	3.370	0.00	4.19
71.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.35	0.00	0.094	0.000	3.383	0.00	4.76
71.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.094	0.000	3.383	0.00	8.09
71.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.28	0.00	0.094	0.000	3.383	0.00	4.96
72.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.35	0.00	0.095	0.000	3.397	0.00	4.76
72.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.095	0.000	3.397	0.00	8.10
72.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.28	0.00	0.095	0.000	3.397	0.00	4.97
73.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.35	0.00	0.096	0.000	3.410	0.00	4.77
73.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.096	0.000	3.410	0.00	8.11
73.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.28	0.00	0.096	0.000	3.410	0.00	4.98
74.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.35	0.00	0.096	0.000	3.424	0.00	4.78
74.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.096	0.000	3.424	0.00	8.12
74.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.28	0.00	0.096	0.000	3.424	0.00	4.99
75.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.35	0.00	0.097	0.000	3.437	0.00	4.78
75.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.097	0.000	3.437	0.00	8.12
75.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.29	0.00	0.097	0.000	3.437	0.00	5.00
76.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.35	0.00	0.097	0.000	3.450	0.00	4.79
76.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.097	0.000	3.450	0.00	8.13
76.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.29	0.00	0.097	0.000	3.450	0.00	5.01
77.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.35	0.00	0.098	0.000	3.463	0.00	4.79
77.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.098	0.000	3.463	0.00	8.14
77.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.29	0.00	0.098	0.000	3.463	0.00	5.01
78.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.35	0.00	0.061	0.000	3.476	0.00	4.80
78.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.061	0.000	3.476	0.00	8.15
79.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.35	0.00	0.061	0.000	3.488	0.00	4.81
79.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.061	0.000	3.488	0.00	8.16
80.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.35	0.00	0.061	0.000	3.501	0.00	4.81
80.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.061	0.000	3.501	0.00	8.17
81.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.35	0.00	0.062	0.000	3.513	0.00	4.82
81.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.062	0.000	3.513	0.00	8.17
82.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.35	0.00	0.062	0.000	3.526	0.00	4.82
82.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.062	0.000	3.526	0.00	8.18
83.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.35	0.00	0.063	0.000	3.538	0.00	4.83
83.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.063	0.000	3.538	0.00	8.19
84.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.35	0.00	0.063	0.000	3.550	0.00	4.83
84.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.063	0.000	3.550	0.00	8.20
85.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.35	0.00	0.064	0.000	3.562	0.00	4.84
85.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.064	0.000	3.562	0.00	8.20
86.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.35	0.00	0.064	0.000	3.574	0.00	4.85
86.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.064	0.000	3.574	0.00	8.21
87.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.35	0.00	0.064	0.000	3.586	0.00	4.85
87.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.064	0.000	3.586	0.00	8.22

Linear Appurtenance Segment Forces (Factored)

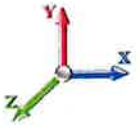
Structure:	CT12215-A-SBA	**Code:**	TIA-222-H	2/6/2024	
Site Name:	Litchfield 3 CT	**Exposure:**	B		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 62	

Tower Engineering Solutions

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

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 33

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)
88.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.35	0.00	0.065	0.000	3.598	0.00	4.86
88.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.065	0.000	3.598	0.00	8.23
89.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.35	0.00	0.065	0.000	3.609	0.00	4.86
89.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.065	0.000	3.609	0.00	8.23
90.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.35	0.00	0.066	0.000	3.621	0.00	4.87
90.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.066	0.000	3.621	0.00	8.24
91.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.35	0.00	0.066	0.000	3.632	0.00	4.87
91.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.066	0.000	3.632	0.00	8.25
92.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.35	0.00	0.067	0.000	3.643	0.00	4.88
92.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.067	0.000	3.643	0.00	8.25
93.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.35	0.00	0.067	0.000	3.655	0.00	4.88
93.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.067	0.000	3.655	0.00	8.26
94.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.35	0.00	0.068	0.000	3.666	0.00	4.89
94.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.068	0.000	3.666	0.00	8.27
95.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.35	0.00	0.068	0.000	3.677	0.00	4.89
95.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.068	0.000	3.677	0.00	8.28
96.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.35	0.00	0.069	0.000	3.688	0.00	4.90
96.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.069	0.000	3.688	0.00	8.28
96.18	1" Reinforcing plate	Yes	0.18	0.000	1.00	0.05	0.00	0.103	1.010	3.690	0.00	0.77
96.18	1 5/8" Fiber	Yes	0.18	0.000	2.00	0.06	0.00	0.103	1.010	3.690	0.00	0.87
96.18	1.9" Fiber	Yes	0.18	0.000	0.00	0.00	0.00	0.103	1.010	3.690	0.00	1.46
97.00	1" Reinforcing plate	Yes	0.82	0.000	1.00	0.22	0.00	0.104	1.011	3.699	0.00	3.59
97.00	1 5/8" Fiber	Yes	0.82	0.000	2.00	0.29	0.00	0.104	1.011	3.699	0.00	4.04
97.00	1.9" Fiber	Yes	0.82	0.000	0.00	0.00	0.00	0.104	1.011	3.699	0.00	6.82
98.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.27	0.00	0.148	1.144	3.710	0.00	4.37
98.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.35	0.00	0.148	1.144	3.710	0.00	4.91
98.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.148	1.144	3.710	0.00	8.30
98.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.29	0.00	0.148	1.144	3.710	0.00	5.16
99.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.27	0.00	0.149	1.147	3.721	0.00	4.38
99.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.35	0.00	0.149	1.147	3.721	0.00	4.91
99.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.149	1.147	3.721	0.00	8.30
99.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.29	0.00	0.149	1.147	3.721	0.00	5.17
99.25	1" Reinforcing plate	Yes	0.25	0.000	1.00	0.07	0.00	0.150	1.149	3.723	0.00	1.09
99.25	1 5/8" Fiber	Yes	0.25	0.000	2.00	0.09	0.00	0.150	1.149	3.723	0.00	1.23
99.25	1.9" Fiber	Yes	0.25	0.000	0.00	0.00	0.00	0.150	1.149	3.723	0.00	2.08
99.25	1.25" Reinforcing	Yes	0.25	0.000	1.25	0.07	0.00	0.150	1.149	3.723	0.00	1.29
100.00	1" Reinforcing plate	Yes	0.75	0.000	1.00	0.20	0.00	0.150	1.151	3.731	0.00	3.29
100.00	1 5/8" Fiber	Yes	0.75	0.000	2.00	0.26	0.00	0.150	1.151	3.731	0.00	3.69
100.00	1.9" Fiber	Yes	0.75	0.000	0.00	0.00	0.00	0.150	1.151	3.731	0.00	6.23
100.00	1.25" Reinforcing	Yes	0.75	0.000	1.25	0.22	0.00	0.150	1.151	3.731	0.00	3.88
100.34	1" Reinforcing plate	Yes	0.34	0.000	1.00	0.09	0.00	0.151	1.153	3.735	0.00	1.51
100.34	1 5/8" Fiber	Yes	0.34	0.000	2.00	0.12	0.00	0.151	1.153	3.735	0.00	1.69
100.34	1.9" Fiber	Yes	0.34	0.000	0.00	0.00	0.00	0.151	1.153	3.735	0.00	2.85
100.34	1.25" Reinforcing	Yes	0.34	0.000	1.25	0.10	0.00	0.151	1.153	3.735	0.00	1.78
101.00	1" Reinforcing plate	Yes	0.66	0.000	1.00	0.18	0.00	0.149	1.148	3.742	0.00	2.88
101.00	1 5/8" Fiber	Yes	0.66	0.000	2.00	0.23	0.00	0.149	1.148	3.742	0.00	3.23
101.00	1.9" Fiber	Yes	0.66	0.000	0.00	0.00	0.00	0.149	1.148	3.742	0.00	5.46

Linear Appurtenance Segment Forces (Factored)

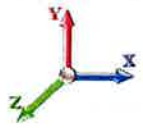
Structure:	CT12215-A-SBA	**Code:**	TIA-222-H	2/6/2024	
Site Name:	Litchfield 3 CT	**Exposure:**	B		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 63	

Tower Engineering Solutions

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

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 33

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)
101.00	1.25" Reinforcing	Yes	0.66	0.000	1.25	0.19	0.00	0.149	1.148	3.742	0.00	3.40
102.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.27	0.00	0.150	1.151	3.752	0.00	4.39
102.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.35	0.00	0.150	1.151	3.752	0.00	4.93
102.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.150	1.151	3.752	0.00	8.32
102.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.29	0.00	0.150	1.151	3.752	0.00	5.19
102.25	1" Reinforcing plate	Yes	0.25	0.000	1.00	0.07	0.00	0.151	1.153	3.755	0.00	1.10
102.25	1 5/8" Fiber	Yes	0.25	0.000	2.00	0.09	0.00	0.151	1.153	3.755	0.00	1.23
102.25	1.9" Fiber	Yes	0.25	0.000	0.00	0.00	0.00	0.151	1.153	3.755	0.00	2.08
102.25	1.25" Reinforcing	Yes	0.25	0.000	1.25	0.07	0.00	0.151	1.153	3.755	0.00	1.30
103.00	1" Reinforcing plate	Yes	0.75	0.000	1.00	0.20	0.00	0.152	1.155	3.763	0.00	3.30
103.00	1 5/8" Fiber	Yes	0.75	0.000	2.00	0.27	0.00	0.152	1.155	3.763	0.00	3.70
103.00	1.9" Fiber	Yes	0.75	0.000	0.00	0.00	0.00	0.152	1.155	3.763	0.00	6.25
103.00	1.25" Reinforcing	Yes	0.75	0.000	1.25	0.22	0.00	0.152	1.155	3.763	0.00	3.90
104.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.27	0.00	0.153	1.158	3.773	0.00	4.40
104.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.35	0.00	0.153	1.158	3.773	0.00	4.94
104.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.153	1.158	3.773	0.00	8.33
104.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.29	0.00	0.153	1.158	3.773	0.00	5.20
105.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.27	0.00	0.154	1.161	3.784	0.00	4.41
105.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.35	0.00	0.154	1.161	3.784	0.00	4.94
105.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.154	1.161	3.784	0.00	8.34
105.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.29	0.00	0.154	1.161	3.784	0.00	5.21
106.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.27	0.00	0.109	1.028	3.794	0.00	4.42
106.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.35	0.00	0.109	1.028	3.794	0.00	4.94
106.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.109	1.028	3.794	0.00	8.35
107.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.27	0.00	0.110	1.031	3.804	0.00	4.42
107.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.35	0.00	0.110	1.031	3.804	0.00	4.95
107.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.110	1.031	3.804	0.00	8.35
108.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.27	0.00	0.111	1.033	3.814	0.00	4.43
108.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.35	0.00	0.111	1.033	3.814	0.00	4.95
108.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.111	1.033	3.814	0.00	8.36
109.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.27	0.00	0.112	1.036	3.824	0.00	4.43
109.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.35	0.00	0.112	1.036	3.824	0.00	4.96
109.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.112	1.036	3.824	0.00	8.37
110.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.27	0.00	0.113	1.038	3.834	0.00	4.44
110.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.35	0.00	0.113	1.038	3.834	0.00	4.96
110.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.113	1.038	3.834	0.00	8.37
111.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.27	0.00	0.114	1.041	3.844	0.00	4.44
111.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.35	0.00	0.114	1.041	3.844	0.00	4.97
111.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.114	1.041	3.844	0.00	8.38
112.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.27	0.00	0.115	1.044	3.854	0.00	4.45
112.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.35	0.00	0.115	1.044	3.854	0.00	4.97
112.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.115	1.044	3.854	0.00	8.38
113.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.27	0.00	0.116	1.047	3.864	0.00	4.45
113.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.36	0.00	0.116	1.047	3.864	0.00	4.98
113.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.116	1.047	3.864	0.00	8.39
114.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.27	0.00	0.117	1.050	3.874	0.00	4.46
114.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.36	0.00	0.117	1.050	3.874	0.00	4.98

Linear Appurtenance Segment Forces (Factored)

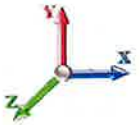
Structure:	CT12215-A-SBA	**Code:**	TIA-222-H	2/6/2024	
Site Name:	Litchfield 3 CT	**Exposure:**	B		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 64	

Tower Engineering Solutions

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

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 33

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)
114.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.117	1.050	3.874	0.00	8.39
115.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.27	0.00	0.117	1.052	3.883	0.00	4.46
115.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.36	0.00	0.117	1.052	3.883	0.00	4.98
115.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.117	1.052	3.883	0.00	8.40
116.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.27	0.00	0.039	0.000	3.893	0.00	4.47
										Totals:	**0.0**	**1,861.7**

Calculated Forces

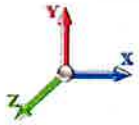
Structure:	CT12215-A-SBA	**Code:**	TIA-222-H	2/6/2024	
Site Name:	Litchfield 3 CT	**Exposure:**	B		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 65	

Tower Engineering Solutions

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

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 33

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-53.24	-4.04	0.00	-471.68	0.00	471.68	3031.07	830.09	3284.29	2977.95	0.00	0.000	0.000	0.176
1.00	-52.94	-4.04	0.00	-467.63	0.00	467.63	3023.73	826.48	3255.81	2957.74	0.00	-0.010	0.000	0.176
2.00	-52.65	-4.03	0.00	-463.60	0.00	463.60	3016.33	822.87	3227.46	2937.55	0.00	-0.020	0.000	0.175
3.00	-52.35	-4.03	0.00	-459.57	0.00	459.57	3008.89	819.26	3199.23	2917.37	0.01	-0.030	0.000	0.175
4.00	-52.06	-4.02	0.00	-455.54	0.00	455.54	3001.40	815.66	3171.12	2897.21	0.02	-0.040	0.000	0.175
5.00	-51.76	-4.01	0.00	-451.52	0.00	451.52	2993.85	812.05	3143.13	2877.06	0.03	-0.050	0.000	0.174
6.00	-51.47	-4.01	0.00	-447.51	0.00	447.51	2986.25	808.44	3115.27	2856.93	0.04	-0.060	0.000	0.174
7.00	-51.17	-4.00	0.00	-443.50	0.00	443.50	2978.60	804.84	3087.54	2836.81	0.05	-0.070	0.000	0.174
8.00	-50.87	-4.00	0.00	-439.50	0.00	439.50	2970.91	801.23	3059.93	2816.71	0.07	-0.080	0.000	0.173
9.00	-50.58	-3.99	0.00	-435.50	0.00	435.50	2963.16	797.62	3032.44	2796.63	0.08	-0.090	0.000	0.173
10.00	-50.28	-3.99	0.00	-431.51	0.00	431.51	2955.36	794.02	3005.07	2776.57	0.11	-0.100	0.000	0.172
11.00	-49.99	-3.98	0.00	-427.52	0.00	427.52	2947.51	790.41	2977.83	2756.53	0.13	-0.111	0.000	0.172
12.00	-49.70	-3.98	0.00	-423.54	0.00	423.54	2939.60	786.80	2950.72	2736.51	0.15	-0.121	0.000	0.172
13.00	-49.40	-3.97	0.00	-419.56	0.00	419.56	2931.65	783.20	2923.73	2716.51	0.18	-0.131	0.000	0.171
14.00	-49.11	-3.96	0.00	-415.59	0.00	415.59	2923.65	779.59	2896.86	2696.53	0.21	-0.142	0.000	0.171
15.00	-48.82	-3.96	0.00	-411.63	0.00	411.63	2915.59	775.98	2870.11	2676.57	0.24	-0.152	0.000	0.171
16.00	-48.53	-3.95	0.00	-407.67	0.00	407.67	2907.49	772.37	2843.49	2656.64	0.27	-0.163	0.000	0.170
17.00	-48.23	-3.95	0.00	-403.72	0.00	403.72	2899.33	768.77	2817.00	2636.73	0.31	-0.173	0.000	0.170
18.00	-47.94	-3.94	0.00	-399.77	0.00	399.77	2891.12	765.16	2790.63	2616.84	0.34	-0.184	0.000	0.169
19.00	-47.65	-3.94	0.00	-395.83	0.00	395.83	2882.86	761.55	2764.38	2596.98	0.38	-0.194	0.000	0.169
20.00	-47.37	-3.93	0.00	-391.90	0.00	391.90	2874.56	757.95	2738.25	2577.14	0.42	-0.205	0.000	0.169
21.00	-47.08	-3.92	0.00	-387.97	0.00	387.97	2866.20	754.34	2712.25	2557.33	0.47	-0.216	0.000	0.168
22.00	-46.79	-3.92	0.00	-384.04	0.00	384.04	2857.79	750.73	2686.38	2537.55	0.52	-0.227	0.000	0.168
23.00	-46.50	-3.91	0.00	-380.12	0.00	380.12	2849.32	747.13	2660.63	2517.79	0.56	-0.237	0.000	0.167
24.00	-46.22	-3.91	0.00	-376.21	0.00	376.21	2840.81	743.52	2635.00	2498.06	0.61	-0.248	0.000	0.167
25.00	-45.93	-3.90	0.00	-372.30	0.00	372.30	2832.25	739.91	2609.50	2478.36	0.67	-0.259	0.000	0.166
26.00	-45.65	-3.90	0.00	-368.40	0.00	368.40	2823.63	736.31	2584.12	2458.69	0.72	-0.270	0.000	0.166
27.00	-45.37	-3.89	0.00	-364.51	0.00	364.51	2814.97	732.70	2558.86	2439.05	0.78	-0.281	0.000	0.166
28.00	-45.08	-3.88	0.00	-360.62	0.00	360.62	2806.25	729.09	2533.73	2419.44	0.84	-0.292	0.000	0.165
29.00	-44.80	-3.88	0.00	-356.73	0.00	356.73	2797.49	725.48	2508.72	2399.86	0.90	-0.303	0.000	0.165
30.00	-44.52	-3.87	0.00	-352.85	0.00	352.85	2788.67	721.88	2483.84	2380.32	0.97	-0.314	0.000	0.164
31.00	-44.24	-3.87	0.00	-348.98	0.00	348.98	2779.80	718.27	2459.08	2360.80	1.04	-0.325	0.000	0.164
32.00	-43.96	-3.86	0.00	-345.12	0.00	345.12	2770.88	714.66	2434.44	2341.32	1.11	-0.337	0.000	0.163
33.00	-43.69	-3.85	0.00	-341.25	0.00	341.25	2761.91	711.06	2409.93	2321.88	1.18	-0.348	0.000	0.163
34.00	-43.41	-3.85	0.00	-337.40	0.00	337.40	2752.89	707.45	2385.54	2302.46	1.25	-0.359	0.000	0.162
35.00	-43.13	-3.84	0.00	-333.55	0.00	333.55	2743.82	703.84	2361.28	2283.08	1.33	-0.371	0.000	0.162
36.00	-42.86	-3.84	0.00	-329.71	0.00	329.71	2734.69	700.24	2337.14	2263.74	1.41	-0.382	0.000	0.161
37.00	-42.58	-3.83	0.00	-325.88	0.00	325.88	2725.52	696.63	2313.13	2244.44	1.49	-0.393	0.000	0.161
38.00	-42.31	-3.82	0.00	-322.05	0.00	322.05	2716.29	693.02	2289.23	2225.17	1.57	-0.405	0.000	0.160
39.00	-42.04	-3.82	0.00	-318.23	0.00	318.23	2707.02	689.42	2265.47	2205.94	1.66	-0.416	0.000	0.160
40.00	-41.77	-3.81	0.00	-314.41	0.00	314.41	2697.69	685.81	2241.82	2186.75	1.75	-0.428	0.000	0.159
41.00	-41.50	-3.80	0.00	-310.60	0.00	310.60	2688.32	682.20	2218.30	2167.60	1.84	-0.440	0.000	0.159
42.00	-41.23	-3.79	0.00	-306.80	0.00	306.80	2678.89	678.59	2194.91	2148.48	1.93	-0.451	0.000	0.158
43.00	-40.96	-3.79	0.00	-303.01	0.00	303.01	2669.41	674.99	2171.64	2129.41	2.03	-0.463	0.000	0.158
44.00	-40.69	-3.78	0.00	-299.22	0.00	299.22	2659.88	671.38	2148.49	2110.38	2.12	-0.475	0.000	0.157
45.00	-40.42	-3.77	0.00	-295.44	0.00	295.44	2650.30	667.77	2125.47	2091.39	2.23	-0.486	0.000	0.157
46.00	-40.16	-3.76	0.00	-291.67	0.00	291.67	2640.67	664.17	2102.57	2072.44	2.33	-0.498	0.000	0.156
47.00	-39.89	-3.75	0.00	-287.91	0.00	287.91	2630.98	660.56	2079.79	2053.54	2.43	-0.510	0.000	0.155

Calculated Forces

Structure: CT12215-A-SBA
Site Name: Litchfield 3 CT
Height: 149.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1 **Topography:** 1

Code: TIA-222-H
Exposure: B
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

2/6/2024

Tower Engineering Solutions

47.55	-39.75	-3.75	0.00	-285.83	0.00	285.83	2625.60	658.56	2067.24	2043.10	2.49	-0.517	0.000	0.155
48.00	-39.57	-3.75	0.00	-284.16	0.00	284.16	2621.25	656.95	2057.14	2034.68	2.54	-0.522	0.000	0.155
49.00	-39.19	-3.74	0.00	-280.41	0.00	280.41	2611.47	653.35	2034.61	2015.86	2.65	-0.534	0.000	0.154
50.00	-38.80	-3.73	0.00	-276.67	0.00	276.67	2601.63	649.74	2012.21	1997.09	2.77	-0.546	0.000	0.153
51.00	-38.41	-3.72	0.00	-272.94	0.00	272.94	2591.74	646.13	1989.93	1978.37	2.88	-0.558	0.000	0.153
52.00	-38.02	-3.71	0.00	-269.22	0.00	269.22	2581.81	642.52	1967.78	1959.69	3.00	-0.570	0.000	0.075
52.97	-37.64	-3.69	0.00	-265.63	0.00	265.63	1914.68	519.05	1605.21	1470.11	3.12	-0.576	0.000	0.082
53.00	-37.64	-3.69	0.00	-265.52	0.00	265.52	1914.50	518.97	1604.67	1469.72	3.12	-0.576	0.000	0.089
54.00	-37.40	-3.68	0.00	-261.82	0.00	261.82	1908.40	516.08	1586.88	1456.85	3.24	-0.582	0.000	0.088
55.00	-37.16	-3.67	0.00	-258.15	0.00	258.15	1902.26	513.20	1569.18	1443.98	3.36	-0.589	0.000	0.087
56.00	-36.93	-3.65	0.00	-254.48	0.00	254.48	1896.06	510.31	1551.58	1431.13	3.49	-0.595	0.000	0.087
57.00	-36.69	-3.64	0.00	-250.82	0.00	250.82	1889.81	507.43	1534.09	1418.29	3.61	-0.601	0.000	0.086
58.00	-36.46	-3.63	0.00	-247.18	0.00	247.18	1883.51	504.54	1516.69	1405.47	3.74	-0.608	0.000	0.085
59.00	-36.23	-3.62	0.00	-243.55	0.00	243.55	1877.16	501.65	1499.39	1392.67	3.87	-0.614	0.000	0.084
60.00	-35.99	-3.60	0.00	-239.94	0.00	239.94	1870.76	498.77	1482.19	1379.88	4.00	-0.620	0.000	0.084
61.00	-35.76	-3.59	0.00	-236.34	0.00	236.34	1864.31	495.88	1465.09	1367.11	4.13	-0.627	0.000	0.083
62.00	-35.53	-3.58	0.00	-232.75	0.00	232.75	1857.80	493.00	1448.09	1354.36	4.26	-0.633	0.000	0.082
63.00	-35.30	-3.56	0.00	-229.17	0.00	229.17	1851.25	490.11	1431.19	1341.63	4.39	-0.639	0.000	0.081
64.00	-35.07	-3.55	0.00	-225.61	0.00	225.61	1844.65	487.23	1414.38	1328.91	4.53	-0.646	0.000	0.081
65.00	-34.85	-3.54	0.00	-222.06	0.00	222.06	1837.99	484.34	1397.68	1316.22	4.66	-0.652	0.000	0.080
66.00	-34.62	-3.52	0.00	-218.52	0.00	218.52	1831.29	481.46	1381.08	1303.55	4.80	-0.658	0.000	0.079
67.00	-34.39	-3.51	0.00	-214.99	0.00	214.99	1824.53	478.57	1364.57	1290.90	4.94	-0.665	0.000	0.078
67.92	-34.19	-3.50	0.00	-211.77	0.00	211.77	1818.27	475.91	1349.47	1279.28	5.07	-0.670	0.000	0.078
68.00	-34.17	-3.50	0.00	-211.49	0.00	211.49	1817.72	475.68	1348.17	1278.27	5.08	-0.671	0.000	0.061
69.00	-33.94	-3.48	0.00	-207.99	0.00	207.99	1810.86	472.80	1331.86	1265.67	5.22	-0.676	0.000	0.109
70.00	-33.72	-3.47	0.00	-204.51	0.00	204.51	1803.95	469.91	1315.65	1253.09	5.36	-0.685	0.000	0.108
71.00	-33.50	-3.46	0.00	-201.03	0.00	201.03	1796.99	467.03	1299.54	1240.53	5.51	-0.693	0.000	0.107
72.00	-33.28	-3.45	0.00	-197.57	0.00	197.57	1789.98	464.14	1283.53	1228.00	5.65	-0.702	0.000	0.106
73.00	-33.04	-3.43	0.00	-194.12	0.00	194.12	1782.92	461.26	1267.62	1215.49	5.80	-0.711	0.000	0.105
74.00	-32.83	-3.42	0.00	-190.69	0.00	190.69	1775.81	458.37	1251.81	1203.02	5.95	-0.720	0.000	0.104
75.00	-32.61	-3.41	0.00	-187.27	0.00	187.27	1768.64	455.49	1236.10	1190.56	6.10	-0.729	0.000	0.103
76.00	-32.40	-3.40	0.00	-183.86	0.00	183.86	1761.43	452.60	1220.49	1178.14	6.26	-0.738	0.000	0.175
77.00	-32.18	-3.39	0.00	-180.46	0.00	180.46	1754.16	449.71	1204.98	1165.74	6.41	-0.753	0.000	0.173
78.00	-31.98	-3.39	0.00	-177.07	0.00	177.07	1746.84	446.83	1189.56	1153.37	6.57	-0.768	0.000	0.172
79.00	-31.77	-3.38	0.00	-173.68	0.00	173.68	1739.48	443.94	1174.25	1141.03	6.73	-0.783	0.000	0.171
80.00	-31.56	-3.37	0.00	-170.30	0.00	170.30	1732.06	441.06	1159.03	1128.72	6.90	-0.798	0.000	0.169
81.00	-31.36	-3.36	0.00	-166.93	0.00	166.93	1724.59	438.17	1143.92	1116.45	7.07	-0.813	0.000	0.168
82.00	-31.15	-3.35	0.00	-163.57	0.00	163.57	1717.07	435.29	1128.90	1104.20	7.24	-0.828	0.000	0.166
83.00	-30.95	-3.35	0.00	-160.22	0.00	160.22	1709.50	432.40	1113.98	1091.99	7.42	-0.843	0.000	0.165
84.00	-30.75	-3.34	0.00	-156.87	0.00	156.87	1701.88	429.52	1099.17	1079.81	7.59	-0.858	0.000	0.163
85.00	-30.55	-3.33	0.00	-153.54	0.00	153.54	1694.20	426.63	1084.45	1067.66	7.78	-0.873	0.000	0.162
86.00	-30.34	-3.32	0.00	-150.21	0.00	150.21	1686.48	423.74	1069.83	1055.54	7.96	-0.888	0.000	0.160
87.00	-30.14	-3.31	0.00	-146.88	0.00	146.88	1678.71	420.86	1055.31	1043.46	8.15	-0.903	0.000	0.159
88.00	-29.95	-3.30	0.00	-143.57	0.00	143.57	1670.88	417.97	1040.88	1031.42	8.34	-0.918	0.000	0.157
89.00	-29.75	-3.30	0.00	-140.27	0.00	140.27	1663.00	415.09	1026.56	1019.41	8.53	-0.933	0.000	0.156
90.00	-29.55	-3.29	0.00	-136.97	0.00	136.97	1655.08	412.20	1012.34	1007.44	8.73	-0.948	0.000	0.154
91.00	-29.35	-3.28	0.00	-133.69	0.00	133.69	1647.10	409.32	998.22	995.51	8.93	-0.963	0.000	0.152
92.00	-29.16	-3.27	0.00	-130.41	0.00	130.41	1639.07	406.43	984.19	983.61	9.13	-0.977	0.000	0.150
93.00	-28.96	-3.26	0.00	-127.14	0.00	127.14	1630.99	403.55	970.27	971.76	9.34	-0.992	0.000	0.149
94.00	-28.77	-3.25	0.00	-123.88	0.00	123.88	1622.86	400.66	956.44	959.94	9.55	-1.007	0.000	0.147
95.00	-28.58	-3.24	0.00	-120.62	0.00	120.62	1614.68	397.77	942.71	948.16	9.76	-1.021	0.000	0.145
96.00	-28.39	-3.23	0.00	-117.38	0.00	117.38	1606.45	394.89	929.08	936.43	9.98	-1.036	0.000	0.143
96.18	-28.35	-3.23	0.00	-116.81	0.00	116.81	1604.99	394.38	926.69	934.36	10.01	-1.038	0.000	0.143
97.00	-28.13	-3.22	0.00	-114.15	0.00	114.15	1598.16	392.00	915.56	924.73	10.20	-1.050	0.000	0.141
98.00	-27.86	-3.21	0.00	-110.93	0.00	110.93	1589.83	389.12	902.13	913.08	10.42	-1.064	0.000	0.139
99.00	-27.60	-3.20	0.00	-107.71	0.00	107.71	1581.44	386.23	888.80	901.47	10.64	-1.079	0.000	0.137
99.25	-27.53	-3.19	0.00	-106.92	0.00	106.92	1579.34	385.51	885.48	898.57	10.70	-1.082	0.000	0.077

Calculated Forces

Structure:	CT12215-A-SBA	**Code:**	TIA-222-H	2/6/2024	
Site Name:	Litchfield 3 CT	**Exposure:**	B		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 67	

Tower Engineering Solutions

100.00	-27.33	-3.18	0.00	-104.52	0.00	104.52	1573.01	383.35	875.57	889.90	10.87	-1.088	0.000	0.076
100.34	-27.24	-3.18	0.00	-103.43	0.00	103.43	1075.68	291.34	674.27	618.09	10.95	-1.091	0.000	0.085
101.00	-27.13	-3.17	0.00	-101.34	0.00	101.34	1072.67	289.91	667.71	613.33	11.10	-1.096	0.000	0.096
102.00	-26.95	-3.15	0.00	-98.18	0.00	98.18	1068.04	287.75	657.78	606.10	11.33	-1.105	0.000	0.094
102.25	-26.91	-3.15	0.00	-97.39	0.00	97.39	1066.88	287.21	655.30	604.29	11.39	-1.107	0.000	0.093
102.25	-26.91	-3.15	0.00	-97.39	0.00	97.39	1066.88	287.21	655.30	604.29	11.39	-1.107	0.000	0.171
103.00	-26.78	-3.14	0.00	-95.02	0.00	95.02	1063.37	285.59	647.92	598.87	11.56	-1.114	0.000	0.184
104.00	-26.60	-3.13	0.00	-91.88	0.00	91.88	1058.64	283.42	638.14	591.66	11.80	-1.131	0.000	0.181
105.00	-26.43	-3.12	0.00	-88.75	0.00	88.75	1053.86	281.26	628.43	584.47	12.03	-1.148	0.000	0.177
106.00	-26.26	-3.11	0.00	-85.63	0.00	85.63	1049.03	279.09	618.79	577.28	12.28	-1.165	0.000	0.173
107.00	-26.09	-3.11	0.00	-82.51	0.00	82.51	1044.15	276.93	609.23	570.11	12.52	-1.182	0.000	0.170
108.00	-25.93	-3.10	0.00	-79.41	0.00	79.41	1039.22	274.77	599.75	562.95	12.77	-1.198	0.000	0.166
109.00	-25.76	-3.09	0.00	-76.31	0.00	76.31	1034.24	272.60	590.34	555.81	13.02	-1.214	0.000	0.162
110.00	-25.60	-3.08	0.00	-73.23	0.00	73.23	1029.21	270.44	581.00	548.68	13.28	-1.230	0.000	0.158
111.00	-25.44	-3.07	0.00	-70.15	0.00	70.15	1024.13	268.27	571.74	541.57	13.54	-1.246	0.000	0.154
112.00	-25.27	-3.06	0.00	-67.08	0.00	67.08	1018.99	266.11	562.55	534.48	13.80	-1.261	0.000	0.150
113.00	-25.11	-3.05	0.00	-64.02	0.00	64.02	1013.81	263.94	553.44	527.40	14.07	-1.276	0.000	0.146
114.00	-24.95	-3.04	0.00	-60.97	0.00	60.97	1008.57	261.78	544.40	520.34	14.34	-1.291	0.000	0.142
115.00	-20.17	-2.54	0.00	-57.93	0.00	57.93	1003.28	259.62	535.44	513.31	14.61	-1.305	0.000	0.133
116.00	-20.03	-2.53	0.00	-55.39	0.00	55.39	997.95	257.45	526.55	506.29	14.88	-1.319	0.000	0.130
117.00	-19.89	-2.52	0.00	-52.86	0.00	52.86	992.56	255.29	517.73	499.29	15.16	-1.333	0.000	0.126
118.00	-19.75	-2.51	0.00	-50.34	0.00	50.34	987.12	253.12	508.99	492.31	15.44	-1.346	0.000	0.122
119.00	-19.61	-2.50	0.00	-47.83	0.00	47.83	981.63	250.96	500.33	485.36	15.73	-1.359	0.000	0.119
120.00	-19.47	-2.49	0.00	-45.33	0.00	45.33	976.09	248.80	491.73	478.42	16.01	-1.372	0.000	0.115
121.00	-19.33	-2.48	0.00	-42.84	0.00	42.84	970.50	246.63	483.22	471.51	16.30	-1.384	0.000	0.111
122.00	-19.20	-2.47	0.00	-40.36	0.00	40.36	964.85	244.47	474.77	464.62	16.59	-1.396	0.000	0.107
123.00	-19.06	-2.46	0.00	-37.89	0.00	37.89	959.16	242.30	466.41	457.76	16.89	-1.408	0.000	0.103
124.00	-18.92	-2.45	0.00	-35.44	0.00	35.44	953.42	240.14	458.11	450.92	17.18	-1.419	0.000	0.099
125.00	-18.79	-2.43	0.00	-32.99	0.00	32.99	947.62	237.97	449.89	444.11	17.48	-1.429	0.000	0.094
126.00	-18.66	-2.42	0.00	-30.56	0.00	30.56	941.77	235.81	441.75	437.32	17.78	-1.440	0.000	0.090
127.00	-18.52	-2.41	0.00	-28.14	0.00	28.14	935.88	233.65	433.67	430.56	18.08	-1.449	0.000	0.085
128.00	-18.39	-2.40	0.00	-25.73	0.00	25.73	929.93	231.48	425.68	423.83	18.39	-1.458	0.000	0.081
129.00	-18.26	-2.39	0.00	-23.33	0.00	23.33	923.93	229.32	417.76	417.13	18.69	-1.467	0.000	0.076
130.00	-11.73	-1.57	0.00	-20.94	0.00	20.94	917.88	227.15	409.91	410.45	19.00	-1.475	0.000	0.064
131.00	-11.63	-1.56	0.00	-19.37	0.00	19.37	911.78	224.99	402.13	403.81	19.31	-1.482	0.000	0.061
132.00	-11.52	-1.55	0.00	-17.81	0.00	17.81	905.63	222.83	394.44	397.19	19.62	-1.489	0.000	0.058
133.00	-11.42	-1.53	0.00	-16.26	0.00	16.26	899.43	220.66	386.81	390.61	19.94	-1.496	0.000	0.054
134.00	-11.31	-1.52	0.00	-14.73	0.00	14.73	893.17	218.50	379.26	384.05	20.25	-1.502	0.000	0.051
135.00	-11.21	-1.51	0.00	-13.21	0.00	13.21	886.87	216.33	371.78	377.53	20.57	-1.508	0.000	0.048
136.00	-11.11	-1.50	0.00	-11.70	0.00	11.70	880.51	214.17	364.38	371.04	20.88	-1.513	0.000	0.044
137.00	-11.01	-1.48	0.00	-10.20	0.00	10.20	874.11	212.00	357.06	364.59	21.20	-1.518	0.000	0.041
138.00	-10.89	-1.47	0.00	-8.72	0.00	8.72	867.65	209.84	349.80	358.17	21.52	-1.522	0.000	0.037
139.00	-10.79	-1.45	0.00	-7.25	0.00	7.25	861.15	207.68	342.63	351.78	21.84	-1.526	0.000	0.033
140.00	-4.57	-0.62	0.00	-5.80	0.00	5.80	854.59	205.51	335.52	345.43	22.16	-1.529	0.000	0.022
141.00	-4.49	-0.60	0.00	-5.18	0.00	5.18	847.98	203.35	328.49	339.11	22.48	-1.532	0.000	0.021
142.00	-4.41	-0.59	0.00	-4.58	0.00	4.58	841.32	201.18	321.54	332.84	22.80	-1.534	0.000	0.019
143.00	-4.33	-0.58	0.00	-3.99	0.00	3.99	834.61	199.02	314.66	326.60	23.12	-1.537	0.000	0.017
144.00	-4.25	-0.57	0.00	-3.40	0.00	3.40	827.84	196.86	307.85	320.39	23.44	-1.539	0.000	0.016
145.00	-4.17	-0.56	0.00	-2.84	0.00	2.84	821.03	194.69	301.12	314.23	23.76	-1.540	0.000	0.014
146.00	-4.09	-0.54	0.00	-2.28	0.00	2.28	814.17	192.53	294.46	308.10	24.09	-1.542	0.000	0.012
147.00	-4.02	-0.53	0.00	-1.73	0.00	1.73	805.87	190.36	287.88	301.50	24.41	-1.543	0.000	0.011
148.00	-3.94	-0.52	0.00	-1.20	0.00	1.20	796.71	188.20	281.37	294.65	24.73	-1.544	0.000	0.009
149.00	0.00	-0.42	0.00	-0.68	0.00	0.68	787.55	186.03	274.94	287.88	25.06	-1.545	0.000	0.002

Seismic Segment Forces (Factored)

Structure:	CT12215-A-SBA	**Code:**	TIA-222-H	2/6/2024	
Site Name:	Litchfield 3 CT	**Exposure:**	B		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 68	

Tower Engineering Solutions

Load Case: 1.2D + 1.0Ev + 1.0Eh

Gust Response Factor	1.10			**Sds**	0.19	**Iterations**	29
Dead Load Factor	1.20	**Seismic Load Factor**	1.00	**Sd1**	0.09	**Ss**	0.18
Wind Load Factor	0.00	**Structure Frequency (f1)**	0.26	**SA**	0.02	**S1**	0.05
						Seismic Importance Factor	1.00

R: 1.50

Top Elev (ft)	Description	Wz (lb)	Hz (lb)	Vertical Ev (lb)	Lateral Fs (lb)
0.00		0.00	0.00	0.00	0.00
1.00		209.24	0.50	8.03	0.00
2.00		208.54	1.50	8.01	0.00
3.00		207.84	2.50	7.98	0.00
4.00		207.14	3.50	7.95	0.00
5.00		206.44	4.50	7.93	0.00
6.00		205.74	5.50	7.90	0.00
7.00		205.04	6.50	7.87	0.00
8.00		204.34	7.50	7.85	0.00
9.00		203.64	8.50	7.82	0.00
10.00		202.95	9.50	7.79	0.00
11.00		202.25	10.50	7.77	0.00
12.00		201.55	11.50	7.74	0.00
13.00		200.85	12.50	7.71	0.00
14.00		200.15	13.50	7.69	0.00
15.00		199.45	14.50	7.66	0.01
16.00		198.75	15.50	7.63	0.01
17.00		198.05	16.50	7.61	0.01
18.00		197.35	17.50	7.58	0.01
19.00		196.65	18.50	7.55	0.01
20.00		195.95	19.50	7.52	0.01
21.00		195.25	20.50	7.50	0.01
22.00		194.55	21.50	7.47	0.01
23.00		193.85	22.50	7.44	0.01
24.00		193.15	23.50	7.42	0.01
25.00		192.45	24.50	7.39	0.01
26.00		191.76	25.50	7.36	0.02
27.00		191.06	26.50	7.34	0.02
28.00		190.36	27.50	7.31	0.02
29.00		189.66	28.50	7.28	0.02
30.00		188.96	29.50	7.26	0.02
31.00		188.26	30.50	7.23	0.02
32.00		187.56	31.50	7.20	0.02
33.00		186.86	32.50	7.18	0.02
34.00		186.16	33.50	7.15	0.02
35.00		185.46	34.50	7.12	0.03
36.00		184.76	35.50	7.09	0.03
37.00		184.06	36.50	7.07	0.03
38.00		183.36	37.50	7.04	0.03
39.00		182.66	38.50	7.01	0.03
40.00		181.96	39.50	6.99	0.03
41.00		181.27	40.50	6.96	0.03
42.00		180.57	41.50	6.93	0.04
43.00		179.87	42.50	6.91	0.04
44.00		179.17	43.50	6.88	0.04
45.00		178.47	44.50	6.85	0.04

Seismic Segment Forces (Factored)

Structure:	CT12215-A-SBA	**Code:**	TIA-222-H	2/6/2024	
Site Name:	Litchfield 3 CT	**Exposure:**	B		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 69	

Tower Engineering Solutions

46.00		177.77	45.50	6.83	0.04
47.00		177.07	46.50	6.80	0.04
47.55	Bot - Section 2	97.68	47.28	3.75	0.01
48.00		124.94	47.78	4.80	0.02
49.00		278.81	48.50	10.71	0.12
50.00	Appurtenance(s)	277.95	49.50	10.67	0.12
51.00		276.10	50.50	10.60	0.12
52.00	RB1 RB2	274.84	51.50	10.55	0.13
52.97	Top - Section 1	265.39	52.48	10.19	0.12
53.00		4.47	52.98	0.17	0.00
54.00		148.79	53.50	5.71	0.04
55.00		148.23	54.50	5.69	0.04
56.00		147.68	55.50	5.67	0.04
57.00		147.12	56.50	5.65	0.04
58.00		146.56	57.50	5.63	0.05
59.00		146.00	58.50	5.61	0.05
60.00		145.44	59.50	5.58	0.05
61.00		144.88	60.50	5.56	0.05
62.00		144.32	61.50	5.54	0.05
63.00		143.76	62.50	5.52	0.05
64.00		143.20	63.50	5.50	0.05
65.00		142.64	64.50	5.48	0.05
66.00		142.08	65.50	5.46	0.06
67.00		141.52	66.50	5.43	0.06
67.92	RB3	129.71	67.46	4.98	0.05
68.00	RT1 RT2	11.26	67.96	0.43	0.00
69.00		140.40	68.50	5.39	0.06
70.00		139.84	69.50	5.37	0.06
71.00		139.28	70.50	5.35	0.06
72.00		138.72	71.50	5.33	0.06
73.00	Appurtenance(s)	148.16	72.50	5.69	0.07
74.00		137.41	73.50	5.28	0.07
75.00	RT3	136.85	74.50	5.26	0.07
76.00		136.29	75.50	5.23	0.07
77.00		135.73	76.50	5.21	0.07
78.00		135.17	77.50	5.19	0.07
79.00		134.62	78.50	5.17	0.07
80.00		134.06	79.50	5.15	0.07
81.00		133.50	80.50	5.13	0.07
82.00		132.94	81.50	5.10	0.07
83.00		132.38	82.50	5.08	0.08
84.00		131.82	83.50	5.06	0.08
85.00		131.26	84.50	5.04	0.08
86.00		130.70	85.50	5.02	0.08
87.00		130.14	86.50	5.00	0.08
88.00		129.58	87.50	4.98	0.08
89.00		129.02	88.50	4.95	0.08
90.00		128.46	89.50	4.93	0.08
91.00		127.90	90.50	4.91	0.09
92.00		127.34	91.50	4.89	0.09
93.00		126.78	92.50	4.87	0.09
94.00		126.22	93.50	4.85	0.09
95.00		125.66	94.50	4.83	0.09
96.00		125.10	95.50	4.80	0.09
96.18	Bot - Section 3	22.04	96.09	0.85	0.00
97.00		150.31	96.59	5.77	0.13
98.00		181.67	97.50	6.98	0.20

Seismic Segment Forces (Factored)

Structure:	CT12215-A-SBA	**Code:**	TIA-222-H	2/6/2024	
Site Name:	Litchfield 3 CT	**Exposure:**	B		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 70	

Tower Engineering Solutions

99.00		180.69	98.50	6.94	0.20	
99.25	RB4	45.02	99.13	1.73	0.01	
100.00		134.69	99.63	5.17	0.11	
100.34	Top - Section 2	61.47	100.17	2.36	0.02	
101.00		68.69	100.67	2.64	0.03	
102.00		104.26	101.50	4.00	0.07	
102.25	RT4	26.00	102.13	1.00	0.00	
103.00		77.84	102.63	2.99	0.04	
104.00		103.42	103.50	3.97	0.07	
105.00		103.00	104.50	3.96	0.07	
106.00		102.58	105.50	3.94	0.07	
107.00		102.16	106.50	3.92	0.08	
108.00		101.74	107.50	3.91	0.08	
109.00		101.32	108.50	3.89	0.08	
110.00		100.90	109.50	3.87	0.08	
111.00		100.48	110.50	3.86	0.08	
112.00		100.07	111.50	3.84	0.08	
113.00		99.65	112.50	3.83	0.08	
114.00		99.23	113.50	3.81	0.08	
115.00	Appurtenance(s)	2704.9	114.50	103.87	61.25	
116.00		94.43	115.50	3.63	0.08	
117.00		94.01	116.50	3.61	0.08	
118.00		93.59	117.50	3.59	0.08	
119.00		93.17	118.50	3.58	0.08	
120.00		92.75	119.50	3.56	0.08	
121.00		92.33	120.50	3.55	0.08	
122.00		91.91	121.50	3.53	0.08	
123.00		91.49	122.50	3.51	0.08	
124.00		91.07	123.50	3.50	0.08	
125.00		90.65	124.50	3.48	0.08	
126.00		90.23	125.50	3.46	0.08	
127.00		89.81	126.50	3.45	0.08	
128.00		89.39	127.50	3.43	0.08	
129.00		88.97	128.50	3.42	0.08	
130.00	Appurtenance(s)	3605.3	129.50	138.44	139.19	
131.00		63.65	130.50	2.44	0.04	
132.00		63.23	131.50	2.43	0.04	
133.00		62.81	132.50	2.41	0.04	
134.00		62.39	133.50	2.40	0.04	
135.00		61.97	134.50	2.38	0.04	
136.00		61.55	135.50	2.36	0.04	
137.00		61.13	136.50	2.35	0.04	
138.00	Appurtenance(s)	70.72	137.50	2.72	0.06	
139.00		60.30	138.50	2.32	0.04	
140.00	Appurtenance(s)	3154.1	139.50	121.12	123.62	
141.00		44.22	140.50	1.70	0.02	
142.00		43.80	141.50	1.68	0.02	
143.00		43.38	142.50	1.67	0.02	
144.00		42.96	143.50	1.65	0.02	
145.00		42.54	144.50	1.63	0.02	
146.00		42.12	145.50	1.62	0.02	
147.00		41.70	146.50	1.60	0.02	
148.00		41.28	147.50	1.59	0.02	
149.00	Appurtenance(s)	2178.7	148.50	83.66	66.84	
	Totals:	**32,580.8**		**1,251.1**	**398.6**	**Total Wind:** **22,378.7**

Calculated Forces

Structure:	CT12215-A-SBA	**Code:**	TIA-222-H	2/6/2024	
Site Name:	Litchfield 3 CT	**Exposure:**	B		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 71	

Tower Engineering Solutions

Load Case: 1.2D + 1.0Ev + 1.0Eh

Gust Response Factor	1.10			**Sds**	0.19			**Iterations**	29
Dead Load Factor	1.20	**Seismic Load Factor**	1.00	**Sd1**	0.09			**Ss**	0.18
Wind Load Factor	0.00	**Structure Frequency (f1)**	0.26	**SA**	0.02	**Seismic Importance Factor**	1.00	**S1**	0.05

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	-39.05	-0.40	0.00	-57.28	0.00	57.28	3031.07	830.09	3284.29	2977.95		0.00	0.00	0.032
1.00	-38.80	-0.40	0.00	-56.89	0.00	56.89	3023.73	826.48	3255.81	2957.74		0.00	0.00	0.032
2.00	-38.55	-0.40	0.00	-56.49	0.00	56.49	3016.33	822.87	3227.46	2937.55		0.00	0.00	0.032
3.00	-38.31	-0.40	0.00	-56.09	0.00	56.09	3008.89	819.26	3199.23	2917.37		0.00	0.00	0.032
4.00	-38.06	-0.40	0.00	-55.70	0.00	55.70	3001.40	815.66	3171.12	2897.21		0.00	0.00	0.032
5.00	-37.81	-0.40	0.00	-55.30	0.00	55.30	2993.85	812.05	3143.13	2877.06		0.00	-0.01	0.032
6.00	-37.57	-0.40	0.00	-54.90	0.00	54.90	2986.25	808.44	3115.27	2856.93		0.00	-0.01	0.032
7.00	-37.32	-0.40	0.00	-54.50	0.00	54.50	2978.60	804.84	3087.54	2836.81		0.01	-0.01	0.032
8.00	-37.08	-0.40	0.00	-54.10	0.00	54.10	2970.91	801.23	3059.93	2816.71		0.01	-0.01	0.032
9.00	-36.84	-0.40	0.00	-53.70	0.00	53.70	2963.16	797.62	3032.44	2796.63		0.01	-0.01	0.032
10.00	-36.60	-0.40	0.00	-53.29	0.00	53.29	2955.36	794.02	3005.07	2776.57		0.01	-0.01	0.032
11.00	-36.36	-0.40	0.00	-52.89	0.00	52.89	2947.51	790.41	2977.83	2756.53		0.02	-0.01	0.032
12.00	-36.12	-0.40	0.00	-52.49	0.00	52.49	2939.60	786.80	2950.72	2736.51		0.02	-0.01	0.031
13.00	-35.88	-0.41	0.00	-52.08	0.00	52.08	2931.65	783.20	2923.73	2716.51		0.02	-0.02	0.031
14.00	-35.64	-0.41	0.00	-51.68	0.00	51.68	2923.65	779.59	2896.86	2696.53		0.03	-0.02	0.031
15.00	-35.40	-0.41	0.00	-51.27	0.00	51.27	2915.59	775.98	2870.11	2676.57		0.03	-0.02	0.031
16.00	-35.17	-0.41	0.00	-50.86	0.00	50.86	2907.49	772.37	2843.49	2656.64		0.03	-0.02	0.031
17.00	-34.93	-0.41	0.00	-50.45	0.00	50.45	2899.33	768.77	2817.00	2636.73		0.04	-0.02	0.031
18.00	-34.70	-0.41	0.00	-50.05	0.00	50.05	2891.12	765.16	2790.63	2616.84		0.04	-0.02	0.031
19.00	-34.46	-0.41	0.00	-49.64	0.00	49.64	2882.86	761.55	2764.38	2596.98		0.05	-0.02	0.031
20.00	-34.23	-0.41	0.00	-49.23	0.00	49.23	2874.56	757.95	2738.25	2577.14		0.05	-0.03	0.031
21.00	-34.00	-0.41	0.00	-48.82	0.00	48.82	2866.20	754.34	2712.25	2557.33		0.06	-0.03	0.031
22.00	-33.77	-0.41	0.00	-48.41	0.00	48.41	2857.79	750.73	2686.38	2537.55		0.06	-0.03	0.031
23.00	-33.54	-0.41	0.00	-47.99	0.00	47.99	2849.32	747.13	2660.63	2517.79		0.07	-0.03	0.031
24.00	-33.31	-0.41	0.00	-47.58	0.00	47.58	2840.81	743.52	2635.00	2498.06		0.08	-0.03	0.031
25.00	-33.08	-0.41	0.00	-47.17	0.00	47.17	2832.25	739.91	2609.50	2478.36		0.08	-0.03	0.031
26.00	-32.85	-0.41	0.00	-46.75	0.00	46.75	2823.63	736.31	2584.12	2458.69		0.09	-0.03	0.031
27.00	-32.62	-0.42	0.00	-46.34	0.00	46.34	2814.97	732.70	2558.86	2439.05		0.10	-0.03	0.031
28.00	-32.40	-0.42	0.00	-45.92	0.00	45.92	2806.25	729.09	2533.73	2419.44		0.10	-0.04	0.031
29.00	-32.17	-0.42	0.00	-45.51	0.00	45.51	2797.49	725.48	2508.72	2399.86		0.11	-0.04	0.030
30.00	-31.95	-0.42	0.00	-45.09	0.00	45.09	2788.67	721.88	2483.84	2380.32		0.12	-0.04	0.030
31.00	-31.72	-0.42	0.00	-44.67	0.00	44.67	2779.80	718.27	2459.08	2360.80		0.13	-0.04	0.030
32.00	-31.50	-0.42	0.00	-44.26	0.00	44.26	2770.88	714.66	2434.44	2341.32		0.14	-0.04	0.030
33.00	-31.28	-0.42	0.00	-43.84	0.00	43.84	2761.91	711.06	2409.93	2321.88		0.15	-0.04	0.030
34.00	-31.06	-0.42	0.00	-43.42	0.00	43.42	2752.89	707.45	2385.54	2302.46		0.15	-0.04	0.030
35.00	-30.84	-0.42	0.00	-43.00	0.00	43.00	2743.82	703.84	2361.28	2283.08		0.16	-0.05	0.030
36.00	-30.62	-0.42	0.00	-42.58	0.00	42.58	2734.69	700.24	2337.14	2263.74		0.17	-0.05	0.030
37.00	-30.40	-0.42	0.00	-42.16	0.00	42.16	2725.52	696.63	2313.13	2244.44		0.18	-0.05	0.030
38.00	-30.18	-0.42	0.00	-41.74	0.00	41.74	2716.29	693.02	2289.23	2225.17		0.20	-0.05	0.030
39.00	-29.97	-0.42	0.00	-41.32	0.00	41.32	2707.02	689.42	2265.47	2205.94		0.21	-0.05	0.030
40.00	-29.75	-0.42	0.00	-40.89	0.00	40.89	2697.69	685.81	2241.82	2186.75		0.22	-0.05	0.030
41.00	-29.54	-0.42	0.00	-40.47	0.00	40.47	2688.32	682.20	2218.30	2167.60		0.23	-0.06	0.030
42.00	-29.32	-0.42	0.00	-40.05	0.00	40.05	2678.89	678.59	2194.91	2148.48		0.24	-0.06	0.030
43.00	-29.11	-0.42	0.00	-39.62	0.00	39.62	2669.41	674.99	2171.64	2129.41		0.25	-0.06	0.030
44.00	-28.90	-0.43	0.00	-39.20	0.00	39.20	2659.88	671.38	2148.49	2110.38		0.26	-0.06	0.029
45.00	-28.69	-0.43	0.00	-38.77	0.00	38.77	2650.30	667.77	2125.47	2091.39		0.28	-0.06	0.029
46.00	-28.48	-0.43	0.00	-38.35	0.00	38.35	2640.67	664.17	2102.57	2072.44		0.29	-0.06	0.029

Calculated Forces

Structure: CT12215-A-SBA
Site Name: Litchfield 3 CT
Height: 149.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1 **Topography:** 1

Code: TIA-222-H
Exposure: B
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

2/6/2024

Tower Engineering Solutions

47.00	-28.27	-0.43	0.00	-37.92	0.00	37.92	2630.98	660.56	2079.79	2053.54	0.30	-0.06	0.029
47.55	-28.15	-0.43	0.00	-37.69	0.00	37.69	2625.60	658.56	2067.24	2043.10	0.31	-0.07	0.029
48.00	-28.00	-0.43	0.00	-37.50	0.00	37.50	2621.25	656.95	2057.14	2034.68	0.32	-0.07	0.029
49.00	-27.67	-0.43	0.00	-37.07	0.00	37.07	2611.47	653.35	2034.61	2015.86	0.33	-0.07	0.029
50.00	-27.33	-0.43	0.00	-36.64	0.00	36.64	2601.63	649.74	2012.21	1997.09	0.35	-0.07	0.029
51.00	-27.00	-0.43	0.00	-36.21	0.00	36.21	2591.74	646.13	1989.93	1978.37	0.36	-0.07	0.029
52.00	-26.67	-0.43	0.00	-35.79	0.00	35.79	2581.81	642.52	1967.78	1959.69	0.38	-0.07	0.014
52.97	-26.35	-0.43	0.00	-35.37	0.00	35.37	1914.68	519.05	1605.21	1470.11	0.39	-0.07	0.016
53.00	-26.34	-0.43	0.00	-35.36	0.00	35.36	1914.50	518.97	1604.67	1469.72	0.39	-0.07	0.017
54.00	-26.17	-0.43	0.00	-34.93	0.00	34.93	1908.40	516.08	1586.88	1456.85	0.41	-0.07	0.017
55.00	-25.99	-0.43	0.00	-34.50	0.00	34.50	1902.26	513.20	1569.18	1443.98	0.42	-0.07	0.017
56.00	-25.82	-0.43	0.00	-34.07	0.00	34.07	1896.06	510.31	1551.58	1431.13	0.44	-0.08	0.017
57.00	-25.65	-0.43	0.00	-33.65	0.00	33.65	1889.81	507.43	1534.09	1418.29	0.45	-0.08	0.016
58.00	-25.48	-0.43	0.00	-33.22	0.00	33.22	1883.51	504.54	1516.69	1405.47	0.47	-0.08	0.016
59.00	-25.31	-0.43	0.00	-32.79	0.00	32.79	1877.16	501.65	1499.39	1392.67	0.49	-0.08	0.016
60.00	-25.14	-0.43	0.00	-32.36	0.00	32.36	1870.76	498.77	1482.19	1379.88	0.50	-0.08	0.016
61.00	-24.97	-0.43	0.00	-31.93	0.00	31.93	1864.31	495.88	1465.09	1367.11	0.52	-0.08	0.016
62.00	-24.80	-0.43	0.00	-31.50	0.00	31.50	1857.80	493.00	1448.09	1354.36	0.54	-0.08	0.016
63.00	-24.63	-0.43	0.00	-31.08	0.00	31.08	1851.25	490.11	1431.19	1341.63	0.55	-0.08	0.016
64.00	-24.46	-0.43	0.00	-30.65	0.00	30.65	1844.65	487.23	1414.38	1328.91	0.57	-0.08	0.016
65.00	-24.29	-0.43	0.00	-30.22	0.00	30.22	1837.99	484.34	1397.68	1316.22	0.59	-0.08	0.016
66.00	-24.13	-0.43	0.00	-29.79	0.00	29.79	1831.29	481.46	1381.08	1303.55	0.61	-0.08	0.015
67.00	-23.96	-0.43	0.00	-29.36	0.00	29.36	1824.53	478.57	1364.57	1290.90	0.62	-0.09	0.015
67.92	-23.81	-0.43	0.00	-28.96	0.00	28.96	1818.27	475.91	1349.47	1279.28	0.64	-0.09	0.015
68.00	-23.80	-0.43	0.00	-28.93	0.00	28.93	1817.72	475.68	1348.17	1278.27	0.64	-0.09	0.012
69.00	-23.63	-0.43	0.00	-28.50	0.00	28.50	1810.86	472.80	1331.86	1265.67	0.66	-0.09	0.021
70.00	-23.47	-0.43	0.00	-28.07	0.00	28.07	1803.95	469.91	1315.65	1253.09	0.68	-0.09	0.021
71.00	-23.31	-0.43	0.00	-27.64	0.00	27.64	1796.99	467.03	1299.54	1240.53	0.70	-0.09	0.021
72.00	-23.14	-0.43	0.00	-27.21	0.00	27.21	1789.98	464.14	1283.53	1228.00	0.72	-0.09	0.021
73.00	-22.97	-0.43	0.00	-26.78	0.00	26.78	1782.92	461.26	1267.62	1215.49	0.73	-0.09	0.021
74.00	-22.81	-0.43	0.00	-26.35	0.00	26.35	1775.81	458.37	1251.81	1203.02	0.75	-0.09	0.021
75.00	-22.65	-0.43	0.00	-25.92	0.00	25.92	1768.64	455.49	1236.10	1190.56	0.77	-0.09	0.021
76.00	-22.49	-0.43	0.00	-25.49	0.00	25.49	1761.43	452.60	1220.49	1178.14	0.79	-0.10	0.034
77.00	-22.33	-0.43	0.00	-25.06	0.00	25.06	1754.16	449.71	1204.98	1165.74	0.81	-0.10	0.034
78.00	-22.18	-0.43	0.00	-24.63	0.00	24.63	1746.84	446.83	1189.56	1153.37	0.83	-0.10	0.034
79.00	-22.02	-0.43	0.00	-24.20	0.00	24.20	1739.48	443.94	1174.25	1141.03	0.85	-0.10	0.034
80.00	-21.86	-0.43	0.00	-23.77	0.00	23.77	1732.06	441.06	1159.03	1128.72	0.88	-0.10	0.034
81.00	-21.71	-0.43	0.00	-23.33	0.00	23.33	1724.59	438.17	1143.92	1116.45	0.90	-0.11	0.033
82.00	-21.55	-0.43	0.00	-22.90	0.00	22.90	1717.07	435.29	1128.90	1104.20	0.92	-0.11	0.033
83.00	-21.40	-0.43	0.00	-22.47	0.00	22.47	1709.50	432.40	1113.98	1091.99	0.94	-0.11	0.033
84.00	-21.24	-0.43	0.00	-22.03	0.00	22.03	1701.88	429.52	1099.17	1079.81	0.97	-0.11	0.033
85.00	-21.09	-0.43	0.00	-21.60	0.00	21.60	1694.20	426.63	1084.45	1067.66	0.99	-0.11	0.033
86.00	-20.94	-0.44	0.00	-21.16	0.00	21.16	1686.48	423.74	1069.83	1055.54	1.01	-0.12	0.032
87.00	-20.79	-0.44	0.00	-20.73	0.00	20.73	1678.71	420.86	1055.31	1043.46	1.04	-0.12	0.032
88.00	-20.64	-0.44	0.00	-20.29	0.00	20.29	1670.88	417.97	1040.88	1031.42	1.06	-0.12	0.032
89.00	-20.49	-0.44	0.00	-19.86	0.00	19.86	1663.00	415.09	1026.56	1019.41	1.09	-0.12	0.032
90.00	-20.34	-0.44	0.00	-19.42	0.00	19.42	1655.08	412.20	1012.34	1007.44	1.12	-0.12	0.032
91.00	-20.19	-0.44	0.00	-18.98	0.00	18.98	1647.10	409.32	998.22	995.51	1.14	-0.13	0.031
92.00	-20.04	-0.44	0.00	-18.55	0.00	18.55	1639.07	406.43	984.19	983.61	1.17	-0.13	0.031
93.00	-19.89	-0.44	0.00	-18.11	0.00	18.11	1630.99	403.55	970.27	971.76	1.20	-0.13	0.031
94.00	-19.75	-0.44	0.00	-17.67	0.00	17.67	1622.86	400.66	956.44	959.94	1.22	-0.13	0.031
95.00	-19.60	-0.44	0.00	-17.23	0.00	17.23	1614.68	397.77	942.71	948.16	1.25	-0.14	0.030
96.00	-19.45	-0.44	0.00	-16.80	0.00	16.80	1606.45	394.89	929.08	936.43	1.28	-0.14	0.030
96.18	-19.43	-0.44	0.00	-16.72	0.00	16.72	1604.99	394.38	926.69	934.36	1.29	-0.14	0.030
97.00	-19.25	-0.44	0.00	-16.36	0.00	16.36	1598.16	392.00	915.56	924.73	1.31	-0.14	0.030
98.00	-19.03	-0.44	0.00	-15.92	0.00	15.92	1589.83	389.12	902.13	913.08	1.34	-0.14	0.029
99.00	-18.82	-0.44	0.00	-15.48	0.00	15.48	1581.44	386.23	888.80	901.47	1.37	-0.14	0.029

Calculated Forces

Structure:	CT12215-A-SBA	**Code:**	TIA-222-H	2/6/2024	
Site Name:	Litchfield 3 CT	**Exposure:**	B		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 73	

Tower Engineering Solutions

99.25	-18.77	-0.44	0.00	-15.37	0.00	15.37	1579.34	385.51	885.48	898.57	1.38	-0.14	0.017
100.00	-18.61	-0.44	0.00	-15.04	0.00	15.04	1573.01	383.35	875.57	889.90	1.40	-0.14	0.017
100.34	-18.53	-0.44	0.00	-14.89	0.00	14.89	1075.68	291.34	674.27	618.09	1.41	-0.15	0.018
101.00	-18.46	-0.44	0.00	-14.60	0.00	14.60	1072.67	289.91	667.71	613.33	1.43	-0.15	0.021
102.00	-18.34	-0.44	0.00	-14.16	0.00	14.16	1068.04	287.75	657.78	606.10	1.46	-0.15	0.021
102.25	-18.31	-0.44	0.00	-14.05	0.00	14.05	1066.88	287.21	655.30	604.29	1.47	-0.15	0.021
102.25	-18.31	-0.44	0.00	-14.05	0.00	14.05	1066.88	287.21	655.30	604.29	1.47	-0.15	0.032
103.00	-18.22	-0.44	0.00	-13.73	0.00	13.73	1063.37	285.59	647.92	598.87	1.49	-0.15	0.040
104.00	-18.10	-0.44	0.00	-13.29	0.00	13.29	1058.64	283.42	638.14	591.66	1.52	-0.15	0.040
105.00	-17.98	-0.44	0.00	-12.85	0.00	12.85	1053.86	281.26	628.43	584.47	1.55	-0.15	0.039
106.00	-17.86	-0.44	0.00	-12.41	0.00	12.41	1049.03	279.09	618.79	577.28	1.59	-0.16	0.039
107.00	-17.75	-0.44	0.00	-11.97	0.00	11.97	1044.15	276.93	609.23	570.11	1.62	-0.16	0.038
108.00	-17.63	-0.44	0.00	-11.53	0.00	11.53	1039.22	274.77	599.75	562.95	1.65	-0.16	0.037
109.00	-17.51	-0.44	0.00	-11.09	0.00	11.09	1034.24	272.60	590.34	555.81	1.69	-0.16	0.037
110.00	-17.40	-0.44	0.00	-10.64	0.00	10.64	1029.21	270.44	581.00	548.68	1.72	-0.17	0.036
111.00	-17.28	-0.44	0.00	-10.20	0.00	10.20	1024.13	268.27	571.74	541.57	1.76	-0.17	0.036
112.00	-17.17	-0.44	0.00	-9.76	0.00	9.76	1018.99	266.11	562.55	534.48	1.79	-0.17	0.035
113.00	-17.06	-0.44	0.00	-9.32	0.00	9.32	1013.81	263.94	553.44	527.40	1.83	-0.17	0.034
114.00	-16.94	-0.44	0.00	-8.88	0.00	8.88	1008.57	261.78	544.40	520.34	1.86	-0.17	0.034
115.00	-13.60	-0.37	0.00	-8.43	0.00	8.43	1003.28	259.62	535.44	513.31	1.90	-0.18	0.030
116.00	-13.50	-0.37	0.00	-8.06	0.00	8.06	997.95	257.45	526.55	506.29	1.94	-0.18	0.029
117.00	-13.39	-0.37	0.00	-7.69	0.00	7.69	992.56	255.29	517.73	499.29	1.98	-0.18	0.029
118.00	-13.28	-0.37	0.00	-7.32	0.00	7.32	987.12	253.12	508.99	492.31	2.01	-0.18	0.028
119.00	-13.17	-0.37	0.00	-6.95	0.00	6.95	981.63	250.96	500.33	485.36	2.05	-0.18	0.028
120.00	-13.07	-0.37	0.00	-6.58	0.00	6.58	976.09	248.80	491.73	478.42	2.09	-0.19	0.027
121.00	-12.96	-0.37	0.00	-6.20	0.00	6.20	970.50	246.63	483.22	471.51	2.13	-0.19	0.027
122.00	-12.86	-0.37	0.00	-5.83	0.00	5.83	964.85	244.47	474.77	464.62	2.17	-0.19	0.026
123.00	-12.75	-0.37	0.00	-5.46	0.00	5.46	959.16	242.30	466.41	457.76	2.21	-0.19	0.025
124.00	-12.65	-0.37	0.00	-5.09	0.00	5.09	953.42	240.14	458.11	450.92	2.25	-0.19	0.025
125.00	-12.55	-0.37	0.00	-4.72	0.00	4.72	947.62	237.97	449.89	444.11	2.29	-0.19	0.024
126.00	-12.44	-0.37	0.00	-4.34	0.00	4.34	941.77	235.81	441.75	437.32	2.33	-0.20	0.023
127.00	-12.34	-0.37	0.00	-3.97	0.00	3.97	935.88	233.65	433.67	430.56	2.37	-0.20	0.022
128.00	-12.24	-0.37	0.00	-3.60	0.00	3.60	929.93	231.48	425.68	423.83	2.41	-0.20	0.022
129.00	-12.14	-0.37	0.00	-3.23	0.00	3.23	923.93	229.32	417.76	417.13	2.46	-0.20	0.021
130.00	-7.68	-0.22	0.00	-2.86	0.00	2.86	917.88	227.15	409.91	410.45	2.50	-0.20	0.015
131.00	-7.61	-0.22	0.00	-2.64	0.00	2.64	911.78	224.99	402.13	403.81	2.54	-0.20	0.015
132.00	-7.53	-0.22	0.00	-2.42	0.00	2.42	905.63	222.83	394.44	397.19	2.58	-0.20	0.014
133.00	-7.46	-0.22	0.00	-2.21	0.00	2.21	899.43	220.66	386.81	390.61	2.62	-0.20	0.014
134.00	-7.39	-0.22	0.00	-1.99	0.00	1.99	893.17	218.50	379.26	384.05	2.67	-0.20	0.013
135.00	-7.31	-0.22	0.00	-1.77	0.00	1.77	886.87	216.33	371.78	377.53	2.71	-0.21	0.013
136.00	-7.24	-0.22	0.00	-1.56	0.00	1.56	880.51	214.17	364.38	371.04	2.75	-0.21	0.012
137.00	-7.17	-0.22	0.00	-1.34	0.00	1.34	874.11	212.00	357.06	364.59	2.80	-0.21	0.012
138.00	-7.09	-0.22	0.00	-1.13	0.00	1.13	867.65	209.84	349.80	358.17	2.84	-0.21	0.011
139.00	-7.01	-0.22	0.00	-0.91	0.00	0.91	861.15	207.68	342.63	351.78	2.88	-0.21	0.011
140.00	-3.11	-0.08	0.00	-0.69	0.00	0.69	854.59	205.51	335.52	345.43	2.93	-0.21	0.006
141.00	-3.06	-0.08	0.00	-0.62	0.00	0.62	847.98	203.35	328.49	339.11	2.97	-0.21	0.005
142.00	-3.01	-0.08	0.00	-0.54	0.00	0.54	841.32	201.18	321.54	332.84	3.01	-0.21	0.005
143.00	-2.95	-0.08	0.00	-0.46	0.00	0.46	834.61	199.02	314.66	326.60	3.06	-0.21	0.005
144.00	-2.90	-0.08	0.00	-0.38	0.00	0.38	827.84	196.86	307.85	320.39	3.10	-0.21	0.005
145.00	-2.85	-0.08	0.00	-0.31	0.00	0.31	821.03	194.69	301.12	314.23	3.14	-0.21	0.004
146.00	-2.80	-0.08	0.00	-0.23	0.00	0.23	814.17	192.53	294.46	308.10	3.19	-0.21	0.004
147.00	-2.75	-0.08	0.00	-0.15	0.00	0.15	805.87	190.36	287.88	301.50	3.23	-0.21	0.004
148.00	-2.70	-0.08	0.00	-0.08	0.00	0.08	796.71	188.20	281.37	294.65	3.28	-0.21	0.004
149.00	0.00	-0.07	0.00	0.00	0.00	0.00	787.55	186.03	274.94	287.88	3.32	-0.21	0.000

Seismic Segment Forces (Factored)

Structure:	CT12215-A-SBA	**Code:**	TIA-222-H	2/6/2024	
Site Name:	Litchfield 3 CT	**Exposure:**	B		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 74	

Tower Engineering Solutions

Load Case: 0.9D + 1.0Ev + 1.0Eh

Gust Response Factor	1.10			**Sds**	0.19	**Iterations**	29
Dead Load Factor	0.90	**Seismic Load Factor**	1.00	**Sd1**	0.09	**Ss**	0.18
Wind Load Factor	0.00	**Structure Frequency (f1)**	0.26	**SA**	0.02	**S1**	0.05
						Seismic Importance Factor	1.00

R: 1.50

Top Elev (ft)	Description	Wz (lb)	Hz (lb)	Vertical Ev (lb)	Lateral Fs (lb)
0.00		0.00	0.00	0.00	0.00
1.00		197.08	0.50	7.57	0.00
2.00		196.38	1.50	7.54	0.00
3.00		195.68	2.50	7.51	0.00
4.00		194.98	3.50	7.49	0.00
5.00		194.28	4.50	7.46	0.00
6.00		193.58	5.50	7.43	0.00
7.00		192.88	6.50	7.41	0.00
8.00		192.18	7.50	7.38	0.00
9.00		191.48	8.50	7.35	0.00
10.00		190.78	9.50	7.33	0.00
11.00		190.08	10.50	7.30	0.00
12.00		189.39	11.50	7.27	0.00
13.00		188.69	12.50	7.25	0.00
14.00		187.99	13.50	7.22	0.00
15.00		187.29	14.50	7.19	0.00
16.00		186.59	15.50	7.16	0.01
17.00		185.89	16.50	7.14	0.01
18.00		185.19	17.50	7.11	0.01
19.00		184.49	18.50	7.08	0.01
20.00		183.79	19.50	7.06	0.01
21.00		183.09	20.50	7.03	0.01
22.00		182.39	21.50	7.00	0.01
23.00		181.69	22.50	6.98	0.01
24.00		180.99	23.50	6.95	0.01
25.00		180.29	24.50	6.92	0.01
26.00		179.59	25.50	6.90	0.01
27.00		178.90	26.50	6.87	0.01
28.00		178.20	27.50	6.84	0.02
29.00		177.50	28.50	6.82	0.02
30.00		176.80	29.50	6.79	0.02
31.00		176.10	30.50	6.76	0.02
32.00		175.40	31.50	6.74	0.02
33.00		174.70	32.50	6.71	0.02
34.00		174.00	33.50	6.68	0.02
35.00		173.30	34.50	6.65	0.02
36.00		172.60	35.50	6.63	0.02
37.00		171.90	36.50	6.60	0.03
38.00		171.20	37.50	6.57	0.03
39.00		170.50	38.50	6.55	0.03
40.00		169.80	39.50	6.52	0.03
41.00		169.10	40.50	6.49	0.03
42.00		168.41	41.50	6.47	0.03
43.00		167.71	42.50	6.44	0.03
44.00		167.01	43.50	6.41	0.03
45.00		166.31	44.50	6.39	0.04

Seismic Segment Forces (Factored)

Structure:	CT12215-A-SBA	**Code:**	TIA-222-H	2/6/2024	
Site Name:	Litchfield 3 CT	**Exposure:**	B		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 75	

Tower Engineering Solutions

46.00		165.61	45.50	6.36	0.04
47.00		164.91	46.50	6.33	0.04
47.55	Bot - Section 2	90.95	47.28	3.49	0.01
48.00		119.51	47.78	4.59	0.02
49.00		266.65	48.50	10.24	0.11
50.00	Appurtenance(s)	265.79	49.50	10.21	0.11
51.00		263.99	50.50	10.14	0.11
52.00	RB1 RB2	262.73	51.50	10.09	0.12
52.97	Top - Section 1	253.64	52.48	9.74	0.11
53.00		4.11	52.98	0.16	0.00
54.00		136.68	53.50	5.25	0.03
55.00		136.12	54.50	5.23	0.04
56.00		135.56	55.50	5.21	0.04
57.00		135.00	56.50	5.18	0.04
58.00		134.44	57.50	5.16	0.04
59.00		133.88	58.50	5.14	0.04
60.00		133.32	59.50	5.12	0.04
61.00		132.77	60.50	5.10	0.04
62.00		132.21	61.50	5.08	0.04
63.00		131.65	62.50	5.06	0.04
64.00		131.09	63.50	5.03	0.04
65.00		130.53	64.50	5.01	0.05
66.00		129.97	65.50	4.99	0.05
67.00		129.41	66.50	4.97	0.05
67.92	RB3	118.56	67.46	4.55	0.04
68.00	RT1 RT2	10.29	67.96	0.40	0.00
69.00		128.29	68.50	4.93	0.05
70.00		127.73	69.50	4.90	0.05
71.00		127.17	70.50	4.88	0.05
72.00		126.61	71.50	4.86	0.05
73.00	Appurtenance(s)	136.05	72.50	5.22	0.06
74.00		125.35	73.50	4.81	0.05
75.00	RT3	124.79	74.50	4.79	0.06
76.00		124.23	75.50	4.77	0.06
77.00		123.67	76.50	4.75	0.06
78.00		123.11	77.50	4.73	0.06
79.00		122.55	78.50	4.71	0.06
80.00		121.99	79.50	4.68	0.06
81.00		121.43	80.50	4.66	0.06
82.00		120.87	81.50	4.64	0.06
83.00		120.31	82.50	4.62	0.06
84.00		119.75	83.50	4.60	0.06
85.00		119.19	84.50	4.58	0.07
86.00		118.63	85.50	4.56	0.07
87.00		118.07	86.50	4.53	0.07
88.00		117.52	87.50	4.51	0.07
89.00		116.96	88.50	4.49	0.07
90.00		116.40	89.50	4.47	0.07
91.00		115.84	90.50	4.45	0.07
92.00		115.28	91.50	4.43	0.07
93.00		114.72	92.50	4.41	0.07
94.00		114.16	93.50	4.38	0.07
95.00		113.60	94.50	4.36	0.07
96.00		113.04	95.50	4.34	0.08
96.18	Bot - Section 3	19.91	96.09	0.76	0.00
97.00		140.37	96.59	5.39	0.12
98.00		169.60	97.50	6.51	0.18

Seismic Segment Forces (Factored)

Structure:	CT12215-A-SBA	**Code:**	TIA-222-H	2/6/2024	
Site Name:	Litchfield 3 CT	**Exposure:**	B		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 76	

99.00		168.62	98.50	6.48	0.18	
99.25	RB4	42.00	99.13	1.61	0.01	
100.00		125.64	99.63	4.82	0.10	
100.34	Top - Section 2	57.33	100.17	2.20	0.02	
101.00		60.77	100.67	2.33	0.02	
102.00		92.20	101.50	3.54	0.06	
102.25	RT4	22.98	102.13	0.88	0.00	
103.00		68.79	102.63	2.64	0.03	
104.00		91.36	103.50	3.51	0.06	
105.00		90.94	104.50	3.49	0.06	
106.00		90.52	105.50	3.48	0.06	
107.00		90.10	106.50	3.46	0.06	
108.00		89.68	107.50	3.44	0.06	
109.00		89.26	108.50	3.43	0.06	
110.00		88.84	109.50	3.41	0.06	
111.00		88.42	110.50	3.40	0.06	
112.00		88.00	111.50	3.38	0.06	
113.00		87.58	112.50	3.36	0.06	
114.00		87.16	113.50	3.35	0.06	
115.00	Appurtenance(s)	2692.8	114.50	103.41	61.18	
116.00		83.35	115.50	3.20	0.06	
117.00		82.93	116.50	3.18	0.06	
118.00		82.51	117.50	3.17	0.06	
119.00		82.09	118.50	3.15	0.06	
120.00		81.67	119.50	3.14	0.06	
121.00		81.25	120.50	3.12	0.06	
122.00		80.83	121.50	3.10	0.06	
123.00		80.41	122.50	3.09	0.06	
124.00		79.99	123.50	3.07	0.06	
125.00		79.58	124.50	3.06	0.06	
126.00		79.16	125.50	3.04	0.06	
127.00		78.74	126.50	3.02	0.06	
128.00		78.32	127.50	3.01	0.06	
129.00		77.90	128.50	2.99	0.06	
130.00	Appurtenance(s)	3594.2	129.50	138.02	139.43	
131.00		58.70	130.50	2.25	0.04	
132.00		58.28	131.50	2.24	0.04	
133.00		57.86	132.50	2.22	0.04	
134.00		57.44	133.50	2.21	0.04	
135.00		57.02	134.50	2.19	0.04	
136.00		56.60	135.50	2.17	0.04	
137.00		56.18	136.50	2.16	0.04	
138.00	Appurtenance(s)	65.76	137.50	2.53	0.05	
139.00		55.34	138.50	2.13	0.04	
140.00	Appurtenance(s)	3149.1	139.50	120.93	124.21	
141.00		43.07	140.50	1.65	0.02	
142.00		42.65	141.50	1.64	0.02	
143.00		42.23	142.50	1.62	0.02	
144.00		41.81	143.50	1.61	0.02	
145.00		41.39	144.50	1.59	0.02	
146.00		40.97	145.50	1.57	0.02	
147.00		40.55	146.50	1.56	0.02	
148.00		40.13	147.50	1.54	0.02	
149.00	Appurtenance(s)	2177.6	148.50	83.62	67.30	
	Totals:	**30,961.5**		**1,188.9**	**398.6**	**Total Wind:** **22,378.7**

Calculated Forces

Structure:	CT12215-A-SBA	**Code:**	TIA-222-H	2/6/2024	
Site Name:	Litchfield 3 CT	**Exposure:**	B		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 77	

Tower Engineering Solutions

Load Case: 0.9D + 1.0Ev + 1.0Eh

Gust Response Factor	1.10			**Sds**	0.19			**Iterations**	29
Dead Load Factor	0.90	**Seismic Load Factor**	1.00	**Sd1**	0.09			**Ss**	0.18
Wind Load Factor	0.00	**Structure Frequency (f1)**	0.26	**SA**	0.02	**Seismic Importance Factor**	1.00	**S1**	0.05

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	-29.54	-0.40	0.00	-56.19	0.00	56.19	3031.07	830.09	3284.29	2977.95		0.00	0.00	0.029
1.00	-29.35	-0.40	0.00	-55.80	0.00	55.80	3023.73	826.48	3255.81	2957.74		0.00	0.00	0.029
2.00	-29.16	-0.40	0.00	-55.40	0.00	55.40	3016.33	822.87	3227.46	2937.55		0.00	0.00	0.029
3.00	-28.98	-0.40	0.00	-55.00	0.00	55.00	3008.89	819.26	3199.23	2917.37		0.00	0.00	0.028
4.00	-28.79	-0.40	0.00	-54.60	0.00	54.60	3001.40	815.66	3171.12	2897.21		0.00	0.00	0.028
5.00	-28.60	-0.40	0.00	-54.21	0.00	54.21	2993.85	812.05	3143.13	2877.06		0.00	-0.01	0.028
6.00	-28.42	-0.40	0.00	-53.81	0.00	53.81	2986.25	808.44	3115.27	2856.93		0.00	-0.01	0.028
7.00	-28.23	-0.40	0.00	-53.41	0.00	53.41	2978.60	804.84	3087.54	2836.81		0.01	-0.01	0.028
8.00	-28.05	-0.40	0.00	-53.01	0.00	53.01	2970.91	801.23	3059.93	2816.71		0.01	-0.01	0.028
9.00	-27.87	-0.40	0.00	-52.61	0.00	52.61	2963.16	797.62	3032.44	2796.63		0.01	-0.01	0.028
10.00	-27.68	-0.40	0.00	-52.21	0.00	52.21	2955.36	794.02	3005.07	2776.57		0.01	-0.01	0.028
11.00	-27.50	-0.40	0.00	-51.81	0.00	51.81	2947.51	790.41	2977.83	2756.53		0.02	-0.01	0.028
12.00	-27.32	-0.40	0.00	-51.40	0.00	51.40	2939.60	786.80	2950.72	2736.51		0.02	-0.01	0.028
13.00	-27.14	-0.40	0.00	-51.00	0.00	51.00	2931.65	783.20	2923.73	2716.51		0.02	-0.02	0.028
14.00	-26.96	-0.40	0.00	-50.60	0.00	50.60	2923.65	779.59	2896.86	2696.53		0.02	-0.02	0.028
15.00	-26.78	-0.40	0.00	-50.19	0.00	50.19	2915.59	775.98	2870.11	2676.57		0.03	-0.02	0.028
16.00	-26.60	-0.40	0.00	-49.79	0.00	49.79	2907.49	772.37	2843.49	2656.64		0.03	-0.02	0.028
17.00	-26.42	-0.41	0.00	-49.38	0.00	49.38	2899.33	768.77	2817.00	2636.73		0.04	-0.02	0.028
18.00	-26.25	-0.41	0.00	-48.98	0.00	48.98	2891.12	765.16	2790.63	2616.84		0.04	-0.02	0.028
19.00	-26.07	-0.41	0.00	-48.57	0.00	48.57	2882.86	761.55	2764.38	2596.98		0.05	-0.02	0.028
20.00	-25.89	-0.41	0.00	-48.17	0.00	48.17	2874.56	757.95	2738.25	2577.14		0.05	-0.02	0.028
21.00	-25.72	-0.41	0.00	-47.76	0.00	47.76	2866.20	754.34	2712.25	2557.33		0.06	-0.03	0.028
22.00	-25.54	-0.41	0.00	-47.35	0.00	47.35	2857.79	750.73	2686.38	2537.55		0.06	-0.03	0.028
23.00	-25.37	-0.41	0.00	-46.94	0.00	46.94	2849.32	747.13	2660.63	2517.79		0.07	-0.03	0.028
24.00	-25.19	-0.41	0.00	-46.54	0.00	46.54	2840.81	743.52	2635.00	2498.06		0.07	-0.03	0.027
25.00	-25.02	-0.41	0.00	-46.13	0.00	46.13	2832.25	739.91	2609.50	2478.36		0.08	-0.03	0.027
26.00	-24.85	-0.41	0.00	-45.72	0.00	45.72	2823.63	736.31	2584.12	2458.69		0.09	-0.03	0.027
27.00	-24.68	-0.41	0.00	-45.31	0.00	45.31	2814.97	732.70	2558.86	2439.05		0.09	-0.03	0.027
28.00	-24.51	-0.41	0.00	-44.90	0.00	44.90	2806.25	729.09	2533.73	2419.44		0.10	-0.04	0.027
29.00	-24.34	-0.41	0.00	-44.49	0.00	44.49	2797.49	725.48	2508.72	2399.86		0.11	-0.04	0.027
30.00	-24.17	-0.41	0.00	-44.08	0.00	44.08	2788.67	721.88	2483.84	2380.32		0.12	-0.04	0.027
31.00	-24.00	-0.41	0.00	-43.66	0.00	43.66	2779.80	718.27	2459.08	2360.80		0.13	-0.04	0.027
32.00	-23.83	-0.41	0.00	-43.25	0.00	43.25	2770.88	714.66	2434.44	2341.32		0.13	-0.04	0.027
33.00	-23.66	-0.41	0.00	-42.84	0.00	42.84	2761.91	711.06	2409.93	2321.88		0.14	-0.04	0.027
34.00	-23.50	-0.41	0.00	-42.43	0.00	42.43	2752.89	707.45	2385.54	2302.46		0.15	-0.04	0.027
35.00	-23.33	-0.41	0.00	-42.01	0.00	42.01	2743.82	703.84	2361.28	2283.08		0.16	-0.05	0.027
36.00	-23.16	-0.41	0.00	-41.60	0.00	41.60	2734.69	700.24	2337.14	2263.74		0.17	-0.05	0.027
37.00	-23.00	-0.41	0.00	-41.18	0.00	41.18	2725.52	696.63	2313.13	2244.44		0.18	-0.05	0.027
38.00	-22.83	-0.42	0.00	-40.77	0.00	40.77	2716.29	693.02	2289.23	2225.17		0.19	-0.05	0.027
39.00	-22.67	-0.42	0.00	-40.35	0.00	40.35	2707.02	689.42	2265.47	2205.94		0.20	-0.05	0.027
40.00	-22.51	-0.42	0.00	-39.94	0.00	39.94	2697.69	685.81	2241.82	2186.75		0.21	-0.05	0.027
41.00	-22.35	-0.42	0.00	-39.52	0.00	39.52	2688.32	682.20	2218.30	2167.60		0.22	-0.05	0.027
42.00	-22.18	-0.42	0.00	-39.11	0.00	39.11	2678.89	678.59	2194.91	2148.48		0.24	-0.06	0.026
43.00	-22.02	-0.42	0.00	-38.69	0.00	38.69	2669.41	674.99	2171.64	2129.41		0.25	-0.06	0.026
44.00	-21.86	-0.42	0.00	-38.27	0.00	38.27	2659.88	671.38	2148.49	2110.38		0.26	-0.06	0.026
45.00	-21.70	-0.42	0.00	-37.85	0.00	37.85	2650.30	667.77	2125.47	2091.39		0.27	-0.06	0.026
46.00	-21.54	-0.42	0.00	-37.44	0.00	37.44	2640.67	664.17	2102.57	2072.44		0.28	-0.06	0.026

Calculated Forces

Structure: CT12215-A-SBA
Site Name: Litchfield 3 CT
Height: 149.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1 **Topography:** 1

Code: TIA-222-H
Exposure: B
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

2/6/2024

Tower Engineering Solutions

47.00	-21.39	-0.42	0.00	-37.02	0.00	37.02	2630.98	660.56	2079.79	2053.54	0.30	-0.06	0.026
47.55	-21.30	-0.42	0.00	-36.79	0.00	36.79	2625.60	658.56	2067.24	2043.10	0.30	-0.06	0.026
48.00	-21.18	-0.42	0.00	-36.60	0.00	36.60	2621.25	656.95	2057.14	2034.68	0.31	-0.06	0.026
49.00	-20.93	-0.42	0.00	-36.18	0.00	36.18	2611.47	653.35	2034.61	2015.86	0.32	-0.07	0.026
50.00	-20.68	-0.42	0.00	-35.76	0.00	35.76	2601.63	649.74	2012.21	1997.09	0.34	-0.07	0.026
51.00	-20.43	-0.42	0.00	-35.34	0.00	35.34	2591.74	646.13	1989.93	1978.37	0.35	-0.07	0.026
52.00	-20.18	-0.42	0.00	-34.92	0.00	34.92	2581.81	642.52	1967.78	1959.69	0.37	-0.07	0.013
52.97	-19.93	-0.42	0.00	-34.52	0.00	34.52	1914.68	519.05	1605.21	1470.11	0.38	-0.07	0.014
53.00	-19.93	-0.42	0.00	-34.50	0.00	34.50	1914.50	518.97	1604.67	1469.72	0.38	-0.07	0.015
54.00	-19.80	-0.42	0.00	-34.08	0.00	34.08	1908.40	516.08	1586.88	1456.85	0.40	-0.07	0.015
55.00	-19.67	-0.42	0.00	-33.66	0.00	33.66	1902.26	513.20	1569.18	1443.98	0.41	-0.07	0.015
56.00	-19.54	-0.42	0.00	-33.24	0.00	33.24	1896.06	510.31	1551.58	1431.13	0.43	-0.07	0.015
57.00	-19.41	-0.42	0.00	-32.82	0.00	32.82	1889.81	507.43	1534.09	1418.29	0.44	-0.07	0.015
58.00	-19.28	-0.42	0.00	-32.40	0.00	32.40	1883.51	504.54	1516.69	1405.47	0.46	-0.08	0.015
59.00	-19.15	-0.42	0.00	-31.99	0.00	31.99	1877.16	501.65	1499.39	1392.67	0.48	-0.08	0.015
60.00	-19.02	-0.42	0.00	-31.57	0.00	31.57	1870.76	498.77	1482.19	1379.88	0.49	-0.08	0.014
61.00	-18.89	-0.42	0.00	-31.15	0.00	31.15	1864.31	495.88	1465.09	1367.11	0.51	-0.08	0.014
62.00	-18.76	-0.42	0.00	-30.73	0.00	30.73	1857.80	493.00	1448.09	1354.36	0.52	-0.08	0.014
63.00	-18.63	-0.42	0.00	-30.31	0.00	30.31	1851.25	490.11	1431.19	1341.63	0.54	-0.08	0.014
64.00	-18.51	-0.42	0.00	-29.88	0.00	29.88	1844.65	487.23	1414.38	1328.91	0.56	-0.08	0.014
65.00	-18.38	-0.42	0.00	-29.46	0.00	29.46	1837.99	484.34	1397.68	1316.22	0.58	-0.08	0.014
66.00	-18.26	-0.42	0.00	-29.04	0.00	29.04	1831.29	481.46	1381.08	1303.55	0.59	-0.08	0.014
67.00	-18.13	-0.42	0.00	-28.62	0.00	28.62	1824.53	478.57	1364.57	1290.90	0.61	-0.08	0.014
67.92	-18.02	-0.42	0.00	-28.24	0.00	28.24	1818.27	475.91	1349.47	1279.28	0.63	-0.08	0.014
68.00	-18.01	-0.42	0.00	-28.20	0.00	28.20	1817.72	475.68	1348.17	1278.27	0.63	-0.08	0.011
69.00	-17.88	-0.42	0.00	-27.78	0.00	27.78	1810.86	472.80	1331.86	1265.67	0.65	-0.08	0.019
70.00	-17.76	-0.42	0.00	-27.36	0.00	27.36	1803.95	469.91	1315.65	1253.09	0.66	-0.09	0.019
71.00	-17.64	-0.42	0.00	-26.94	0.00	26.94	1796.99	467.03	1299.54	1240.53	0.68	-0.09	0.019
72.00	-17.51	-0.42	0.00	-26.52	0.00	26.52	1789.98	464.14	1283.53	1228.00	0.70	-0.09	0.019
73.00	-17.38	-0.42	0.00	-26.10	0.00	26.10	1782.92	461.26	1267.62	1215.49	0.72	-0.09	0.019
74.00	-17.26	-0.42	0.00	-25.68	0.00	25.68	1775.81	458.37	1251.81	1203.02	0.74	-0.09	0.018
75.00	-17.14	-0.42	0.00	-25.26	0.00	25.26	1768.64	455.49	1236.10	1190.56	0.76	-0.09	0.018
76.00	-17.02	-0.42	0.00	-24.84	0.00	24.84	1761.43	452.60	1220.49	1178.14	0.78	-0.09	0.031
77.00	-16.90	-0.42	0.00	-24.42	0.00	24.42	1754.16	449.71	1204.98	1165.74	0.80	-0.10	0.031
78.00	-16.78	-0.42	0.00	-23.99	0.00	23.99	1746.84	446.83	1189.56	1153.37	0.82	-0.10	0.030
79.00	-16.66	-0.42	0.00	-23.57	0.00	23.57	1739.48	443.94	1174.25	1141.03	0.84	-0.10	0.030
80.00	-16.54	-0.42	0.00	-23.15	0.00	23.15	1732.06	441.06	1159.03	1128.72	0.86	-0.10	0.030
81.00	-16.43	-0.42	0.00	-22.73	0.00	22.73	1724.59	438.17	1143.92	1116.45	0.88	-0.10	0.030
82.00	-16.31	-0.42	0.00	-22.30	0.00	22.30	1717.07	435.29	1128.90	1104.20	0.90	-0.11	0.030
83.00	-16.19	-0.42	0.00	-21.88	0.00	21.88	1709.50	432.40	1113.98	1091.99	0.92	-0.11	0.030
84.00	-16.08	-0.42	0.00	-21.46	0.00	21.46	1701.88	429.52	1099.17	1079.81	0.95	-0.11	0.029
85.00	-15.96	-0.42	0.00	-21.03	0.00	21.03	1694.20	426.63	1084.45	1067.66	0.97	-0.11	0.029
86.00	-15.85	-0.42	0.00	-20.61	0.00	20.61	1686.48	423.74	1069.83	1055.54	0.99	-0.11	0.029
87.00	-15.73	-0.43	0.00	-20.18	0.00	20.18	1678.71	420.86	1055.31	1043.46	1.02	-0.12	0.029
88.00	-15.62	-0.43	0.00	-19.76	0.00	19.76	1670.88	417.97	1040.88	1031.42	1.04	-0.12	0.029
89.00	-15.51	-0.43	0.00	-19.33	0.00	19.33	1663.00	415.09	1026.56	1019.41	1.07	-0.12	0.028
90.00	-15.39	-0.43	0.00	-18.91	0.00	18.91	1655.08	412.20	1012.34	1007.44	1.09	-0.12	0.028
91.00	-15.28	-0.43	0.00	-18.48	0.00	18.48	1647.10	409.32	998.22	995.51	1.12	-0.12	0.028
92.00	-15.17	-0.43	0.00	-18.05	0.00	18.05	1639.07	406.43	984.19	983.61	1.14	-0.13	0.028
93.00	-15.06	-0.43	0.00	-17.63	0.00	17.63	1630.99	403.55	970.27	971.76	1.17	-0.13	0.027
94.00	-14.95	-0.43	0.00	-17.20	0.00	17.20	1622.86	400.66	956.44	959.94	1.20	-0.13	0.027
95.00	-14.84	-0.43	0.00	-16.77	0.00	16.77	1614.68	397.77	942.71	948.16	1.22	-0.13	0.027
96.00	-14.73	-0.43	0.00	-16.35	0.00	16.35	1606.45	394.89	929.08	936.43	1.25	-0.13	0.027
96.18	-14.71	-0.43	0.00	-16.27	0.00	16.27	1604.99	394.38	926.69	934.36	1.26	-0.13	0.027
97.00	-14.57	-0.43	0.00	-15.92	0.00	15.92	1598.16	392.00	915.56	924.73	1.28	-0.14	0.026
98.00	-14.41	-0.43	0.00	-15.49	0.00	15.49	1589.83	389.12	902.13	913.08	1.31	-0.14	0.026
99.00	-14.25	-0.43	0.00	-15.06	0.00	15.06	1581.44	386.23	888.80	901.47	1.34	-0.14	0.026

Calculated Forces

Structure:	CT12215-A-SBA	**Code:**	TIA-222-H	2/6/2024	
Site Name:	Litchfield 3 CT	**Exposure:**	B		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 79	

Tower Engineering Solutions

99.25	-14.21	-0.43	0.00	-14.96	0.00	14.96	1579.34	385.51	885.48	898.57	1.35	-0.14	0.015
100.00	-14.09	-0.43	0.00	-14.64	0.00	14.64	1573.01	383.35	875.57	889.90	1.37	-0.14	0.015
100.34	-14.03	-0.43	0.00	-14.49	0.00	14.49	1075.68	291.34	674.27	618.09	1.38	-0.14	0.016
101.00	-13.97	-0.43	0.00	-14.21	0.00	14.21	1072.67	289.91	667.71	613.33	1.40	-0.14	0.018
102.00	-13.88	-0.43	0.00	-13.78	0.00	13.78	1068.04	287.75	657.78	606.10	1.43	-0.14	0.018
102.25	-13.86	-0.43	0.00	-13.68	0.00	13.68	1066.88	287.21	655.30	604.29	1.43	-0.14	0.018
102.25	-13.86	-0.43	0.00	-13.68	0.00	13.68	1066.88	287.21	655.30	604.29	1.43	-0.14	0.029
103.00	-13.79	-0.43	0.00	-13.36	0.00	13.36	1063.37	285.59	647.92	598.87	1.46	-0.14	0.035
104.00	-13.70	-0.43	0.00	-12.93	0.00	12.93	1058.64	283.42	638.14	591.66	1.49	-0.15	0.035
105.00	-13.61	-0.43	0.00	-12.50	0.00	12.50	1053.86	281.26	628.43	584.47	1.52	-0.15	0.034
106.00	-13.53	-0.43	0.00	-12.07	0.00	12.07	1049.03	279.09	618.79	577.28	1.55	-0.15	0.034
107.00	-13.44	-0.43	0.00	-11.64	0.00	11.64	1044.15	276.93	609.23	570.11	1.58	-0.15	0.033
108.00	-13.35	-0.43	0.00	-11.22	0.00	11.22	1039.22	274.77	599.75	562.95	1.62	-0.16	0.033
109.00	-13.26	-0.43	0.00	-10.79	0.00	10.79	1034.24	272.60	590.34	555.81	1.65	-0.16	0.032
110.00	-13.18	-0.43	0.00	-10.36	0.00	10.36	1029.21	270.44	581.00	548.68	1.68	-0.16	0.032
111.00	-13.09	-0.43	0.00	-9.93	0.00	9.93	1024.13	268.27	571.74	541.57	1.72	-0.16	0.031
112.00	-13.00	-0.43	0.00	-9.50	0.00	9.50	1018.99	266.11	562.55	534.48	1.75	-0.17	0.031
113.00	-12.92	-0.43	0.00	-9.07	0.00	9.07	1013.81	263.94	553.44	527.40	1.79	-0.17	0.030
114.00	-12.83	-0.43	0.00	-8.64	0.00	8.64	1008.57	261.78	544.40	520.34	1.82	-0.17	0.029
115.00	-10.30	-0.36	0.00	-8.21	0.00	8.21	1003.28	259.62	535.44	513.31	1.86	-0.17	0.026
116.00	-10.22	-0.36	0.00	-7.85	0.00	7.85	997.95	257.45	526.55	506.29	1.89	-0.17	0.026
117.00	-10.14	-0.36	0.00	-7.49	0.00	7.49	992.56	255.29	517.73	499.29	1.93	-0.18	0.025
118.00	-10.06	-0.36	0.00	-7.12	0.00	7.12	987.12	253.12	508.99	492.31	1.97	-0.18	0.025
119.00	-9.98	-0.36	0.00	-6.76	0.00	6.76	981.63	250.96	500.33	485.36	2.00	-0.18	0.024
120.00	-9.90	-0.36	0.00	-6.40	0.00	6.40	976.09	248.80	491.73	478.42	2.04	-0.18	0.024
121.00	-9.82	-0.36	0.00	-6.04	0.00	6.04	970.50	246.63	483.22	471.51	2.08	-0.18	0.023
122.00	-9.74	-0.36	0.00	-5.68	0.00	5.68	964.85	244.47	474.77	464.62	2.12	-0.18	0.022
123.00	-9.66	-0.36	0.00	-5.31	0.00	5.31	959.16	242.30	466.41	457.76	2.16	-0.19	0.022
124.00	-9.58	-0.36	0.00	-4.95	0.00	4.95	953.42	240.14	458.11	450.92	2.20	-0.19	0.021
125.00	-9.50	-0.36	0.00	-4.59	0.00	4.59	947.62	237.97	449.89	444.11	2.24	-0.19	0.020
126.00	-9.43	-0.36	0.00	-4.23	0.00	4.23	941.77	235.81	441.75	437.32	2.28	-0.19	0.020
127.00	-9.35	-0.36	0.00	-3.86	0.00	3.86	935.88	233.65	433.67	430.56	2.32	-0.19	0.019
128.00	-9.27	-0.36	0.00	-3.50	0.00	3.50	929.93	231.48	425.68	423.83	2.36	-0.19	0.018
129.00	-9.19	-0.36	0.00	-3.14	0.00	3.14	923.93	229.32	417.76	417.13	2.40	-0.19	0.017
130.00	-5.82	-0.21	0.00	-2.78	0.00	2.78	917.88	227.15	409.91	410.45	2.44	-0.20	0.013
131.00	-5.76	-0.21	0.00	-2.57	0.00	2.57	911.78	224.99	402.13	403.81	2.48	-0.20	0.013
132.00	-5.71	-0.21	0.00	-2.36	0.00	2.36	905.63	222.83	394.44	397.19	2.52	-0.20	0.012
133.00	-5.65	-0.21	0.00	-2.15	0.00	2.15	899.43	220.66	386.81	390.61	2.56	-0.20	0.012
134.00	-5.60	-0.21	0.00	-1.94	0.00	1.94	893.17	218.50	379.26	384.05	2.60	-0.20	0.011
135.00	-5.54	-0.21	0.00	-1.73	0.00	1.73	886.87	216.33	371.78	377.53	2.65	-0.20	0.011
136.00	-5.49	-0.21	0.00	-1.51	0.00	1.51	880.51	214.17	364.38	371.04	2.69	-0.20	0.010
137.00	-5.43	-0.21	0.00	-1.30	0.00	1.30	874.11	212.00	357.06	364.59	2.73	-0.20	0.010
138.00	-5.37	-0.21	0.00	-1.09	0.00	1.09	867.65	209.84	349.80	358.17	2.77	-0.20	0.009
139.00	-5.31	-0.21	0.00	-0.88	0.00	0.88	861.15	207.68	342.63	351.78	2.81	-0.20	0.009
140.00	-2.36	-0.08	0.00	-0.67	0.00	0.67	854.59	205.51	335.52	345.43	2.86	-0.20	0.005
141.00	-2.32	-0.08	0.00	-0.60	0.00	0.60	847.98	203.35	328.49	339.11	2.90	-0.20	0.004
142.00	-2.28	-0.08	0.00	-0.52	0.00	0.52	841.32	201.18	321.54	332.84	2.94	-0.20	0.004
143.00	-2.24	-0.08	0.00	-0.45	0.00	0.45	834.61	199.02	314.66	326.60	2.98	-0.20	0.004
144.00	-2.20	-0.07	0.00	-0.37	0.00	0.37	827.84	196.86	307.85	320.39	3.03	-0.20	0.004
145.00	-2.16	-0.07	0.00	-0.30	0.00	0.30	821.03	194.69	301.12	314.23	3.07	-0.20	0.004
146.00	-2.12	-0.07	0.00	-0.22	0.00	0.22	814.17	192.53	294.46	308.10	3.11	-0.20	0.003
147.00	-2.08	-0.07	0.00	-0.15	0.00	0.15	805.87	190.36	287.88	301.50	3.16	-0.20	0.003
148.00	-2.04	-0.07	0.00	-0.07	0.00	0.07	796.71	188.20	281.37	294.65	3.20	-0.20	0.003
149.00	0.00	-0.07	0.00	0.00	0.00	0.00	787.55	186.03	274.94	287.88	3.24	-0.20	0.000

Wind Loading - Shaft

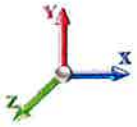
Structure:	CT12215-A-SBA	**Code:**	TIA-222-H	2/6/2024	
Site Name:	Litchfield 3 CT	**Exposure:**	B		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 80	

IES Tower Engineering Solutions

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00



Iterations 32

Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.70	5.321	5.85	200.85	0.730	0.000	0.00	0.000	0.00	0.0	0.0	0.0
1.00		1.00	0.70	5.321	5.85	199.98	0.730	0.000	1.00	4.053	2.96	17.3	0.0	160.6
2.00		1.00	0.70	5.321	5.85	199.11	0.730	0.000	1.00	4.035	2.95	17.2	0.0	159.9
3.00		1.00	0.70	5.321	5.85	198.25	0.730	0.000	1.00	4.018	2.93	17.2	0.0	159.2
4.00		1.00	0.70	5.321	5.85	197.38	0.730	0.000	1.00	4.000	2.92	17.1	0.0	158.5
5.00		1.00	0.70	5.321	5.85	196.51	0.730	0.000	1.00	3.983	2.91	17.0	0.0	157.8
6.00		1.00	0.70	5.321	5.85	195.65	0.730	0.000	1.00	3.965	2.89	16.9	0.0	157.1
7.00		1.00	0.70	5.321	5.85	194.78	0.730	0.000	1.00	3.948	2.88	16.9	0.0	156.4
8.00		1.00	0.70	5.321	5.85	193.91	0.730	0.000	1.00	3.930	2.87	16.8	0.0	155.7
9.00		1.00	0.70	5.321	5.85	193.05	0.730	0.000	1.00	3.913	2.86	16.7	0.0	155.0
10.00		1.00	0.70	5.321	5.85	192.18	0.730	0.000	1.00	3.895	2.84	16.6	0.0	154.3
11.00		1.00	0.70	5.321	5.85	191.31	0.730	0.000	1.00	3.878	2.83	16.6	0.0	153.6
12.00		1.00	0.70	5.321	5.85	190.44	0.730	0.000	1.00	3.860	2.82	16.5	0.0	152.9
13.00		1.00	0.70	5.321	5.85	189.58	0.730	0.000	1.00	3.843	2.81	16.4	0.0	152.2
14.00		1.00	0.70	5.321	5.85	188.71	0.730	0.000	1.00	3.825	2.79	16.3	0.0	151.5
15.00		1.00	0.70	5.321	5.85	187.84	0.730	0.000	1.00	3.807	2.78	16.3	0.0	150.8
16.00		1.00	0.70	5.321	5.85	186.98	0.730	0.000	1.00	3.790	2.77	16.2	0.0	150.1
17.00		1.00	0.70	5.321	5.85	186.11	0.730	0.000	1.00	3.772	2.75	16.1	0.0	149.4
18.00		1.00	0.70	5.321	5.85	185.24	0.730	0.000	1.00	3.755	2.74	16.0	0.0	148.7
19.00		1.00	0.70	5.321	5.85	184.37	0.730	0.000	1.00	3.737	2.73	16.0	0.0	148.0
20.00		1.00	0.70	5.321	5.85	183.51	0.730	0.000	1.00	3.720	2.72	15.9	0.0	147.3
21.00		1.00	0.70	5.321	5.85	182.64	0.730	0.000	1.00	3.702	2.70	15.8	0.0	146.6
22.00		1.00	0.70	5.321	5.85	181.77	0.730	0.000	1.00	3.685	2.69	15.7	0.0	145.9
23.00		1.00	0.70	5.321	5.85	180.91	0.730	0.000	1.00	3.667	2.68	15.7	0.0	145.2
24.00		1.00	0.70	5.321	5.85	180.04	0.730	0.000	1.00	3.650	2.66	15.6	0.0	144.5
25.00		1.00	0.70	5.321	5.85	179.17	0.730	0.000	1.00	3.632	2.65	15.5	0.0	143.8
26.00		1.00	0.70	5.321	5.85	178.31	0.730	0.000	1.00	3.615	2.64	15.4	0.0	143.1
27.00		1.00	0.70	5.321	5.85	177.44	0.730	0.000	1.00	3.597	2.63	15.4	0.0	142.4
28.00		1.00	0.70	5.321	5.85	176.57	0.730	0.000	1.00	3.580	2.61	15.3	0.0	141.7
29.00		1.00	0.70	5.321	5.85	175.70	0.730	0.000	1.00	3.562	2.60	15.2	0.0	141.0
30.00		1.00	0.70	5.325	5.86	174.91	0.730	0.000	1.00	3.544	2.59	15.2	0.0	140.3
31.00		1.00	0.71	5.375	5.91	174.86	0.730	0.000	1.00	3.527	2.57	15.2	0.0	139.6
32.00		1.00	0.71	5.424	5.97	174.78	0.730	0.000	1.00	3.509	2.56	15.3	0.0	138.9
33.00		1.00	0.72	5.472	6.02	174.67	0.730	0.000	1.00	3.492	2.55	15.3	0.0	138.2
34.00		1.00	0.73	5.519	6.07	174.53	0.730	0.000	1.00	3.474	2.54	15.4	0.0	137.5
35.00		1.00	0.73	5.565	6.12	174.37	0.730	0.000	1.00	3.457	2.52	15.4	0.0	136.8
36.00		1.00	0.74	5.610	6.17	174.18	0.730	0.000	1.00	3.439	2.51	15.5	0.0	136.1
37.00		1.00	0.74	5.654	6.22	173.97	0.730	0.000	1.00	3.422	2.50	15.5	0.0	135.4
38.00		1.00	0.75	5.697	6.27	173.74	0.730	0.000	1.00	3.404	2.49	15.6	0.0	134.7
39.00		1.00	0.76	5.740	6.31	173.49	0.730	0.000	1.00	3.387	2.47	15.6	0.0	134.0
40.00		1.00	0.76	5.782	6.36	173.21	0.730	0.000	1.00	3.369	2.46	15.6	0.0	133.3
41.00		1.00	0.77	5.822	6.40	172.92	0.730	0.000	1.00	3.352	2.45	15.7	0.0	132.6
42.00		1.00	0.77	5.863	6.45	172.60	0.730	0.000	1.00	3.334	2.43	15.7	0.0	131.9
43.00		1.00	0.78	5.902	6.49	172.27	0.730	0.000	1.00	3.316	2.42	15.7	0.0	131.2
44.00		1.00	0.78	5.941	6.54	171.92	0.730	0.000	1.00	3.299	2.41	15.7	0.0	130.5
45.00		1.00	0.79	5.979	6.58	171.55	0.730	0.000	1.00	3.281	2.40	15.8	0.0	129.8
46.00		1.00	0.79	6.017	6.62	171.17	0.730	0.000	1.00	3.264	2.38	15.8	0.0	129.1

Wind Loading - Shaft

Structure: CT12215-A-SBA
Site Name: Litchfield 3 CT
Height: 149.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1
Topography: 1
Code: TIA-222-H
Exposure: B
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

2/6/2024

IES Tower Engineering Solutions

47.00	1.00	0.80	6.054	6.66	170.77	0.730	0.000	1.00	3.246	2.37	15.8	0.0	128.4
47.55 Bot - Section 2	1.00	0.80	6.074	6.68	170.55	0.730	0.000	0.55	1.789	1.31	8.7	0.0	70.8
48.00	1.00	0.80	6.091	6.70	170.36	0.730	0.000	0.45	1.459	1.07	7.1	0.0	103.2
49.00	1.00	0.81	6.127	6.74	169.93	0.730	0.000	1.00	3.254	2.38	16.0	0.0	230.2
50.00 Appurtenance(s)	1.00	0.81	6.162	6.78	169.49	0.730	0.000	1.00	3.236	2.36	16.0	0.0	228.9
51.00	1.00	0.82	6.197	6.82	169.03	0.755 *	0.000	1.00	3.219	2.43	16.6	0.0	227.6
52.00 RB1 RB2	1.00	0.82	6.232	6.85	168.57	0.757 *	0.000	1.00	3.201	2.42	16.6	0.0	226.4
52.97 Top - Section 1	1.00	0.82	6.265	6.89	168.10	0.758 *	0.000	0.97	3.088	2.34	16.1	0.0	218.4
53.00	1.00	0.82	6.266	6.89	170.35	0.755 *	0.000	0.03	0.095	0.07	0.5	0.0	3.0
54.00	1.00	0.83	6.299	6.93	169.87	0.756 *	0.000	1.00	3.166	2.39	16.6	0.0	100.3
55.00	1.00	0.83	6.332	6.97	169.37	0.757 *	0.000	1.00	3.148	2.38	16.6	0.0	99.8
56.00	1.00	0.84	6.365	7.00	168.86	0.759 *	0.000	1.00	3.131	2.38	16.6	0.0	99.2
57.00	1.00	0.84	6.397	7.04	168.33	0.760 *	0.000	1.00	3.113	2.37	16.7	0.0	98.7
58.00	1.00	0.85	6.429	7.07	167.80	0.762 *	0.000	1.00	3.096	2.36	16.7	0.0	98.1
59.00	1.00	0.85	6.461	7.11	167.25	0.763 *	0.000	1.00	3.078	2.35	16.7	0.0	97.5
60.00	1.00	0.85	6.492	7.14	166.70	0.764 *	0.000	1.00	3.061	2.34	16.7	0.0	97.0
61.00	1.00	0.86	6.522	7.17	166.13	0.766 *	0.000	1.00	3.043	2.33	16.7	0.0	96.4
62.00	1.00	0.86	6.553	7.21	165.55	0.767 *	0.000	1.00	3.026	2.32	16.7	0.0	95.9
63.00	1.00	0.87	6.583	7.24	164.97	0.769 *	0.000	1.00	3.008	2.31	16.7	0.0	95.3
64.00	1.00	0.87	6.612	7.27	164.37	0.770 *	0.000	1.00	2.991	2.30	16.8	0.0	94.7
65.00	1.00	0.87	6.642	7.31	163.77	0.772 *	0.000	1.00	2.973	2.29	16.8	0.0	94.2
66.00	1.00	0.88	6.671	7.34	163.16	0.773 *	0.000	1.00	2.956	2.29	16.8	0.0	93.6
67.00	1.00	0.88	6.700	7.37	162.53	0.775 *	0.000	1.00	2.938	2.28	16.8	0.0	93.1
67.92 RB3	1.00	0.88	6.726	7.40	161.95	0.777 *	0.000	0.92	2.687	2.09	15.4	0.0	85.1
68.00 RT1 RT2	1.00	0.89	6.728	7.40	161.90	0.777 *	0.000	0.08	0.233	0.18	1.3	0.0	7.4
69.00	1.00	0.89	6.756	7.43	161.27	0.778 *	0.000	1.00	2.903	2.26	16.8	0.0	92.0
70.00	1.00	0.89	6.784	7.46	160.62	0.780 *	0.000	1.00	2.885	2.25	16.8	0.0	91.4
71.00	1.00	0.90	6.812	7.49	159.96	0.730	0.000	1.00	2.868	2.09	15.7	0.0	90.8
72.00	1.00	0.90	6.839	7.52	159.30	0.730	0.000	1.00	2.850	2.08	15.7	0.0	90.3
73.00 Appurtenance(s)	1.00	0.90	6.866	7.55	158.63	0.730	0.000	1.00	2.833	2.07	15.6	0.0	89.7
74.00	1.00	0.91	6.893	7.58	157.95	0.730	0.000	1.00	2.815	2.06	15.6	0.0	89.2
75.00 RT3	1.00	0.91	6.919	7.61	157.27	0.730	0.000	1.00	2.798	2.04	15.5	0.0	88.6
76.00	1.00	0.91	6.945	7.64	156.57	0.730	0.000	1.00	2.780	2.03	15.5	0.0	88.0
77.00	1.00	0.92	6.971	7.67	155.87	0.730	0.000	1.00	2.763	2.02	15.5	0.0	87.5
78.00	1.00	0.92	6.997	7.70	155.17	0.730	0.000	1.00	2.745	2.00	15.4	0.0	86.9
79.00	1.00	0.92	7.022	7.72	154.45	0.730	0.000	1.00	2.728	1.99	15.4	0.0	86.4
80.00	1.00	0.93	7.048	7.75	153.73	0.730	0.000	1.00	2.710	1.98	15.3	0.0	85.8
81.00	1.00	0.93	7.073	7.78	153.01	0.730	0.000	1.00	2.693	1.97	15.3	0.0	85.2
82.00	1.00	0.93	7.098	7.81	152.27	0.730	0.000	1.00	2.675	1.95	15.2	0.0	84.7
83.00	1.00	0.94	7.122	7.83	151.53	0.730	0.000	1.00	2.657	1.94	15.2	0.0	84.1
84.00	1.00	0.94	7.147	7.86	150.79	0.730	0.000	1.00	2.640	1.93	15.1	0.0	83.6
85.00	1.00	0.94	7.171	7.89	150.04	0.730	0.000	1.00	2.622	1.91	15.1	0.0	83.0
86.00	1.00	0.95	7.195	7.91	149.28	0.730	0.000	1.00	2.605	1.90	15.0	0.0	82.4
87.00	1.00	0.95	7.219	7.94	148.52	0.730	0.000	1.00	2.587	1.89	15.0	0.0	81.9
88.00	1.00	0.95	7.242	7.97	147.75	0.730	0.000	1.00	2.570	1.88	14.9	0.0	81.3
89.00	1.00	0.96	7.266	7.99	146.97	0.730	0.000	1.00	2.552	1.86	14.9	0.0	80.8
90.00	1.00	0.96	7.289	8.02	146.19	0.730	0.000	1.00	2.535	1.85	14.8	0.0	80.2
91.00	1.00	0.96	7.312	8.04	145.41	0.730	0.000	1.00	2.517	1.84	14.8	0.0	79.6
92.00	1.00	0.96	7.335	8.07	144.62	0.730	0.000	1.00	2.500	1.82	14.7	0.0	79.1
93.00	1.00	0.97	7.358	8.09	143.82	0.730	0.000	1.00	2.482	1.81	14.7	0.0	78.5
94.00	1.00	0.97	7.380	8.12	143.02	0.730	0.000	1.00	2.465	1.80	14.6	0.0	78.0
95.00	1.00	0.97	7.402	8.14	142.21	0.730	0.000	1.00	2.447	1.79	14.5	0.0	77.4
96.00	1.00	0.98	7.425	8.17	141.40	0.730	0.000	1.00	2.429	1.77	14.5	0.0	76.8
96.18 Bot - Section 3	1.00	0.98	7.429	8.17	141.26	0.737 *	0.000	0.18	0.427	0.32	2.6	0.0	13.5
97.00	1.00	0.98	7.447	8.19	140.59	0.738 *	0.000	0.82	2.011	1.48	12.2	0.0	110.6
98.00	1.00	0.98	7.469	8.22	139.76	0.835 *	0.000	1.00	2.426	2.03	16.6	0.0	133.4
99.00	1.00	0.99	7.490	8.24	138.94	0.837 *	0.000	1.00	2.409	2.02	16.6	0.0	132.4

Wind Loading - Shaft

Structure: CT12215-A-SBA
Site Name: Litchfield 3 CT
Height: 149.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1
Topography: 1

Code: TIA-222-H
Exposure: B
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

2/6/2024

Tower Engineering Solutions

99.25 RB4	1.00	0.99	7.496	8.25	138.73	0.839 *	0.000	0.25	0.599	0.50	4.1	0.0	33.0
100.00	1.00	0.99	7.512	8.26	138.11	0.840 *	0.000	0.75	1.792	1.51	12.4	0.0	98.5
100.34 Top - Section 2	1.00	0.99	7.519	8.27	137.82	0.841 *	0.000	0.34	0.817	0.69	5.7	0.0	44.9
101.00	1.00	0.99	7.533	8.29	139.14	0.838 *	0.000	0.66	1.557	1.30	10.8	0.0	37.0
102.00	1.00	0.99	7.554	8.31	138.30	0.840 *	0.000	1.00	2.356	1.98	16.4	0.0	56.0
102.25 RT4	1.00	0.99	7.560	8.32	138.09	0.842 *	0.000	0.25	0.586	0.49	4.1	0.0	13.9
103.00	1.00	1.00	7.575	8.33	137.46	0.843 *	0.000	0.75	1.752	1.48	12.3	0.0	41.6
104.00	1.00	1.00	7.596	8.36	136.61	0.845 *	0.000	1.00	2.321	1.96	16.4	0.0	55.2
105.00	1.00	1.00	7.617	8.38	135.76	0.848 *	0.000	1.00	2.303	1.95	16.4	0.0	54.7
106.00	1.00	1.00	7.638	8.40	134.91	0.751 *	0.000	1.00	2.286	1.72	14.4	0.0	54.3
107.00	1.00	1.01	7.658	8.42	134.05	0.752 *	0.000	1.00	2.268	1.71	14.4	0.0	53.9
108.00	1.00	1.01	7.679	8.45	133.19	0.754 *	0.000	1.00	2.251	1.70	14.3	0.0	53.5
109.00	1.00	1.01	7.699	8.47	132.32	0.756 *	0.000	1.00	2.233	1.69	14.3	0.0	53.1
110.00	1.00	1.02	7.719	8.49	131.45	0.758 *	0.000	1.00	2.216	1.68	14.3	0.0	52.6
111.00	1.00	1.02	7.739	8.51	130.57	0.760 *	0.000	1.00	2.198	1.67	14.2	0.0	52.2
112.00	1.00	1.02	7.759	8.53	129.69	0.762 *	0.000	1.00	2.181	1.66	14.2	0.0	51.8
113.00	1.00	1.02	7.779	8.56	128.81	0.764 *	0.000	1.00	2.163	1.65	14.1	0.0	51.4
114.00	1.00	1.03	7.798	8.58	127.92	0.766 *	0.000	1.00	2.146	1.64	14.1	0.0	51.0
115.00 Appurtenance(s)	1.00	1.03	7.818	8.60	127.03	0.768 *	0.000	1.00	2.128	1.63	14.1	0.0	50.5
116.00	1.00	1.03	7.837	8.62	126.13	0.730	0.000	1.00	2.111	1.54	13.3	0.0	50.1
117.00	1.00	1.03	7.856	8.64	125.24	0.730	0.000	1.00	2.093	1.53	13.2	0.0	49.7
118.00	1.00	1.04	7.876	8.66	124.33	0.730	0.000	1.00	2.075	1.52	13.1	0.0	49.3
119.00	1.00	1.04	7.895	8.68	123.43	0.730	0.000	1.00	2.058	1.50	13.0	0.0	48.9
120.00	1.00	1.04	7.913	8.70	122.52	0.730	0.000	1.00	2.040	1.49	13.0	0.0	48.4
121.00	1.00	1.04	7.932	8.73	121.60	0.730	0.000	1.00	2.023	1.48	12.9	0.0	48.0
122.00	1.00	1.05	7.951	8.75	120.69	0.730	0.000	1.00	2.005	1.46	12.8	0.0	47.6
123.00	1.00	1.05	7.969	8.77	119.77	0.730	0.000	1.00	1.988	1.45	12.7	0.0	47.2
124.00	1.00	1.05	7.988	8.79	118.84	0.730	0.000	1.00	1.970	1.44	12.6	0.0	46.8
125.00	1.00	1.05	8.006	8.81	117.92	0.730	0.000	1.00	1.953	1.43	12.6	0.0	46.4
126.00	1.00	1.06	8.025	8.83	116.99	0.730	0.000	1.00	1.935	1.41	12.5	0.0	45.9
127.00	1.00	1.06	8.043	8.85	116.05	0.730	0.000	1.00	1.918	1.40	12.4	0.0	45.5
128.00	1.00	1.06	8.061	8.87	115.11	0.730	0.000	1.00	1.900	1.39	12.3	0.0	45.1
129.00	1.00	1.06	8.079	8.89	114.17	0.730	0.000	1.00	1.883	1.37	12.2	0.0	44.7
130.00 Appurtenance(s)	1.00	1.07	8.096	8.91	113.23	0.730	0.000	1.00	1.865	1.36	12.1	0.0	44.3
131.00	1.00	1.07	8.114	8.93	112.28	0.730	0.000	1.00	1.848	1.35	12.0	0.0	43.8
132.00	1.00	1.07	8.132	8.95	111.33	0.730	0.000	1.00	1.830	1.34	11.9	0.0	43.4
133.00	1.00	1.07	8.149	8.96	110.38	0.730	0.000	1.00	1.812	1.32	11.9	0.0	43.0
134.00	1.00	1.07	8.167	8.98	109.43	0.730	0.000	1.00	1.795	1.31	11.8	0.0	42.6
135.00	1.00	1.08	8.184	9.00	108.47	0.730	0.000	1.00	1.777	1.30	11.7	0.0	42.2
136.00	1.00	1.08	8.202	9.02	107.50	0.730	0.000	1.00	1.760	1.28	11.6	0.0	41.7
137.00	1.00	1.08	8.219	9.04	106.54	0.730	0.000	1.00	1.742	1.27	11.5	0.0	41.3
138.00 Appurtenance(s)	1.00	1.08	8.236	9.06	105.57	0.730	0.000	1.00	1.725	1.26	11.4	0.0	40.9
139.00	1.00	1.09	8.253	9.08	104.60	0.730	0.000	1.00	1.707	1.25	11.3	0.0	40.5
140.00 Appurtenance(s)	1.00	1.09	8.270	9.10	103.63	0.730	0.000	1.00	1.690	1.23	11.2	0.0	40.1
141.00	1.00	1.09	8.287	9.12	102.65	0.730	0.000	1.00	1.672	1.22	11.1	0.0	39.6
142.00	1.00	1.09	8.303	9.13	101.67	0.730	0.000	1.00	1.655	1.21	11.0	0.0	39.2
143.00	1.00	1.09	8.320	9.15	100.69	0.730	0.000	1.00	1.637	1.20	10.9	0.0	38.8
144.00	1.00	1.10	8.337	9.17	99.70	0.730	0.000	1.00	1.620	1.18	10.8	0.0	38.4
145.00	1.00	1.10	8.353	9.19	98.72	0.730	0.000	1.00	1.602	1.17	10.7	0.0	38.0
146.00	1.00	1.10	8.369	9.21	97.72	0.730	0.000	1.00	1.585	1.16	10.6	0.0	37.5
147.00	1.00	1.10	8.386	9.22	96.73	0.730	0.000	1.00	1.567	1.14	10.6	0.0	37.1
148.00	1.00	1.11	8.402	9.24	95.74	0.730	0.000	1.00	1.549	1.13	10.5	0.0	36.7
149.00 Appurtenance(s)	1.00	1.11	8.418	9.26	94.74	0.730	0.000	1.00	1.532	1.12	10.4	0.0	36.3
* Cf Adjusted by Linear Load Ra Effect							**Totals:**	**149.00**			**2,220.0**		**14,728.1**

Discrete Appurtenance Forces

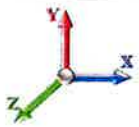
Structure:	CT12215-A-SBA	**Code:**	TIA-222-H	2/6/2024	
Site Name:	Litchfield 3 CT	**Exposure:**	B		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 83	

TES Tower Engineering Solutions

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00



Iterations 32

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orient Factor x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	149.00	ACU-A20-N	4	8.466	9.313	0.40	0.80	0.22	4.00	0.000	3.000	2.09	0.00	6.26
2	149.00	800MHz Filter	3	8.466	9.313	0.40	0.80	0.94	26.40	0.000	3.000	8.72	0.00	26.15
3	149.00	TD-RRH8x20-25	3	8.466	9.313	0.40	0.80	4.86	210.00	0.000	3.000	45.26	0.00	135.78
4	149.00	800MHZ	3	8.466	9.313	0.40	0.80	3.17	178.50	0.000	3.000	29.50	0.00	88.51
5	149.00	1900MHz	3	8.466	9.313	0.40	0.80	3.32	180.00	0.000	3.000	30.96	0.00	92.87
6	149.00	APXVTM14-C-I20	3	8.466	9.313	0.63	0.80	12.02	168.00	0.000	3.000	111.95	0.00	335.84
7	149.00	APXVSPP18-C-A20	3	8.466	9.313	0.66	0.80	15.98	171.00	0.000	3.000	148.78	0.00	446.35
8	149.00	Low Profile Platform	1	8.418	9.260	1.00	1.00	25.00	1200.00	0.000	0.000	231.50	0.00	0.00
9	140.00	NHH-65C-R2B	6	8.270	9.097	0.63	0.75	43.05	309.60	0.000	0.000	391.65	0.00	0.00
10	140.00	BXA-70063-6CF-EDIN-5	3	8.270	9.097	0.55	0.75	12.43	51.00	0.000	0.000	113.11	0.00	0.00
11	140.00	MT6413 77A	3	8.270	9.097	0.52	0.75	6.68	261.30	0.000	0.000	60.73	0.00	0.00
12	140.00	Low Profile	1	8.270	9.097	1.00	1.00	22.00	1500.00	0.000	0.000	200.13	0.00	0.00
13	140.00	RFS DB-C1-12C-24AB-0Z	1	8.270	9.097	0.75	0.75	3.04	32.00	0.000	0.000	27.70	0.00	0.00
14	140.00	RFS FD9R6004/2C-3L	6	8.270	9.097	0.75	0.75	1.62	18.60	0.000	0.000	14.74	0.00	0.00
15	140.00	RF4461d-13A	3	8.270	9.097	0.50	0.75	2.83	253.50	0.000	0.000	25.78	0.00	0.00
16	140.00	RF4439-25A ORAN	3	8.270	9.097	0.50	0.75	2.82	253.20	0.000	0.000	25.64	0.00	0.00
17	140.00	Mount Mods	1	8.270	9.097	1.00	1.00	17.00	415.06	0.000	0.000	154.64	0.00	0.00
18	138.00	GPS Receiver	1	8.236	9.059	0.80	0.80	0.80	10.00	0.000	0.000	7.25	0.00	0.00
19	130.00	80010965	6	8.096	8.906	0.53	0.75	44.12	651.60	0.000	0.000	392.96	0.00	0.00
20	130.00	(3) 12.5' - 2" Horizontal	1	8.096	8.906	0.75	1.00	4.45	137.25	0.000	0.000	39.66	0.00	0.00
21	130.00	XP-2020	24	8.096	8.906	0.56	0.75	9.31	240.00	0.000	0.000	82.96	0.00	0.00
22	130.00	Low Profile Platform	1	8.096	8.906	1.00	1.00	25.00	1200.00	0.000	0.000	222.65	0.00	0.00
23	130.00	7770.00	3	8.096	8.906	0.55	0.75	9.03	105.00	0.000	0.000	80.46	0.00	0.00
24	130.00	LGP 21401	12	8.096	8.906	0.38	0.75	0.00	210.00	0.000	0.000	0.00	0.00	0.00
25	130.00	DC6-48-60-18-8F	1	8.096	8.906	0.75	0.75	0.69	31.80	0.000	0.000	6.15	0.00	0.00
26	130.00	ABT-DF-DM-ADBH	1	8.096	8.906	0.75	0.75	0.04	1.10	0.000	0.000	0.33	0.00	0.00
27	130.00	VSRDual-TS-B-HD	2	8.096	8.906	0.56	0.75	4.61	296.80	0.000	0.000	41.08	0.00	0.00
28	130.00	4449 B5/B12	3	8.096	8.906	0.38	0.75	2.22	213.00	0.000	0.000	19.74	0.00	0.00
29	130.00	8843 B2/B66A	3	8.096	8.906	0.38	0.75	1.84	216.00	0.000	0.000	16.43	0.00	0.00
30	130.00	DC6-48-60-18-8C	1	8.096	8.906	0.75	0.75	0.95	20.00	0.000	0.000	8.42	0.00	0.00
31	130.00	DC6-48-60-0-8C-EV	1	8.096	8.906	0.75	0.75	3.58	16.00	0.000	0.000	31.93	0.00	0.00
32	130.00	RRUS 4478 B14	3	8.096	8.906	0.38	0.75	1.86	178.20	0.000	0.000	16.53	0.00	0.00
33	115.00	AIR6449 B41	3	7.818	8.600	0.57	0.80	9.63	309.00	0.000	0.000	82.79	0.00	0.00
34	115.00	T-Arm	3	7.818	8.600	0.56	0.75	13.50	1050.00	0.000	0.000	116.09	0.00	0.00
35	115.00	(3) Stabilizer Kit (12' FW)	1	7.818	8.600	1.00	1.00	6.10	180.00	0.000	0.000	52.46	0.00	0.00
36	115.00	4460 Radio	3	7.818	8.600	0.40	0.80	3.42	327.00	0.000	0.000	29.41	0.00	0.00
37	115.00	APXVAALL24_43-U-NA20	3	7.818	8.600	0.58	0.80	35.46	368.40	0.000	0.000	304.94	0.00	0.00
38	115.00	RRUS 11	3	7.818	8.600	0.40	0.80	3.02	152.10	0.000	0.000	26.01	0.00	0.00
39	115.00	4449 B71 + B85	3	7.818	8.600	0.40	0.80	2.36	219.60	0.000	0.000	20.33	0.00	0.00
40	73.00	GPS Receiver	1	6.866	7.552	1.00	1.00	1.00	10.00	0.000	0.000	7.55	0.00	0.00
41	50.00	58532A	1	6.162	6.778	1.00	1.00	0.22	0.40	0.000	0.000	1.49	0.00	0.00
							Totals:		**11,375.41**			**3,230.50**		

Total Applied Force Summary

Structure:	CT12215-A-SBA		**Code:**	TIA-222-H	2/6/2024
Site Name:	Litchfield 3 CT		**Exposure:**	B	
Height:	149.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 84

Tower Engineering Solutions

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00

Iterations 32

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
1.00		17.32	201.13	0.00	0.00
2.00		17.24	200.43	0.00	0.00
3.00		17.17	199.73	0.00	0.00
4.00		17.09	199.03	0.00	0.00
5.00		17.02	198.33	0.00	0.00
6.00		16.94	197.64	0.00	0.00
7.00		16.87	196.94	0.00	0.00
8.00		16.79	196.24	0.00	0.00
9.00		16.72	195.54	0.00	0.00
10.00		16.64	194.84	0.00	0.00
11.00		16.57	194.14	0.00	0.00
12.00		16.49	193.44	0.00	0.00
13.00		16.42	192.74	0.00	0.00
14.00		16.34	192.04	0.00	0.00
15.00		16.27	191.34	0.00	0.00
16.00		16.19	190.64	0.00	0.00
17.00		16.12	189.94	0.00	0.00
18.00		16.04	189.24	0.00	0.00
19.00		15.97	188.54	0.00	0.00
20.00		15.89	187.84	0.00	0.00
21.00		15.82	187.15	0.00	0.00
22.00		15.74	186.45	0.00	0.00
23.00		15.67	185.75	0.00	0.00
24.00		15.59	185.05	0.00	0.00
25.00		15.52	184.35	0.00	0.00
26.00		15.44	183.65	0.00	0.00
27.00		15.37	182.95	0.00	0.00
28.00		15.29	182.25	0.00	0.00
29.00		15.22	181.55	0.00	0.00
30.00		15.16	180.85	0.00	0.00
31.00		15.22	180.15	0.00	0.00
32.00		15.29	179.45	0.00	0.00
33.00		15.34	178.75	0.00	0.00
34.00		15.40	178.05	0.00	0.00
35.00		15.45	177.35	0.00	0.00
36.00		15.49	176.65	0.00	0.00
37.00		15.54	175.96	0.00	0.00
38.00		15.57	175.26	0.00	0.00
39.00		15.61	174.56	0.00	0.00
40.00		15.64	173.86	0.00	0.00
41.00		15.67	173.16	0.00	0.00
42.00		15.70	172.46	0.00	0.00
43.00		15.72	171.76	0.00	0.00
44.00		15.74	171.06	0.00	0.00
45.00		15.76	170.36	0.00	0.00
46.00		15.77	169.66	0.00	0.00

Total Applied Force Summary

Structure:	CT12215-A-SBA		**Code:**	TIA-222-H	2/6/2024
Site Name:	Litchfield 3 CT		**Exposure:**	B	
Height:	149.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 85

TES Tower Engineering Solutions

47.00		15.78	168.96	0.00	0.00
47.55		8.73	93.19	0.00	0.00
48.00		7.14	121.32	0.00	0.00
49.00		16.01	270.70	0.00	0.00
50.00	(1) attachments	17.50	269.84	0.00	0.00
51.00		16.57	268.03	0.00	0.00
52.00		16.60	266.77	0.00	0.00
52.97		16.13	257.56	0.00	0.00
53.00		0.50	4.23	0.00	0.00
54.00		16.58	140.72	0.00	0.00
55.00		16.61	140.16	0.00	0.00
56.00		16.63	139.60	0.00	0.00
57.00		16.65	139.04	0.00	0.00
58.00		16.67	138.48	0.00	0.00
59.00		16.69	137.92	0.00	0.00
60.00		16.71	137.36	0.00	0.00
61.00		16.72	136.80	0.00	0.00
62.00		16.74	136.24	0.00	0.00
63.00		16.75	135.68	0.00	0.00
64.00		16.76	135.12	0.00	0.00
65.00		16.77	134.56	0.00	0.00
66.00		16.77	134.01	0.00	0.00
67.00		16.78	133.45	0.00	0.00
67.92		15.44	122.28	0.00	0.00
68.00		1.34	10.61	0.00	0.00
69.00		16.79	132.33	0.00	0.00
70.00		16.79	131.77	0.00	0.00
71.00		15.69	131.21	0.00	0.00
72.00		15.65	130.65	0.00	0.00
73.00	(1) attachments	23.17	140.09	0.00	0.00
74.00		15.58	129.37	0.00	0.00
75.00		15.54	128.81	0.00	0.00
76.00		15.51	128.25	0.00	0.00
77.00		15.47	127.69	0.00	0.00
78.00		15.42	127.13	0.00	0.00
79.00		15.38	126.57	0.00	0.00
80.00		15.34	126.01	0.00	0.00
81.00		15.29	125.45	0.00	0.00
82.00		15.25	124.89	0.00	0.00
83.00		15.20	124.33	0.00	0.00
84.00		15.15	123.77	0.00	0.00
85.00		15.10	123.22	0.00	0.00
86.00		15.05	122.66	0.00	0.00
87.00		15.00	122.10	0.00	0.00
88.00		14.94	121.54	0.00	0.00
89.00		14.89	120.98	0.00	0.00
90.00		14.84	120.42	0.00	0.00
91.00		14.78	119.86	0.00	0.00
92.00		14.72	119.30	0.00	0.00
93.00		14.66	118.74	0.00	0.00
94.00		14.61	118.18	0.00	0.00
95.00		14.55	117.62	0.00	0.00
96.00		14.48	117.06	0.00	0.00
96.18		2.57	20.62	0.00	0.00
97.00		12.16	143.68	0.00	0.00
98.00		16.64	173.62	0.00	0.00
99.00		16.62	172.64	0.00	0.00

Total Applied Force Summary

Structure:	CT12215-A-SBA		**Code:**	TIA-222-H	2/6/2024
Site Name:	Litchfield 3 CT		**Exposure:**	B	
Height:	149.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 86

Tower Engineering Solutions

99.25		4.15	43.01	0.00	0.00
100.00		12.44	128.66	0.00	0.00
100.34		5.68	58.71	0.00	0.00
101.00		10.81	63.41	0.00	0.00
102.00		16.45	96.22	0.00	0.00
102.25		4.10	23.99	0.00	0.00
103.00		12.31	71.81	0.00	0.00
104.00		16.39	95.38	0.00	0.00
105.00		16.36	94.96	0.00	0.00
106.00		14.41	94.54	0.00	0.00
107.00		14.38	94.12	0.00	0.00
108.00		14.34	93.70	0.00	0.00
109.00		14.30	93.28	0.00	0.00
110.00		14.26	92.86	0.00	0.00
111.00		14.22	92.44	0.00	0.00
112.00		14.18	92.02	0.00	0.00
113.00		14.14	91.60	0.00	0.00
114.00		14.10	91.18	0.00	0.00
115.00	(19) attachments	646.09	2696.86	0.00	0.00
116.00		13.28	87.04	0.00	0.00
117.00		13.20	86.62	0.00	0.00
118.00		13.13	86.20	0.00	0.00
119.00		13.05	85.78	0.00	0.00
120.00		12.97	85.36	0.00	0.00
121.00		12.88	84.95	0.00	0.00
122.00		12.80	84.53	0.00	0.00
123.00		12.72	84.11	0.00	0.00
124.00		12.64	83.69	0.00	0.00
125.00		12.55	83.27	0.00	0.00
126.00		12.47	82.85	0.00	0.00
127.00		12.38	82.43	0.00	0.00
128.00		12.30	82.01	0.00	0.00
129.00		12.21	81.59	0.00	0.00
130.00	(62) attachments	971.43	3597.92	0.00	0.00
131.00		12.04	60.35	0.00	0.00
132.00		11.95	59.93	0.00	0.00
133.00		11.86	59.51	0.00	0.00
134.00		11.77	59.09	0.00	0.00
135.00		11.68	58.67	0.00	0.00
136.00		11.59	58.25	0.00	0.00
137.00		11.50	57.83	0.00	0.00
138.00	(1) attachments	18.65	67.41	0.00	0.00
139.00		11.31	56.99	0.00	0.00
140.00	(27) attachments	1025.34	3150.83	0.00	0.00
141.00		11.13	43.45	0.00	0.00
142.00		11.03	43.03	0.00	0.00
143.00		10.94	42.61	0.00	0.00
144.00		10.84	42.19	0.00	0.00
145.00		10.75	41.77	0.00	0.00
146.00		10.65	41.36	0.00	0.00
147.00		10.55	40.94	0.00	0.00
148.00		10.45	40.52	0.00	0.00
149.00	(23) attachments	619.11	2178.00	0.00	1131.76
	Totals:	**5,450.51**	**31,501.29**	**0.00**	**1,131.76**

Linear Appurtenance Segment Forces (Factored)

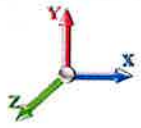
Structure:	CT12215-A-SBA	**Code:**	TIA-222-H	2/6/2024	
Site Name:	Litchfield 3 CT	**Exposure:**	B		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 87	

Tower Engineering Solutions

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00



Iterations 32

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)
1.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.054	0.000	5.321	0.00	1.10
1.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.054	0.000	5.321	0.00	2.20
1.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.054	0.000	5.321	0.00	0.16
2.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.055	0.000	5.321	0.00	1.10
2.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.055	0.000	5.321	0.00	2.20
2.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.055	0.000	5.321	0.00	0.16
3.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.055	0.000	5.321	0.00	1.10
3.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.055	0.000	5.321	0.00	2.20
3.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.055	0.000	5.321	0.00	0.16
4.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.055	0.000	5.321	0.00	1.10
4.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.055	0.000	5.321	0.00	2.20
4.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.055	0.000	5.321	0.00	0.16
5.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.055	0.000	5.321	0.00	1.10
5.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.055	0.000	5.321	0.00	2.20
5.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.055	0.000	5.321	0.00	0.16
6.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.056	0.000	5.321	0.00	1.10
6.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.056	0.000	5.321	0.00	2.20
6.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.056	0.000	5.321	0.00	0.16
7.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.056	0.000	5.321	0.00	1.10
7.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.056	0.000	5.321	0.00	2.20
7.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.056	0.000	5.321	0.00	0.16
8.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.056	0.000	5.321	0.00	1.10
8.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.056	0.000	5.321	0.00	2.20
8.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.056	0.000	5.321	0.00	0.16
9.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.056	0.000	5.321	0.00	1.10
9.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.056	0.000	5.321	0.00	2.20
9.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.056	0.000	5.321	0.00	0.16
10.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.057	0.000	5.321	0.00	1.10
10.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.057	0.000	5.321	0.00	2.20
10.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.057	0.000	5.321	0.00	0.16
11.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.057	0.000	5.321	0.00	1.10
11.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.057	0.000	5.321	0.00	2.20
11.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.057	0.000	5.321	0.00	0.16
12.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.057	0.000	5.321	0.00	1.10
12.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.057	0.000	5.321	0.00	2.20
12.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.057	0.000	5.321	0.00	0.16
13.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.057	0.000	5.321	0.00	1.10
13.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.057	0.000	5.321	0.00	2.20
13.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.057	0.000	5.321	0.00	0.16
14.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.058	0.000	5.321	0.00	1.10
14.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.058	0.000	5.321	0.00	2.20
14.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.058	0.000	5.321	0.00	0.16
15.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.058	0.000	5.321	0.00	1.10
15.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.058	0.000	5.321	0.00	2.20
15.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.058	0.000	5.321	0.00	0.16
16.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.058	0.000	5.321	0.00	1.10
16.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.058	0.000	5.321	0.00	2.20

Linear Appurtenance Segment Forces (Factored)

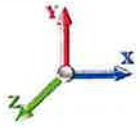
Structure: CT12215-A-SBA
Site Name: Litchfield 3 CT
Height: 149.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1 **Topography:** 1

Code: TIA-222-H
Exposure: B
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

2/6/2024

Tower Engineering Solutions

Load Case: 1.0D + 1.0W 60 mph Wind
Dead Load Factor 1.00
Wind Load Factor 1.00



Iterations 32

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)
16.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.058	0.000	5.321	0.00	0.16
17.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.059	0.000	5.321	0.00	1.10
17.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.059	0.000	5.321	0.00	2.20
17.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.059	0.000	5.321	0.00	0.16
18.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.059	0.000	5.321	0.00	1.10
18.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.059	0.000	5.321	0.00	2.20
18.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.059	0.000	5.321	0.00	0.16
19.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.059	0.000	5.321	0.00	1.10
19.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.059	0.000	5.321	0.00	2.20
19.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.059	0.000	5.321	0.00	0.16
20.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.059	0.000	5.321	0.00	1.10
20.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.059	0.000	5.321	0.00	2.20
20.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.059	0.000	5.321	0.00	0.16
21.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.060	0.000	5.321	0.00	1.10
21.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.060	0.000	5.321	0.00	2.20
21.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.060	0.000	5.321	0.00	0.16
22.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.060	0.000	5.321	0.00	1.10
22.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.060	0.000	5.321	0.00	2.20
22.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.060	0.000	5.321	0.00	0.16
23.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.060	0.000	5.321	0.00	1.10
23.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.060	0.000	5.321	0.00	2.20
23.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.060	0.000	5.321	0.00	0.16
24.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.061	0.000	5.321	0.00	1.10
24.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.061	0.000	5.321	0.00	2.20
24.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.061	0.000	5.321	0.00	0.16
25.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.061	0.000	5.321	0.00	1.10
25.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.061	0.000	5.321	0.00	2.20
25.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.061	0.000	5.321	0.00	0.16
26.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.061	0.000	5.321	0.00	1.10
26.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.061	0.000	5.321	0.00	2.20
26.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.061	0.000	5.321	0.00	0.16
27.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.061	0.000	5.321	0.00	1.10
27.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.061	0.000	5.321	0.00	2.20
27.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.061	0.000	5.321	0.00	0.16
28.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.062	0.000	5.321	0.00	1.10
28.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.062	0.000	5.321	0.00	2.20
28.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.062	0.000	5.321	0.00	0.16
29.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.062	0.000	5.321	0.00	1.10
29.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.062	0.000	5.321	0.00	2.20
29.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.062	0.000	5.321	0.00	0.16
30.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.062	0.000	5.325	0.00	1.10
30.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.062	0.000	5.325	0.00	2.20
30.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.062	0.000	5.325	0.00	0.16
31.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.063	0.000	5.375	0.00	1.10
31.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.063	0.000	5.375	0.00	2.20
31.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.063	0.000	5.375	0.00	0.16
32.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.063	0.000	5.424	0.00	1.10

Linear Appurtenance Segment Forces (Factored)

Structure:	CT12215-A-SBA	**Code:**	TIA-222-H	2/6/2024	
Site Name:	Litchfield 3 CT	**Exposure:**	B		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 89	

Tower Engineering Solutions

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00

Iterations 32

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)
32.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.063	0.000	5.424	0.00	2.20
32.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.063	0.000	5.424	0.00	0.16
33.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.063	0.000	5.472	0.00	1.10
33.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.063	0.000	5.472	0.00	2.20
33.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.063	0.000	5.472	0.00	0.16
34.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.064	0.000	5.519	0.00	1.10
34.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.064	0.000	5.519	0.00	2.20
34.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.064	0.000	5.519	0.00	0.16
35.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.064	0.000	5.565	0.00	1.10
35.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.064	0.000	5.565	0.00	2.20
35.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.064	0.000	5.565	0.00	0.16
36.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.064	0.000	5.610	0.00	1.10
36.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.064	0.000	5.610	0.00	2.20
36.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.064	0.000	5.610	0.00	0.16
37.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.065	0.000	5.654	0.00	1.10
37.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.065	0.000	5.654	0.00	2.20
37.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.065	0.000	5.654	0.00	0.16
38.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.065	0.000	5.697	0.00	1.10
38.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.065	0.000	5.697	0.00	2.20
38.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.065	0.000	5.697	0.00	0.16
39.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.065	0.000	5.740	0.00	1.10
39.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.065	0.000	5.740	0.00	2.20
39.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.065	0.000	5.740	0.00	0.16
40.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.066	0.000	5.782	0.00	1.10
40.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.066	0.000	5.782	0.00	2.20
40.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.066	0.000	5.782	0.00	0.16
41.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.066	0.000	5.822	0.00	1.10
41.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.066	0.000	5.822	0.00	2.20
41.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.066	0.000	5.822	0.00	0.16
42.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.066	0.000	5.863	0.00	1.10
42.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.066	0.000	5.863	0.00	2.20
42.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.066	0.000	5.863	0.00	0.16
43.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.067	0.000	5.902	0.00	1.10
43.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.067	0.000	5.902	0.00	2.20
43.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.067	0.000	5.902	0.00	0.16
44.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.067	0.000	5.941	0.00	1.10
44.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.067	0.000	5.941	0.00	2.20
44.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.067	0.000	5.941	0.00	0.16
45.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.067	0.000	5.979	0.00	1.10
45.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.067	0.000	5.979	0.00	2.20
45.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.067	0.000	5.979	0.00	0.16
46.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.068	0.000	6.017	0.00	1.10
46.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.068	0.000	6.017	0.00	2.20
46.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.068	0.000	6.017	0.00	0.16
47.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.068	0.000	6.054	0.00	1.10
47.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.068	0.000	6.054	0.00	2.20
47.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.068	0.000	6.054	0.00	0.16

Linear Appurtenance Segment Forces (Factored)

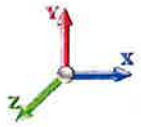
Structure:	CT12215-A-SBA	**Code:**	TIA-222-H	2/6/2024	
Site Name:	Litchfield 3 CT	**Exposure:**	B		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 90	

Tower Engineering Solutions

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00



Iterations 32

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)
47.55	1 5/8" Fiber	Yes	0.55	0.000	2.00	0.09	0.00	0.068	0.000	6.074	0.00	0.61
47.55	1.9" Fiber	Yes	0.55	0.000	0.00	0.00	0.00	0.068	0.000	6.074	0.00	1.22
47.55	1/2" Coax	Yes	0.55	0.000	0.65	0.03	0.00	0.068	0.000	6.074	0.00	0.09
48.00	1 5/8" Fiber	Yes	0.45	0.000	2.00	0.07	0.00	0.068	0.000	6.091	0.00	0.49
48.00	1.9" Fiber	Yes	0.45	0.000	0.00	0.00	0.00	0.068	0.000	6.091	0.00	0.98
48.00	1/2" Coax	Yes	0.45	0.000	0.65	0.02	0.00	0.068	0.000	6.091	0.00	0.07
49.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.069	0.000	6.127	0.00	1.10
49.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.069	0.000	6.127	0.00	2.20
49.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.069	0.000	6.127	0.00	0.16
50.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.069	0.000	6.162	0.00	1.10
50.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.069	0.000	6.162	0.00	2.20
50.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.069	0.000	6.162	0.00	0.16
51.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.112	1.035	6.197	0.00	1.10
51.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.112	1.035	6.197	0.00	2.20
51.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.112	1.035	6.197	0.00	0.00
51.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.112	1.035	6.197	0.00	0.00
52.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.112	1.036	6.232	0.00	1.10
52.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.112	1.036	6.232	0.00	2.20
52.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.112	1.036	6.232	0.00	0.00
52.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.112	1.036	6.232	0.00	0.00
52.97	1 5/8" Fiber	Yes	0.97	0.000	2.00	0.16	0.00	0.113	1.038	6.265	0.00	1.07
52.97	1.9" Fiber	Yes	0.97	0.000	0.00	0.00	0.00	0.113	1.038	6.265	0.00	2.13
52.97	1.25" Reinforcing	Yes	0.97	0.000	1.25	0.10	0.00	0.113	1.038	6.265	0.00	0.00
52.97	1" Reinforcing plate	Yes	0.97	0.000	1.00	0.08	0.00	0.113	1.038	6.265	0.00	0.00
53.00	1 5/8" Fiber	Yes	0.03	0.000	2.00	0.01	0.00	0.112	1.035	6.266	0.00	0.03
53.00	1.9" Fiber	Yes	0.03	0.000	0.00	0.00	0.00	0.112	1.035	6.266	0.00	0.07
53.00	1.25" Reinforcing	Yes	0.03	0.000	1.25	0.00	0.00	0.112	1.035	6.266	0.00	0.00
53.00	1" Reinforcing plate	Yes	0.03	0.000	1.00	0.00	0.00	0.112	1.035	6.266	0.00	0.00
54.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.112	1.036	6.299	0.00	1.10
54.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.112	1.036	6.299	0.00	2.20
54.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.112	1.036	6.299	0.00	0.00
54.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.112	1.036	6.299	0.00	0.00
55.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.112	1.037	6.332	0.00	1.10
55.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.112	1.037	6.332	0.00	2.20
55.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.112	1.037	6.332	0.00	0.00
55.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.112	1.037	6.332	0.00	0.00
56.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.113	1.039	6.365	0.00	1.10
56.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.113	1.039	6.365	0.00	2.20
56.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.113	1.039	6.365	0.00	0.00
56.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.113	1.039	6.365	0.00	0.00
57.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.114	1.041	6.397	0.00	1.10
57.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.114	1.041	6.397	0.00	2.20
57.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.114	1.041	6.397	0.00	0.00
57.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.114	1.041	6.397	0.00	0.00
58.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.114	1.043	6.429	0.00	1.10
58.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.114	1.043	6.429	0.00	2.20
58.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.114	1.043	6.429	0.00	0.00

Linear Appurtenance Segment Forces (Factored)

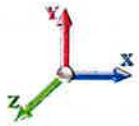
Structure:	CT12215-A-SBA	**Code:**	TIA-222-H	2/6/2024	
Site Name:	Litchfield 3 CT	**Exposure:**	B		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 91	

Tower Engineering Solutions

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00



Iterations 32

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)
58.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.114	1.043	6.429	0.00	0.00
59.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.115	1.045	6.461	0.00	1.10
59.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.115	1.045	6.461	0.00	2.20
59.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.115	1.045	6.461	0.00	0.00
59.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.115	1.045	6.461	0.00	0.00
60.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.116	1.047	6.492	0.00	1.10
60.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.116	1.047	6.492	0.00	2.20
60.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.116	1.047	6.492	0.00	0.00
60.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.116	1.047	6.492	0.00	0.00
61.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.116	1.049	6.522	0.00	1.10
61.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.116	1.049	6.522	0.00	2.20
61.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.116	1.049	6.522	0.00	0.00
61.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.116	1.049	6.522	0.00	0.00
62.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.117	1.051	6.553	0.00	1.10
62.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.117	1.051	6.553	0.00	2.20
62.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.117	1.051	6.553	0.00	0.00
62.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.117	1.051	6.553	0.00	0.00
63.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.118	1.053	6.583	0.00	1.10
63.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.118	1.053	6.583	0.00	2.20
63.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.118	1.053	6.583	0.00	0.00
63.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.118	1.053	6.583	0.00	0.00
64.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.118	1.055	6.612	0.00	1.10
64.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.118	1.055	6.612	0.00	2.20
64.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.118	1.055	6.612	0.00	0.00
64.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.118	1.055	6.612	0.00	0.00
65.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.119	1.057	6.642	0.00	1.10
65.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.119	1.057	6.642	0.00	2.20
65.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.119	1.057	6.642	0.00	0.00
65.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.119	1.057	6.642	0.00	0.00
66.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.120	1.059	6.671	0.00	1.10
66.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.120	1.059	6.671	0.00	2.20
66.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.120	1.059	6.671	0.00	0.00
66.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.120	1.059	6.671	0.00	0.00
67.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.121	1.062	6.700	0.00	1.10
67.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.121	1.062	6.700	0.00	2.20
67.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.121	1.062	6.700	0.00	0.00
67.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.121	1.062	6.700	0.00	0.00
67.92	1 5/8" Fiber	Yes	0.92	0.000	2.00	0.15	0.00	0.121	1.064	6.726	0.00	1.01
67.92	1.9" Fiber	Yes	0.92	0.000	0.00	0.00	0.00	0.121	1.064	6.726	0.00	2.02
67.92	1.25" Reinforcing	Yes	0.92	0.000	1.25	0.10	0.00	0.121	1.064	6.726	0.00	0.00
67.92	1" Reinforcing plate	Yes	0.92	0.000	1.00	0.08	0.00	0.121	1.064	6.726	0.00	0.00
68.00	1 5/8" Fiber	Yes	0.08	0.000	2.00	0.01	0.00	0.122	1.065	6.728	0.00	0.09
68.00	1.9" Fiber	Yes	0.08	0.000	0.00	0.00	0.00	0.122	1.065	6.728	0.00	0.18
68.00	1.25" Reinforcing	Yes	0.08	0.000	1.25	0.01	0.00	0.122	1.065	6.728	0.00	0.00
68.00	1" Reinforcing plate	Yes	0.08	0.000	1.00	0.01	0.00	0.122	1.065	6.728	0.00	0.00
69.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.122	1.066	6.756	0.00	1.10
69.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.122	1.066	6.756	0.00	2.20

Linear Appurtenance Segment Forces (Factored)

Structure:	CT12215-A-SBA	**Code:**	TIA-222-H	2/6/2024	
Site Name:	Litchfield 3 CT	**Exposure:**	B		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 92	

TES Tower Engineering Solutions

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00

Iterations 32

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)
69.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.122	1.066	6.756	0.00	0.00
69.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.122	1.066	6.756	0.00	0.00
70.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.123	1.068	6.784	0.00	1.10
70.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.123	1.068	6.784	0.00	2.20
70.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.123	1.068	6.784	0.00	0.00
70.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.123	1.068	6.784	0.00	0.00
71.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.094	0.000	6.812	0.00	1.10
71.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.094	0.000	6.812	0.00	2.20
71.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.094	0.000	6.812	0.00	0.00
72.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.095	0.000	6.839	0.00	1.10
72.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.095	0.000	6.839	0.00	2.20
72.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.095	0.000	6.839	0.00	0.00
73.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.096	0.000	6.866	0.00	1.10
73.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.096	0.000	6.866	0.00	2.20
73.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.096	0.000	6.866	0.00	0.00
74.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.096	0.000	6.893	0.00	1.10
74.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.096	0.000	6.893	0.00	2.20
74.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.096	0.000	6.893	0.00	0.00
75.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.097	0.000	6.919	0.00	1.10
75.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.097	0.000	6.919	0.00	2.20
75.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.097	0.000	6.919	0.00	0.00
76.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.097	0.000	6.945	0.00	1.10
76.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.097	0.000	6.945	0.00	2.20
76.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.097	0.000	6.945	0.00	0.00
77.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.098	0.000	6.971	0.00	1.10
77.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.098	0.000	6.971	0.00	2.20
77.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.098	0.000	6.971	0.00	0.00
78.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.061	0.000	6.997	0.00	1.10
78.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.061	0.000	6.997	0.00	2.20
79.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.061	0.000	7.022	0.00	1.10
79.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.061	0.000	7.022	0.00	2.20
80.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.061	0.000	7.048	0.00	1.10
80.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.061	0.000	7.048	0.00	2.20
81.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.062	0.000	7.073	0.00	1.10
81.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.062	0.000	7.073	0.00	2.20
82.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.062	0.000	7.098	0.00	1.10
82.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.062	0.000	7.098	0.00	2.20
83.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.063	0.000	7.122	0.00	1.10
83.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.063	0.000	7.122	0.00	2.20
84.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.063	0.000	7.147	0.00	1.10
84.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.063	0.000	7.147	0.00	2.20
85.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.064	0.000	7.171	0.00	1.10
85.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.064	0.000	7.171	0.00	2.20
86.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.064	0.000	7.195	0.00	1.10
86.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.064	0.000	7.195	0.00	2.20
87.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.064	0.000	7.219	0.00	1.10
87.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.064	0.000	7.219	0.00	2.20

Linear Appurtenance Segment Forces (Factored)

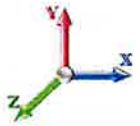
Structure:	CT12215-A-SBA	**Code:**	TIA-222-H	2/6/2024	
Site Name:	Litchfield 3 CT	**Exposure:**	B		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 93	

Tower Engineering Solutions

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00



Iterations 32

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)
88.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.065	0.000	7.242	0.00	1.10
88.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.065	0.000	7.242	0.00	2.20
89.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.065	0.000	7.266	0.00	1.10
89.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.065	0.000	7.266	0.00	2.20
90.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.066	0.000	7.289	0.00	1.10
90.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.066	0.000	7.289	0.00	2.20
91.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.066	0.000	7.312	0.00	1.10
91.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.066	0.000	7.312	0.00	2.20
92.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.067	0.000	7.335	0.00	1.10
92.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.067	0.000	7.335	0.00	2.20
93.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.067	0.000	7.358	0.00	1.10
93.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.067	0.000	7.358	0.00	2.20
94.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.068	0.000	7.380	0.00	1.10
94.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.068	0.000	7.380	0.00	2.20
95.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.068	0.000	7.402	0.00	1.10
95.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.068	0.000	7.402	0.00	2.20
96.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.069	0.000	7.425	0.00	1.10
96.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.069	0.000	7.425	0.00	2.20
96.18	1" Reinforcing plate	Yes	0.18	0.000	1.00	0.01	0.00	0.103	1.010	7.429	0.00	0.00
96.18	1 5/8" Fiber	Yes	0.18	0.000	2.00	0.03	0.00	0.103	1.010	7.429	0.00	0.19
96.18	1.9" Fiber	Yes	0.18	0.000	0.00	0.00	0.00	0.103	1.010	7.429	0.00	0.39
97.00	1" Reinforcing plate	Yes	0.82	0.000	1.00	0.07	0.00	0.104	1.011	7.447	0.00	0.00
97.00	1 5/8" Fiber	Yes	0.82	0.000	2.00	0.14	0.00	0.104	1.011	7.447	0.00	0.91
97.00	1.9" Fiber	Yes	0.82	0.000	0.00	0.00	0.00	0.104	1.011	7.447	0.00	1.81
98.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.148	1.144	7.469	0.00	0.00
98.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.148	1.144	7.469	0.00	1.10
98.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.148	1.144	7.469	0.00	2.20
98.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.148	1.144	7.469	0.00	0.00
99.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.149	1.147	7.490	0.00	0.00
99.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.149	1.147	7.490	0.00	1.10
99.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.149	1.147	7.490	0.00	2.20
99.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.149	1.147	7.490	0.00	0.00
99.25	1" Reinforcing plate	Yes	0.25	0.000	1.00	0.02	0.00	0.150	1.149	7.496	0.00	0.00
99.25	1 5/8" Fiber	Yes	0.25	0.000	2.00	0.04	0.00	0.150	1.149	7.496	0.00	0.28
99.25	1.9" Fiber	Yes	0.25	0.000	0.00	0.00	0.00	0.150	1.149	7.496	0.00	0.55
99.25	1.25" Reinforcing	Yes	0.25	0.000	1.25	0.03	0.00	0.150	1.149	7.496	0.00	0.00
100.00	1" Reinforcing plate	Yes	0.75	0.000	1.00	0.06	0.00	0.150	1.151	7.512	0.00	0.00
100.00	1 5/8" Fiber	Yes	0.75	0.000	2.00	0.13	0.00	0.150	1.151	7.512	0.00	0.83
100.00	1.9" Fiber	Yes	0.75	0.000	0.00	0.00	0.00	0.150	1.151	7.512	0.00	1.65
100.00	1.25" Reinforcing	Yes	0.75	0.000	1.25	0.08	0.00	0.150	1.151	7.512	0.00	0.00
100.34	1" Reinforcing plate	Yes	0.34	0.000	1.00	0.03	0.00	0.151	1.153	7.519	0.00	0.00
100.34	1 5/8" Fiber	Yes	0.34	0.000	2.00	0.06	0.00	0.151	1.153	7.519	0.00	0.38
100.34	1.9" Fiber	Yes	0.34	0.000	0.00	0.00	0.00	0.151	1.153	7.519	0.00	0.76
100.34	1.25" Reinforcing	Yes	0.34	0.000	1.25	0.04	0.00	0.151	1.153	7.519	0.00	0.00
101.00	1" Reinforcing plate	Yes	0.66	0.000	1.00	0.05	0.00	0.149	1.148	7.533	0.00	0.00
101.00	1 5/8" Fiber	Yes	0.66	0.000	2.00	0.11	0.00	0.149	1.148	7.533	0.00	0.72
101.00	1.9" Fiber	Yes	0.66	0.000	0.00	0.00	0.00	0.149	1.148	7.533	0.00	1.44

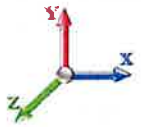
Linear Appurtenance Segment Forces (Factored)

Structure: CT12215-A-SBA
Site Name: Litchfield 3 CT
Height: 149.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1 **Topography:** 1

Code: TIA-222-H 2/6/2024
Exposure: B
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

Tower Engineering Solutions

Load Case: 1.0D + 1.0W 60 mph Wind
Dead Load Factor 1.00
Wind Load Factor 1.00



Iterations 32

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)
101.00	1.25" Reinforcing	Yes	0.66	0.000	1.25	0.07	0.00	0.149	1.148	7.533	0.00	0.00
102.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.150	1.151	7.554	0.00	0.00
102.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.150	1.151	7.554	0.00	1.10
102.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.150	1.151	7.554	0.00	2.20
102.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.150	1.151	7.554	0.00	0.00
102.25	1" Reinforcing plate	Yes	0.25	0.000	1.00	0.02	0.00	0.151	1.153	7.560	0.00	0.00
102.25	1 5/8" Fiber	Yes	0.25	0.000	2.00	0.04	0.00	0.151	1.153	7.560	0.00	0.28
102.25	1.9" Fiber	Yes	0.25	0.000	0.00	0.00	0.00	0.151	1.153	7.560	0.00	0.55
102.25	1.25" Reinforcing	Yes	0.25	0.000	1.25	0.03	0.00	0.151	1.153	7.560	0.00	0.00
103.00	1" Reinforcing plate	Yes	0.75	0.000	1.00	0.06	0.00	0.152	1.155	7.575	0.00	0.00
103.00	1 5/8" Fiber	Yes	0.75	0.000	2.00	0.13	0.00	0.152	1.155	7.575	0.00	0.83
103.00	1.9" Fiber	Yes	0.75	0.000	0.00	0.00	0.00	0.152	1.155	7.575	0.00	1.65
103.00	1.25" Reinforcing	Yes	0.75	0.000	1.25	0.08	0.00	0.152	1.155	7.575	0.00	0.00
104.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.153	1.158	7.596	0.00	0.00
104.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.153	1.158	7.596	0.00	1.10
104.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.153	1.158	7.596	0.00	2.20
104.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.153	1.158	7.596	0.00	0.00
105.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.154	1.161	7.617	0.00	0.00
105.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.154	1.161	7.617	0.00	1.10
105.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.154	1.161	7.617	0.00	2.20
105.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.154	1.161	7.617	0.00	0.00
106.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.109	1.028	7.638	0.00	0.00
106.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.109	1.028	7.638	0.00	1.10
106.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.109	1.028	7.638	0.00	2.20
107.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.110	1.031	7.658	0.00	0.00
107.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.110	1.031	7.658	0.00	1.10
107.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.110	1.031	7.658	0.00	2.20
108.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.111	1.033	7.679	0.00	0.00
108.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.111	1.033	7.679	0.00	1.10
108.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.111	1.033	7.679	0.00	2.20
109.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.112	1.036	7.699	0.00	0.00
109.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.112	1.036	7.699	0.00	1.10
109.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.112	1.036	7.699	0.00	2.20
110.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.113	1.038	7.719	0.00	0.00
110.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.113	1.038	7.719	0.00	1.10
110.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.113	1.038	7.719	0.00	2.20
111.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.114	1.041	7.739	0.00	0.00
111.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.114	1.041	7.739	0.00	1.10
111.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.114	1.041	7.739	0.00	2.20
112.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.115	1.044	7.759	0.00	0.00
112.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.115	1.044	7.759	0.00	1.10
112.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.115	1.044	7.759	0.00	2.20
113.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.116	1.047	7.779	0.00	0.00
113.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.116	1.047	7.779	0.00	1.10
113.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.116	1.047	7.779	0.00	2.20
114.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.117	1.050	7.798	0.00	0.00
114.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.117	1.050	7.798	0.00	1.10

Linear Appurtenance Segment Forces (Factored)

Structure:	CT12215-A-SBA	**Code:**	TIA-222-H	2/6/2024	
Site Name:	Litchfield 3 CT	**Exposure:**	B		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 95	

Tower Engineering Solutions

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00

Iterations 32

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)
114.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.117	1.050	7.798	0.00	2.20
115.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.117	1.052	7.818	0.00	0.00
115.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.117	1.052	7.818	0.00	1.10
115.00	1.9" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.117	1.052	7.818	0.00	2.20
116.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.039	0.000	7.837	0.00	0.00
									Totals:		**0.0**	**387.5**

Calculated Forces

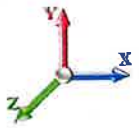
Structure: CT12215-A-SBA
Site Name: Litchfield 3 CT
Height: 149.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1 **Topography:** 1

Code: TIA-222-H
Exposure: B
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

2/6/2024

Tower Engineering Solutions

Load Case: 1.0D + 1.0W 60 mph Wind
Dead Load Factor 1.00
Wind Load Factor 1.00



Iterations 32

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	-31.50	-5.45	0.00	-626.70	0.00	626.70	3031.07	830.09	3284.29	2977.95	0.00	0.000	0.000	0.221
1.00	-31.30	-5.44	0.00	-621.25	0.00	621.25	3023.73	826.48	3255.81	2957.74	0.00	-0.013	0.000	0.220
2.00	-31.10	-5.43	0.00	-615.81	0.00	615.81	3016.33	822.87	3227.46	2937.55	0.01	-0.026	0.000	0.220
3.00	-30.90	-5.42	0.00	-610.38	0.00	610.38	3008.89	819.26	3199.23	2917.37	0.01	-0.039	0.000	0.220
4.00	-30.70	-5.41	0.00	-604.96	0.00	604.96	3001.40	815.66	3171.12	2897.21	0.02	-0.053	0.000	0.219
5.00	-30.50	-5.40	0.00	-599.55	0.00	599.55	2993.85	812.05	3143.13	2877.06	0.03	-0.066	0.000	0.219
6.00	-30.30	-5.39	0.00	-594.15	0.00	594.15	2986.25	808.44	3115.27	2856.93	0.05	-0.079	0.000	0.218
7.00	-30.10	-5.38	0.00	-588.76	0.00	588.76	2978.60	804.84	3087.54	2836.81	0.07	-0.093	0.000	0.218
8.00	-29.90	-5.37	0.00	-583.38	0.00	583.38	2970.91	801.23	3059.93	2816.71	0.09	-0.106	0.000	0.217
9.00	-29.70	-5.36	0.00	-578.01	0.00	578.01	2963.16	797.62	3032.44	2796.63	0.11	-0.120	0.000	0.217
10.00	-29.51	-5.35	0.00	-572.66	0.00	572.66	2955.36	794.02	3005.07	2776.57	0.14	-0.133	0.000	0.216
11.00	-29.31	-5.34	0.00	-567.31	0.00	567.31	2947.51	790.41	2977.83	2756.53	0.17	-0.147	0.000	0.216
12.00	-29.12	-5.33	0.00	-561.97	0.00	561.97	2939.60	786.80	2950.72	2736.51	0.20	-0.161	0.000	0.215
13.00	-28.92	-5.32	0.00	-556.64	0.00	556.64	2931.65	783.20	2923.73	2716.51	0.24	-0.174	0.000	0.215
14.00	-28.73	-5.31	0.00	-551.32	0.00	551.32	2923.65	779.59	2896.86	2696.53	0.27	-0.188	0.000	0.214
15.00	-28.54	-5.30	0.00	-546.01	0.00	546.01	2915.59	775.98	2870.11	2676.57	0.32	-0.202	0.000	0.214
16.00	-28.35	-5.29	0.00	-540.71	0.00	540.71	2907.49	772.37	2843.49	2656.64	0.36	-0.216	0.000	0.213
17.00	-28.16	-5.28	0.00	-535.42	0.00	535.42	2899.33	768.77	2817.00	2636.73	0.41	-0.230	0.000	0.213
18.00	-27.96	-5.27	0.00	-530.14	0.00	530.14	2891.12	765.16	2790.63	2616.84	0.46	-0.244	0.000	0.212
19.00	-27.78	-5.26	0.00	-524.88	0.00	524.88	2882.86	761.55	2764.38	2596.98	0.51	-0.258	0.000	0.212
20.00	-27.59	-5.25	0.00	-519.62	0.00	519.62	2874.56	757.95	2738.25	2577.14	0.56	-0.272	0.000	0.211
21.00	-27.40	-5.24	0.00	-514.37	0.00	514.37	2866.20	754.34	2712.25	2557.33	0.62	-0.286	0.000	0.211
22.00	-27.21	-5.23	0.00	-509.13	0.00	509.13	2857.79	750.73	2686.38	2537.55	0.68	-0.301	0.000	0.210
23.00	-27.02	-5.22	0.00	-503.90	0.00	503.90	2849.32	747.13	2660.63	2517.79	0.75	-0.315	0.000	0.210
24.00	-26.84	-5.21	0.00	-498.68	0.00	498.68	2840.81	743.52	2635.00	2498.06	0.82	-0.329	0.000	0.209
25.00	-26.65	-5.20	0.00	-493.47	0.00	493.47	2832.25	739.91	2609.50	2478.36	0.89	-0.344	0.000	0.209
26.00	-26.47	-5.19	0.00	-488.27	0.00	488.27	2823.63	736.31	2584.12	2458.69	0.96	-0.358	0.000	0.208
27.00	-26.28	-5.18	0.00	-483.08	0.00	483.08	2814.97	732.70	2558.86	2439.05	1.04	-0.373	0.000	0.207
28.00	-26.10	-5.17	0.00	-477.90	0.00	477.90	2806.25	729.09	2533.73	2419.44	1.12	-0.388	0.000	0.207
29.00	-25.92	-5.16	0.00	-472.73	0.00	472.73	2797.49	725.48	2508.72	2399.86	1.20	-0.402	0.000	0.206
30.00	-25.73	-5.15	0.00	-467.57	0.00	467.57	2788.67	721.88	2483.84	2380.32	1.29	-0.417	0.000	0.206
31.00	-25.55	-5.14	0.00	-462.42	0.00	462.42	2779.80	718.27	2459.08	2360.80	1.37	-0.432	0.000	0.205
32.00	-25.37	-5.13	0.00	-457.28	0.00	457.28	2770.88	714.66	2434.44	2341.32	1.47	-0.447	0.000	0.205
33.00	-25.19	-5.12	0.00	-452.15	0.00	452.15	2761.91	711.06	2409.93	2321.88	1.56	-0.462	0.000	0.204
34.00	-25.01	-5.11	0.00	-447.03	0.00	447.03	2752.89	707.45	2385.54	2302.46	1.66	-0.477	0.000	0.203
35.00	-24.83	-5.10	0.00	-441.92	0.00	441.92	2743.82	703.84	2361.28	2283.08	1.76	-0.492	0.000	0.203
36.00	-24.66	-5.09	0.00	-436.82	0.00	436.82	2734.69	700.24	2337.14	2263.74	1.87	-0.507	0.000	0.202
37.00	-24.48	-5.08	0.00	-431.73	0.00	431.73	2725.52	696.63	2313.13	2244.44	1.97	-0.522	0.000	0.201
38.00	-24.30	-5.07	0.00	-426.65	0.00	426.65	2716.29	693.02	2289.23	2225.17	2.09	-0.537	0.000	0.201
39.00	-24.13	-5.06	0.00	-421.58	0.00	421.58	2707.02	689.42	2265.47	2205.94	2.20	-0.552	0.000	0.200
40.00	-23.95	-5.05	0.00	-416.53	0.00	416.53	2697.69	685.81	2241.82	2186.75	2.32	-0.568	0.000	0.199
41.00	-23.78	-5.04	0.00	-411.48	0.00	411.48	2688.32	682.20	2218.30	2167.60	2.44	-0.583	0.000	0.199
42.00	-23.60	-5.02	0.00	-406.45	0.00	406.45	2678.89	678.59	2194.91	2148.48	2.56	-0.598	0.000	0.198
43.00	-23.43	-5.01	0.00	-401.42	0.00	401.42	2669.41	674.99	2171.64	2129.41	2.69	-0.614	0.000	0.197
44.00	-23.26	-5.00	0.00	-396.41	0.00	396.41	2659.88	671.38	2148.49	2110.38	2.82	-0.629	0.000	0.197
45.00	-23.09	-4.99	0.00	-391.41	0.00	391.41	2650.30	667.77	2125.47	2091.39	2.95	-0.645	0.000	0.196
46.00	-22.92	-4.98	0.00	-386.42	0.00	386.42	2640.67	664.17	2102.57	2072.44	3.09	-0.661	0.000	0.195
47.00	-22.75	-4.97	0.00	-381.44	0.00	381.44	2630.98	660.56	2079.79	2053.54	3.23	-0.676	0.000	0.194

Calculated Forces

Structure: CT12215-A-SBA
Site Name: Litchfield 3 CT
Height: 149.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1 **Topography:** 1

Code: TIA-222-H
Exposure: B
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

2/6/2024

TES Tower Engineering Solutions

47.55	-22.65	-4.96	0.00	-378.69	0.00	378.69	2625.60	658.56	2067.24	2043.10	3.31	-0.685	0.000	0.194
48.00	-22.53	-4.96	0.00	-376.48	0.00	376.48	2621.25	656.95	2057.14	2034.68	3.37	-0.692	0.000	0.194
49.00	-22.26	-4.94	0.00	-371.52	0.00	371.52	2611.47	653.35	2034.61	2015.86	3.52	-0.708	0.000	0.193
50.00	-21.99	-4.93	0.00	-366.58	0.00	366.58	2601.63	649.74	2012.21	1997.09	3.67	-0.724	0.000	0.192
51.00	-21.72	-4.91	0.00	-361.65	0.00	361.65	2591.74	646.13	1989.93	1978.37	3.82	-0.740	0.000	0.191
52.00	-21.45	-4.90	0.00	-356.74	0.00	356.74	2581.81	642.52	1967.78	1959.69	3.98	-0.756	0.000	0.093
52.97	-21.19	-4.88	0.00	-351.99	0.00	351.99	1914.68	519.05	1605.21	1470.11	4.13	-0.763	0.000	0.102
53.00	-21.19	-4.88	0.00	-351.84	0.00	351.84	1914.50	518.97	1604.67	1469.72	4.14	-0.763	0.000	0.111
54.00	-21.05	-4.87	0.00	-346.96	0.00	346.96	1908.40	516.08	1586.88	1456.85	4.30	-0.772	0.000	0.110
55.00	-20.91	-4.85	0.00	-342.10	0.00	342.10	1902.26	513.20	1569.18	1443.98	4.46	-0.780	0.000	0.109
56.00	-20.77	-4.83	0.00	-337.25	0.00	337.25	1896.06	510.31	1551.58	1431.13	4.63	-0.789	0.000	0.108
57.00	-20.63	-4.82	0.00	-332.41	0.00	332.41	1889.81	507.43	1534.09	1418.29	4.79	-0.797	0.000	0.107
58.00	-20.49	-4.80	0.00	-327.60	0.00	327.60	1883.51	504.54	1516.69	1405.47	4.96	-0.806	0.000	0.106
59.00	-20.35	-4.79	0.00	-322.79	0.00	322.79	1877.16	501.65	1499.39	1392.67	5.13	-0.814	0.000	0.105
60.00	-20.21	-4.77	0.00	-318.01	0.00	318.01	1870.76	498.77	1482.19	1379.88	5.30	-0.822	0.000	0.104
61.00	-20.07	-4.76	0.00	-313.23	0.00	313.23	1864.31	495.88	1465.09	1367.11	5.47	-0.831	0.000	0.103
62.00	-19.94	-4.74	0.00	-308.48	0.00	308.48	1857.80	493.00	1448.09	1354.36	5.65	-0.839	0.000	0.102
63.00	-19.80	-4.72	0.00	-303.74	0.00	303.74	1851.25	490.11	1431.19	1341.63	5.83	-0.848	0.000	0.101
64.00	-19.67	-4.71	0.00	-299.01	0.00	299.01	1844.65	487.23	1414.38	1328.91	6.00	-0.856	0.000	0.100
65.00	-19.53	-4.69	0.00	-294.31	0.00	294.31	1837.99	484.34	1397.68	1316.22	6.18	-0.864	0.000	0.099
66.00	-19.40	-4.68	0.00	-289.61	0.00	289.61	1831.29	481.46	1381.08	1303.55	6.37	-0.873	0.000	0.099
67.00	-19.26	-4.66	0.00	-284.94	0.00	284.94	1824.53	478.57	1364.57	1290.90	6.55	-0.881	0.000	0.098
67.92	-19.14	-4.64	0.00	-280.65	0.00	280.65	1818.27	475.91	1349.47	1279.28	6.72	-0.889	0.000	0.097
68.00	-19.13	-4.64	0.00	-280.28	0.00	280.28	1817.72	475.68	1348.17	1278.27	6.74	-0.889	0.000	0.075
69.00	-19.00	-4.63	0.00	-275.63	0.00	275.63	1810.86	472.80	1331.86	1265.67	6.92	-0.896	0.000	0.136
70.00	-18.86	-4.61	0.00	-271.00	0.00	271.00	1803.95	469.91	1315.65	1253.09	7.11	-0.907	0.000	0.135
71.00	-18.73	-4.60	0.00	-266.39	0.00	266.39	1796.99	467.03	1299.54	1240.53	7.30	-0.919	0.000	0.134
72.00	-18.60	-4.59	0.00	-261.79	0.00	261.79	1789.98	464.14	1283.53	1228.00	7.50	-0.931	0.000	0.132
73.00	-18.46	-4.56	0.00	-257.21	0.00	257.21	1782.92	461.26	1267.62	1215.49	7.69	-0.943	0.000	0.131
74.00	-18.33	-4.55	0.00	-252.64	0.00	252.64	1775.81	458.37	1251.81	1203.02	7.89	-0.954	0.000	0.130
75.00	-18.20	-4.54	0.00	-248.09	0.00	248.09	1768.64	455.49	1236.10	1190.56	8.09	-0.966	0.000	0.128
76.00	-18.07	-4.52	0.00	-243.56	0.00	243.56	1761.43	452.60	1220.49	1178.14	8.30	-0.978	0.000	0.217
77.00	-17.94	-4.51	0.00	-239.03	0.00	239.03	1754.16	449.71	1204.98	1165.74	8.50	-0.998	0.000	0.215
78.00	-17.82	-4.50	0.00	-234.52	0.00	234.52	1746.84	446.83	1189.56	1153.37	8.71	-1.018	0.000	0.214
79.00	-17.69	-4.49	0.00	-230.02	0.00	230.02	1739.48	443.94	1174.25	1141.03	8.93	-1.038	0.000	0.212
80.00	-17.56	-4.48	0.00	-225.53	0.00	225.53	1732.06	441.06	1159.03	1128.72	9.15	-1.058	0.000	0.210
81.00	-17.43	-4.47	0.00	-221.05	0.00	221.05	1724.59	438.17	1143.92	1116.45	9.37	-1.078	0.000	0.208
82.00	-17.31	-4.45	0.00	-216.59	0.00	216.59	1717.07	435.29	1128.90	1104.20	9.60	-1.098	0.000	0.206
83.00	-17.18	-4.44	0.00	-212.13	0.00	212.13	1709.50	432.40	1113.98	1091.99	9.83	-1.117	0.000	0.204
84.00	-17.06	-4.43	0.00	-207.69	0.00	207.69	1701.88	429.52	1099.17	1079.81	10.07	-1.137	0.000	0.202
85.00	-16.93	-4.42	0.00	-203.26	0.00	203.26	1694.20	426.63	1084.45	1067.66	10.31	-1.157	0.000	0.200
86.00	-16.81	-4.41	0.00	-198.84	0.00	198.84	1686.48	423.74	1069.83	1055.54	10.55	-1.177	0.000	0.198
87.00	-16.69	-4.40	0.00	-194.43	0.00	194.43	1678.71	420.86	1055.31	1043.46	10.80	-1.197	0.000	0.196
88.00	-16.56	-4.38	0.00	-190.04	0.00	190.04	1670.88	417.97	1040.88	1031.42	11.06	-1.217	0.000	0.194
89.00	-16.44	-4.37	0.00	-185.65	0.00	185.65	1663.00	415.09	1026.56	1019.41	11.31	-1.236	0.000	0.192
90.00	-16.32	-4.36	0.00	-181.28	0.00	181.28	1655.08	412.20	1012.34	1007.44	11.57	-1.256	0.000	0.190
91.00	-16.20	-4.35	0.00	-176.92	0.00	176.92	1647.10	409.32	998.22	995.51	11.84	-1.276	0.000	0.188
92.00	-16.08	-4.34	0.00	-172.57	0.00	172.57	1639.07	406.43	984.19	983.61	12.11	-1.295	0.000	0.185
93.00	-15.96	-4.33	0.00	-168.23	0.00	168.23	1630.99	403.55	970.27	971.76	12.38	-1.315	0.000	0.183
94.00	-15.84	-4.31	0.00	-163.91	0.00	163.91	1622.86	400.66	956.44	959.94	12.66	-1.334	0.000	0.181
95.00	-15.72	-4.30	0.00	-159.60	0.00	159.60	1614.68	397.77	942.71	948.16	12.94	-1.353	0.000	0.178
96.00	-15.60	-4.29	0.00	-155.29	0.00	155.29	1606.45	394.89	929.08	936.43	13.23	-1.372	0.000	0.176
96.18	-15.58	-4.29	0.00	-154.54	0.00	154.54	1604.99	394.38	926.69	934.36	13.28	-1.376	0.000	0.175
97.00	-15.44	-4.28	0.00	-151.01	0.00	151.01	1598.16	392.00	915.56	924.73	13.52	-1.392	0.000	0.173
98.00	-15.26	-4.26	0.00	-146.73	0.00	146.73	1589.83	389.12	902.13	913.08	13.81	-1.410	0.000	0.170
99.00	-15.09	-4.24	0.00	-142.47	0.00	142.47	1581.44	386.23	888.80	901.47	14.11	-1.429	0.000	0.168
99.25	-15.04	-4.24	0.00	-141.41	0.00	141.41	1579.34	385.51	885.48	898.57	14.18	-1.434	0.000	0.094

Calculated Forces

Structure: CT12215-A-SBA
Site Name: Litchfield 3 CT
Height: 149.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1 **Topography:** 1

Code: TIA-222-H
Exposure: B
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

2/6/2024

TES Tower Engineering Solutions

100.00	-14.92	-4.22	0.00	-138.23	0.00	138.23	1573.01	383.35	875.57	889.90	14.41	-1.442	0.000	0.093
100.34	-14.86	-4.22	0.00	-136.78	0.00	136.78	1075.68	291.34	674.27	618.09	14.51	-1.445	0.000	0.104
101.00	-14.79	-4.21	0.00	-134.01	0.00	134.01	1072.67	289.91	667.71	613.33	14.71	-1.452	0.000	0.117
102.00	-14.70	-4.19	0.00	-129.81	0.00	129.81	1068.04	287.75	657.78	606.10	15.02	-1.464	0.000	0.114
102.25	-14.67	-4.19	0.00	-128.76	0.00	128.76	1066.88	287.21	655.30	604.29	15.09	-1.467	0.000	0.113
102.25	-14.67	-4.19	0.00	-128.76	0.00	128.76	1066.88	287.21	655.30	604.29	15.09	-1.467	0.000	0.216
103.00	-14.60	-4.18	0.00	-125.62	0.00	125.62	1063.37	285.59	647.92	598.87	15.33	-1.476	0.000	0.224
104.00	-14.50	-4.17	0.00	-121.44	0.00	121.44	1058.64	283.42	638.14	591.66	15.64	-1.498	0.000	0.219
105.00	-14.41	-4.15	0.00	-117.27	0.00	117.27	1053.86	281.26	628.43	584.47	15.95	-1.521	0.000	0.215
106.00	-14.31	-4.14	0.00	-113.12	0.00	113.12	1049.03	279.09	618.79	577.28	16.27	-1.543	0.000	0.210
107.00	-14.22	-4.13	0.00	-108.98	0.00	108.98	1044.15	276.93	609.23	570.11	16.60	-1.565	0.000	0.205
108.00	-14.12	-4.12	0.00	-104.85	0.00	104.85	1039.22	274.77	599.75	562.95	16.93	-1.587	0.000	0.200
109.00	-14.03	-4.11	0.00	-100.73	0.00	100.73	1034.24	272.60	590.34	555.81	17.27	-1.608	0.000	0.195
110.00	-13.93	-4.09	0.00	-96.63	0.00	96.63	1029.21	270.44	581.00	548.68	17.60	-1.629	0.000	0.190
111.00	-13.84	-4.08	0.00	-92.53	0.00	92.53	1024.13	268.27	571.74	541.57	17.95	-1.650	0.000	0.185
112.00	-13.75	-4.07	0.00	-88.45	0.00	88.45	1018.99	266.11	562.55	534.48	18.30	-1.670	0.000	0.179
113.00	-13.65	-4.06	0.00	-84.38	0.00	84.38	1013.81	263.94	553.44	527.40	18.65	-1.690	0.000	0.174
114.00	-13.56	-4.05	0.00	-80.32	0.00	80.32	1008.57	261.78	544.40	520.34	19.00	-1.709	0.000	0.168
115.00	-10.89	-3.32	0.00	-76.28	0.00	76.28	1003.28	259.62	535.44	513.31	19.36	-1.728	0.000	0.160
116.00	-10.80	-3.31	0.00	-72.95	0.00	72.95	997.95	257.45	526.55	506.29	19.73	-1.746	0.000	0.155
117.00	-10.71	-3.30	0.00	-69.64	0.00	69.64	992.56	255.29	517.73	499.29	20.10	-1.764	0.000	0.150
118.00	-10.62	-3.29	0.00	-66.35	0.00	66.35	987.12	253.12	508.99	492.31	20.47	-1.782	0.000	0.146
119.00	-10.54	-3.27	0.00	-63.06	0.00	63.06	981.63	250.96	500.33	485.36	20.84	-1.799	0.000	0.141
120.00	-10.45	-3.26	0.00	-59.79	0.00	59.79	976.09	248.80	491.73	478.42	21.22	-1.816	0.000	0.136
121.00	-10.37	-3.25	0.00	-56.53	0.00	56.53	970.50	246.63	483.22	471.51	21.60	-1.832	0.000	0.131
122.00	-10.28	-3.24	0.00	-53.28	0.00	53.28	964.85	244.47	474.77	464.62	21.99	-1.848	0.000	0.126
123.00	-10.20	-3.22	0.00	-50.05	0.00	50.05	959.16	242.30	466.41	457.76	22.38	-1.863	0.000	0.120
124.00	-10.11	-3.21	0.00	-46.82	0.00	46.82	953.42	240.14	458.11	450.92	22.77	-1.878	0.000	0.115
125.00	-10.03	-3.20	0.00	-43.61	0.00	43.61	947.62	237.97	449.89	444.11	23.16	-1.892	0.000	0.109
126.00	-9.95	-3.18	0.00	-40.42	0.00	40.42	941.77	235.81	441.75	437.32	23.56	-1.906	0.000	0.103
127.00	-9.86	-3.17	0.00	-37.23	0.00	37.23	935.88	233.65	433.67	430.56	23.96	-1.918	0.000	0.097
128.00	-9.78	-3.16	0.00	-34.06	0.00	34.06	929.93	231.48	425.68	423.83	24.37	-1.930	0.000	0.091
129.00	-9.70	-3.14	0.00	-30.91	0.00	30.91	923.93	229.32	417.76	417.13	24.77	-1.942	0.000	0.085
130.00	-6.14	-2.05	0.00	-27.76	0.00	27.76	917.88	227.15	409.91	410.45	25.18	-1.952	0.000	0.074
131.00	-6.08	-2.04	0.00	-25.71	0.00	25.71	911.78	224.99	402.13	403.81	25.59	-1.962	0.000	0.070
132.00	-6.02	-2.03	0.00	-23.67	0.00	23.67	905.63	222.83	394.44	397.19	26.00	-1.971	0.000	0.066
133.00	-5.96	-2.01	0.00	-21.64	0.00	21.64	899.43	220.66	386.81	390.61	26.42	-1.980	0.000	0.062
134.00	-5.90	-2.00	0.00	-19.63	0.00	19.63	893.17	218.50	379.26	384.05	26.83	-1.988	0.000	0.058
135.00	-5.84	-1.99	0.00	-17.63	0.00	17.63	886.87	216.33	371.78	377.53	27.25	-1.996	0.000	0.053
136.00	-5.78	-1.98	0.00	-15.64	0.00	15.64	880.51	214.17	364.38	371.04	27.67	-2.003	0.000	0.049
137.00	-5.72	-1.96	0.00	-13.66	0.00	13.66	874.11	212.00	357.06	364.59	28.09	-2.010	0.000	0.044
138.00	-5.66	-1.94	0.00	-11.70	0.00	11.70	867.65	209.84	349.80	358.17	28.51	-2.015	0.000	0.039
139.00	-5.60	-1.93	0.00	-9.76	0.00	9.76	861.15	207.68	342.63	351.78	28.93	-2.020	0.000	0.034
140.00	-2.49	-0.79	0.00	-7.83	0.00	7.83	854.59	205.51	335.52	345.43	29.36	-2.025	0.000	0.026
141.00	-2.44	-0.78	0.00	-7.04	0.00	7.04	847.98	203.35	328.49	339.11	29.78	-2.028	0.000	0.024
142.00	-2.40	-0.77	0.00	-6.26	0.00	6.26	841.32	201.18	321.54	332.84	30.21	-2.032	0.000	0.022
143.00	-2.36	-0.76	0.00	-5.49	0.00	5.49	834.61	199.02	314.66	326.60	30.63	-2.035	0.000	0.020
144.00	-2.32	-0.74	0.00	-4.73	0.00	4.73	827.84	196.86	307.85	320.39	31.06	-2.038	0.000	0.018
145.00	-2.28	-0.73	0.00	-3.99	0.00	3.99	821.03	194.69	301.12	314.23	31.48	-2.040	0.000	0.015
146.00	-2.24	-0.72	0.00	-3.26	0.00	3.26	814.17	192.53	294.46	308.10	31.91	-2.042	0.000	0.013
147.00	-2.19	-0.71	0.00	-2.54	0.00	2.54	805.87	190.36	287.88	301.50	32.34	-2.044	0.000	0.011
148.00	-2.15	-0.70	0.00	-1.83	0.00	1.83	796.71	188.20	281.37	294.65	32.77	-2.045	0.000	0.009
149.00	0.00	-0.62	0.00	-1.13	0.00	1.13	787.55	186.03	274.94	287.88	33.20	-2.046	0.000	0.004

Final Analysis Summary

Structure:	CT12215-A-SBA	**Code:**	TIA-222-H	2/6/2024	
Site Name:	Litchfield 3 CT	**Exposure:**	B		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 99	

Tower Engineering Solutions

Reactions

Load Case	Shear FX (kips)	Shear FZ (kips)	Axial FY (kips)	Moment MX (ft-kips)	Moment MY (ft-kips)	Moment MZ (ft-kips)
1.2D + 1.0W 115 mph Wind	22.4	0.00	37.79	0.00	0.00	2601.17
0.9D + 1.0W 115 mph Wind	22.4	0.00	28.34	0.00	0.00	2551.22
1.2D + 1.0Di + 1.0Wi 40 mph Wind	4.0	0.00	53.24	0.00	0.00	471.68
1.2D + 1.0Ev + 1.0Eh	0.4	0.00	39.05	0.00	0.00	57.28
0.9D + 1.0Ev + 1.0Eh	0.4	0.00	29.54	0.00	0.00	56.19
1.0D + 1.0W 60 mph Wind	5.5	0.00	31.50	0.00	0.00	626.70

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 + 1.0W 115 mph Wind	-15.86	-17.42	0.00	-523.38	0.00	-523.38	1063.37	285.59	647.92	598.87	103.00	0.893
0.9D + 1.0W 115 mph Wind	-28.34	-22.39	0.00	-2551.2	0.00	-2551.2	3031.07	830.09	3284.29	2977.95	0.00	0.867
1.2D + 1.0Di + 1.0Wi 40 mph Wind	-26.78	-3.14	0.00	-95.02	0.00	-95.02	1063.37	285.59	647.92	598.87	103.00	0.184
1.2D + 1.0Ev + 1.0Eh	-18.22	-0.44	0.00	-13.73	0.00	-13.73	1063.37	285.59	647.92	598.87	103.00	0.040
0.9D + 1.0Ev + 1.0Eh	-13.79	-0.43	0.00	-13.36	0.00	-13.36	1063.37	285.59	647.92	598.87	103.00	0.035
1.0D + 1.0W 60 mph Wind	-14.60	-4.18	0.00	-125.62	0.00	-125.62	1063.37	285.59	647.92	598.87	103.00	0.224

Additional Steel Summary

			Intermediate Connectors			Lower Termination				Upper Termination				Max Member			
Elev From (ft)	Elev To (ft)	Member	VQ/I (lb/in)	Vu (kips)	phi Vn (kips)	MQ/I (kips)	phi Vn (kips)	Num Reqd	Num Actual	MQ/I (kips)	phi Vn (kips)	Num Reqd	Num Actual	Pu (kips)	phi Pn (kips)	phi Tn (kips)	Ratio
52.0	68.0	(3) PLT-4.5"x 1-1/4"(1.25"ho	202.8	4.87	37.1	151.2	33.4	5	8	114.8	33.4	4	8	163.25	296.2	239.06	0.683
52.0	68.0	(3) LNP-LP6X100-G-20TT	214.8	5.16	25.3	160.2	22.7	8	8	121.6	22.7	6	8	173.01	297.8	288.75	0.599
67.9	75.0	(3) PLT-4.5"x 1-1/4"(1.25"ho	-303.0	-7.27	37.1	114.9	33.4	4	8	199.1	33.4	6	8	208.44	296.2	239.06	0.872
99.3	102.3	(3) PLT-4x1.25 (1.25 Hole)	401.6	8.83	37.1	138.4	33.4	5	9	148.1	33.4	5	9	152.00	267.8	201.56	0.754

Monopole Mat Foundation Design

Customer Name:	Verizon	TIA Standard:	TIA-222-H
Site Name:		Structure Height (Ft.):	149
Site Number:	CT12215-A-SBA	Engineer Name:	H. You
Engr. Number:	145013	Engineer Login ID:	

Date: 2/6/2024

Foundation Info Obtained from: Drawings/Calculations

Structure Type: Monopole

Analysis or Design? Analysis

Base Reactions (Factored):

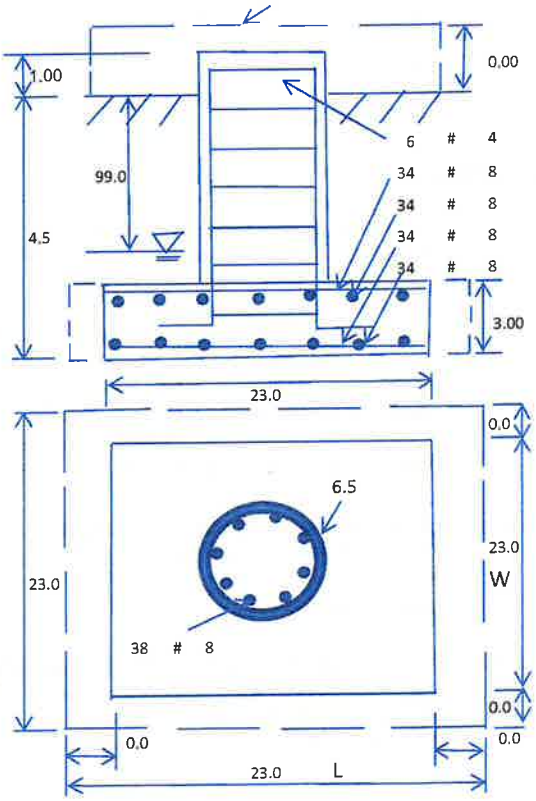
Axial Load (Kips):	37.8	Shear Force (Kips):	22.4
Uplift Force (Kips):	0.0	Moment (Kips-ft):	2601.2

Foundation Geometries:

		Mods required -Yes/No ?:	No
Diameter of Pier (ft.):	6.5	Depth of Base BG (ft.):	4.5
Pier Height A. G. (ft.):	1.00	Thickness of Pad (ft):	3.00
Length of Pad (ft.):	23	Width of Pad (ft.):	23
Final Length of pad (ft)	23.0	Final width of pad (ft):	23.0

Material Properties and Reabr Info:

Concrete Strength (psi):	4000	Steel Elastic Modulus:	29000	ksi
Vertical bar yield (ksi)	60	Tie steel yield (ksi):	60	
Vertical Rebar Size #:	8	Tie / Stirrup Size #:	4	
Qty. of Vertical Rebars:	38	Tie Spacing (in):	12.0	
Pad Rebar Yield (Ksi):	60	Pad Steel Rebar Size (#):	8	
Concrete Cover (in.):	3	Unit Weight of Concrete:	150.0	pcf
Rebar at the bottom of the concrete pad:				
Qty. of Rebar in Pad (L):	34	Qty. of Rebar in Pad (W):	34	
Rebar at the top of the concrete pad:				
Qty. of Rebar in Pad (L):	34	Qty. of Rebar in Pad (W):	34	



Soil Design Parameters:

Soil Unit Weight (pcf):	110.0	Soil Buoyant Weight:	50.0	Pcf		
Water Table B.G.S. (ft):	99.0	Unit Weight of Water:	62.4	pcf	Angle from Top of Pad:	30
Ultimate Bearing Pressure (psf):	12000	Ultimate Skin Friction:	425	Psf	Angle from Bottm of Pad:	25
Consider Friction for O.T.M. (Y/N):	No	Consider Friction for bearing (Y/N):	No		Angle from Bottm of Pad:	25
Consider soil hor. resist. for OTM :	Yes	Reduction factor on the maximum soil bearing pressure:			1.00	

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

Total Dry Soil Volume (cu. Ft.):	743.73	Total Dry Soil Weight (Kips):	81.81
Total Buoyant Soil Volume (cu. Ft.):	0.00	Total Buoyant Soil Weight (Kips):	0.00
Total Effective Soil Weight (Kips):	81.81	Weight from the Concrete Block at Top (K):	0.00
Total Dry Concrete Volume (cu. Ft.):	1669.96	Total Dry Concrete Weight (Kips):	250.49
Total Buoyant Concrete Volume (cu. Ft.):	0.00	Total Buoyant Concrete Weight (Kips):	0.00
Total Effective Concrete Weight (Kips):	250.49	Total Vertical Load on Base (Kips):	370.10

Check Soil Capacities:

					Load/ Capacity Ratio	
Calculated Maxium Net Soil Pressure under the base (psf):	2490	<	Allowable Factored Soil Bearing (psf):	9000	0.28	OK!
Allowable Foundation Overturning Resistance (kips-ft.):	3874.0	>	Design Factored Momont (kips-ft):	2659	0.69	OK!
Factor of Safety Against Overturning (O. R. Moment/Design Moment):	1.46	OK!				

Check the capacities of Reinforceing Concrete:

Strength reduction factor (Flexure and axial tension):	0.90		Strength reduction factor (Shear):	0.75		
Strength reduction factor (Axial compresion):	0.65		Wind Load Factor on Concrete Design:	1.00		
					Load/ Capacity Ratio	
(1) Concrete Pier:						
Vertical Steel Rebar Area (sq. in./each):	0.79		Tie / Stirrup Area (sq. in./each):	0.20		
Calculated Moment Capacity (Mn,Kips-Ft):	4704.5	>	Design Factored Moment (Mu, Kips-F	2657.2	0.56	OK!
Calculated Shear Capacity (Kips):	578.1	>	Design Factored Shear (Kips):	22.4	0.04	OK!
Calculated Tension Capacity (Tn, Kips):	1621.1	>	Design Factored Tension (Tu Kips):	0.0	0.00	OK!
Calculated Compression Capacity (Pn, Kips):	8395.1	>	Design Factored Axial Load (Pu Kips):	37.8	0.00	OK!
Moment & Axial Strength Combination:	0.56	OK!	Check Tie Spacing (Design/Required):		1	OK!
Pier Reinforcement Ratio:	0.006		Reinforcement Ratio is satisfied per ACI			
(2).Concrete Pad:						
One-Way Design Shear Capacity (L-Direction, Kips):	851.0	>	One-Way Factored Shear (L-D. Kips):	174.7	0.21	OK!
One-Way Design Shear Capacity (W-Direction, Kips):	851.0	>	One-Way Factored Shear (W-D., Kips)	174.7	0.21	OK!
One-Way Design Shear Capacity (Corner-Corner. Kips):	762.6	>	One-Way Factored Shear (C-C, Kips):	169.7	0.22	OK!
Lower Steel Pad Reinforcement Ratio (L-Direct.):	0.0030	OK!	Lower Steel Pad Reinf. Ratio (W-Direc	0.0030		
Lower Steel Pad Moment Capacity (L-Direction. Kips-ft):	3824.5	>	Moment at Bottom (L-Dir. K-Ft):	893.3	0.23	OK!
Lower Steel Pad Moment Capacity (W-Direction. Kips-ft):	3824.5	>	Moment at Bottom (W-Dir. K-Ft):	893.3	0.23	OK!
Lower Steel Pad Moment Capacity (Corner-Corner,K-ft):	5372.0	>	Moment at Bottom (C-C Dir. K-Ft):	1263.4	0.24	OK!
Upper Steel Pad Reinforcement Ratio (L-Direct.):	0.0030	OK!	Upper Steel Reinf. Ratio (W-Dir.):	0.0030		
Upper Steel Pad Moment Capacity (L-Direc. Kips-ft):	3824.5	>	Moment at the top (L-Dir K-Ft):	396.4	0.10	OK!
Upper Steel Pad Moment Capacity (W-Direc. Kips-ft):	3824.5	>	Moment at the top (W-Dir K-Ft):	396.4	0.10	OK!
Upper Steel Pad Moment Capacity (Corner-Corner. K-ft):	5372.0	>	Moment at the top (C-C Dir. K-Ft):	372.1	0.07	OK!
(3).Check Punching Shear Capacity due to Moment in the Pier:						
Moment transferred by punching shear:	1040.5	k-ft.	Max. factored shear stress v_{u_CD}:		3.3	Psi
Max. factored shear stress v_{u_AB}:	8.4	Psi	Factored shear Strength ϕv_n:		189.7	Psi
Max. factored shear stress v_u:	8.4	Psi	Check Usage of Punching Shear Capacity:		0.04	OK!
(4).Check Bending Capacity of the Pad Within the Effective Slab Width:						
Overturning moment to be transferred by flexure:	780.4	k-ft.	Effective Width for resisting OT moment:		15.5	ft.
Calculated number of Rebar in Effective width:	23		Actual number of Rebar in Effective width:		13	
Steel Pad Moment Capacity (L-Direc. Kips-ft):	1479.5	k-ft.	Check Usage of the Flexure Capacity:		0.53	OK!

Colliers Engineering & Design,
Architecture, Landscape Architecture, Surveying, CT P.C.
1055 Washington Boulevard
Stamford, CT 06901
203.324.0800
peter.albano@collierseng.com

Post-Modification Antenna Mount Analysis Report and PMI Requirements

Mount Fix

SMART Tool Project #: 10220447
Colliers Engineering & Design Project #: 21777238 (Rev. 2)

January 24, 2024

Site Information	*Site ID:*	*5000248162-VZW / LITCHFIELD SW CT*
	Site Name:	*LITCHFIELD SW CT*
	Carrier Name:	*Verizon Wireless*
	Address:	*1291 Bantam Road* *Bantam, Connecticut 06750* *Litchfield County*
	Latitude:	*41.717319°*
	Longitude:	*-73.260869°*
Structure Information	*Tower Type:*	*Monopole*
	Mount Type:	*12.50-Ft Platform*

FUZE ID # 16271969

Analysis Results

Platform: **41.6% Pass w/ Modifications ***

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

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

Report Prepared By: Prasanna Dhakal

Executive Summary:

The objective of this report is to summarize the analysis results of the antenna support mount including the proposed modifications at the subject facility for the final wireless telecommunications configuration, per the applicable codes and standards.

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: 324240, dated December 22, 2023*
Mount Mapping Report	*Roaming Networks Inc., Site ID: PSLC:467244, dated January 4, 2021*
Previous Mount Analysis	*Colliers Engineering & Design, Project #: 21777238 (Rev. 2), dated January 11, 2024*
Mount Modification Drawings	*Colliers Engineering & Design, Project #: 21777238 (Rev. 2), dated January 24, 2024*

Analysis Criteria:

Codes and Standards:	ANSI/TIA-222-H 2022 Connecticut State Building Code (CSBC), Effective October 1, 2022	
Wind Parameters:	Basic Wind Speed (Ultimate 3-sec. Gust), V_{ULT}:	115 mph
	Ice Wind Speed (3-sec. Gust):	50 mph
	Design Ice Thickness:	1.00 in
	Risk Category:	II
	Exposure Category:	B
	Topographic Category:	1
	Topographic Feature Considered:	N/A
	Topographic Method:	N/A
	Ground Elevation Factor, K_e:	0.971
Seismic Parameters:	S_S:	0.178 g
	S_1:	0.054 g
Maintenance Parameters:	Wind Speed (3-sec. Gust):	30 mph
	Maintenance Load, Lv:	250 lbs.
	Maintenance Load, Lm:	500 lbs.
Analysis Software:	RISA-3D (V17)	

Final Loading Configuration:

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

Mount Elevation (ft)	Equipment Elevation (ft)	Quantity	Manufacturer	Model	Status
139.00	140.00	3	Samsung	MT6413-77A	Added
		6	Commscope	NHH-65C-R2B	
		3	Samsung	RF4439d-25A	
		3	Samsung	RF4461d-13A	
		1	RFS	DB-C1-12C-24AB-0Z	

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

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

Standard Conditions:

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

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

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

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

3. For mount analyses completed from other data sources (including new replacement mounts) and not specifically mapped in accordance with the NSTD-446 Standard, the mounts are assumed to have been properly fabricated, installed and maintained in good condition, twist free and plumb in accordance with its original design and manufacturer's specifications.

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

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

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

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

8. Any mount modifications listed under Sources of Information are assumed to have been installed per the design specifications.

Discrepancies between in-field conditions and the assumptions listed above may render this analysis invalid unless explicitly approved by Colliers Engineering & Design.

Analysis Results:

Component	Utilization %	Pass/Fail
Standoff Horizontal	*31.2%*	*Pass*
Platform Crossmember	*15.1%*	*Pass*
Corner Plate	*16.9%*	*Pass*
Grating Support	*9.8%*	*Pass*
Cross Arm Plate	*30.7%*	*Pass*
Face Horizontal	*12.5%*	*Pass*
Mount Pipe	*23.5%*	*Pass*
Mod Dual Antenna Mount Pipe	*18.2%*	*Pass*
Mod Support Rail	*11.3%*	*Pass*
Mod Support Rail Corner	*14.3%*	*Pass*
Mount Connection (Bolt)	*41.6%*	*Pass*
Mount Connection (Plate)	*41.4%*	*Pass*

Structure Rating – *(Controlling Utilization of all Components)*	**41.6%**

Mount Connection Envelope Reactions:

Connection Description	Elev. AGL (Ft)	Node Label	Envelope Wind Reactions				Envelope Wind + Ice Reactions			
			Axial (Lbs)	Lateral (Lbs)	Moment (K-Ft)	Torsion (K-Ft)	Axial (Lbs)	Lateral (Lbs)	Moment (K-Ft)	Torsion (K-Ft)
Sector C Standoff	139.0	N3	1318	1344	3.028	1.022	2142	624	4.326	0.321
Sector B Standoff	139.0	N30A	1365	1455	3.149	1.083	2293	651	4.422	0.335
Sector A Standoff	139.0	N59	1317	1343	3.026	1.016	2139	623	4.322	0.320

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

BASELINE mount weight per SBA agreement: 1516.20 lbs

Increase in mount weight due to Verizon loading change per SBA agreement: 645.34 lbs

The weights listed above include 3 sectors.

Mount Steel (EPA)a per ANSI/TIA-222-H Section 2.6.11.2:

Ice Thickness (In)	Mount Pipes Excluded		Mount Pipes Included	
	Front (EPA)a (Sq. Ft.)	Side (EPA)a (Sq. Ft.)	Front (EPA)a (Sq. Ft.)	Side (EPA)a (Sq. Ft.)
0	24.3	24.3	42.3	42.3
0.5	31.6	31.6	56.8	56.8
1	38.3	38.3	70.7	70.7

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

Requirements:

The existing mount will be **SUFFICIENT** for the final loading configuration (attachment 2) after the modifications detailed in attachment 3 are successfully completed.

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

Attachments:

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

Mount Desktop – Post Modification Inspection (PMI) Report Requirements

Documents & Photos Required from Contractor – Mount Modification

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

MDG #: 5000248162 SMART Project #: 10220447 Fuze Project ID: 16271969

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

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

Base Requirements:

- If installation of the modification 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 drawings" showing contractor's name, 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 post-modification passing mount analysis (MA) contact the SMART Tool vendor immediately.
- Each photo shall be time and date stamped.
- Photos should be high resolution.
- Contractor shall ensure that the safety climb wire rope is 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 of the modifications.
  - Photos of the mount after installation of the modifications; if the mounts are at different rad elevations, pictures must be provided for all elevations that the modifications were installed

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

- Photos showing each individual sector after installation of modifications. Each entire sector must 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.
- Photos of each installed modification per the modification drawings; pictures shall also include connection hardware (U-bolts, bolts, nuts, all-threaded rods, etc.)
- Photos showing the distances (relative distance between collars) of the installed modifications from the appropriate reference locations shown in the modification drawings.
- Photos showing the installed modifications onto the tower (i.e. ring/collar mounts, tie-backs, V-bracing kits, etc.); if the existing mount elevation needs to be changed according to the modification drawings, an elevation measurement shall be provided before the elevation change.

Material Certification:

- Materials utilized must be as per specification on the drawings or the equivalent as validated by the SMART Tool vendor.
    - If the materials are as specified on the drawings
        - The contractor shall provide the packing list, or the materials certifications for the materials utilized to perform the mount modification
        - Commscope, Metrosite, Perfect Vision, Sabre, and Site Pro have all agreed to support Verizon vendors with the necessary material certifications
    - If seeking permission to use an equivalent
        - It is required that the SMART Tool engineering vendor approval of such is included in the contractor submission package. There may be an additional charge for approval if the equivalent submission doesn't meet specifications as prescribed in the drawings.

☐ 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 engineering vendor 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.

Comments:

Was the mount modification completed in conjunction with the equipment change / installation?

☐ Yes ☐ No

Special Instructions / Validation as required from the MA or Mod Drawings:

Issue:

1. Contractor shall install proposed OVP on a new OVP pipe as proposed in Mount Modification Drawings.

Response:

Special Instruction Confirmation:

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

Comments:

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

☐ Yes ☐ No

Contractor certifies no new damage created during the current installation:

☐ Yes ☐ No

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

☐ Safety Climb in Good Condition ☐ Safety Climb Damaged

Comments:

Certifying Individual:

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

Structure: 5000248162-VZW - LITCHFIELD SW CT

Sector: **A**

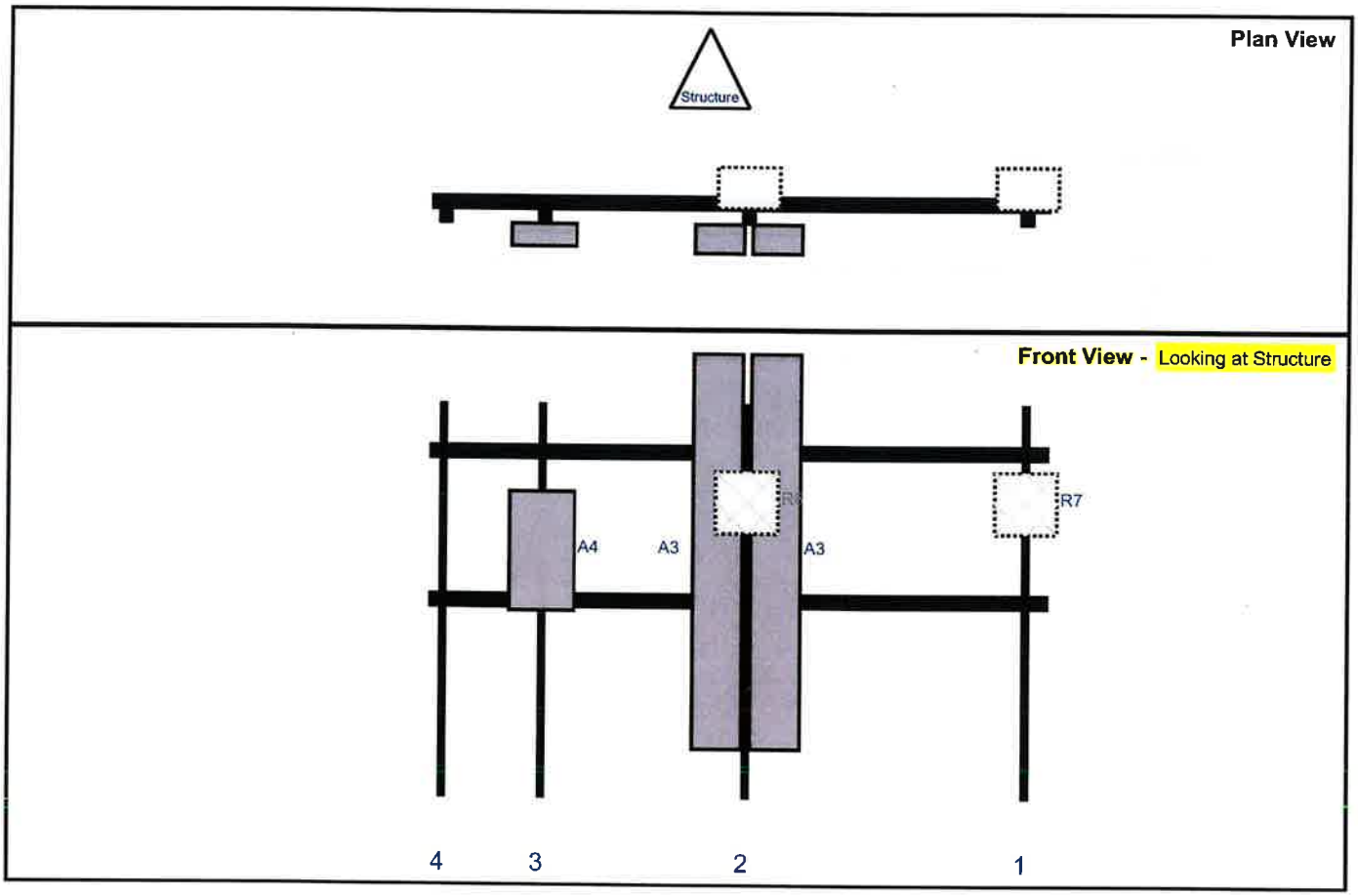
Structure Type: Monopole

Mount Elev: 139.00

10220447

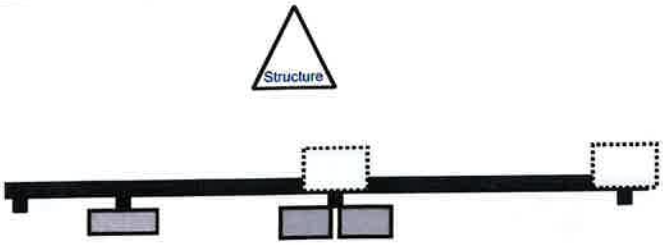
1/24/2024

Colliers Engineering & Design

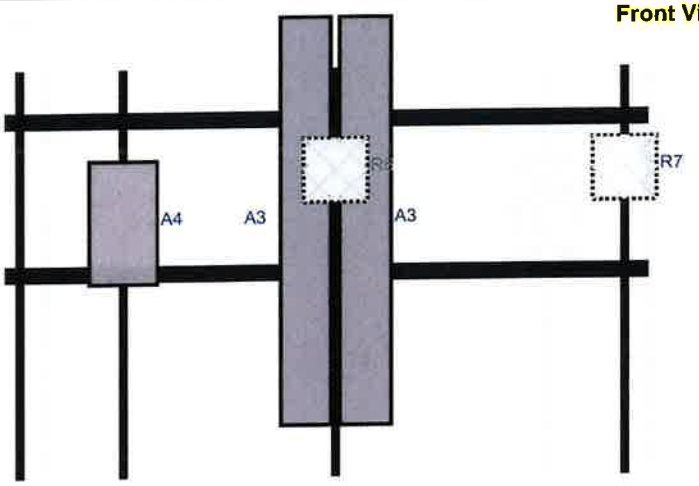


Ref#	Model	Height (in)	Width (in)	H Dist Frm L.	Pipe #	Pipe Pos V	Ant Pos	C. Ant Frm T.	Ant H Off	Status	Validation
R7	RF4461d-13A	15	15	144.5	1	a	Behind	24	0	Added	
A3	NHH-65C-R2B	96	11.9	77	2	a	Front	36	7	Added	
A3	NHH-65C-R2B	96	11.9	77	2	b	Front	36	-7	Added	
R6	RF4439d-25A	15	15	77	2	a	Behind	24	0	Added	
A4	MT6413-77A	28.9	15.8	27.5	3	a	Front	36	0	Added	
M101	DB-C1-12C-24AB-0Z	29.5	16.5		Member					Added	

Plan View



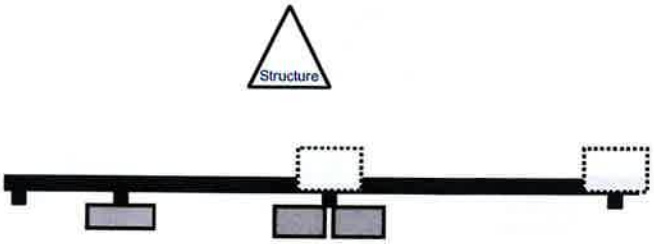
Front View - Looking at Structure



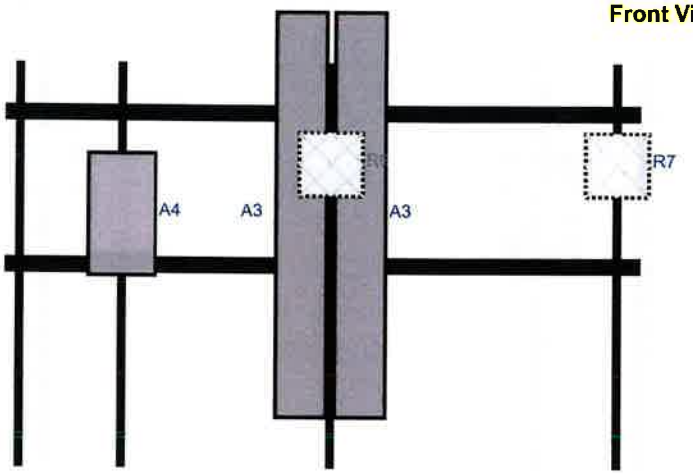
4 3 2 1

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
R7	RF4461d-13A	15	15	144.5	1	a	Behind	24	0	Added	
A3	NHH-65C-R2B	96	11.9	77	2	a	Front	36	7	Added	
A3	NHH-65C-R2B	96	11.9	77	2	b	Front	36	-7	Added	
R6	RF4439d-25A	15	15	77	2	a	Behind	24	0	Added	
A4	MT6413-77A	28.9	15.8	27.5	3	a	Front	36	0	Added	

Plan View



Front View - Looking at Structure



Ref#	Model	Height (in)	Width (in)	H Dist Frm L.	Pipe #	Pipe Pos V	Ant Pos	C. Ant Frm T.	Ant H Off	Status	Validation
R7	RF4461d-13A	15	15	144.5	1	a	Behind	24	0	Added	
A3	NHH-65C-R2B	96	11.9	77	2	a	Front	36	7	Added	
A3	NHH-65C-R2B	96	11.9	77	2	b	Front	36	-7	Added	
R6	RF4439d-25A	15	15	77	2	a	Behind	24	0	Added	
A4	MT6413-77A	28.9	15.8	27.5	3	a	Front	36	0	Added	

verizon

MOUNT MODIFICATION DRAWINGS
EXISTING 12.50' PLATFORM

TOWER OWNER: SBA COMMUNICATIONS CORPORATION
TOWER OWNER SITE NUMBER: CT12215

CARRIER SITE NAME: LITCHFIELD SW CT
CARRIER SITE NUMBER: 5000248162
FUZE ID: 16271969

1291 BANTAM RD
BANTAM, CT 06750
LITCHFIELD COUNTY

LATITUDE: 41.717319° N
LONGITUDE: 73.260869° W

DESIGN CRITERIA

WIND LOADS

BASIC WIND SPEED (3 SECOND GUST), V = 115 MPH
EXPOSURE CATEGORY B
TOPOGRAPHIC CATEGORY: 1
TOPOGRAPHIC CONSIDERED: N/A
TOPOGRAPHIC METHOD: N/A
MEAN BASE ELEVATION (AMSL) = 824.07'

ICE LOADS

ICE WIND SPEED (3 SECOND GUST), V = 50 MPH
ICE THICKNESS = 1.00 IN

SEISMIC LOADS

SEISMIC DESIGN CATEGORY B
SHORT TERM MCER GROUND MOTION, S_s = .178
LONG TERM MCER GROUND MOTION, S_1 = .054

PROJECT INFORMATION

APPLICANT/LESSEE

COMPANY: VERIZON WIRELESS

CLIENT REPRESENTATIVE

COMPANY: VERIZON WIRELESS

PROJECT MANAGER

COMPANY: COLLIERS ENGINEERING & DESIGN
CONTACT: PETER ALBANO
PHONE: 856.797.0412
E-MAIL: PETER.ALBANO@COLLIERSENG.COM

CONTRACTOR PMI REQUIREMENTS

PMI LOCATION: HTTPS://PMI.VZWSMART.COM
SMART TOOL PROJECT #: 10220447
VZW MDG #: 5000248162
ANALYSIS DATE: 1/24/2024

PMI REQUIREMENTS EMBEDDED WITHIN MOUNT MODIFICATION REPORT

SHEET INDEX

SHEET	DESCRIPTION
ST-1	TITLE SHEET
SBOM-1	BILL OF MATERIALS
SGN-1	GENERAL NOTES
SCF-1	CLIMBING FACILITY DETAIL
SS-1	MODIFICATION DETAILS
SS-2	MOUNT PHOTOS
	SPECIFICATION SHEETS

Colliers Engineering & Design
www.colliersengineering.com
Doing Business as MASER

verizon

811 Know what's below. Call before you dig.
FOR STATE SPECIFIC DIRECTIONS VISIT WWW.CALL811.COM

SCALE: AS SHOWN | JOB NUMBER: 21777238

REV	DATE	DESCRIPTION	BY	CHK'D
0	08/08/24	ISSUED FOR CONSTRUCTION	JH	MC
1	09/03/24	ISSUED FOR CONSTRUCTION	CDH	JL
2	01/24/24	ISSUED FOR CONSTRUCTION	MD	BA

COLLIERS ENGINEERING & DESIGN CT, P.C.
CT #PC.0001111

SITE NAME:
LITCHFIELD SW CT
5000248162
1291 BANTAM RD
BANTAM, CT 06750
LITCHFIELD COUNTY

Colliers Engineering & Design
STAMFORD
1055 Washington Boulevard
Stamford, CT 06901
Phone: 203.359.6800
COLLIERS ENGINEERING & DESIGN CT, P.C.
DOING BUSINESS AS MASER CONSULTING

SHEET TITLE: TITLE SHEET

SHEET NUMBER: ST-1

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.

BILL OF MATERIALS

SECTION 1 - VZWSMART KITS

QUANTITY	MANUFACTURER	PART NUMBER	DESCRIPTION	NOTES	UNIT WEIGHT (LBS.)	WEIGHT (LBS.)
3	VZWSMART	VZWSMART-P40-278X096	96" LONG, PIPE 2.5 SCH40 (2.875"OD X 0.203" THK)		46	139
1		VZWSMART-PLK1	SUPPORT RAIL KIT	CONTRACTOR TO VERIFY THE LENGTH REQUIRED AND TRIM AS NECESSARY IN ACCORDANCE WITH THE 'STRUCTURAL STEEL' NOTES ON SHEET SGN-1.	504	504
1		VZWSMART-MSK6	BACK TO BACK CROSSOVER PLATE		34	34
3		VZWSMART-MSK2	CROSSOVER PLATE		15	45

SECTION 2 - OTHER REQUIRED PARTS

QUANTITY	MANUFACTURER	PART NUMBER	DESCRIPTION	NOTES	UNIT WEIGHT (LBS.)	WEIGHT (LBS.)
1	-	-	36" LONG, PIPE 2 SCH40	GALVANIZED	11	11

SECTION 3 - REQUIRED SAFETY CLIMB PARTS

QUANTITY	MANUFACTURER	PART NUMBER	DESCRIPTION	NOTES	UNIT WEIGHT (LBS.)	WEIGHT (LBS.)
1	PERFECT VISON	PV-SCRB-RM-U	ROUTING BRACKET	OR EOR APPROVED EQUIVALENT	-	-
1	PERFECT VISION	PV-CMX-CG-BO	WIRE ROPE GUIDE	OR EOR APPROVED EQUIVALENT	-	-
					TOTAL:	733*

*FOR ACTUAL INSTALL WEIGHT PLEASE CHECK THE MA REPORT

NOTES:

1. THE MANUFACTURERS LISTED ARE THE APPROVED VENDORS FOR THE VZW MOUNT KITS. EACH MANUFACTURER WILL BE AWARE OF WHICH KITS HAVE BEEN THROUGH THE VZW APPROVAL PROCESS AND THEY ARE IN TURN APPROVED TO SELL. PLEASE NOTE THAT THE MATERIAL UTILIZED ON THE MOUNT MODIFICATIONS WILL BE REVIEWED AS A PART OF THE DESKTOP PMI COMPLETED BY THE SMART TOOL VENDOR. IT WILL BE REQUIRED THAT THE VZW KITS SPECIFIED ARE UTILIZED IN THE MODIFICATIONS.
2. ALL MATERIALS REQUIRED FOR THE DESIGNED MODIFICATIONS BUT NOT LISTED IN THIS SHEET ARE ASSUMED TO BE PROVIDED BY THE CONTRACTOR.

VZWSMART KITS - APPROVED VENDORS

COMMSCOPE	
CONTACT	SALVADOR ANGUIANO
PHONE	(817) 304-7492
EMAIL	SALVADOR.ANGUIANO@COMMSCOPE.COM
WEBSITE	WWW.COMMSCOPE.COM

METROSITE FABRICATORS, LLC	
CONTACT	KENT RAMEY
PHONE	(706) 335-7045 (O), (706) 982-9788 (M)
EMAIL	KENT@METROSITELLC.COM
WEBSITE	METROSITEFABRICATORS.COM

PERFECTVISION	
CONTACT	WIRELESS SALES
PHONE	(844) 867-6723
EMAIL	WWW.PERFECT-VISION.COM
WEBSITE	WIRELESSSALES@PERFECT-VISION.COM

SABRE INDUSTRIES, INC.	
CONTACT	ANGIE WELCH
PHONE	(866) 428-6937
EMAIL	AKWELCH@SABREINDUSTRIES.COM
WEBSITE	WWW.SABRESITESOLUTIONS.COM

SITE PRO 1	
CONTACT	PAULA BOSWELL
PHONE	(972) 236-9843
EMAIL	PAULA.BOSWELL@VALMONT.COM
WEBSITE	WWW.SITEPRO1.COM

Colliers Engineering & Design
www.colliersengineering.com
Doing Business as MASER CONSULTING

verizon

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

AS SHOWN | 21777238

SITE NAME:
LITCHFIELD SW CT
5000248162
1291 BANTAM RD
BANTAM, CT 06750
LITCHFIELD COUNTY

Colliers Engineering & Design
Stamford, CT 06901
Phone: 203.324.0800

BILL OF MATERIALS

SBOM-1

GENERAL NOTES

1. THESE MODIFICATIONS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE GOVERNING PROVISIONS OF THE TELECOMMUNICATIONS INDUSTRY STANDARD TIA-222-H. MATERIALS AND SERVICES PROVIDED BY THE CONTRACTOR SHALL CONFORM TO THE ABOVE MENTIONED CODES.
2. CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PREVENT DAMAGE TO EXISTING STRUCTURES. ANY DAMAGE TO EXISTING STRUCTURES AS A RESULT OF THE CONTRACTOR'S WORK OR FROM DAMAGE DUE TO OTHER CAUSES SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER.
3. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS BEFORE BEGINNING WORK, ORDERING MATERIAL, AND PREPARING OF SHOP DRAWINGS. ANY DISCREPANCIES BETWEEN FIELD CONDITIONS AND THE CONTRACT DOCUMENTS SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER. IF THE CONTRACTOR DISCOVERS ANY EXISTING CONDITIONS THAT ARE NOT REPRESENTED ON THESE DRAWINGS, OR ANY CONDITIONS THAT WOULD INTERFERE WITH THE INSTALLATION OF THE MODIFICATIONS, NOTIFY THE ENGINEER IMMEDIATELY.
4. IT IS ASSUMED THAT ANY STRUCTURAL MODIFICATION WORK SPECIFIED ON THESE PLANS WILL BE ACCOMPLISHED BY KNOWLEDGEABLE WORKMEN WITH TOWER CONSTRUCTION EXPERIENCE.
5. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION METHODS, MEANS, TECHNIQUES, SEQUENCES, AND PROCEDURES.
6. ALL CONSTRUCTION MEANS AND METHODS; INCLUDING BUT NOT LIMITED TO, ERECTION PLANS, RIGGING PLANS, CLIMBING PLANS, AND RESCUE PLANS SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR RESPONSIBLE FOR THE EXECUTION OF THE WORK CONTAINED HEREIN AND SHALL MEET ANSI/TIA-322 (LATEST EDITION), OSHA, AND GENERAL INDUSTRY STANDARDS. ALL RIGGING PLANS SHALL ADHERE TO ANSI/TIA-322 (LATEST EDITION) INCLUDING THE REQUIRED INVOLVEMENT OF A QUALIFIED ENGINEER FOR CLASS IV CONSTRUCTION.
7. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR INITIATING, MAINTAINING, AND SUPERVISING ALL SAFETY PROGRAMS IN ACCORDANCE WITH APPLICABLE SAFETY CODES.
8. WORK SHALL ONLY BE PERFORMED DURING CALM DRY DAYS (WINDS LESS THAN 30-MPH). THE STRUCTURE SHOWN ON THE DRAWINGS IS STRUCTURALLY SOUND ONLY IN THE COMPLETED FORM. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE STRENGTH AND STABILITY OF THE STRUCTURE DURING ERECTION. CONTRACTOR SHALL PROVIDE TEMPORARY SUPPORT, SHORING, BRACING AND ANY OTHER STRUCTURAL SYSTEMS AS REQUIRED TO RESIST ALL FORCES THAT MAY OCCUR DURING HANDLING AND ERECTION UNTIL THE STRUCTURE IS FULLY COMPLETED. TEMPORARY SUPPORTS, BRACING AND OTHER STRUCTURAL SYSTEMS REQUIRED DURING CONSTRUCTION SHALL REMAIN THE CONTRACTOR'S PROPERTY AFTER THEIR USE.
9. ALL INSTALLATIONS PERFORMED ON THIS STRUCTURE SHALL BE COMPLETED IN ACCORDANCE WITH THE GOVERNING PROVISIONS OF THE STANDARD FOR INSTALLATION, ALTERATION AND MAINTENANCE OF ANTENNA SUPPORTING STRUCTURES AND ANTENNAS, ANSI/TIA-322.
10. CONTRACTOR SHALL SECURE SITE BACK TO EXISTING CONDITION UNDER SUPERVISION OF OWNER. ALL FENCE, STONE, GEOFABRIC, GROUNDING, AND SURROUNDING GRADE SHALL BE REPLACED AND REPAIRED AS REQUIRED TO ACHIEVE OWNER APPROVAL. POSITIVE DRAINAGE AWAY FROM TOWER SITE SHALL BE MAINTAINED.
11. CONNECTIONS BETWEEN ITEMS SUPPORTED BY THE STRUCTURE AND THE STRUCTURE NOT SPECIFICALLY DETAILED IN THE CONTRACT DOCUMENTS ARE THE RESPONSIBILITY OF THE CONTRACTOR. SUCH CONNECTIONS SHALL BE DESIGNED, COORDINATED AND INSPECTED BY A PROFESSIONAL STRUCTURAL ENGINEER LICENSED IN THE STATE OF THE PROJECT. SUBMIT SIGNED AND SEALED CALCULATIONS DURING SHOP DRAWING REVIEW.
12. DO NOT SCALE DRAWINGS.
13. DO NOT USE THESE DRAWINGS FOR ANY OTHER SITE.
14. ALL MATERIAL UTILIZED FOR THIS PROJECT MUST BE NEW AND FREE OF ANY DEFECTS. ANY MATERIAL SUBSTITUTIONS, INCLUDING BUT NOT LIMITED TO ALTERED SIZE AND/OR STRENGTHS, MUST BE APPROVED BY THE OWNER AND ENGINEER IN WRITING.
15. THE MOUNT UNDER NO CIRCUMSTANCES SHOULD BE USED AS A TIE OFF POINT.

STRUCTURAL STEEL

1. DESIGN, DETAILING, FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING PUBLICATIONS EXCEPT AS SPECIFICALLY INDICATED IN THE CONTRACT DOCUMENTS.
   a. AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) MANUAL OF STEEL CONSTRUCTION (15TH EDITION)
   b. SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS
   c. AISC CODE OF STANDARD PRACTICE
2. STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING UNLESS OTHERWISE SHOWN:

CHANNELS, ANGLES, PLATES, ETC.	ASTM A36 (GR 36)
STEEL PIPE	ASTM A53 (GR 35)
BOLTS	ASTM A325
NUTS	ASTM A563
LOCK WASHERS	LOCKING STRUCTURAL GRADE

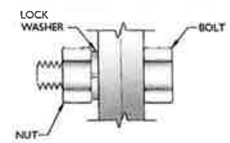
3. ALL SUBSTITUTIONS PROPOSED BY THE CONTRACTOR SHALL BE APPROVED IN WRITING BY THE ENGINEER. CONTRACTOR SHALL PROVIDE DOCUMENTATION TO ENGINEER FOR VERIFYING THE SUBSTITUTE IS SUITABLE FOR USE AND MEETS ORIGINAL DESIGN CRITERIA. DIFFERENCES FROM THE ORIGINAL DESIGN, INCLUDING MAINTENANCE, REPAIR AND REPLACEMENT, SHALL BE NOTED. ESTIMATES OF COSTS/CREDITS ASSOCIATED WITH THE SUBSTITUTION (INCLUDING RE-DESIGN COSTS AND COSTS TO SUB-CONTRACTORS) SHALL BE PROVIDED TO THE ENGINEER. CONTRACTOR SHALL PROVIDE ADDITIONAL DOCUMENTATION AND/OR SPECIFICATIONS TO THE ENGINEER AS REQUESTED.
4. PROVIDE STRUCTURAL STEEL SHOP DRAWINGS TO ENGINEER FOR APPROVAL PRIOR TO FABRICATION.
   a. SUBMIT SHOP DRAWINGS TO
      PETER.ALBANO@COLLIERSENG.COM
   b. PROVIDE COLLIERS ENGINEERING & DESIGN PROJECT # AND COLLIERS ENGINEERING & DESIGN PROJECT ENGINEER CONTACT IN THE BODY OF THE EMAIL.
5. DRILL NO HOLES IN ANY NEW OR EXISTING STRUCTURAL STEEL MEMBERS OTHER THAN THOSE SHOWN ON STRUCTURAL DRAWINGS WITHOUT THE APPROVAL OF THE ENGINEER OF RECORD.
6. GALVANIZED ASTM A325 BOLTS SHALL NOT BE REUSED.
7. ALL NEW STEEL SHALL BE HOT BE DIPPED GALVANIZED FOR FULL WEATHER PROTECTION. IN ADDITION ALL NEW STEEL SHALL BE PAINTED TO MATCH EXISTING STEEL. CONTRACTOR SHALL OBTAIN WRITTEN PERMISSION TO PROTECT STEEL BY ANY OTHER MEANS.
8. ALL BOLT ASSEMBLIES FOR STRUCTURAL MEMBERS REPRESENTED IN THIS DRAWING REQUIRE LOCKING DEVICES TO BE INSTALLED IN ACCORDANCE WITH TIA-222-H SECTION 4.9.2 REQUIREMENTS.
9. WHERE CONNECTIONS ARE NOT FULLY DETAILED ON THESE DRAWINGS, FABRICATOR SHALL DESIGN CONNECTIONS TO RESIST LOADS AND FORCES WHERE SHOWN ON DRAWINGS AND AS OUTLINED IN SPECIFICATIONS.
10. FOR MEMBERS BEING REPLACED, PROVIDE NEW BOLTS AND MATCH EXISTING SIZE AND GRADE. MAINTAIN AISC REQUIREMENTS FOR MINIMUM BOLT DISTANCE AND SPACING.
11. ALL PROPOSED AND/OR REPLACED BOLTS SHALL BE OF SUFFICIENT LENGTH SUCH THAT THE END OF THE BOLT IS AT LEAST FLUSH WITH THE FACE OF THE NUT. IT IS NOT PERMITTED FOR THE BOLT END TO BE BELOW THE FACE OF THE NUT AFTER TIGHTENING IS COMPLETED.
12. GALVANIZED ASTM A325 BOLTS SHALL NOT BE REUSED.
13. ALL NEW STEEL SHALL BE HOT BE DIPPED GALVANIZED FOR FULL WEATHER PROTECTION. CONTRACTOR SHALL OBTAIN WRITTEN PERMISSION TO PROTECT STEEL BY ANY OTHER MEANS.
14. ALL EXISTING PAINTED/GALVANIZED SURFACES DAMAGED DURING REHAB INCLUDING AREAS UNDER STIFFENER PLATES SHALL BE WIRE BRUSHED CLEAN, REPAIRED BY COLD GALVANIZING (ZINC COTE, OR EOR APPROVED EQUAL), AND REPAINTED TO MATCH THE EXISTING FINISH (IF APPLICABLE).
15. ALL HOLES IN STEEL MEMBERS SHALL BE SIZED 1/16" LARGER THAN THE BOLT DIAMETER. STANDARD HOLES SHALL BE USED UNLESS NOTED OTHERWISE.

BOLT SCHEDULE (IN.)

BOLT DIAMETER	STANDARD HOLE	SHORT SLOT	MIN. EDGE DISTANCE	SPACING
1/2	9/16	9/16 x 11/16	7/8	1 1/2
5/8	11/16	11/16 x 7/8	1 1/8	1 7/8
3/4	13/16	13/16 x 1	1 1/4	2 1/4
7/8	15/16	15/16 x 1 1/8	1 1/2	2 5/8
1	1 1/16	1 1/16 x 1 5/16	1 3/4	3

WORKABLE GAGES (IN.)

LEG	GAGE
4	2 1/2
3 1/2	2
3	1 3/4
2 1/2	1 3/8
2	1 1/8

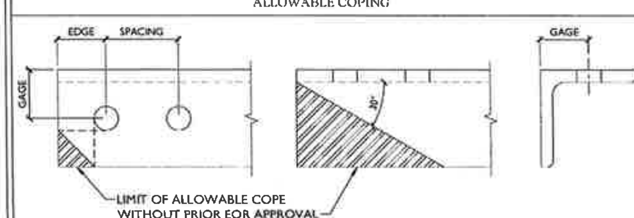


TYP. BOLT ASSEMBLY

NOTES:

1. ALL DIMENSIONS REPRESENTED IN THE ABOVE TABLES ARE AISC MINIMUM REQUIREMENTS. CONTRACTOR SHALL VERIFY EXISTING CONDITIONS IN FIELD AND NOTIFY ENGINEER IF DISTANCES ARE LESS THAN THOSE PROVIDED.
2. THE DIMENSIONS PROVIDED ARE MINIMUM REQUIREMENTS. ACTUAL DIMENSIONS OF PROPOSED MEMBERS WITHIN THESE DRAWINGS MAY VARY FROM THE AISC MINIMUM REQUIREMENTS.
3. SHORT SLOT HOLES SHALL ONLY BE USED WHEN DEPICTED IN THE DRAWINGS.
4. MATCH EXISTING GAGES WHEN APPLICABLE, UNLESS MINIMUM EDGE DISTANCES ARE COMPROMISED.

ALLOWABLE COPING



Colliers Engineering & Design

www.colliersengineering.com

Doing Business as MASER

verizon

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

AS SHOWN

REV	DATE	DESCRIPTION	DRAWN BY	CHECKED BY
0	[illegible]	ISSUED FOR CONSTRUCTION	[illegible]	[illegible]
1	[illegible]	ISSUED FOR CONSTRUCTION	[illegible]	[illegible]
2	[illegible]	ISSUED FOR CONSTRUCTION	[illegible]	[illegible]

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF THE RESPONSIBLE LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

SITE NAME:

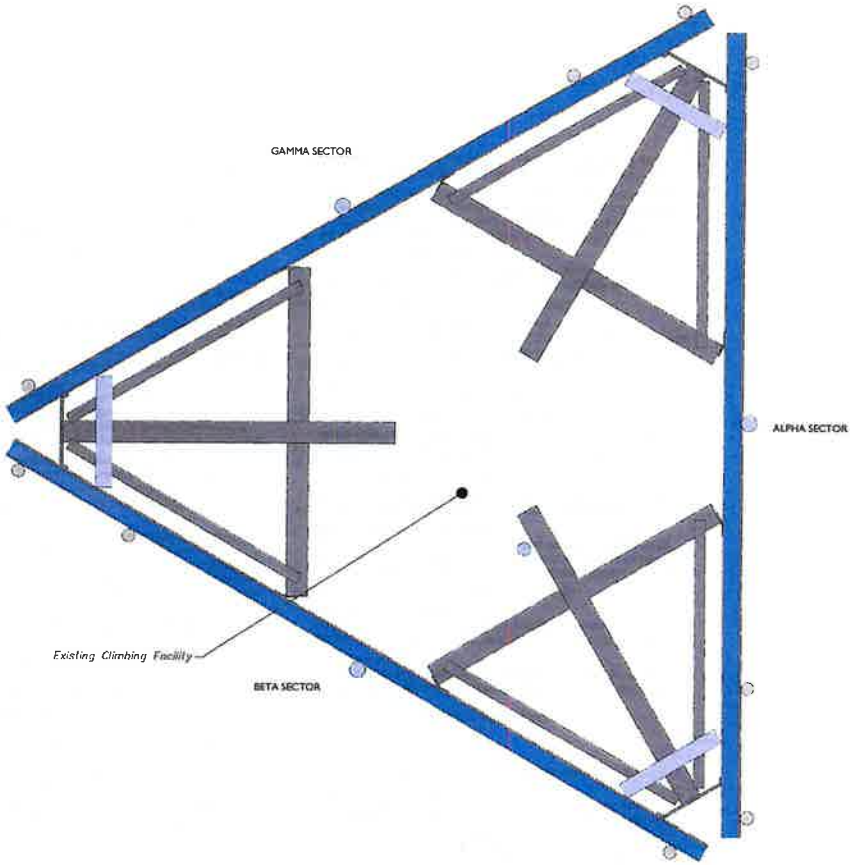
LITCHFIELD SW CT
5000248162
1291 BANTAM RD
BANTAM, CT 06750
LITCHFIELD COUNTY

Colliers Engineering & Design
STAMFORD
1055 Washington Boulevard
Stamford, CT 06901
Phone: 203.324.0800

GENERAL NOTES

SGN-1

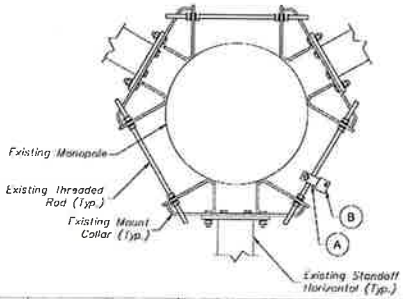
NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.



1 CLIMBING FACILITY LOCATION
SCALE : N.T.S.

STRUCTURAL NOTES:

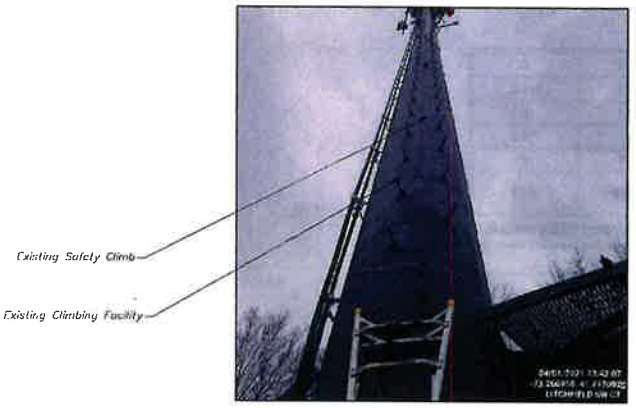
1. PER THE MOUNT MAPPING COMPLETED BY ROAMING NETWORKS INC. ON 1/4/2024, THE SAFETY CLIMB AND CLIMBING FACILITIES UP TO THE VERIZON MOUNT ELEVATION (139'-0") ARE IN GOOD CONDITION. COLLIERS ENGINEERING & DESIGN DOES NOT WARRANT THIS INFORMATION.
2. INSTALL SHALL NOT CAUSE HARM TO THE STRUCTURE, CLIMBING FACILITY, SAFETY CLIMB, OR ANY SYSTEM INSTALLED ON THE STRUCTURE. TIMELY NOTICE AND DOCUMENTATION SHALL BE PROVIDED BY CONTRACTORS TO THE EOR (OF STRUCTURAL DESIGN) IF AN OBSTRUCTION WAS REQUIRED TO MEET THE RF SYSTEM DESIGN REQUIREMENTS AND PERFORMANCES.



ITEM #	QTY	PART NUMBER	DESCRIPTIONS
A	1	PV-SCRB-RM-U	ROUTING BRACKET (PERFECT VISION OR EOR APPROVED EQ.)
B	1	PV-CMX-CG-BO	WIRE ROPE GUIDE (PERFECT VISION OR EOR APPROVED EQ.)

2 PROPOSED WIRE ROPE GUIDE ATTACHMENT - PLAN VIEW
SCALE : N.T.S.

NOTE: CONTRACTOR SHALL ENSURE THAT WIRE ROPE GUIDE DOES NOT PUSH THE WIRE ROPE OUTSIDE OF THE VERTICAL PLANE OF THE SAFETY CLIMB. CONTRACT EOR WITH PHOTOS OF SAFETY CLIMB AND COLLAR FOR FURTHER DIRECTION IF NEEDED.



CLIMBING FACILITY PHOTO

Colliers Engineering & Design
www.collierseng.com
Doing Business as MASER

verizon

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

AS SHOWN

REV	DATE	DESCRIPTION	BY	APP
0	10/15/24	ISSUED FOR CONSTRUCTION	JH	MW
1	03/03/25	ISSUED FOR CONSTRUCTION	CAM	JL
2	03/04/25	ISSUED FOR CONSTRUCTION	TG	EK

COLLIERS ENGINEERING & DESIGN (CT), P.C.
CT PC.0001111

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF THIS LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

SITE NAME:
LITCHFIELD SW CT
5000248162
1291 BANTAM RD
BANTAM, CT 06750
LITCHFIELD COUNTY

Colliers Engineering & Design
Stamford CT 06901
Phone: 203.324.6670
COLLIERSENGINEERING.COM

CLIMBING FACILITY DETAIL

SCF-1

LEGEND:

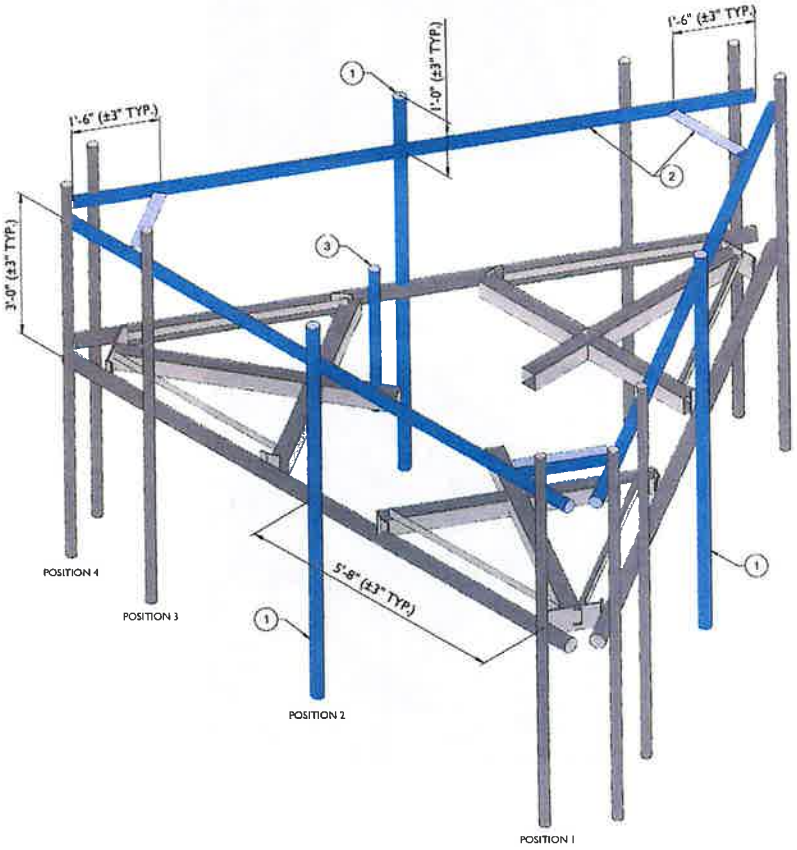
- PROPOSED
- RELOCATED
- EXISTING

MOUNT MODIFICATION SCHEDULE

NO.	ELEVATION	QUANTITY	DESCRIPTION	NOTES
1	139'-0"	3	PROPOSED 96" LONG, PIPE 2.5 SCH40 (PART #: VZWSMART-P40-278X096)	CONTRACTOR SHALL REPLACE EXISTING MOUNT PIPE AT POS. 2 (AS SEEN FROM BEHIND THE MOUNT) ON ALL SECTORS WITH NEW PIPE. CONNECT NEW MOUNT PIPE TO EXISTING FACE HORIZONTAL WITH CROSSOVER PLATES (PART #: VZWSMART-MSK2).
2		1	PROPOSED SUPPORT RAIL KIT (PART #: VZWSMART-PLK1)	RADIO AND/OR TMB POSITIONS SHALL BE ADJUSTED VERTICALLY AS NEEDED IN ORDER TO ACHIEVE INSTALLATION OF HORIZONTAL AS SHOWN. EOR SHALL BE NOTIFIED IF EQUIPMENT NEEDS TO BE RELOCATED TO ANOTHER MOUNT PIPE. CONTRACTOR TO VERIFY THE LENGTH REQUIRED AND TRIM AS NECESSARY IN ACCORDANCE WITH THE 'STRUCTURAL STEEL' NOTES ON SHEET SGN-1.
3		1	PROPOSED 36" LONG, PIPE 2 SCH40 OVP PIPE	CONNECT NEW OVP PIPE TO EXISTING STANDOFF HORIZONTAL BETWEEN ALPHA & BETA SECTORS WITH BACK TO BACK CROSSOVER PLATE (VZWSMART-MSK6).
4		-	RUSTED BOLT AT MOUNT CONNECTION	CONTRACTOR SHALL INSPECT AND WIRE BRUSH CLEAN ALL RUSTED BOLTS AT MOUNT CONNECTION AND PROTECT WITH TWO (2) COATS OF COLD GALVANIZATION (ZINGA OR ZINC KOTE).

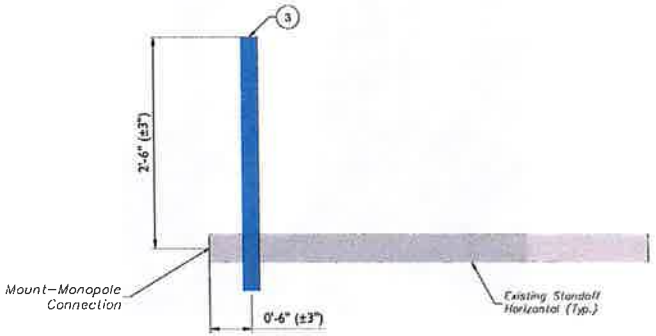
GENERAL NOTES:

A. CONTRACTOR SHALL VERIFY THAT NEW & EXISTING STEEL IS FREE OF CORROSION. VISIBLE MINOR CORROSION SHALL BE WIRE BRUSHED CLEAN AND TREATED WITH COLD GALVANIZATION. REPORT ANY SIGNIFICANT CORROSION TO EOR.
B. THREADED ROD FROM PROPOSED KITS SHALL BE TRIMMED TO EXTEND NO MORE THAN 3" BEYOND THE LOCK NUT. TREAT ALL CUT ENDS WITH (2) COATS OF COLD GALVANIZATION (ZINC KOTE, OR EOR APPROVED EQUAL).
C. MOUNT MEMBERS NOT SHOWN FOR CLARITY U.N.O.



1 PROPOSED ISOMETRIC VIEW
SCALE: N.T.S.

3 RUSTED BOLT AT MOUNT CONNECTION
SCALE: N.T.S.



2 PROPOSED OVP PIPE DETAIL
SCALE: N.T.S.

Colliers Engineering & Design
www.colliersengineering.com

Joint Business as MASER

verizon

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

AS SHOWN | 21777278

REV	DATE	DESCRIPTION	DRAWN BY	CHECKED BY
A	01/06/21	ISSUED FOR CONSTRUCTION	JT	MK
B	03/02/21	REVISED PER CONSTRUCTION	CBM	JL
C	03/26/21	REVISED PER CONSTRUCTION	MD	DH

COLLIERS ENGINEERING & DESIGN CT, P.C.

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF THE RESPONSIBLE LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

SITE NAME:

LITCHFIELD SW CT
5000248162

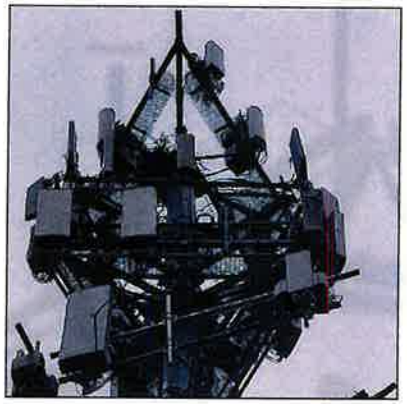
1291 BANTAM RD
BANTAM, CT 06750
LITCHFIELD COUNTY

Colliers Engineering & Design

STAMFORD
Stamford, CT 06901
Phone: 203.924.0800
COLLIERS ENGINEERING & DESIGN CT, P.C.
CONNECTICUT | NEW JERSEY | NEW YORK | PENNSYLVANIA

MODIFICATION DETAILS

SS-1



MOUNT PHOTO 1

MOUNT PHOTO 2

MOUNT PHOTO 3

MOUNT PHOTO 4

Colliers Engineering & Design

www.colliersengineering.com

Doing Business as MASER

verizon

AS SHOWN

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF THE RESPONSIBLE LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

SITE NAME:

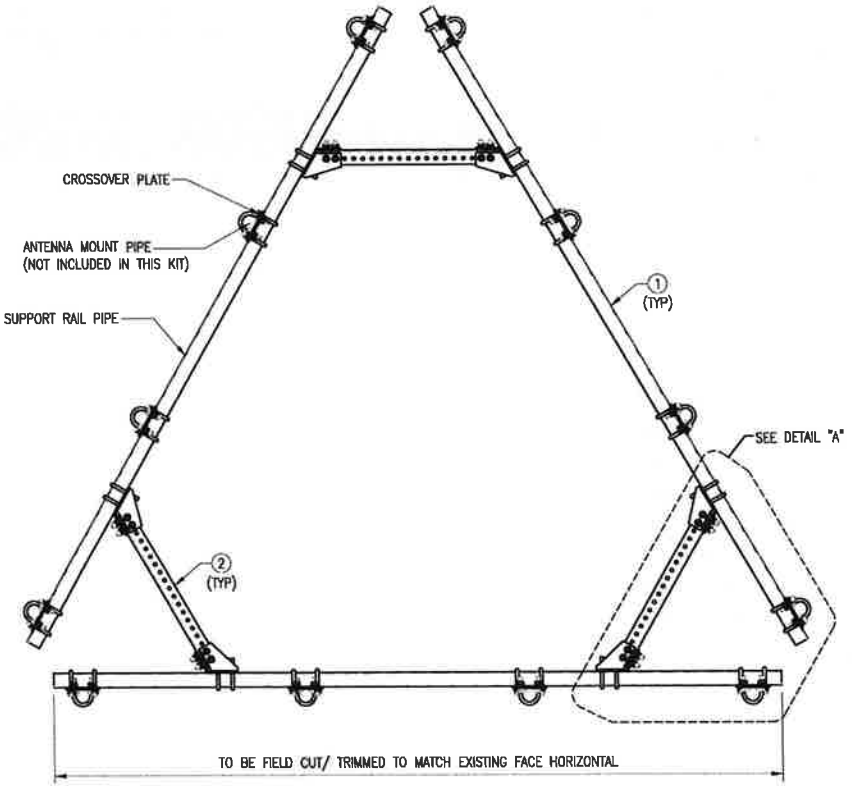
LITCHFIELD SW CT
5000248162

1291 BANTAM RD
BANTAM, CT 06750
LITCHFIELD COUNTY

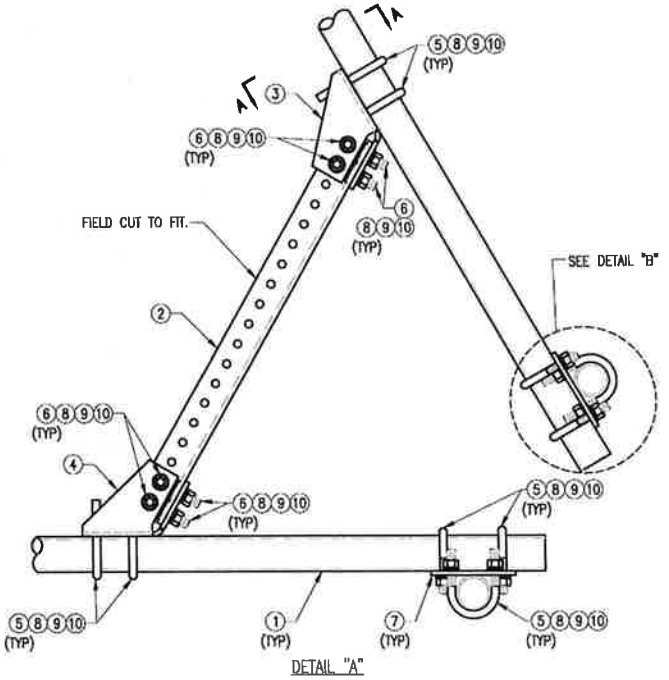
STAMFORD

MOUNT PHOTOS

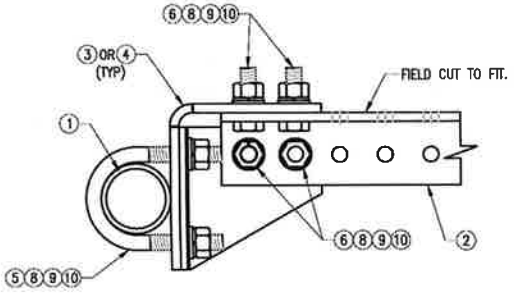
SS-2



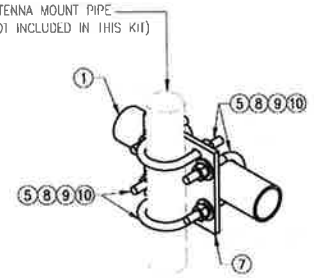
PLAN VIEW



DETAIL "A"



SECTION "A-A"



DETAIL "B"

NOTES:
1. HOT-DIPPED GALVANIZED PER ASTM A123.

VZW SMART-PLK1 (SUPPORT RAIL KIT)

ITEM NO.	QTY.	PART NO.	DESCRIPTION	SHEET #	WT
1	3	PST2875-12.5	2.5" PST (2.875" O.D. X 0.203" THK.) X 12'-6" A53 GR-B	PLK1-F1	292
2	3	L33375-3	L 3" X 3" X 3/8" X 3'-0" A36	PLK1-F1	66
3	3	CBP-L	CORNER BENT PLATE BRACKET	PLK1-F2	28
4	3	CBP-R	CORNER BENT PLATE BRACKET	PLK1-F2	28
5	60	MS02-625-300-500	RU-BOLT 5/8" X 3" I.W. X 5" U.L. A36 (OR EQUIV.)	RBC-1	82
6	24	---	BOLT 5/8" X 2" A325	---	9
7	12	PL375-B57	PL 3/8" X 8 1/2" X 7'-0" A36	PLK1-F3	77
8	144	FW-625	5/8" HDG USS FLAT WASHER	---	12
9	144	LW-625	5/8" HDG LOCK WASHER	---	3
10	144	NUT-625	5/8" HDG HEX NUT	---	17
				GALVANIZED WT	504

VzW SMART Tool© Vendor

verizon

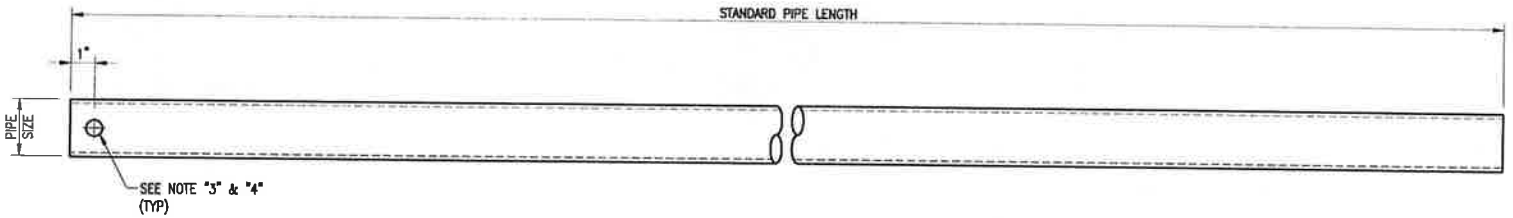
FOR REFERENCE ONLY

DRAWN BY: H.R | CHECKED BY: HMA

REV	DESCRIPTION	BY	DATE
0	FIRST ISSUE	H.R	05/08/20

SHEET TITLE:
VZWSMART-PLK1
SUPPORT RAIL KIT

SHEET NUMBER: VZWSMART-PLK1 | REV #: 0



VZWSMART Standard Pipe		
VZWSMART Number	Size	Length
P40-238X048	PIPE 2 SCH40 (2.375" OD x 0.154" THK)	48"
P40-238X072	PIPE 2 SCH40 (2.375" OD x 0.154" THK)	72"
P40-238X096	PIPE 2 SCH40 (2.375" OD x 0.154" THK)	96"
P40-238X120	PIPE 2 SCH40 (2.375" OD x 0.154" THK)	120"
P40-238X126	PIPE 2 SCH40 (2.375" OD x 0.154" THK)	126"
P40-238X150	PIPE 2 SCH40 (2.375" OD x 0.154" THK)	150"
P40-238X174	PIPE 2 SCH40 (2.375" OD x 0.154" THK)	174"
P40-278X048	PIPE 2.5 SCH40 (2.875" OD x 0.203" THK)	48"
P40-278X072	PIPE 2.5 SCH40 (2.875" OD x 0.203" THK)	72"
P40-278X096	PIPE 2.5 SCH40 (2.875" OD x 0.203" THK)	96"
P40-278X120	PIPE 2.5 SCH40 (2.875" OD x 0.203" THK)	120"
P40-278X126	PIPE 2.5 SCH40 (2.875" OD x 0.203" THK)	126"
P40-278X150	PIPE 2.5 SCH40 (2.875" OD x 0.203" THK)	150"
P40-278X174	PIPE 2.5 SCH40 (2.875" OD x 0.203" THK)	174"
P40-312X048	PIPE 3 SCH40 (3.5" OD x 0.216" THK)	48"
P40-312X072	PIPE 3 SCH40 (3.5" OD x 0.216" THK)	72"
P40-312X126	PIPE 3 SCH40 (3.5" OD x 0.216" THK)	126"
P40-312X150	PIPE 3 SCH40 (3.5" OD x 0.216" THK)	150"
P40-312X174	PIPE 3 SCH40 (3.5" OD x 0.216" THK)	174"

NOTE:
APPROVED SMART KIT VENDORS ARE ALLOWED TO SUBSTITUTE AT THEIR DISCRETION PIPES LISTED ON THIS PAGE FOR CUSTOM LENGTH COMPONENTS OF MATCHING SIZE. SUBSTITUTIONS SHALL MEET THE ORIGINAL STRUCTURAL INTENT.

NOTES:
1. ALL PIPE GRADE A53-B OR BETTER.
2. HOT-DIPPED GALVANIZED PER ASTM A123.
3. ALL HOLES ARE 11/16" DIA. U.N.O
4. HOLES MAY OR MAY NOT BE PRESENT, DEPEND UPON MANUFACTURE DISCRETION.
5. ALL FIELD CUT AND DRILLED SURFACES SHALL BE REPAIRED WITH A MINIMUM OF TWO COATS OF ZINGA OR ZINC COTE PER ASTM A780 AND MANUFACTURER'S RECOMMENDATIONS.

VzW SMART Tool© Vendor

verizon

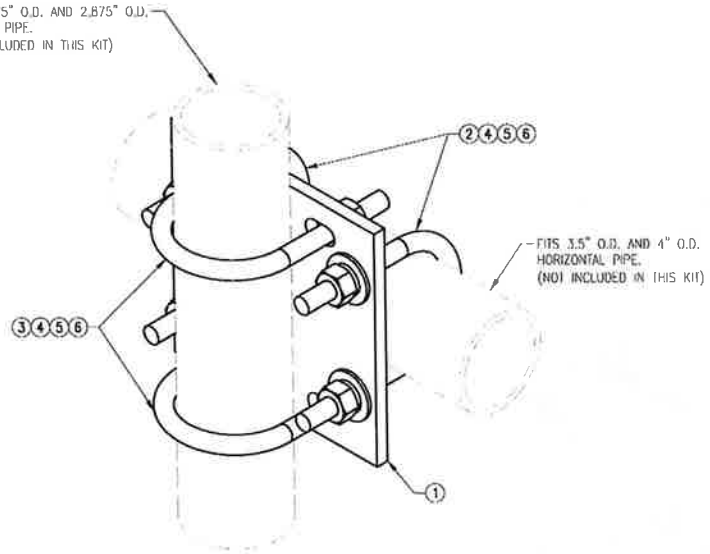
FOR REFERENCE ONLY

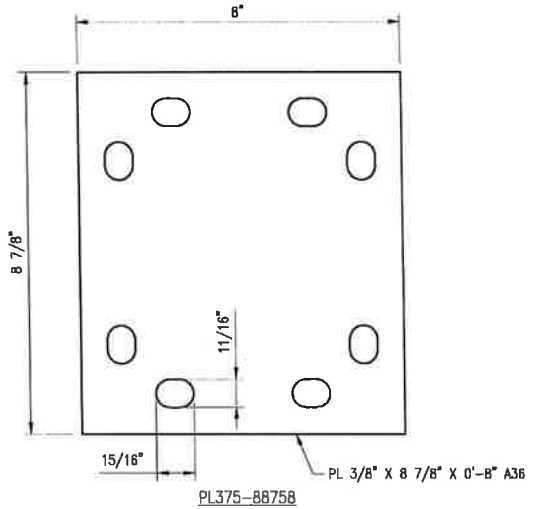
DRAWN BY: BT | CHECKED BY: HMA/KW

REV	DESCRIPTION	BY	DATE
1	FIRST ISSUE	BT	08/04/21

SHEET TITLE:
VZWSMART STANDARD PIPE

SHEET NUMBER: VZWSMART-PIPE | REV #: 0





PL375-88758

VZWSMART-MSK2 (CROSSOVER PLATE)

ITEM NO.	QTY.	PART NO.	DESCRIPTION	SHEET #	WT
1	1	PL375-88758	PL 3/8" X 8 3/4" X 0'-8" A36	MSK2-F1	8
2	2	MS02-625-4125-600	RU-BOLT 5/8" X 4 1/8" I.W. X 6" I.L. A36 (OR EQUIV.)	RBC-1	3
3	2	MS02-625-300-500	RU-BOLT 5/8" X 3" I.W. X 5" I.L. A36 (OR EQUIV.)	RBC-1	3
4	8	FW-625	5/8" HDG USS FLAT WASHER	---	1
5	8	LW-625	5/8" HDG LOCK WASHER	---	0
6	8	NUT-625	5/8" HDG HEX NUT	---	1
				GALVANIZED WT	15

NOTES:
1. HOT-DIPPED GALVANIZED PER ASTM A123.

VzW SMART Tool© Vendor

verizon

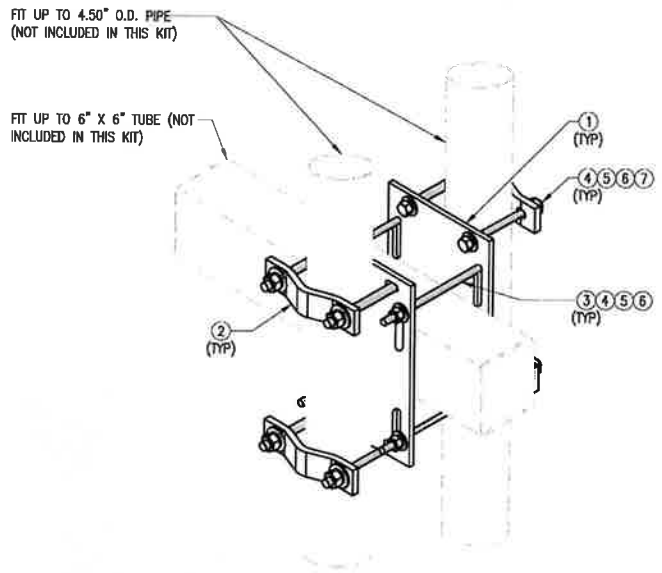
FOR REFERENCE ONLY

DRAWN BY: H.R | CHECKED BY: HMA

REV	DESCRIPTION	BY	DATE
1	FIRST ISSUE	HJR	05/08/20
2			
3			
4			

SHEET TITLE:
VZWSMART-MSK2
CROSSOVER PLATE

SHEET NUMBER: VZWSMART-MSK2 | REV #: 0



ISOMETRIC VIEW
BACK TO BACK CROSSOVER

VZWSMART–MSK6 (VZWSMART–MSK6 – BACK TO BACK CROSSOVER)

ITEM NO.	QTY.	PART NO.	DESCRIPTION	SHEET #	WT
1	2	PL375–8512	PL 3/8" X 8 1/2" X 1'–0" A36	MSK6–F2	20.7
2	4	VCP	PL 1/2" X 2" X 8 5/8" A36 BENT PLATE	MSK6–F1	9.6
3	4	---	THREADED ROD 5/8" DIA. X 10" F1554–36 HDG	---	---
4	16	NUT–625	5/8" HDG HEX NUT	---	2
5	16	FW–625	5/8" HDG USS FLAT WASHER	---	1
6	16	LW–625	5/8" HDG LOCK WASHER	---	0
7	8	---	BOLT 5/8" X 6" SAE GRADE 5 ALL THREAD	---	1
				GALVANIZED WT	34

NOTES:
1. HOT–DIPPED GALVANIZED PER ASTM A123.

VzW SMART Tool© Vendor

verizon

FOR REFERENCE ONLY

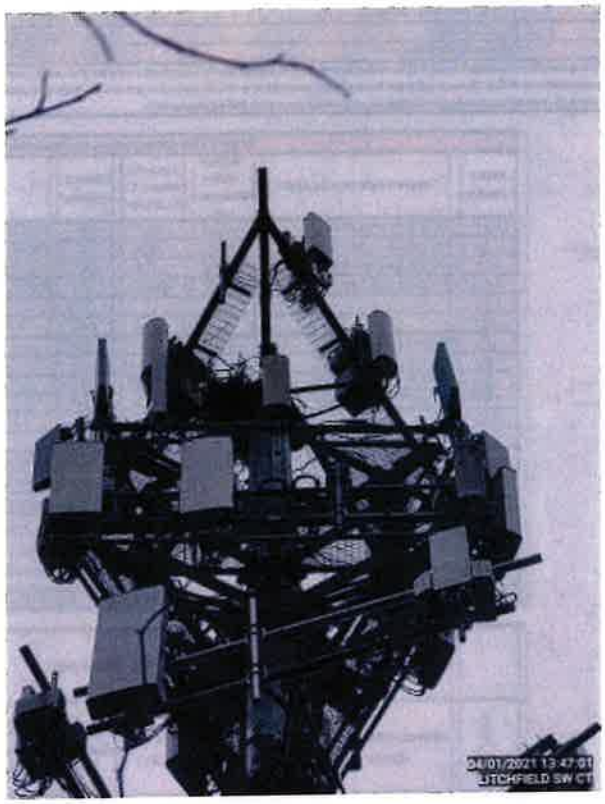
DRAWN BY: SK | CHECKED BY: BT/KW

REV	DESCRIPTION	BY	DATE
1	FIRST ISSUE	SK	05/08/20

SHEET TITLE:
VZWSMART–MSK6
BACK TO BACK
CROSSOVER

SHEET NUMBER: VZWSMART–MSK6

REV #: 0


04/01/2021 13:47:01
LITCHFIELD SW CT


04/01/2021 15:50:11
-73.268969 41.717157972222225
LITCHFIELD SW CT

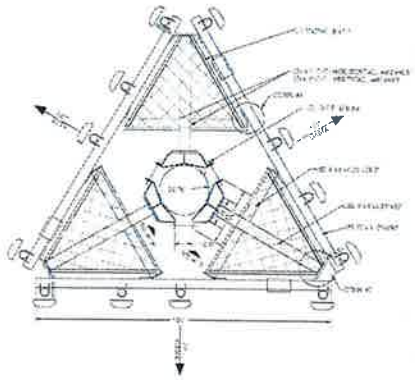
V3.0 Updated on 8-31-2020

PAUL J. FORD & COMPANY

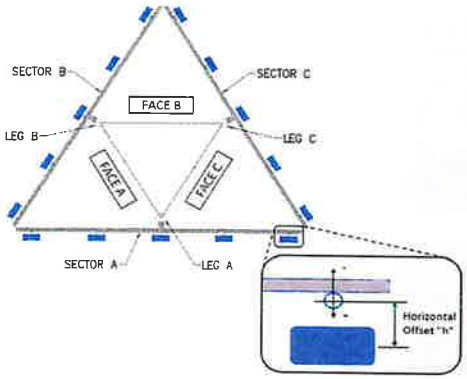
Antenna Mount Mapping Form (PATENT PENDING)

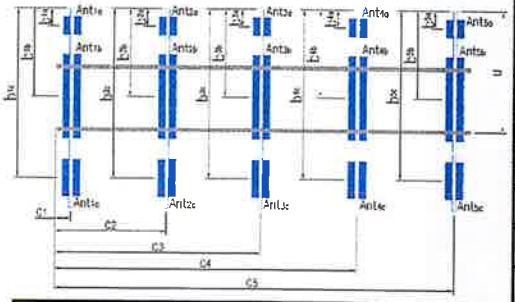
FCC #: N/A

Tower Owner:	SBA	Mapping Date:	01/04/21
Site Name:	VZW: LITCHFIELD SW CT	Tower Type:	Monopole
Site Number or ID:	PSLC: 467244	Tower Height (Ft.):	N/A
Mapping Contractor:	Roaming Networks inc.	Mount Elevation (Ft.):	140.8



OVERALL MOUNT SCHEMATIC





Antenna Layout (Looking Out From Tower)

Mount Pipe Configuration and Geometries [Unit = Inches]

Sector / Position	Mount Pipe Size & Length	Vertical Offset Dimension "d"	Horizontal Offset "C1, C2, C3, etc."	Sector / Position	Mount Pipe Size & Length	Vertical Offset Dimension "d"	Horizontal Offset "C1, C2, C3, etc."
A1	PIPE Ø 2.36"x0.14"x96"	48.00	5.50	C1	PIPE Ø 2.36"x0.14"x96"	48.00	5.50
A2	PIPE Ø 2.36"x0.14"x96"	48.00	73.00	C2	PIPE Ø 2.36"x0.14"x96"	48.00	73.00
A3	PIPE Ø 2.36"x0.14"x96"	48.00	122.50	C3	PIPE Ø 2.36"x0.14"x96"	48.00	122.50
A4	PIPE Ø 2.36"x0.14"x96"	48.00	146.50	C4	PIPE Ø 2.36"x0.14"x96"	48.00	146.50
A5				C5			
A6				C6			
B1	PIPE Ø 2.36"x0.14"x96"	48.00	5.50	D1			
B2	PIPE Ø 2.36"x0.14"x96"	48.00	73.00	D2			
B3	PIPE Ø 2.36"x0.14"x96"	48.00	122.50	D3			
B4	PIPE Ø 2.36"x0.14"x96"	48.00	146.50	D4			
B5				D5			
B6				D6			

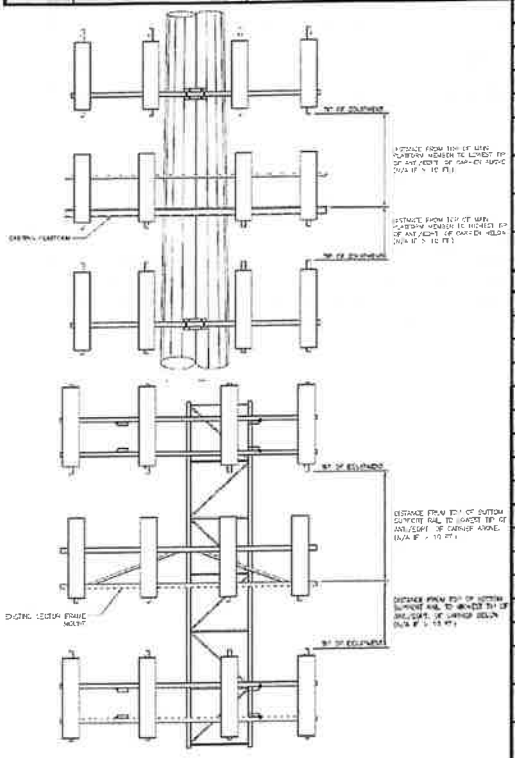
Distance between bottom rail and mount CL elevation (dim d). Unit is inches. See 'Mount Elev Ref' tab for details. :	0.00
Distance from top of bottom support rail to lowest tip of ant./eqpt. of Carrier above. (N/A if > 10 ft.) :	
Distance from top of bottom support rail to highest tip of ant./eqpt. of Carrier below. (N/A if > 10 ft.) :	5.58
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.):	20.78

	Enter antenna model. If not labeled, enter "Unknown".						Mounting Locations [Units are inches and degrees]			Photos of antennas
Ants. Items	Antenna Models if Known	Width (in.)	Depth (in.)	Height (in.)	Coax Size and Qty	Antenna Center-line (Ft.)	Vertical Distances "b_{1a}, b_{2a}, b_{3a}, b_{1b}---" (Inches)	Horiz. Offset "h" (Use "-" if Ant. is behind)	Antenna Azimuth (Degrees)	Photo Numbers
Sector A										
Ant_{1a}										
Ant_{1b}	LPA80080/6CF-E-DIN	5.50	13.20	70.90		141.925	34.50	13.50	23.00	13
Ant_{1c}	Unknown	7.50	6.00	2.00		144.8				15,16,17
Ant_{2a}										
Ant_{2b}	BXA-70063-6CF-EDIN	11.30	6.00	71.00		142.175	31.50	8.50	23.00	18
Ant_{2c}										
Ant_{3a}										
Ant_{3b}	Unknown	6.00	4.00	72.00		142.05	33.00	8.00	23.00	4,5,6
Ant_{3c}										
Ant_{4a}										
Ant_{4b}	Unknown	13.00	6.00	72.00		142.092	32.50	13.50	23.00	7,8,9
Ant_{4c}	Unknown	6.00	2.00	7.50		143.217	19.00	2.50		10,11,12
Ant_{5a}										
Ant_{5b}										
Ant_{5c}										
Ant on Standoff										
Ant on Standoff										
Ant on Tower										
Ant on Tower										

Mount Azimuth (Degree) for Each Sector				Tower Leg Azimuth (Degree) for Each Sector	
Sector A:	23.00	Deg	Leg A:		Deg
Sector B:	121.00	Deg	Leg B:		Deg
Sector C:	303.00	Deg	Leg C:		Deg
Sector D:		Deg	Leg D:		Deg

Climbing Facility Information			
Location:	121.00	Deg	Sector B
Climbing Facility	Corrosion Type:		Good condition.
	Access:		Climbing path was unobstructed.
	Condition:		Good condition.



Sector B											
Ant_{1a}											
Ant_{1b}	LPA80080/6CF-E-DIN	5.50	13.20	70.90		141.925	34.50	13.50	121.00	13
Ant_{1c}	Unknown	7.50	6.00	2.00		144.8				15,16,17
Ant_{2a}										
Ant_{2b}	BXA-70063-6CF-EDIN	11.30	6.00	71.00		142.175	31.50	8.50	121.00	18
Ant_{2c}										
Ant_{3a}										
Ant_{3b}	Unknown	6.00	4.00	72.00		142.05	33.00	8.00	121.00	4,5,6
Ant_{3c}										
Ant_{4a}										
Ant_{4b}	Unknown	13.00	6.00	72.00		142.092	32.50	13.50	121.00	7,8,9
Ant_{4c}	Unknown	6.00	2.00	7.50		143.217	19.00	2.50		10,11,12
Ant_{5a}										
Ant_{5b}										
Ant_{5c}										
Ant on Standoff										
Ant on Standoff										
Ant on Tower										
Ant on Tower										
Sector C										
Ant_{1a}										
Ant_{1b}	LPA80080/6CF-E-DIN	5.50	13.20	70.90		141.925	34.50	13.50	303.00	13
Ant_{1c}	Unknown	7.50	6.00	2.00		144.8				15,16,17
Ant_{2a}										
Ant_{2b}	BXA-70063-6CF-EDIN	11.30	6.00	71.00		142.175	31.50	8.50	303.00	18
Ant_{2c}										
Ant_{3a}										
Ant_{3b}	Unknown	6.00	4.00	72.00		142.05	33.00	8.00	303.00	4,5,6
Ant_{3c}										
Ant_{4a}										
Ant_{4b}	Unknown	13.00	6.00	72.00		142.092	32.50	13.50	303.00	7,8,9
Ant_{4c}	Unknown	6.00	2.00	7.50		143.217	19.00	2.50		10,11,12
Ant_{5a}										
Ant_{5b}										
Ant_{5c}										
Ant on Standoff										
Ant on Standoff										
Ant on Tower										
Ant on Tower										
Sector D										
Ant_{1a}										
Ant_{1b}										
Ant_{1c}										
Ant_{2a}										
Ant_{2b}										
Ant_{2c}										
Ant_{3a}										
Ant_{3b}										
Ant_{3c}										
Ant_{4a}										
Ant_{4b}										
Ant_{4c}										
Ant_{5a}										
Ant_{5b}										
Ant_{5c}										
Ant on Standoff										
Ant on Standoff										
Ant on Tower										
Ant on Tower										

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

1	Damage steel member	157
2		
3		
4		
5		
6		
7		
8		

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

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

V3.0 Updated on 8-31-2020

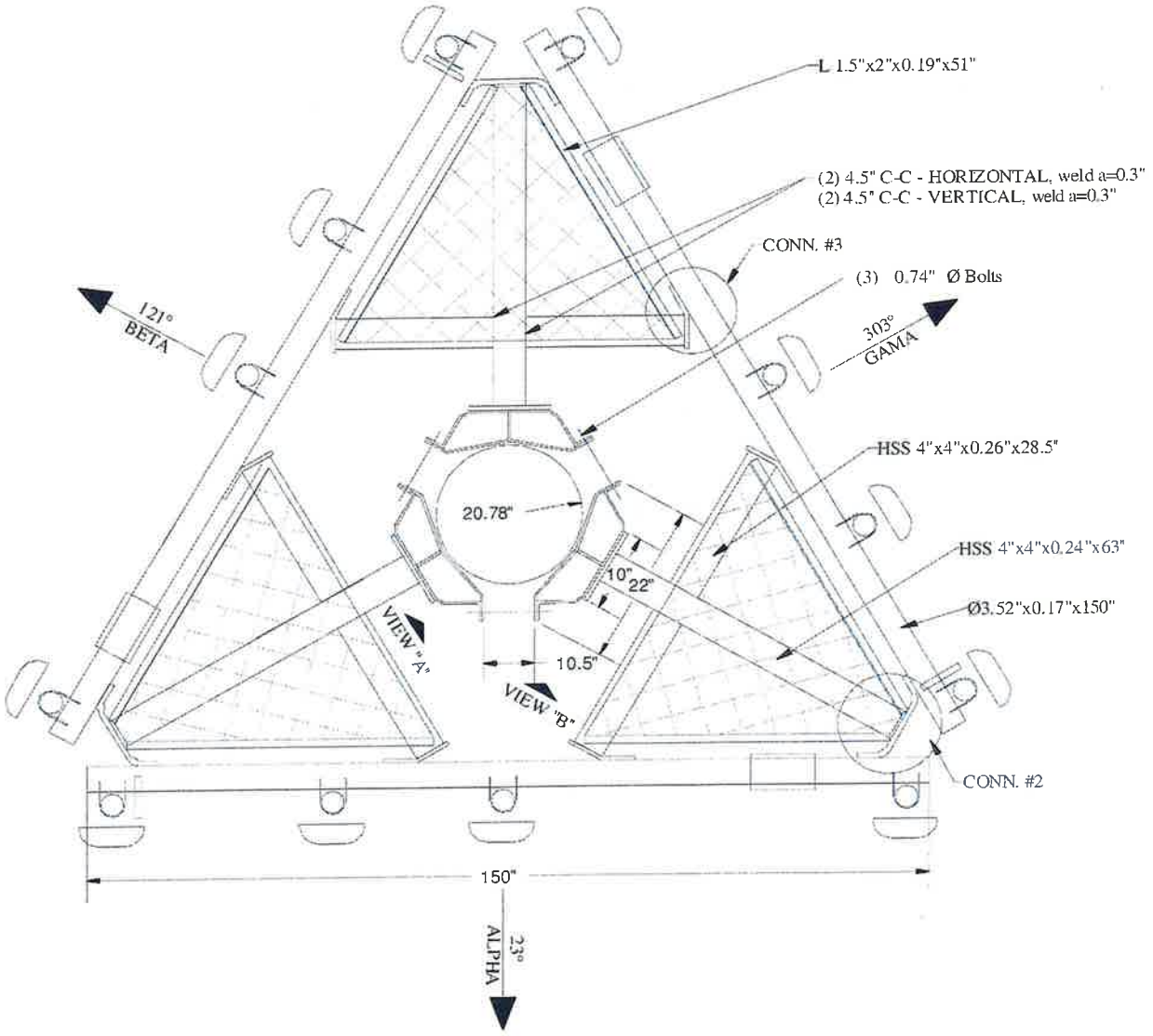
PAUL J. FORD & COMPANY

Antenna Mount Mapping Form (PATENT PENDING)

FCC #: N/A

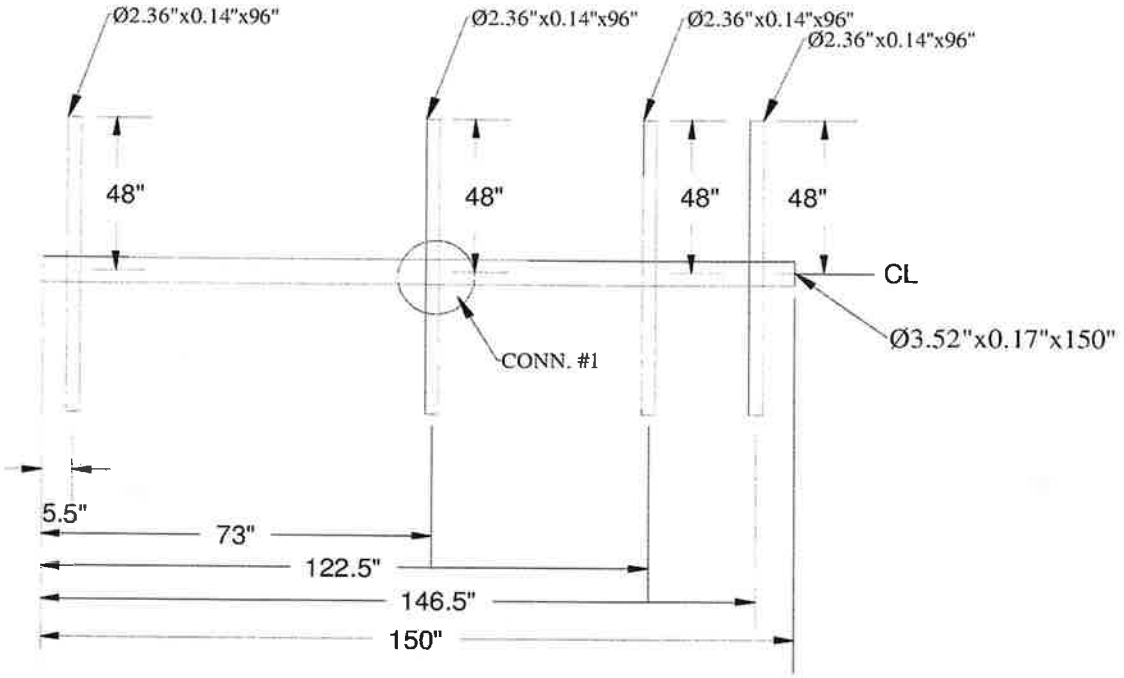
Tower Owner:	SBA	Mapping Date:	01/04/21
Site Name:	VZW: LITCHFIELD SW CT	Tower Type:	Monopole
Site Number or ID:	PSLC: 467244	Tower Height (Ft.):	N/A
Mapping Contractor:	Roaming Networks Inc.	Mount Elevation (Ft.):	140.8

Please Insert Sketches of the Antenna Mount



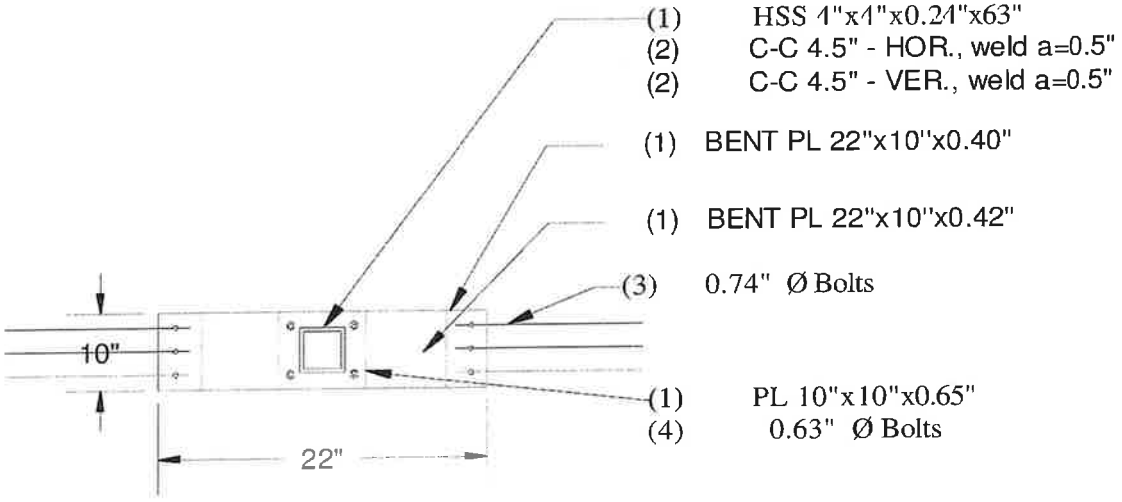
OVERALL MOUNT SCHEMATIC

Please Insert Sketches of the Antenna Mount, cont'd

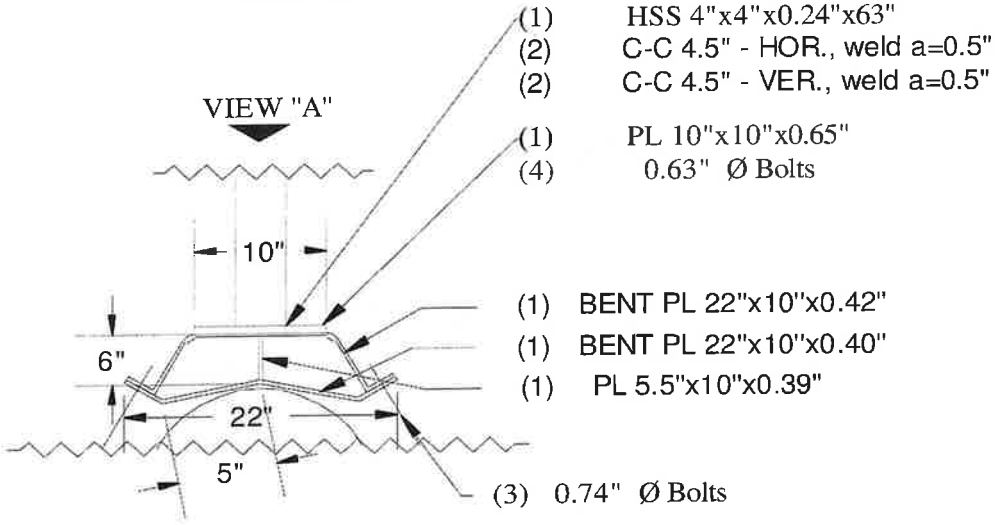


SECTOR A, B, C

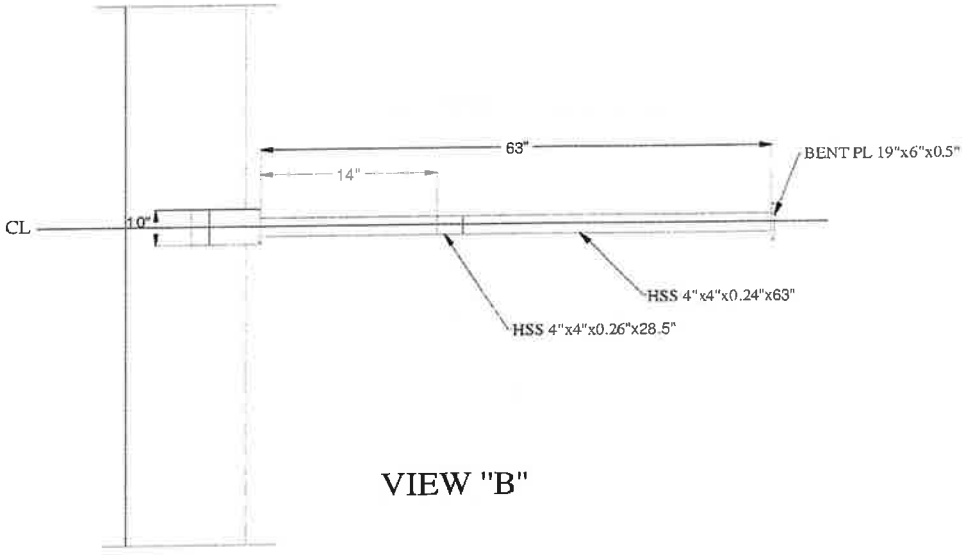
Please Insert Sketches of the Antenna Mount, cont'd



VIEW "A"



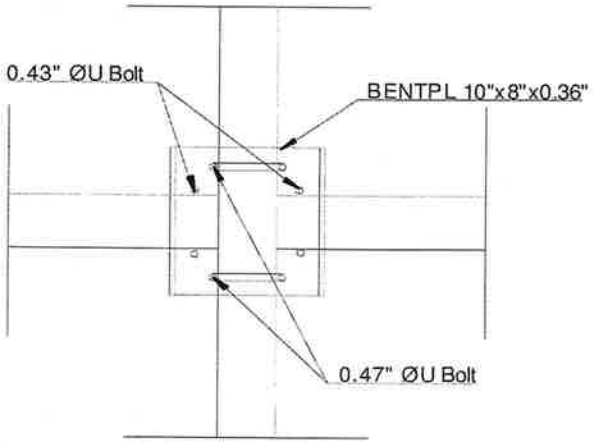
TOWER ATTACHMENT



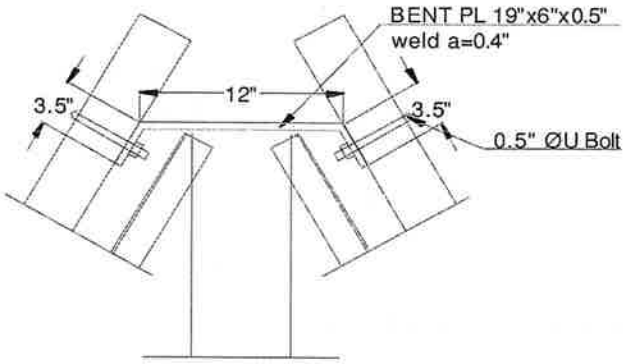
VIEW "B"

Please Insert Sketches of the Antenna Mount, cont'd

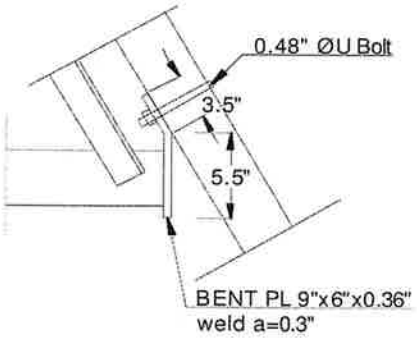
CONNECTION "1"



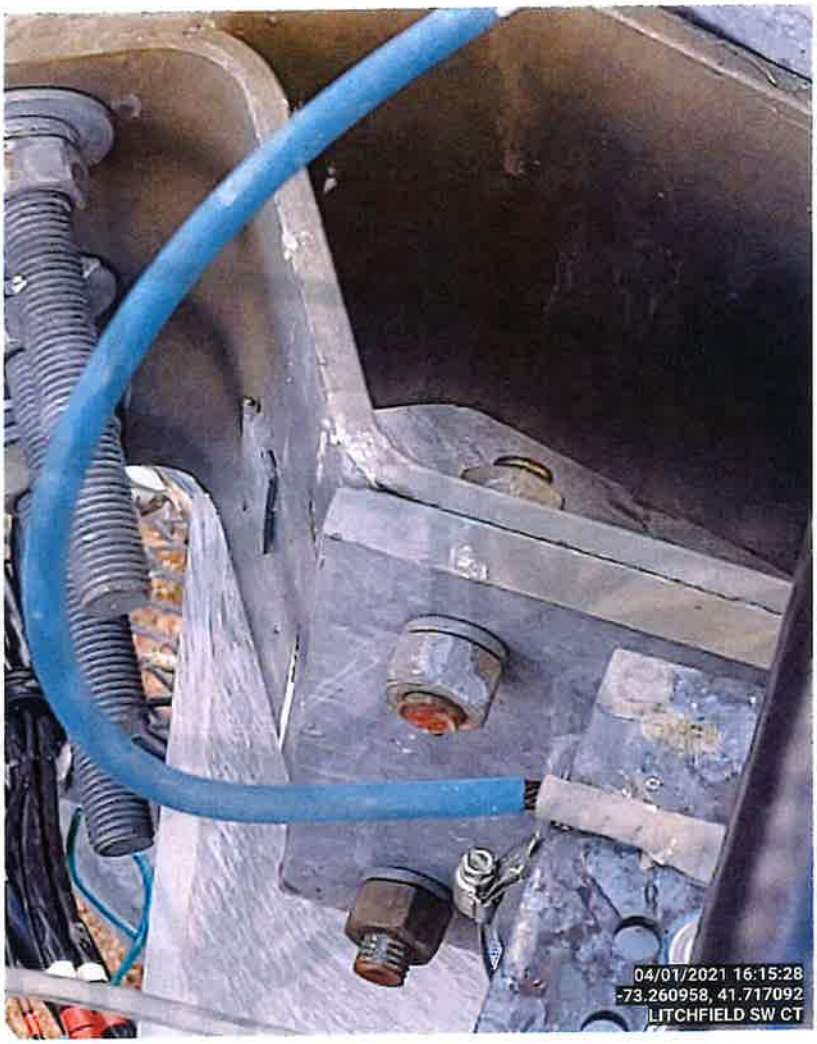
CONNECTION "2"



CONNECTION "3"

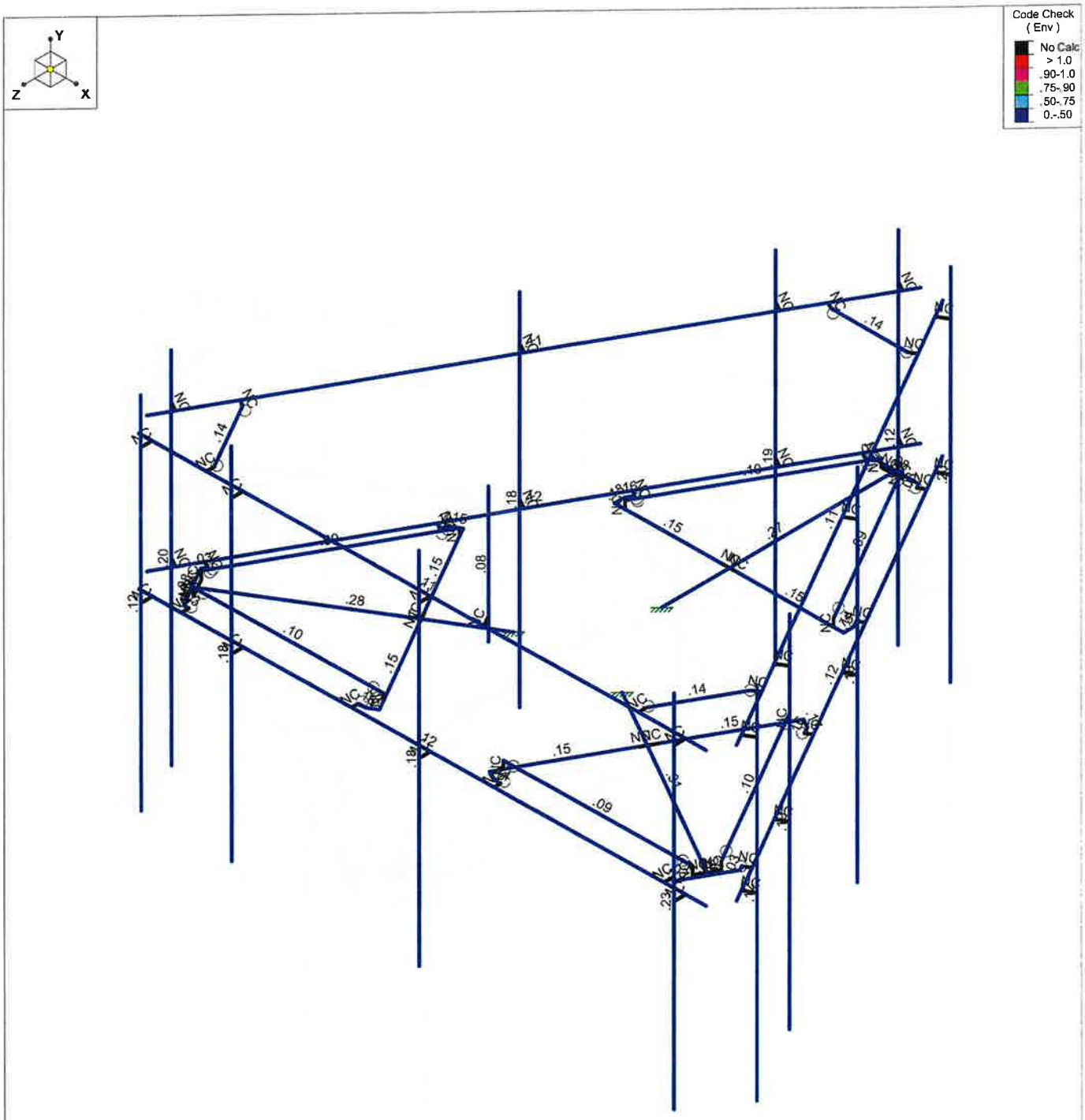


Please Insert Sketches of the Antenna Mount, cont'd



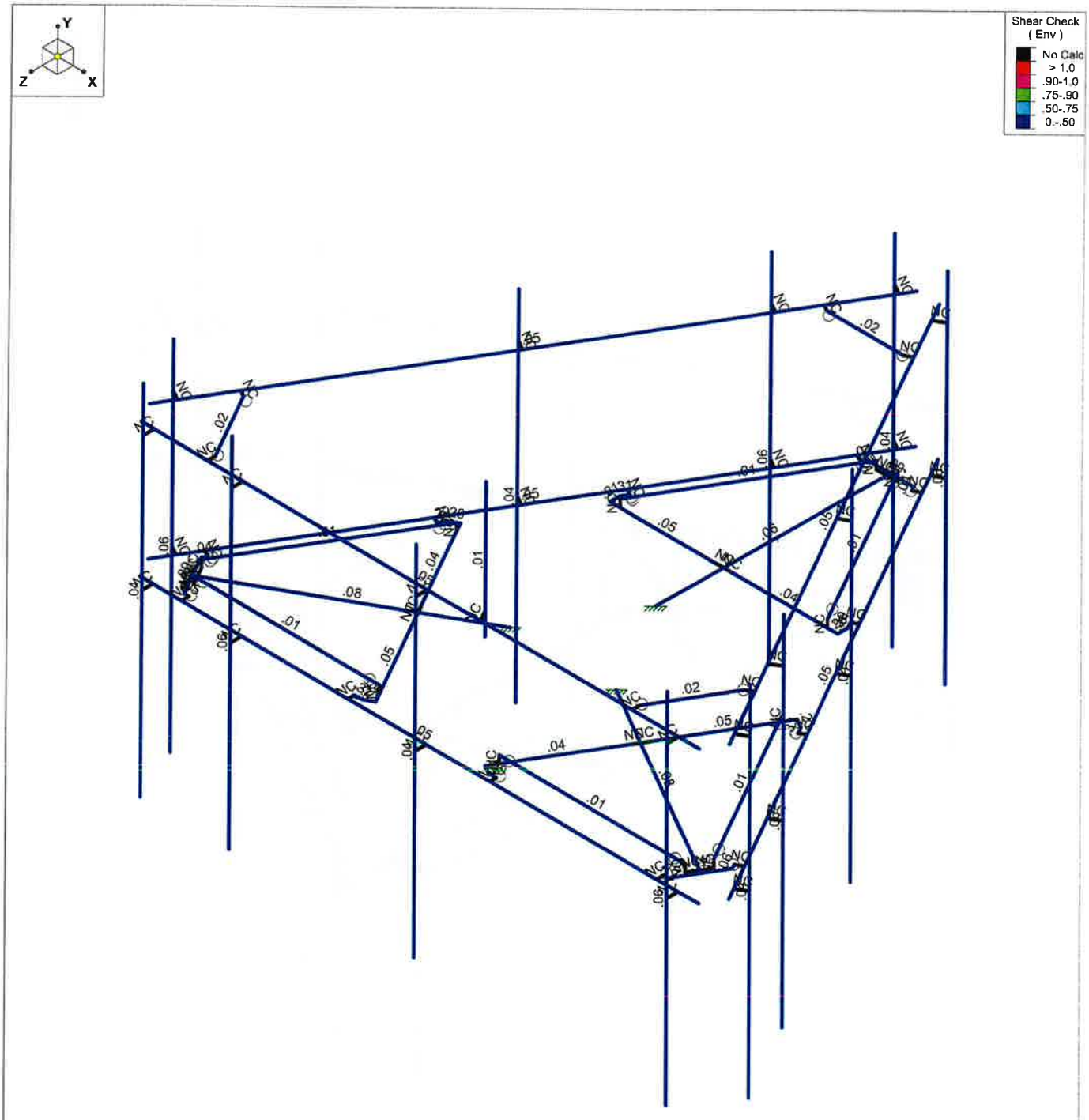
Envelope Only Solution

Colliers Engineering & De...	Antenna Mount Analysis	SK - 1
		Jan 24, 2024 at 9:28 AM
Project # 21777238		5000248162-VZW_MT_LO_H.r3d



Member Code Checks Displayed (Enveloped)
Envelope Only Solution

Colliers Engineering & De...	Antenna Mount Analysis	SK - 2
		Jan 24, 2024 at 9:29 AM
Project # 21777238		5000248162-VZW_MT_LO_H.r3d



Member Shear Checks Displayed (Enveloped)
Envelope Only Solution

Colliers Engineering & De...	Antenna Mount Analysis	SK - 3
		Jan 24, 2024 at 9:29 AM
Project # 21777238		5000248162-VZW_MT_LO_H.r3d

Basic Load Cases

	BLC Description	Category	X Gr...	Y Gr...	Z Gr...	Joint	Point	Distributed	Area(Member)	Surfa...
1	Antenna D	None					75			
2	Antenna Di	None					75			
3	Antenna Wo (0 Deg)	None					75			
4	Antenna Wo (30 Deg)	None					75			
5	Antenna Wo (60 Deg)	None					75			
6	Antenna Wo (90 Deg)	None					75			
7	Antenna Wo (120 Deg)	None					75			
8	Antenna Wo (150 Deg)	None					75			
9	Antenna Wo (180 Deg)	None					75			
10	Antenna Wo (210 Deg)	None					75			
11	Antenna Wo (240 Deg)	None					75			
12	Antenna Wo (270 Deg)	None					75			
13	Antenna Wo (300 Deg)	None					75			
14	Antenna Wo (330 Deg)	None					75			
15	Antenna Wi (0 Deg)	None					75			
16	Antenna Wi (30 Deg)	None					75			
17	Antenna Wi (60 Deg)	None					75			
18	Antenna Wi (90 Deg)	None					75			
19	Antenna Wi (120 Deg)	None					75			
20	Antenna Wi (150 Deg)	None					75			
21	Antenna Wi (180 Deg)	None					75			
22	Antenna Wi (210 Deg)	None					75			
23	Antenna Wi (240 Deg)	None					75			
24	Antenna Wi (270 Deg)	None					75			
25	Antenna Wi (300 Deg)	None					75			
26	Antenna Wi (330 Deg)	None					75			
27	Antenna Wm (0 Deg)	None					75			
28	Antenna Wm (30 Deg)	None					75			
29	Antenna Wm (60 Deg)	None					75			
30	Antenna Wm (90 Deg)	None					75			
31	Antenna Wm (120 Deg)	None					75			
32	Antenna Wm (150 Deg)	None					75			
33	Antenna Wm (180 Deg)	None					75			
34	Antenna Wm (210 Deg)	None					75			
35	Antenna Wm (240 Deg)	None					75			
36	Antenna Wm (270 Deg)	None					75			
37	Antenna Wm (300 Deg)	None					75			
38	Antenna Wm (330 Deg)	None					75			
39	Structure D	None		-1					3	
40	Structure Di	None						58	3	
41	Structure Wo (0 Deg)	None						116		
42	Structure Wo (30 Deg)	None						116		
43	Structure Wo (60 Deg)	None						116		
44	Structure Wo (90 Deg)	None						116		
45	Structure Wo (120 Deg)	None						116		
46	Structure Wo (150 Deg)	None						116		
47	Structure Wo (180 Deg)	None						116		
48	Structure Wo (210 Deg)	None						116		
49	Structure Wo (240 Deg)	None						116		
50	Structure Wo (270 Deg)	None						116		
51	Structure Wo (300 Deg)	None						116		
52	Structure Wo (330 Deg)	None						116		
53	Structure Wi (0 Deg)	None						116		
54	Structure Wi (30 Deg)	None						116		
55	Structure Wi (60 Deg)	None						116		
56	Structure Wi (90 Deg)	None						116		

Basic Load Cases (Continued)

	BLC Description	Category	X Gr...	Y Gr...	Z Gr...	Joint	Point	Distributed	Area(Member)	Surfa...
57	Structure Wi (120 Deg)	None						116		
58	Structure Wi (150 Deg)	None						116		
59	Structure Wi (180 Deg)	None						116		
60	Structure Wi (210 Deg)	None						116		
61	Structure Wi (240 Deg)	None						116		
62	Structure Wi (270 Deg)	None						116		
63	Structure Wi (300 Deg)	None						116		
64	Structure Wi (330 Deg)	None						116		
65	Structure Wm (0 Deg)	None						116		
66	Structure Wm (30 Deg)	None						116		
67	Structure Wm (60 Deg)	None						116		
68	Structure Wm (90 Deg)	None						116		
69	Structure Wm (120 Deg)	None						116		
70	Structure Wm (150 Deg)	None						116		
71	Structure Wm (180 Deg)	None						116		
72	Structure Wm (210 Deg)	None						116		
73	Structure Wm (240 Deg)	None						116		
74	Structure Wm (270 Deg)	None						116		
75	Structure Wm (300 Deg)	None						116		
76	Structure Wm (330 Deg)	None						116		
77	Lm1	None					1			
78	Lm2	None					1			
79	Lv1	None					1			
80	Lv2	None					1			
81	Antenna Ev	None					75			
82	Antenna Eh (0 Deg)	None					50			
83	Antenna Eh (90 Deg)	None					50			
84	Structure Ev	ELY		-.038					3	
85	Structure Eh (0 Deg)	ELZ			-.0949				3	
86	Structure Eh (90 Deg)	ELX	.0949						3	
87	BLC 39 Transient Area Loads	None						30		
88	BLC 40 Transient Area Loads	None						30		
89	BLC 84 Transient Area Loads	None						30		
90	BLC 85 Transient Area Loads	None						30		
91	BLC 86 Transient Area Loads	None						30		

Load Combinations

	Description	S...	PDel...	SR...	BLC	Fa...	BLC	Fa...	BLC	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	BLC	Fa...	B...	Fa...	B...	Fa...	B...	Fa...
1	1.2D+1.0Wo (0 Deg)	Yes	Y		1	1.2	39	1.2	3	1	41	1												
2	1.2D+1.0Wo (30 Deg)	Yes	Y		1	1.2	39	1.2	4	1	42	1												
3	1.2D+1.0Wo (60 Deg)	Yes	Y		1	1.2	39	1.2	5	1	43	1												
4	1.2D+1.0Wo (90 Deg)	Yes	Y		1	1.2	39	1.2	6	1	44	1												
5	1.2D+1.0Wo (120 De...	Yes	Y		1	1.2	39	1.2	7	1	45	1												
6	1.2D+1.0Wo (150 De...	Yes	Y		1	1.2	39	1.2	8	1	46	1												
7	1.2D+1.0Wo (180 De...	Yes	Y		1	1.2	39	1.2	9	1	47	1												
8	1.2D+1.0Wo (210 De...	Yes	Y		1	1.2	39	1.2	10	1	48	1												
9	1.2D+1.0Wo (240 De...	Yes	Y		1	1.2	39	1.2	11	1	49	1												
10	1.2D+1.0Wo (270 De...	Yes	Y		1	1.2	39	1.2	12	1	50	1												
11	1.2D+1.0Wo (300 De...	Yes	Y		1	1.2	39	1.2	13	1	51	1												
12	1.2D+1.0Wo (330 De...	Yes	Y		1	1.2	39	1.2	14	1	52	1												
13	1.2D + 1.0Di + 1.0Wi...	Yes	Y		1	1.2	39	1.2	2	1	40	1	15	1	53	1								
14	1.2D + 1.0Di + 1.0Wi...	Yes	Y		1	1.2	39	1.2	2	1	40	1	16	1	54	1								
15	1.2D + 1.0Di + 1.0Wi...	Yes	Y		1	1.2	39	1.2	2	1	40	1	17	1	55	1								
16	1.2D + 1.0Di + 1.0Wi...	Yes	Y		1	1.2	39	1.2	2	1	40	1	18	1	56	1								
17	1.2D + 1.0Di + 1.0Wi...	Yes	Y		1	1.2	39	1.2	2	1	40	1	19	1	57	1								

Load Combinations (Continued)

	Description	S...	PDel...	SR...	BLC	Fa...	BLC	Fa...	BLC	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	BLC	Fa...	B...	Fa...	B...	Fa...	B...	Fa...
18	1.2D + 1.0Di + 1.0Wi...	Yes	Y		1	1.2	39	1.2	2	1	40	1	20	1	58	1								
19	1.2D + 1.0Di + 1.0Wi...	Yes	Y		1	1.2	39	1.2	2	1	40	1	21	1	59	1								
20	1.2D + 1.0Di + 1.0Wi...	Yes	Y		1	1.2	39	1.2	2	1	40	1	22	1	60	1								
21	1.2D + 1.0Di + 1.0Wi...	Yes	Y		1	1.2	39	1.2	2	1	40	1	23	1	61	1								
22	1.2D + 1.0Di + 1.0Wi...	Yes	Y		1	1.2	39	1.2	2	1	40	1	24	1	62	1								
23	1.2D + 1.0Di + 1.0Wi...	Yes	Y		1	1.2	39	1.2	2	1	40	1	25	1	63	1								
24	1.2D + 1.0Di + 1.0Wi...	Yes	Y		1	1.2	39	1.2	2	1	40	1	26	1	64	1								
25	1.2D + 1.5Lm1 + 1.0...	Yes	Y		1	1.2	39	1.2	77	1.5	27	1	65	1										
26	1.2D + 1.5Lm1 + 1.0...	Yes	Y		1	1.2	39	1.2	77	1.5	28	1	66	1										
27	1.2D + 1.5Lm1 + 1.0...	Yes	Y		1	1.2	39	1.2	77	1.5	29	1	67	1										
28	1.2D + 1.5Lm1 + 1.0...	Yes	Y		1	1.2	39	1.2	77	1.5	30	1	68	1										
29	1.2D + 1.5Lm1 + 1.0...	Yes	Y		1	1.2	39	1.2	77	1.5	31	1	69	1										
30	1.2D + 1.5Lm1 + 1.0...	Yes	Y		1	1.2	39	1.2	77	1.5	32	1	70	1										
31	1.2D + 1.5Lm1 + 1.0...	Yes	Y		1	1.2	39	1.2	77	1.5	33	1	71	1										
32	1.2D + 1.5Lm1 + 1.0...	Yes	Y		1	1.2	39	1.2	77	1.5	34	1	72	1										
33	1.2D + 1.5Lm1 + 1.0...	Yes	Y		1	1.2	39	1.2	77	1.5	35	1	73	1										
34	1.2D + 1.5Lm1 + 1.0...	Yes	Y		1	1.2	39	1.2	77	1.5	36	1	74	1										
35	1.2D + 1.5Lm1 + 1.0...	Yes	Y		1	1.2	39	1.2	77	1.5	37	1	75	1										
36	1.2D + 1.5Lm1 + 1.0...	Yes	Y		1	1.2	39	1.2	77	1.5	38	1	76	1										
37	1.2D + 1.5Lm2 + 1.0...	Yes	Y		1	1.2	39	1.2	78	1.5	27	1	65	1										
38	1.2D + 1.5Lm2 + 1.0...	Yes	Y		1	1.2	39	1.2	78	1.5	28	1	66	1										
39	1.2D + 1.5Lm2 + 1.0...	Yes	Y		1	1.2	39	1.2	78	1.5	29	1	67	1										
40	1.2D + 1.5Lm2 + 1.0...	Yes	Y		1	1.2	39	1.2	78	1.5	30	1	68	1										
41	1.2D + 1.5Lm2 + 1.0...	Yes	Y		1	1.2	39	1.2	78	1.5	31	1	69	1										
42	1.2D + 1.5Lm2 + 1.0...	Yes	Y		1	1.2	39	1.2	78	1.5	32	1	70	1										
43	1.2D + 1.5Lm2 + 1.0...	Yes	Y		1	1.2	39	1.2	78	1.5	33	1	71	1										
44	1.2D + 1.5Lm2 + 1.0...	Yes	Y		1	1.2	39	1.2	78	1.5	34	1	72	1										
45	1.2D + 1.5Lm2 + 1.0...	Yes	Y		1	1.2	39	1.2	78	1.5	35	1	73	1										
46	1.2D + 1.5Lm2 + 1.0...	Yes	Y		1	1.2	39	1.2	78	1.5	36	1	74	1										
47	1.2D + 1.5Lm2 + 1.0...	Yes	Y		1	1.2	39	1.2	78	1.5	37	1	75	1										
48	1.2D + 1.5Lm2 + 1.0...	Yes	Y		1	1.2	39	1.2	78	1.5	38	1	76	1										
49	1.2D + 1.5Lv1	Yes	Y		1	1.2	39	1.2	79	1.5														
50	1.2D + 1.5Lv2	Yes	Y		1	1.2	39	1.2	80	1.5														
51	1.4D	Yes	Y		1	1.4	39	1.4																
52	1.2D + 1.0Ev + 1.0E...	Yes	Y		1	1.2	39	1.2	81	1	E...	1	82	1	83		ELZ	1	E...					
53	1.2D + 1.0Ev + 1.0E...	Yes	Y		1	1.2	39	1.2	81	1	E...	1	82	.866	83	.5	ELZ	.866	E...	.5				
54	1.2D + 1.0Ev + 1.0E...	Yes	Y		1	1.2	39	1.2	81	1	E...	1	82	.5	83	.866	ELZ	.5	E...	.866				
55	1.2D + 1.0Ev + 1.0E...	Yes	Y		1	1.2	39	1.2	81	1	E...	1	82		83	1	ELZ		E...	1				
56	1.2D + 1.0Ev + 1.0E...	Yes	Y		1	1.2	39	1.2	81	1	E...	1	82	-.5	83	.866	ELZ	-.5	E...	.866				
57	1.2D + 1.0Ev + 1.0E...	Yes	Y		1	1.2	39	1.2	81	1	E...	1	82	-.8...	83	.5	ELZ	-.8...	E...	.5				
58	1.2D + 1.0Ev + 1.0E...	Yes	Y		1	1.2	39	1.2	81	1	E...	1	82	-1	83		ELZ	-1	E...					
59	1.2D + 1.0Ev + 1.0E...	Yes	Y		1	1.2	39	1.2	81	1	E...	1	82	-.8...	83	-.5	ELZ	-.8...	E...	-.5				
60	1.2D + 1.0Ev + 1.0E...	Yes	Y		1	1.2	39	1.2	81	1	E...	1	82	-.5	83	-.8...	ELZ	-.5	E...	-.8...				
61	1.2D + 1.0Ev + 1.0E...	Yes	Y		1	1.2	39	1.2	81	1	E...	1	82		83	-1	ELZ		E...	-1				
62	1.2D + 1.0Ev + 1.0E...	Yes	Y		1	1.2	39	1.2	81	1	E...	1	82	.5	83	-.8...	ELZ	.5	E...	-.8...				
63	1.2D + 1.0Ev + 1.0E...	Yes	Y		1	1.2	39	1.2	81	1	E...	1	82	.866	83	-.5	ELZ	.866	E...	-.5				
64	0.9D - 1.0Ev + 1.0Eh...	Yes	Y		1	.9	39	.9	81	-1	E...	-1	82	1	83		ELZ	1	E...					
65	0.9D - 1.0Ev + 1.0Eh...	Yes	Y		1	.9	39	.9	81	-1	E...	-1	82	.866	83	.5	ELZ	.866	E...	.5				
66	0.9D - 1.0Ev + 1.0Eh...	Yes	Y		1	.9	39	.9	81	-1	E...	-1	82	.5	83	.866	ELZ	.5	E...	.866				
67	0.9D - 1.0Ev + 1.0Eh...	Yes	Y		1	.9	39	.9	81	-1	E...	-1	82		83	1	ELZ		E...	1				
68	0.9D - 1.0Ev + 1.0Eh...	Yes	Y		1	.9	39	.9	81	-1	E...	-1	82	-.5	83	.866	ELZ	-.5	E...	.866				
69	0.9D - 1.0Ev + 1.0Eh...	Yes	Y		1	.9	39	.9	81	-1	E...	-1	82	-.8...	83	.5	ELZ	-.8...	E...	.5				
70	0.9D - 1.0Ev + 1.0Eh...	Yes	Y		1	.9	39	.9	81	-1	E...	-1	82	-1	83		ELZ	-1	E...					
71	0.9D - 1.0Ev + 1.0Eh...	Yes	Y		1	.9	39	.9	81	-1	E...	-1	82	-.8...	83	-.5	ELZ	-.8...	E...	-.5				
72	0.9D - 1.0Ev + 1.0Eh...	Yes	Y		1	.9	39	.9	81	-1	E...	-1	82	-.5	83	-.8...	ELZ	-.5	E...	-.8...				
73	0.9D - 1.0Ev + 1.0Eh...	Yes	Y		1	.9	39	.9	81	-1	E...	-1	82		83	-1	ELZ		E...	-1				
74	0.9D - 1.0Ev + 1.0Eh...	Yes	Y		1	.9	39	.9	81	-1	E...	-1	82	.5	83	-.8...	ELZ	.5	E...	-.8...				

Load Combinations (Continued)

	Description	S...	PDel...	SR...	BLC	Fa...	BLC	Fa...	BLC	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	BLC	Fa...	B...	Fa...	B...	Fa...	B...	Fa...
75	0.9D - 1.0Ev + 1.0Eh...	Yes	Y		1	.9	39	.9	81	-1	E...	-1	82	.866	83	-.5	ELZ	.866	E...	-.5				

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Desig...	A [in2]	Iyy [i...	Izz [i...	J [in4]
1	Face Horizontal	PIPE_3.0	Beam	Pipe	A53 Gr.B	Typical	2.07	2.85	2.85	5.69
2	Standoff Horizontal	HSS4X4X4	Beam	Tube	A500 Gr.B Rect	Typical	3.37	7.8	7.8	12.8
3	Corner Plate	PL1/2x6	Beam	RECT	A36 Gr.36	Typical	3	.0625	9	.2369
4	Platform Crossmember	HSS4X4X4	Beam	Tube	A500 Gr.B Rect	Typical	3.37	7.8	7.8	12.8
5	Grating Support	L2x2x3	Beam	Single Angle	A36 Gr.36	Typical	.722	.271	.271	.0092
6	Mount Pipe	PIPE_2.0	Column	Pipe	A53 Gr.B	Typical	1.02	.627	.627	1.25
7	Cross Arm Plate	PL3/8x6	Column	RECT	A36 Gr.36	Typical	2.25	.026	6.75	.101
8	Mod Dual Antenna Mount P...	PIPE_2.5	Column	Pipe	A53 Gr.B	Typical	1.61	1.45	1.45	2.89
9	Mod Support Rail	PIPE_2.5	Beam	Pipe	A53 Gr.B	Typical	1.61	1.45	1.45	2.89
10	Mod Support Rail Corner	L3X3X4	Beam	Single Angle	A36 Gr.36	Typical	1.44	1.23	1.23	.0313

Hot Rolled Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm (/...	Density[k/ft^3]	Yield[ksi]	Ry	Fu[ksi]	Rt
1	A992	29000	11154	.3	.65	.49	50	1.1	65	1.1
2	A36 Gr.36	29000	11154	.3	.65	.49	36	1.5	58	1.2
3	A572 Gr.50	29000	11154	.3	.65	.49	50	1.1	65	1.1
4	A500 Gr.B RND	29000	11154	.3	.65	.527	42	1.4	58	1.3
5	A500 Gr.B Rect	29000	11154	.3	.65	.527	46	1.4	58	1.3
6	A53 Gr.B	29000	11154	.3	.65	.49	35	1.6	60	1.2
7	A1085	29000	11154	.3	.65	.49	50	1.4	65	1.3
8	Q235	29000	11154	.3	.65	.49	35	1.5	58	1.2

Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotate(d...	Section/Shape	Type	Design List	Material	Design Ru...
1	M4	N3	N27			Standoff Horizontal	Beam	Tube	A500 Gr...	Typical
2	M10	N101	N103A			Platform Crossme...	Beam	Tube	A500 Gr...	Typical
3	M43	N102	N5			Platform Crossme...	Beam	Tube	A500 Gr...	Typical
4	M46	N86C	N87A			Corner Plate	Beam	RECT	A36 Gr.36	Typical
5	M35A	N7	N30			RIGID	None	None	RIGID	Typical
6	M36A	N6	N29			RIGID	None	None	RIGID	Typical
7	M51B	N87C	N6			Grating Support	Beam	Single Angle	A36 Gr.36	Typical
8	M52B	N7	N87B			Grating Support	Beam	Single Angle	A36 Gr.36	Typical
9	M52	N87B	N88C			RIGID	None	None	RIGID	Typical
10	M58	N102	N24			RIGID	None	None	RIGID	Typical
11	M59	N24	N103A			RIGID	None	None	RIGID	Typical
12	M76	N101	N105			Cross Arm Plate	Column	RECT	A36 Gr.36	Typical
13	M77	N105	N131			Cross Arm Plate	Column	RECT	A36 Gr.36	Typical
14	M79	N131	N86A			RIGID	None	None	RIGID	Typical
15	M80	N87A	N135			Corner Plate	Beam	RECT	A36 Gr.36	Typical
16	M83	N135	N86D			RIGID	None	None	RIGID	Typical
17	M84	N5	N104A			Cross Arm Plate	Column	RECT	A36 Gr.36	Typical
18	M85	N104A	N144			Cross Arm Plate	Column	RECT	A36 Gr.36	Typical
19	M88	N144	N86B			RIGID	None	None	RIGID	Typical
20	M91	N86C	N148			Corner Plate	Beam	RECT	A36 Gr.36	Typical
21	M92	N148	N86E			RIGID	None	None	RIGID	Typical
22	M50	N88C	N88A			RIGID	None	None	RIGID	Typical
23	M51	N88A	N86G			RIGID	None	None	RIGID	Typical
24	M51A	N87C	N86G			RIGID	None	None	RIGID	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(d...	Section/Shape	Type	Design List	Material	Design Ru...
25	M25	N30A	N35			Standoff Horizontal	Beam	Tube	A500 Gr...	Typical
26	M26	N39	N41			Platform Crossme...	Beam	Tube	A500 Gr...	Typical
27	M27	N40	N31			Platform Crossme...	Beam	Tube	A500 Gr...	Typical
28	M28	N50	N51			Corner Plate	Beam	RECT	A36 Gr.36	Typical
29	M29	N33	N38			RIGID	None	None	RIGID	Typical
30	M30	N32	N37			RIGID	None	None	RIGID	Typical
31	M31	N55	N32			Grating Support	Beam	Single Angle	A36 Gr.36	Typical
32	M32	N33	N57			Grating Support	Beam	Single Angle	A36 Gr.36	Typical
33	M33	N57	N58			RIGID	None	None	RIGID	Typical
34	M34	N40	N34			RIGID	None	None	RIGID	Typical
35	M35	N34	N41			RIGID	None	None	RIGID	Typical
36	M36	N39	N43			Cross Arm Plate	Column	RECT	A36 Gr.36	Typical
37	M37	N43	N44			Cross Arm Plate	Column	RECT	A36 Gr.36	Typical
38	M38	N44	N48			RIGID	None	None	RIGID	Typical
39	M39	N51	N45			Corner Plate	Beam	RECT	A36 Gr.36	Typical
40	M40	N45	N52			RIGID	None	None	RIGID	Typical
41	M41	N31	N42			Cross Arm Plate	Column	RECT	A36 Gr.36	Typical
42	M42	N42	N46			Cross Arm Plate	Column	RECT	A36 Gr.36	Typical
43	M43A	N46	N49			RIGID	None	None	RIGID	Typical
44	M44	N50	N47			Corner Plate	Beam	RECT	A36 Gr.36	Typical
45	M45	N47	N53			RIGID	None	None	RIGID	Typical
46	M46A	N58	N54			RIGID	None	None	RIGID	Typical
47	M47	N54	N56			RIGID	None	None	RIGID	Typical
48	M48	N55	N56			RIGID	None	None	RIGID	Typical
49	M49	N59	N64			Standoff Horizontal	Beam	Tube	A500 Gr...	Typical
50	M50A	N68	N70			Platform Crossme...	Beam	Tube	A500 Gr...	Typical
51	M51C	N69	N60			Platform Crossme...	Beam	Tube	A500 Gr...	Typical
52	M52A	N79	N80			Corner Plate	Beam	RECT	A36 Gr.36	Typical
53	M53	N62	N67			RIGID	None	None	RIGID	Typical
54	M54	N61	N66			RIGID	None	None	RIGID	Typical
55	M55	N84	N61			Grating Support	Beam	Single Angle	A36 Gr.36	Typical
56	M56	N62	N86			Grating Support	Beam	Single Angle	A36 Gr.36	Typical
57	M57	N86	N87			RIGID	None	None	RIGID	Typical
58	M58A	N69	N63			RIGID	None	None	RIGID	Typical
59	M59A	N63	N70			RIGID	None	None	RIGID	Typical
60	M60	N68	N72			Cross Arm Plate	Column	RECT	A36 Gr.36	Typical
61	M61	N72	N73			Cross Arm Plate	Column	RECT	A36 Gr.36	Typical
62	M62	N73	N77			RIGID	None	None	RIGID	Typical
63	M63	N80	N74			Corner Plate	Beam	RECT	A36 Gr.36	Typical
64	M64	N74	N81			RIGID	None	None	RIGID	Typical
65	M65	N60	N71			Cross Arm Plate	Column	RECT	A36 Gr.36	Typical
66	M66	N71	N75			Cross Arm Plate	Column	RECT	A36 Gr.36	Typical
67	M67	N75	N78			RIGID	None	None	RIGID	Typical
68	M68	N79	N76			Corner Plate	Beam	RECT	A36 Gr.36	Typical
69	M69	N76	N82			RIGID	None	None	RIGID	Typical
70	M70	N87	N83			RIGID	None	None	RIGID	Typical
71	M71	N83	N85			RIGID	None	None	RIGID	Typical
72	M72	N84	N85			RIGID	None	None	RIGID	Typical
73	M73	N88	N87D			Face Horizontal	Beam	Pipe	A53 Gr.B	Typical
74	M74	N92	N91			Face Horizontal	Beam	Pipe	A53 Gr.B	Typical
75	M75	N96	N95			Face Horizontal	Beam	Pipe	A53 Gr.B	Typical
76	M76A	N95A	N96A			RIGID	None	None	RIGID	Typical
77	MP1A	N97	N98			Mount Pipe	Column	Pipe	A53 Gr.B	Typical
78	M78	N99	N100			RIGID	None	None	RIGID	Typical
79	MP2A	N101A	N102A			Mod Dual Antenna...	Column	Pipe	A53 Gr.B	Typical
80	M80A	N103	N104			RIGID	None	None	RIGID	Typical
81	MP3A	N105A	N106			Mount Pipe	Column	Pipe	A53 Gr.B	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(d...	Section/Shape	Type	Design List	Material	Design Ru...
82	M82	N107	N108			RIGID	None	None	RIGID	Typical
83	MP4A	N109	N110			Mount Pipe	Column	Pipe	A53 Gr.B	Typical
84	M84A	N112	N113			RIGID	None	None	RIGID	Typical
85	MP1C	N114	N115			Mount Pipe	Column	Pipe	A53 Gr.B	Typical
86	M86	N116	N117			RIGID	None	None	RIGID	Typical
87	MP2C	N118	N119			Mod Dual Antenna...	Column	Pipe	A53 Gr.B	Typical
88	M88A	N120	N121			RIGID	None	None	RIGID	Typical
89	MP3C	N122	N123			Mount Pipe	Column	Pipe	A53 Gr.B	Typical
90	M90	N124	N125			RIGID	None	None	RIGID	Typical
91	MP4C	N126	N127			Mount Pipe	Column	Pipe	A53 Gr.B	Typical
92	M92A	N129	N130			RIGID	None	None	RIGID	Typical
93	MP1B	N131A	N132			Mount Pipe	Column	Pipe	A53 Gr.B	Typical
94	M94	N133	N134			RIGID	None	None	RIGID	Typical
95	MP2B	N135A	N136			Mod Dual Antenna...	Column	Pipe	A53 Gr.B	Typical
96	M96	N137	N138			RIGID	None	None	RIGID	Typical
97	MP3B	N139	N140			Mount Pipe	Column	Pipe	A53 Gr.B	Typical
98	M98	N141	N142			RIGID	None	None	RIGID	Typical
99	MP4B	N143	N144A			Mount Pipe	Column	Pipe	A53 Gr.B	Typical
100	M100	N143A	N144B			RIGID	None	None	RIGID	Typical
101	M101	N146	N145			Mount Pipe	Column	Pipe	A53 Gr.B	Typical
102	M102	N148A	N147			Mod Support Rail	Beam	Pipe	A53 Gr.B	Typical
103	M103	N149	N150			RIGID	None	None	RIGID	Typical
104	M104	N151	N152			RIGID	None	None	RIGID	Typical
105	M105	N153	N154			RIGID	None	None	RIGID	Typical
106	M106	N156	N155			RIGID	None	None	RIGID	Typical
107	M109	N162	N161			Mod Support Rail	Beam	Pipe	A53 Gr.B	Typical
108	M110	N163	N164			RIGID	None	None	RIGID	Typical
109	M111	N165	N166			RIGID	None	None	RIGID	Typical
110	M112	N167	N168			RIGID	None	None	RIGID	Typical
111	M113	N170	N169			RIGID	None	None	RIGID	Typical
112	M116	N176	N175			Mod Support Rail	Beam	Pipe	A53 Gr.B	Typical
113	M117	N177	N178			RIGID	None	None	RIGID	Typical
114	M118	N179	N180			RIGID	None	None	RIGID	Typical
115	M119	N181	N182			RIGID	None	None	RIGID	Typical
116	M120	N184	N183			RIGID	None	None	RIGID	Typical
117	M123	N191	N200		90	Mod Support Rail ...	Beam	Single Angle	A36 Gr.36	Typical
118	M126	N189	N191			RIGID	None	None	RIGID	Typical
119	M131	N199	N200			RIGID	None	None	RIGID	Typical
120	M120A	N182A	N184A		90	Mod Support Rail ...	Beam	Single Angle	A36 Gr.36	Typical
121	M121	N181A	N182A			RIGID	None	None	RIGID	Typical
122	M122	N183A	N184A			RIGID	None	None	RIGID	Typical
123	M123A	N186	N188		90	Mod Support Rail ...	Beam	Single Angle	A36 Gr.36	Typical
124	M124	N185	N186			RIGID	None	None	RIGID	Typical
125	M125	N187	N188			RIGID	None	None	RIGID	Typical

Member Advanced Data

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Ratio Opti...	Analysis ...	Inactive	Seismi...
1	M4						Yes				None
2	M10						Yes	Default			None
3	M43						Yes	Default			None
4	M46						Yes	Default			None
5	M35A						Yes	** NA **			None
6	M36A						Yes	** NA **			None
7	M51B	OOOOOX	OOOOOX				Yes	Default			None
8	M52B	OOOOOX	OOOOOX				Yes	Default			None

Member Advanced Data (Continued)

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Ratio Opti...	Analysis ...	Inactive	Seismi...
9	M52						Yes	** NA **			None
10	M58						Yes	** NA **			None
11	M59						Yes	** NA **			None
12	M76						Yes	** NA **			None
13	M77						Yes	** NA **			None
14	M79		BenPIN				Yes	** NA **			None
15	M80						Yes				None
16	M83		BenPIN				Yes	** NA **			None
17	M84						Yes	** NA **			None
18	M85						Yes	** NA **			None
19	M88		BenPIN				Yes	** NA **			None
20	M91						Yes				None
21	M92		BenPIN				Yes	** NA **			None
22	M50						Yes	** NA **			None
23	M51						Yes	** NA **			None
24	M51A						Yes	** NA **			None
25	M25						Yes				None
26	M26						Yes	Default			None
27	M27						Yes	Default			None
28	M28						Yes	Default			None
29	M29						Yes	** NA **			None
30	M30						Yes	** NA **			None
31	M31	OOOOOX	OOOOOX				Yes	Default			None
32	M32	OOOOOX	OOOOOX				Yes	Default			None
33	M33						Yes	** NA **			None
34	M34						Yes	** NA **			None
35	M35						Yes	** NA **			None
36	M36						Yes	** NA **			None
37	M37						Yes	** NA **			None
38	M38		BenPIN				Yes	** NA **			None
39	M39						Yes				None
40	M40		BenPIN				Yes	** NA **			None
41	M41						Yes	** NA **			None
42	M42						Yes	** NA **			None
43	M43A		BenPIN				Yes	** NA **			None
44	M44						Yes				None
45	M45		BenPIN				Yes	** NA **			None
46	M46A						Yes	** NA **			None
47	M47						Yes	** NA **			None
48	M48						Yes	** NA **			None
49	M49						Yes				None
50	M50A						Yes	Default			None
51	M51C						Yes	Default			None
52	M52A						Yes	Default			None
53	M53						Yes	** NA **			None
54	M54						Yes	** NA **			None
55	M55	OOOOOX	OOOOOX				Yes	Default			None
56	M56	OOOOOX	OOOOOX				Yes	Default			None
57	M57						Yes	** NA **			None
58	M58A						Yes	** NA **			None
59	M59A						Yes	** NA **			None
60	M60						Yes	** NA **			None
61	M61						Yes	** NA **			None
62	M62		BenPIN				Yes	** NA **			None
63	M63						Yes				None
64	M64		BenPIN				Yes	** NA **			None
65	M65						Yes	** NA **			None

Member Advanced Data (Continued)

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Ratio Opti...	Analysis ...	Inactive	Seismi...
66	M66						Yes	** NA **			None
67	M67		BenPIN				Yes	** NA **			None
68	M68						Yes				None
69	M69		BenPIN				Yes	** NA **			None
70	M70						Yes	** NA **			None
71	M71						Yes	** NA **			None
72	M72						Yes	** NA **			None
73	M73						Yes				None
74	M74						Yes				None
75	M75						Yes				None
76	M76A						Yes	** NA **			None
77	MP1A						Yes	** NA **			None
78	M78						Yes	** NA **			None
79	MP2A						Yes	** NA **			None
80	M80A						Yes	** NA **			None
81	MP3A						Yes	** NA **			None
82	M82						Yes	** NA **			None
83	MP4A						Yes	** NA **			None
84	M84A						Yes	** NA **			None
85	MP1C						Yes	** NA **			None
86	M86						Yes	** NA **			None
87	MP2C						Yes	** NA **			None
88	M88A						Yes	** NA **			None
89	MP3C						Yes	** NA **			None
90	M90						Yes	** NA **			None
91	MP4C						Yes	** NA **			None
92	M92A						Yes	** NA **			None
93	MP1B						Yes	** NA **			None
94	M94						Yes	** NA **			None
95	MP2B						Yes	** NA **			None
96	M96						Yes	** NA **			None
97	MP3B						Yes	** NA **			None
98	M98						Yes	** NA **			None
99	MP4B						Yes	** NA **			None
100	M100						Yes	** NA **			None
101	M101						Yes	** NA **			None
102	M102						Yes				None
103	M103						Yes	** NA **			None
104	M104						Yes	** NA **			None
105	M105						Yes	** NA **			None
106	M106						Yes	** NA **			None
107	M109						Yes				None
108	M110						Yes	** NA **			None
109	M111						Yes	** NA **			None
110	M112						Yes	** NA **			None
111	M113						Yes	** NA **			None
112	M116						Yes				None
113	M117						Yes	** NA **			None
114	M118						Yes	** NA **			None
115	M119						Yes	** NA **			None
116	M120						Yes	** NA **			None
117	M123						Yes				None
118	M126	OOOOOX					Yes	** NA **			None
119	M131	OOOOOX					Yes	** NA **			None
120	M120A						Yes				None
121	M121	OOOOOX					Yes	** NA **			None
122	M122	OOOOOX					Yes	** NA **			None

Member Advanced Data (Continued)

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Ratio Opti...	Analysis ...	Inactive	Seismi...
123	M123A						Yes				None
124	M124	OOOOOX					Yes	** NA **			None
125	M125	OOOOOX					Yes	** NA **			None

Member Point Loads (BLC 1 : Antenna D)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	Y	-25.8	.5
2	MP2A	My	-.0129	.5
3	MP2A	Mz	.015	.5
4	MP2A	Y	-25.8	5.5
5	MP2A	My	-.0129	5.5
6	MP2A	Mz	.015	5.5
7	MP2B	Y	-25.8	.5
8	MP2B	My	-.0066	.5
9	MP2B	Mz	-.0187	.5
10	MP2B	Y	-25.8	5.5
11	MP2B	My	-.0066	5.5
12	MP2B	Mz	-.0187	5.5
13	MP2C	Y	-25.8	.5
14	MP2C	My	.0195	.5
15	MP2C	Mz	.0036	.5
16	MP2C	Y	-25.8	5.5
17	MP2C	My	.0195	5.5
18	MP2C	Mz	.0036	5.5
19	MP2A	Y	-25.8	.5
20	MP2A	My	-.0129	.5
21	MP2A	Mz	-.015	.5
22	MP2A	Y	-25.8	5.5
23	MP2A	My	-.0129	5.5
24	MP2A	Mz	-.015	5.5
25	MP2B	Y	-25.8	.5
26	MP2B	My	.0195	.5
27	MP2B	Mz	-.0036	.5
28	MP2B	Y	-25.8	5.5
29	MP2B	My	.0195	5.5
30	MP2B	Mz	-.0036	5.5
31	MP2C	Y	-25.8	.5
32	MP2C	My	-.0066	.5
33	MP2C	Mz	.0187	.5
34	MP2C	Y	-25.8	5.5
35	MP2C	My	-.0066	5.5
36	MP2C	Mz	.0187	5.5
37	MP3A	Y	-28.65	2
38	MP3A	My	-.0143	2
39	MP3A	Mz	0	2
40	MP3A	Y	-28.65	4
41	MP3A	My	-.0143	4
42	MP3A	Mz	0	4
43	MP3B	Y	-28.65	2
44	MP3B	My	.0072	2
45	MP3B	Mz	-.0124	2
46	MP3B	Y	-28.65	4
47	MP3B	My	.0072	4
48	MP3B	Mz	-.0124	4
49	MP3C	Y	-28.65	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
50	MP3C	My	.0072	2
51	MP3C	Mz	.0124	2
52	MP3C	Y	-28.65	4
53	MP3C	My	.0072	4
54	MP3C	Mz	.0124	4
55	M101	Y	-32	1.5
56	M101	My	0	1.5
57	M101	Mz	0	1.5
58	MP2A	Y	-74.7	2
59	MP2A	My	.0374	2
60	MP2A	Mz	0	2
61	MP2B	Y	-74.7	2
62	MP2B	My	-.0187	2
63	MP2B	Mz	.0323	2
64	MP2C	Y	-74.7	2
65	MP2C	My	-.0187	2
66	MP2C	Mz	-.0323	2
67	MP1A	Y	-79.1	2
68	MP1A	My	.0396	2
69	MP1A	Mz	0	2
70	MP1B	Y	-79.1	2
71	MP1B	My	-.0198	2
72	MP1B	Mz	.0343	2
73	MP1C	Y	-79.1	2
74	MP1C	My	-.0198	2
75	MP1C	Mz	-.0343	2

Member Point Loads (BLC 2 : Antenna Di)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	Y	-79.3234	.5
2	MP2A	My	-.0397	.5
3	MP2A	Mz	.0463	.5
4	MP2A	Y	-79.3234	5.5
5	MP2A	My	-.0397	5.5
6	MP2A	Mz	.0463	5.5
7	MP2B	Y	-79.3234	.5
8	MP2B	My	-.0202	.5
9	MP2B	Mz	-.0575	.5
10	MP2B	Y	-79.3234	5.5
11	MP2B	My	-.0202	5.5
12	MP2B	Mz	-.0575	5.5
13	MP2C	Y	-79.3234	.5
14	MP2C	My	.0599	.5
15	MP2C	Mz	.0112	.5
16	MP2C	Y	-79.3234	5.5
17	MP2C	My	.0599	5.5
18	MP2C	Mz	.0112	5.5
19	MP2A	Y	-79.3234	.5
20	MP2A	My	-.0397	.5
21	MP2A	Mz	-.0463	.5
22	MP2A	Y	-79.3234	5.5
23	MP2A	My	-.0397	5.5
24	MP2A	Mz	-.0463	5.5
25	MP2B	Y	-79.3234	.5
26	MP2B	My	.0599	.5
27	MP2B	Mz	-.0112	.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
28	MP2B	Y	-79.3234	5.5
29	MP2B	My	.0599	5.5
30	MP2B	Mz	-.0112	5.5
31	MP2C	Y	-79.3234	.5
32	MP2C	My	-.0202	.5
33	MP2C	Mz	.0575	.5
34	MP2C	Y	-79.3234	5.5
35	MP2C	My	-.0202	5.5
36	MP2C	Mz	.0575	5.5
37	MP3A	Y	-29.7973	2
38	MP3A	My	-.0149	2
39	MP3A	Mz	0	2
40	MP3A	Y	-29.7973	4
41	MP3A	My	-.0149	4
42	MP3A	Mz	0	4
43	MP3B	Y	-29.7973	2
44	MP3B	My	.0074	2
45	MP3B	Mz	-.0129	2
46	MP3B	Y	-29.7973	4
47	MP3B	My	.0074	4
48	MP3B	Mz	-.0129	4
49	MP3C	Y	-29.7973	2
50	MP3C	My	.0074	2
51	MP3C	Mz	.0129	2
52	MP3C	Y	-29.7973	4
53	MP3C	My	.0074	4
54	MP3C	Mz	.0129	4
55	M101	Y	-87.967	1.5
56	M101	My	0	1.5
57	M101	Mz	0	1.5
58	MP2A	Y	-44.9286	2
59	MP2A	My	.0225	2
60	MP2A	Mz	0	2
61	MP2B	Y	-44.9286	2
62	MP2B	My	-.0112	2
63	MP2B	Mz	.0195	2
64	MP2C	Y	-44.9286	2
65	MP2C	My	-.0112	2
66	MP2C	Mz	-.0195	2
67	MP1A	Y	-45.4047	2
68	MP1A	My	.0227	2
69	MP1A	Mz	0	2
70	MP1B	Y	-45.4047	2
71	MP1B	My	-.0114	2
72	MP1B	Mz	.0197	2
73	MP1C	Y	-45.4047	2
74	MP1C	My	-.0114	2
75	MP1C	Mz	-.0197	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	0	.5
2	MP2A	Z	-116.68	.5
3	MP2A	Mx	-.0681	.5
4	MP2A	X	0	5.5
5	MP2A	Z	-116.68	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
6	MP2A	Mx	-.0681	5.5
7	MP2B	X	0	.5
8	MP2B	Z	-67.377	.5
9	MP2B	Mx	.0488	.5
10	MP2B	X	0	5.5
11	MP2B	Z	-67.377	5.5
12	MP2B	Mx	.0488	5.5
13	MP2C	X	0	.5
14	MP2C	Z	-67.377	.5
15	MP2C	Mx	-.0095	.5
16	MP2C	X	0	5.5
17	MP2C	Z	-67.377	5.5
18	MP2C	Mx	-.0095	5.5
19	MP2A	X	0	.5
20	MP2A	Z	-116.68	.5
21	MP2A	Mx	.0681	.5
22	MP2A	X	0	5.5
23	MP2A	Z	-116.68	5.5
24	MP2A	Mx	.0681	5.5
25	MP2B	X	0	.5
26	MP2B	Z	-67.377	.5
27	MP2B	Mx	.0095	.5
28	MP2B	X	0	5.5
29	MP2B	Z	-67.377	5.5
30	MP2B	Mx	.0095	5.5
31	MP2C	X	0	.5
32	MP2C	Z	-67.377	.5
33	MP2C	Mx	-.0488	.5
34	MP2C	X	0	5.5
35	MP2C	Z	-67.377	5.5
36	MP2C	Mx	-.0488	5.5
37	MP3A	X	0	2
38	MP3A	Z	-48.197	2
39	MP3A	Mx	0	2
40	MP3A	X	0	4
41	MP3A	Z	-48.197	4
42	MP3A	Mx	0	4
43	MP3B	X	0	2
44	MP3B	Z	-24.747	2
45	MP3B	Mx	.0107	2
46	MP3B	X	0	4
47	MP3B	Z	-24.747	4
48	MP3B	Mx	.0107	4
49	MP3C	X	0	2
50	MP3C	Z	-24.747	2
51	MP3C	Mx	-.0107	2
52	MP3C	X	0	4
53	MP3C	Z	-24.747	4
54	MP3C	Mx	-.0107	4
55	M101	X	0	1.5
56	M101	Z	-116.509	1.5
57	M101	Mx	0	1.5
58	MP2A	X	0	2
59	MP2A	Z	-47.282	2
60	MP2A	Mx	0	2
61	MP2B	X	0	2
62	MP2B	Z	-35.614	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
63	MP2B	Mx	-.0154	2
64	MP2C	X	0	2
65	MP2C	Z	-35.614	2
66	MP2C	Mx	.0154	2
67	MP1A	X	0	2
68	MP1A	Z	-57.044	2
69	MP1A	Mx	0	2
70	MP1B	X	0	2
71	MP1B	Z	-43.431	2
72	MP1B	Mx	-.0188	2
73	MP1C	X	0	2
74	MP1C	Z	-43.431	2
75	MP1C	Mx	.0188	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	50.123	.5
2	MP2A	Z	-86.816	.5
3	MP2A	Mx	-.0757	.5
4	MP2A	X	50.123	5.5
5	MP2A	Z	-86.816	5.5
6	MP2A	Mx	-.0757	5.5
7	MP2B	X	25.471	.5
8	MP2B	Z	-44.118	.5
9	MP2B	Mx	.0255	.5
10	MP2B	X	25.471	5.5
11	MP2B	Z	-44.118	5.5
12	MP2B	Mx	.0255	5.5
13	MP2C	X	50.123	.5
14	MP2C	Z	-86.816	.5
15	MP2C	Mx	.0256	.5
16	MP2C	X	50.123	5.5
17	MP2C	Z	-86.816	5.5
18	MP2C	Mx	.0256	5.5
19	MP2A	X	50.123	.5
20	MP2A	Z	-86.816	.5
21	MP2A	Mx	.0256	.5
22	MP2A	X	50.123	5.5
23	MP2A	Z	-86.816	5.5
24	MP2A	Mx	.0256	5.5
25	MP2B	X	25.471	.5
26	MP2B	Z	-44.118	.5
27	MP2B	Mx	.0255	.5
28	MP2B	X	25.471	5.5
29	MP2B	Z	-44.118	5.5
30	MP2B	Mx	.0255	5.5
31	MP2C	X	50.123	.5
32	MP2C	Z	-86.816	.5
33	MP2C	Mx	-.0757	.5
34	MP2C	X	50.123	5.5
35	MP2C	Z	-86.816	5.5
36	MP2C	Mx	-.0757	5.5
37	MP3A	X	20.19	2
38	MP3A	Z	-34.971	2
39	MP3A	Mx	-.0101	2
40	MP3A	X	20.19	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
41	MP3A	Z	-34.971	4
42	MP3A	Mx	-.0101	4
43	MP3B	X	8.465	2
44	MP3B	Z	-14.662	2
45	MP3B	Mx	.0085	2
46	MP3B	X	8.465	4
47	MP3B	Z	-14.662	4
48	MP3B	Mx	.0085	4
49	MP3C	X	20.19	2
50	MP3C	Z	-34.971	2
51	MP3C	Mx	-.0101	2
52	MP3C	X	20.19	4
53	MP3C	Z	-34.971	4
54	MP3C	Mx	-.0101	4
55	M101	X	50.914	1.5
56	M101	Z	-88.186	1.5
57	M101	Mx	0	1.5
58	MP2A	X	21.696	2
59	MP2A	Z	-37.579	2
60	MP2A	Mx	.0108	2
61	MP2B	X	15.862	2
62	MP2B	Z	-27.475	2
63	MP2B	Mx	-.0159	2
64	MP2C	X	21.696	2
65	MP2C	Z	-37.579	2
66	MP2C	Mx	.0108	2
67	MP1A	X	26.253	2
68	MP1A	Z	-45.472	2
69	MP1A	Mx	.0131	2
70	MP1B	X	19.447	2
71	MP1B	Z	-33.683	2
72	MP1B	Mx	-.0194	2
73	MP1C	X	26.253	2
74	MP1C	Z	-45.472	2
75	MP1C	Mx	.0131	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	58.35	.5
2	MP2A	Z	-33.689	.5
3	MP2A	Mx	-.0488	.5
4	MP2A	X	58.35	5.5
5	MP2A	Z	-33.689	5.5
6	MP2A	Mx	-.0488	5.5
7	MP2B	X	58.35	.5
8	MP2B	Z	-33.689	.5
9	MP2B	Mx	.0095	.5
10	MP2B	X	58.35	5.5
11	MP2B	Z	-33.689	5.5
12	MP2B	Mx	.0095	5.5
13	MP2C	X	101.048	.5
14	MP2C	Z	-58.34	.5
15	MP2C	Mx	.0681	.5
16	MP2C	X	101.048	5.5
17	MP2C	Z	-58.34	5.5
18	MP2C	Mx	.0681	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
19	MP2A	X	58.35	.5
20	MP2A	Z	-33.689	.5
21	MP2A	Mx	-.0095	.5
22	MP2A	X	58.35	5.5
23	MP2A	Z	-33.689	5.5
24	MP2A	Mx	-.0095	5.5
25	MP2B	X	58.35	.5
26	MP2B	Z	-33.689	.5
27	MP2B	Mx	.0488	.5
28	MP2B	X	58.35	5.5
29	MP2B	Z	-33.689	5.5
30	MP2B	Mx	.0488	5.5
31	MP2C	X	101.048	.5
32	MP2C	Z	-58.34	.5
33	MP2C	Mx	-.0681	.5
34	MP2C	X	101.048	5.5
35	MP2C	Z	-58.34	5.5
36	MP2C	Mx	-.0681	5.5
37	MP3A	X	21.431	2
38	MP3A	Z	-12.373	2
39	MP3A	Mx	-.0107	2
40	MP3A	X	21.431	4
41	MP3A	Z	-12.373	4
42	MP3A	Mx	-.0107	4
43	MP3B	X	21.431	2
44	MP3B	Z	-12.373	2
45	MP3B	Mx	.0107	2
46	MP3B	X	21.431	4
47	MP3B	Z	-12.373	4
48	MP3B	Mx	.0107	4
49	MP3C	X	41.74	2
50	MP3C	Z	-24.099	2
51	MP3C	Mx	0	2
52	MP3C	X	41.74	4
53	MP3C	Z	-24.099	4
54	MP3C	Mx	0	4
55	M101	X	81.829	1.5
56	M101	Z	-47.244	1.5
57	M101	Mx	0	1.5
58	MP2A	X	30.843	2
59	MP2A	Z	-17.807	2
60	MP2A	Mx	.0154	2
61	MP2B	X	30.843	2
62	MP2B	Z	-17.807	2
63	MP2B	Mx	-.0154	2
64	MP2C	X	40.948	2
65	MP2C	Z	-23.641	2
66	MP2C	Mx	0	2
67	MP1A	X	37.612	2
68	MP1A	Z	-21.716	2
69	MP1A	Mx	.0188	2
70	MP1B	X	37.612	2
71	MP1B	Z	-21.716	2
72	MP1B	Mx	-.0188	2
73	MP1C	X	49.401	2
74	MP1C	Z	-28.522	2
75	MP1C	Mx	0	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	50.943	.5
2	MP2A	Z	0	.5
3	MP2A	Mx	-.0255	.5
4	MP2A	X	50.943	5.5
5	MP2A	Z	0	5.5
6	MP2A	Mx	-.0255	5.5
7	MP2B	X	100.246	.5
8	MP2B	Z	0	.5
9	MP2B	Mx	-.0256	.5
10	MP2B	X	100.246	5.5
11	MP2B	Z	0	5.5
12	MP2B	Mx	-.0256	5.5
13	MP2C	X	100.246	.5
14	MP2C	Z	0	.5
15	MP2C	Mx	.0757	.5
16	MP2C	X	100.246	5.5
17	MP2C	Z	0	5.5
18	MP2C	Mx	.0757	5.5
19	MP2A	X	50.943	.5
20	MP2A	Z	0	.5
21	MP2A	Mx	-.0255	.5
22	MP2A	X	50.943	5.5
23	MP2A	Z	0	5.5
24	MP2A	Mx	-.0255	5.5
25	MP2B	X	100.246	.5
26	MP2B	Z	0	.5
27	MP2B	Mx	.0757	.5
28	MP2B	X	100.246	5.5
29	MP2B	Z	0	5.5
30	MP2B	Mx	.0757	5.5
31	MP2C	X	100.246	.5
32	MP2C	Z	0	.5
33	MP2C	Mx	-.0256	.5
34	MP2C	X	100.246	5.5
35	MP2C	Z	0	5.5
36	MP2C	Mx	-.0256	5.5
37	MP3A	X	16.93	2
38	MP3A	Z	0	2
39	MP3A	Mx	-.0085	2
40	MP3A	X	16.93	4
41	MP3A	Z	0	4
42	MP3A	Mx	-.0085	4
43	MP3B	X	40.381	2
44	MP3B	Z	0	2
45	MP3B	Mx	.0101	2
46	MP3B	X	40.381	4
47	MP3B	Z	0	4
48	MP3B	Mx	.0101	4
49	MP3C	X	40.381	2
50	MP3C	Z	0	2
51	MP3C	Mx	.0101	2
52	MP3C	X	40.381	4
53	MP3C	Z	0	4
54	MP3C	Mx	.0101	4
55	M101	X	101.828	1.5
56	M101	Z	0	1.5
57	M101	Mx	0	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
58	MP2A	X	31.725	2
59	MP2A	Z	0	2
60	MP2A	Mx	.0159	2
61	MP2B	X	43.393	2
62	MP2B	Z	0	2
63	MP2B	Mx	-.0108	2
64	MP2C	X	43.393	2
65	MP2C	Z	0	2
66	MP2C	Mx	-.0108	2
67	MP1A	X	38.893	2
68	MP1A	Z	0	2
69	MP1A	Mx	.0194	2
70	MP1B	X	52.506	2
71	MP1B	Z	0	2
72	MP1B	Mx	-.0131	2
73	MP1C	X	52.506	2
74	MP1C	Z	0	2
75	MP1C	Mx	-.0131	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	58.35	.5
2	MP2A	Z	33.689	.5
3	MP2A	Mx	-.0095	.5
4	MP2A	X	58.35	5.5
5	MP2A	Z	33.689	5.5
6	MP2A	Mx	-.0095	5.5
7	MP2B	X	101.048	.5
8	MP2B	Z	58.34	.5
9	MP2B	Mx	-.0681	.5
10	MP2B	X	101.048	5.5
11	MP2B	Z	58.34	5.5
12	MP2B	Mx	-.0681	5.5
13	MP2C	X	58.35	.5
14	MP2C	Z	33.689	.5
15	MP2C	Mx	.0488	.5
16	MP2C	X	58.35	5.5
17	MP2C	Z	33.689	5.5
18	MP2C	Mx	.0488	5.5
19	MP2A	X	58.35	.5
20	MP2A	Z	33.689	.5
21	MP2A	Mx	-.0488	.5
22	MP2A	X	58.35	5.5
23	MP2A	Z	33.689	5.5
24	MP2A	Mx	-.0488	5.5
25	MP2B	X	101.048	.5
26	MP2B	Z	58.34	.5
27	MP2B	Mx	.0681	.5
28	MP2B	X	101.048	5.5
29	MP2B	Z	58.34	5.5
30	MP2B	Mx	.0681	5.5
31	MP2C	X	58.35	.5
32	MP2C	Z	33.689	.5
33	MP2C	Mx	.0095	.5
34	MP2C	X	58.35	5.5
35	MP2C	Z	33.689	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
36	MP2C	Mx	.0095	5.5
37	MP3A	X	21.431	2
38	MP3A	Z	12.373	2
39	MP3A	Mx	-.0107	2
40	MP3A	X	21.431	4
41	MP3A	Z	12.373	4
42	MP3A	Mx	-.0107	4
43	MP3B	X	41.74	2
44	MP3B	Z	24.099	2
45	MP3B	Mx	0	2
46	MP3B	X	41.74	4
47	MP3B	Z	24.099	4
48	MP3B	Mx	0	4
49	MP3C	X	21.431	2
50	MP3C	Z	12.373	2
51	MP3C	Mx	.0107	2
52	MP3C	X	21.431	4
53	MP3C	Z	12.373	4
54	MP3C	Mx	.0107	4
55	M101	X	100.9	1.5
56	M101	Z	58.254	1.5
57	M101	Mx	0	1.5
58	MP2A	X	30.843	2
59	MP2A	Z	17.807	2
60	MP2A	Mx	.0154	2
61	MP2B	X	40.948	2
62	MP2B	Z	23.641	2
63	MP2B	Mx	0	2
64	MP2C	X	30.843	2
65	MP2C	Z	17.807	2
66	MP2C	Mx	-.0154	2
67	MP1A	X	37.612	2
68	MP1A	Z	21.716	2
69	MP1A	Mx	.0188	2
70	MP1B	X	49.401	2
71	MP1B	Z	28.522	2
72	MP1B	Mx	0	2
73	MP1C	X	37.612	2
74	MP1C	Z	21.716	2
75	MP1C	Mx	-.0188	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	50.123	.5
2	MP2A	Z	86.816	.5
3	MP2A	Mx	.0256	.5
4	MP2A	X	50.123	5.5
5	MP2A	Z	86.816	5.5
6	MP2A	Mx	.0256	5.5
7	MP2B	X	50.123	.5
8	MP2B	Z	86.816	.5
9	MP2B	Mx	-.0757	.5
10	MP2B	X	50.123	5.5
11	MP2B	Z	86.816	5.5
12	MP2B	Mx	-.0757	5.5
13	MP2C	X	25.471	.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
14	MP2C	Z	44.118	.5
15	MP2C	Mx	.0255	.5
16	MP2C	X	25.471	5.5
17	MP2C	Z	44.118	5.5
18	MP2C	Mx	.0255	5.5
19	MP2A	X	50.123	.5
20	MP2A	Z	86.816	.5
21	MP2A	Mx	-.0757	.5
22	MP2A	X	50.123	5.5
23	MP2A	Z	86.816	5.5
24	MP2A	Mx	-.0757	5.5
25	MP2B	X	50.123	.5
26	MP2B	Z	86.816	.5
27	MP2B	Mx	.0256	.5
28	MP2B	X	50.123	5.5
29	MP2B	Z	86.816	5.5
30	MP2B	Mx	.0256	5.5
31	MP2C	X	25.471	.5
32	MP2C	Z	44.118	.5
33	MP2C	Mx	.0255	.5
34	MP2C	X	25.471	5.5
35	MP2C	Z	44.118	5.5
36	MP2C	Mx	.0255	5.5
37	MP3A	X	20.19	2
38	MP3A	Z	34.971	2
39	MP3A	Mx	-.0101	2
40	MP3A	X	20.19	4
41	MP3A	Z	34.971	4
42	MP3A	Mx	-.0101	4
43	MP3B	X	20.19	2
44	MP3B	Z	34.971	2
45	MP3B	Mx	-.0101	2
46	MP3B	X	20.19	4
47	MP3B	Z	34.971	4
48	MP3B	Mx	-.0101	4
49	MP3C	X	8.465	2
50	MP3C	Z	14.662	2
51	MP3C	Mx	.0085	2
52	MP3C	X	8.465	4
53	MP3C	Z	14.662	4
54	MP3C	Mx	.0085	4
55	M101	X	61.924	1.5
56	M101	Z	107.256	1.5
57	M101	Mx	0	1.5
58	MP2A	X	21.696	2
59	MP2A	Z	37.579	2
60	MP2A	Mx	.0108	2
61	MP2B	X	21.696	2
62	MP2B	Z	37.579	2
63	MP2B	Mx	.0108	2
64	MP2C	X	15.862	2
65	MP2C	Z	27.475	2
66	MP2C	Mx	-.0159	2
67	MP1A	X	26.253	2
68	MP1A	Z	45.472	2
69	MP1A	Mx	.0131	2
70	MP1B	X	26.253	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
71	MP1B	Z	45.472	2
72	MP1B	Mx	.0131	2
73	MP1C	X	19.447	2
74	MP1C	Z	33.683	2
75	MP1C	Mx	-.0194	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	0	.5
2	MP2A	Z	116.68	.5
3	MP2A	Mx	.0681	.5
4	MP2A	X	0	5.5
5	MP2A	Z	116.68	5.5
6	MP2A	Mx	.0681	5.5
7	MP2B	X	0	.5
8	MP2B	Z	67.377	.5
9	MP2B	Mx	-.0488	.5
10	MP2B	X	0	5.5
11	MP2B	Z	67.377	5.5
12	MP2B	Mx	-.0488	5.5
13	MP2C	X	0	.5
14	MP2C	Z	67.377	.5
15	MP2C	Mx	.0095	.5
16	MP2C	X	0	5.5
17	MP2C	Z	67.377	5.5
18	MP2C	Mx	.0095	5.5
19	MP2A	X	0	.5
20	MP2A	Z	116.68	.5
21	MP2A	Mx	-.0681	.5
22	MP2A	X	0	5.5
23	MP2A	Z	116.68	5.5
24	MP2A	Mx	-.0681	5.5
25	MP2B	X	0	.5
26	MP2B	Z	67.377	.5
27	MP2B	Mx	-.0095	.5
28	MP2B	X	0	5.5
29	MP2B	Z	67.377	5.5
30	MP2B	Mx	-.0095	5.5
31	MP2C	X	0	.5
32	MP2C	Z	67.377	.5
33	MP2C	Mx	.0488	.5
34	MP2C	X	0	5.5
35	MP2C	Z	67.377	5.5
36	MP2C	Mx	.0488	5.5
37	MP3A	X	0	2
38	MP3A	Z	48.197	2
39	MP3A	Mx	0	2
40	MP3A	X	0	4
41	MP3A	Z	48.197	4
42	MP3A	Mx	0	4
43	MP3B	X	0	2
44	MP3B	Z	24.747	2
45	MP3B	Mx	-.0107	2
46	MP3B	X	0	4
47	MP3B	Z	24.747	4
48	MP3B	Mx	-.0107	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
49	MP3C	X	0	2
50	MP3C	Z	24.747	2
51	MP3C	Mx	.0107	2
52	MP3C	X	0	4
53	MP3C	Z	24.747	4
54	MP3C	Mx	.0107	4
55	M101	X	0	1.5
56	M101	Z	116.509	1.5
57	M101	Mx	0	1.5
58	MP2A	X	0	2
59	MP2A	Z	47.282	2
60	MP2A	Mx	0	2
61	MP2B	X	0	2
62	MP2B	Z	35.614	2
63	MP2B	Mx	.0154	2
64	MP2C	X	0	2
65	MP2C	Z	35.614	2
66	MP2C	Mx	-.0154	2
67	MP1A	X	0	2
68	MP1A	Z	57.044	2
69	MP1A	Mx	0	2
70	MP1B	X	0	2
71	MP1B	Z	43.431	2
72	MP1B	Mx	.0188	2
73	MP1C	X	0	2
74	MP1C	Z	43.431	2
75	MP1C	Mx	-.0188	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-50.123	.5
2	MP2A	Z	86.816	.5
3	MP2A	Mx	.0757	.5
4	MP2A	X	-50.123	5.5
5	MP2A	Z	86.816	5.5
6	MP2A	Mx	.0757	5.5
7	MP2B	X	-25.471	.5
8	MP2B	Z	44.118	.5
9	MP2B	Mx	-.0255	.5
10	MP2B	X	-25.471	5.5
11	MP2B	Z	44.118	5.5
12	MP2B	Mx	-.0255	5.5
13	MP2C	X	-50.123	.5
14	MP2C	Z	86.816	.5
15	MP2C	Mx	-.0256	.5
16	MP2C	X	-50.123	5.5
17	MP2C	Z	86.816	5.5
18	MP2C	Mx	-.0256	5.5
19	MP2A	X	-50.123	.5
20	MP2A	Z	86.816	.5
21	MP2A	Mx	-.0256	.5
22	MP2A	X	-50.123	5.5
23	MP2A	Z	86.816	5.5
24	MP2A	Mx	-.0256	5.5
25	MP2B	X	-25.471	.5
26	MP2B	Z	44.118	.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
27	MP2B	Mx	-.0255	.5
28	MP2B	X	-25.471	5.5
29	MP2B	Z	44.118	5.5
30	MP2B	Mx	-.0255	5.5
31	MP2C	X	-50.123	.5
32	MP2C	Z	86.816	.5
33	MP2C	Mx	.0757	.5
34	MP2C	X	-50.123	5.5
35	MP2C	Z	86.816	5.5
36	MP2C	Mx	.0757	5.5
37	MP3A	X	-20.19	2
38	MP3A	Z	34.971	2
39	MP3A	Mx	.0101	2
40	MP3A	X	-20.19	4
41	MP3A	Z	34.971	4
42	MP3A	Mx	.0101	4
43	MP3B	X	-8.465	2
44	MP3B	Z	14.662	2
45	MP3B	Mx	-.0085	2
46	MP3B	X	-8.465	4
47	MP3B	Z	14.662	4
48	MP3B	Mx	-.0085	4
49	MP3C	X	-20.19	2
50	MP3C	Z	34.971	2
51	MP3C	Mx	.0101	2
52	MP3C	X	-20.19	4
53	MP3C	Z	34.971	4
54	MP3C	Mx	.0101	4
55	M101	X	-50.914	1.5
56	M101	Z	88.186	1.5
57	M101	Mx	0	1.5
58	MP2A	X	-21.696	2
59	MP2A	Z	37.579	2
60	MP2A	Mx	-.0108	2
61	MP2B	X	-15.862	2
62	MP2B	Z	27.475	2
63	MP2B	Mx	.0159	2
64	MP2C	X	-21.696	2
65	MP2C	Z	37.579	2
66	MP2C	Mx	-.0108	2
67	MP1A	X	-26.253	2
68	MP1A	Z	45.472	2
69	MP1A	Mx	-.0131	2
70	MP1B	X	-19.447	2
71	MP1B	Z	33.683	2
72	MP1B	Mx	.0194	2
73	MP1C	X	-26.253	2
74	MP1C	Z	45.472	2
75	MP1C	Mx	-.0131	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-58.35	.5
2	MP2A	Z	33.689	.5
3	MP2A	Mx	.0488	.5
4	MP2A	X	-58.35	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
5	MP2A	Z	33.689	5.5
6	MP2A	Mx	.0488	5.5
7	MP2B	X	-58.35	.5
8	MP2B	Z	33.689	.5
9	MP2B	Mx	-.0095	.5
10	MP2B	X	-58.35	5.5
11	MP2B	Z	33.689	5.5
12	MP2B	Mx	-.0095	5.5
13	MP2C	X	-101.048	.5
14	MP2C	Z	58.34	.5
15	MP2C	Mx	-.0681	.5
16	MP2C	X	-101.048	5.5
17	MP2C	Z	58.34	5.5
18	MP2C	Mx	-.0681	5.5
19	MP2A	X	-58.35	.5
20	MP2A	Z	33.689	.5
21	MP2A	Mx	.0095	.5
22	MP2A	X	-58.35	5.5
23	MP2A	Z	33.689	5.5
24	MP2A	Mx	.0095	5.5
25	MP2B	X	-58.35	.5
26	MP2B	Z	33.689	.5
27	MP2B	Mx	-.0488	.5
28	MP2B	X	-58.35	5.5
29	MP2B	Z	33.689	5.5
30	MP2B	Mx	-.0488	5.5
31	MP2C	X	-101.048	.5
32	MP2C	Z	58.34	.5
33	MP2C	Mx	.0681	.5
34	MP2C	X	-101.048	5.5
35	MP2C	Z	58.34	5.5
36	MP2C	Mx	.0681	5.5
37	MP3A	X	-21.431	2
38	MP3A	Z	12.373	2
39	MP3A	Mx	.0107	2
40	MP3A	X	-21.431	4
41	MP3A	Z	12.373	4
42	MP3A	Mx	.0107	4
43	MP3B	X	-21.431	2
44	MP3B	Z	12.373	2
45	MP3B	Mx	-.0107	2
46	MP3B	X	-21.431	4
47	MP3B	Z	12.373	4
48	MP3B	Mx	-.0107	4
49	MP3C	X	-41.74	2
50	MP3C	Z	24.099	2
51	MP3C	Mx	0	2
52	MP3C	X	-41.74	4
53	MP3C	Z	24.099	4
54	MP3C	Mx	0	4
55	M101	X	-81.829	1.5
56	M101	Z	47.244	1.5
57	M101	Mx	0	1.5
58	MP2A	X	-30.843	2
59	MP2A	Z	17.807	2
60	MP2A	Mx	-.0154	2
61	MP2B	X	-30.843	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
62	MP2B	Z	17.807	2
63	MP2B	Mx	.0154	2
64	MP2C	X	-40.948	2
65	MP2C	Z	23.641	2
66	MP2C	Mx	0	2
67	MP1A	X	-37.612	2
68	MP1A	Z	21.716	2
69	MP1A	Mx	-.0188	2
70	MP1B	X	-37.612	2
71	MP1B	Z	21.716	2
72	MP1B	Mx	.0188	2
73	MP1C	X	-49.401	2
74	MP1C	Z	28.522	2
75	MP1C	Mx	0	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-50.943	.5
2	MP2A	Z	0	.5
3	MP2A	Mx	.0255	.5
4	MP2A	X	-50.943	5.5
5	MP2A	Z	0	5.5
6	MP2A	Mx	.0255	5.5
7	MP2B	X	-100.246	.5
8	MP2B	Z	0	.5
9	MP2B	Mx	.0256	.5
10	MP2B	X	-100.246	5.5
11	MP2B	Z	0	5.5
12	MP2B	Mx	.0256	5.5
13	MP2C	X	-100.246	.5
14	MP2C	Z	0	.5
15	MP2C	Mx	-.0757	.5
16	MP2C	X	-100.246	5.5
17	MP2C	Z	0	5.5
18	MP2C	Mx	-.0757	5.5
19	MP2A	X	-50.943	.5
20	MP2A	Z	0	.5
21	MP2A	Mx	.0255	.5
22	MP2A	X	-50.943	5.5
23	MP2A	Z	0	5.5
24	MP2A	Mx	.0255	5.5
25	MP2B	X	-100.246	.5
26	MP2B	Z	0	.5
27	MP2B	Mx	-.0757	.5
28	MP2B	X	-100.246	5.5
29	MP2B	Z	0	5.5
30	MP2B	Mx	-.0757	5.5
31	MP2C	X	-100.246	.5
32	MP2C	Z	0	.5
33	MP2C	Mx	.0256	.5
34	MP2C	X	-100.246	5.5
35	MP2C	Z	0	5.5
36	MP2C	Mx	.0256	5.5
37	MP3A	X	-16.93	2
38	MP3A	Z	0	2
39	MP3A	Mx	.0085	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
40	MP3A	X	-16.93	4
41	MP3A	Z	0	4
42	MP3A	Mx	.0085	4
43	MP3B	X	-40.381	2
44	MP3B	Z	0	2
45	MP3B	Mx	-.0101	2
46	MP3B	X	-40.381	4
47	MP3B	Z	0	4
48	MP3B	Mx	-.0101	4
49	MP3C	X	-40.381	2
50	MP3C	Z	0	2
51	MP3C	Mx	-.0101	2
52	MP3C	X	-40.381	4
53	MP3C	Z	0	4
54	MP3C	Mx	-.0101	4
55	M101	X	-101.828	1.5
56	M101	Z	0	1.5
57	M101	Mx	0	1.5
58	MP2A	X	-31.725	2
59	MP2A	Z	0	2
60	MP2A	Mx	-.0159	2
61	MP2B	X	-43.393	2
62	MP2B	Z	0	2
63	MP2B	Mx	.0108	2
64	MP2C	X	-43.393	2
65	MP2C	Z	0	2
66	MP2C	Mx	.0108	2
67	MP1A	X	-38.893	2
68	MP1A	Z	0	2
69	MP1A	Mx	-.0194	2
70	MP1B	X	-52.506	2
71	MP1B	Z	0	2
72	MP1B	Mx	.0131	2
73	MP1C	X	-52.506	2
74	MP1C	Z	0	2
75	MP1C	Mx	.0131	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-58.35	.5
2	MP2A	Z	-33.689	.5
3	MP2A	Mx	.0095	.5
4	MP2A	X	-58.35	5.5
5	MP2A	Z	-33.689	5.5
6	MP2A	Mx	.0095	5.5
7	MP2B	X	-101.048	.5
8	MP2B	Z	-58.34	.5
9	MP2B	Mx	.0681	.5
10	MP2B	X	-101.048	5.5
11	MP2B	Z	-58.34	5.5
12	MP2B	Mx	.0681	5.5
13	MP2C	X	-58.35	.5
14	MP2C	Z	-33.689	.5
15	MP2C	Mx	-.0488	.5
16	MP2C	X	-58.35	5.5
17	MP2C	Z	-33.689	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
18	MP2C	Mx	-.0488	5.5
19	MP2A	X	-58.35	.5
20	MP2A	Z	-33.689	.5
21	MP2A	Mx	.0488	.5
22	MP2A	X	-58.35	5.5
23	MP2A	Z	-33.689	5.5
24	MP2A	Mx	.0488	5.5
25	MP2B	X	-101.048	.5
26	MP2B	Z	-58.34	.5
27	MP2B	Mx	-.0681	.5
28	MP2B	X	-101.048	5.5
29	MP2B	Z	-58.34	5.5
30	MP2B	Mx	-.0681	5.5
31	MP2C	X	-58.35	.5
32	MP2C	Z	-33.689	.5
33	MP2C	Mx	-.0095	.5
34	MP2C	X	-58.35	5.5
35	MP2C	Z	-33.689	5.5
36	MP2C	Mx	-.0095	5.5
37	MP3A	X	-21.431	2
38	MP3A	Z	-12.373	2
39	MP3A	Mx	.0107	2
40	MP3A	X	-21.431	4
41	MP3A	Z	-12.373	4
42	MP3A	Mx	.0107	4
43	MP3B	X	-41.74	2
44	MP3B	Z	-24.099	2
45	MP3B	Mx	0	2
46	MP3B	X	-41.74	4
47	MP3B	Z	-24.099	4
48	MP3B	Mx	0	4
49	MP3C	X	-21.431	2
50	MP3C	Z	-12.373	2
51	MP3C	Mx	-.0107	2
52	MP3C	X	-21.431	4
53	MP3C	Z	-12.373	4
54	MP3C	Mx	-.0107	4
55	M101	X	-100.9	1.5
56	M101	Z	-58.254	1.5
57	M101	Mx	0	1.5
58	MP2A	X	-30.843	2
59	MP2A	Z	-17.807	2
60	MP2A	Mx	-.0154	2
61	MP2B	X	-40.948	2
62	MP2B	Z	-23.641	2
63	MP2B	Mx	0	2
64	MP2C	X	-30.843	2
65	MP2C	Z	-17.807	2
66	MP2C	Mx	.0154	2
67	MP1A	X	-37.612	2
68	MP1A	Z	-21.716	2
69	MP1A	Mx	-.0188	2
70	MP1B	X	-49.401	2
71	MP1B	Z	-28.522	2
72	MP1B	Mx	0	2
73	MP1C	X	-37.612	2
74	MP1C	Z	-21.716	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
75	MP1C	Mx	.0188	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-50.123	.5
2	MP2A	Z	-86.816	.5
3	MP2A	Mx	-.0256	.5
4	MP2A	X	-50.123	5.5
5	MP2A	Z	-86.816	5.5
6	MP2A	Mx	-.0256	5.5
7	MP2B	X	-50.123	.5
8	MP2B	Z	-86.816	.5
9	MP2B	Mx	.0757	.5
10	MP2B	X	-50.123	5.5
11	MP2B	Z	-86.816	5.5
12	MP2B	Mx	.0757	5.5
13	MP2C	X	-25.471	.5
14	MP2C	Z	-44.118	.5
15	MP2C	Mx	-.0255	.5
16	MP2C	X	-25.471	5.5
17	MP2C	Z	-44.118	5.5
18	MP2C	Mx	-.0255	5.5
19	MP2A	X	-50.123	.5
20	MP2A	Z	-86.816	.5
21	MP2A	Mx	.0757	.5
22	MP2A	X	-50.123	5.5
23	MP2A	Z	-86.816	5.5
24	MP2A	Mx	.0757	5.5
25	MP2B	X	-50.123	.5
26	MP2B	Z	-86.816	.5
27	MP2B	Mx	-.0256	.5
28	MP2B	X	-50.123	5.5
29	MP2B	Z	-86.816	5.5
30	MP2B	Mx	-.0256	5.5
31	MP2C	X	-25.471	.5
32	MP2C	Z	-44.118	.5
33	MP2C	Mx	-.0255	.5
34	MP2C	X	-25.471	5.5
35	MP2C	Z	-44.118	5.5
36	MP2C	Mx	-.0255	5.5
37	MP3A	X	-20.19	2
38	MP3A	Z	-34.971	2
39	MP3A	Mx	.0101	2
40	MP3A	X	-20.19	4
41	MP3A	Z	-34.971	4
42	MP3A	Mx	.0101	4
43	MP3B	X	-20.19	2
44	MP3B	Z	-34.971	2
45	MP3B	Mx	.0101	2
46	MP3B	X	-20.19	4
47	MP3B	Z	-34.971	4
48	MP3B	Mx	.0101	4
49	MP3C	X	-8.465	2
50	MP3C	Z	-14.662	2
51	MP3C	Mx	-.0085	2
52	MP3C	X	-8.465	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
53	MP3C	Z	-14.662	4
54	MP3C	Mx	-.0085	4
55	M101	X	-61.924	1.5
56	M101	Z	-107.256	1.5
57	M101	Mx	0	1.5
58	MP2A	X	-21.696	2
59	MP2A	Z	-37.579	2
60	MP2A	Mx	-.0108	2
61	MP2B	X	-21.696	2
62	MP2B	Z	-37.579	2
63	MP2B	Mx	-.0108	2
64	MP2C	X	-15.862	2
65	MP2C	Z	-27.475	2
66	MP2C	Mx	.0159	2
67	MP1A	X	-26.253	2
68	MP1A	Z	-45.472	2
69	MP1A	Mx	-.0131	2
70	MP1B	X	-26.253	2
71	MP1B	Z	-45.472	2
72	MP1B	Mx	-.0131	2
73	MP1C	X	-19.447	2
74	MP1C	Z	-33.683	2
75	MP1C	Mx	.0194	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	0	.5
2	MP2A	Z	-36.008	.5
3	MP2A	Mx	-.021	.5
4	MP2A	X	0	5.5
5	MP2A	Z	-36.008	5.5
6	MP2A	Mx	-.021	5.5
7	MP2B	X	0	.5
8	MP2B	Z	-27.713	.5
9	MP2B	Mx	.0201	.5
10	MP2B	X	0	5.5
11	MP2B	Z	-27.713	5.5
12	MP2B	Mx	.0201	5.5
13	MP2C	X	0	.5
14	MP2C	Z	-27.713	.5
15	MP2C	Mx	-.0039	.5
16	MP2C	X	0	5.5
17	MP2C	Z	-27.713	5.5
18	MP2C	Mx	-.0039	5.5
19	MP2A	X	0	.5
20	MP2A	Z	-36.008	.5
21	MP2A	Mx	.021	.5
22	MP2A	X	0	5.5
23	MP2A	Z	-36.008	5.5
24	MP2A	Mx	.021	5.5
25	MP2B	X	0	.5
26	MP2B	Z	-27.713	.5
27	MP2B	Mx	.0039	.5
28	MP2B	X	0	5.5
29	MP2B	Z	-27.713	5.5
30	MP2B	Mx	.0039	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
31	MP2C	X	0	.5
32	MP2C	Z	-27.713	.5
33	MP2C	Mx	-.0201	.5
34	MP2C	X	0	5.5
35	MP2C	Z	-27.713	5.5
36	MP2C	Mx	-.0201	5.5
37	MP3A	X	0	2
38	MP3A	Z	-12.493	2
39	MP3A	Mx	0	2
40	MP3A	X	0	4
41	MP3A	Z	-12.493	4
42	MP3A	Mx	0	4
43	MP3B	X	0	2
44	MP3B	Z	-7.08	2
45	MP3B	Mx	.0031	2
46	MP3B	X	0	4
47	MP3B	Z	-7.08	4
48	MP3B	Mx	.0031	4
49	MP3C	X	0	2
50	MP3C	Z	-7.08	2
51	MP3C	Mx	-.0031	2
52	MP3C	X	0	4
53	MP3C	Z	-7.08	4
54	MP3C	Mx	-.0031	4
55	M101	X	0	1.5
56	M101	Z	-25.072	1.5
57	M101	Mx	0	1.5
58	MP2A	X	0	2
59	MP2A	Z	-12.904	2
60	MP2A	Mx	0	2
61	MP2B	X	0	2
62	MP2B	Z	-9.958	2
63	MP2B	Mx	-.0043	2
64	MP2C	X	0	2
65	MP2C	Z	-9.958	2
66	MP2C	Mx	.0043	2
67	MP1A	X	0	2
68	MP1A	Z	-12.904	2
69	MP1A	Mx	0	2
70	MP1B	X	0	2
71	MP1B	Z	-10.076	2
72	MP1B	Mx	-.0044	2
73	MP1C	X	0	2
74	MP1C	Z	-10.076	2
75	MP1C	Mx	.0044	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	16.621	.5
2	MP2A	Z	-28.789	.5
3	MP2A	Mx	-.0251	.5
4	MP2A	X	16.621	5.5
5	MP2A	Z	-28.789	5.5
6	MP2A	Mx	-.0251	5.5
7	MP2B	X	12.474	.5
8	MP2B	Z	-21.605	.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
9	MP2B	Mx	.0125	.5
10	MP2B	X	12.474	5.5
11	MP2B	Z	-21.605	5.5
12	MP2B	Mx	.0125	5.5
13	MP2C	X	16.621	.5
14	MP2C	Z	-28.789	.5
15	MP2C	Mx	.0085	.5
16	MP2C	X	16.621	5.5
17	MP2C	Z	-28.789	5.5
18	MP2C	Mx	.0085	5.5
19	MP2A	X	16.621	.5
20	MP2A	Z	-28.789	.5
21	MP2A	Mx	.0085	.5
22	MP2A	X	16.621	5.5
23	MP2A	Z	-28.789	5.5
24	MP2A	Mx	.0085	5.5
25	MP2B	X	12.474	.5
26	MP2B	Z	-21.605	.5
27	MP2B	Mx	.0125	.5
28	MP2B	X	12.474	5.5
29	MP2B	Z	-21.605	5.5
30	MP2B	Mx	.0125	5.5
31	MP2C	X	16.621	.5
32	MP2C	Z	-28.789	.5
33	MP2C	Mx	-.0251	.5
34	MP2C	X	16.621	5.5
35	MP2C	Z	-28.789	5.5
36	MP2C	Mx	-.0251	5.5
37	MP3A	X	5.344	2
38	MP3A	Z	-9.256	2
39	MP3A	Mx	-.0027	2
40	MP3A	X	5.344	4
41	MP3A	Z	-9.256	4
42	MP3A	Mx	-.0027	4
43	MP3B	X	2.638	2
44	MP3B	Z	-4.569	2
45	MP3B	Mx	.0026	2
46	MP3B	X	2.638	4
47	MP3B	Z	-4.569	4
48	MP3B	Mx	.0026	4
49	MP3C	X	5.344	2
50	MP3C	Z	-9.256	2
51	MP3C	Mx	-.0027	2
52	MP3C	X	5.344	4
53	MP3C	Z	-9.256	4
54	MP3C	Mx	-.0027	4
55	M101	X	11.091	1.5
56	M101	Z	-19.21	1.5
57	M101	Mx	0	1.5
58	MP2A	X	5.961	2
59	MP2A	Z	-10.324	2
60	MP2A	Mx	.003	2
61	MP2B	X	4.488	2
62	MP2B	Z	-7.773	2
63	MP2B	Mx	-.0045	2
64	MP2C	X	5.961	2
65	MP2C	Z	-10.324	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
66	MP2C	Mx	.003	2
67	MP1A	X	5.98	2
68	MP1A	Z	-10.359	2
69	MP1A	Mx	.003	2
70	MP1B	X	4.567	2
71	MP1B	Z	-7.909	2
72	MP1B	Mx	-.0046	2
73	MP1C	X	5.98	2
74	MP1C	Z	-10.359	2
75	MP1C	Mx	.003	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	24	.5
2	MP2A	Z	-13.856	.5
3	MP2A	Mx	-.0201	.5
4	MP2A	X	24	5.5
5	MP2A	Z	-13.856	5.5
6	MP2A	Mx	-.0201	5.5
7	MP2B	X	24	.5
8	MP2B	Z	-13.856	.5
9	MP2B	Mx	.0039	.5
10	MP2B	X	24	5.5
11	MP2B	Z	-13.856	5.5
12	MP2B	Mx	.0039	5.5
13	MP2C	X	31.184	.5
14	MP2C	Z	-18.004	.5
15	MP2C	Mx	.021	.5
16	MP2C	X	31.184	5.5
17	MP2C	Z	-18.004	5.5
18	MP2C	Mx	.021	5.5
19	MP2A	X	24	.5
20	MP2A	Z	-13.856	.5
21	MP2A	Mx	-.0039	.5
22	MP2A	X	24	5.5
23	MP2A	Z	-13.856	5.5
24	MP2A	Mx	-.0039	5.5
25	MP2B	X	24	.5
26	MP2B	Z	-13.856	.5
27	MP2B	Mx	.0201	.5
28	MP2B	X	24	5.5
29	MP2B	Z	-13.856	5.5
30	MP2B	Mx	.0201	5.5
31	MP2C	X	31.184	.5
32	MP2C	Z	-18.004	.5
33	MP2C	Mx	-.021	.5
34	MP2C	X	31.184	5.5
35	MP2C	Z	-18.004	5.5
36	MP2C	Mx	-.021	5.5
37	MP3A	X	6.131	2
38	MP3A	Z	-3.54	2
39	MP3A	Mx	-.0031	2
40	MP3A	X	6.131	4
41	MP3A	Z	-3.54	4
42	MP3A	Mx	-.0031	4
43	MP3B	X	6.131	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
44	MP3B	Z	-3.54	2
45	MP3B	Mx	.0031	2
46	MP3B	X	6.131	4
47	MP3B	Z	-3.54	4
48	MP3B	Mx	.0031	4
49	MP3C	X	10.819	2
50	MP3C	Z	-6.246	2
51	MP3C	Mx	0	2
52	MP3C	X	10.819	4
53	MP3C	Z	-6.246	4
54	MP3C	Mx	0	4
55	M101	X	17.958	1.5
56	M101	Z	-10.368	1.5
57	M101	Mx	0	1.5
58	MP2A	X	8.624	2
59	MP2A	Z	-4.979	2
60	MP2A	Mx	.0043	2
61	MP2B	X	8.624	2
62	MP2B	Z	-4.979	2
63	MP2B	Mx	-.0043	2
64	MP2C	X	11.175	2
65	MP2C	Z	-6.452	2
66	MP2C	Mx	0	2
67	MP1A	X	8.726	2
68	MP1A	Z	-5.038	2
69	MP1A	Mx	.0044	2
70	MP1B	X	8.726	2
71	MP1B	Z	-5.038	2
72	MP1B	Mx	-.0044	2
73	MP1C	X	11.175	2
74	MP1C	Z	-6.452	2
75	MP1C	Mx	0	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	24.947	.5
2	MP2A	Z	0	.5
3	MP2A	Mx	-.0125	.5
4	MP2A	X	24.947	5.5
5	MP2A	Z	0	5.5
6	MP2A	Mx	-.0125	5.5
7	MP2B	X	33.243	.5
8	MP2B	Z	0	.5
9	MP2B	Mx	-.0085	.5
10	MP2B	X	33.243	5.5
11	MP2B	Z	0	5.5
12	MP2B	Mx	-.0085	5.5
13	MP2C	X	33.243	.5
14	MP2C	Z	0	.5
15	MP2C	Mx	.0251	.5
16	MP2C	X	33.243	5.5
17	MP2C	Z	0	5.5
18	MP2C	Mx	.0251	5.5
19	MP2A	X	24.947	.5
20	MP2A	Z	0	.5
21	MP2A	Mx	-.0125	.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
22	MP2A	X	24.947	5.5
23	MP2A	Z	0	5.5
24	MP2A	Mx	-.0125	5.5
25	MP2B	X	33.243	.5
26	MP2B	Z	0	.5
27	MP2B	Mx	.0251	.5
28	MP2B	X	33.243	5.5
29	MP2B	Z	0	5.5
30	MP2B	Mx	.0251	5.5
31	MP2C	X	33.243	.5
32	MP2C	Z	0	.5
33	MP2C	Mx	-.0085	.5
34	MP2C	X	33.243	5.5
35	MP2C	Z	0	5.5
36	MP2C	Mx	-.0085	5.5
37	MP3A	X	5.275	2
38	MP3A	Z	0	2
39	MP3A	Mx	-.0026	2
40	MP3A	X	5.275	4
41	MP3A	Z	0	4
42	MP3A	Mx	-.0026	4
43	MP3B	X	10.688	2
44	MP3B	Z	0	2
45	MP3B	Mx	.0027	2
46	MP3B	X	10.688	4
47	MP3B	Z	0	4
48	MP3B	Mx	.0027	4
49	MP3C	X	10.688	2
50	MP3C	Z	0	2
51	MP3C	Mx	.0027	2
52	MP3C	X	10.688	4
53	MP3C	Z	0	4
54	MP3C	Mx	.0027	4
55	M101	X	22.182	1.5
56	M101	Z	0	1.5
57	M101	Mx	0	1.5
58	MP2A	X	8.976	2
59	MP2A	Z	0	2
60	MP2A	Mx	.0045	2
61	MP2B	X	11.922	2
62	MP2B	Z	0	2
63	MP2B	Mx	-.003	2
64	MP2C	X	11.922	2
65	MP2C	Z	0	2
66	MP2C	Mx	-.003	2
67	MP1A	X	9.133	2
68	MP1A	Z	0	2
69	MP1A	Mx	.0046	2
70	MP1B	X	11.961	2
71	MP1B	Z	0	2
72	MP1B	Mx	-.003	2
73	MP1C	X	11.961	2
74	MP1C	Z	0	2
75	MP1C	Mx	-.003	2

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

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

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	24	.5
2	MP2A	Z	13.856	.5
3	MP2A	Mx	-.0039	.5
4	MP2A	X	24	5.5
5	MP2A	Z	13.856	5.5
6	MP2A	Mx	-.0039	5.5
7	MP2B	X	31.184	.5
8	MP2B	Z	18.004	.5
9	MP2B	Mx	-.021	.5
10	MP2B	X	31.184	5.5
11	MP2B	Z	18.004	5.5
12	MP2B	Mx	-.021	5.5
13	MP2C	X	24	.5
14	MP2C	Z	13.856	.5
15	MP2C	Mx	.0201	.5
16	MP2C	X	24	5.5
17	MP2C	Z	13.856	5.5
18	MP2C	Mx	.0201	5.5
19	MP2A	X	24	.5
20	MP2A	Z	13.856	.5
21	MP2A	Mx	-.0201	.5
22	MP2A	X	24	5.5
23	MP2A	Z	13.856	5.5
24	MP2A	Mx	-.0201	5.5
25	MP2B	X	31.184	.5
26	MP2B	Z	18.004	.5
27	MP2B	Mx	.021	.5
28	MP2B	X	31.184	5.5
29	MP2B	Z	18.004	5.5
30	MP2B	Mx	.021	5.5
31	MP2C	X	24	.5
32	MP2C	Z	13.856	.5
33	MP2C	Mx	.0039	.5
34	MP2C	X	24	5.5
35	MP2C	Z	13.856	5.5
36	MP2C	Mx	.0039	5.5
37	MP3A	X	6.131	2
38	MP3A	Z	3.54	2
39	MP3A	Mx	-.0031	2
40	MP3A	X	6.131	4
41	MP3A	Z	3.54	4
42	MP3A	Mx	-.0031	4
43	MP3B	X	10.819	2
44	MP3B	Z	6.246	2
45	MP3B	Mx	0	2
46	MP3B	X	10.819	4
47	MP3B	Z	6.246	4
48	MP3B	Mx	0	4
49	MP3C	X	6.131	2
50	MP3C	Z	3.54	2
51	MP3C	Mx	.0031	2
52	MP3C	X	6.131	4
53	MP3C	Z	3.54	4
54	MP3C	Mx	.0031	4
55	M101	X	21.713	1.5
56	M101	Z	12.536	1.5
57	M101	Mx	0	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
58	MP2A	X	8.624	2
59	MP2A	Z	4.979	2
60	MP2A	Mx	.0043	2
61	MP2B	X	11.175	2
62	MP2B	Z	6.452	2
63	MP2B	Mx	0	2
64	MP2C	X	8.624	2
65	MP2C	Z	4.979	2
66	MP2C	Mx	-.0043	2
67	MP1A	X	8.726	2
68	MP1A	Z	5.038	2
69	MP1A	Mx	.0044	2
70	MP1B	X	11.175	2
71	MP1B	Z	6.452	2
72	MP1B	Mx	0	2
73	MP1C	X	8.726	2
74	MP1C	Z	5.038	2
75	MP1C	Mx	-.0044	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	16.621	.5
2	MP2A	Z	28.789	.5
3	MP2A	Mx	.0085	.5
4	MP2A	X	16.621	5.5
5	MP2A	Z	28.789	5.5
6	MP2A	Mx	.0085	5.5
7	MP2B	X	16.621	.5
8	MP2B	Z	28.789	.5
9	MP2B	Mx	-.0251	.5
10	MP2B	X	16.621	5.5
11	MP2B	Z	28.789	5.5
12	MP2B	Mx	-.0251	5.5
13	MP2C	X	12.474	.5
14	MP2C	Z	21.605	.5
15	MP2C	Mx	.0125	.5
16	MP2C	X	12.474	5.5
17	MP2C	Z	21.605	5.5
18	MP2C	Mx	.0125	5.5
19	MP2A	X	16.621	.5
20	MP2A	Z	28.789	.5
21	MP2A	Mx	-.0251	.5
22	MP2A	X	16.621	5.5
23	MP2A	Z	28.789	5.5
24	MP2A	Mx	-.0251	5.5
25	MP2B	X	16.621	.5
26	MP2B	Z	28.789	.5
27	MP2B	Mx	.0085	.5
28	MP2B	X	16.621	5.5
29	MP2B	Z	28.789	5.5
30	MP2B	Mx	.0085	5.5
31	MP2C	X	12.474	.5
32	MP2C	Z	21.605	.5
33	MP2C	Mx	.0125	.5
34	MP2C	X	12.474	5.5
35	MP2C	Z	21.605	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
36	MP2C	Mx	.0125	5.5
37	MP3A	X	5.344	2
38	MP3A	Z	9.256	2
39	MP3A	Mx	-.0027	2
40	MP3A	X	5.344	4
41	MP3A	Z	9.256	4
42	MP3A	Mx	-.0027	4
43	MP3B	X	5.344	2
44	MP3B	Z	9.256	2
45	MP3B	Mx	-.0027	2
46	MP3B	X	5.344	4
47	MP3B	Z	9.256	4
48	MP3B	Mx	-.0027	4
49	MP3C	X	2.638	2
50	MP3C	Z	4.569	2
51	MP3C	Mx	.0026	2
52	MP3C	X	2.638	4
53	MP3C	Z	4.569	4
54	MP3C	Mx	.0026	4
55	M101	X	13.259	1.5
56	M101	Z	22.965	1.5
57	M101	Mx	0	1.5
58	MP2A	X	5.961	2
59	MP2A	Z	10.324	2
60	MP2A	Mx	.003	2
61	MP2B	X	5.961	2
62	MP2B	Z	10.324	2
63	MP2B	Mx	.003	2
64	MP2C	X	4.488	2
65	MP2C	Z	7.773	2
66	MP2C	Mx	-.0045	2
67	MP1A	X	5.98	2
68	MP1A	Z	10.359	2
69	MP1A	Mx	.003	2
70	MP1B	X	5.98	2
71	MP1B	Z	10.359	2
72	MP1B	Mx	.003	2
73	MP1C	X	4.567	2
74	MP1C	Z	7.909	2
75	MP1C	Mx	-.0046	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	0	.5
2	MP2A	Z	36.008	.5
3	MP2A	Mx	.021	.5
4	MP2A	X	0	5.5
5	MP2A	Z	36.008	5.5
6	MP2A	Mx	.021	5.5
7	MP2B	X	0	.5
8	MP2B	Z	27.713	.5
9	MP2B	Mx	-.0201	.5
10	MP2B	X	0	5.5
11	MP2B	Z	27.713	5.5
12	MP2B	Mx	-.0201	5.5
13	MP2C	X	0	.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
14	MP2C	Z	27.713	.5
15	MP2C	Mx	.0039	.5
16	MP2C	X	0	5.5
17	MP2C	Z	27.713	5.5
18	MP2C	Mx	.0039	5.5
19	MP2A	X	0	.5
20	MP2A	Z	36.008	.5
21	MP2A	Mx	-.021	.5
22	MP2A	X	0	5.5
23	MP2A	Z	36.008	5.5
24	MP2A	Mx	-.021	5.5
25	MP2B	X	0	.5
26	MP2B	Z	27.713	.5
27	MP2B	Mx	-.0039	.5
28	MP2B	X	0	5.5
29	MP2B	Z	27.713	5.5
30	MP2B	Mx	-.0039	5.5
31	MP2C	X	0	.5
32	MP2C	Z	27.713	.5
33	MP2C	Mx	.0201	.5
34	MP2C	X	0	5.5
35	MP2C	Z	27.713	5.5
36	MP2C	Mx	.0201	5.5
37	MP3A	X	0	2
38	MP3A	Z	12.493	2
39	MP3A	Mx	0	2
40	MP3A	X	0	4
41	MP3A	Z	12.493	4
42	MP3A	Mx	0	4
43	MP3B	X	0	2
44	MP3B	Z	7.08	2
45	MP3B	Mx	-.0031	2
46	MP3B	X	0	4
47	MP3B	Z	7.08	4
48	MP3B	Mx	-.0031	4
49	MP3C	X	0	2
50	MP3C	Z	7.08	2
51	MP3C	Mx	.0031	2
52	MP3C	X	0	4
53	MP3C	Z	7.08	4
54	MP3C	Mx	.0031	4
55	M101	X	0	1.5
56	M101	Z	25.072	1.5
57	M101	Mx	0	1.5
58	MP2A	X	0	2
59	MP2A	Z	12.904	2
60	MP2A	Mx	0	2
61	MP2B	X	0	2
62	MP2B	Z	9.958	2
63	MP2B	Mx	.0043	2
64	MP2C	X	0	2
65	MP2C	Z	9.958	2
66	MP2C	Mx	-.0043	2
67	MP1A	X	0	2
68	MP1A	Z	12.904	2
69	MP1A	Mx	0	2
70	MP1B	X	0	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
71	MP1B	Z	10.076	2
72	MP1B	Mx	.0044	2
73	MP1C	X	0	2
74	MP1C	Z	10.076	2
75	MP1C	Mx	-.0044	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-16.621	.5
2	MP2A	Z	28.789	.5
3	MP2A	Mx	.0251	.5
4	MP2A	X	-16.621	5.5
5	MP2A	Z	28.789	5.5
6	MP2A	Mx	.0251	5.5
7	MP2B	X	-12.474	.5
8	MP2B	Z	21.605	.5
9	MP2B	Mx	-.0125	.5
10	MP2B	X	-12.474	5.5
11	MP2B	Z	21.605	5.5
12	MP2B	Mx	-.0125	5.5
13	MP2C	X	-16.621	.5
14	MP2C	Z	28.789	.5
15	MP2C	Mx	-.0085	.5
16	MP2C	X	-16.621	5.5
17	MP2C	Z	28.789	5.5
18	MP2C	Mx	-.0085	5.5
19	MP2A	X	-16.621	.5
20	MP2A	Z	28.789	.5
21	MP2A	Mx	-.0085	.5
22	MP2A	X	-16.621	5.5
23	MP2A	Z	28.789	5.5
24	MP2A	Mx	-.0085	5.5
25	MP2B	X	-12.474	.5
26	MP2B	Z	21.605	.5
27	MP2B	Mx	-.0125	.5
28	MP2B	X	-12.474	5.5
29	MP2B	Z	21.605	5.5
30	MP2B	Mx	-.0125	5.5
31	MP2C	X	-16.621	.5
32	MP2C	Z	28.789	.5
33	MP2C	Mx	.0251	.5
34	MP2C	X	-16.621	5.5
35	MP2C	Z	28.789	5.5
36	MP2C	Mx	.0251	5.5
37	MP3A	X	-5.344	2
38	MP3A	Z	9.256	2
39	MP3A	Mx	.0027	2
40	MP3A	X	-5.344	4
41	MP3A	Z	9.256	4
42	MP3A	Mx	.0027	4
43	MP3B	X	-2.638	2
44	MP3B	Z	4.569	2
45	MP3B	Mx	-.0026	2
46	MP3B	X	-2.638	4
47	MP3B	Z	4.569	4
48	MP3B	Mx	-.0026	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
49	MP3C	X	-5.344	2
50	MP3C	Z	9.256	2
51	MP3C	Mx	.0027	2
52	MP3C	X	-5.344	4
53	MP3C	Z	9.256	4
54	MP3C	Mx	.0027	4
55	M101	X	-11.091	1.5
56	M101	Z	19.21	1.5
57	M101	Mx	0	1.5
58	MP2A	X	-5.961	2
59	MP2A	Z	10.324	2
60	MP2A	Mx	-.003	2
61	MP2B	X	-4.488	2
62	MP2B	Z	7.773	2
63	MP2B	Mx	.0045	2
64	MP2C	X	-5.961	2
65	MP2C	Z	10.324	2
66	MP2C	Mx	-.003	2
67	MP1A	X	-5.98	2
68	MP1A	Z	10.359	2
69	MP1A	Mx	-.003	2
70	MP1B	X	-4.567	2
71	MP1B	Z	7.909	2
72	MP1B	Mx	.0046	2
73	MP1C	X	-5.98	2
74	MP1C	Z	10.359	2
75	MP1C	Mx	-.003	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-24	.5
2	MP2A	Z	13.856	.5
3	MP2A	Mx	.0201	.5
4	MP2A	X	-24	5.5
5	MP2A	Z	13.856	5.5
6	MP2A	Mx	.0201	5.5
7	MP2B	X	-24	.5
8	MP2B	Z	13.856	.5
9	MP2B	Mx	-.0039	.5
10	MP2B	X	-24	5.5
11	MP2B	Z	13.856	5.5
12	MP2B	Mx	-.0039	5.5
13	MP2C	X	-31.184	.5
14	MP2C	Z	18.004	.5
15	MP2C	Mx	-.021	.5
16	MP2C	X	-31.184	5.5
17	MP2C	Z	18.004	5.5
18	MP2C	Mx	-.021	5.5
19	MP2A	X	-24	.5
20	MP2A	Z	13.856	.5
21	MP2A	Mx	.0039	.5
22	MP2A	X	-24	5.5
23	MP2A	Z	13.856	5.5
24	MP2A	Mx	.0039	5.5
25	MP2B	X	-24	.5
26	MP2B	Z	13.856	.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
27	MP2B	Mx	-.0201	.5
28	MP2B	X	-24	5.5
29	MP2B	Z	13.856	5.5
30	MP2B	Mx	-.0201	5.5
31	MP2C	X	-31.184	.5
32	MP2C	Z	18.004	.5
33	MP2C	Mx	.021	.5
34	MP2C	X	-31.184	5.5
35	MP2C	Z	18.004	5.5
36	MP2C	Mx	.021	5.5
37	MP3A	X	-6.131	2
38	MP3A	Z	3.54	2
39	MP3A	Mx	.0031	2
40	MP3A	X	-6.131	4
41	MP3A	Z	3.54	4
42	MP3A	Mx	.0031	4
43	MP3B	X	-6.131	2
44	MP3B	Z	3.54	2
45	MP3B	Mx	-.0031	2
46	MP3B	X	-6.131	4
47	MP3B	Z	3.54	4
48	MP3B	Mx	-.0031	4
49	MP3C	X	-10.819	2
50	MP3C	Z	6.246	2
51	MP3C	Mx	0	2
52	MP3C	X	-10.819	4
53	MP3C	Z	6.246	4
54	MP3C	Mx	0	4
55	M101	X	-17.958	1.5
56	M101	Z	10.368	1.5
57	M101	Mx	0	1.5
58	MP2A	X	-8.624	2
59	MP2A	Z	4.979	2
60	MP2A	Mx	-.0043	2
61	MP2B	X	-8.624	2
62	MP2B	Z	4.979	2
63	MP2B	Mx	.0043	2
64	MP2C	X	-11.175	2
65	MP2C	Z	6.452	2
66	MP2C	Mx	0	2
67	MP1A	X	-8.726	2
68	MP1A	Z	5.038	2
69	MP1A	Mx	-.0044	2
70	MP1B	X	-8.726	2
71	MP1B	Z	5.038	2
72	MP1B	Mx	.0044	2
73	MP1C	X	-11.175	2
74	MP1C	Z	6.452	2
75	MP1C	Mx	0	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-24.947	.5
2	MP2A	Z	0	.5
3	MP2A	Mx	.0125	.5
4	MP2A	X	-24.947	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
5	MP2A	Z	0	5.5
6	MP2A	Mx	.0125	5.5
7	MP2B	X	-33.243	.5
8	MP2B	Z	0	.5
9	MP2B	Mx	.0085	.5
10	MP2B	X	-33.243	5.5
11	MP2B	Z	0	5.5
12	MP2B	Mx	.0085	5.5
13	MP2C	X	-33.243	.5
14	MP2C	Z	0	.5
15	MP2C	Mx	-.0251	.5
16	MP2C	X	-33.243	5.5
17	MP2C	Z	0	5.5
18	MP2C	Mx	-.0251	5.5
19	MP2A	X	-24.947	.5
20	MP2A	Z	0	.5
21	MP2A	Mx	.0125	.5
22	MP2A	X	-24.947	5.5
23	MP2A	Z	0	5.5
24	MP2A	Mx	.0125	5.5
25	MP2B	X	-33.243	.5
26	MP2B	Z	0	.5
27	MP2B	Mx	-.0251	.5
28	MP2B	X	-33.243	5.5
29	MP2B	Z	0	5.5
30	MP2B	Mx	-.0251	5.5
31	MP2C	X	-33.243	.5
32	MP2C	Z	0	.5
33	MP2C	Mx	.0085	.5
34	MP2C	X	-33.243	5.5
35	MP2C	Z	0	5.5
36	MP2C	Mx	.0085	5.5
37	MP3A	X	-5.275	2
38	MP3A	Z	0	2
39	MP3A	Mx	.0026	2
40	MP3A	X	-5.275	4
41	MP3A	Z	0	4
42	MP3A	Mx	.0026	4
43	MP3B	X	-10.688	2
44	MP3B	Z	0	2
45	MP3B	Mx	-.0027	2
46	MP3B	X	-10.688	4
47	MP3B	Z	0	4
48	MP3B	Mx	-.0027	4
49	MP3C	X	-10.688	2
50	MP3C	Z	0	2
51	MP3C	Mx	-.0027	2
52	MP3C	X	-10.688	4
53	MP3C	Z	0	4
54	MP3C	Mx	-.0027	4
55	M101	X	-22.182	1.5
56	M101	Z	0	1.5
57	M101	Mx	0	1.5
58	MP2A	X	-8.976	2
59	MP2A	Z	0	2
60	MP2A	Mx	-.0045	2
61	MP2B	X	-11.922	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
62	MP2B	Z	0	2
63	MP2B	Mx	.003	2
64	MP2C	X	-11.922	2
65	MP2C	Z	0	2
66	MP2C	Mx	.003	2
67	MP1A	X	-9.133	2
68	MP1A	Z	0	2
69	MP1A	Mx	-.0046	2
70	MP1B	X	-11.961	2
71	MP1B	Z	0	2
72	MP1B	Mx	.003	2
73	MP1C	X	-11.961	2
74	MP1C	Z	0	2
75	MP1C	Mx	.003	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-24	.5
2	MP2A	Z	-13.856	.5
3	MP2A	Mx	.0039	.5
4	MP2A	X	-24	5.5
5	MP2A	Z	-13.856	5.5
6	MP2A	Mx	.0039	5.5
7	MP2B	X	-31.184	.5
8	MP2B	Z	-18.004	.5
9	MP2B	Mx	.021	.5
10	MP2B	X	-31.184	5.5
11	MP2B	Z	-18.004	5.5
12	MP2B	Mx	.021	5.5
13	MP2C	X	-24	.5
14	MP2C	Z	-13.856	.5
15	MP2C	Mx	-.0201	.5
16	MP2C	X	-24	5.5
17	MP2C	Z	-13.856	5.5
18	MP2C	Mx	-.0201	5.5
19	MP2A	X	-24	.5
20	MP2A	Z	-13.856	.5
21	MP2A	Mx	.0201	.5
22	MP2A	X	-24	5.5
23	MP2A	Z	-13.856	5.5
24	MP2A	Mx	.0201	5.5
25	MP2B	X	-31.184	.5
26	MP2B	Z	-18.004	.5
27	MP2B	Mx	-.021	.5
28	MP2B	X	-31.184	5.5
29	MP2B	Z	-18.004	5.5
30	MP2B	Mx	-.021	5.5
31	MP2C	X	-24	.5
32	MP2C	Z	-13.856	.5
33	MP2C	Mx	-.0039	.5
34	MP2C	X	-24	5.5
35	MP2C	Z	-13.856	5.5
36	MP2C	Mx	-.0039	5.5
37	MP3A	X	-6.131	2
38	MP3A	Z	-3.54	2
39	MP3A	Mx	.0031	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
40	MP3A	X	-6.131	4
41	MP3A	Z	-3.54	4
42	MP3A	Mx	.0031	4
43	MP3B	X	-10.819	2
44	MP3B	Z	-6.246	2
45	MP3B	Mx	0	2
46	MP3B	X	-10.819	4
47	MP3B	Z	-6.246	4
48	MP3B	Mx	0	4
49	MP3C	X	-6.131	2
50	MP3C	Z	-3.54	2
51	MP3C	Mx	-.0031	2
52	MP3C	X	-6.131	4
53	MP3C	Z	-3.54	4
54	MP3C	Mx	-.0031	4
55	M101	X	-21.713	1.5
56	M101	Z	-12.536	1.5
57	M101	Mx	0	1.5
58	MP2A	X	-8.624	2
59	MP2A	Z	-4.979	2
60	MP2A	Mx	-.0043	2
61	MP2B	X	-11.175	2
62	MP2B	Z	-6.452	2
63	MP2B	Mx	0	2
64	MP2C	X	-8.624	2
65	MP2C	Z	-4.979	2
66	MP2C	Mx	.0043	2
67	MP1A	X	-8.726	2
68	MP1A	Z	-5.038	2
69	MP1A	Mx	-.0044	2
70	MP1B	X	-11.175	2
71	MP1B	Z	-6.452	2
72	MP1B	Mx	0	2
73	MP1C	X	-8.726	2
74	MP1C	Z	-5.038	2
75	MP1C	Mx	.0044	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-16.621	.5
2	MP2A	Z	-28.789	.5
3	MP2A	Mx	-.0085	.5
4	MP2A	X	-16.621	5.5
5	MP2A	Z	-28.789	5.5
6	MP2A	Mx	-.0085	5.5
7	MP2B	X	-16.621	.5
8	MP2B	Z	-28.789	.5
9	MP2B	Mx	.0251	.5
10	MP2B	X	-16.621	5.5
11	MP2B	Z	-28.789	5.5
12	MP2B	Mx	.0251	5.5
13	MP2C	X	-12.474	.5
14	MP2C	Z	-21.605	.5
15	MP2C	Mx	-.0125	.5
16	MP2C	X	-12.474	5.5
17	MP2C	Z	-21.605	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
18	MP2C	Mx	-.0125	5.5
19	MP2A	X	-16.621	.5
20	MP2A	Z	-28.789	.5
21	MP2A	Mx	.0251	.5
22	MP2A	X	-16.621	5.5
23	MP2A	Z	-28.789	5.5
24	MP2A	Mx	.0251	5.5
25	MP2B	X	-16.621	.5
26	MP2B	Z	-28.789	.5
27	MP2B	Mx	-.0085	.5
28	MP2B	X	-16.621	5.5
29	MP2B	Z	-28.789	5.5
30	MP2B	Mx	-.0085	5.5
31	MP2C	X	-12.474	.5
32	MP2C	Z	-21.605	.5
33	MP2C	Mx	-.0125	.5
34	MP2C	X	-12.474	5.5
35	MP2C	Z	-21.605	5.5
36	MP2C	Mx	-.0125	5.5
37	MP3A	X	-5.344	2
38	MP3A	Z	-9.256	2
39	MP3A	Mx	.0027	2
40	MP3A	X	-5.344	4
41	MP3A	Z	-9.256	4
42	MP3A	Mx	.0027	4
43	MP3B	X	-5.344	2
44	MP3B	Z	-9.256	2
45	MP3B	Mx	.0027	2
46	MP3B	X	-5.344	4
47	MP3B	Z	-9.256	4
48	MP3B	Mx	.0027	4
49	MP3C	X	-2.638	2
50	MP3C	Z	-4.569	2
51	MP3C	Mx	-.0026	2
52	MP3C	X	-2.638	4
53	MP3C	Z	-4.569	4
54	MP3C	Mx	-.0026	4
55	M101	X	-13.259	1.5
56	M101	Z	-22.965	1.5
57	M101	Mx	0	1.5
58	MP2A	X	-5.961	2
59	MP2A	Z	-10.324	2
60	MP2A	Mx	-.003	2
61	MP2B	X	-5.961	2
62	MP2B	Z	-10.324	2
63	MP2B	Mx	-.003	2
64	MP2C	X	-4.488	2
65	MP2C	Z	-7.773	2
66	MP2C	Mx	.0045	2
67	MP1A	X	-5.98	2
68	MP1A	Z	-10.359	2
69	MP1A	Mx	-.003	2
70	MP1B	X	-5.98	2
71	MP1B	Z	-10.359	2
72	MP1B	Mx	-.003	2
73	MP1C	X	-4.567	2
74	MP1C	Z	-7.909	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
75	MP1C	Mx	.0046	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	0	.5
2	MP2A	Z	-7.94	.5
3	MP2A	Mx	-.0046	.5
4	MP2A	X	0	5.5
5	MP2A	Z	-7.94	5.5
6	MP2A	Mx	-.0046	5.5
7	MP2B	X	0	.5
8	MP2B	Z	-4.585	.5
9	MP2B	Mx	.0033	.5
10	MP2B	X	0	5.5
11	MP2B	Z	-4.585	5.5
12	MP2B	Mx	.0033	5.5
13	MP2C	X	0	.5
14	MP2C	Z	-4.585	.5
15	MP2C	Mx	-.000648	.5
16	MP2C	X	0	5.5
17	MP2C	Z	-4.585	5.5
18	MP2C	Mx	-.000648	5.5
19	MP2A	X	0	.5
20	MP2A	Z	-7.94	.5
21	MP2A	Mx	.0046	.5
22	MP2A	X	0	5.5
23	MP2A	Z	-7.94	5.5
24	MP2A	Mx	.0046	5.5
25	MP2B	X	0	.5
26	MP2B	Z	-4.585	.5
27	MP2B	Mx	.000648	.5
28	MP2B	X	0	5.5
29	MP2B	Z	-4.585	5.5
30	MP2B	Mx	.000648	5.5
31	MP2C	X	0	.5
32	MP2C	Z	-4.585	.5
33	MP2C	Mx	-.0033	.5
34	MP2C	X	0	5.5
35	MP2C	Z	-4.585	5.5
36	MP2C	Mx	-.0033	5.5
37	MP3A	X	0	2
38	MP3A	Z	-3.28	2
39	MP3A	Mx	0	2
40	MP3A	X	0	4
41	MP3A	Z	-3.28	4
42	MP3A	Mx	0	4
43	MP3B	X	0	2
44	MP3B	Z	-1.684	2
45	MP3B	Mx	.000729	2
46	MP3B	X	0	4
47	MP3B	Z	-1.684	4
48	MP3B	Mx	.000729	4
49	MP3C	X	0	2
50	MP3C	Z	-1.684	2
51	MP3C	Mx	-.000729	2
52	MP3C	X	0	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
53	MP3C	Z	-1.684	4
54	MP3C	Mx	-.000729	4
55	M101	X	0	1.5
56	M101	Z	-7.929	1.5
57	M101	Mx	0	1.5
58	MP2A	X	0	2
59	MP2A	Z	-3.218	2
60	MP2A	Mx	0	2
61	MP2B	X	0	2
62	MP2B	Z	-2.424	2
63	MP2B	Mx	-.001	2
64	MP2C	X	0	2
65	MP2C	Z	-2.424	2
66	MP2C	Mx	.001	2
67	MP1A	X	0	2
68	MP1A	Z	-3.882	2
69	MP1A	Mx	0	2
70	MP1B	X	0	2
71	MP1B	Z	-2.956	2
72	MP1B	Mx	-.0013	2
73	MP1C	X	0	2
74	MP1C	Z	-2.956	2
75	MP1C	Mx	.0013	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	3.411	.5
2	MP2A	Z	-5.908	.5
3	MP2A	Mx	-.0052	.5
4	MP2A	X	3.411	5.5
5	MP2A	Z	-5.908	5.5
6	MP2A	Mx	-.0052	5.5
7	MP2B	X	1.733	.5
8	MP2B	Z	-3.002	.5
9	MP2B	Mx	.0017	.5
10	MP2B	X	1.733	5.5
11	MP2B	Z	-3.002	5.5
12	MP2B	Mx	.0017	5.5
13	MP2C	X	3.411	.5
14	MP2C	Z	-5.908	.5
15	MP2C	Mx	.0017	.5
16	MP2C	X	3.411	5.5
17	MP2C	Z	-5.908	5.5
18	MP2C	Mx	.0017	5.5
19	MP2A	X	3.411	.5
20	MP2A	Z	-5.908	.5
21	MP2A	Mx	.0017	.5
22	MP2A	X	3.411	5.5
23	MP2A	Z	-5.908	5.5
24	MP2A	Mx	.0017	5.5
25	MP2B	X	1.733	.5
26	MP2B	Z	-3.002	.5
27	MP2B	Mx	.0017	.5
28	MP2B	X	1.733	5.5
29	MP2B	Z	-3.002	5.5
30	MP2B	Mx	.0017	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
31	MP2C	X	3.411	.5
32	MP2C	Z	-5.908	.5
33	MP2C	Mx	-.0052	.5
34	MP2C	X	3.411	5.5
35	MP2C	Z	-5.908	5.5
36	MP2C	Mx	-.0052	5.5
37	MP3A	X	1.374	2
38	MP3A	Z	-2.38	2
39	MP3A	Mx	-.000687	2
40	MP3A	X	1.374	4
41	MP3A	Z	-2.38	4
42	MP3A	Mx	-.000687	4
43	MP3B	X	.576	2
44	MP3B	Z	-.998	2
45	MP3B	Mx	.000576	2
46	MP3B	X	.576	4
47	MP3B	Z	-.998	4
48	MP3B	Mx	.000576	4
49	MP3C	X	1.374	2
50	MP3C	Z	-2.38	2
51	MP3C	Mx	-.000687	2
52	MP3C	X	1.374	4
53	MP3C	Z	-2.38	4
54	MP3C	Mx	-.000687	4
55	M101	X	3.465	1.5
56	M101	Z	-6.001	1.5
57	M101	Mx	0	1.5
58	MP2A	X	1.477	2
59	MP2A	Z	-2.557	2
60	MP2A	Mx	.000738	2
61	MP2B	X	1.079	2
62	MP2B	Z	-1.87	2
63	MP2B	Mx	-.0011	2
64	MP2C	X	1.477	2
65	MP2C	Z	-2.557	2
66	MP2C	Mx	.000738	2
67	MP1A	X	1.787	2
68	MP1A	Z	-3.094	2
69	MP1A	Mx	.000894	2
70	MP1B	X	1.323	2
71	MP1B	Z	-2.292	2
72	MP1B	Mx	-.0013	2
73	MP1C	X	1.787	2
74	MP1C	Z	-3.094	2
75	MP1C	Mx	.000893	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	3.971	.5
2	MP2A	Z	-2.293	.5
3	MP2A	Mx	-.0033	.5
4	MP2A	X	3.971	5.5
5	MP2A	Z	-2.293	5.5
6	MP2A	Mx	-.0033	5.5
7	MP2B	X	3.971	.5
8	MP2B	Z	-2.293	.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
9	MP2B	Mx	.000648	.5
10	MP2B	X	3.971	5.5
11	MP2B	Z	-2.293	5.5
12	MP2B	Mx	.000648	5.5
13	MP2C	X	6.877	.5
14	MP2C	Z	-3.97	.5
15	MP2C	Mx	.0046	.5
16	MP2C	X	6.877	5.5
17	MP2C	Z	-3.97	5.5
18	MP2C	Mx	.0046	5.5
19	MP2A	X	3.971	.5
20	MP2A	Z	-2.293	.5
21	MP2A	Mx	-.000648	.5
22	MP2A	X	3.971	5.5
23	MP2A	Z	-2.293	5.5
24	MP2A	Mx	-.000648	5.5
25	MP2B	X	3.971	.5
26	MP2B	Z	-2.293	.5
27	MP2B	Mx	.0033	.5
28	MP2B	X	3.971	5.5
29	MP2B	Z	-2.293	5.5
30	MP2B	Mx	.0033	5.5
31	MP2C	X	6.877	.5
32	MP2C	Z	-3.97	.5
33	MP2C	Mx	-.0046	.5
34	MP2C	X	6.877	5.5
35	MP2C	Z	-3.97	5.5
36	MP2C	Mx	-.0046	5.5
37	MP3A	X	1.458	2
38	MP3A	Z	-.842	2
39	MP3A	Mx	-.000729	2
40	MP3A	X	1.458	4
41	MP3A	Z	-.842	4
42	MP3A	Mx	-.000729	4
43	MP3B	X	1.458	2
44	MP3B	Z	-.842	2
45	MP3B	Mx	.000729	2
46	MP3B	X	1.458	4
47	MP3B	Z	-.842	4
48	MP3B	Mx	.000729	4
49	MP3C	X	2.841	2
50	MP3C	Z	-1.64	2
51	MP3C	Mx	0	2
52	MP3C	X	2.841	4
53	MP3C	Z	-1.64	4
54	MP3C	Mx	0	4
55	M101	X	5.569	1.5
56	M101	Z	-3.215	1.5
57	M101	Mx	0	1.5
58	MP2A	X	2.099	2
59	MP2A	Z	-1.212	2
60	MP2A	Mx	.001	2
61	MP2B	X	2.099	2
62	MP2B	Z	-1.212	2
63	MP2B	Mx	-.001	2
64	MP2C	X	2.787	2
65	MP2C	Z	-1.609	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
66	MP2C	Mx	0	2
67	MP1A	X	2.56	2
68	MP1A	Z	-1.478	2
69	MP1A	Mx	.0013	2
70	MP1B	X	2.56	2
71	MP1B	Z	-1.478	2
72	MP1B	Mx	-.0013	2
73	MP1C	X	3.362	2
74	MP1C	Z	-1.941	2
75	MP1C	Mx	0	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	3.467	.5
2	MP2A	Z	0	.5
3	MP2A	Mx	-.0017	.5
4	MP2A	X	3.467	5.5
5	MP2A	Z	0	5.5
6	MP2A	Mx	-.0017	5.5
7	MP2B	X	6.822	.5
8	MP2B	Z	0	.5
9	MP2B	Mx	-.0017	.5
10	MP2B	X	6.822	5.5
11	MP2B	Z	0	5.5
12	MP2B	Mx	-.0017	5.5
13	MP2C	X	6.822	.5
14	MP2C	Z	0	.5
15	MP2C	Mx	.0052	.5
16	MP2C	X	6.822	5.5
17	MP2C	Z	0	5.5
18	MP2C	Mx	.0052	5.5
19	MP2A	X	3.467	.5
20	MP2A	Z	0	.5
21	MP2A	Mx	-.0017	.5
22	MP2A	X	3.467	5.5
23	MP2A	Z	0	5.5
24	MP2A	Mx	-.0017	5.5
25	MP2B	X	6.822	.5
26	MP2B	Z	0	.5
27	MP2B	Mx	.0052	.5
28	MP2B	X	6.822	5.5
29	MP2B	Z	0	5.5
30	MP2B	Mx	.0052	5.5
31	MP2C	X	6.822	.5
32	MP2C	Z	0	.5
33	MP2C	Mx	-.0017	.5
34	MP2C	X	6.822	5.5
35	MP2C	Z	0	5.5
36	MP2C	Mx	-.0017	5.5
37	MP3A	X	1.152	2
38	MP3A	Z	0	2
39	MP3A	Mx	-.000576	2
40	MP3A	X	1.152	4
41	MP3A	Z	0	4
42	MP3A	Mx	-.000576	4
43	MP3B	X	2.748	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
44	MP3B	Z	0	2
45	MP3B	Mx	.000687	2
46	MP3B	X	2.748	4
47	MP3B	Z	0	4
48	MP3B	Mx	.000687	4
49	MP3C	X	2.748	2
50	MP3C	Z	0	2
51	MP3C	Mx	.000687	2
52	MP3C	X	2.748	4
53	MP3C	Z	0	4
54	MP3C	Mx	.000687	4
55	M101	X	6.93	1.5
56	M101	Z	0	1.5
57	M101	Mx	0	1.5
58	MP2A	X	2.159	2
59	MP2A	Z	0	2
60	MP2A	Mx	.0011	2
61	MP2B	X	2.953	2
62	MP2B	Z	0	2
63	MP2B	Mx	-.000738	2
64	MP2C	X	2.953	2
65	MP2C	Z	0	2
66	MP2C	Mx	-.000738	2
67	MP1A	X	2.647	2
68	MP1A	Z	0	2
69	MP1A	Mx	.0013	2
70	MP1B	X	3.573	2
71	MP1B	Z	0	2
72	MP1B	Mx	-.000893	2
73	MP1C	X	3.573	2
74	MP1C	Z	0	2
75	MP1C	Mx	-.000893	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	3.971	.5
2	MP2A	Z	2.293	.5
3	MP2A	Mx	-.000648	.5
4	MP2A	X	3.971	5.5
5	MP2A	Z	2.293	5.5
6	MP2A	Mx	-.000648	5.5
7	MP2B	X	6.877	.5
8	MP2B	Z	3.97	.5
9	MP2B	Mx	-.0046	.5
10	MP2B	X	6.877	5.5
11	MP2B	Z	3.97	5.5
12	MP2B	Mx	-.0046	5.5
13	MP2C	X	3.971	.5
14	MP2C	Z	2.293	.5
15	MP2C	Mx	.0033	.5
16	MP2C	X	3.971	5.5
17	MP2C	Z	2.293	5.5
18	MP2C	Mx	.0033	5.5
19	MP2A	X	3.971	.5
20	MP2A	Z	2.293	.5
21	MP2A	Mx	-.0033	.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
22	MP2A	X	3.971	5.5
23	MP2A	Z	2.293	5.5
24	MP2A	Mx	-.0033	5.5
25	MP2B	X	6.877	.5
26	MP2B	Z	3.97	.5
27	MP2B	Mx	.0046	.5
28	MP2B	X	6.877	5.5
29	MP2B	Z	3.97	5.5
30	MP2B	Mx	.0046	5.5
31	MP2C	X	3.971	.5
32	MP2C	Z	2.293	.5
33	MP2C	Mx	.000648	.5
34	MP2C	X	3.971	5.5
35	MP2C	Z	2.293	5.5
36	MP2C	Mx	.000648	5.5
37	MP3A	X	1.458	2
38	MP3A	Z	.842	2
39	MP3A	Mx	-.000729	2
40	MP3A	X	1.458	4
41	MP3A	Z	.842	4
42	MP3A	Mx	-.000729	4
43	MP3B	X	2.841	2
44	MP3B	Z	1.64	2
45	MP3B	Mx	0	2
46	MP3B	X	2.841	4
47	MP3B	Z	1.64	4
48	MP3B	Mx	0	4
49	MP3C	X	1.458	2
50	MP3C	Z	.842	2
51	MP3C	Mx	.000729	2
52	MP3C	X	1.458	4
53	MP3C	Z	.842	4
54	MP3C	Mx	.000729	4
55	M101	X	6.867	1.5
56	M101	Z	3.964	1.5
57	M101	Mx	0	1.5
58	MP2A	X	2.099	2
59	MP2A	Z	1.212	2
60	MP2A	Mx	.001	2
61	MP2B	X	2.787	2
62	MP2B	Z	1.609	2
63	MP2B	Mx	0	2
64	MP2C	X	2.099	2
65	MP2C	Z	1.212	2
66	MP2C	Mx	-.001	2
67	MP1A	X	2.56	2
68	MP1A	Z	1.478	2
69	MP1A	Mx	.0013	2
70	MP1B	X	3.362	2
71	MP1B	Z	1.941	2
72	MP1B	Mx	0	2
73	MP1C	X	2.56	2
74	MP1C	Z	1.478	2
75	MP1C	Mx	-.0013	2

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

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

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	3.411	.5
2	MP2A	Z	5.908	.5
3	MP2A	Mx	.0017	.5
4	MP2A	X	3.411	5.5
5	MP2A	Z	5.908	5.5
6	MP2A	Mx	.0017	5.5
7	MP2B	X	3.411	.5
8	MP2B	Z	5.908	.5
9	MP2B	Mx	-.0052	.5
10	MP2B	X	3.411	5.5
11	MP2B	Z	5.908	5.5
12	MP2B	Mx	-.0052	5.5
13	MP2C	X	1.733	.5
14	MP2C	Z	3.002	.5
15	MP2C	Mx	.0017	.5
16	MP2C	X	1.733	5.5
17	MP2C	Z	3.002	5.5
18	MP2C	Mx	.0017	5.5
19	MP2A	X	3.411	.5
20	MP2A	Z	5.908	.5
21	MP2A	Mx	-.0052	.5
22	MP2A	X	3.411	5.5
23	MP2A	Z	5.908	5.5
24	MP2A	Mx	-.0052	5.5
25	MP2B	X	3.411	.5
26	MP2B	Z	5.908	.5
27	MP2B	Mx	.0017	.5
28	MP2B	X	3.411	5.5
29	MP2B	Z	5.908	5.5
30	MP2B	Mx	.0017	5.5
31	MP2C	X	1.733	.5
32	MP2C	Z	3.002	.5
33	MP2C	Mx	.0017	.5
34	MP2C	X	1.733	5.5
35	MP2C	Z	3.002	5.5
36	MP2C	Mx	.0017	5.5
37	MP3A	X	1.374	2
38	MP3A	Z	2.38	2
39	MP3A	Mx	-.000687	2
40	MP3A	X	1.374	4
41	MP3A	Z	2.38	4
42	MP3A	Mx	-.000687	4
43	MP3B	X	1.374	2
44	MP3B	Z	2.38	2
45	MP3B	Mx	-.000687	2
46	MP3B	X	1.374	4
47	MP3B	Z	2.38	4
48	MP3B	Mx	-.000687	4
49	MP3C	X	.576	2
50	MP3C	Z	.998	2
51	MP3C	Mx	.000576	2
52	MP3C	X	.576	4
53	MP3C	Z	.998	4
54	MP3C	Mx	.000576	4
55	M101	X	4.214	1.5
56	M101	Z	7.299	1.5
57	M101	Mx	0	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
58	MP2A	X	1.477	2
59	MP2A	Z	2.557	2
60	MP2A	Mx	.000738	2
61	MP2B	X	1.477	2
62	MP2B	Z	2.557	2
63	MP2B	Mx	.000738	2
64	MP2C	X	1.079	2
65	MP2C	Z	1.87	2
66	MP2C	Mx	-.0011	2
67	MP1A	X	1.787	2
68	MP1A	Z	3.094	2
69	MP1A	Mx	.000894	2
70	MP1B	X	1.787	2
71	MP1B	Z	3.094	2
72	MP1B	Mx	.000893	2
73	MP1C	X	1.323	2
74	MP1C	Z	2.292	2
75	MP1C	Mx	-.0013	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	0	.5
2	MP2A	Z	7.94	.5
3	MP2A	Mx	.0046	.5
4	MP2A	X	0	5.5
5	MP2A	Z	7.94	5.5
6	MP2A	Mx	.0046	5.5
7	MP2B	X	0	.5
8	MP2B	Z	4.585	.5
9	MP2B	Mx	-.0033	.5
10	MP2B	X	0	5.5
11	MP2B	Z	4.585	5.5
12	MP2B	Mx	-.0033	5.5
13	MP2C	X	0	.5
14	MP2C	Z	4.585	.5
15	MP2C	Mx	.000648	.5
16	MP2C	X	0	5.5
17	MP2C	Z	4.585	5.5
18	MP2C	Mx	.000648	5.5
19	MP2A	X	0	.5
20	MP2A	Z	7.94	.5
21	MP2A	Mx	-.0046	.5
22	MP2A	X	0	5.5
23	MP2A	Z	7.94	5.5
24	MP2A	Mx	-.0046	5.5
25	MP2B	X	0	.5
26	MP2B	Z	4.585	.5
27	MP2B	Mx	-.000648	.5
28	MP2B	X	0	5.5
29	MP2B	Z	4.585	5.5
30	MP2B	Mx	-.000648	5.5
31	MP2C	X	0	.5
32	MP2C	Z	4.585	.5
33	MP2C	Mx	.0033	.5
34	MP2C	X	0	5.5
35	MP2C	Z	4.585	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
36	MP2C	Mx	.0033	5.5
37	MP3A	X	0	2
38	MP3A	Z	3.28	2
39	MP3A	Mx	0	2
40	MP3A	X	0	4
41	MP3A	Z	3.28	4
42	MP3A	Mx	0	4
43	MP3B	X	0	2
44	MP3B	Z	1.684	2
45	MP3B	Mx	-.000729	2
46	MP3B	X	0	4
47	MP3B	Z	1.684	4
48	MP3B	Mx	-.000729	4
49	MP3C	X	0	2
50	MP3C	Z	1.684	2
51	MP3C	Mx	.000729	2
52	MP3C	X	0	4
53	MP3C	Z	1.684	4
54	MP3C	Mx	.000729	4
55	M101	X	0	1.5
56	M101	Z	7.929	1.5
57	M101	Mx	0	1.5
58	MP2A	X	0	2
59	MP2A	Z	3.218	2
60	MP2A	Mx	0	2
61	MP2B	X	0	2
62	MP2B	Z	2.424	2
63	MP2B	Mx	.001	2
64	MP2C	X	0	2
65	MP2C	Z	2.424	2
66	MP2C	Mx	-.001	2
67	MP1A	X	0	2
68	MP1A	Z	3.882	2
69	MP1A	Mx	0	2
70	MP1B	X	0	2
71	MP1B	Z	2.956	2
72	MP1B	Mx	.0013	2
73	MP1C	X	0	2
74	MP1C	Z	2.956	2
75	MP1C	Mx	-.0013	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-3.411	.5
2	MP2A	Z	5.908	.5
3	MP2A	Mx	.0052	.5
4	MP2A	X	-3.411	5.5
5	MP2A	Z	5.908	5.5
6	MP2A	Mx	.0052	5.5
7	MP2B	X	-1.733	.5
8	MP2B	Z	3.002	.5
9	MP2B	Mx	-.0017	.5
10	MP2B	X	-1.733	5.5
11	MP2B	Z	3.002	5.5
12	MP2B	Mx	-.0017	5.5
13	MP2C	X	-3.411	.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
14	MP2C	Z	5.908	.5
15	MP2C	Mx	-.0017	.5
16	MP2C	X	-3.411	5.5
17	MP2C	Z	5.908	5.5
18	MP2C	Mx	-.0017	5.5
19	MP2A	X	-3.411	.5
20	MP2A	Z	5.908	.5
21	MP2A	Mx	-.0017	.5
22	MP2A	X	-3.411	5.5
23	MP2A	Z	5.908	5.5
24	MP2A	Mx	-.0017	5.5
25	MP2B	X	-1.733	.5
26	MP2B	Z	3.002	.5
27	MP2B	Mx	-.0017	.5
28	MP2B	X	-1.733	5.5
29	MP2B	Z	3.002	5.5
30	MP2B	Mx	-.0017	5.5
31	MP2C	X	-3.411	.5
32	MP2C	Z	5.908	.5
33	MP2C	Mx	.0052	.5
34	MP2C	X	-3.411	5.5
35	MP2C	Z	5.908	5.5
36	MP2C	Mx	.0052	5.5
37	MP3A	X	-1.374	2
38	MP3A	Z	2.38	2
39	MP3A	Mx	.000687	2
40	MP3A	X	-1.374	4
41	MP3A	Z	2.38	4
42	MP3A	Mx	.000687	4
43	MP3B	X	-.576	2
44	MP3B	Z	.998	2
45	MP3B	Mx	-.000576	2
46	MP3B	X	-.576	4
47	MP3B	Z	.998	4
48	MP3B	Mx	-.000576	4
49	MP3C	X	-1.374	2
50	MP3C	Z	2.38	2
51	MP3C	Mx	.000687	2
52	MP3C	X	-1.374	4
53	MP3C	Z	2.38	4
54	MP3C	Mx	.000687	4
55	M101	X	-3.465	1.5
56	M101	Z	6.001	1.5
57	M101	Mx	0	1.5
58	MP2A	X	-1.477	2
59	MP2A	Z	2.557	2
60	MP2A	Mx	-.000738	2
61	MP2B	X	-1.079	2
62	MP2B	Z	1.87	2
63	MP2B	Mx	.0011	2
64	MP2C	X	-1.477	2
65	MP2C	Z	2.557	2
66	MP2C	Mx	-.000738	2
67	MP1A	X	-1.787	2
68	MP1A	Z	3.094	2
69	MP1A	Mx	-.000894	2
70	MP1B	X	-1.323	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
71	MP1B	Z	2.292	2
72	MP1B	Mx	.0013	2
73	MP1C	X	-1.787	2
74	MP1C	Z	3.094	2
75	MP1C	Mx	-.000893	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-3.971	.5
2	MP2A	Z	2.293	.5
3	MP2A	Mx	.0033	.5
4	MP2A	X	-3.971	5.5
5	MP2A	Z	2.293	5.5
6	MP2A	Mx	.0033	5.5
7	MP2B	X	-3.971	.5
8	MP2B	Z	2.293	.5
9	MP2B	Mx	-.000648	.5
10	MP2B	X	-3.971	5.5
11	MP2B	Z	2.293	5.5
12	MP2B	Mx	-.000648	5.5
13	MP2C	X	-6.877	.5
14	MP2C	Z	3.97	.5
15	MP2C	Mx	-.0046	.5
16	MP2C	X	-6.877	5.5
17	MP2C	Z	3.97	5.5
18	MP2C	Mx	-.0046	5.5
19	MP2A	X	-3.971	.5
20	MP2A	Z	2.293	.5
21	MP2A	Mx	.000648	.5
22	MP2A	X	-3.971	5.5
23	MP2A	Z	2.293	5.5
24	MP2A	Mx	.000648	5.5
25	MP2B	X	-3.971	.5
26	MP2B	Z	2.293	.5
27	MP2B	Mx	-.0033	.5
28	MP2B	X	-3.971	5.5
29	MP2B	Z	2.293	5.5
30	MP2B	Mx	-.0033	5.5
31	MP2C	X	-6.877	.5
32	MP2C	Z	3.97	.5
33	MP2C	Mx	.0046	.5
34	MP2C	X	-6.877	5.5
35	MP2C	Z	3.97	5.5
36	MP2C	Mx	.0046	5.5
37	MP3A	X	-1.458	2
38	MP3A	Z	.842	2
39	MP3A	Mx	.000729	2
40	MP3A	X	-1.458	4
41	MP3A	Z	.842	4
42	MP3A	Mx	.000729	4
43	MP3B	X	-1.458	2
44	MP3B	Z	.842	2
45	MP3B	Mx	-.000729	2
46	MP3B	X	-1.458	4
47	MP3B	Z	.842	4
48	MP3B	Mx	-.000729	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
49	MP3C	X	-2.841	2
50	MP3C	Z	1.64	2
51	MP3C	Mx	0	2
52	MP3C	X	-2.841	4
53	MP3C	Z	1.64	4
54	MP3C	Mx	0	4
55	M101	X	-5.569	1.5
56	M101	Z	3.215	1.5
57	M101	Mx	0	1.5
58	MP2A	X	-2.099	2
59	MP2A	Z	1.212	2
60	MP2A	Mx	-.001	2
61	MP2B	X	-2.099	2
62	MP2B	Z	1.212	2
63	MP2B	Mx	.001	2
64	MP2C	X	-2.787	2
65	MP2C	Z	1.609	2
66	MP2C	Mx	0	2
67	MP1A	X	-2.56	2
68	MP1A	Z	1.478	2
69	MP1A	Mx	-.0013	2
70	MP1B	X	-2.56	2
71	MP1B	Z	1.478	2
72	MP1B	Mx	.0013	2
73	MP1C	X	-3.362	2
74	MP1C	Z	1.941	2
75	MP1C	Mx	0	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-3.467	.5
2	MP2A	Z	0	.5
3	MP2A	Mx	.0017	.5
4	MP2A	X	-3.467	5.5
5	MP2A	Z	0	5.5
6	MP2A	Mx	.0017	5.5
7	MP2B	X	-6.822	.5
8	MP2B	Z	0	.5
9	MP2B	Mx	.0017	.5
10	MP2B	X	-6.822	5.5
11	MP2B	Z	0	5.5
12	MP2B	Mx	.0017	5.5
13	MP2C	X	-6.822	.5
14	MP2C	Z	0	.5
15	MP2C	Mx	-.0052	.5
16	MP2C	X	-6.822	5.5
17	MP2C	Z	0	5.5
18	MP2C	Mx	-.0052	5.5
19	MP2A	X	-3.467	.5
20	MP2A	Z	0	.5
21	MP2A	Mx	.0017	.5
22	MP2A	X	-3.467	5.5
23	MP2A	Z	0	5.5
24	MP2A	Mx	.0017	5.5
25	MP2B	X	-6.822	.5
26	MP2B	Z	0	.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
27	MP2B	Mx	-.0052	.5
28	MP2B	X	-6.822	5.5
29	MP2B	Z	0	5.5
30	MP2B	Mx	-.0052	5.5
31	MP2C	X	-6.822	.5
32	MP2C	Z	0	.5
33	MP2C	Mx	.0017	.5
34	MP2C	X	-6.822	5.5
35	MP2C	Z	0	5.5
36	MP2C	Mx	.0017	5.5
37	MP3A	X	-1.152	2
38	MP3A	Z	0	2
39	MP3A	Mx	.000576	2
40	MP3A	X	-1.152	4
41	MP3A	Z	0	4
42	MP3A	Mx	.000576	4
43	MP3B	X	-2.748	2
44	MP3B	Z	0	2
45	MP3B	Mx	-.000687	2
46	MP3B	X	-2.748	4
47	MP3B	Z	0	4
48	MP3B	Mx	-.000687	4
49	MP3C	X	-2.748	2
50	MP3C	Z	0	2
51	MP3C	Mx	-.000687	2
52	MP3C	X	-2.748	4
53	MP3C	Z	0	4
54	MP3C	Mx	-.000687	4
55	M101	X	-6.93	1.5
56	M101	Z	0	1.5
57	M101	Mx	0	1.5
58	MP2A	X	-2.159	2
59	MP2A	Z	0	2
60	MP2A	Mx	-.0011	2
61	MP2B	X	-2.953	2
62	MP2B	Z	0	2
63	MP2B	Mx	.000738	2
64	MP2C	X	-2.953	2
65	MP2C	Z	0	2
66	MP2C	Mx	.000738	2
67	MP1A	X	-2.647	2
68	MP1A	Z	0	2
69	MP1A	Mx	-.0013	2
70	MP1B	X	-3.573	2
71	MP1B	Z	0	2
72	MP1B	Mx	.000893	2
73	MP1C	X	-3.573	2
74	MP1C	Z	0	2
75	MP1C	Mx	.000893	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-3.971	.5
2	MP2A	Z	-2.293	.5
3	MP2A	Mx	.000648	.5
4	MP2A	X	-3.971	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
5	MP2A	Z	-2.293	5.5
6	MP2A	Mx	.000648	5.5
7	MP2B	X	-6.877	.5
8	MP2B	Z	-3.97	.5
9	MP2B	Mx	.0046	.5
10	MP2B	X	-6.877	5.5
11	MP2B	Z	-3.97	5.5
12	MP2B	Mx	.0046	5.5
13	MP2C	X	-3.971	.5
14	MP2C	Z	-2.293	.5
15	MP2C	Mx	-.0033	.5
16	MP2C	X	-3.971	5.5
17	MP2C	Z	-2.293	5.5
18	MP2C	Mx	-.0033	5.5
19	MP2A	X	-3.971	.5
20	MP2A	Z	-2.293	.5
21	MP2A	Mx	.0033	.5
22	MP2A	X	-3.971	5.5
23	MP2A	Z	-2.293	5.5
24	MP2A	Mx	.0033	5.5
25	MP2B	X	-6.877	.5
26	MP2B	Z	-3.97	.5
27	MP2B	Mx	-.0046	.5
28	MP2B	X	-6.877	5.5
29	MP2B	Z	-3.97	5.5
30	MP2B	Mx	-.0046	5.5
31	MP2C	X	-3.971	.5
32	MP2C	Z	-2.293	.5
33	MP2C	Mx	-.000648	.5
34	MP2C	X	-3.971	5.5
35	MP2C	Z	-2.293	5.5
36	MP2C	Mx	-.000648	5.5
37	MP3A	X	-1.458	2
38	MP3A	Z	-.842	2
39	MP3A	Mx	.000729	2
40	MP3A	X	-1.458	4
41	MP3A	Z	-.842	4
42	MP3A	Mx	.000729	4
43	MP3B	X	-2.841	2
44	MP3B	Z	-1.64	2
45	MP3B	Mx	0	2
46	MP3B	X	-2.841	4
47	MP3B	Z	-1.64	4
48	MP3B	Mx	0	4
49	MP3C	X	-1.458	2
50	MP3C	Z	-.842	2
51	MP3C	Mx	-.000729	2
52	MP3C	X	-1.458	4
53	MP3C	Z	-.842	4
54	MP3C	Mx	-.000729	4
55	M101	X	-6.867	1.5
56	M101	Z	-3.964	1.5
57	M101	Mx	0	1.5
58	MP2A	X	-2.099	2
59	MP2A	Z	-1.212	2
60	MP2A	Mx	-.001	2
61	MP2B	X	-2.787	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
62	MP2B	Z	-1.609	2
63	MP2B	Mx	0	2
64	MP2C	X	-2.099	2
65	MP2C	Z	-1.212	2
66	MP2C	Mx	.001	2
67	MP1A	X	-2.56	2
68	MP1A	Z	-1.478	2
69	MP1A	Mx	-.0013	2
70	MP1B	X	-3.362	2
71	MP1B	Z	-1.941	2
72	MP1B	Mx	0	2
73	MP1C	X	-2.56	2
74	MP1C	Z	-1.478	2
75	MP1C	Mx	.0013	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-3.411	.5
2	MP2A	Z	-5.908	.5
3	MP2A	Mx	-.0017	.5
4	MP2A	X	-3.411	5.5
5	MP2A	Z	-5.908	5.5
6	MP2A	Mx	-.0017	5.5
7	MP2B	X	-3.411	.5
8	MP2B	Z	-5.908	.5
9	MP2B	Mx	.0052	.5
10	MP2B	X	-3.411	5.5
11	MP2B	Z	-5.908	5.5
12	MP2B	Mx	.0052	5.5
13	MP2C	X	-1.733	.5
14	MP2C	Z	-3.002	.5
15	MP2C	Mx	-.0017	.5
16	MP2C	X	-1.733	5.5
17	MP2C	Z	-3.002	5.5
18	MP2C	Mx	-.0017	5.5
19	MP2A	X	-3.411	.5
20	MP2A	Z	-5.908	.5
21	MP2A	Mx	.0052	.5
22	MP2A	X	-3.411	5.5
23	MP2A	Z	-5.908	5.5
24	MP2A	Mx	.0052	5.5
25	MP2B	X	-3.411	.5
26	MP2B	Z	-5.908	.5
27	MP2B	Mx	-.0017	.5
28	MP2B	X	-3.411	5.5
29	MP2B	Z	-5.908	5.5
30	MP2B	Mx	-.0017	5.5
31	MP2C	X	-1.733	.5
32	MP2C	Z	-3.002	.5
33	MP2C	Mx	-.0017	.5
34	MP2C	X	-1.733	5.5
35	MP2C	Z	-3.002	5.5
36	MP2C	Mx	-.0017	5.5
37	MP3A	X	-1.374	2
38	MP3A	Z	-2.38	2
39	MP3A	Mx	.000687	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
40	MP3A	X	-1.374	4
41	MP3A	Z	-2.38	4
42	MP3A	Mx	.000687	4
43	MP3B	X	-1.374	2
44	MP3B	Z	-2.38	2
45	MP3B	Mx	.000687	2
46	MP3B	X	-1.374	4
47	MP3B	Z	-2.38	4
48	MP3B	Mx	.000687	4
49	MP3C	X	-.576	2
50	MP3C	Z	-.998	2
51	MP3C	Mx	-.000576	2
52	MP3C	X	-.576	4
53	MP3C	Z	-.998	4
54	MP3C	Mx	-.000576	4
55	M101	X	-4.214	1.5
56	M101	Z	-7.299	1.5
57	M101	Mx	0	1.5
58	MP2A	X	-1.477	2
59	MP2A	Z	-2.557	2
60	MP2A	Mx	-.000738	2
61	MP2B	X	-1.477	2
62	MP2B	Z	-2.557	2
63	MP2B	Mx	-.000738	2
64	MP2C	X	-1.079	2
65	MP2C	Z	-1.87	2
66	MP2C	Mx	.0011	2
67	MP1A	X	-1.787	2
68	MP1A	Z	-3.094	2
69	MP1A	Mx	-.000894	2
70	MP1B	X	-1.787	2
71	MP1B	Z	-3.094	2
72	MP1B	Mx	-.000893	2
73	MP1C	X	-1.323	2
74	MP1C	Z	-2.292	2
75	MP1C	Mx	.0013	2

Member Point Loads (BLC 77 : Lm1)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	M76A	Y	-500	0

Member Point Loads (BLC 78 : Lm2)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	M78	Y	-500	0

Member Point Loads (BLC 79 : Lv1)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	M73	Y	-250	%100

Member Point Loads (BLC 80 : Lv2)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	M73	Y	-250	%50

Member Point Loads (BLC 81 : Antenna Ev)

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

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	Y	-.9797	.5
2	MP2A	My	-.00049	.5
3	MP2A	Mz	.000571	.5
4	MP2A	Y	-.9797	5.5
5	MP2A	My	-.00049	5.5
6	MP2A	Mz	.000571	5.5
7	MP2B	Y	-.9797	.5
8	MP2B	My	-.00025	.5
9	MP2B	Mz	-.00071	.5
10	MP2B	Y	-.9797	5.5
11	MP2B	My	-.00025	5.5
12	MP2B	Mz	-.00071	5.5
13	MP2C	Y	-.9797	.5
14	MP2C	My	.00074	.5
15	MP2C	Mz	.000138	.5
16	MP2C	Y	-.9797	5.5
17	MP2C	My	.00074	5.5
18	MP2C	Mz	.000138	5.5
19	MP2A	Y	-.9797	.5
20	MP2A	My	-.00049	.5
21	MP2A	Mz	-.000571	.5
22	MP2A	Y	-.9797	5.5
23	MP2A	My	-.00049	5.5
24	MP2A	Mz	-.000571	5.5
25	MP2B	Y	-.9797	.5
26	MP2B	My	.00074	.5
27	MP2B	Mz	-.000138	.5
28	MP2B	Y	-.9797	5.5
29	MP2B	My	.00074	5.5
30	MP2B	Mz	-.000138	5.5
31	MP2C	Y	-.9797	.5
32	MP2C	My	-.00025	.5
33	MP2C	Mz	.00071	.5
34	MP2C	Y	-.9797	5.5
35	MP2C	My	-.00025	5.5
36	MP2C	Mz	.00071	5.5
37	MP3A	Y	-1.0879	2
38	MP3A	My	-.000544	2
39	MP3A	Mz	0	2
40	MP3A	Y	-1.0879	4
41	MP3A	My	-.000544	4
42	MP3A	Mz	0	4
43	MP3B	Y	-1.0879	2
44	MP3B	My	.000272	2
45	MP3B	Mz	-.000471	2
46	MP3B	Y	-1.0879	4
47	MP3B	My	.000272	4
48	MP3B	Mz	-.000471	4
49	MP3C	Y	-1.0879	2
50	MP3C	My	.000272	2
51	MP3C	Mz	.000471	2
52	MP3C	Y	-1.0879	4
53	MP3C	My	.000272	4
54	MP3C	Mz	.000471	4
55	M101	Y	-1.2151	1.5
56	M101	My	0	1.5
57	M101	Mz	0	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
58	MP2A	Y	-2.8366	2
59	MP2A	My	.0014	2
60	MP2A	Mz	0	2
61	MP2B	Y	-2.8366	2
62	MP2B	My	-.000709	2
63	MP2B	Mz	.0012	2
64	MP2C	Y	-2.8366	2
65	MP2C	My	-.000709	2
66	MP2C	Mz	-.0012	2
67	MP1A	Y	-3.0037	2
68	MP1A	My	.0015	2
69	MP1A	Mz	0	2
70	MP1B	Y	-3.0037	2
71	MP1B	My	-.000751	2
72	MP1B	Mz	.0013	2
73	MP1C	Y	-3.0037	2
74	MP1C	My	-.000751	2
75	MP1C	Mz	-.0013	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	Z	-2.4493	.5
2	MP2A	Mx	-.0014	.5
3	MP2A	Z	-2.4493	5.5
4	MP2A	Mx	-.0014	5.5
5	MP2B	Z	-2.4493	.5
6	MP2B	Mx	.0018	.5
7	MP2B	Z	-2.4493	5.5
8	MP2B	Mx	.0018	5.5
9	MP2C	Z	-2.4493	.5
10	MP2C	Mx	-.000346	.5
11	MP2C	Z	-2.4493	5.5
12	MP2C	Mx	-.000346	5.5
13	MP2A	Z	-2.4493	.5
14	MP2A	Mx	.0014	.5
15	MP2A	Z	-2.4493	5.5
16	MP2A	Mx	.0014	5.5
17	MP2B	Z	-2.4493	.5
18	MP2B	Mx	.000346	.5
19	MP2B	Z	-2.4493	5.5
20	MP2B	Mx	.000346	5.5
21	MP2C	Z	-2.4493	.5
22	MP2C	Mx	-.0018	.5
23	MP2C	Z	-2.4493	5.5
24	MP2C	Mx	-.0018	5.5
25	MP3A	Z	-2.7198	2
26	MP3A	Mx	0	2
27	MP3A	Z	-2.7198	4
28	MP3A	Mx	0	4
29	MP3B	Z	-2.7198	2
30	MP3B	Mx	.0012	2
31	MP3B	Z	-2.7198	4
32	MP3B	Mx	.0012	4
33	MP3C	Z	-2.7198	2
34	MP3C	Mx	-.0012	2
35	MP3C	Z	-2.7198	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
36	MP3C	Mx	-.0012	4
37	M101	Z	-3.0379	1.5
38	M101	Mx	0	1.5
39	MP2A	Z	-7.0915	2
40	MP2A	Mx	0	2
41	MP2B	Z	-7.0915	2
42	MP2B	Mx	-.0031	2
43	MP2C	Z	-7.0915	2
44	MP2C	Mx	.0031	2
45	MP1A	Z	-7.5092	2
46	MP1A	Mx	0	2
47	MP1B	Z	-7.5092	2
48	MP1B	Mx	-.0033	2
49	MP1C	Z	-7.5092	2
50	MP1C	Mx	.0033	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	2.4493	.5
2	MP2A	Mx	-.0012	.5
3	MP2A	X	2.4493	5.5
4	MP2A	Mx	-.0012	5.5
5	MP2B	X	2.4493	.5
6	MP2B	Mx	-.000625	.5
7	MP2B	X	2.4493	5.5
8	MP2B	Mx	-.000625	5.5
9	MP2C	X	2.4493	.5
10	MP2C	Mx	.0019	.5
11	MP2C	X	2.4493	5.5
12	MP2C	Mx	.0019	5.5
13	MP2A	X	2.4493	.5
14	MP2A	Mx	-.0012	.5
15	MP2A	X	2.4493	5.5
16	MP2A	Mx	-.0012	5.5
17	MP2B	X	2.4493	.5
18	MP2B	Mx	.0019	.5
19	MP2B	X	2.4493	5.5
20	MP2B	Mx	.0019	5.5
21	MP2C	X	2.4493	.5
22	MP2C	Mx	-.000625	.5
23	MP2C	X	2.4493	5.5
24	MP2C	Mx	-.000625	5.5
25	MP3A	X	2.7198	2
26	MP3A	Mx	-.0014	2
27	MP3A	X	2.7198	4
28	MP3A	Mx	-.0014	4
29	MP3B	X	2.7198	2
30	MP3B	Mx	.00068	2
31	MP3B	X	2.7198	4
32	MP3B	Mx	.00068	4
33	MP3C	X	2.7198	2
34	MP3C	Mx	.00068	2
35	MP3C	X	2.7198	4
36	MP3C	Mx	.00068	4
37	M101	X	3.0379	1.5
38	M101	Mx	0	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
39	MP2A	X	7.0915	2
40	MP2A	Mx	.0035	2
41	MP2B	X	7.0915	2
42	MP2B	Mx	-.0018	2
43	MP2C	X	7.0915	2
44	MP2C	Mx	-.0018	2
45	MP1A	X	7.5092	2
46	MP1A	Mx	.0038	2
47	MP1B	X	7.5092	2
48	MP1B	Mx	-.0019	2
49	MP1C	X	7.5092	2
50	MP1C	Mx	-.0019	2

Member Area Loads (BLC 39 : Structure D)

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
1	N87C	N87B	N7	N6	Y	Two Way	-.0052
2	N55	N57	N33	N32	Y	Two Way	-.0052
3	N84	N86	N62	N61	Y	Two Way	-.0052

Member Area Loads (BLC 40 : Structure Di)

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
1	N87C	N87B	N7	N6	Y	Two Way	-.0101
2	N55	N57	N33	N32	Y	Two Way	-.0101
3	N84	N86	N62	N61	Y	Two Way	-.0101

Member Area Loads (BLC 84 : Structure Ev)

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
1	N87C	N87B	N7	N6	Y	Two Way	-.000197
2	N55	N57	N33	N32	Y	Two Way	-.000197
3	N84	N86	N62	N61	Y	Two Way	-.000197

Member Area Loads (BLC 85 : Structure Eh (0 Deg))

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
1	N87C	N87B	N7	N6	Z	Two Way	-.000494
2	N55	N57	N33	N32	Z	Two Way	-.000494
3	N84	N86	N62	N61	Z	Two Way	-.000494

Member Area Loads (BLC 86 : Structure Eh (90 Deg))

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
1	N87C	N87B	N7	N6	X	Two Way	.000494
2	N55	N57	N33	N32	X	Two Way	.000494
3	N84	N86	N62	N61	X	Two Way	.000494

Envelope Joint Reactions

	Joint		X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [k-ft]	LC	MY [k-ft]		MZ [k-ft]	LC
1	N3	...	721.534	10	2142.493	13	1190.146	1	4.326	13	.993	4	.081	26
2		...	-742.29	4	641.768	7	-1343.639	7	.862	7	-1.022	10	-.075	20
3	N30A	...	1125.392	10	2293.282	21	1038.619	1	-.44	3	1.054	12	-.656	3
4		...	-1249.264	4	695.525	3	-943.891	7	-2.211	21	-1.083	6	-3.83	21
5	N59	...	1193.015	10	2138.927	17	825.819	1	-.371	11	.987	8	4.257	29
6		...	-1048.386	4	640.344	11	-767.051	7	-2.675	29	-1.016	2	.779	11
7	Totals:	...	3039.94	10	6250.98	19	3054.584	1						

Envelope Joint Reactions (Continued)

	Joint		X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [k-ft]	LC	MY [k-ft]		MZ [k-ft]	LC
8		...	-3039.939	4	2146.291	64	-3054.581	7						

Joint Reactions

	LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
1	1	N3	8.748	1318.345	1190.146	3.028	-.014	.014
2	1	N30A	-526.926	851.966	1038.619	-.647	.541	-1.272
3	1	N59	518.194	817.437	825.819	-.622	-.449	1.208
4	1	Totals:	.016	2987.748	3054.584			
5	1	COG (ft):	X: -.031	Y: .872	Z: .011			
6	2	N3	-102.657	1265.548	1103.928	2.903	-.23	.016
7	2	N30A	-1103.089	734.215	879.216	-.479	-.148	-.842
8	2	N59	-314.216	987.99	649.511	-.898	-1.016	1.652
9	2	Totals:	-1519.962	2987.753	2632.655			
10	2	COG (ft):	X: -.031	Y: .872	Z: .011			
11	3	N3	-479.042	1136.337	707.933	2.531	.429	.011
12	3	N30A	-1244.555	695.525	753.432	-.44	.02	-.656
13	3	N59	-902.701	1155.9	54.922	-1.196	-.497	2.112
14	3	Totals:	-2626.299	2987.761	1516.286			
15	3	COG (ft):	X: -.031	Y: .872	Z: .011			
16	4	N3	-742.29	965.256	-100.172	2.009	.993	-.004
17	4	N30A	-1249.264	746.087	557.217	-.548	.206	-.746
18	4	N59	-1048.386	1276.429	-457.056	-1.431	.175	2.468
19	4	Totals:	-3039.939	2987.772	-.011			
20	4	COG (ft):	X: -.031	Y: .872	Z: .011			
21	5	N3	-520.907	797.962	-908.883	1.461	.471	-.03
22	5	N30A	-1089.74	872.48	-32.984	-.784	-.488	-1.076
23	5	N59	-1034.739	1317.339	-585.428	-1.528	-.02	2.612
24	5	Totals:	-2645.386	2987.781	-1527.295			
25	5	COG (ft):	X: -.031	Y: .872	Z: .011			
26	6	N3	-150.313	679.551	-1292.394	1.035	-.205	-.055
27	6	N30A	-474.962	1041.142	-720.601	-1.079	-1.083	-1.578
28	6	N59	-905.725	1267.094	-638.706	-1.468	-.238	2.504
29	6	Totals:	-1531	2987.787	-2651.701			
30	6	COG (ft):	X: -.031	Y: .872	Z: .011			
31	7	N3	-29.622	641.768	-1343.639	.862	-.014	-.067
32	7	N30A	405.1	1207.091	-943.891	-1.342	-.569	-2.127
33	7	N59	-375.493	1138.928	-767.051	-1.277	.421	2.184
34	7	Totals:	-.015	2987.787	-3054.581			
35	7	COG (ft):	X: -.031	Y: .872	Z: .011			
36	8	N3	83.323	694.145	-1258.127	.987	.201	-.069
37	8	N30A	980.849	1325.746	-782.811	-1.51	.12	-2.557
38	8	N59	455.792	967.891	-591.714	-1.001	.987	1.74
39	8	Totals:	1519.964	2987.782	-2632.653			
40	8	COG (ft):	X: -.031	Y: .872	Z: .011			
41	9	N3	458.566	822.464	-860.915	1.36	-.457	-.064
42	9	N30A	1122.054	1364.934	-658.617	-1.549	-.048	-2.742
43	9	N59	1045.68	800.376	3.249	-.703	.469	1.28
44	9	Totals:	2626.3	2987.774	-1516.283			
45	9	COG (ft):	X: -.031	Y: .872	Z: .011			
46	10	N3	721.534	993.054	-51.347	1.882	-1.022	-.049
47	10	N30A	1125.392	1313.955	-463.376	-1.441	-.235	-2.653
48	10	N59	1193.015	680.755	514.737	-.468	-.203	.924
49	10	Totals:	3039.94	2987.764	.014			
50	10	COG (ft):	X: -.031	Y: .872	Z: .011			
51	11	N3	499.79	1160.736	755.977	2.43	-.5	-.023

Joint Reactions (Continued)

	LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
52	11	N30A	967.512	1186.673	127.198	-1.205	.46	-2.323
53	11	N59	1178.085	640.344	644.122	-.371	-.008	.779
54	11	Totals:	2645.387	2987.754	1527.298			
55	11	COG (ft):	X: -.031	Y: .872	Z: .011			
56	12	N3	127.942	1280.058	1138.312	2.855	.177	.001
57	12	N30A	354.154	1017.524	814.317	-.91	1.054	-1.822
58	12	N59	1048.905	690.166	699.075	-.431	.209	.888
59	12	Totals:	1531.001	2987.748	2651.704			
60	12	COG (ft):	X: -.031	Y: .872	Z: .011			
61	13	N3	-12.316	2142.493	258.322	4.326	-.028	-.046
62	13	N30A	-297.73	2128.9	416.757	-1.934	.152	-3.366
63	13	N59	310.052	1979.575	332.797	-1.832	-.172	3.313
64	13	Totals:	.007	6250.967	1007.876			
65	13	COG (ft):	X: -.044	Y: .833	Z: .016			
66	14	N3	-62.675	2125.71	216.955	4.287	-.058	-.044
67	14	N30A	-488.24	2091.113	388.649	-1.878	-.034	-3.232
68	14	N59	48.427	2034.145	264.733	-1.921	-.32	3.456
69	14	Totals:	-502.488	6250.969	870.337			
70	14	COG (ft):	X: -.044	Y: .833	Z: .016			
71	15	N3	-171.757	2084.497	70.027	4.168	.122	-.046
72	15	N30A	-550.127	2078.725	347.496	-1.864	-.016	-3.174
73	15	N59	-147.208	2087.75	84.243	-2.017	-.187	3.604
74	15	Totals:	-869.093	6250.971	501.766			
75	15	COG (ft):	X: -.044	Y: .833	Z: .016			
76	16	N3	-243.544	2029.85	-190.583	4	.269	-.052
77	16	N30A	-544.676	2095.039	269.524	-1.895	.006	-3.203
78	16	N59	-216.763	2126.086	-78.941	-2.091	-.005	3.718
79	16	Totals:	-1004.984	6250.975	0			
80	16	COG (ft):	X: -.044	Y: .833	Z: .016			
81	17	N3	-184.852	1976.361	-450.467	3.823	.135	-.06
82	17	N30A	-470.503	2135.69	85.87	-1.966	-.182	-3.309
83	17	N59	-217.498	2138.927	-139.332	-2.124	-.029	3.764
84	17	Totals:	-872.853	6250.978	-503.929			
85	17	COG (ft):	X: -.044	Y: .833	Z: .016			
86	18	N3	-78.1	1938.426	-592.447	3.687	-.048	-.068
87	18	N30A	-269.755	2189.823	-119.401	-2.056	-.335	-3.468
88	18	N59	-156.81	2122.731	-162.233	-2.106	-.06	3.729
89	18	Totals:	-504.665	6250.98	-874.081			
90	18	COG (ft):	X: -.044	Y: .833	Z: .016			
91	19	N3	-25.737	1926.243	-623.128	3.632	-.025	-.073
92	19	N30A	.976	2242.955	-201.418	-2.14	-.204	-3.639
93	19	N59	24.757	2081.782	-183.324	-2.044	.12	3.627
94	19	Totals:	-.003	6250.98	-1007.87			
95	19	COG (ft):	X: -.044	Y: .833	Z: .016			
96	20	N3	24.767	1942.98	-581.802	3.671	.005	-.075
97	20	N30A	191.433	2280.839	-173.166	-2.197	-.018	-3.772
98	20	N59	286.291	2027.16	-115.364	-1.955	.267	3.484
99	20	Totals:	502.491	6250.978	-870.331			
100	20	COG (ft):	X: -.044	Y: .833	Z: .016			
101	21	N3	133.76	1984.097	-434.754	3.79	-.174	-.073
102	21	N30A	253.274	2293.282	-132.149	-2.211	-.036	-3.83
103	21	N59	482.062	1973.597	65.142	-1.859	.135	3.336
104	21	Totals:	869.096	6250.976	-501.761			
105	21	COG (ft):	X: -.044	Y: .833	Z: .016			
106	22	N3	205.503	2038.691	-174.012	3.959	-.321	-.067
107	22	N30A	247.717	2276.924	-54.282	-2.179	-.059	-3.802
108	22	N59	551.768	1935.358	228.299	-1.785	-.047	3.222

Joint Reactions (Continued)

	LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
109	22	Totals:	1004.987	6250.972	.006			
110	22	COG (ft):	X: -.044	Y: .833	Z: .016			
111	23	N3	146.759	2092.221	85.747	4.135	-.188	-.059
112	23	N30A	173.694	2236.176	129.39	-2.109	.129	-3.696
113	23	N59	552.404	1922.572	288.798	-1.752	-.023	3.176
114	23	Totals:	872.856	6250.969	503.935			
115	23	COG (ft):	X: -.044	Y: .833	Z: .016			
116	24	N3	39.906	2130.253	227.61	4.271	-.005	-.052
117	24	N30A	-26.917	2181.991	334.633	-2.019	.283	-3.537
118	24	N59	491.679	1938.723	311.843	-1.77	.007	3.211
119	24	Totals:	504.668	6250.967	874.087			
120	24	COG (ft):	X: -.044	Y: .833	Z: .016			
121	25	N3	-23.31	855.014	-20.602	1.525	.012	.081
122	25	N30A	-124.681	946.924	119.492	-.893	-.008	-1.163
123	25	N59	147.984	1935.826	108.985	-2.614	-.044	4.161
124	25	Totals:	-.007	3737.763	207.875			
125	25	COG (ft):	X: 1.138	Y: .697	Z: .79			
126	26	N3	-30.941	851.414	-26.467	1.516	-.003	.081
127	26	N30A	-163.89	938.878	108.602	-.881	-.054	-1.134
128	26	N59	91.385	1947.472	97.025	-2.633	-.082	4.191
129	26	Totals:	-103.445	3737.764	179.16			
130	26	COG (ft):	X: 1.138	Y: .697	Z: .79			
131	27	N3	-56.52	842.65	-53.479	1.491	.042	.081
132	27	N30A	-173.52	936.205	100.105	-.879	-.043	-1.121
133	27	N59	51.302	1958.91	56.568	-2.653	-.047	4.223
134	27	Totals:	-178.739	3737.764	103.194			
135	27	COG (ft):	X: 1.138	Y: .697	Z: .79			
136	28	N3	-74.428	831.036	-108.541	1.455	.08	.08
137	28	N30A	-173.796	939.63	86.784	-.886	-.03	-1.127
138	28	N59	41.338	1967.099	21.76	-2.669	-.001	4.247
139	28	Totals:	-206.885	3737.765	.003			
140	28	COG (ft):	X: 1.138	Y: .697	Z: .79			
141	29	N3	-59.361	819.657	-163.543	1.418	.045	.078
142	29	N30A	-162.982	948.235	46.612	-.902	-.078	-1.15
143	29	N59	42.305	1969.874	12.995	-2.675	-.015	4.257
144	29	Totals:	-180.038	3737.766	-103.936			
145	29	COG (ft):	X: 1.138	Y: .697	Z: .79			
146	30	N3	-34.105	811.596	-189.607	1.389	-.001	.076
147	30	N30A	-121.177	959.707	-.167	-.922	-.118	-1.184
148	30	N59	51.086	1966.463	9.325	-2.671	-.029	4.249
149	30	Totals:	-104.196	3737.766	-180.45			
150	30	COG (ft):	X: 1.138	Y: .697	Z: .79			
151	31	N3	-25.941	809.036	-193.111	1.377	.012	.076
152	31	N30A	-61.24	970.975	-15.401	-.94	-.083	-1.221
153	31	N59	87.172	1957.755	.611	-2.658	.015	4.227
154	31	Totals:	-.009	3737.766	-207.868			
155	31	COG (ft):	X: 1.138	Y: .697	Z: .79			
156	32	N3	-18.303	812.634	-187.25	1.386	.026	.076
157	32	N30A	-22.033	979.025	-4.503	-.951	-.036	-1.251
158	32	N59	143.765	1946.107	12.6	-2.639	.054	4.197
159	32	Totals:	103.429	3737.766	-179.153			
160	32	COG (ft):	X: 1.138	Y: .697	Z: .79			
161	33	N3	7.272	821.394	-160.232	1.411	-.018	.076
162	33	N30A	-12.404	981.701	3.987	-.954	-.048	-1.263
163	33	N59	183.855	1934.671	53.058	-2.619	.019	4.166
164	33	Totals:	178.723	3737.765	-103.187			
165	33	COG (ft):	X: 1.138	Y: .697	Z: .79			

Joint Reactions (Continued)

	LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
166	34	N3	25.178	833.005	-105.163	1.447	-.057	.077
167	34	N30A	-12.135	978.273	17.303	-.947	-.06	-1.257
168	34	N59	193.826	1926.486	87.864	-2.603	-.027	4.142
169	34	Totals:	206.869	3737.765	.004			
170	34	COG (ft):	X: 1.138	Y: .697	Z: .79			
171	35	N3	10.109	844.386	-50.167	1.484	-.021	.079
172	35	N30A	-22.941	969.664	57.476	-.931	-.013	-1.235
173	35	N59	192.853	1923.714	96.634	-2.597	-.014	4.132
174	35	Totals:	180.022	3737.764	103.943			
175	35	COG (ft):	X: 1.138	Y: .697	Z: .79			
176	36	N3	-15.153	852.452	-24.109	1.513	.025	.08
177	36	N30A	-64.739	958.19	104.254	-.911	.027	-1.201
178	36	N59	184.072	1927.122	100.312	-2.601	0	4.14
179	36	Totals:	104.18	3737.763	180.457			
180	36	COG (ft):	X: 1.138	Y: .697	Z: .79			
181	37	N3	-9.295	824.014	10.037	1.681	-.014	-.028
182	37	N30A	-95.856	1456.777	114.348	-1.785	.022	-2.022
183	37	N59	105.151	1456.971	83.489	-1.813	-.043	2.083
184	37	Totals:	0	3737.762	207.874			
185	37	COG (ft):	X: .009	Y: .697	Z: .79			
186	38	N3	-16.921	820.439	4.193	1.673	-.029	-.028
187	38	N30A	-135.053	1448.735	103.446	-1.773	-.025	-1.992
188	38	N59	48.536	1468.589	71.52	-1.832	-.081	2.113
189	38	Totals:	-103.437	3737.763	179.159			
190	38	COG (ft):	X: .009	Y: .697	Z: .79			
191	39	N3	-42.498	811.686	-22.785	1.647	.016	-.028
192	39	N30A	-144.672	1446.072	94.936	-1.771	-.013	-1.98
193	39	N59	8.44	1480.005	31.042	-1.852	-.046	2.145
194	39	Totals:	-178.731	3737.763	103.192			
195	39	COG (ft):	X: .009	Y: .697	Z: .79			
196	40	N3	-60.402	800.066	-77.819	1.612	.054	-.029
197	40	N30A	-144.944	1449.517	81.608	-1.778	0	-1.986
198	40	N59	-1.531	1488.182	-3.788	-1.868	0	2.169
199	40	Totals:	-206.877	3737.764	.001			
200	40	COG (ft):	X: .009	Y: .697	Z: .79			
201	41	N3	-45.327	788.674	-132.803	1.575	.019	-.031
202	41	N30A	-134.136	1458.148	41.43	-1.794	-.048	-2.008
203	41	N59	-.567	1490.942	-12.564	-1.874	-.013	2.179
204	41	Totals:	-180.03	3737.765	-103.937			
205	41	COG (ft):	X: .009	Y: .697	Z: .79			
206	42	N3	-20.065	780.599	-158.857	1.546	-.027	-.033
207	42	N30A	-92.341	1469.642	-5.352	-1.814	-.088	-2.042
208	42	N59	8.217	1487.523	-16.242	-1.87	-.028	2.171
209	42	Totals:	-104.188	3737.765	-180.451			
210	42	COG (ft):	X: .009	Y: .697	Z: .79			
211	43	N3	-11.902	778.019	-162.361	1.534	-.014	-.034
212	43	N30A	-32.414	1480.918	-20.581	-1.832	-.054	-2.08
213	43	N59	44.316	1478.829	-24.928	-1.857	.017	2.15
214	43	Totals:	-.001	3737.765	-207.87			
215	43	COG (ft):	X: .009	Y: .697	Z: .79			
216	44	N3	-4.269	781.591	-156.52	1.542	0	-.034
217	44	N30A	6.781	1488.964	-9.671	-1.843	-.007	-2.109
218	44	N59	100.926	1467.209	-12.964	-1.838	.055	2.119
219	44	Totals:	103.437	3737.765	-179.155			
220	44	COG (ft):	X: .009	Y: .697	Z: .79			
221	45	N3	21.303	790.34	-129.536	1.568	-.044	-.034
222	45	N30A	16.4	1491.63	-1.169	-1.846	-.018	-2.121

Joint Reactions (Continued)

	LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
223	45	N59	141.028	1455.795	27.516	-1.818	.02	2.088
224	45	Totals:	178.731	3737.764	-103.188			
225	45	COG (ft):	X: .009	Y: .697	Z: .79			
226	46	N3	39.205	801.958	-74.496	1.603	-.083	-.032
227	46	N30A	16.665	1488.183	12.155	-1.839	-.031	-2.115
228	46	N59	151.007	1447.622	62.343	-1.802	-.026	2.064
229	46	Totals:	206.877	3737.763	.003			
230	46	COG (ft):	X: .009	Y: .697	Z: .79			
231	47	N3	24.129	813.351	-19.517	1.641	-.047	-.031
232	47	N30A	5.864	1479.547	52.334	-1.822	.016	-2.093
233	47	N59	150.037	1444.864	71.125	-1.796	-.013	2.054
234	47	Totals:	180.03	3737.763	103.942			
235	47	COG (ft):	X: .009	Y: .697	Z: .79			
236	48	N3	-1.139	821.43	6.53	1.67	-.001	-.029
237	48	N30A	-35.924	1468.051	99.114	-1.803	.057	-2.059
238	48	N59	141.252	1448.281	74.81	-1.8	.002	2.062
239	48	Totals:	104.188	3737.762	180.455			
240	48	COG (ft):	X: .009	Y: .697	Z: .79			
241	49	N3	-18.206	906.397	-94.218	1.692	.001	.034
242	49	N30A	-79.346	977.558	49.628	-.928	-.031	-1.405
243	49	N59	97.548	1478.812	44.593	-1.815	-.014	3.029
244	49	Totals:	-.004	3362.766	.002			
245	49	COG (ft):	X: .67	Y: .775	Z: .444			
246	50	N3	-10.574	890.514	-76.703	1.777	-.014	-.027
247	50	N30A	-62.89	1259.92	47.274	-1.422	-.015	-1.895
248	50	N59	73.464	1212.33	29.43	-1.373	-.014	1.888
249	50	Totals:	0	3362.765	.002			
250	50	COG (ft):	X: -.027	Y: .775	Z: .444			
251	51	N3	-12.142	1142.87	-89.977	2.271	-.017	-.031
252	51	N30A	-71.842	1201.405	55.502	-1.161	-.017	-1.984
253	51	N59	83.984	1141.454	34.476	-1.108	-.017	1.98
254	51	Totals:	0	3485.729	.002			
255	51	COG (ft):	X: -.031	Y: .872	Z: .011			
256	52	N3	-9.257	1040.305	37.969	2.101	-.015	-.024
257	52	N30A	-98.968	1046.635	111.824	-1.003	.025	-1.717
258	52	N59	108.227	995.359	86.587	-.953	-.052	1.708
259	52	Totals:	.002	3082.299	236.38			
260	52	COG (ft):	X: -.031	Y: .872	Z: .011			
261	53	N3	-28.179	1035.755	21.467	2.091	.007	-.024
262	53	N30A	-144.311	1036.195	121.125	-.986	.009	-1.683
263	53	N59	54.301	1010.349	62.113	-.977	-.058	1.747
264	53	Totals:	-118.189	3082.299	204.705			
265	53	COG (ft):	X: -.031	Y: .872	Z: .011			
266	54	N3	-42.427	1024.465	-22.098	2.059	.023	-.025
267	54	N30A	-168.006	1032.761	111.122	-.981	-.013	1.669
268	54	N59	5.727	1025.071	29.167	-1.002	-.052	1.787
269	54	Totals:	-204.705	3082.3	118.191			
270	54	COG (ft):	X: -.031	Y: .872	Z: .011			
271	55	N3	-48.187	1009.459	-81.063	2.013	.029	-.027
272	55	N30A	-163.706	1037.26	84.492	-.987	-.036	-1.677
273	55	N59	-24.489	1035.582	-3.428	-1.022	-.037	1.817
274	55	Totals:	-236.381	3082.301	.001			
275	55	COG (ft):	X: -.031	Y: .872	Z: .011			
276	56	N3	-43.909	994.76	-139.625	1.965	.023	-.029
277	56	N30A	-132.555	1048.482	48.371	-1.004	-.053	-1.706
278	56	N59	-28.242	1039.06	-26.934	-1.03	-.015	1.83
279	56	Totals:	-204.706	3082.302	-118.188			

Joint Reactions (Continued)

	LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
280	56	COG (ft):	X: -.031	Y: .872	Z: .011			
281	57	N3	-30.743	984.306	-182.09	1.929	.007	-.03
282	57	N30A	-82.913	1063.421	12.443	-1.027	-.06	-1.748
283	57	N59	-4.535	1034.575	-35.056	-1.025	.007	1.821
284	57	Totals:	-118.191	3082.302	-204.703			
285	57	COG (ft):	X: -.031	Y: .872	Z: .011			
286	58	N3	-12.214	980.895	-197.085	1.914	-.015	-.031
287	58	N30A	-28.071	1078.078	-13.672	-1.05	-.055	-1.792
288	58	N59	40.285	1023.329	-25.62	-1.008	.023	1.794
289	58	Totals:	0	3082.302	-236.377			
290	58	COG (ft):	X: -.031	Y: .872	Z: .011			
291	59	N3	6.711	985.443	-180.581	1.924	-.036	-.031
292	59	N30A	17.268	1088.524	-22.972	-1.066	-.039	-1.826
293	59	N59	94.212	1008.336	-1.149	-.983	.029	1.755
294	59	Totals:	118.191	3082.302	-204.703			
295	59	COG (ft):	X: -.031	Y: .872	Z: .011			
296	60	N3	20.959	996.728	-137.012	1.957	-.052	-.03
297	60	N30A	40.959	1091.957	-12.97	-1.072	-.016	-1.84
298	60	N59	142.789	993.616	31.795	-.958	.023	1.714
299	60	Totals:	204.707	3082.301	-118.188			
300	60	COG (ft):	X: -.031	Y: .872	Z: .011			
301	61	N3	26.715	1011.731	-78.046	2.003	-.058	-.028
302	61	N30A	36.66	1087.458	13.655	-1.066	.007	-1.832
303	61	N59	173.008	983.111	64.392	-.938	.007	1.684
304	61	Totals:	236.382	3082.3	.001			
305	61	COG (ft):	X: -.031	Y: .872	Z: .011			
306	62	N3	22.434	1026.432	-19.485	2.05	-.053	-.027
307	62	N30A	5.513	1076.231	49.774	-1.049	.024	-1.803
308	62	N59	176.761	979.636	87.902	-.93	-.014	1.671
309	62	Totals:	204.708	3082.299	118.191			
310	62	COG (ft):	X: -.031	Y: .872	Z: .011			
311	63	N3	9.268	1036.891	22.976	2.087	-.037	-.025
312	63	N30A	-44.126	1061.29	85.704	-1.026	.03	-1.761
313	63	N59	153.051	984.118	96.026	-.935	-.036	1.68
314	63	Totals:	118.192	3082.299	204.705			
315	63	COG (ft):	X: -.031	Y: .872	Z: .011			
316	64	N3	-5.999	733.395	62.114	1.492	-.01	-.016
317	64	N30A	-79.66	724.038	96.924	-.691	.03	-1.184
318	64	N59	85.66	688.859	77.342	-.655	-.048	1.176
319	64	Totals:	.001	2146.291	236.38			
320	64	COG (ft):	X: -.031	Y: .872	Z: .011			
321	65	N3	-24.929	728.848	45.617	1.482	.011	-.016
322	65	N30A	-125.002	713.604	106.216	-.675	.014	-1.15
323	65	N59	31.742	703.838	52.872	-.679	-.054	1.215
324	65	Totals:	-118.19	2146.291	204.705			
325	65	COG (ft):	X: -.031	Y: .872	Z: .011			
326	66	N3	-39.183	717.566	2.059	1.449	.027	-.017
327	66	N30A	-148.701	710.176	96.204	-.669	-.009	-1.136
328	66	N59	-16.822	718.55	19.927	-.705	-.048	1.255
329	66	Totals:	-204.706	2146.292	118.19			
330	66	COG (ft):	X: -.031	Y: .872	Z: .011			
331	67	N3	-44.943	702.57	-56.897	1.403	.033	-.018
332	67	N30A	-144.409	714.669	69.57	-.676	-.032	-1.144
333	67	N59	-47.03	729.054	-12.672	-.724	-.032	1.286
334	67	Totals:	-236.381	2146.293	0			
335	67	COG (ft):	X: -.031	Y: .872	Z: .011			
336	68	N3	-40.661	687.881	-115.451	1.355	.028	-.02

Joint Reactions (Continued)

	LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
337	68	N30A	-113.267	725.882	33.448	-.693	-.049	-1.173
338	68	N59	-50.778	732.53	-36.186	-.732	-.011	1.298
339	68	Totals:	-204.707	2146.294	-118.188			
340	68	COG (ft):	X: -.031	Y: .872	Z: .011			
341	69	N3	-27.488	677.435	-157.911	1.319	.012	-.022
342	69	N30A	-63.633	740.811	-2.475	-.716	-.056	-1.215
343	69	N59	-27.071	728.049	-44.317	-.727	.011	1.29
344	69	Totals:	-118.191	2146.294	-204.703			
345	69	COG (ft):	X: -.031	Y: .872	Z: .011			
346	70	N3	-8.949	674.026	-172.906	1.304	-.01	-.023
347	70	N30A	-8.797	755.458	-28.583	-.738	-.05	-1.259
348	70	N59	17.745	716.81	-34.889	-.71	.027	1.262
349	70	Totals:	0	2146.294	-236.378			
350	70	COG (ft):	X: -.031	Y: .872	Z: .011			
351	71	N3	9.984	678.57	-156.406	1.315	-.032	-.022
352	71	N30A	36.542	765.896	-37.874	-.755	-.034	-1.293
353	71	N59	71.664	701.828	-10.424	-.685	.033	1.223
354	71	Totals:	118.19	2146.294	-204.703			
355	71	COG (ft):	X: -.031	Y: .872	Z: .011			
356	72	N3	24.237	689.847	-112.844	1.347	-.048	-.022
357	72	N30A	60.238	769.328	-27.864	-.76	-.012	-1.307
358	72	N59	120.232	687.118	22.52	-.66	.027	1.183
359	72	Totals:	204.707	2146.293	-118.188			
360	72	COG (ft):	X: -.031	Y: .872	Z: .011			
361	73	N3	29.993	704.839	-53.887	1.393	-.054	-.02
362	73	N30A	55.946	764.833	-1.233	-.754	.011	-1.299
363	73	N59	150.443	676.62	55.121	-.641	.012	1.152
364	73	Totals:	236.382	2146.292	.001			
365	73	COG (ft):	X: -.031	Y: .872	Z: .011			
366	74	N3	25.708	719.531	4.665	1.441	-.048	-.018
367	74	N30A	24.808	753.614	34.886	-.737	.028	-1.27
368	74	N59	154.191	673.147	78.639	-.633	-.01	1.14
369	74	Totals:	204.708	2146.291	118.19			
370	74	COG (ft):	X: -.031	Y: .872	Z: .011			
371	75	N3	12.535	729.983	47.121	1.477	-.032	-.017
372	75	N30A	-24.823	738.682	70.812	-.714	.035	-1.228
373	75	N59	130.48	677.626	86.772	-.638	-.032	1.148
374	75	Totals:	118.192	2146.291	204.705			
375	75	COG (ft):	X: -.031	Y: .872	Z: .011			

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

	Member	Shape	Code Check	Lo...	LC	Shear Check	Lo.....		LC	phi*Pnc...	phi*Pnt ...	phi*Mn y...	phi*Mn...	Cb	Eqn
1	M4	HSS4X4...	.270	0	13	.060	0	y	24	124657...	139518	16.181	16.181	3.132	H1-...
2	M10	HSS4X4...	.149	2....	14	.041	2....	y	24	136263...	139518	16.181	16.181	1.637	H1-...
3	M43	HSS4X4...	.151	0	24	.047	0	y	13	136263...	139518	16.181	16.181	1.651	H1-...
4	M46	PL1/2x6	.084	.516	1	.095	0	y	22	66009....	97200	1.012	12.15	1.205	H1-...
5	M51B	L2x2x3	.093	4....	2	.011	4....	y	16	9823.122	23392.8	.558	1.083	1.177	H2-1
6	M52B	L2x2x3	.098	4....	11	.012	4....	y	21	9823.122	23392.8	.558	1.128	1.421	H2-1
7	M76	PL3/8x6	.152	0	10	.261	0	y	18	70647....	72900	.57	9.113	1.425	H1-...
8	M77	PL3/8x6	.142	.167	8	.291	0	y	13	71583....	72900	.57	9.113	1.23	H1-...
9	M80	PL1/2x6	.029	.112	1	.037	0	y	10	96757....	97200	1.012	12.15	1.143	H1-...
10	M84	PL3/8x6	.175	0	10	.209	0	y	20	70647....	72900	.57	9.113	1.343	H1-...
11	M85	PL3/8x6	.157	.167	6	.307	0	y	24	71583....	72900	.57	9.113	1.469	H1-...
12	M91	PL1/2x6	.031	.112	1	.045	.112	y	9	96757....	97200	1.012	12.15	1.047	H1-...
13	M25	HSS4X4...	.277	0	21	.079	0	y	43	124657...	139518	16.181	16.181	3.162	H1-...

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

	Member	Shape	Code Check	Lo...	LC	Shear Check	Lo.....		LC	phi*Pnc...	phi*Pnt ...	phi*Mn y...	phi*Mn...	Cb	Eqn
14	M26	HSS4X4...	.149	2....	22	.041	2....	y	20	136263...	139518	16.181	16.181	1.637	H1-...
15	M27	HSS4X4...	.151	0	20	.047	0	y	21	136263...	139518	16.181	16.181	1.651	H1-...
16	M28	PL1/2x6	.084	.516	9	.095	0	y	18	66009....	97200	1.012	12.15	1.208	H1-...
17	M31	L2x2x3	.093	4....	10	.011	4....	y	24	9823.122	23392.8	.558	1.082	1.175	H2-1
18	M32	L2x2x3	.097	4....	7	.012	0	y	17	9823.122	23392.8	.558	1.141	1.505	H2-1
19	M36	PL3/8x6	.152	0	6	.260	0	y	14	70647....	72900	.57	9.113	1.426	H1-...
20	M37	PL3/8x6	.142	.167	4	.290	0	y	21	71583....	72900	.57	9.113	1.233	H1-...
21	M39	PL1/2x6	.029	.112	9	.036	0	y	6	96757....	97200	1.012	12.15	1.144	H1-...
22	M41	PL3/8x6	.174	0	6	.209	0	y	16	70647....	72900	.57	9.113	1.34	H1-...
23	M42	PL3/8x6	.157	.167	2	.307	0	y	20	71583....	72900	.57	9.113	1.475	H1-...
24	M44	PL1/2x6	.031	.112	9	.047	.112	y	29	96757....	97200	1.012	12.15	1.045	H1-...
25	M49	HSS4X4...	.312	0	30	.078	0	y	41	124657...	139518	16.181	16.181	2.501	H1-...
26	M50A	HSS4X4...	.149	2....	18	.041	2....	y	17	136263...	139518	16.181	16.181	1.637	H1-...
27	M51C	HSS4X4...	.151	0	16	.047	0	y	17	136263...	139518	16.181	16.181	1.652	H1-...
28	M52A	PL1/2x6	.084	.516	5	.169	.516	y	26	66009....	97200	1.012	12.15	1.209	H1-...
29	M55	L2x2x3	.093	4....	6	.011	4....	y	20	9823.122	23392.8	.558	1.083	1.177	H2-1
30	M56	L2x2x3	.098	4....	3	.012	4....	y	13	9823.122	23392.8	.558	1.128	1.421	H2-1
31	M60	PL3/8x6	.151	0	2	.261	0	y	22	70647....	72900	.57	9.113	1.421	H1-...
32	M61	PL3/8x6	.142	.167	12	.291	0	y	17	71583....	72900	.57	9.113	1.23	H1-...
33	M63	PL1/2x6	.029	.112	5	.149	0	y	26	96757....	97200	1.012	12.15	1.146	H1-...
34	M65	PL3/8x6	.174	0	2	.208	0	y	24	70647....	72900	.57	9.113	1.34	H1-...
35	M66	PL3/8x6	.157	.167	10	.306	0	y	16	71583....	72900	.57	9.113	1.468	H1-...
36	M68	PL1/2x6	.031	.112	5	.065	.112	y	25	96757....	97200	1.012	12.15	1.046	H1-...
37	M73	PIPE_3.0	.125	7....	18	.048	11..		30	28250....	65205	5.749	5.749	3.22	H1-...
38	M74	PIPE_3.0	.125	7....	14	.045	7....		14	28250....	65205	5.749	5.749	3.217	H1-...
39	M75	PIPE_3.0	.124	7....	22	.045	7....		22	28250....	65205	5.749	5.749	3.217	H1-...
40	MP1A	PIPE_2.0	.235	4	33	.059	4		8	14916....	32130	1.872	1.872	1.807	H1-...
41	MP2A	PIPE_2.5	.182	4	1	.040	4		9	30038....	50715	3.596	3.596	1.59	H1-...
42	MP3A	PIPE_2.0	.184	4	5	.057	4		7	14916....	32130	1.872	1.872	1.648	H1-...
43	MP4A	PIPE_2.0	.121	4	17	.045	1		7	14916....	32130	1.872	1.872	1.669	H1-...
44	MP1C	PIPE_2.0	.198	4	17	.059	4		4	14916....	32130	1.872	1.872	1.431	H1-...
45	MP2C	PIPE_2.5	.182	4	9	.040	4		5	30038....	50715	3.596	3.596	1.729	H1-...
46	MP3C	PIPE_2.0	.185	4	1	.057	4		3	14916....	32130	1.872	1.872	1.619	H1-...
47	MP4C	PIPE_2.0	.121	4	13	.045	1		3	14916....	32130	1.872	1.872	1.757	H1-...
48	MP1B	PIPE_2.0	.197	4	13	.058	4		12	14916....	32130	1.872	1.872	1.885	H1-...
49	MP2B	PIPE_2.5	.182	4	5	.040	4		1	30038....	50715	3.596	3.596	1.732	H1-...
50	MP3B	PIPE_2.0	.186	4	9	.057	4		11	14916....	32130	1.872	1.872	1.67	H1-...
51	MP4B	PIPE_2.0	.121	4	21	.045	1		11	14916....	32130	1.872	1.872	1.867	H1-...
52	M101	PIPE_2.0	.077	2.5	6	.014	2.5		6	28843....	32130	1.872	1.872	2.492	H1-...
53	M102	PIPE_2.5	.113	6.51	21	.045	11..		6	14558....	50715	3.596	3.596	2.685	H1-...
54	M109	PIPE_2.5	.112	6.51	17	.045	11..		2	14558....	50715	3.596	3.596	2.684	H1-...
55	M116	PIPE_2.5	.112	6.51	13	.045	11..		10	14558....	50715	3.596	3.596	2.689	H1-...
56	M123	L3X3X4	.143	1....	7	.020	0	y	6	43744....	46656	1.688	3.756	2.181	H2-1
57	M120A	L3X3X4	.143	1....	3	.021	.195	y	2	43744....	46656	1.688	3.756	2.181	H2-1
58	M123A	L3X3X4	.143	1....	11	.021	0	y	10	43744....	46656	1.688	3.756	2.181	H2-1

VzW SMART Tool© Vendor

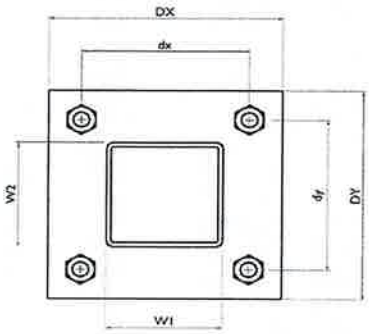
Client:	Verizon Wireless	Date:	1/24/2024
Site Name:	LITCHFIELD SW CT		
MDG #:	5000248162		
Fuze ID #:	16271969	Page:	1

Version 2.00

I. Mount-to-Tower Connection Check

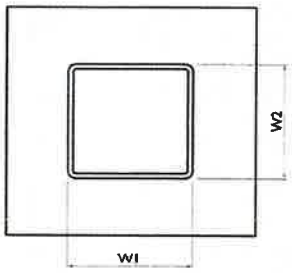
Custom Orientation Required	No
Tower Connection Bolt Checks	Yes
Bolt Orientation	Parallel

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:	A307
Bolt Diameter (in):	0.625
Required Tensile Strength / bolt (kips):	4.3
Required Shear Strength / bolt (kips):	0.6
Tensile Capacity / bolt (kips):	10.4
Shear Capacity / bolt (kips):	6.2
Bolt Overall Utilization:	**41.6%**



Tower Connection Baseplate Checks	Yes

Connecting Standoff Member Shape:	Rect Tube
Weld Stiffener Configuration:	No Stiffeners
Plate Width, D_x (in):	10
Plate Height, D_y (in):	10
W1(in):	4
W2 (in):	4
Member Thickness (in):	0.25
Stiffener location a_1 (in):	
Stiffener location b_1 (in):	
Stiffener location a_2 (in):	
Stiffener location b_2 (in):	
F_y (ksi, plate):	36
Plate Thickness (in):	0.625
Length of Yield Line, L_y (in):	7.75
Bolt Eccentricity, e (in):	2.35
M_u (kip-in):	10.15
Phi*M_n (kip-in):	24.52
Plate Bending Utilization:	**41.4%**

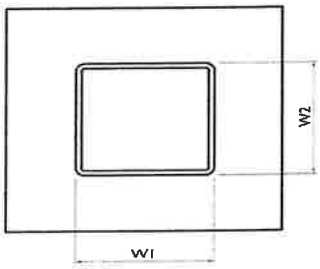


VzW SMART Tool© Vendor

Client:	Verizon Wireless	Date:	1/24/2024
Site Name:	LITCHFIELD SW CT		
MDG #:	5000248162		
Fuze ID #:	16271969	Page:	2
			Version 2.00

Tower Connection Weld Checks

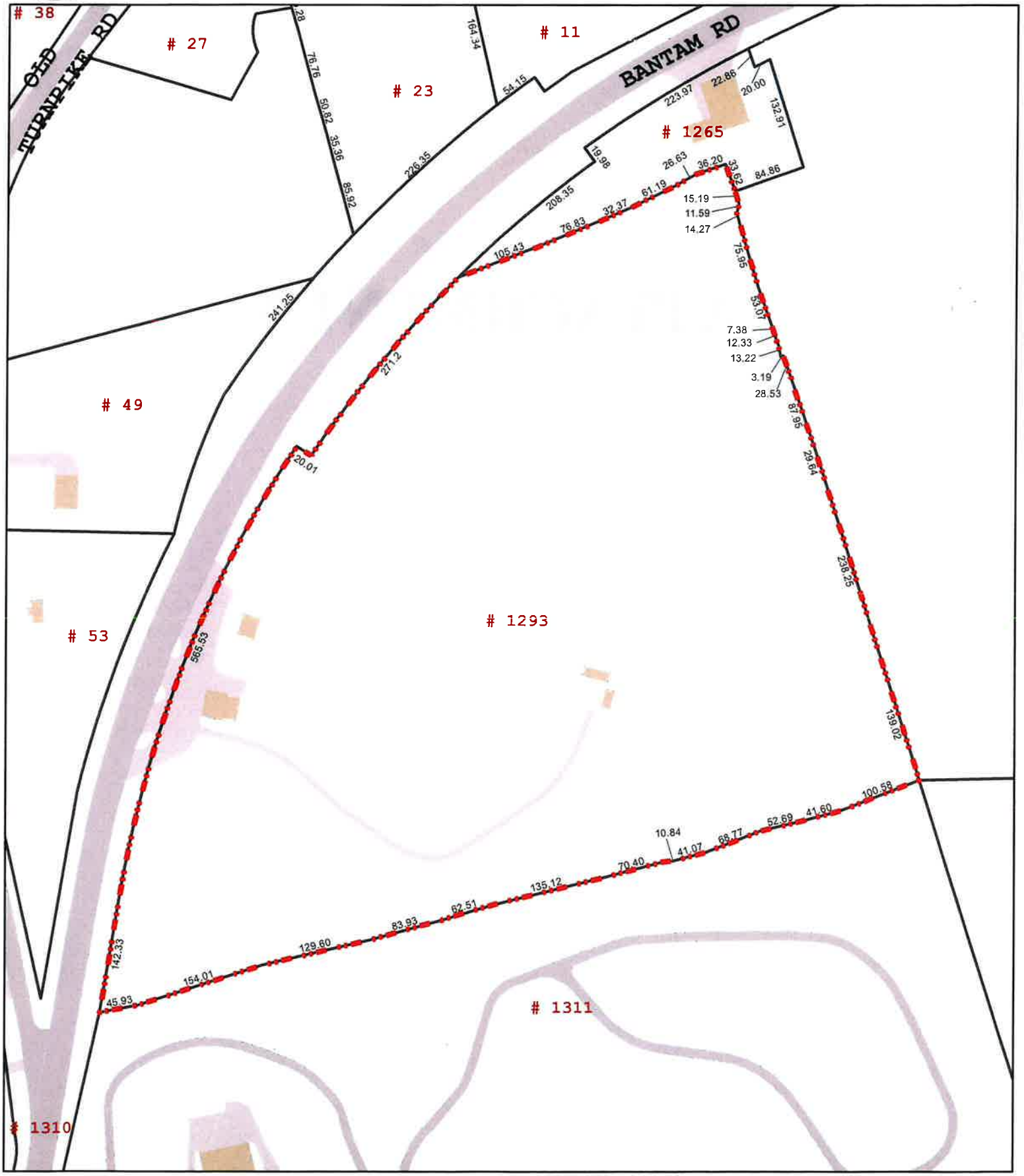
	Yes
Weld Shape:	Rectangle
Weld Stiffener Configuration:	None
Weld Size (1/16 in):	4
W1 (in):	4
W2 (in):	4
Weld Total Length (in):	16.00
Z_x (in^3/in):	21.33
Z_y (in^3/in):	21.33
J_p (in^4/in):	85.33
c_x (in)	2.25
c_y (in)	2.25
Required combined strength (kip/in):	1.90
Weld Capacity (kip/in):	5.57
Weld Utilization:	**34.1%**



ATTACHMENT 5

Town of Litchfield, CT: Parcel Map

MBL: 061-087-042 LOCATION: 1293 BANTAM RD



Disclaimer: This map is for informational purposes only.
All information is subject to verification by any user.
The Town of Litchfield and its mapping contractors assume no legal responsibility for the information contained herein.

1 inch = 200 feet

0 100 200 300 400 Feet

Map Produced October 2023

Town of Litchfield, CT

Property Listing Report

Map Block Lot	061-087-042	Building #	1	Section #	1	Account	008045

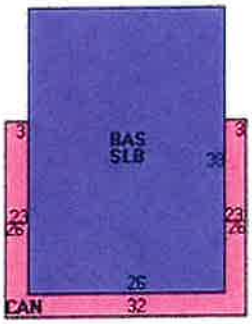
Property Information

Property Location	1293 BANTAM RD
Owner	HAMMER ROBERT & JUDITH ET AL
Co-Owner	na
Mailing Address	PO BOX 251 BANTAM CT 06750-0251
Land Use	201 Commercial
Land Class	C
Zoning Code	RR
Census Tract	3

Street Index	200
Acreage	12.51
Utilities	UNKNOWN
Lot Setting/Desc	UNKNOWN UNKNOWN
Additional Info	

Photo

Sketch



Primary Construction Details

Year Built	1970
Stories	1
Building Style	Restaurant
Building Use	Comm/Ind
Building Condition	A
Interior Floors 1	Ceramic Tile
Interior Floors 2	NA
Total Rooms	0
Basement Garages	
Occupancy	1.00
Building Grade	

Bedrooms	0
Full Bathrooms	0
Half Bathrooms	0
Extra Fixtures	0
Bath Style	NA
Kitchen Style	NA
Roof Style	Flat
Roof Cover	Tar & Gravel
AC Type	None
Fireplaces	0

Exterior Walls	Brick
Exterior Walls 2	Concr/Cinder
Interior Walls	Minimum
Interior Walls 2	NA
Heating Type	Forced Hot Air
Heating Fuel	Oil
Sq. Ft. Basement	
Fin BSMT Quality	
Extra Kitchens	

Report Created On 4/8/2024

ATTACHMENT 6

Verizon/Litchfield SW

UNITED STATES POSTAL SERVICE®

Certificate of Mailing — Firm

Name and Address of Sender	TOTAL NO. of Pieces Listed by Sender	TOTAL NO. of Pieces Received at Post Office™	Affix Stamp Here *Postmark with Date of Receipt.*
Kenneth C. Baldwin, Esq. Robinson & Cole LLP 280 Trumbull Street Hartford, CT 06103	3	3	quadient CORRECTION IMI $003.34 04/22/2024 ZIP 06101 043M3220661S US POSTAGE
	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.	Denise Raap, First Selectman Town of Litchfield 74 West Street Litchfield, CT 06759				
2.	Spencer Musselman, Land Use Administrator Town of Litchfield 80 Doyle Road Bantam, CT 06750				
3.	Robert and Judith Hammer P.O. Box 251 Bantam, CT 06750-0251		OLD STATE HOUSE POST OFFICE APR 22 2024 HARTFORD, CT 06103		
4.					
5.					
6.					

PS Form **3665**, January 2017 (Page 1 of 1) PSN 7530-17-000-5549

See Reverse for Instructions